



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 6, 2026 – 06:55 PM UTC

PDB ID : 4V5D / pdb_00004v5d
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 types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

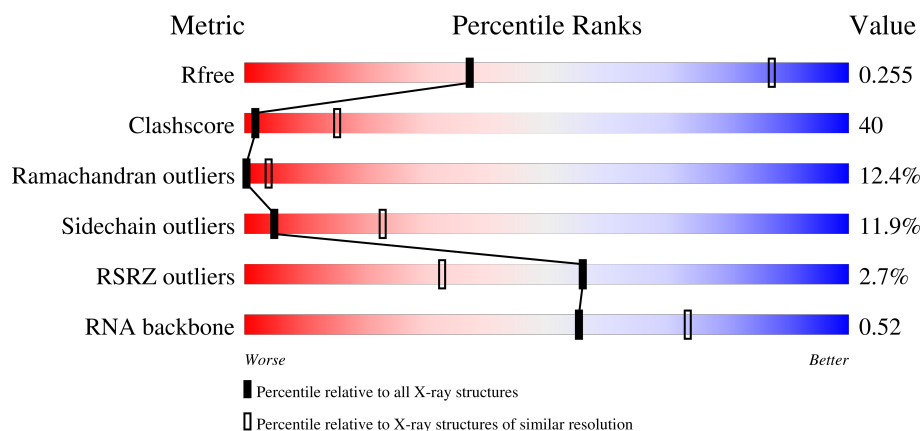
1 Overall quality at a glance

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}	180053	1085 (3.54-3.46)
Clashscore	190562	1140 (3.54-3.46)
Ramachandran outliers	187476	1113 (3.54-3.46)
Sidechain outliers	187428	1114 (3.54-3.46)
RSRZ outliers	180081	1084 (3.54-3.46)
RNA backbone	3983	1010 (3.98-3.02)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. 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	27% 60% 10% ..
1	CA	1522	3% 26% 61% 10% ..
2	AB	256	2% 14% 56% 18% 8%

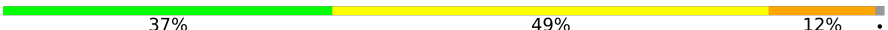
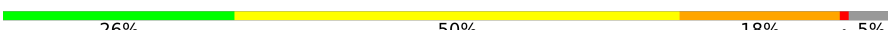
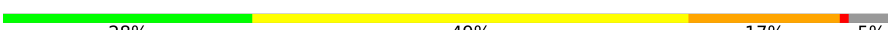
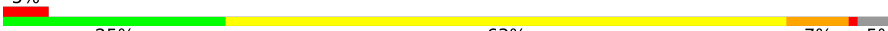
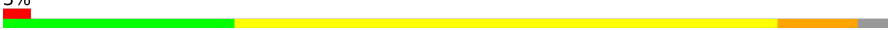
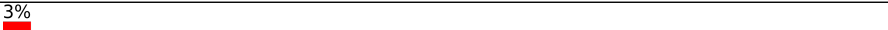
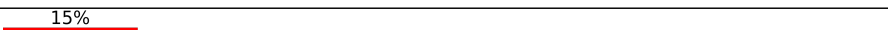
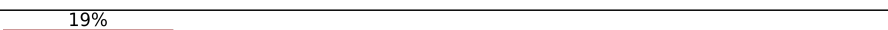
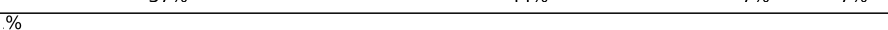
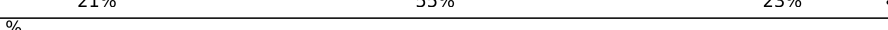
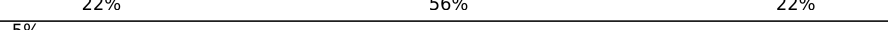
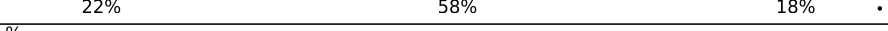
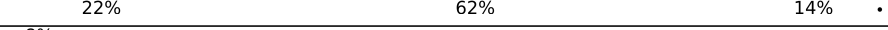
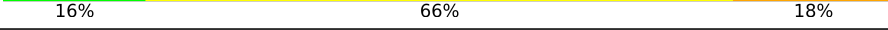
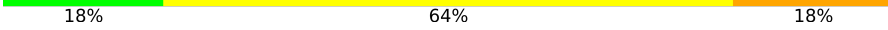
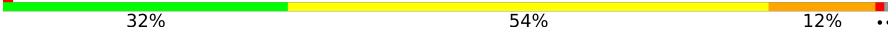
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Mol	Chain	Length	Quality of chain
2	CB	256	
3	AC	239	
3	CC	239	
4	AD	209	
4	CD	209	
5	AE	162	
5	CE	162	
6	AF	101	
6	CF	101	
7	AG	156	
7	CG	156	
8	AH	138	
8	CH	138	
9	AI	128	
9	CI	128	
10	AJ	105	
10	CJ	105	
11	AK	129	
11	CK	129	
12	AL	135	
12	CL	135	
13	AM	126	
13	CM	126	
14	AN	61	
14	CN	61	

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Mol	Chain	Length	Quality of chain
15	AO	89	
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	

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Mol	Chain	Length	Quality of chain
26	D1	98	
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	

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Mol	Chain	Length	Quality of chain
39	BE	206	
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	

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Mol	Chain	Length	Quality of chain
51	DU	118	
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	1656	-	-	-	X
57	MG	AA	1737	-	-	-	X
57	MG	AA	1748	-	-	-	X
57	MG	AA	1796	-	-	-	X
57	MG	AL	202	-	-	-	X
57	MG	BA	3138	-	-	-	X
57	MG	BA	3196	-	-	-	X
57	MG	BA	3371	-	-	-	X
57	MG	BA	3387	-	-	-	X
57	MG	CA	1656	-	-	-	X
57	MG	CA	1690	-	-	-	X
57	MG	DA	3111	-	-	-	X
57	MG	DA	3127	-	-	-	X
57	MG	DA	3157	-	-	-	X
57	MG	DA	3178	-	-	-	X
57	MG	DA	3183	-	-	-	X
57	MG	DA	3227	-	-	-	X
57	MG	DA	3386	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	DA	3389	-	-	-	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 (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	AA	198	Total	Mg	0	0
			198	198		
57	AD	1	Total	Mg	0	0
			1	1		
57	AE	1	Total	Mg	0	0
			1	1		
57	AG	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	AI	1	Total 1	Mg 1	0	0
57	AL	2	Total 2	Mg 2	0	0
57	AN	1	Total 1	Mg 1	0	0
57	AV	5	Total 5	Mg 5	0	0
57	AW	8	Total 8	Mg 8	0	0
57	AX	2	Total 2	Mg 2	0	0
57	B0	1	Total 1	Mg 1	0	0
57	B1	1	Total 1	Mg 1	0	0
57	B2	2	Total 2	Mg 2	0	0
57	B5	2	Total 2	Mg 2	0	0
57	B7	1	Total 1	Mg 1	0	0
57	BA	422	Total 422	Mg 422	0	0
57	BB	14	Total 14	Mg 14	0	0
57	BD	2	Total 2	Mg 2	0	0
57	BE	1	Total 1	Mg 1	0	0
57	BF	1	Total 1	Mg 1	0	0
57	BN	1	Total 1	Mg 1	0	0
57	BO	1	Total 1	Mg 1	0	0
57	BU	1	Total 1	Mg 1	0	0
57	BV	1	Total 1	Mg 1	0	0
57	BX	2	Total 2	Mg 2	0	0

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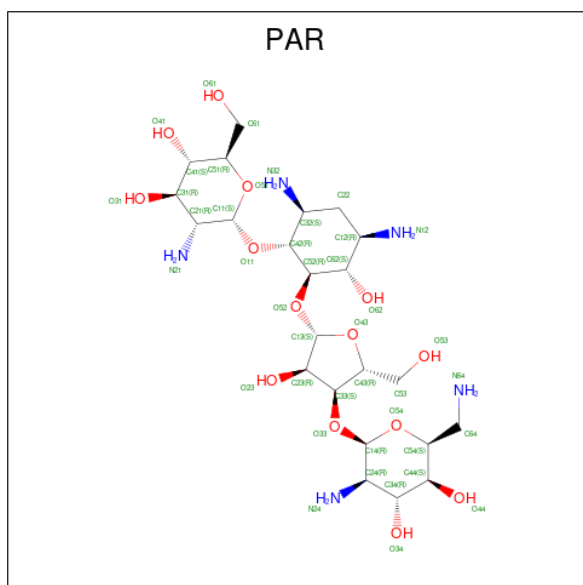
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	CA	199	Total 199	Mg 199	0	0
57	CE	1	Total 1	Mg 1	0	0
57	CI	1	Total 1	Mg 1	0	0
57	CL	1	Total 1	Mg 1	0	0
57	CN	1	Total 1	Mg 1	0	0
57	CV	5	Total 5	Mg 5	0	0
57	CW	7	Total 7	Mg 7	0	0
57	CX	3	Total 3	Mg 3	0	0
57	D1	1	Total 1	Mg 1	0	0
57	D2	3	Total 3	Mg 3	0	0
57	D5	2	Total 2	Mg 2	0	0
57	D7	2	Total 2	Mg 2	0	0
57	DA	421	Total 421	Mg 421	0	0
57	DB	13	Total 13	Mg 13	0	0
57	DC	1	Total 1	Mg 1	0	0
57	DD	2	Total 2	Mg 2	0	0
57	DE	1	Total 1	Mg 1	0	0
57	DF	2	Total 2	Mg 2	0	0
57	DN	1	Total 1	Mg 1	0	0
57	DO	1	Total 1	Mg 1	0	0
57	DS	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	DV	1	Total	Mg	0	0
			1	1		
57	DX	3	Total	Mg	0	0
			3	3		

- Molecule 58 is PAROMOMYCIN (CCD ID: 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 (CCD ID: ZN) (formula: Zn).

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

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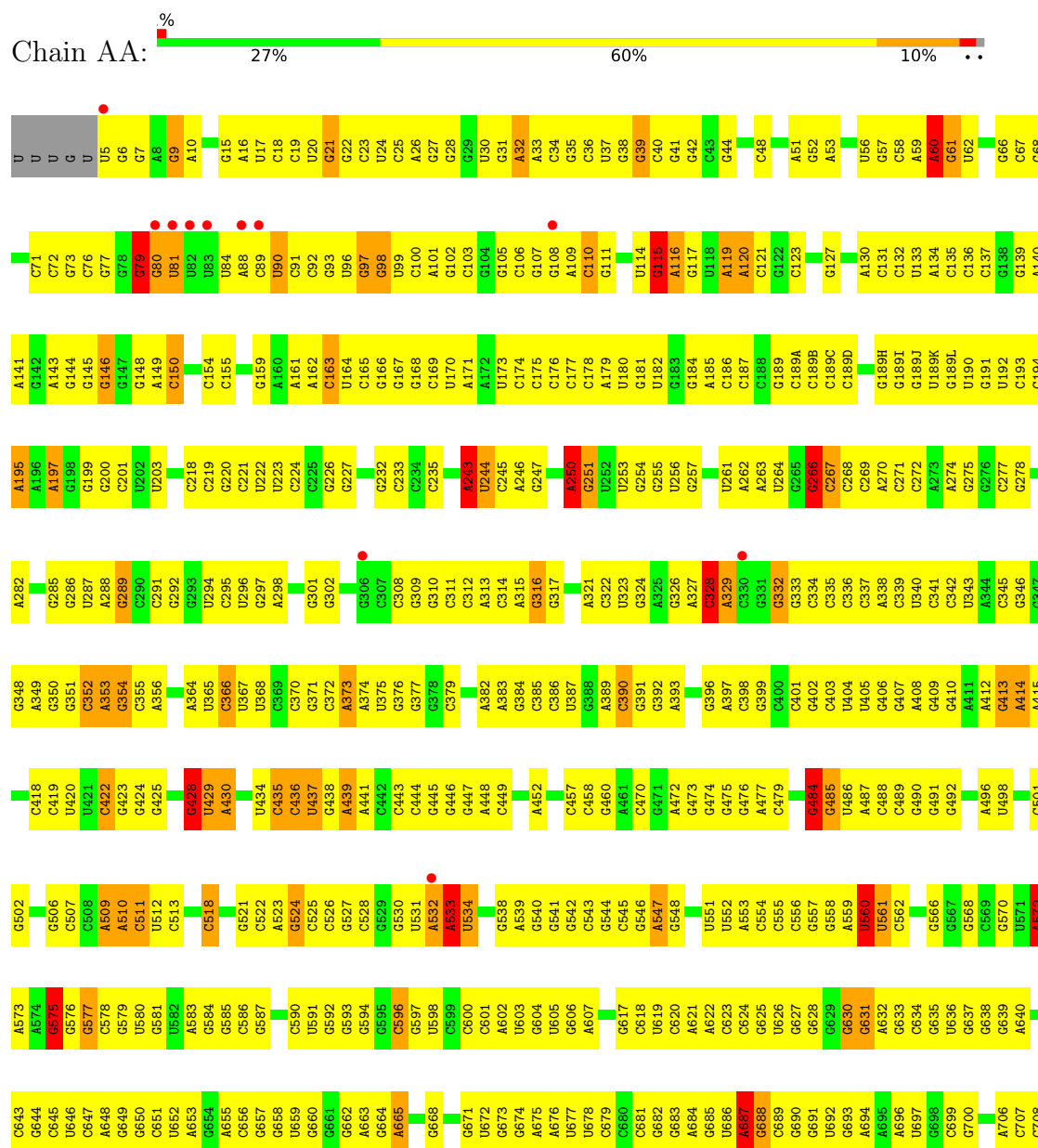
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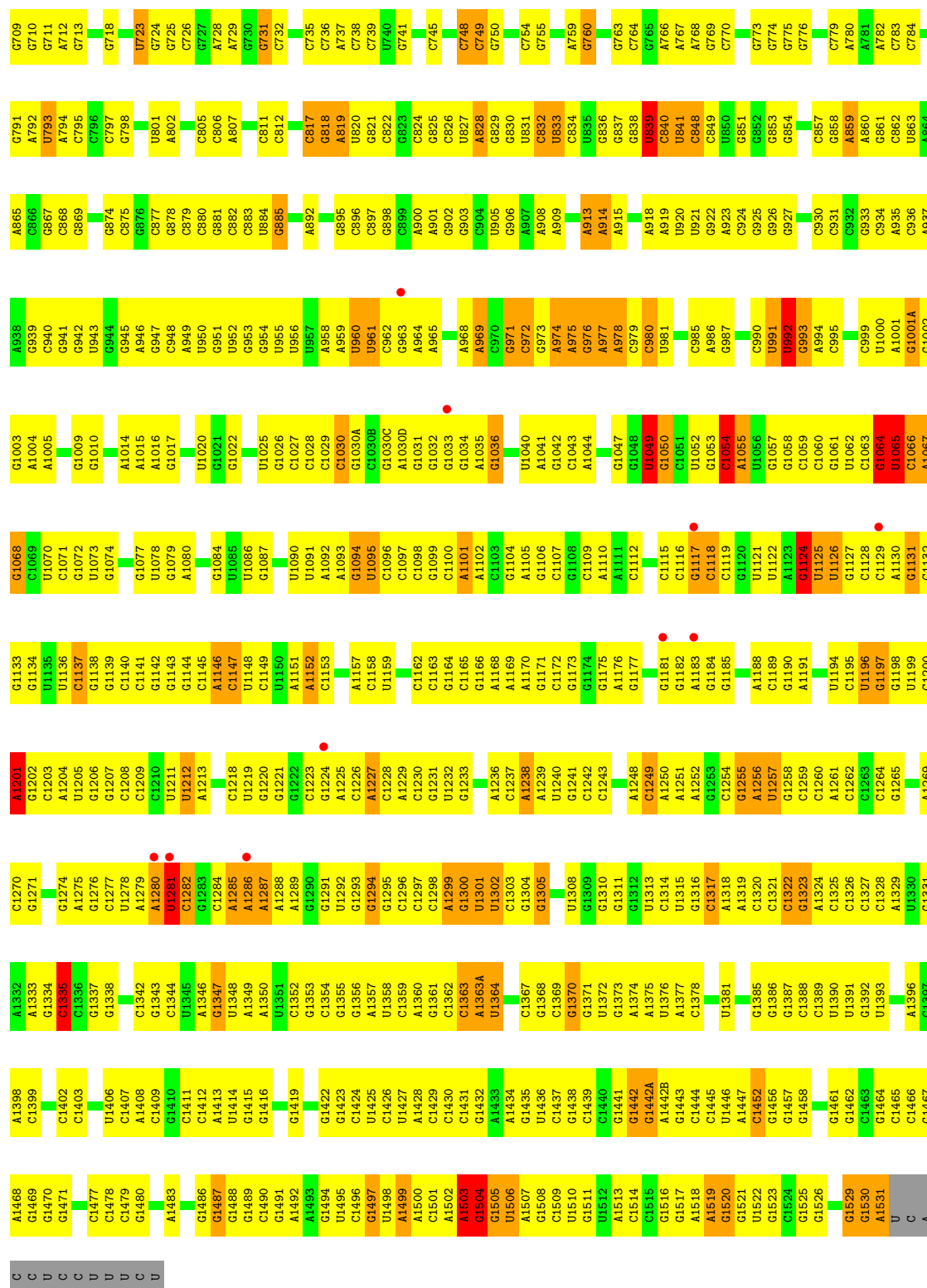
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	D9	1	Total	Zn	0	0
			1	1		

3 Residue-property plots

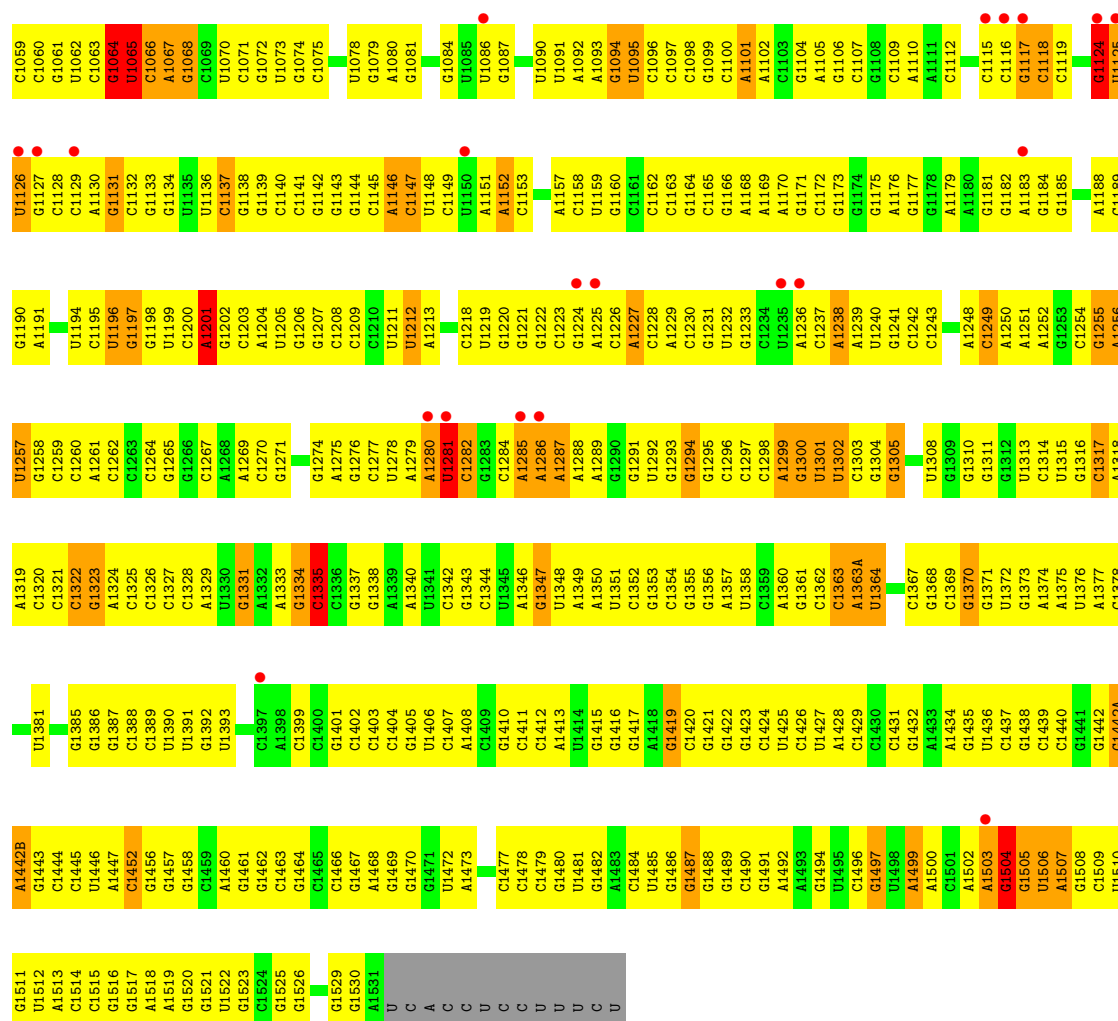
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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

• Molecule 1: 16S ribosomal RNA

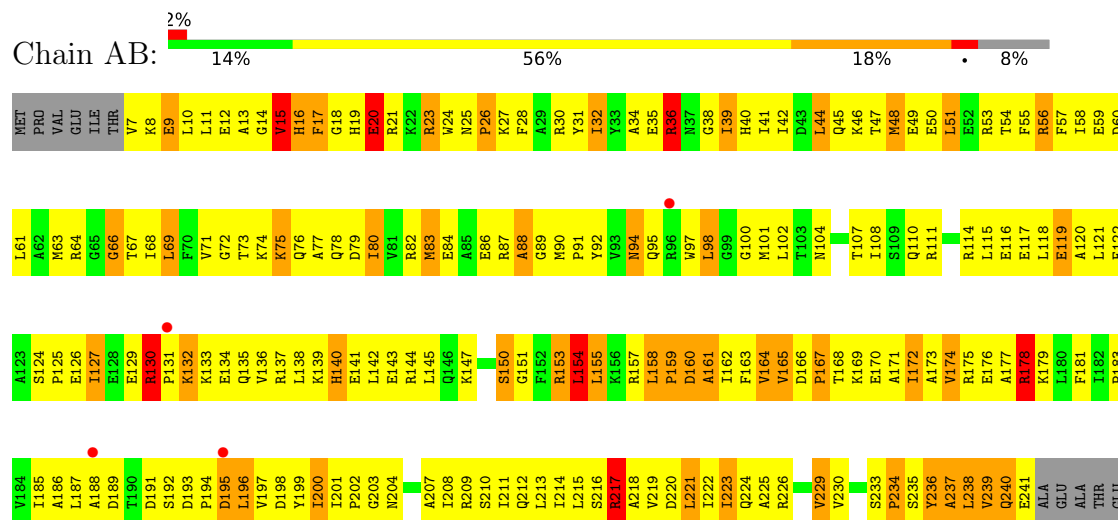




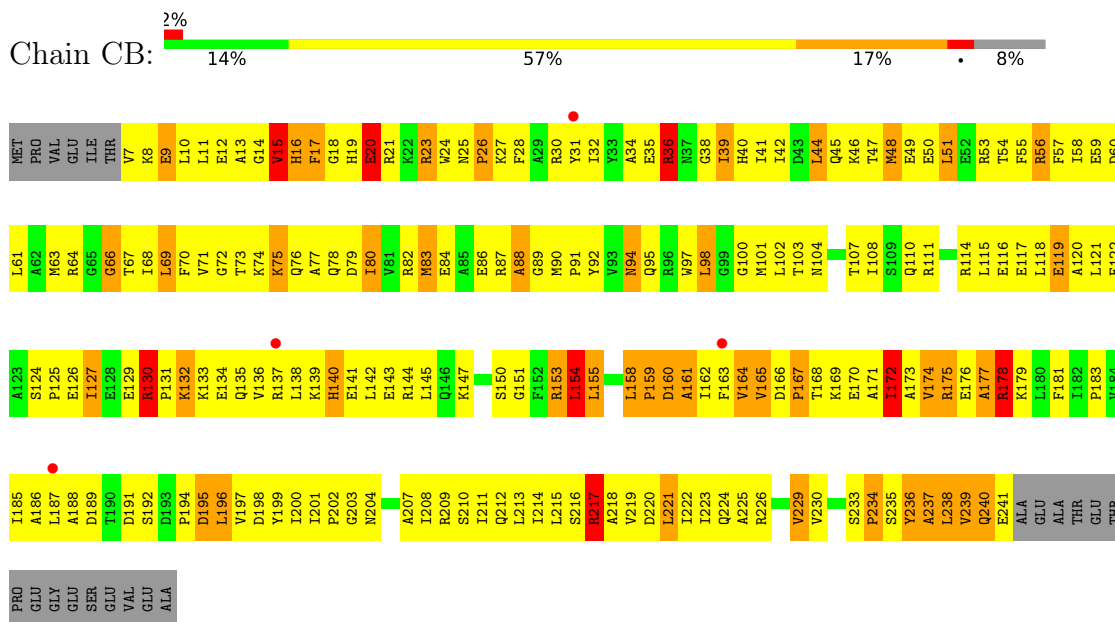
G993	A994	C992	G981	G700	C634	G566	G490	G409	C345	G276	A195	A141	U
A995	C993	G933	A781	G706	G635	G567	G491	G410	G346	C277	A196	G142	U
C994	A935	G934	A782	A706	G636	G568	G492	A411	G347	G278	A197	G143	U
G999	A936	G935	C783	C707	G637	G569	A496	A412	G348	A282	G198	G144	G
U1000	A937	A936	C784	G708	G638	G570	A498	A413	G349	C283	G199	G145	U
A1001	A938	A937	G791	G709	G639	G571	A499	A414	G350	G284	C201	G146	G6
G1001A	A938	A938	G792	G710	G640	A572	C501	A415	C351	G284	C202	G147	
G1002	C940	G939	A792	G711	G641	A573	G502	C418	C352	U287	U203	G148	
G1003	G941	A793	A793	G712	G642	A574	G503	C419	A353	A288	U204	G149	G9
A1004	G942	A794	A794	G713	G643	G575	A509	C420	C354	G289	C218	C150	A10
A1005	G943	A795	A795	G714	G644	G576	A510	C421	C355	A290	C219	C151	
G1006	G944	C797	C797	G715	G645	G577	C511	C422	A356	C291	G220	C152	G15
C1007	G945	G798	G798	U723	G646	G578	C512	C423	U359	C292	G221	C155	A16
G1008	A946	U801	U801	G724	G647	G579	C513	C424	A360	G293	U222	C156	U17
G1009	A947	A802	A802	G725	G648	G580	C514	C425	G360	U294	U223	A88	C18
G1010	C948	C980	C980	G726	G649	G581	C515	C426	U361	C295	C224	C89	
A1014	A949	C805	C805	G727	G650	U582	C516	U427	U362	U296	C225	C91	G19
A1015	C951	C806	C806	A728	G651	A583	C517	G428	U363	G297	G226	C92	U20
A1016	G952	A807	A807	A729	G652	G584	C518	U429	U364	A298	G227	C93	G22
G1017	G953	C811	C811	G730	G653	G585	C519	A430	U365	G301	A228	U164	C23
G954	G954	G886	G886	G731	G654	G586	C520	U431	U366	G302	G232	C165	U24
U955	U955	G887	G887	C732	G655	G587	C521	U432	U367	C307	G233	C166	C25
U956	U956	G888	G888	C733	G656	G588	C522	U433	U368	G308	G234	C167	A26
G957	U957	G889	G889	C734	G657	G589	C523	U434	U369	C309	C235	C168	G27
A958	A958	G890	G890	C735	G658	G590	C524	U435	C370	G310	G236	C169	G28
G959	G959	G891	G891	C736	G659	U591	C525	C436	C371	G311	G237	U170	G29
U960	U960	G892	G892	C737	G660	G592	C526	U437	C372	G312	G238	C174	A33
U961	U961	G893	G893	G741	G661	G593	C527	U438	C373	G313	G239	C175	C34
C962	C962	G894	G894	G742	G662	G594	C528	U439	C374	G314	U244	C176	G35
G963	G963	G895	G895	C743	G663	G595	C529	U440	C375	G315	C245	C177	C36
A964	A964	G896	G896	C744	G664	G596	C530	U441	C376	A109	A246	C178	U37
C965	C965	G897	G897	C745	G665	G597	C531	U442	C377	C110	G247	C179	G38
U966	U966	G898	G898	C746	G666	G598	C532	U443	C378	G316	G248	U180	G39
U967	U967	G899	G899	C747	G667	G599	C533	U444	C379	G317	G249	U181	C40
U968	U968	G900	G900	C748	G668	G600	C534	U445	C380	G318	G250	U182	G41
A969	A969	G901	G901	C749	G669	G601	C535	U446	C381	G319	G251	G183	G42
G970	G970	G902	G902	G750	G670	G602	C536	U447	C382	G320	U252	G184	C43
C971	C971	G903	G903	C751	G671	G603	C537	U448	C383	G321	U253	G185	G44
A972	A972	G904	G904	C752	G672	G604	C538	U449	C384	G322	U254	C186	
G973	G973	G905	G905	C753	G673	G605	C539	U450	C385	G323	G255	C187	
C974	C974	G906	G906	C754	G674	G606	C540	U451	C386	G324	U256	C188	C47
G975	G975	G907	G907	C755	G675	G607	C541	U452	C387	G325	G257	G189	C48
C976	C976	G908	G908	C756	G676	G608	C542	U453	C388	G326	G258	G189A	
A977	A977	G909	G909	C757	G677	G609	C543	U454	C389	G327	U259	C189B	A51
G978	G978	G910	G910	C758	G678	G610	C544	U455	C390	G328	U260	C189C	G52
C979	C979	G911	G911	C759	G679	G611	C545	U456	C391	G329	U261	G189D	A53
A980	A980	G912	G912	C760	G680	G612	C546	U457	C392	G330	U262	G189E	U56
U981	U981	G913	G913	G761	G681	G613	C547	U458	C393	G331	U263	G189F	C57
U982	U982	A914	A914	C762	G682	G614	C548	U459	C394	G332	U264	G189G	C58
A983	A983	A915	A915	C763	G683	G615	C549	U460	C395	G333	U265	G189H	C59
G984	G984	A916	A916	C764	G684	G616	C550	U461	C396	G334	U266	G189I	A60
C985	C985	A917	A917	C765	G685	G617	C551	U462	C397	G335	U267	G189J	G61
A986	A986	A918	A918	C766	G686	G618	C552	U463	C398	G336	U268	G189K	U62
G987	G987	A919	A919	C767	G687	G619	C553	U464	C399	G337	U269	G189L	
U988	U988	A920	A920	C768	G688	G620	C554	U465	C400	G338	U270	G189M	
U989	U989	U921	U921	C769	G689	G621	C555	U466	C401	G339	U271	G189N	
G990	G990	G922	G922	C770	G690	G622	C556	U467	C402	G340	U272	G189O	
A991	A991	A923	A923	C771	G691	G623	C557	U468	C403	G341	U273	G189P	
C992	C992	A924	A924	C772	G692	G624	C558	U469	C404	G342	U274	G189Q	
G993	G993	A925	A925	C773	G693	G625	C559	U470	C405	U343	U275	G189R	
A994	A994	A926	A926	C774	G694	G626	C560	U471	C406	A344	G275	G189S	
U995	U995	A927	A927	C775	G695	G627	C561	U472	C407				
G996	G996	A928	A928	C776	G696	G628	C562	U473	C408				
A997	A997	A929	A929	C777	G697	G629	C563	U474	C409				
C998	C998	A930	A930	C778	G698	G630	C564	U475					
G999	G999	A931	A931	C779	G699	G631	C565	U476					
U1000	U1000	A932	A932			G632	C566	U477					
A1001	A1001	A933	A933			G633	C567	U478					
G1002	G1002	A934	A934			G634	C568	U479					
A1003	A1003	A935	A935			G635	C569	U480					
G1004	G1004	A936	A936			G636	C570	U481					
A1005	A1005	A937	A937			G637	C571	U482					
G1006	G1006	A938	A938			G638	C572	U483					
C1007	C1007	A939	A939			G639	C573	U484					
G1008	G1008	A940	A940			G640	C574	U485					
A1009	A1009	A941	A941			G641	C575	U486					
G1010	G1010	A942	A942			G642	C576	U487					
A1011	A1011	A943	A943			G643	C577	U488					
A1012	A1012	A944	A944			G644	C578	U489					
A1013	A1013	A945	A945			G645	C579	U490					
A1014	A1014	A946	A946			G646	C580	U491					
A1015	A1015	A947	A947			G647	C581	U492					
A1016	A1016	A948	A948			G648	C582	U493					
G1017	G1017	A949	A949			G649	C583	U494					
U1020	U1020	A950	A950			G650	C584	U495					
G1021	G1021	A951	A951			G651	C585	U496					
G1022	G1022	A952	A952			G652	C586	U497					
U1023	U1023	A953	A953			G653	C587	U498					
A1024	A1024	A954	A954			G654	C588	U499					
G1025	G1025	A955	A955			G655	C589	U500					
U1026	U1026	A956	A956			G656	C590	U501					
G1027	G1027	A957	A957			G657	C591	U502					
C1028	C1028	A958	A958			G658	C592	U503					
G1029	G1029	A959	A959			G659	C593	U504					
C1030	C1030	A960	A960			G660	C594	U505					
G1031	G1031	A961	A961			G661	C595	U506					
A1032	A1032	A962	A962			G662	C596	U507					
G1033	G1033	A963	A963			G663	C597	U508					
C1034	C1034	A964	A964			G664	C598	U509					
A1035	A1035	A965	A965			G665	C599	U510					
G1036	G1036	A966	A966			G666	C600	U511					
U1040	U1040	A967	A967			G667	C601	U512					
A1041	A1041	A968	A968			G668	C602	U513					
G1042	G1042	A969	A969			G669	C603	U514					
C1043	C1043	A970	A970			G670	C604	U515					
A1044	A1044	A971	A971			G671	C605	U516					
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G1046	G1046	A973	A973			G673	C607	U518					
A1047	A1047	A974	A974			G674	C608	U519					
G1048	G1048	A975	A975			G675	C609	U520					
U1049	U1049	A976	A976			G676	C610	U521					
G1050	G1050	A977	A977			G677	C611	U522					
C1051	C1051	A978	A978			G678	C612	U523					
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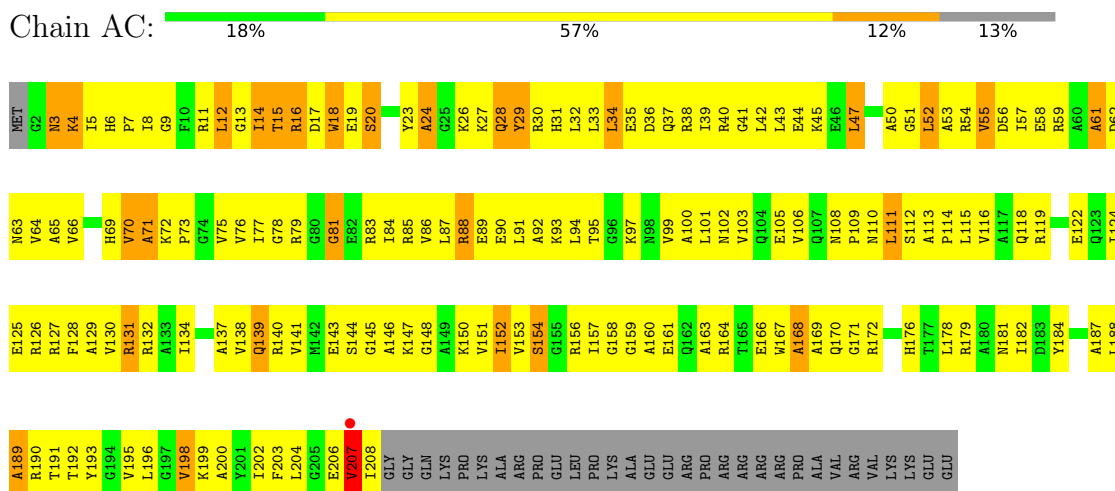
• Molecule 2: 30S RIBOSOMAL PROTEIN S2



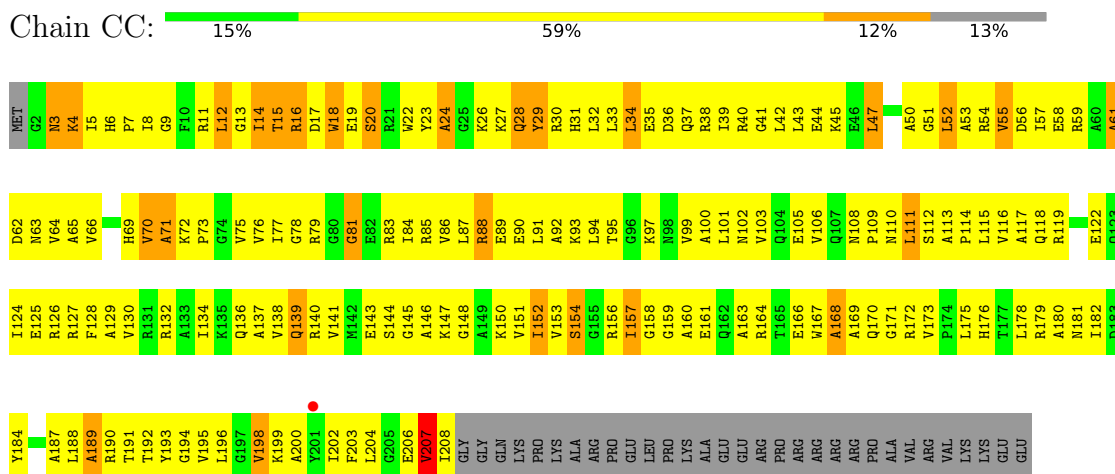
• Molecule 2: 30S RIBOSOMAL PROTEIN S2



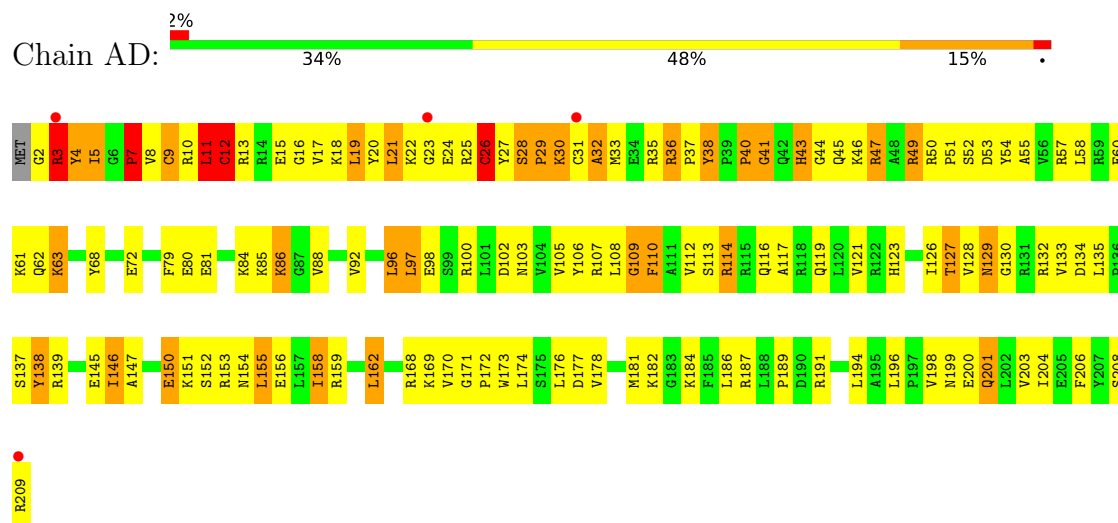
● Molecule 3: 30S RIBOSOMAL PROTEIN S3



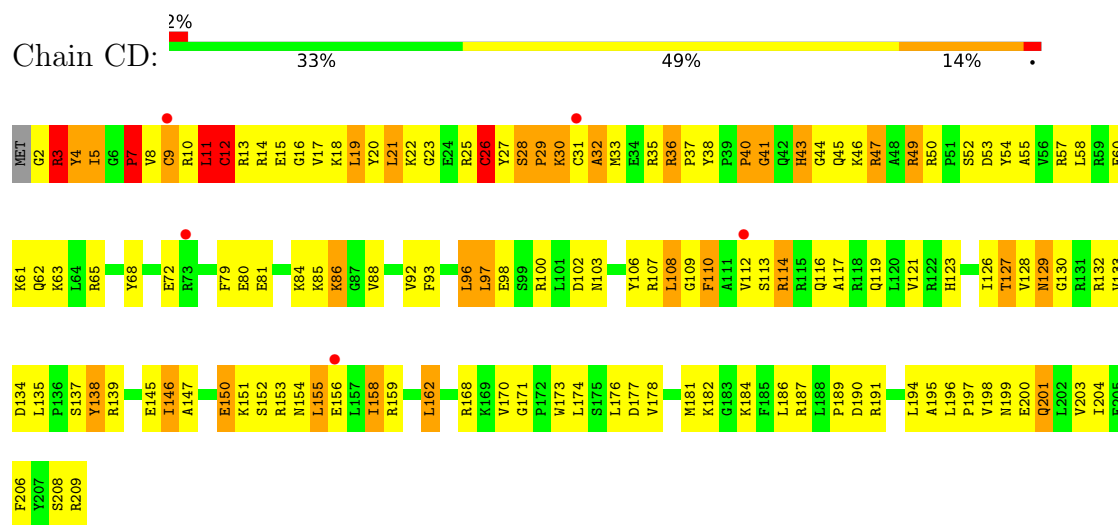
● Molecule 3: 30S RIBOSOMAL PROTEIN S3



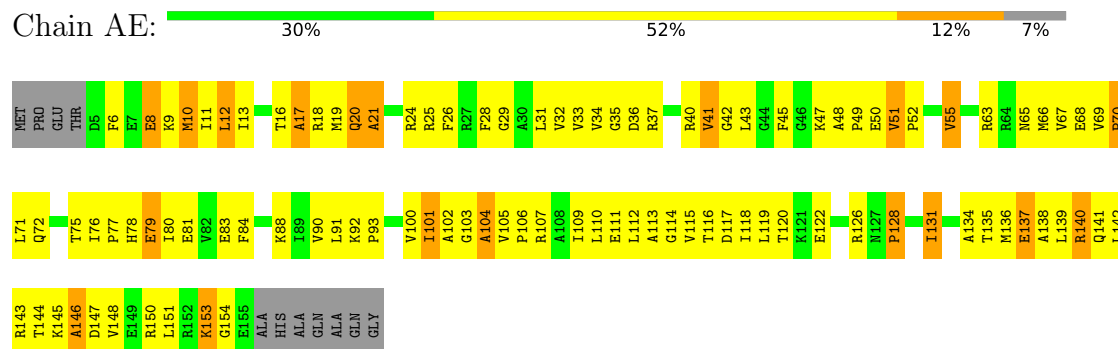
• Molecule 4: 30S RIBOSOMAL PROTEIN S4

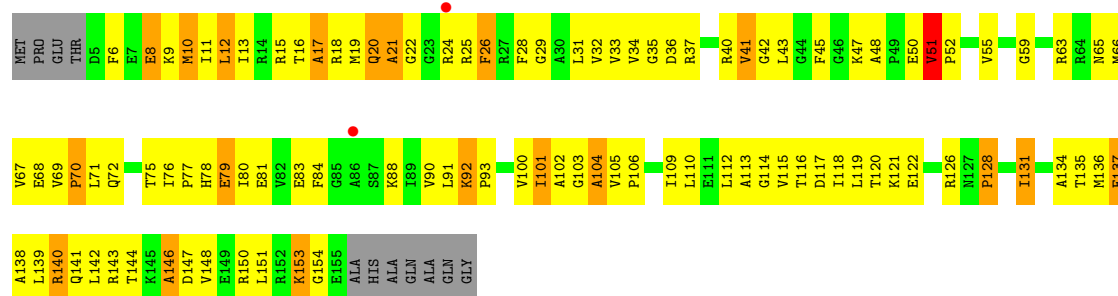


• Molecule 4: 30S RIBOSOMAL PROTEIN S4

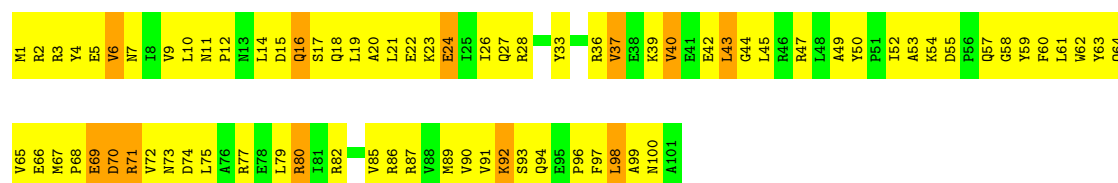


• Molecule 5: 30S RIBOSOMAL PROTEIN S5

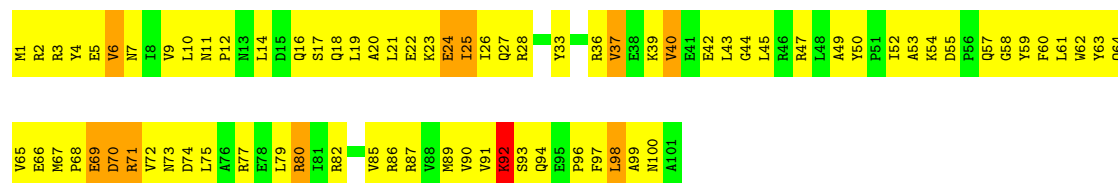




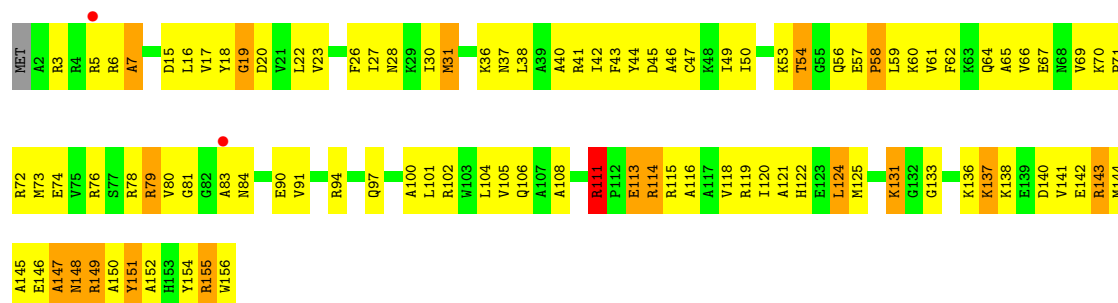
- Molecule 6: 30S RIBOSOMAL PROTEIN S6



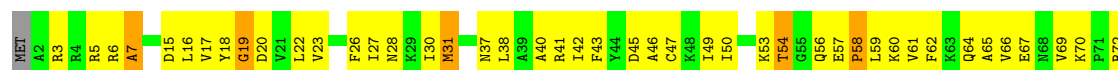
- Molecule 6: 30S RIBOSOMAL PROTEIN S6

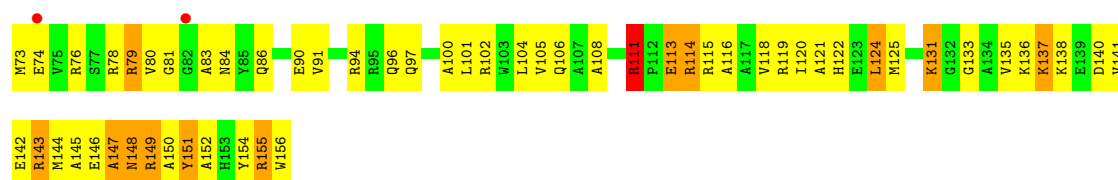


- Molecule 7: 30S RIBOSOMAL PROTEIN S7

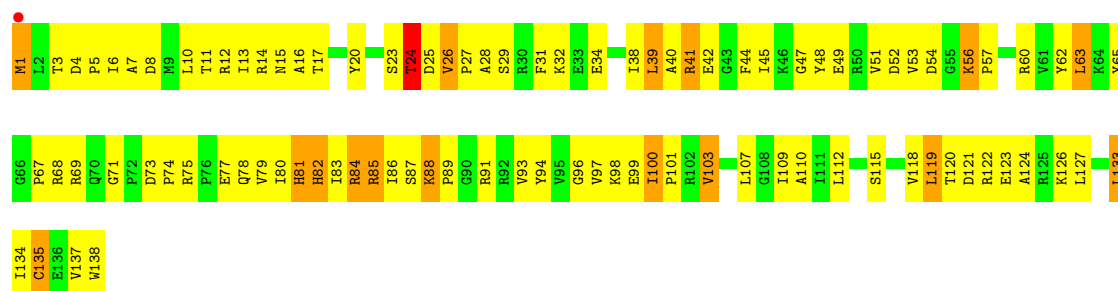


• Molecule 7: 30S RIBOSOMAL PROTEIN S7

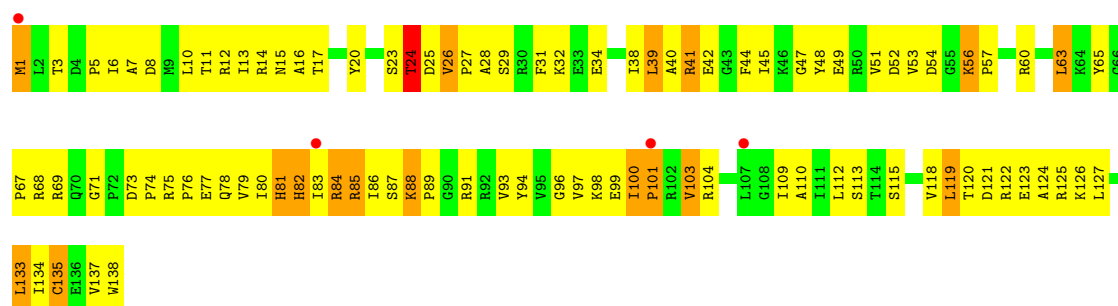




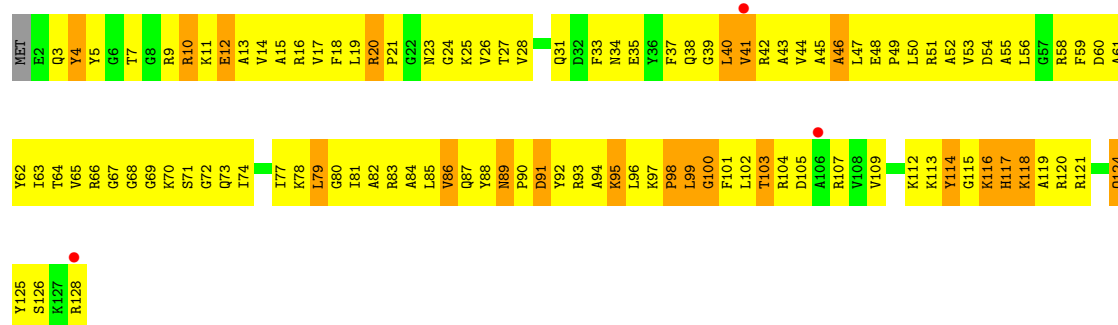
• Molecule 8: 30S RIBOSOMAL PROTEIN S8



• Molecule 8: 30S RIBOSOMAL PROTEIN S8

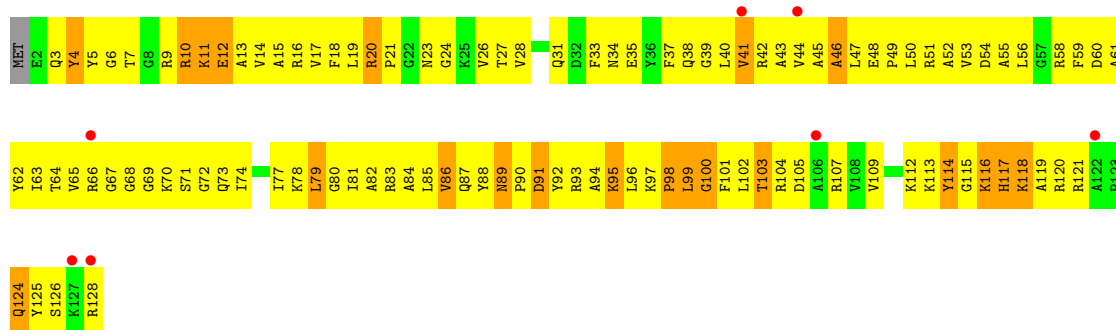


• Molecule 9: 30S RIBOSOMAL PROTEIN S9

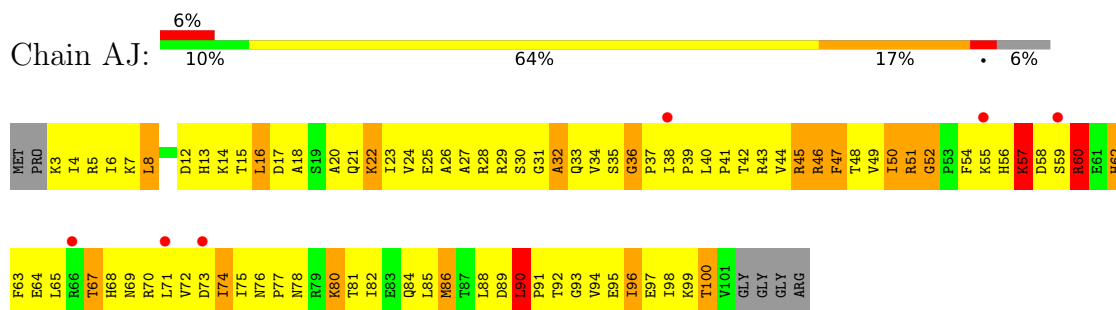


• Molecule 9: 30S RIBOSOMAL PROTEIN S9

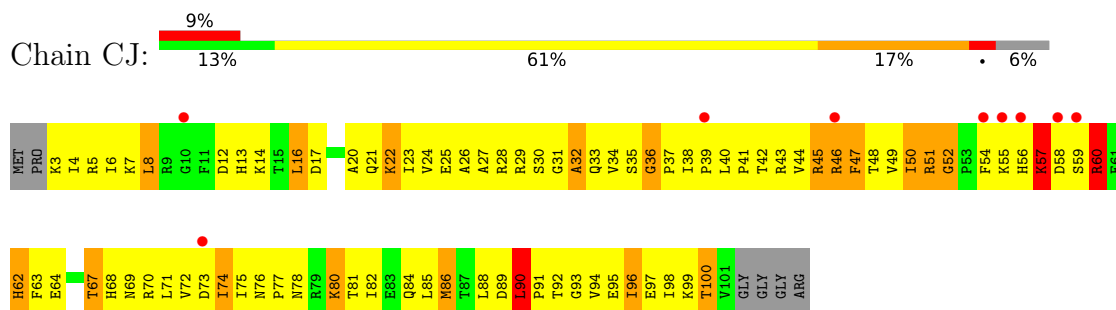




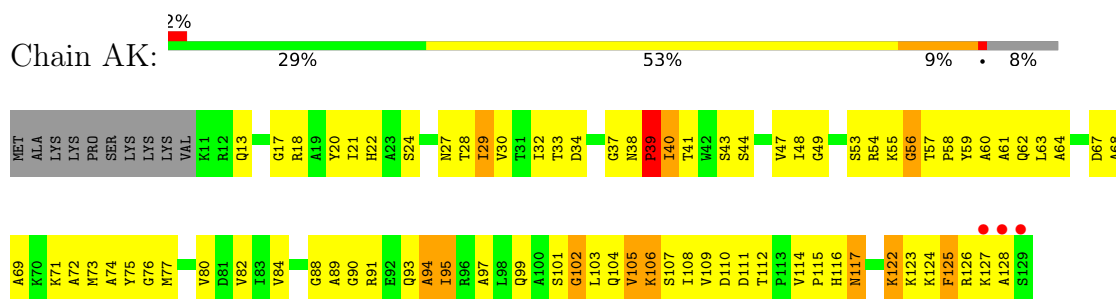
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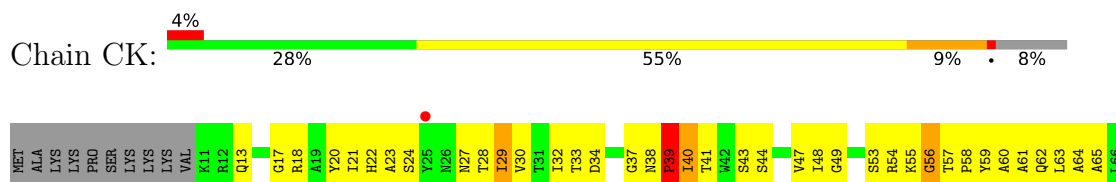
• Molecule 10: 30S RIBOSOMAL PROTEIN S10



• Molecule 11: 30S RIBOSOMAL PROTEIN S11



• Molecule 11: 30S RIBOSOMAL PROTEIN S11

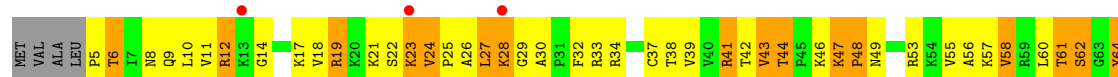




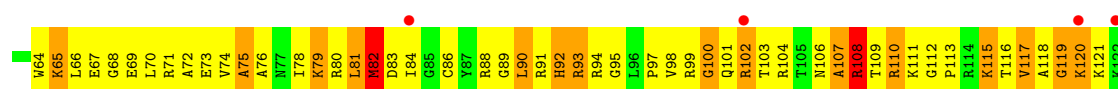
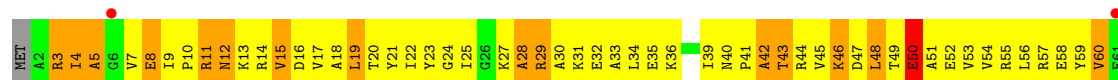
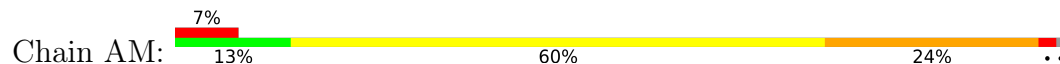
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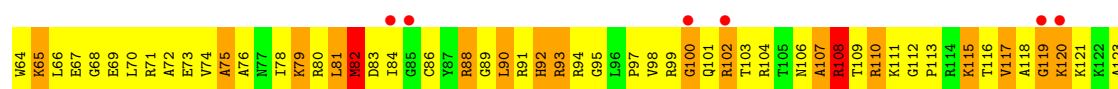
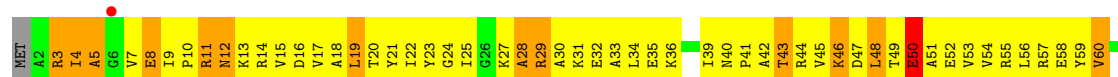
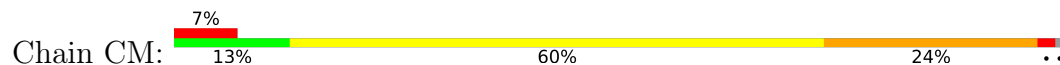
• Molecule 12: 30S RIBOSOMAL PROTEIN S12



• Molecule 13: 30S RIBOSOMAL PROTEIN S13



• Molecule 13: 30S RIBOSOMAL PROTEIN S13





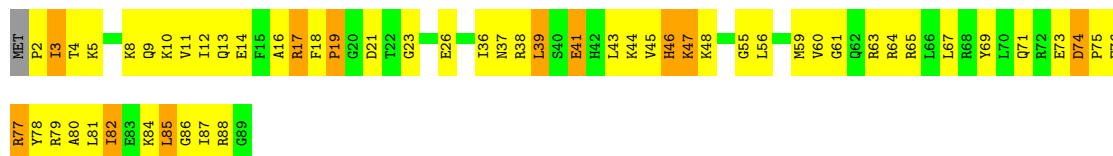
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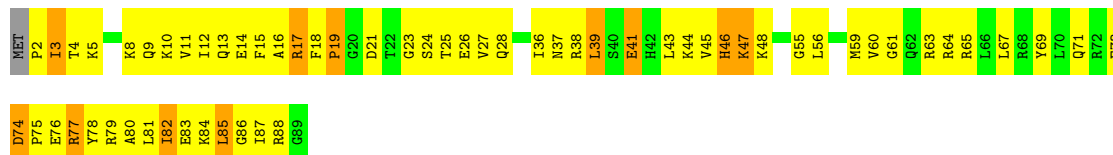
• Molecule 14: 30S RIBOSOMAL PROTEIN S14



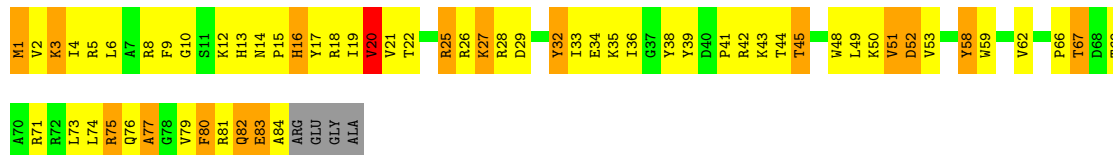
• Molecule 15: 30S RIBOSOMAL PROTEIN S15



• Molecule 15: 30S RIBOSOMAL PROTEIN S15



• Molecule 16: 30S RIBOSOMAL PROTEIN S16

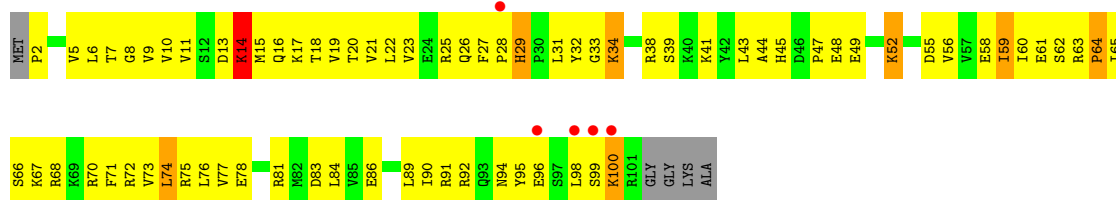


• Molecule 16: 30S RIBOSOMAL PROTEIN S16

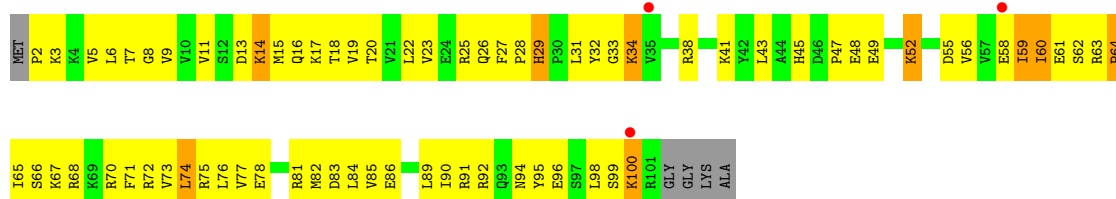




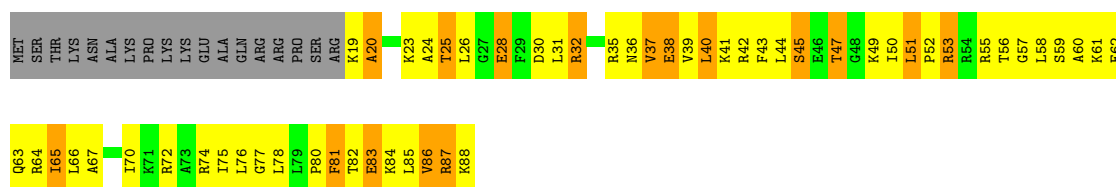
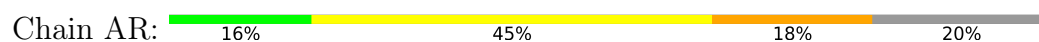
• Molecule 17: 30S RIBOSOMAL PROTEIN S17



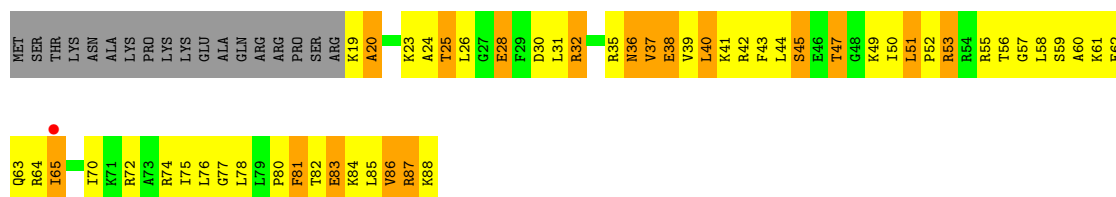
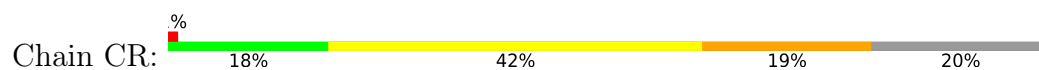
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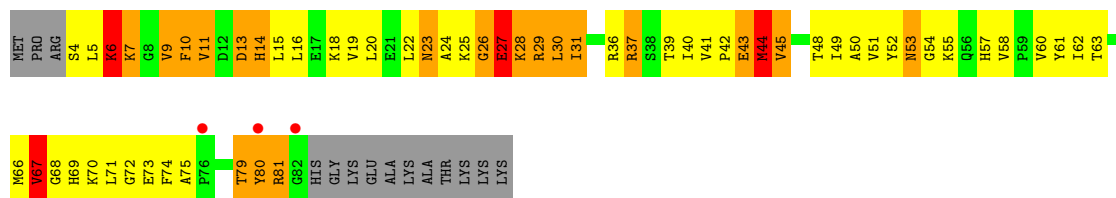
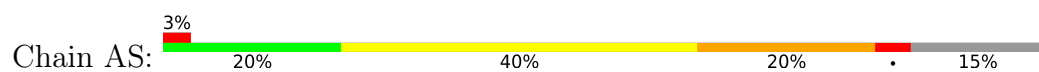
• Molecule 18: 30S RIBOSOMAL PROTEIN S18



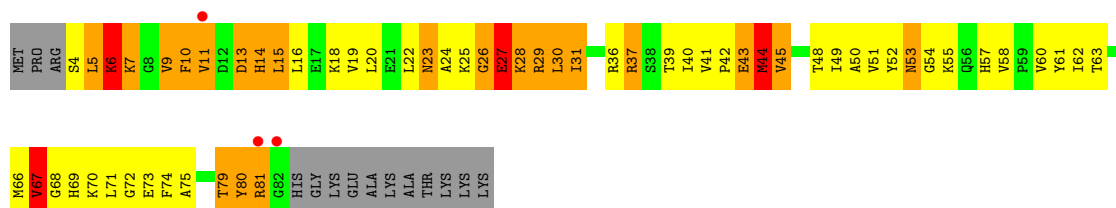
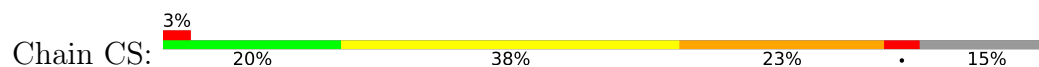
• Molecule 18: 30S RIBOSOMAL PROTEIN S18



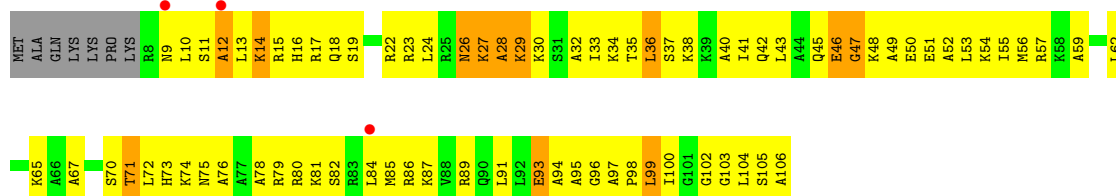
• Molecule 19: 30S RIBOSOMAL PROTEIN S19



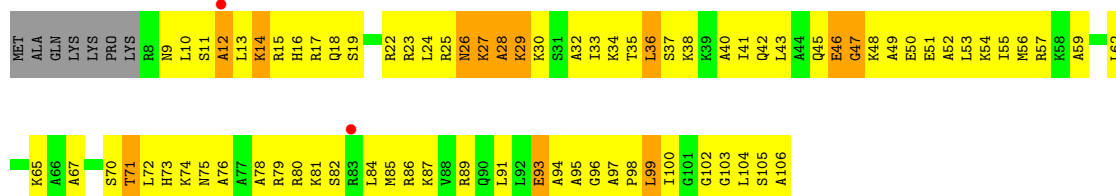
• Molecule 19: 30S RIBOSOMAL PROTEIN S19



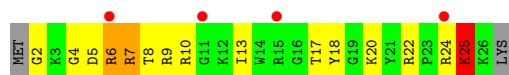
• Molecule 20: 30S RIBOSOMAL PROTEIN S20



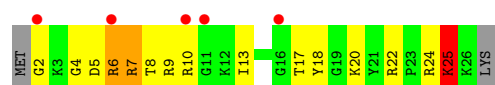
• Molecule 20: 30S RIBOSOMAL PROTEIN S20



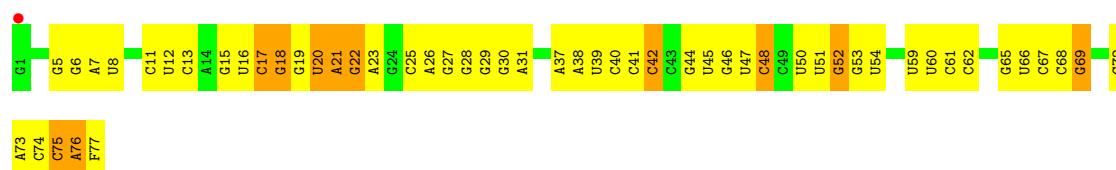
• Molecule 21: 30S RIBOSOMAL PROTEIN THX



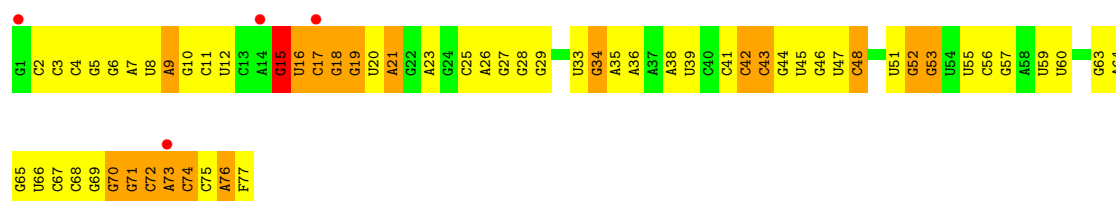
• Molecule 21: 30S RIBOSOMAL PROTEIN THX



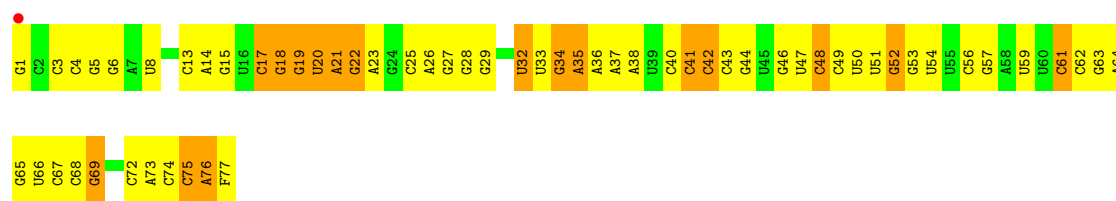
- Molecule 22: P AND A-SITE PHE-TRNA PHE



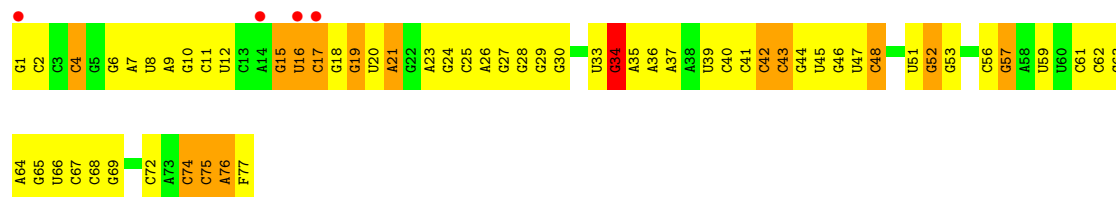
- Molecule 22: P AND A-SITE PHE-TRNA PHE



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

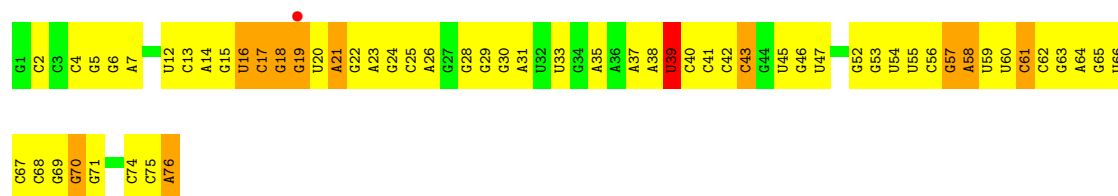


- Molecule 22: P AND A-SITE PHE-TRNA PHE



- Molecule 23: E-SITE TRNA PHE





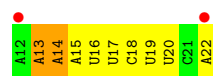
- Molecule 23: E-SITE TRNA PHE



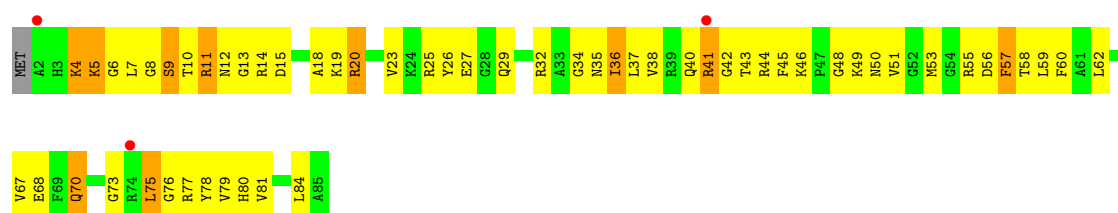
- Molecule 24: MRNA



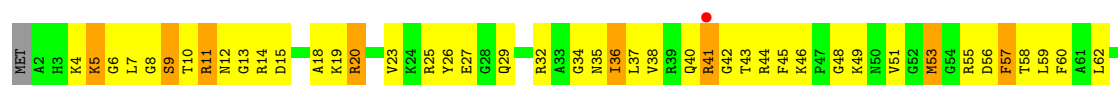
- Molecule 24: MRNA



- Molecule 25: 50S RIBOSOMAL PROTEIN L27

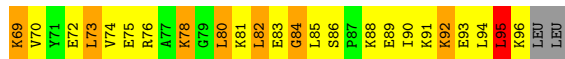


- Molecule 25: 50S RIBOSOMAL PROTEIN L27

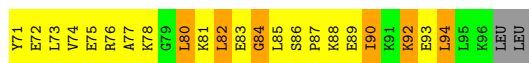
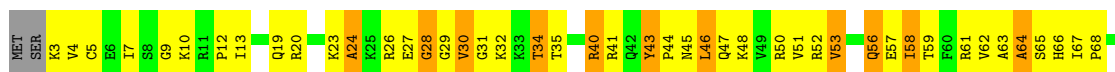




• Molecule 26: 50S RIBOSOMAL PROTEIN L28



• Molecule 26: 50S RIBOSOMAL PROTEIN L28



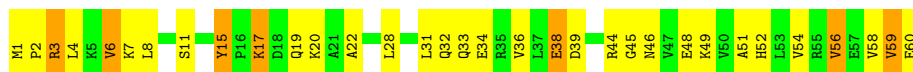
• Molecule 27: 50S RIBOSOMAL PROTEIN L29



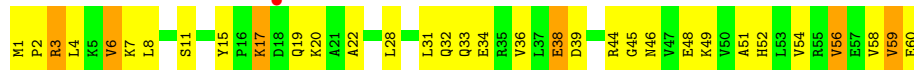
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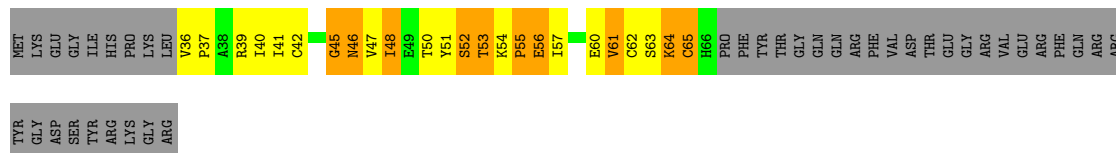
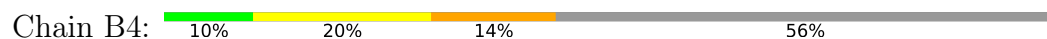
• Molecule 28: 50S RIBOSOMAL PROTEIN L30



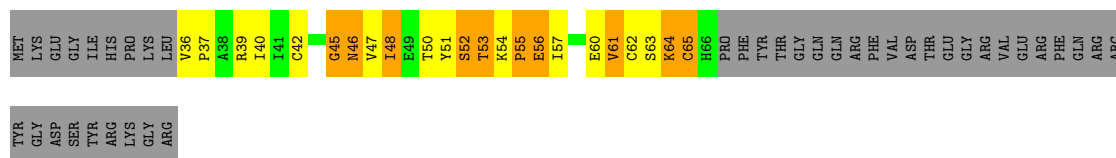
• Molecule 28: 50S RIBOSOMAL PROTEIN L30



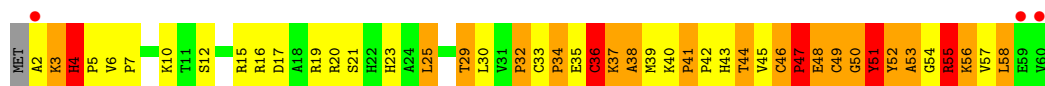
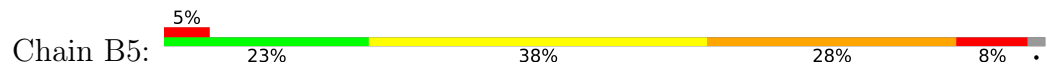
• Molecule 29: 50S RIBOSOMAL PROTEIN L31



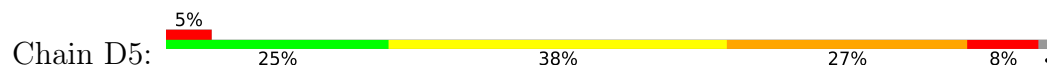
• Molecule 29: 50S RIBOSOMAL PROTEIN L31



• Molecule 30: 50S RIBOSOMAL PROTEIN L32



• Molecule 30: 50S RIBOSOMAL PROTEIN L32



• Molecule 31: 50S RIBOSOMAL PROTEIN L33



• Molecule 31: 50S RIBOSOMAL PROTEIN L33

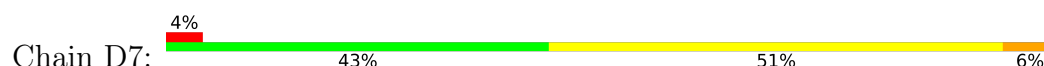




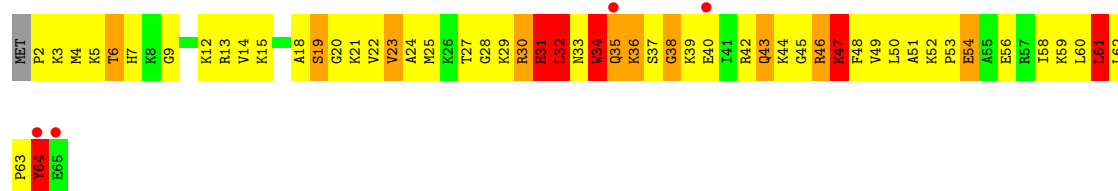
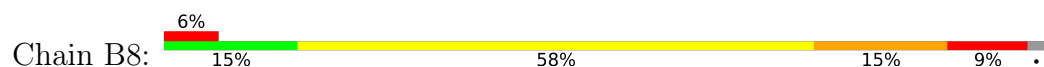
• Molecule 32: 50S RIBOSOMAL PROTEIN L34



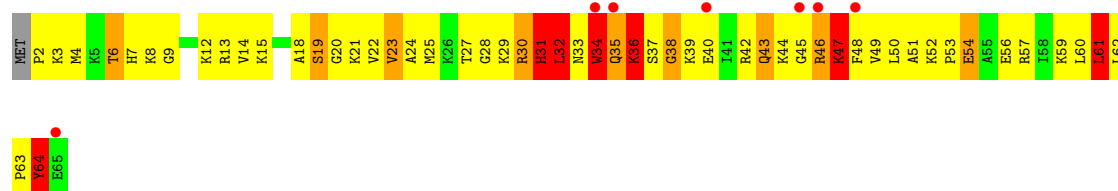
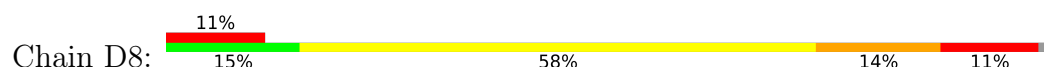
• Molecule 32: 50S RIBOSOMAL PROTEIN L34



• Molecule 33: 50S RIBOSOMAL PROTEIN L35



• Molecule 33: 50S RIBOSOMAL PROTEIN L35



• Molecule 34: 50S RIBOSOMAL PROTEIN L36

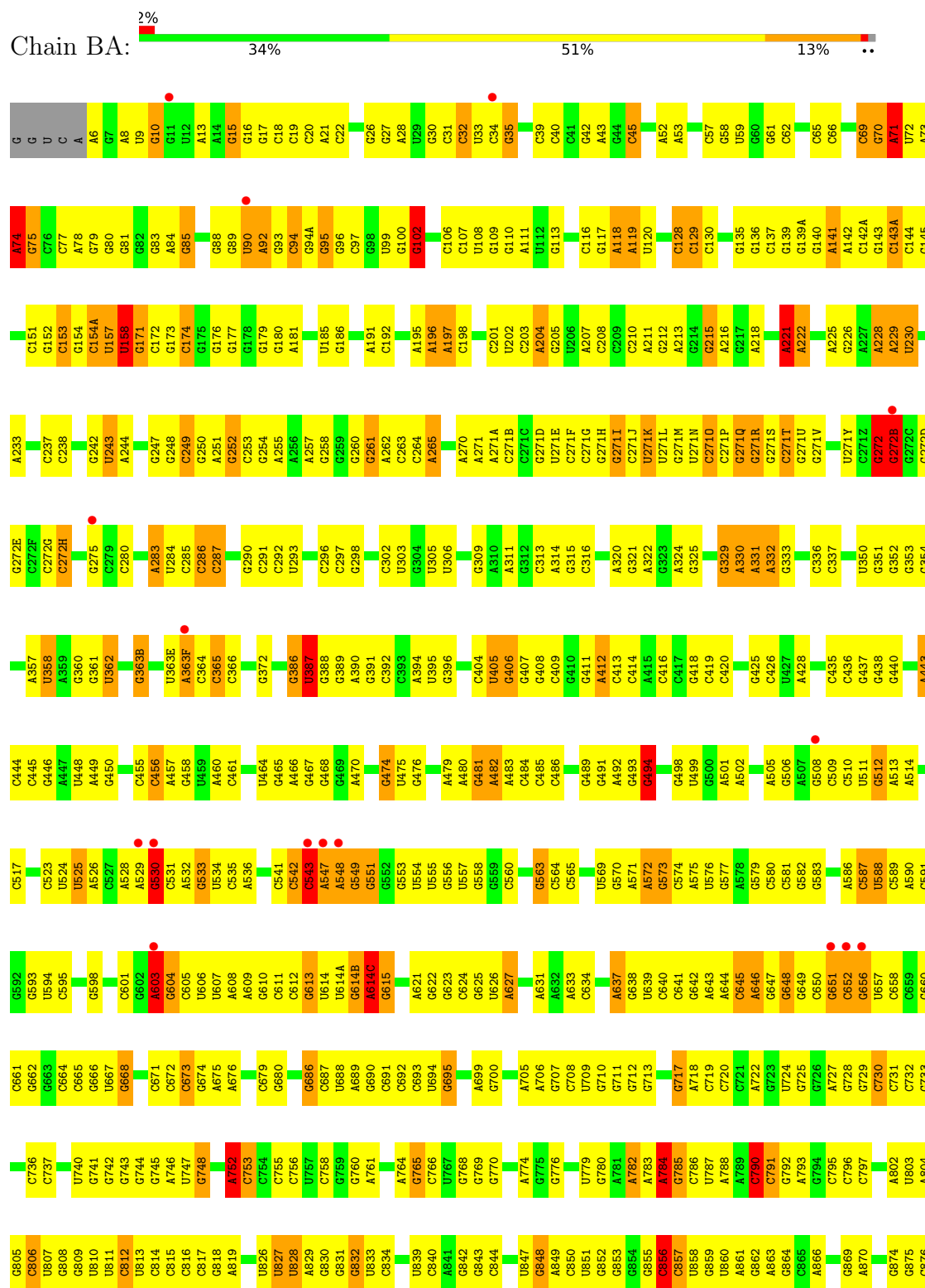


• Molecule 34: 50S RIBOSOMAL PROTEIN L36



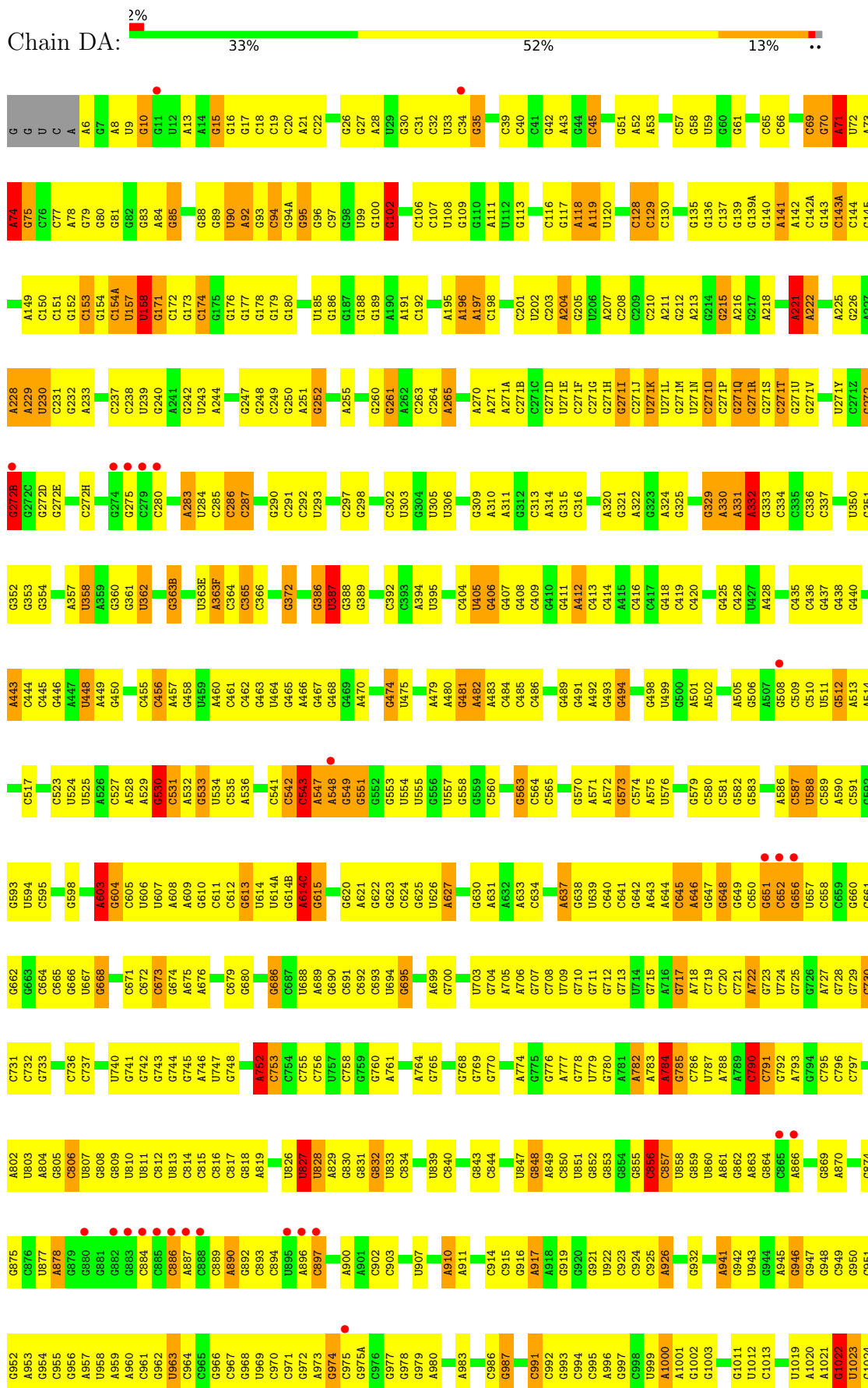


- Molecule 35: 23S RIBOSOMAL RNA

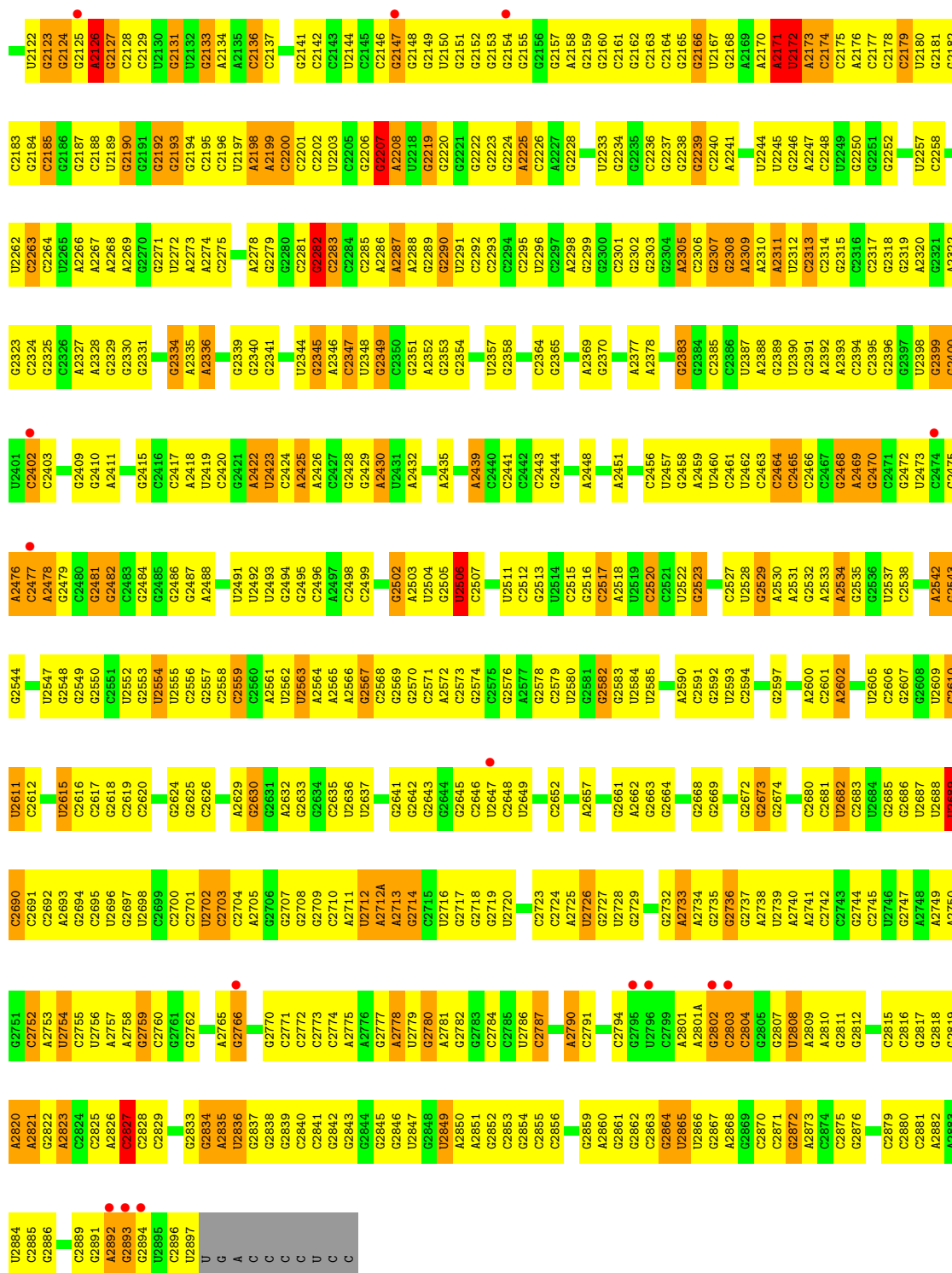


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A1915	G1842	A1773	G1682	G1515	G1448	C1375	G1299	C1224	C1153	G1034	C961	G881
U1917	C1843	C1774	C1685	G1516	A1449	C1376	U1300	G1227	G1154	U1035	G962	G882
A1918	G1844	U1775	G1686	G1517	G1450	G1377	A1301	G1227	A1155	G1036	U963	G883
C1920	G1845	U1777	U1687	U1518	C1450A	G1378	A1302	G1231	G1156	G1037	C964	C884
G1921	G1846	U1778	U1688	U1519	A1451	A1378	G1303	G1232	C1157	C1038	C885	C886
G1922	A1847	U1779	A1690	G1520	A1452	A1379	G1303	G1232	C1158	G1039	C887	C888
U1923	G1847	U1780	A1610	G1520	U1453	G1380	G1309	U1234	G1162	G1040	G968	C889
C1924	A1848	C1781	U1692	G1525	G1455	G1380	G1310	U1234	G1163	G1041	U969	C890
C1925	U1851	C1782	U1692	G1526	G1456	A1384	G1311	G1235	G1163	G1042	C970	A890
U1926	C1852	U1783	G1696	G1527	C1458	G1385	U1312	G1235	G1164	C1043	C971	G892
A1927	A1853	G1784	G1697	G1528	G1459	C1386	U1313	U1240	U1165	C1044	C972	C893
C1928	G1854	A1785	A1698	A1528A	A1460	G1395	C1314	A1241	U1166	A1045	A973	C894
G1929	G1855	A1786	G1699	G1529	A1461	U1396	U1315	A1242	U1167	A1046	G974	U895
U1930	G1856	A1787	A1700	C1530	G1464	G1401	U1316	G1243	G1168	G1047	C975	A896
C1931	G1857	C1788	U1707	U1531	C1464	C1402	A1317	G1244	G1169	A1048	C976	C897
A1932	G1858	A1789	C1708	C1532	C1467	C1403	G1318	G1245	G1170	C1049	C977	C898
G1933	A1859	C1790	U1709	C1533	C1467	C1404	G1319	A1246	U1171	A1050	G978	A899
C1934	G1860	A1791	C1710	C1543	A1468	G1405	C1320	A1247	G1173	G1051	G979	A900
G1935	G1861	G1791	C1711	A1544	G1470	U1406	A1321	G1248	U1175	C1052	G979	A901
A1936	G1862	U1794	C1712	C1547	G1471	U1407	C1327	C1251	G1176	A1106	A980	C902
C1937	G1863	C1795	G1712	C1548	A1472	C1407	G1328	G1252	A1177	A1107	A983	C903
U1938	G1864	U1796	U1713	C1549	C1473	C1408	U1329	A1253	C1178	U1108	U907	U907
G1939	G1865	C1797	G1714	C1550	C1474	C1409	C1330	G1256	C1179	C1109	C908	C908
U1940	G1866	U1798	G1715	C1551	C1477	G1410	C1331	C1257	C1180	G1110	C909	A909
A1876	G1799	G1799	G1718	C1551	A1477	C1411	G1332	C1257	C1181	A1111	A910	A910
A1877	C1800	C1800	G1719	A1554	G1478	A1412	C1333	C1258	A1182	G1112	C991	A911
G1878	G1801	A1801	U1720	G1555	G1479	A1413	C1334	G1259	G1183	C992	C992	C914
U1946	C1802	A1802	G1721	G1555	G1480	G1416	U1335	G1260	G1184	G1113	C993	C914
C1947	A1803	A1803	A1722	G1559	U1481	C1417	A1336	C1261	G1185	G1114	C994	C915
A1882	G1807	G1807	U1739	G1568	G1482	C1418	G1337	A1263	G1186	C1116	C995	G916
G1883	A1810	A1810	G1740	A1566	G1484	U1419	U1339	G1264	G1187	C1117	A996	A917
A1884	G1811	G1811	A1741	A1566	G1485	U1420	U1340	A1265	U1188	C1118	C997	C921
A1885	C1743	C1743	G1742	A1567	A1486	G1421	G1341	G1266	A1189	G1125	C998	U922
C1886	C1744	C1744	C1744	A1568	G1487	G1426	G1342	U1267	A1126	A1000	U999	C923
C1887	G1747	G1747	U1747	A1569	U1488	G1426	G1345	A1268	A1127	A1001	A1000	C924
G1888	G1747A	G1747A	U1747A	A1570	U1489	G1426	G1346	A1269	A1128	A1002	G1002	C925
A1889	G1815	G1815	U1659	A1571	A1490	G1426	G1347	C1270	A1194	G1003	A926	A926
A1890	G1816	G1816	C1660	A1572	G1491	A1427	G1347	G1271	G1195	C1004	C1004	A926
G1896	C1751	U1817	G1661	G1573	G1492	C1428	G1348	A1272	G1131	A1132	C1005	G932
G1897	C1752	U1818	C1662	C1574	C1493	G1429	A1349	A1272	C1201	U1133	G1011	A941
U1898	G1753	G1753	A1665	U1578	A1495	C1430	C1350	A1275	G1202	C1135	G1011	A941
G1899	C1754	A1820	G1666	A1579	A1496	U1431	C1351	A1278	G1203	C1136	U1012	G942
A1900	A1755	A1821	G1667	A1580	U1497	G1434	U1352	A1279	G1204	C1137	C1013	U943
U1901	G1756	G1756	A1668	G1581	C1498	G1435	A1353	G1280	U1205	G1138	G944	G944
A1971	U1757	U1757	C1670	C1582	C1501	C1437	G1354	G1281	G1206	G1139	U1019	A945
C1973	G1758	G1758	C1671	A1583	C1502	U1438	G1355	G1286	A1210	C1140	A1021	G946
G1906	A1762	A1762	U1671	C1584	U1503	U1439	G1356	A1287	U1211	U1141	A1020	G946
A1981	G1763	G1763	U1674	A1585	U1504	A1438	G1357	A1287	G1212	U1142	G1022	C951
C1982	G1764	G1764	C1675	A1587	C1505	G1440	U1358	U1288	A1143	A1142A	U1023	C952
G1908	C1832	C1832	U1676	C1588	C1506	G1441	G1359	U1289	A1143	G1024	A953	A953
C1909	C1832	C1832	C1676	C1589	C1506	G1442	C1363	C1290	C1144	U1025	G1025	G954
G1910	U1666	U1666	U1677	U1590	G1443	G1443	C1364	C1291	C1146	A1027	C955	C955

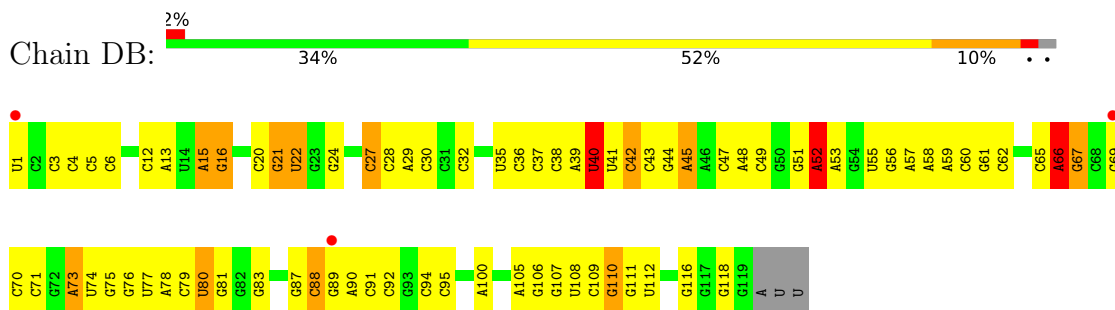




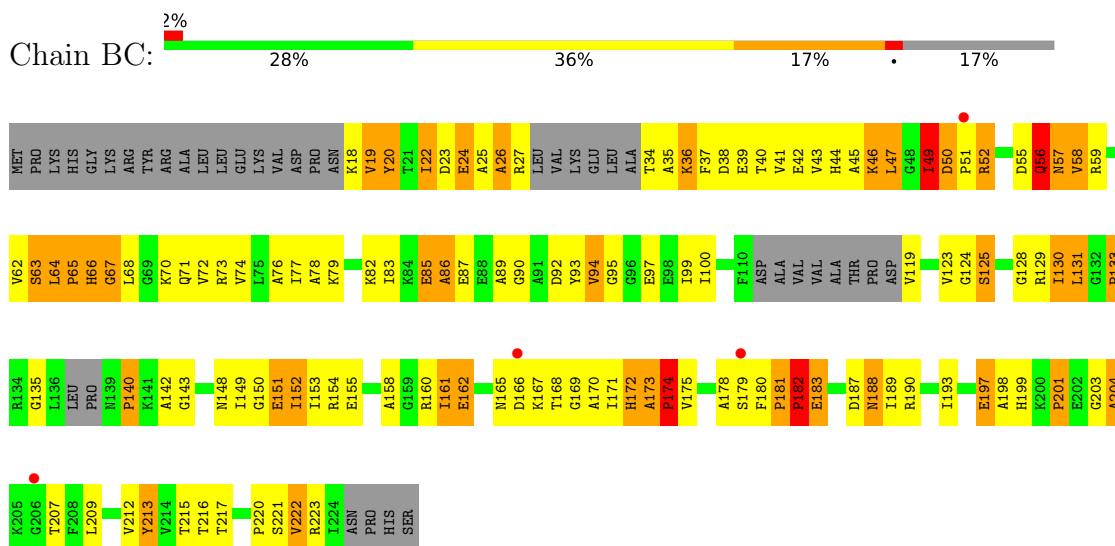




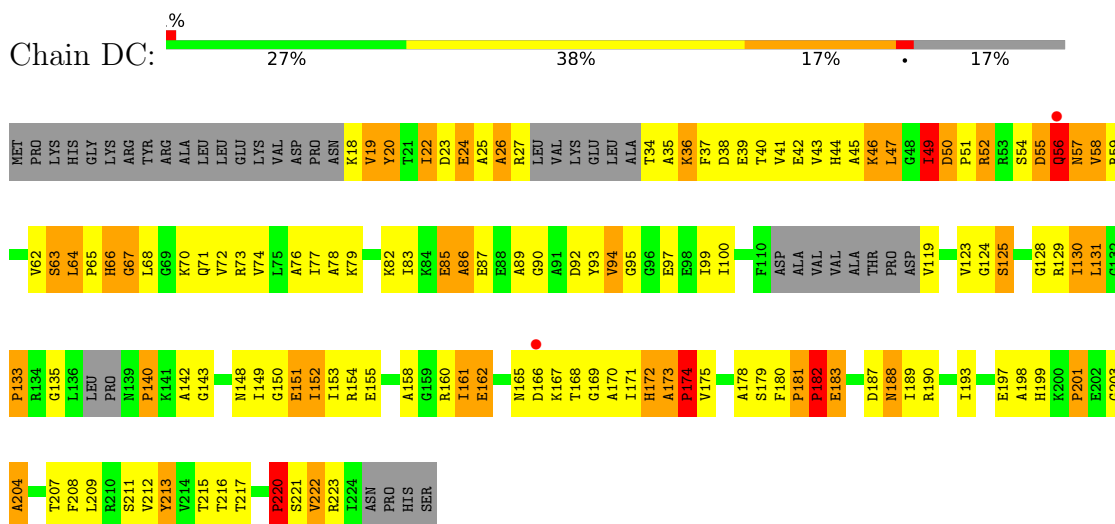
- Molecule 36: 5S RIBOSOMAL RNA



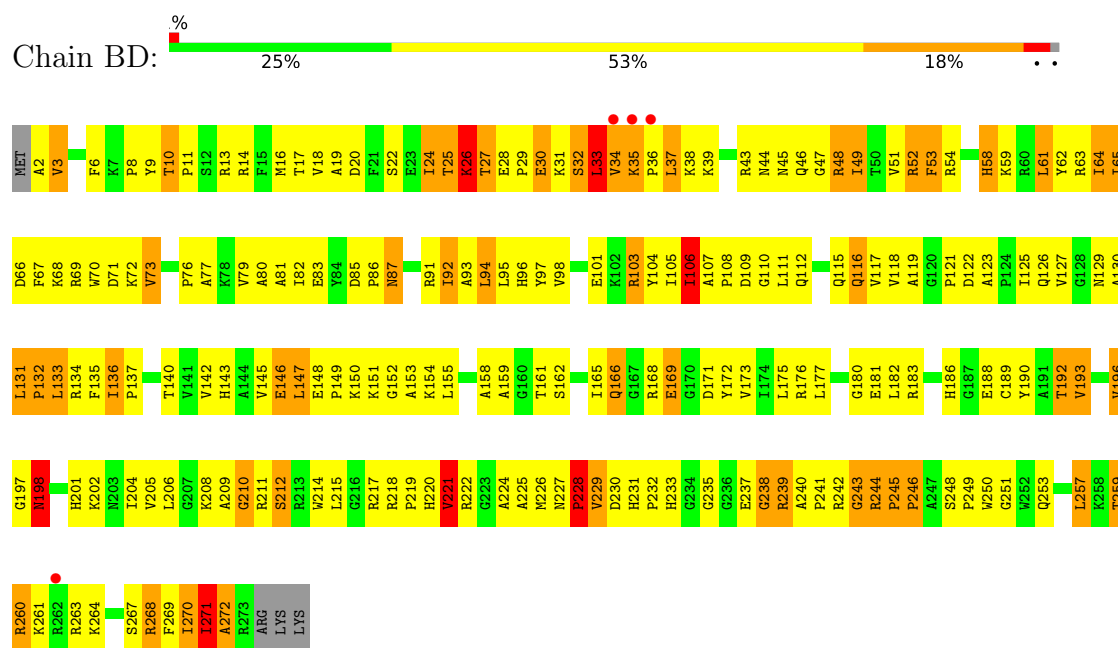
- Molecule 37: 50S RIBOSOMAL PROTEIN L1



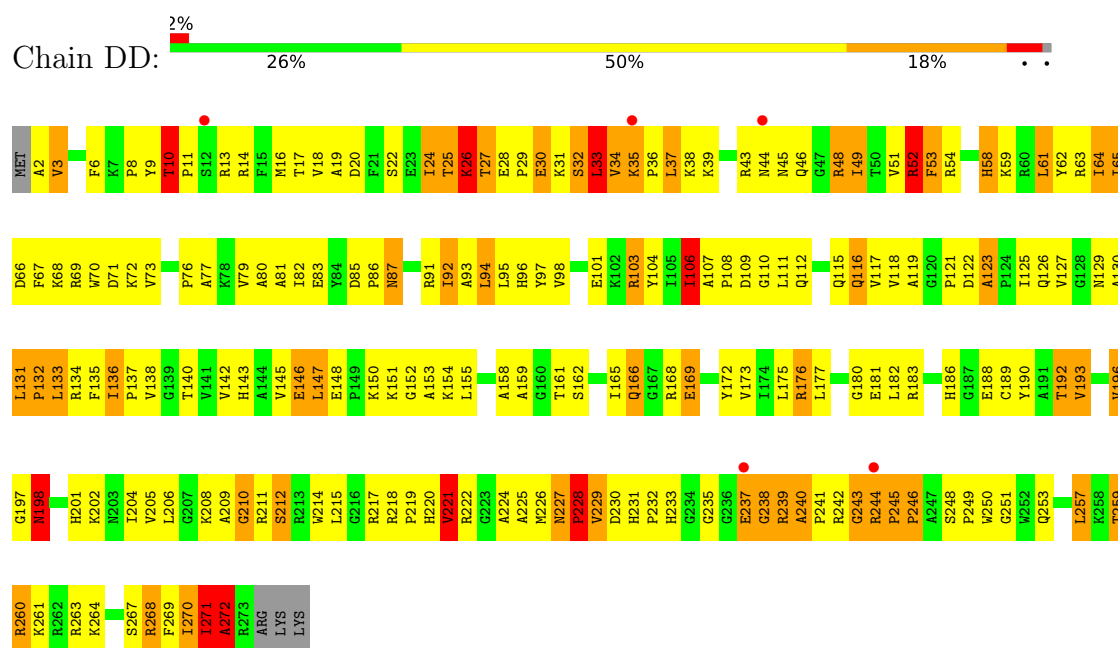
- Molecule 37: 50S RIBOSOMAL PROTEIN L1



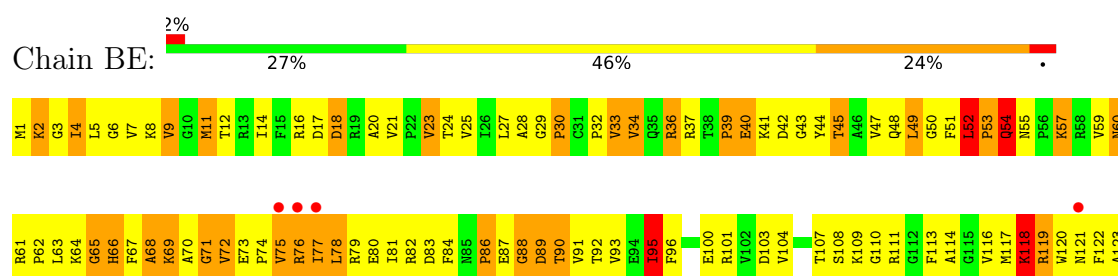
• Molecule 38: 50S RIBOSOMAL PROTEIN L2

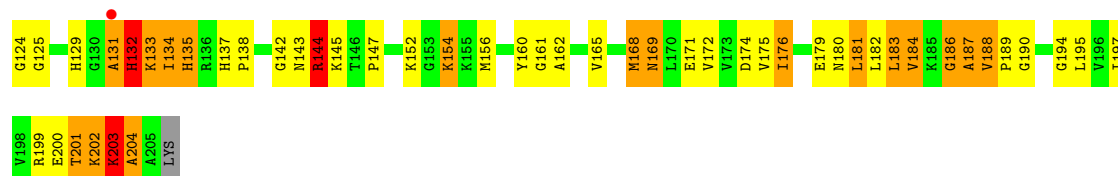


• Molecule 38: 50S RIBOSOMAL PROTEIN L2

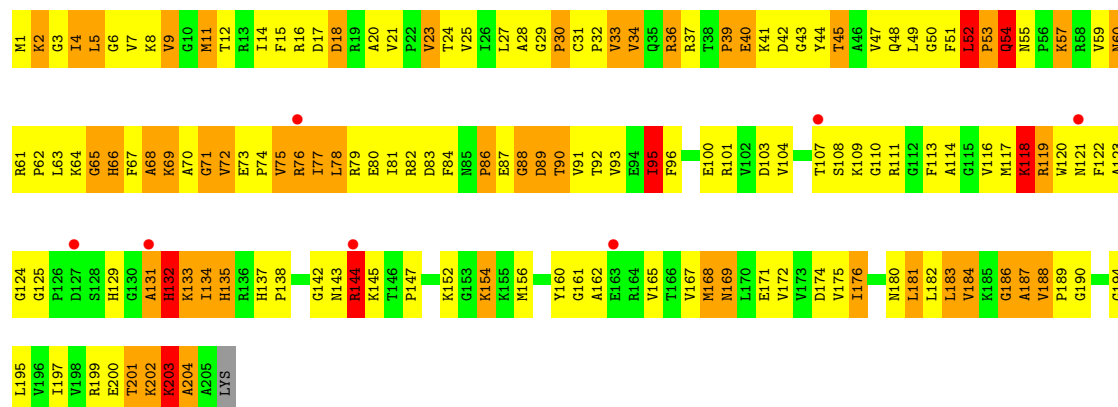


• Molecule 39: 50S RIBOSOMAL PROTEIN L3

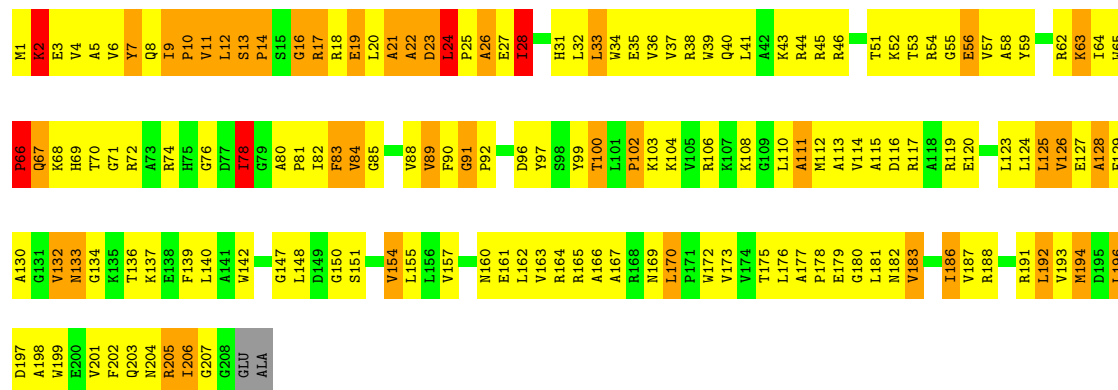




• Molecule 39: 50S RIBOSOMAL PROTEIN L3

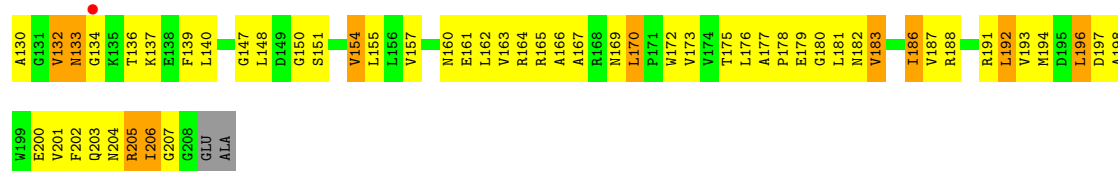


• Molecule 40: 50S RIBOSOMAL PROTEIN L4

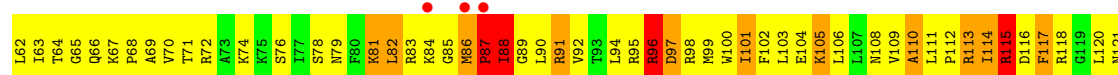
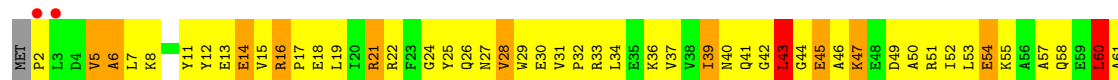


• Molecule 40: 50S RIBOSOMAL PROTEIN L4

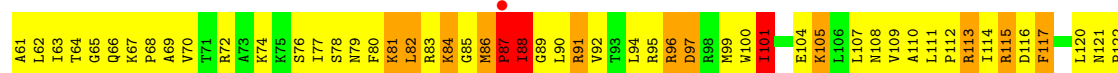
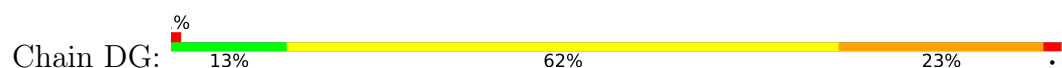




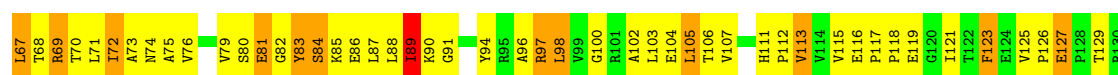
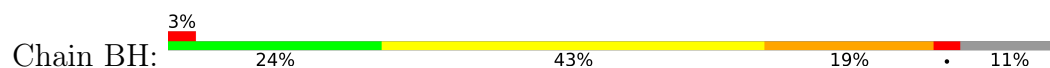
• Molecule 41: 50S RIBOSOMAL PROTEIN L5



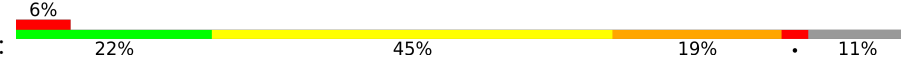
• Molecule 41: 50S RIBOSOMAL PROTEIN L5

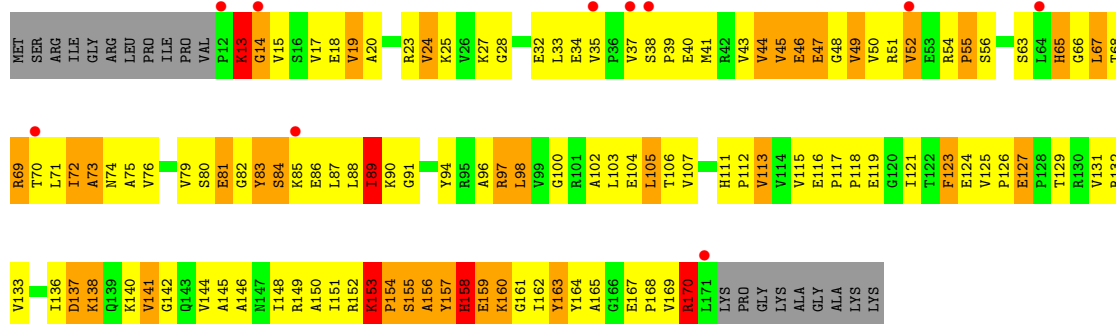


• Molecule 42: 50S RIBOSOMAL PROTEIN L6

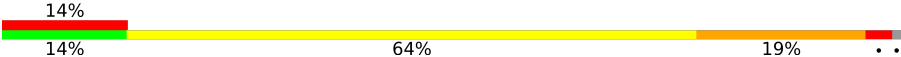


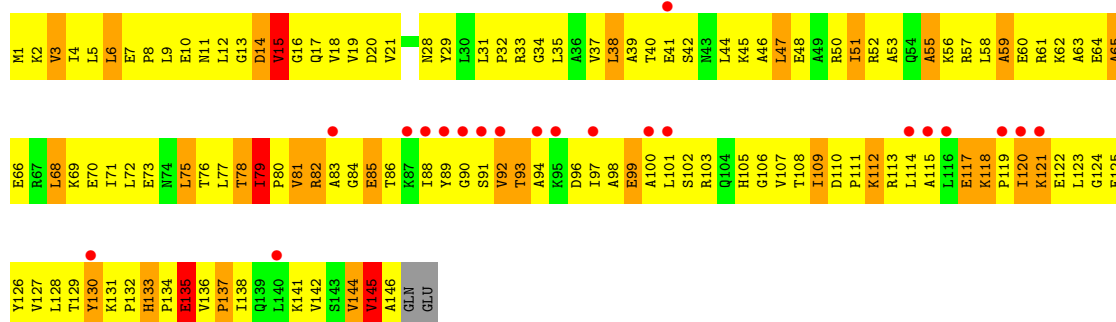
• Molecule 42: 50S RIBOSOMAL PROTEIN L6

Chain DH: 

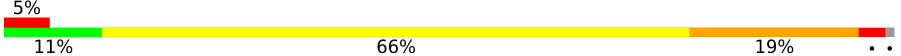


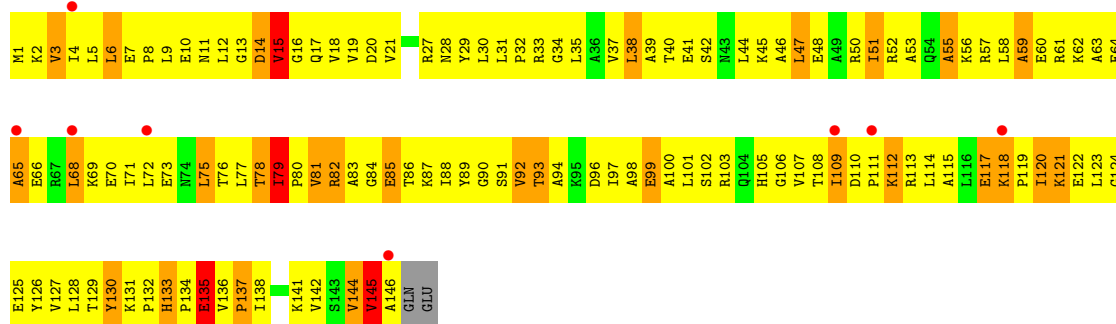
• Molecule 43: 50S RIBOSOMAL PROTEIN L9

Chain BI: 

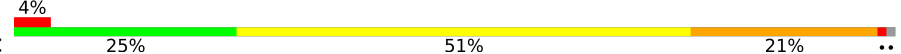


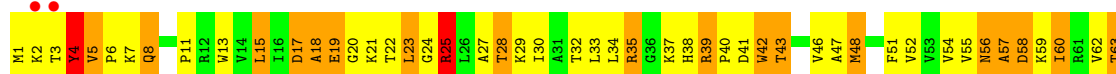
• Molecule 43: 50S RIBOSOMAL PROTEIN L9

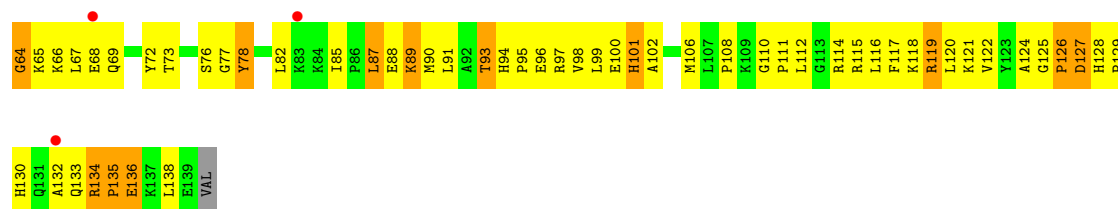
Chain DI: 



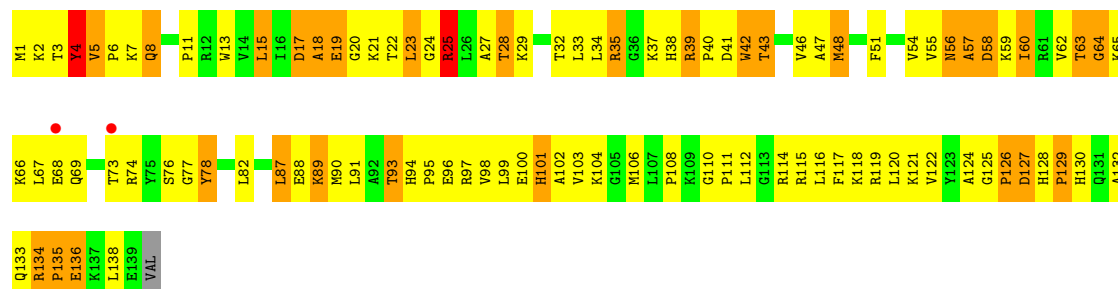
• Molecule 44: 50S RIBOSOMAL PROTEIN L13

Chain BN: 

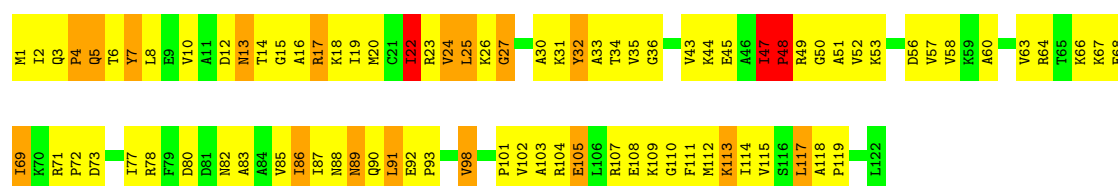




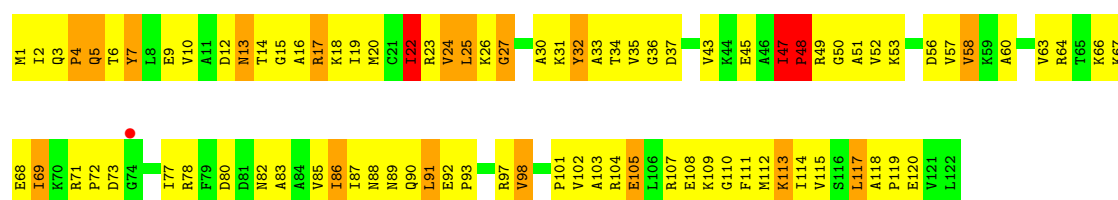
● Molecule 44: 50S RIBOSOMAL PROTEIN L13



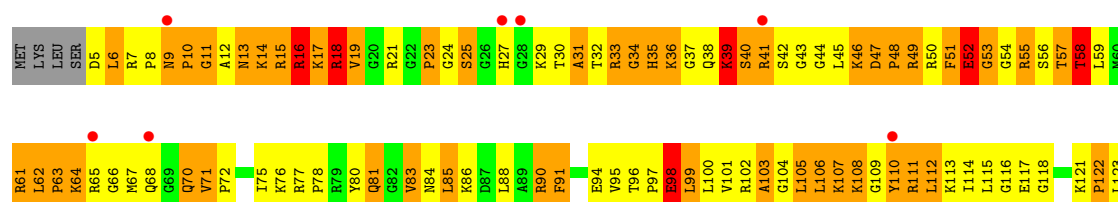
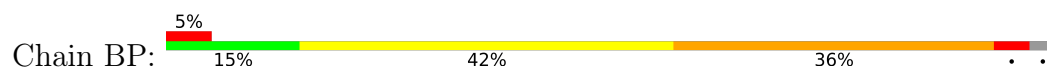
● Molecule 45: 50S RIBOSOMAL PROTEIN L14



● Molecule 45: 50S RIBOSOMAL PROTEIN L14

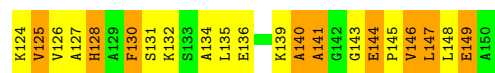
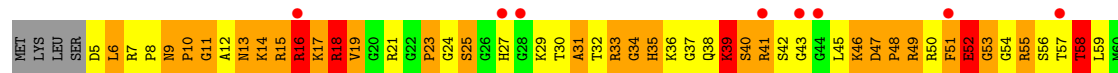
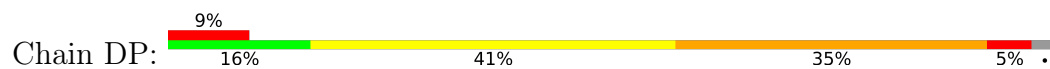


● Molecule 46: 50S RIBOSOMAL PROTEIN L15

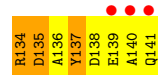




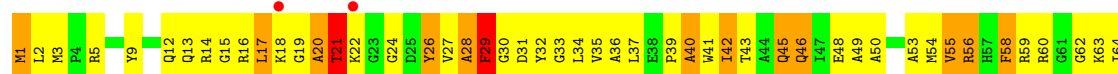
• Molecule 46: 50S RIBOSOMAL PROTEIN L15



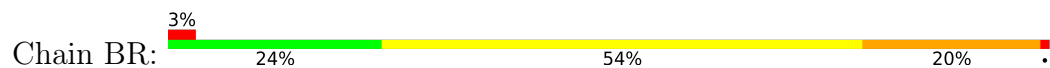
• Molecule 47: 50S RIBOSOMAL PROTEIN L16

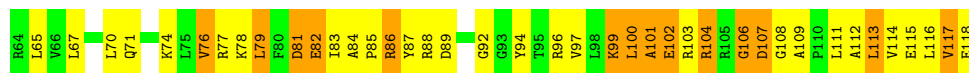
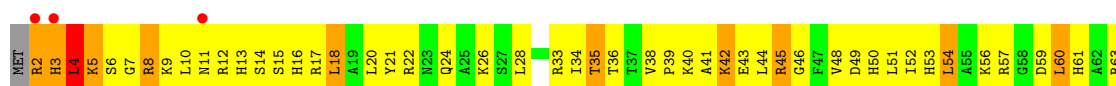


• Molecule 47: 50S RIBOSOMAL PROTEIN L16

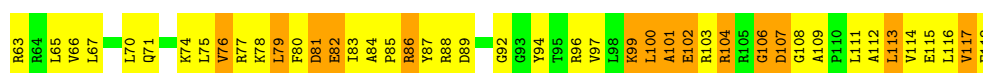
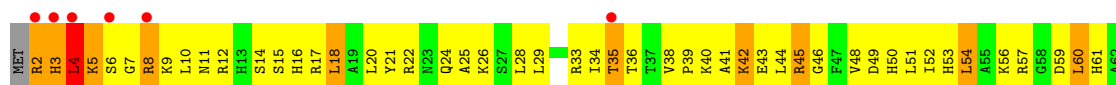


• Molecule 48: 50S RIBOSOMAL PROTEIN L17

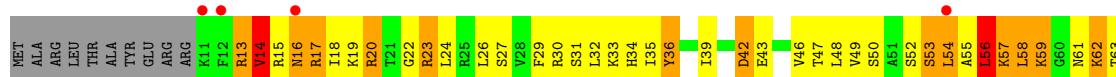
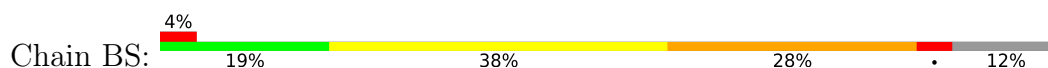




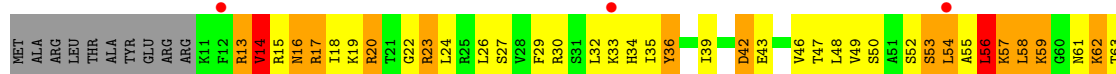
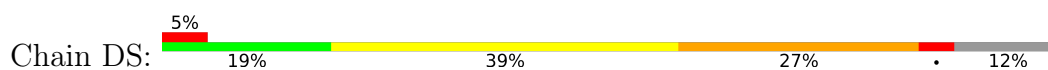
• Molecule 48: 50S RIBOSOMAL PROTEIN L17



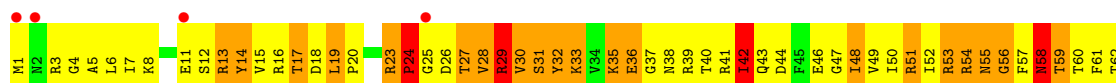
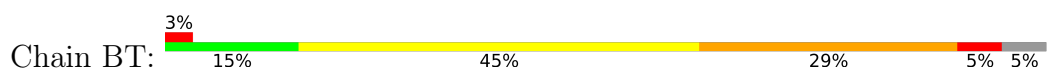
• Molecule 49: 50S RIBOSOMAL PROTEIN L18

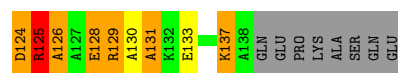


• Molecule 49: 50S RIBOSOMAL PROTEIN L18

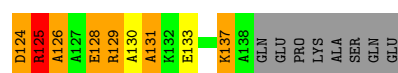
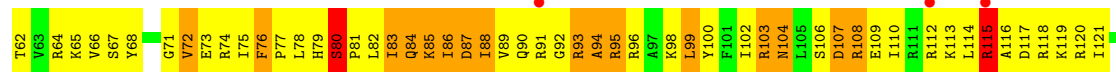
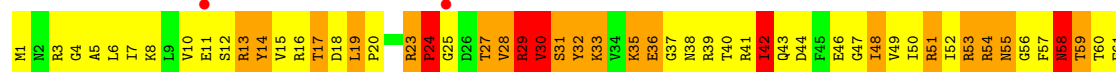
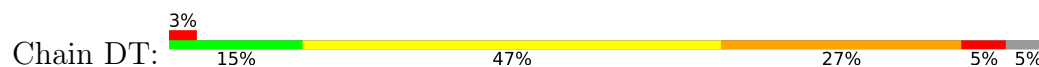


• Molecule 50: 50S RIBOSOMAL PROTEIN L19

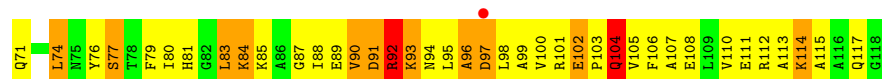
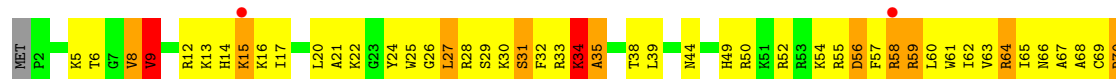




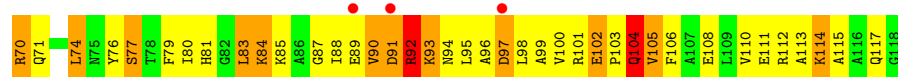
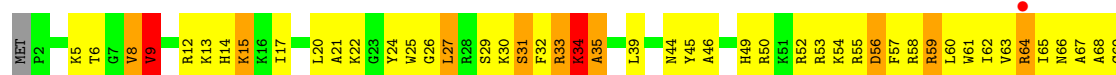
• Molecule 50: 50S RIBOSOMAL PROTEIN L19



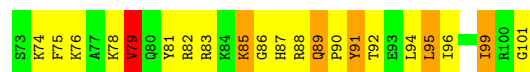
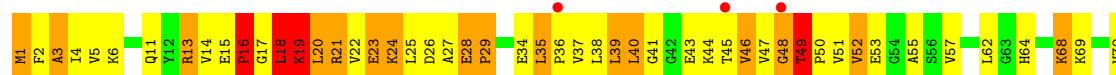
• Molecule 51: 50S RIBOSOMAL PROTEIN L20



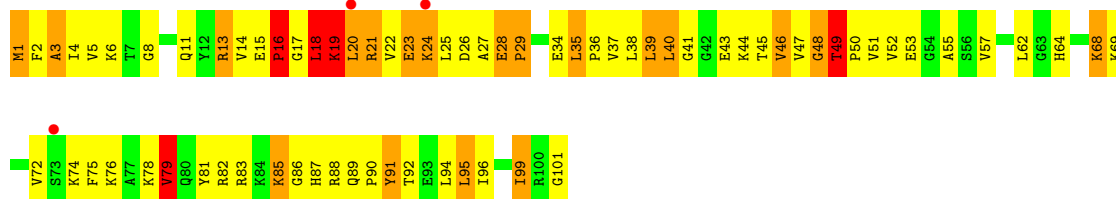
• Molecule 51: 50S RIBOSOMAL PROTEIN L20



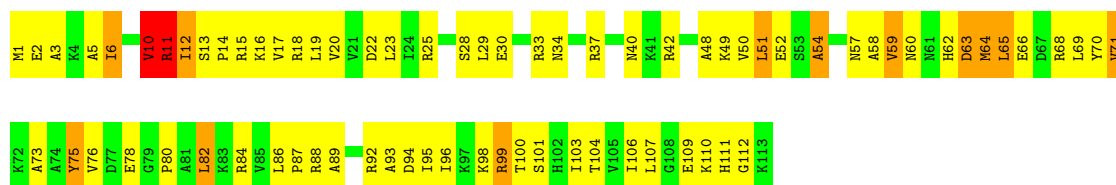
• Molecule 52: 50S RIBOSOMAL PROTEIN L21



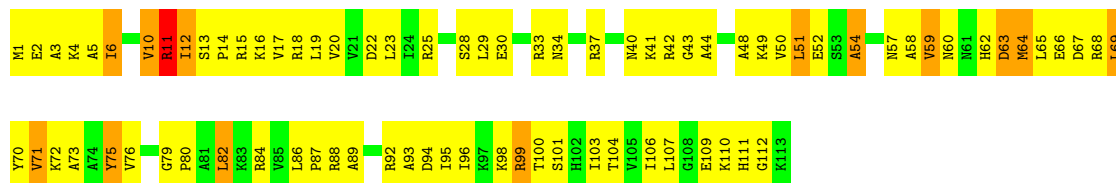
• Molecule 52: 50S RIBOSOMAL PROTEIN L21



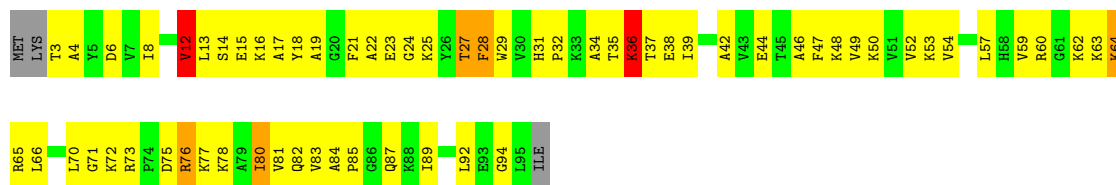
• Molecule 53: 50S RIBOSOMAL PROTEIN L22



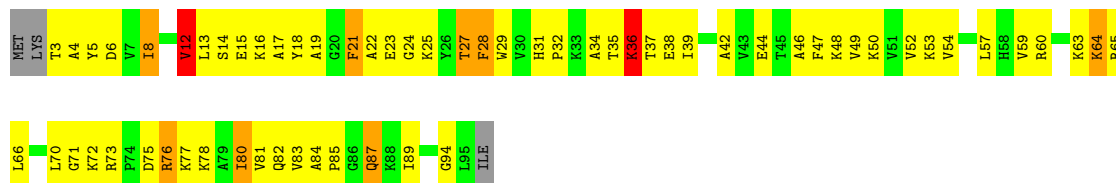
• Molecule 53: 50S RIBOSOMAL PROTEIN L22



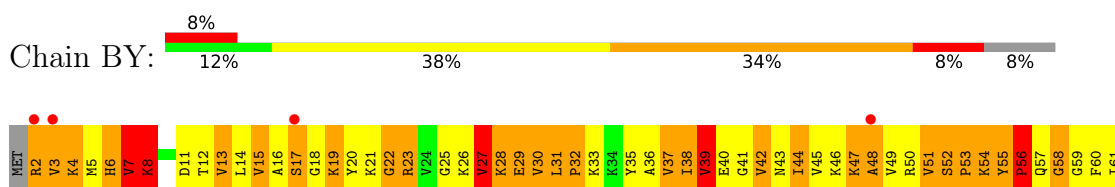
• Molecule 54: 50S RIBOSOMAL PROTEIN L23



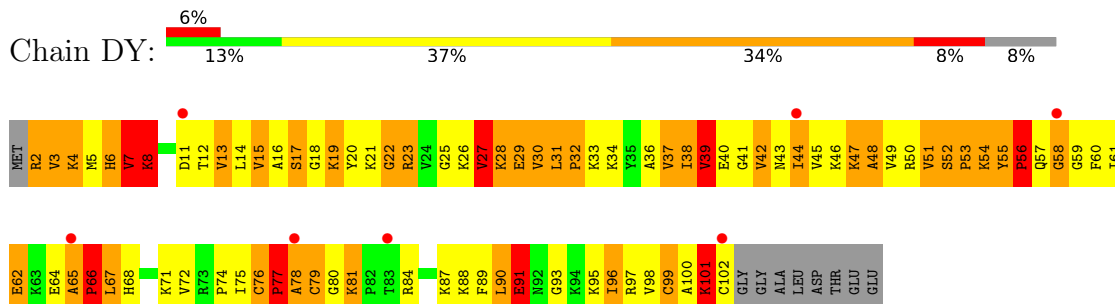
• Molecule 54: 50S RIBOSOMAL PROTEIN L23



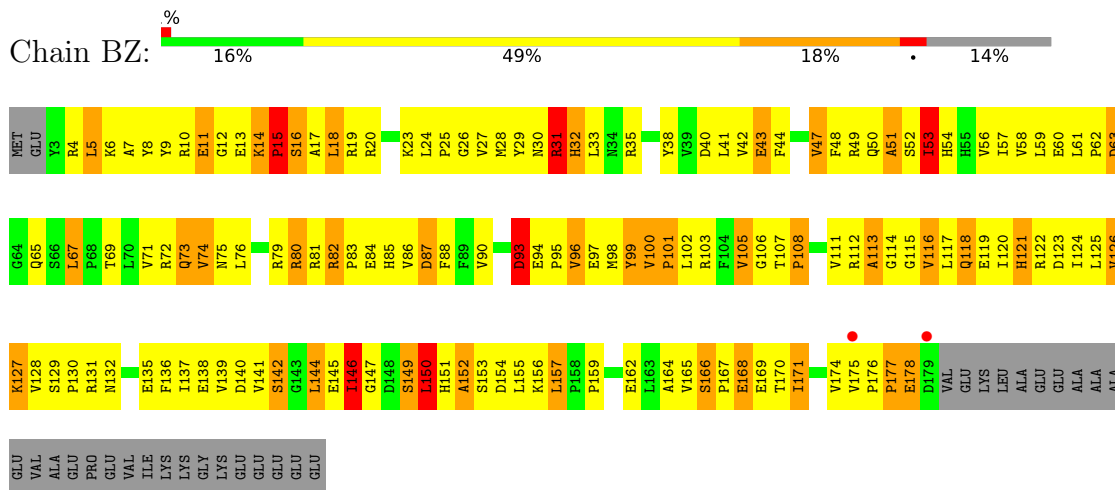
• Molecule 55: 50S RIBOSOMAL PROTEIN L24



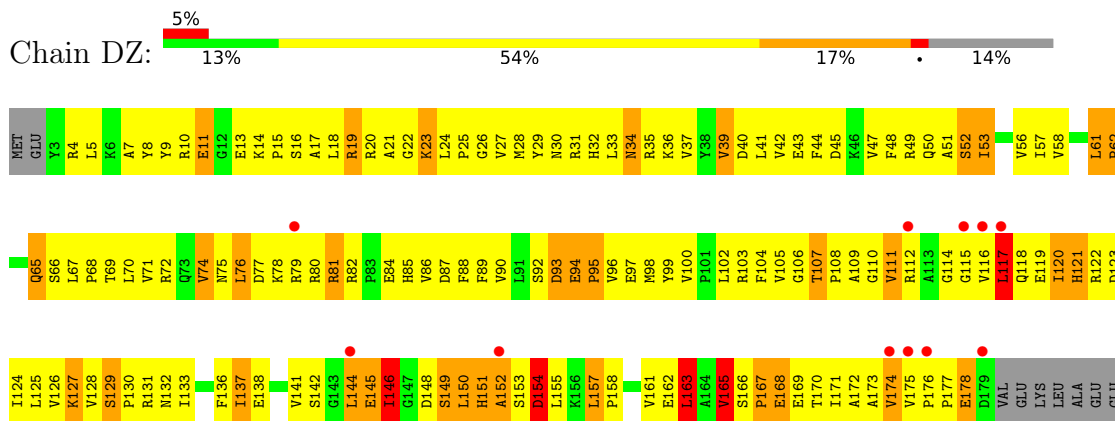
• Molecule 55: 50S RIBOSOMAL PROTEIN L24



• Molecule 56: 50S RIBOSOMAL PROTEIN L25



• Molecule 56: 50S RIBOSOMAL PROTEIN L25



ALA
ALA
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LYS
LYS
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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 50.00 – 3.50	Depositor EDS
% Data completeness (in resolution range)	99.1 (50.00-3.50) 99.0 (50.00-3.50)	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 0.208 , 0.255	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)	0.29 , 97.5	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: 8AN, PAR, PHA, ZN, MG

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	0.63	37/56486 (0.1%)
1	CA	0.42	0/36190	0.63	36/56486 (0.1%)
2	AB	0.39	1/1936 (0.1%)	0.99	15/2611 (0.6%)
2	CB	0.38	1/1936 (0.1%)	0.98	13/2611 (0.5%)
3	AC	0.41	1/1637 (0.1%)	0.87	3/2207 (0.1%)
3	CC	0.40	1/1637 (0.1%)	0.85	2/2207 (0.1%)
4	AD	0.43	0/1733	1.00	8/2318 (0.3%)
4	CD	0.42	0/1733	1.01	10/2318 (0.4%)
5	AE	0.46	1/1163 (0.1%)	1.00	3/1566 (0.2%)
5	CE	0.44	1/1163 (0.1%)	0.99	4/1566 (0.3%)
6	AF	0.45	0/856	1.03	5/1154 (0.4%)
6	CF	0.42	0/856	1.03	6/1154 (0.5%)
7	AG	0.39	0/1276	0.96	5/1709 (0.3%)
7	CG	0.38	0/1276	0.95	5/1709 (0.3%)
8	AH	0.40	0/1136	1.04	9/1527 (0.6%)
8	CH	0.38	0/1136	1.05	9/1527 (0.6%)
9	AI	0.36	0/1027	0.91	5/1372 (0.4%)
9	CI	0.36	0/1027	0.91	5/1372 (0.4%)
10	AJ	0.46	1/808 (0.1%)	0.93	2/1087 (0.2%)
10	CJ	0.45	1/808 (0.1%)	0.92	2/1087 (0.2%)
11	AK	0.45	0/900	0.98	5/1213 (0.4%)
11	CK	0.42	0/900	0.99	5/1213 (0.4%)
12	AL	0.49	1/987 (0.1%)	1.01	6/1322 (0.5%)
12	CL	0.46	1/987 (0.1%)	1.01	6/1322 (0.5%)
13	AM	0.45	1/996 (0.1%)	1.05	10/1329 (0.8%)
13	CM	0.44	1/996 (0.1%)	1.04	10/1329 (0.8%)
14	AN	0.38	0/501	0.84	1/664 (0.2%)
14	CN	0.37	0/501	0.83	1/664 (0.2%)
15	AO	0.44	0/745	0.91	0/992
15	CO	0.41	0/745	0.91	0/992
16	AP	0.47	1/717 (0.1%)	0.99	5/965 (0.5%)
16	CP	0.47	1/717 (0.1%)	0.99	5/965 (0.5%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	AQ	0.44	1/837 (0.1%)	0.89	3/1119 (0.3%)
17	CQ	0.43	1/837 (0.1%)	0.91	3/1119 (0.3%)
18	AR	0.42	0/579	0.90	2/768 (0.3%)
18	CR	0.41	0/579	0.88	2/768 (0.3%)
19	AS	0.46	1/643 (0.2%)	0.98	3/867 (0.3%)
19	CS	0.45	1/643 (0.2%)	0.98	3/867 (0.3%)
20	AT	0.37	0/765	0.99	3/1007 (0.3%)
20	CT	0.36	0/765	0.98	3/1007 (0.3%)
21	AU	0.57	1/213 (0.5%)	0.98	0/279
21	CU	0.56	1/213 (0.5%)	0.97	0/279
22	AV	0.40	0/1784	0.68	0/2780
22	AY	0.50	0/1784	0.68	2/2780 (0.1%)
22	CV	0.39	0/1784	0.64	0/2780
22	CY	0.45	0/1784	0.62	1/2780 (0.0%)
23	AW	0.44	0/1809	0.61	0/2819
23	CW	0.43	0/1809	0.60	0/2819
24	AX	0.43	0/253	0.68	0/391
24	CX	0.42	0/253	0.66	1/391 (0.3%)
25	B0	0.53	0/671	1.05	3/892 (0.3%)
25	D0	0.46	0/671	1.00	3/892 (0.3%)
26	B1	0.61	1/739 (0.1%)	1.18	2/983 (0.2%)
26	D1	0.57	0/739	1.08	2/983 (0.2%)
27	B2	0.56	0/600	1.13	6/793 (0.8%)
27	D2	0.46	0/600	0.94	1/793 (0.1%)
28	B3	0.59	1/473 (0.2%)	1.15	5/636 (0.8%)
28	D3	0.50	1/473 (0.2%)	1.10	5/636 (0.8%)
29	B4	0.61	1/229 (0.4%)	0.97	0/311
29	D4	0.58	1/229 (0.4%)	0.95	0/311
30	B5	0.74	0/473	1.53	11/639 (1.7%)
30	D5	0.61	0/473	1.50	11/639 (1.7%)
31	B6	0.69	1/387 (0.3%)	1.09	2/517 (0.4%)
31	D6	0.65	1/387 (0.3%)	1.07	3/517 (0.6%)
32	B7	0.67	1/427 (0.2%)	1.11	2/563 (0.4%)
32	D7	0.61	1/427 (0.2%)	1.09	3/563 (0.5%)
33	B8	0.75	1/516 (0.2%)	1.42	8/681 (1.2%)
33	D8	0.64	1/516 (0.2%)	1.42	8/681 (1.2%)
34	B9	0.43	0/302	0.87	0/397
34	D9	0.39	0/302	0.88	0/397
35	BA	0.48	4/67716 (0.0%)	0.72	70/105718 (0.1%)
35	DA	0.44	3/67716 (0.0%)	0.70	60/105718 (0.1%)
36	BB	0.44	0/2853	0.73	3/4451 (0.1%)
36	DB	0.40	0/2853	0.70	3/4451 (0.1%)
37	BC	0.54	1/1143 (0.1%)	1.06	11/1552 (0.7%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
37	DC	0.55	1/1145 (0.1%)	1.07	11/1556 (0.7%)
38	BD	0.65	0/2155	1.21	16/2907 (0.6%)
38	DD	0.58	1/2155 (0.0%)	1.19	20/2907 (0.7%)
39	BE	0.63	1/1597 (0.1%)	1.19	14/2155 (0.6%)
39	DE	0.52	1/1597 (0.1%)	1.16	15/2155 (0.7%)
40	BF	0.59	1/1659 (0.1%)	1.13	16/2246 (0.7%)
40	DF	0.51	1/1659 (0.1%)	1.09	11/2246 (0.5%)
41	BG	0.51	0/1498	1.16	13/2013 (0.6%)
41	DG	0.47	0/1498	1.14	16/2013 (0.8%)
42	BH	0.55	1/1246 (0.1%)	1.16	10/1684 (0.6%)
42	DH	0.46	1/1246 (0.1%)	1.12	10/1684 (0.6%)
43	BI	0.50	1/1147 (0.1%)	1.04	7/1553 (0.5%)
43	DI	0.47	1/1147 (0.1%)	1.02	7/1553 (0.5%)
44	BN	0.60	1/1132 (0.1%)	1.20	10/1527 (0.7%)
44	DN	0.49	1/1132 (0.1%)	1.16	10/1527 (0.7%)
45	BO	0.59	0/943	1.06	6/1269 (0.5%)
45	DO	0.48	0/943	1.02	7/1269 (0.6%)
46	BP	0.64	0/1131	1.40	18/1504 (1.2%)
46	DP	0.55	0/1131	1.36	19/1504 (1.3%)
47	BQ	0.54	0/1143	1.05	6/1527 (0.4%)
47	DQ	0.48	0/1143	1.04	5/1527 (0.3%)
48	BR	0.59	0/974	1.11	4/1302 (0.3%)
48	DR	0.51	0/974	1.07	5/1302 (0.4%)
49	BS	0.59	1/779 (0.1%)	1.12	6/1038 (0.6%)
49	DS	0.51	1/779 (0.1%)	1.09	5/1038 (0.5%)
50	BT	0.55	1/1156 (0.1%)	1.24	23/1544 (1.5%)
50	DT	0.49	1/1156 (0.1%)	1.22	21/1544 (1.4%)
51	BU	0.63	0/975	1.36	12/1297 (0.9%)
51	DU	0.51	0/975	1.29	10/1297 (0.8%)
52	BV	0.56	0/790	1.02	3/1057 (0.3%)
52	DV	0.44	0/790	0.99	3/1057 (0.3%)
53	BW	0.63	0/907	1.10	6/1216 (0.5%)
53	DW	0.54	0/907	1.07	7/1216 (0.6%)
54	BX	0.61	1/740 (0.1%)	1.03	1/995 (0.1%)
54	DX	0.54	1/740 (0.1%)	1.02	1/995 (0.1%)
55	BY	0.71	1/789 (0.1%)	1.26	12/1053 (1.1%)
55	DY	0.64	1/789 (0.1%)	1.24	11/1053 (1.0%)
56	BZ	0.54	1/1436 (0.1%)	1.11	14/1951 (0.7%)
56	DZ	0.46	1/1436 (0.1%)	1.04	9/1951 (0.5%)
All	All	0.46	61/320004 (0.0%)	0.81	886/478610 (0.2%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected

by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
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 (61) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	652	C	O5'-C5'	7.12	1.53	1.42
35	BA	656	G	O5'-C5'	7.03	1.53	1.42
35	BA	652	C	C3'-O3'	6.81	1.53	1.43
35	DA	656	G	O5'-C5'	6.78	1.52	1.42
35	DA	652	C	O5'-C5'	6.75	1.52	1.42
35	DA	652	C	C3'-O3'	6.28	1.52	1.43
29	B4	65	CYS	C-N	-5.92	1.25	1.33
32	B7	48	LYS	C-N	-5.87	1.25	1.33
42	BH	170	ARG	C-N	-5.83	1.25	1.33
43	DI	145	VAL	C-N	-5.83	1.25	1.33
16	AP	83	GLU	C-N	-5.80	1.25	1.33
50	BT	137	LYS	C-N	-5.77	1.25	1.33
32	D7	48	LYS	C-N	-5.76	1.25	1.33
33	D8	64	TYR	C-N	-5.75	1.25	1.33
44	DN	138	LEU	C-N	-5.74	1.25	1.33
2	CB	240	GLN	C-N	-5.74	1.25	1.33
42	DH	170	ARG	C-N	-5.74	1.25	1.33
10	CJ	100	THR	C-N	-5.72	1.25	1.33
28	D3	59	VAL	C-N	-5.71	1.25	1.33
29	D4	65	CYS	C-N	-5.71	1.25	1.33
13	AM	125	ARG	C-N	-5.70	1.25	1.33
37	BC	223	ARG	C-N	-5.70	1.25	1.33
55	BY	101	LYS	C-N	-5.70	1.25	1.33
21	CU	25	LYS	C-N	-5.68	1.25	1.33
50	DT	137	LYS	C-N	-5.67	1.25	1.33
54	BX	94	GLY	C-N	-5.67	1.25	1.33
43	BI	145	VAL	C-N	-5.67	1.25	1.33
5	AE	154	GLY	C-N	-5.67	1.25	1.33
40	BF	207	GLY	C-N	-5.65	1.25	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	BN	138	LEU	C-N	-5.65	1.25	1.33
54	DX	94	GLY	C-N	-5.64	1.25	1.33
2	AB	240	GLN	C-N	-5.63	1.25	1.33
16	CP	83	GLU	C-N	-5.62	1.25	1.33
39	DE	204	ALA	C-N	-5.62	1.25	1.33
13	CM	125	ARG	C-N	-5.61	1.25	1.33
10	AJ	100	THR	C-N	-5.60	1.25	1.33
17	AQ	100	LYS	C-N	-5.60	1.25	1.33
12	CL	128	ALA	C-N	-5.60	1.25	1.33
37	DC	223	ARG	C-N	-5.59	1.25	1.33
40	DF	207	GLY	C-N	-5.59	1.25	1.33
21	AU	25	LYS	C-N	-5.59	1.25	1.33
5	CE	154	GLY	C-N	-5.57	1.25	1.33
33	B8	64	TYR	C-N	-5.57	1.25	1.33
56	DZ	178	GLU	C-N	-5.57	1.25	1.33
12	AL	128	ALA	C-N	-5.55	1.25	1.33
19	AS	81	ARG	C-N	-5.53	1.25	1.33
17	CQ	100	LYS	C-N	-5.51	1.25	1.33
49	DS	108	GLY	C-N	-5.51	1.25	1.33
31	B6	52	VAL	C-N	-5.49	1.25	1.33
3	AC	207	VAL	C-N	-5.49	1.25	1.33
19	CS	81	ARG	C-N	-5.48	1.25	1.33
56	BZ	178	GLU	C-N	-5.48	1.25	1.33
31	D6	52	VAL	C-N	-5.48	1.25	1.33
39	BE	204	ALA	C-N	-5.48	1.25	1.33
55	DY	101	LYS	C-N	-5.44	1.25	1.33
28	B3	59	VAL	C-N	-5.44	1.25	1.33
3	CC	207	VAL	C-N	-5.41	1.25	1.33
49	BS	108	GLY	C-N	-5.23	1.26	1.33
26	B1	95	LEU	C-N	-5.13	1.26	1.33
35	BA	652	C	O3'-P	5.05	1.68	1.61
38	DD	272	ALA	C-N	-5.01	1.26	1.33

All (886) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	BU	34	LYS	N-CA-C	-18.54	93.49	114.62
51	DU	34	LYS	N-CA-C	-18.42	93.62	114.62
33	D8	32	LEU	N-CA-C	-15.40	93.96	111.82
33	B8	32	LEU	N-CA-C	-14.93	94.50	111.82
35	BA	283	A	C2'-C3'-O3'	13.79	130.18	109.50
49	BS	16	ASN	N-CA-C	-13.73	95.86	112.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1799	G	C2'-C3'-O3'	13.71	130.07	109.50
49	DS	16	ASN	N-CA-C	-13.64	95.98	112.89
35	DA	1799	G	C2'-C3'-O3'	13.61	129.91	109.50
35	BA	1819	A	C2'-C3'-O3'	13.49	129.73	109.50
35	BA	1378	A	C2'-C3'-O3'	13.47	129.70	109.50
35	DA	1378	A	C2'-C3'-O3'	13.44	129.66	109.50
35	DA	283	A	C2'-C3'-O3'	13.43	129.64	109.50
42	BH	72	ILE	N-CA-C	-13.02	100.62	111.81
51	DU	97	ASP	N-CA-C	-12.94	97.46	113.38
51	BU	97	ASP	N-CA-C	-12.93	97.48	113.38
35	BA	387	U	C2'-C3'-O3'	12.85	128.78	109.50
35	DA	387	U	C2'-C3'-O3'	12.81	128.72	109.50
35	DA	1819	A	C2'-C3'-O3'	12.68	128.52	109.50
35	BA	1653	G	C2'-C3'-O3'	12.33	127.99	109.50
46	BP	52	GLU	N-CA-C	12.30	137.00	110.80
30	D5	37	LYS	N-CA-C	-12.26	98.33	113.28
46	DP	52	GLU	N-CA-C	12.19	136.76	110.80
30	B5	37	LYS	N-CA-C	-12.07	98.56	113.28
41	DG	54	GLU	N-CA-C	-12.04	98.61	113.18
1	AA	366	C	C2'-C3'-O3'	11.88	127.33	109.50
1	CA	575	G	C2'-C3'-O3'	11.74	127.11	109.50
46	BP	54	GLY	N-CA-C	-11.71	98.54	115.64
1	CA	366	C	C2'-C3'-O3'	11.71	127.06	109.50
1	AA	575	G	C2'-C3'-O3'	11.70	127.05	109.50
46	DP	54	GLY	N-CA-C	-11.64	98.64	115.64
35	DA	1653	G	C2'-C3'-O3'	11.35	126.53	109.50
30	B5	46	CYS	CA-C-N	11.32	133.99	119.84
30	B5	46	CYS	C-N-CA	11.32	133.99	119.84
30	D5	46	CYS	CA-C-N	11.31	133.98	119.84
30	D5	46	CYS	C-N-CA	11.31	133.98	119.84
35	BA	2225	A	C2'-C3'-O3'	11.01	126.01	109.50
33	D8	45	GLY	N-CA-C	-10.80	97.91	112.81
35	DA	2225	A	C2'-C3'-O3'	10.69	125.53	109.50
48	BR	5	LYS	N-CA-C	-10.57	100.50	113.50
41	BG	54	GLU	N-CA-C	-10.40	100.19	113.72
44	BN	132	ALA	N-CA-C	-10.35	100.51	113.55
35	BA	272	G	C2'-C3'-O3'	10.26	124.89	109.50
4	CD	12	CYS	N-CA-C	-10.18	99.10	112.34
4	AD	12	CYS	N-CA-C	-10.17	99.12	112.34
35	BA	1992	G	C2'-C3'-O3'	10.13	124.70	109.50
35	DA	1992	G	C2'-C3'-O3'	10.12	124.68	109.50
1	AA	115	G	C2'-C3'-O3'	10.11	124.67	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	B8	45	GLY	N-CA-C	-10.11	98.86	112.81
35	DA	272	G	C2'-C3'-O3'	10.05	124.58	109.50
1	AA	1064	G	C2'-C3'-O3'	9.99	124.49	109.50
46	DP	116	GLY	N-CA-C	9.97	123.14	110.38
1	CA	1064	G	C2'-C3'-O3'	9.92	124.37	109.50
46	BP	116	GLY	N-CA-C	9.91	123.06	110.38
48	DR	5	LYS	N-CA-C	-9.84	101.40	113.50
44	DN	132	ALA	N-CA-C	-9.76	101.26	113.55
43	DI	68	LEU	N-CA-C	-9.74	101.75	114.31
48	BR	57	ARG	N-CA-C	-9.72	98.00	110.53
1	CA	115	G	C2'-C3'-O3'	9.70	124.04	109.50
48	DR	57	ARG	N-CA-C	-9.61	98.13	110.53
4	CD	208	SER	N-CA-C	-9.47	101.27	112.92
42	DH	72	ILE	N-CA-C	-9.43	101.59	111.58
1	CA	1504	G	C2'-C3'-O3'	9.38	123.56	109.50
41	DG	47	LYS	N-CA-C	9.34	116.44	108.78
35	BA	1378	A	C4'-C3'-O3'	9.30	123.35	109.40
46	BP	53	GLY	N-CA-C	-9.12	91.55	113.18
1	AA	1067	A	C2'-C3'-O3'	9.03	123.04	109.50
43	BI	68	LEU	N-CA-C	-9.02	102.67	114.31
11	AK	40	ILE	N-CA-C	-9.01	103.11	111.67
35	DA	1378	A	C4'-C3'-O3'	8.99	122.89	109.40
4	AD	208	SER	N-CA-C	-8.96	101.31	112.88
1	CA	1067	A	C2'-C3'-O3'	8.96	122.93	109.50
46	BP	44	GLY	N-CA-C	8.95	123.44	111.72
35	DA	283	A	C4'-C3'-O3'	8.95	122.82	109.40
46	DP	41	ARG	N-CA-C	-8.91	91.29	107.60
46	DP	53	GLY	N-CA-C	-8.91	92.07	113.18
50	BT	125	ARG	N-CA-C	-8.90	102.43	113.20
51	BU	58	ARG	N-CA-C	-8.90	100.56	111.33
35	DA	1799	G	C4'-C3'-O3'	8.89	122.74	109.40
52	DV	49	THR	CA-C-N	-8.88	109.77	119.19
52	DV	49	THR	C-N-CA	-8.88	109.77	119.19
50	DT	125	ARG	N-CA-C	-8.87	102.47	113.20
56	BZ	171	ILE	N-CA-C	8.83	119.78	111.48
35	BA	1799	G	C4'-C3'-O3'	8.79	122.59	109.40
11	CK	40	ILE	N-CA-C	-8.77	103.34	111.67
52	BV	49	THR	CA-C-N	-8.77	109.89	119.19
52	BV	49	THR	C-N-CA	-8.77	109.89	119.19
46	BP	41	ARG	N-CA-C	-8.71	91.66	107.60
35	BA	283	A	C4'-C3'-O3'	8.71	122.46	109.40
1	AA	428	G	C2'-C3'-O3'	8.54	122.31	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1819	A	C4'-C3'-O3'	8.54	122.20	109.40
1	AA	1504	G	C2'-C3'-O3'	8.48	122.22	109.50
42	BH	67	LEU	N-CA-C	-8.42	102.91	113.01
45	BO	51	ALA	N-CA-C	-8.41	102.93	113.02
4	AD	11	LEU	N-CA-C	-8.40	103.16	113.41
4	CD	11	LEU	N-CA-C	-8.39	103.18	113.50
2	AB	23	ARG	N-CA-C	-8.37	101.49	113.21
2	CB	23	ARG	N-CA-C	-8.28	101.61	113.21
50	BT	30	VAL	N-CA-C	8.27	126.54	109.34
1	CA	428	G	C2'-C3'-O3'	8.26	121.88	109.50
30	B5	41	PRO	N-CA-C	-8.25	100.63	110.70
46	DP	51	PHE	N-CA-C	8.20	121.11	110.53
50	DT	30	VAL	N-CA-C	8.15	126.30	109.34
1	AA	1201	A	C2'-C3'-O3'	8.13	121.70	109.50
1	AA	687	A	C2'-C3'-O3'	8.10	121.64	109.50
45	DO	51	ALA	N-CA-C	-8.09	103.31	113.02
46	BP	51	PHE	N-CA-C	8.08	120.95	110.53
44	BN	43	THR	CA-C-N	8.02	129.87	119.84
44	BN	43	THR	C-N-CA	8.02	129.87	119.84
1	CA	687	A	C2'-C3'-O3'	7.98	121.48	109.50
44	BN	18	ALA	N-CA-C	-7.97	102.36	113.20
43	DI	135	GLU	N-CA-C	7.96	118.76	108.34
30	D5	41	PRO	N-CA-C	-7.92	101.03	110.70
35	BA	1819	A	C4'-C3'-O3'	7.90	121.25	109.40
1	CA	1201	A	C2'-C3'-O3'	7.88	121.32	109.50
35	BA	387	U	C4'-C3'-O3'	7.87	121.20	109.40
55	BY	13	VAL	N-CA-C	7.84	118.09	108.53
39	BE	125	GLY	CA-C-N	7.79	127.72	119.85
39	BE	125	GLY	C-N-CA	7.79	127.72	119.85
42	DH	67	LEU	N-CA-C	-7.79	103.66	113.01
1	AA	1285	A	C2'-C3'-O3'	7.78	121.17	109.50
35	DA	387	U	C4'-C3'-O3'	7.78	121.07	109.40
44	DN	43	THR	CA-C-N	7.78	129.56	119.84
44	DN	43	THR	C-N-CA	7.78	129.56	119.84
43	BI	135	GLU	N-CA-C	7.78	118.53	108.34
39	BE	203	LYS	N-CA-C	-7.76	103.61	113.23
51	DU	35	ALA	N-CA-C	-7.70	102.97	111.36
47	DQ	83	MET	N-CA-C	7.70	120.26	110.33
35	DA	784	A	C2'-C3'-O3'	-7.69	102.17	113.70
35	BA	1558	A	C2'-C3'-O3'	7.69	121.03	109.50
35	BA	1427	A	C2'-C3'-O3'	7.68	121.02	109.50
35	DA	1558	A	C2'-C3'-O3'	7.68	121.02	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	DE	125	GLY	CA-C-N	7.68	127.60	119.85
39	DE	125	GLY	C-N-CA	7.68	127.60	119.85
47	DQ	125	LEU	CA-C-N	7.67	129.43	119.84
47	DQ	125	LEU	C-N-CA	7.67	129.43	119.84
33	D8	38	GLY	N-CA-C	-7.64	103.50	112.83
19	CS	44	MET	N-CA-C	-7.64	103.98	113.38
1	CA	913	A	C2'-C3'-O3'	7.63	120.94	109.50
20	AT	12	ALA	N-CA-C	-7.62	104.01	113.38
51	BU	56	ASP	N-CA-C	-7.60	103.46	112.89
19	AS	44	MET	N-CA-C	-7.60	104.03	113.38
33	B8	38	GLY	N-CA-C	-7.60	103.56	112.83
50	BT	23	ARG	CA-C-N	7.58	129.32	119.84
50	BT	23	ARG	C-N-CA	7.58	129.32	119.84
43	DI	65	ALA	N-CA-C	-7.58	104.17	113.50
35	BA	474	G	C2'-C3'-O3'	7.58	120.86	109.50
1	CA	1285	A	C2'-C3'-O3'	7.55	120.83	109.50
50	DT	124	ASP	N-CA-C	-7.55	104.68	114.04
44	BN	25	ARG	N-CA-C	-7.54	103.08	111.82
44	DN	25	ARG	N-CA-C	-7.53	103.08	111.82
41	BG	88	ILE	N-CA-C	7.53	120.87	109.20
47	BQ	125	LEU	CA-C-N	7.53	129.25	119.84
47	BQ	125	LEU	C-N-CA	7.53	129.25	119.84
41	DG	20	ILE	N-CA-C	-7.51	102.96	110.62
1	AA	913	A	C2'-C3'-O3'	7.49	120.74	109.50
51	BU	35	ALA	N-CA-C	-7.48	103.14	111.82
31	D6	42	TRP	N-CA-C	-7.47	103.42	112.54
33	D8	54	GLU	N-CA-C	-7.47	103.08	111.07
55	DY	13	VAL	N-CA-C	7.47	117.64	108.53
28	B3	15	TYR	CA-C-N	7.46	127.51	119.90
28	B3	15	TYR	C-N-CA	7.46	127.51	119.90
13	CM	92	HIS	N-CA-C	-7.45	101.92	112.13
12	AL	119	LYS	N-CA-C	-7.42	98.47	110.20
41	BG	30	GLU	N-CA-C	-7.40	103.51	112.54
1	AA	60	A	C2'-C3'-O3'	7.40	120.60	109.50
50	BT	124	ASP	N-CA-C	-7.39	104.87	114.04
13	AM	92	HIS	N-CA-C	-7.38	102.02	112.13
13	AM	11	ARG	N-CA-C	7.36	118.32	108.38
1	CA	328	C	C2'-C3'-O3'	7.35	120.52	109.50
39	DE	203	LYS	N-CA-C	-7.35	104.12	113.23
1	AA	533	A	C2'-C3'-O3'	7.34	120.50	109.50
12	CL	119	LYS	N-CA-C	-7.32	98.63	110.20
43	BI	65	ALA	N-CA-C	-7.31	104.50	113.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	992	U	C2'-C3'-O3'	7.31	120.47	109.50
35	BA	784	A	C2'-C3'-O3'	-7.30	102.75	113.70
13	CM	11	ARG	N-CA-C	7.26	118.19	108.38
38	DD	212	SER	N-CA-C	-7.24	103.71	112.54
38	BD	210	GLY	N-CA-C	-7.23	98.83	112.27
1	CA	533	A	C2'-C3'-O3'	7.22	120.33	109.50
20	CT	12	ALA	N-CA-C	-7.22	104.50	113.38
35	BA	856	C	C2'-C3'-O3'	7.20	124.50	113.70
38	BD	198	ASN	N-CA-C	-7.19	101.45	111.52
31	B6	42	TRP	N-CA-C	-7.19	103.77	112.54
28	D3	15	TYR	CA-C-N	7.18	127.23	119.90
28	D3	15	TYR	C-N-CA	7.18	127.23	119.90
35	DA	1427	A	C2'-C3'-O3'	7.18	120.27	109.50
37	BC	174	PRO	N-CA-CB	7.18	110.78	103.25
46	BP	62	LEU	CA-C-N	7.16	128.79	119.84
46	BP	62	LEU	C-N-CA	7.16	128.79	119.84
1	AA	992	U	C2'-C3'-O3'	7.14	120.22	109.50
1	CA	60	A	C2'-C3'-O3'	7.12	120.19	109.50
35	DA	1786	A	N9-C1'-C2'	7.12	124.68	114.00
50	DT	23	ARG	CA-C-N	7.12	128.74	119.84
50	DT	23	ARG	C-N-CA	7.12	128.74	119.84
51	BU	70	ARG	N-CA-C	-7.11	104.58	113.18
46	BP	58	THR	N-CA-C	-7.11	95.67	110.80
8	AH	100	ILE	CA-C-N	7.09	127.01	119.85
8	AH	100	ILE	C-N-CA	7.09	127.01	119.85
35	DA	474	G	C2'-C3'-O3'	7.09	120.14	109.50
51	DU	56	ASP	N-CA-C	-7.08	104.11	112.89
46	DP	62	LEU	CA-C-N	7.08	128.69	119.84
46	DP	62	LEU	C-N-CA	7.08	128.69	119.84
2	CB	56	ARG	N-CA-C	-7.07	103.50	111.07
1	AA	328	C	C2'-C3'-O3'	7.07	120.11	109.50
41	DG	162	THR	N-CA-C	-7.05	104.56	113.02
27	B2	51	ARG	N-CA-C	-7.05	103.64	111.82
55	BY	7	VAL	N-CA-C	7.03	123.96	109.34
1	CA	366	C	C4'-C3'-O3'	7.03	119.94	109.40
8	CH	100	ILE	CA-C-N	7.01	126.94	119.85
8	CH	100	ILE	C-N-CA	7.01	126.94	119.85
46	BP	99	LEU	N-CA-C	-7.01	103.72	112.90
35	DA	603	A	C2'-C3'-O3'	6.99	119.98	109.50
38	BD	136	ILE	CA-C-N	6.98	128.57	119.84
38	BD	136	ILE	C-N-CA	6.98	128.57	119.84
38	DD	210	GLY	N-CA-C	-6.96	99.32	112.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	BZ	135	GLU	N-CA-C	-6.96	104.78	113.55
37	BC	133	PRO	N-CA-CB	6.96	110.56	103.25
18	AR	32	ARG	N-CA-C	-6.95	105.07	113.97
33	B8	19	SER	N-CA-C	-6.95	104.77	113.18
55	BY	79	CYS	N-CA-C	6.94	114.47	108.78
35	BA	656	G	C5'-C4'-C3'	6.92	126.38	116.00
40	BF	205	ARG	N-CA-C	-6.92	105.18	112.93
53	DW	54	ALA	N-CA-C	-6.91	103.75	111.28
51	DU	70	ARG	N-CA-C	-6.90	104.83	113.18
35	BA	1053	C	N1-C1'-C2'	6.90	122.35	112.00
35	DA	1053	C	N1-C1'-C2'	6.90	122.35	112.00
40	DF	205	ARG	N-CA-C	-6.90	105.20	112.93
13	CM	50	GLU	N-CA-C	-6.90	104.13	112.54
46	DP	58	THR	N-CA-C	-6.89	96.13	110.80
30	D5	53	ALA	N-CA-C	-6.88	102.82	111.90
54	BX	36	LYS	N-CA-C	-6.88	103.78	111.28
44	DN	18	ALA	N-CA-C	-6.87	101.91	111.81
39	BE	188	VAL	CA-C-N	6.86	126.80	120.21
39	BE	188	VAL	C-N-CA	6.86	126.80	120.21
47	BQ	83	MET	N-CA-C	6.86	119.18	110.33
40	BF	83	PHE	N-CA-C	6.86	121.02	111.56
1	AA	366	C	C4'-C3'-O3'	6.84	119.67	109.40
13	AM	82	MET	N-CA-C	-6.83	104.93	112.72
55	DY	7	VAL	N-CA-C	6.83	123.54	109.34
13	AM	50	GLU	N-CA-C	-6.82	104.22	112.54
41	BG	129	GLY	N-CA-C	-6.82	97.02	113.18
46	BP	15	ARG	N-CA-C	6.79	119.43	107.61
2	AB	56	ARG	N-CA-C	-6.79	103.80	111.07
38	BD	212	SER	N-CA-C	-6.79	104.26	112.54
35	BA	1786	A	N9-C1'-C2'	6.79	124.18	114.00
2	AB	238	LEU	N-CA-C	-6.78	105.00	113.20
43	DI	5	LEU	N-CA-C	6.78	119.97	109.60
35	DA	1992	G	N9-C1'-C2'	6.78	124.17	114.00
30	B5	53	ALA	N-CA-C	-6.77	102.97	111.90
16	AP	77	ALA	N-CA-C	-6.76	104.92	113.72
7	CG	111	ARG	CA-C-N	6.76	126.45	119.82
7	CG	111	ARG	C-N-CA	6.76	126.45	119.82
45	DO	22	ILE	N-CA-C	-6.76	106.42	111.90
38	DD	136	ILE	CA-C-N	6.75	128.28	119.84
38	DD	136	ILE	C-N-CA	6.75	128.28	119.84
35	DA	2506	U	C2'-C3'-O3'	6.75	123.83	113.70
37	DC	133	PRO	N-CA-CB	6.75	110.33	103.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	856	C	C2'-C3'-O3'	6.74	123.81	113.70
37	DC	174	PRO	N-CA-CB	6.74	110.33	103.25
46	DP	15	ARG	N-CA-C	6.72	119.31	107.61
47	BQ	46	GLN	N-CA-C	-6.72	103.42	111.69
31	D6	14	THR	N-CA-C	6.72	119.36	108.41
2	AB	153	ARG	N-CA-C	-6.71	105.72	114.04
1	AA	560	U	C2'-C3'-O3'	6.71	119.56	109.50
16	CP	77	ALA	N-CA-C	-6.71	105.00	113.72
56	DZ	76	LEU	N-CA-C	6.69	117.11	108.34
35	BA	603	A	C2'-C3'-O3'	6.68	119.52	109.50
40	DF	83	PHE	N-CA-C	6.68	120.78	111.56
49	DS	98	VAL	N-CA-C	6.68	117.65	109.30
54	DX	36	LYS	N-CA-C	-6.68	104.00	111.28
42	BH	69	ARG	N-CA-C	-6.67	103.66	112.34
36	BB	52	A	N9-C1'-C2'	6.67	122.00	112.00
53	BW	54	ALA	N-CA-C	-6.67	104.01	111.28
6	AF	6	VAL	N-CA-C	6.66	116.21	106.55
35	BA	752	A	C2'-C3'-O3'	6.66	119.49	109.50
43	BI	5	LEU	N-CA-C	6.65	119.78	109.60
35	BA	2506	U	C2'-C3'-O3'	6.65	123.67	113.70
55	BY	79	CYS	CB-CA-C	-6.65	107.50	117.07
26	B1	78	LYS	N-CA-C	-6.64	103.97	111.14
1	CA	560	U	C2'-C3'-O3'	6.64	119.45	109.50
31	B6	14	THR	N-CA-C	6.63	119.22	108.41
2	CB	238	LEU	N-CA-C	-6.63	105.18	113.20
40	BF	6	VAL	N-CA-C	6.63	118.65	107.18
35	BA	332	A	C2'-C3'-O3'	6.63	119.44	109.50
6	CF	6	VAL	N-CA-C	6.62	116.15	106.55
37	DC	182	PRO	N-CA-CB	6.61	110.19	103.25
38	BD	196	VAL	N-CA-C	6.61	117.36	110.62
46	DP	99	LEU	N-CA-C	-6.60	103.91	112.23
41	DG	180	PHE	N-CA-C	6.60	119.60	107.99
35	DA	752	A	C2'-C3'-O3'	6.59	119.39	109.50
1	CA	484	G	C2'-C3'-O3'	6.59	119.38	109.50
30	D5	4	HIS	CA-C-N	-6.59	113.17	119.76
30	D5	4	HIS	C-N-CA	-6.59	113.17	119.76
2	CB	153	ARG	N-CA-C	-6.58	105.88	114.04
55	DY	8	LYS	N-CA-C	6.58	120.61	110.42
42	BH	65	HIS	N-CA-C	-6.58	101.41	110.35
13	AM	79	LYS	N-CA-C	-6.57	104.04	111.07
35	BA	1992	G	N9-C1'-C2'	6.56	123.84	114.00
33	B8	54	GLU	N-CA-C	-6.55	104.06	111.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BC	182	PRO	N-CA-CB	6.54	110.11	103.25
42	DH	69	ARG	N-CA-C	-6.53	103.85	112.34
46	BP	16	ARG	N-CA-C	-6.53	105.94	114.04
55	BY	65	ALA	CA-C-N	6.53	128.00	119.84
55	BY	65	ALA	C-N-CA	6.53	128.00	119.84
46	DP	16	ARG	N-CA-C	-6.53	105.95	114.04
55	BY	8	LYS	N-CA-C	6.52	120.53	110.42
33	D8	19	SER	N-CA-C	-6.52	105.29	113.18
3	AC	88	ARG	N-CA-C	-6.52	103.41	111.75
49	BS	98	VAL	N-CA-C	6.52	117.45	109.30
20	AT	27	LYS	N-CA-C	-6.51	104.26	111.36
3	CC	88	ARG	N-CA-C	-6.50	103.42	111.75
56	BZ	113	ALA	N-CA-C	6.50	118.05	110.97
9	CI	91	ASP	N-CA-C	-6.50	105.27	113.72
3	AC	139	GLN	N-CA-C	-6.50	105.74	113.21
35	BA	2172	U	C2'-C3'-O3'	6.48	119.22	109.50
36	BB	40	U	C4'-C3'-O3'	-6.48	103.27	113.00
36	DB	52	A	N9-C1'-C2'	6.48	121.72	112.00
25	B0	11	ARG	N-CA-C	-6.47	104.58	114.16
42	DH	65	HIS	N-CA-C	-6.47	101.55	110.35
40	DF	6	VAL	N-CA-C	6.47	118.38	107.18
35	DA	2172	U	C2'-C3'-O3'	6.46	119.20	109.50
47	DQ	46	GLN	N-CA-C	-6.46	103.52	111.40
1	AA	1335	C	N1-C1'-C2'	6.45	121.68	112.00
13	CM	79	LYS	N-CA-C	-6.45	104.17	111.07
9	AI	91	ASP	N-CA-C	-6.45	105.33	113.72
1	AA	1065	U	C2'-C3'-O3'	6.44	119.16	109.50
35	BA	1022	G	C2'-C3'-O3'	6.44	119.16	109.50
40	BF	91	GLY	CA-C-N	6.44	126.46	119.89
40	BF	91	GLY	C-N-CA	6.44	126.46	119.89
1	CA	1335	C	N1-C1'-C2'	6.43	121.65	112.00
31	D6	26	ASN	N-CA-C	-6.43	102.22	110.19
1	AA	484	G	C2'-C3'-O3'	6.43	119.14	109.50
37	BC	181	PRO	N-CA-CB	6.41	109.30	103.08
40	BF	170	LEU	CA-C-N	6.39	126.14	119.05
40	BF	170	LEU	C-N-CA	6.39	126.14	119.05
43	DI	47	LEU	N-CA-C	-6.39	104.18	112.23
1	CA	1065	U	C2'-C3'-O3'	6.38	119.06	109.50
41	DG	31	VAL	CA-C-N	6.38	128.07	120.23
41	DG	31	VAL	C-N-CA	6.38	128.07	120.23
51	DU	14	HIS	N-CA-C	6.38	118.11	111.03
38	DD	198	ASN	N-CA-C	-6.38	102.59	111.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	D5	3	LYS	N-CA-C	6.37	116.41	108.19
1	CA	748	C	C2'-C3'-O3'	6.37	119.05	109.50
30	B5	3	LYS	N-CA-C	6.36	116.40	108.19
10	CJ	22	LYS	N-CA-C	-6.36	104.56	112.90
46	DP	14	LYS	N-CA-C	6.36	124.34	110.80
20	CT	27	LYS	N-CA-C	-6.35	104.44	111.36
35	DA	1022	G	C2'-C3'-O3'	6.35	119.02	109.50
16	AP	3	LYS	N-CA-C	6.34	117.80	108.86
41	BG	180	PHE	N-CA-C	6.34	119.12	108.02
53	DW	10	VAL	N-CA-C	6.34	122.54	109.34
53	BW	10	VAL	N-CA-C	6.33	122.52	109.34
18	CR	32	ARG	N-CA-C	-6.33	105.87	113.97
37	DC	220	PRO	N-CA-CB	6.33	109.89	103.25
35	BA	673	C	C5'-C4'-C3'	-6.32	106.52	116.00
35	BA	2610	C	C2'-C3'-O3'	6.32	118.99	109.50
50	BT	19	LEU	CA-C-N	6.32	126.29	120.03
50	BT	19	LEU	C-N-CA	6.32	126.29	120.03
46	BP	14	LYS	N-CA-C	6.32	124.26	110.80
44	DN	78	TYR	N-CA-C	6.31	119.85	110.39
38	BD	53	PHE	N-CA-C	6.31	120.56	112.86
2	CB	119	GLU	N-CA-C	-6.31	104.50	111.82
41	BG	144	ILE	N-CA-C	6.31	117.44	108.42
35	DA	656	G	C5'-C4'-C3'	6.31	125.46	116.00
42	BH	19	VAL	N-CA-C	6.30	118.08	107.18
6	CF	36	ARG	N-CA-C	-6.30	101.16	110.48
25	D0	11	ARG	N-CA-C	-6.29	104.85	114.16
2	AB	119	GLU	N-CA-C	-6.29	104.53	111.82
35	DA	332	A	C2'-C3'-O3'	6.29	118.93	109.50
8	AH	56	LYS	CA-C-N	6.29	126.66	119.93
8	AH	56	LYS	C-N-CA	6.29	126.66	119.93
39	BE	118	LYS	N-CA-C	-6.28	97.43	110.80
5	CE	26	PHE	N-CA-C	6.28	119.65	110.17
5	AE	26	PHE	N-CA-C	6.27	119.63	110.17
16	CP	75	ARG	N-CA-C	-6.26	104.38	111.14
10	AJ	22	LYS	N-CA-C	-6.25	104.71	112.90
1	AA	748	C	C2'-C3'-O3'	6.25	118.88	109.50
13	CM	82	MET	N-CA-C	-6.25	104.96	112.59
14	CN	36	PHE	N-CA-C	-6.25	107.50	114.62
55	DY	65	ALA	CA-C-N	6.25	127.65	119.84
55	DY	65	ALA	C-N-CA	6.25	127.65	119.84
42	DH	158	HIS	N-CA-C	6.24	124.10	110.80
18	CR	81	PHE	N-CA-C	-6.24	105.16	112.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	DC	181	PRO	N-CA-CB	6.23	109.12	103.08
35	BA	1495	A	N9-C1'-C2'	6.22	121.33	112.00
39	BE	168	MET	N-CA-C	6.22	119.36	109.65
50	BT	126	ALA	N-CA-C	-6.22	106.00	113.97
37	BC	86	ALA	N-CA-C	-6.21	105.75	113.15
48	BR	70	LEU	N-CA-C	-6.21	101.09	110.28
36	DB	40	U	C4'-C3'-O3'	-6.21	103.69	113.00
9	AI	86	VAL	N-CA-C	-6.19	103.93	113.16
41	BG	96	ARG	CB-CA-C	-6.18	109.43	116.54
42	BH	158	HIS	N-CA-C	6.18	123.97	110.80
45	BO	91	LEU	N-CA-C	6.17	120.60	113.38
35	BA	2126	A	C2'-C3'-O3'	6.17	118.75	109.50
9	CI	86	VAL	N-CA-C	-6.17	103.97	113.16
42	BH	167	GLU	CA-C-N	6.17	127.55	119.84
42	BH	167	GLU	C-N-CA	6.17	127.55	119.84
3	CC	139	GLN	N-CA-C	-6.16	106.12	113.21
35	DA	2126	A	C2'-C3'-O3'	6.16	118.75	109.50
35	DA	1210	A	C2'-C3'-O3'	6.16	118.74	109.50
56	BZ	67	LEU	CA-C-N	6.16	125.92	119.76
56	BZ	67	LEU	C-N-CA	6.16	125.92	119.76
37	DC	86	ALA	N-CA-C	-6.16	105.82	113.15
50	DT	19	LEU	N-CA-C	6.15	118.39	110.39
1	AA	250	A	C2'-C3'-O3'	6.15	118.72	109.50
43	BI	47	LEU	N-CA-C	-6.14	104.49	112.23
55	DY	79	CYS	CB-CA-C	-6.14	108.22	117.07
38	DD	196	VAL	N-CA-C	6.14	116.88	110.62
35	BA	1210	A	C2'-C3'-O3'	6.14	118.71	109.50
51	BU	14	HIS	N-CA-C	6.13	117.84	111.03
16	CP	3	LYS	N-CA-C	6.13	117.50	108.86
35	DA	71	A	C2'-C3'-O3'	6.13	118.70	109.50
39	DE	167	VAL	N-CA-C	-6.13	103.37	110.05
42	DH	167	GLU	CA-C-N	6.13	127.50	119.84
42	DH	167	GLU	C-N-CA	6.13	127.50	119.84
38	DD	53	PHE	N-CA-C	6.12	120.33	112.86
44	BN	78	TYR	N-CA-C	6.12	119.57	110.39
35	BA	71	A	C2'-C3'-O3'	6.11	118.67	109.50
56	DZ	19	ARG	N-CA-C	-6.10	104.54	112.23
16	AP	75	ARG	N-CA-C	-6.09	104.56	111.14
1	CA	250	A	C2'-C3'-O3'	6.09	118.64	109.50
50	BT	48	ILE	N-CA-C	-6.09	101.70	109.80
19	CS	13	ASP	N-CA-C	6.09	119.18	111.69
7	AG	111	ARG	CA-C-N	6.08	125.78	119.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	AG	111	ARG	C-N-CA	6.08	125.78	119.82
53	BW	12	ILE	N-CA-C	-6.08	99.48	107.88
45	BO	25	LEU	N-CA-C	6.07	118.68	108.23
39	DE	188	VAL	CA-C-N	6.07	126.03	120.21
39	DE	188	VAL	C-N-CA	6.07	126.03	120.21
42	DH	19	VAL	N-CA-C	6.07	117.68	107.18
6	AF	36	ARG	N-CA-C	-6.07	101.50	110.48
35	BA	1493	C	N1-C1'-C2'	6.06	123.09	114.00
55	DY	79	CYS	N-CA-C	6.06	113.75	108.78
35	BA	1529	G	N9-C1'-C2'	6.05	121.08	112.00
43	BI	109	ILE	N-CA-C	6.05	116.59	108.11
51	BU	59	ARG	N-CA-C	6.05	117.67	111.14
50	BT	87	ASP	N-CA-C	6.04	118.60	109.23
50	DT	126	ALA	N-CA-C	-6.04	106.24	113.97
35	BA	2038	G	C3'-C2'-O2'	6.04	119.75	110.70
45	DO	25	LEU	N-CA-C	6.04	118.61	108.23
8	CH	56	LYS	CA-C-N	6.03	126.39	119.93
8	CH	56	LYS	C-N-CA	6.03	126.39	119.93
39	DE	118	LYS	N-CA-C	-6.03	97.95	110.80
35	BA	2827	C	C5'-C4'-C3'	-6.03	106.95	116.00
6	CF	37	VAL	N-CA-C	6.03	118.05	108.89
38	BD	259	THR	N-CA-C	6.02	120.76	113.41
35	DA	673	C	C5'-C4'-C3'	-6.02	106.97	116.00
18	AR	81	PHE	N-CA-C	-6.01	105.43	112.89
35	DA	1300	U	C2'-C3'-O3'	6.01	118.52	109.50
30	D5	51	TYR	N-CA-C	-6.01	100.31	108.24
25	D0	76	GLY	N-CA-C	6.00	117.65	111.95
8	AH	24	THR	N-CA-C	-6.00	101.32	110.14
52	BV	49	THR	N-CA-C	-6.00	96.55	109.81
10	AJ	57	LYS	N-CA-C	6.00	123.58	110.80
35	BA	2689	U	C2'-C3'-O3'	6.00	118.49	109.50
38	BD	146	GLU	N-CA-C	-5.99	102.76	110.19
28	B3	11	SER	CA-C-N	5.98	126.09	119.87
28	B3	11	SER	C-N-CA	5.98	126.09	119.87
41	BG	29	TRP	N-CA-C	-5.98	106.31	113.97
55	BY	54	LYS	N-CA-C	-5.98	101.19	110.10
50	DT	87	ASP	N-CA-C	5.98	118.50	109.23
55	BY	33	LYS	N-CA-C	-5.98	104.76	111.28
17	CQ	29	HIS	CA-C-N	5.98	126.41	119.47
17	CQ	29	HIS	C-N-CA	5.98	126.41	119.47
9	AI	118	LYS	N-CA-C	5.98	117.61	110.44
56	BZ	100	VAL	CA-C-N	5.97	127.31	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	BZ	100	VAL	C-N-CA	5.97	127.31	119.84
51	BU	104	GLN	N-CA-C	-5.97	104.68	111.07
1	AA	920	U	C5'-C4'-C3'	-5.96	107.06	116.00
35	DA	1529	G	N9-C1'-C2'	5.96	120.94	112.00
37	DC	201	PRO	N-CA-CB	5.96	109.50	103.25
7	AG	149	ARG	N-CA-C	-5.95	105.73	112.87
38	BD	132	PRO	N-CA-C	-5.95	101.74	111.68
35	BA	272(B)	G	C5'-C4'-C3'	5.95	124.92	116.00
35	BA	1365	A	C5'-C4'-C3'	5.95	124.92	116.00
51	BU	96	ALA	N-CA-C	-5.94	103.25	111.81
35	DA	221	A	C2'-C3'-O3'	5.94	118.41	109.50
35	DA	272(B)	G	C5'-C4'-C3'	5.94	124.91	116.00
38	DD	146	GLU	N-CA-C	-5.94	102.83	110.19
56	BZ	18	LEU	N-CA-C	-5.93	104.81	111.28
39	DE	133	LYS	N-CA-C	5.93	120.32	112.25
2	AB	158	LEU	CA-C-N	5.93	127.25	119.84
2	AB	158	LEU	C-N-CA	5.93	127.25	119.84
50	DT	19	LEU	CA-C-N	5.92	125.89	120.03
50	DT	19	LEU	C-N-CA	5.92	125.89	120.03
2	CB	158	LEU	CA-C-N	5.92	127.24	119.84
2	CB	158	LEU	C-N-CA	5.92	127.24	119.84
50	DT	76	PHE	CA-C-N	5.92	126.03	119.87
50	DT	76	PHE	C-N-CA	5.92	126.03	119.87
30	B5	51	TYR	N-CA-C	-5.91	100.08	108.23
38	DD	240	ALA	CA-C-N	5.90	127.22	119.84
38	DD	240	ALA	C-N-CA	5.90	127.22	119.84
14	AN	36	PHE	N-CA-C	-5.90	107.90	114.62
35	BA	656	G	C2'-C3'-O3'	-5.89	104.86	113.70
56	BZ	127	LYS	N-CA-C	-5.89	100.69	110.17
2	AB	75	LYS	N-CA-C	5.88	117.37	111.07
19	AS	13	ASP	N-CA-C	5.88	118.93	111.69
37	BC	140	PRO	N-CA-CB	5.88	109.43	103.25
55	DY	33	LYS	N-CA-C	-5.88	104.87	111.28
24	CX	22	A	C2'-C3'-O3'	5.88	122.52	113.70
12	AL	44	THR	CA-C-N	5.88	125.85	120.21
12	AL	44	THR	C-N-CA	5.88	125.85	120.21
41	DG	129	GLY	N-CA-C	-5.88	99.26	113.18
12	AL	58	VAL	N-CA-C	5.87	116.74	108.17
35	DA	1493	C	N1-C1'-C2'	5.86	122.79	114.00
25	B0	76	GLY	N-CA-C	5.85	117.51	111.95
2	AB	160	ASP	N-CA-C	-5.84	105.74	112.92
35	BA	272(B)	G	C2'-C3'-O3'	-5.84	104.94	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	BO	47	ILE	CA-C-N	5.84	127.14	119.84
45	BO	47	ILE	C-N-CA	5.84	127.14	119.84
39	BE	133	LYS	N-CA-C	5.83	120.19	112.25
39	DE	168	MET	N-CA-C	5.83	118.75	109.65
48	DR	70	LEU	N-CA-C	-5.83	101.21	109.96
50	BT	19	LEU	N-CA-C	5.83	117.97	110.39
12	CL	58	VAL	N-CA-C	5.83	116.68	108.17
35	BA	790	C	C2'-C3'-O3'	5.83	118.24	109.50
56	BZ	82	ARG	CA-C-N	5.83	127.12	119.84
56	BZ	82	ARG	C-N-CA	5.83	127.12	119.84
27	D2	47	ASN	N-CA-C	5.83	123.21	110.80
1	CA	115	G	C4'-C3'-O3'	5.81	118.12	109.40
27	B2	25	VAL	N-CA-C	-5.81	104.96	110.42
1	CA	1124	G	N9-C1'-C2'	5.81	120.72	112.00
4	CD	110	PHE	N-CA-C	-5.80	106.05	113.01
32	D7	44	PRO	N-CA-C	-5.80	101.55	110.95
41	DG	88	ILE	N-CA-C	5.80	118.54	108.90
48	DR	101	ALA	N-CA-C	-5.80	102.87	110.53
56	BZ	150	LEU	N-CA-C	5.80	116.21	108.38
35	DA	158	U	N1-C1'-C2'	5.80	120.70	112.00
7	CG	149	ARG	N-CA-C	-5.80	105.92	112.87
50	DT	80	SER	CA-C-N	-5.79	112.60	119.84
50	DT	80	SER	C-N-CA	-5.79	112.60	119.84
45	BO	22	ILE	N-CA-C	-5.79	107.21	111.90
40	DF	186	ILE	N-CA-C	-5.79	104.87	110.72
1	CA	920	U	C5'-C4'-C3'	-5.79	107.32	116.00
37	BC	201	PRO	N-CA-CB	5.78	109.32	103.25
8	CH	96	GLY	N-CA-C	-5.78	104.68	112.14
52	DV	49	THR	N-CA-C	-5.78	97.03	109.81
39	BE	50	GLY	N-CA-C	-5.78	100.92	110.80
6	AF	37	VAL	N-CA-C	5.78	117.67	108.89
1	CA	1335	C	C4'-C3'-O3'	-5.77	104.34	113.00
35	DA	614(C)	A	C1'-C2'-O2'	-5.77	103.14	111.80
38	BD	33	LEU	N-CA-C	-5.77	100.98	109.81
37	DC	140	PRO	N-CA-CB	5.77	109.31	103.25
19	CS	23	ASN	N-CA-C	-5.76	106.25	113.28
35	DA	1495	A	N9-C1'-C2'	5.76	120.64	112.00
8	AH	96	GLY	N-CA-C	-5.75	104.72	112.14
28	B3	56	VAL	N-CA-C	5.75	116.75	108.48
40	DF	151	SER	N-CA-C	-5.74	106.27	113.28
11	AK	56	GLY	N-CA-C	-5.74	108.36	114.67
35	BA	158	U	N1-C1'-C2'	5.74	120.60	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
50	BT	76	PHE	CA-C-N	5.73	125.83	119.87
50	BT	76	PHE	C-N-CA	5.73	125.83	119.87
35	DA	2038	G	C3'-C2'-O2'	5.73	119.30	110.70
1	AA	1124	G	N9-C1'-C2'	5.73	120.60	112.00
1	AA	1335	C	C4'-C3'-O3'	-5.73	104.40	113.00
35	DA	1365	A	C5'-C4'-C3'	5.73	124.60	116.00
1	AA	1054	C	N1-C1'-C2'	5.73	120.59	112.00
8	CH	24	THR	N-CA-C	-5.72	101.73	110.14
51	DU	104	GLN	N-CA-C	-5.72	104.95	111.07
50	DT	48	ILE	N-CA-C	-5.72	102.19	109.80
35	BA	221	A	C2'-C3'-O3'	5.72	118.08	109.50
39	BE	52	LEU	CA-C-N	5.72	126.99	119.84
39	BE	52	LEU	C-N-CA	5.72	126.99	119.84
8	CH	103	VAL	N-CA-C	5.71	116.38	108.84
35	DA	2689	U	C2'-C3'-O3'	5.71	118.07	109.50
49	DS	14	VAL	N-CA-C	-5.71	97.45	109.34
38	DD	259	THR	N-CA-C	5.71	120.91	113.88
1	CA	1281	U	N1-C1'-C2'	5.71	120.56	112.00
41	DG	44	GLY	N-CA-C	-5.70	106.88	115.32
2	CB	75	LYS	N-CA-C	5.70	117.17	111.07
51	DU	59	ARG	N-CA-C	5.70	117.30	111.14
13	CM	8	GLU	N-CA-C	5.70	117.70	108.41
56	DZ	94	GLU	CA-C-N	5.70	126.96	119.84
56	DZ	94	GLU	C-N-CA	5.70	126.96	119.84
1	CA	1054	C	N1-C1'-C2'	5.69	120.54	112.00
1	AA	243	A	C2'-C3'-O3'	5.69	118.03	109.50
35	DA	2610	C	C2'-C3'-O3'	5.68	118.03	109.50
46	DP	71	VAL	CB-CA-C	-5.68	108.30	113.70
50	BT	80	SER	N-CA-C	5.68	122.36	109.81
4	AD	29	PRO	N-CA-C	-5.68	103.75	113.12
55	DY	54	LYS	N-CA-C	-5.68	101.50	109.96
1	CA	243	A	C2'-C3'-O3'	5.67	118.01	109.50
4	CD	29	PRO	N-CA-C	-5.67	103.73	113.70
10	CJ	57	LYS	N-CA-C	5.66	122.85	110.80
28	D3	11	SER	CA-C-N	5.66	125.75	119.87
28	D3	11	SER	C-N-CA	5.66	125.75	119.87
19	AS	23	ASN	N-CA-C	-5.65	106.39	113.28
11	CK	122	LYS	N-CA-C	-5.64	103.47	110.41
13	AM	75	ALA	N-CA-C	-5.64	106.24	113.23
49	BS	14	VAL	N-CA-C	-5.64	97.61	109.34
1	AA	839	U	N1-C1'-C2'	5.64	120.46	112.00
42	BH	113	VAL	N-CA-C	5.63	116.24	107.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	CB	160	ASP	N-CA-C	-5.63	105.99	112.92
41	DG	141	PHE	CA-C-N	5.63	125.34	119.82
41	DG	141	PHE	C-N-CA	5.63	125.34	119.82
40	BF	58	ALA	N-CA-C	5.62	119.88	113.19
40	DF	154	VAL	N-CA-C	5.62	116.21	108.12
27	B2	47	ASN	N-CA-C	5.62	122.76	110.80
35	DA	74	A	C2'-C3'-O3'	5.62	117.92	109.50
1	AA	1281	U	N1-C1'-C2'	5.60	120.41	112.00
1	AA	1504	G	C4'-C3'-O3'	5.60	117.80	109.40
6	CF	98	LEU	N-CA-C	5.60	118.69	109.85
38	DD	91	ARG	N-CA-C	-5.59	100.28	109.40
13	AM	8	GLU	N-CA-C	5.59	117.53	108.41
40	DF	111	ALA	N-CA-C	-5.59	105.09	111.07
46	BP	71	VAL	CB-CA-C	-5.58	108.39	113.70
39	DE	95	ILE	N-CA-C	-5.58	105.08	110.72
30	B5	4	HIS	CA-C-N	-5.58	114.18	119.76
30	B5	4	HIS	C-N-CA	-5.58	114.18	119.76
16	AP	20	VAL	N-CA-C	5.57	116.39	108.42
26	B1	16	ASN	N-CA-C	5.57	118.71	110.46
45	DO	91	LEU	N-CA-C	5.57	119.90	113.38
55	DY	4	LYS	N-CA-C	-5.57	106.48	113.72
41	BG	178	PHE	CA-C-N	5.57	126.80	119.84
41	BG	178	PHE	C-N-CA	5.57	126.80	119.84
40	BF	7	TYR	N-CA-C	-5.56	103.14	110.43
41	DG	178	PHE	CA-C-N	5.56	126.79	119.84
41	DG	178	PHE	C-N-CA	5.56	126.79	119.84
7	AG	147	ALA	N-CA-C	-5.56	104.85	111.69
38	DD	132	PRO	N-CA-C	-5.56	102.40	111.68
43	DI	109	ILE	N-CA-C	5.56	115.89	108.11
40	DF	170	LEU	CA-C-N	5.55	125.64	119.32
40	DF	170	LEU	C-N-CA	5.55	125.64	119.32
8	AH	101	PRO	N-CA-C	5.54	120.20	111.38
42	DH	113	VAL	N-CA-C	5.54	116.08	107.28
38	DD	116	GLN	N-CA-C	-5.53	101.85	110.42
50	BT	29	ARG	CA-C-N	5.52	131.91	121.97
50	BT	29	ARG	C-N-CA	5.52	131.91	121.97
53	BW	64	MET	N-CA-C	-5.52	107.19	114.04
50	BT	54	ARG	N-CA-C	5.52	118.00	110.55
50	BT	79	HIS	N-CA-C	5.52	117.79	109.23
9	CI	118	LYS	N-CA-C	5.51	117.06	110.44
13	CM	75	ALA	N-CA-C	-5.51	106.39	113.23
28	D3	56	VAL	N-CA-C	5.51	116.42	108.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	839	U	N1-C1'-C2'	5.51	120.26	112.00
38	DD	33	LEU	N-CA-C	-5.51	101.14	109.85
42	DH	73	ALA	N-CA-C	-5.51	105.28	111.28
6	AF	24	GLU	N-CA-C	-5.50	105.44	111.82
49	BS	17	ARG	N-CA-C	-5.50	99.09	110.80
39	DE	52	LEU	CA-C-N	5.50	126.71	119.84
39	DE	52	LEU	C-N-CA	5.50	126.71	119.84
46	BP	77	ARG	CA-C-N	5.49	126.70	119.84
46	BP	77	ARG	C-N-CA	5.49	126.70	119.84
38	BD	116	GLN	N-CA-C	-5.49	101.91	110.42
1	AA	79	G	C2'-C3'-O3'	5.49	117.73	109.50
40	BF	151	SER	N-CA-C	-5.49	106.59	113.28
50	BT	29	ARG	N-CA-C	5.49	122.48	110.80
30	D5	55	ARG	N-CA-C	-5.48	103.29	110.53
53	DW	12	ILE	N-CA-C	-5.48	100.32	107.88
50	DT	54	ARG	N-CA-C	5.48	117.95	110.55
35	DA	272(B)	G	C2'-C3'-O3'	-5.47	105.50	113.70
35	DA	790	C	C2'-C3'-O3'	5.47	117.70	109.50
40	DF	58	ALA	N-CA-C	5.47	119.69	113.19
43	BI	79	ILE	N-CA-C	5.46	114.11	107.61
4	CD	201	GLN	N-CA-C	5.46	117.99	111.71
50	BT	96	ARG	N-CA-C	5.46	117.57	108.99
6	AF	98	LEU	N-CA-C	5.46	118.48	109.85
6	CF	24	GLU	N-CA-C	-5.46	105.49	111.82
12	AL	61	THR	N-CA-C	-5.46	105.72	112.38
51	BU	31	SER	N-CA-C	5.46	117.60	109.25
8	CH	101	PRO	N-CA-C	5.46	120.06	111.38
12	CL	61	THR	N-CA-C	-5.46	105.72	112.38
22	CY	34	G	N9-C1'-C2'	5.46	120.18	112.00
46	DP	77	ARG	CA-C-N	5.45	126.65	119.84
46	DP	77	ARG	C-N-CA	5.45	126.65	119.84
38	BD	171	ASP	N-CA-C	-5.45	106.59	113.18
40	BF	111	ALA	N-CA-C	-5.45	105.24	111.07
33	D8	23	VAL	N-CA-C	5.44	115.79	108.17
32	B7	44	PRO	N-CA-C	-5.44	102.14	110.95
40	BF	154	VAL	N-CA-C	5.44	115.95	108.12
40	BF	186	ILE	N-CA-C	-5.44	105.23	110.72
56	BZ	116	VAL	N-CA-C	5.44	114.63	106.42
2	AB	108	ILE	N-CA-C	-5.43	104.44	112.04
13	CM	12	ASN	N-CA-C	5.42	122.35	110.80
4	AD	201	GLN	N-CA-C	5.41	117.94	111.71
50	DT	29	ARG	N-CA-C	5.41	122.33	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	DZ	111	VAL	N-CA-C	5.41	112.00	106.21
35	BA	526	A	N9-C1'-C2'	5.41	120.11	112.00
56	DZ	152	ALA	N-CA-C	5.40	114.70	108.49
5	AE	55	VAL	N-CA-C	-5.40	105.45	110.53
35	DA	512	G	C4'-C3'-O3'	-5.39	104.91	113.00
32	D7	22	MET	N-CA-C	5.39	117.86	111.33
35	DA	2827	C	C5'-C4'-C3'	-5.39	107.92	116.00
9	CI	52	ALA	N-CA-C	-5.38	105.35	112.94
41	BG	60	LEU	N-CA-C	-5.38	105.31	111.07
51	BU	84	LYS	N-CA-C	-5.38	105.11	110.97
1	CA	119	A	C2'-C3'-O3'	5.38	117.57	109.50
4	AD	21	LEU	N-CA-C	-5.37	106.74	113.72
20	CT	14	LYS	N-CA-C	-5.37	105.54	111.71
49	DS	17	ARG	N-CA-C	-5.36	99.38	110.80
1	AA	1531	A	C2'-C3'-O3'	5.36	121.74	113.70
9	AI	52	ALA	N-CA-C	-5.36	105.38	112.94
48	DR	25	ALA	N-CA-C	-5.36	105.35	111.14
8	AH	103	VAL	N-CA-C	5.36	115.91	108.84
41	BG	125	PHE	N-CA-C	-5.36	102.88	111.02
37	DC	56	GLN	N-CA-C	5.36	115.43	107.88
49	DS	13	ARG	N-CA-C	5.35	117.19	111.36
44	BN	78	TYR	CA-C-N	5.34	126.18	119.98
44	BN	78	TYR	C-N-CA	5.34	126.18	119.98
39	BE	11	MET	N-CA-C	5.34	117.38	108.99
35	DA	656	G	C2'-C3'-O3'	-5.34	105.69	113.70
46	DP	70	GLN	N-CA-C	-5.34	103.34	110.55
5	AE	12	LEU	N-CA-C	5.34	117.94	109.50
33	B8	20	GLY	N-CA-C	-5.34	107.42	115.32
35	BA	102	G	N9-C1'-C2'	5.34	120.01	112.00
55	BY	13	VAL	CB-CA-C	-5.34	103.12	110.91
48	BR	101	ALA	N-CA-C	-5.33	103.49	110.53
41	BG	45	GLU	N-CA-C	5.33	118.41	107.37
40	BF	12	LEU	N-CA-C	-5.33	105.58	111.71
1	AA	115	G	C4'-C3'-O3'	5.33	117.39	109.40
13	AM	12	ASN	N-CA-C	5.33	122.14	110.80
7	AG	31	MET	N-CA-C	5.32	117.94	109.96
1	CA	79	G	C2'-C3'-O3'	5.32	117.48	109.50
5	CE	12	LEU	N-CA-C	5.32	117.91	109.50
55	DY	13	VAL	CB-CA-C	-5.32	103.14	110.91
25	B0	4	LYS	N-CA-C	5.32	119.77	113.12
4	CD	26	CYS	N-CA-C	-5.32	106.63	113.01
35	BA	614(C)	A	C1'-C2'-O2'	-5.32	103.82	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BC	131	LEU	N-CA-C	-5.32	106.81	113.72
11	CK	102	GLY	N-CA-C	-5.31	107.92	115.30
43	DI	79	ILE	N-CA-C	5.31	113.93	107.61
35	BA	2282	G	C2'-C3'-O3'	5.31	117.46	109.50
35	DA	2033	A	C2'-C3'-O3'	5.31	117.46	109.50
2	AB	164	VAL	N-CA-C	5.31	116.37	108.46
4	CD	108	LEU	N-CA-C	-5.30	107.35	112.97
35	DA	2171	A	C2'-C3'-O3'	5.30	117.46	109.50
51	DU	84	LYS	N-CA-C	-5.30	105.19	110.97
37	BC	197	GLU	N-CA-C	-5.30	105.91	112.38
40	DF	12	LEU	N-CA-C	-5.30	105.62	111.71
7	CG	147	ALA	N-CA-C	-5.29	105.18	111.69
3	AC	131	ARG	N-CA-C	-5.29	105.51	111.28
12	CL	44	THR	CA-C-N	5.29	125.29	120.21
12	CL	44	THR	C-N-CA	5.29	125.29	120.21
38	DD	193	VAL	N-CA-C	5.29	117.08	109.51
35	BA	1300	U	C2'-C3'-O3'	5.29	117.44	109.50
33	D8	20	GLY	N-CA-C	-5.29	107.97	115.43
53	DW	101	SER	N-CA-C	5.29	117.90	109.81
26	D1	94	LEU	N-CA-C	-5.28	106.42	112.92
50	BT	80	SER	CA-C-N	-5.28	113.24	119.84
50	BT	80	SER	C-N-CA	-5.28	113.24	119.84
7	CG	31	MET	N-CA-C	5.27	117.86	109.96
35	BA	2405	G	C4'-C3'-O3'	-5.26	105.10	113.00
39	BE	95	ILE	N-CA-C	-5.26	105.25	110.62
1	CA	266	G	C2'-C3'-O3'	5.26	121.59	113.70
9	CI	124	GLN	N-CA-C	5.26	120.04	111.37
35	BA	2278	A	C5'-C4'-C3'	5.25	123.88	116.00
45	DO	47	ILE	CA-C-N	5.24	126.39	119.84
45	DO	47	ILE	C-N-CA	5.24	126.39	119.84
50	DT	29	ARG	CA-C-N	5.23	131.39	121.97
50	DT	29	ARG	C-N-CA	5.23	131.39	121.97
44	DN	78	TYR	CA-C-N	5.23	126.05	119.98
44	DN	78	TYR	C-N-CA	5.23	126.05	119.98
2	AB	200	ILE	N-CA-C	5.23	116.50	108.71
4	CD	21	LEU	N-CA-C	-5.23	106.93	113.72
22	AY	15	G	C2'-C3'-O3'	5.22	117.34	109.50
50	BT	26	ASP	N-CA-C	5.22	115.94	107.32
39	DE	65	GLY	N-CA-C	-5.22	100.80	113.18
27	B2	33	MET	N-CA-C	-5.22	105.23	111.03
33	D8	36	LYS	N-CA-C	-5.22	100.09	108.55
37	BC	56	GLN	N-CA-C	5.22	115.24	107.88

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	266	G	C2'-C3'-O3'	5.21	121.52	113.70
30	B5	55	ARG	N-CA-C	-5.21	104.00	110.41
30	D5	46	CYS	N-CA-C	5.21	121.33	109.81
33	B8	36	LYS	N-CA-C	-5.21	100.11	108.55
1	CA	1049	U	C2'-C3'-O3'	5.21	117.31	109.50
1	CA	572	A	N9-C1'-C2'	5.21	119.81	112.00
35	BA	955	C	C5'-C4'-C3'	-5.20	108.20	116.00
20	AT	14	LYS	N-CA-C	-5.19	105.74	111.71
1	AA	1049	U	C2'-C3'-O3'	5.19	117.28	109.50
37	DC	131	LEU	N-CA-C	-5.19	106.98	113.72
35	BA	2589	A	C3'-C2'-O2'	5.18	118.47	110.70
9	AI	124	GLN	N-CA-C	5.18	119.92	111.37
2	CB	164	VAL	N-CA-C	5.18	116.17	108.46
38	DD	227	ASN	CA-C-N	5.17	126.31	119.84
38	DD	227	ASN	C-N-CA	5.17	126.31	119.84
4	AD	110	PHE	N-CA-C	-5.17	106.81	113.01
25	D0	75	LEU	N-CA-C	-5.17	106.51	114.16
50	DT	80	SER	N-CA-C	5.17	121.23	109.81
11	AK	122	LYS	N-CA-C	-5.17	103.66	110.33
55	BY	79	CYS	CA-C-O	5.17	120.94	117.94
49	BS	13	ARG	N-CA-C	5.17	116.99	111.36
35	BA	512	G	C4'-C3'-O3'	-5.16	105.26	113.00
38	BD	221	VAL	N-CA-C	5.16	116.40	108.71
30	B5	46	CYS	N-CA-C	5.16	121.21	109.81
35	BA	748	G	N9-C1'-C2'	5.16	119.73	112.00
2	CB	172	ILE	N-CA-C	-5.16	104.47	111.89
46	DP	46	LYS	N-CA-C	5.16	121.78	110.80
38	BD	91	ARG	N-CA-C	-5.15	101.00	109.40
2	AB	193	ASP	CA-C-N	5.15	124.60	119.24
2	AB	193	ASP	C-N-CA	5.15	124.60	119.24
16	AP	25	ARG	N-CA-C	5.15	116.89	111.28
36	DB	40	U	N1-C1'-C2'	5.15	119.73	112.00
44	BN	24	GLY	N-CA-C	-5.15	100.98	113.18
39	DE	50	GLY	N-CA-C	-5.15	102.00	110.80
11	CK	94	ALA	N-CA-C	-5.15	105.36	110.97
1	AA	572	A	N9-C1'-C2'	5.15	119.72	112.00
35	DA	614(C)	A	C2'-C3'-O3'	5.15	117.22	109.50
11	AK	102	GLY	N-CA-C	-5.14	108.15	115.30
40	BF	194	MET	N-CA-C	5.14	116.76	108.32
35	DA	310	A	C5'-C4'-C3'	-5.14	107.48	115.20
35	DA	2282	G	C2'-C3'-O3'	5.14	117.22	109.50
41	DG	30	GLU	N-CA-C	-5.14	106.70	112.87

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	DC	155	GLU	N-CA-C	-5.14	106.85	113.02
17	CQ	65	ILE	N-CA-C	-5.14	108.49	113.53
26	D1	64	ALA	N-CA-C	5.14	116.88	111.28
39	BE	65	GLY	N-CA-C	-5.14	101.00	113.18
32	D7	28	ARG	N-CA-C	-5.14	105.68	111.28
11	CK	56	GLY	N-CA-C	-5.13	108.70	114.40
35	BA	2171	A	C2'-C3'-O3'	5.13	117.20	109.50
13	AM	110	ARG	N-CA-C	-5.13	106.87	112.72
35	BA	32	C	C5'-C4'-C3'	-5.13	108.31	116.00
50	DT	108	ARG	N-CA-C	-5.13	106.19	112.90
33	B8	23	VAL	N-CA-C	5.12	115.34	108.17
35	BA	2207	G	N9-C1'-C2'	5.12	119.68	112.00
17	AQ	65	ILE	N-CA-C	-5.12	108.51	113.53
27	B2	62	THR	N-CA-C	-5.12	105.61	111.14
53	DW	69	LEU	N-CA-C	5.12	116.89	110.24
8	CH	39	LEU	N-CA-C	-5.12	105.89	111.82
4	CD	190	ASP	N-CA-C	-5.11	103.40	110.35
47	BQ	21	THR	N-CA-C	-5.11	99.92	110.80
12	AL	105	TYR	CB-CA-C	-5.10	110.71	116.63
27	B2	57	ILE	CB-CA-C	-5.10	105.17	111.70
44	DN	35	ARG	N-CA-C	-5.10	101.84	109.95
5	CE	92	LYS	CA-C-N	5.09	125.33	119.83
5	CE	92	LYS	C-N-CA	5.09	125.33	119.83
17	AQ	29	HIS	CA-C-N	5.09	126.21	119.84
17	AQ	29	HIS	C-N-CA	5.09	126.21	119.84
35	BA	74	A	C2'-C3'-O3'	5.09	117.14	109.50
11	AK	94	ALA	N-CA-C	-5.09	105.42	110.97
53	BW	69	LEU	N-CA-C	5.09	116.86	110.24
56	DZ	52	SER	CB-CA-C	-5.09	110.73	116.63
36	BB	40	U	N1-C1'-C2'	5.08	119.63	112.00
1	CA	754	C	N1-C1'-C2'	5.08	119.62	112.00
53	BW	101	SER	N-CA-C	5.08	117.57	109.81
35	BA	494	G	C5'-C4'-C3'	-5.07	108.39	116.00
41	DG	152	LEU	N-CA-C	-5.07	103.45	110.35
35	BA	1609	A	C3'-C2'-O2'	-5.07	107.00	114.60
16	CP	25	ARG	N-CA-C	5.06	116.80	111.28
56	DZ	61	LEU	CA-C-N	5.06	126.17	119.84
56	DZ	61	LEU	C-N-CA	5.06	126.17	119.84
4	AD	26	CYS	N-CA-C	-5.06	106.94	113.01
35	BA	614(C)	A	C2'-C3'-O3'	5.06	117.09	109.50
2	CB	127	ILE	N-CA-C	-5.06	106.98	112.80
35	DA	2278	A	C5'-C4'-C3'	5.06	123.59	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AB	127	ILE	N-CA-C	-5.06	106.98	112.80
35	BA	614(B)	G	N9-C1'-C2'	5.06	119.58	112.00
6	CF	92	LYS	N-CA-C	-5.06	102.21	110.20
35	DA	2207	G	N9-C1'-C2'	5.06	119.59	112.00
47	DQ	21	THR	N-CA-C	-5.06	100.03	110.80
55	BY	4	LYS	N-CA-C	-5.06	106.53	113.30
40	BF	63	LYS	N-CA-C	-5.05	103.00	110.48
44	DN	24	GLY	N-CA-C	-5.05	101.21	113.18
46	DP	128	HIS	N-CA-C	-5.05	107.50	113.97
38	BD	193	VAL	N-CA-C	5.05	116.73	109.51
49	BS	99	LYS	N-CA-C	-5.05	104.54	111.81
56	BZ	49	ARG	N-CA-C	-5.05	106.22	112.38
38	DD	221	VAL	N-CA-C	5.05	115.85	108.53
53	DW	67	ASP	N-CA-C	5.05	116.47	111.07
47	BQ	132	VAL	N-CA-C	5.04	116.26	108.44
38	DD	176	ARG	N-CA-C	-5.04	99.57	108.20
42	BH	50	VAL	N-CA-C	5.04	115.18	108.27
13	CM	110	ARG	N-CA-C	-5.04	106.97	112.72
51	DU	31	SER	N-CA-C	5.04	116.97	109.25
1	AA	754	C	N1-C1'-C2'	5.04	119.56	112.00
44	BN	35	ARG	N-CA-C	-5.04	101.94	109.95
39	DE	11	MET	N-CA-C	5.04	116.72	108.76
53	DW	64	MET	N-CA-C	-5.03	107.80	114.04
8	AH	39	LEU	N-CA-C	-5.03	105.99	111.82
35	BA	1616	A	N9-C1'-C2'	5.03	121.54	114.00
35	BA	2834	G	C5'-C4'-C3'	-5.03	108.46	116.00
35	DA	102	G	N9-C1'-C2'	5.03	119.54	112.00
32	B7	22	MET	N-CA-C	5.03	117.49	111.71
35	BA	945	A	N9-C1'-C2'	5.03	121.54	114.00
35	BA	1332	G	N9-C1'-C2'	-5.03	106.46	114.00
35	DA	1427	A	C4'-C3'-O3'	5.02	116.92	109.40
2	CB	108	ILE	N-CA-C	-5.02	105.02	112.04
22	AY	15	G	C4'-C3'-O3'	5.01	116.92	109.40
12	CL	105	TYR	CB-CA-C	-5.01	110.82	116.63
45	DO	58	VAL	N-CA-C	5.01	114.93	108.82
16	CP	20	VAL	N-CA-C	5.01	116.20	108.44
37	BC	155	GLU	N-CA-C	-5.00	107.02	113.02
46	BP	46	LYS	N-CA-C	5.00	121.46	110.80
13	AM	15	VAL	N-CA-C	5.00	119.74	109.34
13	CM	88	ARG	N-CA-C	-5.00	106.44	112.54

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
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

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Mol	Chain	Res	Type	Group
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
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

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Mol	Chain	Res	Type	Group
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 [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32329	0	16315	1274	0
1	CA	32329	0	16312	1270	0
2	AB	1901	0	1951	298	0
2	CB	1901	0	1951	298	0
3	AC	1613	0	1677	255	0
3	CC	1613	0	1677	259	0
4	AD	1703	0	1762	175	0
4	CD	1703	0	1763	175	0
5	AE	1147	0	1207	144	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	CE	1147	0	1207	138	0
6	AF	843	0	857	105	0
6	CF	843	0	857	98	0
7	AG	1257	0	1296	123	0
7	CG	1257	0	1296	120	0
8	AH	1116	0	1177	130	0
8	CH	1116	0	1177	133	0
9	AI	1011	0	1041	174	0
9	CI	1011	0	1041	174	0
10	AJ	795	0	840	179	0
10	CJ	795	0	840	177	0
11	AK	885	0	904	106	0
11	CK	885	0	904	103	0
12	AL	971	0	1057	132	0
12	CL	971	0	1057	131	0
13	AM	988	0	1056	179	0
13	CM	988	0	1056	175	0
14	AN	492	0	529	77	0
14	CN	492	0	529	77	0
15	AO	734	0	771	77	0
15	CO	734	0	771	82	0
16	AP	701	0	720	84	0
16	CP	701	0	720	81	0
17	AQ	824	0	891	94	0
17	CQ	824	0	891	90	0
18	AR	574	0	644	83	0
18	CR	574	0	644	89	0
19	AS	630	0	652	109	0
19	CS	630	0	652	103	0
20	AT	763	0	861	104	0
20	CT	763	0	861	106	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	95	0
23	CW	1619	0	821	95	0
24	AX	227	0	119	7	0
24	CX	227	0	118	11	0
25	B0	662	0	688	83	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
25	D0	662	0	688	83	0
26	B1	732	0	808	99	0
26	D1	732	0	808	95	0
27	B2	598	0	653	62	0
27	D2	598	0	653	96	0
28	B3	468	0	523	32	0
28	D3	468	0	523	32	0
29	B4	226	0	229	44	0
29	D4	226	0	229	37	0
30	B5	459	0	480	93	0
30	D5	459	0	480	90	0
31	B6	381	0	390	108	0
31	D6	381	0	390	107	0
32	B7	419	0	467	30	0
32	D7	419	0	467	30	0
33	B8	508	0	576	105	0
33	D8	508	0	576	103	0
34	B9	299	0	325	29	0
34	D9	299	0	325	31	0
35	BA	60459	0	30474	2068	0
35	DA	60459	0	30478	2074	0
36	BB	2551	0	1294	105	0
36	DB	2551	0	1294	88	0
37	BC	1140	0	863	131	0
37	DC	1142	0	865	133	0
38	BD	2105	0	2182	335	0
38	DD	2105	0	2182	327	0
39	BE	1564	0	1629	263	0
39	DE	1564	0	1629	266	0
40	BF	1624	0	1677	222	0
40	DF	1624	0	1677	220	0
41	BG	1474	0	1534	273	0
41	DG	1474	0	1534	276	0
42	BH	1223	0	1282	179	0
42	DH	1223	0	1282	176	0
43	BI	1132	0	1218	200	0
43	DI	1132	0	1218	204	0
44	BN	1105	0	1180	150	0
44	DN	1105	0	1180	148	0
45	BO	933	0	996	132	0
45	DO	933	0	996	131	0
46	BP	1114	0	1187	290	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
46	DP	1114	0	1187	287	0
47	BQ	1122	0	1179	178	0
47	DQ	1122	0	1179	177	0
48	BR	960	0	1021	145	0
48	DR	960	0	1021	145	0
49	BS	771	0	832	156	0
49	DS	771	0	832	150	0
50	BT	1142	0	1202	251	0
50	DT	1142	0	1202	237	0
51	BU	958	0	1015	168	0
51	DU	958	0	1015	166	0
52	BV	779	0	852	163	0
52	DV	779	0	852	162	0
53	BW	896	0	953	94	0
53	DW	896	0	953	97	0
54	BX	726	0	778	90	0
54	DX	726	0	778	91	0
55	BY	776	0	870	191	0
55	DY	776	0	870	196	0
56	BZ	1404	0	1432	241	0
56	DZ	1404	0	1432	248	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
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

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
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
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	19777	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 40.

All (19777) 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
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
35:BA:2701:C:H3'	35:BA:2702:U:H5''	1.17	1.15
41:BG:46:ALA:HB3	41:BG:82:LEU:HD11	1.23	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
1:AA:1146:A:H2'	1:AA:1147:C:H5''	1.25	1.14
55:BY:76:CYS:HB3	55:BY:96:ILE:HD11	1.25	1.14
33:D8:25:MET:HG3	46:DP:64:LYS:HB3	1.23	1.14
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
1:CA:1442(A):G:H3'	1:CA:1442(B):A:H5''	1.16	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
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
35:DA:2334:G:H21	49:DS:18:ILE:HD11	1.08	1.12
54:DX:63:LYS:HE3	54:DX:72:LYS:HE3	1.21	1.12
2:CB:91:PRO:HG2	2:CB:155:LEU:HB2	1.33	1.11
1:AA:1348:U:H4'	9:AI:120:ARG:HD2	1.27	1.11
18:AR:36:ASN:HD22	18:AR:39:VAL:HG21	1.10	1.11
50:BT:80:SER:HB3	50:BT:81:PRO:HD3	1.32	1.11
50:DT:80:SER:HB3	50:DT: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:CA:954:G:H4'	13:CM:120:LYS:HG3	1.28	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
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
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
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
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
35:BA:2758:A:H2'	35:BA:2759:G:H5''	1.31	1.07
55:DY:76:CYS:SG	55:DY:77:PRO:HD2	1.93	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
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
40:DF:132:VAL:HG22	40:DF:133:ASN:H	1.15	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
40:BF:132:VAL:HG22	40:BF:133:ASN:H	1.14	1.06
28:D3:44:ARG:O	28:D3:48:GLU:HG2	1.54	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DE:77:ILE:HG22	39:DE:78:LEU:H	1.13	1.06
49:DS:97:ARG:HH21	49:DS:98:VAL:HA	1.09	1.06
56:DZ:150:LEU:HD23	56:DZ:171:ILE:HB	1.33	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:CZ	50:BT:13:ARG:HA	1.84	1.06
35:DA:1590:U:H2'	35:DA:1591:G:H5''	1.38	1.06
39:BE:77:ILE:HG22	39:BE:78:LEU:H	1.11	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:111:ARG:HA	48:BR:2:ARG:HG3	1.34	1.05
1:CA:1256:A:H61	1:CA:1278:U:H1'	1.15	1.05
1:CA:1381:U:H1'	7:CG:78:ARG:HH21	1.18	1.05
2:CB:77:ALA:HB2	2:CB:211:ILE:HD13	1.32	1.05
35:DA:571:A:H5'	35:DA:2030:A:H62	1.10	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
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
35:DA:1798:U:H5'	38:DD:259:THR:HG22	1.38	1.05
1:AA:973:G:H1'	10:AJ:55:LYS:HE2	1.38	1.05
38:DD:30:GLU:HB3	38:DD:35:LYS:HD2	1.37	1.05
49:DS:89:ARG:HB3	49:DS:92:TYR:HB3	1.35	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
3:AC:77:ILE:HA	3:AC:84:ILE:HB	1.38	1.04
35:BA:1887:C:H2'	35:BA:1888:G:H5''	1.29	1.04
40:BF:36:VAL:HG11	40:BF:183:VAL:HG11	1.35	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
5:AE:101:ILE:HG13	5:AE:119:LEU:HD23	1.37	1.04
44:BN:47:ALA:HB2	44:BN:112:LEU:HD11	1.40	1.04
22:CV:20:U:H3'	22:CV:21:A:H5'	1.37	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:D8:13:ARG:HB3	46:DP:63:PRO:HB3	1.37	1.04
41:BG:46:ALA:HB2	41:BG:88:ILE:HD13	1.33	1.04
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
44:DN:47:ALA:HB2	44:DN:112:LEU:HD11	1.40	1.03
35:BA:612:C:C2'	35:BA:613:G:H5''	1.86	1.03
35:BA:1590:U:H2'	35:BA:1591:G:H5''	1.38	1.03
41:BG:44:GLY:H	41:BG:88:ILE:HG21	1.21	1.03
52:BV:19:LYS:HZ3	52:BV:20:LEU:N	1.53	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
33:B8:59:LYS:HD3	46:BP:50:ARG:HB3	1.38	1.02
41:BG:112:PRO:C	41:BG:113:ARG:HA	1.83	1.02
12:CL:89:ARG:HH11	12:CL:89:ARG:HB2	1.21	1.02
42:BH:47:GLU:HG2	42:BH:48:GLY:H	1.18	1.02
46:BP:30:THR:HG22	46:BP:31:ALA:H	1.22	1.02
35:BA:1175:U:H4'	35:BA:1176:G:H5'	1.41	1.02
43:BI:38:LEU:H	43:BI:38:LEU:HD12	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
37:DC:58:VAL:HG21	37:DC:166:ASP:N	1.73	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
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
51:DU:92:ARG:CZ	52:DV:11:GLN:HB2	1.89	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:HB2	12:AL:89:ARG:HH11	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
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
7:CG:102:ARG:HG2	7:CG:106:GLN:HE21	1.26	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:2206:G:N2	35:BA:2207:G:H5'	1.74	1.01
35:BA:2312:U:H2'	35:BA:2313:C:H5''	1.40	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
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
43:BI:91:SER:HB2	43:BI:119:PRO:HB2	1.40	1.01
56:DZ:150:LEU:HD13	56:DZ:150:LEU:H	1.26	1.01
35:BA:2468:G:HO2'	35:BA:2469:A:H8	1.07	1.00
3:AC:71:ALA:HA	3:AC:105:GLU:HG3	1.42	1.00
35:BA:2206:G:H21	35:BA:2207:G:H5'	1.22	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
43:DI:91:SER:HB2	43:DI:119:PRO:HB2	1.43	1.00
52:DV:19:LYS:HZ3	52:DV:20:LEU:N	1.59	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
41:DG:112:PRO:C	41:DG:113:ARG:HA	1.87	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
47:BQ:141:GLN:HE22	56:BZ:72:ARG:HA	1.26	0.99
50:BT:91:ARG:HB3	50:BT:116:ALA:HA	1.45	0.99
1:CA:1442(A):G:H3'	1:CA:1442(B):A:C5'	1.93	0.99
12:AL:41:ARG:HB3	12:AL:41:ARG:NH1	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
31:D6:15:GLU:CD	31:D6:18:ARG:HE	1.71	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
35:BA:1798:U:H5'	38:BD:259:THR:HG22	1.40	0.98
35:BA:2068:U:H3	35:BA:2430:A:H2	1.02	0.98
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:NH1	56:BZ:31:ARG:HB3	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:HB3	12:CL:41:ARG:NH1	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
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:HD12	43:DI:38:LEU:H	1.24	0.96
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:HD2	17:CQ:52:LYS:H	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:HH11	26:B1:61:ARG:HG2	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
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
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
31:B6:15:GLU:CD	31:B6:18:ARG:HE	1.73	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
13:AM:90:LEU:C	13:AM:92:HIS:H	1.75	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
42:DH:13:LYS:HE2	42:DH:13:LYS:HA	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:AV:17:C:H3'	22:AV:18:G:H5''	1.49	0.94
22:CY:42:C:H3'	22:CY:43:C:H5''	1.50	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
13:CM:90:LEU:C	13:CM:92:HIS:H	1.74	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
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
56:BZ:48:PHE:CE2	56:BZ:52:SER:HA	2.04	0.93
2:CB:48:MET:HG2	2:CB:49:GLU:N	1.81	0.93
2:CB:118:LEU:HB2	2:CB:142:LEU:HD13	1.50	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:HD2	55:BY:8:LYS:H	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:H	17:AQ:52:LYS:HD2	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
35:BA:1779:U:H5	35:BA:1784:A:N7	1.68	0.92
44:BN:25:ARG:HG3	44:BN:25:ARG:HH11	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
41:DG:47:LYS:HZ2	41:DG:82:LEU:HD12	1.34	0.92
56:DZ:98:MET:HE2	56:DZ:100:VAL:HG22	1.48	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:HH11	46:DP:7:ARG:CA	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:HG3	38:BD:48:ARG:HH11	1.33	0.91
36:DB:20:C:C2'	36:DB:21:G:H5''	2.00	0.91
38:DD:221:VAL:HG22	38:DD:226:MET:HE2	1.51	0.91
43:DI:4:ILE:HG12	43:DI:18:VAL:HG22	1.49	0.91
44:DN:25:ARG:HH11	44:DN:25:ARG:HG3	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:HA	50:BT:13:ARG:NE	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:CD	25:B0:41:ARG:H	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
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
51:BU:92:ARG:HD2	52:BV:11:GLN:CD	1.97	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
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
27:D2:14:ARG:HH11	27:D2:14:ARG:HG3	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:HE2	42:BH:13:LYS:HA	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
55:DY:27:VAL:CA	55:DY:28:LYS:HZ2	1.85	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:H	2:CB:158:LEU:HD12	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
39:BE:27:LEU:HD23	50:BT:1:MET:HE2	1.54	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
35:DA:141:A:H8	35:DA:1408:C:HO2'	0.98	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
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
35:DA:694:U:C2'	35:DA:695:G:H5''	2.03	0.89
35:DA:2701:C:C3'	35:DA:2702:U: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:HH11	38:DD:48:ARG:HG3	1.36	0.89
55:BY:79:CYS:SG	55:BY:80:GLY:N	2.41	0.88
35:DA:2263:C:H5'	35:DA:2263:C:H6	1.37	0.88
4:AD:114:ARG:HH11	4:AD:114:ARG:HG3	1.37	0.88
41:BG:46:ALA:HB3	41:BG:82:LEU:CD1	2.04	0.88
46:BP:18:ARG:HB3	46:BP:18:ARG:HH11	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
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
39:DE:27:LEU:HD23	50:DT:1:MET:HE2	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
41:DG:128:ARG:C	41:DG:130:ASN:H	1.76	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:HB3	38:BD:26:LYS:HZ2	1.39	0.87
1:CA:1321:C:H5''	1:CA:1322:C:H5''	1.56	0.87
13:CM:84:ILE:HG12	19:CS:66:MET:HE1	1.57	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
46:DP:13:ASN:C	46:DP:13:ASN:HD22	1.81	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:H5'	35:DA:2290:G:H8	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
32:D7:11:LYS:HE2	35:DA:686:G:H5''	1.56	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
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
25:D0:41:ARG:CD	25:D0:41:ARG:H	1.86	0.87
35:DA:483:A:H1'	55:DY:60:PHE:HZ	1.38	0.87
35:DA:2267:A:H5''	35:DA:2268:A:H5'	1.56	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:HH11	44:BN:25:ARG:CG	1.88	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:H5'	35:BA:2263:C:H6	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:27:G:HO2'	35:DA:28:A:H8	0.91	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
4:CD:31:CYS:C	4:CD:33:MET:H	1.83	0.86
35:DA:286:C:H2'	35:DA:287:C:H5''	1.56	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
12:AL:25:PRO:C	12:AL:27:LEU:H	1.81	0.86
35:BA:483:A:H1'	55:BY:60:PHE:HZ	1.37	0.86
35:BA:2290:G:H8	35:BA:2290:G:H5'	1.39	0.86
55:BY:27:VAL:CA	55:BY:28:LYS:HZ2	1.87	0.86
9:CI:79:LEU:HD11	9:CI:102:LEU:HA	1.56	0.86
33:D8:6:THR:HG22	33:D8:63:PRO:HD3	1.57	0.86
33:D8:6:THR:CG2	33:D8:63:PRO:HD3	2.05	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:H	2:AB:44:LEU:HD12	1.38	0.86
15:AO:87:ILE:HG22	15:AO:88:ARG:H	1.39	0.86
35:BA:286:C:H2'	35:BA:287:C:H5''	1.55	0.86
35:BA:1899:G:H22	35:BA:1902:C:H41	1.17	0.86
39:DE:24:THR:HB	39:DE:186:GLY:HA2	1.55	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
41:BG:125:PHE:O	41:BG:128:ARG:HG2	1.75	0.86
30:D5:2:ALA:HA	35:DA:2015:A:H1'	1.57	0.86
33:D8:43:GLN:C	33:D8:44:LYS:HD2	2.01	0.86
46:DP:101:VAL:HB	46:DP:107:LYS:HA	1.56	0.86
51:DU:92:ARG:HD2	52:DV:11:GLN:CD	2.00	0.86
9:AI:79:LEU:HD11	9:AI:102:LEU:HA	1.56	0.86
40:BF:17:ARG:HH11	40:BF:17:ARG:HG3	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:HB3	46:DP:18:ARG:HH11	1.39	0.86
23:AW:69:G:C2'	23:AW:70:G:H5''	2.06	0.86
35:BA:143:G:H1'	54:BX:37:THR:HG21	1.58	0.86
35:BA:2523:G:H8	35:BA:2523:G:H5'	1.40	0.86
46:BP:47:ASP:HB3	46:BP:48:PRO:CA	2.05	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
4:AD:30:LYS:C	4:AD:32:ALA:H	1.83	0.86
35:BA:2807:G:H3'	35:BA:2808:U:H5''	1.58	0.86
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
13:AM:84:ILE:HG12	19:AS:66:MET:HE1	1.56	0.85
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:HH11	44:DN:25:ARG:CG	1.88	0.85
52:DV:19:LYS:HZ3	52:DV:20:LEU:H	0.89	0.85
56:DZ:28:MET:HE3	56:DZ:33:LEU:HD21	1.56	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:H5'	35:DA:2523:G:H8	1.41	0.85
1:AA:1432:G:OP1	50:BT:107:ASP:HB2	1.75	0.85
48:BR:38:VAL:HB	48:BR:39:PRO:HD3	1.56	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:H	37:DC:49:ILE:HD12	1.42	0.85
35:BA:807:U:OP2	46:BP:39:LYS:HG3	1.76	0.85
42:BH:46:GLU:HB2	42:BH:50:VAL:HA	1.56	0.85
56:BZ:125:LEU:HG	56:BZ:164:ALA:HB3	1.57	0.85
56:BZ:144:LEU:HD12	56:BZ:174:VAL:CG2	2.07	0.85
11:CK:127:LYS:HE2	11:CK:127:LYS:HA	1.58	0.85
35:DA:807:U:OP2	46:DP:39:LYS:HG3	1.77	0.85
35:DA:2262:U:C2'	35:DA:2263:C:H5''	2.06	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:114:ARG:HG3	4:CD:114:ARG:HH11	1.39	0.85
35:DA:143:G:H1'	54:DX:37:THR:HG21	1.57	0.85
35:DA:1301:A:O2'	35:DA:1302:A:H2'	1.77	0.85
1:AA:137:C:H42	1:AA:226:G:H1	1.24	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
35:DA:152:G:H1	35:DA:174:C:H42	1.20	0.85
55:DY:2:ARG:N	55:DY:5:MET:HE3	1.92	0.85
1:AA:939:G:H5''	7:AG:102:ARG:NH2	1.91	0.84
1:AA:1028:C:H2'	1:AA:1029:C:H5'	1.59	0.84
35:BA:1686:C:H5'	35:BA:1686:C:H6	1.41	0.84
38:BD:48:ARG:HG3	38:BD:48:ARG:NH1	1.91	0.84
39:BE:101:ARG:HH11	39:BE:169:ASN:ND2	1.75	0.84
13:CM:120:LYS:HA	13:CM:120:LYS:HE3	1.58	0.84
18:CR:40:LEU:H	18:CR:40:LEU:HD12	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
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
12:CL:25:PRO:C	12:CL:27:LEU:H	1.82	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
35:BA:2334:G:N2	49:BS:18:ILE:HD11	1.93	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
1:CA:617:G:H4'	16:CP:44:THR:HB	1.58	0.84
11:CK:48:ILE:HD11	11:CK:64:ALA:HA	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
48:BR:2:ARG:HG2	48:BR:5:LYS:HZ1	1.42	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
35:DA:486:C:H4'	53:DW:60:ASN:HD21	1.42	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
56:DZ:157:LEU:HD13	56:DZ:161:VAL:HG12	1.59	0.84
4:AD:31:CYS:C	4:AD:33:MET:H	1.83	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
48:DR:10:LEU:HB3	48:DR:17:ARG:NE	1.93	0.84
35:BA:2870:C:H5''	48:BR:65:LEU:HD21	1.58	0.83
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
3:CC:50:ALA:HB1	3:CC:70:VAL:HG11	1.60	0.83
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
38:DD:26:LYS:HB3	38:DD:26:LYS:HZ2	1.42	0.83
47:DQ:141:GLN:NE2	56:DZ:72:ARG:HA	1.92	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:DA:1654:A:OP1	48:DR:3:HIS:HB2	1.78	0.83
38:DD:26:LYS:HE2	38:DD:82:ILE:H	1.43	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:HD13	52:BV:99:ILE:H	1.44	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
33:B8:43:GLN:C	33:B8:44:LYS:HD2	2.04	0.83
39:BE:77:ILE:HG22	39:BE:78:LEU:N	1.92	0.83
35:DA:271(A):A:H5'	35:DA:271(B):C:OP2	1.79	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: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:50:ARG:O	46:DP:57:THR:HG22	1.79	0.83
46:DP:111:ARG:NH1	46:DP:149:GLU:HG3	1.92	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
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:130:ALA:C	38:BD:131:LEU:HD12	2.03	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:H5'	35:DA:1686:C:H6	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
1:AA:585:G:H4'	12:AL:8:ASN:ND2	1.94	0.83
4:AD:32:ALA:O	4:AD:36:ARG:HG3	1.79	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
41:DG:135:LEU:HD13	41:DG:155:MET:HE3	1.61	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:2334:G:N2	49:DS:18:ILE:HD11	1.91	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
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
55:BY:2:ARG:N	55:BY:5:MET:HE3	1.94	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:71:A:H8	35:BA:71:A:H5'	1.45	0.82
35:BA:486:C:H4'	53:BW:60:ASN:HD21	1.44	0.82
35:BA:631:A:OP1	46:BP:64:LYS:HE2	1.78	0.82
35:BA:2571:C:C5'	35:BA:2572:A:H5''	2.09	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:HH11	51:BU:112:ARG:HG2	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:H5'	35:DA:1221:C:H6	1.45	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
20:AT:50:GLU:HG3	20:AT:51:GLU:N	1.92	0.82
41:BG:46:ALA:CB	41:BG:82:LEU:HD11	2.09	0.82
45:BO:7:TYR:HE1	45:BO:20:MET:HE3	1.45	0.82
1:CA:174:C:H2'	1:CA:175:C:H6	1.44	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
38:BD:221:VAL:HG22	38:BD:226:MET:HE2	1.59	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
4:CD:30:LYS:C	4:CD:32:ALA:H	1.82	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
42:DH:20:ALA:HB2	42:DH:25:LYS:HZ1	1.45	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:389:A:H2'	1:AA:390:C:H5'	1.61	0.81
1:AA:1499:A:H1'	1:AA:1520:G:H5'	1.62	0.81
6:AF:37:VAL:HG13	6:AF:65:VAL:HG12	1.62	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:N	41:BG:164:GLU:OE1	2.12	0.81
46:BP:13:ASN:C	46:BP:13:ASN:HD22	1.88	0.81
50:BT:53:ARG:HG2	50:BT:53:ARG:O	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
47:DQ:56:ARG:HA	47:DQ:56:ARG:HE	1.44	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
43:DI:88:ILE:HG22	43:DI:89:TYR:N	1.93	0.81
54:DX:27:THR:HB	54:DX:80:ILE:HB	1.62	0.81
3:AC:52:LEU:H	3:AC:52:LEU:HD23	1.46	0.81
13:AM:13:LYS:HA	13:AM:44:ARG:HH11	1.42	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
35:BA:2555:U:H2'	35:BA:2556:C:H5'	1.60	0.81
40:BF:192:LEU:HD21	40:BF:194:MET:HE2	1.61	0.81
41:BG:91:ARG:HD2	41:BG:91:ARG:C	2.04	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
1:CA:1277:C:H2'	1:CA:1278:U:H5'	1.61	0.81
15:CO:47:LYS:HD3	15:CO:47:LYS:H	1.44	0.81
38:DD:28:GLU:H	38:DD:29:PRO:HD2	1.46	0.81
40:DF:192:LEU:HD21	40:DF:194:MET:HE2	1.62	0.81
43:DI:120:ILE:HG22	43:DI:121:LYS:N	1.95	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
8:AH:122:ARG:HB2	8:AH:122:ARG:NH1	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:8:ARG:HG2	16:AP:9:PHE:N	1.93	0.81
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
45:DO:7:TYR:HE1	45:DO:20:MET:HE3	1.45	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
6:CF:99:ALA:HB1	18:CR:23:LYS:HZ2	1.45	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:33:LEU:HD22	38:DD:34:VAL:H	1.46	0.81
38:DD:186:HIS:HD2	38:DD:188:GLU:H	1.28	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
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
38:DD:130:ALA:C	38:DD:131:LEU:HD12	2.05	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
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:8:A:H2'	35:BA:9:U:C6	2.16	0.80
35:BA:910:A:C5	47:BQ:13:GLN:HG3	2.15	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
45:BO:17:ARG:HD3	45:BO:47:ILE:HD13	1.64	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
50:BT:107:ASP:CG	50:BT:108:ARG:H	1.88	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)
48:BR:103:ARG:HD2	53:BW:40:ASN:HD22	1.46	0.80
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
1:CA:353:A:H8	1:CA:353:A:H5'	1.45	0.80
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.16	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:28:GLU:H	38:BD:29:PRO:HD2	1.45	0.80
38:BD:147:LEU:HD13	38:BD:155:LEU:HD11	1.64	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:HA	50:BT:125:ARG:NH1	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:HD23	44:BN:23:LEU:H	1.47	0.80
55:BY:7:VAL:HG21	55:BY:8:LYS:HZ3	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
50:BT:28:VAL:HG22	50:BT:47:GLY:H	1.46	0.80
1:CA:6:G:H4'	1:CA:298:A:H4'	1.63	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
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
31:D6:45:LYS:HZ1	35:DA:2370:G:H21	1.29	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:365:C:H5'	35:BA:365:C:H6	1.47	0.79
35:BA:1484:G:C3'	35:BA:1485:G:H5''	2.12	0.79
52:BV:46:VAL:HG13	52:BV:47:VAL:N	1.97	0.79
1:CA:322:C:H4'	20:CT:23:ARG:HD2	1.63	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
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
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:80:G:H3'	1:CA:81:U:H5'	1.63	0.79
1:CA:511:C:H1'	4:CD:43:HIS:HE2	1.45	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
35:DA:910:A:C5	47:DQ:13:GLN:HG3	2.16	0.79
39:DE:7:VAL:HG21	50:DT:1:MET:HE1	1.65	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
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
56:DZ:28:MET:HE2	56:DZ:35:ARG:HB2	1.65	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
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:N	55:DY:31:LEU:HD22	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
1:CA:1512:U:H2'	1:CA:1513:A:H8	1.47	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
28:D3:31:LEU:HD23	28:D3:32:GLN:HG2	1.65	0.79
35:DA:1532:C:H2'	35:DA:1532:C:O2	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:HD13	40:BF:78:ILE:H	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:H	25:D0:41:ARG:HD2	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:HH11	51:DU:112:ARG:HG2	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
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
41:BG:128:ARG:C	41:BG:130:ASN:H	1.91	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:322:C:H4'	20:AT:23:ARG:HD2	1.66	0.78
19:AS:20:LEU:HA	19:AS:23:ASN:HD21	1.47	0.78
27:B2:43:GLN:O	27:B2:44:LEU:HB2	1.83	0.78
30:B5:4:HIS:HB3	30:B5:5:PRO:CD	2.13	0.78
30:B5:40:LYS:HZ2	30:B5:46:CYS:HB3	1.47	0.78
35:BA:1899:G:H22	35:BA:1902:C:N4	1.81	0.78
35:BA:1899:G:O2'	35:BA:1900:A:H5''	1.81	0.78
2:CB:68:ILE:H	2:CB:90:MET:HE2	1.47	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
6:AF:99:ALA:HB1	18:AR:23:LYS:HZ2	1.47	0.78
35:BA:286:C:H2'	35:BA:287:C:C5'	2.14	0.78
35:BA:662:G:OP1	46:BP:18:ARG:HD2	1.84	0.78
43:BI:8:PRO:CB	43:BI:14:ASP:H	1.96	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:HD2	16:CP:27:LYS:H	1.49	0.78
35:DA:855:G:H2'	35:DA:856:C:C6	2.17	0.78
35:DA:2197:U:O2'	35:DA:2198:A:H5''	1.83	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
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
50:BT:81:PRO:C	50:BT:82:LEU:HD12	2.09	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
52:BV:19:LYS:HZ3	52:BV:20:LEU:H	0.81	0.78
56:BZ:153:SER:HB2	56:BZ:167:PRO:HG3	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D6:20:ASN:ND2	31:D6:21:TYR:H	1.81	0.78
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
47:DQ:132:VAL:HB	56:DZ:81:ARG:NH1	1.97	0.78
52:DV:46:VAL:HG22	52:DV:47:VAL:H	1.47	0.78
30:B5:29:THR:HG21	35:BA:2815:C:H5'	1.66	0.78
35:BA:197:A:H8	35:BA:197:A:H5'	1.47	0.78
35:BA:322:A:H3'	40:BF:169:ASN:HD21	1.49	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
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
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
2:AB:68:ILE:H	2:AB:90:MET:HE2	1.49	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
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
35:DA:2415:G:H4'	46:DP:67:MET:N	1.99	0.78
38:DD:69:ARG:HD2	38:DD:119:ALA:HB2	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DF:40:GLN:HE22	40:DF:182:ASN:HB2	1.46	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
13:CM:24:GLY:C	13:CM:25:ILE:HD12	2.10	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:O2	22:CV:41:C:H2'	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
42:DH:20:ALA:HB2	42:DH:25:LYS:NZ	1.98	0.77
1:AA:17:U:H2'	1:AA:18:C:C6	2.19	0.77
35:BA:480:A:H1'	55:BY:44:ILE:HG21	1.65	0.77
48:BR:10:LEU:HB3	48:BR:17:ARG:CD	2.15	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:N	55:BY:31:LEU:HD22	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
55:DY:27:VAL:HA	55:DY:28:LYS:HZ2	1.48	0.77
6:AF:1:MET:HE1	6:AF:68:PRO:HB3	1.66	0.77
35:BA:547:A:H8	35:BA:549:G:H1	1.32	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
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
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
6:CF:60:PHE:C	6:CF:61:LEU:HD12	2.09	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:676:A:H2	35:BA:802:A:H61	1.31	0.77
35:BA:2790:A:H2	35:BA:2791:C:H2'	1.49	0.77
35:BA:2875:C:H4'	50:BT:5:ALA:HB2	1.67	0.77
43:BI:38:LEU:H	43:BI:38:LEU:CD1	1.97	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:1654:A:P	48:BR:3:HIS:HB2	2.24	0.77
35:BA:2498:C:O2'	35:BA:2499:C:H5'	1.84	0.77
38:BD:30:GLU:HG2	38:BD:63:ARG:NE	2.00	0.77
38:BD:181:GLU:HA	38:BD:272:ALA:CB	2.14	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:H6	35:BA:2506:U:H3'	1.49	0.77
41:BG:47:LYS:HZ2	41:BG:82:LEU:HD12	1.50	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
7:AG:145:ALA:C	7:AG:147:ALA:H	1.92	0.77
13:AM:24:GLY:C	13:AM:25:ILE:HD12	2.09	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:H5'	35:DA:2036:C:H6	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:481:G:H1'	35:BA:506:G:N2	1.99	0.76
35:BA:2732:G:O2'	35:BA:2733:A:H5'	1.85	0.76
49:BS:96:GLY:O	49:BS:98:VAL:N	2.18	0.76
51:BU:91:ASP:CG	51:BU:96:ALA:HB2	2.10	0.76
1:CA:328:C:H4'	1:CA:329:A:H5'	1.67	0.76
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:HB2	8:CH:122:ARG:HH11	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:389:G:H1	46:DP:71:VAL:HG12	1.50	0.76
35:DA:1227:G:OP1	51:DU:13:LYS:HD2	1.85	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:48:ARG:HG3	38:DD:48:ARG:NH1	1.95	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
50:DT:8:LYS:HA	50:DT:11:GLU:OE1	1.86	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:HD2	16:AP:27:LYS:H	1.50	0.76
35:BA:2314:C:O2'	35:BA:2315:G:H5'	1.85	0.76
3:CC:18:TRP:H	3:CC:18:TRP:HE3	1.33	0.76
12:CL:89:ARG:HB2	12:CL:89:ARG:NH1	1.98	0.76
35:DA:2124:G:O2'	37:DC:40:THR:HA	1.86	0.76
35:DA:2151:G:H2'	35:DA:2152:G:H8	1.50	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
50:DT:81:PRO:C	50:DT:82:LEU:HD12	2.10	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
58:AA:1799:PAR:HN61	58:AA:1799:PAR:H34	1.49	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
39:BE:78:LEU:C	39:BE:79:ARG:HD2	2.11	0.76
43:BI:58:LEU:C	43:BI:60:GLU:H	1.93	0.76
1:CA:625:G:H2'	1:CA:626:U:H6	1.50	0.76
13:CM:19:LEU:H	13:CM:19:LEU:HD22	1.49	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:15:LEU:O	19:CS:19:VAL:HG23	1.86	0.76
1:AA:92:C:H2'	1:AA:93:G:H8	1.49	0.76
1:AA:617:G:H1	1:AA:623:C:H42	1.34	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
20:AT:99:LEU:C	20:AT:100:ILE:HD12	2.10	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
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:87:SER:HA	8:CH:93:VAL:HG23	1.68	0.76
8:CH:122:ARG:HB2	8:CH:122:ARG:NH1	1.99	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
26:D1:81:LYS:C	26:D1:82:LEU:HD13	2.11	0.76
27:D2:12:GLU:O	27:D2:16:LEU:HG	1.85	0.76
35:DA:271(T):C:H5'	35:DA:271(T):C:C6	2.20	0.76
35:DA:1348:G:C2'	35:DA:1349:A:H5''	2.15	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:528:A:C2	35:BA:2042:A:H2'	2.20	0.76
35:BA:1348:G:C2'	35:BA:1349:A:H5''	2.16	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
47:BQ:16:ARG:C	47:BQ:17:LEU:HD23	2.09	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
6:AF:60:PHE:C	6:AF:61:LEU:HD12	2.10	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
35:BA:2392:A:H2	35:BA:2424:C:H42	1.31	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
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
39:DE:78:LEU:C	39:DE:79:ARG:HD2	2.10	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:92:A:H2'	35:BA:93:G:H8	1.50	0.76
35:BA:2124:G:O2'	37:BC:40:THR:HA	1.85	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
50:DT:107:ASP:CG	50:DT:108:ARG:H	1.90	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:27:G:O2'	35:DA:28:A:H8	1.68	0.76
35:DA:914:C:H2'	35:DA:915:C:H5'	1.67	0.76
35:DA:2314:C:O2'	35:DA:2315:G:H5'	1.84	0.76
49:DS:39:ILE:HD11	49:DS:73:LEU:HD21	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:84:LEU:HD12	12:AL:104:VAL:HG11	1.68	0.76
22:AY:77:PHA:HD2	35:BA:2451:A:C2	2.19	0.76
35:BA:2245:U:H5'	35:BA:2246:G:H5'	1.66	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:1125:U:O4	10:CJ:5:ARG:HD3	1.85	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
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
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
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
47:DQ:16:ARG:C	47:DQ:17:LEU:HD23	2.10	0.75
2:AB:84:GLU:HB3	2:AB:219:VAL:HG21	1.68	0.75
12:AL:89:ARG:HB2	12:AL:89:ARG:NH1	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:DA:1011:G:H5''	51:DU:77:SER:OG	1.87	0.75
40:DF:78:ILE:H	40:DF:78:ILE:HD13	1.50	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
42:BH:47:GLU:HG2	42:BH:48:GLY:N	1.95	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
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:HD23	44:DN:23:LEU:H	1.50	0.75
54:DX:54:VAL:HG22	54:DX:81:VAL:HG12	1.67	0.75
55:DY:50:ARG:C	55:DY:52:SER:H	1.95	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:389:G:N1	46:BP:71:VAL:HG12	2.01	0.75
35:BA:2103:C:H3'	35:BA:2104:G:H5''	1.66	0.75
39:BE:4:ILE:HG21	39:BE:96:PHE:HE2	1.52	0.75
42:BH:20:ALA:HB2	42:BH:25:LYS:HZ1	1.50	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
35:DA:2468:G:HO2'	35:DA:2469:A:H8	1.34	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: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
1:AA:1504:G:OP1	1:AA:1507:A:H4'	1.86	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BB:48:A:H2'	36:BB:49:C:C6	2.20	0.75
39:BE:57:LYS:C	39:BE:59:VAL:H	1.93	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: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
35:DA:2506:U:H3'	35:DA:2506:U:H6	1.51	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
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:H5'	35:BA:1987:G:H8	1.52	0.75
35:BA:2197:U:O2'	35:BA:2198:A:H5''	1.86	0.75
35:BA:2415:G:H4'	46:BP:67:MET:N	2.02	0.75
38:BD:33:LEU:O	38:BD:34:VAL:HB	1.85	0.75
47:BQ:17:LEU:C	47:BQ:18:LYS:HD2	2.12	0.75
48:BR:2:ARG:NH1	48:BR:5:LYS:HE2	2.01	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:322:A:H3'	40:DF:169:ASN:HD21	1.52	0.75
35:DA:676:A:H8	35:DA:2069:G:H21	1.32	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
35:DA:598:G:H5'	46:DP:15:ARG:HD2	1.67	0.74
35:DA:2069:G:C2'	35:DA:2070:G:H5'	2.17	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:H	34:B9:26:ILE:HD12	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
40:BF:1:MET:HE2	40:BF:2:LYS:NZ	2.01	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:HG2	5:CE:40:ARG:HH11	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
35:DA:2875:C:H4'	50:DT:5:ALA:HB2	1.68	0.74
37:DC:39:GLU:HG2	37:DC:180:PHE:HA	1.69	0.74
39:DE:57:LYS:C	39:DE:59:VAL:H	1.94	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
1:CA:17:U:H2'	1:CA:18:C:C6	2.22	0.74
6:CF:1:MET:HE1	6:CF:68:PRO:HB3	1.68	0.74
7:CG:145:ALA:C	7:CG:147:ALA:H	1.91	0.74
30:D5:40:LYS:HZ3	30:D5:46:CYS:HB3	1.51	0.74
35:DA:953:A:O2'	35:DA:954:G:H5'	1.87	0.74
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
51:DU:91:ASP:CG	51:DU:96:ALA:HB2	2.12	0.74
52:DV:18:LEU:HD22	52:DV:19:LYS:H	1.53	0.74
1:AA:186:C:H5'	20:AT:78:ALA:HB1	1.69	0.74
12:AL:55:VAL:HG12	12:AL:56:ALA:N	2.03	0.74
31:B6:47:THR:HG22	31:B6:48:VAL:N	2.03	0.74
35:BA:271(T):C:H5'	35:BA:271(T):C:C6	2.21	0.74
35:BA:2313:C:H2'	35:BA:2314:C:H6	1.52	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
56:BZ:166:SER:HB2	56:BZ:167:PRO:C	2.13	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DI:58:LEU:C	43:DI:60:GLU:H	1.95	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:HB3	9:AI:116:LYS:NZ	2.02	0.74
22:AV:20:U:H3'	22:AV:21:A:C5'	2.14	0.74
35:BA:330:A:HO2'	35:BA:331:A:H8	1.35	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
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
52:DV:81:TYR:C	52:DV:82:ARG:HD2	2.11	0.74
56:DZ:75:ASN:C	56:DZ:76:LEU:HD22	2.12	0.74
2:AB:48:MET:HE3	2:AB:49:GLU:HG3	1.69	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
35:BA:2875:C:O2'	50:BT:5:ALA:HB3	1.86	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
52:BV:38:LEU:O	52:BV:39:LEU:HD13	1.87	0.74
55:BY:27:VAL:HA	55:BY:28:LYS:HZ2	1.50	0.74
1:CA:148:G:H2'	1:CA:149:A:H8	1.51	0.74
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
15:CO:39:LEU:HD12	15:CO:59:MET:HE2	1.69	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
1:CA:76:C:H42	1:CA:93:G:H1	1.36	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
13:CM:90:LEU:C	13:CM:92:HIS:N	2.46	0.74
25:D0:18:ALA:HB1	35:DA:2271:G:OP1	1.88	0.74
35:DA:1497:U:H5'	35:DA:1498:C:C5	2.23	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
49:BS:65:VAL:C	49:BS:67:ARG:H	1.96	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:HH11	10:CJ:45:ARG:HG3	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
1:AA:922:G:H4'	5:AE:20:GLN:HA	1.70	0.73
3:AC:18:TRP:H	3:AC:18:TRP:HE3	1.33	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:88:ILE:HG22	50:BT:89:VAL:HG23	1.70	0.73
2:CB:48:MET:HE3	2:CB:49:GLU:HG3	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
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
13:AM:76:ALA:HB2	13:AM:79:LYS:HZ3	1.53	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
55:BY:50:ARG:C	55:BY:52:SER:H	1.95	0.73
1:CA:97:G:O2'	1:CA:98:G:H5''	1.88	0.73
2:CB:238:LEU:HD23	2:CB:238:LEU:H	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:D6:19:ARG:HD2	31:D6:19:ARG:H	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:N	3:AC:127:ARG:HD2	2.03	0.73
13:AM:8:GLU:OE1	13:AM:22:ILE:HG23	1.88	0.73
15:AO:39:LEU:HD12	15:AO:59:MET:HE2	1.70	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
39:BE:7:VAL:HG21	50:BT:1:MET:HE1	1.69	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
35:DA:662:G:OP1	46:DP:18:ARG:HD2	1.88	0.73
41:DG:16:ARG:NH2	41:DG:28:VAL:HG12	2.04	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:HG3	10:AJ:45:ARG:HH11	1.53	0.73
33:B8:50:LEU:CD1	33:B8:51:ALA:H	2.00	0.73
39:BE:52:LEU:HD11	50:BT:1:MET:HE3	1.70	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:AA:460:G:O6	1:AA:470:C:H5''	1.88	0.73
1:AA:976:G:H5'	1:AA:1358:U:O2'	1.87	0.73
1:AA:1163:C:H2'	1:AA:1164:G:C8	2.22	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
35:BA:2683:C:P	50:BT:53:ARG:HH22	2.11	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
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
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:963:U:H2'	35:DA:964:C:H6	1.54	0.73
35:DA:2348:U:H2'	35:DA:2349:G:H5''	1.70	0.73
40:DF:1:MET:HE2	40:DF:2:LYS:NZ	2.03	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
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
1:CA:750:G:N3	15:CO:23:GLY:HA3	2.03	0.73
2:CB:8:LYS:HD3	2:CB:217:ARG:NH2	2.04	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:43:LEU:HD22	20:AT:48:LYS:HG3	1.69	0.73
20:AT:50:GLU:HA	20:AT:100:ILE:HG21	1.70	0.73
33:B8:21:LYS:HD3	33:B8:48:PHE:CZ	2.24	0.73
35:BA:549:G:H2'	35:BA:551:G:H5''	1.71	0.73
35:BA:1879:C:H2'	35:BA:1880:C:C5'	2.18	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:736:C:H2'	1:CA:737:A:H8	1.53	0.73
1:CA:1404:C:H2'	1:CA:1405:G:C8	2.23	0.73
3:CC:118:GLN:O	3:CC:122:GLU:HG3	1.89	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:HG2	51:BU:64:ARG:HH21	1.54	0.73
1:CA:382:A:H2'	1:CA:383:A:C8	2.23	0.73
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:991:C:H5'	35:DA:991:C:H6	1.52	0.73
35:DA:1591:G:H8	35:DA:1591:G:H5'	1.53	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
35:BA:2682:U:C6	39:BE:11:MET:HE2	2.24	0.73
39:BE:176:ILE:HD12	39:BE:176:ILE:N	2.04	0.73
41:BG:61:ALA:HA	41:BG:64:THR:CG2	2.19	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BQ:141:GLN:OXT	56:BZ:99:TYR:N	2.22	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
52:BV:81:TYR:C	52:BV:82:ARG:HD2	2.13	0.73
55:BY:90:LEU:HD12	55:BY:91:GLU:HB2	1.69	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
33:B8:50:LEU:C	33:B8:53:PRO:HD2	2.13	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:9:LYS:HB3	5:CE:112:LEU:HD11	1.71	0.72
5:CE:50:GLU:OE2	5:CE:51:VAL:HG23	1.88	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:H	10:AJ:50:ILE:CD1	2.00	0.72
13:AM:90:LEU:C	13:AM:92:HIS:N	2.47	0.72
14:AN:3:ARG:HH11	14:AN:3:ARG:HB3	1.55	0.72
31:B6:23:THR:HG21	35:BA:2419:U:H5'	1.69	0.72
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:H	10:CJ:50:ILE:CD1	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
20:AT:13:LEU:C	20:AT:13:LEU:HD12	2.14	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
3:CC:170:GLN:HG2	3:CC:171:GLY:N	2.03	0.72
33:D8:21:LYS:HD3	33:D8:48:PHE:CZ	2.24	0.72
35:DA:586:A:H5'	40:DF:89:VAL:HG21	1.70	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
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
47:DQ:17:LEU:C	47:DQ:18:LYS:HD2	2.13	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: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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:27:G:H22	35:BA:512:G:H2'	1.53	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
53:BW:59:VAL:HG12	53:BW:60:ASN:N	2.04	0.72
53:BW:99:ARG:HG2	53:BW:99:ARG:HH11	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
20:CT:99:LEU:C	20:CT:100:ILE:HD12	2.14	0.72
23:CW:61:C:H2'	23:CW:62:C:C6	2.24	0.72
33:D8:50:LEU:C	33:D8:53:PRO:HD2	2.13	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:N	47:DQ:137:TYR:CD2	2.56	0.72
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
43:BI:9:LEU:H	43:BI:13:GLY:HA2	1.55	0.72
43:BI:71:ILE:HG13	43:BI:72:LEU:N	2.04	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
4:CD:11:LEU:C	4:CD:13:ARG:N	2.43	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:H2'	35:DA:1866:C:O2	1.89	0.72
35:DA:1987:G:H8	35:DA:1987:G:H5'	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
45:DO:7:TYR:CE1	45:DO:20:MET:HE3	2.25	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: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
35:BA:1854:A:H3'	35:BA:1855:G:H8	1.55	0.72
43:BI:120:ILE:HG22	43:BI:121:LYS:H	1.50	0.72
45:BO:7:TYR:CE1	45:BO:20:MET:HE3	2.24	0.72
52:BV:1:MET:HE2	52:BV:1:MET:HA	1.69	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:53:THR:HG22	40:DF:56:GLU:CD	2.14	0.72
40:DF:164:ARG:HG3	40:DF:175:THR:OG1	1.89	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:HB3	11:AK:126:ARG:NH1	2.05	0.72
23:AW:45:U:O2'	23:AW:46:G:H5'	1.89	0.72
25:B0:18:ALA:HB1	35:BA:2271:G:OP1	1.89	0.72
35:BA:1497:U:H5'	35:BA:1498:C:C5	2.25	0.72
37:BC:36:LYS:HA	37:BC:36:LYS:HZ2	1.55	0.72
42:BH:71:LEU:H	42:BH:74:ASN:ND2	1.87	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:HD23	8:CH:119:LEU:N	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:8:A:H2'	35:BA:9:U:C5	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
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:3:THR:O	44:DN:5:VAL:N	2.22	0.71
44:DN:125:GLY:HA3	44:DN:126:PRO:O	1.90	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:11:ARG:HB3	3:AC:15:THR:HB	1.69	0.71
3:AC:113:ALA:HA	3:AC:116:VAL:HG23	1.71	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
39:BE:109:LYS:CB	48:BR:2:ARG:HH22	2.02	0.71
45:BO:107:ARG:O	45:BO:112:MET:HE1	1.90	0.71
46:BP:90:ARG:HG2	46:BP:91:PHE:N	2.04	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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:94:C:H5'	35:DA:94(A):G:OP2	1.89	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:2682:U:C6	39:DE:11:MET:HE2	2.24	0.71
40:DF:132:VAL:HG22	40:DF:133:ASN:N	1.96	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
4:AD:11:LEU:C	4:AD:13:ARG:N	2.43	0.71
8:AH:42:GLU:HG3	8:AH:109:ILE:HD12	1.73	0.71
10:AJ:50:ILE:HD13	10:AJ:50:ILE:N	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
35:DA:2136:C:H2'	35:DA:2137:C:H6	1.54	0.71
39:DE:4:ILE:HG21	39:DE:96:PHE:HE2	1.54	0.71
39:DE:176:ILE:HD12	39:DE:176:ILE:N	2.05	0.71
44:DN:1:MET:HG2	44:DN:2:LYS:N	2.05	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DP:30:THR:HG22	46:DP:31:ALA:N	2.02	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
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
45:BO:104:ARG:HH21	50:BT:33:LYS:HE2	1.55	0.71
47:BQ:141:GLN:H	56:BZ:99:TYR:HB2	1.54	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
52:DV:1:MET:HE2	52:DV:1:MET:HA	1.73	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
18:CR:86:VAL:C	18:CR:87:ARG:HD3	2.15	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BT:96:ARG:HH11	50:BT:96:ARG:HG2	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:16:ARG:C	39:DE:18:ASP:H	1.99	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
7:AG:148:ASN:C	7:AG:150:ALA:H	1.98	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:HG23	25:B0:43:THR:O	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
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
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
46:BP:107:LYS:C	46:BP:109:GLY:H	1.99	0.71
56:BZ:79:ARG:O	56:BZ:80:ARG:HB2	1.90	0.71
56:BZ:102:LEU:HG	56:BZ:123:ASP:HA	1.72	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:HD12	29:D4:48:ILE:H	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
35:DA:2126:A:H4'	35:DA:2127:G:O5'	1.90	0.71
41:DG:47:LYS:N	41:DG:51:ARG:HD2	2.05	0.71
45:DO:104:ARG:NH1	50:DT:35:LYS:HD3	2.05	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:DS:74:ALA:HB1	49:DS:103:GLU:HB2	1.72	0.71
55:DY:60:PHE:HA	55:DY:62:GLU:OE2	1.91	0.71
1:AA:191:G:C4	20:AT:105:SER:HB3	2.26	0.71
1:AA:1003:G:H2'	1:AA:1004:A:O4'	1.90	0.71
3:AC:70:VAL:HG12	3:AC:71:ALA:N	2.00	0.71
3:AC:118:GLN:O	3:AC:122:GLU:HG3	1.90	0.71
23:AW:6:G:O2'	23:AW:7:A:H5'	1.91	0.71
35:BA:197:A:H5'	35:BA:197:A:C8	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:15:G:H4'	5:CE:24:ARG:HH12	1.56	0.71
1:CA:135:C:H2'	1:CA:136:C:H5'	1.72	0.71
14:CN:3:ARG:HH11	14:CN:3:ARG:HB3	1.56	0.71
14:CN:25:VAL:HG22	14:CN:38:GLY:O	1.90	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
46:DP:107:LYS:C	46:DP:109:GLY:H	1.99	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:H3'	35:BA:1021:A:H8	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
46:BP:97:PRO:C	46:BP:99:LEU:H	1.99	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:HH11	6:CF:87:ARG:HG2	1.53	0.70
9:CI:24:GLY:HA2	9:CI:59:PHE:O	1.89	0.70
25:D0:36:ILE:HG23	35:DA:2354:G:O2'	1.90	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
35:DA:1986:A:C3'	35:DA:1987:G:H5''	2.21	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:43:ARG:HD2	38:DD:44:ASN:OD1	1.91	0.70
39:DE:109:LYS:CB	48:DR:2:ARG:HH22	2.04	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
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:HH11	48:BR:104:ARG:HB2	1.56	0.70
50:BT:129:ARG:CZ	50:BT:131:ALA:HB3	2.21	0.70
54:BX:80:ILE:HD13	54:BX:80:ILE:O	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
18:AR:86:VAL:C	18:AR:87:ARG:HD3	2.16	0.70
35:BA:795:C:H2'	35:BA:796:C:C6	2.24	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
39:BE:28:ALA:HB3	39:BE:93:VAL:HG22	1.72	0.70
40:BF:1:MET:HE2	40:BF:2:LYS:HZ2	1.56	0.70
44:BN:4:TYR:N	44:BN:4:TYR:CD1	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
1:CA:191:G:C4	20:CT:105:SER:HB3	2.26	0.70
1:CA:235:C:H1'	17:CQ:61:GLU:OE1	1.91	0.70
3:CC:150:LYS:HG3	3:CC:169:ALA:HB2	1.72	0.70
35:DA:34:C:H2'	35:DA:35:G:H5'	1.73	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
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
10:AJ:6:ILE:HG22	10:AJ:98:ILE:HG13	1.73	0.70
35:BA:27:G:O2'	35:BA:28:A:H8	1.70	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2736:G:H8	35:BA:2736:G:H5'	1.56	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
39:DE:52:LEU:HD11	50:DT:1:MET:HE3	1.73	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
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
19:AS:63:THR:CG2	19:AS:66:MET:HE3	2.22	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
40:DF:21:ALA:C	40:DF:23:ASP:H	2.00	0.70
41:DG:46:ALA:HB2	41:DG:88:ILE:HB	1.73	0.70
49:DS:65:VAL:C	49:DS:67:ARG:H	1.97	0.70
51:DU:9:VAL:HG12	51:DU:13:LYS:HE2	1.72	0.70
35:BA:943:U:OP2	46:BP:38:GLN:CD	2.35	0.70
35:BA:1484:G:C2'	35:BA:1485:G:H5''	2.22	0.70
39:BE:16:ARG:C	39:BE:18:ASP:H	1.99	0.70
44:BN:134:ARG:O	44:BN:136:GLU:N	2.25	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
1:CA:1199:U:H4'	10:CJ:54:PHE:CZ	2.27	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:21:GLN:HA	10:CJ:24:VAL:CG2	2.21	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
40:BF:21:ALA:C	40:BF:23:ASP:H	2.00	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:H	56:DZ:150:LEU:CD1	2.04	0.70
1:AA:373:A:O2'	1:AA:374:A:H5'	1.91	0.70
20:AT:45:GLN:C	20:AT:47:GLY:H	2.00	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:662:G:H2'	1:CA:663:A:C8	2.26	0.70
1:CA:1010:G:N2	1:CA:1020:U:H1'	2.06	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:HD12	39:DE:95:ILE:N	2.06	0.70
46:DP:16:ARG:HB2	46:DP:16:ARG:NH1	2.07	0.70
46:DP:18:ARG:HH11	46:DP:18:ARG:CB	2.05	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
35:BA:1227:G:OP1	51:BU:13:LYS:HD2	1.90	0.70
46:BP:23:PRO:HD2	46:BP:33:ARG:CZ	2.22	0.70
56:BZ:31:ARG:HH11	56:BZ:31:ARG:CB	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
19:CS:63:THR:CG2	19:CS:66:MET:HE3	2.22	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
35:DA:2683:C:P	50:DT:53:ARG:HH22	2.14	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
41:DG:112:PRO:C	41:DG:113:ARG:HH11	1.99	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
46:DP:97:PRO:C	46:DP:99:LEU:H	1.98	0.70
48:DR:2:ARG:HH11	48:DR:5:LYS:CE	2.04	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
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:549:G:H2'	35:DA:551:G:H5''	1.74	0.69
35:DA:2736:G:H5'	35:DA:2736:G:H8	1.58	0.69
36:DB:20:C:H2'	36:DB:21:G:C5'	2.22	0.69
36:DB:111:G:O2'	36:DB:112:U:H5'	1.92	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:B8:61:LEU:HD12	33:B8:63:PRO:HD2	1.73	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
35:BA:1528(A):A:C3'	35:BA:1529:G:H5''	2.21	0.69
35:BA:1876:A:H2'	35:BA:1877:A:C8	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
55:DY:50:ARG:HD2	55:DY:57:GLN:O	1.92	0.69
1:AA:337:C:H2'	1:AA:338:A:C8	2.28	0.69
1:AA:1028:C:C2'	1:AA:1029:C:H5'	2.22	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
31:B6:15:GLU:CD	31:B6:18:ARG:NE	2.49	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:50:ALA:C	41:BG:52:ILE:H	1.99	0.69
41:BG:118:ARG:HB2	41:BG:181:ARG:HH21	1.56	0.69
55:BY:88:LYS:HZ1	55:BY:93:GLY:HA3	1.57	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:70:G:H21	35:DA:71:A:H62	1.39	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
38:DD:26:LYS:O	38:DD:26:LYS:HD2	1.92	0.69
53:DW:5:ALA:O	53:DW:6:ILE:HB	1.92	0.69
1:AA:57:G:H2'	1:AA:58:C:C6	2.27	0.69
1:AA:447:G:H2'	1:AA:485:G:N2	2.08	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1255:G:H5'	1:AA:1256:A:OP1	1.93	0.69
19:AS:6:LYS:HG2	19:AS:7:LYS:CE	2.22	0.69
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:HD12	39:BE:95:ILE:N	2.06	0.69
41:BG:137:GLU:HG2	41:BG:152:LEU:HD21	1.74	0.69
46:BP:71:VAL:CG1	46:BP:72:PRO:HD3	2.21	0.69
46:BP:107:LYS:O	46:BP:109:GLY:N	2.25	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
1:AA:61:G:H2'	1:AA:62:U:O4'	1.92	0.69
1:AA:376:G:OP2	16:AP:67:THR:HG21	1.92	0.69
12:AL:47:LYS:HB3	12:AL:48:PRO:CD	2.19	0.69
30:B5:25:LEU:HD12	53:BW:19:LEU:HB3	1.74	0.69
31:B6:45:LYS:HZ1	35:BA:2370:G:H21	1.38	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
35:BA:2522:U:C2'	35:BA:2523:G:H5''	2.22	0.69
42:BH:153:LYS:HD3	42:BH:153:LYS:N	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
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:389:G:N1	46:DP:70:GLN:HG3	2.07	0.69
35:DA:784:A:H5'	35:DA:785:G:OP1	1.92	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
41:DG:115:ARG:HH11	41:DG:140:ILE:HD11	1.58	0.69
46:DP:71:VAL:HG13	46:DP:72:PRO:HD3	1.74	0.69
1:AA:626:U:H5''	16:AP:38:TYR:CD2	2.26	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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:221:A:H4'	35:DA:222:A:O5'	1.92	0.69
35:DA:1528(A):A:C3'	35:DA:1529:G:H5''	2.21	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:539:A:OP2	12:CL:115:LYS:HE3	1.93	0.69
1:CA:1053:G:C3'	1:CA:1054:C:H5'	2.22	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
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
15:AO:61:GLY:O	15:AO:65:ARG:HD3	1.92	0.69
19:AS:6:LYS:N	19:AS:6:LYS:HD2	2.07	0.69
19:AS:29:ARG:HD2	19:AS:30:LEU:N	2.08	0.69
23:AW:16:U:H3'	23:AW:17:C:C5'	2.21	0.69
24:AX:13:A:H3'	24:AX:14:A:C5'	2.21	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AY:67:C:H2'	22:AY:68:C:C6	2.27	0.69
35:BA:61:G:H1	35:BA:94:C:H42	1.41	0.69
35:BA:557:U:H2'	35:BA:558:G:H8	1.58	0.69
35:BA:671:C:O2'	35:BA:672:C:H5'	1.92	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
37:BC:168:THR:HA	37:BC:173:ALA:CB	2.23	0.69
40:BF:53:THR:HG22	40:BF:56:GLU:CD	2.17	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
44:BN:1:MET:HG2	44:BN:2:LYS:N	2.07	0.69
46:BP:7:ARG:O	46:BP:7:ARG:NH1	2.26	0.69
52:BV:18:LEU:HD13	52:BV:19:LYS:N	2.07	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
2:CB:178:ARG:HH22	2:CB:196:LEU:CA	2.06	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
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:1697:G:H3'	35:DA:1698:A:C5'	2.22	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
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
55:DY:46:LYS:H	55:DY:62:GLU:HG2	1.58	0.69
56:DZ:40:ASP:HB2	56:DZ:43:GLU:OE1	1.93	0.69
56:DZ:131:ARG:HH11	56:DZ:131:ARG:HG2	1.58	0.69
1:AA:134:A:H61	16:AP:25:ARG:HH12	1.38	0.69
9:AI:15:ALA:HA	9:AI:65:VAL:HA	1.74	0.69
10:AJ:6:ILE:O	10:AJ:6:ILE:HG13	1.93	0.69
13:AM:76:ALA:HA	13:AM:79:LYS:CG	2.22	0.69
23:AW:38:A:H3'	23:AW:39:U:C5'	2.20	0.69
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
41:BG:47:LYS:NZ	41:BG:82:LEU:HD12	2.07	0.69
46:BP:115:LEU:HA	46:BP:134:ALA:HB2	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BZ:127:LYS:HD2	56:BZ:162:GLU:OE1	1.93	0.69
1:CA:474:G:H2'	1:CA:475:G:H8	1.57	0.69
1:CA:1457:G:H2'	1:CA:1458:G:H8	1.58	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:1287:A:H5'	48:DR:104:ARG:HD2	1.74	0.69
35:DA:1686:C:H6	35:DA:1686:C:C5'	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:98:GLU:O	46:DP:101:VAL:HG22	1.92	0.69
46:DP:107:LYS:O	46:DP:109:GLY:N	2.26	0.69
47:DQ:141:GLN:OXT	56:DZ:98:MET:HB2	1.92	0.69
48:DR:2:ARG:HD3	48:DR:5:LYS:HE2	1.75	0.69
1:AA:130:A:C8	17:AQ:63:ARG:HG3	2.28	0.69
3:AC:18:TRP:HE3	3:AC:18:TRP:N	1.90	0.69
3:AC:108:ASN:HD21	3:AC:144:SER:HB2	1.56	0.69
5:AE:71:LEU:O	5:AE:72:GLN:HG3	1.93	0.69
5:AE:147:ASP:O	5:AE:151:LEU:HG	1.93	0.69
22:AY:41:C:H2'	22:AY:42:C:O4'	1.93	0.69
35:BA:855:G:H1	35:BA:922:U:H3	1.41	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
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:624:C:O3'	16:CP:10:GLY:HA2	1.93	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
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:943:U:OP2	46:DP:38:GLN:CD	2.36	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
35:DA:2876:G:H4'	50:DT:3:ARG:HD3	1.74	0.69
39:DE:108:SER:O	39:DE:162:ALA:HA	1.93	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:61:G:H2'	1:CA:62:U:O4'	1.93	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
10:CJ:40:LEU:HD23	10:CJ:40:LEU:H	1.58	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
35:DA:1754:C:OP1	50:DT:96:ARG:NH1	2.25	0.68
35:DA:1987:G:H5'	35:DA:1987:G:C8	2.28	0.68
38:DD:106:ILE:HD11	38:DD:196:VAL:HG13	1.75	0.68
38:DD:267:SER:C	38:DD:269:PHE:H	2.02	0.68
41:DG:172:LEU:O	41:DG:176:LEU:HG	1.92	0.68
35:BA:547:A:H8	35:BA:549:G:N1	1.91	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
36:BB:52:A:N7	49:BS:33:LYS:HE3	2.08	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
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:HD13	10:CJ:50:ILE:N	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: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
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
9:AI:63:ILE:HD11	9:AI:81:ILE:HD11	1.75	0.68
28:B3:17:LYS:HD3	35:BA:969:U:OP1	1.94	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
38:BD:30:GLU:CD	38:BD:63:ARG:HE	2.02	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
31:D6:15:GLU:CD	31:D6:18:ARG:NE	2.47	0.68
35:DA:979:G:H3'	35:DA:980:A:H5''	1.75	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
38:DD:118:VAL:HG22	38:DD:119:ALA:H	1.56	0.68
46:DP:41:ARG:HA	46:DP:41:ARG:HE	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
51:BU:31:SER:C	51:BU:33:ARG:H	2.02	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:212:G:O2'	35:DA:213:A:H5'	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
41:DG:91:ARG:HG2	41:DG:92:VAL:N	2.07	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:271(F):C:H2'	35:BA:271(G):C:O4'	1.92	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
1:CA:1317:C:OP1	14:CN:17:LYS:HG2	1.93	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:120:THR:HG23	8:CH:123:GLU:OE1	1.94	0.68
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
33:D8:51:ALA:C	33:D8:53:PRO:HD2	2.18	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:483:A:H1'	55:BY:60:PHE:CZ	2.26	0.68
35:BA:979:G:H3'	35:BA:980:A:H5''	1.76	0.68
35:BA:2790:A:C2	35:BA:2791:C:H2'	2.29	0.68
39:BE:109:LYS:HB3	48:BR:2:ARG:HH22	1.59	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
44:BN:42:TRP:CE3	44:BN:48:MET:HE1	2.28	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
1:CA:723:U:O2	1:CA:723:U:H2'	1.94	0.68
1:CA:1105:A:H2'	1:CA:1106:G:H8	1.58	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:571:A:H5'	35:DA:2030:A:N6	1.96	0.68
35:DA:1188:U:O2'	35:DA:1189:A:H5'	1.94	0.68
39:DE:9:VAL:O	39:DE:9:VAL:HG23	1.94	0.68
47:DQ:19:GLY:HA3	56:DZ:79:ARG:NH2	2.08	0.68
55:DY:42:VAL:CG1	55:DY:65:ALA:HB3	2.23	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:O	38:BD:26:LYS:HD2	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:HD12	46:BP:75:ILE:N	2.09	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BW:1:MET:HE2	53:BW:2:GLU:H	1.58	0.68
12:CL:28:LYS:C	12:CL:30:ALA:H	1.99	0.68
18:CR:50:ILE:CD1	18:CR:70:ILE:HG21	2.24	0.68
20:CT:43:LEU:HD13	20:CT:51:GLU:HG3	1.75	0.68
20:CT:49:ALA:HB1	20:CT:100:ILE:HD11	1.74	0.68
35:DA:1686:C:H5'	35:DA:1686:C:C6	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
7:AG:148:ASN:C	7:AG:150:ALA:N	2.51	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: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
33:D8:59:LYS:CD	46:DP:50:ARG:HB3	2.21	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
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
38:DD:79:VAL:HG11	38:DD:111:LEU:HD11	1.75	0.68
38:DD:108:PRO:HG2	38:DD:111:LEU:HB2	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
48:DR:3:HIS:O	48:DR:5:LYS:N	2.27	0.68
1:AA:489:C:H2'	1:AA:490:G:H8	1.59	0.67
1:AA:1010:G:N2	1:AA:1020:U:H1'	2.08	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AW:30:G:H2'	23:AW:31:A:C8	2.29	0.67
33:B8:51:ALA:C	33:B8:53:PRO:HD2	2.19	0.67
35:BA:572:A:OP2	52:BV:78:LYS:HE2	1.93	0.67
35:BA:736:C:H2'	35:BA:737:C:H6	1.59	0.67
35:BA:2182:G:H2'	35:BA:2183:C:C6	2.30	0.67
38:BD:34:VAL:O	38:BD:64:ILE:HG23	1.93	0.67
38:BD:106:ILE:HD11	38:BD:196:VAL:HG13	1.76	0.67
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
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
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:271(M):G:H5''	43:DI:57:ARG:NH1	2.09	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
37:DC:36:LYS:HZ2	37:DC:36:LYS:HA	1.60	0.67
39:DE:107:THR:O	39:DE:190:GLY:HA2	1.94	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:385:C:O2'	1:CA:386:C:H5'	1.95	0.67
1:CA:1313:U:OP2	19:CS:6:LYS:HB3	1.94	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:6:LYS:HG2	19:CS:7:LYS:CE	2.25	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:646:A:H2'	35:DA:647:G:O4'	1.95	0.67
35:DA:2189:U:C3'	35:DA:2190:G:H5''	2.23	0.67
38:DD:39:LYS:HZ1	38:DD:87:ASN:HB3	1.58	0.67
41:DG:51:ARG:C	41:DG:53:LEU:H	2.01	0.67
46:DP:146:VAL:HG22	46:DP:147:LEU:N	2.10	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
41:BG:85:GLY:C	41:BG:87:PRO:HD2	2.19	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
4:CD:11:LEU:C	4:CD:13:ARG:H	2.01	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
17:CQ:58:GLU:C	17:CQ:59:ILE:HD13	2.19	0.67
30:D5:16:ARG:HD2	30:D5:20:ARG:HH21	1.60	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:92:A:H2'	35:BA:93:G:C8	2.29	0.67
35:BA:784:A:H5'	35:BA:785:G:OP1	1.95	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
38:BD:210:GLY:O	38:BD:212:SER:N	2.27	0.67
40:BF:70:THR:C	40:BF:72:ARG:H	2.03	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:82:ILE:O	40:BF:82:ILE:HG13	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
1:CA:390:C:O3'	16:CP:28:ARG:NH2	2.28	0.67
3:CC:76:VAL:CG2	3:CC:77:ILE:H	2.07	0.67
35:DA:613:G:H5'	35:DA:613:G:H8	1.60	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
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
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: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
12:AL:28:LYS:C	12:AL:30:ALA:H	2.00	0.67
14:AN:44:LEU:C	14:AN:44:LEU:HD12	2.20	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
41:BG:125:PHE:C	41:BG:128:ARG:HG2	2.19	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:330:A:HO2'	35:DA:331:A:H8	1.42	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
41:DG:128:ARG:C	41:DG:130:ASN:N	2.46	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:210:GLY:O	38:BD:211:ARG:HB3	1.95	0.67
1:CA:267:C:OP2	17:CQ:67:LYS:HD2	1.94	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
30:D5:33:CYS:CB	30:D5:38:ALA:HB3	2.24	0.67
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:486:C:H4'	53:DW:60:ASN:ND2	2.10	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
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:9:GLU:HA	2:AB:12:GLU:OE1	1.93	0.67
2:AB:178:ARG:HH22	2:AB:196:LEU:HA	1.59	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:314:A:O2'	35:BA:315:G:H5'	1.93	0.67
35:BA:613:G:H8	35:BA:613:G:H5'	1.58	0.67
35:BA:1453:U:OP1	48:BR:77:ARG:HD3	1.94	0.67
38:BD:39:LYS:HZ1	38:BD:87:ASN:HB3	1.60	0.67
38:BD:121:PRO:HB3	38:BD:135:PHE:CE1	2.30	0.67
38:BD:129:ASN:O	38:BD:193:VAL:HG12	1.95	0.67
38:BD:176:ARG:HH11	38:BD:176:ARG:HG2	1.60	0.67
45:BO:71:ARG:C	45:BO:73:ASP:H	2.03	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:56:LEU:O	15:CO:60:VAL:HG23	1.95	0.67
35:DA:314:A:O2'	35:DA:315:G:H5'	1.95	0.67
35:DA:1986:A:C2'	35:DA:1987:G:H5''	2.25	0.67
41:DG:39:ILE:HD13	41:DG:155:MET:SD	2.35	0.67
43:DI:2:LYS:HB2	43:DI:39:ALA:HB3	1.77	0.67
43:DI:145:VAL:HG12	43:DI:146:ALA:N	2.09	0.67
50:DT:83:ILE:O	50:DT:84:GLN:HB3	1.94	0.67
1:AA:1308:U:OP1	13:AM:98:VAL:N	2.28	0.67
2:AB:48:MET:HG2	2:AB:49:GLU:H	1.58	0.67
3:AC:30:ARG:HH11	14:AN:38:GLY:CA	2.08	0.67
3:AC:76:VAL:CG2	3:AC:77:ILE:H	2.08	0.67
3:AC:148:GLY:HA3	3:AC:172:ARG:O	1.95	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:271(M):G:H5''	43:BI:57:ARG:NH1	2.09	0.67
35:BA:330:A:O2'	35:BA:331:A:H8	1.77	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
37:BC:18:LYS:O	37:BC:22:ILE:HD11	1.95	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:O	33:D8:29:LYS:HG3	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:17:VAL:CG1	9:AI:81:ILE:HD13	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:55:ALA:HB1	9:AI:58:ARG:HB2	1.77	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
12:CL:25:PRO:C	12:CL:27:LEU:N	2.53	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
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
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
45:DO:71:ARG:C	45:DO:73:ASP:H	2.03	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:61:LEU:CD2	2:AB:68:ILE:HD11	2.25	0.67
2:AB:141:GLU:O	2:AB:145:LEU:HD23	1.94	0.67
8:AH:12:ARG:HH12	8:AH:27:PRO:HD3	1.60	0.67
19:AS:13:ASP:C	19:AS:15:LEU:H	2.03	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:1902:C:O2'	38:BD:244:ARG:HB2	1.95	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
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:HH11	30:D5:16:ARG:HG2	1.60	0.67
31:D6:52:VAL:HG12	31:D6:53:LYS:N	2.10	0.67
35:DA:61:G:H1	35:DA:94:C:H42	1.42	0.67
35:DA:1854:A:H3'	35:DA:1855:G:H8	1.58	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2784:C:H1'	39:DE:37:ARG:HH12	1.59	0.67
40:DF:7:TYR:HD2	40:DF:16:GLY:H	1.41	0.67
40:DF:103:LYS:HA	40:DF:106:ARG:HG3	1.76	0.67
41:DG:101:ILE:C	41:DG:101:ILE:HD13	2.20	0.67
46:DP:7:ARG:O	46:DP:7:ARG:NH1	2.28	0.67
46:DP:58:THR:O	46:DP:58:THR:HG22	1.95	0.67
48:DR:104:ARG:HH11	48:DR:104:ARG:CB	2.08	0.67
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
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.29	0.66
10:AJ:33:GLN:H	10:AJ:75:ILE:CG1	2.07	0.66
25:B0:36:ILE:HG23	35:BA:2354:G:O2'	1.93	0.66
34:B9:27:CYS:SG	34:B9:28:GLU:N	2.66	0.66
35:BA:586:A:H5'	40:BF:89:VAL:HG21	1.78	0.66
35:BA:1188:U:O2'	35:BA:1189:A:H5'	1.95	0.66
39:BE:12:THR:HG23	50:BT:8:LYS:NZ	2.10	0.66
39:BE:55:ASN:O	39:BE:57:LYS:N	2.28	0.66
47:BQ:78:PRO:O	47:BQ:81:VAL:HG13	1.95	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
20:CT:45:GLN:C	20:CT:47:GLY:H	2.03	0.66
35:DA:27:G:N2	35:DA:512:G:H2'	2.09	0.66
35:DA:2287:A:H62	35:DA:2344:U:H3	1.43	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
53:DW:1:MET:HE3	53:DW:2:GLU:H	1.60	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
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
39:BE:154:LYS:HG2	39:BE:156:MET:HE3	1.78	0.66
47:BQ:1:MET:HE2	47:BQ:1:MET:C	2.20	0.66
49:BS:93:LYS:HA	49:BS:93:LYS:HE3	1.78	0.66
1:CA:624:C:H2'	1:CA:625:G:C8	2.30	0.66
1:CA:972:C:O3'	10:CJ:57:LYS:HG3	1.96	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
7:CG:148:ASN:C	7:CG:150:ALA:H	2.01	0.66
8:CH:84:ARG:HH22	8:CH:86:ILE:CD1	2.08	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:13:LEU:C	20:CT:13:LEU:HD12	2.20	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: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
1:AA:1260:C:H4'	1:AA:1284:C:H5'	1.76	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
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:OE1	55:BY:29:GLU:N	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:1239:A:H62	1:CA:1299:A:N6	1.92	0.66
1:CA:1255:G:H5'	1:CA:1256:A:OP1	1.94	0.66
1:CA:1305:G:OP1	21:CU:2:GLY:HA3	1.95	0.66
1:CA:1321:C:C3'	1:CA:1322:C:H5''	2.25	0.66
22:CY:74:C:C2'	22:CY:75:C:H5'	2.24	0.66
35:DA:1952:A:C5	45:DO:22:ILE:HD12	2.31	0.66
35:DA:2307:G:N2	35:DA:2308:G:H5''	2.09	0.66
38:DD:33:LEU:HD13	38:DD:34:VAL:N	2.10	0.66
38:DD:176:ARG:HH11	38:DD:176:ARG:HG2	1.61	0.66
39:DE:11:MET:CB	39:DE:24:THR:HA	2.26	0.66
40:DF:1:MET:HE2	40:DF:2:LYS:HZ2	1.60	0.66
40:DF:132:VAL:HG13	40:DF:133:ASN:OD1	1.94	0.66
50:DT:82:LEU:C	50:DT:84:GLN:H	2.04	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:HD2	3:AC:127:ARG:H	1.61	0.66
9:AI:43:ALA:HA	9:AI:74:ILE:HD13	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:79:LEU:CD1	9:AI:102:LEU:HA	2.26	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
41:BG:112:PRO:C	41:BG:113:ARG:HD3	2.19	0.66
47:BQ:140:ALA:HB1	56:BZ:99:TYR:HB2	1.76	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
7:CG:70:LYS:O	7:CG:138:LYS:HE3	1.95	0.66
14:CN:44:LEU:C	14:CN:44:LEU:HD12	2.19	0.66
33:D8:4:MET:HB3	33:D8:61:LEU:HD22	1.77	0.66
35:DA:271(D):G:H1	35:DA:271(T):C:H42	1.43	0.66
35:DA:2117:A:O2'	35:DA:2118:U:H3'	1.96	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
40:DF:70:THR:C	40:DF:72:ARG:H	2.04	0.66
43:DI:47:LEU:HG	43:DI:51:ILE:CG1	2.26	0.66
44:DN:42:TRP:CE3	44:DN:48:MET:HE1	2.29	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
1:AA:556:C:O2'	1:AA:557:G:H5'	1.96	0.66
1:AA:1347:G:H22	1:AA:1373:G:H2'	1.61	0.66
4:AD:196:LEU:H	4:AD:196:LEU:HD12	1.61	0.66
7:AG:37:ASN:HD21	9:AI:40:LEU:HA	1.60	0.66
9:AI:27:THR:HG23	9:AI:31:GLN:H	1.61	0.66
17:AQ:58:GLU:C	17:AQ:59:ILE:HD13	2.21	0.66
35:BA:893:C:H2'	35:BA:894:C:C6	2.30	0.66
35:BA:2310:A:O2'	35:BA:2311:A:H5''	1.95	0.66
36:BB:35:U:O2'	36:BB:36:C:H5'	1.95	0.66
41:BG:128:ARG:C	41:BG:130:ASN:N	2.49	0.66
45:BO:86:ILE:HD12	45:BO:86:ILE:N	2.10	0.66
46:BP:41:ARG:HE	46:BP:41:ARG:CA	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
41:DG:85:GLY:C	41:DG:87:PRO:HD2	2.20	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:11:LEU:C	4:AD:13:ARG:H	2.02	0.66
4:AD:28:SER:HB3	4:AD:29:PRO:HD2	1.77	0.66
4:AD:138:TYR:HD2	4:AD:138:TYR:C	2.04	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:203:C:H3'	35:BA:204:A:H5''	1.77	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: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
35:BA:2784:C:H1'	39:BE:37:ARG:HH12	1.61	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
40:BF:132:VAL:HG13	40:BF:133:ASN:OD1	1.96	0.66
46:BP:16:ARG:NH1	46:BP:16:ARG:HB2	2.10	0.66
1:CA:382:A:H2'	1:CA:383:A:H8	1.61	0.66
9:CI:56:LEU:O	9:CI:56:LEU:HD23	1.95	0.66
10:CJ:6:ILE:O	10:CJ:71:LEU:HD12	1.96	0.66
10:CJ:34:VAL:HG13	10:CJ:73:ASP:O	1.95	0.66
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:HH11	3:AC:126:ARG:HG2	1.61	0.66
10:AJ:45:ARG:HG3	10:AJ:45:ARG:NH1	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
35:BA:2685:G:H5'	45:BO:68:GLU:OE1	1.96	0.66
37:BC:64:LEU:CD1	37:BC:66:HIS:HB2	2.25	0.66
38:BD:131:LEU:HD12	38:BD:131:LEU:N	2.09	0.66
1:CA:250:A:H4'	1:CA:251:G:O5'	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:7:VAL:HG12	2:CB:217:ARG:NH2	2.09	0.66
3:CC:54:ARG:NH1	3:CC:56:ASP:HB2	2.10	0.66
3:CC:195:VAL:HG12	3:CC:196:LEU:N	2.10	0.66
7:CG:148:ASN:N	7:CG:148:ASN:HD22	1.93	0.66
10:CJ:6:ILE:HG12	10:CJ:72:VAL:O	1.96	0.66
19:CS:13:ASP:C	19:CS:15:LEU:H	2.03	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:HH11	39:DE:79:ARG:HG2	1.61	0.66
1:AA:165:C:H2'	1:AA:166:G:C8	2.29	0.66
1:AA:267:C:OP2	17:AQ:67:LYS:HD2	1.96	0.66
15:AO:87:ILE:HG22	15:AO:88:ARG:N	2.10	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:20:C:H2'	36:BB:21:G:C5'	2.21	0.66
36:BB:111:G:O2'	36:BB:112:U:H5'	1.96	0.66
40:BF:8:GLN:HB2	40:BF:124:LEU:HD11	1.77	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
54:BX:63:LYS:O	54:BX:63:LYS:HG3	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
2:CB:178:ARG:HH22	2:CB:196:LEU:C	2.03	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:17:G:H4'	51:DU:25:TRP:CZ3	2.31	0.66
35:DA:106:C:H2'	35:DA:107:C:H6	1.61	0.66
35:DA:203:C:H3'	35:DA:204:A:H5''	1.77	0.66
35:DA:893:C:H2'	35:DA:894:C:C6	2.31	0.66
35:DA:1272:A:OP2	35:DA:1647:G:OP1	2.13	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
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
38:DD:210:GLY:C	38:DD:212:SER:H	2.04	0.66
42:DH:32:GLU:O	42:DH:33:LEU:HD23	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:253:U:H2'	1:AA:254:G:H8	1.60	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
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
26:B1:29:GLY:HA3	35:BA:2396:G:O2'	1.96	0.66
35:BA:1803:A:O2'	38:BD:259:THR:HG21	1.95	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:79:ARG:HH11	39:BE:79:ARG:HG2	1.60	0.66
39:BE:107:THR:O	39:BE:190:GLY:HA2	1.96	0.66
52:BV:99:ILE:HD13	52:BV:99:ILE:N	2.09	0.66
53:BW:1:MET:HE3	53:BW:2:GLU:H	1.59	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
2:CB:68:ILE:N	2:CB:90:MET:HE2	2.11	0.66
35:DA:142:A:C8	35:DA:1408:C:H1'	2.30	0.66
35:DA:1187:G:H5''	52:DV:81:TYR:CE2	2.30	0.66
35:DA:1405:U:H2'	35:DA:1406:U:C6	2.31	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
51:DU:98:LEU:HD21	52:DV:2:PHE:HZ	1.61	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: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
1:AA:1321:C:C3'	1:AA:1322:C:H5''	2.24	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
25:B0:14:ARG:HD2	35:BA:2279:G:O6	1.96	0.66
30:B5:58:LEU:H	30:B5:58:LEU:HD12	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1021:A:H3'	35:BA:1021:A:C8	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
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:9:ASN:C	46:BP:11:GLY:H	2.03	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
49:BS:19:LYS:C	49:BS:20:ARG:HH11	2.05	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:9:GLU:HA	2:CB:12:GLU:OE1	1.96	0.66
2:CB:61:LEU:CD2	2:CB:68:ILE:HD11	2.24	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
47:DQ:1:MET:HE2	47:DQ:1:MET:C	2.21	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:17:G:H4'	51:BU:25:TRP:CZ3	2.31	0.65
35:BA:803:U:O2'	35:BA:804:A:H5'	1.96	0.65
35:BA:1885:A:H8	35:BA:1885:A:H5'	1.61	0.65
35:BA:2723:C:H5''	48:BR:2:ARG:NE	2.11	0.65
39:BE:77:ILE:HG22	39:BE:78:LEU:HG	1.77	0.65
43:BI:85:GLU:HG3	43:BI:86:THR:HG23	1.78	0.65
43:BI:123:LEU:HD11	43:BI:144:VAL:CG1	2.26	0.65
47:BQ:133:ARG:O	47:BQ:134:ARG:HG2	1.96	0.65
56:BZ:30:ASN:HB3	56:BZ:90:VAL:HB	1.78	0.65
56:BZ:117:LEU:HA	56:BZ:174:VAL:HG22	1.78	0.65
1:CA:339:C:H2'	1:CA:340:U:C6	2.31	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
9:CI:55:ALA:HB1	9:CI:58:ARG:HB2	1.77	0.65
12:CL:28:LYS:C	12:CL:30:ALA:N	2.53	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:483:A:H1'	55:DY:60:PHE:CZ	2.26	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
43:DI:47:LEU:O	43:DI:51:ILE:HG12	1.95	0.65
46:DP:9:ASN:C	46:DP:11:GLY:H	2.02	0.65
1:AA:390:C:O3'	16:AP:28:ARG:NH2	2.29	0.65
1:AA:986:A:H1'	19:AS:54:GLY:O	1.96	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
16:AP:50:LYS:HD3	16:AP:51:VAL:N	2.10	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:142:A:C8	35:BA:1408:C:H1'	2.31	0.65
35:BA:212:G:O2'	35:BA:213:A:H5'	1.95	0.65
35:BA:829:A:N7	35:BA:2248:C:H5'	2.10	0.65
35:BA:1419:A:O2'	35:BA:1420:U:H5''	1.96	0.65
35:BA:2114:A:H2'	35:BA:2115:G:O4'	1.95	0.65
35:BA:2196:C:O2'	35:BA:2197:U:H5'	1.96	0.65
38:BD:267:SER:C	38:BD:269:PHE:H	2.03	0.65
45:BO:87:ILE:HG22	45:BO:88:ASN:H	1.60	0.65
47:BQ:42:ILE:HD12	47:BQ:42:ILE:N	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: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
1:CA:1194:U:H4'	5:CE:22:GLY:HA2	1.78	0.65
1:CA:1319:A:OP2	19:CS:5:LEU:HD21	1.96	0.65
2:CB:77:ALA:CB	2:CB:211:ILE:HD13	2.19	0.65
5:CE:76:ILE:HG23	5:CE:77:PRO:HD2	1.77	0.65
9:CI:114:TYR:HD2	9:CI:114:TYR:H	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:HH11	26:B1:61:ARG:CG	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
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
41:BG:114:ILE:O	41:BG:115:ARG:C	2.39	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
12:CL:119:LYS:C	12:CL:120:TYR:HD1	2.03	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
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:110:C:H2'	1:AA:111:G:O4'	1.95	0.65
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
1:AA:1030(A):G:H2'	1:AA:1030(C):G:OP2	1.96	0.65
3:AC:16:ARG:HB2	3:AC:16:ARG:NH1	2.11	0.65
4:AD:114:ARG:O	4:AD:117:ALA:HB3	1.96	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
41:BG:51:ARG:HA	41:BG:51:ARG:NE	2.10	0.65
50:BT:83:ILE:O	50:BT:83:ILE:HD12	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
1:CA:1240:U:OP2	7:CG:116:ALA:HB2	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:21:ARG:HH11	2:CB:38:GLY:HA3	1.62	0.65
10:CJ:97:GLU:C	10:CJ:98:ILE:HD12	2.21	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:807:U:H2'	35:DA:808:G:H8	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
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:HD22	7:AG:148:ASN:N	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:H	40:BF:78:ILE:CD1	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
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
54:BX:66:LEU:C	54:BX:66:LEU:HD23	2.22	0.65
55:BY:15:VAL:HG12	55:BY:16:ALA:N	2.12	0.65
56:BZ:63:ASP:HB2	56:BZ:65:GLN:OE1	1.95	0.65
56:BZ:119:GLU:O	56:BZ:119:GLU:HG3	1.96	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
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:HH11	50:DT:96:ARG:HG2	1.61	0.65
1:AA:166:G:O2'	1:AA:167:G:H5'	1.97	0.65
1:AA:1442:G:C8	1:AA:1442(B):A:H2	2.14	0.65
2:AB:82:ARG:HB2	2:AB:94:ASN:ND2	2.11	0.65
12:AL:25:PRO:C	12:AL:27:LEU:N	2.52	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:BA:833:U:H5''	46:BP:48:PRO:HB3	1.78	0.65
38:BD:58:HIS:HD2	38:BD:59:LYS:O	1.79	0.65
39:BE:186:GLY:C	39:BE:188:VAL:H	2.04	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
46:BP:96:THR:O	46:BP:99:LEU:HB3	1.95	0.65
48:BR:104:ARG:HH11	48:BR:104:ARG:CB	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:48:PHE:HE2	56:BZ:52:SER:HA	1.58	0.65
56:BZ:165:VAL:HG12	56:BZ:166:SER:N	2.11	0.65
1:CA:130:A:C8	17:CQ:63:ARG:HG3	2.31	0.65
1:CA:178:C:O2'	1:CA:179:A:H5'	1.97	0.65
1:CA:1346:A:C5'	9:CI:120:ARG:HH12	2.08	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
9:CI:77:ILE:O	9:CI:81:ILE:HG12	1.96	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
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
1:AA:1343:G:H1'	9:AI:121:ARG:NH1	2.10	0.65
2:AB:50:GLU:HG3	2:AB:202:PRO:HG3	1.79	0.65
2:AB:172:ILE:H	2:AB:172:ILE:HD12	1.61	0.65
3:AC:5:ILE:HD12	3:AC:5:ILE:O	1.97	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:999:U:H2'	35:BA:1000:A:C5'	2.26	0.65
35:BA:2290:G:H5'	35:BA:2290:G:C8	2.27	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:HD12	45:BO:86:ILE:H	1.62	0.65
46:BP:7:ARG:CA	46:BP:7:ARG:NH1	2.59	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BW:29:LEU:O	53:BW:33:ARG:HG3	1.95	0.65
1:CA:376:G:O2'	1:CA:377:G:H5'	1.96	0.65
1:CA:1293:G:O2'	1:CA:1294:G:H8	1.78	0.65
2:CB:165:VAL:HG23	2:CB:166:ASP:H	1.61	0.65
3:CC:30:ARG:HH11	14:CN:38:GLY:CA	2.07	0.65
4:CD:33:MET:HE3	4:CD:37:PRO:HA	1.79	0.65
9:CI:27:THR:HG23	9:CI:31:GLN:H	1.60	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
39:DE:109:LYS:HB3	48:DR:2:ARG:HH22	1.61	0.65
45:DO:2:ILE:HD11	45:DO:82:ASN:ND2	2.11	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:1298:C:H2'	7:AG:114:ARG:NH1	2.12	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:138:TYR:C	4:AD:138:TYR:CD2	2.75	0.65
4:AD:189:PRO:HB2	4:AD:194:LEU:HD21	1.78	0.65
10:AJ:97:GLU:C	10:AJ:98:ILE:HD12	2.21	0.65
12:AL:53:ARG:HB3	12:AL:69:TYR:HE1	1.61	0.65
15:AO:74:ASP:C	15:AO:76:GLU:H	2.04	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:271(S):G:H2'	35:BA:271(T):C:C5'	2.27	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: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
41:BG:112:PRO:C	41:BG:113:ARG:CA	2.66	0.65
46:BP:9:ASN:C	46:BP:11:GLY:N	2.53	0.65
54:BX:22:ALA:HB3	54:BX:23:GLU:OE2	1.95	0.65
1:CA:662:G:H2'	1:CA:663:A:H8	1.60	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
2:CB:82:ARG:O	2:CB:86:GLU:HG3	1.97	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:809:G:O2'	35:DA:810:U:H5'	1.97	0.65
35:DA:1438:U:O2'	35:DA:1439:A:H5'	1.97	0.65
47:DQ:42:ILE:HD12	47:DQ:42:ILE:N	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:56:LEU:O	9:AI:56:LEU:HD23	1.97	0.65
9:AI:114:TYR:CD1	10:AJ:60:ARG:HG3	2.32	0.65
11:AK:29:ILE:HD12	11:AK:43:SER:O	1.96	0.65
12:AL:119:LYS:C	12:AL:120:TYR:HD1	2.05	0.65
13:AM:4:ILE:HA	13:AM:57:ARG:HD3	1.78	0.65
13:AM:65:LYS:C	13:AM:66:LEU:N	2.55	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:H	39:BE:95:ILE:CD1	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
7:CG:148:ASN:C	7:CG:150:ALA:N	2.53	0.65
10:CJ:32:ALA:HB1	10:CJ:75:ILE:CG1	2.27	0.65
10:CJ:50:ILE:HD11	14:CN:41:ARG:HD2	1.77	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:9:LEU:H	43:DI:13:GLY:CA	2.10	0.65
43:DI:133:HIS:CB	43:DI:134:PRO:CD	2.75	0.65
44:DN:4:TYR:N	44:DN:4:TYR:CD1	2.62	0.65
45:DO:87:ILE:HG22	45:DO:88:ASN:H	1.62	0.65
46:DP:9:ASN:C	46:DP:11:GLY:N	2.54	0.65
47:DQ:103:MET:HE2	47:DQ:125:LEU:HD13	1.79	0.65
1:AA:26:A:N6	1:AA:558:G:H1'	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1305:G:OP1	21:AU:2:GLY:HA3	1.97	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
9:AI:89:ASN:C	9:AI:91:ASP:H	2.05	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:534:U:O2'	51:BU:49:HIS:HD2	1.80	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
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: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
1:CA:1440:C:H1'	1:CA:1462:G:N2	2.11	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
4:CD:138:TYR:C	4:CD:138:TYR:HD2	2.05	0.65
12:CL:90:VAL:O	12:CL:92:ASP:N	2.25	0.65
12:CL:102:ARG:HG2	12:CL:102:ARG:HH11	1.62	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:481:G:H1'	35:DA:506:G:H21	1.62	0.65
35:DA:1593:G:C2'	35:DA:1594:G:H5''	2.27	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:302:G:N3	1:AA:556:C:H4'	2.13	0.64
1:AA:392:G:H2'	1:AA:393:A:H8	1.62	0.64
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
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
41:BG:121:ASN:HD22	41:BG:122:PRO:N	1.94	0.64
42:BH:70:THR:C	42:BH:72:ILE:H	2.04	0.64
44:BN:25:ARG:CG	44:BN:25:ARG:NH1	2.58	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BT:54:ARG:HG2	50:BT:54:ARG:HH11	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
13:CM:7:VAL:HG21	41:DG:115:ARG:HG3	1.79	0.64
19:CS:29:ARG:O	19:CS:31:ILE:N	2.31	0.64
19:CS:29:ARG:O	19:CS:31:ILE:HG22	1.97	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:34:C:N4	35:DA:455:C:H5'	2.12	0.64
35:DA:1021:A:H3'	35:DA:1021:A:C8	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
38:DD:30:GLU:CD	38:DD:63:ARG:HE	2.06	0.64
38:DD:35:LYS:HA	38:DD:63:ARG:HA	1.78	0.64
40:DF:78:ILE:H	40:DF:78:ILE:CD1	2.10	0.64
45:DO:107:ARG:O	45:DO:112:MET:HE1	1.97	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:10:MET:HE2	5:AE:13:ILE:HD11	1.79	0.64
5:AE:126:ARG:HG3	5:AE:126:ARG:NH1	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: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
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
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
48:BR:113:LEU:C	48:BR:113:LEU:HD12	2.22	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
19:CS:19:VAL:HG11	19:CS:44:MET:HE2	1.78	0.64
29:D4:60:GLU:O	29:D4:61:VAL:HB	1.97	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
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
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:250:A:H4'	1:AA:251:G:O5'	1.97	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
3:AC:30:ARG:HH11	14:AN:38:GLY:HA2	1.63	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
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:886:C:O2'	35:BA:887:A:H4'	1.97	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
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: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
35:DA:1882:C:H5'	35:DA:1883:G:OP2	1.98	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)
35:DA:2807:G:C3'	35:DA:2808:U:H5''	2.27	0.64
38:DD:71:ASP:HB2	38:DD:103:ARG:NH2	2.08	0.64
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:486:C:H4'	53:BW:60:ASN:ND2	2.12	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
36:BB:41:U:C5	41:BG:69:ALA:HB1	2.33	0.64
47:BQ:39:PRO:O	47:BQ:40:ALA:HB2	1.97	0.64
47:BQ:130:LYS:NZ	56:BZ:80:ARG:HD2	2.12	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:CD2	10:CJ:62:HIS:H	2.14	0.64
35:DA:671:C:O2'	35:DA:672:C:H5'	1.97	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
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:994:C:H3'	51:BU:54:LYS:HE3	1.80	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BP:34:GLY:O	46:BP:35:HIS:HB2	1.97	0.64
47:BQ:103:MET:CE	47:BQ:125:LEU:HD13	2.27	0.64
50:BT:58:ASN:C	50:BT:58:ASN:HD22	2.06	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
4:CD:31:CYS:O	4:CD:31:CYS:SG	2.55	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
9:CI:89:ASN:C	9:CI:91:ASP:H	2.06	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
25:D0:14:ARG:HD2	35:DA:2279:G:O6	1.97	0.64
33:D8:50:LEU:HD12	33:D8:51:ALA:N	2.07	0.64
35:DA:999:U:H2'	35:DA:1000:A:C5'	2.27	0.64
35:DA:1210:A:H4'	35:DA:1211:U:O5'	1.97	0.64
35:DA:1453:U:H5'	48:DR:63:ARG:HE	1.62	0.64
38:DD:221:VAL:HG22	38:DD:226:MET:CE	2.25	0.64
39:DE:12:THR:HG23	50:DT:8:LYS:NZ	2.12	0.64
40:DF:82:ILE:O	40:DF:82:ILE:HG13	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
55:DY:26:LYS:CG	55:DY:27:VAL:H	2.07	0.64
1:AA:522:C:H41	12:AL:53:ARG:NH2	1.96	0.64
1:AA:1442(B):A:H2'	1:AA:1442(B):A:N3	2.12	0.64
2:AB:73:THR:HG22	2:AB:95:GLN:O	1.98	0.64
2:AB:121:LEU:HD11	2:AB:130:ARG:HH11	1.62	0.64
5:AE:65:ASN:O	5:AE:66:MET:HG3	1.98	0.64
10:AJ:30:SER:OG	10:AJ:81:THR:HG22	1.98	0.64
10:AJ:62:HIS:H	10:AJ:62:HIS:CD2	2.16	0.64
13:AM:86:CYS:HA	19:AS:73:GLU:O	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:1453:U:H5'	48:BR:63:ARG:HE	1.62	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
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:9:TYR:HE2	56:BZ:35:ARG:HE	1.46	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BZ:59:LEU:HD12	56:BZ:69:THR:HG21	1.79	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:HH11	3:CC:126:ARG:HG2	1.61	0.64
4:CD:196:LEU:H	4:CD:196:LEU:HD12	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
44:DN:125:GLY:HA3	44:DN:126:PRO:C	2.23	0.64
46:DP:84:ASN:HA	46:DP:115:LEU:O	1.96	0.64
53:DW:1:MET:HE2	53:DW:2:GLU:H	1.61	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: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
2:AB:178:ARG:HH22	2:AB:196:LEU:CA	2.10	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:HG2	26:B1:61:ARG:NH1	2.08	0.64
32:B7:9:ARG:HH11	32:B7:9:ARG:HG3	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:683:G:H2'	1:CA:684:A:C8	2.33	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
3:CC:182:ILE:HG23	3:CC:202:ILE:C	2.23	0.64
10:CJ:48:THR:HA	10:CJ:62:HIS:CB	2.27	0.64
14:CN:9:LYS:HG3	14:CN:12:ARG:NH1	2.13	0.64
14:CN:26:ARG:NH1	14:CN:47:LEU:HD21	2.13	0.64
35:DA:608:A:OP1	40:DF:100:THR:HG21	1.97	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
41:DG:29:TRP:C	41:DG:31:VAL:H	2.05	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:33:MET:HE3	4:AD:37:PRO:HA	1.78	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
20:AT:46:GLU:HG2	20:AT:46:GLU:O	1.97	0.64
35:BA:357:A:H2'	35:BA:358:U:C6	2.33	0.64
35:BA:1155:A:OP1	51:BU:55:ARG:HD2	1.97	0.64
35:BA:2122:U:H2'	35:BA:2123:G:C8	2.33	0.64
37:BC:169:GLY:N	37:BC:173:ALA:HA	2.08	0.64
43:BI:38:LEU:HD12	43:BI:38:LEU:N	2.06	0.64
43:BI:98:ALA:HB1	43:BI:109:ILE:HB	1.80	0.64
46:BP:101:VAL:C	46:BP:103:ALA:H	2.04	0.64
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
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:90:U:H5''	1:CA:91:C:H5'	1.80	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
2:CB:121:LEU:HD11	2:CB:130:ARG:HH11	1.62	0.64
2:CB:172:ILE:HD12	2:CB:172:ILE:H	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
35:DA:535:C:O2'	35:DA:536:A:H5'	1.98	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
38:DD:168:ARG:O	38:DD:169:GLU:HB2	1.97	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
42:DH:70:THR:C	42:DH:72:ILE:H	2.04	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:H	4:AD:196:LEU:CD1	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:B5:6:VAL:HG22	30:B5:7:PRO:HD2	1.80	0.64
30:B5:48:GLU:O	30:B5:50:GLY:N	2.31	0.64
35:BA:1436:G:H3'	35:BA:1437:C:H5''	1.78	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
1:CA:184:G:H2'	1:CA:185:A:H8	1.63	0.64
3:CC:86:VAL:O	3:CC:89:GLU:HB3	1.97	0.64
3:CC:126:ARG:O	3:CC:128:PHE:HD1	1.81	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
22:CY:56:C:H5''	35:DA:897:C:O5'	1.97	0.64
26:D1:26:ARG:HG3	26:D1:26:ARG:HH11	1.63	0.64
35:DA:557:U:H2'	35:DA:558:G:H8	1.63	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
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
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
1:AA:972:C:O3'	10:AJ:57:LYS:HG3	1.98	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
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
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
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
1:CA:522:C:H41	12:CL:53:ARG:NH2	1.96	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:986:A:H1'	19:CS:54:GLY:O	1.97	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:47:CYS:HB3	7:CG:58:PRO:HG2	1.80	0.64
7:CG:146:GLU:OE2	7:CG:149:ARG:HD2	1.97	0.64
8:CH:20:TYR:HE2	8:CH:75:ARG:HE	1.44	0.64
13:CM:65:LYS:C	13:CM:66:LEU:N	2.55	0.64
23:CW:67:C:H2'	23:CW:68:C:H6	1.63	0.64
27:D2:17:SER:OG	27:D2:20:GLU:HB2	1.96	0.64
35:DA:92:A:H2'	35:DA:93:G:C8	2.32	0.64
35:DA:833:U:H5''	46:DP:48:PRO:HB3	1.79	0.64
35:DA:1352:U:O2'	35:DA:1353:A:H5'	1.98	0.64
35:DA:2290:G:H5'	35:DA:2290:G:C8	2.28	0.64
38:DD:24:ILE:O	38:DD:26:LYS:N	2.31	0.64
40:DF:2:LYS:O	40:DF:24:LEU:HG	1.98	0.64
40:DF:17:ARG:HG3	40:DF:17:ARG:NH1	2.11	0.64
42:DH:86:GLU:CB	42:DH:132:ARG:HB3	2.28	0.64
42:DH:148:ILE:O	42:DH:151:ILE:HG12	1.97	0.64
43:DI:92:VAL:CG1	43:DI:120:ILE:HD12	2.27	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:HB2	17:AQ:14:LYS:NZ	2.13	0.63
23:AW:12:U:H3	23:AW:23:A:H61	1.44	0.63
35:BA:467:G:O2'	35:BA:468:G:H5'	1.98	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
38:BD:24:ILE:O	38:BD:26:LYS:N	2.31	0.63
39:BE:12:THR:HG23	50:BT:8:LYS:HZ1	1.61	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
54:BX:24:GLY:O	54:BX:82:GLN:HA	1.98	0.63
1:CA:266:G:C8	1:CA:266:G:H5'	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:DA:925:C:C3'	35:DA:926:A:H5''	2.28	0.63
35:DA:1594:G:H8	35:DA:1594:G:C5'	2.06	0.63
35:DA:2175:C:H1'	37:DC:215:THR:H	1.63	0.63
41:DG:46:ALA:HA	41:DG:51:ARG:CD	2.27	0.63
50:DT:54:ARG:HH11	50:DT:54:ARG:HG2	1.63	0.63
53:DW:5:ALA:HB1	53:DW:50:VAL:CG2	2.28	0.63
1:AA:90:U:H5''	1:AA:91:C:H5'	1.79	0.63
1:AA:266:G:H5'	1:AA:266:G:C8	2.33	0.63
2:AB:178:ARG:HH22	2:AB:196:LEU:C	2.05	0.63
7:AG:57:GLU:CD	7:AG:57:GLU:H	2.07	0.63
10:AJ:32:ALA:HB1	10:AJ:75:ILE:CG1	2.27	0.63
13:AM:65:LYS:C	13:AM:66:LEU:HG	2.24	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:HH11	30:B5:16:ARG:HG2	1.62	0.63
35:BA:580:C:H2'	35:BA:581:C:H6	1.62	0.63
35:BA:1854:A:H5'	35:BA:1855:G:OP2	1.97	0.63
41:BG:40:ASN:HD22	41:BG:91:ARG:HB2	1.64	0.63
41:BG:125:PHE:N	41:BG:125:PHE:CD1	2.67	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:56:U:H2'	1:CA:57:G:C8	2.33	0.63
1:CA:101:A:O2'	1:CA:102:G:H5'	1.98	0.63
1:CA:950:U:H2'	1:CA:951:G:C8	2.32	0.63
1:CA:1070:U:H2'	1:CA:1071:C:C6	2.29	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
13:CM:17:VAL:O	13:CM:20:THR:HB	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:74:ASP:OD2	15:CO:77:ARG:HG2	1.98	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:271(S):G:H2'	35:DA:271(T):C:C5'	2.27	0.63
35:DA:829:A:N7	35:DA:2248:C:H5'	2.12	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
54:DX:66:LEU:HD23	54:DX:66:LEU:C	2.22	0.63
55:DY:15:VAL:O	55:DY:16:ALA:HB3	1.97	0.63
55:DY:81:LYS:HD3	55:DY:97:ARG:CB	2.27	0.63
1:AA:57:G:H2'	1:AA:58:C:H6	1.61	0.63
1:AA:1148:U:H2'	1:AA:1149:C:O4'	1.98	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:271(J):C:C3'	35:BA:271(K):U:H5''	2.28	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
43:BI:48:GLU:C	43:BI:50:ARG:H	2.06	0.63
52:BV:38:LEU:C	52:BV:39:LEU:HD13	2.24	0.63
55:BY:7:VAL:HB	55:BY:8:LYS:HZ2	1.62	0.63
55:BY:19:LYS:HB2	55:BY:19:LYS:NZ	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
17:CQ:15:MET:HE1	17:CQ:43:LEU:HD22	1.80	0.63
22:CY:77:PHA:HD2	35:DA:2451:A:C2	2.32	0.63
35:DA:994:C:H3'	51:DU:54:LYS:HE3	1.79	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
35:DA:2645:G:C3'	35:DA:2646:C:H5'	2.25	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DO:87:ILE:HG22	45:DO:88:ASN:N	2.14	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
2:AB:68:ILE:N	2:AB:90:MET:HE2	2.13	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
1:CA:99:U:H2'	1:CA:100:C:C6	2.34	0.63
2:CB:73:THR:HG22	2:CB:95:GLN:O	1.99	0.63
2:CB:217:ARG:HA	2:CB:220:ASP:OD2	1.98	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:330:A:O2'	35:DA:331:A:H8	1.81	0.63
35:DA:1223:G:H5'	35:DA:1224:C:OP2	1.99	0.63
36:DB:106:G:O2'	36:DB:107:G:H5'	1.98	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
31:B6:17:LYS:C	31:B6:18:ARG:HD3	2.23	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BP:63:PRO:C	46:BP:65:ARG:H	2.04	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:H	4:CD:19:LEU:HD12	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:H5'	35:DA:1885:A:H8	1.63	0.63
35:DA:1935:G:H1'	35:DA:1964:G:N2	2.13	0.63
38:DD:26:LYS:HD3	38:DD:81:ALA:CB	2.28	0.63
38:DD:34:VAL:O	38:DD:64:ILE:HG23	1.98	0.63
38:DD:154:LYS:C	38:DD:155:LEU:HD12	2.23	0.63
38:DD:210:GLY:O	38:DD:211:ARG:HB3	1.96	0.63
55:DY:29:GLU:OE1	55:DY:29:GLU:N	2.31	0.63
1:AA:1165:C:H2'	1:AA:1166:G:C8	2.31	0.63
1:AA:1240:U:OP2	7:AG:116:ALA:HB2	1.97	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
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: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
35:BA:2593:U:H2'	35:BA:2594:C:H6	1.63	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
5:CE:10:MET:HE2	5:CE:13:ILE:HD11	1.80	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
19:CS:63:THR:HG22	19:CS:66:MET:HE3	1.81	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:528:A:H2	35:DA:2043:C:H5'	1.64	0.63
35:DA:1286:A:C2'	35:DA:1288:U:OP2	2.46	0.63
35:DA:2122:U:H2'	35:DA:2123:G:C8	2.33	0.63
35:DA:2312:U:OP1	41:DG:74:LYS:HG3	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
1:AA:1112:C:O2	3:AC:179:ARG:HG2	1.98	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
19:AS:19:VAL:HG11	19:AS:44:MET:HE2	1.81	0.63
29:B4:40:ILE:HG13	29:B4:57:ILE:HG21	1.79	0.63
35:BA:34:C:N4	35:BA:455:C:H5'	2.14	0.63
35:BA:71:A:H5'	35:BA:71:A:C8	2.30	0.63
35:BA:1718:G:H1	35:BA:1744:C:H42	1.45	0.63
41:BG:51:ARG:NE	41:BG:51:ARG:CA	2.62	0.63
41:BG:108:ASN:C	41:BG:112:PRO:HG2	2.23	0.63
45:BO:87:ILE:HG22	45:BO:88:ASN:N	2.14	0.63
46:BP:8:PRO:O	46:BP:9:ASN:CB	2.47	0.63
46:BP:144:GLU:O	46:BP:144:GLU:HG2	1.98	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: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
13:CM:108:ARG:N	13:CM:108:ARG:HD2	2.14	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
35:DA:1800:C:OP1	38:DD:264:LYS:NZ	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
44:DN:96:GLU:CD	44:DN:96:GLU:H	2.07	0.63
46:DP:13:ASN:C	46:DP:13:ASN:ND2	2.52	0.63
46:DP:21:ARG:O	46:DP:23:PRO:HD3	1.99	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
1:AA:1248:A:H2'	1:AA:1249:C:H5'	1.81	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
35:BA:2317:C:O2'	35:BA:2318:G:H5'	1.99	0.63
42:BH:17:VAL:O	42:BH:17:VAL:HG12	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
47:BQ:103:MET:HE2	47:BQ:125:LEU:HD13	1.81	0.63
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
49:BS:105:ALA:C	49:BS:107:GLU:H	2.05	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:4:TYR:O	4:CD:5:ILE:HB	1.99	0.63
10:CJ:5:ARG:HG3	10:CJ:71:LEU:HD11	1.81	0.63
18:CR:53:ARG:HE	18:CR:59:SER:C	2.07	0.63
35:DA:419:C:O2'	35:DA:420:C:H5'	1.99	0.63
35:DA:1141:U:P	44:DN:25:ARG:HH12	2.21	0.63
41:DG:15:VAL:HG13	41:DG:175:LEU:CD1	2.29	0.63
42:DH:17:VAL:HG12	42:DH:17:VAL:O	1.99	0.63
45:DO:86:ILE:HD12	45:DO:86:ILE:N	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
55:DY:2:ARG:C	55:DY:4:LYS:H	2.07	0.63
1:AA:101:A:O2'	1:AA:102:G:H5'	1.99	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
1:AA:1238:A:C8	1:AA:1303:C:H1'	2.33	0.63
3:AC:126:ARG:O	3:AC:128:PHE:HD1	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:608:A:OP1	40:BF:100:THR:HG21	1.98	0.63
35:BA:1638:C:H4'	35:BA:2710:C:O2	1.99	0.63
35:BA:2398:U:H5'	35:BA:2399:G:OP2	1.99	0.63
35:BA:2591:C:OP2	38:BD:239:ARG:HB3	1.99	0.63
35:BA:2866:U:C6	35:BA:2868:A:H1'	2.34	0.63
39:BE:134:ILE:C	39:BE:134:ILE:HD13	2.24	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
55:BY:2:ARG:C	55:BY:4:LYS:H	2.06	0.63
55:BY:29:GLU:N	55:BY:29:GLU:CD	2.56	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
4:CD:138:TYR:C	4:CD:138:TYR:CD2	2.77	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
49:DS:17:ARG:C	49:DS:19:LYS:H	2.06	0.63
50:DT:46:GLU:CD	50:DT:88:ILE:HD11	2.24	0.63
53:DW:99:ARG:HH11	53:DW:99:ARG:HG2	1.61	0.63
55:DY:7:VAL:HB	55:DY:8:LYS:NZ	2.13	0.63
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
1:AA:1188:A:C2'	1:AA:1189:C:H5'	2.29	0.62
1:AA:1452:C:H5'	1:AA:1456:G:C4	2.34	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:1:MET:H2	8:AH:1:MET:HE2	1.64	0.62
8:AH:69:ARG:HB2	8:AH:69:ARG:HH11	1.63	0.62
13:AM:11:ARG:HH22	41:BG:147:ASP:HB3	1.64	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:176:G:O2'	35:BA:177:G:H5'	1.99	0.62
35:BA:1503:U:H2'	35:BA:1504:C:C6	2.33	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:210:GLY:C	38:BD:212:SER:H	2.07	0.62
39:BE:101:ARG:NH2	39:BE:171:GLU:HB2	2.13	0.62
44:BN:96:GLU:CD	44:BN:96:GLU:H	2.05	0.62
48:BR:24:GLN:NE2	48:BR:36:THR:HG21	2.12	0.62
53:BW:5:ALA:O	53:BW:6:ILE:HB	1.98	0.62
53:BW:29:LEU:HD21	53:BW:33:ARG:HH21	1.64	0.62
1:CA:1406:U:O2'	1:CA:1407:C:H5'	1.99	0.62
3:CC:14:ILE:HG12	3:CC:15:THR:N	2.14	0.62
3:CC:108:ASN:OD1	3:CC:110:ASN:HB2	1.99	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:271(J):C:C3'	35:DA:271(K):U:H5''	2.29	0.62
35:DA:626:U:C2	46:DP:105:LEU:HG	2.34	0.62
35:DA:877:U:O2'	35:DA:878:A:H5''	1.99	0.62
35:DA:1786:A:C2	35:DA:2606:C:H1'	2.34	0.62
35:DA:2113:U:H2'	35:DA:2114:A:C8	2.33	0.62
39:DE:186:GLY:C	39:DE:188:VAL:H	2.06	0.62
42:DH:85:LYS:NZ	42:DH:133:VAL:HB	2.13	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
45:DO:88:ASN:ND2	45:DO:90:GLN:H	1.96	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
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
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
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:32:LEU:HD22	40:BF:112:MET:HE3	1.80	0.62
40:BF:183:VAL:O	40:BF:187:VAL:HG23	1.98	0.62
44:BN:125:GLY:HA3	44:BN:126:PRO:C	2.22	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
11:CK:74:ALA:C	11:CK:76:GLY:H	2.07	0.62
12:CL:53:ARG:HB3	12:CL:69:TYR:HE1	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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
50:BT:82:LEU:C	50:BT:84:GLN:H	2.06	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
1:CA:1248:A:H2'	1:CA:1249:C:H5'	1.81	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
7:CG:57:GLU:CD	7:CG:57:GLU:H	2.07	0.62
9:CI:65:VAL:HG21	9:CI:73:GLN:HB3	1.81	0.62
12:CL:33:ARG:HA	12:CL:33:ARG:HE	1.65	0.62
12:CL:104:VAL:HG12	12:CL:105:TYR:CD1	2.34	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DR:12:ARG:HG3	48:DR:12:ARG:HH11	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:589:C:O2'	35:BA:590:A:H5'	1.99	0.62
35:BA:626:U:C2	46:BP:105:LEU:HG	2.34	0.62
35:BA:813:U:H2'	35:BA:814:C:C6	2.34	0.62
35:BA:1784:A:H4'	35:BA:1785:A:O5'	2.00	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
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:HN61	58:CA:1800:PAR:H34	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
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:61:LEU:O	38:DD:63:ARG:NH1	2.32	0.62
38:DD:228:PRO:HD3	38:DD:235:GLY:CA	2.29	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DZ:99:TYR:HB3	56:DZ:123:ASP:OD1	2.00	0.62
1:AA:180:U:H2'	1:AA:181:G:C5'	2.20	0.62
1:AA:1239:A:H62	1:AA:1299:A:H62	1.46	0.62
1:AA:1308:U:H5'	13:AM:110:ARG:HD2	1.81	0.62
6:AF:18:GLN:O	6:AF:21:LEU:HB2	1.99	0.62
19:AS:16:LEU:H	19:AS:16:LEU:HD12	1.63	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
35:BA:2779:U:H4'	35:BA:2780:G:H5'	1.81	0.62
38:BD:31:LYS:HZ2	38:BD:94:LEU:HD11	1.64	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
45:BO:104:ARG:NE	50:BT:33:LYS:HD2	2.14	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
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:1298:C:H2'	7:CG:114:ARG:NH1	2.13	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
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
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:17:G:H4'	51:DU:25:TRP:CH2	2.34	0.62
35:DA:271(M):G:O2'	35:DA:271(O):C:H5'	1.99	0.62
35:DA:558:G:P	44:DN:111:PRO:HD2	2.39	0.62
35:DA:1709:U:H2'	35:DA:1710:C:C6	2.35	0.62
35:DA:2010:G:H5''	53:DW:42:ARG:HB2	1.80	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
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:41:MET:SD	42:DH:41:MET:N	2.73	0.62
42:DH:102:ALA:CB	42:DH:117:PRO:HD3	2.26	0.62
43:DI:72:LEU:HD12	43:DI:138:ILE:HD13	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DP:75:ILE:N	46:DP:75:ILE:HD12	2.14	0.62
46:DP:144:GLU:N	46:DP:145:PRO:CD	2.63	0.62
8:AH:103:VAL:HG21	8:AH:110:ALA:HB2	1.82	0.62
9:AI:114:TYR:HD2	9:AI:114:TYR:H	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:N	25:B0:20:ARG:HD3	2.15	0.62
31:B6:47:THR:HB	31:B6:49:HIS:CE1	2.35	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
35:BA:1264:G:H3'	35:BA:1265:A:H5''	1.81	0.62
35:BA:1839:G:H8	35:BA:1839:G:H5'	1.63	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
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: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
2:CB:168:THR:HA	2:CB:171:ALA:HB2	1.82	0.62
13:CM:4:ILE:HA	13:CM:57:ARG:HD3	1.80	0.62
15:CO:3:ILE:HD13	15:CO:3:ILE:N	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
25:D0:36:ILE:HD12	25:D0:37:LEU:N	2.14	0.62
35:DA:993:G:O2'	52:DV:89:GLN:HG3	1.98	0.62
35:DA:1153:C:H2'	35:DA:1154:G:O4'	2.00	0.62
35:DA:1839:G:H8	35:DA:1839:G:H5'	1.64	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:101:VAL:C	46:DP:103:ALA:H	2.08	0.62
48:DR:7:GLY:O	48:DR:8:ARG:HG2	1.99	0.62
50:DT:83:ILE:O	50:DT:83:ILE:HD12	1.98	0.62
1:AA:189(J):G:O2'	1:AA:189(K):U:H5'	2.00	0.62
1:AA:1325:C:H4'	21:AU:17:THR:HG21	1.80	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:30:SER:O	10:AJ:81:THR:HG23	2.00	0.62
14:AN:44:LEU:HD12	14:AN:44:LEU:O	2.00	0.62
19:AS:63:THR:HG22	19:AS:66:MET:HE3	1.82	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
35:BA:2444:G:OP2	40:BF:68:LYS:HE2	2.00	0.62
38:BD:27:THR:O	38:BD:27:THR:HG23	1.99	0.62
38:BD:33:LEU:HD13	38:BD:34:VAL:N	2.15	0.62
38:BD:182:LEU:O	38:BD:271:ILE:HG13	1.98	0.62
38:BD:228:PRO:HD3	38:BD:235:GLY:CA	2.30	0.62
39:BE:11:MET:CB	39:BE:24:THR:HA	2.28	0.62
39:BE:70:ALA:O	39:BE:71:GLY:C	2.41	0.62
41:BG:68:PRO:CB	41:BG:90:LEU:HD21	2.30	0.62
42:BH:89:ILE:HD12	42:BH:89:ILE:N	2.15	0.62
44:BN:55:VAL:HG22	44:BN:126:PRO:CA	2.28	0.62
45:BO:88:ASN:ND2	45:BO:90:GLN:H	1.96	0.62
45:BO:105:GLU:HA	45:BO:108:GLU:CD	2.24	0.62
45:BO:107:ARG:NH1	50:BT:36:GLU:H	1.98	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
55:BY:43:ASN:O	55:BY:44:ILE:C	2.41	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
13:CM:27:LYS:HE3	13:CM:31:LYS:HE3	1.81	0.62
15:CO:76:GLU:C	15:CO:78:TYR:H	2.07	0.62
16:CP:50:LYS:HD3	16:CP:51:VAL:H	1.63	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
42:DH:85:LYS:HZ2	42:DH:133:VAL:HB	1.63	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
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:HD12	54:DX:8:ILE:N	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
15:AO:64:ARG:HH11	15:AO:64:ARG:HG3	1.64	0.62
17:AQ:68:ARG:HH11	17:AQ:68:ARG:HG2	1.65	0.62
29:B4:39:ARG:C	29:B4:40:ILE:HD12	2.25	0.62
33:B8:34:TRP:O	33:B8:35:GLN:HB2	2.00	0.62
35:BA:27:G:N2	35:BA:512:G:H2'	2.14	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
41:BG:121:ASN:HD22	41:BG:121:ASN:C	2.06	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
54:BX:71:GLY:C	54:BX:72:LYS:HD2	2.24	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:57:C:O2'	35:DA:58:G:H5'	2.00	0.62
35:DA:1405:U:H2'	35:DA:1406:U:H6	1.62	0.62
38:DD:108:PRO:HB3	38:DD:143:HIS:CE1	2.35	0.62
39:DE:77:ILE:HG22	39:DE:78:LEU:HG	1.81	0.62
47:DQ:41:TRP:HB3	47:DQ:94:VAL:HG21	1.81	0.62
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
1:AA:134:A:H61	16:AP:25:ARG:NH1	1.98	0.62
1:AA:408:A:H4'	4:AD:112:VAL:HG11	1.82	0.62
3:AC:77:ILE:CG2	3:AC:81:GLY:HA2	2.30	0.62
4:AD:8:VAL:O	4:AD:10:ARG:N	2.27	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: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:O	46:BP:17:LYS:HG2	1.99	0.62
50:BT:12:SER:O	50:BT:13:ARG:NH2	2.32	0.62
50:BT:107:ASP:CG	50:BT:108:ARG:N	2.55	0.62
53:BW:86:LEU:HD12	53:BW:87:PRO:HD2	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:90:U:C5'	1:CA:91:C:H5'	2.30	0.62
1:CA:556:C:O2'	1:CA:557:G:H5'	2.00	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
3:CC:6:HIS:HB2	14:CN:49:HIS:HD2	1.65	0.62
3:CC:24:ALA:HB1	3:CC:28:GLN:O	1.99	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
30:D5:33:CYS:HG	30:D5:49:CYS:HG	1.18	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
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:HD12	54:DX:8:ILE:H	1.64	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
1:AA:1452:C:H5'	1:AA:1456:G:C5	2.35	0.62
11:AK:74:ALA:C	11:AK:76:GLY:H	2.06	0.62
13:AM:76:ALA:HA	13:AM:79:LYS:CD	2.30	0.62
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: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
35:BA:2317:C:H2'	35:BA:2318:G:H5'	1.80	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:28:VAL:HG22	50:BT:46:GLU:C	2.24	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:484:G:H4'	1:CA:485:G:O5'	1.99	0.62
1:CA:954:G:C4'	13:CM:120:LYS:HG3	2.17	0.62
1:CA:1323:G:H2'	1:CA:1324:A:C8	2.34	0.62
2:CB:140:HIS:O	2:CB:143:GLU:HB2	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
14:CN:44:LEU:HD12	14:CN:44:LEU:O	1.99	0.62
15:CO:74:ASP:C	15:CO:76:GLU:H	2.07	0.62
23:CW:57:G:H2'	23:CW:57:G:N3	2.13	0.62
35:DA:851:U:O2'	35:DA:852:G:H5'	1.99	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
37:DC:59:ARG:HB2	37:DC:62:VAL:CG2	2.29	0.62
45:DO:77:ILE:HD12	50:DT:73:GLU:O	2.00	0.62
50:DT:28:VAL:O	50:DT:29:ARG:HB2	1.98	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:110:ASN:C	3:AC:112:SER:H	2.08	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
13:AM:20:THR:C	13:AM:22:ILE:H	2.08	0.61
22:AY:25:C:H2'	22:AY:26:A:C8	2.31	0.61
35:BA:2523:G:H5'	35:BA:2523:G:C8	2.30	0.61
39:BE:101:ARG:NH1	39:BE:169:ASN:HD22	1.97	0.61
49:BS:65:VAL:C	49:BS:67:ARG:N	2.58	0.61
1:CA:39:G:O2'	1:CA:40:C:H5'	2.00	0.61
1:CA:408:A:H4'	4:CD:112:VAL:HG11	1.82	0.61
1:CA:437:U:O2'	1:CA:438:G:H5'	2.00	0.61
1:CA:1188:A:C2'	1:CA:1189:C:H5'	2.29	0.61
8:CH:103:VAL:CG2	8:CH:110:ALA:HB2	2.29	0.61
9:CI:47:LEU:C	9:CI:49:PRO:HD2	2.25	0.61
12:CL:24:VAL:O	12:CL:24:VAL:HG12	2.00	0.61
22:CY:1:G:H2'	22:CY:1:G:N3	2.15	0.61
35:DA:74:A:H4'	35:DA:75:G:O5'	2.00	0.61
35:DA:2773:C:H2'	35:DA:2774:C:C6	2.34	0.61
44:DN:17:ASP:HB2	44:DN:55:VAL:HG12	1.82	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
55:DY:39:VAL:O	55:DY:40:GLU:CD	2.42	0.61
55:DY:43:ASN:O	55:DY:44:ILE:C	2.43	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:23:TYR:CG	3:AC:24:ALA:N	2.68	0.61
3:AC:153:VAL:CG1	3:AC:196:LEU:HD12	2.30	0.61
15:AO:76:GLU:C	15:AO:78:TYR:H	2.08	0.61
31:B6:36:LEU:HB3	31:B6:50:ARG:NH1	2.15	0.61
33:B8:23:VAL:CG1	33:B8:46:ARG:HB3	2.30	0.61
33:B8:29:LYS:HD3	33:B8:44:LYS:HG2	1.82	0.61
35:BA:17:G:H2'	35:BA:18:C:C6	2.34	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: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
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
55:BY:38:ILE:C	55:BY:39:VAL:HG23	2.24	0.61
1:CA:376:G:H4'	16:CP:5:ARG:HH11	1.65	0.61
1:CA:711:G:O2'	1:CA:712:A:H5'	2.00	0.61
1:CA:999:C:O2'	1:CA:1000:U:H5'	2.01	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
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:H2'	35:DA:1042:G:N3	2.15	0.61
35:DA:2694:G:O2'	35:DA:2695:C:H5'	1.99	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
49:DS:105:ALA:C	49:DS:107:GLU:H	2.06	0.61
50:DT:58:ASN:HD22	50:DT:58:ASN:C	2.06	0.61
52:DV:89:GLN:OE1	52:DV:90:PRO:HD2	2.00	0.61
56:DZ:10:ARG:NH2	56:DZ:37:VAL:O	2.33	0.61
56:DZ:10:ARG:HH22	56:DZ:26:GLY:N	1.98	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:15:MET:HE1	17:AQ:43:LEU:HD22	1.82	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: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
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
38:BD:270:ILE:C	38:BD:271:ILE:HG12	2.24	0.61
39:BE:186:GLY:O	39:BE:188:VAL:N	2.32	0.61
40:BF:172:TRP:CD1	40:BF:172:TRP:H	2.18	0.61
42:BH:66:GLY:CA	42:BH:69:ARG:HB2	2.26	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:20:SER:HB2	3:CC:40:ARG:NH2	2.16	0.61
3:CC:23:TYR:CG	3:CC:24:ALA:N	2.68	0.61
3:CC:64:VAL:O	3:CC:100:ALA:HB3	2.00	0.61
12:CL:25:PRO:O	12:CL:27:LEU:HD22	2.01	0.61
13:CM:100:GLY:C	13:CM:101:GLN:HG3	2.25	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:HH11	32:D7:19:ARG:HG2	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:40:THR:HG21	37:DC:215:THR:CB	2.30	0.61
37:DC:68:LEU:CD1	37:DC:179:SER:HA	2.30	0.61
37:DC:128:GLY:C	37:DC:130:ILE:H	2.08	0.61
38:DD:271:ILE:O	38:DD:272:ALA:HB2	1.99	0.61
41:DG:37:VAL:HG21	41:DG:99:MET:HG3	1.82	0.61
43:DI:48:GLU:C	43:DI:50:ARG:H	2.07	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:HA	51:DU:34:LYS:HE2	1.81	0.61
53:DW:12:ILE:HG13	53:DW:42:ARG:HH11	1.64	0.61
1:AA:711:G:O2'	1:AA:712:A:H5'	2.00	0.61
1:AA:1053:G:H3'	1:AA:1054:C:H5'	1.81	0.61
1:AA:1281:U:H5'	1:AA:1282:C:OP2	2.01	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:BA:1363:C:H2'	35:BA:1364:G:H8	1.66	0.61
35:BA:1880:C:H5'	35:BA:1880:C:H6	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
38:BD:228:PRO:HD3	38:BD:235:GLY:HA3	1.82	0.61
40:BF:34:TRP:CZ2	46:BP:12:ALA:HB2	2.35	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
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:41:G:H2'	1:CA:42:G:H8	1.64	0.61
1:CA:312:C:H2'	1:CA:313:A:C8	2.36	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:90:U:O2'	35:DA:92:A:H5''	2.00	0.61
35:DA:271(R):G:H2'	35:DA:271(S):G:C8	2.33	0.61
35:DA:467:G:O2'	35:DA:468:G:H5'	2.00	0.61
35:DA:1666:G:H1'	45:DO:3:GLN:NE2	2.16	0.61
35:DA:1801:G:OP2	38:DD:154:LYS:HE2	2.01	0.61
35:DA:1880:C:H5'	35:DA:1880:C:H6	1.66	0.61
35:DA:2759:G:O2'	35:DA:2760:C:H5'	2.00	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
46:DP:63:PRO:C	46:DP:65:ARG:H	2.05	0.61
47:DQ:39:PRO:O	47:DQ:40:ALA:HB2	2.00	0.61
50:DT:28:VAL:HG22	50:DT:46:GLU:C	2.26	0.61
56:DZ:97:GLU:HG2	56:DZ:127:LYS:HA	1.82	0.61
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
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
2:AB:121:LEU:O	2:AB:127:ILE:HD11	2.00	0.61
4:AD:30:LYS:C	4:AD:32:ALA:N	2.53	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:24:VAL:HG12	12:AL:24:VAL:O	2.01	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: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
35:BA:2870:C:H2'	35:BA:2871:C:O4'	2.01	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
44:BN:58:ASP:C	44:BN:60:ILE:H	2.07	0.61
46:BP:41:ARG:HA	46:BP:41:ARG:NE	2.15	0.61
51:BU:88:ILE:O	51:BU:88:ILE:HG13	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
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:1598:C:H5'	54:DX:36:LYS:HB2	1.81	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
42:DH:100:GLY:C	42:DH:102:ALA:H	2.07	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
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
1:AA:376:G:H4'	16:AP:5:ARG:HH11	1.64	0.61
13:AM:65:LYS:NZ	13:AM:65:LYS:HB3	2.16	0.61
31:B6:20:ASN:ND2	31:B6:21:TYR:N	2.48	0.61
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
38:BD:154:LYS:C	38:BD:155:LEU:HD12	2.25	0.61
52:BV:6:LYS:O	52:BV:37:VAL:HG21	2.00	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:954:G:H4'	13:CM:120:LYS:CG	2.19	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
3:CC:77:ILE:CG2	3:CC:81:GLY:HA2	2.30	0.61
9:CI:20:ARG:HG3	9:CI:20:ARG:HH11	1.65	0.61
13:CM:65:LYS:C	13:CM:66:LEU:HG	2.26	0.61
23:CW:5:G:O2'	23:CW:6:G:H5'	2.00	0.61
35:DA:71:A:H5'	35:DA:71:A:C8	2.34	0.61
35:DA:953:A:H2'	35:DA:954:G:H5'	1.82	0.61
35:DA:2870:C:H2'	35:DA:2871:C:O4'	1.99	0.61
38:DD:270:ILE:C	38:DD:271:ILE:HG12	2.25	0.61
46:DP:146:VAL:O	46:DP:148:LEU:HG	2.00	0.61
52:DV:38:LEU:C	52:DV:39:LEU:HD13	2.26	0.61
56:DZ:11:GLU:CD	56:DZ:11:GLU:H	2.08	0.61
1:AA:90:U:C5'	1:AA:91:C:H5'	2.30	0.61
1:AA:328:C:H4'	1:AA:329:A:C5'	2.29	0.61
1:AA:1478:C:H2'	1:AA:1479:C:C6	2.36	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:3:THR:C	44:BN:5:VAL:H	2.07	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:199:G:H2'	1:CA:200:G:H8	1.64	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
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DE:95:ILE:H	39:DE:95:ILE:CD1	2.12	0.61
41:DG:16:ARG:HE	41:DG:31:VAL:HG11	1.65	0.61
41:DG:121:ASN:HD22	41:DG:122:PRO:CD	2.12	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:31:SER:C	51:DU:33:ARG:H	2.07	0.61
51:DU:92:ARG:HH21	51:DU:95:LEU:CG	2.13	0.61
51:DU:112:ARG:O	51:DU:115:ALA:HB3	2.01	0.61
1:AA:797:C:OP1	11:AK:124:LYS:HE2	2.00	0.61
1:AA:954:G:C4'	13:AM:120:LYS:HG3	2.19	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
9:AI:47:LEU:C	9:AI:49:PRO:HD2	2.26	0.61
10:AJ:30:SER:HB2	10:AJ:80:LYS:C	2.26	0.61
13:AM:65:LYS:O	13:AM:66:LEU:HG	2.00	0.61
13:AM:100:GLY:C	13:AM:101:GLN:HG3	2.25	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: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:1141:U:H2'	44:BN:63:THR:HG21	1.82	0.61
35:BA:2012:G:O2'	53:BW:96:ILE:HD11	2.00	0.61
36:BB:31:C:N4	49:BS:32:LEU:HD22	2.16	0.61
46:BP:85:LEU:HD23	46:BP:85:LEU:N	2.15	0.61
50:BT:106:SER:O	50:BT:107:ASP:HB3	2.01	0.61
52:BV:19:LYS:HZ3	52:BV:20:LEU:CA	2.13	0.61
55:BY:26:LYS:HG2	55:BY:27:VAL:N	2.08	0.61
1:CA:106:C:H2'	1:CA:107:G:C8	2.32	0.61
1:CA:1053:G:H3'	1:CA:1054:C:H5'	1.83	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
38:DD:43:ARG:HH11	38:DD:44:ASN:CG	2.08	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:36:LYS:HD2	41:DG:38:VAL:HG23	1.82	0.61
41:DG:41:GLN:NE2	41:DG:155:MET:HB3	2.14	0.61
41:DG:133:LEU:HG	41:DG:157:ILE:HG23	1.83	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)
42:DH:158:HIS:O	42:DH:159:GLU:HB3	1.99	0.61
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
56:DZ:80:ARG:O	56:DZ:81:ARG:C	2.44	0.61
1:AA:56:U:H2'	1:AA:57:G:C8	2.35	0.61
1:AA:560:U:O2'	1:AA:561:U:OP2	2.19	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
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:185:U:H4'	35:BA:218:A:H4'	1.83	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
37:BC:128:GLY:C	37:BC:130:ILE:H	2.08	0.61
38:BD:226:MET:HB3	38:BD:230:ASP:HB2	1.81	0.61
39:BE:1:MET:N	39:BE:1:MET:HE2	2.16	0.61
42:BH:54:ARG:HB3	42:BH:65:HIS:CD2	2.35	0.61
48:BR:33:ARG:N	48:BR:33:ARG:HD2	2.16	0.61
49:BS:17:ARG:C	49:BS:19:LYS:H	2.08	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:HH11	3:CC:83:ARG:HG2	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:N	26:D1:43:TYR:CD1	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: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
35:DA:1504:C:O2'	35:DA:1505:C:C5'	2.49	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:17:LYS:HG2	46:DP:17:LYS:O	1.99	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:BA:2393:A:H5'	46:BP:62:LEU:HB3	1.83	0.61
39:BE:11:MET:HB3	39:BE:24:THR:HA	1.83	0.61
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
41:BG:101:ILE:HD13	41:BG:101:ILE:C	2.26	0.61
42:BH:149:ARG:HH21	42:BH:154:PRO:HG3	1.63	0.61
43:BI:58:LEU:C	43:BI:60:GLU:N	2.57	0.61
46:BP:83:VAL:O	46:BP:114:ILE:HD12	2.01	0.61
49:BS:101:LEU:HD22	49:BS:101:LEU:O	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:N	54:BX:8:ILE:HD12	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
10:CJ:30:SER:HB2	10:CJ:80:LYS:C	2.26	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
29:D4:39:ARG:C	29:D4:40:ILE:HD12	2.25	0.61
35:DA:142:A:H5''	35:DA:142(A):C:H5	1.65	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
35:DA:1242:A:H5'	35:DA:1243:G:OP2	2.00	0.61
35:DA:1396:U:O2	35:DA:1396:U:H2'	2.00	0.61
35:DA:2463:C:O2'	35:DA:2464:C:H5'	2.00	0.61
38:DD:65:ILE:H	38:DD:65:ILE:CD1	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:HD12	42:DH:89:ILE:N	2.16	0.61
52:DV:38:LEU:HD23	52:DV:39:LEU:N	2.15	0.61
54:DX:71:GLY:C	54:DX:72:LYS:HD2	2.25	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:37:U:O2'	1:AA:38:G:H5'	2.00	0.60
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.36	0.60
2:AB:27:LYS:HD3	2:AB:195:ASP:CG	2.26	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:84:ARG:NH2	8:AH:86:ILE:HD11	2.16	0.60
12:AL:28:LYS:C	12:AL:30:ALA:N	2.54	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:54:GLU:O	41:BG:58:GLN:HG3	2.01	0.60
43:BI:72:LEU:HB3	43:BI:138:ILE:CD1	2.31	0.60
43:BI:101:LEU:HG	43:BI:109:ILE:HD11	1.81	0.60
50:BT:46:GLU:CD	50:BT:88:ILE:HD11	2.26	0.60
55:BY:11:ASP:OD1	55:BY:12:THR:N	2.34	0.60
1:CA:133:U:OP1	20:CT:74:LYS:HE2	2.01	0.60
1:CA:1128:C:C5'	9:CI:16:ARG:HH12	2.13	0.60
3:CC:110:ASN:C	3:CC:112:SER:H	2.09	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
15:CO:87:ILE:HG22	15:CO:88:ARG:N	2.10	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:963:U:H2'	35:DA:964:C:C6	2.36	0.60
35:DA:2569:G:O2'	35:DA:2570:G:H5'	2.01	0.60
38:DD:11:PRO:C	38:DD:13:ARG:H	2.08	0.60
39:DE:1:MET:HE2	39:DE:1:MET:N	2.15	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: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
1:AA:542:G:OP1	4:AD:10:ARG:NH2	2.34	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
3:AC:206:GLU:O	3:AC:208:ILE:N	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
16:AP:51:VAL:O	16:AP:52:ASP:C	2.44	0.60
35:BA:271(T):C:H6	35:BA:271(T):C:C5'	2.11	0.60
35:BA:405:U:H3'	35:BA:406:G:H5'	1.84	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:1754:C:OP1	50:BT:96:ARG:NH1	2.32	0.60
35:BA:2262:U:H2'	35:BA:2263:C:H5''	1.81	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:CA:223:U:H2'	1:CA:224:C:H6	1.66	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
2:CB:27:LYS:HD3	2:CB:195:ASP:CG	2.26	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
18:CR:37:VAL:HG23	18:CR:38:GLU:HG3	1.83	0.60
35:DA:15:G:O2'	35:DA:16:G:H5'	2.02	0.60
35:DA:99:U:O5'	35:DA:100:G:H5'	2.00	0.60
35:DA:709:U:H2'	35:DA:710:G:H8	1.66	0.60
35:DA:1257:C:O2'	40:DF:84:VAL:HG23	2.00	0.60
35:DA:1309:G:O2'	35:DA:1310:G:H5'	2.01	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
43:DI:84:GLY:O	43:DI:85:GLU:HB3	2.00	0.60
44:DN:58:ASP:C	44:DN:60:ILE:H	2.09	0.60
46:DP:16:ARG:HB2	46:DP:16:ARG:CZ	2.31	0.60
48:DR:100:LEU:H	48:DR:100:LEU:HD22	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
35:BA:848:G:H5'	35:BA:848:G:H8	1.67	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
38:BD:70:TRP:CH2	38:BD:150:LYS:HA	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:27:LEU:CD2	50:BT:1:MET:HE2	2.30	0.60
43:BI:69:LYS:HA	43:BI:136:VAL:HG21	1.83	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
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:HG3	4:CD:209:ARG:HH11	1.66	0.60
5:CE:137:GLU:OE2	5:CE:140:ARG:HD2	2.01	0.60
16:CP:51:VAL:O	16:CP:52:ASP:C	2.44	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
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
35:DA:1924:C:H2'	35:DA:1925:C:H6	1.67	0.60
38:DD:27:THR:O	38:DD:27:THR:HG23	2.00	0.60
39:DE:119:ARG:HG2	39:DE:160:TYR:CB	2.29	0.60
44:DN:68:GLU:HG2	44:DN:88:GLU:CD	2.27	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:HA	49:DS:93:LYS:HE3	1.81	0.60
50:DT:64:ARG:HA	50:DT:72:VAL:O	2.01	0.60
5:AE:63:ARG:HA	5:AE:66:MET:HE2	1.82	0.60
5:AE:102:ALA:HB1	5:AE:106:PRO:HG2	1.82	0.60
10:AJ:96:ILE:N	10:AJ:96:ILE:HD13	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:808:G:H2'	35:BA:809:G:H8	1.65	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
38:BD:166:GLN:HE21	38:BD:166:GLN:CA	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
1:CA:1054:C:C4	22:CY:34:G:H1'	2.37	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
8:CH:85:ARG:HG3	8:CH:85:ARG:HH11	1.66	0.60
8:CH:103:VAL:HG21	8:CH:110:ALA:HB2	1.83	0.60
9:CI:26:VAL:HG13	9:CI:61:ALA:O	2.00	0.60
10:CJ:27:ALA:HA	10:CJ:30:SER:HG	1.67	0.60
19:CS:39:THR:HG22	19:CS:40:ILE:N	2.16	0.60
19:CS:40:ILE:HG12	19:CS:71:LEU:CD2	2.31	0.60
22:CV:51:U:H2'	22:CV:52:G:C8	2.36	0.60
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
35:DA:1453:U:OP1	48:DR:77:ARG:HD3	2.02	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:H	44:DN:23:LEU:CD2	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
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
14:AN:2:ALA:O	14:AN:6:LEU:HD12	2.01	0.60
14:AN:24:CYS:HB2	14:AN:29:ARG:HB3	1.83	0.60
17:AQ:74:LEU:HD12	17:AQ:75:ARG:HG2	1.82	0.60
30:B5:7:PRO:HG2	35:BA:2016:U:O2	2.02	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
35:BA:2556:C:H2'	35:BA:2557:G:O4'	2.02	0.60
40:BF:21:ALA:O	40:BF:23:ASP:N	2.34	0.60
40:BF:78:ILE:HD13	40:BF:78:ILE:N	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
55:BY:95:LYS:HE2	55:BY:100:ALA:CB	2.31	0.60
1:CA:973:G:C1'	10:CJ:55:LYS:HE2	2.24	0.60
2:CB:137:ARG:HD3	2:CB:137:ARG:C	2.27	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:83:GLU:HG2	5:CE:88:LYS:HG3	1.84	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:603:A:H4'	35:DA:604:G:O5'	2.01	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:H8	35:DA:2534:A:H5'	1.65	0.60
38:DD:27:THR:HG23	38:DD:83:GLU:HB3	1.83	0.60
38:DD:31:LYS:HZ2	38:DD:94:LEU:HD11	1.66	0.60
41:DG:146:TYR:C	41:DG:148:MET:H	2.08	0.60
43:DI:83:ALA:HA	43:DI:89:TYR:CE1	2.37	0.60
49:DS:65:VAL:C	49:DS:67:ARG:N	2.59	0.60
50:DT:125:ARG:HA	50:DT:125:ARG:CZ	2.31	0.60
51:DU:59:ARG:O	51:DU:63:VAL:HG23	2.01	0.60
52:DV:47:VAL:O	52:DV:48:GLY:C	2.45	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
12:AL:25:PRO:O	12:AL:27:LEU:HD22	2.01	0.60
18:AR:58:LEU:HD23	18:AR:62:GLU:HB3	1.84	0.60
27:B2:16:LEU:HD22	27:B2:20:GLU:CG	2.32	0.60
27:B2:16:LEU:CD2	27:B2:20:GLU:HG2	2.31	0.60
31:B6:15:GLU:CD	31:B6:41:PRO:HG3	2.27	0.60
35:BA:15:G:O2'	35:BA:16:G:H5'	2.01	0.60
35:BA:90:U:O2'	35:BA:92:A:H5''	2.00	0.60
35:BA:648:G:O2'	35:BA:649:G:H5'	2.02	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
36:BB:21:G:O6	36:BB:62:C:N3	2.34	0.60
38:BD:28:GLU:N	38:BD:28:GLU:CD	2.60	0.60
39:BE:203:LYS:HE2	39:BE:204:ALA:HB2	1.83	0.60
45:BO:104:ARG:HE	50:BT:33:LYS:HD2	1.67	0.60
46:BP:21:ARG:O	46:BP:23:PRO:HD3	2.02	0.60
51:BU:90:VAL:CG1	52:BV:39:LEU:HG	2.32	0.60
55:BY:39:VAL:O	55:BY:40:GLU:CD	2.45	0.60
55:BY:66:PRO:O	55:BY:67:LEU:HB3	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:575:G:H4'	1:CA:575:G:OP1	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
1:CA:1112:C:O2	3:CC:179:ARG:HG2	2.00	0.60
1:CA:1207:G:H2'	1:CA:1208:C:C6	2.37	0.60
2:CB:178:ARG:NH2	2:CB:196:LEU:HA	2.16	0.60
7:CG:57:GLU:OE2	7:CG:57:GLU:N	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
39:DE:70:ALA:O	39:DE:71:GLY:C	2.45	0.60
40:DF:21:ALA:O	40:DF:23:ASP:N	2.34	0.60
43:DI:72:LEU:HB3	43:DI:138:ILE:CD1	2.32	0.60
46:DP:47:ASP:HB3	46:DP:48:PRO:C	2.26	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:70:ARG:HA	51:DU:74:LEU:O	2.00	0.60
51:DU:74:LEU:HD13	51:DU:79:PHE:HB2	1.82	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
8:AH:85:ARG:HD3	8:AH:85:ARG:C	2.26	0.60
9:AI:20:ARG:HH11	9:AI:20:ARG:HG3	1.67	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:624:C:O2'	35:BA:657:U:H5'	2.02	0.60
35:BA:2823:A:OP1	39:BE:113:PHE:HB2	2.01	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
43:BI:132:PRO:O	43:BI:133:HIS:C	2.45	0.60
47:BQ:130:LYS:HZ3	56:BZ:80:ARG:HD2	1.67	0.60
50:BT:131:ALA:C	50:BT:133:GLU:H	2.10	0.60
56:BZ:98:MET:HE2	56:BZ:100:VAL:HG12	1.83	0.60
1:CA:73:G:H22	1:CA:96:U:H3	1.47	0.60
1:CA:275:G:H5'	17:CQ:14:LYS:HZ3	1.65	0.60
1:CA:472:A:H4'	16:CP:80:PHE:O	2.02	0.60
1:CA:1049:U:H1'	1:CA:1201:A:N7	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:77:ALA:HB2	2:CB:211:ILE:CD1	2.22	0.60
13:CM:20:THR:C	13:CM:22:ILE:H	2.08	0.60
31:D6:17:LYS:C	31:D6:18:ARG:HD3	2.26	0.60
35:DA:172:C:H2'	35:DA:173:G:C8	2.36	0.60
35:DA:1447:G:H21	35:DA:1528:A:H62	1.50	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: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
56:DZ:114:GLY:O	56:DZ:146:ILE:HG23	2.02	0.60
1:AA:275:G:H5'	17:AQ:14:LYS:HZ3	1.67	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
1:AA:1381:U:C1'	7:AG:78:ARG:HH21	2.04	0.60
2:AB:21:ARG:HD2	2:AB:38:GLY:C	2.27	0.60
3:AC:6:HIS:HB2	14:AN:49:HIS:HD2	1.66	0.60
3:AC:64:VAL:O	3:AC:100:ALA:HB3	2.02	0.60
3:AC:195:VAL:HG12	3:AC:196:LEU:N	2.15	0.60
5:AE:51:VAL:CB	5:AE:52:PRO:HD3	2.29	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
28:B3:49:LYS:NZ	35:BA:850:C:O3'	2.34	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
35:BA:2206:G:C2	35:BA:2207:G:H5'	2.36	0.60
35:BA:2310:A:O2'	35:BA:2311:A:C5'	2.50	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: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
1:CA:545:C:H5''	4:CD:72:GLU:HG2	1.83	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
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
28:D3:31:LEU:O	28:D3:32:GLN:HB2	2.00	0.60
35:DA:642:G:H21	35:DA:646:A:H2	1.49	0.60
35:DA:1439:A:H2'	35:DA:1440:G:O4'	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2468:G:O2'	35:DA:2469:A:H8	1.83	0.60
35:DA:2681:C:H5	35:DA:2725:A:H62	1.50	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
49:DS:93:LYS:HG3	49:DS:93:LYS:O	2.01	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
56:DZ:128:VAL:HG22	56:DZ:129:SER:N	2.15	0.60
56:DZ:153:SER:C	56:DZ:155:LEU:H	2.10	0.60
1:AA:818:G:O2'	1:AA:819:A:H5''	2.01	0.60
1:AA:1128:C:C5'	9:AI:16:ARG:HH12	2.14	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
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
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
41:BG:22:ARG:HH11	41:BG:22:ARG:HB3	1.64	0.60
41:BG:125:PHE:CA	41:BG:128:ARG:HG2	2.32	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:HH11	48:BR:12:ARG:HG3	1.67	0.60
49:BS:96:GLY:C	49:BS:98:VAL:N	2.58	0.60
1:CA:77:G:H1	1:CA:92:C:N4	1.99	0.60
1:CA:1320:C:H5'	19:CS:70:LYS:HG2	1.84	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:68:GLU:HG3	5:CE:70:PRO:HD3	1.83	0.60
5:CE:109:ILE:HG22	5:CE:110:LEU:HD23	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
13:CM:84:ILE:CG1	19:CS:66:MET:HE1	2.30	0.60
18:CR:50:ILE:HD11	18:CR:74:ARG:NH1	2.17	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
39:DE:154:LYS:HG2	39:DE:156:MET:HE3	1.83	0.60
41:DG:96:ARG:O	41:DG:99:MET:HB3	2.01	0.60
45:DO:105:GLU:HA	45:DO:108:GLU:CD	2.26	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
2:AB:220:ASP:C	2:AB:222:ILE:H	2.10	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
33:B8:59:LYS:CD	46:BP:50:ARG:HB3	2.22	0.60
35:BA:829:A:N7	35:BA:2247:A:O2'	2.35	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:45:ARG:CZ	40:BF:97:TYR:CE1	2.84	0.60
40:BF:181:LEU:CD1	40:BF:186:ILE:HD11	2.25	0.60
52:BV:47:VAL:O	52:BV:48:GLY:C	2.44	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
40:DF:172:TRP:H	40:DF:172:TRP:CD1	2.20	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:HH11	51:DU:92:ARG:HG2	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:472:A:H4'	16:AP:80:PHE:O	2.01	0.59
1:AA:954:G:H21	1:AA:1227:A:H62	1.50	0.59
1:AA:1116:C:C3'	1:AA:1117:G:H5''	2.31	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
14:AN:37:PHE:C	14:AN:39:LEU:H	2.10	0.59
16:AP:4:ILE:HA	16:AP:20:VAL:O	2.02	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:61:ALA:HA	41:BG:64:THR:HG22	1.84	0.59
41:BG:125:PHE:HD1	41:BG:125:PHE:H	1.49	0.59
42:BH:100:GLY:C	42:BH:102:ALA:H	2.08	0.59
47:BQ:76:LYS:HB3	47:BQ:91:GLU:HG3	1.84	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: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
31:D6:36:LEU:H	31:D6:36:LEU:HD23	1.66	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
35:DA:1952:A:C4	45:DO:22:ILE:HD12	2.36	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
40:DF:78:ILE:HD13	40:DF:78:ILE:N	2.17	0.59
42:DH:54:ARG:HB3	42:DH:65:HIS:CD2	2.35	0.59
43:DI:81:VAL:O	43:DI:82:ARG:CB	2.50	0.59
43:DI:120:ILE:CG2	43:DI:121:LYS:N	2.64	0.59
44:DN:62:VAL:HG22	44:DN:66:LYS:HB2	1.83	0.59
46:DP:41:ARG:HA	46:DP:41:ARG:NE	2.16	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:N	3:AC:18:TRP:CE3	2.69	0.59
4:AD:134:ASP:OD2	4:AD:135:LEU:HD22	2.02	0.59
6:AF:96:PRO:HB3	18:AR:30:ASP:CG	2.26	0.59
8:AH:84:ARG:HH11	8:AH:84:ARG:HG2	1.66	0.59
8:AH:122:ARG:HH11	8:AH:122:ARG:CB	2.12	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:603:A:H4'	35:BA:604:G:O5'	2.02	0.59
35:BA:1505:C:H6	35:BA:1506:C:C6	2.20	0.59
37:BC:49:ILE:O	37:BC:51:PRO:HD3	2.02	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
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:271(P):C:H5'	43:DI:46:ALA:HB2	1.83	0.59
35:DA:2732:G:C2'	35:DA:2733:A:H5'	2.32	0.59
38:DD:44:ASN:CB	38:DD:49:ILE:HA	2.22	0.59
38:DD:109:ASP:HB2	38:DD:197:GLY:CA	2.31	0.59
38:DD:166:GLN:CA	38:DD:166:GLN:HE21	2.14	0.59
39:DE:45:THR:CG2	39:DE:83:ASP:HA	2.30	0.59
39:DE:47:VAL:HG12	39:DE:49:LEU:CD1	2.30	0.59
40:DF:53:THR:HG23	40:DF:56:GLU:H	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DI:93:THR:HG22	43:DI:119:PRO:HB3	1.84	0.59
47:DQ:16:ARG:HG2	47:DQ:17:LEU:H	1.67	0.59
47:DQ:137:TYR:CZ	56:DZ:81:ARG:NH1	2.69	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
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
1:AA:1277:C:O2'	1:AA:1279:A:H8	1.85	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
4:AD:114:ARG:HH11	4:AD:114:ARG:CG	2.13	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:O	19:AS:58:VAL:HG23	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:2073:C:H5''	38:BD:229:VAL:HG13	1.84	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
38:BD:11:PRO:C	38:BD:13:ARG:H	2.10	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
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: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:1116:C:C3'	1:CA:1117:G:H5''	2.32	0.59
1:CA:1206:G:H4'	3:CC:192:THR:O	2.03	0.59
1:CA:1452:C:H5'	1:CA:1456:G:C4	2.37	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
50:DT:107:ASP:CG	50:DT:108:ARG:N	2.56	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
1:AA:1117:G:O3'	9:AI:104:ARG:HG3	2.02	0.59
7:AG:57:GLU:N	7:AG:57:GLU:OE2	2.36	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: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
35:BA:1719:G:O2'	35:BA:1720:U:H5'	2.02	0.59
39:BE:48:GLN:HA	39:BE:80:GLU:HA	1.85	0.59
39:BE:103:ASP:OD2	39:BE:201:THR:HA	2.02	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
46:BP:13:ASN:C	46:BP:13:ASN:ND2	2.57	0.59
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:HH11	51:BU:112:ARG:CG	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
56:BZ:41:LEU:HD23	56:BZ:41:LEU:C	2.27	0.59
1:CA:5:U:N3	4:CD:86:LYS:HE2	2.17	0.59
1:CA:102:G:H2'	1:CA:103:C:C6	2.38	0.59
1:CA:542:G:H5'	4:CD:41:GLY:HA3	1.83	0.59
1:CA:639:G:O2'	1:CA:640:A:H5'	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
3:CC:79:ARG:HB3	3:CC:79:ARG:NH1	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
14:CN:37:PHE:C	14:CN:39:LEU:H	2.10	0.59
15:CO:64:ARG:HG3	15:CO:64:ARG:HH11	1.66	0.59
18:CR:58:LEU:HD23	18:CR:62:GLU:HB3	1.83	0.59
19:CS:6:LYS:HG2	19:CS:7:LYS:HE2	1.85	0.59
19:CS:15:LEU:N	19:CS:15:LEU:HD22	2.17	0.59
27:D2:69:ARG:HH11	27:D2:69:ARG:HG2	1.68	0.59
31:D6:15:GLU:CD	31:D6:41:PRO:HG3	2.27	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:H2'	35:DA:2790:A:N3	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:3:THR:C	44:DN:5:VAL:H	2.11	0.59
50:DT:86:ILE:HG12	50:DT:87:ASP:H	1.65	0.59
55:DY:38:ILE:C	55:DY:39:VAL:HG23	2.26	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
1:AA:1016:A:H2'	1:AA:1017:G:O4'	2.03	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:HB3	3:AC:79:ARG:NH1	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
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
35:BA:582:G:H2'	35:BA:583:G:C8	2.37	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
43:BI:12:LEU:HD23	43:BI:12:LEU:H	1.67	0.59
44:BN:2:LYS:O	44:BN:4:TYR:CZ	2.55	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BP:16:ARG:HB2	46:BP:16:ARG:CZ	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
18:CR:44:LEU:O	18:CR:45:SER:C	2.45	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
39:DE:1:MET:HE2	39:DE:1:MET:H2	1.68	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:4:ARG:CG	56:DZ:58:VAL:HB	2.27	0.59
56:DZ:30:ASN:ND2	56:DZ:33:LEU:H	2.00	0.59
1:AA:533:A:H1'	1:AA:534:U:OP1	2.02	0.59
1:AA:1313:U:H2'	1:AA:1314:C:H6	1.67	0.59
4:AD:19:LEU:HD12	4:AD:19:LEU:H	1.67	0.59
4:AD:117:ALA:O	4:AD:121:VAL:HG23	2.01	0.59
7:AG:45:ASP:O	7:AG:49:ILE:HG12	2.02	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: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
35:BA:2349:G:H5'	35:BA:2349:G:H8	1.68	0.59
35:BA:2790:A:H2'	35:BA:2790:A:N3	2.17	0.59
35:BA:2864:G:H8	35:BA:2864:G:H5'	1.68	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BP:9:ASN:O	46:BP:11:GLY:N	2.36	0.59
46:BP:105:LEU:H	46:BP:105:LEU:HD12	1.68	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
12:CL:119:LYS:C	12:CL:120:TYR:CD1	2.80	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:816:C:O2'	35:DA:817:C:H5'	2.02	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
38:DD:70:TRP:CD1	38:DD:70:TRP:C	2.80	0.59
39:DE:11:MET:HB3	39:DE:24:THR:HA	1.82	0.59
54:DX:8:ILE:HD11	54:DX:42:ALA:HB1	1.84	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
1:AA:1000:U:H2'	1:AA:1001:A:C8	2.37	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
31:B6:30:THR:O	31:B6:31:PRO:C	2.45	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
43:BI:84:GLY:O	43:BI:85:GLU:HB3	2.02	0.59
45:BO:2:ILE:HD11	45:BO:82:ASN:ND2	2.17	0.59
46:BP:50:ARG:HG2	46:BP:50:ARG:NH2	2.17	0.59
51:BU:110:VAL:O	51:BU:114:LYS:HD2	2.02	0.59
52:BV:25:LEU:C	52:BV:27:ALA:H	2.11	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
56:BZ:52:SER:O	56:BZ:54:HIS:N	2.36	0.59
1:CA:67:C:O2'	1:CA:171:A:H1'	2.02	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
2:CB:21:ARG:HD2	2:CB:38:GLY:C	2.27	0.59
3:CC:92:ALA:N	3:CC:99:VAL:HG11	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:51:VAL:CB	5:CE:52:PRO:HD3	2.24	0.59
8:CH:69:ARG:HB2	8:CH:69:ARG:HH11	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: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
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
40:DF:124:LEU:HD12	40:DF:125:LEU:N	2.18	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:29:GLU:N	55:DY:29:GLU:CD	2.61	0.59
55:DY:42:VAL:HG12	55:DY:65:ALA:HB3	1.84	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
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
2:AB:14:GLY:C	2:AB:15:VAL:HG22	2.27	0.59
2:AB:91:PRO:N	2:AB:154:LEU:HD12	2.17	0.59
2:AB:171:ALA:HA	2:AB:174:VAL:CG2	2.32	0.59
7:AG:151:TYR:OH	11:AK:54:ARG:HD3	2.03	0.59
12:AL:22:SER:C	12:AL:24:VAL:H	2.11	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:1155:A:OP2	51:BU:58:ARG:NH1	2.36	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:HH11	41:BG:22:ARG:CB	2.16	0.59
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
52:BV:2:PHE:O	52:BV:3:ALA:HB3	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
3:CC:30:ARG:HH22	14:CN:35:ARG:CA	2.15	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:67:GLU:OE2	13:CM:71:ARG:NH2	2.35	0.59
35:DA:142:A:H5'	35:DA:142(A):C:OP2	2.03	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
35:DA:1024:G:C3'	35:DA:1025:G:H5''	2.33	0.59
35:DA:1799:G:H5'	35:DA:1819:A:N6	2.18	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:86:ILE:HD12	45:DO:86:ILE:H	1.68	0.59
45:DO:107:ARG:NH1	50:DT:36:GLU:H	1.99	0.59
1:AA:52:G:H2'	1:AA:53:A:H8	1.68	0.59
1:AA:668:G:O2'	15:AO:46:HIS:HB3	2.03	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
12:AL:22:SER:C	12:AL:24:VAL:N	2.60	0.59
13:AM:40:ASN:O	13:AM:43:THR:HG23	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:271(E):U:H2'	35:BA:271(F):C:C6	2.37	0.59
35:BA:952:G:P	47:BQ:16:ARG:HH22	2.26	0.59
35:BA:969:U:H2'	35:BA:970:C:C6	2.38	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:26:LYS:HE2	38:BD:82:ILE:HB	1.85	0.59
44:BN:19:GLU:HG3	44:BN:20:GLY:N	2.17	0.59
46:BP:108:LYS:C	46:BP:110:TYR:H	2.08	0.59
51:BU:92:ARG:CZ	51:BU:92:ARG:HB2	2.32	0.59
1:CA:630:G:H2'	1:CA:631:G:H5''	1.85	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
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
38:DD:53:PHE:CD1	38:DD:220:HIS:HA	2.38	0.59
38:DD:227:ASN:HB3	38:DD:228:PRO:CD	2.29	0.59
42:DH:27:LYS:HG2	42:DH:32:GLU:CD	2.28	0.59
46:DP:33:ARG:O	46:DP:34:GLY:C	2.45	0.59
47:DQ:37:LEU:HD11	47:DQ:130:LYS:HB2	1.84	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
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
16:AP:58:TYR:C	16:AP:58:TYR:CD1	2.81	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:523:C:C2'	35:BA:524:U:H5'	2.33	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
41:BG:39:ILE:HD13	41:BG:155:MET:CE	2.33	0.59
44:BN:120:LEU:C	44:BN:121:LYS:HD2	2.28	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:HG2	51:BU:64:ARG:NH2	2.18	0.59
55:BY:95:LYS:CG	55:BY:100:ALA:HA	2.32	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
1:CA:1084:G:H5'	1:CA:1102:A:OP2	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1243:C:OP2	21:CU:10:ARG:CZ	2.51	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
16:CP:58:TYR:C	16:CP:58:TYR:CD1	2.81	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
26:D1:35:THR:OG1	35:DA:2079:U:O3'	2.20	0.59
33:D8:4:MET:HE2	35:DA:593:G:O4'	2.02	0.59
35:DA:1037:G:H1	35:DA:1118:C:H42	1.50	0.59
35:DA:1045:A:H2'	35:DA:1045:A:N3	2.18	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
35:DA:2262:U:H2'	35:DA:2263:C:C5'	2.32	0.59
35:DA:2619:C:H1'	39:DE:156:MET:HE1	1.85	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:HD12	49:DS:48:LEU:N	2.18	0.59
1:AA:977:A:C2'	1:AA:978:A:H5'	2.32	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:5:ARG:C	7:AG:7:ALA:H	2.10	0.58
7:AG:79:ARG:HH11	7:AG:79:ARG:HG3	1.68	0.58
7:AG:121:ALA:O	7:AG:125:MET:HG3	2.03	0.58
8:AH:40:ALA:C	8:AH:42:GLU:H	2.11	0.58
16:AP:20:VAL:HG21	16:AP:32:TYR:HB3	1.85	0.58
22:AY:6:G:O2'	22:AY:7:A:H5'	2.03	0.58
22:AY:9:A:C8	22:AY:46:G:N2	2.71	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: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
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
45:BO:77:ILE:HD12	50:BT:73:GLU:O	2.03	0.58
46:BP:62:LEU:H	46:BP:62:LEU:CD2	2.16	0.58
54:BX:8:ILE:HD12	54:BX:8:ILE:H	1.67	0.58
1:CA:1016:A:H2'	1:CA:1017:G:O4'	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:20:ASP:HB3	7:CG:23:VAL:CG2	2.30	0.58
12:CL:22:SER:C	12:CL:24:VAL:N	2.61	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:HD13	15:CO:82:ILE:O	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: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
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
38:DD:35:LYS:HE3	38:DD:36:PRO:CA	2.33	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
49:DS:19:LYS:C	49:DS:20:ARG:HH11	2.09	0.58
49:DS:105:ALA:C	49:DS:107:GLU:N	2.60	0.58
55:DY:16:ALA:HA	55:DY:21:LYS:HD2	1.84	0.58
3:AC:53:ALA:O	3:AC:54:ARG:HB2	2.03	0.58
4:AD:196:LEU:HD12	4:AD:196:LEU:N	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: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
35:BA:907:U:OP1	47:BQ:24:GLY:N	2.36	0.58
35:BA:1800:C:OP1	38:BD:264:LYS:NZ	2.36	0.58
35:BA:1952:A:C4	45:BO:22:ILE:HD12	2.37	0.58
41:BG:171:ALA:C	41:BG:175:LEU:HD12	2.28	0.58
44:BN:120:LEU:CD1	44:BN:122:VAL:HG23	2.33	0.58
46:BP:33:ARG:O	46:BP:34:GLY:C	2.45	0.58
46:BP:144:GLU:N	46:BP:145:PRO:CD	2.65	0.58
54:BX:34:ALA:HA	54:BX:38:GLU:OE1	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:977:A:C2'	1:CA:978:A:H5'	2.33	0.58
1:CA:1223:C:OP2	1:CA:1224:G:H2'	2.03	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:39:ILE:HD12	13:CM:56:LEU:HD23	1.84	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
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: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
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
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
45:DO:111:PHE:H	45:DO:112:MET:HE2	1.68	0.58
46:DP:108:LYS:C	46:DP:110:TYR:H	2.09	0.58
47:DQ:59:ARG:HH11	47:DQ:59:ARG:HG3	1.67	0.58
48:DR:83:ILE:O	48:DR:86:ARG:HG3	2.03	0.58
55:DY:28:LYS:O	55:DY:38:ILE:HB	2.02	0.58
55:DY:31:LEU:N	55:DY:31:LEU:CD2	2.66	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
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.38	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
8:AH:118:VAL:C	8:AH:119:LEU:HD23	2.29	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
34:B9:11:CYS:SG	34:B9:12:ASP:N	2.76	0.58
35:BA:271(P):C:H5'	43:BI:46:ALA:HB2	1.85	0.58
35:BA:1332:G:H22	35:BA:1609:A:C2'	2.16	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:CA:1313:U:H2'	1:CA:1314:C:H6	1.67	0.58
3:CC:73:PRO:C	3:CC:75:VAL:H	2.11	0.58
3:CC:172:ARG:HB3	3:CC:172:ARG:NH1	2.18	0.58
4:CD:46:LYS:O	4:CD:47:ARG:C	2.46	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:80:ARG:C	13:CM:82:MET:H	2.12	0.58
13:CM:110:ARG:HG2	13:CM:110:ARG:HH11	1.69	0.58
14:CN:2:ALA:O	14:CN:6:LEU:HD12	2.02	0.58
16:CP:8:ARG:CG	16:CP:9:PHE:N	2.66	0.58
16:CP:19:ILE:HG22	16:CP:36:ILE:HG13	1.85	0.58
18:CR:37:VAL:CG2	18:CR:38:GLU:H	2.09	0.58
19:CS:58:VAL:O	19:CS:58:VAL:HG23	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: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
35:DA:1921:G:O2'	35:DA:1922:G:H5'	2.03	0.58
44:DN:40:PRO:O	51:DU:64:ARG:HG3	2.03	0.58
45:DO:104:ARG:HE	50:DT:33:LYS:HD2	1.68	0.58
46:DP:70:GLN:HB3	46:DP:72:PRO:HD2	1.85	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
4:AD:31:CYS:C	4:AD:33:MET:N	2.53	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:67:GLU:OE2	13:AM:71:ARG:NH2	2.36	0.58
13:AM:106:ASN:O	13:AM:107:ALA:CB	2.51	0.58
25:B0:51:VAL:CG2	25:B0:81:VAL:HG23	2.34	0.58
30:B5:40:LYS:HD3	30:B5:45:VAL:C	2.28	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:18:GLU:OE1	41:BG:22:ARG:HD2	2.03	0.58
56:BZ:87:ASP:N	56:BZ:87:ASP:OD2	2.36	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

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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
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
30:D5:58:LEU:H	30:D5:58:LEU:CD1	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
41:DG:29:TRP:C	41:DG:31:VAL:N	2.60	0.58
44:DN:128:HIS:NE2	44:DN:134:ARG:HD3	2.18	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:HH11	3:AC:83:ARG:HG2	1.68	0.58
4:AD:46:LYS:O	4:AD:47:ARG:C	2.46	0.58
15:AO:82:ILE:HG12	15:AO:87:ILE:HB	1.85	0.58
16:AP:13:HIS:C	16:AP:15:PRO:HD3	2.29	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
38:BD:35:LYS:HE3	38:BD:36:PRO:CA	2.33	0.58
42:BH:27:LYS:HG2	42:BH:32:GLU:CD	2.28	0.58
42:BH:85:LYS:HD2	42:BH:141:VAL:CG1	2.31	0.58
45:BO:49:ARG:HG2	45:BO:49:ARG:NH1	2.19	0.58
46:BP:30:THR:CG2	46:BP:31:ALA:H	1.98	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
50:BT:125:ARG:HA	50:BT:125:ARG:CZ	2.32	0.58
51:BU:74:LEU:O	51:BU:74:LEU:HD12	2.04	0.58
55:BY:81:LYS:HB2	55:BY:96:ILE:CG2	2.34	0.58
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
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
2:CB:91:PRO:N	2:CB:154:LEU:HD12	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:150:GLU:HA	4:CD:153:ARG:HD2	1.86	0.58
6:CF:89:MET:HE3	18:CR:75:ILE:HG21	1.85	0.58
8:CH:85:ARG:HD3	8:CH:85:ARG:C	2.29	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
13:CM:118:ALA:HB3	22:CV:29:G:H5''	1.85	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
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:405:U:H3'	35:DA:406:G:H5'	1.86	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
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
43:DI:132:PRO:O	43:DI:133:HIS:C	2.47	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
50:DT:131:ALA:C	50:DT:133:GLU:H	2.10	0.58
52:DV:2:PHE:HB3	52:DV:41:GLY:C	2.28	0.58
1:AA:1320:C:H5'	19:AS:70:LYS:HG2	1.84	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
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
22:AY:42:C:H3'	22:AY:43:C:H5''	1.84	0.58
25:B0:55:ARG:HG3	35:BA:2365:G:OP1	2.03	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
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:HE	41:BG:51:ARG:N	2.01	0.58
49:BS:65:VAL:O	49:BS:67:ARG:N	2.37	0.58
50:BT:50:ILE:CD1	50:BT:64:ARG:HB3	2.33	0.58
50:BT:129:ARG:NH1	50:BT:131:ALA:HB3	2.18	0.58
1:CA:1208:C:H2'	1:CA:1209:C:C6	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:16:LEU:HD13	10:CJ:16:LEU:C	2.29	0.58
10:CJ:80:LYS:HE3	10:CJ:80:LYS:O	2.03	0.58
11:CK:20:TYR:C	11:CK:21:ILE:HD12	2.29	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
32:D7:28:ARG:NH2	35:DA:1368:G:OP1	2.37	0.58
35:DA:158:U:H4'	35:DA:171:G:C8	2.38	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
38:DD:35:LYS:O	38:DD:36:PRO:C	2.46	0.58
42:DH:89:ILE:HD12	42:DH:89:ILE:H	1.69	0.58
43:DI:61:ARG:HB3	43:DI:133:HIS:NE2	2.18	0.58
49:DS:18:ILE:C	49:DS:20:ARG:H	2.10	0.58
50:DT:82:LEU:O	50:DT:84:GLN:N	2.37	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
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
2:AB:137:ARG:C	2:AB:137:ARG:HD3	2.28	0.58
10:AJ:89:ASP:C	10:AJ:90:LEU:HD12	2.28	0.58
13:AM:19:LEU:HB3	13:AM:25:ILE:HG21	1.84	0.58
19:AS:14:HIS:C	19:AS:15:LEU:HD22	2.27	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:271(U):G:O2'	35:BA:271(V):G:H5'	2.03	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:C6	35:BA:2506:U:C3'	2.87	0.58
35:BA:2619:C:H1'	39:BE:156:MET:HE1	1.85	0.58
38:BD:35:LYS:HD3	38:BD:36:PRO:HD3	1.84	0.58
38:BD:267:SER:O	38:BD:269:PHE:N	2.36	0.58
41:BG:14:GLU:H	41:BG:17:PRO:HD2	1.68	0.58
41:BG:21:ARG:HD2	41:BG:21:ARG:C	2.28	0.58
50:BT:89:VAL:HG12	50:BT:91:ARG:HG3	1.86	0.58
55:BY:31:LEU:N	55:BY:31:LEU:CD2	2.65	0.58
55:BY:46:LYS:HD3	55:BY:47:LYS:HZ2	1.67	0.58
1:CA:187:C:H5''	20:CT:86:ARG:HG3	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:291:C:O2'	1:CA:292:G:H5'	2.03	0.58
1:CA:1030(D):A:H2'	1:CA:1031:G:H5'	1.85	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
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:1798:U:H5''	38:DD:260:ARG:HB3	1.86	0.58
35:DA:2815:C:H2'	35:DA:2816:C:H6	1.67	0.58
38:DD:18:VAL:HG12	38:DD:19:ALA:N	2.17	0.58
38:DD:182:LEU:O	38:DD:271:ILE:HG13	2.04	0.58
38:DD:228:PRO:HD3	38:DD:235:GLY:HA3	1.86	0.58
39:DE:93:VAL:HG11	39:DE:181:LEU:O	2.03	0.58
41:DG:72:ARG:NH1	41:DG:86:MET:HG2	2.16	0.58
41:DG:113:ARG:HH11	41:DG:113:ARG:HG2	1.68	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
55:DY:7:VAL:CG2	55:DY:8:LYS:HZ3	2.15	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
1:AA:678:U:H2'	1:AA:679:C:C6	2.38	0.58
1:AA:1239:A:H2'	1:AA:1298:C:H42	1.67	0.58
2:AB:8:LYS:O	2:AB:12:GLU:HG3	2.04	0.58
2:AB:44:LEU:H	2:AB:44:LEU:CD1	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:OE1	4:AD:150:GLU:N	2.34	0.58
8:AH:69:ARG:HB2	8:AH:69:ARG:NH1	2.18	0.58
9:AI:95:LYS:HD3	9:AI:96:LEU:N	2.18	0.58
12:AL:119:LYS:C	12:AL:120:TYR:CD1	2.82	0.58
35:BA:141:A:C8	35:BA:1408:C:O2'	2.51	0.58
35:BA:271(Q):G:HO2'	35:BA:271(R):G:H8	1.52	0.58
35:BA:1637:A:H4'	35:BA:2711:A:O2'	2.03	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:2771:C:H2'	35:BA:2772:C:C6	2.38	0.58
38:BD:26:LYS:HE2	38:BD:82:ILE:N	2.16	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:43:ARG:HB3	38:BD:54:ARG:HB2	1.84	0.58
38:BD:43:ARG:HH11	38:BD:44:ASN:CG	2.11	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
44:BN:3:THR:C	44:BN:5:VAL:N	2.60	0.58
45:BO:104:ARG:HH12	50:BT:35:LYS:HD3	1.69	0.58
45:BO:107:ARG:HH11	50:BT:36:GLU:H	1.51	0.58
47:BQ:41:TRP:HB3	47:BQ:94:VAL:HG21	1.86	0.58
47:BQ:140:ALA:HA	56:BZ:99:TYR:CD1	2.38	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
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:1319:A:P	19:CS:5:LEU:HD21	2.43	0.58
1:CA:1466:C:C2'	1:CA:1467:G:H5'	2.34	0.58
4:CD:38:TYR:CD2	4:CD:45:GLN:HB3	2.38	0.58
4:CD:147:ALA:CB	4:CD:182:LYS:HB3	2.34	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
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:671:C:OP1	46:DP:43:GLY:HA2	2.03	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:H5'	35:DA:2736:G:C8	2.38	0.58
37:DC:193:ILE:O	37:DC:197:GLU:N	2.36	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
51:DU:8:VAL:HG11	51:DU:12:ARG:CZ	2.34	0.58
1:AA:243:A:O2'	1:AA:244:U:OP2	2.22	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
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
1:AA:1442:G:N7	1:AA:1442(B):A:C2	2.71	0.58
2:AB:55:PHE:HA	2:AB:58:ILE:HG12	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
11:AK:21:ILE:HG12	11:AK:94:ALA:HB1	1.86	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
30:B5:7:PRO:HA	35:BA:2615:U:C2	2.38	0.58
33:B8:62:LEU:N	33:B8:63:PRO:HD2	2.18	0.58
35:BA:642:G:H21	35:BA:646:A:H2	1.50	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
38:BD:210:GLY:C	38:BD:212:SER:N	2.61	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:81:VAL:HG11	43:BI:88:ILE:HD13	1.84	0.58
43:BI:92:VAL:CG1	43:BI:120:ILE:HD12	2.32	0.58
43:BI:94:ALA:C	43:BI:96:ASP:H	2.10	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
49:BS:105:ALA:C	49:BS:107:GLU:N	2.60	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: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
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
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
25:D0:43:THR:H	35:DA:2331:G:H4'	1.68	0.58
30:D5:7:PRO:HG2	35:DA:2016:U:O2	2.04	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DC:58:VAL:C	37:DC:59:ARG:HD3	2.29	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
44:DN:120:LEU:C	44:DN:121:LYS:HD2	2.29	0.58
46:DP:71:VAL:HG13	46:DP:72:PRO:CD	2.33	0.58
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:O	56:DZ:81:ARG:HG3	2.04	0.58
1:AA:5:U:N3	4:AD:86:LYS:HE2	2.19	0.58
1:AA:579:G:C5'	1:AA:728:A:H1'	2.33	0.58
1:AA:671:G:O2'	1:AA:672:U:H5'	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:1319:A:P	19:AS:5:LEU:HD21	2.44	0.58
1:AA:1468:A:H2'	1:AA:1469:G:O4'	2.03	0.58
2:AB:75:LYS:HA	2:AB:78:GLN:HB2	1.86	0.58
3:AC:52:LEU:H	3:AC:52:LEU:CD2	2.16	0.58
9:AI:116:LYS:HB3	9:AI:116:LYS:HZ3	1.67	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
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: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
1:CA:1525:G:H2'	1:CA:1526:G:C8	2.39	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:65:LYS:O	13:CM:66:LEU:HG	2.03	0.58
13:CM:100:GLY:O	13:CM:101:GLN:HG3	2.04	0.58
35:DA:861:A:H2'	35:DA:862:G:O4'	2.04	0.58
35:DA:1146:C:O2'	35:DA:1147:C:H5'	2.04	0.58
35:DA:1637:A:H4'	35:DA:2711:A:O2'	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DQ:45:GLN:O	47:DQ:49:ALA:HB2	2.04	0.58
55:DY:45:VAL:HG13	55:DY:60:PHE:O	2.04	0.58
56:DZ:165:VAL:HG12	56:DZ:166:SER:N	2.10	0.58
1:AA:165:C:H2'	1:AA:166:G:H8	1.68	0.57
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
1:AA:1270:C:O2'	1:AA:1271:G:H5'	2.03	0.57
9:AI:17:VAL:HG13	9:AI:81:ILE:HD13	1.84	0.57
9:AI:33:PHE:C	9:AI:35:GLU:H	2.12	0.57
13:AM:25:ILE:HD11	13:AM:66:LEU:CD2	2.35	0.57
13:AM:90:LEU:O	13:AM:92:HIS:N	2.35	0.57
14:AN:23:ARG:NH1	14:AN:30:ALA:HB2	2.18	0.57
18:AR:53:ARG:HE	18:AR:59:SER:C	2.11	0.57
25:B0:36:ILE:HD12	25:B0:37:LEU:N	2.19	0.57
34:B9:24:TYR:O	34:B9:25:VAL:HG23	2.04	0.57
35:BA:102:G:H4'	35:BA:102:G:OP1	2.03	0.57
35:BA:285:C:H2'	35:BA:286:C:H5''	1.86	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:2469:A:O2'	47:BQ:56:ARG:HD3	2.04	0.57
35:BA:2680:C:H5'	39:BE:189:PRO:HA	1.85	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
39:BE:53:PRO:O	39:BE:54:GLN:O	2.22	0.57
47:BQ:43:THR:OG1	47:BQ:45:GLN:HG2	2.04	0.57
47:BQ:109:VAL:HG12	47:BQ:110:THR:N	2.19	0.57
50:BT:67:SER:O	50:BT:68:TYR:HB2	2.03	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:552:U:O2'	1:CA:553:A:H5'	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
4:CD:162:LEU:HD13	4:CD:181:MET:HG2	1.85	0.57
6:CF:97:PHE:O	18:CR:31:LEU:HD23	2.04	0.57
7:CG:50:ILE:O	7:CG:54:THR:HG22	2.03	0.57
7:CG:121:ALA:O	7:CG:125:MET:HG3	2.03	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
30:D5:20:ARG:NH1	53:DW:15:ARG:NH1	2.52	0.57
31:D6:30:THR:O	31:D6:31:PRO:C	2.46	0.57
32:D7:11:LYS:HE2	35:DA:686:G:C5'	2.32	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
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
38:DD:28:GLU:N	38:DD:28:GLU:CD	2.62	0.57
46:DP:96:THR:O	46:DP:100:LEU:HD23	2.04	0.57
47:DQ:55:VAL:HG22	47:DQ:56:ARG:N	2.17	0.57
47:DQ:59:ARG:O	47:DQ:60:ARG:HB2	2.04	0.57
53:DW:84:ARG:HB2	53:DW:96:ILE:CG2	2.34	0.57
1:AA:376:G:H5''	16:AP:5:ARG:HB2	1.85	0.57
1:AA:1030(D):A:H2'	1:AA:1031:G:H5'	1.86	0.57
4:AD:61:LYS:HA	4:AD:203:VAL:HG22	1.85	0.57
5:AE:10:MET:HA	5:AE:32:VAL:HA	1.86	0.57
5:AE:76:ILE:HG23	5:AE:142:LEU:HD13	1.85	0.57
6:AF:17:SER:C	6:AF:21:LEU:HD23	2.29	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:B1:26:ARG:NH2	35:BA:389:G:H5''	2.18	0.57
26:B1:67:ILE:N	26:B1:68:PRO:HD2	2.19	0.57
33:B8:13:ARG:HD2	46:BP:61:ARG:HH11	1.69	0.57
35:BA:709:U:H2'	35:BA:710:G:C8	2.39	0.57
35:BA:1448:G:H2'	35:BA:1449:A:C8	2.39	0.57
37:BC:40:THR:HG21	37:BC:215:THR:CB	2.34	0.57
38:BD:28:GLU:H	38:BD:28:GLU:CD	2.12	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:HB3	41:BG:22:ARG:NH1	2.19	0.57
42:BH:68:THR:O	42:BH:70:THR:O	2.22	0.57
44:BN:23:LEU:HD23	44:BN:23:LEU:N	2.16	0.57
44:BN:68:GLU:HG2	44:BN:88:GLU:CD	2.28	0.57
50:BT:27:THR:CG2	50:BT:28:VAL:H	2.06	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:665:A:H2'	1:CA:725:G:N2	2.19	0.57
1:CA:1126:U:O2'	1:CA:1127:G:H5'	2.03	0.57
2:CB:14:GLY:C	2:CB:15:VAL:HG22	2.29	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: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
35:DA:1116:C:H2'	35:DA:1117:G:H5'	1.86	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
49:DS:104:GLY:C	49:DS:106:ARG:H	2.11	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:880:C:OP2	12:AL:6:THR:HG21	2.03	0.57
1:AA:1053:G:N7	1:AA:1199:U:H3'	2.19	0.57
1:AA:1054:C:N4	22:AY:34:G:H1'	2.19	0.57
7:AG:20:ASP:HB3	7:AG:23:VAL:CG2	2.33	0.57
9:AI:26:VAL:HG13	9:AI:61:ALA:O	2.04	0.57
9:AI:116:LYS:O	9:AI:118:LYS:N	2.38	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
28:B3:19:GLN:HE22	28:B3:52:HIS:CE1	2.18	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
35:BA:1593:G:H2'	35:BA:1594:G:H5''	1.85	0.57
37:BC:58:VAL:C	37:BC:59:ARG:HD3	2.29	0.57
45:BO:26:LYS:HB2	45:BO:30:ALA:CB	2.35	0.57
47:BQ:21:THR:O	47:BQ:22:LYS:C	2.47	0.57
49:BS:18:ILE:C	49:BS:20:ARG:H	2.12	0.57
49:BS:48:LEU:HD12	49:BS:48:LEU:N	2.18	0.57
50:BT:31:SER:C	50:BT:32:TYR:CD2	2.82	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:75:LYS:HA	2:CB:78:GLN:HB2	1.87	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:220:ASP:C	2:CB:222:ILE:H	2.12	0.57
5:CE:76:ILE:HG23	5:CE:142:LEU:HD13	1.87	0.57
12:CL:22:SER:C	12:CL:24:VAL:H	2.12	0.57
13:CM:89:GLY:O	13:CM:92:HIS:HB2	2.03	0.57
16:CP:13:HIS:C	16:CP:15:PRO:HD3	2.29	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:969:U:H2'	35:DA:970:C:C6	2.39	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
36:DB:6:C:O2'	49:DS:29:PHE:HE1	1.87	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
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:CZ	51:DU:92:ARG:HB2	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:200:G:N2	1:AA:201:C:H1'	2.20	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
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:869:G:O2'	35:BA:870:A:H5'	2.03	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
42:BH:118:PRO:HG2	42:BH:121:ILE:HB	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:137:ASP:OD1	42:BH:138:LYS:N	2.37	0.57
46:BP:101:VAL:HG12	46:BP:107:LYS:H	1.68	0.57
46:BP:107:LYS:C	46:BP:109:GLY:N	2.63	0.57
50:BT:124:ASP:C	50:BT:126:ALA:H	2.12	0.57
54:BX:84:ALA:HB3	54:BX:87:GLN:OE1	2.05	0.57
55:BY:2:ARG:N	55:BY:4:LYS:HG2	2.19	0.57
56:BZ:150:LEU:HD22	56:BZ:150:LEU:C	2.29	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
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: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
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:HG3	7:CG:79:ARG:HH11	1.69	0.57
13:CM:7:VAL:HG22	41:DG:115:ARG:HA	1.86	0.57
13:CM:66:LEU:O	13:CM:67:GLU:C	2.46	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
35:DA:152:G:H1	35:DA:174:C:N4	1.95	0.57
35:DA:941:A:H4'	46:DP:35:HIS:NE2	2.19	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
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
54:DX:35:THR:HG22	54:DX:36:LYS:N	2.18	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: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
1:AA:1203:C:H2'	1:AA:1204:A:H8	1.69	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:66:LEU:O	13:AM:67:GLU:C	2.47	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
18:AR:44:LEU:O	18:AR:45:SER:C	2.45	0.57
20:AT:71:THR:HG22	20:AT:72:LEU:N	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AW:68:C:O2'	23:AW:69:G:H5'	2.05	0.57
31:B6:36:LEU:HD13	31:B6:50:ARG:HH12	1.68	0.57
35:BA:549:G:H2'	35:BA:551:G:O4'	2.05	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:2175:C:C1'	37:BC:215:THR:HA	2.33	0.57
35:BA:2818:G:O2'	35:BA:2819:G:H5'	2.05	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: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
47:BQ:137:TYR:N	47:BQ:137:TYR:HD2	1.98	0.57
49:BS:35:ILE:H	49:BS:53:SER:HB3	1.70	0.57
51:BU:92:ARG:HH11	51:BU:92:ARG:HG2	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
1:CA:37:U:O2'	1:CA:38:G:H5'	2.05	0.57
1:CA:353:A:H5'	1:CA:353:A:C8	2.34	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
1:CA:1226:C:O2'	13:CM:111:LYS:NZ	2.37	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
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:H4'	22:CY:43:C:OP1	2.04	0.57
26:D1:66:HIS:C	26:D1:68:PRO:HD2	2.28	0.57
26:D1:71:TYR:CE1	43:DI:27:ARG:HD2	2.39	0.57
35:DA:263:C:H2'	35:DA:264:C:O4'	2.05	0.57
35:DA:320:A:H2'	40:DF:136:THR:HG21	1.87	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
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
39:DE:93:VAL:HG12	39:DE:175:VAL:HG23	1.86	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
33:B8:4:MET:HE2	35:BA:593:G:O4'	2.05	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:768:G:O2'	35:BA:1379:A:N6	2.37	0.57
35:BA:808:G:H2'	35:BA:809:G:C8	2.40	0.57
35:BA:1116:C:H2'	35:BA:1117:G:H5'	1.87	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
38:BD:65:ILE:H	38:BD:65:ILE:CD1	2.17	0.57
38:BD:70:TRP:C	38:BD:70:TRP:CD1	2.83	0.57
38:BD:130:ALA:HA	38:BD:192:THR:HA	1.86	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:HE2	51:BU:34:LYS:HA	1.85	0.57
52:BV:19:LYS:C	52:BV:20:LEU:HD12	2.29	0.57
53:BW:1:MET:HE2	53:BW:2:GLU:O	2.05	0.57
55:BY:16:ALA:HA	55:BY:21:LYS:HD2	1.86	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: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
1:CA:948:C:C5	13:CM:106:ASN:ND2	2.72	0.57
1:CA:1504:G:H5'	1:CA:1504:G:H8	1.70	0.57
2:CB:154:LEU:N	2:CB:154:LEU:HD23	2.20	0.57
3:CC:53:ALA:O	3:CC:54:ARG:HB2	2.04	0.57
3:CC:113:ALA:HA	3:CC:116:VAL:CG2	2.35	0.57
6:CF:62:TRP:HB2	18:CR:35:ARG:HH12	1.69	0.57
8:CH:85:ARG:HD3	8:CH:86:ILE:N	2.20	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:D2:4:SER:O	27:D2:7:ARG:HG2	2.04	0.57
27:D2:43:GLN:NE2	27:D2:44:LEU:H	2.02	0.57
35:DA:481:G:O5'	55:DY:47:LYS:HE2	2.03	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
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:C6	35:DA:2506:U:C3'	2.87	0.57
35:DA:2693:A:H2'	35:DA:2694:G:H8	1.69	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
1:AA:312:C:H2'	1:AA:313:A:C8	2.39	0.57
1:AA:1199:U:H4'	10:AJ:54:PHE:CE1	2.40	0.57
3:AC:73:PRO:C	3:AC:75:VAL:H	2.12	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:158:U:H2'	35:BA:158:U:O2	2.04	0.57
35:BA:207:A:H2'	35:BA:208:C:O4'	2.05	0.57
35:BA:889:C:H1'	35:BA:890:A:O4'	2.04	0.57
35:BA:1434:A:H61	35:BA:1558:A:H62	1.52	0.57
35:BA:2025:C:H2'	35:BA:2026:C:C6	2.40	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
39:BE:34:VAL:HG22	39:BE:48:GLN:NE2	2.19	0.57
39:BE:57:LYS:C	39:BE:59:VAL:N	2.62	0.57
41:BG:91:ARG:HG3	41:BG:91:ARG:HH11	1.69	0.57
43:BI:81:VAL:O	43:BI:82:ARG:CB	2.52	0.57
43:BI:92:VAL:HG22	43:BI:92:VAL:O	2.04	0.57
48:BR:100:LEU:HD22	48:BR:100:LEU:H	1.70	0.57
51:BU:8:VAL:HG11	51:BU:12:ARG:CZ	2.34	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
1:CA:1054:C:N3	22:CY:34:G:H1'	2.19	0.57
1:CA:1199:U:H4'	10:CJ:54:PHE:CE1	2.39	0.57
2:CB:183:PRO:HA	2:CB:198:ASP:OD1	2.05	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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: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
35:DA:1040:C:OP2	35:DA:1040:C:H6	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
39:DE:67:PHE:HD2	39:DE:68:ALA:H	1.51	0.57
47:DQ:18:LYS:HD2	47:DQ:18:LYS:N	2.20	0.57
52:DV:1:MET:HE1	52:DV:43:GLU:OE2	2.05	0.57
55:DY:96:ILE:HD12	55:DY:99:CYS:HB3	1.87	0.57
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
4:AD:13:ARG:HD2	4:AD:38:TYR:O	2.05	0.57
4:AD:126:ILE:HG22	4:AD:127:THR:N	2.19	0.57
6:AF:19:LEU:HD11	6:AF:59:TYR:CE2	2.40	0.57
6:AF:89:MET:HE3	18:AR:75:ILE:HG21	1.86	0.57
13:AM:84:ILE:CG1	19:AS:66:MET:HE1	2.30	0.57
15:AO:73:GLU:O	15:AO:74:ASP:HB2	2.05	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
30:B5:33:CYS:O	30:B5:34:PRO:C	2.48	0.57
31:B6:28:ARG:O	31:B6:32:ASN:CB	2.52	0.57
33:B8:34:TRP:HB2	35:BA:2420:C:OP1	2.04	0.57
33:B8:50:LEU:O	33:B8:52:LYS:N	2.37	0.57
35:BA:832:G:OP1	46:BP:40:SER:HB3	2.04	0.57
35:BA:922:U:H2'	35:BA:923:C:C6	2.40	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
35:BA:2502:G:H5''	35:BA:2503:A:H5''	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2683:C:P	50:BT:53:ARG:NH2	2.78	0.57
41:BG:46:ALA:C	41:BG:51:ARG:HG3	2.30	0.57
43:BI:81:VAL:HG12	43:BI:82:ARG:N	2.18	0.57
46:BP:34:GLY:O	46:BP:35:HIS:CB	2.52	0.57
46:BP:94:GLU:HG3	46:BP:124:LYS:HB3	1.87	0.57
52:BV:15:GLU:O	52:BV:16:PRO:C	2.46	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: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
1:CA:1162:C:H2'	1:CA:1163: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
5:CE:63:ARG:HA	5:CE:66:MET:HE2	1.87	0.57
6:CF:96:PRO:HB3	18:CR:30:ASP:CG	2.29	0.57
8:CH:86:ILE:CG2	8:CH:133:LEU:HD22	2.33	0.57
10:CJ:7:LYS:HD3	10:CJ:71:LEU:HD13	1.86	0.57
30:D5:7:PRO:HA	35:DA:2615:U:C2	2.39	0.57
30:D5:10:LYS:HB2	35:DA:2017:U:O2	2.05	0.57
30:D5:20:ARG:NH2	53:DW:15:ARG:NH1	2.53	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
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
47:DQ:21:THR:O	47:DQ:22:LYS:C	2.47	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
56:DZ:98:MET:O	56:DZ:98:MET:HG3	2.03	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:95:ILE:N	11:AK:95:ILE:HD13	2.19	0.57
13:AM:80:ARG:C	13:AM:82:MET:H	2.13	0.57
15:AO:10:LYS:HZ1	15:AO:14:GLU:HG2	1.69	0.57
19:AS:29:ARG:HD2	19:AS:30:LEU:H	1.69	0.57
35:BA:71:A:H2	54:BX:31:HIS:CE1	2.22	0.57
35:BA:78:A:H2'	35:BA:79:G:H8	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
38:BD:35:LYS:O	38:BD:36:PRO:C	2.47	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
46:BP:16:ARG:HD3	46:BP:16:ARG:C	2.30	0.57
50:BT:23:ARG:HB2	50:BT:24:PRO:HD2	1.86	0.57
50:BT:91:ARG:C	50:BT:93:ARG:H	2.13	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
55:BY:17:SER:OG	55:BY:18:GLY:N	2.36	0.57
1:CA:190:U:H2'	1:CA:191:G:C8	2.39	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
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
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:78:A:H2'	35:DA:79:G:H8	1.70	0.57
35:DA:549:G:H2'	35:DA:551:G:O4'	2.05	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:2012:G:O2'	53:DW:96:ILE:HD11	2.04	0.57
35:DA:2113:U:H2'	35:DA:2114:A: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:HH11	50:DT:95:ARG:HB3	1.69	0.57
51:DU:44:ASN:ND2	52:DV:75:PHE:HB3	2.19	0.57
51:DU:90:VAL:CG1	52:DV:39:LEU:HG	2.35	0.57
52:DV:19:LYS:HZ3	52:DV:20:LEU:CA	2.17	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
1:AA:1228:C:O3'	13:AM:116:THR:HA	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
19:AS:9:VAL:C	19:AS:11:VAL:H	2.13	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:1598:C:H5'	54:BX:36:LYS:HB2	1.86	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
55:BY:26:LYS:O	55:BY:27:VAL:C	2.47	0.57
1:CA:222:U:H2'	1:CA:223:U:C6	2.40	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
2:CB:51:LEU:HB3	2:CB:55:PHE:CE2	2.39	0.57
2:CB:171:ALA:HA	2:CB:174:VAL:CG2	2.35	0.57
9:CI:33:PHE:C	9:CI:35:GLU:H	2.13	0.57
10:CJ:4:ILE:HG12	10:CJ:100:THR:HG21	1.85	0.57
10:CJ:89:ASP:C	10:CJ:90:LEU:HD12	2.30	0.57
13:CM:9:ILE:HD12	13:CM:9:ILE:N	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:52:A:O2'	35:DA:53:A:H5'	2.05	0.57
35:DA:158:U:H2'	35:DA:158:U:O2	2.04	0.57
35:DA:847:U:H2'	35:DA:848:G:C5'	2.33	0.57
35:DA:1794:U:H2'	35:DA:1795:C:H6	1.68	0.57
35:DA:2022:U:O2'	35:DA:2617:C:H5'	2.05	0.57
35:DA:2146:C:H4'	35:DA:2147:G:C8	2.40	0.57
36:DB:29:A:H2'	36:DB:30:C:H6	1.69	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
45:DO:112:MET:HE2	45:DO:112:MET:N	2.20	0.57
49:DS:96:GLY:C	49:DS:98:VAL:N	2.60	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:895:G:H2'	1:AA:896:C:C6	2.40	0.56
1:AA:1126:U:OP2	1:AA:1281:U:O2	2.23	0.56
1:AA:1231:G:O2'	1:AA:1232:U:H5'	2.05	0.56
2:AB:21:ARG:NH1	2:AB:38:GLY:HA3	2.20	0.56
2:AB:178:ARG:NH2	2:AB:196:LEU:HA	2.20	0.56
3:AC:18:TRP:C	3:AC:20:SER:H	2.13	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:HD12	11:AK:21:ILE:N	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:171:G:H2'	35:BA:172:C:C6	2.40	0.56
35:BA:779:U:OP1	38:BD:49:ILE:HG23	2.05	0.56
35:BA:861:A:H2'	35:BA:862:G:O4'	2.04	0.56
35:BA:1024:G:C3'	35:BA:1025:G:H5''	2.35	0.56
35:BA:2233:U:H2'	35:BA:2234:G:C8	2.40	0.56
37:BC:36:LYS:CG	37:BC:37:PHE:N	2.67	0.56
38:BD:30:GLU:CG	38:BD:63:ARG:NE	2.68	0.56
38:BD:93:ALA:HB2	38:BD:107:ALA:HB2	1.86	0.56
38:BD:146:GLU:HG2	38:BD:152:GLY:C	2.30	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
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:HB2	8:CH:69:ARG:NH1	2.19	0.56
9:CI:48:GLU:N	9:CI:49:PRO:HD2	2.20	0.56
9:CI:116:LYS:O	9:CI:118:LYS:N	2.37	0.56
19:CS:9:VAL:C	19:CS:11:VAL:H	2.13	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:D8:34:TRP:HB2	35:DA:2420:C:OP1	2.05	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:779:U:OP1	38:DD:49:ILE:HG23	2.04	0.56
35:DA:869:G:O2'	35:DA:870:A:H5'	2.04	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
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
38:DD:35:LYS:O	38:DD:62:TYR:O	2.22	0.56
39:DE:2:LYS:CE	39:DE:95:ILE:HG22	2.34	0.56
39:DE:12:THR:O	39:DE:23:VAL:HG22	2.05	0.56
40:DF:116:ASP:O	40:DF:120:GLU:HG3	2.04	0.56
42:DH:19:VAL:CG2	42:DH:44:VAL:HA	2.26	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
49:DS:97:ARG:NE	49:DS:97:ARG:C	2.63	0.56
50:DT:106:SER:HA	50:DT:110:ILE:HG13	1.87	0.56
53:DW:92:ARG:HH11	53:DW:92:ARG:HG2	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
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:377:G:OP1	16:AP:3:LYS:HD2	2.05	0.56
1:AA:973:G:C1'	10:AJ:55:LYS:HE2	2.25	0.56
1:AA:1162:C:H2'	1:AA:1163:C:C6	2.40	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
10:AJ:16:LEU:C	10:AJ:16:LEU:HD13	2.29	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:320:A:H2'	40:BF:136:THR:HG21	1.87	0.56
35:BA:435:C:H2'	35:BA:436:C:H5'	1.87	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
39:BE:101:ARG:NE	39:BE:171:GLU:HB2	2.20	0.56
40:BF:33:LEU:HD22	40:BF:112:MET:HG2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:HD12	53:BW:82:LEU:H	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:245:C:O2'	1:CA:246:A:H5'	2.05	0.56
1:CA:413:G:N2	1:CA:429:U:OP2	2.38	0.56
1:CA:1318:A:H1'	19:CS:37:ARG:HH21	1.70	0.56
1:CA:1469:G:H2'	1:CA:1470:G:C8	2.39	0.56
2:CB:55:PHE:HA	2:CB:58:ILE:HG12	1.87	0.56
3:CC:18:TRP:C	3:CC:20:SER:H	2.13	0.56
12:CL:62:SER:HB2	12:CL:64:TYR:CD1	2.40	0.56
18:CR:24:ALA:C	18:CR:26:LEU:H	2.13	0.56
22:CV:19:G:H21	22:CV:57:G:H1'	1.70	0.56
22:CY:48:C:OP2	22:CY:48:C:H2'	2.05	0.56
26:D1:43:TYR:N	26:D1:43:TYR:HD1	2.00	0.56
30:D5:20:ARG:CZ	53:DW:15:ARG:NH1	2.68	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
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
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
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
52:DV:25:LEU:C	52:DV:27:ALA:H	2.12	0.56
56:DZ:44:PHE:C	56:DZ:44:PHE:CD1	2.83	0.56
56:DZ:69:THR:HG22	56:DZ:90:VAL:CA	2.34	0.56
56:DZ:69:THR:CG2	56:DZ:90:VAL:HA	2.35	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:30:ARG:HH11	14:AN:38:GLY:N	2.03	0.56
3:AC:54:ARG:HH12	3:AC:56:ASP:HB2	1.70	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
5:AE:136:MET:C	5:AE:138:ALA:H	2.13	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
10:AJ:90:LEU:N	10:AJ:91:PRO:CD	2.68	0.56
13:AM:52:GLU:O	13:AM:56:LEU:HB2	2.05	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
23:AW:75:C:H5''	26:B1:30:VAL:HG21	1.86	0.56
27:B2:14:ARG:HG3	27:B2:14:ARG:HH11	1.70	0.56
35:BA:742:G:O2'	35:BA:743:G:H5'	2.06	0.56
35:BA:874:G:O2'	35:BA:875:G:H5'	2.04	0.56
35:BA:953:A:H2'	35:BA:954:G:H5'	1.87	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:2481:G:O2'	35:BA:2482:G:P	2.63	0.56
35:BA:2801(A):A:C4'	35:BA:2802:G:H5'	2.23	0.56
37:BC:49:ILE:HG22	37:BC:50:ASP:OD1	2.06	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:O	42:BH:43:VAL:HG13	2.06	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:70:GLN:HB3	46:BP:72:PRO:HD2	1.87	0.56
46:BP:96:THR:O	46:BP:100:LEU:HD23	2.05	0.56
47:BQ:111:GLU:CD	47:BQ:133:ARG:HH21	2.13	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:103:C:OP2	20:CT:14:LYS:HE3	2.05	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
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: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
2:CB:83:MET:HE2	2:CB:83:MET:HA	1.88	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
6:CF:100:ASN:HD21	18:CR:23:LYS:CE	2.18	0.56
7:CG:5:ARG:C	7:CG:7:ALA:H	2.12	0.56
8:CH:84:ARG:HH22	8:CH:86:ILE:HD11	1.69	0.56
10:CJ:63:PHE:HZ	14:CN:45:ARG:HG3	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
20:CT:27:LYS:O	20:CT:27:LYS:HD3	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:171:G:H2'	35:DA:172:C:C6	2.41	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
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:1657:C:O2'	35:DA:1658:C:H5'	2.05	0.56
35:DA:2491:U:C5'	35:DA:2570:G:H5''	2.22	0.56
37:DC:77:ILE:O	37:DC:77:ILE:HG12	2.06	0.56
38:DD:210:GLY:C	38:DD:212:SER:N	2.57	0.56
39:DE:69:LYS:HZ1	39:DE:89:ASP:HA	1.70	0.56
39:DE:89:ASP:O	39:DE:90:THR:CB	2.54	0.56
40:DF:9:ILE:HG23	40:DF:13:SER:O	2.06	0.56
40:DF:24:LEU:HB3	40:DF:25:PRO:HD2	1.87	0.56
40:DF:34:TRP:HB2	46:DP:10:PRO:O	2.05	0.56
41:DG:2:PRO:O	41:DG:3:LEU:CB	2.52	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
44:DN:3:THR:C	44:DN:5:VAL:N	2.63	0.56
47:DQ:63:LYS:HZ3	56:DZ:175:VAL:HB	1.68	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
49:DS:17:ARG:C	49:DS:19:LYS:N	2.62	0.56
55:DY:26:LYS:O	55:DY:27:VAL:C	2.48	0.56
56:DZ:10:ARG:NH2	56:DZ:26:GLY:H	2.03	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
1:AA:1049:U:H1'	1:AA:1201:A:N7	2.20	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:1356:G:H2'	1:AA:1357:A:C8	2.40	0.56
3:AC:34:LEU:HD23	3:AC:35:GLU:N	2.21	0.56
3:AC:179:ARG:O	3:AC:179:ARG:HG3	2.06	0.56
3:AC:182:ILE:HG23	3:AC:202:ILE:C	2.31	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:121:ARG:HH11	9:AI:121:ARG:HG2	1.68	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
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
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
40:BF:53:THR:HG23	40:BF:56:GLU:H	1.70	0.56
41:BG:135:LEU:HD22	41:BG:155:MET:HE2	1.86	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
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:74:LEU:HD12	51:BU:74:LEU:C	2.30	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:27:VAL:C	55:BY:28:LYS:HZ2	2.14	0.56
55:BY:74:PRO:O	55:BY:80:GLY:HA2	2.04	0.56
56:BZ:155:LEU:C	56:BZ:157:LEU:HD23	2.30	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
8:CH:118:VAL:C	8:CH:119:LEU:HD23	2.30	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
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:HB2	20:CT:57:ARG:NH1	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:752:A:O2'	35:DA:753:C:OP2	2.22	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
40:DF:24:LEU:C	40:DF:26:ALA:H	2.13	0.56
42:DH:65:HIS:CE1	42:DH:69:ARG:HD3	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
1:AA:1096:C:H2'	1:AA:1097:C:H6	1.71	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:NH1	20:AT:57:ARG:HB2	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:80:G:O2'	35:BA:81:G:H5'	2.05	0.56
35:BA:613:G:H5'	35:BA:613:G:C8	2.40	0.56
35:BA:991:C:O2'	35:BA:992:C:H5'	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:H2'	35:BA:2099:U:O2	2.06	0.56
35:BA:2177:C:H1'	37:BC:44:HIS:CD2	2.41	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
37:BC:77:ILE:HG12	37:BC:77:ILE:O	2.05	0.56
39:BE:2:LYS:HE2	39:BE:95:ILE:HG22	1.88	0.56
42:BH:68:THR:C	42:BH:70:THR:N	2.58	0.56
44:BN:29:LYS:O	44:BN:33:LEU:HB2	2.05	0.56
45:BO:77:ILE:HD13	50:BT:74:ARG:HG2	1.86	0.56
46:BP:71:VAL:HG13	46:BP:72:PRO:CD	2.34	0.56
50:BT:38:ASN:HD22	50:BT:40:THR:N	2.04	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
1:CA:1280:A:H5''	10:CJ:40:LEU:HD12	1.86	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:89:G:H3'	35:DA:90:U:H5''	1.87	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
37:DC:36:LYS:CG	37:DC:37:PHE:N	2.68	0.56
39:DE:65:GLY:C	39:DE:67:PHE:H	2.13	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:187:C:H5''	20:AT:86:ARG:HG3	1.88	0.56
1:AA:1346:A:N1	1:AA:1374:A:H5''	2.19	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
12:AL:28:LYS:HE2	12:AL:33:ARG:HH22	1.71	0.56
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:443:A:H1'	35:BA:1201:C:O4'	2.05	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
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
51:BU:88:ILE:C	51:BU:90:VAL:H	2.13	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
56:BZ:52:SER:O	56:BZ:53:ILE:C	2.47	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:588:U:H6	35:DA:588:U:O5'	1.89	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
39:DE:48:GLN:HA	39:DE:80:GLU:HA	1.85	0.56
41:DG:21:ARG:HD3	41:DG:22:ARG:N	2.21	0.56
41:DG:107:LEU:HD22	41:DG:177:GLY:O	2.06	0.56
43:DI:31:LEU:HB2	43:DI:32:PRO:HD3	1.87	0.56
44:DN:7:LYS:O	44:DN:8:GLN:C	2.49	0.56
46:DP:48:PRO:CG	46:DP:49:ARG:H	2.16	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
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
3:AC:9:GLY:HA2	3:AC:12:LEU:HB2	1.88	0.56
3:AC:79:ARG:HB3	3:AC:79:ARG:HH11	1.71	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
11:AK:20:TYR:C	11:AK:21:ILE:HD12	2.30	0.56
14:AN:3:ARG:HH11	14:AN:3:ARG:CB	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
31:B6:12:GLU:CD	31:B6:12:GLU:H	2.13	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
44:BN:17:ASP:C	44:BN:19:GLU:H	2.13	0.56
45:BO:111:PHE:H	45:BO:112:MET:HE2	1.71	0.56
47:BQ:14:ARG:HG2	47:BQ:14:ARG:HH11	1.70	0.56
1:CA:627:G:H2'	1:CA:628:G:H8	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:93:PRO:HA	5:CE:118:ILE:HD12	1.87	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
36:DB:6:C:HO2'	49:DS:29:PHE:HE1	1.53	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
48:DR:113:LEU:C	48:DR:113:LEU:HD12	2.30	0.56
54:DX:84:ALA:HB3	54:DX:87:GLN:OE1	2.06	0.56
1:AA:67:C:H2'	1:AA:68:G:C8	2.41	0.56
1:AA:1466:C:O2'	1:AA:1467:G:H5'	2.06	0.56
2:AB:83:MET:HE2	2:AB:83:MET:HA	1.88	0.56
2:AB:160:ASP:O	2:AB:161:ALA:HB2	2.05	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
18:AR:24:ALA:C	18:AR:26:LEU:H	2.14	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
22:AY:15:G:H22	22:AY:59:U:H3	1.54	0.56
25:B0:4:LYS:O	25:B0:5:LYS:HB2	2.04	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
33:B8:62:LEU:CD1	35:BA:242:G:H5''	2.31	0.56
35:BA:172:C:H2'	35:BA:173:G:C8	2.38	0.56
35:BA:573:G:O2'	35:BA:574:C:H3'	2.06	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
38:BD:112:GLN:HB2	38:BD:115:GLN:HE21	1.69	0.56
42:BH:47:GLU:C	42:BH:49:VAL:H	2.14	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:878:G:H5''	8:CH:89:PRO:HG2	1.88	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
2:CB:167:PRO:HG3	2:CB:188:ALA:HB2	1.86	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: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:14:HIS:C	19:CS:15:LEU:HD22	2.31	0.56
19:CS:49:ILE:HD12	19:CS:49:ILE:N	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:1140:C:H5''	44:DN:66:LYS:HZ3	1.71	0.56
35:DA:1651:G:OP1	48:DR:40:LYS:HE3	2.06	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
45:DO:63:VAL:HG23	45:DO:83:ALA:HB3	1.88	0.56
46:DP:59:LEU:C	46:DP:61:ARG:HD2	2.31	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
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: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
1:AA:1054:C:C4	22:AY:34:G:H1'	2.40	0.56
1:AA:1084:G:H5'	1:AA:1102:A:OP2	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:63:PRO:C	46:BP:65:ARG:N	2.62	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:708:C:H2'	1:CA:709:G:H8	1.71	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
2:CB:21:ARG:NH1	2:CB:38:GLY:HA3	2.21	0.56
3:CC:52:LEU:H	3:CC:52:LEU:CD2	2.17	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
25:D0:32:ARG:H	25:D0:35:ASN:ND2	2.04	0.56
26:D1:78:LYS:C	26:D1:80:LEU:H	2.14	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
42:DH:46:GLU:O	42:DH:47:GLU:HB3	2.06	0.56
43:DI:94:ALA:C	43:DI:96:ASP:H	2.13	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
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: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
1:AA:1152:A:H2'	1:AA:1153:C:H6	1.71	0.56
1:AA:1280:A:H5''	10:AJ:40:LEU:HD12	1.87	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
3:AC:157:ILE:HD13	3:AC:166:GLU:HB2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:32:C:C2'	35:BA:33:U:H5'	2.36	0.56
35:BA:195:A:OP1	46:BP:46:LYS:HE2	2.06	0.56
35:BA:320:A:OP2	40:BF:137:LYS:HD2	2.06	0.56
35:BA:541:C:H2'	35:BA:542:C:C6	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
37:BC:22:ILE:HG22	37:BC:25:ALA:H	1.70	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
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
52:BV:2:PHE:HB3	52:BV:41:GLY:C	2.30	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
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.40	0.56
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:OP1	23:CW:39:U:H4'	2.06	0.56
28:D3:22:ALA:HA	28:D3:46:ASN:HD22	1.70	0.56
35:DA:30:G:O2'	35:DA:31:C:H5'	2.06	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
36:DB:111:G:C2'	36:DB:112:U:H5'	2.36	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
41:DG:86:MET:O	41:DG:87:PRO:C	2.47	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DH:80:SER:O	42:DH:81:GLU:HB2	2.04	0.56
49:DS:88:ASP:OD2	49:DS:89:ARG:N	2.39	0.56
50:DT:32:TYR:CG	50:DT:81:PRO:HB2	2.41	0.56
50:DT:57:PHE:O	50:DT:59:THR:HG22	2.06	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
8:AH:1:MET:HE2	8:AH:1:MET:N	2.21	0.55
27:B2:7:ARG:HG2	27:B2:7:ARG:HH11	1.71	0.55
35:BA:71:A:H2	54:BX:31:HIS:HE1	1.53	0.55
35:BA:662:G:P	46:BP:18:ARG:HD2	2.45	0.55
35:BA:692:C:O2'	35:BA:693:C:H5'	2.06	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
39:BE:9:VAL:HG13	39:BE:25:VAL:O	2.06	0.55
40:BF:24:LEU:C	40:BF:26:ALA:H	2.13	0.55
44:BN:17:ASP:OD1	44:BN:56:ASN:HB3	2.05	0.55
45:BO:89:ASN:C	45:BO:91:LEU:H	2.12	0.55
47:BQ:133:ARG:HH11	47:BQ:133:ARG:HG3	1.71	0.55
48:BR:34:ILE:HG22	48:BR:35:THR:N	2.21	0.55
49:BS:96:GLY:C	49:BS:98:VAL:H	2.14	0.55
51:BU:21:ALA:O	51:BU:22:LYS:C	2.49	0.55
56:BZ:17:ALA:HA	56:BZ:20:ARG:HG3	1.87	0.55
56:BZ:118:GLN:NE2	56:BZ:175:VAL:HG21	2.21	0.55
2:CB:8:LYS:HA	2:CB:217:ARG:HH22	1.71	0.55
5:CE:126:ARG:HG3	5:CE:126:ARG:NH1	2.17	0.55
11:CK:59:TYR:O	11:CK:62:GLN:HB3	2.06	0.55
25:D0:27:GLU:HA	25:D0:67:VAL:O	2.06	0.55
26:D1:75:GLU:C	26:D1:77:ALA:H	2.14	0.55
33:D8:13:ARG:HD2	46:DP:61:ARG:HH11	1.70	0.55
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: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
46:DP:63:PRO:C	46:DP:65:ARG:N	2.63	0.55
47:DQ:63:LYS:NZ	56:DZ:175:VAL:HB	2.20	0.55
49:DS:95:HIS:O	49:DS:96:GLY:O	2.24	0.55
52:DV:4:ILE:HG22	52:DV:4:ILE:O	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DZ:144:LEU:HD21	56:DZ:150:LEU:CD1	2.36	0.55
2:AB:101:MET:C	2:AB:102:LEU:HD12	2.30	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
13:AM:102:ARG:C	13:AM:104:ARG:H	2.14	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:946:G:O2'	35:BA:947:G:H5'	2.06	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:2175:C:H1'	37:BC:215:THR:N	2.20	0.55
35:BA:2475:C:H5'	35:BA:2476:A:OP2	2.06	0.55
35:BA:2703:C:H2'	35:BA:2703:C:O2	2.05	0.55
38:BD:18:VAL:CG1	38:BD:19:ALA:N	2.69	0.55
39:BE:16:ARG:O	39:BE:18:ASP:N	2.38	0.55
46:BP:27:HIS:C	46:BP:27:HIS:CD2	2.85	0.55
49:BS:97:ARG:C	49:BS:97:ARG:NE	2.64	0.55
49:BS:104:GLY:C	49:BS:106:ARG:H	2.12	0.55
50:BT:28:VAL:HG22	50:BT:46:GLU:HA	1.87	0.55
1:CA:489:C:H2'	1:CA:490:G:C8	2.41	0.55
1:CA:1152:A:H2'	1:CA:1153:C:H6	1.72	0.55
2:CB:167:PRO:HG3	2:CB:188:ALA:CB	2.36	0.55
3:CC:79:ARG:HB3	3:CC:79:ARG:HH11	1.71	0.55
4:CD:126:ILE:HG22	4:CD:127:THR:N	2.21	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
31:D6:16:CYS:H	31:D6:47:THR:CG2	2.19	0.55
35:DA:624:C:O2'	35:DA:657:U:H5'	2.06	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
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
41:DG:12:TYR:HA	41:DG:16:ARG:CB	2.36	0.55
44:DN:17:ASP:C	44:DN:19:GLU:H	2.14	0.55
51:DU:74:LEU:C	51:DU:74:LEU:HD12	2.30	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:779:C:O2'	1:AA:780:A:H5'	2.07	0.55
1:AA:1372:U:H5''	9:AI:71:SER:HB3	1.89	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
10:AJ:29:ARG:HH22	10:AJ:84:GLN:CD	2.14	0.55
13:AM:3:ARG:HA	13:AM:9:ILE:HG13	1.88	0.55
16:AP:49:LEU:O	16:AP:49:LEU:HG	2.07	0.55
31:B6:16:CYS:N	31:B6:47:THR:HG21	2.22	0.55
35:BA:626:U:O2	46:BP:105:LEU:HG	2.06	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:2358:G:H22	46:BP:55:ARG:HH22	1.54	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
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
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
55:BY:80:GLY:O	55:BY:81:LYS:O	2.25	0.55
55:BY:88:LYS:HZ3	55:BY:93:GLY:CA	2.19	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:560:U:H5'	1:CA:566:G:N2	2.21	0.55
1:CA:1346:A:N1	1:CA:1374:A:H5''	2.21	0.55
2:CB:14:GLY:O	2:CB:15:VAL:HG22	2.05	0.55
3:CC:179:ARG:O	3:CC:179:ARG:HG3	2.04	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
8:CH:40:ALA:C	8:CH:42:GLU:H	2.13	0.55
9:CI:104:ARG:C	9:CI:105:ASP:N	2.65	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:40:ASN:O	13:CM:43:THR:HG23	2.05	0.55
13:CM:45:VAL:C	13:CM:47:ASP:H	2.14	0.55
23:CW:48:C:H2'	23:CW:59:U:H4'	1.88	0.55
22:CY:74:C:H5'	22:CY:74:C:H6	1.71	0.55
28:D3:31:LEU:C	28:D3:33:GLN:H	2.13	0.55
30:D5:55:ARG:O	30:D5:56:LYS:CB	2.52	0.55
31:D6:12:GLU:CD	31:D6:12:GLU:H	2.13	0.55
33:D8:30:ARG:O	33:D8:31:HIS:HB3	2.06	0.55
35:DA:271(M):G:H5''	43:DI:57:ARG:HH12	1.72	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: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
44:DN:1:MET:HG2	44:DN:2:LYS:H	1.71	0.55
44:DN:38:HIS:O	51:DU:67:ALA:HB1	2.06	0.55
45:DO:88:ASN:OD1	45:DO:92:GLU:O	2.24	0.55
51:DU:62:ILE:HD12	51:DU:76:TYR:OH	2.05	0.55
1:AA:346:G:H5'	50:BT:41:ARG:HG3	1.88	0.55
1:AA:630:G:H2'	1:AA:630:G:N3	2.22	0.55
1:AA:841:U:H3'	1:AA:848:C:C5'	2.36	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
9:AI:104:ARG:C	9:AI:105:ASP:N	2.65	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
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
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
41:BG:148:MET:HA	41:BG:148:MET:HE3	1.88	0.55
48:BR:74:LYS:HD2	48:BR:77:ARG:NH2	2.20	0.55
55:BY:95:LYS:HG2	55:BY:100:ALA:C	2.31	0.55
1:CA:630:G:H2'	1:CA:630:G:N3	2.22	0.55
1:CA:668:G:O2'	15:CO:46:HIS:HB3	2.06	0.55
1:CA:1363:C:H5'	1:CA:1363(A):A:O5'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1457:G:O2'	1:CA:1458:G:H5'	2.06	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
3:CC:30:ARG:HH11	14:CN:38:GLY:N	2.03	0.55
11:CK:41:THR:HG21	11:CK:71:LYS:HB3	1.88	0.55
35:DA:17:G:H2'	35:DA:18:C:H6	1.71	0.55
35:DA:833:U:H2'	35:DA:834:C:C6	2.42	0.55
35:DA:1934:C:O2'	35:DA:1935:G:H5'	2.06	0.55
35:DA:2052:G:O4'	39:DE:142:GLY:HA3	2.06	0.55
35:DA:2099:U:O2	35:DA:2099:U:H2'	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
39:DE:12:THR:HG23	50:DT:8:LYS:CE	2.36	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
47:DQ:111:GLU:CD	47:DQ:133:ARG:HH21	2.14	0.55
49:DS:88:ASP:CG	49:DS:89:ARG:H	2.14	0.55
56:DZ:10:ARG:NH2	56:DZ:25:PRO:CA	2.68	0.55
56:DZ:10:ARG:HH22	56:DZ:26:GLY:H	1.54	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
1:AA:738:C:H5''	6:AF:69:GLU:HB2	1.89	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:1243:C:OP2	21:AU:10:ARG:CZ	2.54	0.55
3:AC:6:HIS:ND1	14:AN:49:HIS:HB3	2.21	0.55
4:AD:147:ALA:CB	4:AD:182:LYS:HB3	2.36	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
10:AJ:4:ILE:HB	10:AJ:74:ILE:CD1	2.37	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
23:AW:39:U:H4'	23:AW:39:U:OP1	2.07	0.55
30:B5:6:VAL:CG2	30:B5:7:PRO:HD2	2.36	0.55
30:B5:36:CYS:HB3	30:B5:38:ALA:H	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:B6:34:LEU:CD2	31:B6:36:LEU:HD22	2.34	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
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
36:BB:41:U:H5	41:BG:69:ALA:HB1	1.69	0.55
44:BN:7:LYS:O	44:BN:8:GLN:C	2.48	0.55
46:BP:47:ASP:HB3	46:BP:48:PRO:C	2.31	0.55
46:BP:62:LEU:HD23	46:BP:62:LEU:N	2.22	0.55
46:BP:105:LEU:HD12	46:BP:105:LEU:N	2.21	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
55:BY:55:TYR:O	55:BY:56:PRO:C	2.50	0.55
1:CA:41:G:H2'	1:CA:42:G:C8	2.42	0.55
1:CA:226:G:O2'	1:CA:227:G:H5'	2.07	0.55
1:CA:659:U:O2'	1:CA:660:G:H5'	2.06	0.55
1:CA:1372:U:H5''	9:CI:71:SER:HB3	1.87	0.55
1:CA:1410:G:O2'	1:CA:1411:C:H5'	2.07	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
15:CO:76:GLU:C	15:CO:78:TYR:N	2.64	0.55
18:CR:56:THR:HB	18:CR:58:LEU:CD1	2.35	0.55
21:CU:4:GLY:C	21:CU:6:ARG:H	2.15	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: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
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
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
38:DD:146:GLU:HG2	38:DD:152:GLY:C	2.31	0.55
41:DG:42:GLY:O	41:DG:43:LEU:HB2	2.06	0.55
44:DN:55:VAL:O	44:DN:56:ASN:C	2.49	0.55
45:DO:88:ASN:O	45:DO:91:LEU:N	2.39	0.55
45:DO:104:ARG:HH12	50:DT:35:LYS:HD3	1.70	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DP:97:PRO:O	46:DP:99:LEU:N	2.37	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:68:ARG:HB3	53:DW:109:GLU:HB3	1.89	0.55
53:DW:80:PRO:O	53:DW:100:THR:HG21	2.06	0.55
53:DW:82:LEU:HD12	53:DW:82:LEU:H	1.71	0.55
55:DY:55:TYR:O	55:DY:56:PRO:C	2.49	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:296:U:H2'	1:AA:297:G:C8	2.42	0.55
1:AA:1318:A:H1'	19:AS:37:ARG:HH21	1.72	0.55
1:AA:1406:U:O2'	1:AA:1407:C:H5'	2.06	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:62:TRP:HB2	18:AR:35:ARG:HH12	1.71	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
18:AR:36:ASN:O	18:AR:40:LEU:HD12	2.06	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:HG2	26:B1:57:GLU:O	2.07	0.55
35:BA:271(S):G:O2'	35:BA:271(T):C:H5''	2.06	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
39:BE:54:GLN:HA	39:BE:72:VAL:HG11	1.89	0.55
39:BE:93:VAL:HG11	39:BE:181:LEU:O	2.06	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
56:BZ:30:ASN:OD1	56:BZ:33:LEU:HB3	2.07	0.55
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
1:CA:1437:C:H2'	1:CA:1438:G:C8	2.42	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
38:DD:28:GLU:H	38:DD:28:GLU:CD	2.14	0.55
39:DE:92:THR:N	39:DE:95:ILE:HD11	2.20	0.55
39:DE:101:ARG:NE	39:DE:171:GLU:HB2	2.22	0.55
41:DG:51:ARG:C	41:DG:53:LEU:N	2.64	0.55
42:DH:68:THR:C	42:DH:70:THR:N	2.61	0.55
43:DI:58:LEU:C	43:DI:60:GLU:N	2.59	0.55
43:DI:59:ALA:O	43:DI:63:ALA:HB3	2.07	0.55
46:DP:16:ARG:HD3	46:DP:16:ARG:C	2.31	0.55
46:DP:132:LYS:O	46:DP:136:GLU:HG3	2.07	0.55
51:DU:88:ILE:C	51:DU:90:VAL:H	2.13	0.55
1:AA:41:G:H2'	1:AA:42:G:C8	2.41	0.55
1:AA:274:A:H4'	1:AA:275:G:OP1	2.05	0.55
1:AA:545:C:O2'	1:AA:546:G:H5'	2.07	0.55
3:AC:138:VAL:C	3:AC:140:ARG:H	2.14	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:HD13	11:AK:95:ILE:H	1.72	0.55
14:AN:37:PHE:C	14:AN:39:LEU:N	2.64	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
35:BA:674:G:C1'	40:BF:74:ARG:HD3	2.36	0.55
35:BA:2495:G:H5''	47:BQ:82:ARG:HB3	1.88	0.55
37:BC:68:LEU:HB2	37:BC:70:LYS:HG2	1.87	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
42:BH:85:LYS:HZ2	42:BH:133:VAL:HB	1.71	0.55
46:BP:111:ARG:CZ	46:BP:149:GLU:HG3	2.37	0.55
47:BQ:62:GLY:H	47:BQ:109:VAL:HG22	1.71	0.55
47:BQ:141:GLN:OXT	56:BZ:99:TYR:O	2.25	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
1:CA:59:A:C5'	1:CA:60:A:H5''	2.37	0.55
1:CA:243:A:O2'	1:CA:244:U:OP2	2.24	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:619:U:N3	4:CD:135:LEU:HD21	2.21	0.55
1:CA:738:C:H5'	6:CF:69:GLU:HB2	1.89	0.55
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
6:CF:17:SER:C	6:CF:21:LEU:HD23	2.31	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:272(D):G:H2'	35:DA:272(E):G:H8	1.72	0.55
35:DA:2236:C:C2'	35:DA:2237:G:H5'	2.37	0.55
38:DD:166:GLN:CA	38:DD:166:GLN:NE2	2.70	0.55
39:DE:5:LEU:HD23	39:DE:5:LEU:N	2.21	0.55
40:DF:126:VAL:HG13	40:DF:193:VAL:HG13	1.89	0.55
41:DG:101:ILE:HD11	41:DG:105:LYS:HZ3	1.70	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:HG2	45:DO:49:ARG:NH1	2.20	0.55
46:DP:29:LYS:HD2	46:DP:29:LYS:N	2.22	0.55
46:DP:101:VAL:CB	46:DP:107:LYS:HA	2.34	0.55
51:DU:20:LEU:CB	51:DU:39:LEU:HD11	2.35	0.55
51:DU:64:ARG:HG2	51:DU:64:ARG:NH2	2.15	0.55
51:DU:89:GLU:HG2	52:DV:50:PRO:CG	2.37	0.55
52:DV:19:LYS:C	52:DV:20:LEU:HD12	2.32	0.55
1:AA:190:U:H2'	1:AA:191:G:C8	2.40	0.55
1:AA:1190:G:P	3:AC:5:ILE:HG13	2.47	0.55
1:AA:1226:C:O2'	13:AM:111:LYS:NZ	2.40	0.55
2:AB:69:LEU:HD22	2:AB:91:PRO:CB	2.31	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
6:AF:42:GLU:O	6:AF:44:GLY:N	2.40	0.55
11:AK:56:GLY:O	11:AK:89:ALA:HB3	2.06	0.55
13:AM:45:VAL:C	13:AM:47:ASP:H	2.14	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:322:A:OP2	40:BF:169:ASN:HB2	2.07	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BB:65:C:N4	36:BB:109:C:H2'	2.16	0.55
38:BD:245:PRO:O	38:BD:246:PRO:C	2.49	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
56:BZ:94:GLU:O	56:BZ:96:VAL:N	2.37	0.55
56:BZ:151:HIS:O	56:BZ:152:ALA:HB3	2.06	0.55
1:CA:1190:G:P	3:CC:5:ILE:HG13	2.46	0.55
2:CB:101:MET:C	2:CB:102:LEU:HD12	2.32	0.55
2:CB:114:ARG:HD3	2:CB:117:GLU:OE1	2.07	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
41:DG:167:GLU:CD	41:DG:167:GLU:H	2.14	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:CG	44:DN:25:ARG:NH1	2.57	0.55
45:DO:119:PRO:O	50:DT:68:TYR:HE1	1.90	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
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
1:AA:1152:A:H2'	1:AA:1153:C:C6	2.41	0.55
1:AA:1346:A:H5''	9:AI:120:ARG:HH12	1.72	0.55
2:AB:48:MET:CG	2:AB:49:GLU:N	2.64	0.55
2:AB:167:PRO:HG3	2:AB:188:ALA:CB	2.36	0.55
5:AE:90:VAL:C	5:AE:91:LEU:HD22	2.31	0.55
17:AQ:6:LEU:O	17:AQ:58:GLU:HA	2.07	0.55
35:BA:83:G:C2	35:BA:102:G:H2'	2.42	0.55
35:BA:1021:A:C8	35:BA:1021:A:C3'	2.89	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:35:LYS:HB2	38:BD:63:ARG:CG	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:83:PHE:O	40:BF:85:GLY:N	2.40	0.55
40:BF:191:ARG:HH11	40:BF:191:ARG:HG2	1.72	0.55
42:BH:41:MET:HG2	42:BH:55:PRO:CD	2.37	0.55
43:BI:12:LEU:O	43:BI:12:LEU:HG	2.07	0.55
45:BO:63:VAL:HG23	45:BO:83:ALA:HB3	1.89	0.55
46:BP:8:PRO:C	46:BP:10:PRO:HD2	2.31	0.55
1:CA:254:G:OP1	17:CQ:67:LYS:O	2.25	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
5:CE:8:GLU:HB2	5:CE:34:VAL:HG22	1.88	0.55
5:CE:19:MET:O	5:CE:20:GLN:HB2	2.06	0.55
6:CF:42:GLU:O	6:CF:44:GLY:N	2.40	0.55
6:CF:60:PHE:CE2	18:CR:78:LEU:HD21	2.42	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
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
30:D5:4:HIS:O	35:DA:2056:G:N2	2.40	0.55
31:D6:22:ALA:HB2	31:D6:39:TYR:CE2	2.42	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
35:DA:1914:C:H2'	35:DA:1915:U:O4'	2.06	0.55
35:DA:2728:U:O2'	35:DA:2729:G:H5'	2.07	0.55
38:DD:33:LEU:C	38:DD:36:PRO:HD2	2.32	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:15:GLU:O	52:DV:16:PRO:C	2.48	0.55
56:DZ:10:ARG:HH21	56:DZ:25:PRO:HA	1.70	0.55
56:DZ:150:LEU:HD13	56:DZ:150:LEU:N	2.09	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
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
19:AS:44:MET:HA	19:AS:44:MET:HE3	1.88	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
28:B3:31:LEU:C	28:B3:33:GLN:H	2.14	0.55
30:B5:16:ARG:NH2	35:BA:517:C:OP1	2.39	0.55
33:B8:15:LYS:HB2	46:BP:65:ARG:HH12	1.70	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
35:BA:528:A:C2	35:BA:2043:C:H4'	2.42	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:2203:U:H1'	38:BD:151:LYS:HE3	1.87	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:80:TYR:CE1	46:BP:111:ARG:HD3	2.41	0.55
46:BP:101:VAL:CB	46:BP:107:LYS:HA	2.35	0.55
47:BQ:141:GLN:CB	56:BZ:98:MET:HA	2.37	0.55
50:BT:32:TYR:CG	50:BT:81:PRO:HB2	2.41	0.55
51:BU:66:ASN:HB2	51:BU:76:TYR:HB2	1.87	0.55
55:BY:2:ARG:C	55:BY:4:LYS:N	2.62	0.55
55:BY:8:LYS:H	55:BY:8:LYS:CD	2.14	0.55
1:CA:546:G:P	4:CD:72:GLU:HB3	2.47	0.55
1:CA:1428:A:H2'	1:CA:1429:C:C6	2.42	0.55
3:CC:6:HIS:HB2	14:CN:49:HIS:CD2	2.42	0.55
4:CD:206:PHE:O	4:CD:209:ARG:HB2	2.07	0.55
5:CE:67:VAL:HG22	5:CE:68:GLU:N	2.20	0.55
9:CI:116:LYS:HB3	9:CI:116:LYS:HZ3	1.72	0.55
10:CJ:29:ARG:HH22	10:CJ:84:GLN:CD	2.15	0.55
10:CJ:32:ALA:CB	10:CJ:76:ASN:H	2.20	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:10:LYS:HZ1	15:CO:14:GLU:HG2	1.71	0.55
18:CR:87:ARG:HG2	18:CR:87:ARG:O	2.06	0.55
20:CT:57:ARG:HB2	20:CT:57:ARG:HH11	1.72	0.55
20:CT:84:LEU:C	20:CT:84:LEU:HD13	2.32	0.55
32:D7:47:ARG:NH2	35:DA:1311:G:C4	2.75	0.55
35:DA:320:A:OP2	40:DF:137:LYS:HD2	2.06	0.55
35:DA:673:C:H5'	40:DF:54:ARG:NH1	2.19	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
35:DA:2494:G:H2'	35:DA:2495:G:H8	1.71	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
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: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
50:DT:124:ASP:C	50:DT:126:ALA:H	2.13	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:47:LYS:HD2	5:AE:47:LYS:N	2.22	0.54
5:AE:103:GLY:O	5:AE:105:VAL:N	2.40	0.54
6:AF:91:VAL:HG12	6:AF:92:LYS:O	2.07	0.54
13:AM:28:ALA:C	13:AM:30:ALA:H	2.15	0.54
20:AT:57:ARG:HB2	20:AT:57:ARG:HH11	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: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
35:BA:1494:A:H3'	35:BA:1494:A:N3	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
45:BO:77:ILE:CD1	50:BT:74:ARG:HG2	2.37	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:17:ARG:C	49:BS:19:LYS:N	2.64	0.54
49:BS:19:LYS:C	49:BS:20:ARG:NH1	2.65	0.54
50:BT:3:ARG:HG3	50:BT:3:ARG:HH11	1.71	0.54
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:82:ARG:HB2	2:CB:94:ASN:HD21	1.72	0.54
2:CB:168:THR:HG23	2:CB:192:SER:CB	2.37	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
28:D3:49:LYS:NZ	35:DA:850:C:O3'	2.38	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:910:A:N7	47:DQ:13:GLN:HG3	2.20	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:H2'	35:DA:2473:U:O2	2.05	0.54
35:DA:2661:G:H2'	35:DA:2662:A:C8	2.42	0.54
35:DA:2682:U:C5	39:DE:11:MET:HE2	2.42	0.54
40:DF:33:LEU:HD22	40:DF:112:MET:HG2	1.88	0.54
40:DF:59:TYR:HB3	40:DF:78:ILE:HD11	1.89	0.54
40:DF:132:VAL:CG2	40:DF:133:ASN:H	1.99	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
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:795:C:H1'	1:AA:1506:U:C6	2.42	0.54
1:AA:1445:C:O2'	1:AA:1446:U:H5'	2.08	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
20:AT:98:PRO:C	20:AT:100:ILE:H	2.15	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
35:BA:57:C:O2'	35:BA:58:G:H5'	2.06	0.54
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
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:5:ALA:N	40:BF:18:ARG:O	2.36	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
41:BG:39:ILE:HD13	41:BG:155:MET:HE3	1.90	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
53:BW:1:MET:HE3	53:BW:1:MET:HA	1.88	0.54
56:BZ:120:ILE:HB	56:BZ:171:ILE:C	2.31	0.54
1:CA:35:G:H2'	1:CA:36:C:C6	2.43	0.54
1:CA:179:A:H2'	1:CA:180:U:C6	2.43	0.54
1:CA:977:A:H2'	1:CA:978:A:H5'	1.89	0.54
1:CA:1228:C:O3'	13:CM:116:THR:HA	2.07	0.54
1:CA:1258:G:H2'	1:CA:1259:C:C6	2.43	0.54
5:CE:136:MET:C	5:CE:138:ALA:H	2.15	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
17:CQ:22:LEU:HD12	17:CQ:23:VAL:H	1.71	0.54
33:D8:14:VAL:HG21	33:D8:22:VAL:CG1	2.37	0.54
35:DA:71:A:H2	54:DX:31:HIS:CE1	2.25	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:1494:A:C2'	35:DA:1495:A:H5''	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
44:DN:133:GLN:O	44:DN:134:ARG:HB3	2.07	0.54
45:DO:77:ILE:CD1	50:DT:74:ARG:HG2	2.38	0.54
46:DP:140:ALA:O	46:DP:141:ALA:HB3	2.07	0.54
47:DQ:60:ARG:HB2	47:DQ:60:ARG:NH1	2.22	0.54
47:DQ:133:ARG:HH11	47:DQ:133:ARG:HG3	1.72	0.54
48:DR:48:VAL:O	48:DR:49:ASP:C	2.49	0.54
50:DT:35:LYS:HG3	50:DT:36:GLU:N	2.22	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
6:AF:9:VAL:C	6:AF:10:LEU:HD12	2.32	0.54
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
22:AV:65:G:O2'	22:AV:66:U:H5'	2.07	0.54
26:B1:82:LEU:C	26:B1:83:GLU:CD	2.75	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
46:BP:101:VAL:C	46:BP:103:ALA:N	2.64	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
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:10:PHE:CZ	19:CS:70:LYS:HD2	2.40	0.54
19:CS:62:ILE:HG13	19:CS:63:THR:N	2.21	0.54
22:CY:39:U:H2'	22:CY:40:C:C6	2.42	0.54
25:D0:4:LYS:O	25:D0:5:LYS:HB2	2.06	0.54
26:D1:84:GLY:O	26:D1:86:SER:N	2.40	0.54
35:DA:271(K):U:H3	43:DI:50:ARG:NH1	2.04	0.54
35:DA:706:A:H2'	35:DA:707:G:O4'	2.07	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1300:U:H1'	35:DA:1626:G:C2	2.42	0.54
35:DA:1518:U:H2'	35:DA:1519:G:O4'	2.06	0.54
35:DA:2175:C:C1'	37:DC:215:THR:HA	2.37	0.54
35:DA:2870:C:C2'	35:DA:2871:C:H5'	2.37	0.54
39:DE:44:TYR:O	39:DE:45:THR:CB	2.54	0.54
39:DE:175:VAL:O	39:DE:175:VAL:HG13	2.08	0.54
42:DH:85:LYS:HZ2	42:DH:133:VAL:CB	2.20	0.54
43:DI:78:THR:HG23	43:DI:141:LYS:HB2	1.89	0.54
46:DP:139:LYS:C	46:DP:141:ALA:H	2.16	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:2:ARG:C	55:DY:4:LYS:N	2.62	0.54
1:AA:222:U:H2'	1:AA:223:U:C6	2.42	0.54
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
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
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
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
32:B7:28:ARG:NH2	35:BA:1368:G:OP1	2.40	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
35:BA:1412:A:H2'	35:BA:1413:G:C8	2.43	0.54
35:BA:1651:G:OP1	48:BR:40:LYS:HE3	2.07	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:2009:G:N3	48:BR:107:ASP:HA	2.23	0.54
35:BA:2037:G:H2'	35:BA:2038:G:C8	2.43	0.54
38:BD:131:LEU:HB2	38:BD:136:ILE:HD11	1.90	0.54
40:BF:116:ASP:OD2	46:BP:5:ASP:N	2.40	0.54
41:BG:42:GLY:O	41:BG:43:LEU:HB2	2.07	0.54
41:BG:132:ASN:OD1	41:BG:158:ALA:HB2	2.07	0.54
42:BH:65:HIS:CE1	42:BH:69:ARG:HD3	2.41	0.54
44:BN:101:HIS:O	44:BN:102:ALA:C	2.50	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
55:BY:101:LYS:HG2	55:BY:102:CYS:N	2.21	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:824:C:H4'	8:CH:1:MET:H1	1.73	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
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:HD13	11:CK:95:ILE:H	1.72	0.54
13:CM:27:LYS:HE3	13:CM:31:LYS:CE	2.37	0.54
15:CO:82:ILE:HD13	15:CO:82:ILE:C	2.33	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
25:D0:11:ARG:O	25:D0:14:ARG:NH2	2.35	0.54
26:D1:50:ARG:HG2	26:D1:59:THR:CG2	2.37	0.54
26:D1:53:VAL:O	26:D1:53:VAL:HG12	2.08	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
37:DC:187:ASP:C	37:DC:189:ILE:H	2.15	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:HB2	45:DO:104:ARG:HH11	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:O	51:DU:74:LEU:HD12	2.08	0.54
55:DY:27:VAL:C	55:DY:28:LYS:HZ2	2.15	0.54
56:DZ:15:PRO:O	56:DZ:19:ARG:HG3	2.07	0.54
1:AA:522:C:H41	12:AL:53:ARG:HH22	1.55	0.54
1:AA:793:U:O2	1:AA:1516:G:H4'	2.08	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
2:AB:24:TRP:CZ3	2:AB:26:PRO:HA	2.43	0.54
8:AH:45:ILE:C	8:AH:47:GLY:H	2.15	0.54
12:AL:74:GLY:O	12:AL:102:ARG:NH2	2.40	0.54
14:AN:37:PHE:HB3	14:AN:39:LEU:HD12	1.89	0.54
15:AO:3:ILE:HD13	15:AO:3:ILE:H	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
21:AU:4:GLY:C	21:AU:6:ARG:H	2.16	0.54
23:AW:2:C:N4	23:AW:71:G:H1	2.02	0.54
23:AW:57:G:H2'	23:AW:57:G:N3	2.21	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
35:BA:1908:C:H2'	35:BA:1909:C:H6	1.72	0.54
35:BA:2682:U:C5	39:BE:11:MET:HE2	2.42	0.54
37:BC:59:ARG:HH21	37:BC:199:HIS:CB	2.20	0.54
37:BC:187:ASP:C	37:BC:189:ILE:H	2.15	0.54
44:BN:78:TYR:N	44:BN:78:TYR:CD1	2.76	0.54
45:BO:110:GLY:HA2	45:BO:112:MET:HE3	1.89	0.54
47:BQ:19:GLY:HA3	56:BZ:79:ARG:HH22	1.73	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
51:BU:104:GLN:H	51:BU:104:GLN:CD	2.15	0.54
52:BV:4:ILE:HG22	52:BV:4:ILE:O	2.08	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
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
7:CG:81:GLY:C	7:CG:83:ALA:H	2.16	0.54
8:CH:82:HIS:HD2	8:CH:138:TRP:NE1	2.05	0.54
10:CJ:6:ILE:CD1	10:CJ:72:VAL:HB	2.33	0.54
10:CJ:27:ALA:HB3	10:CJ:34:VAL:HG21	1.88	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
17:CQ:67:LYS:O	17:CQ:68:ARG:C	2.50	0.54
19:CS:41:VAL:O	19:CS:44:MET:SD	2.66	0.54
35:DA:613:G:H5'	35:DA:613:G:C8	2.42	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
38:DD:126:GLN:HG3	38:DD:129:ASN:ND2	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DE:111:ARG:HB2	39:DE:160:TYR:O	2.08	0.54
50:DT:91:ARG:C	50:DT:93:ARG:H	2.15	0.54
55:DY:6:HIS:CE1	55:DY:30:VAL:HG11	2.43	0.54
55:DY:46:LYS:HD3	55:DY:47:LYS:HZ2	1.73	0.54
56:DZ:128:VAL:CG2	56:DZ:132:ASN:HB2	2.37	0.54
1:AA:291:C:O2'	1:AA:292:G:H5'	2.06	0.54
1:AA:546:G:P	4:AD:72:GLU:HB3	2.47	0.54
1:AA:950:U:H4'	1:AA:971:G:N2	2.22	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
3:AC:3:ASN:O	3:AC:4:LYS:C	2.51	0.54
5:AE:103:GLY:O	5:AE:106:PRO:HD2	2.07	0.54
12:AL:11:VAL:HG21	17:AQ:34:LYS:HD3	1.89	0.54
14:AN:37:PHE:O	14:AN:39:LEU:HG	2.08	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:118:A:OP2	35:BA:119:A:H5''	2.08	0.54
35:BA:320:A:H3'	40:BF:136:THR:CG2	2.38	0.54
35:BA:1039:G:C6	35:BA:1040:C:N4	2.76	0.54
35:BA:2257:U:O2'	35:BA:2258:C:H5'	2.08	0.54
43:BI:58:LEU:O	43:BI:60:GLU:N	2.41	0.54
43:BI:92:VAL:HG12	43:BI:120:ILE:HB	1.90	0.54
45:BO:17:ARG:O	45:BO:18:LYS:HG3	2.08	0.54
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:HG2	50:BT:85:LYS:O	2.07	0.54
56:BZ:146:ILE:CG2	56:BZ:177:PRO:HD3	2.37	0.54
56:BZ:168:GLU:OE2	56:BZ:168:GLU:HA	2.07	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: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
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:CE3	31:D6:42:TRP:HA	2.43	0.54
35:DA:108:U:H2'	35:DA:109:G:H8	1.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:786:C:O2'	35:DA:787:U:H5'	2.07	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:2683:C:P	50:DT:53:ARG:NH2	2.81	0.54
38:DD:16:MET:CE	38:DD:208:LYS:HD2	2.38	0.54
44:DN:48:MET:HE3	44:DN:48:MET:H	1.71	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:8:PRO:C	46:DP:10:PRO:HD2	2.32	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
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
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
15:AO:76:GLU:C	15:AO:78:TYR:N	2.64	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
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
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:68:THR:C	42:BH:70:THR:H	2.15	0.54
44:BN:48:MET:H	44:BN:48:MET:HE3	1.72	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:438:G:H4'	4:CD:123:HIS:ND1	2.23	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:1462:G:O2'	1:CA:1463:C:H5'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
20:CT:98:PRO:C	20:CT:100:ILE:H	2.16	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:16:G:O2'	35:DA:17:G:H5'	2.07	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: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:HH11	38:DD:218:ARG:HG3	1.71	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:HD23	44:DN:23:LEU:N	2.19	0.54
46:DP:80:TYR:CD1	46:DP:111:ARG:HB3	2.43	0.54
50:DT:32:TYR:CD2	50:DT:32:TYR:N	2.75	0.54
55:DY:28:LYS:C	55:DY:38:ILE:HB	2.33	0.54
56:DZ:152:ALA:C	56:DZ:154:ASP:H	2.15	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
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
7:AG:81:GLY:C	7:AG:83:ALA:H	2.16	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:O	27:B2:32:LEU:HD23	2.07	0.54
30:B5:20:ARG:NH1	53:BW:15:ARG:NH1	2.56	0.54
35:BA:271(M):G:C2'	35:BA:271(N):U:H5''	2.37	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
35:BA:2777:G:H4'	35:BA:2778:A:H5'	1.88	0.54
38:BD:231:HIS:CG	38:BD:232:PRO:HD2	2.43	0.54
39:BE:52:LEU:CD1	50:BT:1:MET:HE3	2.37	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BN:55:VAL:O	44:BN:56:ASN:C	2.50	0.54
44:BN:57:ALA:O	44:BN:58:ASP:C	2.51	0.54
45:BO:31:LYS:HB3	45:BO:32:TYR:CD1	2.42	0.54
45:BO:112:MET:HE2	45:BO:112:MET:N	2.23	0.54
47:BQ:42:ILE:HD13	47:BQ:97:VAL:CG2	2.38	0.54
47:BQ:60:ARG:HB2	47:BQ:60:ARG:NH1	2.23	0.54
47:BQ:141:GLN:NE2	56:BZ:72:ARG:HD3	2.23	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:CD2	52:BV:40:LEU:N	2.71	0.54
1:CA:93:G:N3	1:CA:93:G:H2'	2.22	0.54
1:CA:137:C:N4	1:CA:226:G:H1	1.98	0.54
1:CA:993:G:H2'	1:CA:995:C:H41	1.73	0.54
1:CA:1112:C:C4	3:CC:178:LEU:HD23	2.43	0.54
3:CC:110:ASN:O	3:CC:112:SER:N	2.41	0.54
4:CD:8:VAL:C	4:CD:10:ARG:N	2.65	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
12:CL:62:SER:C	12:CL:64:TYR:H	2.16	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:829:A:N7	35:DA:2247:A:O2'	2.37	0.54
35:DA:1141:U:OP1	44:DN:25:ARG:NH1	2.40	0.54
35:DA:1713:U:O2'	35:DA:1714:G:H5'	2.08	0.54
35:DA:2475:C:H5'	35:DA:2476:A:OP2	2.08	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
38:DD:257:LEU:CD2	38:DD:257:LEU:C	2.81	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
45:DO:23:ARG:HD2	45:DO:24:VAL:N	2.22	0.54
47:DQ:16:ARG:HG2	47:DQ:17:LEU:N	2.23	0.54
47:DQ:141:GLN:HB2	56:DZ:98:MET:HA	1.89	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:821:G:O2'	1:AA:822:C:H5'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
11:AK:111:ASP:OD2	18:AR:84:LYS:HE3	2.07	0.54
12:AL:48:PRO:C	12:AL:49:ASN:HD22	2.16	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
17:AQ:48:GLU:O	17:AQ:49:GLU:C	2.51	0.54
19:AS:36:ARG:NH1	19:AS:53:ASN:HA	2.23	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:142:A:H5'	35:BA:142(A):C:OP2	2.08	0.54
35:BA:1019:U:H3	35:BA:1142(A):A:H62	1.54	0.54
35:BA:2148:G:O2'	35:BA:2149:G:H5'	2.08	0.54
38:BD:33:LEU:C	38:BD:36:PRO:HD2	2.31	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
43:BI:118:LYS:HZ2	43:BI:119:PRO:HG2	1.73	0.54
46:BP:32:THR:CG2	46:BP:37:GLY:HA2	2.37	0.54
48:BR:49:ASP:O	48:BR:50:HIS:C	2.49	0.54
52:BV:1:MET:HE1	52:BV:43:GLU:OE2	2.08	0.54
56:BZ:15:PRO:O	56:BZ:17:ALA:N	2.40	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
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
2:CB:136:VAL:HA	2:CB:139:LYS:HB2	1.90	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:52:GLU:O	13:CM:56:LEU:HB2	2.08	0.54
13:CM:65:LYS:HB3	13:CM:65:LYS:HZ3	1.72	0.54
17:CQ:48:GLU:O	17:CQ:49:GLU:C	2.51	0.54
34:D9:11:CYS:SG	34:D9:12:ASP:N	2.81	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: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:2127:G:H4'	37:DC:36:LYS:HG2	1.90	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
39:DE:1:MET:HG2	39:DE:83:ASP:O	2.07	0.54
39:DE:54:GLN:HA	39:DE:72:VAL:HG11	1.89	0.54
39:DE:91:VAL:HG13	39:DE:95:ILE:HG12	1.90	0.54
40:DF:38:ARG:HH12	46:DP:16:ARG:HH22	1.56	0.54
41:DG:120:LEU:H	41:DG:181:ARG:H	1.56	0.54
47:DQ:109:VAL:HG12	47:DQ:110:THR:N	2.23	0.54
50:DT:38:ASN:HD22	50:DT:40:THR:N	2.05	0.54
53:DW:1:MET:HE3	53:DW:1:MET:HA	1.89	0.54
56:DZ:30:ASN:HA	56:DZ:89:PHE:HE2	1.73	0.54
1:AA:189:G:H2'	1:AA:189(A):C:C6	2.42	0.54
1:AA:521:G:O5'	12:AL:73:GLU:HG3	2.08	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
1:AA:1060:C:H4'	10:AJ:52:GLY:H	1.73	0.54
1:AA:1207:G:O2'	1:AA:1208:C:H5'	2.08	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
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
17:AQ:67:LYS:O	17:AQ:68:ARG:C	2.51	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
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
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2870:C:C2'	35:BA:2871:C:H5'	2.38	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
38:BD:142:VAL:HG23	38:BD:192:THR:C	2.32	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
45:BO:1:MET:HE2	45:BO:67:LYS:HG2	1.90	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
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
2:CB:216:SER:C	2:CB:218:ALA:H	2.16	0.54
4:CD:114:ARG:HH11	4:CD:114:ARG:CG	2.15	0.54
7:CG:145:ALA:C	7:CG:147:ALA:N	2.59	0.54
8:CH:82:HIS:CD2	8:CH:138:TRP:HE1	2.21	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: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
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
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
47:DQ:1:MET:HE3	47:DQ:48:GLU:CB	2.38	0.54
51:DU:98:LEU:HD21	52:DV:2:PHE:CZ	2.41	0.54
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:70:VAL:HG12	3:AC:72:LYS:N	2.20	0.53
3:AC:172:ARG:NH1	3:AC:172:ARG:HB3	2.23	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:8:LEU:HD13	10:AJ:20:ALA:CB	2.37	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: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
35:BA:1234:U:H2'	35:BA:1235:G:H5'	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
51:BU:115:ALA:C	51:BU:117:GLN:H	2.16	0.53
3:CC:3:ASN:O	3:CC:4:LYS:C	2.51	0.53
3:CC:90:GLU:O	3:CC:93:LYS:HB3	2.08	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
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
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:28:ALA:C	13:CM:30:ALA:H	2.16	0.53
13:CM:91:ARG:NH1	19:CS:81:ARG:NH2	2.56	0.53
17:CQ:14:LYS:HB2	17:CQ:14:LYS:HZ3	1.72	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
30:D5:40:LYS:HD3	30:D5:45:VAL:C	2.33	0.53
35:DA:32:C:C2'	35:DA:33:U:H5'	2.38	0.53
35:DA:128:C:H2'	35:DA:129:C:H6	1.73	0.53
35:DA:320:A:C2'	40:DF:136:THR:HG21	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
35:DA:2632:A:H2	39:DE:61:ARG:HD3	1.72	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:23:ASP:O	40:DF:115:ALA:HA	2.08	0.53
40:DF:114:VAL:HG21	40:DF:202:PHE:CZ	2.42	0.53
43:DI:78:THR:HA	43:DI:141:LYS:O	2.08	0.53
44:DN:57:ALA:O	44:DN:58:ASP:C	2.50	0.53
45:DO:110:GLY:HA2	45:DO:112:MET:HE3	1.89	0.53
52:DV:5:VAL:HG21	52:DV:35:LEU:HG	1.90	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: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
1:AA:795:C:H1'	1:AA:1506:U:C5	2.43	0.53
1:AA:1423:G:H2'	1:AA:1424:C:C6	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:191:ASP:C	2:AB:191:ASP:OD2	2.51	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
5:AE:20:GLN:O	5:AE:21:ALA:C	2.51	0.53
6:AF:100:ASN:HD21	18:AR:23:LYS:CE	2.20	0.53
7:AG:143:ARG:NH1	23:AW:42:C:H5''	2.23	0.53
12:AL:62:SER:C	12:AL:64:TYR:H	2.16	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
20:AT:27:LYS:HD3	20:AT:27:LYS:O	2.08	0.53
35:BA:2591:C:H2'	35:BA:2592:G:C8	2.43	0.53
49:BS:88:ASP:CG	49:BS:89:ARG:H	2.15	0.53
55:BY:54:LYS:O	55:BY:55:TYR:O	2.26	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:H2'	1:CA:352:C:O2	2.07	0.53
1:CA:853:G:H2'	1:CA:854:G:H8	1.74	0.53
1:CA:954:G:H21	1:CA:1227:A:N6	2.06	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:1305:G:H5'	21:CU:4:GLY:HA3	1.90	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
6:CF:97:PHE:CD2	18:CR:65:ILE:HD12	2.43	0.53
8:CH:1:MET:HE2	8:CH:1:MET:N	2.23	0.53
8:CH:44:PHE:HA	8:CH:79:VAL:HG11	1.90	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
18:CR:74:ARG:HB3	18:CR:81:PHE:CE1	2.42	0.53
19:CS:44:MET:HA	19:CS:44:MET:HE3	1.89	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
27:D2:32:LEU:CA	27:D2:53:LEU:HD13	2.38	0.53
31:D6:19:ARG:HD2	31:D6:19:ARG:N	2.22	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
35:DA:674:G:C1'	40:DF:74:ARG:HD3	2.36	0.53
35:DA:729:G:H2'	35:DA:1775:U:O2	2.08	0.53
35:DA:1494:A:H3'	35:DA:1494:A:N3	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
37:DC:82:LYS:HE3	37:DC:151:GLU:N	2.23	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:137:C:N4	1:AA:226:G:H1	2.00	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
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:117:ARG:O	12:AL:118:SER:C	2.51	0.53
25:B0:32:ARG:H	25:B0:35:ASN:ND2	2.04	0.53
32:B7:19:ARG:HG2	32:B7:19:ARG:NH1	2.23	0.53
35:BA:52:A:O2'	35:BA:53:A: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: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
35:BA:1266:G:C8	53:BW:15:ARG:NH2	2.77	0.53
35:BA:1300:U:O4'	35:BA:1300:U:O2	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
38:BD:16:MET:CE	38:BD:208:LYS:HD2	2.39	0.53
38:BD:221:VAL:HG22	38:BD:226:MET:CE	2.34	0.53
41:BG:57:ALA:HB2	41:BG:90:LEU:HD11	1.89	0.53
41:BG:137:GLU:CB	41:BG:152:LEU:HD11	2.36	0.53
44:BN:1:MET:HG2	44:BN:2:LYS:H	1.71	0.53
46:BP:24:GLY:O	46:BP:25:SER:HB3	2.09	0.53
46:BP:80:TYR:CD1	46:BP:111:ARG:HB3	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BP:110:TYR:O	46:BP:111:ARG:O	2.26	0.53
47:BQ:141:GLN:HB2	56:BZ:99:TYR:H	1.72	0.53
50:BT:14:TYR:N	50:BT:14:TYR:CD1	2.76	0.53
55:BY:28:LYS:C	55:BY:38:ILE:HB	2.34	0.53
55:BY:95:LYS:CD	55:BY:100:ALA:HA	2.38	0.53
1:CA:509:A:H2'	1:CA:510:A:C8	2.42	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
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:6:A:H2'	35:DA:6:A:N3	2.24	0.53
35:DA:315:G:H2'	35:DA:316:C:C6	2.43	0.53
35:DA:1011:G:P	51:DU:77:SER:HG	2.30	0.53
35:DA:1165:U:H2'	35:DA:1166:C:C6	2.43	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
39:DE:69:LYS:C	39:DE:71:GLY:N	2.63	0.53
41:DG:56:ALA:HB2	41:DG:153:ARG:CZ	2.38	0.53
41:DG:91:ARG:HD2	41:DG:91:ARG:C	2.32	0.53
45:DO:89:ASN:C	45:DO:91:LEU:H	2.15	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:N	48:DR:94:TYR:CD1	2.76	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
1:AA:1431:C:H2'	1:AA:1432:G:O4'	2.08	0.53
2:AB:19:HIS:ND1	2:AB:189:ASP:OD2	2.42	0.53
2:AB:114:ARG:HD3	2:AB:117:GLU:OE1	2.08	0.53
3:AC:41:GLY:O	3:AC:45:LYS:HG3	2.08	0.53
3:AC:124:ILE:C	3:AC:126:ARG:H	2.16	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:N	26:B1:82:LEU:HD22	2.23	0.53
29:B4:39:ARG:O	29:B4:57:ILE:HB	2.09	0.53
30:B5:4:HIS:O	35:BA:2056:G:N2	2.41	0.53
31:B6:51:GLU:O	31:B6:52:VAL:CB	2.57	0.53
35:BA:83:G:N2	35:BA:102:G:H2'	2.23	0.53
35:BA:128:C:H2'	35:BA:129:C:C6	2.44	0.53
35:BA:661:C:H4'	46:BP:16:ARG:NH1	2.23	0.53
35:BA:675:A:N6	35:BA:676:A:N6	2.56	0.53
35:BA:941:A:H4'	46:BP:35:HIS:NE2	2.23	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:1636:C:H2'	35:BA:1637:A:C8	2.43	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:2636:U:OP1	39:BE:80:GLU:HG3	2.08	0.53
35:BA:2672:G:C2'	35:BA:2673:G:H5''	2.39	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:75:VAL:O	39:BE:77:ILE:N	2.30	0.53
39:BE:116:VAL:O	39:BE:117:MET:CB	2.52	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
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: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
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
1:CA:1251:A:H2'	1:CA:1252:A:H8	1.74	0.53
2:CB:28:PHE:O	2:CB:28:PHE:CD1	2.61	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:178:ARG:HD2	8:CH:71:GLY:C	2.33	0.53
6:CF:3:ARG:HG2	6:CF:93:SER:HB2	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:17:SER:O	6:CF:21:LEU:HD23	2.08	0.53
8:CH:88:LYS:HB2	8:CH:88:LYS:NZ	2.24	0.53
19:CS:23:ASN:C	19:CS:26:GLY:H	2.17	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:74:VAL:HG12	37:DC:76:ALA:H	1.74	0.53
38:DD:142:VAL:HG23	38:DD:192:THR:C	2.34	0.53
40:DF:32:LEU:HD22	40:DF:112:MET:HE3	1.90	0.53
42:DH:44:VAL:O	42:DH:46:GLU:N	2.39	0.53
42:DH:89:ILE:HD11	42:DH:129:THR:O	2.07	0.53
43:DI:58:LEU:O	43:DI:60:GLU:N	2.42	0.53
48:DR:49:ASP:O	48:DR:50:HIS:C	2.49	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
1:AA:1498:U:C5	24:AX:17:U:H5'	2.43	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:HH11	18:AR:87:ARG:HG2	1.74	0.53
19:AS:23:ASN:HA	19:AS:26:GLY:HA2	1.89	0.53
20:AT:45:GLN:C	20:AT:47:GLY:N	2.65	0.53
22:AY:64:A:H2'	22:AY:65:G:C8	2.44	0.53
26:B1:45:ASN:HD21	35:BA:2090:G:H21	1.56	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
35:BA:404:C:C4'	35:BA:405:U:H5'	2.32	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
36:BB:52:A:N7	49:BS:33:LYS:CE	2.71	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:172:LEU:HD23	41:BG:172:LEU:C	2.33	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
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
55:BY:7:VAL:CG2	55:BY:8:LYS:HZ3	2.16	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:HH11	10:CJ:28:ARG:HG2	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
13:CM:102:ARG:C	13:CM:104:ARG:H	2.16	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: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
35:DA:956:G:H5''	47:DQ:77:LYS:HD2	1.91	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
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
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
55:DY:95:LYS:HG2	55:DY:100:ALA:C	2.33	0.53
56:DZ:117:LEU:N	56:DZ:117:LEU:HD23	2.24	0.53
1:AA:254:G:OP1	17:AQ:67:LYS:O	2.26	0.53
1:AA:1096:C:O2'	1:AA:1097:C:H5'	2.09	0.53
1:AA:1112:C:C4	3:AC:178:LEU:HD23	2.43	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)
7:AG:53:LYS:O	7:AG:54:THR:CB	2.57	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
17:AQ:31:LEU:HG	17:AQ:32:TYR:CE2	2.44	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
38:BD:9:TYR:C	38:BD:10:THR:HG22	2.34	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
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:9:ARG:HG3	9:CI:14:VAL:HG13	1.90	0.53
9:CI:35:GLU:HA	9:CI:38:GLN:HB2	1.91	0.53
12:CL:60:LEU:N	12:CL:60:LEU:HD22	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:404:C:C4'	35:DA:405:U:H5'	2.34	0.53
35:DA:2591:C:H2'	35:DA:2592:G:C8	2.44	0.53
38:DD:33:LEU:HA	38:DD:36:PRO:HG3	1.90	0.53
41:DG:17:PRO:C	41:DG:19:LEU:N	2.66	0.53
41:DG:126:ASP:O	41:DG:128:ARG:NH2	2.35	0.53
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:7:ARG:NH1	46:DP:7:ARG:C	2.67	0.53
46:DP:80:TYR:CE1	46:DP:111:ARG:HD3	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DQ:32:TYR:CE2	47:DQ:133:ARG:HG2	2.44	0.53
47:DQ:110:THR:HG23	47:DQ:113:GLN:OE1	2.09	0.53
49:DS:36:TYR:N	49:DS:36:TYR:CD1	2.77	0.53
49:DS:90:GLY:C	49:DS:92:TYR:H	2.16	0.53
50:DT:55:ASN:HD22	50:DT:58:ASN:ND2	1.94	0.53
51:DU:112:ARG:HH11	51:DU:112:ARG:CG	2.16	0.53
53:DW:110:LYS:HG3	53:DW:111:HIS:ND1	2.24	0.53
55:DY:48:ALA:C	55:DY:50:ARG:H	2.16	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
17:AQ:14:LYS:HB2	17:AQ:14:LYS:HZ3	1.73	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:171:G:O2'	35:BA:172:C:H5'	2.09	0.53
35:BA:622:G:O2'	35:BA:623:G:H5'	2.09	0.53
35:BA:1019:U:H3	35:BA:1142(A):A:N6	2.07	0.53
35:BA:1187:G:H8	35:BA:1187:G:O5'	1.92	0.53
35:BA:1493:C:H4'	35:BA:1494:A:OP1	2.07	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:2786:U:O2'	39:BE:62:PRO:HA	2.08	0.53
37:BC:93:TYR:O	37:BC:94:VAL:HG13	2.09	0.53
37:BC:212:VAL:O	37:BC:213:TYR:CB	2.56	0.53
38:BD:33:LEU:HA	38:BD:36:PRO:HG3	1.89	0.53
38:BD:241:PRO:O	38:BD:242:ARG:HB2	2.09	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
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
50:BT:83:ILE:O	50:BT:84:GLN:CB	2.57	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BW:28:SER:HA	53:BW:70:TYR:HB2	1.91	0.53
54:BX:29:TRP:HA	54:BX:29:TRP:CE3	2.44	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
1:CA:1096:C:H2'	1:CA:1097:C:H6	1.72	0.53
9:CI:13:ALA:HA	9:CI:67:GLY:O	2.09	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
28:D3:52:HIS:CD2	36:DB:83:G:H4'	2.43	0.53
30:D5:3:LYS:CE	35:DA:2611:U:H1'	2.37	0.53
31:D6:12:GLU:CD	31:D6:12:GLU:N	2.67	0.53
31:D6:20:ASN:ND2	31:D6:21:TYR:N	2.52	0.53
35:DA:320:A:H3'	40:DF:136:THR:CG2	2.39	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
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
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
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:1:MET:HE2	45:DO:67:LYS:HG2	1.90	0.53
45:DO:26:LYS:HB2	45:DO:30:ALA:CB	2.38	0.53
46:DP:62:LEU:CD2	46:DP:62:LEU:H	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
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
7:AG:145:ALA:C	7:AG:147:ALA:N	2.60	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:83:ILE:O	8:AH:83:ILE:HG23	2.09	0.53
9:AI:40:LEU:C	9:AI:42:ARG:H	2.16	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
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
30:B5:3:LYS:CE	35:BA:2611:U:H1'	2.37	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: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
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
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
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
43:BI:1:MET:O	43:BI:20:ASP:HA	2.09	0.53
43:BI:78:THR:OG1	43:BI:141:LYS:HB2	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
50:BT:84:GLN:O	50:BT:85:LYS:HB2	2.07	0.53
51:BU:62:ILE:HD13	51:BU:93:LYS:HG2	1.89	0.53
55:BY:48:ALA:C	55:BY:50:ARG:H	2.17	0.53
1:CA:1149:C:OP1	9:CI:9:ARG:HD3	2.09	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
3:CC:124:ILE:C	3:CC:126:ARG:H	2.16	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
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
25:D0:77:ARG:HH22	35:DA:857:C:H5'	1.73	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
35:DA:271(Q):G:HO2'	35:DA:271(R):G:H8	1.53	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:991:C:O2'	35:DA:992:C:H5'	2.09	0.53
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
36:DB:44:G:H1'	36:DB:47:C:N4	2.23	0.53
37:DC:25:ALA:C	37:DC:27:ARG:H	2.16	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
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:636:U:C5'	17:AQ:2:PRO:HG3	2.39	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
5:AE:81:GLU:HB3	5:AE:88:LYS:HZ1	1.74	0.53
8:AH:86:ILE:CG2	8:AH:133:LEU:HD22	2.37	0.53
8:AH:119:LEU:CD1	8:AH:124:ALA:HA	2.38	0.53
12:AL:27:LEU:N	12:AL:27:LEU:HD22	2.24	0.53
14:AN:19:ARG:O	14:AN:20:ALA:C	2.52	0.53
22:AY:33:U:C3'	22:AY:34:G:H5''	2.38	0.53
31:B6:42:TRP:HA	31:B6:42:TRP:CE3	2.43	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
35:BA:492:A:H2'	35:BA:493:G:O4'	2.09	0.53
35:BA:910:A:N7	47:BQ:13:GLN:HG3	2.23	0.53
35:BA:2747:G:O6	35:BA:2755:C:H5''	2.08	0.53
35:BA:2787:C:H1'	39:BE:61:ARG:HG2	1.90	0.53
37:BC:36:LYS:HA	37:BC:36:LYS:NZ	2.24	0.53
38:BD:112:GLN:H	38:BD:115:GLN:NE2	2.06	0.53
39:BE:65:GLY:C	39:BE:67:PHE:H	2.16	0.53
39:BE:89:ASP:O	39:BE:90:THR:CB	2.55	0.53
40:BF:192:LEU:HD23	40:BF:192:LEU:C	2.34	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:29:LYS:N	46:BP:29:LYS:HD2	2.24	0.53
46:BP:83:VAL:CG1	46:BP:112:LEU:HD21	2.35	0.53
47:BQ:42:ILE:HD13	47:BQ:97:VAL:HG23	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BR:116:LEU:O	48:BR:117:VAL:C	2.52	0.53
49:BS:89:ARG:O	49:BS:90:GLY:O	2.27	0.53
53:BW:110:LYS:HG3	53:BW:111:HIS:ND1	2.24	0.53
55:BY:19:LYS:HB2	55:BY:19:LYS:HZ3	1.72	0.53
55:BY:28:LYS:HZ2	55:BY:28:LYS:N	2.07	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
1:CA:521:G:O5'	12:CL:73:GLU:HG3	2.08	0.53
1:CA:522:C:H41	12:CL:53:ARG:HH22	1.56	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:O	6:CF:40:VAL:HG13	2.09	0.53
10:CJ:25:GLU:C	10:CJ:27:ALA:H	2.16	0.53
20:CT:26:ASN:ND2	20:CT:26:ASN:N	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:999:U:O2'	35:DA:1000:A:H5''	2.08	0.53
35:DA:1108:U:H2'	35:DA:1109:C:C5'	2.39	0.53
35:DA:1594:G:C8	35:DA:1594:G:C5'	2.87	0.53
35:DA:1777:U:O2'	35:DA:1778:U: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:O	44:DN:62:VAL:HG13	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:23:ARG:HA	50:DT:52:ILE:HD11	1.90	0.53
50:DT:28:VAL:HG21	50:DT:88:ILE:CD1	2.38	0.53
51:DU:115:ALA:C	51:DU:117:GLN:H	2.17	0.53
55:DY:5:MET:HE2	55:DY:5:MET:HA	1.90	0.53
1:AA:977:A:H2'	1:AA:978:A:H5'	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
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
15:AO:82:ILE:HD13	15:AO:82:ILE:C	2.33	0.53
23:AW:16:U:C4	23:AW:18:G:H3'	2.43	0.53
27:B2:34:GLU:HA	27:B2:34:GLU:OE1	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:B5:42:PRO:HB2	30:B5:43:HIS:CD2	2.44	0.53
35:BA:65:C:O2'	35:BA:66:C:H5'	2.09	0.53
35:BA:271(K):U:H3	43:BI:50:ARG:NH1	2.06	0.53
35:BA:729:G:N7	38:BD:208:LYS:HB2	2.23	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
38:BD:147:LEU:CD1	38:BD:155:LEU:HD11	2.35	0.53
40:BF:52:LYS:HD3	40:BF:56:GLU:O	2.09	0.53
44:BN:42:TRP:HE3	44:BN:48:MET:HE1	1.74	0.53
46:BP:7:ARG:HH11	46:BP:7:ARG:C	2.17	0.53
51:BU:79:PHE:CD2	51:BU:79:PHE:C	2.86	0.53
1:CA:79:G:O6	1:CA:90:U:H4'	2.09	0.53
1:CA:826:C:H2'	1:CA:827:U:C6	2.44	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
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
6:CF:9:VAL:C	6:CF:10:LEU:HD12	2.34	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:N	31:D6:10:LEU:HD22	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:12:THR:HG23	50:DT:8:LYS:HZ1	1.74	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
44:DN:118:LYS:C	44:DN:120:LEU:H	2.16	0.53
45:DO:2:ILE:HD11	45:DO:82:ASN:HD22	1.73	0.53
49:DS:35:ILE:H	49:DS:53:SER:HB3	1.73	0.53
49:DS:96:GLY:C	49:DS:97:ARG:HG3	2.33	0.53
49:DS:106:ARG:O	49:DS:106:ARG:HD2	2.09	0.53
50:DT:83:ILE:O	50:DT:84:GLN:CB	2.57	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:184:G:H2'	1:AA:185:A:C8	2.43	0.52
1:AA:878:G:C5'	8:AH:89:PRO:HG2	2.39	0.52
1:AA:954:G:H21	1:AA:1227:A:N6	2.07	0.52
1:AA:1157:A:H4'	1:AA:1158:C:O5'	2.08	0.52
1:AA:1313:U:H2'	1:AA:1314:C:C6	2.44	0.52
1:AA:1372:U:OP1	9:AI:72:GLY:N	2.41	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
8:AH:82:HIS:HD2	8:AH:138:TRP:NE1	2.04	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: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
30:B5:2:ALA:CA	35:BA:2015:A:H1'	2.34	0.52
35:BA:1713:U:O2'	35:BA:1714:G:H5'	2.09	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
38:BD:257:LEU:CD2	38:BD:257:LEU:C	2.82	0.52
39:BE:1:MET:HG2	39:BE:83:ASP:O	2.09	0.52
39:BE:70:ALA:O	39:BE:72:VAL:N	2.43	0.52
42:BH:13:LYS:O	42:BH:15:VAL:N	2.33	0.52
44:BN:28:THR:HA	44:BN:106:MET:HE1	1.90	0.52
44:BN:28:THR:N	44:BN:106:MET:HE1	2.24	0.52
44:BN:89:LYS:O	44:BN:93:THR:HG23	2.09	0.52
46:BP:7:ARG:NH1	46:BP:7:ARG:C	2.66	0.52
49:BS:98:VAL:HG12	49:BS:100:ALA:HB2	1.90	0.52
50:BT:28:VAL:HG22	50:BT:46:GLU:CA	2.39	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
56:BZ:14:LYS:O	56:BZ:15:PRO:C	2.51	0.52
1:CA:877:C:O2'	1:CA:878:G:H5'	2.10	0.52
1:CA:1494:G:N7	58:CA:1800:PAR:N32	2.57	0.52
2:CB:44:LEU:HD12	2:CB:44:LEU:N	2.16	0.52
2:CB:116:GLU:HA	2:CB:119:GLU:CB	2.38	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
29:D4:39:ARG:O	29:D4:57:ILE:HB	2.09	0.52
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:832:G:OP1	46:DP:40:SER:HB3	2.09	0.52
35:DA:999:U:C2'	35:DA:1000:A:C5'	2.87	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
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
47:DQ:63:LYS:HZ1	56:DZ:176:PRO:HD2	1.74	0.52
47:DQ:109:VAL:CG1	47:DQ:113:GLN:HB2	2.38	0.52
48:DR:99:LYS:CD	48:DR:99:LYS:H	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: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:954:G:H4'	13:AM:120:LYS:CG	2.22	0.52
1:AA:1207:G:H2'	1:AA:1208:C:H6	1.71	0.52
1:AA:1368:G:OP2	9:AI:112:LYS:HE3	2.08	0.52
1:AA:1525:G:H2'	1:AA:1526:G:H8	1.74	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
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
17:AQ:18:THR:HG22	17:AQ:19:VAL:N	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
25:B0:77:ARG:HH22	35:BA:857:C:H5'	1.74	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
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
36:BB:111:G:C2'	36:BB:112:U:H5'	2.39	0.52
38:BD:267:SER:C	38:BD:269:PHE:N	2.68	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
46:BP:126:VAL:HG12	46:BP:148:LEU:HD11	1.90	0.52
47:BQ:42:ILE:N	47:BQ:42:ILE:CD1	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:N	51:BU:104:GLN:OE1	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
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
28:D3:52:HIS:CG	36:DB:83:G:H4'	2.45	0.52
30:D5:33:CYS:O	30:D5:34:PRO:C	2.51	0.52
35:DA:65:C:O2'	35:DA:66:C:H5'	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
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:56:LYS:C	43:DI:58:LEU:H	2.16	0.52
47:DQ:134:ARG:HE	56:DZ:122:ARG:CZ	2.22	0.52
48:DR:79:LEU:CD2	48:DR:79:LEU:C	2.82	0.52
49:DS:96:GLY:C	49:DS:98:VAL:H	2.16	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:DT:92:GLY:HA2	50:DT:114:LEU:CB	2.38	0.52
51:DU:88:ILE:HG22	52:DV:47:VAL:HG23	1.92	0.52
51:DU:92:ARG:HD2	52:DV:11:GLN:NE2	2.23	0.52
52:DV:85:LYS:HZ3	52:DV:85:LYS:HB2	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
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
5:AE:139:LEU:C	5:AE:141:GLN:H	2.17	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
28:B3:52:HIS:CG	36:BB:83:G:H4'	2.45	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
41:BG:41:GLN:HG2	41:BG:155:MET:HB3	1.90	0.52
41:BG:138:GLN:C	41:BG:140:ILE:H	2.18	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:HD12	46:BP:88:LEU:N	2.24	0.52
47:BQ:141:GLN:CD	56:BZ:72:ARG:HD3	2.34	0.52
48:BR:48:VAL:O	48:BR:49:ASP:C	2.50	0.52
1:CA:878:G:C5'	8:CH:89:PRO:HG2	2.40	0.52
1:CA:1318:A:H1'	19:CS:37:ARG:NH2	2.24	0.52
3:CC:138:VAL:C	3:CC:140:ARG:H	2.17	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
9:CI:116:LYS:HB3	9:CI:116:LYS:HZ2	1.74	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
35:DA:389:G:H22	46:DP:72:PRO:HD3	1.75	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:89:ARG:NH1	49:DS:91:PRO:HG2	2.23	0.52
49:DS:98:VAL:HG12	49:DS:100:ALA:N	2.24	0.52
1:AA:333:G:O2'	1:AA:334:C:H5'	2.10	0.52
1:AA:1250:A:H4'	9:AI:68:GLY:N	2.25	0.52
1:AA:1342:C:H1'	9:AI:124:GLN:HE22	1.73	0.52
1:AA:1346:A:H5'	9:AI:120:ARG:HH12	1.73	0.52
1:AA:1436:U:O2'	1:AA:1437: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
12:AL:21:LYS:N	12:AL:21:LYS:HD2	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
19:AS:23:ASN:C	19:AS:26:GLY:H	2.17	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:322:A:H3'	40:BF:169:ASN:ND2	2.22	0.52
35:BA:528:A:C2	35:BA:2043:C:C5'	2.93	0.52
35:BA:816:C:O2'	35:BA:817:C:H5'	2.09	0.52
35:BA:1363:C:H2'	35:BA:1364:G:C8	2.44	0.52
35:BA:2476:A:N1	35:BA:2477:C:C5	2.77	0.52
38:BD:125:ILE:HG22	38:BD:125:ILE:O	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:7:LEU:O	41:BG:8:LYS:C	2.52	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
49:BS:96:GLY:C	49:BS:97:ARG:HG3	2.33	0.52
50:BT:27:THR:HA	50:BT:87:ASP:HB2	1.90	0.52
50:BT:60:THR:HG22	50:BT:77:PRO:HA	1.91	0.52
50:BT:89:VAL:HG11	50:BT:91:ARG:NE	2.24	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:N	9:CI:4:TYR:CD1	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:780:G:OP1	38:DD:218:ARG:NH2	2.42	0.52
35:DA:925:C:H2'	35:DA:926:A:C5'	2.19	0.52
35:DA:1021:A:C8	35:DA:1021:A:C3'	2.91	0.52
35:DA:2305:A:C2	35:DA:2306:C:H1'	2.44	0.52
38:DD:118:VAL:HG22	38:DD:119:ALA:N	2.22	0.52
39:DE:47:VAL:HG23	39:DE:84:PHE:O	2.09	0.52
39:DE:57:LYS:C	39:DE:59:VAL:N	2.63	0.52
39:DE:75:VAL:O	39:DE:77:ILE:N	2.30	0.52
41:DG:16:ARG:HH11	41:DG:16:ARG:HG3	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:42:ILE:N	47:DQ:42:ILE:CD1	2.73	0.52
48:DR:18:LEU:C	48:DR:18:LEU:HD13	2.34	0.52
50:DT:86:ILE:HG12	50:DT:87:ASP:N	2.23	0.52
51:DU:21:ALA:O	51:DU:22:LYS:C	2.52	0.52
52:DV:76:LYS:HB2	52:DV:81:TYR:HB3	1.92	0.52
54:DX:46:ALA:C	54:DX:47:PHE:CD1	2.88	0.52
55:DY:8:LYS:HE2	55:DY:72:VAL:HG23	1.90	0.52
1:AA:35:G:H2'	1:AA:36:C:C6	2.44	0.52
1:AA:93:G:H2'	1:AA:93:G:N3	2.24	0.52
1:AA:245:C:O2'	1:AA:246:A:H5'	2.10	0.52
1:AA:633:G:H5'	1:AA:634:C:OP2	2.09	0.52
1:AA:1000:U:H2'	1:AA:1001:A:H8	1.74	0.52
1:AA:1163:C:H5'	10:CJ:80:LYS:HZ3	1.75	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
31:B6:52:VAL:CG1	31:B6:53:LYS:N	2.71	0.52
33:B8:35:GLN:C	33:B8:36:LYS:HG3	2.34	0.52
35:BA:118:A:H5'	35:BA:119:A:H8	1.74	0.52
35:BA:1669:A:H5''	35:BA:2550:G:OP1	2.09	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:2864:G:H5'	35:BA:2864:G:C8	2.44	0.52
39:BE:2:LYS:CE	39:BE:95:ILE:HG22	2.39	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
40:BF:126:VAL:HG13	40:BF:193:VAL:HG13	1.92	0.52
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
44:BN:38:HIS:O	51:BU:67:ALA:HB1	2.09	0.52
49:BS:89:ARG:NH1	49:BS:91:PRO:HG2	2.25	0.52
56:BZ:82:ARG:HH11	56:BZ:82:ARG:HG2	1.74	0.52
1:CA:583:A:H2'	1:CA:584:G:O4'	2.09	0.52
1:CA:750:G:H1'	15:CO:23:GLY:H	1.75	0.52
1:CA:1315:U:H2'	1:CA:1316:G:O4'	2.09	0.52
2:CB:41:ILE:HD12	2:CB:41:ILE:N	2.25	0.52
2:CB:236:TYR:HA	2:CB:239:VAL:HG21	1.91	0.52
3:CC:92:ALA:HB2	3:CC:99:VAL:CG2	2.40	0.52
3:CC:189:ALA:HB3	3:CC:196:LEU:HB2	1.89	0.52
6:CF:69:GLU:HG2	6:CF:70:ASP:N	2.20	0.52
11:CK:95:ILE:H	11:CK:95:ILE:CD1	2.23	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:271(P):C:C5'	43:DI:46:ALA:HB2	2.38	0.52
35:DA:598:G:H5'	46:DP:15:ARG:HB2	1.92	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
38:DD:72:LYS:HE2	38:DD:101:GLU:CD	2.34	0.52
39:DE:64:LYS:C	39:DE:66:HIS:H	2.18	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
46:DP:101:VAL:C	46:DP:103:ALA:N	2.67	0.52
48:DR:116:LEU:O	48:DR:117:VAL:C	2.52	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
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
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
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
35:BA:1011:G:P	51:BU:77:SER:HG	2.32	0.52
35:BA:1231:G:H2'	35:BA:1232:G:C8	2.45	0.52
35:BA:1996:C:P	45:BO:31:LYS:HZ1	2.32	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
37:BC:25:ALA:C	37:BC:27:ARG:H	2.18	0.52
37:BC:85:GLU:C	37:BC:87:GLU:H	2.18	0.52
38:BD:26:LYS:HD2	38:BD:27:THR:HG22	1.90	0.52
38:BD:244:ARG:HG2	38:BD:245:PRO:HD3	1.91	0.52
41:BG:133:LEU:HD12	41:BG:133:LEU:C	2.35	0.52
42:BH:149:ARG:NH2	42:BH:154:PRO:HG3	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
5:CE:80:ILE:HG22	8:CH:104:ARG:NH2	2.25	0.52
5:CE:139:LEU:C	5:CE:141:GLN:H	2.17	0.52
13:CM:25:ILE:HD12	13:CM:25:ILE:N	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
14:CN:19:ARG:O	14:CN:20:ALA:C	2.52	0.52
18:CR:31:LEU:CD2	18:CR:31:LEU:H	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:71:A:H2	54:DX:31:HIS:HE1	1.58	0.52
35:DA:814:C:O2'	35:DA:815:C:H5'	2.09	0.52
35:DA:1652:A:H2'	35:DA:1653:G:H5'	1.92	0.52
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
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
55:DY:27:VAL:HA	55:DY:28:LYS:NZ	2.21	0.52
55:DY:90:LEU:HD12	55:DY:90:LEU:C	2.35	0.52
55:DY:96:ILE:HG22	55:DY:97:ARG:N	2.25	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:H2'	1:AA:474:G:C8	2.45	0.52
1:AA:473:G:H5''	16:AP:81:ARG:HE	1.75	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
1:AA:1329:A:P	13:AM:28:ALA:HB3	2.50	0.52
1:AA:1521:G:H2'	1:AA:1522:U:H6	1.75	0.52
3:AC:16:ARG:HG3	3:AC:17:ASP:N	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:8:VAL:C	4:AD:10:ARG:N	2.66	0.52
4:AD:23:GLY:O	4:AD:27:TYR:HD1	1.93	0.52
5:AE:136:MET:C	5:AE:138:ALA:N	2.67	0.52
9:AI:9:ARG:HG3	9:AI:14:VAL:HG13	1.92	0.52
9:AI:43:ALA:C	9:AI:45:ALA:H	2.18	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
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:16:LEU:HD12	19:AS:16:LEU:N	2.25	0.52
31:B6:12:GLU:CD	31:B6:12:GLU:N	2.67	0.52
33:B8:30:ARG:CZ	35:BA:2419:U:O4	2.56	0.52
35:BA:179:G:O2'	35:BA:180:G:H5'	2.09	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
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:2580:U:OP1	39:BE:131:ALA:HB2	2.10	0.52
37:BC:56:GLN:O	37:BC:57:ASN:HB2	2.08	0.52
38:BD:13:ARG:HA	38:BD:16:MET:HE3	1.91	0.52
39:BE:16:ARG:C	39:BE:18:ASP:N	2.66	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:CD1	45:BO:32:TYR:N	2.77	0.52
47:BQ:34:LEU:HD12	47:BQ:130:LYS:O	2.09	0.52
47:BQ:141:GLN:HA	56:BZ:53:ILE:CG1	2.39	0.52
47:BQ:141:GLN:HB2	56:BZ:99:TYR:CD2	2.44	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
55:BY:90:LEU:HD12	55:BY:90:LEU:C	2.35	0.52
56:BZ:44:PHE:CE2	56:BZ:86:VAL:HG11	2.44	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
1:CA:887:G:H21	1:CA:1489:G:H4'	1.75	0.52
1:CA:978:A:O2'	1:CA:1322:C:N3	2.41	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1313:U:H2'	1:CA:1314:C:C6	2.44	0.52
2:CB:63:MET:HB3	2:CB:225:ALA:HB1	1.91	0.52
2:CB:194:PRO:HA	2:CB:200:ILE:CD1	2.40	0.52
3:CC:41:GLY:O	3:CC:45:LYS:HG3	2.09	0.52
3:CC:119:ARG:HH21	3:CC:140:ARG:CZ	2.22	0.52
8:CH:1:MET:HE2	8:CH:1:MET:H2	1.75	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
9:CI:43:ALA:C	9:CI:45:ALA:H	2.18	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:135:G:O2'	35:DA:136:G:H5'	2.10	0.52
35:DA:313:C:O2'	35:DA:314:A:H5'	2.10	0.52
35:DA:1215:G:O2'	35:DA:1216: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
42:DH:152:ARG:O	42:DH:153:LYS:O	2.27	0.52
44:DN:28:THR:HA	44:DN:106:MET:HE1	1.91	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:13:VAL:HA	55:DY:75:ILE:HG22	1.92	0.52
55:DY:20:TYR:N	55:DY:20:TYR:CD1	2.75	0.52
55:DY:81:LYS:CB	55:DY:96:ILE:HG22	2.39	0.52
56:DZ:77:ASP:C	56:DZ:79:ARG:H	2.18	0.52
56:DZ:100:VAL:O	56:DZ:123:ASP:HB2	2.10	0.52
1:AA:184:G:O4'	1:AA:224:C:H4'	2.09	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
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:52:LEU:HD23	3:AC:52:LEU:N	2.19	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:97:VAL:O	8:AH:100:ILE:HG13	2.09	0.52
9:AI:4:TYR:N	9:AI:4:TYR:CD1	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:135:G:O2'	35:BA:136:G:H5'	2.09	0.52
35:BA:1040:C:H6	35:BA:1040:C:OP2	1.93	0.52
35:BA:1532:C:O2	35:BA:1532:C:C2'	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:HD12	40:BF:28:ILE:O	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
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
48:BR:18:LEU:HD13	48:BR:18:LEU:C	2.35	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:186:C:H1'	20:CT:85:MET:CE	2.40	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
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:O2	22:CY:62:C:H2'	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:HG3	32:D7:9:ARG:NH1	2.22	0.52
33:D8:35:GLN:C	33:D8:36:LYS:HG3	2.35	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: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
35:DA:1257:C:H4'	40:DF:83:PHE:CE2	2.45	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2646:C:H2'	35:DA:2647:U:O4'	2.10	0.52
36:DB:94:C:H2'	36:DB:95:C:H6	1.75	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
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:97:ARG:HH21	49:DS:98:VAL:CA	2.01	0.52
53:DW:1:MET:HE2	53:DW:2:GLU:O	2.10	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
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
1:AA:1445:C:C2'	1:AA:1446:U:H5'	2.40	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:HH11	14:AN:29:ARG:HG3	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
26:B1:76:ARG:NH2	35:BA:271(R):G:OP1	2.43	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: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
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:H5'	35:BA:2263:C:C6	2.29	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
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:N	42:BH:123:PHE:CD1	2.78	0.52
44:BN:126:PRO:O	44:BN:127:ASP:CB	2.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BQ:20:ALA:O	47:BQ:21:THR:OG1	2.26	0.52
50:BT:64:ARG:HD2	50:BT:73:GLU:CD	2.35	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
55:BY:81:LYS:NZ	55:BY:97:ARG:O	2.39	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
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	1.56	0.52
6:CF:19:LEU:HD23	6:CF:19:LEU:C	2.35	0.52
13:CM:107:ALA:C	13:CM:109:THR:H	2.18	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
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:70:THR:C	42:DH:72:ILE:N	2.67	0.52
42:DH:123:PHE:N	42:DH:123:PHE:CD1	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
46:DP:99:LEU:HD23	46:DP:99:LEU:C	2.35	0.52
50:DT:27:THR:HA	50:DT:87:ASP:HB2	1.91	0.52
50:DT:61:PHE:CE2	50:DT:76:PHE:HB2	2.45	0.52
51:DU:54:LYS:O	51:DU:58:ARG:HG3	2.10	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
1:AA:1149:C:OP1	9:AI:9:ARG:HD3	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
7:AG:113:GLU:HB2	7:AG:119:ARG:HG2	1.92	0.52
11:AK:99:GLN:HA	11:AK:105:VAL:HG11	1.92	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:108:U:H2'	35:BA:109:G:H8	1.75	0.52
35:BA:225:A:H2'	35:BA:226:G:H5'	1.91	0.52
35:BA:260:G:C2	35:BA:261:G:H1'	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:498:G:O2'	35:BA:499:U:H5'	2.10	0.52
35:BA:648:G:O4'	35:BA:2351:G:H5''	2.09	0.52
35:BA:855:G:H2'	35:BA:856:C:H6	1.71	0.52
35:BA:999:U:O2'	35:BA:1000:A:H5''	2.10	0.52
35:BA:2126:A:H8	35:BA:2126:A:OP2	1.93	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
38:BD:35:LYS:N	38:BD:36:PRO:CD	2.70	0.52
38:BD:166:GLN:CA	38:BD:166:GLN:NE2	2.70	0.52
40:BF:23:ASP:O	40:BF:115:ALA:HA	2.10	0.52
40:BF:111:ALA:HB2	40:BF:206:ILE:HD13	1.92	0.52
41:BG:5:VAL:O	41:BG:6:ALA:C	2.52	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:CD1	49:BS:36:TYR:N	2.78	0.52
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:473:G:H5''	16:CP:81:ARG:HE	1.75	0.52
1:CA:918:A:O2'	1:CA:919:A:H5'	2.10	0.52
1:CA:1342:C:H1'	9:CI:124:GLN:HE22	1.75	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
14:CN:37:PHE:C	14:CN:39:LEU:N	2.65	0.52
16:CP:3:LYS:O	16:CP:21:VAL:HA	2.09	0.52
17:CQ:31:LEU:HG	17:CQ:32:TYR:CE2	2.45	0.52
19:CS:48:THR:C	19:CS:49:ILE:HD12	2.35	0.52
22:CV:41:C:O2	22:CV:41:C:C2'	2.54	0.52
22:CY:44:G:H2'	22:CY:45:U:O4'	2.09	0.52
35:DA:321:G:OP2	40:DF:136:THR:HG22	2.10	0.52
35:DA:336:C:O2'	35:DA:337:C:H5'	2.10	0.52
35:DA:661:C:H4'	46:DP:16:ARG:NH1	2.25	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
37:DC:36:LYS:HA	37:DC:36:LYS:NZ	2.23	0.52
39:DE:59:VAL:HG11	39:DE:63:LEU:HG	1.91	0.52
40:DF:66:PRO:O	40:DF:67:GLN:CB	2.56	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DH:159:GLU:HG3	42:DH:160:LYS:H	1.75	0.52
43:DI:81:VAL:HG12	43:DI:82:ARG:N	2.23	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
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
56:DZ:13:GLU:O	56:DZ:15:PRO:HD3	2.10	0.52
1:AA:975:A:C4'	1:AA:976:G:H5''	2.32	0.51
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
2:AB:50:GLU:HG3	2:AB:202:PRO:CG	2.40	0.51
4:AD:154:ASN:O	4:AD:155:LEU:C	2.53	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
9:AI:3:GLN:CD	9:AI:20:ARG:HH12	2.18	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
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:560:C:H4'	51:BU:52:ARG:CZ	2.39	0.51
35:BA:598:G:H5'	46:BP:15:ARG:HB2	1.91	0.51
35:BA:718:A:H2'	35:BA:719:C:O4'	2.10	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
38:BD:35:LYS:NZ	38:BD:61:LEU:HG	2.25	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
40:BF:123:LEU:HD12	40:BF:124:LEU:N	2.18	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BI:94:ALA:C	43:BI:96:ASP:N	2.65	0.51
45:BO:88:ASN:OD1	45:BO:92:GLU:O	2.27	0.51
47:BQ:1:MET:HE3	47:BQ:48:GLU:CB	2.40	0.51
50:BT:86:ILE:HG12	50:BT:87:ASP:N	2.24	0.51
50:BT:124:ASP:C	50:BT:126:ALA:N	2.69	0.51
51:BU:98:LEU:HD13	51:BU:105:VAL:HG11	1.92	0.51
55:BY:5:MET:HE2	55:BY:5:MET:HA	1.92	0.51
56:BZ:11:GLU:CD	56:BZ:11:GLU:N	2.68	0.51
1:CA:127:G:HO2'	17:CQ:2:PRO:N	2.08	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
1:CA:1096:C:H2'	1:CA:1097:C:C6	2.45	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:12:ARG:NH1	8:CH:27:PRO:HD3	2.25	0.51
9:CI:17:VAL:HG11	9:CI:81:ILE:HD13	1.91	0.51
9:CI:125:TYR:HD2	9:CI:126:SER:H	1.58	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
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
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
38:DD:8:PRO:C	38:DD:10:THR:H	2.18	0.51
39:DE:109:LYS:HB3	48:DR:2:ARG:HH12	1.73	0.51
40:DF:53:THR:HG23	40:DF:55:GLY:H	1.74	0.51
40:DF:116:ASP:OD2	46:DP:5:ASP:N	2.43	0.51
40:DF:180:GLY:O	40:DF:181:LEU:C	2.52	0.51
41:DG:17:PRO:C	41:DG:19:LEU:H	2.17	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
49:DS:74:ALA:HB1	49:DS:103:GLU:HG3	1.92	0.51
49:DS:93:LYS:O	49:DS:94:TYR:C	2.53	0.51
52:DV:39:LEU:HD12	52:DV:51:VAL:HA	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DV:91:TYR:CD1	52:DV:91:TYR:C	2.88	0.51
55:DY:8:LYS:H	55:DY:8:LYS:CD	2.15	0.51
1:AA:52:G:H2'	1:AA:53:A:C8	2.45	0.51
1:AA:1158:C:O2	1:AA:1158:C:H2'	2.11	0.51
1:AA:1298:C:H4'	1:AA:1299:A:O4'	2.10	0.51
1:AA:1409:C:H4'	35:BA:1915:U:O4	2.10	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:CD2	18:AR:31:LEU:H	2.24	0.51
19:AS:48:THR:C	19:AS:49:ILE:HD12	2.35	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
35:BA:271(T):C:O2'	35:BA:271(U):G:H5'	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
40:BF:38:ARG:HH12	46:BP:16:ARG:HH22	1.58	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
46:BP:108:LYS:C	46:BP:110:TYR:N	2.68	0.51
48:BR:94:TYR:N	48:BR:94:TYR:CD1	2.78	0.51
55:BY:20:TYR:N	55:BY:20:TYR:CD1	2.77	0.51
56:BZ:4:ARG:HG2	56:BZ:58:VAL:HB	1.92	0.51
56:BZ:116:VAL:H	56:BZ:174:VAL:HG13	1.75	0.51
1:CA:335:C:H2'	1:CA:336:C:C6	2.46	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
1:CA:1298:C:H4'	1:CA:1299:A:O4'	2.11	0.51
8:CH:44:PHE:HD1	8:CH:79:VAL:HG12	1.75	0.51
9:CI:99:LEU:O	9:CI:100:GLY:C	2.53	0.51
12:CL:55:VAL:CG1	12:CL:56:ALA:N	2.72	0.51
14:CN:3:ARG:HH11	14:CN:3:ARG:CB	2.21	0.51
15:CO:9:GLN:HA	15:CO:12:ILE:HD12	1.91	0.51
18:CR:50:ILE:O	18:CR:51:LEU:C	2.52	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:558:G:OP1	44:DN:111:PRO:HD2	2.10	0.51
35:DA:560:C:H4'	51:DU:52:ARG:CZ	2.40	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
36:DB:41:U:H5	41:DG:69:ALA:HB1	1.73	0.51
37:DC:85:GLU:C	37:DC:87:GLU:H	2.19	0.51
38:DD:13:ARG:HA	38:DD:16:MET:HE3	1.92	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
40:DF:177:ALA:HB1	40:DF:178:PRO:HD2	1.91	0.51
41:DG:137:GLU:HA	41:DG:152:LEU:HD11	1.92	0.51
42:DH:156:ALA:O	42:DH:157:TYR:C	2.53	0.51
43:DI:117:GLU:HG3	43:DI:118:LYS:H	1.75	0.51
44:DN:101:HIS:O	44:DN:102:ALA:C	2.54	0.51
50:DT:102:ILE:HG13	50:DT:103:ARG:N	2.25	0.51
56:DZ:8:TYR:HD2	56:DZ:62:PRO:HG3	1.75	0.51
1:AA:59:A:C5'	1:AA:60:A:H5''	2.41	0.51
1:AA:132:C:O2'	1:AA:133:U:H5'	2.10	0.51
1:AA:261:U:OP2	20:AT:79:ARG:NH2	2.43	0.51
1:AA:523:A:N1	12:AL:92:ASP:HB2	2.24	0.51
1:AA:1028:C:H2'	1:AA:1033:G:H22	1.76	0.51
2:AB:178:ARG:HH11	2:AB:178:ARG:CB	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
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
12:AL:119:LYS:O	12:AL:120:TYR:HB2	2.10	0.51
18:AR:50:ILE:O	18:AR:51:LEU:C	2.53	0.51
22:AY:28:G:H2'	22:AY:29:G:H8	1.75	0.51
26:B1:78:LYS:C	26:B1:80:LEU:H	2.18	0.51
31:B6:16:CYS:H	31:B6:47:THR:CG2	2.24	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:B6:19:ARG:HD2	31:B6:19:ARG:N	2.23	0.51
33:B8:19:SER:HB2	33:B8:21:LYS:HG3	1.92	0.51
35:BA:154(A):C:N4	35:BA:171:G:N1	2.59	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: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
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:HD12	43:BI:109:ILE:N	2.25	0.51
46:BP:13:ASN:O	46:BP:15:ARG:N	2.43	0.51
46:BP:139:LYS:C	46:BP:141:ALA:H	2.17	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
55:BY:37:VAL:O	55:BY:38:ILE:HG12	2.10	0.51
1:CA:523:A:N1	12:CL:92:ASP:HB2	2.25	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
1:CA:1028:C:H2'	1:CA:1033:G:H22	1.75	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
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
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
8:CH:45:ILE:C	8:CH:47:GLY:H	2.17	0.51
11:CK:125:PHE:N	11:CK:125:PHE:CD1	2.79	0.51
15:CO:38:ARG:HH11	15:CO:38:ARG:HG2	1.75	0.51
16:CP:49:LEU:O	16:CP:49:LEU:HG	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
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:228:A:H2'	35:DA:230:U:O4'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:271(D):G:H1	35:DA:271(T):C:N4	2.08	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: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: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
38:DD:245:PRO:O	38:DD:246:PRO:C	2.53	0.51
39:DE:2:LYS:HA	39:DE:84:PHE:CE2	2.45	0.51
39:DE:30:PRO:HD3	39:DE:180:ASN:ND2	2.26	0.51
40:DF:80:ALA:O	40:DF:83:PHE:HB2	2.09	0.51
40:DF:192:LEU:HD23	40:DF:192:LEU:C	2.35	0.51
41:DG:16:ARG:N	41:DG:17:PRO:HD2	2.25	0.51
46:DP:48:PRO:HG2	46:DP:49:ARG:N	2.16	0.51
47:DQ:48:GLU:O	47:DQ:48:GLU:HG3	2.10	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
53:DW:37:ARG:HH11	53:DW:37:ARG:HG3	1.75	0.51
1:AA:79:G:O6	1:AA:90:U:H4'	2.09	0.51
1:AA:139:G:H2'	1:AA:140:A:H8	1.76	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: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:1466:C:C2'	1:AA:1467:G:H5'	2.39	0.51
2:AB:24:TRP:CD1	2:AB:24:TRP:H	2.28	0.51
2:AB:41:ILE:HD12	2:AB:41:ILE:N	2.25	0.51
2:AB:216:SER:C	2:AB:218:ALA:H	2.17	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
13:AM:65:LYS:HB3	13:AM:65:LYS:HZ3	1.75	0.51
20:AT:26:ASN:N	20:AT:26:ASN:HD22	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
33:B8:35:GLN:O	33:B8:36:LYS:HG3	2.11	0.51
35:BA:271(D):G:O2'	35:BA:271(E):U:H5'	2.10	0.51
35:BA:847:U:C2'	35:BA:848:G:H5''	2.36	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1040:C:O2'	35:BA:1041:C:P	2.69	0.51
35:BA:2051:A:H8	35:BA:2051:A:OP2	1.94	0.51
35:BA:2171:A:O2'	35:BA:2172:U:O5'	2.28	0.51
35:BA:2590:A:OP2	38:BD:238:GLY:HA2	2.10	0.51
35:BA:2825:C:H2'	35:BA:2826:A:O4'	2.09	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
40:BF:4:VAL:HA	40:BF:18:ARG:O	2.11	0.51
41:BG:47:LYS:N	41:BG:51:ARG:HD2	2.25	0.51
41:BG:110:ALA:O	41:BG:111:LEU:C	2.54	0.51
41:BG:126:ASP:HA	41:BG:166:ASP:OD1	2.11	0.51
44:BN:118:LYS:C	44:BN:120:LEU:H	2.19	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
52:BV:85:LYS:HB2	52:BV:85:LYS:HZ3	1.76	0.51
56:BZ:44:PHE:CD1	56:BZ:44:PHE:C	2.89	0.51
1:CA:794:A:H4'	1:CA:1521:G:O2'	2.10	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
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:128:VAL:O	4:CD:129:ASN:C	2.54	0.51
4:CD:132:ARG:O	4:CD:132:ARG:HD2	2.10	0.51
9:CI:3:GLN:CD	9:CI:20:ARG:HH12	2.18	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
9:CI:102:LEU:HD23	9:CI:103:THR:N	2.25	0.51
11:CK:21:ILE:HG13	11:CK:30:VAL:HG12	1.92	0.51
12:CL:32:PHE:HB3	12:CL:84:LEU:HD21	1.92	0.51
12:CL:126:LYS:HD2	12:CL:127:GLU:H	1.75	0.51
13:CM:28:ALA:C	13:CM:30:ALA:N	2.68	0.51
15:CO:12:ILE:C	15:CO:14:GLU:H	2.18	0.51
22:CY:16:U:H3'	22:CY:17:C:C5'	2.37	0.51
35:DA:271(M):G:C2'	35:DA:271(N):U:H5''	2.38	0.51
35:DA:911:A:C5	47:DQ:9:TYR:CD1	2.98	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:H2'	35:DA:2399:G:N3	2.25	0.51
35:DA:2580:U:OP1	39:DE:131:ALA:HB2	2.11	0.51
35:DA:2777:G:C4'	35:DA:2778:A:H5'	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DG:47:LYS:H	41:DG:51:ARG:HD2	1.76	0.51
41:DG:125:PHE:N	41:DG:125:PHE:CD1	2.77	0.51
43:DI:81:VAL:CG2	43:DI:142:VAL:HB	2.41	0.51
43:DI:123:LEU:HD11	43:DI:144:VAL:HG13	1.91	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
46:DP:67:MET:HA	46:DP:67:MET:HE3	1.92	0.51
49:DS:89:ARG:O	49:DS:90:GLY:O	2.28	0.51
50:DT:31:SER:C	50:DT:32:TYR:CD2	2.88	0.51
51:DU:104:GLN:CD	51:DU:104:GLN:H	2.18	0.51
52:DV:21:ARG:HD3	52:DV:21:ARG:N	2.24	0.51
1:AA:107:G:C2'	1:AA:108:G:H5'	2.40	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
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
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:99:LEU:O	9:AI:100:GLY:C	2.53	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:70:G:H2'	35:BA:113:G:O2'	2.11	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:1140:C:H5''	44:BN:66:LYS:HZ3	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
36:BB:74:U:H2'	36:BB:75:G:O4'	2.10	0.51
36:BB:109:C:H5'	36:BB:110:G:O5'	2.11	0.51
37:BC:95:GLY:CA	37:BC:99:ILE:HD12	2.40	0.51
38:BD:166:GLN:HE21	38:BD:166:GLN:N	2.09	0.51
39:BE:81:ILE:O	39:BE:82:ARG:CB	2.57	0.51
39:BE:175:VAL:O	39:BE:175:VAL:HG13	2.10	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
43:BI:79:ILE:HD11	43:BI:100:ALA:HB1	1.91	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: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
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
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
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
36:DB:42:C:C4'	41:DG:67:LYS:O	2.58	0.51
38:DD:10:THR:HG23	38:DD:13:ARG:HB2	1.92	0.51
39:DE:52:LEU:CD1	50:DT:1:MET:HE3	2.39	0.51
41:DG:61:ALA:CA	41:DG:64:THR:HG22	2.35	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:67:LEU:HD23	56:DZ:90:VAL:HG11	1.93	0.51
56:DZ:102:LEU:HD12	56:DZ:102:LEU:N	2.25	0.51
1:AA:731:G:O2'	1:AA:732:C:H5'	2.10	0.51
3:AC:77:ILE:C	3:AC:83:ARG:HB3	2.35	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:128:VAL:O	4:AD:129:ASN:C	2.54	0.51
7:AG:76:ARG:HH11	7:AG:76:ARG:HG2	1.74	0.51
8:AH:44:PHE:HA	8:AH:79:VAL:HG11	1.92	0.51
9:AI:19:LEU:C	9:AI:20:ARG:HD2	2.35	0.51
9:AI:102:LEU:HD23	9:AI:103:THR:N	2.25	0.51
31:B6:20:ASN:CG	31:B6:21:TYR:N	2.68	0.51
31:B6:51:GLU:O	31:B6:52:VAL:HG23	2.11	0.51
35:BA:27:G:N2	35:BA:512:G:C2'	2.74	0.51
35:BA:228:A:H2'	35:BA:230:U:O4'	2.10	0.51
35:BA:661:C:H4'	46:BP:16:ARG:HH12	1.76	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
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: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
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
48:BR:79:LEU:CD2	48:BR:79:LEU:C	2.83	0.51
49:BS:22:GLY:O	49:BS:23:ARG:O	2.29	0.51
49:BS:90:GLY:C	49:BS:92:TYR:H	2.18	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:HB2	52:BV:68:LYS:NZ	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
9:CI:19:LEU:C	9:CI:20:ARG:HD2	2.36	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DG:25:TYR:HA	41:DG:30:GLU:OE2	2.11	0.51
42:DH:68:THR:C	42:DH:70:THR:H	2.18	0.51
43:DI:94:ALA:C	43:DI:96:ASP:N	2.67	0.51
45:DO:119:PRO:HB2	50:DT:68:TYR:CE1	2.45	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
51:DU:57:PHE:O	51:DU:58:ARG:C	2.54	0.51
51:DU:83:LEU:CG	51:DU:88:ILE:HD11	2.32	0.51
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:186:C:H4'	20:AT:82:SER:HB3	1.93	0.51
1:AA:651:C:H2'	1:AA:652:U:C6	2.46	0.51
1:AA:933:G:OP2	7:AG:3:ARG:HB3	2.11	0.51
1:AA:980:C:H3'	1:AA:981:U:C6	2.46	0.51
1:AA:1251:A:H1'	1:AA:1369:C:O2'	2.11	0.51
4:AD:28:SER:C	4:AD:30:LYS:H	2.19	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
10:AJ:25:GLU:C	10:AJ:27:ALA:H	2.17	0.51
11:AK:41:THR:HG21	11:AK:71:LYS:CB	2.41	0.51
11:AK:53:SER:C	11:AK:55:LYS:H	2.18	0.51
12:AL:83:VAL:HG13	12:AL:84:LEU:N	2.24	0.51
13:AM:91:ARG:HB2	13:AM:98:VAL:HG22	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:661:C:H2'	35:BA:662:G:C8	2.45	0.51
35:BA:1257:C:H4'	40:BF:83:PHE:CE2	2.46	0.51
35:BA:1484:G:H22	35:BA:1505:C:H5	1.59	0.51
35:BA:1762:A:O5'	35:BA:1762:A:C8	2.64	0.51
38:BD:72:LYS:HE2	38:BD:101:GLU:CD	2.35	0.51
38:BD:133:LEU:HD23	38:BD:189:CYS:O	2.11	0.51
39:BE:134:ILE:HG12	39:BE:134:ILE:O	2.10	0.51
40:BF:63:LYS:HA	40:BF:76:GLY:O	2.09	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:17:LYS:C	46:BP:19:VAL:N	2.67	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
55:BY:2:ARG:HD3	55:BY:2:ARG:C	2.36	0.51
1:CA:186:C:H4'	20:CT:82:SER:HB3	1.92	0.51
1:CA:681:C:O2'	1:CA:682:G:H5'	2.11	0.51
1:CA:1299:A:C8	1:CA:1301:U:H1'	2.45	0.51
4:CD:162:LEU:HD12	4:CD:181:MET:HE2	1.92	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:HG23	8:CH:83:ILE:O	2.10	0.51
9:CI:40:LEU:C	9:CI:42:ARG:H	2.16	0.51
9:CI:41:VAL:O	9:CI:41:VAL:HG12	2.10	0.51
12:CL:32:PHE:HB3	12:CL:84:LEU:CD2	2.41	0.51
12:CL:119:LYS:O	12:CL:120:TYR:HB2	2.10	0.51
29:D4:46:ASN:C	29:D4:46:ASN:ND2	2.69	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:1566:A:C4	38:DD:214:TRP:CE3	2.99	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
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:HH11	40:DF:164:ARG:HG2	1.75	0.51
41:DG:77:ILE:N	41:DG:83:ARG:HB3	2.25	0.51
41:DG:108:ASN:C	41:DG:112:PRO:HG2	2.36	0.51
41:DG:131:TYR:HE2	41:DG:133:LEU:HD23	1.76	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
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
1:AA:1426:C:H2'	1:AA:1427:U:H6	1.74	0.51
3:AC:66:VAL:HG12	3:AC:66:VAL:O	2.11	0.51
3:AC:139:GLN:O	3:AC:143:GLU:HB2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:40:VAL:O	6:AF:40:VAL:HG13	2.10	0.51
10:AJ:7:LYS:HD3	10:AJ:71:LEU:HD13	1.93	0.51
10:AJ:40:LEU:HG	10:AJ:69:ASN:HB2	1.93	0.51
12:AL:60:LEU:N	12:AL:60:LEU:HD22	2.25	0.51
17:AQ:76:LEU:HG	17:AQ:77:VAL:H	1.75	0.51
25:B0:41:ARG:HD2	25:B0:41:ARG:N	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:1243:G:O2'	46:BP:9:ASN:HA	2.10	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
40:BF:57:VAL:HG12	40:BF:59:TYR:CD1	2.46	0.51
42:BH:27:LYS:HE3	42:BH:32:GLU:OE1	2.11	0.51
42:BH:85:LYS:HD3	42:BH:133:VAL:HB	1.93	0.51
42:BH:156:ALA:O	42:BH:157:TYR:C	2.53	0.51
43:BI:29:TYR:HE1	43:BI:33:ARG:HE	1.59	0.51
45:BO:66:LYS:NZ	45:BO:78:ARG:HD2	2.26	0.51
45:BO:68:GLU:HB3	45:BO:78:ARG:HB2	1.93	0.51
48:BR:92:GLY:HA2	48:BR:94:TYR:CE1	2.46	0.51
50:BT:129:ARG:NH1	50:BT:130:ALA:O	2.43	0.51
55:BY:96:ILE:HG22	55:BY:97:ARG:N	2.26	0.51
56:BZ:11:GLU:N	56:BZ:11:GLU:OE2	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:26:A:H61	1:CA:558:G:H1'	1.73	0.51
1:CA:323:U:H4'	20:CT:22:ARG:HB2	1.93	0.51
1:CA:973:G:N3	10:CJ:55:LYS:NZ	2.58	0.51
1:CA:1041:A:H2'	1:CA:1042:G:C8	2.46	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
13:CM:30:ALA:C	13:CM:32:GLU:H	2.19	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
22:CV:20:U:C3'	22:CV:21:A:H5''	2.39	0.51
28:D3:45:GLY:HA3	35:DA:851:U:HO2'	1.76	0.51
30:D5:6:VAL:HG23	35:DA:2015:A:C2	2.45	0.51
33:D8:56:GLU:O	33:D8:59:LYS:HE3	2.10	0.51
35:DA:322:A:H3'	40:DF:169:ASN:ND2	2.24	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1762:A:O5'	35:DA:1762:A:C8	2.63	0.51
35:DA:1797:C:O2'	38:DD:259:THR:CG2	2.58	0.51
35:DA:2801(A):A:C4'	35:DA:2802:G:H5'	2.23	0.51
38:DD:11:PRO:C	38:DD:13:ARG:N	2.67	0.51
38:DD:18:VAL:CG1	38:DD:19:ALA:N	2.73	0.51
40:DF:187:VAL:HG13	46:DP:5:ASP:O	2.11	0.51
45:DO:36:GLY:HA3	45:DO:109:LYS:HG3	1.93	0.51
47:DQ:34:LEU:HD12	47:DQ:130:LYS:O	2.10	0.51
55:DY:97:ARG:HH11	55:DY:97:ARG:HG2	1.76	0.51
56:DZ:68:PRO:O	56:DZ:69:THR:HG23	2.10	0.51
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:10:PRO:HB2	13:AM:18:ALA:HB1	1.93	0.51
13:AM:107:ALA:C	13:AM:109:THR:H	2.18	0.51
16:AP:82:GLN:N	16:AP:82:GLN:HE21	2.09	0.51
18:AR:31:LEU:HD23	18:AR:31:LEU:H	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
27:B2:42:GLY:O	27:B2:43:GLN:C	2.53	0.51
30:B5:39:MET:HG3	53:BW:34:ASN:OD1	2.10	0.51
35:BA:271(P):C:C5'	43:BI:46:ALA:HB2	2.40	0.51
35:BA:780:G:H21	35:BA:783:A:H62	1.59	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:2528:U:H2'	35:BA:2530:A:O5'	2.11	0.51
35:BA:2749:A:H2'	35:BA:2750:A:C8	2.45	0.51
36:BB:52:A:C8	49:BS:33:LYS:NZ	2.76	0.51
39:BE:5:LEU:HD23	39:BE:5:LEU:N	2.24	0.51
39:BE:116:VAL:HG22	39:BE:117:MET:N	2.25	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
45:BO:1:MET:HE3	45:BO:67:LYS:HG2	1.92	0.51
49:BS:101:LEU:HD13	49:BS:101:LEU:H	1.75	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:545:C:OP1	4:CD:61:LYS:NZ	2.44	0.51
1:CA:1292:U:H2'	1:CA:1293:G:C8	2.46	0.51
2:CB:21:ARG:HD2	2:CB:38:GLY:CA	2.41	0.51
2:CB:165:VAL:HG23	2:CB:166:ASP:N	2.26	0.51
3:CC:9:GLY:HA2	3:CC:12:LEU:HB2	1.91	0.51
3:CC:34:LEU:HD23	3:CC:34:LEU:C	2.36	0.51
4:CD:28:SER:C	4:CD:30:LYS:H	2.19	0.51
13:CM:14:ARG:HA	13:CM:43:THR:O	2.10	0.51
29:D4:45:GLY:O	29:D4:46:ASN:C	2.54	0.51
30:D5:20:ARG:HA	30:D5:23:HIS:ND1	2.26	0.51
31:D6:15:GLU:CA	31:D6:47:THR:HG21	2.40	0.51
35:DA:27:G:N2	35:DA:512:G:C2'	2.74	0.51
35:DA:271(S):G:O2'	35:DA:271(T):C:H5''	2.09	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:1615:C:C2	53:DW:87:PRO:HG3	2.46	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
38:DD:109:ASP:HB2	38:DD:197:GLY:HA2	1.93	0.51
38:DD:147:LEU:CD1	38:DD:155:LEU:HD11	2.37	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
44:DN:110:GLY:C	44:DN:114:ARG:HH21	2.18	0.51
44:DN:133:GLN:CG	44:DN:134:ARG:H	2.17	0.51
46:DP:7:ARG:HH11	46:DP:7:ARG:C	2.19	0.51
46:DP:50:ARG:HG2	46:DP:50:ARG:HH21	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
49:DS:19:LYS:C	49:DS:20:ARG:NH1	2.69	0.51
51:DU:61:TRP:O	51:DU:62:ILE:C	2.53	0.51
51:DU:79:PHE:C	51:DU:79:PHE:CD2	2.86	0.51
56:DZ:107:THR:CG2	56:DZ:111:VAL:HG11	2.41	0.51
1:AA:34:C:H2'	1:AA:35:G:C8	2.46	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1313:U:OP1	19:AS:6:LYS:HB2	2.10	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
13:AM:30:ALA:C	13:AM:32:GLU:H	2.17	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
20:AT:84:LEU:HD13	20:AT:84:LEU:C	2.35	0.51
27:B2:63:VAL:O	27:B2:66:GLU:HG2	2.11	0.51
34:B9:20:HIS:C	34:B9:22:ARG:H	2.19	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
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
40:BF:53:THR:HG23	40:BF:55:GLY:H	1.75	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
41:BG:133:LEU:HD11	41:BG:157:ILE:CG2	2.40	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
54:BX:75:ASP:C	54:BX:76:ARG:HG3	2.36	0.51
1:CA:22:G:H4'	1:CA:885:G: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:990:C:H2'	1:CA:991:U:C6	2.46	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
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:HG12	7:CG:69:VAL:O	2.11	0.51
9:CI:5:TYR:HA	9:CI:17:VAL:O	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:63:PHE:C	14:CN:59:ALA:HB2	2.35	0.51
13:CM:11:ARG:O	13:CM:13:LYS:N	2.43	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: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
35:DA:2786:U:H2'	35:DA:2787:C:H6	1.75	0.51
35:DA:2864:G:H5'	35:DA:2864:G:C8	2.46	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:33:LEU:HD22	38:DD:34:VAL:N	2.18	0.51
38:DD:165:ILE:HD13	38:DD:175:LEU:CD2	2.40	0.51
38:DD:166:GLN:HE21	38:DD:166:GLN:N	2.08	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
40:DF:70:THR:C	40:DF:72:ARG:N	2.67	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
46:DP:27:HIS:CD2	46:DP:27:HIS:C	2.88	0.51
54:DX:12:VAL:HG11	54:DX:27:THR:OG1	2.10	0.51
1:AA:583:A:H2'	1:AA:584:G:O4'	2.12	0.50
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
2:AB:28:PHE:CD1	2:AB:28:PHE:O	2.64	0.50
2:AB:169:LYS:HD2	2:AB:170:GLU:OE2	2.11	0.50
3:AC:94:LEU:C	3:AC:94:LEU:HD12	2.36	0.50
5:AE:71:LEU:CD2	5:AE:115:VAL:HG22	2.41	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:H	17:AQ:52:LYS:CD	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: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
35:BA:2065:C:H2'	35:BA:2066:C:C6	2.45	0.50
36:BB:56:G:H5''	41:BG:27:ASN:ND2	2.21	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
45:BO:104:ARG:HH21	50:BT:33:LYS:CD	2.24	0.50
46:BP:17:LYS:O	46:BP:19:VAL:N	2.44	0.50
49:BS:58:LEU:HD11	49:BS:68:GLN:NE2	2.26	0.50
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: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
1:CA:1151:A:N3	10:CJ:39:PRO:HG3	2.25	0.50
1:CA:1237:C:O4'	1:CA:1334:G:N2	2.44	0.50
1:CA:1250:A:H4'	9:CI:68:GLY:N	2.24	0.50
1:CA:1329:A:P	13:CM:28:ALA:HB3	2.51	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
4:CD:8:VAL:C	4:CD:10:ARG:H	2.18	0.50
5:CE:20:GLN:O	5:CE:21:ALA:C	2.53	0.50
5:CE:136:MET:C	5:CE:138:ALA:N	2.69	0.50
6:CF:4:TYR:HA	6:CF:91:VAL:O	2.11	0.50
10:CJ:8:LEU:HG	10:CJ:96:ILE:HG22	1.93	0.50
12:CL:48:PRO:C	12:CL:49:ASN:HD22	2.20	0.50
12:CL:57:LYS:HG2	12:CL:67:THR:HG22	1.93	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: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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DI:79:ILE:HD11	43:DI:100:ALA:HB1	1.94	0.50
51:DU:8:VAL:HG11	51:DU:12:ARG:NH2	2.27	0.50
1:AA:92:C:H2'	1:AA:93:G:C8	2.40	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: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
2:AB:236:TYR:HA	2:AB:239:VAL:HG21	1.92	0.50
4:AD:132:ARG:O	4:AD:132:ARG:HD2	2.12	0.50
6:AF:17:SER:O	6:AF:20:ALA:N	2.44	0.50
6:AF:69:GLU:HG2	6:AF:70:ASP:N	2.20	0.50
6:AF:97:PHE:CD2	18:AR:65:ILE:HD12	2.46	0.50
10:AJ:58:ASP:O	10:AJ:59:SER:C	2.54	0.50
13:AM:28:ALA:C	13:AM:30:ALA:N	2.66	0.50
17:AQ:25:ARG:HG2	17:AQ:25:ARG:O	2.11	0.50
18:AR:43:PHE:CE2	18:AR:58:LEU:HD11	2.45	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
29:B4:46:ASN:C	29:B4:46:ASN:HD22	2.18	0.50
35:BA:16:G:O2'	35:BA:17:G:H5'	2.11	0.50
35:BA:154(A):C:N4	35:BA:171:G:H1	2.09	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
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
38:BD:10:THR:HG23	38:BD:13:ARG:HB3	1.92	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
45:BO:93:PRO:HB3	45:BO:114:ILE:HD11	1.93	0.50
46:BP:48:PRO:CG	46:BP:49:ARG:H	2.16	0.50
46:BP:112:LEU:HD22	46:BP:113:LYS:N	2.25	0.50
47:BQ:104:PHE:O	47:BQ:105:GLU:HB3	2.10	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:N	52:BV:21:ARG:HD3	2.27	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
4:CD:30:LYS:C	4:CD:32:ALA:N	2.52	0.50
7:CG:78:ARG:HG3	7:CG:79:ARG:N	2.27	0.50
13:CM:93:ARG:HA	13:CM:93:ARG:HE	1.77	0.50
17:CQ:95:TYR:O	17:CQ:96:GLU:C	2.54	0.50
20:CT:49:ALA:O	20:CT:52:ALA:HB3	2.11	0.50
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:70:ALA:O	39:DE:72:VAL:N	2.44	0.50
41:DG:47:LYS:HZ2	41:DG:82:LEU:CD1	2.12	0.50
44:DN:78:TYR:N	44:DN:78:TYR:CD1	2.77	0.50
49:DS:20:ARG:HH11	49:DS:20:ARG:HG2	1.76	0.50
52:DV:39:LEU:CD1	52:DV:47:VAL:HG11	2.32	0.50
56:DZ:79:ARG:HH11	56:DZ:79:ARG:CG	2.24	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
1:AA:1305:G:H5'	21:AU:4:GLY:HA3	1.92	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
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
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
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: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:943:U:OP2	46:BP:38:GLN:OE1	2.29	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1568:G:P	38:BD:63:ARG:HH22	2.34	0.50
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
39:BE:69:LYS:C	39:BE:71:GLY:N	2.62	0.50
40:BF:180:GLY:O	40:BF:181:LEU:C	2.54	0.50
41:BG:39:ILE:HG23	41:BG:92:VAL:HG13	1.92	0.50
41:BG:50:ALA:C	41:BG:52:ILE:N	2.68	0.50
44:BN:91:LEU:C	44:BN:93:THR:H	2.19	0.50
46:BP:38:GLN:CG	46:BP:41:ARG:HG3	2.40	0.50
49:BS:20:ARG:NH1	49:BS:20:ARG:HG2	2.25	0.50
49:BS:52:SER:O	49:BS:56:LEU:HB3	2.11	0.50
49:BS:99:LYS:C	49:BS:101:LEU:H	2.18	0.50
50:BT:88:ILE:CG2	50:BT:89:VAL:HG23	2.40	0.50
51:BU:57:PHE:O	51:BU:58:ARG:C	2.54	0.50
54:BX:12:VAL:CG1	54:BX:27:THR:OG1	2.58	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
1:CA:1096:C:O2'	1:CA:1097:C:H5'	2.11	0.50
1:CA:1128:C:H5''	9:CI:16:ARG:HH12	1.74	0.50
1:CA:1431:C:C2'	1:CA:1432:G:H5'	2.41	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
10:CJ:45:ARG:NH1	14:CN:36:PHE:CE2	2.79	0.50
13:CM:116:THR:O	13:CM:117:VAL:HB	2.11	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:C	29:D4:46:ASN:HD22	2.18	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
31:D6:23:THR:HG21	35:DA:2419:U:H4'	1.94	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
40:DF:5:ALA:N	40:DF:18:ARG:O	2.37	0.50
40:DF:160:ASN:HD22	40:DF:161:GLU:N	2.09	0.50
41:DG:17:PRO:O	41:DG:19:LEU:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DG:56:ALA:HB2	41:DG:153:ARG:NH2	2.27	0.50
41:DG:137:GLU:HA	41:DG:152:LEU:CD1	2.41	0.50
47:DQ:19:GLY:O	47:DQ:20:ALA:HB3	2.11	0.50
48:DR:2:ARG:HD3	48:DR:5:LYS:CE	2.40	0.50
48:DR:44:LEU:O	48:DR:48:VAL:HG23	2.11	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:10:ARG:HD2	56:DZ:36:LYS:HB2	1.93	0.50
56:DZ:33:LEU:HD12	56:DZ:34:ASN:H	1.75	0.50
1:AA:636:U:H5'	17:AQ:2:PRO:HG3	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
8:AH:40:ALA:C	8:AH:42:GLU:N	2.69	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
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
32:B7:8:ASN:ND2	32:B7:8:ASN:C	2.66	0.50
35:BA:581:C:O2'	35:BA:582:G:H5'	2.11	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:1815:A:OP2	38:BD:54:ARG:NH2	2.44	0.50
35:BA:2127:G:H4'	37:BC:36:LYS:HG2	1.92	0.50
35:BA:2786:U:H2'	35:BA:2787:C:H6	1.76	0.50
39:BE:201:THR:OG1	39:BE:202:LYS:N	2.42	0.50
40:BF:70:THR:O	40:BF:72:ARG:N	2.44	0.50
41:BG:109:VAL:C	41:BG:112:PRO:HD2	2.36	0.50
45:BO:10:VAL:HG21	45:BO:16:ALA:O	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BO:105:GLU:O	45:BO:109:LYS:HG2	2.11	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
47:BQ:141:GLN:HB3	56:BZ:98:MET:HA	1.92	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
55:BY:60:PHE:O	55:BY:61:ILE:C	2.53	0.50
56:BZ:128:VAL:HG22	56:BZ:129:SER:N	2.26	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
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
3:CC:66:VAL:O	3:CC:66:VAL:HG12	2.11	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:HD13	15:CO:3:ILE:H	1.77	0.50
22:CV:13:C:O2'	35:DA:1924:C:H4'	2.12	0.50
27:D2:30:ARG:HE	54:DX:5:TYR:HE2	1.60	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: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
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
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
38:DD:9:TYR:C	38:DD:10:THR:HG22	2.35	0.50
39:DE:30:PRO:HG3	39:DE:180:ASN:HD21	1.77	0.50
42:DH:47:GLU:C	42:DH:49:VAL:H	2.18	0.50
46:DP:83:VAL:O	46:DP:83:VAL:HG13	2.12	0.50
47:DQ:116:GLU:O	47:DQ:120:ILE:HG12	2.12	0.50
47:DQ:137:TYR:OH	56:DZ:81:ARG:NH1	2.44	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
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
55:DY:95:LYS:CD	55:DY:100:ALA:HA	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:877:C:H1'	8:AH:3:THR:OG1	2.12	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
6:AF:19:LEU:HD23	6:AF:19:LEU:C	2.36	0.50
8:AH:11:THR:HG23	8:AH:14:ARG:NH1	2.23	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
17:AQ:27:PHE:CD1	17:AQ:27:PHE:C	2.89	0.50
33:B8:52:LYS:N	33:B8:53:PRO:CD	2.72	0.50
35:BA:315:G:H2'	35:BA:316:C:C6	2.47	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
36:BB:29:A:OP2	49:BS:31:SER:HB2	2.11	0.50
38:BD:249:PRO:HG2	38:BD:250:TRP:CZ3	2.47	0.50
39:BE:36:ARG:HD3	39:BE:47:VAL:HG22	1.93	0.50
39:BE:116:VAL:HG21	39:BE:122:PHE:CD2	2.46	0.50
41:BG:91:ARG:HG3	41:BG:91:ARG:NH1	2.25	0.50
42:BH:70:THR:C	42:BH:72:ILE:N	2.69	0.50
43:BI:12:LEU:HD23	43:BI:12:LEU:N	2.26	0.50
43:BI:117:GLU:HG3	43:BI:118:LYS:H	1.75	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:HH11	49:BS:20:ARG:HG2	1.76	0.50
55:BY:38:ILE:HG22	55:BY:39:VAL:N	2.26	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
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
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
3:CC:77:ILE:C	3:CC:83:ARG:HB3	2.36	0.50
5:CE:75:THR:HB	5:CE:117:ASP:HB2	1.92	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
32:D7:33:ARG:NH1	35:DA:467:G:OP1	2.44	0.50
33:D8:19:SER:HB2	33:D8:21:LYS:HG3	1.93	0.50
35:DA:143:G:H1'	54:DX:37:THR:CG2	2.37	0.50
35:DA:692:C:H2'	35:DA:693:C:H6	1.77	0.50
35:DA:1141:U:H5''	35:DA:1142(A):A:O4'	2.11	0.50
35:DA:1665:A:H1'	45:DO:1:MET:HG2	1.93	0.50
40:DF:8:GLN:O	40:DF:9:ILE:C	2.53	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:17:LYS:C	46:DP:19:VAL:N	2.68	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
50:DT:124:ASP:C	50:DT:126:ALA:N	2.70	0.50
51:DU:21:ALA:HA	51:DU:24:TYR:CE1	2.46	0.50
55:DY:3:VAL:O	55:DY:3:VAL:HG12	2.10	0.50
56:DZ:100:VAL:C	56:DZ:123:ASP:HB2	2.35	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
1:AA:1128:C:H5''	9:AI:16:ARG:HH12	1.76	0.50
1:AA:1522:U:O2'	1:AA:1523:G:H5'	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
6:AF:5:GLU:HG2	6:AF:62:TRP:CZ2	2.47	0.50
8:AH:45:ILE:C	8:AH:47:GLY:N	2.69	0.50
8:AH:137:VAL:HG12	8:AH:138:TRP:N	2.27	0.50
10:AJ:50:ILE:HG12	14:AN:41:ARG:HE	1.76	0.50
11:AK:125:PHE:N	11:AK:125:PHE:HD1	2.10	0.50
15:AO:12:ILE:C	15:AO:14:GLU:H	2.19	0.50
20:AT:89:ARG:HH21	20:AT:89:ARG:HG3	1.76	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
29:B4:46:ASN:C	29:B4:46:ASN:ND2	2.69	0.50
35:BA:70:G:H21	35:BA:71:A:N6	2.08	0.50
35:BA:688:U:H2'	35:BA:689:A:H8	1.77	0.50
35:BA:995:C:OP2	51:BU:54:LYS:HD3	2.11	0.50
35:BA:1827:C:H2'	35:BA:1828:G:O4'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
36:BB:20:C:C3'	36:BB:21:G:H5''	2.42	0.50
39:BE:168:MET:O	39:BE:169:ASN:C	2.55	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:HG2	48:BR:2:ARG:HH11	1.77	0.50
49:BS:74:ALA:HB1	49:BS:103:GLU:HG3	1.93	0.50
51:BU:8:VAL:HG11	51:BU:12:ARG:NE	2.27	0.50
51:BU:61:TRP:O	51:BU:62:ILE:C	2.54	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: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
1:CA:1042:G:O2'	1:CA:1043:C:H5'	2.12	0.50
2:CB:97:TRP:CZ2	2:CB:102:LEU:HD13	2.44	0.50
2:CB:191:ASP:C	2:CB:191:ASP:OD2	2.53	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
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:D8:27:THR:HG22	46:DP:61:ARG:HA	1.92	0.50
33:D8:33:ASN:HA	33:D8:36:LYS:HD2	1.93	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
35:DA:1411:C:H2'	35:DA:1412:A:H8	1.75	0.50
35:DA:1658:C:OP1	39:DE:132:HIS:ND1	2.43	0.50
35:DA:1832:C:N4	35:DA:1833:U:C4	2.80	0.50
35:DA:2591:C:OP1	38:DD:239:ARG:HG2	2.12	0.50
35:DA:2693:A:H2'	35:DA:2694:G:C8	2.47	0.50
36:DB:57:A:H5'	41:DG:27:ASN:HD22	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DB:74:U:H2'	36:DB:75:G:O4'	2.12	0.50
40:DF:53:THR:O	40:DF:57:VAL:HG23	2.11	0.50
41:DG:128:ARG:N	41:DG:128:ARG:NE	2.60	0.50
42:DH:149:ARG:HD3	42:DH:164:TYR:CE1	2.47	0.50
43:DI:62:LYS:HE2	43:DI:134:PRO:CG	2.41	0.50
43:DI:115:ALA:HB3	43:DI:129:THR:HG23	1.94	0.50
44:DN:112:LEU:O	44:DN:116:LEU:HG	2.11	0.50
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
50:DT:128:GLU:O	50:DT:130:ALA:N	2.45	0.50
51:DU:6:THR:O	51:DU:9:VAL:HG23	2.12	0.50
55:DY:2:ARG:HD3	55:DY:2:ARG:C	2.36	0.50
55:DY:17:SER:HB2	55:DY:71:LYS:NZ	2.27	0.50
55:DY:46:LYS:HB3	55:DY:47:LYS:HD2	1.94	0.50
1:AA:107:G:N2	1:AA:108:G:H1'	2.27	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
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
3:AC:51:GLY:O	3:AC:115:LEU:HD21	2.12	0.50
3:AC:195:VAL:CG1	3:AC:196:LEU:N	2.75	0.50
4:AD:8:VAL:C	4:AD:10:ARG:H	2.19	0.50
6:AF:87:ARG:HG2	6:AF:87:ARG:NH1	2.25	0.50
6:AF:97:PHE:CD2	18:AR:31:LEU:HD21	2.47	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
16:AP:51:VAL:O	16:AP:51:VAL:HG12	2.12	0.50
18:AR:63:GLN:HA	18:AR:63:GLN:OE1	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:176:G:C2'	35:BA:177:G:H5'	2.42	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:1193:G:H2'	35:BA:1194:A:O4'	2.10	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:2127:G:C5'	37:BC:36:LYS:HG2	2.41	0.50
35:BA:2469:A:H3'	35:BA:2470:G:O4'	2.12	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
43:BI:48:GLU:C	43:BI:50:ARG:N	2.70	0.50
48:BR:78:LYS:O	48:BR:83:ILE:HG12	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
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
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:50:ILE:HG12	14:CN:41:ARG:HE	1.76	0.50
10:CJ:99:LYS:O	10:CJ:100:THR:HG23	2.11	0.50
16:CP:25:ARG:HH11	16:CP:25:ARG:HG3	1.77	0.50
17:CQ:25:ARG:HG2	17:CQ:25:ARG:O	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: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
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
39:DE:14:ILE:O	39:DE:20:ALA:HA	2.12	0.50
39:DE:134:ILE:HD13	39:DE:134:ILE:C	2.37	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
48:DR:28:LEU:HD13	48:DR:28:LEU:C	2.36	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
1:AA:958:A:C8	19:AS:55:LYS:HD2	2.47	0.50
1:AA:1191:A:P	3:AC:3:ASN:HD21	2.34	0.50
2:AB:136:VAL:O	2:AB:140:HIS:HB2	2.11	0.50
3:AC:42:LEU:O	3:AC:45:LYS:HB2	2.11	0.50
4:AD:145:GLU:HG2	4:AD:184:LYS:HZ3	1.75	0.50
4:AD:162:LEU:HD12	4:AD:181:MET:HE2	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
17:AQ:95:TYR:O	17:AQ:96:GLU:C	2.54	0.50
19:AS:5:LEU:HA	19:AS:6:LYS:HZ2	1.77	0.50
20:AT:13:LEU:C	20:AT:13:LEU:CD1	2.83	0.50
22:AY:16:U:H2'	22:AY:17:C:H5'	1.94	0.50
32:B7:47:ARG:NH1	54:BX:60:ARG:HH22	2.09	0.50
35:BA:1528:A:H2'	35:BA:1528:A:N3	2.26	0.50
35:BA:1528(A):A:N7	35:BA:1529:G:H8	2.09	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
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:HH11	51:BU:92:ARG:CG	2.25	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: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
1:CA:1349:A:H2'	1:CA:1350:A:H8	1.75	0.50
3:CC:30:ARG:HH22	14:CN:35:ARG:HA	1.76	0.50
8:CH:48:TYR:HB2	8:CH:60:ARG:O	2.11	0.50
12:CL:83:VAL:CG1	12:CL:84:LEU:N	2.74	0.50
12:CL:102:ARG:O	12:CL:104:VAL:HG23	2.12	0.50
12:CL:117:ARG:O	12:CL:118:SER:C	2.55	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
35:DA:528:A:C2	35:DA:2043:C:C5'	2.94	0.50
35:DA:957:A:N6	35:DA:2459:A:C8	2.80	0.50
35:DA:1528:A:N3	35:DA:1528:A:H2'	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:2172:U:C3'	35:DA:2173:A:H8	2.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DC:169:GLY:O	37:DC:171:ILE:N	2.44	0.50
38:DD:166:GLN:NE2	38:DD:166:GLN:HA	2.26	0.50
38:DD:249:PRO:HG2	38:DD:250:TRP:CE3	2.47	0.50
38:DD:257:LEU:C	38:DD:257:LEU:HD23	2.36	0.50
40:DF:179:GLU:CD	40:DF:179:GLU:H	2.19	0.50
43:DI:4:ILE:HD11	43:DI:44:LEU:HD13	1.94	0.50
43:DI:12:LEU:HD23	43:DI:12:LEU:N	2.27	0.50
44:DN:89:LYS:O	44:DN:93:THR:HG23	2.12	0.50
44:DN:91:LEU:C	44:DN:93:THR:H	2.19	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:O	50:DT:85:LYS:HG2	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: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
1:AA:824:C:H4'	8:AH:1:MET:H1	1.77	0.50
1:AA:1411:C:C2'	1:AA:1412:C:H5'	2.42	0.50
10:AJ:85:LEU:O	10:AJ:86:MET:C	2.54	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:HG3	16:AP:25:ARG:HH11	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:329:G:H1	55:BY:19:LYS:NZ	2.09	0.50
35:BA:408:G:O2'	35:BA:409:C:H5'	2.12	0.50
35:BA:1336:A:H2'	35:BA:1337:G:C8	2.47	0.50
43:BI:56:LYS:C	43:BI:58:LEU:H	2.18	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
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:2:GLY:O	4:CD:3:ARG:C	2.55	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:60:GLU:O	4:CD:63:LYS:HB3	2.12	0.50
7:CG:60:LYS:HZ1	7:CG:64:GLN:HB2	1.77	0.50
11:CK:53:SER:C	11:CK:55:LYS:H	2.19	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
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
27:D2:65:ASN:C	27:D2:67:LYS:H	2.19	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
32:D7:47:ARG:NH1	54:DX:60:ARG:HH22	2.09	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
35:DA:1568:G:P	38:DD:63:ARG:HH22	2.35	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
40:DF:7:TYR:HB2	40:DF:17:ARG:N	2.27	0.50
41:DG:135:LEU:HD12	41:DG:135:LEU:N	2.27	0.50
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
47:DQ:18:LYS:O	47:DQ:98:LYS:HD3	2.11	0.50
50:DT:3:ARG:O	50:DT:4:GLY:C	2.55	0.50
50:DT:62:THR:HG22	50:DT:75:ILE:HA	1.92	0.50
51:DU:104:GLN:N	51:DU:104:GLN:OE1	2.45	0.50
52:DV:35:LEU:O	52:DV:36:PRO:C	2.55	0.50
52:DV:39:LEU:HD12	52:DV:50:PRO:O	2.12	0.50
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
1:AA:1276:G:H2'	1:AA:1277:C:H5'	1.94	0.49
4:AD:19:LEU:HD13	4:AD:21:LEU:HG	1.94	0.49
4:AD:173:TRP:CD1	4:AD:174:LEU:HG	2.48	0.49
10:AJ:30:SER:HB2	10:AJ:80:LYS:O	2.11	0.49
10:AJ:63:PHE:C	14:AN:59:ALA:HB2	2.37	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
20:AT:46:GLU:CD	20:AT:48:LYS:HE2	2.37	0.49
21:AU:5:ASP:O	21:AU:6:ARG:C	2.55	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:B8:46:ARG:O	33:B8:47:LYS:HB3	2.12	0.49
35:BA:729:G:H2'	35:BA:1775:U:O2	2.11	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
36:BB:40:U:H1'	36:BB:45:A:N6	2.25	0.49
36:BB:51:G:H5'	36:BB:52:A:OP2	2.12	0.49
39:BE:87:GLU:O	39:BE:87:GLU:HG3	2.12	0.49
41:BG:18:GLU:O	41:BG:19:LEU:C	2.55	0.49
43:BI:62:LYS:HE2	43:BI:134:PRO:CG	2.42	0.49
46:BP:8:PRO:O	46:BP:9:ASN:HB3	2.11	0.49
46:BP:23:PRO:HB2	46:BP:33:ARG:NE	2.26	0.49
47:BQ:18:LYS:O	47:BQ:98:LYS:HD3	2.11	0.49
47:BQ:111:GLU:O	47:BQ:115:MET:HG2	2.12	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
1:CA:1442(A):G:H22	50:DT:119:LYS:HB2	1.77	0.49
2:CB:95:GLN:HE21	2:CB:147:LYS:HE3	1.75	0.49
2:CB:166:ASP:CG	2:CB:169:LYS:HB2	2.37	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
10:CJ:85:LEU:O	10:CJ:86:MET:C	2.54	0.49
12:CL:46:LYS:HB2	12:CL:92:ASP:O	2.12	0.49
17:CQ:27:PHE:C	17:CQ:27:PHE:CD1	2.89	0.49
18:CR:63:GLN:HA	18:CR:63:GLN:OE1	2.11	0.49
19:CS:9:VAL:O	19:CS:9:VAL:HG12	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:90:U:O2	35:DA:90:U:H2'	2.11	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: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:1815:A:OP2	38:DD:54:ARG:NH2	2.45	0.49
35:DA:1987:G:H8	35:DA:1987:G:C5'	2.23	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
38:DD:37:LEU:HD12	38:DD:64:ILE:CG2	2.42	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
44:DN:42:TRP:HE3	44:DN:48:MET:HE1	1.73	0.49
46:DP:102:ARG:O	46:DP:103:ALA:HB2	2.12	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
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:N	55:DY:47:LYS:CD	2.73	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
1:AA:1291:G:O2'	1:AA:1292:U:H5'	2.12	0.49
2:AB:95:GLN:HE21	2:AB:147:LYS:HE3	1.76	0.49
3:AC:158:GLY:C	3:AC:160:ALA:H	2.20	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
12:AL:85:ILE:CG2	12:AL:98:TYR:HB3	2.42	0.49
19:AS:9:VAL:O	19:AS:9:VAL:HG12	2.12	0.49
31:B6:15:GLU:CA	31:B6:47:THR:HG21	2.40	0.49
35:BA:30:G:H2'	35:BA:31:C:C6	2.47	0.49
35:BA:137:C:H2'	35:BA:137:C:O2	2.12	0.49
35:BA:706:A:H2'	35:BA:707:G:O4'	2.11	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
36:BB:94:C:H2'	36:BB:95:C:H6	1.76	0.49
37:BC:46:LYS:NZ	37:BC:171:ILE:O	2.43	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
44:BN:62:VAL:HG13	44:BN:62:VAL:O	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BN:91:LEU:HA	44:BN:95:PRO:HB3	1.93	0.49
46:BP:99:LEU:HD23	46:BP:99:LEU:C	2.36	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:116:A:H2'	1:CA:117:G:O4'	2.12	0.49
1:CA:438:G:H4'	4:CD:123:HIS:HD1	1.76	0.49
1:CA:708:C:H2'	1:CA:709:G:C8	2.47	0.49
1:CA:1004:A:C3'	1:CA:1005:A:H5'	2.42	0.49
1:CA:1291:G:O2'	1:CA:1292:U:H5'	2.12	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
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
14:CN:37:PHE:O	14:CN:39:LEU:HG	2.11	0.49
29:D4:54:LYS:C	29:D4:56:GLU:H	2.20	0.49
30:D5:2:ALA:CA	35:DA:2015:A:H1'	2.35	0.49
35:DA:637:A:H2'	46:DP:117:GLU:OE2	2.11	0.49
35:DA:699:A:H2'	35:DA:700:G:O4'	2.12	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
35:DA:2239:G:H5'	38:DD:251:GLY:HA3	1.92	0.49
35:DA:2511:U:O3'	39:DE:123:ALA:HB3	2.12	0.49
35:DA:2739:U:O2'	35:DA:2740:A:H5'	2.12	0.49
38:DD:267:SER:C	38:DD:269:PHE:N	2.66	0.49
40:DF:1:MET:HE2	40:DF:2:LYS:HZ1	1.77	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
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: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
46:DP:146:VAL:HG13	46:DP:147:LEU:H	1.75	0.49
56:DZ:5:LEU:CD1	56:DZ:43:GLU:HB3	2.43	0.49
56:DZ:130:PRO:O	56:DZ:133:ILE:HG13	2.11	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:750:G:H1'	15:AO:23:GLY:H	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:783:C:O2'	1:AA:784:C:H5'	2.12	0.49
1:AA:1151:A:N3	10:AJ:39:PRO:HG3	2.27	0.49
1:AA:1183:A:H5''	1:AA:1184:G:OP2	2.12	0.49
4:AD:52:SER:O	4:AD:55:ALA:HB3	2.11	0.49
5:AE:68:GLU:O	5:AE:69:VAL:C	2.55	0.49
8:AH:54:ASP:O	8:AH:56:LYS:HG3	2.12	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
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:263:C:O2'	35:BA:264:C:H5'	2.11	0.49
35:BA:549:G:H2'	35:BA:551:G:C5'	2.40	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
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:46:LYS:HG2	46:BP:52:GLU:CG	2.43	0.49
46:BP:101:VAL:O	46:BP:103:ALA:N	2.40	0.49
47:BQ:60:ARG:HB2	47:BQ:60:ARG:HH11	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
56:BZ:5:LEU:HD23	56:BZ:6:LYS:N	2.27	0.49
56:BZ:98:MET:HE2	56:BZ:100:VAL:CG1	2.42	0.49
1:CA:192:U:O4'	20:CT:103:GLY:HA2	2.12	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
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
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
8:CH:29:SER:HB3	8:CH:32:LYS:HG3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
16:CP:82:GLN:N	16:CP:82:GLN:HE21	2.09	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:H4'	35:DA:100:G:OP2	2.12	0.49
35:DA:225:A:H2'	35:DA:226:G:H5'	1.94	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:O2	35:DA:1506:C:H2'	2.11	0.49
35:DA:2012:G:H4'	53:DW:96:ILE:HD11	1.94	0.49
35:DA:2029:G:H2'	35:DA:2031:A:OP1	2.11	0.49
35:DA:2307:G:C2	35:DA:2308:G:H5''	2.47	0.49
35:DA:2657:A:O2'	42:DH:160:LYS:HE2	2.11	0.49
35:DA:2837:G:H2'	35:DA:2838:G:H8	1.77	0.49
38:DD:27:THR:O	38:DD:27:THR:CG2	2.59	0.49
38:DD:31:LYS:O	38:DD:35:LYS:HD3	2.13	0.49
38:DD:240:ALA:HB1	38:DD:241:PRO:HD2	1.94	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
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
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
55:DY:51:VAL:O	55:DY:51:VAL:HG12	2.12	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
1:AA:1054:C:O2	1:AA:1054:C:H2'	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
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:30:ARG:HH22	14:AN:35:ARG:HA	1.77	0.49
3:AC:115:LEU:O	3:AC:116:VAL:C	2.55	0.49
4:AD:3:ARG:HH21	4:AD:3:ARG:HG2	1.77	0.49
7:AG:28:ASN:O	7:AG:31:MET:HB3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:115:ARG:O	7:AG:119:ARG:HG3	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:HH11	12:AL:102:ARG:CG	2.22	0.49
14:AN:31:ARG:HG3	14:AN:31:ARG:HH11	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
35:BA:752:A:O2'	35:BA:753:C:OP2	2.26	0.49
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:2591:C:OP1	38:BD:239:ARG:HG2	2.12	0.49
36:BB:50:G:OP1	49:BS:63:THR:HG23	2.11	0.49
41:BG:33:ARG:N	41:BG:162:THR:OG1	2.44	0.49
43:BI:6:LEU:O	43:BI:7:GLU:C	2.55	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:95:VAL:HG23	46:BP:95:VAL:O	2.13	0.49
46:BP:140:ALA:O	46:BP:141:ALA:HB3	2.13	0.49
49:BS:61:ASN:O	49:BS:65:VAL:HG23	2.12	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:HH11	52:BV:82:ARG:HG2	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:5:LEU:HD23	56:BZ:6:LYS:H	1.78	0.49
56:BZ:24:LEU:O	56:BZ:24:LEU:HD23	2.12	0.49
56:BZ:151:HIS:CD2	56:BZ:170:THR:HA	2.46	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
1:CA:1027:C:H1'	1:CA:1035:A:C2	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
9:CI:3:GLN:C	9:CI:4:TYR:CD1	2.90	0.49
9:CI:98:PRO:C	9:CI:100:GLY:H	2.20	0.49
10:CJ:5:ARG:HA	10:CJ:73:ASP:OD1	2.12	0.49
11:CK:44:SER:H	11:CK:47:VAL:HG21	1.77	0.49
11:CK:99:GLN:HA	11:CK:105:VAL:HG11	1.93	0.49
12:CL:102:ARG:HH11	12:CL:102:ARG:CG	2.24	0.49
13:CM:13:LYS:O	13:CM:45:VAL:HG23	2.12	0.49
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
27:D2:57:ILE:O	27:D2:58:ALA:C	2.55	0.49
29:D4:45:GLY:O	29:D4:46:ASN:O	2.29	0.49
35:DA:152:G:H2'	35:DA:153:C:O4'	2.12	0.49
35:DA:271(T):C:O2'	35:DA:271(U):G:H5'	2.12	0.49
35:DA:1528(A):A:N7	35:DA:1529:G:H8	2.10	0.49
35:DA:1591:G:H5'	35:DA:1591:G:C8	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: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
46:DP:101:VAL:CG2	46:DP:102:ARG:N	2.74	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
9:AI:98:PRO:C	9:AI:100:GLY:H	2.19	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:661:C:O3'	46:BP:18:ARG:HD2	2.13	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:2313:C:H4'	41:BG:40:ASN:ND2	2.27	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
37:BC:82:LYS:HG2	37:BC:151:GLU:HA	1.95	0.49
38:BD:257:LEU:C	38:BD:257:LEU:HD23	2.37	0.49
40:BF:8:GLN:O	40:BF:9:ILE:C	2.55	0.49
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:55:ASN:HD22	50:BT:58:ASN:ND2	1.96	0.49
50:BT:128:GLU:OE1	50:BT:129:ARG:N	2.46	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: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
1:CA:1256:A:H5'	1:CA:1257:U:OP1	2.13	0.49
3:CC:64:VAL:HG12	3:CC:66:VAL:HG23	1.94	0.49
3:CC:87:LEU:C	3:CC:89:GLU:N	2.68	0.49
10:CJ:30:SER:HB2	10:CJ:80:LYS:O	2.11	0.49
25:D0:7:LEU:HD21	47:DQ:81:VAL:HB	1.94	0.49
29:D4:51:TYR:O	29:D4:52:SER:HB3	2.12	0.49
35:DA:563:G:H5'	35:DA:572:A:H4'	1.94	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:2579:C:O3'	39:DE:131:ALA:CB	2.61	0.49
36:DB:15:A:H1'	36:DB:110:G:N7	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DE:111:ARG:HD2	39:DE:160:TYR:HE1	1.78	0.49
41:DG:15:VAL:HG21	41:DG:176:LEU:CD2	2.42	0.49
45:DO:77:ILE:HD11	50:DT:72:VAL:CG1	2.42	0.49
46:DP:8:PRO:O	46:DP:9:ASN:HB3	2.12	0.49
46:DP:101:VAL:HG12	46:DP:106:LEU:HB3	1.94	0.49
50:DT:28:VAL:HB	50:DT:88:ILE:HG13	1.95	0.49
52:DV:91:TYR:C	52:DV:91:TYR:HD1	2.19	0.49
53:DW:12:ILE:HG13	53:DW:42:ARG:NH1	2.27	0.49
55:DY:96:ILE:HD12	55:DY:99:CYS:HB2	1.93	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
1:AA:1105:A:H2'	1:AA:1106:G:C8	2.46	0.49
3:AC:86:VAL:C	3:AC:89:GLU:HB3	2.37	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
9:AI:3:GLN:C	9:AI:4:TYR:CD1	2.90	0.49
10:AJ:48:THR:HG22	10:AJ:49:VAL:N	2.27	0.49
13:AM:56:LEU:C	13:AM:56:LEU:HD13	2.38	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:637:A:H2'	46:BP:117:GLU:OE2	2.11	0.49
35:BA:956:G:H5''	47:BQ:77:LYS:HD2	1.94	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
37:BC:58:VAL:HG21	37:BC:165:ASN:C	2.37	0.49
38:BD:24:ILE:O	38:BD:25:THR:C	2.56	0.49
38:BD:53:PHE:CE1	38:BD:220:HIS:HA	2.48	0.49
38:BD:166:GLN:NE2	38:BD:166:GLN:HA	2.26	0.49
38:BD:270:ILE:C	38:BD:271:ILE:CG1	2.85	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
47:BQ:132:VAL:HG11	56:BZ:81:ARG:HD3	1.94	0.49
51:BU:58:ARG:O	51:BU:62:ILE:HG12	2.12	0.49
52:BV:23:GLU:O	52:BV:24:LYS:C	2.56	0.49

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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	0.49
56:BZ:8:TYR:HB2	56:BZ:38:TYR:CE2	2.48	0.49
56:BZ:99:TYR:N	56:BZ:99:TYR:HD2	2.11	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
1:CA:1251:A:H4'	9:CI:12:GLU:OE1	2.13	0.49
2:CB:88:ALA:O	2:CB:90:MET:HG3	2.12	0.49
2:CB:194:PRO:HA	2:CB:200:ILE:HD11	1.94	0.49
6:CF:77:ARG:HB3	6:CF:77:ARG:CZ	2.42	0.49
12:CL:91:LYS:O	12:CL:91:LYS:HG3	2.13	0.49
13:CM:111:LYS:HG2	13:CM:112:GLY:N	2.28	0.49
31:D6:30:THR:HB	31:D6:31:PRO:HD2	1.94	0.49
34:D9:20:HIS:C	34:D9:22:ARG:H	2.19	0.49
35:DA:977:G:C2'	35:DA:978:G:H5'	2.43	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
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:77:LEU:HD11	43:DI:101:LEU:CD1	2.33	0.49
43:DI:99:GLU:O	43:DI:103:ARG:HD3	2.13	0.49
45:DO:19:ILE:HG22	45:DO:43:VAL:HA	1.93	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:40:ASP:OD1	56:DZ:42:VAL:HG12	2.13	0.49
1:AA:186:C:H1'	20:AT:85:MET:CE	2.43	0.49
1:AA:445:G:H2'	1:AA:446:G:C8	2.48	0.49
3:AC:34:LEU:HD23	3:AC:34:LEU:C	2.38	0.49
4:AD:187:ARG:HH11	4:AD:187:ARG:HG2	1.77	0.49
5:AE:131:ILE:O	5:AE:131:ILE:HD13	2.13	0.49
7:AG:84:ASN:ND2	23:AW:33:U:H4'	2.28	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:111:LYS:HG2	13:AM:112:GLY:N	2.27	0.49
27:B2:14:ARG:NH2	35:BA:77:C:O3'	2.46	0.49
34:B9:16:VAL:HG11	35:BA:1032:A:O3'	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
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
38:BD:31:LYS:NZ	38:BD:94:LEU:HD11	2.28	0.49
38:BD:133:LEU:HD13	38:BD:165:ILE:CD1	2.43	0.49
38:BD:240:ALA:HB1	38:BD:241:PRO:HD2	1.92	0.49
39:BE:30:PRO:HG3	39:BE:180:ASN:HD21	1.77	0.49
40:BF:9:ILE:HA	40:BF:14:PRO:O	2.13	0.49
40:BF:25:PRO:HG3	40:BF:119:ARG:HD3	1.95	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:139:G:H2'	1:CA:140:A:H8	1.77	0.49
1:CA:636:U:H5''	17:CQ:2:PRO:HG3	1.95	0.49
1:CA:660:G:H1	1:CA:745:C:H42	1.61	0.49
1:CA:1369:C:H2'	1:CA:1370:G:C8	2.48	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:3:ARG:HD3	6:CF:64:GLN:OE1	2.12	0.49
6:CF:45:LEU:HD11	6:CF:57:GLN:OE1	2.13	0.49
8:CH:54:ASP:O	8:CH:56:LYS:HG3	2.12	0.49
8:CH:83:ILE:HG13	8:CH:137:VAL:HG22	1.93	0.49
13:CM:108:ARG:NH1	13:CM:112:GLY:HA3	2.28	0.49
15:CO:74:ASP:C	15:CO:76:GLU:N	2.71	0.49
16:CP:20:VAL:HB	16:CP:32:TYR:HD1	1.77	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
26:D1:82:LEU:C	26:D1:83:GLU:CD	2.81	0.49
30:D5:2:ALA:HB3	35:DA:747:U:N1	2.28	0.49
35:DA:260:G:C2	35:DA:261:G:H1'	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
41:DG:95:ARG:O	41:DG:96:ARG:C	2.55	0.49
44:DN:125:GLY:CA	44:DN:126:PRO:O	2.60	0.49
46:DP:50:ARG:HG2	46:DP:50:ARG:NH2	2.28	0.49
46:DP:95:VAL:O	46:DP:95:VAL:HG23	2.13	0.49
47:DQ:140:ALA:HA	56:DZ:99:TYR:CD2	2.47	0.49
50:DT:64:ARG:HD2	50:DT:73:GLU:CD	2.38	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:81:LYS:NZ	55:DY:97:ARG:O	2.39	0.49
55:DY:88:LYS:HZ3	55:DY:93:GLY:CA	2.26	0.49
56:DZ:178:GLU:OE2	56:DZ:178:GLU:HA	2.12	0.49
1:AA:36:C:H4'	12:AL:122:THR:O	2.12	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
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
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:HD12	8:AH:6:ILE:N	2.28	0.49
9:AI:66:ARG:HH11	9:AI:66:ARG:CB	2.26	0.49
9:AI:114:TYR:N	9:AI:114:TYR:HD2	2.05	0.49
12:AL:83:VAL:CG1	12:AL:84:LEU:N	2.76	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
29:B4:45:GLY:O	29:B4:46:ASN:C	2.56	0.49
31:B6:16:CYS:O	31:B6:17:LYS:CB	2.57	0.49
33:B8:61:LEU:C	33:B8:63:PRO:HD2	2.38	0.49
35:BA:26:G:OP1	53:BW:80:PRO:HB3	2.12	0.49
35:BA:579:G:H2'	35:BA:580:C:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:769:G:O2'	35:BA:770:G:H5'	2.13	0.49
35:BA:1140:C:H5''	44:BN:66:LYS:NZ	2.27	0.49
35:BA:1497:U:H3	35:BA:1578:U:P	2.36	0.49
35:BA:1506:C:H2'	35:BA:1506:C:O2	2.12	0.49
35:BA:1529:G:H21	35:BA:1530:C:H5''	1.77	0.49
35:BA:1825:A:OP1	38:BD:249:PRO:HD3	2.12	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
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:HH11	48:BR:12:ARG:CG	2.25	0.49
49:BS:13:ARG:O	49:BS:15:ARG:HG2	2.13	0.49
49:BS:99:LYS:C	49:BS:101:LEU:N	2.71	0.49
50:BT:55:ASN:N	50:BT:59:THR:HB	2.28	0.49
50:BT:95:ARG:HB3	50:BT:95:ARG:NH1	2.27	0.49
50:BT:103:ARG:O	50:BT:104:ASN:C	2.56	0.49
50:BT:128:GLU:OE1	50:BT:128:GLU:C	2.56	0.49
52:BV:91:TYR:C	52:BV:91:TYR:CD1	2.90	0.49
53:BW:10:VAL:O	53:BW:11:ARG:HB2	2.12	0.49
55:BY:17:SER:HB2	55:BY:71:LYS:NZ	2.28	0.49
55:BY:95:LYS:HE2	55:BY:100:ALA:HB1	1.95	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
1:CA:636:U:C5'	17:CQ:2:PRO:HG3	2.43	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
5:CE:81:GLU:HB3	5:CE:88:LYS:HZ1	1.78	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:DA:1246:A:OP2	46:DP:18:ARG:HG3	2.13	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
39:DE:68:ALA:C	39:DE:70:ALA:H	2.21	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:98:VAL:HG13	45:DO:118:ALA:HA	1.93	0.49
46:DP:62:LEU:HD23	46:DP:62:LEU:N	2.27	0.49
51:DU:66:ASN:CB	51:DU:76:TYR:HB2	2.42	0.49
51:DU:112:ARG:NH1	51:DU:112:ARG:CG	2.74	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:35:G:C6	1:AA:36:C:N4	2.81	0.49
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
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
3:AC:134:ILE:HG21	3:AC:168:ALA:HB3	1.94	0.49
4:AD:60:GLU:O	4:AD:63:LYS:HB3	2.12	0.49
4:AD:102:ASP:HA	4:AD:121:VAL:HG21	1.93	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:5:ARG:HA	10:AJ:73:ASP:OD1	2.12	0.49
10:AJ:40:LEU:HB2	10:AJ:41:PRO:HD2	1.94	0.49
10:AJ:95:GLU:OE2	10:AJ:95:GLU:HA	2.13	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:HD12	29:B4:40:ILE:N	2.28	0.49
31:B6:27:LYS:HE3	35:BA:2285:C:C5	2.48	0.49
32:B7:9:ARG:HG3	32:B7:9:ARG:NH1	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1141:U:H5'	35:BA:1142(A):A:O4'	2.13	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
40:BF:179:GLU:CD	40:BF:179:GLU:H	2.20	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
44:BN:28:THR:CA	44:BN:106:MET:HE1	2.43	0.49
45:BO:35:VAL:HG21	45:BO:69:ILE:HD11	1.94	0.49
50:BT:78:LEU:C	50:BT:79:HIS:ND1	2.70	0.49
50:BT:92:GLY:C	50:BT:94:ALA:N	2.71	0.49
51:BU:112:ARG:CG	51:BU:112:ARG:NH1	2.72	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
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:741:G:H4'	15:CO:55:GLY:HA3	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
8:CH:11:THR:HG23	8:CH:14:ARG:NH1	2.26	0.49
8:CH:137:VAL:HG12	8:CH:138:TRP:N	2.26	0.49
13:CM:34:LEU:HD13	13:CM:41:PRO:HG3	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
33:D8:6:THR:HB	33:D8:63:PRO:HG3	1.94	0.49
35:DA:252:G:OP2	46:DP:50:ARG:NH1	2.46	0.49
35:DA:547:A:H2'	35:DA:547:A:N3	2.28	0.49
35:DA:645:C:H2'	35:DA:645:C:O2	2.13	0.49
35:DA:747:U:O2	35:DA:2014:A:H1'	2.12	0.49
35:DA:1301:A:O2'	35:DA:1302:A:C2'	2.57	0.49
35:DA:1396:U:O2	35:DA:1396:U:C2'	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:198:ASN:HD22	38:DD:198:ASN:C	2.21	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:51:ARG:NE	41:DG:51:ARG:HA	2.27	0.49
41:DG:112:PRO:O	41:DG:114:ILE:N	2.45	0.49
42:DH:105:LEU:H	42:DH:105:LEU:HD13	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:62:VAL:HG11	44:DN:67:LEU:HD21	1.94	0.49
51:DU:8:VAL:HG12	51:DU:12:ARG:NE	2.28	0.49
51:DU:83:LEU:CD1	51:DU:113:ALA:HB2	2.43	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
55:DY:60:PHE:O	55:DY:61:ILE:C	2.55	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
1:AA:945:G:N1	1:AA:1337:G:C2	2.81	0.49
1:AA:978:A:O2'	1:AA:1322:C:N3	2.40	0.49
1:AA:1029:C:O2'	1:AA:1030:C:H5	1.96	0.49
1:AA:1444:C:H2'	1:AA:1445:C:C6	2.48	0.49
2:AB:138:LEU:O	2:AB:141:GLU:HB3	2.13	0.49
2:AB:215:LEU:O	2:AB:219:VAL:HG23	2.13	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
30:B5:48:GLU:C	30:B5:50:GLY:H	2.21	0.49
35:BA:856:C:C6	35:BA:856:C:H5''	2.48	0.49
35:BA:1469:A:O2'	35:BA:1470:G:H5'	2.13	0.49
35:BA:1615:C:C2	53:BW:87:PRO:HG3	2.48	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
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:33:VAL:HG13	39:BE:69:LYS:HZ1	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:110:GLY:HA2	39:BE:162:ALA:N	2.28	0.49
40:BF:7:TYR:HB3	40:BF:16:GLY:N	2.28	0.49
41:BG:148:MET:HE3	41:BG:148:MET:O	2.13	0.49
46:BP:67:MET:HA	46:BP:67:MET:HE3	1.93	0.49
47:BQ:48:GLU:O	47:BQ:48:GLU:HG3	2.13	0.49
47:BQ:58:PHE:HD1	47:BQ:58:PHE:O	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
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
1:CA:1314:C:H41	19:CS:4:SER:N	2.11	0.49
4:CD:154:ASN:O	4:CD:155:LEU:C	2.55	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
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:34:C:H42	35:DA:455:C:H5'	1.78	0.49
35:DA:142:A:H5''	35:DA:142(A):C:C5	2.46	0.49
35:DA:564:C:O2'	35:DA:565:C:H5'	2.13	0.49
35:DA:2124:G:H2'	35:DA:2125:G:O4'	2.11	0.49
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
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
44:DN:28:THR:N	44:DN:106:MET:HE1	2.28	0.49
45:DO:104:ARG:CZ	50:DT:33:LYS:HD2	2.43	0.49
46:DP:16:ARG:C	46:DP:16:ARG:HH11	2.21	0.49
47:DQ:103:MET:HE1	47:DQ:125:LEU:HD13	1.94	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: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
1:AA:973:G:N3	10:AJ:55:LYS:NZ	2.59	0.48
1:AA:1191:A:H5''	3:AC:4:LYS:HZ2	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1502:A:H5'	1:AA:1504:G:N7	2.28	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:HD2	9:AI:113:LYS:N	2.28	0.48
11:AK:74:ALA:C	11:AK:76:GLY:N	2.70	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
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
26:B1:26:ARG:HH12	35:BA:389:G:H5''	1.78	0.48
31:B6:30:THR:HB	31:B6:31:PRO:HD2	1.94	0.48
35:BA:699:A:H2'	35:BA:700:G:O4'	2.13	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
37:BC:58:VAL:HG13	37:BC:166:ASP:O	2.12	0.48
38:BD:8:PRO:C	38:BD:10:THR:H	2.21	0.48
38:BD:183:ARG:HH11	38:BD:183:ARG:HG2	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
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:98:GLU:C	46:BP:98:GLU:OE1	2.56	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:829:G:O2'	1:CA:830:G:H5'	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
2:CB:8:LYS:C	2:CB:12:GLU:HG3	2.38	0.48
2:CB:27:LYS:HD3	2:CB:195:ASP:OD2	2.13	0.48
2:CB:107:THR:HG23	2:CB:110:GLN:NE2	2.28	0.48
3:CC:158:GLY:C	3:CC:160:ALA:H	2.21	0.48
4:CD:10:ARG:NH1	4:CD:40:PRO:HG3	2.28	0.48
4:CD:31:CYS:C	4:CD:33:MET:N	2.54	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:58:ASP:O	10:CJ:59:SER:C	2.56	0.48
12:CL:100:ILE:HG22	12:CL:101:VAL:N	2.28	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:N	15:CO:46:HIS:ND1	2.61	0.48
16:CP:51:VAL:O	16:CP:51:VAL:HG12	2.12	0.48
25:D0:68:GLU:HG2	25:D0:80:HIS:HB2	1.95	0.48
27:D2:50:ILE:C	27:D2:52:ASP:N	2.70	0.48
27:D2:64:LEU:O	27:D2:67:LYS:HB2	2.13	0.48
35:DA:154(A):C:N4	35:DA:171:G:N1	2.61	0.48
35:DA:510:C:C2'	35:DA:511:U:H5'	2.43	0.48
35:DA:606:U:OP2	40:DF:104:LYS:HE3	2.13	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
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:2709:G:O2'	35:DA:2710:C:H5'	2.13	0.48
37:DC:82:LYS:HG2	37:DC:151:GLU:HA	1.95	0.48
38:DD:52:ARG:HB2	38:DD:53:PHE:CD2	2.48	0.48
38:DD:181:GLU:CA	38:DD:272:ALA:HB3	2.29	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
49:DS:17:ARG:O	49:DS:19:LYS:N	2.37	0.48
49:DS:99:LYS:C	49:DS:101:LEU:H	2.21	0.48
51:DU:85:LYS:C	51:DU:87:GLY:H	2.21	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
55:DY:77:PRO:O	55:DY:78:ALA:HB2	2.13	0.48
1:AA:62:U:H5''	1:AA:385:C:O2	2.13	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:706:A:N7	1:AA:707:C:H5	2.12	0.48
1:AA:718:G:H5'	11:AK:117:ASN:CG	2.38	0.48
1:AA:818:G:H3'	1:AA:819:A:C5'	2.43	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:1342:C:H4'	9:AI:124:GLN:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:59:GLU:HB2	2:AB:221:LEU:HD12	1.96	0.48
2:AB:185:ILE:HG12	2:AB:199:TYR:HB2	1.94	0.48
3:AC:164:ARG:NH1	3:AC:164:ARG:HB2	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
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
18:AR:30:ASP:C	18:AR:32:ARG:H	2.22	0.48
20:AT:56:MET:O	20:AT:59:ALA:HB3	2.14	0.48
25:B0:19:LYS:O	25:B0:20:ARG:C	2.56	0.48
33:B8:32:LEU:HB3	33:B8:36:LYS:HZ3	1.78	0.48
33:B8:33:ASN:O	33:B8:34:TRP:HB3	2.13	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:747:U:O2	35:BA:2014:A:H1'	2.13	0.48
35:BA:858:U:O2	35:BA:2268:A:H2'	2.12	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:2553:G:H2'	35:BA:2554:U:H4'	1.96	0.48
35:BA:2875:C:C4'	50:BT:5:ALA:HB2	2.42	0.48
38:BD:37:LEU:HD12	38:BD:64:ILE:HG22	1.94	0.48
38:BD:181:GLU:CA	38:BD:272:ALA:HB3	2.28	0.48
39:BE:61:ARG:HB3	39:BE:62:PRO:HD3	1.95	0.48
39:BE:64:LYS:C	39:BE:66:HIS:H	2.20	0.48
42:BH:83:TYR:H	42:BH:83:TYR:HD1	1.60	0.48
46:BP:59:LEU:C	46:BP:61:ARG:HD2	2.38	0.48
49:BS:93:LYS:O	49:BS:94:TYR:C	2.55	0.48
50:BT:3:ARG:C	50:BT:5:ALA:N	2.71	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
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
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:1348:U:C4'	9:CI:120:ARG:HD2	2.21	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:24:TRP:H	2:CB:24:TRP:CD1	2.30	0.48
3:CC:86:VAL:C	3:CC:89:GLU:HB3	2.38	0.48
4:CD:187:ARG:HH11	4:CD:187:ARG:HG2	1.78	0.48
5:CE:41:VAL:C	5:CE:66:MET:HG2	2.38	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: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
32:D7:8:ASN:ND2	32:D7:8:ASN:C	2.69	0.48
33:D8:61:LEU:C	33:D8:63:PRO:HD2	2.38	0.48
35:DA:322:A:OP2	40:DF:169:ASN:HB2	2.12	0.48
35:DA:718:A:H2'	35:DA:719:C:O4'	2.13	0.48
35:DA:1027:A:C2	35:DA:2488:A:H5'	2.48	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:2861:G:H2'	35:DA:2862:G:H8	1.78	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:270:ILE:O	38:DD:271:ILE:HG12	2.13	0.48
39:DE:55:ASN:ND2	39:DE:75:VAL:HG22	2.27	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
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
43:DI:6:LEU:O	43:DI:7:GLU:C	2.54	0.48
47:DQ:104:PHE:CD2	47:DQ:104:PHE:N	2.80	0.48
48:DR:79:LEU:HA	48:DR:83:ILE:CG1	2.43	0.48
48:DR:115:GLU:HG2	48:DR:116:LEU:N	2.27	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
56:DZ:102:LEU:HA	56:DZ:137:ILE:HG22	1.95	0.48
1:AA:90:U:P	1:AA:91:C:H4'	2.54	0.48
1:AA:127:G:HO2'	17:AQ:2:PRO:N	2.11	0.48
1:AA:197:A:N7	1:AA:221:C:H4'	2.28	0.48
1:AA:323:U:H4'	20:AT:22:ARG:HB2	1.94	0.48
1:AA:355:C:C4	1:AA:356:A:N7	2.80	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
2:AB:61:LEU:CD1	2:AB:66:GLY:HA3	2.43	0.48
2:AB:166:ASP:CG	2:AB:169:LYS:HB2	2.38	0.48
4:AD:2:GLY:O	4:AD:3:ARG:C	2.56	0.48
7:AG:131:LYS:O	7:AG:131:LYS:HG3	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
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
26:B1:42:GLN:HB3	35:BA:396:G:H1'	1.94	0.48
33:B8:4:MET:O	33:B8:62:LEU:CD1	2.61	0.48
35:BA:143(A):C:H2'	35:BA:143(A):C:O2	2.13	0.48
35:BA:154(A):C:O2	35:BA:154(A):C:O4'	2.30	0.48
35:BA:201:C:O2'	35:BA:202:U:H5'	2.13	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:285:C:C2'	35:BA:286:C:H5''	2.43	0.48
35:BA:896:A:N1	56:BZ:113:ALA:HB3	2.28	0.48
35:BA:1142(A):A:N7	35:BA:1144:G:C6	2.81	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: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:2561:A:H2	45:BO:23:ARG:HH12	1.59	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
38:BD:16:MET:HE2	38:BD:208:LYS:HD2	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:NH1	43:BI:82:ARG:HG3	2.27	0.48
45:BO:35:VAL:HG21	45:BO:69:ILE:HD13	1.95	0.48
45:BO:98:VAL:HG13	45:BO:118:ALA:HA	1.96	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:CG	52:BV:13:ARG:HH11	2.26	0.48
53:BW:57:ASN:O	53:BW:58:ALA:C	2.57	0.48
55:BY:2:ARG:HH11	55:BY:2:ARG:HG2	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BZ:96:VAL:HG22	56:BZ:97:GLU:H	1.76	0.48
1:CA:34:C:H2'	1:CA:35:G:H8	1.78	0.48
1:CA:90:U:OP1	1:CA:91:C:H4'	2.13	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: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:1054:C:H2'	1:CA:1054:C:O2	2.13	0.48
1:CA:1158:C:H2'	1:CA:1158:C:O2	2.12	0.48
2:CB:41:ILE:HD12	2:CB:41:ILE:H	1.78	0.48
2:CB:42:ILE:HD13	2:CB:203:GLY:HA2	1.94	0.48
2:CB:197:VAL:HG11	2:CB:200:ILE:HG12	1.95	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:HH11	15:CO:17:ARG:HG3	1.78	0.48
25:D0:49:LYS:HB2	25:D0:80:HIS:HB3	1.95	0.48
26:D1:86:SER:O	26:D1:87:PRO:C	2.56	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: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
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
36:DB:32:C:C2	36:DB:51:G:C2	3.02	0.48
38:DD:24:ILE:O	38:DD:25:THR:C	2.55	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)
44:DN:41:ASP:O	44:DN:42:TRP:C	2.56	0.48
48:DR:2:ARG:HH11	48:DR:2:ARG:HG2	1.77	0.48
48:DR:99:LYS:H	48:DR:99:LYS:HD3	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:33:LEU:CD2	56:DZ:90:VAL:HG21	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
1:AA:256:U:H2'	1:AA:257:G:C8	2.48	0.48
1:AA:376:G:H5''	16:AP:5:ARG:HD2	1.94	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
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.49	0.48
1:AA:1439:C:O2	1:AA:1439:C:C2'	2.61	0.48
1:AA:1442(A):G:H2'	50:BT:118:ARG:HH11	1.78	0.48
2:AB:91:PRO:HG2	2:AB:155:LEU:CB	2.24	0.48
2:AB:162:ILE:O	2:AB:162:ILE:HG13	2.12	0.48
2:AB:218:ALA:O	2:AB:222:ILE:HG13	2.12	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
9:AI:65:VAL:C	9:AI:66:ARG:HG3	2.38	0.48
9:AI:116:LYS:O	9:AI:117:HIS:C	2.56	0.48
12:AL:10:LEU:HB3	17:AQ:32:TYR:CE1	2.49	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
15:AO:46:HIS:C	15:AO:48:LYS:H	2.21	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:CD1	29:B4:51:TYR:N	2.81	0.48
30:B5:44:THR:HG21	48:BR:101:ALA:HA	1.94	0.48
34:B9:17:ILE:HG13	34:B9:26:ILE:HD11	1.94	0.48
35:BA:78:A:H2'	35:BA:79:G:C8	2.48	0.48
35:BA:152:G:H2'	35:BA:153:C:O4'	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:1027:A:C2	35:BA:2488:A:H5'	2.48	0.48
35:BA:1529:G:N2	35:BA:1530:C:H2'	2.27	0.48
35:BA:1591:G:H5'	35:BA:1591:G:C8	2.41	0.48
35:BA:2819:G:O2'	35:BA:2820:A:H5'	2.12	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:22:SER:HA	38:BD:25:THR:OG1	2.14	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
44:BN:27:ALA:O	44:BN:28:THR:C	2.55	0.48
46:BP:46:LYS:HG2	46:BP:52:GLU:HG2	1.94	0.48
50:BT:46:GLU:CG	50:BT:88:ILE:HD11	2.44	0.48
50:BT:64:ARG:HH11	50:BT:64:ARG:HG2	1.79	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: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
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
2:CB:17:PHE:O	2:CB:17:PHE:CD2	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
15:CO:87:ILE:O	15:CO:88:ARG:HB2	2.13	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
31:D6:20:ASN:CG	31:D6:21:TYR:N	2.71	0.48
33:D8:32:LEU:HB3	33:D8:36:LYS:HZ3	1.78	0.48
34:D9:17:ILE:HG13	34:D9:26:ILE:HD11	1.94	0.48
34:D9:22:ARG:HB2	34:D9:24:TYR:HE1	1.77	0.48
35:DA:995:C:OP2	51:DU:54:LYS:HD3	2.13	0.48
35:DA:1266:G:O4'	53:DW:15:ARG:NH2	2.46	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
38:DD:271:ILE:O	38:DD:272:ALA:CB	2.62	0.48
39:DE:4:ILE:C	39:DE:5:LEU:HD23	2.39	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:20:ILE:O	41:DG:24:GLY:HA2	2.13	0.48
42:DH:141:VAL:CG1	42:DH:142:GLY:N	2.73	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
49:DS:80:LEU:HD12	49:DS:80:LEU:N	2.28	0.48
50:DT:103:ARG:O	50:DT:104:ASN:C	2.56	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:O	2:AB:17:PHE:CD2	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
2:AB:97:TRP:CH2	2:AB:176:GLU:CD	2.91	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
9:AI:115:GLY:C	9:AI:116:LYS:HG2	2.39	0.48
13:AM:8:GLU:OE2	13:AM:22:ILE:HA	2.13	0.48
15:AO:9:GLN:O	15:AO:10:LYS:C	2.55	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
32:B7:33:ARG:NH1	35:BA:467:G:OP1	2.46	0.48
33:B8:23:VAL:HG12	33:B8:46:ARG:HB3	1.94	0.48
35:BA:79:G:O2'	35:BA:80:G:H5'	2.14	0.48
35:BA:244:A:C2	35:BA:255:A:C4	3.01	0.48
35:BA:1902:C:C2'	35:BA:1903:G:O5'	2.61	0.48
35:BA:2023:G:H5'	35:BA:2617:C:H4'	1.95	0.48
35:BA:2313:C:H2'	35:BA:2314:C:C6	2.40	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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:12:ASP:C	45:BO:14:THR:H	2.22	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:14:VAL:HB	52:BV:96:ILE:HG13	1.96	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
56:BZ:111:VAL:O	56:BZ:111:VAL:CG2	2.61	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
1:CA:963:G:H21	10:CJ:55:LYS:HD3	1.79	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
2:CB:116:GLU:HA	2:CB:119:GLU:HB3	1.96	0.48
2:CB:207:ALA:C	2:CB:209:ARG:N	2.70	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
9:CI:115:GLY:C	9:CI:116:LYS:HG2	2.39	0.48
10:CJ:38:ILE:HG13	10:CJ:38:ILE:O	2.12	0.48
22:CV:25:C:O2'	22:CV:26:A:H5'	2.13	0.48
25:D0:34:GLY:HA3	35:DA:2353:G:H1'	1.95	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
41:DG:46:ALA:C	41:DG:51:ARG:HD2	2.38	0.48
43:DI:78:THR:OG1	43:DI:141:LYS:HD2	2.13	0.48
43:DI:125:GLU:OE1	43:DI:125:GLU:HA	2.11	0.48
45:DO:5:GLN:HE21	45:DO:20:MET:CE	2.27	0.48
45:DO:10:VAL:HG21	45:DO:16:ALA:O	2.13	0.48
46:DP:23:PRO:HB2	46:DP:33:ARG:CG	2.43	0.48
49:DS:33:LYS:C	49:DS:34:HIS:HD2	2.21	0.48
49:DS:53:SER:C	49:DS:55:ALA:N	2.71	0.48
55:DY:26:LYS:O	55:DY:39:VAL:HA	2.14	0.48
1:AA:22:G:H2'	1:AA:23:C:C6	2.48	0.48
1:AA:133:U:OP1	20:AT:74:LYS:HE2	2.13	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
1:AA:1124:G:H5'	10:AJ:35:SER:HB2	1.95	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
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:102:LEU:HD23	9:AI:102:LEU:C	2.38	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
13:AM:123:ALA:HB2	22:AY:39:U:H4'	1.95	0.48
14:AN:15:LYS:O	14:AN:16:PHE:C	2.57	0.48
20:AT:41:ILE:HG13	20:AT:42:GLN:N	2.28	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
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
37:BC:42:GLU:HA	37:BC:178:ALA:HB2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BC:100:ILE:HG23	37:BC:131:LEU:O	2.14	0.48
38:BD:33:LEU:O	38:BD:34:VAL:CB	2.56	0.48
38:BD:137:PRO:HB2	38:BD:140:THR:HG23	1.95	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
44:BN:58:ASP:C	44:BN:60:ILE:N	2.71	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
56:BZ:116:VAL:N	56:BZ:174:VAL:HG13	2.29	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
1:CA:1073:U:H2'	1:CA:1074:G:C8	2.48	0.48
1:CA:1399:C:C2	1:CA:1502:A:N6	2.82	0.48
5:CE:40:ARG:HG2	5:CE:40:ARG:NH1	2.27	0.48
9:CI:66:ARG:HH11	9:CI:66:ARG:HB2	1.78	0.48
10:CJ:35:SER:O	10:CJ:36:GLY:C	2.57	0.48
19:CS:44:MET:SD	19:CS:44:MET:N	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:39:C:H2'	35:DA:40:C:C6	2.49	0.48
35:DA:154(A):C:N4	35:DA:171:G:H1	2.12	0.48
35:DA:363(B):G:H2'	35:DA:363(B):G:N3	2.28	0.48
35:DA:626:U:C5'	35:DA:627:A:H5'	2.44	0.48
35:DA:774:A:H2	35:DA:787:U:O2'	1.97	0.48
35:DA:943:U:OP2	46:DP:38:GLN:OE1	2.32	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:2561:A:H2	45:DO:23:ARG:HH12	1.62	0.48
35:DA:2724:C:OP1	39:DE:111:ARG:HD3	2.14	0.48
39:DE:27:LEU:CD2	50:DT:1:MET:HE2	2.34	0.48
39:DE:40:GLU:N	39:DE:40:GLU:OE1	2.46	0.48
40:DF:191:ARG:HH11	40:DF:191:ARG:HG2	1.77	0.48
41:DG:81:LYS:O	41:DG:82:LEU:C	2.56	0.48
43:DI:51:ILE:HG22	43:DI:52:ARG:N	2.28	0.48
43:DI:82:ARG:NH1	43:DI:82:ARG:HG3	2.28	0.48
43:DI:129:THR:HA	43:DI:137:PRO:HA	1.94	0.48
45:DO:24:VAL:CG2	45:DO:33:ALA:HB2	2.43	0.48
46:DP:33:ARG:O	46:DP:35:HIS:O	2.32	0.48
46:DP:123:LEU:HD12	46:DP:123:LEU:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
50:DT:85:LYS:HZ1	50:DT:85:LYS:HB3	1.79	0.48
56:DZ:116:VAL:O	56:DZ:117:LEU:C	2.56	0.48
1:AA:59:A:H5''	1:AA:60:A:H5''	1.95	0.48
1:AA:383:A:H2'	1:AA:384:G:H5'	1.96	0.48
1:AA:625:G:H4'	16:AP:16:HIS:HD2	1.78	0.48
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.49	0.48
3:AC:54:ARG:HH12	3:AC:56:ASP:CB	2.27	0.48
3:AC:150:LYS:CG	3:AC:169:ALA:HB2	2.42	0.48
7:AG:23:VAL:O	7:AG:27:ILE:HG13	2.13	0.48
7:AG:148:ASN:O	7:AG:150:ALA:N	2.47	0.48
8:AH:42:GLU:HG3	8:AH:109:ILE:CD1	2.41	0.48
12:AL:6:THR:HG23	12:AL:9:GLN:H	1.79	0.48
12:AL:126:LYS:HD2	12:AL:127:GLU:H	1.77	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
23:AW:76:A:H3'	23:AW:76:A:OP2	2.14	0.48
26:B1:68:PRO:O	26:B1:70:VAL:N	2.47	0.48
27:B2:17:SER:O	27:B2:18:PRO:C	2.57	0.48
31:B6:42:TRP:CH2	35:BA:643:A:N7	2.82	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
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
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
40:BF:20:LEU:HG	40:BF:21:ALA:H	1.78	0.48
40:BF:177:ALA:HB1	40:BF:178:PRO:HD2	1.94	0.48
41:BG:101:ILE:HD11	41:BG:105:LYS:NZ	2.27	0.48
45:BO:119:PRO:HB2	50:BT:68:TYR:CE1	2.48	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BR:53:HIS:HA	48:BR:56:LYS:HD3	1.96	0.48
49:BS:96:GLY:O	49:BS:97:ARG:C	2.56	0.48
1:CA:92:C:H2'	1:CA:93:G:C8	2.42	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:939:G:C5'	7:CG:102:ARG:HH22	2.17	0.48
1:CA:1194:U:H4'	5:CE:22:GLY:CA	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
5:CE:40:ARG:HB3	5:CE:40:ARG:CZ	2.44	0.48
6:CF:69:GLU:O	6:CF:70:ASP:C	2.56	0.48
8:CH:40:ALA:C	8:CH:42:GLU:N	2.71	0.48
10:CJ:4:ILE:HB	10:CJ:74:ILE:HG13	1.96	0.48
10:CJ:48:THR:HG22	10:CJ:49:VAL:N	2.28	0.48
11:CK:21:ILE:CD1	11:CK:82:VAL:HG13	2.43	0.48
11:CK:54:ARG:NH1	23:CW:40:C:H5'	2.26	0.48
13:CM:27:LYS:HE3	13:CM:31:LYS:NZ	2.29	0.48
15:CO:9:GLN:O	15:CO:10:LYS:C	2.57	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
25:D0:12:ASN:O	25:D0:13:GLY:C	2.56	0.48
27:D2:17:SER:HG	27:D2:20:GLU:HB2	1.78	0.48
29:D4:48:ILE:HG22	29:D4:50:THR:HG23	1.95	0.48
30:D5:48:GLU:C	30:D5:50:GLY:H	2.22	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:174:C:O2	35:DA:174:C:H2'	2.13	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:814:C:C5	46:DP:27:HIS:CE1	3.01	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
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:1654:A:C2	39:DE:113:PHE:CD1	3.02	0.48
35:DA:1747:G:H2'	35:DA:1747(A):G:C8	2.48	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:201:HIS:O	38:DD:204:ILE:HG12	2.13	0.48
38:DD:270:ILE:C	38:DD:271:ILE:CG1	2.85	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:60:LEU:HD13	41:DG:60:LEU:C	2.39	0.48
41:DG:86:MET:N	41:DG:87:PRO:HD2	2.27	0.48
41:DG:125:PHE:CD2	41:DG:131:TYR:HB2	2.49	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:24:GLY:O	46:DP:25:SER:HB3	2.13	0.48
46:DP:78:PRO:HB2	46:DP:111:ARG:HD2	1.96	0.48
52:DV:68:LYS:HB2	52:DV:68:LYS:NZ	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:93:G:H2'	1:AA:96:U:H5'	1.96	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
1:AA:530:G:H1'	22:AY:35:A:O2'	2.14	0.48
1:AA:1442(B):A:O2'	1:AA:1443:G:H8	1.97	0.48
2:AB:194:PRO:HA	2:AB:200:ILE:HD11	1.96	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
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
25:B0:12:ASN:O	25:B0:13:GLY:C	2.56	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:443:A:N7	40:BF:45:ARG:HD2	2.29	0.48
35:BA:999:U:H5''	35:BA:1154:G:O6	2.14	0.48
35:BA:1035:U:H2'	35:BA:1036:G:C8	2.49	0.48
35:BA:1203:G:H3'	35:BA:1204:A:H5''	1.95	0.48
35:BA:1257:C:H4'	40:BF:83:PHE:CD2	2.49	0.48
35:BA:1300:U:O2'	35:BA:1301:A:P	2.72	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1999:C:H4'	35:BA:2723:C:O2	2.14	0.48
35:BA:2579:C:O3'	39:BE:131:ALA:CB	2.61	0.48
35:BA:2876:G:O2'	50:BT:3:ARG:NE	2.46	0.48
38:BD:30:GLU:CD	38:BD:63:ARG:NE	2.72	0.48
42:BH:85:LYS:HZ2	42:BH:133:VAL:CB	2.26	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:N	42:BH:163:TYR:CD1	2.82	0.48
45:BO:18:LYS:HB2	45:BO:45:GLU:HG2	1.96	0.48
49:BS:33:LYS:C	49:BS:34:HIS:HD2	2.22	0.48
51:BU:85:LYS:C	51:BU:87:GLY:N	2.72	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:HG12	55:BY:51:VAL:O	2.14	0.48
55:BY:97:ARG:HH11	55:BY:97:ARG:HG2	1.77	0.48
56:BZ:166:SER:CB	56:BZ:167:PRO:C	2.84	0.48
1:CA:59:A:H5''	1:CA:60:A:H5''	1.95	0.48
1:CA:457:C:O5'	1:CA:457:C:H6	1.97	0.48
1:CA:1073:U:H2'	1:CA:1074:G:H8	1.78	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
9:CI:53:VAL:C	9:CI:54:ASP:N	2.71	0.48
11:CK:48:ILE:HD11	11:CK:64:ALA:CA	2.39	0.48
13:CM:56:LEU:HD13	13:CM:56:LEU:C	2.39	0.48
16:CP:12:LYS:C	16:CP:14:ASN:H	2.21	0.48
17:CQ:68:ARG:HG3	17:CQ:68:ARG:O	2.13	0.48
21:CU:5:ASP:O	21:CU:6:ARG:C	2.56	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:15:G:H2'	35:DA:16:G:H8	1.78	0.48
35:DA:271(H):G:O2'	35:DA:271(I):G:H5''	2.13	0.48
35:DA:435:C:C2'	35:DA:436:C:H5'	2.44	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:1798:U:H5'	38:DD:259:THR:HG23	1.89	0.48
35:DA:2051:A:H5'	35:DA:2578:G:O4'	2.14	0.48
35:DA:2202:C:H2'	35:DA:2203:U:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2313:C:H5'	35:DA:2313:C:C6	2.49	0.48
35:DA:2636:U:H4'	39:DE:80:GLU:CD	2.39	0.48
35:DA:2696:U:H2'	35:DA:2697:G:C8	2.49	0.48
35:DA:2773:C:O2'	35:DA:2774:C:H5'	2.14	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:27:ASN:C	41:DG:29:TRP:H	2.21	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: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: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:88:ILE:CG2	50:DT:89:VAL:HG23	2.42	0.48
50:DT:89:VAL:HG11	50:DT:91:ARG:NE	2.29	0.48
50:DT:95:ARG:HB3	50:DT:95:ARG:NH1	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
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
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
3:AC:92:ALA:HB2	3:AC:99:VAL:CG1	2.44	0.48
3:AC:130:VAL:HG21	3:AC:157:ILE:HG23	1.96	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:10:MET:CE	5:AE:13:ILE:HD11	2.42	0.48
5:AE:63:ARG:HH11	5:AE:63:ARG:HG2	1.78	0.48
11:AK:99:GLN:CD	11:AK:105:VAL:HG11	2.39	0.48
16:AP:8:ARG:CG	16:AP:9:PHE:H	2.26	0.48
32:B7:12:ARG:HG3	35:BA:686:G:O6	2.13	0.48
35:BA:174:C:O2	35:BA:174:C:H2'	2.13	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:645:C:O2	35:BA:645:C:H2'	2.14	0.48
35:BA:1528(A):A:C2'	35:BA:1529:G:H5''	2.44	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
40:BF:164:ARG:HH11	40:BF:164:ARG:HG2	1.79	0.48
43:BI:125:GLU:HA	43:BI:125:GLU:OE1	2.14	0.48
45:BO:104:ARG:NH1	45:BO:104:ARG:CB	2.77	0.48
46:BP:16:ARG:CZ	46:BP:18:ARG:CG	2.92	0.48
46:BP:16:ARG:C	46:BP:16:ARG:HH11	2.21	0.48
46:BP:122:PRO:HG3	46:BP:141:ALA:HB3	1.95	0.48
47:BQ:16:ARG:CG	47:BQ:17:LEU:N	2.76	0.48
47:BQ:141:GLN:CB	56:BZ:99:TYR:H	2.27	0.48
48:BR:113:LEU:HD12	48:BR:114:VAL:N	2.29	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
54:BX:46:ALA:C	54:BX:47:PHE:CD1	2.91	0.48
55:BY:77:PRO:O	55:BY:78:ALA:HB2	2.12	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
2:CB:194:PRO:O	2:CB:195:ASP:C	2.57	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:HG3	8:CH:60:ARG:HH11	1.79	0.48
9:CI:86:VAL:HG21	9:CI:93:ARG:HH11	1.79	0.48
9:CI:95:LYS:HD3	9:CI:95:LYS:C	2.39	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:HD12	29:D4:40:ILE:N	2.28	0.48
32:D7:12:ARG:HG3	35:DA:686:G:O6	2.13	0.48
35:DA:848:G:H5'	35:DA:848:G:C8	2.48	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
36:DB:111:G:H2'	36:DB:112:U:O4'	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:129:GLY:C	41:DG:130:ASN:OD1	2.57	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:91:LEU:HA	44:DN:95:PRO:HB3	1.95	0.48
49:DS:96:GLY:O	49:DS:97:ARG:C	2.57	0.48
50:DT:92:GLY:C	50:DT:94:ALA:N	2.72	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
20:AT:10:LEU:C	20:AT:12:ALA:H	2.22	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: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
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:H2'	35:BA:2766:G:N3	2.29	0.48
35:BA:2841:C:H2'	35:BA:2842:G:H8	1.78	0.48
38:BD:37:LEU:HD12	38:BD:64:ILE:CG2	2.43	0.48
39:BE:1:MET:HE2	39:BE:1:MET:H1	1.78	0.48
41:BG:161:THR:C	41:BG:163:ALA:H	2.22	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
54:BX:66:LEU:C	54:BX:66:LEU:CD2	2.87	0.48
56:BZ:99:TYR:N	56:BZ:99:TYR:CD2	2.81	0.48
56:BZ:155:LEU:HD12	56:BZ:155:LEU:N	2.29	0.48
1:CA:35:G:C6	1:CA:36:C:N4	2.82	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
3:CC:73:PRO:HA	3:CC:76:VAL:CG1	2.42	0.48
3:CC:94:LEU:HD12	3:CC:94:LEU:C	2.39	0.48
8:CH:88:LYS:HB3	8:CH:89:PRO:HD2	1.95	0.48
9:CI:17:VAL:HG21	9:CI:80:GLY:C	2.39	0.48
9:CI:65:VAL:C	9:CI:66:ARG:HG3	2.39	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
35:DA:139:G:H2'	35:DA:140:G:N7	2.28	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
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:2635:C:H5''	39:DE:78:LEU:O	2.13	0.48
37:DC:42:GLU:HA	37:DC:178:ALA:HB2	1.96	0.48
37:DC:86:ALA:HB2	37:DC:152:ILE:CB	2.43	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:49:LEU:O	39:DE:78:LEU:HB3	2.13	0.48
39:DE:51:PHE:HE1	39:DE:52:LEU:HD13	1.78	0.48
41:DG:121:ASN:ND2	41:DG:123:ASN:H	2.12	0.48
42:DH:89:ILE:CD1	42:DH:90:LYS:N	2.71	0.48
42:DH:118:PRO:HG3	42:DH:144:VAL:HG21	1.96	0.48
45:DO:53:LYS:O	45:DO:56:ASP:CG	2.57	0.48
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
52:DV:95:LEU:HD23	52:DV:95:LEU:C	2.39	0.48
55:DY:28:LYS:HZ2	55:DY:28:LYS:N	2.12	0.48
56:DZ:33:LEU:HG	56:DZ:34:ASN:N	2.28	0.48
1:AA:99:U:H2'	1:AA:100:C:C5	2.49	0.47
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1314:C:H41	19:AS:4:SER:N	2.12	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
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
25:B0:43:THR:O	25:B0:43:THR:CG2	2.60	0.47
27:B2:3:LEU:C	27:B2:5:GLU:H	2.20	0.47
29:B4:54:LYS:C	29:B4:56:GLU:H	2.21	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
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
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
39:BE:6:GLY:O	39:BE:195:LEU:HD12	2.14	0.47
39:BE:14:ILE:O	39:BE:20:ALA:HA	2.13	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
40:BF:139:PHE:O	40:BF:140:LEU:C	2.57	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
42:BH:71:LEU:CA	42:BH:74:ASN:HD22	2.27	0.47
43:BI:34:GLY:O	43:BI:35:LEU:HD23	2.13	0.47
43:BI:98:ALA:CB	43:BI:109:ILE:HB	2.42	0.47
44:BN:110:GLY:C	44:BN:114:ARG:HH21	2.22	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:BX:37:THR:O	54:BX:38:GLU:C	2.57	0.47
55:BY:27:VAL:CA	55:BY:28:LYS:NZ	2.69	0.47
56:BZ:42:VAL:HG13	56:BZ:43:GLU:N	2.28	0.47
56:BZ:117:LEU:HD13	56:BZ:174:VAL:HG23	1.96	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
1:CA:1058:G:OP1	3:CC:199:LYS:HE3	2.14	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
2:CB:28:PHE:HD2	2:CB:194:PRO:HD3	1.79	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:90:VAL:C	5:CE:91:LEU:HD22	2.39	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:54:VAL:O	13:CM:58:GLU:N	2.33	0.47
13:CM:108:ARG:HH12	13:CM:112:GLY:HA3	1.79	0.47
14:CN:15:LYS:O	14:CN:16:PHE:C	2.56	0.47
15:CO:46:HIS:C	15:CO:48:LYS:H	2.22	0.47
17:CQ:83:ASP:CG	17:CQ:84:LEU:H	2.21	0.47
20:CT:46:GLU:CD	20:CT:48:LYS:HE2	2.38	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:O	28:D3:36:VAL:HG23	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: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
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:2579:C:O3'	39:DE:131:ALA:HB3	2.13	0.47
36:DB:20:C:C3'	36:DB:21:G:H5''	2.42	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
38:DD:176:ARG:HH11	38:DD:176:ARG:CG	2.24	0.47
39:DE:87:GLU:O	39:DE:87:GLU:HG3	2.13	0.47
41:DG:22:ARG:NH1	41:DG:22:ARG:HB3	2.29	0.47
43:DI:81:VAL:HG11	43:DI:88:ILE:CD1	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DO:32:TYR:CD1	45:DO:32:TYR:N	2.81	0.47
46:DP:41:ARG:CA	46:DP:41:ARG:NE	2.74	0.47
54:DX:3:THR:HA	54:DX:6:ASP:OD2	2.13	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
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
8:AH:85:ARG:HH11	8:AH:85:ARG:CG	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
30:B5:2:ALA:HB3	35:BA:747:U:N1	2.29	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:533:G:H5'	51:BU:24:TYR:CD2	2.49	0.47
35:BA:728:G:C6	35:BA:730:C:C4	3.02	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
36:BB:21:G:N3	36:BB:21:G:H2'	2.29	0.47
38:BD:198:ASN:C	38:BD:198:ASN:HD22	2.22	0.47
38:BD:210:GLY:O	38:BD:211:ARG:CB	2.61	0.47
39:BE:67:PHE:CD2	39:BE:68:ALA:N	2.81	0.47
39:BE:68:ALA:C	39:BE:70:ALA:H	2.21	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
45:BO:13:ASN:C	45:BO:15:GLY:N	2.72	0.47
47:BQ:134:ARG:HA	47:BQ:137:TYR:CD1	2.49	0.47
50:BT:43:GLN:HG2	50:BT:44:ASP:N	2.29	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: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
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:1242:C:C5'	21:CU:10:ARG:HH12	2.26	0.47
1:CA:1358:U:OP1	14:CN:35:ARG:HG2	2.13	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
6:CF:63:TYR:O	6:CF:64:GLN:C	2.56	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
16:CP:34:GLU:HG2	16:CP:35:LYS:N	2.27	0.47
18:CR:56:THR:OG1	18:CR:58:LEU:HD12	2.13	0.47
27:D2:24:LEU:HD12	27:D2:24:LEU:O	2.14	0.47
27:D2:40:SER:C	27:D2:42:GLY:H	2.21	0.47
27:D2:47:ASN:ND2	35:DA:94(A):G:N3	2.62	0.47
27:D2:65:ASN:C	27:D2:67:LYS:N	2.71	0.47
31:D6:28:ARG:CZ	31:D6:28:ARG:HA	2.44	0.47
33:D8:7:HIS:HD2	46:DP:50:ARG:HD3	1.80	0.47
35:DA:271(D):G:O2'	35:DA:271(E):U:H5'	2.13	0.47
35:DA:560:C:H4'	51:DU:52:ARG:NH2	2.29	0.47
35:DA:858:U:O2	35:DA:2268:A:H2'	2.14	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: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
37:DC:78:ALA:HB3	37:DC:83:ILE:HD11	1.96	0.47
38:DD:94:LEU:HB2	38:DD:104:TYR:HE2	1.79	0.47
40:DF:18:ARG:C	40:DF:19:GLU:CD	2.82	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:9:LEU:HB2	43:DI:12:LEU:O	2.14	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:133:HIS:HB2	43:DI:134:PRO:HD2	1.93	0.47
44:DN:27:ALA:O	44:DN:28:THR:C	2.56	0.47
46:DP:46:LYS:HG2	46:DP:52:GLU:CG	2.44	0.47
46:DP:107:LYS:C	46:DP:109:GLY:N	2.63	0.47
47:DQ:141:GLN:HA	56:DZ:53:ILE:CG2	2.44	0.47
48:DR:7:GLY:O	48:DR:8:ARG:CB	2.61	0.47
49:DS:88:ASP:CG	49:DS:89:ARG:N	2.73	0.47
51:DU:76:TYR:CZ	51:DU:80:ILE:HG13	2.49	0.47
54:DX:52:VAL:HG21	54:DX:84:ALA:HA	1.97	0.47
55:DY:2:ARG:HH11	55:DY:2:ARG:HG2	1.78	0.47
55:DY:89:PHE:O	55:DY:90:LEU:HB3	2.14	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
1:AA:939:G:C5'	7:AG:102:ARG:HH22	2.15	0.47
1:AA:1242:C:C5'	21:AU:10:ARG:HH12	2.28	0.47
2:AB:27:LYS:HD3	2:AB:195:ASP:OD2	2.13	0.47
2:AB:97:TRP:HH2	2:AB:176:GLU:CD	2.22	0.47
6:AF:75:LEU:HD23	6:AF:79:LEU:HG	1.97	0.47
7:AG:146:GLU:HA	7:AG:149:ARG:HB2	1.96	0.47
9:AI:41:VAL:HG12	9:AI:41:VAL:O	2.13	0.47
11:AK:29:ILE:HD13	11:AK:44:SER:HB3	1.97	0.47
11:AK:126:ARG:HB3	11:AK:126:ARG:CZ	2.44	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
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:B0:7:LEU:HD21	47:BQ:81:VAL:HB	1.95	0.47
25:B0:70:GLN:HE21	25:B0:70:GLN:HB3	1.50	0.47
26:B1:90:ILE:HG22	26:B1:94:LEU:CD1	2.40	0.47
30:B5:43:HIS:CD2	35:BA:2815:C:O2'	2.68	0.47
35:BA:320:A:H3'	40:BF:136:THR:HG22	1.96	0.47
35:BA:407:G:H2'	35:BA:408:G:H8	1.79	0.47
35:BA:560:C:H4'	51:BU:52:ARG:NH2	2.29	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
35:BA:951:C:O2'	35:BA:952:G:H5'	2.14	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2646:C:OP2	35:BA:2732:G:O2'	2.22	0.47
36:BB:13:A:N1	36:BB:69:G:O2'	2.43	0.47
36:BB:37:C:O2'	36:BB:38:C:H5'	2.13	0.47
37:BC:24:GLU:CD	37:BC:24:GLU:H	2.22	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:83:PHE:O	40:BF:84:VAL:HB	2.14	0.47
40:BF:132:VAL:O	40:BF:134:GLY:N	2.47	0.47
40:BF:160:ASN:HD22	40:BF:161:GLU:N	2.12	0.47
43:BI:59:ALA:O	43:BI:63:ALA:HB3	2.14	0.47
44:BN:41:ASP:O	44:BN:42:TRP:C	2.56	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
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
47:BQ:118:LEU:O	47:BQ:121:ALA:N	2.47	0.47
49:BS:30:ARG:NH2	49:BS:62:LYS:HB3	2.25	0.47
50:BT:82:LEU:C	50:BT:84:GLN:N	2.72	0.47
55:BY:28:LYS:HB3	55:BY:37:VAL:HB	1.97	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
1:CA:737:A:O2'	6:CF:72:VAL:HG11	2.13	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
3:CC:16:ARG:HH11	3:CC:16:ARG:CA	2.27	0.47
3:CC:167:TRP:O	3:CC:168:ALA:HB2	2.14	0.47
7:CG:115:ARG:O	7:CG:119:ARG:HG3	2.14	0.47
9:CI:102:LEU:HD23	9:CI:102:LEU:C	2.39	0.47
10:CJ:23:ILE:HG12	10:CJ:85:LEU:HD22	1.95	0.47
10:CJ:78:ASN:ND2	10:CJ:80:LYS:HB2	2.29	0.47
11:CK:126:ARG:C	11:CK:128:ALA:N	2.69	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
20:CT:45:GLN:C	20:CT:47:GLY:N	2.68	0.47
26:D1:73:LEU:HD13	26:D1:94:LEU:CD2	2.44	0.47
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:661:C:H4'	46:DP:16:ARG:HH12	1.80	0.47
35:DA:712:G:O2'	35:DA:713:G:H5'	2.14	0.47
35:DA:1037:G:H1	35:DA:1118:C:N4	2.12	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
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
40:DF:9:ILE:HA	40:DF:14:PRO:O	2.14	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
54:DX:75:ASP:C	54:DX:76:ARG:HG3	2.39	0.47
55:DY:27:VAL:N	55:DY:28:LYS:HZ2	2.13	0.47
56:DZ:111:VAL:HG13	56:DZ:111:VAL:O	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
1:AA:1348:U:C4'	9:AI:120:ARG:HD2	2.19	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
2:AB:213:LEU:O	2:AB:213:LEU:HD23	2.15	0.47
8:AH:60:ARG:HG3	8:AH:60:ARG:HH11	1.79	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:B6:10:LEU:C	31:B6:11:LEU:HD22	2.39	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: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
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
36:BB:78:A:H2'	36:BB:79:C:O4'	2.13	0.47
38:BD:112:GLN:N	38:BD:115:GLN:NE2	2.63	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:267:SER:HA	38:BD:270:ILE:HG13	1.96	0.47
44:BN:90:MET:O	44:BN:93:THR:O	2.33	0.47
45:BO:50:GLY:C	45:BO:52:VAL:H	2.21	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:HH21	51:BU:64:ARG:CG	2.27	0.47
52:BV:91:TYR:C	52:BV:91:TYR:HD1	2.21	0.47
53:BW:34:ASN:O	53:BW:37:ARG:HB3	2.14	0.47
56:BZ:28:MET:HE2	56:BZ:59:LEU:CD1	2.43	0.47
1:CA:197:A:N7	1:CA:221:C:H4'	2.28	0.47
1:CA:1228:C:H4'	13:CM:116:THR:CA	2.45	0.47
1:CA:1249:C:H5'	1:CA:1249:C:H6	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
4:CD:12:CYS:SG	4:CD:19:LEU:O	2.72	0.47
4:CD:119:GLN:NE2	4:CD:123:HIS:NE2	2.62	0.47
5:CE:136:MET:O	5:CE:138:ALA:N	2.47	0.47
9:CI:128:ARG:HD3	9:CI:128:ARG:H	1.80	0.47
10:CJ:50:ILE:CD1	14:CN:41:ARG:HD2	2.44	0.47
12:CL:47:LYS:CB	12:CL:48:PRO:CD	2.83	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: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:528:A:N1	35:DA:2042:A:H2'	2.30	0.47
35:DA:884:C:H42	35:DA:892:G:H1	1.62	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:2307:G:N3	35:DA:2307:G:H5''	2.29	0.47
35:DA:2710:C:OP1	48:DR:15:SER:HB2	2.14	0.47
38:DD:16:MET:HE2	38:DD:208:LYS:HD2	1.94	0.47
38:DD:148:GLU:HB3	38:DD:151:LYS:HD2	1.95	0.47
38:DD:205:VAL:O	38:DD:206:LEU:C	2.58	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
41:DG:107:LEU:HD11	41:DG:178:PHE:CE1	2.50	0.47
43:DI:60:GLU:CD	43:DI:64:GLU:HG3	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DO:49:ARG:HH11	45:DO:49:ARG:CG	2.24	0.47
50:DT:46:GLU:CG	50:DT:88:ILE:HD11	2.45	0.47
50:DT:50:ILE:HD12	50:DT:50:ILE:N	2.29	0.47
50:DT:129:ARG:NH1	50:DT:130:ALA:O	2.47	0.47
51:DU:69:CYS:HG	51:DU:79:PHE:HD1	1.62	0.47
52:DV:82:ARG:HG2	52:DV:82:ARG:HH11	1.80	0.47
55:DY:67:LEU:HD11	55:DY:71:LYS:HB2	1.96	0.47
56:DZ:8:TYR:HD2	56:DZ:62:PRO:CG	2.28	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
1:AA:1115:C:O2'	1:AA:1116:C:H5'	2.14	0.47
1:AA:1163:C:H5'	10:CJ:80:LYS:HD2	1.96	0.47
2:AB:80:ILE:HD11	2:AB:212:GLN:HA	1.96	0.47
3:AC:87:LEU:C	3:AC:89:GLU:N	2.68	0.47
4:AD:68:TYR:CD2	4:AD:97:LEU:HD22	2.49	0.47
5:AE:67:VAL:HG13	5:AE:69:VAL:CG2	2.43	0.47
5:AE:105:VAL:HB	5:AE:106:PRO:CD	2.45	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
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:6:THR:HG23	12:AL:9:GLN:HB2	1.95	0.47
12:AL:32:PHE:HB3	12:AL:84:LEU:HD21	1.97	0.47
13:AM:22:ILE:CG2	13:AM:25:ILE:HD13	2.44	0.47
13:AM:116:THR:HG22	13:AM:117:VAL:H	1.78	0.47
15:AO:46:HIS:C	15:AO:48:LYS:N	2.73	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:270:A:C2'	35:BA:271:A:H5'	2.45	0.47
35:BA:581:C:OP1	51:BU:33:ARG:HG2	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:2864:G:H8	35:BA:2864:G:C5'	2.27	0.47
36:BB:30:C:H5	49:BS:32:LEU:CD1	2.27	0.47
38:BD:26:LYS:CD	38:BD:82:ILE:H	2.28	0.47
38:BD:153:ALA:C	38:BD:154:LYS:HG2	2.40	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:17:ASP:O	39:BE:18:ASP:HB2	2.13	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:45:GLU:O	41:BG:88:ILE:HD11	2.15	0.47
41:BG:120:LEU:O	41:BG:121:ASN:C	2.57	0.47
41:BG:128:ARG:N	41:BG:128:ARG:NE	2.62	0.47
42:BH:158:HIS:NE2	42:BH:169:VAL:O	2.48	0.47
46:BP:32:THR:O	46:BP:33:ARG:CB	2.63	0.47
46:BP:81:GLN:CG	46:BP:106:LEU:HD12	2.43	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:28:MET:HE2	56:BZ:59:LEU:HD12	1.96	0.47
56:BZ:103:ARG:O	56:BZ:105:VAL:N	2.43	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
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
2:CB:97:TRP:CH2	2:CB:176:GLU:CD	2.93	0.47
3:CC:28:GLN:HA	3:CC:28:GLN:NE2	2.29	0.47
5:CE:67:VAL:HG13	5:CE:69:VAL:CG2	2.45	0.47
5:CE:139:LEU:C	5:CE:141:GLN:N	2.72	0.47
10:CJ:31:GLY:HA3	10:CJ:78:ASN:OD1	2.14	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
15:CO:10:LYS:C	15:CO:10:LYS:HD2	2.39	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
31:D6:27:LYS:HE3	35:DA:2285:C:C5	2.50	0.47
35:DA:210:C:H2'	35:DA:211:A:C8	2.49	0.47
35:DA:832:G:H21	46:DP:53:GLY:HA3	1.79	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:2208:A:H1'	35:DA:2219:G:C5	2.49	0.47
35:DA:2892:A:C5	35:DA:2893:G:H1'	2.49	0.47
37:DC:24:GLU:CD	37:DC:24:GLU:H	2.22	0.47
37:DC:47:LEU:N	37:DC:47:LEU:HD23	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DC:100:ILE:HG23	37:DC:131:LEU:O	2.13	0.47
37:DC:124:GLY:O	37:DC:125:SER:CB	2.62	0.47
37:DC:182:PRO:O	37:DC:183:GLU:CB	2.62	0.47
41:DG:78:SER:O	41:DG:79:ASN:C	2.56	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:1:MET:C	44:DN:2:LYS:HD2	2.39	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
48:DR:107:ASP:C	48:DR:107:ASP:OD2	2.56	0.47
50:DT:89:VAL:HB	50:DT:91:ARG:CZ	2.43	0.47
50:DT:92:GLY:HA2	50:DT:114:LEU:CA	2.44	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
1:AA:1080:A:H5''	5:AE:16:THR:HG21	1.95	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
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
13:AM:73:GLU:C	13:AM:76:ALA:H	2.22	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:HG12	18:AR:65:ILE:H	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:449:A:O2'	35:BA:450:G:H5'	2.13	0.47
35:BA:1141:U:OP2	44:BN:63:THR:OG1	2.28	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:2636:U:H4'	39:BE:80:GLU:CD	2.39	0.47
37:BC:73:ARG:O	37:BC:119:VAL:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:31:LYS:O	38:BD:33:LEU:O	2.32	0.47
38:BD:34:VAL:C	38:BD:36:PRO:HD2	2.40	0.47
38:BD:263:ARG:CG	38:BD:263:ARG:HB2	2.45	0.47
39:BE:119:ARG:CG	39:BE:160:TYR:HB2	2.38	0.47
40:BF:1:MET:HE2	40:BF:2:LYS:HZ1	1.77	0.47
40:BF:22:ALA:C	40:BF:26:ALA:HB2	2.40	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
42:BH:86:GLU:HA	42:BH:132:ARG:HA	1.95	0.47
43:BI:33:ARG:HH11	43:BI:33:ARG:HG2	1.80	0.47
44:BN:35:ARG:O	44:BN:37:LYS:N	2.43	0.47
45:BO:104:ARG:NH1	45:BO:104:ARG:HB2	2.30	0.47
46:BP:32:THR:HG21	46:BP:37:GLY:CA	2.44	0.47
49:BS:87:PHE:CG	49:BS:88:ASP:N	2.78	0.47
50:BT:3:ARG:O	50:BT:4:GLY:C	2.58	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:642:A:N3	8:CH:113:SER:OG	2.44	0.47
1:CA:877:C:H1'	8:CH:3:THR:OG1	2.14	0.47
1:CA:881:G:H2'	1:CA:882:C:O4'	2.14	0.47
1:CA:1054:C:H5	1:CA:1196:U:C5	2.32	0.47
2:CB:34:ALA:HB1	2:CB:36:ARG:HD2	1.96	0.47
2:CB:80:ILE:HD11	2:CB:212:GLN:HA	1.96	0.47
3:CC:115:LEU:O	3:CC:116:VAL:C	2.57	0.47
8:CH:85:ARG:CG	8:CH:85:ARG:NH1	2.77	0.47
10:CJ:50:ILE:O	10:CJ:51:ARG:O	2.33	0.47
10:CJ:62:HIS:CD2	10:CJ:62:HIS:N	2.82	0.47
11:CK:74:ALA:C	11:CK:76:GLY:N	2.71	0.47
11:CK:125:PHE:N	11:CK:125:PHE:HD1	2.11	0.47
11:CK:126:ARG:HB3	11:CK:126:ARG:HH11	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: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
34:D9:17:ILE:HG21	34:D9:19:ARG:HH21	1.79	0.47
35:DA:154(A):C:O4'	35:DA:154(A):C:O2	2.30	0.47
35:DA:271(J):C:H2'	35:DA:271(K):U:H5''	1.96	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
35:DA:1140:C:H5''	44:DN:66:LYS:NZ	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1264:G:H2'	35:DA:2014:A:N6	2.29	0.47
35:DA:1349:A:N6	35:DA:1598:C:N4	2.61	0.47
35:DA:2686:G:C2	35:DA:2724:C:O2	2.67	0.47
35:DA:2875:C:C4'	50:DT:5:ALA:HB2	2.42	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:63:LYS:HA	40:DF:76:GLY:O	2.14	0.47
40:DF:196:LEU:HD23	40:DF:196:LEU:HA	1.73	0.47
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
56:DZ:94:GLU:O	56:DZ:96:VAL:N	2.46	0.47
1:AA:18:C:H4'	1:AA:1078:U:O2	2.15	0.47
1:AA:90:U:OP1	1:AA:91:C:H4'	2.14	0.47
1:AA:130:A:H1'	1:AA:263:A:O2'	2.15	0.47
1:AA:145:G:H5'	1:AA:146:G:OP2	2.15	0.47
1:AA:858:G:O6	1:AA:869:G:H3'	2.15	0.47
1:AA:862:C:O2'	1:AA:863:U:H5'	2.13	0.47
1:AA:914:A:H2'	1:AA:915:A:H8	1.79	0.47
1:AA:1191:A:H5''	3:AC:4:LYS:NZ	2.29	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
2:AB:77:ALA:HB2	2:AB:211:ILE:CD1	2.24	0.47
2:AB:197:VAL:HG11	2:AB:200:ILE:HG12	1.97	0.47
3:AC:18:TRP:HD1	14:AN:54:PRO:HA	1.79	0.47
3:AC:124:ILE:C	3:AC:126:ARG:N	2.72	0.47
3:AC:188:LEU:O	3:AC:189:ALA:HB2	2.14	0.47
5:AE:139:LEU:C	5:AE:141:GLN:N	2.73	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
9:AI:59:PHE:N	9:AI:59:PHE:CD1	2.82	0.47
9:AI:95:LYS:HD3	9:AI:95:LYS:C	2.40	0.47
10:AJ:47:PHE:O	10:AJ:47:PHE:HD1	1.98	0.47
11:AK:59:TYR:CE1	11:AK:63:LEU:HD21	2.50	0.47
12:AL:91:LYS:O	12:AL:91:LYS:HG3	2.14	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:N	15:AO:37:ASN:HD22	2.13	0.47
15:AO:74:ASP:C	15:AO:76:GLU:N	2.68	0.47
17:AQ:29:HIS:HB3	17:AQ:33:GLY:O	2.15	0.47
21:AU:25:LYS:HB2	21:AU:25:LYS:NZ	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AW:59:U:H2'	23:AW:60:U:H5'	1.96	0.47
26:B1:7:ILE:HD12	26:B1:7:ILE:N	2.29	0.47
26:B1:46:LEU:HA	26:B1:63:ALA:HA	1.96	0.47
26:B1:57:GLU:O	26:B1:58:ILE:C	2.57	0.47
33:B8:62:LEU:N	33:B8:63:PRO:CD	2.77	0.47
34:B9:10:ILE:HG22	34:B9:10:ILE:O	2.15	0.47
35:BA:28:A:C4	35:BA:513:A:C8	3.02	0.47
35:BA:100:G:OP2	35:BA:100:G:H4'	2.15	0.47
35:BA:660:G:C6	35:BA:661:C:C4	3.03	0.47
35:BA:952:G:C6	35:BA:953:A:N7	2.83	0.47
35:BA:1137:G:H2'	35:BA:1138:G:C8	2.50	0.47
35:BA:1221(A):C:H2'	35:BA:1222:C:H6	1.80	0.47
35:BA:1373:A:H2'	35:BA:1374:G:O4'	2.14	0.47
35:BA:1497:U:C5'	35:BA:1498:C:C5	2.96	0.47
35:BA:1594:G:C8	35:BA:1594:G:C5'	2.87	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
36:BB:57:A:OP2	36:BB:58:A:OP2	2.32	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
38:BD:271:ILE:O	38:BD:272:ALA:CB	2.62	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
42:BH:125:VAL:HG12	42:BH:125:VAL:O	2.14	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
44:BN:1:MET:C	44:BN:2:LYS:HD2	2.40	0.47
45:BO:86:ILE:H	45:BO:86:ILE:CD1	2.27	0.47
46:BP:48:PRO:CG	46:BP:49:ARG:N	2.76	0.47
46:BP:97:PRO:C	46:BP:99:LEU:N	2.67	0.47
47:BQ:68:ILE:HD13	47:BQ:103:MET:HG2	1.96	0.47
50:BT:85:LYS:HB3	50:BT:85:LYS:HZ2	1.80	0.47
50:BT:106:SER:C	50:BT:107:ASP:OD1	2.58	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
54:BX:14:SER:O	54:BX:15:GLU:C	2.58	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:93:ASP:HA	56:BZ:130:PRO:CG	2.38	0.47
56:BZ:99:TYR:CD2	56:BZ:125:LEU:HD13	2.50	0.47
56:BZ:105:VAL:O	56:BZ:105:VAL:HG13	2.14	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:735:C:H1'	18:CR:75:ILE:HD11	1.96	0.47
1:CA:874:G:H2'	1:CA:875:C:C6	2.49	0.47
1:CA:965:A:C2	1:CA:969:A:C2	3.03	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
2:CB:23:ARG:HH11	2:CB:23:ARG:HG2	1.80	0.47
2:CB:42:ILE:HD11	2:CB:202:PRO:HB2	1.97	0.47
2:CB:91:PRO:HA	2:CB:151:GLY:O	2.14	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: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:9:CYS:CB	4:CD:22:LYS:HD2	2.42	0.47
4:CD:33:MET:HE1	4:CD:37:PRO:HA	1.97	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
7:CG:15:ASP:HB3	7:CG:19:GLY:CA	2.45	0.47
7:CG:37:ASN:ND2	9:CI:40:LEU:HD23	2.29	0.47
9:CI:113:LYS:N	9:CI:113:LYS:HD2	2.30	0.47
9:CI:125:TYR:CD2	9:CI:126:SER:N	2.82	0.47
10:CJ:95:GLU:HA	10:CJ:95:GLU:OE2	2.15	0.47
11:CK:67:ASP:CG	11:CK:71:LYS:HE3	2.40	0.47
13:CM:3:ARG:HB3	13:CM:9:ILE:HD11	1.96	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:4:ILE:HB	16:CP:66:PRO:HB3	1.95	0.47
16:CP:80:PHE:N	16:CP:80:PHE:CD1	2.83	0.47
17:CQ:13:ASP:C	17:CQ:15:MET:H	2.23	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:D3:7:LYS:HD2	28:D3:34:GLU:OE1	2.14	0.47
28:D3:8:LEU:HB2	28:D3:28:LEU:HD13	1.97	0.47
29:D4:51:TYR:CD1	29:D4:51:TYR:N	2.82	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
33:D8:51:ALA:N	33:D8:53:PRO:HD2	2.29	0.47
34:D9:10:ILE:O	34:D9:11:CYS:HB2	2.15	0.47
34:D9:10:ILE:O	34:D9:10:ILE:HG22	2.14	0.47
35:DA:129:C:O2'	35:DA:130:C:H5'	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
35:DA:863:A:P	47:DQ:22:LYS:HG2	2.55	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
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:1171:G:C3'	35:DA:1173:G:H4'	2.27	0.47
35:DA:1486:A:N6	35:DA:1504:C:H42	2.13	0.47
35:DA:1582:C:O2'	35:DA:1586:A:C8	2.65	0.47
35:DA:1810:A:H2'	35:DA:1811:G:O4'	2.14	0.47
35:DA:1920:C:O2'	35:DA:1921:G:H5'	2.14	0.47
35:DA:2392:A:H2	35:DA:2424:C:N4	2.03	0.47
35:DA:2533:A:H3'	35:DA:2534:A:H5''	1.97	0.47
35:DA:2564:A:C2	35:DA:2647:U:H4'	2.50	0.47
35:DA:2787:C:O2'	39:DE:61:ARG:HA	2.15	0.47
35:DA:2790:A:H2'	35:DA:2791:C:H5'	1.95	0.47
37:DC:62:VAL:O	37:DC:63:SER:C	2.58	0.47
39:DE:17:ASP:O	39:DE:18:ASP:HB2	2.13	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
45:DO:104:ARG:NH1	45:DO:104:ARG:CB	2.78	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
52:DV:13:ARG:HH11	52:DV:13:ARG:CG	2.27	0.47
53:DW:99:ARG:HG2	53:DW:99:ARG:NH1	2.28	0.47
54:DX:23:GLU:C	54:DX:25:LYS:H	2.22	0.47
55:DY:22:GLY:O	55:DY:23:ARG:HB2	2.14	0.47
55:DY:27:VAL:CA	55:DY:28:LYS:NZ	2.68	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:DY:76:CYS:HG	55:DY:77:PRO:HD2	1.72	0.47
56:DZ:77:ASP:OD2	56:DZ:79:ARG:O	2.33	0.47
56:DZ:131:ARG:HG2	56:DZ:131:ARG:NH1	2.26	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
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
2:AB:8:LYS:C	2:AB:12:GLU:HG3	2.39	0.47
11:AK:126:ARG:HB3	11:AK:126:ARG:HH11	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
22:AY:38:A:H2'	22:AY:39:U:O4'	2.14	0.47
26:B1:45:ASN:CB	35:BA:2230:G:H1'	2.45	0.47
30:B5:40:LYS:HZ1	30:B5:46:CYS:C	2.23	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
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
35:BA:1815:A:P	38:BD:54:ARG:HH22	2.38	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
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
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:155:LEU:O	56:BZ:157:LEU:HD23	2.15	0.47
1:CA:62:U:H5''	1:CA:385:C:O2	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
17:CQ:83:ASP:CG	17:CQ:84:LEU:N	2.73	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:201:C:O2'	35:DA:202:U:H5'	2.15	0.47
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
35:DA:1039:G:H1	35:DA:1116:C:H42	1.63	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
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:165:ILE:HA	38:DD:175:LEU:HD23	1.97	0.47
38:DD:168:ARG:HH11	38:DD:168:ARG:HG3	1.80	0.47
39:DE:3:GLY:HA3	39:DE:81:ILE:CG2	2.44	0.47
42:DH:149:ARG:HH11	42:DH:164:TYR:HD1	1.63	0.47
44:DN:58:ASP:C	44:DN:60:ILE:N	2.72	0.47
45:DO:18:LYS:HB2	45:DO:45:GLU:HG2	1.96	0.47
47:DQ:20:ALA:O	47:DQ:21:THR:CB	2.63	0.47
47:DQ:131:ILE:HG22	47:DQ:132:VAL:N	2.30	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:85:LYS:C	51:DU:87:GLY:N	2.70	0.47
51:DU:90:VAL:HG12	51:DU:91:ASP:N	2.29	0.47
54:DX:28:PHE:N	54:DX:28:PHE:CD1	2.82	0.47
56:DZ:44:PHE:C	56:DZ:44:PHE:HD1	2.22	0.47
1:AA:342:C:O2'	1:AA:343:U:H5'	2.14	0.47
1:AA:407:G:O2'	4:AD:116:GLN:HG3	2.15	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1494:G:H5'	35:BA:1913:A:C6	2.49	0.47
2:AB:28:PHE:HD2	2:AB:194:PRO:HD3	1.79	0.47
2:AB:48:MET:HE3	2:AB:49:GLU:CG	2.42	0.47
5:AE:41:VAL:C	5:AE:66:MET:HG2	2.40	0.47
9:AI:17:VAL:HG21	9:AI:80:GLY:C	2.39	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:B1:20:ARG:C	26:B1:21:ARG:HG2	2.39	0.47
29:B4:51:TYR:O	29:B4:52:SER:HB3	2.13	0.47
30:B5:40:LYS:HZ1	30:B5:46:CYS:CA	2.27	0.47
30:B5:41:PRO:O	30:B5:44:THR:OG1	2.32	0.47
32:B7:30:VAL:HG12	32:B7:31:LEU:N	2.29	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
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
35:BA:2809:A:C2	35:BA:2892:A:N3	2.83	0.47
38:BD:2:ALA:C	38:BD:3:VAL:HG23	2.40	0.47
38:BD:11:PRO:C	38:BD:13:ARG:N	2.69	0.47
39:BE:4:ILE:HG23	39:BE:4:ILE:O	2.15	0.47
39:BE:186:GLY:C	39:BE:188:VAL:N	2.70	0.47
43:BI:90:GLY:N	43:BI:121:LYS:HZ1	2.13	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
47:BQ:134:ARG:HE	56:BZ:122:ARG:CZ	2.28	0.47
50:BT:91:ARG:C	50:BT:93:ARG:N	2.73	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:34:C:O2'	1:CA:35:G:H5'	2.14	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:1424:C:H2'	1:CA:1425:U:O4'	2.15	0.47
1:CA:1425:U:H2'	1:CA:1426:C:H6	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:45:ILE:C	8:CH:47:GLY:N	2.72	0.47
8:CH:82:HIS:CD2	8:CH:138:TRP:NE1	2.81	0.47
11:CK:21:ILE:HG13	11:CK:30:VAL:CG1	2.45	0.47
14:CN:31:ARG:HH11	14:CN:31:ARG:HG3	1.79	0.47
18:CR:30:ASP:C	18:CR:32:ARG:H	2.23	0.47
20:CT:28:ALA:C	20:CT:30:LYS:N	2.73	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
27:D2:69:ARG:C	27:D2:70:GLN:HG2	2.40	0.47
31:D6:25:LYS:HD2	33:D8:34:TRP:CZ2	2.49	0.47
35:DA:26:G:OP1	53:DW:80:PRO:HB3	2.14	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:615:G:O2'	40:DF:205:ARG:NH2	2.48	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
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:2203:U:O2'	38:DD:151:LYS:HG3	2.15	0.47
36:DB:21:G:H2'	36:DB:21:G:N3	2.29	0.47
37:DC:49:ILE:O	37:DC:51:PRO:N	2.48	0.47
39:DE:61:ARG:CB	39:DE:62:PRO:CD	2.93	0.47
41:DG:46:ALA:CA	41:DG:51:ARG:HD2	2.45	0.47
43:DI:51:ILE:O	43:DI:55:ALA:HB2	2.15	0.47
43:DI:56:LYS:C	43:DI:58:LEU:N	2.72	0.47
43:DI:114:LEU:HD23	43:DI:114:LEU:N	2.30	0.47
44:DN:18:ALA:O	44:DN:21:LYS:N	2.47	0.47
46:DP:98:GLU:C	46:DP:98:GLU:OE1	2.57	0.47
47:DQ:81:VAL:HG23	47:DQ:82:ARG:O	2.14	0.47
49:DS:95:HIS:O	49:DS:96:GLY:C	2.58	0.47
49:DS:95:HIS:C	49:DS:96:GLY:O	2.55	0.47
51:DU:104:GLN:HB3	52:DV:44:LYS:HZ3	1.80	0.47
52:DV:5:VAL:HG22	52:DV:6:LYS:N	2.30	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
1:AA:254:G:O2'	1:AA:255:G:H5'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:1358:U:OP1	14:AN:35:ARG:HG2	2.15	0.47
2:AB:8:LYS:HD3	2:AB:217:ARG:HH22	1.79	0.47
2:AB:45:GLN:O	2:AB:48:MET:HB3	2.15	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:4:ILE:HB	10:AJ:74:ILE:HG13	1.97	0.47
10:AJ:38:ILE:HG13	10:AJ:38:ILE:O	2.14	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
17:AQ:62:SER:OG	17:AQ:72:ARG:NE	2.48	0.47
20:AT:49:ALA:HB1	20:AT:100:ILE:CD1	2.43	0.47
23:AW:18:G:O2'	23:AW:57:G:O6	2.30	0.47
22:AY:42:C:C3'	22:AY:43:C:H5''	2.45	0.47
26:B1:29:GLY:C	26:B1:31:GLY:N	2.72	0.47
26:B1:61:ARG:CG	26:B1:61:ARG:NH1	2.72	0.47
35:BA:15:G:H2'	35:BA:16:G:H8	1.80	0.47
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: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
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:C8	35:BA:2439:A:H5'	2.50	0.47
35:BA:2481:G:HO2'	35:BA:2482:G:P	2.38	0.47
35:BA:2787:C:H1'	39:BE:61:ARG:CG	2.45	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
36:BB:24:G:H21	36:BB:27:C:H42	1.63	0.47
40:BF:27:GLU:O	40:BF:28:ILE:C	2.58	0.47
40:BF:132:VAL:C	40:BF:134:GLY:N	2.72	0.47
42:BH:118:PRO:HG3	42:BH:144:VAL:HG21	1.97	0.47
43:BI:9:LEU:HB2	43:BI:12:LEU:O	2.15	0.47
43:BI:114:LEU:O	43:BI:129:THR:O	2.33	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BI:145:VAL:CG1	43:BI:146:ALA:N	2.78	0.47
47:BQ:54:MET:CG	47:BQ:64:ILE:HD13	2.45	0.47
49:BS:95:HIS:C	49:BS:96:GLY:O	2.56	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:186:C:H1'	20:CT:85:MET:HE1	1.97	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
3:CC:18:TRP:HD1	14:CN:54:PRO:HA	1.79	0.47
3:CC:95:THR:C	3:CC:97:LYS:H	2.23	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
16:CP:6:LEU:N	16:CP:6:LEU:HD12	2.30	0.47
19:CS:16:LEU:HD12	19:CS:16:LEU:N	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:21:A:O2'	35:DA:22:C:H5'	2.15	0.47
35:DA:70:G:H21	35:DA:71:A:N6	2.09	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
35:DA:753:C:H6	35:DA:753:C:O5'	1.98	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:1455:G:C8	48:DR:60:LEU:HD11	2.50	0.47
35:DA:1794:U:O2'	35:DA:1795:C:H5'	2.15	0.47
35:DA:2228:G:OP1	38:DD:261:LYS:HE3	2.15	0.47
35:DA:2323:G:H2'	35:DA:2324:C:O4'	2.15	0.47
38:DD:263:ARG:CZ	38:DD:263:ARG:HB2	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: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:1:MET:HE3	44:DN:3:THR:OG1	2.15	0.47
44:DN:28:THR:HA	44:DN:106:MET:CE	2.45	0.47
44:DN:57:ALA:C	44:DN:58:ASP:O	2.57	0.47
45:DO:50:GLY:C	45:DO:52:VAL:H	2.22	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
48:DR:81:ASP:OD2	48:DR:81:ASP:N	2.35	0.47
52:DV:69:LYS:CA	52:DV:88:ARG:HG2	2.42	0.47
53:DW:92:ARG:HG2	53:DW:92:ARG:NH1	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:141:A:H1'	1:AA:182:U:C2	2.50	0.46
1:AA:828:A:H5''	1:AA:859:A:C2	2.50	0.46
1:AA:833:U:H2'	1:AA:834:C:C6	2.51	0.46
1:AA:964:A:OP1	1:AA:1199:U:OP1	2.34	0.46
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
2:AB:126:GLU:O	2:AB:130:ARG:HG3	2.15	0.46
7:AG:37:ASN:ND2	9:AI:40:LEU:HD23	2.29	0.46
8:AH:13:ILE:O	8:AH:17:THR:HG23	2.15	0.46
9:AI:53:VAL:C	9:AI:54:ASP:N	2.72	0.46
9:AI:125:TYR:CD2	9:AI:126:SER:N	2.83	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
22:AY:77:PHA:CD2	35:BA:2451:A:C2	2.94	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:198:C:H5'	35:BA:2244:U:OP1	2.15	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
35:BA:1341:U:O4	54:BX:16:LYS:HE2	2.15	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
40:BF:19:GLU:CD	40:BF:19:GLU:N	2.73	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
49:BS:88:ASP:CG	49:BS:89:ARG:N	2.73	0.46
50:BT:64:ARG:CD	50:BT:73:GLU:HG2	2.36	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
2:CB:124:SER:C	2:CB:126:GLU:H	2.23	0.46
2:CB:220:ASP:C	2:CB:222:ILE:N	2.72	0.46
3:CC:151:VAL:HG12	3:CC:152:ILE:N	2.30	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
11:CK:59:TYR:CE1	11:CK:63:LEU:HD21	2.50	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
25:D0:19:LYS:O	25:D0:20:ARG:C	2.58	0.46
26:D1:40:ARG:HD3	26:D1:40:ARG:C	2.40	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:271(M):G:C5'	43:DI:57:ARG:HH12	2.28	0.46
35:DA:878:A:N3	35:DA:878:A:H5'	2.31	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
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:2736:G:H2'	35:DA:2737:G:H8	1.80	0.46
35:DA:2821:A:H8	35:DA:2821:A:O5'	1.98	0.46
35:DA:2850:A:C2	35:DA:2851:A:C4	3.03	0.46
37:DC:68:LEU:HD22	37:DC:180:PHE:N	2.26	0.46
38:DD:183:ARG:HH11	38:DD:183:ARG:HG2	1.79	0.46
39:DE:200:GLU:OE2	39:DE:200:GLU:N	2.42	0.46
40:DF:139:PHE:O	40:DF:140:LEU:C	2.58	0.46
45:DO:66:LYS:NZ	45:DO:78:ARG:HD2	2.30	0.46
48:DR:84:ALA:N	48:DR:85:PRO:CD	2.78	0.46
49:DS:99:LYS:C	49:DS:101:LEU:N	2.73	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:DT:65:LYS:HG3	50:DT:66:VAL:H	1.80	0.46
50:DT:78:LEU:C	50:DT:79:HIS:ND1	2.73	0.46
1:AA:723:U:O2	1:AA:723:U:C2'	2.62	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:1479:C:H2'	1:AA:1480:G:H8	1.81	0.46
1:AA:1491:G:H5''	12:AL:46:LYS:HG3	1.98	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
2:AB:107:THR:HG23	2:AB:110:GLN:NE2	2.30	0.46
3:AC:70:VAL:O	3:AC:106:VAL:N	2.48	0.46
7:AG:60:LYS:HZ3	7:AG:64:GLN:HB2	1.79	0.46
8:AH:67:PRO:O	8:AH:68:ARG:C	2.58	0.46
8:AH:85:ARG:CG	8:AH:85:ARG:NH1	2.78	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
13:AM:76:ALA:CA	13:AM:79:LYS:HZ2	2.28	0.46
14:AN:21:TYR:HD2	14:AN:22:THR:O	1.97	0.46
17:AQ:83:ASP:CG	17:AQ:84:LEU:H	2.23	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
23:AW:39:U:C5'	23:AW:39:U:O2	2.63	0.46
27:B2:2:LYS:CB	35:BA:97:C:H5''	2.39	0.46
34:B9:22:ARG:HB2	34:B9:24:TYR:HE1	1.79	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
35:BA:2206:G:H3'	35:BA:2206:G:N3	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
37:BC:158:ALA:C	37:BC:160:ARG:N	2.72	0.46
37:BC:182:PRO:O	37:BC:183:GLU:CB	2.63	0.46
38:BD:31:LYS:O	38:BD:35:LYS:HD3	2.15	0.46
38:BD:45:ASN:CG	38:BD:46:GLN:H	2.22	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
39:BE:144:ARG:HB3	39:BE:145:LYS:H	1.51	0.46
40:BF:205:ARG:HG2	40:BF:205:ARG:O	2.15	0.46
41:BG:139:LEU:HD23	41:BG:139:LEU:C	2.41	0.46
42:BH:123:PHE:HA	42:BH:133:VAL:HG22	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BR:81:ASP:OD2	48:BR:81:ASP:N	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
50:BT:19:LEU:HD22	50:BT:85:LYS:HZ2	1.80	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
56:BZ:141:VAL:HG22	56:BZ:142:SER:N	2.30	0.46
1:CA:88:A:OP1	1:CA:90:U:H1'	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:1431:C:H2'	1:CA:1432:G:O4'	2.15	0.46
7:CG:18:TYR:CD2	7:CG:59:LEU:HB2	2.50	0.46
7:CG:146:GLU:HA	7:CG:149:ARG:HB2	1.96	0.46
8:CH:119:LEU:N	8:CH:119:LEU:CD2	2.76	0.46
15:CO:46:HIS:C	15:CO:48:LYS:N	2.74	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
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:HD12	34:D9:26:ILE:N	2.29	0.46
35:DA:154:G:C6	35:DA:154(A):C:N4	2.83	0.46
35:DA:176:G:C2'	35:DA:177:G:H5'	2.45	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
35:DA:1528(A):A:C2'	35:DA:1529:G:H5''	2.44	0.46
35:DA:1902:C:C2'	35:DA:1903:G:O5'	2.64	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:HD12	40:DF:162:LEU:N	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
43:DI:71:ILE:CG1	43:DI:72:LEU:N	2.76	0.46
44:DN:55:VAL:HG22	44:DN:56:ASN:H	1.81	0.46
44:DN:128:HIS:HA	44:DN:129:PRO:HD2	1.77	0.46
51:DU:24:TYR:HB2	51:DU:29:SER:HB3	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DV:21:ARG:N	52:DV:21:ARG:CD	2.78	0.46
53:DW:57:ASN:O	53:DW:58:ALA:C	2.58	0.46
55:DY:27:VAL:CG1	55:DY:29:GLU:OE1	2.62	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:41:ILE:HD12	2:AB:41:ILE:H	1.79	0.46
2:AB:144:ARG:HA	2:AB:147:LYS:HB3	1.97	0.46
2:AB:194:PRO:O	2:AB:195:ASP:C	2.57	0.46
4:AD:96:LEU:CD1	4:AD:96:LEU:N	2.78	0.46
6:AF:69:GLU:O	6:AF:70:ASP:C	2.58	0.46
8:AH:63:LEU:N	8:AH:63:LEU:HD22	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
16:AP:12:LYS:C	16:AP:14:ASN:H	2.22	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
35:BA:1658:C:H2'	35:BA:1659:U:C6	2.50	0.46
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
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
45:BO:104:ARG:NH2	50:BT:33:LYS:HD2	2.29	0.46
49:BS:20:ARG:HD3	49:BS:20:ARG:HA	1.58	0.46
49:BS:99:LYS:O	49:BS:101:LEU:N	2.44	0.46
49:BS:99:LYS:HB3	49:BS:101:LEU:HD12	1.97	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
50:BT:13:ARG:HH12	50:BT:15:VAL:CG2	2.25	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BU:17:ILE:O	51:BU:20:LEU:HB2	2.16	0.46
51:BU:31:SER:C	51:BU:33:ARG:N	2.71	0.46
52:BV:35:LEU:O	52:BV:36:PRO:C	2.57	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:28:LYS:HA	55:BY:39:VAL:H	1.80	0.46
56:BZ:112:ARG:HG2	56:BZ:112:ARG:NH1	2.27	0.46
1:CA:356:A:H1'	1:CA:368:U:O2'	2.16	0.46
1:CA:1288:A:N1	1:CA:1371:G:H1'	2.29	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
11:CK:102:GLY:C	11:CK:103:LEU:HD22	2.41	0.46
13:CM:80:ARG:NH2	19:CS:69:HIS:NE2	2.61	0.46
19:CS:41:VAL:HB	19:CS:44:MET:SD	2.55	0.46
23:CW:64:A:H2'	23:CW:65:G:C8	2.50	0.46
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:D2:33:MET:HE3	27:D2:37:PHE:CE1	2.50	0.46
27:D2:69:ARG:NH2	35:DA:111:A:H4'	2.30	0.46
35:DA:42:G:H2'	35:DA:43:A:O4'	2.15	0.46
35:DA:78:A:H2'	35:DA:79:G:C8	2.49	0.46
35:DA:626:U:H3	46:DP:105:LEU:HA	1.79	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:2787:C:H1'	39:DE:61:ARG:CG	2.46	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
38:DD:209:ALA:C	38:DD:210:GLY:O	2.55	0.46
39:DE:36:ARG:HH22	39:DE:88:GLY:HA3	1.80	0.46
39:DE:93:VAL:C	39:DE:95:ILE:H	2.21	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DG:82:LEU:HD22	41:DG:87:PRO:HB3	1.97	0.46
41:DG:139:LEU:HD23	41:DG:139:LEU:H	1.79	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
45:DO:12:ASP:C	45:DO:14:THR:H	2.23	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
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
1:AA:1004:A:C2'	1:AA:1005:A:H5'	2.44	0.46
1:AA:1057:G:H5''	3:AC:154:SER:OG	2.14	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
2:AB:100:GLY:HA3	2:AB:104:ASN:HB3	1.96	0.46
2:AB:213:LEU:HD23	2:AB:213:LEU:C	2.41	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
13:AM:50:GLU:N	13:AM:50:GLU:OE1	2.48	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:143:G:C1'	54:BX:37:THR:HG21	2.39	0.46
35:BA:412:A:N7	35:BA:2411:A:H2	2.13	0.46
35:BA:848:G:H5'	35:BA:848:G:C8	2.46	0.46
35:BA:848:G:H2'	35:BA:849:A:C8	2.49	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
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:95:LEU:HD12	38:BD:95:LEU:O	2.15	0.46
38:BD:209:ALA:C	38:BD:210:GLY:O	2.53	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
39:BE:104:VAL:HG11	39:BE:188:VAL:CG2	2.34	0.46
40:BF:37:VAL:O	40:BF:38:ARG:C	2.58	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
43:BI:51:ILE:O	43:BI:55:ALA:HB2	2.15	0.46
44:BN:57:ALA:O	44:BN:58:ASP:O	2.34	0.46
44:BN:112:LEU:O	44:BN:116:LEU:HG	2.15	0.46
45:BO:77:ILE:HD11	50:BT:72:VAL:HG12	1.96	0.46
48:BR:7:GLY:O	48:BR:8:ARG:CG	2.64	0.46
56:BZ:145:GLU:HG3	56:BZ:146:ILE:N	2.30	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
1:CA:1353:G:O2'	1:CA:1354:C:H5'	2.15	0.46
2:CB:116:GLU:HA	2:CB:119:GLU:HB2	1.97	0.46
3:CC:124:ILE:C	3:CC:126:ARG:N	2.72	0.46
5:CE:68:GLU:O	5:CE:69:VAL:C	2.58	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:HG2	10:CJ:28:ARG:NH1	2.30	0.46
12:CL:23:LYS:O	12:CL:24:VAL:HG23	2.16	0.46
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:10:LEU:C	20:CT:12:ALA:H	2.24	0.46
20:CT:13:LEU:C	20:CT:13:LEU:CD1	2.88	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
27:D2:25:VAL:O	27:D2:26:ARG:C	2.58	0.46
31:D6:14:THR:O	31:D6:49:HIS:HA	2.15	0.46
31:D6:42:TRP:CH2	35:DA:643:A:N7	2.84	0.46
31:D6:45:LYS:NZ	35:DA:2370:G:H21	2.06	0.46
35:DA:137:C:O2	35:DA:137:C:H2'	2.15	0.46
35:DA:320:A:H3'	40:DF:136:THR:HG22	1.96	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
35:DA:1221:C:H5'	35:DA:1221:C:C6	2.37	0.46
35:DA:1495:A:H3'	35:DA:1496:A:C2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1797:C:O2'	38:DD:259:THR:HG21	2.15	0.46
35:DA:2810:A:N6	35:DA:2891:G:O2'	2.48	0.46
38:DD:218:ARG:HG3	38:DD:218:ARG:NH1	2.30	0.46
40:DF:19:GLU:CD	40:DF:19:GLU:N	2.74	0.46
40:DF:51:THR:HG23	40:DF:92:PRO:HG2	1.97	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:HG3	43:DI:82:ARG:HH11	1.80	0.46
46:DP:23:PRO:HB2	46:DP:33:ARG:NE	2.30	0.46
46:DP:108:LYS:C	46:DP:110:TYR:N	2.68	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
54:DX:66:LEU:C	54:DX:66:LEU:CD2	2.88	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:619:U:C4	4:AD:135:LEU:HD21	2.51	0.46
1:AA:735:C:H1'	18:AR:75:ILE:HD11	1.97	0.46
2:AB:8:LYS:O	2:AB:9:GLU:C	2.59	0.46
2:AB:23:ARG:HG2	2:AB:23:ARG:HH11	1.79	0.46
2:AB:54:THR:O	2:AB:58:ILE:HG12	2.16	0.46
2:AB:137:ARG:HD3	2:AB:138:LEU:N	2.31	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
11:AK:104:GLN:C	11:AK:106:LYS:H	2.23	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
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
20:AT:28:ALA:C	20:AT:30:LYS:N	2.73	0.46
27:B2:3:LEU:C	27:B2:5:GLU:N	2.73	0.46
31:B6:39:TYR:CG	31:B6:40:CYS:N	2.84	0.46
35:BA:185:U:H2'	35:BA:186:G:H8	1.79	0.46
35:BA:923:C:H2'	35:BA:924:C:C6	2.51	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:2082:A:H2'	35:BA:2083:G:O4'	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:2511:U:O3'	39:BE:123:ALA:HB3	2.16	0.46
35:BA:2710:C:OP1	48:BR:15:SER:HB2	2.15	0.46
37:BC:97:GLU:HA	37:BC:100:ILE:HG12	1.98	0.46
38:BD:66:ASP:OD2	38:BD:69:ARG:HA	2.15	0.46
38:BD:86:PRO:HG2	38:BD:87:ASN:OD1	2.15	0.46
38:BD:131:LEU:N	38:BD:131:LEU:CD1	2.78	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
40:BF:89:VAL:C	40:BF:91:GLY:H	2.24	0.46
40:BF:160:ASN:HD22	40:BF:160:ASN:C	2.23	0.46
42:BH:66:GLY:C	42:BH:68:THR:N	2.69	0.46
43:BI:60:GLU:CD	43:BI:64:GLU:HG3	2.39	0.46
47:BQ:42:ILE:HA	47:BQ:46:GLN:OE1	2.15	0.46
48:BR:107:ASP:C	48:BR:107:ASP:OD2	2.59	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:44:G:H1'	1:CA:399:G:N2	2.31	0.46
1:CA:346:G:H2'	1:CA:346:G:N3	2.30	0.46
1:CA:848:C:H2'	1:CA:849:C:H6	1.79	0.46
1:CA:963:G:H21	10:CJ:55:LYS:CD	2.28	0.46
1:CA:1460:A:H2'	1:CA:1461:G:O4'	2.16	0.46
2:CB:23:ARG:CZ	2:CB:23:ARG:HB3	2.44	0.46
2:CB:25:ASN:OD1	2:CB:27:LYS:HB2	2.16	0.46
2:CB:215:LEU:O	2:CB:219:VAL:HG23	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
10:CJ:80:LYS:O	10:CJ:84:GLN:HB2	2.15	0.46
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
19:CS:18:LYS:O	19:CS:18:LYS:HG3	2.15	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:309:G:N3	35:DA:329:G:O2'	2.48	0.46
35:DA:661:C:O3'	46:DP:18:ARG:HD2	2.16	0.46
35:DA:953:A:H2'	35:DA:954:G:C5'	2.46	0.46
35:DA:1401:G:H2'	35:DA:1402:C:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:H5'	35:DA:2263:C:C6	2.30	0.46
35:DA:2801:A:H2'	35:DA:2801:A:N3	2.31	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:33:ARG:NE	41:DG:162:THR:HG21	2.31	0.46
41:DG:149:VAL:O	41:DG:149:VAL:HG23	2.15	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
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
49:DS:53:SER:O	49:DS:54:LEU:C	2.59	0.46
52:DV:21:ARG:HD3	52:DV:21:ARG:H	1.80	0.46
52:DV:23:GLU:O	52:DV:24:LYS:C	2.58	0.46
1:AA:88:A:OP1	1:AA:90:U:H1'	2.16	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:640:A:N3	8:AH:115:SER:HB3	2.31	0.46
1:AA:963:G:H21	10:AJ:55:LYS:HD3	1.79	0.46
1:AA:1525:G:H2'	1:AA:1526:G:C8	2.50	0.46
2:AB:87:ARG:NH1	2:AB:223:ILE:HD11	2.30	0.46
2:AB:224:GLN:HG2	2:AB:224:GLN:O	2.16	0.46
4:AD:43:HIS:O	4:AD:45:GLN:N	2.48	0.46
4:AD:108:LEU:CB	4:AD:110:PHE:HE1	2.28	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
11:AK:108:ILE:HB	18:AR:87:ARG:HA	1.97	0.46
12:AL:41:ARG:HH12	12:AL:57:LYS:HZ3	1.63	0.46
13:AM:82:MET:O	13:AM:82:MET:CG	2.63	0.46
13:AM:97:PRO:C	13:AM:98:VAL:HA	2.40	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:B1:44:PRO:HA	35:BA:396:G:O3'	2.15	0.46
27:B2:2:LYS:O	27:B2:6:VAL:HG23	2.14	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
35:BA:1300:U:C6	35:BA:1626:G:C6	3.03	0.46
35:BA:1685:C:O2'	35:BA:1686:C:H5''	2.14	0.46
35:BA:1686:C:C5'	35:BA:1686:C:C6	2.94	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
36:BB:28:C:H2'	36:BB:29:A:O4'	2.15	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
37:BC:86:ALA:HB2	37:BC:152:ILE:CB	2.45	0.46
38:BD:165:ILE:HA	38:BD:175:LEU:HD23	1.98	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
39:BE:110:GLY:O	48:BR:5:LYS:NZ	2.40	0.46
40:BF:18:ARG:C	40:BF:19:GLU:CD	2.83	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
47:BQ:27:VAL:O	47:BQ:28:ALA:C	2.58	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:31:ARG:NH1	56:BZ:31:ARG:CB	2.60	0.46
56:BZ:165:VAL:CG1	56:BZ:166:SER:H	2.22	0.46
1:CA:617:G:H1	1:CA:623:C:N4	2.06	0.46
1:CA:718:G:H5'	11:CK:117:ASN:CG	2.40	0.46
1:CA:868:C:H2'	1:CA:869:G:O4'	2.16	0.46
1:CA:1095:U:H5''	1:CA:1109:C:O2	2.15	0.46
1:CA:1346:A:C5'	9:CI:120:ARG:NH1	2.78	0.46
1:CA:1392:G:H21	1:CA:1502:A:H8	1.64	0.46
2:CB:59:GLU:HB2	2:CB:221:LEU:HD12	1.95	0.46
2:CB:59:GLU:O	2:CB:63:MET:HG2	2.15	0.46
2:CB:236:TYR:HA	2:CB:239:VAL:CG2	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:5:ILE:HD12	3:CC:5:ILE:C	2.41	0.46
3:CC:16:ARG:HH11	3:CC:16:ARG:CB	2.29	0.46
4:CD:10:ARG:HH11	4:CD:10:ARG:CG	2.28	0.46
8:CH:6:ILE:HD12	8:CH:6:ILE:N	2.30	0.46
9:CI:59:PHE:N	9:CI:59:PHE:CD1	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
18:CR:53:ARG:C	18:CR:55:ARG:H	2.24	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
33:D8:42:ARG:O	33:D8:44:LYS:N	2.45	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: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
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:2726:U:H6	45:DO:67:LYS:NZ	2.14	0.46
35:DA:2819:G:O2'	35:DA:2820:A:H5'	2.16	0.46
38:DD:31:LYS:NZ	38:DD:94:LEU:HD11	2.30	0.46
39:DE:27:LEU:HD23	50:DT:1:MET:CE	2.38	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:73:THR:HG22	44:DN:82:LEU:HD11	1.98	0.46
44:DN:91:LEU:C	44:DN:93:THR:N	2.74	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
54:DX:49:VAL:HB	54:DX:83:VAL:HG13	1.98	0.46
54:DX:65:ARG:HH11	54:DX:65:ARG:CG	2.25	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
1:AA:1043:C:H2'	1:AA:1044:A:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1228:C:H4'	13:AM:116:THR:CA	2.45	0.46
2:AB:35:GLU:O	2:AB:36:ARG:C	2.59	0.46
2:AB:45:GLN:O	2:AB:48:MET:HE2	2.15	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
5:AE:11:ILE:HG21	5:AE:105:VAL:HA	1.98	0.46
5:AE:40:ARG:CG	5:AE:40:ARG:NH1	2.77	0.46
8:AH:56:LYS:HA	8:AH:57:PRO:HD2	1.74	0.46
8:AH:63:LEU:HD22	8:AH:63:LEU:H	1.81	0.46
11:AK:102:GLY:C	11:AK:103:LEU:HD22	2.40	0.46
12:AL:27:LEU:C	12:AL:29:GLY:H	2.23	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:9:VAL:HG21	17:AQ:84:LEU:CD1	2.45	0.46
17:AQ:76:LEU:CG	17:AQ:77:VAL:N	2.78	0.46
22:AV:77:PHA:HE2	35:BA:2061:G:H21	1.80	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
27:B2:33:MET:O	27:B2:34:GLU:C	2.57	0.46
35:BA:151:C:O2'	35:BA:152:G:H5'	2.15	0.46
35:BA:363(F):A:O2'	35:BA:364:C:H5	1.98	0.46
35:BA:365:C:H5'	35:BA:365:C:C6	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
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
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
41:BG:81:LYS:O	41:BG:82:LEU:C	2.59	0.46
42:BH:43:VAL:O	42:BH:43:VAL:HG23	2.15	0.46
44:BN:1:MET:HE3	44:BN:3:THR:OG1	2.16	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:HE3	49:BS:93:LYS:CA	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
54:BX:52:VAL:CG2	54:BX:84:ALA:HA	2.46	0.46
55:BY:31:LEU:HD23	55:BY:36:ALA:C	2.41	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
1:CA:1033:G:C2'	1:CA:1034:G:H5'	2.46	0.46
2:CB:173:ALA:O	2:CB:174:VAL:C	2.59	0.46
3:CC:54:ARG:HH12	3:CC:56:ASP:CB	2.28	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:96:ILE:HD13	10:CJ:96:ILE:H	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
26:D1:29:GLY:C	26:D1:31:GLY:H	2.24	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:96:G:O2'	35:DA:97:C:H5'	2.15	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: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
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
41:DG:58:GLN:C	41:DG:60:LEU:N	2.72	0.46
41:DG:110:ALA:O	41:DG:111:LEU:C	2.59	0.46
41:DG:114:ILE:O	41:DG:115:ARG:C	2.58	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DI:68:LEU:O	43:DI:72:LEU:HB2	2.16	0.46
46:DP:46:LYS:HG2	46:DP:52:GLU:HG2	1.97	0.46
46:DP:49:ARG:NH2	46:DP:50:ARG:HH22	2.14	0.46
46:DP:148:LEU:O	46:DP:149:GLU:HB2	2.16	0.46
48:DR:79:LEU:HD23	48:DR:83:ILE:HB	1.97	0.46
48:DR:80:PHE:O	48:DR:85:PRO:HD3	2.15	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:271:C:O2'	1:AA:272:C:H5'	2.15	0.46
1:AA:1158:C:O2	1:AA:1158:C:C2'	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
3:AC:5:ILE:HD12	3:AC:5:ILE:C	2.40	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
9:AI:37:PHE:HB3	9:AI:43:ALA:HB2	1.98	0.46
11:AK:126:ARG:C	11:AK:128:ALA:N	2.68	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:705:A:C2	35:BA:727:A:H1'	2.50	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
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:63:LYS:HE3	40:BF:67:GLN:HB2	1.97	0.46
40:BF:182:ASN:O	40:BF:186:ILE:HG12	2.15	0.46
41:BG:133:LEU:CD1	41:BG:157:ILE:CG2	2.94	0.46
47:BQ:2:LEU:O	47:BQ:3:MET:HB3	2.15	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
49:BS:80:LEU:HD12	49:BS:80:LEU:N	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BW:62:HIS:O	53:BW:63:ASP:C	2.58	0.46
56:BZ:105:VAL:O	56:BZ:140:ASP:HA	2.15	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
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
2:CB:158:LEU:HA	2:CB:159:PRO:HD3	1.81	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
3:CC:164:ARG:HB2	3:CC:164:ARG:CZ	2.46	0.46
5:CE:6:PHE:HB2	5:CE:34:VAL:HG13	1.98	0.46
5:CE:103:GLY:O	5:CE:104:ALA:C	2.58	0.46
7:CG:67:GLU:OE2	7:CG:67:GLU:HA	2.16	0.46
11:CK:29:ILE:HD13	11:CK:44:SER:HB3	1.97	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
25:D0:43:THR:N	35:DA:2331:G:H4'	2.30	0.46
27:D2:61:LEU:O	27:D2:62:THR:C	2.59	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: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
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
35:DA:2394:C:O2'	35:DA:2395:C:H5'	2.16	0.46
35:DA:2749:A:H1'	42:DH:63:SER:OG	2.16	0.46
35:DA:2766:G:H2'	35:DA:2766:G:N3	2.30	0.46
36:DB:40:U:HO2'	36:DB:43:C:H5	1.60	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
38:DD:241:PRO:C	38:DD:242:ARG:HD2	2.41	0.46
39:DE:16:ARG:C	39:DE:18:ASP:N	2.66	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DE:81:ILE:O	39:DE:82:ARG:CB	2.62	0.46
41:DG:91:ARG:C	41:DG:91:ARG:CD	2.89	0.46
46:DP:144:GLU:O	46:DP:145:PRO:C	2.58	0.46
48:DR:18:LEU:HD11	48:DR:22:ARG:CZ	2.46	0.46
50:DT:3:ARG:C	50:DT:5:ALA:N	2.72	0.46
51:DU:31:SER:O	51:DU:33:ARG:N	2.48	0.46
53:DW:68:ARG:HH11	53:DW:68:ARG:HG3	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: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
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
2:AB:59:GLU:O	2:AB:63:MET:HG2	2.15	0.46
2:AB:233:SER:OG	2:AB:234:PRO:HD2	2.16	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
11:AK:30:VAL:HG23	11:AK:30:VAL:O	2.15	0.46
12:AL:89:ARG:HH21	12:AL:91:LYS:HZ1	1.64	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
23:AW:76:A:C2	35:BA:2421:G:C6	3.04	0.46
22:AY:52:G:N3	22:AY:52:G:H2'	2.30	0.46
31:B6:10:LEU:N	31:B6:10:LEU:HD22	2.31	0.46
34:B9:7:VAL:HG13	34:B9:34:GLN:HB2	1.96	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
35:BA:1141:U:H2'	44:BN:63:THR:CG2	2.45	0.46
35:BA:1676:A:H2'	35:BA:1677:A:O4'	2.16	0.46
35:BA:1952:A:C5	45:BO:22:ILE:CD1	2.99	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
35:BA:2636:U:H4'	39:BE:80:GLU:OE1	2.16	0.46
36:BB:44:G:H1'	36:BB:47:C:H42	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BC:168:THR:HA	37:BC:173:ALA:HB1	1.95	0.46
38:BD:35:LYS:HZ1	38:BD:61:LEU:HG	1.79	0.46
38:BD:134:ARG:HG3	38:BD:135:PHE:CD2	2.51	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
44:BN:87:LEU:O	44:BN:87:LEU:HD23	2.16	0.46
48:BR:4:LEU:HD13	48:BR:4:LEU:O	2.16	0.46
49:BS:95:HIS:O	49:BS:96:GLY:C	2.59	0.46
51:BU:5:LYS:O	51:BU:6:THR:C	2.59	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:7:VAL:HB	55:BY:8:LYS:HD2	1.98	0.46
1:CA:838:G:C2	1:CA:840:C:H5'	2.51	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
2:CB:91:PRO:HG2	2:CB:155:LEU:CB	2.23	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
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
3:CC:101:LEU:HD23	3:CC:101:LEU:C	2.41	0.46
5:CE:16:THR:OG1	5:CE:17:ALA:N	2.45	0.46
5:CE:71:LEU:HD22	5:CE:114:GLY:O	2.15	0.46
5:CE:144:THR:C	5:CE:146:ALA:N	2.72	0.46
9:CI:14:VAL:O	9:CI:65:VAL:HA	2.16	0.46
9:CI:53:VAL:HG12	9:CI:92:TYR:HD2	1.80	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
22:CY:41:C:H2'	22:CY:42:C:O4'	2.16	0.46
30:D5:43:HIS:HA	35:DA:2884:U:C5	2.50	0.46
35:DA:116:C:O2'	35:DA:117:G:H5'	2.16	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
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:DA:2859:G:C6	35:DA:2860:A:N6	2.84	0.46
38:DD:153:ALA:C	38:DD:154:LYS:HG2	2.41	0.46
38:DD:253:GLN:HB2	38:DD:257:LEU:HD12	1.98	0.46
40:DF:157:VAL:HB	40:DF:194:MET:HB3	1.98	0.46
40:DF:164:ARG:O	40:DF:166:ALA:N	2.49	0.46
42:DH:158:HIS:O	42:DH:159:GLU:CB	2.63	0.46
45:DO:1:MET:HE3	45:DO:67:LYS:HG2	1.96	0.46
47:DQ:62:GLY:O	56:DZ:178:GLU:OE1	2.34	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
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
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
2:AB:178:ARG:HH11	2:AB:178:ARG:CG	2.28	0.46
2:AB:207:ALA:C	2:AB:209:ARG:N	2.70	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
12:AL:90:VAL:C	12:AL:92:ASP:H	2.17	0.46
13:AM:45:VAL:O	13:AM:47:ASP:N	2.49	0.46
15:AO:19:PRO:C	15:AO:21:ASP:H	2.23	0.46
17:AQ:43:LEU:HD12	17:AQ:68:ARG:HG3	1.98	0.46
19:AS:5:LEU:C	19:AS:6:LYS:HE3	2.41	0.46
19:AS:31:ILE:HG23	19:AS:49:ILE:HA	1.98	0.46
27:B2:38:GLN:O	27:B2:39:ALA:C	2.58	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: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
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:2635:C:H5''	39:BE:78:LEU:O	2.15	0.46
35:BA:2759:G:H5'	35:BA:2759:G:C8	2.51	0.46
35:BA:2897:U:O2	35:BA:2897:U:H2'	2.16	0.46
38:BD:35:LYS:CA	38:BD:63:ARG:HA	2.44	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:134:ARG:HG3	38:BD:135:PHE:CE2	2.51	0.46
38:BD:205:VAL:O	38:BD:206:LEU:C	2.59	0.46
39:BE:4:ILE:C	39:BE:5:LEU:HD23	2.41	0.46
40:BF:46:ARG:HG3	40:BF:46:ARG:NH1	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:73:GLU:HB2	43:BI:136:VAL:HG21	1.96	0.46
43:BI:113:ARG:HA	43:BI:131:LYS:HG3	1.98	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
47:BQ:45:GLN:CD	47:BQ:45:GLN:H	2.24	0.46
48:BR:10:LEU:HD13	48:BR:17:ARG:NH1	2.31	0.46
49:BS:101:LEU:HD22	49:BS:101:LEU:C	2.41	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
53:BW:14:PRO:O	53:BW:15:ARG:C	2.57	0.46
56:BZ:15:PRO:O	56:BZ:16:SER:C	2.59	0.46
56:BZ:136:PHE:O	56:BZ:137:ILE:HD13	2.16	0.46
1:CA:99:U:H2'	1:CA:100:C:C5	2.50	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: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
2:CB:71:VAL:O	2:CB:165:VAL:HG22	2.16	0.46
2:CB:114:ARG:HH12	2:CB:118:LEU:HD11	1.78	0.46
3:CC:15:THR:HG22	3:CC:16:ARG:N	2.30	0.46
3:CC:30:ARG:NH2	14:CN:35:ARG:C	2.74	0.46
4:CD:40:PRO:O	4:CD:41:GLY:O	2.34	0.46
13:CM:7:VAL:CG2	41:DG:115:ARG:HA	2.44	0.46
13:CM:73:GLU:C	13:CM:76:ALA:H	2.23	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
19:CS:13:ASP:C	19:CS:15:LEU:N	2.70	0.46
26:D1:26:ARG:HG3	26:D1:26:ARG:NH1	2.27	0.46
29:D4:57:ILE:HG22	29:D4:57:ILE:O	2.15	0.46
30:D5:3:LYS:HE3	35:DA:2611:U:O2	2.16	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:237:C:O2'	35:DA:238:C:H5'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:DA:1028:A:H2'	35:DA:1029:A:C8	2.51	0.46
35:DA:1786:A:H2	35:DA:2606:C:H1'	1.81	0.46
35:DA:2262:U:H2'	35:DA:2263:C:H5'	1.98	0.46
35:DA:2377:A:H4'	49:DS:107:GLU:O	2.16	0.46
36:DB:13:A:N1	36:DB:69:G:O2'	2.45	0.46
37:DC:49:ILE:O	37:DC:50:ASP:C	2.59	0.46
37:DC:188:ASN:C	37:DC:190:ARG:H	2.23	0.46
38:DD:35:LYS:HZ1	38:DD:61:LEU:HG	1.81	0.46
39:DE:86:PRO:C	39:DE:88:GLY:N	2.74	0.46
40:DF:96:ASP:OD1	40:DF:96:ASP:C	2.59	0.46
40:DF:192:LEU:C	40:DF:192:LEU:CD2	2.89	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
43:DI:61:ARG:O	43:DI:133:HIS:HE1	1.99	0.46
43:DI:81:VAL:HG21	43:DI:142:VAL:HB	1.98	0.46
44:DN:59:LYS:O	44:DN:60:ILE:C	2.59	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
49:DS:85:VAL:HG22	49:DS:106:ARG:CB	2.45	0.46
53:DW:1:MET:HG3	53:DW:64:MET:HE3	1.98	0.46
55:DY:28:LYS:CB	55:DY:37:VAL:HB	2.45	0.46
55:DY:31:LEU:HD23	55:DY:36:ALA:C	2.41	0.46
55:DY:48:ALA:HB3	55:DY:59:GLY:O	2.16	0.46
56:DZ:30:ASN:CG	56:DZ:33:LEU:HB3	2.39	0.46
56:DZ:93:ASP:HA	56:DZ:130:PRO:CD	2.46	0.46
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:544:G:OP1	4:AD:62:GLN:HG3	2.16	0.45
1:AA:880:C:OP2	12:AL:9:GLN:HG3	2.16	0.45
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
5:AE:103:GLY:O	5:AE:104:ALA:C	2.58	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:47:PHE:O	10:AJ:47:PHE:CD1	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
19:AS:6:LYS:N	19:AS:6:LYS:CD	2.75	0.45
20:AT:28:ALA:C	20:AT:30:LYS:H	2.24	0.45
29:B4:50:THR:C	29:B4:51:TYR:CG	2.94	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
30:B5:44:THR:HG21	48:BR:101:ALA:CA	2.46	0.45
35:BA:286:C:H2'	35:BA:287:C:H5'	1.95	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
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
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:H2'	35:BA:1687:G:C5'	2.46	0.45
35:BA:1686:C:C2'	35:BA:1687:G:H5'	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:2870:C:H2'	35:BA:2871:C:C5'	2.46	0.45
38:BD:35:LYS:HD3	38:BD:36:PRO:CD	2.46	0.45
39:BE:40:GLU:OE1	39:BE:40:GLU:N	2.48	0.45
40:BF:192:LEU:C	40:BF:192:LEU:CD2	2.89	0.45
41:BG:14:GLU:HG2	41:BG:15:VAL:N	2.31	0.45
42:BH:89:ILE:CD1	42:BH:90:LYS:N	2.74	0.45
42:BH:149:ARG:HD3	42:BH:164:TYR:CE1	2.50	0.45
42:BH:150:ALA:O	42:BH:151:ILE:C	2.59	0.45
47:BQ:135:ASP:O	47:BQ:138:ASP:OD2	2.34	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
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
2:CB:154:LEU:O	2:CB:155:LEU:C	2.58	0.45
3:CC:184:TYR:HA	3:CC:200:ALA:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
11:CK:104:GLN:C	11:CK:106:LYS:H	2.24	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
21:CU:25:LYS:HB2	21:CU:25:LYS:NZ	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
29:D4:51:TYR:CD2	41:DG:2:PRO:HD2	2.51	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: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
35:DA:921:G:H4'	35:DA:2269:A:C6	2.51	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
35:DA:2263:C:H6	35:DA:2263:C:C5'	2.19	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
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
40:DF:160:ASN:HD22	40:DF:160:ASN:C	2.24	0.45
42:DH:149:ARG:HA	42:DH:162:ILE:HG21	1.98	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:135:ASP:CG	47:DQ:136:ALA:H	2.24	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
54:DX:37:THR:O	54:DX:38:GLU:C	2.59	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:1402:C:O2	1:AA:1500:A:N1	2.49	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
2:AB:124:SER:C	2:AB:126:GLU:H	2.24	0.45
2:AB:154:LEU:O	2:AB:155:LEU:C	2.58	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
10:AJ:44:VAL:CG1	10:AJ:46:ARG:HG3	2.46	0.45
13:AM:99:ARG:C	13:AM:101:GLN:HE21	2.24	0.45
15:AO:79:ARG:O	15:AO:82:ILE:HG22	2.16	0.45
17:AQ:83:ASP:CG	17:AQ:84:LEU:N	2.74	0.45
18:AR:53:ARG:C	18:AR:55:ARG:H	2.25	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: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
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:1820:U:O2	38:BD:201:HIS:HB3	2.17	0.45
35:BA:1899:G:HO2'	35:BA:1900:A:H5''	1.78	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:2572:A:P	39:BE:144:ARG:HB2	2.56	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
36:BB:52:A:N7	49:BS:33:LYS:NZ	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BC:158:ALA:C	37:BC:160:ARG:H	2.23	0.45
38:BD:30:GLU:CB	38:BD:35:LYS:HD2	2.27	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
39:BE:14:ILE:HG12	39:BE:21:VAL:HG22	1.98	0.45
40:BF:51:THR:HG23	40:BF:92:PRO:HG2	1.98	0.45
40:BF:164:ARG:CG	40:BF:175:THR:OG1	2.60	0.45
41:BG:47:LYS:HE3	41:BG:81:LYS:HB3	1.98	0.45
41:BG:103:LEU:O	41:BG:106:LEU:HB3	2.15	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
42:BH:155:SER:OG	42:BH:156:ALA:N	2.48	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
47:BQ:43:THR:HA	47:BQ:94:VAL:HG12	1.97	0.45
47:BQ:103:MET:HE1	47:BQ:125:LEU:HD13	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
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: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
1:CA:1274:G:H2'	1:CA:1275:A:C8	2.51	0.45
3:CC:42:LEU:O	3:CC:45:LYS:HB2	2.16	0.45
5:CE:47:LYS:N	5:CE:47:LYS:HD2	2.31	0.45
8:CH:60:ARG:HG3	8:CH:60:ARG:NH1	2.31	0.45
8:CH:109:ILE:HG12	8:CH:110:ALA:N	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:HG3	20:CT:89:ARG:HH21	1.80	0.45
22:CY:56:C:O2'	22:CY:57:G:O4'	2.34	0.45
31:D6:10:LEU:C	31:D6:11:LEU:HD22	2.42	0.45
35:DA:608:A:OP1	40:DF:100:THR:CG2	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:806:C:OP2	46:DP:39:LYS:HB3	2.16	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:H2'	35:DA:2400:G:N3	2.30	0.45
35:DA:2491:U:C2'	35:DA:2492:U:H5'	2.46	0.45
38:DD:26:LYS:CD	38:DD:82:ILE:H	2.29	0.45
38:DD:30:GLU:CD	38:DD:63:ARG:NE	2.74	0.45
38:DD:45:ASN:HB2	38:DD:46:GLN:OE1	2.15	0.45
40:DF:1:MET:O	40:DF:3:GLU:HG2	2.15	0.45
40:DF:27:GLU:O	40:DF:28:ILE:C	2.59	0.45
40:DF:123:LEU:CD1	40:DF:124:LEU:H	2.17	0.45
41:DG:28:VAL:HG12	41:DG:28:VAL:O	2.16	0.45
41:DG:105:LYS:HD3	41:DG:142:PRO:HG2	1.98	0.45
41:DG:148:MET:HE3	41:DG:148:MET: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:30:THR:CG2	46:DP:31:ALA:N	2.70	0.45
46:DP:126:VAL:HG12	46:DP:127:ALA:N	2.31	0.45
49:DS:46:VAL:HG12	49:DS:47:THR:N	2.32	0.45
49:DS:101:LEU:HD22	49:DS:101:LEU:C	2.41	0.45
50:DT:65:LYS:HG3	50:DT:66:VAL:N	2.31	0.45
50:DT:128:GLU:OE1	50:DT:128:GLU:C	2.59	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
56:DZ:48:PHE:C	56:DZ:48:PHE:CD1	2.94	0.45
56:DZ:61:LEU:HD22	56:DZ:61:LEU:N	2.31	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
1:AA:1170:A:H2'	1:AA:1171:G:O4'	2.16	0.45
4:AD:152:SER:HA	4:AD:155:LEU:HG	1.99	0.45
9:AI:92:TYR:C	9:AI:94:ALA:N	2.73	0.45
12:AL:38:THR:HG23	12:AL:39:VAL:N	2.31	0.45
15:AO:10:LYS:C	15:AO:10:LYS:HD2	2.41	0.45
15:AO:39:LEU:HD22	15:AO:43:LEU:HG	1.97	0.45
16:AP:6:LEU:HD12	16:AP:6:LEU:N	2.31	0.45
16:AP:21:VAL:O	16:AP:21:VAL:HG13	2.17	0.45
16:AP:66:PRO:HG2	16:AP:71:ARG:NH1	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:75:ASN:O	20:AT:78:ALA:N	2.45	0.45
26:B1:66:HIS:C	26:B1:68:PRO:HD2	2.41	0.45
30:B5:56:LYS:HG2	30:B5:57:VAL:N	2.31	0.45
33:B8:6:THR:CG2	35:BA:243:U:OP1	2.65	0.45
33:B8:6:THR:HG21	33:B8:63:PRO:HD3	1.92	0.45
33:B8:7:HIS:CD2	46:BP:50:ARG:HD3	2.51	0.45
35:BA:210:C:H2'	35:BA:211:A:C8	2.51	0.45
35:BA:609:A:H2'	35:BA:610:G:O4'	2.16	0.45
35:BA:615:G:O2'	40:BF:205:ARG:NH2	2.49	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:1968:G:O2'	35:BA:1969:A:O4'	2.34	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
37:BC:83:ILE:HG22	37:BC:83:ILE:O	2.17	0.45
37:BC:188:ASN:C	37:BC:190:ARG:H	2.23	0.45
38:BD:176:ARG:HH11	38:BD:176:ARG:CG	2.24	0.45
38:BD:211:ARG:HA	38:BD:214:TRP:CD2	2.51	0.45
39:BE:61:ARG:CB	39:BE:62:PRO:CD	2.94	0.45
39:BE:188:VAL:HG13	39:BE:188:VAL:O	2.16	0.45
43:BI:28:ASN:C	43:BI:32:PRO:HG2	2.41	0.45
44:BN:39:ARG:C	44:BN:41:ASP:H	2.24	0.45
44:BN:133:GLN:CG	44:BN:134:ARG:H	2.18	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
47:BQ:111:GLU:CD	47:BQ:133:ARG:NH2	2.74	0.45
51:BU:92:ARG:NH2	51:BU:95:LEU:HG	2.26	0.45
52:BV:95:LEU:CD2	52:BV:95:LEU:C	2.90	0.45
53:BW:1:MET:HG3	53:BW:64:MET:HE3	1.98	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
1:CA:44:G:H1'	1:CA:399:G:H22	1.81	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: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
1:CA:1106:G:H2'	1:CA:1107:C:C6	2.51	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:97:TRP:HH2	2:CB:176:GLU:CD	2.24	0.45
3:CC:3:ASN:CG	3:CC:4:LYS:H	2.25	0.45
3:CC:20:SER:O	14:CN:54:PRO:HG3	2.17	0.45
3:CC:125:GLU:CD	3:CC:189:ALA:HA	2.41	0.45
3:CC:188:LEU:O	3:CC:189:ALA:HB2	2.16	0.45
6:CF:49:ALA:HB1	18:CR:80:PRO:HG3	1.98	0.45
9:CI:9:ARG:HA	9:CI:13:ALA:O	2.15	0.45
9:CI:116:LYS:O	9:CI:117:HIS:C	2.59	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
13:CM:93:ARG:C	13:CM:94:ARG:HD2	2.42	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
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
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
37:DC:18:LYS:HD3	37:DC:19:VAL:HG23	1.98	0.45
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
39:DE:161:GLY:O	39:DE:162:ALA:C	2.58	0.45
41:DG:32:PRO:HB2	41:DG:172:LEU:CD1	2.46	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
42:DH:158:HIS:NE2	42:DH:169:VAL:O	2.50	0.45
45:DO:111:PHE:N	45:DO:112:MET:HE2	2.30	0.45
48:DR:44:LEU:HD12	48:DR:114:VAL:HG11	1.97	0.45
50:DT:91:ARG:C	50:DT:93:ARG:N	2.74	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:724:G:O2'	1:AA:725:G:H5'	2.16	0.45
1:AA:759:A:H61	17:AQ:94:ASN:HD22	1.63	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
6:AF:39:LYS:O	6:AF:40:VAL:HB	2.17	0.45
13:AM:84:ILE:HG21	19:AS:60:VAL:HG23	1.97	0.45
19:AS:18:LYS:O	19:AS:18:LYS:HG3	2.15	0.45
19:AS:22:LEU:O	19:AS:26:GLY:HA2	2.17	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
27:B2:18:PRO:O	27:B2:19:VAL:C	2.59	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
33:B8:37:SER:O	33:B8:38:GLY:C	2.58	0.45
35:BA:78:A:O2'	35:BA:79:G:H5'	2.17	0.45
35:BA:947:G:N2	35:BA:971:C:C2	2.84	0.45
35:BA:957:A:N6	35:BA:2459:A:C8	2.84	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
36:BB:73:A:H2'	36:BB:74:U:H5'	1.98	0.45
37:BC:62:VAL:O	37:BC:63:SER:C	2.58	0.45
37:BC:128:GLY:C	37:BC:130:ILE:N	2.74	0.45
39:BE:75:VAL:C	39:BE:77:ILE:H	2.21	0.45
41:BG:147:ASP:OD1	41:BG:148:MET:N	2.50	0.45
44:BN:91:LEU:C	44:BN:93:THR:N	2.72	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:2:ARG:HH11	48:BR:5:LYS:NZ	2.14	0.45
48:BR:11:ASN:O	48:BR:12:ARG:CB	2.64	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:H	55:BY:28:LYS:HG2	1.41	0.45
56:BZ:24:LEU:CD2	56:BZ:86:VAL:HG12	2.46	0.45
1:CA:640:A:N3	8:CH:115:SER:HB3	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:646:U:H2'	1:CA:647:C:C6	2.52	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:H8	1:CA:1401:G:O5'	1.99	0.45
2:CB:45:GLN:HG2	2:CB:48:MET:CE	2.47	0.45
2:CB:48:MET:HE3	2:CB:49:GLU:CG	2.43	0.45
2:CB:141:GLU:C	2:CB:143:GLU:H	2.24	0.45
4:CD:96:LEU:N	4:CD:96:LEU:CD1	2.79	0.45
12:CL:27:LEU:C	12:CL:29:GLY:H	2.25	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: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:1171:G:H5''	35:DA:1173:G:H4'	1.97	0.45
35:DA:1300:U:C6	35:DA:1626:G:C6	3.04	0.45
35:DA:1573:G:H2'	35:DA:1574:C:H5'	1.99	0.45
35:DA:2073:C:H4'	38:DD:228:PRO:HB2	1.98	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
38:DD:34:VAL:C	38:DD:36:PRO:HD2	2.42	0.45
38:DD:45:ASN:CG	38:DD:46:GLN:H	2.24	0.45
41:DG:122:PRO:HG2	41:DG:123:ASN:OD1	2.17	0.45
41:DG:133:LEU:C	41:DG:133:LEU:HD12	2.41	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:28:THR:CA	44:DN:106:MET:HE1	2.46	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:14:VAL:CG1	49:DS:15:ARG:H	2.25	0.45
49:DS:15:ARG:HA	49:DS:15:ARG:HD3	1.76	0.45
55:DY:95:LYS:HE2	55:DY:100:ALA:HB1	1.98	0.45
1:AA:90:U:C3'	1:AA:91:C:H5'	2.47	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:954:G:H2'	1:AA:955:U:C6	2.52	0.45
1:AA:1031:G:H2'	1:AA:1032:G:C8	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
2:AB:141:GLU:C	2:AB:143:GLU:H	2.24	0.45
3:AC:134:ILE:CG2	3:AC:168:ALA:HB3	2.46	0.45
3:AC:164:ARG:HB2	3:AC:164:ARG:CZ	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
13:AM:89:GLY:C	13:AM:90:LEU:O	2.57	0.45
15:AO:17:ARG:HG3	15:AO:17:ARG:HH11	1.81	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: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
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
39:BE:174:ASP:HB3	39:BE:183:LEU:HD22	1.99	0.45
46:BP:18:ARG:NH1	46:BP:18:ARG:O	2.49	0.45
46:BP:47:ASP:CB	46:BP:48:PRO:CA	2.87	0.45
46:BP:148:LEU:O	46:BP:149:GLU:HB2	2.15	0.45
47:BQ:26:TYR:CD1	47:BQ:26:TYR:C	2.94	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:35:LYS:NZ	50:BT:41:ARG:HE	2.14	0.45
50:BT:38:ASN:ND2	50:BT:40:THR:H	2.14	0.45
52:BV:95:LEU:C	52:BV:95:LEU:HD23	2.40	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
1:CA:1053:G:N7	1:CA:1200:C:H5''	2.30	0.45
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:95:GLN:NE2	2:CB:147:LYS:CE	2.78	0.45
4:CD:9:CYS:HB2	4:CD:22:LYS:HD2	1.97	0.45
4:CD:147:ALA:HB2	4:CD:182:LYS:CB	2.47	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
16:CP:75:ARG:C	16:CP:77:ALA:H	2.25	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
30:D5:49:CYS:O	30:D5:50:GLY:C	2.58	0.45
35:DA:365:C:H6	35:DA:365:C:C5'	2.27	0.45
35:DA:803:U:C2'	35:DA:804:A:H5'	2.45	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:2464:C:HO2'	35:DA:2465:C:P	2.39	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
37:DC:43:VAL:HG12	37:DC:43:VAL:O	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
42:DH:13:LYS:HB3	42:DH:14:GLY:H	1.63	0.45
45:DO:112:MET:HE2	45:DO:112:MET:H	1.82	0.45
46:DP:7:ARG:NH1	46:DP:7:ARG:CB	2.79	0.45
46:DP:97:PRO:C	46:DP:99:LEU:N	2.66	0.45
50:DT:89:VAL:CG1	50:DT:91:ARG:NE	2.80	0.45
52:DV:95:LEU:C	52:DV:95:LEU:CD2	2.89	0.45
54:DX:12:VAL:HG13	54:DX:27:THR:C	2.41	0.45
56:DZ:99:TYR:HA	56:DZ:124:ILE:C	2.41	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:H2'	1:AA:991:U:O2	2.16	0.45
3:AC:70:VAL:O	3:AC:105:GLU:HA	2.17	0.45
4:AD:19:LEU:HD13	4:AD:21:LEU:CG	2.47	0.45
5:AE:144:THR:C	5:AE:146:ALA:N	2.74	0.45
6:AF:44:GLY:HA2	6:AF:59:TYR:CE1	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:109:ILE:HG12	8:AH:110:ALA:N	2.32	0.45
10:AJ:4:ILE:HA	10:AJ:100:THR:CG2	2.32	0.45
10:AJ:35:SER:O	10:AJ:36:GLY:C	2.58	0.45
11:AK:67:ASP:CG	11:AK:71:LYS:HE3	2.41	0.45
15:AO:74:ASP:O	15:AO:76:GLU:N	2.49	0.45
17:AQ:13:ASP:C	17:AQ:15:MET:H	2.24	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:42:G:H2'	35:BA:43:A:O4'	2.17	0.45
35:BA:142:A:H8	35:BA:1408:C:H1'	1.80	0.45
35:BA:143:G:H1'	54:BX:37:THR:CG2	2.37	0.45
35:BA:297:C:H2'	35:BA:298:G:O4'	2.16	0.45
35:BA:528:A:N1	35:BA:2042:A:H2'	2.31	0.45
35:BA:1047:G:C8	35:BA:1110:G:C6	3.05	0.45
35:BA:1109:C:H5	35:BA:1110:G:C5	2.34	0.45
35:BA:1436:G:C3'	35:BA:1437:C:H5''	2.45	0.45
35:BA:1788:C:OP1	38:BD:222:ARG:NH2	2.42	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
38:BD:25:THR:O	38:BD:26:LYS:CB	2.65	0.45
39:BE:86:PRO:C	39:BE:88:GLY:N	2.75	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
48:BR:107:ASP:O	48:BR:108:GLY:C	2.59	0.45
50:BT:125:ARG:HA	50:BT:125:ARG:HH11	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
53:BW:92:ARG:HG2	53:BW:92:ARG:NH1	2.31	0.45
56:BZ:17:ALA:HA	56:BZ:20:ARG:CG	2.46	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
1:CA:544:G:OP1	4:CD:62:GLN:HG3	2.16	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:120:ALA:C	2:CB:122:PHE:N	2.75	0.45
2:CB:126:GLU:O	2:CB:130:ARG:HG3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:119:ARG:NE	3:CC:140:ARG:NE	2.64	0.45
4:CD:9:CYS:HA	4:CD:12:CYS:HB2	1.98	0.45
4:CD:199:ASN:OD1	4:CD:201:GLN:HB2	2.17	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
25:D0:43:THR:HG22	35:DA:2331:G:O3'	2.17	0.45
30:D5:44:THR:C	30:D5:45:VAL:CG2	2.90	0.45
32:D7:37:LYS:HG2	35:DA:458:G:C8	2.52	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
35:DA:833:U:O2	46:DP:55:ARG:NH1	2.50	0.45
35:DA:1141:U:C5	44:DN:64:GLY:HA3	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
35:DA:2422:A:H4'	35:DA:2423:U:OP1	2.16	0.45
35:DA:2572:A:OP1	39:DE:144:ARG:HB2	2.17	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
37:DC:158:ALA:C	37:DC:160:ARG:H	2.24	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
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:115:VAL:HG11	42:DH:148:ILE:HD11	1.99	0.45
42:DH:116:GLU:HG2	42:DH:117:PRO:HD2	1.99	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
43:DI:107:VAL:O	43:DI:109:ILE:HD12	2.17	0.45
45:DO:13:ASN:C	45:DO:15:GLY:N	2.72	0.45
45:DO:104:ARG:NH1	45:DO:104:ARG:HB2	2.30	0.45
47:DQ:2:LEU:O	47:DQ:3:MET:HB3	2.15	0.45
47:DQ:50:ALA:CB	47:DQ:104:PHE:HE1	2.29	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

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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
56:DZ:121:HIS:CE1	56:DZ:169:GLU:HG3	2.52	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
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:1442(B):A:N1	50:BT:118:ARG:NH2	2.65	0.45
2:AB:220:ASP:C	2:AB:222:ILE:N	2.71	0.45
2:AB:236:TYR:HA	2:AB:239:VAL:CG2	2.47	0.45
3:AC:30:ARG:NH2	14:AN:35:ARG:C	2.75	0.45
3:AC:95:THR:C	3:AC:97:LYS:H	2.24	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
4:AD:43:HIS:CE1	4:AD:46:LYS:HZ1	2.31	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:96:ILE:HD13	10:AJ:96:ILE:H	1.80	0.45
12:AL:6:THR:HG22	12:AL:9:GLN:CD	2.41	0.45
13:AM:52:GLU:O	13:AM:56:LEU:CB	2.64	0.45
14:AN:36:PHE:CD1	14:AN:36:PHE:C	2.95	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
29:B4:51:TYR:CE1	41:BG:2:PRO:HD2	2.51	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:85:G:H8	35:BA:85:G:H5''	1.82	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:758:C:O2	35:BA:1981:A:H2	2.00	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:244:ARG:HG2	38:BD:245:PRO:CD	2.47	0.45
41:BG:153:ARG:HB3	41:BG:153:ARG:NH1	2.32	0.45
43:BI:61:ARG:O	43:BI:65:ALA:HB3	2.17	0.45
43:BI:107:VAL:HG12	43:BI:108:THR:N	2.32	0.45
44:BN:57:ALA:C	44:BN:58:ASP:O	2.60	0.45
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
50:BT:57:PHE:O	50:BT:58:ASN:ND2	2.49	0.45
50:BT:85:LYS:HB3	50:BT:85:LYS:NZ	2.31	0.45
51:BU:85:LYS:C	51:BU:87:GLY:H	2.25	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:11:GLU:HB2	56:BZ:12:GLY:H	1.53	0.45
56:BZ:105:VAL:HG12	56:BZ:139:VAL:H	1.82	0.45
1:CA:109:A:C6	1:CA:326:G:C6	3.05	0.45
1:CA:177:C:O2'	1:CA:178:C:H5'	2.16	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
1:CA:981:U:H5'	14:CN:21:TYR:CE1	2.52	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
4:CD:162:LEU:CD1	4:CD:181:MET:HE2	2.47	0.45
6:CF:9:VAL:HB	6:CF:87:ARG:HB2	1.99	0.45
7:CG:57:GLU:O	7:CG:57:GLU:HG2	2.17	0.45
11:CK:73:MET:SD	11:CK:103:LEU:HD21	2.57	0.45
13:CM:97:PRO:C	13:CM:98:VAL:HA	2.42	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
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:H	25:D0:35:ASN:HD22	1.64	0.45
35:DA:130:C:O3'	35:DA:1349:A:H1'	2.17	0.45
35:DA:1043:C:O2'	35:DA:1044:G:C8	2.69	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:2171:A:O2'	35:DA:2172:U:C6	2.66	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
40:DF:89:VAL:C	40:DF:91:GLY:H	2.25	0.45
41:DG:9:ARG:C	41:DG:11:TYR:N	2.75	0.45
41:DG:11:TYR:HD2	41:DG:12:TYR:CE1	2.35	0.45
41:DG:111:LEU:HB2	41:DG:112:PRO:HD3	1.99	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:17:LEU:HD23	47:DQ:17:LEU:N	2.29	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:HD22	52:DV:62:LEU:N	2.31	0.45
1:AA:44:G:H1'	1:AA:399:G:N2	2.32	0.45
1:AA:180:U:C2'	1:AA:181:G:C5'	2.89	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
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
2:AB:95:GLN:NE2	2:AB:147:LYS:CE	2.78	0.45
2:AB:175:ARG:O	2:AB:176:GLU:C	2.59	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
7:AG:40:ALA:O	7:AG:41:ARG:C	2.59	0.45
8:AH:60:ARG:HG3	8:AH:60:ARG:NH1	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
11:AK:27:ASN:CG	11:AK:28:THR:N	2.75	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:B1:88:LYS:HA	26:B1:88:LYS:HD2	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:59:U:O2'	35:BA:73:A:H2'	2.16	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:2073:C:H4'	38:BD:228:PRO:HB2	1.98	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
35:BA:2816:C:O2'	35:BA:2817:G:H5'	2.17	0.45
38:BD:28:GLU:H	38:BD:29:PRO:CD	2.20	0.45
39:BE:79:ARG:HG2	39:BE:79:ARG:NH1	2.31	0.45
41:BG:61:ALA:CA	41:BG:64:THR:HG22	2.47	0.45
41:BG:138:GLN:C	41:BG:140:ILE:N	2.72	0.45
46:BP:7:ARG:NH1	46:BP:7:ARG:CB	2.80	0.45
47:BQ:39:PRO:HB3	47:BQ:99:PRO:HD3	1.98	0.45
47:BQ:55:VAL:O	47:BQ:56:ARG:C	2.60	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:96:ARG:HH11	50:BT:96:ARG:CG	2.25	0.45
50:BT:109:GLU:HA	50:BT:112:ARG:HD3	1.99	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
1:CA:818:G:H3'	1:CA:819:A:H5''	1.98	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
2:CB:67:THR:O	2:CB:68:ILE:HD13	2.16	0.45
3:CC:83:ARG:HG2	3:CC:83:ARG:NH1	2.31	0.45
3:CC:110:ASN:C	3:CC:112:SER:N	2.74	0.45
3:CC:188:LEU:N	3:CC:188:LEU:HD22	2.32	0.45
5:CE:31:LEU:CD1	5:CE:43:LEU:HD11	2.46	0.45
6:CF:50:TYR:CE1	18:CR:77:GLY:HA2	2.52	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
14:CN:55:GLY:O	14:CN:56:VAL:C	2.59	0.45
15:CO:44:LYS:HB2	15:CO:44:LYS:HE3	1.75	0.45
16:CP:26:ARG:HG2	16:CP:26:ARG:NH1	2.32	0.45
18:CR:53:ARG:HD2	18:CR:63:GLN:HB2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
33:D8:8:LYS:O	33:D8:12:LYS:HG3	2.17	0.45
35:DA:28:A:C4	35:DA:513:A:C8	3.05	0.45
35:DA:221:A:H61	35:DA:265:A:H8	1.64	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:779:U:P	38:DD:49:ILE:HG23	2.57	0.45
35:DA:806:C:P	46:DP:39:LYS:HB3	2.57	0.45
35:DA:1578:U:OP2	35:DA:1578:U:H6	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:H6	35:DA:2456:C:O5'	2.00	0.45
35:DA:2464:C:H42	35:DA:2486:G:H1	1.64	0.45
35:DA:2870:C:H2'	35:DA:2871:C:C5'	2.46	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
39:DE:48:GLN:NE2	39:DE:78:LEU:HD13	2.32	0.45
40:DF:65:TRP:C	40:DF:67:GLN:H	2.24	0.45
40:DF:99:TYR:O	40:DF:99:TYR:CD2	2.69	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
41:DG:80:PHE:O	41:DG:81:LYS:C	2.60	0.45
41:DG:101:ILE:CD1	41:DG:105:LYS:NZ	2.80	0.45
41:DG:139:LEU:H	41:DG:139:LEU:CD2	2.30	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:106:SER:C	50:DT:107:ASP:OD1	2.60	0.45
50:DT:118:ARG:O	50:DT:121:ILE:HB	2.17	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
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:1525:G:O2'	1:AA:1526:G:H5'	2.17	0.45
2:AB:18:GLY:N	2:AB:42:ILE:HG22	2.32	0.45
2:AB:121:LEU:CD1	2:AB:130:ARG:HH11	2.28	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:33:MET:HE1	4:AD:37:PRO:HA	1.95	0.45
4:AD:146:ILE:N	4:AD:146:ILE:CD1	2.75	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:128:PRO:O	5:AE:131:ILE:HG22	2.16	0.45
6:AF:50:TYR:CE1	18:AR:77:GLY:HA2	2.52	0.45
7:AG:6:ARG:HG2	7:AG:6:ARG:O	2.17	0.45
9:AI:84:ALA:O	9:AI:87:GLN:HB3	2.17	0.45
9:AI:128:ARG:HD3	9:AI:128:ARG:H	1.82	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
29:B4:50:THR:C	29:B4:51:TYR:CD1	2.95	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
35:BA:1264:G:H2'	35:BA:2014:A:N6	2.32	0.45
35:BA:1968:G:C2'	35:BA:1969:A:H5''	2.47	0.45
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
39:BE:3:GLY:CA	39:BE:81:ILE:HG21	2.46	0.45
39:BE:134:ILE:HD13	39:BE:135:HIS:N	2.32	0.45
40:BF:96:ASP:OD1	40:BF:96:ASP:C	2.59	0.45
41:BG:25:TYR:C	41:BG:26:GLN:OE1	2.60	0.45
41:BG:40:ASN:ND2	41:BG:91:ARG:HB2	2.31	0.45
41:BG:108:ASN:O	41:BG:112:PRO:HG2	2.17	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:HD2	45:BO:53:LYS:N	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:18:ILE:C	49:BS:20:ARG:N	2.74	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:90:U:C3'	1:CA:91:C:H5'	2.47	0.45
1:CA:413:G:H21	1:CA:428:G:H1'	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:922:G:H2'	1:CA:923:A:C8	2.52	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
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
13:CM:23:TYR:CE1	13:CM:70:LEU:HD22	2.39	0.45
15:CO:64:ARG:HG3	15:CO:64:ARG:NH1	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
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:89:G:H3'	35:DA:90:U:C5'	2.47	0.45
35:DA:558:G:OP2	44:DN:111:PRO:HD2	2.16	0.45
35:DA:626:U:H5''	35:DA:627:A:H5'	1.98	0.45
35:DA:941:A:H2'	35:DA:942:G:C8	2.52	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:2394:C:P	46:DP:63:PRO:HD2	2.57	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
37:DC:173:ALA:O	37:DC:174:PRO:C	2.60	0.45
38:DD:53:PHE:CE1	38:DD:220:HIS:HA	2.52	0.45
39:DE:16:ARG:NH2	39:DE:171:GLU:OE2	2.44	0.45
39:DE:101:ARG:HD3	39:DE:101:ARG:HA	1.63	0.45
39:DE:119:ARG:CG	39:DE:160:TYR:HB2	2.39	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:N	42:DH:86:GLU:OE1	2.50	0.45
43:DI:61:ARG:O	43:DI:65:ALA:HB3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DI:92:VAL:CG1	43:DI:120:ILE:HB	2.47	0.45
47:DQ:141:GLN:CD	56:DZ:72:ARG:HD3	2.42	0.45
49:DS:58:LEU:HG	49:DS:59:LYS:H	1.81	0.45
50:DT:19:LEU:HD22	50:DT:85:LYS:HZ1	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:H2'	1:AA:346:G:N3	2.32	0.45
1:AA:346:G:C5'	50:BT:41:ARG:NE	2.77	0.45
1:AA:541:G:H2'	1:AA:542:G:H8	1.80	0.45
1:AA:885:G:O5'	1:AA:885:G:H8	2.00	0.45
1:AA:1070:U:H5'	5:AE:18:ARG:HH22	1.82	0.45
4:AD:50:ARG:C	4:AD:50:ARG:HD2	2.42	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
19:AS:37:ARG:H	19:AS:37:ARG:HG3	1.53	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: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
35:BA:1171:G:C3'	35:BA:1173:G:H4'	2.27	0.45
35:BA:1224:C:H4'	52:BV:86:GLY:O	2.16	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
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
45:BO:2:ILE:CD1	45:BO:6:THR:HG21	2.37	0.45
45:BO:5:GLN:HE21	45:BO:20:MET:CE	2.30	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BT:106:SER:O	50:BT:107:ASP:OD1	2.35	0.45
51:BU:104:GLN:CD	51:BU:104:GLN:N	2.75	0.45
52:BV:21:ARG:HD3	52:BV:21:ARG:H	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
1:CA:1194:U:H5''	5:CE:22:GLY:O	2.17	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
2:CB:162:ILE:O	2:CB:162:ILE:HG13	2.15	0.45
3:CC:73:PRO:C	3:CC:75:VAL:N	2.74	0.45
4:CD:106:TYR:HE1	4:CD:112:VAL:O	2.00	0.45
8:CH:67:PRO:O	8:CH:68:ARG:C	2.59	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
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:H	25:D0:41:ARG:NE	2.14	0.45
33:D8:37:SER:O	33:D8:38:GLY:C	2.58	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
35:DA:1548:C:H2'	35:DA:1549:C:H6	1.82	0.45
35:DA:2012:G:O3'	53:DW:96:ILE:HD11	2.17	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
37:DC:19:VAL:O	37:DC:20:TYR:HB3	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:76:ARG:O	39:DE:77:ILE:O	2.35	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
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
41:DG:137:GLU:HG2	41:DG:152:LEU:HD11	1.99	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:32:THR:HG21	46:DP:37:GLY:CA	2.47	0.45
46:DP:135:LEU:HD13	46:DP:135:LEU:O	2.17	0.45
47:DQ:68:ILE:HD13	47:DQ:103:MET:HG2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DR:99:LYS:CD	48:DR:99:LYS:N	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
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:HG2	56:DZ:31:ARG:O	2.16	0.45
1:AA:195:A:OP1	20:AT:65:LYS:HE2	2.18	0.44
1:AA:1106:G:H2'	1:AA:1107:C:C6	2.52	0.44
1:AA:1317:C:OP2	14:AN:17:LYS:HE2	2.16	0.44
2:AB:115:LEU:O	2:AB:119:GLU:HB2	2.18	0.44
3:AC:73:PRO:C	3:AC:75:VAL:N	2.75	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: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
15:AO:67:LEU:CD2	15:AO:78:TYR:HE1	2.29	0.44
16:AP:80:PHE:N	16:AP:80:PHE:CD1	2.83	0.44
17:AQ:78:GLU:CD	17:AQ:81:ARG:HD2	2.42	0.44
23:AW:23:A:H2'	23:AW:24:G:C8	2.52	0.44
33:B8:60:LEU:C	33:B8:63:PRO:HD2	2.42	0.44
35:BA:129:C:O2'	35:BA:130:C:H5'	2.17	0.44
35:BA:237:C:O2'	35:BA:238:C:H5'	2.18	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
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: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
39:BE:49:LEU:O	39:BE:78:LEU:HB3	2.17	0.44
39:BE:69:LYS:O	39:BE:70:ALA:C	2.59	0.44
39:BE:145:LYS:HD3	39:BE:145:LYS:HA	1.88	0.44
40:BF:157:VAL:HB	40:BF:194:MET:HB3	1.99	0.44
41:BG:128:ARG:HB3	41:BG:130:ASN:CG	2.41	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:N	45:BO:105:GLU:OE1	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:1031:G:H2'	1:CA:1032:G:C8	2.52	0.44
1:CA:1191:A:H5''	3:CC:4:LYS:NZ	2.31	0.44
3:CC:30:ARG:NH1	14:CN:38:GLY:H	2.15	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
10:CJ:67:THR:HG22	10:CJ:67:THR:O	2.16	0.44
12:CL:27:LEU:C	12:CL:29:GLY:N	2.75	0.44
13:CM:89:GLY:C	13:CM:90:LEU:O	2.58	0.44
19:CS:5:LEU:HA	19:CS:6:LYS:HZ2	1.82	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
33:D8:39:LYS:HE3	35:DA:2365:G:O6	2.16	0.44
35:DA:94(A):G:H2'	35:DA:95:G:O4'	2.17	0.44
35:DA:151:C:O2'	35:DA:152:G:H5'	2.17	0.44
35:DA:667:U:H2'	35:DA:668:G:O4'	2.17	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: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
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:2758:A:C5	42:DH:67:LEU:HD21	2.52	0.44
35:DA:2872:G:O2'	35:DA:2873:A:H5'	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:260:ARG:HD3	38:DD:261:LYS:O	2.17	0.44
39:DE:21:VAL:HG23	39:DE:23:VAL:CG1	2.47	0.44
39:DE:101:ARG:HH21	39:DE:171:GLU:HB2	1.80	0.44
39:DE:168:MET:O	39:DE:169:ASN:C	2.60	0.44
39:DE:182:LEU:O	39:DE:183:LEU:HD12	2.17	0.44
40:DF:38:ARG:HG3	40:DF:38:ARG:HH11	1.81	0.44
40:DF:132:VAL:C	40:DF:134:GLY:N	2.75	0.44
42:DH:46:GLU:HG3	42:DH:50:VAL:HG13	2.00	0.44
42:DH:87:LEU:N	42:DH:131:VAL:O	2.45	0.44
42:DH:150:ALA:O	42:DH:151:ILE:C	2.59	0.44
42:DH:169:VAL:O	42:DH:169:VAL:HG13	2.17	0.44
44:DN:6:PRO:C	44:DN:7:LYS:HG3	2.41	0.44
47:DQ:111:GLU:CD	47:DQ:133:ARG:NH2	2.75	0.44
47:DQ:141:GLN:HG3	56:DZ:72:ARG:NH1	2.32	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
1:AA:355:C:H5'	1:AA:389:A:OP2	2.17	0.44
1:AA:396:G:O2'	1:AA:398:C:OP1	2.33	0.44
1:AA:601:C:H2'	1:AA:602:A:C8	2.49	0.44
1:AA:949:A:C2	1:AA:1233:G:N3	2.85	0.44
1:AA:955:U:O2'	1:AA:956:U:H5'	2.18	0.44
1:AA:976:G:P	14:AN:32:SER:H	2.40	0.44
2:AB:45:GLN:HG2	2:AB:48:MET:CE	2.47	0.44
2:AB:67:THR:O	2:AB:68:ILE:HD13	2.17	0.44
2:AB:116:GLU:HA	2:AB:119:GLU:HB3	1.98	0.44
3:AC:32:LEU:HD22	3:AC:59:ARG:NH1	2.32	0.44
3:AC:52:LEU:HD12	3:AC:55:VAL:CG2	2.47	0.44
3:AC:125:GLU:CD	3:AC:189:ALA:HA	2.42	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
11:AK:60:ALA:C	11:AK:62:GLN:N	2.74	0.44
12:AL:102:ARG:CG	12:AL:102:ARG:NH1	2.79	0.44
13:AM:17:VAL:O	13:AM:17:VAL:HG12	2.17	0.44
28:B3:52:HIS:CD2	28:B3:52:HIS:H	2.34	0.44
29:B4:41:ILE:N	29:B4:57:ILE:O	2.45	0.44
29:B4:57:ILE:HG22	29:B4:57:ILE:O	2.16	0.44
33:B8:12:LYS:NZ	35:BA:249:C:O2	2.42	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
37:BC:49:ILE:O	37:BC:50:ASP:C	2.60	0.44
41:BG:18:GLU:HG3	41:BG:22:ARG:HD2	2.00	0.44
41:BG:153:ARG:HB3	41:BG:153:ARG:CZ	2.46	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
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
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:40:LEU:N	52:BV:40:LEU:HD22	2.32	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
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
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:19:LEU:HD13	4:CD:21:LEU:CG	2.47	0.44
4:CD:173:TRP:O	4:CD:186:LEU:HB2	2.18	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
11:CK:99:GLN:CD	11:CK:105:VAL:HG11	2.42	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: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
27:D2:21:LEU:O	27:D2:22:GLU:C	2.60	0.44
35:DA:542:C:C4	35:DA:543:C:N4	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1685:C:HO2'	35:DA:1686:C:H5''	1.81	0.44
35:DA:1968:G:C2'	35:DA:1969:A:H5''	2.48	0.44
35:DA:2192:G:N3	35:DA:2192:G:H2'	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
36:DB:38:C:O2	36:DB:48:A:H1'	2.17	0.44
38:DD:8:PRO:HB3	38:DD:14:ARG:HB3	1.99	0.44
42:DH:43:VAL:O	42:DH:43:VAL:HG23	2.17	0.44
43:DI:15:VAL:CG2	43:DI:16:GLY:N	2.79	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:35:LEU:C	52:DV:37:VAL:N	2.75	0.44
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:H	56:DZ:146:ILE:HG12	1.30	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
1:AA:1256:A:H5''	3:AC:27:LYS:NZ	2.33	0.44
3:AC:19:GLU:O	3:AC:40:ARG:NH2	2.40	0.44
3:AC:30:ARG:NH1	14:AN:38:GLY:H	2.16	0.44
3:AC:83:ARG:HG2	3:AC:83:ARG:NH1	2.33	0.44
3:AC:156:ARG:H	3:AC:163:ALA:HA	1.82	0.44
4:AD:9:CYS:HB2	4:AD:22:LYS:HD2	1.98	0.44
5:AE:6:PHE:HB2	5:AE:34:VAL:HG13	2.00	0.44
5:AE:47:LYS:HD2	5:AE:47:LYS:H	1.81	0.44
6:AF:7:ASN:N	6:AF:7:ASN:HD22	2.14	0.44
9:AI:65:VAL:HG21	9:AI:73:GLN:CB	2.46	0.44
12:AL:27:LEU:C	12:AL:29:GLY:N	2.75	0.44
13:AM:29:ARG:HD3	13:AM:64:TRP:CZ2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:54:VAL:O	13:AM:55:ARG:C	2.60	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:201:C:C2'	35:BA:202:U:H5'	2.48	0.44
35:BA:594:U:H2'	35:BA:595:C:H6	1.82	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: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:2172:U:O2'	35:BA:2173:A:OP1	2.29	0.44
35:BA:2309:A:H2	35:BA:2310:A:C2	2.35	0.44
35:BA:2456:C:O5'	35:BA:2456:C:H6	2.00	0.44
35:BA:2553:G:H2'	35:BA:2554:U:C4'	2.48	0.44
35:BA:2657:A:O2'	42:BH:160:LYS:HE2	2.18	0.44
35:BA:2811:G:N2	35:BA:2891:G:H1'	2.32	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:OD1	38:BD:44:ASN:N	2.50	0.44
40:BF:21:ALA:C	40:BF:23:ASP:N	2.71	0.44
41:BG:91:ARG:CD	41:BG:92:VAL:N	2.81	0.44
41:BG:133:LEU:HD12	41:BG:157:ILE:HG22	2.00	0.44
44:BN:65:LYS:O	44:BN:69:GLN:HB2	2.18	0.44
46:BP:62:LEU:CD2	46:BP:62:LEU:N	2.81	0.44
46:BP:71:VAL:HG12	46:BP:72:PRO:HD3	1.97	0.44
46:BP:96:THR:C	46:BP:97:PRO:O	2.59	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:HG12	54:BX:52:VAL:O	2.18	0.44
54:BX:59:VAL:N	54:BX:76:ARG:O	2.50	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:472:A:H4'	16:CP:82:GLN:HE22	1.82	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
2:CB:45:GLN:O	2:CB:48:MET:HB3	2.16	0.44
7:CG:97:GLN:HG2	7:CG:101:LEU:HD11	1.99	0.44
8:CH:56:LYS:HA	8:CH:57:PRO:HD2	1.75	0.44
8:CH:125:ARG:HH11	8:CH:125:ARG:HG3	1.82	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
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:D5:19:ARG:NH1	35:DA:1266:G:OP2	2.50	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: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
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
35:DA:2144:U:O2	35:DA:2148:G:N1	2.50	0.44
35:DA:2206:G:H3'	35:DA:2206:G:N3	2.32	0.44
35:DA:2472:G:H2'	35:DA:2475:C:H42	1.82	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
44:DN:39:ARG:C	44:DN:41:ASP:H	2.25	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
48:DR:107:ASP:O	48:DR:108:GLY:C	2.59	0.44
55:DY:50:ARG:C	55:DY:52:SER:N	2.67	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
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
6:AF:66:GLU:O	6:AF:67:MET:HB3	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:70:ASP:C	6:AF:72:VAL:H	2.25	0.44
7:AG:18:TYR:HD2	7:AG:59:LEU:HB2	1.82	0.44
7:AG:148:ASN:N	7:AG:148:ASN:ND2	2.64	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
9:AI:103:THR:HG22	9:AI:105:ASP: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
27:B2:37:PHE:HE2	54:BX:92:LEU:HD21	1.81	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
35:BA:1107:G:O2'	35:BA:1108:U:H5'	2.17	0.44
35:BA:1162:G:H4'	52:BV:24:LYS:HB2	1.99	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:2405:G:HO2'	35:BA:2406:U:P	2.41	0.44
35:BA:2777:G:H5''	35:BA:2778:A:H5'	1.99	0.44
37:BC:173:ALA:O	37:BC:174:PRO:C	2.61	0.44
38:BD:8:PRO:HB3	38:BD:14:ARG:CB	2.48	0.44
38:BD:65:ILE:HD13	38:BD:65:ILE:O	2.17	0.44
38:BD:215:LEU:HD13	38:BD:217:ARG:NH2	2.33	0.44
40:BF:65:TRP:C	40:BF:67:GLN:H	2.25	0.44
43:BI:56:LYS:C	43:BI:58:LEU:N	2.75	0.44
44:BN:6:PRO:C	44:BN:7:LYS:HG3	2.42	0.44
44:BN:72:TYR:N	44:BN:85:ILE:O	2.34	0.44
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
50:BT:133:GLU:HG3	50:BT:137:LYS:HG3	1.99	0.44
51:BU:27:LEU:HD23	51:BU:27:LEU:HA	1.73	0.44
51:BU:103:PRO:HG2	51:BU:104:GLN:OE1	2.18	0.44
1:CA:324:G:OP1	20:CT:70:SER:HB2	2.17	0.44
1:CA:769:G:H4'	1:CA:1513:A:H4'	1.99	0.44
1:CA:830:G:N2	1:CA:857:C:C2	2.86	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
2:CB:35:GLU:O	2:CB:36:ARG:C	2.60	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
2:CB:132:LYS:HA	2:CB:135:GLN:HG3	1.99	0.44
3:CC:70:VAL:O	3:CC:105:GLU:HA	2.16	0.44
4:CD:112:VAL:HG12	4:CD:116:GLN:CD	2.43	0.44
9:CI:63:ILE:HG22	9:CI:64:THR:N	2.30	0.44
11:CK:27:ASN:CG	11:CK:28:THR:N	2.75	0.44
12:CL:86:ARG:N	12:CL:99:HIS:O	2.45	0.44
12:CL:126:LYS:CD	12:CL:127:GLU:H	2.31	0.44
14:CN:3:ARG:HH11	14:CN:3:ARG:CG	2.30	0.44
16:CP:12:LYS:C	16:CP:14:ASN:N	2.75	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:79:G:O2'	35:DA:80:G:H5'	2.18	0.44
35:DA:665:C:O2'	35:DA:666:G:H5'	2.17	0.44
35:DA:827:U:H2'	35:DA:2068:U:C2	2.52	0.44
35:DA:1125:G:H3'	35:DA:1126:A:H5''	1.99	0.44
35:DA:1139:G:H5'	44:DN:102:ALA:HA	1.98	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:2313:C:C4'	41:DG:40:ASN:ND2	2.81	0.44
37:DC:40:THR:CG2	37:DC:215:THR:CB	2.96	0.44
38:DD:8:PRO:HB3	38:DD:14:ARG:CB	2.47	0.44
38:DD:44:ASN:OD1	38:DD:44:ASN:N	2.50	0.44
38:DD:110:GLY:O	38:DD:111:LEU:C	2.61	0.44
38:DD:231:HIS:ND1	38:DD:232:PRO:CD	2.78	0.44
41:DG:153:ARG:HB2	41:DG:153:ARG:NH1	2.31	0.44
43:DI:8:PRO:HB3	43:DI:14:ASP:CA	2.47	0.44
43:DI:107:VAL:HG12	43:DI:108:THR:N	2.32	0.44
47:DQ:20:ALA:O	47:DQ:21:THR:OG1	2.30	0.44
47:DQ:130:LYS:HZ3	56:DZ:80:ARG:HA	1.82	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:O	56:DZ:141:VAL:HG13	2.18	0.44
1:AA:37:U:HO2'	1:AA:38:G:H5'	1.82	0.44
1:AA:119:A:H4'	1:AA:120:A:O5'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:1445:C:H2'	1:AA:1446:U:C5'	2.47	0.44
2:AB:214:ILE:O	2:AB:218:ALA:HB2	2.18	0.44
3:AC:40:ARG:HG3	3:AC:40:ARG:NH1	2.33	0.44
3:AC:101:LEU:HD23	3:AC:102:ASN:O	2.17	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:N	8:AH:65:TYR:CD1	2.85	0.44
9:AI:48:GLU:HA	9:AI:51:ARG:HD2	2.00	0.44
10:AJ:28:ARG:HG2	10:AJ:28:ARG:NH1	2.31	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
27:B2:10:LEU:HD11	35:BA:77:C:H5''	1.99	0.44
30:B5:52:TYR:C	30:B5:54:GLY:N	2.72	0.44
35:BA:94(A):G:H2'	35:BA:95:G:O4'	2.17	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
35:BA:833:U:O2	46:BP:55:ARG:NH1	2.50	0.44
35:BA:972:G:OP2	35:BA:974:G:H5''	2.18	0.44
35:BA:1495:A:N3	35:BA:1495:A:H2'	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
36:BB:4:C:H2'	36:BB:5:C:C6	2.53	0.44
36:BB:21:G:O2'	36:BB:22:U:C6	2.70	0.44
36:BB:32:C:C2	36:BB:51:G:N2	2.86	0.44
36:BB:37:C:C2'	36:BB:38:C:H5'	2.47	0.44
37:BC:18:LYS:C	37:BC:20:TYR:H	2.25	0.44
39:BE:79:ARG:HH11	39:BE:79:ARG:CG	2.29	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BN:51:PHE:CE2	44:BN:119:ARG:HD2	2.53	0.44
44:BN:97:ARG:HA	44:BN:100:GLU:HB2	2.00	0.44
46:BP:17:LYS:C	46:BP:19:VAL:H	2.25	0.44
46:BP:143:GLY:C	46:BP:145:PRO:HD3	2.41	0.44
49:BS:66:ALA:HA	49:BS:69:VAL:CG1	2.47	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
51:BU:105:VAL:O	51:BU:106:PHE:C	2.60	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
1:CA:359:U:H2'	1:CA:360:A:C8	2.53	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
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
17:CQ:78:GLU:CD	17:CQ:81:ARG:HD2	2.43	0.44
18:CR:53:ARG:HH11	18:CR:53:ARG:CB	2.31	0.44
19:CS:5:LEU:N	19:CS:5:LEU:HD22	2.32	0.44
28:D3:8:LEU:HD12	28:D3:31:LEU:CA	2.32	0.44
30:D5:40:LYS:HZ2	30:D5:46:CYS:CA	2.30	0.44
32:D7:30:VAL:HG12	32:D7:31:LEU:N	2.32	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
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
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
37:DC:18:LYS:C	37:DC:20:TYR:H	2.26	0.44
37:DC:78:ALA:HB3	37:DC:83:ILE:HD13	2.00	0.44
38:DD:24:ILE:C	38:DD:24:ILE:HD13	2.43	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DF:24:LEU:HD13	40:DF:24:LEU:HA	1.88	0.44
45:DO:13:ASN:C	45:DO:15:GLY:H	2.25	0.44
47:DQ:62:GLY:HA3	47:DQ:107:ALA:O	2.17	0.44
51:DU:5:LYS:O	51:DU:6:THR:C	2.60	0.44
56:DZ:127:LYS:CD	56:DZ:127:LYS:C	2.90	0.44
1:AA:624:C:O3'	16:AP:10:GLY:HA2	2.18	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:1028:C:H42	1:AA:1034:G:N2	2.15	0.44
1:AA:1287:A:H2	1:AA:1353:G:N3	2.15	0.44
1:AA:1313:U:P	19:AS:6:LYS:CB	3.06	0.44
2:AB:86:GLU:C	2:AB:88:ALA:H	2.26	0.44
2:AB:120:ALA:C	2:AB:122:PHE:N	2.74	0.44
2:AB:173:ALA:O	2:AB:174:VAL:C	2.60	0.44
3:AC:30:ARG:HH11	14:AN:38:GLY:H	1.64	0.44
3:AC:101:LEU:HD23	3:AC:101:LEU:C	2.42	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
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
25:B0:43:THR:N	35:BA:2331:G:H4'	2.31	0.44
26:B1:50:ARG:HG2	26:B1:59:THR:HG22	1.99	0.44
27:B2:47:ASN:O	27:B2:48:HIS:C	2.59	0.44
33:B8:37:SER:OG	33:B8:40:GLU:HG3	2.18	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
35:BA:744:G:OP1	39:BE:132:HIS:HB2	2.17	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:O2	35:BA:1866:C:C2'	2.60	0.44
35:BA:1952:A:C6	45:BO:22:ILE:HD12	2.53	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BB:56:G:H5'	41:BG:27:ASN:ND2	2.32	0.44
37:BC:78:ALA:HB3	37:BC:83:ILE:HD13	1.98	0.44
38:BD:24:ILE:HD13	38:BD:24:ILE:C	2.43	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:81:VAL:HB	43:BI:123:LEU:HD21	2.00	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
45:BO:111:PHE:N	45:BO:112:MET:HE2	2.33	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
47:BQ:56:ARG:HA	47:BQ:56:ARG:NE	2.22	0.44
48:BR:44:LEU:O	48:BR:45:ARG:C	2.60	0.44
51:BU:6:THR:O	51:BU:9:VAL:HG23	2.18	0.44
51:BU:34:LYS:HA	51:BU:34:LYS:CE	2.46	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
52:BV:25:LEU:C	52:BV:27:ALA:N	2.75	0.44
52:BV:34:GLU:O	52:BV:36:PRO:HD2	2.17	0.44
55:BY:30:VAL:C	55:BY:31:LEU:HD22	2.43	0.44
55:BY:41:GLY:O	55:BY:42:VAL:O	2.35	0.44
1:CA:90:U:H3'	1:CA:91:C:H5'	2.00	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: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
2:CB:8:LYS:HD3	2:CB:217:ARG:CZ	2.46	0.44
2:CB:61:LEU:HD12	2:CB:66:GLY:HA3	1.98	0.44
2:CB:69:LEU:HD13	2:CB:92:TYR:HA	2.00	0.44
3:CC:90:GLU:OE1	3:CC:93:LYS:HD3	2.18	0.44
3:CC:156:ARG:H	3:CC:163:ALA:HA	1.82	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
15:CO:19:PRO:C	15:CO:21:ASP:H	2.25	0.44
16:CP:8:ARG:CG	16:CP:9:PHE:H	2.29	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:D8:60:LEU:C	33:D8:63:PRO:HD2	2.42	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:827:U:H2'	35:DA:2068:U:O2	2.17	0.44
35:DA:948:G:C2	35:DA:970:C:O2	2.71	0.44
35:DA:1445:A:H5''	35:DA:1445(A):C:H5	1.81	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:C8	35:DA:2759:G:H5'	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
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:39:PRO:O	39:DE:40:GLU:C	2.61	0.44
39:DE:176:ILE:N	39:DE:176:ILE:CD1	2.75	0.44
40:DF:125:LEU:N	40:DF:125:LEU:HD22	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:85:LYS:HE2	42:DH:141:VAL:O	2.16	0.44
42:DH:125:VAL:O	42:DH:125:VAL:HG12	2.17	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
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:27:VAL:HG12	56:DZ:85:HIS:HE1	1.83	0.44
56:DZ:41:LEU:HD22	56:DZ:82:ARG:NH1	2.32	0.44
56:DZ:48:PHE:C	56:DZ:50:GLN:N	2.75	0.44
1:AA:59:A:H1'	1:AA:354:G:C2	2.53	0.44
1:AA:66:G:H4'	1:AA:173:U:C5	2.53	0.44
1:AA:123:C:H5''	1:AA:311:C:O2'	2.17	0.44
1:AA:509:A:C2	1:AA:510:A:C2	3.06	0.44
1:AA:1036:G:H8	1:AA:1036:G:OP2	2.01	0.44
1:AA:1147:C:O2	9:AI:16:ARG:NH1	2.50	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
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: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)
7:AG:108:ALA:HA	7:AG:111:ARG:HD2	2.00	0.44
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:47:PHE:CE2	14:AN:37:PHE:HE2	2.36	0.44
10:AJ:62:HIS:CD2	10:AJ:62:HIS:N	2.83	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
11:AK:127:LYS:HA	11:AK:127:LYS:CE	2.38	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
30:B5:19:ARG:NH1	35:BA:1266:G:OP2	2.51	0.44
31:B6:23:THR:HG21	35:BA:2419:U:C4'	2.48	0.44
34:B9:22:ARG:HH12	35:BA:2741:A:H5''	1.83	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
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
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
35:BA:2870:C:H5''	48:BR:65:LEU:CD2	2.40	0.44
37:BC:99:ILE:HG22	37:BC:99:ILE:O	2.18	0.44
39:BE:93:VAL:C	39:BE:95:ILE:H	2.25	0.44
39:BE:161:GLY:O	39:BE:162:ALA:C	2.60	0.44
42:BH:158:HIS:NE2	42:BH:170:ARG:CA	2.67	0.44
44:BN:116:LEU:C	44:BN:118:LYS:N	2.74	0.44
46:BP:139:LYS:O	46:BP:139:LYS:HD2	2.17	0.44
46:BP:144:GLU:O	46:BP:145:PRO:C	2.59	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:61:G:O2'	1:CA:62:U:H5'	2.18	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:942:G:C2	1:CA:943:U:C2	3.06	0.44
1:CA:1132:C:O2'	1:CA:1133:G:H5'	2.18	0.44
1:CA:1349:A:H2'	1:CA:1350:A:O4'	2.17	0.44
2:CB:103:THR:OG1	2:CB:176:GLU:HG2	2.17	0.44
4:CD:43:HIS:CE1	4:CD:46:LYS:HZ1	2.32	0.44
5:CE:76:ILE:CG2	5:CE:77:PRO:HD2	2.44	0.44
10:CJ:28:ARG:NH1	10:CJ:34:VAL:H	2.15	0.44
10:CJ:48:THR:CB	10:CJ:62:HIS:HB3	2.48	0.44
10:CJ:57:LYS:HE3	10:CJ:60:ARG:HH22	1.83	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
13:CM:20:THR:C	13:CM:22:ILE:N	2.75	0.44
15:CO:84:LYS:C	15:CO:85:LEU:HD23	2.43	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
33:D8:6:THR:HG21	33:D8:63:PRO:HD3	1.95	0.44
35:DA:251:A:C5	35:DA:252:G:H1'	2.52	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: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:O	39:DE:4:ILE:HG23	2.17	0.44
40:DF:22:ALA:C	40:DF:26:ALA:HB2	2.43	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
48:DR:87:TYR:CE1	48:DR:117:VAL:O	2.66	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
50:DT:57:PHE:O	50:DT:58:ASN:C	2.61	0.44
51:DU:91:ASP:OD2	51:DU:91:ASP:C	2.60	0.44
52:DV:21:ARG:CD	52:DV:21:ARG:H	2.30	0.44
52:DV:83:ARG:HH11	52:DV:83:ARG:HG2	1.83	0.44
1:AA:423:G:C2'	1:AA:424:G:H5'	2.48	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
2:AB:67:THR:CG2	2:AB:155:LEU:HD21	2.48	0.44
2:AB:118:LEU:HB2	2:AB:142:LEU:CD1	2.35	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
10:AJ:42:THR:HG22	10:AJ:43:ARG:N	2.32	0.44
10:AJ:65:LEU:CD1	14:AN:55:GLY:HA3	2.48	0.44
13:AM:120:LYS:HA	13:AM:120:LYS:CE	2.39	0.44
16:AP:18:ARG:HD3	16:AP:35:LYS:CD	2.42	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
27:B2:2:LYS:O	27:B2:2:LYS:HE3	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:730:C:O2'	35:BA:731:C:H5'	2.17	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:1598:C:O3'	54:BX:35:THR:HG23	2.18	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
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:H	38:BD:52:ARG:HG3	1.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:72:LYS:HE3	38:BD:101:GLU:HB3	2.00	0.44
39:BE:48:GLN:HG2	39:BE:48:GLN:O	2.18	0.44
40:BF:43:LYS:C	40:BF:45:ARG:H	2.26	0.44
41:BG:134:GLY:C	41:BG:135:LEU:HD12	2.42	0.44
43:BI:8:PRO:HB3	43:BI:14:ASP:HA	2.00	0.44
43:BI:113:ARG:HB3	43:BI:131:LYS:CB	2.43	0.44
44:BN:87:LEU:O	44:BN:88:GLU:C	2.61	0.44
45:BO:88:ASN:ND2	45:BO:90:GLN:N	2.64	0.44
51:BU:108:GLU:CD	52:BV:44:LYS:HD3	2.43	0.44
52:BV:62:LEU:N	52:BV:62:LEU:HD22	2.33	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: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
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
3:CC:37:GLN:C	3:CC:39:ILE:N	2.76	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
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
11:CK:38:ASN:O	11:CK:39:PRO:C	2.60	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:HD3	25:D0:20:ARG:H	1.82	0.44
30:D5:20:ARG:HH11	30:D5:20:ARG:HG2	1.83	0.44
33:D8:13:ARG:HD2	46:DP:61:ARG:NH1	2.33	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: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
35:DA:1045:A:N3	35:DA:1045:A:C2'	2.81	0.44
35:DA:1963:U:O2	35:DA:1963:U:C2'	2.66	0.44
35:DA:2334:G:H5'	49:DS:13:ARG:HG3	1.98	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
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:75:VAL:C	39:DE:77:ILE:H	2.20	0.44
39:DE:110:GLY:O	48:DR:5:LYS:NZ	2.48	0.44
40:DF:24:LEU:C	40:DF:26:ALA:N	2.76	0.44
41:DG:113:ARG:HG2	41:DG:113:ARG:NH1	2.33	0.44
41:DG:139:LEU:C	41:DG:141:PHE:N	2.72	0.44
43:DI:90:GLY:N	43:DI:121:LYS:HZ1	2.16	0.44
44:DN:62:VAL:O	44:DN:62:VAL:CG1	2.65	0.44
46:DP:56:SER:O	46:DP:57:THR:C	2.61	0.44
46:DP:90:ARG:HD3	46:DP:91:PHE:CD2	2.53	0.44
47:DQ:55:VAL:HG12	47:DQ:64:ILE:HD12	2.00	0.44
47:DQ:133:ARG:HG3	47:DQ:133:ARG:NH1	2.32	0.44
50:DT:64:ARG:HG2	50:DT:64:ARG:NH1	2.33	0.44
52:DV:19:LYS:HZ3	52:DV:20:LEU:CB	2.30	0.44
52:DV:20:LEU:N	52:DV:20:LEU:CD1	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:115:GLY:HA2	56:DZ:174:VAL:CG1	2.48	0.44
56:DZ:166:SER:HB2	56:DZ:167:PRO:CA	2.48	0.44
1:AA:90:U:H3'	1:AA:91:C:H5'	2.00	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: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
2:AB:132:LYS:HA	2:AB:135:GLN:HG3	1.99	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:49:ARG:O	4:AD:51:PRO:HD3	2.18	0.44
4:AD:54:TYR:CE1	4:AD:209:ARG:NH1	2.86	0.44
4:AD:168:ARG:HH11	4:AD:168:ARG:HG3	1.83	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:92:TYR:O	9:AI:95:LYS:HG3	2.18	0.44
14:AN:34:TYR:C	14:AN:36:PHE:H	2.25	0.44
15:AO:38:ARG:HG2	15:AO:38:ARG:NH1	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:44:LYS:HB2	15:AO:44:LYS:HE3	1.74	0.44
22:AV:41:C:H2'	22:AV:42:C:H5''	1.99	0.44
25:B0:42:GLY:HA3	35:BA:2331:G:O4'	2.17	0.44
26:B1:78:LYS:HE3	26:B1:78:LYS:HB2	1.84	0.44
31:B6:19:ARG:HD3	31:B6:43:CYS:SG	2.58	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
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
35:BA:2749:A:H1'	42:BH:63:SER:OG	2.18	0.44
37:BC:56:GLN:CD	37:BC:56:GLN:C	2.86	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:34:VAL:CG2	39:BE:48:GLN:HE21	2.30	0.44
39:BE:39:PRO:O	39:BE:40:GLU:C	2.60	0.44
39:BE:86:PRO:O	39:BE:88:GLY:N	2.47	0.44
39:BE:101:ARG:HD3	39:BE:101:ARG:HA	1.65	0.44
41:BG:21:ARG:C	41:BG:21:ARG:CD	2.91	0.44
43:BI:94:ALA:O	43:BI:96:ASP:N	2.50	0.44
44:BN:59:LYS:O	44:BN:60:ILE:C	2.61	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
47:BQ:140:ALA:HA	56:BZ:99:TYR:CE1	2.53	0.44
48:BR:12:ARG:HB3	48:BR:16:HIS:CD2	2.53	0.44
48:BR:28:LEU:C	48:BR:28:LEU:HD13	2.42	0.44
50:BT:48:ILE:CD1	50:BT:65:LYS:HD3	2.48	0.44
51:BU:74:LEU:C	51:BU:74:LEU:CD1	2.91	0.44
51:BU:92:ARG:HH21	51:BU:95:LEU:CD1	2.31	0.44
51:BU:92:ARG:CG	51:BU:92:ARG:NH1	2.80	0.44
1:CA:71:C:H2'	1:CA:72:C:H6	1.83	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:551:U:H5'	12:CL:119:LYS:HE2	1.99	0.44
1:CA:586:C:C2'	1:CA:587:G:H5'	2.48	0.44
1:CA:1053:G:C3'	1:CA:1054:C:C5'	2.94	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
2:CB:175:ARG:O	2:CB:176:GLU:C	2.60	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
6:CF:100:ASN:ND2	18:CR:23:LYS:HE3	2.28	0.44
7:CG:144:MET:HE1	23:CW:40:C:O2	2.17	0.44
11:CK:88:GLY:O	11:CK:91:ARG:HB2	2.18	0.44
12:CL:90:VAL:C	12:CL:92:ASP:H	2.19	0.44
13:CM:52:GLU:O	13:CM:56:LEU:CB	2.66	0.44
17:CQ:25:ARG:HH11	17:CQ:25:ARG:HG3	1.82	0.44
17:CQ:68:ARG:CG	17:CQ:68:ARG:NH1	2.81	0.44
22:CY:19:G:H5'	22:CY:20:U:C5	2.53	0.44
33:D8:6:THR:CG2	35:DA:243:U:OP1	2.65	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:826:U:OP1	35:DA:2428:G:H3'	2.17	0.44
35:DA:910:A:C6	35:DA:911:A:C6	3.06	0.44
35:DA:1003:G:N2	35:DA:1153:C:C2	2.85	0.44
35:DA:1131:G:O2'	35:DA:1132:A:H8	2.01	0.44
35:DA:1157:G:C2'	35:DA:1158:C:H5'	2.47	0.44
35:DA:1301:A:O2'	35:DA:1302:A:O5'	2.36	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:2735:G:H2'	35:DA:2736:G:H5'	2.00	0.44
37:DC:56:GLN:CD	37:DC:56:GLN:C	2.86	0.44
37:DC:158:ALA:C	37:DC:160:ARG:N	2.73	0.44
38:DD:48:ARG:HH11	38:DD:48:ARG:CG	2.12	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:NH2	2.33	0.44
38:DD:215:LEU:HD13	38:DD:217:ARG:HH21	1.82	0.44
39:DE:69:LYS:C	39:DE:71:GLY:H	2.26	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
45:DO:69:ILE:H	45:DO:69:ILE:HG13	1.68	0.44
46:DP:106:LEU:HD13	46:DP:112:LEU:HD23	2.00	0.44
47:DQ:27:VAL:O	47:DQ:28:ALA:C	2.60	0.44
48:DR:104:ARG:CB	48:DR:104:ARG:NH1	2.78	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:2:ARG:HG2	55:DY:2:ARG:NH1	2.33	0.44
55:DY:28:LYS:H	55:DY:28:LYS:HG2	1.43	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: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
1:AA:1068:G:N7	1:AA:1094:G:H2'	2.34	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
13:AM:93:ARG:C	13:AM:94:ARG:HD2	2.42	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:953:A:H2'	35:BA:954:G:C5'	2.48	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:1797:C:O2'	38:BD:259:THR:HG21	2.17	0.43
35:BA:2592:G:H8	35:BA:2592:G:O5'	2.01	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
47:BQ:43:THR:HG1	47:BQ:46:GLN:HG3	1.76	0.43
51:BU:57:PHE:C	51:BU:59:ARG:N	2.70	0.43
51:BU:89:GLU:HG2	52:BV:50:PRO:HG3	2.00	0.43
51:BU:91:ASP:OD1	51:BU:96:ALA:HB2	2.16	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:5:U:C2	4:CD:86:LYS:HE2	2.53	0.43
1:CA:119:A:H4'	1:CA:120:A:O5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:143:A:H2	1:CA:220:G:H1	1.64	0.43
1:CA:180:U:C2'	1:CA:181:G:C5'	2.89	0.43
1:CA:1101:A:H4'	1:CA:1102:A:O5'	2.17	0.43
2:CB:34:ALA:HB1	2:CB:36:ARG:CD	2.48	0.43
3:CC:18:TRP:C	3:CC:20:SER:N	2.76	0.43
3:CC:47:LEU:HD23	3:CC:52:LEU:HD13	2.00	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
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
20:CT:28:ALA:C	20:CT:30:LYS:H	2.25	0.43
23:CW:15:G:N2	23:CW:48:C:C2	2.86	0.43
29:D4:50:THR:C	29:D4:51:TYR:CG	2.96	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
33:D8:50:LEU:C	33:D8:53:PRO:CD	2.87	0.43
35:DA:332:A:O2'	35:DA:334:C:OP2	2.33	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
35:DA:1175:U:O5'	35:DA:1176:G:H5'	2.18	0.43
35:DA:1190:G:H5''	46:DP:35:HIS:CA	2.45	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
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
38:DD:2:ALA:C	38:DD:3:VAL:HG23	2.43	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
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
49:DS:76:LYS:O	49:DS:77:ALA:C	2.61	0.43
55:DY:40:GLU:OE2	55:DY:40:GLU:HA	2.18	0.43
56:DZ:29:TYR:O	56:DZ:89:PHE:HD2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DZ:41:LEU:HD22	56:DZ:82:ARG:HH12	1.83	0.43
56:DZ:44:PHE:HE1	56:DZ:48:PHE:CD2	2.36	0.43
56:DZ:89:PHE:CE1	56:DZ:96:VAL:HG21	2.53	0.43
56:DZ:173:ALA:O	56:DZ:174:VAL:C	2.60	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
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
3:AC:44:GLU:HG2	3:AC:52:LEU:HD11	2.00	0.43
3:AC:72:LYS:HG2	3:AC:72:LYS:O	2.18	0.43
3:AC:188:LEU:N	3:AC:188:LEU:HD22	2.33	0.43
6:AF:89:MET:O	6:AF:89:MET:HG2	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
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:B6:27:LYS:HG3	35:BA:2286:A:OP2	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:185:U:H2'	35:BA:186:G:C8	2.53	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
35:BA:994:C:O2'	35:BA:996:A:OP1	2.33	0.43
35:BA:1011:G:C2	35:BA:1151:G:C2	3.06	0.43
35:BA:1139:G:H5'	44:BN:102:ALA:HA	2.00	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:2051:A:H5'	35:BA:2578:G:O4'	2.18	0.43
35:BA:2192:G:H2'	35:BA:2192:G:N3	2.32	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:2862:G:H2'	35:BA:2863:C:H6	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:44:ASN:CB	38:BD:48:ARG:O	2.59	0.43
38:BD:218:ARG:HG3	38:BD:218:ARG:NH1	2.33	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:NZ	41:BG:105:LYS:HB2	2.32	0.43
43:BI:15:VAL:C	43:BI:17:GLN:H	2.26	0.43
43:BI:73:GLU:OE2	43:BI:137:PRO:HD2	2.18	0.43
44:BN:32:THR:HG22	44:BN:37:LYS:HB3	2.00	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
47:BQ:79:LEU:HD23	47:BQ:79:LEU:C	2.43	0.43
48:BR:79:LEU:HD23	48:BR:83:ILE:HB	1.99	0.43
50:BT:32:TYR:HB3	50:BT:81:PRO:HB3	2.00	0.43
50:BT:35:LYS:O	50:BT:37:GLY:N	2.51	0.43
53:BW:2:GLU:HA	53:BW:64:MET:HE1	1.98	0.43
1:CA:59:A:H5'	1:CA:60:A:H5''	2.00	0.43
1:CA:376:G:H4'	16:CP:5:ARG:NH1	2.32	0.43
1:CA:947:G:H2'	1:CA:948:C:H6	1.83	0.43
1:CA:1298:C:H4'	1:CA:1299:A:N9	2.33	0.43
1:CA:1313:U:P	19:CS:6:LYS:CB	3.06	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
2:CB:8:LYS:O	2:CB:9:GLU:C	2.60	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
2:CB:207:ALA:C	2:CB:209:ARG:H	2.26	0.43
6:CF:70:ASP:C	6:CF:72:VAL:H	2.26	0.43
6:CF:77:ARG:HB3	6:CF:77:ARG:NH1	2.33	0.43
8:CH:63:LEU:HD22	8:CH:63:LEU:H	1.83	0.43
9:CI:82:ALA:HA	9:CI:85:LEU:HG	1.99	0.43
9:CI:118:LYS:NZ	9:CI:118:LYS:CB	2.81	0.43
10:CJ:63:PHE:CZ	14:CN:45:ARG:HG3	2.52	0.43
11:CK:17:GLY:O	11:CK:80:VAL:HA	2.18	0.43
14:CN:36:PHE:C	14:CN:36:PHE:CD1	2.96	0.43
18:CR:60:ALA:O	18:CR:64:ARG:HG3	2.18	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:143(A):C:O2	35:DA:143(A):C:H2'	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:405:U:H3'	35:DA:406:G:C5'	2.45	0.43
35:DA:1168:G:O2'	35:DA:1169:G:H5'	2.18	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
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:HG2	39:DE:79:ARG:NH1	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
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
51:DU:45:TYR:O	51:DU:46:ALA:C	2.61	0.43
51:DU:114:LYS:HA	51:DU:117:GLN:HG3	1.99	0.43
52:DV:25:LEU:C	52:DV:27:ALA:N	2.76	0.43
54:DX:14:SER:O	54:DX:15:GLU:C	2.61	0.43
54:DX:50:LYS:H	54:DX:87:GLN:HE22	1.66	0.43
56:DZ:108:PRO:O	56:DZ:110:GLY:N	2.51	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
1:AA:892:A:O2'	1:AA:1415:G:H4'	2.18	0.43
1:AA:980:C:O2	14:AN:19:ARG:HA	2.19	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:H8	1:AA:1334:G:OP2	2.02	0.43
2:AB:97:TRP:HZ2	2:AB:102:LEU:CD1	2.28	0.43
3:AC:3:ASN:CG	3:AC:4:LYS:H	2.25	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
11:AK:54:ARG:HH12	23:AW:40:C:H5''	1.82	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:25:PRO:HB3	40:BF:119:ARG:HD3	2.00	0.43
40:BF:128:ALA:O	40:BF:130:ALA:N	2.46	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:17:ASP:C	44:BN:19:GLU:N	2.76	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
48:BR:83:ILE:C	48:BR:85:PRO:HD2	2.44	0.43
50:BT:96:ARG:NH1	50:BT:96:ARG:CG	2.82	0.43
50:BT:129:ARG:NH2	50:BT:131:ALA:HB3	2.32	0.43
56:BZ:56:VAL:CG1	56:BZ:57:ILE:N	2.82	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
1:CA:1052:U:H2'	1:CA:1055:A:OP1	2.18	0.43
1:CA:1054:C:O2	1:CA:1054:C:C2'	2.65	0.43
2:CB:23:ARG:HH11	2:CB:23:ARG:CG	2.32	0.43
2:CB:45:GLN:O	2:CB:48:MET:HE2	2.17	0.43
2:CB:91:PRO:CG	2:CB:154:LEU:HB2	2.33	0.43
2:CB:131:PRO:C	2:CB:133:LYS:N	2.77	0.43
3:CC:182:ILE:HG23	3:CC:202:ILE:O	2.18	0.43
4:CD:16:GLY:O	4:CD:18:LYS:N	2.52	0.43
4:CD:23:GLY:HA3	4:CD:112:VAL:HG22	2.00	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:68:PRO:O	6:CF:69:GLU:C	2.61	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:N	9:CI:114:TYR:CD2	2.67	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:HD13	17:CQ:59:ILE:N	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
31:D6:39:TYR:O	31:D6:40:CYS:HB2	2.18	0.43
35:DA:185:U:H2'	35:DA:186:G:C8	2.54	0.43
35:DA:481:G:C2'	35:DA:482:A:OP2	2.66	0.43
35:DA:565:C:H4'	35:DA:1253:A:C6	2.53	0.43
35:DA:744:G:O2'	35:DA:745:G:H5'	2.17	0.43
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
35:DA:1332:G:H5'	35:DA:1333:C:H5	1.83	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
36:DB:21:G:O2'	36:DB:22:U:P	2.76	0.43
38:DD:65:ILE:HD13	38:DD:65:ILE:N	2.29	0.43
40:DF:25:PRO:CB	40:DF:119:ARG:HD3	2.47	0.43
41:DG:161:THR:C	41:DG:163:ALA:H	2.26	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:94:ALA:O	43:DI:96:ASP:N	2.51	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
46:DP:140:ALA:O	46:DP:141:ALA:CB	2.67	0.43
47:DQ:26:TYR:C	47:DQ:26:TYR:CD1	2.96	0.43
47:DQ:45:GLN:CD	47:DQ:45:GLN:H	2.26	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:8:LYS:HB3	50:DT:8:LYS:HE2	1.79	0.43
50:DT:89:VAL:HG11	50:DT:91:ARG:HE	1.82	0.43
50:DT:128:GLU:OE1	50:DT:129:ARG:N	2.51	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
53:DW:62:HIS:O	53:DW:63:ASP:C	2.60	0.43
1:AA:60:A:P	1:AA:60:A:H8	2.41	0.43
1:AA:159:G:H1	1:AA:163:C:N4	2.15	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:603:U:H2'	1:AA:604:G:H8	1.83	0.43
1:AA:981:U:H5'	14:AN:21:TYR:CE1	2.53	0.43
1:AA:1258:G:O2'	1:AA:1259:C:H5'	2.18	0.43
1:AA:1280:A:C8	10:AJ:41:PRO:HD2	2.54	0.43
2:AB:87:ARG:O	2:AB:87:ARG:HD2	2.19	0.43
3:AC:28:GLN:CA	3:AC:28:GLN:HE21	2.31	0.43
3:AC:141:VAL:CG1	3:AC:202:ILE:HD12	2.29	0.43
6:AF:63:TYR:O	6:AF:64:GLN:C	2.57	0.43
6:AF:77:ARG:HB3	6:AF:77:ARG:NH1	2.33	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
16:AP:15:PRO:HB2	16:AP:41:PRO:HG3	2.00	0.43
19:AS:13:ASP:C	19:AS:15:LEU:N	2.70	0.43
20:AT:28:ALA:O	20:AT:30:LYS:N	2.51	0.43
26:B1:12:PRO:CG	35:BA:1365:A:H5'	2.49	0.43
28:B3:15:TYR:O	28:B3:20:LYS:HE2	2.18	0.43
31:B6:15:GLU:HG3	31:B6:41:PRO:HG3	1.99	0.43
35:BA:144:C:H2'	35:BA:145:G:C8	2.53	0.43
35:BA:158:U:O2	35:BA:158:U:C2'	2.66	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
35:BA:1045:A:N3	35:BA:1045:A:C2'	2.80	0.43
35:BA:1419:A:C3'	35:BA:1420:U:H5''	2.49	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:2308:G:H21	41:BG:79:ASN:CG	2.27	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
36:BB:1:U:O2	36:BB:1:U:H2'	2.19	0.43
36:BB:15:A:H3'	36:BB:16:G:C5'	2.47	0.43
37:BC:82:LYS:HE2	37:BC:149:ILE:HA	2.00	0.43
37:BC:221:SER:O	37:BC:222:VAL:O	2.36	0.43
39:BE:34:VAL:HG13	39:BE:48:GLN:O	2.18	0.43
40:BF:24:LEU:C	40:BF:26:ALA:N	2.76	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
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:1340:A:OP1	23:CW:35:A:OP1	2.36	0.43
1:CA:1434:A:H2'	1:CA:1435:G:O4'	2.18	0.43
2:CB:100:GLY:O	2:CB:104:ASN:C	2.61	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
11:CK:29:ILE:CB	11:CK:44:SER:HB3	2.46	0.43
15:CO:24:SER:O	15:CO:28:GLN:HG3	2.18	0.43
20:CT:30:LYS:HD2	20:CT:34:LYS:HE3	1.99	0.43
28:D3:52:HIS:CD2	28:D3:52:HIS:H	2.36	0.43
30:D5:40:LYS:HZ2	30:D5:46:CYS:C	2.26	0.43
30:D5:52:TYR:C	30:D5:54:GLY:N	2.73	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
35:DA:758:C:O2	35:DA:1981:A:H2	2.00	0.43
35:DA:993:G:OP1	51:DU:50:ARG:NH2	2.51	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:2391:G:O6	35:DA:2425:A:H8	2.01	0.43
35:DA:2712:U:HO2'	35:DA:2712(A):A:P	2.40	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:HG22	37:DC:99:ILE:O	2.18	0.43
40:DF:43:LYS:C	40:DF:45:ARG:H	2.26	0.43
41:DG:112:PRO:C	41:DG:113:ARG:NH1	2.72	0.43
41:DG:164:GLU:OE1	41:DG:165:THR:HG23	2.17	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DQ:35:VAL:HG22	47:DQ:36:ALA:N	2.33	0.43
50:DT:32:TYR:HB3	50:DT:81:PRO:HB3	2.01	0.43
50:DT:112:ARG:HB2	50:DT:112:ARG:HH11	1.83	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:255:G:O3'	17:AQ:17:LYS:HD2	2.19	0.43
1:AA:985:C:H2'	1:AA:986:A:C8	2.54	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
2:AB:173:ALA:O	2:AB:175:ARG:N	2.51	0.43
3:AC:16:ARG:HB2	3:AC:16:ARG:HH11	1.83	0.43
3:AC:206:GLU:HG2	3:AC:207:VAL:N	2.34	0.43
5:AE:8:GLU:CB	5:AE:34:VAL:HG22	2.47	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
7:AG:17:VAL:HG12	7:AG:18:TYR:CD1	2.54	0.43
9:AI:89:ASN:O	9:AI:91:ASP:N	2.47	0.43
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
13:AM:76:ALA:N	13:AM:79:LYS:HZ2	2.17	0.43
18:AR:36:ASN:OD1	18:AR:36:ASN:N	2.48	0.43
19:AS:5:LEU:N	19:AS:5:LEU:HD22	2.32	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
30:B5:44:THR:C	30:B5:45:VAL:CG2	2.92	0.43
34:B9:9:ARG:HH11	34:B9:9:ARG:CB	2.32	0.43
35:BA:10:G:C6	35:BA:2629:A:C8	3.06	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
35:BA:1003:G:N2	35:BA:1153:C:C2	2.87	0.43
35:BA:1141:U:C5	44:BN:64:GLY:HA3	2.53	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:H2'	35:BA:2801:A:N3	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BB:55:U:O2'	36:BB:56:G:H5'	2.17	0.43
38:BD:2:ALA:O	38:BD:3:VAL:CB	2.67	0.43
38:BD:121:PRO:HB3	38:BD:135:PHE:CD1	2.53	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:93:THR:O	43:BI:96:ASP:HB2	2.18	0.43
43:BI:111:PRO:C	43:BI:112:LYS:HG3	2.43	0.43
43:BI:121:LYS:O	43:BI:122:GLU:HB2	2.18	0.43
44:BN:62:VAL:O	44:BN:62:VAL:CG1	2.66	0.43
46:BP:115:LEU:O	46:BP:115:LEU:HD23	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
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
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: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:91:VAL:HG12	6:CF:92:LYS:N	2.32	0.43
7:CG:62:PHE:CD2	7:CG:62:PHE:C	2.97	0.43
8:CH:65:TYR:N	8:CH:65:TYR:CD1	2.86	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: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
15:CO:82:ILE:HD11	15:CO:87:ILE:C	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:D1:78:LYS:C	26:D1:80:LEU:N	2.77	0.43
29:D4:37:PRO:HA	29:D4:51:TYR:CD2	2.53	0.43
33:D8:57:ARG:C	33:D8:59:LYS:N	2.76	0.43
35:DA:85:G:H5'	35:DA:85:G:H8	1.82	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:957:A:C6	35:DA:2459:A:C8	3.07	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:2841:C:H2'	35:DA:2842:G:C8	2.53	0.43
38:DD:6:PHE:N	38:DD:6:PHE:CD1	2.86	0.43
38:DD:95:LEU:O	38:DD:95:LEU:HD12	2.18	0.43
38:DD:161:THR:O	38:DD:162:SER:HB3	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:7:LEU:O	41:DG:8:LYS:C	2.61	0.43
41:DG:87:PRO:O	41:DG:88:ILE:HD12	2.18	0.43
41:DG:173:LEU:HD13	41:DG:178:PHE:CE2	2.53	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:HG2	47:DQ:14:ARG:NH1	2.33	0.43
47:DQ:141:GLN:NE2	56:DZ:72:ARG:HD3	2.33	0.43
50:DT:41:ARG:O	50:DT:43:GLN:N	2.52	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
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:72:ARG:HA	56:DZ:72:ARG:HD3	1.83	0.43
56:DZ:163:LEU:H	56:DZ:163:LEU:CD1	2.15	0.43
1:AA:123:C:O5'	1:AA:123:C:H6	2.01	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
1:AA:1060:C:O2'	1:AA:1061:G:H5'	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1392:G:H21	1:AA:1502:A:H8	1.67	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
2:AB:207:ALA:C	2:AB:209:ARG:H	2.26	0.43
3:AC:195:VAL:O	3:AC:196:LEU:HD22	2.18	0.43
4:AD:209:ARG:HG3	4:AD:209:ARG:NH1	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
13:AM:16:ASP:OD2	13:AM:17:VAL:N	2.52	0.43
13:AM:119:GLY:O	13:AM:121:LYS:HE2	2.19	0.43
18:AR:72:ARG:O	18:AR:76:LEU:HD23	2.18	0.43
27:B2:7:ARG:HH11	27:B2:7:ARG:CG	2.31	0.43
35:BA:26:G:P	53:BW:80:PRO:HB3	2.58	0.43
35:BA:32:C:H2'	35:BA:33:U:H5'	2.00	0.43
35:BA:271(A):A:H1'	35:BA:365:C:O4'	2.18	0.43
35:BA:392:C:H5''	35:BA:409:C:H5''	2.01	0.43
35:BA:1590:U:C3'	35:BA:1591:G:H5''	2.48	0.43
35:BA:1782:C:H1'	35:BA:2609:U:H5''	2.00	0.43
35:BA:2534:A:H2'	35:BA:2535:G:O4'	2.18	0.43
38:BD:105:ILE:O	38:BD:106:ILE:C	2.61	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:15:VAL:HG22	41:BG:175:LEU:CB	2.48	0.43
41:BG:103:LEU:O	41:BG:104:GLU:C	2.61	0.43
41:BG:121:ASN:ND2	41:BG:121:ASN:C	2.75	0.43
41:BG:144:ILE:HD11	41:BG:148:MET:HG2	2.01	0.43
41:BG:144:ILE:HD12	41:BG:145:THR:N	2.30	0.43
41:BG:153:ARG:HG2	41:BG:153:ARG:O	2.19	0.43
42:BH:70:THR:HA	42:BH:73:ALA:HB3	2.01	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
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
45:BO:13:ASN:C	45:BO:15:GLY:H	2.27	0.43
49:BS:32:LEU:O	49:BS:62:LYS:HE2	2.19	0.43
49:BS:103:GLU:O	49:BS:104:GLY:C	2.61	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BU:92:ARG:CZ	51:BU:92:ARG:CB	2.95	0.43
51:BU:106:PHE:O	51:BU:110:VAL:HG23	2.19	0.43
51:BU:114:LYS:HD2	51:BU:114:LYS:H	1.83	0.43
52:BV:21:ARG:CD	52:BV:21:ARG:H	2.32	0.43
52:BV:35:LEU:C	52:BV:37:VAL:N	2.75	0.43
53:BW:12:ILE:HD13	53:BW:17:VAL:CG1	2.48	0.43
55:BY:89:PHE:O	55:BY:90:LEU:HB3	2.17	0.43
1:CA:52:G:O2'	1:CA:53:A:H5'	2.18	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
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:930:C:C2'	1:CA:931:C:H5'	2.49	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:1270:C:OP2	21:CU:24:ARG:NH2	2.51	0.43
1:CA:1271:G:H5'	1:CA:1314:C:H5'	2.00	0.43
1:CA:1296:C:H5'	1:CA:1297:C:OP2	2.19	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:43:ALA:C	9:CI:45:ALA:N	2.77	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
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:18:GLN:O	20:CT:19:SER:C	2.62	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
21:CU:5:ASP:O	21:CU:8:THR:HG23	2.19	0.43
28:D3:31:LEU:C	28:D3:33:GLN:N	2.76	0.43
34:D9:24:TYR:CZ	34:D9:35:ARG:HG3	2.54	0.43
35:DA:198:C:H5'	35:DA:2244:U:OP1	2.19	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:O2	35:DA:955:C:H2'	2.19	0.43
35:DA:1464:C:O2'	35:DA:1528:A:C8	2.69	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:2737:G:H2'	35:DA:2738:A:H8	1.84	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
39:DE:65:GLY:C	39:DE:67:PHE:N	2.77	0.43
40:DF:83:PHE:O	40:DF:84:VAL:HB	2.19	0.43
41:DG:100:TRP:O	41:DG:101:ILE:C	2.62	0.43
41:DG:135:LEU:N	41:DG:135:LEU:CD1	2.82	0.43
42:DH:66:GLY:C	42:DH:68:THR:N	2.73	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
48:DR:83:ILE:C	48:DR:85:PRO:HD2	2.44	0.43
49:DS:69:VAL:CG1	49:DS:99:LYS:HE3	2.44	0.43
49:DS:99:LYS:HB3	49:DS:101:LEU:HD12	2.00	0.43
50:DT:7:ILE:O	50:DT:10:VAL:HB	2.18	0.43
50:DT:48:ILE:HD12	50:DT:48:ILE:N	2.33	0.43
54:DX:8:ILE:CD1	54:DX:42:ALA:HB1	2.47	0.43
1:AA:143:A:H2	1:AA:220:G:H1	1.62	0.43
1:AA:154:C:H2'	1:AA:155:C:C6	2.54	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
1:AA:1203:C:OP1	14:AN:3:ARG:CD	2.67	0.43
2:AB:15:VAL:C	2:AB:16:HIS:CG	2.96	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
2:AB:173:ALA:C	2:AB:175:ARG:N	2.77	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
6:AF:68:PRO:O	6:AF:69:GLU:C	2.62	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
16:AP:12:LYS:C	16:AP:14:ASN:N	2.77	0.43
17:AQ:68:ARG:HH11	17:AQ:68:ARG:CG	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:16:G:H2'	35:BA:17:G:H8	1.83	0.43
35:BA:922:U:H2'	35:BA:923:C:H6	1.83	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: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:2820:A:O2'	35:BA:2821:A:OP1	2.35	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: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
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
42:BH:115:VAL:O	42:BH:115:VAL:HG12	2.18	0.43
46:BP:99:LEU:HD23	46:BP:99:LEU:O	2.18	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
47:BQ:54:MET:HG2	47:BQ:64:ILE:HG21	2.00	0.43
47:BQ:141:GLN:HB2	56:BZ:98:MET:HA	2.00	0.43
49:BS:85:VAL:HG22	49:BS:106:ARG:CB	2.48	0.43
50:BT:19:LEU:HA	50:BT:20:PRO:HD3	1.73	0.43
50:BT:57:PHE:O	50:BT:58:ASN:C	2.61	0.43
50:BT:58:ASN:C	50:BT:58:ASN:ND2	2.76	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:649:G:H2'	1:CA:650:G:C8	2.53	0.43
1:CA:839:U:O2	1:CA:839:U:C2'	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
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
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:30:LYS:CB	4:CD:35:ARG:HD2	2.49	0.43
4:CD:191:ARG:NE	4:CD:200:GLU:OE2	2.52	0.43
5:CE:31:LEU:HD13	5:CE:31:LEU:C	2.44	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
5:CE:122:GLU:HG2	5:CE:131:ILE:HD11	2.00	0.43
6:CF:7:ASN:N	6:CF:7:ASN:HD22	2.17	0.43
6:CF:53:ALA:O	6:CF:54:LYS:HB2	2.19	0.43
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
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
26:D1:71:TYR:CD1	43:DI:27:ARG:HD2	2.54	0.43
27:D2:17:SER:CB	27:D2:18:PRO:CD	2.96	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
31:D6:27:LYS:HG3	35:DA:2286:A:OP2	2.18	0.43
35:DA:59:U:O2'	35:DA:73:A:H2'	2.19	0.43
35:DA:744:G:OP1	39:DE:132:HIS:HB2	2.19	0.43
35:DA:755:C:H2'	35:DA:756:C:C6	2.53	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DD:176:ARG:CG	38:DD:176:ARG:NH1	2.82	0.43
39:DE:23:VAL:HA	39:DE:184:VAL:O	2.19	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
42:DH:141:VAL:O	42:DH:142:GLY:C	2.61	0.43
43:DI:101:LEU:CD2	43:DI:109:ILE:HG12	2.47	0.43
44:DN:65:LYS:O	44:DN:69:GLN:HB2	2.18	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
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
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:20:SER:O	14:AN:54:PRO:HG3	2.18	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
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
16:AP:74:LEU:O	16:AP:79:VAL:HG23	2.19	0.43
16:AP:76:GLN:O	16:AP:76:GLN:CG	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
29:B4:40:ILE:HA	29:B4:57:ILE:HB	2.01	0.43
30:B5:49:CYS:O	30:B5:50:GLY:C	2.60	0.43
35:BA:21:A:O2'	35:BA:22:C:H5'	2.19	0.43
35:BA:143:G:H5''	35:BA:1598:C:O2'	2.18	0.43
35:BA:157:U:P	35:BA:157:U:H6	2.42	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
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: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:2373:G:H2'	35:BA:2374:C:C6	2.54	0.43
35:BA:2506:U:H6	35:BA:2506:U:C3'	2.21	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:H8	35:BA:2821:A:O5'	2.01	0.43
37:BC:68:LEU:HD22	37:BC:180:PHE:CB	2.49	0.43
38:BD:158:ALA:O	38:BD:159:ALA:C	2.60	0.43
40:BF:3:GLU:HA	40:BF:24:LEU:CD2	2.49	0.43
42:BH:159:GLU:HG3	42:BH:160:LYS:H	1.78	0.43
43:BI:77:LEU:HD11	43:BI:101:LEU:CD1	2.35	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:5:GLN:HE21	45:BO:20:MET:HE2	1.84	0.43
45:BO:7:TYR:C	45:BO:8:LEU:HD22	2.44	0.43
50:BT:118:ARG:O	50:BT:121:ILE:HB	2.18	0.43
51:BU:104:GLN:HB3	52:BV:44:LYS:HZ3	1.84	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:HG2	56:BZ:82:ARG:NH1	2.34	0.43
56:BZ:95:PRO:O	56:BZ:96:VAL:O	2.37	0.43
56:BZ:128:VAL:CG2	56:BZ:129:SER:N	2.81	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:570:G:H1'	1:CA:820:U:C4	2.54	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: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
1:CA:1036:G:H8	1:CA:1036:G:OP2	2.01	0.43
2:CB:131:PRO:O	2:CB:133:LYS:N	2.52	0.43
3:CC:40:ARG:HG3	3:CC:40:ARG:HH11	1.83	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
6:CF:50:TYR:CE2	6:CF:52:ILE:HD11	2.54	0.43
8:CH:29:SER:HB3	8:CH:32:LYS:CG	2.49	0.43
8:CH:100:ILE:HA	8:CH:101:PRO:HD3	1.75	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
15:CO:64:ARG:NH2	35:DA:715:G:OP1	2.51	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
22:CV:74:C:H42	35:DA:2252:G:H1	1.66	0.43
27:D2:13:ALA:O	27:D2:16:LEU:N	2.50	0.43
29:D4:50:THR:C	29:D4:51:TYR:CD1	2.96	0.43
29:D4:51:TYR:CG	41:DG:2:PRO:CD	3.02	0.43
35:DA:158:U:O2	35:DA:158:U:C2'	2.66	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
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:1847:A:H2'	35:DA:1847:A:N3	2.34	0.43
38:DD:65:ILE:HD13	38:DD:65:ILE:O	2.19	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
41:DG:31:VAL:CG2	41:DG:32:PRO:HD2	2.49	0.43
41:DG:110:ALA:CA	41:DG:140:ILE:HG22	2.48	0.43
42:DH:115:VAL:O	42:DH:115:VAL:HG12	2.17	0.43
43:DI:73:GLU:HB2	43:DI:136:VAL:HG21	2.01	0.43
45:DO:22:ILE:HD13	45:DO:22:ILE:HA	1.75	0.43
46:DP:99:LEU:HA	46:DP:102:ARG:HH22	1.84	0.43
47:DQ:141:GLN:C	56:DZ:98:MET:HB2	2.42	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
51:DU:104:GLN:CD	51:DU:104:GLN:N	2.77	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: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
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
2:AB:129:GLU:O	2:AB:130:ARG:C	2.61	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:229:VAL:HG12	2:AB:229:VAL:O	2.19	0.43
2:AB:237:ALA:C	2:AB:239:VAL:H	2.25	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
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
14:AN:44:LEU:C	14:AN:44:LEU:CD1	2.90	0.43
14:AN:55:GLY:O	14:AN:56:VAL:C	2.62	0.43
15:AO:37:ASN:N	15:AO:37:ASN:ND2	2.64	0.43
17:AQ:25:ARG:HG3	17:AQ:25:ARG:HH11	1.84	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:814:C:H41	46:BP:27:HIS:CD2	2.37	0.43
35:BA:875:G:C6	35:BA:876:C:N3	2.86	0.43
35:BA:1106:A:C4	35:BA:1107:G:N7	2.87	0.43
35:BA:1654:A:C2	39:BE:113:PHE:CD1	3.07	0.43
35:BA:1708:C:O2'	35:BA:1709:U:H5'	2.19	0.43
35:BA:2291:U:O2'	35:BA:2374:C:O2	2.33	0.43
37:BC:56:GLN:HE22	37:BC:168:THR:N	2.16	0.43
37:BC:58:VAL:O	37:BC:59:ARG:HD3	2.18	0.43
38:BD:149:PRO:O	38:BD:150:LYS:HB2	2.18	0.43
39:BE:77:ILE:C	39:BE:78:LEU:HD23	2.44	0.43
41:BG:21:ARG:HD2	41:BG:21:ARG:O	2.19	0.43
42:BH:169:VAL:O	42:BH:169:VAL:HG13	2.19	0.43
44:BN:18:ALA:O	44:BN:19:GLU:C	2.61	0.43
45:BO:69:ILE:H	45:BO:69:ILE:HG13	1.69	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: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
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
2:CB:15:VAL:C	2:CB:16:HIS:CG	2.97	0.43
2:CB:84:GLU:HB3	2:CB:219:VAL:CG2	2.43	0.43
2:CB:237:ALA:C	2:CB:239:VAL:H	2.26	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:CG	5:CE:40:ARG:NH1	2.76	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
7:CG:148:ASN:O	7:CG:150:ALA:N	2.50	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
18:CR:65:ILE:HG12	18:CR:65:ILE:H	1.53	0.43
19:CS:27:GLU:O	19:CS:28:LYS:O	2.37	0.43
20:CT:89:ARG:HG3	20:CT:89:ARG:NH2	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:16:G:H2'	35:DA:17:G:H8	1.84	0.43
35:DA:679:C:H2'	35:DA:680:G:C8	2.53	0.43
35:DA:832:G:N3	46:DP:53:GLY:HA2	2.34	0.43
35:DA:1316:U:O2'	35:DA:1317:A:H5'	2.18	0.43
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:1665:A:H5''	45:DO:66:LYS:HG3	2.01	0.43
35:DA:1748:G:H5'	35:DA:1748:G:H8	1.84	0.43
35:DA:1782:C:H1'	35:DA:2609:U:H5''	2.01	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:2572:A:P	39:DE:144:ARG:HB2	2.59	0.43
35:DA:2625:G:H2'	35:DA:2626:C:O4'	2.19	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
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
45:DO:88:ASN:ND2	45:DO:90:GLN:N	2.65	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
50:DT:85:LYS:HB3	50:DT:85:LYS:NZ	2.32	0.43
51:DU:92:ARG:CG	51:DU:92:ARG:NH1	2.81	0.43
53:DW:2:GLU:HA	53:DW:64:MET:HE1	2.01	0.43
54:DX:23:GLU:CD	54:DX:23:GLU:N	2.77	0.43
56:DZ:5:LEU:HD11	56:DZ:43:GLU:CD	2.44	0.43
56:DZ:153:SER:C	56:DZ:155:LEU:N	2.77	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:AA:643:C:H5'	8:AH:31:PHE:CD1	2.54	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
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:131:PRO:O	2:AB:133:LYS:N	2.52	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
10:AJ:67:THR:O	10:AJ:67:THR:HG22	2.18	0.43
11:AK:33:THR:HG22	11:AK:39:PRO:CA	2.49	0.43
11:AK:38:ASN:O	11:AK:39:PRO:C	2.61	0.43
15:AO:3:ILE:O	15:AO:4:THR:C	2.62	0.43
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:HD23	28:B3:4:LEU:HA	1.86	0.43
30:B5:20:ARG:O	30:B5:21:SER:C	2.62	0.43
34:B9:24:TYR:CE2	34:B9:35:ARG:HG3	2.54	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:832:G:H21	46:BP:53:GLY:HA3	1.83	0.43
35:BA:857:C:C2	35:BA:858:U:C5	3.07	0.43
35:BA:1637:A:H2'	35:BA:1638:C:C6	2.54	0.43
35:BA:2015:A:H5'	53:BW:92:ARG:HH22	1.84	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
36:BB:45:A:H1'	41:BG:95:ARG:NH2	2.34	0.43
37:BC:51:PRO:HB2	37:BC:203:GLY:O	2.19	0.43
37:BC:181:PRO:O	37:BC:182:PRO:CB	2.66	0.43
38:BD:68:LYS:O	38:BD:68:LYS:HG3	2.18	0.43
38:BD:80:ALA:HB3	38:BD:94:LEU:HD22	2.00	0.43
38:BD:110:GLY:O	38:BD:111:LEU:C	2.62	0.43
38:BD:253:GLN:HB2	38:BD:257:LEU:HD12	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:3:GLY:HA3	39:BE:81:ILE:CG2	2.44	0.43
40:BF:84:VAL:HB	40:BF:85:GLY:H	1.47	0.43
40:BF:157:VAL:HB	40:BF:194:MET:CB	2.49	0.43
41:BG:109:VAL:HG11	41:BG:142:PRO:HB3	2.00	0.43
42:BH:91:GLY:HA3	42:BH:94:TYR:CG	2.54	0.43
42:BH:148:ILE:C	42:BH:150:ALA:N	2.73	0.43
43:BI:71:ILE:CG1	43:BI:72:LEU:H	2.26	0.43
48:BR:2:ARG:HH11	48:BR:5:LYS:HZ1	1.65	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
56:BZ:23:LYS:HB3	56:BZ:38:TYR:HD1	1.84	0.43
56:BZ:51:ALA:O	56:BZ:52:SER:HB3	2.17	0.43
1:CA:200:G:C2	1:CA:201:C:H1'	2.54	0.43
1:CA:255:G:O3'	17:CQ:17:LYS:HD2	2.19	0.43
1:CA:396:G:O2'	1:CA:398:C:OP1	2.31	0.43
1:CA:449:C:O2	16:CP:42:ARG:HD2	2.19	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
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
2:CB:86:GLU:C	2:CB:88:ALA:H	2.26	0.43
3:CC:40:ARG:HG3	3:CC:40:ARG:NH1	2.33	0.43
4:CD:152:SER:HA	4:CD:155:LEU:HG	2.00	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
17:CQ:11:VAL:HG22	17:CQ:20:THR:O	2.18	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
33:D8:63:PRO:C	33:D8:64:TYR:O	2.62	0.43
35:DA:188:G:H2'	35:DA:189:G:H5'	2.00	0.43
35:DA:365:C:H5'	35:DA:365:C:C6	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1789:A:P	38:DD:222:ARG:HE	2.42	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: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:2464:C:N4	35:DA:2487:G:C6	2.87	0.43
35:DA:2636:U:H4'	39:DE:80:GLU:OE1	2.18	0.43
35:DA:2852:G:H2'	35:DA:2853:C:C6	2.54	0.43
36:DB:16:G:C6	36:DB:69:G:C2	3.06	0.43
37:DC:128:GLY:C	37:DC:130:ILE:N	2.74	0.43
37:DC:181:PRO:O	37:DC:182:PRO:CB	2.67	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:70:ALA:C	2.62	0.43
39:DE:69:LYS:O	39:DE:71:GLY:N	2.52	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:40:THR:O	43:DI:44:LEU:HB2	2.19	0.43
43:DI:120:ILE:HD13	43:DI:126:TYR:CD1	2.54	0.43
44:DN:18:ALA:O	44:DN:19:GLU:C	2.62	0.43
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
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
51:DU:92:ARG:O	51:DU:93:LYS:C	2.61	0.43
53:DW:10:VAL:O	53:DW:11:ARG:CB	2.67	0.43
54:DX:65:ARG:NH1	54:DX:65:ARG:CG	2.82	0.43
56:DZ:89:PHE:HE1	56:DZ:96:VAL:HG11	1.84	0.43
1:AA:538:G:H5''	12:AL:114:LYS:HB2	2.01	0.42
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:67:VAL:CG2	5:AE:68:GLU:N	2.82	0.42
5:AE:126:ARG:NH1	5:AE:126:ARG:CG	2.74	0.42
5:AE:142:LEU:C	5:AE:143:ARG:HG2	2.43	0.42
9:AI:43:ALA:C	9:AI:45:ALA:N	2.77	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
17:AQ:61:GLU:HA	17:AQ:71:PHE:CE1	2.54	0.42
18:AR:31:LEU:HD23	18:AR:31:LEU:N	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
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
32:B7:37:LYS:HG2	35:BA:458:G:C8	2.54	0.42
33:B8:50:LEU:C	33:B8:53:PRO:CD	2.87	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
35:BA:195:A:H5''	35:BA:196:A:OP2	2.19	0.42
35:BA:443:A:H2	35:BA:1245:G:N3	2.17	0.42
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:1453:U:O2	48:BR:60:LEU:HD21	2.19	0.42
35:BA:1477:A:H5'	35:BA:1478:G:OP2	2.19	0.42
35:BA:1847:A:N3	35:BA:1847:A:H2'	2.33	0.42
35:BA:1859:A:N6	35:BA:1883:G:O2'	2.52	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
39:BE:101:ARG:HB3	39:BE:201:THR:HG21	2.01	0.42
41:BG:34:LEU:CB	41:BG:99:MET:HE1	2.49	0.42
41:BG:168:GLU:O	41:BG:169:ALA:C	2.62	0.42
42:BH:45:VAL:O	42:BH:47:GLU:N	2.52	0.42
42:BH:107:VAL:CB	42:BH:152:ARG:HG3	2.42	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
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:99:ALA:HB2	51:BU:106:PHE:CE1	2.54	0.42
51:BU:108:GLU:OE1	52:BV:44:LYS:HD3	2.18	0.42
53:BW:99:ARG:NH1	53:BW:99:ARG:CG	2.82	0.42
1:CA:119:A:O2'	1:CA:120:A:OP2	2.31	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1288:A:O4'	1:CA:1353:G:H4'	2.19	0.42
3:CC:39:ILE:HG22	3:CC:43:LEU:HD12	2.01	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:HB3	11:CK:126:ARG:CZ	2.49	0.42
13:CM:73:GLU:O	13:CM:76:ALA:N	2.51	0.42
13:CM:108:ARG:NH1	13:CM:108:ARG:HG3	2.32	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
26:D1:57:GLU:O	26:D1:58:ILE:C	2.62	0.42
27:D2:4:SER:O	27:D2:7:ARG:CG	2.66	0.42
27:D2:13:ALA:O	27:D2:14:ARG:C	2.61	0.42
34:D9:30:PRO:HB2	35:DA:2527:C:H4'	2.01	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
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:1651:G:C2	35:DA:2007:C:C2	3.07	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:2491:U:H4'	35:DA:2570:G:OP1	2.18	0.42
35:DA:2779:U:H4'	35:DA:2780:G:C5'	2.46	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
39:DE:117:MET:HE3	39:DE:124:GLY:HA3	2.00	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:26:LYS:CE	48:DR:71:GLN:H	2.31	0.42
48:DR:42:LYS:O	48:DR:45:ARG:CG	2.64	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
51:DU:57:PHE:C	51:DU:59:ARG:N	2.73	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
1:AA:109:A:C6	1:AA:326:G:C6	3.07	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
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:1406:U:C2'	1:AA:1407:C:H5'	2.49	0.42
2:AB:134:GLU:HA	2:AB:137:ARG:HB3	2.01	0.42
3:AC:37:GLN:C	3:AC:39:ILE:N	2.75	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
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
7:AG:5:ARG:C	7:AG:7:ALA:N	2.77	0.42
8:AH:4:ASP:OD1	8:AH:7:ALA:N	2.48	0.42
8:AH:16:ALA:CB	8:AH:24:THR:OG1	2.67	0.42
10:AJ:18:ALA:O	10:AJ:21:GLN:N	2.45	0.42
13:AM:20:THR:C	13:AM:22:ILE:N	2.74	0.42
13:AM:108:ARG:NH1	13:AM:108:ARG:HG3	2.34	0.42
14:AN:26:ARG:HD2	14:AN:47:LEU:HD11	2.01	0.42
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
28:B3:31:LEU:C	28:B3:33:GLN:N	2.77	0.42
30:B5:51:TYR:CD1	30:B5:52:TYR:CE2	3.08	0.42
31:B6:32:ASN:CG	31:B6:33:LYS:N	2.77	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:96:G:O2'	35:BA:97:C:H5'	2.19	0.42
35:BA:302:C:H2'	35:BA:303:U:H6	1.83	0.42
35:BA:779:U:P	38:BD:49:ILE:HG23	2.59	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:2882:A:OP1	48:BR:96:ARG:HD3	2.18	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:HD22	42:BH:105:LEU:O	2.19	0.42
45:BO:107:ARG:HE	45:BO:107:ARG:HB2	1.69	0.42
46:BP:7:ARG:NH1	46:BP:7:ARG:HB3	2.34	0.42
46:BP:47:ASP:HB2	46:BP:51:PHE:HD2	1.84	0.42
46:BP:86:LYS:O	46:BP:86:LYS:HG2	2.19	0.42
48:BR:59:ASP:O	48:BR:60:LEU:C	2.61	0.42
52:BV:18:LEU:CD2	52:BV:19:LYS:N	2.74	0.42
56:BZ:24:LEU:HD23	56:BZ:24:LEU:C	2.44	0.42
56:BZ:144:LEU:O	56:BZ:174:VAL:HG21	2.19	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:552:U:H4'	12:CL:86:ARG:O	2.18	0.42
1:CA:600:C:O2'	1:CA:601:C:H5'	2.19	0.42
1:CA:798:G:OP1	11:CK:122:LYS:NZ	2.52	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
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
2:CB:216:SER:C	2:CB:218:ALA:N	2.75	0.42
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:53:ASP:O	4:CD:57:ARG:HG3	2.18	0.42
4:CD:151:LYS:HG2	4:CD:151:LYS:O	2.19	0.42
4:CD:196:LEU:CD1	4:CD:196:LEU:N	2.77	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
12:CL:18:VAL:CG2	12:CL:19:ARG:H	2.27	0.42
12:CL:90:VAL:C	12:CL:92:ASP:N	2.77	0.42
13:CM:80:ARG:C	13:CM:82:MET:N	2.75	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
22:CV:63:G:H2'	22:CV:64:A:C8	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CV:73:A:H3'	22:CV:73:A:N3	2.33	0.42
35:DA:742:G:H2'	35:DA:743:G:H8	1.84	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:1338:G:O2'	35:DA:1393:A:N1	2.52	0.42
35:DA:1488:G:N3	35:DA:1488:G:H2'	2.34	0.42
35:DA:1943:U:C2	35:DA:1945:G:O4'	2.73	0.42
35:DA:2056:G:N3	35:DA:2056:G:H2'	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
36:DB:1:U:H2'	36:DB:1:U:O2	2.17	0.42
36:DB:4:C:H2'	36:DB:5:C:C6	2.53	0.42
39:DE:145:LYS:HD3	39:DE:145:LYS:HA	1.88	0.42
40:DF:132:VAL:O	40:DF:134:GLY:N	2.51	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
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:HD3	49:DS:20:ARG:HA	1.62	0.42
49:DS:80:LEU:N	49:DS:80:LEU:CD1	2.83	0.42
49:DS:92:TYR:CD1	49:DS:92:TYR:N	2.87	0.42
51:DU:68:ALA:HB1	51:DU:99:ALA:HB1	2.01	0.42
52:DV:18:LEU:HD22	52:DV:19:LYS:CA	2.48	0.42
54:DX:59:VAL:N	54:DX:76:ARG:O	2.49	0.42
56:DZ:22:GLY:HA2	56:DZ:41:LEU:HD12	2.00	0.42
56:DZ:118:GLN:NE2	56:DZ:175:VAL:HG13	2.33	0.42
1:AA:80:G:N7	1:AA:81:U:C5	2.87	0.42
1:AA:437:U:OP1	4:AD:155:LEU:HD22	2.19	0.42
1:AA:501:C:OP1	12:AL:117:ARG:NH2	2.52	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
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
2:AB:23:ARG:HH11	2:AB:23:ARG:CG	2.31	0.42
2:AB:31:TYR:CD2	2:AB:31:TYR:N	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
6:AF:75:LEU:HD23	6:AF:75:LEU:C	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:79:ARG:HD3	7:AG:80:VAL:H	1.84	0.42
9:AI:40:LEU:C	9:AI:42:ARG:N	2.77	0.42
12:AL:10:LEU:O	12:AL:14:GLY:HA2	2.19	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
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:6:G:C6	22:AV:7:A:C6	3.07	0.42
22:AV:22:G:H2'	22:AV:23:A:C8	2.54	0.42
22:AV:42:C:H5'	22:AV:42:C:H6	1.83	0.42
22:AY:77:PHA:HD2	35:BA:2451:A:N3	2.33	0.42
22:AY:77:PHA:HA	35:BA:2506:U:O2	2.20	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
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
35:BA:2880:C:H1'	48:BR:92:GLY:O	2.19	0.42
38:BD:94:LEU:HB2	38:BD:104:TYR:HE2	1.85	0.42
38:BD:153:ALA:C	38:BD:154:LYS:CG	2.92	0.42
39:BE:6:GLY:HA2	39:BE:27:LEU:O	2.20	0.42
40:BF:34:TRP:CH2	46:BP:12:ALA:HB2	2.54	0.42
40:BF:129:PHE:CD2	40:BF:163:VAL:HG21	2.54	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
46:BP:18:ARG:NH1	46:BP:18:ARG:CB	2.64	0.42
46:BP:18:ARG:HH11	46:BP:18:ARG:C	2.27	0.42
49:BS:89:ARG:HD3	49:BS:92:TYR:HA	1.99	0.42
50:BT:117:ASP:O	50:BT:118:ARG:C	2.59	0.42
55:BY:47:LYS:O	55:BY:48:ALA:C	2.62	0.42
56:BZ:150:LEU:N	56:BZ:150:LEU:HD13	2.35	0.42
1:CA:176:C:H2'	1:CA:177:C:H6	1.83	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1460:A:C2'	1:CA:1461:G:H5'	2.49	0.42
2:CB:67:THR:CG2	2:CB:155:LEU:HD21	2.49	0.42
2:CB:213:LEU:HD23	2:CB:213:LEU:C	2.44	0.42
4:CD:133:VAL:CG1	4:CD:138:TYR:HD1	2.30	0.42
4:CD:209:ARG:HG3	4:CD:209:ARG:NH1	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
9:CI:92:TYR:C	9:CI:94:ALA:N	2.74	0.42
13:CM:17:VAL:O	13:CM:17:VAL:HG12	2.18	0.42
13:CM:22:ILE:HG22	13:CM:25:ILE:HD13	2.01	0.42
13:CM:54:VAL:O	13:CM:55:ARG:C	2.62	0.42
15:CO:48:LYS:HD3	15:CO:48:LYS:HA	1.89	0.42
17:CQ:66:SER:C	17:CQ:67:LYS:O	2.60	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
27:D2:50:ILE:O	27:D2:51:ARG:C	2.62	0.42
30:D5:30:LEU:HD22	30:D5:39:MET:O	2.18	0.42
30:D5:36:CYS:HB3	30:D5:38:ALA:N	2.34	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: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:748:G:C8	53:DW:89:ALA:HB1	2.54	0.42
35:DA:856:C:C6	35:DA:856:C:H5''	2.54	0.42
35:DA:923:C:H2'	35:DA:924:C:H6	1.85	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
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:2600:A:OP2	38:DD:237:GLU:OE1	2.38	0.42
37:DC:168:THR:CB	37:DC:173:ALA:HB2	2.50	0.42
38:DD:94:LEU:HA	38:DD:104:TYR:HD2	1.85	0.42
38:DD:158:ALA:O	38:DD:159:ALA:C	2.61	0.42
40:DF:37:VAL:O	40:DF:38:ARG:C	2.60	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
51:DU:74:LEU:C	51:DU:74:LEU:CD1	2.92	0.42
52:DV:5:VAL:HG23	52:DV:37:VAL:O	2.19	0.42
55:DY:27:VAL:N	55:DY:28:LYS:NZ	2.66	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
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
2:AB:16:HIS:HB3	2:AB:210:SER:CB	2.49	0.42
2:AB:34:ALA:HB1	2:AB:36:ARG:CD	2.49	0.42
2:AB:100:GLY:O	2:AB:104:ASN:C	2.62	0.42
2:AB:163:PHE:HE1	2:AB:215:LEU:HD13	1.85	0.42
4:AD:58:LEU:C	4:AD:58:LEU:HD13	2.45	0.42
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
8:AH:4:ASP:OD1	8:AH:4:ASP:C	2.63	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: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: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:2178:C:H4'	37:BC:172:HIS:CB	2.49	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:191:ARG:HG2	40:BF:191:ARG:NH1	2.33	0.42
41:BG:14:GLU:O	41:BG:15:VAL:C	2.61	0.42
41:BG:83:ARG:HD3	41:BG:84:LYS:HG3	2.01	0.42
42:BH:141:VAL:O	42:BH:142:GLY:C	2.62	0.42
46:BP:11:GLY:O	46:BP:12:ALA:C	2.62	0.42
47:BQ:116:GLU:O	47:BQ:120:ILE:HG12	2.18	0.42
48:BR:56:LYS:HD2	48:BR:94:TYR:CE2	2.54	0.42
48:BR:106:GLY:O	48:BR:107:ASP:HB3	2.20	0.42
49:BS:53:SER:O	49:BS:54:LEU:C	2.60	0.42
54:BX:47:PHE:O	54:BX:48:LYS:C	2.63	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:49:ARG:HA	4:CD:49:ARG:HD3	1.81	0.42
4:CD:58:LEU:HD13	4:CD:58:LEU:C	2.43	0.42
4:CD:133:VAL:HG12	4:CD:135:LEU:H	1.84	0.42
5:CE:45:PHE:CD2	5:CE:47:LYS:HE3	2.54	0.42
8:CH:97:VAL:HG13	8:CH:98:LYS:N	2.34	0.42
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
11:CK:60:ALA:C	11:CK:62:GLN:N	2.75	0.42
12:CL:6:THR:HG22	12:CL:9:GLN:CD	2.44	0.42
12:CL:119:LYS:O	12:CL:120:TYR:CB	2.67	0.42
14:CN:34:TYR:C	14:CN:36:PHE:H	2.27	0.42
16:CP:58:TYR:O	16:CP:61:SER:OG	2.29	0.42
16:CP:76:GLN:O	16:CP:76:GLN:CG	2.67	0.42
17:CQ:82:MET:O	17:CQ:85:VAL:HB	2.18	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:45:C:OP2	35:DA:215:G:H2'	2.18	0.42
35:DA:448:U:H1'	40:DF:84:VAL:HG13	2.01	0.42
35:DA:604:G:C6	35:DA:625:G:C2	3.07	0.42
35:DA:620:G:H8	35:DA:622:G:O6	2.01	0.42
35:DA:730:C:O2'	35:DA:731:C:H5'	2.19	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1952:A:C5	45:DO:22:ILE:CD1	3.02	0.42
35:DA:2171:A:HO2'	35:DA:2172:U:H6	1.59	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
40:DF:129:PHE:CD2	40:DF:163:VAL:HG21	2.53	0.42
40:DF:204:ASN:C	40:DF:206:ILE:H	2.27	0.42
44:DN:87:LEU:O	44:DN:87:LEU:HD23	2.18	0.42
44:DN:87:LEU:O	44:DN:88:GLU:C	2.62	0.42
45:DO:2:ILE:HG23	45:DO:6:THR:HB	2.01	0.42
46:DP:143:GLY:C	46:DP:145:PRO:HD3	2.44	0.42
47:DQ:55:VAL:O	47:DQ:56:ARG:C	2.61	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:18:ILE:C	49:DS:20:ARG:N	2.72	0.42
49:DS:92:TYR:N	49:DS:92:TYR:HD1	2.18	0.42
50:DT:117:ASP:O	50:DT:118:ARG:C	2.62	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
53:DW:43:GLY:O	53:DW:44:ALA:C	2.62	0.42
54:DX:18:TYR:O	54:DX:19:ALA:C	2.62	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
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
3:AC:11:ARG:O	3:AC:12:LEU:C	2.62	0.42
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
8:AH:84:ARG:HH22	8:AH:86:ILE:HD13	1.85	0.42
9:AI:116:LYS:HB3	9:AI:116:LYS:HZ2	1.79	0.42
11:AK:32:ILE:HD12	11:AK:68:ALA:O	2.20	0.42
12:AL:90:VAL:C	12:AL:92:ASP:N	2.75	0.42
13:AM:16:ASP:O	13:AM:30:ALA:HB1	2.19	0.42
13:AM:111:LYS:CG	13:AM:112:GLY:N	2.82	0.42
15:AO:84:LYS:C	15:AO:85:LEU:HD23	2.44	0.42
16:AP:26:ARG:HG2	16:AP:26:ARG:HH11	1.85	0.42
19:AS:6:LYS:C	19:AS:7:LYS:HD3	2.45	0.42
20:AT:18:GLN:O	20:AT:19:SER:C	2.62	0.42
22:AV:11:C:H2'	22:AV:12:U:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:34:C:C2'	35:BA:35:G:H5'	2.45	0.42
35:BA:142:A:H5''	35:BA:142(A):C:C5	2.50	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:558:G:OP2	44:BN:111:PRO:HD2	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:O5'	35:BA:753:C:H6	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
35:BA:1221(A):C:O2'	35:BA:1222:C:H5'	2.19	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
36:BB:16:G:C6	36:BB:69:G:C2	3.07	0.42
38:BD:45:ASN:HB2	38:BD:46:GLN:OE1	2.19	0.42
39:BE:27:LEU:HD23	50:BT:1:MET:CE	2.36	0.42
39:BE:120:TRP:O	39:BE:121:ASN:C	2.62	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
42:BH:82:GLY:O	42:BH:83:TYR:C	2.62	0.42
43:BI:60:GLU:O	43:BI:64:GLU:HB2	2.18	0.42
43:BI:127:VAL:HG12	43:BI:128:LEU:N	2.34	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
49:BS:53:SER:C	49:BS:55:ALA:N	2.72	0.42
53:BW:71:VAL:O	53:BW:71:VAL:HG12	2.18	0.42
53:BW:78:GLU:OE2	53:BW:99:ARG:HG2	2.19	0.42
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:490:G:H2'	1:CA:491:G:H8	1.85	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:1505:G:O2'	24:CX:13:A:C2	2.64	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:224:GLN:HG2	2:CB:224:GLN:O	2.19	0.42
4:CD:86:LYS:HA	4:CD:86:LYS:HD3	1.82	0.42
6:CF:75:LEU:HD23	6:CF:75:LEU:C	2.44	0.42
7:CG:58:PRO:C	7:CG:60:LYS:N	2.77	0.42
8:CH:16:ALA:CB	8:CH:24:THR:OG1	2.67	0.42
15:CO:3:ILE:O	15:CO:4:THR:C	2.62	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:39:C:H2'	35:DA:40:C:H6	1.84	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
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:533:G:H5'	51:DU:24:TYR:CE2	2.55	0.42
35:DA:1590:U:C3'	35:DA:1591:G:H5''	2.48	0.42
35:DA:1614:A:H61	53:DW:88:ARG:H	1.68	0.42
35:DA:1686:C:H2'	35:DA:1687:G:C5'	2.48	0.42
35:DA:2068:U:C2	35:DA:2430:A:H2	2.37	0.42
35:DA:2390:U:O2'	35:DA:2391:G:H5'	2.19	0.42
35:DA:2787:C:O2	39:DE:61:ARG:NH1	2.53	0.42
37:DC:68:LEU:HD22	37:DC:180:PHE:CB	2.49	0.42
38:DD:37:LEU:O	38:DD:38:LYS:C	2.62	0.42
42:DH:46:GLU:HG3	42:DH:51:ARG:O	2.20	0.42
45:DO:49:ARG:NH1	45:DO:49:ARG:CG	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
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
56:DZ:103:ARG:C	56:DZ:104:PHE:HD1	2.27	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
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
2:AB:24:TRP:H	2:AB:24:TRP:HD1	1.65	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:59:GLU:C	2:AB:61:LEU:H	2.28	0.42
2:AB:179:LYS:C	2:AB:181:PHE:H	2.27	0.42
3:AC:16:ARG:HH11	3:AC:16:ARG:HA	1.84	0.42
4:AD:53:ASP:O	4:AD:57:ARG:HG3	2.20	0.42
9:AI:4:TYR:N	9:AI:4:TYR:HD1	2.18	0.42
9:AI:121:ARG:NH1	9:AI:121:ARG:HG2	2.34	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
18:AR:53:ARG:HH11	18:AR:53:ARG:CB	2.32	0.42
20:AT:45:GLN:O	20:AT:47:GLY:N	2.53	0.42
20:AT:105:SER:O	20:AT:106:ALA:C	2.63	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
26:B1:19:GLN:C	26:B1:35:THR:HG22	2.44	0.42
33:B8:47:LYS:HD3	33:B8:48:PHE:O	2.20	0.42
35:BA:89:G:H3'	35:BA:90:U:C5'	2.48	0.42
35:BA:110:G:O2'	35:BA:111:A:H5'	2.19	0.42
35:BA:272(G):C:N4	35:BA:272(H):C:N4	2.68	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: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:2854:G:O2'	35:BA:2855:C:H5'	2.19	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:186:ILE:HD12	40:BF:192:LEU:HD12	2.02	0.42
41:BG:50:ALA:C	41:BG:51:ARG:HE	2.27	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:N	45:BO:86:ILE:CD1	2.79	0.42
45:BO:112:MET:HE2	45:BO:112:MET:H	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:O	47:BQ:58:PHE:CD1	2.72	0.42
47:BQ:63:LYS:NZ	56:BZ:175:VAL:HG11	2.34	0.42
49:BS:97:ARG:NE	49:BS:97:ARG:O	2.53	0.42
49:BS:105:ALA:O	49:BS:107:GLU:N	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:75:ASN:C	2.63	0.42
56:BZ:74:VAL:O	56:BZ:76:LEU:HG	2.19	0.42
1:CA:80:G:N7	1:CA:81:U:C5	2.87	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: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
2:CB:16:HIS:HB3	2:CB:210:SER:CB	2.49	0.42
2:CB:23:ARG:HB3	2:CB:23:ARG:NH1	2.35	0.42
2:CB:163:PHE:HE1	2:CB:215:LEU:HD13	1.84	0.42
3:CC:141:VAL:CG1	3:CC:202:ILE:HG23	2.50	0.42
3:CC:172:ARG:HB3	3:CC:172:ARG:HH11	1.83	0.42
5:CE:90:VAL:HG23	5:CE:121:LYS:H	1.84	0.42
9:CI:21:PRO:HA	9:CI:59:PHE:HA	1.99	0.42
9:CI:23:ASN:N	9:CI:23:ASN:HD22	2.17	0.42
9:CI:40:LEU:C	9:CI:42:ARG:N	2.77	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
27:D2:27:GLU:O	27:D2:28:LYS:C	2.62	0.42
30:D5:20:ARG:NH2	53:DW:15:ARG:HH11	2.18	0.42
31:D6:32:ASN:CG	31:D6:33:LYS:N	2.77	0.42
32:D7:7:PRO:HG3	35:DA:1612:C:H5'	2.01	0.42
33:D8:13:ARG:CB	46:DP:63:PRO:HB3	2.27	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:955:C:H5'	35:DA:956:G:OP2	2.18	0.42
35:DA:1261:C:C2'	35:DA:1262:A:O5'	2.67	0.42
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:2747:G:O2'	42:DH:67:LEU:HD13	2.19	0.42
35:DA:2842:G:O2'	35:DA:2843:G:H5'	2.20	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:51:ARG:NE	41:DG:51:ARG:CA	2.83	0.42
41:DG:114:ILE:HG23	41:DG:115:ARG:NH1	2.34	0.42
42:DH:148:ILE:C	42:DH:150:ALA:N	2.75	0.42
43:DI:48:GLU:C	43:DI:50:ARG:N	2.71	0.42
45:DO:105:GLU:OE1	45:DO:105:GLU:N	2.52	0.42
46:DP:18:ARG:NH1	46:DP:18:ARG:O	2.53	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:90:VAL:HG11	52:DV:39:LEU:HG	2.02	0.42
51:DU:91:ASP:OD1	51:DU:96:ALA:HB2	2.18	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
56:DZ:11:GLU:CD	56:DZ:11:GLU:N	2.77	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
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
2:AB:131:PRO:C	2:AB:133:LYS:N	2.77	0.42
3:AC:19:GLU:HA	3:AC:54:ARG:NH2	2.34	0.42
3:AC:29:TYR:C	3:AC:31:HIS:N	2.75	0.42
3:AC:39:ILE:HG22	3:AC:43:LEU:CD1	2.50	0.42
5:AE:122:GLU:HG2	5:AE:131:ILE:HD11	2.02	0.42
9:AI:7:THR:O	9:AI:83:ARG:HD2	2.19	0.42
9:AI:27:THR:CG2	9:AI:31:GLN:H	2.30	0.42
9:AI:99:LEU:HD12	9:AI:101:PHE:CZ	2.55	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:76:ALA:HA	13:AM:79:LYS:HZ2	1.84	0.42
23:AW:28:G:H2'	23:AW:29:G:H8	1.84	0.42
27:B2:16:LEU:O	27:B2:17:SER:HB3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:225:A:C2'	35:BA:226:G:H5'	2.50	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
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:H6	35:BA:1578:U:OP2	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:2662:A:H2'	35:BA:2663:G:O4'	2.20	0.42
36:BB:75:G:H22	56:BZ:73:GLN:HE21	1.67	0.42
36:BB:103:G:H21	56:BZ:73:GLN:HE22	1.68	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: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
40:BF:160:ASN:ND2	40:BF:162:LEU:H	2.18	0.42
40:BF:204:ASN:C	40:BF:206:ILE:H	2.28	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
45:BO:53:LYS:O	45:BO:56:ASP:CG	2.62	0.42
46:BP:38:GLN:CG	46:BP:39:LYS:H	2.16	0.42
46:BP:102:ARG:HB3	46:BP:102:ARG:NH2	2.34	0.42
47:BQ:45:GLN:H	47:BQ:45:GLN:NE2	2.17	0.42
47:BQ:135:ASP:CG	47:BQ:136:ALA:H	2.28	0.42
49:BS:106:ARG:HE	49:BS:106:ARG:HB3	1.51	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
1:CA:66:G:H4'	1:CA:173:U:C4	2.55	0.42
1:CA:606:G:H21	1:CA:631:G:H2'	1.85	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
1:CA:976:G:N2	1:CA:1362:C:H2'	2.35	0.42
1:CA:1065:U:H4'	1:CA:1066:C:O5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
2:CB:16:HIS:HD2	2:CB:210:SER:CA	2.32	0.42
2:CB:129:GLU:O	2:CB:130:ARG:C	2.62	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:89:GLU:HG3	3:CC:90:GLU:N	2.34	0.42
3:CC:91:LEU:O	3:CC:94:LEU:HG	2.19	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
6:CF:69:GLU:N	6:CF:69:GLU:CD	2.78	0.42
10:CJ:8:LEU:HD13	10:CJ:20:ALA:HA	2.01	0.42
13:CM:112:GLY:CA	13:CM:113:PRO:C	2.92	0.42
15:CO:74:ASP:OD2	15:CO:76:GLU:HB3	2.19	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:HH11	27:D2:69:ARG:CG	2.32	0.42
29:D4:42:CYS:SG	29:D4:62:CYS:HB3	2.60	0.42
30:D5:48:GLU:C	30:D5:50:GLY:N	2.78	0.42
33:D8:46:ARG:O	33:D8:47:LYS:CB	2.67	0.42
35:DA:26:G:P	53:DW:80:PRO:HB3	2.59	0.42
35:DA:143:G:H2'	35:DA:143(A):C:C6	2.55	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
35:DA:1291:C:H2'	35:DA:1292:U: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:2543:G:H21	35:DA:2646:C:H5''	1.83	0.42
35:DA:2637:U:H5''	39:DE:82:ARG:NH2	2.34	0.42
35:DA:2822:G:H2'	35:DA:2823:A:H5''	2.02	0.42
37:DC:23:ASP:O	37:DC:26:ALA:HB3	2.19	0.42
38:DD:52:ARG:H	38:DD:52:ARG:HG3	1.52	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)
39:DE:77:ILE:C	39:DE:78:LEU:HD23	2.45	0.42
40:DF:89:VAL:O	40:DF:91:GLY:N	2.52	0.42
40:DF:186:ILE:HD12	40:DF:192:LEU:HD12	2.02	0.42
41:DG:115:ARG:HD3	41:DG:115:ARG:N	2.35	0.42
42:DH:137:ASP:HB3	42:DH:140:LYS:HB3	2.01	0.42
43:DI:34:GLY:O	43:DI:35:LEU:HD23	2.19	0.42
43:DI:110:ASP:HA	43:DI:111:PRO:HD2	1.94	0.42
45:DO:71:ARG:C	45:DO:73:ASP:N	2.72	0.42
45:DO:71:ARG:HB3	45:DO:73:ASP:OD2	2.20	0.42
47:DQ:58:PHE:O	47:DQ:58:PHE:CD1	2.71	0.42
47:DQ:79:LEU:HD23	47:DQ:79:LEU:C	2.45	0.42
48:DR:99:LYS:HA	48:DR:112:ALA:HA	2.00	0.42
51:DU:33:ARG:O	51:DU:33:ARG:HG3	2.20	0.42
51:DU:103:PRO:HG2	51:DU:104:GLN:OE1	2.19	0.42
52:DV:19:LYS:CG	52:DV:94:LEU:HB2	2.35	0.42
52:DV:43:GLU:OE1	52:DV:43:GLU:HA	2.19	0.42
56:DZ:77:ASP:C	56:DZ:79:ARG:N	2.76	0.42
56:DZ:110:GLY:O	56:DZ:145:GLU:CD	2.62	0.42
56:DZ:150:LEU:HD23	56:DZ:171:ILE:CB	2.24	0.42
1:AA:449:C:O2	16:AP:42:ARG:HD2	2.19	0.42
1:AA:522:C:H2'	1:AA:523:A:O4'	2.18	0.42
1:AA:551:U:H5'	12:AL:119:LYS:HE2	2.01	0.42
1:AA:600:C:H2'	1:AA:601:C:C6	2.55	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:H34	58:AA:1799:PAR:N64	2.27	0.42
2:AB:55:PHE:HE1	2:AB:218:ALA:HA	1.85	0.42
2:AB:150:SER:O	2:AB:153:ARG:HG3	2.20	0.42
3:AC:152:ILE:CG1	3:AC:199:LYS:HB2	2.49	0.42
13:AM:112:GLY:CA	13:AM:113:PRO:C	2.92	0.42
14:AN:42:ILE:O	14:AN:46:GLU:HG3	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
25:B0:19:LYS:NZ	35:BA:2262:U:P	2.93	0.42
26:B1:12:PRO:HG3	35:BA:1365:A:H5'	2.02	0.42
26:B1:80:LEU:HB3	26:B1:82:LEU:HD21	2.02	0.42
30:B5:48:GLU:C	30:B5:50:GLY:N	2.78	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:HB3	34:B9:9:ARG:HH11	1.84	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
35:BA:1051:G:N3	35:BA:1052:C:H5	2.18	0.42
35:BA:1169:G:H2'	35:BA:1170:G:O4'	2.20	0.42
35:BA:1509(B):A:H2'	35:BA:1510:G:C8	2.55	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
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:HA	43:BI:85:GLU:OE2	2.20	0.42
44:BN:117:PHE:O	44:BN:117:PHE:CG	2.71	0.42
47:BQ:141:GLN:OXT	56:BZ:99:TYR:C	2.63	0.42
48:BR:24:GLN:HB2	48:BR:44:LEU:HD23	2.02	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
54:BX:23:GLU:CD	54:BX:23:GLU:N	2.77	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
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
2:CB:31:TYR:CD2	2:CB:31:TYR:N	2.87	0.42
2:CB:87:ARG:O	2:CB:87:ARG:HD2	2.20	0.42
2:CB:178:ARG:HH11	2:CB:178:ARG:CG	2.32	0.42
2:CB:178:ARG:HD2	8:CH:71:GLY: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:67:VAL:CG2	5:CE:68:GLU:N	2.83	0.42
5:CE:147:ASP:HA	5:CE:150:ARG:HB3	2.01	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
27:D2:7:ARG:O	27:D2:11:GLU:HG3	2.20	0.42
33:D8:31:HIS:C	33:D8:33:ASN:N	2.68	0.42
35:DA:201:C:C2'	35:DA:202:U:H5'	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:271(Q):G:O2'	35:DA:271(R):G:P	2.78	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:C5'	35:DA:613:G:H8	2.31	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
35:DA:1548:C:H2'	35:DA:1549:C:C6	2.55	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: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
36:DB:21:G:O2'	36:DB:22:U:C6	2.73	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:39:LYS:HZ2	38:DD:87:ASN:HB3	1.77	0.42
38:DD:197:GLY:O	38:DD:198:ASN:HB3	2.20	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: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: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
51:DU:105:VAL:O	51:DU:106:PHE:C	2.61	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:4:ARG:HG2	56:DZ:58:VAL:CG2	2.49	0.42
56:DZ:14:LYS:C	56:DZ:16:SER:H	2.28	0.42
56:DZ:52:SER:OG	56:DZ:53:ILE:N	2.53	0.42
56:DZ:89:PHE:CE1	56:DZ:96:VAL:HG11	2.54	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
1:AA:953:G:H2'	1:AA:954:G:O4'	2.20	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:197:VAL:HB	2:AB:200:ILE:HG12	2.01	0.42
2:AB:216:SER:C	2:AB:218:ALA:N	2.77	0.42
3:AC:31:HIS:C	3:AC:33:LEU:H	2.28	0.42
4:AD:38:TYR:CG	4:AD:45:GLN:HB3	2.55	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
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
15:AO:65:ARG:HG2	15:AO:65:ARG:NH1	2.34	0.42
16:AP:26:ARG:HG2	16:AP:26:ARG:NH1	2.35	0.42
17:AQ:66:SER:C	17:AQ:67:LYS:O	2.59	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: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
35:BA:1258:C:O4'	40:BF:84:VAL:HG21	2.19	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:H5'	35:BA:2759:G:H8	1.85	0.42
38:BD:80:ALA:HB2	38:BD:96:HIS:CD2	2.55	0.42
41:BG:100:TRP:O	41:BG:101:ILE:C	2.62	0.42
41:BG:102:PHE:O	41:BG:105:LYS:HB3	2.20	0.42
41:BG:129:GLY:C	41:BG:130:ASN:OD1	2.62	0.42
43:BI:61:ARG:O	43:BI:133:HIS:HE1	2.01	0.42
46:BP:6:LEU:HD21	46:BP:9:ASN:HB3	2.00	0.42
46:BP:48:PRO:O	46:BP:49:ARG:HB2	2.20	0.42
46:BP:139:LYS:C	46:BP:141:ALA:N	2.78	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:18:C:H4'	1:CA:1078:U:O2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:123:C:O5'	1:CA:123:C:H6	2.03	0.42
1:CA:123:C:OP1	1:CA:312:C:H5'	2.20	0.42
1:CA:174:C:H6	1:CA:174:C:O5'	2.03	0.42
1:CA:266:G:O2'	1:CA:267:C:P	2.78	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:18:GLY:N	2:CB:42:ILE:HG22	2.35	0.42
2:CB:118:LEU:CB	2:CB:142:LEU:HD13	2.35	0.42
2:CB:120:ALA:C	2:CB:122:PHE:H	2.27	0.42
4:CD:106:TYR:CE1	4:CD:113:SER:HA	2.54	0.42
6:CF:22:GLU:OE2	6:CF:22:GLU:HA	2.19	0.42
7:CG:40:ALA:O	7:CG:41:ARG:C	2.61	0.42
8:CH:82:HIS:HB3	8:CH:138:TRP:CE2	2.55	0.42
9:CI:69:GLY:O	9:CI:72:GLY:N	2.51	0.42
9:CI:118:LYS:O	9:CI:119:ALA:HB3	2.20	0.42
10:CJ:90:LEU:N	10:CJ:90:LEU:HD12	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
25:D0:74:ARG:NH1	36:DB:13:A:OP2	2.53	0.42
27:D2:42:GLY:O	27:D2:43:GLN:C	2.63	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
32:D7:47:ARG:NH2	54:DX:60:ARG:NH2	2.67	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
35:DA:1127:A:C2'	35:DA:1128:A:H5''	2.50	0.42
35:DA:1490:A:H62	38:DD:98:VAL:HG11	1.85	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
38:DD:131:LEU:N	38:DD:131:LEU:CD1	2.82	0.42
39:DE:2:LYS:HE3	39:DE:95:ILE:HG22	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DE:199:ARG:HG3	39:DE:199:ARG:NH1	2.35	0.42
43:DI:8:PRO:HB3	43:DI:14:ASP:HA	2.01	0.42
47:DQ:63:LYS:HD3	47:DQ:65:PHE:CZ	2.55	0.42
48:DR:12:ARG:HB3	48:DR:16:HIS:CD2	2.53	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
50:DT:65:LYS:HA	50:DT:65:LYS:HD2	1.82	0.42
54:DX:53:LYS:HG2	54:DX:54:VAL:N	2.35	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:34:C:O2'	1:AA:35:G:H5'	2.20	0.42
1:AA:119:A:O2'	1:AA:120:A:OP2	2.29	0.42
1:AA:1177:G:OP2	9:AI:97:LYS:HE3	2.20	0.42
1:AA:1414:U:H2'	1:AA:1415:G:H8	1.85	0.42
2:AB:60:ASP:OD2	2:AB:64:ARG:NH2	2.53	0.42
3:AC:31:HIS:C	3:AC:33:LEU:N	2.78	0.42
3:AC:78:GLY:HA3	3:AC:83:ARG:HB3	2.01	0.42
3:AC:110:ASN:C	3:AC:112:SER:N	2.73	0.42
3:AC:182:ILE:HG12	3:AC:203:PHE:HA	2.01	0.42
6:AF:17:SER:O	6:AF:18:GLN:C	2.62	0.42
6:AF:49:ALA:HB1	18:AR:80:PRO:HG3	2.02	0.42
6:AF:100:ASN:N	6:AF:100:ASN:ND2	2.68	0.42
7:AG:62:PHE:CD2	7:AG:62:PHE:C	2.97	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
9:AI:33:PHE:CZ	9:AI:47:LEU:HD11	2.55	0.42
9:AI:112:LYS:HD2	9:AI:117:HIS:O	2.19	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
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
26:B1:3:LYS:HE2	35:BA:1364:G:N7	2.35	0.42
26:B1:63:ALA:O	26:B1:64:ALA:C	2.63	0.42
28:B3:19:GLN:NE2	28:B3:52:HIS:CE1	2.87	0.42
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
35:BA:1424:G:H2'	35:BA:1425:G:O4'	2.20	0.42
35:BA:1490:A:H62	38:BD:98:VAL:HG11	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1754:C:H5'	50:BT:101:PHE:CE2	2.55	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
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:CZ	38:BD:268:ARG:HB3	2.49	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:43:THR:CB	47:BQ:45:GLN:HE21	2.31	0.42
47:BQ:111:GLU:OE2	47:BQ:133:ARG:NH2	2.52	0.42
51:BU:44:ASN:HD21	52:BV:75:PHE:N	2.17	0.42
51:BU:79:PHE:HE2	51:BU:83:LEU:HD11	1.85	0.42
51:BU:106:PHE:O	51:BU:107:ALA:C	2.63	0.42
54:BX:12:VAL:HG13	54:BX:27:THR:C	2.44	0.42
55:BY:50:ARG:HB2	55:BY:53:PRO:HA	2.02	0.42
1:CA:27:G:H2'	1:CA:28:G:O4'	2.20	0.42
1:CA:986:A:H1'	19:CS:55:LYS:HA	2.02	0.42
1:CA:986:A:H2'	1:CA:987:G:C8	2.55	0.42
1:CA:1334:G:H5'	1:CA:1335:C:OP2	2.20	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
2:CB:173:ALA:C	2:CB:175:ARG:N	2.77	0.42
3:CC:164:ARG:NH1	3:CC:164:ARG:CB	2.83	0.42
6:CF:17:SER:O	6:CF:18:GLN:C	2.62	0.42
9:CI:4:TYR:N	9:CI:4:TYR:HD1	2.18	0.42
9:CI:10:ARG:HG2	9:CI:104:ARG:O	2.19	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
16:CP:25:ARG:NH1	16:CP:25:ARG:HG3	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
20:CT:94:ALA:O	20:CT:95:ALA:HB3	2.19	0.42
22:CV:75:C:H2'	22:CV:76:8AN:O4'	2.19	0.42
23:CW:15:G:N2	23:CW:59:U:H1'	2.35	0.42
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
27:D2:5:GLU:O	27:D2:6:VAL:C	2.63	0.42
32:D7:9:ARG:CZ	35:DA:1310:G:OP2	2.68	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:195:A:H5''	35:DA:196:A:OP2	2.20	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
35:DA:1264:G:C3'	35:DA:1265:A:H5''	2.49	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
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
41:DG:148:MET:HE3	41:DG:148:MET:HA	2.02	0.42
46:DP:11:GLY:O	46:DP:12:ALA:C	2.63	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
50:DT:35:LYS:CE	50:DT:41:ARG:HG3	2.50	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
56:DZ:105:VAL:C	56:DZ:141:VAL:HG11	2.44	0.42
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
1:AA:1203:C:OP1	14:AN:3:ARG:HD2	2.20	0.41
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:94:LEU:HD12	3:AC:94:LEU:O	2.20	0.41
4:AD:137:SER:O	4:AD:138:TYR:C	2.63	0.41
6:AF:60:PHE:N	6:AF:60:PHE:CD1	2.88	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:O	11:AK:114:VAL:HG13	2.19	0.41
17:AQ:95:TYR:O	17:AQ:98:LEU:N	2.53	0.41
18:AR:66:LEU:O	18:AR:67:ALA:C	2.62	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:HD12	26:B1:95:LEU:HA	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: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
35:BA:1221:C:H5'	35:BA:1221:C:C6	2.40	0.41
35:BA:1488:G:H2'	35:BA:1488:G:N3	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:1930:G:HO2'	35:BA:1931:U:P	2.42	0.41
35:BA:2025:C:H2'	35:BA:2026:C:H6	1.84	0.41
35:BA:2126:A:O2'	35:BA:2127:G:OP2	2.38	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
36:BB:56:G:H4'	36:BB:57:A:H8	1.85	0.41
36:BB:75:G:H22	56:BZ:73:GLN:NE2	2.18	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:32:LEU:HD22	40:BF:112:MET:CE	2.48	0.41
40:BF:117:ARG:HA	40:BF:117:ARG:HD3	1.74	0.41
41:BG:39:ILE:HD13	41:BG:155:MET:SD	2.60	0.41
42:BH:24:VAL:HG23	42:BH:24:VAL:O	2.20	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
46:BP:131:SER:O	46:BP:132:LYS:C	2.63	0.41
47:BQ:26:TYR:C	47:BQ:26:TYR:HD1	2.28	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:HH11	52:BV:83:ARG:HG2	1.85	0.41
55:BY:54:LYS:C	55:BY:55:TYR:O	2.62	0.41
1:CA:137:C:H1'	16:CP:62:VAL:O	2.20	0.41
1:CA:189(B):C:H2'	1:CA:189(C):C:C6	2.55	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:1389:C:H2'	1:CA:1390:U:O4'	2.20	0.41
3:CC:19:GLU:HA	3:CC:54:ARG:NH2	2.35	0.41
3:CC:31:HIS:C	3:CC:33:LEU:H	2.28	0.41
4:CD:11:LEU:O	4:CD:13:ARG:N	2.53	0.41
4:CD:50:ARG:HD2	4:CD:50:ARG:C	2.45	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: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:HG3	20:CT:25:ARG:HH11	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:13:A:H61	35:DA:525:U:H3'	1.85	0.41
35:DA:19:C:H2'	35:DA:20:C:H6	1.85	0.41
35:DA:94:C:O2	35:DA:94:C:H2'	2.20	0.41
35:DA:455:C:H3'	35:DA:456:C:H5''	2.01	0.41
35:DA:589:C:H2'	35:DA:590:A:H8	1.83	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: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
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:28:ASN:C	43:DI:32:PRO:HG2	2.45	0.41
43:DI:133:HIS:ND1	43:DI:134:PRO:HD2	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DN:82:LEU:HD12	44:DN:82:LEU:HA	1.83	0.41
44:DN:128:HIS:O	44:DN:130:HIS:N	2.53	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
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: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
1:AA:1014:A:H5'	19:AS:14:HIS:CD2	2.54	0.41
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
3:AC:14:ILE:HG23	3:AC:15:THR:N	2.27	0.41
4:AD:173:TRP:C	4:AD:186:LEU:HD12	2.44	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:HD12	10:AJ:90:LEU:N	2.35	0.41
11:AK:29:ILE:CB	11:AK:44:SER:HB3	2.45	0.41
11:AK:109:VAL:HG12	11:AK:110:ASP:N	2.35	0.41
15:AO:74:ASP:OD2	15:AO:77:ARG:N	2.51	0.41
15:AO:81:LEU:O	15:AO:82:ILE:C	2.62	0.41
16:AP:58:TYR:C	16:AP:58:TYR:HD1	2.27	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:N	19:AS:70:LYS:HD3	2.35	0.41
26:B1:29:GLY:C	26:B1:31:GLY:H	2.28	0.41
35:BA:271(Q):G:O2'	35:BA:271(R):G:P	2.78	0.41
35:BA:437:G:O2'	35:BA:438:G:H5'	2.21	0.41
35:BA:614:U:O2	35:BA:614:U:O4'	2.38	0.41
35:BA:676:A:H8	35:BA:2069:G:N2	2.09	0.41
35:BA:1022:G:O2'	35:BA:1023:U:P	2.78	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1048:A:P	35:BA:1048:A:N3	2.93	0.41
35:BA:1503:U:O2'	35:BA:1504:C:H5'	2.19	0.41
35:BA:1669:A:O3'	35:BA:2549:G:H5'	2.21	0.41
35:BA:2516:G:C6	35:BA:2517:C:C4	3.09	0.41
35:BA:2849:U:O4	50:BT:23:ARG:NH2	2.50	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:70:THR:C	40:BF:72:ARG:N	2.67	0.41
40:BF:78:ILE:HA	40:BF:83:PHE:CD1	2.55	0.41
41:BG:55:LYS:NZ	41:BG:148:MET:HE2	2.35	0.41
41:BG:68:PRO:HB3	41:BG:90:LEU:CD2	2.48	0.41
41:BG:78:SER:O	41:BG:79:ASN:C	2.63	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
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:60:A:H8	1:CA:60:A:P	2.42	0.41
1:CA:67:C:H2'	1:CA:68:G:H8	1.83	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:436:C:HO2'	1:CA:437:U:P	2.44	0.41
1:CA:502:G:OP1	12:CL:117:ARG:N	2.53	0.41
1:CA:1203:C:OP1	14:CN:3:ARG:HD2	2.20	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
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
2:CB:127:ILE:HG22	2:CB:127:ILE:O	2.20	0.41
3:CC:19:GLU:O	3:CC:19:GLU:HG2	2.20	0.41
3:CC:113:ALA:C	3:CC:115:LEU:N	2.77	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:HH11	11:CK:91:ARG:HG2	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:33:ALA:HB1	13:CM:59:TYR:HD2	1.85	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:OD1	18:CR:36:ASN:N	2.50	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
25:D0:32:ARG:O	25:D0:35:ASN:ND2	2.52	0.41
29:D4:62:CYS:SG	29:D4:63:SER:N	2.93	0.41
30:D5:58:LEU:HD12	30:D5:58:LEU:N	2.31	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:574:C:N3	39:DE:145:LYS:HE2	2.35	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
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
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
39:DE:37:ARG:HD3	39:DE:42:ASP:CG	2.45	0.41
39:DE:68:ALA:C	39:DE:70:ALA:N	2.78	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: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
48:DR:59:ASP:O	48:DR:60:LEU:C	2.62	0.41
49:DS:49:VAL:HG12	49:DS:50:SER:N	2.35	0.41
49:DS:103:GLU:O	49:DS:104:GLY:C	2.63	0.41
50:DT:19:LEU:HA	50:DT:20:PRO:HD3	1.73	0.41
51:DU:108:GLU:CD	52:DV:44:LYS:HD3	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:DU:110:VAL:O	51:DU:113:ALA:HB3	2.20	0.41
53:DW:14:PRO:O	53:DW:15:ARG:C	2.62	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
53:DW:79:GLY:C	53:DW:100:THR:CG2	2.93	0.41
55:DY:26:LYS:O	55:DY:28:LYS:HE3	2.21	0.41
1:AA:73:G:C2	1:AA:97:G:N1	2.87	0.41
1:AA:472:A:H4'	16:AP:82:GLN:HE22	1.83	0.41
1:AA:959:A:H3'	1:AA:960:U:H5''	2.01	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
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
2:AB:219:VAL:O	2:AB:223:ILE:HG12	2.19	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:69:GLU:CD	6:AF:69:GLU:N	2.79	0.41
6:AF:77:ARG:NH1	6:AF:77:ARG:CB	2.83	0.41
13:AM:52:GLU:O	13:AM:53:VAL:C	2.63	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
15:AO:82:ILE:HD11	15:AO:87:ILE:C	2.45	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:34:C:C4	35:BA:455:C:H5'	2.55	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:960:A:C4'	35:BA:2457:U:H4'	2.50	0.41
35:BA:1554:A:H3'	35:BA:1555:G:H8	1.85	0.41
35:BA:1670:C:O2	39:BE:129:HIS:HE1	2.04	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
39:BE:109:LYS:HB3	48:BR:2:ARG:NH2	2.31	0.41
41:BG:12:TYR:O	41:BG:17:PRO:HD3	2.20	0.41
41:BG:34:LEU:HB2	41:BG:99:MET:HE1	2.01	0.41
44:BN:82:LEU:HD12	44:BN:82:LEU:HA	1.81	0.41
44:BN:87:LEU:O	44:BN:87:LEU:CD2	2.68	0.41
47:BQ:109:VAL:CG1	47:BQ:110:THR:N	2.84	0.41
50:BT:70:VAL:HG12	50:BT:71:GLY:N	2.35	0.41
51:BU:28:ARG:HG2	51:BU:38:THR:OG1	2.20	0.41
51:BU:110:VAL:O	51:BU:113:ALA:HB3	2.20	0.41
52:BV:18:LEU:CG	52:BV:19:LYS:N	2.81	0.41
55:BY:7:VAL:CG2	55:BY:8:LYS:NZ	2.84	0.41
55:BY:35:TYR:CE2	55:BY:69:ALA:HB3	2.55	0.41
55:BY:40:GLU:HA	55:BY:40:GLU:OE2	2.20	0.41
56:BZ:13:GLU:O	56:BZ:15:PRO:HD3	2.20	0.41
56:BZ:114:GLY:HA3	56:BZ:177:PRO:HG3	2.01	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:976:G:P	14:CN:32:SER:H	2.43	0.41
1:CA:986:A:H2'	1:CA:987:G:H8	1.85	0.41
1:CA:1026:G:H2'	1:CA:1026:G:N3	2.35	0.41
1:CA:1057:G:C5	1:CA:1204:A:C2	3.08	0.41
1:CA:1256:A:H5''	3:CC:27:LYS:NZ	2.34	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
2:CB:19:HIS:CG	2:CB:20:GLU:N	2.85	0.41
2:CB:100:GLY:C	2:CB:102:LEU:N	2.78	0.41
2:CB:179:LYS:C	2:CB:181:PHE:H	2.28	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
10:CJ:30:SER:C	10:CJ:80:LYS:HB3	2.45	0.41
13:CM:16:ASP:O	13:CM:30:ALA:HB1	2.19	0.41
15:CO:25:THR:C	15:CO:27:VAL:N	2.79	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:D4:40:ILE:HA	29:D4:57:ILE:HB	2.02	0.41
30:D5:2:ALA:HB3	35:DA:747:U:C2	2.55	0.41
30:D5:15:ARG:HH21	35:DA:2021:C:P	2.43	0.41
33:D8:30:ARG:O	33:D8:30:ARG:HD3	2.21	0.41
35:DA:239:U:H2'	35:DA:240:G:O4'	2.20	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
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
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:1453:U:O2	48:DR:60:LEU:HD21	2.20	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:2652:C:H42	35:DA:2668:G:H1	1.68	0.41
37:DC:64:LEU:HD13	37:DC:66:HIS:HB2	2.00	0.41
37:DC:221:SER:O	37:DC:222:VAL:O	2.39	0.41
38:DD:80:ALA:HB2	38:DD:96:HIS:CD2	2.54	0.41
38:DD:137:PRO:O	38:DD:138:VAL:C	2.61	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
39:DE:109:LYS:HB3	48:DR:2:ARG:NH2	2.33	0.41
39:DE:120:TRP:O	39:DE:121:ASN:C	2.62	0.41
40:DF:38:ARG:HH12	46:DP:16:ARG:NH2	2.19	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
42:DH:152:ARG:O	42:DH:153:LYS:C	2.63	0.41
44:DN:103:VAL:O	44:DN:104:LYS:C	2.63	0.41
44:DN:116:LEU:C	44:DN:118:LYS:N	2.76	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
51:DU:44:ASN:HD22	52:DV:75:PHE:HB3	1.83	0.41
51:DU:95:LEU:C	51:DU:97:ASP:H	2.29	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
55:DY:54:LYS:C	55:DY:55:TYR:O	2.63	0.41
56:DZ:56:VAL:CG1	56:DZ:57:ILE:N	2.83	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
2:AB:16:HIS:HD2	2:AB:210:SER:CA	2.34	0.41
2:AB:120:ALA:C	2:AB:122:PHE:H	2.27	0.41
3:AC:113:ALA:C	3:AC:115:LEU:N	2.78	0.41
5:AE:31:LEU:C	5:AE:31:LEU:HD13	2.46	0.41
10:AJ:8:LEU:HD13	10:AJ:20:ALA:HA	2.03	0.41
10:AJ:30:SER:C	10:AJ:80:LYS:HB3	2.45	0.41
11:AK:53:SER:C	11:AK:55:LYS:N	2.79	0.41
12:AL:126:LYS:CD	12:AL:127:GLU:H	2.32	0.41
13:AM:80:ARG:C	13:AM:82:MET:N	2.76	0.41
17:AQ:59:ILE:HD13	17:AQ:59:ILE:N	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
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: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
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:1331:A:H2'	35:BA:1333:C:C5	2.55	0.41
35:BA:1332:G:H5'	35:BA:1333:C:H5	1.85	0.41
35:BA:1548:C:H2'	35:BA:1549:C:C6	2.56	0.41
35:BA:1839:G:H5'	35:BA:1839:G:C8	2.50	0.41
35:BA:1963:U:O2	35:BA:1963:U:C2'	2.68	0.41
35:BA:2012:G:O3'	53:BW:96:ILE:HD11	2.21	0.41
35:BA:2842:G:O2'	35:BA:2843:G:H5'	2.20	0.41
37:BC:83:ILE:HD11	37:BC:95:GLY:O	2.20	0.41
40:BF:196:LEU:O	40:BF:199:TRP:HB3	2.20	0.41
42:BH:20:ALA:HB2	42:BH:25:LYS:HZ2	1.81	0.41
43:BI:40:THR:O	43:BI:44:LEU:HB2	2.20	0.41
45:BO:4:PRO:O	45:BO:5:GLN:CB	2.50	0.41
45:BO:87:ILE:CG2	45:BO:91:LEU:C	2.93	0.41
46:BP:5:ASP:OD2	46:BP:6:LEU:HD22	2.21	0.41
47:BQ:39:PRO:O	47:BQ:40:ALA:CB	2.63	0.41
47:BQ:141:GLN:O	56:BZ:53:ILE:C	2.63	0.41
48:BR:104:ARG:CB	48:BR:104:ARG:NH1	2.80	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BR:118:GLU:HA	48:BR:118:GLU:OE1	2.21	0.41
49:BS:76:LYS:O	49:BS:77:ALA:C	2.63	0.41
51:BU:108:GLU:OE2	52:BV:44:LYS:NZ	2.53	0.41
52:BV:72:VAL:HG23	52:BV:72:VAL:O	2.21	0.41
53:BW:48:ALA:O	53:BW:49:LYS:C	2.63	0.41
54:BX:18:TYR:O	54:BX:19:ALA:C	2.63	0.41
56:BZ:155:LEU:HB2	56:BZ:157:LEU:HD22	2.02	0.41
1:CA:15:G:H2'	1:CA:16:A:H8	1.86	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: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: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
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:29:ARG:HD3	19:CS:48:THR:OG1	2.20	0.41
19:CS:41:VAL:HG13	19:CS:42:PRO:HD2	2.01	0.41
26:D1:87:PRO:O	26:D1:90:ILE:HG12	2.20	0.41
35:DA:10:G:C6	35:DA:2629:A:C8	3.09	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
35:DA:999:U:C2'	35:DA:1000:A:H5''	2.50	0.41
35:DA:1313:U:O2	35:DA:1313:U:C2'	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:2689:U:P	35:DA:2719:G:H22	2.44	0.41
37:DC:36:LYS:CD	37:DC:37:PHE:H	2.34	0.41
41:DG:64:THR:OG1	41:DG:94:LEU:HD21	2.20	0.41
42:DH:43:VAL:O	42:DH:43:VAL:CG2	2.67	0.41
43:DI:2:LYS:HD2	43:DI:2:LYS:N	2.35	0.41
45:DO:87:ILE:CG2	45:DO:88:ASN:N	2.83	0.41
46:DP:102:ARG:NH2	46:DP:102:ARG:HB3	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DQ:54:MET:HG2	47:DQ:64:ILE:HG21	2.02	0.41
47:DQ:141:GLN:CB	56:DZ:98:MET:HA	2.49	0.41
49:DS:33:LYS:C	49:DS:34:HIS:CD2	2.98	0.41
49:DS:85:VAL:HG22	49:DS:106:ARG:CG	2.50	0.41
49:DS:97:ARG:C	49:DS:97:ARG:HE	2.28	0.41
49:DS:105:ALA:O	49:DS:107:GLU:N	2.53	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
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:1413:A:N1	1:AA:1488:G:C2	2.89	0.41
1:AA:1434:A:H2'	1:AA:1435:G:C5'	2.50	0.41
2:AB:23:ARG:HB3	2:AB:23:ARG:NH1	2.36	0.41
3:AC:18:TRP:C	3:AC:20:SER:N	2.76	0.41
4:AD:30:LYS:CB	4:AD:35:ARG:HD2	2.50	0.41
5:AE:101:ILE:HD13	5:AE:101:ILE:H	1.85	0.41
6:AF:80:ARG:C	6:AF:82:ARG:N	2.75	0.41
7:AG:69:VAL:O	7:AG:71:PRO:HD3	2.21	0.41
7:AG:120:ILE:HG22	7:AG:124:LEU:HD12	2.02	0.41
10:AJ:12:ASP:HB3	10:AJ:15:THR:OG1	2.21	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:B2:65: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:350:U:H2'	35:BA:351:G:O4'	2.19	0.41
35:BA:1164:G:C2	35:BA:1165:U:C2	3.08	0.41
35:BA:1299:G:H8	35:BA:1299:G:O5'	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:2239:G:H5'	38:BD:251:GLY:HA3	2.03	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:O2	35:BA:2703:C:C2'	2.68	0.41
36:BB:91:C:H2'	36:BB:92:C:C6	2.55	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:198:ASN:C	38:BD:198:ASN:ND2	2.78	0.41
39:BE:92:THR:OG1	39:BE:93:VAL:N	2.53	0.41
40:BF:132:VAL:C	40:BF:134:GLY:H	2.27	0.41
41:BG:125:PHE:O	41:BG:128:ARG:NE	2.54	0.41
42:BH:152:ARG:O	42:BH:153:LYS:C	2.63	0.41
47:BQ:1:MET:HE2	47:BQ:2:LEU:N	2.35	0.41
47:BQ:30:GLY:N	47:BQ:105:GLU:OE2	2.54	0.41
49:BS:33:LYS:HD3	49:BS:33:LYS:HA	1.81	0.41
50:BT:8:LYS:HE2	50:BT:8:LYS:HB3	1.81	0.41
50:BT:64:ARG:HG2	50:BT:64:ARG:NH1	2.34	0.41
51:BU:100:VAL:O	51:BU:103:PRO:HD3	2.21	0.41
52:BV:57:VAL:HG13	52:BV:57:VAL:O	2.19	0.41
54:BX:12:VAL:HG13	54:BX:27:THR:O	2.21	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: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
1:CA:1239:A:H2'	1:CA:1298:C:N4	2.35	0.41
1:CA:1421:G:C2	1:CA:1422:G:C4	3.09	0.41
3:CC:28:GLN:CA	3:CC:28:GLN:HE21	2.31	0.41
3:CC:69:HIS:CD2	3:CC:69:HIS:N	2.89	0.41
3:CC:129:ALA:HB3	3:CC:132:ARG:HB3	2.01	0.41
4:CD:152:SER:C	4:CD:154:ASN:H	2.28	0.41
5:CE:8:GLU:CB	5:CE:34:VAL:HG22	2.51	0.41
5:CE:9:LYS:CB	5:CE:112:LEU:HD11	2.46	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:O	7:CG:6:ARG:HG2	2.19	0.41
7:CG:67:GLU:C	7:CG:69:VAL:H	2.29	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
13:CM:99:ARG:C	13:CM:101:GLN:HE21	2.28	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
25:D0:34:GLY:O	25:D0:35:ASN:C	2.63	0.41
26:D1:82:LEU:C	26:D1:83:GLU:OE2	2.64	0.41
26:D1:92:LYS:HZ3	35:DA:153:C:C5'	2.34	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:D7:41:ARG:HD3	32:D7:45:ALA:HB2	2.02	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
35:DA:1300:U:O2'	35:DA:1301:A:P	2.79	0.41
35:DA:1629:U:O2	35:DA:2698:U:H5''	2.20	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: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
38:DD:68:LYS:O	38:DD:68:LYS:HG3	2.21	0.41
39:DE:93:VAL:C	39:DE:95:ILE:N	2.78	0.41
42:DH:123:PHE:N	42:DH:123:PHE:HD1	2.18	0.41
46:DP:17:LYS:C	46:DP:19:VAL:H	2.28	0.41
46:DP:47:ASP:HB2	46:DP:51:PHE:HD2	1.84	0.41
50:DT:57:PHE:CD2	50:DT:58:ASN:N	2.85	0.41
53:DW:71:VAL:O	53:DW:71:VAL:HG12	2.20	0.41
53:DW:71:VAL:O	53:DW:72:LYS:C	2.63	0.41
55:DY:12:THR:O	55:DY:12:THR:HG23	2.20	0.41
56:DZ:23:LYS:N	56:DZ:23:LYS:HD2	2.36	0.41
56:DZ:29:TYR:O	56:DZ:89:PHE:CD2	2.74	0.41
56:DZ:103:ARG:C	56:DZ:104:PHE:CD1	2.99	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
1:AA:7:G:H2'	5:AE:119:LEU:HD22	2.03	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
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
3:AC:47:LEU:HD23	3:AC:52:LEU:HD13	2.03	0.41
3:AC:119:ARG:HE	3:AC:140:ARG:NE	2.18	0.41
3:AC:164:ARG:NH1	3:AC:164:ARG:CB	2.84	0.41
4:AD:151:LYS:O	4:AD:151:LYS:HG2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:79:GLU:C	5:AE:80:ILE:HG23	2.46	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:58:PRO:C	7:AG:60:LYS:N	2.78	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
10:AJ:63:PHE:CZ	14:AN:45:ARG:HG3	2.52	0.41
15:AO:3:ILE:N	15:AO:3:ILE:CD1	2.80	0.41
15:AO:10:LYS:NZ	15:AO:14:GLU:HG2	2.35	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:B0:26:TYR:O	25:B0:27:GLU:C	2.62	0.41
25:B0:55:ARG:HE	25:B0:55:ARG:HB3	1.50	0.41
27:B2:28:LYS:NZ	27:B2:56:GLN:OE1	2.52	0.41
27:B2:45:SER:O	27:B2:46:GLN:NE2	2.54	0.41
33:B8:13:ARG:HB3	46:BP:63:PRO:CB	2.29	0.41
34:B9:17:ILE:HG21	34:B9:19:ARG:HH21	1.84	0.41
35:BA:251:A:C5	35:BA:252:G:H1'	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
35:BA:911:A:C6	47:BQ:9:TYR:CD1	3.09	0.41
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: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
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
36:BB:114:C:H4'	49:BS:46:VAL:HG22	2.02	0.41
37:BC:36:LYS:CD	37:BC:37:PHE:H	2.33	0.41
38:BD:65:ILE:CD1	38:BD:65:ILE:N	2.81	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:94:LEU:CD2	38:BD:94:LEU:C	2.94	0.41
38:BD:105:ILE:O	38:BD:107:ALA:N	2.53	0.41
38:BD:241:PRO:C	38:BD:242:ARG:HD2	2.46	0.41
39:BE:117:MET:HE3	39:BE:124:GLY:HA3	2.02	0.41
40:BF:124:LEU:HD12	40:BF:124:LEU:C	2.46	0.41
40:BF:157:VAL:HA	40:BF:176:LEU:O	2.20	0.41
43:BI:41:GLU:O	43:BI:42:SER:C	2.64	0.41
46:BP:47:ASP:CB	46:BP:51:PHE:HB2	2.50	0.41
48:BR:78:LYS:HZ3	48:BR:83:ILE:HD11	1.85	0.41
56:BZ:99:TYR:HB3	56:BZ:123:ASP:OD1	2.21	0.41
1:CA:59:A:H1'	1:CA:354:G:C2	2.55	0.41
1:CA:344:A:O2'	1:CA:346:G:N7	2.47	0.41
1:CA:428:G:O2'	1:CA:429:U:OP2	2.33	0.41
1:CA:590:C:H2'	1:CA:591:U:C6	2.56	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:88:VAL:O	4:CD:92:VAL:HG23	2.20	0.41
4:CD:170:VAL:CG2	4:CD:171:GLY:N	2.79	0.41
7:CG:5:ARG:C	7:CG:7:ALA:N	2.79	0.41
8:CH:88:LYS:HB2	8:CH:88:LYS:HZ2	1.85	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
15:CO:81:LEU:O	15:CO:82:ILE:C	2.63	0.41
18:CR:24:ALA:C	18:CR:26:LEU:N	2.78	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
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:142:A:H8	35:DA:1595:G:H21	1.64	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1509(B):A:H2'	35:DA:1510:G:C8	2.55	0.41
35:DA:1773:A:H2'	35:DA:1774:C:H5'	2.03	0.41
35:DA:2190:G:H5'	35:DA:2190:G:C8	2.55	0.41
35:DA:2303:G:O2'	41:DG:132:ASN:HB2	2.20	0.41
35:DA:2576:G:OP1	35:DA:2576:G:H3'	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
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
38:DD:198:ASN:C	38:DD:198:ASN:ND2	2.77	0.41
41:DG:125:PHE:HZ	41:DG:180:PHE:CE1	2.38	0.41
41:DG:131:TYR:CD2	41:DG:131:TYR:C	2.98	0.41
42:DH:18:GLU:HG3	42:DH:25:LYS:CG	2.50	0.41
42:DH:82:GLY:O	42:DH:83:TYR:C	2.63	0.41
42:DH:85:LYS:HE2	42:DH:145:ALA:N	2.36	0.41
43:DI:15:VAL:C	43:DI:17:GLN:H	2.28	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:86:LYS:O	46:DP:86:LYS:HG2	2.20	0.41
47:DQ:72:LYS:HA	47:DQ:73:PRO:HD3	1.78	0.41
47:DQ:111:GLU:OE2	47:DQ:133:ARG:NH2	2.54	0.41
49:DS:71:ARG:O	49:DS:74:ALA:HB3	2.20	0.41
49:DS:92:TYR:O	49:DS:93:LYS:HB3	2.20	0.41
51:DU:21:ALA:HB2	51:DU:35:ALA:HB1	2.03	0.41
51:DU:102:GLU:HG3	52:DV:2:PHE:HE1	1.81	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:HD3	53:DW:68:ARG:HA	1.93	0.41
54:DX:64:LYS:NZ	54:DX:64:LYS:HB2	2.36	0.41
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
56:DZ:98:MET:C	56:DZ:125:LEU:HD12	2.46	0.41
56:DZ:128:VAL:HG22	56:DZ:129:SER:H	1.83	0.41
1:AA:586:C:H1'	1:AA:878:G:O2'	2.21	0.41
1:AA:696:A:O2'	1:AA:697:U:H5'	2.20	0.41
1:AA:884:U:H4'	1:AA:885:G:H5''	2.03	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:1378:C:H5''	7:AG:6:ARG:HE	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:10:LEU:O	2:AB:11:LEU:C	2.63	0.41
3:AC:113:ALA:CA	3:AC:116:VAL:HG23	2.46	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
4:AD:121:VAL:O	4:AD:134:ASP:HA	2.20	0.41
8:AH:45:ILE:HB	8:AH:62:TYR:O	2.21	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:B1:3:LYS:CG	26:B1:4:VAL:N	2.79	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
33:B8:5:LYS:NZ	35:BA:253:C:OP2	2.50	0.41
35:BA:8:A:H2	35:BA:2896:C:O2	2.04	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:1127:A:H2'	35:BA:1128:A:H5''	2.03	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:NH1	40:BF:17:ARG:CG	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
44:BN:116:LEU:C	44:BN:118:LYS:H	2.27	0.41
48:BR:74:LYS:CD	48:BR:77:ARG:NH2	2.84	0.41
50:BT:6:LEU:HD23	50:BT:6:LEU:C	2.46	0.41
50:BT:35:LYS:C	50:BT:37:GLY:N	2.77	0.41
50:BT:48:ILE:HD12	50:BT:48:ILE:H	1.85	0.41
50:BT:108:ARG:O	50:BT:112:ARG:HG3	2.21	0.41
51:BU:83:LEU:CG	51:BU:88:ILE:HD11	2.41	0.41
53:BW:19:LEU:N	53:BW:19:LEU:CD1	2.84	0.41
54:BX:32:PRO:HA	54:BX:77:LYS:CB	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:255:G:H2'	1:CA:256:U:H6	1.83	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
3:CC:78:GLY:HA3	3:CC:83:ARG:HB3	2.02	0.41
3:CC:115:LEU:C	3:CC:117:ALA:N	2.76	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
11:CK:95:ILE:O	11:CK:96:ARG:C	2.63	0.41
12:CL:25:PRO:O	12:CL:27:LEU:N	2.53	0.41
13:CM:7:VAL:HG21	41:DG:115:ARG:CG	2.50	0.41
13:CM:76:ALA:HA	13:CM:79:LYS:NZ	2.36	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
23:CW:28:G:H2'	23:CW:29:G:H8	1.86	0.41
26:D1:65:SER:O	35:DA:372:G:H8	2.03	0.41
26:D1:78:LYS:HB2	26:D1:78:LYS:HE3	1.80	0.41
28:D3:17:LYS:HD2	28:D3:17:LYS:HA	1.79	0.41
29:D4:48:ILE:H	29:D4:48:ILE:CD1	2.29	0.41
35:DA:118:A:H1'	35:DA:178:G:O4'	2.21	0.41
35:DA:221:A:O2'	35:DA:222:A:OP2	2.30	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
35:DA:911:A:H2'	47:DQ:9:TYR:OH	2.20	0.41
35:DA:919:G:H5'	36:DB:81:G:H1'	2.02	0.41
35:DA:1996:C:P	45:DO:31:LYS:HZ1	2.44	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:H8	35:DA:2592:G:O5'	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
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
38:DD:35:LYS:CA	38:DD:63:ARG:HA	2.46	0.41
38:DD:122:ASP:OD1	38:DD:123:ALA:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DE:15:PHE:CE2	50:DT:80:SER:HB2	2.56	0.41
39:DE:48:GLN:O	39:DE:48:GLN:HG2	2.21	0.41
40:DF:28:ILE:HG12	40:DF:119:ARG:HH21	1.86	0.41
40:DF:117:ARG:HA	40:DF:117:ARG:HD3	1.75	0.41
41:DG:7:LEU:HD11	41:DG:104:GLU:N	2.35	0.41
43:DI:41:GLU:O	43:DI:42:SER:C	2.62	0.41
44:DN:3:THR:HG22	44:DN:5:VAL:HB	2.03	0.41
46:DP:96:THR:C	46:DP:97:PRO:O	2.59	0.41
47:DQ:45:GLN:O	47:DQ:49:ALA:CB	2.67	0.41
47:DQ:130:LYS:HZ1	56:DZ:80:ARG:HA	1.82	0.41
49:DS:54:LEU:H	49:DS:54:LEU:CD2	2.32	0.41
49:DS:64:GLU:OE2	49:DS:64:GLU:N	2.53	0.41
50:DT:57:PHE:CG	50:DT:58:ASN:N	2.88	0.41
51:DU:92:ARG:CZ	51:DU:92:ARG:CB	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: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
56:DZ:121:HIS:CG	56:DZ:171:ILE:HA	2.56	0.41
1:AA:161:A:H2'	1:AA:162:A:O4'	2.20	0.41
1:AA:921:U:O2'	5:AE:19:MET:O	2.31	0.41
1:AA:1065:U:H6	1:AA:1190:G:H21	1.67	0.41
2:AB:100:GLY:C	2:AB:102:LEU:N	2.78	0.41
2:AB:114:ARG:HH11	2:AB:114:ARG:CG	2.34	0.41
5:AE:79:GLU:C	5:AE:80:ILE:CG2	2.93	0.41
7:AG:60:LYS:HZ1	7:AG:64:GLN:HB2	1.85	0.41
9:AI:20:ARG:HH11	9:AI:20:ARG:CG	2.32	0.41
11:AK:91:ARG:HH11	11:AK:91:ARG:HG2	1.85	0.41
11:AK:124:LYS:HD2	11:AK:125:PHE:CE1	2.56	0.41
16:AP:75:ARG:C	16:AP:77:ALA:H	2.27	0.41
19:AS:27:GLU:HB3	19:AS:28:LYS:H	1.69	0.41
23:AW:43:C:O2	23:AW:43:C:H2'	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
26:B1:23:LYS:O	26:B1:24:ALA:C	2.64	0.41
29:B4:39:ARG:HH11	29:B4:39:ARG:HG2	1.86	0.41
32:B7:9:ARG:CZ	35:BA:1310:G:OP2	2.69	0.41
33:B8:5:LYS:HG2	35:BA:254:G:O6	2.20	0.41
33:B8:13:ARG:HD2	46:BP:61:ARG:NH1	2.34	0.41
35:BA:611:C:H2'	35:BA:612:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:741:G:O2'	35:BA:742:G:H5'	2.21	0.41
35:BA:955:C:OP1	47:BQ:13:GLN:HA	2.21	0.41
35:BA:1127:A:C2'	35:BA:1128:A:H5''	2.50	0.41
35:BA:1503:U:C4	35:BA:1504:C:N4	2.86	0.41
35:BA:1568:G:H5''	38:BD:61:LEU:HB2	2.03	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:2491:U:C2'	35:BA:2492:U:H5'	2.50	0.41
35:BA:2884:U:C2'	35:BA:2885:C:H5'	2.50	0.41
36:BB:105:A:OP1	56:BZ:72:ARG:NH1	2.54	0.41
37:BC:187:ASP:C	37:BC:189:ILE:N	2.78	0.41
38:BD:43:ARG:NH1	38:BD:49:ILE:HG22	2.35	0.41
38:BD:64:ILE:O	38:BD:64:ILE:HG13	2.21	0.41
38:BD:70:TRP:O	38:BD:73:VAL:HG22	2.19	0.41
38:BD:85:ASP:OD1	38:BD:85:ASP:C	2.63	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:227:ASN:O	38:BD:228:PRO:C	2.63	0.41
39:BE:131:ALA:C	39:BE:133:LYS:H	2.24	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
45:BO:71:ARG:C	45:BO:73:ASP:N	2.71	0.41
46:BP:102:ARG:O	46:BP:103:ALA:HB2	2.20	0.41
47:BQ:39:PRO:HD3	47:BQ:99:PRO:HG3	2.02	0.41
47:BQ:141:GLN:H	56:BZ:99:TYR:CB	2.29	0.41
49:BS:71:ARG:O	49:BS:74:ALA:HB3	2.21	0.41
49:BS:80:LEU:N	49:BS:80:LEU:CD1	2.84	0.41
49:BS:101:LEU:C	49:BS:101:LEU:CD2	2.94	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
55:BY:52:SER:O	55:BY:53:PRO:C	2.64	0.41
56:BZ:128:VAL:HG22	56:BZ:129:SER:O	2.20	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:283:C:H2'	1:CA:284:G:H8	1.85	0.41
1:CA:321:A:C2	1:CA:333:G:C2	3.09	0.41
1:CA:327:A:C4	1:CA:329:A:C8	3.08	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
1:CA:1172:C:H2'	1:CA:1173:G:C8	2.43	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:HG2	3:CC:72:LYS:O	2.20	0.41
3:CC:113:ALA:CA	3:CC:116:VAL:HG23	2.47	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
13:CM:56:LEU:HD13	13:CM:60:VAL:HG21	2.02	0.41
13:CM:108:ARG:HH12	13:CM:112:GLY:CA	2.33	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
22:CV:36:A:C2	24:CX:17:U:O2	2.74	0.41
23:CW:59:U:H2'	23:CW:60:U:H5'	2.03	0.41
25:D0:6:GLY:C	25:D0:7:LEU:HG	2.45	0.41
28:D3:46:ASN:O	28:D3:49:LYS:N	2.53	0.41
30:D5:44:THR:C	30:D5:45:VAL:HG23	2.46	0.41
31:D6:29:ASN:O	31:D6:30:THR:C	2.64	0.41
33:D8:60:LEU:O	33:D8:63:PRO:HG2	2.20	0.41
35:DA:271(K):U:N3	43:DI:50:ARG:NH1	2.68	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
35:DA:1051:G:N3	35:DA:1052:C:H5	2.19	0.41
35:DA:1186:G:H8	35:DA:1186:G:O5'	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:2632:A:N3	39:DE:61:ARG:HD3	2.35	0.41
36:DB:56:G:H4'	36:DB:57:A:C8	2.56	0.41
37:DC:56:GLN:NE2	37:DC:168:THR:CB	2.84	0.41
38:DD:65:ILE:CD1	38:DD:65:ILE:N	2.79	0.41
39:DE:32:PRO:HB3	39:DE:69:LYS:HB3	2.01	0.41
39:DE:55:ASN:C	39:DE:57:LYS:N	2.79	0.41
40:DF:62:ARG:HG2	40:DF:63:LYS:N	2.36	0.41
40:DF:113:ALA:HB1	40:DF:186:ILE:HG21	2.02	0.41
41:DG:111:LEU:N	41:DG:112:PRO:CD	2.84	0.41
41:DG:117:PHE:C	41:DG:117:PHE:CD1	2.99	0.41
42:DH:38:SER:HA	42:DH:39:PRO:HD3	1.91	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DI:84:GLY:O	43:DI:85:GLU:CB	2.67	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:NE	49:DS:97:ARG:O	2.53	0.41
50:DT:6:LEU:HD23	50:DT:6:LEU:C	2.46	0.41
50:DT:125:ARG:HA	50:DT:125:ARG:HH11	1.79	0.41
54:DX:32:PRO:HA	54:DX:77:LYS:HB2	2.02	0.41
55:DY:50:ARG:HG3	55:DY:58:GLY:CA	2.51	0.41
1:AA:5:U:C2	4:AD:86:LYS:HE2	2.56	0.41
1:AA:19:C:O2	1:AA:572:A:H2	2.03	0.41
1:AA:80:G:N7	1:AA:81:U:H5	2.19	0.41
1:AA:127:G:N2	17:AQ:61:GLU:OE1	2.53	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: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:542:G:P	4:AD:10:ARG:NH2	2.94	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
1:AA:1373:G:H5''	7:AG:36:LYS:HB3	2.03	0.41
1:AA:1396:A:O4'	1:AA:1398:A:H1'	2.21	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
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
2:AB:167:PRO:HG2	2:AB:168:THR:H	1.83	0.41
3:AC:69:HIS:CD2	3:AC:69:HIS:N	2.88	0.41
3:AC:178:LEU:HD22	3:AC:178:LEU:N	2.36	0.41
4:AD:108:LEU:CB	4:AD:110:PHE:CE1	3.04	0.41
4:AD:112:VAL:HG12	4:AD:116:GLN:CD	2.46	0.41
5:AE:110:LEU:HA	5:AE:113:ALA:HB3	2.03	0.41
6:AF:12:PRO:HB3	6:AF:45:LEU:HD13	2.03	0.41
6:AF:50:TYR:HE2	6:AF:52:ILE:HD11	1.86	0.41
6:AF:53:ALA:O	6:AF:54:LYS:HB2	2.21	0.41
8:AH:97:VAL:HG13	8:AH:98:LYS:N	2.36	0.41
8:AH:134:ILE:O	8:AH:135:CYS:CB	2.62	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:137:VAL:CG1	8:AH:138:TRP:N	2.84	0.41
9:AI:45:ALA:C	9:AI:47:LEU:N	2.78	0.41
9:AI:83:ARG:O	9:AI:86:VAL:HG12	2.21	0.41
10:AJ:4:ILE:HD11	10:AJ:77:PRO:HB3	2.03	0.41
10:AJ:12:ASP:C	10:AJ:14:LYS:H	2.29	0.41
10:AJ:32:ALA:HB2	10:AJ:76:ASN:C	2.46	0.41
11:AK:29:ILE:HB	11:AK:44:SER:CB	2.47	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
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
19:AS:72:GLY:C	19:AS:74:PHE:H	2.28	0.41
22:AV:67:C:H2'	22:AV:68:C:H6	1.81	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
25:B0:6:GLY:C	25:B0:7:LEU:HG	2.46	0.41
25:B0:23:VAL:HG12	25:B0:25:ARG:O	2.21	0.41
27:B2:25:VAL:O	27:B2:26:ARG:C	2.63	0.41
27:B2:38:GLN:HB3	27:B2:44:LEU:O	2.21	0.41
27:B2:47:ASN:OD1	35:BA:61:G:C4	2.73	0.41
29:B4:37:PRO:O	29:B4:55:PRO:HG3	2.21	0.41
31:B6:51:GLU:O	31:B6:52:VAL:CG2	2.68	0.41
33:B8:31:HIS:C	33:B8:33:ASN:N	2.68	0.41
33:B8:36:LYS:O	33:B8:37:SER:C	2.62	0.41
34:B9:26:ILE:HD12	34:B9:26:ILE:N	2.26	0.41
35:BA:6:A:HO2'	44:BN:130:HIS:HB3	1.81	0.41
35:BA:74:A:O2'	35:BA:75:G:OP2	2.38	0.41
35:BA:196:A:H61	35:BA:831:G:H21	1.69	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:530:G:C5	35:BA:2022:U:H5''	2.56	0.41
35:BA:543:C:O2	35:BA:549:G:N2	2.53	0.41
35:BA:564:C:C2'	35:BA:565:C:H5'	2.51	0.41
35:BA:613:G:C5'	35:BA:613:G:H8	2.29	0.41
35:BA:614(C):A:HO2'	35:BA:615:G:P	2.42	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
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:O2	35:BA:1313:U:C2'	2.68	0.41
35:BA:1357:U:H2'	35:BA:1358:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:1493:C:O2	35:BA:1493:C:C2'	2.68	0.41
35:BA:1515:G:O2'	35:BA:1516:C:H5'	2.21	0.41
35:BA:1568:G:O5'	38:BD:61:LEU:HB2	2.20	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: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:2065:C:O2'	35:BA:2066:C:H5'	2.20	0.41
35:BA:2171:A:O2'	35:BA:2172:U:H6	2.04	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:2632:A:N3	39:BE:61:ARG:HD3	2.36	0.41
35:BA:2821:A:OP2	39:BE:110:GLY:O	2.39	0.41
36:BB:37:C:H2'	36:BB:38:C:O4'	2.21	0.41
37:BC:41:VAL:C	37:BC:42:GLU:HG3	2.46	0.41
38:BD:6:PHE:CD1	38:BD:6:PHE:N	2.88	0.41
38:BD:37:LEU:O	38:BD:38:LYS:C	2.64	0.41
38:BD:206:LEU:HD22	38:BD:211:ARG:HG3	2.03	0.41
39:BE:52:LEU:HD12	39:BE:52:LEU:HA	1.95	0.41
39:BE:69:LYS:C	39:BE:71:GLY:H	2.26	0.41
40:BF:32:LEU:C	40:BF:32:LEU:HD23	2.46	0.41
40:BF:57:VAL:CG1	40:BF:59:TYR:CD1	3.04	0.41
40:BF:65:TRP:C	40:BF:67:GLN:N	2.79	0.41
41:BG:94:LEU:HD23	41:BG:94:LEU:HA	1.90	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:171:ALA:O	41:BG:172:LEU:C	2.64	0.41
42:BH:46:GLU:HG3	42:BH:50:VAL:HG13	2.03	0.41
42:BH:137:ASP:O	42:BH:138:LYS:HB2	2.20	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
43:BI:130:TYR:O	43:BI:135:GLU:HG2	2.21	0.41
44:BN:115:ARG:O	44:BN:118:LYS:HB2	2.21	0.41
45:BO:89:ASN:C	45:BO:91:LEU:N	2.76	0.41
46:BP:56:SER:O	46:BP:57:THR:C	2.63	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:65:ILE:C	51:BU:67:ALA:N	2.78	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BV:6:LYS:HB3	52:BV:37:VAL:HB	2.03	0.41
52:BV:17:GLY:HA2	52:BV:96:ILE:O	2.20	0.41
54:BX:31:HIS:HA	54:BX:32:PRO:HD2	1.81	0.41
55:BY:50:ARG:C	55:BY:52:SER:N	2.67	0.41
56:BZ:9:TYR:HE2	56:BZ:35:ARG:NE	2.16	0.41
56:BZ:13:GLU:OE2	56:BZ:13:GLU:HA	2.21	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:95:PRO:O	56:BZ:127:LYS:HG3	2.20	0.41
56:BZ:124:ILE:O	56:BZ:126:VAL:HG13	2.21	0.41
1:CA:123:C:H5''	1:CA:311:C:O2'	2.21	0.41
1:CA:186:C:H2'	1:CA:187:C:H6	1.85	0.41
1:CA:271:C:H2'	1:CA:272:C:H6	1.86	0.41
1:CA:302:G:O2'	1:CA:556:C:H5''	2.20	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: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:728:A:H2'	1:CA:729:A:H8	1.82	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
1:CA:1053:G:N7	1:CA:1200:C:C5'	2.83	0.41
1:CA:1060:C:H2'	1:CA:1061:G:C8	2.50	0.41
1:CA:1075:C:OP1	2:CB:179:LYS:NZ	2.54	0.41
1:CA:1179:A:OP2	9:CI:93:ARG:NH2	2.54	0.41
1:CA:1228:C:H4'	13:CM:116:THR:HA	2.03	0.41
1:CA:1280:A:C8	10:CJ:41:PRO:HD2	2.56	0.41
1:CA:1320:C:O4'	19:CS:73:GLU:HG3	2.20	0.41
1:CA:1347:G:H5''	9:CI:107:ARG:HB3	2.03	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
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
2:CB:130:ARG:O	2:CB:131:PRO:C	2.63	0.41
2:CB:178:ARG:HA	2:CB:178:ARG:HD3	1.93	0.41
3:CC:11:ARG:O	3:CC:12:LEU:C	2.64	0.41
3:CC:30:ARG:NH2	14:CN:35:ARG:CA	2.83	0.41
3:CC:31:HIS:C	3:CC:33:LEU:N	2.79	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
4:CD:65:ARG:HD2	4:CD:72:GLU:HA	2.03	0.41
6:CF:42:GLU:C	6:CF:44:GLY:N	2.79	0.41
6:CF:100:ASN:ND2	6:CF:100:ASN:N	2.67	0.41
7:CG:145:ALA:O	7:CG:146:GLU:HB2	2.19	0.41
8:CH:75:ARG:HA	8:CH:76:PRO:HD2	1.86	0.41
9:CI:63:ILE:CG2	9:CI:64:THR:N	2.84	0.41
9:CI:92:TYR:CD1	9:CI:92:TYR:N	2.89	0.41
9:CI:118:LYS:C	9:CI:120:ARG:H	2.29	0.41
10:CJ:24:VAL:CG2	10:CJ:37:PRO:HG3	2.51	0.41
13:CM:65:LYS:HG2	13:CM:66:LEU:N	2.35	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
22:CY:11:C:H2'	22:CY:12:U:C6	2.55	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:D1:75:GLU:C	26:D1:77:ALA:N	2.79	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:D2:4:SER:HA	27:D2:7:ARG:HH11	1.86	0.41
27:D2:55:ARG:HH21	27:D2:55:ARG:HG3	1.86	0.41
28:D3:39:ASP:OD2	28:D3:44:ARG:NH2	2.47	0.41
30:D5:6:VAL:HG22	30:D5:7:PRO:CD	2.49	0.41
35:DA:32:C:H2'	35:DA:33:U:H5'	2.02	0.41
35:DA:149:A:H2'	35:DA:150:C:C6	2.56	0.41
35:DA:292:C:H2'	35:DA:293:U:H5'	2.03	0.41
35:DA:320:A:C8	40:DF:136:THR:HG21	2.56	0.41
35:DA:466:A:H2'	35:DA:467:G:H5'	2.03	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
35:DA:721:C:H3'	35:DA:722:A:H8	1.85	0.41
35:DA:917:A:N1	36:DB:80:U:H4'	2.35	0.41
35:DA:962:G:O2'	35:DA:963:U:H5'	2.20	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:1568:G:C5'	38:DD:61:LEU:HB2	2.51	0.41
35:DA:1790:C:H5''	35:DA:1791:A:OP1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:1824:G:OP1	38:DD:52:ARG:HD3	2.21	0.41
35:DA:1854:A:C2	35:DA:2087:G:N3	2.88	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: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:2584:U:H6	35:DA:2584:U:O5'	2.04	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:2880:C:H1'	48:DR:92:GLY:O	2.20	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
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
38:DD:270:ILE:O	38:DD:270:ILE:HD12	2.20	0.41
39:DE:101:ARG:HB3	39:DE:201:THR:HG21	2.01	0.41
40:DF:160:ASN:C	40:DF:160:ASN:ND2	2.78	0.41
40:DF:160:ASN:ND2	40:DF:162:LEU:H	2.18	0.41
42:DH:41:MET:SD	42:DH:55:PRO:HG3	2.61	0.41
43:DI:12:LEU:HB2	43:DI:19:VAL:HG11	2.01	0.41
43:DI:78:THR:CB	43:DI:141:LYS:HB2	2.51	0.41
44:DN:19:GLU:HG3	44:DN:20:GLY:H	1.85	0.41
44:DN:32:THR:HG22	44:DN:37:LYS:HB3	2.01	0.41
45:DO:5:GLN:HE21	45:DO:20:MET:HE2	1.85	0.41
46:DP:17:LYS:O	46:DP:18:ARG:C	2.64	0.41
46:DP:113:LYS:HE2	46:DP:115:LEU:HD13	2.02	0.41
46:DP:146:VAL:O	46:DP:148:LEU:N	2.54	0.41
47:DQ:26:TYR:CE1	47:DQ:28:ALA:HB3	2.56	0.41
47:DQ:30:GLY:N	47:DQ:105:GLU:OE2	2.53	0.41
48:DR:24:GLN:HB2	48:DR:44:LEU:HD23	2.03	0.41
48:DR:100:LEU:HD22	48:DR:100:LEU:N	2.33	0.41
50:DT:35:LYS:C	50:DT:37:GLY:N	2.77	0.41
50:DT:98:LYS:HB3	50:DT:100:TYR:CE1	2.56	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
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
53:DW:1:MET:CG	53:DW:64:MET:HE3	2.51	0.41
54:DX:12:VAL:HB	54:DX:17:ALA:CB	2.50	0.41
54:DX:83:VAL:O	54:DX:84:ALA:C	2.62	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DZ:52:SER:C	56:DZ:53:ILE:HG13	2.45	0.41
56:DZ:80:ARG:HG3	56:DZ:80:ARG:NH1	2.34	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
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
2:AB:59:GLU:HB2	2:AB:221:LEU:HD11	2.00	0.41
2:AB:74:LYS:HZ1	2:AB:76:GLN:HB2	1.85	0.41
4:AD:98:GLU:HA	4:AD:103:ASN:ND2	2.35	0.41
6:AF:42:GLU:C	6:AF:44:GLY:N	2.79	0.41
6:AF:43:LEU:H	6:AF:43:LEU:CD1	2.34	0.41
7:AG:67:GLU:C	7:AG:69:VAL:H	2.29	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
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
31:B6:24:GLU:OE2	35:BA:2346:A:O2'	2.38	0.41
35:BA:58:G:H1	35:BA:69:C:H42	1.69	0.41
35:BA:229:A:H3'	35:BA:230:U:C5'	2.50	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
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:858:U:O2	35:BA:2268:A:N3	2.54	0.41
35:BA:1275:A:N1	35:BA:1295:C:O2'	2.47	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:H3'	35:BA:2131:G:OP2	2.21	0.41
35:BA:2532:G:O5'	35:BA:2532:G:H8	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
39:BE:68:ALA:C	39:BE:70:ALA:N	2.79	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:75:VAL:C	39:BE:77:ILE:N	2.79	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:79:LEU:O	47:BQ:80:GLU:HB3	2.20	0.41
47:BQ:118:LEU:O	47:BQ:119:ARG:C	2.64	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
49:BS:46:VAL:HG12	49:BS:47:THR:N	2.36	0.41
50:BT:76:PHE:HA	50:BT:77:PRO:HD3	1.78	0.41
51:BU:91:ASP:OD2	51:BU:91:ASP:C	2.64	0.41
52:BV:19:LYS:HZ3	52:BV:20:LEU:CB	2.33	0.41
55:BY:23:ARG:NH2	55:BY:41:GLY:HA2	2.36	0.41
1:CA:191:G:N3	20:CT:105:SER:HB3	2.35	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
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
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
11:CK:127:LYS:HA	11:CK:127:LYS:CE	2.39	0.41
12:CL:18:VAL:CG2	12:CL:19:ARG:N	2.82	0.41
22:CV:74:C:H2'	22:CV:75:C:H5'	2.01	0.41
26:D1:19:GLN:C	26:D1:35:THR:HG22	2.46	0.41
26:D1:92:LYS:NZ	35:DA:153:C:H5'	2.36	0.41
27:D2:7:ARG:HH11	27:D2:7:ARG:CG	2.30	0.41
27:D2:48:HIS:O	27:D2:52:ASP:CG	2.64	0.41
27:D2:69:ARG:HH21	35:DA:111:A:H4'	1.86	0.41
34:D9:16:VAL:O	35:DA:1033:U:H5	2.04	0.41
35:DA:27:G:O2'	35:DA:28:A:P	2.79	0.41
35:DA:153:C:H42	35:DA:173:G:H1	1.69	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
35:DA:1464:C:O2'	35:DA:1528:A:H8	2.04	0.41
35:DA:1896:G:O2'	35:DA:1897:G:H5'	2.21	0.41
35:DA:1987:G:C8	35:DA:1987:G:C5'	3.00	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
38:DD:126:GLN:HG3	38:DD:129:ASN:HD21	1.84	0.41
39:DE:131:ALA:C	39:DE:133:LYS:H	2.26	0.41
41:DG:115:ARG:CZ	41:DG:136:ARG:HB2	2.51	0.41
43:DI:28:ASN:HA	43:DI:32:PRO:HG2	2.03	0.41
44:DN:4:TYR:O	44:DN:5:VAL:C	2.64	0.41
46:DP:115:LEU:O	46:DP:115:LEU:HD23	2.20	0.41
47:DQ:1:MET:HE2	47:DQ:2:LEU:N	2.36	0.41
48:DR:17:ARG:O	48:DR:20:LEU:HB3	2.21	0.41
48:DR:101:ALA:O	48:DR:102:GLU:CB	2.69	0.41
49:DS:33:LYS:HA	49:DS:33:LYS:HD3	1.83	0.41
50:DT:3:ARG:HB2	50:DT:6:LEU:HB3	1.98	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:129:ARG:NH2	50:DT:131:ALA:HB3	2.35	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:99:TYR:HA	56:DZ:124:ILE:O	2.21	0.41
56:DZ:102:LEU:HD12	56:DZ:123:ASP:HA	2.01	0.41
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
1:AA:1236:A:O2'	1:AA:1304:G:H4'	2.22	0.40
2:AB:32:ILE:HD11	2:AB:40:HIS:HB3	2.02	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:130:ARG:O	2:AB:131:PRO:C	2.64	0.40
2:AB:170:GLU:O	2:AB:173:ALA:HB3	2.22	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
5:AE:33:VAL:HG11	5:AE:109:ILE:HA	2.03	0.40
5:AE:107:ARG:O	5:AE:111:GLU:HG3	2.21	0.40
9:AI:23:ASN:N	9:AI:23:ASN:HD22	2.19	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
13:AM:102:ARG:C	13:AM:104:ARG:N	2.75	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
27:B2:6:VAL:O	27:B2:9:GLN:N	2.54	0.40
27:B2:10:LEU:O	27:B2:11:GLU:C	2.63	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
31:B6:45:LYS:NZ	35:BA:2370:G:H21	2.12	0.40
35:BA:19:C:H2'	35:BA:20:C:H6	1.86	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:826:U:OP1	35:BA:2428:G:H3'	2.21	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
35:BA:1441:G:H2'	35:BA:1442:G:H8	1.86	0.40
35:BA:1502:C:H5''	35:BA:1502:C:H6	1.86	0.40
35:BA:1771:C:H2'	35:BA:1772:G:C8	2.56	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:2840:C:H5''	48:BR:53:HIS:CD2	2.56	0.40
37:BC:71:GLN:HG2	37:BC:73:ARG:HE	1.84	0.40
38:BD:9:TYR:CD2	38:BD:10:THR:HG22	2.57	0.40
38:BD:186:HIS:HD2	38:BD:188:GLU:N	2.06	0.40
39:BE:199:ARG:NH1	39:BE:199:ARG:HG3	2.35	0.40
40:BF:2:LYS:HD3	40:BF:2:LYS:H	1.87	0.40
42:BH:85:LYS:HD2	42:BH:141:VAL:CG2	2.49	0.40
42:BH:149:ARG:HA	42:BH:162:ILE:CG2	2.51	0.40
42:BH:158:HIS:CE1	42:BH:169:VAL:O	2.74	0.40
43:BI:12:LEU:HB2	43:BI:19:VAL:HG11	2.03	0.40
46:BP:17:LYS:O	46:BP:18:ARG:C	2.63	0.40
47:BQ:1:MET:O	47:BQ:2:LEU:HB2	2.21	0.40
47:BQ:62:GLY:HA3	47:BQ:107:ALA:O	2.20	0.40
51:BU:21:ALA:HB2	51:BU:35:ALA:HB1	2.02	0.40
51:BU:92:ARG:O	51:BU:93:LYS:C	2.64	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BZ:117:LEU:HA	56:BZ:174:VAL:CG2	2.48	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
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
2:CB:17:PHE:HD1	2:CB:44:LEU:HG	1.86	0.40
5:CE:12:LEU:HD13	5:CE:12:LEU:C	2.46	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:12:ASP:C	10:CJ:14:LYS:H	2.28	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: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
19:CS:5:LEU:C	19:CS:6:LYS:HE3	2.46	0.40
19:CS:72:GLY:C	19:CS:74:PHE:H	2.30	0.40
20:CT:30:LYS:O	20:CT:33:ILE:N	2.53	0.40
20:CT:53:LEU:O	20:CT:54:LYS:C	2.63	0.40
20:CT:105:SER:O	20:CT:106:ALA:C	2.63	0.40
22:CY:4:C:H6	22:CY:4:C:OP2	2.04	0.40
22:CY:43:C:H2'	22:CY:44:G:O4'	2.22	0.40
26:D1:82:LEU:N	26:D1:83:GLU:OE2	2.53	0.40
33:D8:32:LEU:CB	33:D8:36:LYS:HZ3	2.34	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
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
38:DD:53:PHE:CD1	38:DD:219:PRO:O	2.74	0.40
38:DD:63:ARG:HD2	38:DD:86:PRO:HD2	2.03	0.40
40:DF:68:LYS:HB3	40:DF:69:HIS:H	1.66	0.40
40:DF:117:ARG:HH21	40:DF:187:VAL:HA	1.86	0.40
40:DF:123:LEU:CD1	40:DF:124:LEU:N	2.82	0.40
42:DH:149:ARG:HA	42:DH:162:ILE:CG2	2.51	0.40
43:DI:85:GLU:HA	43:DI:85:GLU:OE2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:DR:85:PRO:C	48:DR:87:TYR:H	2.28	0.40
49:DS:74:ALA:O	49:DS:75:GLU:C	2.64	0.40
50:DT:96:ARG:HH11	50:DT:96:ARG:CG	2.30	0.40
51:DU:108:GLU:OE1	52:DV:44:LYS:HD3	2.20	0.40
54:DX:32:PRO:HA	54:DX:77:LYS:CB	2.51	0.40
54:DX:47:PHE:O	54:DX:48:LYS:C	2.64	0.40
55:DY:42:VAL:HG11	55:DY:65:ALA:HB3	2.00	0.40
55:DY:50:ARG:HB2	55:DY:53:PRO:HA	2.03	0.40
56:DZ:33:LEU:CG	56:DZ:34:ASN:N	2.84	0.40
56:DZ:133:ILE:O	56:DZ:133:ILE:HG22	2.21	0.40
1:AA:62:U:O2'	1:AA:379:C:H1'	2.21	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:406:G:C5'	4:AD:5:ILE:HD13	2.51	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
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
2:AB:89:GLY:O	2:AB:154:LEU:HD13	2.20	0.40
2:AB:157:ARG:HE	2:AB:157:ARG:HB3	1.70	0.40
3:AC:19:GLU:O	3:AC:19:GLU:HG2	2.21	0.40
5:AE:144:THR:O	5:AE:145:LYS:C	2.64	0.40
6:AF:55:ASP:CB	6:AF:86:ARG:HH12	2.32	0.40
7:AG:44:TYR:C	7:AG:46:ALA:N	2.78	0.40
7:AG:144:MET:HE1	23:AW:40:C:O2	2.21	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:54:ARG:HH12	23:AW:40:C:C5'	2.34	0.40
11:AK:73:MET:SD	11:AK:103:LEU:CD2	3.09	0.40
11:AK:106:LYS:O	11:AK:107:SER:HB2	2.20	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
30:B5:12:SER:OG	35:BA:2021:C:OP1	2.30	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:B8:12:LYS:HD3	46:BP:68:GLN:HE22	1.86	0.40
33:B8:18:ALA:HB3	35:BA:651:G:H4'	2.03	0.40
35:BA:296:C:H2'	35:BA:297:C:H6	1.86	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:2175:C:O4'	37:BC:215:THR:HA	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
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
38:BD:8:PRO:HB3	38:BD:14:ARG:HB3	2.03	0.40
39:BE:55:ASN:C	39:BE:57:LYS:N	2.78	0.40
40:BF:62:ARG:HG2	40:BF:63:LYS:N	2.35	0.40
41:BG:125:PHE:HE2	41:BG:173:LEU:HD12	1.85	0.40
42:BH:66:GLY:C	42:BH:68:THR:H	2.28	0.40
42:BH:148:ILE:O	42:BH:149:ARG:C	2.64	0.40
47:BQ:134:ARG:HE	56:BZ:122:ARG:NH2	2.18	0.40
48:BR:41:ALA:O	48:BR:42:LYS:C	2.64	0.40
50:BT:8:LYS:CA	50:BT:11:GLU:OE1	2.64	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: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
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
2:CB:10:LEU:O	2:CB:11:LEU:C	2.63	0.40
2:CB:213:LEU:HD23	2:CB:213:LEU:O	2.20	0.40
4:CD:114:ARG:CG	4:CD:114:ARG:NH1	2.78	0.40
4:CD:137:SER:O	4:CD:138:TYR:C	2.62	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:OE1	12:CL:127:GLU:HA	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
19:CS:67:VAL:C	19:CS:69:HIS:N	2.79	0.40
22:CY:76:8AN:H2	35:DA:2583:G:N3	2.37	0.40
25:D0:36:ILE:HD12	25:D0:36:ILE:C	2.46	0.40
27:D2:67:LYS:C	27:D2:69:ARG:N	2.79	0.40
31:D6:9:LEU:HD22	31:D6:11:LEU:HD22	2.03	0.40
35:DA:6:A:HO2'	44:DN:130:HIS:HB3	1.81	0.40
35:DA:633:A:C2'	35:DA:634:C:H5'	2.50	0.40
35:DA:790:C:O2'	35:DA:791:C:OP1	2.29	0.40
35:DA:995:C:O2	44:DN:4:TYR:OH	2.40	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
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
37:DC:58:VAL:HG21	37:DC:165:ASN:C	2.39	0.40
39:DE:75:VAL:C	39:DE:77:ILE:N	2.78	0.40
40:DF:25:PRO:HG3	40:DF:119:ARG:CG	2.51	0.40
40:DF:200:GLU:O	40:DF:203:GLN:HB2	2.22	0.40
41:DG:19:LEU:O	41:DG:20:ILE:C	2.64	0.40
42:DH:158:HIS:CE1	42:DH:168:PRO:HB2	2.56	0.40
43:DI:10:GLU:CD	43:DI:10:GLU:C	2.89	0.40
43:DI:30:LEU:O	43:DI:31:LEU:C	2.63	0.40
44:DN:25:ARG:HG3	44:DN:25:ARG:NH1	2.15	0.40
48:DR:2:ARG:HD2	48:DR:2:ARG:O	2.20	0.40
48:DR:41:ALA:O	48:DR:42:LYS:C	2.65	0.40
53:DW:40:ASN:C	53:DW:41:LYS:HG2	2.46	0.40
53:DW:48:ALA:O	53:DW:49:LYS:C	2.63	0.40
56:DZ:85:HIS:O	56:DZ:86:VAL:HG13	2.21	0.40
56:DZ:127:LYS:C	56:DZ:127:LYS:HD3	2.46	0.40
56:DZ:150:LEU:CD2	56:DZ:172:ALA:HB3	2.48	0.40
1:AA:35:G:H2'	1:AA:36:C:H6	1.85	0.40
1:AA:346:G:H5'	50:BT:41:ARG:CG	2.50	0.40
1:AA:398:C:H6	1:AA:398:C:O5'	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:AA:1124:G:C5'	10:AJ:35:SER:HB2	2.52	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
2:AB:223:ILE:HG12	2:AB:223:ILE:H	1.66	0.40
3:AC:33:LEU:HD21	14:AN:53:LEU:CD2	2.51	0.40
3:AC:131:ARG:NH1	5:AE:50:GLU:HG2	2.37	0.40
4:AD:107:ARG:C	4:AD:109:GLY:H	2.29	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:7:THR:HG21	9:AI:9:ARG:HH21	1.86	0.40
9:AI:24:GLY:O	9:AI:25:LYS:C	2.64	0.40
9:AI:66:ARG:CB	9:AI:66:ARG:NH1	2.83	0.40
9:AI:118:LYS:NZ	9:AI:118:LYS:HB3	2.36	0.40
10:AJ:24:VAL:CG2	10:AJ:37:PRO:HG3	2.51	0.40
11:AK:21:ILE:CG1	11:AK:94:ALA:HB1	2.50	0.40
13:AM:3:ARG:HB3	13:AM:9:ILE:HD11	2.03	0.40
13:AM:110:ARG:HG2	13:AM:110:ARG:NH1	2.34	0.40
17:AQ:18:THR:HG23	17:AQ:44:ALA:O	2.21	0.40
17:AQ:21:VAL:HG11	17:AQ:59:ILE:HD11	2.03	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
32:B7:7:PRO:HG3	35:BA:1612:C:H5'	2.02	0.40
33:B8:60:LEU:O	33:B8:63:PRO:HG2	2.22	0.40
35:BA:675:A:C6	35:BA:676:A:C6	3.09	0.40
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
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
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:2308:G:N2	41:BG:79:ASN:CG	2.80	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
41:BG:97:ASP:C	41:BG:99:MET:N	2.80	0.40
42:BH:48:GLY:O	42:BH:49:VAL:CG1	2.61	0.40
42:BH:85:LYS:CE	42:BH:145:ALA:HB2	2.50	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
52:BV:85:LYS:HB2	52:BV:85:LYS:NZ	2.35	0.40
55:BY:29:GLU:HB2	55:BY:38:ILE:HG13	2.04	0.40
55:BY:88:LYS:HZ3	55:BY:93:GLY:C	2.29	0.40
56:BZ:4:ARG:NH1	56:BZ:58:VAL:HG11	2.36	0.40
56:BZ:131:ARG:CG	56:BZ:132:ASN:N	2.85	0.40
56:BZ:150:LEU:C	56:BZ:150:LEU:CD2	2.94	0.40
1:CA:80:G:N7	1:CA:81:U:H5	2.19	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:406:G:H5''	4:CD:5:ILE:HD13	2.04	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:867:G:O2'	1:CA:868:C:H5'	2.20	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:1503:A:O2'	24:CX:13:A:N6	2.54	0.40
2:CB:46:LYS:O	2:CB:50:GLU:HG2	2.21	0.40
2:CB:59:GLU:C	2:CB:61:LEU:H	2.28	0.40
2:CB:168:THR:HG21	2:CB:192:SER:HA	2.04	0.40
2:CB:177:ALA:O	2:CB:178:ARG:C	2.64	0.40
3:CC:119:ARG:HE	3:CC:140:ARG:NE	2.20	0.40
4:CD:92:VAL:O	4:CD:93:PHE:C	2.64	0.40
6:CF:80:ARG:C	6:CF:82:ARG:N	2.75	0.40
7:CG:147:ALA:C	7:CG:148:ASN:HD22	2.29	0.40
9:CI:33:PHE:C	9:CI:35:GLU:N	2.78	0.40
9:CI:45:ALA:C	9:CI:47:LEU:N	2.79	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:121:ARG:HD3	9:CI:121:ARG:C	2.46	0.40
11:CK:84:VAL:HG11	11:CK:95:ILE:HD12	2.04	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
22:CV:75:C:OP1	35:DA:2602:A:P	2.80	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
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
35:DA:1048:A:N3	35:DA:1048:A:P	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
35:DA:1797:C:O3'	38:DD:259:THR:HG22	2.21	0.40
35:DA:2741:A:H2'	35:DA:2742:C:O4'	2.21	0.40
37:DC:187:ASP:C	37:DC:189:ILE:N	2.78	0.40
37:DC:188:ASN:C	37:DC:190:ARG:N	2.79	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:18:ARG:HH11	46:DP:18:ARG:C	2.30	0.40
46:DP:85:LEU:H	46:DP:85:LEU:CD2	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
51:DU:101:ARG:C	51:DU:102:GLU:HG2	2.47	0.40
56:DZ:61:LEU:CB	56:DZ:65:GLN:HB2	2.48	0.40
56:DZ:93:ASP:CA	56:DZ:130:PRO:HG2	2.40	0.40
56:DZ:99:TYR:HA	56:DZ:125:LEU:CA	2.47	0.40
1:AA:186:C:H1'	20:AT:85:MET:HE1	2.02	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
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
2:AB:28:PHE:CZ	2:AB:189:ASP:HA	2.56	0.40
2:AB:168:THR:HG21	2:AB:192:SER:HA	2.02	0.40
4:AD:114:ARG:CG	4:AD:114:ARG:NH1	2.76	0.40
4:AD:152:SER:C	4:AD:154:ASN:H	2.29	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:162:LEU:CD1	4:AD:181:MET:HE2	2.52	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
18:AR:53:ARG:CD	18:AR:63:GLN:HB2	2.52	0.40
19:AS:67:VAL:C	19:AS:69:HIS:N	2.80	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
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:62:C:O2	35:BA:93:G:N2	2.50	0.40
35:BA:257:A:C2'	35:BA:258:G:H5'	2.51	0.40
35:BA:271(P):C:H5''	43:BI:45:LYS:HE3	2.02	0.40
35:BA:746:A:H2'	35:BA:2612:C:H5''	2.03	0.40
35:BA:832:G:H21	46:BP:53:GLY:CA	2.35	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:1789:A:P	38:BD:222:ARG:HE	2.45	0.40
35:BA:2125:G:N2	35:BA:2172:U:H5'	2.34	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: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:2681:C:C5	35:BA:2725:A:N6	2.82	0.40
36:BB:15:A:C3'	36:BB:16:G:H5'	2.51	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
42:BH:158:HIS:CE1	42:BH:169:VAL:C	2.99	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
45:BO:43:VAL:H	45:BO:43:VAL:HG23	1.66	0.40
46:BP:16:ARG:NH1	46:BP:16:ARG:CB	2.83	0.40
46:BP:46:LYS:O	46:BP:47:ASP:HB2	2.20	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BT:7:ILE:O	50:BT:11:GLU:CD	2.64	0.40
50:BT:106:SER:HB2	50:BT:110:ILE:CD1	2.51	0.40
50:BT:112:ARG:HH11	50:BT:112:ARG:HB2	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:763:G:H2'	1:CA:764:C:C6	2.56	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
2:CB:134:GLU:HA	2:CB:137:ARG:HB3	2.02	0.40
3:CC:20:SER:OG	3:CC:36:ASP:OD1	2.40	0.40
3:CC:134:ILE:C	3:CC:136:GLN:N	2.79	0.40
3:CC:173:VAL:HG12	3:CC:175:LEU:HD21	2.03	0.40
4:CD:128:VAL:C	4:CD:130:GLY:N	2.79	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
12:CL:62:SER:C	12:CL:64:TYR:N	2.77	0.40
12:CL:100:ILE:CG2	12:CL:101:VAL:N	2.85	0.40
15:CO:15:PHE:CE2	15:CO:85:LEU:HD21	2.56	0.40
15:CO:37:ASN:N	15:CO:37:ASN:ND2	2.67	0.40
23:CW:39:U:O2	23:CW:39:U:O4'	2.38	0.40
27:D2:3:LEU:O	27:D2:4:SER:C	2.65	0.40
34:D9:30:PRO:HB2	35:DA:2527:C:C5'	2.52	0.40
35:DA:143:G:H5''	35:DA:1598:C:O2'	2.21	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:829:A:C8	35:DA:2248:C:H5'	2.57	0.40
35:DA:960:A:C4'	35:DA:2457:U:H4'	2.51	0.40
35:DA:1242:A:C5'	35:DA:1243:G:OP2	2.69	0.40
35:DA:1930:G:HO2'	35:DA:1931:U:P	2.44	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:2478:A:H2'	35:DA:2479:G:O4'	2.22	0.40
37:DC:46:LYS:O	37:DC:208:PHE:O	2.39	0.40
38:DD:153:ALA:C	38:DD:154:LYS:CG	2.94	0.40
38:DD:268:ARG:HB3	38:DD:268:ARG:NH1	2.37	0.40
39:DE:69:LYS:HE3	39:DE:90:THR:N	2.37	0.40
40:DF:65:TRP:C	40:DF:67:GLN:N	2.79	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DF:157:VAL:HA	40:DF:176:LEU:O	2.22	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:6:LEU:HD21	46:DP:9:ASN:HB3	2.02	0.40
46:DP:83:VAL:HG13	46:DP:114:ILE:HA	2.03	0.40
47:DQ:50:ALA:HB3	47:DQ:104:PHE:HE1	1.86	0.40
47:DQ:56:ARG:HA	47:DQ:56:ARG:NE	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:82:LEU:C	50:DT:84:GLN:N	2.70	0.40
50:DT:98:LYS:CG	50:DT:100:TYR:HE1	2.34	0.40
51:DU:49:HIS:O	51:DU:50:ARG:C	2.64	0.40
55:DY:76:CYS:CB	55:DY:96:ILE:HD11	2.23	0.40
1:AA:197:A:C6	1:AA:221:C:H5'	2.56	0.40
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
1:AA:1047:G:H5''	14:AN:4:LYS:HG2	2.03	0.40
2:AB:19:HIS:CG	2:AB:20:GLU:N	2.84	0.40
2:AB:237:ALA:C	2:AB:239:VAL:N	2.80	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
8:AH:11:THR:CG2	8:AH:14:ARG:HH12	2.29	0.40
9:AI:98:PRO:C	9:AI:100:GLY:N	2.79	0.40
11:AK:29:ILE:HD12	11:AK:30:VAL:N	2.37	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
30:B5:52:TYR:O	30:B5:53:ALA:C	2.64	0.40
33:B8:50:LEU:CG	33:B8:51:ALA:N	2.85	0.40
33:B8:63:PRO:C	33:B8:64:TYR:O	2.62	0.40
35:BA:94:C:O2	35:BA:94:C:H2'	2.21	0.40
35:BA:198:C:O5'	35:BA:198:C:H6	2.05	0.40
35:BA:633:A:C2'	35:BA:634:C:H5'	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1786:A:H2	35:BA:2606:C:H1'	1.83	0.40
35:BA:1857:G:N2	35:BA:1886:C:N4	2.69	0.40
35:BA:2313:C:C4'	41:BG:40:ASN:ND2	2.84	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: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
37:BC:49:ILE:HG22	37:BC:50:ASP:N	2.37	0.40
37:BC:68:LEU:HD11	37:BC:179:SER:HA	2.03	0.40
38:BD:25:THR:O	38:BD:26:LYS:HB3	2.22	0.40
38:BD:177:LEU:O	38:BD:180:GLY:N	2.51	0.40
38:BD:206:LEU:HD23	38:BD:206:LEU:HA	1.84	0.40
39:BE:33:VAL:HA	39:BE:49:LEU:HA	2.03	0.40
40:BF:113:ALA:HB1	40:BF:186:ILE:HG21	2.03	0.40
40:BF:116:ASP:OD2	46:BP:5:ASP:HB2	2.22	0.40
41:BG:67:LYS:HD2	41:BG:67:LYS:H	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:16:ARG:HG3	46:BP:17:LYS:N	2.37	0.40
46:BP:124:LYS:HD2	46:BP:124:LYS:HA	1.83	0.40
48:BR:12:ARG:CG	48:BR:12:ARG:NH1	2.83	0.40
51:BU:76:TYR:O	51:BU:77:SER:C	2.63	0.40
51:BU:95:LEU:C	51:BU:97:ASP:H	2.30	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: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
1:CA:1248:A:C2'	1:CA:1249:C:H5'	2.50	0.40
1:CA:1267:C:O2	21:CU:20:LYS:HD2	2.21	0.40
1:CA:1334:G:H3'	1:CA:1335:C:H5''	2.03	0.40
1:CA:1346:A:N6	1:CA:1375:A:OP2	2.50	0.40
1:CA:1371:G:OP2	9:CI:11:LYS:HD2	2.22	0.40
2:CB:14:GLY:O	2:CB:15:VAL:CG1	2.66	0.40
2:CB:70:PHE:HA	2:CB:163:PHE:O	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:84:GLU:O	2:CB:219:VAL:HG11	2.21	0.40
3:CC:180:ALA:O	3:CC:181:ASN:HB3	2.22	0.40
4:CD:98:GLU:HA	4:CD:103:ASN:ND2	2.37	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
7:CG:113:GLU:HG3	7:CG:119:ARG:HG2	2.04	0.40
8:CH:133:LEU:C	8:CH:133:LEU:HD23	2.46	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: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
11:CK:114:VAL:O	11:CK:114:VAL:HG13	2.21	0.40
12:CL:102:ARG:CG	12:CL:102:ARG:NH1	2.81	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
18:CR:53:ARG:C	18:CR:55:ARG:N	2.79	0.40
19:CS:15:LEU:O	19:CS:18:LYS:N	2.55	0.40
20:CT:26:ASN:HB2	20:CT:71:THR:CG2	2.48	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:78:A:O2'	35:DA:79:G:H5'	2.22	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:1669:A:O3'	35:DA:2549:G:H5'	2.20	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
38:DD:2:ALA:O	38:DD:3:VAL:CB	2.69	0.40
38:DD:31:LYS:O	38:DD:36:PRO:HD3	2.22	0.40
38:DD:35:LYS:HE3	38:DD:36:PRO:N	2.35	0.40
38:DD:155:LEU:HD12	38:DD:155:LEU:N	2.35	0.40
39:DE:3:GLY:O	39:DE:4:ILE:HB	2.22	0.40
40:DF:117:ARG:CZ	46:DP:5:ASP:N	2.84	0.40
41:DG:15:VAL:HG22	41:DG:175:LEU:HB3	2.03	0.40
41:DG:63:ILE:HG22	41:DG:143:GLU:HB2	2.03	0.40
41:DG:72:ARG:HG2	41:DG:86:MET:HA	2.03	0.40
41:DG:83:ARG:CZ	41:DG:84:LYS:NZ	2.84	0.40
41:DG:114:ILE:O	41:DG:114:ILE:HG22	2.21	0.40
43:DI:61:ARG:HB3	43:DI:133:HIS:CE1	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DI:83:ALA:HB1	43:DI:87:LYS:O	2.21	0.40
45:DO:9:GLU:OE2	45:DO:9:GLU:HA	2.22	0.40
45:DO:89:ASN:C	45:DO:91:LEU:N	2.79	0.40
46:DP:131:SER:O	46:DP:132:LYS:C	2.64	0.40
48:DR:29:LEU:HB3	48:DR:75:LEU:HD11	2.03	0.40
49:DS:101:LEU:C	49:DS:101:LEU:CD2	2.94	0.40
50:DT:58:ASN:C	50:DT:58:ASN:ND2	2.77	0.40
50:DT:89:VAL:HB	50:DT:91:ARG:CD	2.52	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:47:LYS:O	55:DY:48:ALA:C	2.64	0.40
55:DY:48:ALA:C	55:DY:50:ARG:N	2.78	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 [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	AB	233/256 (91%)	138 (59%)	63 (27%)	32 (14%)	0	3
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	6
3	CC	205/239 (86%)	128 (62%)	56 (27%)	21 (10%)	0	6
4	AD	206/209 (99%)	149 (72%)	39 (19%)	18 (9%)	0	7
4	CD	206/209 (99%)	150 (73%)	38 (18%)	18 (9%)	0	7
5	AE	149/162 (92%)	115 (77%)	23 (15%)	11 (7%)	1	9
5	CE	149/162 (92%)	115 (77%)	22 (15%)	12 (8%)	1	8
6	AF	99/101 (98%)	78 (79%)	16 (16%)	5 (5%)	1	15

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
6	CF	99/101 (98%)	79 (80%)	15 (15%)	5 (5%)	1	15
7	AG	153/156 (98%)	111 (72%)	36 (24%)	6 (4%)	2	20
7	CG	153/156 (98%)	111 (72%)	36 (24%)	6 (4%)	2	20
8	AH	136/138 (99%)	107 (79%)	25 (18%)	4 (3%)	3	26
8	CH	136/138 (99%)	108 (79%)	24 (18%)	4 (3%)	3	26
9	AI	121/128 (94%)	85 (70%)	23 (19%)	13 (11%)	0	5
9	CI	121/128 (94%)	83 (69%)	26 (22%)	12 (10%)	0	6
10	AJ	97/105 (92%)	62 (64%)	25 (26%)	10 (10%)	0	5
10	CJ	97/105 (92%)	63 (65%)	24 (25%)	10 (10%)	0	5
11	AK	117/129 (91%)	86 (74%)	26 (22%)	5 (4%)	2	18
11	CK	117/129 (91%)	88 (75%)	24 (20%)	5 (4%)	2	18
12	AL	123/135 (91%)	82 (67%)	27 (22%)	14 (11%)	0	5
12	CL	123/135 (91%)	83 (68%)	26 (21%)	14 (11%)	0	5
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
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	6
15	CO	86/89 (97%)	57 (66%)	21 (24%)	8 (9%)	0	6
16	AP	82/88 (93%)	60 (73%)	20 (24%)	2 (2%)	4	29
16	CP	82/88 (93%)	59 (72%)	21 (26%)	2 (2%)	4	29
17	AQ	98/105 (93%)	74 (76%)	20 (20%)	4 (4%)	2	19
17	CQ	98/105 (93%)	76 (78%)	19 (19%)	3 (3%)	3	25
18	AR	68/88 (77%)	41 (60%)	14 (21%)	13 (19%)	0	1
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	5
20	CT	97/106 (92%)	71 (73%)	16 (16%)	10 (10%)	0	5
21	AU	23/27 (85%)	13 (56%)	8 (35%)	2 (9%)	0	7
21	CU	23/27 (85%)	13 (56%)	8 (35%)	2 (9%)	0	7

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
25	B0	82/85 (96%)	65 (79%)	14 (17%)	3 (4%)	2	21
25	D0	82/85 (96%)	61 (74%)	17 (21%)	4 (5%)	1	16
26	B1	92/98 (94%)	65 (71%)	17 (18%)	10 (11%)	0	5
26	D1	92/98 (94%)	66 (72%)	18 (20%)	8 (9%)	0	7
27	B2	69/72 (96%)	43 (62%)	19 (28%)	7 (10%)	0	6
27	D2	69/72 (96%)	37 (54%)	23 (33%)	9 (13%)	0	3
28	B3	58/60 (97%)	48 (83%)	7 (12%)	3 (5%)	1	14
28	D3	58/60 (97%)	48 (83%)	7 (12%)	3 (5%)	1	14
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	1
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
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%)	0	7
38	DD	270/276 (98%)	205 (76%)	38 (14%)	27 (10%)	0	6
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	3
41	BG	177/182 (97%)	107 (60%)	50 (28%)	20 (11%)	0	5
41	DG	177/182 (97%)	108 (61%)	45 (25%)	24 (14%)	0	3
42	BH	158/180 (88%)	99 (63%)	32 (20%)	27 (17%)	0	2

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
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	2
43	DI	144/148 (97%)	85 (59%)	37 (26%)	22 (15%)	0	2
44	BN	137/140 (98%)	90 (66%)	30 (22%)	17 (12%)	0	4
44	DN	137/140 (98%)	91 (66%)	29 (21%)	17 (12%)	0	4
45	BO	120/122 (98%)	91 (76%)	21 (18%)	8 (7%)	1	11
45	DO	120/122 (98%)	88 (73%)	24 (20%)	8 (7%)	1	11
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	13
47	DQ	139/141 (99%)	106 (76%)	23 (16%)	10 (7%)	1	9
48	BR	115/118 (98%)	83 (72%)	18 (16%)	14 (12%)	0	4
48	DR	115/118 (98%)	83 (72%)	18 (16%)	14 (12%)	0	4
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
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	12
51	DU	115/118 (98%)	86 (75%)	20 (17%)	9 (8%)	1	8
52	BV	99/101 (98%)	62 (63%)	22 (22%)	15 (15%)	0	2
52	DV	99/101 (98%)	63 (64%)	21 (21%)	15 (15%)	0	2
53	BW	111/113 (98%)	87 (78%)	15 (14%)	9 (8%)	1	8
53	DW	111/113 (98%)	88 (79%)	15 (14%)	8 (7%)	1	9
54	BX	91/96 (95%)	74 (81%)	14 (15%)	3 (3%)	3	23
54	DX	91/96 (95%)	74 (81%)	13 (14%)	4 (4%)	2	17
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	3
56	DZ	175/206 (85%)	103 (59%)	45 (26%)	27 (15%)	0	2
All	All	11670/12592 (93%)	7783 (67%)	2440 (21%)	1447 (12%)	0	4

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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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	27
2	CB	202/220 (92%)	183 (91%)	19 (9%)	8	31
3	AC	160/188 (85%)	151 (94%)	9 (6%)	19	46
3	CC	160/188 (85%)	151 (94%)	9 (6%)	19	46
4	AD	180/181 (99%)	159 (88%)	21 (12%)	5	24
4	CD	180/181 (99%)	161 (89%)	19 (11%)	6	27
5	AE	115/123 (94%)	108 (94%)	7 (6%)	17	43
5	CE	115/123 (94%)	108 (94%)	7 (6%)	17	43
6	AF	90/90 (100%)	85 (94%)	5 (6%)	19	46
6	CF	90/90 (100%)	84 (93%)	6 (7%)	15	41

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
7	AG	126/127 (99%)	116 (92%)	10 (8%)	11	36
7	CG	126/127 (99%)	116 (92%)	10 (8%)	11	36
8	AH	119/119 (100%)	107 (90%)	12 (10%)	7	28
8	CH	119/119 (100%)	107 (90%)	12 (10%)	7	28
9	AI	98/99 (99%)	89 (91%)	9 (9%)	8	32
9	CI	98/99 (99%)	89 (91%)	9 (9%)	8	32
10	AJ	88/92 (96%)	77 (88%)	11 (12%)	4	22
10	CJ	88/92 (96%)	77 (88%)	11 (12%)	4	22
11	AK	90/99 (91%)	85 (94%)	5 (6%)	19	46
11	CK	90/99 (91%)	86 (96%)	4 (4%)	25	51
12	AL	104/111 (94%)	94 (90%)	10 (10%)	8	30
12	CL	104/111 (94%)	93 (89%)	11 (11%)	6	27
13	AM	99/101 (98%)	89 (90%)	10 (10%)	7	28
13	CM	99/101 (98%)	89 (90%)	10 (10%)	7	28
14	AN	49/50 (98%)	46 (94%)	3 (6%)	17	43
14	CN	49/50 (98%)	46 (94%)	3 (6%)	17	43
15	AO	79/80 (99%)	71 (90%)	8 (10%)	7	28
15	CO	79/80 (99%)	71 (90%)	8 (10%)	7	28
16	AP	72/74 (97%)	61 (85%)	11 (15%)	3	16
16	CP	72/74 (97%)	62 (86%)	10 (14%)	3	19
17	AQ	94/97 (97%)	88 (94%)	6 (6%)	16	42
17	CQ	94/97 (97%)	88 (94%)	6 (6%)	16	42
18	AR	61/77 (79%)	55 (90%)	6 (10%)	7	30
18	CR	61/77 (79%)	55 (90%)	6 (10%)	7	30
19	AS	69/80 (86%)	58 (84%)	11 (16%)	2	14
19	CS	69/80 (86%)	57 (83%)	12 (17%)	2	11
20	AT	76/82 (93%)	72 (95%)	4 (5%)	20	47
20	CT	76/82 (93%)	72 (95%)	4 (5%)	20	47
21	AU	19/22 (86%)	18 (95%)	1 (5%)	20	47
21	CU	19/22 (86%)	18 (95%)	1 (5%)	20	47
25	B0	66/67 (98%)	60 (91%)	6 (9%)	9	32

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
25	D0	66/67 (98%)	59 (89%)	7 (11%)	6	27
26	B1	78/83 (94%)	66 (85%)	12 (15%)	2	16
26	D1	78/83 (94%)	65 (83%)	13 (17%)	2	13
27	B2	66/67 (98%)	55 (83%)	11 (17%)	2	13
27	D2	66/67 (98%)	58 (88%)	8 (12%)	5	22
28	B3	51/52 (98%)	48 (94%)	3 (6%)	18	44
28	D3	51/52 (98%)	48 (94%)	3 (6%)	18	44
29	B4	27/63 (43%)	24 (89%)	3 (11%)	6	25
29	D4	27/63 (43%)	24 (89%)	3 (11%)	6	25
30	B5	51/52 (98%)	42 (82%)	9 (18%)	2	11
30	D5	51/52 (98%)	42 (82%)	9 (18%)	2	11
31	B6	43/52 (83%)	33 (77%)	10 (23%)	1	5
31	D6	43/52 (83%)	32 (74%)	11 (26%)	0	3
32	B7	41/42 (98%)	35 (85%)	6 (15%)	3	17
32	D7	41/42 (98%)	35 (85%)	6 (15%)	3	17
33	B8	53/55 (96%)	44 (83%)	9 (17%)	2	12
33	D8	53/55 (96%)	43 (81%)	10 (19%)	1	9
34	B9	33/34 (97%)	30 (91%)	3 (9%)	9	32
34	D9	33/34 (97%)	30 (91%)	3 (9%)	9	32
37	BC	61/181 (34%)	52 (85%)	9 (15%)	3	17
37	DC	61/181 (34%)	52 (85%)	9 (15%)	3	17
38	BD	213/218 (98%)	178 (84%)	35 (16%)	2	14
38	DD	213/218 (98%)	178 (84%)	35 (16%)	2	14
39	BE	165/166 (99%)	141 (86%)	24 (14%)	3	17
39	DE	165/166 (99%)	140 (85%)	25 (15%)	3	16
40	BF	165/166 (99%)	145 (88%)	20 (12%)	5	22
40	DF	165/166 (99%)	146 (88%)	19 (12%)	5	24
41	BG	155/156 (99%)	132 (85%)	23 (15%)	3	17
41	DG	155/156 (99%)	135 (87%)	20 (13%)	4	21
42	BH	132/148 (89%)	119 (90%)	13 (10%)	7	30
42	DH	132/148 (89%)	120 (91%)	12 (9%)	9	32

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
43	BI	122/124 (98%)	114 (93%)	8 (7%)	15	41
43	DI	122/124 (98%)	114 (93%)	8 (7%)	15	41
44	BN	117/119 (98%)	99 (85%)	18 (15%)	2	16
44	DN	117/119 (98%)	99 (85%)	18 (15%)	2	16
45	BO	100/100 (100%)	85 (85%)	15 (15%)	3	17
45	DO	100/100 (100%)	86 (86%)	14 (14%)	3	19
46	BP	112/116 (97%)	94 (84%)	18 (16%)	2	14
46	DP	112/116 (97%)	95 (85%)	17 (15%)	3	16
47	BQ	111/111 (100%)	94 (85%)	17 (15%)	3	16
47	DQ	111/111 (100%)	93 (84%)	18 (16%)	2	14
48	BR	100/101 (99%)	87 (87%)	13 (13%)	4	21
48	DR	100/101 (99%)	87 (87%)	13 (13%)	4	21
49	BS	77/88 (88%)	67 (87%)	10 (13%)	4	21
49	DS	77/88 (88%)	67 (87%)	10 (13%)	4	21
50	BT	120/127 (94%)	102 (85%)	18 (15%)	3	17
50	DT	120/127 (94%)	101 (84%)	19 (16%)	2	15
51	BU	92/94 (98%)	78 (85%)	14 (15%)	3	16
51	DU	92/94 (98%)	78 (85%)	14 (15%)	3	16
52	BV	82/82 (100%)	65 (79%)	17 (21%)	1	6
52	DV	82/82 (100%)	66 (80%)	16 (20%)	1	8
53	BW	91/92 (99%)	83 (91%)	8 (9%)	9	32
53	DW	91/92 (99%)	83 (91%)	8 (9%)	9	32
54	BX	74/78 (95%)	66 (89%)	8 (11%)	6	26
54	DX	74/78 (95%)	65 (88%)	9 (12%)	5	22
55	BY	84/91 (92%)	67 (80%)	17 (20%)	1	7
55	DY	84/91 (92%)	67 (80%)	17 (20%)	1	7
56	BZ	155/179 (87%)	134 (86%)	21 (14%)	4	20
56	DZ	155/179 (87%)	135 (87%)	20 (13%)	4	21
All	All	9654/10432 (92%)	8505 (88%)	1149 (12%)	5	23

All (1149) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	15	VAL
2	AB	16	HIS
2	AB	17	PHE
2	AB	20	GLU
2	AB	32	ILE
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	140	HIS
2	AB	154	LEU
2	AB	172	ILE
2	AB	178	ARG
2	AB	196	LEU
2	AB	217	ARG
2	AB	221	LEU
2	AB	223	ILE
3	AC	14	ILE
3	AC	16	ARG
3	AC	18	TRP
3	AC	28	GLN
3	AC	34	LEU
3	AC	52	LEU
3	AC	152	ILE
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	24	GLU
4	AD	26	CYS
4	AD	36	ARG
4	AD	38	TYR
4	AD	49	ARG
4	AD	86	LYS
4	AD	96	LEU

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Mol	Chain	Res	Type
4	AD	97	LEU
4	AD	114	ARG
4	AD	127	THR
4	AD	138	TYR
4	AD	146	ILE
4	AD	150	GLU
4	AD	158	ILE
4	AD	162	LEU
5	AE	10	MET
5	AE	41	VAL
5	AE	51	VAL
5	AE	79	GLU
5	AE	101	ILE
5	AE	116	THR
5	AE	131	ILE
6	AF	16	GLN
6	AF	80	ARG
6	AF	92	LYS
6	AF	94	GLN
6	AF	98	LEU
7	AG	58	PRO
7	AG	79	ARG
7	AG	111	ARG
7	AG	113	GLU
7	AG	114	ARG
7	AG	124	LEU
7	AG	137	LYS
7	AG	143	ARG
7	AG	148	ASN
7	AG	151	TYR
8	AH	1	MET
8	AH	24	THR
8	AH	26	VAL
8	AH	34	GLU
8	AH	52	ASP
8	AH	63	LEU
8	AH	81	HIS
8	AH	84	ARG
8	AH	85	ARG
8	AH	88	LYS
8	AH	99	GLU
8	AH	119	LEU

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Mol	Chain	Res	Type
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	109	VAL
9	AI	114	TYR
9	AI	116	LYS
10	AJ	8	LEU
10	AJ	16	LEU
10	AJ	45	ARG
10	AJ	50	ILE
10	AJ	60	ARG
10	AJ	62	HIS
10	AJ	67	THR
10	AJ	74	ILE
10	AJ	80	LYS
10	AJ	90	LEU
10	AJ	96	ILE
11	AK	29	ILE
11	AK	39	PRO
11	AK	95	ILE
11	AK	112	THR
11	AK	125	PHE
12	AL	6	THR
12	AL	24	VAL
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
13	AM	19	LEU
13	AM	48	LEU
13	AM	50	GLU
13	AM	65	LYS
13	AM	82	MET
13	AM	93	ARG
13	AM	102	ARG

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Mol	Chain	Res	Type
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	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	58	TYR
16	AP	67	THR
16	AP	69	THR
16	AP	80	PHE
16	AP	82	GLN
17	AQ	14	LYS
17	AQ	38	ARG
17	AQ	52	LYS
17	AQ	59	ILE
17	AQ	60	ILE
17	AQ	74	LEU
18	AR	40	LEU
18	AR	47	THR
18	AR	53	ARG
18	AR	65	ILE
18	AR	86	VAL
18	AR	88	LYS
19	AS	6	LYS
19	AS	7	LYS
19	AS	11	VAL
19	AS	27	GLU
19	AS	29	ARG

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Mol	Chain	Res	Type
19	AS	31	ILE
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	93	GLU
21	AU	25	LYS
25	B0	10	THR
25	B0	20	ARG
25	B0	36	ILE
25	B0	41	ARG
25	B0	70	GLN
25	B0	75	LEU
26	B1	14	VAL
26	B1	40	ARG
26	B1	41	ARG
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	80	LEU
26	B1	82	LEU
26	B1	92	LYS
27	B2	2	LYS
27	B2	3	LEU
27	B2	9	GLN
27	B2	17	SER
27	B2	29	LYS
27	B2	34	GLU
27	B2	35	LEU
27	B2	50	ILE
27	B2	56	GLN
27	B2	63	VAL
27	B2	64	LEU
28	B3	6	VAL
28	B3	17	LYS

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Mol	Chain	Res	Type
28	B3	58	VAL
29	B4	48	ILE
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	55	ARG
31	B6	9	LEU
31	B6	12	GLU
31	B6	17	LYS
31	B6	18	ARG
31	B6	19	ARG
31	B6	28	ARG
31	B6	31	PRO
31	B6	41	PRO
31	B6	42	TRP
31	B6	48	VAL
32	B7	1	MET
32	B7	4	THR
32	B7	30	VAL
32	B7	36	GLN
32	B7	41	ARG
32	B7	43	THR
33	B8	6	THR
33	B8	30	ARG
33	B8	31	HIS
33	B8	32	LEU
33	B8	34	TRP
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

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Mol	Chain	Res	Type
37	BC	36	LYS
37	BC	47	LEU
37	BC	49	ILE
37	BC	56	GLN
37	BC	66	HIS
37	BC	85	GLU
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	30	GLU
38	BD	33	LEU
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	73	VAL
38	BD	87	ASN
38	BD	92	ILE
38	BD	94	LEU
38	BD	103	ARG
38	BD	106	ILE
38	BD	116	GLN
38	BD	131	LEU
38	BD	133	LEU
38	BD	147	LEU
38	BD	166	GLN
38	BD	173	VAL
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	270	ILE

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Mol	Chain	Res	Type
38	BD	271	ILE
39	BE	9	VAL
39	BE	23	VAL
39	BE	33	VAL
39	BE	34	VAL
39	BE	36	ARG
39	BE	54	GLN
39	BE	73	GLU
39	BE	78	LEU
39	BE	86	PRO
39	BE	95	ILE
39	BE	118	LYS
39	BE	119	ARG
39	BE	132	HIS
39	BE	134	ILE
39	BE	144	ARG
39	BE	154	LYS
39	BE	165	VAL
39	BE	176	ILE
39	BE	181	LEU
39	BE	183	LEU
39	BE	184	VAL
39	BE	197	ILE
39	BE	202	LYS
39	BE	203	LYS
40	BF	2	LYS
40	BF	17	ARG
40	BF	19	GLU
40	BF	23	ASP
40	BF	24	LEU
40	BF	28	ILE
40	BF	33	LEU
40	BF	64	ILE
40	BF	66	PRO
40	BF	78	ILE
40	BF	88	VAL
40	BF	100	THR
40	BF	102	PRO
40	BF	110	LEU
40	BF	125	LEU
40	BF	170	LEU
40	BF	183	VAL

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Mol	Chain	Res	Type
40	BF	192	LEU
40	BF	196	LEU
40	BF	197	ASP
41	BG	5	VAL
41	BG	16	ARG
41	BG	21	ARG
41	BG	28	VAL
41	BG	39	ILE
41	BG	43	LEU
41	BG	53	LEU
41	BG	60	LEU
41	BG	87	PRO
41	BG	88	ILE
41	BG	91	ARG
41	BG	96	ARG
41	BG	101	ILE
41	BG	105	LYS
41	BG	113	ARG
41	BG	114	ILE
41	BG	115	ARG
41	BG	125	PHE
41	BG	138	GLN
41	BG	139	LEU
41	BG	153	ARG
41	BG	159	VAL
41	BG	164	GLU
42	BH	13	LYS
42	BH	34	GLU
42	BH	43	VAL
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
42	BH	157	TYR
42	BH	163	TYR
42	BH	170	ARG
43	BI	3	VAL
43	BI	15	VAL
43	BI	38	LEU

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Mol	Chain	Res	Type
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	15	LEU
44	BN	22	THR
44	BN	23	LEU
44	BN	25	ARG
44	BN	28	THR
44	BN	34	LEU
44	BN	39	ARG
44	BN	48	MET
44	BN	60	ILE
44	BN	63	THR
44	BN	87	LEU
44	BN	89	LYS
44	BN	93	THR
44	BN	99	LEU
44	BN	101	HIS
44	BN	108	PRO
44	BN	119	ARG
45	BO	7	TYR
45	BO	17	ARG
45	BO	22	ILE
45	BO	24	VAL
45	BO	32	TYR
45	BO	47	ILE
45	BO	48	PRO
45	BO	57	VAL
45	BO	58	VAL
45	BO	69	ILE
45	BO	80	ASP
45	BO	86	ILE
45	BO	89	ASN
45	BO	105	GLU
45	BO	117	LEU
46	BP	6	LEU
46	BP	13	ASN
46	BP	16	ARG
46	BP	18	ARG

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Mol	Chain	Res	Type
46	BP	39	LYS
46	BP	57	THR
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	112	LEU
46	BP	125	VAL
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	42	ILE
47	BQ	45	GLN
47	BQ	55	VAL
47	BQ	56	ARG
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
48	BR	76	VAL
48	BR	79	LEU
48	BR	81	ASP
48	BR	99	LYS
48	BR	100	LEU

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Mol	Chain	Res	Type
48	BR	104	ARG
48	BR	113	LEU
49	BS	20	ARG
49	BS	36	TYR
49	BS	56	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
49	BS	103	GLU
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	49	VAL
50	BT	51	ARG
50	BT	53	ARG
50	BT	58	ASN
50	BT	59	THR
50	BT	72	VAL
50	BT	93	ARG
50	BT	95	ARG
50	BT	113	LYS
50	BT	115	ARG
50	BT	125	ARG
50	BT	128	GLU
51	BU	8	VAL
51	BU	9	VAL
51	BU	15	LYS
51	BU	27	LEU
51	BU	34	LYS
51	BU	56	ASP
51	BU	60	LEU
51	BU	64	ARG
51	BU	74	LEU
51	BU	83	LEU
51	BU	92	ARG
51	BU	102	GLU

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Mol	Chain	Res	Type
51	BU	104	GLN
51	BU	114	LYS
52	BV	1	MET
52	BV	13	ARG
52	BV	16	PRO
52	BV	18	LEU
52	BV	19	LYS
52	BV	20	LEU
52	BV	21	ARG
52	BV	39	LEU
52	BV	40	LEU
52	BV	52	VAL
52	BV	68	LYS
52	BV	79	VAL
52	BV	85	LYS
52	BV	89	GLN
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	36	LYS
54	BX	57	LEU
54	BX	64	LYS
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	19	LYS
55	BY	27	VAL
55	BY	28	LYS

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Mol	Chain	Res	Type
55	BY	29	GLU
55	BY	32	PRO
55	BY	39	VAL
55	BY	47	LYS
55	BY	56	PRO
55	BY	62	GLU
55	BY	66	PRO
55	BY	76	CYS
55	BY	77	PRO
55	BY	91	GLU
56	BZ	5	LEU
56	BZ	11	GLU
56	BZ	14	LYS
56	BZ	15	PRO
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	87	ASP
56	BZ	88	PHE
56	BZ	93	ASP
56	BZ	99	TYR
56	BZ	121	HIS
56	BZ	126	VAL
56	BZ	144	LEU
56	BZ	146	ILE
56	BZ	150	LEU
2	CB	15	VAL
2	CB	16	HIS
2	CB	17	PHE
2	CB	20	GLU
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

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Mol	Chain	Res	Type
2	CB	130	ARG
2	CB	140	HIS
2	CB	154	LEU
2	CB	172	ILE
2	CB	178	ARG
2	CB	196	LEU
2	CB	217	ARG
2	CB	221	LEU
3	CC	14	ILE
3	CC	16	ARG
3	CC	18	TRP
3	CC	28	GLN
3	CC	34	LEU
3	CC	52	LEU
3	CC	152	ILE
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	36	ARG
4	CD	49	ARG
4	CD	86	LYS
4	CD	96	LEU
4	CD	97	LEU
4	CD	114	ARG
4	CD	127	THR
4	CD	138	TYR
4	CD	146	ILE
4	CD	150	GLU
4	CD	158	ILE
4	CD	162	LEU
5	CE	10	MET
5	CE	41	VAL
5	CE	51	VAL
5	CE	79	GLU
5	CE	101	ILE
5	CE	116	THR

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Mol	Chain	Res	Type
5	CE	131	ILE
6	CF	16	GLN
6	CF	25	ILE
6	CF	80	ARG
6	CF	92	LYS
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	143	ARG
7	CG	148	ASN
7	CG	151	TYR
8	CH	1	MET
8	CH	24	THR
8	CH	26	VAL
8	CH	34	GLU
8	CH	52	ASP
8	CH	63	LEU
8	CH	81	HIS
8	CH	84	ARG
8	CH	85	ARG
8	CH	88	LYS
8	CH	99	GLU
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	109	VAL
9	CI	114	TYR
9	CI	116	LYS
10	CJ	8	LEU
10	CJ	16	LEU
10	CJ	45	ARG
10	CJ	50	ILE

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Mol	Chain	Res	Type
10	CJ	60	ARG
10	CJ	62	HIS
10	CJ	67	THR
10	CJ	74	ILE
10	CJ	80	LYS
10	CJ	90	LEU
10	CJ	96	ILE
11	CK	29	ILE
11	CK	39	PRO
11	CK	95	ILE
11	CK	125	PHE
12	CL	6	THR
12	CL	24	VAL
12	CL	41	ARG
12	CL	42	THR
12	CL	43	VAL
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	19	LEU
13	CM	48	LEU
13	CM	50	GLU
13	CM	65	LYS
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	71	GLN
15	CO	82	ILE

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Mol	Chain	Res	Type
15	CO	85	LEU
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	58	TYR
16	CP	69	THR
16	CP	80	PHE
16	CP	82	GLN
17	CQ	14	LYS
17	CQ	38	ARG
17	CQ	52	LYS
17	CQ	59	ILE
17	CQ	60	ILE
17	CQ	74	LEU
18	CR	40	LEU
18	CR	47	THR
18	CR	53	ARG
18	CR	65	ILE
18	CR	86	VAL
18	CR	88	LYS
19	CS	6	LYS
19	CS	7	LYS
19	CS	11	VAL
19	CS	15	LEU
19	CS	27	GLU
19	CS	29	ARG
19	CS	31	ILE
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	93	GLU
21	CU	25	LYS
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	53	MET
25	D0	70	GLN
25	D0	75	LEU
26	D1	13	ILE
26	D1	34	THR
26	D1	40	ARG
26	D1	41	ARG
26	D1	43	TYR
26	D1	46	LEU
26	D1	52	ARG
26	D1	56	GLN
26	D1	72	GLU
26	D1	80	LEU
26	D1	82	LEU
26	D1	90	ILE
26	D1	92	LYS
27	D2	2	LYS
27	D2	3	LEU
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	6	VAL
28	D3	17	LYS
28	D3	58	VAL
29	D4	48	ILE
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	51	TYR
30	D5	52	TYR
30	D5	55	ARG
31	D6	9	LEU

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Mol	Chain	Res	Type
31	D6	12	GLU
31	D6	17	LYS
31	D6	18	ARG
31	D6	19	ARG
31	D6	28	ARG
31	D6	31	PRO
31	D6	32	ASN
31	D6	41	PRO
31	D6	42	TRP
31	D6	48	VAL
32	D7	1	MET
32	D7	4	THR
32	D7	30	VAL
32	D7	36	GLN
32	D7	41	ARG
32	D7	43	THR
33	D8	6	THR
33	D8	30	ARG
33	D8	31	HIS
33	D8	32	LEU
33	D8	34	TRP
33	D8	36	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	47	LEU
37	DC	49	ILE
37	DC	56	GLN
37	DC	66	HIS
37	DC	85	GLU
37	DC	92	ASP
37	DC	94	VAL
38	DD	10	THR
38	DD	20	ASP
38	DD	24	ILE
38	DD	26	LYS

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Mol	Chain	Res	Type
38	DD	30	GLU
38	DD	33	LEU
38	DD	35	LYS
38	DD	37	LEU
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	73	VAL
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	131	LEU
38	DD	133	LEU
38	DD	147	LEU
38	DD	166	GLN
38	DD	173	VAL
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	270	ILE
38	DD	271	ILE
39	DE	5	LEU
39	DE	9	VAL
39	DE	23	VAL
39	DE	33	VAL
39	DE	34	VAL
39	DE	36	ARG
39	DE	54	GLN
39	DE	73	GLU
39	DE	78	LEU
39	DE	86	PRO
39	DE	95	ILE

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Mol	Chain	Res	Type
39	DE	118	LYS
39	DE	119	ARG
39	DE	132	HIS
39	DE	134	ILE
39	DE	144	ARG
39	DE	154	LYS
39	DE	165	VAL
39	DE	176	ILE
39	DE	181	LEU
39	DE	183	LEU
39	DE	184	VAL
39	DE	197	ILE
39	DE	202	LYS
39	DE	203	LYS
40	DF	2	LYS
40	DF	19	GLU
40	DF	23	ASP
40	DF	24	LEU
40	DF	28	ILE
40	DF	33	LEU
40	DF	64	ILE
40	DF	66	PRO
40	DF	78	ILE
40	DF	88	VAL
40	DF	100	THR
40	DF	102	PRO
40	DF	110	LEU
40	DF	125	LEU
40	DF	170	LEU
40	DF	183	VAL
40	DF	192	LEU
40	DF	196	LEU
40	DF	197	ASP
41	DG	3	LEU
41	DG	16	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	87	PRO

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Mol	Chain	Res	Type
41	DG	88	ILE
41	DG	91	ARG
41	DG	101	ILE
41	DG	105	LYS
41	DG	113	ARG
41	DG	123	ASN
41	DG	125	PHE
41	DG	130	ASN
41	DG	159	VAL
41	DG	161	THR
41	DG	164	GLU
42	DH	13	LYS
42	DH	34	GLU
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	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	15	LEU
44	DN	22	THR
44	DN	23	LEU
44	DN	25	ARG
44	DN	28	THR
44	DN	34	LEU
44	DN	39	ARG
44	DN	48	MET
44	DN	60	ILE
44	DN	63	THR

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Mol	Chain	Res	Type
44	DN	87	LEU
44	DN	89	LYS
44	DN	93	THR
44	DN	99	LEU
44	DN	101	HIS
44	DN	108	PRO
44	DN	119	ARG
45	DO	7	TYR
45	DO	17	ARG
45	DO	22	ILE
45	DO	24	VAL
45	DO	32	TYR
45	DO	47	ILE
45	DO	48	PRO
45	DO	57	VAL
45	DO	58	VAL
45	DO	69	ILE
45	DO	80	ASP
45	DO	86	ILE
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	39	LYS
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	112	LEU
46	DP	125	VAL
46	DP	130	PHE
47	DQ	1	MET
47	DQ	5	ARG
47	DQ	17	LEU
47	DQ	26	TYR

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Mol	Chain	Res	Type
47	DQ	29	PHE
47	DQ	42	ILE
47	DQ	45	GLN
47	DQ	55	VAL
47	DQ	56	ARG
47	DQ	58	PHE
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
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	76	VAL
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	20	ARG
49	DS	36	TYR
49	DS	56	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	103	GLU
50	DT	13	ARG
50	DT	14	TYR
50	DT	17	THR
50	DT	24	PRO
50	DT	32	TYR

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Mol	Chain	Res	Type
50	DT	42	ILE
50	DT	49	VAL
50	DT	51	ARG
50	DT	53	ARG
50	DT	58	ASN
50	DT	59	THR
50	DT	72	VAL
50	DT	93	ARG
50	DT	95	ARG
50	DT	99	LEU
50	DT	113	LYS
50	DT	115	ARG
50	DT	125	ARG
50	DT	128	GLU
51	DU	8	VAL
51	DU	9	VAL
51	DU	15	LYS
51	DU	27	LEU
51	DU	34	LYS
51	DU	56	ASP
51	DU	60	LEU
51	DU	64	ARG
51	DU	74	LEU
51	DU	83	LEU
51	DU	92	ARG
51	DU	102	GLU
51	DU	104	GLN
51	DU	114	LYS
52	DV	1	MET
52	DV	13	ARG
52	DV	16	PRO
52	DV	18	LEU
52	DV	19	LYS
52	DV	20	LEU
52	DV	21	ARG
52	DV	39	LEU
52	DV	40	LEU
52	DV	49	THR
52	DV	68	LYS
52	DV	79	VAL
52	DV	85	LYS
52	DV	91	TYR

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Mol	Chain	Res	Type
52	DV	95	LEU
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	8	ILE
54	DX	12	VAL
54	DX	27	THR
54	DX	28	PHE
54	DX	36	LYS
54	DX	57	LEU
54	DX	64	LYS
54	DX	76	ARG
54	DX	80	ILE
55	DY	2	ARG
55	DY	6	HIS
55	DY	7	VAL
55	DY	8	LYS
55	DY	19	LYS
55	DY	27	VAL
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
55	DY	91	GLU
56	DZ	11	GLU
56	DZ	23	LYS
56	DZ	53	ILE
56	DZ	70	LEU
56	DZ	74	VAL
56	DZ	93	ASP

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Mol	Chain	Res	Type
56	DZ	117	LEU
56	DZ	119	GLU
56	DZ	120	ILE
56	DZ	127	LYS
56	DZ	129	SER
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	165	VAL
56	DZ	168	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (324) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	16	HIS
2	AB	40	HIS
2	AB	76	GLN
2	AB	110	GLN
2	AB	113	HIS
2	AB	146	GLN
2	AB	204	ASN
2	AB	212	GLN
2	AB	224	GLN
2	AB	240	GLN
3	AC	28	GLN
3	AC	69	HIS
3	AC	102	ASN
3	AC	139	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
5	AE	141	GLN
6	AF	7	ASN

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Mol	Chain	Res	Type
6	AF	27	GLN
6	AF	32	ASN
6	AF	100	ASN
7	AG	13	GLN
7	AG	37	ASN
7	AG	96	GLN
7	AG	106	GLN
7	AG	148	ASN
8	AH	82	HIS
9	AI	23	ASN
9	AI	31	GLN
9	AI	89	ASN
9	AI	124	GLN
10	AJ	33	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
11	AK	104	GLN
12	AL	8	ASN
12	AL	9	GLN
12	AL	49	ASN
13	AM	77	ASN
13	AM	92	HIS
13	AM	101	GLN
14	AN	49	HIS
15	AO	13	GLN
15	AO	37	ASN
15	AO	50	HIS
15	AO	71	GLN
16	AP	16	HIS
16	AP	76	GLN
16	AP	82	GLN
17	AQ	16	GLN
17	AQ	26	GLN
17	AQ	93	GLN
17	AQ	94	ASN
19	AS	57	HIS
20	AT	16	HIS
20	AT	18	GLN

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Mol	Chain	Res	Type
20	AT	26	ASN
20	AT	45	GLN
25	B0	29	GLN
25	B0	35	ASN
25	B0	80	HIS
26	B1	45	ASN
26	B1	66	HIS
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
33	B8	31	HIS
33	B8	33	ASN
33	B8	35	GLN
33	B8	43	GLN
34	B9	34	GLN
37	BC	44	HIS
38	BD	58	HIS
38	BD	115	GLN
38	BD	126	GLN
38	BD	166	GLN
38	BD	186	HIS
38	BD	198	ASN
38	BD	220	HIS
38	BD	227	ASN
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	75	HIS
40	BF	160	ASN
40	BF	169	ASN
40	BF	204	ASN
41	BG	27	ASN
41	BG	40	ASN

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Mol	Chain	Res	Type
41	BG	121	ASN
41	BG	123	ASN
42	BH	74	ASN
42	BH	111	HIS
42	BH	143	GLN
42	BH	147	ASN
43	BI	43	ASN
43	BI	74	ASN
44	BN	45	ASN
44	BN	56	ASN
44	BN	94	HIS
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	68	GLN
46	BP	81	GLN
47	BQ	12	GLN
47	BQ	45	GLN
47	BQ	141	GLN
48	BR	13	HIS
48	BR	23	ASN
48	BR	24	GLN
48	BR	71	GLN
49	BS	34	HIS
50	BT	38	ASN
50	BT	43	GLN
50	BT	58	ASN
50	BT	90	GLN
50	BT	123	GLN
51	BU	14	HIS
51	BU	44	ASN
51	BU	49	HIS
51	BU	81	HIS
51	BU	94	ASN
52	BV	11	GLN
53	BW	34	ASN
53	BW	57	ASN
53	BW	60	ASN
53	BW	61	ASN

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Mol	Chain	Res	Type
53	BW	102	HIS
54	BX	31	HIS
54	BX	41	ASN
54	BX	55	ASN
56	BZ	34	ASN
56	BZ	73	GLN
56	BZ	118	GLN
56	BZ	121	HIS
56	BZ	151	HIS
2	CB	40	HIS
2	CB	76	GLN
2	CB	110	GLN
2	CB	113	HIS
2	CB	146	GLN
2	CB	204	ASN
2	CB	212	GLN
2	CB	224	GLN
2	CB	240	GLN
3	CC	28	GLN
3	CC	69	HIS
3	CC	98	ASN
3	CC	102	ASN
3	CC	139	GLN
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
5	CE	141	GLN
6	CF	7	ASN
6	CF	18	GLN
6	CF	27	GLN
6	CF	32	ASN
6	CF	100	ASN
7	CG	13	GLN
7	CG	37	ASN
7	CG	86	GLN
7	CG	96	GLN

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Mol	Chain	Res	Type
7	CG	106	GLN
7	CG	148	ASN
8	CH	82	HIS
9	CI	23	ASN
9	CI	31	GLN
9	CI	89	ASN
9	CI	124	GLN
10	CJ	33	GLN
10	CJ	56	HIS
10	CJ	68	HIS
10	CJ	78	ASN
11	CK	13	GLN
11	CK	38	ASN
11	CK	62	GLN
11	CK	93	GLN
11	CK	104	GLN
12	CL	8	ASN
12	CL	9	GLN
12	CL	49	ASN
13	CM	77	ASN
13	CM	92	HIS
13	CM	101	GLN
14	CN	49	HIS
15	CO	13	GLN
15	CO	37	ASN
15	CO	50	HIS
15	CO	71	GLN
16	CP	16	HIS
16	CP	76	GLN
16	CP	82	GLN
17	CQ	16	GLN
17	CQ	26	GLN
17	CQ	93	GLN
17	CQ	94	ASN
19	CS	57	HIS
20	CT	16	HIS
20	CT	18	GLN
20	CT	26	ASN
25	D0	29	GLN
25	D0	35	ASN
26	D1	16	ASN
26	D1	45	ASN

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Mol	Chain	Res	Type
26	D1	47	GLN
26	D1	56	GLN
27	D2	38	GLN
27	D2	43	GLN
27	D2	46	GLN
27	D2	47	ASN
27	D2	56	GLN
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	35	GLN
33	D8	43	GLN
34	D9	34	GLN
37	DC	44	HIS
37	DC	56	GLN
38	DD	58	HIS
38	DD	115	GLN
38	DD	126	GLN
38	DD	166	GLN
38	DD	186	HIS
38	DD	198	ASN
38	DD	220	HIS
38	DD	227	ASN
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	69	HIS
40	DF	75	HIS
40	DF	160	ASN
40	DF	169	ASN

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Mol	Chain	Res	Type
40	DF	204	ASN
41	DG	40	ASN
41	DG	41	GLN
41	DG	66	GLN
41	DG	79	ASN
41	DG	121	ASN
42	DH	74	ASN
42	DH	111	HIS
42	DH	143	GLN
42	DH	147	ASN
43	DI	43	ASN
43	DI	74	ASN
44	DN	45	ASN
44	DN	56	ASN
44	DN	94	HIS
45	DO	3	GLN
45	DO	5	GLN
45	DO	29	ASN
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	23	ASN
48	DR	24	GLN
48	DR	71	GLN
49	DS	34	HIS
49	DS	68	GLN
50	DT	38	ASN
50	DT	43	GLN
50	DT	58	ASN
50	DT	90	GLN
50	DT	123	GLN
51	DU	14	HIS
51	DU	44	ASN
51	DU	49	HIS
51	DU	81	HIS
51	DU	94	ASN
52	DV	11	GLN
53	DW	34	ASN

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Mol	Chain	Res	Type
53	DW	60	ASN
53	DW	102	HIS
54	DX	41	ASN
54	DX	55	ASN
56	DZ	32	HIS
56	DZ	50	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1503/1522 (98%)	217 (14%)	29 (1%)
1	CA	1503/1522 (98%)	218 (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%)	519 (18%)	55 (1%)
35	DA	2806/2822 (99%)	517 (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%)	1602 (17%)	171 (1%)

All (1602) 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
1	AA	80	G
1	AA	81	U
1	AA	84	U
1	AA	89	C

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Mol	Chain	Res	Type
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
1	AA	414	A
1	AA	422	C
1	AA	429	U
1	AA	430	A

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Mol	Chain	Res	Type
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
1	AA	731	G
1	AA	749	C
1	AA	755	G
1	AA	793	U

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Mol	Chain	Res	Type
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	913	A
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
1	AA	1030	C
1	AA	1036	G
1	AA	1050	G

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Mol	Chain	Res	Type
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
1	AA	1282	C
1	AA	1285	A
1	AA	1286	A

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Mol	Chain	Res	Type
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
22	AV	19	G
22	AV	20	U

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Mol	Chain	Res	Type
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
22	AY	71	G
22	AY	72	C

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Mol	Chain	Res	Type
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
35	BA	229	A
35	BA	230	U

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Mol	Chain	Res	Type
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
35	BA	444	C
35	BA	448	U

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Mol	Chain	Res	Type
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
35	BA	695	G
35	BA	708	C

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Mol	Chain	Res	Type
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
35	BA	973	A
35	BA	974	G

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Mol	Chain	Res	Type
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
35	BA	1210	A
35	BA	1211	U

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Mol	Chain	Res	Type
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	1427	A
35	BA	1428	C
35	BA	1437	C
35	BA	1445	A
35	BA	1449	A
35	BA	1450	G
35	BA	1460	A
35	BA	1461	G

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Mol	Chain	Res	Type
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
35	BA	1594	G

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Mol	Chain	Res	Type
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
35	BA	1889	A

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Mol	Chain	Res	Type
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	1988	C
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	2737	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

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Mol	Chain	Res	Type
35	BA	2803	C
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

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Mol	Chain	Res	Type
1	CA	90	U
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

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Mol	Chain	Res	Type
1	CA	435	C
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

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Mol	Chain	Res	Type
1	CA	794	A
1	CA	817	C
1	CA	818	G
1	CA	819	A
1	CA	828	A
1	CA	833	U
1	CA	839	U
1	CA	840	C
1	CA	841	U
1	CA	848	C
1	CA	859	A
1	CA	885	G
1	CA	902	G
1	CA	913	A
1	CA	914	A
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	960	U
1	CA	961	U
1	CA	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

Continued on next page...

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Mol	Chain	Res	Type
1	CA	1054	C
1	CA	1055	A
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	1285	A

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Mol	Chain	Res	Type
1	CA	1286	A
1	CA	1287	A
1	CA	1294	G
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

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Mol	Chain	Res	Type
22	CV	21	A
22	CV	22	G
22	CV	23	A
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

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Mol	Chain	Res	Type
22	CY	42	C
22	CY	43	C
22	CY	47	U
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

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Mol	Chain	Res	Type
35	DA	215	G
35	DA	216	A
35	DA	221	A
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

Continued on next page...

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Mol	Chain	Res	Type
35	DA	406	G
35	DA	411	G
35	DA	412	A
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

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Mol	Chain	Res	Type
35	DA	656	G
35	DA	668	G
35	DA	686	G
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

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Mol	Chain	Res	Type
35	DA	958	U
35	DA	959	A
35	DA	961	C
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

Continued on next page...

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Mol	Chain	Res	Type
35	DA	1183	G
35	DA	1195	G
35	DA	1205	U
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	1427	A
35	DA	1428	C
35	DA	1437	C

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Mol	Chain	Res	Type
35	DA	1445	A
35	DA	1449	A
35	DA	1450	G
35	DA	1460	A
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

Continued on next page...

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Mol	Chain	Res	Type
35	DA	1584	C
35	DA	1586	A
35	DA	1588	C
35	DA	1591	G
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

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Mol	Chain	Res	Type
35	DA	1880	C
35	DA	1882	C
35	DA	1885	A
35	DA	1888	G
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	1988	C
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

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Mol	Chain	Res	Type
35	DA	2093	G
35	DA	2099	U
35	DA	2103	C
35	DA	2104	G
35	DA	2108	C
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

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Mol	Chain	Res	Type
35	DA	2287	A
35	DA	2288	A
35	DA	2289	G
35	DA	2290	G
35	DA	2305	A
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

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Mol	Chain	Res	Type
35	DA	2507	C
35	DA	2518	A
35	DA	2520	C
35	DA	2523	G
35	DA	2529	G
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

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Mol	Chain	Res	Type
35	DA	2778	A
35	DA	2780	G
35	DA	2787	C
35	DA	2790	A
35	DA	2794	C
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

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Mol	Chain	Res	Type
1	AA	79	G
1	AA	115	G
1	AA	119	A
1	AA	243	A
1	AA	250	A
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

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Mol	Chain	Res	Type
35	BA	614(C)	A
35	BA	752	A
35	BA	790	C
35	BA	856	C
35	BA	1022	G
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

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Mol	Chain	Res	Type
1	CA	30	U
1	CA	60	A
1	CA	79	G
1	CA	115	G
1	CA	119	A
1	CA	243	A
1	CA	250	A
1	CA	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

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Mol	Chain	Res	Type
35	DA	542	C
35	DA	587	C
35	DA	603	A
35	DA	614(C)	A
35	DA	752	A
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

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Mol	Chain	Res	Type
36	DB	66	A

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

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	AV	77	22	10,11,11	0.67	0	8,13,13	0.36	0
22	8AN	CY	76	35,22	21,24,25	0.70	1 (4%)	26,35,38	0.40	0
22	8AN	CV	76	57,22	21,24,25	0.90	1 (4%)	26,35,38	0.54	1 (3%)
22	8AN	AV	76	57,22	21,24,25	0.88	1 (4%)	26,35,38	0.60	1 (3%)
22	8AN	AY	76	35,22	21,24,25	0.92	1 (4%)	26,35,38	0.38	0
22	PHA	CY	77	22	10,11,11	1.24	0	8,13,13	0.40	0
22	PHA	AY	77	22	10,11,11	0.71	0	8,13,13	0.45	0
22	PHA	CV	77	22	10,11,11	0.69	0	8,13,13	0.34	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	AV	77	22	-	0/5/6/6	0/1/1/1
22	8AN	CY	76	35,22	-	0/7/25/26	0/3/3/3
22	8AN	CV	76	57,22	-	1/7/25/26	0/3/3/3
22	8AN	AV	76	57,22	-	1/7/25/26	0/3/3/3
22	8AN	AY	76	35,22	-	0/7/25/26	0/3/3/3
22	PHA	CY	77	22	-	2/5/6/6	0/1/1/1
22	PHA	AY	77	22	-	3/5/6/6	0/1/1/1
22	PHA	CV	77	22	-	0/5/6/6	0/1/1/1

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	AY	76	8AN	C3'-N3'	-3.69	1.41	1.47
22	AV	76	8AN	C3'-N3'	-3.64	1.41	1.47
22	CV	76	8AN	C3'-N3'	-3.46	1.42	1.47
22	CY	76	8AN	C3'-N3'	-2.78	1.43	1.47

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	AV	76	8AN	O4'-C4'-C3'	2.15	107.35	104.22
22	CV	76	8AN	O4'-C4'-C3'	2.12	107.31	104.22

There are no chirality outliers.

All (7) torsion outliers are listed below:

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

There are no ring outliers.

8 monomers are involved in 17 short contacts:

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

5.5 Carbohydrates

There are no oligosaccharides in this entry.

5.6 Ligand geometry

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	CA	1800	-	44,45,45	1.67	10 (22%)	63,67,67	1.26	8 (12%)
58	PAR	AA	1799	-	44,45,45	1.92	13 (29%)	63,67,67	1.37	7 (11%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
58	PAR	CA	1800	-	-	4/18/94/94	0/4/4/4
58	PAR	AA	1799	-	-	3/18/94/94	0/4/4/4

All (23) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
58	AA	1799	PAR	C31-C21	5.15	1.60	1.53
58	AA	1799	PAR	C11-C21	4.36	1.60	1.52
58	CA	1800	PAR	O54-C14	3.56	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	3.23	1.58	1.52
58	AA	1799	PAR	O54-C14	3.08	1.49	1.41
58	AA	1799	PAR	C52-C42	3.06	1.58	1.52
58	AA	1799	PAR	C62-C52	2.96	1.60	1.52
58	CA	1800	PAR	C52-C42	2.96	1.58	1.52
58	CA	1800	PAR	O51-C11	2.79	1.49	1.41
58	AA	1799	PAR	C42-C32	2.66	1.58	1.53
58	CA	1800	PAR	O54-C54	2.61	1.50	1.44
58	AA	1799	PAR	O51-C11	2.49	1.48	1.41
58	CA	1800	PAR	C44-C54	2.38	1.58	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
58	CA	1800	PAR	C14-C24	2.32	1.56	1.52
58	AA	1799	PAR	O54-C54	2.26	1.49	1.44
58	AA	1799	PAR	C14-C24	2.25	1.56	1.52
58	CA	1800	PAR	C62-C52	2.21	1.58	1.52
58	AA	1799	PAR	O33-C33	2.15	1.49	1.43
58	AA	1799	PAR	O11-C42	2.07	1.49	1.43
58	CA	1800	PAR	C31-C21	2.03	1.56	1.53
58	AA	1799	PAR	O11-C11	2.00	1.47	1.41

All (15) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	AA	1799	PAR	O33-C14-C24	4.23	115.00	108.08
58	AA	1799	PAR	O11-C11-C21	4.16	114.89	108.08
58	CA	1800	PAR	C14-O54-C54	3.72	120.99	113.72
58	AA	1799	PAR	O54-C54-C64	3.70	113.19	106.07
58	CA	1800	PAR	O54-C54-C64	3.65	113.09	106.07
58	CA	1800	PAR	O33-C14-C24	3.49	113.79	108.08
58	AA	1799	PAR	C14-O54-C54	3.47	120.50	113.72
58	AA	1799	PAR	O52-C13-O43	-3.21	108.09	111.37
58	CA	1800	PAR	C22-C32-C42	2.81	116.39	109.50
58	AA	1799	PAR	C22-C32-C42	2.70	116.11	109.50
58	AA	1799	PAR	C11-O51-C51	2.67	118.92	113.72
58	CA	1800	PAR	O11-C11-C21	2.51	112.19	108.08
58	CA	1800	PAR	C22-C12-C62	-2.28	106.66	110.08
58	CA	1800	PAR	C11-O51-C51	2.24	118.10	113.72
58	CA	1800	PAR	O11-C42-C32	-2.06	104.26	109.18

There are no chirality outliers.

All (7) torsion outliers are listed below:

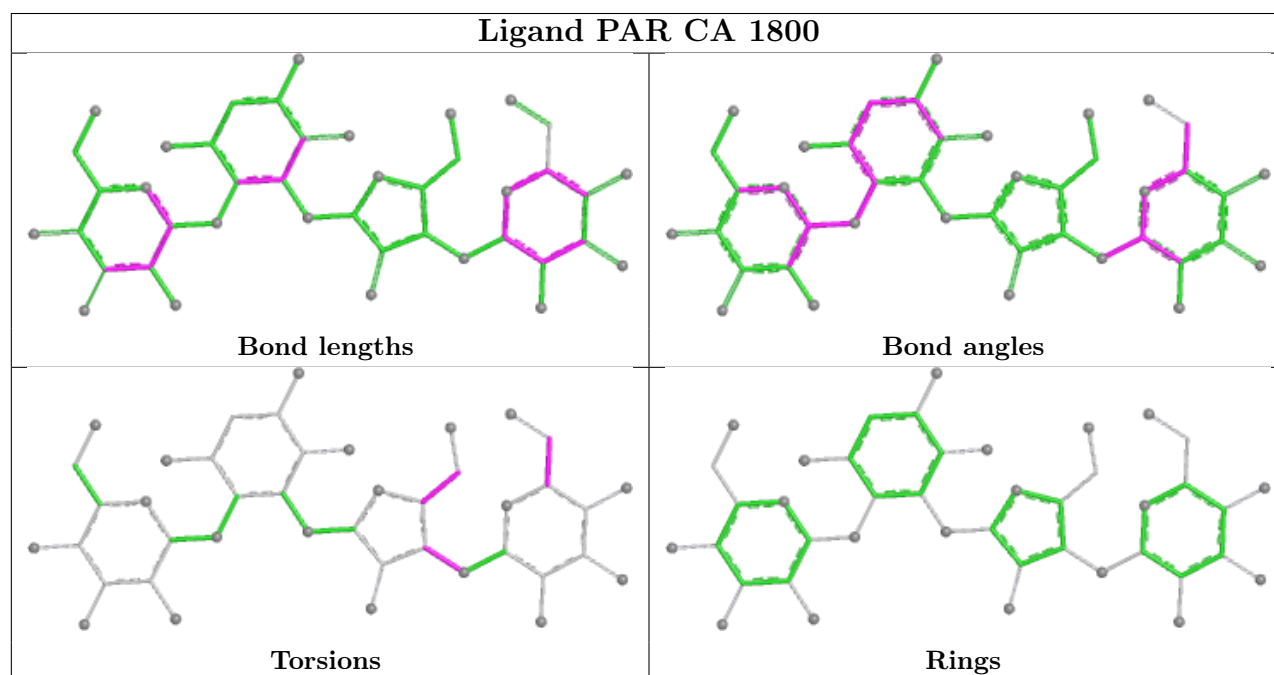
Mol	Chain	Res	Type	Atoms
58	AA	1799	PAR	O43-C43-C53-O53
58	AA	1799	PAR	C44-C54-C64-N64
58	CA	1800	PAR	O43-C43-C53-O53
58	AA	1799	PAR	C33-C43-C53-O53
58	CA	1800	PAR	C33-C43-C53-O53
58	CA	1800	PAR	C43-C33-O33-C14
58	CA	1800	PAR	C44-C54-C64-N64

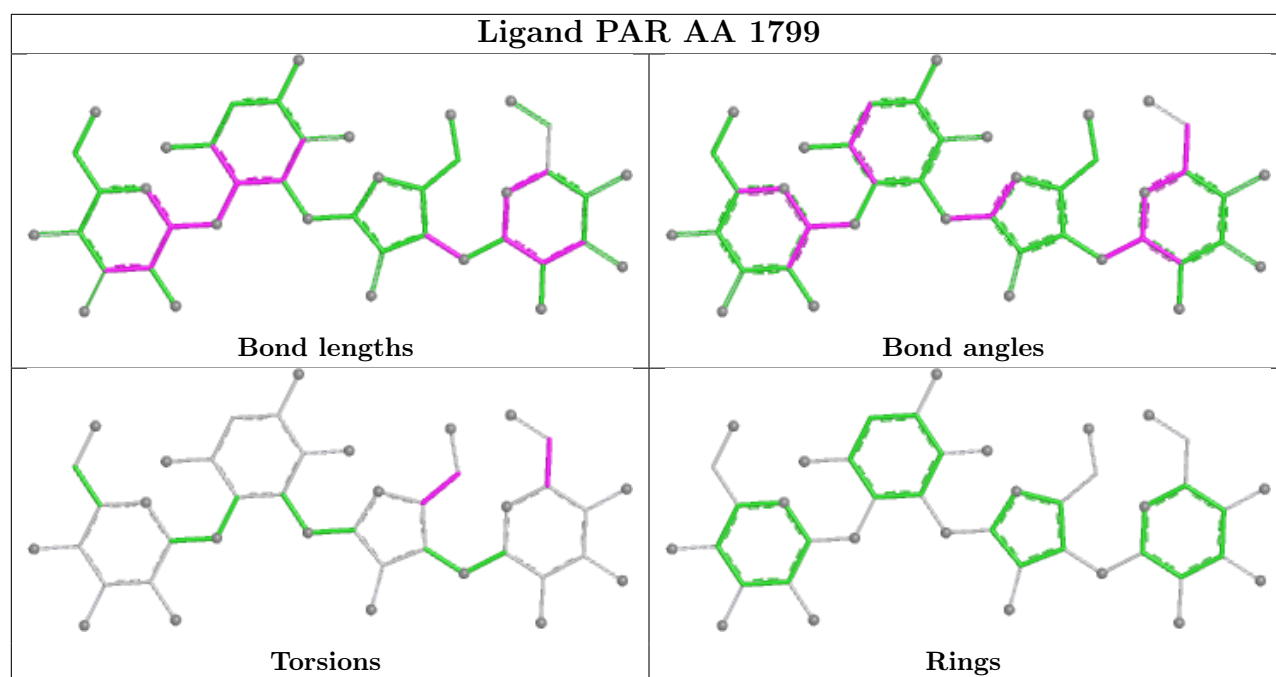
There are no ring outliers.

2 monomers are involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
58	CA	1800	PAR	2	0
58	AA	1799	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 [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
13	CM	3
13	AM	3
9	AI	2
9	CI	2
31	D6	1
31	B6	1
41	BG	1
41	DG	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%)	0.11	21 (1%) 73 48	47, 104, 183, 200	0
1	CA	1504/1522 (98%)	0.34	41 (2%) 56 33	69, 117, 189, 200	0
2	AB	235/256 (91%)	0.12	4 (1%) 69 43	73, 131, 181, 200	0
2	CB	235/256 (91%)	0.11	4 (1%) 69 43	85, 154, 189, 200	0
3	AC	207/239 (86%)	0.03	1 (0%) 87 68	71, 116, 160, 200	0
3	CC	207/239 (86%)	0.15	1 (0%) 87 68	87, 139, 180, 200	0
4	AD	208/209 (99%)	0.20	4 (1%) 66 41	60, 110, 153, 185	0
4	CD	208/209 (99%)	0.05	5 (2%) 59 35	58, 101, 142, 180	0
5	AE	151/162 (93%)	-0.24	0 100 100	52, 101, 144, 174	0
5	CE	151/162 (93%)	0.20	2 (1%) 75 50	66, 119, 168, 200	0
6	AF	101/101 (100%)	-0.20	0 100 100	56, 96, 142, 181	0
6	CF	101/101 (100%)	-0.20	0 100 100	51, 107, 147, 196	0
7	AG	155/156 (99%)	0.12	2 (1%) 75 50	65, 117, 166, 200	0
7	CG	155/156 (99%)	0.11	2 (1%) 75 50	80, 129, 161, 182	0
8	AH	138/138 (100%)	0.00	1 (0%) 84 63	62, 106, 140, 174	0
8	CH	138/138 (100%)	0.21	4 (2%) 53 31	82, 122, 160, 195	0
9	AI	127/128 (99%)	0.26	3 (2%) 59 35	79, 136, 176, 200	0
9	CI	127/128 (99%)	0.47	7 (5%) 30 18	96, 145, 188, 200	0
10	AJ	99/105 (94%)	0.56	6 (6%) 27 16	65, 140, 184, 200	0
10	CJ	99/105 (94%)	0.64	9 (9%) 15 10	70, 153, 195, 200	0
11	AK	119/129 (92%)	0.07	3 (2%) 58 35	62, 99, 159, 198	0
11	CK	119/129 (92%)	0.15	5 (4%) 40 22	74, 111, 155, 184	0
12	AL	125/135 (92%)	0.04	0 100 100	51, 91, 144, 190	0
12	CL	125/135 (92%)	0.46	6 (4%) 35 19	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%)	0.27	9 (7%)	21	14	75, 120, 163, 200	0
13	CM	125/126 (99%)	0.44	9 (7%)	21	14	77, 137, 184, 200	0
14	AN	60/61 (98%)	0.39	4 (6%)	24	15	50, 109, 147, 200	0
14	CN	60/61 (98%)	0.85	7 (11%)	9	6	89, 135, 183, 200	0
15	AO	88/89 (98%)	0.15	0	100	100	55, 100, 144, 162	0
15	CO	88/89 (98%)	0.01	0	100	100	69, 108, 154, 182	0
16	AP	84/88 (95%)	0.20	0	100	100	78, 107, 147, 184	0
16	CP	84/88 (95%)	0.11	0	100	100	61, 100, 150, 179	0
17	AQ	100/105 (95%)	0.28	5 (5%)	34	19	82, 109, 150, 181	0
17	CQ	100/105 (95%)	0.22	3 (3%)	52	30	71, 115, 153, 167	0
18	AR	70/88 (79%)	-0.26	0	100	100	59, 96, 139, 169	0
18	CR	70/88 (79%)	0.07	1 (1%)	73	48	66, 111, 152, 173	0
19	AS	79/93 (84%)	0.25	3 (3%)	44	24	82, 122, 176, 200	0
19	CS	79/93 (84%)	0.27	3 (3%)	44	24	91, 145, 188, 200	0
20	AT	99/106 (93%)	0.31	3 (3%)	52	30	77, 120, 170, 195	0
20	CT	99/106 (93%)	0.26	2 (2%)	65	39	67, 116, 174, 200	0
21	AU	25/27 (92%)	1.14	4 (16%)	5	4	80, 119, 154, 178	0
21	CU	25/27 (92%)	1.30	5 (20%)	3	3	79, 141, 171, 185	0
22	AV	75/77 (97%)	0.13	1 (1%)	75	50	55, 121, 158, 197	0
22	AY	75/77 (97%)	0.54	4 (5%)	32	18	49, 162, 196, 200	0
22	CV	75/77 (97%)	0.19	1 (1%)	75	50	64, 144, 178, 192	0
22	CY	75/77 (97%)	0.51	4 (5%)	32	18	84, 181, 199, 200	0
23	AW	76/76 (100%)	0.36	1 (1%)	75	50	99, 173, 199, 200	0
23	CW	76/76 (100%)	0.26	6 (7%)	18	12	117, 178, 200, 200	0
24	AX	11/11 (100%)	0.41	1 (9%)	15	10	68, 116, 146, 168	0
24	CX	11/11 (100%)	0.70	2 (18%)	3	4	87, 126, 158, 159	0
25	B0	84/85 (98%)	-0.07	3 (3%)	46	25	30, 62, 111, 143	0
25	D0	84/85 (98%)	0.30	1 (1%)	76	52	58, 106, 148, 178	0
26	B1	94/98 (95%)	-0.01	1 (1%)	78	54	37, 68, 129, 162	0
26	D1	94/98 (95%)	-0.07	0	100	100	38, 79, 131, 166	0
27	B2	71/72 (98%)	0.01	1 (1%)	73	48	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%)	0.12	0 100 100	62, 97, 150, 182	0
28	B3	60/60 (100%)	-0.15	0 100 100	30, 67, 112, 190	0
28	D3	60/60 (100%)	0.24	1 (1%) 69 43	65, 124, 163, 200	0
29	B4	31/71 (43%)	0.31	0 100 100	67, 132, 172, 182	0
29	D4	31/71 (43%)	0.29	0 100 100	105, 142, 184, 197	0
30	B5	59/60 (98%)	0.16	3 (5%) 33 19	37, 60, 164, 200	0
30	D5	59/60 (98%)	0.31	3 (5%) 33 19	52, 88, 175, 191	0
31	B6	45/54 (83%)	0.63	3 (6%) 24 15	57, 113, 166, 174	0
31	D6	45/54 (83%)	0.79	6 (13%) 7 6	92, 138, 175, 200	0
32	B7	49/49 (100%)	0.01	2 (4%) 41 22	25, 53, 112, 194	0
32	D7	49/49 (100%)	0.02	2 (4%) 41 22	41, 67, 119, 181	0
33	B8	64/65 (98%)	0.29	4 (6%) 26 15	25, 69, 131, 198	0
33	D8	64/65 (98%)	0.69	7 (10%) 10 7	45, 92, 149, 183	0
34	B9	36/37 (97%)	0.58	2 (5%) 30 17	70, 99, 142, 153	0
34	D9	36/37 (97%)	1.23	4 (11%) 10 7	120, 159, 194, 200	0
35	BA	2807/2822 (99%)	-0.13	59 (2%) 63 38	35, 64, 176, 200	0
35	DA	2807/2822 (99%)	0.17	54 (1%) 66 41	44, 93, 186, 200	0
36	BB	119/122 (97%)	-0.03	6 (5%) 34 19	57, 81, 135, 179	0
36	DB	119/122 (97%)	0.32	3 (2%) 58 35	90, 129, 183, 197	0
37	BC	191/229 (83%)	0.43	4 (2%) 63 38	115, 175, 200, 200	0
37	DC	191/229 (83%)	0.32	2 (1%) 79 56	113, 172, 200, 200	0
38	BD	272/276 (98%)	-0.15	4 (1%) 72 47	33, 62, 106, 186	0
38	DD	272/276 (98%)	-0.07	5 (1%) 67 42	40, 76, 114, 158	0
39	BE	205/206 (99%)	-0.01	5 (2%) 59 35	28, 65, 151, 200	0
39	DE	205/206 (99%)	0.43	7 (3%) 48 27	53, 105, 162, 193	0
40	BF	208/210 (99%)	-0.17	0 100 100	26, 65, 154, 194	0
40	DF	208/210 (99%)	0.08	2 (0%) 79 56	41, 91, 166, 200	0
41	BG	181/182 (99%)	0.10	6 (3%) 49 28	57, 99, 158, 197	0
41	DG	181/182 (99%)	0.05	2 (1%) 78 54	78, 120, 160, 182	0
42	BH	160/180 (88%)	0.13	5 (3%) 51 29	44, 94, 160, 199	0
42	DH	160/180 (88%)	0.58	10 (6%) 26 15	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%)	0.91	21 (14%) 6 5	48, 154, 200, 200	0
43	DI	146/148 (98%)	0.40	8 (5%) 30 18	74, 126, 175, 200	0
44	BN	139/140 (99%)	-0.01	5 (3%) 46 25	33, 68, 138, 187	0
44	DN	139/140 (99%)	0.33	2 (1%) 73 48	75, 116, 173, 200	0
45	BO	122/122 (100%)	-0.30	0 100 100	30, 69, 107, 139	0
45	DO	122/122 (100%)	0.15	1 (0%) 82 60	59, 105, 137, 156	0
46	BP	146/150 (97%)	0.42	7 (4%) 35 19	25, 84, 158, 188	0
46	DP	146/150 (97%)	0.51	13 (8%) 15 10	51, 108, 169, 200	0
47	BQ	141/141 (100%)	-0.02	4 (2%) 55 32	41, 69, 130, 200	0
47	DQ	141/141 (100%)	0.42	6 (4%) 40 21	66, 115, 166, 200	0
48	BR	117/118 (99%)	-0.17	3 (2%) 57 33	21, 62, 114, 165	0
48	DR	117/118 (99%)	0.21	6 (5%) 33 19	37, 89, 131, 173	0
49	BS	99/112 (88%)	0.34	4 (4%) 42 23	43, 83, 138, 181	0
49	DS	99/112 (88%)	0.76	6 (6%) 27 16	80, 128, 179, 200	0
50	BT	138/146 (94%)	0.20	5 (3%) 46 25	40, 86, 164, 195	0
50	DT	138/146 (94%)	0.39	5 (3%) 46 25	74, 116, 173, 200	0
51	BU	117/118 (99%)	-0.15	3 (2%) 57 33	23, 55, 106, 158	0
51	DU	117/118 (99%)	0.32	4 (3%) 48 27	56, 101, 167, 200	0
52	BV	101/101 (100%)	0.04	3 (2%) 52 30	29, 76, 135, 200	0
52	DV	101/101 (100%)	0.31	3 (2%) 52 30	55, 135, 177, 200	0
53	BW	113/113 (100%)	-0.29	0 100 100	26, 55, 122, 200	0
53	DW	113/113 (100%)	-0.17	0 100 100	50, 80, 140, 194	0
54	BX	93/96 (96%)	-0.18	0 100 100	41, 66, 106, 157	0
54	DX	93/96 (96%)	-0.18	0 100 100	42, 86, 118, 150	0
55	BY	101/110 (91%)	0.59	9 (8%) 15 10	42, 88, 178, 200	0
55	DY	101/110 (91%)	0.70	7 (6%) 23 14	49, 107, 181, 200	0
56	BZ	177/206 (85%)	0.07	2 (1%) 78 54	40, 107, 185, 200	0
56	DZ	177/206 (85%)	0.44	11 (6%) 26 16	96, 152, 198, 200	0
All	All	21244/22006 (96%)	0.15	564 (2%) 56 33	21, 102, 183, 200	0

All (564) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
11	AK	129	SER	8.6
19	CS	82	GLY	8.6
56	DZ	175	VAL	8.3
43	BI	88	ILE	8.0
43	BI	92	VAL	7.9
35	BA	652	C	6.9
55	BY	102	CYS	6.5
35	DA	652	C	5.9
1	CA	83	U	5.7
56	DZ	176	PRO	5.6
1	AA	88	A	5.4
51	DU	91	ASP	5.4
55	DY	102	CYS	5.3
13	CM	119	GLY	5.2
33	D8	65	GLU	5.2
35	BA	548	A	5.1
13	CM	84	ILE	5.0
19	AS	82	GLY	4.8
35	BA	886	C	4.7
35	BA	888	C	4.6
10	CJ	39	PRO	4.6
22	AV	1	G	4.6
1	AA	89	C	4.6
43	BI	120	ILE	4.6
21	CU	10	ARG	4.5
47	BQ	140	ALA	4.5
9	AI	106	ALA	4.4
35	DA	886	C	4.4
42	DH	38	SER	4.4
21	CU	2	GLY	4.4
35	BA	1543	C	4.3
13	CM	126	LYS	4.2
43	BI	90	GLY	4.1
42	BH	45	VAL	4.1
39	DE	131	ALA	4.1
43	BI	130	TYR	4.1
35	DA	508	G	4.1
11	AK	127	LYS	4.1
43	BI	91	SER	4.0
35	BA	896	A	4.0
38	BD	35	LYS	4.0
30	B5	60	VAL	4.0
35	BA	508	G	4.0

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Mol	Chain	Res	Type	RSRZ
35	DA	885	C	3.9
35	DA	888	C	3.9
43	DI	65	ALA	3.9
46	BP	9	ASN	3.9
48	DR	8	ARG	3.9
14	CN	28	GLY	3.9
34	D9	2	LYS	3.9
56	DZ	179	ASP	3.9
36	BB	119	G	3.8
20	AT	12	ALA	3.8
56	BZ	175	VAL	3.8
43	DI	118	LYS	3.8
22	CY	1	G	3.8
14	CN	14	PRO	3.8
10	CJ	59	SER	3.8
22	AY	17	C	3.8
4	AD	3	ARG	3.7
1	AA	80	G	3.7
4	AD	209	ARG	3.7
30	B5	2	ALA	3.7
5	CE	86	ALA	3.7
35	BA	2477	C	3.7
10	AJ	59	SER	3.7
55	DY	44	ILE	3.6
35	BA	2172	U	3.6
39	DE	76	ARG	3.6
44	BN	68	GLU	3.6
13	CM	124	PRO	3.6
35	DA	656	G	3.6
1	AA	5	U	3.6
35	BA	2402	C	3.5
35	BA	2116	G	3.5
47	DQ	141	GLN	3.5
35	DA	2062	A	3.5
35	DA	272(B)	G	3.5
35	DA	2766	G	3.5
55	BY	85	VAL	3.5
12	CL	119	LYS	3.5
21	AU	24	ARG	3.5
39	BE	76	ARG	3.5
1	CA	1224	G	3.5
35	BA	543	C	3.5

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Mol	Chain	Res	Type	RSRZ
10	AJ	38	ILE	3.4
51	BU	97	ASP	3.4
35	DA	1544	A	3.4
35	BA	1533	G	3.4
12	CL	91	LYS	3.4
47	DQ	140	ALA	3.4
47	DQ	139	GLU	3.4
1	CA	1281	U	3.4
14	CN	32	SER	3.4
23	CW	19	G	3.4
43	BI	94	ALA	3.4
1	CA	89	C	3.4
23	CW	17	C	3.4
39	DE	163	GLU	3.4
13	AM	102	ARG	3.4
1	AA	306	G	3.4
28	D3	18	ASP	3.4
22	CY	17	C	3.4
55	DY	65	ALA	3.4
2	AB	96	ARG	3.3
35	BA	1740	G	3.3
35	DA	2802	G	3.3
35	BA	2801	A	3.3
43	BI	119	PRO	3.3
33	B8	35	GLN	3.2
10	CJ	46	ARG	3.2
34	D9	22	ARG	3.2
43	DI	146	ALA	3.2
13	CM	6	GLY	3.2
1	CA	1126	U	3.2
1	CA	1116	C	3.2
24	CX	22	A	3.2
35	DA	548	A	3.2
7	CG	82	GLY	3.2
55	DY	58	GLY	3.2
56	DZ	112	ARG	3.2
1	CA	82	U	3.2
1	AA	330	C	3.2
35	BA	1544	A	3.2
35	DA	275	G	3.2
21	CU	6	ARG	3.2
39	DE	107	THR	3.2

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Mol	Chain	Res	Type	RSRZ
38	DD	35	LYS	3.2
43	DI	111	PRO	3.2
42	DH	35	VAL	3.1
51	DU	97	ASP	3.1
30	D5	2	ALA	3.1
56	DZ	174	VAL	3.1
1	CA	84	U	3.1
1	CA	723	U	3.1
39	DE	144	ARG	3.1
48	BR	11	ASN	3.1
1	AA	1280	A	3.1
1	AA	1129	C	3.1
41	BG	2	PRO	3.1
22	AY	1	G	3.1
35	BA	656	G	3.1
9	CI	127	LYS	3.1
48	DR	2	ARG	3.1
43	BI	114	LEU	3.1
35	BA	2119	A	3.1
49	BS	16	ASN	3.1
10	AJ	66	ARG	3.1
32	D7	2	LYS	3.1
43	BI	116	LEU	3.1
52	BV	36	PRO	3.1
10	CJ	58	ASP	3.1
35	DA	1532	C	3.1
43	DI	109	ILE	3.0
35	BA	11	G	3.0
46	DP	28	GLY	3.0
31	B6	42	TRP	3.0
49	DS	108	GLY	3.0
9	CI	128	ARG	3.0
10	AJ	71	LEU	3.0
35	BA	883	G	3.0
35	DA	883	G	3.0
35	BA	547	A	3.0
46	DP	44	GLY	3.0
47	BQ	141	GLN	3.0
1	AA	1183	A	3.0
23	CW	1	G	3.0
43	BI	95	LYS	3.0
42	DH	85	LYS	2.9

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Mol	Chain	Res	Type	RSRZ
13	AM	124	PRO	2.9
42	DH	64	LEU	2.9
1	CA	1280	A	2.9
50	DT	91	ARG	2.9
35	DA	1533	G	2.9
1	CA	330	C	2.9
19	AS	80	TYR	2.9
42	DH	171	LEU	2.9
50	BT	25	GLY	2.9
21	AU	6	ARG	2.9
33	D8	46	ARG	2.9
35	BA	272(B)	G	2.9
4	AD	31	CYS	2.9
43	BI	87	LYS	2.9
36	BB	1	U	2.9
36	DB	1	U	2.9
33	B8	64	TYR	2.9
42	BH	167	GLU	2.9
31	D6	42	TRP	2.9
31	B6	40	CYS	2.9
1	CA	1117	G	2.9
35	DA	882	G	2.9
7	AG	5	ARG	2.9
55	BY	3	VAL	2.8
35	BA	880	G	2.8
35	DA	651	G	2.8
35	DA	2147	G	2.8
36	BB	89	G	2.8
10	AJ	73	ASP	2.8
34	B9	20	HIS	2.8
52	DV	20	LEU	2.8
8	CH	1	MET	2.8
14	AN	28	GLY	2.8
46	BP	68	GLN	2.8
35	BA	1532	C	2.8
25	D0	41	ARG	2.8
42	BH	44	VAL	2.8
13	AM	61	GLU	2.8
46	DP	74	GLU	2.8
43	DI	68	LEU	2.8
35	BA	2799	C	2.8
36	BB	88	C	2.8

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Mol	Chain	Res	Type	RSRZ
50	BT	1	MET	2.8
46	BP	27	HIS	2.8
47	DQ	22	LYS	2.8
35	BA	882	G	2.8
13	AM	84	ILE	2.8
38	BD	34	VAL	2.8
1	AA	81	U	2.8
1	AA	1281	U	2.8
9	AI	128	ARG	2.7
19	CS	81	ARG	2.7
35	BA	2174	C	2.7
32	B7	48	LYS	2.7
49	BS	12	PHE	2.7
35	DA	2795	G	2.7
43	BI	101	LEU	2.7
46	DP	41	ARG	2.7
43	BI	97	ILE	2.7
1	AA	83	U	2.7
1	CA	81	U	2.7
46	DP	51	PHE	2.7
33	D8	35	GLN	2.7
1	CA	1030(B)	C	2.7
5	CE	24	ARG	2.7
38	DD	12	SER	2.7
35	BA	879	G	2.7
34	D9	37	GLY	2.7
49	DS	54	LEU	2.7
38	DD	44	ASN	2.7
1	CA	1397	C	2.7
35	BA	885	C	2.7
46	BP	110	TYR	2.7
34	B9	29	ASN	2.7
24	AX	12	A	2.7
35	DA	274	G	2.7
50	DT	112	ARG	2.7
11	CK	25	TYR	2.7
33	B8	40	GLU	2.7
47	BQ	139	GLU	2.7
35	BA	897	C	2.7
35	DA	975	C	2.7
42	BH	171	LEU	2.7
37	BC	51	PRO	2.6

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Mol	Chain	Res	Type	RSRZ
1	CA	1503	A	2.6
49	BS	11	LYS	2.6
17	AQ	98	LEU	2.6
1	CA	1124	G	2.6
35	BA	651	G	2.6
25	B0	2	ALA	2.6
11	CK	127	LYS	2.6
56	BZ	179	ASP	2.6
1	CA	121	C	2.6
50	BT	2	ASN	2.6
35	BA	2173	A	2.6
1	AA	1033	G	2.6
35	BA	275	G	2.6
48	DR	6	SER	2.6
23	CW	56	C	2.6
35	DA	279	C	2.6
35	DA	884	C	2.6
41	BG	86	MET	2.6
35	BA	887	A	2.6
4	CD	73	ARG	2.6
13	AM	6	GLY	2.6
35	BA	2125	G	2.6
30	D5	59	GLU	2.6
39	BE	77	ILE	2.6
1	CA	1129	C	2.6
42	DH	52	VAL	2.6
35	BA	90	U	2.6
50	DT	25	GLY	2.6
44	DN	73	THR	2.5
52	BV	45	THR	2.5
13	AM	120	LYS	2.5
32	D7	48	LYS	2.5
37	BC	166	ASP	2.5
22	CV	1	G	2.5
35	BA	2802	G	2.5
35	DA	11	G	2.5
35	DA	2125	G	2.5
35	DA	2154	G	2.5
35	DA	2893	G	2.5
35	DA	1049	C	2.5
9	CI	66	ARG	2.5
13	CM	102	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
21	AU	15	ARG	2.5
1	AA	82	U	2.5
46	BP	28	GLY	2.5
10	CJ	56	HIS	2.5
55	BY	97	ARG	2.5
17	AQ	99	SER	2.5
35	BA	884	C	2.5
49	DS	12	PHE	2.5
35	BA	363(F)	A	2.5
35	BA	2062	A	2.5
35	DA	2892	A	2.5
25	B0	41	ARG	2.5
46	DP	57	THR	2.5
55	DY	83	THR	2.5
13	CM	120	LYS	2.5
41	DG	87	PRO	2.5
55	DY	11	ASP	2.5
1	CA	1030	C	2.5
35	BA	898	C	2.5
35	DA	280	C	2.5
23	AW	19	G	2.5
36	BB	90	A	2.5
4	CD	31	CYS	2.5
50	DT	115	ARG	2.5
33	B8	65	GLU	2.4
43	BI	121	LYS	2.4
49	DS	33	LYS	2.4
21	CU	11	GLY	2.4
1	AA	1286	A	2.4
17	CQ	35	VAL	2.4
35	BA	530	G	2.4
35	DA	2117	A	2.4
2	CB	137	ARG	2.4
37	DC	56	GLN	2.4
4	AD	23	GLY	2.4
13	CM	100	GLY	2.4
43	DI	72	LEU	2.4
47	BQ	80	GLU	2.4
1	CA	88	A	2.4
35	DA	887	A	2.4
42	DH	12	PRO	2.4
1	AA	1117	G	2.4

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Mol	Chain	Res	Type	RSRZ
35	BA	2141	G	2.4
37	BC	179	SER	2.4
49	BS	54	LEU	2.4
31	D6	13	CYS	2.4
2	CB	163	PHE	2.4
9	AI	41	VAL	2.4
1	CA	1086	U	2.4
35	BA	2801(A)	A	2.4
35	DA	1046	A	2.4
30	B5	59	GLU	2.4
51	DU	89	GLU	2.4
11	AK	128	ALA	2.4
43	BI	100	ALA	2.4
56	DZ	152	ALA	2.4
1	AA	1224	G	2.4
35	BA	2123	G	2.4
39	BE	121	ASN	2.4
31	D6	23	THR	2.4
42	DH	37	VAL	2.4
8	AH	1	MET	2.4
14	CN	30	ALA	2.4
35	BA	2791	C	2.3
40	DF	65	TRP	2.3
40	DF	134	GLY	2.3
55	BY	77	PRO	2.3
18	CR	65	ILE	2.3
9	CI	44	VAL	2.3
10	CJ	55	LYS	2.3
14	AN	2	ALA	2.3
35	BA	1112	G	2.3
35	DA	880	G	2.3
36	DB	69	G	2.3
1	CA	1150	U	2.3
46	BP	41	ARG	2.3
48	BR	2	ARG	2.3
47	DQ	18	LYS	2.3
1	CA	977	A	2.3
7	AG	83	ALA	2.3
4	CD	156	GLU	2.3
30	D5	58	LEU	2.3
43	DI	4	ILE	2.3
45	DO	74	GLY	2.3

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Mol	Chain	Res	Type	RSRZ
4	CD	112	VAL	2.3
46	DP	65	ARG	2.3
20	AT	84	LEU	2.3
41	DG	52	ILE	2.3
1	CA	90	U	2.3
35	DA	2796	U	2.3
49	DS	98	VAL	2.3
1	CA	1225	A	2.3
35	DA	896	A	2.3
1	CA	366	C	2.3
35	BA	34	C	2.3
39	BE	75	VAL	2.3
46	DP	27	HIS	2.3
35	BA	2112	G	2.3
36	DB	89	G	2.3
33	D8	48	PHE	2.3
35	BA	529	A	2.3
50	DT	11	GLU	2.3
2	AB	131	PRO	2.3
35	DA	865	C	2.3
38	BD	262	ARG	2.3
48	BR	3	HIS	2.2
8	CH	107	LEU	2.2
43	BI	83	ALA	2.2
47	DQ	136	ALA	2.2
46	DP	110	TYR	2.2
17	CQ	100	LYS	2.2
14	CN	8	GLU	2.2
38	DD	237	GLU	2.2
1	AA	963	G	2.2
1	CA	80	G	2.2
10	CJ	10	GLY	2.2
46	DP	43	GLY	2.2
1	CA	983	A	2.2
1	CA	1236	A	2.2
22	CY	14	A	2.2
35	BA	1048	A	2.2
35	BA	1053	C	2.2
10	CJ	73	ASP	2.2
1	CA	1125	U	2.2
22	CY	16	U	2.2
33	D8	34	TRP	2.2

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Mol	Chain	Res	Type	RSRZ
55	BY	17	SER	2.2
26	B1	50	ARG	2.2
56	DZ	117	LEU	2.2
1	AA	532	A	2.2
1	CA	1285	A	2.2
17	AQ	28	PRO	2.2
37	BC	206	GLY	2.2
35	DA	866	A	2.2
35	DA	1543	C	2.2
35	DA	2402	C	2.2
39	DE	121	ASN	2.2
51	BU	15	LYS	2.2
9	CI	122	ALA	2.2
13	AM	123	ALA	2.2
39	BE	131	ALA	2.2
43	BI	115	ALA	2.2
52	DV	73	SER	2.2
14	CN	31	ARG	2.2
50	BT	11	GLU	2.2
35	DA	2647	U	2.2
17	AQ	100	LYS	2.2
44	BN	2	LYS	2.2
44	BN	132	ALA	2.2
1	AA	108	G	2.2
1	CA	1127	G	2.2
1	CA	1286	A	2.2
35	BA	1762	A	2.2
36	BB	87	G	2.2
11	CK	129	SER	2.2
14	CN	34	TYR	2.2
13	CM	85	GLY	2.2
10	CJ	54	PHE	2.2
17	AQ	96	GLU	2.2
17	CQ	58	GLU	2.2
35	BA	889	C	2.2
35	DA	897	C	2.2
50	BT	92	GLY	2.2
41	BG	132	ASN	2.2
20	CT	12	ALA	2.1
56	DZ	144	LEU	2.2
23	CW	55	U	2.1
31	D6	40	CYS	2.1

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Mol	Chain	Res	Type	RSRZ
38	DD	244	ARG	2.1
56	DZ	79	ARG	2.1
9	CI	41	VAL	2.1
43	BI	89	TYR	2.1
11	CK	124	LYS	2.1
12	CL	28	LYS	2.1
42	BH	12	PRO	2.1
51	DU	64	ARG	2.1
1	CA	307	C	2.1
31	B6	43	CYS	2.1
13	AM	122	LYS	2.1
43	BI	41	GLU	2.1
41	BG	3	LEU	2.1
43	BI	140	LEU	2.1
25	B0	74	ARG	2.1
27	B2	72	ALA	2.1
34	D9	35	ARG	2.1
46	BP	65	ARG	2.1
51	BU	58	ARG	2.1
19	CS	11	VAL	2.1
52	DV	24	LYS	2.1
56	DZ	116	VAL	2.1
1	CA	1183	A	2.1
21	CU	16	GLY	2.1
1	AA	1181	G	2.1
35	DA	1176	G	2.1
35	DA	1888	G	2.1
35	DA	2894	G	2.1
12	CL	86	ARG	2.1
13	AM	126	LYS	2.1
14	AN	50	LYS	2.1
2	CB	31	TYR	2.1
2	CB	187	LEU	2.1
21	AU	11	GLY	2.1
33	D8	45	GLY	2.1
8	CH	101	PRO	2.1
38	BD	36	PRO	2.1
4	CD	9	CYS	2.1
20	CT	83	ARG	2.1
32	B7	49	ARG	2.1
55	BY	2	ARG	2.1
35	BA	603	A	2.1

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Mol	Chain	Res	Type	RSRZ
35	BA	899	A	2.1
41	BG	84	LYS	2.1
3	AC	207	VAL	2.1
1	CA	91	C	2.1
35	BA	2803	C	2.1
2	AB	195	ASP	2.1
35	DA	1740	G	2.1
56	DZ	115	GLY	2.1
33	D8	40	GLU	2.1
12	CL	23	LYS	2.1
35	DA	895	U	2.1
35	DA	2118	U	2.1
55	DY	78	ALA	2.1
20	AT	9	ASN	2.1
22	AY	14	A	2.0
24	CX	12	A	2.0
42	DH	14	GLY	2.0
41	BG	87	PRO	2.0
7	CG	74	GLU	2.0
14	AN	57	ARG	2.0
37	DC	166	ASP	2.0
42	DH	70	THR	2.0
46	DP	16	ARG	2.0
10	AJ	55	LYS	2.0
1	CA	47	C	2.0
35	DA	34	C	2.0
35	DA	2477	C	2.0
35	DA	2803	C	2.0
46	DP	71	VAL	2.0
23	CW	34	G	2.0
35	BA	1529	G	2.0
1	CA	1235	U	2.0
46	DP	109	GLY	2.0
49	DS	96	GLY	2.0
31	D6	53	LYS	2.0
48	DR	3	HIS	2.0
55	BY	82	PRO	2.0
44	BN	3	THR	2.0
2	AB	188	ALA	2.0
9	CI	106	ALA	2.0
48	DR	4	LEU	2.0
55	BY	48	ALA	2.0

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Mol	Chain	Res	Type	RSRZ
22	AY	73	A	2.0
11	CK	117	ASN	2.0
31	D6	43	CYS	2.0
12	CL	13	LYS	2.0
44	BN	83	LYS	2.0
52	BV	48	GLY	2.0
3	CC	201	TYR	2.0
8	CH	83	ILE	2.0
19	AS	76	PRO	2.0
48	DR	35	THR	2.0
1	CA	110	C	2.0
1	CA	1115	C	2.0
35	DA	2474	C	2.0
44	DN	68	GLU	2.0
39	DE	127	ASP	2.0
35	BA	895	U	2.0
35	DA	1026	U	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	0.89	0.35	121,125,131,132	0
22	8AN	CY	76	22/23	0.93	0.13	29,48,67,71	0
22	PHA	AV	77	11/11	0.93	0.28	121,125,131,132	0
22	PHA	CY	77	11/11	0.93	0.21	42,44,48,152	0
22	8AN	CV	76	22/23	0.95	0.10	12,58,100,116	0
22	8AN	AY	76	22/23	0.95	0.11	29,48,67,71	0
22	8AN	AV	76	22/23	0.96	0.09	12,58,100,116	0
22	PHA	AY	77	11/11	0.97	0.19	42,44,47,48	0

6.3 Carbohydrates ⓘ

There are no oligosaccharides 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	AA	1682	1/1	-0.14	0.20	131,131,131,131	0
57	MG	CV	104	1/1	-0.11	0.23	163,163,163,163	0
57	MG	CA	1673	1/1	-0.01	0.25	128,128,128,128	1
57	MG	BA	3314	1/1	0.01	0.36	92,92,92,92	1
57	MG	DA	3370	1/1	0.08	0.29	92,92,92,92	0
57	MG	BA	3349	1/1	0.09	0.27	94,94,94,94	1
57	MG	CA	1705	1/1	0.09	0.25	150,150,150,150	0
57	MG	AA	1741	1/1	0.15	0.34	124,124,124,124	0
57	MG	AA	1737	1/1	0.16	0.48	136,136,136,136	0
57	MG	DA	3300	1/1	0.17	0.28	95,95,95,95	0
57	MG	CA	1690	1/1	0.19	0.44	110,110,110,110	0
57	MG	DA	3128	1/1	0.20	0.33	73,73,73,73	1
57	MG	CW	107	1/1	0.26	0.17	113,113,113,113	1
57	MG	CA	1752	1/1	0.30	0.17	112,112,112,112	1
57	MG	AV	104	1/1	0.32	0.20	127,127,127,127	0
57	MG	DA	3399	1/1	0.33	0.16	119,119,119,119	0
57	MG	CA	1622	1/1	0.34	0.36	117,117,117,117	0
57	MG	DB	213	1/1	0.35	0.24	93,93,93,93	0
57	MG	CA	1728	1/1	0.38	0.30	101,101,101,101	0
57	MG	BA	3177	1/1	0.39	0.32	112,112,112,112	0
57	MG	CA	1691	1/1	0.40	0.31	110,110,110,110	0
57	MG	DA	3419	1/1	0.41	0.25	115,115,115,115	0
57	MG	BA	3337	1/1	0.42	0.21	162,162,162,162	0
57	MG	DA	3321	1/1	0.42	0.30	126,126,126,126	0
57	MG	AA	1748	1/1	0.44	0.84	144,144,144,144	1
57	MG	DA	3196	1/1	0.44	0.19	96,96,96,96	0
57	MG	CA	1688	1/1	0.46	0.39	15,15,15,15	1
57	MG	CA	1655	1/1	0.46	0.20	94,94,94,94	1
57	MG	DA	3284	1/1	0.46	0.26	74,74,74,74	0
57	MG	DA	3392	1/1	0.47	0.15	107,107,107,107	0
57	MG	AA	1672	1/1	0.48	0.26	125,125,125,125	1
57	MG	AA	1783	1/1	0.48	0.25	105,105,105,105	0
57	MG	DS	201	1/1	0.48	0.13	74,74,74,74	1
57	MG	DA	3152	1/1	0.49	0.32	82,82,82,82	0
57	MG	CA	1640	1/1	0.50	0.28	121,121,121,121	0
57	MG	DA	3314	1/1	0.50	0.22	141,141,141,141	0
57	MG	BA	3186	1/1	0.50	0.18	144,144,144,144	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	DA	3354	1/1	0.50	0.29	84,84,84,84	0
57	MG	BA	3196	1/1	0.50	0.46	130,130,130,130	1
57	MG	DA	3139	1/1	0.51	0.29	112,112,112,112	0
57	MG	DA	3296	1/1	0.51	0.18	138,138,138,138	0
57	MG	DA	3420	1/1	0.51	0.17	137,137,137,137	1
57	MG	CA	1683	1/1	0.51	0.30	110,110,110,110	0
57	MG	AA	1622	1/1	0.51	0.31	135,135,135,135	0
57	MG	AV	103	1/1	0.52	0.27	81,81,81,81	0
57	MG	AA	1661	1/1	0.52	0.23	84,84,84,84	0
57	MG	DA	3228	1/1	0.53	0.24	83,83,83,83	0
57	MG	DA	3276	1/1	0.53	0.28	115,115,115,115	0
57	MG	AA	1761	1/1	0.53	0.39	122,122,122,122	0
57	MG	DB	211	1/1	0.53	0.16	119,119,119,119	0
57	MG	BA	3162	1/1	0.53	0.13	79,79,79,79	0
57	MG	CA	1649	1/1	0.53	0.31	95,95,95,95	0
57	MG	BA	3311	1/1	0.54	0.12	74,74,74,74	1
57	MG	CA	1701	1/1	0.54	0.34	93,93,93,93	0
57	MG	AA	1744	1/1	0.54	0.33	84,84,84,84	0
57	MG	AA	1727	1/1	0.55	0.25	54,54,54,54	1
57	MG	BA	3195	1/1	0.55	0.40	79,79,79,79	0
57	MG	BA	3101	1/1	0.55	0.31	72,72,72,72	1
57	MG	AW	106	1/1	0.56	0.20	102,102,102,102	1
57	MG	AA	1777	1/1	0.56	0.31	141,141,141,141	0
57	MG	CA	1602	1/1	0.56	0.32	101,101,101,101	0
57	MG	CA	1656	1/1	0.56	0.41	120,120,120,120	0
57	MG	AA	1657	1/1	0.56	0.37	121,121,121,121	0
57	MG	DA	3325	1/1	0.57	0.23	83,83,83,83	1
57	MG	AL	202	1/1	0.57	0.51	165,165,165,165	0
57	MG	AA	1704	1/1	0.57	0.17	103,103,103,103	0
57	MG	DA	3315	1/1	0.57	0.18	85,85,85,85	1
57	MG	AA	1720	1/1	0.57	0.19	137,137,137,137	0
57	MG	DA	3188	1/1	0.58	0.28	111,111,111,111	0
57	MG	CA	1727	1/1	0.58	0.34	139,139,139,139	0
57	MG	CA	1625	1/1	0.58	0.21	96,96,96,96	0
57	MG	AA	1650	1/1	0.58	0.21	99,99,99,99	0
57	MG	CA	1725	1/1	0.58	0.28	116,116,116,116	1
57	MG	AA	1656	1/1	0.59	0.40	97,97,97,97	0
57	MG	CA	1766	1/1	0.59	0.15	96,96,96,96	0
57	MG	DO	201	1/1	0.59	0.20	85,85,85,85	0
57	MG	DA	3338	1/1	0.59	0.16	74,74,74,74	0
57	MG	DA	3183	1/1	0.60	0.43	96,96,96,96	0
57	MG	DA	3413	1/1	0.60	0.17	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	CA	1729	1/1	0.60	0.21	70,70,70,70	1
57	MG	DA	3397	1/1	0.60	0.25	101,101,101,101	0
57	MG	DB	203	1/1	0.61	0.14	33,33,33,33	1
57	MG	CA	1643	1/1	0.61	0.16	157,157,157,157	0
57	MG	DA	3210	1/1	0.61	0.28	96,96,96,96	0
57	MG	CA	1716	1/1	0.61	0.27	68,68,68,68	1
57	MG	BA	3313	1/1	0.61	0.20	162,162,162,162	0
57	MG	CW	102	1/1	0.62	0.17	112,112,112,112	0
57	MG	AA	1683	1/1	0.62	0.14	101,101,101,101	0
57	MG	DA	3197	1/1	0.62	0.37	106,106,106,106	0
57	MG	DA	3166	1/1	0.62	0.26	75,75,75,75	0
57	MG	BA	3216	1/1	0.62	0.22	80,80,80,80	0
57	MG	DA	3369	1/1	0.62	0.32	112,112,112,112	0
57	MG	BA	3371	1/1	0.63	0.44	101,101,101,101	0
57	MG	DA	3349	1/1	0.63	0.20	41,41,41,41	1
57	MG	BA	3373	1/1	0.63	0.18	83,83,83,83	1
57	MG	AA	1781	1/1	0.63	0.29	63,63,63,63	0
57	MG	CA	1662	1/1	0.64	0.36	80,80,80,80	0
57	MG	BA	3224	1/1	0.64	0.15	91,91,91,91	0
57	MG	BA	3254	1/1	0.64	0.18	44,44,44,44	0
57	MG	BA	3309	1/1	0.64	0.11	112,112,112,112	1
57	MG	AA	1796	1/1	0.64	0.41	121,121,121,121	0
57	MG	AW	102	1/1	0.64	0.15	135,135,135,135	0
57	MG	DA	3213	1/1	0.64	0.27	89,89,89,89	0
57	MG	BA	3158	1/1	0.64	0.17	55,55,55,55	0
57	MG	CA	1775	1/1	0.65	0.20	79,79,79,79	0
57	MG	CA	1754	1/1	0.65	0.39	105,105,105,105	1
57	MG	CA	1606	1/1	0.65	0.24	78,78,78,78	0
57	MG	DA	3324	1/1	0.66	0.18	64,64,64,64	1
57	MG	AW	104	1/1	0.66	0.22	60,60,60,60	1
57	MG	CA	1665	1/1	0.66	0.10	68,68,68,68	0
57	MG	AV	105	1/1	0.66	0.35	89,89,89,89	0
57	MG	CA	1726	1/1	0.66	0.27	104,104,104,104	1
57	MG	DA	3367	1/1	0.66	0.32	108,108,108,108	0
57	MG	BA	3047	1/1	0.66	0.33	72,72,72,72	0
57	MG	DA	3253	1/1	0.66	0.20	86,86,86,86	1
57	MG	DA	3389	1/1	0.66	0.42	113,113,113,113	0
57	MG	DA	3266	1/1	0.66	0.16	84,84,84,84	0
57	MG	DA	3247	1/1	0.67	0.16	61,61,61,61	0
57	MG	CA	1757	1/1	0.67	0.38	128,128,128,128	0
57	MG	DA	3318	1/1	0.67	0.09	138,138,138,138	0
57	MG	CA	1623	1/1	0.67	0.21	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	CA	1771	1/1	0.67	0.34	98,98,98,98	0
57	MG	AW	107	1/1	0.67	0.13	101,101,101,101	0
57	MG	AA	1689	1/1	0.67	0.28	118,118,118,118	0
57	MG	BA	3421	1/1	0.67	0.14	110,110,110,110	1
57	MG	AA	1743	1/1	0.68	0.13	86,86,86,86	0
57	MG	CA	1698	1/1	0.68	0.25	86,86,86,86	0
57	MG	CW	106	1/1	0.68	0.16	86,86,86,86	1
57	MG	DA	3289	1/1	0.68	0.24	74,74,74,74	0
57	MG	CA	1721	1/1	0.68	0.08	97,97,97,97	0
57	MG	DA	3111	1/1	0.68	0.47	111,111,111,111	0
57	MG	AA	1798	1/1	0.68	0.32	90,90,90,90	0
57	MG	CA	1733	1/1	0.68	0.14	81,81,81,81	1
57	MG	CA	1750	1/1	0.68	0.39	77,77,77,77	1
57	MG	CA	1793	1/1	0.68	0.38	100,100,100,100	1
57	MG	DA	3270	1/1	0.69	0.32	87,87,87,87	0
57	MG	CA	1684	1/1	0.69	0.16	94,94,94,94	0
57	MG	DA	3195	1/1	0.69	0.12	89,89,89,89	0
57	MG	CA	1762	1/1	0.69	0.24	84,84,84,84	0
57	MG	BA	3354	1/1	0.69	0.26	129,129,129,129	0
57	MG	AA	1731	1/1	0.69	0.21	73,73,73,73	1
57	MG	CA	1610	1/1	0.70	0.17	88,88,88,88	0
57	MG	CA	1611	1/1	0.70	0.24	110,110,110,110	0
57	MG	BA	3150	1/1	0.70	0.27	64,64,64,64	0
57	MG	BA	3352	1/1	0.70	0.37	23,23,23,23	1
57	MG	DA	3340	1/1	0.70	0.25	98,98,98,98	1
57	MG	DA	3048	1/1	0.70	0.17	61,61,61,61	0
57	MG	DA	3421	1/1	0.70	0.15	168,168,168,168	0
57	MG	BB	206	1/1	0.70	0.18	105,105,105,105	0
57	MG	AA	1770	1/1	0.70	0.22	163,163,163,163	0
57	MG	AA	1734	1/1	0.70	0.28	102,102,102,102	0
57	MG	CA	1709	1/1	0.70	0.12	73,73,73,73	0
57	MG	CA	1746	1/1	0.70	0.16	91,91,91,91	0
57	MG	DX	102	1/1	0.70	0.14	126,126,126,126	0
57	MG	DA	3157	1/1	0.71	0.44	79,79,79,79	0
57	MG	AA	1701	1/1	0.71	0.27	92,92,92,92	0
57	MG	CA	1668	1/1	0.71	0.22	99,99,99,99	0
57	MG	DA	3402	1/1	0.71	0.20	125,125,125,125	0
57	MG	DA	3412	1/1	0.71	0.24	74,74,74,74	0
57	MG	CA	1739	1/1	0.71	0.21	128,128,128,128	0
57	MG	BA	3312	1/1	0.71	0.12	102,102,102,102	0
57	MG	DA	3279	1/1	0.71	0.31	49,49,49,49	1
57	MG	DA	3108	1/1	0.71	0.30	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	BA	3250	1/1	0.71	0.23	76,76,76,76	0
57	MG	DB	207	1/1	0.71	0.13	49,49,49,49	1
57	MG	CA	1783	1/1	0.71	0.27	105,105,105,105	0
57	MG	AW	108	1/1	0.71	0.13	82,82,82,82	1
57	MG	DA	3217	1/1	0.71	0.18	62,62,62,62	0
57	MG	DA	3376	1/1	0.71	0.23	110,110,110,110	0
57	MG	BA	3160	1/1	0.71	0.25	74,74,74,74	0
57	MG	D2	602	1/1	0.72	0.17	99,99,99,99	0
57	MG	AG	201	1/1	0.72	0.20	80,80,80,80	0
57	MG	DA	3198	1/1	0.72	0.24	58,58,58,58	1
57	MG	BA	3342	1/1	0.72	0.28	84,84,84,84	0
57	MG	BA	3310	1/1	0.72	0.15	102,102,102,102	1
57	MG	BA	3420	1/1	0.72	0.18	78,78,78,78	0
57	MG	DA	3192	1/1	0.72	0.40	74,74,74,74	0
57	MG	DA	3229	1/1	0.72	0.21	92,92,92,92	0
57	MG	DA	3342	1/1	0.72	0.38	90,90,90,90	0
57	MG	AA	1641	1/1	0.72	0.22	83,83,83,83	0
57	MG	DA	3353	1/1	0.72	0.23	107,107,107,107	0
57	MG	AA	1723	1/1	0.73	0.38	79,79,79,79	1
57	MG	DA	3287	1/1	0.73	0.11	148,148,148,148	0
57	MG	AA	1666	1/1	0.73	0.16	93,93,93,93	0
57	MG	DA	3293	1/1	0.73	0.25	74,74,74,74	0
57	MG	CA	1648	1/1	0.73	0.20	83,83,83,83	0
57	MG	BA	3249	1/1	0.73	0.23	114,114,114,114	0
57	MG	BA	3339	1/1	0.73	0.34	125,125,125,125	1
57	MG	CA	1720	1/1	0.73	0.27	89,89,89,89	0
57	MG	CA	1694	1/1	0.73	0.23	116,116,116,116	0
57	MG	DA	3319	1/1	0.73	0.38	102,102,102,102	1
57	MG	CV	103	1/1	0.74	0.28	74,74,74,74	0
57	MG	AA	1739	1/1	0.74	0.27	115,115,115,115	0
57	MG	CA	1630	1/1	0.74	0.14	84,84,84,84	0
57	MG	CA	1745	1/1	0.74	0.24	115,115,115,115	0
57	MG	CA	1767	1/1	0.74	0.10	97,97,97,97	0
57	MG	DA	3285	1/1	0.74	0.13	71,71,71,71	0
57	MG	DA	3178	1/1	0.74	0.41	88,88,88,88	0
57	MG	DA	3222	1/1	0.74	0.29	95,95,95,95	0
57	MG	AA	1763	1/1	0.74	0.12	62,62,62,62	0
57	MG	DB	202	1/1	0.74	0.17	113,113,113,113	0
57	MG	CA	1612	1/1	0.74	0.17	91,91,91,91	0
57	MG	AA	1708	1/1	0.74	0.31	72,72,72,72	0
57	MG	DA	3311	1/1	0.74	0.08	65,65,65,65	1
57	MG	DA	3250	1/1	0.74	0.26	63,63,63,63	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	DA	3251	1/1	0.74	0.12	96,96,96,96	0
57	MG	DA	3386	1/1	0.74	0.46	115,115,115,115	0
57	MG	AA	1742	1/1	0.74	0.21	100,100,100,100	0
57	MG	AA	1757	1/1	0.75	0.32	87,87,87,87	1
57	MG	AA	1740	1/1	0.75	0.21	87,87,87,87	0
57	MG	BA	3221	1/1	0.75	0.34	80,80,80,80	1
57	MG	DB	209	1/1	0.75	0.36	7,7,7,7	1
57	MG	CA	1680	1/1	0.75	0.34	94,94,94,94	0
57	MG	AA	1648	1/1	0.75	0.21	87,87,87,87	0
57	MG	CA	1777	1/1	0.75	0.30	135,135,135,135	0
57	MG	AA	1655	1/1	0.75	0.20	74,74,74,74	0
57	MG	CA	1759	1/1	0.75	0.21	67,67,67,67	1
57	MG	BA	3405	1/1	0.76	0.27	164,164,164,164	1
57	MG	CA	1687	1/1	0.76	0.14	84,84,84,84	0
57	MG	DA	3172	1/1	0.76	0.13	58,58,58,58	0
57	MG	DA	3317	1/1	0.76	0.14	55,55,55,55	1
57	MG	AA	1706	1/1	0.76	0.17	108,108,108,108	0
57	MG	BA	3251	1/1	0.76	0.28	136,136,136,136	1
57	MG	CA	1661	1/1	0.76	0.21	56,56,56,56	0
57	MG	CA	1761	1/1	0.76	0.13	74,74,74,74	0
57	MG	BB	202	1/1	0.76	0.22	92,92,92,92	0
57	MG	DA	3272	1/1	0.76	0.20	108,108,108,108	0
57	MG	BB	204	1/1	0.76	0.14	106,106,106,106	0
57	MG	BA	3100	1/1	0.76	0.15	49,49,49,49	0
57	MG	CA	1735	1/1	0.76	0.26	90,90,90,90	0
57	MG	DA	3127	1/1	0.76	0.44	67,67,67,67	0
57	MG	BA	3296	1/1	0.76	0.23	66,66,66,66	0
57	MG	BA	3241	1/1	0.76	0.34	70,70,70,70	0
57	MG	AA	1686	1/1	0.76	0.30	104,104,104,104	0
57	MG	DA	3226	1/1	0.76	0.10	88,88,88,88	0
57	MG	DA	3372	1/1	0.76	0.23	120,120,120,120	1
57	MG	DA	3227	1/1	0.76	0.62	136,136,136,136	0
57	MG	DA	3263	1/1	0.77	0.37	69,69,69,69	0
57	MG	DA	3264	1/1	0.77	0.11	96,96,96,96	0
57	MG	BA	3279	1/1	0.77	0.11	53,53,53,53	0
57	MG	AA	1746	1/1	0.77	0.38	95,95,95,95	0
57	MG	DA	3202	1/1	0.77	0.36	73,73,73,73	0
57	MG	DA	3404	1/1	0.77	0.10	97,97,97,97	1
57	MG	DA	3136	1/1	0.77	0.35	63,63,63,63	0
57	MG	BA	3387	1/1	0.77	0.57	119,119,119,119	0
57	MG	AW	105	1/1	0.77	0.14	154,154,154,154	1
57	MG	BA	3416	1/1	0.77	0.34	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	CA	1617	1/1	0.77	0.11	81,81,81,81	0
57	MG	AA	1794	1/1	0.77	0.14	126,126,126,126	0
57	MG	CA	1696	1/1	0.77	0.39	108,108,108,108	0
57	MG	AA	1671	1/1	0.77	0.23	73,73,73,73	0
57	MG	DA	3042	1/1	0.77	0.20	89,89,89,89	0
57	MG	AA	1677	1/1	0.77	0.21	89,89,89,89	0
57	MG	DA	3312	1/1	0.77	0.13	56,56,56,56	1
57	MG	DA	3373	1/1	0.77	0.12	98,98,98,98	0
57	MG	AA	1717	1/1	0.77	0.29	61,61,61,61	0
57	MG	BA	3367	1/1	0.77	0.12	1,1,1,1	1
57	MG	AA	1635	1/1	0.78	0.15	92,92,92,92	0
57	MG	CA	1685	1/1	0.78	0.09	62,62,62,62	0
57	MG	BA	3297	1/1	0.78	0.23	77,77,77,77	0
57	MG	DA	3252	1/1	0.78	0.12	95,95,95,95	0
57	MG	AA	1621	1/1	0.78	0.16	50,50,50,50	0
57	MG	DA	3256	1/1	0.78	0.16	79,79,79,79	0
57	MG	BA	3248	1/1	0.78	0.21	50,50,50,50	1
57	MG	DA	3002	1/1	0.78	0.18	69,69,69,69	0
57	MG	CA	1666	1/1	0.78	0.23	87,87,87,87	0
57	MG	BA	3263	1/1	0.78	0.23	77,77,77,77	0
57	MG	DA	3087	1/1	0.78	0.24	84,84,84,84	0
57	MG	BA	3274	1/1	0.78	0.36	85,85,85,85	0
57	MG	AA	1603	1/1	0.78	0.13	84,84,84,84	0
57	MG	DA	3281	1/1	0.78	0.10	52,52,52,52	0
57	MG	BA	3285	1/1	0.78	0.33	89,89,89,89	0
57	MG	DA	3246	1/1	0.78	0.17	97,97,97,97	0
57	MG	CA	1770	1/1	0.79	0.22	94,94,94,94	0
57	MG	CA	1647	1/1	0.79	0.19	68,68,68,68	0
57	MG	AA	1613	1/1	0.79	0.15	81,81,81,81	0
57	MG	CA	1722	1/1	0.79	0.27	121,121,121,121	0
57	MG	AA	1705	1/1	0.79	0.28	63,63,63,63	0
57	MG	CA	1674	1/1	0.79	0.24	63,63,63,63	1
57	MG	DA	3243	1/1	0.79	0.35	76,76,76,76	0
57	MG	DA	3122	1/1	0.79	0.33	77,77,77,77	0
57	MG	BA	3264	1/1	0.79	0.14	58,58,58,58	0
57	MG	CA	1682	1/1	0.79	0.23	90,90,90,90	0
57	MG	CA	1609	1/1	0.79	0.27	61,61,61,61	0
57	MG	BA	3273	1/1	0.79	0.13	75,75,75,75	0
57	MG	BA	3383	1/1	0.79	0.08	101,101,101,101	0
57	MG	AA	1786	1/1	0.79	0.27	108,108,108,108	0
57	MG	DA	3345	1/1	0.79	0.28	43,43,43,43	1
57	MG	BA	3393	1/1	0.80	0.23	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	BA	3138	1/1	0.80	0.41	124,124,124,124	0
57	MG	DA	3301	1/1	0.80	0.38	84,84,84,84	0
57	MG	AA	1690	1/1	0.80	0.11	81,81,81,81	0
57	MG	DA	3383	1/1	0.80	0.14	67,67,67,67	0
57	MG	CA	1734	1/1	0.80	0.35	67,67,67,67	0
57	MG	DA	3182	1/1	0.80	0.35	60,60,60,60	0
57	MG	BA	3200	1/1	0.80	0.19	52,52,52,52	0
57	MG	DA	3011	1/1	0.80	0.18	52,52,52,52	0
57	MG	AA	1715	1/1	0.80	0.30	39,39,39,39	1
57	MG	AA	1607	1/1	0.80	0.25	64,64,64,64	0
57	MG	AA	1684	1/1	0.80	0.09	74,74,74,74	0
57	MG	AA	1681	1/1	0.80	0.21	86,86,86,86	0
57	MG	CA	1779	1/1	0.80	0.12	115,115,115,115	0
57	MG	DA	3329	1/1	0.80	0.26	140,140,140,140	0
57	MG	DA	3121	1/1	0.80	0.22	83,83,83,83	0
57	MG	CA	1780	1/1	0.80	0.17	32,32,32,32	1
57	MG	BA	3179	1/1	0.80	0.82	117,117,117,117	0
57	MG	DA	3344	1/1	0.80	0.18	64,64,64,64	0
57	MG	CA	1788	1/1	0.80	0.10	75,75,75,75	0
57	MG	BA	3318	1/1	0.80	0.18	70,70,70,70	1
57	MG	DA	3351	1/1	0.80	0.11	94,94,94,94	0
57	MG	CA	1756	1/1	0.80	0.18	53,53,53,53	0
57	MG	DA	3151	1/1	0.80	0.18	57,57,57,57	1
57	MG	AA	1640	1/1	0.80	0.32	76,76,76,76	0
57	MG	DA	3154	1/1	0.80	0.13	60,60,60,60	0
57	MG	BA	3415	1/1	0.81	0.24	77,77,77,77	0
57	MG	CA	1736	1/1	0.81	0.20	73,73,73,73	0
57	MG	DA	3379	1/1	0.81	0.34	105,105,105,105	0
57	MG	CA	1657	1/1	0.81	0.20	86,86,86,86	0
57	MG	DA	3384	1/1	0.81	0.16	115,115,115,115	0
57	MG	DA	3072	1/1	0.81	0.20	94,94,94,94	0
57	MG	BA	3270	1/1	0.81	0.13	76,76,76,76	0
57	MG	AA	1629	1/1	0.81	0.15	62,62,62,62	0
57	MG	DA	3219	1/1	0.81	0.19	99,99,99,99	0
57	MG	BA	3155	1/1	0.81	0.50	116,116,116,116	0
57	MG	DA	3400	1/1	0.81	0.27	77,77,77,77	0
57	MG	DA	3119	1/1	0.81	0.21	86,86,86,86	0
57	MG	CA	1795	1/1	0.81	0.20	78,78,78,78	0
57	MG	DA	3408	1/1	0.81	0.20	44,44,44,44	0
57	MG	AA	1795	1/1	0.82	0.44	128,128,128,128	0
57	MG	DA	3327	1/1	0.82	0.37	64,64,64,64	1
57	MG	BA	3353	1/1	0.82	0.28	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	DA	3051	1/1	0.82	0.22	75,75,75,75	0
57	MG	DA	3282	1/1	0.82	0.13	50,50,50,50	0
57	MG	DA	3068	1/1	0.82	0.13	98,98,98,98	0
57	MG	CA	1678	1/1	0.82	0.41	94,94,94,94	0
57	MG	AA	1762	1/1	0.82	0.11	80,80,80,80	1
57	MG	DA	3106	1/1	0.82	0.31	78,78,78,78	0
57	MG	AA	1602	1/1	0.82	0.26	97,97,97,97	0
57	MG	DA	3248	1/1	0.82	0.18	90,90,90,90	0
57	MG	BA	3057	1/1	0.82	0.34	85,85,85,85	0
57	MG	BA	3327	1/1	0.82	0.31	67,67,67,67	0
57	MG	CA	1737	1/1	0.82	0.25	87,87,87,87	0
57	MG	AA	1760	1/1	0.82	0.30	90,90,90,90	0
57	MG	CA	1629	1/1	0.82	0.15	59,59,59,59	0
57	MG	DB	208	1/1	0.82	0.42	76,76,76,76	1
57	MG	AA	1788	1/1	0.82	0.24	73,73,73,73	0
57	MG	D7	101	1/1	0.82	0.27	73,73,73,73	0
57	MG	BA	3108	1/1	0.82	0.11	4,4,4,4	0
57	MG	AA	1652	1/1	0.82	0.22	82,82,82,82	0
57	MG	DA	3034	1/1	0.82	0.21	52,52,52,52	0
57	MG	DA	3275	1/1	0.82	0.07	98,98,98,98	0
57	MG	DA	3162	1/1	0.83	0.23	77,77,77,77	0
57	MG	CA	1635	1/1	0.83	0.24	74,74,74,74	0
57	MG	AA	1733	1/1	0.83	0.29	141,141,141,141	0
57	MG	CA	1642	1/1	0.83	0.21	74,74,74,74	0
57	MG	CA	1676	1/1	0.83	0.18	71,71,71,71	0
57	MG	BA	3212	1/1	0.83	0.24	88,88,88,88	0
57	MG	CA	1744	1/1	0.83	0.14	63,63,63,63	0
57	MG	AA	1601	1/1	0.83	0.12	90,90,90,90	0
57	MG	BA	3345	1/1	0.83	0.18	69,69,69,69	1
57	MG	AA	1664	1/1	0.83	0.12	47,47,47,47	0
57	MG	AA	1724	1/1	0.83	0.12	68,68,68,68	1
57	MG	CA	1724	1/1	0.83	0.15	80,80,80,80	0
57	MG	BA	3417	1/1	0.83	0.15	72,72,72,72	0
57	MG	DA	3209	1/1	0.83	0.18	73,73,73,73	0
57	MG	CV	105	1/1	0.83	0.15	65,65,65,65	0
57	MG	AA	1769	1/1	0.83	0.15	80,80,80,80	0
57	MG	BA	3242	1/1	0.83	0.18	60,60,60,60	0
57	MG	BA	3247	1/1	0.83	0.20	49,49,49,49	0
57	MG	DA	3352	1/1	0.83	0.24	20,20,20,20	1
57	MG	AA	1651	1/1	0.83	0.15	70,70,70,70	0
57	MG	DA	3223	1/1	0.83	0.27	46,46,46,46	1
57	MG	CA	1731	1/1	0.83	0.22	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	AA	1632	1/1	0.83	0.31	34,34,34,34	1
57	MG	CA	1768	1/1	0.83	0.27	72,72,72,72	0
57	MG	DC	301	1/1	0.83	0.07	91,91,91,91	1
57	MG	DA	3156	1/1	0.83	0.23	38,38,38,38	0
57	MG	DA	3012	1/1	0.83	0.13	45,45,45,45	0
57	MG	DA	3158	1/1	0.83	0.22	48,48,48,48	0
57	MG	BA	3351	1/1	0.84	0.19	135,135,135,135	0
57	MG	CA	1700	1/1	0.84	0.12	101,101,101,101	0
57	MG	DA	3224	1/1	0.84	0.14	85,85,85,85	0
57	MG	DA	3225	1/1	0.84	0.33	71,71,71,71	0
57	MG	DA	3395	1/1	0.84	0.18	49,49,49,49	0
57	MG	BA	3398	1/1	0.84	0.15	84,84,84,84	0
57	MG	BA	3143	1/1	0.84	0.16	49,49,49,49	1
57	MG	DA	3280	1/1	0.84	0.17	109,109,109,109	0
57	MG	BA	3235	1/1	0.84	0.34	156,156,156,156	0
57	MG	DA	3341	1/1	0.84	0.17	54,54,54,54	0
57	MG	CA	1711	1/1	0.84	0.11	74,74,74,74	0
57	MG	DA	3410	1/1	0.84	0.17	87,87,87,87	1
57	MG	DA	3145	1/1	0.84	0.34	90,90,90,90	0
57	MG	DA	3244	1/1	0.84	0.20	62,62,62,62	0
57	MG	DA	3245	1/1	0.84	0.16	69,69,69,69	0
57	MG	BA	3336	1/1	0.84	0.11	105,105,105,105	1
57	MG	DA	3292	1/1	0.84	0.23	51,51,51,51	1
57	MG	CA	1719	1/1	0.84	0.20	93,93,93,93	0
57	MG	AA	1702	1/1	0.84	0.29	126,126,126,126	0
57	MG	DB	206	1/1	0.84	0.11	75,75,75,75	0
57	MG	DA	3358	1/1	0.84	0.32	94,94,94,94	0
57	MG	DA	3249	1/1	0.84	0.22	60,60,60,60	0
57	MG	AA	1667	1/1	0.84	0.21	72,72,72,72	0
57	MG	CA	1613	1/1	0.84	0.34	51,51,51,51	0
57	MG	AA	1634	1/1	0.84	0.28	73,73,73,73	0
57	MG	BA	3288	1/1	0.84	0.44	59,59,59,59	0
57	MG	DA	3215	1/1	0.84	0.11	68,68,68,68	1
57	MG	AA	1638	1/1	0.84	0.21	36,36,36,36	0
57	MG	DA	3169	1/1	0.84	0.34	43,43,43,43	1
57	MG	DX	103	1/1	0.84	0.18	102,102,102,102	0
57	MG	AA	1754	1/1	0.85	0.08	64,64,64,64	0
57	MG	DA	3387	1/1	0.85	0.23	66,66,66,66	0
57	MG	BA	3374	1/1	0.85	0.09	92,92,92,92	0
57	MG	BA	3180	1/1	0.85	0.23	50,50,50,50	0
57	MG	DA	3393	1/1	0.85	0.11	109,109,109,109	1
57	MG	BB	213	1/1	0.85	0.15	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	DA	3260	1/1	0.85	0.29	81,81,81,81	0
57	MG	CA	1644	1/1	0.85	0.13	102,102,102,102	0
57	MG	AA	1726	1/1	0.85	0.31	71,71,71,71	0
57	MG	DA	3212	1/1	0.85	0.14	91,91,91,91	0
57	MG	AA	1774	1/1	0.85	0.20	88,88,88,88	0
57	MG	DA	3214	1/1	0.85	0.22	129,129,129,129	0
57	MG	AA	1710	1/1	0.85	0.19	71,71,71,71	0
57	MG	BA	3402	1/1	0.85	0.16	63,63,63,63	0
57	MG	BA	3404	1/1	0.85	0.18	56,56,56,56	0
57	MG	AA	1728	1/1	0.85	0.25	67,67,67,67	0
57	MG	CA	1660	1/1	0.85	0.36	59,59,59,59	0
57	MG	BA	3407	1/1	0.85	0.20	52,52,52,52	0
57	MG	BA	3276	1/1	0.85	0.23	49,49,49,49	0
57	MG	AA	1610	1/1	0.85	0.27	49,49,49,49	0
57	MG	DA	3164	1/1	0.85	0.07	84,84,84,84	0
57	MG	BA	3283	1/1	0.85	0.11	33,33,33,33	0
57	MG	AA	1625	1/1	0.85	0.11	65,65,65,65	0
57	MG	CA	1782	1/1	0.85	0.13	77,77,77,77	0
57	MG	DB	210	1/1	0.85	0.31	74,74,74,74	0
57	MG	CA	1669	1/1	0.85	0.27	81,81,81,81	0
57	MG	DA	3179	1/1	0.85	0.27	80,80,80,80	0
57	MG	DA	3088	1/1	0.85	0.20	37,37,37,37	0
57	MG	DN	201	1/1	0.85	0.33	129,129,129,129	0
57	MG	DA	3102	1/1	0.85	0.15	129,129,129,129	1
57	MG	CA	1785	1/1	0.85	0.13	95,95,95,95	0
57	MG	BA	3125	1/1	0.85	0.24	62,62,62,62	0
57	MG	BA	3422	1/1	0.85	0.17	120,120,120,120	0
57	MG	BA	3144	1/1	0.86	0.16	58,58,58,58	0
57	MG	DA	3262	1/1	0.86	0.24	73,73,73,73	0
57	MG	AA	1787	1/1	0.86	0.17	41,41,41,41	1
57	MG	DA	3153	1/1	0.86	0.16	60,60,60,60	1
57	MG	DA	3398	1/1	0.86	0.15	86,86,86,86	0
57	MG	CA	1774	1/1	0.86	0.26	121,121,121,121	0
57	MG	BA	3091	1/1	0.86	0.24	41,41,41,41	0
57	MG	BA	3220	1/1	0.86	0.43	95,95,95,95	0
57	MG	AA	1722	1/1	0.86	0.16	75,75,75,75	0
57	MG	DA	3161	1/1	0.86	0.14	65,65,65,65	0
57	MG	DA	3278	1/1	0.86	0.13	54,54,54,54	0
57	MG	BB	201	1/1	0.86	0.21	87,87,87,87	0
57	MG	AA	1619	1/1	0.86	0.27	65,65,65,65	0
57	MG	BA	3317	1/1	0.86	0.11	167,167,167,167	0
57	MG	AA	1716	1/1	0.86	0.08	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	BA	3117	1/1	0.86	0.39	59,59,59,59	0
57	MG	DA	3177	1/1	0.86	0.22	77,77,77,77	0
57	MG	DA	3286	1/1	0.86	0.32	75,75,75,75	0
57	MG	CA	1792	1/1	0.86	0.16	95,95,95,95	0
57	MG	AA	1759	1/1	0.86	0.24	96,96,96,96	0
57	MG	BA	3394	1/1	0.86	0.09	81,81,81,81	1
57	MG	CL	201	1/1	0.86	0.16	91,91,91,91	0
57	MG	BA	3244	1/1	0.86	0.12	88,88,88,88	0
57	MG	BA	3127	1/1	0.86	0.24	44,44,44,44	1
57	MG	BA	3131	1/1	0.86	0.14	31,31,31,31	0
57	MG	BA	3289	1/1	0.86	0.14	79,79,79,79	0
57	MG	CA	1763	1/1	0.86	0.11	98,98,98,98	0
57	MG	BA	3014	1/1	0.86	0.17	61,61,61,61	0
57	MG	DA	3199	1/1	0.86	0.46	101,101,101,101	0
57	MG	CA	1614	1/1	0.86	0.41	89,89,89,89	0
57	MG	AA	1735	1/1	0.86	0.23	108,108,108,108	0
57	MG	AA	1771	1/1	0.87	0.31	40,40,40,40	0
57	MG	BA	3032	1/1	0.87	0.13	45,45,45,45	0
57	MG	CA	1641	1/1	0.87	0.21	64,64,64,64	0
57	MG	BA	3041	1/1	0.87	0.23	96,96,96,96	0
57	MG	AA	1699	1/1	0.87	0.07	78,78,78,78	0
57	MG	AA	1775	1/1	0.87	0.13	92,92,92,92	0
57	MG	DA	3355	1/1	0.87	0.33	95,95,95,95	0
57	MG	DA	3259	1/1	0.87	0.22	56,56,56,56	0
57	MG	CX	103	1/1	0.87	0.14	108,108,108,108	0
57	MG	AA	1776	1/1	0.87	0.36	103,103,103,103	0
57	MG	DA	3173	1/1	0.87	0.08	50,50,50,50	0
57	MG	DA	3176	1/1	0.87	0.27	69,69,69,69	0
57	MG	BA	3163	1/1	0.87	0.08	42,42,42,42	0
57	MG	BA	3245	1/1	0.87	0.18	42,42,42,42	0
57	MG	BA	3368	1/1	0.87	0.12	61,61,61,61	0
57	MG	BB	212	1/1	0.87	0.07	31,31,31,31	1
57	MG	CA	1708	1/1	0.87	0.08	89,89,89,89	0
57	MG	BA	3246	1/1	0.87	0.18	74,74,74,74	0
57	MG	BU	201	1/1	0.87	0.37	166,166,166,166	1
57	MG	DA	3388	1/1	0.87	0.12	68,68,68,68	0
57	MG	CA	1765	1/1	0.87	0.13	60,60,60,60	0
57	MG	DA	3056	1/1	0.87	0.22	49,49,49,49	0
57	MG	CA	1713	1/1	0.87	0.11	73,73,73,73	0
57	MG	DA	3069	1/1	0.87	0.16	75,75,75,75	0
57	MG	AA	1700	1/1	0.87	0.31	79,79,79,79	0
57	MG	DA	3084	1/1	0.87	0.21	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	DA	3207	1/1	0.87	0.12	67,67,67,67	0
57	MG	CA	1717	1/1	0.87	0.09	82,82,82,82	0
57	MG	AA	1673	1/1	0.87	0.48	76,76,76,76	1
57	MG	DA	3090	1/1	0.87	0.43	77,77,77,77	0
57	MG	DA	3407	1/1	0.87	0.10	45,45,45,45	0
57	MG	CA	1664	1/1	0.87	0.24	53,53,53,53	0
57	MG	CA	1773	1/1	0.87	0.25	55,55,55,55	0
57	MG	BA	3375	1/1	0.87	0.19	21,21,21,21	1
57	MG	DA	3109	1/1	0.87	0.18	29,29,29,29	0
57	MG	AA	1653	1/1	0.87	0.38	82,82,82,82	0
57	MG	AA	1605	1/1	0.87	0.14	120,120,120,120	0
57	MG	CA	1778	1/1	0.87	0.13	66,66,66,66	0
57	MG	BA	3390	1/1	0.87	0.13	37,37,37,37	0
57	MG	BA	3187	1/1	0.87	0.35	108,108,108,108	0
57	MG	AA	1695	1/1	0.87	0.12	52,52,52,52	0
57	MG	CA	1675	1/1	0.87	0.11	92,92,92,92	0
57	MG	BA	3257	1/1	0.87	0.38	61,61,61,61	0
57	MG	BA	3262	1/1	0.87	0.06	100,100,100,100	0
57	MG	DA	3230	1/1	0.87	0.41	71,71,71,71	0
57	MG	DA	3328	1/1	0.87	0.12	50,50,50,50	0
57	MG	DA	3148	1/1	0.87	0.10	46,46,46,46	0
57	MG	AA	1766	1/1	0.87	0.06	67,67,67,67	0
57	MG	DA	3339	1/1	0.87	0.23	57,57,57,57	1
57	MG	AA	1792	1/1	0.87	0.32	58,58,58,58	0
57	MG	AA	1749	1/1	0.87	0.21	100,100,100,100	1
57	MG	CA	1798	1/1	0.87	0.17	55,55,55,55	0
57	MG	AA	1718	1/1	0.87	0.22	72,72,72,72	0
57	MG	CA	1671	1/1	0.88	0.21	58,58,58,58	0
57	MG	CA	1632	1/1	0.88	0.48	54,54,54,54	1
57	MG	DA	3240	1/1	0.88	0.16	56,56,56,56	0
57	MG	BA	3340	1/1	0.88	0.27	90,90,90,90	1
57	MG	BA	3341	1/1	0.88	0.13	40,40,40,40	0
57	MG	DA	3101	1/1	0.88	0.17	67,67,67,67	0
57	MG	CA	1799	1/1	0.88	0.12	75,75,75,75	0
57	MG	DA	3313	1/1	0.88	0.15	80,80,80,80	0
57	MG	BA	3290	1/1	0.88	0.25	78,78,78,78	1
57	MG	AA	1797	1/1	0.88	0.27	53,53,53,53	0
57	MG	BA	3067	1/1	0.88	0.28	53,53,53,53	0
57	MG	BA	3230	1/1	0.88	0.25	97,97,97,97	0
57	MG	BA	3182	1/1	0.88	0.20	62,62,62,62	0
57	MG	AA	1703	1/1	0.88	0.11	38,38,38,38	0
57	MG	AD	301	1/1	0.88	0.11	155,155,155,155	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	DA	3255	1/1	0.88	0.07	61,61,61,61	0
57	MG	AA	1643	1/1	0.88	0.21	84,84,84,84	0
57	MG	AA	1646	1/1	0.88	0.34	82,82,82,82	0
57	MG	DA	3130	1/1	0.88	0.22	41,41,41,41	0
57	MG	DA	3335	1/1	0.88	0.14	80,80,80,80	0
57	MG	BA	3419	1/1	0.88	0.47	90,90,90,90	1
57	MG	DA	3138	1/1	0.88	0.09	68,68,68,68	0
57	MG	DA	3416	1/1	0.88	0.25	81,81,81,81	0
57	MG	DA	3418	1/1	0.88	0.09	47,47,47,47	1
57	MG	CA	1658	1/1	0.88	0.06	78,78,78,78	0
57	MG	CA	1693	1/1	0.88	0.05	87,87,87,87	0
57	MG	DA	3146	1/1	0.88	0.13	55,55,55,55	0
57	MG	AA	1678	1/1	0.88	0.07	166,166,166,166	0
57	MG	DA	3020	1/1	0.88	0.20	59,59,59,59	0
57	MG	CA	1619	1/1	0.88	0.25	80,80,80,80	0
57	MG	DA	3350	1/1	0.88	0.08	89,89,89,89	1
57	MG	CA	1697	1/1	0.88	0.06	72,72,72,72	0
57	MG	DA	3218	1/1	0.88	0.14	94,94,94,94	0
57	MG	BA	3208	1/1	0.88	0.28	61,61,61,61	0
57	MG	DA	3050	1/1	0.88	0.26	69,69,69,69	1
57	MG	AA	1612	1/1	0.88	0.18	67,67,67,67	0
57	MG	BA	3215	1/1	0.88	0.16	33,33,33,33	0
57	MG	DA	3066	1/1	0.88	0.21	43,43,43,43	0
57	MG	CA	1627	1/1	0.88	0.18	78,78,78,78	0
57	MG	AA	1623	1/1	0.88	0.20	70,70,70,70	0
57	MG	DA	3288	1/1	0.88	0.18	37,37,37,37	0
57	MG	AA	1712	1/1	0.88	0.15	61,61,61,61	0
57	MG	DA	3343	1/1	0.89	0.32	71,71,71,71	0
57	MG	DA	3006	1/1	0.89	0.24	23,23,23,23	0
57	MG	BA	3347	1/1	0.89	0.17	42,42,42,42	0
57	MG	DA	3346	1/1	0.89	0.17	54,54,54,54	0
57	MG	DA	3159	1/1	0.89	0.15	70,70,70,70	0
57	MG	BA	3284	1/1	0.89	0.29	53,53,53,53	0
57	MG	DA	3254	1/1	0.89	0.12	99,99,99,99	0
57	MG	DA	3016	1/1	0.89	0.18	51,51,51,51	0
57	MG	AA	1768	1/1	0.89	0.23	71,71,71,71	0
57	MG	DA	3028	1/1	0.89	0.20	47,47,47,47	0
57	MG	DA	3033	1/1	0.89	0.19	70,70,70,70	0
57	MG	CA	1645	1/1	0.89	0.37	66,66,66,66	0
57	MG	DA	3039	1/1	0.89	0.08	70,70,70,70	0
57	MG	DA	3041	1/1	0.89	0.15	46,46,46,46	0
57	MG	BA	3037	1/1	0.89	0.13	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	DA	3267	1/1	0.89	0.17	71,71,71,71	0
57	MG	DA	3045	1/1	0.89	0.18	35,35,35,35	0
57	MG	AA	1707	1/1	0.89	0.13	116,116,116,116	0
57	MG	AA	1745	1/1	0.89	0.23	62,62,62,62	0
57	MG	BA	3355	1/1	0.89	0.08	92,92,92,92	0
57	MG	DA	3277	1/1	0.89	0.24	63,63,63,63	0
57	MG	BB	207	1/1	0.89	0.11	29,29,29,29	1
57	MG	BA	3199	1/1	0.89	0.48	116,116,116,116	0
57	MG	DA	3067	1/1	0.89	0.22	46,46,46,46	0
57	MG	AA	1615	1/1	0.89	0.23	65,65,65,65	0
57	MG	DA	3391	1/1	0.89	0.12	120,120,120,120	0
57	MG	BA	3369	1/1	0.89	0.12	53,53,53,53	1
57	MG	BX	102	1/1	0.89	0.21	104,104,104,104	0
57	MG	BA	3207	1/1	0.89	0.19	45,45,45,45	0
57	MG	DA	3086	1/1	0.89	0.17	56,56,56,56	0
57	MG	AA	1676	1/1	0.89	0.10	48,48,48,48	0
57	MG	BA	3210	1/1	0.89	0.13	84,84,84,84	0
57	MG	BA	3252	1/1	0.89	0.13	79,79,79,79	0
57	MG	BA	3380	1/1	0.89	0.17	54,54,54,54	0
57	MG	BA	3082	1/1	0.89	0.17	37,37,37,37	0
57	MG	DA	3405	1/1	0.89	0.15	53,53,53,53	1
57	MG	AA	1659	1/1	0.89	0.22	42,42,42,42	0
57	MG	BA	3260	1/1	0.89	0.17	30,30,30,30	0
57	MG	CA	1786	1/1	0.89	0.13	71,71,71,71	1
57	MG	DA	3411	1/1	0.89	0.14	46,46,46,46	0
57	MG	DA	3305	1/1	0.89	0.50	100,100,100,100	1
57	MG	AA	1751	1/1	0.89	0.21	72,72,72,72	1
57	MG	DA	3415	1/1	0.89	0.27	96,96,96,96	0
57	MG	DA	3116	1/1	0.89	0.26	50,50,50,50	0
57	MG	DA	3221	1/1	0.89	0.30	50,50,50,50	0
57	MG	CA	1618	1/1	0.89	0.23	53,53,53,53	0
57	MG	BA	3323	1/1	0.89	0.15	86,86,86,86	1
57	MG	CA	1677	1/1	0.89	0.10	48,48,48,48	0
57	MG	CA	1620	1/1	0.89	0.16	59,59,59,59	0
57	MG	B1	101	1/1	0.89	0.13	41,41,41,41	1
57	MG	DA	3320	1/1	0.89	0.15	34,34,34,34	1
57	MG	BA	3331	1/1	0.89	0.14	65,65,65,65	1
57	MG	BA	3006	1/1	0.89	0.25	66,66,66,66	0
57	MG	BA	3223	1/1	0.89	0.23	64,64,64,64	0
57	MG	CA	1740	1/1	0.89	0.11	61,61,61,61	1
57	MG	BA	3109	1/1	0.89	0.14	39,39,39,39	0
57	MG	CW	104	1/1	0.89	0.07	130,130,130,130	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	CA	1686	1/1	0.89	0.21	43,43,43,43	0
57	MG	BA	3409	1/1	0.89	0.21	20,20,20,20	0
57	MG	AA	1698	1/1	0.89	0.09	42,42,42,42	0
57	MG	BA	3231	1/1	0.89	0.23	38,38,38,38	0
57	MG	BA	3120	1/1	0.89	0.24	90,90,90,90	0
57	MG	BA	3015	1/1	0.89	0.19	33,33,33,33	0
57	MG	DA	3362	1/1	0.90	0.21	112,112,112,112	0
57	MG	BA	3326	1/1	0.90	0.16	46,46,46,46	1
57	MG	BA	3379	1/1	0.90	0.09	36,36,36,36	0
57	MG	D5	102	1/1	0.90	0.16	39,39,39,39	1
57	MG	CA	1603	1/1	0.90	0.11	68,68,68,68	0
57	MG	AA	1694	1/1	0.90	0.26	84,84,84,84	0
57	MG	DA	3375	1/1	0.90	0.13	83,83,83,83	0
57	MG	DA	3004	1/1	0.90	0.28	86,86,86,86	0
57	MG	DA	3378	1/1	0.90	0.23	72,72,72,72	0
57	MG	BA	3329	1/1	0.90	0.14	126,126,126,126	0
57	MG	CA	1764	1/1	0.90	0.22	68,68,68,68	1
57	MG	BA	3184	1/1	0.90	0.20	38,38,38,38	0
57	MG	DA	3291	1/1	0.90	0.18	58,58,58,58	0
57	MG	DA	3015	1/1	0.90	0.27	79,79,79,79	0
57	MG	AA	1636	1/1	0.90	0.26	74,74,74,74	0
57	MG	AA	1611	1/1	0.90	0.15	63,63,63,63	0
57	MG	DA	3297	1/1	0.90	0.17	71,71,71,71	0
57	MG	BA	3281	1/1	0.90	0.16	53,53,53,53	0
57	MG	AX	102	1/1	0.90	0.14	83,83,83,83	0
57	MG	BA	3401	1/1	0.90	0.29	81,81,81,81	0
57	MG	DA	3308	1/1	0.90	0.11	53,53,53,53	0
57	MG	AA	1793	1/1	0.90	0.16	91,91,91,91	0
57	MG	BA	3003	1/1	0.90	0.39	85,85,85,85	0
57	MG	DA	3239	1/1	0.90	0.24	79,79,79,79	0
57	MG	CA	1672	1/1	0.90	0.16	59,59,59,59	0
57	MG	BA	3152	1/1	0.90	0.21	93,93,93,93	0
57	MG	BA	3346	1/1	0.90	0.20	67,67,67,67	0
57	MG	DA	3406	1/1	0.90	0.07	51,51,51,51	0
57	MG	AA	1627	1/1	0.90	0.12	54,54,54,54	0
57	MG	BA	3157	1/1	0.90	0.10	74,74,74,74	0
57	MG	BA	3105	1/1	0.90	0.21	50,50,50,50	0
57	MG	AA	1668	1/1	0.90	0.19	51,51,51,51	0
57	MG	BA	3161	1/1	0.90	0.25	86,86,86,86	0
57	MG	AW	101	1/1	0.90	0.06	157,157,157,157	0
57	MG	DA	3414	1/1	0.90	0.23	84,84,84,84	0
57	MG	AA	1669	1/1	0.90	0.16	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	CA	1789	1/1	0.90	0.20	64,64,64,64	1
57	MG	BA	3356	1/1	0.90	0.09	41,41,41,41	0
57	MG	BA	3366	1/1	0.90	0.33	112,112,112,112	0
57	MG	AA	1721	1/1	0.90	0.29	90,90,90,90	0
57	MG	DA	3187	1/1	0.90	0.16	55,55,55,55	0
57	MG	BA	3123	1/1	0.90	0.30	29,29,29,29	0
57	MG	DA	3189	1/1	0.90	0.20	69,69,69,69	0
57	MG	DA	3190	1/1	0.90	0.19	67,67,67,67	0
57	MG	DA	3191	1/1	0.90	0.17	41,41,41,41	0
57	MG	AA	1617	1/1	0.90	0.25	51,51,51,51	0
57	MG	DA	3265	1/1	0.90	0.17	71,71,71,71	0
57	MG	BA	3225	1/1	0.90	0.57	128,128,128,128	0
57	MG	CN	101	1/1	0.90	0.09	57,57,57,57	0
57	MG	CA	1646	1/1	0.90	0.14	81,81,81,81	0
57	MG	BA	3372	1/1	0.90	0.27	57,57,57,57	1
57	MG	BA	3226	1/1	0.90	0.14	58,58,58,58	0
57	MG	CA	1695	1/1	0.90	0.22	54,54,54,54	0
57	MG	CA	1753	1/1	0.90	0.76	130,130,130,130	1
57	MG	BA	3228	1/1	0.90	0.30	51,51,51,51	0
57	MG	CA	1654	1/1	0.90	0.19	69,69,69,69	0
58	PAR	CA	1800	42/42	0.90	0.16	86,91,109,113	0
57	MG	AA	1738	1/1	0.91	0.13	55,55,55,55	1
57	MG	CA	1703	1/1	0.91	0.08	87,87,87,87	0
57	MG	BA	3149	1/1	0.91	0.10	13,13,13,13	1
57	MG	BA	3376	1/1	0.91	0.23	81,81,81,81	0
57	MG	DA	3036	1/1	0.91	0.33	32,32,32,32	0
57	MG	CA	1791	1/1	0.91	0.09	85,85,85,85	1
57	MG	BA	3007	1/1	0.91	0.19	22,22,22,22	0
57	MG	BB	208	1/1	0.91	0.38	61,61,61,61	1
57	MG	BA	3062	1/1	0.91	0.34	31,31,31,31	0
57	MG	CA	1797	1/1	0.91	0.12	120,120,120,120	0
57	MG	BA	3118	1/1	0.91	0.09	68,68,68,68	0
57	MG	DA	3336	1/1	0.91	0.05	77,77,77,77	1
57	MG	BA	3193	1/1	0.91	0.06	40,40,40,40	0
57	MG	BA	3291	1/1	0.91	0.19	42,42,42,42	0
57	MG	DA	3057	1/1	0.91	0.20	31,31,31,31	0
57	MG	DA	3058	1/1	0.91	0.29	88,88,88,88	0
57	MG	DA	3059	1/1	0.91	0.26	46,46,46,46	0
57	MG	BA	3253	1/1	0.91	0.28	87,87,87,87	0
57	MG	BA	3119	1/1	0.91	0.15	35,35,35,35	0
57	MG	BA	3299	1/1	0.91	0.17	46,46,46,46	1
57	MG	AA	1679	1/1	0.91	0.30	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	BA	3197	1/1	0.91	0.18	46,46,46,46	0
57	MG	AA	1758	1/1	0.91	0.06	97,97,97,97	0
57	MG	DA	3170	1/1	0.91	0.10	60,60,60,60	0
57	MG	BA	3021	1/1	0.91	0.19	30,30,30,30	0
57	MG	BA	3201	1/1	0.91	0.10	35,35,35,35	0
57	MG	DA	3231	1/1	0.91	0.29	31,31,31,31	0
57	MG	DA	3290	1/1	0.91	0.40	73,73,73,73	0
57	MG	DA	3175	1/1	0.91	0.09	63,63,63,63	0
57	MG	BA	3266	1/1	0.91	0.12	50,50,50,50	0
57	MG	BA	3360	1/1	0.91	0.36	140,140,140,140	0
57	MG	B0	101	1/1	0.91	0.18	50,50,50,50	0
57	MG	BA	3271	1/1	0.91	0.12	43,43,43,43	0
57	MG	DA	3104	1/1	0.91	0.19	37,37,37,37	0
57	MG	AA	1732	1/1	0.91	0.34	61,61,61,61	0
57	MG	DB	212	1/1	0.91	0.05	99,99,99,99	1
57	MG	DA	3304	1/1	0.91	0.16	49,49,49,49	0
57	MG	BA	3243	1/1	0.91	0.26	65,65,65,65	0
57	MG	AA	1729	1/1	0.91	0.24	69,69,69,69	0
57	MG	BA	3211	1/1	0.91	0.16	40,40,40,40	0
57	MG	BA	3107	1/1	0.91	0.26	44,44,44,44	0
57	MG	DX	101	1/1	0.91	0.16	45,45,45,45	0
57	MG	DA	3013	1/1	0.91	0.24	31,31,31,31	0
57	MG	CA	1742	1/1	0.91	0.17	70,70,70,70	0
57	MG	CA	1743	1/1	0.91	0.22	65,65,65,65	0
57	MG	DA	3163	1/1	0.92	0.23	52,52,52,52	0
57	MG	BA	3277	1/1	0.92	0.29	35,35,35,35	1
57	MG	DA	3299	1/1	0.92	0.23	93,93,93,93	0
57	MG	DA	3074	1/1	0.92	0.18	26,26,26,26	0
57	MG	DA	3232	1/1	0.92	0.28	93,93,93,93	0
57	MG	DA	3168	1/1	0.92	0.12	36,36,36,36	0
57	MG	DA	3080	1/1	0.92	0.12	63,63,63,63	0
57	MG	DA	3081	1/1	0.92	0.13	38,38,38,38	0
57	MG	AA	1753	1/1	0.92	0.04	103,103,103,103	0
57	MG	BA	3035	1/1	0.92	0.25	2,2,2,2	0
57	MG	DA	3174	1/1	0.92	0.13	53,53,53,53	0
57	MG	BA	3189	1/1	0.92	0.13	8,8,8,8	0
57	MG	B2	602	1/1	0.92	0.13	55,55,55,55	0
57	MG	CA	1730	1/1	0.92	0.18	43,43,43,43	0
57	MG	DA	3092	1/1	0.92	0.23	46,46,46,46	0
57	MG	DA	3099	1/1	0.92	0.14	40,40,40,40	0
57	MG	DA	3001	1/1	0.92	0.06	42,42,42,42	0
57	MG	AA	1645	1/1	0.92	0.17	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	DA	3322	1/1	0.92	0.18	62,62,62,62	0
57	MG	DA	3186	1/1	0.92	0.16	48,48,48,48	0
57	MG	CA	1616	1/1	0.92	0.25	43,43,43,43	0
57	MG	BA	3320	1/1	0.92	0.51	141,141,141,141	0
57	MG	AA	1670	1/1	0.92	0.18	49,49,49,49	0
57	MG	BA	3381	1/1	0.92	0.26	29,29,29,29	0
57	MG	BA	3382	1/1	0.92	0.19	31,31,31,31	0
57	MG	DA	3112	1/1	0.92	0.15	39,39,39,39	0
57	MG	AA	1675	1/1	0.92	0.22	63,63,63,63	0
57	MG	BA	3384	1/1	0.92	0.25	53,53,53,53	0
57	MG	DA	3019	1/1	0.92	0.11	29,29,29,29	0
57	MG	CA	1624	1/1	0.92	0.14	55,55,55,55	0
57	MG	BA	3174	1/1	0.92	0.26	55,55,55,55	0
57	MG	CA	1667	1/1	0.92	0.18	55,55,55,55	0
57	MG	AA	1750	1/1	0.92	0.08	62,62,62,62	1
57	MG	DA	3133	1/1	0.92	0.17	35,35,35,35	0
57	MG	AA	1790	1/1	0.92	0.12	63,63,63,63	0
57	MG	CA	1748	1/1	0.92	0.17	63,63,63,63	0
57	MG	CA	1749	1/1	0.92	0.09	98,98,98,98	0
57	MG	BB	210	1/1	0.92	0.20	27,27,27,27	0
57	MG	CA	1794	1/1	0.92	0.38	81,81,81,81	0
57	MG	CA	1631	1/1	0.92	0.19	65,65,65,65	0
57	MG	DA	3283	1/1	0.92	0.08	77,77,77,77	0
57	MG	BA	3332	1/1	0.92	0.21	29,29,29,29	0
57	MG	BA	3069	1/1	0.92	0.24	63,63,63,63	0
57	MG	BN	201	1/1	0.92	0.12	64,64,64,64	0
57	MG	BA	3080	1/1	0.92	0.16	26,26,26,26	0
57	MG	CA	1758	1/1	0.92	0.14	64,64,64,64	1
57	MG	BA	3275	1/1	0.92	0.33	98,98,98,98	0
57	MG	AA	1647	1/1	0.92	0.08	74,74,74,74	0
57	MG	BA	3370	1/1	0.92	0.18	113,113,113,113	0
57	MG	CA	1681	1/1	0.92	0.22	49,49,49,49	0
57	MG	BA	3406	1/1	0.92	0.17	38,38,38,38	1
57	MG	DA	3331	1/1	0.93	0.27	155,155,155,155	1
57	MG	DA	3334	1/1	0.93	0.11	72,72,72,72	0
57	MG	AA	1639	1/1	0.93	0.27	99,99,99,99	0
57	MG	BA	3039	1/1	0.93	0.16	14,14,14,14	0
57	MG	DA	3337	1/1	0.93	0.06	76,76,76,76	0
57	MG	BA	3188	1/1	0.93	0.12	64,64,64,64	0
57	MG	DA	3149	1/1	0.93	0.21	57,57,57,57	0
57	MG	BB	203	1/1	0.93	0.14	14,14,14,14	1
57	MG	AA	1685	1/1	0.93	0.14	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	CA	1706	1/1	0.93	0.23	80,80,80,80	0
57	MG	BA	3265	1/1	0.93	0.09	30,30,30,30	0
57	MG	CA	1653	1/1	0.93	0.09	83,83,83,83	0
57	MG	BA	3227	1/1	0.93	0.15	74,74,74,74	0
57	MG	DA	3040	1/1	0.93	0.14	25,25,25,25	0
57	MG	CA	1772	1/1	0.93	0.07	77,77,77,77	0
57	MG	DA	3160	1/1	0.93	0.18	67,67,67,67	0
57	MG	CA	1712	1/1	0.93	0.10	81,81,81,81	0
57	MG	BA	3190	1/1	0.93	0.20	51,51,51,51	0
57	MG	DA	3047	1/1	0.93	0.10	28,28,28,28	0
57	MG	BA	3322	1/1	0.93	0.30	42,42,42,42	1
57	MG	DA	3049	1/1	0.93	0.35	71,71,71,71	0
57	MG	DA	3356	1/1	0.93	0.17	57,57,57,57	0
57	MG	B5	102	1/1	0.93	0.20	58,58,58,58	1
57	MG	DA	3261	1/1	0.93	0.20	95,95,95,95	0
57	MG	DA	3365	1/1	0.93	0.06	19,19,19,19	0
57	MG	CA	1718	1/1	0.93	0.07	67,67,67,67	0
57	MG	DA	3368	1/1	0.93	0.11	45,45,45,45	1
57	MG	BA	3324	1/1	0.93	0.12	39,39,39,39	1
57	MG	BA	3272	1/1	0.93	0.12	46,46,46,46	0
57	MG	BA	3115	1/1	0.93	0.14	27,27,27,27	0
57	MG	BX	101	1/1	0.93	0.16	58,58,58,58	0
57	MG	DA	3374	1/1	0.93	0.14	37,37,37,37	1
57	MG	BA	3233	1/1	0.93	0.23	24,24,24,24	0
57	MG	BA	3234	1/1	0.93	0.16	56,56,56,56	0
57	MG	DA	3271	1/1	0.93	0.23	47,47,47,47	0
57	MG	AA	1680	1/1	0.93	0.26	53,53,53,53	0
57	MG	DA	3273	1/1	0.93	0.10	59,59,59,59	0
57	MG	AA	1784	1/1	0.93	0.09	81,81,81,81	1
57	MG	DA	3070	1/1	0.93	0.22	94,94,94,94	0
57	MG	BA	3066	1/1	0.93	0.18	26,26,26,26	0
57	MG	BA	3389	1/1	0.93	0.22	62,62,62,62	0
57	MG	DA	3184	1/1	0.93	0.14	36,36,36,36	0
57	MG	BA	3280	1/1	0.93	0.10	28,28,28,28	0
57	MG	AA	1616	1/1	0.93	0.22	70,70,70,70	0
57	MG	AA	1608	1/1	0.93	0.18	46,46,46,46	0
57	MG	CA	1796	1/1	0.93	0.11	119,119,119,119	0
57	MG	BA	3395	1/1	0.93	0.13	113,113,113,113	0
57	MG	AA	1772	1/1	0.93	0.15	85,85,85,85	0
57	MG	BA	3399	1/1	0.93	0.24	64,64,64,64	0
57	MG	BA	3400	1/1	0.93	0.09	47,47,47,47	0
57	MG	CA	1738	1/1	0.93	0.07	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	BA	3164	1/1	0.93	0.08	56,56,56,56	0
57	MG	BA	3126	1/1	0.93	0.21	39,39,39,39	0
57	MG	BA	3403	1/1	0.93	0.20	65,65,65,65	0
57	MG	DA	3105	1/1	0.93	0.20	54,54,54,54	0
57	MG	DA	3205	1/1	0.93	0.08	37,37,37,37	0
57	MG	DA	3294	1/1	0.93	0.07	54,54,54,54	0
57	MG	BA	3176	1/1	0.93	0.26	97,97,97,97	0
57	MG	BA	3019	1/1	0.93	0.18	28,28,28,28	0
57	MG	DA	3298	1/1	0.93	0.15	56,56,56,56	0
57	MG	BA	3213	1/1	0.93	0.06	93,93,93,93	1
57	MG	DA	3211	1/1	0.93	0.15	45,45,45,45	0
57	MG	BA	3214	1/1	0.93	0.38	83,83,83,83	0
57	MG	BA	3128	1/1	0.93	0.14	27,27,27,27	0
57	MG	DA	3113	1/1	0.93	0.11	27,27,27,27	0
57	MG	DA	3307	1/1	0.93	0.14	51,51,51,51	0
57	MG	BA	3413	1/1	0.93	0.21	33,33,33,33	0
57	MG	DB	201	1/1	0.93	0.07	74,74,74,74	0
57	MG	DA	3216	1/1	0.93	0.37	74,74,74,74	0
57	MG	DA	3118	1/1	0.93	0.28	62,62,62,62	0
57	MG	AA	1665	1/1	0.93	0.24	53,53,53,53	0
57	MG	BA	3305	1/1	0.93	0.50	101,101,101,101	0
57	MG	DA	3220	1/1	0.93	0.21	26,26,26,26	0
57	MG	BA	3308	1/1	0.93	0.09	114,114,114,114	1
57	MG	DA	3124	1/1	0.93	0.25	28,28,28,28	0
57	MG	CA	1692	1/1	0.93	0.16	59,59,59,59	0
57	MG	DA	3003	1/1	0.93	0.14	91,91,91,91	0
57	MG	CA	1637	1/1	0.93	0.12	83,83,83,83	0
57	MG	DA	3132	1/1	0.93	0.09	41,41,41,41	0
57	MG	DD	302	1/1	0.93	0.23	46,46,46,46	0
57	MG	DA	3323	1/1	0.93	0.34	53,53,53,53	1
57	MG	BA	3418	1/1	0.93	0.09	59,59,59,59	0
57	MG	DA	3135	1/1	0.93	0.07	39,39,39,39	0
57	MG	DA	3326	1/1	0.93	0.26	78,78,78,78	1
57	MG	AA	1755	1/1	0.93	0.11	84,84,84,84	0
57	MG	BA	3365	1/1	0.93	0.07	1,1,1,1	0
57	MG	AA	1765	1/1	0.93	0.06	94,94,94,94	0
57	MG	AA	1764	1/1	0.94	0.09	64,64,64,64	0
57	MG	BA	3328	1/1	0.94	0.15	168,168,168,168	0
57	MG	BA	3219	1/1	0.94	0.21	30,30,30,30	0
57	MG	BA	3010	1/1	0.94	0.21	41,41,41,41	0
57	MG	BA	3012	1/1	0.94	0.18	16,16,16,16	0
57	MG	BA	3334	1/1	0.94	0.12	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	DA	3053	1/1	0.94	0.10	26,26,26,26	0
57	MG	DA	3347	1/1	0.94	0.06	53,53,53,53	0
57	MG	BA	3396	1/1	0.94	0.15	11,11,11,11	0
57	MG	DA	3258	1/1	0.94	0.17	37,37,37,37	0
57	MG	CA	1615	1/1	0.94	0.27	70,70,70,70	0
57	MG	BA	3222	1/1	0.94	0.09	84,84,84,84	0
57	MG	AA	1736	1/1	0.94	0.11	87,87,87,87	0
57	MG	DA	3060	1/1	0.94	0.14	30,30,30,30	0
57	MG	BA	3338	1/1	0.94	0.20	52,52,52,52	0
57	MG	AA	1711	1/1	0.94	0.10	73,73,73,73	0
57	MG	DA	3357	1/1	0.94	0.19	111,111,111,111	0
57	MG	AA	1618	1/1	0.94	0.23	38,38,38,38	0
57	MG	DA	3360	1/1	0.94	0.08	83,83,83,83	0
57	MG	DA	3361	1/1	0.94	0.14	64,64,64,64	0
57	MG	AW	103	1/1	0.94	0.06	106,106,106,106	0
57	MG	BA	3023	1/1	0.94	0.14	23,23,23,23	0
57	MG	DA	3366	1/1	0.94	0.10	29,29,29,29	1
57	MG	AA	1752	1/1	0.94	0.24	120,120,120,120	1
57	MG	CA	1741	1/1	0.94	0.10	53,53,53,53	0
57	MG	BA	3181	1/1	0.94	0.25	49,49,49,49	0
57	MG	DA	3180	1/1	0.94	0.15	35,35,35,35	0
57	MG	DA	3274	1/1	0.94	0.08	60,60,60,60	0
57	MG	AA	1624	1/1	0.94	0.18	52,52,52,52	0
57	MG	DA	3083	1/1	0.94	0.13	33,33,33,33	0
57	MG	AA	1649	1/1	0.94	0.09	56,56,56,56	1
57	MG	BA	3038	1/1	0.94	0.11	41,41,41,41	0
57	MG	AA	1658	1/1	0.94	0.11	25,25,25,25	0
57	MG	BA	3236	1/1	0.94	0.08	44,44,44,44	0
57	MG	DA	3380	1/1	0.94	0.27	52,52,52,52	0
57	MG	CA	1634	1/1	0.94	0.28	53,53,53,53	0
57	MG	BA	3237	1/1	0.94	0.20	74,74,74,74	0
57	MG	CX	101	1/1	0.94	0.21	123,123,123,123	0
57	MG	AA	1730	1/1	0.94	0.12	107,107,107,107	0
57	MG	DA	3193	1/1	0.94	0.11	48,48,48,48	0
57	MG	DA	3194	1/1	0.94	0.06	59,59,59,59	0
57	MG	D1	101	1/1	0.94	0.11	29,29,29,29	1
57	MG	BA	3045	1/1	0.94	0.17	1,1,1,1	0
57	MG	AA	1630	1/1	0.94	0.10	55,55,55,55	0
57	MG	DA	3394	1/1	0.94	0.07	103,103,103,103	0
57	MG	BA	3052	1/1	0.94	0.19	13,13,13,13	0
57	MG	D7	102	1/1	0.94	0.13	62,62,62,62	1
57	MG	DA	3201	1/1	0.94	0.35	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	BA	3298	1/1	0.94	0.18	69,69,69,69	0
57	MG	AA	1644	1/1	0.94	0.16	110,110,110,110	0
57	MG	AA	1663	1/1	0.94	0.22	47,47,47,47	0
57	MG	DA	3403	1/1	0.94	0.13	55,55,55,55	0
57	MG	BA	3064	1/1	0.94	0.17	20,20,20,20	0
57	MG	DA	3114	1/1	0.94	0.11	29,29,29,29	0
57	MG	B2	601	1/1	0.94	0.09	55,55,55,55	1
57	MG	DA	3008	1/1	0.94	0.16	36,36,36,36	0
57	MG	BA	3148	1/1	0.94	0.27	57,57,57,57	0
57	MG	AA	1631	1/1	0.94	0.23	54,54,54,54	0
57	MG	CA	1651	1/1	0.94	0.07	85,85,85,85	0
57	MG	DA	3306	1/1	0.94	0.07	51,51,51,51	0
57	MG	AA	1747	1/1	0.94	0.08	135,135,135,135	0
57	MG	DA	3126	1/1	0.94	0.15	59,59,59,59	0
57	MG	DA	3310	1/1	0.94	0.06	54,54,54,54	1
57	MG	BA	3151	1/1	0.94	0.14	45,45,45,45	1
57	MG	DA	3018	1/1	0.94	0.18	31,31,31,31	0
57	MG	DA	3129	1/1	0.94	0.12	22,22,22,22	0
57	MG	BA	3209	1/1	0.94	0.18	14,14,14,14	0
57	MG	BA	3071	1/1	0.94	0.20	52,52,52,52	0
57	MG	DA	3023	1/1	0.94	0.17	20,20,20,20	0
57	MG	DA	3134	1/1	0.94	0.10	57,57,57,57	0
57	MG	DA	3026	1/1	0.94	0.13	19,19,19,19	0
57	MG	DA	3027	1/1	0.94	0.25	37,37,37,37	0
57	MG	BA	3154	1/1	0.94	0.20	13,13,13,13	0
57	MG	DA	3029	1/1	0.94	0.25	40,40,40,40	0
57	MG	DA	3141	1/1	0.94	0.24	67,67,67,67	0
57	MG	DA	3032	1/1	0.94	0.36	66,66,66,66	0
57	MG	BA	3258	1/1	0.94	0.12	32,32,32,32	0
57	MG	DA	3147	1/1	0.94	0.09	59,59,59,59	0
57	MG	DA	3236	1/1	0.94	0.10	47,47,47,47	0
57	MG	DA	3238	1/1	0.94	0.12	56,56,56,56	0
57	MG	AN	101	1/1	0.94	0.10	50,50,50,50	0
57	MG	DA	3035	1/1	0.94	0.04	55,55,55,55	0
57	MG	AA	1620	1/1	0.94	0.06	54,54,54,54	0
57	MG	BA	3088	1/1	0.94	0.10	21,21,21,21	0
57	MG	DV	201	1/1	0.94	0.05	70,70,70,70	0
57	MG	BA	3089	1/1	0.94	0.24	43,43,43,43	0
57	MG	CA	1605	1/1	0.94	0.13	47,47,47,47	0
57	MG	DA	3155	1/1	0.94	0.19	21,21,21,21	1
58	PAR	AA	1799	42/42	0.94	0.12	60,65,83,87	0
57	MG	CA	1723	1/1	0.94	0.20	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	AA	1785	1/1	0.95	0.29	105,105,105,105	0
57	MG	BA	3202	1/1	0.95	0.26	16,16,16,16	0
57	MG	BA	3333	1/1	0.95	0.10	40,40,40,40	0
57	MG	BA	3282	1/1	0.95	0.22	23,23,23,23	0
57	MG	CA	1659	1/1	0.95	0.20	42,42,42,42	0
57	MG	BA	3335	1/1	0.95	0.09	62,62,62,62	0
57	MG	BA	3204	1/1	0.95	0.14	33,33,33,33	0
57	MG	DA	3021	1/1	0.95	0.08	35,35,35,35	0
57	MG	DA	3022	1/1	0.95	0.16	34,34,34,34	0
57	MG	CA	1604	1/1	0.95	0.05	63,63,63,63	0
57	MG	DA	3024	1/1	0.95	0.14	49,49,49,49	0
57	MG	DA	3125	1/1	0.95	0.10	53,53,53,53	0
57	MG	DA	3025	1/1	0.95	0.19	13,13,13,13	0
57	MG	AA	1693	1/1	0.95	0.06	54,54,54,54	0
57	MG	BA	3392	1/1	0.95	0.14	139,139,139,139	0
57	MG	AA	1604	1/1	0.95	0.06	55,55,55,55	0
57	MG	BA	3079	1/1	0.95	0.11	31,31,31,31	0
57	MG	AA	1660	1/1	0.95	0.23	43,43,43,43	0
57	MG	AA	1697	1/1	0.95	0.08	78,78,78,78	0
57	MG	BA	3087	1/1	0.95	0.16	10,10,10,10	0
57	MG	BA	3343	1/1	0.95	0.09	37,37,37,37	0
57	MG	BA	3344	1/1	0.95	0.14	57,57,57,57	0
57	MG	BA	3292	1/1	0.95	0.06	23,23,23,23	0
57	MG	BA	3294	1/1	0.95	0.20	33,33,33,33	0
57	MG	DA	3303	1/1	0.95	0.21	30,30,30,30	0
57	MG	DA	3140	1/1	0.95	0.28	90,90,90,90	0
57	MG	CA	1790	1/1	0.95	0.10	48,48,48,48	0
57	MG	BA	3175	1/1	0.95	0.18	46,46,46,46	0
57	MG	BA	3348	1/1	0.95	0.12	79,79,79,79	0
57	MG	AA	1791	1/1	0.95	0.12	26,26,26,26	1
57	MG	BA	3048	1/1	0.95	0.27	33,33,33,33	0
57	MG	BA	3178	1/1	0.95	0.14	24,24,24,24	0
57	MG	DA	3150	1/1	0.95	0.08	65,65,65,65	1
57	MG	BA	3300	1/1	0.95	0.18	3,3,3,3	0
57	MG	BA	3217	1/1	0.95	0.08	78,78,78,78	0
57	MG	BA	3414	1/1	0.95	0.08	60,60,60,60	0
57	MG	BA	3050	1/1	0.95	0.17	30,30,30,30	0
57	MG	DA	3233	1/1	0.95	0.21	36,36,36,36	0
57	MG	CE	201	1/1	0.95	0.05	90,90,90,90	0
57	MG	BA	3132	1/1	0.95	0.12	14,14,14,14	0
57	MG	BA	3133	1/1	0.95	0.06	19,19,19,19	0
57	MG	BA	3135	1/1	0.95	0.27	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	AA	1654	1/1	0.95	0.05	52,52,52,52	1
57	MG	BA	3055	1/1	0.95	0.13	18,18,18,18	0
57	MG	CA	1747	1/1	0.95	0.21	62,62,62,62	0
57	MG	BA	3104	1/1	0.95	0.12	20,20,20,20	0
57	MG	BA	3056	1/1	0.95	0.17	17,17,17,17	0
57	MG	AA	1637	1/1	0.95	0.12	58,58,58,58	0
57	MG	DA	3165	1/1	0.95	0.06	78,78,78,78	0
57	MG	CA	1751	1/1	0.95	0.11	66,66,66,66	1
57	MG	BA	3028	1/1	0.95	0.16	12,12,12,12	0
57	MG	BA	3004	1/1	0.95	0.17	42,42,42,42	0
57	MG	BA	3194	1/1	0.95	0.09	42,42,42,42	0
57	MG	D5	101	1/1	0.95	0.16	51,51,51,51	0
57	MG	DB	204	1/1	0.95	0.07	90,90,90,90	0
57	MG	CA	1755	1/1	0.95	0.03	107,107,107,107	0
57	MG	BA	3110	1/1	0.95	0.07	44,44,44,44	0
57	MG	BA	3153	1/1	0.95	0.20	20,20,20,20	1
57	MG	DA	3089	1/1	0.95	0.12	26,26,26,26	0
57	MG	BA	3111	1/1	0.95	0.18	23,23,23,23	0
57	MG	DA	3091	1/1	0.95	0.10	39,39,39,39	0
57	MG	CA	1702	1/1	0.95	0.14	66,66,66,66	0
57	MG	DA	3095	1/1	0.95	0.05	37,37,37,37	0
57	MG	DA	3181	1/1	0.95	0.18	100,100,100,100	0
57	MG	DD	301	1/1	0.95	0.17	38,38,38,38	0
57	MG	DA	3098	1/1	0.95	0.30	38,38,38,38	0
57	MG	BA	3378	1/1	0.95	0.14	8,8,8,8	0
57	MG	BB	211	1/1	0.95	0.12	119,119,119,119	0
57	MG	DA	3185	1/1	0.95	0.14	33,33,33,33	0
57	MG	BA	3112	1/1	0.95	0.14	15,15,15,15	0
57	MG	DA	3103	1/1	0.95	0.21	34,34,34,34	0
57	MG	DA	3007	1/1	0.95	0.30	59,59,59,59	0
57	MG	AA	1773	1/1	0.95	0.12	72,72,72,72	0
57	MG	DA	3009	1/1	0.95	0.06	45,45,45,45	0
57	MG	BB	214	1/1	0.95	0.16	75,75,75,75	1
57	MG	BA	3102	1/1	0.96	0.16	13,13,13,13	0
57	MG	DA	3073	1/1	0.96	0.07	36,36,36,36	0
57	MG	DA	3171	1/1	0.96	0.12	43,43,43,43	0
57	MG	AA	1606	1/1	0.96	0.08	34,34,34,34	0
57	MG	DA	3076	1/1	0.96	0.11	45,45,45,45	0
57	MG	CW	101	1/1	0.96	0.09	144,144,144,144	0
57	MG	AA	1767	1/1	0.96	0.12	44,44,44,44	0
57	MG	BA	3009	1/1	0.96	0.17	17,17,17,17	0
57	MG	CW	105	1/1	0.96	0.07	70,70,70,70	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	AA	1674	1/1	0.96	0.10	42,42,42,42	0
57	MG	BA	3295	1/1	0.96	0.20	64,64,64,64	0
57	MG	CA	1679	1/1	0.96	0.04	86,86,86,86	0
57	MG	BA	3146	1/1	0.96	0.15	57,57,57,57	0
57	MG	BA	3255	1/1	0.96	0.13	37,37,37,37	0
57	MG	BA	3256	1/1	0.96	0.16	11,11,11,11	0
57	MG	BA	3183	1/1	0.96	0.16	20,20,20,20	0
57	MG	CA	1621	1/1	0.96	0.09	58,58,58,58	0
57	MG	BA	3040	1/1	0.96	0.12	20,20,20,20	0
57	MG	BA	3304	1/1	0.96	0.09	81,81,81,81	0
57	MG	DA	3371	1/1	0.96	0.09	61,61,61,61	1
57	MG	DA	3100	1/1	0.96	0.06	63,63,63,63	0
57	MG	AA	1662	1/1	0.96	0.05	95,95,95,95	0
57	MG	BA	3412	1/1	0.96	0.12	30,30,30,30	0
57	MG	CA	1689	1/1	0.96	0.07	40,40,40,40	0
57	MG	BA	3261	1/1	0.96	0.21	23,23,23,23	0
57	MG	DA	3377	1/1	0.96	0.15	24,24,24,24	0
57	MG	DA	3005	1/1	0.96	0.18	52,52,52,52	0
57	MG	CA	1628	1/1	0.96	0.08	81,81,81,81	0
57	MG	BA	3075	1/1	0.96	0.15	31,31,31,31	0
57	MG	DA	3381	1/1	0.96	0.08	45,45,45,45	0
57	MG	DA	3382	1/1	0.96	0.03	74,74,74,74	0
57	MG	BA	3078	1/1	0.96	0.09	13,13,13,13	0
57	MG	BA	3114	1/1	0.96	0.15	3,3,3,3	0
57	MG	DA	3385	1/1	0.96	0.11	79,79,79,79	0
57	MG	BA	3361	1/1	0.96	0.05	28,28,28,28	0
57	MG	CA	1760	1/1	0.96	0.04	145,145,145,145	0
57	MG	DA	3200	1/1	0.96	0.10	59,59,59,59	0
57	MG	BA	3362	1/1	0.96	0.15	85,85,85,85	0
57	MG	AA	1719	1/1	0.96	0.10	52,52,52,52	0
57	MG	DA	3204	1/1	0.96	0.30	39,39,39,39	0
57	MG	AA	1789	1/1	0.96	0.17	81,81,81,81	1
57	MG	CA	1699	1/1	0.96	0.05	50,50,50,50	0
57	MG	CA	1638	1/1	0.96	0.19	42,42,42,42	0
57	MG	DA	3396	1/1	0.96	0.15	145,145,145,145	0
57	MG	CA	1639	1/1	0.96	0.10	62,62,62,62	0
57	MG	BA	3267	1/1	0.96	0.13	56,56,56,56	0
57	MG	BA	3315	1/1	0.96	0.04	83,83,83,83	0
57	MG	CA	1769	1/1	0.96	0.07	27,27,27,27	0
57	MG	DA	3401	1/1	0.96	0.07	57,57,57,57	0
57	MG	CA	1704	1/1	0.96	0.13	114,114,114,114	0
57	MG	AA	1778	1/1	0.96	0.41	65,65,65,65	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	BA	3156	1/1	0.96	0.06	20,20,20,20	0
57	MG	CA	1707	1/1	0.96	0.09	119,119,119,119	0
57	MG	DA	3131	1/1	0.96	0.08	23,23,23,23	0
57	MG	BA	3319	1/1	0.96	0.15	3,3,3,3	1
57	MG	AA	1696	1/1	0.96	0.04	47,47,47,47	0
57	MG	DA	3409	1/1	0.96	0.11	121,121,121,121	0
57	MG	CA	1776	1/1	0.96	0.05	46,46,46,46	0
57	MG	BB	205	1/1	0.96	0.12	25,25,25,25	0
57	MG	BA	3022	1/1	0.96	0.20	20,20,20,20	0
57	MG	BA	3121	1/1	0.96	0.14	40,40,40,40	0
57	MG	CA	1715	1/1	0.96	0.11	66,66,66,66	0
57	MG	DA	3038	1/1	0.96	0.08	49,49,49,49	0
57	MG	BA	3001	1/1	0.96	0.06	33,33,33,33	0
57	MG	AI	201	1/1	0.96	0.12	109,109,109,109	0
57	MG	BA	3092	1/1	0.96	0.12	28,28,28,28	0
57	MG	BA	3278	1/1	0.96	0.12	127,127,127,127	0
57	MG	BA	3094	1/1	0.96	0.08	24,24,24,24	0
57	MG	BA	3330	1/1	0.96	0.15	85,85,85,85	1
57	MG	BD	301	1/1	0.96	0.14	16,16,16,16	0
57	MG	DA	3235	1/1	0.96	0.17	30,30,30,30	0
57	MG	BF	301	1/1	0.96	0.07	41,41,41,41	0
57	MG	DB	205	1/1	0.96	0.04	55,55,55,55	0
57	MG	DA	3237	1/1	0.96	0.10	156,156,156,156	0
57	MG	BA	3205	1/1	0.96	0.14	17,17,17,17	0
57	MG	BA	3167	1/1	0.96	0.32	32,32,32,32	1
57	MG	DA	3330	1/1	0.96	0.07	51,51,51,51	1
57	MG	BA	3169	1/1	0.96	0.13	18,18,18,18	0
57	MG	DA	3333	1/1	0.96	0.12	108,108,108,108	0
57	MG	DA	3241	1/1	0.96	0.15	32,32,32,32	0
57	MG	DA	3054	1/1	0.96	0.17	90,90,90,90	0
57	MG	BA	3385	1/1	0.96	0.05	87,87,87,87	0
57	MG	BA	3170	1/1	0.96	0.09	61,61,61,61	0
57	MG	BA	3388	1/1	0.96	0.15	12,12,12,12	0
57	MG	DF	302	1/1	0.96	0.20	91,91,91,91	0
57	MG	BA	3095	1/1	0.96	0.19	27,27,27,27	0
57	MG	AA	1633	1/1	0.96	0.08	40,40,40,40	0
57	MG	DA	3064	1/1	0.96	0.06	32,32,32,32	0
57	MG	BA	3286	1/1	0.96	0.17	16,16,16,16	0
57	MG	CI	201	1/1	0.96	0.06	75,75,75,75	0
57	MG	CA	1607	1/1	0.96	0.13	30,30,30,30	0
57	MG	BA	3287	1/1	0.96	0.21	31,31,31,31	0
57	MG	BA	3059	1/1	0.96	0.13	9,9,9,9	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	DA	3071	1/1	0.96	0.24	23,23,23,23	0
57	MG	BA	3068	1/1	0.97	0.06	38,38,38,38	0
57	MG	BA	3011	1/1	0.97	0.10	32,32,32,32	0
57	MG	DA	3203	1/1	0.97	0.06	56,56,56,56	0
57	MG	B5	101	1/1	0.97	0.11	42,42,42,42	0
57	MG	DA	3043	1/1	0.97	0.09	51,51,51,51	0
57	MG	DA	3206	1/1	0.97	0.06	33,33,33,33	0
57	MG	BA	3113	1/1	0.97	0.12	3,3,3,3	0
57	MG	BA	3074	1/1	0.97	0.08	24,24,24,24	0
57	MG	BA	3350	1/1	0.97	0.11	81,81,81,81	1
57	MG	AA	1779	1/1	0.97	0.06	90,90,90,90	0
57	MG	B7	101	1/1	0.97	0.11	45,45,45,45	1
57	MG	BA	3206	1/1	0.97	0.09	22,22,22,22	0
57	MG	BA	3301	1/1	0.97	0.25	57,57,57,57	0
57	MG	DA	3295	1/1	0.97	0.07	78,78,78,78	0
57	MG	BA	3016	1/1	0.97	0.28	28,28,28,28	0
57	MG	BA	3044	1/1	0.97	0.11	1,1,1,1	0
57	MG	BA	3017	1/1	0.97	0.08	9,9,9,9	0
57	MG	DA	3142	1/1	0.97	0.33	65,65,65,65	0
57	MG	DA	3143	1/1	0.97	0.23	18,18,18,18	0
57	MG	DA	3144	1/1	0.97	0.07	63,63,63,63	1
57	MG	DA	3302	1/1	0.97	0.04	43,43,43,43	1
57	MG	BA	3083	1/1	0.97	0.19	30,30,30,30	0
57	MG	BA	3165	1/1	0.97	0.07	38,38,38,38	0
57	MG	BA	3363	1/1	0.97	0.10	73,73,73,73	0
57	MG	DA	3061	1/1	0.97	0.13	30,30,30,30	0
57	MG	DA	3063	1/1	0.97	0.17	32,32,32,32	0
57	MG	BA	3166	1/1	0.97	0.07	31,31,31,31	0
57	MG	BA	3018	1/1	0.97	0.17	9,9,9,9	0
57	MG	BA	3168	1/1	0.97	0.13	87,87,87,87	0
57	MG	AA	1628	1/1	0.97	0.06	37,37,37,37	0
57	MG	CA	1636	1/1	0.97	0.16	50,50,50,50	0
57	MG	AA	1782	1/1	0.97	0.15	96,96,96,96	1
57	MG	D2	603	1/1	0.97	0.09	95,95,95,95	0
57	MG	BA	3316	1/1	0.97	0.08	55,55,55,55	1
57	MG	BA	3171	1/1	0.97	0.06	31,31,31,31	0
57	MG	BA	3172	1/1	0.97	0.05	52,52,52,52	0
57	MG	BA	3268	1/1	0.97	0.11	34,34,34,34	0
57	MG	DA	3078	1/1	0.97	0.10	20,20,20,20	0
57	MG	BA	3269	1/1	0.97	0.18	38,38,38,38	0
57	MG	BA	3090	1/1	0.97	0.12	29,29,29,29	0
57	MG	AA	1756	1/1	0.97	0.12	47,47,47,47	1

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	BA	3377	1/1	0.97	0.16	126,126,126,126	0
57	MG	DA	3085	1/1	0.97	0.05	32,32,32,32	0
57	MG	DA	3167	1/1	0.97	0.10	37,37,37,37	0
57	MG	BA	3129	1/1	0.97	0.15	10,10,10,10	0
57	MG	BA	3053	1/1	0.97	0.16	64,64,64,64	0
57	MG	BA	3093	1/1	0.97	0.06	7,7,7,7	0
57	MG	AL	201	1/1	0.97	0.08	81,81,81,81	0
57	MG	BD	302	1/1	0.97	0.12	22,22,22,22	0
57	MG	CA	1652	1/1	0.97	0.11	52,52,52,52	0
57	MG	BE	301	1/1	0.97	0.10	30,30,30,30	0
57	MG	BA	3134	1/1	0.97	0.05	10,10,10,10	0
57	MG	BA	3026	1/1	0.97	0.15	8,8,8,8	0
57	MG	BA	3136	1/1	0.97	0.17	16,16,16,16	0
57	MG	BV	201	1/1	0.97	0.11	64,64,64,64	0
57	MG	DA	3257	1/1	0.97	0.04	52,52,52,52	0
57	MG	BA	3027	1/1	0.97	0.10	30,30,30,30	0
57	MG	AA	1642	1/1	0.97	0.14	45,45,45,45	0
57	MG	CA	1601	1/1	0.97	0.06	140,140,140,140	0
57	MG	BA	3185	1/1	0.97	0.09	1,1,1,1	0
57	MG	BA	3060	1/1	0.97	0.16	1,1,1,1	0
57	MG	CA	1663	1/1	0.97	0.04	53,53,53,53	0
57	MG	BA	3145	1/1	0.97	0.09	27,27,27,27	0
57	MG	DA	3348	1/1	0.97	0.05	64,64,64,64	0
57	MG	BA	3103	1/1	0.97	0.10	31,31,31,31	0
57	MG	BA	3147	1/1	0.97	0.11	26,26,26,26	0
57	MG	BA	3031	1/1	0.97	0.23	44,44,44,44	0
57	MG	CA	1787	1/1	0.97	0.05	66,66,66,66	0
57	MG	DA	3030	1/1	0.97	0.10	47,47,47,47	0
57	MG	DE	301	1/1	0.97	0.10	39,39,39,39	0
57	MG	DA	3115	1/1	0.97	0.10	22,22,22,22	0
57	MG	DA	3031	1/1	0.97	0.12	41,41,41,41	0
57	MG	BA	3192	1/1	0.97	0.04	21,21,21,21	0
57	MG	BA	3063	1/1	0.97	0.12	1,1,1,1	0
57	MG	DA	3120	1/1	0.97	0.07	39,39,39,39	0
57	MG	CA	1670	1/1	0.97	0.05	69,69,69,69	0
57	MG	AA	1688	1/1	0.97	0.13	35,35,35,35	0
57	MG	AV	102	1/1	0.97	0.04	93,93,93,93	1
57	MG	CA	1732	1/1	0.97	0.06	82,82,82,82	0
57	MG	BA	3036	1/1	0.97	0.10	29,29,29,29	0
57	MG	DA	3014	1/1	0.98	0.08	31,31,31,31	0
57	MG	DA	3268	1/1	0.98	0.09	41,41,41,41	0
57	MG	DA	3269	1/1	0.98	0.10	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	CA	1710	1/1	0.98	0.03	54,54,54,54	0
57	MG	BA	3198	1/1	0.98	0.11	51,51,51,51	0
57	MG	DA	3017	1/1	0.98	0.23	31,31,31,31	0
57	MG	BA	3124	1/1	0.98	0.07	46,46,46,46	0
57	MG	BA	3386	1/1	0.98	0.06	76,76,76,76	0
57	MG	CA	1714	1/1	0.98	0.03	62,62,62,62	0
57	MG	BA	3061	1/1	0.98	0.15	10,10,10,10	0
57	MG	BO	201	1/1	0.98	0.07	29,29,29,29	0
57	MG	DA	3107	1/1	0.98	0.04	32,32,32,32	0
57	MG	AA	1780	1/1	0.98	0.15	115,115,115,115	0
57	MG	BA	3005	1/1	0.98	0.21	7,7,7,7	0
57	MG	DA	3110	1/1	0.98	0.10	41,41,41,41	0
57	MG	BA	3203	1/1	0.98	0.06	30,30,30,30	0
57	MG	CA	1781	1/1	0.98	0.06	58,58,58,58	0
57	MG	BA	3391	1/1	0.98	0.05	37,37,37,37	0
57	MG	AA	1709	1/1	0.98	0.04	49,49,49,49	0
57	MG	CA	1784	1/1	0.98	0.06	68,68,68,68	1
57	MG	BA	3098	1/1	0.98	0.08	6,6,6,6	0
57	MG	BA	3293	1/1	0.98	0.05	87,87,87,87	0
57	MG	BA	3099	1/1	0.98	0.05	37,37,37,37	0
57	MG	BA	3065	1/1	0.98	0.09	1,1,1,1	0
57	MG	BA	3397	1/1	0.98	0.14	73,73,73,73	0
57	MG	BA	3020	1/1	0.98	0.10	28,28,28,28	0
57	MG	CA	1608	1/1	0.98	0.06	39,39,39,39	0
57	MG	DA	3037	1/1	0.98	0.10	45,45,45,45	0
57	MG	DA	3208	1/1	0.98	0.04	32,32,32,32	0
57	MG	AE	201	1/1	0.98	0.07	101,101,101,101	0
57	MG	BA	3042	1/1	0.98	0.12	36,36,36,36	0
57	MG	BA	3008	1/1	0.98	0.11	3,3,3,3	0
57	MG	BA	3173	1/1	0.98	0.04	33,33,33,33	0
57	MG	BA	3137	1/1	0.98	0.04	33,33,33,33	0
57	MG	BA	3302	1/1	0.98	0.07	26,26,26,26	0
57	MG	AA	1725	1/1	0.98	0.07	104,104,104,104	0
57	MG	DA	3046	1/1	0.98	0.22	30,30,30,30	0
57	MG	BA	3139	1/1	0.98	0.13	85,85,85,85	0
57	MG	BA	3140	1/1	0.98	0.27	66,66,66,66	0
57	MG	BA	3408	1/1	0.98	0.13	43,43,43,43	0
57	MG	DA	3137	1/1	0.98	0.07	21,21,21,21	0
57	MG	BA	3141	1/1	0.98	0.26	56,56,56,56	0
57	MG	BA	3410	1/1	0.98	0.16	120,120,120,120	0
57	MG	DA	3052	1/1	0.98	0.08	30,30,30,30	0
57	MG	CV	101	1/1	0.98	0.08	20,20,20,20	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	CV	102	1/1	0.98	0.07	46,46,46,46	1
57	MG	BA	3411	1/1	0.98	0.08	51,51,51,51	1
57	MG	BA	3218	1/1	0.98	0.10	6,6,6,6	0
57	MG	DA	3316	1/1	0.98	0.04	88,88,88,88	0
57	MG	BA	3358	1/1	0.98	0.08	24,24,24,24	0
57	MG	BA	3106	1/1	0.98	0.06	20,20,20,20	0
57	MG	BA	3073	1/1	0.98	0.06	5,5,5,5	0
57	MG	CW	103	1/1	0.98	0.03	87,87,87,87	0
57	MG	DA	3062	1/1	0.98	0.17	33,33,33,33	0
57	MG	CA	1626	1/1	0.98	0.12	34,34,34,34	0
57	MG	BA	3046	1/1	0.98	0.09	4,4,4,4	0
57	MG	DA	3065	1/1	0.98	0.07	17,17,17,17	0
57	MG	BA	3025	1/1	0.98	0.21	9,9,9,9	0
57	MG	AA	1609	1/1	0.98	0.06	36,36,36,36	0
57	MG	AA	1626	1/1	0.98	0.05	37,37,37,37	0
57	MG	AA	1691	1/1	0.98	0.06	27,27,27,27	0
57	MG	BA	3013	1/1	0.98	0.09	7,7,7,7	0
57	MG	DA	3242	1/1	0.98	0.05	18,18,18,18	0
57	MG	D2	601	1/1	0.98	0.09	35,35,35,35	1
57	MG	DA	3332	1/1	0.98	0.27	33,33,33,33	0
57	MG	CA	1633	1/1	0.98	0.04	42,42,42,42	0
57	MG	AA	1713	1/1	0.98	0.06	53,53,53,53	0
57	MG	BA	3085	1/1	0.98	0.07	21,21,21,21	0
57	MG	DA	3075	1/1	0.98	0.08	37,37,37,37	0
57	MG	BA	3321	1/1	0.98	0.09	80,80,80,80	0
57	MG	DA	3077	1/1	0.98	0.08	29,29,29,29	0
57	MG	BA	3229	1/1	0.98	0.24	20,20,20,20	0
57	MG	DA	3079	1/1	0.98	0.06	37,37,37,37	0
57	MG	BA	3086	1/1	0.98	0.13	32,32,32,32	0
57	MG	BA	3033	1/1	0.98	0.19	33,33,33,33	0
57	MG	BA	3325	1/1	0.98	0.10	88,88,88,88	1
57	MG	BA	3034	1/1	0.98	0.09	40,40,40,40	0
57	MG	BA	3058	1/1	0.98	0.22	19,19,19,19	0
57	MG	DF	301	1/1	0.98	0.04	56,56,56,56	0
57	MG	BB	209	1/1	0.98	0.38	1,1,1,1	1
57	MG	AA	1692	1/1	0.98	0.04	72,72,72,72	0
57	MG	BA	3122	1/1	0.98	0.12	94,94,94,94	0
57	MG	BA	3159	1/1	0.98	0.07	37,37,37,37	0
57	MG	BA	3238	1/1	0.98	0.15	51,51,51,51	0
57	MG	BA	3239	1/1	0.98	0.10	20,20,20,20	0
57	MG	AA	1614	1/1	0.98	0.20	14,14,14,14	0
57	MG	DA	3093	1/1	0.98	0.12	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	CA	1650	1/1	0.98	0.07	89,89,89,89	1
57	MG	DA	3096	1/1	0.98	0.10	24,24,24,24	0
59	ZN	D9	101	1/1	0.98	0.08	136,136,136,136	0
57	MG	AA	1687	1/1	0.99	0.04	9,9,9,9	1
57	MG	AV	101	1/1	0.99	0.09	36,36,36,36	0
57	MG	BA	3084	1/1	0.99	0.06	12,12,12,12	0
57	MG	AX	101	1/1	0.99	0.06	118,118,118,118	0
57	MG	BA	3070	1/1	0.99	0.23	2,2,2,2	0
57	MG	BA	3191	1/1	0.99	0.07	14,14,14,14	0
57	MG	DA	3010	1/1	0.99	0.14	18,18,18,18	0
57	MG	BA	3049	1/1	0.99	0.11	84,84,84,84	1
57	MG	AA	1714	1/1	0.99	0.03	29,29,29,29	0
57	MG	DA	3417	1/1	0.99	0.06	37,37,37,37	0
57	MG	BA	3232	1/1	0.99	0.10	27,27,27,27	0
57	MG	DA	3044	1/1	0.99	0.08	40,40,40,40	0
57	MG	BA	3051	1/1	0.99	0.09	5,5,5,5	0
57	MG	BA	3002	1/1	0.99	0.07	139,139,139,139	0
57	MG	BA	3076	1/1	0.99	0.10	25,25,25,25	0
57	MG	BA	3142	1/1	0.99	0.25	20,20,20,20	0
57	MG	BA	3043	1/1	0.99	0.04	20,20,20,20	0
57	MG	DA	3117	1/1	0.99	0.03	16,16,16,16	0
57	MG	DA	3082	1/1	0.99	0.06	59,59,59,59	0
57	MG	BA	3303	1/1	0.99	0.08	49,49,49,49	1
57	MG	BA	3259	1/1	0.99	0.06	24,24,24,24	0
57	MG	CX	102	1/1	0.99	0.05	110,110,110,110	0
57	MG	BA	3029	1/1	0.99	0.04	40,40,40,40	0
57	MG	DA	3309	1/1	0.99	0.02	47,47,47,47	0
57	MG	DA	3123	1/1	0.99	0.07	89,89,89,89	0
57	MG	DA	3390	1/1	0.99	0.04	48,48,48,48	0
57	MG	BA	3306	1/1	0.99	0.04	18,18,18,18	0
57	MG	DA	3055	1/1	0.99	0.06	31,31,31,31	0
57	MG	BA	3357	1/1	0.99	0.14	84,84,84,84	0
57	MG	BA	3307	1/1	0.99	0.04	23,23,23,23	0
57	MG	BA	3359	1/1	0.99	0.06	86,86,86,86	1
57	MG	BA	3030	1/1	0.99	0.09	18,18,18,18	0
57	MG	BA	3240	1/1	0.99	0.03	11,11,11,11	0
57	MG	DA	3094	1/1	0.99	0.04	22,22,22,22	0
57	MG	BA	3081	1/1	0.99	0.05	7,7,7,7	0
57	MG	BA	3096	1/1	0.99	0.05	1,1,1,1	0
57	MG	DA	3359	1/1	0.99	0.04	62,62,62,62	1
57	MG	DA	3097	1/1	0.99	0.02	25,25,25,25	0
57	MG	BA	3364	1/1	0.99	0.06	35,35,35,35	0

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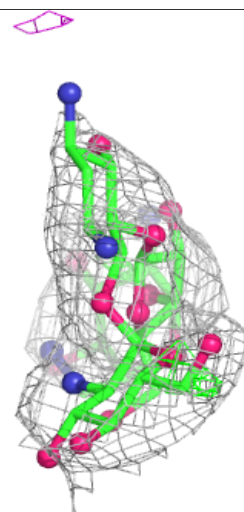
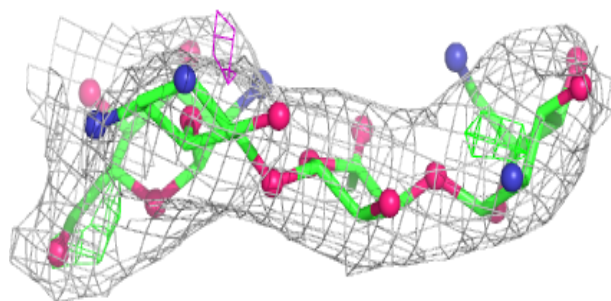
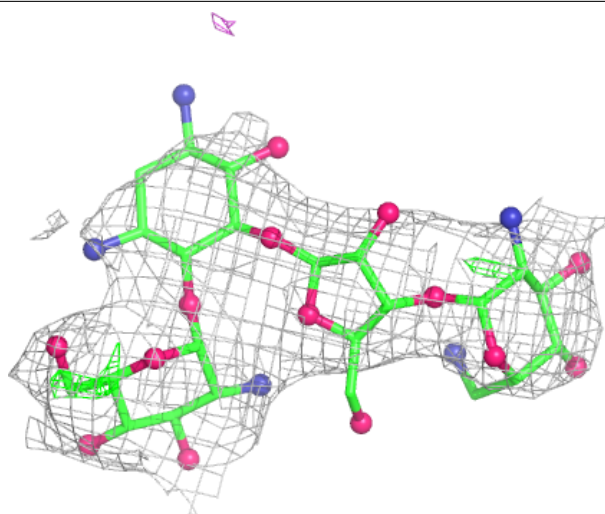
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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	BA	3130	1/1	0.99	0.08	8,8,8,8	0
57	MG	DA	3363	1/1	0.99	0.04	68,68,68,68	0
57	MG	DA	3364	1/1	0.99	0.08	52,52,52,52	0
59	ZN	AD	302	1/1	0.99	0.11	55,55,55,55	0
59	ZN	AN	102	1/1	0.99	0.06	109,109,109,109	0
59	ZN	B9	101	1/1	0.99	0.04	94,94,94,94	0
59	ZN	CD	301	1/1	0.99	0.10	55,55,55,55	0
59	ZN	CN	102	1/1	0.99	0.02	120,120,120,120	0
57	MG	BA	3097	1/1	0.99	0.17	7,7,7,7	0
57	MG	DA	3234	1/1	1.00	0.04	22,22,22,22	0
57	MG	BA	3116	1/1	1.00	0.01	4,4,4,4	0
57	MG	BA	3054	1/1	1.00	0.05	1,1,1,1	0
57	MG	BA	3077	1/1	1.00	0.01	1,1,1,1	0
57	MG	BA	3024	1/1	1.00	0.20	11,11,11,11	0
57	MG	BA	3072	1/1	1.00	0.03	3,3,3,3	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.

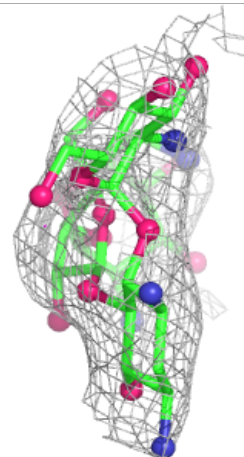
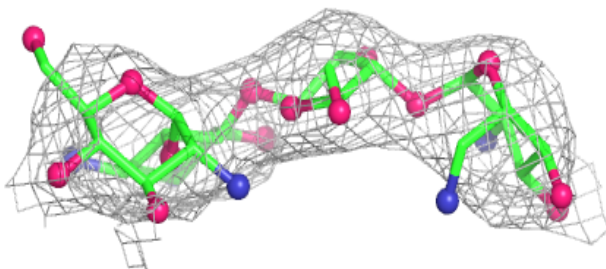
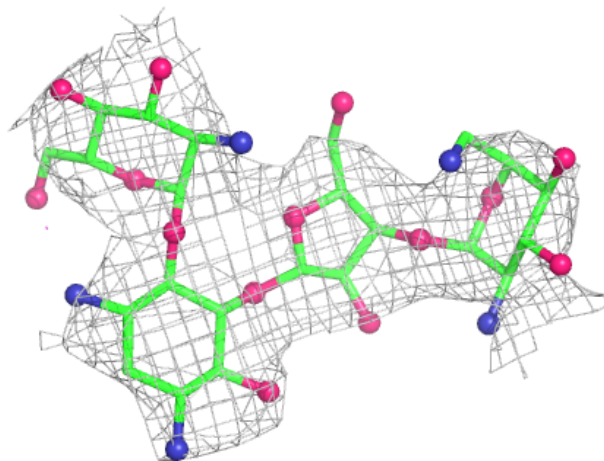
Electron density around PAR CA 1800:

$2mF_o-DF_c$ (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.