Full wwPDB X-ray Structure Validation Report (i)

Mar 29, 2026 – 01:08 AM UTC

PDB ID	:	4V8D / pdb_00004v8d
Title	:	Structure analysis of ribosomal decoding (cognate tRNA-tyr complex).
Authors	:	Jenner, L.; Demeshkina, N.; Yusupov, M.; Yusupova, G.
Deposited on	:	2011-12-07
Resolution	:	3.00 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 (i) symbol.

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

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

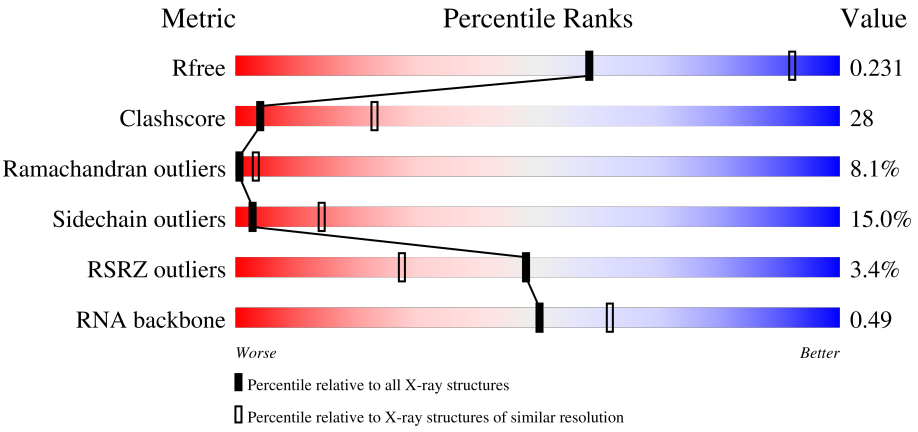
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry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

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.00 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	2672 (3.00-3.00)
Clashscore	190562	2977 (3.00-3.00)
Ramachandran outliers	187476	2877 (3.00-3.00)
Sidechain outliers	187428	2880 (3.00-3.00)
RSRZ outliers	180081	2671 (3.00-3.00)
RNA backbone	3983	1109 (3.20-2.80)

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

Mol	Chain	Length	Quality of chain
1	AA	1506	38% 46% 16%
1	CA	1506	% 38% 46% 16%
2	AE	256	4% 27% 49% 15% • 7%
2	CE	256	4% 30% 46% 16% 7%

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Mol	Chain	Length	Quality of chain
3	AF	239	3% 32% 45% 9% 14%
3	CF	239	6% 35% 43% 8% 14%
4	AG	208	3% 49% 42% 8%
4	CG	208	4% 50% 35% 13%
5	AH	162	% 36% 46% 9% 7%
5	CH	162	5% 44% 42% 7% 7%
6	AI	101	42% 50% 9%
6	CI	101	54% 38% 8%
7	AJ	156	10% 47% 42% 10%
7	CJ	156	8% 49% 39% 12%
8	AK	138	40% 51% 9%
8	CK	138	% 54% 41% 5%
9	AL	128	2% 33% 56% 10%
9	CL	128	8% 30% 55% 15%
10	AM	105	% 36% 47% 11% 6%
10	CM	105	7% 31% 50% 11% 6%
11	AN	129	5% 37% 51% 8%
11	CN	129	2% 53% 34% 5% 8%
12	AO	132	5% 50% 34% 9% 5%
12	CO	132	10% 45% 39% 9% 5%
13	AP	126	4% 38% 40% 13% 8%
13	CP	126	10% 29% 51% 13% 7%
14	AQ	61	5% 31% 41% 21% 5%
14	CQ	61	5% 31% 44% 20% 5%
15	AR	89	% 57% 37%

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Mol	Chain	Length	Quality of chain
15	CR	89	55% 34% 10%
16	AS	88	5% 35% 53% 5% 5%
16	CS	88	56% 35% 5% 5%
17	AT	105	8% 45% 41% 9% 5%
17	CT	105	6% 51% 42% 5%
18	AU	88	36% 39% 7% 18%
18	CU	88	40% 33% 9% 18%
19	AV	93	5% 29% 41% 13% 16%
19	CV	93	10% 26% 46% 10% 16%
20	AW	106	7% 37% 44% 11% 7%
20	CW	106	3% 34% 46% 12% 7%
21	AX	27	7% 26% 63% 7%
21	CX	27	11% 30% 59% 7%
22	AB	85	6% 20% 34% 46%
22	AD	85	4% 16% 52% 31%
22	CB	85	4% 15% 46% 39%
22	CD	85	2% 32% 42% 26%
23	AC	77	45% 45% 9%
23	CC	77	49% 40% 10%
24	A1	16	19% 38% 25% 38%
24	C1	16	19% 50% 19% 31%
25	BA	2912	44% 42% 14%
25	DA	2912	39% 45% 15%
26	BB	122	33% 57% 11%
26	DB	122	2% 40% 40% 20%

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Mol	Chain	Length	Quality of chain
27	BD	276	3% 45% 43% 9%
27	DD	276	3% 46% 41% 9%
28	BE	206	7% 37% 41% 19%
28	DE	206	6% 29% 47% 22%
29	BF	210	2% 46% 39% 10%
29	DF	210	% 37% 40% 21%
30	BG	182	2% 36% 51% 13%
30	DG	182	8% 38% 51% 10%
31	BH	180	3% 31% 39% 20% 6%
31	DH	180	13% 38% 39% 17% 6%
32	BK	148	4% 27% 51% 18%
32	DK	148	6% 39% 44% 16%
33	BM	140	4% 45% 39% 14%
33	DM	140	3% 36% 43% 19%
34	BN	122	52% 39% 8%
34	DN	122	2% 49% 39% 11%
35	BO	150	7% 31% 41% 23% 5%
35	DO	150	16% 27% 37% 26% 9%
36	BP	141	13% 38% 40% 21%
36	DP	141	18% 24% 53% 20%
37	B0	118	2% 38% 46% 14%
37	D0	118	2% 38% 46% 15%
38	BQ	112	3% 38% 45% 17%
38	DQ	112	4% 37% 48% 13%
39	BR	146	6% 32% 43% 18% 6%

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Mol	Chain	Length	Quality of chain
39	DR	146	4% 36% 44% 13% 6%
40	B1	118	2% 42% 44% 13%
40	D1	118	% 46% 45% 7%
41	B2	101	6% 43% 42% 15%
41	D2	101	3% 33% 48% 15% 5%
42	BS	113	2% 49% 40% 11%
42	DS	113	4% 50% 39% 11%
43	BT	96	2% 46% 39% 11%
43	DT	96	4% 43% 43% 10%
44	BU	110	11% 28% 45% 16% 7%
44	DU	110	25% 32% 36% 20% 5% 7%
45	BV	206	4% 24% 41% 17% 15%
45	DV	206	5% 27% 41% 17% 13%
46	B3	85	6% 41% 40% 8% 11%
46	D3	85	7% 42% 39% 9% 9%
47	BZ	98	7% 48% 44% 6%
47	DZ	98	6% 49% 37% 10%
48	BW	72	8% 40% 35% 14% 8%
48	DW	72	4% 31% 49% 10% 8%
49	BX	60	53% 38% 7%
49	DX	60	2% 35% 55% 8%
50	B4	71	4% 17% 46% 24% 6% 7%
50	D4	71	8% 11% 44% 31% 11%
51	B5	60	13% 38% 37% 20%
51	D5	60	10% 47% 37% 13%

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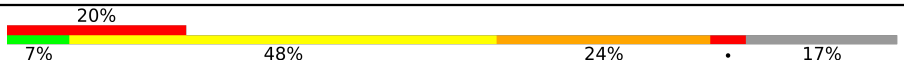
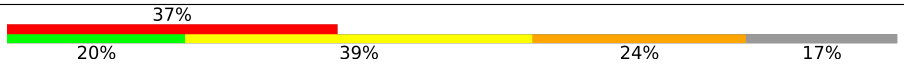
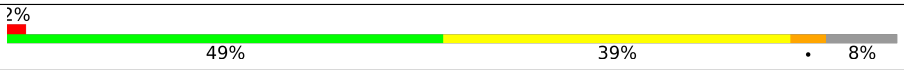
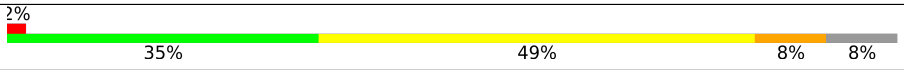
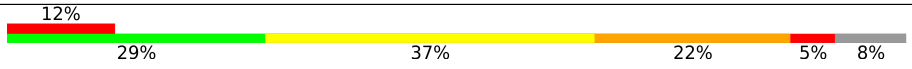
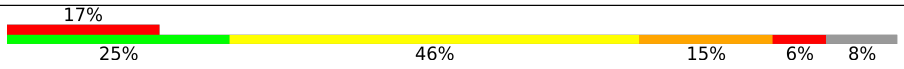
Mol	Chain	Length	Quality of chain
52	B6	54	
52	D6	54	
53	B7	49	
53	D7	49	
54	B8	65	
54	D8	65	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	AA	1633	-	-	-	X
55	MG	AA	1643	-	-	-	X
55	MG	AA	1751	-	-	-	X
55	MG	AA	1757	-	-	-	X
55	MG	AA	1777	-	-	-	X
55	MG	AA	1804	-	-	-	X
55	MG	AA	1810	-	-	-	X
55	MG	BA	3126	-	-	-	X
55	MG	BA	3270	-	-	-	X
55	MG	BA	3382	-	-	-	X
55	MG	BA	3424	-	-	-	X
55	MG	BA	3472	-	-	-	X
55	MG	BA	3540	-	-	-	X
55	MG	CA	1675	-	-	-	X
55	MG	CA	1684	-	-	-	X
55	MG	CA	1716	-	-	-	X
55	MG	CA	1729	-	-	-	X
55	MG	CA	1733	-	-	-	X
55	MG	CA	1776	-	-	-	X
55	MG	CA	1785	-	-	-	X
55	MG	CA	1806	-	-	-	X
55	MG	CA	1808	-	-	-	X
55	MG	DA	3114	-	-	-	X
55	MG	DA	3125	-	-	-	X
55	MG	DA	3225	-	-	-	X
55	MG	DA	3239	-	-	-	X
55	MG	DA	3243	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	DA	3270	-	-	-	X
55	MG	DA	3279	-	-	-	X
55	MG	DA	3310	-	-	-	X
55	MG	DA	3320	-	-	-	X
55	MG	DA	3358	-	-	-	X
55	MG	DA	3366	-	-	-	X
55	MG	DA	3370	-	-	-	X
55	MG	DA	3371	-	-	-	X
55	MG	DA	3403	-	-	-	X
55	MG	DA	3406	-	-	-	X
55	MG	DA	3439	-	-	-	X

2 Entry composition (i)

There are 56 unique types of molecules in this entry. The entry contains 299676 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	1502	Total	C	N	O	P	0	0	0
			32284	14370	5982	10431	1501			
1	CA	1502	Total	C	N	O	P	0	0	0
			32287	14370	5982	10433	1502			

- Molecule 2 is a protein called 30S RIBOSOMAL PROTEIN S2.

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

- Molecule 3 is a protein called 30S RIBOSOMAL PROTEIN S3.

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

- Molecule 4 is a protein called 30S RIBOSOMAL PROTEIN S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AG	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			
4	CG	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	AH	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			
5	CH	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			

- Molecule 6 is a protein called 30S RIBOSOMAL PROTEIN S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AI	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
6	CI	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	AJ	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
7	CJ	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	AK	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			
8	CK	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	AL	127	Total	C	N	O	0	0	0
			1010	639	197	174			
9	CL	127	Total	C	N	O	0	0	0
			1010	639	197	174			

- Molecule 10 is a protein called 30S RIBOSOMAL PROTEIN S10.

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

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

- Molecule 11 is a protein called 30S RIBOSOMAL PROTEIN S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AN	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			
11	CN	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	AO	125	Total	C	N	O	S	0	0	0
			975	614	196	164	1			
12	CO	125	Total	C	N	O	S	0	0	0
			975	614	196	164	1			

- Molecule 13 is a protein called 30S RIBOSOMAL PROTEIN S13.

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

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

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

- Molecule 15 is a protein called 30S RIBOSOMAL PROTEIN S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AR	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			
15	CR	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	AS	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			
16	CS	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			

- Molecule 17 is a protein called 30S RIBOSOMAL PROTEIN S17.

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

- Molecule 18 is a protein called 30S RIBOSOMAL PROTEIN S18.

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

- Molecule 19 is a protein called 30S RIBOSOMAL PROTEIN S19.

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

- Molecule 20 is a protein called 30S RIBOSOMAL PROTEIN S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AW	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			
20	CW	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	AX	25	Total	C	N	O	0	0	0
			217	134	52	31			
21	CX	25	Total	C	N	O	0	0	0
			217	134	52	31			

- Molecule 22 is a RNA chain called TRNA-TYR.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
22	AB	85	Total	C	N	O	P	S	0	0	0
			1814	813	323	592	85	1			
22	AD	85	Total	C	N	O	P	S	0	0	0
			1814	813	323	592	85	1			
22	CB	85	Total	C	N	O	P	S	0	0	0
			1814	813	323	592	85	1			
22	CD	85	Total	C	N	O	P	S	0	0	0
			1814	813	323	592	85	1			

- Molecule 23 is a RNA chain called TRNA-FMET.

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

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AC	18	C	U	conflict	GB AP012306.1
CC	18	C	U	conflict	GB AP012306.1

- Molecule 24 is a RNA chain called MRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	A1	16	Total	C	N	O	P	0	0	0
			346	156	69	105	16			
24	C1	16	Total	C	N	O	P	0	0	0
			346	156	69	105	16			

- Molecule 25 is a RNA chain called RNA (2912-MER).

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

There are 14 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BA	161	U	-	insertion	GB AP008226.1
BA	654A	A	G	conflict	GB AP008226.1
BA	654E	C	G	conflict	GB AP008226.1
BA	654P	G	C	conflict	GB AP008226.1
BA	654T	A	C	conflict	GB AP008226.1
BA	1058	U	G	conflict	GB AP008226.1
BA	1080	A	C	conflict	GB AP008226.1
DA	166	U	-	insertion	GB AP008226.1
DA	654A	A	G	conflict	GB AP008226.1
DA	654E	C	G	conflict	GB AP008226.1
DA	654P	G	C	conflict	GB AP008226.1
DA	654T	A	C	conflict	GB AP008226.1
DA	1058	U	G	conflict	GB AP008226.1
DA	1080	A	C	conflict	GB AP008226.1

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

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

- Molecule 27 is a protein called 50S ribosomal protein L2.

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

- Molecule 28 is a protein called 50S ribosomal protein L3.

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

- Molecule 29 is a protein called 50S ribosomal protein L4.

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

- Molecule 30 is a protein called 50S ribosomal protein L5.

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

- Molecule 31 is a protein called 50S ribosomal protein L6.

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

- Molecule 32 is a protein called 50S ribosomal protein L9.

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

- Molecule 33 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BM	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

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

- Molecule 34 is a protein called 50S ribosomal protein L14.

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

- Molecule 35 is a protein called 50S ribosomal protein L15.

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

- Molecule 36 is a protein called 50S ribosomal protein L16.

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

- Molecule 37 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	B0	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
37	D0	117	Total	C	N	O		0	0	0
			960	599	202	159				

- Molecule 38 is a protein called 50S ribosomal protein L18.

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

- Molecule 39 is a protein called 50S ribosomal protein L19.

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

- Molecule 40 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	B1	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			
40	D1	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			

- Molecule 41 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	B2	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			
41	D2	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			

- Molecule 42 is a protein called 50S ribosomal protein L22.

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

- Molecule 43 is a protein called 50S ribosomal protein L23.

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

- Molecule 44 is a protein called 50S ribosomal protein L24.

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

- Molecule 45 is a protein called 50S ribosomal protein L25.

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

- Molecule 46 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	B3	76	Total	C	N	O	S	0	0	0
			607	376	128	102	1			
46	D3	77	Total	C	N	O	S	0	0	0
			613	379	129	104	1			

- Molecule 47 is a protein called 50S ribosomal protein L28.

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

- Molecule 48 is a protein called 50S ribosomal protein L29.

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

- Molecule 49 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
49	BX	59	Total	C	N	O	0	0	0
			469	298	90	81			

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B4	66	Total	C	N	O	S	0	0	0
			533	335	96	97	5			
50	D4	63	Total	C	N	O	S	0	0	0
			515	326	93	91	5			

- Molecule 51 is a protein called 50S ribosomal protein L32.

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

- Molecule 52 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B6	45	Total	C	N	O	S	0	0	0
			389	241	79	65	4			
52	D6	45	Total	C	N	O	S	0	0	0
			389	241	79	65	4			

- Molecule 53 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	B7	45	Total	C	N	O	S	0	0	0
			391	240	97	52	2			
53	D7	45	Total	C	N	O	S	0	0	0
			391	240	97	52	2			

- Molecule 54 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	B8	60	Total	C	N	O	S	0	0	0
			480	306	98	74	2			
54	D8	60	Total	C	N	O	S	0	0	0
			480	306	98	74	2			

- Molecule 55 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	AA	220	Total Mg 220 220	1	0
55	AG	2	Total Mg 2 2	0	0
55	AN	1	Total Mg 1 1	0	0
55	AR	1	Total Mg 1 1	0	0
55	AS	1	Total Mg 1 1	0	0
55	AB	4	Total Mg 4 4	0	0
55	AC	8	Total Mg 8 8	0	0
55	AD	3	Total Mg 3 3	0	0
55	A1	1	Total Mg 1 1	0	0
55	BA	568	Total Mg 568 568	2	0
55	BB	18	Total Mg 18 18	0	0
55	BD	1	Total Mg 1 1	0	0
55	BE	3	Total Mg 3 3	0	0
55	BF	3	Total Mg 3 3	0	0
55	BO	2	Total Mg 2 2	0	0
55	B0	1	Total Mg 1 1	0	0
55	B1	2	Total Mg 2 2	0	0
55	B2	1	Total Mg 1 1	0	0
55	B3	3	Total Mg 3 3	0	0
55	BW	1	Total Mg 1 1	0	0
55	B5	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	B6	1	Total Mg 1 1	0	0
55	B7	1	Total Mg 1 1	0	0
55	CA	219	Total Mg 219 219	0	0
55	CG	2	Total Mg 2 2	0	0
55	CK	1	Total Mg 1 1	0	0
55	CR	1	Total Mg 1 1	0	0
55	CB	4	Total Mg 4 4	0	0
55	CC	9	Total Mg 9 9	0	0
55	CD	1	Total Mg 1 1	0	0
55	DA	488	Total Mg 488 488	0	0
55	DB	20	Total Mg 20 20	0	0
55	DD	3	Total Mg 3 3	0	0
55	DE	1	Total Mg 1 1	0	0
55	DO	1	Total Mg 1 1	0	0
55	D0	1	Total Mg 1 1	0	0
55	D1	1	Total Mg 1 1	0	0
55	D3	1	Total Mg 1 1	0	0
55	D5	2	Total Mg 2 2	0	0
55	D7	1	Total Mg 1 1	0	0
55	D8	1	Total Mg 1 1	0	0

- Molecule 56 is ZINC ION (CCD ID: ZN) (formula: Zn).

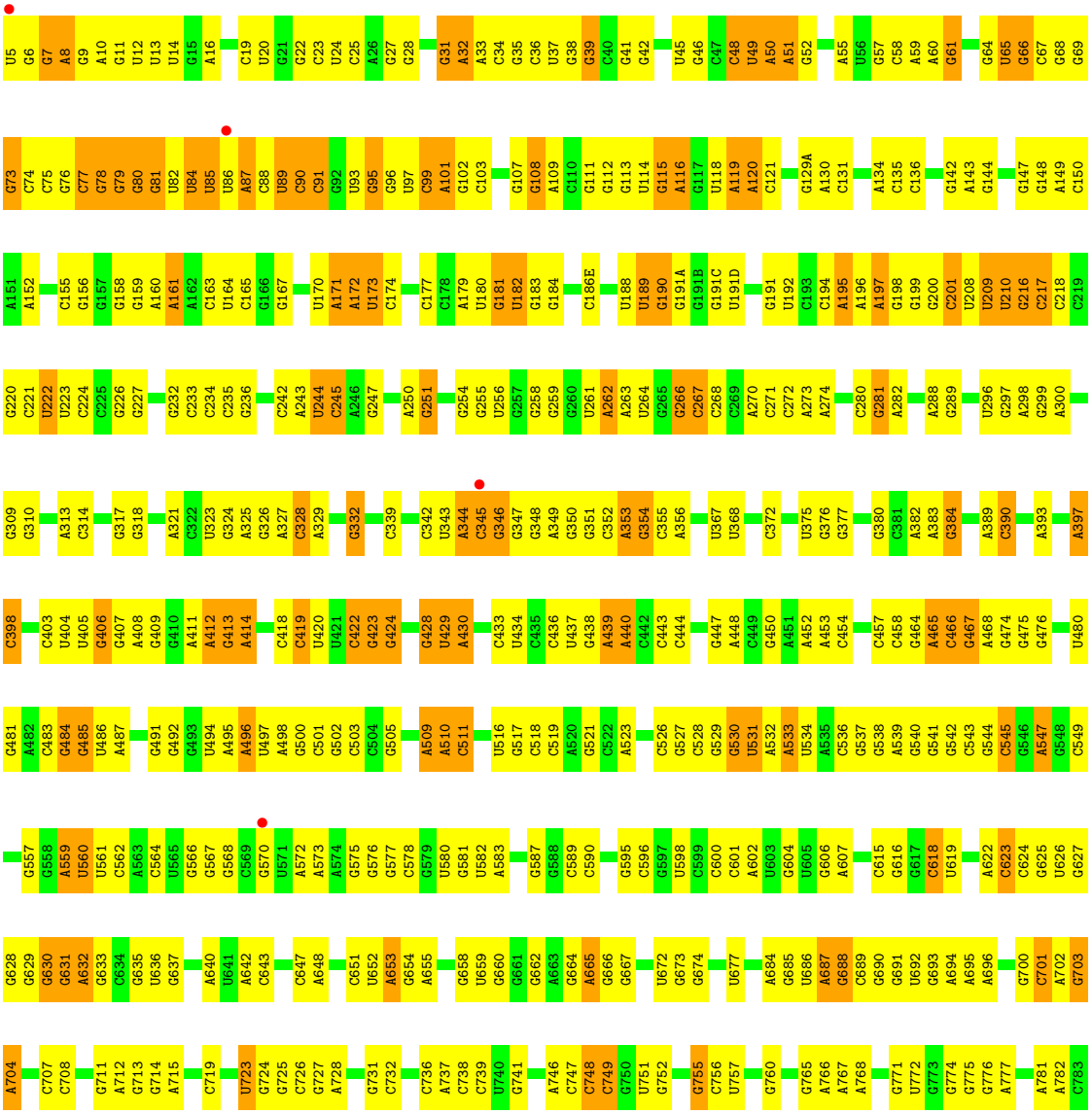
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	AG	1	Total Zn 1 1	0	0
56	AQ	1	Total Zn 1 1	0	0
56	CG	1	Total Zn 1 1	0	0
56	CQ	1	Total Zn 1 1	0	0

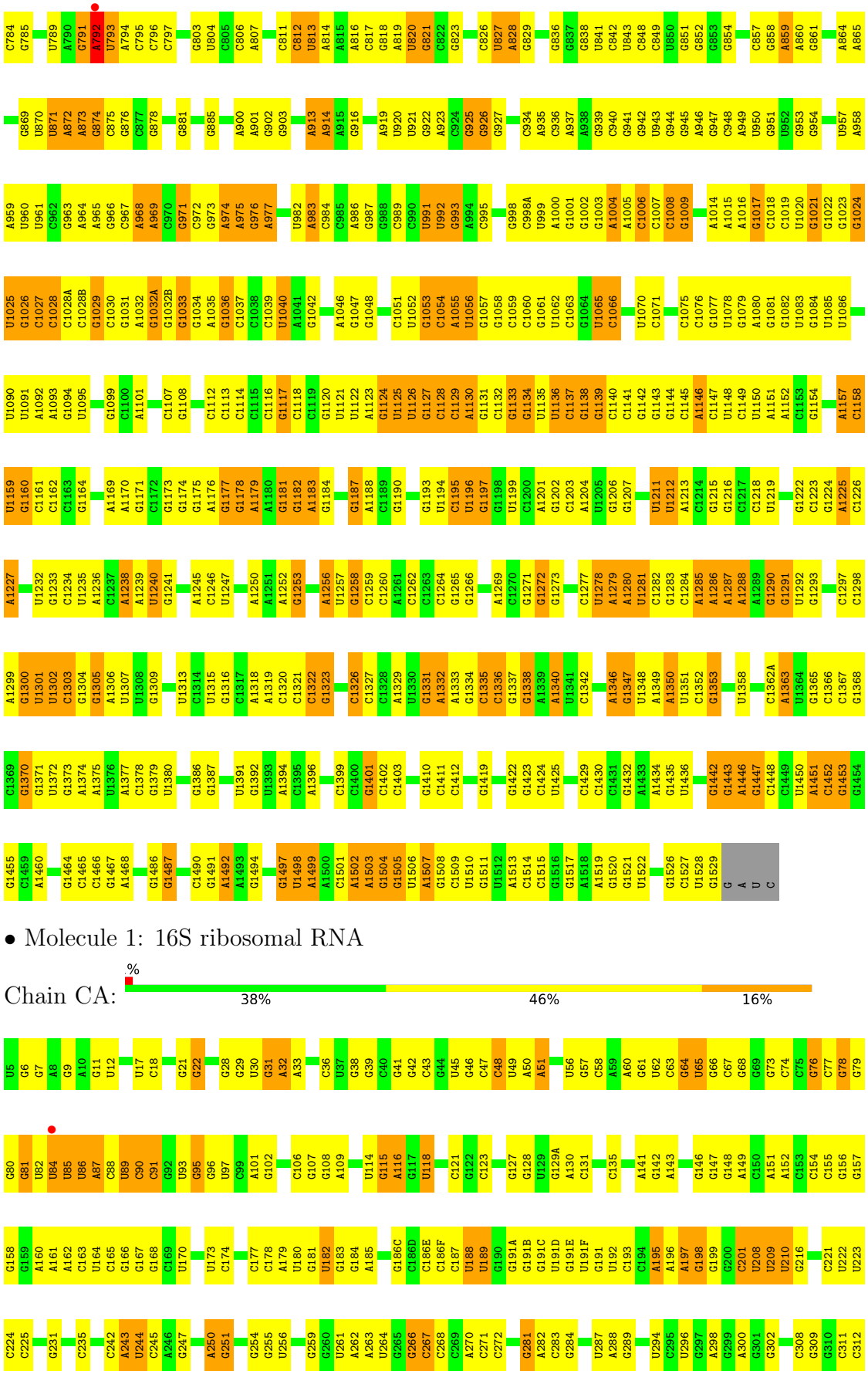
3 Residue-property plots (i)

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

- Molecule 1: 16S ribosomal RNA

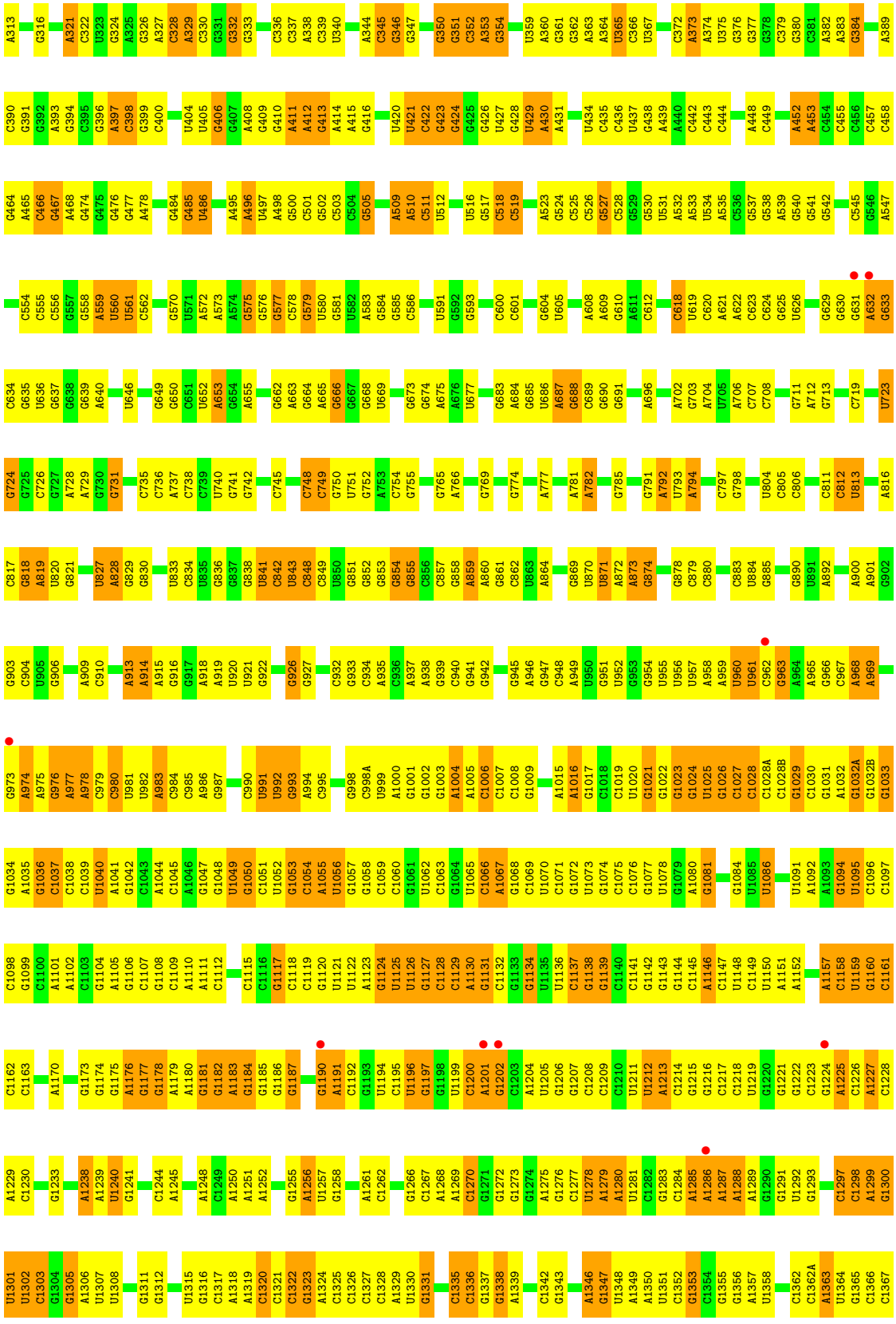
Chain AA:

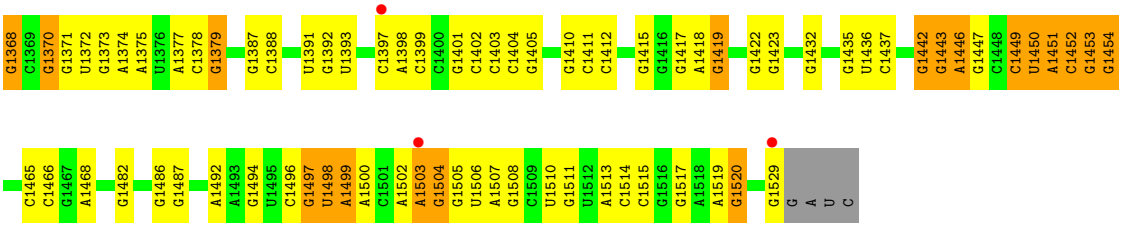




• Molecule 1: 16S ribosomal RNA

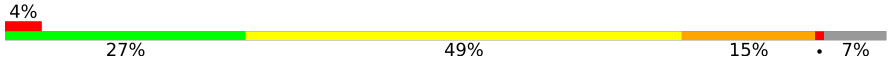
Chain CA:

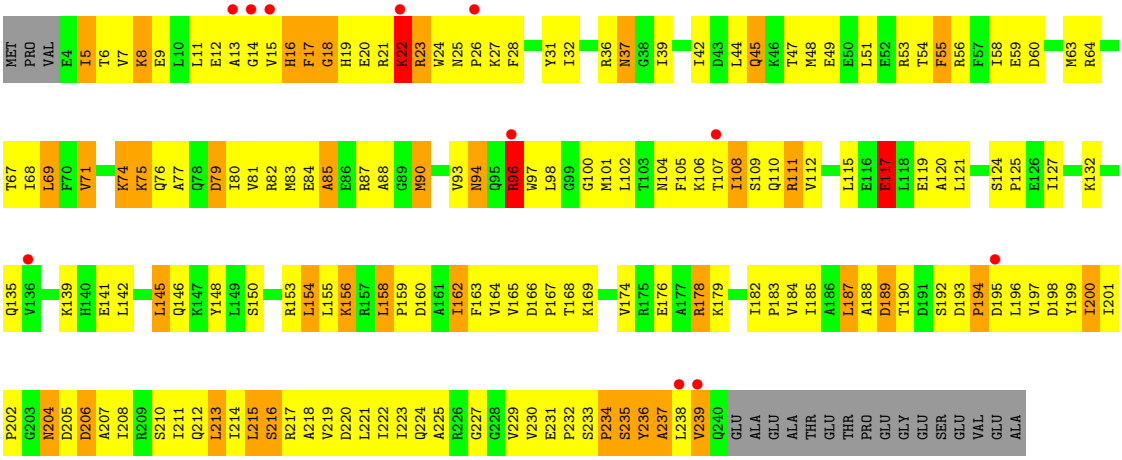

A313 G316 A321 C322 U323 G324 A325 G326 A327 C328 A329 C330 G331 G332 G333 C336 C337 A338 C339 U340 A344 G345 G346 G347 G350 G351 C352 A353 G354 U359 A360 G361 G362 A363 A364 U365 C366 U367 C372 A373 A374 U375 G376 G377 G378 C379 G380 C381 A382 A383 G384 A389
C390 G391 G392 A393 G394 G395 G396 A397 G398 G399 C400 U404 U405 G406 G407 A408 G409 G410 A411 A412 G413 A414 A415 G416 U420 U421 C422 G423 G424 G425 G426 U427 G428 U429 A430 A431 U434 C435 C436 U437 G438 A439 A440 C442 C443 C444 A448 C449 A452 A453 C454 C455 C456 C457 C458
G464 A465 C466 G467 A468 G474 G475 G476 G477 A478 G484 G485 U486 A495 A496 U497 A498 G500 C501 G502 C503 C504 G505 A509 A510 C511 U512 U516 G517 C518 C519 A523 G524 C525 C526 G527 C528 G529 G530 U531 A532 A533 U534 A535 C536 G537 G538 A539 G540 G541 G542 C545 G546 A547
C554 C555 C556 G557 G558 A559 U560 U561 C562 G570 U571 A572 A573 A574 G575 G576 G577 C578 G579 U580 G581 U582 A583 G584 G585 C586 U591 G592 G593 C600 C601 G604 U605 A608 A609 G610 A611 C612 C618 U619 C620 A621 A622 C623 C624 G625 U626 G629 G630 G631 A632 G633
C634 G635 U636 G637 G638 G639 A640 U646 G649 G650 C651 U652 A653 G654 A655 G662 A663 G664 A665 G666 G667 G668 U669 G673 G674 A675 A676 U677 G683 A684 G685 U686 A687 G688 C689 G690 G691 A696 A702 G703 A704 U705 A706 C707 C708 G711 A712 G713 C719 U723
G724 G725 C726 G727 A728 A729 G730 G731 C735 C736 A737 C738 C739 U740 G741 G742 C745 C748 C749 G750 U751 G752 A753 C754 G755 G765 A766 G769 G774 A777 A781 A782 G785 G791 A792 U793 A794 C797 G798 U804 C805 C806 C811 C812 U813 A816
C817 G818 A819 U820 G821 U827 A828 G829 G830 U833 C834 U835 G836 G837 G838 U841 C842 U843 C848 C849 U850 G851 G852 G853 G854 G855 C856 C857 G858 A859 A860 G861 C862 U863 A864 G869 U870 U871 A872 A873 G874 G878 C879 C880 C883 U884 G885 G890 U891 A892 A900 A901 G902
G903 C904 U905 G906 A909 C910 A913 A914 A915 G916 G917 A918 A919 U920 U921 G922 G926 G927 C932 G933 C934 A935 G936 A937 A938 G939 C940 G941 G942 G945 A946 G947 C948 A949 U950 G951 U952 G953 G954 U955 U956 U957 A958 A959 U960 U961 C962 G963 A964 A965 G966 C967 A968 A969
G973 A974 A975 G976 A977 A978 C979 C980 U981 U982 A983 C984 C985 A986 G987 C990 U991 U992 G993 A994 C995 G998 C998A U999 A1000 G1001 G1002 G1003 A1004 A1005 C1006 C1007 C1008 G1009 A1015 A1016 G1017 C1018 C1019 U1020 G1021 G1022 G1023 G1024 U1025 G1026 C1027 C1028 C1028A C1028B G1029 C1030 G1031 A1032 G1032A G1032B G1033
G1034 A1035 G1036 C1037 C1038 C1039 U1040 A1041 G1042 C1043 A1044 C1045 A1046 G1047 G1048 U1049 G1050 C1051 U1052 G1053 C1054 A1055 U1056 G1057 G1058 C1059 C1060 G1061 U1062 C1063 G1064 U1065 C1066 A1067 G1068 C1069 U1070 C1071 G1072 U1073 G1074 C1075 C1076 G1077 U1078 G1079 A1080 G1081 G1084 U1085 U1086 U1091 A1092 A1093 G1094 U1095 C1096 C1097
C1098 G1099 C1100 A1101 A1102 C1103 G1104 A1105 G1106 C1107 G1108 C1109 A1110 A1111 C1112 C1115 C1116 G1117 C1118 C1119 G1120 U1121 U1122 A1123 G1124 U1125 U1126 G1127 C1128 C1129 A1130 G1131 C1132 G1133 G1134 U1135 U1136 C1137 G1138 G1139 C1140 C1141 G1142 G1143 G1144 C1145 A1146 C1147 U1148 C1149 U1150 A1151 A1152 A1157 C1158 U1159 G1160 C1161
C1162 C1163 A1170 G1173 G1174 G1175 A1176 G1177 G1178 A1179 A1180 G1181 G1182 A1183 G1184 G1185 G1186 G1187 G1190 A1191 C1192 G1193 U1194 C1195 U1196 G1197 G1198 U1199 C1200 A1201 G1202 C1203 A1204 U1205 G1206 G1207 C1208 C1209 C1210 U1211 U1212 A1213 C1214 G1215 G1216 C1217 C1218 U1219 G1220 G1221 G1222 G1223 G1224 A1225 C1226 A1227 C1228
A1229 C1230 G1233 A1238 A1239 U1240 G1241 C1244 A1245 A1248 C1249 A1250 A1251 A1252 G1255 A1256 U1257 G1258 A1261 C1262 G1266 C1267 A1268 A1269 C1270 G1271 G1272 G1273 G1274 A1275 G1276 C1277 U1278 A1279 A1280 U1281 C1282 G1283 C1284 A1285 A1286 A1287 A1288 A1289 G1290 G1291 U1292 G1293 C1297 C1298 A1299 G1300
U1301 U1302 C1303 G1304 G1305 A1306 U1307 U1308 G1311 G1312 U1315 G1316 C1317 A1318 A1319 C1320 C1321 C1322 G1323 A1324 C1325 C1326 C1327 C1328 A1329 U1330 G1331 C1335 C1336 G1337 G1338 A1339 C1342 G1343 A1346 G1347 U1348 A1349 A1350 U1351 C1352 G1353 C1354 G1355 G1356 A1357 U1358 C1362 C1362A A1363 U1364 G1365 C1366 C1367



• Molecule 2: 30S RIBOSOMAL PROTEIN S2

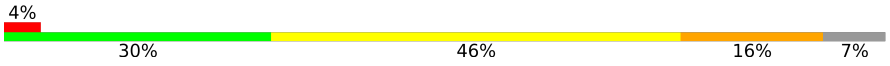
Chain AE:

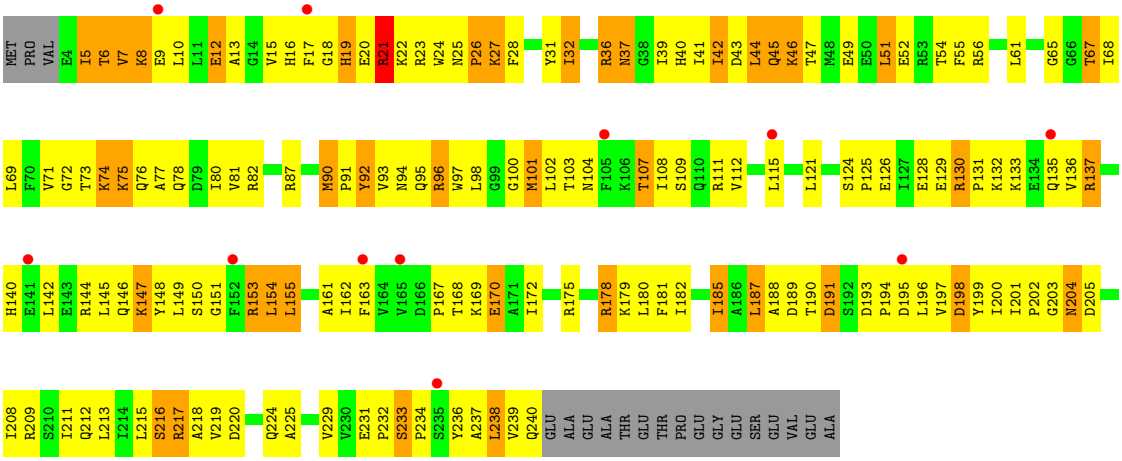




• Molecule 2: 30S RIBOSOMAL PROTEIN S2

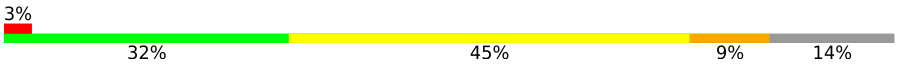
Chain CE:

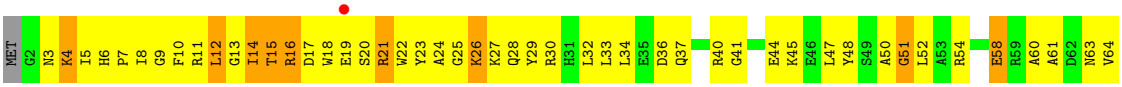


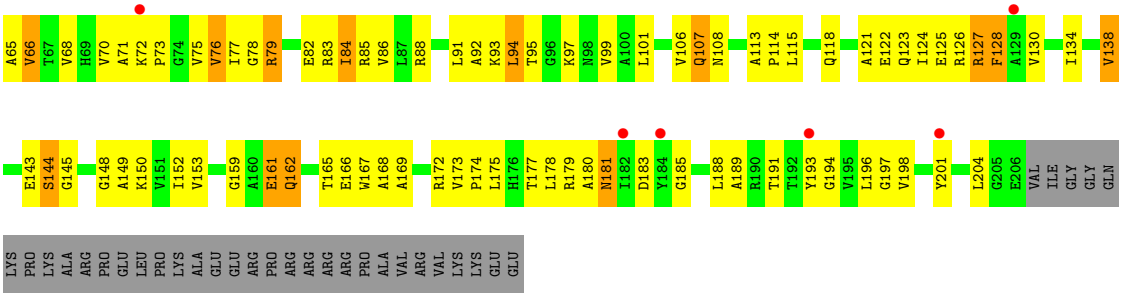


• Molecule 3: 30S RIBOSOMAL PROTEIN S3

Chain AF:

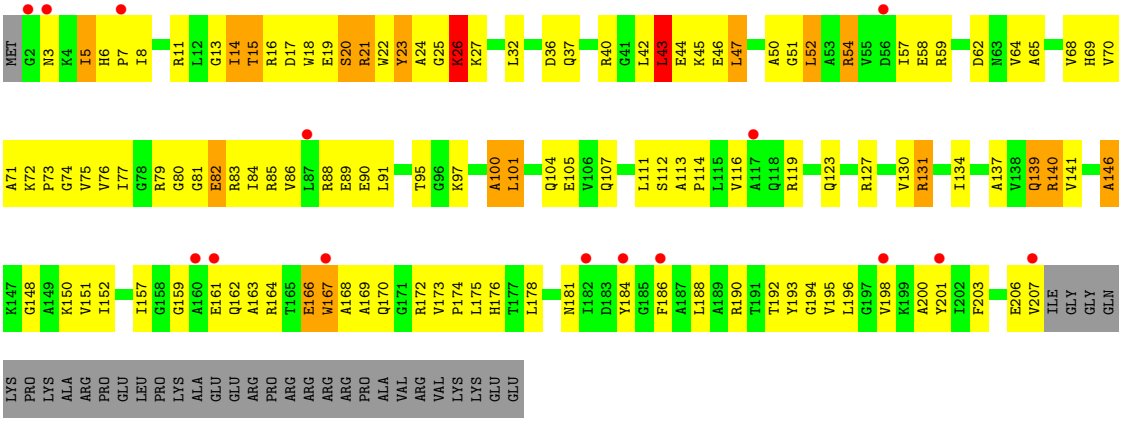






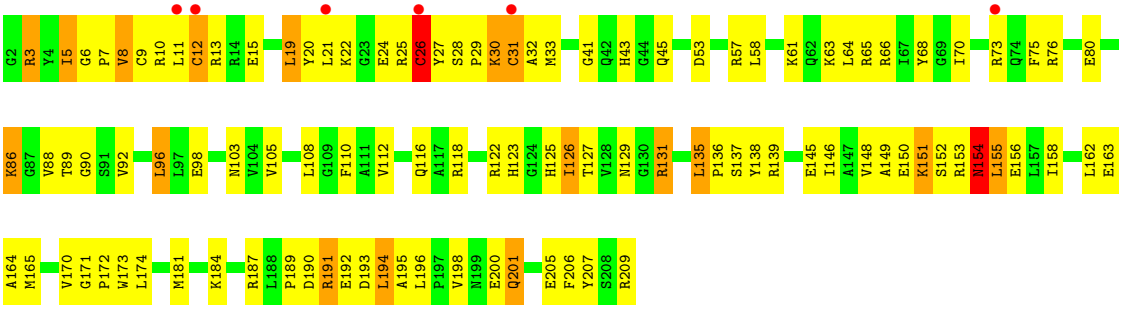
• Molecule 3: 30S RIBOSOMAL PROTEIN S3

Chain CF:



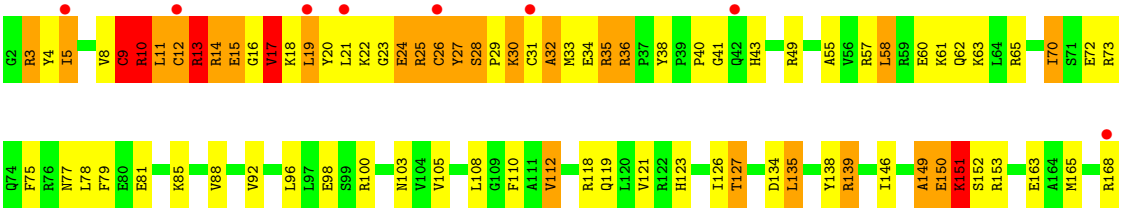
• Molecule 4: 30S RIBOSOMAL PROTEIN S4

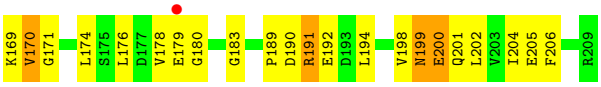
Chain AG:



• Molecule 4: 30S RIBOSOMAL PROTEIN S4

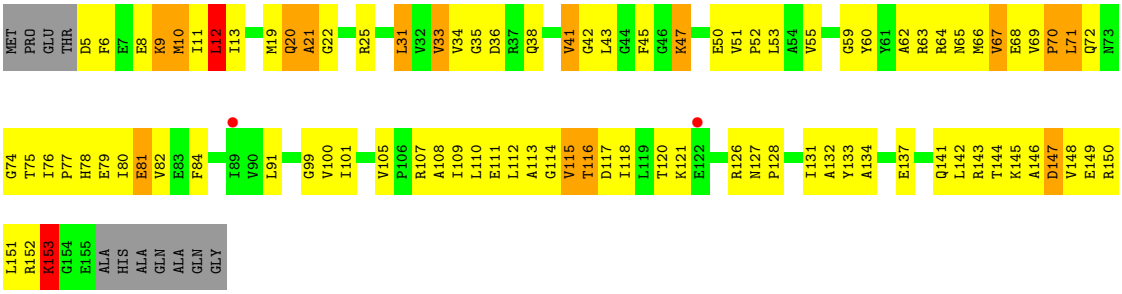
Chain CG:





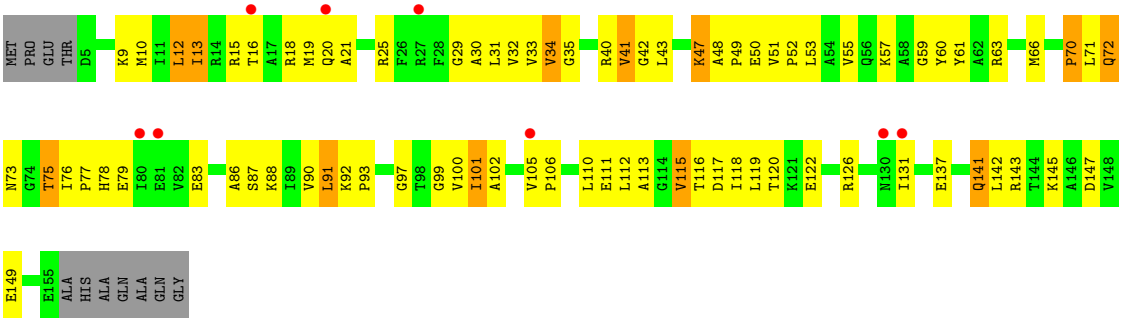
• Molecule 5: 30S RIBOSOMAL PROTEIN S5

Chain AH:



• Molecule 5: 30S RIBOSOMAL PROTEIN S5

Chain CH:

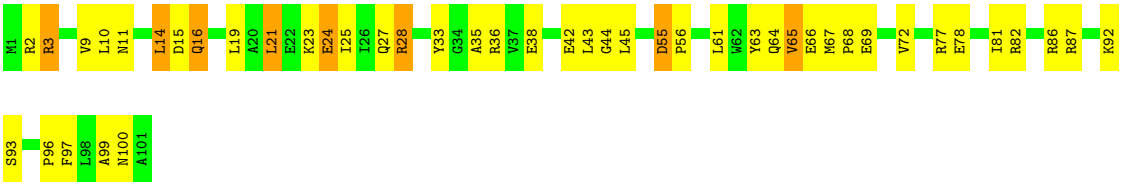


• Molecule 6: 30S RIBOSOMAL PROTEIN S6

Chain AI:

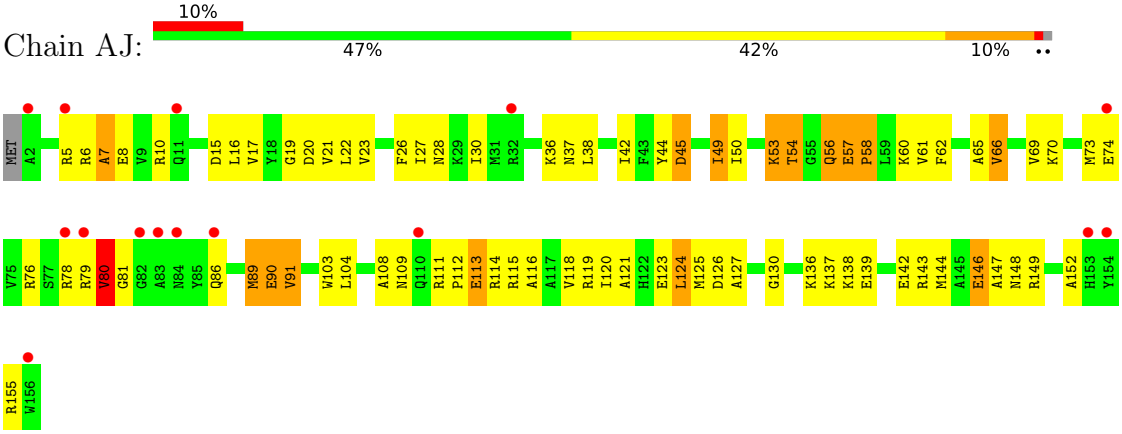
• Molecule 6: 30S RIBOSOMAL PROTEIN S6

Chain CI:



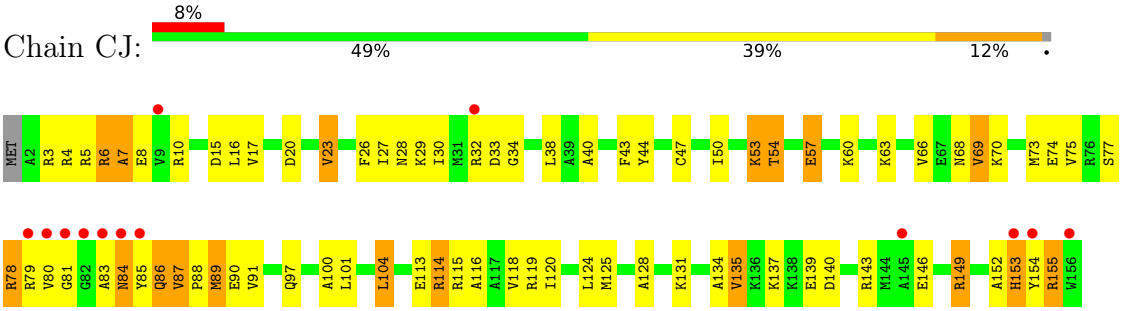
• Molecule 7: 30S RIBOSOMAL PROTEIN S7

Chain AJ:



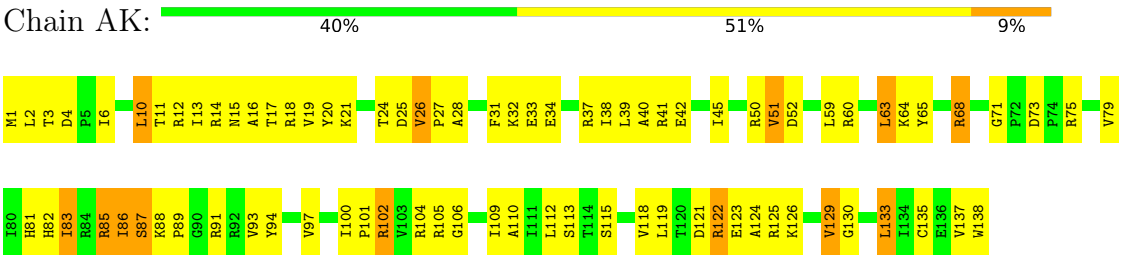
• Molecule 7: 30S RIBOSOMAL PROTEIN S7

Chain CJ:



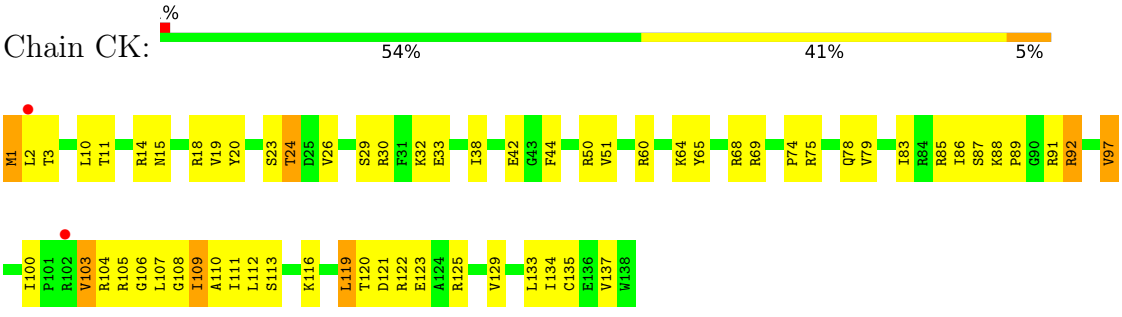
• Molecule 8: 30S RIBOSOMAL PROTEIN S8

Chain AK:



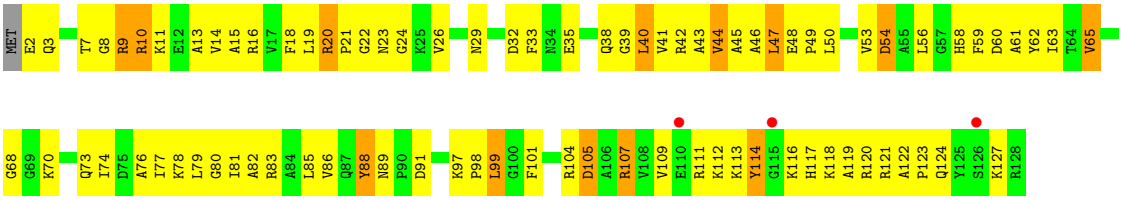
• Molecule 8: 30S RIBOSOMAL PROTEIN S8

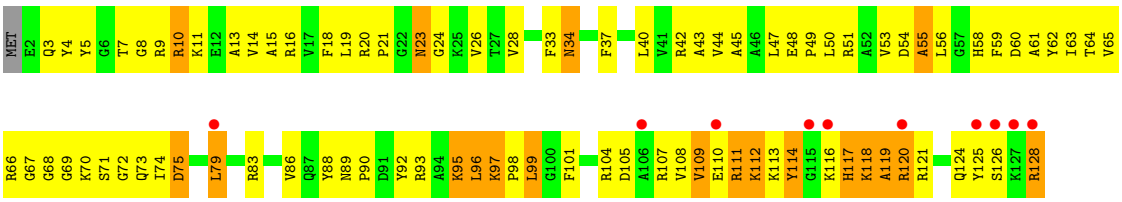
Chain CK:



• Molecule 9: 30S RIBOSOMAL PROTEIN S9

Chain AL:



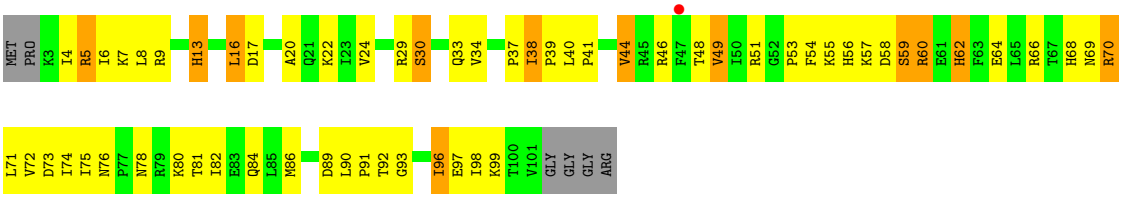


• Molecule 9: 30S RIBOSOMAL PROTEIN S9

Chain CL:

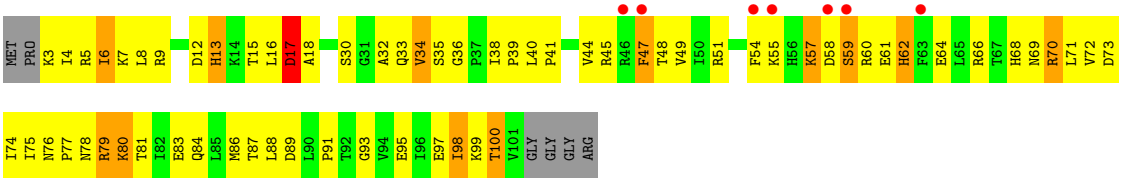
• Molecule 10: 30S RIBOSOMAL PROTEIN S10

Chain AM:



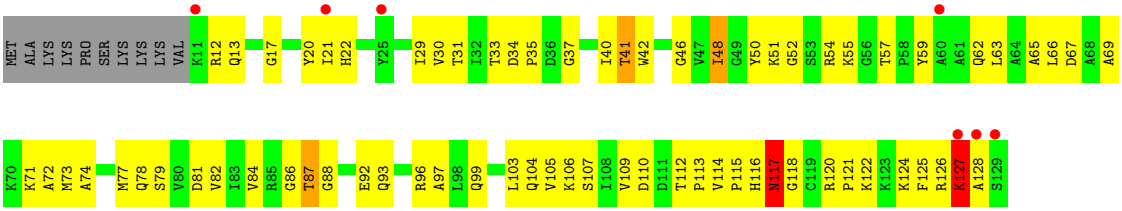
• Molecule 10: 30S RIBOSOMAL PROTEIN S10

Chain CM:



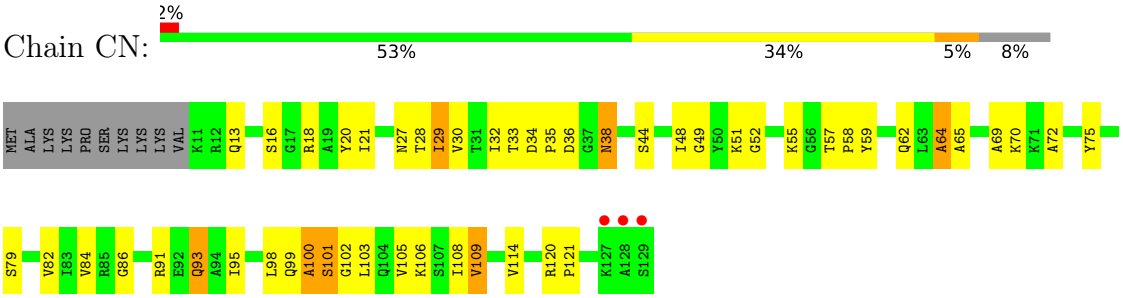
• Molecule 11: 30S RIBOSOMAL PROTEIN S11

Chain AN:



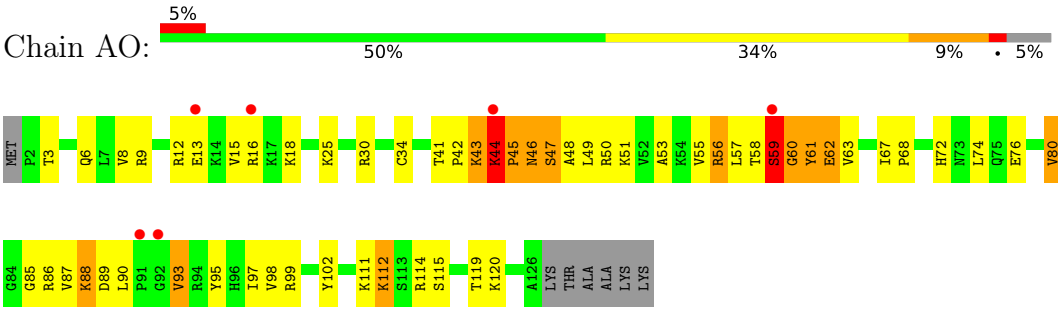
• Molecule 11: 30S RIBOSOMAL PROTEIN S11

Chain CN:



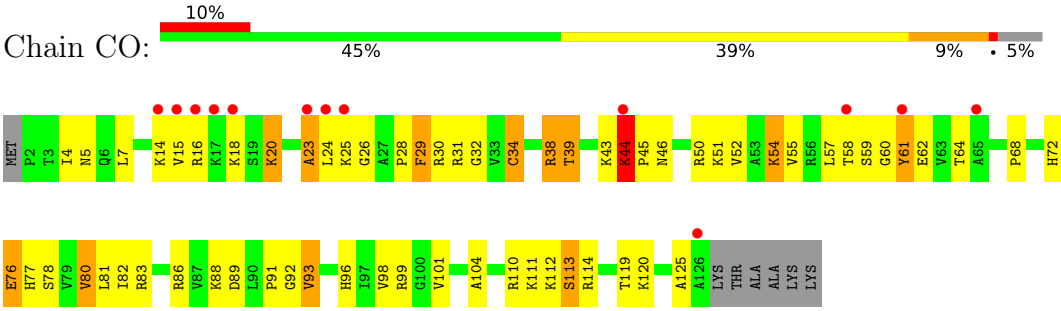
• Molecule 12: 30S RIBOSOMAL PROTEIN S12

Chain AO:



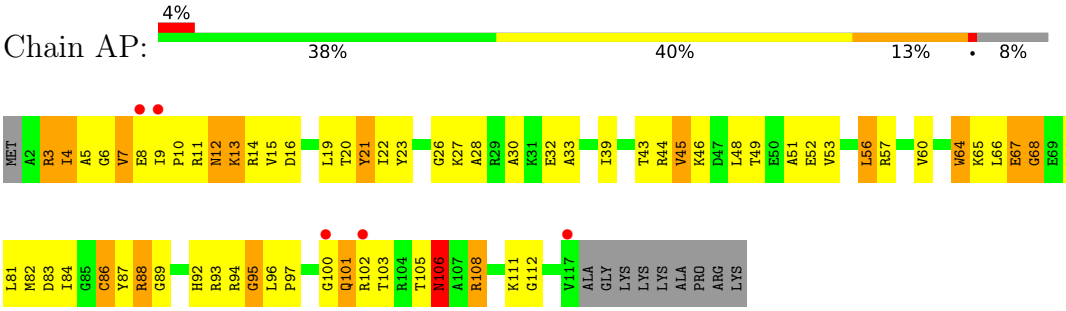
• Molecule 12: 30S RIBOSOMAL PROTEIN S12

Chain CO:



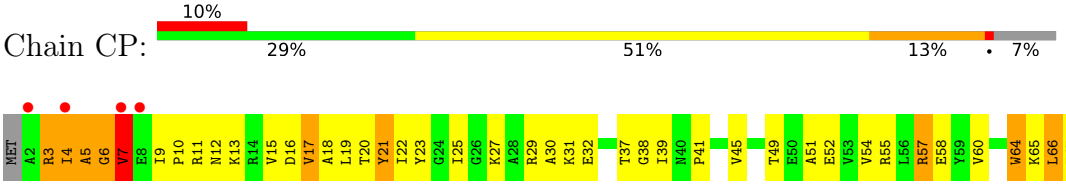
• Molecule 13: 30S RIBOSOMAL PROTEIN S13

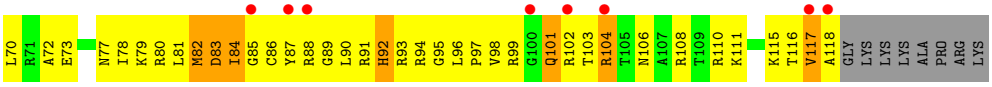
Chain AP:



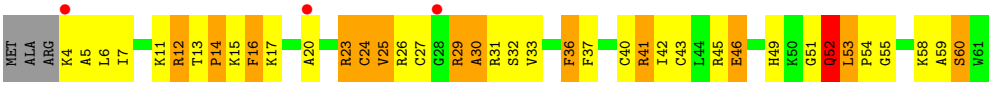
• Molecule 13: 30S RIBOSOMAL PROTEIN S13

Chain CP:

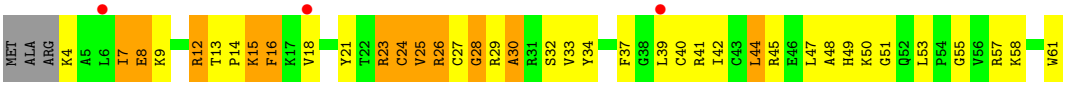




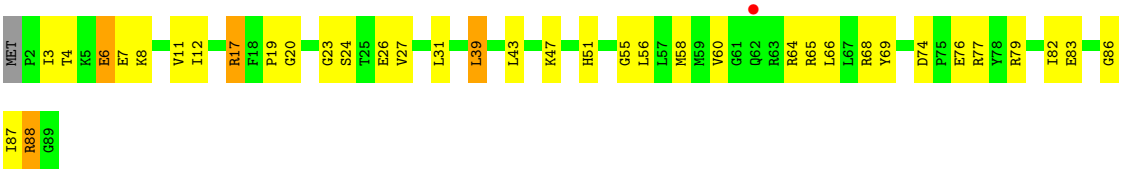
• Molecule 14: 30S RIBOSOMAL PROTEIN S14



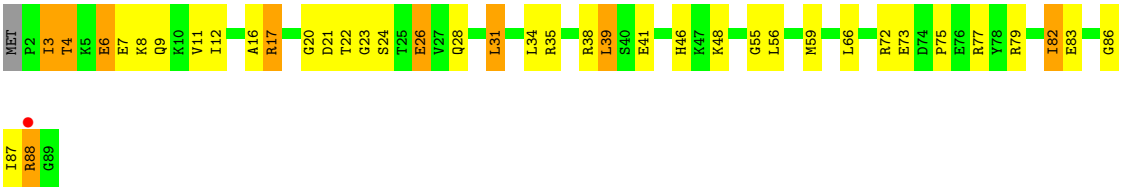
• Molecule 14: 30S RIBOSOMAL PROTEIN S14



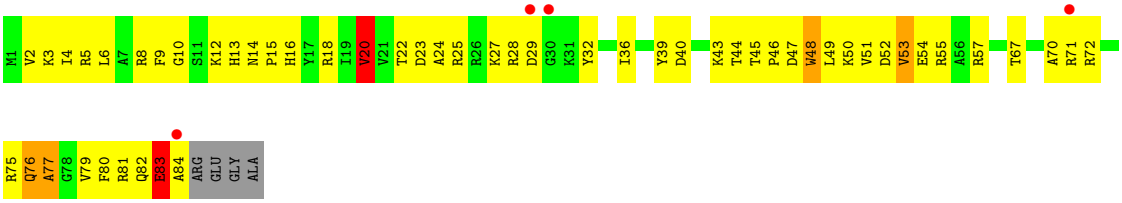
• Molecule 15: 30S RIBOSOMAL PROTEIN S15



• Molecule 15: 30S RIBOSOMAL PROTEIN S15

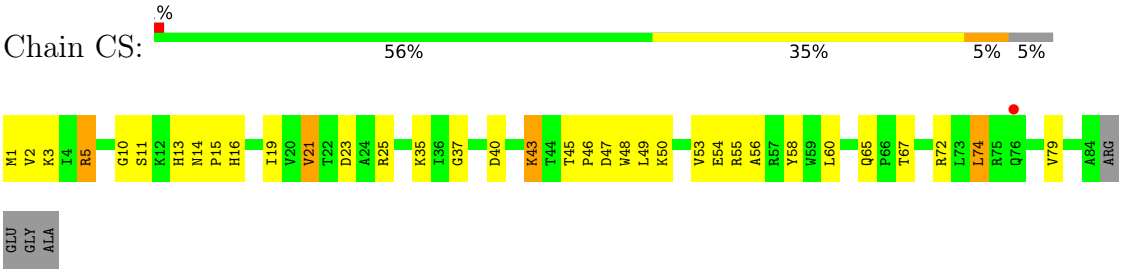


• Molecule 16: 30S RIBOSOMAL PROTEIN S16



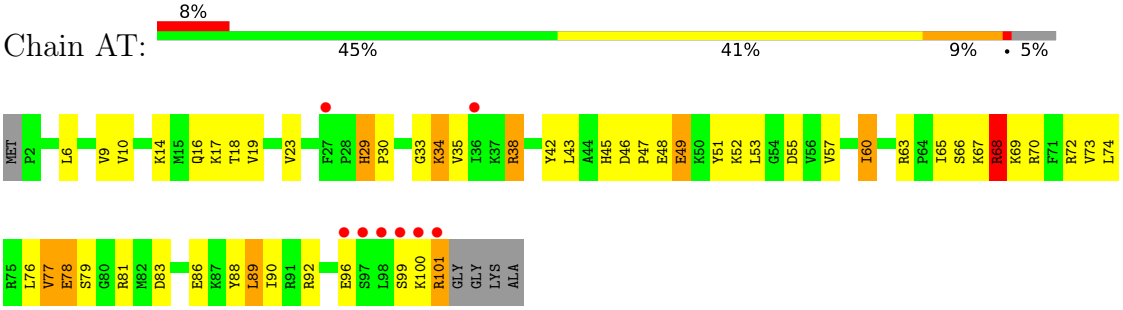
• Molecule 16: 30S RIBOSOMAL PROTEIN S16

Chain CS:



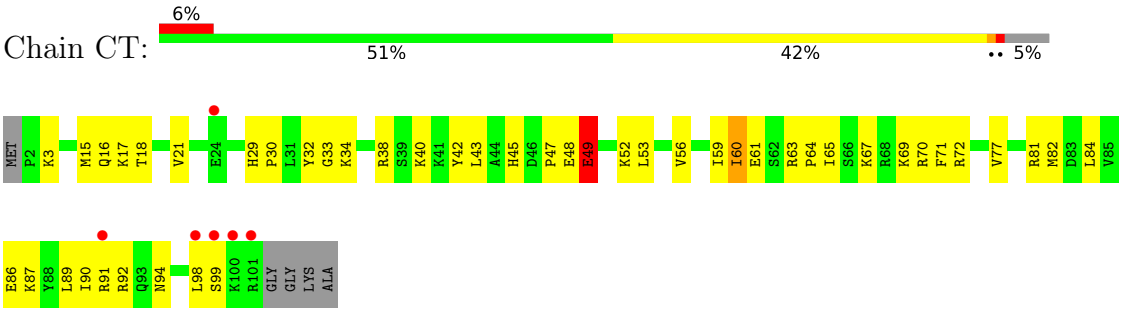
• Molecule 17: 30S RIBOSOMAL PROTEIN S17

Chain AT:



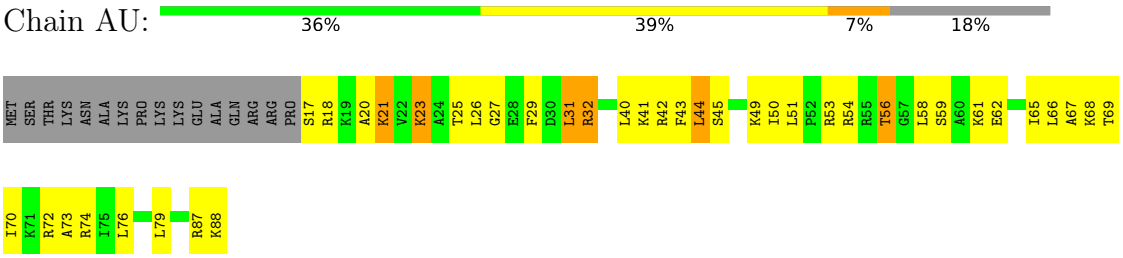
• Molecule 17: 30S RIBOSOMAL PROTEIN S17

Chain CT:



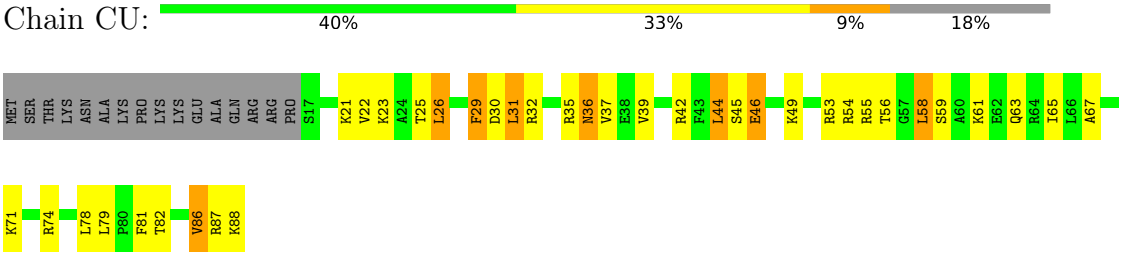
• Molecule 18: 30S RIBOSOMAL PROTEIN S18

Chain AU:



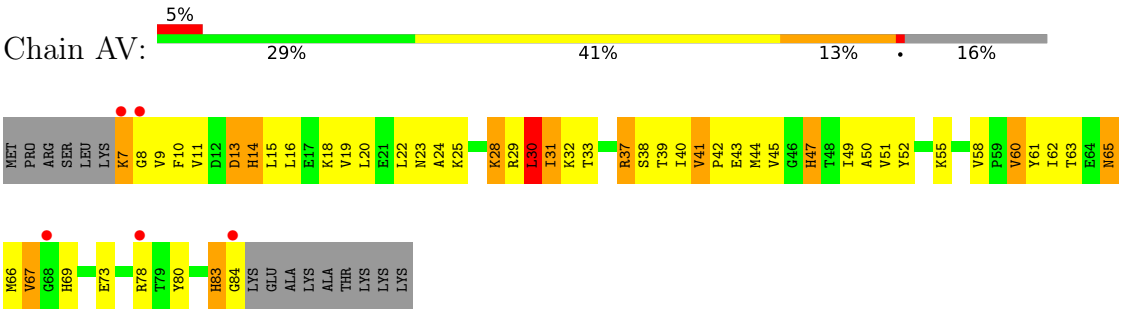
• Molecule 18: 30S RIBOSOMAL PROTEIN S18

Chain CU:



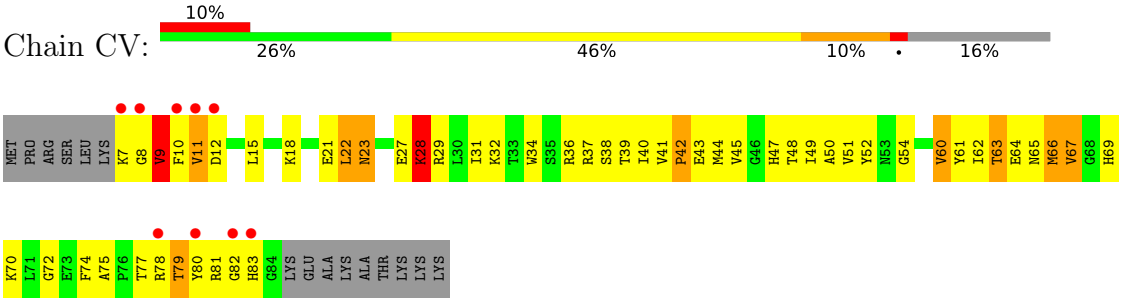
• Molecule 19: 30S RIBOSOMAL PROTEIN S19

Chain AV:



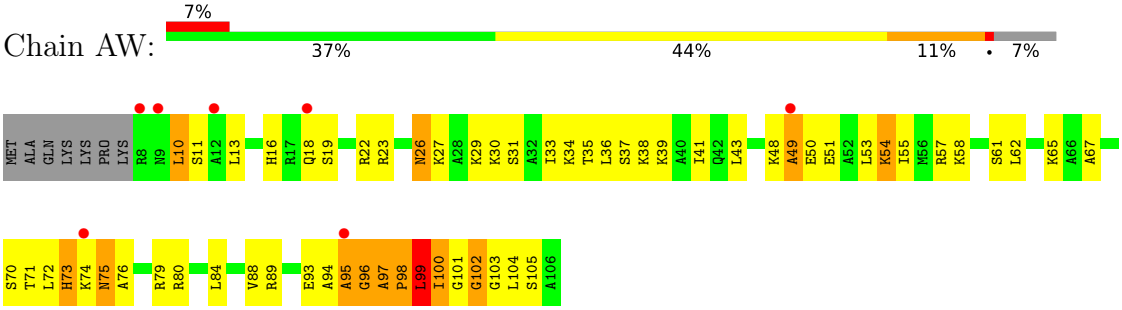
• Molecule 19: 30S RIBOSOMAL PROTEIN S19

Chain CV:



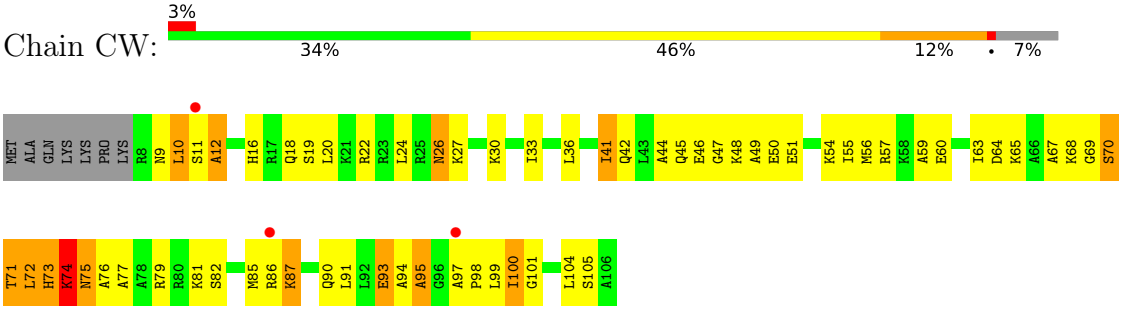
• Molecule 20: 30S RIBOSOMAL PROTEIN S20

Chain AW:



• Molecule 20: 30S RIBOSOMAL PROTEIN S20

Chain CW:

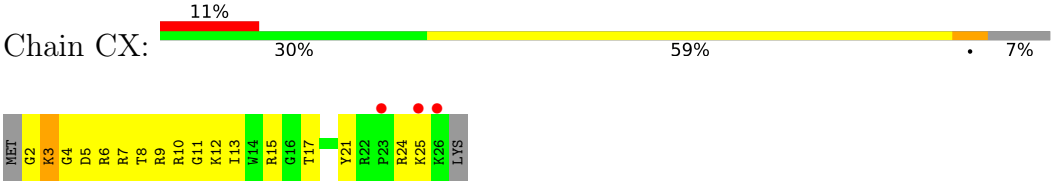


• Molecule 21: 30S RIBOSOMAL PROTEIN THX

Chain AX:

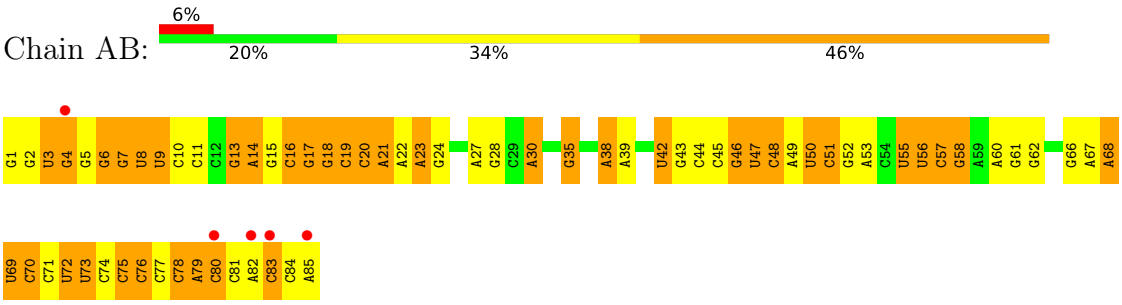
• Molecule 21: 30S RIBOSOMAL PROTEIN THX

Chain CX:



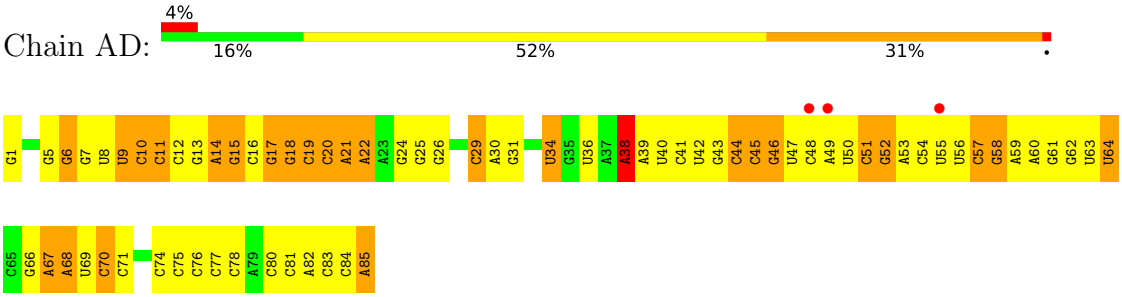
• Molecule 22: TRNA-TYR

Chain AB:



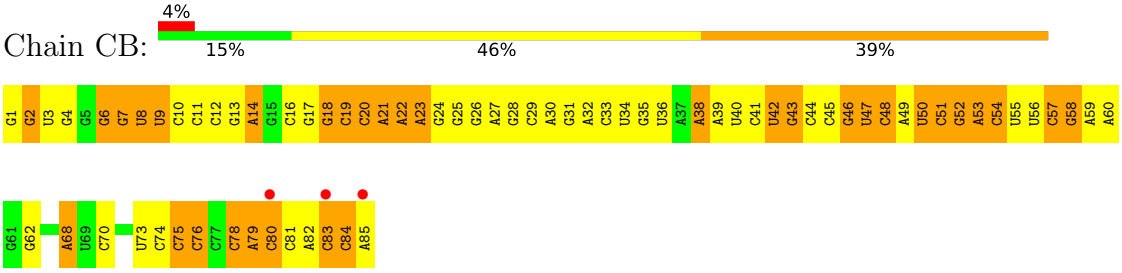
• Molecule 22: TRNA-TYR

Chain AD:



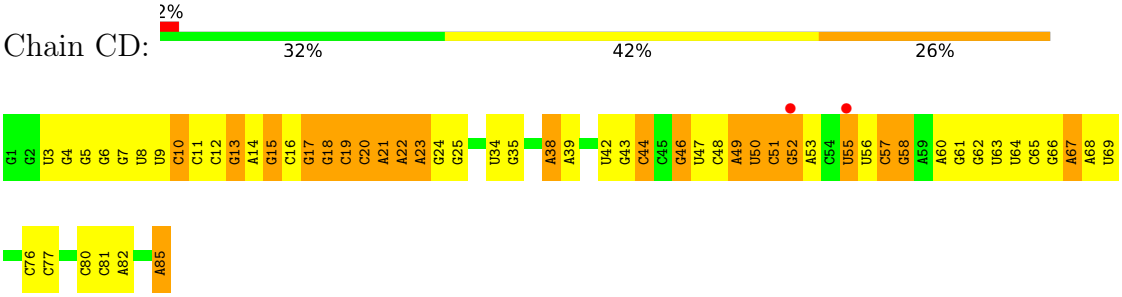
• Molecule 22: TRNA-TYR

Chain CB:



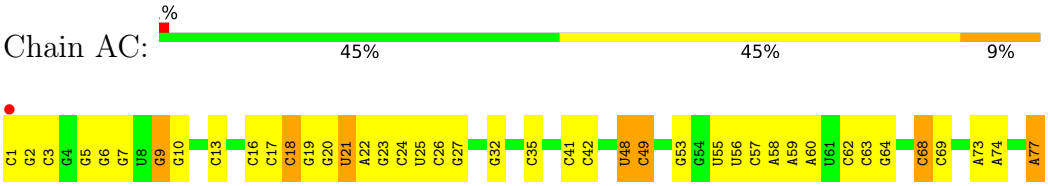
• Molecule 22: TRNA-TYR

Chain CD:



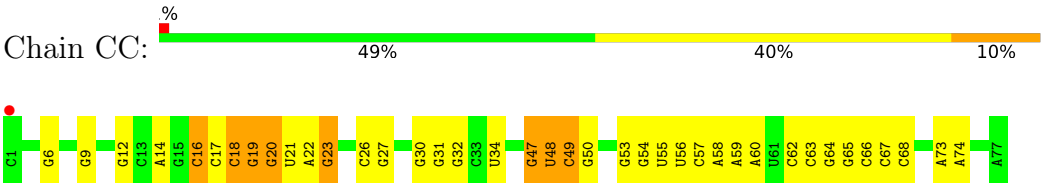
• Molecule 23: TRNA-FMET

Chain AC:



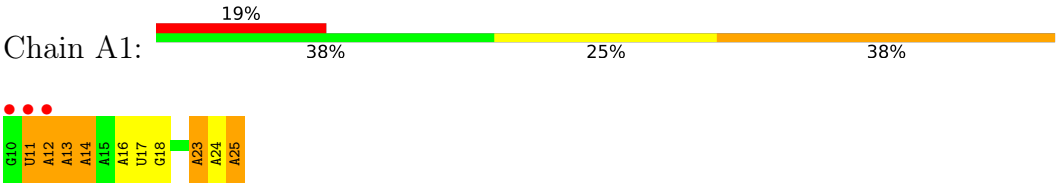
• Molecule 23: TRNA-FMET

Chain CC:



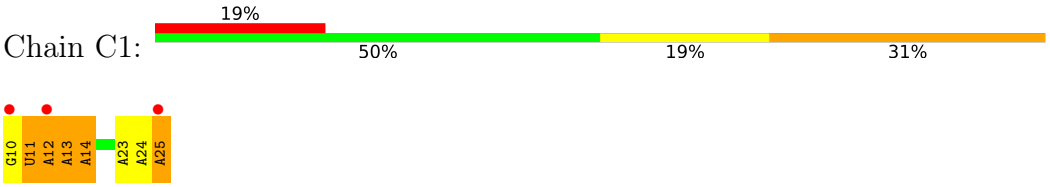
• Molecule 24: MRNA

Chain A1:



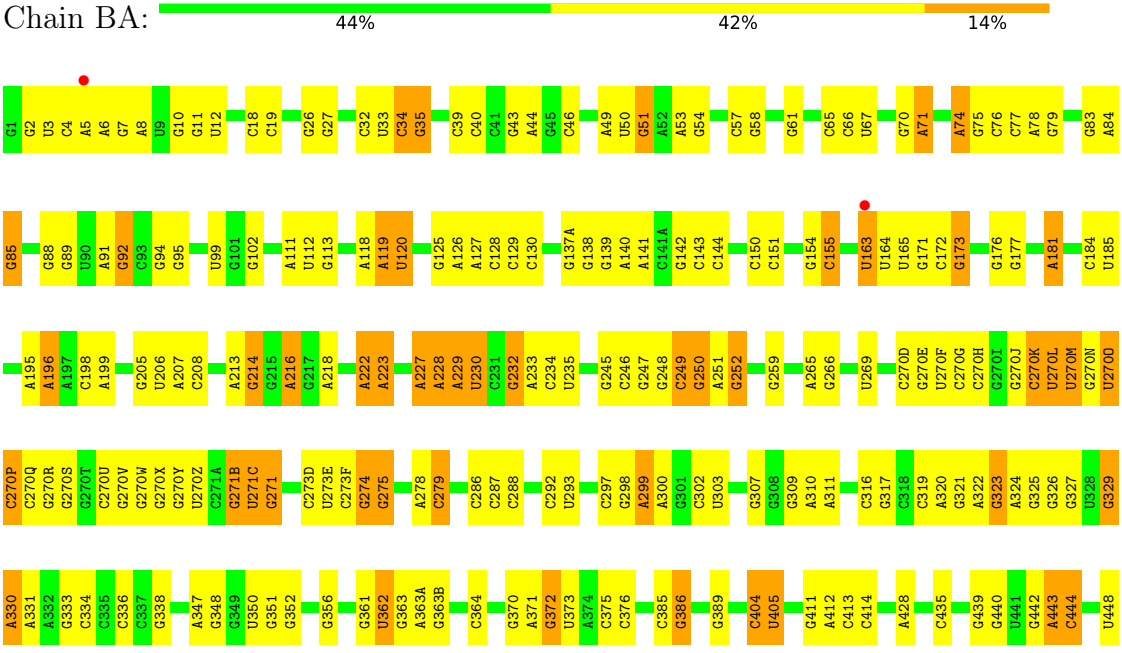
• Molecule 24: MRNA

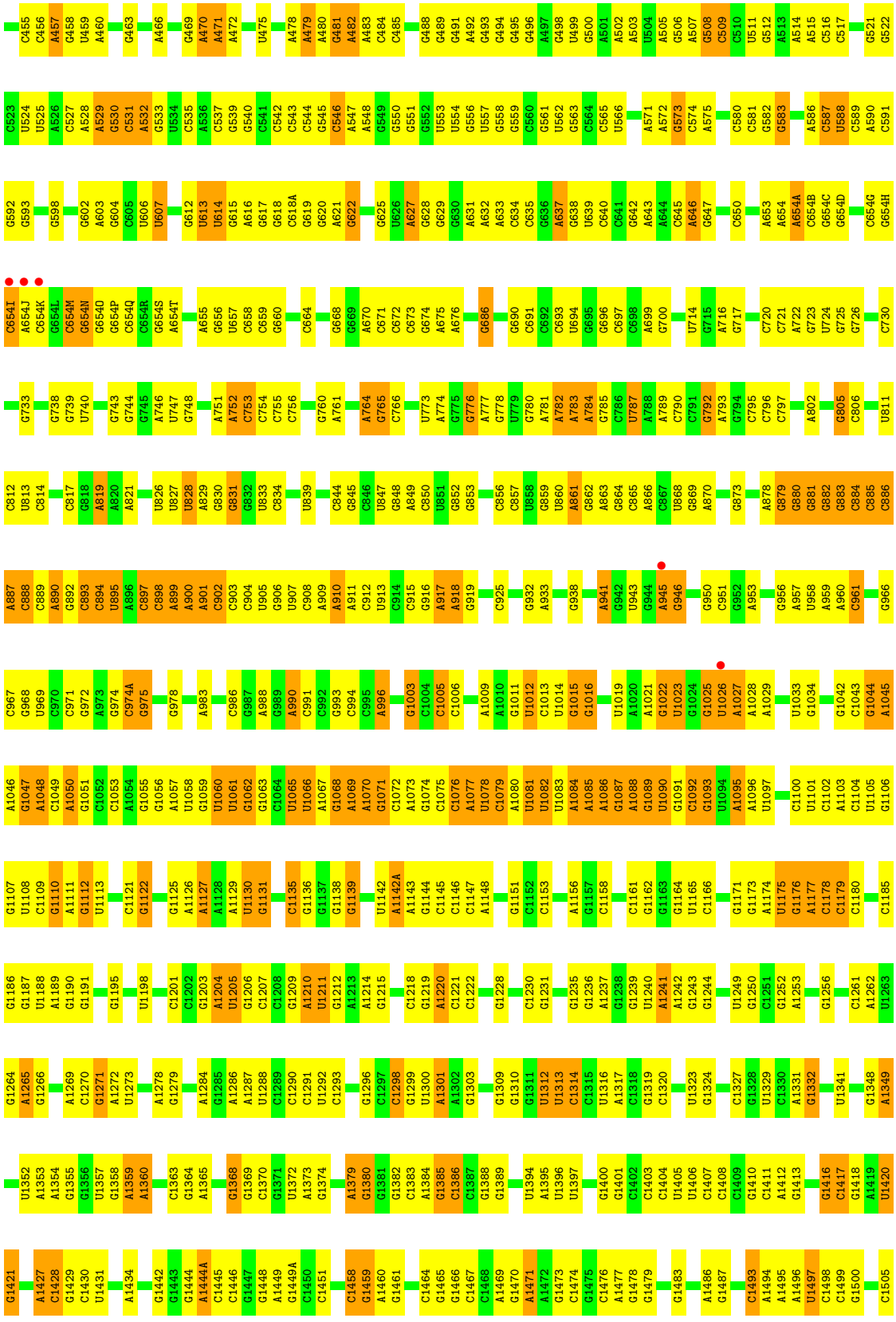
Chain C1:



• Molecule 25: RNA (2912-MER)

Chain BA:

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C523 U524 U525 A526 C527 A528 A529 G530 C531 A532 G533 U534 C535 A536 C537 G539 G540 C541 C542 C543 C544 G545 C546 A547 A548 G549 G550 G551 G552 U553 U554 G556 U557 G558 G559 C560 G561 U562 G563 C564 C565 U566 A571 A572 G573 C574 A575 C580 C581 G582 G583 A586 C587 U588 C589 A590 C591
G592 G593 G598 G602 A603 G604 C605 U606 U607 G612 U613 U614 G615 A616 G617 G618 C618A G619 G620 A621 G622 G625 U626 A627 G628 G629 G630 A631 A632 A633 C634 C635 G636 A637 G638 U639 C640 C641 G642 A643 A644 C645 A646 G647 C650 A653 A654 A654A C654B C654C G654D C654G G654H
C654I A654J C654K G654L C654M G654N G654O G654P C654Q C654R G654S A654T A655 G656 U657 C658 C659 G660 C664 G668 G669 A670 C671 C672 C673 G674 A675 A676 G686 G690 C691 C692 C693 U694 G695 G696 C697 C698 A699 G700 U714 G715 A716 G717 C720 C721 A722 G723 U724 G725 G726 C730
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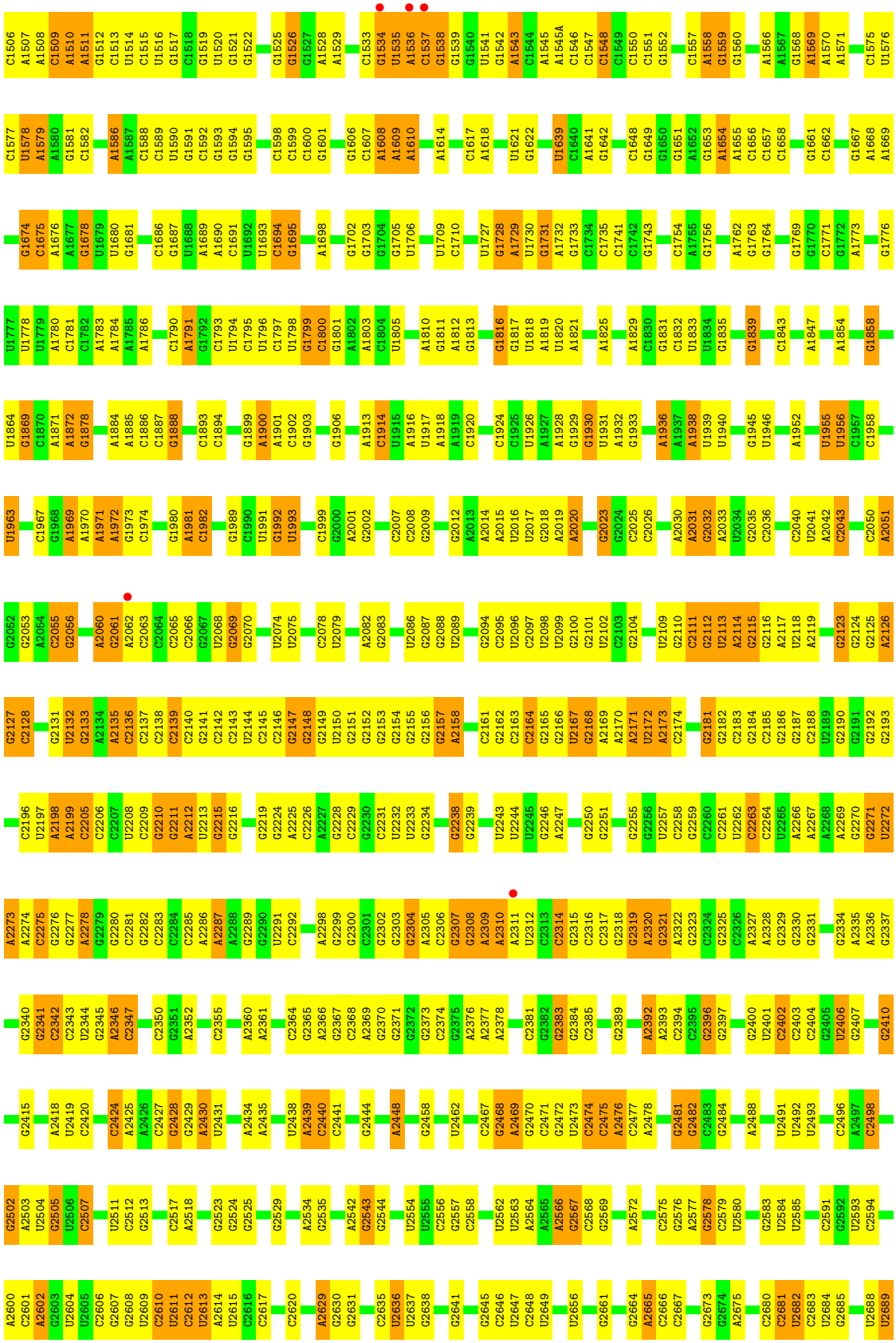
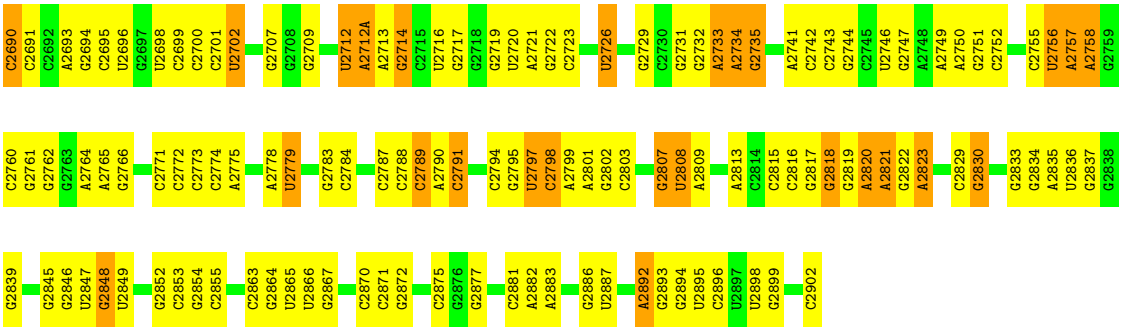
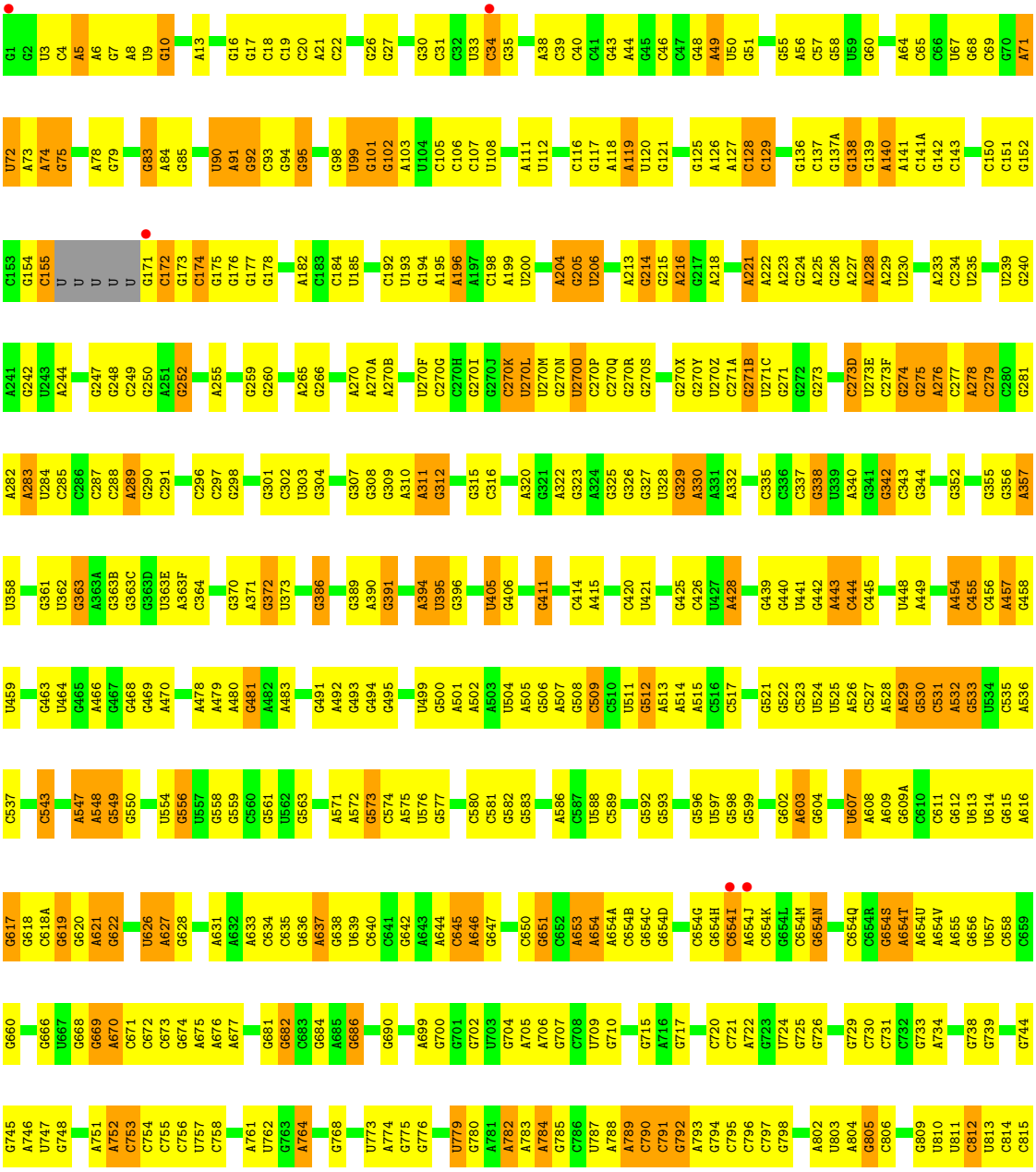
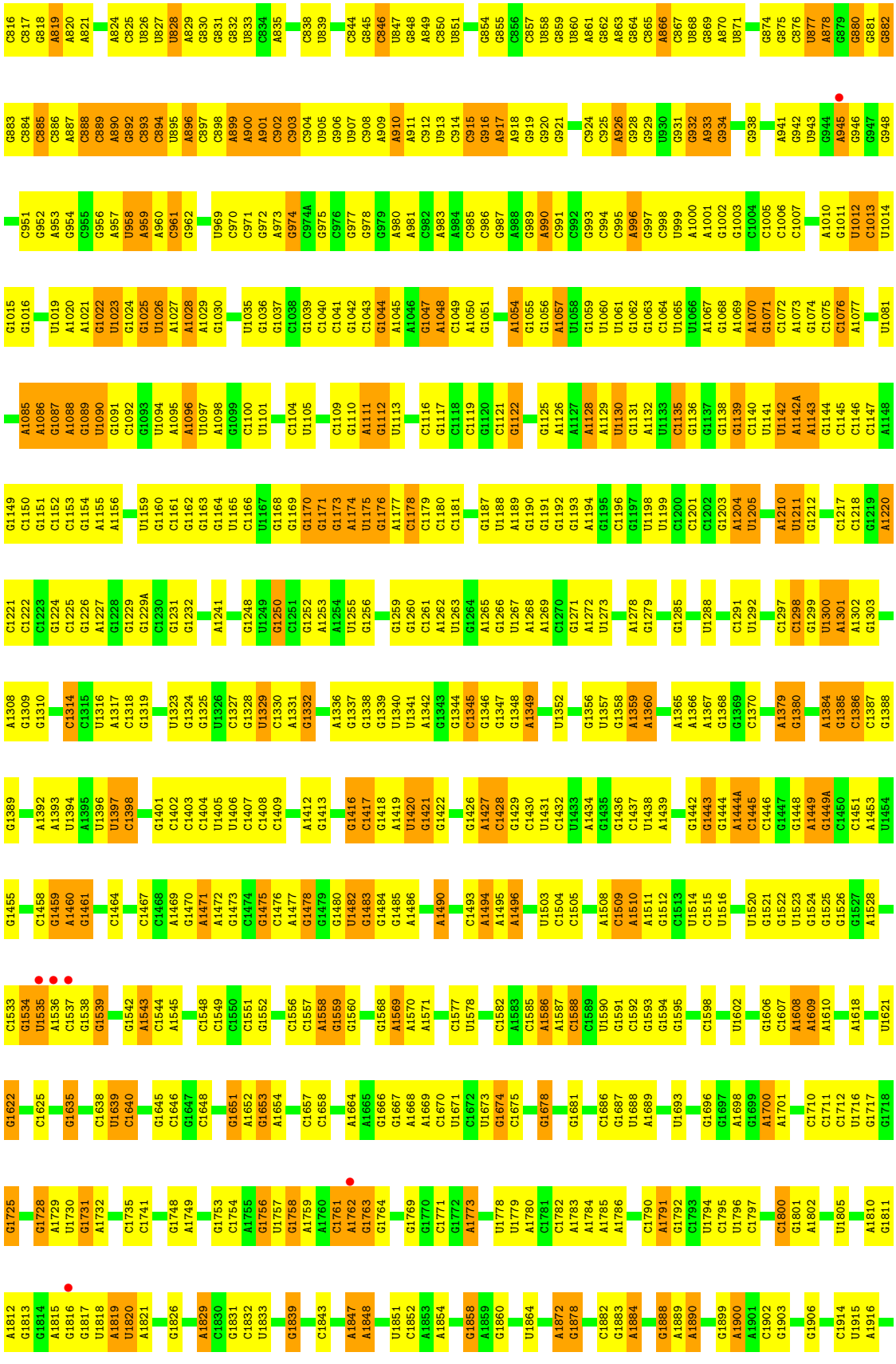




• Molecule 25: RNA (2912-MER)

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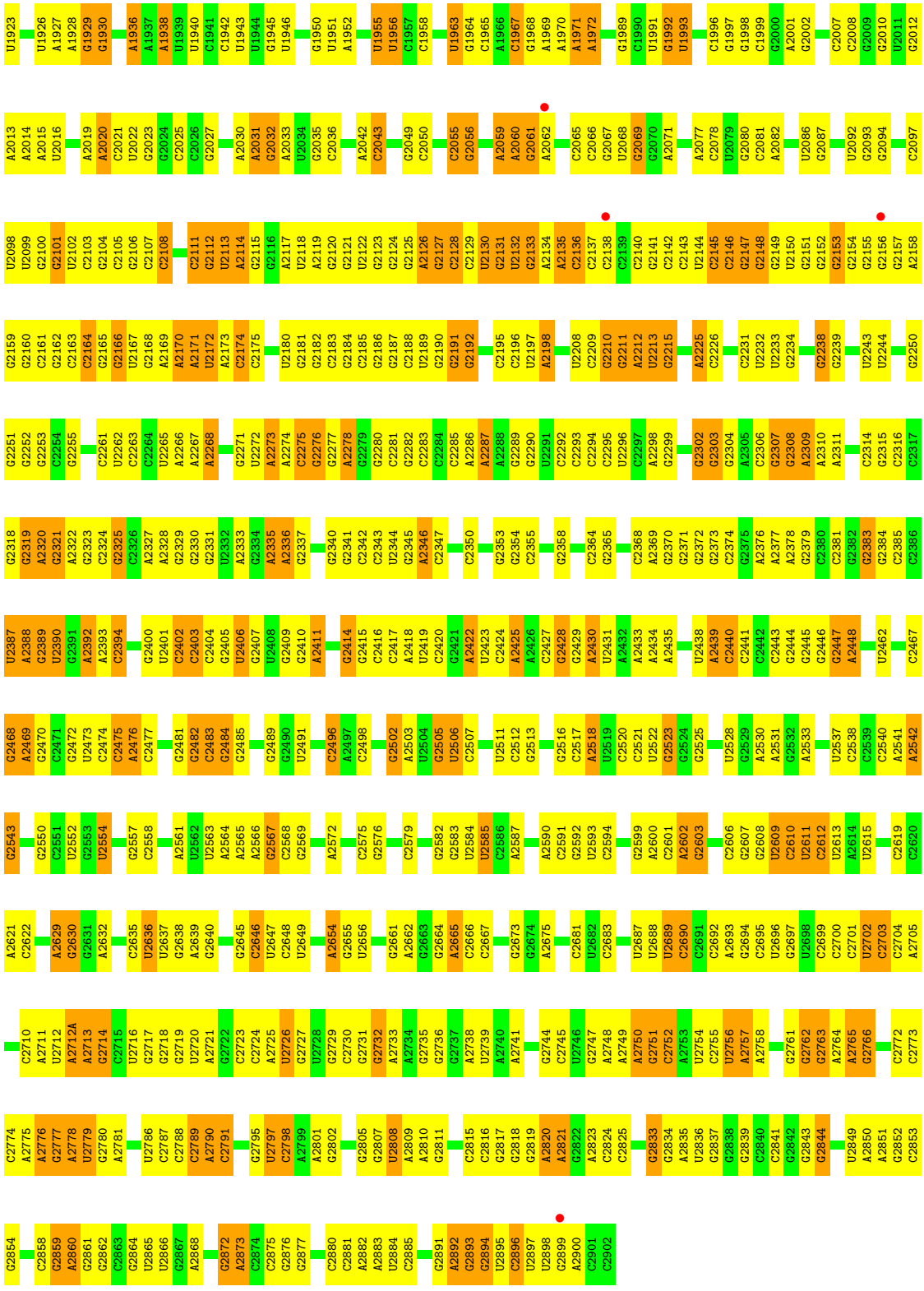
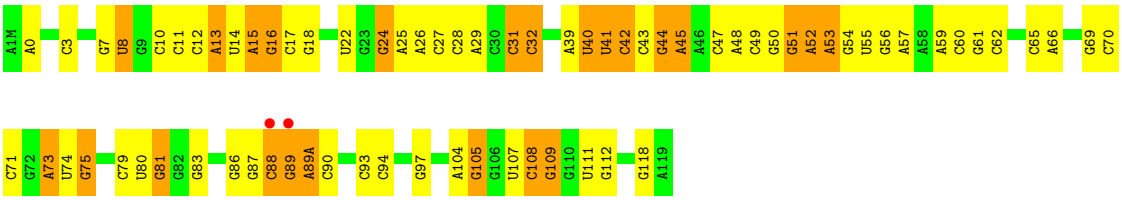


• Molecule 26: 5S RIBOSOMAL RNA

Chain BB:

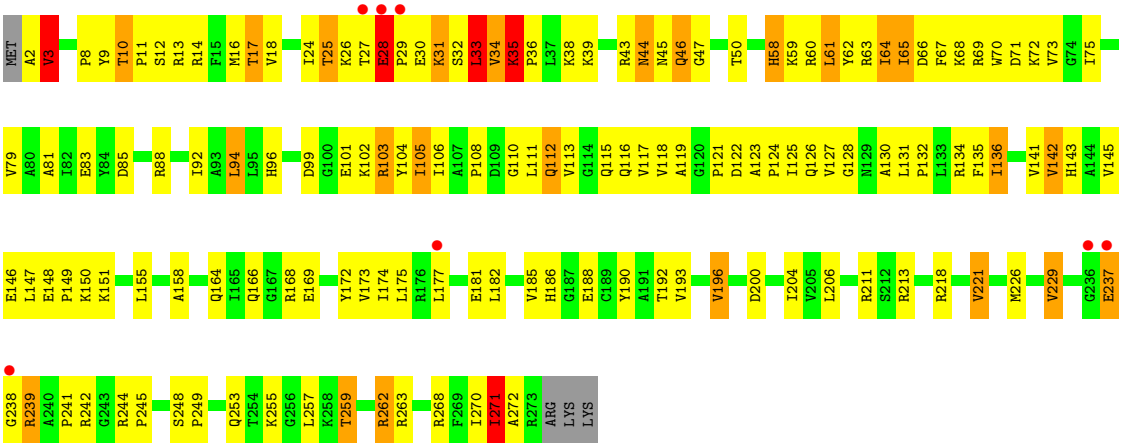
• Molecule 26: 5S RIBOSOMAL RNA

Chain DB:



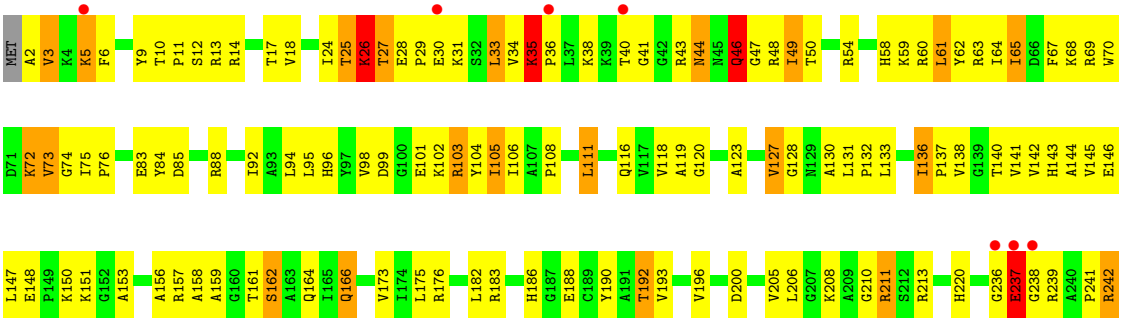
• Molecule 27: 50S ribosomal protein L2

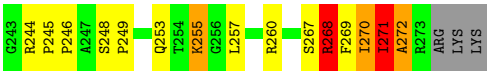
Chain BD:



• Molecule 27: 50S ribosomal protein L2

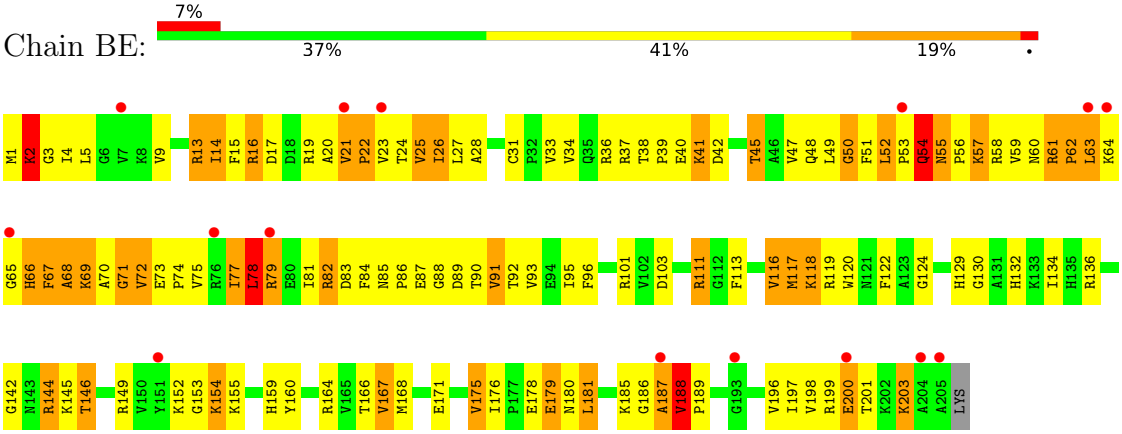
Chain DD:





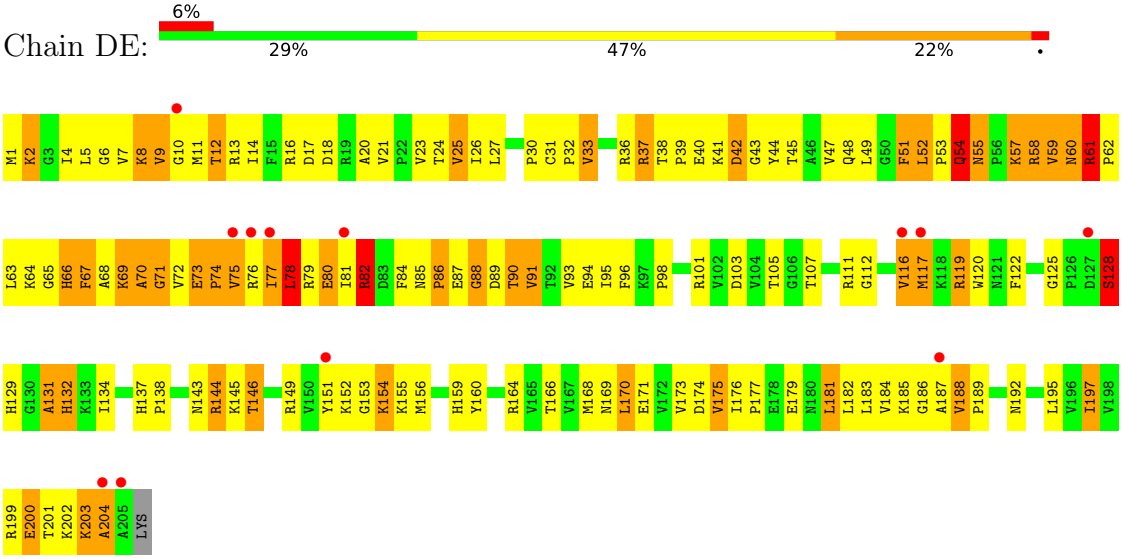
• Molecule 28: 50S ribosomal protein L3

Chain BE:



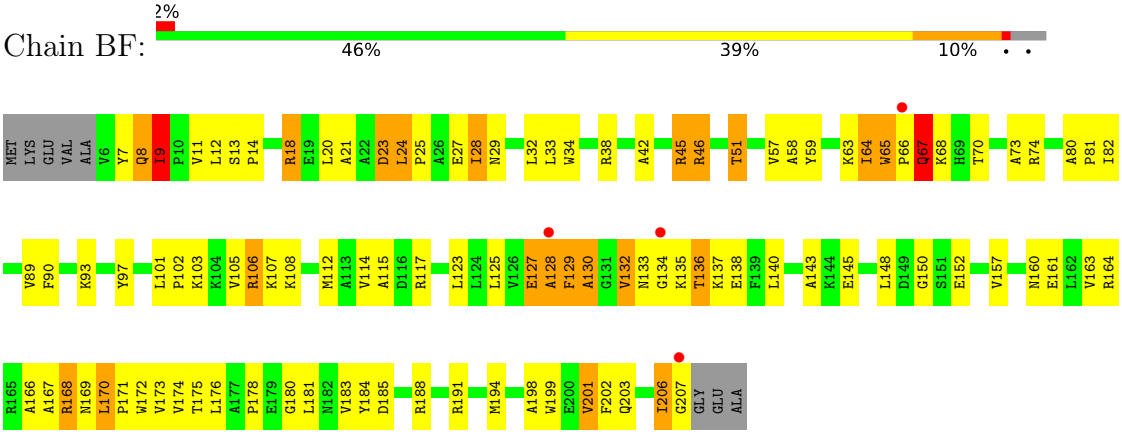
• Molecule 28: 50S ribosomal protein L3

Chain DE:



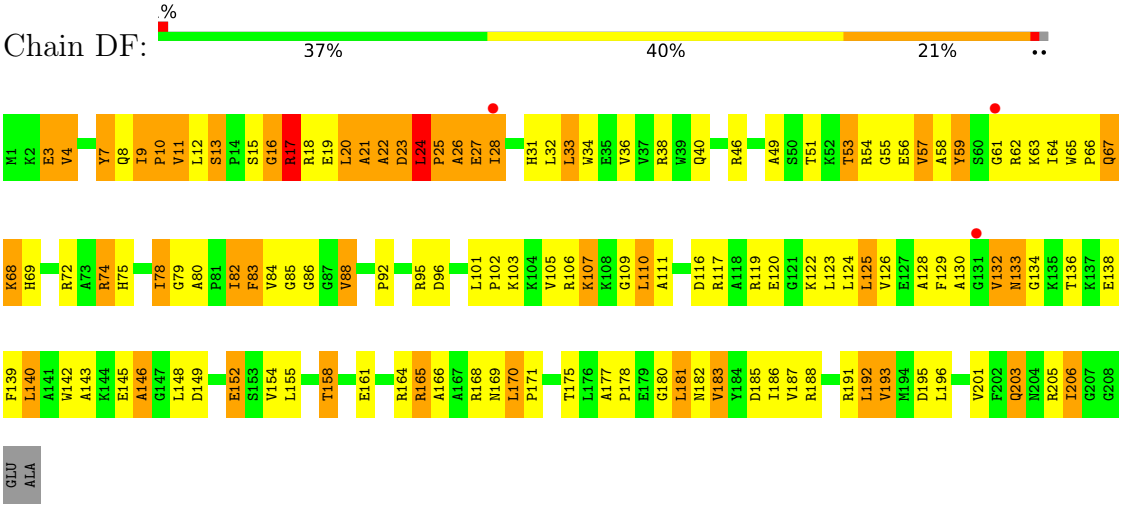
• Molecule 29: 50S ribosomal protein L4

Chain BF:



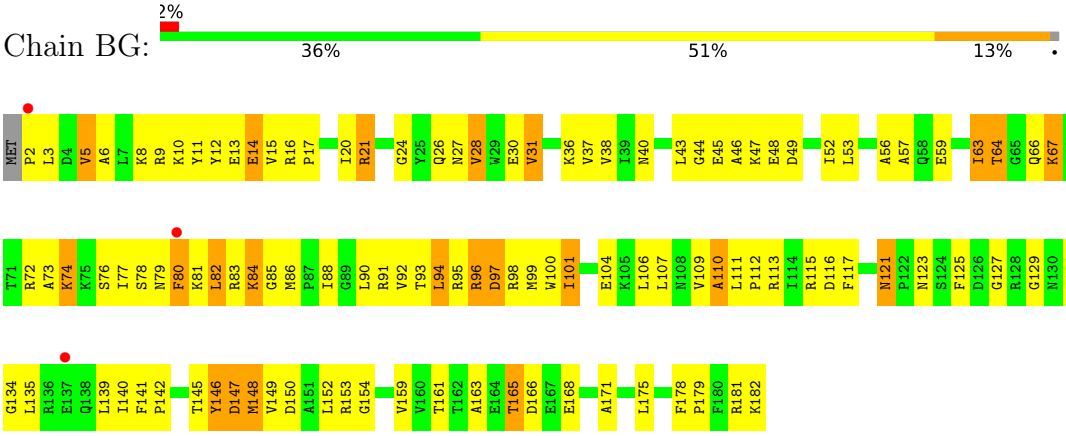
• Molecule 29: 50S ribosomal protein L4

Chain DF:



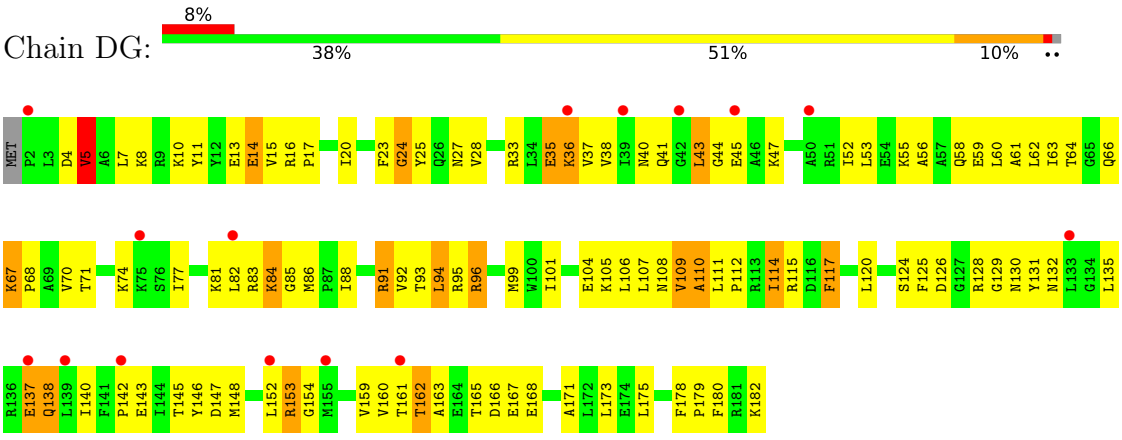
• Molecule 30: 50S ribosomal protein L5

Chain BG:



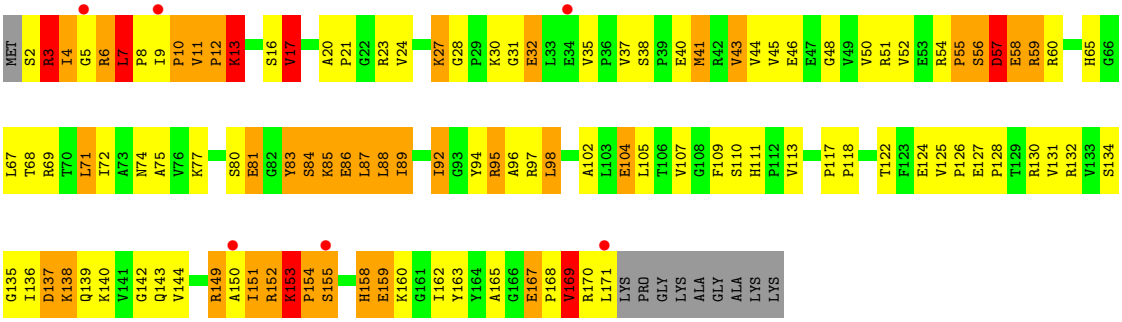
• Molecule 30: 50S ribosomal protein L5

Chain DG:



• Molecule 31: 50S ribosomal protein L6

Chain BH:



• Molecule 31: 50S ribosomal protein L6

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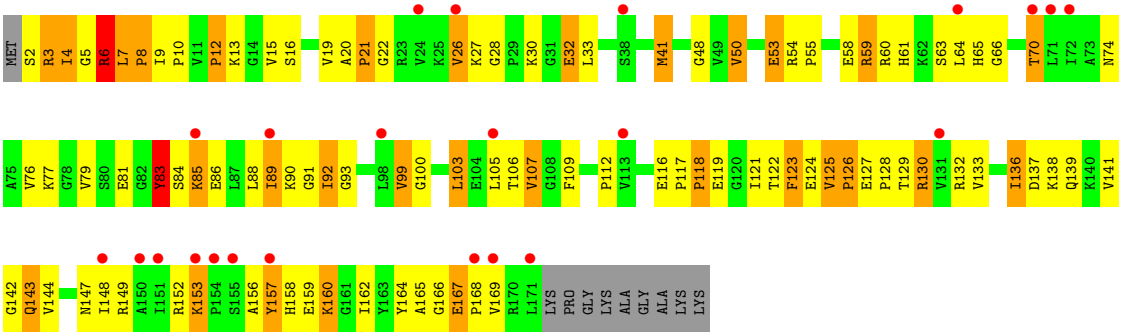
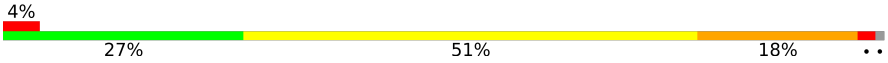
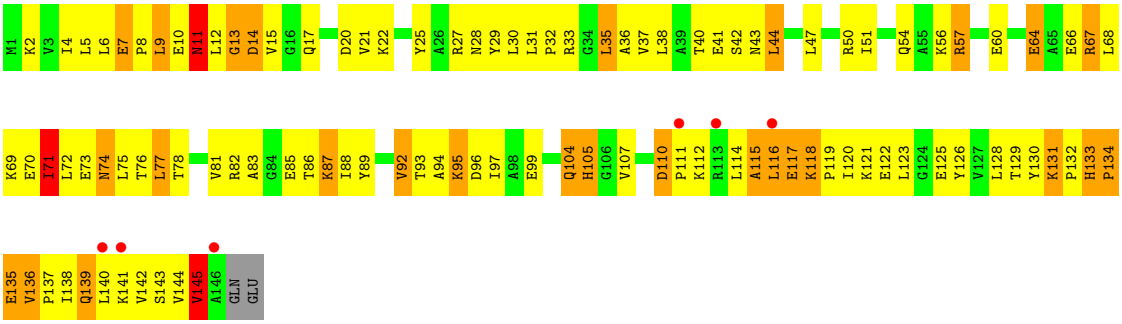


• Molecule 32: 50S ribosomal protein L9

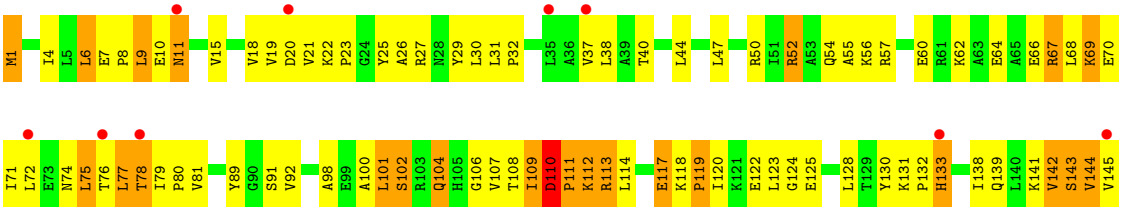
Chain BK:





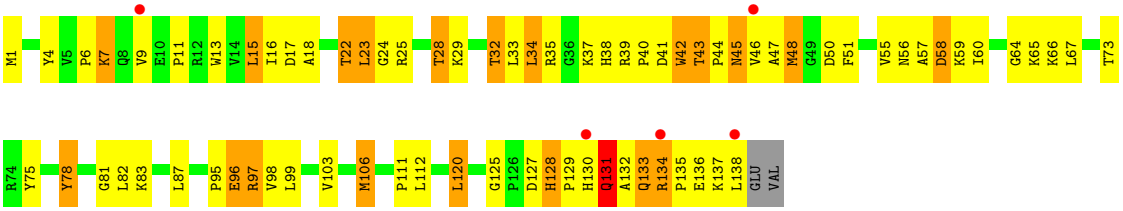
• Molecule 32: 50S ribosomal protein L9

Chain DK:



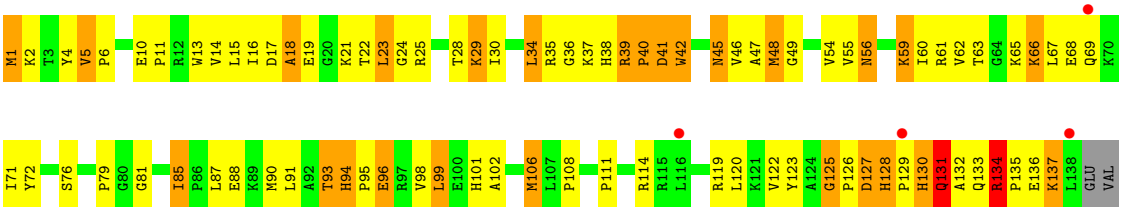
• Molecule 33: 50S ribosomal protein L13

Chain BM:



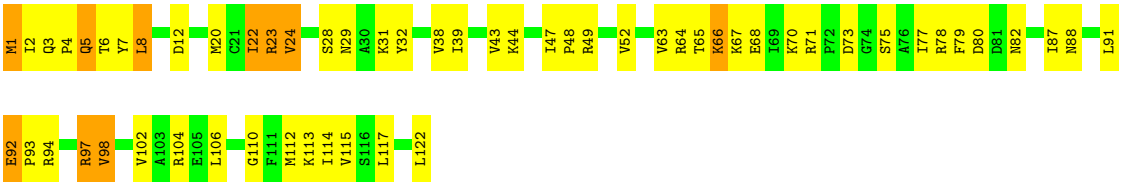
• Molecule 33: 50S ribosomal protein L13

Chain DM:



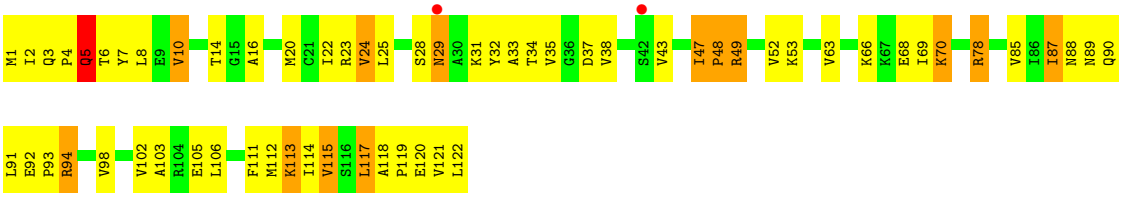
• Molecule 34: 50S ribosomal protein L14

Chain BN:



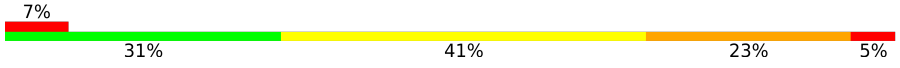
• Molecule 34: 50S ribosomal protein L14

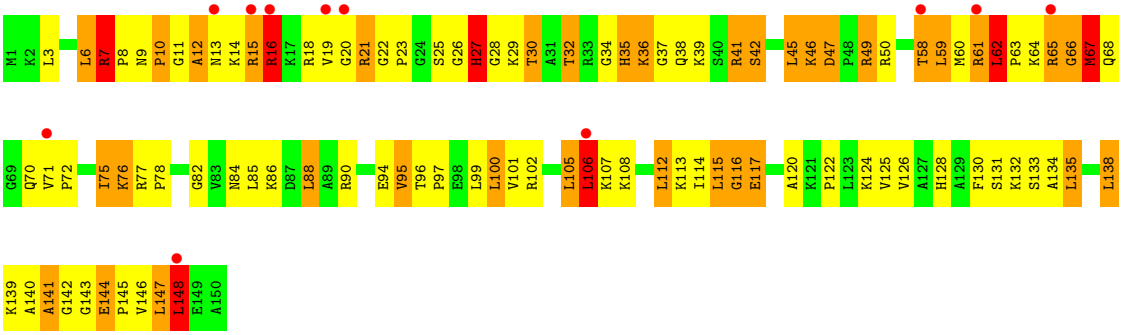
Chain DN:



• Molecule 35: 50S ribosomal protein L15

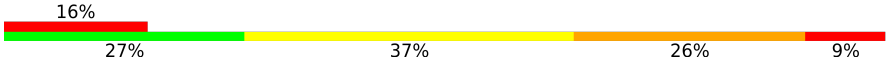
Chain BO:

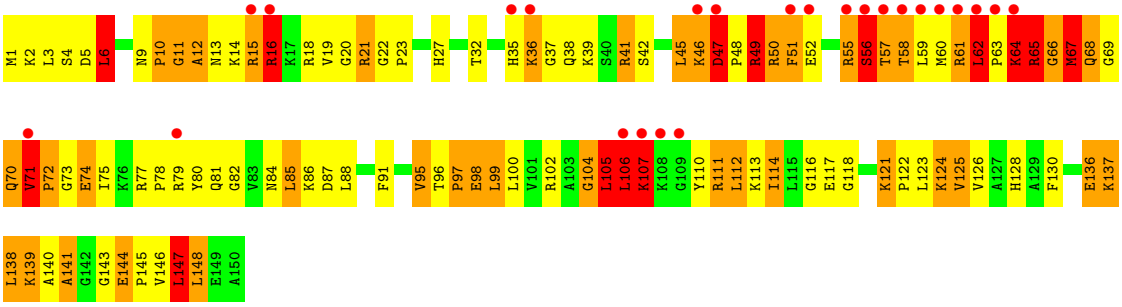




• Molecule 35: 50S ribosomal protein L15

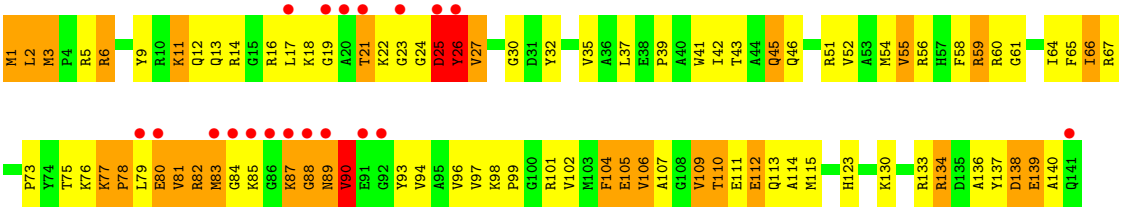
Chain DO:





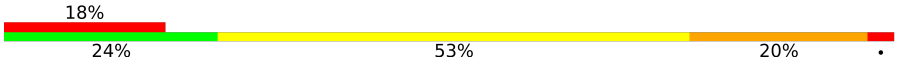
• Molecule 36: 50S ribosomal protein L16

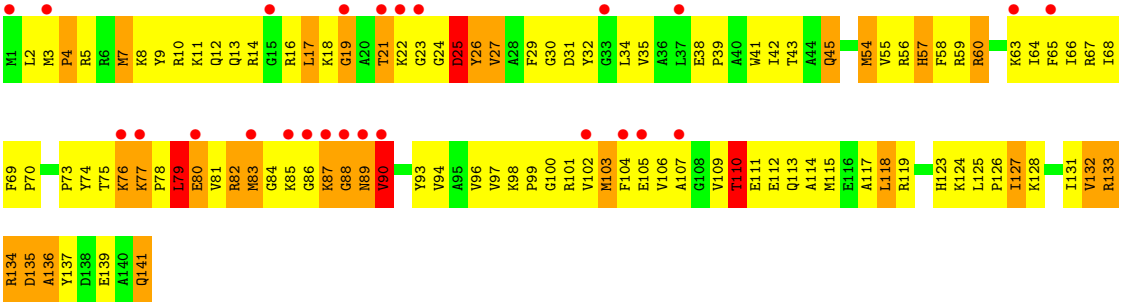
Chain BP:



• Molecule 36: 50S ribosomal protein L16

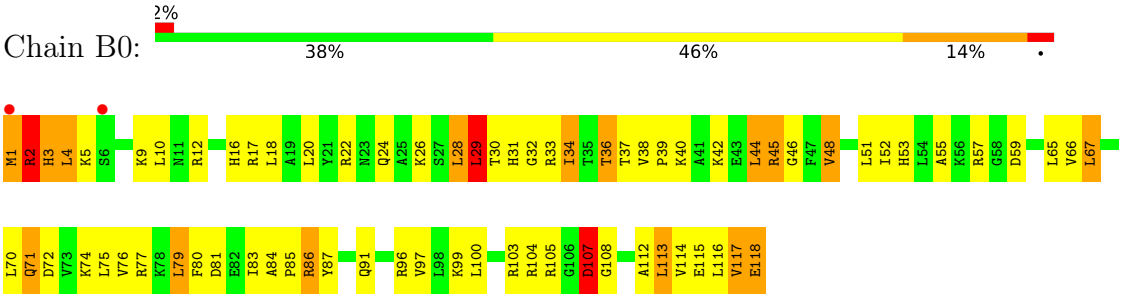
Chain DP:





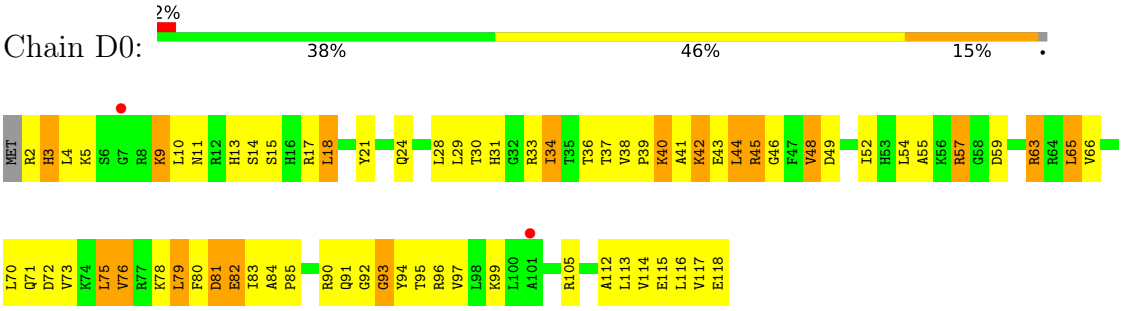
• Molecule 37: 50S ribosomal protein L17

Chain B0:



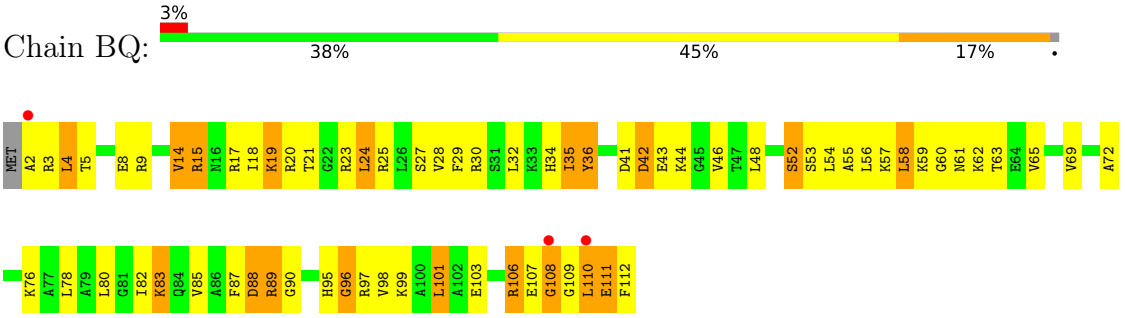
• Molecule 37: 50S ribosomal protein L17

Chain D0:



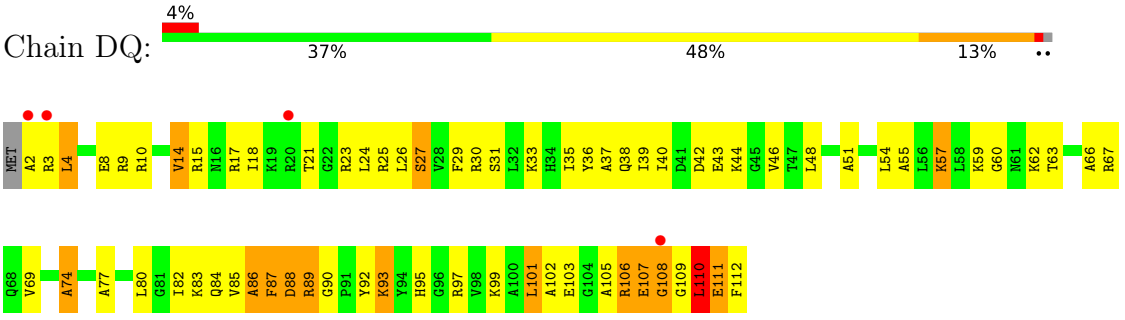
• Molecule 38: 50S ribosomal protein L18

Chain BQ:



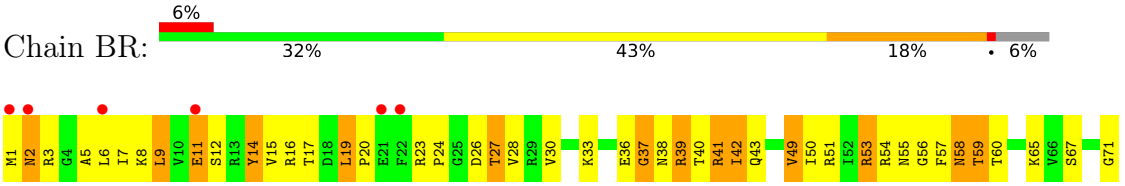
• Molecule 38: 50S ribosomal protein L18

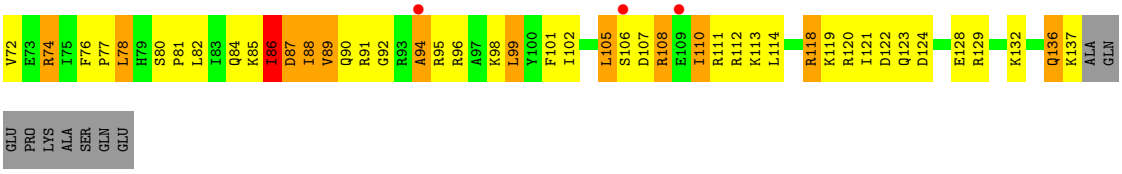
Chain DQ:



• Molecule 39: 50S ribosomal protein L19

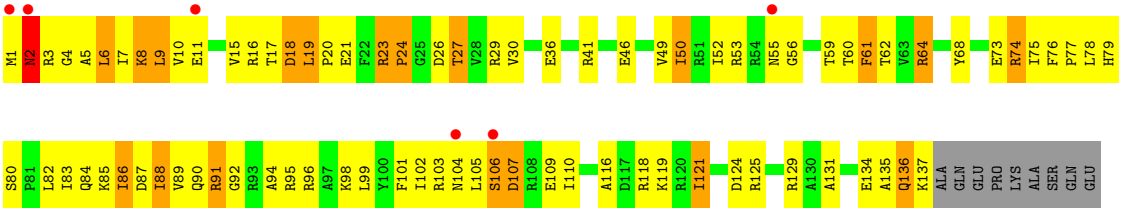
Chain BR:





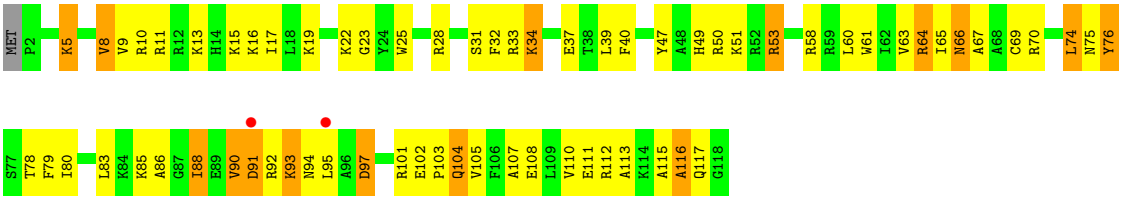
• Molecule 39: 50S ribosomal protein L19

Chain DR:



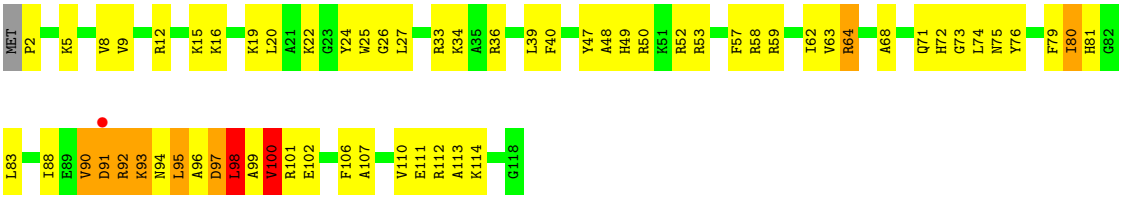
• Molecule 40: 50S ribosomal protein L20

Chain B1:



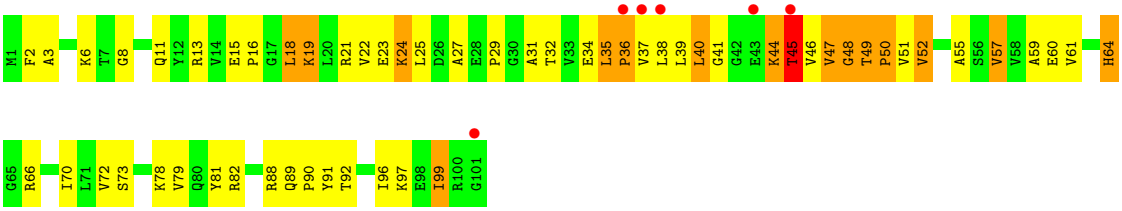
• Molecule 40: 50S ribosomal protein L20

Chain D1:



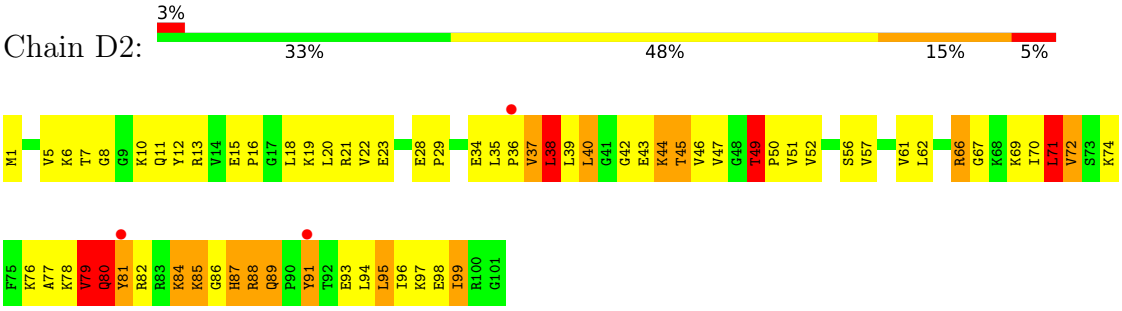
• Molecule 41: 50S ribosomal protein L21

Chain B2:



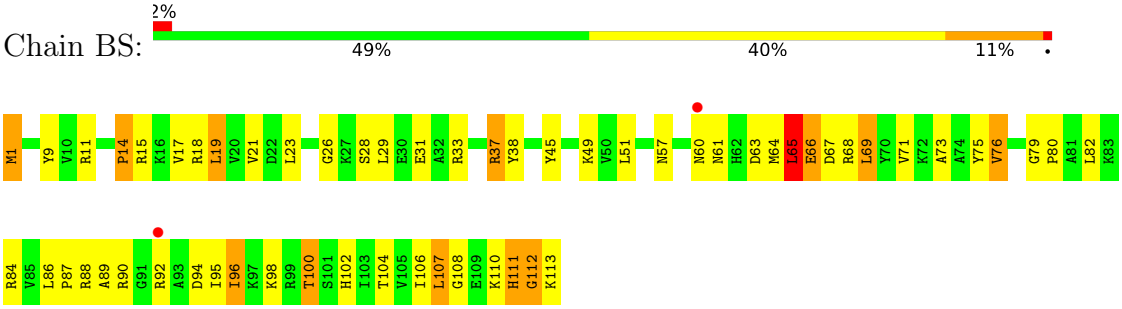
• Molecule 41: 50S ribosomal protein L21

Chain D2:



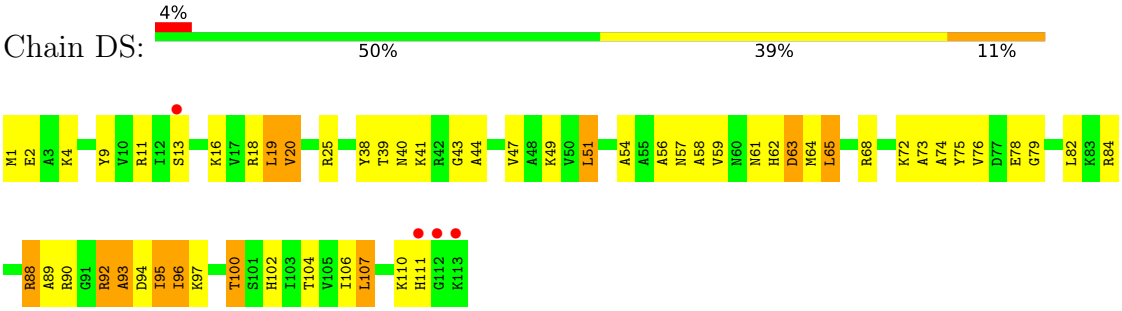
• Molecule 42: 50S ribosomal protein L22

Chain BS:



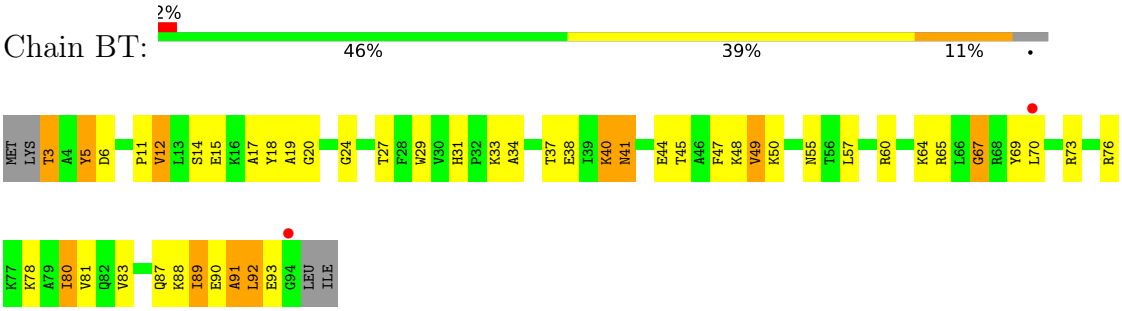
• Molecule 42: 50S ribosomal protein L22

Chain DS:



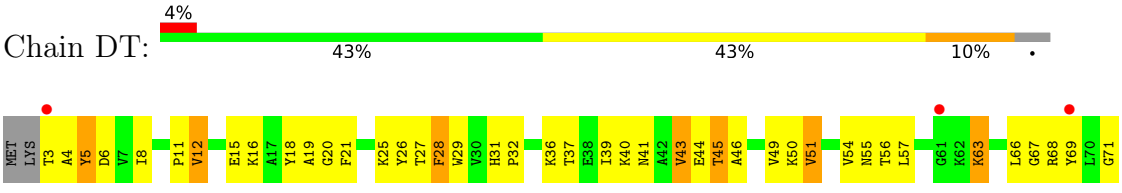
• Molecule 43: 50S ribosomal protein L23

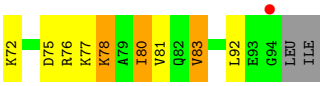
Chain BT:



• Molecule 43: 50S ribosomal protein L23

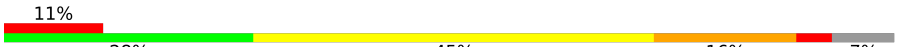
Chain DT:

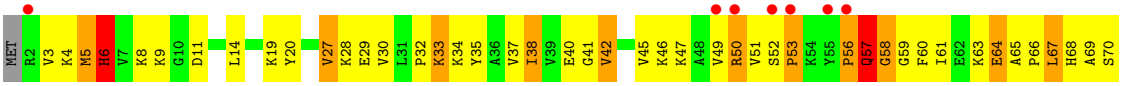


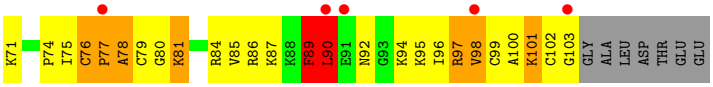


• Molecule 44: 50S ribosomal protein L24

Chain BU:

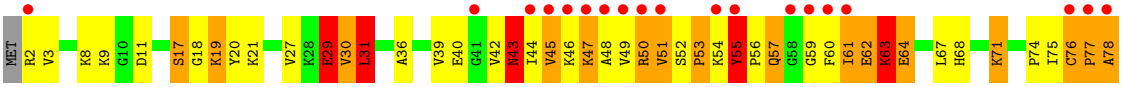


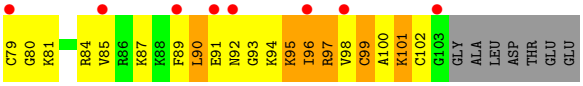




• Molecule 44: 50S ribosomal protein L24

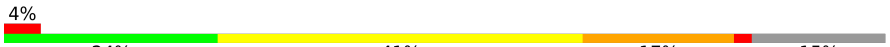
Chain DU:

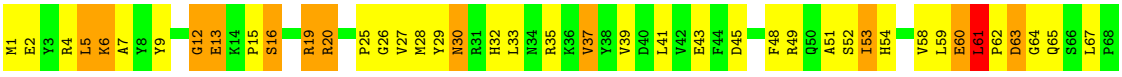


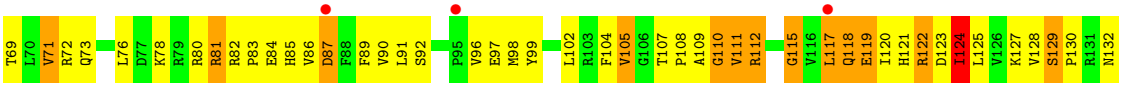


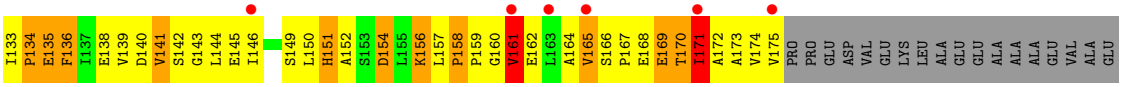
• Molecule 45: 50S ribosomal protein L25

Chain BV:



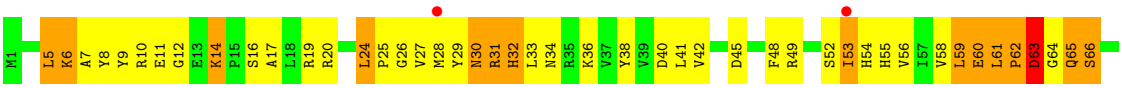


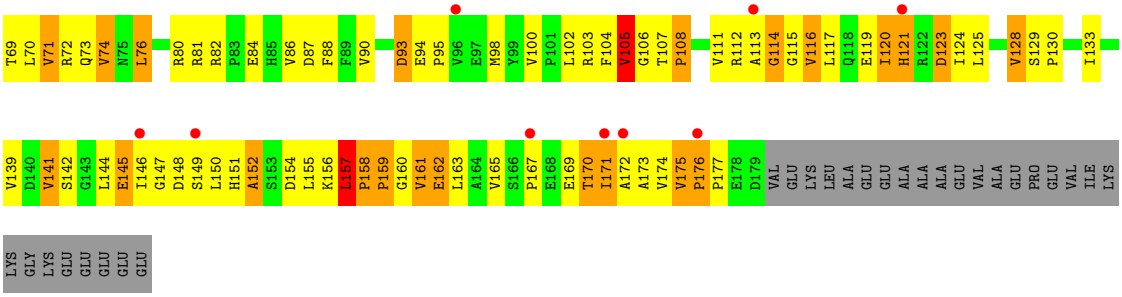




• Molecule 45: 50S ribosomal protein L25

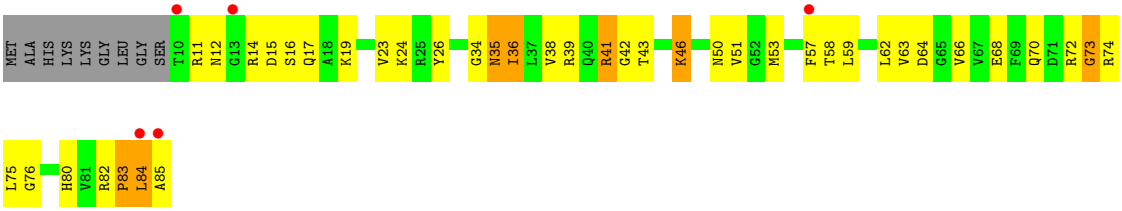
Chain DV:





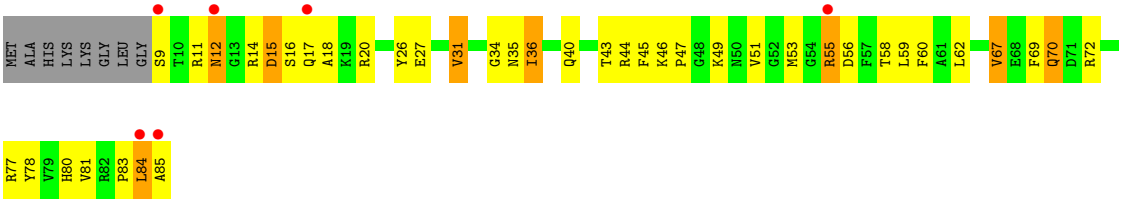
• Molecule 46: 50S ribosomal protein L27

Chain B3:



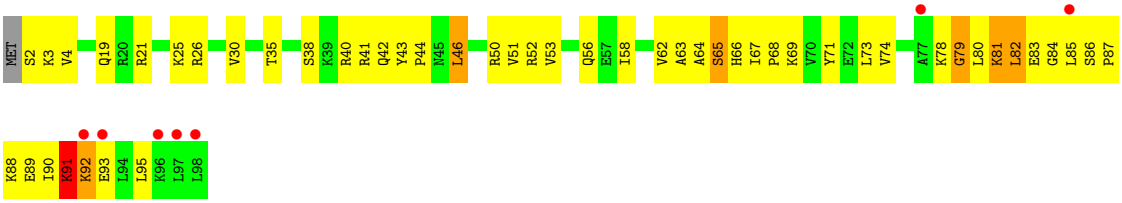
• Molecule 46: 50S ribosomal protein L27

Chain D3:



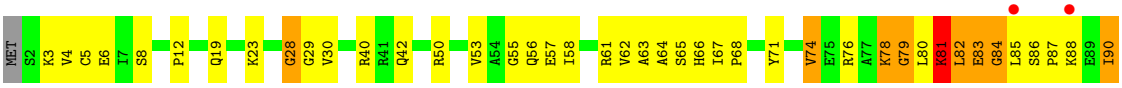
• Molecule 47: 50S ribosomal protein L28

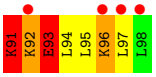
Chain BZ:



• Molecule 47: 50S ribosomal protein L28

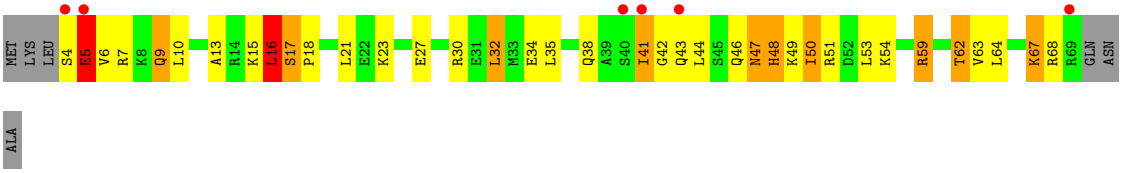
Chain DZ:





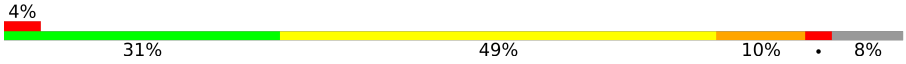
• Molecule 48: 50S ribosomal protein L29

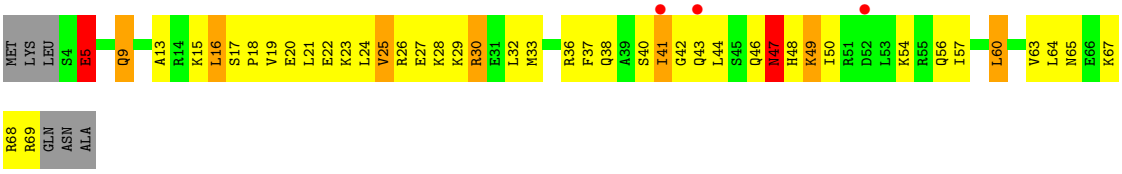
Chain BW:



• Molecule 48: 50S ribosomal protein L29

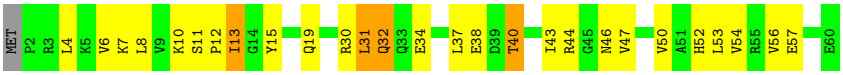
Chain DW:





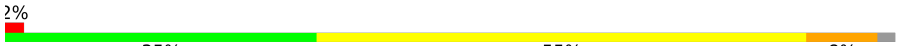
• Molecule 49: 50S ribosomal protein L30

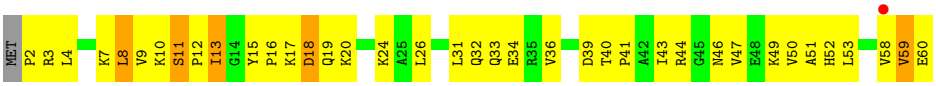
Chain BX:



• Molecule 49: 50S ribosomal protein L30

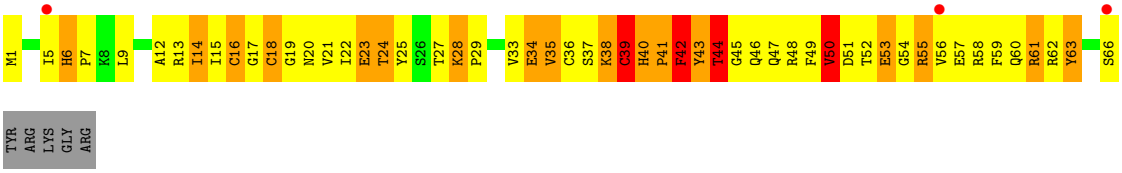
Chain DX:





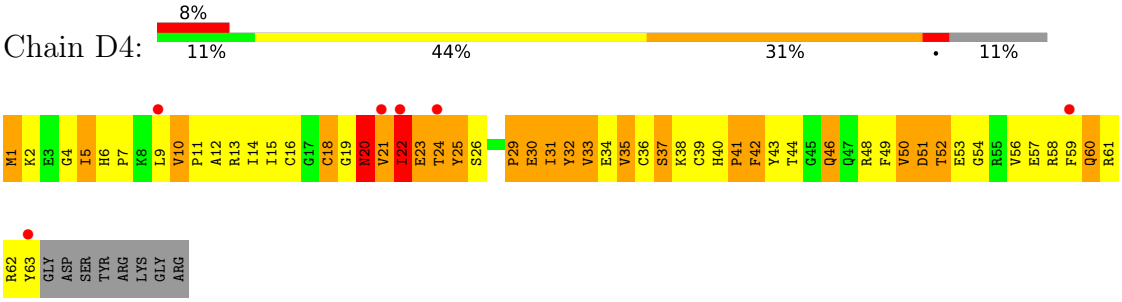
• Molecule 50: 50S ribosomal protein L31

Chain B4:



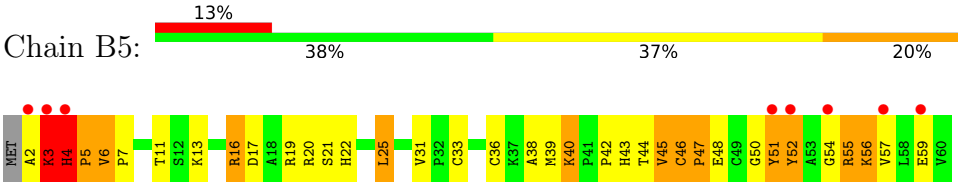
• Molecule 50: 50S ribosomal protein L31

Chain D4:



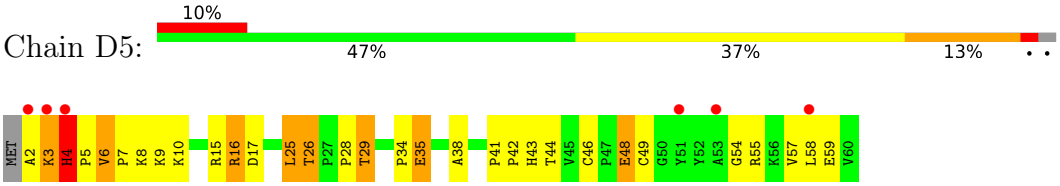
• Molecule 51: 50S ribosomal protein L32

Chain B5:



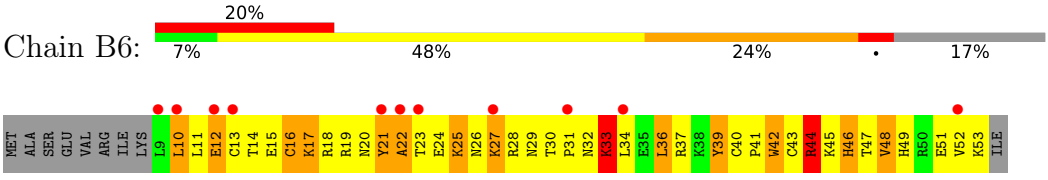
• Molecule 51: 50S ribosomal protein L32

Chain D5:



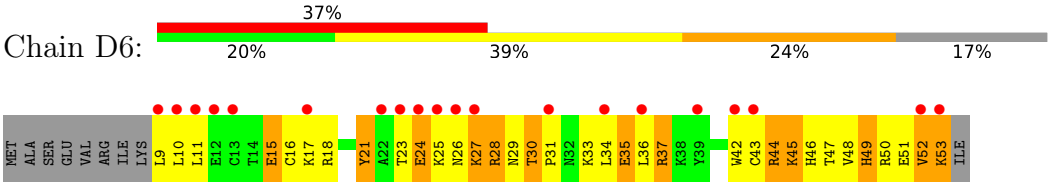
• Molecule 52: 50S ribosomal protein L33

Chain B6:



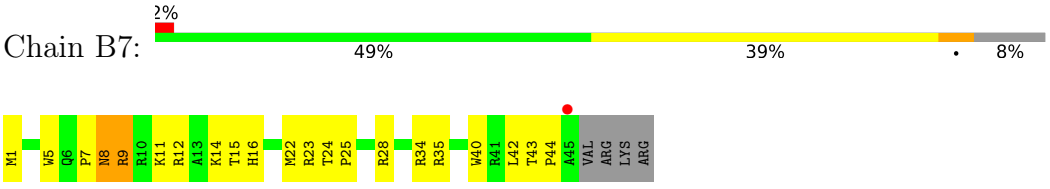
• Molecule 52: 50S ribosomal protein L33

Chain D6:



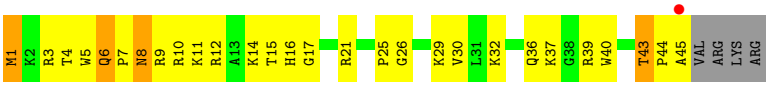
• Molecule 53: 50S ribosomal protein L34

Chain B7:



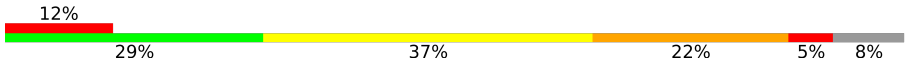
• Molecule 53: 50S ribosomal protein L34

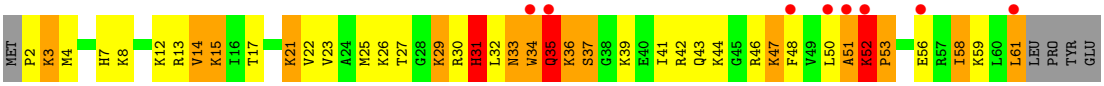
Chain D7:



• Molecule 54: 50S ribosomal protein L35

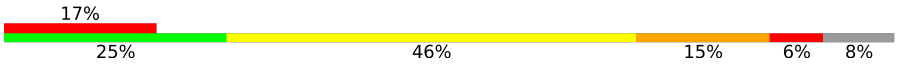
Chain B8:

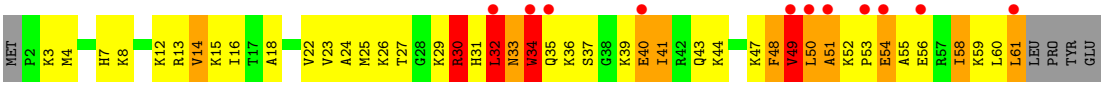




• Molecule 54: 50S ribosomal protein L35

Chain D8:





4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	210.67Å 451.75Å 625.08Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	154.06 – 3.00 154.06 – 3.00	Depositor EDS
% Data completeness (in resolution range)	100.0 (154.06-3.00) 93.5 (154.06-3.00)	Depositor EDS
R_{merge}	0.22	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.20 (at 3.01Å)	Xtriage
Refinement program	PHENIX dev_810	Depositor
R, R_{free}	0.203 , 0.235 0.203 , 0.231	Depositor DCC
R_{free} test set	2000 reflections (0.17%)	wwPDB-VP
Wilson B-factor (Å^2)	78.2	Xtriage
Anisotropy	0.228	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.29 , 76.6	EDS
L-test for twinning[2]	$< \|L\| > = 0.47$, $< L^2 > = 0.30$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	299676	wwPDB-VP
Average B, all atoms (Å^2)	100.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.47% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|>5$	RMSZ	#$\|Z\|>5$
1	AA	0.16	0/36139	0.33	1/56406 (0.0%)
1	CA	0.16	0/36142	0.32	0/56410
2	AE	0.27	0/1959	0.71	0/2642
2	CE	0.27	0/1959	0.73	0/2642
3	AF	0.29	0/1629	0.72	1/2195 (0.0%)
3	CF	0.28	0/1636	0.73	0/2205
4	AG	0.33	0/1733	0.77	1/2318 (0.0%)
4	CG	0.31	0/1733	0.83	3/2318 (0.1%)
5	AH	0.29	0/1171	0.76	1/1576 (0.1%)
5	CH	0.30	0/1171	0.77	0/1576
6	AI	0.30	0/856	0.70	0/1154
6	CI	0.29	0/856	0.74	2/1154 (0.2%)
7	AJ	0.28	0/1276	0.75	2/1709 (0.1%)
7	CJ	0.29	0/1276	0.71	0/1709
8	AK	0.29	0/1136	0.81	0/1527
8	CK	0.28	0/1136	0.76	0/1527
9	AL	0.27	0/1029	0.70	0/1379
9	CL	0.28	0/1029	0.78	2/1379 (0.1%)
10	AM	0.28	0/814	0.76	0/1095
10	CM	0.27	0/814	0.80	0/1095
11	AN	0.30	0/900	0.80	0/1213
11	CN	0.31	0/900	0.80	2/1213 (0.2%)
12	AO	0.33	0/991	0.81	2/1327 (0.2%)
12	CO	0.32	0/991	0.77	1/1327 (0.1%)
13	AP	0.28	0/938	0.76	0/1258
13	CP	0.28	0/943	0.72	0/1265
14	AQ	0.33	0/485	0.74	0/643
14	CQ	0.28	0/485	0.69	0/643
15	AR	0.31	0/745	0.69	0/992
15	CR	0.30	0/745	0.68	0/992
16	AS	0.29	0/721	0.76	2/970 (0.2%)
16	CS	0.30	0/721	0.70	0/970

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	AT	0.27	0/847	0.75	2/1131 (0.2%)
17	CT	0.27	0/847	0.72	0/1131
18	AU	0.29	0/596	0.78	1/790 (0.1%)
18	CU	0.29	0/596	0.72	0/790
19	AV	0.30	0/638	0.86	0/860
19	CV	0.29	0/638	0.77	0/860
20	AW	0.28	0/765	0.76	0/1007
20	CW	0.30	0/765	0.83	1/1007 (0.1%)
21	AX	0.26	0/221	0.73	0/288
21	CX	0.26	0/221	0.72	0/288
22	AB	0.17	0/1992	0.29	0/3099
22	AD	0.12	0/1992	0.27	0/3099
22	CB	0.16	0/1992	0.29	0/3099
22	CD	0.12	0/1992	0.27	0/3099
23	AC	0.15	0/1835	0.29	0/2859
23	CC	0.14	0/1835	0.30	0/2859
24	A1	0.22	0/389	0.33	0/604
24	C1	0.25	0/389	0.36	0/604
25	BA	0.20	0/70233	0.36	0/109643
25	DA	0.18	0/70122	0.34	0/109469
26	BB	0.18	0/2928	0.35	0/4568
26	DB	0.16	0/2928	0.35	0/4568
27	BD	0.39	0/2165	0.91	5/2919 (0.2%)
27	DD	0.36	0/2165	0.84	4/2919 (0.1%)
28	BE	0.36	0/1601	0.93	9/2160 (0.4%)
28	DE	0.35	0/1601	0.91	9/2160 (0.4%)
29	BF	0.37	0/1620	0.85	5/2194 (0.2%)
29	DF	0.33	0/1662	0.87	4/2249 (0.2%)
30	BG	0.29	0/1499	0.75	2/2016 (0.1%)
30	DG	0.28	0/1499	0.71	0/2016
31	BH	0.35	0/1332	0.83	3/1802 (0.2%)
31	DH	0.29	0/1332	0.77	0/1802
32	BK	0.32	0/1151	0.79	1/1558 (0.1%)
32	DK	0.30	0/1151	0.85	6/1558 (0.4%)
33	BM	0.34	0/1131	0.80	1/1525 (0.1%)
33	DM	0.28	0/1131	0.82	4/1525 (0.3%)
34	BN	0.34	0/943	0.79	0/1269
34	DN	0.32	0/943	0.79	2/1269 (0.2%)
35	BO	0.36	0/1162	0.92	2/1544 (0.1%)
35	DO	0.29	0/1162	0.71	0/1544
36	BP	0.35	0/1143	0.78	0/1527
36	DP	0.29	0/1143	0.72	1/1527 (0.1%)
37	B0	0.33	0/982	0.76	0/1312

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
37	D0	0.32	0/974	0.71	0/1302
38	BQ	0.32	0/892	0.79	0/1187
38	DQ	0.28	0/892	0.71	0/1187
39	BR	0.35	0/1155	0.84	4/1542 (0.3%)
39	DR	0.31	0/1155	0.78	2/1542 (0.1%)
40	B1	0.34	0/982	0.84	4/1306 (0.3%)
40	D1	0.31	0/982	0.81	2/1306 (0.2%)
41	B2	0.32	0/790	0.74	0/1057
41	D2	0.37	0/790	0.84	3/1057 (0.3%)
42	BS	0.35	0/911	0.73	0/1220
42	DS	0.35	0/911	0.71	0/1220
43	BT	0.35	0/739	0.78	1/993 (0.1%)
43	DT	0.32	0/739	0.79	2/993 (0.2%)
44	BU	0.37	0/798	0.85	3/1064 (0.3%)
44	DU	0.34	0/798	0.78	0/1064
45	BV	0.28	0/1427	0.78	2/1935 (0.1%)
45	DV	0.29	0/1460	0.80	2/1982 (0.1%)
46	B3	0.31	0/615	0.81	2/819 (0.2%)
46	D3	0.29	0/621	0.76	0/827
47	BZ	0.34	0/770	0.77	0/1022
47	DZ	0.33	0/770	0.81	0/1022
48	BW	0.33	0/560	0.81	1/741 (0.1%)
48	DW	0.30	0/560	0.77	1/741 (0.1%)
49	BX	0.31	0/474	0.75	0/635
49	DX	0.27	0/474	0.89	4/635 (0.6%)
50	B4	0.28	0/545	0.72	0/733
50	D4	0.31	0/527	0.76	0/709
51	B5	0.36	0/473	1.02	6/639 (0.9%)
51	D5	0.34	0/473	0.84	2/639 (0.3%)
52	B6	0.34	0/396	0.76	0/529
52	D6	0.34	0/396	0.89	2/529 (0.4%)
53	B7	0.37	0/399	0.72	0/526
53	D7	0.34	0/399	0.81	2/526 (0.4%)
54	B8	0.42	0/486	0.90	1/638 (0.2%)
54	D8	0.41	0/486	0.96	1/638 (0.2%)
All	All	0.23	0/324157	0.50	129/485451 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
31	BH	0	1

There are no bond length outliers.

All (129) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	CW	12	ALA	N-CA-C	-9.13	102.06	113.02
35	BO	59	LEU	N-CA-C	-8.83	101.81	112.59
51	B5	46	CYS	CA-C-N	8.74	130.76	119.84
51	B5	46	CYS	C-N-CA	8.74	130.76	119.84
28	BE	188	VAL	N-CA-C	8.31	117.09	108.95
41	D2	49	THR	CA-C-N	-7.54	110.41	119.84
41	D2	49	THR	C-N-CA	-7.54	110.41	119.84
40	D1	96	ALA	N-CA-C	-7.52	104.56	113.21
28	BE	188	VAL	CA-C-N	7.44	129.14	119.84
28	BE	188	VAL	C-N-CA	7.44	129.14	119.84
52	D6	29	ASN	N-CA-C	-7.39	103.40	113.30
40	B1	97	ASP	N-CA-C	-7.36	103.56	112.54
49	DX	11	SER	CA-C-N	7.30	127.31	119.28
49	DX	11	SER	C-N-CA	7.30	127.31	119.28
54	D8	54	GLU	N-CA-C	-7.22	104.48	113.28
28	DE	73	GLU	CA-C-N	7.18	128.81	119.84
28	DE	73	GLU	C-N-CA	7.18	128.81	119.84
4	AG	31	CYS	N-CA-C	-7.17	104.97	113.21
36	DP	118	LEU	N-CA-C	-7.15	105.74	114.75
4	CG	13	ARG	N-CA-C	6.82	115.29	108.75
48	BW	5	GLU	N-CA-C	-6.79	104.00	112.90
28	BE	58	ARG	N-CA-C	-6.78	104.89	113.02
39	BR	14	TYR	N-CA-C	-6.77	104.92	113.72
27	DD	123	ALA	CA-C-N	6.72	126.68	120.03
27	DD	123	ALA	C-N-CA	6.72	126.68	120.03
53	D7	6	GLN	CA-C-N	6.64	126.67	119.90
53	D7	6	GLN	C-N-CA	6.64	126.67	119.90
39	BR	113	LYS	N-CA-C	-6.62	105.11	113.72
27	BD	229	VAL	CB-CA-C	-6.52	102.53	112.05
30	BG	31	VAL	CA-C-N	6.48	127.94	119.84
30	BG	31	VAL	C-N-CA	6.48	127.94	119.84
48	DW	5	GLU	N-CA-C	-6.34	105.03	112.89
11	CN	38	ASN	CA-C-N	6.33	126.67	119.83
11	CN	38	ASN	C-N-CA	6.33	126.67	119.83
28	BE	65	GLY	N-CA-C	-6.25	104.99	113.37
40	B1	9	VAL	N-CA-C	6.13	116.24	110.30
4	CG	3	ARG	CB-CA-C	-6.11	109.51	116.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
51	B5	51	TYR	N-CA-C	6.06	114.57	108.75
32	DK	142	VAL	N-CA-C	6.03	116.61	108.17
39	BR	19	LEU	CA-C-N	6.03	126.00	120.03
39	BR	19	LEU	C-N-CA	6.03	126.00	120.03
28	DE	128	SER	N-CA-C	5.97	115.35	108.49
43	BT	5	TYR	N-CA-C	-5.94	105.89	113.02
4	CG	11	LEU	N-CA-C	-5.89	104.80	112.23
32	DK	69	LYS	N-CA-C	-5.86	106.67	113.88
35	BO	115	LEU	N-CA-C	5.86	117.75	108.79
1	AA	792	A	C3'-C2'-C1'	-5.83	95.67	101.50
49	DX	15	TYR	CA-C-N	5.82	127.12	119.84
49	DX	15	TYR	C-N-CA	5.82	127.12	119.84
33	BM	78	TYR	N-CA-C	5.75	116.75	110.13
17	AT	29	HIS	CA-C-N	5.75	125.43	119.05
17	AT	29	HIS	C-N-CA	5.75	125.43	119.05
28	DE	61	ARG	CA-C-N	-5.73	112.67	119.84
28	DE	61	ARG	C-N-CA	-5.73	112.67	119.84
45	DV	157	LEU	CA-C-N	5.69	126.24	120.38
45	DV	157	LEU	C-N-CA	5.69	126.24	120.38
7	AJ	57	GLU	CA-C-N	5.67	126.92	119.84
7	AJ	57	GLU	C-N-CA	5.67	126.92	119.84
9	CL	89	ASN	CA-C-N	5.66	126.91	119.84
9	CL	89	ASN	C-N-CA	5.66	126.91	119.84
27	BD	196	VAL	N-CA-C	5.65	115.84	110.42
44	BU	81	LYS	CA-C-N	-5.60	113.99	119.76
44	BU	81	LYS	C-N-CA	-5.60	113.99	119.76
28	DE	125	GLY	CA-C-N	5.59	125.35	119.76
28	DE	125	GLY	C-N-CA	5.59	125.35	119.76
43	DT	5	TYR	N-CA-C	-5.58	106.32	113.02
16	AS	70	ALA	N-CA-C	-5.57	107.49	114.56
29	BF	9	ILE	CA-C-N	5.57	125.74	119.90
29	BF	9	ILE	C-N-CA	5.57	125.74	119.90
51	B5	59	GLU	N-CA-C	-5.56	106.50	113.28
45	BV	129	SER	CA-C-N	5.53	124.99	119.24
45	BV	129	SER	C-N-CA	5.53	124.99	119.24
54	B8	53	PRO	N-CA-C	-5.53	106.90	114.98
40	B1	76	TYR	N-CA-C	-5.52	105.18	111.14
29	DF	26	ALA	N-CA-C	-5.49	105.37	113.72
28	BE	77	ILE	N-CA-C	-5.48	106.48	113.22
27	DD	41	GLY	N-CA-C	-5.48	106.31	112.33
27	BD	28	GLU	CA-C-N	-5.43	113.06	119.84
27	BD	28	GLU	C-N-CA	-5.43	113.06	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	BD	31	LYS	N-CA-C	5.40	117.22	110.91
32	DK	143	SER	N-CA-C	5.37	119.19	109.32
28	BE	185	LYS	N-CA-C	5.36	117.40	110.65
31	BH	31	GLY	N-CA-C	5.35	117.65	110.43
33	DM	85	ILE	CA-C-N	5.35	125.81	120.14
33	DM	85	ILE	C-N-CA	5.35	125.81	120.14
28	BE	23	VAL	N-CA-C	5.35	117.09	108.85
29	DF	170	LEU	CA-C-N	5.34	124.98	119.05
29	DF	170	LEU	C-N-CA	5.34	124.98	119.05
39	DR	19	LEU	CA-C-N	5.33	126.51	119.84
39	DR	19	LEU	C-N-CA	5.33	126.51	119.84
29	BF	80	ALA	CA-C-N	5.33	125.65	119.47
29	BF	80	ALA	C-N-CA	5.33	125.65	119.47
32	DK	143	SER	CB-CA-C	-5.32	109.45	115.79
28	BE	142	GLY	N-CA-C	5.32	118.03	110.74
28	DE	70	ALA	N-CA-C	-5.32	108.56	114.62
12	CO	125	ALA	CB-CA-C	-5.29	110.49	116.63
46	B3	12	ASN	N-CA-C	5.28	113.11	108.78
12	AO	15	VAL	N-CA-C	5.27	116.05	110.72
44	BU	89	PHE	N-CA-C	-5.27	104.64	111.71
29	DF	4	VAL	N-CA-C	5.27	114.33	106.85
43	DT	4	ALA	N-CA-C	-5.23	108.16	114.75
28	DE	80	GLU	N-CA-C	5.21	119.79	113.38
40	B1	53	ARG	N-CA-C	-5.21	105.29	111.69
6	CI	55	ASP	CA-C-N	5.19	124.85	119.56
6	CI	55	ASP	C-N-CA	5.19	124.85	119.56
51	B5	51	TYR	CA-C-O	5.18	121.60	118.33
51	B5	51	TYR	CB-CA-C	-5.16	108.94	116.53
34	DN	47	ILE	CA-C-N	5.16	126.29	119.84
34	DN	47	ILE	C-N-CA	5.16	126.29	119.84
32	DK	110	ASP	CA-C-N	5.15	126.28	119.84
32	DK	110	ASP	C-N-CA	5.15	126.28	119.84
33	DM	5	VAL	CA-C-N	5.15	125.08	119.78
33	DM	5	VAL	C-N-CA	5.15	125.08	119.78
52	D6	28	ARG	N-CA-C	5.13	117.29	107.75
27	DD	196	VAL	N-CA-C	5.11	115.33	110.53
46	B3	12	ASN	CA-C-O	5.09	120.89	117.94
40	D1	9	VAL	N-CA-C	5.09	115.53	110.23
12	AO	102	TYR	CB-CA-C	-5.08	110.74	116.63
41	D2	81	TYR	N-CA-C	5.07	117.56	109.81
5	AH	67	VAL	N-CA-C	5.06	114.53	108.06
51	D5	4	HIS	CA-C-N	-5.05	114.56	119.76

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
51	D5	4	HIS	C-N-CA	-5.05	114.56	119.76
31	BH	167	GLU	CA-C-N	5.05	126.15	119.84
31	BH	167	GLU	C-N-CA	5.05	126.15	119.84
3	AF	138	VAL	N-CA-C	-5.04	107.52	113.42
29	BF	58	ALA	N-CA-C	5.04	116.85	111.36
32	BK	143	SER	CA-C-O	5.04	120.86	117.94
16	AS	20	VAL	N-CA-C	5.02	115.94	108.46
18	AU	56	THR	N-CA-C	-5.01	108.20	114.56

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
31	BH	153	LYS	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32284	0	16296	1132	1
1	CA	32287	0	16295	1156	1
2	AE	1924	0	1975	170	0
2	CE	1924	0	1975	170	0
3	AF	1605	0	1668	125	0
3	CF	1612	0	1677	122	0
4	AG	1703	0	1763	118	0
4	CG	1703	0	1763	121	0
5	AH	1155	0	1213	79	0
5	CH	1155	0	1213	64	0
6	AI	843	0	857	55	0
6	CI	843	0	857	44	0
7	AJ	1257	0	1296	68	0
7	CJ	1257	0	1296	77	0
8	AK	1116	0	1177	80	0
8	CK	1116	0	1177	48	0
9	AL	1010	0	1037	83	0
9	CL	1010	0	1037	119	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
10	AM	801	0	849	78	0
10	CM	801	0	849	86	0
11	AN	885	0	904	59	0
11	CN	885	0	904	40	0
12	AO	975	0	1062	95	0
12	CO	975	0	1062	67	0
13	AP	928	0	987	83	0
13	CP	933	0	992	87	0
14	AQ	476	0	511	44	0
14	CQ	476	0	511	45	0
15	AR	734	0	771	35	0
15	CR	734	0	771	34	0
16	AS	705	0	725	58	0
16	CS	705	0	725	26	0
17	AT	834	0	904	46	0
17	CT	834	0	904	43	0
18	AU	591	0	662	31	0
18	CU	591	0	662	39	0
19	AV	624	0	636	56	0
19	CV	624	0	636	71	0
20	AW	763	0	861	64	0
20	CW	763	0	861	62	0
21	AX	217	0	234	19	0
21	CX	217	0	234	19	0
22	AB	1814	0	932	114	0
22	AD	1814	0	932	109	0
22	CB	1814	0	932	110	0
22	CD	1814	0	932	99	0
23	AC	1643	0	837	41	0
23	CC	1643	0	837	38	0
24	A1	346	0	174	20	0
24	C1	346	0	174	17	0
25	BA	62707	0	31614	1941	0
25	DA	62607	0	31565	2101	1
26	BB	2617	0	1328	89	0
26	DB	2617	0	1328	111	0
27	BD	2115	0	2195	202	0
27	DD	2115	0	2195	193	0
28	BE	1568	0	1634	151	0
28	DE	1568	0	1634	195	0
29	BF	1585	0	1632	114	0
29	DF	1627	0	1680	168	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
30	BG	1474	0	1535	131	0
30	DG	1474	0	1535	110	0
31	BH	1307	0	1382	150	0
31	DH	1307	0	1382	108	1
32	BK	1136	0	1223	107	0
32	DK	1136	0	1223	79	0
33	BM	1104	0	1180	80	0
33	DM	1104	0	1180	87	0
34	BN	933	0	996	54	0
34	DN	933	0	996	57	0
35	BO	1145	0	1228	184	0
35	DO	1145	0	1228	304	0
36	BP	1122	0	1179	143	0
36	DP	1122	0	1179	170	0
37	B0	968	0	1033	80	0
37	D0	960	0	1021	70	0
38	BQ	882	0	943	89	0
38	DQ	882	0	943	86	0
39	BR	1141	0	1202	98	0
39	DR	1141	0	1202	97	0
40	B1	964	0	1022	81	0
40	D1	964	0	1022	90	0
41	B2	779	0	852	76	0
41	D2	779	0	852	114	0
42	BS	900	0	964	46	0
42	DS	900	0	964	53	0
43	BT	725	0	778	50	0
43	DT	725	0	778	53	0
44	BU	785	0	878	102	0
44	DU	785	0	878	96	0
45	BV	1397	0	1430	142	0
45	DV	1428	0	1454	125	0
46	B3	607	0	628	42	0
46	D3	613	0	633	45	0
47	BZ	763	0	848	52	0
47	DZ	763	0	848	50	0
48	BW	558	0	610	40	0
48	DW	558	0	610	43	0
49	BX	469	0	518	21	0
49	DX	469	0	518	25	0
50	B4	533	0	522	131	0
50	D4	515	0	510	82	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
51	B5	459	0	480	92	0
51	D5	459	0	476	40	0
52	B6	389	0	404	86	0
52	D6	389	0	404	51	0
53	B7	391	0	432	18	0
53	D7	391	0	432	26	0
54	B8	480	0	549	119	0
54	D8	480	0	549	86	0
55	A1	1	0	0	0	0
55	AA	220	0	0	0	0
55	AB	4	0	0	0	0
55	AC	8	0	0	0	0
55	AD	3	0	0	0	0
55	AG	2	0	0	0	0
55	AN	1	0	0	0	0
55	AR	1	0	0	0	0
55	AS	1	0	0	0	0
55	B0	1	0	0	0	0
55	B1	2	0	0	0	0
55	B2	1	0	0	0	0
55	B3	3	0	0	0	0
55	B5	1	0	0	0	0
55	B6	1	0	0	0	0
55	B7	1	0	0	0	0
55	BA	568	0	0	0	0
55	BB	18	0	0	0	0
55	BD	1	0	0	0	0
55	BE	3	0	0	0	0
55	BF	3	0	0	0	0
55	BO	2	0	0	0	0
55	BW	1	0	0	0	0
55	CA	219	0	0	0	0
55	CB	4	0	0	0	0
55	CC	9	0	0	0	0
55	CD	1	0	0	0	0
55	CG	2	0	0	0	0
55	CK	1	0	0	0	0
55	CR	1	0	0	0	0
55	D0	1	0	0	0	0
55	D1	1	0	0	0	0
55	D3	1	0	0	0	0
55	D5	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	D7	1	0	0	0	0
55	D8	1	0	0	0	0
55	DA	488	0	0	0	0
55	DB	20	0	0	0	0
55	DD	3	0	0	0	0
55	DE	1	0	0	0	0
55	DO	1	0	0	0	0
56	AG	1	0	0	0	0
56	AQ	1	0	0	0	0
56	CG	1	0	0	0	0
56	CQ	1	0	0	0	0
All	All	299676	0	200977	13727	2

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 28.

All (13727) 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)
35:DO:46:LYS:HD3	35:DO:51:PHE:CD1	1.38	1.55
54:B8:34:TRP:CB	54:B8:35:GLN:HB2	1.34	1.55
50:B4:37:SER:HB3	50:B4:42:PHE:CD1	1.40	1.52
35:DO:71:VAL:HG13	35:DO:72:PRO:CD	1.44	1.47
35:BO:19:VAL:HG23	35:BO:27:HIS:CB	1.45	1.46
52:B6:25:LYS:CB	54:B8:34:TRP:HE1	1.27	1.45
36:BP:24:GLY:HA3	36:BP:25:ASP:CB	1.42	1.45
52:B6:25:LYS:HB3	54:B8:34:TRP:NE1	1.28	1.43
35:DO:47:ASP:HB3	35:DO:48:PRO:C	1.42	1.41
35:DO:71:VAL:CG1	35:DO:72:PRO:HD3	1.50	1.39
25:DA:226:G:N2	25:DA:228:A:H61	1.12	1.39
25:DA:885:C:N4	25:DA:890:A:H62	1.21	1.38
25:DA:226:G:H21	25:DA:228:A:N6	0.88	1.37
36:DP:24:GLY:HA3	36:DP:25:ASP:CB	1.42	1.35
35:BO:19:VAL:CG2	35:BO:27:HIS:HB3	1.58	1.34
51:B5:4:HIS:HB3	51:B5:5:PRO:CD	1.58	1.33
50:B4:42:PHE:CE1	50:B4:43:TYR:HB3	1.62	1.33
50:B4:37:SER:HB3	50:B4:42:PHE:CG	1.65	1.31
25:BA:2014:A:O2'	51:B5:2:ALA:HB2	1.27	1.31
12:AO:44:LYS:CG	12:AO:45:PRO:HD3	1.60	1.30
25:DA:847:U:N3	25:DA:933:A:N6	1.78	1.30
25:BA:49:A:N7	25:BA:120:U:C5	2.02	1.27

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:884:C:N4	25:DA:892:G:H1	1.29	1.25
54:B8:34:TRP:HB3	54:B8:35:GLN:CB	1.65	1.25
35:DO:19:VAL:CG2	35:DO:27:HIS:HB3	1.66	1.25
25:DA:1332:G:N2	25:DA:1609:A:HO2'	1.37	1.23
35:DO:19:VAL:HG23	35:DO:27:HIS:CB	1.68	1.23
50:B4:37:SER:HB3	50:B4:42:PHE:CE1	1.74	1.22
52:B6:25:LYS:CB	54:B8:34:TRP:NE1	1.93	1.21
25:DA:226:G:N2	25:DA:228:A:N6	1.73	1.20
35:DO:62:LEU:HD11	54:D8:25:MET:O	1.37	1.20
25:DA:2681:C:C5	25:DA:2725:A:N6	2.11	1.18
12:AO:44:LYS:HG3	12:AO:45:PRO:CD	1.74	1.18
25:DA:2414:G:H21	35:DO:67:MET:CE	1.55	1.18
35:DO:47:ASP:OD2	35:DO:49:ARG:HB2	1.44	1.18
25:DA:885:C:C4	25:DA:890:A:N6	2.12	1.17
54:B8:34:TRP:CA	54:B8:35:GLN:HB2	1.73	1.17
27:DD:43:ARG:HH11	27:DD:44:ASN:ND2	1.40	1.17
35:DO:64:LYS:HD3	54:D8:25:MET:SD	1.84	1.17
25:DA:1899:G:H22	25:DA:1902:C:N4	1.42	1.16
25:BA:2015:A:H1'	51:B5:2:ALA:CA	1.75	1.16
25:DA:1332:G:N2	25:DA:1609:A:O2'	1.77	1.16
35:BO:15:ARG:HH11	35:BO:15:ARG:HG2	1.10	1.16
50:B4:42:PHE:CE1	50:B4:43:TYR:CB	2.29	1.16
25:BA:880:G:H1	25:BA:897:C:N4	1.43	1.15
25:BA:1533:C:H3'	25:BA:1534:G:H5"	1.27	1.15
36:DP:19:GLY:HA3	36:DP:98:LYS:NZ	1.62	1.15
25:DA:2777:G:H5"	25:DA:2778:A:H5'	1.15	1.14
51:D5:16:ARG:HH11	51:D5:16:ARG:HG2	1.12	1.14
36:BP:24:GLY:CA	36:BP:25:ASP:HB3	1.76	1.14
45:DV:158:PRO:HB2	45:DV:159:PRO:HD2	1.30	1.14
35:DO:46:LYS:CD	35:DO:51:PHE:CD1	2.30	1.13
25:DA:882:G:H1	25:DA:894:C:N4	1.47	1.12
35:DO:46:LYS:HD3	35:DO:51:PHE:CG	1.83	1.12
35:DO:61:ARG:C	35:DO:62:LEU:HD22	1.73	1.12
1:AA:1053:G:H5'	1:AA:1054:C:H5'	1.25	1.12
25:DA:885:C:N4	25:DA:890:A:N6	1.96	1.12
1:AA:1008:C:N4	1:AA:1021:G:H1	1.47	1.11
27:BD:43:ARG:NH1	27:BD:44:ASN:OD1	1.81	1.11
1:AA:1002:G:H2'	1:AA:1003:G:H8	1.13	1.11
25:DA:252:G:OP2	35:DO:50:ARG:NH1	1.82	1.11
35:DO:81:GLN:NE2	35:DO:107:LYS:HG2	1.65	1.11
1:AA:73:G:O6	1:AA:97:U:O2	1.67	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CD:19:C:H2'	22:CD:20:C:H4'	1.23	1.11
50:B4:37:SER:CB	50:B4:42:PHE:CD1	2.32	1.11
25:BA:883:G:H1	25:BA:893:C:N4	1.48	1.10
25:BA:2015:A:H1'	51:B5:2:ALA:HA	1.18	1.10
35:DO:61:ARG:CB	35:DO:61:ARG:HH21	1.63	1.10
25:DA:1442:G:H2'	25:DA:1443:G:H5"	1.30	1.10
23:CC:17:C:H3'	23:CC:18:C:H5"	1.13	1.10
27:DD:136:ILE:HG22	27:DD:140:THR:HG21	1.30	1.10
29:BF:45:ARG:HH11	29:BF:45:ARG:HG2	1.13	1.09
30:BG:112:PRO:HB3	50:B4:37:SER:H	1.11	1.09
12:AO:44:LYS:CB	12:AO:45:PRO:CD	2.30	1.09
27:DD:236:GLY:O	27:DD:237:GLU:HB2	1.49	1.09
25:BA:1887:C:H2'	25:BA:1888:G:H5"	1.35	1.09
36:BP:24:GLY:CA	36:BP:25:ASP:CB	2.30	1.09
1:AA:1299:A:H2'	1:AA:1301:U:H1'	1.23	1.08
22:AD:14:A:H3'	22:AD:15:G:H5"	1.25	1.08
14:AQ:51:GLY:O	14:AQ:53:LEU:N	1.85	1.08
25:BA:1899:G:H22	25:BA:1902:C:N4	1.49	1.08
51:B5:3:LYS:HA	51:B5:3:LYS:NZ	1.67	1.08
25:DA:1899:G:N2	25:DA:1902:C:H41	1.52	1.08
27:DD:44:ASN:HB3	27:DD:49:ILE:HA	1.32	1.08
35:DO:62:LEU:HG	54:D8:25:MET:HB2	1.11	1.08
22:AD:19:C:H2'	22:AD:20:C:H4'	1.34	1.08
32:BK:131:LYS:HB3	32:BK:132:PRO:HA	1.33	1.08
25:BA:2689:U:H4'	25:BA:2690:C:H5'	1.30	1.08
35:DO:15:ARG:CG	35:DO:15:ARG:HH11	1.67	1.08
36:BP:75:THR:HB	36:BP:88:GLY:HA3	1.30	1.07
35:DO:61:ARG:HH21	35:DO:61:ARG:CG	1.66	1.07
40:D1:92:ARG:HD2	40:D1:95:LEU:HD12	1.36	1.07
12:AO:44:LYS:CG	12:AO:45:PRO:CD	2.29	1.07
36:DP:75:THR:HB	36:DP:88:GLY:HA3	1.31	1.07
45:DV:115:GLY:H	45:DV:177:PRO:HG2	1.18	1.07
24:A1:13:A:O2'	24:A1:14:A:OP1	1.72	1.07
36:DP:24:GLY:CA	36:DP:25:ASP:CB	2.30	1.07
25:BA:882:G:N2	25:BA:894:C:N3	2.03	1.07
25:BA:2133:G:H1'	25:BA:2158:A:H61	1.16	1.07
25:BA:2142:C:N4	25:BA:2149:G:H1	1.51	1.07
25:BA:1109:C:O2'	25:BA:1110:G:O4'	1.71	1.06
29:BF:46:ARG:HH11	29:BF:46:ARG:HG2	1.16	1.06
35:DO:65:ARG:HH11	35:DO:65:ARG:HG3	0.94	1.06
19:AV:41:VAL:HB	19:AV:42:PRO:HA	1.35	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DO:81:GLN:HE22	35:DO:107:LYS:HG2	1.06	1.06
25:BA:882:G:H1	25:BA:894:C:N4	1.54	1.05
25:BA:2131:G:H5'	25:BA:2132:U:H5"	1.38	1.05
51:B5:4:HIS:CB	51:B5:5:PRO:CD	2.30	1.05
25:DA:1757:U:N3	25:DA:1762:A:H2	1.53	1.05
30:DG:104:GLU:HG2	50:D4:23:GLU:HG2	1.37	1.05
25:BA:864:G:N7	36:BP:22:LYS:NZ	2.03	1.05
35:BO:15:ARG:HH11	35:BO:15:ARG:CG	1.67	1.05
44:BU:79:CYS:SG	44:BU:80:GLY:N	2.24	1.05
51:B5:3:LYS:O	51:B5:4:HIS:HB2	1.55	1.05
40:B1:92:ARG:O	40:B1:94:ASN:N	1.87	1.05
54:B8:34:TRP:CB	54:B8:35:GLN:CB	2.30	1.05
25:BA:1055:G:H1	25:BA:1104:C:N4	1.54	1.05
25:BA:2210:G:H3'	25:BA:2211:G:C8	1.92	1.05
50:B4:37:SER:CB	50:B4:42:PHE:CG	2.39	1.04
2:AE:8:LYS:HE2	2:AE:8:LYS:H	1.22	1.04
25:BA:620:G:H4'	25:BA:621:A:H5"	1.37	1.04
50:B4:18:CYS:SG	50:B4:19:GLY:N	2.30	1.04
51:B5:4:HIS:HB3	51:B5:5:PRO:HD2	1.05	1.04
35:DO:15:ARG:HH11	35:DO:15:ARG:HG2	1.10	1.04
25:BA:1178:C:H4'	25:BA:1179:C:OP1	1.53	1.04
44:BU:49:VAL:O	44:BU:51:VAL:N	1.89	1.04
22:CD:18:G:H1'	22:CD:19:C:OP2	1.57	1.04
25:DA:2414:G:H21	35:DO:67:MET:HE1	1.20	1.04
36:DP:19:GLY:CA	36:DP:98:LYS:HZ2	1.71	1.04
7:AJ:144:MET:HE1	22:AD:31:G:H21	1.19	1.04
25:DA:2392:A:H8	35:DO:60:MET:HB2	1.23	1.04
25:DA:2701:C:H3'	25:DA:2702:U:H5"	1.36	1.03
27:DD:255:LYS:H	27:DD:255:LYS:HE3	1.19	1.03
27:BD:28:GLU:HB3	27:BD:29:PRO:CD	1.88	1.03
36:DP:24:GLY:HA3	36:DP:25:ASP:HB2	1.04	1.03
12:AO:44:LYS:HB3	12:AO:45:PRO:HD2	1.34	1.03
35:DO:46:LYS:HD3	35:DO:51:PHE:CE1	1.93	1.03
35:BO:64:LYS:O	35:BO:66:GLY:N	1.90	1.03
25:BA:880:G:N2	25:BA:897:C:N3	2.05	1.03
36:BP:17:LEU:CD2	36:BP:96:VAL:HG13	1.89	1.03
25:DA:2420:C:H41	54:D8:31:HIS:HB3	1.21	1.03
51:D5:4:HIS:HB3	51:D5:5:PRO:HD3	1.41	1.03
12:AO:44:LYS:HB3	12:AO:45:PRO:CD	1.89	1.02
35:BO:64:LYS:C	35:BO:66:GLY:H	1.63	1.02
41:D2:79:VAL:C	41:D2:80:GLN:HE21	1.65	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:35:LYS:HD2	27:BD:104:TYR:CD1	1.94	1.02
25:DA:847:U:H3	25:DA:933:A:N6	1.47	1.02
1:AA:1139:G:N2	1:AA:1143:G:O6	1.92	1.02
1:CA:1176:A:H2'	1:CA:1177:G:H5'	1.42	1.02
1:AA:530:G:H4'	1:AA:531:U:OP2	1.59	1.02
1:AA:1160:G:O6	1:AA:1181:G:O6	1.78	1.02
25:BA:1864:U:H2'	25:BA:1869:G:H5"	1.40	1.02
25:BA:2392:A:H8	35:BO:60:MET:HB2	1.23	1.02
44:BU:76:CYS:O	44:BU:81:LYS:NZ	1.92	1.02
36:DP:24:GLY:HA3	36:DP:25:ASP:HB3	1.37	1.02
20:AW:71:THR:HG22	20:AW:72:LEU:H	1.25	1.01
35:DO:65:ARG:HG3	35:DO:65:ARG:NH1	1.65	1.01
36:BP:24:GLY:HA3	36:BP:25:ASP:HB2	1.39	1.01
35:DO:64:LYS:HG3	35:DO:65:ARG:N	1.69	1.01
25:BA:2701:C:H3'	25:BA:2702:U:H5"	1.42	1.01
27:DD:35:LYS:HG2	27:DD:64:ILE:H	1.24	1.01
1:AA:1492:A:OP1	12:AO:43:LYS:O	1.77	1.01
15:AR:87:ILE:HG22	15:AR:88:ARG:H	1.22	1.01
22:CD:48:C:H3'	22:CD:49:A:H8	1.25	1.01
25:DA:511:U:H3'	25:DA:512:G:H5"	1.39	1.01
25:BA:1055:G:N2	25:BA:1104:C:N3	2.09	1.01
35:DO:46:LYS:CD	35:DO:51:PHE:CE1	2.44	1.01
1:AA:1065:U:O2'	1:AA:1066:C:OP2	1.79	1.00
25:BA:847:U:O4	25:BA:933:A:N1	1.92	1.00
25:BA:2014:A:O2'	51:B5:2:ALA:CB	2.09	1.00
1:CA:328:C:O2'	1:CA:329:A:OP2	1.77	1.00
1:CA:632:A:H1'	1:CA:633:G:OP2	1.61	1.00
1:AA:975:A:H4'	1:AA:976:G:H5"	1.41	1.00
25:DA:330:A:H2	25:DA:1210:A:HO2'	1.04	1.00
25:BA:860:U:H5	25:BA:917:A:C2	1.77	1.00
4:CG:22:LYS:HB2	4:CG:26:CYS:HB2	1.44	1.00
54:B8:34:TRP:CD2	54:B8:35:GLN:NE2	2.30	1.00
27:DD:25:THR:O	27:DD:27:THR:N	1.92	1.00
1:CA:631:G:OP1	1:CA:632:A:N6	1.95	1.00
35:DO:68:GLN:HA	35:DO:68:GLN:OE1	1.56	1.00
50:B4:16:CYS:HB2	50:B4:36:CYS:H	1.25	0.99
2:AE:16:HIS:HD2	2:AE:210:SER:HA	1.24	0.99
25:BA:881:G:O6	25:BA:895:U:O2	1.79	0.99
25:BA:882:G:N1	25:BA:894:C:N4	2.09	0.99
25:DA:2807:G:N1	25:DA:2893:G:O6	1.95	0.99
13:AP:82:MET:O	13:AP:84:ILE:N	1.96	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1002:G:H2'	1:AA:1003:G:C8	1.98	0.99
38:DQ:109:GLY:O	38:DQ:111:GLU:N	1.96	0.99
20:AW:100:ILE:HG13	20:AW:102:GLY:H	1.28	0.98
36:BP:24:GLY:HA3	36:BP:25:ASP:HB3	0.99	0.98
54:D8:49:VAL:HG12	54:D8:50:LEU:H	1.25	0.98
1:AA:201:C:N4	1:AA:216:G:H1	1.59	0.98
30:BG:112:PRO:HB3	50:B4:37:SER:N	1.76	0.98
51:B5:4:HIS:CG	51:B5:5:PRO:HD3	1.97	0.98
36:DP:19:GLY:HA3	36:DP:98:LYS:HZ2	0.82	0.98
19:AV:63:THR:OG1	19:AV:65:ASN:ND2	1.95	0.98
25:BA:780:G:N2	25:BA:783:A:H62	1.60	0.98
25:BA:654(D):G:H1	25:BA:654(Q):C:N4	1.62	0.98
15:AR:17:ARG:HG3	15:AR:17:ARG:HH11	1.28	0.98
4:AG:22:LYS:HB2	4:AG:26:CYS:HB2	1.41	0.98
25:BA:2210:G:H5'	25:BA:2211:G:N7	1.78	0.98
9:CL:111:ARG:HG2	9:CL:112:LYS:H	1.22	0.98
40:D1:90:VAL:O	40:D1:92:ARG:N	1.95	0.98
25:BA:2469:A:H5'	25:BA:2469:A:N3	1.77	0.98
35:DO:47:ASP:CB	35:DO:48:PRO:C	2.37	0.98
35:DO:64:LYS:HB3	54:D8:25:MET:HG3	1.46	0.98
36:DP:26:TYR:CD1	36:DP:139:GLU:HG2	1.98	0.97
1:AA:119:A:H4'	1:AA:120:A:O5'	1.63	0.97
44:BU:52:SER:HB2	44:BU:53:PRO:HD3	1.45	0.97
25:BA:2015:A:N3	51:B5:2:ALA:HA	1.80	0.97
54:B8:35:GLN:O	54:B8:36:LYS:HG3	1.65	0.97
25:DA:67:U:N3	25:DA:74:A:C2	2.32	0.97
25:BA:67:U:H3	25:BA:74:A:H2	0.99	0.97
26:BB:15:A:H5'	26:BB:16:G:C8	1.99	0.97
25:BA:1310:G:OP2	53:B7:9:ARG:NH1	1.96	0.97
48:DW:17:SER:HB2	48:DW:18:PRO:HA	1.44	0.97
52:B6:25:LYS:HB2	54:B8:34:TRP:CE2	2.00	0.97
4:CG:139:ARG:HH11	4:CG:139:ARG:HG3	1.26	0.97
4:CG:150:GLU:O	4:CG:152:SER:N	1.96	0.97
45:DV:115:GLY:HA3	45:DV:174:VAL:HG13	1.44	0.97
2:AE:18:GLY:H	2:AE:42:ILE:HG22	1.29	0.96
1:CA:448:A:OP2	1:CA:485:G:N2	1.96	0.96
25:DA:330:A:H2	25:DA:1210:A:O2'	1.47	0.96
25:DA:1689:A:N6	25:DA:1698:A:H2	1.62	0.96
36:DP:78:PRO:O	36:DP:79:LEU:HD12	1.64	0.96
30:BG:161:THR:HG22	30:BG:163:ALA:H	1.27	0.96
44:DU:97:ARG:HH21	44:DU:98:VAL:HB	1.28	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CE:7:VAL:HG13	2:CE:8:LYS:HD3	1.47	0.96
25:DA:252:G:P	35:DO:50:ARG:HH12	1.89	0.96
25:BA:1077:A:H3'	25:BA:1078:U:C5'	1.95	0.96
25:BA:1899:G:N2	25:BA:1902:C:H41	1.63	0.96
22:AB:48:C:H3'	22:AB:49:A:H8	1.31	0.96
25:BA:1062:G:N2	25:BA:1077:A:N7	2.12	0.96
1:CA:1443:G:H3'	1:CA:1446:A:H5"	1.47	0.96
25:DA:1171:G:H1	25:DA:1178:C:H42	1.11	0.96
27:DD:43:ARG:NH1	27:DD:44:ASN:HD21	1.62	0.96
45:BV:7:ALA:HB3	45:BV:61:LEU:HB3	1.45	0.96
25:DA:155:C:N4	25:DA:171:G:H1	1.63	0.96
25:DA:1652:A:H62	37:D0:11:ASN:HD21	0.98	0.96
1:AA:78:G:H1	1:AA:91:C:N4	1.64	0.96
12:AO:44:LYS:HD3	12:AO:45:PRO:N	1.79	0.96
1:CA:1305:G:H22	1:CA:1331:G:H2'	1.27	0.96
25:DA:2394:C:OP1	35:DO:63:PRO:HD2	1.64	0.96
25:BA:2591:C:OP1	27:BD:239:ARG:HG3	1.65	0.95
35:BO:65:ARG:HH21	54:B8:15:LYS:HB2	1.29	0.95
35:BO:75:ILE:H	35:BO:75:ILE:HD13	1.26	0.95
25:DA:2123:G:H1	25:DA:2175:C:N4	1.63	0.95
25:DA:2308:G:O2'	25:DA:2309:A:OP1	1.82	0.95
25:BA:593:G:H4'	54:B8:61:LEU:HD13	1.48	0.95
40:B1:90:VAL:O	40:B1:92:ARG:N	1.98	0.95
1:CA:1056:U:H5'	3:CF:163:ALA:HB2	1.47	0.95
22:CD:14:A:H3'	22:CD:15:G:H5"	1.46	0.95
1:AA:1322:C:O2'	1:AA:1323:G:O5'	1.84	0.95
1:CA:1129:C:N4	1:CA:1142:G:O6	2.00	0.95
1:AA:991:U:O4	1:AA:1212:U:O2'	1.84	0.95
1:CA:503:C:OP2	12:CO:113:SER:HB3	1.66	0.95
52:B6:25:LYS:CB	54:B8:34:TRP:CE2	2.49	0.95
1:CA:1028:C:N4	1:CA:1033:G:H1	1.63	0.95
35:DO:62:LEU:HD22	35:DO:62:LEU:N	1.82	0.95
1:AA:1028:C:N4	1:AA:1033:G:H1	1.64	0.95
25:BA:1364:G:OP2	47:BZ:2:SER:OG	1.83	0.95
54:B8:34:TRP:N	54:B8:35:GLN:CB	2.30	0.95
53:D7:8:ASN:ND2	53:D7:11:LYS:H	1.64	0.95
25:BA:163:U:H2'	25:BA:164:U:H5'	1.45	0.95
1:CA:266:G:H1	1:CA:270:A:H62	1.15	0.95
1:CA:664:G:H22	1:CA:741:G:H1	1.15	0.95
25:DA:2656:U:H3	25:DA:2665:A:H2	1.13	0.95
35:DO:9:ASN:HB3	35:DO:10:PRO:HD2	1.48	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:33:LEU:HD13	27:BD:34:VAL:H	1.30	0.95
2:CE:233:SER:HB2	2:CE:234:PRO:HD2	1.47	0.95
36:DP:79:LEU:HD12	36:DP:79:LEU:O	1.67	0.95
25:BA:847:U:C4	25:BA:933:A:N1	2.35	0.95
35:DO:104:GLY:O	35:DO:105:LEU:HG	1.66	0.95
3:AF:70:VAL:HG12	3:AF:72:LYS:H	1.32	0.94
25:BA:631:A:OP2	54:B8:46:ARG:NH2	1.99	0.94
25:BA:1019:U:HO2'	25:BA:1021:A:H2	1.12	0.94
25:BA:1689:A:N6	25:BA:1698:A:H2	1.64	0.94
2:CE:7:VAL:HG22	2:CE:8:LYS:H	1.32	0.94
45:BV:9:TYR:HE1	45:BV:35:ARG:HD3	1.31	0.94
1:CA:975:A:H4'	1:CA:976:G:H5"	1.48	0.94
23:CC:48:U:O2'	23:CC:49:C:OP2	1.86	0.94
25:DA:1021:A:H61	25:DA:1142(A):A:H61	1.13	0.94
25:DA:2141:G:O6	25:DA:2150:U:O2	1.85	0.94
1:AA:266:G:H5"	1:AA:267:C:C5	2.02	0.94
25:BA:2251:G:OP1	36:BP:82:ARG:NH1	2.01	0.94
25:DA:90:U:H2'	25:DA:91:A:H5"	1.48	0.94
25:DA:884:C:N3	25:DA:892:G:N2	2.15	0.94
25:BA:49:A:N7	25:BA:120:U:H5	1.47	0.94
27:DD:166:GLN:HA	27:DD:166:GLN:HE21	1.30	0.94
47:DZ:82:LEU:HD23	47:DZ:82:LEU:H	1.32	0.94
22:AD:48:C:H3'	22:AD:49:A:H8	1.30	0.94
32:DK:80:PRO:HA	32:DK:143:SER:HA	1.48	0.94
25:BA:993:G:OP1	40:B1:50:ARG:NH2	2.00	0.94
25:BA:2015:A:C1'	51:B5:2:ALA:HA	1.97	0.94
25:DA:155:C:H42	25:DA:171:G:H1	1.12	0.94
25:DA:1088:A:H5'	25:DA:1089:G:H5'	1.48	0.94
25:BA:654(B):C:N3	25:BA:654(S):G:N2	2.16	0.94
25:DA:67:U:H3	25:DA:74:A:H2	1.07	0.93
25:DA:1171:G:H1	25:DA:1178:C:N4	1.65	0.93
35:DO:65:ARG:HH11	35:DO:65:ARG:CG	1.81	0.93
36:DP:19:GLY:H	36:DP:98:LYS:HZ3	1.16	0.93
25:BA:2143:C:N4	25:BA:2148:G:H1	1.65	0.93
5:AH:126:ARG:HH11	5:AH:126:ARG:HG3	1.33	0.93
22:AD:14:A:H3'	22:AD:15:G:C5'	1.98	0.93
35:DO:71:VAL:HG22	35:DO:72:PRO:N	1.80	0.93
39:DR:74:ARG:HH11	39:DR:74:ARG:HG2	1.31	0.93
25:BA:67:U:N3	25:BA:74:A:C2	2.35	0.93
22:AB:79:A:H3'	22:AB:80:C:H5"	1.47	0.93
25:BA:2142:C:N3	25:BA:2149:G:N2	2.15	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:81:G:N2	1:AA:88:C:C2	2.36	0.93
25:BA:1771:C:HO2'	25:BA:1786:A:H8	1.14	0.93
3:CF:14:ILE:HG12	3:CF:15:THR:H	1.33	0.93
25:DA:2143:C:H42	25:DA:2148:G:H1	1.06	0.93
25:BA:598:G:C1'	35:BO:12:ALA:HB2	1.97	0.93
36:BP:17:LEU:HD21	36:BP:96:VAL:HG13	1.48	0.93
44:BU:97:ARG:HH21	44:BU:98:VAL:HB	1.33	0.93
3:CF:58:GLU:HB2	3:CF:65:ALA:HB3	1.50	0.93
36:DP:31:ASP:O	36:DP:133:ARG:O	1.86	0.93
25:DA:483:A:H5'	44:DU:49:VAL:HG22	1.47	0.93
28:DE:7:VAL:HG21	39:DR:1:MET:HE3	1.49	0.93
50:B4:39:CYS:C	50:B4:41:PRO:HD2	1.94	0.93
43:DT:11:PRO:HA	43:DT:28:PHE:HB3	1.51	0.93
37:B0:100:LEU:HD11	37:B0:113:LEU:HD13	1.52	0.92
25:BA:890:A:H8	25:BA:892:G:C8	1.87	0.92
25:BA:2142:C:H42	25:BA:2149:G:H1	1.00	0.92
25:BA:2308:G:N1	25:BA:2311:A:N1	2.15	0.92
29:DF:24:LEU:HD12	29:DF:25:PRO:HD3	1.49	0.92
1:AA:201:C:N3	1:AA:216:G:N2	2.17	0.92
50:B4:40:HIS:N	50:B4:41:PRO:CD	2.31	0.92
26:DB:74:U:H2'	26:DB:75:G:H5"	1.52	0.92
39:DR:55:ASN:H	39:DR:59:THR:HG22	1.34	0.92
25:BA:2287:A:H62	25:BA:2344:U:H3	0.93	0.92
25:BA:2308:G:H22	25:BA:2311:A:H2	1.10	0.92
25:BA:2346:A:H4'	25:BA:2347:C:OP2	1.69	0.92
25:BA:2467:C:H4'	36:BP:123:HIS:ND1	1.83	0.92
39:BR:105:LEU:O	39:BR:107:ASP:N	2.03	0.92
1:CA:992:U:H3	1:CA:1044:A:N6	1.68	0.92
1:AA:1004:A:O5'	1:AA:1025:U:N3	2.03	0.92
2:AE:77:ALA:HB2	2:AE:211:ILE:HD13	1.52	0.92
31:BH:86:GLU:HG3	31:BH:165:ALA:H	1.35	0.92
1:CA:1446:A:N7	39:DR:118:ARG:NH1	2.18	0.92
25:DA:676:A:H8	25:DA:2069:G:H21	1.17	0.92
25:DA:993:G:H1'	41:D2:87:HIS:HE1	1.31	0.92
35:DO:62:LEU:N	35:DO:62:LEU:CD2	2.31	0.92
51:B5:33:CYS:HB2	51:B5:40:LYS:HD3	1.52	0.92
25:DA:9:U:N3	25:DA:2629:A:N6	2.18	0.92
28:DE:39:PRO:HA	28:DE:43:GLY:HA2	1.49	0.92
40:D1:100:VAL:O	40:D1:101:ARG:HG2	1.69	0.92
25:BA:2136:C:H42	25:BA:2155:G:H1	1.08	0.92
25:BA:2143:C:H42	25:BA:2148:G:H1	1.09	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BO:15:ARG:HG2	35:BO:15:ARG:NH1	1.77	0.92
50:B4:40:HIS:N	50:B4:41:PRO:HD2	1.85	0.92
25:DA:34:C:O2'	25:DA:35:G:OP2	1.85	0.92
1:AA:1211:U:H5"	1:AA:1212:U:OP1	1.70	0.92
25:BA:1678:G:N2	25:BA:1989:G:H22	1.67	0.92
25:BA:2015:A:H1'	51:B5:2:ALA:CB	1.99	0.92
30:BG:107:LEU:O	50:B4:38:LYS:HG2	1.68	0.92
35:DO:62:LEU:CG	54:D8:25:MET:HB2	1.97	0.92
25:BA:598:G:H1'	35:BO:12:ALA:HB2	1.51	0.92
35:DO:15:ARG:HG2	35:DO:15:ARG:NH1	1.76	0.92
3:AF:77:ILE:HA	3:AF:84:ILE:HB	1.51	0.91
25:BA:607:U:H3	25:BA:621:A:H2	1.18	0.91
25:BA:2393:A:H5'	35:BO:62:LEU:HB3	1.51	0.91
51:B5:3:LYS:HA	51:B5:3:LYS:HZ1	1.24	0.91
25:DA:2276:G:OP1	36:DP:84:GLY:HA2	1.70	0.91
28:DE:116:VAL:O	28:DE:117:MET:HB2	1.65	0.91
52:B6:34:LEU:HB2	52:B6:36:LEU:HD22	1.50	0.91
15:CR:17:ARG:HH11	15:CR:17:ARG:HG3	1.32	0.91
25:DA:2136:C:N4	25:DA:2155:G:N1	2.17	0.91
25:BA:879:G:O6	25:BA:898:C:N4	2.02	0.91
35:DO:106:LEU:O	35:DO:107:LYS:HB2	1.70	0.91
25:BA:2135:A:O2'	25:BA:2136:C:OP1	1.87	0.91
25:DA:1689:A:H62	25:DA:1698:A:H2	0.92	0.91
1:AA:1028:C:H42	1:AA:1033:G:H1	0.92	0.91
25:DA:2777:G:C5'	25:DA:2778:A:H5'	2.00	0.91
35:DO:47:ASP:HB3	35:DO:48:PRO:O	1.71	0.91
45:DV:128:VAL:HG22	45:DV:129:SER:H	1.35	0.91
25:BA:2015:A:C1'	51:B5:2:ALA:CB	2.48	0.91
3:CF:139:GLN:HE22	3:CF:170:GLN:HE22	1.18	0.91
12:CO:44:LYS:HB3	12:CO:45:PRO:CD	2.00	0.91
25:DA:2392:A:C8	35:DO:60:MET:HB2	2.05	0.91
22:CD:48:C:H42	22:CD:52:G:H1	0.97	0.91
50:B4:42:PHE:CZ	50:B4:43:TYR:HB2	2.05	0.91
25:DA:2795:G:H3'	25:DA:2797:U:H5"	1.51	0.91
22:AD:18:G:H1'	22:AD:19:C:OP2	1.69	0.91
25:BA:780:G:H21	25:BA:783:A:H62	0.93	0.91
35:BO:9:ASN:HB3	35:BO:10:PRO:HD2	1.51	0.91
1:CA:1285:A:H1'	1:CA:1286:A:OP2	1.71	0.91
13:CP:94:ARG:O	13:CP:96:LEU:N	2.02	0.91
1:AA:1004:A:H2'	1:AA:1005:A:O4'	1.71	0.90
25:BA:67:U:N3	25:BA:74:A:H2	1.68	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1858:G:O2'	25:BA:1884:A:N6	2.03	0.90
1:CA:1053:G:H4'	1:CA:1054:C:H5'	1.53	0.90
22:CB:48:C:H3'	22:CB:49:A:H8	1.36	0.90
28:DE:36:ARG:NH1	28:DE:85:ASN:OD1	2.04	0.90
25:DA:468:G:N7	53:D7:39:ARG:NH2	2.18	0.90
12:AO:44:LYS:HD3	12:AO:44:LYS:C	1.96	0.90
25:BA:2136:C:N4	25:BA:2155:G:H1	1.67	0.90
50:B4:39:CYS:C	50:B4:41:PRO:CD	2.44	0.90
19:CV:11:VAL:HG22	19:CV:12:ASP:H	1.34	0.90
1:AA:791:G:C6	1:AA:792:A:N1	2.39	0.90
25:BA:1026:U:H1'	25:BA:1027:A:O5'	1.72	0.90
29:BF:101:LEU:HD12	29:BF:102:PRO:HD2	1.51	0.90
50:B4:7:PRO:HB2	50:B4:27:THR:HG21	1.53	0.90
1:AA:664:G:H22	1:AA:741:G:H1	1.20	0.90
25:BA:780:G:H21	25:BA:783:A:N6	1.69	0.90
25:BA:1899:G:O2'	25:BA:1900:A:OP2	1.90	0.90
54:B8:34:TRP:HB3	54:B8:35:GLN:HB2	0.92	0.90
25:DA:2438:U:O3'	25:DA:2439:A:H3'	1.71	0.90
13:CP:91:ARG:HB2	13:CP:98:VAL:HG12	1.54	0.90
23:AC:48:U:O2'	23:AC:49:C:OP2	1.88	0.90
32:BK:110:ASP:OD1	32:BK:130:TYR:OH	1.89	0.90
25:DA:2610:C:H4'	25:DA:2611:U:OP2	1.71	0.90
35:DO:61:ARG:CB	35:DO:61:ARG:NH2	2.34	0.90
1:AA:1305:G:H22	1:AA:1331:G:H2'	1.35	0.90
11:AN:79:SER:HB2	11:AN:106:LYS:HD2	1.51	0.90
22:AD:62:G:H1	22:AD:70:C:H42	1.18	0.90
25:DA:2701:C:H3'	25:DA:2702:U:C5'	1.98	0.90
27:DD:35:LYS:HG2	27:DD:64:ILE:N	1.86	0.90
32:DK:131:LYS:HB3	32:DK:132:PRO:HA	1.52	0.90
48:BW:47:ASN:O	48:BW:49:LYS:N	2.05	0.90
52:B6:25:LYS:HB2	54:B8:34:TRP:CZ2	2.06	0.90
25:DA:2414:G:H21	35:DO:67:MET:HE3	1.37	0.90
28:DE:38:THR:HG22	28:DE:41:LYS:HG2	1.51	0.90
36:BP:79:LEU:O	36:BP:80:GLU:HB2	1.72	0.90
29:DF:20:LEU:HD13	29:DF:21:ALA:H	1.34	0.90
33:DM:128:HIS:HB2	33:DM:129:PRO:HD2	1.52	0.90
44:DU:97:ARG:NH2	44:DU:98:VAL:HB	1.85	0.90
46:D3:12:ASN:HA	46:D3:14:ARG:HH21	1.37	0.90
1:AA:1026:G:N7	1:AA:1036:G:N2	2.19	0.89
25:DA:847:U:C4	25:DA:933:A:C6	2.59	0.89
25:DA:1226:G:H5'	41:D2:85:LYS:H	1.37	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AN:99:GLN:HG2	11:AN:105:VAL:HG21	1.53	0.89
19:AV:30:LEU:HD13	19:AV:30:LEU:H	1.36	0.89
1:AA:1023:G:H3'	1:AA:1024:G:H5"	1.54	0.89
1:CA:1325:C:H4'	21:CX:17:THR:HG21	1.54	0.89
27:DD:46:GLN:N	27:DD:46:GLN:OE1	2.05	0.89
22:CD:47:U:H2'	22:CD:48:C:C6	2.07	0.89
46:D3:31:VAL:HG21	46:D3:67:VAL:HG23	1.53	0.89
2:AE:80:ILE:HD11	2:AE:208:ILE:HG23	1.51	0.89
41:B2:15:GLU:HG3	41:B2:16:PRO:HD2	1.55	0.89
11:CN:100:ALA:O	11:CN:102:GLY:N	2.05	0.89
25:BA:873:G:H1	25:BA:904:C:H42	1.21	0.89
52:B6:25:LYS:HB2	54:B8:34:TRP:NE1	1.86	0.89
44:DU:17:SER:HB3	44:DU:71:LYS:HB3	1.54	0.89
1:AA:789:U:H5	1:AA:792:A:OP2	1.53	0.89
25:BA:517:C:OP1	51:B5:16:ARG:NH2	2.04	0.89
1:CA:1039:C:H3'	1:CA:1040:U:H5"	1.54	0.89
1:CA:1321:C:H41	1:CA:1322:C:H41	1.18	0.89
34:DN:35:VAL:HG11	34:DN:103:ALA:HB3	1.55	0.89
25:BA:1496:A:H8	25:BA:1577:C:HO2'	1.18	0.89
22:CB:75:C:O2'	22:CB:76:C:OP1	1.91	0.89
28:BE:77:ILE:O	28:BE:79:ARG:N	2.05	0.89
31:BH:83:TYR:HB2	31:BH:134:SER:HA	1.52	0.89
45:DV:115:GLY:N	45:DV:177:PRO:HG2	1.88	0.89
32:BK:133:HIS:HB2	32:BK:134:PRO:HD2	1.52	0.88
25:DA:2872:G:C4	25:DA:2873:A:N1	2.40	0.88
25:BA:654(D):G:H1	25:BA:654(Q):C:H42	0.89	0.88
26:BB:6:C:H2'	26:BB:7:G:H5"	1.55	0.88
25:DA:483:A:H4'	44:DU:49:VAL:HA	1.55	0.88
35:DO:61:ARG:HH21	35:DO:61:ARG:HG2	1.37	0.88
50:B4:37:SER:CB	50:B4:42:PHE:CE1	2.56	0.88
10:CM:17:ASP:OD1	10:CM:70:ARG:NH1	2.05	0.88
25:DA:2275:C:O2'	36:DP:84:GLY:HA3	1.72	0.88
27:DD:182:LEU:H	27:DD:272:ALA:HB3	1.37	0.88
29:DF:24:LEU:HB3	29:DF:25:PRO:CD	2.03	0.88
33:DM:133:GLN:HG2	33:DM:135:PRO:HD3	1.55	0.88
13:AP:82:MET:HE2	13:AP:92:HIS:HB3	1.55	0.88
1:CA:1221:G:OP1	1:CA:1321:C:N4	2.05	0.88
23:CC:17:C:H3'	23:CC:18:C:C5'	2.03	0.88
36:DP:19:GLY:CA	36:DP:98:LYS:NZ	2.34	0.88
3:AF:95:THR:HG22	3:AF:97:LYS:H	1.38	0.88
25:DA:864:G:N7	36:DP:22:LYS:NZ	2.20	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2306:C:H3'	25:DA:2307:G:H5"	1.55	0.88
25:DA:1342:A:C6	25:DA:1397:U:C5	2.62	0.88
25:BA:1021:A:H3'	25:BA:1022:G:H5"	1.56	0.88
25:BA:2126:A:N6	25:BA:2163:C:O2'	2.07	0.88
25:BA:2392:A:H2	25:BA:2424:C:H42	1.20	0.88
25:BA:2468:G:H2'	25:BA:2476:A:N6	1.88	0.88
25:BA:2591:C:P	27:BD:239:ARG:HG3	2.14	0.88
25:BA:2656:U:H3	25:BA:2665:A:H2	1.18	0.88
31:BH:20:ALA:HB1	31:BH:21:PRO:HD2	1.55	0.88
22:CD:19:C:H2'	22:CD:20:C:C4'	2.04	0.88
25:BA:71:A:C2	43:BT:31:HIS:HE1	1.91	0.87
44:BU:99:CYS:SG	44:BU:100:ALA:N	2.44	0.87
1:CA:652:U:H1'	1:CA:653:A:H2	1.39	0.87
25:BA:1332:G:H21	25:BA:1610:A:H8	1.20	0.87
20:CW:10:LEU:HD13	20:CW:12:ALA:H	1.38	0.87
25:DA:204:A:O2'	25:DA:205:G:OP2	1.92	0.87
25:DA:847:U:C4	25:DA:933:A:N6	2.41	0.87
25:DA:1310:G:OP2	53:D7:9:ARG:NH1	2.08	0.87
25:DA:2786:U:H4'	28:DE:65:GLY:H	1.39	0.87
25:BA:155:C:H42	25:BA:171:G:H1	1.18	0.87
25:BA:2438:U:O3'	25:BA:2439:A:H3'	1.74	0.87
15:CR:87:ILE:HG22	15:CR:88:ARG:H	1.38	0.87
25:DA:2123:G:H1	25:DA:2175:C:H42	0.88	0.87
52:D6:52:VAL:HG22	52:D6:53:LYS:H	1.39	0.87
9:AL:3:GLN:OE1	9:AL:20:ARG:NH1	2.08	0.87
25:BA:747:U:C4	51:B5:2:ALA:N	2.41	0.87
30:BG:83:ARG:H	30:BG:86:MET:HE1	1.39	0.87
1:CA:1003:G:H1	1:CA:1037:C:N4	1.72	0.87
25:BA:273(F):C:H3'	25:BA:274:G:H5"	1.57	0.87
25:DA:900:A:H3'	25:DA:901:A:H8	1.37	0.87
3:AF:20:SER:HB2	3:AF:40:ARG:HH22	1.37	0.87
25:BA:860:U:H5	25:BA:917:A:H2	1.23	0.87
45:BV:105:VAL:HG13	45:BV:140:ASP:HB3	1.56	0.87
1:CA:82:U:N3	1:CA:87:A:N6	2.22	0.87
25:DA:84:A:N6	25:DA:102:G:O2'	2.06	0.87
25:DA:752:A:H4'	25:DA:753:C:O5'	1.75	0.87
25:BA:1250:G:N7	35:BO:18:ARG:NH2	2.23	0.87
35:DO:47:ASP:HB3	35:DO:48:PRO:CA	2.04	0.87
38:DQ:107:GLU:H	38:DQ:110:LEU:HD21	1.36	0.87
25:BA:1728:G:H3'	25:BA:1729:A:H5"	1.54	0.86
32:DK:4:ILE:HG12	32:DK:18:VAL:HG22	1.57	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1061:U:H4'	25:BA:1070:A:H1'	1.55	0.86
25:BA:1899:G:H22	25:BA:1902:C:H41	0.88	0.86
52:B6:25:LYS:HD2	54:B8:34:TRP:CZ2	2.10	0.86
1:CA:414:A:OP2	1:CA:428:G:N2	2.08	0.86
22:CD:19:C:C2'	22:CD:20:C:H4'	2.05	0.86
25:DA:2143:C:N4	25:DA:2148:G:H1	1.72	0.86
35:DO:9:ASN:HB3	35:DO:10:PRO:CD	2.04	0.86
25:BA:1689:A:H62	25:BA:1698:A:H2	0.94	0.86
1:AA:78:G:H1	1:AA:91:C:H42	0.90	0.86
14:AQ:13:THR:N	14:AQ:14:PRO:HD2	1.90	0.86
27:BD:35:LYS:HG2	27:BD:64:ILE:N	1.89	0.86
1:CA:82:U:H3	1:CA:87:A:N6	1.73	0.86
25:DA:2136:C:N3	25:DA:2155:G:N2	2.23	0.86
27:DD:137:PRO:O	27:DD:140:THR:HG22	1.74	0.86
32:BK:95:LYS:HE3	32:BK:99:GLU:HG3	1.57	0.86
13:CP:4:ILE:HG23	13:CP:5:ALA:H	1.40	0.86
25:DA:1858:G:O2'	25:DA:1884:A:N6	2.09	0.86
27:DD:268:ARG:HH11	27:DD:268:ARG:HB3	1.38	0.86
25:BA:1332:G:N2	25:BA:1609:A:O2'	2.09	0.86
50:B4:37:SER:HB3	50:B4:42:PHE:CD2	2.11	0.86
36:DP:24:GLY:CA	36:DP:25:ASP:HB2	1.97	0.86
1:AA:1149:C:H2'	1:AA:1150:U:H6	1.40	0.86
1:CA:631:G:H5"	1:CA:632:A:N7	1.91	0.86
3:CF:70:VAL:HG12	3:CF:72:LYS:H	1.38	0.86
35:DO:62:LEU:HD11	54:D8:25:MET:C	2.01	0.86
29:BF:185:ASP:OD1	29:BF:188:ARG:NH1	2.07	0.86
41:B2:44:LYS:O	41:B2:46:VAL:N	2.08	0.86
42:BS:9:TYR:H	42:BS:102:HIS:HD2	1.22	0.86
49:DX:59:VAL:HG12	49:DX:60:GLU:H	1.39	0.86
1:AA:826:C:H2'	1:AA:827:U:O2	1.76	0.86
2:AE:194:PRO:O	2:AE:196:LEU:N	2.07	0.86
12:AO:44:LYS:HG3	12:AO:45:PRO:HD3	0.86	0.86
25:BA:1899:G:N2	25:BA:1902:C:C5	2.44	0.86
31:BH:10:PRO:O	31:BH:11:VAL:HG13	1.74	0.86
40:B1:85:LYS:HE3	40:B1:117:GLN:HG3	1.57	0.86
1:CA:409:G:OP1	4:CG:24:GLU:HG2	1.76	0.86
8:CK:92:ARG:HH11	8:CK:92:ARG:HG2	1.38	0.86
15:CR:82:ILE:HD11	15:CR:88:ARG:HB2	1.57	0.86
25:DA:993:G:H1'	41:D2:87:HIS:CE1	2.11	0.86
25:DA:1442:G:C2'	25:DA:1443:G:H5"	2.05	0.86
25:DA:1072:C:O2	25:DA:1092:C:N4	2.07	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DR:74:ARG:HH11	39:DR:74:ARG:CG	1.89	0.86
25:BA:1416:G:O2'	25:BA:1417:C:O5'	1.94	0.85
22:CB:47:U:H2'	22:CB:48:C:C6	2.11	0.85
25:DA:2528:U:O2'	25:DA:2530:A:OP1	1.93	0.85
25:DA:2777:G:H5"	25:DA:2778:A:C5'	2.03	0.85
50:B4:39:CYS:O	50:B4:40:HIS:HB2	1.74	0.85
11:CN:30:VAL:HG21	11:CN:65:ALA:HA	1.57	0.85
25:DA:389:G:H22	35:DO:72:PRO:CG	1.89	0.85
25:DA:2392:A:H8	35:DO:60:MET:CB	1.88	0.85
25:BA:155:C:N4	25:BA:171:G:H1	1.73	0.85
25:DA:877:U:O4	25:DA:899:A:N6	2.09	0.85
25:DA:2168:G:N2	25:DA:2170:A:OP2	2.08	0.85
5:AH:42:GLY:HA3	5:AH:66:MET:HE2	1.57	0.85
22:AD:12:C:O2	22:AD:24:G:N2	2.09	0.85
25:BA:1535:U:H3'	25:BA:1536:A:H5"	1.57	0.85
25:BA:2262:U:C2'	25:BA:2263:C:H5'	2.05	0.85
28:BE:38:THR:HG23	28:BE:41:LYS:H	1.42	0.85
10:CM:51:ARG:HB2	10:CM:60:ARG:HA	1.57	0.85
22:CB:6:G:O2'	22:CB:7:G:OP1	1.93	0.85
35:DO:64:LYS:CG	35:DO:65:ARG:N	2.34	0.85
38:DQ:110:LEU:HD23	38:DQ:111:GLU:H	1.41	0.85
2:AE:204:ASN:ND2	2:AE:206:ASP:O	2.10	0.85
25:BA:1900:A:H8	25:BA:1900:A:H5'	1.39	0.85
37:B0:3:HIS:O	37:B0:5:LYS:N	2.09	0.85
1:CA:979:C:H3'	1:CA:980:C:H5"	1.58	0.85
26:DB:87:G:N2	26:DB:89(A):A:OP2	2.09	0.85
22:AB:78:C:O2'	22:AB:79:A:O5'	1.93	0.85
25:BA:527:C:OP2	25:BA:2779:U:H5	1.59	0.85
44:BU:38:ILE:HD11	44:BU:64:GLU:HG3	1.57	0.85
22:CB:52:G:H2'	22:CB:53:A:H8	1.41	0.85
36:DP:79:LEU:HD12	36:DP:79:LEU:C	2.02	0.85
37:D0:34:ILE:HG22	37:D0:114:VAL:HB	1.59	0.85
37:B0:91:GLN:N	37:B0:91:GLN:OE1	2.09	0.85
3:AF:58:GLU:HB2	3:AF:65:ALA:HB3	1.57	0.85
22:AB:21:A:H8	22:AB:46:G:C8	1.94	0.85
27:BD:35:LYS:HD2	27:BD:104:TYR:HD1	1.42	0.85
25:DA:205:G:H1'	25:DA:206:U:OP2	1.76	0.85
25:BA:654(D):G:N2	25:BA:654(Q):C:N3	2.24	0.85
27:BD:71:ASP:HB3	27:BD:103:ARG:HH22	1.41	0.85
1:AA:156:G:H1	1:AA:165:C:H42	1.20	0.85
1:CA:1157:A:O2'	1:CA:1158:C:O5'	1.95	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1335:C:O2'	1:CA:1336:C:OP2	1.95	0.85
1:AA:1238:A:N7	1:AA:1301:U:O4	2.10	0.84
1:AA:1503:A:O2'	1:AA:1504:G:O5'	1.95	0.84
2:AE:84:GLU:HB3	2:AE:219:VAL:HG21	1.59	0.84
25:BA:676:A:H8	25:BA:2069:G:H21	1.25	0.84
20:CW:50:GLU:HA	20:CW:100:ILE:HG21	1.57	0.84
20:CW:82:SER:OG	20:CW:86:ARG:NH2	2.10	0.84
28:BE:67:PHE:O	28:BE:69:LYS:N	2.09	0.84
53:B7:8:ASN:ND2	53:B7:11:LYS:H	1.74	0.84
1:CA:1027:C:O2	1:CA:1035:A:N6	2.10	0.84
25:DA:2872:G:C5	25:DA:2873:A:N1	2.45	0.84
36:DP:14:ARG:HG2	36:DP:41:TRP:HH2	1.42	0.84
25:BA:2308:G:N2	25:BA:2311:A:C2	2.46	0.84
27:BD:221:VAL:HG22	27:BD:226:MET:HE2	1.59	0.84
25:DA:71:A:OP2	25:DA:71:A:H3'	1.77	0.84
25:DA:1379:A:H4'	25:DA:1380:G:OP2	1.76	0.84
41:D2:85:LYS:HG3	41:D2:87:HIS:H	1.43	0.84
45:DV:158:PRO:HB2	45:DV:159:PRO:CD	2.07	0.84
1:CA:559:A:H4'	1:CA:560:U:H3'	1.59	0.84
1:CA:1160:G:O6	1:CA:1181:G:O6	1.96	0.84
1:CA:1321:C:N4	1:CA:1322:C:H41	1.74	0.84
25:DA:389:G:H22	35:DO:72:PRO:HG2	1.42	0.84
26:BB:7:G:H4'	38:BQ:29:PHE:HD1	1.42	0.84
25:DA:2127:G:H1	25:DA:2161:C:H42	1.23	0.84
3:AF:108:ASN:ND2	3:AF:144:SER:OG	2.11	0.84
38:BQ:83:LYS:HE3	38:BQ:109:GLY:HA2	1.57	0.84
17:AT:67:LYS:HA	17:AT:70:ARG:HH12	1.42	0.84
25:BA:2307:G:C8	25:BA:2311:A:C2	2.66	0.84
25:DA:90:U:C2'	25:DA:91:A:H5"	2.07	0.84
25:DA:882:G:N2	25:DA:894:C:N3	2.25	0.84
25:BA:1899:G:N2	25:BA:1902:C:H5	1.75	0.84
1:CA:1250:A:H4'	9:CL:68:GLY:H	1.41	0.84
35:DO:64:LYS:CB	54:D8:25:MET:HG3	2.07	0.84
25:BA:2162:G:H2'	25:BA:2163:C:O4'	1.77	0.84
25:BA:2392:A:C8	35:BO:60:MET:HB2	2.11	0.84
1:CA:82:U:O2	1:CA:87:A:N1	2.11	0.84
22:CB:46:G:O2'	22:CB:47:U:OP1	1.95	0.84
22:CD:15:G:N1	22:CD:57:C:O2	2.09	0.84
25:DA:1130:U:O2	28:DE:149:ARG:NH2	2.11	0.84
25:DA:1464:C:HO2'	25:DA:1528:A:H8	1.23	0.84
25:DA:2591:C:OP2	27:DD:238:GLY:O	1.96	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:D4:38:LYS:HA	50:D4:44:THR:HG21	1.60	0.84
1:AA:1008:C:N3	1:AA:1021:G:N2	2.24	0.84
27:BD:35:LYS:NZ	27:BD:104:TYR:HB2	1.93	0.84
1:CA:992:U:H3	1:CA:1044:A:H62	0.86	0.84
22:CD:49:A:HO2'	22:CD:50:U:H5	1.24	0.84
1:AA:412:A:H1'	1:AA:413:G:OP2	1.77	0.83
1:AA:1452:C:O2'	1:AA:1453:G:OP2	1.95	0.83
2:AE:185:ILE:HG22	2:AE:199:TYR:HB2	1.58	0.83
7:AJ:144:MET:HE1	22:AD:31:G:N2	1.93	0.83
31:BH:83:TYR:CB	31:BH:135:GLY:H	1.90	0.83
51:B5:6:VAL:HG22	51:B5:7:PRO:HD2	1.59	0.83
35:DO:46:LYS:HD2	35:DO:51:PHE:CE1	2.13	0.83
22:AD:48:C:H3'	22:AD:49:A:C8	2.12	0.83
45:BV:19:ARG:NH1	45:BV:84:GLU:O	2.11	0.83
1:AA:1028(B):C:N3	1:AA:1032(A):G:N2	2.27	0.83
3:AF:60:ALA:H	3:AF:63:ASN:HB3	1.43	0.83
25:BA:653:A:H3'	25:BA:654:A:H5'	1.60	0.83
25:BA:1678:G:H22	25:BA:1989:G:H22	1.25	0.83
25:BA:2210:G:H3'	25:BA:2211:G:N7	1.93	0.83
29:DF:40:GLN:HE22	29:DF:182:ASN:HB2	1.43	0.83
42:DS:25:ARG:NH2	42:DS:74:ALA:O	2.10	0.83
25:BA:860:U:C5	25:BA:917:A:C2	2.66	0.83
1:AA:1028(B):C:N4	1:AA:1032(A):G:N1	2.27	0.83
2:AE:162:ILE:HD11	2:AE:184:VAL:HG22	1.60	0.83
25:BA:654(B):C:N4	25:BA:654(S):G:N1	2.26	0.83
44:BU:76:CYS:HB3	44:BU:96:ILE:HD13	1.60	0.83
25:DA:847:U:O4	25:DA:933:A:C6	2.31	0.83
25:DA:910:A:H62	36:DP:12:GLN:HA	1.42	0.83
27:DD:69:ARG:NH2	27:DD:128:GLY:O	2.11	0.83
22:AB:20:C:O2'	22:AB:68:A:N7	2.11	0.83
22:AD:50:U:H2'	22:AD:51:C:C6	2.14	0.83
25:BA:1864:U:C2'	25:BA:1869:G:H5"	2.09	0.83
25:BA:1887:C:C2'	25:BA:1888:G:H5"	2.09	0.83
8:CK:92:ARG:HH11	8:CK:92:ARG:CG	1.90	0.83
25:DA:259:G:H21	25:DA:621:A:H8	1.21	0.83
27:DD:35:LYS:NZ	27:DD:64:ILE:O	2.12	0.83
10:AM:48:THR:HA	10:AM:62:HIS:HB3	1.61	0.83
25:BA:1210:A:H5'	25:BA:1210:A:H8	1.40	0.83
25:BA:1533:C:H3'	25:BA:1534:G:C5'	2.08	0.83
26:BB:12:C:O2	46:B3:74:ARG:NH1	2.11	0.83
52:B6:24:GLU:O	54:B8:34:TRP:CD1	2.32	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2015:A:N3	51:B5:2:ALA:CA	2.42	0.83
1:CA:1301:U:O2'	1:CA:1302:U:OP1	1.97	0.83
25:DA:1022:G:O2'	25:DA:1023:U:OP2	1.96	0.83
25:DA:2068:U:H3	25:DA:2430:A:H2	1.25	0.83
28:DE:128:SER:OG	28:DE:129:HIS:N	2.09	0.83
31:BH:86:GLU:HG3	31:BH:165:ALA:N	1.94	0.83
1:CA:1449:C:O3'	1:CA:1450:U:H4'	1.76	0.83
1:AA:991:U:O2'	1:AA:992:U:H5"	1.79	0.83
7:AJ:111:ARG:NH1	7:AJ:113:GLU:OE2	2.12	0.83
22:AB:52:G:H2'	22:AB:53:A:H8	1.42	0.83
25:BA:1496:A:H8	25:BA:1577:C:O2'	1.60	0.83
25:BA:2875:C:H4'	39:BR:5:ALA:HB2	1.60	0.83
28:BE:201:THR:HG22	28:BE:203:LYS:H	1.43	0.83
54:B8:34:TRP:CE3	54:B8:35:GLN:NE2	2.46	0.83
25:DA:155:C:N3	25:DA:171:G:N2	2.26	0.83
25:DA:906:G:OP1	36:DP:26:TYR:OH	1.96	0.83
36:DP:110:THR:HG23	36:DP:113:GLN:HG3	1.61	0.83
16:AS:53:VAL:HG12	16:AS:79:VAL:HG22	1.61	0.82
54:B8:34:TRP:HE3	54:B8:35:GLN:HG2	1.40	0.82
25:DA:362:U:H5'	25:DA:363:G:OP2	1.79	0.82
20:AW:22:ARG:O	20:AW:26:ASN:ND2	2.12	0.82
25:BA:141:A:H8	25:BA:1595:G:H21	1.28	0.82
1:CA:1266:G:N2	1:CA:1269:A:OP2	2.12	0.82
28:DE:8:LYS:O	28:DE:9:VAL:HG22	1.78	0.82
1:AA:78:G:N2	1:AA:91:C:N3	2.26	0.82
1:AA:748:C:H4'	1:AA:749:C:O5'	1.77	0.82
25:BA:1055:G:H1	25:BA:1104:C:H42	0.82	0.82
25:BA:1055:G:N1	25:BA:1104:C:N4	2.19	0.82
25:BA:1464:C:HO2'	25:BA:1528:A:H8	1.24	0.82
33:BM:4:TYR:OH	33:BM:7:LYS:NZ	2.12	0.82
1:CA:250:A:H1'	1:CA:251:G:OP2	1.79	0.82
1:CA:534:U:H5'	1:CA:535:A:OP2	1.79	0.82
42:DS:88:ARG:NH1	42:DS:94:ASP:OD1	2.13	0.82
25:BA:2151:G:H2'	25:BA:2152:G:C8	2.15	0.82
25:BA:2255:G:N2	36:BP:85:LYS:HE2	1.95	0.82
35:BO:62:LEU:O	35:BO:62:LEU:HG	1.77	0.82
12:CO:44:LYS:HB3	12:CO:45:PRO:HD3	1.60	0.82
25:DA:2557:G:H2'	25:DA:2558:C:C6	2.14	0.82
19:AV:40:ILE:HG12	19:AV:41:VAL:HG13	1.60	0.82
25:BA:1062:G:H2'	25:BA:1063:G:C8	2.14	0.82
31:BH:83:TYR:HB3	31:BH:135:GLY:H	1.42	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DU:76:CYS:SG	44:DU:77:PRO:HD2	2.19	0.82
1:AA:266:G:H5"	1:AA:267:C:H5	1.44	0.82
17:AT:55:ASP:HA	17:AT:79:SER:HA	1.60	0.82
22:AB:21:A:C8	22:AB:46:G:C8	2.67	0.82
25:BA:882:G:H2'	25:BA:883:G:C8	2.15	0.82
25:DA:2138:C:H42	25:DA:2153:G:H1	1.27	0.82
39:DR:11:GLU:OE1	39:DR:11:GLU:N	2.11	0.82
40:D1:72:HIS:HE1	40:D1:107:ALA:HA	1.44	0.82
41:D2:35:LEU:O	41:D2:37:VAL:HG22	1.80	0.82
25:BA:774:A:H2	25:BA:787:U:HO2'	0.84	0.82
44:BU:42:VAL:HB	44:BU:67:LEU:HD11	1.61	0.82
1:CA:652:U:O2'	1:CA:653:A:H5"	1.78	0.82
1:AA:976:G:OP1	14:AQ:32:SER:N	2.11	0.82
35:BO:19:VAL:HG23	35:BO:27:HIS:CA	2.10	0.82
36:DP:11:LYS:HD3	36:DP:87:LYS:HG2	1.61	0.82
1:AA:963:G:H21	10:AM:55:LYS:NZ	1.77	0.82
1:AA:1285:A:H4'	1:AA:1286:A:O5'	1.78	0.82
2:AE:88:ALA:HB2	2:AE:219:VAL:HG13	1.62	0.82
25:BA:252:G:OP2	35:BO:50:ARG:NH1	2.13	0.82
25:BA:547:A:H2'	25:BA:548:A:C8	2.14	0.82
25:BA:907:U:H5'	36:BP:23:GLY:O	1.79	0.82
25:DA:1757:U:N3	25:DA:1762:A:C2	2.34	0.82
25:DA:1843:C:H5'	27:DD:253:GLN:NE2	1.94	0.82
27:DD:35:LYS:HG2	27:DD:64:ILE:HG12	1.62	0.82
29:DF:22:ALA:C	29:DF:24:LEU:H	1.88	0.82
2:AE:12:GLU:O	2:AE:16:HIS:ND1	2.13	0.81
11:AN:48:ILE:HG13	11:AN:63:LEU:HB2	1.62	0.81
19:AV:44:MET:O	19:AV:47:HIS:HB2	1.79	0.81
25:BA:883:G:N2	25:BA:893:C:N3	2.28	0.81
25:BA:1021:A:H61	25:BA:1142(A):A:H61	1.24	0.81
1:CA:652:U:O2'	1:CA:653:A:N3	2.12	0.81
25:DA:9:U:N3	25:DA:2629:A:C6	2.48	0.81
25:DA:329:G:O6	44:DU:19:LYS:HB3	1.80	0.81
25:DA:974:G:O2'	25:DA:975:G:N7	2.11	0.81
25:BA:49:A:C8	25:BA:120:U:C5	2.67	0.81
25:BA:1113:U:H5'	31:BH:2:SER:HB2	1.59	0.81
1:AA:7:G:H5'	1:AA:298:A:O4'	1.78	0.81
1:AA:255:G:H1'	17:AT:16:GLN:HE21	1.42	0.81
28:BE:111:ARG:HG3	28:BE:160:TYR:CD1	2.15	0.81
38:BQ:14:VAL:O	38:BQ:18:ILE:HG12	1.81	0.81
50:B4:42:PHE:CG	50:B4:43:TYR:N	2.48	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:B6:15:GLU:HA	52:B6:49:HIS:HA	1.59	0.81
52:B6:25:LYS:CG	54:B8:34:TRP:HZ2	1.93	0.81
54:B8:32:LEU:O	54:B8:36:LYS:HE3	1.80	0.81
54:B8:34:TRP:CE3	54:B8:35:GLN:CD	2.58	0.81
54:B8:34:TRP:CE3	54:B8:35:GLN:HG2	2.14	0.81
1:CA:1056:U:H2'	1:CA:1056:U:O2	1.80	0.81
2:CE:17:PHE:CE2	2:CE:44:LEU:HA	2.13	0.81
29:DF:132:VAL:HG22	29:DF:133:ASN:H	1.44	0.81
8:AK:4:ASP:OD1	8:AK:85:ARG:NH1	2.12	0.81
39:BR:36:GLU:HG3	39:BR:41:ARG:HD2	1.63	0.81
27:DD:65:ILE:HD11	27:DD:67:PHE:CE2	2.16	0.81
1:CA:1028:C:N3	1:CA:1033:G:N2	2.28	0.81
25:DA:7:G:H1	25:DA:2896:C:H42	1.25	0.81
25:DA:2467:C:H4'	36:DP:123:HIS:CD2	2.15	0.81
29:DF:181:LEU:HD21	29:DF:186:ILE:HD11	1.63	0.81
2:AE:165:VAL:HG23	2:AE:166:ASP:H	1.46	0.81
25:BA:885:C:N3	25:BA:890:A:N7	2.29	0.81
30:BG:83:ARG:H	30:BG:86:MET:CE	1.93	0.81
52:B6:47:THR:HG22	52:B6:48:VAL:H	1.43	0.81
1:CA:812:C:H1'	1:CA:813:U:OP2	1.80	0.81
1:CA:1503:A:O2'	24:C1:13:A:N1	2.13	0.81
28:DE:201:THR:HG22	28:DE:202:LYS:H	1.45	0.81
39:DR:64:ARG:HB2	39:DR:73:GLU:HG2	1.59	0.81
41:D2:69:LYS:HG3	41:D2:86:GLY:HA3	1.61	0.81
25:BA:140:A:H8	25:BA:1408:C:HO2'	1.27	0.81
27:BD:30:GLU:HG3	27:BD:63:ARG:NH2	1.96	0.81
39:BR:77:PRO:HG2	39:BR:80:SER:HB2	1.63	0.81
25:DA:884:C:H42	25:DA:892:G:H1	0.81	0.81
25:DA:889:C:H2'	25:DA:890:A:H4'	1.61	0.81
27:DD:35:LYS:HD2	27:DD:104:TYR:HD1	1.46	0.81
28:DE:37:ARG:NH1	28:DE:80:GLU:OE2	2.14	0.81
34:DN:113:LYS:HD3	34:DN:113:LYS:H	1.44	0.81
35:DO:122:PRO:HB3	35:DO:141:ALA:HB1	1.63	0.81
1:AA:73:G:O6	1:AA:97:U:C2	2.32	0.81
25:BA:2468:G:H2'	25:BA:2476:A:H62	1.44	0.81
30:BG:135:LEU:HD23	30:BG:140:ILE:HD11	1.61	0.81
31:BH:4:ILE:HG13	31:BH:6:ARG:CZ	2.11	0.81
1:CA:428:G:H4'	1:CA:429:U:O5'	1.81	0.81
25:DA:1416:G:HO2'	25:DA:1417:C:H6	1.28	0.81
25:DA:1826:G:H4'	27:DD:242:ARG:HH21	1.45	0.81
35:DO:70:GLN:N	35:DO:70:GLN:CD	2.39	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:24:GLY:CA	36:DP:25:ASP:HB3	2.05	0.81
40:D1:83:LEU:HD23	40:D1:88:ILE:HG13	1.63	0.81
25:BA:102:G:OP1	48:BW:7:ARG:NH2	2.11	0.81
25:BA:2124:G:H1	25:BA:2174:C:H42	1.29	0.81
25:BA:2141:G:O6	25:BA:2150:U:O2	1.99	0.81
27:BD:35:LYS:HZ1	27:BD:104:TYR:HB2	1.44	0.81
22:CB:57:C:O2'	22:CB:68:A:H4'	1.80	0.81
25:DA:2468:G:H3'	25:DA:2476:A:N1	1.96	0.81
22:AB:6:G:O2'	22:AB:7:G:OP1	1.97	0.81
25:BA:654(B):C:N4	25:BA:654(S):G:H1	1.79	0.81
54:B8:34:TRP:CA	54:B8:35:GLN:CB	2.47	0.81
29:DF:21:ALA:C	29:DF:23:ASP:H	1.89	0.81
4:AG:28:SER:HB2	4:AG:29:PRO:HD2	1.64	0.80
25:BA:330:A:H2	25:BA:1210:A:H2'	1.47	0.80
27:BD:32:SER:O	27:BD:33:LEU:HB3	1.80	0.80
32:BK:110:ASP:OD1	32:BK:110:ASP:N	2.10	0.80
44:BU:76:CYS:SG	44:BU:77:PRO:HD2	2.21	0.80
25:DA:2127:G:H1	25:DA:2161:C:N4	1.79	0.80
34:DN:2:ILE:HD12	34:DN:6:THR:HG21	1.63	0.80
41:D2:79:VAL:O	41:D2:80:GLN:HB2	1.80	0.80
1:AA:1003:G:H2'	1:AA:1004:A:H5"	1.62	0.80
1:AA:1125:U:OP2	1:AA:1145:C:N4	2.14	0.80
25:BA:1771:C:H1'	25:BA:1786:A:C8	2.16	0.80
23:CC:6:G:O6	23:CC:68:C:N4	2.12	0.80
25:DA:1678:G:N2	25:DA:1989:G:H22	1.79	0.80
44:DU:81:LYS:HD3	44:DU:97:ARG:NH2	1.96	0.80
47:DZ:85:LEU:HD12	47:DZ:85:LEU:O	1.82	0.80
4:AG:150:GLU:O	4:AG:152:SER:N	2.13	0.80
12:AO:3:THR:H	12:AO:6:GLN:HE21	1.29	0.80
20:AW:26:ASN:HB2	20:AW:71:THR:HG23	1.63	0.80
25:BA:1069:A:H4'	25:BA:1070:A:H5"	1.63	0.80
25:BA:1138:G:N2	33:BM:106:MET:HE3	1.97	0.80
25:BA:2701:C:H3'	25:BA:2702:U:C5'	2.09	0.80
52:B6:25:LYS:CB	54:B8:34:TRP:CZ2	2.64	0.80
2:AE:21:ARG:O	2:AE:23:ARG:N	2.15	0.80
25:BA:860:U:C5	25:BA:917:A:H2	1.98	0.80
25:BA:958:U:OP2	36:BP:14:ARG:NH1	2.14	0.80
2:CE:185:ILE:HG22	2:CE:199:TYR:HB2	1.60	0.80
23:CC:17:C:C3'	23:CC:18:C:H5"	2.06	0.80
25:DA:1043:C:H42	25:DA:1112:G:H1	1.29	0.80
35:DO:105:LEU:O	35:DO:105:LEU:HD12	1.80	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DV:170:THR:O	45:DV:172:ALA:N	2.13	0.80
48:DW:65:ASN:HD22	48:DW:69:ARG:HH21	1.28	0.80
11:AN:87:THR:HG22	11:AN:88:GLY:H	1.46	0.80
1:CA:452:A:O2'	1:CA:453:A:O4'	1.98	0.80
4:CG:139:ARG:HH11	4:CG:139:ARG:CG	1.95	0.80
25:DA:884:C:N4	25:DA:892:G:N1	2.11	0.80
25:DA:2311:A:C8	30:DG:88:ILE:HG12	2.16	0.80
25:DA:2392:A:H2	25:DA:2424:C:H42	1.27	0.80
29:DF:46:ARG:HH11	29:DF:46:ARG:HG2	1.46	0.80
1:AA:792:A:H4'	1:AA:793:U:O5'	1.82	0.80
25:BA:2136:C:N3	25:BA:2155:G:N2	2.29	0.80
1:CA:1057:G:H4'	3:CF:196:LEU:O	1.82	0.80
1:CA:1298:C:H41	7:CJ:114:ARG:HB3	1.45	0.80
22:CB:85:A:H8	25:DA:2583:G:H21	1.27	0.80
25:DA:1652:A:H62	37:D0:11:ASN:ND2	1.79	0.80
27:DD:43:ARG:HH11	27:DD:44:ASN:HD21	0.80	0.80
35:DO:61:ARG:CG	35:DO:61:ARG:NH2	2.39	0.80
41:D2:1:MET:HA	41:D2:42:GLY:HA3	1.63	0.80
22:AD:20:C:H5"	22:AD:68:A:H62	1.47	0.80
2:CE:233:SER:HB2	2:CE:234:PRO:CD	2.11	0.80
9:CL:11:LYS:H	9:CL:104:ARG:HH21	1.30	0.80
25:DA:90:U:O2'	25:DA:91:A:H8	1.64	0.80
25:DA:907:U:O2'	36:DP:101:ARG:NH2	2.14	0.80
25:DA:1342:A:C6	25:DA:1602:U:N3	2.50	0.80
27:DD:30:GLU:HG3	27:DD:63:ARG:NH2	1.97	0.80
36:DP:79:LEU:C	36:DP:79:LEU:CD1	2.54	0.80
41:D2:85:LYS:HD2	41:D2:86:GLY:H	1.47	0.80
1:AA:1423:G:OP1	34:BN:49:ARG:NH2	2.14	0.80
50:B4:54:GLY:HA2	50:B4:57:GLU:HB3	1.64	0.80
1:AA:422:C:O2'	1:AA:423:G:N3	2.15	0.80
7:AJ:79:ARG:NH1	7:AJ:80:VAL:O	2.14	0.80
25:BA:2015:A:N3	51:B5:2:ALA:N	2.29	0.80
25:BA:2629:A:O2'	25:BA:2630:G:H5"	1.80	0.80
51:B5:2:ALA:O	51:B5:3:LYS:HB2	1.82	0.80
1:CA:1322:C:H2'	1:CA:1322:C:O2	1.81	0.80
8:CK:42:GLU:HG3	8:CK:109:ILE:HD12	1.63	0.80
25:DA:1048:A:OP2	25:DA:1110:G:N2	2.15	0.80
33:DM:13:TRP:O	33:DM:135:PRO:HD2	1.82	0.80
42:DS:9:TYR:H	42:DS:102:HIS:HD2	1.27	0.80
1:AA:93:U:H2'	1:AA:95:G:O4'	1.81	0.80
32:BK:116:LEU:O	32:BK:118:LYS:N	2.15	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:21:THR:CG2	36:BP:21:THR:O	2.30	0.80
38:BQ:36:TYR:N	38:BQ:36:TYR:HD1	1.80	0.80
29:DF:164:ARG:HG3	29:DF:175:THR:OG1	1.81	0.80
41:B2:35:LEU:O	41:B2:37:VAL:N	2.14	0.79
22:AD:47:U:H2'	22:AD:48:C:C6	2.17	0.79
35:BO:105:LEU:O	35:BO:106:LEU:HB2	1.79	0.79
1:CA:1211:U:H5'	1:CA:1212:U:OP1	1.81	0.79
22:CD:48:C:N4	22:CD:52:G:H1	1.79	0.79
25:DA:2415:G:H4'	35:DO:67:MET:H	1.46	0.79
36:DP:21:THR:CG2	36:DP:21:THR:O	2.30	0.79
45:DV:107:THR:H	45:DV:108:PRO:HD2	1.47	0.79
51:D5:16:ARG:HH11	51:D5:16:ARG:CG	1.93	0.79
25:BA:910:A:C5	36:BP:13:GLN:HG3	2.17	0.79
41:B2:35:LEU:C	41:B2:37:VAL:H	1.88	0.79
54:B8:35:GLN:O	54:B8:36:LYS:CG	2.30	0.79
25:DA:2311:A:H8	30:DG:88:ILE:HG12	1.45	0.79
29:DF:53:THR:HG22	29:DF:56:GLU:HG3	1.62	0.79
35:DO:105:LEU:O	35:DO:105:LEU:CD1	2.31	0.79
2:AE:5:ILE:HG21	2:AE:221:LEU:HD23	1.65	0.79
12:AO:72:HIS:HD2	12:AO:74:LEU:H	1.30	0.79
1:CA:827:U:H3	1:CA:872:A:H62	1.30	0.79
1:CA:1151:A:O2'	10:CM:70:ARG:NH2	2.15	0.79
25:DA:1420:U:HO2'	25:DA:1421:G:H8	1.31	0.79
36:DP:2:LEU:O	36:DP:70:PRO:HG2	1.81	0.79
2:AE:18:GLY:N	2:AE:42:ILE:HG22	1.97	0.79
2:AE:60:ASP:OD1	2:AE:64:ARG:NH2	2.15	0.79
22:AB:52:G:H2'	22:AB:53:A:C8	2.18	0.79
30:BG:47:LYS:HD2	30:BG:81:LYS:HB2	1.64	0.79
33:BM:130:HIS:O	33:BM:132:ALA:N	2.15	0.79
10:CM:48:THR:HA	10:CM:62:HIS:HB3	1.62	0.79
22:CD:18:G:OP1	22:CD:69:U:N3	2.16	0.79
25:DA:1090:U:O4	25:DA:1101:U:O2	2.00	0.79
25:DA:1757:U:H3	25:DA:1762:A:H2	0.86	0.79
36:DP:26:TYR:CE1	36:DP:139:GLU:HG2	2.17	0.79
44:BU:35:TYR:CE1	44:BU:69:ALA:HB3	2.18	0.79
22:CD:22:A:N7	22:CD:57:C:N4	2.31	0.79
25:DA:1342:A:C2	25:DA:1397:U:C2	2.71	0.79
35:DO:105:LEU:O	35:DO:106:LEU:HB3	1.82	0.79
40:D1:92:ARG:HG2	41:D2:11:GLN:NE2	1.96	0.79
45:DV:76:LEU:H	45:DV:76:LEU:HD23	1.48	0.79
48:DW:47:ASN:O	48:DW:49:LYS:N	2.15	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1138:G:H21	33:BM:106:MET:HE3	1.45	0.79
38:BQ:89:ARG:HG2	38:BQ:89:ARG:O	1.82	0.79
1:CA:677:U:H3	1:CA:713:G:H22	1.30	0.79
29:DF:203:GLN:HE21	29:DF:203:GLN:HA	1.48	0.79
1:AA:1028(A):C:N4	1:AA:1028(B):C:H41	1.81	0.79
25:BA:2321:G:H5"	25:BA:2322:A:OP2	1.83	0.79
29:BF:45:ARG:HG2	29:BF:45:ARG:NH1	1.93	0.79
1:CA:1028(A):C:O2	1:CA:1032(B):G:N1	2.14	0.79
25:DA:411:G:N2	35:DO:71:VAL:HG21	1.97	0.79
25:DA:1171:G:H1'	25:DA:1173:G:O4'	1.83	0.79
30:DG:161:THR:HG22	30:DG:163:ALA:H	1.47	0.79
1:AA:79:G:N2	1:AA:90:C:N3	2.30	0.79
4:AG:201:GLN:HA	4:AG:201:GLN:HE21	1.46	0.79
25:BA:1165:U:H2'	25:BA:1166:C:C6	2.17	0.79
28:BE:21:VAL:HB	28:BE:22:PRO:HB3	1.65	0.79
32:BK:92:VAL:HG13	32:BK:120:ILE:HG23	1.63	0.79
39:BR:84:GLN:HG2	39:BR:85:LYS:HG2	1.63	0.79
50:B4:59:PHE:O	50:B4:63:TYR:HB3	1.83	0.79
25:DA:2210:G:H3'	25:DA:2211:G:C5	2.17	0.79
25:DA:2414:G:N2	35:DO:67:MET:HE1	1.96	0.79
29:DF:101:LEU:O	29:DF:106:ARG:NH1	2.15	0.79
36:DP:78:PRO:O	36:DP:79:LEU:CD1	2.31	0.79
22:AB:38:MIA:H112	22:AB:39:A:H1'	1.65	0.79
25:BA:654(S):G:H4'	25:BA:654(T):A:OP1	1.82	0.79
25:BA:1754:C:OP1	39:BR:96:ARG:NH1	2.14	0.79
25:BA:2262:U:O2'	25:BA:2263:C:H5'	1.83	0.79
27:BD:28:GLU:HB3	27:BD:29:PRO:HD3	1.63	0.79
30:BG:67:LYS:HE2	50:B4:6:HIS:CE1	2.18	0.79
42:BS:18:ARG:HD3	42:BS:76:VAL:HG13	1.64	0.79
45:BV:5:LEU:O	45:BV:6:LYS:HB2	1.82	0.79
50:B4:41:PRO:O	50:B4:42:PHE:HB3	1.80	0.79
54:B8:34:TRP:N	54:B8:35:GLN:HB3	1.97	0.79
1:CA:1028:C:H42	1:CA:1033:G:H1	0.84	0.79
1:CA:1297:C:H1'	1:CA:1298:C:OP2	1.83	0.79
7:CJ:27:ILE:HD12	7:CJ:40:ALA:HA	1.64	0.79
22:CB:46:G:O2'	22:CB:47:U:H5'	1.83	0.79
25:DA:2748:A:N7	25:DA:2754:U:O4	2.16	0.79
27:DD:35:LYS:CD	27:DD:104:TYR:HD1	1.95	0.79
39:DR:80:SER:HB3	39:DR:83:ILE:HG13	1.64	0.79
51:D5:3:LYS:HA	51:D5:3:LYS:HE3	1.63	0.79
1:AA:201:C:H42	1:AA:216:G:H1	0.83	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2723:C:H4'	37:B0:1:MET:HE3	1.64	0.78
1:CA:1002:G:H2'	1:CA:1003:G:C8	2.18	0.78
44:DU:93:GLY:O	44:DU:95:LYS:HG3	1.83	0.78
1:AA:1348:U:H4'	9:AL:120:ARG:HD2	1.66	0.78
2:AE:111:ARG:HH11	2:AE:111:ARG:HA	1.48	0.78
25:BA:2469:A:H61	25:BA:2481:G:H1'	1.47	0.78
31:BH:150:ALA:O	31:BH:152:ARG:N	2.16	0.78
25:DA:1420:U:H1'	25:DA:1421:G:OP1	1.84	0.78
25:DA:2511:U:O4	25:DA:2575:C:N3	2.15	0.78
35:DO:64:LYS:CG	35:DO:65:ARG:H	1.93	0.78
1:AA:1280:A:H3'	1:AA:1281:U:H5'	1.65	0.78
25:BA:2580:U:H4'	28:BE:130:GLY:HA3	1.64	0.78
1:CA:1144:G:H2'	1:CA:1145:C:H5"	1.64	0.78
1:CA:1211:U:H1'	1:CA:1213:A:C2	2.18	0.78
1:CA:1305:G:N2	1:CA:1331:G:H2'	1.99	0.78
27:DD:25:THR:C	27:DD:27:THR:H	1.91	0.78
31:DH:106:THR:HG22	31:DH:112:PRO:HB3	1.64	0.78
1:AA:1190:G:OP1	3:AF:4:LYS:HA	1.84	0.78
25:BA:1689:A:N6	25:BA:1698:A:C2	2.44	0.78
25:BA:2469:A:N3	25:BA:2469:A:C5'	2.47	0.78
25:DA:2136:C:N4	25:DA:2155:G:H1	1.78	0.78
39:DR:50:ILE:HD11	39:DR:102:ILE:HD11	1.65	0.78
44:DU:63:LYS:HA	44:DU:63:LYS:NZ	1.97	0.78
1:AA:1086:U:H3	1:AA:1099:G:H22	1.30	0.78
25:BA:2688:U:H5	25:BA:2720:U:OP2	1.66	0.78
27:BD:33:LEU:HD13	27:BD:34:VAL:HG12	1.66	0.78
25:DA:1250:G:N7	35:DO:18:ARG:NH2	2.32	0.78
25:DA:2378:A:O2'	38:DQ:21:THR:HG21	1.84	0.78
25:DA:2427:C:H5"	25:DA:2428:G:OP1	1.84	0.78
27:DD:236:GLY:O	27:DD:237:GLU:CB	2.31	0.78
29:DF:22:ALA:O	29:DF:24:LEU:N	2.16	0.78
13:AP:3:ARG:HE	13:AP:9:ILE:HD11	1.48	0.78
24:A1:12:A:H1'	24:A1:13:A:OP1	1.83	0.78
25:BA:299:A:H5'	44:BU:84:ARG:HH21	1.49	0.78
45:BV:27:VAL:HG12	45:BV:87:ASP:HB3	1.64	0.78
25:DA:1434:A:H61	25:DA:1558:A:N6	1.82	0.78
25:DA:2472:G:O6	25:DA:2476:A:O2'	2.01	0.78
5:AH:63:ARG:HA	5:AH:66:MET:HE3	1.65	0.78
25:BA:1798:U:H5"	27:BD:259:THR:HG22	1.64	0.78
25:BA:2137:C:H42	25:BA:2154:G:H1	1.28	0.78
25:BA:2319:G:H4'	25:BA:2320:A:OP1	1.82	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2470:G:H5'	36:BP:56:ARG:NH2	1.98	0.78
25:DA:67:U:N3	25:DA:74:A:H2	1.74	0.78
36:DP:12:GLN:HE21	36:DP:73:PRO:HD2	1.48	0.78
1:AA:136:C:H42	1:AA:227:G:H1	1.29	0.78
1:AA:411:A:H62	1:AA:413:G:H21	1.30	0.78
1:AA:723:U:H2'	1:AA:723:U:O2	1.83	0.78
1:AA:975:A:C4'	1:AA:976:G:H5"	2.14	0.78
4:AG:200:GLU:N	4:AG:200:GLU:OE1	2.16	0.78
12:AO:43:LYS:N	12:AO:89:ASP:O	2.17	0.78
23:AC:5:G:N2	23:AC:69:C:O2	2.16	0.78
50:B4:42:PHE:CD1	50:B4:43:TYR:N	2.51	0.78
1:CA:1200:C:H2'	1:CA:1200:C:O2	1.83	0.78
4:CG:19:LEU:HB2	4:CG:21:LEU:HD11	1.64	0.78
11:CN:99:GLN:HG2	11:CN:105:VAL:HG21	1.66	0.78
40:D1:92:ARG:O	40:D1:94:ASN:N	2.15	0.78
1:AA:79:G:C2	1:AA:90:C:N3	2.52	0.78
1:AA:973:G:H3'	1:AA:974:A:H5"	1.66	0.78
1:AA:1346:A:H5"	9:AL:120:ARG:HH12	1.49	0.78
32:BK:131:LYS:HB3	32:BK:132:PRO:CA	2.14	0.78
1:CA:141:A:H1'	1:CA:182:U:O2	1.83	0.78
1:CA:1028(A):C:N3	1:CA:1032(B):G:O6	2.17	0.78
25:DA:598:G:C1'	35:DO:12:ALA:HB2	2.13	0.78
22:AB:48:C:H3'	22:AB:49:A:C8	2.17	0.78
32:BK:11:ASN:O	32:BK:12:LEU:HB2	1.84	0.78
1:CA:1028(B):C:H3'	1:CA:1029:G:H5"	1.65	0.78
13:CP:13:LYS:NZ	13:CP:21:TYR:OH	2.17	0.78
14:CQ:26:ARG:HH12	14:CQ:47:LEU:HD21	1.47	0.78
31:DH:19:VAL:HG12	31:DH:20:ALA:H	1.49	0.78
36:DP:90:VAL:CG1	36:DP:90:VAL:O	2.32	0.78
1:AA:652:U:H1'	1:AA:653:A:C2	2.19	0.77
25:BA:654(M):C:H5"	25:BA:654(N):G:N7	1.99	0.77
36:BP:111:GLU:OE1	36:BP:133:ARG:NH2	2.17	0.77
50:B4:42:PHE:CE1	50:B4:43:TYR:HB2	2.17	0.77
9:CL:43:ALA:HA	9:CL:74:ILE:HD13	1.66	0.77
25:BA:2646:C:OP2	25:BA:2732:G:O2'	2.02	0.77
20:CW:70:SER:O	20:CW:73:HIS:HB2	1.85	0.77
25:DA:885:C:C4	25:DA:890:A:C6	2.71	0.77
25:DA:2875:C:O2'	39:DR:3:ARG:HG3	1.84	0.77
28:DE:2:LYS:NZ	28:DE:95:ILE:O	2.17	0.77
1:AA:216:G:O2'	1:AA:217:C:O4'	2.00	0.77
2:AE:47:THR:HA	2:AE:202:PRO:HG2	1.64	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AI:97:PHE:HD2	18:AU:31:LEU:HD21	1.48	0.77
25:BA:2347:C:H4'	52:B6:39:TYR:HE2	1.48	0.77
36:BP:17:LEU:CD2	36:BP:96:VAL:CG1	2.63	0.77
25:DA:2816:C:O3'	37:D0:99:LYS:NZ	2.17	0.77
27:DD:35:LYS:CG	27:DD:64:ILE:H	1.95	0.77
39:DR:27:THR:HG23	39:DR:90:GLN:HB3	1.65	0.77
44:DU:50:ARG:HB3	44:DU:53:PRO:HG3	1.66	0.77
1:AA:1053:G:O6	1:AA:1199:U:H2'	1.85	0.77
25:BA:890:A:H3'	25:BA:892:G:H8	1.47	0.77
25:BA:960:A:H61	36:BP:83:MET:HE2	1.48	0.77
25:BA:2102:U:H3	25:BA:2187:G:H1	1.32	0.77
32:BK:126:TYR:HB2	32:BK:140:LEU:HD21	1.64	0.77
35:BO:19:VAL:CG2	35:BO:27:HIS:CB	2.36	0.77
38:BQ:59:LYS:HG2	38:BQ:60:GLY:H	1.48	0.77
39:BR:26:ASP:HB3	39:BR:92:GLY:H	1.49	0.77
1:CA:987:G:H1	1:CA:1218:C:H42	1.33	0.77
8:CK:10:LEU:HD22	8:CK:83:ILE:HD11	1.65	0.77
47:DZ:92:LYS:HB2	47:DZ:93:GLU:OE1	1.85	0.77
50:D4:21:VAL:HG22	50:D4:22:ILE:HD13	1.65	0.77
2:AE:16:HIS:CD2	2:AE:210:SER:HA	2.16	0.77
22:AB:75:C:O2'	22:AB:76:C:OP1	2.02	0.77
25:BA:2062:A:H2'	25:BA:2062:A:N3	1.96	0.77
35:BO:85:LEU:HA	35:BO:88:LEU:HD22	1.66	0.77
4:CG:8:VAL:HG11	4:CG:21:LEU:HB2	1.63	0.77
24:C1:12:A:H1'	24:C1:13:A:OP1	1.83	0.77
35:DO:16:ARG:HH11	35:DO:16:ARG:HG3	1.49	0.77
43:DT:67:GLY:O	43:DT:69:TYR:N	2.17	0.77
27:BD:35:LYS:NZ	27:BD:64:ILE:O	2.16	0.77
4:CG:150:GLU:HG2	4:CG:151:LYS:N	1.99	0.77
16:CS:23:ASP:OD1	16:CS:25:ARG:HG2	1.84	0.77
19:CV:66:MET:HA	19:CV:67:VAL:O	1.84	0.77
25:DA:945:A:C5	25:DA:2448:A:C2	2.73	0.77
25:DA:1088:A:H4'	25:DA:1089:G:H8	1.50	0.77
35:DO:146:VAL:HG13	35:DO:147:LEU:HD13	1.65	0.77
25:BA:583:G:OP2	40:B1:10:ARG:NH1	2.16	0.77
25:BA:2744:G:H21	31:BH:143:GLN:HE22	1.30	0.77
26:BB:48:A:H4'	38:BQ:95:HIS:HD2	1.49	0.77
35:BO:21:ARG:HA	35:BO:21:ARG:HE	1.48	0.77
35:BO:58:THR:HG22	35:BO:61:ARG:HH21	1.49	0.77
36:BP:14:ARG:HG2	36:BP:41:TRP:HH2	1.49	0.77
1:CA:509:A:O2'	1:CA:510:A:OP1	2.01	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2286:A:H5'	52:D6:28:ARG:HH22	1.47	0.77
27:DD:43:ARG:NH1	27:DD:44:ASN:ND2	2.23	0.77
35:DO:57:THR:C	35:DO:59:LEU:H	1.90	0.77
25:BA:620:G:H4'	25:BA:621:A:C5'	2.14	0.77
25:BA:2015:A:O4'	51:B5:2:ALA:CB	2.33	0.77
22:CB:42:U:H5'	22:CB:43:G:OP2	1.85	0.77
25:DA:1055:G:O2'	25:DA:1085:A:N1	2.16	0.77
25:DA:1860:G:H1	25:DA:1882:C:H42	1.33	0.77
30:DG:83:ARG:H	30:DG:86:MET:HE3	1.47	0.77
39:DR:3:ARG:HG2	39:DR:6:LEU:H	1.49	0.77
54:D8:34:TRP:CG	54:D8:35:GLN:H	2.03	0.77
1:AA:382:A:H2'	1:AA:383:A:C8	2.20	0.77
51:B5:2:ALA:O	51:B5:3:LYS:CB	2.33	0.77
26:DB:52:A:O2'	26:DB:53:A:N7	2.18	0.77
45:DV:147:GLY:O	45:DV:149:SER:N	2.17	0.77
54:D8:34:TRP:CG	54:D8:35:GLN:N	2.51	0.77
38:BQ:88:ASP:O	38:BQ:89:ARG:HB3	1.84	0.77
31:DH:27:LYS:HD3	31:DH:32:GLU:HB3	1.66	0.77
1:AA:736:C:H2'	1:AA:737:A:C8	2.20	0.76
2:AE:74:LYS:HE3	2:AE:166:ASP:HB2	1.67	0.76
12:AO:44:LYS:HA	12:AO:44:LYS:CE	2.15	0.76
22:AD:85:A:O2'	25:BA:2394:C:N3	2.15	0.76
25:BA:1278:A:OP1	37:B0:36:THR:HG23	1.86	0.76
29:BF:185:ASP:HA	29:BF:188:ARG:HD3	1.66	0.76
25:DA:1089:G:H4'	25:DA:1090:U:OP1	1.85	0.76
25:DA:1899:G:H21	25:DA:1902:C:H5	1.33	0.76
1:AA:1053:G:C5'	1:AA:1054:C:H5'	2.13	0.76
3:AF:27:LYS:HE2	3:AF:27:LYS:HA	1.67	0.76
9:AL:46:ALA:HA	9:AL:78:LYS:HB2	1.68	0.76
45:BV:7:ALA:HB2	45:BV:59:LEU:HD22	1.67	0.76
13:CP:37:THR:O	13:CP:55:ARG:NH2	2.14	0.76
25:DA:2420:C:OP1	54:D8:34:TRP:N	2.18	0.76
36:DP:98:LYS:HB3	36:DP:99:PRO:HD2	1.65	0.76
1:AA:1157:A:O2'	1:AA:1158:C:O5'	2.02	0.76
4:AG:108:LEU:HB3	4:AG:110:PHE:HE1	1.49	0.76
7:AJ:111:ARG:HD2	7:AJ:123:GLU:HB2	1.67	0.76
21:AX:2:GLY:O	21:AX:4:GLY:N	2.18	0.76
35:DO:62:LEU:CD1	54:D8:25:MET:O	2.26	0.76
41:B2:44:LYS:O	41:B2:46:VAL:HG12	1.86	0.76
1:CA:977:A:H2'	1:CA:978:A:H5'	1.67	0.76
25:DA:885:C:H41	25:DA:890:A:H62	1.33	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:994:C:OP1	40:D1:53:ARG:NH2	2.19	0.76
25:DA:1068:G:O2'	25:DA:1096:A:O2'	2.02	0.76
25:DA:2602:A:H4'	25:DA:2603:G:O5'	1.83	0.76
25:BA:593:G:H1'	54:B8:4:MET:HE1	1.66	0.76
1:CA:345:C:O2'	1:CA:346:G:O5'	2.02	0.76
2:CE:92:TYR:CE2	2:CE:151:GLY:HA3	2.19	0.76
25:DA:2420:C:N4	54:D8:31:HIS:HB3	2.01	0.76
30:DG:109:VAL:HG11	30:DG:142:PRO:HB3	1.68	0.76
35:DO:106:LEU:O	35:DO:106:LEU:HD12	1.86	0.76
18:AU:26:LEU:HB3	18:AU:42:ARG:HH22	1.49	0.76
19:AV:39:THR:HG22	19:AV:40:ILE:H	1.50	0.76
25:BA:674:G:H1'	29:BF:74:ARG:HD3	1.68	0.76
1:CA:266:G:H1	1:CA:270:A:N6	1.82	0.76
1:CA:1022:G:H2'	1:CA:1023:G:O4'	1.86	0.76
25:DA:2474:C:O2	25:DA:2474:C:H2'	1.84	0.76
25:BA:528:A:N1	25:BA:2042:A:H2'	1.99	0.76
40:B1:92:ARG:NH1	41:B2:11:GLN:O	2.19	0.76
50:B4:37:SER:HB3	50:B4:42:PHE:CZ	2.20	0.76
25:DA:2272:U:H5"	25:DA:2273:A:OP1	1.86	0.76
29:DF:24:LEU:HB3	29:DF:25:PRO:HD2	1.67	0.76
40:D1:50:ARG:HH12	41:D2:72:VAL:HA	1.51	0.76
3:AF:6:HIS:HD2	3:AF:7:PRO:HD2	1.49	0.76
22:AD:17:G:O2'	22:AD:66:G:N2	2.15	0.76
22:AD:22:A:N7	22:AD:57:C:N4	2.34	0.76
25:BA:2723:C:OP1	37:B0:3:HIS:HD2	1.69	0.76
44:BU:102:CYS:SG	44:BU:103:GLY:N	2.58	0.76
50:B4:37:SER:CB	50:B4:42:PHE:CD2	2.68	0.76
1:CA:1049:U:H4'	1:CA:1050:G:C5'	2.15	0.76
25:DA:1420:U:O2'	25:DA:1421:G:O5'	2.04	0.76
5:AH:110:LEU:HD13	5:AH:118:ILE:HD13	1.68	0.76
25:BA:654:A:H2'	25:BA:654:A:N3	2.01	0.76
25:BA:1204:A:O2'	25:BA:1205:U:OP2	2.03	0.76
25:BA:1533:C:C3'	25:BA:1534:G:H5"	2.13	0.76
26:BB:7:G:H4'	38:BQ:29:PHE:CD1	2.20	0.76
31:BH:124:GLU:HG2	31:BH:126:PRO:HD3	1.66	0.76
35:BO:26:GLY:O	35:BO:28:GLY:N	2.19	0.76
54:B8:35:GLN:O	54:B8:36:LYS:CB	2.34	0.76
1:CA:1004:A:H1'	1:CA:1036:G:C6	2.21	0.76
20:CW:73:HIS:O	20:CW:74:LYS:HB2	1.85	0.76
25:DA:1332:G:N2	25:DA:1610:A:H8	1.84	0.76
25:DA:2032:G:H21	28:DE:146:THR:HG23	1.49	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2286:A:H5'	52:D6:28:ARG:NH2	2.00	0.76
41:D2:70:ILE:O	41:D2:72:VAL:N	2.19	0.76
48:DW:17:SER:OG	48:DW:67:LYS:NZ	2.19	0.76
1:AA:976:G:H5'	1:AA:1358:U:O2'	1.86	0.76
1:AA:1075:C:OP1	2:AE:179:LYS:NZ	2.14	0.76
13:AP:108:ARG:NH1	13:AP:112:GLY:O	2.19	0.76
25:BA:957:A:OP1	36:BP:76:LYS:HD2	1.87	0.76
25:BA:2689:U:C4'	25:BA:2690:C:H5'	2.15	0.76
29:BF:66:PRO:O	29:BF:67:GLN:HB3	1.86	0.76
52:B6:25:LYS:CG	54:B8:34:TRP:CZ2	2.68	0.76
37:D0:33:ARG:HG3	37:D0:115:GLU:HG3	1.65	0.76
1:AA:8:A:N6	4:AG:205:GLU:O	2.18	0.75
15:AR:17:ARG:HH11	15:AR:17:ARG:CG	2.00	0.75
25:BA:646:A:H2'	25:BA:647:G:O4'	1.86	0.75
25:BA:747:U:N3	51:B5:2:ALA:N	2.34	0.75
25:BA:1509:C:H3'	25:BA:1510:A:H5"	1.67	0.75
43:BT:31:HIS:CD2	43:BT:33:LYS:H	2.04	0.75
1:CA:1176:A:H2'	1:CA:1177:G:C5'	2.16	0.75
10:CM:4:ILE:HB	10:CM:74:ILE:HD11	1.68	0.75
25:DA:2168:G:O6	25:DA:2171:A:N6	2.18	0.75
25:DA:2872:G:C4	25:DA:2873:A:C2	2.75	0.75
27:DD:75:ILE:H	27:DD:75:ILE:HD12	1.51	0.75
31:DH:3:ARG:HG3	31:DH:4:ILE:H	1.49	0.75
48:DW:17:SER:HB2	48:DW:18:PRO:CA	2.16	0.75
50:D4:46:GLN:O	50:D4:46:GLN:NE2	2.19	0.75
30:DG:66:GLN:HA	50:D4:6:HIS:HD2	1.49	0.75
36:DP:19:GLY:N	36:DP:98:LYS:HZ3	1.84	0.75
45:DV:33:LEU:HD23	45:DV:90:VAL:HG21	1.67	0.75
50:D4:34:GLU:C	50:D4:36:CYS:H	1.94	0.75
1:AA:642:A:N3	8:AK:113:SER:OG	2.18	0.75
30:BG:121:ASN:HD22	30:BG:123:ASN:H	1.32	0.75
45:BV:107:THR:O	45:BV:109:ALA:N	2.18	0.75
1:CA:382:A:H2'	1:CA:383:A:C8	2.22	0.75
1:CA:1300:G:O2'	1:CA:1301:U:O5'	2.02	0.75
25:DA:90:U:HO2'	25:DA:91:A:H8	1.33	0.75
1:AA:142:G:H1	1:AA:221:C:H42	1.34	0.75
2:AE:48:MET:HA	2:AE:51:LEU:HB2	1.67	0.75
31:BH:105:LEU:HD23	31:BH:105:LEU:H	1.51	0.75
4:CG:31:CYS:O	4:CG:33:MET:N	2.20	0.75
25:DA:2119:A:N6	25:DA:2170:A:N7	2.33	0.75
29:DF:27:GLU:O	29:DF:28:ILE:HG12	1.85	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:D5:4:HIS:HB3	51:D5:5:PRO:CD	2.08	0.75
1:AA:1145:C:H4'	1:AA:1146:A:C8	2.22	0.75
25:BA:1090:U:O4	25:BA:1101:U:O2	2.04	0.75
25:BA:1130:U:O2	28:BE:149:ARG:NH2	2.20	0.75
25:BA:1243:G:O2'	35:BO:7:ARG:NH2	2.19	0.75
25:BA:1510:A:H2'	25:BA:1510:A:N3	2.01	0.75
25:BA:1537:C:H2'	25:BA:1538:G:O4'	1.87	0.75
28:BE:36:ARG:NH1	28:BE:85:ASN:OD1	2.20	0.75
35:BO:16:ARG:HG3	35:BO:16:ARG:HH11	1.49	0.75
24:C1:11:U:H1'	24:C1:12:A:OP1	1.86	0.75
25:DA:1169:G:H2'	25:DA:1170:G:O4'	1.86	0.75
25:DA:1899:G:N2	25:DA:1902:C:C5	2.53	0.75
25:DA:2389:G:H5"	25:DA:2390:U:H5'	1.67	0.75
1:AA:992:U:H4'	1:AA:993:G:O5'	1.85	0.75
1:AA:1301:U:H3'	1:AA:1302:U:H5'	1.67	0.75
1:AA:1346:A:H5"	9:AL:120:ARG:NH1	2.02	0.75
29:BF:46:ARG:HG2	29:BF:46:ARG:NH1	1.96	0.75
30:BG:21:ARG:CG	30:BG:21:ARG:HH11	2.00	0.75
30:BG:21:ARG:HH11	30:BG:21:ARG:HG2	1.51	0.75
35:BO:66:GLY:O	35:BO:67:MET:HB2	1.86	0.75
42:BS:9:TYR:H	42:BS:102:HIS:CD2	2.03	0.75
42:BS:68:ARG:O	42:BS:110:LYS:N	2.15	0.75
46:B3:36:ILE:HD13	46:B3:36:ILE:O	1.86	0.75
50:B4:42:PHE:CZ	50:B4:43:TYR:CB	2.68	0.75
25:DA:1757:U:O2	25:DA:1762:A:N1	2.20	0.75
1:AA:1145:C:H4'	1:AA:1146:A:H8	1.52	0.75
25:BA:2610:C:H4'	25:BA:2611:U:OP2	1.86	0.75
50:B4:43:TYR:HD1	50:B4:44:THR:N	1.85	0.75
1:CA:1129:C:H4'	1:CA:1130:A:C5'	2.17	0.75
2:CE:22:LYS:HE3	2:CE:40:HIS:CE1	2.22	0.75
22:CB:48:C:H3'	22:CB:49:A:C8	2.21	0.75
25:DA:907:U:H5'	36:DP:23:GLY:O	1.86	0.75
27:DD:255:LYS:HE3	27:DD:255:LYS:N	2.00	0.75
29:DF:16:GLY:O	29:DF:18:ARG:N	2.20	0.75
29:DF:125:LEU:HD23	29:DF:125:LEU:H	1.51	0.75
29:DF:152:GLU:CD	29:DF:191:ARG:HD2	2.11	0.75
34:DN:24:VAL:HB	34:DN:33:ALA:HB2	1.69	0.75
42:DS:65:LEU:HD13	42:DS:68:ARG:HD2	1.66	0.75
53:D7:8:ASN:HD22	53:D7:11:LYS:H	1.35	0.75
25:BA:660:G:H21	35:BO:12:ALA:HA	1.51	0.75
37:B0:44:LEU:HD22	37:B0:48:VAL:HG12	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:B2:59:ALA:HB2	41:B2:96:ILE:HD13	1.67	0.75
54:B8:34:TRP:CG	54:B8:35:GLN:HB2	2.20	0.75
1:CA:266:G:H1'	1:CA:267:C:OP2	1.85	0.75
1:CA:415:A:N6	1:CA:428:G:O6	2.19	0.75
1:CA:957:U:O2'	1:CA:959:A:N7	2.16	0.75
9:CL:112:LYS:HA	9:CL:119:ALA:HB2	1.68	0.75
25:DA:2681:C:C4	25:DA:2725:A:N6	2.54	0.75
29:DF:116:ASP:OD1	35:DO:1:MET:N	2.15	0.75
46:D3:31:VAL:HG12	46:D3:35:ASN:HB2	1.67	0.75
1:AA:1032(A):G:H2'	1:AA:1032(B):G:C8	2.22	0.75
1:AA:1055:A:O2'	3:AF:161:GLU:OE1	2.02	0.75
34:BN:4:PRO:O	34:BN:5:GLN:HB2	1.85	0.75
54:B8:32:LEU:O	54:B8:36:LYS:CE	2.34	0.75
1:CA:266:G:H5'	1:CA:268:C:H41	1.52	0.75
1:CA:542:G:OP1	4:CG:10:ARG:NH2	2.19	0.75
4:CG:25:ARG:O	4:CG:27:TYR:N	2.20	0.75
9:CL:7:THR:O	9:CL:83:ARG:NH1	2.20	0.75
12:CO:29:PHE:HB2	12:CO:82:ILE:O	1.87	0.75
25:DA:1460:A:H4'	25:DA:1461:G:OP2	1.87	0.75
4:AG:25:ARG:C	4:AG:27:TYR:H	1.93	0.74
5:AH:144:THR:OG1	5:AH:147:ASP:OD2	2.05	0.74
12:AO:44:LYS:CB	12:AO:45:PRO:HD3	2.07	0.74
25:BA:2287:A:N6	25:BA:2344:U:H3	1.77	0.74
51:B5:4:HIS:CB	51:B5:5:PRO:HD3	2.10	0.74
1:CA:1157:A:H1'	1:CA:1158:C:N3	2.01	0.74
1:CA:1392:G:N2	1:CA:1502:A:H8	1.84	0.74
3:CF:119:ARG:HH22	3:CF:140:ARG:HG2	1.51	0.74
9:CL:111:ARG:HG2	9:CL:112:LYS:N	2.02	0.74
27:DD:148:GLU:HB2	27:DD:151:LYS:HD2	1.67	0.74
1:AA:519:C:OP2	12:AO:47:SER:OG	2.05	0.74
2:AE:124:SER:HB2	2:AE:125:PRO:HD2	1.69	0.74
12:AO:44:LYS:CD	12:AO:45:PRO:N	2.50	0.74
22:AB:56:U:H2'	22:AB:56:U:O2	1.84	0.74
25:BA:1081:U:O2'	25:BA:1082:U:OP1	2.04	0.74
25:BA:1279:G:H4'	37:B0:31:HIS:CD2	2.22	0.74
25:BA:2702:U:H6	25:BA:2702:U:OP1	1.69	0.74
44:BU:56:PRO:O	44:BU:58:GLY:N	2.20	0.74
2:CE:172:ILE:H	2:CE:172:ILE:HD12	1.51	0.74
25:DA:895:U:H4'	25:DA:896:A:C5	2.21	0.74
37:D0:57:ARG:HB3	37:D0:59:ASP:OD2	1.86	0.74
50:D4:22:ILE:HD13	50:D4:22:ILE:H	1.51	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AE:25:ASN:O	2:AE:27:LYS:N	2.20	0.74
36:BP:37:LEU:HD21	36:BP:130:LYS:HE3	1.69	0.74
45:BV:160:GLY:O	45:BV:161:VAL:HG13	1.87	0.74
48:BW:47:ASN:C	48:BW:49:LYS:H	1.96	0.74
5:CH:51:VAL:HB	5:CH:52:PRO:HD3	1.67	0.74
12:CO:23:ALA:O	12:CO:24:LEU:HD22	1.88	0.74
22:CD:52:G:H2'	22:CD:53:A:C8	2.23	0.74
25:DA:847:U:O4	25:DA:933:A:C5	2.40	0.74
35:DO:81:GLN:HE22	35:DO:107:LYS:CG	1.93	0.74
1:AA:81:G:N1	1:AA:88:C:C4	2.55	0.74
25:BA:1045:A:H1'	25:BA:1047:G:N3	2.02	0.74
32:BK:13:GLY:HA3	32:BK:17:GLN:OE1	1.87	0.74
50:B4:39:CYS:C	50:B4:41:PRO:HD3	2.13	0.74
52:B6:29:ASN:O	52:B6:32:ASN:ND2	2.19	0.74
25:DA:857:C:H1'	46:D3:26:TYR:HE2	1.51	0.74
25:DA:2123:G:N2	25:DA:2175:C:N3	2.31	0.74
1:AA:81:G:N2	1:AA:88:C:N3	2.35	0.74
1:AA:1124:G:H3'	1:AA:1145:C:H41	1.51	0.74
25:BA:49:A:C8	25:BA:120:U:H5	2.04	0.74
25:BA:1364:G:N7	47:BZ:2:SER:HB3	2.02	0.74
25:BA:2469:A:N6	25:BA:2481:G:H1'	2.03	0.74
31:BH:152:ARG:HH21	31:BH:153:LYS:HZ1	1.34	0.74
36:BP:25:ASP:O	36:BP:25:ASP:CG	2.30	0.74
44:BU:97:ARG:NE	44:BU:97:ARG:O	2.20	0.74
10:CM:54:PHE:CD2	10:CM:55:LYS:HD3	2.23	0.74
25:DA:1899:G:O2'	25:DA:1900:A:H5"	1.88	0.74
1:AA:1116:C:H2'	1:AA:1117:G:H5'	1.69	0.74
1:AA:1316:G:N2	1:AA:1318:A:H3'	2.02	0.74
6:AI:41:GLU:O	6:AI:43:LEU:N	2.20	0.74
13:AP:13:LYS:O	13:AP:44:ARG:NH1	2.21	0.74
25:DA:847:U:C4	25:DA:933:A:C5	2.76	0.74
25:DA:932:G:H4'	25:DA:933:A:O5'	1.87	0.74
35:DO:15:ARG:HH11	35:DO:15:ARG:CB	2.01	0.74
52:D6:18:ARG:HH12	52:D6:43:CYS:HB2	1.52	0.74
1:AA:517:G:N1	1:AA:533:A:OP2	2.21	0.74
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.51	0.74
1:CA:976:G:H5'	1:CA:1358:U:O2'	1.88	0.74
9:CL:28:VAL:HG22	9:CL:63:ILE:HB	1.70	0.74
11:CN:69:ALA:HB1	11:CN:103:LEU:HD23	1.70	0.74
25:DA:1047:G:H2'	25:DA:1110:G:H22	1.51	0.74
25:DA:2394:C:OP1	35:DO:63:PRO:CD	2.35	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DO:62:LEU:HD13	54:D8:27:THR:HG22	1.69	0.74
1:AA:267:C:OP1	17:AT:67:LYS:HD2	1.87	0.74
4:AG:92:VAL:O	4:AG:96:LEU:HD23	1.86	0.74
5:AH:68:GLU:HG2	5:AH:70:PRO:HD3	1.68	0.74
5:AH:100:VAL:O	5:AH:107:ARG:NH2	2.20	0.74
8:AK:73:ASP:OD2	8:AK:75:ARG:NE	2.21	0.74
10:AM:39:PRO:HB3	10:AM:70:ARG:NH1	2.03	0.74
25:BA:2143:C:N3	25:BA:2148:G:N2	2.32	0.74
32:BK:69:LYS:HB2	32:BK:136:VAL:HB	1.70	0.74
36:BP:66:ILE:HG13	36:BP:67:ARG:H	1.52	0.74
20:CW:87:LYS:HA	20:CW:87:LYS:HE3	1.69	0.74
22:CD:48:C:H3'	22:CD:49:A:C8	2.16	0.74
25:DA:747:U:OP2	51:D5:3:LYS:HD2	1.88	0.74
25:DA:1309:G:H3'	53:D7:9:ARG:HH12	1.51	0.74
25:DA:2776:A:H4'	25:DA:2777:G:O5'	1.86	0.74
31:DH:7:LEU:H	31:DH:8:PRO:HD3	1.51	0.74
42:DS:59:VAL:HG23	42:DS:65:LEU:H	1.53	0.74
1:AA:498:A:H4'	1:AA:500:G:OP1	1.87	0.74
1:AA:963:G:H21	10:AM:55:LYS:HZ3	1.35	0.74
25:BA:2566:A:H4'	25:BA:2567:G:O5'	1.87	0.74
28:BE:61:ARG:HB2	28:BE:62:PRO:HD3	1.68	0.74
35:BO:19:VAL:CG2	35:BO:27:HIS:CA	2.66	0.74
54:B8:43:GLN:C	54:B8:44:LYS:HD2	2.12	0.74
54:B8:48:PHE:HE2	54:B8:50:LEU:HD13	1.51	0.74
1:CA:1347:G:O2'	1:CA:1373:G:O6	2.06	0.74
20:CW:100:ILE:H	20:CW:100:ILE:HD12	1.53	0.74
25:DA:1342:A:N1	25:DA:1397:U:C4	2.56	0.74
25:DA:2414:G:N2	35:DO:67:MET:CE	2.41	0.74
25:DA:2762:G:H3'	25:DA:2763:G:H5"	1.66	0.74
25:DA:2815:C:H5'	51:D5:29:THR:HG21	1.69	0.74
27:DD:35:LYS:HE3	27:DD:64:ILE:C	2.13	0.74
27:DD:64:ILE:O	27:DD:64:ILE:HG13	1.88	0.74
54:D8:24:ALA:H	54:D8:49:VAL:HG23	1.52	0.74
1:AA:161:A:N1	1:AA:347:G:O2'	2.21	0.74
13:AP:26:GLY:O	13:AP:28:ALA:N	2.21	0.74
14:AQ:12:ARG:C	14:AQ:14:PRO:HD2	2.13	0.74
25:BA:642:G:N2	25:BA:645:C:OP2	2.21	0.74
25:BA:889:C:H3'	25:BA:890:A:H4'	1.70	0.74
32:BK:72:LEU:HD11	32:BK:107:VAL:HG11	1.70	0.74
54:B8:34:TRP:CG	54:B8:35:GLN:HE21	2.05	0.74
3:CF:164:ARG:NH2	3:CF:166:GLU:OE1	2.21	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DN:4:PRO:O	34:DN:5:GLN:HB2	1.86	0.74
35:DO:85:LEU:HB3	35:DO:114:ILE:CD1	2.18	0.74
4:AG:126:ILE:HD13	4:AG:127:THR:H	1.51	0.73
36:BP:75:THR:CB	36:BP:88:GLY:HA3	2.13	0.73
54:B8:32:LEU:C	54:B8:36:LYS:HE3	2.13	0.73
25:DA:252:G:OP2	35:DO:50:ARG:CZ	2.35	0.73
25:DA:774:A:H2	25:DA:787:U:HO2'	1.31	0.73
25:DA:1416:G:O2'	25:DA:1417:C:O5'	2.04	0.73
27:DD:268:ARG:HB3	27:DD:268:ARG:NH1	2.02	0.73
25:BA:2635:C:H5"	28:BE:78:LEU:HA	1.71	0.73
37:B0:57:ARG:HB3	37:B0:59:ASP:OD2	1.88	0.73
38:BQ:36:TYR:N	38:BQ:36:TYR:CD1	2.53	0.73
46:B3:24:LYS:HG3	46:B3:36:ILE:HD11	1.70	0.73
19:CV:39:THR:HG22	19:CV:40:ILE:H	1.53	0.73
28:DE:12:THR:O	28:DE:23:VAL:HG22	1.88	0.73
44:DU:8:LYS:O	44:DU:27:VAL:HG21	1.88	0.73
5:AH:153:LYS:H	8:AK:64:LYS:HZ1	1.34	0.73
25:BA:2402:C:H5	25:BA:2415:G:H22	1.35	0.73
27:BD:34:VAL:C	27:BD:35:LYS:HG3	2.12	0.73
50:B4:42:PHE:CD1	50:B4:43:TYR:HB3	2.21	0.73
1:CA:362:G:O2'	12:CO:30:ARG:NH2	2.20	0.73
4:CG:127:THR:HG21	4:CG:149:ALA:HB3	1.70	0.73
25:DA:943:U:OP2	35:DO:36:LYS:HG3	1.87	0.73
25:DA:2298:A:H61	25:DA:2318:G:H2'	1.53	0.73
35:DO:71:VAL:CG1	35:DO:72:PRO:CD	2.31	0.73
4:AG:190:ASP:O	4:AG:192:GLU:N	2.21	0.73
25:BA:404:C:H1'	25:BA:405:U:OP2	1.88	0.73
30:BG:139:LEU:HD11	30:BG:152:LEU:HD22	1.68	0.73
35:BO:64:LYS:HB2	54:B8:25:MET:HG3	1.68	0.73
36:BP:79:LEU:C	36:BP:80:GLU:OE2	2.30	0.73
42:BS:92:ARG:NH1	42:BS:94:ASP:OD2	2.22	0.73
1:CA:1278:U:H5'	1:CA:1279:A:O4'	1.88	0.73
25:DA:1049:C:N3	31:DH:2:SER:N	2.37	0.73
25:DA:2127:G:N2	25:DA:2161:C:N3	2.32	0.73
33:DM:39:ARG:C	33:DM:41:ASP:H	1.96	0.73
44:DU:43:ASN:HB3	44:DU:64:GLU:HA	1.69	0.73
25:BA:1292:U:H2'	25:BA:1293:C:C6	2.23	0.73
35:BO:15:ARG:HH11	35:BO:15:ARG:CB	2.01	0.73
50:B4:37:SER:HA	50:B4:42:PHE:HB3	1.69	0.73
52:B6:25:LYS:CD	54:B8:34:TRP:CZ2	2.72	0.73
1:CA:1157:A:O2'	1:CA:1158:C:O2	2.05	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CG:139:ARG:HG3	4:CG:139:ARG:NH1	2.01	0.73
13:CP:84:ILE:O	13:CP:86:CYS:N	2.20	0.73
22:CD:7:G:N2	22:CD:76:C:O2	2.21	0.73
25:DA:1323:U:H2'	25:DA:1324:G:H5'	1.71	0.73
25:DA:1535:U:H2'	25:DA:1535:U:O2	1.89	0.73
25:DA:2134:A:N6	25:DA:2157:G:H1'	2.03	0.73
27:DD:108:PRO:HB3	27:DD:143:HIS:CE1	2.23	0.73
38:DQ:88:ASP:O	38:DQ:89:ARG:HB3	1.89	0.73
41:D2:70:ILE:N	41:D2:86:GLY:O	2.21	0.73
45:DV:52:SER:O	45:DV:54:HIS:N	2.21	0.73
1:AA:1331:G:O2'	1:AA:1332:A:O5'	2.05	0.73
2:AE:69:LEU:HB3	2:AE:162:ILE:HG22	1.70	0.73
25:BA:882:G:H3'	25:BA:883:G:H5"	1.69	0.73
25:BA:2790:A:H1'	25:BA:2893:G:O2'	1.89	0.73
30:BG:64:THR:HG23	30:BG:94:LEU:HD13	1.68	0.73
3:CF:95:THR:HG22	3:CF:97:LYS:HG2	1.71	0.73
8:CK:103:VAL:HG21	8:CK:110:ALA:HB2	1.70	0.73
25:DA:1434:A:H61	25:DA:1558:A:H62	1.33	0.73
25:DA:1495:A:C2'	25:DA:1496:A:H5'	2.19	0.73
29:DF:21:ALA:O	29:DF:23:ASP:N	2.20	0.73
29:DF:25:PRO:HB3	29:DF:28:ILE:HG23	1.70	0.73
36:DP:90:VAL:O	36:DP:90:VAL:HG12	1.86	0.73
39:DR:61:PHE:CE2	39:DR:76:PHE:HB2	2.23	0.73
44:DU:81:LYS:HD3	44:DU:97:ARG:CZ	2.19	0.73
16:AS:28:ARG:HG2	16:AS:29:ASP:OD2	1.87	0.73
25:BA:2142:C:N4	25:BA:2149:G:N1	2.32	0.73
25:BA:2439:A:C8	25:BA:2439:A:H5'	2.23	0.73
27:BD:112:GLN:NE2	27:BD:115:GLN:OE1	2.21	0.73
43:BT:67:GLY:O	43:BT:69:TYR:N	2.21	0.73
25:DA:593:G:H1'	54:D8:4:MET:HE1	1.70	0.73
25:DA:620:G:H5'	25:DA:620:G:N3	2.03	0.73
35:DO:105:LEU:O	35:DO:106:LEU:CB	2.37	0.73
47:DZ:29:GLY:O	47:DZ:30:VAL:HG22	1.88	0.73
1:AA:529:G:O6	12:AO:46:ASN:ND2	2.21	0.73
1:AA:618:C:H5"	1:AA:619:U:H5"	1.69	0.73
8:AK:51:VAL:HG11	8:AK:60:ARG:HH11	1.53	0.73
25:BA:1359:A:H2'	25:BA:1360:A:H5'	1.70	0.73
25:BA:1534:G:H3'	25:BA:1534:G:N3	2.04	0.73
27:BD:35:LYS:HE3	27:BD:64:ILE:C	2.13	0.73
36:BP:35:VAL:HG13	36:BP:130:LYS:HB3	1.71	0.73
1:CA:1279:A:O2'	1:CA:1281:U:OP2	2.03	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DO:104:GLY:O	35:DO:105:LEU:CG	2.36	0.73
36:DP:135:ASP:O	36:DP:137:TYR:N	2.21	0.73
1:AA:1029:G:O2'	1:AA:1032(A):G:N2	2.22	0.73
10:AM:33:GLN:HB2	10:AM:75:ILE:HD11	1.71	0.73
15:AR:87:ILE:HG22	15:AR:88:ARG:N	2.02	0.73
28:BE:120:TRP:CE3	28:BE:155:LYS:HD3	2.24	0.73
33:BM:47:ALA:HB2	33:BM:112:LEU:HD11	1.70	0.73
29:DF:25:PRO:HB2	29:DF:27:GLU:H	1.53	0.73
42:DS:9:TYR:H	42:DS:102:HIS:CD2	2.07	0.73
1:AA:719:C:O2'	18:AU:49:LYS:HB3	1.89	0.73
4:AG:108:LEU:HB3	4:AG:110:PHE:CE1	2.23	0.73
24:A1:12:A:O2'	24:A1:13:A:O5'	2.06	0.73
25:BA:1203:G:H3'	25:BA:1204:A:H5"	1.70	0.73
25:BA:2394:C:OP1	35:BO:63:PRO:HD2	1.88	0.73
39:BR:136:GLN:HG3	39:BR:137:LYS:H	1.54	0.73
40:B1:66:ASN:HD21	40:B1:70:ARG:HE	1.37	0.73
1:CA:991:U:O2'	1:CA:992:U:O5'	2.07	0.73
12:CO:24:LEU:HD21	12:CO:57:LEU:HG	1.71	0.73
13:CP:83:ASP:O	13:CP:84:ILE:HB	1.89	0.73
25:DA:463:G:N2	25:DA:466:A:OP2	2.19	0.73
25:DA:2212:A:H4'	25:DA:2213:U:C5	2.24	0.73
25:DA:2387:U:H5"	25:DA:2388:A:OP2	1.88	0.73
35:DO:57:THR:O	35:DO:59:LEU:N	2.21	0.73
25:BA:1050:A:H2'	25:BA:1051:G:O4'	1.88	0.72
25:BA:1495:A:H1'	25:BA:1579:A:H5"	1.69	0.72
31:BH:86:GLU:CG	31:BH:165:ALA:H	2.02	0.72
34:BN:68:GLU:OE2	34:BN:78:ARG:NH1	2.21	0.72
1:CA:974:A:OP2	14:CQ:41:ARG:NH1	2.22	0.72
25:DA:270(L):U:H3	32:DK:50:ARG:NH1	1.87	0.72
25:DA:1024:G:H3'	25:DA:1025:G:H5"	1.68	0.72
25:DA:1342:A:N6	25:DA:1602:U:C2	2.57	0.72
35:DO:61:ARG:HH21	35:DO:61:ARG:HB3	1.54	0.72
49:DX:26:LEU:HD21	49:DX:46:ASN:HB2	1.69	0.72
3:AF:130:VAL:O	3:AF:134:ILE:HG12	1.89	0.72
25:BA:2015:A:O4'	51:B5:2:ALA:HB1	1.89	0.72
52:B6:25:LYS:HD2	54:B8:34:TRP:CE2	2.24	0.72
1:CA:345:C:H1'	1:CA:346:G:C2	2.24	0.72
19:CV:78:ARG:HD3	19:CV:78:ARG:N	2.04	0.72
25:DA:1386:C:H2'	25:DA:1387:C:H6	1.52	0.72
25:DA:2795:G:H3'	25:DA:2797:U:C5'	2.17	0.72
27:BD:148:GLU:HB2	27:BD:151:LYS:HD2	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B1:108:GLU:OE2	40:B1:112:ARG:NH1	2.22	0.72
25:DA:1057:A:N1	25:DA:1081:U:O4	2.22	0.72
25:DA:1071:G:H5"	25:DA:1072:C:OP2	1.89	0.72
25:DA:2619:C:OP1	28:DE:152:LYS:HE2	1.89	0.72
34:DN:47:ILE:HG13	34:DN:48:PRO:HD2	1.71	0.72
38:DQ:93:LYS:NZ	38:DQ:93:LYS:HB2	2.05	0.72
39:DR:8:LYS:HZ2	39:DR:8:LYS:HB2	1.53	0.72
25:BA:2015:A:C4	51:B5:2:ALA:HA	2.24	0.72
25:BA:2701:C:C3'	25:BA:2702:U:H5"	2.20	0.72
28:BE:78:LEU:O	28:BE:79:ARG:HB2	1.89	0.72
35:BO:112:LEU:H	35:BO:128:HIS:HD2	1.35	0.72
36:BP:21:THR:O	36:BP:21:THR:HG22	1.89	0.72
37:B0:97:VAL:HG22	37:B0:114:VAL:HG22	1.71	0.72
45:BV:63:ASP:N	45:BV:64:GLY:HA2	2.03	0.72
1:CA:1160:G:H1	1:CA:1177:G:N2	1.87	0.72
1:CA:1346:A:H1'	1:CA:1347:G:OP2	1.89	0.72
1:CA:1443:G:H3'	1:CA:1446:A:C5'	2.18	0.72
25:DA:914:C:H6	25:DA:915:C:H5"	1.55	0.72
36:DP:31:ASP:OD1	36:DP:134:ARG:NH2	2.22	0.72
1:AA:1157:A:N6	1:AA:1178:G:H21	1.87	0.72
4:AG:98:GLU:OE2	4:AG:103:ASN:ND2	2.22	0.72
25:BA:1778:U:H2'	25:BA:1784:A:N6	2.04	0.72
25:BA:1991:U:H2'	25:BA:1992:G:H5"	1.71	0.72
31:BH:3:ARG:HA	31:BH:3:ARG:NE	2.05	0.72
40:B1:17:ILE:HG23	40:B1:39:LEU:HD12	1.71	0.72
1:CA:1199:U:H4'	10:CM:54:PHE:CE1	2.24	0.72
24:C1:11:U:O2'	24:C1:12:A:C4	2.39	0.72
25:DA:90:U:O2'	25:DA:91:A:C8	2.42	0.72
25:DA:997:G:OP1	40:D1:93:LYS:HD2	1.89	0.72
25:DA:1826:G:H4'	27:DD:242:ARG:NH2	2.05	0.72
25:DA:2557:G:H2'	25:DA:2558:C:H6	1.52	0.72
25:DA:2762:G:C3'	25:DA:2763:G:H5"	2.19	0.72
27:DD:35:LYS:HZ1	27:DD:104:TYR:HB2	1.54	0.72
35:DO:81:GLN:NE2	35:DO:107:LYS:CG	2.51	0.72
1:AA:173:U:H5"	1:AA:197:A:O4'	1.89	0.72
1:AA:411:A:C4	1:AA:413:G:H1'	2.23	0.72
3:AF:181:ASN:ND2	3:AF:204:LEU:HB2	2.04	0.72
25:BA:163:U:C2'	25:BA:164:U:H5'	2.19	0.72
41:B2:21:ARG:NH2	41:B2:91:TYR:OH	2.22	0.72
1:CA:1239:A:O2'	1:CA:1298:C:N4	2.22	0.72
28:DE:31:CYS:SG	28:DE:51:PHE:HB2	2.29	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:D6:34:LEU:HD23	52:D6:34:LEU:H	1.53	0.72
12:AO:59:SER:O	12:AO:61:TYR:N	2.22	0.72
19:AV:61:TYR:HD1	19:AV:66:MET:HE1	1.54	0.72
25:BA:1899:G:H21	25:BA:1902:C:H5	1.36	0.72
25:BA:2470:G:H5'	36:BP:56:ARG:HH22	1.53	0.72
1:CA:1129:C:C4	1:CA:1139:G:N1	2.58	0.72
1:CA:1176:A:C2'	1:CA:1177:G:H5'	2.18	0.72
3:CF:23:TYR:HD2	3:CF:24:ALA:N	1.88	0.72
3:CF:113:ALA:HB3	3:CF:114:PRO:HD3	1.72	0.72
4:CG:3:ARG:HE	4:CG:118:ARG:HD3	1.52	0.72
25:DA:1006:C:H1'	33:DM:106:MET:HE3	1.71	0.72
39:DR:60:THR:HG22	39:DR:77:PRO:HA	1.72	0.72
39:DR:85:LYS:NZ	39:DR:87:ASP:OD2	2.17	0.72
3:AF:6:HIS:CD2	3:AF:7:PRO:HD2	2.25	0.72
30:BG:145:THR:O	30:BG:147:ASP:N	2.22	0.72
39:BR:87:ASP:N	39:BR:87:ASP:OD1	2.21	0.72
41:B2:16:PRO:HD3	41:B2:99:ILE:HD11	1.71	0.72
1:CA:690:G:H1	11:CN:55:LYS:NZ	1.88	0.72
1:CA:1321:C:H41	1:CA:1322:C:N4	1.85	0.72
22:CB:38:MIA:H112	22:CB:39:A:H1'	1.72	0.72
25:DA:574:C:N3	28:DE:145:LYS:NZ	2.35	0.72
25:DA:2191:G:O2'	25:DA:2192:G:OP1	2.07	0.72
25:DA:2306:C:H3'	25:DA:2307:G:C5'	2.20	0.72
26:BB:13:A:N1	26:BB:69:G:O2'	2.20	0.72
35:BO:11:GLY:C	35:BO:13:ASN:H	1.95	0.72
42:BS:64:MET:O	42:BS:65:LEU:HB2	1.88	0.72
44:BU:34:LYS:O	44:BU:34:LYS:HD3	1.90	0.72
50:B4:42:PHE:CD1	50:B4:42:PHE:C	2.67	0.72
1:CA:818:G:O2'	1:CA:819:A:H5'	1.90	0.72
1:CA:975:A:C4'	1:CA:976:G:H5"	2.19	0.72
1:CA:1502:A:H2	1:CA:1505:G:H1	1.36	0.72
21:CX:2:GLY:O	21:CX:4:GLY:N	2.22	0.72
33:DM:136:GLU:O	33:DM:137:LYS:NZ	2.23	0.72
43:DT:12:VAL:HG12	43:DT:28:PHE:HA	1.72	0.72
54:D8:60:LEU:C	54:D8:61:LEU:HG	2.15	0.72
20:AW:71:THR:HG22	20:AW:72:LEU:N	2.03	0.72
25:BA:908:C:OP1	36:BP:22:LYS:HB3	1.89	0.72
25:BA:1980:G:O2'	25:BA:1982:C:OP2	2.08	0.72
25:BA:2307:G:C8	25:BA:2311:A:H2	2.07	0.72
38:BQ:106:ARG:HA	38:BQ:110:LEU:HD22	1.72	0.72
50:B4:52:THR:O	50:B4:53:GLU:HB2	1.88	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CW:46:GLU:HG2	20:CW:48:LYS:HE2	1.72	0.72
25:DA:242:G:O5'	54:D8:3:LYS:HE3	1.88	0.72
35:DO:107:LYS:HB3	35:DO:110:TYR:HD2	1.55	0.72
45:DV:74:VAL:HG12	45:DV:86:VAL:HG22	1.71	0.72
1:AA:49:U:O2'	1:AA:50:A:H3'	1.90	0.71
1:AA:1497:G:H2'	1:AA:1498:U:H5'	1.70	0.71
11:AN:54:ARG:NH1	22:AD:40:U:O2'	2.24	0.71
25:BA:273(F):C:H3'	25:BA:274:G:C5'	2.20	0.71
25:BA:2795:G:H3'	25:BA:2797:U:C5'	2.20	0.71
27:BD:26:LYS:HD2	27:BD:26:LYS:H	1.55	0.71
32:BK:132:PRO:O	32:BK:133:HIS:ND1	2.23	0.71
34:BN:104:ARG:HH22	39:BR:43:GLN:NE2	1.88	0.71
38:BQ:24:LEU:HB3	38:BQ:85:VAL:HG12	1.72	0.71
38:BQ:108:GLY:H	38:BQ:110:LEU:HD21	1.55	0.71
1:CA:652:U:H1'	1:CA:653:A:C2	2.25	0.71
8:CK:113:SER:HB2	8:CK:134:ILE:HD11	1.72	0.71
25:DA:1011:G:H2'	25:DA:1013:C:O4'	1.89	0.71
25:DA:2275:C:O2'	36:DP:84:GLY:CA	2.37	0.71
25:DA:2355:C:H5'	46:D3:36:ILE:HD11	1.71	0.71
25:DA:2439:A:H5'	25:DA:2439:A:C8	2.23	0.71
35:DO:95:VAL:HG22	35:DO:125:VAL:HA	1.71	0.71
36:DP:26:TYR:HD1	36:DP:139:GLU:HG2	1.54	0.71
5:AH:31:LEU:HD23	5:AH:45:PHE:HD1	1.55	0.71
9:AL:47:LEU:HD13	9:AL:47:LEU:H	1.53	0.71
25:BA:1081:U:O2'	25:BA:1082:U:O4'	2.08	0.71
25:BA:2439:A:O2'	25:BA:2440:C:OP2	2.06	0.71
28:BE:111:ARG:HG3	28:BE:160:TYR:HD1	1.55	0.71
32:BK:73:GLU:HG3	32:BK:136:VAL:HG23	1.71	0.71
35:BO:19:VAL:HG23	35:BO:27:HIS:HB3	0.73	0.71
48:BW:42:GLY:O	48:BW:44:LEU:N	2.23	0.71
1:CA:422:C:O2'	1:CA:423:G:C2	2.43	0.71
1:CA:991:U:O2	1:CA:993:G:H8	1.73	0.71
26:DB:74:U:C2'	26:DB:75:G:H5"	2.19	0.71
36:DP:83:MET:SD	36:DP:83:MET:N	2.63	0.71
2:AE:67:THR:HG21	2:AE:155:LEU:HG	1.70	0.71
23:AC:24:C:H2'	23:AC:25:U:C6	2.25	0.71
25:BA:71:A:C2	43:BT:31:HIS:CE1	2.78	0.71
27:BD:71:ASP:HB3	27:BD:103:ARG:NH2	2.06	0.71
48:BW:32:LEU:HD11	48:BW:54:LYS:HG2	1.71	0.71
4:CG:9:CYS:HA	4:CG:12:CYS:HB2	1.71	0.71
25:DA:2820:A:O2'	25:DA:2821:A:OP1	2.07	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DG:125:PHE:HB3	30:DG:166:ASP:HB2	1.71	0.71
35:DO:47:ASP:CB	35:DO:48:PRO:O	2.36	0.71
1:AA:1020:U:H2'	1:AA:1021:G:C8	2.25	0.71
1:AA:1077:G:N2	1:AA:1080:A:OP2	2.23	0.71
4:AG:150:GLU:N	4:AG:150:GLU:OE1	2.23	0.71
6:AI:69:GLU:O	6:AI:71:ARG:N	2.23	0.71
31:BH:80:SER:O	31:BH:81:GLU:HG3	1.89	0.71
45:BV:76:LEU:HD23	45:BV:76:LEU:H	1.54	0.71
1:CA:974:A:P	14:CQ:41:ARG:HH12	2.14	0.71
2:CE:104:ASN:OD1	2:CE:107:THR:OG1	2.07	0.71
12:CO:44:LYS:CB	12:CO:45:PRO:HD3	2.19	0.71
25:DA:2537:U:H2'	25:DA:2538:C:C6	2.24	0.71
35:DO:61:ARG:NH2	35:DO:61:ARG:HG2	2.02	0.71
41:D2:85:LYS:HG3	41:D2:87:HIS:N	2.05	0.71
1:AA:192:U:H4'	20:AW:103:GLY:HA2	1.70	0.71
1:AA:685:G:O2'	1:AA:686:U:H5'	1.90	0.71
5:AH:8:GLU:OE1	5:AH:63:ARG:NH2	2.23	0.71
10:AM:4:ILE:HB	10:AM:74:ILE:HG13	1.73	0.71
25:BA:1069:A:H4'	25:BA:1070:A:C5'	2.19	0.71
25:BA:1900:A:H5'	25:BA:1900:A:C8	2.23	0.71
25:BA:2114:A:H2'	25:BA:2114:A:N3	2.05	0.71
36:BP:83:MET:N	36:BP:83:MET:SD	2.63	0.71
24:C1:12:A:O2'	24:C1:13:A:P	2.47	0.71
1:AA:736:C:H2'	1:AA:737:A:H8	1.55	0.71
1:AA:963:G:N2	10:AM:55:LYS:HZ3	1.88	0.71
1:AA:1502:A:H2	1:AA:1505:G:H1	1.36	0.71
1:AA:1504:G:OP1	1:AA:1507:A:H4'	1.90	0.71
13:AP:4:ILE:HG22	13:AP:5:ALA:H	1.54	0.71
25:BA:996:A:OP2	40:B1:92:ARG:NH2	2.23	0.71
27:BD:35:LYS:CD	27:BD:104:TYR:CD1	2.72	0.71
35:BO:112:LEU:H	35:BO:128:HIS:CD2	2.09	0.71
36:BP:17:LEU:HD23	36:BP:96:VAL:CG1	2.20	0.71
54:B8:34:TRP:H	54:B8:35:GLN:C	1.98	0.71
1:CA:1286:A:H3'	1:CA:1287:A:H5"	1.73	0.71
3:CF:91:LEU:HD11	3:CF:101:LEU:HD12	1.72	0.71
25:DA:38:A:H2'	25:DA:39:C:C6	2.26	0.71
25:DA:1225:C:H4'	41:D2:85:LYS:HD3	1.73	0.71
25:DA:2468:G:H3'	25:DA:2476:A:C2	2.26	0.71
29:DF:53:THR:HG23	29:DF:55:GLY:H	1.56	0.71
35:DO:15:ARG:CG	35:DO:15:ARG:NH1	2.39	0.71
51:D5:16:ARG:HG2	51:D5:16:ARG:NH1	1.92	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:35:LYS:HG2	27:BD:64:ILE:H	1.53	0.71
1:CA:250:A:H4'	1:CA:251:G:O5'	1.91	0.71
1:CA:1158:C:C2	1:CA:1160:G:N7	2.58	0.71
3:CF:131:ARG:HE	3:CF:166:GLU:HG2	1.56	0.71
5:CH:91:LEU:HD12	5:CH:120:THR:HG22	1.73	0.71
8:CK:116:LYS:HD2	8:CK:129:VAL:HG11	1.72	0.71
24:C1:12:A:O2'	24:C1:13:A:O5'	2.09	0.71
25:DA:27:G:N2	25:DA:512:G:H1'	2.04	0.71
25:DA:598:G:H1'	35:DO:12:ALA:HB2	1.72	0.71
25:DA:1639:U:C2'	25:DA:1640:C:H5"	2.20	0.71
51:D5:4:HIS:CB	51:D5:5:PRO:HD3	2.19	0.71
54:D8:49:VAL:HG12	54:D8:50:LEU:N	2.03	0.71
6:AI:69:GLU:O	6:AI:72:VAL:HG12	1.91	0.71
14:AQ:4:LYS:O	14:AQ:7:ILE:HG13	1.91	0.71
26:BB:18:G:H1	26:BB:65:C:H42	1.39	0.71
34:BN:110:GLY:HA2	34:BN:112:MET:HE2	1.71	0.71
44:BU:5:MET:HE1	44:BU:32:PRO:HA	1.72	0.71
52:B6:43:CYS:HB3	52:B6:44:ARG:HH11	1.55	0.71
54:B8:52:LYS:N	54:B8:53:PRO:HD2	2.05	0.71
1:CA:1023:G:H3'	1:CA:1024:G:H5"	1.71	0.71
6:CI:11:ASN:O	6:CI:14:LEU:HD22	1.91	0.71
22:CB:49:A:H2	22:CB:51:C:OP2	1.73	0.71
25:DA:252:G:P	35:DO:50:ARG:NH1	2.57	0.71
11:AN:21:ILE:HG12	11:AN:30:VAL:HG12	1.72	0.71
29:BF:23:ASP:CG	29:BF:24:LEU:H	1.99	0.71
36:BP:51:ARG:HH11	36:BP:51:ARG:HG2	1.54	0.71
37:B0:33:ARG:NH1	51:B5:55:ARG:O	2.24	0.71
25:DA:527:C:OP2	25:DA:2779:U:H5	1.73	0.71
25:DA:885:C:C5	25:DA:890:A:N6	2.59	0.71
25:DA:2655:G:N2	25:DA:2665:A:OP2	2.24	0.71
27:DD:35:LYS:CG	27:DD:64:ILE:HG12	2.20	0.71
44:DU:17:SER:HB2	44:DU:71:LYS:HD2	1.71	0.71
45:DV:62:PRO:O	45:DV:64:GLY:N	2.24	0.71
54:D8:23:VAL:HG22	54:D8:47:LYS:HB3	1.73	0.71
1:AA:1027:C:H4'	1:AA:1028:C:OP1	1.91	0.71
12:AO:42:PRO:HB2	12:AO:46:ASN:O	1.91	0.71
15:AR:82:ILE:HD11	15:AR:88:ARG:CG	2.21	0.71
25:BA:1434:A:H61	25:BA:1558:A:N6	1.88	0.71
25:BA:2133:G:H1'	25:BA:2158:A:N6	2.00	0.71
45:BV:30:ASN:OD1	45:BV:90:VAL:HB	1.91	0.71
1:CA:328:C:C2'	1:CA:329:A:OP2	2.38	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:84:A:H61	25:DA:102:G:HO2'	1.39	0.71
25:DA:1444(A):A:H2'	25:DA:1444(A):A:N3	2.05	0.71
25:DA:2712:U:H1'	25:DA:2712(A):A:C8	2.26	0.71
30:DG:83:ARG:N	30:DG:86:MET:HE3	2.04	0.71
35:DO:70:GLN:C	35:DO:72:PRO:HD2	2.15	0.71
36:DP:23:GLY:HA2	36:DP:25:ASP:HB2	1.73	0.71
41:D2:44:LYS:O	41:D2:46:VAL:N	2.24	0.71
1:AA:1027:C:C4'	1:AA:1028:C:OP1	2.38	0.70
1:AA:1178:G:N2	1:AA:1181:G:C8	2.58	0.70
19:AV:32:LYS:HG3	19:AV:50:ALA:HB3	1.74	0.70
29:BF:127:GLU:O	29:BF:129:PHE:N	2.24	0.70
1:CA:1095:U:P	1:CA:1108:G:H1	2.13	0.70
1:CA:1182:G:H4'	1:CA:1183:A:H5"	1.72	0.70
25:DA:2140:C:N3	25:DA:2151:G:O6	2.24	0.70
25:DA:2645:G:H3'	25:DA:2646:C:H5'	1.73	0.70
25:DA:2839:G:H5'	37:D0:46:GLY:HA2	1.72	0.70
17:AT:81:ARG:NH2	17:AT:83:ASP:OD2	2.23	0.70
33:BM:35:ARG:O	33:BM:42:TRP:CZ3	2.44	0.70
34:BN:24:VAL:HA	34:BN:39:ILE:HG22	1.73	0.70
50:B4:37:SER:OG	50:B4:42:PHE:CD2	2.44	0.70
52:B6:42:TRP:N	52:B6:42:TRP:CD1	2.59	0.70
11:CN:29:ILE:HG22	11:CN:44:SER:HB2	1.72	0.70
22:CB:20:C:O2'	22:CB:68:A:N7	2.21	0.70
25:DA:2108:C:H42	25:DA:2181:G:H1	1.39	0.70
27:DD:35:LYS:HD2	27:DD:104:TYR:CD1	2.25	0.70
29:DF:66:PRO:O	29:DF:67:GLN:HB3	1.91	0.70
1:AA:789:U:C5	1:AA:792:A:OP2	2.42	0.70
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.56	0.70
13:AP:3:ARG:CD	50:B4:34:GLU:HB2	2.21	0.70
19:AV:61:TYR:CD1	19:AV:66:MET:HE1	2.26	0.70
25:BA:18:C:O3'	40:B1:23:GLY:HA2	1.91	0.70
25:BA:1729:A:H8	25:BA:1730:U:C5	2.09	0.70
42:BS:79:GLY:HA3	42:BS:100:THR:HG22	1.73	0.70
10:CM:79:ARG:HD3	10:CM:79:ARG:H	1.54	0.70
25:DA:517:C:OP1	51:D5:16:ARG:NH2	2.24	0.70
43:DT:28:PHE:N	43:DT:28:PHE:CD1	2.57	0.70
44:DU:63:LYS:HA	44:DU:63:LYS:HZ1	1.56	0.70
10:AM:49:VAL:CG2	14:AQ:41:ARG:HB2	2.22	0.70
25:BA:1803:A:O2'	27:BD:259:THR:HG21	1.90	0.70
27:BD:130:ALA:C	27:BD:131:LEU:HD12	2.17	0.70
39:BR:107:ASP:O	39:BR:110:ILE:HG22	1.89	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:B4:18:CYS:HB3	50:B4:41:PRO:HG3	1.73	0.70
1:CA:1443:G:N2	39:DR:119:LYS:HB2	2.06	0.70
2:CE:237:ALA:O	2:CE:238:LEU:HB3	1.91	0.70
25:DA:1043:C:N4	25:DA:1112:G:H1	1.89	0.70
25:DA:1174:A:N6	25:DA:1176:G:O2'	2.25	0.70
25:DA:2286:A:P	52:D6:28:ARG:HH12	2.13	0.70
36:DP:14:ARG:HG2	36:DP:41:TRP:CH2	2.26	0.70
36:DP:21:THR:O	36:DP:21:THR:HG22	1.91	0.70
9:AL:18:PHE:HD1	9:AL:62:TYR:HD2	1.38	0.70
25:BA:2317:C:H2'	25:BA:2318:G:H5'	1.72	0.70
30:BG:16:ARG:O	30:BG:20:ILE:HG13	1.92	0.70
52:B6:25:LYS:HG3	54:B8:34:TRP:HZ2	1.56	0.70
22:CB:78:C:H4'	22:CB:79:A:OP1	1.91	0.70
25:DA:847:U:H3	25:DA:933:A:H61	1.39	0.70
47:DZ:86:SER:N	47:DZ:87:PRO:CD	2.54	0.70
1:AA:339:C:OP2	34:BN:97:ARG:NH1	2.24	0.70
1:AA:1175:G:H2'	1:AA:1176:A:C8	2.26	0.70
8:AK:87:SER:HB2	8:AK:93:VAL:HB	1.73	0.70
13:AP:94:ARG:O	13:AP:96:LEU:N	2.25	0.70
38:BQ:29:PHE:HD2	38:BQ:30:ARG:N	1.89	0.70
54:B8:34:TRP:CE3	54:B8:35:GLN:CG	2.73	0.70
1:CA:1200:C:H5'	1:CA:1201:A:H5'	1.73	0.70
2:CE:52:GLU:HG2	2:CE:56:ARG:HH22	1.56	0.70
2:CE:224:GLN:HA	2:CE:229:VAL:HG22	1.73	0.70
17:CT:63:ARG:HG2	17:CT:64:PRO:HD2	1.74	0.70
20:CW:64:ASP:OD1	20:CW:81:LYS:HD3	1.91	0.70
25:DA:2882:A:H5'	37:D0:96:ARG:HG3	1.71	0.70
5:AH:45:PHE:CD2	5:AH:47:LYS:HD2	2.26	0.70
25:BA:2015:A:C1'	51:B5:2:ALA:HB1	2.20	0.70
29:BF:107:LYS:HE3	29:BF:207:GLY:H	1.56	0.70
1:CA:1298:C:H4'	1:CA:1299:A:C8	2.27	0.70
10:CM:16:LEU:C	10:CM:18:ALA:H	2.00	0.70
10:CM:40:LEU:HG	10:CM:41:PRO:HD2	1.72	0.70
2:AE:69:LEU:HB2	2:AE:159:PRO:HG3	1.72	0.70
13:AP:49:THR:HG22	13:AP:51:ALA:H	1.57	0.70
26:BB:13:A:O2'	26:BB:14:U:H3'	1.92	0.70
29:BF:9:ILE:HD11	29:BF:125:LEU:HG	1.74	0.70
51:B5:40:LYS:HG2	51:B5:47:PRO:HD2	1.73	0.70
54:B8:52:LYS:H	54:B8:53:PRO:HD2	1.56	0.70
1:CA:1322:C:O2'	1:CA:1323:G:H5'	1.92	0.70
4:CG:62:GLN:HE22	4:CG:65:ARG:HE	1.40	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2328:A:H2'	25:DA:2329:G:C8	2.27	0.70
25:DA:2402:C:O2'	25:DA:2403:C:OP1	2.07	0.70
25:DA:2816:C:O2	25:DA:2883:A:O2'	2.09	0.70
25:DA:2880:C:O3'	37:D0:90:ARG:NH1	2.25	0.70
38:DQ:62:LYS:HB3	38:DQ:97:ARG:HD3	1.74	0.70
1:AA:539:A:OP1	12:AO:111:LYS:NZ	2.25	0.70
1:AA:1116:C:C2'	1:AA:1117:G:H5'	2.20	0.70
2:AE:8:LYS:HE2	2:AE:8:LYS:N	2.04	0.70
25:BA:1771:C:H1'	25:BA:1786:A:H8	1.56	0.70
25:BA:1854:A:H62	25:BA:1888:G:H8	1.38	0.70
1:CA:1054:C:O2'	1:CA:1055:A:O5'	2.09	0.70
3:CF:32:LEU:O	3:CF:36:ASP:HB2	1.91	0.70
22:CD:57:C:H4'	22:CD:58:G:O5'	1.91	0.70
25:DA:1110:G:O2'	25:DA:1111:A:O4'	2.08	0.70
27:DD:108:PRO:HB3	27:DD:143:HIS:HE1	1.56	0.70
35:DO:70:GLN:O	35:DO:71:VAL:C	2.34	0.70
1:AA:78:G:N1	1:AA:91:C:N4	2.28	0.70
10:AM:40:LEU:HB2	10:AM:69:ASN:HB2	1.73	0.70
13:AP:49:THR:HB	13:AP:52:GLU:HG3	1.72	0.70
22:AB:48:C:C3'	22:AB:49:A:H8	2.04	0.70
22:AD:9:U:H2'	22:AD:9:U:O2	1.91	0.70
25:BA:559:G:H22	40:B1:49:HIS:CD2	2.09	0.70
25:BA:2068:U:H3	25:BA:2430:A:H2	1.39	0.70
25:BA:2636:U:OP1	28:BE:79:ARG:HA	1.92	0.70
37:B0:30:THR:HG22	37:B0:31:HIS:ND1	2.07	0.70
44:BU:96:ILE:HG22	44:BU:101:LYS:HE2	1.72	0.70
45:BV:45:ASP:O	45:BV:49:ARG:HG2	1.92	0.70
50:B4:42:PHE:O	50:B4:43:TYR:C	2.35	0.70
3:CF:8:ILE:O	3:CF:11:ARG:N	2.20	0.70
25:DA:91:A:C2'	25:DA:92:G:H5'	2.21	0.70
25:DA:1899:G:N2	25:DA:1902:C:H5	1.89	0.70
25:DA:2210:G:H3'	25:DA:2211:G:C4	2.25	0.70
35:DO:11:GLY:C	35:DO:13:ASN:H	2.00	0.70
38:DQ:108:GLY:O	38:DQ:110:LEU:HD22	1.91	0.70
45:DV:139:VAL:HG21	45:DV:155:LEU:HD22	1.72	0.70
1:AA:411:A:C5	1:AA:413:G:H1'	2.27	0.69
1:AA:963:G:H21	10:AM:55:LYS:CE	2.05	0.69
22:AD:48:C:H2'	22:AD:49:A:O4'	1.91	0.69
25:BA:1019:U:O2'	25:BA:1021:A:H2	1.75	0.69
35:BO:71:VAL:HG13	35:BO:72:PRO:HD3	1.74	0.69
43:BT:41:ASN:N	43:BT:41:ASN:HD22	1.87	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1129:C:H4'	1:CA:1130:A:H5'	1.74	0.69
5:CH:60:TYR:HA	5:CH:63:ARG:HG3	1.73	0.69
9:CL:65:VAL:HG21	9:CL:73:GLN:HB3	1.73	0.69
27:DD:166:GLN:HE21	27:DD:166:GLN:CA	2.05	0.69
39:DR:16:ARG:HE	39:DR:19:LEU:HD11	1.57	0.69
1:AA:999:U:O2'	25:DA:2137:C:H5'	1.91	0.69
3:AF:40:ARG:O	3:AF:44:GLU:HG2	1.92	0.69
16:AS:50:LYS:HD3	16:AS:51:VAL:H	1.57	0.69
25:BA:2135:A:N6	25:BA:2156:G:O2'	2.25	0.69
25:BA:2150:U:H2'	25:BA:2151:G:C8	2.27	0.69
38:BQ:59:LYS:HG2	38:BQ:60:GLY:N	2.07	0.69
43:BT:31:HIS:HD2	43:BT:33:LYS:H	1.40	0.69
1:CA:365:U:H5"	1:CA:366:C:OP1	1.92	0.69
1:CA:1326:C:OP1	21:CX:12:LYS:NZ	2.24	0.69
25:DA:780:G:H21	25:DA:783:A:H62	1.41	0.69
27:DD:30:GLU:HG3	27:DD:63:ARG:CZ	2.22	0.69
30:DG:35:GLU:O	30:DG:36:LYS:HB3	1.91	0.69
35:DO:47:ASP:OD2	35:DO:49:ARG:CB	2.34	0.69
35:DO:63:PRO:O	35:DO:64:LYS:C	2.34	0.69
38:DQ:88:ASP:OD2	38:DQ:89:ARG:N	2.25	0.69
5:AH:8:GLU:HG2	5:AH:34:VAL:HG22	1.73	0.69
25:BA:1771:C:C1'	25:BA:1786:A:H8	2.05	0.69
28:BE:2:LYS:NZ	28:BE:95:ILE:O	2.25	0.69
32:BK:8:PRO:HD3	32:BK:15:VAL:HG23	1.74	0.69
38:BQ:78:LEU:HD12	38:BQ:108:GLY:HA2	1.74	0.69
39:BR:20:PRO:HD2	39:BR:86:ILE:HG23	1.73	0.69
1:CA:1026:G:N7	1:CA:1036:G:N2	2.39	0.69
1:CA:1392:G:H21	1:CA:1502:A:H8	1.40	0.69
12:CO:55:VAL:HG21	12:CO:82:ILE:HD11	1.74	0.69
15:CR:11:VAL:HG21	15:CR:34:LEU:HD22	1.72	0.69
22:CB:29:C:H2'	22:CB:30:A:C8	2.27	0.69
25:DA:1007:C:OP1	33:DM:37:LYS:NZ	2.25	0.69
25:DA:2872:G:C5	25:DA:2873:A:C2	2.79	0.69
27:DD:58:HIS:HD2	27:DD:59:LYS:O	1.75	0.69
35:DO:64:LYS:CD	54:D8:25:MET:SD	2.75	0.69
39:DR:6:LEU:HD12	39:DR:9:LEU:HD13	1.73	0.69
25:BA:1535:U:H3'	25:BA:1536:A:C5'	2.22	0.69
25:BA:2276:G:P	36:BP:84:GLY:HA2	2.31	0.69
26:BB:88:C:H2'	26:BB:89:G:O4'	1.93	0.69
27:BD:35:LYS:HG2	27:BD:64:ILE:CG2	2.22	0.69
1:CA:345:C:O2	1:CA:346:G:N2	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:411:A:C5	1:CA:413:G:H1'	2.26	0.69
4:CG:73:ARG:O	4:CG:77:ASN:ND2	2.25	0.69
20:CW:67:ALA:HA	20:CW:73:HIS:HA	1.73	0.69
25:DA:848:G:H2'	25:DA:849:A:C8	2.28	0.69
44:DU:61:ILE:HG22	44:DU:62:GLU:H	1.57	0.69
3:AF:92:ALA:HB2	3:AF:99:VAL:HG22	1.74	0.69
13:AP:3:ARG:NE	13:AP:9:ILE:HD11	2.06	0.69
16:AS:8:ARG:HB3	16:AS:28:ARG:NH1	2.08	0.69
25:BA:593:G:O3'	54:B8:61:LEU:HD22	1.92	0.69
25:BA:1113:U:OP1	31:BH:2:SER:N	2.24	0.69
25:BA:1525:G:H2'	25:BA:1526:G:H8	1.56	0.69
25:BA:2035:G:H4'	25:BA:2036:C:OP2	1.91	0.69
27:BD:43:ARG:HD2	27:BD:44:ASN:OD1	1.93	0.69
32:BK:144:VAL:O	32:BK:145:VAL:HG22	1.91	0.69
41:B2:15:GLU:O	41:B2:18:LEU:HB2	1.93	0.69
1:CA:455:C:H42	1:CA:477:G:H1	1.40	0.69
1:CA:1004:A:H5"	1:CA:1025:U:O4	1.92	0.69
1:CA:1443:G:H22	39:DR:119:LYS:HB2	1.57	0.69
2:CE:236:TYR:HB2	2:CE:239:VAL:HB	1.75	0.69
5:CH:101:ILE:HD11	5:CH:119:LEU:HD23	1.72	0.69
25:DA:1453:A:C6	25:DA:2702:U:H1'	2.28	0.69
41:D2:28:GLU:HB3	41:D2:29:PRO:HD2	1.73	0.69
1:AA:87:A:H2'	1:AA:88:C:H6	1.56	0.69
25:BA:1888:G:H5'	25:BA:1888:G:N3	2.07	0.69
9:CL:16:ARG:HB3	9:CL:64:THR:HG22	1.74	0.69
25:DA:1171:G:N2	25:DA:1178:C:N3	2.35	0.69
25:DA:1341:U:H2'	25:DA:1397:U:O2	1.93	0.69
25:DA:1342:A:C6	25:DA:1397:U:C4	2.80	0.69
29:DF:119:ARG:HH11	29:DF:119:ARG:HG2	1.57	0.69
1:AA:160:A:H1'	1:AA:344:A:C8	2.28	0.69
1:AA:1176:A:H3'	1:AA:1177:G:H5"	1.73	0.69
25:BA:1534:G:H1	25:BA:1538:G:N2	1.90	0.69
1:CA:1218:C:OP2	14:CQ:9:LYS:NZ	2.25	0.69
1:CA:1366:C:OP1	9:CL:117:HIS:HE1	1.75	0.69
13:CP:15:VAL:O	13:CP:19:LEU:HG	1.92	0.69
34:DN:112:MET:O	34:DN:115:VAL:HG23	1.93	0.69
40:D1:25:TRP:C	40:D1:25:TRP:CD1	2.71	0.69
44:DU:43:ASN:N	44:DU:43:ASN:HD22	1.90	0.69
45:DV:59:LEU:O	45:DV:60:GLU:HB3	1.91	0.69
1:AA:244:U:H4'	1:AA:245:C:O5'	1.92	0.69
1:AA:1004:A:O4'	1:AA:1036:G:C6	2.46	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1498:U:H1'	1:AA:1499:A:OP2	1.92	0.69
12:AO:44:LYS:C	12:AO:44:LYS:CD	2.64	0.69
13:AP:67:GLU:HG2	13:AP:71:ARG:NH2	2.08	0.69
22:AB:78:C:O2'	22:AB:79:A:P	2.50	0.69
25:BA:259:G:O2'	25:BA:621:A:O2'	2.08	0.69
25:BA:654(A):A:H2	25:BA:654(T):A:N1	1.90	0.69
25:BA:1728:G:H5'	25:BA:1729:A:OP2	1.93	0.69
25:BA:2303:G:C2'	25:BA:2304:G:H5'	2.22	0.69
25:BA:2467:C:C2'	25:BA:2468:G:H5'	2.23	0.69
25:BA:2820:A:O2'	25:BA:2821:A:OP1	2.09	0.69
30:BG:21:ARG:HG2	30:BG:21:ARG:NH1	2.06	0.69
51:B5:3:LYS:HA	51:B5:3:LYS:CE	2.22	0.69
53:B7:8:ASN:C	53:B7:8:ASN:HD22	2.00	0.69
1:CA:235:C:H5'	17:CT:70:ARG:HG2	1.75	0.69
1:CA:452:A:O2'	1:CA:453:A:O5'	2.11	0.69
1:CA:509:A:H2'	1:CA:510:A:C8	2.27	0.69
1:CA:1250:A:H4'	9:CL:68:GLY:N	2.07	0.69
11:CN:48:ILE:HD11	11:CN:64:ALA:HA	1.75	0.69
12:CO:72:HIS:HD2	12:CO:74:LEU:N	1.91	0.69
22:CB:52:G:H2'	22:CB:53:A:C8	2.26	0.69
25:DA:631:A:OP1	35:DO:64:LYS:HE2	1.93	0.69
25:DA:660:G:N2	35:DO:12:ALA:HA	2.08	0.69
25:DA:1496:A:H8	25:DA:1577:C:O2'	1.75	0.69
25:DA:2211:G:H3'	25:DA:2212:A:C2	2.27	0.69
25:DA:2255:G:N2	36:DP:85:LYS:HE2	2.08	0.69
26:DB:89(A):A:N7	26:DB:90:C:H1'	2.07	0.69
1:AA:156:G:H1	1:AA:165:C:N4	1.90	0.69
1:AA:652:U:H1'	1:AA:653:A:H2	1.58	0.69
6:AI:35:ALA:HB1	6:AI:65:VAL:HG21	1.73	0.69
25:BA:1043:C:H2'	25:BA:1044:G:H5'	1.74	0.69
33:BM:13:TRP:O	33:BM:135:PRO:HD2	1.93	0.69
41:B2:24:LYS:HA	41:B2:92:THR:HG23	1.73	0.69
42:BS:86:LEU:HD12	42:BS:87:PRO:HD2	1.74	0.69
45:BV:28:MET:HB2	45:BV:37:VAL:HG11	1.73	0.69
52:B6:27:LYS:H	52:B6:27:LYS:NZ	1.88	0.69
25:DA:322:A:H3'	29:DF:169:ASN:ND2	2.06	0.69
25:DA:1689:A:N7	25:DA:1698:A:N1	2.41	0.69
25:DA:2748:A:H62	25:DA:2754:U:H3	1.38	0.69
27:DD:35:LYS:NZ	27:DD:104:TYR:HB2	2.08	0.69
35:DO:64:LYS:O	35:DO:65:ARG:C	2.34	0.69
1:AA:422:C:O2'	1:AA:423:G:H5"	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1182:G:H4'	1:AA:1183:A:H5'	1.74	0.69
2:AE:211:ILE:O	2:AE:215:LEU:HB2	1.92	0.69
12:AO:59:SER:C	12:AO:61:TYR:H	2.00	0.69
25:BA:598:G:H1'	35:BO:12:ALA:CB	2.22	0.69
29:BF:11:VAL:HB	29:BF:18:ARG:HG3	1.75	0.69
33:BM:46:VAL:HG13	33:BM:48:MET:HG3	1.75	0.69
35:BO:50:ARG:HD3	54:B8:7:HIS:CD2	2.27	0.69
52:B6:11:LEU:HB3	52:B6:25:LYS:HA	1.75	0.69
1:CA:1126:U:O2'	1:CA:1127:G:P	2.50	0.69
3:CF:162:GLN:HG2	24:C1:24:A:H1'	1.75	0.69
18:CU:22:VAL:HG22	18:CU:23:LYS:H	1.58	0.69
25:DA:920:G:H2'	25:DA:921:G:H8	1.58	0.69
25:DA:1397:U:O2'	25:DA:1398:C:P	2.51	0.69
25:DA:2468:G:N2	25:DA:2481:G:O2'	2.25	0.69
35:DO:61:ARG:C	35:DO:62:LEU:CD2	2.59	0.69
45:DV:62:PRO:C	45:DV:64:GLY:H	2.00	0.69
45:DV:174:VAL:O	45:DV:175:VAL:HB	1.93	0.69
1:AA:677:U:H3	1:AA:713:G:H22	1.39	0.68
1:AA:1301:U:O2	1:AA:1301:U:H2'	1.93	0.68
6:AI:50:TYR:OH	18:AU:74:ARG:O	2.10	0.68
11:AN:21:ILE:HB	11:AN:84:VAL:HG12	1.74	0.68
21:AX:2:GLY:C	21:AX:4:GLY:H	2.00	0.68
22:AB:48:C:H42	22:AB:52:G:H1	1.41	0.68
25:BA:2392:A:H2	25:BA:2424:C:N4	1.92	0.68
50:B4:43:TYR:CD1	50:B4:44:THR:N	2.61	0.68
1:CA:1128:C:O2'	1:CA:1129:C:P	2.51	0.68
1:CA:1374:A:H2'	1:CA:1375:A:H5'	1.75	0.68
32:DK:78:THR:HB	32:DK:104:GLN:HE22	1.58	0.68
41:D2:79:VAL:O	41:D2:80:GLN:NE2	2.24	0.68
45:DV:157:LEU:HD21	45:DV:163:LEU:HD22	1.75	0.68
1:AA:992:U:H1'	1:AA:993:G:OP2	1.93	0.68
1:AA:1003:G:H2'	1:AA:1004:A:C5'	2.22	0.68
2:AE:31:TYR:O	2:AE:42:ILE:HG13	1.93	0.68
25:BA:890:A:C8	25:BA:892:G:C8	2.77	0.68
25:BA:1270:C:H5"	25:BA:1271:G:O5'	1.92	0.68
25:BA:1798:U:C5'	27:BD:259:THR:HG22	2.23	0.68
25:BA:2689:U:H4'	25:BA:2690:C:C5'	2.17	0.68
54:B8:23:VAL:HG11	54:B8:46:ARG:HD3	1.75	0.68
3:CF:15:THR:HG21	3:CF:181:ASN:HA	1.74	0.68
4:CG:15:GLU:HG3	4:CG:63:LYS:HG3	1.75	0.68
19:CV:78:ARG:HD3	19:CV:78:ARG:H	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CD:18:G:C1'	22:CD:19:C:OP2	2.38	0.68
25:DA:65:C:H4'	43:DT:69:TYR:CD1	2.29	0.68
25:DA:1019:U:H2'	25:DA:1020:A:H8	1.57	0.68
25:DA:1426:G:H5"	25:DA:1427:A:OP2	1.93	0.68
36:DP:66:ILE:HD12	36:DP:67:ARG:N	2.08	0.68
46:D3:40:GLN:OE1	46:D3:44:ARG:N	2.25	0.68
1:AA:630:G:H2'	1:AA:631:G:O4'	1.94	0.68
1:AA:688:G:H2'	1:AA:689:C:H6	1.59	0.68
3:AF:83:ARG:O	3:AF:86:VAL:N	2.26	0.68
25:BA:1069:A:N7	25:BA:1073:A:N6	2.40	0.68
25:BA:2167:U:O2'	25:BA:2168:G:OP1	2.11	0.68
26:BB:15:A:H5'	26:BB:16:G:H8	1.52	0.68
44:BU:49:VAL:HB	44:BU:50:ARG:HH21	1.58	0.68
25:DA:2683:C:OP1	39:DR:53:ARG:NH2	2.23	0.68
29:DF:117:ARG:HH12	35:DO:1:MET:H2	1.39	0.68
33:DM:136:GLU:C	33:DM:137:LYS:HZ3	2.01	0.68
40:D1:76:TYR:OH	40:D1:93:LYS:HE2	1.94	0.68
41:D2:79:VAL:C	41:D2:80:GLN:NE2	2.46	0.68
48:DW:46:GLN:HB2	48:DW:49:LYS:HZ1	1.58	0.68
1:AA:1028:C:N3	1:AA:1033:G:N2	2.39	0.68
21:AX:3:LYS:HB3	21:AX:14:TRP:CD1	2.29	0.68
23:AC:20:G:H4'	23:AC:21:U:OP2	1.93	0.68
22:AD:22:A:N3	22:AD:22:A:H2'	2.07	0.68
25:BA:1332:G:N2	25:BA:1610:A:H8	1.91	0.68
25:BA:1871:A:H2'	25:BA:1872:A:C8	2.28	0.68
1:CA:1160:G:O6	1:CA:1181:G:C6	2.47	0.68
4:CG:70:ILE:HD11	4:CG:100:ARG:HD2	1.73	0.68
14:CQ:23:ARG:HD3	14:CQ:29:ARG:O	1.94	0.68
25:DA:171:G:H2'	25:DA:172:C:C6	2.29	0.68
25:DA:1771:C:H1'	25:DA:1786:A:C8	2.28	0.68
25:DA:2059:A:H5'	25:DA:2060:A:OP2	1.93	0.68
25:DA:2439:A:O2'	25:DA:2440:C:OP2	2.09	0.68
33:DM:90:MET:HE2	33:DM:90:MET:HA	1.75	0.68
35:DO:46:LYS:HG3	35:DO:51:PHE:CE2	2.29	0.68
45:DV:27:VAL:HG12	45:DV:87:ASP:HB3	1.74	0.68
54:D8:48:PHE:CG	54:D8:49:VAL:N	2.61	0.68
25:BA:270(O):U:H5"	25:BA:270(P):C:OP2	1.93	0.68
25:BA:528:A:C2	25:BA:2043:C:H4'	2.29	0.68
25:BA:910:A:N7	36:BP:13:GLN:HG3	2.09	0.68
25:BA:1588:C:H2'	25:BA:1589:C:H6	1.59	0.68
33:BM:22:THR:HG22	33:BM:23:LEU:N	2.08	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:26:TYR:HD2	36:BP:26:TYR:C	2.02	0.68
37:B0:1:MET:O	37:B0:2:ARG:HB2	1.93	0.68
1:CA:838:G:N1	1:CA:842:C:H1'	2.08	0.68
10:CM:54:PHE:CG	10:CM:55:LYS:HD3	2.28	0.68
13:CP:78:ILE:HG23	13:CP:92:HIS:HD2	1.58	0.68
17:CT:67:LYS:HA	17:CT:70:ARG:HH12	1.58	0.68
29:DF:32:LEU:O	29:DF:36:VAL:HG23	1.93	0.68
29:DF:117:ARG:HH12	35:DO:1:MET:N	1.91	0.68
31:DH:7:LEU:N	31:DH:8:PRO:CD	2.57	0.68
35:DO:9:ASN:CB	35:DO:10:PRO:HD2	2.22	0.68
36:DP:75:THR:HG21	36:DP:87:LYS:HE2	1.75	0.68
41:D2:6:LYS:H	41:D2:37:VAL:HG12	1.59	0.68
25:BA:1931:U:H5	25:BA:1969:A:N7	1.92	0.68
25:BA:2418:A:OP2	54:B8:29:LYS:HE3	1.93	0.68
28:BE:51:PHE:CD1	28:BE:52:LEU:HG	2.28	0.68
28:BE:144:ARG:HG3	28:BE:144:ARG:HH11	1.58	0.68
30:BG:66:GLN:OE1	30:BG:98:ARG:NH1	2.27	0.68
41:B2:35:LEU:HD22	41:B2:35:LEU:H	1.58	0.68
43:BT:41:ASN:HD22	43:BT:41:ASN:H	1.40	0.68
44:BU:49:VAL:C	44:BU:51:VAL:H	1.98	0.68
1:CA:255:G:O6	1:CA:270:A:N6	2.26	0.68
1:CA:632:A:C1'	1:CA:633:G:OP2	2.39	0.68
1:CA:1318:A:O2'	19:CV:37:ARG:HB3	1.93	0.68
25:DA:329:G:H4'	25:DA:330:A:OP2	1.94	0.68
25:DA:528:A:C2	25:DA:2042:A:H2'	2.28	0.68
25:DA:1645:G:H5"	25:DA:1646:C:H5'	1.76	0.68
25:DA:2520:C:H41	25:DA:2542:A:H62	1.39	0.68
30:DG:11:TYR:HA	30:DG:15:VAL:HB	1.76	0.68
30:DG:104:GLU:HG2	50:D4:23:GLU:CG	2.20	0.68
34:DN:88:ASN:HB3	34:DN:94:ARG:HD3	1.74	0.68
28:BE:68:ALA:C	28:BE:70:ALA:H	2.00	0.68
52:B6:33:LYS:HG3	52:B6:34:LEU:HD22	1.75	0.68
54:B8:34:TRP:HB3	54:B8:35:GLN:CG	2.23	0.68
1:CA:992:U:H1'	1:CA:993:G:OP2	1.93	0.68
4:CG:191:ARG:NH1	4:CG:200:GLU:OE1	2.26	0.68
25:DA:2212:A:H1'	25:DA:2215:G:C5	2.29	0.68
25:DA:2786:U:H4'	28:DE:65:GLY:N	2.07	0.68
25:BA:598:G:O4'	35:BO:12:ALA:HB2	1.92	0.68
25:BA:1420:U:O2'	25:BA:1421:G:OP1	2.11	0.68
27:BD:28:GLU:HB3	27:BD:29:PRO:HD2	1.75	0.68
31:BH:98:LEU:HD12	31:BH:102:ALA:O	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:133:ARG:O	36:BP:134:ARG:HB2	1.92	0.68
22:CD:49:A:O2'	22:CD:50:U:H5	1.76	0.68
25:DA:7:G:H1	25:DA:2896:C:N4	1.91	0.68
28:DE:37:ARG:HD2	28:DE:44:TYR:OH	1.94	0.68
35:DO:58:THR:HG22	35:DO:58:THR:O	1.92	0.68
41:D2:85:LYS:CG	41:D2:87:HIS:H	2.07	0.68
47:DZ:67:ILE:N	47:DZ:68:PRO:HD2	2.09	0.68
54:D8:29:LYS:O	54:D8:31:HIS:N	2.26	0.68
12:AO:44:LYS:CG	12:AO:45:PRO:N	2.56	0.68
25:BA:302:C:H2'	25:BA:303:U:H6	1.58	0.68
1:CA:261:U:OP2	20:CW:79:ARG:NH2	2.27	0.68
1:CA:328:C:H2'	1:CA:328:C:O2	1.94	0.68
1:CA:363:A:OP1	12:CO:30:ARG:HG3	1.94	0.68
22:CB:28:G:H22	22:CB:45:C:H1'	1.59	0.68
22:CB:50:U:H2'	22:CB:51:C:C6	2.28	0.68
27:DD:130:ALA:C	27:DD:131:LEU:HD12	2.19	0.68
2:AE:235:SER:O	2:AE:237:ALA:N	2.24	0.68
7:AJ:23:VAL:O	7:AJ:27:ILE:HG13	1.93	0.68
8:AK:41:ARG:NH2	8:AK:123:GLU:OE1	2.27	0.68
22:AB:10:C:H2'	22:AB:11:C:C6	2.28	0.68
25:BA:1091:G:H2'	25:BA:1092:C:H5'	1.76	0.68
25:BA:1348:G:H2'	25:BA:1349:A:H5"	1.75	0.68
25:BA:2344:U:O2'	52:B6:37:ARG:HG2	1.94	0.68
25:BA:2474:C:H2'	25:BA:2475:C:O4'	1.94	0.68
31:BH:4:ILE:O	31:BH:6:ARG:HG2	1.94	0.68
36:BP:1:MET:O	36:BP:2:LEU:HB2	1.94	0.68
1:CA:1349:A:OP2	9:CL:118:LYS:NZ	2.27	0.68
25:DA:1019:U:H2'	25:DA:1020:A:C8	2.28	0.68
25:BA:1678:G:N2	25:BA:1989:G:N2	2.41	0.67
25:BA:2864:G:OP1	39:BR:119:LYS:HD2	1.94	0.67
27:BD:35:LYS:HD2	27:BD:104:TYR:CE1	2.29	0.67
36:BP:90:VAL:O	36:BP:90:VAL:CG1	2.42	0.67
50:B4:19:GLY:C	50:B4:20:ASN:HD22	2.02	0.67
1:CA:82:U:C2	1:CA:87:A:N1	2.61	0.67
1:CA:526:C:OP2	12:CO:88:LYS:NZ	2.21	0.67
1:CA:870:U:H4'	1:CA:871:U:H5'	1.76	0.67
1:CA:1285:A:C1'	1:CA:1286:A:OP2	2.42	0.67
13:CP:92:HIS:ND1	13:CP:98:VAL:HG11	2.09	0.67
31:DH:26:VAL:HG21	31:DH:76:VAL:HA	1.75	0.67
31:DH:136:ILE:H	31:DH:136:ILE:HD12	1.59	0.67
25:BA:910:A:H2'	25:BA:2264:C:O2'	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2733:A:H2'	25:BA:2734:A:C5'	2.23	0.67
27:BD:2:ALA:HB1	27:BD:200:ASP:OD2	1.93	0.67
27:BD:186:HIS:HD2	27:BD:188:GLU:H	1.42	0.67
25:DA:2702:U:H2'	25:DA:2703:C:C5	2.30	0.67
25:DA:2762:G:H3'	25:DA:2763:G:C5'	2.24	0.67
34:DN:1:MET:HE2	34:DN:32:TYR:CD2	2.30	0.67
35:DO:68:GLN:OE1	35:DO:68:GLN:CA	2.33	0.67
35:DO:71:VAL:O	35:DO:72:PRO:C	2.37	0.67
1:AA:974:A:OP2	14:AQ:41:ARG:NH1	2.28	0.67
2:AE:8:LYS:H	2:AE:8:LYS:CE	2.03	0.67
4:AG:19:LEU:HG	4:AG:21:LEU:HD21	1.77	0.67
19:AV:41:VAL:CB	19:AV:42:PRO:HA	2.19	0.67
19:AV:42:PRO:HD3	50:B4:63:TYR:OH	1.95	0.67
25:BA:660:G:N2	35:BO:12:ALA:HA	2.09	0.67
25:BA:889:C:H3'	25:BA:890:A:C4'	2.25	0.67
25:BA:1557:C:OP2	25:BA:1558:A:O2'	2.12	0.67
25:BA:1728:G:H3'	25:BA:1729:A:C5'	2.23	0.67
28:BE:57:LYS:HD3	28:BE:59:VAL:HG12	1.75	0.67
28:BE:116:VAL:O	28:BE:117:MET:HB3	1.94	0.67
31:BH:4:ILE:HG13	31:BH:6:ARG:NE	2.09	0.67
47:BZ:91:LYS:O	47:BZ:93:GLU:N	2.27	0.67
25:DA:2786:U:H4'	28:DE:64:LYS:HA	1.76	0.67
35:DO:61:ARG:CB	35:DO:62:LEU:HD22	2.24	0.67
36:DP:79:LEU:HD13	36:DP:80:GLU:HB2	1.76	0.67
38:DQ:106:ARG:NH1	38:DQ:107:GLU:OE2	2.27	0.67
44:DU:97:ARG:HD3	44:DU:97:ARG:H	1.59	0.67
45:DV:105:VAL:HG22	45:DV:106:GLY:H	1.59	0.67
1:AA:258:G:H2'	1:AA:259:G:H8	1.58	0.67
1:AA:1023:G:H3'	1:AA:1024:G:C5'	2.23	0.67
1:AA:1226:C:O2'	13:AP:111:LYS:NZ	2.27	0.67
25:BA:330:A:C2	25:BA:1210:A:H2'	2.28	0.67
25:BA:1077:A:H3'	25:BA:1078:U:H5"	1.76	0.67
25:BA:1606:G:H5"	25:BA:1607:C:OP1	1.95	0.67
25:BA:2712:U:O2'	25:BA:2712(A):A:OP2	2.12	0.67
27:BD:35:LYS:HD3	27:BD:63:ARG:CB	2.23	0.67
31:BH:150:ALA:C	31:BH:152:ARG:H	2.03	0.67
35:BO:19:VAL:HG23	35:BO:27:HIS:CG	2.28	0.67
50:B4:42:PHE:HE1	50:B4:43:TYR:HB3	1.50	0.67
25:DA:1069:A:H4'	25:DA:1070:A:H5"	1.76	0.67
25:DA:2723:C:OP1	37:D0:3:HIS:HD2	1.77	0.67
26:DB:89(A):A:C8	26:DB:90:C:H1'	2.30	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DO:104:GLY:O	35:DO:105:LEU:CB	2.41	0.67
36:DP:34:LEU:HB2	36:DP:118:LEU:HD22	1.74	0.67
45:DV:19:ARG:HH11	45:DV:84:GLU:HB2	1.60	0.67
1:AA:530:G:C4'	1:AA:531:U:OP2	2.41	0.67
2:AE:236:TYR:HA	2:AE:239:VAL:HG21	1.76	0.67
20:AW:100:ILE:HG13	20:AW:102:GLY:N	2.06	0.67
25:BA:956:G:OP2	36:BP:14:ARG:NH2	2.28	0.67
25:BA:1026:U:H4'	25:BA:1027:A:OP1	1.95	0.67
45:BV:30:ASN:HD22	45:BV:32:HIS:H	1.41	0.67
1:CA:820:U:H4'	1:CA:821:G:OP2	1.94	0.67
1:CA:1179:A:OP2	9:CL:93:ARG:NH2	2.26	0.67
2:CE:19:HIS:CE1	2:CE:204:ASN:HB3	2.30	0.67
22:CD:38:MIA:H112	22:CD:39:A:H1'	1.75	0.67
25:DA:871:U:OP1	36:DP:5:ARG:HG2	1.94	0.67
25:DA:1047:G:H2'	25:DA:1110:G:N2	2.08	0.67
25:DA:2689:U:H4'	25:DA:2690:C:H5'	1.76	0.67
35:DO:125:VAL:HG13	35:DO:144:GLU:HB3	1.76	0.67
36:DP:87:LYS:O	36:DP:88:GLY:C	2.37	0.67
44:DU:9:LYS:NZ	44:DU:29:GLU:H	1.93	0.67
1:AA:1065:U:C2'	1:AA:1066:C:OP2	2.42	0.67
12:AO:45:PRO:O	12:AO:46:ASN:CG	2.38	0.67
22:AB:46:G:H2'	22:AB:47:U:C6	2.30	0.67
25:BA:654(H):G:H2'	25:BA:654(H):G:N3	2.08	0.67
25:BA:2702:U:OP1	25:BA:2702:U:C6	2.48	0.67
32:BK:93:THR:HG22	32:BK:119:PRO:HB3	1.76	0.67
36:BP:90:VAL:O	36:BP:90:VAL:HG12	1.93	0.67
52:B6:28:ARG:HH21	52:B6:30:THR:HG22	1.59	0.67
1:CA:960:U:H3	1:CA:1225:A:H1'	1.58	0.67
16:CS:43:LYS:HG3	16:CS:48:TRP:NE1	2.08	0.67
22:CB:58:G:H1	22:CB:74:C:H42	1.42	0.67
25:DA:2131:G:H5'	25:DA:2132:U:OP1	1.95	0.67
25:DA:2420:C:H41	54:D8:31:HIS:CB	2.04	0.67
26:DB:44:G:H1'	26:DB:47:C:N4	2.09	0.67
38:DQ:18:ILE:O	38:DQ:21:THR:HG22	1.94	0.67
45:DV:158:PRO:CB	45:DV:159:PRO:HD2	2.18	0.67
1:AA:210:U:HO2'	1:AA:216:G:H8	1.41	0.67
1:AA:1142:G:H2'	1:AA:1143:G:O4'	1.94	0.67
1:AA:1227:A:OP2	13:AP:111:LYS:HE3	1.95	0.67
3:AF:64:VAL:HG12	3:AF:66:VAL:HG23	1.76	0.67
9:AL:15:ALA:HB2	9:AL:65:VAL:HG23	1.76	0.67
12:AO:50:ARG:HG3	12:AO:90:LEU:HD21	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AV:67:VAL:HG11	50:B4:59:PHE:HB2	1.77	0.67
25:BA:1728:G:H8	25:BA:1732:A:H62	1.42	0.67
25:BA:2317:C:C2'	25:BA:2318:G:H5'	2.25	0.67
25:BA:2580:U:H4'	28:BE:130:GLY:CA	2.25	0.67
28:BE:120:TRP:CD2	28:BE:155:LYS:HD3	2.30	0.67
1:CA:870:U:H4'	1:CA:871:U:C5'	2.25	0.67
1:CA:1096:C:H2'	1:CA:1097:C:H6	1.60	0.67
22:CB:73:U:H2'	22:CB:74:C:C6	2.30	0.67
25:DA:2406:U:O4	35:DO:70:GLN:NE2	2.26	0.67
29:DF:188:ARG:HA	35:DO:3:LEU:HD11	1.76	0.67
1:AA:547:A:OP1	4:AG:73:ARG:NH2	2.28	0.67
3:AF:153:VAL:HG22	3:AF:198:VAL:HG22	1.77	0.67
13:AP:82:MET:C	13:AP:84:ILE:H	2.01	0.67
25:BA:229:A:C4'	25:BA:230:U:OP2	2.42	0.67
26:BB:103:U:O2'	45:BV:72:ARG:HG2	1.94	0.67
28:BE:4:ILE:HD13	28:BE:28:ALA:HB1	1.76	0.67
36:BP:88:GLY:O	36:BP:89:ASN:HB2	1.95	0.67
45:BV:92:SER:O	45:BV:130:PRO:HG2	1.94	0.67
1:CA:991:U:HO2'	1:CA:992:U:P	2.16	0.67
1:CA:1129:C:H4'	1:CA:1130:A:O5'	1.95	0.67
1:CA:1337:G:H5"	1:CA:1338:G:OP1	1.94	0.67
2:CE:91:PRO:HG3	2:CE:155:LEU:H	1.58	0.67
25:DA:259:G:O2'	25:DA:621:A:O2'	2.11	0.67
36:DP:2:LEU:O	36:DP:70:PRO:CG	2.42	0.67
45:DV:6:LYS:HG3	45:DV:7:ALA:H	1.58	0.67
1:AA:192:U:C4'	20:AW:103:GLY:HA2	2.25	0.67
17:AT:76:LEU:HD12	17:AT:77:VAL:H	1.59	0.67
25:BA:1534:G:H2'	25:BA:1535:U:H4'	1.77	0.67
30:BG:67:LYS:HG2	50:B4:5:ILE:O	1.95	0.67
30:BG:67:LYS:H	30:BG:67:LYS:CE	2.06	0.67
34:BN:88:ASN:HD21	34:BN:92:GLU:HG3	1.60	0.67
51:B5:51:TYR:H	51:B5:56:LYS:HB3	1.60	0.67
1:CA:750:G:N3	15:CR:23:GLY:HA3	2.10	0.67
2:CE:167:PRO:HG2	2:CE:188:ALA:HB2	1.77	0.67
6:CI:100:ASN:HD21	18:CU:23:LYS:HE3	1.59	0.67
14:CQ:26:ARG:NH1	14:CQ:47:LEU:HD21	2.10	0.67
25:DA:531:C:OP1	25:DA:561:G:N1	2.28	0.67
25:DA:602:G:HO2'	25:DA:604:G:HO2'	1.42	0.67
28:DE:70:ALA:O	28:DE:72:VAL:N	2.27	0.67
38:DQ:27:SER:HA	38:DQ:88:ASP:HB3	1.77	0.67
43:DT:5:TYR:CZ	48:DW:30:ARG:HG3	2.30	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1128:C:H2'	1:AA:1139:G:O6	1.94	0.67
1:AA:1366:C:OP1	9:AL:117:HIS:HE1	1.78	0.67
24:A1:13:A:C2'	24:A1:14:A:OP1	2.43	0.67
25:BA:850:C:O2'	49:BX:46:ASN:ND2	2.28	0.67
25:BA:1479:G:N7	25:BA:1510:A:N6	2.43	0.67
25:BA:1496:A:C8	25:BA:1577:C:O2'	2.42	0.67
28:BE:116:VAL:HG13	28:BE:122:PHE:HB2	1.76	0.67
29:BF:46:ARG:HH11	29:BF:46:ARG:CG	2.00	0.67
40:B1:92:ARG:HD2	41:B2:11:GLN:HB2	1.77	0.67
1:CA:108:G:H5'	1:CA:109:A:H5"	1.77	0.67
1:CA:1128:C:H4'	9:CL:16:ARG:HH12	1.60	0.67
1:CA:1449:C:O2'	1:CA:1450:U:OP1	2.13	0.67
25:DA:1203:G:H3'	25:DA:1204:A:H5"	1.76	0.67
25:DA:1226:G:H5'	41:D2:85:LYS:N	2.09	0.67
25:DA:1651:G:H5'	37:D0:39:PRO:HG2	1.75	0.67
27:DD:61:LEU:O	27:DD:63:ARG:NH1	2.28	0.67
33:DM:128:HIS:HB2	33:DM:129:PRO:CD	2.24	0.67
39:DR:16:ARG:HH21	39:DR:19:LEU:HD11	1.59	0.67
3:AF:21:ARG:HD3	3:AF:21:ARG:N	2.11	0.66
4:AG:126:ILE:HD13	4:AG:127:THR:N	2.09	0.66
18:AU:88:LYS:HB3	18:AU:88:LYS:NZ	2.09	0.66
25:BA:1156:A:C8	40:B1:51:LYS:HD2	2.30	0.66
28:BE:27:LEU:HD13	39:BR:1:MET:HE1	1.77	0.66
31:BH:12:PRO:HG3	31:BH:48:GLY:HA2	1.76	0.66
45:BV:127:LYS:O	45:BV:161:VAL:HG21	1.95	0.66
1:CA:748:C:H4'	1:CA:749:C:O5'	1.94	0.66
9:CL:48:GLU:N	9:CL:49:PRO:HD2	2.10	0.66
22:CB:19:C:H4'	22:CB:20:C:OP1	1.95	0.66
25:DA:2169:A:H3'	25:DA:2169:A:N3	2.10	0.66
35:DO:49:ARG:HD2	54:D8:58:ILE:HG23	1.77	0.66
1:AA:1034:G:N2	1:AA:1035:A:N6	2.43	0.66
7:AJ:16:LEU:HD12	9:AL:42:ARG:HA	1.77	0.66
22:AD:38:MIA:H112	22:AD:39:A:H1'	1.77	0.66
25:BA:164:U:H5"	25:BA:165:U:OP2	1.94	0.66
25:BA:524:U:H4'	25:BA:554:U:H4'	1.77	0.66
25:BA:2318:G:H22	38:BQ:2:ALA:N	1.93	0.66
25:BA:2473:U:O2	25:BA:2473:U:H2'	1.94	0.66
28:BE:68:ALA:O	28:BE:70:ALA:N	2.22	0.66
36:BP:23:GLY:HA2	36:BP:25:ASP:CB	2.26	0.66
36:BP:87:LYS:O	36:BP:88:GLY:C	2.37	0.66
50:B4:39:CYS:O	50:B4:39:CYS:SG	2.52	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:209:U:H4'	1:CA:210:U:OP2	1.93	0.66
1:CA:528:C:H41	12:CO:46:ASN:ND2	1.92	0.66
1:CA:913:A:H1'	1:CA:914:A:OP2	1.94	0.66
1:CA:1128:C:O2'	1:CA:1129:C:OP1	2.13	0.66
17:CT:87:LYS:O	17:CT:91:ARG:HG3	1.94	0.66
25:DA:900:A:H3'	25:DA:901:A:C8	2.25	0.66
25:DA:1012:U:O4	33:DM:25:ARG:HA	1.95	0.66
25:DA:1088:A:H4'	25:DA:1089:G:C8	2.30	0.66
25:DA:2849:U:O4	39:DR:23:ARG:NH2	2.27	0.66
30:DG:135:LEU:O	30:DG:154:GLY:HA3	1.96	0.66
35:DO:104:GLY:C	35:DO:105:LEU:HG	2.19	0.66
35:DO:128:HIS:HA	35:DO:147:LEU:HA	1.77	0.66
37:D0:97:VAL:HA	37:D0:113:LEU:O	1.96	0.66
43:DT:3:THR:HA	43:DT:6:ASP:OD2	1.96	0.66
1:AA:651:C:H2'	1:AA:652:U:C6	2.30	0.66
1:AA:1285:A:H1'	1:AA:1286:A:OP2	1.96	0.66
22:AD:58:G:N2	22:AD:74:C:O2	2.19	0.66
22:AD:62:G:N2	22:AD:70:C:N3	2.42	0.66
25:BA:631:A:OP1	35:BO:64:LYS:HE2	1.96	0.66
25:BA:782:A:H5'	25:BA:783:A:C2	2.29	0.66
25:BA:811:U:O5'	35:BO:21:ARG:O	2.13	0.66
27:BD:69:ARG:NH2	27:BD:128:GLY:O	2.27	0.66
33:BM:35:ARG:HG3	33:BM:37:LYS:HG3	1.76	0.66
41:B2:39:LEU:O	41:B2:40:LEU:HD23	1.96	0.66
1:CA:1239:A:H4'	1:CA:1240:U:H5'	1.77	0.66
10:CM:13:HIS:CD2	10:CM:13:HIS:C	2.73	0.66
25:DA:1054:A:H61	25:DA:1105:U:H3	1.40	0.66
25:DA:1225:C:O2'	41:D2:85:LYS:N	2.27	0.66
25:DA:2327:A:H2'	25:DA:2328:A:C8	2.30	0.66
30:DG:180:PHE:O	30:DG:182:LYS:HG3	1.95	0.66
33:DM:71:ILE:HD12	33:DM:71:ILE:O	1.96	0.66
8:AK:63:LEU:HB3	8:AK:65:TYR:CE1	2.31	0.66
25:BA:1354:A:OP1	27:BD:38:LYS:NZ	2.28	0.66
25:BA:1478:G:H2'	25:BA:1479:G:H8	1.61	0.66
25:BA:2898:U:H2'	25:BA:2899:G:C8	2.30	0.66
27:BD:36:PRO:HA	27:BD:62:TYR:O	1.94	0.66
52:B6:27:LYS:H	52:B6:27:LYS:HZ2	1.42	0.66
54:B8:52:LYS:N	54:B8:53:PRO:CD	2.58	0.66
16:CS:1:MET:HE1	16:CS:65:GLN:HB2	1.77	0.66
25:DA:479:A:H4'	25:DA:480:A:OP1	1.94	0.66
25:DA:2318:G:H5'	25:DA:2319:G:OP2	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DD:35:LYS:CE	27:DD:104:TYR:HD1	2.09	0.66
41:D2:35:LEU:HD23	41:D2:35:LEU:H	1.60	0.66
6:AI:69:GLU:C	6:AI:71:ARG:H	2.03	0.66
11:AN:22:HIS:HB3	11:AN:29:ILE:HG23	1.78	0.66
11:AN:86:GLY:H	11:AN:112:THR:HG1	1.42	0.66
39:BR:33:LYS:NZ	39:BR:84:GLN:HB2	2.11	0.66
44:BU:96:ILE:CG2	44:BU:101:LYS:HG2	2.26	0.66
1:CA:1449:C:O2'	1:CA:1450:U:P	2.54	0.66
1:CA:1504:G:OP1	1:CA:1507:A:H4'	1.95	0.66
2:CE:7:VAL:HG22	2:CE:8:LYS:N	2.08	0.66
8:CK:107:LEU:H	8:CK:107:LEU:HD12	1.61	0.66
25:DA:140:A:C8	25:DA:1408:C:O2'	2.48	0.66
25:DA:279:C:N4	25:DA:361:G:H1	1.92	0.66
25:DA:1570:A:H2'	25:DA:1571:A:C8	2.31	0.66
25:DA:1570:A:H5'	27:DD:38:LYS:HG3	1.78	0.66
27:DD:5:LYS:HB2	27:DD:5:LYS:NZ	2.10	0.66
28:DE:1:MET:N	28:DE:84:PHE:HB2	2.09	0.66
34:DN:25:LEU:HB2	34:DN:38:VAL:HG23	1.77	0.66
35:DO:47:ASP:CB	35:DO:48:PRO:CA	2.70	0.66
39:DR:26:ASP:O	39:DR:49:VAL:HG22	1.94	0.66
44:DU:62:GLU:CD	44:DU:63:LYS:H	2.02	0.66
1:AA:69:G:H2'	1:AA:73:G:H5'	1.78	0.66
1:AA:135:C:H2'	1:AA:136:C:H5'	1.77	0.66
1:AA:464:G:O6	1:AA:466:C:H5'	1.95	0.66
1:AA:1374:A:H2'	1:AA:1375:A:H5'	1.77	0.66
9:AL:26:VAL:HG13	9:AL:61:ALA:HB3	1.78	0.66
25:BA:873:G:H1	25:BA:904:C:N4	1.91	0.66
25:BA:1058:U:H2'	25:BA:1059:G:C8	2.29	0.66
25:BA:1486:A:H2'	25:BA:1487:G:H8	1.58	0.66
25:BA:2212:A:H1'	25:BA:2215:G:C5	2.31	0.66
25:BA:2306:C:H3'	25:BA:2307:G:C5'	2.24	0.66
30:BG:107:LEU:O	50:B4:38:LYS:CG	2.44	0.66
31:BH:109:PHE:C	31:BH:111:HIS:H	2.04	0.66
41:B2:44:LYS:C	41:B2:46:VAL:H	2.03	0.66
1:CA:421:U:C5'	1:CA:422:C:OP2	2.44	0.66
12:CO:59:SER:O	12:CO:61:TYR:N	2.29	0.66
14:CQ:47:LEU:O	14:CQ:50:LYS:N	2.28	0.66
22:CD:51:C:C5	22:CD:52:G:H1'	2.30	0.66
25:DA:1762:A:H4'	25:DA:1763:G:OP2	1.93	0.66
25:DA:2153:G:H2'	25:DA:2154:G:C8	2.31	0.66
30:DG:83:ARG:O	30:DG:85:GLY:N	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DO:61:ARG:NH2	35:DO:61:ARG:HB2	2.09	0.66
1:AA:1399:C:C2	1:AA:1502:A:N6	2.64	0.66
2:AE:167:PRO:HG3	2:AE:188:ALA:HB2	1.78	0.66
4:AG:15:GLU:HG2	4:AG:63:LYS:HB2	1.77	0.66
25:BA:1021:A:H61	25:BA:1142(A):A:N6	1.93	0.66
25:BA:1060:U:H3	25:BA:1088:A:H8	1.41	0.66
25:BA:1869:G:N2	25:BA:1872:A:OP2	2.26	0.66
25:BA:2133:G:O2'	25:BA:2158:A:N1	2.26	0.66
39:BR:105:LEU:C	39:BR:107:ASP:H	2.01	0.66
1:CA:963:G:H21	10:CM:55:LYS:HE2	1.61	0.66
1:CA:1240:U:OP2	7:CJ:116:ALA:N	2.26	0.66
25:DA:9:U:C4	25:DA:2629:A:C6	2.84	0.66
25:DA:2114:A:H5"	25:DA:2115:G:OP2	1.96	0.66
30:DG:44:GLY:HA2	30:DG:88:ILE:HD11	1.78	0.66
54:D8:49:VAL:CG1	54:D8:50:LEU:H	1.97	0.66
3:AF:50:ALA:HB1	3:AF:70:VAL:HG11	1.76	0.66
25:BA:385:C:O2	35:BO:71:VAL:HG21	1.95	0.66
25:BA:1006:C:H1'	33:BM:106:MET:HG2	1.77	0.66
25:BA:1021:A:C3'	25:BA:1022:G:H5"	2.24	0.66
25:BA:2287:A:N1	25:BA:2346:A:C2	2.63	0.66
27:BD:10:THR:HG23	27:BD:13:ARG:HB2	1.77	0.66
1:CA:77:C:H2'	1:CA:78:G:H5'	1.77	0.66
20:CW:16:HIS:O	20:CW:19:SER:OG	2.13	0.66
27:DD:2:ALA:O	27:DD:3:VAL:HB	1.95	0.66
36:DP:19:GLY:N	36:DP:98:LYS:NZ	2.43	0.66
44:DU:17:SER:CB	44:DU:71:LYS:HD2	2.26	0.66
48:DW:13:ALA:HA	48:DW:16:LEU:HD23	1.78	0.66
1:AA:88:C:H2'	1:AA:88:C:O2	1.96	0.66
10:AM:8:LEU:HD12	10:AM:20:ALA:HB2	1.75	0.66
25:BA:302:C:H2'	25:BA:303:U:C6	2.31	0.66
25:BA:880:G:O2'	25:BA:881:G:P	2.53	0.66
25:BA:1359:A:C2	25:BA:1372:U:O4	2.49	0.66
27:BD:121:PRO:HB3	27:BD:135:PHE:CE1	2.31	0.66
29:BF:32:LEU:HD21	29:BF:105:VAL:HG13	1.77	0.66
30:BG:6:ALA:HB3	30:BG:104:GLU:OE2	1.96	0.66
34:BN:102:VAL:HB	34:BN:106:LEU:HD12	1.78	0.66
41:B2:35:LEU:HD21	41:B2:57:VAL:HG22	1.78	0.66
50:B4:41:PRO:O	50:B4:42:PHE:CB	2.43	0.66
10:CM:61:GLU:OE2	14:CQ:45:ARG:NH1	2.28	0.66
22:CB:57:C:H4'	22:CB:58:G:O5'	1.94	0.66
25:DA:598:G:O4'	35:DO:12:ALA:HB2	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1266:G:O2'	25:DA:2012:G:O6	2.13	0.66
25:DA:1427:A:H4'	25:DA:1428:C:O5'	1.94	0.66
25:DA:2150:U:H2'	25:DA:2151:G:C8	2.31	0.66
25:DA:2777:G:OP2	25:DA:2781:A:O2'	2.12	0.66
27:DD:46:GLN:CD	27:DD:46:GLN:H	2.02	0.66
28:DE:80:GLU:O	28:DE:82:ARG:N	2.28	0.66
29:DF:128:ALA:O	29:DF:130:ALA:N	2.29	0.66
45:DV:102:LEU:HD11	45:DV:124:ILE:HB	1.78	0.66
22:AD:52:G:H2'	22:AD:53:A:C8	2.30	0.66
25:BA:860:U:H5	25:BA:917:A:N1	1.94	0.66
25:BA:1332:G:N2	25:BA:1610:A:C8	2.64	0.66
28:BE:13:ARG:HH11	28:BE:21:VAL:HG12	1.61	0.66
28:BE:111:ARG:HB3	37:B0:1:MET:SD	2.37	0.66
30:BG:112:PRO:HA	50:B4:37:SER:HB2	1.78	0.66
31:BH:153:LYS:HB3	31:BH:162:ILE:H	1.60	0.66
45:BV:120:ILE:O	45:BV:121:HIS:ND1	2.29	0.66
52:B6:11:LEU:HD11	52:B6:51:GLU:HG3	1.76	0.66
7:CJ:23:VAL:HG12	7:CJ:43:PHE:CE2	2.30	0.66
15:CR:4:THR:HB	15:CR:7:GLU:H	1.60	0.66
32:DK:79:ILE:HG22	32:DK:79:ILE:O	1.97	0.66
40:D1:79:PHE:CE1	40:D1:83:LEU:HD12	2.31	0.66
1:AA:963:G:N3	10:AM:55:LYS:NZ	2.44	0.65
4:AG:9:CYS:HA	4:AG:12:CYS:HB2	1.78	0.65
12:AO:43:LYS:HG2	12:AO:44:LYS:N	2.11	0.65
25:BA:165:U:H2'	25:BA:171:G:O4'	1.95	0.65
25:BA:2124:G:H1	25:BA:2174:C:N4	1.95	0.65
38:BQ:58:LEU:HD23	38:BQ:58:LEU:H	1.61	0.65
25:DA:1537:C:H2'	25:DA:1538:G:C8	2.31	0.65
25:DA:1607:C:H5"	25:DA:1608:A:H5'	1.77	0.65
25:DA:2287:A:H62	25:DA:2344:U:H3	1.42	0.65
25:DA:2681:C:H5	25:DA:2725:A:N6	1.92	0.65
29:DF:4:VAL:HA	29:DF:19:GLU:CB	2.26	0.65
1:AA:201:C:N4	1:AA:209:U:O2	2.28	0.65
1:AA:1238:A:H62	1:AA:1301:U:H3	1.45	0.65
1:AA:1502:A:H2	1:AA:1505:G:N1	1.94	0.65
25:BA:1525:G:H2'	25:BA:1526:G:C8	2.32	0.65
27:BD:70:TRP:C	27:BD:70:TRP:CD1	2.74	0.65
38:BQ:108:GLY:N	38:BQ:110:LEU:HD21	2.11	0.65
42:BS:82:LEU:HB2	42:BS:98:LYS:HB2	1.77	0.65
50:B4:9:LEU:H	50:B4:27:THR:HG22	1.61	0.65
1:CA:1137:C:H5"	1:CA:1138:G:OP1	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CE:67:THR:HG21	2:CE:155:LEU:HG	1.78	0.65
10:CM:3:LYS:N	10:CM:74:ILE:O	2.30	0.65
22:CB:83:C:H2'	22:CB:84:C:H5'	1.78	0.65
25:DA:2747:G:O6	25:DA:2755:C:H5"	1.95	0.65
26:DB:59:A:H2'	26:DB:60:C:O4'	1.96	0.65
40:D1:92:ARG:CZ	41:D2:11:GLN:H	2.09	0.65
1:AA:81:G:N1	1:AA:88:C:N4	2.45	0.65
1:AA:1000:A:H2'	1:AA:1001:G:H8	1.62	0.65
3:AF:189:ALA:HB3	3:AF:196:LEU:HB2	1.79	0.65
4:AG:12:CYS:HA	4:AG:19:LEU:CD2	2.27	0.65
4:AG:162:LEU:HD13	4:AG:181:MET:HG2	1.79	0.65
22:AD:19:C:H2'	22:AD:20:C:C4'	2.21	0.65
25:BA:1095:A:H2'	25:BA:1095:A:N3	2.09	0.65
32:BK:133:HIS:O	32:BK:134:PRO:C	2.39	0.65
39:BR:20:PRO:HG2	39:BR:86:ILE:O	1.95	0.65
40:B1:92:ARG:HD3	40:B1:94:ASN:HB3	1.78	0.65
1:CA:77:C:C2'	1:CA:78:G:H5'	2.26	0.65
1:CA:422:C:O2'	1:CA:423:G:N3	2.29	0.65
25:DA:1420:U:O2'	25:DA:1421:G:H8	1.78	0.65
1:AA:1025:U:O2'	1:AA:1026:G:O5'	2.13	0.65
4:AG:7:PRO:HB2	4:AG:10:ARG:HD2	1.77	0.65
25:BA:137(A):G:H2'	25:BA:139:G:N7	2.12	0.65
25:BA:2219:G:OP1	27:BD:172:TYR:OH	2.13	0.65
25:BA:2392:A:H8	35:BO:60:MET:CB	2.05	0.65
36:BP:26:TYR:C	36:BP:26:TYR:CD2	2.74	0.65
47:BZ:91:LYS:HZ3	47:BZ:91:LYS:HA	1.62	0.65
50:B4:39:CYS:O	50:B4:40:HIS:CB	2.42	0.65
1:CA:485:G:H1'	1:CA:486:U:H5	1.62	0.65
1:CA:1183:A:O2'	1:CA:1184:G:OP1	2.13	0.65
28:DE:51:PHE:CE2	28:DE:52:LEU:HG	2.30	0.65
35:DO:97:PRO:HG3	35:DO:112:LEU:CB	2.25	0.65
1:AA:60:A:H4'	1:AA:61:G:H5'	1.79	0.65
2:AE:19:HIS:NE2	2:AE:206:ASP:HB2	2.10	0.65
3:AF:16:ARG:HH22	3:AF:183:ASP:HA	1.61	0.65
4:AG:149:ALA:O	4:AG:153:ARG:HB3	1.97	0.65
20:AW:97:ALA:O	20:AW:99:LEU:HD22	1.95	0.65
22:AD:61:G:H1	22:AD:71:C:H42	1.43	0.65
25:BA:2789:C:H1'	25:BA:2892:A:H2	1.60	0.65
1:CA:328:C:H1'	1:CA:329:A:OP2	1.97	0.65
25:DA:329:G:N7	44:DU:19:LYS:HE2	2.11	0.65
25:DA:617:G:OP1	29:DF:40:GLN:NE2	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:627:A:H62	35:DO:84:ASN:HD21	1.43	0.65
25:DA:631:A:OP1	35:DO:64:LYS:CE	2.44	0.65
25:DA:2370:G:H21	52:D6:45:LYS:NZ	1.94	0.65
27:DD:127:VAL:HA	27:DD:193:VAL:HG23	1.78	0.65
28:DE:98:PRO:HD3	28:DE:175:VAL:HG13	1.78	0.65
33:DM:134:ARG:HG2	33:DM:134:ARG:O	1.95	0.65
36:DP:19:GLY:H	36:DP:98:LYS:NZ	1.93	0.65
1:AA:538:G:OP2	12:AO:112:LYS:HG3	1.97	0.65
2:AE:163:PHE:HD2	2:AE:185:ILE:HG13	1.62	0.65
19:AV:15:LEU:HD23	19:AV:15:LEU:H	1.61	0.65
25:BA:222:A:O3'	25:BA:223:A:H4'	1.97	0.65
30:BG:109:VAL:HG11	30:BG:142:PRO:HG3	1.78	0.65
32:BK:83:ALA:HB1	32:BK:123:LEU:HD11	1.79	0.65
35:BO:9:ASN:HB3	35:BO:10:PRO:CD	2.26	0.65
1:CA:179:A:H2'	1:CA:180:U:H6	1.61	0.65
9:CL:3:GLN:HE21	9:CL:20:ARG:NH1	1.95	0.65
25:DA:270(F):U:H2'	25:DA:270(G):C:C6	2.32	0.65
25:DA:481:G:OP2	44:DU:47:LYS:HB2	1.96	0.65
28:DE:8:LYS:HG2	28:DE:192:ASN:HD22	1.61	0.65
28:DE:103:ASP:OD1	28:DE:201:THR:HG23	1.97	0.65
33:DM:40:PRO:HB3	40:D1:68:ALA:HB2	1.79	0.65
38:DQ:25:ARG:NH1	38:DQ:42:ASP:OD2	2.29	0.65
41:D2:12:TYR:HE2	41:D2:22:VAL:HG23	1.61	0.65
45:DV:80:ARG:O	45:DV:81:ARG:HB3	1.97	0.65
4:AG:145:GLU:HG2	4:AG:184:LYS:HE3	1.78	0.65
17:AT:18:THR:OG1	17:AT:69:LYS:NZ	2.23	0.65
25:BA:1130:U:H1'	25:BA:1131:G:OP1	1.96	0.65
25:BA:1175:U:O3'	25:BA:1176:G:H4'	1.96	0.65
25:BA:1210:A:H5'	25:BA:1210:A:C8	2.28	0.65
25:BA:2308:G:N2	25:BA:2311:A:H2	1.86	0.65
1:CA:377:G:OP1	16:CS:3:LYS:HD2	1.97	0.65
1:CA:1003:G:H1	1:CA:1037:C:H42	1.45	0.65
12:CO:34:CYS:HA	12:CO:55:VAL:HA	1.78	0.65
25:DA:911:A:H2'	36:DP:9:TYR:OH	1.96	0.65
25:DA:1048:A:H2	25:DA:1112:G:H21	1.44	0.65
25:DA:1639:U:O2'	25:DA:1640:C:H5"	1.97	0.65
36:DP:88:GLY:O	36:DP:89:ASN:HB2	1.95	0.65
9:AL:22:GLY:HA3	9:AL:60:ASP:OD2	1.95	0.65
12:AO:44:LYS:HA	12:AO:44:LYS:HE3	1.77	0.65
25:BA:71:A:H2	43:BT:31:HIS:CE1	2.14	0.65
25:BA:287:C:H2'	25:BA:288:C:C6	2.31	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:883:G:H1	25:BA:893:C:H42	0.72	0.65
25:BA:2199:A:H3'	25:BA:2205:C:H6	1.61	0.65
28:BE:20:ALA:O	28:BE:21:VAL:HG22	1.96	0.65
50:B4:48:ARG:HG2	50:B4:51:ASP:HB3	1.79	0.65
3:CF:23:TYR:C	3:CF:23:TYR:CD2	2.74	0.65
25:DA:945:A:C6	25:DA:2448:A:C6	2.85	0.65
25:DA:1397:U:H1'	25:DA:1398:C:OP1	1.96	0.65
25:DA:2872:G:C8	25:DA:2873:A:C2	2.85	0.65
35:DO:55:ARG:O	35:DO:56:SER:C	2.40	0.65
35:DO:64:LYS:O	35:DO:66:GLY:N	2.30	0.65
1:AA:129(A):G:C2	1:AA:188:U:O2'	2.50	0.65
19:AV:31:ILE:HG23	19:AV:49:ILE:HA	1.78	0.65
20:AW:13:LEU:C	20:AW:13:LEU:HD12	2.22	0.65
28:BE:1:MET:HG2	28:BE:83:ASP:O	1.97	0.65
44:BU:95:LYS:HA	44:BU:100:ALA:HA	1.79	0.65
54:B8:34:TRP:CD1	54:B8:34:TRP:C	2.75	0.65
1:CA:179:A:H2'	1:CA:180:U:C6	2.32	0.65
1:CA:1003:G:N2	1:CA:1037:C:N3	2.43	0.65
13:CP:84:ILE:C	13:CP:86:CYS:H	2.05	0.65
22:CD:22:A:H2'	22:CD:22:A:N3	2.10	0.65
25:DA:1386:C:H2'	25:DA:1387:C:C6	2.32	0.65
26:DB:13:A:N1	26:DB:69:G:O2'	2.25	0.65
27:DD:48:ARG:HH11	27:DD:48:ARG:HG3	1.62	0.65
31:DH:12:PRO:HD2	31:DH:48:GLY:O	1.97	0.65
35:DO:71:VAL:CG2	35:DO:72:PRO:N	2.54	0.65
39:DR:61:PHE:HD2	39:DR:61:PHE:H	1.44	0.65
42:DS:18:ARG:HE	42:DS:76:VAL:HG13	1.61	0.65
50:D4:22:ILE:HG12	50:D4:23:GLU:H	1.62	0.65
1:AA:1054:C:H42	22:AB:35:G:H1'	1.62	0.65
22:AD:15:G:OP1	22:AD:15:G:H4'	1.97	0.65
25:BA:2137:C:N4	25:BA:2154:G:H1	1.94	0.65
26:BB:116:G:H4'	38:BQ:54:LEU:CD1	2.27	0.65
32:BK:130:TYR:C	32:BK:131:LYS:HD2	2.22	0.65
36:BP:109:VAL:HG13	36:BP:113:GLN:HB3	1.78	0.65
45:BV:143:GLY:HA2	45:BV:144:LEU:O	1.97	0.65
9:CL:8:GLY:HA3	9:CL:15:ALA:HB3	1.79	0.65
25:DA:271(B):G:N7	25:DA:421:U:H2'	2.11	0.65
25:DA:654(S):G:H1'	25:DA:654(T):A:C8	2.32	0.65
25:DA:1332:G:N2	25:DA:1610:A:C8	2.64	0.65
25:DA:2329:G:H2'	25:DA:2330:G:C8	2.32	0.65
28:DE:101:ARG:CZ	28:DE:171:GLU:HB2	2.27	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DO:46:LYS:CD	35:DO:51:PHE:CG	2.68	0.65
39:DR:29:ARG:HH11	39:DR:29:ARG:HG3	1.61	0.65
43:DT:8:ILE:HD11	43:DT:43:VAL:HG12	1.79	0.65
1:AA:964:A:N3	1:AA:969:A:O2'	2.26	0.64
10:AM:46:ARG:HG2	10:AM:64:GLU:HB3	1.79	0.64
22:AB:75:C:O2'	22:AB:76:C:P	2.54	0.64
25:BA:746:A:C5	25:BA:2611:U:H5"	2.32	0.64
29:BF:8:GLN:CD	29:BF:8:GLN:H	2.05	0.64
31:BH:153:LYS:HD2	31:BH:153:LYS:N	2.11	0.64
36:BP:80:GLU:OE2	36:BP:80:GLU:N	2.30	0.64
47:BZ:64:ALA:HA	47:BZ:67:ILE:HG13	1.79	0.64
1:CA:1190:G:H5'	3:CF:176:HIS:NE2	2.12	0.64
4:CG:108:LEU:HD21	4:CG:183:GLY:HA3	1.78	0.64
9:CL:4:TYR:HB2	9:CL:19:LEU:O	1.97	0.64
25:DA:259:G:N2	25:DA:621:A:H8	1.94	0.64
25:DA:2415:G:O3'	35:DO:66:GLY:HA3	1.96	0.64
36:DP:27:VAL:HG13	36:DP:105:GLU:OE2	1.97	0.64
38:DQ:106:ARG:O	38:DQ:106:ARG:HD2	1.96	0.64
1:AA:149:A:H2'	1:AA:150:C:C6	2.33	0.64
2:AE:100:GLY:N	2:AE:176:GLU:OE2	2.25	0.64
5:AH:45:PHE:CE2	5:AH:47:LYS:HD2	2.32	0.64
10:AM:57:LYS:HE2	10:AM:60:ARG:HH12	1.61	0.64
25:BA:155:C:N3	25:BA:171:G:N2	2.42	0.64
25:BA:320:A:H2'	29:BF:136:THR:HG21	1.79	0.64
25:BA:658:C:H2'	25:BA:659:C:C6	2.32	0.64
25:BA:1075:C:H2'	25:BA:1076:C:O4'	1.97	0.64
25:BA:2124:G:H2'	25:BA:2125:G:H5'	1.79	0.64
28:BE:66:HIS:ND1	28:BE:66:HIS:C	2.55	0.64
1:CA:64:G:OP1	1:CA:64:G:H3'	1.97	0.64
3:CF:14:ILE:HG12	3:CF:15:THR:N	2.10	0.64
5:CH:31:LEU:HD22	5:CH:43:LEU:HD11	1.79	0.64
9:CL:49:PRO:O	9:CL:53:VAL:HG22	1.97	0.64
25:DA:588:U:H2'	25:DA:589:C:C6	2.32	0.64
25:DA:910:A:C5	36:DP:13:GLN:HG3	2.33	0.64
25:DA:2251:G:OP1	36:DP:82:ARG:NH1	2.29	0.64
28:DE:131:ALA:O	28:DE:132:HIS:HB3	1.96	0.64
30:DG:178:PHE:HB3	30:DG:180:PHE:HE1	1.61	0.64
38:DQ:59:LYS:CD	38:DQ:60:GLY:H	2.09	0.64
45:DV:146:ILE:HG13	45:DV:147:GLY:H	1.61	0.64
19:AV:15:LEU:O	19:AV:19:VAL:N	2.21	0.64
25:BA:1102:C:H2'	25:BA:1103:A:C8	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:155:LEU:HD23	27:BD:177:LEU:HD22	1.79	0.64
35:BO:11:GLY:O	35:BO:13:ASN:N	2.30	0.64
35:BO:61:ARG:O	35:BO:62:LEU:HD23	1.97	0.64
41:B2:34:GLU:O	41:B2:36:PRO:HD3	1.98	0.64
51:B5:45:VAL:HG13	51:B5:50:GLY:HA3	1.78	0.64
1:CA:64:G:H4'	1:CA:65:U:O5'	1.97	0.64
1:CA:736:C:H2'	1:CA:737:A:C8	2.31	0.64
1:CA:1053:G:O2'	1:CA:1054:C:P	2.55	0.64
1:CA:1159:U:H1'	1:CA:1181:G:H1	1.63	0.64
3:CF:152:ILE:HG12	3:CF:167:TRP:HB2	1.80	0.64
25:DA:511:U:H3'	25:DA:512:G:C5'	2.24	0.64
25:DA:945:A:C4	25:DA:2448:A:C2	2.84	0.64
27:DD:34:VAL:C	27:DD:35:LYS:HG3	2.21	0.64
28:DE:87:GLU:O	28:DE:89:ASP:N	2.30	0.64
32:DK:79:ILE:O	32:DK:143:SER:N	2.30	0.64
41:D2:44:LYS:HG2	41:D2:45:THR:N	2.11	0.64
45:DV:19:ARG:NH1	45:DV:84:GLU:HB2	2.11	0.64
47:DZ:93:GLU:HA	47:DZ:97:LEU:HB3	1.79	0.64
25:BA:247:G:H4'	25:BA:386:G:C5	2.32	0.64
25:BA:844:C:H2'	25:BA:845:G:O4'	1.96	0.64
25:BA:2306:C:H3'	25:BA:2307:G:H5'	1.79	0.64
25:BA:2314:C:H2'	25:BA:2315:G:H8	1.61	0.64
25:BA:2712:U:OP1	25:BA:2714:G:H4'	1.96	0.64
26:BB:6:C:C2'	26:BB:7:G:H5"	2.25	0.64
37:B0:117:VAL:O	37:B0:118:GLU:HB2	1.96	0.64
45:BV:52:SER:O	45:BV:54:HIS:N	2.31	0.64
54:B8:29:LYS:HG2	54:B8:44:LYS:HG2	1.80	0.64
1:CA:81:G:H1	1:CA:88:C:H42	1.45	0.64
1:CA:86:U:C2'	1:CA:87:A:OP1	2.46	0.64
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.32	0.64
3:CF:8:ILE:HG23	3:CF:16:ARG:HG2	1.80	0.64
10:CM:54:PHE:CE1	10:CM:55:LYS:NZ	2.64	0.64
11:CN:27:ASN:OD1	11:CN:28:THR:N	2.30	0.64
27:DD:270:ILE:C	27:DD:271:ILE:HG13	2.21	0.64
31:DH:109:PHE:HE1	31:DH:152:ARG:HD3	1.62	0.64
32:DK:112:LYS:O	32:DK:113:ARG:HG2	1.98	0.64
35:DO:48:PRO:O	35:DO:50:ARG:N	2.31	0.64
37:D0:54:LEU:HD23	37:D0:66:VAL:HG23	1.80	0.64
45:DV:170:THR:O	45:DV:170:THR:OG1	2.13	0.64
1:AA:433:C:H2'	1:AA:434:U:H6	1.61	0.64
1:AA:464:G:C6	1:AA:466:C:H5'	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1053:G:O3'	1:AA:1054:C:H4'	1.97	0.64
22:AB:10:C:H2'	22:AB:11:C:H6	1.63	0.64
22:AB:46:G:O2'	22:AB:47:U:OP1	2.14	0.64
25:BA:138:G:N2	43:BT:44:GLU:OE2	2.20	0.64
25:BA:1359:A:N1	25:BA:1372:U:C4	2.65	0.64
25:BA:2111:C:H5	25:BA:2147:G:H1	1.46	0.64
25:BA:2212:A:H1'	25:BA:2215:G:C4	2.32	0.64
25:BA:2415:G:H4'	35:BO:66:GLY:C	2.22	0.64
36:BP:66:ILE:HA	36:BP:104:PHE:HA	1.78	0.64
45:BV:6:LYS:NZ	45:BV:43:GLU:HG3	2.11	0.64
45:BV:9:TYR:CE1	45:BV:35:ARG:HD3	2.23	0.64
54:B8:35:GLN:O	54:B8:36:LYS:HB2	1.98	0.64
1:CA:1200:C:H5'	1:CA:1201:A:C5'	2.26	0.64
3:CF:79:ARG:O	3:CF:81:GLY:N	2.29	0.64
6:CI:100:ASN:ND2	18:CU:23:LYS:HE3	2.13	0.64
25:DA:1252:G:N7	40:D1:36:ARG:NH1	2.46	0.64
26:DB:15:A:H3'	26:DB:16:G:H5'	1.79	0.64
1:AA:36:C:OP1	12:AO:120:LYS:NZ	2.29	0.64
1:AA:1124:G:O2'	10:AM:38:ILE:HD12	1.97	0.64
16:AS:8:ARG:HB3	16:AS:28:ARG:HH12	1.63	0.64
19:AV:15:LEU:HA	19:AV:18:LYS:HB3	1.80	0.64
19:AV:40:ILE:HD11	19:AV:62:ILE:HD12	1.78	0.64
25:BA:481:G:H1'	25:BA:507:A:N1	2.12	0.64
25:BA:2472:G:C4	25:BA:2475:C:N4	2.66	0.64
27:BD:35:LYS:HD3	27:BD:63:ARG:CA	2.28	0.64
31:BH:152:ARG:C	31:BH:153:LYS:HD2	2.22	0.64
1:CA:951:G:OP2	13:CP:102:ARG:NH2	2.30	0.64
1:CA:1003:G:N2	1:CA:1037:C:C2	2.66	0.64
2:CE:8:LYS:HB2	2:CE:217:ARG:NE	2.13	0.64
9:CL:18:PHE:O	9:CL:62:TYR:N	2.30	0.64
22:CB:78:C:C4'	22:CB:79:A:OP1	2.46	0.64
25:DA:1198:U:H2'	25:DA:1199:U:C6	2.33	0.64
25:DA:1464:C:O2'	25:DA:1528:A:H8	1.80	0.64
25:DA:2166:G:N2	25:DA:2171:A:N7	2.46	0.64
30:DG:179:PRO:HB3	50:D4:43:TYR:HE2	1.62	0.64
38:DQ:106:ARG:HB3	38:DQ:112:PHE:O	1.98	0.64
7:AJ:120:ILE:O	7:AJ:124:LEU:HB2	1.98	0.64
20:AW:31:SER:HA	20:AW:34:LYS:HE3	1.80	0.64
22:AD:43:G:O2'	22:AD:44:C:H5'	1.97	0.64
25:BA:140:A:C8	25:BA:1408:C:O2'	2.49	0.64
25:BA:881:G:H5'	25:BA:882:G:OP2	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1102:C:H2'	25:BA:1103:A:H8	1.63	0.64
25:BA:2065:C:H2'	25:BA:2066:C:C6	2.33	0.64
1:CA:266:G:O6	1:CA:270:A:N7	2.31	0.64
1:CA:1033:G:H2'	1:CA:1034:G:C8	2.33	0.64
2:CE:8:LYS:HB2	2:CE:217:ARG:HE	1.63	0.64
19:CV:49:ILE:HG13	19:CV:62:ILE:HD11	1.80	0.64
22:CD:20:C:C5'	22:CD:68:A:H62	2.10	0.64
25:DA:278:A:C4'	25:DA:279:C:OP1	2.46	0.64
25:DA:2126:A:N6	25:DA:2163:C:O2'	2.30	0.64
25:DA:2208:U:O2'	25:DA:2209:C:H5'	1.97	0.64
25:DA:2414:G:N2	35:DO:67:MET:HE3	2.10	0.64
38:DQ:24:LEU:HB2	38:DQ:85:VAL:HG12	1.78	0.64
48:DW:46:GLN:HB2	48:DW:49:LYS:NZ	2.12	0.64
1:AA:791:G:O6	1:AA:792:A:N1	2.30	0.64
3:AF:91:LEU:HB2	3:AF:99:VAL:HG21	1.78	0.64
16:AS:50:LYS:HD3	16:AS:51:VAL:N	2.12	0.64
25:BA:880:G:O2'	25:BA:881:G:OP1	2.16	0.64
25:BA:1903:G:OP1	27:BD:241:PRO:HB2	1.98	0.64
25:BA:2886:G:O2'	51:B5:31:VAL:HG23	1.97	0.64
27:BD:108:PRO:HB3	27:BD:143:HIS:CE1	2.32	0.64
29:BF:24:LEU:HD23	29:BF:115:ALA:HA	1.79	0.64
32:BK:71:ILE:HG12	32:BK:72:LEU:HD12	1.79	0.64
35:BO:19:VAL:HG22	35:BO:27:HIS:O	1.97	0.64
44:BU:47:LYS:HG2	44:BU:60:PHE:CE1	2.33	0.64
44:BU:49:VAL:HB	44:BU:50:ARG:NH2	2.13	0.64
44:BU:89:PHE:H	44:BU:90:LEU:HD12	1.63	0.64
1:CA:859:A:OP2	1:CA:869:G:N1	2.28	0.64
9:CL:95:LYS:HZ3	9:CL:96:LEU:HD13	1.63	0.64
13:CP:39:ILE:HD13	13:CP:52:GLU:HB3	1.78	0.64
25:DA:274:G:C5	25:DA:275:G:C6	2.86	0.64
25:DA:847:U:C2	25:DA:933:A:N6	2.66	0.64
25:DA:2469:A:O2'	36:DP:56:ARG:HG2	1.98	0.64
25:DA:2638:G:HO2'	25:DA:2639:A:H8	1.44	0.64
25:DA:2773:C:OP1	28:DE:166:THR:OG1	2.15	0.64
26:DB:44:G:H5"	26:DB:45:A:OP1	1.98	0.64
45:DV:94:GLU:O	45:DV:130:PRO:HD3	1.97	0.64
1:AA:1321:C:H3'	1:AA:1322:C:H5"	1.79	0.64
1:AA:1331:G:HO2'	1:AA:1332:A:H8	1.46	0.64
17:AT:52:LYS:HD2	17:AT:53:LEU:O	1.96	0.64
22:AB:77:C:H2'	22:AB:78:C:C5	2.33	0.64
25:BA:654(I):C:H3'	25:BA:654(I):C:O2	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:900:A:N3	25:BA:900:A:H2'	2.12	0.64
25:BA:2476:A:N3	25:BA:2476:A:H2'	2.11	0.64
25:BA:2577:A:H5"	25:BA:2578:G:H5'	1.79	0.64
26:BB:73:A:C2'	26:BB:74:U:H5'	2.28	0.64
36:BP:75:THR:HG22	36:BP:90:VAL:H	1.63	0.64
50:B4:19:GLY:O	50:B4:20:ASN:ND2	2.30	0.64
1:CA:631:G:O2'	1:CA:632:A:P	2.56	0.64
1:CA:957:U:H2'	1:CA:959:A:OP2	1.97	0.64
1:CA:1191:A:OP1	3:CF:3:ASN:ND2	2.25	0.64
25:DA:888:C:H1'	25:DA:889:C:OP1	1.97	0.64
25:DA:1061:U:H5'	25:DA:1070:A:O2'	1.98	0.64
25:DA:2068:U:N3	25:DA:2430:A:H2	1.95	0.64
28:DE:8:LYS:HE3	28:DE:188:VAL:HG13	1.80	0.64
48:DW:47:ASN:N	48:DW:47:ASN:HD22	1.96	0.64
3:AF:70:VAL:HG12	3:AF:71:ALA:N	2.12	0.64
8:AK:129:VAL:HG23	8:AK:130:GLY:H	1.63	0.64
13:AP:11:ARG:HG2	13:AP:12:ASN:H	1.63	0.64
25:BA:880:G:H1	25:BA:897:C:H42	0.71	0.64
27:BD:33:LEU:CD1	27:BD:34:VAL:H	2.08	0.64
29:BF:29:ASN:HB3	29:BF:112:MET:HE1	1.80	0.64
29:BF:152:GLU:CD	29:BF:191:ARG:HD2	2.23	0.64
45:BV:69:THR:HG22	45:BV:90:VAL:HA	1.80	0.64
2:CE:52:GLU:HG2	2:CE:56:ARG:NH2	2.13	0.64
4:CG:34:GLU:O	4:CG:35:ARG:HB2	1.96	0.64
20:CW:97:ALA:O	20:CW:99:LEU:HD12	1.98	0.64
23:CC:19:G:H4'	23:CC:20:G:OP1	1.98	0.64
25:DA:443:A:H5"	25:DA:444:C:OP1	1.98	0.64
25:DA:734:A:O2'	25:DA:1635:G:H5'	1.97	0.64
25:DA:1071:G:H22	25:DA:1090:U:H5	1.44	0.64
25:DA:1689:A:N6	25:DA:1698:A:C2	2.43	0.64
28:DE:23:VAL:HA	28:DE:184:VAL:O	1.97	0.64
33:DM:62:VAL:HG22	33:DM:66:LYS:HE3	1.79	0.64
44:DU:84:ARG:NH2	44:DU:97:ARG:HB2	2.13	0.64
47:DZ:91:LYS:CG	47:DZ:92:LYS:H	2.09	0.64
1:AA:280:C:H3'	1:AA:281:G:H5'	1.80	0.63
1:AA:1023:G:C3'	1:AA:1024:G:H5"	2.28	0.63
1:AA:1224:G:C6	1:AA:1322:C:H1'	2.34	0.63
2:AE:8:LYS:HZ1	2:AE:11:LEU:HD22	1.62	0.63
4:AG:31:CYS:C	4:AG:33:MET:H	2.07	0.63
5:AH:33:VAL:HG11	5:AH:109:ILE:HA	1.79	0.63
22:AD:18:G:H4'	22:AD:19:C:O5'	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2173:A:H5'	25:BA:2174:C:OP2	1.98	0.63
36:BP:75:THR:HB	36:BP:88:GLY:CA	2.17	0.63
54:B8:33:ASN:HA	54:B8:35:GLN:O	1.98	0.63
1:CA:86:U:H2'	1:CA:87:A:OP1	1.98	0.63
1:CA:687:A:H1'	1:CA:688:G:OP2	1.98	0.63
20:CW:26:ASN:O	20:CW:30:LYS:HB2	1.98	0.63
25:DA:543:C:H42	25:DA:550:G:H1	1.44	0.63
26:DB:83:G:H1	26:DB:93:C:H42	1.44	0.63
41:D2:22:VAL:HG22	41:D2:23:GLU:H	1.63	0.63
1:AA:989:C:H42	1:AA:1216:G:H1	1.44	0.63
1:AA:1305:G:H22	1:AA:1331:G:C2'	2.09	0.63
12:AO:44:LYS:CE	12:AO:44:LYS:CA	2.76	0.63
17:AT:67:LYS:O	17:AT:68:ARG:HB3	1.98	0.63
25:BA:1694:C:H4'	25:BA:1695:G:O5'	1.97	0.63
41:B2:60:GLU:HB2	41:B2:97:LYS:HE2	1.79	0.63
44:BU:29:GLU:HB3	44:BU:38:ILE:CG2	2.29	0.63
50:B4:16:CYS:SG	50:B4:17:GLY:N	2.72	0.63
1:CA:748:C:H1'	1:CA:749:C:OP2	1.97	0.63
1:CA:1148:U:H2'	1:CA:1149:C:O4'	1.97	0.63
1:CA:1267:C:H2'	1:CA:1267:C:O2	1.96	0.63
3:CF:139:GLN:NE2	3:CF:170:GLN:HE22	1.93	0.63
4:CG:119:GLN:HG2	4:CG:123:HIS:CD2	2.34	0.63
4:CG:119:GLN:HG2	4:CG:123:HIS:HD2	1.63	0.63
12:CO:43:LYS:HD3	12:CO:91:PRO:HG3	1.80	0.63
25:DA:2681:C:H6	25:DA:2683:C:H41	1.46	0.63
25:DA:2872:G:C8	25:DA:2873:A:H2	2.17	0.63
28:DE:68:ALA:C	28:DE:70:ALA:H	2.05	0.63
30:DG:13:GLU:O	30:DG:14:GLU:HB2	1.96	0.63
40:D1:92:ARG:NH2	41:D2:11:GLN:H	1.96	0.63
1:AA:1128:C:H5"	1:AA:1129:C:OP2	1.99	0.63
22:AB:46:G:O2'	22:AB:47:U:P	2.55	0.63
22:AD:8:U:H3	22:AD:14:A:H62	1.45	0.63
25:BA:847:U:C5	25:BA:933:A:C2	2.86	0.63
25:BA:1885:A:H2'	25:BA:1886:C:O4'	1.97	0.63
28:BE:87:GLU:O	28:BE:89:ASP:N	2.31	0.63
35:BO:115:LEU:HA	35:BO:134:ALA:HB2	1.80	0.63
1:CA:266:G:H5"	1:CA:267:C:C5	2.34	0.63
1:CA:1371:G:O3'	9:CL:69:GLY:HA3	1.99	0.63
2:CE:74:LYS:NZ	2:CE:205:ASP:O	2.31	0.63
10:CM:9:ARG:HB2	10:CM:95:GLU:HB3	1.79	0.63
22:CB:28:G:N2	22:CB:45:C:H1'	2.13	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1021:A:N6	25:DA:1142(A):A:H61	1.92	0.63
25:DA:1063:G:H2'	25:DA:1064:C:O4'	1.98	0.63
25:DA:1568:G:OP2	27:DD:63:ARG:NH2	2.32	0.63
25:DA:2467:C:H2'	25:DA:2468:G:O4'	1.98	0.63
27:DD:166:GLN:HA	27:DD:166:GLN:NE2	2.09	0.63
35:DO:39:LYS:HD3	35:DO:45:LEU:CD2	2.29	0.63
35:DO:71:VAL:CB	35:DO:72:PRO:HD3	2.26	0.63
37:D0:73:VAL:O	37:D0:76:VAL:HG12	1.97	0.63
45:DV:11:GLU:HG3	45:DV:12:GLY:N	2.14	0.63
1:AA:397:A:H5'	1:AA:398:C:OP1	1.98	0.63
1:AA:1065:U:H1'	1:AA:1066:C:OP2	1.98	0.63
1:AA:1306:A:N6	1:AA:1331:G:H1'	2.13	0.63
2:AE:18:GLY:H	2:AE:42:ILE:CG2	2.08	0.63
27:BD:35:LYS:CG	27:BD:64:ILE:N	2.60	0.63
41:B2:3:ALA:HB2	41:B2:99:ILE:HG21	1.79	0.63
41:B2:35:LEU:O	41:B2:35:LEU:HD23	1.98	0.63
1:CA:197:A:OP2	1:CA:197:A:H3'	1.99	0.63
1:CA:266:G:H5"	1:CA:267:C:H5	1.64	0.63
1:CA:554:C:H2'	1:CA:555:C:H6	1.62	0.63
7:CJ:15:ASP:HB2	7:CJ:23:VAL:HG23	1.79	0.63
7:CJ:32:ARG:O	7:CJ:34:GLY:N	2.31	0.63
13:CP:86:CYS:O	13:CP:89:GLY:N	2.22	0.63
25:DA:854:G:H2'	25:DA:855:G:H8	1.63	0.63
25:DA:1416:G:H1	25:DA:1582:C:H42	1.45	0.63
25:DA:1839:G:C8	25:DA:1927:A:H1'	2.34	0.63
25:DA:2141:G:C6	25:DA:2150:U:O2	2.51	0.63
25:DA:2145:C:H5"	25:DA:2146:C:OP2	1.99	0.63
25:DA:2298:A:N6	25:DA:2318:G:H2'	2.13	0.63
29:DF:7:TYR:CE2	29:DF:16:GLY:HA3	2.33	0.63
39:DR:24:PRO:O	39:DR:94:ALA:HB2	1.99	0.63
1:AA:390:C:O3'	16:AS:28:ARG:NH2	2.32	0.63
2:AE:75:LYS:HE3	2:AE:75:LYS:O	1.98	0.63
6:AI:67:MET:HB2	6:AI:68:PRO:HD2	1.80	0.63
22:AB:51:C:C2	22:AB:52:G:H1'	2.34	0.63
25:BA:2334:G:H5'	38:BQ:9:ARG:HG2	1.80	0.63
27:BD:25:THR:O	27:BD:26:LYS:C	2.39	0.63
49:BX:31:LEU:O	49:BX:32:GLN:HB2	1.98	0.63
10:CM:6:ILE:HD11	10:CM:72:VAL:HB	1.81	0.63
22:CD:17:G:O2'	22:CD:66:G:N2	2.31	0.63
25:DA:883:G:H2'	25:DA:884:C:C5	2.33	0.63
25:DA:1991:U:H2'	25:DA:1992:G:H5"	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2776:A:OP1	25:DA:2776:A:H3'	1.98	0.63
45:DV:53:ILE:HG22	45:DV:71:VAL:O	1.99	0.63
52:D6:24:GLU:HG3	52:D6:25:LYS:HG2	1.80	0.63
15:AR:6:GLU:OE2	15:AR:6:GLU:N	2.32	0.63
22:AD:18:G:OP1	22:AD:69:U:N3	2.22	0.63
22:AD:43:G:C2'	22:AD:44:C:H5'	2.28	0.63
25:BA:1081:U:C2'	25:BA:1082:U:O4'	2.47	0.63
26:BB:43:C:P	30:BG:67:LYS:HZ2	2.21	0.63
29:BF:184:TYR:O	29:BF:188:ARG:HG3	1.99	0.63
36:BP:54:MET:HE3	36:BP:64:ILE:HD13	1.81	0.63
39:BR:108:ARG:HA	39:BR:111:ARG:NE	2.14	0.63
45:BV:30:ASN:ND2	45:BV:33:LEU:H	1.97	0.63
46:B3:64:ASP:HB2	46:B3:85:ALA:HA	1.81	0.63
52:B6:10:LEU:H	52:B6:10:LEU:HD12	1.62	0.63
1:CA:1244:C:H2'	1:CA:1245:A:C8	2.34	0.63
5:CH:142:LEU:O	5:CH:143:ARG:NE	2.29	0.63
25:DA:274:G:H2'	25:DA:275:G:C8	2.34	0.63
25:DA:495:G:H1'	42:DS:57:ASN:ND2	2.14	0.63
25:DA:2143:C:N3	25:DA:2148:G:N2	2.37	0.63
25:DA:2419:U:H4'	52:D6:23:THR:HG21	1.80	0.63
25:DA:2552:U:H2'	25:DA:2554:U:OP2	1.98	0.63
27:DD:35:LYS:HE3	27:DD:64:ILE:N	2.14	0.63
27:DD:69:ARG:HD3	27:DD:105:ILE:HD11	1.80	0.63
32:DK:81:VAL:HG22	32:DK:143:SER:HB2	1.81	0.63
1:AA:1182:G:H4'	1:AA:1183:A:C5'	2.28	0.63
25:BA:882:G:H2'	25:BA:883:G:N7	2.14	0.63
25:BA:1188:U:O2'	25:BA:1189:A:H5'	1.97	0.63
36:BP:84:GLY:O	36:BP:85:LYS:HB2	1.98	0.63
1:CA:1002:G:H2'	1:CA:1003:G:H8	1.58	0.63
18:CU:87:ARG:O	18:CU:88:LYS:HB2	1.98	0.63
22:CD:60:A:H2'	22:CD:61:G:C8	2.34	0.63
25:DA:479:A:N3	25:DA:481:G:H5"	2.14	0.63
25:DA:795:C:H2'	25:DA:796:C:H6	1.64	0.63
25:DA:2298:A:H61	25:DA:2318:G:C2'	2.11	0.63
33:DM:76:SER:HB3	33:DM:81:GLY:HA3	1.80	0.63
36:DP:84:GLY:O	36:DP:85:LYS:HB2	1.98	0.63
46:D3:49:LYS:HE2	46:D3:80:HIS:HB3	1.81	0.63
1:AA:413:G:C2'	1:AA:414:A:OP2	2.47	0.63
1:AA:823:G:H21	8:AK:1:MET:HE1	1.64	0.63
8:AK:64:LYS:HG2	8:AK:79:VAL:HG21	1.79	0.63
25:BA:588:U:H2'	25:BA:589:C:C6	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2419:U:O4	54:B8:30:ARG:NE	2.32	0.63
25:BA:2511:U:O4	25:BA:2575:C:N3	2.32	0.63
25:BA:2882:A:OP1	37:B0:96:ARG:NH1	2.29	0.63
34:BN:47:ILE:HG13	34:BN:48:PRO:HD2	1.79	0.63
36:BP:59:ARG:O	36:BP:61:GLY:N	2.24	0.63
44:BU:81:LYS:HG2	44:BU:97:ARG:HB3	1.81	0.63
45:BV:60:GLU:O	45:BV:61:LEU:HD13	1.98	0.63
46:B3:66:VAL:HG22	46:B3:82:ARG:HB3	1.81	0.63
50:B4:14:ILE:HG23	50:B4:21:VAL:HB	1.80	0.63
51:B5:3:LYS:O	51:B5:4:HIS:CB	2.35	0.63
52:B6:18:ARG:NH1	52:B6:43:CYS:SG	2.72	0.63
25:DA:2502:G:H5"	25:DA:2503:A:H5"	1.79	0.63
27:DD:95:LEU:HD11	27:DD:105:ILE:HD12	1.81	0.63
1:AA:509:A:H2'	1:AA:510:A:C8	2.34	0.63
1:AA:973:G:H3'	1:AA:974:A:C5'	2.29	0.63
1:AA:1026:G:C5	1:AA:1036:G:N2	2.66	0.63
25:BA:654(H):G:N7	25:BA:654(N):G:N2	2.46	0.63
25:BA:795:C:H2'	25:BA:796:C:H6	1.64	0.63
25:BA:1930:G:N2	25:BA:1969:A:OP2	2.27	0.63
25:BA:2032:G:H21	28:BE:146:THR:HG23	1.63	0.63
25:BA:2157:G:O2'	25:BA:2158:A:O5'	2.15	0.63
35:BO:64:LYS:C	35:BO:66:GLY:N	2.33	0.63
44:BU:97:ARG:NH2	44:BU:98:VAL:HB	2.11	0.63
48:BW:50:ILE:HD12	48:BW:51:ARG:H	1.64	0.63
51:B5:42:PRO:HB2	51:B5:43:HIS:HD2	1.64	0.63
1:CA:1157:A:O2'	1:CA:1158:C:P	2.57	0.63
1:CA:1159:U:H1'	1:CA:1181:G:N1	2.14	0.63
1:CA:1286:A:C8	1:CA:1287:A:H4'	2.34	0.63
2:CE:22:LYS:HE3	2:CE:40:HIS:NE2	2.14	0.63
2:CE:36:ARG:HB3	2:CE:41:ILE:HD11	1.81	0.63
4:CG:92:VAL:O	4:CG:96:LEU:HD23	1.99	0.63
25:DA:969:U:OP1	49:DX:17:LYS:HD3	1.99	0.63
29:DF:21:ALA:C	29:DF:23:ASP:N	2.57	0.63
44:DU:89:PHE:CD1	44:DU:90:LEU:HG	2.34	0.63
10:AM:78:ASN:HB2	10:AM:81:THR:HG23	1.81	0.62
19:AV:41:VAL:HB	19:AV:42:PRO:CA	2.23	0.62
23:AC:6:G:H1	23:AC:68:C:H42	1.46	0.62
25:BA:319:C:P	29:BF:137:LYS:HZ1	2.22	0.62
25:BA:370:G:H4'	25:BA:371:A:OP2	2.00	0.62
25:BA:1252:G:N3	40:B1:33:ARG:HD2	2.13	0.62
27:BD:31:LYS:NZ	27:BD:33:LEU:HD12	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:58:HIS:HD2	27:BD:59:LYS:O	1.81	0.62
30:BG:13:GLU:O	30:BG:14:GLU:HB2	1.99	0.62
41:B2:38:LEU:HD23	41:B2:39:LEU:H	1.63	0.62
41:B2:89:GLN:HE21	41:B2:89:GLN:HA	1.64	0.62
43:BT:3:THR:HA	43:BT:6:ASP:OD2	1.98	0.62
1:CA:1321:C:H4'	13:CP:87:TYR:CZ	2.34	0.62
4:CG:8:VAL:O	4:CG:10:ARG:N	2.32	0.62
25:DA:528:A:H2	25:DA:2043:C:C5'	2.12	0.62
25:DA:751:A:H5'	42:DS:90:ARG:HA	1.81	0.62
25:DA:900:A:H2'	25:DA:900:A:N3	2.12	0.62
25:DA:2415:G:H4'	35:DO:67:MET:N	2.14	0.62
34:DN:47:ILE:CG1	34:DN:48:PRO:HD2	2.29	0.62
36:DP:43:THR:HG22	36:DP:94:VAL:HG12	1.80	0.62
47:DZ:92:LYS:O	47:DZ:94:LEU:N	2.32	0.62
50:D4:40:HIS:N	50:D4:41:PRO:HD3	2.14	0.62
25:BA:754:C:H2'	25:BA:755:C:H6	1.63	0.62
28:BE:199:ARG:HB3	28:BE:200:GLU:OE2	1.99	0.62
31:BH:83:TYR:HB3	31:BH:135:GLY:N	2.11	0.62
35:BO:66:GLY:O	35:BO:67:MET:CB	2.48	0.62
47:BZ:65:SER:HB2	47:BZ:66:HIS:HD2	1.63	0.62
1:CA:1151:A:H5'	10:CM:41:PRO:HA	1.82	0.62
12:CO:15:VAL:HG23	12:CO:16:ARG:H	1.63	0.62
1:AA:376:G:O3'	16:AS:5:ARG:NH1	2.32	0.62
1:AA:738:C:H5"	6:AI:69:GLU:HB2	1.81	0.62
1:AA:1502:A:H2	1:AA:1505:G:H22	1.43	0.62
2:AE:11:LEU:HB3	2:AE:213:LEU:HD11	1.80	0.62
3:AF:16:ARG:NH2	3:AF:183:ASP:OD2	2.32	0.62
11:AN:127:LYS:HA	11:AN:127:LYS:NZ	2.14	0.62
25:BA:1060:U:H1'	25:BA:1061:U:OP2	1.99	0.62
25:BA:2138:C:H42	25:BA:2153:G:H1	1.45	0.62
25:BA:2309:A:O2'	25:BA:2310:A:OP1	2.17	0.62
32:BK:133:HIS:CB	32:BK:134:PRO:HD2	2.25	0.62
35:BO:114:ILE:HD11	35:BO:130:PHE:HD1	1.64	0.62
39:BR:120:ARG:HA	39:BR:123:GLN:HG2	1.80	0.62
48:BW:13:ALA:HA	48:BW:16:LEU:HD23	1.81	0.62
1:CA:608:A:H2'	1:CA:609:A:O4'	1.98	0.62
19:CV:47:HIS:O	19:CV:62:ILE:HD13	1.99	0.62
25:DA:1011:G:H1	25:DA:1150:C:N4	1.97	0.62
25:DA:1496:A:C8	25:DA:1577:C:O2'	2.51	0.62
25:DA:2141:G:H2'	25:DA:2142:C:O4'	1.99	0.62
26:DB:88:C:H3'	26:DB:89:G:H8	1.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DD:34:VAL:O	27:DD:34:VAL:HG13	1.99	0.62
27:DD:35:LYS:CD	27:DD:104:TYR:CD1	2.81	0.62
39:DR:106:SER:HA	39:DR:110:ILE:CD1	2.29	0.62
8:AK:6:ILE:O	8:AK:10:LEU:HD23	2.00	0.62
11:AN:126:ARG:O	11:AN:128:ALA:N	2.32	0.62
25:BA:279:C:N4	25:BA:361:G:H1	1.96	0.62
25:BA:1786:A:H2	25:BA:2606:C:H1'	1.64	0.62
25:BA:2340:G:C2'	25:BA:2341:G:H5'	2.30	0.62
27:BD:31:LYS:HZ2	27:BD:33:LEU:HD12	1.63	0.62
28:BE:117:MET:HE1	28:BE:136:ARG:HA	1.80	0.62
33:BM:133:GLN:HG2	33:BM:134:ARG:H	1.64	0.62
52:B6:17:LYS:O	52:B6:44:ARG:NH2	2.33	0.62
4:CG:5:ILE:H	4:CG:5:ILE:HD12	1.65	0.62
9:CL:125:TYR:CD2	9:CL:126:SER:N	2.68	0.62
25:DA:550:G:O2'	25:DA:1220:A:N3	2.32	0.62
25:DA:1899:G:N2	25:DA:1902:C:N4	2.27	0.62
26:DB:88:C:H3'	26:DB:89:G:C8	2.34	0.62
35:DO:64:LYS:HD3	54:D8:25:MET:CE	2.28	0.62
42:DS:84:ARG:HB2	42:DS:96:ILE:HD11	1.80	0.62
1:AA:581:G:N2	1:AA:760:G:N7	2.47	0.62
1:AA:1028(B):C:N3	1:AA:1032(A):G:C2	2.67	0.62
12:AO:59:SER:HB2	12:AO:61:TYR:HD1	1.63	0.62
22:AD:81:C:H2'	22:AD:82:A:O4'	1.99	0.62
25:BA:249:C:H4'	25:BA:250:G:O5'	1.99	0.62
25:BA:2303:G:H2'	25:BA:2304:G:H5'	1.80	0.62
27:BD:110:GLY:O	27:BD:112:GLN:HG3	2.00	0.62
35:BO:15:ARG:CG	35:BO:15:ARG:NH1	2.39	0.62
35:BO:144:GLU:OE2	35:BO:144:GLU:N	2.32	0.62
37:B0:38:VAL:HB	37:B0:39:PRO:HD3	1.80	0.62
44:BU:42:VAL:HG12	44:BU:65:ALA:HB3	1.81	0.62
8:CK:106:GLY:O	8:CK:122:ARG:NH2	2.33	0.62
9:CL:48:GLU:HA	9:CL:51:ARG:HD2	1.81	0.62
19:CV:9:VAL:HG13	50:D4:63:TYR:OH	1.98	0.62
19:CV:31:ILE:HG23	19:CV:49:ILE:HG23	1.81	0.62
26:DB:14:U:O2'	26:DB:107:U:O2'	1.98	0.62
35:DO:16:ARG:HG3	35:DO:16:ARG:NH1	2.15	0.62
10:AM:57:LYS:CE	10:AM:60:ARG:HH12	2.12	0.62
13:AP:108:ARG:N	13:AP:108:ARG:HD2	2.14	0.62
25:BA:806:C:OP2	35:BO:41:ARG:HD3	1.99	0.62
25:BA:2629:A:N6	25:BA:2895:U:C2	2.67	0.62
29:BF:66:PRO:O	29:BF:67:GLN:CB	2.48	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:86:GLU:OE1	31:BH:86:GLU:N	2.28	0.62
32:BK:110:ASP:HB2	32:BK:112:LYS:N	2.14	0.62
33:BM:96:GLU:O	33:BM:97:ARG:HB2	1.98	0.62
38:BQ:15:ARG:HD2	38:BQ:88:ASP:OD1	2.00	0.62
45:BV:110:GLY:O	45:BV:111:VAL:HG22	1.99	0.62
51:B5:47:PRO:HB2	51:B5:48:GLU:OE2	2.00	0.62
20:CW:26:ASN:CB	20:CW:71:THR:HG23	2.29	0.62
21:CX:2:GLY:C	21:CX:4:GLY:H	2.07	0.62
25:DA:1490:A:O2'	27:DD:99:ASP:OD2	2.18	0.62
25:DA:1666:G:OP1	34:DN:66:LYS:HD3	1.99	0.62
28:DE:61:ARG:HB3	28:DE:62:PRO:HD3	1.81	0.62
28:DE:170:LEU:HD12	28:DE:185:LYS:HB2	1.81	0.62
29:DF:192:LEU:O	29:DF:193:VAL:HG23	2.00	0.62
1:AA:377:G:OP1	16:AS:3:LYS:HD2	2.00	0.62
1:AA:1002:G:C4	1:AA:1003:G:N7	2.68	0.62
1:AA:1280:A:C3'	1:AA:1281:U:H5'	2.30	0.62
5:AH:126:ARG:HG3	5:AH:126:ARG:NH1	2.09	0.62
8:AK:87:SER:HA	8:AK:93:VAL:HG23	1.81	0.62
10:AM:5:ARG:HH11	10:AM:99:LYS:HD3	1.64	0.62
25:BA:287:C:H2'	25:BA:288:C:H6	1.64	0.62
25:BA:945:A:H2'	25:BA:945:A:N3	2.14	0.62
25:BA:2820:A:O5'	37:B0:4:LEU:HD23	2.00	0.62
44:BU:78:ALA:HB3	44:BU:81:LYS:NZ	2.15	0.62
1:CA:509:A:H5"	4:CG:55:ALA:HB2	1.81	0.62
1:CA:1019:C:H2'	1:CA:1020:U:O4'	1.98	0.62
10:CM:16:LEU:HB3	10:CM:70:ARG:HD3	1.82	0.62
15:CR:26:GLU:OE2	15:CR:77:ARG:NH1	2.32	0.62
18:CU:29:PHE:H	18:CU:29:PHE:HD2	1.46	0.62
25:DA:548:A:H2'	25:DA:549:G:O4'	1.99	0.62
25:DA:1341:U:H3'	25:DA:1342:A:C2	2.34	0.62
25:DA:2287:A:C2	25:DA:2346:A:N1	2.68	0.62
26:DB:40:U:N3	50:D4:1:MET:SD	2.72	0.62
27:DD:64:ILE:O	27:DD:64:ILE:CG1	2.48	0.62
1:AA:243:A:H4'	1:AA:244:U:H3'	1.82	0.62
1:AA:1176:A:N6	1:AA:1177:G:C5	2.68	0.62
2:AE:100:GLY:O	2:AE:104:ASN:N	2.28	0.62
8:AK:63:LEU:HB3	8:AK:65:TYR:HE1	1.63	0.62
22:AB:85:A:H8	25:BA:2583:G:H21	1.43	0.62
25:BA:558:G:OP1	33:BM:111:PRO:HD2	1.99	0.62
25:BA:1126:A:H4'	25:BA:1127:A:O5'	1.99	0.62
27:BD:35:LYS:HZ1	27:BD:65:ILE:HA	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B1:105:VAL:HA	41:B2:44:LYS:HG3	1.81	0.62
2:CE:54:THR:HG23	2:CE:199:TYR:HB3	1.81	0.62
17:CT:48:GLU:O	17:CT:49:GLU:C	2.43	0.62
19:CV:18:LYS:O	19:CV:22:LEU:HB2	1.99	0.62
25:DA:535:C:O2'	25:DA:536:A:H5'	1.99	0.62
25:DA:1796:U:H2'	25:DA:1797:C:C6	2.35	0.62
1:AA:376:G:H5"	16:AS:5:ARG:HD2	1.81	0.62
12:AO:85:GLY:H	12:AO:95:TYR:HA	1.63	0.62
13:AP:7:VAL:HB	30:BG:115:ARG:HH22	1.63	0.62
25:BA:2343:C:O2'	25:BA:2373:G:O2'	2.00	0.62
27:BD:33:LEU:HD22	27:BD:34:VAL:N	2.15	0.62
27:BD:70:TRP:CH2	27:BD:150:LYS:HA	2.35	0.62
27:BD:121:PRO:HB3	27:BD:135:PHE:HE1	1.65	0.62
30:BG:72:ARG:HD3	30:BG:85:GLY:O	1.99	0.62
37:B0:24:GLN:HE22	37:B0:36:THR:HG21	1.63	0.62
4:CG:3:ARG:HG2	4:CG:118:ARG:NH2	2.14	0.62
5:CH:35:GLY:HA2	5:CH:40:ARG:O	2.00	0.62
25:DA:547:A:H3'	25:DA:548:A:C8	2.35	0.62
25:DA:1225:C:O3'	41:D2:85:LYS:HA	1.99	0.62
25:DA:2140:C:O2	25:DA:2151:G:N1	2.28	0.62
25:DA:2143:C:H2'	25:DA:2144:U:O4'	2.00	0.62
25:DA:2801:A:H2'	25:DA:2802:G:O4'	1.98	0.62
28:DE:201:THR:HG22	28:DE:202:LYS:N	2.13	0.62
30:DG:135:LEU:HD23	30:DG:140:ILE:HD11	1.82	0.62
37:D0:97:VAL:HG12	37:D0:114:VAL:HG22	1.80	0.62
1:AA:448:A:P	1:AA:485:G:H22	2.23	0.62
1:AA:1005:A:H5"	1:AA:1006:C:C6	2.35	0.62
6:AI:72:VAL:HG23	6:AI:90:VAL:HG11	1.82	0.62
9:AL:114:TYR:N	9:AL:114:TYR:CD2	2.68	0.62
25:BA:1292:U:H2'	25:BA:1293:C:H6	1.63	0.62
25:BA:1769:G:O2'	25:BA:1958:C:OP1	2.14	0.62
50:B4:27:THR:O	50:B4:28:LYS:HB2	1.98	0.62
52:B6:25:LYS:HB3	54:B8:34:TRP:HE1	0.48	0.62
1:CA:6:G:H4'	1:CA:298:A:H4'	1.81	0.62
1:CA:1004:A:C2	1:CA:1024:G:C8	2.87	0.62
1:CA:1027:C:C2	1:CA:1035:A:N6	2.68	0.62
1:CA:1300:G:O2'	1:CA:1301:U:P	2.58	0.62
2:CE:187:LEU:HD23	2:CE:201:ILE:O	2.00	0.62
23:CC:48:U:H1'	23:CC:49:C:O5'	2.00	0.62
25:DA:30:G:H2'	25:DA:31:C:C6	2.34	0.62
25:DA:626:U:H5"	25:DA:627:A:H5'	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1786:A:H1'	25:DA:1938:A:N6	2.15	0.62
25:DA:2122:U:H2'	25:DA:2123:G:O4'	1.99	0.62
28:DE:188:VAL:HG23	28:DE:189:PRO:HD2	1.80	0.62
29:DF:36:VAL:CG1	29:DF:183:VAL:HG11	2.30	0.62
30:DG:4:ASP:O	30:DG:5:VAL:HB	2.00	0.62
35:DO:47:ASP:H	35:DO:48:PRO:HA	1.65	0.62
46:D3:36:ILE:HD13	46:D3:36:ILE:O	2.00	0.62
1:AA:28:G:O2'	1:AA:296:U:OP1	2.17	0.61
1:AA:539:A:H2'	1:AA:540:G:C8	2.34	0.61
14:AQ:6:LEU:HB3	14:AQ:23:ARG:NH2	2.14	0.61
25:BA:1043:C:C2'	25:BA:1044:G:H5'	2.30	0.61
25:BA:2419:U:O4	54:B8:30:ARG:CZ	2.48	0.61
25:BA:2690:C:H6	25:BA:2690:C:OP2	1.82	0.61
27:BD:244:ARG:HB2	27:BD:245:PRO:HD2	1.82	0.61
29:BF:184:TYR:CE2	29:BF:188:ARG:HD2	2.34	0.61
31:BH:151:ILE:O	31:BH:153:LYS:CD	2.48	0.61
36:BP:14:ARG:HG2	36:BP:41:TRP:CH2	2.34	0.61
38:BQ:3:ARG:HG2	38:BQ:4:LEU:N	2.15	0.61
40:B1:8:VAL:HG23	40:B1:11:ARG:HH21	1.65	0.61
41:B2:81:TYR:C	41:B2:82:ARG:HD2	2.25	0.61
47:BZ:51:VAL:HG21	47:BZ:74:VAL:HG21	1.81	0.61
48:BW:4:SER:HB3	48:BW:5:GLU:OE2	2.00	0.61
1:CA:560:U:H4'	1:CA:561:U:O5'	1.99	0.61
1:CA:984:C:H2'	1:CA:985:C:H6	1.65	0.61
22:CD:60:A:H2'	22:CD:61:G:H8	1.64	0.61
25:DA:1060:U:O4'	25:DA:1062:G:H5'	1.99	0.61
25:DA:1538:G:O2'	25:DA:1539:G:H5'	2.00	0.61
25:DA:2271:G:OP1	46:D3:18:ALA:HB1	2.00	0.61
25:DA:2320:A:H1'	25:DA:2321:G:C6	2.34	0.61
25:DA:2599:G:C8	27:DD:236:GLY:O	2.53	0.61
27:DD:30:GLU:CD	27:DD:63:ARG:HE	2.08	0.61
27:DD:238:GLY:O	27:DD:239:ARG:HB2	1.99	0.61
45:DV:93:ASP:N	45:DV:130:PRO:HG2	2.14	0.61
45:DV:107:THR:N	45:DV:108:PRO:HD2	2.15	0.61
1:AA:501:C:H2'	1:AA:502:G:H8	1.65	0.61
8:AK:21:LYS:O	8:AK:65:TYR:OH	2.16	0.61
10:AM:8:LEU:HD22	10:AM:96:ILE:HG22	1.82	0.61
25:BA:796:C:H2'	25:BA:797:C:C6	2.35	0.61
25:BA:953:A:OP2	36:BP:16:ARG:HD3	2.01	0.61
25:BA:1091:G:C2'	25:BA:1092:C:H5'	2.30	0.61
25:BA:2328:A:H2'	25:BA:2329:G:C8	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:34:VAL:O	27:BD:34:VAL:HG13	2.00	0.61
31:BH:88:LEU:HD11	31:BH:165:ALA:HA	1.82	0.61
45:BV:26:GLY:HA2	45:BV:85:HIS:CD2	2.35	0.61
1:CA:1297:C:C1'	1:CA:1298:C:OP2	2.47	0.61
9:CL:97:LYS:HB3	9:CL:98:PRO:HD3	1.82	0.61
12:CO:72:HIS:HD2	12:CO:74:LEU:H	1.45	0.61
25:DA:2315:G:H2'	25:DA:2316:C:H6	1.65	0.61
25:DA:2425:A:H5"	25:DA:2427:C:O4'	2.00	0.61
26:DB:39:A:C6	50:D4:1:MET:HB3	2.35	0.61
29:DF:132:VAL:C	29:DF:134:GLY:H	2.07	0.61
50:D4:12:ALA:HB1	50:D4:29:PRO:O	1.99	0.61
54:D8:33:ASN:OD1	54:D8:33:ASN:N	2.33	0.61
1:AA:1060:C:H5"	10:AM:51:ARG:HG2	1.82	0.61
1:AA:1502:A:H2	1:AA:1505:G:N2	1.98	0.61
12:AO:56:ARG:HA	12:AO:62:GLU:HA	1.81	0.61
22:AB:48:C:N4	22:AB:52:G:H1	1.97	0.61
25:BA:70:G:H4'	25:BA:71:A:OP1	2.00	0.61
25:BA:2681:C:H1'	25:BA:2682:U:OP2	2.01	0.61
28:BE:51:PHE:CE1	28:BE:52:LEU:HG	2.35	0.61
38:BQ:28:VAL:HG11	38:BQ:98:VAL:HG13	1.81	0.61
39:BR:27:THR:HG23	39:BR:90:GLN:HB3	1.83	0.61
52:B6:48:VAL:O	52:B6:49:HIS:HB2	1.99	0.61
1:CA:1004:A:C5'	1:CA:1025:U:O4	2.49	0.61
1:CA:1298:C:OP2	7:CJ:114:ARG:NH2	2.32	0.61
2:CE:101:MET:HE2	2:CE:101:MET:HA	1.82	0.61
4:CG:24:GLU:O	4:CG:28:SER:N	2.32	0.61
25:DA:811:U:O5'	35:DO:21:ARG:O	2.17	0.61
25:DA:2712:U:OP1	25:DA:2714:G:H4'	2.00	0.61
30:DG:129:GLY:HA3	30:DG:163:ALA:O	2.00	0.61
35:DO:59:LEU:HD23	35:DO:59:LEU:O	1.99	0.61
36:DP:63:LYS:HD3	36:DP:65:PHE:CZ	2.35	0.61
45:DV:27:VAL:HG23	45:DV:36:LYS:HA	1.82	0.61
52:D6:9:LEU:HD22	52:D6:11:LEU:HD13	1.81	0.61
54:D8:24:ALA:N	54:D8:49:VAL:HG23	2.15	0.61
1:AA:310:G:OP2	16:AS:27:LYS:NZ	2.33	0.61
1:AA:963:G:N2	10:AM:55:LYS:NZ	2.47	0.61
1:AA:1157:A:H1'	1:AA:1158:C:N3	2.15	0.61
25:BA:205:G:O2'	25:BA:206:U:OP2	2.18	0.61
25:BA:218:A:H2	25:BA:235:U:H4'	1.65	0.61
27:BD:75:ILE:HD13	27:BD:99:ASP:OD1	2.00	0.61
31:BH:83:TYR:O	31:BH:84:SER:OG	2.13	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BO:26:GLY:C	35:BO:28:GLY:H	2.08	0.61
36:BP:23:GLY:HA2	36:BP:25:ASP:HB2	1.82	0.61
44:BU:79:CYS:HG	44:BU:80:GLY:H	1.40	0.61
1:CA:1179:A:H2'	1:CA:1180:A:O4'	2.00	0.61
3:CF:44:GLU:HA	3:CF:52:LEU:HD11	1.80	0.61
19:CV:36:ARG:NH2	19:CV:75:ALA:O	2.29	0.61
22:CD:50:U:H2'	22:CD:51:C:O4'	1.99	0.61
25:DA:91:A:H2'	25:DA:92:G:O4'	2.00	0.61
25:DA:1536:A:H5"	25:DA:1537:C:OP2	2.00	0.61
25:DA:1688:U:O2	25:DA:1700:A:H5'	2.00	0.61
26:DB:44:G:H1'	26:DB:47:C:H42	1.65	0.61
28:DE:119:ARG:HG2	28:DE:160:TYR:HB2	1.81	0.61
31:DH:77:LYS:HE2	31:DH:81:GLU:HB3	1.82	0.61
32:DK:76:THR:HG22	32:DK:139:GLN:O	2.00	0.61
37:D0:13:HIS:CE1	37:D0:15:SER:HB3	2.36	0.61
38:DQ:84:GLN:HA	38:DQ:110:LEU:H	1.66	0.61
41:D2:80:GLN:HE21	41:D2:80:GLN:N	1.97	0.61
45:DV:52:SER:C	45:DV:54:HIS:H	2.07	0.61
1:AA:210:U:O2'	1:AA:216:G:H8	1.84	0.61
1:AA:299:G:H2'	1:AA:300:A:C8	2.35	0.61
1:AA:989:C:N4	1:AA:1216:G:H1	1.99	0.61
5:AH:100:VAL:HG22	5:AH:118:ILE:HG22	1.82	0.61
13:AP:8:GLU:O	13:AP:10:PRO:HD3	2.01	0.61
16:AS:28:ARG:NH1	16:AS:29:ASP:OD2	2.33	0.61
20:AW:29:LYS:O	20:AW:33:ILE:HG12	2.00	0.61
25:BA:259:G:H21	25:BA:621:A:H8	1.48	0.61
25:BA:1165:U:H2'	25:BA:1166:C:H6	1.66	0.61
25:BA:1754:C:P	39:BR:96:ARG:HH12	2.23	0.61
25:BA:2286:A:H4'	25:BA:2287:A:O4'	2.00	0.61
27:BD:65:ILE:HD11	27:BD:67:PHE:CE2	2.35	0.61
37:B0:28:LEU:C	37:B0:30:THR:H	2.08	0.61
45:BV:109:ALA:HB1	45:BV:142:SER:O	1.99	0.61
48:BW:16:LEU:O	48:BW:16:LEU:HG	1.97	0.61
1:CA:685:G:O2'	1:CA:686:U:H5'	2.00	0.61
8:CK:121:ASP:OD2	8:CK:125:ARG:NH2	2.33	0.61
25:DA:901:A:H2'	25:DA:901:A:N3	2.14	0.61
25:DA:1653:G:C4	37:D0:9:LYS:HD2	2.35	0.61
25:DA:1967:C:H2'	25:DA:1968:G:H5'	1.82	0.61
36:DP:19:GLY:C	36:DP:98:LYS:HD3	2.25	0.61
1:AA:1279:A:O2'	1:AA:1281:U:OP2	2.17	0.61
2:AE:12:GLU:O	2:AE:14:GLY:N	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AQ:15:LYS:HG2	14:AQ:16:PHE:CE2	2.36	0.61
16:AS:47:ASP:O	16:AS:49:LEU:N	2.33	0.61
25:BA:634:C:H2'	25:BA:635:C:C6	2.34	0.61
25:BA:811:U:H2'	35:BO:21:ARG:O	2.00	0.61
25:BA:1230:C:H2'	25:BA:1231:G:C8	2.36	0.61
27:BD:102:LYS:C	27:BD:103:ARG:HG2	2.24	0.61
29:BF:164:ARG:HG3	29:BF:175:THR:OG1	2.00	0.61
30:BG:37:VAL:HG23	30:BG:99:MET:HE3	1.82	0.61
33:BM:34:LEU:HD21	33:BM:120:LEU:HB2	1.83	0.61
36:BP:75:THR:HG22	36:BP:90:VAL:N	2.16	0.61
36:BP:110:THR:HG23	36:BP:113:GLN:OE1	2.01	0.61
1:CA:920:U:H2'	1:CA:921:U:C6	2.35	0.61
1:CA:1160:G:N1	1:CA:1177:G:N2	2.48	0.61
12:CO:44:LYS:CB	12:CO:45:PRO:CD	2.76	0.61
23:CC:62:C:H2'	23:CC:63:C:H6	1.64	0.61
25:DA:607:U:H3	25:DA:621:A:H2	1.46	0.61
25:DA:1786:A:C2	25:DA:2606:C:H1'	2.35	0.61
25:DA:2296:U:OP2	38:DQ:9:ARG:NH1	2.34	0.61
26:DB:66:A:H61	26:DB:107:U:H2'	1.65	0.61
33:DM:65:LYS:C	33:DM:67:LEU:H	2.09	0.61
39:DR:91:ARG:NH1	39:DR:124:ASP:OD1	2.33	0.61
1:AA:1122:U:O4	1:AA:1123:A:N6	2.33	0.61
1:AA:1132:C:O2'	1:AA:1133:G:H5'	2.01	0.61
1:AA:1315:U:H2'	1:AA:1316:G:O4'	2.00	0.61
13:AP:19:LEU:HD11	13:AP:56:LEU:HD11	1.82	0.61
19:AV:18:LYS:O	19:AV:22:LEU:HD13	2.01	0.61
25:BA:270(P):C:H2'	25:BA:270(Q):C:C6	2.34	0.61
25:BA:274:G:H2'	25:BA:275:G:O4'	2.00	0.61
25:BA:2320:A:H2'	25:BA:2320:A:N3	2.16	0.61
35:BO:3:LEU:HA	35:BO:6:LEU:HD23	1.83	0.61
35:BO:75:ILE:H	35:BO:75:ILE:CD1	2.04	0.61
38:BQ:88:ASP:OD2	38:BQ:90:GLY:N	2.33	0.61
41:B2:38:LEU:HD23	41:B2:39:LEU:N	2.15	0.61
46:B3:70:GLN:NE2	46:B3:80:HIS:HE2	1.99	0.61
50:B4:14:ILE:CG2	50:B4:21:VAL:HB	2.31	0.61
54:B8:43:GLN:O	54:B8:44:LYS:HD2	2.00	0.61
7:CJ:32:ARG:C	7:CJ:34:GLY:H	2.08	0.61
25:DA:756:C:C2'	25:DA:757:U:H5'	2.31	0.61
25:DA:2112:G:C2'	25:DA:2113:U:H5"	2.31	0.61
25:DA:2133:G:H1'	25:DA:2158:A:N6	2.16	0.61
25:DA:2275:C:HO2'	36:DP:84:GLY:HA3	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DD:35:LYS:HD3	27:DD:63:ARG:HB3	1.82	0.61
31:DH:20:ALA:O	31:DH:22:GLY:N	2.32	0.61
33:DM:67:LEU:O	33:DM:88:GLU:HG3	2.00	0.61
42:DS:92:ARG:O	42:DS:93:ALA:CB	2.49	0.61
1:AA:79:G:N1	1:AA:90:C:N4	2.48	0.61
1:AA:325:A:OP2	20:AW:70:SER:HB3	2.01	0.61
1:AA:1331:G:O2'	1:AA:1332:A:H8	1.82	0.61
5:AH:71:LEU:HD11	5:AH:114:GLY:HA3	1.83	0.61
25:BA:1111:A:H4'	31:BH:3:ARG:HH11	1.65	0.61
25:BA:2564:A:C2	25:BA:2647:U:H4'	2.35	0.61
34:BN:7:TYR:CZ	34:BN:44:LYS:HG3	2.35	0.61
45:BV:60:GLU:C	45:BV:61:LEU:HD13	2.25	0.61
50:B4:37:SER:HB3	50:B4:42:PHE:CE2	2.35	0.61
1:CA:939:G:C6	1:CA:940:C:N4	2.69	0.61
1:CA:1129:C:C4	1:CA:1142:G:O6	2.54	0.61
12:CO:29:PHE:HB3	12:CO:83:ARG:HA	1.82	0.61
19:CV:42:PRO:HA	19:CV:45:VAL:HG13	1.83	0.61
24:C1:11:U:C1'	24:C1:12:A:OP1	2.48	0.61
25:DA:902:C:O2'	25:DA:903:C:H5'	2.01	0.61
25:DA:1412:A:H2'	25:DA:1413:G:H8	1.65	0.61
25:DA:2106:G:H2'	25:DA:2107:C:O4'	2.01	0.61
28:DE:64:LYS:HB2	28:DE:66:HIS:CD2	2.36	0.61
29:DF:4:VAL:HA	29:DF:19:GLU:HB2	1.81	0.61
34:DN:68:GLU:HB3	34:DN:78:ARG:NH1	2.16	0.61
45:DV:45:ASP:O	45:DV:49:ARG:HG2	2.01	0.61
52:D6:10:LEU:HD21	54:D8:34:TRP:HB2	1.82	0.61
1:AA:812:C:H4'	1:AA:813:U:O5'	1.99	0.61
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.35	0.61
25:BA:754:C:H2'	25:BA:755:C:C6	2.36	0.61
25:BA:1568:G:H21	27:BD:58:HIS:CE1	2.18	0.61
25:BA:2131:G:H5'	25:BA:2132:U:C5'	2.23	0.61
25:BA:2756:U:H4'	25:BA:2757:A:OP1	2.00	0.61
29:BF:101:LEU:O	29:BF:106:ARG:NH1	2.33	0.61
30:BG:77:ILE:HG22	30:BG:82:LEU:HD12	1.82	0.61
31:BH:118:PRO:HG3	31:BH:144:VAL:HG21	1.83	0.61
32:BK:76:THR:HG23	32:BK:139:GLN:O	2.01	0.61
32:BK:115:ALA:C	32:BK:117:GLU:H	2.08	0.61
41:B2:49:THR:HB	41:B2:50:PRO:CD	2.31	0.61
44:BU:81:LYS:NZ	44:BU:96:ILE:HD12	2.16	0.61
45:BV:30:ASN:HD22	45:BV:30:ASN:C	2.09	0.61
1:CA:1025:U:O2'	1:CA:1026:G:O5'	2.19	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1077:G:N2	1:CA:1080:A:OP2	2.33	0.61
1:CA:1278:U:H3'	1:CA:1278:U:O2	2.01	0.61
25:DA:666:G:OP1	35:DO:47:ASP:O	2.19	0.61
25:DA:1348:G:H2'	25:DA:1349:A:H5"	1.83	0.61
25:DA:2156:G:C6	25:DA:2157:G:C2	2.88	0.61
25:DA:2168:G:H2'	25:DA:2168:G:N3	2.14	0.61
26:DB:39:A:H2'	50:D4:1:MET:HE1	1.82	0.61
35:DO:46:LYS:HG3	35:DO:51:PHE:CD2	2.36	0.61
36:DP:31:ASP:HA	36:DP:134:ARG:HE	1.66	0.61
36:DP:78:PRO:HG2	36:DP:81:VAL:HG11	1.82	0.61
1:AA:79:G:O2'	1:AA:80:G:O5'	2.15	0.61
1:AA:422:C:H1'	1:AA:423:G:C2	2.36	0.61
1:AA:1322:C:H2'	1:AA:1322:C:O2	2.00	0.61
18:AU:18:ARG:HD2	18:AU:18:ARG:N	2.15	0.61
25:BA:625:G:N7	35:BO:107:LYS:NZ	2.49	0.61
25:BA:881:G:O6	25:BA:895:U:C2	2.53	0.61
25:BA:1971:A:C4	27:BD:241:PRO:HD3	2.36	0.61
26:BB:86:G:H1	26:BB:90:C:H42	1.48	0.61
27:BD:35:LYS:HE3	27:BD:63:ARG:C	2.25	0.61
36:BP:25:ASP:O	36:BP:26:TYR:HB3	2.00	0.61
1:CA:538:G:H5"	12:CO:111:LYS:HB2	1.83	0.61
1:CA:1075:C:OP1	2:CE:179:LYS:HE2	2.01	0.61
1:CA:1331:G:OP1	1:CA:1331:G:H4'	2.01	0.61
18:CU:53:ARG:HA	18:CU:56:THR:OG1	2.01	0.61
25:DA:2112:G:O2'	25:DA:2113:U:H5"	2.01	0.61
25:DA:2138:C:N4	25:DA:2153:G:H1	1.98	0.61
25:DA:2157:G:HO2'	25:DA:2158:A:H8	1.49	0.61
25:DA:2370:G:H21	52:D6:45:LYS:HZ1	1.47	0.61
28:DE:39:PRO:HA	28:DE:43:GLY:CA	2.29	0.61
30:DG:55:LYS:HD2	30:DG:58:GLN:NE2	2.16	0.61
39:DR:134:GLU:O	39:DR:136:GLN:NE2	2.33	0.61
47:DZ:58:ILE:HD12	47:DZ:87:PRO:HD3	1.82	0.61
54:D8:29:LYS:HG2	54:D8:44:LYS:HB3	1.82	0.61
25:BA:2168:G:OP1	25:BA:2168:G:H4'	1.99	0.60
28:BE:63:LEU:HD23	28:BE:63:LEU:C	2.27	0.60
29:BF:114:VAL:HG21	29:BF:202:PHE:CE1	2.36	0.60
30:BG:53:LEU:HD21	30:BG:70:VAL:HG23	1.83	0.60
31:BH:92:ILE:HD12	31:BH:92:ILE:H	1.65	0.60
54:B8:36:LYS:O	54:B8:37:SER:C	2.44	0.60
1:CA:1129:C:N4	1:CA:1139:G:H1	1.99	0.60
1:CA:1503:A:O2'	1:CA:1504:G:O5'	2.19	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:389:G:H1	35:DO:71:VAL:CG1	2.14	0.60
25:DA:1328:G:H2'	25:DA:1330:C:C5	2.36	0.60
25:DA:2019:A:H62	51:D5:9:LYS:HE3	1.65	0.60
29:DF:132:VAL:O	29:DF:134:GLY:N	2.34	0.60
35:DO:121:LYS:HG3	35:DO:122:PRO:HD2	1.83	0.60
44:DU:99:CYS:SG	44:DU:100:ALA:N	2.73	0.60
45:DV:30:ASN:N	45:DV:33:LEU:O	2.34	0.60
1:AA:1160:G:O6	1:AA:1181:G:C6	2.54	0.60
6:AI:67:MET:HE1	6:AI:75:LEU:HD12	1.83	0.60
25:BA:602:G:N2	25:BA:655:A:C8	2.68	0.60
25:BA:1077:A:H3'	25:BA:1078:U:H5'	1.80	0.60
25:BA:1188:U:H4'	41:B2:79:VAL:HG22	1.83	0.60
25:BA:1316:U:H2'	25:BA:1317:A:C8	2.36	0.60
25:BA:2262:U:H4'	25:BA:2328:A:C2	2.35	0.60
26:BB:7:G:O5'	38:BQ:29:PHE:HE1	1.82	0.60
34:BN:4:PRO:O	34:BN:5:GLN:CB	2.49	0.60
45:BV:54:HIS:HE1	45:BV:123:ASP:OD1	1.84	0.60
1:CA:160:A:H1'	1:CA:344:A:C5	2.37	0.60
1:CA:843:U:H3'	1:CA:848:C:O4'	2.01	0.60
1:CA:1200:C:H1'	1:CA:1204:A:N6	2.16	0.60
4:CG:96:LEU:HD12	4:CG:139:ARG:NH2	2.15	0.60
17:CT:81:ARG:HH21	17:CT:84:LEU:HD21	1.66	0.60
25:DA:768:G:O2'	25:DA:1379:A:N6	2.33	0.60
25:DA:774:A:H2	25:DA:787:U:O2'	1.84	0.60
25:DA:1070:A:H5'	25:DA:1071:G:C5'	2.31	0.60
25:DA:2763:G:H5'	25:DA:2763:G:H8	1.65	0.60
29:DF:25:PRO:HG2	29:DF:26:ALA:H	1.64	0.60
36:DP:10:ARG:HA	36:DP:10:ARG:NE	2.16	0.60
36:DP:29:PHE:HB3	36:DP:65:PHE:CZ	2.36	0.60
1:AA:411:A:N6	1:AA:413:G:H21	1.98	0.60
8:AK:110:ALA:HB3	8:AK:121:ASP:HB3	1.83	0.60
14:AQ:24:CYS:C	14:AQ:26:ARG:H	2.09	0.60
25:BA:270(R):G:H2'	25:BA:270(S):G:C8	2.36	0.60
25:BA:2065:C:H2'	25:BA:2066:C:H6	1.66	0.60
25:BA:2845:G:O2'	25:BA:2846:G:H5'	2.01	0.60
29:BF:127:GLU:C	29:BF:129:PHE:H	2.09	0.60
33:BM:59:LYS:HE2	33:BM:59:LYS:HA	1.84	0.60
35:BO:11:GLY:C	35:BO:13:ASN:N	2.60	0.60
37:B0:36:THR:HG22	37:B0:37:THR:H	1.65	0.60
1:CA:81:G:H1	1:CA:88:C:N4	2.00	0.60
1:CA:254:G:OP1	17:CT:67:LYS:O	2.19	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:412:A:O2'	1:CA:413:G:OP2	2.14	0.60
1:CA:539:A:OP2	12:CO:112:LYS:NZ	2.33	0.60
1:CA:1160:G:H2'	1:CA:1160:G:N3	2.16	0.60
8:CK:29:SER:HB3	8:CK:32:LYS:HG3	1.83	0.60
22:CD:21:A:H4'	22:CD:22:A:OP1	2.00	0.60
25:DA:1341:U:H3'	25:DA:1342:A:H2	1.66	0.60
25:DA:1899:G:C2'	25:DA:1900:A:OP2	2.49	0.60
25:DA:2693:A:H2'	25:DA:2694:G:H8	1.66	0.60
26:DB:42:C:O2'	30:DG:67:LYS:O	2.13	0.60
30:DG:66:GLN:HA	50:D4:6:HIS:CD2	2.34	0.60
34:DN:1:MET:HE2	34:DN:32:TYR:CE2	2.36	0.60
35:DO:63:PRO:HA	54:D8:13:ARG:HA	1.83	0.60
38:DQ:15:ARG:NE	38:DQ:88:ASP:OD1	2.35	0.60
38:DQ:88:ASP:OD2	38:DQ:90:GLY:N	2.27	0.60
41:D2:15:GLU:HG3	41:D2:16:PRO:HD2	1.84	0.60
41:D2:78:LYS:O	41:D2:79:VAL:HG13	2.00	0.60
44:DU:27:VAL:HG12	44:DU:39:VAL:HG12	1.83	0.60
1:AA:1262:C:H42	1:AA:1273:G:H1	1.48	0.60
13:AP:84:ILE:HD11	19:AV:66:MET:HG2	1.82	0.60
25:BA:676:A:N1	25:BA:802:A:N1	2.48	0.60
25:BA:1695:G:N7	27:BD:14:ARG:NH2	2.49	0.60
25:BA:2142:C:C2	25:BA:2149:G:N2	2.63	0.60
31:BH:20:ALA:HB3	31:BH:23:ARG:HG3	1.84	0.60
31:BH:152:ARG:HE	31:BH:153:LYS:HZ3	1.49	0.60
39:BR:26:ASP:HB2	39:BR:90:GLN:O	2.01	0.60
40:B1:69:CYS:HB3	40:B1:74:LEU:HD13	1.82	0.60
1:CA:980:C:H5'	1:CA:981:U:C5	2.36	0.60
22:CB:75:C:O2'	22:CB:76:C:P	2.59	0.60
25:DA:83:G:H21	25:DA:103:A:H62	1.49	0.60
25:DA:1000:A:C6	25:DA:1001:A:N1	2.70	0.60
25:DA:2099:U:H3	25:DA:2190:G:H1	1.49	0.60
31:DH:4:ILE:HD12	31:DH:6:ARG:NE	2.16	0.60
35:DO:71:VAL:HG13	35:DO:72:PRO:HD2	1.71	0.60
41:D2:5:VAL:HB	41:D2:37:VAL:HG11	1.83	0.60
41:D2:43:GLU:C	41:D2:44:LYS:HD3	2.26	0.60
1:AA:116:A:H61	1:AA:313:A:H1'	1.67	0.60
1:AA:1132:C:H2'	1:AA:1133:G:C8	2.36	0.60
3:AF:83:ARG:O	3:AF:86:VAL:HG22	2.02	0.60
25:BA:140:A:H8	25:BA:1408:C:O2'	1.81	0.60
25:BA:270(G):C:H2'	25:BA:270(H):C:H6	1.65	0.60
25:BA:1171:G:C5	25:BA:1174:A:N6	2.69	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2404:C:O3'	35:BO:77:ARG:NH2	2.35	0.60
27:BD:181:GLU:HA	27:BD:272:ALA:HB3	1.82	0.60
29:BF:136:THR:O	29:BF:140:LEU:HB2	2.01	0.60
36:BP:136:ALA:HB1	45:BV:52:SER:HB2	1.84	0.60
42:BS:79:GLY:CA	42:BS:100:THR:HG22	2.31	0.60
44:BU:96:ILE:HG13	44:BU:98:VAL:H	1.66	0.60
47:BZ:83:GLU:HG2	47:BZ:85:LEU:H	1.66	0.60
1:CA:410:G:OP2	4:CG:25:ARG:HG2	2.01	0.60
1:CA:1057:G:C4	1:CA:1204:A:C2	2.90	0.60
1:CA:1160:G:H22	1:CA:1177:G:H21	1.49	0.60
22:CB:52:G:H8	22:CB:52:G:OP2	1.85	0.60
22:CD:50:U:H2'	22:CD:51:C:C6	2.37	0.60
29:DF:24:LEU:CD1	29:DF:25:PRO:HD3	2.28	0.60
35:DO:71:VAL:O	35:DO:73:GLY:N	2.35	0.60
36:DP:111:GLU:O	36:DP:115:MET:HG2	2.02	0.60
38:DQ:29:PHE:CD2	38:DQ:30:ARG:N	2.69	0.60
38:DQ:110:LEU:HD23	38:DQ:111:GLU:N	2.15	0.60
45:DV:141:VAL:HB	45:DV:144:LEU:HD23	1.84	0.60
45:DV:175:VAL:HG22	45:DV:176:PRO:HB3	1.82	0.60
46:D3:14:ARG:O	46:D3:15:ASP:HB2	2.01	0.60
49:DX:4:LEU:O	49:DX:36:VAL:HA	2.02	0.60
54:D8:50:LEU:O	54:D8:51:ALA:CB	2.49	0.60
1:AA:171:A:H2'	1:AA:172:A:C8	2.36	0.60
1:AA:181:G:O2'	1:AA:182:U:O5'	2.19	0.60
1:AA:575:G:O2'	1:AA:821:G:H5'	2.02	0.60
1:AA:791:G:C6	1:AA:792:A:C2	2.90	0.60
1:AA:795:C:H5"	1:AA:796:C:OP2	2.01	0.60
1:AA:1423:G:P	34:BN:49:ARG:HH22	2.23	0.60
1:AA:1450:U:O2'	1:AA:1451:A:C8	2.55	0.60
3:AF:8:ILE:HG23	3:AF:16:ARG:HG2	1.84	0.60
11:AN:86:GLY:N	11:AN:112:THR:OG1	2.22	0.60
25:BA:627:A:H62	35:BO:84:ASN:HD21	1.49	0.60
25:BA:654(M):C:H3'	25:BA:654(N):G:C8	2.37	0.60
25:BA:2001:A:H2'	25:BA:2002:G:C8	2.36	0.60
25:BA:2139:C:H2'	25:BA:2140:C:H5'	1.82	0.60
35:BO:37:GLY:O	35:BO:41:ARG:HD2	2.01	0.60
42:BS:110:LYS:O	42:BS:112:GLY:N	2.34	0.60
50:B4:42:PHE:CD1	50:B4:43:TYR:CB	2.82	0.60
1:CA:84:U:H2'	1:CA:84:U:O2	2.01	0.60
1:CA:933:G:O6	7:CJ:3:ARG:NH2	2.35	0.60
6:CI:36:ARG:NH1	6:CI:66:GLU:OE1	2.33	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CB:51:C:OP2	22:CB:51:C:H6	1.85	0.60
25:DA:1800:C:OP2	27:DD:183:ARG:NH2	2.33	0.60
25:DA:1971:A:C4	27:DD:241:PRO:HD3	2.36	0.60
25:DA:2191:G:O2'	25:DA:2192:G:P	2.59	0.60
32:DK:124:GLY:O	32:DK:142:VAL:HG12	2.02	0.60
32:DK:131:LYS:HB3	32:DK:132:PRO:CA	2.29	0.60
45:DV:28:MET:O	45:DV:34:ASN:HA	2.00	0.60
45:DV:30:ASN:O	45:DV:32:HIS:N	2.35	0.60
1:AA:406:G:H2'	1:AA:407:G:H8	1.67	0.60
1:AA:689:C:H2'	1:AA:690:G:H5'	1.84	0.60
1:AA:872:A:C4	1:AA:874:G:N7	2.70	0.60
1:AA:1003:G:N2	1:AA:1004:A:O3'	2.35	0.60
7:AJ:113:GLU:HB2	7:AJ:119:ARG:HG2	1.83	0.60
19:AV:30:LEU:H	19:AV:30:LEU:CD1	2.12	0.60
20:AW:98:PRO:C	20:AW:100:ILE:H	2.09	0.60
25:BA:214:G:H4'	25:BA:214:G:OP1	2.02	0.60
25:BA:229:A:H4'	25:BA:230:U:OP2	2.01	0.60
25:BA:330:A:O2'	25:BA:331:A:H8	1.84	0.60
25:BA:1026:U:C4'	25:BA:1027:A:OP1	2.50	0.60
25:BA:2327:A:H2'	25:BA:2328:A:C8	2.35	0.60
32:BK:118:LYS:HD2	32:BK:119:PRO:HD2	1.83	0.60
52:B6:15:GLU:HG3	52:B6:49:HIS:CE1	2.36	0.60
1:CA:973:G:H1'	10:CM:55:LYS:CE	2.31	0.60
9:CL:119:ALA:O	9:CL:120:ARG:HB2	2.02	0.60
17:CT:53:LEU:H	17:CT:53:LEU:HD12	1.66	0.60
22:CD:57:C:O2'	22:CD:68:A:H4'	2.01	0.60
25:DA:747:U:O2	25:DA:2014:A:H1'	2.01	0.60
25:DA:1039:G:H1	25:DA:1116:C:H42	1.50	0.60
25:DA:2080:G:O2'	25:DA:2081:C:H5'	2.02	0.60
25:DA:2859:G:H2'	25:DA:2860:A:C8	2.37	0.60
31:DH:88:LEU:HD13	31:DH:164:TYR:O	2.02	0.60
31:DH:92:ILE:H	31:DH:92:ILE:HD12	1.67	0.60
33:DM:19:GLU:OE1	33:DM:59:LYS:NZ	2.31	0.60
35:DO:80:TYR:CD1	35:DO:111:ARG:HB3	2.37	0.60
47:DZ:86:SER:N	47:DZ:87:PRO:HD2	2.14	0.60
54:D8:40:GLU:H	54:D8:43:GLN:HG3	1.67	0.60
25:BA:1049:C:H2'	25:BA:1050:A:H5"	1.82	0.60
26:BB:73:A:H2'	26:BB:74:U:H5'	1.82	0.60
51:B5:40:LYS:HZ3	51:B5:46:CYS:HB3	1.66	0.60
1:CA:130:A:C8	17:CT:63:ARG:HG3	2.37	0.60
1:CA:406:G:H5'	4:CG:5:ILE:CG2	2.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CF:73:PRO:O	3:CF:76:VAL:HG22	2.02	0.60
4:CG:13:ARG:O	4:CG:15:GLU:N	2.31	0.60
10:CM:4:ILE:HG23	10:CM:100:THR:HG22	1.84	0.60
13:CP:92:HIS:CE1	13:CP:98:VAL:HG11	2.36	0.60
23:CC:19:G:C4'	23:CC:20:G:OP1	2.49	0.60
25:DA:883:G:H2'	25:DA:884:C:C6	2.36	0.60
25:DA:1537:C:H2'	25:DA:1538:G:H8	1.65	0.60
28:DE:64:LYS:C	28:DE:66:HIS:H	2.10	0.60
39:DR:107:ASP:OD2	39:DR:109:GLU:HB2	2.01	0.60
40:D1:95:LEU:C	40:D1:97:ASP:H	2.08	0.60
44:DU:46:LYS:O	44:DU:48:ALA:N	2.35	0.60
49:DX:7:LYS:HG3	49:DX:34:GLU:HG3	1.84	0.60
1:AA:67:C:H2'	1:AA:68:G:C8	2.37	0.60
1:AA:429:U:H1'	1:AA:430:A:H5"	1.84	0.60
1:AA:881:G:P	12:AO:9:ARG:HH22	2.24	0.60
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.17	0.60
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.36	0.60
3:AF:19:GLU:HG2	3:AF:40:ARG:HH21	1.67	0.60
4:AG:25:ARG:O	4:AG:27:TYR:N	2.34	0.60
9:AL:48:GLU:HB2	9:AL:78:LYS:HE3	1.82	0.60
9:AL:49:PRO:HG3	9:AL:101:PHE:CD2	2.36	0.60
18:AU:73:ALA:HB3	18:AU:79:LEU:HD12	1.84	0.60
25:BA:234:C:H2'	25:BA:235:U:H6	1.65	0.60
25:BA:546:C:H3'	25:BA:547:A:C8	2.37	0.60
25:BA:1065:U:H1'	25:BA:1074:G:N2	2.17	0.60
25:BA:1139:G:O2'	25:BA:1143:A:N1	2.26	0.60
27:BD:28:GLU:O	27:BD:29:PRO:C	2.42	0.60
38:BQ:106:ARG:HA	38:BQ:110:LEU:CD2	2.31	0.60
39:BR:74:ARG:HD3	39:BR:76:PHE:CZ	2.36	0.60
53:B7:8:ASN:ND2	53:B7:8:ASN:C	2.60	0.60
15:CR:16:ALA:HB1	15:CR:21:ASP:HB3	1.83	0.60
19:CV:66:MET:N	19:CV:67:VAL:HB	2.17	0.60
25:DA:1538:G:H2'	25:DA:1539:G:H8	1.67	0.60
25:DA:1678:G:N2	25:DA:1989:G:N2	2.49	0.60
25:DA:1964:G:H4'	25:DA:1965:C:OP2	2.02	0.60
25:DA:2561:A:H2	34:DN:23:ARG:HH12	1.49	0.60
28:DE:9:VAL:HG23	28:DE:10:GLY:N	2.17	0.60
33:DM:18:ALA:HA	33:DM:21:LYS:HD2	1.83	0.60
35:DO:20:GLY:O	35:DO:21:ARG:NE	2.34	0.60
35:DO:107:LYS:HB3	35:DO:110:TYR:CD2	2.35	0.60
42:DS:95:ILE:HG12	42:DS:95:ILE:O	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DZ:65:SER:OG	47:DZ:66:HIS:HD2	1.83	0.60
1:AA:254:G:OP1	17:AT:67:LYS:O	2.20	0.60
1:AA:560:U:H5'	1:AA:566:G:N2	2.17	0.60
1:AA:686:U:O4	1:AA:703:G:H1'	2.01	0.60
3:AF:78:GLY:HA3	3:AF:83:ARG:HB3	1.82	0.60
3:AF:143:GLU:C	3:AF:145:GLY:H	2.10	0.60
11:AN:124:LYS:HD2	11:AN:125:PHE:CE2	2.37	0.60
25:BA:1042:G:H2'	25:BA:1043:C:C6	2.37	0.60
25:BA:2127:G:O6	25:BA:2161:C:N3	2.34	0.60
25:BA:2335:A:C8	25:BA:2337:G:C5	2.89	0.60
28:BE:70:ALA:O	28:BE:71:GLY:C	2.45	0.60
35:BO:16:ARG:HG3	35:BO:16:ARG:NH1	2.15	0.60
1:CA:57:G:H2'	1:CA:58:C:C6	2.37	0.60
1:CA:485:G:C2'	1:CA:486:U:OP2	2.49	0.60
9:CL:125:TYR:HD2	9:CL:126:SER:H	1.47	0.60
19:CV:66:MET:HA	19:CV:67:VAL:C	2.25	0.60
25:DA:278:A:H4'	25:DA:279:C:OP1	2.00	0.60
25:DA:492:A:H2'	25:DA:493:G:O4'	2.01	0.60
25:DA:989:G:OP2	49:DX:11:SER:HB3	2.01	0.60
25:DA:1011:G:H1	25:DA:1150:C:H42	1.50	0.60
25:DA:1681:G:O2'	25:DA:1762:A:O2'	2.20	0.60
25:DA:2050:C:H1'	28:DE:156:MET:HE1	1.84	0.60
25:DA:2415:G:H4'	35:DO:66:GLY:HA3	1.84	0.60
25:DA:2797:U:H2'	25:DA:2798:C:H5'	1.83	0.60
26:DB:86:G:H1	26:DB:90:C:H42	1.48	0.60
29:DF:3:GLU:O	29:DF:19:GLU:HB2	2.02	0.60
31:DH:86:GLU:CD	31:DH:86:GLU:H	2.10	0.60
32:DK:143:SER:O	32:DK:144:VAL:HB	2.01	0.60
35:DO:97:PRO:HG3	35:DO:112:LEU:HB2	1.83	0.60
39:DR:3:ARG:CZ	39:DR:6:LEU:HD13	2.32	0.60
1:AA:411:A:H62	1:AA:413:G:N2	2.00	0.59
10:AM:40:LEU:HB2	10:AM:69:ASN:CB	2.31	0.59
25:BA:746:A:C6	25:BA:2611:U:H5"	2.37	0.59
25:BA:945:A:H1'	25:BA:946:G:OP1	2.02	0.59
25:BA:1081:U:O2'	25:BA:1082:U:P	2.60	0.59
25:BA:1101:U:H2'	25:BA:1102:C:C6	2.37	0.59
25:BA:2141:G:C6	25:BA:2150:U:O2	2.55	0.59
25:BA:2771:C:H2'	25:BA:2772:C:C6	2.37	0.59
34:BN:8:LEU:HD23	34:BN:8:LEU:N	2.16	0.59
45:BV:99:TYR:HB3	45:BV:123:ASP:OD1	2.01	0.59
47:BZ:86:SER:N	47:BZ:87:PRO:CD	2.65	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:452:A:H2'	1:CA:453:A:C8	2.37	0.59
1:CA:973:G:H3'	1:CA:974:A:C5'	2.31	0.59
2:CE:213:LEU:HD23	2:CE:213:LEU:O	2.02	0.59
7:CJ:57:GLU:H	7:CJ:57:GLU:CD	2.09	0.59
16:CS:43:LYS:HG3	16:CS:48:TRP:CD1	2.37	0.59
25:DA:140:A:H8	25:DA:1408:C:O2'	1.82	0.59
25:DA:620:G:H8	25:DA:622:G:O6	1.85	0.59
25:DA:2275:C:O2	36:DP:85:LYS:HG2	2.02	0.59
25:DA:2688:U:H3'	25:DA:2688:U:O2	2.02	0.59
28:DE:5:LEU:HD11	28:DE:79:ARG:HB2	1.84	0.59
28:DE:116:VAL:O	28:DE:117:MET:CB	2.45	0.59
31:DH:153:LYS:HD3	31:DH:156:ALA:HB2	1.83	0.59
35:DO:112:LEU:H	35:DO:128:HIS:HD2	1.48	0.59
38:DQ:87:PHE:CE1	38:DQ:102:ALA:HB2	2.37	0.59
40:D1:58:ARG:HG2	40:D1:62:ILE:HD13	1.84	0.59
44:DU:95:LYS:NZ	44:DU:96:ILE:O	2.35	0.59
1:AA:73:G:H2'	1:AA:74:C:O4'	2.02	0.59
1:AA:1213:A:C6	1:AA:1215:G:H1'	2.36	0.59
2:AE:178:ARG:HH11	2:AE:178:ARG:HG2	1.66	0.59
2:AE:231:GLU:HB2	2:AE:232:PRO:HD2	1.84	0.59
4:AG:25:ARG:C	4:AG:27:TYR:N	2.59	0.59
9:AL:29:ASN:ND2	9:AL:65:VAL:HG12	2.17	0.59
25:BA:639:U:H2'	25:BA:640:C:C6	2.37	0.59
28:BE:64:LYS:O	28:BE:70:ALA:HB2	2.02	0.59
41:B2:31:ALA:O	41:B2:61:VAL:HG22	2.02	0.59
50:B4:50:VAL:O	50:B4:50:VAL:HG13	2.02	0.59
1:CA:1053:G:O6	1:CA:1199:U:H2'	2.02	0.59
1:CA:1321:C:H4'	13:CP:87:TYR:CE2	2.37	0.59
3:CF:50:ALA:HB2	3:CF:75:VAL:HB	1.83	0.59
8:CK:1:MET:HE3	8:CK:3:THR:HG23	1.84	0.59
19:CV:11:VAL:HG22	19:CV:12:ASP:N	2.11	0.59
22:CD:42:U:H2'	22:CD:43:G:H8	1.67	0.59
25:DA:411:G:C2	35:DO:71:VAL:HG21	2.36	0.59
25:DA:795:C:H2'	25:DA:796:C:C6	2.37	0.59
25:DA:908:C:OP1	36:DP:22:LYS:HB3	2.03	0.59
25:DA:1889:A:H2'	25:DA:1890:A:C8	2.38	0.59
25:DA:2418:A:OP2	54:D8:29:LYS:NZ	2.31	0.59
40:D1:90:VAL:HG11	41:D2:40:LEU:HD13	1.84	0.59
41:D2:39:LEU:O	41:D2:40:LEU:HD12	2.02	0.59
45:DV:10:ARG:NH2	45:DV:26:GLY:O	2.34	0.59
1:AA:664:G:N2	1:AA:741:G:H1	1.97	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:687:A:H1'	1:AA:688:G:OP2	2.02	0.59
1:AA:689:C:C2'	1:AA:690:G:H5'	2.33	0.59
1:AA:1432:G:OP1	39:BR:107:ASP:HB2	2.02	0.59
25:BA:4:C:H2'	25:BA:5:A:C8	2.36	0.59
25:BA:325:G:O2'	25:BA:326:G:H5'	2.03	0.59
25:BA:1654:A:OP1	37:B0:1:MET:O	2.19	0.59
27:BD:96:HIS:CE1	27:BD:102:LYS:HD3	2.37	0.59
28:BE:61:ARG:O	28:BE:62:PRO:C	2.46	0.59
35:BO:19:VAL:CG2	35:BO:27:HIS:HA	2.32	0.59
9:CL:23:ASN:HD22	9:CL:23:ASN:H	1.50	0.59
10:CM:4:ILE:HA	10:CM:100:THR:HA	1.84	0.59
15:CR:17:ARG:HG3	15:CR:17:ARG:NH1	2.08	0.59
25:DA:627:A:H4'	25:DA:628:G:OP1	2.02	0.59
25:DA:956:G:OP2	36:DP:14:ARG:NH2	2.35	0.59
25:DA:2318:G:H1	38:DQ:2:ALA:N	2.00	0.59
26:DB:15:A:H1'	26:DB:109:G:C8	2.37	0.59
26:DB:40:U:C2'	26:DB:41:U:OP1	2.50	0.59
28:DE:61:ARG:C	28:DE:63:LEU:H	2.10	0.59
44:DU:9:LYS:O	44:DU:27:VAL:HG23	2.02	0.59
44:DU:48:ALA:HB3	44:DU:59:GLY:O	2.02	0.59
1:AA:1152:A:OP1	10:AM:68:HIS:NE2	2.35	0.59
1:AA:1238:A:C8	1:AA:1301:U:O4	2.55	0.59
5:AH:10:MET:HE1	5:AH:13:ILE:HD11	1.84	0.59
16:AS:28:ARG:HG2	16:AS:28:ARG:HH11	1.67	0.59
25:BA:1545(A):A:H2'	25:BA:1546:C:H5'	1.84	0.59
25:BA:2151:G:H2'	25:BA:2152:G:H8	1.64	0.59
25:BA:2439:A:H5'	25:BA:2439:A:H8	1.67	0.59
36:BP:39:PRO:HA	36:BP:97:VAL:O	2.02	0.59
40:B1:92:ARG:HD2	40:B1:95:LEU:HD12	1.85	0.59
44:BU:56:PRO:C	44:BU:57:GLN:HG3	2.27	0.59
46:B3:68:GLU:CG	46:B3:80:HIS:HB2	2.33	0.59
51:B5:40:LYS:NZ	51:B5:46:CYS:HB3	2.16	0.59
1:CA:85:U:O2'	1:CA:86:U:OP2	2.15	0.59
1:CA:345:C:H1'	1:CA:346:G:N1	2.18	0.59
1:CA:1422:G:O3'	34:DN:49:ARG:NH1	2.35	0.59
7:CJ:69:VAL:HG11	7:CJ:134:ALA:HB1	1.84	0.59
19:CV:41:VAL:HG22	50:D4:63:TYR:HD2	1.67	0.59
25:DA:639:U:H2'	25:DA:640:C:C6	2.36	0.59
25:DA:1022:G:H1'	25:DA:1023:U:OP2	2.03	0.59
28:DE:16:ARG:O	28:DE:17:ASP:HB2	2.02	0.59
29:DF:178:PRO:HB2	29:DF:201:VAL:HG11	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:D2:67:GLY:O	41:D2:88:ARG:HD2	2.03	0.59
22:AB:83:C:H2'	22:AB:84:C:H5'	1.82	0.59
25:BA:232:G:H8	25:BA:232:G:OP2	1.85	0.59
25:BA:443:A:H3'	29:BF:45:ARG:NH1	2.16	0.59
25:BA:882:G:N2	25:BA:894:C:C2	2.69	0.59
25:BA:1063:G:N2	25:BA:1076:C:O2	2.35	0.59
25:BA:2145:C:H2'	25:BA:2147:G:N1	2.17	0.59
25:BA:2733:A:H2'	25:BA:2734:A:H5'	1.84	0.59
26:BB:41:U:H5	30:BG:69:ALA:HB1	1.67	0.59
31:BH:98:LEU:HD22	31:BH:125:VAL:HG23	1.83	0.59
32:BK:86:THR:HA	32:BK:123:LEU:HD13	1.83	0.59
43:BT:49:VAL:HG11	43:BT:83:VAL:HG12	1.84	0.59
1:CA:197:A:C8	1:CA:198:G:C1'	2.86	0.59
1:CA:421:U:H5"	1:CA:422:C:OP2	2.02	0.59
1:CA:1126:U:O2'	1:CA:1127:G:OP2	2.19	0.59
3:CF:184:TYR:HD1	3:CF:201:TYR:CE2	2.20	0.59
16:CS:53:VAL:HG13	16:CS:79:VAL:HG22	1.84	0.59
17:CT:81:ARG:HE	17:CT:84:LEU:HD11	1.67	0.59
22:CD:19:C:H6	22:CD:19:C:H3'	1.67	0.59
25:DA:1070:A:H5'	25:DA:1071:G:H5"	1.83	0.59
27:DD:65:ILE:CD1	27:DD:106:ILE:HG13	2.32	0.59
30:DG:40:ASN:HD22	30:DG:91:ARG:HB2	1.66	0.59
31:DH:6:ARG:HD3	31:DH:6:ARG:N	2.16	0.59
44:DU:40:GLU:OE2	44:DU:40:GLU:N	2.36	0.59
45:DV:151:HIS:HB3	45:DV:167:PRO:HB3	1.82	0.59
1:AA:1118:C:H1'	1:AA:1179:A:C4	2.37	0.59
1:AA:1442:G:O6	1:AA:1446:A:N6	2.35	0.59
5:AH:126:ARG:HH11	5:AH:126:ARG:CG	2.12	0.59
6:AI:69:GLU:OE1	6:AI:69:GLU:N	2.29	0.59
9:AL:43:ALA:HA	9:AL:74:ILE:HD13	1.85	0.59
10:AM:8:LEU:HB3	10:AM:16:LEU:HD21	1.84	0.59
13:AP:67:GLU:HG2	13:AP:71:ARG:HH21	1.64	0.59
22:AB:79:A:H3'	22:AB:80:C:C5'	2.27	0.59
22:AD:21:A:H4'	22:AD:22:A:O5'	2.02	0.59
25:BA:1022:G:O6	33:BM:66:LYS:NZ	2.35	0.59
25:BA:1164:G:H2'	25:BA:1165:U:C6	2.38	0.59
25:BA:2733:A:H2'	25:BA:2734:A:H5"	1.84	0.59
30:BG:16:ARG:N	30:BG:17:PRO:HD2	2.18	0.59
45:BV:58:VAL:O	45:BV:60:GLU:N	2.32	0.59
49:BX:43:ILE:O	49:BX:47:VAL:HG23	2.03	0.59
1:CA:406:G:H5'	4:CG:5:ILE:HG21	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:510:A:H5”	1:CA:511:C:OP2	2.01	0.59
1:CA:632:A:H4’	1:CA:633:G:O5’	2.03	0.59
1:CA:1028(A):C:O2	1:CA:1033:G:N2	2.36	0.59
1:CA:1055:A:N6	1:CA:1206:G:C5	2.70	0.59
10:CM:78:ASN:C	10:CM:80:LYS:H	2.11	0.59
11:CN:57:THR:HG22	11:CN:59:TYR:H	1.66	0.59
13:CP:6:GLY:O	13:CP:7:VAL:HG13	2.03	0.59
25:DA:1534:G:H5’	25:DA:1535:U:OP2	2.03	0.59
25:DA:2331:G:O2’	46:D3:43:THR:HG22	2.03	0.59
29:DF:8:GLN:HG2	29:DF:124:LEU:HD11	1.83	0.59
29:DF:26:ALA:O	29:DF:27:GLU:HG3	2.02	0.59
29:DF:158:THR:HB	29:DF:195:ASP:HB2	1.84	0.59
32:DK:128:LEU:O	32:DK:138:ILE:HG22	2.03	0.59
33:DM:95:PRO:O	33:DM:98:VAL:HG22	2.03	0.59
35:DO:85:LEU:HB3	35:DO:114:ILE:HD13	1.85	0.59
45:DV:161:VAL:HG23	45:DV:162:GLU:H	1.66	0.59
51:D5:41:PRO:HG2	51:D5:44:THR:OG1	2.02	0.59
1:AA:182:U:H2’	1:AA:182:U:O2	2.01	0.59
1:AA:1004:A:H8	1:AA:1036:G:N2	2.00	0.59
1:AA:1225:A:H2’	1:AA:1225:A:N3	2.16	0.59
4:AG:163:GLU:C	4:AG:165:MET:H	2.10	0.59
25:BA:899:A:O2’	25:BA:900:A:H8	1.86	0.59
25:BA:1568:G:H21	27:BD:58:HIS:HE1	1.48	0.59
26:BB:43:C:H5”	50:B4:1:MET:HG2	1.84	0.59
31:BH:77:LYS:HE3	31:BH:138:LYS:HD2	1.83	0.59
41:B2:16:PRO:HA	41:B2:96:ILE:HG22	1.85	0.59
41:B2:52:VAL:HG22	41:B2:55:ALA:HB3	1.84	0.59
45:BV:117:LEU:HD13	45:BV:118:GLN:H	1.68	0.59
45:BV:158:PRO:C	45:BV:160:GLY:H	2.10	0.59
51:B5:25:LEU:H	51:B5:25:LEU:HD12	1.67	0.59
1:CA:31:G:O2’	1:CA:48:C:N4	2.35	0.59
1:CA:201:C:H4’	1:CA:208:U:OP1	2.01	0.59
1:CA:457:C:H2’	1:CA:458:C:H6	1.67	0.59
1:CA:1055:A:C2	3:CF:194:GLY:HA3	2.37	0.59
1:CA:1151:A:H1’	10:CM:39:PRO:HB2	1.84	0.59
3:CF:175:LEU:HD21	3:CF:201:TYR:CE1	2.37	0.59
4:CG:26:CYS:HA	4:CG:31:CYS:HB2	1.84	0.59
5:CH:145:LYS:O	5:CH:149:GLU:HG2	2.03	0.59
20:CW:70:SER:O	20:CW:71:THR:C	2.46	0.59
22:CB:78:C:O2’	22:CB:79:A:H5”	2.03	0.59
25:DA:1309:G:H3’	53:D7:9:ARG:NH1	2.18	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DD:72:LYS:HE2	27:DD:101:GLU:OE2	2.02	0.59
35:DO:15:ARG:O	35:DO:16:ARG:O	2.21	0.59
36:DP:114:ALA:O	36:DP:118:LEU:HB2	2.02	0.59
36:DP:132:VAL:HG21	45:DV:81:ARG:HH22	1.66	0.59
1:AA:939:G:C6	1:AA:940:C:N4	2.70	0.59
1:AA:1054:C:N4	22:AB:35:G:H1'	2.18	0.59
2:AE:22:LYS:H	2:AE:22:LYS:HZ3	1.51	0.59
22:AB:18:G:H4'	22:AB:19:C:OP2	2.01	0.59
25:BA:1528:A:N1	25:BA:1543:A:N1	2.51	0.59
25:BA:2172:U:H4'	25:BA:2173:A:OP1	2.02	0.59
25:BA:2468:G:C2'	25:BA:2476:A:H62	2.13	0.59
27:BD:2:ALA:O	27:BD:3:VAL:HB	2.03	0.59
27:BD:182:LEU:H	27:BD:272:ALA:HB3	1.67	0.59
28:BE:54:GLN:O	28:BE:55:ASN:HB2	2.03	0.59
36:BP:66:ILE:HG13	36:BP:67:ARG:N	2.17	0.59
49:BX:8:LEU:HD13	49:BX:31:LEU:HD23	1.85	0.59
1:CA:812:C:C1'	1:CA:813:U:OP2	2.48	0.59
25:DA:902:C:C2'	25:DA:903:C:H5'	2.33	0.59
25:DA:908:C:OP1	36:DP:22:LYS:CB	2.51	0.59
50:D4:22:ILE:HG12	50:D4:23:GLU:N	2.18	0.59
1:AA:519:C:P	12:AO:47:SER:HG	2.26	0.59
1:AA:791:G:C5	1:AA:792:A:C2	2.90	0.59
1:AA:1138:G:H3'	1:AA:1138:G:N3	2.18	0.59
1:AA:1148:U:H2'	1:AA:1149:C:O4'	2.02	0.59
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.38	0.59
7:AJ:26:PHE:O	7:AJ:30:ILE:HG13	2.03	0.59
22:AB:57:C:H4'	22:AB:58:G:O5'	2.00	0.59
25:BA:529:A:H8	25:BA:530:G:C6	2.20	0.59
25:BA:776:G:H4'	25:BA:777:A:O5'	2.02	0.59
25:BA:1793:C:O2	25:BA:1900:A:H2	1.86	0.59
25:BA:2723:C:O3'	37:B0:1:MET:HE3	2.03	0.59
25:BA:2747:G:O6	25:BA:2755:C:H5"	2.03	0.59
26:BB:42:C:O2	30:BG:93:THR:N	2.32	0.59
27:BD:31:LYS:HD3	27:BD:94:LEU:HD11	1.85	0.59
28:BE:50:GLY:CA	28:BE:77:ILE:HG22	2.33	0.59
30:BG:64:THR:HG22	30:BG:66:GLN:H	1.67	0.59
50:B4:23:GLU:OE1	50:B4:24:THR:N	2.36	0.59
50:B4:45:GLY:O	50:B4:47:GLN:N	2.36	0.59
1:CA:408:A:H2'	1:CA:409:G:O4'	2.02	0.59
1:CA:498:A:H4'	1:CA:500:G:OP1	2.02	0.59
1:CA:1086:U:O5'	1:CA:1086:U:H6	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1319:A:P	19:CV:10:PHE:HB3	2.42	0.59
4:CG:78:LEU:HD22	4:CG:96:LEU:HB3	1.83	0.59
7:CJ:20:ASP:HB3	7:CJ:23:VAL:HG22	1.84	0.59
13:CP:49:THR:HG22	13:CP:51:ALA:H	1.67	0.59
13:CP:78:ILE:CG2	13:CP:92:HIS:HD2	2.15	0.59
25:DA:756:C:H2'	25:DA:757:U:H5'	1.84	0.59
25:DA:1204:A:O2'	25:DA:1205:U:OP2	2.18	0.59
25:DA:1336:A:H2'	25:DA:1337:G:C8	2.38	0.59
25:DA:1451:C:H4'	25:DA:1453:A:C8	2.38	0.59
25:DA:2701:C:C3'	25:DA:2702:U:H5"	2.24	0.59
26:DB:40:U:C2	26:DB:43:C:OP2	2.56	0.59
27:DD:267:SER:C	27:DD:269:PHE:H	2.11	0.59
28:DE:33:VAL:HG11	28:DE:88:GLY:HA2	1.85	0.59
47:DZ:87:PRO:O	47:DZ:91:LYS:N	2.27	0.59
6:AI:86:ARG:O	6:AI:87:ARG:HG2	2.02	0.59
24:A1:12:A:C1'	24:A1:13:A:OP1	2.50	0.59
25:BA:557:U:H2'	25:BA:558:G:H8	1.68	0.59
25:BA:588:U:C2	29:BF:90:PHE:CE1	2.91	0.59
25:BA:607:U:N3	25:BA:621:A:C2	2.70	0.59
25:BA:1309:G:H4'	53:B7:7:PRO:HB2	1.84	0.59
28:BE:70:ALA:O	28:BE:72:VAL:N	2.36	0.59
30:BG:70:VAL:HG22	30:BG:70:VAL:O	2.01	0.59
40:B1:66:ASN:O	40:B1:66:ASN:ND2	2.34	0.59
45:BV:134:PRO:C	45:BV:136:PHE:H	2.11	0.59
51:B5:4:HIS:CG	51:B5:5:PRO:CD	2.70	0.59
53:B7:5:TRP:NE1	53:B7:7:PRO:HG3	2.18	0.59
1:CA:583:A:H2'	1:CA:584:G:O4'	2.03	0.59
1:CA:1157:A:H1'	1:CA:1158:C:C2	2.37	0.59
1:CA:1302:U:C5	13:CP:17:VAL:HG21	2.38	0.59
9:CL:96:LEU:HG	9:CL:101:PHE:HB2	1.83	0.59
25:DA:7:G:N2	25:DA:2896:C:N3	2.49	0.59
25:DA:9:U:C2	25:DA:2629:A:N6	2.71	0.59
25:DA:389:G:N1	35:DO:71:VAL:CG1	2.65	0.59
25:DA:1480:G:C2	25:DA:1482:U:O2	2.56	0.59
25:DA:2875:C:O2'	39:DR:5:ALA:HB3	2.03	0.59
28:DE:36:ARG:HH21	28:DE:88:GLY:HA2	1.66	0.59
31:DH:105:LEU:HD23	31:DH:105:LEU:H	1.66	0.59
37:D0:41:ALA:O	37:D0:43:GLU:N	2.36	0.59
48:DW:5:GLU:CD	48:DW:5:GLU:H	2.11	0.59
49:DX:19:GLN:NE2	49:DX:52:HIS:HE1	2.00	0.59
1:AA:82:U:O4	1:AA:87:A:N1	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:244:U:H4'	1:AA:245:C:C5'	2.33	0.58
1:AA:457:C:H2'	1:AA:458:C:C6	2.37	0.58
1:AA:542:G:H5'	4:AG:41:GLY:HA3	1.85	0.58
3:AF:70:VAL:HG12	3:AF:72:LYS:N	2.11	0.58
3:AF:173:VAL:O	3:AF:175:LEU:HD12	2.02	0.58
9:AL:43:ALA:O	9:AL:45:ALA:N	2.36	0.58
9:AL:43:ALA:C	9:AL:45:ALA:H	2.11	0.58
15:AR:39:LEU:HD13	15:AR:56:LEU:HB2	1.84	0.58
20:AW:53:LEU:HB3	20:AW:102:GLY:HA3	1.83	0.58
25:BA:85:G:OP2	44:BU:9:LYS:HB2	2.03	0.58
25:BA:330:A:O2'	25:BA:331:A:C8	2.54	0.58
25:BA:604:G:OP2	35:BO:90:ARG:NH2	2.36	0.58
25:BA:1578:U:H2'	25:BA:1579:A:H5'	1.83	0.58
25:BA:2115:G:O6	25:BA:2117:A:H3'	2.01	0.58
25:BA:2620:C:OP1	28:BE:152:LYS:O	2.21	0.58
33:BM:1:MET:HE2	41:B2:13:ARG:H	1.68	0.58
37:B0:85:PRO:O	37:B0:87:TYR:N	2.36	0.58
38:BQ:30:ARG:O	38:BQ:30:ARG:HG3	2.01	0.58
4:CG:63:LYS:HD2	4:CG:198:VAL:HG12	1.84	0.58
10:CM:35:SER:OG	10:CM:73:ASP:HB2	2.02	0.58
23:CC:56:U:O2	23:CC:58:A:C8	2.56	0.58
25:DA:428:A:H8	25:DA:428:A:OP2	1.86	0.58
25:DA:495:G:H21	42:DS:61:ASN:HD21	1.49	0.58
25:DA:867:C:C5	25:DA:868:U:H5	2.21	0.58
25:DA:2211:G:H3'	25:DA:2212:A:N3	2.16	0.58
25:DA:2765:A:H2	25:DA:2766:G:O4'	1.86	0.58
25:DA:2787:C:H1'	28:DE:62:PRO:HG3	1.85	0.58
28:DE:24:THR:HG23	28:DE:186:GLY:HA2	1.84	0.58
28:DE:58:ARG:O	28:DE:60:ASN:N	2.36	0.58
28:DE:66:HIS:C	28:DE:68:ALA:H	2.10	0.58
29:DF:9:ILE:O	29:DF:128:ALA:HB2	2.02	0.58
36:DP:57:HIS:CG	36:DP:117:ALA:HB2	2.38	0.58
48:DW:16:LEU:O	48:DW:16:LEU:HG	2.03	0.58
1:AA:1147:C:O2	9:AL:16:ARG:NH1	2.36	0.58
1:AA:1178:G:O2'	1:AA:1179:A:OP1	2.19	0.58
1:AA:1322:C:O2'	1:AA:1323:G:P	2.61	0.58
7:AJ:65:ALA:HB1	7:AJ:127:ALA:HB3	1.85	0.58
8:AK:12:ARG:NH1	8:AK:27:PRO:HD2	2.18	0.58
10:AM:7:LYS:HD2	10:AM:9:ARG:NH1	2.19	0.58
12:AO:44:LYS:CB	12:AO:45:PRO:HD2	2.06	0.58
25:BA:273(E):U:C2'	25:BA:273(F):C:H5'	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1103:A:H2'	25:BA:1103:A:N3	2.17	0.58
25:BA:1771:C:C1'	25:BA:1786:A:C8	2.83	0.58
28:BE:167:VAL:HG21	28:BE:187:ALA:HB3	1.84	0.58
38:BQ:29:PHE:CD2	38:BQ:29:PHE:C	2.78	0.58
40:B1:66:ASN:ND2	40:B1:70:ARG:HE	2.01	0.58
1:CA:735:C:H2'	1:CA:736:C:H6	1.66	0.58
1:CA:998(A):C:O2'	1:CA:999:U:H5'	2.04	0.58
1:CA:1055:A:C5	1:CA:1056:U:H6	2.21	0.58
1:CA:1286:A:H8	1:CA:1287:A:H5"	1.67	0.58
3:CF:104:GLN:OE1	3:CF:105:GLU:N	2.35	0.58
3:CF:111:LEU:HD22	3:CF:146:ALA:HB2	1.84	0.58
17:CT:45:HIS:HB2	17:CT:65:ILE:HD13	1.84	0.58
25:DA:533:G:H5'	40:D1:24:TYR:CE2	2.38	0.58
25:DA:669:G:O2'	25:DA:670:A:P	2.61	0.58
25:DA:819:A:OP2	25:DA:1187:G:N2	2.31	0.58
25:DA:1557:C:OP2	25:DA:1558:A:O2'	2.21	0.58
29:DF:177:ALA:HB1	29:DF:178:PRO:HD2	1.85	0.58
35:DO:61:ARG:CA	35:DO:62:LEU:HD22	2.33	0.58
47:DZ:82:LEU:HD23	47:DZ:82:LEU:N	2.11	0.58
2:AE:16:HIS:HD2	2:AE:210:SER:CA	2.09	0.58
2:AE:200:ILE:H	2:AE:200:ILE:HD12	1.68	0.58
3:AF:79:ARG:NH1	18:CU:87:ARG:HH22	2.01	0.58
16:AS:4:ILE:HA	16:AS:20:VAL:O	2.03	0.58
22:AB:19:C:H4'	22:AB:20:C:OP1	2.02	0.58
22:AB:50:U:H2'	22:AB:51:C:O4'	2.03	0.58
25:BA:479:A:H4'	25:BA:480:A:OP1	2.03	0.58
25:BA:2126:A:C4	25:BA:2162:G:N2	2.70	0.58
25:BA:2228:G:OP2	27:BD:263:ARG:NH2	2.36	0.58
25:BA:2729:G:H1'	28:BE:187:ALA:HB2	1.85	0.58
29:BF:103:LYS:HA	29:BF:106:ARG:HG3	1.85	0.58
31:BH:35:VAL:O	31:BH:37:VAL:HG23	2.03	0.58
35:BO:15:ARG:O	35:BO:16:ARG:O	2.21	0.58
39:BR:16:ARG:HH21	39:BR:19:LEU:HD21	1.68	0.58
1:CA:1056:U:O2	1:CA:1056:U:C2'	2.51	0.58
2:CE:78:GLN:NE2	2:CE:95:GLN:OE1	2.34	0.58
2:CE:97:TRP:CZ2	2:CE:101:MET:HB2	2.39	0.58
7:CJ:143:ARG:NH1	22:CD:43:G:H5'	2.19	0.58
25:DA:674:G:O2'	29:DF:74:ARG:HG3	2.03	0.58
25:DA:1161:C:H1'	41:D2:8:GLY:O	2.04	0.58
32:DK:81:VAL:O	32:DK:143:SER:OG	2.20	0.58
32:DK:109:ILE:HB	32:DK:130:TYR:OH	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DN:119:PRO:HB2	39:DR:68:TYR:CE2	2.38	0.58
35:DO:48:PRO:O	35:DO:49:ARG:C	2.46	0.58
35:DO:62:LEU:HG	54:D8:25:MET:CB	2.06	0.58
41:D2:35:LEU:HG	41:D2:37:VAL:CG1	2.33	0.58
41:D2:85:LYS:HE3	41:D2:87:HIS:CA	2.33	0.58
48:DW:22:GLU:O	48:DW:25:VAL:HG23	2.03	0.58
1:AA:654:G:H2'	1:AA:655:A:H5'	1.83	0.58
1:AA:1149:C:H2'	1:AA:1150:U:C6	2.31	0.58
3:AF:134:ILE:HG22	3:AF:168:ALA:HB3	1.85	0.58
4:AG:26:CYS:HA	4:AG:31:CYS:HB2	1.85	0.58
7:AJ:22:LEU:HD23	7:AJ:62:PHE:HE2	1.66	0.58
13:AP:23:TYR:CE1	13:AP:70:LEU:HD22	2.38	0.58
15:AR:39:LEU:HD22	15:AR:43:LEU:HG	1.85	0.58
16:AS:43:LYS:HA	16:AS:48:TRP:HB2	1.85	0.58
22:AB:49:A:N3	22:AB:49:A:H2'	2.18	0.58
25:BA:899:A:O2'	25:BA:900:A:O4'	2.21	0.58
25:BA:900:A:H3'	25:BA:901:A:H8	1.69	0.58
34:BN:112:MET:O	34:BN:115:VAL:HG22	2.04	0.58
47:BZ:79:GLY:C	47:BZ:80:LEU:HD12	2.27	0.58
1:CA:828:A:H2'	1:CA:829:G:O4'	2.03	0.58
2:CE:124:SER:C	2:CE:126:GLU:H	2.11	0.58
2:CE:178:ARG:HH22	2:CE:196:LEU:HA	1.67	0.58
18:CU:36:ASN:HD22	18:CU:39:VAL:HG21	1.67	0.58
25:DA:395:U:H2'	25:DA:396:G:N7	2.19	0.58
25:DA:1210:A:H4'	25:DA:1211:U:O5'	2.03	0.58
38:DQ:99:LYS:O	38:DQ:103:GLU:HG2	2.04	0.58
40:D1:91:ASP:C	40:D1:92:ARG:HG3	2.28	0.58
50:D4:61:ARG:HG2	50:D4:62:ARG:NH1	2.18	0.58
1:AA:953:G:H5'	1:AA:965:A:H61	1.69	0.58
2:AE:8:LYS:HE3	2:AE:11:LEU:HB2	1.84	0.58
13:AP:108:ARG:HA	13:AP:108:ARG:HH11	1.68	0.58
27:BD:26:LYS:HD2	27:BD:26:LYS:N	2.18	0.58
1:CA:1028(B):C:H3'	1:CA:1029:G:C5'	2.32	0.58
6:CI:3:ARG:NH1	6:CI:38:GLU:OE1	2.36	0.58
10:CM:44:VAL:HG22	10:CM:66:ARG:HG2	1.85	0.58
25:DA:137(A):G:H2'	25:DA:139:G:N7	2.19	0.58
25:DA:846:C:C2	25:DA:847:U:C4	2.91	0.58
25:DA:1048:A:P	25:DA:1109:C:H42	2.26	0.58
25:DA:1543:A:H1'	25:DA:1545:A:H1'	1.85	0.58
25:DA:1557:C:H5"	25:DA:1558:A:OP2	2.04	0.58
25:DA:1754:C:OP1	39:DR:96:ARG:NH1	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2754:U:H5'	25:DA:2755:C:OP2	2.03	0.58
38:DQ:29:PHE:HD2	38:DQ:30:ARG:H	1.50	0.58
42:DS:1:MET:HG2	42:DS:2:GLU:H	1.68	0.58
46:D3:49:LYS:HG3	46:D3:80:HIS:ND1	2.19	0.58
1:AA:1128:C:C5'	9:AL:16:ARG:HH22	2.17	0.58
1:AA:1346:A:O2'	7:AJ:10:ARG:NH2	2.36	0.58
7:AJ:89:MET:HE2	7:AJ:89:MET:HA	1.84	0.58
10:AM:78:ASN:O	10:AM:81:THR:OG1	2.18	0.58
25:BA:299:A:H5'	44:BU:84:ARG:NH2	2.19	0.58
25:BA:911:A:H2'	36:BP:9:TYR:OH	2.03	0.58
25:BA:1799:G:H5'	25:BA:1819:A:N6	2.19	0.58
25:BA:2168:G:H3'	25:BA:2168:G:N3	2.18	0.58
25:BA:2346:A:O3'	52:B6:39:TYR:OH	2.21	0.58
27:BD:186:HIS:CD2	27:BD:188:GLU:H	2.20	0.58
1:CA:89:U:H1'	1:CA:90:C:OP1	2.04	0.58
1:CA:165:C:H2'	1:CA:166:G:C8	2.37	0.58
1:CA:1125:U:H2'	1:CA:1126:U:C6	2.38	0.58
1:CA:1399:C:C2	1:CA:1502:A:N6	2.72	0.58
2:CE:92:TYR:HE2	2:CE:151:GLY:HA3	1.66	0.58
3:CF:157:ILE:CD1	3:CF:166:GLU:HB2	2.33	0.58
6:CI:24:GLU:OE1	6:CI:28:ARG:HD3	2.04	0.58
10:CM:49:VAL:O	10:CM:60:ARG:HB2	2.02	0.58
12:CO:54:LYS:HG3	12:CO:64:THR:HG22	1.83	0.58
13:CP:3:ARG:HG2	13:CP:9:ILE:HD11	1.84	0.58
25:DA:1043:C:H2'	25:DA:1044:G:H5'	1.83	0.58
25:DA:2262:U:O2'	25:DA:2263:C:H5'	2.03	0.58
25:DA:2308:G:HO2'	25:DA:2309:A:P	2.26	0.58
25:DA:2599:G:N7	27:DD:236:GLY:O	2.36	0.58
30:DG:20:ILE:O	30:DG:24:GLY:HA2	2.03	0.58
35:DO:50:ARG:O	35:DO:51:PHE:C	2.46	0.58
38:DQ:59:LYS:HD2	38:DQ:60:GLY:H	1.67	0.58
38:DQ:93:LYS:HB2	38:DQ:93:LYS:HZ2	1.69	0.58
1:AA:501:C:H1'	1:AA:549:C:H1'	1.85	0.58
1:AA:814:A:N7	1:AA:816:A:C4	2.72	0.58
1:AA:1226:C:OP2	13:AP:103:THR:OG1	2.18	0.58
2:AE:42:ILE:HD11	2:AE:202:PRO:HB2	1.84	0.58
2:AE:108:ILE:HD13	2:AE:108:ILE:O	2.04	0.58
6:AI:10:LEU:HD13	6:AI:61:LEU:HD13	1.86	0.58
6:AI:43:LEU:O	6:AI:43:LEU:HD23	2.04	0.58
25:BA:329:G:H4'	25:BA:330:A:OP2	2.01	0.58
25:BA:945:A:C1'	25:BA:946:G:OP1	2.51	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1833:U:O2'	25:BA:1969:A:N1	2.34	0.58
25:BA:2055:C:H5'	25:BA:2056:G:H5"	1.86	0.58
25:BA:2171:A:O2'	25:BA:2172:U:O5'	2.21	0.58
25:BA:2309:A:C6	25:BA:2310:A:N7	2.72	0.58
25:BA:2377:A:H2'	25:BA:2378:A:C8	2.38	0.58
25:BA:2469:A:OP2	25:BA:2476:A:N7	2.37	0.58
27:BD:121:PRO:HA	27:BD:135:PHE:HD1	1.67	0.58
33:BM:96:GLU:O	33:BM:98:VAL:N	2.36	0.58
35:BO:82:GLY:HA2	35:BO:113:LYS:O	2.03	0.58
36:BP:1:MET:O	36:BP:2:LEU:CB	2.51	0.58
37:B0:87:TYR:HE1	37:B0:117:VAL:HG12	1.68	0.58
39:BR:81:PRO:HG2	39:BR:82:LEU:HD12	1.85	0.58
50:B4:33:VAL:O	50:B4:34:GLU:C	2.47	0.58
51:B5:38:ALA:HB3	51:B5:40:LYS:HE3	1.86	0.58
1:CA:861:G:C5	1:CA:862:C:C5	2.92	0.58
1:CA:1126:U:O4	1:CA:1281:U:C6	2.57	0.58
1:CA:1127:G:H1	1:CA:1144:G:H1	1.50	0.58
2:CE:87:ARG:NH1	2:CE:220:ASP:OD1	2.35	0.58
17:CT:60:ILE:HD13	17:CT:61:GLU:N	2.18	0.58
18:CU:29:PHE:N	18:CU:29:PHE:CD2	2.72	0.58
22:CB:48:C:C3'	22:CB:49:A:H8	2.12	0.58
25:DA:483:A:H5"	44:DU:49:VAL:HG13	1.84	0.58
25:DA:511:U:C3'	25:DA:512:G:H5"	2.24	0.58
25:DA:1198:U:H2'	25:DA:1199:U:H6	1.66	0.58
27:DD:43:ARG:HD2	27:DD:44:ASN:ND2	2.19	0.58
28:DE:31:CYS:HB3	28:DE:49:LEU:HB3	1.86	0.58
30:DG:11:TYR:O	30:DG:16:ARG:HB2	2.02	0.58
42:DS:59:VAL:HA	42:DS:64:MET:H	1.67	0.58
44:DU:76:CYS:HB3	44:DU:96:ILE:HD11	1.86	0.58
1:AA:983:A:H5"	1:AA:984:C:OP2	2.03	0.58
1:AA:1032:A:H3'	1:AA:1032(A):G:C5'	2.34	0.58
1:AA:1199:U:H4'	10:AM:54:PHE:CE2	2.39	0.58
9:AL:59:PHE:HZ	9:AL:88:TYR:CE1	2.22	0.58
9:AL:113:LYS:HD3	9:AL:119:ALA:HA	1.86	0.58
22:AD:20:C:H5"	22:AD:68:A:N6	2.16	0.58
25:BA:602:G:O2'	25:BA:604:G:O2'	2.21	0.58
25:BA:654(S):G:H1'	25:BA:654(T):A:N7	2.18	0.58
25:BA:1473:G:C2'	25:BA:1474:C:H5'	2.34	0.58
31:BH:7:LEU:N	31:BH:8:PRO:CD	2.67	0.58
31:BH:30:LYS:HD2	31:BH:81:GLU:H	1.68	0.58
32:BK:73:GLU:OE1	32:BK:137:PRO:HD2	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BR:54:ARG:HA	39:BR:59:THR:HB	1.86	0.58
44:BU:5:MET:O	44:BU:6:HIS:HB3	2.02	0.58
52:B6:27:LYS:HZ2	52:B6:27:LYS:HB2	1.69	0.58
1:CA:396:G:O2'	1:CA:398:C:OP1	2.09	0.58
1:CA:723:U:H2'	1:CA:724:G:OP1	2.04	0.58
1:CA:1149:C:OP2	9:CL:9:ARG:NH1	2.37	0.58
2:CE:7:VAL:CG2	2:CE:8:LYS:H	2.12	0.58
3:CF:131:ARG:NH1	5:CH:50:GLU:HG3	2.19	0.58
6:CI:33:TYR:OH	6:CI:78:GLU:HG3	2.03	0.58
15:CR:87:ILE:HG22	15:CR:88:ARG:N	2.16	0.58
22:CB:84:C:O2	25:DA:2507:C:O2'	2.22	0.58
25:DA:654(M):C:H3'	25:DA:654(N):G:C8	2.39	0.58
25:DA:1019:U:OP1	25:DA:1035:U:O2'	2.21	0.58
25:DA:1639:U:H2'	25:DA:1640:C:H5"	1.85	0.58
25:DA:2303:G:C2'	25:DA:2304:G:H5'	2.34	0.58
27:DD:33:LEU:HD23	27:DD:34:VAL:N	2.18	0.58
42:DS:1:MET:HG2	42:DS:2:GLU:N	2.18	0.58
42:DS:84:ARG:HB2	42:DS:96:ILE:CD1	2.34	0.58
45:DV:87:ASP:N	45:DV:87:ASP:OD2	2.37	0.58
1:AA:953:G:H2'	1:AA:954:G:O4'	2.04	0.58
1:AA:1126:U:O2'	1:AA:1127:G:OP1	2.18	0.58
2:AE:12:GLU:C	2:AE:14:GLY:H	2.12	0.58
2:AE:141:GLU:O	2:AE:145:LEU:HB2	2.04	0.58
25:BA:4:C:H2'	25:BA:5:A:H8	1.69	0.58
25:BA:94:G:H21	48:BW:47:ASN:ND2	2.02	0.58
25:BA:274:G:H2'	25:BA:275:G:C1'	2.34	0.58
25:BA:890:A:H5'	25:BA:892:G:OP2	2.03	0.58
25:BA:919:G:N2	25:BA:2269:A:OP2	2.37	0.58
25:BA:1021:A:H8	25:BA:1022:G:H5"	1.66	0.58
25:BA:1728:G:C2	25:BA:1730:U:OP2	2.57	0.58
25:BA:2111:C:C2	25:BA:2118:U:H4'	2.38	0.58
27:BD:35:LYS:NZ	27:BD:65:ILE:HA	2.18	0.58
31:BH:137:ASP:O	31:BH:138:LYS:HB2	2.04	0.58
39:BR:91:ARG:HB2	39:BR:121:ILE:HG13	1.86	0.58
45:BV:128:VAL:HA	45:BV:161:VAL:CG2	2.33	0.58
1:CA:1418:A:H5"	1:CA:1419:G:OP2	2.04	0.58
2:CE:239:VAL:HG12	2:CE:240:GLN:HG3	1.84	0.58
3:CF:25:GLY:C	3:CF:27:LYS:H	2.11	0.58
6:CI:2:ARG:HD2	6:CI:69:GLU:HB3	1.85	0.58
25:DA:276:A:C4	25:DA:277:C:H5	2.21	0.58
25:DA:654(D):G:H1	25:DA:654(Q):C:H42	1.50	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1027:A:N6	25:DA:1126:A:C4	2.72	0.58
25:DA:2789:C:C3'	25:DA:2790:A:H5"	2.33	0.58
25:DA:2815:C:H2'	25:DA:2816:C:H6	1.68	0.58
27:DD:36:PRO:HB3	27:DD:61:LEU:HB3	1.86	0.58
28:DE:37:ARG:HD3	28:DE:42:ASP:CG	2.29	0.58
30:DG:38:VAL:HG22	30:DG:93:THR:HG23	1.85	0.58
30:DG:55:LYS:NZ	30:DG:148:MET:HE3	2.18	0.58
45:DV:24:LEU:HD12	45:DV:25:PRO:O	2.04	0.58
1:AA:519:C:P	12:AO:47:SER:OG	2.62	0.58
1:AA:1139:G:C2	1:AA:1143:G:O6	2.57	0.58
1:AA:1367:C:H5'	10:AM:60:ARG:HH21	1.68	0.58
2:AE:71:VAL:HG12	2:AE:93:VAL:HB	1.84	0.58
25:BA:34:C:O4'	25:BA:34:C:OP2	2.22	0.58
25:BA:674:G:C1'	29:BF:74:ARG:HD3	2.32	0.58
25:BA:1575:C:H2'	25:BA:1576:U:C6	2.39	0.58
25:BA:2287:A:C2	25:BA:2346:A:N1	2.71	0.58
26:BB:75:G:H21	45:BV:85:HIS:CE1	2.22	0.58
28:BE:21:VAL:HB	28:BE:22:PRO:CB	2.33	0.58
29:BF:64:ILE:HG23	29:BF:65:TRP:CD1	2.39	0.58
32:BK:93:THR:O	32:BK:97:ILE:HG12	2.04	0.58
35:BO:140:ALA:O	35:BO:141:ALA:HB2	2.03	0.58
40:B1:69:CYS:O	40:B1:74:LEU:HD12	2.04	0.58
45:BV:104:PHE:CZ	45:BV:119:GLU:HB3	2.38	0.58
1:CA:791:G:C6	1:CA:792:A:N7	2.72	0.58
1:CA:827:U:H5"	1:CA:828:A:OP2	2.04	0.58
1:CA:986:A:H1'	19:CV:54:GLY:O	2.04	0.58
9:CL:10:ARG:HD3	9:CL:75:ASP:HB3	1.86	0.58
25:DA:1068:G:H1'	25:DA:1096:A:H4'	1.84	0.58
27:DD:48:ARG:HG3	27:DD:48:ARG:NH1	2.14	0.58
27:DD:267:SER:O	27:DD:269:PHE:N	2.36	0.58
33:DM:45:ASN:H	33:DM:45:ASN:HD22	1.50	0.58
37:D0:38:VAL:HG22	37:D0:112:ALA:HB2	1.86	0.58
38:DQ:29:PHE:HD2	38:DQ:30:ARG:N	2.01	0.58
1:AA:1145:C:H5"	1:AA:1146:A:OP1	2.03	0.57
1:AA:1301:U:O4	1:AA:1303:C:H1'	2.04	0.57
2:AE:22:LYS:C	2:AE:24:TRP:H	2.11	0.57
12:AO:3:THR:N	12:AO:6:GLN:HE21	1.99	0.57
25:BA:142:G:H1'	43:BT:37:THR:HG21	1.86	0.57
25:BA:653:A:H3'	25:BA:654:A:C5'	2.33	0.57
25:BA:1405:U:H2'	25:BA:1406:U:C6	2.38	0.57
25:BA:2172:U:H5'	25:BA:2173:A:OP2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2611:U:OP1	25:BA:2611:U:H3'	2.04	0.57
25:BA:2790:A:H4'	25:BA:2791:C:OP2	2.04	0.57
27:BD:35:LYS:HG2	27:BD:64:ILE:HG23	1.85	0.57
31:BH:152:ARG:O	31:BH:153:LYS:HB2	2.04	0.57
41:B2:29:PRO:HA	41:B2:61:VAL:HG23	1.86	0.57
52:B6:44:ARG:HD3	52:B6:44:ARG:H	1.69	0.57
1:CA:222:U:H2'	1:CA:223:U:C6	2.39	0.57
6:CI:99:ALA:HB3	18:CU:29:PHE:CE2	2.38	0.57
9:CL:5:TYR:HD2	9:CL:18:PHE:CE2	2.22	0.57
18:CU:29:PHE:HD2	18:CU:29:PHE:N	2.02	0.57
25:DA:943:U:OP2	35:DO:36:LYS:HE3	2.04	0.57
25:DA:1022:G:C2'	25:DA:1023:U:OP2	2.52	0.57
25:DA:1805:U:O2	27:DD:50:THR:HB	2.04	0.57
25:DA:2354:G:O2'	46:D3:36:ILE:HD12	2.04	0.57
28:DE:111:ARG:HG2	37:D0:2:ARG:HH22	1.69	0.57
30:DG:137:GLU:HB3	30:DG:152:LEU:HD22	1.84	0.57
33:DM:91:LEU:O	33:DM:95:PRO:HG3	2.04	0.57
35:DO:69:GLY:C	35:DO:70:GLN:OE1	2.46	0.57
38:DQ:66:ALA:HA	38:DQ:69:VAL:HG12	1.86	0.57
49:DX:19:GLN:NE2	49:DX:52:HIS:CE1	2.72	0.57
1:AA:353:A:H2'	1:AA:354:G:OP2	2.05	0.57
1:AA:1271:G:C2'	1:AA:1272:G:H5'	2.34	0.57
2:AE:109:SER:O	2:AE:112:VAL:N	2.30	0.57
3:AF:113:ALA:HB3	3:AF:114:PRO:HD3	1.85	0.57
6:AI:37:VAL:HG12	6:AI:38:GLU:H	1.68	0.57
7:AJ:15:ASP:OD2	7:AJ:44:TYR:OH	2.22	0.57
7:AJ:103:TRP:CZ3	7:AJ:138:LYS:HA	2.39	0.57
13:AP:15:VAL:O	13:AP:19:LEU:HD23	2.04	0.57
16:AS:43:LYS:HG2	16:AS:48:TRP:CE3	2.38	0.57
22:AB:21:A:H2	22:AB:22:A:H62	1.50	0.57
22:AD:12:C:H2'	22:AD:13:G:O4'	2.04	0.57
25:BA:49:A:N7	25:BA:120:U:C4	2.69	0.57
25:BA:84:A:OP2	44:BU:8:LYS:NZ	2.37	0.57
25:BA:1999:C:H4'	25:BA:2723:C:O2	2.04	0.57
25:BA:2310:A:H5"	25:BA:2311:A:OP2	2.04	0.57
27:BD:108:PRO:HB3	27:BD:143:HIS:HE1	1.69	0.57
30:BG:77:ILE:O	30:BG:81:LYS:O	2.22	0.57
33:BM:17:ASP:O	33:BM:18:ALA:HB3	2.03	0.57
35:BO:9:ASN:O	35:BO:10:PRO:C	2.47	0.57
35:BO:50:ARG:HD3	54:B8:59:LYS:HE3	1.86	0.57
45:BV:48:PHE:HE2	45:BV:71:VAL:HG21	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:81:G:N2	1:CA:88:C:N3	2.51	0.57
1:CA:1053:G:O2'	1:CA:1054:C:OP2	2.22	0.57
2:CE:12:GLU:HB3	2:CE:213:LEU:HD13	1.84	0.57
5:CH:110:LEU:HD13	5:CH:118:ILE:HG21	1.85	0.57
7:CJ:27:ILE:CD1	7:CJ:40:ALA:HA	2.32	0.57
18:CU:30:ASP:C	18:CU:32:ARG:H	2.11	0.57
20:CW:56:MET:HE3	20:CW:85:MET:HE2	1.86	0.57
22:CB:78:C:H1'	22:CB:79:A:O5'	2.04	0.57
22:CD:48:C:H2'	22:CD:49:A:O4'	2.04	0.57
25:DA:443:A:H1'	25:DA:1201:C:O4'	2.04	0.57
25:DA:589:C:H5"	29:DF:95:ARG:HH12	1.69	0.57
25:DA:1336:A:H2'	25:DA:1337:G:H8	1.69	0.57
25:DA:1569:A:H5'	27:DD:61:LEU:HD21	1.85	0.57
25:DA:2286:A:H4'	25:DA:2287:A:O4'	2.04	0.57
25:DA:2872:G:O2'	25:DA:2873:A:H5'	2.04	0.57
28:DE:23:VAL:O	28:DE:24:THR:OG1	2.20	0.57
28:DE:62:PRO:C	28:DE:64:LYS:H	2.10	0.57
31:DH:130:ARG:HH12	31:DH:132:ARG:HH12	1.52	0.57
36:DP:43:THR:HB	36:DP:45:GLN:HE21	1.69	0.57
50:D4:22:ILE:CG1	50:D4:23:GLU:H	2.16	0.57
53:D7:43:THR:HG23	53:D7:44:PRO:HD2	1.87	0.57
1:AA:377:G:P	16:AS:5:ARG:HH11	2.27	0.57
1:AA:393:A:OP2	16:AS:12:LYS:HE3	2.04	0.57
1:AA:486:U:H2'	1:AA:487:A:C8	2.38	0.57
1:AA:818:G:O2'	1:AA:819:A:H5'	2.04	0.57
2:AE:238:LEU:HD12	2:AE:238:LEU:H	1.69	0.57
24:A1:11:U:O2'	24:A1:12:A:C5	2.54	0.57
25:BA:478:A:C6	25:BA:480:A:C6	2.92	0.57
25:BA:492:A:H2'	25:BA:493:G:O4'	2.04	0.57
25:BA:1316:U:H2'	25:BA:1317:A:H8	1.69	0.57
25:BA:1557:C:H5"	25:BA:1558:A:OP2	2.03	0.57
39:BR:53:ARG:HB3	39:BR:53:ARG:NH1	2.20	0.57
44:BU:74:PRO:O	44:BU:80:GLY:HA2	2.03	0.57
50:B4:37:SER:CB	50:B4:42:PHE:CZ	2.84	0.57
1:CA:353:A:H8	1:CA:353:A:H5'	1.70	0.57
1:CA:554:C:H2'	1:CA:555:C:C6	2.39	0.57
1:CA:1368:G:H5'	9:CL:112:LYS:HB3	1.86	0.57
2:CE:19:HIS:CD2	2:CE:205:ASP:H	2.22	0.57
7:CJ:57:GLU:OE1	7:CJ:57:GLU:N	2.28	0.57
22:CD:20:C:H5'	22:CD:68:A:H62	1.70	0.57
25:DA:99:U:H1'	25:DA:102:G:N3	2.18	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:589:C:H5"	29:DF:95:ARG:NH1	2.20	0.57
25:DA:1342:A:C8	25:DA:1345:C:C4	2.92	0.57
25:DA:2136:C:N4	25:DA:2155:G:C6	2.72	0.57
25:DA:2212:A:H1'	25:DA:2215:G:C4	2.39	0.57
28:DE:58:ARG:O	28:DE:59:VAL:C	2.47	0.57
40:D1:98:LEU:C	40:D1:100:VAL:N	2.59	0.57
1:AA:136:C:N4	1:AA:227:G:H1	1.99	0.57
3:AF:9:GLY:HA2	3:AF:12:LEU:HG	1.86	0.57
4:AG:3:ARG:HG2	4:AG:118:ARG:CZ	2.35	0.57
13:AP:93:ARG:HH12	25:BA:888:C:H41	1.51	0.57
17:AT:100:LYS:O	17:AT:101:ARG:HG3	2.03	0.57
22:AD:57:C:H4'	22:AD:58:G:O5'	2.03	0.57
25:BA:10:G:C2	25:BA:2629:A:C2	2.92	0.57
25:BA:229:A:H4'	25:BA:230:U:H5'	1.85	0.57
25:BA:881:G:H3'	25:BA:882:G:O4'	2.04	0.57
25:BA:1396:U:H2'	25:BA:1396:U:O2	2.03	0.57
27:BD:134:ARG:HG3	27:BD:135:PHE:CD2	2.40	0.57
28:BE:39:PRO:HG2	28:BE:40:GLU:OE1	2.05	0.57
33:BM:133:GLN:H	33:BM:133:GLN:HE21	1.52	0.57
44:BU:96:ILE:HG23	44:BU:101:LYS:HG2	1.85	0.57
1:CA:197:A:C8	1:CA:198:G:H1'	2.40	0.57
1:CA:201:C:O2'	1:CA:209:U:OP2	2.22	0.57
1:CA:736:C:H2'	1:CA:737:A:H8	1.70	0.57
1:CA:742:G:OP2	15:CR:35:ARG:NH2	2.37	0.57
1:CA:1227:A:OP2	13:CP:111:LYS:HD3	2.04	0.57
9:CL:11:LYS:HG3	9:CL:108:VAL:HG23	1.85	0.57
19:CV:80:TYR:CE1	19:CV:82:GLY:HA2	2.40	0.57
25:DA:654(C):G:H2'	25:DA:654(D):G:C8	2.39	0.57
25:DA:784:A:C8	25:DA:792:G:C5	2.93	0.57
25:DA:1091:G:C6	25:DA:1092:C:N4	2.73	0.57
25:DA:1405:U:H2'	25:DA:1406:U:C6	2.40	0.57
36:DP:54:MET:HG2	36:DP:117:ALA:O	2.04	0.57
40:D1:16:LYS:O	40:D1:20:LEU:HD23	2.04	0.57
44:DU:9:LYS:HZ2	44:DU:29:GLU:H	1.51	0.57
1:AA:35:G:H2'	1:AA:36:C:C6	2.38	0.57
1:AA:97:U:H2'	1:AA:99:C:C6	2.39	0.57
1:AA:457:C:H2'	1:AA:458:C:H6	1.69	0.57
25:BA:442:G:O4'	29:BF:46:ARG:HD3	2.05	0.57
25:BA:1427:A:H4'	25:BA:1428:C:O5'	2.02	0.57
25:BA:1729:A:H8	25:BA:1730:U:C4	2.21	0.57
25:BA:2427:C:H5"	25:BA:2428:G:OP1	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BT:41:ASN:O	43:BT:45:THR:HG23	2.04	0.57
45:BV:128:VAL:HA	45:BV:161:VAL:HG21	1.84	0.57
52:B6:14:THR:OG1	52:B6:15:GLU:N	2.36	0.57
1:CA:1117:G:H5'	1:CA:1118:C:OP2	2.05	0.57
1:CA:1129:C:N3	1:CA:1132:C:N4	2.52	0.57
1:CA:1256:A:N6	1:CA:1278:U:OP2	2.37	0.57
4:CG:33:MET:O	4:CG:34:GLU:HB2	2.04	0.57
9:CL:114:TYR:C	9:CL:116:LYS:H	2.12	0.57
22:CD:48:C:C6	22:CD:49:A:C8	2.92	0.57
25:DA:307:G:H21	25:DA:330:A:H62	1.53	0.57
25:DA:2275:C:O2	36:DP:85:LYS:CG	2.53	0.57
26:DB:14:U:OP2	26:DB:70:C:O2'	2.19	0.57
31:DH:33:LEU:HD21	31:DH:136:ILE:O	2.04	0.57
32:DK:52:ARG:O	32:DK:52:ARG:HD2	2.05	0.57
41:D2:85:LYS:CD	41:D2:87:HIS:H	2.16	0.57
45:DV:52:SER:O	45:DV:53:ILE:HG13	2.04	0.57
1:AA:1346:A:C2'	7:AJ:10:ARG:HH22	2.17	0.57
5:AH:149:GLU:O	5:AH:153:LYS:HG3	2.04	0.57
23:AC:63:C:H2'	23:AC:64:G:C8	2.40	0.57
25:BA:943:U:OP2	35:BO:36:LYS:HG2	2.05	0.57
30:BG:109:VAL:HG13	50:B4:33:VAL:HG11	1.85	0.57
32:BK:114:LEU:HD12	32:BK:129:THR:O	2.03	0.57
36:BP:27:VAL:H	36:BP:102:VAL:HG21	1.68	0.57
1:CA:412:A:H1'	1:CA:413:G:OP2	2.04	0.57
1:CA:1449:C:HO2'	1:CA:1450:U:P	2.25	0.57
2:CE:6:THR:OG1	2:CE:7:VAL:N	2.33	0.57
13:CP:83:ASP:O	13:CP:84:ILE:CB	2.53	0.57
25:DA:960:A:H5"	25:DA:961:C:OP1	2.04	0.57
25:DA:2648:C:H2'	25:DA:2649:U:C6	2.40	0.57
28:DE:120:TRP:CE3	28:DE:155:LYS:HD3	2.40	0.57
29:DF:22:ALA:C	29:DF:24:LEU:N	2.55	0.57
29:DF:46:ARG:HG2	29:DF:46:ARG:NH1	2.18	0.57
31:DH:3:ARG:HG3	31:DH:4:ILE:N	2.19	0.57
35:DO:77:ARG:HB2	35:DO:78:PRO:HD2	1.85	0.57
44:DU:89:PHE:O	44:DU:90:LEU:C	2.47	0.57
6:AI:16:GLN:CD	6:AI:16:GLN:H	2.11	0.57
7:AJ:26:PHE:CE2	7:AJ:30:ILE:HD11	2.40	0.57
13:AP:3:ARG:HD3	50:B4:34:GLU:HB2	1.87	0.57
25:BA:994:C:O2'	25:BA:996:A:OP1	2.23	0.57
25:BA:1060:U:C2	25:BA:1062:G:H5'	2.39	0.57
42:BS:28:SER:OG	42:BS:31:GLU:HG2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:957:U:H1'	1:CA:960:U:C5	2.40	0.57
2:CE:109:SER:HA	2:CE:112:VAL:HG23	1.85	0.57
5:CH:57:LYS:HG2	5:CH:61:TYR:CE2	2.38	0.57
9:CL:112:LYS:HD3	9:CL:112:LYS:C	2.30	0.57
25:DA:876:C:N4	25:DA:877:U:O4	2.38	0.57
25:DA:1043:C:N3	25:DA:1112:G:N2	2.51	0.57
25:DA:2744:G:N2	31:DH:143:GLN:OE1	2.38	0.57
26:DB:42:C:O2	30:DG:93:THR:N	2.21	0.57
35:DO:146:VAL:HG22	35:DO:147:LEU:H	1.68	0.57
38:DQ:54:LEU:O	38:DQ:54:LEU:HG	2.04	0.57
42:DS:19:LEU:HB3	51:D5:25:LEU:HD12	1.86	0.57
44:DU:39:VAL:O	44:DU:40:GLU:HB2	2.04	0.57
1:AA:1005:A:H3'	1:AA:1006:C:C5'	2.35	0.57
1:AA:1176:A:C3'	1:AA:1177:G:H5"	2.34	0.57
1:AA:1298:C:H4'	1:AA:1299:A:C4	2.40	0.57
1:AA:1452:C:O2'	1:AA:1453:G:P	2.62	0.57
9:AL:29:ASN:N	9:AL:63:ILE:O	2.27	0.57
11:AN:127:LYS:HA	11:AN:127:LYS:HZ2	1.70	0.57
18:AU:44:LEU:HD11	18:AU:70:ILE:HG21	1.86	0.57
25:BA:443:A:H5"	25:BA:444:C:OP1	2.04	0.57
25:BA:751:A:H5'	42:BS:90:ARG:HA	1.85	0.57
25:BA:899:A:H8	25:BA:899:A:OP2	1.88	0.57
25:BA:2167:U:HO2'	25:BA:2168:G:P	2.27	0.57
25:BA:2262:U:H2'	25:BA:2263:C:H5'	1.85	0.57
26:BB:7:G:O5'	38:BQ:29:PHE:CE1	2.58	0.57
26:BB:15:A:O2'	26:BB:109:G:C8	2.55	0.57
36:BP:51:ARG:HG2	36:BP:51:ARG:NH1	2.19	0.57
1:CA:192:U:H2'	1:CA:193:C:H6	1.68	0.57
1:CA:197:A:H1'	1:CA:198:G:OP2	2.03	0.57
2:CE:132:LYS:HD2	2:CE:135:GLN:NE2	2.20	0.57
3:CF:70:VAL:HG12	3:CF:72:LYS:N	2.13	0.57
7:CJ:26:PHE:O	7:CJ:30:ILE:HG13	2.05	0.57
7:CJ:100:ALA:O	7:CJ:104:LEU:HB2	2.04	0.57
11:CN:18:ARG:NH1	11:CN:20:TYR:OH	2.37	0.57
25:DA:524:U:H2'	25:DA:525:U:C6	2.40	0.57
25:DA:654(U):A:H2'	25:DA:654(V):A:C8	2.40	0.57
26:DB:17:C:N4	26:DB:108:C:N3	2.53	0.57
28:DE:36:ARG:O	28:DE:37:ARG:C	2.47	0.57
28:DE:68:ALA:O	28:DE:70:ALA:N	2.33	0.57
31:DH:152:ARG:HD2	31:DH:153:LYS:H	1.70	0.57
36:DP:30:GLY:HA2	36:DP:107:ALA:HB2	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:87:A:H2'	1:AA:88:C:C6	2.38	0.57
1:AA:1000:A:H2'	1:AA:1001:G:C8	2.38	0.57
1:AA:1157:A:H1'	1:AA:1158:C:C4	2.40	0.57
2:AE:81:VAL:HG13	2:AE:82:ARG:N	2.20	0.57
22:AB:46:G:HO2'	22:AB:47:U:P	2.27	0.57
25:BA:18:C:H2'	25:BA:19:C:H6	1.69	0.57
25:BA:675:A:H4'	29:BF:67:GLN:NE2	2.20	0.57
25:BA:905:U:H2'	25:BA:906:G:H5'	1.87	0.57
25:BA:1006:C:C2	25:BA:1138:G:N2	2.73	0.57
25:BA:1786:A:C2	25:BA:2606:C:H1'	2.39	0.57
25:BA:1796:U:H2'	25:BA:1797:C:C6	2.40	0.57
25:BA:2115:G:C6	25:BA:2117:A:H8	2.23	0.57
27:BD:155:LEU:HD23	27:BD:177:LEU:CD2	2.35	0.57
42:BS:65:LEU:O	42:BS:67:ASP:N	2.37	0.57
45:BV:52:SER:C	45:BV:54:HIS:H	2.12	0.57
46:B3:70:GLN:NE2	46:B3:80:HIS:NE2	2.53	0.57
51:B5:4:HIS:CB	51:B5:5:PRO:HD2	1.99	0.57
1:CA:7:G:H5'	1:CA:298:A:O4'	2.05	0.57
1:CA:890:G:O2'	1:CA:906:G:O6	2.20	0.57
1:CA:1298:C:P	7:CJ:114:ARG:HH22	2.28	0.57
4:CG:30:LYS:HB2	4:CG:35:ARG:HH11	1.69	0.57
10:CM:6:ILE:CD1	10:CM:72:VAL:HB	2.34	0.57
11:CN:21:ILE:HG12	11:CN:30:VAL:HG12	1.86	0.57
14:CQ:13:THR:N	14:CQ:14:PRO:HD3	2.20	0.57
21:CX:9:ARG:HG3	21:CX:10:ARG:H	1.69	0.57
25:DA:322:A:OP2	29:DF:169:ASN:HB2	2.05	0.57
25:DA:330:A:C2	25:DA:1210:A:O2'	2.40	0.57
25:DA:1048:A:H5'	25:DA:1049:C:OP2	2.04	0.57
28:DE:60:ASN:O	28:DE:62:PRO:HD2	2.04	0.57
29:DF:63:LYS:CE	29:DF:67:GLN:HB2	2.34	0.57
30:DG:55:LYS:HD2	30:DG:58:GLN:HE22	1.69	0.57
34:DN:4:PRO:O	34:DN:5:GLN:CB	2.52	0.57
36:DP:79:LEU:CD1	36:DP:80:GLU:HB2	2.35	0.57
46:D3:12:ASN:HA	46:D3:14:ARG:NH2	2.15	0.57
2:AE:214:ILE:O	2:AE:218:ALA:HB2	2.04	0.57
5:AH:99:GLY:O	5:AH:117:ASP:HA	2.05	0.57
11:AN:34:ASP:HB2	11:AN:35:PRO:HD2	1.87	0.57
12:AO:57:LEU:HD21	12:AO:63:VAL:HG12	1.85	0.57
20:AW:75:ASN:OD1	20:AW:75:ASN:N	2.36	0.57
25:BA:882:G:C2	25:BA:894:C:N3	2.72	0.57
25:BA:2340:G:O2'	25:BA:2341:G:H5'	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2347:C:H4'	52:B6:39:TYR:CE2	2.34	0.57
30:BG:104:GLU:OE1	50:B4:23:GLU:HG3	2.05	0.57
35:BO:19:VAL:HG22	35:BO:20:GLY:H	1.70	0.57
44:BU:52:SER:HB2	44:BU:53:PRO:CD	2.26	0.57
1:CA:781:A:C3'	1:CA:782:A:H5'	2.35	0.57
1:CA:1128:C:H4'	9:CL:16:ARG:NH1	2.19	0.57
1:CA:1142:G:H2'	1:CA:1143:G:O4'	2.05	0.57
1:CA:1143:G:H2'	1:CA:1144:G:C8	2.40	0.57
1:CA:1206:G:O2'	3:CF:193:TYR:HA	2.05	0.57
4:CG:19:LEU:H	4:CG:19:LEU:HD12	1.69	0.57
9:CL:26:VAL:HG13	9:CL:61:ALA:HB3	1.86	0.57
25:DA:826:U:H2'	25:DA:828:U:O4'	2.05	0.57
25:DA:2135:A:C5	25:DA:2156:G:N2	2.72	0.57
25:DA:2286:A:OP2	52:D6:28:ARG:NH1	2.37	0.57
25:DA:2638:G:O2'	25:DA:2639:A:H8	1.88	0.57
25:DA:2790:A:H4'	25:DA:2791:C:OP2	2.02	0.57
27:DD:136:ILE:CG2	27:DD:140:THR:HG21	2.19	0.57
28:DE:101:ARG:C	28:DE:201:THR:OG1	2.47	0.57
29:DF:20:LEU:CD1	29:DF:21:ALA:H	2.12	0.57
36:DP:4:PRO:HD3	36:DP:70:PRO:O	2.05	0.57
38:DQ:38:GLN:O	38:DQ:40:ILE:HG13	2.04	0.57
48:DW:21:LEU:O	48:DW:25:VAL:HG22	2.05	0.57
54:D8:30:ARG:HA	54:D8:30:ARG:HH11	1.67	0.57
54:D8:30:ARG:O	54:D8:31:HIS:C	2.48	0.57
1:AA:1318:A:H1'	19:AV:37:ARG:HH21	1.70	0.56
1:AA:1348:U:H3	1:AA:1374:A:H2	1.51	0.56
2:AE:212:GLN:O	2:AE:216:SER:HB3	2.04	0.56
10:AM:24:VAL:HG21	10:AM:37:PRO:HD3	1.86	0.56
25:BA:319:C:OP2	29:BF:137:LYS:NZ	2.29	0.56
25:BA:528:A:N1	25:BA:2043:C:O5'	2.38	0.56
25:BA:654(M):C:H3'	25:BA:654(N):G:H8	1.70	0.56
25:BA:1581:G:H2'	25:BA:1582:C:O4'	2.05	0.56
25:BA:2163:C:H2'	25:BA:2164:C:H5'	1.85	0.56
25:BA:2318:G:H22	38:BQ:2:ALA:CA	2.17	0.56
27:BD:65:ILE:HD11	27:BD:67:PHE:CD2	2.40	0.56
29:BF:45:ARG:HH11	29:BF:45:ARG:CG	2.01	0.56
31:BH:150:ALA:C	31:BH:152:ARG:N	2.62	0.56
41:B2:64:HIS:ND1	41:B2:92:THR:HG22	2.20	0.56
48:BW:42:GLY:C	48:BW:44:LEU:H	2.13	0.56
1:CA:673:G:H2'	1:CA:674:G:C8	2.39	0.56
1:CA:1070:U:H2'	1:CA:1071:C:H6	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1118:C:P	9:CL:104:ARG:HH11	2.27	0.56
2:CE:189:ASP:O	2:CE:191:ASP:N	2.38	0.56
6:CI:99:ALA:HB3	18:CU:29:PHE:HE2	1.70	0.56
8:CK:92:ARG:HG2	8:CK:92:ARG:NH1	2.13	0.56
10:CM:58:ASP:O	10:CM:59:SER:C	2.48	0.56
12:CO:20:LYS:N	12:CO:20:LYS:HE2	2.19	0.56
22:CD:22:A:C5	22:CD:57:C:N4	2.72	0.56
25:DA:152:G:H1	25:DA:174:C:H42	1.52	0.56
25:DA:205:G:C1'	25:DA:206:U:OP2	2.52	0.56
25:DA:848:G:H1'	25:DA:933:A:H8	1.70	0.56
25:DA:1026:U:H2'	26:DB:88:C:H42	1.70	0.56
25:DA:1568:G:H21	27:DD:58:HIS:CE1	2.23	0.56
25:DA:1819:A:H4'	25:DA:1820:U:O5'	2.04	0.56
25:DA:2133:G:O2'	25:DA:2158:A:N6	2.38	0.56
25:DA:2148:G:H2'	25:DA:2149:G:H8	1.69	0.56
25:DA:2335:A:C8	25:DA:2337:G:C5	2.93	0.56
25:DA:2447:G:H1'	25:DA:2448:A:OP2	2.04	0.56
25:DA:2720:U:C4	25:DA:2721:A:C5	2.93	0.56
25:DA:2807:G:H22	25:DA:2893:G:H1	1.50	0.56
27:DD:271:ILE:O	27:DD:272:ALA:HB2	2.05	0.56
33:DM:134:ARG:O	33:DM:134:ARG:CG	2.52	0.56
35:DO:69:GLY:CA	35:DO:70:GLN:OE1	2.53	0.56
35:DO:106:LEU:HD12	35:DO:106:LEU:C	2.29	0.56
38:DQ:27:SER:HA	38:DQ:88:ASP:CB	2.35	0.56
1:AA:31:G:H1'	1:AA:32:A:OP1	2.05	0.56
1:AA:450:G:N7	1:AA:481:G:C6	2.73	0.56
2:AE:59:GLU:HB2	2:AE:221:LEU:HD11	1.85	0.56
2:AE:219:VAL:HA	2:AE:222:ILE:HD12	1.87	0.56
12:AO:43:LYS:HG2	12:AO:44:LYS:H	1.70	0.56
22:AD:18:G:C4'	22:AD:19:C:O5'	2.53	0.56
25:BA:909:A:H2'	25:BA:912:C:H5	1.69	0.56
25:BA:1084:A:C8	25:BA:1105:U:O2'	2.58	0.56
25:BA:1105:U:H2'	25:BA:1106:G:C8	2.39	0.56
25:BA:1434:A:H61	25:BA:1558:A:H62	1.52	0.56
26:BB:70:C:H2'	26:BB:71:C:H6	1.71	0.56
28:BE:27:LEU:HD13	39:BR:1:MET:CE	2.35	0.56
29:BF:143:ALA:HB1	29:BF:148:LEU:HB2	1.87	0.56
38:BQ:106:ARG:HH22	38:BQ:107:GLU:HB2	1.70	0.56
44:BU:28:LYS:NZ	44:BU:64:GLU:OE2	2.30	0.56
44:BU:81:LYS:HZ3	44:BU:96:ILE:HD12	1.70	0.56
1:CA:197:A:O2'	1:CA:198:G:OP2	2.16	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:259:G:H1	1:CA:267:C:H42	1.53	0.56
1:CA:853:G:H2'	1:CA:854:G:H8	1.70	0.56
1:CA:1008:C:N3	1:CA:1021:G:O6	2.38	0.56
1:CA:1170:A:H8	1:CA:1170:A:O5'	1.88	0.56
1:CA:1212:U:O2'	1:CA:1213:A:H8	1.87	0.56
5:CH:78:HIS:CE1	8:CK:104:ARG:HE	2.23	0.56
8:CK:64:LYS:HG2	8:CK:79:VAL:HG21	1.88	0.56
14:CQ:4:LYS:O	14:CQ:7:ILE:HG23	2.05	0.56
14:CQ:24:CYS:O	14:CQ:26:ARG:N	2.38	0.56
15:CR:7:GLU:O	15:CR:11:VAL:HG23	2.05	0.56
19:CV:39:THR:HG22	19:CV:40:ILE:N	2.19	0.56
25:DA:559:G:H22	40:D1:49:HIS:CD2	2.23	0.56
25:DA:1815:A:OP2	27:DD:54:ARG:NH2	2.31	0.56
35:DO:19:VAL:HG22	35:DO:20:GLY:H	1.69	0.56
36:DP:103:MET:HE1	36:DP:125:LEU:CD1	2.35	0.56
47:DZ:53:VAL:HG22	47:DZ:74:VAL:HG22	1.87	0.56
1:AA:67:C:H2'	1:AA:68:G:H8	1.71	0.56
1:AA:598:U:H4'	8:AK:94:TYR:CD2	2.40	0.56
1:AA:673:G:H2'	1:AA:674:G:C8	2.39	0.56
1:AA:690:G:H2'	1:AA:691:G:O4'	2.04	0.56
1:AA:1157:A:H8	1:AA:1158:C:N4	2.03	0.56
1:AA:1175:G:C6	1:AA:1176:A:N6	2.72	0.56
5:AH:69:VAL:O	5:AH:71:LEU:N	2.36	0.56
5:AH:153:LYS:H	8:AK:64:LYS:NZ	2.03	0.56
6:AI:75:LEU:HD22	6:AI:79:LEU:HG	1.87	0.56
11:AN:59:TYR:CZ	11:AN:63:LEU:HD11	2.40	0.56
11:AN:63:LEU:H	11:AN:63:LEU:HD12	1.70	0.56
11:AN:106:LYS:O	11:AN:107:SER:OG	2.16	0.56
15:AR:8:LYS:O	15:AR:12:ILE:HG13	2.05	0.56
25:BA:548:A:H8	25:BA:548:A:O5'	1.89	0.56
25:BA:1178:C:C4'	25:BA:1179:C:OP1	2.41	0.56
25:BA:1416:G:H1	25:BA:1582:C:H42	1.52	0.56
25:BA:1509:C:H2'	25:BA:1511:A:C8	2.40	0.56
25:BA:1869:G:H5'	25:BA:1869:G:H8	1.68	0.56
26:BB:66:A:H61	26:BB:107:U:H2'	1.69	0.56
27:BD:28:GLU:O	27:BD:30:GLU:HG2	2.04	0.56
33:BM:120:LEU:HD22	33:BM:120:LEU:C	2.29	0.56
36:BP:79:LEU:HD12	36:BP:79:LEU:N	2.20	0.56
37:B0:18:LEU:HD11	37:B0:22:ARG:CZ	2.35	0.56
40:B1:58:ARG:HA	40:B1:61:TRP:CE3	2.41	0.56
44:BU:56:PRO:O	44:BU:57:GLN:HG3	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:B5:36:CYS:SG	51:B5:48:GLU:O	2.64	0.56
1:CA:266:G:N1	1:CA:270:A:N6	2.45	0.56
1:CA:309:G:H1'	1:CA:608:A:C2	2.40	0.56
1:CA:973:G:H3'	1:CA:974:A:H5'	1.88	0.56
1:CA:1256:A:OP2	3:CF:26:LYS:NZ	2.38	0.56
1:CA:1301:U:H2'	1:CA:1301:U:O2	2.04	0.56
1:CA:1442:G:O2'	1:CA:1443:G:OP1	2.20	0.56
4:CG:105:VAL:HG21	4:CG:126:ILE:HG13	1.87	0.56
7:CJ:69:VAL:HG12	7:CJ:69:VAL:O	2.05	0.56
7:CJ:113:GLU:HB2	7:CJ:119:ARG:CG	2.35	0.56
14:CQ:12:ARG:CZ	14:CQ:12:ARG:HB2	2.36	0.56
22:CB:38:MIA:H14	22:CB:39:A:C2	2.40	0.56
25:DA:676:A:N1	25:DA:802:A:N1	2.53	0.56
25:DA:779:U:OP1	27:DD:49:ILE:HG22	2.06	0.56
25:DA:782:A:H5'	25:DA:783:A:C2	2.39	0.56
25:DA:1085:A:C4'	25:DA:1086:A:OP1	2.52	0.56
25:DA:1170:G:H2'	25:DA:1170:G:N3	2.19	0.56
25:DA:1180:C:H2'	25:DA:1181:C:C6	2.41	0.56
25:DA:1899:G:H22	25:DA:1902:C:H41	0.70	0.56
25:DA:1942:C:OP2	25:DA:1943:U:O2'	2.11	0.56
25:DA:1967:C:C2'	25:DA:1968:G:H5'	2.35	0.56
25:DA:2751:G:C6	31:DH:2:SER:HB3	2.40	0.56
25:DA:2873:A:H2'	25:DA:2873:A:N3	2.19	0.56
28:DE:24:THR:HG21	28:DE:188:VAL:HG12	1.86	0.56
29:DF:20:LEU:HD13	29:DF:21:ALA:N	2.12	0.56
30:DG:43:LEU:C	30:DG:45:GLU:H	2.12	0.56
41:D2:34:GLU:OE1	41:D2:56:SER:HB2	2.06	0.56
41:D2:85:LYS:HD2	41:D2:86:GLY:N	2.18	0.56
47:DZ:53:VAL:HG11	47:DZ:90:ILE:HD11	1.87	0.56
1:AA:437:U:O3'	4:AG:125:HIS:NE2	2.39	0.56
1:AA:1008:C:H42	1:AA:1021:G:H1	0.69	0.56
1:AA:1362(A):C:H5'	1:AA:1363:A:O5'	2.06	0.56
15:AR:17:ARG:HG3	15:AR:17:ARG:NH1	2.09	0.56
25:BA:322:A:H3'	29:BF:169:ASN:ND2	2.20	0.56
25:BA:1079:C:H5	25:BA:1088:A:OP1	1.87	0.56
25:BA:1110:G:H2'	25:BA:1111:A:C8	2.40	0.56
25:BA:1516:U:H2'	25:BA:1517:G:H8	1.70	0.56
25:BA:1641:A:H2'	25:BA:1642:G:O4'	2.04	0.56
25:BA:2101:G:H1	25:BA:2188:C:H42	1.54	0.56
28:BE:119:ARG:HG2	28:BE:120:TRP:NE1	2.20	0.56
45:BV:110:GLY:HA3	45:BV:145:GLU:HG2	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:322:C:H5	1:CA:328:C:H5	1.54	0.56
1:CA:1375:A:H4'	7:CJ:29:LYS:HE3	1.88	0.56
4:CG:146:ILE:HD12	4:CG:146:ILE:N	2.19	0.56
7:CJ:26:PHE:CE2	7:CJ:30:ILE:HD11	2.40	0.56
9:CL:3:GLN:HG2	9:CL:20:ARG:HD2	1.86	0.56
13:CP:97:PRO:HA	13:CP:110:ARG:HD3	1.87	0.56
19:CV:12:ASP:CB	19:CV:38:SER:HB3	2.36	0.56
23:CC:17:C:H5'	23:CC:62:C:OP1	2.05	0.56
25:DA:619:G:H5"	25:DA:620:G:OP2	2.05	0.56
25:DA:886:C:H1'	25:DA:890:A:H2	1.71	0.56
25:DA:1570:A:O4'	27:DD:38:LYS:HE2	2.04	0.56
25:DA:1593:G:H2'	25:DA:1594:G:C8	2.40	0.56
25:DA:1810:A:H2'	25:DA:1811:G:O4'	2.05	0.56
25:DA:2015:A:H1'	51:D5:2:ALA:HA	1.88	0.56
25:DA:2287:A:H2	25:DA:2346:A:N1	2.01	0.56
29:DF:7:TYR:CD2	29:DF:18:ARG:HB3	2.40	0.56
32:DK:38:LEU:HB2	32:DK:40:THR:HG23	1.86	0.56
45:DV:8:TYR:HB2	45:DV:38:TYR:CE2	2.41	0.56
54:D8:32:LEU:HD22	54:D8:33:ASN:N	2.21	0.56
1:AA:433:C:H2'	1:AA:434:U:C6	2.39	0.56
1:AA:629:G:N1	1:AA:630:G:O6	2.39	0.56
2:AE:187:LEU:HD23	2:AE:201:ILE:HG22	1.88	0.56
3:AF:150:LYS:HE2	3:AF:152:ILE:HD11	1.86	0.56
8:AK:10:LEU:HD13	8:AK:83:ILE:HD11	1.86	0.56
9:AL:40:LEU:HD11	9:AL:70:LYS:HG2	1.87	0.56
10:AM:90:LEU:N	10:AM:91:PRO:HD3	2.20	0.56
13:AP:53:VAL:HG12	13:AP:57:ARG:HH12	1.71	0.56
14:AQ:51:GLY:C	14:AQ:53:LEU:H	2.08	0.56
16:AS:54:GLU:OE1	16:AS:55:ARG:HD2	2.05	0.56
25:BA:1171:G:C6	25:BA:1174:A:N6	2.74	0.56
25:BA:2257:U:O2'	25:BA:2258:C:H5'	2.05	0.56
25:BA:2895:U:H2'	25:BA:2896:C:O4'	2.06	0.56
26:BB:116:G:H4'	38:BQ:54:LEU:HD12	1.87	0.56
31:BH:43:VAL:HB	31:BH:52:VAL:HG22	1.86	0.56
33:BM:43:THR:HB	33:BM:46:VAL:HG12	1.86	0.56
33:BM:96:GLU:O	33:BM:98:VAL:HG12	2.04	0.56
38:BQ:83:LYS:HE3	38:BQ:109:GLY:CA	2.33	0.56
40:B1:75:ASN:HB2	40:B1:78:THR:OG1	2.06	0.56
41:B2:49:THR:HB	41:B2:50:PRO:HD2	1.88	0.56
42:BS:73:ALA:HB3	42:BS:106:ILE:HD12	1.85	0.56
1:CA:570:G:H1'	1:CA:820:U:C4	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:618:C:N3	1:CA:622:A:N6	2.52	0.56
1:CA:1323:G:H2'	1:CA:1324:A:C8	2.41	0.56
1:CA:1417:G:C6	1:CA:1482:G:C6	2.94	0.56
2:CE:69:LEU:HD21	2:CE:93:VAL:HG23	1.86	0.56
5:CH:101:ILE:H	5:CH:101:ILE:HD13	1.71	0.56
25:DA:881:G:O6	25:DA:895:U:O2	2.22	0.56
25:DA:1141:U:H4'	25:DA:1142(A):A:O4'	2.05	0.56
25:DA:2287:A:C4	25:DA:2289:G:C8	2.93	0.56
28:DE:41:LYS:HG3	28:DE:42:ASP:CG	2.31	0.56
28:DE:116:VAL:HG13	28:DE:122:PHE:CD2	2.40	0.56
30:DG:111:LEU:HB2	30:DG:112:PRO:HD3	1.87	0.56
33:DM:133:GLN:O	33:DM:134:ARG:HB3	2.04	0.56
36:DP:57:HIS:CD2	36:DP:117:ALA:HB2	2.41	0.56
44:DU:89:PHE:CE1	44:DU:90:LEU:HG	2.41	0.56
1:AA:273:A:N6	1:AA:274:A:C6	2.74	0.56
1:AA:328:C:O2	1:AA:328:C:H2'	2.04	0.56
1:AA:509:A:O2'	1:AA:510:A:OP1	2.20	0.56
1:AA:942:G:C2	1:AA:1342:C:C2	2.94	0.56
13:AP:66:LEU:O	13:AP:67:GLU:C	2.48	0.56
25:BA:297:C:H5"	44:BU:85:VAL:HG21	1.86	0.56
25:BA:573:G:O2'	25:BA:574:C:H3'	2.06	0.56
25:BA:2015:A:O4'	51:B5:2:ALA:HB2	2.03	0.56
25:BA:2032:G:H21	28:BE:146:THR:CG2	2.18	0.56
28:BE:203:LYS:O	28:BE:203:LYS:HD2	2.06	0.56
31:BH:86:GLU:O	31:BH:87:LEU:HB2	2.04	0.56
38:BQ:83:LYS:O	38:BQ:109:GLY:HA3	2.05	0.56
42:BS:57:ASN:O	42:BS:61:ASN:HB2	2.05	0.56
52:B6:28:ARG:HB3	52:B6:30:THR:H	1.71	0.56
1:CA:1053:G:C2'	1:CA:1054:C:OP2	2.52	0.56
1:CA:1267:C:O2	1:CA:1267:C:C2'	2.54	0.56
25:DA:363(B):G:O2'	25:DA:363(C):G:H5'	2.05	0.56
25:DA:633:A:O5'	25:DA:633:A:H8	1.87	0.56
25:DA:671:C:OP1	35:DO:42:SER:O	2.24	0.56
25:DA:2065:C:H2'	25:DA:2066:C:C6	2.41	0.56
25:DA:2365:G:O6	54:D8:39:LYS:HE3	2.04	0.56
25:DA:2875:C:H4'	39:DR:5:ALA:HB2	1.87	0.56
26:DB:11:C:OP2	26:DB:12:C:N4	2.36	0.56
27:DD:164:GLN:OE1	27:DD:176:ARG:NH2	2.39	0.56
29:DF:20:LEU:O	29:DF:21:ALA:O	2.23	0.56
35:DO:146:VAL:O	35:DO:147:LEU:O	2.23	0.56
48:DW:40:SER:O	48:DW:42:GLY:N	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AE:189:ASP:OD2	2:AE:190:THR:N	2.39	0.56
20:AW:67:ALA:HA	20:AW:72:LEU:O	2.06	0.56
25:BA:1430:C:H2'	25:BA:1431:U:C6	2.41	0.56
25:BA:1803:A:HO2'	27:BD:259:THR:HG21	1.69	0.56
25:BA:2797:U:H5"	25:BA:2798:C:OP2	2.06	0.56
27:BD:145:VAL:HG12	27:BD:146:GLU:O	2.06	0.56
30:BG:127:GLY:HA2	30:BG:166:ASP:OD1	2.04	0.56
45:BV:96:VAL:HG22	45:BV:97:GLU:N	2.20	0.56
48:BW:47:ASN:O	48:BW:49:LYS:HG3	2.05	0.56
1:CA:135:C:O2	16:CS:1:MET:HB3	2.06	0.56
1:CA:591:U:OP2	8:CK:30:ARG:NH1	2.38	0.56
1:CA:1226:C:H4'	1:CA:1227:A:OP1	2.05	0.56
1:CA:1442:G:N7	1:CA:1446:A:N1	2.53	0.56
2:CE:97:TRP:HZ2	2:CE:102:LEU:HD13	1.71	0.56
12:CO:34:CYS:SG	12:CO:78:SER:HB2	2.46	0.56
13:CP:57:ARG:NH1	50:D4:34:GLU:O	2.39	0.56
15:CR:82:ILE:HD13	15:CR:82:ILE:O	2.06	0.56
25:DA:265:A:H1'	25:DA:266:G:O4'	2.06	0.56
25:DA:1021:A:H61	25:DA:1142(A):A:N6	1.94	0.56
25:DA:2561:A:H2	34:DN:23:ARG:NH1	2.04	0.56
28:DE:26:ILE:O	28:DE:27:LEU:HB3	2.06	0.56
28:DE:60:ASN:HB2	28:DE:63:LEU:HB3	1.88	0.56
29:DF:4:VAL:HG22	29:DF:19:GLU:OE1	2.06	0.56
31:DH:10:PRO:HD2	31:DH:50:VAL:HG13	1.88	0.56
32:DK:7:GLU:O	32:DK:9:LEU:HD23	2.06	0.56
44:DU:17:SER:OG	44:DU:18:GLY:N	2.38	0.56
1:AA:1007:C:H3'	1:AA:1008:C:H5"	1.88	0.56
1:AA:1226:C:H4'	19:AV:80:TYR:OH	2.06	0.56
1:AA:1366:C:O2'	10:AM:60:ARG:NH2	2.38	0.56
2:AE:17:PHE:HB3	2:AE:44:LEU:HD21	1.87	0.56
2:AE:28:PHE:CD1	2:AE:190:THR:HA	2.40	0.56
4:AG:173:TRP:CD1	4:AG:174:LEU:HG	2.40	0.56
6:AI:39:LYS:O	6:AI:40:VAL:HB	2.06	0.56
8:AK:88:LYS:HB3	8:AK:89:PRO:HD2	1.88	0.56
18:AU:58:LEU:HD23	18:AU:62:GLU:HB3	1.88	0.56
23:AC:48:U:H1'	23:AC:49:C:O5'	2.06	0.56
22:AD:16:C:H41	22:AD:68:A:H3'	1.70	0.56
25:BA:1230:C:H2'	25:BA:1231:G:H8	1.69	0.56
27:BD:64:ILE:O	27:BD:64:ILE:HG12	2.06	0.56
28:BE:9:VAL:HB	28:BE:25:VAL:HG22	1.87	0.56
30:BG:40:ASN:HD22	30:BG:91:ARG:HB2	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BM:35:ARG:O	33:BM:42:TRP:HZ3	1.88	0.56
1:CA:864:A:H5'	5:CH:86:ALA:HB2	1.86	0.56
1:CA:984:C:H2'	1:CA:985:C:C6	2.40	0.56
1:CA:1226:C:N4	13:CP:104:ARG:HD2	2.20	0.56
4:CG:31:CYS:C	4:CG:33:MET:N	2.62	0.56
12:CO:38:ARG:HD2	12:CO:39:THR:H	1.70	0.56
25:DA:141:A:H8	25:DA:1595:G:H21	1.53	0.56
25:DA:2472:G:C4	25:DA:2475:C:N4	2.74	0.56
25:DA:2712:U:O2'	25:DA:2712(A):A:P	2.64	0.56
28:DE:30:PRO:O	28:DE:32:PRO:HD3	2.05	0.56
29:DF:143:ALA:O	29:DF:148:LEU:HB2	2.05	0.56
31:DH:137:ASP:HB3	31:DH:141:VAL:HG23	1.88	0.56
48:DW:17:SER:CB	48:DW:18:PRO:HA	2.22	0.56
50:D4:21:VAL:HG22	50:D4:22:ILE:H	1.71	0.56
25:BA:1939:U:OP1	25:BA:2604:U:O2'	2.23	0.56
25:BA:2255:G:H22	36:BP:85:LYS:HE2	1.67	0.56
28:BE:152:LYS:HG2	33:BM:78:TYR:CE1	2.41	0.56
35:BO:65:ARG:O	35:BO:66:GLY:C	2.49	0.56
38:BQ:29:PHE:HD2	38:BQ:29:PHE:C	2.14	0.56
46:B3:15:ASP:OD1	46:B3:16:SER:N	2.35	0.56
50:B4:57:GLU:O	50:B4:60:GLN:HB2	2.05	0.56
1:CA:1453:G:HO2'	1:CA:1454:G:P	2.29	0.56
3:CF:21:ARG:HH11	3:CF:21:ARG:HB3	1.71	0.56
6:CI:86:ARG:O	6:CI:87:ARG:HG2	2.06	0.56
9:CL:18:PHE:HD1	9:CL:62:TYR:HD2	1.54	0.56
25:DA:1024:G:C3'	25:DA:1025:G:H5"	2.35	0.56
25:DA:1151:G:H5"	40:D1:81:HIS:CE1	2.41	0.56
25:DA:1190:G:H2'	25:DA:1191:G:H8	1.70	0.56
25:DA:1843:C:H5'	27:DD:253:GLN:HE21	1.71	0.56
25:DA:2817:G:OP1	37:D0:99:LYS:NZ	2.38	0.56
31:DH:127:GLU:HG2	31:DH:129:THR:H	1.70	0.56
35:DO:112:LEU:H	35:DO:128:HIS:CD2	2.23	0.56
35:DO:112:LEU:HD22	35:DO:113:LYS:N	2.21	0.56
1:AA:255:G:P	17:AT:69:LYS:HZ3	2.28	0.56
1:AA:382:A:H2'	1:AA:383:A:H8	1.71	0.56
1:AA:870:U:H4'	1:AA:871:U:H3'	1.88	0.56
1:AA:1291:G:H4'	9:AL:38:GLN:O	2.05	0.56
2:AE:53:ARG:HH12	2:AE:199:TYR:HA	1.70	0.56
4:AG:28:SER:HB2	4:AG:29:PRO:CD	2.35	0.56
4:AG:173:TRP:CZ3	4:AG:193:ASP:HB3	2.41	0.56
13:AP:15:VAL:HG23	13:AP:43:THR:O	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:57:ARG:HE	50:B4:35:VAL:HG23	1.70	0.56
15:AR:64:ARG:NH1	15:AR:68:ARG:HH21	2.04	0.56
25:BA:18:C:H2'	25:BA:19:C:C6	2.41	0.56
25:BA:1266:G:O2'	25:BA:2012:G:O6	2.14	0.56
25:BA:1418:G:H8	25:BA:1418:G:O5'	1.89	0.56
25:BA:1420:U:HO2'	25:BA:1421:G:P	2.28	0.56
25:BA:2086:U:OP2	27:BD:263:ARG:NH1	2.39	0.56
25:BA:2210:G:H3'	25:BA:2211:G:H8	1.65	0.56
25:BA:2304:G:H22	25:BA:2312:U:H3	1.53	0.56
25:BA:2307:G:C5	25:BA:2311:A:C2	2.94	0.56
25:BA:2579:C:H2'	25:BA:2580:U:O4'	2.05	0.56
27:BD:72:LYS:HB3	27:BD:75:ILE:HD12	1.88	0.56
29:BF:81:PRO:HB3	29:BF:89:VAL:HG23	1.87	0.56
49:BX:6:VAL:HB	49:BX:54:VAL:HG21	1.87	0.56
2:CE:163:PHE:HD2	2:CE:185:ILE:HG13	1.71	0.56
12:CO:38:ARG:HH11	12:CO:38:ARG:HB3	1.71	0.56
17:CT:59:ILE:HG22	17:CT:71:PHE:CD1	2.41	0.56
23:CC:59:A:H4'	23:CC:60:A:OP1	2.06	0.56
25:DA:905:U:H2'	25:DA:906:G:H5'	1.87	0.56
25:DA:1542:G:H3'	25:DA:1543:A:H5"	1.88	0.56
25:DA:1653:G:C5	37:D0:9:LYS:HD2	2.41	0.56
25:DA:2050:C:H1'	28:DE:156:MET:CE	2.35	0.56
25:DA:2564:A:OP1	25:DA:2648:C:H4'	2.05	0.56
27:DD:70:TRP:CH2	27:DD:150:LYS:HA	2.40	0.56
1:AA:976:G:P	14:AQ:32:SER:H	2.28	0.55
1:AA:1004:A:O5'	1:AA:1025:U:C4	2.59	0.55
1:AA:1492:A:OP1	12:AO:44:LYS:HA	2.07	0.55
2:AE:90:MET:HE2	2:AE:90:MET:HA	1.88	0.55
22:AB:9:U:H4'	22:AB:10:C:OP2	2.06	0.55
25:BA:1204:A:C2	25:BA:1241:A:N1	2.74	0.55
25:BA:1689:A:N7	25:BA:1698:A:N1	2.54	0.55
25:BA:1790:C:H5"	25:BA:1791:A:OP1	2.06	0.55
25:BA:2688:U:C5	25:BA:2720:U:OP2	2.53	0.55
28:BE:61:ARG:O	28:BE:63:LEU:HB3	2.05	0.55
31:BH:151:ILE:O	31:BH:151:ILE:HG22	2.06	0.55
32:BK:40:THR:O	32:BK:44:LEU:HB2	2.06	0.55
36:BP:3:MET:HB2	36:BP:93:TYR:CD1	2.40	0.55
42:BS:84:ARG:HB3	42:BS:96:ILE:HD11	1.88	0.55
45:BV:30:ASN:ND2	45:BV:32:HIS:H	2.02	0.55
47:BZ:40:ARG:NH2	47:BZ:42:GLN:HG2	2.21	0.55
54:B8:52:LYS:O	54:B8:52:LYS:HG3	2.02	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:197:A:H1'	1:CA:198:G:O4'	2.07	0.55
1:CA:1054:C:OP1	1:CA:1197:G:P	2.63	0.55
1:CA:1194:U:H2'	1:CA:1195:C:C6	2.41	0.55
1:CA:1347:G:N2	1:CA:1373:G:H2'	2.22	0.55
4:CG:26:CYS:HA	4:CG:31:CYS:CB	2.26	0.55
8:CK:103:VAL:HG12	8:CK:108:GLY:HA3	1.89	0.55
8:CK:103:VAL:CG2	8:CK:110:ALA:HB2	2.36	0.55
9:CL:114:TYR:HD1	10:CM:60:ARG:HG3	1.71	0.55
13:CP:91:ARG:CB	13:CP:98:VAL:HG12	2.33	0.55
25:DA:547:A:H3'	25:DA:548:A:H8	1.69	0.55
25:DA:1049:C:N4	31:DH:2:SER:HB2	2.22	0.55
25:DA:1049:C:H2'	25:DA:1050:A:H5'	1.87	0.55
25:DA:1224:G:N2	25:DA:1227:A:OP2	2.40	0.55
25:DA:1443:G:H8	25:DA:1443:G:H5'	1.71	0.55
25:DA:2298:A:H2'	25:DA:2299:G:O4'	2.05	0.55
25:DA:2675:A:H4'	34:DN:29:ASN:ND2	2.21	0.55
27:DD:35:LYS:CG	27:DD:64:ILE:N	2.61	0.55
32:DK:78:THR:HB	32:DK:104:GLN:NE2	2.21	0.55
33:DM:19:GLU:HB2	33:DM:59:LYS:HB3	1.88	0.55
35:DO:11:GLY:C	35:DO:13:ASN:N	2.65	0.55
39:DR:136:GLN:O	39:DR:137:LYS:HD2	2.05	0.55
1:AA:81:G:C2	1:AA:88:C:N3	2.74	0.55
1:AA:1028(B):C:N4	1:AA:1032(A):G:C6	2.69	0.55
1:AA:1363:A:H1'	1:AA:1365:G:N7	2.20	0.55
2:AE:156:LYS:HZ3	2:AE:156:LYS:HB2	1.71	0.55
7:AJ:69:VAL:O	7:AJ:69:VAL:HG12	2.06	0.55
12:AO:68:PRO:O	12:AO:99:ARG:NH1	2.39	0.55
17:AT:6:LEU:HD22	17:AT:23:VAL:HG11	1.88	0.55
21:AX:10:ARG:HG3	21:AX:10:ARG:HH11	1.72	0.55
25:BA:67:U:O4	25:BA:74:A:N1	2.39	0.55
25:BA:635:C:O2'	25:BA:639:U:OP1	2.23	0.55
25:BA:900:A:H3'	25:BA:901:A:C8	2.41	0.55
25:BA:2192:G:O2'	25:BA:2193:G:H5'	2.06	0.55
25:BA:2700:C:O2'	25:BA:2701:C:H5'	2.06	0.55
32:BK:122:GLU:HB3	32:BK:126:TYR:OH	2.05	0.55
48:BW:38:GLN:O	48:BW:41:ILE:HG22	2.06	0.55
1:CA:1144:G:C2'	1:CA:1145:C:H5"	2.36	0.55
8:CK:109:ILE:HG23	8:CK:137:VAL:HB	1.87	0.55
11:CN:34:ASP:HB2	11:CN:35:PRO:CD	2.36	0.55
22:CB:6:G:O2'	22:CB:7:G:P	2.63	0.55
25:DA:805:G:OP2	35:DO:41:ARG:HG2	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1268:A:H2'	25:DA:1269:A:O4'	2.06	0.55
25:DA:2328:A:H2'	25:DA:2329:G:H8	1.69	0.55
25:DA:2543:G:HO2'	25:DA:2645:G:HO2'	1.54	0.55
26:DB:51:G:OP2	38:DQ:59:LYS:NZ	2.39	0.55
30:DG:60:LEU:HD22	30:DG:68:PRO:HG3	1.88	0.55
35:DO:140:ALA:O	35:DO:141:ALA:HB2	2.07	0.55
38:DQ:62:LYS:HB3	38:DQ:97:ARG:CD	2.35	0.55
39:DR:56:GLY:O	39:DR:59:THR:HG23	2.05	0.55
40:D1:52:ARG:HB3	40:D1:52:ARG:NH1	2.21	0.55
47:DZ:85:LEU:HA	47:DZ:87:PRO:HD2	1.88	0.55
48:DW:29:LYS:HE3	48:DW:57:ILE:HG21	1.88	0.55
50:D4:34:GLU:C	50:D4:36:CYS:N	2.63	0.55
50:D4:38:LYS:C	50:D4:40:HIS:H	2.15	0.55
52:D6:18:ARG:NH1	52:D6:43:CYS:HB2	2.20	0.55
54:D8:52:LYS:O	54:D8:54:GLU:N	2.36	0.55
1:AA:468:A:H2'	1:AA:474:G:H5'	1.88	0.55
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.42	0.55
10:AM:58:ASP:O	10:AM:59:SER:CB	2.53	0.55
13:AP:4:ILE:HG22	13:AP:5:ALA:N	2.19	0.55
15:AR:3:ILE:O	15:AR:3:ILE:HG13	2.06	0.55
22:AD:5:G:H1	22:AD:77:C:H42	1.54	0.55
25:BA:658:C:H2'	25:BA:659:C:H6	1.70	0.55
25:BA:805:G:OP2	35:BO:41:ARG:HG2	2.07	0.55
25:BA:1408:C:C2	25:BA:1595:G:N2	2.75	0.55
36:BP:32:TYR:CD1	36:BP:133:ARG:HA	2.41	0.55
45:BV:6:LYS:HZ1	45:BV:43:GLU:HG3	1.70	0.55
45:BV:135:GLU:O	45:BV:136:PHE:HB3	2.06	0.55
47:BZ:44:PRO:HG2	47:BZ:46:LEU:HD22	1.87	0.55
50:B4:37:SER:CA	50:B4:42:PHE:CD1	2.89	0.55
1:CA:36:C:OP1	12:CO:120:LYS:NZ	2.37	0.55
1:CA:350:G:H5'	1:CA:351:G:OP2	2.06	0.55
2:CE:47:THR:O	2:CE:51:LEU:HB2	2.06	0.55
3:CF:18:TRP:HE3	3:CF:18:TRP:H	1.53	0.55
3:CF:23:TYR:HD2	3:CF:23:TYR:C	2.11	0.55
5:CH:122:GLU:OE1	5:CH:126:ARG:HG2	2.06	0.55
10:CM:33:GLN:HB2	10:CM:75:ILE:HD11	1.87	0.55
12:CO:83:ARG:HB2	12:CO:98:VAL:HG23	1.87	0.55
15:CR:75:PRO:O	15:CR:79:ARG:HG3	2.06	0.55
19:CV:41:VAL:C	19:CV:43:GLU:H	2.13	0.55
25:DA:530:G:O2'	25:DA:532:A:C8	2.55	0.55
25:DA:1397:U:O2'	25:DA:1398:C:OP1	2.23	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2115:G:H1'	25:DA:2171:A:N1	2.21	0.55
26:DB:41:U:O4	30:DG:70:VAL:HG23	2.06	0.55
26:DB:43:C:OP1	50:D4:6:HIS:HE1	1.90	0.55
29:DF:110:LEU:HD21	29:DF:181:LEU:HD13	1.88	0.55
29:DF:145:GLU:O	29:DF:146:ALA:HB2	2.06	0.55
33:DM:36:GLY:O	33:DM:39:ARG:HG3	2.05	0.55
33:DM:93:THR:HB	33:DM:94:HIS:CD2	2.42	0.55
40:D1:59:ARG:O	40:D1:63:VAL:HG23	2.06	0.55
44:DU:76:CYS:CB	44:DU:77:PRO:HD2	2.37	0.55
44:DU:95:LYS:HB3	44:DU:100:ALA:HA	1.89	0.55
45:DV:69:THR:HG22	45:DV:90:VAL:HG22	1.87	0.55
1:AA:95:G:H5'	1:AA:96:G:OP2	2.06	0.55
1:AA:1054:C:O2	1:AA:1054:C:H2'	2.05	0.55
4:AG:65:ARG:NH1	4:AG:70:ILE:O	2.40	0.55
14:AQ:13:THR:N	14:AQ:14:PRO:CD	2.68	0.55
19:AV:65:ASN:H	19:AV:65:ASN:HD22	1.53	0.55
22:AB:3:U:C4'	22:AB:4:G:OP1	2.54	0.55
25:BA:511:U:C5	25:BA:512:G:C5	2.95	0.55
25:BA:1403:C:C5'	25:BA:1471:A:H1'	2.36	0.55
25:BA:1969:A:O2'	25:BA:1972:A:N3	2.31	0.55
31:BH:88:LEU:HB3	31:BH:130:ARG:HG2	1.88	0.55
37:B0:118:GLU:HA	37:B0:118:GLU:OE1	2.06	0.55
43:BT:18:TYR:O	43:BT:20:GLY:N	2.39	0.55
45:BV:105:VAL:HG11	45:BV:138:GLU:OE1	2.07	0.55
50:B4:37:SER:CB	50:B4:42:PHE:CE2	2.89	0.55
54:B8:2:PRO:O	54:B8:3:LYS:C	2.48	0.55
1:CA:328:C:O2'	1:CA:329:A:P	2.64	0.55
1:CA:689:C:H3'	1:CA:690:G:H21	1.72	0.55
8:CK:120:THR:HG23	8:CK:123:GLU:H	1.72	0.55
22:CD:11:C:H42	22:CD:25:G:H1	1.54	0.55
22:CD:19:C:OP1	22:CD:19:C:O4'	2.24	0.55
25:DA:273(E):U:O2'	25:DA:273(F):C:H5'	2.06	0.55
25:DA:1019:U:H3	25:DA:1142(A):A:H62	1.53	0.55
25:DA:1420:U:C1'	25:DA:1421:G:OP1	2.53	0.55
25:DA:2151:G:H2'	25:DA:2152:G:H8	1.72	0.55
25:DA:2720:U:C2	25:DA:2873:A:C2	2.95	0.55
30:DG:61:ALA:HA	30:DG:64:THR:HG22	1.88	0.55
31:DH:70:THR:O	31:DH:74:ASN:ND2	2.39	0.55
35:DO:124:LYS:HA	35:DO:143:GLY:O	2.06	0.55
36:DP:38:GLU:HB2	36:DP:127:ILE:HG22	1.87	0.55
40:D1:100:VAL:C	40:D1:102:GLU:H	2.15	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DV:10:ARG:HH21	45:DV:26:GLY:H	1.54	0.55
1:AA:1135:U:H4'	1:AA:1136:U:H5	1.71	0.55
10:AM:57:LYS:CD	10:AM:60:ARG:HH12	2.20	0.55
20:AW:26:ASN:N	20:AW:26:ASN:HD22	2.03	0.55
22:AD:21:A:C4'	22:AD:22:A:O5'	2.53	0.55
25:BA:484:C:OP1	44:BU:51:VAL:HG11	2.07	0.55
25:BA:792:G:H5"	25:BA:793:A:H5'	1.89	0.55
25:BA:1359:A:N1	25:BA:1372:U:O4	2.39	0.55
27:BD:25:THR:HG21	27:BD:81:ALA:HA	1.87	0.55
27:BD:35:LYS:CD	27:BD:104:TYR:HD1	2.13	0.55
27:BD:132:PRO:HD3	27:BD:190:TYR:CZ	2.41	0.55
31:BH:126:PRO:O	31:BH:127:GLU:HB2	2.07	0.55
40:B1:90:VAL:HG12	40:B1:91:ASP:N	2.22	0.55
40:B1:91:ASP:O	40:B1:92:ARG:C	2.49	0.55
45:BV:89:PHE:CE1	45:BV:96:VAL:HG21	2.41	0.55
46:B3:11:ARG:O	46:B3:14:ARG:NH2	2.39	0.55
1:CA:707:C:H2'	1:CA:708:C:H6	1.71	0.55
1:CA:962:C:H42	1:CA:973:G:H1	1.54	0.55
4:CG:14:ARG:HH11	4:CG:14:ARG:HG3	1.72	0.55
4:CG:24:GLU:CD	4:CG:24:GLU:N	2.64	0.55
15:CR:39:LEU:HD12	15:CR:56:LEU:HB2	1.87	0.55
25:DA:247:G:H4'	25:DA:386:G:C5	2.41	0.55
25:DA:535:C:C2'	25:DA:536:A:H5'	2.36	0.55
25:DA:867:C:C4	25:DA:868:U:C5	2.94	0.55
25:DA:1025:G:C4	25:DA:1135:C:H1'	2.41	0.55
25:DA:1054:A:N6	25:DA:1105:U:H3	2.04	0.55
25:DA:1342:A:N6	25:DA:1602:U:N3	2.54	0.55
25:DA:1412:A:H2'	25:DA:1413:G:C8	2.40	0.55
25:DA:1543:A:C4'	25:DA:1543:A:OP1	2.55	0.55
25:DA:1791:A:H8	25:DA:1791:A:OP2	1.90	0.55
25:DA:2520:C:H41	25:DA:2542:A:N6	2.05	0.55
25:DA:2629:A:C4'	25:DA:2630:G:OP2	2.54	0.55
26:DB:65:C:H41	26:DB:108:C:C2'	2.20	0.55
27:DD:36:PRO:HA	27:DD:62:TYR:O	2.07	0.55
27:DD:96:HIS:CE1	27:DD:102:LYS:HE2	2.41	0.55
28:DE:2:LYS:HZ3	28:DE:95:ILE:HG23	1.71	0.55
35:DO:55:ARG:O	35:DO:55:ARG:HD2	2.06	0.55
39:DR:78:LEU:O	39:DR:78:LEU:HD23	2.07	0.55
1:AA:170:U:O2'	1:AA:171:A:H5'	2.06	0.55
1:AA:1422:G:H5"	34:BN:48:PRO:HB3	1.88	0.55
2:AE:163:PHE:CD2	2:AE:185:ILE:HG13	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:57:ARG:HE	50:B4:35:VAL:CG2	2.20	0.55
19:AV:15:LEU:H	19:AV:15:LEU:CD2	2.19	0.55
25:BA:443:A:H1'	25:BA:1201:C:O4'	2.07	0.55
25:BA:607:U:OP1	29:BF:102:PRO:HA	2.06	0.55
25:BA:1047:G:H2'	25:BA:1110:G:C6	2.42	0.55
25:BA:1188:U:C2'	25:BA:1189:A:H5'	2.37	0.55
25:BA:2118:U:H5"	25:BA:2119:A:OP1	2.07	0.55
25:BA:2307:G:C4	25:BA:2311:A:N1	2.74	0.55
27:BD:39:LYS:HB2	27:BD:62:TYR:HB2	1.87	0.55
32:BK:6:LEU:O	32:BK:7:GLU:HB3	2.06	0.55
37:B0:29:LEU:HB3	37:B0:75:LEU:HD21	1.87	0.55
41:B2:35:LEU:C	41:B2:37:VAL:N	2.57	0.55
42:BS:110:LYS:O	42:BS:111:HIS:C	2.49	0.55
48:BW:50:ILE:HD12	48:BW:51:ARG:N	2.21	0.55
1:CA:82:U:N3	1:CA:87:A:C6	2.75	0.55
1:CA:89:U:C1'	1:CA:90:C:OP1	2.54	0.55
1:CA:198:G:H2'	1:CA:199:G:H8	1.71	0.55
1:CA:316:G:OP2	1:CA:351:G:O2'	2.25	0.55
1:CA:1442:G:O2'	1:CA:1443:G:P	2.63	0.55
2:CE:233:SER:CB	2:CE:234:PRO:HD2	2.32	0.55
22:CB:81:C:H3'	22:CB:82:A:C2	2.42	0.55
25:DA:598:G:H1'	35:DO:12:ALA:CB	2.36	0.55
25:DA:886:C:H1'	25:DA:890:A:C2	2.42	0.55
25:DA:1075:C:H2'	25:DA:1076:C:C6	2.41	0.55
25:DA:1159:U:O2'	25:DA:1160:G:H5'	2.07	0.55
25:DA:1729:A:N6	25:DA:1731:G:C5	2.74	0.55
33:DM:22:THR:HA	33:DM:61:ARG:O	2.07	0.55
35:DO:46:LYS:CG	35:DO:51:PHE:CD2	2.90	0.55
1:AA:542:G:OP1	4:AG:10:ARG:NH2	2.40	0.55
1:AA:881:G:OP2	12:AO:9:ARG:NH2	2.40	0.55
2:AE:94:ASN:HD22	2:AE:94:ASN:H	1.54	0.55
3:AF:3:ASN:C	3:AF:4:LYS:HG2	2.32	0.55
9:AL:121:ARG:NH1	9:AL:122:ALA:O	2.34	0.55
20:AW:23:ARG:O	20:AW:27:LYS:HB2	2.07	0.55
25:BA:1464:C:O2'	25:BA:1528:A:C8	2.58	0.55
25:BA:2502:G:H5"	25:BA:2503:A:H5"	1.88	0.55
26:BB:53:A:H2'	26:BB:54:G:O4'	2.06	0.55
32:BK:120:ILE:HD11	32:BK:126:TYR:OH	2.07	0.55
40:B1:66:ASN:HD21	40:B1:70:ARG:NE	2.03	0.55
41:B2:18:LEU:HD22	41:B2:19:LYS:N	2.22	0.55
45:BV:59:LEU:O	45:BV:60:GLU:HB2	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:B6:11:LEU:HD22	52:B6:26:ASN:HD22	1.72	0.55
1:CA:942:G:H21	9:CL:124:GLN:NE2	2.03	0.55
1:CA:1052:U:C2	1:CA:1200:C:N4	2.75	0.55
1:CA:1115:C:N3	1:CA:1185:G:O6	2.40	0.55
1:CA:1498:U:H1'	1:CA:1499:A:OP2	2.07	0.55
25:DA:394:A:H5"	25:DA:395:U:OP2	2.07	0.55
25:DA:660:G:H21	35:DO:12:ALA:HA	1.70	0.55
25:DA:830:G:H4'	25:DA:831:G:OP2	2.07	0.55
25:DA:2261:C:C6	46:D3:16:SER:HB3	2.41	0.55
25:DA:2788:C:OP1	28:DE:61:ARG:NH1	2.39	0.55
28:DE:8:LYS:HB3	28:DE:192:ASN:HA	1.88	0.55
33:DM:17:ASP:O	33:DM:18:ALA:HB3	2.05	0.55
39:DR:88:ILE:HG21	39:DR:91:ARG:HH22	1.72	0.55
44:DU:95:LYS:CB	44:DU:100:ALA:HA	2.37	0.55
45:DV:128:VAL:HG22	45:DV:129:SER:N	2.12	0.55
52:D6:21:TYR:CD2	52:D6:21:TYR:N	2.74	0.55
1:AA:57:G:H2'	1:AA:58:C:C6	2.41	0.55
1:AA:324:G:N1	1:AA:327:A:OP2	2.40	0.55
1:AA:376:G:OP1	16:AS:5:ARG:HB2	2.06	0.55
1:AA:1429:C:H2'	1:AA:1430:C:H6	1.70	0.55
2:AE:67:THR:C	2:AE:68:ILE:HD12	2.31	0.55
8:AK:102:ARG:O	8:AK:102:ARG:HG2	2.06	0.55
8:AK:122:ARG:O	8:AK:126:LYS:HG3	2.07	0.55
12:AO:59:SER:HB2	12:AO:61:TYR:CD1	2.42	0.55
13:AP:81:LEU:O	13:AP:84:ILE:HG22	2.07	0.55
25:BA:524:U:H2'	25:BA:525:U:C6	2.41	0.55
25:BA:1678:G:H8	25:BA:1678:G:O5'	1.89	0.55
25:BA:2807:G:H3'	25:BA:2808:U:H5"	1.89	0.55
29:BF:129:PHE:O	29:BF:130:ALA:CB	2.55	0.55
29:BF:178:PRO:HB2	29:BF:201:VAL:HG11	1.89	0.55
37:B0:75:LEU:O	37:B0:75:LEU:HD23	2.07	0.55
46:B3:68:GLU:HG2	46:B3:80:HIS:HB2	1.89	0.55
1:CA:142:G:H2'	1:CA:143:A:H8	1.72	0.55
1:CA:540:G:H2'	1:CA:541:G:O4'	2.06	0.55
1:CA:833:U:H2'	1:CA:834:C:C6	2.42	0.55
20:CW:18:GLN:O	20:CW:22:ARG:HG3	2.07	0.55
25:DA:573:G:O2'	25:DA:574:C:H3'	2.06	0.55
25:DA:1111:A:H5'	31:DH:3:ARG:HD3	1.88	0.55
25:DA:1359:A:H2'	25:DA:1360:A:H5'	1.89	0.55
25:DA:1758:G:H4'	25:DA:1759:A:OP2	2.07	0.55
25:DA:2105:C:N4	25:DA:2184:G:H1	2.04	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2522:U:H2'	25:DA:2523:G:H5"	1.89	0.55
26:DB:50:G:OP1	38:DQ:63:THR:HG23	2.07	0.55
26:DB:79:C:H2'	26:DB:80:U:O4'	2.06	0.55
27:DD:83:GLU:OE1	27:DD:104:TYR:OH	2.19	0.55
41:D2:62:LEU:HB3	41:D2:93:GLU:O	2.06	0.55
46:D3:53:MET:HG3	46:D3:59:LEU:HD23	1.88	0.55
53:D7:8:ASN:HD22	53:D7:8:ASN:C	2.14	0.55
1:AA:66:G:H4'	1:AA:173:U:C5	2.42	0.55
1:AA:1346:A:C4	7:AJ:10:ARG:NH2	2.75	0.55
11:AN:17:GLY:HA3	11:AN:77:MET:SD	2.47	0.55
13:AP:84:ILE:HD13	19:AV:65:ASN:OD1	2.07	0.55
19:AV:13:ASP:O	19:AV:14:HIS:C	2.49	0.55
25:BA:270(L):U:O4	32:BK:50:ARG:NH1	2.40	0.55
25:BA:528:A:C2	25:BA:2042:A:H2'	2.42	0.55
25:BA:580:C:H2'	25:BA:581:C:C6	2.42	0.55
25:BA:811:U:C4	35:BO:21:ARG:NH2	2.75	0.55
25:BA:2212:A:N3	25:BA:2215:G:C2	2.75	0.55
25:BA:2468:G:C2'	25:BA:2476:A:N6	2.67	0.55
31:BH:154:PRO:O	31:BH:155:SER:C	2.49	0.55
52:B6:42:TRP:CD1	52:B6:42:TRP:H	2.25	0.55
1:CA:827:U:H3	1:CA:872:A:N6	2.04	0.55
1:CA:909:A:H2'	1:CA:910:C:O4'	2.06	0.55
1:CA:960:U:N3	1:CA:1225:A:H1'	2.21	0.55
3:CF:22:TRP:CH2	3:CF:32:LEU:HB2	2.41	0.55
7:CJ:115:ARG:O	7:CJ:118:VAL:HG22	2.06	0.55
10:CM:54:PHE:CE2	10:CM:55:LYS:HD3	2.42	0.55
22:CD:80:C:H2'	22:CD:81:C:C6	2.42	0.55
25:DA:672:C:O2'	25:DA:673:C:H5'	2.07	0.55
25:DA:899:A:H5'	25:DA:900:A:OP2	2.07	0.55
25:DA:1590:U:H2'	25:DA:1591:G:C8	2.41	0.55
25:DA:1955:U:O3'	25:DA:1956:U:H6	1.89	0.55
25:DA:2859:G:H4'	25:DA:2860:A:OP1	2.07	0.55
28:DE:60:ASN:CB	28:DE:63:LEU:HB3	2.37	0.55
36:DP:59:ARG:O	36:DP:60:ARG:HD2	2.07	0.55
39:DR:24:PRO:HA	39:DR:49:VAL:HG23	1.89	0.55
45:DV:104:PHE:O	45:DV:105:VAL:HG12	2.06	0.55
50:D4:57:GLU:H	50:D4:60:GLN:CD	2.14	0.55
52:D6:34:LEU:O	52:D6:36:LEU:HG	2.06	0.55
54:D8:14:VAL:HG13	54:D8:15:LYS:N	2.21	0.55
1:AA:580:U:H2'	1:AA:581:G:O4'	2.06	0.55
1:AA:652:U:C4	1:AA:752:G:N3	2.74	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1277:C:O2'	1:AA:1279:A:H1'	2.07	0.55
1:AA:1286:A:C8	1:AA:1287:A:H4'	2.42	0.55
2:AE:106:LYS:O	2:AE:110:GLN:HG3	2.07	0.55
2:AE:178:ARG:NH2	8:AK:68:ARG:HH12	2.05	0.55
4:AG:9:CYS:O	4:AG:13:ARG:HG2	2.06	0.55
21:AX:2:GLY:C	21:AX:4:GLY:N	2.65	0.55
22:AD:47:U:H2'	22:AD:48:C:H6	1.71	0.55
25:BA:234:C:H2'	25:BA:235:U:C6	2.40	0.55
25:BA:592:G:N3	54:B8:4:MET:HE2	2.21	0.55
25:BA:1992:G:O2'	25:BA:1993:U:OP2	2.24	0.55
27:BD:46:GLN:N	27:BD:46:GLN:OE1	2.40	0.55
35:BO:46:LYS:O	35:BO:47:ASP:CB	2.54	0.55
35:BO:84:ASN:ND2	35:BO:115:LEU:HD12	2.22	0.55
38:BQ:48:LEU:HD23	38:BQ:82:ILE:HD11	1.88	0.55
48:BW:4:SER:CB	48:BW:5:GLU:OE2	2.55	0.55
50:B4:12:ALA:HB1	50:B4:29:PRO:HA	1.88	0.55
50:B4:55:ARG:HD3	50:B4:55:ARG:H	1.70	0.55
52:B6:41:PRO:HB2	52:B6:44:ARG:NH1	2.21	0.55
54:B8:29:LYS:HB3	54:B8:44:LYS:HG2	1.89	0.55
1:CA:127:G:N2	17:CT:61:GLU:OE1	2.35	0.55
1:CA:142:G:H2'	1:CA:143:A:C8	2.42	0.55
1:CA:191(F):U:O2	20:CW:105:SER:HB2	2.07	0.55
1:CA:652:U:O4	1:CA:752:G:H1'	2.06	0.55
1:CA:987:G:H1	1:CA:1218:C:N4	2.00	0.55
1:CA:1055:A:H2	3:CF:194:GLY:HA3	1.71	0.55
1:CA:1289:A:OP1	21:CX:9:ARG:NH2	2.40	0.55
2:CE:82:ARG:HD2	2:CE:92:TYR:CE1	2.42	0.55
5:CH:92:LYS:HB3	5:CH:119:LEU:HB2	1.88	0.55
12:CO:76:GLU:HG3	12:CO:77:HIS:CD2	2.42	0.55
13:CP:22:ILE:HB	13:CP:25:ILE:CG1	2.37	0.55
22:CD:85:A:N6	25:DA:2422:A:O4'	2.40	0.55
25:DA:1111:A:H5'	31:DH:3:ARG:NH1	2.22	0.55
25:DA:1210:A:H5"	25:DA:1211:U:H3'	1.88	0.55
25:DA:1771:C:C1'	25:DA:1786:A:H8	2.20	0.55
27:DD:28:GLU:HB2	27:DD:29:PRO:HD3	1.88	0.55
27:DD:30:GLU:HG3	27:DD:63:ARG:HH21	1.70	0.55
28:DE:81:ILE:O	28:DE:82:ARG:HB3	2.06	0.55
28:DE:176:ILE:HB	28:DE:181:LEU:HB2	1.88	0.55
29:DF:111:ALA:HB2	29:DF:206:ILE:HG21	1.89	0.55
30:DG:37:VAL:HG23	30:DG:99:MET:HE3	1.89	0.55
31:DH:129:THR:HG22	31:DH:130:ARG:HG3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DO:19:VAL:HG22	35:DO:27:HIS:O	2.07	0.55
35:DO:125:VAL:O	35:DO:144:GLU:HB3	2.06	0.55
38:DQ:84:GLN:CB	38:DQ:110:LEU:H	2.19	0.55
39:DR:74:ARG:HG2	39:DR:74:ARG:NH1	2.09	0.55
47:DZ:23:LYS:HD3	47:DZ:28:GLY:HA3	1.89	0.55
48:DW:28:LYS:HE3	48:DW:56:GLN:NE2	2.22	0.55
1:AA:1429:C:H2'	1:AA:1430:C:C6	2.42	0.54
1:AA:1498:U:C1'	1:AA:1499:A:OP2	2.56	0.54
3:AF:6:HIS:ND1	14:AQ:49:HIS:HB3	2.22	0.54
10:AM:62:HIS:CD2	10:AM:62:HIS:H	2.25	0.54
14:AQ:15:LYS:HG2	14:AQ:16:PHE:CD2	2.42	0.54
19:AV:23:ASN:C	19:AV:25:LYS:H	2.15	0.54
25:BA:1931:U:O4'	25:BA:1931:U:O2	2.25	0.54
25:BA:2307:G:N7	25:BA:2311:A:C2	2.75	0.54
28:BE:38:THR:HG22	28:BE:41:LYS:HB2	1.89	0.54
33:BM:127:ASP:O	33:BM:128:HIS:HB3	2.07	0.54
35:BO:32:THR:O	35:BO:32:THR:HG23	2.06	0.54
40:B1:97:ASP:O	40:B1:101:ARG:N	2.22	0.54
45:BV:134:PRO:O	45:BV:136:PHE:N	2.40	0.54
45:BV:169:GLU:OE1	45:BV:170:THR:N	2.41	0.54
1:CA:116:A:OP2	1:CA:116:A:C8	2.61	0.54
1:CA:197:A:H8	1:CA:198:G:N9	2.05	0.54
1:CA:1056:U:H5'	3:CF:163:ALA:CB	2.29	0.54
2:CE:7:VAL:O	2:CE:8:LYS:HB2	2.07	0.54
2:CE:178:ARG:NH2	8:CK:68:ARG:HH22	2.05	0.54
8:CK:23:SER:OG	8:CK:24:THR:N	2.40	0.54
10:CM:84:GLN:HA	10:CM:88:LEU:HD13	1.88	0.54
10:CM:84:GLN:O	10:CM:88:LEU:HB2	2.06	0.54
18:CU:22:VAL:O	18:CU:23:LYS:HB3	2.07	0.54
22:CB:79:A:H2'	22:CB:80:C:H5"	1.89	0.54
22:CD:13:G:H1'	22:CD:23:A:H61	1.72	0.54
25:DA:94:G:H2'	25:DA:95:G:O4'	2.06	0.54
25:DA:204:A:HO2'	25:DA:205:G:P	2.29	0.54
25:DA:1019:U:O2'	25:DA:1021:A:C2	2.59	0.54
25:DA:1380:G:N2	25:DA:1570:A:C2	2.75	0.54
25:DA:1495:A:H2'	25:DA:1496:A:H5'	1.89	0.54
25:DA:1569:A:O2'	27:DD:38:LYS:HG2	2.07	0.54
25:DA:1729:A:C6	25:DA:1731:G:C5	2.95	0.54
25:DA:2061:G:OP1	29:DF:68:LYS:NZ	2.40	0.54
25:DA:2298:A:N6	25:DA:2318:G:C8	2.74	0.54
25:DA:2639:A:H2'	25:DA:2640:G:H5'	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2756:U:H4'	25:DA:2757:A:OP1	2.08	0.54
25:DA:2854:G:N2	25:DA:2864:G:C4	2.75	0.54
26:DB:14:U:H5'	26:DB:71:C:H1'	1.89	0.54
29:DF:31:HIS:HB2	35:DO:9:ASN:ND2	2.22	0.54
36:DP:68:ILE:HD13	36:DP:103:MET:HB3	1.89	0.54
1:AA:349:A:O2'	1:AA:350:G:H5'	2.07	0.54
1:AA:703:G:H4'	1:AA:704:A:O5'	2.07	0.54
1:AA:1086:U:O5'	1:AA:1086:U:H6	1.89	0.54
2:AE:204:ASN:HD21	2:AE:206:ASP:C	2.14	0.54
3:AF:48:TYR:O	3:AF:51:GLY:N	2.35	0.54
20:AW:76:ALA:O	20:AW:80:ARG:HG2	2.07	0.54
25:BA:27:G:N2	25:BA:512:G:H1'	2.22	0.54
25:BA:1331:A:O2'	25:BA:1332:G:H8	1.90	0.54
25:BA:2016:U:O2	51:B5:7:PRO:HG2	2.06	0.54
25:BA:2829:C:H2'	25:BA:2830:G:H5"	1.89	0.54
27:BD:35:LYS:CG	27:BD:64:ILE:H	2.16	0.54
28:BE:144:ARG:HG3	28:BE:144:ARG:NH1	2.22	0.54
37:B0:85:PRO:C	37:B0:87:TYR:H	2.15	0.54
45:BV:143:GLY:HA2	45:BV:144:LEU:C	2.32	0.54
50:B4:13:ARG:O	50:B4:14:ILE:HB	2.06	0.54
50:B4:14:ILE:HD11	50:B4:33:VAL:HG21	1.87	0.54
1:CA:243:A:H4'	1:CA:244:U:O5'	2.06	0.54
2:CE:180:LEU:O	2:CE:181:PHE:HB2	2.07	0.54
3:CF:42:LEU:HD12	3:CF:45:LYS:HE3	1.89	0.54
5:CH:100:VAL:HG23	5:CH:118:ILE:HG22	1.89	0.54
6:CI:9:VAL:HB	6:CI:87:ARG:HB2	1.89	0.54
7:CJ:120:ILE:HG22	7:CJ:124:LEU:HD12	1.90	0.54
22:CD:55:U:H4'	22:CD:55:U:OP1	2.07	0.54
25:DA:528:A:H2	25:DA:2043:C:H5'	1.72	0.54
25:DA:571:A:O2'	41:D2:78:LYS:NZ	2.40	0.54
25:DA:854:G:H2'	25:DA:855:G:C8	2.41	0.54
25:DA:1028:A:N6	25:DA:1125:G:H2'	2.22	0.54
25:DA:2061:G:H5"	25:DA:2503:A:C2	2.42	0.54
29:DF:10:PRO:HD2	29:DF:13:SER:OG	2.07	0.54
29:DF:24:LEU:CB	29:DF:25:PRO:CD	2.80	0.54
33:DM:46:VAL:O	33:DM:47:ALA:HB3	2.07	0.54
35:DO:20:GLY:O	35:DO:21:ARG:NH2	2.40	0.54
35:DO:61:ARG:HB3	35:DO:62:LEU:HD22	1.89	0.54
36:DP:2:LEU:HD11	36:DP:69:PHE:HE1	1.70	0.54
36:DP:77:LYS:HB3	36:DP:78:PRO:HD2	1.88	0.54
39:DR:8:LYS:HB2	39:DR:8:LYS:NZ	2.21	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DS:40:ASN:O	42:DS:41:LYS:HG2	2.06	0.54
44:DU:76:CYS:O	44:DU:78:ALA:N	2.40	0.54
1:AA:1129:C:H4'	1:AA:1130:A:H5'	1.89	0.54
1:AA:1335:C:H5'	1:AA:1336:C:OP1	2.07	0.54
4:AG:28:SER:CB	4:AG:29:PRO:HD2	2.37	0.54
13:AP:13:LYS:O	13:AP:44:ARG:HD2	2.07	0.54
17:AT:101:ARG:HH21	17:AT:101:ARG:HB2	1.70	0.54
25:BA:259:G:N2	25:BA:621:A:H8	2.05	0.54
25:BA:780:G:N2	25:BA:783:A:N6	2.38	0.54
25:BA:1068:G:H4'	25:BA:1070:A:N6	2.22	0.54
25:BA:1081:U:H3'	25:BA:1082:U:C6	2.42	0.54
25:BA:2680:C:O2'	25:BA:2681:C:H5'	2.07	0.54
31:BH:8:PRO:HG2	31:BH:69:ARG:HH21	1.73	0.54
31:BH:46:GLU:CD	31:BH:51:ARG:HH11	2.15	0.54
36:BP:27:VAL:HG13	36:BP:105:GLU:OE2	2.07	0.54
52:B6:42:TRP:N	52:B6:42:TRP:HD1	2.06	0.54
1:CA:167:G:O2'	1:CA:168:G:H5'	2.08	0.54
1:CA:266:G:C1'	1:CA:267:C:OP2	2.55	0.54
1:CA:860:A:H2'	1:CA:861:G:O4'	2.06	0.54
1:CA:1094:G:C2'	1:CA:1095:U:OP2	2.54	0.54
5:CH:141:GLN:HA	5:CH:143:ARG:NH2	2.22	0.54
9:CL:47:LEU:HB2	9:CL:50:LEU:HD12	1.89	0.54
14:CQ:45:ARG:O	14:CQ:49:HIS:CD2	2.61	0.54
25:DA:607:U:OP1	29:DF:103:LYS:HG3	2.07	0.54
25:DA:1999:C:H4'	25:DA:2723:C:O2	2.06	0.54
25:DA:2108:C:N4	25:DA:2181:G:H1	2.03	0.54
25:DA:2720:U:N3	25:DA:2873:A:C6	2.75	0.54
28:DE:11:MET:SD	28:DE:24:THR:HG22	2.48	0.54
31:DH:7:LEU:N	31:DH:8:PRO:HD3	2.15	0.54
45:DV:59:LEU:O	45:DV:60:GLU:CB	2.55	0.54
47:DZ:92:LYS:O	47:DZ:93:GLU:C	2.50	0.54
1:AA:156:G:N2	1:AA:165:C:N3	2.50	0.54
1:AA:1004:A:C8	1:AA:1036:G:N2	2.75	0.54
4:AG:8:VAL:CG1	4:AG:21:LEU:HB2	2.37	0.54
4:AG:76:ARG:HD2	4:AG:207:TYR:HE2	1.73	0.54
4:AG:88:VAL:O	4:AG:90:GLY:N	2.39	0.54
25:BA:1519:G:C2'	25:BA:1520:U:H5'	2.38	0.54
25:BA:2114:A:N1	25:BA:2168:G:N2	2.54	0.54
27:BD:35:LYS:HB3	27:BD:63:ARG:HA	1.89	0.54
32:BK:70:GLU:HA	32:BK:70:GLU:OE1	2.07	0.54
36:BP:11:LYS:HD3	36:BP:87:LYS:HG2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BQ:5:THR:OG1	38:BQ:8:GLU:HG3	2.07	0.54
41:B2:49:THR:CB	41:B2:50:PRO:CD	2.85	0.54
44:BU:29:GLU:HB3	44:BU:38:ILE:HG23	1.88	0.54
45:BV:107:THR:C	45:BV:109:ALA:N	2.65	0.54
50:B4:16:CYS:C	50:B4:18:CYS:H	2.16	0.54
1:CA:173:U:H5"	1:CA:197:A:O4'	2.07	0.54
1:CA:537:G:H5"	12:CO:110:ARG:NH1	2.22	0.54
1:CA:1004:A:H2	1:CA:1024:G:C8	2.24	0.54
7:CJ:44:TYR:HA	7:CJ:47:CYS:HB2	1.89	0.54
19:CV:80:TYR:CZ	19:CV:82:GLY:HA2	2.43	0.54
20:CW:49:ALA:HB3	20:CW:100:ILE:HD13	1.89	0.54
25:DA:2702:U:H2'	25:DA:2703:C:H5	1.72	0.54
27:DD:206:LEU:HD22	27:DD:211:ARG:HG2	1.88	0.54
30:DG:35:GLU:O	30:DG:160:VAL:HB	2.07	0.54
31:DH:149:ARG:HD3	31:DH:164:TYR:CE1	2.43	0.54
40:D1:90:VAL:HG22	41:D2:39:LEU:HB3	1.90	0.54
42:DS:82:LEU:HD22	42:DS:84:ARG:HH21	1.73	0.54
46:D3:53:MET:HA	46:D3:58:THR:O	2.08	0.54
50:D4:4:GLY:C	50:D4:5:ILE:HG13	2.32	0.54
52:D6:35:GLU:O	52:D6:36:LEU:HB2	2.07	0.54
1:AA:1128:C:C2	1:AA:1144:G:N2	2.75	0.54
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.42	0.54
5:AH:20:GLN:NE2	5:AH:22:GLY:H	2.04	0.54
7:AJ:76:ARG:HG3	7:AJ:89:MET:HB2	1.87	0.54
12:AO:87:VAL:O	12:AO:88:LYS:CB	2.55	0.54
20:AW:72:LEU:HD23	20:AW:73:HIS:N	2.23	0.54
23:AC:26:C:H2'	23:AC:27:G:O4'	2.08	0.54
25:BA:26:G:C6	25:BA:27:G:N1	2.75	0.54
25:BA:1298:C:H5"	25:BA:1299:G:OP2	2.08	0.54
25:BA:1794:U:H2'	25:BA:1795:C:H6	1.71	0.54
27:BD:30:GLU:CG	27:BD:63:ARG:NH2	2.69	0.54
33:BM:47:ALA:HB2	33:BM:112:LEU:CD1	2.38	0.54
36:BP:137:TYR:CE2	45:BV:83:PRO:HG3	2.43	0.54
41:B2:47:VAL:HG22	41:B2:48:GLY:N	2.22	0.54
45:BV:29:TYR:CE2	45:BV:87:ASP:HB2	2.43	0.54
46:B3:53:MET:HG3	46:B3:59:LEU:HD23	1.88	0.54
52:B6:15:GLU:HG3	52:B6:49:HIS:ND1	2.22	0.54
54:B8:32:LEU:O	54:B8:36:LYS:HE2	2.07	0.54
1:CA:89:U:HO2'	1:CA:90:C:C5'	2.20	0.54
1:CA:833:U:H2'	1:CA:834:C:H6	1.72	0.54
1:CA:1055:A:C6	1:CA:1056:U:C6	2.94	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CF:59:ARG:HH12	3:CF:97:LYS:HD2	1.73	0.54
6:CI:25:ILE:HD13	6:CI:82:ARG:HD2	1.89	0.54
7:CJ:16:LEU:HD13	9:CL:45:ALA:HB2	1.89	0.54
25:DA:71:A:H5"	25:DA:73:A:C8	2.42	0.54
25:DA:287:C:H2'	25:DA:288:C:H6	1.73	0.54
25:DA:593:G:C1'	54:D8:4:MET:HE1	2.36	0.54
25:DA:1278:A:H2'	25:DA:1279:G:C8	2.42	0.54
25:DA:2153:G:H2'	25:DA:2154:G:H8	1.70	0.54
25:DA:2402:C:H5	25:DA:2415:G:H22	1.55	0.54
34:DN:111:PHE:HB3	34:DN:114:ILE:HD12	1.88	0.54
37:D0:41:ALA:C	37:D0:43:GLU:H	2.15	0.54
47:DZ:91:LYS:HG3	47:DZ:92:LYS:H	1.72	0.54
48:DW:47:ASN:N	48:DW:47:ASN:ND2	2.55	0.54
52:D6:27:LYS:HZ2	52:D6:27:LYS:HB2	1.72	0.54
52:D6:28:ARG:HD2	52:D6:31:PRO:HD2	1.90	0.54
1:AA:345:C:O2'	1:AA:346:G:N2	2.41	0.54
1:AA:765:G:H5"	1:AA:766:A:OP1	2.07	0.54
1:AA:1374:A:C2'	1:AA:1375:A:H5'	2.38	0.54
3:AF:162:GLN:CD	24:A1:23:A:H8	2.16	0.54
3:AF:181:ASN:HD21	3:AF:204:LEU:HD12	1.73	0.54
4:AG:139:ARG:HG3	4:AG:139:ARG:HH11	1.71	0.54
5:AH:43:LEU:HD21	5:AH:132:ALA:HB1	1.89	0.54
14:AQ:4:LYS:C	14:AQ:6:LEU:H	2.15	0.54
23:AC:35:C:H42	24:A1:18:G:H1	1.55	0.54
25:BA:880:G:N1	25:BA:897:C:N4	2.19	0.54
25:BA:1914:C:O4'	25:BA:1914:C:O2	2.24	0.54
25:BA:2635:C:OP1	28:BE:78:LEU:HG	2.07	0.54
25:BA:2712:U:O2'	25:BA:2712(A):A:P	2.66	0.54
26:BB:78:A:C2	26:BB:99:A:C4	2.95	0.54
28:BE:117:MET:O	28:BE:118:LYS:CB	2.55	0.54
37:B0:20:LEU:HD21	37:B0:40:LYS:HD3	1.89	0.54
40:B1:25:TRP:O	40:B1:28:ARG:HB2	2.08	0.54
40:B1:92:ARG:CZ	41:B2:11:GLN:H	2.20	0.54
1:CA:429:U:H4'	1:CA:430:A:O5'	2.06	0.54
1:CA:465:A:N7	1:CA:467:G:C6	2.76	0.54
1:CA:510:A:H5"	1:CA:511:C:P	2.47	0.54
1:CA:1130:A:O3'	9:CL:3:GLN:NE2	2.41	0.54
2:CE:6:THR:O	2:CE:7:VAL:HB	2.08	0.54
2:CE:26:PRO:C	2:CE:28:PHE:H	2.15	0.54
4:CG:13:ARG:C	4:CG:15:GLU:H	2.16	0.54
5:CH:71:LEU:HD22	5:CH:115:VAL:HG12	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CJ:6:ARG:O	7:CJ:7:ALA:C	2.51	0.54
9:CL:92:TYR:HA	9:CL:95:LYS:HD2	1.89	0.54
9:CL:99:LEU:HB3	9:CL:101:PHE:CD1	2.43	0.54
20:CW:71:THR:HG22	20:CW:72:LEU:H	1.73	0.54
22:CB:23:A:H8	22:CB:23:A:OP2	1.90	0.54
25:DA:67:U:C2	25:DA:74:A:H2	2.25	0.54
25:DA:328:U:H4'	44:DU:68:HIS:CD2	2.41	0.54
25:DA:2681:C:H2'	25:DA:2681:C:O2	2.07	0.54
25:DA:2720:U:N3	25:DA:2721:A:C5	2.76	0.54
27:DD:35:LYS:HE3	27:DD:63:ARG:C	2.32	0.54
29:DF:124:LEU:O	29:DF:124:LEU:HG	2.07	0.54
38:DQ:86:ALA:O	38:DQ:87:PHE:CB	2.56	0.54
44:DU:19:LYS:HG3	44:DU:20:TYR:H	1.73	0.54
45:DV:69:THR:HB	45:DV:88:PHE:HB3	1.90	0.54
7:AJ:113:GLU:O	7:AJ:119:ARG:HD3	2.08	0.54
9:AL:8:GLY:HA2	9:AL:79:LEU:HD12	1.89	0.54
25:BA:1173:G:H4'	25:BA:1174:A:C2	2.42	0.54
25:BA:1510:A:O2'	25:BA:1511:A:N7	2.38	0.54
25:BA:1955:U:O3'	25:BA:1956:U:H6	1.91	0.54
25:BA:2310:A:C5'	25:BA:2311:A:OP2	2.56	0.54
26:BB:89(A):A:H8	26:BB:89(A):A:O5'	1.90	0.54
30:BG:9:ARG:O	30:BG:13:GLU:HG2	2.07	0.54
30:BG:27:ASN:OD1	30:BG:28:VAL:N	2.40	0.54
35:BO:105:LEU:O	35:BO:106:LEU:CB	2.52	0.54
36:BP:65:PHE:O	36:BP:66:ILE:HG12	2.08	0.54
37:B0:32:GLY:HA2	37:B0:116:LEU:HD12	1.88	0.54
43:BT:29:TRP:CZ2	43:BT:76:ARG:NH2	2.76	0.54
44:BU:78:ALA:HB3	44:BU:81:LYS:HZ2	1.72	0.54
1:CA:165:C:H2'	1:CA:166:G:H8	1.71	0.54
1:CA:811:C:H4'	1:CA:900:A:N6	2.23	0.54
1:CA:956:U:C2	1:CA:1225:A:C2	2.95	0.54
1:CA:1047:G:C2'	1:CA:1048:G:H5'	2.38	0.54
1:CA:1129:C:N4	1:CA:1139:G:N1	2.56	0.54
1:CA:1372:U:OP1	9:CL:72:GLY:N	2.41	0.54
2:CE:17:PHE:HE2	2:CE:44:LEU:HA	1.72	0.54
17:CT:56:VAL:O	17:CT:77:VAL:HB	2.07	0.54
19:CV:36:ARG:NH1	19:CV:52:TYR:O	2.38	0.54
20:CW:33:ILE:HD13	20:CW:63:ILE:HG12	1.89	0.54
20:CW:71:THR:HG22	20:CW:72:LEU:N	2.22	0.54
22:CD:16:C:N4	22:CD:68:A:C5	2.76	0.54
22:CD:51:C:H3'	22:CD:52:G:O4'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:17:G:H4'	40:D1:25:TRP:CZ3	2.42	0.54
25:DA:370:G:H4'	25:DA:371:A:OP2	2.08	0.54
25:DA:1019:U:HO2'	25:DA:1021:A:H2	1.52	0.54
30:DG:107:LEU:HD11	30:DG:178:PHE:CE1	2.43	0.54
35:DO:11:GLY:O	35:DO:13:ASN:N	2.40	0.54
40:D1:83:LEU:CD2	40:D1:88:ILE:HG13	2.37	0.54
45:DV:16:SER:O	45:DV:20:ARG:HG3	2.08	0.54
50:D4:9:LEU:O	50:D4:10:VAL:HG12	2.08	0.54
1:AA:966:G:O2'	9:AL:127:LYS:O	2.26	0.54
1:AA:1002:G:C4	1:AA:1003:G:C8	2.96	0.54
1:AA:1305:G:H5'	21:AX:4:GLY:HA3	1.90	0.54
1:AA:1502:A:H2	1:AA:1505:G:C2	2.25	0.54
6:AI:37:VAL:HG12	6:AI:38:GLU:N	2.23	0.54
7:AJ:56:GLN:HE21	7:AJ:56:GLN:HA	1.73	0.54
9:AL:81:ILE:HD12	9:AL:81:ILE:H	1.73	0.54
11:AN:34:ASP:HB3	11:AN:40:ILE:HD11	1.90	0.54
13:AP:15:VAL:HG22	13:AP:45:VAL:HG12	1.89	0.54
23:AC:1:C:O2	23:AC:1:C:H2'	2.08	0.54
25:BA:76:C:O2'	48:BW:62:THR:HG21	2.07	0.54
25:BA:142:G:H2'	25:BA:143:C:C6	2.43	0.54
25:BA:2023:G:H5'	25:BA:2617:C:H4'	1.90	0.54
25:BA:2335:A:C8	25:BA:2337:G:N7	2.76	0.54
25:BA:2680:C:H5'	28:BE:189:PRO:HA	1.90	0.54
32:BK:40:THR:HG22	32:BK:42:SER:H	1.73	0.54
42:BS:65:LEU:C	42:BS:67:ASP:H	2.15	0.54
1:CA:57:G:C5	1:CA:58:C:C4	2.96	0.54
1:CA:390:C:H2'	1:CA:391:G:C8	2.42	0.54
25:DA:155:C:N4	25:DA:171:G:N1	2.30	0.54
25:DA:543:C:H2'	25:DA:543:C:O2	2.07	0.54
25:DA:882:G:H1	25:DA:894:C:H42	0.69	0.54
25:DA:960:A:C8	25:DA:962:G:C8	2.95	0.54
25:DA:1097:U:H2'	25:DA:1098:A:O4'	2.08	0.54
25:DA:2346:A:H5"	25:DA:2383:G:H1'	1.90	0.54
25:DA:2472:G:H1	25:DA:2477:C:P	2.31	0.54
25:DA:2854:G:C2	25:DA:2864:G:C2	2.96	0.54
31:DH:84:SER:O	31:DH:85:LYS:HB2	2.06	0.54
38:DQ:86:ALA:O	38:DQ:87:PHE:HB2	2.08	0.54
1:AA:31:G:O2'	1:AA:48:C:N4	2.41	0.54
1:AA:328:C:H4'	1:AA:329:A:H5'	1.88	0.54
1:AA:528:C:H41	12:AO:46:ASN:ND2	2.06	0.54
3:AF:150:LYS:HG3	3:AF:169:ALA:HB2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AD:34:U:H2'	22:AD:36:U:OP2	2.08	0.54
25:BA:270(M):U:H1'	25:BA:270(N):G:N7	2.23	0.54
25:BA:363(A):A:H2'	25:BA:363(B):G:H8	1.73	0.54
25:BA:813:U:H2'	25:BA:814:C:C6	2.43	0.54
25:BA:905:U:C2'	25:BA:906:G:H5'	2.38	0.54
25:BA:1061:U:H4'	25:BA:1070:A:C1'	2.32	0.54
25:BA:2275:C:O2'	36:BP:84:GLY:HA3	2.08	0.54
27:BD:65:ILE:HD12	27:BD:66:ASP:N	2.23	0.54
28:BE:176:ILE:HB	28:BE:181:LEU:HB2	1.89	0.54
30:BG:99:MET:HG3	30:BG:100:TRP:N	2.23	0.54
33:BM:45:ASN:HD22	33:BM:45:ASN:H	1.55	0.54
1:CA:38:G:C2	1:CA:397:A:C2	2.96	0.54
9:CL:4:TYR:CB	9:CL:19:LEU:HB2	2.37	0.54
18:CU:78:LEU:O	18:CU:79:LEU:HD23	2.07	0.54
25:DA:1259:G:H2'	25:DA:1260:G:C8	2.43	0.54
27:DD:5:LYS:HB2	27:DD:5:LYS:HZ2	1.73	0.54
27:DD:85:ASP:HB2	27:DD:92:ILE:HD13	1.90	0.54
29:DF:101:LEU:HD12	29:DF:102:PRO:HD2	1.89	0.54
32:DK:4:ILE:HD11	32:DK:44:LEU:HD23	1.89	0.54
43:DT:31:HIS:ND1	43:DT:32:PRO:HD2	2.22	0.54
44:DU:47:LYS:HA	44:DU:60:PHE:HB3	1.89	0.54
1:AA:412:A:H4'	1:AA:413:G:O5'	2.07	0.54
1:AA:1032(B):G:H2'	1:AA:1033:G:C1'	2.38	0.54
1:AA:1336:C:O2	1:AA:1336:C:H2'	2.07	0.54
2:AE:187:LEU:HD13	2:AE:205:ASP:HA	1.89	0.54
25:BA:6:A:H4'	33:BM:129:PRO:HB3	1.90	0.54
25:BA:176:G:O2'	25:BA:177:G:H5'	2.08	0.54
31:BH:87:LEU:HA	31:BH:163:TYR:O	2.08	0.54
35:BO:61:ARG:CZ	35:BO:61:ARG:CB	2.85	0.54
36:BP:42:ILE:HD12	36:BP:97:VAL:HG21	1.90	0.54
37:B0:52:ILE:O	37:B0:55:ALA:N	2.38	0.54
38:BQ:60:GLY:O	38:BQ:65:VAL:HG23	2.08	0.54
1:CA:465:A:N6	1:CA:467:G:C2	2.76	0.54
1:CA:1006:C:H2'	1:CA:1007:C:C6	2.43	0.54
1:CA:1028(B):C:C2	1:CA:1032(A):G:N2	2.75	0.54
3:CF:162:GLN:CG	24:C1:24:A:H1'	2.37	0.54
9:CL:99:LEU:HB3	9:CL:101:PHE:CE1	2.42	0.54
17:CT:18:THR:HG23	17:CT:69:LYS:HE3	1.90	0.54
20:CW:74:LYS:C	20:CW:76:ALA:H	2.16	0.54
25:DA:322:A:H3'	29:DF:169:ASN:HD21	1.70	0.54
25:DA:449:A:OP1	29:DF:84:VAL:O	2.26	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:676:A:C2	25:DA:677:A:C8	2.96	0.54
25:DA:1056:G:H4'	25:DA:1086:A:H1'	1.89	0.54
25:DA:1430:C:H2'	25:DA:1431:U:C6	2.43	0.54
25:DA:1558:A:H1'	25:DA:1559:G:OP2	2.08	0.54
25:DA:2169:A:C2	25:DA:2170:A:C8	2.95	0.54
25:DA:2704:C:H2'	25:DA:2705:A:O4'	2.08	0.54
26:DB:66:A:N6	26:DB:107:U:H2'	2.22	0.54
27:DD:142:VAL:HG12	27:DD:193:VAL:HA	1.89	0.54
29:DF:132:VAL:HG22	29:DF:133:ASN:N	2.17	0.54
31:DH:125:VAL:HG23	31:DH:126:PRO:HB3	1.89	0.54
41:D2:22:VAL:HG22	41:D2:23:GLU:N	2.23	0.54
42:DS:95:ILE:HD13	42:DS:95:ILE:H	1.73	0.54
43:DT:28:PHE:N	43:DT:28:PHE:HD1	2.06	0.54
1:AA:183:G:H2'	1:AA:184:G:C8	2.43	0.53
1:AA:261:U:OP2	20:AW:79:ARG:NH2	2.41	0.53
1:AA:538:G:H5"	12:AO:111:LYS:HB2	1.90	0.53
1:AA:723:U:O2	1:AA:723:U:C2'	2.56	0.53
4:AG:190:ASP:O	4:AG:191:ARG:C	2.51	0.53
7:AJ:16:LEU:HD11	9:AL:45:ALA:HB2	1.90	0.53
9:AL:11:LYS:C	9:AL:13:ALA:H	2.16	0.53
13:AP:5:ALA:O	13:AP:7:VAL:N	2.41	0.53
16:AS:36:ILE:O	16:AS:36:ILE:HG13	2.07	0.53
22:AB:79:A:C3'	22:AB:80:C:H5"	2.29	0.53
25:BA:154:G:H2'	25:BA:155:C:O4'	2.07	0.53
25:BA:1799:G:H5'	25:BA:1819:A:H61	1.73	0.53
25:BA:2182:G:H2'	25:BA:2183:C:C6	2.43	0.53
25:BA:2378:A:H8	25:BA:2378:A:O5'	1.91	0.53
25:BA:2393:A:H5'	35:BO:62:LEU:CB	2.34	0.53
25:BA:2593:U:H2'	25:BA:2594:C:C6	2.43	0.53
25:BA:2688:U:H1'	25:BA:2721:A:N6	2.22	0.53
25:BA:2760:C:O2'	25:BA:2761:G:H5'	2.08	0.53
27:BD:35:LYS:HD3	27:BD:63:ARG:HB3	1.89	0.53
28:BE:61:ARG:HB2	28:BE:62:PRO:CD	2.37	0.53
32:BK:9:LEU:HD22	32:BK:9:LEU:N	2.23	0.53
33:BM:1:MET:HE1	40:B1:95:LEU:HD21	1.90	0.53
34:BN:98:VAL:HG13	34:BN:117:LEU:HB3	1.89	0.53
35:BO:46:LYS:O	35:BO:47:ASP:HB3	2.06	0.53
37:B0:44:LEU:HD22	37:B0:48:VAL:CG1	2.36	0.53
42:BS:88:ARG:NH1	42:BS:94:ASP:OD1	2.32	0.53
45:BV:111:VAL:HG11	45:BV:146:ILE:HD11	1.90	0.53
54:B8:7:HIS:CB	54:B8:59:LYS:HE2	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:812:C:C2'	1:CA:813:U:OP2	2.55	0.53
1:CA:1003:G:H2'	1:CA:1004:A:H5'	1.88	0.53
9:CL:95:LYS:HZ3	9:CL:96:LEU:HB2	1.72	0.53
20:CW:44:ALA:C	20:CW:46:GLU:H	2.16	0.53
22:CB:45:C:H5"	22:CB:46:G:P	2.49	0.53
23:CC:19:G:C6	23:CC:59:A:C6	2.96	0.53
25:DA:298:G:OP1	44:DU:84:ARG:O	2.27	0.53
25:DA:456:C:O2'	25:DA:457:A:H5'	2.07	0.53
25:DA:645:C:H3'	25:DA:645:C:O2	2.08	0.53
25:DA:811:U:OP2	35:DO:21:ARG:O	2.26	0.53
25:DA:912:C:C2	25:DA:913:U:C5	2.96	0.53
25:DA:1771:C:H1'	25:DA:1786:A:H8	1.72	0.53
25:DA:2250:G:O2'	25:DA:2496:C:OP1	2.16	0.53
25:DA:2393:A:OP1	54:D8:30:ARG:HB3	2.08	0.53
26:DB:13:A:O2'	26:DB:15:A:O5'	2.26	0.53
27:DD:5:LYS:HG2	27:DD:6:PHE:H	1.73	0.53
32:DK:78:THR:CB	32:DK:104:GLN:HE22	2.21	0.53
38:DQ:89:ARG:HG3	38:DQ:92:TYR:O	2.07	0.53
52:D6:15:GLU:HG2	52:D6:47:THR:HG21	1.90	0.53
54:D8:50:LEU:O	54:D8:51:ALA:HB2	2.08	0.53
1:AA:142:G:H1	1:AA:221:C:N4	2.03	0.53
1:AA:177:C:OP1	20:AW:65:LYS:NZ	2.36	0.53
1:AA:1004:A:C4	1:AA:1025:U:C2	2.97	0.53
1:AA:1319:A:C2	1:AA:1323:G:H1'	2.44	0.53
2:AE:185:ILE:CG2	2:AE:199:TYR:HB2	2.34	0.53
7:AJ:155:ARG:O	7:AJ:155:ARG:HD3	2.08	0.53
18:AU:17:SER:C	18:AU:18:ARG:HD2	2.33	0.53
20:AW:89:ARG:HH21	20:AW:104:LEU:HD11	1.73	0.53
25:BA:139:G:N3	25:BA:141:A:N1	2.55	0.53
25:BA:1385:G:H4'	25:BA:1386:C:OP1	2.09	0.53
25:BA:1537:C:H2'	25:BA:1538:G:O5'	2.07	0.53
29:BF:129:PHE:O	29:BF:130:ALA:HB3	2.08	0.53
30:BG:59:GLU:O	30:BG:63:ILE:HG23	2.09	0.53
30:BG:111:LEU:HB3	30:BG:117:PHE:CE2	2.44	0.53
1:CA:362:G:H4'	12:CO:30:ARG:HH21	1.74	0.53
1:CA:1003:G:C2'	1:CA:1004:A:H5'	2.38	0.53
1:CA:1183:A:C2'	1:CA:1184:G:OP1	2.56	0.53
1:CA:1207:G:C6	1:CA:1208:C:C4	2.96	0.53
4:CG:60:GLU:OE2	4:CG:199:ASN:N	2.34	0.53
6:CI:78:GLU:O	6:CI:81:ILE:HG22	2.07	0.53
17:CT:29:HIS:CG	17:CT:30:PRO:HD2	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CB:28:G:N2	22:CB:44:C:O2	2.41	0.53
23:CC:17:C:O2	23:CC:17:C:C2'	2.56	0.53
25:DA:315:G:H2'	25:DA:316:C:C6	2.42	0.53
25:DA:1112:G:H2'	25:DA:1113:U:C6	2.43	0.53
25:DA:2135:A:C6	25:DA:2156:G:N2	2.77	0.53
25:DA:2716:U:O2'	25:DA:2717:G:H5'	2.08	0.53
26:DB:31:C:C2'	26:DB:32:C:H5'	2.38	0.53
26:DB:42:C:P	30:DG:67:LYS:HE2	2.48	0.53
26:DB:104:A:H2'	26:DB:105:G:O4'	2.07	0.53
27:DD:35:LYS:HE2	27:DD:104:TYR:CD1	2.43	0.53
29:DF:3:GLU:HA	29:DF:24:LEU:HD23	1.89	0.53
36:DP:42:ILE:HD12	36:DP:97:VAL:HG21	1.89	0.53
36:DP:45:GLN:CD	36:DP:45:GLN:H	2.14	0.53
39:DR:50:ILE:HD11	39:DR:102:ILE:CD1	2.36	0.53
45:DV:69:THR:HG22	45:DV:90:VAL:HA	1.90	0.53
45:DV:145:GLU:HA	45:DV:174:VAL:CG1	2.38	0.53
46:D3:11:ARG:O	46:D3:14:ARG:NH2	2.42	0.53
1:AA:413:G:H2'	1:AA:428:G:N2	2.24	0.53
1:AA:827:U:H5"	1:AA:828:A:OP2	2.09	0.53
1:AA:1018:C:H2'	1:AA:1019:C:O4'	2.08	0.53
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.43	0.53
2:AE:5:ILE:HG13	2:AE:6:THR:H	1.72	0.53
4:AG:146:ILE:H	4:AG:146:ILE:HD12	1.74	0.53
6:AI:89:MET:HG2	6:AI:91:VAL:HG23	1.91	0.53
20:AW:30:LYS:HE2	20:AW:72:LEU:HD12	1.91	0.53
22:AD:20:C:C5'	22:AD:68:A:H62	2.19	0.53
25:BA:795:C:H2'	25:BA:796:C:C6	2.44	0.53
25:BA:847:U:O4	25:BA:933:A:C6	2.60	0.53
25:BA:1516:U:H2'	25:BA:1517:G:C8	2.43	0.53
25:BA:2143:C:H2'	25:BA:2144:U:O4'	2.08	0.53
25:BA:2584:U:H2'	25:BA:2585:U:H2'	1.90	0.53
39:BR:3:ARG:O	39:BR:7:ILE:HG13	2.09	0.53
54:B8:29:LYS:O	54:B8:29:LYS:HD2	2.08	0.53
1:CA:674:G:H2'	1:CA:675:A:H8	1.73	0.53
1:CA:1347:G:C8	9:CL:107:ARG:HB3	2.43	0.53
4:CG:11:LEU:O	4:CG:12:CYS:C	2.51	0.53
6:CI:35:ALA:HB1	6:CI:65:VAL:HG11	1.89	0.53
10:CM:16:LEU:O	10:CM:18:ALA:N	2.41	0.53
22:CB:41:C:H3'	22:CB:42:U:H6	1.73	0.53
22:CD:42:U:H2'	22:CD:43:G:C8	2.42	0.53
25:DA:64:A:O3'	43:DT:71:GLY:HA3	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:270(Y):G:C2	25:DA:270(Z):U:O4	2.62	0.53
25:DA:839:U:H1'	25:DA:1191:G:H1'	1.89	0.53
25:DA:1030:G:OP2	36:DP:128:LYS:NZ	2.25	0.53
25:DA:1171:G:O2'	25:DA:1173:G:N3	2.40	0.53
25:DA:2474:C:O2	25:DA:2474:C:C2'	2.55	0.53
25:DA:2484:G:C2	25:DA:2485:G:C8	2.97	0.53
25:DA:2572:A:C8	28:DE:144:ARG:HD2	2.43	0.53
26:DB:40:U:C2	50:D4:1:MET:SD	3.01	0.53
26:DB:41:U:C4	30:DG:70:VAL:HG23	2.44	0.53
32:DK:77:LEU:HD13	32:DK:141:LYS:HB3	1.90	0.53
32:DK:123:LEU:CD2	32:DK:143:SER:HB3	2.38	0.53
41:D2:79:VAL:O	41:D2:80:GLN:CB	2.52	0.53
42:DS:75:TYR:CZ	42:DS:104:THR:HG21	2.44	0.53
43:DT:5:TYR:CE2	48:DW:30:ARG:HG3	2.42	0.53
46:D3:70:GLN:OE1	46:D3:72:ARG:HD2	2.07	0.53
54:D8:48:PHE:CD2	54:D8:49:VAL:N	2.74	0.53
1:AA:452:A:O2'	1:AA:453:A:O5'	2.10	0.53
1:AA:501:C:H2'	1:AA:502:G:C8	2.44	0.53
1:AA:625:G:H4'	16:AS:16:HIS:CD2	2.44	0.53
4:AG:170:VAL:CG1	4:AG:174:LEU:HB2	2.38	0.53
10:AM:38:ILE:HG23	10:AM:71:LEU:HB3	1.89	0.53
10:AM:49:VAL:O	10:AM:60:ARG:HB3	2.08	0.53
18:AU:68:LYS:O	18:AU:72:ARG:HG3	2.08	0.53
21:AX:10:ARG:HG3	21:AX:10:ARG:NH1	2.23	0.53
22:AB:75:C:H2'	22:AB:76:C:C6	2.44	0.53
25:BA:633:A:H2'	25:BA:634:C:H5'	1.91	0.53
25:BA:654(N):G:H2'	25:BA:654(O):G:C8	2.43	0.53
25:BA:1078:U:H1'	25:BA:1088:A:H2	1.73	0.53
25:BA:1464:C:O2'	25:BA:1528:A:H8	1.86	0.53
25:BA:1680:U:H2'	25:BA:1681:G:O4'	2.08	0.53
29:BF:107:LYS:HD2	29:BF:206:ILE:HA	1.91	0.53
31:BH:12:PRO:HG3	31:BH:48:GLY:CA	2.38	0.53
31:BH:83:TYR:HB3	31:BH:135:GLY:O	2.09	0.53
32:BK:71:ILE:HD11	32:BK:107:VAL:HG22	1.91	0.53
35:BO:134:ALA:O	35:BO:138:LEU:HB2	2.08	0.53
36:BP:30:GLY:HA2	36:BP:107:ALA:HB2	1.89	0.53
36:BP:138:ASP:OD1	36:BP:138:ASP:N	2.41	0.53
44:BU:30:VAL:HG22	44:BU:37:VAL:HG12	1.90	0.53
50:B4:55:ARG:HG2	50:B4:56:VAL:N	2.24	0.53
51:B5:20:ARG:C	51:B5:22:HIS:H	2.16	0.53
1:CA:82:U:O2	1:CA:87:A:C2	2.60	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:436:C:H2'	1:CA:437:U:H6	1.74	0.53
1:CA:711:G:O2'	1:CA:712:A:H5'	2.08	0.53
1:CA:1049:U:H4'	1:CA:1050:G:O5'	2.07	0.53
1:CA:1058:G:C6	1:CA:1059:C:N3	2.77	0.53
1:CA:1162:C:H42	1:CA:1174:G:H1	1.57	0.53
4:CG:18:LYS:HD3	4:CG:20:TYR:CE2	2.43	0.53
22:CB:21:A:C2	22:CB:55:U:H5	2.24	0.53
25:DA:228:A:H2'	25:DA:230:U:O4'	2.08	0.53
25:DA:603:A:C2	25:DA:655:A:C2	2.96	0.53
25:DA:686:G:N2	25:DA:788:A:H61	2.07	0.53
25:DA:1314:C:C2	25:DA:1339:G:N2	2.77	0.53
25:DA:1728:G:C6	25:DA:1730:U:OP2	2.62	0.53
25:DA:2119:A:N6	25:DA:2170:A:H62	2.06	0.53
25:DA:2512:C:H2'	25:DA:2513:G:O4'	2.08	0.53
25:DA:2872:G:C2	25:DA:2873:A:N6	2.76	0.53
32:DK:7:GLU:HA	32:DK:15:VAL:HG22	1.90	0.53
33:DM:65:LYS:O	33:DM:67:LEU:N	2.40	0.53
35:DO:99:LEU:HD12	35:DO:102:ARG:HH12	1.73	0.53
43:DT:63:LYS:HA	43:DT:72:LYS:HA	1.91	0.53
50:D4:62:ARG:N	50:D4:62:ARG:HD2	2.23	0.53
52:D6:52:VAL:HG22	52:D6:53:LYS:N	2.18	0.53
54:D8:22:VAL:O	54:D8:49:VAL:HB	2.09	0.53
1:AA:24:U:H2'	1:AA:25:C:C6	2.43	0.53
1:AA:700:G:H4'	1:AA:704:A:H1'	1.91	0.53
17:AT:65:ILE:HG21	17:AT:69:LYS:HE3	1.91	0.53
25:BA:1593:G:H2'	25:BA:1594:G:C8	2.43	0.53
25:BA:2141:G:O6	25:BA:2150:U:C2	2.62	0.53
25:BA:2212:A:N3	25:BA:2215:G:N1	2.56	0.53
25:BA:2330:G:H21	46:B3:42:GLY:HA2	1.74	0.53
30:BG:112:PRO:CB	50:B4:37:SER:H	2.02	0.53
31:BH:67:LEU:O	31:BH:71:LEU:HB2	2.08	0.53
47:BZ:85:LEU:HA	47:BZ:87:PRO:HD2	1.91	0.53
1:CA:115:G:H4'	1:CA:116:A:O5'	2.08	0.53
1:CA:485:G:H2'	1:CA:486:U:OP2	2.07	0.53
1:CA:812:C:O2'	1:CA:813:U:OP2	2.20	0.53
1:CA:1028:C:N4	1:CA:1028(A):C:N3	2.57	0.53
1:CA:1086:U:H3	1:CA:1099:G:H22	1.56	0.53
1:CA:1272:G:H2'	1:CA:1273:G:O4'	2.07	0.53
9:CL:9:ARG:HA	9:CL:13:ALA:O	2.08	0.53
11:CN:57:THR:HG22	11:CN:59:TYR:N	2.23	0.53
14:CQ:15:LYS:HG2	14:CQ:16:PHE:CE2	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:125:G:H4'	25:DA:126:A:OP2	2.08	0.53
25:DA:444:C:H4'	29:DF:49:ALA:HB2	1.91	0.53
25:DA:617:G:OP1	29:DF:40:GLN:HG3	2.09	0.53
25:DA:1386:C:OP2	25:DA:1396:U:H5	1.92	0.53
25:DA:2593:U:H2'	25:DA:2594:C:C6	2.44	0.53
25:DA:2820:A:O5'	37:D0:4:LEU:HD23	2.08	0.53
30:DG:15:VAL:HG13	30:DG:175:LEU:HB2	1.91	0.53
33:DM:126:PRO:O	33:DM:127:ASP:HB2	2.07	0.53
43:DT:5:TYR:HB3	48:DW:33:MET:HB2	1.89	0.53
45:DV:5:LEU:O	45:DV:6:LYS:C	2.52	0.53
51:D5:46:CYS:SG	51:D5:48:GLU:HG2	2.48	0.53
1:AA:49:U:H1'	1:AA:50:A:OP1	2.09	0.53
1:AA:164:U:H2'	1:AA:165:C:C6	2.44	0.53
1:AA:191:G:N3	20:AW:105:SER:HB2	2.24	0.53
2:AE:105:PHE:HA	2:AE:108:ILE:HG22	1.91	0.53
3:AF:11:ARG:O	3:AF:13:GLY:N	2.41	0.53
3:AF:150:LYS:HB3	3:AF:201:TYR:HB2	1.91	0.53
4:AG:173:TRP:CD1	4:AG:189:PRO:HG3	2.44	0.53
25:BA:270(G):C:H2'	25:BA:270(H):C:C6	2.44	0.53
25:BA:279:C:H42	25:BA:361:G:H1	1.54	0.53
25:BA:2086:U:H2'	25:BA:2087:G:C8	2.44	0.53
25:BA:2135:A:O2'	25:BA:2136:C:P	2.66	0.53
25:BA:2136:C:C2	25:BA:2137:C:H1'	2.43	0.53
28:BE:24:THR:HG21	28:BE:188:VAL:HG13	1.89	0.53
30:BG:110:ALA:HA	30:BG:140:ILE:O	2.09	0.53
30:BG:139:LEU:H	30:BG:139:LEU:HD12	1.74	0.53
39:BR:53:ARG:HB3	39:BR:53:ARG:CZ	2.39	0.53
47:BZ:83:GLU:CD	47:BZ:83:GLU:H	2.17	0.53
50:B4:52:THR:OG1	50:B4:53:GLU:N	2.40	0.53
51:B5:56:LYS:N	51:B5:56:LYS:HD2	2.24	0.53
1:CA:160:A:H2'	1:CA:161:A:O4'	2.08	0.53
1:CA:243:A:H1'	1:CA:244:U:OP2	2.08	0.53
1:CA:495:A:H4'	1:CA:496:A:OP1	2.08	0.53
1:CA:631:G:H3'	1:CA:632:A:C8	2.43	0.53
1:CA:851:G:H2'	1:CA:852:G:H8	1.72	0.53
1:CA:973:G:H1'	10:CM:55:LYS:HE3	1.89	0.53
1:CA:1186:G:H21	14:CQ:61:TRP:C	2.15	0.53
2:CE:8:LYS:O	2:CE:9:GLU:HB3	2.07	0.53
2:CE:233:SER:CB	2:CE:234:PRO:CD	2.85	0.53
4:CG:9:CYS:HA	4:CG:12:CYS:CB	2.38	0.53
5:CH:83:GLU:HG2	5:CH:88:LYS:CD	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CJ:23:VAL:HG12	7:CJ:43:PHE:HE2	1.70	0.53
7:CJ:79:ARG:HA	7:CJ:84:ASN:HA	1.89	0.53
10:CM:6:ILE:O	10:CM:6:ILE:HD12	2.07	0.53
20:CW:100:ILE:H	20:CW:100:ILE:CD1	2.21	0.53
22:CB:52:G:O2'	22:CB:53:A:H5'	2.08	0.53
25:DA:213:A:H5"	25:DA:214:G:OP2	2.09	0.53
25:DA:987:G:O2'	25:DA:1000:A:N3	2.39	0.53
25:DA:1397:U:O2'	25:DA:1398:C:O5'	2.25	0.53
25:DA:1784:A:H4'	25:DA:1785:A:C5'	2.39	0.53
25:DA:2282:G:H4'	25:DA:2389:G:O2'	2.08	0.53
25:DA:2752:C:OP2	25:DA:2752:C:O4'	2.26	0.53
30:DG:37:VAL:HG22	30:DG:159:VAL:HG12	1.90	0.53
36:DP:35:VAL:HG21	45:DV:81:ARG:HH21	1.74	0.53
39:DR:53:ARG:O	39:DR:53:ARG:HG3	2.07	0.53
40:D1:110:VAL:O	40:D1:114:LYS:HG2	2.09	0.53
44:DU:20:TYR:N	44:DU:20:TYR:CD1	2.76	0.53
1:AA:1152:A:H5'	10:AM:13:HIS:ND1	2.23	0.53
2:AE:218:ALA:O	2:AE:222:ILE:HG13	2.09	0.53
4:AG:30:LYS:C	4:AG:32:ALA:H	2.14	0.53
4:AG:61:LYS:HD2	4:AG:207:TYR:OH	2.09	0.53
7:AJ:79:ARG:HD3	7:AJ:79:ARG:C	2.34	0.53
16:AS:47:ASP:C	16:AS:49:LEU:H	2.15	0.53
25:BA:329:G:P	44:BU:71:LYS:HE3	2.49	0.53
25:BA:471:A:H8	25:BA:471:A:O5'	1.92	0.53
25:BA:488:G:H1'	25:BA:492:A:N6	2.24	0.53
25:BA:546:C:H3'	25:BA:547:A:H8	1.74	0.53
25:BA:886:C:H2'	25:BA:887:A:O4'	2.09	0.53
25:BA:1542:G:OP2	25:BA:1543:A:O2'	2.25	0.53
25:BA:1558:A:H1'	25:BA:1559:G:OP2	2.09	0.53
32:BK:27:ARG:HD2	47:BZ:71:TYR:CE1	2.44	0.53
32:BK:74:ASN:OD1	32:BK:75:LEU:HD13	2.09	0.53
41:B2:22:VAL:HG12	41:B2:23:GLU:N	2.24	0.53
42:BS:69:LEU:HA	42:BS:108:GLY:O	2.08	0.53
45:BV:150:LEU:HB3	45:BV:171:ILE:HG22	1.90	0.53
1:CA:191:G:H1'	20:CW:104:LEU:O	2.08	0.53
1:CA:838:G:N2	1:CA:849:C:C2	2.77	0.53
1:CA:1119:C:OP2	9:CL:9:ARG:NH2	2.42	0.53
1:CA:1127:G:O6	1:CA:1145:C:N4	2.42	0.53
1:CA:1226:C:H4'	19:CV:80:TYR:OH	2.08	0.53
2:CE:82:ARG:HD2	2:CE:92:TYR:HE1	1.73	0.53
8:CK:20:TYR:HE2	8:CK:75:ARG:HD2	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CP:79:LYS:O	13:CP:82:MET:HB3	2.08	0.53
25:DA:71:A:C2	43:DT:31:HIS:CE1	2.97	0.53
25:DA:1171:G:H2'	25:DA:1171:G:OP2	2.09	0.53
25:DA:2415:G:H1'	35:DO:67:MET:HE3	1.91	0.53
25:DA:2482:G:N2	36:DP:56:ARG:HH12	2.07	0.53
25:DA:2839:G:H5'	37:D0:46:GLY:CA	2.38	0.53
27:DD:68:LYS:O	27:DD:68:LYS:HG3	2.08	0.53
28:DE:47:VAL:HG21	28:DE:86:PRO:HD2	1.91	0.53
28:DE:203:LYS:O	28:DE:204:ALA:HB3	2.08	0.53
30:DG:43:LEU:C	30:DG:45:GLU:N	2.66	0.53
35:DO:19:VAL:HG23	35:DO:27:HIS:HB3	0.74	0.53
36:DP:78:PRO:O	36:DP:79:LEU:CG	2.57	0.53
43:DT:18:TYR:O	43:DT:20:GLY:N	2.41	0.53
1:AA:35:G:N2	12:AO:115:SER:OG	2.37	0.53
1:AA:255:G:H1'	17:AT:16:GLN:NE2	2.19	0.53
9:AL:118:LYS:O	9:AL:119:ALA:HB3	2.08	0.53
22:AB:57:C:C2	22:AB:68:A:H1'	2.44	0.53
25:BA:566:U:O4	41:B2:78:LYS:HD3	2.09	0.53
25:BA:1341:U:O4'	43:BT:57:LEU:HD23	2.09	0.53
25:BA:1533:C:H5'	25:BA:1534:G:OP2	2.09	0.53
25:BA:2213:U:O4'	47:BZ:52:ARG:NH2	2.41	0.53
25:BA:2472:G:H22	25:BA:2477:C:H5"	1.72	0.53
25:BA:2695:C:H2'	25:BA:2696:U:C6	2.44	0.53
28:BE:167:VAL:HG21	28:BE:187:ALA:CB	2.39	0.53
29:BF:32:LEU:CD2	29:BF:105:VAL:HG13	2.39	0.53
29:BF:46:ARG:NH1	29:BF:46:ARG:CG	2.66	0.53
29:BF:160:ASN:OD1	29:BF:163:VAL:HG23	2.08	0.53
32:BK:29:TYR:C	32:BK:32:PRO:HD2	2.34	0.53
32:BK:47:LEU:HA	32:BK:50:ARG:HB2	1.89	0.53
33:BM:46:VAL:O	33:BM:47:ALA:HB3	2.08	0.53
36:BP:58:PHE:HD1	36:BP:58:PHE:O	1.91	0.53
39:BR:110:ILE:HG23	39:BR:111:ARG:HD3	1.90	0.53
44:BU:20:TYR:CE1	44:BU:42:VAL:HA	2.44	0.53
44:BU:68:HIS:ND1	44:BU:70:SER:HB3	2.24	0.53
52:B6:20:ASN:O	52:B6:21:TYR:HB2	2.07	0.53
4:CG:127:THR:HG21	4:CG:149:ALA:CB	2.38	0.53
22:CD:23:A:H2'	22:CD:24:G:O4'	2.08	0.53
22:CD:67:A:H4'	22:CD:68:A:OP1	2.08	0.53
25:DA:653:A:H4'	25:DA:654:A:OP2	2.09	0.53
27:DD:270:ILE:O	27:DD:271:ILE:HG13	2.09	0.53
39:DR:88:ILE:HG21	39:DR:91:ARG:NH2	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:D4:34:GLU:O	50:D4:36:CYS:N	2.41	0.53
1:AA:624:C:H4'	16:AS:10:GLY:HA2	1.91	0.53
1:AA:1004:A:H2	1:AA:1024:G:C8	2.26	0.53
1:AA:1132:C:H2'	1:AA:1133:G:H8	1.73	0.53
1:AA:1178:G:HO2'	1:AA:1179:A:P	2.32	0.53
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.08	0.53
1:AA:1502:A:C2	1:AA:1505:G:N2	2.72	0.53
2:AE:25:ASN:ND2	2:AE:193:ASP:HB3	2.24	0.53
2:AE:127:ILE:HD11	2:AE:139:LYS:HE3	1.89	0.53
20:AW:10:LEU:O	20:AW:10:LEU:HD23	2.08	0.53
20:AW:58:LYS:HE3	20:AW:62:LEU:HD11	1.91	0.53
22:AB:16:C:H2'	22:AB:18:G:OP2	2.09	0.53
25:BA:414:C:H1'	25:BA:1864:U:H1'	1.90	0.53
25:BA:2015:A:C1'	51:B5:2:ALA:HB2	2.39	0.53
25:BA:2055:C:H5'	25:BA:2056:G:OP1	2.09	0.53
25:BA:2137:C:N3	25:BA:2154:G:N2	2.49	0.53
25:BA:2572:A:N7	28:BE:145:LYS:HB2	2.24	0.53
26:BB:41:U:C5	30:BG:69:ALA:HB1	2.42	0.53
40:B1:86:ALA:HB3	40:B1:88:ILE:HG12	1.91	0.53
54:B8:39:LYS:HA	54:B8:42:ARG:NH2	2.24	0.53
1:CA:192:U:H2'	1:CA:193:C:C6	2.42	0.53
1:CA:1349:A:P	9:CL:118:LYS:NZ	2.81	0.53
1:CA:1366:C:H2'	1:CA:1367:C:H6	1.73	0.53
2:CE:103:THR:HA	2:CE:180:LEU:HD11	1.91	0.53
7:CJ:113:GLU:HB2	7:CJ:119:ARG:HG3	1.90	0.53
18:CU:67:ALA:O	18:CU:71:LYS:HG3	2.08	0.53
22:CB:51:C:OP2	22:CB:51:C:C6	2.62	0.53
25:DA:185:U:H4'	25:DA:218:A:H4'	1.91	0.53
25:DA:312:G:C8	25:DA:312:G:OP2	2.61	0.53
25:DA:1011:G:N2	25:DA:1150:C:N3	2.55	0.53
25:DA:1342:A:N1	25:DA:1397:U:N3	2.56	0.53
25:DA:2467:C:H4'	36:DP:123:HIS:CG	2.43	0.53
25:DA:2513:G:N2	28:DE:143:ASN:HD21	2.06	0.53
25:DA:2563:U:H4'	34:DN:28:SER:HA	1.91	0.53
35:DO:39:LYS:HD3	35:DO:45:LEU:HD22	1.91	0.53
47:DZ:23:LYS:CD	47:DZ:28:GLY:HA3	2.39	0.53
2:AE:22:LYS:O	2:AE:24:TRP:HD1	1.92	0.53
5:AH:34:VAL:O	5:AH:41:VAL:HA	2.09	0.53
10:AM:54:PHE:CZ	10:AM:55:LYS:NZ	2.68	0.53
18:AU:88:LYS:HB3	18:AU:88:LYS:HZ3	1.72	0.53
19:AV:63:THR:HG23	19:AV:66:MET:HE3	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:535:C:O3'	40:B1:53:ARG:NH1	2.42	0.53
25:BA:557:U:H2'	25:BA:558:G:C8	2.44	0.53
25:BA:1164:G:H2'	25:BA:1165:U:H6	1.73	0.53
25:BA:1535:U:N3	25:BA:1536:A:H3'	2.24	0.53
25:BA:2473:U:O2	25:BA:2473:U:C2'	2.56	0.53
25:BA:2695:C:H2'	25:BA:2696:U:H6	1.74	0.53
27:BD:35:LYS:CE	27:BD:64:ILE:C	2.80	0.53
33:BM:95:PRO:O	33:BM:96:GLU:CD	2.51	0.53
39:BR:94:ALA:O	39:BR:95:ARG:CB	2.57	0.53
40:B1:104:GLN:OE1	40:B1:105:VAL:HG23	2.09	0.53
41:B2:44:LYS:HG2	41:B2:45:THR:H	1.73	0.53
45:BV:130:PRO:O	45:BV:133:ILE:HG13	2.09	0.53
49:BX:32:GLN:HE21	49:BX:32:GLN:HA	1.73	0.53
1:CA:979:C:H3'	1:CA:980:C:C5'	2.34	0.53
2:CE:147:LYS:HB2	2:CE:147:LYS:NZ	2.23	0.53
4:CG:8:VAL:HG13	4:CG:21:LEU:HD22	1.90	0.53
9:CL:111:ARG:CG	9:CL:112:LYS:H	2.05	0.53
13:CP:5:ALA:O	13:CP:6:GLY:C	2.52	0.53
17:CT:67:LYS:O	17:CT:69:LYS:N	2.41	0.53
22:CD:12:C:H2'	22:CD:13:G:O4'	2.09	0.53
25:DA:67:U:O4	25:DA:74:A:N1	2.41	0.53
25:DA:281:G:O2'	25:DA:282:A:O4'	2.25	0.53
25:DA:847:U:H6	25:DA:847:U:H3'	1.74	0.53
25:DA:877:U:H4'	25:DA:878:A:OP2	2.09	0.53
25:DA:1025:G:H8	25:DA:1025:G:OP1	1.92	0.53
25:DA:1060:U:C1'	25:DA:1062:G:H5'	2.39	0.53
25:DA:1142:U:O2	25:DA:1142:U:H2'	2.09	0.53
25:DA:1847:A:H3'	25:DA:1848:A:H5'	1.91	0.53
25:DA:2552:U:C2	25:DA:2554:U:H5"	2.44	0.53
25:DA:2689:U:H5"	25:DA:2713:A:H2	1.73	0.53
25:DA:2872:G:N9	25:DA:2873:A:C2	2.77	0.53
26:DB:15:A:H5'	26:DB:16:G:C8	2.44	0.53
26:DB:48:A:H4'	38:DQ:95:HIS:CD2	2.44	0.53
26:DB:87:G:H3'	26:DB:88:C:C5'	2.37	0.53
34:DN:115:VAL:HG12	34:DN:121:VAL:HG21	1.89	0.53
36:DP:10:ARG:HA	36:DP:10:ARG:HE	1.73	0.53
40:D1:97:ASP:OD2	40:D1:101:ARG:HD3	2.09	0.53
45:DV:107:THR:H	45:DV:108:PRO:CD	2.19	0.53
54:D8:22:VAL:H	54:D8:50:LEU:HD13	1.74	0.53
1:AA:160:A:H61	1:AA:347:G:H1'	1.73	0.52
1:AA:221:C:C2'	1:AA:222:U:H5'	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:297:G:H4'	1:AA:557:G:H4'	1.91	0.52
1:AA:820:U:H4'	1:AA:821:G:OP2	2.09	0.52
1:AA:1226:C:H4'	1:AA:1227:A:OP1	2.08	0.52
10:AM:6:ILE:HG12	10:AM:72:VAL:O	2.08	0.52
11:AN:54:ARG:NH2	22:AD:40:U:O3'	2.40	0.52
12:AO:55:VAL:O	12:AO:62:GLU:HA	2.09	0.52
13:AP:93:ARG:NH1	25:BA:888:C:H41	2.06	0.52
20:AW:35:THR:O	20:AW:38:LYS:HB2	2.09	0.52
22:AB:28:G:N2	22:AB:45:C:O2	2.42	0.52
25:BA:330:A:H2	25:BA:1210:A:C2'	2.20	0.52
25:BA:587:C:H4'	25:BA:588:U:O5'	2.08	0.52
25:BA:1061:U:O2'	25:BA:1070:A:O4'	2.18	0.52
25:BA:1162:G:H21	41:B2:89:GLN:HE22	1.58	0.52
25:BA:1187:G:H5"	41:B2:81:TYR:CE2	2.44	0.52
25:BA:1545(A):A:C2'	25:BA:1546:C:H5'	2.40	0.52
25:BA:1805:U:O2	27:BD:50:THR:HB	2.09	0.52
25:BA:2163:C:C5	25:BA:2164:C:H5	2.28	0.52
25:BA:2638:G:P	28:BE:82:ARG:NH2	2.82	0.52
28:BE:116:VAL:O	28:BE:117:MET:CB	2.58	0.52
33:BM:39:ARG:NH1	33:BM:41:ASP:OD1	2.42	0.52
36:BP:12:GLN:HG2	36:BP:73:PRO:HD2	1.91	0.52
40:B1:115:ALA:O	40:B1:116:ALA:HB3	2.07	0.52
45:BV:7:ALA:HB2	45:BV:59:LEU:CD2	2.38	0.52
45:BV:53:ILE:HG22	45:BV:71:VAL:HG22	1.90	0.52
54:B8:34:TRP:H	54:B8:35:GLN:CA	2.21	0.52
54:B8:36:LYS:O	54:B8:37:SER:O	2.26	0.52
1:CA:1002:G:C6	1:CA:1003:G:C6	2.97	0.52
1:CA:1200:C:O2	1:CA:1200:C:C2'	2.56	0.52
1:CA:1320:C:O2	19:CV:72:GLY:HA3	2.08	0.52
1:CA:1346:A:C1'	1:CA:1347:G:OP2	2.58	0.52
1:CA:1497:G:H2'	1:CA:1498:U:H5'	1.90	0.52
9:CL:71:SER:HA	9:CL:74:ILE:HD12	1.92	0.52
25:DA:71:A:H2	43:DT:31:HIS:CE1	2.27	0.52
25:DA:1543:A:H2'	25:DA:1544:C:H3'	1.91	0.52
29:DF:4:VAL:HA	29:DF:19:GLU:HB3	1.91	0.52
29:DF:21:ALA:HB3	29:DF:23:ASP:OD2	2.09	0.52
34:DN:88:ASN:O	34:DN:91:LEU:N	2.40	0.52
38:DQ:26:LEU:HD22	38:DQ:87:PHE:CD1	2.44	0.52
45:DV:113:ALA:O	45:DV:114:GLY:C	2.52	0.52
49:DX:18:ASP:OD1	49:DX:18:ASP:N	2.42	0.52
1:AA:383:A:H8	1:AA:383:A:O5'	1.93	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:448:A:OP2	1:AA:485:G:N2	2.34	0.52
1:AA:589:C:H2'	1:AA:590:C:H6	1.75	0.52
1:AA:1024:G:H2'	1:AA:1025:U:C6	2.44	0.52
1:AA:1139:G:H1	1:AA:1144:G:H22	1.57	0.52
5:AH:51:VAL:HB	5:AH:52:PRO:HD3	1.90	0.52
9:AL:97:LYS:N	9:AL:98:PRO:HD2	2.24	0.52
12:AO:44:LYS:O	12:AO:46:ASN:N	2.42	0.52
22:AD:46:G:H2'	22:AD:47:U:C6	2.44	0.52
24:A1:12:A:N3	24:A1:12:A:H2'	2.24	0.52
24:A1:13:A:HO2'	24:A1:14:A:P	2.17	0.52
25:BA:67:U:C2	25:BA:74:A:H2	2.27	0.52
25:BA:484:C:H2'	25:BA:485:C:C6	2.45	0.52
25:BA:830:G:H4'	25:BA:831:G:OP2	2.10	0.52
25:BA:917:A:H2'	25:BA:918:A:C5'	2.39	0.52
25:BA:1228:G:OP1	40:B1:13:LYS:HE3	2.09	0.52
25:BA:1727:U:H2'	25:BA:1728:G:O4'	2.09	0.52
25:BA:1786:A:H1'	25:BA:1938:A:N6	2.24	0.52
25:BA:1932:A:H2'	25:BA:1933:G:O4'	2.09	0.52
25:BA:2688:U:O2	25:BA:2688:U:O5'	2.27	0.52
30:BG:56:ALA:HB2	30:BG:153:ARG:HE	1.74	0.52
31:BH:86:GLU:CD	31:BH:86:GLU:H	2.05	0.52
36:BP:21:THR:HB	36:BP:99:PRO:O	2.09	0.52
36:BP:43:THR:HG22	36:BP:94:VAL:HG12	1.90	0.52
41:B2:38:LEU:H	41:B2:51:VAL:HG13	1.72	0.52
45:BV:5:LEU:HB3	45:BV:59:LEU:HA	1.90	0.52
50:B4:49:PHE:O	50:B4:50:VAL:HG12	2.08	0.52
54:B8:34:TRP:N	54:B8:35:GLN:CA	2.72	0.52
1:CA:187:C:O2	1:CA:191(A):G:C6	2.63	0.52
1:CA:946:A:H2'	1:CA:947:G:C8	2.45	0.52
1:CA:956:U:C2	1:CA:1225:A:H2	2.28	0.52
1:CA:1015:A:H2'	1:CA:1016:A:C8	2.44	0.52
1:CA:1024:G:H2'	1:CA:1025:U:C6	2.44	0.52
1:CA:1076:C:P	2:CE:175:ARG:HH12	2.32	0.52
1:CA:1206:G:O4'	3:CF:194:GLY:N	2.42	0.52
6:CI:77:ARG:HB3	6:CI:77:ARG:NH1	2.24	0.52
13:CP:4:ILE:HG23	13:CP:5:ALA:N	2.19	0.52
17:CT:3:LYS:HB3	17:CT:61:GLU:HB3	1.91	0.52
22:CD:20:C:H5"	22:CD:68:A:H62	1.74	0.52
25:DA:274:G:C6	25:DA:275:G:C6	2.96	0.52
28:DE:137:HIS:HB3	28:DE:138:PRO:HD2	1.91	0.52
30:DG:128:ARG:HG2	30:DG:128:ARG:HH21	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DO:144:GLU:N	35:DO:144:GLU:OE1	2.42	0.52
45:DV:100:VAL:O	45:DV:124:ILE:HG22	2.09	0.52
1:AA:1181:G:O2'	1:AA:1184:G:H5'	2.09	0.52
2:AE:53:ARG:HA	2:AE:56:ARG:NH1	2.24	0.52
6:AI:3:ARG:HB3	6:AI:93:SER:HB2	1.91	0.52
14:AQ:4:LYS:C	14:AQ:6:LEU:N	2.67	0.52
15:AR:82:ILE:HD11	15:AR:88:ARG:HG3	1.90	0.52
22:AB:52:G:H8	22:AB:52:G:OP2	1.92	0.52
25:BA:50:U:H3'	25:BA:51:G:H5'	1.90	0.52
25:BA:1130:U:O2'	25:BA:1131:G:P	2.67	0.52
25:BA:1404:C:O2'	25:BA:1405:U:H5'	2.10	0.52
25:BA:2199:A:H5'	47:BZ:50:ARG:HH21	1.74	0.52
25:BA:2210:G:C3'	25:BA:2211:G:N7	2.70	0.52
25:BA:2402:C:H5	25:BA:2415:G:N2	2.05	0.52
25:BA:2611:U:OP2	25:BA:2611:U:H6	1.92	0.52
27:BD:28:GLU:CB	27:BD:29:PRO:CD	2.76	0.52
27:BD:35:LYS:CE	27:BD:104:TYR:CD1	2.92	0.52
28:BE:61:ARG:CB	28:BE:62:PRO:HD3	2.37	0.52
38:BQ:52:SER:HB2	38:BQ:55:ALA:H	1.75	0.52
38:BQ:87:PHE:CE2	38:BQ:89:ARG:HB2	2.44	0.52
43:BT:41:ASN:H	43:BT:41:ASN:ND2	2.06	0.52
44:BU:96:ILE:HG22	44:BU:101:LYS:HG2	1.90	0.52
44:BU:96:ILE:HG12	44:BU:99:CYS:H	1.74	0.52
1:CA:201:C:C4'	1:CA:208:U:OP1	2.56	0.52
1:CA:1004:A:OP1	1:CA:1025:U:O4	2.28	0.52
1:CA:1029:G:O2'	1:CA:1031:G:OP2	2.26	0.52
1:CA:1069:C:O2'	1:CA:1192:C:H1'	2.09	0.52
1:CA:1329:A:C2'	1:CA:1330:U:H5'	2.39	0.52
1:CA:1510:U:H2'	1:CA:1511:G:C8	2.44	0.52
10:CM:61:GLU:OE1	14:CQ:58:LYS:NZ	2.39	0.52
20:CW:10:LEU:HD22	20:CW:11:SER:H	1.75	0.52
23:CC:56:U:O2'	23:CC:58:A:N7	2.40	0.52
25:DA:91:A:H2'	25:DA:92:G:H5'	1.90	0.52
25:DA:270(R):G:H2'	25:DA:270(S):G:H8	1.74	0.52
25:DA:2572:A:N7	28:DE:145:LYS:HB2	2.25	0.52
28:DE:112:GLY:O	28:DE:159:HIS:HA	2.10	0.52
29:DF:128:ALA:O	29:DF:142:TRP:NE1	2.38	0.52
29:DF:132:VAL:HG13	29:DF:133:ASN:N	2.24	0.52
30:DG:7:LEU:O	30:DG:7:LEU:HD23	2.09	0.52
35:DO:105:LEU:O	35:DO:105:LEU:HD13	2.08	0.52
40:D1:48:ALA:O	40:D1:52:ARG:HG3	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:D2:35:LEU:H	41:D2:35:LEU:CD2	2.22	0.52
54:D8:16:ILE:HD11	54:D8:60:LEU:HD12	1.92	0.52
1:AA:419:C:H2'	1:AA:419:C:O2	2.10	0.52
1:AA:491:G:H2'	1:AA:492:G:O4'	2.09	0.52
1:AA:502:G:OP1	12:AO:115:SER:HB3	2.09	0.52
3:AF:3:ASN:O	3:AF:4:LYS:HG2	2.09	0.52
3:AF:162:GLN:NE2	24:A1:23:A:H8	2.08	0.52
4:AG:150:GLU:O	4:AG:151:LYS:C	2.51	0.52
8:AK:11:THR:HG22	8:AK:15:ASN:ND2	2.24	0.52
8:AK:81:HIS:HB2	8:AK:138:TRP:CE3	2.44	0.52
16:AS:5:ARG:HE	16:AS:22:THR:HG21	1.74	0.52
25:BA:811:U:P	35:BO:21:ARG:O	2.67	0.52
25:BA:1291:C:H2'	25:BA:1292:U:C6	2.45	0.52
25:BA:1783:A:H5'	25:BA:2608:G:H4'	1.91	0.52
25:BA:1820:U:H4'	25:BA:1821:A:OP2	2.10	0.52
25:BA:2591:C:OP1	27:BD:239:ARG:CG	2.51	0.52
25:BA:2808:U:H2'	25:BA:2809:A:H8	1.75	0.52
30:BG:134:GLY:C	30:BG:135:LEU:HD12	2.34	0.52
35:BO:15:ARG:O	35:BO:16:ARG:C	2.53	0.52
37:B0:30:THR:HG22	37:B0:31:HIS:CE1	2.44	0.52
40:B1:47:TYR:CD2	40:B1:47:TYR:C	2.87	0.52
1:CA:197:A:H8	1:CA:198:G:C1'	2.21	0.52
1:CA:1070:U:H2'	1:CA:1071:C:C6	2.44	0.52
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.45	0.52
3:CF:40:ARG:NH1	3:CF:40:ARG:HB2	2.24	0.52
5:CH:48:ALA:HB1	5:CH:49:PRO:HD2	1.91	0.52
6:CI:69:GLU:O	6:CI:72:VAL:HG12	2.09	0.52
10:CM:78:ASN:ND2	10:CM:80:LYS:HB3	2.23	0.52
14:CQ:21:TYR:OH	14:CQ:23:ARG:NH2	2.42	0.52
19:CV:80:TYR:C	19:CV:82:GLY:H	2.17	0.52
25:DA:1171:G:H4'	25:DA:1173:G:OP1	2.09	0.52
25:DA:1757:U:C2	25:DA:1762:A:N1	2.77	0.52
25:DA:2567:G:H2'	25:DA:2568:C:C6	2.44	0.52
25:DA:2702:U:C2'	25:DA:2703:C:H5	2.23	0.52
32:DK:29:TYR:C	32:DK:32:PRO:HD2	2.34	0.52
33:DM:111:PRO:HA	33:DM:114:ARG:CZ	2.39	0.52
36:DP:134:ARG:O	36:DP:135:ASP:C	2.52	0.52
37:D0:75:LEU:HD22	37:D0:75:LEU:O	2.10	0.52
42:DS:40:ASN:HD22	42:DS:40:ASN:C	2.16	0.52
50:D4:37:SER:C	50:D4:39:CYS:H	2.18	0.52
1:AA:31:G:C1'	1:AA:32:A:OP1	2.58	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:250:A:H4'	1:AA:251:G:C5'	2.40	0.52
1:AA:1003:G:C2'	1:AA:1004:A:H5"	2.37	0.52
1:AA:1024:G:OP1	1:AA:1024:G:H4'	2.08	0.52
1:AA:1112:C:O2	3:AF:179:ARG:HG2	2.10	0.52
1:AA:1234:C:O2'	1:AA:1235:U:H5'	2.09	0.52
2:AE:162:ILE:HD13	2:AE:162:ILE:H	1.74	0.52
3:AF:60:ALA:N	3:AF:63:ASN:HB3	2.19	0.52
16:AS:43:LYS:C	16:AS:45:THR:H	2.17	0.52
22:AB:21:A:C2	22:AB:56:U:C2	2.97	0.52
25:BA:1025:G:C4	25:BA:1135:C:H1'	2.44	0.52
25:BA:1049:C:H2'	25:BA:1050:A:C5'	2.38	0.52
25:BA:1476:C:O2'	25:BA:1477:A:H5'	2.08	0.52
25:BA:1509:C:C2'	25:BA:1510:A:OP1	2.57	0.52
25:BA:1869:G:H8	25:BA:1869:G:C5'	2.23	0.52
25:BA:2094:G:C2'	25:BA:2095:C:H5'	2.39	0.52
25:BA:2250:G:C6	36:BP:83:MET:HB2	2.45	0.52
25:BA:2308:G:N1	25:BA:2311:A:C2	2.66	0.52
25:BA:2807:G:C3'	25:BA:2808:U:H5"	2.39	0.52
30:BG:165:THR:OG1	30:BG:168:GLU:HG3	2.10	0.52
52:B6:52:VAL:HG22	52:B6:53:LYS:HG3	1.92	0.52
1:CA:1239:A:H4'	1:CA:1240:U:C5'	2.39	0.52
1:CA:1288:A:H1'	1:CA:1352:C:O2'	2.09	0.52
1:CA:1291:G:C6	1:CA:1292:U:C4	2.98	0.52
2:CE:69:LEU:HG	2:CE:91:PRO:HB2	1.92	0.52
3:CF:16:ARG:HH11	3:CF:16:ARG:HA	1.74	0.52
5:CH:13:ILE:HA	5:CH:29:GLY:O	2.10	0.52
5:CH:102:ALA:HB1	5:CH:106:PRO:HG2	1.92	0.52
7:CJ:97:GLN:HE21	7:CJ:101:LEU:HD11	1.73	0.52
12:CO:76:GLU:HG3	12:CO:77:HIS:CG	2.44	0.52
25:DA:228:A:H3'	25:DA:228:A:H8	1.74	0.52
25:DA:361:G:N2	25:DA:362:U:H1'	2.25	0.52
25:DA:405:U:H3'	25:DA:405:U:O2	2.09	0.52
25:DA:1100:C:O2'	25:DA:1101:U:H5'	2.10	0.52
25:DA:1418:G:OP1	25:DA:1588:C:O2'	2.27	0.52
25:DA:1761:C:H5"	25:DA:1762:A:OP2	2.09	0.52
26:DB:48:A:H4'	38:DQ:95:HIS:HD2	1.75	0.52
30:DG:77:ILE:HB	30:DG:82:LEU:HD12	1.91	0.52
31:DH:103:LEU:HD23	31:DH:103:LEU:N	2.24	0.52
31:DH:136:ILE:HD12	31:DH:136:ILE:N	2.24	0.52
32:DK:10:GLU:OE1	32:DK:11:ASN:HB2	2.09	0.52
35:DO:15:ARG:O	35:DO:16:ARG:C	2.53	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DR:16:ARG:HE	39:DR:19:LEU:CD1	2.21	0.52
45:DV:130:PRO:C	45:DV:133:ILE:HD11	2.35	0.52
1:AA:413:G:H2'	1:AA:414:A:OP2	2.09	0.52
1:AA:1113:C:H2'	1:AA:1114:C:H6	1.75	0.52
1:AA:1211:U:H1'	1:AA:1213:A:C2	2.45	0.52
4:AG:158:ILE:HG22	4:AG:162:LEU:HD12	1.92	0.52
5:AH:11:ILE:HD12	5:AH:105:VAL:HG13	1.90	0.52
19:AV:65:ASN:HA	50:B4:56:VAL:HG22	1.92	0.52
22:AB:20:C:O4'	22:AB:22:A:O4'	2.28	0.52
25:BA:34:C:O2'	25:BA:35:G:P	2.68	0.52
25:BA:463:G:N2	25:BA:466:A:OP2	2.36	0.52
25:BA:483:A:O2'	44:BU:59:GLY:HA2	2.10	0.52
25:BA:1108:U:C4	25:BA:1109:C:N4	2.78	0.52
25:BA:1609:A:O2'	25:BA:1610:A:H5'	2.09	0.52
25:BA:1728:G:N1	25:BA:1730:U:OP2	2.42	0.52
25:BA:1786:A:C4	25:BA:1938:A:C6	2.98	0.52
25:BA:2636:U:OP1	28:BE:79:ARG:HD3	2.08	0.52
30:BG:37:VAL:O	30:BG:94:LEU:HD23	2.09	0.52
39:BR:60:THR:HG22	39:BR:77:PRO:HA	1.91	0.52
44:BU:77:PRO:O	44:BU:78:ALA:HB2	2.10	0.52
50:B4:34:GLU:HG2	50:B4:35:VAL:N	2.24	0.52
1:CA:157:G:C2	1:CA:165:C:C2	2.98	0.52
1:CA:1442:G:HO2'	1:CA:1443:G:P	2.33	0.52
2:CE:162:ILE:O	2:CE:185:ILE:HG12	2.10	0.52
4:CG:11:LEU:C	4:CG:13:ARG:N	2.64	0.52
5:CH:76:ILE:HG22	5:CH:78:HIS:H	1.75	0.52
9:CL:113:LYS:HD2	9:CL:113:LYS:N	2.25	0.52
17:CT:21:VAL:HG21	17:CT:59:ILE:HD11	1.91	0.52
25:DA:196:A:H2'	25:DA:196:A:N3	2.25	0.52
25:DA:289:A:H5'	25:DA:290:G:OP2	2.10	0.52
25:DA:925:C:H2'	25:DA:926:A:H5"	1.90	0.52
25:DA:971:C:H2'	25:DA:972:G:H5'	1.92	0.52
25:DA:1543:A:H1'	25:DA:1545:A:C1'	2.39	0.52
25:DA:2404:C:O3'	35:DO:77:ARG:NH2	2.42	0.52
25:DA:2817:G:P	37:D0:99:LYS:NZ	2.83	0.52
27:DD:242:ARG:H	27:DD:242:ARG:HD2	1.74	0.52
28:DE:105:THR:HG21	28:DE:164:ARG:HE	1.72	0.52
28:DE:179:GLU:HB3	28:DE:181:LEU:HD22	1.91	0.52
30:DG:4:ASP:O	30:DG:8:LYS:HD3	2.10	0.52
31:DH:86:GLU:HA	31:DH:132:ARG:HB3	1.91	0.52
31:DH:107:VAL:CG1	31:DH:152:ARG:HG2	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DO:86:LYS:HB3	35:DO:118:GLY:HA3	1.91	0.52
36:DP:109:VAL:HB	36:DP:113:GLN:HB3	1.91	0.52
41:D2:70:ILE:H	41:D2:86:GLY:C	2.16	0.52
44:DU:20:TYR:N	44:DU:20:TYR:HD1	2.08	0.52
44:DU:55:TYR:HB3	44:DU:56:PRO:HD2	1.91	0.52
46:D3:27:GLU:HA	46:D3:67:VAL:HG12	1.90	0.52
1:AA:1016:A:H8	1:AA:1016:A:O5'	1.92	0.52
1:AA:1028(B):C:N4	1:AA:1032(A):G:H1	2.08	0.52
1:AA:1157:A:H1'	1:AA:1158:C:C2	2.45	0.52
1:AA:1281:U:O2	1:AA:1281:U:O4'	2.28	0.52
9:AL:24:GLY:HA2	9:AL:59:PHE:O	2.09	0.52
22:AB:13:G:H1'	22:AB:24:G:H1	1.75	0.52
23:AC:24:C:H2'	23:AC:25:U:H6	1.72	0.52
25:BA:878:A:N1	25:BA:879:G:C2	2.78	0.52
25:BA:900:A:H5'	25:BA:901:A:OP2	2.09	0.52
25:BA:909:A:H2'	25:BA:912:C:C5	2.45	0.52
25:BA:2061:G:OP2	25:BA:2502:G:H5'	2.10	0.52
25:BA:2068:U:N3	25:BA:2430:A:H2	2.06	0.52
25:BA:2124:G:N2	25:BA:2174:C:N3	2.53	0.52
25:BA:2136:C:N4	25:BA:2155:G:N1	2.31	0.52
25:BA:2168:G:O2'	25:BA:2169:A:H5'	2.09	0.52
25:BA:2205:C:H42	25:BA:2219:G:H1	1.57	0.52
25:BA:2788:C:O2'	25:BA:2809:A:N3	2.39	0.52
26:BB:80:U:O2'	26:BB:81:G:H5'	2.10	0.52
32:BK:129:THR:HA	32:BK:137:PRO:HA	1.91	0.52
35:BO:135:LEU:HD22	35:BO:139:LYS:HE2	1.92	0.52
38:BQ:69:VAL:HG13	38:BQ:101:LEU:HD22	1.91	0.52
39:BR:99:LEU:HB3	39:BR:101:PHE:HE1	1.75	0.52
41:B2:66:ARG:CZ	41:B2:88:ARG:HD3	2.39	0.52
45:BV:150:LEU:HD22	45:BV:171:ILE:HG21	1.91	0.52
51:B5:54:GLY:O	51:B5:55:ARG:C	2.53	0.52
54:B8:23:VAL:CG1	54:B8:46:ARG:HD3	2.38	0.52
1:CA:920:U:H2'	1:CA:921:U:H6	1.75	0.52
1:CA:1025:U:O2	1:CA:1025:U:H2'	2.08	0.52
1:CA:1244:C:OP2	21:CX:9:ARG:HG2	2.10	0.52
1:CA:1279:A:H5"	1:CA:1280:A:P	2.48	0.52
1:CA:1321:C:O2	19:CV:77:THR:OG1	2.21	0.52
1:CA:1328:C:H2'	1:CA:1329:A:O4'	2.09	0.52
2:CE:172:ILE:HD12	2:CE:172:ILE:N	2.22	0.52
2:CE:236:TYR:CB	2:CE:239:VAL:HB	2.39	0.52
4:CG:105:VAL:HG13	4:CG:110:PHE:HB2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CK:51:VAL:HG11	8:CK:60:ARG:NH1	2.25	0.52
13:CP:4:ILE:HG12	13:CP:5:ALA:N	2.25	0.52
17:CT:40:LYS:HD3	17:CT:42:TYR:CZ	2.45	0.52
25:DA:290:G:H2'	25:DA:291:C:O4'	2.09	0.52
25:DA:709:U:H2'	25:DA:710:G:C8	2.45	0.52
25:DA:1128:A:O4'	25:DA:2516:G:O2'	2.28	0.52
25:DA:1860:G:H1	25:DA:1882:C:N4	2.04	0.52
25:DA:2181:G:H2'	25:DA:2182:G:H8	1.74	0.52
25:DA:2392:A:H2	25:DA:2424:C:N4	2.01	0.52
25:DA:2859:G:O2'	25:DA:2860:A:O5'	2.28	0.52
28:DE:103:ASP:OD2	28:DE:168:MET:HE2	2.09	0.52
32:DK:106:GLY:O	32:DK:108:THR:N	2.43	0.52
34:DN:14:THR:HG22	34:DN:52:VAL:HG23	1.92	0.52
34:DN:120:GLU:HB2	39:DR:68:TYR:HE2	1.75	0.52
35:DO:46:LYS:CD	35:DO:51:PHE:CZ	2.92	0.52
36:DP:126:PRO:O	36:DP:127:ILE:HG23	2.09	0.52
37:D0:41:ALA:C	37:D0:43:GLU:N	2.68	0.52
42:DS:13:SER:O	42:DS:16:LYS:HB2	2.09	0.52
45:DV:76:LEU:HD23	45:DV:76:LEU:N	2.22	0.52
1:AA:538:G:OP2	12:AO:112:LYS:CG	2.58	0.52
1:AA:977:A:H1'	1:AA:982:U:O4	2.10	0.52
1:AA:1004:A:P	1:AA:1025:U:C4	3.03	0.52
1:AA:1128:C:H5'	9:AL:16:ARG:HH22	1.73	0.52
4:AG:138:TYR:C	4:AG:138:TYR:CD2	2.87	0.52
4:AG:194:LEU:N	4:AG:194:LEU:HD22	2.25	0.52
10:AM:39:PRO:HB3	10:AM:70:ARG:HH12	1.71	0.52
12:AO:86:ARG:HD3	12:AO:88:LYS:CA	2.40	0.52
22:AD:14:A:C3'	22:AD:15:G:H5"	2.18	0.52
25:BA:1047:G:C6	25:BA:1110:G:N7	2.77	0.52
25:BA:1204:A:N1	25:BA:1241:A:C2	2.78	0.52
25:BA:1416:G:O2'	25:BA:1417:C:O4'	2.28	0.52
25:BA:1709:U:H2'	25:BA:1710:C:C6	2.45	0.52
31:BH:149:ARG:NH1	31:BH:154:PRO:HG3	2.24	0.52
31:BH:153:LYS:HG2	31:BH:162:ILE:HB	1.91	0.52
33:BM:28:THR:HG22	33:BM:29:LYS:N	2.23	0.52
36:BP:59:ARG:C	36:BP:61:GLY:H	2.14	0.52
1:CA:765:G:N2	1:CA:813:U:OP2	2.41	0.52
1:CA:1292:U:H2'	1:CA:1293:G:C8	2.44	0.52
1:CA:1432:G:OP1	39:DR:107:ASP:HB2	2.09	0.52
3:CF:52:LEU:CD2	3:CF:52:LEU:H	2.21	0.52
7:CJ:73:MET:HA	7:CJ:91:VAL:HG23	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CP:81:LEU:HD11	13:CP:88:ARG:NH1	2.25	0.52
22:CB:13:G:C2	22:CB:23:A:N1	2.77	0.52
25:DA:107:C:H2'	25:DA:108:U:H6	1.74	0.52
25:DA:270(R):G:H2'	25:DA:270(S):G:C8	2.44	0.52
25:DA:283:A:H4'	25:DA:284:U:OP2	2.10	0.52
25:DA:729:G:C8	27:DD:208:LYS:HD2	2.45	0.52
25:DA:1323:U:C2'	25:DA:1324:G:H5'	2.39	0.52
25:DA:1639:U:H2'	25:DA:1640:C:C5'	2.40	0.52
25:DA:2001:A:H2'	25:DA:2002:G:C8	2.45	0.52
25:DA:2019:A:H2'	25:DA:2020:A:O5'	2.09	0.52
25:DA:2130:U:H2'	25:DA:2131:G:H5"	1.92	0.52
25:DA:2745:C:H4'	31:DH:142:GLY:C	2.35	0.52
25:DA:2789:C:H3'	25:DA:2790:A:H5"	1.92	0.52
31:DH:123:PHE:CE2	31:DH:133:VAL:HG22	2.44	0.52
35:DO:81:GLN:CD	35:DO:106:LEU:O	2.52	0.52
36:DP:3:MET:HB2	36:DP:93:TYR:CD1	2.45	0.52
37:D0:96:ARG:NH2	37:D0:117:VAL:HG23	2.25	0.52
40:D1:25:TRP:CD1	40:D1:26:GLY:N	2.77	0.52
4:AG:24:GLU:O	4:AG:27:TYR:HB2	2.10	0.52
4:AG:64:LEU:HB2	4:AG:198:VAL:HG11	1.91	0.52
6:AI:61:LEU:HB3	6:AI:63:TYR:HE2	1.75	0.52
9:AL:114:TYR:N	9:AL:114:TYR:HD2	2.07	0.52
19:AV:45:VAL:HA	19:AV:62:ILE:HG22	1.92	0.52
23:AC:1:C:O2	23:AC:2:G:H8	1.91	0.52
25:BA:960:A:H5"	25:BA:961:C:OP1	2.10	0.52
25:BA:2712:U:O2	25:BA:2712:U:H5'	2.10	0.52
25:BA:2818:G:O2'	25:BA:2819:G:H5'	2.09	0.52
27:BD:79:VAL:HG21	27:BD:111:LEU:HD11	1.91	0.52
45:BV:149:SER:HB2	45:BV:170:THR:HG22	1.91	0.52
47:BZ:83:GLU:C	47:BZ:85:LEU:N	2.68	0.52
54:B8:33:ASN:HA	54:B8:36:LYS:HE3	1.91	0.52
1:CA:723:U:C2'	1:CA:724:G:OP1	2.58	0.52
1:CA:830:G:N2	1:CA:857:C:C2	2.78	0.52
1:CA:1306:A:N6	1:CA:1331:G:H1'	2.25	0.52
2:CE:75:LYS:HA	2:CE:78:GLN:HB2	1.91	0.52
10:CM:79:ARG:O	10:CM:83:GLU:HB2	2.09	0.52
22:CD:65:C:C6	25:DA:2169:A:N7	2.78	0.52
25:DA:523:C:C2'	25:DA:524:U:H5'	2.40	0.52
25:DA:825:C:O2	35:DO:55:ARG:NH2	2.43	0.52
25:DA:1210:A:H5'	25:DA:1212:G:H5'	1.90	0.52
25:DA:1444:G:N2	25:DA:1548:C:C2	2.78	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1815:A:P	27:DD:54:ARG:HH22	2.32	0.52
25:DA:2134:A:H62	25:DA:2157:G:H1'	1.74	0.52
25:DA:2142:C:O2'	25:DA:2143:C:H5'	2.10	0.52
25:DA:2389:G:H5"	25:DA:2390:U:C5'	2.39	0.52
25:DA:2872:G:C6	25:DA:2873:A:N1	2.78	0.52
26:DB:74:U:C3'	26:DB:75:G:H5"	2.39	0.52
27:DD:35:LYS:HB3	27:DD:63:ARG:HA	1.91	0.52
27:DD:131:LEU:HD12	27:DD:131:LEU:N	2.25	0.52
42:DS:2:GLU:CD	42:DS:72:LYS:HE3	2.35	0.52
49:DX:50:VAL:C	49:DX:52:HIS:H	2.18	0.52
52:D6:44:ARG:O	52:D6:45:LYS:HG2	2.10	0.52
53:D7:1:MET:HE2	53:D7:1:MET:HA	1.92	0.52
1:AA:1007:C:C3'	1:AA:1008:C:H5"	2.40	0.52
1:AA:1015:A:H2'	1:AA:1016:A:C8	2.45	0.52
3:AF:8:ILE:O	3:AF:11:ARG:N	2.29	0.52
5:AH:151:LEU:O	8:AK:64:LYS:HE2	2.10	0.52
10:AM:30:SER:OG	10:AM:84:GLN:NE2	2.42	0.52
12:AO:49:LEU:O	12:AO:51:LYS:NZ	2.43	0.52
17:AT:29:HIS:CD2	17:AT:30:PRO:HD2	2.44	0.52
17:AT:48:GLU:O	17:AT:49:GLU:C	2.53	0.52
22:AB:15:G:H2'	22:AB:68:A:N1	2.25	0.52
22:AB:46:G:H2'	22:AB:47:U:H6	1.74	0.52
22:AD:18:G:H1'	22:AD:19:C:P	2.50	0.52
22:AD:51:C:H3'	22:AD:52:G:C8	2.45	0.52
25:BA:604:G:P	35:BO:90:ARG:HH21	2.33	0.52
25:BA:1900:A:C8	25:BA:1900:A:C5'	2.93	0.52
25:BA:2406:U:C4	35:BO:72:PRO:HG2	2.45	0.52
25:BA:2481:G:C2'	25:BA:2482:G:OP2	2.58	0.52
25:BA:2733:A:C2'	25:BA:2734:A:C5'	2.87	0.52
26:BB:73:A:C4	26:BB:104:A:C2	2.98	0.52
32:BK:2:LYS:CG	32:BK:20:ASP:HB3	2.40	0.52
32:BK:128:LEU:O	32:BK:138:ILE:HG22	2.10	0.52
35:BO:61:ARG:HH12	54:B8:14:VAL:HG23	1.74	0.52
38:BQ:15:ARG:O	38:BQ:19:LYS:HD3	2.09	0.52
39:BR:51:ARG:HB2	39:BR:98:LYS:CD	2.40	0.52
39:BR:111:ARG:HD3	39:BR:111:ARG:H	1.75	0.52
43:BT:3:THR:O	43:BT:6:ASP:HB2	2.09	0.52
45:BV:117:LEU:HD13	45:BV:118:GLN:N	2.24	0.52
1:CA:184:G:O2'	1:CA:185:A:H5'	2.10	0.52
1:CA:990:C:C2	1:CA:1216:G:C2	2.98	0.52
1:CA:1206:G:C6	1:CA:1207:G:C5	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1316:G:H4'	14:CQ:18:VAL:HG11	1.91	0.52
2:CE:61:LEU:HD23	2:CE:68:ILE:HD11	1.91	0.52
3:CF:81:GLY:O	3:CF:83:ARG:N	2.43	0.52
3:CF:150:LYS:HG3	3:CF:169:ALA:HB2	1.92	0.52
19:CV:41:VAL:CG1	19:CV:42:PRO:HD2	2.40	0.52
22:CD:18:G:N7	22:CD:66:G:N2	2.58	0.52
25:DA:90:U:C2'	25:DA:90:U:O2	2.58	0.52
25:DA:270(N):G:O2'	25:DA:270(O):U:H5'	2.10	0.52
25:DA:607:U:O2	25:DA:621:A:N1	2.43	0.52
25:DA:1169:G:N2	25:DA:1181:C:C2	2.78	0.52
25:DA:2211:G:H1'	25:DA:2212:A:P	2.50	0.52
25:DA:2376:A:H2'	25:DA:2377:A:O4'	2.10	0.52
26:DB:28:C:H2'	26:DB:29:A:C8	2.45	0.52
27:DD:35:LYS:CE	27:DD:64:ILE:C	2.82	0.52
35:DO:61:ARG:HB3	35:DO:62:LEU:CD2	2.40	0.52
35:DO:61:ARG:HA	54:D8:27:THR:HG21	1.91	0.52
37:D0:33:ARG:HD3	37:D0:113:LEU:HD11	1.92	0.52
38:DQ:84:GLN:HB2	38:DQ:110:LEU:H	1.75	0.52
41:D2:28:GLU:O	41:D2:61:VAL:HG21	2.10	0.52
48:DW:32:LEU:HD11	48:DW:50:ILE:HG23	1.92	0.52
1:AA:27:G:H4'	4:AG:209:ARG:HG3	1.93	0.51
1:AA:412:A:C1'	1:AA:413:G:OP2	2.52	0.51
1:AA:1226:C:O2'	13:AP:103:THR:O	2.24	0.51
3:AF:21:ARG:HD3	3:AF:21:ARG:H	1.72	0.51
3:AF:123:GLN:O	3:AF:128:PHE:HB2	2.09	0.51
10:AM:9:ARG:NH2	10:AM:97:GLU:HG3	2.24	0.51
14:AQ:59:ALA:O	14:AQ:60:SER:HB2	2.10	0.51
25:BA:32:C:O2'	25:BA:33:U:H5'	2.11	0.51
25:BA:1379:A:C1'	25:BA:1380:G:OP1	2.58	0.51
25:BA:1416:G:O2'	25:BA:1417:C:P	2.68	0.51
25:BA:1794:U:H1'	25:BA:1900:A:N3	2.25	0.51
25:BA:2053:G:H5'	28:BE:144:ARG:O	2.09	0.51
25:BA:2462:U:H1'	25:BA:2491:U:O4	2.10	0.51
25:BA:2836:U:C4	25:BA:2883:A:N6	2.78	0.51
32:BK:135:GLU:OE1	32:BK:135:GLU:N	2.41	0.51
36:BP:112:GLU:CD	36:BP:112:GLU:H	2.18	0.51
37:B0:84:ALA:HB3	37:B0:85:PRO:HD3	1.92	0.51
38:BQ:34:HIS:HB2	38:BQ:36:TYR:HE1	1.75	0.51
39:BR:24:PRO:HA	39:BR:49:VAL:HG13	1.92	0.51
45:BV:63:ASP:HB2	45:BV:65:GLN:H	1.74	0.51
45:BV:105:VAL:HG13	45:BV:140:ASP:CB	2.35	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BX:56:VAL:HG12	49:BX:57:GLU:N	2.25	0.51
52:B6:29:ASN:O	52:B6:32:ASN:HB3	2.10	0.51
1:CA:328:C:C1'	1:CA:329:A:OP2	2.57	0.51
1:CA:363:A:C2	12:CO:28:PRO:HG2	2.45	0.51
1:CA:559:A:C4'	1:CA:560:U:H3'	2.36	0.51
1:CA:948:C:C5	13:CP:106:ASN:ND2	2.78	0.51
2:CE:163:PHE:CD2	2:CE:185:ILE:HG13	2.46	0.51
7:CJ:153:HIS:ND1	7:CJ:153:HIS:O	2.44	0.51
10:CM:6:ILE:HG22	10:CM:98:ILE:HA	1.90	0.51
11:CN:79:SER:HB2	11:CN:106:LYS:HD2	1.92	0.51
11:CN:84:VAL:HG11	11:CN:95:ILE:HD11	1.92	0.51
19:CV:23:ASN:HA	19:CV:27:GLU:CG	2.40	0.51
20:CW:60:GLU:OE1	20:CW:85:MET:HE1	2.09	0.51
25:DA:90:U:H2'	25:DA:91:A:C5'	2.33	0.51
25:DA:511:U:O4	25:DA:512:G:N1	2.43	0.51
25:DA:746:A:C5	25:DA:2611:U:H5"	2.45	0.51
25:DA:752:A:H3'	53:D7:1:MET:SD	2.50	0.51
25:DA:861:A:C2	25:DA:917:A:C4	2.98	0.51
25:DA:997:G:O2'	25:DA:998:C:H5'	2.10	0.51
25:DA:1436:G:O2'	25:DA:1477:A:H4'	2.10	0.51
25:DA:2121:G:H2'	25:DA:2122:U:C6	2.45	0.51
25:DA:2720:U:H2'	25:DA:2721:A:O4'	2.09	0.51
28:DE:38:THR:HG23	28:DE:40:GLU:H	1.76	0.51
32:DK:8:PRO:HD3	32:DK:15:VAL:HG23	1.91	0.51
36:DP:111:GLU:OE1	36:DP:133:ARG:NH2	2.42	0.51
36:DP:132:VAL:HG21	45:DV:81:ARG:HH12	1.75	0.51
40:D1:100:VAL:O	40:D1:102:GLU:N	2.38	0.51
41:D2:35:LEU:HG	41:D2:37:VAL:HG11	1.91	0.51
46:D3:49:LYS:HE2	46:D3:80:HIS:CB	2.40	0.51
49:DX:43:ILE:O	49:DX:47:VAL:HG23	2.10	0.51
52:D6:31:PRO:C	52:D6:33:LYS:H	2.17	0.51
1:AA:262:A:C6	1:AA:263:A:C6	2.99	0.51
1:AA:1134:G:H2'	1:AA:1134:G:N3	2.25	0.51
2:AE:101:MET:HA	2:AE:108:ILE:HG21	1.91	0.51
3:AF:41:GLY:HA2	3:AF:44:GLU:HG3	1.92	0.51
25:BA:498:G:N3	44:BU:47:LYS:NZ	2.59	0.51
25:BA:583:G:H5"	40:B1:10:ARG:HH12	1.76	0.51
25:BA:645:C:O2	25:BA:645:C:H2'	2.10	0.51
25:BA:654(S):G:H1'	25:BA:654(T):A:C8	2.45	0.51
25:BA:760:G:H2'	25:BA:761:A:O4'	2.09	0.51
25:BA:901:A:H2'	25:BA:902:C:H5'	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2219:G:H2'	25:BA:2224:G:H5'	1.93	0.51
25:BA:2784:C:H1'	28:BE:37:ARG:HH12	1.74	0.51
27:BD:27:THR:CG2	27:BD:28:GLU:N	2.73	0.51
28:BE:72:VAL:O	28:BE:73:GLU:C	2.53	0.51
32:BK:131:LYS:HA	32:BK:135:GLU:HB3	1.92	0.51
36:BP:66:ILE:O	36:BP:104:PHE:N	2.29	0.51
47:BZ:83:GLU:C	47:BZ:85:LEU:H	2.16	0.51
50:B4:12:ALA:CB	50:B4:29:PRO:HA	2.40	0.51
1:CA:976:G:OP1	14:CQ:32:SER:N	2.26	0.51
1:CA:991:U:O2	1:CA:993:G:C8	2.60	0.51
1:CA:1127:G:C6	1:CA:1145:C:C4	2.98	0.51
1:CA:1151:A:HO2'	10:CM:70:ARG:HH22	1.55	0.51
3:CF:134:ILE:HG23	3:CF:151:VAL:HB	1.91	0.51
4:CG:149:ALA:O	4:CG:150:GLU:O	2.27	0.51
18:CU:22:VAL:CG1	18:CU:56:THR:HA	2.40	0.51
19:CV:66:MET:HE3	19:CV:66:MET:H	1.76	0.51
25:DA:244:A:C2	25:DA:255:A:C4	2.98	0.51
25:DA:958:U:O2'	25:DA:959:A:OP2	2.27	0.51
25:DA:1085:A:O2'	25:DA:1086:A:C8	2.64	0.51
25:DA:1778:U:H2'	25:DA:1784:A:N6	2.26	0.51
29:DF:82:ILE:HD13	29:DF:82:ILE:H	1.74	0.51
31:DH:92:ILE:HD12	31:DH:92:ILE:N	2.25	0.51
37:D0:70:LEU:O	37:D0:72:ASP:N	2.42	0.51
39:DR:103:ARG:C	39:DR:105:LEU:H	2.18	0.51
44:DU:20:TYR:CE2	44:DU:42:VAL:HA	2.45	0.51
47:DZ:82:LEU:H	47:DZ:82:LEU:CD2	2.12	0.51
1:AA:200:G:C2	1:AA:218:C:N3	2.79	0.51
1:AA:658:G:C5	1:AA:659:U:C5	2.98	0.51
1:AA:1006:C:H42	1:AA:1023:G:H1	1.59	0.51
1:AA:1059:C:O2'	10:AM:53:PRO:HD3	2.09	0.51
1:AA:1497:G:C2'	1:AA:1498:U:H5'	2.36	0.51
3:AF:106:VAL:O	3:AF:107:GLN:C	2.54	0.51
7:AJ:49:ILE:O	7:AJ:53:LYS:HB2	2.11	0.51
8:AK:97:VAL:HB	8:AK:129:VAL:O	2.11	0.51
11:AN:69:ALA:HB1	11:AN:103:LEU:HD23	1.92	0.51
20:AW:54:LYS:HD2	20:AW:54:LYS:C	2.36	0.51
25:BA:222:A:H4'	25:BA:223:A:OP1	2.10	0.51
25:BA:481:G:H4'	25:BA:482:A:O5'	2.10	0.51
25:BA:1003:G:N2	25:BA:1153:C:C2	2.78	0.51
25:BA:2262:U:H4'	25:BA:2328:A:H2	1.73	0.51
25:BA:2563:U:H1'	25:BA:2566:A:N6	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2689:U:C4'	25:BA:2690:C:OP2	2.58	0.51
26:BB:71:C:C2	26:BB:72:G:C8	2.99	0.51
35:BO:124:LYS:HA	35:BO:143:GLY:O	2.10	0.51
45:BV:54:HIS:CE1	45:BV:123:ASP:OD1	2.62	0.51
45:BV:156:LYS:O	45:BV:157:LEU:C	2.53	0.51
48:BW:41:ILE:HD13	48:BW:41:ILE:O	2.10	0.51
52:B6:43:CYS:HB3	52:B6:44:ARG:NH1	2.22	0.51
1:CA:634:C:H2'	1:CA:635:G:H8	1.75	0.51
1:CA:1238:A:N7	1:CA:1303:C:H1'	2.26	0.51
1:CA:1374:A:C2'	1:CA:1375:A:H5'	2.39	0.51
5:CH:41:VAL:HG13	5:CH:113:ALA:HA	1.92	0.51
7:CJ:146:GLU:O	7:CJ:149:ARG:HG3	2.10	0.51
10:CM:16:LEU:C	10:CM:18:ALA:N	2.67	0.51
10:CM:98:ILE:HD12	10:CM:98:ILE:H	1.74	0.51
13:CP:20:THR:C	13:CP:22:ILE:H	2.17	0.51
23:CC:17:C:O2	23:CC:17:C:H2'	2.09	0.51
22:CD:5:G:H1	22:CD:77:C:H42	1.57	0.51
25:DA:981:A:N1	25:DA:2027:G:O2'	2.40	0.51
25:DA:996:A:C2	25:DA:997:G:C8	2.98	0.51
25:DA:1464:C:O2'	25:DA:1528:A:C8	2.56	0.51
25:DA:1963:U:O2	25:DA:1963:U:H2'	2.11	0.51
26:DB:8:U:O2'	38:DQ:40:ILE:HD13	2.10	0.51
26:DB:89(A):A:C8	26:DB:90:C:C1'	2.94	0.51
27:DD:62:TYR:CD1	27:DD:64:ILE:HG22	2.45	0.51
31:DH:117:PRO:HB3	31:DH:123:PHE:HZ	1.74	0.51
32:DK:21:VAL:HG21	32:DK:26:ALA:HB2	1.93	0.51
35:DO:62:LEU:HD21	54:D8:25:MET:O	2.11	0.51
35:DO:71:VAL:HG13	35:DO:72:PRO:HD3	0.61	0.51
39:DR:62:THR:HG22	39:DR:75:ILE:HG12	1.92	0.51
40:D1:92:ARG:NH2	41:D2:10:LYS:HA	2.25	0.51
41:D2:74:LYS:HE2	41:D2:74:LYS:HA	1.90	0.51
46:D3:31:VAL:HG12	46:D3:35:ASN:CB	2.36	0.51
1:AA:81:G:C2	1:AA:88:C:C4	2.98	0.51
1:AA:201:C:N4	1:AA:216:G:N1	2.35	0.51
1:AA:771:G:O2'	1:AA:772:U:H5'	2.11	0.51
1:AA:991:U:O2	1:AA:993:G:H8	1.93	0.51
1:AA:1378:C:H3'	1:AA:1378:C:O2	2.09	0.51
3:AF:114:PRO:HA	3:AF:185:GLY:HA3	1.92	0.51
6:AI:3:ARG:NH1	6:AI:38:GLU:OE2	2.44	0.51
8:AK:16:ALA:HB2	8:AK:24:THR:HG21	1.91	0.51
11:AN:41:THR:HG21	11:AN:71:LYS:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:65:LYS:N	50:B4:50:VAL:HG21	2.26	0.51
15:AR:27:VAL:O	15:AR:31:LEU:HB2	2.11	0.51
25:BA:2136:C:H2'	25:BA:2137:C:O4'	2.10	0.51
26:BB:37:C:C2'	26:BB:38:C:H5'	2.41	0.51
27:BD:35:LYS:HD3	27:BD:63:ARG:HA	1.93	0.51
28:BE:178:GLU:H	28:BE:178:GLU:CD	2.18	0.51
30:BG:64:THR:HG22	30:BG:66:GLN:N	2.25	0.51
30:BG:97:ASP:O	30:BG:101:ILE:HG23	2.10	0.51
31:BH:68:THR:O	31:BH:72:ILE:HG13	2.10	0.51
31:BH:88:LEU:HD23	31:BH:130:ARG:HD3	1.91	0.51
31:BH:136:ILE:HD12	31:BH:136:ILE:N	2.25	0.51
32:BK:140:LEU:HD23	32:BK:140:LEU:H	1.75	0.51
45:BV:158:PRO:O	45:BV:160:GLY:N	2.43	0.51
47:BZ:86:SER:N	47:BZ:87:PRO:HD2	2.23	0.51
1:CA:222:U:H2'	1:CA:223:U:H6	1.75	0.51
1:CA:1124:G:O2'	1:CA:1145:C:C4	2.64	0.51
1:CA:1348:U:H4'	9:CL:120:ARG:HD2	1.92	0.51
3:CF:68:VAL:HG12	3:CF:70:VAL:HG23	1.90	0.51
3:CF:70:VAL:HG21	3:CF:76:VAL:HG11	1.92	0.51
7:CJ:89:MET:HE2	7:CJ:89:MET:HA	1.92	0.51
13:CP:96:LEU:C	13:CP:110:ARG:HE	2.18	0.51
21:CX:5:ASP:O	21:CX:11:GLY:HA3	2.10	0.51
25:DA:642:G:H21	25:DA:646:A:H2	1.58	0.51
25:DA:1051:G:H2'	25:DA:1051:G:N3	2.26	0.51
25:DA:1171:G:H1'	25:DA:1173:G:C1'	2.40	0.51
25:DA:1252:G:N3	40:D1:33:ARG:HD2	2.25	0.51
25:DA:1340:U:H4'	25:DA:1341:U:OP2	2.09	0.51
25:DA:1833:U:O2'	25:DA:1969:A:N1	2.43	0.51
26:DB:45:A:H1'	30:DG:95:ARG:NH2	2.24	0.51
36:DP:32:TYR:O	36:DP:105:GLU:HB2	2.11	0.51
37:D0:81:ASP:O	37:D0:82:GLU:HB2	2.10	0.51
44:DU:11:ASP:O	44:DU:27:VAL:HG22	2.10	0.51
1:AA:6:G:O2'	1:AA:7:G:O5'	2.26	0.51
1:AA:872:A:C4	1:AA:874:G:C8	2.99	0.51
1:AA:872:A:H2'	1:AA:872:A:N3	2.25	0.51
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.45	0.51
7:AJ:20:ASP:HB3	7:AJ:23:VAL:HG23	1.91	0.51
9:AL:48:GLU:N	9:AL:49:PRO:CD	2.74	0.51
10:AM:40:LEU:HB3	10:AM:41:PRO:HD2	1.93	0.51
11:AN:30:VAL:HG21	11:AN:65:ALA:HA	1.93	0.51
11:AN:99:GLN:CG	11:AN:105:VAL:HG21	2.34	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AO:87:VAL:O	12:AO:88:LYS:HB3	2.10	0.51
14:AQ:12:ARG:O	14:AQ:12:ARG:HG3	2.09	0.51
25:BA:207:A:H2'	25:BA:208:C:O4'	2.09	0.51
25:BA:743:G:C2'	25:BA:744:G:H5'	2.40	0.51
25:BA:1022:G:H4'	25:BA:1023:U:O5'	2.11	0.51
25:BA:1323:U:H2'	25:BA:1324:G:H5'	1.92	0.51
25:BA:2171:A:O2'	25:BA:2172:U:O4'	2.19	0.51
25:BA:2557:G:H2'	25:BA:2558:C:C6	2.46	0.51
27:BD:65:ILE:HD11	27:BD:67:PHE:CZ	2.46	0.51
29:BF:67:GLN:O	29:BF:67:GLN:HG3	2.10	0.51
37:B0:10:LEU:O	37:B0:12:ARG:NH1	2.44	0.51
1:CA:960:U:H3	1:CA:1225:A:C1'	2.22	0.51
1:CA:995:C:H1'	14:CQ:4:LYS:HE3	1.91	0.51
1:CA:1465:C:H2'	1:CA:1466:C:O4'	2.11	0.51
7:CJ:74:GLU:HG2	7:CJ:91:VAL:HG22	1.92	0.51
17:CT:45:HIS:HB3	17:CT:72:ARG:HG2	1.92	0.51
22:CD:3:U:H2'	22:CD:4:G:C8	2.46	0.51
25:DA:582:G:H2'	25:DA:583:G:H8	1.76	0.51
25:DA:1074:G:H2'	25:DA:1075:C:C6	2.45	0.51
25:DA:2188:C:H2'	25:DA:2189:U:O4'	2.11	0.51
25:DA:2274:A:C5	25:DA:2276:G:C8	2.98	0.51
25:DA:2720:U:C4	25:DA:2721:A:C6	2.98	0.51
25:DA:2786:U:C4'	28:DE:65:GLY:H	2.17	0.51
29:DF:16:GLY:O	29:DF:17:ARG:C	2.54	0.51
34:DN:63:VAL:HG12	34:DN:106:LEU:HD11	1.91	0.51
40:D1:92:ARG:HD3	40:D1:94:ASN:HB3	1.93	0.51
40:D1:102:GLU:HG3	41:D2:13:ARG:HH21	1.75	0.51
49:DX:59:VAL:HG12	49:DX:60:GLU:N	2.18	0.51
50:D4:22:ILE:O	50:D4:23:GLU:HB3	2.09	0.51
1:AA:751:U:H4'	15:AR:24:SER:HA	1.91	0.51
1:AA:1014:A:H4'	19:AV:14:HIS:CE1	2.45	0.51
3:AF:68:VAL:HG12	3:AF:70:VAL:HG23	1.92	0.51
3:AF:121:ALA:O	3:AF:125:GLU:HG3	2.11	0.51
12:AO:3:THR:H	12:AO:6:GLN:NE2	2.03	0.51
14:AQ:6:LEU:C	14:AQ:23:ARG:HH21	2.18	0.51
20:AW:57:ARG:NH1	20:AW:102:GLY:HA2	2.26	0.51
20:AW:94:ALA:O	20:AW:95:ALA:HB3	2.10	0.51
25:BA:270(Q):C:H2'	25:BA:270(R):G:O4'	2.11	0.51
25:BA:495:G:H1'	42:BS:57:ASN:ND2	2.25	0.51
25:BA:572:A:H5"	25:BA:573:G:OP2	2.10	0.51
25:BA:857:C:H4'	46:B3:23:VAL:HG21	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1240:U:O2'	25:BA:1241:A:H5'	2.10	0.51
25:BA:1358:G:N2	25:BA:1372:U:C5	2.79	0.51
29:BF:28:ILE:HG22	29:BF:112:MET:HB3	1.92	0.51
36:BP:19:GLY:C	36:BP:98:LYS:HD3	2.36	0.51
37:B0:83:ILE:HD13	37:B0:86:ARG:NH1	2.26	0.51
39:BR:65:LYS:HE3	39:BR:67:SER:HB2	1.92	0.51
41:B2:89:GLN:HA	41:B2:89:GLN:NE2	2.24	0.51
48:BW:47:ASN:HB2	48:BW:50:ILE:HD11	1.91	0.51
49:BX:6:VAL:HG12	49:BX:56:VAL:HG22	1.92	0.51
1:CA:509:A:HO2'	1:CA:510:A:P	2.30	0.51
1:CA:1149:C:H2'	1:CA:1150:U:C6	2.46	0.51
4:CG:178:VAL:C	4:CG:180:GLY:H	2.19	0.51
5:CH:63:ARG:O	5:CH:66:MET:HE2	2.11	0.51
6:CI:69:GLU:CD	6:CI:69:GLU:H	2.19	0.51
9:CL:5:TYR:HE2	9:CL:16:ARG:HG2	1.76	0.51
9:CL:33:PHE:CE1	9:CL:37:PHE:HD1	2.29	0.51
10:CM:6:ILE:HA	10:CM:97:GLU:O	2.11	0.51
14:CQ:8:GLU:HA	14:CQ:8:GLU:OE2	2.10	0.51
19:CV:18:LYS:HG2	19:CV:31:ILE:HD13	1.92	0.51
21:CX:2:GLY:C	21:CX:4:GLY:N	2.67	0.51
22:CB:68:A:H2'	22:CB:68:A:N3	2.26	0.51
25:DA:1012:U:H3	33:DM:25:ARG:HH11	1.59	0.51
26:DB:88:C:H4'	26:DB:89:G:OP1	2.10	0.51
30:DG:138:GLN:HE22	30:DG:153:ARG:H	1.58	0.51
32:DK:123:LEU:HD23	32:DK:143:SER:HB3	1.92	0.51
35:DO:62:LEU:N	35:DO:62:LEU:HD23	2.21	0.51
35:DO:82:GLY:HA2	35:DO:113:LYS:O	2.11	0.51
45:DV:116:VAL:C	45:DV:117:LEU:HD22	2.36	0.51
45:DV:158:PRO:HD2	45:DV:161:VAL:HG11	1.92	0.51
1:AA:96:G:C6	1:AA:97:U:C2	2.99	0.51
1:AA:954:G:H21	1:AA:1227:A:H62	1.58	0.51
1:AA:1133:G:H1	1:AA:1141:C:H42	1.59	0.51
6:AI:60:PHE:C	6:AI:61:LEU:HD12	2.36	0.51
14:AQ:24:CYS:O	14:AQ:26:ARG:N	2.44	0.51
25:BA:562:U:O4	25:BA:2036:C:H1'	2.10	0.51
25:BA:2171:A:H2'	25:BA:2172:U:H6	1.75	0.51
25:BA:2572:A:N7	28:BE:144:ARG:HD2	2.26	0.51
27:BD:147:LEU:HD13	27:BD:155:LEU:HD11	1.92	0.51
29:BF:23:ASP:CG	29:BF:24:LEU:N	2.67	0.51
31:BH:58:GLU:O	31:BH:60:ARG:N	2.44	0.51
31:BH:113:VAL:HG11	31:BH:151:ILE:HD13	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BN:64:ARG:O	34:BN:82:ASN:HA	2.11	0.51
39:BR:108:ARG:HA	39:BR:111:ARG:HE	1.74	0.51
46:B3:51:VAL:N	46:B3:62:LEU:HD12	2.26	0.51
47:BZ:56:GLN:HA	47:BZ:56:GLN:HE21	1.76	0.51
1:CA:1051:C:C4	1:CA:1052:U:C4	2.99	0.51
1:CA:1056:U:O4	1:CA:1200:C:C6	2.64	0.51
1:CA:1335:C:HO2'	1:CA:1336:C:P	2.29	0.51
1:CA:1353:G:C2	1:CA:1370:G:C2	2.98	0.51
1:CA:1392:G:N2	1:CA:1502:A:C8	2.72	0.51
9:CL:4:TYR:CZ	9:CL:59:PHE:HE2	2.28	0.51
12:CO:24:LEU:HB2	12:CO:30:ARG:HB2	1.92	0.51
12:CO:44:LYS:CG	12:CO:45:PRO:HD3	2.39	0.51
13:CP:79:LYS:O	13:CP:79:LYS:HD3	2.10	0.51
19:CV:22:LEU:O	19:CV:27:GLU:HA	2.11	0.51
22:CB:11:C:H2'	22:CB:12:C:C6	2.45	0.51
25:DA:1225:C:O2'	41:D2:85:LYS:HB2	2.11	0.51
25:DA:1443:G:C2	25:DA:1549:C:C2	2.99	0.51
25:DA:1449:A:H5'	25:DA:1449(A):G:OP2	2.10	0.51
25:DA:1533:C:H3'	25:DA:1534:G:O4'	2.11	0.51
25:DA:1538:G:C2'	25:DA:1539:G:H5'	2.41	0.51
25:DA:2303:G:O2'	25:DA:2304:G:H5'	2.10	0.51
25:DA:2443:C:OP1	29:DF:68:LYS:HG3	2.11	0.51
29:DF:51:THR:HB	29:DF:88:VAL:HG11	1.92	0.51
33:DM:123:TYR:CZ	33:DM:129:PRO:HD3	2.46	0.51
37:D0:21:TYR:OH	37:D0:43:GLU:HG2	2.11	0.51
37:D0:84:ALA:HB3	37:D0:85:PRO:HD3	1.92	0.51
46:D3:55:ARG:NH1	46:D3:55:ARG:HB3	2.26	0.51
1:AA:1177:G:H2'	1:AA:1178:G:C4	2.45	0.51
1:AA:1336:C:O2	1:AA:1336:C:C2'	2.59	0.51
1:AA:1465:C:H2'	1:AA:1466:C:O4'	2.10	0.51
13:AP:20:THR:C	13:AP:22:ILE:H	2.19	0.51
19:AV:15:LEU:HB2	19:AV:31:ILE:HD11	1.93	0.51
20:AW:95:ALA:O	20:AW:97:ALA:N	2.44	0.51
25:BA:57:C:H2'	25:BA:58:G:O4'	2.10	0.51
25:BA:1069:A:O2'	25:BA:1072:C:OP2	2.27	0.51
25:BA:1379:A:H1'	25:BA:1380:G:OP1	2.11	0.51
25:BA:1858:G:HO2'	25:BA:1884:A:N6	2.05	0.51
32:BK:114:LEU:HD13	32:BK:130:TYR:HD1	1.75	0.51
33:BM:133:GLN:HG2	33:BM:134:ARG:N	2.25	0.51
42:BS:29:LEU:HD21	42:BS:33:ARG:NH2	2.26	0.51
46:B3:41:ARG:HA	46:B3:41:ARG:NE	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CF:40:ARG:O	3:CF:44:GLU:HG3	2.10	0.51
3:CF:81:GLY:HA3	3:CF:85:ARG:HH11	1.75	0.51
5:CH:110:LEU:O	5:CH:115:VAL:HG22	2.10	0.51
22:CB:13:G:H2'	22:CB:13:G:N3	2.26	0.51
22:CB:42:U:H3'	22:CB:43:G:H8	1.76	0.51
25:DA:128:C:H2'	25:DA:129:C:H6	1.75	0.51
25:DA:654(B):C:O2'	25:DA:654(C):G:O4'	2.24	0.51
25:DA:654(C):G:H2'	25:DA:654(D):G:H8	1.76	0.51
25:DA:674:G:P	29:DF:54:ARG:HH22	2.33	0.51
25:DA:774:A:C2	25:DA:787:U:O2'	2.59	0.51
25:DA:1686:C:H2'	25:DA:1687:G:O4'	2.10	0.51
26:DB:55:U:O2'	26:DB:56:G:H5'	2.11	0.51
28:DE:14:ILE:HD11	28:DE:173:VAL:HG11	1.92	0.51
29:DF:166:ALA:C	29:DF:168:ARG:H	2.18	0.51
30:DG:114:ILE:HG22	30:DG:117:PHE:HB2	1.93	0.51
32:DK:74:ASN:CG	32:DK:75:LEU:H	2.18	0.51
45:DV:14:LYS:H	45:DV:14:LYS:CE	2.24	0.51
45:DV:82:ARG:CZ	45:DV:82:ARG:HB2	2.41	0.51
45:DV:150:LEU:HD23	45:DV:154:ASP:HB2	1.92	0.51
1:AA:14:U:H2'	1:AA:16:A:OP2	2.10	0.51
1:AA:77:C:H2'	1:AA:78:G:H5'	1.93	0.51
1:AA:1178:G:C8	9:AL:97:LYS:HE3	2.46	0.51
1:AA:1252:A:H61	1:AA:1285:A:H61	1.56	0.51
1:AA:1305:G:OP2	1:AA:1305:G:C8	2.63	0.51
2:AE:88:ALA:HB2	2:AE:219:VAL:CG1	2.39	0.51
4:AG:11:LEU:O	4:AG:12:CYS:C	2.53	0.51
4:AG:189:PRO:HB2	4:AG:194:LEU:HD21	1.92	0.51
9:AL:77:ILE:O	9:AL:80:GLY:N	2.43	0.51
11:AN:46:GLY:HA2	11:AN:50:TYR:O	2.11	0.51
13:AP:89:GLY:O	13:AP:92:HIS:HB2	2.09	0.51
25:BA:582:G:H2'	25:BA:583:G:H8	1.76	0.51
25:BA:588:U:H1'	29:BF:90:PHE:CD1	2.46	0.51
25:BA:1059:G:C6	25:BA:1060:U:N3	2.79	0.51
25:BA:1473:G:O2'	25:BA:1474:C:H5'	2.11	0.51
25:BA:2140:C:O2'	25:BA:2141:G:H5'	2.10	0.51
25:BA:2157:G:HO2'	25:BA:2158:A:P	2.32	0.51
25:BA:2665:A:H2'	25:BA:2666:C:O4'	2.11	0.51
25:BA:2681:C:O2'	25:BA:2682:U:P	2.69	0.51
27:BD:134:ARG:HG3	27:BD:135:PHE:CE2	2.46	0.51
31:BH:4:ILE:HB	31:BH:6:ARG:HD3	1.92	0.51
32:BK:21:VAL:HG22	32:BK:22:LYS:N	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BN:65:THR:HA	34:BN:82:ASN:HD22	1.75	0.51
37:B0:12:ARG:HG2	37:B0:16:HIS:CD2	2.46	0.51
38:BQ:34:HIS:CE1	38:BQ:54:LEU:HD23	2.46	0.51
39:BR:118:ARG:HH21	39:BR:121:ILE:HG21	1.76	0.51
41:B2:64:HIS:CG	41:B2:92:THR:HG22	2.46	0.51
1:CA:922:G:H4'	5:CH:20:GLN:HA	1.92	0.51
1:CA:1328:C:OP1	21:CX:21:TYR:OH	2.26	0.51
1:CA:1502:A:H2	1:CA:1505:G:N1	2.06	0.51
3:CF:131:ARG:HE	3:CF:166:GLU:CG	2.23	0.51
6:CI:14:LEU:HD21	6:CI:19:LEU:HD12	1.93	0.51
7:CJ:152:ALA:O	7:CJ:155:ARG:HB3	2.11	0.51
9:CL:34:ASN:OD1	9:CL:34:ASN:N	2.44	0.51
12:CO:68:PRO:O	12:CO:99:ARG:NH1	2.42	0.51
18:CU:58:LEU:HD11	18:CU:63:GLN:OE1	2.11	0.51
19:CV:42:PRO:O	19:CV:45:VAL:HG22	2.10	0.51
22:CD:65:C:N1	25:DA:2169:A:N7	2.59	0.51
25:DA:654(D):G:H1	25:DA:654(Q):C:N4	2.08	0.51
25:DA:918:A:H5"	26:DB:97:G:O2'	2.11	0.51
25:DA:1026:U:H2'	25:DA:1026:U:O2	2.11	0.51
25:DA:1154:G:OP1	40:D1:58:ARG:HD2	2.10	0.51
25:DA:1854:A:H62	25:DA:1888:G:H8	1.58	0.51
25:DA:2166:G:N2	25:DA:2171:A:H62	2.08	0.51
25:DA:2593:U:H2'	25:DA:2594:C:H6	1.76	0.51
25:DA:2654:A:OP1	25:DA:2654:A:H8	1.94	0.51
25:DA:2702:U:HO2'	25:DA:2703:C:H5	1.59	0.51
27:DD:35:LYS:CE	27:DD:104:TYR:CD1	2.93	0.51
41:D2:16:PRO:HA	41:D2:96:ILE:HG22	1.92	0.51
53:D7:17:GLY:O	53:D7:21:ARG:HG2	2.11	0.51
1:AA:112:G:OP1	16:AS:27:LYS:HD2	2.11	0.51
1:AA:826:C:H4'	8:AK:12:ARG:HG2	1.92	0.51
1:AA:1174:G:H2'	1:AA:1175:G:C8	2.46	0.51
2:AE:165:VAL:HG23	2:AE:166:ASP:N	2.22	0.51
5:AH:9:LYS:HD2	5:AH:108:ALA:HB1	1.92	0.51
8:AK:122:ARG:HH11	8:AK:122:ARG:HB2	1.75	0.51
10:AM:34:VAL:CG2	10:AM:74:ILE:HG22	2.40	0.51
12:AO:61:TYR:O	12:AO:62:GLU:CB	2.59	0.51
13:AP:11:ARG:HG2	13:AP:12:ASN:N	2.26	0.51
15:AR:74:ASP:CG	15:AR:77:ARG:HG2	2.36	0.51
18:AU:40:LEU:O	18:AU:42:ARG:N	2.44	0.51
25:BA:336:C:H5"	44:BU:6:HIS:CD2	2.46	0.51
25:BA:443:A:H3'	29:BF:45:ARG:HH12	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:654:A:N3	25:BA:654:A:C2'	2.73	0.51
25:BA:857:C:H1'	46:B3:26:TYR:CE2	2.46	0.51
25:BA:1221:C:H2'	25:BA:1222:C:H6	1.74	0.51
25:BA:1359:A:N6	25:BA:1372:U:H3	2.08	0.51
25:BA:2014:A:C2'	51:B5:2:ALA:HB2	2.34	0.51
25:BA:2419:U:O4	54:B8:30:ARG:NH2	2.43	0.51
25:BA:2712:U:H1'	25:BA:2712(A):A:C8	2.46	0.51
25:BA:2815:C:H2'	25:BA:2816:C:H6	1.75	0.51
26:BB:82:G:O2'	26:BB:83:G:H5'	2.10	0.51
30:BG:64:THR:HG23	30:BG:94:LEU:CD1	2.40	0.51
35:BO:29:LYS:HG2	35:BO:30:THR:N	2.26	0.51
35:BO:85:LEU:HA	35:BO:88:LEU:CD2	2.38	0.51
43:BT:41:ASN:N	43:BT:41:ASN:ND2	2.58	0.51
43:BT:57:LEU:C	43:BT:57:LEU:HD12	2.36	0.51
47:BZ:87:PRO:O	47:BZ:91:LYS:HB2	2.10	0.51
50:B4:48:ARG:HH11	50:B4:51:ASP:HB2	1.75	0.51
1:CA:1028(A):C:C2	1:CA:1032(B):G:N1	2.70	0.51
1:CA:1152:A:OP1	10:CM:68:HIS:CD2	2.63	0.51
1:CA:1320:C:OP1	19:CV:70:LYS:HE3	2.11	0.51
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.46	0.51
15:CR:35:ARG:CZ	15:CR:59:MET:HE2	2.41	0.51
25:DA:184:C:H2'	25:DA:185:U:C6	2.45	0.51
25:DA:528:A:H8	25:DA:528:A:H3'	1.76	0.51
25:DA:833:U:O2	35:DO:55:ARG:NH1	2.39	0.51
25:DA:869:G:O2'	25:DA:870:A:H5'	2.10	0.51
25:DA:870:A:C2	25:DA:908:C:C2	2.98	0.51
25:DA:1231:G:H2'	25:DA:1232:G:C8	2.45	0.51
25:DA:2125:G:N2	25:DA:2172:U:OP1	2.44	0.51
25:DA:2277:G:OP1	36:DP:86:GLY:HA2	2.11	0.51
25:DA:2354:G:N2	25:DA:2355:C:C2	2.79	0.51
25:DA:2786:U:H4'	28:DE:64:LYS:CA	2.40	0.51
26:DB:52:A:H62	38:DQ:33:LYS:HG2	1.76	0.51
29:DF:67:GLN:O	29:DF:67:GLN:HG3	2.10	0.51
33:DM:102:ALA:O	33:DM:106:MET:HG2	2.10	0.51
35:DO:85:LEU:HB3	35:DO:114:ILE:HD11	1.92	0.51
37:D0:24:GLN:HE22	37:D0:36:THR:HG21	1.75	0.51
41:D2:85:LYS:HE3	41:D2:87:HIS:HA	1.93	0.51
43:DT:11:PRO:HD3	48:DW:37:PHE:CD2	2.45	0.51
43:DT:45:THR:O	43:DT:45:THR:OG1	2.29	0.51
44:DU:84:ARG:HH21	44:DU:97:ARG:HB2	1.76	0.51
44:DU:101:LYS:O	44:DU:101:LYS:HG3	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:D8:55:ALA:O	54:D8:58:ILE:HG22	2.10	0.51
1:AA:313:A:H2'	1:AA:314:C:C6	2.45	0.50
2:AE:81:VAL:HG13	2:AE:82:ARG:H	1.76	0.50
2:AE:162:ILE:O	2:AE:185:ILE:HG12	2.12	0.50
2:AE:166:ASP:OD1	2:AE:169:LYS:HB2	2.11	0.50
11:AN:57:THR:HG22	11:AN:59:TYR:N	2.26	0.50
22:AD:13:G:H2'	22:AD:14:A:H8	1.76	0.50
25:BA:631:A:P	54:B8:46:ARG:HH21	2.33	0.50
25:BA:637:A:H4'	25:BA:638:G:O5'	2.11	0.50
25:BA:899:A:O2'	25:BA:900:A:C8	2.63	0.50
25:BA:2638:G:P	28:BE:82:ARG:HH22	2.35	0.50
27:BD:8:PRO:HB3	27:BD:14:ARG:HB2	1.93	0.50
31:BH:12:PRO:HD3	31:BH:48:GLY:O	2.10	0.50
37:B0:87:TYR:CE1	37:B0:117:VAL:HG12	2.46	0.50
37:B0:103:ARG:HD2	37:B0:108:GLY:O	2.11	0.50
44:BU:96:ILE:CG1	44:BU:99:CYS:H	2.24	0.50
1:CA:719:C:O2'	18:CU:49:LYS:HB3	2.11	0.50
1:CA:963:G:H21	10:CM:55:LYS:CE	2.24	0.50
1:CA:1016:A:H2'	1:CA:1017:G:O4'	2.11	0.50
1:CA:1307:U:O3'	13:CP:110:ARG:HD2	2.11	0.50
2:CE:7:VAL:O	2:CE:217:ARG:NH2	2.43	0.50
4:CG:126:ILE:HG22	4:CG:127:THR:N	2.25	0.50
24:C1:12:A:H2'	24:C1:12:A:N3	2.26	0.50
25:DA:4:C:H2'	25:DA:5:A:O4'	2.10	0.50
25:DA:176:G:O2'	25:DA:177:G:H5'	2.12	0.50
25:DA:445:C:OP1	40:D1:2:PRO:HA	2.11	0.50
25:DA:654(V):A:O2'	25:DA:655:A:H5'	2.11	0.50
25:DA:1678:G:H22	25:DA:1989:G:H22	1.53	0.50
25:DA:2496:C:OP1	36:DP:82:ARG:HB3	2.11	0.50
25:DA:2836:U:C4	25:DA:2883:A:N6	2.80	0.50
27:DD:65:ILE:HD13	27:DD:106:ILE:HG13	1.92	0.50
32:DK:91:SER:HB3	32:DK:119:PRO:HB3	1.94	0.50
33:DM:39:ARG:C	33:DM:41:ASP:N	2.65	0.50
33:DM:42:TRP:CD1	40:D1:63:VAL:HG11	2.46	0.50
35:DO:3:LEU:HD12	35:DO:3:LEU:H	1.76	0.50
37:D0:30:THR:HG22	37:D0:31:HIS:ND1	2.26	0.50
43:DT:36:LYS:HG2	43:DT:54:VAL:HB	1.93	0.50
49:DX:40:THR:HB	49:DX:41:PRO:HD2	1.91	0.50
1:AA:159:G:N2	1:AA:161:A:H5"	2.26	0.50
5:AH:43:LEU:HD23	5:AH:133:TYR:CD1	2.47	0.50
6:AI:26:ILE:HG22	6:AI:30:LEU:HD12	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AO:42:PRO:HG2	12:AO:48:ALA:N	2.26	0.50
12:AO:43:LYS:CG	12:AO:44:LYS:N	2.72	0.50
13:AP:60:VAL:HG13	13:AP:64:TRP:HE1	1.76	0.50
14:AQ:40:CYS:O	14:AQ:42:ILE:N	2.45	0.50
25:BA:227:A:H5'	35:BO:76:LYS:HE2	1.93	0.50
25:BA:1042:G:N2	25:BA:1113:U:O2	2.40	0.50
25:BA:1655:A:H3'	25:BA:1656:C:H6	1.76	0.50
25:BA:2142:C:H2'	25:BA:2143:C:C6	2.47	0.50
25:BA:2733:A:C3'	25:BA:2734:A:H5'	2.41	0.50
30:BG:150:ASP:N	30:BG:150:ASP:OD1	2.43	0.50
31:BH:153:LYS:HG2	31:BH:162:ILE:CG1	2.41	0.50
40:B1:92:ARG:C	40:B1:94:ASN:N	2.68	0.50
51:B5:16:ARG:HG3	51:B5:17:ASP:N	2.27	0.50
1:CA:242:C:H2'	1:CA:243:A:H5'	1.93	0.50
4:CG:21:LEU:HD12	4:CG:21:LEU:N	2.25	0.50
6:CI:77:ARG:NH2	6:CI:78:GLU:HG2	2.26	0.50
12:CO:72:HIS:CD2	12:CO:74:LEU:H	2.27	0.50
22:CB:31:G:H2'	22:CB:32:A:H8	1.76	0.50
23:CC:17:C:HO2'	23:CC:18:C:H5	1.49	0.50
22:CD:48:C:C2	22:CD:49:A:H1'	2.47	0.50
25:DA:274:G:OP1	25:DA:274:G:C8	2.65	0.50
25:DA:1039:G:H1	25:DA:1116:C:N4	2.08	0.50
25:DA:1085:A:O2'	25:DA:1086:A:H8	1.93	0.50
25:DA:1111:A:H4'	31:DH:3:ARG:HD3	1.93	0.50
25:DA:1174:A:N1	25:DA:1175:U:O2'	2.44	0.50
25:DA:2016:U:H1'	51:D5:6:VAL:HG13	1.92	0.50
25:DA:2378:A:H8	25:DA:2378:A:O5'	1.94	0.50
25:DA:2406:U:C4	35:DO:72:PRO:HB2	2.45	0.50
25:DA:2489:G:O2'	25:DA:2518:A:N6	2.45	0.50
26:DB:15:A:H1'	26:DB:109:G:C4	2.47	0.50
26:DB:28:C:H2'	26:DB:29:A:H8	1.75	0.50
27:DD:246:PRO:HD2	27:DD:255:LYS:HD3	1.93	0.50
29:DF:180:GLY:O	29:DF:181:LEU:C	2.54	0.50
30:DG:56:ALA:HA	30:DG:59:GLU:HB3	1.93	0.50
30:DG:83:ARG:HB2	30:DG:86:MET:HE3	1.92	0.50
35:DO:100:LEU:HB3	35:DO:106:LEU:HD22	1.94	0.50
36:DP:12:GLN:NE2	36:DP:73:PRO:HD2	2.23	0.50
36:DP:21:THR:HB	36:DP:99:PRO:O	2.11	0.50
36:DP:55:VAL:HG23	36:DP:64:ILE:HD12	1.94	0.50
36:DP:67:ARG:HD2	36:DP:105:GLU:OE1	2.11	0.50
43:DT:72:LYS:NZ	43:DT:75:ASP:OD1	2.32	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DV:160:GLY:O	45:DV:161:VAL:C	2.54	0.50
46:D3:47:PRO:HG3	46:D3:53:MET:HB2	1.93	0.50
49:DX:31:LEU:C	49:DX:33:GLN:H	2.19	0.50
1:AA:345:C:O2'	1:AA:346:G:C2	2.62	0.50
1:AA:355:C:C4	1:AA:356:A:N7	2.79	0.50
1:AA:667:G:H4'	15:AR:51:HIS:CE1	2.46	0.50
1:AA:1022:G:H2'	1:AA:1023:G:O4'	2.12	0.50
4:AG:155:LEU:O	4:AG:156:GLU:C	2.55	0.50
10:AM:89:ASP:C	10:AM:90:LEU:HD12	2.36	0.50
12:AO:67:ILE:CD1	12:AO:74:LEU:HD12	2.42	0.50
23:AC:77:A:H4'	25:BA:2602:A:C6	2.47	0.50
25:BA:185:U:H4'	25:BA:218:A:H4'	1.94	0.50
25:BA:372:G:O2'	25:BA:373:U:OP2	2.26	0.50
25:BA:833:U:H2'	25:BA:834:C:C6	2.47	0.50
25:BA:880:G:HO2'	25:BA:881:G:P	2.28	0.50
25:BA:1079:C:N4	25:BA:1080:A:N6	2.59	0.50
25:BA:1286:A:C6	25:BA:1329:U:C2	3.00	0.50
25:BA:1444(A):A:OP2	25:BA:1445:C:H5	1.94	0.50
25:BA:2154:G:H2'	25:BA:2155:G:C8	2.47	0.50
26:BB:73:A:C3'	26:BB:74:U:H5'	2.41	0.50
27:BD:9:TYR:CD2	27:BD:10:THR:HG22	2.46	0.50
28:BE:129:HIS:O	28:BE:130:GLY:C	2.54	0.50
28:BE:134:ILE:C	28:BE:134:ILE:HD12	2.37	0.50
28:BE:186:GLY:O	28:BE:188:VAL:N	2.44	0.50
34:BN:63:VAL:HG12	34:BN:106:LEU:HD11	1.92	0.50
35:BO:27:HIS:ND1	35:BO:27:HIS:N	2.58	0.50
38:BQ:106:ARG:HH22	38:BQ:107:GLU:CB	2.24	0.50
39:BR:26:ASP:O	39:BR:49:VAL:HG12	2.11	0.50
40:B1:8:VAL:HG23	40:B1:11:ARG:NH2	2.26	0.50
2:CE:92:TYR:HE2	2:CE:151:GLY:CA	2.24	0.50
5:CH:33:VAL:HB	5:CH:112:LEU:HD12	1.93	0.50
5:CH:90:VAL:O	5:CH:120:THR:HA	2.12	0.50
5:CH:100:VAL:HG23	5:CH:118:ILE:CG2	2.42	0.50
7:CJ:97:GLN:NE2	7:CJ:101:LEU:HD11	2.26	0.50
10:CM:30:SER:OG	10:CM:81:THR:HA	2.11	0.50
11:CN:69:ALA:HB1	11:CN:103:LEU:CD2	2.40	0.50
20:CW:26:ASN:HB3	20:CW:71:THR:HG23	1.92	0.50
25:DA:270(X):G:O6	25:DA:270(Y):G:N1	2.44	0.50
25:DA:442:G:O4'	29:DF:46:ARG:HD3	2.11	0.50
25:DA:675:A:OP1	29:DF:63:LYS:NZ	2.42	0.50
25:DA:864:G:N2	25:DA:866:A:H61	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:868:U:N3	25:DA:869:G:C5	2.79	0.50
25:DA:1317:A:H2'	25:DA:1318:C:H6	1.76	0.50
25:DA:1348:G:C2'	25:DA:1349:A:H5"	2.40	0.50
25:DA:1386:C:C2	25:DA:1387:C:C5	2.99	0.50
25:DA:2127:G:N1	25:DA:2161:C:N4	2.38	0.50
25:DA:2406:U:C2	35:DO:75:ILE:HD13	2.46	0.50
25:DA:2415:G:H4'	35:DO:66:GLY:CA	2.40	0.50
25:DA:2772:C:H2'	25:DA:2773:C:H6	1.76	0.50
25:DA:2865:U:C4	25:DA:2866:U:C4	2.99	0.50
27:DD:245:PRO:HB2	27:DD:253:GLN:OE1	2.11	0.50
28:DE:8:LYS:O	28:DE:9:VAL:HG13	2.12	0.50
28:DE:68:ALA:C	28:DE:70:ALA:N	2.69	0.50
29:DF:152:GLU:CG	29:DF:191:ARG:HD2	2.41	0.50
39:DR:29:ARG:HG2	39:DR:46:GLU:HB2	1.94	0.50
40:D1:92:ARG:HG2	41:D2:11:GLN:CD	2.36	0.50
41:D2:71:LEU:O	41:D2:85:LYS:O	2.29	0.50
52:D6:10:LEU:HD21	54:D8:34:TRP:HE3	1.76	0.50
1:AA:142:G:C2	1:AA:143:A:C5	2.99	0.50
1:AA:559:A:H4'	1:AA:560:U:H3'	1.92	0.50
1:AA:1277:C:HO2'	1:AA:1279:A:H1'	1.76	0.50
2:AE:67:THR:O	2:AE:68:ILE:HD12	2.12	0.50
11:AN:54:ARG:HH12	22:AD:40:U:H4'	1.74	0.50
16:AS:49:LEU:HD12	16:AS:50:LYS:H	1.77	0.50
22:AB:57:C:O2'	22:AB:68:A:H4'	2.11	0.50
22:AD:8:U:O2	22:AD:15:G:N1	2.45	0.50
22:AD:62:G:H1	22:AD:70:C:N4	1.99	0.50
25:BA:845:G:H8	25:BA:845:G:OP2	1.93	0.50
25:BA:868:U:C4	25:BA:869:G:N7	2.79	0.50
25:BA:1655:A:H3'	25:BA:1656:C:C6	2.46	0.50
25:BA:1794:U:H2'	25:BA:1795:C:C6	2.46	0.50
25:BA:2119:A:N6	25:BA:2170:A:C6	2.79	0.50
25:BA:2309:A:H2'	25:BA:2310:A:O4'	2.11	0.50
25:BA:2615:U:C2	51:B5:7:PRO:HA	2.46	0.50
25:BA:2783:G:H2'	25:BA:2784:C:C6	2.46	0.50
25:BA:2789:C:H2'	25:BA:2790:A:H5"	1.93	0.50
28:BE:37:ARG:O	28:BE:45:THR:HA	2.12	0.50
30:BG:46:ALA:HB1	30:BG:49:ASP:O	2.11	0.50
31:BH:6:ARG:H	31:BH:8:PRO:HD3	1.77	0.50
31:BH:83:TYR:HB2	31:BH:134:SER:CA	2.34	0.50
31:BH:102:ALA:HA	31:BH:117:PRO:HD3	1.93	0.50
44:BU:41:GLY:O	44:BU:42:VAL:C	2.54	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:B8:34:TRP:CD1	54:B8:34:TRP:O	2.64	0.50
1:CA:185:A:N3	20:CW:81:LYS:NZ	2.60	0.50
1:CA:267:C:OP1	17:CT:67:LYS:HD2	2.11	0.50
1:CA:359:U:H2'	1:CA:360:A:C8	2.47	0.50
1:CA:421:U:H3'	1:CA:421:U:O2	2.11	0.50
1:CA:438:G:H4'	4:CG:123:HIS:ND1	2.25	0.50
1:CA:838:G:H2'	1:CA:841:U:H5"	1.92	0.50
1:CA:945:G:C2	1:CA:946:A:C8	2.99	0.50
1:CA:980:C:H3'	1:CA:981:U:C6	2.46	0.50
1:CA:1338:G:C6	1:CA:1339:A:N1	2.80	0.50
1:CA:1452:C:H5'	1:CA:1454:G:H1'	1.92	0.50
7:CJ:68:ASN:ND2	7:CJ:128:ALA:O	2.45	0.50
10:CM:32:ALA:CB	10:CM:81:THR:HG21	2.41	0.50
13:CP:84:ILE:HG23	19:CV:74:PHE:CZ	2.47	0.50
15:CR:39:LEU:CD1	15:CR:56:LEU:HB2	2.40	0.50
18:CU:36:ASN:ND2	18:CU:39:VAL:HG21	2.25	0.50
19:CV:18:LYS:HD2	19:CV:21:GLU:OE1	2.12	0.50
25:DA:8:A:H2'	25:DA:9:U:H6	1.75	0.50
25:DA:582:G:H2'	25:DA:583:G:C8	2.46	0.50
25:DA:633:A:H2'	25:DA:634:C:H5'	1.93	0.50
25:DA:1820:U:H4'	25:DA:1821:A:OP2	2.11	0.50
25:DA:2016:U:O2	51:D5:7:PRO:HG2	2.11	0.50
25:DA:2108:C:N3	25:DA:2181:G:N2	2.50	0.50
25:DA:2190:G:H2'	25:DA:2191:G:H5"	1.93	0.50
25:DA:2637:U:H2'	25:DA:2638:G:O4'	2.12	0.50
28:DE:55:ASN:O	28:DE:57:LYS:N	2.38	0.50
28:DE:151:TYR:HB3	33:DM:79:PRO:HG3	1.93	0.50
29:DF:28:ILE:O	29:DF:28:ILE:HG13	2.12	0.50
29:DF:34:TRP:HB2	35:DO:6:LEU:HD12	1.93	0.50
39:DR:106:SER:HA	39:DR:110:ILE:HD11	1.93	0.50
41:D2:12:TYR:CE2	41:D2:22:VAL:HG23	2.43	0.50
1:AA:353:A:C2'	1:AA:354:G:OP2	2.59	0.50
1:AA:1065:U:C1'	1:AA:1066:C:OP2	2.59	0.50
1:AA:1169:A:N6	1:AA:1170:A:N1	2.59	0.50
1:AA:1224:G:N1	1:AA:1322:C:H1'	2.25	0.50
1:AA:1322:C:OP1	1:AA:1322:C:H6	1.95	0.50
2:AE:71:VAL:HG23	2:AE:164:VAL:HA	1.94	0.50
6:AI:61:LEU:HD23	6:AI:63:TYR:OH	2.12	0.50
8:AK:86:ILE:HG22	8:AK:87:SER:N	2.26	0.50
9:AL:18:PHE:HD1	9:AL:62:TYR:CD2	2.24	0.50
11:AN:59:TYR:O	11:AN:62:GLN:HB3	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AV:41:VAL:O	50:B4:63:TYR:OH	2.30	0.50
22:AB:83:C:H2'	22:AB:84:C:C5'	2.41	0.50
25:BA:271(B):G:H4'	25:BA:271(C):U:C5'	2.41	0.50
25:BA:654(P):G:H2'	25:BA:654(Q):C:C6	2.46	0.50
25:BA:657:U:H2'	25:BA:658:C:C6	2.47	0.50
25:BA:1028:A:N6	25:BA:1125:G:H2'	2.26	0.50
25:BA:1265:A:OP1	25:BA:1265:A:H8	1.94	0.50
25:BA:1309:G:P	53:B7:9:ARG:HD3	2.51	0.50
25:BA:1657:C:H2'	25:BA:1658:C:C6	2.46	0.50
25:BA:1797:C:C2'	25:BA:1798:U:H5'	2.41	0.50
25:BA:2467:C:H4'	36:BP:123:HIS:CE1	2.45	0.50
27:BD:30:GLU:CD	27:BD:63:ARG:HH21	2.18	0.50
27:BD:33:LEU:HD22	27:BD:33:LEU:C	2.36	0.50
28:BE:167:VAL:CG1	28:BE:189:PRO:HD3	2.42	0.50
30:BG:49:ASP:OD2	30:BG:52:ILE:HG13	2.11	0.50
37:B0:24:GLN:HE22	37:B0:36:THR:CG2	2.25	0.50
45:BV:102:LEU:HD12	45:BV:121:HIS:O	2.11	0.50
50:B4:42:PHE:O	50:B4:44:THR:O	2.30	0.50
1:CA:195:A:C6	1:CA:196:A:N1	2.80	0.50
1:CA:954:G:H2'	1:CA:955:U:C6	2.47	0.50
1:CA:1058:G:C5	1:CA:1059:C:C4	2.99	0.50
1:CA:1277:C:O2'	1:CA:1279:A:C8	2.64	0.50
2:CE:189:ASP:HB3	2:CE:203:GLY:O	2.10	0.50
15:CR:17:ARG:NH1	15:CR:17:ARG:CG	2.74	0.50
20:CW:72:LEU:HD21	20:CW:77:ALA:N	2.26	0.50
22:CB:53:A:C2'	22:CB:54:C:H5'	2.41	0.50
22:CB:81:C:H3'	22:CB:82:A:H2	1.77	0.50
25:DA:128:C:O2'	25:DA:129:C:P	2.70	0.50
25:DA:681:G:H2'	25:DA:682:G:O4'	2.12	0.50
25:DA:986:C:C2'	25:DA:987:G:H5'	2.42	0.50
25:DA:1116:C:H2'	25:DA:1117:G:C8	2.46	0.50
25:DA:2014:A:HO2'	51:D5:2:ALA:N	2.09	0.50
25:DA:2195:C:O2'	25:DA:2196:C:H5'	2.12	0.50
25:DA:2233:U:H2'	25:DA:2234:G:C8	2.46	0.50
25:DA:2600:A:H2'	25:DA:2601:C:C6	2.47	0.50
26:DB:40:U:H2'	26:DB:41:U:OP1	2.11	0.50
26:DB:52:A:O2'	26:DB:53:A:C8	2.58	0.50
28:DE:48:GLN:CD	28:DE:78:LEU:HD12	2.37	0.50
29:DF:79:GLY:HA2	29:DF:86:GLY:HA2	1.94	0.50
33:DM:16:ILE:HB	33:DM:54:VAL:HG22	1.92	0.50
35:DO:2:LYS:HE3	35:DO:4:SER:HB2	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:103:MET:O	36:DP:104:PHE:HB2	2.12	0.50
39:DR:16:ARG:NH2	39:DR:19:LEU:HD11	2.26	0.50
1:AA:857:C:H2'	1:AA:858:G:O4'	2.12	0.50
1:AA:1160:G:N1	1:AA:1177:G:C2	2.79	0.50
2:AE:94:ASN:HD22	2:AE:94:ASN:N	2.10	0.50
2:AE:235:SER:OG	2:AE:236:TYR:N	2.45	0.50
9:AL:43:ALA:C	9:AL:45:ALA:N	2.70	0.50
19:AV:41:VAL:HA	19:AV:44:MET:HB2	1.92	0.50
22:AB:13:G:H1'	22:AB:24:G:N1	2.26	0.50
25:BA:481:G:C4	25:BA:507:A:C2	3.00	0.50
25:BA:988:A:N6	49:BX:13:ILE:HG21	2.27	0.50
25:BA:1068:G:O2'	25:BA:1070:A:N7	2.44	0.50
25:BA:1179:C:H2'	25:BA:1180:C:H6	1.77	0.50
25:BA:1210:A:C8	25:BA:1210:A:C5'	2.94	0.50
25:BA:2127:G:H2'	25:BA:2128:C:O4'	2.12	0.50
25:BA:2371:G:H4'	52:B6:45:LYS:HG3	1.94	0.50
25:BA:2611:U:H3'	25:BA:2611:U:P	2.51	0.50
26:BB:42:C:O3'	30:BG:67:LYS:NZ	2.40	0.50
27:BD:131:LEU:HB2	27:BD:136:ILE:HD11	1.93	0.50
29:BF:63:LYS:HE2	29:BF:67:GLN:HB2	1.94	0.50
30:BG:101:ILE:HD13	50:B4:9:LEU:HD21	1.94	0.50
41:B2:52:VAL:HG22	41:B2:52:VAL:O	2.12	0.50
42:BS:73:ALA:HB3	42:BS:106:ILE:HB	1.93	0.50
1:CA:123:C:OP1	1:CA:311:C:O2'	2.29	0.50
1:CA:429:U:H1'	1:CA:430:A:H5"	1.93	0.50
1:CA:639:G:O2'	1:CA:640:A:H5'	2.11	0.50
2:CE:142:LEU:HG	2:CE:146:GLN:HG3	1.93	0.50
12:CO:92:GLY:O	12:CO:93:VAL:C	2.54	0.50
13:CP:49:THR:HB	13:CP:52:GLU:OE1	2.12	0.50
19:CV:41:VAL:C	19:CV:43:GLU:N	2.69	0.50
21:CX:9:ARG:HG3	21:CX:10:ARG:N	2.27	0.50
25:DA:39:C:H2'	25:DA:40:C:C6	2.46	0.50
25:DA:654(J):A:H3'	25:DA:654(J):A:N3	2.27	0.50
25:DA:1652:A:N6	37:D0:11:ASN:HD21	1.84	0.50
25:DA:2169:A:H2	25:DA:2170:A:C8	2.29	0.50
25:DA:2210:G:N3	25:DA:2210:G:H2'	2.27	0.50
25:DA:2238:G:H2'	25:DA:2238:G:N3	2.27	0.50
25:DA:2345:G:N3	25:DA:2381:C:H2'	2.27	0.50
25:DA:2371:G:H4'	52:D6:45:LYS:HG3	1.93	0.50
25:DA:2748:A:C8	25:DA:2754:U:O4	2.65	0.50
27:DD:25:THR:CG2	27:DD:26:LYS:N	2.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DF:53:THR:HB	29:DF:56:GLU:OE2	2.12	0.50
36:DP:25:ASP:OD1	36:DP:25:ASP:O	2.30	0.50
43:DT:25:LYS:HA	43:DT:81:VAL:O	2.11	0.50
50:D4:24:THR:O	50:D4:25:TYR:HB2	2.12	0.50
1:AA:243:A:H5"	1:AA:244:U:H3'	1.94	0.50
1:AA:943:U:H2'	1:AA:944:G:H5'	1.94	0.50
1:AA:1107:C:C4	1:AA:1108:G:C8	3.00	0.50
1:AA:1292:U:H2'	1:AA:1293:G:O4'	2.12	0.50
1:AA:1349:A:P	9:AL:118:LYS:NZ	2.85	0.50
2:AE:54:THR:HG21	2:AE:201:ILE:HD11	1.93	0.50
4:AG:163:GLU:O	4:AG:165:MET:N	2.44	0.50
25:BA:142:G:H1'	43:BT:37:THR:CG2	2.41	0.50
25:BA:297:C:H5"	44:BU:85:VAL:CG2	2.41	0.50
25:BA:901:A:C2'	25:BA:902:C:H5'	2.42	0.50
25:BA:974(A):C:H4'	25:BA:975:G:O5'	2.10	0.50
25:BA:1536:A:H2'	25:BA:1537:C:OP1	2.11	0.50
25:BA:2400:G:O2'	25:BA:2401:U:H5'	2.11	0.50
25:BA:2784:C:H1'	28:BE:37:ARG:NH1	2.27	0.50
25:BA:2789:C:C3'	25:BA:2790:A:H5"	2.42	0.50
26:BB:50:G:OP1	38:BQ:63:THR:HG23	2.12	0.50
26:BB:60:C:C2	26:BB:61:G:C8	3.00	0.50
32:BK:47:LEU:O	32:BK:51:ILE:HG13	2.11	0.50
39:BR:88:ILE:O	39:BR:88:ILE:HG13	2.12	0.50
40:B1:92:ARG:HB2	41:B2:11:GLN:CD	2.36	0.50
47:BZ:21:ARG:HG3	47:BZ:35:THR:HG23	1.92	0.50
1:CA:457:C:H2'	1:CA:458:C:C6	2.46	0.50
1:CA:622:A:C8	1:CA:623:C:C6	2.99	0.50
1:CA:939:G:C6	1:CA:940:C:C4	3.00	0.50
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.47	0.50
2:CE:237:ALA:O	2:CE:238:LEU:CB	2.59	0.50
3:CF:54:ARG:HB3	3:CF:69:HIS:CD2	2.47	0.50
3:CF:77:ILE:HA	3:CF:84:ILE:HB	1.92	0.50
4:CG:16:GLY:O	4:CG:17:VAL:C	2.55	0.50
12:CO:15:VAL:O	12:CO:16:ARG:HB3	2.11	0.50
17:CT:67:LYS:C	17:CT:69:LYS:H	2.19	0.50
19:CV:62:ILE:HD12	19:CV:62:ILE:N	2.26	0.50
25:DA:1607:C:H4'	25:DA:1608:A:C5'	2.41	0.50
25:DA:2315:G:OP1	30:DG:36:LYS:NZ	2.41	0.50
25:DA:2462:U:H1'	25:DA:2491:U:O4	2.11	0.50
25:DA:2610:C:C4'	25:DA:2611:U:OP2	2.54	0.50
25:DA:2702:U:OP1	25:DA:2702:U:O4'	2.29	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:89:G:N2	26:DB:89(A):A:H2	2.09	0.50
29:DF:25:PRO:O	29:DF:26:ALA:HB3	2.12	0.50
29:DF:107:LYS:HD2	29:DF:205:ARG:HG3	1.94	0.50
32:DK:143:SER:OG	32:DK:144:VAL:N	2.45	0.50
35:DO:104:GLY:O	35:DO:105:LEU:HB3	2.11	0.50
36:DP:78:PRO:O	36:DP:79:LEU:O	2.30	0.50
38:DQ:66:ALA:O	38:DQ:69:VAL:HG12	2.10	0.50
41:D2:18:LEU:HD23	41:D2:18:LEU:C	2.36	0.50
42:DS:88:ARG:HB3	42:DS:92:ARG:HB3	1.94	0.50
43:DT:49:VAL:HB	43:DT:83:VAL:HG21	1.94	0.50
45:DV:115:GLY:HA3	45:DV:174:VAL:CG1	2.30	0.50
47:DZ:91:LYS:O	47:DZ:92:LYS:C	2.55	0.50
47:DZ:92:LYS:O	47:DZ:95:LEU:N	2.22	0.50
50:D4:42:PHE:C	50:D4:44:THR:H	2.18	0.50
1:AA:419:C:H42	1:AA:424:G:H1	1.60	0.50
1:AA:528:C:H41	12:AO:46:ASN:HD21	1.60	0.50
1:AA:693:G:H2'	1:AA:694:A:C8	2.47	0.50
1:AA:724:G:O2'	1:AA:725:G:H5'	2.12	0.50
1:AA:1014:A:H4'	19:AV:14:HIS:NE2	2.27	0.50
4:AG:76:ARG:HD2	4:AG:207:TYR:CE2	2.47	0.50
8:AK:64:LYS:C	8:AK:65:TYR:CD1	2.90	0.50
12:AO:42:PRO:HG2	12:AO:48:ALA:H	1.76	0.50
20:AW:26:ASN:ND2	20:AW:26:ASN:N	2.59	0.50
22:AB:21:A:C2	22:AB:56:U:O2	2.65	0.50
23:AC:1:C:O2	23:AC:1:C:C2'	2.59	0.50
22:AD:16:C:H2'	22:AD:18:G:OP2	2.12	0.50
25:BA:196:A:O4'	35:BO:46:LYS:HD2	2.12	0.50
25:BA:491:G:H2'	25:BA:492:A:H8	1.77	0.50
25:BA:593:G:C1'	54:B8:4:MET:HE1	2.37	0.50
25:BA:1109:C:O2'	25:BA:1110:G:C4'	2.59	0.50
25:BA:1478:G:H2'	25:BA:1479:G:C8	2.45	0.50
25:BA:1534:G:C2'	25:BA:1535:U:H4'	2.41	0.50
25:BA:1913:A:H4'	25:BA:1914:C:H5'	1.94	0.50
25:BA:2015:A:H1'	51:B5:2:ALA:HB1	1.81	0.50
25:BA:2795:G:H3'	25:BA:2797:U:H5"	1.91	0.50
25:BA:2886:G:H2'	25:BA:2887:U:H6	1.77	0.50
26:BB:1:U:H2'	26:BB:2:C:C6	2.47	0.50
27:BD:124:PRO:O	27:BD:126:GLN:N	2.45	0.50
30:BG:131:TYR:O	30:BG:159:VAL:HG22	2.12	0.50
32:BK:132:PRO:O	32:BK:133:HIS:CG	2.64	0.50
33:BM:15:LEU:HD13	33:BM:16:ILE:N	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BO:49:ARG:HD2	54:B8:58:ILE:HG21	1.93	0.50
36:BP:106:VAL:HG21	36:BP:114:ALA:HB1	1.93	0.50
39:BR:19:LEU:HD22	39:BR:86:ILE:HG22	1.94	0.50
50:B4:36:CYS:O	50:B4:36:CYS:SG	2.69	0.50
50:B4:36:CYS:O	50:B4:41:PRO:HG2	2.11	0.50
50:B4:39:CYS:CA	50:B4:41:PRO:HD2	2.41	0.50
1:CA:1047:G:H2'	1:CA:1048:G:H5'	1.94	0.50
1:CA:1158:C:N3	1:CA:1160:G:N7	2.60	0.50
1:CA:1446:A:N6	39:DR:118:ARG:NH2	2.59	0.50
2:CE:98:LEU:O	2:CE:101:MET:HG2	2.12	0.50
4:CG:88:VAL:HG13	5:CH:97:GLY:HA3	1.94	0.50
5:CH:76:ILE:HG23	5:CH:77:PRO:HD2	1.94	0.50
6:CI:67:MET:HB2	6:CI:68:PRO:HD2	1.94	0.50
7:CJ:153:HIS:ND1	7:CJ:153:HIS:C	2.69	0.50
9:CL:11:LYS:N	9:CL:104:ARG:HH21	2.02	0.50
12:CO:59:SER:C	12:CO:61:TYR:H	2.18	0.50
17:CT:86:GLU:O	17:CT:90:ILE:HG12	2.12	0.50
20:CW:67:ALA:HA	20:CW:73:HIS:CA	2.42	0.50
22:CB:21:A:C2	22:CB:55:U:C5	3.00	0.50
22:CB:31:G:H2'	22:CB:32:A:C8	2.47	0.50
25:DA:273(E):U:C2'	25:DA:273(F):C:H5'	2.42	0.50
25:DA:491:G:O6	42:DS:49:LYS:HD3	2.12	0.50
25:DA:945:A:C6	25:DA:2448:A:N1	2.79	0.50
25:DA:1006:C:C2	25:DA:1138:G:N2	2.79	0.50
25:DA:2197:U:H1'	25:DA:2198:A:C8	2.47	0.50
25:DA:2295:C:OP2	38:DQ:10:ARG:HG3	2.12	0.50
25:DA:2561:A:C2	34:DN:23:ARG:NH1	2.80	0.50
25:DA:2563:U:O2	25:DA:2565:A:H8	1.94	0.50
25:DA:2718:G:O3'	39:DR:98:LYS:HG3	2.12	0.50
31:DH:83:TYR:O	31:DH:84:SER:OG	2.24	0.50
36:DP:17:LEU:HD21	36:DP:41:TRP:HE1	1.77	0.50
1:AA:80:G:C6	1:AA:89:U:O2	2.64	0.50
1:AA:191:G:C4	20:AW:105:SER:HB2	2.47	0.50
1:AA:532:A:N6	1:AA:1206:G:O2'	2.45	0.50
1:AA:748:C:H1'	1:AA:749:C:OP2	2.12	0.50
1:AA:1160:G:N1	1:AA:1177:G:N2	2.60	0.50
14:AQ:37:PHE:CE1	14:AQ:53:LEU:HD13	2.47	0.50
17:AT:43:LEU:O	17:AT:69:LYS:HG3	2.11	0.50
20:AW:98:PRO:O	20:AW:100:ILE:N	2.43	0.50
25:BA:1092:C:N4	25:BA:1100:C:N3	2.60	0.50
25:BA:1373:A:H2'	25:BA:1374:G:O4'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1509:C:H2'	25:BA:1510:A:OP1	2.12	0.50
25:BA:2370:G:H21	52:B6:45:LYS:NZ	2.10	0.50
27:BD:270:ILE:HG22	27:BD:271:ILE:N	2.26	0.50
29:BF:27:GLU:HG2	29:BF:28:ILE:N	2.27	0.50
30:BG:74:LYS:O	30:BG:84:LYS:HG3	2.11	0.50
31:BH:92:ILE:HD12	31:BH:92:ILE:N	2.27	0.50
31:BH:151:ILE:O	31:BH:153:LYS:HD3	2.11	0.50
35:BO:122:PRO:HA	35:BO:142:GLY:CA	2.42	0.50
39:BR:102:ILE:HB	39:BR:110:ILE:HD13	1.93	0.50
45:BV:110:GLY:CA	45:BV:145:GLU:HG2	2.42	0.50
46:B3:23:VAL:HA	46:B3:38:VAL:HG22	1.94	0.50
51:B5:40:LYS:HZ3	51:B5:46:CYS:C	2.19	0.50
53:B7:43:THR:HG23	53:B7:44:PRO:HD2	1.94	0.50
1:CA:523:A:H61	12:CO:89:ASP:HB2	1.77	0.50
1:CA:836:G:C6	1:CA:851:G:C6	3.00	0.50
1:CA:1453:G:O2'	1:CA:1454:G:P	2.69	0.50
2:CE:80:ILE:HD13	2:CE:212:GLN:HG2	1.93	0.50
4:CG:14:ARG:HG3	4:CG:14:ARG:NH1	2.26	0.50
5:CH:126:ARG:HA	5:CH:131:ILE:HD11	1.93	0.50
6:CI:33:TYR:CE1	6:CI:78:GLU:HG3	2.47	0.50
7:CJ:4:ARG:HG3	7:CJ:5:ARG:H	1.75	0.50
7:CJ:53:LYS:NZ	7:CJ:53:LYS:HB3	2.27	0.50
22:CB:21:A:C2	22:CB:56:U:C2	3.00	0.50
25:DA:9:U:H3	25:DA:2629:A:N6	1.96	0.50
25:DA:51:G:N3	25:DA:119:A:C2	2.80	0.50
25:DA:868:U:N3	25:DA:869:G:N7	2.59	0.50
25:DA:874:G:N2	25:DA:904:C:C2	2.80	0.50
25:DA:1090:U:O4	25:DA:1101:U:C2	2.63	0.50
25:DA:2131:G:O4'	25:DA:2158:A:N1	2.45	0.50
26:DB:75:G:N2	45:DV:73:GLN:OE1	2.36	0.50
39:DR:121:ILE:O	39:DR:125:ARG:HG2	2.10	0.50
40:D1:47:TYR:HA	40:D1:50:ARG:NH2	2.26	0.50
40:D1:50:ARG:NH1	41:D2:72:VAL:HA	2.24	0.50
41:D2:28:GLU:O	41:D2:61:VAL:HG11	2.12	0.50
1:AA:654:G:C2'	1:AA:655:A:H5'	2.42	0.49
1:AA:1059:C:O3'	14:AQ:45:ARG:NH2	2.45	0.49
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.12	0.49
3:AF:84:ILE:O	3:AF:88:ARG:HG3	2.12	0.49
4:AG:19:LEU:CD2	4:AG:19:LEU:H	2.25	0.49
6:AI:38:GLU:OE1	6:AI:64:GLN:NE2	2.44	0.49
10:AM:30:SER:HB2	10:AM:80:LYS:HG3	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AO:45:PRO:O	12:AO:46:ASN:CB	2.60	0.49
12:AO:119:THR:HG22	12:AO:120:LYS:O	2.12	0.49
18:AU:32:ARG:HH11	18:AU:65:ILE:HD13	1.76	0.49
25:BA:347:A:H2'	25:BA:348:G:C8	2.47	0.49
25:BA:907:U:H4'	36:BP:101:ARG:HH22	1.76	0.49
25:BA:1218:C:H42	25:BA:1231:G:H1	1.59	0.49
25:BA:1348:G:C2'	25:BA:1349:A:H5"	2.40	0.49
25:BA:2127:G:O2'	25:BA:2173:A:N1	2.36	0.49
25:BA:2481:G:H2'	25:BA:2482:G:OP2	2.12	0.49
25:BA:2505:G:O6	25:BA:2576:G:H2'	2.12	0.49
26:BB:43:C:OP1	30:BG:67:LYS:NZ	2.45	0.49
27:BD:206:LEU:HD22	27:BD:211:ARG:HG2	1.93	0.49
29:BF:176:LEU:HD21	29:BF:180:GLY:O	2.12	0.49
33:BM:133:GLN:CG	33:BM:135:PRO:HD3	2.41	0.49
48:BW:42:GLY:C	48:BW:44:LEU:N	2.69	0.49
50:B4:43:TYR:O	50:B4:44:THR:O	2.30	0.49
52:B6:33:LYS:HB2	52:B6:33:LYS:NZ	2.27	0.49
1:CA:577:G:C8	1:CA:816:A:C6	3.00	0.49
3:CF:14:ILE:O	3:CF:15:THR:C	2.54	0.49
4:CG:19:LEU:HD12	4:CG:19:LEU:N	2.27	0.49
4:CG:79:PHE:HE1	4:CG:204:ILE:HD13	1.77	0.49
4:CG:108:LEU:HB3	4:CG:110:PHE:CD1	2.47	0.49
7:CJ:81:GLY:C	7:CJ:83:ALA:H	2.20	0.49
8:CK:86:ILE:HB	8:CK:133:LEU:O	2.12	0.49
12:CO:44:LYS:HG3	12:CO:45:PRO:HD3	1.94	0.49
25:DA:813:U:H2'	25:DA:814:C:C6	2.47	0.49
25:DA:858:U:O2	25:DA:2268:A:H2'	2.11	0.49
25:DA:1030:G:OP2	36:DP:128:LYS:HG2	2.11	0.49
25:DA:1050:A:H2'	25:DA:1051:G:O4'	2.12	0.49
25:DA:1324:G:C2	25:DA:1331:A:C2	3.00	0.49
25:DA:1329:U:H5"	25:DA:1330:C:H5	1.77	0.49
25:DA:1357:U:H2'	25:DA:1358:G:O4'	2.12	0.49
25:DA:1482:U:H5'	25:DA:1483:G:OP2	2.12	0.49
25:DA:1495:A:O2'	25:DA:1496:A:H5'	2.12	0.49
25:DA:2149:G:C6	25:DA:2150:U:C2	3.00	0.49
28:DE:8:LYS:O	28:DE:9:VAL:CG2	2.57	0.49
28:DE:77:ILE:O	28:DE:78:LEU:O	2.30	0.49
35:DO:70:GLN:O	35:DO:72:PRO:HD2	2.11	0.49
37:D0:52:ILE:HD13	37:D0:79:LEU:HD21	1.93	0.49
43:DT:41:ASN:N	43:DT:41:ASN:HD22	2.09	0.49
45:DV:173:ALA:O	45:DV:174:VAL:HG23	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:22:G:H4'	1:AA:885:G:C8	2.47	0.49
1:AA:171:A:H2'	1:AA:172:A:H8	1.77	0.49
1:AA:1004:A:H2'	1:AA:1005:A:C4'	2.42	0.49
3:AF:11:ARG:O	3:AF:14:ILE:N	2.45	0.49
3:AF:11:ARG:O	3:AF:12:LEU:C	2.54	0.49
4:AG:98:GLU:HG2	4:AG:189:PRO:HG2	1.94	0.49
7:AJ:115:ARG:O	7:AJ:118:VAL:HG12	2.12	0.49
10:AM:5:ARG:HG3	10:AM:71:LEU:HD11	1.93	0.49
20:AW:49:ALA:HB1	20:AW:99:LEU:HB2	1.93	0.49
25:BA:271(C):U:H2'	25:BA:271:G:OP1	2.12	0.49
25:BA:1087:G:C6	25:BA:1089:G:O2'	2.62	0.49
25:BA:1385:G:O2'	25:BA:1396:U:C6	2.62	0.49
25:BA:2053:G:OP1	28:BE:144:ARG:HD3	2.13	0.49
27:BD:85:ASP:HB2	27:BD:92:ILE:HD13	1.94	0.49
31:BH:153:LYS:CG	31:BH:162:ILE:H	2.25	0.49
35:BO:64:LYS:CB	54:B8:25:MET:HG3	2.40	0.49
36:BP:43:THR:O	36:BP:46:GLN:HB2	2.13	0.49
37:B0:79:LEU:HD23	37:B0:83:ILE:HB	1.94	0.49
51:B5:54:GLY:O	51:B5:56:LYS:N	2.44	0.49
54:B8:29:LYS:CG	54:B8:44:LYS:HG2	2.42	0.49
1:CA:84:U:O2	1:CA:84:U:C2'	2.59	0.49
1:CA:1401:G:C2	1:CA:1402:C:H1'	2.46	0.49
1:CA:1451:A:H5"	1:CA:1452:C:C6	2.47	0.49
2:CE:36:ARG:H	2:CE:41:ILE:HD13	1.77	0.49
4:CG:108:LEU:HG	4:CG:176:LEU:HD13	1.94	0.49
13:CP:54:VAL:O	13:CP:57:ARG:HB3	2.12	0.49
25:DA:811:U:O2'	35:DO:21:ARG:HG3	2.13	0.49
25:DA:1477:A:H2'	25:DA:1478:G:O4'	2.11	0.49
25:DA:2130:U:H2'	25:DA:2158:A:N1	2.26	0.49
25:DA:2335:A:C8	25:DA:2337:G:N7	2.80	0.49
25:DA:2681:C:C5	25:DA:2727:G:C2	3.00	0.49
26:DB:22:U:H3	26:DB:61:G:H1	1.60	0.49
28:DE:27:LEU:HG	39:DR:1:MET:HE1	1.95	0.49
30:DG:63:ILE:O	30:DG:63:ILE:HG13	2.11	0.49
31:DH:58:GLU:O	31:DH:60:ARG:N	2.45	0.49
32:DK:100:ALA:O	32:DK:102:SER:N	2.36	0.49
36:DP:3:MET:O	36:DP:4:PRO:O	2.30	0.49
38:DQ:26:LEU:HB3	38:DQ:87:PHE:HA	1.94	0.49
49:DX:46:ASN:O	49:DX:49:LYS:N	2.45	0.49
1:AA:57:G:C5	1:AA:58:C:C4	3.00	0.49
1:AA:1250:A:N3	1:AA:1370:G:O2'	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AE:44:LEU:O	2:AE:47:THR:HB	2.11	0.49
2:AE:146:GLN:OE1	2:AE:153:ARG:NH2	2.45	0.49
5:AH:127:ASN:OD1	5:AH:128:PRO:HD2	2.12	0.49
6:AI:2:ARG:HD2	6:AI:69:GLU:HB3	1.93	0.49
13:AP:16:ASP:N	13:AP:16:ASP:OD2	2.45	0.49
22:AB:3:U:O2'	22:AB:4:G:H5"	2.13	0.49
25:BA:672:C:O2'	25:BA:673:C:H5'	2.12	0.49
25:BA:2771:C:H2'	25:BA:2772:C:H6	1.76	0.49
25:BA:2863:C:O2'	25:BA:2864:G:H5'	2.12	0.49
28:BE:92:THR:O	28:BE:95:ILE:HG12	2.12	0.49
40:B1:102:GLU:HG3	41:B2:2:PHE:CZ	2.47	0.49
41:B2:35:LEU:HB2	41:B2:37:VAL:HG22	1.94	0.49
44:BU:95:LYS:O	44:BU:95:LYS:HG3	2.11	0.49
1:CA:559:A:H4'	1:CA:560:U:C3'	2.35	0.49
1:CA:873:A:H4'	1:CA:874:G:OP2	2.12	0.49
1:CA:901:A:H8	1:CA:901:A:O5'	1.96	0.49
1:CA:940:C:H2'	1:CA:941:G:H8	1.77	0.49
1:CA:973:G:OP1	10:CM:57:LYS:NZ	2.39	0.49
1:CA:1053:G:C4'	1:CA:1054:C:H5'	2.36	0.49
2:CE:128:GLU:CD	2:CE:129:GLU:H	2.19	0.49
4:CG:121:VAL:O	4:CG:134:ASP:HA	2.11	0.49
5:CH:18:ARG:HH21	5:CH:25:ARG:HB3	1.77	0.49
9:CL:70:LYS:O	9:CL:74:ILE:HG13	2.12	0.49
15:CR:72:ARG:HD2	15:CR:73:GLU:OE2	2.12	0.49
25:DA:68:G:H2'	25:DA:69:C:C6	2.47	0.49
25:DA:1141:U:H1'	25:DA:1142(A):A:C6	2.48	0.49
25:DA:2443:C:O2'	25:DA:2444:G:H5'	2.12	0.49
25:DA:2688:U:H5	25:DA:2720:U:OP2	1.95	0.49
25:DA:2720:U:O4	25:DA:2721:A:C6	2.65	0.49
25:DA:2880:C:O2	37:D0:93:GLY:N	2.45	0.49
26:DB:24:G:N2	26:DB:28:C:O2	2.45	0.49
27:DD:26:LYS:HD2	27:DD:26:LYS:H	1.77	0.49
28:DE:36:ARG:HH21	28:DE:88:GLY:CA	2.25	0.49
30:DG:83:ARG:O	30:DG:84:LYS:C	2.56	0.49
33:DM:72:TYR:CE1	33:DM:101:HIS:HD2	2.29	0.49
35:DO:71:VAL:CB	35:DO:72:PRO:CD	2.75	0.49
39:DR:16:ARG:NE	39:DR:19:LEU:HD11	2.26	0.49
40:D1:95:LEU:C	40:D1:97:ASP:N	2.71	0.49
44:DU:61:ILE:HG22	44:DU:62:GLU:N	2.23	0.49
47:DZ:62:VAL:HG12	47:DZ:63:ALA:O	2.11	0.49
47:DZ:83:GLU:OE2	47:DZ:83:GLU:N	2.44	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:D4:34:GLU:HG2	50:D4:35:VAL:N	2.27	0.49
1:AA:55:A:C6	32:DK:89:TYR:CD1	3.00	0.49
1:AA:756:C:H2'	1:AA:757:U:O4'	2.12	0.49
1:AA:819:A:H4'	1:AA:820:U:OP2	2.11	0.49
1:AA:925:G:H1'	1:AA:1502:A:C4	2.47	0.49
1:AA:1151:A:O2'	1:AA:1152:A:O5'	2.25	0.49
1:AA:1305:G:N2	1:AA:1331:G:H2'	2.16	0.49
1:AA:1335:C:C5'	1:AA:1336:C:OP1	2.60	0.49
1:AA:1442:G:C6	1:AA:1446:A:N6	2.81	0.49
1:AA:1443:G:O2'	39:BR:122:ASP:OD2	2.27	0.49
2:AE:8:LYS:NZ	2:AE:11:LEU:HD22	2.28	0.49
2:AE:96:ARG:HE	2:AE:96:ARG:N	2.10	0.49
8:AK:14:ARG:NH2	8:AK:83:ILE:O	2.42	0.49
25:BA:459:U:H5"	53:B7:40:TRP:CD2	2.47	0.49
25:BA:545:G:H3'	25:BA:546:C:C5'	2.42	0.49
25:BA:883:G:H2'	25:BA:884:C:C4'	2.43	0.49
25:BA:2314:C:H2'	25:BA:2315:G:C8	2.45	0.49
27:BD:221:VAL:HG22	27:BD:226:MET:CE	2.38	0.49
31:BH:95:ARG:HH11	31:BH:95:ARG:HB3	1.77	0.49
31:BH:136:ILE:HD12	31:BH:136:ILE:H	1.78	0.49
35:BO:86:LYS:HD2	35:BO:117:GLU:HG3	1.94	0.49
54:B8:32:LEU:C	54:B8:36:LYS:CE	2.84	0.49
1:CA:67:C:H2'	1:CA:68:G:C8	2.46	0.49
1:CA:685:G:C2	1:CA:686:U:C4	3.00	0.49
1:CA:735:C:H2'	1:CA:736:C:C6	2.47	0.49
1:CA:1096:C:H2'	1:CA:1097:C:C6	2.45	0.49
1:CA:1125:U:OP2	1:CA:1125:U:C4'	2.60	0.49
1:CA:1128:C:O2'	1:CA:1130:A:C8	2.64	0.49
1:CA:1288:A:N1	1:CA:1371:G:H1'	2.27	0.49
1:CA:1366:C:OP1	9:CL:117:HIS:CE1	2.63	0.49
3:CF:148:GLY:O	3:CF:203:PHE:N	2.34	0.49
4:CG:13:ARG:NH1	4:CG:38:TYR:O	2.43	0.49
13:CP:7:VAL:HG21	30:DG:115:ARG:HB3	1.93	0.49
22:CB:30:A:H2'	22:CB:31:G:C8	2.46	0.49
22:CD:62:G:H2'	22:CD:63:U:C6	2.47	0.49
25:DA:69:C:O2	25:DA:73:A:O2'	2.25	0.49
25:DA:99:U:H4'	25:DA:102:G:H1'	1.93	0.49
25:DA:389:G:H1	35:DO:71:VAL:HG13	1.76	0.49
25:DA:1514:U:O2'	25:DA:1515:C:H5'	2.12	0.49
25:DA:2185:C:H2'	25:DA:2186:G:C8	2.47	0.49
25:DA:2531:A:C5'	31:DH:157:TYR:HE2	2.25	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2801:A:OP1	25:DA:2895:U:O2'	2.24	0.49
26:DB:14:U:O2'	26:DB:107:U:H4'	2.12	0.49
29:DF:68:LYS:HB3	29:DF:69:HIS:CD2	2.47	0.49
36:DP:7:MET:HB3	36:DP:10:ARG:NH2	2.27	0.49
36:DP:135:ASP:O	36:DP:136:ALA:C	2.56	0.49
38:DQ:84:GLN:CA	38:DQ:110:LEU:H	2.25	0.49
39:DR:105:LEU:O	39:DR:106:SER:C	2.55	0.49
41:D2:38:LEU:HD23	41:D2:40:LEU:O	2.11	0.49
2:AE:132:LYS:HA	2:AE:135:GLN:OE1	2.11	0.49
3:AF:83:ARG:O	3:AF:85:ARG:N	2.45	0.49
4:AG:76:ARG:NH2	4:AG:80:GLU:OE1	2.37	0.49
7:AJ:65:ALA:O	7:AJ:69:VAL:HG23	2.13	0.49
11:AN:52:GLY:H	11:AN:55:LYS:HE3	1.76	0.49
19:AV:65:ASN:HD22	19:AV:65:ASN:N	2.09	0.49
20:AW:11:SER:C	20:AW:13:LEU:H	2.19	0.49
25:BA:336:C:H5"	44:BU:6:HIS:HD2	1.76	0.49
25:BA:886:C:H1'	25:BA:890:A:C6	2.47	0.49
25:BA:978:G:C2	25:BA:986:C:C2	3.01	0.49
25:BA:1528:A:H2'	25:BA:1529:A:O4'	2.13	0.49
25:BA:2139:C:N4	25:BA:2140:C:N3	2.60	0.49
25:BA:2420:C:OP1	54:B8:33:ASN:O	2.31	0.49
28:BE:24:THR:OG1	28:BE:186:GLY:HA2	2.13	0.49
33:BM:73:THR:HB	33:BM:82:LEU:HD11	1.94	0.49
35:BO:6:LEU:O	35:BO:7:ARG:HG2	2.12	0.49
35:BO:26:GLY:C	35:BO:28:GLY:N	2.67	0.49
35:BO:114:ILE:HD12	35:BO:134:ALA:HB1	1.95	0.49
36:BP:25:ASP:O	36:BP:25:ASP:OD1	2.30	0.49
38:BQ:4:LEU:HD22	38:BQ:9:ARG:HG3	1.93	0.49
38:BQ:27:SER:HA	38:BQ:88:ASP:CB	2.42	0.49
45:BV:111:VAL:O	45:BV:111:VAL:HG23	2.11	0.49
49:BX:7:LYS:HG3	49:BX:34:GLU:HG3	1.94	0.49
50:B4:22:ILE:O	50:B4:23:GLU:C	2.55	0.49
1:CA:45:U:H2'	1:CA:46:G:C8	2.47	0.49
1:CA:186(E):C:C2	1:CA:191(C):G:N2	2.80	0.49
1:CA:468:A:H2'	1:CA:474:G:H5'	1.95	0.49
1:CA:619:U:N3	4:CG:134:ASP:OD2	2.38	0.49
1:CA:663:A:H5'	1:CA:836:G:OP1	2.12	0.49
1:CA:1181:G:O2'	1:CA:1184:G:H5'	2.13	0.49
1:CA:1229:A:H2'	1:CA:1230:C:C6	2.46	0.49
5:CH:10:MET:HB2	5:CH:32:VAL:HG22	1.93	0.49
7:CJ:80:VAL:O	7:CJ:80:VAL:HG13	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CK:29:SER:HB3	8:CK:32:LYS:CG	2.42	0.49
13:CP:64:TRP:N	13:CP:64:TRP:CD1	2.78	0.49
14:CQ:24:CYS:HB2	14:CQ:39:LEU:HA	1.93	0.49
14:CQ:44:LEU:HD12	14:CQ:44:LEU:O	2.13	0.49
22:CB:13:G:N2	22:CB:23:A:C2	2.80	0.49
22:CB:51:C:C5	22:CB:52:G:N3	2.80	0.49
22:CD:47:U:H2'	22:CD:48:C:H6	1.71	0.49
22:CD:51:C:C6	22:CD:52:G:H1'	2.48	0.49
25:DA:690:G:O2'	27:DD:43:ARG:NH2	2.39	0.49
25:DA:780:G:N2	25:DA:783:A:H62	2.09	0.49
25:DA:933:A:C5	25:DA:934:G:C8	3.00	0.49
25:DA:1428:C:N4	25:DA:1570:A:OP2	2.37	0.49
25:DA:1753:G:N1	25:DA:1756:G:C2	2.80	0.49
25:DA:1914:C:O4'	25:DA:1914:C:O2	2.30	0.49
25:DA:2094:G:P	32:DK:22:LYS:HD2	2.52	0.49
25:DA:2135:A:O2'	25:DA:2136:C:OP1	2.25	0.49
25:DA:2267:A:H5"	25:DA:2268:A:H5'	1.94	0.49
25:DA:2346:A:H8	52:D6:24:GLU:HG2	1.76	0.49
25:DA:2726:U:O2'	25:DA:2727:G:H8	1.95	0.49
25:DA:2808:U:H5'	25:DA:2891:G:O6	2.12	0.49
27:DD:75:ILE:HD12	27:DD:75:ILE:N	2.26	0.49
28:DE:67:PHE:C	28:DE:67:PHE:CD1	2.88	0.49
31:DH:91:GLY:O	31:DH:92:ILE:C	2.54	0.49
32:DK:57:ARG:HA	32:DK:60:GLU:HG2	1.94	0.49
33:DM:68:GLU:HB3	33:DM:88:GLU:CD	2.38	0.49
34:DN:43:VAL:HG21	34:DN:52:VAL:CG1	2.42	0.49
52:D6:10:LEU:O	52:D6:11:LEU:HD12	2.12	0.49
2:AE:22:LYS:O	2:AE:24:TRP:N	2.39	0.49
8:AK:83:ILE:HG13	8:AK:137:VAL:HG22	1.93	0.49
12:AO:90:LEU:O	12:AO:93:VAL:HG13	2.13	0.49
13:AP:30:ALA:C	13:AP:32:GLU:H	2.20	0.49
19:AV:67:VAL:CG1	50:B4:59:PHE:HB2	2.42	0.49
22:AD:8:U:H1'	22:AD:57:C:O2	2.13	0.49
25:BA:582:G:H2'	25:BA:583:G:C8	2.47	0.49
25:BA:619:G:H5"	25:BA:620:G:OP2	2.13	0.49
25:BA:883:G:C6	25:BA:884:C:O2	2.65	0.49
25:BA:1403:C:H5"	25:BA:1471:A:H1'	1.95	0.49
25:BA:2314:C:H5"	30:BG:38:VAL:HG21	1.94	0.49
25:BA:2469:A:H5'	25:BA:2469:A:C2	2.45	0.49
25:BA:2648:C:H2'	25:BA:2649:U:C6	2.48	0.49
30:BG:44:GLY:C	30:BG:46:ALA:H	2.20	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BR:37:GLY:O	39:BR:38:ASN:HB2	2.11	0.49
40:B1:66:ASN:O	40:B1:70:ARG:HG2	2.13	0.49
46:B3:41:ARG:O	46:B3:57:PHE:HD2	1.95	0.49
1:CA:858:G:O6	1:CA:869:G:H3'	2.13	0.49
1:CA:1316:G:H22	1:CA:1319:A:P	2.35	0.49
2:CE:18:GLY:O	2:CE:19:HIS:ND1	2.31	0.49
2:CE:32:ILE:HD11	2:CE:40:HIS:CG	2.47	0.49
3:CF:45:LYS:HG3	3:CF:46:GLU:H	1.76	0.49
20:CW:10:LEU:CD1	20:CW:12:ALA:H	2.20	0.49
20:CW:65:LYS:HA	20:CW:68:LYS:HD3	1.94	0.49
22:CB:59:A:H61	22:CB:73:U:H3	1.59	0.49
25:DA:329:G:O6	44:DU:19:LYS:CB	2.58	0.49
25:DA:975:G:H1'	25:DA:990:A:C2	2.47	0.49
25:DA:1041:C:O2'	25:DA:1042:G:H5'	2.11	0.49
25:DA:1817:G:OP1	27:DD:88:ARG:NH2	2.43	0.49
25:DA:2646:C:H2'	25:DA:2647:U:O4'	2.12	0.49
31:DH:16:SER:HB3	31:DH:27:LYS:O	2.13	0.49
35:DO:50:ARG:HH21	54:D8:7:HIS:HD2	1.58	0.49
35:DO:69:GLY:HA2	35:DO:70:GLN:OE1	2.13	0.49
44:DU:30:VAL:O	44:DU:36:ALA:O	2.31	0.49
1:AA:448:A:C4	1:AA:487:A:C2	3.00	0.49
1:AA:940:C:H2'	1:AA:941:G:H8	1.77	0.49
1:AA:1090:U:O2'	1:AA:1091:U:H5'	2.13	0.49
1:AA:1211:U:H4'	1:AA:1212:U:O5'	2.12	0.49
2:AE:17:PHE:N	2:AE:17:PHE:HD2	2.11	0.49
10:AM:92:THR:HG23	10:AM:93:GLY:H	1.78	0.49
15:AR:87:ILE:CG2	15:AR:88:ARG:H	2.05	0.49
25:BA:34:C:O2'	25:BA:35:G:OP2	2.27	0.49
25:BA:996:A:H4'	40:B1:92:ARG:NE	2.28	0.49
25:BA:1108:U:O4	25:BA:1109:C:N4	2.46	0.49
25:BA:2275:C:H5'	25:BA:2275:C:H6	1.77	0.49
27:BD:35:LYS:CB	27:BD:63:ARG:HA	2.43	0.49
28:BE:14:ILE:O	28:BE:15:PHE:HB2	2.12	0.49
32:BK:27:ARG:HD2	47:BZ:71:TYR:CZ	2.48	0.49
33:BM:7:LYS:H	33:BM:7:LYS:CE	2.25	0.49
33:BM:57:ALA:O	33:BM:58:ASP:HB3	2.11	0.49
40:B1:17:ILE:HD12	40:B1:32:PHE:HE1	1.78	0.49
40:B1:107:ALA:O	40:B1:110:VAL:HB	2.13	0.49
41:B2:64:HIS:ND1	41:B2:64:HIS:N	2.61	0.49
50:B4:39:CYS:O	50:B4:41:PRO:HD3	2.12	0.49
1:CA:690:G:H2'	1:CA:691:G:O4'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1118:C:OP1	9:CL:104:ARG:NH1	2.46	0.49
1:CA:1124:G:H2'	1:CA:1145:C:H2'	1.95	0.49
1:CA:1353:G:N2	1:CA:1370:G:N3	2.61	0.49
2:CE:24:TRP:CD1	2:CE:24:TRP:H	2.31	0.49
4:CG:190:ASP:OD1	4:CG:192:GLU:HG3	2.13	0.49
9:CL:118:LYS:HB3	9:CL:121:ARG:HB3	1.94	0.49
15:CR:8:LYS:O	15:CR:12:ILE:HG13	2.13	0.49
16:CS:49:LEU:HD12	16:CS:50:LYS:H	1.78	0.49
20:CW:26:ASN:HB2	20:CW:71:THR:HG23	1.93	0.49
23:CC:19:G:N2	23:CC:58:A:H2'	2.28	0.49
25:DA:580:C:H2'	25:DA:581:C:H6	1.76	0.49
25:DA:828:U:C5	25:DA:829:A:N6	2.81	0.49
25:DA:1144:G:C6	25:DA:1145:C:C4	3.01	0.49
25:DA:1278:A:O2'	37:D0:34:ILE:HD11	2.13	0.49
25:DA:2516:G:C6	25:DA:2517:C:N4	2.81	0.49
25:DA:2645:G:C3'	25:DA:2646:C:H5'	2.41	0.49
25:DA:2852:G:H2'	25:DA:2853:C:C6	2.48	0.49
26:DB:52:A:H62	38:DQ:33:LYS:CG	2.25	0.49
26:DB:86:G:H1	26:DB:90:C:N4	2.09	0.49
28:DE:37:ARG:HA	28:DE:41:LYS:HE3	1.94	0.49
28:DE:101:ARG:O	28:DE:201:THR:OG1	2.29	0.49
30:DG:60:LEU:HD21	30:DG:92:VAL:HG11	1.95	0.49
34:DN:10:VAL:HG21	34:DN:16:ALA:O	2.13	0.49
35:DO:23:PRO:HB3	41:D2:80:GLN:CG	2.42	0.49
35:DO:50:ARG:O	35:DO:51:PHE:O	2.30	0.49
40:D1:58:ARG:O	40:D1:62:ILE:HD13	2.13	0.49
40:D1:88:ILE:HG22	41:D2:49:THR:HA	1.95	0.49
44:DU:30:VAL:HG12	44:DU:31:LEU:N	2.27	0.49
44:DU:55:TYR:CD2	44:DU:55:TYR:N	2.79	0.49
45:DV:115:GLY:CA	45:DV:177:PRO:HG2	2.43	0.49
52:D6:16:CYS:O	52:D6:17:LYS:HG3	2.13	0.49
54:D8:32:LEU:CD2	54:D8:33:ASN:N	2.75	0.49
1:AA:191(C):G:N1	1:AA:191(D):U:O2	2.46	0.49
1:AA:323:U:H5'	20:AW:23:ARG:HB2	1.94	0.49
1:AA:510:A:H5"	1:AA:511:C:P	2.53	0.49
1:AA:640:A:O2'	8:AK:115:SER:HB3	2.12	0.49
1:AA:975:A:H4'	1:AA:976:G:C5'	2.29	0.49
1:AA:1232:U:H2'	1:AA:1233:G:O5'	2.13	0.49
1:AA:1452:C:HO2'	1:AA:1453:G:P	2.28	0.49
1:AA:1466:C:H2'	1:AA:1467:G:O4'	2.11	0.49
2:AE:187:LEU:CD1	2:AE:205:ASP:HA	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AF:181:ASN:HD21	3:AF:204:LEU:HB2	1.73	0.49
4:AG:138:TYR:C	4:AG:138:TYR:HD2	2.21	0.49
11:AN:22:HIS:HB3	11:AN:29:ILE:CG2	2.42	0.49
22:AB:72:U:C2'	22:AB:73:U:H5'	2.43	0.49
25:BA:491:G:H2'	25:BA:492:A:C8	2.47	0.49
25:BA:1470:G:H5"	25:BA:1471:A:OP1	2.12	0.49
25:BA:2140:C:C2	25:BA:2151:G:N2	2.80	0.49
25:BA:2572:A:C4	28:BE:144:ARG:NH1	2.81	0.49
25:BA:2802:G:C6	25:BA:2803:C:C4	3.00	0.49
25:BA:2849:U:O4	39:BR:23:ARG:NH2	2.46	0.49
26:BB:11:C:OP2	26:BB:12:C:N4	2.43	0.49
29:BF:202:PHE:O	29:BF:206:ILE:HG22	2.13	0.49
30:BG:76:SER:OG	30:BG:83:ARG:HA	2.13	0.49
31:BH:105:LEU:H	31:BH:105:LEU:CD2	2.22	0.49
33:BM:56:ASN:N	33:BM:125:GLY:O	2.40	0.49
36:BP:51:ARG:NH1	36:BP:55:VAL:HG11	2.27	0.49
36:BP:51:ARG:O	36:BP:55:VAL:HG13	2.13	0.49
43:BT:49:VAL:CG1	43:BT:50:LYS:N	2.74	0.49
1:CA:28:G:O2'	1:CA:296:U:OP1	2.23	0.49
1:CA:434:U:H2'	1:CA:435:C:C6	2.48	0.49
1:CA:509:A:O2'	1:CA:510:A:P	2.71	0.49
1:CA:1055:A:C5	1:CA:1056:U:C6	3.00	0.49
1:CA:1112:C:N3	3:CF:178:LEU:HD23	2.28	0.49
2:CE:19:HIS:NE2	2:CE:204:ASN:HB3	2.27	0.49
3:CF:200:ALA:C	3:CF:201:TYR:HD2	2.20	0.49
20:CW:72:LEU:HD23	20:CW:73:HIS:N	2.28	0.49
22:CD:43:G:O2'	22:CD:44:C:H5'	2.12	0.49
25:DA:654(B):C:H2'	25:DA:654(C):G:C8	2.48	0.49
25:DA:733:G:C8	25:DA:761:A:N6	2.81	0.49
25:DA:914:C:H3'	25:DA:915:C:H5"	1.94	0.49
25:DA:1484:G:O6	25:DA:1505:C:N3	2.45	0.49
25:DA:1790:C:H5"	25:DA:1791:A:OP1	2.12	0.49
25:DA:1794:U:H2'	25:DA:1795:C:C6	2.47	0.49
25:DA:2766:G:H2'	25:DA:2766:G:N3	2.27	0.49
25:DA:2893:G:H4'	25:DA:2894:G:O5'	2.13	0.49
27:DD:35:LYS:HD3	27:DD:63:ARG:CB	2.43	0.49
28:DE:11:MET:HA	28:DE:24:THR:HA	1.94	0.49
28:DE:197:ILE:O	28:DE:197:ILE:HG13	2.13	0.49
32:DK:81:VAL:H	32:DK:143:SER:CB	2.26	0.49
34:DN:120:GLU:OE1	34:DN:122:LEU:HD21	2.13	0.49
45:DV:107:THR:N	45:DV:108:PRO:CD	2.75	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:129(A):G:C2	1:AA:191(A):G:C8	3.01	0.49
1:AA:495:A:H4'	1:AA:496:A:OP1	2.13	0.49
1:AA:827:U:C5	1:AA:870:U:C4	3.01	0.49
1:AA:1014:A:H4'	19:AV:14:HIS:CD2	2.48	0.49
1:AA:1091:U:H2'	1:AA:1093:A:OP2	2.12	0.49
1:AA:1233:G:OP2	9:AL:124:GLN:HB2	2.13	0.49
1:AA:1379:G:O2'	1:AA:1380:U:H5'	2.13	0.49
2:AE:59:GLU:HG3	2:AE:225:ALA:HB2	1.94	0.49
4:AG:129:ASN:OD1	4:AG:145:GLU:N	2.26	0.49
4:AG:163:GLU:C	4:AG:165:MET:N	2.70	0.49
7:AJ:147:ALA:C	7:AJ:149:ARG:H	2.20	0.49
8:AK:64:LYS:C	8:AK:65:TYR:HD1	2.21	0.49
10:AM:34:VAL:HG22	10:AM:74:ILE:HG22	1.94	0.49
10:AM:96:ILE:HD13	10:AM:96:ILE:H	1.77	0.49
15:AR:17:ARG:CG	15:AR:17:ARG:NH1	2.68	0.49
17:AT:101:ARG:HB2	17:AT:101:ARG:NH2	2.27	0.49
22:AB:51:C:N3	22:AB:52:G:H1'	2.27	0.49
25:BA:214:G:N2	25:BA:216:A:N3	2.61	0.49
25:BA:250:G:C6	25:BA:251:A:C6	3.00	0.49
25:BA:270(F):U:H2'	25:BA:270(G):C:C6	2.48	0.49
25:BA:889:C:H5"	25:BA:890:A:P	2.53	0.49
25:BA:1287:A:H8	37:B0:104:ARG:HD3	1.78	0.49
25:BA:1541:U:H2'	25:BA:1542:G:O4'	2.13	0.49
25:BA:2185:C:H2'	25:BA:2186:G:C8	2.47	0.49
31:BH:94:TYR:CD1	31:BH:107:VAL:HA	2.48	0.49
32:BK:64:GLU:C	32:BK:66:GLU:H	2.20	0.49
33:BM:1:MET:HE2	41:B2:13:ARG:N	2.27	0.49
33:BM:133:GLN:O	33:BM:134:ARG:HD3	2.13	0.49
34:BN:87:ILE:HD12	34:BN:91:LEU:HA	1.93	0.49
36:BP:26:TYR:O	36:BP:27:VAL:O	2.30	0.49
36:BP:35:VAL:CG1	36:BP:130:LYS:HB3	2.41	0.49
37:B0:74:LYS:HD2	37:B0:77:ARG:NH2	2.27	0.49
44:BU:47:LYS:HG2	44:BU:60:PHE:CD1	2.47	0.49
47:BZ:91:LYS:O	47:BZ:92:LYS:C	2.55	0.49
1:CA:635:G:C6	1:CA:636:U:C4	3.01	0.49
1:CA:1060:C:H5"	10:CM:51:ARG:HG2	1.93	0.49
3:CF:162:GLN:HG3	3:CF:163:ALA:O	2.12	0.49
3:CF:186:PHE:HA	3:CF:198:VAL:O	2.12	0.49
7:CJ:73:MET:HE2	7:CJ:90:GLU:HA	1.95	0.49
13:CP:116:THR:HG22	13:CP:116:THR:O	2.12	0.49
22:CB:21:A:H5"	22:CB:56:U:H3	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:57:C:H2'	25:DA:58:G:O4'	2.12	0.49
25:DA:84:A:OP2	44:DU:8:LYS:HD3	2.12	0.49
25:DA:288:C:H2'	25:DA:289:A:C8	2.48	0.49
25:DA:301:G:C4	25:DA:302:C:C5	3.00	0.49
25:DA:308:G:C8	25:DA:501:A:H1'	2.48	0.49
25:DA:389:G:O6	35:DO:71:VAL:HG12	2.13	0.49
25:DA:811:U:P	35:DO:21:ARG:O	2.70	0.49
25:DA:900:A:C4	25:DA:901:A:C8	3.01	0.49
25:DA:1040:C:H2'	25:DA:1041:C:H6	1.77	0.49
25:DA:1111:A:O3'	31:DH:3:ARG:HB3	2.13	0.49
25:DA:1225:C:C4'	41:D2:85:LYS:HD3	2.41	0.49
25:DA:1396:U:O2	25:DA:1396:U:H2'	2.12	0.49
25:DA:1484:G:C6	25:DA:1485:G:C5	3.01	0.49
25:DA:1582:C:O2'	25:DA:1586:A:C8	2.66	0.49
25:DA:1794:U:H2'	25:DA:1795:C:H6	1.77	0.49
25:DA:2303:G:C2	25:DA:2314:C:N3	2.80	0.49
25:DA:2406:U:N3	35:DO:72:PRO:HB2	2.28	0.49
25:DA:2582:G:C2'	25:DA:2583:G:H5'	2.42	0.49
27:DD:30:GLU:HG3	27:DD:63:ARG:NE	2.27	0.49
29:DF:25:PRO:C	29:DF:27:GLU:H	2.21	0.49
29:DF:63:LYS:HE2	29:DF:67:GLN:HB2	1.94	0.49
30:DG:47:LYS:HD3	30:DG:81:LYS:CG	2.43	0.49
30:DG:111:LEU:HD13	30:DG:120:LEU:HD21	1.95	0.49
31:DH:121:ILE:HG23	31:DH:133:VAL:HG13	1.95	0.49
40:D1:91:ASP:O	40:D1:92:ARG:HG3	2.13	0.49
43:DT:18:TYR:C	43:DT:20:GLY:N	2.71	0.49
47:DZ:78:LYS:HD3	47:DZ:78:LYS:N	2.27	0.49
1:AA:73:G:C6	1:AA:97:U:O2	2.56	0.49
1:AA:271:C:H2'	1:AA:272:C:C6	2.48	0.49
1:AA:816:A:OP1	1:AA:1526:G:O2'	2.21	0.49
1:AA:992:U:C1'	1:AA:993:G:OP2	2.60	0.49
1:AA:1160:G:C6	1:AA:1181:G:O6	2.62	0.49
2:AE:184:VAL:N	2:AE:198:ASP:OD1	2.26	0.49
4:AG:20:TYR:HE1	6:CI:16:GLN:HE21	1.61	0.49
4:AG:61:LYS:HD3	4:AG:206:PHE:CE2	2.47	0.49
4:AG:65:ARG:HG3	4:AG:75:PHE:CD1	2.48	0.49
7:AJ:16:LEU:CD1	9:AL:45:ALA:HB2	2.42	0.49
7:AJ:74:GLU:HG2	7:AJ:91:VAL:HG13	1.95	0.49
20:AW:39:LYS:HB2	20:AW:55:ILE:HG21	1.94	0.49
22:AB:8:U:O2'	22:AB:22:A:N1	2.46	0.49
22:AB:51:C:C4	22:AB:52:G:H1'	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:273(E):U:O2'	25:BA:273(F):C:H5'	2.13	0.49
25:BA:686:G:O6	53:B7:12:ARG:HG3	2.13	0.49
25:BA:883:G:H2'	25:BA:884:C:H4'	1.93	0.49
25:BA:1093:G:H5'	31:BH:170:ARG:HE	1.78	0.49
25:BA:1130:U:C1'	25:BA:1131:G:OP1	2.61	0.49
25:BA:1735:C:O2'	25:BA:1741:C:H5'	2.13	0.49
25:BA:1810:A:H2'	25:BA:1811:G:O4'	2.13	0.49
25:BA:1991:U:C2'	25:BA:1992:G:H5"	2.41	0.49
25:BA:2420:C:P	54:B8:33:ASN:O	2.71	0.49
25:BA:2607:G:H2'	25:BA:2608:G:O4'	2.13	0.49
28:BE:28:ALA:HB3	28:BE:93:VAL:HG22	1.94	0.49
28:BE:49:LEU:HD21	28:BE:91:VAL:HG21	1.93	0.49
29:BF:157:VAL:HB	29:BF:194:MET:HG2	1.95	0.49
37:B0:30:THR:HG22	37:B0:31:HIS:HD1	1.76	0.49
37:B0:91:GLN:H	37:B0:91:GLN:CD	2.17	0.49
41:B2:47:VAL:CG2	41:B2:48:GLY:N	2.75	0.49
50:B4:24:THR:O	50:B4:25:TYR:HB2	2.13	0.49
1:CA:443:C:H2'	1:CA:444:C:H6	1.78	0.49
1:CA:900:A:H2'	1:CA:901:A:C8	2.48	0.49
2:CE:200:ILE:HD12	2:CE:200:ILE:N	2.27	0.49
3:CF:100:ALA:O	3:CF:101:LEU:CB	2.60	0.49
4:CG:96:LEU:HD12	4:CG:139:ARG:CZ	2.43	0.49
7:CJ:87:VAL:HG23	7:CJ:88:PRO:HD2	1.94	0.49
11:CN:34:ASP:OD2	11:CN:36:ASP:N	2.40	0.49
13:CP:3:ARG:NH2	13:CP:7:VAL:HG12	2.27	0.49
25:DA:957:A:N6	25:DA:959:A:C2	2.81	0.49
25:DA:1496:A:H1'	25:DA:1577:C:O2'	2.13	0.49
25:DA:2276:G:P	36:DP:84:GLY:HA2	2.53	0.49
25:DA:2324:C:H5"	25:DA:2325:G:H5'	1.95	0.49
29:DF:18:ARG:HD3	29:DF:18:ARG:C	2.38	0.49
29:DF:122:LYS:HD2	29:DF:191:ARG:HG2	1.95	0.49
36:DP:26:TYR:C	36:DP:26:TYR:HD2	2.21	0.49
36:DP:87:LYS:O	36:DP:88:GLY:O	2.30	0.49
1:AA:5:U:O2'	1:AA:6:G:N3	2.46	0.48
1:AA:198:G:H2'	1:AA:199:G:H8	1.78	0.48
1:AA:242:C:H2'	1:AA:243:A:H5'	1.94	0.48
1:AA:266:G:H5'	1:AA:268:C:H41	1.78	0.48
1:AA:624:C:O3'	16:AS:10:GLY:HA2	2.13	0.48
1:AA:989:C:HO2'	1:AA:1017:G:HO2'	1.61	0.48
1:AA:1025:U:HO2'	1:AA:1026:G:P	2.36	0.48
1:AA:1378:C:O2	1:AA:1379:G:O4'	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AJ:50:ILE:HG22	7:AJ:50:ILE:O	2.13	0.48
9:AL:23:ASN:H	9:AL:23:ASN:HD22	1.60	0.48
9:AL:117:HIS:O	9:AL:118:LYS:HG3	2.12	0.48
19:AV:7:LYS:HG2	19:AV:7:LYS:O	2.13	0.48
20:AW:43:LEU:HD13	20:AW:51:GLU:HB3	1.95	0.48
25:BA:606:U:H4'	25:BA:658:C:H4'	1.95	0.48
25:BA:848:G:H2'	25:BA:849:A:C8	2.48	0.48
25:BA:2157:G:O2'	25:BA:2158:A:P	2.71	0.48
28:BE:116:VAL:HG13	28:BE:122:PHE:CB	2.43	0.48
31:BH:83:TYR:HB2	31:BH:135:GLY:H	1.72	0.48
51:B5:44:THR:O	51:B5:46:CYS:N	2.46	0.48
53:B7:8:ASN:HD22	53:B7:11:LYS:H	1.58	0.48
1:CA:177:C:H2'	1:CA:178:C:H6	1.78	0.48
1:CA:339:C:H2'	1:CA:340:U:C6	2.48	0.48
1:CA:1003:G:N1	1:CA:1037:C:N4	2.54	0.48
8:CK:19:VAL:O	8:CK:20:TYR:C	2.56	0.48
25:DA:226:G:N2	25:DA:228:A:H62	1.96	0.48
25:DA:901:A:H5'	25:DA:902:C:OP2	2.13	0.48
25:DA:2065:C:H2'	25:DA:2066:C:H6	1.77	0.48
25:DA:2147:G:H2'	25:DA:2148:G:O4'	2.12	0.48
26:DB:17:C:H2'	26:DB:18:G:O4'	2.12	0.48
27:DD:69:ARG:CD	27:DD:105:ILE:HD11	2.43	0.48
27:DD:75:ILE:HG23	27:DD:98:VAL:HG22	1.93	0.48
31:DH:89:ILE:O	31:DH:90:LYS:C	2.56	0.48
31:DH:144:VAL:O	31:DH:148:ILE:HG12	2.13	0.48
35:DO:65:ARG:NH1	35:DO:65:ARG:CG	2.49	0.48
36:DP:79:LEU:HD13	36:DP:80:GLU:OE2	2.13	0.48
39:DR:6:LEU:O	39:DR:10:VAL:HG23	2.12	0.48
42:DS:43:GLY:O	42:DS:44:ALA:C	2.56	0.48
42:DS:54:ALA:HB1	42:DS:107:LEU:HD22	1.94	0.48
43:DT:39:ILE:O	43:DT:43:VAL:HG13	2.13	0.48
1:AA:10:A:OP2	5:AH:126:ARG:HD3	2.13	0.48
1:AA:11:G:O2'	1:AA:12:U:H5'	2.13	0.48
1:AA:45:U:H2'	1:AA:46:G:C8	2.48	0.48
1:AA:755:G:OP2	15:AR:65:ARG:HG2	2.14	0.48
1:AA:827:U:O2	1:AA:827:U:O4'	2.30	0.48
1:AA:1170:A:H2'	1:AA:1171:G:O4'	2.13	0.48
1:AA:1443:G:H3'	1:AA:1443:G:OP2	2.13	0.48
2:AE:80:ILE:CD1	2:AE:208:ILE:HG23	2.33	0.48
3:AF:91:LEU:HD11	3:AF:101:LEU:HD12	1.95	0.48
4:AG:201:GLN:HE21	4:AG:201:GLN:CA	2.20	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AJ:108:ALA:O	7:AJ:111:ARG:HG3	2.13	0.48
11:AN:78:GLN:O	11:AN:103:LEU:HA	2.13	0.48
22:AD:19:C:H3'	22:AD:19:C:H6	1.78	0.48
22:AD:61:G:H1	22:AD:71:C:N4	2.10	0.48
25:BA:77:C:H5"	48:BW:10:LEU:HD11	1.94	0.48
25:BA:265:A:H1'	25:BA:266:G:O4'	2.13	0.48
25:BA:414:C:O2	25:BA:1864:U:O2'	2.27	0.48
25:BA:1111:A:H5'	31:BH:3:ARG:HD3	1.95	0.48
25:BA:1312:U:H1'	25:BA:1313:U:OP2	2.12	0.48
25:BA:2144:U:HO2'	25:BA:2145:C:H5	1.59	0.48
25:BA:2723:C:OP1	37:B0:3:HIS:CD2	2.58	0.48
25:BA:2807:G:H2'	25:BA:2808:U:H5"	1.94	0.48
25:BA:2877:G:OP1	39:BR:2:ASN:ND2	2.46	0.48
25:BA:2881:C:C2	25:BA:2882:A:C8	3.01	0.48
26:BB:86:G:H1	26:BB:90:C:N4	2.10	0.48
27:BD:35:LYS:HG2	27:BD:64:ILE:CA	2.43	0.48
27:BD:35:LYS:CE	27:BD:104:TYR:HB2	2.42	0.48
30:BG:111:LEU:HB2	30:BG:112:PRO:HD3	1.94	0.48
32:BK:81:VAL:HG23	32:BK:83:ALA:HB2	1.95	0.48
44:BU:42:VAL:CB	44:BU:67:LEU:HD11	2.36	0.48
45:BV:158:PRO:C	45:BV:160:GLY:N	2.72	0.48
47:BZ:3:LYS:HG3	47:BZ:46:LEU:HD23	1.94	0.48
48:BW:32:LEU:HA	48:BW:35:LEU:HD23	1.95	0.48
50:B4:6:HIS:ND1	50:B4:7:PRO:HD2	2.27	0.48
1:CA:287:U:O2'	1:CA:288:A:H5'	2.13	0.48
1:CA:353:A:H2'	1:CA:354:G:OP2	2.13	0.48
1:CA:765:G:C6	1:CA:812:C:C2	3.01	0.48
1:CA:1000:A:O2'	1:CA:1001:G:H5'	2.13	0.48
1:CA:1002:G:C2	1:CA:1003:G:C4	3.02	0.48
1:CA:1129:C:N4	1:CA:1139:G:H22	2.11	0.48
1:CA:1138:G:H3'	1:CA:1138:G:N3	2.28	0.48
1:CA:1329:A:OP2	21:CX:7:ARG:NH1	2.44	0.48
2:CE:193:ASP:C	2:CE:195:ASP:H	2.19	0.48
2:CE:198:ASP:N	2:CE:198:ASP:OD2	2.44	0.48
3:CF:19:GLU:HG2	3:CF:19:GLU:O	2.12	0.48
4:CG:60:GLU:HG2	4:CG:202:LEU:HB2	1.96	0.48
7:CJ:23:VAL:HG12	7:CJ:43:PHE:CZ	2.47	0.48
7:CJ:84:ASN:O	22:CD:38:MIA:H151	2.14	0.48
19:CV:23:ASN:HA	19:CV:27:GLU:HG3	1.95	0.48
25:DA:817:C:C5	25:DA:818:G:N7	2.81	0.48
25:DA:2622:C:H5'	28:DE:159:HIS:ND1	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2772:C:H2'	25:DA:2773:C:C6	2.48	0.48
34:DN:3:GLN:HB2	34:DN:4:PRO:HD2	1.93	0.48
35:DO:65:ARG:O	35:DO:66:GLY:O	2.30	0.48
36:DP:32:TYR:CZ	36:DP:111:GLU:HG3	2.48	0.48
39:DR:99:LEU:HD23	39:DR:101:PHE:HE1	1.77	0.48
41:D2:1:MET:HG2	41:D2:43:GLU:OE1	2.13	0.48
42:DS:62:HIS:O	42:DS:63:ASP:C	2.56	0.48
42:DS:73:ALA:HB3	42:DS:106:ILE:CD1	2.42	0.48
45:DV:62:PRO:C	45:DV:64:GLY:N	2.67	0.48
46:D3:43:THR:HG23	46:D3:43:THR:O	2.12	0.48
1:AA:79:G:N2	1:AA:90:C:C2	2.82	0.48
1:AA:1501:C:OP2	1:AA:1504:G:H2'	2.12	0.48
2:AE:17:PHE:N	2:AE:17:PHE:CD2	2.81	0.48
3:AF:70:VAL:O	3:AF:106:VAL:N	2.40	0.48
5:AH:11:ILE:O	5:AH:12:LEU:HB2	2.14	0.48
20:AW:33:ILE:O	20:AW:37:SER:OG	2.23	0.48
22:AB:7:G:H3'	22:AB:8:U:C5'	2.42	0.48
25:BA:6:A:H4'	33:BM:129:PRO:CB	2.43	0.48
25:BA:389:G:N1	35:BO:71:VAL:HG12	2.28	0.48
25:BA:819:A:C4	25:BA:1189:A:C2	3.01	0.48
25:BA:2308:G:C2	25:BA:2311:A:C2	3.01	0.48
25:BA:2469:A:O2'	36:BP:56:ARG:NE	2.46	0.48
27:BD:136:ILE:O	27:BD:168:ARG:NH2	2.45	0.48
28:BE:63:LEU:HD23	28:BE:63:LEU:O	2.12	0.48
29:BF:101:LEU:HD12	29:BF:102:PRO:CD	2.32	0.48
32:BK:33:ARG:HB3	32:BK:35:LEU:CD2	2.43	0.48
39:BR:55:ASN:H	39:BR:59:THR:HB	1.78	0.48
52:B6:24:GLU:O	54:B8:34:TRP:NE1	2.46	0.48
1:CA:376:G:H5"	16:CS:5:ARG:HD3	1.96	0.48
1:CA:465:A:N7	1:CA:467:G:C5	2.82	0.48
1:CA:485:G:O2'	1:CA:486:U:P	2.71	0.48
1:CA:748:C:C1'	1:CA:749:C:OP2	2.59	0.48
1:CA:842:C:O2'	1:CA:848:C:N3	2.43	0.48
1:CA:1134:G:N3	1:CA:1134:G:H2'	2.28	0.48
1:CA:1275:A:H2'	1:CA:1276:G:O4'	2.13	0.48
1:CA:1322:C:O2	1:CA:1322:C:C2'	2.57	0.48
3:CF:46:GLU:O	3:CF:47:LEU:HB2	2.13	0.48
3:CF:184:TYR:CD1	3:CF:201:TYR:HE2	2.30	0.48
5:CH:93:PRO:HG2	8:CK:105:ARG:CZ	2.43	0.48
9:CL:10:ARG:NH1	9:CL:105:ASP:OD1	2.46	0.48
11:CN:32:ILE:HD13	11:CN:72:ALA:HB2	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CO:20:LYS:CE	12:CO:20:LYS:H	2.26	0.48
12:CO:55:VAL:O	12:CO:62:GLU:HA	2.13	0.48
19:CV:12:ASP:HB2	19:CV:38:SER:HB3	1.94	0.48
23:CC:57:C:N4	30:DG:83:ARG:HH22	2.11	0.48
25:DA:90:U:O2	25:DA:90:U:H3'	2.13	0.48
25:DA:94:G:N3	48:DW:47:ASN:OD1	2.46	0.48
25:DA:815:C:OP2	41:D2:82:ARG:HD3	2.13	0.48
25:DA:971:C:H2'	25:DA:972:G:C5'	2.43	0.48
25:DA:1085:A:H4'	25:DA:1086:A:OP1	2.14	0.48
25:DA:1585:C:H3'	25:DA:1585:C:O2	2.13	0.48
25:DA:1653:G:C6	37:D0:9:LYS:HG3	2.48	0.48
25:DA:1757:U:C2	25:DA:1762:A:C2	2.99	0.48
25:DA:2020:A:P	40:D1:27:LEU:HD23	2.53	0.48
25:DA:2105:C:H42	25:DA:2184:G:H1	1.61	0.48
25:DA:2290:G:C2	25:DA:2343:C:O2	2.66	0.48
28:DE:181:LEU:HD11	39:DR:7:ILE:HD11	1.95	0.48
28:DE:182:LEU:C	28:DE:183:LEU:HD12	2.38	0.48
29:DF:12:LEU:O	29:DF:13:SER:C	2.56	0.48
40:D1:88:ILE:C	40:D1:90:VAL:H	2.20	0.48
44:DU:51:VAL:O	44:DU:52:SER:HB3	2.13	0.48
50:D4:29:PRO:C	50:D4:30:GLU:HG3	2.38	0.48
1:AA:523:A:H61	12:AO:89:ASP:HB2	1.77	0.48
1:AA:643:C:H5'	8:AK:31:PHE:CD1	2.48	0.48
1:AA:998:G:H2'	1:AA:998(A):C:C6	2.48	0.48
1:AA:1047:G:C2'	1:AA:1048:G:H5'	2.43	0.48
2:AE:32:ILE:HD11	2:AE:190:THR:HG22	1.94	0.48
3:AF:107:GLN:CD	3:AF:107:GLN:H	2.21	0.48
5:AH:50:GLU:OE2	5:AH:51:VAL:HG23	2.12	0.48
6:AI:10:LEU:HD12	6:AI:10:LEU:N	2.29	0.48
6:AI:14:LEU:HD11	6:AI:84:ASN:CG	2.38	0.48
10:AM:29:ARG:HG2	10:AM:29:ARG:O	2.13	0.48
11:AN:57:THR:HG22	11:AN:59:TYR:H	1.77	0.48
20:AW:26:ASN:ND2	20:AW:26:ASN:H	2.12	0.48
22:AB:68:A:C2'	22:AB:69:U:H5'	2.43	0.48
25:BA:1047:G:O2'	25:BA:1111:A:N6	2.46	0.48
25:BA:1406:U:H2'	25:BA:1407:C:C6	2.47	0.48
25:BA:2243:U:H2'	25:BA:2244:U:C6	2.47	0.48
25:BA:2275:C:O2	36:BP:85:LYS:HG2	2.14	0.48
26:BB:13:A:O2'	26:BB:15:A:O5'	2.30	0.48
27:BD:108:PRO:HA	27:BD:196:VAL:O	2.13	0.48
29:BF:133:ASN:O	29:BF:135:LYS:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BM:131:GLN:OE1	33:BM:132:ALA:HB2	2.13	0.48
35:BO:20:GLY:N	35:BO:27:HIS:O	2.36	0.48
36:BP:87:LYS:O	36:BP:88:GLY:O	2.30	0.48
38:BQ:3:ARG:CG	38:BQ:4:LEU:N	2.76	0.48
38:BQ:56:LEU:O	38:BQ:57:LYS:C	2.56	0.48
1:CA:31:G:H1'	1:CA:32:A:OP1	2.12	0.48
1:CA:731:G:OP1	1:CA:766:A:H1'	2.13	0.48
1:CA:918:A:H2'	1:CA:919:A:C8	2.49	0.48
7:CJ:32:ARG:C	7:CJ:34:GLY:N	2.69	0.48
9:CL:86:VAL:O	9:CL:90:PRO:HA	2.13	0.48
19:CV:66:MET:HE1	50:D4:60:GLN:NE2	2.28	0.48
23:CC:20:G:C2	23:CC:58:A:N3	2.81	0.48
25:DA:228:A:H3'	25:DA:228:A:C8	2.48	0.48
25:DA:644:A:O2'	25:DA:645:C:O2	2.31	0.48
25:DA:878:A:C6	25:DA:900:A:N7	2.82	0.48
25:DA:1050:A:C4	25:DA:1051:G:C8	3.01	0.48
25:DA:1945:G:H2'	25:DA:1946:U:C6	2.48	0.48
25:DA:2067:G:O2'	25:DA:2069:G:H5"	2.13	0.48
25:DA:2103:C:O2	25:DA:2187:G:C2	2.66	0.48
26:DB:56:G:H4'	26:DB:57:A:H8	1.78	0.48
29:DF:8:GLN:HG2	29:DF:126:VAL:HG12	1.94	0.48
32:DK:52:ARG:HD2	32:DK:52:ARG:C	2.38	0.48
32:DK:77:LEU:HA	32:DK:141:LYS:HB3	1.94	0.48
36:DP:66:ILE:HD12	36:DP:67:ARG:H	1.78	0.48
39:DR:74:ARG:HD3	39:DR:76:PHE:CZ	2.48	0.48
51:D5:35:GLU:N	51:D5:35:GLU:OE1	2.46	0.48
51:D5:42:PRO:O	51:D5:43:HIS:HB2	2.12	0.48
1:AA:76:G:C6	1:AA:77:C:C2	3.02	0.48
1:AA:375:U:O3'	16:AS:6:LEU:HB2	2.12	0.48
1:AA:811:C:H4'	1:AA:900:A:N6	2.28	0.48
1:AA:827:U:C5'	1:AA:828:A:OP2	2.62	0.48
1:AA:1195:C:H5"	1:AA:1196:U:O5'	2.13	0.48
1:AA:1281:U:H4'	1:AA:1282:C:OP2	2.13	0.48
1:AA:1448:C:H42	1:AA:1455:G:H1	1.61	0.48
3:AF:7:PRO:O	3:AF:11:ARG:HG2	2.14	0.48
8:AK:51:VAL:HG11	8:AK:60:ARG:HD2	1.95	0.48
9:AL:29:ASN:ND2	9:AL:65:VAL:O	2.47	0.48
11:AN:87:THR:HG22	11:AN:88:GLY:N	2.22	0.48
12:AO:45:PRO:O	12:AO:46:ASN:ND2	2.47	0.48
14:AQ:23:ARG:O	14:AQ:25:VAL:N	2.46	0.48
20:AW:100:ILE:HD12	20:AW:101:GLY:H	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AB:1:G:C2	22:AB:2:G:C8	3.02	0.48
25:BA:83:G:C4	25:BA:102:G:N2	2.81	0.48
25:BA:456:C:O2'	25:BA:457:A:H5'	2.14	0.48
25:BA:1210:A:H4'	25:BA:1211:U:O5'	2.13	0.48
25:BA:1210:A:H5"	25:BA:1212:G:O4'	2.14	0.48
25:BA:1887:C:C3'	25:BA:1888:G:H5"	2.44	0.48
25:BA:2250:G:C6	36:BP:83:MET:CB	2.96	0.48
25:BA:2276:G:OP2	36:BP:84:GLY:HA2	2.13	0.48
25:BA:2378:A:H2'	38:BQ:21:THR:HG21	1.96	0.48
25:BA:2698:U:H2'	25:BA:2699:C:C6	2.48	0.48
26:BB:66:A:N6	26:BB:107:U:H2'	2.28	0.48
29:BF:63:LYS:CE	29:BF:67:GLN:HB2	2.44	0.48
31:BH:153:LYS:CB	31:BH:162:ILE:H	2.24	0.48
32:BK:115:ALA:C	32:BK:117:GLU:N	2.68	0.48
35:BO:115:LEU:HA	35:BO:134:ALA:CB	2.43	0.48
36:BP:79:LEU:HD12	36:BP:79:LEU:H	1.78	0.48
40:B1:66:ASN:HB2	40:B1:76:TYR:HB2	1.94	0.48
43:BT:57:LEU:HD12	43:BT:57:LEU:O	2.13	0.48
45:BV:15:PRO:O	45:BV:19:ARG:HB2	2.12	0.48
45:BV:104:PHE:CE1	45:BV:119:GLU:HB3	2.49	0.48
50:B4:36:CYS:SG	50:B4:39:CYS:HB3	2.54	0.48
54:B8:29:LYS:CB	54:B8:44:LYS:HG2	2.44	0.48
1:CA:186(F):C:H2'	1:CA:187:C:O4'	2.13	0.48
1:CA:1004:A:O5'	1:CA:1025:U:O4	2.32	0.48
1:CA:1346:A:C5	7:CJ:10:ARG:NH2	2.81	0.48
1:CA:1499:A:H1'	1:CA:1520:G:H5'	1.95	0.48
2:CE:25:ASN:O	2:CE:27:LYS:N	2.46	0.48
2:CE:28:PHE:CE1	2:CE:31:TYR:HB2	2.48	0.48
2:CE:80:ILE:CD1	2:CE:212:GLN:HG2	2.43	0.48
9:CL:4:TYR:CE2	9:CL:88:TYR:HB3	2.48	0.48
9:CL:95:LYS:NZ	9:CL:96:LEU:HB2	2.28	0.48
12:CO:59:SER:C	12:CO:61:TYR:N	2.70	0.48
25:DA:342:G:C5	25:DA:343:C:C5	3.01	0.48
25:DA:931:G:C6	25:DA:933:A:C2	3.02	0.48
25:DA:1026:U:O2	25:DA:1026:U:C2'	2.61	0.48
25:DA:1049:C:H42	31:DH:2:SER:HB2	1.77	0.48
25:DA:2252:G:H2'	25:DA:2253:G:O4'	2.13	0.48
25:DA:2843:G:H2'	25:DA:2844:G:H5"	1.95	0.48
27:DD:26:LYS:H	27:DD:26:LYS:CD	2.26	0.48
30:DG:67:LYS:H	50:D4:6:HIS:CD2	2.31	0.48
31:DH:86:GLU:OE1	31:DH:86:GLU:N	2.41	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DM:28:THR:HG22	33:DM:29:LYS:N	2.29	0.48
34:DN:87:ILE:HD12	34:DN:93:PRO:HA	1.95	0.48
38:DQ:69:VAL:HG13	38:DQ:101:LEU:HD22	1.94	0.48
39:DR:19:LEU:H	39:DR:19:LEU:HD12	1.79	0.48
45:DV:24:LEU:HD12	45:DV:24:LEU:C	2.39	0.48
47:DZ:64:ALA:HA	47:DZ:67:ILE:HG13	1.95	0.48
47:DZ:81:LYS:H	47:DZ:82:LEU:HD23	1.78	0.48
1:AA:115:G:H4'	1:AA:116:A:O5'	2.13	0.48
1:AA:190:G:O6	1:AA:264:U:H5"	2.14	0.48
1:AA:403:C:OP1	4:AG:137:SER:OG	2.26	0.48
1:AA:626:U:C2	1:AA:627:G:C8	3.01	0.48
1:AA:629:G:C2	1:AA:630:G:C6	3.01	0.48
1:AA:812:C:H1'	1:AA:813:U:OP2	2.13	0.48
1:AA:1224:G:O2'	1:AA:1322:C:OP2	2.32	0.48
1:AA:1306:A:H2'	1:AA:1307:U:O4'	2.14	0.48
1:AA:1446:A:H4'	1:AA:1446:A:OP1	2.13	0.48
5:AH:91:LEU:HD12	5:AH:120:THR:HG22	1.94	0.48
7:AJ:146:GLU:HA	7:AJ:146:GLU:OE2	2.13	0.48
20:AW:71:THR:CG2	20:AW:72:LEU:H	2.03	0.48
23:AC:62:C:H2'	23:AC:63:C:H6	1.78	0.48
22:AD:41:C:H2'	22:AD:42:U:H6	1.79	0.48
22:AD:83:C:H2'	22:AD:84:C:C6	2.48	0.48
25:BA:322:A:H3'	29:BF:169:ASN:HD21	1.78	0.48
25:BA:882:G:C2'	25:BA:883:G:C8	2.94	0.48
25:BA:1221:C:H2'	25:BA:1222:C:C6	2.48	0.48
25:BA:1354:A:H2'	25:BA:1355:G:O4'	2.13	0.48
25:BA:1385:G:O2'	25:BA:1396:U:H6	1.96	0.48
25:BA:1469:A:H2'	25:BA:1470:G:C8	2.48	0.48
25:BA:2287:A:H2	25:BA:2346:A:N1	2.12	0.48
25:BA:2331:G:O2'	46:B3:43:THR:HG22	2.13	0.48
25:BA:2376:A:H2'	25:BA:2377:A:O4'	2.13	0.48
25:BA:2439:A:H3'	25:BA:2439:A:P	2.53	0.48
25:BA:2566:A:H1'	25:BA:2567:G:OP2	2.14	0.48
25:BA:2787:C:O2	25:BA:2787:C:H2'	2.13	0.48
26:BB:95:U:C2	26:BB:96:G:C8	3.01	0.48
30:BG:78:SER:O	30:BG:80:PHE:N	2.46	0.48
31:BH:124:GLU:HB3	31:BH:132:ARG:HB2	1.95	0.48
54:B8:34:TRP:H	54:B8:35:GLN:CB	2.22	0.48
1:CA:559:A:H5"	1:CA:560:U:H3'	1.95	0.48
1:CA:636:U:H2'	1:CA:637:G:C8	2.48	0.48
1:CA:1025:U:O2'	1:CA:1026:G:H8	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CG:29:PRO:HD2	4:CG:30:LYS:CD	2.43	0.48
15:CR:55:GLY:O	15:CR:59:MET:HG3	2.14	0.48
25:DA:554:U:O2'	25:DA:556:G:N7	2.45	0.48
25:DA:1065:U:C2	25:DA:1073:A:N6	2.82	0.48
25:DA:1111:A:C5'	31:DH:3:ARG:HD3	2.42	0.48
25:DA:1288:U:C2	25:DA:1327:C:O2	2.67	0.48
25:DA:1445:C:H2'	25:DA:1446:C:H6	1.77	0.48
25:DA:2419:U:O4	54:D8:31:HIS:CE1	2.67	0.48
27:DD:62:TYR:CE1	27:DD:64:ILE:HG22	2.48	0.48
27:DD:182:LEU:N	27:DD:272:ALA:HB3	2.19	0.48
27:DD:186:HIS:CD2	27:DD:188:GLU:H	2.31	0.48
29:DF:51:THR:HG23	29:DF:92:PRO:HG2	1.96	0.48
29:DF:132:VAL:HG13	29:DF:133:ASN:OD1	2.13	0.48
30:DG:145:THR:C	30:DG:147:ASP:H	2.20	0.48
32:DK:118:LYS:HB3	32:DK:119:PRO:HD2	1.95	0.48
35:DO:47:ASP:HB3	35:DO:49:ARG:N	2.16	0.48
36:DP:58:PHE:CD1	36:DP:58:PHE:O	2.67	0.48
41:D2:21:ARG:HG2	41:D2:91:TYR:HB3	1.95	0.48
43:DT:18:TYR:C	43:DT:20:GLY:H	2.22	0.48
45:DV:9:TYR:OH	45:DV:61:LEU:HD13	2.13	0.48
1:AA:406:G:H2'	1:AA:407:G:C8	2.48	0.48
1:AA:667:G:H4'	15:AR:51:HIS:ND1	2.28	0.48
1:AA:738:C:H2'	1:AA:739:C:C6	2.48	0.48
1:AA:1245:A:C2	1:AA:1293:G:C2	3.01	0.48
3:AF:12:LEU:C	3:AF:14:ILE:H	2.20	0.48
3:AF:22:TRP:CZ2	14:AQ:54:PRO:HG2	2.48	0.48
5:AH:72:GLN:O	5:AH:75:THR:HG22	2.13	0.48
5:AH:84:PHE:HB3	5:AH:134:ALA:HB2	1.95	0.48
10:AM:98:ILE:H	10:AM:98:ILE:HD12	1.78	0.48
11:AN:116:HIS:O	11:AN:117:ASN:HB2	2.13	0.48
23:AC:55:U:C4	23:AC:56:U:C4	3.02	0.48
25:BA:127:A:H5"	25:BA:128:C:C6	2.49	0.48
25:BA:580:C:H2'	25:BA:581:C:H6	1.78	0.48
25:BA:847:U:C5	25:BA:933:A:H2	2.31	0.48
25:BA:1055:G:H1'	25:BA:1085:A:C2	2.49	0.48
25:BA:1379:A:C4'	25:BA:1380:G:OP1	2.62	0.48
25:BA:2317:C:H2'	25:BA:2318:G:C5'	2.43	0.48
25:BA:2733:A:C2'	25:BA:2734:A:H5'	2.43	0.48
25:BA:2802:G:OP2	25:BA:2802:G:H8	1.97	0.48
26:BB:30:C:H2'	26:BB:31:C:H5'	1.96	0.48
27:BD:10:THR:OG1	27:BD:11:PRO:O	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:49:LEU:O	28:BE:50:GLY:C	2.56	0.48
29:BF:89:VAL:HG12	29:BF:90:PHE:CD2	2.49	0.48
33:BM:73:THR:HA	33:BM:83:LYS:O	2.13	0.48
35:BO:96:THR:HB	35:BO:97:PRO:HD2	1.96	0.48
36:BP:66:ILE:CA	36:BP:104:PHE:HA	2.42	0.48
45:BV:58:VAL:HA	45:BV:67:LEU:O	2.14	0.48
48:BW:59:ARG:O	48:BW:63:VAL:HG23	2.13	0.48
51:B5:45:VAL:O	51:B5:45:VAL:HG12	2.13	0.48
1:CA:1338:G:C6	1:CA:1339:A:C6	3.01	0.48
1:CA:1355:G:N2	1:CA:1368:G:H1'	2.28	0.48
2:CE:32:ILE:HD11	2:CE:40:HIS:ND1	2.28	0.48
2:CE:200:ILE:O	2:CE:202:PRO:HD3	2.14	0.48
2:CE:238:LEU:HD12	2:CE:238:LEU:O	2.14	0.48
10:CM:70:ARG:HH11	10:CM:70:ARG:HG2	1.78	0.48
11:CN:16:SER:HA	11:CN:79:SER:O	2.14	0.48
19:CV:41:VAL:HG12	19:CV:42:PRO:HD2	1.94	0.48
19:CV:66:MET:HE1	50:D4:60:GLN:HE21	1.78	0.48
25:DA:99:U:H1'	25:DA:102:G:C2	2.49	0.48
25:DA:141:A:C8	25:DA:1408:C:H1'	2.48	0.48
25:DA:273(D):C:H42	25:DA:363(B):G:H1	1.61	0.48
25:DA:851:U:O2	25:DA:928:G:C2	2.67	0.48
25:DA:1263:U:H1'	51:D5:10:LYS:HG3	1.96	0.48
25:DA:1847:A:C3'	25:DA:1848:A:H5'	2.44	0.48
25:DA:1955:U:H4'	25:DA:1956:U:OP2	2.14	0.48
27:DD:44:ASN:OD1	27:DD:44:ASN:N	2.46	0.48
27:DD:166:GLN:CA	27:DD:166:GLN:NE2	2.74	0.48
27:DD:253:GLN:HB3	27:DD:255:LYS:NZ	2.29	0.48
28:DE:16:ARG:HH21	28:DE:173:VAL:HG13	1.79	0.48
29:DF:83:PHE:O	29:DF:85:GLY:N	2.40	0.48
35:DO:100:LEU:HB3	35:DO:106:LEU:CD2	2.43	0.48
37:D0:49:ASP:OD1	37:D0:95:THR:HG22	2.14	0.48
41:D2:5:VAL:HA	41:D2:37:VAL:HB	1.96	0.48
46:D3:40:GLN:HE22	46:D3:45:PHE:HB2	1.79	0.48
54:D8:34:TRP:CE2	54:D8:35:GLN:HB3	2.49	0.48
54:D8:47:LYS:O	54:D8:48:PHE:HB3	2.14	0.48
1:AA:107:G:C2	1:AA:108:G:H1'	2.49	0.48
1:AA:714:G:H2'	1:AA:715:A:C8	2.49	0.48
1:AA:1002:G:C2'	1:AA:1003:G:H8	2.04	0.48
1:AA:1051:C:H2'	1:AA:1052:U:C6	2.49	0.48
1:AA:1161:C:C2	1:AA:1177:G:N2	2.81	0.48
1:AA:1211:U:C5'	1:AA:1212:U:OP1	2.52	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1260:C:O5'	1:AA:1284:C:H4'	2.14	0.48
1:AA:1291:G:H2'	1:AA:1292:U:H6	1.79	0.48
4:AG:76:ARG:CZ	4:AG:207:TYR:HD2	2.27	0.48
5:AH:36:ASP:CG	5:AH:38:GLN:HB2	2.37	0.48
7:AJ:113:GLU:CG	7:AJ:119:ARG:HG2	2.44	0.48
18:AU:43:PHE:HE2	18:AU:58:LEU:HD11	1.79	0.48
23:AC:6:G:O2'	23:AC:7:G:H5'	2.14	0.48
23:AC:48:U:H1'	23:AC:49:C:P	2.54	0.48
25:BA:270(N):G:O2'	25:BA:270(P):C:O5'	2.31	0.48
25:BA:511:U:O4	25:BA:512:G:N1	2.47	0.48
25:BA:616:A:C4	29:BF:180:GLY:HA2	2.48	0.48
25:BA:1174:A:N7	25:BA:1178:C:N4	2.62	0.48
25:BA:1466:G:H2'	25:BA:1547:C:H41	1.78	0.48
25:BA:1893:C:C5	25:BA:1894:C:C5	3.02	0.48
25:BA:1952:A:C2	34:BN:22:ILE:HG13	2.49	0.48
25:BA:2232:U:P	47:BZ:40:ARG:HH12	2.37	0.48
25:BA:2281:C:O2'	25:BA:2282:G:H5'	2.14	0.48
25:BA:2335:A:N7	25:BA:2337:G:C5	2.82	0.48
25:BA:2564:A:OP1	25:BA:2648:C:H4'	2.14	0.48
25:BA:2688:U:H1'	25:BA:2721:A:H61	1.78	0.48
25:BA:2733:A:C3'	25:BA:2734:A:C5'	2.91	0.48
26:BB:39:A:O2'	26:BB:46:A:N1	2.38	0.48
30:BG:67:LYS:HE2	30:BG:67:LYS:H	1.76	0.48
30:BG:112:PRO:HB3	50:B4:37:SER:CB	2.43	0.48
35:BO:49:ARG:HE	54:B8:58:ILE:HG23	1.79	0.48
35:BO:120:ALA:HB1	35:BO:138:LEU:HD22	1.96	0.48
40:B1:92:ARG:HB2	41:B2:11:GLN:NE2	2.28	0.48
43:BT:5:TYR:CE1	48:BW:30:ARG:HB2	2.49	0.48
45:BV:98:MET:O	45:BV:125:LEU:HD12	2.13	0.48
47:BZ:82:LEU:N	47:BZ:82:LEU:HD22	2.28	0.48
1:CA:321:A:C2	1:CA:333:G:C2	3.02	0.48
1:CA:625:G:C6	1:CA:626:U:C4	3.00	0.48
5:CH:51:VAL:O	5:CH:55:VAL:HG23	2.14	0.48
23:CC:12:G:H1'	25:DA:1923:U:O2'	2.12	0.48
22:CD:48:C:C5	22:CD:49:A:C5	3.01	0.48
25:DA:142:G:H5"	25:DA:1598:C:O2'	2.14	0.48
25:DA:390:A:H4'	25:DA:391:G:H5'	1.95	0.48
25:DA:734:A:HO2'	25:DA:1635:G:H5'	1.78	0.48
25:DA:1071:G:P	25:DA:1097:U:H5'	2.54	0.48
25:DA:1926:U:H2'	25:DA:1928:A:OP2	2.13	0.48
25:DA:2688:U:C5	25:DA:2720:U:OP2	2.67	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DK:66:GLU:HA	32:DK:69:LYS:HB2	1.95	0.48
35:DO:104:GLY:C	35:DO:105:LEU:CG	2.80	0.48
1:AA:78:G:O6	1:AA:90:C:N4	2.47	0.48
1:AA:484:G:H1'	1:AA:485:G:OP2	2.14	0.48
1:AA:1178:G:N2	1:AA:1181:G:N7	2.62	0.48
1:AA:1226:C:OP1	19:AV:78:ARG:NH1	2.47	0.48
3:AF:14:ILE:C	3:AF:16:ARG:H	2.22	0.48
6:AI:69:GLU:C	6:AI:71:ARG:N	2.66	0.48
11:AN:34:ASP:HB2	11:AN:35:PRO:CD	2.44	0.48
25:BA:26:G:H1'	25:BA:514:A:N6	2.29	0.48
25:BA:165:U:H3'	25:BA:165:U:O2	2.13	0.48
25:BA:270(N):G:O2'	25:BA:270(O):U:O5'	2.32	0.48
25:BA:528:A:C2	25:BA:2043:C:C5'	2.96	0.48
25:BA:531:C:H4'	25:BA:532:A:H5"	1.96	0.48
25:BA:1049:C:N3	25:BA:2751:G:O6	2.47	0.48
25:BA:1178:C:H1'	25:BA:1179:C:O5'	2.14	0.48
25:BA:2238:G:N3	25:BA:2238:G:H2'	2.28	0.48
25:BA:2731:G:C6	25:BA:2732:G:O6	2.66	0.48
25:BA:2865:U:C4	25:BA:2866:U:C4	3.02	0.48
27:BD:32:SER:HA	27:BD:36:PRO:CD	2.44	0.48
31:BH:153:LYS:CB	31:BH:154:PRO:CD	2.91	0.48
48:BW:35:LEU:HB3	48:BW:50:ILE:HG23	1.96	0.48
1:CA:101:A:C4	1:CA:102:G:C8	3.02	0.48
1:CA:300:A:H8	1:CA:300:A:O5'	1.96	0.48
1:CA:987:G:N2	1:CA:1219:U:N3	2.62	0.48
1:CA:1127:G:N2	1:CA:1144:G:N2	2.62	0.48
1:CA:1348:U:N3	1:CA:1374:A:H2	2.11	0.48
3:CF:50:ALA:HB1	3:CF:70:VAL:HG11	1.95	0.48
4:CG:199:ASN:C	4:CG:199:ASN:HD22	2.21	0.48
6:CI:61:LEU:HD23	6:CI:63:TYR:OH	2.14	0.48
14:CQ:12:ARG:HB2	14:CQ:14:PRO:HD3	1.95	0.48
25:DA:227:A:C2	25:DA:2407:G:H1'	2.49	0.48
25:DA:1036:G:OP1	31:DH:59:ARG:N	2.47	0.48
25:DA:1149:G:C2	25:DA:1150:C:N3	2.82	0.48
25:DA:1969:A:O2'	25:DA:1972:A:N3	2.47	0.48
25:DA:2741:A:N6	25:DA:2763:G:H1'	2.28	0.48
28:DE:76:ARG:O	28:DE:78:LEU:N	2.46	0.48
29:DF:57:VAL:HG11	29:DF:59:TYR:CD1	2.48	0.48
45:DV:14:LYS:HE2	45:DV:14:LYS:N	2.29	0.48
45:DV:40:ASP:OD1	45:DV:42:VAL:HB	2.14	0.48
48:DW:46:GLN:C	48:DW:49:LYS:HZ1	2.21	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:D4:18:CYS:CB	50:D4:19:GLY:HA2	2.42	0.48
54:D8:23:VAL:HG22	54:D8:48:PHE:H	1.79	0.48
1:AA:255:G:H2'	1:AA:256:U:C6	2.49	0.48
1:AA:355:C:H5'	1:AA:389:A:OP2	2.14	0.48
1:AA:380:G:N2	1:AA:384:G:C5	2.81	0.48
1:AA:544:G:C5	1:AA:545:C:C5	3.02	0.48
1:AA:632:A:C8	1:AA:633:G:C8	3.02	0.48
1:AA:636:U:H2'	1:AA:637:G:C8	2.48	0.48
1:AA:963:G:C2	10:AM:55:LYS:NZ	2.82	0.48
1:AA:1028(B):C:C2	1:AA:1032(A):G:N2	2.81	0.48
1:AA:1286:A:H5"	21:AX:26:LYS:HG2	1.96	0.48
2:AE:5:ILE:HG13	2:AE:6:THR:N	2.29	0.48
3:AF:73:PRO:C	3:AF:75:VAL:H	2.22	0.48
9:AL:122:ALA:HB1	9:AL:123:PRO:HD2	1.96	0.48
15:AR:56:LEU:O	15:AR:60:VAL:HG23	2.14	0.48
22:AB:28:G:H1	22:AB:44:C:H42	1.61	0.48
25:BA:882:G:C6	25:BA:894:C:N4	2.78	0.48
25:BA:1019:U:H3	25:BA:1142(A):A:H62	1.60	0.48
25:BA:1021:A:C8	25:BA:1022:G:H5"	2.47	0.48
25:BA:1198:U:O2	25:BA:1249:U:H1'	2.13	0.48
25:BA:1445:C:H2'	25:BA:1446:C:H6	1.77	0.48
25:BA:2274:A:C5	25:BA:2276:G:C8	3.02	0.48
27:BD:175:LEU:HD12	27:BD:185:VAL:HG21	1.96	0.48
29:BF:150:GLY:HA2	29:BF:172:TRP:CD2	2.48	0.48
31:BH:56:SER:OG	31:BH:58:GLU:HG3	2.14	0.48
32:BK:9:LEU:O	32:BK:10:GLU:C	2.57	0.48
32:BK:114:LEU:HD13	32:BK:130:TYR:CD1	2.48	0.48
33:BM:42:TRP:CD1	40:B1:63:VAL:HG11	2.49	0.48
38:BQ:58:LEU:HD23	38:BQ:58:LEU:N	2.28	0.48
44:BU:40:GLU:HA	44:BU:40:GLU:OE1	2.12	0.48
44:BU:86:ARG:HB2	44:BU:95:LYS:HG2	1.96	0.48
47:BZ:21:ARG:HG3	47:BZ:35:THR:CG2	2.44	0.48
47:BZ:78:LYS:HG2	47:BZ:78:LYS:O	2.14	0.48
49:BX:19:GLN:HE22	49:BX:52:HIS:HE1	1.61	0.48
1:CA:127:G:OP1	1:CA:635:G:H1'	2.14	0.48
1:CA:455:C:N4	1:CA:477:G:H1	2.09	0.48
1:CA:689:C:C2'	1:CA:690:G:H5'	2.44	0.48
1:CA:738:C:H5"	6:CI:69:GLU:HB2	1.95	0.48
1:CA:793:U:H5'	1:CA:794:A:O5'	2.14	0.48
1:CA:1213:A:C6	1:CA:1215:G:H1'	2.49	0.48
2:CE:71:VAL:HG12	2:CE:170:GLU:HG2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CF:18:TRP:NE1	14:CQ:55:GLY:H	2.12	0.48
8:CK:111:ILE:C	8:CK:112:LEU:HD23	2.39	0.48
10:CM:12:ASP:OD2	10:CM:13:HIS:N	2.47	0.48
16:CS:1:MET:O	16:CS:1:MET:HG3	2.12	0.48
17:CT:82:MET:O	17:CT:86:GLU:N	2.36	0.48
18:CU:22:VAL:HG12	18:CU:56:THR:HA	1.96	0.48
22:CD:21:A:C6	22:CD:55:U:O4	2.67	0.48
25:DA:195:A:H61	25:DA:198:C:H3'	1.78	0.48
25:DA:888:C:H1'	25:DA:889:C:P	2.54	0.48
25:DA:1011:G:N2	25:DA:1151:G:C4	2.82	0.48
25:DA:1316:U:O2'	25:DA:1317:A:H5'	2.13	0.48
25:DA:1416:G:H1	25:DA:1582:C:N4	2.12	0.48
25:DA:2629:A:H4'	25:DA:2630:G:OP2	2.13	0.48
26:DB:7:G:O5'	38:DQ:29:PHE:CE1	2.66	0.48
26:DB:14:U:H5'	26:DB:71:C:C1'	2.43	0.48
36:DP:32:TYR:CE2	36:DP:111:GLU:HG3	2.48	0.48
41:D2:51:VAL:HG12	41:D2:52:VAL:N	2.29	0.48
1:AA:35:G:H2'	1:AA:36:C:H6	1.77	0.47
1:AA:130:A:OP2	17:AT:63:ARG:NE	2.44	0.47
1:AA:429:U:H4'	1:AA:430:A:OP1	2.14	0.47
1:AA:1055:A:C2	1:AA:1056:U:H1'	2.49	0.47
1:AA:1240:U:P	7:AJ:116:ALA:HB2	2.53	0.47
1:AA:1288:A:H1'	1:AA:1352:C:O2'	2.14	0.47
1:AA:1368:G:OP2	9:AL:112:LYS:HD2	2.13	0.47
2:AE:109:SER:C	2:AE:111:ARG:N	2.71	0.47
5:AH:145:LYS:HA	5:AH:148:VAL:HB	1.95	0.47
7:AJ:56:GLN:HE22	7:AJ:60:LYS:HD3	1.78	0.47
7:AJ:58:PRO:O	7:AJ:61:VAL:N	2.47	0.47
8:AK:28:ALA:HB2	8:AK:59:LEU:HG	1.95	0.47
8:AK:83:ILE:O	8:AK:83:ILE:HG23	2.14	0.47
18:AU:29:PHE:CE1	18:AU:31:LEU:HB3	2.48	0.47
21:AX:5:ASP:O	21:AX:11:GLY:HA3	2.14	0.47
22:AB:48:C:H2'	22:AB:49:A:O4'	2.14	0.47
22:AD:47:U:H2'	22:AD:48:C:O4'	2.14	0.47
22:AD:75:C:H2'	22:AD:76:C:C6	2.48	0.47
25:BA:1582:C:O2'	25:BA:1586:A:H8	1.96	0.47
27:BD:35:LYS:CB	27:BD:36:PRO:HA	2.44	0.47
31:BH:83:TYR:O	31:BH:84:SER:CB	2.62	0.47
42:BS:110:LYS:HG3	42:BS:111:HIS:ND1	2.29	0.47
43:BT:15:GLU:CD	43:BT:15:GLU:H	2.22	0.47
45:BV:62:PRO:O	45:BV:63:ASP:CB	2.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BV:150:LEU:HD23	45:BV:151:HIS:N	2.29	0.47
54:B8:50:LEU:O	54:B8:51:ALA:C	2.57	0.47
1:CA:224:C:H2'	1:CA:225:C:C6	2.49	0.47
1:CA:991:U:O4	1:CA:1212:U:O2'	2.19	0.47
1:CA:1028(B):C:N3	1:CA:1032(A):G:C2	2.82	0.47
2:CE:73:THR:HA	2:CE:94:ASN:O	2.14	0.47
2:CE:92:TYR:HE2	2:CE:151:GLY:N	2.12	0.47
4:CG:25:ARG:C	4:CG:27:TYR:N	2.71	0.47
4:CG:126:ILE:CG2	4:CG:127:THR:N	2.76	0.47
7:CJ:73:MET:HG3	7:CJ:89:MET:O	2.14	0.47
9:CL:119:ALA:O	9:CL:120:ARG:CB	2.62	0.47
20:CW:90:GLN:HA	20:CW:93:GLU:OE2	2.14	0.47
22:CB:21:A:H4'	22:CB:22:A:O5'	2.14	0.47
23:CC:66:C:O2'	23:CC:67:C:H5'	2.14	0.47
25:DA:13:A:H61	25:DA:525:U:H3'	1.79	0.47
25:DA:1210:A:H5'	25:DA:1212:G:C5'	2.44	0.47
25:DA:1471:A:N3	25:DA:1471:A:H2'	2.27	0.47
25:DA:1791:A:OP2	25:DA:1791:A:C8	2.66	0.47
25:DA:1945:G:C4	25:DA:1946:U:C5	3.02	0.47
25:DA:2185:C:H2'	25:DA:2186:G:H8	1.79	0.47
25:DA:2302:G:C2'	25:DA:2303:G:H5'	2.44	0.47
25:DA:2303:G:O2'	30:DG:132:ASN:HB2	2.14	0.47
25:DA:2638:G:H1'	25:DA:2778:A:H61	1.79	0.47
25:DA:2811:G:OP1	28:DE:61:ARG:HB2	2.15	0.47
26:DB:40:U:O2'	26:DB:43:C:H5	1.96	0.47
29:DF:136:THR:O	29:DF:140:LEU:HB2	2.14	0.47
35:DO:9:ASN:O	35:DO:10:PRO:C	2.55	0.47
35:DO:74:GLU:O	35:DO:74:GLU:HG2	2.13	0.47
36:DP:21:THR:O	36:DP:21:THR:HG23	2.10	0.47
36:DP:103:MET:HE1	36:DP:125:LEU:HD13	1.96	0.47
38:DQ:109:GLY:O	38:DQ:110:LEU:HD23	2.14	0.47
1:AA:69:G:C2'	1:AA:73:G:H5'	2.44	0.47
1:AA:74:C:H2'	1:AA:75:C:O4'	2.13	0.47
1:AA:256:U:P	17:AT:17:LYS:HZ2	2.37	0.47
1:AA:946:A:C2	1:AA:1236:A:C2	3.02	0.47
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.50	0.47
1:AA:1128:C:H4'	1:AA:1129:C:OP1	2.13	0.47
1:AA:1178:G:N7	9:AL:97:LYS:HE3	2.29	0.47
1:AA:1279:A:H5"	1:AA:1280:A:P	2.54	0.47
2:AE:37:ASN:C	2:AE:39:ILE:H	2.22	0.47
3:AF:40:ARG:NH1	14:AQ:52:GLN:HG3	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AH:142:LEU:O	5:AH:143:ARG:NH1	2.43	0.47
18:AU:29:PHE:HE1	18:AU:31:LEU:HB3	1.79	0.47
21:AX:6:ARG:C	21:AX:8:THR:H	2.22	0.47
21:AX:12:LYS:HG3	21:AX:17:THR:O	2.14	0.47
22:AB:51:C:C5	22:AB:52:G:N3	2.82	0.47
22:AD:13:G:H2'	22:AD:14:A:C8	2.49	0.47
25:BA:633:A:H8	25:BA:633:A:O5'	1.97	0.47
25:BA:813:U:OP2	35:BO:23:PRO:O	2.31	0.47
25:BA:847:U:C5	25:BA:933:A:N1	2.80	0.47
25:BA:1403:C:H5'	25:BA:1471:A:H1'	1.96	0.47
25:BA:1728:G:C6	25:BA:1730:U:OP2	2.66	0.47
25:BA:2567:G:H2'	25:BA:2568:C:C6	2.49	0.47
26:BB:37:C:H2'	26:BB:38:C:H5'	1.96	0.47
32:BK:28:ASN:C	32:BK:32:PRO:HG2	2.39	0.47
34:BN:73:ASP:HB2	39:BR:82:LEU:HD22	1.95	0.47
35:BO:94:GLU:O	35:BO:95:VAL:HB	2.15	0.47
37:B0:70:LEU:O	37:B0:72:ASP:N	2.47	0.47
39:BR:2:ASN:O	39:BR:3:ARG:HG2	2.15	0.47
39:BR:11:GLU:N	39:BR:11:GLU:OE1	2.46	0.47
39:BR:107:ASP:C	39:BR:111:ARG:CZ	2.87	0.47
44:BU:101:LYS:NZ	44:BU:101:LYS:HB3	2.27	0.47
45:BV:125:LEU:HG	45:BV:164:ALA:HB3	1.96	0.47
45:BV:134:PRO:C	45:BV:136:PHE:N	2.73	0.47
52:B6:19:ARG:HG3	52:B6:21:TYR:HE2	1.79	0.47
54:B8:34:TRP:CE2	54:B8:35:GLN:NE2	2.81	0.47
1:CA:983:A:N1	1:CA:1222:G:N2	2.62	0.47
1:CA:1049:U:H4'	1:CA:1050:G:H5"	1.93	0.47
1:CA:1240:U:O3'	7:CJ:38:LEU:HD21	2.15	0.47
2:CE:5:ILE:O	2:CE:6:THR:C	2.57	0.47
10:CM:86:MET:O	10:CM:87:THR:OG1	2.26	0.47
16:CS:11:SER:HB2	16:CS:14:ASN:HB3	1.96	0.47
19:CV:11:VAL:CG2	19:CV:12:ASP:H	2.15	0.47
25:DA:389:G:C6	35:DO:71:VAL:HG12	2.49	0.47
25:DA:626:U:H5"	25:DA:627:A:C5'	2.44	0.47
25:DA:796:C:H2'	25:DA:797:C:C6	2.49	0.47
25:DA:1716:U:O2'	25:DA:1717:G:H5'	2.14	0.47
25:DA:2285:C:N4	52:D6:25:LYS:HE2	2.29	0.47
25:DA:2473:U:O2	25:DA:2473:U:C2'	2.61	0.47
25:DA:2689:U:H5"	25:DA:2713:A:C2	2.49	0.47
25:DA:2805:G:H2'	25:DA:2807:G:C8	2.49	0.47
30:DG:47:LYS:HD3	30:DG:81:LYS:HG3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DH:53:GLU:HG3	31:DH:54:ARG:H	1.79	0.47
35:DO:61:ARG:O	54:D8:27:THR:HG22	2.14	0.47
1:AA:616:G:H1'	1:AA:625:G:N2	2.28	0.47
1:AA:858:G:O6	1:AA:869:G:H3'	2.15	0.47
1:AA:1238:A:N7	1:AA:1301:U:C4	2.82	0.47
11:AN:59:TYR:O	11:AN:63:LEU:HD12	2.13	0.47
22:AB:48:C:H42	22:AB:53:A:N6	2.13	0.47
25:BA:458:G:O2'	25:BA:469:G:O6	2.25	0.47
25:BA:528:A:C2	25:BA:2043:C:H5'	2.50	0.47
25:BA:1042:G:H1	25:BA:1113:U:H3	1.61	0.47
25:BA:2298:A:H2'	25:BA:2299:G:O4'	2.14	0.47
27:BD:10:THR:HG23	27:BD:13:ARG:CB	2.44	0.47
28:BE:92:THR:HG22	28:BE:93:VAL:N	2.28	0.47
29:BF:51:THR:O	29:BF:93:LYS:HE3	2.14	0.47
33:BM:137:LYS:HD2	33:BM:138:LEU:H	1.80	0.47
34:BN:1:MET:HE2	34:BN:67:LYS:HE2	1.96	0.47
35:BO:138:LEU:HD12	35:BO:144:GLU:HG3	1.95	0.47
45:BV:111:VAL:O	45:BV:112:ARG:C	2.58	0.47
46:B3:17:GLN:O	46:B3:19:LYS:HE3	2.15	0.47
51:B5:3:LYS:CE	51:B5:3:LYS:CA	2.92	0.47
53:B7:35:ARG:HG3	53:B7:42:LEU:HD11	1.96	0.47
1:CA:266:G:H4'	1:CA:267:C:O5'	2.15	0.47
1:CA:1005:A:H5'	1:CA:1006:C:OP2	2.15	0.47
1:CA:1141:C:H2'	1:CA:1142:G:H8	1.79	0.47
1:CA:1374:A:C5	1:CA:1375:A:C8	3.02	0.47
3:CF:173:VAL:N	3:CF:174:PRO:HD3	2.29	0.47
8:CK:51:VAL:HG11	8:CK:60:ARG:CZ	2.44	0.47
9:CL:95:LYS:HD3	9:CL:95:LYS:N	2.29	0.47
22:CB:1:G:H2'	22:CB:1:G:N3	2.30	0.47
22:CB:80:C:H2'	22:CB:81:C:O4'	2.14	0.47
22:CD:46:G:C2	22:CD:55:U:C4	3.02	0.47
25:DA:239:U:H2'	25:DA:240:G:O4'	2.14	0.47
25:DA:835:A:OP1	54:D8:52:LYS:HG2	2.14	0.47
25:DA:945:A:N6	25:DA:2448:A:C6	2.82	0.47
25:DA:1011:G:N2	25:DA:1150:C:C2	2.83	0.47
25:DA:1011:G:C6	25:DA:1013:C:N3	2.83	0.47
25:DA:1111:A:H4'	31:DH:3:ARG:HH11	1.79	0.47
25:DA:1429:G:H2'	25:DA:1430:C:C6	2.50	0.47
25:DA:1496:A:H8	25:DA:1577:C:HO2'	1.44	0.47
25:DA:1568:G:P	27:DD:63:ARG:HH22	2.36	0.47
25:DA:1782:C:H1'	25:DA:2609:U:H5"	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2378:A:C5	25:DA:2379:G:H1'	2.49	0.47
25:DA:2531:A:H4'	31:DH:157:TYR:CD2	2.49	0.47
25:DA:2689:U:OP2	25:DA:2719:G:N2	2.45	0.47
27:DD:34:VAL:C	27:DD:35:LYS:O	2.54	0.47
29:DF:36:VAL:HG11	29:DF:183:VAL:HG11	1.96	0.47
33:DM:10:GLU:OE2	33:DM:11:PRO:HD2	2.14	0.47
34:DN:90:GLN:O	34:DN:92:GLU:HG3	2.14	0.47
36:DP:141:GLN:H	36:DP:141:GLN:NE2	2.12	0.47
38:DQ:102:ALA:HA	38:DQ:105:ALA:HB3	1.97	0.47
44:DU:97:ARG:H	44:DU:97:ARG:CD	2.27	0.47
45:DV:52:SER:C	45:DV:54:HIS:N	2.71	0.47
1:AA:109:A:C6	1:AA:326:G:C6	3.03	0.47
1:AA:188:U:O2'	1:AA:189:U:H5'	2.14	0.47
1:AA:436:C:H2'	1:AA:437:U:C6	2.50	0.47
1:AA:1004:A:P	1:AA:1025:U:N3	2.87	0.47
1:AA:1065:U:O2'	1:AA:1066:C:P	2.72	0.47
1:AA:1176:A:H8	1:AA:1176:A:O5'	1.96	0.47
1:AA:1283:G:O2'	1:AA:1284:C:H5'	2.14	0.47
2:AE:120:ALA:C	2:AE:121:LEU:HD12	2.38	0.47
12:AO:86:ARG:HD3	12:AO:88:LYS:HB2	1.96	0.47
13:AP:23:TYR:HB3	13:AP:67:GLU:HA	1.96	0.47
16:AS:75:ARG:O	16:AS:77:ALA:N	2.42	0.47
22:AB:83:C:C2'	22:AB:84:C:H5'	2.43	0.47
25:BA:508:G:O2'	25:BA:509:C:OP1	2.27	0.47
25:BA:573:G:OP2	41:B2:78:LYS:NZ	2.47	0.47
25:BA:864:G:C6	25:BA:865:C:N4	2.83	0.47
25:BA:1063:G:H22	25:BA:1076:C:H1'	1.79	0.47
25:BA:1382:G:O2'	25:BA:1383:C:H5'	2.14	0.47
25:BA:2163:C:C4	25:BA:2164:C:H5	2.32	0.47
25:BA:2287:A:C4	25:BA:2289:G:C8	3.02	0.47
25:BA:2468:G:O2'	25:BA:2469:A:OP2	2.30	0.47
27:BD:221:VAL:CG2	27:BD:226:MET:HE2	2.39	0.47
30:BG:37:VAL:O	30:BG:94:LEU:CD2	2.62	0.47
33:BM:95:PRO:O	33:BM:96:GLU:CG	2.63	0.47
34:BN:88:ASN:ND2	34:BN:92:GLU:HG3	2.28	0.47
35:BO:99:LEU:HA	35:BO:102:ARG:HD3	1.97	0.47
35:BO:100:LEU:HD12	35:BO:100:LEU:HA	1.74	0.47
41:B2:25:LEU:H	41:B2:92:THR:HG21	1.79	0.47
42:BS:18:ARG:CD	42:BS:76:VAL:HG13	2.40	0.47
45:BV:143:GLY:HA2	45:BV:144:LEU:HB3	1.96	0.47
48:BW:46:GLN:O	48:BW:47:ASN:O	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:443:C:H2'	1:CA:444:C:C6	2.49	0.47
1:CA:674:G:H2'	1:CA:675:A:C8	2.50	0.47
1:CA:954:G:O6	1:CA:1225:A:N6	2.47	0.47
1:CA:986:A:H2'	1:CA:987:G:O4'	2.14	0.47
1:CA:1127:G:O2'	1:CA:1128:C:H5'	2.14	0.47
2:CE:28:PHE:CZ	2:CE:189:ASP:HA	2.49	0.47
5:CH:12:LEU:HD13	5:CH:13:ILE:N	2.29	0.47
7:CJ:120:ILE:O	7:CJ:124:LEU:HB2	2.14	0.47
9:CL:20:ARG:O	9:CL:60:ASP:HB2	2.14	0.47
20:CW:51:GLU:HA	20:CW:54:LYS:HB3	1.96	0.47
22:CB:75:C:HO2'	22:CB:76:C:P	2.35	0.47
25:DA:312:G:N3	25:DA:312:G:H2'	2.29	0.47
25:DA:322:A:H4'	25:DA:323:G:OP2	2.14	0.47
25:DA:847:U:C4	25:DA:933:A:N7	2.82	0.47
25:DA:857:C:C1'	46:D3:26:TYR:HE2	2.24	0.47
25:DA:1023:U:OP2	25:DA:1024:G:N7	2.47	0.47
25:DA:1153:C:H2'	25:DA:1154:G:O4'	2.14	0.47
25:DA:1485:G:O2'	25:DA:1486:A:H5'	2.14	0.47
25:DA:2107:C:H42	25:DA:2182:G:H1	1.63	0.47
25:DA:2355:C:H5'	46:D3:36:ILE:CD1	2.43	0.47
25:DA:2542:A:O2'	25:DA:2543:G:OP2	2.23	0.47
25:DA:2720:U:H2'	25:DA:2721:A:C8	2.49	0.47
25:DA:2741:A:H61	25:DA:2763:G:H1'	1.80	0.47
27:DD:145:VAL:HG11	27:DD:175:LEU:HD11	1.97	0.47
31:DH:92:ILE:HG22	31:DH:93:GLY:N	2.30	0.47
35:DO:56:SER:O	35:DO:57:THR:O	2.31	0.47
40:D1:111:GLU:C	40:D1:113:ALA:H	2.21	0.47
48:DW:23:LYS:O	48:DW:27:GLU:HG3	2.14	0.47
48:DW:43:GLN:O	48:DW:43:GLN:HG2	2.14	0.47
1:AA:452:A:H62	1:AA:480:U:H3	1.62	0.47
1:AA:509:A:O2'	1:AA:510:A:P	2.72	0.47
1:AA:775:G:C2'	1:AA:776:G:H5'	2.44	0.47
1:AA:1039:C:H2'	1:AA:1040:U:O4'	2.13	0.47
1:AA:1277:C:HO2'	1:AA:1279:A:H8	1.52	0.47
1:AA:1346:A:OP1	9:AL:120:ARG:NH1	2.47	0.47
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.41	0.47
2:AE:154:LEU:O	2:AE:155:LEU:HB2	2.14	0.47
3:AF:25:GLY:O	3:AF:26:LYS:C	2.57	0.47
3:AF:70:VAL:CG1	3:AF:71:ALA:N	2.78	0.47
6:AI:25:ILE:HG21	6:AI:82:ARG:HD3	1.96	0.47
7:AJ:90:GLU:CD	7:AJ:90:GLU:H	2.21	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AQ:11:LYS:O	14:AQ:13:THR:N	2.46	0.47
17:AT:52:LYS:HE3	17:AT:52:LYS:HB3	1.70	0.47
19:AV:40:ILE:O	19:AV:41:VAL:HG22	2.13	0.47
20:AW:89:ARG:O	20:AW:93:GLU:HB2	2.14	0.47
22:AB:17:G:O2'	22:AB:66:G:N2	2.47	0.47
22:AB:42:U:H3'	22:AB:43:G:H8	1.79	0.47
25:BA:781:A:H2	25:BA:1776:G:N3	2.13	0.47
25:BA:864:G:OP2	36:BP:22:LYS:HG2	2.14	0.47
25:BA:1177:A:H5"	25:BA:1178:C:OP1	2.14	0.47
25:BA:1558:A:O2'	25:BA:1559:G:OP2	2.31	0.47
25:BA:2396:G:O2'	25:BA:2397:G:H5'	2.14	0.47
25:BA:2721:A:H2'	25:BA:2722:G:O4'	2.15	0.47
31:BH:4:ILE:HB	31:BH:6:ARG:CD	2.45	0.47
31:BH:153:LYS:HG2	31:BH:162:ILE:HG13	1.96	0.47
34:BN:104:ARG:HH22	39:BR:43:GLN:HE22	1.62	0.47
36:BP:64:ILE:HG22	36:BP:65:PHE:N	2.29	0.47
36:BP:87:LYS:HG3	36:BP:88:GLY:N	2.27	0.47
36:BP:136:ALA:HB1	45:BV:52:SER:CB	2.43	0.47
38:BQ:111:GLU:O	38:BQ:112:PHE:HB3	2.14	0.47
39:BR:42:ILE:HG21	39:BR:84:GLN:OE1	2.15	0.47
40:B1:104:GLN:CD	40:B1:104:GLN:H	2.21	0.47
43:BT:12:VAL:HG13	43:BT:27:THR:HG23	1.96	0.47
45:BV:76:LEU:HD23	45:BV:76:LEU:N	2.27	0.47
46:B3:36:ILE:HD13	46:B3:36:ILE:C	2.39	0.47
47:BZ:83:GLU:O	47:BZ:85:LEU:N	2.48	0.47
47:BZ:87:PRO:O	47:BZ:88:LYS:C	2.57	0.47
48:BW:16:LEU:O	48:BW:17:SER:HB3	2.15	0.47
50:B4:37:SER:CA	50:B4:42:PHE:CG	2.96	0.47
1:CA:78:G:H2'	1:CA:79:G:O4'	2.14	0.47
1:CA:458:C:H2'	1:CA:464:G:O4'	2.15	0.47
1:CA:652:U:C2'	1:CA:653:A:H5"	2.45	0.47
1:CA:960:U:O2	1:CA:960:U:C2'	2.62	0.47
1:CA:1065:U:O2'	1:CA:1066:C:OP2	2.33	0.47
1:CA:1298:C:N4	7:CJ:114:ARG:HB3	2.23	0.47
1:CA:1497:G:C2'	1:CA:1498:U:H5'	2.44	0.47
2:CE:71:VAL:CG1	2:CE:170:GLU:HG2	2.44	0.47
2:CE:137:ARG:NH2	2:CE:140:HIS:HB3	2.29	0.47
3:CF:47:LEU:HD21	3:CF:68:VAL:HG11	1.96	0.47
3:CF:119:ARG:NH2	3:CF:140:ARG:HG2	2.26	0.47
3:CF:184:TYR:CD1	3:CF:201:TYR:CE2	3.02	0.47
4:CG:138:TYR:CD2	4:CG:138:TYR:C	2.92	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CJ:113:GLU:HB2	7:CJ:119:ARG:HG2	1.96	0.47
7:CJ:135:VAL:O	7:CJ:139:GLU:HG3	2.14	0.47
9:CL:14:VAL:O	9:CL:65:VAL:HA	2.14	0.47
10:CM:54:PHE:C	10:CM:55:LYS:HD2	2.39	0.47
13:CP:80:ARG:HH22	19:CV:66:MET:HG2	1.79	0.47
23:CC:48:U:H1'	23:CC:49:C:P	2.54	0.47
25:DA:959:A:N6	25:DA:960:A:N1	2.62	0.47
25:DA:978:G:H1	25:DA:985:C:H42	1.63	0.47
25:DA:996:A:N6	25:DA:1160:G:C6	2.83	0.47
25:DA:1445:C:H2'	25:DA:1446:C:C6	2.49	0.47
25:DA:1771:C:C1'	25:DA:1786:A:C8	2.95	0.47
25:DA:2281:C:O2'	25:DA:2282:G:H5'	2.14	0.47
25:DA:2402:C:HO2'	25:DA:2403:C:P	2.33	0.47
25:DA:2667:C:H1'	31:DH:109:PHE:CD2	2.48	0.47
27:DD:35:LYS:HZ2	27:DD:64:ILE:C	2.14	0.47
28:DE:134:ILE:HA	28:DE:137:HIS:CD2	2.49	0.47
29:DF:31:HIS:HB2	35:DO:9:ASN:HD21	1.80	0.47
31:DH:127:GLU:HG3	31:DH:128:PRO:HD2	1.96	0.47
32:DK:8:PRO:HD3	32:DK:15:VAL:CG2	2.44	0.47
35:DO:81:GLN:OE1	35:DO:106:LEU:CA	2.61	0.47
39:DR:24:PRO:HD3	39:DR:52:ILE:HG13	1.95	0.47
47:DZ:87:PRO:O	47:DZ:88:LYS:C	2.57	0.47
50:D4:56:VAL:O	50:D4:57:GLU:HB2	2.15	0.47
1:AA:179:A:H2'	1:AA:180:U:H6	1.79	0.47
1:AA:447:G:H2'	1:AA:485:G:N2	2.29	0.47
1:AA:606:G:H1	1:AA:631:G:H5"	1.79	0.47
1:AA:1027:C:C6	1:AA:1028:C:H5	2.33	0.47
1:AA:1239:A:H62	1:AA:1299:A:H62	1.63	0.47
1:AA:1277:C:O2'	1:AA:1279:A:C8	2.60	0.47
1:AA:1424:C:H2'	1:AA:1425:U:O4'	2.14	0.47
4:AG:187:ARG:HH21	4:AG:190:ASP:CG	2.22	0.47
11:AN:72:ALA:C	11:AN:74:ALA:H	2.22	0.47
12:AO:58:THR:C	12:AO:60:GLY:H	2.22	0.47
25:BA:361:G:O2'	25:BA:362:U:H5'	2.14	0.47
25:BA:475:U:C4	25:BA:481:G:O6	2.68	0.47
25:BA:613:U:O2	25:BA:613:U:O4'	2.31	0.47
25:BA:861:A:C2	25:BA:917:A:C5	3.03	0.47
25:BA:1047:G:C8	25:BA:1110:G:O6	2.68	0.47
25:BA:1076:C:O2	25:BA:1077:A:C8	2.67	0.47
25:BA:1578:U:C2'	25:BA:1579:A:H5'	2.44	0.47
25:BA:2233:U:H2'	25:BA:2234:G:C8	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2689:U:P	25:BA:2719:G:H22	2.38	0.47
26:BB:18:G:H1	26:BB:65:C:N4	2.08	0.47
28:BE:38:THR:OG1	28:BE:39:PRO:HD2	2.15	0.47
30:BG:112:PRO:CA	50:B4:37:SER:HB2	2.44	0.47
38:BQ:24:LEU:HD12	38:BQ:24:LEU:HA	1.76	0.47
38:BQ:42:ASP:OD1	38:BQ:42:ASP:N	2.47	0.47
38:BQ:107:GLU:N	38:BQ:110:LEU:HD21	2.29	0.47
41:B2:48:GLY:O	41:B2:49:THR:O	2.32	0.47
43:BT:55:ASN:HB2	43:BT:80:ILE:HG13	1.96	0.47
44:BU:5:MET:HE1	44:BU:32:PRO:CA	2.42	0.47
44:BU:52:SER:CB	44:BU:53:PRO:HD3	2.31	0.47
52:B6:13:CYS:HB3	52:B6:22:ALA:O	2.15	0.47
54:B8:23:VAL:CG1	54:B8:46:ARG:HB3	2.44	0.47
1:CA:373:A:O2'	1:CA:374:A:H5'	2.14	0.47
1:CA:399:G:H2'	1:CA:400:C:C6	2.50	0.47
1:CA:993:G:H2'	1:CA:995:C:H41	1.79	0.47
1:CA:1007:C:C2	1:CA:1023:G:N2	2.82	0.47
1:CA:1073:U:H2'	1:CA:1074:G:H8	1.80	0.47
2:CE:182:ILE:HD12	2:CE:182:ILE:H	1.78	0.47
3:CF:134:ILE:HG22	3:CF:168:ALA:HB3	1.96	0.47
9:CL:118:LYS:O	9:CL:118:LYS:HG2	2.15	0.47
9:CL:128:ARG:NH2	23:CC:34:U:OP2	2.48	0.47
11:CN:34:ASP:HB2	11:CN:35:PRO:HD2	1.96	0.47
16:CS:43:LYS:HD3	16:CS:43:LYS:N	2.30	0.47
17:CT:63:ARG:HG2	17:CT:64:PRO:CD	2.43	0.47
24:C1:12:A:O2'	24:C1:13:A:OP1	2.33	0.47
25:DA:676:A:H8	25:DA:2069:G:N2	1.99	0.47
25:DA:803:U:C2'	25:DA:804:A:H5'	2.45	0.47
25:DA:885:C:N3	25:DA:890:A:C5	2.81	0.47
25:DA:1050:A:O2'	25:DA:2752:C:O2	2.32	0.47
25:DA:1590:U:H2'	25:DA:1591:G:H8	1.79	0.47
25:DA:2261:C:O2'	25:DA:2262:U:H5'	2.15	0.47
25:DA:2320:A:H61	25:DA:2333:A:H2'	1.79	0.47
26:DB:75:G:H5'	26:DB:75:G:H8	1.79	0.47
30:DG:56:ALA:HB2	30:DG:153:ARG:NE	2.30	0.47
30:DG:105:LYS:HZ3	50:D4:26:SER:HA	1.79	0.47
30:DG:171:ALA:O	30:DG:175:LEU:HG	2.15	0.47
31:DH:85:LYS:HD2	31:DH:85:LYS:N	2.30	0.47
33:DM:41:ASP:O	33:DM:42:TRP:C	2.58	0.47
54:D8:36:LYS:HB2	54:D8:41:ILE:HD11	1.97	0.47
1:AA:5:U:O2'	1:AA:6:G:C4	2.67	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:188:U:C2'	1:AA:189:U:H5'	2.45	0.47
1:AA:198:G:H2'	1:AA:199:G:C8	2.50	0.47
1:AA:273:A:N6	1:AA:274:A:N6	2.63	0.47
1:AA:921:U:H2'	1:AA:922:G:O4'	2.14	0.47
1:AA:947:G:H2'	1:AA:948:C:O4'	2.15	0.47
4:AG:135:LEU:N	4:AG:135:LEU:HD13	2.30	0.47
6:AI:45:LEU:HD21	6:AI:57:GLN:NE2	2.30	0.47
6:AI:99:ALA:O	6:AI:100:ASN:HB2	2.14	0.47
8:AK:4:ASP:HB2	8:AK:89:PRO:HG3	1.97	0.47
8:AK:39:LEU:HB3	8:AK:45:ILE:HG12	1.96	0.47
9:AL:32:ASP:O	9:AL:33:PHE:C	2.57	0.47
11:AN:115:PRO:C	11:AN:117:ASN:H	2.22	0.47
13:AP:23:TYR:CE1	13:AP:71:ARG:HG3	2.50	0.47
14:AQ:43:CYS:HA	14:AQ:46:GLU:HG3	1.97	0.47
15:AR:64:ARG:HH11	15:AR:68:ARG:HH21	1.60	0.47
22:AB:60:A:O2'	22:AB:61:G:H5'	2.15	0.47
22:AB:70:C:H2'	22:AB:70:C:O2	2.14	0.47
23:AC:2:G:H2'	23:AC:3:C:H6	1.79	0.47
25:BA:274:G:OP1	25:BA:274:G:O4'	2.32	0.47
25:BA:571:A:C8	25:BA:2030:A:N6	2.83	0.47
25:BA:764:A:N3	27:BD:213:ARG:HD2	2.30	0.47
25:BA:890:A:H3'	25:BA:892:G:C8	2.37	0.47
25:BA:1093:G:H5'	31:BH:170:ARG:HH21	1.79	0.47
25:BA:1458:C:H4'	25:BA:1459:G:O4'	2.15	0.47
25:BA:1496:A:H5'	25:BA:1497:U:OP1	2.15	0.47
25:BA:2096:U:H2'	25:BA:2097:C:C6	2.49	0.47
25:BA:2322:A:H2'	25:BA:2323:G:O4'	2.14	0.47
25:BA:2496:C:OP1	36:BP:82:ARG:HB3	2.14	0.47
25:BA:2723:C:C4'	37:B0:1:MET:HE3	2.38	0.47
25:BA:2758:A:C4	31:BH:67:LEU:HD21	2.50	0.47
26:BB:15:A:H4'	26:BB:15:A:OP1	2.14	0.47
26:BB:48:A:H4'	38:BQ:95:HIS:CD2	2.39	0.47
26:BB:100:G:H2'	26:BB:101:A:O4'	2.15	0.47
28:BE:13:ARG:HH11	28:BE:21:VAL:CG1	2.25	0.47
29:BF:125:LEU:HD21	29:BF:199:TRP:CE3	2.50	0.47
32:BK:4:ILE:HD11	32:BK:44:LEU:HD12	1.96	0.47
32:BK:122:GLU:HG3	32:BK:123:LEU:H	1.80	0.47
38:BQ:72:ALA:O	38:BQ:76:LYS:HG3	2.14	0.47
39:BR:56:GLY:O	39:BR:59:THR:CG2	2.62	0.47
41:B2:27:ALA:HB3	41:B2:61:VAL:HG11	1.97	0.47
43:BT:47:PHE:O	43:BT:49:VAL:HG23	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BV:63:ASP:N	45:BV:64:GLY:CA	2.75	0.47
46:B3:53:MET:HA	46:B3:58:THR:O	2.14	0.47
50:B4:43:TYR:O	50:B4:44:THR:C	2.56	0.47
1:CA:123:C:OP1	1:CA:312:C:H5'	2.15	0.47
1:CA:523:A:H61	12:CO:50:ARG:HH12	1.62	0.47
1:CA:636:U:H2'	1:CA:637:G:H8	1.79	0.47
1:CA:691:G:H1'	1:CA:696:A:N6	2.29	0.47
1:CA:1127:G:N2	1:CA:1146:A:H62	2.12	0.47
1:CA:1255:G:OP1	10:CM:45:ARG:NH2	2.41	0.47
1:CA:1292:U:H2'	1:CA:1293:G:H8	1.79	0.47
1:CA:1306:A:H61	1:CA:1331:G:H1'	1.78	0.47
1:CA:1423:G:OP1	34:DN:49:ARG:NH2	2.47	0.47
1:CA:1507:A:C2	1:CA:1508:G:C4	3.02	0.47
3:CF:119:ARG:HH22	3:CF:140:ARG:CG	2.25	0.47
3:CF:188:LEU:HD12	3:CF:195:VAL:HG11	1.96	0.47
5:CH:99:GLY:O	5:CH:117:ASP:HA	2.14	0.47
5:CH:100:VAL:O	5:CH:100:VAL:HG13	2.15	0.47
6:CI:38:GLU:OE1	6:CI:64:GLN:HG2	2.14	0.47
7:CJ:85:TYR:CZ	7:CJ:154:TYR:CE1	3.03	0.47
8:CK:69:ARG:HD3	8:CK:75:ARG:O	2.15	0.47
9:CL:3:GLN:HE21	9:CL:20:ARG:HH11	1.63	0.47
13:CP:96:LEU:HB3	13:CP:97:PRO:HD2	1.96	0.47
15:CR:21:ASP:OD2	15:CR:24:SER:HB2	2.15	0.47
19:CV:12:ASP:HB3	19:CV:38:SER:HB3	1.97	0.47
19:CV:41:VAL:O	19:CV:43:GLU:N	2.48	0.47
22:CB:9:U:H5	22:CB:21:A:C8	2.32	0.47
22:CB:21:A:H2	22:CB:56:U:C2	2.32	0.47
22:CB:51:C:H2'	22:CB:52:G:O4'	2.15	0.47
22:CD:21:A:C4'	22:CD:22:A:O5'	2.62	0.47
25:DA:9:U:O4	25:DA:2629:A:C6	2.68	0.47
25:DA:140:A:H8	25:DA:1408:C:HO2'	1.43	0.47
25:DA:440:G:H2'	25:DA:441:U:C6	2.49	0.47
25:DA:654(S):G:C4'	25:DA:654(T):A:OP1	2.62	0.47
25:DA:704:G:N2	25:DA:726:G:C4	2.83	0.47
25:DA:709:U:H2'	25:DA:710:G:H8	1.79	0.47
25:DA:820:A:H2'	25:DA:821:A:O4'	2.15	0.47
25:DA:848:G:O6	25:DA:929:G:H2'	2.14	0.47
25:DA:895:U:H4'	25:DA:896:A:C4	2.50	0.47
25:DA:971:C:C2'	25:DA:972:G:H5'	2.45	0.47
25:DA:973:A:OP1	25:DA:973:A:H8	1.98	0.47
25:DA:1428:C:O2'	25:DA:1569:A:OP2	2.26	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2035:G:H4'	25:DA:2036:C:OP2	2.15	0.47
25:DA:2287:A:N1	25:DA:2346:A:C2	2.83	0.47
25:DA:2621:A:P	28:DE:119:ARG:HH22	2.37	0.47
25:DA:2648:C:H2'	25:DA:2649:U:H6	1.79	0.47
25:DA:2859:G:O2'	25:DA:2860:A:P	2.73	0.47
26:DB:39:A:N1	50:D4:1:MET:HB3	2.29	0.47
27:DD:9:TYR:CD2	27:DD:10:THR:HG23	2.49	0.47
27:DD:17:THR:O	27:DD:211:ARG:NH2	2.44	0.47
27:DD:158:ALA:O	27:DD:159:ALA:C	2.58	0.47
28:DE:199:ARG:HG2	28:DE:200:GLU:OE1	2.14	0.47
29:DF:107:LYS:C	29:DF:109:GLY:H	2.22	0.47
30:DG:81:LYS:O	30:DG:82:LEU:HB2	2.15	0.47
31:DH:122:THR:C	31:DH:123:PHE:CG	2.93	0.47
35:DO:106:LEU:HD13	35:DO:112:LEU:HD23	1.97	0.47
36:DP:32:TYR:OH	36:DP:111:GLU:HG3	2.15	0.47
36:DP:39:PRO:HA	36:DP:97:VAL:O	2.15	0.47
36:DP:58:PHE:O	36:DP:58:PHE:HD1	1.98	0.47
37:D0:70:LEU:C	37:D0:72:ASP:H	2.22	0.47
39:DR:19:LEU:HD12	39:DR:19:LEU:N	2.30	0.47
44:DU:18:GLY:O	44:DU:21:LYS:N	2.47	0.47
44:DU:94:LYS:O	44:DU:101:LYS:HB3	2.15	0.47
47:DZ:29:GLY:O	47:DZ:30:VAL:CG2	2.60	0.47
52:D6:15:GLU:OE1	52:D6:44:ARG:NH2	2.30	0.47
54:D8:8:LYS:HB3	54:D8:12:LYS:HE2	1.96	0.47
54:D8:32:LEU:CD2	54:D8:33:ASN:H	2.28	0.47
1:AA:707:C:O2'	1:AA:708:C:H5'	2.14	0.47
1:AA:878:G:H5'	8:AK:89:PRO:HG2	1.96	0.47
1:AA:919:A:O2'	1:AA:920:U:H5'	2.15	0.47
1:AA:1076:C:C2	1:AA:1082:G:C2	3.03	0.47
1:AA:1152:A:O3'	10:AM:13:HIS:HE1	1.97	0.47
1:AA:1203:C:H2'	1:AA:1204:A:O4'	2.15	0.47
5:AH:71:LEU:HD11	5:AH:113:ALA:O	2.15	0.47
12:AO:53:ALA:HB2	12:AO:67:ILE:HD11	1.96	0.47
16:AS:28:ARG:HG2	16:AS:28:ARG:NH1	2.29	0.47
20:AW:97:ALA:O	20:AW:99:LEU:N	2.48	0.47
22:AB:3:U:H1'	22:AB:4:G:O5'	2.15	0.47
25:BA:309:G:N3	25:BA:329:G:O2'	2.44	0.47
25:BA:316:C:H2'	25:BA:317:G:O5'	2.15	0.47
25:BA:531:C:OP1	25:BA:561:G:N1	2.48	0.47
25:BA:590:A:H2'	25:BA:591:C:C6	2.49	0.47
25:BA:780:G:C2	25:BA:783:A:N6	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:852:G:H2'	25:BA:853:G:C8	2.49	0.47
25:BA:1050:A:O2'	25:BA:2752:C:H1'	2.14	0.47
25:BA:1174:A:H2'	25:BA:1175:U:H4'	1.97	0.47
25:BA:1188:U:C4'	41:B2:79:VAL:HG22	2.45	0.47
25:BA:1654:A:OP2	37:B0:2:ARG:HD3	2.14	0.47
25:BA:2031:A:C6	25:BA:2498:C:H1'	2.50	0.47
25:BA:2285:C:OP1	52:B6:28:ARG:HD3	2.14	0.47
28:BE:38:THR:CG2	28:BE:41:LYS:HB2	2.45	0.47
30:BG:95:ARG:O	30:BG:96:ARG:C	2.57	0.47
30:BG:97:ASP:O	30:BG:100:TRP:N	2.48	0.47
33:BM:46:VAL:CG1	33:BM:48:MET:HG3	2.45	0.47
34:BN:64:ARG:HG2	34:BN:79:PHE:CG	2.49	0.47
43:BT:11:PRO:HB3	43:BT:92:LEU:HD21	1.96	0.47
43:BT:57:LEU:HD11	43:BT:78:LYS:NZ	2.30	0.47
43:BT:90:GLU:C	43:BT:92:LEU:H	2.22	0.47
1:CA:60:A:H4'	1:CA:61:G:O5'	2.15	0.47
1:CA:148:G:H2'	1:CA:149:A:H8	1.80	0.47
1:CA:271:C:H2'	1:CA:272:C:C6	2.50	0.47
1:CA:1261:A:C6	1:CA:1262:C:C2	3.03	0.47
1:CA:1350:A:C4	1:CA:1351:U:C6	3.03	0.47
8:CK:86:ILE:O	8:CK:88:LYS:HG2	2.14	0.47
8:CK:92:ARG:CG	8:CK:92:ARG:NH1	2.61	0.47
18:CU:25:THR:HG22	18:CU:25:THR:O	2.14	0.47
25:DA:78:A:H2'	25:DA:79:G:H8	1.80	0.47
25:DA:302:C:H2'	25:DA:303:U:C6	2.50	0.47
25:DA:309:G:N3	25:DA:329:G:O2'	2.46	0.47
25:DA:528:A:H3'	25:DA:528:A:C8	2.49	0.47
25:DA:571:A:H5'	25:DA:2030:A:N7	2.29	0.47
25:DA:706:A:H2'	25:DA:707:G:O4'	2.15	0.47
25:DA:806:C:OP2	35:DO:41:ARG:HD3	2.15	0.47
25:DA:1013:C:H2'	25:DA:1014:U:H6	1.80	0.47
25:DA:1786:A:H2	25:DA:2606:C:H1'	1.77	0.47
25:DA:1817:G:H2'	25:DA:1818:U:H5'	1.97	0.47
25:DA:2164:C:H2'	25:DA:2165:G:O4'	2.14	0.47
25:DA:2591:C:H2'	25:DA:2592:G:C8	2.49	0.47
25:DA:2751:G:C5'	25:DA:2752:C:OP2	2.63	0.47
25:DA:2751:G:H5'	25:DA:2752:C:OP2	2.15	0.47
26:DB:111:U:H2'	26:DB:112:G:H8	1.80	0.47
27:DD:102:LYS:C	27:DD:103:ARG:HG2	2.40	0.47
28:DE:11:MET:HG3	28:DE:24:THR:H	1.79	0.47
28:DE:24:THR:O	28:DE:25:VAL:HB	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:64:LYS:C	28:DE:66:HIS:N	2.72	0.47
29:DF:132:VAL:C	29:DF:134:GLY:N	2.72	0.47
33:DM:34:LEU:O	33:DM:49:GLY:HA3	2.15	0.47
35:DO:136:GLU:O	35:DO:139:LYS:N	2.47	0.47
39:DR:29:ARG:HG3	39:DR:29:ARG:NH1	2.28	0.47
44:DU:8:LYS:HG3	44:DU:94:LYS:HZ1	1.79	0.47
50:D4:34:GLU:HG2	50:D4:35:VAL:H	1.80	0.47
52:D6:49:HIS:O	52:D6:50:ARG:HD3	2.15	0.47
1:AA:1347:G:C8	9:AL:107:ARG:HB3	2.49	0.47
5:AH:137:GLU:O	5:AH:141:GLN:HG3	2.15	0.47
6:AI:40:VAL:HA	6:AI:62:TRP:O	2.15	0.47
7:AJ:126:ASP:O	7:AJ:130:GLY:N	2.48	0.47
8:AK:20:TYR:HD1	8:AK:65:TYR:CE2	2.33	0.47
9:AL:9:ARG:HG3	9:AL:104:ARG:NH1	2.30	0.47
22:AB:72:U:OP2	22:AB:72:U:H6	1.98	0.47
23:AC:57:C:O2'	30:BG:78:SER:HB2	2.14	0.47
23:AC:63:C:H2'	23:AC:64:G:H8	1.78	0.47
25:BA:130:C:O3'	25:BA:1349:A:H1'	2.15	0.47
25:BA:250:G:H2'	25:BA:251:A:C8	2.50	0.47
25:BA:1130:U:HO2'	25:BA:1131:G:P	2.37	0.47
25:BA:1466:G:H2'	25:BA:1547:C:N4	2.29	0.47
25:BA:1825:A:OP1	27:BD:249:PRO:HD3	2.15	0.47
25:BA:2138:C:N4	25:BA:2153:G:H1	2.12	0.47
25:BA:2219:G:C2'	25:BA:2224:G:H5'	2.44	0.47
25:BA:2272:U:C5'	25:BA:2273:A:OP1	2.63	0.47
25:BA:2291:U:H2'	25:BA:2292:C:C6	2.50	0.47
25:BA:2308:G:H2'	25:BA:2308:G:N3	2.30	0.47
25:BA:2367:G:H2'	25:BA:2368:C:H6	1.80	0.47
25:BA:2630:G:H2'	25:BA:2631:G:C8	2.50	0.47
25:BA:2751:G:C2	31:BH:3:ARG:HB3	2.50	0.47
25:BA:2789:C:H2'	25:BA:2789:C:O2	2.15	0.47
26:BB:42:C:O2	30:BG:92:VAL:HA	2.15	0.47
28:BE:4:ILE:CD1	28:BE:28:ALA:HB1	2.45	0.47
28:BE:27:LEU:O	28:BE:27:LEU:HD23	2.15	0.47
32:BK:104:GLN:O	32:BK:105:HIS:CG	2.68	0.47
32:BK:110:ASP:OD2	32:BK:112:LYS:O	2.33	0.47
39:BR:57:PHE:O	39:BR:58:ASN:C	2.56	0.47
45:BV:150:LEU:HB3	45:BV:171:ILE:CG2	2.45	0.47
47:BZ:85:LEU:N	47:BZ:85:LEU:HD22	2.29	0.47
1:CA:76:G:C6	1:CA:77:C:C4	3.03	0.47
1:CA:436:C:H2'	1:CA:437:U:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:649:G:O2'	1:CA:650:G:H5'	2.15	0.47
1:CA:977:A:C2'	1:CA:978:A:H5'	2.42	0.47
1:CA:1228:C:OP1	13:CP:115:LYS:NZ	2.44	0.47
1:CA:1248:A:O2'	9:CL:70:LYS:NZ	2.48	0.47
1:CA:1297:C:OP2	1:CA:1297:C:H6	1.98	0.47
1:CA:1316:G:N2	1:CA:1318:A:H3'	2.29	0.47
1:CA:1362(A):C:H5'	1:CA:1363:A:O5'	2.15	0.47
9:CL:21:PRO:HA	9:CL:59:PHE:HA	1.97	0.47
10:CM:4:ILE:HG12	10:CM:100:THR:HB	1.96	0.47
14:CQ:15:LYS:HG2	14:CQ:16:PHE:CD2	2.49	0.47
25:DA:33:U:H4'	25:DA:34:C:OP1	2.15	0.47
25:DA:138:G:H22	43:DT:44:GLU:CD	2.23	0.47
25:DA:864:G:H21	25:DA:866:A:H61	1.63	0.47
25:DA:1162:G:H21	41:D2:89:GLN:HE22	1.63	0.47
25:DA:1543:A:OP1	25:DA:1543:A:H4'	2.15	0.47
25:DA:1667:G:O2'	25:DA:1991:U:O4	2.28	0.47
25:DA:2059:A:C5'	25:DA:2060:A:OP2	2.60	0.47
25:DA:2086:U:H2'	25:DA:2087:G:C8	2.50	0.47
25:DA:2131:G:OP1	25:DA:2133:G:H4'	2.15	0.47
25:DA:2232:U:P	47:DZ:40:ARG:HH12	2.38	0.47
25:DA:2520:C:N4	25:DA:2542:A:H62	2.11	0.47
25:DA:2542:A:H5"	25:DA:2542:A:N3	2.30	0.47
25:DA:2749:A:N6	25:DA:2750:A:H62	2.13	0.47
25:DA:2824:C:H2'	25:DA:2825:C:O4'	2.15	0.47
27:DD:35:LYS:CE	27:DD:104:TYR:HB2	2.45	0.47
28:DE:98:PRO:HD3	28:DE:175:VAL:CG1	2.45	0.47
29:DF:185:ASP:CG	29:DF:188:ARG:HH21	2.22	0.47
34:DN:34:THR:O	34:DN:37:ASP:HB2	2.14	0.47
35:DO:96:THR:HG23	35:DO:98:GLU:HB3	1.97	0.47
39:DR:125:ARG:HB2	39:DR:129:ARG:NH2	2.30	0.47
47:DZ:85:LEU:CA	47:DZ:87:PRO:HD2	2.44	0.47
48:DW:47:ASN:C	48:DW:49:LYS:H	2.22	0.47
52:D6:44:ARG:HB3	52:D6:45:LYS:H	1.53	0.47
1:AA:210:U:H2'	1:AA:216:G:OP2	2.15	0.47
1:AA:258:G:H2'	1:AA:259:G:C8	2.44	0.47
1:AA:377:G:H5'	16:AS:5:ARG:HH12	1.80	0.47
1:AA:672:U:O2'	1:AA:673:G:H5'	2.15	0.47
1:AA:881:G:P	12:AO:9:ARG:NH2	2.87	0.47
1:AA:967:C:H5"	1:AA:968:A:OP2	2.14	0.47
4:AG:5:ILE:HG23	4:AG:6:GLY:N	2.29	0.47
6:AI:2:ARG:HD2	6:AI:4:TYR:OH	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AM:49:VAL:HG22	14:AQ:41:ARG:HB2	1.95	0.47
11:AN:20:TYR:HB2	11:AN:31:THR:HG23	1.96	0.47
13:AP:48:LEU:O	13:AP:49:THR:C	2.58	0.47
13:AP:84:ILE:HD11	19:AV:66:MET:CG	2.45	0.47
22:AD:6:G:C6	22:AD:7:G:C6	3.03	0.47
25:BA:777:A:C2	25:BA:778:G:C4	3.03	0.47
25:BA:2287:A:N6	25:BA:2344:U:N3	2.49	0.47
25:BA:2685:G:OP2	39:BR:51:ARG:NH2	2.48	0.47
28:BE:61:ARG:CB	28:BE:62:PRO:CD	2.91	0.47
32:BK:30:LEU:HB3	32:BK:36:ALA:HB3	1.97	0.47
37:B0:59:ASP:OD2	37:B0:59:ASP:N	2.48	0.47
38:BQ:78:LEU:HD12	38:BQ:108:GLY:CA	2.43	0.47
51:B5:6:VAL:HG13	51:B5:7:PRO:N	2.28	0.47
52:B6:47:THR:HG22	52:B6:48:VAL:N	2.22	0.47
1:CA:518:C:H5”	1:CA:519:C:C6	2.49	0.47
1:CA:940:C:H2’	1:CA:941:G:C8	2.50	0.47
1:CA:1157:A:N6	1:CA:1180:A:C5	2.82	0.47
1:CA:1212:U:O2’	1:CA:1213:A:C8	2.67	0.47
2:CE:128:GLU:O	2:CE:129:GLU:HB2	2.15	0.47
5:CH:20:GLN:NE2	5:CH:21:ALA:O	2.47	0.47
10:CM:47:PHE:CZ	14:CQ:37:PHE:HE2	2.32	0.47
22:CD:5:G:H1	22:CD:77:C:N4	2.13	0.47
22:CD:17:G:N2	22:CD:67:A:C5	2.83	0.47
22:CD:46:G:H2’	22:CD:47:U:C6	2.49	0.47
25:DA:311:A:C6	25:DA:328:U:C4	3.02	0.47
25:DA:533:G:H5’	40:D1:24:TYR:CD2	2.50	0.47
25:DA:603:A:H1’	25:DA:604:G:O4’	2.15	0.47
25:DA:857:C:C4	25:DA:858:U:O4	2.67	0.47
25:DA:993:G:C1’	41:D2:87:HIS:CE1	2.93	0.47
25:DA:1005:C:O2’	33:DM:28:THR:CG2	2.63	0.47
25:DA:1443:G:H8	25:DA:1443:G:C5’	2.28	0.47
25:DA:2615:U:C6	51:D5:7:PRO:HA	2.50	0.47
29:DF:63:LYS:HE2	29:DF:67:GLN:CB	2.44	0.47
33:DM:1:MET:HE1	40:D1:97:ASP:HB2	1.97	0.47
36:DP:43:THR:HG22	36:DP:94:VAL:CG1	2.45	0.47
45:DV:80:ARG:O	45:DV:81:ARG:CB	2.62	0.47
45:DV:157:LEU:HB3	45:DV:161:VAL:HG21	1.96	0.47
1:AA:84:U:O2	1:AA:84:U:H2’	2.14	0.46
1:AA:342:C:C2	1:AA:348:G:N2	2.84	0.46
1:AA:570:G:H1’	1:AA:820:U:C4	2.50	0.46
1:AA:999:U:HO2’	25:DA:2137:C:H5’	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1503:A:N6	24:A1:12:A:C8	2.84	0.46
2:AE:96:ARG:HD2	2:AE:148:TYR:HE1	1.81	0.46
3:AF:82:GLU:O	3:AF:86:VAL:HG13	2.15	0.46
3:AF:165:THR:O	3:AF:165:THR:HG23	2.16	0.46
8:AK:109:ILE:HG12	8:AK:110:ALA:N	2.30	0.46
9:AL:99:LEU:HB3	9:AL:101:PHE:CD1	2.50	0.46
16:AS:71:ARG:HG3	16:AS:80:PHE:HE1	1.80	0.46
20:AW:98:PRO:C	20:AW:100:ILE:N	2.73	0.46
25:BA:91:A:H2'	25:BA:92:G:H8	1.80	0.46
25:BA:259:G:N2	25:BA:621:A:C8	2.81	0.46
25:BA:821:A:H2'	25:BA:946:G:H5"	1.98	0.46
25:BA:974(A):C:O2	25:BA:974(A):C:H2'	2.15	0.46
25:BA:2015:A:N9	51:B5:2:ALA:HA	2.31	0.46
25:BA:2286:A:H8	52:B6:37:ARG:HH11	1.63	0.46
25:BA:2733:A:C2'	25:BA:2734:A:H5"	2.43	0.46
26:BB:71:C:O2	26:BB:71:C:H2'	2.14	0.46
29:BF:11:VAL:HG12	29:BF:12:LEU:N	2.30	0.46
37:B0:67:LEU:HD13	37:B0:76:VAL:HG21	1.97	0.46
38:BQ:106:ARG:H	38:BQ:106:ARG:HG3	1.47	0.46
47:BZ:58:ILE:HD11	47:BZ:86:SER:HB2	1.97	0.46
1:CA:116:A:H61	1:CA:313:A:H1'	1.79	0.46
1:CA:467:G:C6	1:CA:468:A:C5	3.03	0.46
1:CA:1051:C:H2'	1:CA:1052:U:C6	2.50	0.46
1:CA:1514:C:H2'	1:CA:1515:C:H6	1.79	0.46
2:CE:28:PHE:HD2	2:CE:194:PRO:HD3	1.80	0.46
6:CI:15:ASP:OD1	6:CI:15:ASP:C	2.57	0.46
22:CD:49:A:H2'	22:CD:49:A:N3	2.29	0.46
25:DA:38:A:H2'	25:DA:39:C:H6	1.75	0.46
25:DA:84:A:H61	25:DA:102:G:C2'	2.21	0.46
25:DA:142:G:H2'	25:DA:143:C:C6	2.50	0.46
25:DA:526:A:O2'	25:DA:2043:C:O2	2.22	0.46
25:DA:747:U:P	51:D5:3:LYS:HD2	2.55	0.46
25:DA:1265:A:O4'	25:DA:1267:U:C6	2.69	0.46
25:DA:1301:A:O2'	25:DA:1302:A:H3'	2.14	0.46
25:DA:1523:U:O2'	25:DA:1524:G:H5'	2.14	0.46
25:DA:1669:A:H5"	25:DA:2550:G:OP1	2.15	0.46
25:DA:1735:C:C2'	25:DA:1741:C:H5'	2.44	0.46
25:DA:2056:G:N3	25:DA:2056:G:H2'	2.29	0.46
25:DA:2340:G:H2'	25:DA:2341:G:H8	1.80	0.46
25:DA:2819:G:H2'	25:DA:2821:A:N7	2.29	0.46
26:DB:48:A:H2'	26:DB:49:C:C6	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:53:PRO:O	28:DE:54:GLN:C	2.58	0.46
35:DO:49:ARG:HG2	54:D8:59:LYS:HG3	1.97	0.46
42:DS:73:ALA:HB3	42:DS:106:ILE:HD11	1.97	0.46
45:DV:120:ILE:HB	45:DV:169:GLU:OE2	2.15	0.46
50:D4:1:MET:SD	50:D4:1:MET:N	2.83	0.46
1:AA:49:U:O2'	1:AA:50:A:C3'	2.60	0.46
1:AA:343:U:O2'	1:AA:346:G:O6	2.32	0.46
1:AA:404:U:H2'	1:AA:405:U:C6	2.50	0.46
1:AA:443:C:H2'	1:AA:444:C:H6	1.80	0.46
1:AA:466:C:H5"	1:AA:467:G:OP2	2.14	0.46
1:AA:1503:A:O2'	24:A1:13:A:N6	2.48	0.46
4:AG:196:LEU:C	4:AG:198:VAL:H	2.23	0.46
8:AK:91:ARG:HH11	8:AK:91:ARG:HG2	1.80	0.46
22:AB:22:A:O3'	22:AB:23:A:O4'	2.33	0.46
22:AB:74:C:N4	22:AB:75:C:C4	2.83	0.46
25:BA:7:G:H4'	33:BM:13:TRP:CH2	2.50	0.46
25:BA:270(R):G:H2'	25:BA:270(S):G:H8	1.78	0.46
25:BA:500:G:N2	25:BA:502:A:H3'	2.31	0.46
25:BA:917:A:H2'	25:BA:918:A:H5'	1.96	0.46
25:BA:943:U:OP2	35:BO:36:LYS:CG	2.63	0.46
25:BA:1076:C:H2'	25:BA:1077:A:H5"	1.96	0.46
25:BA:1486:A:H2'	25:BA:1487:G:C8	2.44	0.46
25:BA:1510:A:OP1	25:BA:1511:A:H8	1.98	0.46
25:BA:1607:C:H4'	25:BA:1608:A:O5'	2.15	0.46
25:BA:1614:A:N6	42:BS:88:ARG:H	2.13	0.46
25:BA:1675:C:H2'	25:BA:1676:A:O4'	2.15	0.46
25:BA:2056:G:H2'	25:BA:2056:G:N3	2.30	0.46
25:BA:2593:U:H2'	25:BA:2594:C:H6	1.80	0.46
27:BD:182:LEU:O	27:BD:271:ILE:HG13	2.15	0.46
29:BF:45:ARG:NH1	29:BF:45:ARG:CG	2.69	0.46
29:BF:101:LEU:CD1	29:BF:102:PRO:HD2	2.35	0.46
31:BH:30:LYS:NZ	31:BH:83:TYR:HE2	2.13	0.46
34:BN:7:TYR:OH	34:BN:44:LYS:HG3	2.14	0.46
34:BN:93:PRO:HG3	34:BN:114:ILE:HG12	1.97	0.46
41:B2:25:LEU:H	41:B2:92:THR:CG2	2.27	0.46
45:BV:117:LEU:CD2	45:BV:119:GLU:HG3	2.45	0.46
52:B6:41:PRO:HD2	52:B6:46:HIS:N	2.30	0.46
52:B6:44:ARG:O	52:B6:45:LYS:HG2	2.16	0.46
1:CA:389:A:N3	1:CA:389:A:H2'	2.28	0.46
1:CA:909:A:OP1	12:CO:18:LYS:HD3	2.15	0.46
1:CA:1004:A:H1'	1:CA:1036:G:C5	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1054:C:HO2'	1:CA:1055:A:P	2.39	0.46
1:CA:1055:A:C6	1:CA:1206:G:C4	3.03	0.46
1:CA:1127:G:C2	1:CA:1145:C:C2	3.03	0.46
2:CE:131:PRO:C	2:CE:133:LYS:H	2.23	0.46
3:CF:43:LEU:HD13	3:CF:47:LEU:HD22	1.96	0.46
11:CN:93:GLN:HA	11:CN:93:GLN:HE21	1.81	0.46
14:CQ:24:CYS:SG	14:CQ:29:ARG:HB2	2.56	0.46
25:DA:78:A:H2'	25:DA:79:G:C8	2.51	0.46
25:DA:270(K):C:N4	25:DA:270(N):G:H1	2.13	0.46
25:DA:875:G:H2'	25:DA:876:C:O4'	2.15	0.46
25:DA:889:C:C4	25:DA:890:A:H1'	2.50	0.46
25:DA:1394:U:H3'	25:DA:1394:U:H6	1.81	0.46
25:DA:1606:G:H5"	25:DA:1607:C:OP1	2.15	0.46
25:DA:1639:U:H4'	25:DA:2699:C:H4'	1.96	0.46
25:DA:2010:G:OP1	42:DS:41:LYS:HD3	2.15	0.46
25:DA:2286:A:N3	52:D6:28:ARG:NH2	2.63	0.46
25:DA:2748:A:H2'	25:DA:2749:A:O4'	2.14	0.46
26:DB:15:A:OP2	26:DB:107:U:O2'	2.32	0.46
28:DE:21:VAL:O	28:DE:23:VAL:HG13	2.15	0.46
30:DG:5:VAL:HG13	50:D4:23:GLU:OE2	2.15	0.46
30:DG:165:THR:OG1	30:DG:168:GLU:HG3	2.15	0.46
35:DO:107:LYS:HG3	35:DO:110:TYR:CD2	2.50	0.46
38:DQ:67:ARG:HB2	38:DQ:67:ARG:NH1	2.30	0.46
39:DR:64:ARG:CB	39:DR:73:GLU:HG2	2.37	0.46
44:DU:74:PRO:O	44:DU:80:GLY:HA2	2.16	0.46
52:D6:17:LYS:O	52:D6:44:ARG:NH2	2.48	0.46
1:AA:8:A:H5"	5:AH:120:THR:O	2.15	0.46
1:AA:411:A:C5	1:AA:429:U:C5	3.03	0.46
1:AA:998:G:H2'	1:AA:998(A):C:H6	1.79	0.46
1:AA:1120:G:H2'	1:AA:1121:U:C6	2.50	0.46
1:AA:1206:G:C6	1:AA:1207:G:C5	3.04	0.46
4:AG:31:CYS:C	4:AG:33:MET:N	2.73	0.46
5:AH:41:VAL:CG1	5:AH:113:ALA:HB2	2.45	0.46
24:A1:24:A:C6	24:A1:25:A:N6	2.83	0.46
25:BA:752:A:H4'	25:BA:753:C:H5'	1.98	0.46
25:BA:826:U:OP1	25:BA:2428:G:H3'	2.15	0.46
25:BA:1575:C:H2'	25:BA:1576:U:H6	1.81	0.46
25:BA:1598:C:H2'	25:BA:1599:C:H6	1.81	0.46
25:BA:1771:C:O2'	25:BA:1786:A:H8	1.88	0.46
25:BA:1963:U:H6	25:BA:1963:U:OP1	1.99	0.46
25:BA:2099:U:H2'	25:BA:2099:U:O2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2211:G:H3'	25:BA:2212:A:C4	2.51	0.46
25:BA:2371:G:H21	52:B6:46:HIS:CE1	2.34	0.46
25:BA:2492:U:H2'	25:BA:2493:U:C6	2.50	0.46
26:BB:2:C:H2'	26:BB:3:C:C6	2.50	0.46
27:BD:34:VAL:C	27:BD:35:LYS:O	2.57	0.46
27:BD:238:GLY:O	27:BD:239:ARG:C	2.58	0.46
30:BG:2:PRO:HB3	50:B4:25:TYR:CE1	2.50	0.46
30:BG:57:ALA:HB2	30:BG:90:LEU:HD21	1.98	0.46
31:BH:58:GLU:O	31:BH:59:ARG:C	2.58	0.46
33:BM:78:TYR:N	33:BM:78:TYR:CD1	2.83	0.46
35:BO:3:LEU:HA	35:BO:6:LEU:CD2	2.43	0.46
39:BR:55:ASN:H	39:BR:59:THR:CG2	2.28	0.46
43:BT:89:ILE:O	43:BT:93:GLU:HG2	2.15	0.46
45:BV:15:PRO:HB2	45:BV:19:ARG:NH2	2.30	0.46
47:BZ:91:LYS:C	47:BZ:93:GLU:N	2.72	0.46
1:CA:118:U:O2	1:CA:118:U:H2'	2.14	0.46
1:CA:374:A:C6	1:CA:375:U:C4	3.03	0.46
1:CA:792:A:H1'	1:CA:794:A:N7	2.30	0.46
1:CA:1053:G:HO2'	1:CA:1054:C:P	2.38	0.46
1:CA:1128:C:O2'	1:CA:1129:C:O5'	2.33	0.46
1:CA:1200:C:H1'	1:CA:1204:A:H62	1.81	0.46
7:CJ:66:VAL:O	7:CJ:70:LYS:HG3	2.15	0.46
15:CR:56:LEU:HD21	25:DA:715:G:C2	2.51	0.46
17:CT:32:TYR:O	17:CT:34:LYS:N	2.45	0.46
22:CB:59:A:C6	22:CB:60:A:C5	3.03	0.46
22:CD:46:G:C2	22:CD:47:U:C2	3.04	0.46
25:DA:55:G:H2'	25:DA:56:A:H8	1.80	0.46
25:DA:142:G:H1'	43:DT:37:THR:HG21	1.97	0.46
25:DA:511:U:O4	25:DA:512:G:C2	2.68	0.46
25:DA:613:U:O4'	25:DA:613:U:O2	2.33	0.46
25:DA:790:C:H1'	25:DA:791:C:OP1	2.15	0.46
25:DA:824:A:H1'	25:DA:2358:G:N7	2.30	0.46
25:DA:953:A:H2'	25:DA:954:G:H8	1.80	0.46
25:DA:1170:G:O6	25:DA:1179:C:N3	2.48	0.46
25:DA:1568:G:H5"	27:DD:61:LEU:HD22	1.96	0.46
25:DA:2015:A:H1'	51:D5:2:ALA:CA	2.44	0.46
25:DA:2129:C:C2'	25:DA:2130:U:H5'	2.45	0.46
25:DA:2170:A:H4'	25:DA:2171:A:OP2	2.16	0.46
25:DA:2419:U:O4	54:D8:31:HIS:CG	2.69	0.46
28:DE:61:ARG:C	28:DE:63:LEU:N	2.71	0.46
36:DP:26:TYR:C	36:DP:26:TYR:CD2	2.91	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:D2:76:LYS:HD2	41:D2:80:GLN:O	2.15	0.46
46:D3:55:ARG:HB3	46:D3:55:ARG:CZ	2.46	0.46
47:DZ:85:LEU:C	47:DZ:87:PRO:HD2	2.41	0.46
1:AA:407:G:H2'	1:AA:408:A:H8	1.80	0.46
1:AA:413:G:O2'	1:AA:414:A:P	2.74	0.46
1:AA:851:G:O2'	1:AA:852:G:H5'	2.15	0.46
1:AA:950:U:H2'	1:AA:951:G:C8	2.51	0.46
1:AA:959:A:C2	1:AA:1222:G:O4'	2.68	0.46
1:AA:971:G:N2	1:AA:1363:A:OP2	2.34	0.46
1:AA:1158:C:H3'	1:AA:1158:C:O2	2.15	0.46
1:AA:1187:G:N2	14:AQ:60:SER:OG	2.42	0.46
1:AA:1367:C:H4'	10:AM:48:THR:HG21	1.97	0.46
3:AF:83:ARG:C	3:AF:85:ARG:N	2.71	0.46
8:AK:119:LEU:HD12	8:AK:124:ALA:HA	1.96	0.46
13:AP:39:ILE:HD12	13:AP:56:LEU:HD23	1.97	0.46
18:AU:31:LEU:CD2	18:AU:31:LEU:H	2.29	0.46
22:AB:8:U:H5'	22:AB:58:G:OP2	2.15	0.46
22:AB:49:A:H2	22:AB:51:C:P	2.38	0.46
25:BA:550:G:O2'	25:BA:1220:A:N3	2.42	0.46
25:BA:637:A:OP2	35:BO:115:LEU:HB2	2.16	0.46
25:BA:686:G:OP2	25:BA:686:G:H4'	2.14	0.46
25:BA:828:U:H3'	25:BA:828:U:O2	2.14	0.46
25:BA:1667:G:O2'	25:BA:1991:U:O4	2.27	0.46
25:BA:1668:A:O2'	25:BA:1674:G:N7	2.45	0.46
25:BA:2098:U:C4	25:BA:2099:U:C5	3.03	0.46
25:BA:2307:G:C4	25:BA:2311:A:C2	3.03	0.46
27:BD:32:SER:O	27:BD:33:LEU:CB	2.59	0.46
27:BD:132:PRO:HG3	27:BD:190:TYR:CE1	2.50	0.46
28:BE:181:LEU:HD21	39:BR:7:ILE:CG2	2.44	0.46
31:BH:97:ARG:O	31:BH:98:LEU:HB2	2.15	0.46
31:BH:153:LYS:HG2	31:BH:162:ILE:CB	2.46	0.46
35:BO:64:LYS:HG3	54:B8:25:MET:HE2	1.98	0.46
40:B1:11:ARG:O	40:B1:15:LYS:HG3	2.15	0.46
45:BV:145:GLU:O	45:BV:174:VAL:HB	2.16	0.46
51:B5:56:LYS:H	51:B5:56:LYS:CE	2.29	0.46
1:CA:707:C:H2'	1:CA:708:C:C6	2.51	0.46
1:CA:979:C:OP1	1:CA:1223:C:N4	2.48	0.46
1:CA:980:C:H5'	1:CA:981:U:H5	1.80	0.46
1:CA:1129:C:C2	1:CA:1132:C:N4	2.75	0.46
1:CA:1131:G:H2'	1:CA:1132:C:C6	2.51	0.46
1:CA:1363:A:H1'	1:CA:1365:G:N7	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1446:A:OP1	1:CA:1446:A:C4'	2.64	0.46
3:CF:131:ARG:HH12	5:CH:50:GLU:HG3	1.78	0.46
6:CI:10:LEU:HD13	6:CI:61:LEU:HD13	1.98	0.46
19:CV:9:VAL:HG22	50:D4:63:TYR:CZ	2.50	0.46
25:DA:101:G:H2'	25:DA:102:G:OP1	2.16	0.46
25:DA:128:C:O2'	25:DA:129:C:O5'	2.31	0.46
25:DA:287:C:H2'	25:DA:288:C:C6	2.50	0.46
25:DA:686:G:H21	25:DA:788:A:H61	1.62	0.46
25:DA:706:A:C2'	25:DA:707:G:H5'	2.45	0.46
25:DA:1342:A:N6	25:DA:1397:U:C5	2.83	0.46
25:DA:1638:C:H4'	25:DA:2710:C:O2	2.15	0.46
25:DA:2019:A:C2'	25:DA:2020:A:O5'	2.63	0.46
25:DA:2615:U:N1	51:D5:7:PRO:HA	2.30	0.46
29:DF:119:ARG:HH11	29:DF:119:ARG:CG	2.27	0.46
32:DK:27:ARG:HG2	47:DZ:71:TYR:CZ	2.50	0.46
33:DM:41:ASP:C	33:DM:48:MET:HE1	2.40	0.46
33:DM:55:VAL:O	33:DM:56:ASN:C	2.58	0.46
35:DO:47:ASP:N	35:DO:48:PRO:HA	2.28	0.46
35:DO:138:LEU:C	35:DO:140:ALA:H	2.24	0.46
36:DP:87:LYS:HG3	36:DP:88:GLY:N	2.27	0.46
39:DR:16:ARG:HG3	39:DR:79:HIS:HA	1.97	0.46
41:D2:84:LYS:O	41:D2:85:LYS:O	2.34	0.46
42:DS:13:SER:HB2	42:DS:16:LYS:HD2	1.97	0.46
53:D7:1:MET:HA	53:D7:1:MET:CE	2.46	0.46
1:AA:184:G:N2	1:AA:194:C:C2	2.83	0.46
1:AA:483:C:OP2	1:AA:484:G:O2'	2.34	0.46
1:AA:963:G:H21	10:AM:55:LYS:HE2	1.77	0.46
1:AA:986:A:H2'	1:AA:987:G:C8	2.51	0.46
1:AA:1125:U:H5	10:AM:73:ASP:OD1	1.98	0.46
1:AA:1213:A:N7	1:AA:1215:G:C4	2.84	0.46
1:AA:1468:A:H8	1:AA:1468:A:O5'	1.98	0.46
4:AG:31:CYS:O	4:AG:32:ALA:HB3	2.16	0.46
8:AK:14:ARG:O	8:AK:18:ARG:HD3	2.16	0.46
8:AK:104:ARG:C	8:AK:106:GLY:H	2.24	0.46
10:AM:48:THR:CA	10:AM:62:HIS:HB3	2.41	0.46
17:AT:33:GLY:O	17:AT:34:LYS:C	2.58	0.46
17:AT:88:TYR:HD2	17:AT:89:LEU:HD23	1.80	0.46
25:BA:817:C:O2'	25:BA:839:U:H5"	2.16	0.46
25:BA:2133:G:C6	25:BA:2157:G:O6	2.69	0.46
25:BA:2196:C:O2'	25:BA:2197:U:H5'	2.16	0.46
25:BA:2211:G:H3'	25:BA:2212:A:N3	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2285:C:N4	52:B6:25:LYS:HE2	2.30	0.46
25:BA:2371:G:H21	52:B6:46:HIS:HE1	1.63	0.46
25:BA:2467:C:O2'	25:BA:2468:G:H5'	2.14	0.46
25:BA:2756:U:H1'	25:BA:2757:A:H5"	1.97	0.46
26:BB:8:U:O3'	38:BQ:25:ARG:NH2	2.48	0.46
27:BD:69:ARG:C	27:BD:71:ASP:H	2.22	0.46
31:BH:30:LYS:CD	31:BH:81:GLU:H	2.29	0.46
31:BH:86:GLU:O	31:BH:131:VAL:O	2.33	0.46
38:BQ:62:LYS:HB3	38:BQ:97:ARG:CD	2.46	0.46
39:BR:19:LEU:HA	39:BR:20:PRO:HD3	1.77	0.46
39:BR:50:ILE:HD11	39:BR:102:ILE:HD11	1.98	0.46
45:BV:166:SER:O	45:BV:169:GLU:HB2	2.15	0.46
52:B6:45:LYS:HD3	52:B6:45:LYS:HA	1.71	0.46
1:CA:652:U:C4	1:CA:752:G:N3	2.83	0.46
1:CA:1004:A:C8	1:CA:1025:U:C2	3.04	0.46
1:CA:1149:C:OP1	9:CL:9:ARG:HD3	2.16	0.46
1:CA:1178:G:N2	1:CA:1181:G:C8	2.83	0.46
2:CE:115:LEU:HD11	2:CE:146:GLN:HG2	1.97	0.46
16:CS:45:THR:OG1	16:CS:46:PRO:HD2	2.15	0.46
20:CW:71:THR:CG2	20:CW:72:LEU:H	2.28	0.46
22:CD:14:A:H3'	22:CD:15:G:C5'	2.32	0.46
25:DA:3:U:O4	25:DA:2900:A:N1	2.48	0.46
25:DA:26:G:C6	25:DA:27:G:N1	2.84	0.46
25:DA:260:G:O4'	25:DA:621:A:H1'	2.16	0.46
25:DA:274:G:OP1	25:DA:274:G:O4'	2.34	0.46
25:DA:607:U:N3	25:DA:621:A:C2	2.77	0.46
25:DA:784:A:N7	25:DA:792:G:C4	2.84	0.46
25:DA:908:C:OP1	36:DP:22:LYS:HB2	2.16	0.46
25:DA:1607:C:H4'	25:DA:1608:A:H5'	1.98	0.46
25:DA:2210:G:H1'	25:DA:2211:G:OP1	2.14	0.46
25:DA:2368:C:H2'	25:DA:2369:A:H8	1.80	0.46
25:DA:2446:G:H2'	25:DA:2447:G:H5"	1.96	0.46
25:DA:2576:G:O2'	25:DA:2579:C:OP2	2.23	0.46
28:DE:131:ALA:O	28:DE:132:HIS:CB	2.64	0.46
29:DF:122:LYS:O	29:DF:124:LEU:N	2.49	0.46
32:DK:7:GLU:CA	32:DK:15:VAL:HG22	2.45	0.46
34:DN:88:ASN:O	34:DN:90:GLN:N	2.48	0.46
35:DO:9:ASN:CB	35:DO:10:PRO:CD	2.72	0.46
35:DO:47:ASP:OD2	35:DO:49:ARG:NE	2.33	0.46
36:DP:35:VAL:HG13	36:DP:100:GLY:O	2.16	0.46
43:DT:57:LEU:N	43:DT:57:LEU:HD23	2.29	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:D3:84:LEU:HG	46:D3:85:ALA:H	1.80	0.46
1:AA:632:A:N7	1:AA:633:G:C4	2.83	0.46
5:AH:153:LYS:N	8:AK:64:LYS:HZ1	2.08	0.46
13:AP:12:ASN:OD1	13:AP:13:LYS:N	2.47	0.46
13:AP:84:ILE:HG23	13:AP:86:CYS:H	1.81	0.46
14:AQ:24:CYS:C	14:AQ:26:ARG:N	2.73	0.46
16:AS:12:LYS:O	16:AS:13:HIS:HB2	2.15	0.46
20:AW:16:HIS:O	20:AW:19:SER:HB3	2.16	0.46
20:AW:48:LYS:HB3	20:AW:51:GLU:HB2	1.98	0.46
22:AB:7:G:H3'	22:AB:8:U:H5'	1.97	0.46
25:BA:125:G:H4'	25:BA:126:A:OP2	2.16	0.46
25:BA:363(A):A:O2'	25:BA:363(B):G:H5'	2.16	0.46
25:BA:439:G:O2'	25:BA:440:G:H5'	2.15	0.46
25:BA:975:G:H1'	25:BA:990:A:C2	2.50	0.46
25:BA:1076:C:C2'	25:BA:1077:A:H5"	2.46	0.46
25:BA:1185:C:H5"	25:BA:1186:G:OP1	2.15	0.46
25:BA:1228:G:OP2	40:B1:16:LYS:NZ	2.47	0.46
25:BA:1514:U:H2'	25:BA:1515:C:C6	2.50	0.46
25:BA:1817:G:OP1	27:BD:88:ARG:NH2	2.47	0.46
25:BA:2140:C:O2	25:BA:2152:G:C2	2.69	0.46
25:BA:2612:C:H2'	25:BA:2613:U:O5'	2.15	0.46
29:BF:136:THR:HG22	29:BF:166:ALA:O	2.16	0.46
30:BG:161:THR:HG22	30:BG:163:ALA:N	2.11	0.46
33:BM:42:TRP:O	40:B1:64:ARG:HD2	2.15	0.46
35:BO:147:LEU:HA	35:BO:147:LEU:HD12	1.71	0.46
40:B1:85:LYS:HG3	40:B1:117:GLN:HB2	1.98	0.46
45:BV:150:LEU:HD21	45:BV:154:ASP:HB2	1.98	0.46
48:BW:17:SER:HB2	48:BW:18:PRO:CA	2.46	0.46
1:CA:652:U:C5	1:CA:752:G:C4	3.03	0.46
1:CA:1127:G:H1'	1:CA:1147:C:H42	1.81	0.46
1:CA:1190:G:OP1	3:CF:5:ILE:HD12	2.15	0.46
1:CA:1268:A:N3	1:CA:1326:C:O2'	2.48	0.46
1:CA:1286:A:H3'	1:CA:1287:A:C5'	2.42	0.46
1:CA:1392:G:O2'	1:CA:1393:U:H5'	2.16	0.46
5:CH:83:GLU:HA	5:CH:87:SER:O	2.15	0.46
9:CL:33:PHE:HE1	9:CL:37:PHE:HD1	1.62	0.46
10:CM:13:HIS:C	10:CM:13:HIS:HD2	2.23	0.46
19:CV:49:ILE:HG22	19:CV:50:ALA:N	2.30	0.46
22:CD:13:G:H1'	22:CD:23:A:N6	2.29	0.46
22:CD:17:G:C4'	22:CD:18:G:OP1	2.63	0.46
25:DA:598:G:C6	25:DA:599:G:C5	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1678:G:H8	25:DA:1678:G:O5'	1.98	0.46
25:DA:1914:C:H2'	25:DA:1915:U:O4'	2.16	0.46
25:DA:2022:U:OP2	51:D5:15:ARG:NH2	2.47	0.46
25:DA:2439:A:C8	25:DA:2439:A:C5'	2.94	0.46
25:DA:2469:A:H2	25:DA:2481:G:N2	2.13	0.46
25:DA:2788:C:O2'	25:DA:2809:A:N3	2.43	0.46
38:DQ:10:ARG:O	38:DQ:14:VAL:HG13	2.15	0.46
38:DQ:88:ASP:CG	38:DQ:89:ARG:H	2.18	0.46
40:D1:68:ALA:O	40:D1:71:GLN:HB2	2.15	0.46
41:D2:49:THR:OG1	41:D2:50:PRO:HD2	2.16	0.46
52:D6:48:VAL:O	52:D6:49:HIS:HB2	2.16	0.46
1:AA:452:A:O2'	1:AA:453:A:O4'	2.33	0.46
1:AA:1002:G:C5	1:AA:1003:G:N7	2.84	0.46
1:AA:1112:C:H1'	3:AF:179:ARG:NH1	2.30	0.46
1:AA:1176:A:H3'	1:AA:1177:G:C5'	2.42	0.46
1:AA:1290:G:H2'	1:AA:1290:G:N3	2.31	0.46
6:AI:68:PRO:HG3	6:AI:71:ARG:NH2	2.31	0.46
10:AM:96:ILE:HD13	10:AM:96:ILE:N	2.31	0.46
17:AT:51:TYR:CZ	17:AT:73:VAL:HG11	2.50	0.46
24:A1:24:A:H8	24:A1:24:A:O5'	1.99	0.46
25:BA:755:C:H2'	25:BA:756:C:C6	2.51	0.46
25:BA:879:G:H8	25:BA:879:G:OP2	1.98	0.46
25:BA:1022:G:H1'	25:BA:1023:U:OP2	2.16	0.46
25:BA:1121:C:H2'	25:BA:1122:G:O4'	2.16	0.46
25:BA:1313:U:OP2	25:BA:1314:C:H5	1.98	0.46
25:BA:1386:C:OP2	25:BA:1396:U:H5	1.98	0.46
25:BA:1534:G:N3	25:BA:1534:G:C3'	2.78	0.46
25:BA:1728:G:H2'	25:BA:1731:G:O6	2.16	0.46
25:BA:1992:G:C2'	25:BA:1993:U:OP2	2.64	0.46
25:BA:2111:C:H5	25:BA:2147:G:N1	2.11	0.46
25:BA:2822:G:OP1	28:BE:159:HIS:NE2	2.47	0.46
26:BB:91:C:H2'	26:BB:92:G:H8	1.81	0.46
29:BF:127:GLU:OE2	29:BF:127:GLU:HA	2.15	0.46
32:BK:2:LYS:HG3	32:BK:20:ASP:HB3	1.98	0.46
32:BK:9:LEU:O	32:BK:9:LEU:HD23	2.16	0.46
32:BK:76:THR:O	32:BK:105:HIS:HE1	1.98	0.46
32:BK:82:ARG:O	32:BK:89:TYR:HD1	1.99	0.46
35:BO:15:ARG:NH1	35:BO:15:ARG:CB	2.75	0.46
40:B1:83:LEU:HD12	40:B1:113:ALA:HB2	1.97	0.46
41:B2:18:LEU:HD22	41:B2:19:LYS:H	1.81	0.46
1:CA:620:C:H2'	1:CA:621:A:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1346:A:C6	7:CJ:10:ARG:NH1	2.84	0.46
2:CE:182:ILE:HD12	2:CE:182:ILE:N	2.29	0.46
2:CE:204:ASN:OD1	2:CE:204:ASN:N	2.46	0.46
3:CF:81:GLY:HA3	3:CF:85:ARG:NH1	2.30	0.46
4:CG:70:ILE:HG22	4:CG:75:PHE:HB2	1.96	0.46
10:CM:54:PHE:CD1	10:CM:55:LYS:HD3	2.51	0.46
16:CS:56:ALA:O	16:CS:60:LEU:HG	2.15	0.46
21:CX:8:THR:HG22	21:CX:10:ARG:H	1.81	0.46
22:CB:56:U:H2'	22:CB:56:U:O2	2.14	0.46
25:DA:309:G:O3'	44:DU:18:GLY:HA3	2.16	0.46
25:DA:864:G:C6	25:DA:865:C:N4	2.84	0.46
25:DA:920:G:H2'	25:DA:921:G:C8	2.44	0.46
25:DA:1088:A:H3'	25:DA:1088:A:N3	2.31	0.46
25:DA:1111:A:O3'	25:DA:1112:G:H4'	2.16	0.46
25:DA:1388:G:H2'	25:DA:1389:G:H8	1.81	0.46
25:DA:1729:A:N6	25:DA:1731:G:N7	2.63	0.46
25:DA:1936:A:C8	25:DA:1940:U:O2	2.69	0.46
25:DA:2331:G:H4'	46:D3:43:THR:H	1.80	0.46
25:DA:2353:G:H1'	46:D3:34:GLY:HA3	1.97	0.46
25:DA:2611:U:H3'	25:DA:2611:U:OP1	2.15	0.46
27:DD:118:VAL:HG22	27:DD:119:ALA:N	2.31	0.46
28:DE:55:ASN:HB2	28:DE:72:VAL:HG12	1.97	0.46
28:DE:76:ARG:HG2	28:DE:195:LEU:HD13	1.98	0.46
32:DK:38:LEU:HD12	32:DK:38:LEU:H	1.81	0.46
32:DK:114:LEU:HA	32:DK:130:TYR:HD1	1.79	0.46
32:DK:143:SER:O	32:DK:144:VAL:CB	2.63	0.46
33:DM:22:THR:O	33:DM:23:LEU:C	2.59	0.46
33:DM:129:PRO:O	33:DM:131:GLN:N	2.42	0.46
35:DO:19:VAL:HG21	35:DO:32:THR:HG23	1.98	0.46
35:DO:79:ARG:O	35:DO:111:ARG:HB2	2.15	0.46
38:DQ:42:ASP:O	38:DQ:43:GLU:HB2	2.16	0.46
41:D2:99:ILE:O	41:D2:99:ILE:HG12	2.15	0.46
44:DU:87:LYS:HE3	44:DU:92:ASN:OD1	2.16	0.46
1:AA:936:C:H2'	1:AA:937:A:O4'	2.16	0.46
1:AA:1086:U:H3	1:AA:1099:G:N2	2.07	0.46
1:AA:1318:A:H5"	19:AV:10:PHE:CD2	2.50	0.46
2:AE:233:SER:OG	2:AE:234:PRO:HD2	2.16	0.46
4:AG:11:LEU:C	4:AG:13:ARG:N	2.69	0.46
8:AK:13:ILE:O	8:AK:17:THR:HG23	2.16	0.46
14:AQ:13:THR:HG23	14:AQ:20:ALA:HB2	1.98	0.46
16:AS:14:ASN:N	16:AS:15:PRO:HD3	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AS:45:THR:HG22	16:AS:47:ASP:H	1.81	0.46
23:AC:41:C:O2'	23:AC:42:C:H5'	2.15	0.46
22:AD:55:U:OP1	22:AD:55:U:H4'	2.16	0.46
25:BA:1593:G:H2'	25:BA:1594:G:H8	1.81	0.46
25:BA:2285:C:OP2	52:B6:27:LYS:O	2.34	0.46
25:BA:2302:G:C6	25:BA:2315:G:C6	3.04	0.46
25:BA:2328:A:H2'	25:BA:2329:G:H8	1.81	0.46
25:BA:2352:A:C4	25:BA:2366:A:C2	3.04	0.46
25:BA:2817:G:OP1	37:B0:99:LYS:NZ	2.45	0.46
27:BD:30:GLU:CG	27:BD:63:ARG:HH21	2.29	0.46
27:BD:92:ILE:HD12	27:BD:104:TYR:CD2	2.50	0.46
28:BE:21:VAL:HG23	28:BE:22:PRO:HG3	1.98	0.46
28:BE:103:ASP:OD2	28:BE:168:MET:HE3	2.16	0.46
29:BF:20:LEU:HD12	29:BF:21:ALA:H	1.81	0.46
30:BG:44:GLY:C	30:BG:46:ALA:N	2.74	0.46
34:BN:47:ILE:CG1	34:BN:48:PRO:HD2	2.45	0.46
39:BR:86:ILE:O	39:BR:86:ILE:HG12	2.16	0.46
42:BS:1:MET:HE3	42:BS:1:MET:HA	1.96	0.46
47:BZ:81:LYS:HD2	47:BZ:81:LYS:N	2.31	0.46
49:BX:46:ASN:O	49:BX:50:VAL:HG22	2.16	0.46
1:CA:115:G:H1'	1:CA:116:A:OP2	2.15	0.46
1:CA:187:C:O2	1:CA:191(A):G:N1	2.49	0.46
1:CA:420:U:O2'	1:CA:421:U:O2	2.27	0.46
1:CA:685:G:N2	1:CA:686:U:C4	2.84	0.46
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.51	0.46
1:CA:1287:A:C6	1:CA:1288:A:C6	3.03	0.46
1:CA:1352:C:H42	1:CA:1370:G:H1	1.62	0.46
1:CA:1468:A:H8	1:CA:1468:A:O5'	1.99	0.46
4:CG:8:VAL:CG1	4:CG:21:LEU:HB2	2.43	0.46
7:CJ:50:ILE:HG22	7:CJ:50:ILE:O	2.16	0.46
20:CW:69:GLY:O	20:CW:73:HIS:CD2	2.69	0.46
25:DA:128:C:H2'	25:DA:129:C:C6	2.51	0.46
25:DA:152:G:H1	25:DA:174:C:N4	2.14	0.46
25:DA:200:U:O4	25:DA:250:G:N2	2.48	0.46
25:DA:1000:A:N6	25:DA:1001:A:N1	2.64	0.46
25:DA:1044:G:H1'	25:DA:1111:A:N1	2.30	0.46
25:DA:1670:C:O2	28:DE:129:HIS:NE2	2.43	0.46
25:DA:1839:G:N3	25:DA:1839:G:H2'	2.30	0.46
25:DA:1858:G:C6	25:DA:1883:G:C6	3.04	0.46
25:DA:2118:U:C4	25:DA:2148:G:H4'	2.50	0.46
25:DA:2130:U:H2'	25:DA:2158:A:C2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2174:C:O2'	25:DA:2175:C:H5'	2.16	0.46
25:DA:2182:G:H2'	25:DA:2183:C:C6	2.51	0.46
25:DA:2299:G:N1	25:DA:2318:G:C8	2.84	0.46
25:DA:2402:C:H2'	25:DA:2403:C:H5'	1.98	0.46
27:DD:182:LEU:H	27:DD:272:ALA:CB	2.20	0.46
31:DH:61:HIS:O	31:DH:64:LEU:N	2.48	0.46
34:DN:102:VAL:HB	34:DN:106:LEU:HD12	1.97	0.46
35:DO:70:GLN:N	35:DO:70:GLN:OE1	2.49	0.46
35:DO:85:LEU:HA	35:DO:88:LEU:HB3	1.97	0.46
37:D0:63:ARG:HA	37:D0:80:PHE:CZ	2.51	0.46
43:DT:63:LYS:H	43:DT:63:LYS:CE	2.29	0.46
45:DV:29:TYR:HB3	45:DV:34:ASN:HD22	1.79	0.46
45:DV:72:ARG:HA	45:DV:72:ARG:HD2	1.70	0.46
1:AA:152:A:N6	1:AA:170:U:C2	2.84	0.46
1:AA:666:G:H5'	1:AA:726:C:H1'	1.98	0.46
1:AA:690:G:O2'	1:AA:691:G:H5'	2.15	0.46
1:AA:900:A:H2'	1:AA:901:A:C8	2.51	0.46
1:AA:961:U:OP2	1:AA:1223:C:H1'	2.15	0.46
1:AA:973:G:OP1	10:AM:57:LYS:HD3	2.15	0.46
1:AA:1029:G:H1'	1:AA:1032(A):G:H1	1.78	0.46
1:AA:1277:C:HO2'	1:AA:1279:A:C1'	2.29	0.46
4:AG:172:PRO:C	4:AG:174:LEU:H	2.24	0.46
8:AK:33:GLU:O	8:AK:34:GLU:C	2.59	0.46
8:AK:82:HIS:N	8:AK:138:TRP:O	2.49	0.46
12:AO:83:ARG:HG3	12:AO:98:VAL:HG22	1.97	0.46
13:AP:57:ARG:HB2	13:AP:57:ARG:HH11	1.81	0.46
22:AB:6:G:O2'	22:AB:7:G:P	2.73	0.46
25:BA:78:A:H2'	25:BA:79:G:C8	2.51	0.46
25:BA:1570:A:H2'	25:BA:1571:A:C8	2.50	0.46
25:BA:1819:A:H5"	27:BD:158:ALA:HB3	1.98	0.46
25:BA:2270:G:C2'	25:BA:2271:G:H5'	2.45	0.46
25:BA:2291:U:O2'	25:BA:2374:C:H1'	2.16	0.46
25:BA:2292:C:P	38:BQ:17:ARG:HH22	2.39	0.46
25:BA:2400:G:H2'	25:BA:2401:U:C6	2.51	0.46
25:BA:2645:G:C3'	25:BA:2646:C:H5'	2.46	0.46
25:BA:2875:C:C4'	39:BR:5:ALA:HB2	2.41	0.46
27:BD:24:ILE:HG22	27:BD:27:THR:HB	1.98	0.46
28:BE:51:PHE:O	28:BE:52:LEU:HB2	2.16	0.46
28:BE:54:GLN:O	28:BE:55:ASN:CB	2.62	0.46
31:BH:170:ARG:HB3	31:BH:171:LEU:H	1.52	0.46
33:BM:41:ASP:O	33:BM:48:MET:HE3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BO:21:ARG:HA	35:BO:21:ARG:NE	2.23	0.46
35:BO:94:GLU:OE1	35:BO:124:LYS:HD3	2.16	0.46
37:B0:51:LEU:HD22	37:B0:66:VAL:HG13	1.97	0.46
41:B2:49:THR:CB	41:B2:50:PRO:HD2	2.45	0.46
44:BU:64:GLU:H	44:BU:64:GLU:HG2	1.37	0.46
1:CA:160:A:O2'	1:CA:344:A:N6	2.49	0.46
1:CA:580:U:H2'	1:CA:581:G:O4'	2.15	0.46
1:CA:668:G:O2'	1:CA:669:U:H5'	2.16	0.46
1:CA:1052:U:C4	1:CA:1200:C:N3	2.84	0.46
1:CA:1403:C:H1'	1:CA:1500:A:N1	2.30	0.46
2:CE:215:LEU:O	2:CE:219:VAL:HG12	2.15	0.46
3:CF:159:GLY:HA2	3:CF:193:TYR:CE1	2.51	0.46
7:CJ:78:ARG:O	7:CJ:78:ARG:HG3	2.15	0.46
10:CM:30:SER:OG	10:CM:81:THR:HG22	2.16	0.46
19:CV:74:PHE:N	19:CV:74:PHE:CD2	2.84	0.46
22:CB:9:U:C5	22:CB:21:A:N7	2.84	0.46
23:CC:16:C:O2'	23:CC:62:C:OP1	2.31	0.46
23:CC:48:U:HO2'	23:CC:49:C:P	2.27	0.46
25:DA:531:C:C5	25:DA:2035:G:C2	3.04	0.46
25:DA:580:C:H2'	25:DA:581:C:C6	2.51	0.46
25:DA:888:C:C1'	25:DA:889:C:P	3.04	0.46
25:DA:933:A:N7	25:DA:934:G:H1'	2.30	0.46
25:DA:1007:C:P	33:DM:37:LYS:HZ2	2.39	0.46
25:DA:1057:A:N1	25:DA:1081:U:C4	2.84	0.46
25:DA:1059:G:OP2	25:DA:1060:U:H3'	2.16	0.46
25:DA:1141:U:OP2	33:DM:63:THR:OG1	2.31	0.46
25:DA:1538:G:H2'	25:DA:1539:G:C8	2.48	0.46
25:DA:2133:G:C6	25:DA:2157:G:O6	2.69	0.46
30:DG:138:GLN:HE22	30:DG:153:ARG:N	2.14	0.46
32:DK:77:LEU:O	32:DK:78:THR:C	2.59	0.46
34:DN:2:ILE:HG21	34:DN:8:LEU:HD21	1.97	0.46
34:DN:7:TYR:HE1	34:DN:20:MET:HE3	1.81	0.46
36:DP:100:GLY:O	36:DP:101:ARG:C	2.59	0.46
39:DR:18:ASP:OD1	39:DR:18:ASP:N	2.36	0.46
39:DR:74:ARG:CG	39:DR:74:ARG:NH1	2.59	0.46
41:D2:5:VAL:HB	41:D2:37:VAL:CG1	2.45	0.46
45:DV:121:HIS:HB3	45:DV:123:ASP:O	2.16	0.46
46:D3:51:VAL:N	46:D3:62:LEU:HD12	2.30	0.46
1:AA:913:A:H1'	1:AA:914:A:OP2	2.14	0.46
2:AE:25:ASN:C	2:AE:27:LYS:N	2.74	0.46
5:AH:111:GLU:C	5:AH:113:ALA:H	2.24	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AK:4:ASP:CG	8:AK:85:ARG:HH12	2.24	0.46
16:AS:22:THR:OG1	16:AS:23:ASP:N	2.46	0.46
19:AV:49:ILE:O	19:AV:60:VAL:HG12	2.15	0.46
19:AV:65:ASN:C	19:AV:67:VAL:H	2.24	0.46
20:AW:54:LYS:HD2	20:AW:54:LYS:O	2.16	0.46
22:AB:3:U:H4'	22:AB:4:G:OP1	2.15	0.46
22:AB:51:C:OP2	22:AB:51:C:C6	2.69	0.46
23:AC:20:G:C2	23:AC:58:A:N3	2.84	0.46
25:BA:664:C:H4'	25:BA:941:A:OP1	2.16	0.46
25:BA:910:A:C2'	25:BA:2264:C:O2'	2.61	0.46
25:BA:1357:U:H2'	25:BA:1358:G:O4'	2.16	0.46
25:BA:1417:C:H42	25:BA:1581:G:H1	1.63	0.46
25:BA:1590:U:H2'	25:BA:1591:G:C8	2.51	0.46
25:BA:1931:U:C5	25:BA:1969:A:N7	2.80	0.46
25:BA:2472:G:O6	25:BA:2476:A:H4'	2.15	0.46
31:BH:74:ASN:HA	31:BH:77:LYS:HG2	1.97	0.46
32:BK:8:PRO:HG3	32:BK:14:ASP:CB	2.46	0.46
39:BR:5:ALA:O	39:BR:8:LYS:HG2	2.15	0.46
39:BR:39:ARG:CG	39:BR:40:THR:H	2.29	0.46
43:BT:14:SER:H	43:BT:17:ALA:HB3	1.81	0.46
43:BT:18:TYR:C	43:BT:20:GLY:N	2.73	0.46
51:B5:42:PRO:CB	51:B5:43:HIS:HD2	2.29	0.46
52:B6:27:LYS:HZ2	52:B6:27:LYS:CB	2.29	0.46
1:CA:618:C:H5'	1:CA:619:U:H5"	1.98	0.46
1:CA:797:C:O2'	1:CA:798:G:H5'	2.16	0.46
1:CA:1004:A:C1'	1:CA:1036:G:C6	2.97	0.46
1:CA:1054:C:OP1	1:CA:1197:G:OP1	2.33	0.46
1:CA:1056:U:O2	1:CA:1057:G:C8	2.68	0.46
1:CA:1151:A:H1'	10:CM:39:PRO:CB	2.45	0.46
1:CA:1213:A:N7	1:CA:1215:G:C5	2.84	0.46
2:CE:97:TRP:HZ2	2:CE:102:LEU:CD1	2.29	0.46
3:CF:101:LEU:HD23	3:CF:101:LEU:C	2.41	0.46
3:CF:195:VAL:HG12	3:CF:196:LEU:N	2.31	0.46
7:CJ:43:PHE:O	7:CJ:47:CYS:N	2.48	0.46
7:CJ:143:ARG:HD2	22:CD:42:U:O3'	2.16	0.46
10:CM:64:GLU:OE2	10:CM:66:ARG:HD2	2.16	0.46
15:CR:6:GLU:O	15:CR:9:GLN:HB2	2.16	0.46
18:CU:74:ARG:HB3	18:CU:81:PHE:CZ	2.51	0.46
19:CV:28:LYS:HD3	19:CV:29:ARG:H	1.81	0.46
19:CV:66:MET:HB3	19:CV:69:HIS:CD2	2.51	0.46
20:CW:67:ALA:O	20:CW:73:HIS:CE1	2.70	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CB:13:G:H1'	22:CB:24:G:N1	2.30	0.46
22:CB:18:G:H4'	22:CB:19:C:OP2	2.10	0.46
25:DA:914:C:C6	25:DA:915:C:H5"	2.44	0.46
25:DA:928:G:H2'	25:DA:929:G:O4'	2.16	0.46
25:DA:951:C:O2'	25:DA:952:G:H5'	2.15	0.46
25:DA:1087:G:C8	25:DA:1089:G:H1'	2.51	0.46
25:DA:1204:A:HO2'	25:DA:1205:U:P	2.38	0.46
25:DA:1475:G:H5'	25:DA:1476:C:OP2	2.16	0.46
25:DA:1761:C:H6	25:DA:1761:C:O5'	1.99	0.46
27:DD:260:ARG:NH1	27:DD:267:SER:OG	2.49	0.46
28:DE:55:ASN:C	28:DE:57:LYS:H	2.22	0.46
29:DF:155:LEU:HD23	29:DF:186:ILE:HD13	1.97	0.46
33:DM:126:PRO:O	33:DM:127:ASP:CB	2.63	0.46
44:DU:52:SER:N	44:DU:53:PRO:HD3	2.31	0.46
48:DW:50:ILE:O	48:DW:54:LYS:HB2	2.16	0.46
1:AA:236:G:H5"	17:AT:42:TYR:OH	2.16	0.45
1:AA:767:A:H2'	1:AA:768:A:O4'	2.16	0.45
1:AA:923:A:OP1	5:AH:21:ALA:HB2	2.15	0.45
1:AA:944:G:C2	1:AA:1340:A:C6	3.03	0.45
1:AA:1213:A:N7	1:AA:1215:G:C5	2.83	0.45
2:AE:22:LYS:C	2:AE:24:TRP:N	2.72	0.45
2:AE:142:LEU:O	2:AE:142:LEU:HD23	2.16	0.45
11:AN:115:PRO:HB2	11:AN:118:GLY:H	1.82	0.45
13:AP:97:PRO:HB3	13:AP:101:GLN:NE2	2.31	0.45
18:AU:25:THR:HG22	18:AU:25:THR:O	2.16	0.45
20:AW:50:GLU:HA	20:AW:100:ILE:HG21	1.98	0.45
23:AC:2:G:C5	23:AC:3:C:C5	3.04	0.45
25:BA:323:G:C8	29:BF:171:PRO:HG3	2.51	0.45
25:BA:483:A:H4'	44:BU:49:VAL:HA	1.98	0.45
25:BA:654(M):C:H2'	25:BA:654(N):G:C8	2.51	0.45
25:BA:888:C:O2'	25:BA:889:C:O4'	2.28	0.45
25:BA:916:G:C2'	25:BA:917:A:H5"	2.47	0.45
25:BA:974(A):C:OP2	25:BA:975:G:H5"	2.16	0.45
25:BA:1368:G:C2	25:BA:1369:G:C8	3.04	0.45
25:BA:1430:C:H2'	25:BA:1431:U:H6	1.78	0.45
25:BA:1901:A:OP2	27:BD:255:LYS:HE2	2.16	0.45
25:BA:2113:U:O2	25:BA:2113:U:O4'	2.35	0.45
25:BA:2512:C:H2'	25:BA:2513:G:O4'	2.16	0.45
25:BA:2563:U:H4'	34:BN:28:SER:HA	1.97	0.45
28:BE:60:ASN:OD1	28:BE:62:PRO:HD2	2.16	0.45
28:BE:117:MET:O	28:BE:118:LYS:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BM:7:LYS:H	33:BM:7:LYS:HE3	1.80	0.45
35:BO:140:ALA:O	35:BO:141:ALA:CB	2.65	0.45
40:B1:79:PHE:O	40:B1:83:LEU:HD13	2.16	0.45
50:B4:48:ARG:NH1	50:B4:51:ASP:HB2	2.31	0.45
52:B6:40:CYS:HA	52:B6:46:HIS:HA	1.98	0.45
1:CA:93:U:H2'	1:CA:95:G:H5"	1.98	0.45
1:CA:106:C:C2'	1:CA:107:G:H5'	2.46	0.45
1:CA:186(C):G:C6	1:CA:191(E):G:N1	2.84	0.45
1:CA:302:G:O2'	1:CA:556:C:H5"	2.16	0.45
1:CA:363:A:O2'	1:CA:364:A:H5'	2.15	0.45
1:CA:413:G:C2'	1:CA:414:A:OP2	2.64	0.45
1:CA:914:A:C2'	1:CA:915:A:H5'	2.46	0.45
1:CA:998:G:N2	1:CA:1044:A:H1'	2.32	0.45
1:CA:1129:C:N4	1:CA:1139:G:N2	2.64	0.45
1:CA:1316:G:N2	1:CA:1319:A:O5'	2.45	0.45
3:CF:36:ASP:OD2	3:CF:57:ILE:HG21	2.16	0.45
4:CG:189:PRO:HB2	4:CG:194:LEU:CD2	2.46	0.45
4:CG:200:GLU:HG2	4:CG:201:GLN:N	2.30	0.45
5:CH:15:ARG:NH1	24:C1:25:A:H3'	2.31	0.45
25:DA:532:A:O2'	25:DA:533:G:OP1	2.25	0.45
25:DA:586:A:N1	25:DA:809:G:O2'	2.44	0.45
25:DA:627:A:C6	25:DA:637:A:C8	3.04	0.45
25:DA:639:U:H2'	25:DA:640:C:H6	1.76	0.45
25:DA:1342:A:C5	25:DA:1397:U:C6	3.04	0.45
25:DA:2898:U:H2'	25:DA:2899:G:C8	2.51	0.45
26:DB:15:A:O2'	26:DB:109:G:C8	2.67	0.45
28:DE:41:LYS:HG3	28:DE:42:ASP:OD1	2.16	0.45
28:DE:65:GLY:O	28:DE:66:HIS:C	2.59	0.45
41:D2:84:LYS:HD2	41:D2:85:LYS:HB3	1.98	0.45
42:DS:64:MET:O	42:DS:65:LEU:HB2	2.16	0.45
43:DT:32:PRO:HA	43:DT:77:LYS:HB2	1.98	0.45
43:DT:80:ILE:HG12	43:DT:80:ILE:O	2.14	0.45
45:DV:48:PHE:CE2	45:DV:52:SER:HA	2.50	0.45
47:DZ:92:LYS:NZ	47:DZ:92:LYS:HB3	2.31	0.45
51:D5:3:LYS:HE3	51:D5:3:LYS:CA	2.40	0.45
53:D7:25:PRO:O	53:D7:29:LYS:HG2	2.16	0.45
1:AA:108:G:OP2	1:AA:326:G:N1	2.36	0.45
1:AA:411:A:C6	1:AA:429:U:C4	3.04	0.45
1:AA:995:C:N3	1:AA:1046:A:O2'	2.45	0.45
1:AA:1026:G:C6	1:AA:1036:G:N2	2.85	0.45
2:AE:75:LYS:HE3	2:AE:75:LYS:C	2.41	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:13:ARG:HB3	4:AG:33:MET:HG2	1.98	0.45
5:AH:126:ARG:NH1	5:AH:126:ARG:CG	2.74	0.45
6:AI:42:GLU:C	6:AI:44:GLY:H	2.23	0.45
7:AJ:65:ALA:HB3	7:AJ:124:LEU:HD23	1.98	0.45
12:AO:44:LYS:HA	12:AO:44:LYS:HE2	1.98	0.45
14:AQ:23:ARG:NH1	14:AQ:30:ALA:HB2	2.31	0.45
15:AR:4:THR:OG1	15:AR:7:GLU:HG3	2.17	0.45
22:AB:68:A:H2'	22:AB:69:U:H5'	1.98	0.45
23:AC:21:U:H4'	23:AC:22:A:OP2	2.17	0.45
22:AD:57:C:O2'	22:AD:68:A:H4'	2.16	0.45
25:BA:198:C:H5'	25:BA:2244:U:OP1	2.16	0.45
25:BA:270(E):G:H1	25:BA:270(U):C:H42	1.65	0.45
25:BA:1084:A:N7	25:BA:1085:A:N7	2.64	0.45
25:BA:1162:G:O2'	41:B2:90:PRO:HG2	2.17	0.45
25:BA:1219:G:OP2	40:B1:19:LYS:NZ	2.49	0.45
25:BA:1458:C:H5"	25:BA:1459:G:O4'	2.17	0.45
25:BA:1494:A:H2'	25:BA:1495:A:C8	2.51	0.45
25:BA:2567:G:H2'	25:BA:2568:C:H6	1.82	0.45
25:BA:2656:U:C5	25:BA:2664:G:N2	2.84	0.45
27:BD:58:HIS:CD2	27:BD:59:LYS:O	2.67	0.45
27:BD:69:ARG:C	27:BD:71:ASP:N	2.74	0.45
28:BE:119:ARG:HG2	28:BE:120:TRP:CD1	2.51	0.45
28:BE:120:TRP:CD1	28:BE:155:LYS:HB3	2.51	0.45
33:BM:22:THR:O	33:BM:23:LEU:HB2	2.16	0.45
37:B0:70:LEU:C	37:B0:72:ASP:H	2.24	0.45
45:BV:53:ILE:HA	45:BV:71:VAL:HG13	1.97	0.45
1:CA:769:G:H4'	1:CA:1513:A:H4'	1.99	0.45
1:CA:892:A:O2'	1:CA:1415:G:H4'	2.16	0.45
1:CA:1028(B):C:N4	1:CA:1032(B):G:C6	2.85	0.45
1:CA:1200:C:C5'	1:CA:1201:A:H5'	2.45	0.45
1:CA:1288:A:H2'	1:CA:1289:A:C8	2.51	0.45
2:CE:73:THR:HG21	2:CE:97:TRP:N	2.32	0.45
2:CE:97:TRP:CE2	2:CE:101:MET:HG3	2.50	0.45
3:CF:17:ASP:O	3:CF:18:TRP:C	2.59	0.45
4:CG:81:GLU:O	4:CG:85:LYS:HB2	2.15	0.45
8:CK:38:ILE:HD11	8:CK:119:LEU:HA	1.98	0.45
11:CN:13:GLN:HA	11:CN:75:TYR:O	2.16	0.45
14:CQ:27:CYS:O	14:CQ:29:ARG:N	2.49	0.45
22:CB:83:C:C2'	22:CB:84:C:H5'	2.46	0.45
23:CC:30:G:H2'	23:CC:31:G:O4'	2.16	0.45
25:DA:8:A:H2'	25:DA:9:U:C6	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:221:A:C4	25:DA:266:G:N7	2.85	0.45
25:DA:654(C):G:H2'	25:DA:654(D):G:O4'	2.16	0.45
25:DA:959:A:C6	25:DA:960:A:C2	3.05	0.45
25:DA:1131:G:C8	25:DA:2025:C:H4'	2.51	0.45
25:DA:1510:A:H2'	25:DA:1511:A:O4'	2.17	0.45
25:DA:2306:C:H2'	25:DA:2307:G:H21	1.81	0.45
25:DA:2322:A:H2'	25:DA:2323:G:O4'	2.17	0.45
25:DA:2373:G:H2'	25:DA:2374:C:C6	2.51	0.45
25:DA:2378:A:H4'	38:DQ:23:ARG:NH1	2.32	0.45
25:DA:2427:C:C5'	25:DA:2428:G:OP1	2.60	0.45
25:DA:2788:C:H5"	25:DA:2789:C:OP2	2.16	0.45
27:DD:35:LYS:CB	27:DD:63:ARG:HA	2.45	0.45
27:DD:68:LYS:HB2	27:DD:70:TRP:CH2	2.51	0.45
30:DG:55:LYS:HZ2	30:DG:148:MET:HE3	1.81	0.45
31:DH:4:ILE:HD12	31:DH:6:ARG:HE	1.79	0.45
31:DH:107:VAL:HG11	31:DH:152:ARG:HG2	1.98	0.45
32:DK:70:GLU:C	32:DK:72:LEU:H	2.23	0.45
33:DM:22:THR:HB	33:DM:25:ARG:HG3	1.98	0.45
34:DN:1:MET:HB3	34:DN:32:TYR:HB3	1.98	0.45
43:DT:8:ILE:O	48:DW:36:ARG:NH2	2.45	0.45
43:DT:28:PHE:HD1	43:DT:28:PHE:H	1.63	0.45
46:D3:70:GLN:O	46:D3:78:TYR:N	2.36	0.45
50:D4:13:ARG:O	50:D4:30:GLU:HB3	2.16	0.45
54:D8:30:ARG:O	54:D8:30:ARG:HG3	2.17	0.45
1:AA:200:G:N2	1:AA:218:C:N3	2.63	0.45
1:AA:991:U:O2	1:AA:993:G:C8	2.68	0.45
1:AA:1160:G:H8	1:AA:1160:G:O5'	1.98	0.45
1:AA:1258:G:O2'	1:AA:1259:C:H5'	2.17	0.45
4:AG:28:SER:CB	4:AG:29:PRO:CD	2.94	0.45
5:AH:152:ARG:HA	8:AK:64:LYS:HZ1	1.80	0.45
8:AK:65:TYR:CD1	8:AK:65:TYR:N	2.83	0.45
12:AO:44:LYS:HB3	12:AO:45:PRO:HD3	1.82	0.45
22:AB:1:G:N3	22:AB:1:G:H2'	2.31	0.45
25:BA:631:A:H2'	25:BA:632:A:O4'	2.17	0.45
25:BA:690:G:H2'	25:BA:691:C:C6	2.52	0.45
25:BA:898:C:C5	25:BA:899:A:C5	3.05	0.45
25:BA:1071:G:N2	25:BA:1090:U:C5	2.84	0.45
25:BA:1084:A:N6	25:BA:1085:A:H62	2.14	0.45
25:BA:1209:G:H21	25:BA:1210:A:H62	1.63	0.45
25:BA:1239:G:H2'	25:BA:1240:U:O4'	2.16	0.45
25:BA:1535:U:H5"	25:BA:1537:C:N4	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:30:GLU:HG3	27:BD:63:ARG:HH21	1.77	0.45
32:BK:77:LEU:O	32:BK:77:LEU:HD12	2.16	0.45
33:BM:130:HIS:O	33:BM:131:GLN:C	2.59	0.45
35:BO:147:LEU:O	35:BO:148:LEU:HB2	2.14	0.45
39:BR:57:PHE:O	39:BR:59:THR:N	2.49	0.45
41:B2:89:GLN:HE21	41:B2:89:GLN:CA	2.25	0.45
43:BT:49:VAL:HG11	43:BT:83:VAL:CG1	2.45	0.45
47:BZ:92:LYS:HA	47:BZ:95:LEU:HB2	1.97	0.45
51:B5:16:ARG:O	51:B5:20:ARG:HG3	2.16	0.45
51:B5:40:LYS:HG2	51:B5:46:CYS:HB3	1.97	0.45
54:B8:31:HIS:O	54:B8:31:HIS:CG	2.69	0.45
1:CA:128:G:O2'	17:CT:3:LYS:HE2	2.16	0.45
1:CA:147:G:O2'	1:CA:148:G:H5'	2.17	0.45
1:CA:662:G:H2'	1:CA:663:A:C8	2.51	0.45
1:CA:879:C:O2'	1:CA:880:C:H5'	2.16	0.45
1:CA:1298:C:O2'	1:CA:1299:A:C2	2.69	0.45
1:CA:1342:C:O2'	1:CA:1343:G:H5'	2.17	0.45
2:CE:42:ILE:HD13	2:CE:43:ASP:N	2.32	0.45
2:CE:178:ARG:NH2	8:CK:74:PRO:HG3	2.32	0.45
5:CH:75:THR:OG1	5:CH:117:ASP:O	2.26	0.45
18:CU:87:ARG:HB3	18:CU:88:LYS:H	1.49	0.45
25:DA:155:C:H2'	25:DA:155:C:O2	2.15	0.45
25:DA:278:A:H1'	25:DA:279:C:O5'	2.16	0.45
25:DA:478:A:N1	25:DA:500:G:H4'	2.32	0.45
25:DA:948:G:C2	25:DA:970:C:O2	2.69	0.45
25:DA:1991:U:C2'	25:DA:1992:G:H5"	2.45	0.45
25:DA:2141:G:O6	25:DA:2150:U:C2	2.64	0.45
25:DA:2319:G:H4'	25:DA:2320:A:O4'	2.15	0.45
25:DA:2410:G:C2	25:DA:2411:A:H1'	2.51	0.45
25:DA:2582:G:H2'	25:DA:2583:G:H5'	1.99	0.45
25:DA:2872:G:N7	25:DA:2873:A:H2	2.13	0.45
30:DG:15:VAL:HG13	30:DG:175:LEU:CB	2.46	0.45
31:DH:19:VAL:HG12	31:DH:20:ALA:N	2.24	0.45
35:DO:52:GLU:OE1	35:DO:55:ARG:NE	2.39	0.45
35:DO:84:ASN:CG	35:DO:117:GLU:HB3	2.41	0.45
40:D1:99:ALA:HB2	40:D1:106:PHE:CD1	2.51	0.45
50:D4:15:ILE:HG22	50:D4:15:ILE:O	2.16	0.45
51:D5:34:PRO:HG2	51:D5:35:GLU:OE1	2.15	0.45
1:AA:19:C:H2'	1:AA:20:U:H6	1.82	0.45
1:AA:511:C:O3'	4:AG:43:HIS:CE1	2.69	0.45
1:AA:562:C:O2	12:AO:12:ARG:O	2.35	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1157:A:HO2'	1:AA:1158:C:P	2.39	0.45
1:AA:1253:G:H1	1:AA:1284:C:H42	1.63	0.45
2:AE:22:LYS:HZ2	2:AE:22:LYS:HA	1.81	0.45
2:AE:216:SER:OG	2:AE:217:ARG:N	2.46	0.45
3:AF:30:ARG:HB2	14:AQ:36:PHE:O	2.17	0.45
5:AH:51:VAL:O	5:AH:55:VAL:HG23	2.17	0.45
6:AI:42:GLU:C	6:AI:44:GLY:N	2.75	0.45
8:AK:26:VAL:O	8:AK:26:VAL:HG22	2.16	0.45
9:AL:19:LEU:HD22	9:AL:59:PHE:HB3	1.97	0.45
9:AL:53:VAL:O	9:AL:54:ASP:CB	2.64	0.45
12:AO:90:LEU:HB2	12:AO:93:VAL:HG13	1.98	0.45
13:AP:94:ARG:O	13:AP:96:LEU:HG	2.16	0.45
22:AB:49:A:H2	22:AB:51:C:OP2	2.00	0.45
22:AD:51:C:C5	22:AD:52:G:H1'	2.50	0.45
25:BA:53:A:H2'	25:BA:54:G:O4'	2.16	0.45
25:BA:150:C:H2'	25:BA:151:C:C6	2.52	0.45
25:BA:165:U:C4	25:BA:171:G:C4	3.05	0.45
25:BA:1093:G:H4'	31:BH:170:ARG:HH21	1.81	0.45
25:BA:2123:G:H2'	25:BA:2124:G:O4'	2.17	0.45
25:BA:2199:A:H5'	47:BZ:50:ARG:NH2	2.31	0.45
25:BA:2360:A:H2'	25:BA:2361:A:O4'	2.17	0.45
29:BF:45:ARG:HD3	29:BF:97:TYR:CG	2.51	0.45
33:BM:6:PRO:HG3	33:BM:41:ASP:HB2	1.97	0.45
33:BM:15:LEU:HB3	33:BM:136:GLU:HA	1.98	0.45
36:BP:21:THR:O	36:BP:21:THR:HG23	2.12	0.45
37:B0:1:MET:O	37:B0:2:ARG:CB	2.63	0.45
37:B0:26:LYS:HE2	37:B0:70:LEU:O	2.16	0.45
37:B0:107:ASP:OD2	37:B0:107:ASP:C	2.59	0.45
38:BQ:34:HIS:HB2	38:BQ:36:TYR:CE1	2.51	0.45
44:BU:89:PHE:C	44:BU:90:LEU:HD12	2.42	0.45
50:B4:34:GLU:O	50:B4:35:VAL:HG23	2.16	0.45
51:B5:56:LYS:H	51:B5:56:LYS:CD	2.30	0.45
1:CA:177:C:H2'	1:CA:178:C:C6	2.52	0.45
1:CA:537:G:H2'	1:CA:538:G:C8	2.52	0.45
1:CA:952:U:C5	13:CP:104:ARG:NH2	2.77	0.45
1:CA:1127:G:N2	1:CA:1144:G:H22	2.14	0.45
1:CA:1159:U:C4'	1:CA:1181:G:H22	2.29	0.45
2:CE:92:TYR:CD2	2:CE:151:GLY:HA3	2.51	0.45
11:CN:51:LYS:HB3	11:CN:51:LYS:HE2	1.81	0.45
13:CP:7:VAL:HG21	30:DG:115:ARG:NH1	2.31	0.45
16:CS:47:ASP:O	16:CS:47:ASP:CG	2.60	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CV:78:ARG:HH11	19:CV:79:THR:H	1.63	0.45
22:CB:2:G:C6	22:CB:80:C:N4	2.82	0.45
22:CB:7:G:H3'	22:CB:8:U:C5'	2.47	0.45
22:CB:42:U:C5'	22:CB:43:G:OP2	2.61	0.45
22:CD:10:C:H2'	22:CD:11:C:H6	1.80	0.45
22:CD:16:C:N4	22:CD:68:A:C8	2.84	0.45
25:DA:74:A:H5'	25:DA:75:G:O4'	2.16	0.45
25:DA:90:U:H2'	25:DA:90:U:O2	2.16	0.45
25:DA:192:C:O2'	25:DA:802:A:N3	2.48	0.45
25:DA:343:C:O2'	25:DA:344:G:H5'	2.16	0.45
25:DA:529:A:N3	25:DA:529:A:C2'	2.80	0.45
25:DA:764:A:H5"	27:DD:210:GLY:HA2	1.99	0.45
25:DA:812:C:H5"	25:DA:1250:G:O2'	2.17	0.45
25:DA:918:A:N6	25:DA:919:G:N3	2.64	0.45
25:DA:1291:C:H2'	25:DA:1292:U:C6	2.51	0.45
25:DA:1999:C:H5"	25:DA:2723:C:O2'	2.16	0.45
25:DA:2156:G:H2'	25:DA:2157:G:O4'	2.16	0.45
25:DA:2310:A:H5'	25:DA:2311:A:OP2	2.17	0.45
25:DA:2324:C:H5"	25:DA:2325:G:C5'	2.47	0.45
25:DA:2584:U:H2'	25:DA:2585:U:O2	2.15	0.45
26:DB:7:G:H4'	38:DQ:29:PHE:CD1	2.52	0.45
27:DD:28:GLU:N	27:DD:29:PRO:HD2	2.32	0.45
31:DH:99:VAL:HG13	31:DH:100:GLY:H	1.81	0.45
31:DH:109:PHE:CE1	31:DH:152:ARG:HD3	2.46	0.45
31:DH:118:PRO:HD2	31:DH:121:ILE:HG13	1.98	0.45
35:DO:15:ARG:NH1	35:DO:15:ARG:CB	2.75	0.45
35:DO:56:SER:O	35:DO:57:THR:C	2.60	0.45
40:D1:76:TYR:CZ	40:D1:80:ILE:HG13	2.51	0.45
41:D2:80:GLN:HE21	41:D2:80:GLN:CA	2.30	0.45
43:DT:43:VAL:HG22	43:DT:51:VAL:HG21	1.99	0.45
44:DU:30:VAL:O	44:DU:31:LEU:HG	2.17	0.45
44:DU:30:VAL:C	44:DU:31:LEU:HG	2.42	0.45
50:D4:15:ILE:HD12	50:D4:15:ILE:N	2.32	0.45
52:D6:30:THR:HA	52:D6:31:PRO:C	2.41	0.45
1:AA:536:C:H2'	1:AA:537:G:C8	2.51	0.45
1:AA:838:G:N2	1:AA:849:C:C2	2.85	0.45
1:AA:922:G:C6	1:AA:923:A:C6	3.04	0.45
1:AA:1157:A:O2'	1:AA:1158:C:P	2.74	0.45
1:AA:1386:G:O2'	1:AA:1387:G:H5'	2.17	0.45
4:AG:170:VAL:CG1	4:AG:171:GLY:N	2.80	0.45
23:AC:17:C:O2'	23:AC:18:C:C6	2.67	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:671:C:OP1	35:BO:42:SER:O	2.35	0.45
25:BA:748:G:C8	42:BS:89:ALA:HB1	2.51	0.45
25:BA:1026:U:H1'	25:BA:1027:A:P	2.55	0.45
25:BA:1235:G:C6	25:BA:1236:G:N1	2.84	0.45
25:BA:1864:U:H5"	25:BA:2410:G:O2'	2.17	0.45
25:BA:2014:A:HO2'	51:B5:2:ALA:HB2	1.66	0.45
25:BA:2299:G:N1	25:BA:2318:G:C8	2.84	0.45
25:BA:2312:U:OP1	30:BG:74:LYS:HB2	2.17	0.45
25:BA:2818:G:OP2	37:B0:42:LYS:HE2	2.16	0.45
28:BE:3:GLY:HA3	28:BE:81:ILE:HD12	1.98	0.45
28:BE:68:ALA:C	28:BE:70:ALA:N	2.65	0.45
29:BF:81:PRO:HB3	29:BF:89:VAL:CG2	2.45	0.45
30:BG:37:VAL:HG22	30:BG:159:VAL:HG12	1.97	0.45
30:BG:135:LEU:HD12	30:BG:135:LEU:N	2.32	0.45
31:BH:153:LYS:HB3	31:BH:154:PRO:CD	2.45	0.45
33:BM:43:THR:HB	33:BM:46:VAL:CG1	2.46	0.45
36:BP:52:VAL:O	36:BP:56:ARG:HB2	2.16	0.45
1:CA:1111:A:H2'	1:CA:1112:C:C6	2.52	0.45
1:CA:1129:C:H5	1:CA:1141:C:N4	2.15	0.45
3:CF:195:VAL:HG12	3:CF:196:LEU:H	1.81	0.45
10:CM:99:LYS:HD3	10:CM:100:THR:N	2.32	0.45
25:DA:26:G:H1'	25:DA:515:A:H61	1.82	0.45
25:DA:218:A:C2	25:DA:235:U:H4'	2.51	0.45
25:DA:1116:C:H2'	25:DA:1117:G:H8	1.81	0.45
25:DA:1229:G:N2	25:DA:1229(A):G:H1'	2.32	0.45
25:DA:1511:A:H2'	25:DA:1512:G:O4'	2.16	0.45
25:DA:2097:C:H2'	25:DA:2098:U:O4'	2.16	0.45
25:DA:2168:G:O6	25:DA:2171:A:C6	2.69	0.45
25:DA:2405:G:O2'	25:DA:2406:U:OP1	2.24	0.45
25:DA:2662:A:H8	25:DA:2662:A:O5'	2.00	0.45
25:DA:2881:C:C2	25:DA:2882:A:C8	3.04	0.45
25:DA:2892:A:N7	25:DA:2893:G:C5	2.85	0.45
26:DB:43:C:H1'	30:DG:93:THR:O	2.16	0.45
27:DD:245:PRO:HA	27:DD:246:PRO:HD3	1.86	0.45
28:DE:93:VAL:C	28:DE:95:ILE:H	2.24	0.45
29:DF:123:LEU:O	29:DF:124:LEU:C	2.58	0.45
29:DF:139:PHE:CD2	29:DF:139:PHE:C	2.94	0.45
35:DO:71:VAL:HG22	35:DO:72:PRO:CD	2.46	0.45
35:DO:114:ILE:HG21	35:DO:130:PHE:CD1	2.51	0.45
36:DP:54:MET:HB2	36:DP:64:ILE:HD13	1.98	0.45
38:DQ:83:LYS:HE2	38:DQ:83:LYS:HB3	1.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DR:61:PHE:CD2	39:DR:61:PHE:N	2.80	0.45
39:DR:92:GLY:HA2	39:DR:116:ALA:HA	1.98	0.45
42:DS:2:GLU:OE2	42:DS:72:LYS:HE3	2.16	0.45
43:DT:29:TRP:CZ2	43:DT:76:ARG:NH2	2.84	0.45
45:DV:30:ASN:O	45:DV:31:ARG:C	2.59	0.45
47:DZ:86:SER:O	47:DZ:87:PRO:C	2.60	0.45
52:D6:51:GLU:HG2	52:D6:52:VAL:N	2.31	0.45
1:AA:64:G:H4'	1:AA:65:U:H5'	1.98	0.45
1:AA:89:U:O2'	1:AA:90:C:P	2.75	0.45
1:AA:411:A:N7	1:AA:413:G:N3	2.64	0.45
1:AA:438:G:H4'	4:AG:123:HIS:ND1	2.32	0.45
1:AA:458:C:H2'	1:AA:464:G:H8	1.81	0.45
1:AA:727:G:N1	1:AA:731:G:C6	2.84	0.45
1:AA:1025:U:O2'	1:AA:1026:G:C5'	2.64	0.45
1:AA:1316:G:H5"	14:AQ:17:LYS:HE3	1.97	0.45
1:AA:1507:A:C2	1:AA:1508:G:C4	3.04	0.45
2:AE:55:PHE:CD1	2:AE:58:ILE:HD12	2.52	0.45
2:AE:160:ASP:O	2:AE:183:PRO:HG2	2.16	0.45
3:AF:15:THR:CG2	3:AF:181:ASN:HA	2.46	0.45
5:AH:78:HIS:HB2	8:AK:104:ARG:HB3	1.98	0.45
5:AH:147:ASP:HA	5:AH:150:ARG:NH1	2.31	0.45
12:AO:114:ARG:HB2	12:AO:114:ARG:CZ	2.46	0.45
22:AD:5:G:H1	22:AD:77:C:N4	2.13	0.45
22:AD:18:G:N2	22:AD:66:G:H1'	2.31	0.45
25:BA:292:C:O2'	25:BA:293:U:H5'	2.17	0.45
25:BA:321:G:OP2	29:BF:135:LYS:HA	2.17	0.45
25:BA:547:A:H2'	25:BA:548:A:H8	1.75	0.45
25:BA:1055:G:C2	25:BA:1104:C:N3	2.81	0.45
25:BA:1191:G:OP1	35:BO:32:THR:OG1	2.29	0.45
25:BA:1420:U:O2'	25:BA:1421:G:P	2.74	0.45
25:BA:1442:G:C2	25:BA:1550:C:O2	2.69	0.45
25:BA:2035:G:C4'	25:BA:2036:C:OP2	2.63	0.45
25:BA:2246:G:H2'	25:BA:2247:A:C8	2.51	0.45
25:BA:2638:G:OP2	28:BE:82:ARG:NH2	2.50	0.45
27:BD:35:LYS:HB3	27:BD:36:PRO:HA	1.99	0.45
27:BD:248:SER:HB2	27:BD:249:PRO:HD2	1.98	0.45
28:BE:50:GLY:HA2	28:BE:77:ILE:HG22	1.97	0.45
28:BE:101:ARG:C	28:BE:201:THR:OG1	2.60	0.45
28:BE:167:VAL:HG12	28:BE:189:PRO:HD3	1.99	0.45
29:BF:133:ASN:HB3	29:BF:138:GLU:OE1	2.17	0.45
30:BG:27:ASN:HB3	30:BG:30:GLU:HG3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BN:2:ILE:HD13	34:BN:2:ILE:N	2.31	0.45
47:BZ:87:PRO:O	47:BZ:91:LYS:N	2.36	0.45
52:B6:33:LYS:CG	52:B6:34:LEU:HD22	2.46	0.45
1:CA:631:G:H5"	1:CA:632:A:C8	2.50	0.45
1:CA:932:C:O2	1:CA:932:C:H2'	2.16	0.45
1:CA:1163:C:C2	1:CA:1174:G:N2	2.85	0.45
1:CA:1321:C:N4	1:CA:1322:C:N4	2.51	0.45
1:CA:1325:C:C4'	21:CX:17:THR:HG21	2.38	0.45
1:CA:1357:A:N7	1:CA:1358:U:C5	2.85	0.45
1:CA:1442:G:C2'	1:CA:1443:G:O5'	2.64	0.45
2:CE:97:TRP:CE3	2:CE:98:LEU:O	2.69	0.45
2:CE:146:GLN:C	2:CE:148:TYR:H	2.25	0.45
2:CE:197:VAL:HG12	2:CE:200:ILE:HG13	1.99	0.45
5:CH:12:LEU:O	5:CH:30:ALA:HA	2.17	0.45
5:CH:34:VAL:O	5:CH:42:GLY:N	2.50	0.45
5:CH:72:GLN:O	5:CH:73:ASN:HB2	2.16	0.45
9:CL:24:GLY:HA2	9:CL:59:PHE:O	2.17	0.45
13:CP:78:ILE:HG23	13:CP:92:HIS:CD2	2.46	0.45
13:CP:89:GLY:O	13:CP:92:HIS:HB2	2.17	0.45
20:CW:75:ASN:OD1	20:CW:75:ASN:N	2.44	0.45
22:CB:33:C:O2'	22:CB:38:MIA:H163	2.17	0.45
25:DA:127:A:H5"	25:DA:128:C:C6	2.51	0.45
25:DA:224:G:N7	25:DA:420:C:H4'	2.31	0.45
25:DA:310:A:OP1	44:DU:17:SER:O	2.34	0.45
25:DA:357:A:H2'	25:DA:358:U:C6	2.51	0.45
25:DA:702:G:C2	25:DA:731:C:C2	3.05	0.45
25:DA:2107:C:N3	25:DA:2182:G:N2	2.64	0.45
25:DA:2119:A:C6	25:DA:2170:A:N7	2.84	0.45
25:DA:2311:A:N7	30:DG:44:GLY:HA3	2.31	0.45
25:DA:2607:G:H2'	25:DA:2608:G:O4'	2.16	0.45
26:DB:10:C:C2'	26:DB:11:C:H5'	2.47	0.45
26:DB:83:G:H1	26:DB:93:C:N4	2.12	0.45
29:DF:9:ILE:HG12	29:DF:15:SER:H	1.82	0.45
31:DH:61:HIS:C	31:DH:63:SER:N	2.75	0.45
33:DM:94:HIS:HA	33:DM:96:GLU:OE2	2.16	0.45
35:DO:57:THR:C	35:DO:59:LEU:N	2.56	0.45
36:DP:98:LYS:HB3	36:DP:99:PRO:CD	2.41	0.45
37:D0:78:LYS:O	37:D0:82:GLU:HB3	2.16	0.45
40:D1:90:VAL:C	40:D1:92:ARG:N	2.73	0.45
40:D1:91:ASP:O	40:D1:92:ARG:C	2.60	0.45
45:DV:98:MET:O	45:DV:125:LEU:HD12	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:158:G:O2'	1:AA:159:G:H5'	2.15	0.45
1:AA:210:U:O2'	1:AA:216:G:O5'	2.35	0.45
1:AA:342:C:O2	1:AA:348:G:C2	2.70	0.45
1:AA:939:G:C6	1:AA:940:C:C4	3.04	0.45
1:AA:1084:G:OP1	1:AA:1086:U:C2	2.70	0.45
1:AA:1278:U:H6	1:AA:1278:U:H3'	1.81	0.45
4:AG:146:ILE:HD12	4:AG:146:ILE:N	2.32	0.45
9:AL:65:VAL:HG21	9:AL:73:GLN:HB3	1.98	0.45
9:AL:89:ASN:C	9:AL:91:ASP:H	2.25	0.45
12:AO:58:THR:O	12:AO:60:GLY:N	2.40	0.45
15:AR:82:ILE:CG2	15:AR:83:GLU:N	2.80	0.45
25:BA:592:G:O2'	54:B8:4:MET:HB2	2.16	0.45
25:BA:1028:A:H2'	25:BA:1029:A:C8	2.52	0.45
25:BA:1158:C:H4'	49:BX:32:GLN:HB2	1.98	0.45
25:BA:1416:G:H2'	25:BA:1417:C:C6	2.52	0.45
25:BA:1899:G:HO2'	25:BA:1900:A:P	2.29	0.45
25:BA:2119:A:H2	25:BA:2171:A:H1'	1.80	0.45
25:BA:2199:A:H3'	25:BA:2205:C:C6	2.48	0.45
25:BA:2286:A:C8	25:BA:2287:A:N6	2.85	0.45
25:BA:2355:C:H4'	46:B3:36:ILE:CD1	2.47	0.45
25:BA:2726:U:O4'	34:BN:1:MET:HE1	2.17	0.45
25:BA:2854:G:H2'	25:BA:2855:C:C6	2.52	0.45
26:BB:30:C:H2'	26:BB:31:C:C5'	2.47	0.45
27:BD:32:SER:HA	27:BD:36:PRO:HD2	1.99	0.45
27:BD:71:ASP:CB	27:BD:103:ARG:HH22	2.19	0.45
29:BF:128:ALA:O	29:BF:129:PHE:HB2	2.16	0.45
30:BG:83:ARG:H	30:BG:86:MET:HE3	1.78	0.45
31:BH:158:HIS:O	31:BH:160:LYS:N	2.50	0.45
33:BM:40:PRO:O	40:B1:64:ARG:HG2	2.17	0.45
33:BM:133:GLN:HG3	33:BM:135:PRO:HD3	1.99	0.45
37:B0:1:MET:O	37:B0:2:ARG:HD2	2.17	0.45
37:B0:1:MET:SD	37:B0:1:MET:N	2.70	0.45
37:B0:85:PRO:C	37:B0:87:TYR:N	2.74	0.45
38:BQ:99:LYS:O	38:BQ:103:GLU:HG2	2.17	0.45
44:BU:75:ILE:HG22	44:BU:80:GLY:N	2.31	0.45
46:B3:46:LYS:HE3	46:B3:76:GLY:HA3	1.98	0.45
1:CA:160:A:H1'	1:CA:344:A:N7	2.32	0.45
1:CA:542:G:H5'	4:CG:41:GLY:HA3	1.97	0.45
1:CA:853:G:C4	1:CA:854:G:C8	3.05	0.45
1:CA:1298:C:O2'	1:CA:1299:A:C4	2.69	0.45
1:CA:1325:C:O2'	1:CA:1326:C:H5'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CE:180:LEU:HB2	2:CE:182:ILE:HD13	1.98	0.45
3:CF:14:ILE:HG23	3:CF:15:THR:N	2.32	0.45
4:CG:150:GLU:C	4:CG:152:SER:N	2.73	0.45
4:CG:163:GLU:C	4:CG:165:MET:H	2.23	0.45
5:CH:101:ILE:HD13	5:CH:101:ILE:N	2.32	0.45
6:CI:2:ARG:HD3	6:CI:92:LYS:NZ	2.32	0.45
9:CL:4:TYR:HB2	9:CL:19:LEU:HB2	1.98	0.45
9:CL:5:TYR:CD2	9:CL:18:PHE:CE2	3.04	0.45
9:CL:43:ALA:C	9:CL:45:ALA:H	2.24	0.45
13:CP:39:ILE:CD1	13:CP:52:GLU:HB3	2.45	0.45
15:CR:3:ILE:HD13	15:CR:3:ILE:N	2.31	0.45
17:CT:89:LEU:O	17:CT:92:ARG:HB3	2.17	0.45
22:CB:73:U:H2'	22:CB:74:C:H6	1.81	0.45
24:C1:13:A:H2'	24:C1:14:A:OP1	2.17	0.45
25:DA:68:G:H2'	25:DA:69:C:H6	1.81	0.45
25:DA:867:C:C4	25:DA:868:U:H5	2.33	0.45
25:DA:1042:G:H1	25:DA:1113:U:H3	1.64	0.45
25:DA:1188:U:O2'	25:DA:1189:A:H5'	2.16	0.45
25:DA:1608:A:H1'	25:DA:1610:A:OP2	2.16	0.45
26:DB:43:C:OP1	50:D4:6:HIS:CE1	2.70	0.45
28:DE:52:LEU:O	28:DE:75:VAL:N	2.49	0.45
29:DF:57:VAL:CG1	29:DF:58:ALA:N	2.79	0.45
29:DF:120:GLU:HG3	29:DF:122:LYS:HG2	1.99	0.45
30:DG:5:VAL:HG21	30:DG:101:ILE:HG22	1.98	0.45
34:DN:105:GLU:OE1	34:DN:105:GLU:N	2.46	0.45
38:DQ:106:ARG:HD2	38:DQ:106:ARG:C	2.41	0.45
39:DR:91:ARG:NH1	39:DR:124:ASP:CG	2.75	0.45
39:DR:106:SER:O	39:DR:107:ASP:CB	2.64	0.45
44:DU:44:ILE:HG12	44:DU:45:VAL:N	2.32	0.45
45:DV:17:ALA:O	45:DV:20:ARG:HB2	2.17	0.45
49:DX:2:PRO:HB2	49:DX:3:ARG:H	1.54	0.45
51:D5:25:LEU:HD23	51:D5:26:THR:H	1.81	0.45
1:AA:38:G:C2	1:AA:397:A:C2	3.05	0.45
1:AA:223:U:H2'	1:AA:224:C:H6	1.82	0.45
1:AA:659:U:O2'	1:AA:660:G:H5'	2.17	0.45
1:AA:1141:C:O2'	1:AA:1142:G:H5'	2.17	0.45
1:AA:1256:A:H4'	1:AA:1258:G:C4	2.52	0.45
1:AA:1299:A:H5'	1:AA:1300:G:OP1	2.16	0.45
1:AA:1303:C:H2'	1:AA:1304:G:H5'	1.99	0.45
11:AN:21:ILE:HG12	11:AN:30:VAL:CG1	2.45	0.45
11:AN:48:ILE:HD12	11:AN:48:ILE:HA	1.76	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AN:112:THR:HA	11:AN:113:PRO:HD3	1.82	0.45
15:AR:64:ARG:HH11	15:AR:68:ARG:NH2	2.14	0.45
22:AB:8:U:H2'	22:AB:13:G:H1	1.82	0.45
25:BA:746:A:H2'	25:BA:2612:C:H5"	1.99	0.45
25:BA:1060:U:H1'	25:BA:1061:U:P	2.56	0.45
25:BA:1081:U:C2'	25:BA:1082:U:OP1	2.64	0.45
25:BA:2173:A:N3	25:BA:2173:A:H2'	2.32	0.45
25:BA:2209:C:O2	25:BA:2216:G:C2	2.70	0.45
31:BH:109:PHE:C	31:BH:111:HIS:N	2.71	0.45
32:BK:123:LEU:HA	32:BK:142:VAL:HG23	1.97	0.45
33:BM:38:HIS:CE1	33:BM:50:ASP:OD2	2.70	0.45
39:BR:33:LYS:HZ3	39:BR:84:GLN:HB2	1.79	0.45
39:BR:56:GLY:C	39:BR:57:PHE:O	2.58	0.45
40:B1:8:VAL:CG2	40:B1:11:ARG:HH21	2.29	0.45
46:B3:35:ASN:N	46:B3:35:ASN:HD22	2.15	0.45
54:B8:34:TRP:HB3	54:B8:35:GLN:HG2	1.98	0.45
1:CA:748:C:H6	1:CA:748:C:O5'	2.00	0.45
1:CA:785:G:N2	1:CA:798:G:C4	2.85	0.45
1:CA:848:C:O2'	1:CA:849:C:H5'	2.17	0.45
1:CA:976:G:C8	1:CA:1358:U:C2	3.04	0.45
1:CA:1187:G:H2'	1:CA:1187:G:N3	2.30	0.45
4:CG:13:ARG:HB2	4:CG:14:ARG:H	1.53	0.45
7:CJ:80:VAL:CG1	7:CJ:85:TYR:HE1	2.30	0.45
13:CP:86:CYS:O	13:CP:87:TYR:C	2.60	0.45
19:CV:41:VAL:O	19:CV:44:MET:N	2.49	0.45
20:CW:99:LEU:O	20:CW:100:ILE:C	2.60	0.45
22:CB:84:C:O2'	25:DA:2507:C:H4'	2.17	0.45
23:CC:47:G:H4'	23:CC:48:U:OP1	2.16	0.45
22:CD:48:C:C4	22:CD:49:A:C4	3.05	0.45
25:DA:986:C:O2'	25:DA:987:G:H5'	2.17	0.45
25:DA:1339:G:H5"	43:DT:16:LYS:HD3	1.99	0.45
25:DA:1404:C:O2	25:DA:1404:C:H2'	2.17	0.45
25:DA:1678:G:N2	25:DA:1989:G:H1	2.15	0.45
25:DA:2146:C:H4'	25:DA:2147:G:O4'	2.17	0.45
25:DA:2250:G:OP2	25:DA:2275:C:H2'	2.16	0.45
25:DA:2582:G:C2	25:DA:2583:G:C8	3.05	0.45
25:DA:2721:A:H1'	25:DA:2873:A:O2'	2.17	0.45
25:DA:2809:A:H62	25:DA:2891:G:H2'	1.82	0.45
25:DA:2893:G:H8	25:DA:2893:G:OP2	1.99	0.45
26:DB:89(A):A:H8	26:DB:90:C:O4'	1.99	0.45
29:DF:82:ILE:H	29:DF:82:ILE:CD1	2.28	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DG:16:ARG:N	30:DG:17:PRO:HD2	2.32	0.45
32:DK:68:LEU:HB3	32:DK:72:LEU:HD12	1.97	0.45
32:DK:133:HIS:CD2	32:DK:133:HIS:C	2.94	0.45
35:DO:21:ARG:HB3	35:DO:22:GLY:H	1.55	0.45
40:D1:8:VAL:O	40:D1:12:ARG:HG3	2.16	0.45
48:DW:17:SER:HB3	48:DW:21:LEU:HD12	1.99	0.45
49:DX:8:LEU:HD22	49:DX:10:LYS:O	2.17	0.45
51:D5:54:GLY:O	51:D5:55:ARG:HB3	2.16	0.45
1:AA:567:G:H2'	1:AA:568:G:O4'	2.17	0.45
1:AA:1464:G:O2'	1:AA:1465:C:H5'	2.17	0.45
3:AF:127:ARG:NH1	3:AF:193:TYR:HE2	2.15	0.45
3:AF:148:GLY:HA3	3:AF:172:ARG:O	2.16	0.45
4:AG:88:VAL:O	4:AG:88:VAL:HG12	2.17	0.45
5:AH:59:GLY:O	5:AH:62:ALA:HB3	2.16	0.45
5:AH:152:ARG:HA	8:AK:64:LYS:NZ	2.32	0.45
7:AJ:113:GLU:CB	7:AJ:119:ARG:HG2	2.47	0.45
12:AO:59:SER:O	12:AO:61:TYR:HD1	2.00	0.45
13:AP:30:ALA:C	13:AP:32:GLU:N	2.75	0.45
13:AP:81:LEU:O	13:AP:89:GLY:HA3	2.16	0.45
22:AB:84:C:O2'	25:BA:2507:C:H4'	2.17	0.45
22:AD:1:G:H1	22:AD:81:C:H42	1.64	0.45
22:AD:53:A:H2'	22:AD:54:C:O4'	2.17	0.45
25:BA:39:C:O2	29:BF:46:ARG:NH2	2.49	0.45
25:BA:184:C:H2'	25:BA:185:U:C6	2.52	0.45
25:BA:271(B):G:O2'	25:BA:271(C):U:OP2	2.25	0.45
25:BA:286:C:H2'	25:BA:287:C:C6	2.52	0.45
25:BA:322:A:OP2	29:BF:169:ASN:HB2	2.17	0.45
25:BA:966:G:C5	25:BA:967:C:C5	3.05	0.45
25:BA:1070:A:H5"	25:BA:1071:G:OP1	2.17	0.45
25:BA:1083:U:H2'	25:BA:1084:A:H5"	1.98	0.45
25:BA:1478:G:O2'	25:BA:1558:A:H2	2.00	0.45
25:BA:1512:G:H2'	25:BA:1513:C:C6	2.52	0.45
25:BA:1537:C:C2'	25:BA:1538:G:O5'	2.65	0.45
25:BA:2355:C:H1'	46:B3:39:ARG:HH21	1.82	0.45
35:BO:34:GLY:O	35:BO:35:HIS:HB2	2.17	0.45
37:B0:34:ILE:HG22	37:B0:114:VAL:HB	1.99	0.45
41:B2:41:GLY:HA3	41:B2:46:VAL:CG1	2.46	0.45
41:B2:41:GLY:HA3	41:B2:46:VAL:HG13	1.98	0.45
41:B2:47:VAL:O	41:B2:48:GLY:O	2.35	0.45
43:BT:31:HIS:HD2	43:BT:33:LYS:N	2.09	0.45
47:BZ:67:ILE:N	47:BZ:68:PRO:CD	2.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BX:37:LEU:HD12	49:BX:43:ILE:HD13	1.99	0.45
49:BX:40:THR:HG23	49:BX:43:ILE:HG13	1.99	0.45
1:CA:56:U:H2'	1:CA:57:G:C8	2.52	0.45
1:CA:82:U:C4	1:CA:87:A:N6	2.83	0.45
1:CA:328:C:C2'	1:CA:328:C:O2	2.63	0.45
1:CA:468:A:C2'	1:CA:474:G:H5'	2.47	0.45
2:CE:131:PRO:C	2:CE:133:LYS:N	2.74	0.45
2:CE:132:LYS:HD2	2:CE:135:GLN:HE22	1.81	0.45
2:CE:153:ARG:O	2:CE:153:ARG:HG2	2.16	0.45
2:CE:172:ILE:H	2:CE:172:ILE:CD1	2.25	0.45
3:CF:112:SER:O	3:CF:116:VAL:HG23	2.17	0.45
5:CH:31:LEU:HD23	5:CH:31:LEU:HA	1.75	0.45
8:CK:14:ARG:O	8:CK:18:ARG:HD3	2.16	0.45
9:CL:48:GLU:N	9:CL:49:PRO:CD	2.79	0.45
10:CM:3:LYS:HB2	10:CM:77:PRO:HG3	1.99	0.45
10:CM:33:GLN:HB2	10:CM:75:ILE:CD1	2.47	0.45
12:CO:15:VAL:HG23	12:CO:16:ARG:N	2.32	0.45
14:CQ:33:VAL:HA	14:CQ:40:CYS:HA	1.99	0.45
16:CS:54:GLU:H	16:CS:54:GLU:CD	2.25	0.45
22:CB:57:C:H4'	22:CB:58:G:C5'	2.46	0.45
22:CD:15:G:H4'	22:CD:15:G:OP1	2.17	0.45
25:DA:19:C:H2'	25:DA:20:C:H6	1.81	0.45
25:DA:21:A:O2'	25:DA:22:C:H5'	2.17	0.45
25:DA:745:G:H2'	25:DA:746:A:H5'	1.99	0.45
25:DA:820:A:N3	25:DA:943:U:H4'	2.32	0.45
25:DA:905:U:C2'	25:DA:906:G:H5'	2.47	0.45
25:DA:1003:G:O2'	25:DA:1010:A:N1	2.48	0.45
25:DA:1055:G:N2	25:DA:1086:A:H5'	2.32	0.45
25:DA:1072:C:N4	25:DA:1098:A:OP2	2.50	0.45
25:DA:1299:G:H5"	25:DA:1300:U:OP1	2.16	0.45
25:DA:2353:G:H2'	25:DA:2354:G:O4'	2.14	0.45
25:DA:2702:U:O2'	25:DA:2703:C:H5	1.99	0.45
25:DA:2755:C:HO2'	25:DA:2756:U:H6	1.65	0.45
27:DD:35:LYS:HG2	27:DD:64:ILE:CA	2.46	0.45
27:DD:74:GLY:O	27:DD:76:PRO:HD3	2.17	0.45
28:DE:9:VAL:HG23	28:DE:10:GLY:H	1.82	0.45
33:DM:34:LEU:HD13	33:DM:34:LEU:HA	1.76	0.45
35:DO:58:THR:O	35:DO:58:THR:CG2	2.62	0.45
37:D0:10:LEU:O	37:D0:11:ASN:C	2.60	0.45
37:D0:44:LEU:O	37:D0:45:ARG:C	2.60	0.45
40:D1:112:ARG:HD3	41:D2:47:VAL:HG11	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DT:63:LYS:HZ2	43:DT:63:LYS:N	2.15	0.45
44:DU:91:GLU:CG	44:DU:92:ASN:N	2.79	0.45
45:DV:29:TYR:HA	45:DV:33:LEU:O	2.17	0.45
50:D4:31:ILE:HG22	50:D4:32:TYR:N	2.31	0.45
53:D7:8:ASN:ND2	53:D7:8:ASN:C	2.73	0.45
54:D8:22:VAL:H	54:D8:50:LEU:CD1	2.29	0.45
54:D8:32:LEU:HB2	54:D8:36:LYS:NZ	2.32	0.45
54:D8:52:LYS:N	54:D8:52:LYS:HD2	2.32	0.45
1:AA:68:G:N2	1:AA:69:G:H1'	2.32	0.45
1:AA:134:A:H1'	1:AA:325:A:C5	2.51	0.45
1:AA:329:A:C2	1:AA:332:G:C4	3.05	0.45
1:AA:901:A:O5'	1:AA:901:A:H8	2.00	0.45
3:AF:159:GLY:HA2	3:AF:193:TYR:CD1	2.52	0.45
3:AF:166:GLU:HG3	3:AF:167:TRP:H	1.81	0.45
6:AI:28:ARG:O	6:AI:32:ASN:ND2	2.44	0.45
8:AK:82:HIS:HB3	8:AK:138:TRP:CD2	2.52	0.45
11:AN:41:THR:CG2	11:AN:42:TRP:N	2.79	0.45
22:AB:55:U:O2	22:AB:55:U:O4'	2.35	0.45
22:AD:80:C:O2'	22:AD:81:C:H5'	2.16	0.45
25:BA:34:C:O4'	25:BA:34:C:P	2.75	0.45
25:BA:273(D):C:H2'	25:BA:273(E):U:H6	1.82	0.45
25:BA:574:C:N3	28:BE:145:LYS:NZ	2.62	0.45
25:BA:588:U:C2	29:BF:90:PHE:CD1	3.05	0.45
25:BA:1063:G:N2	25:BA:1076:C:H1'	2.32	0.45
25:BA:1174:A:H2'	25:BA:1176:G:OP1	2.17	0.45
25:BA:1204:A:N1	25:BA:1241:A:N1	2.65	0.45
25:BA:1592:C:H2'	25:BA:1593:G:H8	1.82	0.45
25:BA:1695:G:H1'	27:BD:8:PRO:O	2.17	0.45
25:BA:2074:U:H2'	25:BA:2075:U:C6	2.51	0.45
25:BA:2094:G:OP1	32:BK:22:LYS:HG3	2.17	0.45
25:BA:2208:U:H4'	27:BD:151:LYS:HG2	1.99	0.45
25:BA:2282:G:H4'	25:BA:2389:G:O2'	2.16	0.45
25:BA:2822:G:H2'	25:BA:2823:A:H5"	1.99	0.45
30:BG:91:ARG:HD2	30:BG:91:ARG:C	2.42	0.45
31:BH:83:TYR:CB	31:BH:135:GLY:N	2.68	0.45
32:BK:67:ARG:NH2	32:BK:68:LEU:HD12	2.32	0.45
38:BQ:89:ARG:O	38:BQ:90:GLY:C	2.60	0.45
43:BT:5:TYR:CZ	48:BW:30:ARG:HB2	2.51	0.45
45:BV:124:ILE:HD12	45:BV:124:ILE:HA	1.88	0.45
1:CA:17:U:H2'	1:CA:18:C:C6	2.52	0.45
1:CA:157:G:H2'	1:CA:158:G:H8	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:255:G:H2'	1:CA:256:U:C6	2.52	0.45
1:CA:332:G:C2	1:CA:333:G:C8	3.04	0.45
1:CA:854:G:C2	1:CA:855:G:C8	3.05	0.45
1:CA:883:C:O2'	1:CA:884:U:H5'	2.17	0.45
1:CA:947:G:H2'	1:CA:948:C:C6	2.52	0.45
1:CA:975:A:H4'	1:CA:976:G:C5'	2.34	0.45
1:CA:991:U:C4	1:CA:1212:U:H1'	2.52	0.45
1:CA:1160:G:C6	1:CA:1181:G:O6	2.70	0.45
1:CA:1410:G:H2'	1:CA:1411:C:C6	2.52	0.45
1:CA:1411:C:H2'	1:CA:1412:C:C6	2.53	0.45
1:CA:1415:G:C6	1:CA:1486:G:C6	3.05	0.45
2:CE:216:SER:O	2:CE:218:ALA:N	2.45	0.45
4:CG:30:LYS:HB2	4:CG:35:ARG:NH1	2.30	0.45
4:CG:163:GLU:C	4:CG:165:MET:N	2.75	0.45
10:CM:16:LEU:HD13	10:CM:70:ARG:HD2	1.99	0.45
10:CM:40:LEU:HB3	10:CM:69:ASN:HB2	1.99	0.45
11:CN:70:LYS:HB2	11:CN:70:LYS:HE3	1.73	0.45
19:CV:66:MET:HE2	50:D4:59:PHE:CD1	2.52	0.45
23:CC:55:U:C4	23:CC:56:U:C4	3.05	0.45
22:CD:16:C:N4	22:CD:68:A:C4	2.85	0.45
25:DA:270(K):C:O2	25:DA:270(K):C:H2'	2.17	0.45
25:DA:442:G:C6	25:DA:444:C:N4	2.85	0.45
25:DA:631:A:N3	25:DA:2415:G:O2'	2.48	0.45
25:DA:1259:G:H2'	25:DA:1260:G:H8	1.81	0.45
25:DA:1417:C:O2'	25:DA:1587:A:N3	2.48	0.45
25:DA:1668:A:C8	25:DA:1674:G:C6	3.05	0.45
25:DA:1794:U:H1'	25:DA:1900:A:N3	2.32	0.45
25:DA:2099:U:C2	25:DA:2191:G:C6	3.05	0.45
25:DA:2119:A:N1	25:DA:2170:A:N7	2.64	0.45
25:DA:2892:A:N6	25:DA:2893:G:C2	2.85	0.45
26:DB:39:A:N6	50:D4:1:MET:HB3	2.31	0.45
27:DD:267:SER:C	27:DD:269:PHE:N	2.72	0.45
30:DG:162:THR:O	30:DG:162:THR:OG1	2.33	0.45
40:D1:90:VAL:HG12	40:D1:91:ASP:N	2.32	0.45
42:DS:51:LEU:O	42:DS:51:LEU:HD22	2.17	0.45
45:DV:60:GLU:HA	45:DV:66:SER:HA	1.99	0.45
49:DX:12:PRO:O	49:DX:13:ILE:C	2.58	0.45
50:D4:16:CYS:HB3	50:D4:19:GLY:HA2	1.99	0.45
53:D7:26:GLY:O	53:D7:30:VAL:HG23	2.17	0.45
1:AA:209:U:O2'	1:AA:216:G:C2	2.69	0.44
1:AA:659:U:C2	1:AA:660:G:C8	3.04	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:998:G:C6	1:AA:998(A):C:N4	2.85	0.44
1:AA:1032:A:H3'	1:AA:1032(A):G:H5"	1.99	0.44
1:AA:1128:C:O2'	1:AA:1130:A:C8	2.61	0.44
1:AA:1503:A:N6	24:A1:12:A:N9	2.65	0.44
2:AE:115:LEU:C	2:AE:117:GLU:H	2.24	0.44
3:AF:8:ILE:C	3:AF:10:PHE:N	2.75	0.44
3:AF:77:ILE:HG22	3:AF:78:GLY:O	2.16	0.44
4:AG:173:TRP:CG	4:AG:189:PRO:HG3	2.52	0.44
7:AJ:66:VAL:O	7:AJ:70:LYS:HG3	2.17	0.44
14:AQ:23:ARG:HG3	14:AQ:29:ARG:O	2.17	0.44
25:BA:725:G:C6	25:BA:726:G:N1	2.85	0.44
25:BA:945:A:O4'	25:BA:946:G:OP1	2.36	0.44
25:BA:1027:A:C2	25:BA:2488:A:H5'	2.51	0.44
25:BA:1113:U:H5'	31:BH:2:SER:CB	2.38	0.44
25:BA:2534:A:H2'	25:BA:2535:G:O5'	2.17	0.44
26:BB:11:C:O5'	26:BB:12:C:H5	2.00	0.44
26:BB:91:C:H2'	26:BB:92:G:C8	2.52	0.44
26:BB:112:G:H2'	26:BB:113:C:C6	2.52	0.44
27:BD:142:VAL:HG23	27:BD:193:VAL:HA	1.99	0.44
30:BG:107:LEU:HD11	30:BG:178:PHE:CE1	2.51	0.44
32:BK:11:ASN:ND2	32:BK:12:LEU:HD13	2.32	0.44
34:BN:3:GLN:HB2	34:BN:4:PRO:HD2	1.99	0.44
35:BO:63:PRO:HB3	54:B8:12:LYS:O	2.17	0.44
36:BP:77:LYS:HZ1	36:BP:83:MET:HA	1.82	0.44
38:BQ:56:LEU:HB2	38:BQ:58:LEU:HD22	1.99	0.44
40:B1:92:ARG:HD2	40:B1:95:LEU:CD1	2.46	0.44
42:BS:26:GLY:HA2	42:BS:71:VAL:O	2.17	0.44
45:BV:6:LYS:HZ3	45:BV:43:GLU:HG3	1.83	0.44
45:BV:104:PHE:HZ	45:BV:119:GLU:HB3	1.81	0.44
45:BV:150:LEU:HD23	45:BV:150:LEU:C	2.43	0.44
1:CA:31:G:C1'	1:CA:32:A:OP1	2.65	0.44
1:CA:415:A:H2'	1:CA:416:G:O4'	2.17	0.44
1:CA:1159:U:O2'	1:CA:1160:G:C5	2.70	0.44
1:CA:1161:C:O2'	1:CA:1162:C:H5'	2.17	0.44
1:CA:1175:G:N2	1:CA:1176:A:C6	2.84	0.44
3:CF:157:ILE:HD11	3:CF:166:GLU:HB2	1.98	0.44
4:CG:4:TYR:HE2	4:CG:11:LEU:HD11	1.82	0.44
4:CG:61:LYS:HE2	4:CG:206:PHE:CE2	2.52	0.44
12:CO:4:ILE:O	12:CO:7:LEU:HB2	2.18	0.44
12:CO:5:ASN:HD22	17:CT:34:LYS:HE2	1.82	0.44
17:CT:15:MET:HE1	17:CT:43:LEU:HD22	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CB:9:U:H5	22:CB:21:A:N7	2.15	0.44
25:DA:107:C:H2'	25:DA:108:U:C6	2.52	0.44
25:DA:1002:G:N2	25:DA:1154:G:H1'	2.33	0.44
25:DA:1039:G:N2	25:DA:1117:G:C4	2.85	0.44
25:DA:1331:A:O2'	25:DA:1332:G:H8	2.01	0.44
25:DA:2182:G:C2	25:DA:2183:C:C4	3.06	0.44
25:DA:2231:C:OP1	47:DZ:42:GLN:HA	2.16	0.44
25:DA:2468:G:OP1	36:DP:119:ARG:NH2	2.47	0.44
25:DA:2472:G:N1	25:DA:2477:C:OP1	2.45	0.44
26:DB:15:A:H5'	26:DB:16:G:H8	1.82	0.44
26:DB:104:A:OP1	45:DV:72:ARG:NH1	2.50	0.44
27:DD:34:VAL:O	27:DD:34:VAL:CG1	2.65	0.44
28:DE:49:LEU:O	28:DE:78:LEU:HB3	2.17	0.44
28:DE:63:LEU:O	28:DE:63:LEU:HG	2.17	0.44
28:DE:87:GLU:C	28:DE:89:ASP:H	2.25	0.44
29:DF:8:GLN:O	29:DF:9:ILE:C	2.60	0.44
29:DF:149:ASP:OD1	29:DF:149:ASP:N	2.42	0.44
31:DH:83:TYR:HB3	31:DH:84:SER:H	1.60	0.44
38:DQ:39:ILE:HG21	38:DQ:82:ILE:HD13	1.99	0.44
39:DR:2:ASN:HB3	39:DR:3:ARG:H	1.61	0.44
41:D2:44:LYS:HG2	41:D2:45:THR:H	1.82	0.44
41:D2:66:ARG:HB2	41:D2:88:ARG:HB3	1.97	0.44
44:DU:68:HIS:HB3	44:DU:71:LYS:HG3	1.99	0.44
44:DU:96:ILE:HD12	44:DU:98:VAL:HG12	1.99	0.44
50:D4:16:CYS:O	50:D4:19:GLY:HA3	2.16	0.44
1:AA:183:G:O2'	1:AA:224:C:H4'	2.17	0.44
1:AA:235:C:H2'	1:AA:236:G:C8	2.52	0.44
1:AA:542:G:H2'	1:AA:543:C:H6	1.82	0.44
1:AA:1034:G:H2'	1:AA:1035:A:C8	2.52	0.44
1:AA:1128:C:H5"	9:AL:16:ARG:HH22	1.81	0.44
1:AA:1149:C:OP1	9:AL:9:ARG:NH2	2.40	0.44
1:AA:1372:U:C4	1:AA:1373:G:C5	3.06	0.44
5:AH:99:GLY:HA2	5:AH:116:THR:O	2.17	0.44
7:AJ:152:ALA:O	7:AJ:155:ARG:HB3	2.18	0.44
10:AM:81:THR:OG1	10:AM:82:ILE:N	2.50	0.44
10:AM:92:THR:HG23	10:AM:93:GLY:N	2.33	0.44
11:AN:41:THR:HG21	11:AN:71:LYS:CB	2.47	0.44
19:AV:11:VAL:HA	19:AV:38:SER:HB2	1.99	0.44
19:AV:69:HIS:HB3	19:AV:73:GLU:OE1	2.16	0.44
23:AC:48:U:C2'	23:AC:49:C:OP2	2.64	0.44
22:AD:9:U:O2	22:AD:9:U:C2'	2.61	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:11:G:H2'	25:BA:12:U:H5'	1.99	0.44
25:BA:71:A:OP2	25:BA:112:U:O2'	2.22	0.44
25:BA:637:A:OP1	35:BO:133:SER:HB3	2.16	0.44
25:BA:643:A:N1	25:BA:2369:A:O2'	2.45	0.44
25:BA:860:U:O2	25:BA:860:U:O4'	2.35	0.44
25:BA:1019:U:O2'	25:BA:1021:A:C2	2.50	0.44
25:BA:1021:A:N6	25:BA:1142(A):A:H61	2.03	0.44
25:BA:2315:G:H2'	25:BA:2316:C:C6	2.52	0.44
25:BA:2556:C:H2'	25:BA:2557:G:O4'	2.17	0.44
30:BG:112:PRO:O	50:B4:37:SER:OG	2.34	0.44
31:BH:86:GLU:HB2	31:BH:165:ALA:HB2	2.00	0.44
36:BP:111:GLU:C	36:BP:113:GLN:H	2.24	0.44
50:B4:14:ILE:HG22	50:B4:21:VAL:O	2.17	0.44
1:CA:42:G:H2'	1:CA:43:C:O4'	2.18	0.44
1:CA:78:G:H1	1:CA:91:C:H42	1.64	0.44
1:CA:423:G:N2	1:CA:424:G:C8	2.85	0.44
1:CA:426:G:H4'	4:CG:41:GLY:O	2.17	0.44
1:CA:841:U:H5'	1:CA:842:C:C5	2.53	0.44
1:CA:977:A:C8	1:CA:1223:C:N3	2.85	0.44
1:CA:1301:U:C2'	1:CA:1302:U:OP1	2.65	0.44
1:CA:1366:C:H2'	1:CA:1367:C:C6	2.51	0.44
2:CE:124:SER:O	2:CE:126:GLU:N	2.50	0.44
4:CG:178:VAL:HG12	4:CG:179:GLU:N	2.32	0.44
12:CO:110:ARG:HG3	12:CO:111:LYS:N	2.31	0.44
22:CB:79:A:C3'	22:CB:80:C:H5"	2.47	0.44
25:DA:868:U:C2	25:DA:869:G:C8	3.05	0.44
25:DA:1050:A:C6	25:DA:2751:G:C6	3.04	0.44
25:DA:1266:G:O6	42:DS:13:SER:HB3	2.17	0.44
25:DA:1469:A:H2'	25:DA:1470:G:O4'	2.17	0.44
25:DA:1651:G:N2	25:DA:2007:C:C2	2.85	0.44
25:DA:2119:A:N6	25:DA:2170:A:C5	2.84	0.44
25:DA:2210:G:N3	25:DA:2210:G:C2'	2.79	0.44
25:DA:2286:A:H5'	52:D6:28:ARG:CZ	2.48	0.44
25:DA:2505:G:O6	25:DA:2576:G:H2'	2.17	0.44
25:DA:2572:A:N7	28:DE:144:ARG:HD2	2.33	0.44
25:DA:2695:C:H2'	25:DA:2696:U:C6	2.52	0.44
25:DA:2735:G:H2'	25:DA:2736:G:H8	1.81	0.44
25:DA:2754:U:H2'	25:DA:2756:U:OP1	2.16	0.44
25:DA:2786:U:C4'	28:DE:64:LYS:HA	2.45	0.44
28:DE:78:LEU:N	28:DE:78:LEU:HD23	2.33	0.44
31:DH:159:GLU:O	31:DH:160:LYS:C	2.60	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DM:120:LEU:HD21	33:DM:122:VAL:HG23	1.99	0.44
49:DX:7:LYS:O	49:DX:9:VAL:HG13	2.17	0.44
1:AA:280:C:O2	17:AT:38:ARG:HG3	2.18	0.44
1:AA:438:G:OP1	4:AG:125:HIS:HE1	1.99	0.44
1:AA:1022:G:C4	1:AA:1023:G:C8	3.06	0.44
1:AA:1238:A:N6	1:AA:1301:U:H3	2.11	0.44
1:AA:1394:A:C5	1:AA:1501:C:H4'	2.53	0.44
2:AE:36:ARG:HD2	2:AE:36:ARG:HA	1.87	0.44
2:AE:45:GLN:HE21	2:AE:45:GLN:HB3	1.53	0.44
2:AE:166:ASP:HB3	2:AE:169:LYS:HB2	1.98	0.44
3:AF:70:VAL:HG12	3:AF:71:ALA:H	1.81	0.44
8:AK:34:GLU:OE1	8:AK:37:ARG:NH1	2.50	0.44
9:AL:29:ASN:CG	9:AL:65:VAL:H	2.24	0.44
10:AM:20:ALA:C	10:AM:22:LYS:H	2.24	0.44
25:BA:404:C:C1'	25:BA:405:U:OP2	2.62	0.44
25:BA:1803:A:H4'	27:BD:259:THR:HG23	1.99	0.44
25:BA:2182:G:N2	25:BA:2183:C:C2	2.86	0.44
25:BA:2645:G:H3'	25:BA:2646:C:H5'	1.99	0.44
25:BA:2764:A:N6	25:BA:2766:G:C2	2.86	0.44
26:BB:7:G:P	38:BQ:29:PHE:HE1	2.41	0.44
26:BB:33:G:O2'	26:BB:34:U:H5'	2.16	0.44
30:BG:69:ALA:O	30:BG:90:LEU:HD12	2.18	0.44
31:BH:72:ILE:O	31:BH:75:ALA:N	2.50	0.44
32:BK:120:ILE:HD12	32:BK:121:LYS:H	1.82	0.44
35:BO:9:ASN:CB	35:BO:10:PRO:CD	2.91	0.44
39:BR:90:GLN:HG3	39:BR:91:ARG:N	2.31	0.44
43:BT:18:TYR:C	43:BT:20:GLY:H	2.25	0.44
47:BZ:73:LEU:HB3	47:BZ:90:ILE:CG2	2.47	0.44
51:B5:33:CYS:CB	51:B5:40:LYS:HD3	2.36	0.44
1:CA:154:C:O2'	1:CA:155:C:H5'	2.18	0.44
1:CA:182:U:C5	1:CA:183:G:C4	3.05	0.44
1:CA:420:U:O2'	1:CA:423:G:O6	2.36	0.44
1:CA:1026:G:H5"	1:CA:1027:C:OP2	2.18	0.44
1:CA:1112:C:C4	3:CF:178:LEU:HD23	2.52	0.44
1:CA:1134:G:C2	1:CA:1141:C:O2	2.71	0.44
1:CA:1178:G:N2	1:CA:1181:G:N7	2.64	0.44
4:CG:108:LEU:HD13	4:CG:174:LEU:HD13	1.99	0.44
5:CH:70:PRO:O	5:CH:77:PRO:HD3	2.17	0.44
9:CL:54:ASP:O	9:CL:56:LEU:N	2.50	0.44
14:CQ:24:CYS:O	14:CQ:24:CYS:SG	2.76	0.44
14:CQ:47:LEU:O	14:CQ:48:ALA:C	2.60	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CR:24:SER:O	15:CR:28:GLN:HG3	2.17	0.44
18:CU:30:ASP:C	18:CU:32:ARG:N	2.75	0.44
22:CD:19:C:H3'	22:CD:19:C:C6	2.49	0.44
22:CD:24:G:H2'	22:CD:25:G:H8	1.81	0.44
25:DA:270(Z):U:O3'	25:DA:271(A):C:H6	2.00	0.44
25:DA:527:C:OP2	25:DA:2779:U:C5	2.62	0.44
25:DA:531:C:OP1	25:DA:561:G:C2	2.71	0.44
25:DA:654(A):A:N1	25:DA:654(T):A:N1	2.65	0.44
25:DA:1160:G:N2	41:D2:10:LYS:HE3	2.32	0.44
25:DA:1903:G:OP1	27:DD:241:PRO:HB2	2.15	0.44
25:DA:2031:A:C6	25:DA:2498:C:H1'	2.51	0.44
25:DA:2211:G:C1'	25:DA:2212:A:P	3.05	0.44
25:DA:2483:C:N3	36:DP:124:LYS:HE3	2.32	0.44
28:DE:1:MET:H1	28:DE:84:PHE:HB2	1.82	0.44
28:DE:11:MET:HE3	28:DE:186:GLY:HA2	1.98	0.44
28:DE:52:LEU:HD12	28:DE:76:ARG:HD3	1.99	0.44
34:DN:88:ASN:HD21	34:DN:92:GLU:HB2	1.82	0.44
35:DO:61:ARG:CB	35:DO:62:LEU:CD2	2.95	0.44
37:D0:55:ALA:HA	37:D0:80:PHE:CZ	2.52	0.44
37:D0:78:LYS:HE2	37:D0:83:ILE:HD11	1.98	0.44
39:DR:88:ILE:C	39:DR:88:ILE:HD12	2.43	0.44
42:DS:82:LEU:HD22	42:DS:84:ARG:NH2	2.32	0.44
45:DV:156:LYS:O	45:DV:157:LEU:HB2	2.16	0.44
48:DW:36:ARG:O	48:DW:40:SER:N	2.38	0.44
50:D4:42:PHE:HD2	50:D4:43:TYR:N	2.16	0.44
1:AA:19:C:H2'	1:AA:20:U:C6	2.53	0.44
1:AA:41:G:H2'	1:AA:42:G:C8	2.53	0.44
1:AA:148:G:O2'	1:AA:149:A:H5'	2.17	0.44
1:AA:317:G:C6	1:AA:318:G:C5	3.05	0.44
1:AA:342:C:C2	1:AA:348:G:C2	3.05	0.44
1:AA:346:G:H3'	1:AA:346:G:N3	2.32	0.44
1:AA:921:U:O2	5:AH:19:MET:HB2	2.17	0.44
1:AA:1060:C:C5'	10:AM:51:ARG:HG2	2.46	0.44
1:AA:1178:G:H2'	1:AA:1179:A:O5'	2.17	0.44
1:AA:1260:C:H4'	1:AA:1284:C:H5'	1.98	0.44
5:AH:31:LEU:HD23	5:AH:45:PHE:CD1	2.43	0.44
7:AJ:50:ILE:HB	7:AJ:58:PRO:HG3	2.00	0.44
16:AS:82:GLN:O	16:AS:83:GLU:HB2	2.18	0.44
17:AT:63:ARG:O	17:AT:65:ILE:HD12	2.17	0.44
17:AT:78:GLU:HG2	17:AT:78:GLU:O	2.17	0.44
18:AU:67:ALA:C	18:AU:69:THR:N	2.76	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:274:G:OP1	25:BA:274:G:C8	2.71	0.44
25:BA:372:G:HO2'	25:BA:373:U:P	2.40	0.44
25:BA:527:C:OP2	25:BA:2779:U:C5	2.51	0.44
25:BA:882:G:N1	25:BA:894:C:C4	2.81	0.44
25:BA:902:C:O2'	25:BA:903:C:H5'	2.18	0.44
25:BA:1090:U:C4	25:BA:1102:C:O2	2.70	0.44
25:BA:1372:U:O5'	25:BA:1372:U:H6	1.99	0.44
25:BA:1600:C:O2'	25:BA:1601:G:H5'	2.18	0.44
28:BE:21:VAL:HG23	28:BE:22:PRO:CG	2.48	0.44
29:BF:167:ALA:O	29:BF:168:ARG:C	2.61	0.44
38:BQ:41:ASP:OD2	38:BQ:44:LYS:HD2	2.16	0.44
40:B1:5:LYS:H	40:B1:5:LYS:HG3	1.57	0.44
40:B1:76:TYR:CZ	40:B1:80:ILE:HG13	2.52	0.44
40:B1:86:ALA:CB	40:B1:88:ILE:HG12	2.47	0.44
40:B1:101:ARG:C	40:B1:103:PRO:HD3	2.43	0.44
45:BV:81:ARG:O	45:BV:81:ARG:HG3	2.18	0.44
45:BV:140:ASP:CG	45:BV:141:VAL:H	2.24	0.44
1:CA:283:C:C2	1:CA:284:G:C8	3.05	0.44
1:CA:578:C:C2'	1:CA:579:G:O5'	2.66	0.44
1:CA:1311:G:N2	1:CA:1327:C:C2	2.84	0.44
3:CF:190:ARG:N	3:CF:190:ARG:HD2	2.33	0.44
20:CW:97:ALA:HA	20:CW:98:PRO:HD3	1.78	0.44
22:CB:9:U:H4'	22:CB:10:C:OP2	2.18	0.44
22:CB:22:A:O3'	22:CB:23:A:C8	2.70	0.44
22:CD:19:C:C6	22:CD:19:C:C3'	3.01	0.44
25:DA:39:C:H2'	25:DA:40:C:H6	1.82	0.44
25:DA:67:U:C4	25:DA:74:A:N1	2.85	0.44
25:DA:332:A:C2	25:DA:335:C:C5	3.06	0.44
25:DA:458:G:O2'	25:DA:469:G:O6	2.34	0.44
25:DA:866:A:C6	25:DA:914:C:N3	2.86	0.44
25:DA:953:A:O2'	25:DA:954:G:H5'	2.17	0.44
25:DA:1000:A:C6	25:DA:1001:A:C6	3.06	0.44
25:DA:1060:U:H5"	25:DA:1061:U:C5	2.52	0.44
25:DA:1077:A:O2'	25:DA:1088:A:N1	2.30	0.44
25:DA:1607:C:C5'	25:DA:1608:A:H5'	2.47	0.44
25:DA:2191:G:H2'	25:DA:2192:G:O4'	2.16	0.44
25:DA:2211:G:H1'	25:DA:2212:A:OP1	2.18	0.44
25:DA:2469:A:H2	25:DA:2481:G:H21	1.66	0.44
25:DA:2638:G:H1'	25:DA:2778:A:N6	2.32	0.44
25:DA:2875:C:C4'	39:DR:5:ALA:HB2	2.46	0.44
26:DB:31:C:H2'	26:DB:32:C:H5'	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:93:C:O2'	26:DB:94:C:H5'	2.18	0.44
27:DD:70:TRP:HZ3	27:DD:146:GLU:OE2	2.00	0.44
28:DE:33:VAL:O	28:DE:67:PHE:HZ	2.01	0.44
29:DF:119:ARG:HG2	29:DF:119:ARG:NH1	2.30	0.44
30:DG:96:ARG:HH11	30:DG:96:ARG:HG2	1.83	0.44
31:DH:41:MET:SD	31:DH:41:MET:N	2.90	0.44
35:DO:62:LEU:HD23	35:DO:62:LEU:O	2.17	0.44
35:DO:85:LEU:HD13	35:DO:114:ILE:HD11	2.00	0.44
44:DU:62:GLU:OE2	44:DU:63:LYS:N	2.34	0.44
44:DU:67:LEU:HD11	44:DU:71:LYS:HZ1	1.83	0.44
48:DW:60:LEU:HD12	48:DW:60:LEU:HA	1.72	0.44
50:D4:10:VAL:O	50:D4:10:VAL:HG13	2.18	0.44
52:D6:26:ASN:O	52:D6:28:ARG:NE	2.51	0.44
52:D6:34:LEU:HB2	52:D6:51:GLU:HB3	2.00	0.44
1:AA:79:G:HO2'	1:AA:80:G:P	2.40	0.44
1:AA:1128:C:O2'	1:AA:1130:A:N7	2.41	0.44
1:AA:1162:C:C2	1:AA:1175:G:N2	2.85	0.44
1:AA:1245:A:OP2	21:AX:9:ARG:NH2	2.43	0.44
2:AE:20:GLU:HB2	2:AE:190:THR:OG1	2.18	0.44
7:AJ:15:ASP:O	7:AJ:19:GLY:HA2	2.18	0.44
7:AJ:49:ILE:H	7:AJ:49:ILE:HG12	1.67	0.44
10:AM:37:PRO:HA	10:AM:72:VAL:HG22	1.99	0.44
18:AU:50:ILE:H	18:AU:50:ILE:HD12	1.82	0.44
22:AB:8:U:H2'	22:AB:13:G:N1	2.32	0.44
25:BA:2:G:O2'	25:BA:3:U:H5'	2.17	0.44
25:BA:270(J):G:H2'	25:BA:270(K):C:O4'	2.18	0.44
25:BA:270(M):U:O2'	25:BA:270(N):G:O5'	2.34	0.44
25:BA:1027:A:N6	25:BA:1126:A:C4	2.85	0.44
25:BA:1296:G:OP1	25:BA:2709:G:O2'	2.33	0.44
25:BA:1332:G:N2	25:BA:1609:A:HO2'	2.10	0.44
25:BA:2019:A:H2'	25:BA:2020:A:O5'	2.18	0.44
25:BA:2163:C:C4	25:BA:2164:C:C5	3.05	0.44
25:BA:2276:G:OP1	36:BP:84:GLY:HA2	2.17	0.44
25:BA:2749:A:N1	25:BA:2750:A:N6	2.64	0.44
27:BD:101:GLU:OE1	27:BD:103:ARG:HD3	2.18	0.44
28:BE:3:GLY:HA3	28:BE:81:ILE:HG21	1.99	0.44
31:BH:137:ASP:HB3	31:BH:140:LYS:HB3	1.98	0.44
32:BK:2:LYS:HA	32:BK:20:ASP:HA	1.99	0.44
33:BM:43:THR:HA	33:BM:44:PRO:HD3	1.81	0.44
34:BN:8:LEU:N	34:BN:8:LEU:CD2	2.79	0.44
34:BN:122:LEU:HD13	39:BR:72:VAL:HG11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BO:63:PRO:HA	54:B8:13:ARG:CB	2.48	0.44
35:BO:63:PRO:HA	54:B8:13:ARG:HB3	1.98	0.44
36:BP:27:VAL:CG1	36:BP:105:GLU:OE2	2.65	0.44
42:BS:14:PRO:O	42:BS:15:ARG:C	2.61	0.44
43:BT:80:ILE:HG13	43:BT:80:ILE:O	2.16	0.44
47:BZ:63:ALA:O	47:BZ:64:ALA:C	2.61	0.44
49:BX:52:HIS:CD2	49:BX:52:HIS:H	2.35	0.44
1:CA:161:A:N6	1:CA:162:A:C6	2.86	0.44
1:CA:405:U:H5"	1:CA:495:A:H2	1.83	0.44
1:CA:1039:C:C3'	1:CA:1040:U:H5"	2.38	0.44
1:CA:1162:C:C2	1:CA:1175:G:C2	3.05	0.44
1:CA:1261:A:H2'	1:CA:1262:C:H5'	1.99	0.44
1:CA:1308:U:H5"	13:CP:98:VAL:HG22	1.99	0.44
2:CE:96:ARG:N	2:CE:96:ARG:HD2	2.33	0.44
3:CF:7:PRO:HG2	3:CF:184:TYR:HB2	1.99	0.44
4:CG:10:ARG:HG3	4:CG:40:PRO:HG2	1.98	0.44
8:CK:20:TYR:CE1	8:CK:78:GLN:NE2	2.86	0.44
12:CO:114:ARG:HB3	12:CO:119:THR:HB	1.99	0.44
13:CP:73:GLU:O	13:CP:77:ASN:HB2	2.18	0.44
19:CV:63:THR:C	19:CV:65:ASN:H	2.25	0.44
19:CV:66:MET:CA	19:CV:67:VAL:HB	2.47	0.44
20:CW:41:ILE:HG22	20:CW:91:LEU:CD1	2.48	0.44
22:CB:40:U:H2'	22:CB:41:C:H6	1.82	0.44
25:DA:226:G:H21	25:DA:228:A:H61	0.44	0.44
25:DA:1000:A:C6	25:DA:1155:A:C8	3.06	0.44
25:DA:1261:C:C2'	25:DA:1262:A:O5'	2.66	0.44
25:DA:1300:U:H4'	25:DA:1301:A:H5'	1.99	0.44
25:DA:1509:C:H5'	25:DA:1510:A:O4'	2.17	0.44
25:DA:1769:G:O2'	25:DA:1958:C:OP1	2.31	0.44
25:DA:2168:G:N3	25:DA:2168:G:C2'	2.81	0.44
25:DA:2418:A:P	54:D8:29:LYS:NZ	2.90	0.44
25:DA:2590:A:H2'	25:DA:2591:C:C6	2.53	0.44
28:DE:119:ARG:CG	28:DE:160:TYR:HB2	2.47	0.44
29:DF:107:LYS:C	29:DF:109:GLY:N	2.73	0.44
30:DG:126:ASP:OD2	30:DG:130:ASN:HB2	2.17	0.44
32:DK:44:LEU:HD23	32:DK:44:LEU:HA	1.78	0.44
33:DM:90:MET:O	33:DM:95:PRO:HA	2.17	0.44
33:DM:94:HIS:N	33:DM:95:PRO:HD3	2.32	0.44
38:DQ:37:ALA:HB3	38:DQ:51:ALA:HB3	2.00	0.44
43:DT:63:LYS:N	43:DT:63:LYS:NZ	2.66	0.44
45:DV:94:GLU:HG3	45:DV:95:PRO:HD2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:D4:4:GLY:C	50:D4:6:HIS:H	2.26	0.44
50:D4:18:CYS:HB2	50:D4:20:ASN:ND2	2.32	0.44
1:AA:695:A:H2'	1:AA:696:A:C8	2.53	0.44
1:AA:1084:G:C5	1:AA:1085:U:C4	3.06	0.44
1:AA:1143:G:N1	1:AA:1144:G:C2	2.86	0.44
1:AA:1158:C:N4	1:AA:1160:G:C4	2.86	0.44
1:AA:1246:C:C4	1:AA:1247:U:C4	3.06	0.44
1:AA:1299:A:C2'	1:AA:1301:U:H1'	2.17	0.44
1:AA:1316:G:H22	1:AA:1318:A:H3'	1.82	0.44
4:AG:68:TYR:OH	4:AG:196:LEU:HD11	2.18	0.44
4:AG:86:LYS:H	4:AG:86:LYS:HD2	1.81	0.44
4:AG:105:VAL:HG12	4:AG:105:VAL:O	2.17	0.44
4:AG:139:ARG:HG3	4:AG:139:ARG:NH1	2.32	0.44
7:AJ:50:ILE:O	7:AJ:54:THR:HG23	2.17	0.44
8:AK:121:ASP:HB2	8:AK:125:ARG:HH21	1.81	0.44
10:AM:6:ILE:HG22	10:AM:98:ILE:HG13	1.99	0.44
12:AO:61:TYR:O	12:AO:62:GLU:HB3	2.18	0.44
13:AP:13:LYS:O	13:AP:14:ARG:HG3	2.18	0.44
15:AR:82:ILE:HG23	15:AR:83:GLU:N	2.32	0.44
17:AT:46:ASP:CG	17:AT:51:TYR:HD1	2.26	0.44
19:AV:66:MET:O	19:AV:67:VAL:C	2.61	0.44
22:AB:48:C:N4	22:AB:53:A:N6	2.65	0.44
22:AB:81:C:O2	22:AB:81:C:H2'	2.18	0.44
22:AD:10:C:H2'	22:AD:11:C:C6	2.52	0.44
25:BA:10:G:H2'	25:BA:11:G:C8	2.52	0.44
25:BA:1177:A:H5'	25:BA:1178:C:C6	2.53	0.44
25:BA:1519:G:O2'	25:BA:1520:U:H5'	2.18	0.44
25:BA:1803:A:H4'	27:BD:259:THR:CG2	2.48	0.44
25:BA:2300:G:N2	25:BA:2317:C:C2	2.86	0.44
25:BA:2444:G:OP2	29:BF:68:LYS:HD2	2.17	0.44
25:BA:2637:U:H5"	28:BE:82:ARG:HH21	1.82	0.44
35:BO:116:GLY:O	35:BO:117:GLU:C	2.60	0.44
37:B0:33:ARG:HD2	37:B0:113:LEU:HG	1.99	0.44
40:B1:66:ASN:OD1	40:B1:76:TYR:HB3	2.18	0.44
42:BS:113:LYS:HG2	42:BS:113:LYS:O	2.17	0.44
45:BV:52:SER:C	45:BV:54:HIS:N	2.73	0.44
45:BV:53:ILE:H	45:BV:71:VAL:CG1	2.31	0.44
48:BW:23:LYS:O	48:BW:27:GLU:HG3	2.17	0.44
54:B8:35:GLN:C	54:B8:36:LYS:HG3	2.38	0.44
1:CA:156:G:O2'	1:CA:157:G:H5'	2.18	0.44
1:CA:938:A:N6	1:CA:939:G:C6	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:945:G:H2'	1:CA:945:G:N3	2.33	0.44
1:CA:1004:A:H3'	1:CA:1004:A:N3	2.32	0.44
1:CA:1024:G:H3'	1:CA:1024:G:N3	2.33	0.44
1:CA:1120:G:H2'	1:CA:1121:U:C6	2.52	0.44
1:CA:1402:C:H2'	1:CA:1403:C:O4'	2.18	0.44
2:CE:5:ILE:O	2:CE:5:ILE:HG12	2.16	0.44
2:CE:87:ARG:O	2:CE:87:ARG:HG2	2.17	0.44
2:CE:185:ILE:CG2	2:CE:199:TYR:HB2	2.42	0.44
2:CE:224:GLN:NE2	2:CE:225:ALA:HB2	2.32	0.44
7:CJ:143:ARG:HH11	22:CD:43:G:H5'	1.81	0.44
12:CO:20:LYS:HE2	12:CO:20:LYS:H	1.82	0.44
14:CQ:29:ARG:HG3	14:CQ:40:CYS:SG	2.57	0.44
16:CS:40:ASP:O	16:CS:48:TRP:HB2	2.18	0.44
19:CV:74:PHE:N	19:CV:74:PHE:HD2	2.15	0.44
20:CW:10:LEU:HD13	20:CW:12:ALA:N	2.19	0.44
22:CB:43:G:H2'	22:CB:43:G:N3	2.33	0.44
22:CD:38:MIA:H2'	22:CD:39:A:C8	2.52	0.44
25:DA:270(X):G:C6	25:DA:270(Y):G:N1	2.85	0.44
25:DA:918:A:H1'	26:DB:80:U:O2'	2.18	0.44
25:DA:1155:A:O2'	25:DA:1156:A:H2'	2.18	0.44
25:DA:1297:C:OP1	25:DA:2710:C:H4'	2.18	0.44
25:DA:1317:A:H2'	25:DA:1318:C:C6	2.52	0.44
25:DA:1397:U:C1'	25:DA:1398:C:OP1	2.64	0.44
25:DA:1472:A:C2'	25:DA:1473:G:H5'	2.48	0.44
25:DA:2115:G:O2'	25:DA:2171:A:N6	2.50	0.44
25:DA:2156:G:C6	25:DA:2157:G:N2	2.85	0.44
25:DA:2299:G:C6	25:DA:2318:G:C8	3.05	0.44
25:DA:2445:G:OP1	29:DF:74:ARG:NH2	2.48	0.44
25:DA:2665:A:H2'	25:DA:2666:C:O4'	2.17	0.44
25:DA:2841:C:C2	25:DA:2877:G:N2	2.86	0.44
26:DB:40:U:H1'	26:DB:45:A:N6	2.32	0.44
27:DD:70:TRP:CD1	27:DD:70:TRP:C	2.95	0.44
28:DE:4:ILE:HG22	28:DE:91:VAL:HG21	1.99	0.44
28:DE:116:VAL:CG1	28:DE:122:PHE:CD2	3.01	0.44
29:DF:128:ALA:C	29:DF:142:TRP:HE1	2.24	0.44
30:DG:124:SER:HB2	30:DG:131:TYR:CE1	2.51	0.44
33:DM:15:LEU:HB2	33:DM:134:ARG:HG2	1.99	0.44
35:DO:19:VAL:HG22	35:DO:20:GLY:N	2.31	0.44
35:DO:102:ARG:CZ	35:DO:102:ARG:HB3	2.48	0.44
35:DO:147:LEU:CD2	35:DO:148:LEU:N	2.81	0.44
36:DP:59:ARG:O	36:DP:60:ARG:C	2.61	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DR:106:SER:O	39:DR:107:ASP:HB3	2.17	0.44
40:D1:97:ASP:CG	40:D1:101:ARG:HD3	2.42	0.44
41:D2:98:GLU:O	41:D2:99:ILE:HB	2.18	0.44
43:DT:18:TYR:HA	43:DT:21:PHE:CE2	2.53	0.44
44:DU:43:ASN:N	44:DU:43:ASN:ND2	2.62	0.44
45:DV:115:GLY:CA	45:DV:174:VAL:HG13	2.32	0.44
50:D4:36:CYS:HB3	50:D4:41:PRO:HG3	1.98	0.44
50:D4:42:PHE:CD2	50:D4:43:TYR:N	2.86	0.44
1:AA:1232:U:C2'	1:AA:1233:G:O5'	2.66	0.44
3:AF:177:THR:HB	3:AF:180:ALA:HB2	1.99	0.44
4:AG:57:ARG:NE	4:AG:205:GLU:OE2	2.51	0.44
9:AL:10:ARG:HG2	9:AL:105:ASP:HB2	2.00	0.44
9:AL:11:LYS:O	9:AL:13:ALA:N	2.49	0.44
14:AQ:40:CYS:C	14:AQ:42:ILE:N	2.75	0.44
22:AD:18:G:C1'	22:AD:19:C:P	3.05	0.44
25:BA:270(D):C:O2	25:BA:270(W):G:C2	2.70	0.44
25:BA:612:G:H2'	25:BA:613:U:O2	2.17	0.44
25:BA:773:U:H4'	27:BD:47:GLY:HA3	2.00	0.44
25:BA:774:A:C2	25:BA:787:U:O2'	2.52	0.44
25:BA:806:C:P	35:BO:41:ARG:HH21	2.40	0.44
25:BA:1081:U:H2'	25:BA:1082:U:O4'	2.18	0.44
25:BA:1144:G:H2'	25:BA:1145:C:H6	1.83	0.44
25:BA:1261:C:C2'	25:BA:1262:A:O5'	2.66	0.44
25:BA:2050:C:H2'	25:BA:2051:A:O4'	2.18	0.44
25:BA:2182:G:C2	25:BA:2183:C:C2	3.06	0.44
25:BA:2307:G:N9	25:BA:2311:A:C2	2.86	0.44
25:BA:2341:G:H2'	25:BA:2342:C:C6	2.53	0.44
25:BA:2870:C:H2'	25:BA:2871:C:O4'	2.17	0.44
26:BB:43:C:H1'	30:BG:93:THR:O	2.18	0.44
27:BD:12:SER:O	27:BD:16:MET:HB2	2.18	0.44
28:BE:84:PHE:CZ	28:BE:86:PRO:HB3	2.53	0.44
29:BF:198:ALA:O	29:BF:201:VAL:HG13	2.17	0.44
30:BG:8:LYS:HE2	30:BG:12:TYR:CE2	2.52	0.44
35:BO:144:GLU:N	35:BO:144:GLU:CD	2.71	0.44
35:BO:144:GLU:HA	35:BO:145:PRO:HD3	1.71	0.44
36:BP:21:THR:CG2	45:BV:78:LYS:HB3	2.48	0.44
39:BR:6:LEU:HA	39:BR:9:LEU:HB2	1.99	0.44
42:BS:96:ILE:H	42:BS:96:ILE:HD13	1.83	0.44
44:BU:94:LYS:O	44:BU:101:LYS:HG3	2.18	0.44
44:BU:95:LYS:HB2	44:BU:95:LYS:HE3	1.85	0.44
45:BV:16:SER:O	45:BV:20:ARG:HB2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BV:48:PHE:CE2	45:BV:71:VAL:HG21	2.51	0.44
46:B3:83:PRO:O	46:B3:84:LEU:CB	2.66	0.44
1:CA:224:C:H2'	1:CA:225:C:H6	1.81	0.44
1:CA:961:U:H2'	1:CA:962:C:O5'	2.17	0.44
1:CA:1025:U:HO2'	1:CA:1026:G:P	2.41	0.44
1:CA:1177:G:O2'	1:CA:1178:G:C4	2.55	0.44
1:CA:1202:G:C2	14:CQ:42:ILE:HG21	2.52	0.44
1:CA:1299:A:C6	1:CA:1301:U:C2	3.05	0.44
3:CF:127:ARG:N	3:CF:127:ARG:HD2	2.33	0.44
4:CG:62:GLN:NE2	4:CG:65:ARG:HE	2.12	0.44
8:CK:116:LYS:HD2	8:CK:129:VAL:CG1	2.45	0.44
12:CO:81:LEU:HD12	12:CO:101:VAL:HG11	2.00	0.44
13:CP:84:ILE:C	13:CP:86:CYS:N	2.71	0.44
13:CP:99:ARG:H	13:CP:101:GLN:NE2	2.16	0.44
22:CB:47:U:H2'	22:CB:48:C:H6	1.72	0.44
22:CD:34:U:H5"	22:CD:35:G:OP2	2.17	0.44
25:DA:125:G:C6	53:D7:10:ARG:HG3	2.52	0.44
25:DA:611:C:C2'	25:DA:612:G:H5'	2.47	0.44
25:DA:860:U:C2	25:DA:2268:A:C8	3.05	0.44
25:DA:1285:G:C5	25:DA:1329:U:C4	3.06	0.44
25:DA:1384:A:N3	25:DA:1405:U:H1'	2.31	0.44
25:DA:2014:A:H2'	25:DA:2015:A:C8	2.53	0.44
25:DA:2157:G:C2'	25:DA:2158:A:H8	2.31	0.44
25:DA:2180:U:H2'	25:DA:2181:G:O4'	2.17	0.44
25:DA:2365:G:H4'	46:D3:60:PHE:CZ	2.52	0.44
25:DA:2731:G:C6	25:DA:2732:G:O6	2.70	0.44
28:DE:5:LEU:HD23	28:DE:49:LEU:HB2	2.00	0.44
28:DE:38:THR:OG1	28:DE:39:PRO:HD2	2.17	0.44
29:DF:80:ALA:O	29:DF:83:PHE:HB2	2.18	0.44
31:DH:65:HIS:C	31:DH:65:HIS:CD2	2.95	0.44
32:DK:77:LEU:O	32:DK:79:ILE:N	2.51	0.44
35:DO:6:LEU:HD13	35:DO:6:LEU:HA	1.69	0.44
40:D1:52:ARG:HB3	40:D1:52:ARG:HH11	1.82	0.44
42:DS:56:ALA:O	42:DS:57:ASN:C	2.59	0.44
46:D3:31:VAL:CG2	46:D3:67:VAL:HG23	2.37	0.44
1:AA:37:U:O2'	1:AA:38:G:H5'	2.18	0.44
1:AA:109:A:N7	1:AA:326:G:H2'	2.33	0.44
1:AA:438:G:O2'	1:AA:494:U:O4	2.33	0.44
1:AA:860:A:H2'	1:AA:861:G:O4'	2.17	0.44
1:AA:1227:A:H3'	1:AA:1227:A:H8	1.83	0.44
1:AA:1302:U:H3'	1:AA:1303:C:H5'	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1309:G:C6	1:AA:1329:A:C2	3.06	0.44
1:AA:1374:A:O2'	7:AJ:28:ASN:HB3	2.17	0.44
2:AE:25:ASN:C	2:AE:27:LYS:H	2.25	0.44
3:AF:22:TRP:CH2	3:AF:32:LEU:HB2	2.52	0.44
3:AF:83:ARG:O	3:AF:84:ILE:C	2.61	0.44
3:AF:162:GLN:CD	24:A1:23:A:C8	2.96	0.44
4:AG:110:PHE:CE2	4:AG:148:VAL:HG23	2.53	0.44
8:AK:109:ILE:CG2	8:AK:137:VAL:HB	2.48	0.44
10:AM:57:LYS:HD2	10:AM:60:ARG:HH12	1.81	0.44
12:AO:61:TYR:HB3	12:AO:62:GLU:H	1.44	0.44
22:AB:7:G:N1	22:AB:58:G:C5	2.86	0.44
22:AD:16:C:C4	22:AD:68:A:C4	3.05	0.44
22:AD:63:U:C4	22:AD:64:U:C4	3.06	0.44
25:BA:205:G:O2'	25:BA:206:U:P	2.76	0.44
25:BA:330:A:C2	25:BA:1210:A:C2'	2.98	0.44
25:BA:456:C:H6	25:BA:456:C:O5'	2.00	0.44
25:BA:638:G:H2'	25:BA:639:U:C6	2.53	0.44
25:BA:693:C:O2'	25:BA:694:U:H5'	2.18	0.44
25:BA:1843:C:H5'	27:BD:253:GLN:OE1	2.17	0.44
25:BA:2562:U:O2'	34:BN:23:ARG:NH1	2.41	0.44
27:BD:31:LYS:HB3	27:BD:104:TYR:OH	2.17	0.44
28:BE:51:PHE:O	28:BE:74:PRO:HB2	2.18	0.44
30:BG:112:PRO:HA	50:B4:37:SER:CB	2.45	0.44
30:BG:116:ASP:O	30:BG:117:PHE:HB3	2.18	0.44
32:BK:57:ARG:HA	32:BK:60:GLU:HB3	2.00	0.44
32:BK:81:VAL:HG21	32:BK:88:ILE:HD13	2.00	0.44
32:BK:126:TYR:HB2	32:BK:140:LEU:CD2	2.40	0.44
35:BO:77:ARG:HB2	35:BO:78:PRO:HD2	2.00	0.44
36:BP:3:MET:O	36:BP:3:MET:HG2	2.14	0.44
36:BP:59:ARG:HD2	36:BP:59:ARG:H	1.82	0.44
36:BP:66:ILE:CG1	36:BP:67:ARG:H	2.27	0.44
38:BQ:106:ARG:NH2	38:BQ:107:GLU:CB	2.81	0.44
42:BS:75:TYR:CZ	42:BS:104:THR:HG21	2.53	0.44
46:B3:43:THR:O	46:B3:43:THR:HG23	2.16	0.44
46:B3:66:VAL:CG2	46:B3:82:ARG:HB3	2.47	0.44
54:B8:52:LYS:H	54:B8:53:PRO:CD	2.18	0.44
54:B8:61:LEU:H	54:B8:61:LEU:HG	1.61	0.44
2:CE:12:GLU:O	2:CE:15:VAL:N	2.45	0.44
7:CJ:20:ASP:O	7:CJ:23:VAL:HG23	2.17	0.44
7:CJ:89:MET:HA	7:CJ:89:MET:CE	2.47	0.44
13:CP:22:ILE:HB	13:CP:25:ILE:HG13	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CD:52:G:H2'	22:CD:53:A:H8	1.75	0.44
25:DA:228:A:C8	25:DA:228:A:C3'	3.01	0.44
25:DA:528:A:C2	25:DA:2043:C:C5'	2.98	0.44
25:DA:754:C:H2'	25:DA:755:C:C6	2.52	0.44
25:DA:864:G:N2	25:DA:913:U:C2	2.85	0.44
25:DA:996:A:H4'	40:D1:92:ARG:CZ	2.48	0.44
25:DA:1088:A:C5'	25:DA:1089:G:H5'	2.34	0.44
25:DA:1146:C:O2'	25:DA:1147:C:H5'	2.18	0.44
25:DA:1168:G:O2'	25:DA:1169:G:H5'	2.18	0.44
25:DA:1324:G:N2	25:DA:1331:A:C4	2.86	0.44
25:DA:1483:G:C2	25:DA:1484:G:C8	3.06	0.44
25:DA:1952:A:C5	34:DN:22:ILE:HD12	2.53	0.44
25:DA:2104:G:C2	25:DA:2186:G:C2	3.06	0.44
25:DA:2873:A:H8	37:D0:5:LYS:HA	1.82	0.44
25:DA:2884:U:H2'	25:DA:2885:C:H5'	1.99	0.44
27:DD:220:HIS:C	27:DD:220:HIS:CD2	2.95	0.44
28:DE:14:ILE:HD11	28:DE:173:VAL:CG1	2.48	0.44
28:DE:119:ARG:HG2	28:DE:160:TYR:CB	2.48	0.44
29:DF:33:LEU:HD23	35:DO:1:MET:CE	2.47	0.44
29:DF:161:GLU:O	29:DF:165:ARG:N	2.48	0.44
37:D0:94:TYR:C	37:D0:117:VAL:HG12	2.43	0.44
40:D1:19:LYS:O	40:D1:22:LYS:HB2	2.17	0.44
41:D2:39:LEU:HD23	41:D2:51:VAL:HA	1.98	0.44
48:DW:16:LEU:O	48:DW:16:LEU:CG	2.65	0.44
51:D5:8:LYS:O	51:D5:9:LYS:HG3	2.17	0.44
51:D5:16:ARG:NH1	51:D5:17:ASP:OD1	2.51	0.44
52:D6:45:LYS:HA	52:D6:45:LYS:HD3	1.55	0.44
52:D6:48:VAL:HG21	52:D6:50:ARG:NH2	2.32	0.44
1:AA:81:G:N2	1:AA:88:C:C4	2.85	0.44
1:AA:420:U:O2'	1:AA:423:G:O6	2.33	0.44
1:AA:510:A:H5"	1:AA:511:C:OP2	2.18	0.44
1:AA:784:C:H2'	1:AA:785:G:C8	2.53	0.44
1:AA:1133:G:C4	1:AA:1134:G:C8	3.06	0.44
1:AA:1146:A:C2	1:AA:1147:C:H1'	2.53	0.44
1:AA:1350:A:C6	1:AA:1351:U:N3	2.86	0.44
1:AA:1434:A:H2'	1:AA:1435:G:O4'	2.17	0.44
2:AE:178:ARG:O	8:AK:71:GLY:HA2	2.18	0.44
9:AL:39:GLY:O	9:AL:41:VAL:N	2.51	0.44
13:AP:94:ARG:C	13:AP:96:LEU:N	2.74	0.44
22:AB:62:G:C2	22:AB:71:C:C2	3.05	0.44
22:AB:84:C:H2'	22:AB:85:A:C4	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:A1:16:A:H2'	24:A1:17:U:O4'	2.18	0.44
25:BA:7:G:O2'	25:BA:8:A:H5'	2.17	0.44
25:BA:222:A:C4'	25:BA:223:A:OP1	2.65	0.44
25:BA:372:G:O2'	25:BA:373:U:P	2.76	0.44
25:BA:389:G:H1	35:BO:71:VAL:HG12	1.82	0.44
25:BA:654(D):G:N1	25:BA:654(Q):C:N4	2.38	0.44
25:BA:1535:U:H3'	25:BA:1535:U:O2	2.18	0.44
25:BA:1973:G:H2'	25:BA:1974:C:C6	2.52	0.44
25:BA:1981:A:H5"	25:BA:1982:C:OP2	2.18	0.44
25:BA:2111:C:C6	25:BA:2118:U:H5'	2.52	0.44
25:BA:2169:A:C6	25:BA:2170:A:C6	3.06	0.44
25:BA:2184:G:C6	25:BA:2185:C:C4	3.06	0.44
25:BA:2371:G:C4'	52:B6:45:LYS:HG3	2.48	0.44
25:BA:2875:C:O2'	39:BR:5:ALA:HB3	2.18	0.44
26:BB:7:G:H1	26:BB:113:C:H42	1.65	0.44
31:BH:46:GLU:OE1	31:BH:51:ARG:NH1	2.50	0.44
31:BH:77:LYS:CE	31:BH:138:LYS:HD2	2.46	0.44
32:BK:37:VAL:HG11	32:BK:43:ASN:ND2	2.33	0.44
34:BN:39:ILE:C	34:BN:39:ILE:HD12	2.43	0.44
34:BN:80:ASP:OD2	39:BR:71:GLY:HA3	2.18	0.44
39:BR:14:TYR:N	39:BR:14:TYR:CD1	2.85	0.44
39:BR:19:LEU:HD22	39:BR:86:ILE:CG2	2.48	0.44
45:BV:123:ASP:O	45:BV:124:ILE:HB	2.18	0.44
46:B3:19:LYS:HD3	46:B3:19:LYS:HA	1.66	0.44
51:B5:20:ARG:C	51:B5:22:HIS:N	2.76	0.44
51:B5:56:LYS:N	51:B5:56:LYS:CD	2.81	0.44
1:CA:593:G:H1	1:CA:646:U:H3	1.65	0.44
1:CA:689:C:H2'	1:CA:690:G:H5'	2.00	0.44
1:CA:978:A:H5"	1:CA:979:C:OP2	2.18	0.44
1:CA:1205:U:O2'	3:CF:194:GLY:HA2	2.17	0.44
2:CE:18:GLY:H	2:CE:42:ILE:HG22	1.83	0.44
2:CE:45:GLN:O	2:CE:47:THR:N	2.51	0.44
3:CF:77:ILE:O	3:CF:83:ARG:HB3	2.18	0.44
4:CG:98:GLU:OE2	4:CG:103:ASN:ND2	2.47	0.44
10:CM:80:LYS:HB2	10:CM:80:LYS:NZ	2.33	0.44
13:CP:90:LEU:HD21	13:CP:93:ARG:HH21	1.82	0.44
16:CS:3:LYS:O	16:CS:21:VAL:HA	2.18	0.44
22:CB:52:G:OP2	22:CB:52:G:C8	2.69	0.44
25:DA:440:G:H2'	25:DA:441:U:H6	1.83	0.44
25:DA:684:G:O2'	25:DA:788:A:N7	2.47	0.44
25:DA:704:G:N3	25:DA:726:G:C2	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:888:C:C4'	25:DA:889:C:OP2	2.66	0.44
25:DA:1022:G:C1'	25:DA:1023:U:OP2	2.65	0.44
25:DA:1072:C:O5'	25:DA:1072:C:H6	2.01	0.44
25:DA:1217:C:P	40:D1:15:LYS:HE3	2.58	0.44
25:DA:1645:G:C5'	25:DA:1646:C:H5'	2.47	0.44
25:DA:2019:A:O4'	40:D1:34:LYS:HE3	2.18	0.44
25:DA:2133:G:C5	25:DA:2157:G:O6	2.71	0.44
25:DA:2271:G:C5	25:DA:2272:U:C4	3.06	0.44
25:DA:2439:A:H3'	25:DA:2439:A:P	2.58	0.44
25:DA:2711:A:OP1	25:DA:2712(A):A:OP2	2.35	0.44
27:DD:10:THR:OG1	27:DD:13:ARG:HB2	2.18	0.44
31:DH:26:VAL:HG22	31:DH:26:VAL:O	2.17	0.44
32:DK:125:GLU:OE1	32:DK:141:LYS:HB2	2.18	0.44
37:D0:92:GLY:O	37:D0:93:GLY:C	2.60	0.44
40:D1:90:VAL:HG12	40:D1:91:ASP:H	1.83	0.44
45:DV:150:LEU:O	45:DV:151:HIS:C	2.61	0.44
47:DZ:91:LYS:CG	47:DZ:92:LYS:N	2.78	0.44
48:DW:47:ASN:C	48:DW:49:LYS:N	2.76	0.44
50:D4:51:ASP:O	50:D4:52:THR:C	2.59	0.44
51:D5:35:GLU:CD	51:D5:35:GLU:H	2.25	0.44
1:AA:101:A:C4	1:AA:102:G:C8	3.06	0.43
1:AA:1030:C:H6	1:AA:1030:C:O5'	2.01	0.43
1:AA:1058:G:H2'	1:AA:1059:C:O4'	2.17	0.43
1:AA:1262:C:N4	1:AA:1273:G:H1	2.15	0.43
1:AA:1521:G:H2'	1:AA:1522:U:C6	2.53	0.43
4:AG:26:CYS:HA	4:AG:31:CYS:CB	2.48	0.43
5:AH:42:GLY:HA2	5:AH:65:ASN:O	2.18	0.43
8:AK:100:ILE:HA	8:AK:101:PRO:HD3	1.77	0.43
9:AL:50:LEU:HD23	9:AL:85:LEU:HD11	1.99	0.43
17:AT:6:LEU:CD2	17:AT:23:VAL:HG11	2.48	0.43
19:AV:16:LEU:O	19:AV:20:LEU:HG	2.18	0.43
19:AV:83:HIS:HB3	19:AV:84:GLY:H	1.49	0.43
23:AC:19:G:C4	23:AC:59:A:C2	3.06	0.43
22:AD:21:A:C5	22:AD:46:G:C8	3.05	0.43
25:BA:639:U:H2'	25:BA:640:C:H6	1.80	0.43
25:BA:668:G:H2'	25:BA:670:A:H62	1.83	0.43
25:BA:722:A:H2'	25:BA:723:G:C8	2.53	0.43
25:BA:821:A:O2'	25:BA:945:A:O3'	2.36	0.43
25:BA:912:C:C2	25:BA:913:U:C5	3.06	0.43
25:BA:1288:U:C2	25:BA:1327:C:C2	3.06	0.43
25:BA:1400:G:H2'	25:BA:1401:G:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1778:U:C4	25:BA:1784:A:C4	3.06	0.43
25:BA:1952:A:C5	34:BN:22:ILE:HD11	2.53	0.43
25:BA:2114:A:C6	25:BA:2168:G:N2	2.86	0.43
25:BA:2115:G:N2	25:BA:2172:U:O2	2.51	0.43
25:BA:2261:C:C5	46:B3:16:SER:HB3	2.52	0.43
25:BA:2734:A:H2'	25:BA:2735:G:C5'	2.48	0.43
27:BD:182:LEU:HD23	27:BD:182:LEU:HA	1.79	0.43
28:BE:21:VAL:HG23	28:BE:22:PRO:CD	2.48	0.43
29:BF:13:SER:OG	29:BF:14:PRO:HD2	2.17	0.43
29:BF:107:LYS:O	29:BF:108:LYS:C	2.61	0.43
30:BG:8:LYS:HE2	30:BG:12:TYR:HE2	1.83	0.43
30:BG:63:ILE:HD12	30:BG:141:PHE:CD1	2.53	0.43
31:BH:16:SER:O	31:BH:17:VAL:CB	2.65	0.43
31:BH:16:SER:O	31:BH:17:VAL:HB	2.18	0.43
31:BH:118:PRO:HG3	31:BH:144:VAL:CG2	2.48	0.43
33:BM:7:LYS:H	33:BM:7:LYS:CD	2.31	0.43
35:BO:97:PRO:HD3	35:BO:126:VAL:O	2.18	0.43
35:BO:99:LEU:HD12	35:BO:102:ARG:HH21	1.83	0.43
37:B0:83:ILE:HD13	37:B0:86:ARG:HH12	1.83	0.43
38:BQ:53:SER:HA	38:BQ:58:LEU:HD21	2.00	0.43
43:BT:50:LYS:H	43:BT:87:GLN:HE22	1.64	0.43
50:B4:23:GLU:CD	50:B4:24:THR:N	2.76	0.43
53:B7:23:ARG:O	53:B7:28:ARG:NH1	2.50	0.43
53:B7:25:PRO:HA	53:B7:28:ARG:CZ	2.48	0.43
1:CA:281:G:H8	1:CA:281:G:OP2	2.00	0.43
1:CA:404:U:H2'	1:CA:405:U:C6	2.53	0.43
1:CA:505:G:C6	1:CA:535:A:C2	3.06	0.43
1:CA:1298:C:H5	7:CJ:114:ARG:NE	2.16	0.43
1:CA:1329:A:H5"	13:CP:25:ILE:O	2.19	0.43
1:CA:1496:C:H2'	1:CA:1497:G:O4'	2.18	0.43
2:CE:72:GLY:C	2:CE:74:LYS:H	2.27	0.43
2:CE:111:ARG:HA	2:CE:111:ARG:HH11	1.83	0.43
6:CI:35:ALA:HB1	6:CI:65:VAL:CG1	2.48	0.43
9:CL:42:ARG:HD3	9:CL:71:SER:HB3	2.00	0.43
19:CV:78:ARG:O	19:CV:79:THR:OG1	2.24	0.43
25:DA:128:C:H4'	25:DA:129:C:OP1	2.18	0.43
25:DA:270:A:OP2	25:DA:270(Y):G:N1	2.43	0.43
25:DA:507:A:H5"	25:DA:508:G:H3'	2.00	0.43
25:DA:572:A:H5"	25:DA:573:G:OP2	2.18	0.43
25:DA:635:C:O2'	25:DA:639:U:OP1	2.34	0.43
25:DA:644:A:O2'	25:DA:645:C:C2	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1037:G:C2	25:DA:1119:C:C2	3.06	0.43
25:DA:1397:U:C2'	25:DA:1398:C:OP1	2.66	0.43
25:DA:1510:A:H8	25:DA:1510:A:OP2	2.01	0.43
25:DA:2738:A:C2	25:DA:2739:U:H1'	2.52	0.43
27:DD:31:LYS:O	27:DD:35:LYS:O	2.36	0.43
30:DG:5:VAL:HG12	30:DG:8:LYS:H	1.84	0.43
34:DN:47:ILE:CD1	34:DN:48:PRO:HD2	2.48	0.43
34:DN:118:ALA:HA	34:DN:119:PRO:HD3	1.89	0.43
35:DO:64:LYS:HG2	35:DO:65:ARG:H	1.79	0.43
36:DP:78:PRO:O	36:DP:79:LEU:HG	2.18	0.43
36:DP:102:VAL:HG12	36:DP:102:VAL:O	2.18	0.43
38:DQ:84:GLN:HB3	38:DQ:109:GLY:HA3	1.99	0.43
41:D2:20:LEU:O	41:D2:94:LEU:N	2.34	0.43
44:DU:18:GLY:O	44:DU:19:LYS:C	2.61	0.43
46:D3:45:PHE:CE2	46:D3:69:PHE:HE2	2.36	0.43
1:AA:109:A:H2'	1:AA:326:G:N2	2.33	0.43
1:AA:198:G:C6	1:AA:220:G:C2	3.05	0.43
1:AA:226:G:N2	1:AA:227:G:H1'	2.33	0.43
1:AA:517:G:N2	1:AA:533:A:OP2	2.49	0.43
1:AA:538:G:P	12:AO:112:LYS:HG2	2.58	0.43
1:AA:542:G:O2'	1:AA:543:C:H5'	2.17	0.43
1:AA:647:C:H2'	1:AA:648:A:H8	1.83	0.43
1:AA:652:U:O2'	1:AA:653:A:H5"	2.18	0.43
1:AA:976:G:C8	1:AA:1358:U:C2	3.05	0.43
1:AA:1003:G:H21	1:AA:1005:A:P	2.41	0.43
1:AA:1003:G:O3'	1:AA:1025:U:O4	2.35	0.43
1:AA:1137:C:O2'	1:AA:1138:G:C2	2.69	0.43
1:AA:1164:G:C6	1:AA:1173:G:C6	3.05	0.43
1:AA:1173:G:H2'	1:AA:1174:G:O4'	2.18	0.43
1:AA:1206:G:O4'	3:AF:194:GLY:HA2	2.18	0.43
2:AE:100:GLY:O	2:AE:101:MET:C	2.60	0.43
3:AF:76:VAL:O	3:AF:83:ARG:HG2	2.18	0.43
6:AI:28:ARG:C	6:AI:32:ASN:HD22	2.25	0.43
7:AJ:54:THR:C	7:AJ:56:GLN:H	2.26	0.43
9:AL:21:PRO:HA	9:AL:58:HIS:O	2.18	0.43
17:AT:60:ILE:HG21	17:AT:74:LEU:HD23	2.00	0.43
20:AW:30:LYS:NZ	20:AW:80:ARG:HH12	2.16	0.43
22:AB:66:G:H2'	22:AB:67:A:H5'	2.00	0.43
22:AD:21:A:C6	22:AD:55:U:O4	2.71	0.43
24:A1:12:A:HO2'	24:A1:13:A:P	2.40	0.43
25:BA:333:G:C5	25:BA:334:C:C5	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1049:C:C2'	25:BA:1050:A:H5"	2.46	0.43
25:BA:1066:U:H6	25:BA:1069:A:OP2	2.01	0.43
25:BA:1287:A:C8	37:B0:104:ARG:HD3	2.53	0.43
25:BA:1416:G:C2'	25:BA:1417:C:C6	3.02	0.43
25:BA:2208:U:O4'	27:BD:151:LYS:HE2	2.18	0.43
25:BA:2346:A:H5"	25:BA:2383:G:O4'	2.18	0.43
25:BA:2469:A:H2'	25:BA:2470:G:O4'	2.18	0.43
25:BA:2471:C:H2'	25:BA:2472:G:O4'	2.18	0.43
25:BA:2562:U:H1'	34:BN:23:ARG:NH1	2.33	0.43
25:BA:2667:C:H1'	31:BH:109:PHE:HD2	1.83	0.43
25:BA:2839:G:C5'	37:B0:46:GLY:HA2	2.48	0.43
25:BA:2849:U:H1'	25:BA:2866:U:O2	2.17	0.43
27:BD:35:LYS:CG	27:BD:64:ILE:HG23	2.48	0.43
28:BE:31:CYS:HB3	28:BE:49:LEU:HG	2.00	0.43
28:BE:59:VAL:O	28:BE:60:ASN:CG	2.61	0.43
28:BE:179:GLU:O	28:BE:181:LEU:HD13	2.17	0.43
31:BH:85:LYS:HE3	31:BH:142:GLY:HA2	2.00	0.43
32:BK:135:GLU:HB2	32:BK:136:VAL:H	1.42	0.43
34:BN:1:MET:CE	34:BN:67:LYS:HE2	2.48	0.43
36:BP:45:GLN:CD	36:BP:45:GLN:H	2.25	0.43
37:B0:81:ASP:O	37:B0:85:PRO:HG2	2.18	0.43
39:BR:121:ILE:O	39:BR:124:ASP:HB2	2.17	0.43
43:BT:64:LYS:HE3	43:BT:73:ARG:NH2	2.33	0.43
44:BU:57:GLN:O	44:BU:58:GLY:C	2.61	0.43
44:BU:81:LYS:CE	44:BU:96:ILE:HD12	2.47	0.43
45:BV:121:HIS:HB3	45:BV:123:ASP:O	2.18	0.43
54:B8:33:ASN:CA	54:B8:36:LYS:HE3	2.47	0.43
54:B8:58:ILE:HD13	54:B8:58:ILE:HA	1.68	0.43
1:CA:464:G:C5	1:CA:466:C:OP2	2.70	0.43
1:CA:542:G:P	4:CG:10:ARG:HH22	2.42	0.43
1:CA:558:G:H5"	1:CA:559:A:OP2	2.19	0.43
1:CA:926:G:C6	1:CA:1505:G:C6	3.06	0.43
1:CA:987:G:N2	1:CA:1218:C:N3	2.60	0.43
1:CA:1319:A:OP1	19:CV:10:PHE:HB3	2.18	0.43
1:CA:1387:G:H2'	1:CA:1388:C:C6	2.53	0.43
2:CE:12:GLU:HB3	2:CE:213:LEU:CD1	2.48	0.43
2:CE:46:LYS:HA	2:CE:49:GLU:HB2	2.01	0.43
4:CG:110:PHE:H	4:CG:110:PHE:HD1	1.66	0.43
6:CI:33:TYR:CZ	6:CI:78:GLU:HG3	2.53	0.43
9:CL:4:TYR:CE1	9:CL:59:PHE:HE2	2.36	0.43
9:CL:28:VAL:HA	9:CL:63:ILE:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CP:23:TYR:HB3	13:CP:67:GLU:HA	1.99	0.43
18:CU:23:LYS:C	18:CU:25:THR:H	2.26	0.43
19:CV:7:LYS:HZ1	19:CV:8:GLY:HA3	1.83	0.43
20:CW:100:ILE:HD12	20:CW:100:ILE:N	2.27	0.43
25:DA:93:C:H5'	25:DA:94:G:OP2	2.17	0.43
25:DA:668:G:H2'	25:DA:670:A:H62	1.83	0.43
25:DA:724:U:H2'	25:DA:725:G:O4'	2.18	0.43
25:DA:862:G:H2'	25:DA:863:A:O4'	2.18	0.43
25:DA:1152:C:H5"	40:D1:80:ILE:HG22	2.00	0.43
25:DA:1170:G:C6	25:DA:1179:C:N3	2.86	0.43
25:DA:1218:C:H42	25:DA:1231:G:H1	1.66	0.43
25:DA:1385:G:H1'	25:DA:1386:C:C6	2.53	0.43
25:DA:1784:A:H4'	25:DA:1785:A:H5"	1.98	0.43
27:DD:24:ILE:CD1	27:DD:84:TYR:HB2	2.48	0.43
27:DD:35:LYS:NZ	27:DD:65:ILE:HA	2.34	0.43
27:DD:144:ALA:HB3	27:DD:192:THR:HG23	1.99	0.43
32:DK:114:LEU:O	32:DK:114:LEU:HD13	2.18	0.43
33:DM:5:VAL:HA	33:DM:6:PRO:HD3	1.84	0.43
34:DN:53:LYS:N	34:DN:53:LYS:HD2	2.34	0.43
36:DP:79:LEU:O	36:DP:81:VAL:HG13	2.18	0.43
37:D0:59:ASP:OD2	37:D0:59:ASP:N	2.50	0.43
41:D2:85:LYS:HE3	41:D2:87:HIS:N	2.33	0.43
42:DS:38:TYR:O	51:D5:28:PRO:HB3	2.18	0.43
44:DU:80:GLY:O	44:DU:81:LYS:HG3	2.18	0.43
48:DW:25:VAL:HG12	48:DW:57:ILE:HG23	1.98	0.43
50:D4:6:HIS:HA	50:D4:7:PRO:HD3	1.87	0.43
50:D4:50:VAL:C	50:D4:52:THR:N	2.76	0.43
51:D5:41:PRO:HA	51:D5:42:PRO:HD2	1.84	0.43
1:AA:51:A:OP2	1:AA:52:G:H8	2.01	0.43
1:AA:210:U:C2'	1:AA:216:G:OP2	2.66	0.43
1:AA:422:C:H3'	1:AA:422:C:O2	2.17	0.43
1:AA:543:C:O2'	1:AA:544:G:H5'	2.18	0.43
1:AA:595:G:H22	1:AA:643:C:H41	1.66	0.43
1:AA:693:G:C6	1:AA:694:A:C6	3.05	0.43
1:AA:942:G:H2'	1:AA:943:U:H6	1.83	0.43
2:AE:141:GLU:O	2:AE:145:LEU:HD23	2.19	0.43
3:AF:188:LEU:HD23	3:AF:188:LEU:HA	1.82	0.43
4:AG:31:CYS:O	4:AG:31:CYS:SG	2.76	0.43
6:AI:64:GLN:HE21	6:AI:64:GLN:HB3	1.58	0.43
9:AL:79:LEU:O	9:AL:82:ALA:HB3	2.19	0.43
11:AN:54:ARG:NH1	22:AD:40:U:H4'	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AN:67:ASP:OD2	11:AN:71:LYS:HE3	2.18	0.43
13:AP:105:THR:O	13:AP:106:ASN:C	2.62	0.43
16:AS:45:THR:HG23	16:AS:46:PRO:HD2	1.99	0.43
17:AT:67:LYS:O	17:AT:68:ARG:CB	2.66	0.43
18:AU:66:LEU:O	18:AU:70:ILE:HG13	2.18	0.43
22:AD:22:A:N3	22:AD:22:A:C2'	2.78	0.43
22:AD:70:C:O2'	22:AD:71:C:H5'	2.17	0.43
25:BA:880:G:O2'	25:BA:881:G:O5'	2.36	0.43
25:BA:889:C:O2	25:BA:889:C:O5'	2.37	0.43
25:BA:1053:C:C2	25:BA:1107:G:C2	3.07	0.43
25:BA:1264:G:OP1	51:B5:19:ARG:NH2	2.39	0.43
25:BA:1266:G:O5'	42:BS:15:ARG:NH2	2.52	0.43
25:BA:1416:G:O2'	25:BA:1417:C:H6	2.01	0.43
25:BA:1871:A:H2'	25:BA:1872:A:H8	1.81	0.43
25:BA:2115:G:C6	25:BA:2117:A:C8	3.06	0.43
25:BA:2157:G:C2'	25:BA:2158:A:OP2	2.66	0.43
25:BA:2345:G:N3	25:BA:2381:C:H2'	2.33	0.43
25:BA:2355:C:C4'	46:B3:36:ILE:HD12	2.48	0.43
25:BA:2630:G:H2'	25:BA:2631:G:H8	1.83	0.43
25:BA:2774:C:H2'	25:BA:2775:A:O4'	2.18	0.43
28:BE:181:LEU:HD21	39:BR:7:ILE:HG23	1.99	0.43
30:BG:129:GLY:O	30:BG:161:THR:HB	2.17	0.43
30:BG:179:PRO:HG3	50:B4:38:LYS:CE	2.47	0.43
31:BH:58:GLU:C	31:BH:60:ARG:N	2.76	0.43
32:BK:37:VAL:HG12	32:BK:38:LEU:N	2.32	0.43
32:BK:86:THR:CA	32:BK:123:LEU:HD13	2.48	0.43
34:BN:66:LYS:H	34:BN:82:ASN:ND2	2.15	0.43
35:BO:39:LYS:HA	35:BO:45:LEU:HD13	1.99	0.43
36:BP:21:THR:HG22	45:BV:78:LYS:HB3	2.00	0.43
42:BS:21:VAL:C	42:BS:23:LEU:H	2.27	0.43
44:BU:81:LYS:HG3	44:BU:97:ARG:NH1	2.32	0.43
47:BZ:86:SER:O	47:BZ:90:ILE:HG13	2.18	0.43
54:B8:22:VAL:HB	54:B8:53:PRO:HB2	2.00	0.43
1:CA:308:C:H2'	1:CA:309:G:C8	2.54	0.43
1:CA:410:G:N1	1:CA:431:A:OP2	2.47	0.43
1:CA:625:G:H2'	1:CA:626:U:C6	2.53	0.43
1:CA:673:G:O3'	6:CI:87:ARG:NH2	2.51	0.43
1:CA:1055:A:N7	1:CA:1206:G:C2	2.87	0.43
4:CG:13:ARG:C	4:CG:15:GLU:N	2.77	0.43
10:CM:78:ASN:O	10:CM:80:LYS:N	2.51	0.43
13:CP:5:ALA:HB2	13:CP:22:ILE:HD13	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CR:48:LYS:HD3	15:CR:48:LYS:HA	1.81	0.43
16:CS:19:ILE:N	16:CS:37:GLY:O	2.48	0.43
18:CU:26:LEU:N	18:CU:26:LEU:HD13	2.34	0.43
20:CW:48:LYS:O	20:CW:49:ALA:C	2.61	0.43
22:CB:42:U:O2	22:CB:42:U:H2'	2.18	0.43
25:DA:30:G:H2'	25:DA:31:C:H6	1.78	0.43
25:DA:138:G:H5'	25:DA:139:G:OP2	2.18	0.43
25:DA:270(Q):C:H2'	25:DA:270(R):G:O4'	2.18	0.43
25:DA:284:U:H2'	25:DA:285:C:C6	2.53	0.43
25:DA:372:G:O2'	25:DA:373:U:P	2.75	0.43
25:DA:458:G:O2'	53:D7:39:ARG:HD3	2.19	0.43
25:DA:543:C:N4	25:DA:550:G:H1	2.12	0.43
25:DA:638:G:H2'	25:DA:639:U:C6	2.53	0.43
25:DA:1028:A:H61	25:DA:1125:G:H2'	1.83	0.43
25:DA:1036:G:P	31:DH:59:ARG:HB2	2.58	0.43
25:DA:1520:U:H2'	25:DA:1521:G:O4'	2.18	0.43
25:DA:2319:G:N7	38:DQ:3:ARG:HB3	2.33	0.43
25:DA:2400:G:N2	25:DA:2417:C:C2	2.86	0.43
25:DA:2661:G:H2'	25:DA:2662:A:O4'	2.18	0.43
28:DE:96:PHE:O	28:DE:175:VAL:HG11	2.18	0.43
28:DE:116:VAL:O	28:DE:116:VAL:HG12	2.18	0.43
32:DK:6:LEU:O	32:DK:6:LEU:HD23	2.18	0.43
35:DO:23:PRO:HB3	41:D2:80:GLN:HG2	1.98	0.43
35:DO:46:LYS:HD2	35:DO:51:PHE:CZ	2.52	0.43
35:DO:121:LYS:O	35:DO:123:LEU:HD23	2.19	0.43
37:D0:84:ALA:N	37:D0:85:PRO:CD	2.80	0.43
44:DU:89:PHE:HD1	44:DU:90:LEU:H	1.64	0.43
45:DV:55:HIS:O	45:DV:70:LEU:HD21	2.17	0.43
45:DV:169:GLU:HA	45:DV:169:GLU:OE1	2.18	0.43
47:DZ:82:LEU:HB2	47:DZ:83:GLU:OE2	2.17	0.43
1:AA:684:A:N6	1:AA:685:G:C6	2.87	0.43
1:AA:940:C:H2'	1:AA:941:G:C8	2.53	0.43
1:AA:958:A:C6	1:AA:959:A:C6	3.06	0.43
1:AA:1215:G:C6	1:AA:1216:G:C5	3.06	0.43
1:AA:1227:A:H3'	1:AA:1227:A:C8	2.53	0.43
1:AA:1447:G:N2	1:AA:1460:A:H1'	2.33	0.43
5:AH:59:GLY:O	5:AH:63:ARG:HG2	2.17	0.43
9:AL:23:ASN:H	9:AL:23:ASN:ND2	2.15	0.43
11:AN:110:ASP:HB2	18:AU:88:LYS:HD3	2.00	0.43
12:AO:42:PRO:CG	12:AO:48:ALA:H	2.32	0.43
15:AR:47:LYS:HE2	15:AR:47:LYS:HB3	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AW:73:HIS:HB3	20:AW:74:LYS:HG3	2.00	0.43
23:AC:59:A:H4'	23:AC:60:A:OP1	2.19	0.43
22:AD:59:A:C2	22:AD:74:C:C2	3.06	0.43
25:BA:492:A:H8	25:BA:492:A:O5'	2.01	0.43
25:BA:614:U:O2	25:BA:614:U:O2'	2.28	0.43
25:BA:1057:A:H2'	25:BA:1058:U:C6	2.53	0.43
25:BA:1087:G:H5"	25:BA:1088:A:OP2	2.18	0.43
25:BA:1146:C:O2'	25:BA:1147:C:H5'	2.18	0.43
25:BA:1214:A:H2'	25:BA:1215:G:O4'	2.18	0.43
25:BA:1649:G:C6	25:BA:2009:G:C6	3.06	0.43
25:BA:2808:U:O2'	25:BA:2809:A:H5'	2.18	0.43
27:BD:35:LYS:HB3	27:BD:64:ILE:H	1.83	0.43
27:BD:118:VAL:HG22	27:BD:119:ALA:N	2.32	0.43
28:BE:17:ASP:C	28:BE:19:ARG:H	2.26	0.43
30:BG:44:GLY:HA2	30:BG:88:ILE:HD11	2.01	0.43
31:BH:126:PRO:O	31:BH:127:GLU:CB	2.66	0.43
33:BM:75:TYR:HA	33:BM:81:GLY:O	2.18	0.43
34:BN:23:ARG:HG3	34:BN:24:VAL:N	2.33	0.43
35:BO:66:GLY:HA2	35:BO:68:GLN:HE22	1.83	0.43
36:BP:77:LYS:O	36:BP:78:PRO:O	2.35	0.43
45:BV:154:ASP:N	45:BV:154:ASP:OD2	2.50	0.43
47:BZ:78:LYS:O	47:BZ:78:LYS:CG	2.66	0.43
49:BX:56:VAL:HG12	49:BX:57:GLU:H	1.84	0.43
1:CA:181:G:H4'	1:CA:182:U:H5'	1.99	0.43
1:CA:977:A:C8	1:CA:1223:C:C4	3.06	0.43
1:CA:1015:A:C5	1:CA:1016:A:C5	3.07	0.43
1:CA:1028:C:N3	1:CA:1033:G:C2	2.86	0.43
1:CA:1072:G:C5	1:CA:1073:U:C4	3.06	0.43
1:CA:1117:G:O3'	9:CL:104:ARG:HD2	2.18	0.43
1:CA:1158:C:H2'	1:CA:1160:G:H8	1.84	0.43
1:CA:1176:A:C2'	1:CA:1177:G:C5'	2.89	0.43
1:CA:1224:G:C6	1:CA:1322:C:H1'	2.53	0.43
1:CA:1225:A:H8	1:CA:1225:A:OP2	2.01	0.43
1:CA:1352:C:OP1	21:CX:3:LYS:NZ	2.46	0.43
2:CE:137:ARG:HH21	2:CE:140:HIS:HB3	1.82	0.43
4:CG:4:TYR:CE2	4:CG:11:LEU:HD11	2.54	0.43
5:CH:50:GLU:HA	5:CH:50:GLU:OE2	2.19	0.43
9:CL:110:GLU:HG3	9:CL:111:ARG:N	2.34	0.43
10:CM:32:ALA:HB3	10:CM:81:THR:HG21	2.00	0.43
12:CO:80:VAL:HG13	12:CO:81:LEU:N	2.34	0.43
13:CP:11:ARG:O	13:CP:13:LYS:N	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CU:22:VAL:HG12	18:CU:55:ARG:O	2.18	0.43
18:CU:29:PHE:HD1	18:CU:39:VAL:HG12	1.84	0.43
20:CW:33:ILE:CD1	20:CW:63:ILE:HA	2.47	0.43
20:CW:94:ALA:O	20:CW:95:ALA:HB2	2.18	0.43
25:DA:16:G:H2'	25:DA:17:G:H8	1.83	0.43
25:DA:616:A:C4	29:DF:180:GLY:HA2	2.53	0.43
25:DA:997:G:OP1	40:D1:93:LYS:HB2	2.18	0.43
25:DA:1040:C:H2'	25:DA:1041:C:C6	2.52	0.43
25:DA:1448:G:H2'	25:DA:1449:A:C8	2.53	0.43
25:DA:1748:G:O2'	25:DA:1749:A:H5'	2.18	0.43
25:DA:2134:A:N3	25:DA:2134:A:H2'	2.34	0.43
25:DA:2186:G:O2'	25:DA:2187:G:H5'	2.18	0.43
25:DA:2243:U:H2'	25:DA:2244:U:C6	2.53	0.43
25:DA:2292:C:H2'	25:DA:2293:C:C6	2.53	0.43
25:DA:2602:A:H4'	25:DA:2603:G:C5'	2.48	0.43
25:DA:2638:G:O2'	25:DA:2639:A:O5'	2.37	0.43
27:DD:248:SER:HB2	27:DD:249:PRO:HD2	1.99	0.43
28:DE:9:VAL:CG2	28:DE:10:GLY:N	2.80	0.43
35:DO:3:LEU:HD12	35:DO:3:LEU:N	2.33	0.43
38:DQ:74:ALA:O	38:DQ:77:ALA:N	2.43	0.43
40:D1:88:ILE:HG23	41:D2:49:THR:HG22	2.00	0.43
40:D1:111:GLU:C	40:D1:113:ALA:N	2.75	0.43
43:DT:54:VAL:C	43:DT:55:ASN:HD22	2.25	0.43
45:DV:81:ARG:O	45:DV:81:ARG:HG3	2.18	0.43
47:DZ:6:GLU:OE1	47:DZ:61:ARG:N	2.34	0.43
48:DW:41:ILE:O	48:DW:41:ILE:HG13	2.18	0.43
50:D4:53:GLU:CD	50:D4:58:ARG:HB2	2.43	0.43
51:D5:58:LEU:HB3	51:D5:59:GLU:H	1.55	0.43
1:AA:505:G:H5'	1:AA:534:U:H2'	1.99	0.43
1:AA:587:G:C2	1:AA:755:G:C5	3.07	0.43
1:AA:589:C:O2'	1:AA:590:C:H5'	2.18	0.43
1:AA:601:C:H2'	1:AA:602:A:H8	1.83	0.43
1:AA:782:A:O3'	1:AA:1515:C:H4'	2.18	0.43
1:AA:958:A:C8	19:AV:55:LYS:HD2	2.54	0.43
1:AA:1112:C:H1'	3:AF:179:ARG:HH11	1.84	0.43
1:AA:1126:U:O2	1:AA:1126:U:O4'	2.35	0.43
1:AA:1129:C:C4	1:AA:1139:G:C6	3.07	0.43
1:AA:1508:G:H2'	1:AA:1509:C:C6	2.53	0.43
3:AF:118:GLN:O	3:AF:122:GLU:HG2	2.19	0.43
6:AI:76:ALA:O	6:AI:80:ARG:HG2	2.19	0.43
9:AL:73:GLN:O	9:AL:76:ALA:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AQ:4:LYS:O	14:AQ:6:LEU:N	2.52	0.43
15:AR:87:ILE:O	15:AR:88:ARG:C	2.61	0.43
23:AC:2:G:C4	23:AC:3:C:C5	3.07	0.43
23:AC:9:G:O2'	23:AC:10:G:N7	2.42	0.43
25:BA:11:G:C2'	25:BA:12:U:H5'	2.48	0.43
25:BA:521:G:H2'	25:BA:522:G:C8	2.53	0.43
25:BA:565:C:H2'	25:BA:566:U:O4'	2.18	0.43
25:BA:620:G:N3	25:BA:620:G:H2'	2.33	0.43
25:BA:637:A:H2'	35:BO:117:GLU:OE1	2.19	0.43
25:BA:723:G:H2'	25:BA:724:U:O4'	2.18	0.43
25:BA:1142(A):A:C4	25:BA:1144:G:C8	3.05	0.43
25:BA:1309:G:OP1	53:B7:9:ARG:HD3	2.18	0.43
25:BA:1926:U:H2'	25:BA:1928:A:OP2	2.18	0.43
25:BA:2114:A:H2'	25:BA:2168:G:H5"	2.01	0.43
25:BA:2287:A:N1	25:BA:2346:A:H2	2.13	0.43
26:BB:5:C:O2'	26:BB:27:C:O2	2.36	0.43
26:BB:59:A:H2'	26:BB:60:C:H6	1.82	0.43
27:BD:237:GLU:HA	27:BD:238:GLY:HA2	1.69	0.43
28:BE:166:THR:HG21	28:BE:199:ARG:HH22	1.83	0.43
28:BE:188:VAL:HA	28:BE:189:PRO:HD3	1.65	0.43
29:BF:117:ARG:HA	29:BF:117:ARG:HD3	1.69	0.43
29:BF:184:TYR:CD2	29:BF:188:ARG:HD2	2.54	0.43
30:BG:115:ARG:O	30:BG:116:ASP:HB2	2.19	0.43
31:BH:9:ILE:O	31:BH:9:ILE:HG13	2.17	0.43
31:BH:153:LYS:HB3	31:BH:154:PRO:HD3	1.99	0.43
32:BK:78:THR:HG22	32:BK:141:LYS:HB3	1.99	0.43
32:BK:86:THR:O	32:BK:87:LYS:HB2	2.18	0.43
33:BM:11:PRO:HB3	33:BM:51:PHE:CE1	2.53	0.43
34:BN:43:VAL:HG21	34:BN:52:VAL:CG1	2.48	0.43
36:BP:111:GLU:C	36:BP:113:GLN:N	2.77	0.43
36:BP:140:ALA:HB2	45:BV:53:ILE:HD11	2.00	0.43
37:B0:3:HIS:O	37:B0:5:LYS:HG3	2.18	0.43
44:BU:35:TYR:CZ	44:BU:69:ALA:HB3	2.53	0.43
44:BU:87:LYS:HD3	44:BU:92:ASN:HB3	2.01	0.43
47:BZ:87:PRO:C	47:BZ:89:GLU:N	2.75	0.43
52:B6:17:LYS:O	52:B6:18:ARG:HB2	2.17	0.43
1:CA:90:C:H2'	1:CA:91:C:O4'	2.18	0.43
1:CA:109:A:C6	1:CA:326:G:C6	3.07	0.43
1:CA:476:G:O2'	1:CA:477:G:H5'	2.18	0.43
1:CA:1024:G:H2'	1:CA:1025:U:C5	2.54	0.43
1:CA:1053:G:O2'	1:CA:1054:C:O5'	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1127:G:H22	1:CA:1144:G:N2	2.17	0.43
2:CE:73:THR:HB	2:CE:96:ARG:H	1.83	0.43
2:CE:124:SER:C	2:CE:126:GLU:N	2.76	0.43
2:CE:144:ARG:O	2:CE:148:TYR:HB2	2.18	0.43
2:CE:205:ASP:C	2:CE:211:ILE:HD11	2.43	0.43
3:CF:37:GLN:O	3:CF:40:ARG:N	2.47	0.43
4:CG:199:ASN:ND2	4:CG:201:GLN:HB2	2.34	0.43
5:CH:9:LYS:CB	5:CH:112:LEU:HD11	2.49	0.43
15:CR:21:ASP:OD1	15:CR:24:SER:HB2	2.19	0.43
18:CU:44:LEU:HD12	18:CU:44:LEU:HA	1.84	0.43
21:CX:9:ARG:O	21:CX:13:ILE:HG13	2.18	0.43
23:CC:14:A:C6	23:CC:23:G:C6	3.06	0.43
22:CD:50:U:H2'	22:CD:51:C:H6	1.83	0.43
25:DA:10:G:C5	25:DA:2629:A:N6	2.87	0.43
25:DA:1226:G:C6	25:DA:1227:A:N6	2.87	0.43
25:DA:1397:U:O2'	25:DA:1398:C:H6	2.01	0.43
25:DA:1472:A:H2'	25:DA:1473:G:H5'	2.00	0.43
25:DA:1494:A:C2	25:DA:1495:A:C4	3.06	0.43
25:DA:2274:A:N1	25:DA:2276:G:H1'	2.33	0.43
25:DA:2329:G:H2'	25:DA:2330:G:H8	1.83	0.43
28:DE:1:MET:H2	28:DE:84:PHE:HB2	1.80	0.43
28:DE:71:GLY:C	28:DE:73:GLU:H	2.26	0.43
29:DF:7:TYR:HD2	29:DF:18:ARG:HB3	1.84	0.43
30:DG:37:VAL:O	30:DG:94:LEU:CD2	2.67	0.43
30:DG:145:THR:O	30:DG:146:TYR:HB3	2.18	0.43
31:DH:90:LYS:HG2	31:DH:159:GLU:OE2	2.17	0.43
32:DK:26:ALA:HA	32:DK:30:LEU:HB2	2.00	0.43
35:DO:65:ARG:O	35:DO:68:GLN:NE2	2.51	0.43
35:DO:136:GLU:O	35:DO:137:LYS:C	2.61	0.43
38:DQ:35:ILE:HG23	38:DQ:35:ILE:O	2.18	0.43
45:DV:158:PRO:HG2	45:DV:161:VAL:HG13	1.99	0.43
50:D4:1:MET:O	50:D4:2:LYS:HD3	2.18	0.43
54:D8:37:SER:O	54:D8:41:ILE:HG13	2.19	0.43
1:AA:102:G:C6	1:AA:103:C:C4	3.07	0.43
1:AA:375:U:C4	1:AA:376:G:N7	2.87	0.43
1:AA:692:U:O2'	1:AA:694:A:N7	2.48	0.43
1:AA:1019:C:H2'	1:AA:1020:U:O4'	2.18	0.43
1:AA:1054:C:O2	1:AA:1054:C:C2'	2.66	0.43
5:AH:45:PHE:HB2	5:AH:133:TYR:OH	2.17	0.43
8:AK:11:THR:HG23	8:AK:14:ARG:NH1	2.33	0.43
18:AU:53:ARG:HH21	18:AU:59:SER:C	2.27	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AD:25:G:H2'	22:AD:26:G:C8	2.54	0.43
25:BA:142:G:H2'	25:BA:143:C:H6	1.83	0.43
25:BA:271(C):U:C2'	25:BA:271:G:OP1	2.67	0.43
25:BA:320:A:H2'	29:BF:136:THR:CG2	2.47	0.43
25:BA:528:A:N1	25:BA:2043:C:C5'	2.82	0.43
25:BA:553:U:O2'	25:BA:554:U:H5'	2.19	0.43
25:BA:629:G:H4'	25:BA:650:C:O2	2.19	0.43
25:BA:738:G:C6	25:BA:739:G:C2	3.06	0.43
25:BA:910:A:H62	36:BP:12:GLN:HA	1.82	0.43
25:BA:1797:C:H2'	25:BA:1798:U:H5'	2.00	0.43
25:BA:2143:C:N3	25:BA:2149:G:C2	2.87	0.43
25:BA:2716:U:O2'	25:BA:2717:G:H5'	2.18	0.43
25:BA:2836:U:H2'	25:BA:2837:G:C8	2.54	0.43
27:BD:35:LYS:CE	27:BD:104:TYR:HD1	2.32	0.43
27:BD:166:GLN:HB2	27:BD:174:ILE:HG22	2.00	0.43
28:BE:24:THR:HG21	28:BE:188:VAL:CG1	2.49	0.43
28:BE:87:GLU:O	28:BE:87:GLU:HG3	2.19	0.43
28:BE:153:GLY:O	28:BE:154:LYS:C	2.61	0.43
31:BH:37:VAL:HG12	31:BH:38:SER:N	2.33	0.43
32:BK:21:VAL:HG21	32:BK:25:TYR:HD1	1.84	0.43
36:BP:78:PRO:HB2	36:BP:81:VAL:HG11	2.00	0.43
38:BQ:42:ASP:C	38:BQ:44:LYS:H	2.26	0.43
42:BS:80:PRO:O	42:BS:100:THR:HB	2.18	0.43
45:BV:128:VAL:HG22	45:BV:129:SER:N	2.34	0.43
50:B4:43:TYR:C	50:B4:43:TYR:CD1	2.96	0.43
1:CA:687:A:H4'	1:CA:688:G:O5'	2.19	0.43
1:CA:870:U:H4'	1:CA:871:U:H5"	1.98	0.43
1:CA:1041:A:N6	1:CA:1042:G:C6	2.87	0.43
1:CA:1122:U:O4	1:CA:1123:A:N6	2.51	0.43
3:CF:100:ALA:O	3:CF:101:LEU:HB3	2.17	0.43
4:CG:4:TYR:C	4:CG:4:TYR:CD1	2.94	0.43
8:CK:97:VAL:HG22	8:CK:129:VAL:C	2.43	0.43
9:CL:33:PHE:HE1	9:CL:37:PHE:CD1	2.37	0.43
13:CP:10:PRO:HB2	13:CP:18:ALA:HB1	1.99	0.43
13:CP:16:ASP:HB2	13:CP:31:LYS:HG2	2.00	0.43
17:CT:32:TYR:C	17:CT:34:LYS:H	2.26	0.43
19:CV:48:THR:HG22	19:CV:61:TYR:HA	2.01	0.43
19:CV:51:VAL:HG23	19:CV:60:VAL:HG11	1.99	0.43
22:CB:8:U:H4'	22:CB:58:G:OP2	2.19	0.43
22:CB:46:G:O2'	22:CB:47:U:P	2.76	0.43
22:CB:46:G:HO2'	22:CB:47:U:P	2.29	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CC:26:C:H2'	23:CC:27:G:O4'	2.18	0.43
25:DA:194:G:H2'	25:DA:195:A:O4'	2.19	0.43
25:DA:234:C:H2'	25:DA:235:U:H6	1.83	0.43
25:DA:592:G:O2'	54:D8:4:MET:HB2	2.18	0.43
25:DA:654(V):A:H2	25:DA:655:A:C2	2.36	0.43
25:DA:880:G:N2	25:DA:881:G:H1'	2.33	0.43
25:DA:1090:U:C4	25:DA:1091:G:C4	3.06	0.43
25:DA:1193:G:O2'	25:DA:1194:A:H5'	2.19	0.43
25:DA:1812:A:H2'	25:DA:1813:G:C8	2.53	0.43
25:DA:2134:A:H61	25:DA:2157:G:H1'	1.80	0.43
25:DA:2401:U:C3'	25:DA:2402:C:H5"	2.48	0.43
25:DA:2689:U:P	25:DA:2719:G:H22	2.41	0.43
25:DA:2704:C:C4	25:DA:2705:A:C5	3.06	0.43
26:DB:15:A:H1'	26:DB:109:G:N9	2.33	0.43
26:DB:56:G:H4'	26:DB:57:A:C8	2.53	0.43
27:DD:35:LYS:HZ1	27:DD:65:ILE:HA	1.82	0.43
27:DD:111:LEU:HD23	27:DD:111:LEU:HA	1.79	0.43
28:DE:197:ILE:HD11	28:DE:199:ARG:CZ	2.49	0.43
29:DF:59:TYR:CG	29:DF:78:ILE:HD12	2.54	0.43
30:DG:83:ARG:HB2	30:DG:86:MET:CE	2.48	0.43
32:DK:19:VAL:HG22	32:DK:20:ASP:N	2.34	0.43
32:DK:77:LEU:HD12	32:DK:78:THR:N	2.34	0.43
33:DM:4:TYR:O	40:D1:64:ARG:NH1	2.51	0.43
39:DR:4:GLY:C	39:DR:7:ILE:HG22	2.43	0.43
39:DR:50:ILE:HA	39:DR:50:ILE:HD12	1.81	0.43
41:D2:72:VAL:O	41:D2:72:VAL:HG13	2.19	0.43
42:DS:79:GLY:HA3	42:DS:100:THR:HG22	1.99	0.43
44:DU:46:LYS:C	44:DU:48:ALA:N	2.75	0.43
45:DV:112:ARG:HD3	45:DV:112:ARG:N	2.33	0.43
49:DX:12:PRO:HB3	49:DX:20:LYS:HG3	2.00	0.43
1:AA:108:G:C2	1:AA:109:A:C2	3.07	0.43
1:AA:282:A:N3	1:AA:282:A:H2'	2.32	0.43
1:AA:631:G:O2'	1:AA:632:A:O4'	2.24	0.43
1:AA:691:G:H1'	1:AA:696:A:N6	2.34	0.43
1:AA:945:G:C2	1:AA:1337:G:C2	3.06	0.43
1:AA:1078:U:C5	1:AA:1079:G:C5	3.06	0.43
1:AA:1321:C:C3'	1:AA:1322:C:H5"	2.45	0.43
1:AA:1331:G:O2'	1:AA:1332:A:P	2.75	0.43
4:AG:53:ASP:O	4:AG:57:ARG:HG3	2.18	0.43
4:AG:112:VAL:HG12	4:AG:116:GLN:OE1	2.19	0.43
9:AL:33:PHE:C	9:AL:35:GLU:H	2.27	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AB:15:G:H1'	22:AB:20:C:C5	2.53	0.43
25:BA:654(C):G:H2'	25:BA:654(D):G:O4'	2.19	0.43
25:BA:654(J):A:H3'	25:BA:654(J):A:N3	2.34	0.43
25:BA:870:A:OP1	36:BP:6:ARG:CZ	2.67	0.43
25:BA:1078:U:H1'	25:BA:1088:A:C2	2.51	0.43
25:BA:1085:A:H4'	25:BA:1086:A:OP2	2.14	0.43
25:BA:1465:G:H5'	25:BA:1528:A:H1'	2.01	0.43
25:BA:2008:C:H2'	25:BA:2009:G:H8	1.84	0.43
25:BA:2015:A:C1'	51:B5:2:ALA:CA	2.60	0.43
25:BA:2040:C:H2'	25:BA:2041:U:C6	2.53	0.43
25:BA:2169:A:C6	25:BA:2170:A:C5	3.07	0.43
25:BA:2591:C:P	27:BD:239:ARG:CG	2.99	0.43
25:BA:2681:C:O2'	25:BA:2682:U:OP2	2.33	0.43
30:BG:112:PRO:HB3	50:B4:37:SER:CA	2.45	0.43
30:BG:146:TYR:O	30:BG:149:VAL:HG22	2.18	0.43
31:BH:80:SER:O	31:BH:81:GLU:CG	2.62	0.43
38:BQ:46:VAL:HG12	38:BQ:48:LEU:HD12	1.99	0.43
42:BS:17:VAL:C	42:BS:19:LEU:N	2.77	0.43
44:BU:90:LEU:HD12	44:BU:90:LEU:N	2.33	0.43
45:BV:109:ALA:HB1	45:BV:142:SER:C	2.42	0.43
45:BV:167:PRO:O	45:BV:169:GLU:N	2.46	0.43
1:CA:668:G:O2'	15:CR:46:HIS:HD2	2.02	0.43
1:CA:1124:G:C8	1:CA:1145:C:O2'	2.65	0.43
1:CA:1266:G:N2	1:CA:1270:C:C4	2.87	0.43
2:CE:42:ILE:HG21	2:CE:203:GLY:HA2	2.00	0.43
3:CF:137:ALA:O	3:CF:141:VAL:HG23	2.19	0.43
8:CK:33:GLU:OE2	8:CK:50:ARG:NH1	2.51	0.43
9:CL:3:GLN:O	9:CL:88:TYR:CE1	2.72	0.43
11:CN:57:THR:HA	11:CN:58:PRO:HD3	1.93	0.43
13:CP:69:GLU:O	13:CP:72:ALA:HB3	2.19	0.43
17:CT:69:LYS:C	17:CT:70:ARG:HD2	2.43	0.43
18:CU:45:SER:OG	18:CU:46:GLU:N	2.51	0.43
20:CW:42:GLN:O	20:CW:46:GLU:HB2	2.19	0.43
22:CD:15:G:N3	22:CD:68:A:N3	2.66	0.43
22:CD:62:G:H2'	22:CD:63:U:H6	1.81	0.43
24:C1:10:G:H2'	24:C1:11:U:O4'	2.19	0.43
25:DA:10:G:C6	25:DA:2629:A:C6	3.06	0.43
25:DA:139:G:N2	25:DA:141:A:N1	2.62	0.43
25:DA:526:A:H5"	25:DA:527:C:OP1	2.19	0.43
25:DA:738:G:C6	25:DA:739:G:C2	3.07	0.43
25:DA:818:G:H4'	25:DA:838:C:O3'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:998:C:H2'	25:DA:999:U:O5'	2.18	0.43
25:DA:1064:C:C4	25:DA:1065:U:C4	3.07	0.43
25:DA:1344:G:C2	25:DA:1385:G:C8	3.07	0.43
25:DA:1421:G:C2	25:DA:1422:G:C8	3.07	0.43
25:DA:1525:G:C2	25:DA:1526:G:C4	3.06	0.43
25:DA:1792:G:H5'	27:DD:205:VAL:HG13	2.00	0.43
25:DA:2119:A:N6	25:DA:2170:A:N6	2.67	0.43
25:DA:2473:U:O2	25:DA:2473:U:H2'	2.18	0.43
25:DA:2688:U:O2	25:DA:2688:U:C3'	2.67	0.43
25:DA:2720:U:N3	25:DA:2873:A:C2	2.86	0.43
26:DB:45:A:H2'	26:DB:45:A:N3	2.33	0.43
26:DB:73:A:C4	26:DB:104:A:C2	3.06	0.43
29:DF:4:VAL:HG13	29:DF:19:GLU:OE2	2.18	0.43
30:DG:67:LYS:HE3	50:D4:5:ILE:HG21	2.01	0.43
32:DK:26:ALA:O	32:DK:31:LEU:HD13	2.19	0.43
33:DM:28:THR:HA	33:DM:106:MET:HE2	2.01	0.43
40:D1:98:LEU:C	40:D1:100:VAL:H	2.26	0.43
43:DT:43:VAL:HG22	43:DT:51:VAL:CG2	2.49	0.43
45:DV:108:PRO:HB2	45:DV:142:SER:HA	2.01	0.43
49:DX:19:GLN:HE22	49:DX:52:HIS:CE1	2.37	0.43
54:D8:23:VAL:CG2	54:D8:48:PHE:H	2.31	0.43
1:AA:186(E):C:N3	1:AA:191(C):G:C2	2.86	0.43
1:AA:439:A:C4	1:AA:496:A:C2	3.07	0.43
1:AA:578:C:O2'	1:AA:728:A:N3	2.43	0.43
1:AA:724:G:C2	1:AA:725:G:C8	3.06	0.43
1:AA:784:C:H2'	1:AA:785:G:H8	1.83	0.43
1:AA:937:A:C2	1:AA:1379:G:O6	2.72	0.43
1:AA:1014:A:C2	1:AA:1219:U:H1'	2.54	0.43
1:AA:1187:G:N3	1:AA:1187:G:H2'	2.33	0.43
1:AA:1291:G:H2'	1:AA:1292:U:C6	2.54	0.43
1:AA:1432:G:P	39:BR:107:ASP:HB2	2.59	0.43
1:AA:1504:G:C4'	1:AA:1505:G:OP2	2.67	0.43
8:AK:34:GLU:O	8:AK:38:ILE:HG13	2.19	0.43
9:AL:3:GLN:HB3	9:AL:20:ARG:HH11	1.84	0.43
9:AL:117:HIS:HB2	9:AL:121:ARG:O	2.19	0.43
12:AO:114:ARG:HB3	12:AO:119:THR:HB	2.01	0.43
20:AW:96:GLY:O	20:AW:97:ALA:HB3	2.19	0.43
22:AD:85:A:O2'	25:BA:2394:C:C2	2.65	0.43
25:BA:503:A:C6	25:BA:506:G:C6	3.07	0.43
25:BA:870:A:C2	25:BA:908:C:C2	3.06	0.43
25:BA:881:G:N7	25:BA:882:G:C4	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1177:A:C5'	25:BA:1178:C:OP1	2.66	0.43
25:BA:1451:C:H42	25:BA:1459:G:H1	1.65	0.43
25:BA:1520:U:H2'	25:BA:1521:G:O4'	2.19	0.43
25:BA:1568:G:H5'	27:BD:60:ARG:HA	2.00	0.43
25:BA:2161:C:O2'	25:BA:2162:G:H5'	2.19	0.43
25:BA:2370:G:H21	52:B6:45:LYS:HZ2	1.67	0.43
25:BA:2439:A:H8	25:BA:2439:A:C5'	2.30	0.43
27:BD:59:LYS:HG2	27:BD:60:ARG:N	2.34	0.43
29:BF:32:LEU:HD13	29:BF:32:LEU:C	2.44	0.43
30:BG:44:GLY:HA2	30:BG:88:ILE:CD1	2.48	0.43
31:BH:4:ILE:HG13	31:BH:6:ARG:NH2	2.34	0.43
31:BH:28:GLY:C	31:BH:30:LYS:H	2.26	0.43
31:BH:32:GLU:H	31:BH:32:GLU:HG3	1.48	0.43
31:BH:92:ILE:H	31:BH:92:ILE:CD1	2.31	0.43
34:BN:31:LYS:HB3	34:BN:32:TYR:CD1	2.53	0.43
36:BP:138:ASP:O	36:BP:139:GLU:C	2.61	0.43
44:BU:81:LYS:CG	44:BU:97:ARG:HB3	2.49	0.43
45:BV:140:ASP:OD1	45:BV:156:LYS:NZ	2.52	0.43
1:CA:18:C:H4'	1:CA:1078:U:O2	2.18	0.43
1:CA:1104:G:C4	1:CA:1105:A:C8	3.06	0.43
1:CA:1208:C:H2'	1:CA:1209:C:C6	2.54	0.43
1:CA:1305:G:H5'	21:CX:4:GLY:HA3	2.00	0.43
9:CL:53:VAL:O	9:CL:55:ALA:N	2.52	0.43
11:CN:29:ILE:CG2	11:CN:44:SER:HB2	2.46	0.43
11:CN:98:LEU:O	11:CN:101:SER:OG	2.34	0.43
14:CQ:51:GLY:C	14:CQ:53:LEU:H	2.27	0.43
19:CV:66:MET:H	19:CV:67:VAL:HB	1.84	0.43
22:CD:43:G:C2'	22:CD:44:C:H5'	2.49	0.43
25:DA:234:C:H2'	25:DA:235:U:C6	2.54	0.43
25:DA:995:C:O4'	40:D1:57:PHE:CD1	2.71	0.43
25:DA:1021:A:C6	25:DA:1023:U:C4	3.06	0.43
25:DA:1063:G:C6	25:DA:1064:C:N3	2.87	0.43
25:DA:1297:C:H2'	25:DA:1298:C:H6	1.84	0.43
25:DA:1926:U:O2'	25:DA:1928:A:N7	2.48	0.43
25:DA:2591:C:P	27:DD:239:ARG:HG3	2.59	0.43
25:DA:2789:C:O2'	25:DA:2892:A:N1	2.48	0.43
27:DD:24:ILE:HD13	27:DD:84:TYR:HB2	2.00	0.43
28:DE:54:GLN:O	28:DE:75:VAL:HG22	2.18	0.43
28:DE:175:VAL:HG23	28:DE:177:PRO:HD3	2.00	0.43
32:DK:79:ILE:HD11	32:DK:100:ALA:HB2	2.00	0.43
34:DN:106:LEU:HD23	34:DN:106:LEU:HA	1.91	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:23:GLY:HA2	36:DP:24:GLY:HA3	1.74	0.43
36:DP:76:LYS:O	36:DP:77:LYS:O	2.36	0.43
50:D4:32:TYR:HB3	50:D4:33:VAL:H	1.47	0.43
1:AA:111:G:H5"	16:AS:27:LYS:HG2	2.01	0.43
1:AA:343:U:O2	1:AA:347:G:C2	2.72	0.43
1:AA:422:C:O2'	1:AA:423:G:C2	2.62	0.43
1:AA:453:A:C6	1:AA:454:C:C4	3.07	0.43
1:AA:491:G:C4	1:AA:492:G:C8	3.06	0.43
1:AA:509:A:HO2'	1:AA:510:A:P	2.39	0.43
1:AA:601:C:O2'	1:AA:602:A:H5'	2.18	0.43
1:AA:1124:G:C8	1:AA:1145:C:C5	3.06	0.43
1:AA:1298:C:OP2	7:AJ:114:ARG:NH2	2.39	0.43
3:AF:143:GLU:C	3:AF:145:GLY:N	2.76	0.43
7:AJ:56:GLN:NE2	7:AJ:60:LYS:HD3	2.33	0.43
8:AK:20:TYR:HD1	8:AK:65:TYR:CD2	2.36	0.43
8:AK:121:ASP:HB2	8:AK:125:ARG:NH2	2.34	0.43
9:AL:114:TYR:C	9:AL:116:LYS:H	2.27	0.43
22:AB:19:C:O5'	22:AB:20:C:OP2	2.37	0.43
23:AC:2:G:C6	23:AC:3:C:C4	3.07	0.43
23:AC:6:G:H1	23:AC:68:C:N4	2.15	0.43
23:AC:73:A:C6	23:AC:74:A:C6	3.06	0.43
22:AD:18:G:C1'	22:AD:19:C:OP2	2.55	0.43
25:BA:6:A:N3	33:BM:131:GLN:HG3	2.33	0.43
25:BA:65:C:H2'	25:BA:66:C:C6	2.53	0.43
25:BA:886:C:C2	25:BA:887:A:H1'	2.54	0.43
25:BA:956:G:O2'	36:BP:83:MET:CE	2.66	0.43
25:BA:1341:U:OP1	25:BA:1397:U:N3	2.42	0.43
25:BA:1448:G:O2'	25:BA:1529:A:N1	2.46	0.43
25:BA:2273:A:O2'	25:BA:2274:A:H5'	2.19	0.43
25:BA:2517:C:C6	25:BA:2542:A:N7	2.86	0.43
25:BA:2681:C:C1'	25:BA:2682:U:OP2	2.65	0.43
25:BA:2852:G:C6	25:BA:2853:C:C4	3.06	0.43
30:BG:73:ALA:HB3	30:BG:85:GLY:H	1.84	0.43
30:BG:106:LEU:HD12	30:BG:110:ALA:HB3	2.01	0.43
30:BG:133:LEU:HD12	30:BG:135:LEU:HD11	1.99	0.43
30:BG:181:ARG:HG2	30:BG:181:ARG:O	2.19	0.43
34:BN:75:SER:CB	39:BR:74:ARG:HH12	2.31	0.43
35:BO:106:LEU:HD22	35:BO:106:LEU:O	2.19	0.43
35:BO:114:ILE:HD11	35:BO:130:PHE:CD1	2.49	0.43
40:B1:66:ASN:CB	40:B1:76:TYR:HB2	2.49	0.43
40:B1:85:LYS:HG3	40:B1:117:GLN:HG3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:B3:83:PRO:O	46:B3:84:LEU:HB3	2.19	0.43
1:CA:66:G:H4'	1:CA:173:U:C5	2.54	0.43
1:CA:73:G:C6	1:CA:74:C:C4	3.07	0.43
1:CA:89:U:O2'	1:CA:90:C:H5"	2.19	0.43
1:CA:913:A:C1'	1:CA:914:A:OP2	2.63	0.43
1:CA:992:U:O4	1:CA:1044:A:N7	2.52	0.43
1:CA:1067:A:N3	1:CA:1068:G:H1'	2.34	0.43
1:CA:1129:C:O2	1:CA:1131:G:N7	2.51	0.43
2:CE:12:GLU:HA	2:CE:15:VAL:HB	2.01	0.43
2:CE:76:GLN:O	2:CE:208:ILE:HG12	2.18	0.43
3:CF:206:GLU:O	3:CF:207:VAL:C	2.62	0.43
6:CI:23:LYS:NZ	6:CI:42:GLU:OE2	2.48	0.43
9:CL:43:ALA:CA	9:CL:74:ILE:HD13	2.44	0.43
10:CM:7:LYS:HG2	10:CM:71:LEU:HD13	2.00	0.43
11:CN:59:TYR:O	11:CN:62:GLN:HB3	2.18	0.43
13:CP:60:VAL:HG12	13:CP:66:LEU:HD21	1.99	0.43
20:CW:67:ALA:O	20:CW:73:HIS:ND1	2.52	0.43
22:CB:57:C:C2	22:CB:68:A:H1'	2.54	0.43
22:CB:59:A:N6	22:CB:60:A:C6	2.87	0.43
23:CC:48:U:C1'	23:CC:49:C:O5'	2.67	0.43
25:DA:223:A:O2'	25:DA:420:C:O2	2.32	0.43
25:DA:414:C:O2'	25:DA:415:A:H5'	2.19	0.43
25:DA:655:A:H8	25:DA:656:G:O4'	2.02	0.43
25:DA:669:G:O2'	25:DA:670:A:O5'	2.36	0.43
25:DA:831:G:O2'	35:DO:38:GLN:NE2	2.52	0.43
25:DA:1049:C:C2	31:DH:2:SER:N	2.86	0.43
25:DA:1070:A:C5'	25:DA:1071:G:OP1	2.67	0.43
25:DA:1204:A:N1	25:DA:1241:A:N1	2.67	0.43
25:DA:1342:A:C6	25:DA:1397:U:C6	3.06	0.43
25:DA:1416:G:H2'	25:DA:1417:C:C6	2.54	0.43
25:DA:1535:U:O2	25:DA:1535:U:C2'	2.63	0.43
25:DA:1779:U:C6	25:DA:1783:A:N7	2.87	0.43
25:DA:1786:A:C1'	25:DA:1938:A:N6	2.82	0.43
25:DA:1929:G:H4'	25:DA:1930:G:OP1	2.18	0.43
25:DA:2833:G:C8	25:DA:2833:G:OP1	2.72	0.43
26:DB:56:G:H5'	30:DG:27:ASN:ND2	2.33	0.43
27:DD:35:LYS:HG2	27:DD:64:ILE:CG1	2.40	0.43
27:DD:186:HIS:HD2	27:DD:188:GLU:H	1.67	0.43
31:DH:77:LYS:CE	31:DH:81:GLU:HB3	2.49	0.43
35:DO:62:LEU:CD1	54:D8:26:LYS:O	2.66	0.43
36:DP:3:MET:SD	36:DP:93:TYR:CE1	3.12	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DQ:24:LEU:O	38:DQ:85:VAL:HB	2.18	0.43
41:D2:12:TYR:HE2	41:D2:22:VAL:CG2	2.29	0.43
41:D2:71:LEU:O	41:D2:72:VAL:C	2.62	0.43
42:DS:73:ALA:O	42:DS:106:ILE:HG12	2.18	0.43
44:DU:96:ILE:HD12	44:DU:98:VAL:CG1	2.49	0.43
53:D7:44:PRO:O	53:D7:45:ALA:C	2.61	0.43
1:AA:75:C:O2	1:AA:96:G:N2	2.52	0.43
1:AA:78:G:C5	1:AA:79:G:C8	3.07	0.43
1:AA:665:A:H2'	1:AA:732:C:O2	2.19	0.43
1:AA:1176:A:N1	1:AA:1177:G:C4	2.87	0.43
1:AA:1177:G:H4'	1:AA:1177:G:OP1	2.19	0.43
1:AA:1213:A:C5	1:AA:1215:G:C4	3.06	0.43
2:AE:168:THR:OG1	2:AE:192:SER:HB2	2.18	0.43
2:AE:187:LEU:HD11	2:AE:204:ASN:O	2.18	0.43
2:AE:205:ASP:OD1	2:AE:206:ASP:N	2.52	0.43
3:AF:12:LEU:O	3:AF:16:ARG:O	2.37	0.43
3:AF:14:ILE:O	3:AF:16:ARG:N	2.52	0.43
3:AF:161:GLU:C	3:AF:161:GLU:CD	2.86	0.43
7:AJ:143:ARG:HD2	22:AD:42:U:O3'	2.19	0.43
15:AR:31:LEU:HD12	15:AR:31:LEU:HA	1.90	0.43
22:AB:18:G:C4	22:AB:66:G:N2	2.87	0.43
25:BA:470:A:OP1	29:BF:59:TYR:HE2	2.02	0.43
25:BA:478:A:N6	25:BA:480:A:C6	2.87	0.43
25:BA:542:C:H42	25:BA:551:G:H1	1.66	0.43
25:BA:765:G:H2'	25:BA:766:C:C6	2.53	0.43
25:BA:856:C:H2'	25:BA:857:C:H6	1.83	0.43
25:BA:881:G:O6	25:BA:882:G:C2	2.72	0.43
25:BA:1014:U:H2'	25:BA:1015:G:H5"	2.00	0.43
25:BA:1412:A:H2'	25:BA:1413:G:C8	2.54	0.43
25:BA:1817:G:H2'	25:BA:1818:U:H5'	2.00	0.43
25:BA:1945:G:H2'	25:BA:1946:U:C6	2.53	0.43
26:BB:78:A:H2'	26:BB:79:C:O4'	2.19	0.43
27:BD:102:LYS:O	27:BD:103:ARG:HG2	2.18	0.43
28:BE:93:VAL:HG21	28:BE:180:ASN:HA	1.99	0.43
29:BF:28:ILE:HD12	29:BF:28:ILE:O	2.18	0.43
31:BH:12:PRO:O	31:BH:13:LYS:HB2	2.19	0.43
32:BK:5:LEU:O	32:BK:6:LEU:HD12	2.18	0.43
32:BK:21:VAL:HG21	32:BK:25:TYR:CD1	2.54	0.43
34:BN:66:LYS:HA	34:BN:79:PHE:O	2.19	0.43
35:BO:61:ARG:NH1	54:B8:14:VAL:HG23	2.34	0.43
39:BR:90:GLN:OE1	39:BR:121:ILE:HD11	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B1:34:LYS:HA	40:B1:34:LYS:HE3	2.01	0.43
41:B2:35:LEU:HD22	41:B2:57:VAL:O	2.19	0.43
45:BV:60:GLU:O	45:BV:61:LEU:O	2.37	0.43
45:BV:80:ARG:O	45:BV:81:ARG:C	2.61	0.43
45:BV:115:GLY:HA3	45:BV:174:VAL:HG13	2.01	0.43
52:B6:30:THR:O	52:B6:30:THR:HG23	2.19	0.43
52:B6:41:PRO:CG	52:B6:44:ARG:HG2	2.48	0.43
54:B8:50:LEU:O	54:B8:52:LYS:HB3	2.18	0.43
1:CA:80:G:H1	1:CA:89:U:H3	1.67	0.43
1:CA:255:G:H1'	17:CT:16:GLN:OE1	2.19	0.43
1:CA:412:A:C2'	1:CA:413:G:OP2	2.67	0.43
1:CA:575:G:C6	1:CA:821:G:N7	2.87	0.43
1:CA:624:C:H4'	16:CS:10:GLY:C	2.44	0.43
1:CA:878:G:H5'	8:CK:89:PRO:HG2	1.99	0.43
1:CA:916:G:H2'	1:CA:916:G:N3	2.34	0.43
1:CA:994:A:N3	1:CA:994:A:H2'	2.34	0.43
1:CA:1060:C:OP1	14:CQ:45:ARG:NH2	2.52	0.43
1:CA:1283:G:O2'	1:CA:1284:C:H5'	2.19	0.43
1:CA:1404:C:H2'	1:CA:1405:G:C8	2.54	0.43
1:CA:1446:A:H62	39:DR:118:ARG:NH2	2.17	0.43
2:CE:69:LEU:HD23	2:CE:69:LEU:C	2.43	0.43
3:CF:13:GLY:HA2	14:CQ:57:ARG:HH21	1.84	0.43
7:CJ:16:LEU:CD1	9:CL:45:ALA:HB2	2.49	0.43
9:CL:43:ALA:HA	9:CL:74:ILE:HG21	2.01	0.43
10:CM:70:ARG:HH11	10:CM:70:ARG:CG	2.32	0.43
11:CN:21:ILE:HB	11:CN:84:VAL:HG12	1.99	0.43
13:CP:16:ASP:HB3	13:CP:41:PRO:HB3	2.00	0.43
14:CQ:27:CYS:O	14:CQ:28:GLY:C	2.62	0.43
15:CR:26:GLU:H	15:CR:26:GLU:HG2	1.50	0.43
17:CT:53:LEU:HD12	17:CT:53:LEU:N	2.34	0.43
22:CD:3:U:H2'	22:CD:4:G:H8	1.82	0.43
25:DA:48:G:C6	25:DA:178:G:O6	2.72	0.43
25:DA:105:C:H2'	25:DA:106:C:C6	2.54	0.43
25:DA:196:A:C4	25:DA:805:G:C6	3.07	0.43
25:DA:279:C:N3	25:DA:361:G:N2	2.62	0.43
25:DA:547:A:H2'	25:DA:548:A:O4'	2.19	0.43
25:DA:646:A:H2'	25:DA:647:G:O4'	2.19	0.43
25:DA:751:A:C6	25:DA:789:A:C5	3.07	0.43
25:DA:773:U:H4'	27:DD:47:GLY:CA	2.49	0.43
25:DA:1301:A:C8	25:DA:1303:G:C8	3.07	0.43
25:DA:1657:C:H2'	25:DA:1658:C:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1915:U:C2'	25:DA:1916:A:H5'	2.49	0.43
25:DA:2092:U:H4'	25:DA:2093:G:O5'	2.18	0.43
25:DA:2094:G:H5'	32:DK:25:TYR:CD2	2.54	0.43
25:DA:2780:G:H4'	25:DA:2781:A:OP2	2.19	0.43
25:DA:2849:U:H4'	25:DA:2868:A:C2	2.54	0.43
27:DD:161:THR:O	27:DD:162:SER:HB3	2.18	0.43
28:DE:174:ASP:OD2	28:DE:175:VAL:N	2.52	0.43
29:DF:9:ILE:HG12	29:DF:15:SER:N	2.34	0.43
30:DG:10:LYS:O	30:DG:14:GLU:HB3	2.19	0.43
31:DH:123:PHE:HE2	31:DH:133:VAL:HG22	1.84	0.43
34:DN:115:VAL:HG12	34:DN:121:VAL:CG2	2.49	0.43
36:DP:41:TRP:HZ3	36:DP:74:TYR:CE1	2.36	0.43
37:D0:48:VAL:O	37:D0:49:ASP:C	2.61	0.43
38:DQ:14:VAL:O	38:DQ:18:ILE:HG13	2.19	0.43
43:DT:18:TYR:HD1	43:DT:21:PHE:CE2	2.37	0.43
45:DV:103:ARG:O	45:DV:104:PHE:HB2	2.19	0.43
1:AA:147:G:C2	1:AA:148:G:C4	3.07	0.42
1:AA:418:C:H2'	1:AA:419:C:C6	2.54	0.42
1:AA:813:U:OP2	1:AA:813:U:H6	2.02	0.42
1:AA:872:A:C2	1:AA:874:G:C6	3.07	0.42
1:AA:1000:A:H4'	25:DA:2137:C:OP1	2.19	0.42
1:AA:1264:C:H2'	1:AA:1265:G:H8	1.84	0.42
1:AA:1277:C:O2'	1:AA:1279:A:H8	1.98	0.42
1:AA:1305:G:C5'	21:AX:4:GLY:HA3	2.48	0.42
2:AE:77:ALA:HB2	2:AE:211:ILE:HG21	2.01	0.42
3:AF:113:ALA:C	3:AF:115:LEU:H	2.27	0.42
4:AG:86:LYS:HD2	4:AG:86:LYS:N	2.34	0.42
5:AH:41:VAL:HG13	5:AH:113:ALA:HB2	2.01	0.42
5:AH:74:GLY:O	5:AH:115:VAL:HA	2.18	0.42
7:AJ:38:LEU:O	7:AJ:42:ILE:HG13	2.18	0.42
12:AO:25:LYS:HE2	12:AO:61:TYR:CE1	2.54	0.42
12:AO:86:ARG:HD3	12:AO:88:LYS:N	2.34	0.42
22:AB:47:U:H2'	22:AB:48:C:O4'	2.19	0.42
25:BA:67:U:C4	25:BA:74:A:N1	2.87	0.42
25:BA:196:A:N3	25:BA:196:A:H2'	2.34	0.42
25:BA:323:G:H5'	29:BF:169:ASN:HD21	1.84	0.42
25:BA:481:G:C2	25:BA:507:A:C4	3.07	0.42
25:BA:908:C:OP1	36:BP:22:LYS:CB	2.62	0.42
25:BA:1511:A:H2'	25:BA:1512:G:O4'	2.19	0.42
25:BA:2474:C:H3'	25:BA:2475:C:H6	1.83	0.42
25:BA:2543:G:H2'	25:BA:2544:G:C8	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2584:U:O2	25:BA:2584:U:O5'	2.37	0.42
25:BA:2741:A:H2'	25:BA:2742:C:O4'	2.19	0.42
27:BD:105:ILE:HA	27:BD:105:ILE:HD12	1.74	0.42
28:BE:26:ILE:HD11	28:BE:198:VAL:HG21	2.01	0.42
28:BE:79:ARG:HA	28:BE:79:ARG:HD3	1.91	0.42
35:BO:38:GLN:HG2	35:BO:45:LEU:HD12	2.01	0.42
35:BO:125:VAL:HB	35:BO:144:GLU:HB3	2.00	0.42
39:BR:24:PRO:O	39:BR:94:ALA:HB2	2.19	0.42
40:B1:66:ASN:HD22	40:B1:66:ASN:C	2.27	0.42
44:BU:20:TYR:CZ	44:BU:42:VAL:HA	2.54	0.42
52:B6:12:GLU:HA	52:B6:23:THR:HB	2.02	0.42
52:B6:13:CYS:H	52:B6:23:THR:HA	1.84	0.42
52:B6:17:LYS:C	52:B6:19:ARG:H	2.27	0.42
1:CA:38:G:N1	1:CA:397:A:C2	2.87	0.42
1:CA:359:U:H2'	1:CA:360:A:H8	1.84	0.42
1:CA:612:C:O2	1:CA:629:G:N2	2.52	0.42
1:CA:686:U:O4	1:CA:703:G:H1'	2.20	0.42
1:CA:1031:G:C6	1:CA:1032:A:N6	2.87	0.42
1:CA:1041:A:C6	1:CA:1042:G:C5	3.07	0.42
1:CA:1084:G:H5'	1:CA:1102:A:OP2	2.19	0.42
1:CA:1094:G:H2'	1:CA:1095:U:OP2	2.18	0.42
1:CA:1095:U:OP1	1:CA:1108:G:N2	2.51	0.42
1:CA:1216:G:O2'	1:CA:1217:C:H5'	2.18	0.42
1:CA:1269:A:H2	1:CA:1312:G:N3	2.17	0.42
13:CP:30:ALA:C	13:CP:32:GLU:H	2.27	0.42
20:CW:97:ALA:HB3	20:CW:99:LEU:HD11	2.01	0.42
22:CD:10:C:H2'	22:CD:11:C:C6	2.54	0.42
25:DA:43:G:H2'	25:DA:44:A:O4'	2.19	0.42
25:DA:320:A:H4'	25:DA:322:A:C8	2.54	0.42
25:DA:459:U:H5"	53:D7:40:TRP:CD2	2.54	0.42
25:DA:522:G:C6	25:DA:523:C:C4	3.08	0.42
25:DA:893:C:C4'	25:DA:894:C:OP1	2.65	0.42
25:DA:1064:C:N4	25:DA:1065:U:O4	2.52	0.42
25:DA:1210:A:H5'	25:DA:1212:G:O4'	2.18	0.42
25:DA:1388:G:H2'	25:DA:1389:G:C8	2.53	0.42
25:DA:1392:A:C6	25:DA:1393:A:C6	3.07	0.42
25:DA:1537:C:O2'	25:DA:1538:G:O4'	2.16	0.42
25:DA:1996:C:OP1	34:DN:31:LYS:HE2	2.18	0.42
25:DA:2103:C:H2'	25:DA:2104:G:C8	2.55	0.42
25:DA:2516:G:C6	25:DA:2517:C:C4	3.07	0.42
25:DA:2833:G:OP1	25:DA:2833:G:H8	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:28:C:OP1	38:DQ:36:TYR:OH	2.31	0.42
26:DB:80:U:O2'	26:DB:81:G:H5"	2.19	0.42
27:DD:35:LYS:HG3	27:DD:64:ILE:HG12	1.99	0.42
28:DE:13:ARG:HA	28:DE:21:VAL:O	2.19	0.42
28:DE:39:PRO:CA	28:DE:43:GLY:HA2	2.34	0.42
28:DE:153:GLY:O	28:DE:154:LYS:C	2.61	0.42
31:DH:118:PRO:HB2	31:DH:119:GLU:H	1.61	0.42
31:DH:121:ILE:HG23	31:DH:133:VAL:CG1	2.49	0.42
35:DO:147:LEU:O	35:DO:148:LEU:HD23	2.19	0.42
38:DQ:42:ASP:C	38:DQ:44:LYS:H	2.25	0.42
40:D1:92:ARG:NH1	40:D1:94:ASN:HD22	2.17	0.42
41:D2:69:LYS:CG	41:D2:86:GLY:HA3	2.41	0.42
52:D6:15:GLU:HB3	52:D6:16:CYS:H	1.41	0.42
1:AA:81:G:C6	1:AA:88:C:N4	2.87	0.42
1:AA:271:C:H2'	1:AA:272:C:H6	1.84	0.42
1:AA:544:G:C6	1:AA:545:C:C4	3.07	0.42
1:AA:827:U:C5	1:AA:872:A:N1	2.87	0.42
1:AA:1061:G:C4	1:AA:1197:G:N2	2.87	0.42
1:AA:1125:U:C5	10:AM:73:ASP:OD1	2.73	0.42
1:AA:1286:A:C5'	21:AX:26:LYS:HG2	2.49	0.42
1:AA:1367:C:H5'	10:AM:60:ARG:NH2	2.34	0.42
1:AA:1490:C:O2'	1:AA:1491:G:H5'	2.19	0.42
2:AE:5:ILE:HG23	2:AE:224:GLN:OE1	2.19	0.42
2:AE:81:VAL:O	2:AE:85:ALA:N	2.46	0.42
3:AF:94:LEU:O	3:AF:95:THR:OG1	2.27	0.42
4:AG:127:THR:HG23	4:AG:131:ARG:O	2.19	0.42
7:AJ:5:ARG:HB3	7:AJ:7:ALA:H	1.84	0.42
12:AO:44:LYS:HE3	12:AO:44:LYS:CA	2.44	0.42
12:AO:72:HIS:CD2	12:AO:74:LEU:H	2.21	0.42
13:AP:82:MET:C	13:AP:84:ILE:N	2.65	0.42
14:AQ:23:ARG:HH11	14:AQ:30:ALA:HB2	1.84	0.42
17:AT:57:VAL:HG12	17:AT:76:LEU:HA	2.01	0.42
22:AD:61:G:H2'	22:AD:62:G:O4'	2.18	0.42
25:BA:228:A:C2'	25:BA:228:A:N3	2.82	0.42
25:BA:350:U:H2'	25:BA:351:G:O4'	2.19	0.42
25:BA:537:C:H2'	25:BA:539:G:C8	2.54	0.42
25:BA:634:C:H2'	25:BA:635:C:H6	1.80	0.42
25:BA:656:G:H2'	25:BA:657:U:O4'	2.19	0.42
25:BA:714:U:O2'	25:BA:716:A:N7	2.41	0.42
25:BA:1045:A:H1'	25:BA:1047:G:C4	2.54	0.42
25:BA:1144:G:H2'	25:BA:1145:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1299:G:H5'	25:BA:1301:A:O4'	2.18	0.42
25:BA:1536:A:C2'	25:BA:1537:C:OP1	2.66	0.42
25:BA:1639:U:H4'	25:BA:2699:C:H4'	2.01	0.42
25:BA:2161:C:C2'	25:BA:2162:G:H5'	2.49	0.42
25:BA:2228:G:C5	25:BA:2229:C:C4	3.07	0.42
25:BA:2270:G:H2'	25:BA:2271:G:H5'	2.01	0.42
25:BA:2656:U:N3	25:BA:2665:A:C2	2.82	0.42
25:BA:2743:C:C2	25:BA:2762:G:N2	2.87	0.42
25:BA:2892:A:H2'	25:BA:2893:G:O4'	2.18	0.42
26:BB:2:C:H2'	26:BB:3:C:H6	1.83	0.42
27:BD:131:LEU:HD12	27:BD:131:LEU:N	2.34	0.42
31:BH:84:SER:OG	31:BH:85:LYS:N	2.51	0.42
34:BN:71:ARG:HH21	34:BN:77:ILE:HG21	1.84	0.42
36:BP:21:THR:OG1	36:BP:101:ARG:HB2	2.19	0.42
37:B0:52:ILE:O	37:B0:53:HIS:C	2.61	0.42
44:BU:95:LYS:HE3	44:BU:99:CYS:O	2.19	0.42
46:B3:46:LYS:NZ	46:B3:75:LEU:O	2.41	0.42
1:CA:32:A:C2	1:CA:33:A:C4	3.07	0.42
1:CA:250:A:C4'	1:CA:251:G:O5'	2.65	0.42
1:CA:1251:A:O2'	1:CA:1252:A:H5'	2.19	0.42
1:CA:1288:A:C6	1:CA:1289:A:C6	3.07	0.42
1:CA:1325:C:OP1	21:CX:15:ARG:HD2	2.18	0.42
1:CA:1350:A:C5	1:CA:1351:U:C5	3.07	0.42
1:CA:1498:U:C1'	1:CA:1499:A:OP2	2.67	0.42
2:CE:7:VAL:HG13	2:CE:8:LYS:CD	2.33	0.42
3:CF:72:LYS:NZ	3:CF:74:GLY:HA3	2.33	0.42
13:CP:15:VAL:HG12	13:CP:45:VAL:HG22	2.01	0.42
14:CQ:12:ARG:HB2	14:CQ:12:ARG:NH1	2.33	0.42
16:CS:55:ARG:NH2	16:CS:58:TYR:HD1	2.17	0.42
25:DA:55:G:C2	25:DA:116:C:C2	3.07	0.42
25:DA:111:A:C2	25:DA:112:U:C2	3.07	0.42
25:DA:725:G:C6	25:DA:726:G:N1	2.88	0.42
25:DA:775:G:C4	25:DA:794:G:C8	3.07	0.42
25:DA:1163:G:H2'	25:DA:1164:G:H8	1.83	0.42
25:DA:1356:G:H2'	25:DA:1357:U:H6	1.84	0.42
25:DA:2170:A:H5"	25:DA:2171:A:P	2.59	0.42
25:DA:2211:G:N3	25:DA:2211:G:C2'	2.82	0.42
25:DA:2354:G:N3	25:DA:2354:G:H2'	2.33	0.42
25:DA:2439:A:C5'	25:DA:2439:A:H8	2.31	0.42
25:DA:2612:C:C5	25:DA:2613:U:H5	2.36	0.42
25:DA:2687:U:C4	25:DA:2688:U:C5	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2739:U:C5	25:DA:2763:G:C5	3.07	0.42
25:DA:2876:G:O5'	39:DR:3:ARG:HA	2.18	0.42
28:DE:105:THR:CG2	28:DE:164:ARG:HE	2.33	0.42
30:DG:161:THR:HG22	30:DG:163:ALA:N	2.25	0.42
30:DG:178:PHE:HB3	30:DG:180:PHE:CE1	2.48	0.42
31:DH:6:ARG:HB2	31:DH:66:GLY:HA2	2.01	0.42
33:DM:35:ARG:HB3	33:DM:42:TRP:CZ3	2.54	0.42
33:DM:131:GLN:NE2	33:DM:132:ALA:H	2.18	0.42
34:DN:68:GLU:OE2	34:DN:78:ARG:NH1	2.52	0.42
38:DQ:29:PHE:CD2	38:DQ:29:PHE:C	2.97	0.42
39:DR:82:LEU:HD12	39:DR:82:LEU:N	2.34	0.42
41:D2:12:TYR:CD2	41:D2:20:LEU:HD21	2.54	0.42
47:DZ:67:ILE:N	47:DZ:68:PRO:CD	2.78	0.42
48:DW:63:VAL:O	48:DW:67:LYS:HG2	2.19	0.42
1:AA:113:G:H2'	1:AA:114:U:C6	2.54	0.42
1:AA:177:C:OP2	20:AW:65:LYS:HE2	2.19	0.42
1:AA:453:A:C5	1:AA:454:C:C4	3.07	0.42
1:AA:526:C:OP2	12:AO:88:LYS:HE3	2.19	0.42
1:AA:543:C:C2'	1:AA:544:G:H5'	2.49	0.42
1:AA:600:C:O2	1:AA:600:C:H2'	2.19	0.42
1:AA:615:C:C2	1:AA:616:G:C8	3.08	0.42
1:AA:1022:G:C2	1:AA:1023:G:C4	3.06	0.42
1:AA:1157:A:H3'	1:AA:1157:A:N3	2.33	0.42
1:AA:1302:U:H3'	1:AA:1303:C:C5'	2.48	0.42
1:AA:1316:G:H22	1:AA:1319:A:P	2.42	0.42
1:AA:1410:G:H2'	1:AA:1411:C:C6	2.53	0.42
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.18	0.42
2:AE:55:PHE:CZ	2:AE:218:ALA:HA	2.54	0.42
2:AE:77:ALA:CB	2:AE:211:ILE:HG21	2.49	0.42
2:AE:142:LEU:HD23	2:AE:142:LEU:C	2.44	0.42
2:AE:200:ILE:HD12	2:AE:200:ILE:N	2.32	0.42
2:AE:229:VAL:CG1	2:AE:230:VAL:N	2.83	0.42
3:AF:33:LEU:O	3:AF:37:GLN:HG2	2.19	0.42
6:AI:9:VAL:C	6:AI:10:LEU:HD12	2.44	0.42
15:AR:7:GLU:O	15:AR:11:VAL:HG23	2.18	0.42
23:AC:13:C:O2'	25:BA:1924:C:H4'	2.19	0.42
25:BA:270(X):G:C6	25:BA:270(Y):G:N1	2.86	0.42
25:BA:733:G:C8	25:BA:761:A:N6	2.88	0.42
25:BA:751:A:C6	25:BA:789:A:C5	3.07	0.42
25:BA:945:A:H4'	25:BA:946:G:OP2	2.19	0.42
25:BA:990:A:OP2	25:BA:991:C:OP2	2.38	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1009:A:H5"	40:B1:63:VAL:CG2	2.48	0.42
25:BA:1130:U:C2'	25:BA:1131:G:OP1	2.67	0.42
25:BA:1705:G:O2'	25:BA:1706:U:H5'	2.19	0.42
25:BA:2104:G:C2	25:BA:2186:G:C2	3.07	0.42
25:BA:2139:C:C2'	25:BA:2140:C:H5'	2.48	0.42
25:BA:2144:U:O2'	25:BA:2145:C:C5	2.71	0.42
25:BA:2600:A:H2'	25:BA:2601:C:C6	2.54	0.42
28:BE:16:ARG:O	28:BE:16:ARG:HG3	2.19	0.42
31:BH:81:GLU:O	31:BH:81:GLU:CD	2.62	0.42
31:BH:151:ILE:O	31:BH:153:LYS:HD2	2.20	0.42
39:BR:94:ALA:O	39:BR:95:ARG:HB3	2.19	0.42
43:BT:50:LYS:H	43:BT:87:GLN:NE2	2.17	0.42
45:BV:6:LYS:N	45:BV:59:LEU:O	2.52	0.42
46:B3:68:GLU:HG3	46:B3:80:HIS:HB2	2.01	0.42
51:B5:20:ARG:O	51:B5:22:HIS:N	2.53	0.42
1:CA:151:A:H2'	1:CA:152:A:O4'	2.19	0.42
1:CA:197:A:H1'	1:CA:198:G:P	2.60	0.42
1:CA:198:G:H2'	1:CA:199:G:C8	2.54	0.42
1:CA:352:C:O2'	1:CA:354:G:OP1	2.34	0.42
1:CA:526:C:P	12:CO:88:LYS:NZ	2.92	0.42
1:CA:745:C:OP1	1:CA:851:G:O2'	2.37	0.42
1:CA:949:A:C2	1:CA:1233:G:N3	2.87	0.42
1:CA:967:C:H5"	1:CA:968:A:OP2	2.19	0.42
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.54	0.42
1:CA:1073:U:H2'	1:CA:1074:G:C8	2.54	0.42
1:CA:1127:G:N1	1:CA:1145:C:N3	2.68	0.42
1:CA:1157:A:N1	1:CA:1180:A:C4	2.87	0.42
3:CF:25:GLY:C	3:CF:27:LYS:N	2.75	0.42
6:CI:3:ARG:HB2	6:CI:93:SER:HB3	2.02	0.42
7:CJ:16:LEU:HD12	9:CL:42:ARG:HA	2.01	0.42
9:CL:79:LEU:CD1	9:CL:83:ARG:HH12	2.31	0.42
25:DA:55:G:H2'	25:DA:56:A:C8	2.54	0.42
25:DA:494:G:H21	42:DS:57:ASN:HD21	1.66	0.42
25:DA:657:U:H2'	25:DA:658:C:C6	2.54	0.42
25:DA:912:C:N3	25:DA:913:U:C5	2.87	0.42
25:DA:942:G:H4'	25:DA:1190:G:H5'	2.00	0.42
25:DA:1013:C:H2'	25:DA:1014:U:C6	2.55	0.42
25:DA:1138:G:O2'	33:DM:102:ALA:O	2.31	0.42
25:DA:1327:C:H2'	25:DA:1328:G:O4'	2.19	0.42
25:DA:1401:G:H2'	25:DA:1402:C:O4'	2.19	0.42
25:DA:1444:G:C2	25:DA:1548:C:N3	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1591:G:O2'	25:DA:1592:C:H5'	2.18	0.42
25:DA:1710:C:O2'	25:DA:1711:C:H5'	2.19	0.42
25:DA:2275:C:H5'	25:DA:2275:C:H6	1.84	0.42
25:DA:2371:G:C2	25:DA:2372:G:C8	3.07	0.42
25:DA:2762:G:C2'	25:DA:2763:G:H5"	2.49	0.42
25:DA:2774:C:H2'	25:DA:2775:A:O4'	2.18	0.42
25:DA:2875:C:HO2'	39:DR:3:ARG:HG3	1.81	0.42
26:DB:89:G:C8	26:DB:89:G:OP2	2.72	0.42
27:DD:34:VAL:C	27:DD:35:LYS:CG	2.91	0.42
28:DE:93:VAL:C	28:DE:95:ILE:N	2.76	0.42
28:DE:93:VAL:O	28:DE:95:ILE:N	2.52	0.42
29:DF:170:LEU:HA	29:DF:171:PRO:HD3	1.85	0.42
30:DG:44:GLY:HA2	30:DG:88:ILE:CD1	2.47	0.42
30:DG:130:ASN:OD1	30:DG:160:VAL:HA	2.18	0.42
32:DK:75:LEU:HD22	32:DK:77:LEU:HB2	2.00	0.42
35:DO:46:LYS:CG	35:DO:51:PHE:CG	3.02	0.42
43:DT:57:LEU:HD21	43:DT:78:LYS:HG2	2.00	0.42
44:DU:53:PRO:HB2	44:DU:54:LYS:H	1.71	0.42
50:D4:49:PHE:C	50:D4:51:ASP:H	2.27	0.42
1:AA:368:U:P	32:DK:91:SER:OG	2.78	0.42
1:AA:1347:G:O2'	1:AA:1348:U:P	2.78	0.42
3:AF:19:GLU:O	3:AF:40:ARG:NH2	2.52	0.42
3:AF:173:VAL:N	3:AF:174:PRO:HD3	2.34	0.42
16:AS:39:TYR:CD1	16:AS:40:ASP:N	2.87	0.42
17:AT:45:HIS:CD2	17:AT:47:PRO:HD3	2.54	0.42
22:AD:16:C:H3'	22:AD:69:U:O2	2.19	0.42
22:AD:17:G:N1	22:AD:67:A:C6	2.87	0.42
25:BA:39:C:H2'	25:BA:40:C:C6	2.54	0.42
25:BA:78:A:H2'	25:BA:79:G:H8	1.85	0.42
25:BA:751:A:C5'	42:BS:90:ARG:HA	2.48	0.42
25:BA:1021:A:OP2	33:BM:65:LYS:NZ	2.41	0.42
25:BA:1105:U:H2'	25:BA:1106:G:H8	1.81	0.42
25:BA:1577:C:H2'	25:BA:1578:U:C1'	2.50	0.42
25:BA:1592:C:H2'	25:BA:1593:G:C8	2.55	0.42
25:BA:2746:U:O4	25:BA:2755:C:H4'	2.19	0.42
26:BB:15:A:H1'	26:BB:109:G:N9	2.35	0.42
27:BD:31:LYS:HE3	27:BD:102:LYS:HD2	2.01	0.42
27:BD:168:ARG:HA	27:BD:173:VAL:HA	2.01	0.42
28:BE:111:ARG:H	28:BE:111:ARG:HG2	1.73	0.42
32:BK:73:GLU:CG	32:BK:136:VAL:HG23	2.44	0.42
33:BM:55:VAL:O	33:BM:56:ASN:C	2.61	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B1:74:LEU:HD12	40:B1:74:LEU:N	2.34	0.42
45:BV:161:VAL:HB	45:BV:162:GLU:H	1.55	0.42
47:BZ:92:LYS:HE2	47:BZ:92:LYS:HB3	1.85	0.42
48:BW:9:GLN:HE21	48:BW:9:GLN:HB3	1.64	0.42
51:B5:33:CYS:HB2	51:B5:40:LYS:CD	2.35	0.42
52:B6:51:GLU:HG2	52:B6:52:VAL:N	2.33	0.42
54:B8:23:VAL:HG13	54:B8:46:ARG:HB3	2.01	0.42
1:CA:11:G:C6	1:CA:12:U:C4	3.07	0.42
1:CA:413:G:O2'	1:CA:428:G:N2	2.53	0.42
1:CA:539:A:H2'	1:CA:540:G:C8	2.54	0.42
1:CA:555:C:H2'	1:CA:556:C:C6	2.54	0.42
1:CA:1238:A:C8	1:CA:1303:C:H1'	2.55	0.42
3:CF:62:ASP:O	3:CF:97:LYS:HB2	2.19	0.42
3:CF:70:VAL:HG12	3:CF:71:ALA:N	2.35	0.42
4:CG:168:ARG:HD3	4:CG:168:ARG:HA	1.80	0.42
7:CJ:114:ARG:H	7:CJ:114:ARG:HG2	1.61	0.42
9:CL:72:GLY:C	9:CL:74:ILE:H	2.27	0.42
17:CT:17:LYS:NZ	17:CT:47:PRO:O	2.52	0.42
22:CB:55:U:O2	22:CB:55:U:O4'	2.36	0.42
23:CC:48:U:C2'	23:CC:49:C:OP2	2.66	0.42
25:DA:425:G:N2	25:DA:426:C:C2	2.88	0.42
25:DA:1000:A:N1	25:DA:1155:A:C4	2.87	0.42
25:DA:1062:G:C8	25:DA:1088:A:H2'	2.55	0.42
25:DA:1992:G:C1'	25:DA:1993:U:OP2	2.67	0.42
25:DA:2111:C:H41	25:DA:2147:G:N2	2.18	0.42
25:DA:2274:A:C2	25:DA:2276:G:H1'	2.54	0.42
25:DA:2516:G:C5	25:DA:2517:C:C4	3.07	0.42
25:DA:2540:C:N4	25:DA:2541:A:C6	2.87	0.42
25:DA:2787:C:H2'	25:DA:2787:C:O2	2.18	0.42
26:DB:54:G:C2	26:DB:55:U:C6	3.07	0.42
28:DE:27:LEU:HD13	28:DE:27:LEU:C	2.45	0.42
28:DE:61:ARG:HB3	28:DE:62:PRO:CD	2.49	0.42
28:DE:120:TRP:CD2	28:DE:155:LYS:HD3	2.54	0.42
31:DH:2:SER:O	31:DH:3:ARG:C	2.61	0.42
33:DM:72:TYR:HE1	33:DM:101:HIS:HD2	1.67	0.42
33:DM:131:GLN:HE21	33:DM:131:GLN:HB3	1.49	0.42
35:DO:15:ARG:C	35:DO:16:ARG:O	2.63	0.42
35:DO:114:ILE:CG2	35:DO:130:PHE:CD1	3.02	0.42
36:DP:41:TRP:HZ3	36:DP:74:TYR:HE1	1.66	0.42
42:DS:20:VAL:CG2	42:DS:47:VAL:HG21	2.49	0.42
44:DU:81:LYS:HB3	44:DU:97:ARG:HD2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DV:145:GLU:HA	45:DV:174:VAL:HG12	2.01	0.42
47:DZ:78:LYS:O	47:DZ:79:GLY:C	2.62	0.42
49:DX:11:SER:HA	49:DX:12:PRO:HD3	1.76	0.42
50:D4:48:ARG:HH12	50:D4:51:ASP:HA	1.84	0.42
1:AA:99:C:H2'	1:AA:101:A:O4'	2.19	0.42
1:AA:942:G:H21	9:AL:124:GLN:NE2	2.16	0.42
1:AA:1170:A:H8	1:AA:1170:A:O5'	2.02	0.42
1:AA:1202:G:C2	14:AQ:42:ILE:HG21	2.54	0.42
1:AA:1527:C:C4	1:AA:1528:U:O4	2.72	0.42
2:AE:97:TRP:HZ2	2:AE:102:LEU:HD13	1.84	0.42
2:AE:119:GLU:C	2:AE:121:LEU:H	2.26	0.42
2:AE:174:VAL:O	2:AE:178:ARG:HB2	2.20	0.42
3:AF:95:THR:HG23	3:AF:97:LYS:HE2	2.01	0.42
4:AG:154:ASN:O	4:AG:155:LEU:O	2.37	0.42
5:AH:42:GLY:HA3	5:AH:66:MET:CE	2.38	0.42
5:AH:144:THR:C	5:AH:146:ALA:N	2.77	0.42
10:AM:55:LYS:O	10:AM:56:HIS:CG	2.72	0.42
18:AU:40:LEU:C	18:AU:42:ARG:N	2.75	0.42
21:AX:25:LYS:HA	21:AX:25:LYS:HD2	1.71	0.42
22:AB:5:G:N1	22:AB:78:C:N4	2.65	0.42
22:AB:66:G:C2'	22:AB:67:A:H5'	2.49	0.42
24:A1:11:U:O2'	24:A1:12:A:C4	2.67	0.42
25:BA:150:C:H2'	25:BA:151:C:H6	1.83	0.42
25:BA:443:A:N7	29:BF:45:ARG:HG3	2.34	0.42
25:BA:493:G:H2'	25:BA:494:G:O4'	2.19	0.42
25:BA:511:U:O4	25:BA:512:G:C6	2.72	0.42
25:BA:528:A:H2	25:BA:2043:C:H5'	1.84	0.42
25:BA:622:G:OP2	35:BO:108:LYS:HD2	2.19	0.42
25:BA:699:A:H2'	25:BA:700:G:O4'	2.19	0.42
25:BA:811:U:H2'	35:BO:21:ARG:C	2.44	0.42
25:BA:1012:U:O4	33:BM:25:ARG:HA	2.19	0.42
25:BA:1264:G:H2'	25:BA:1265:A:OP1	2.18	0.42
25:BA:1493:C:N3	25:BA:2210:G:H1'	2.34	0.42
25:BA:2086:U:OP1	27:BD:262:ARG:NH1	2.53	0.42
25:BA:2154:G:H2'	25:BA:2155:G:H8	1.84	0.42
25:BA:2186:G:O2'	25:BA:2187:G:H5'	2.19	0.42
25:BA:2318:G:N2	38:BQ:2:ALA:N	2.65	0.42
25:BA:2331:G:H4'	46:B3:43:THR:H	1.85	0.42
25:BA:2334:G:H4'	25:BA:2335:A:OP2	2.19	0.42
25:BA:2378:A:H4'	38:BQ:23:ARG:NH1	2.34	0.42
25:BA:2415:G:H4'	35:BO:67:MET:N	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2543:G:H2'	25:BA:2544:G:O4'	2.19	0.42
25:BA:2648:C:H2'	25:BA:2649:U:H6	1.85	0.42
26:BB:29:A:C2	26:BB:30:C:C2	3.07	0.42
30:BG:5:VAL:HG11	30:BG:100:TRP:HB3	2.01	0.42
30:BG:109:VAL:O	30:BG:113:ARG:HG3	2.19	0.42
35:BO:130:PHE:CZ	35:BO:144:GLU:HB2	2.54	0.42
37:B0:18:LEU:HD11	37:B0:22:ARG:NH1	2.34	0.42
38:BQ:35:ILE:C	38:BQ:36:TYR:HD1	2.27	0.42
39:BR:27:THR:CG2	39:BR:90:GLN:HB3	2.47	0.42
42:BS:95:ILE:O	42:BS:95:ILE:HG13	2.19	0.42
43:BT:5:TYR:CE2	48:BW:30:ARG:HG3	2.54	0.42
43:BT:34:ALA:HA	43:BT:38:GLU:OE1	2.19	0.42
44:BU:20:TYR:CD1	44:BU:20:TYR:N	2.87	0.42
44:BU:96:ILE:C	44:BU:98:VAL:H	2.27	0.42
51:B5:4:HIS:CD2	51:B5:5:PRO:HD3	2.50	0.42
1:CA:129(A):G:N2	1:CA:188:U:O2'	2.53	0.42
1:CA:353:A:C2'	1:CA:354:G:OP2	2.66	0.42
1:CA:411:A:N7	1:CA:413:G:N3	2.68	0.42
1:CA:631:G:HO2'	1:CA:632:A:P	2.41	0.42
1:CA:741:G:H2'	1:CA:742:G:O4'	2.20	0.42
1:CA:983:A:H1'	1:CA:1049:U:O2	2.20	0.42
1:CA:1151:A:C1'	10:CM:39:PRO:HB2	2.48	0.42
1:CA:1423:G:C5'	34:DN:49:ARG:HH22	2.31	0.42
4:CG:189:PRO:HB2	4:CG:194:LEU:HD21	2.00	0.42
6:CI:97:PHE:O	18:CU:31:LEU:HD23	2.19	0.42
15:CR:21:ASP:CG	15:CR:24:SER:HB2	2.44	0.42
22:CB:62:G:H4'	36:DP:56:ARG:CZ	2.50	0.42
24:C1:12:A:C1'	24:C1:13:A:OP1	2.61	0.42
25:DA:85:G:C5	25:DA:98:G:C2	3.08	0.42
25:DA:95:G:O2'	48:DW:46:GLN:O	2.33	0.42
25:DA:654(S):G:H1'	25:DA:654(T):A:N7	2.34	0.42
25:DA:810:U:O5'	25:DA:810:U:H6	2.02	0.42
25:DA:1055:G:O6	25:DA:1104:C:N3	2.53	0.42
25:DA:1071:G:H1'	25:DA:1089:G:H3'	2.02	0.42
25:DA:1607:C:H4'	25:DA:1608:A:O5'	2.19	0.42
25:DA:2136:C:C4	25:DA:2155:G:N1	2.81	0.42
25:DA:2191:G:C4	25:DA:2192:G:C8	3.06	0.42
25:DA:2409:G:H2'	25:DA:2410:G:O4'	2.20	0.42
25:DA:2748:A:N7	25:DA:2754:U:C4	2.85	0.42
31:DH:12:PRO:O	31:DH:15:VAL:HG22	2.20	0.42
31:DH:30:LYS:HB3	31:DH:79:VAL:HA	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DK:92:VAL:HB	32:DK:120:ILE:HB	2.00	0.42
34:DN:52:VAL:C	34:DN:53:LYS:HD2	2.43	0.42
40:D1:98:LEU:HA	40:D1:100:VAL:O	2.20	0.42
40:D1:100:VAL:C	40:D1:102:GLU:N	2.76	0.42
43:DT:15:GLU:H	43:DT:15:GLU:CD	2.28	0.42
45:DV:14:LYS:H	45:DV:14:LYS:HE2	1.85	0.42
50:D4:35:VAL:HG12	50:D4:35:VAL:O	2.19	0.42
52:D6:48:VAL:HG13	52:D6:49:HIS:N	2.34	0.42
1:AA:189:U:C2	17:AT:72:ARG:NH1	2.88	0.42
1:AA:390:C:H4'	16:AS:28:ARG:HH21	1.84	0.42
1:AA:414:A:OP2	1:AA:428:G:N2	2.35	0.42
1:AA:658:G:C2	1:AA:749:C:N3	2.87	0.42
1:AA:765:G:C6	1:AA:812:C:C2	3.08	0.42
1:AA:1157:A:OP1	1:AA:1157:A:O4'	2.37	0.42
3:AF:12:LEU:C	3:AF:14:ILE:N	2.78	0.42
9:AL:59:PHE:HZ	9:AL:88:TYR:CD1	2.37	0.42
16:AS:23:ASP:OD1	16:AS:25:ARG:HG3	2.19	0.42
18:AU:56:THR:O	18:AU:58:LEU:HD12	2.19	0.42
22:AD:46:G:C4	22:AD:55:U:O4	2.73	0.42
25:BA:271(B):G:H4'	25:BA:271(C):U:H5'	2.01	0.42
25:BA:299:A:C5'	25:BA:300:A:OP2	2.68	0.42
25:BA:826:U:H2'	25:BA:828:U:O4'	2.20	0.42
25:BA:1060:U:O2'	25:BA:1061:U:OP2	2.34	0.42
25:BA:1312:U:H4'	25:BA:1313:U:O5'	2.20	0.42
25:BA:1319:G:O2'	25:BA:1320:C:H5'	2.19	0.42
25:BA:2015:A:C2	51:B5:2:ALA:N	2.88	0.42
25:BA:2060:A:O2'	25:BA:2061:G:P	2.76	0.42
25:BA:2095:C:C4	25:BA:2096:U:C5	3.08	0.42
25:BA:2156:G:H5"	25:BA:2157:G:P	2.59	0.42
25:BA:2219:G:H2'	25:BA:2224:G:C5'	2.48	0.42
25:BA:2693:A:H2'	25:BA:2694:G:H8	1.84	0.42
28:BE:119:ARG:HD2	28:BE:160:TYR:CD2	2.54	0.42
29:BF:23:ASP:O	29:BF:24:LEU:O	2.38	0.42
30:BG:10:LYS:O	30:BG:14:GLU:HB3	2.20	0.42
31:BH:10:PRO:HG2	31:BH:50:VAL:O	2.19	0.42
44:BU:42:VAL:CG1	44:BU:65:ALA:HB3	2.48	0.42
44:BU:96:ILE:HG22	44:BU:101:LYS:CE	2.47	0.42
44:BU:101:LYS:HB3	44:BU:101:LYS:HZ2	1.84	0.42
48:BW:46:GLN:HA	48:BW:46:GLN:OE1	2.19	0.42
50:B4:12:ALA:HB3	50:B4:24:THR:HB	2.01	0.42
50:B4:63:TYR:HA	50:B4:66:SER:OG	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:B5:46:CYS:HA	51:B5:47:PRO:HD2	1.69	0.42
54:B8:17:THR:OG1	54:B8:21:LYS:HB2	2.19	0.42
1:CA:49:U:C2	1:CA:361:G:N2	2.87	0.42
1:CA:63:C:H4'	1:CA:380:G:H4'	2.02	0.42
1:CA:64:G:H1'	1:CA:65:U:OP2	2.20	0.42
1:CA:166:G:O2'	1:CA:167:G:H5'	2.19	0.42
1:CA:245:C:O2	1:CA:283:C:N3	2.51	0.42
1:CA:1109:C:H2'	1:CA:1110:A:O4'	2.20	0.42
1:CA:1320:C:H2'	1:CA:1321:C:C6	2.55	0.42
2:CE:161:ALA:HB1	2:CE:185:ILE:CD1	2.50	0.42
11:CN:21:ILE:HD12	11:CN:95:ILE:HD13	2.02	0.42
14:CQ:23:ARG:O	14:CQ:25:VAL:N	2.53	0.42
14:CQ:29:ARG:O	14:CQ:30:ALA:HB2	2.19	0.42
14:CQ:53:LEU:HD23	14:CQ:53:LEU:HA	1.89	0.42
17:CT:59:ILE:HG22	17:CT:71:PHE:HD1	1.84	0.42
20:CW:44:ALA:C	20:CW:46:GLU:N	2.75	0.42
25:DA:138:G:N2	43:DT:44:GLU:OE2	2.52	0.42
25:DA:893:C:HO2'	25:DA:894:C:H5	1.63	0.42
25:DA:1011:G:OP1	40:D1:75:ASN:HB3	2.20	0.42
25:DA:1037:G:N2	25:DA:1119:C:C2	2.87	0.42
25:DA:1070:A:C8	25:DA:1096:A:O2'	2.71	0.42
25:DA:1408:C:C2	25:DA:1595:G:N2	2.87	0.42
25:DA:2077:A:H2'	25:DA:2078:C:H6	1.85	0.42
25:DA:2113:U:C5	25:DA:2114:A:H1'	2.54	0.42
25:DA:2302:G:C6	25:DA:2315:G:C6	3.08	0.42
25:DA:2469:A:H5"	25:DA:2476:A:H2	1.84	0.42
25:DA:2850:A:H3'	25:DA:2851:A:H8	1.85	0.42
28:DE:25:VAL:HG12	28:DE:26:ILE:N	2.34	0.42
28:DE:62:PRO:C	28:DE:64:LYS:N	2.76	0.42
29:DF:74:ARG:O	29:DF:74:ARG:HG2	2.19	0.42
29:DF:187:VAL:HG13	35:DO:1:MET:O	2.19	0.42
31:DH:86:GLU:OE2	31:DH:165:ALA:N	2.52	0.42
32:DK:1:MET:HB3	32:DK:21:VAL:O	2.19	0.42
36:DP:38:GLU:HB2	36:DP:127:ILE:CG2	2.49	0.42
1:AA:114:U:H2'	1:AA:115:G:C8	2.54	0.42
1:AA:913:A:H4'	1:AA:914:A:O5'	2.19	0.42
1:AA:1009:G:C2	1:AA:1021:G:C2	3.07	0.42
1:AA:1298:C:P	7:AJ:114:ARG:HH22	2.41	0.42
3:AF:138:VAL:HG13	3:AF:149:ALA:HB3	2.00	0.42
4:AG:12:CYS:HA	4:AG:19:LEU:HD21	1.98	0.42
4:AG:173:TRP:CE2	4:AG:189:PRO:HG3	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AH:71:LEU:CD1	5:AH:114:GLY:HA3	2.48	0.42
7:AJ:44:TYR:O	7:AJ:45:ASP:C	2.63	0.42
8:AK:118:VAL:O	8:AK:119:LEU:HD23	2.19	0.42
15:AR:66:LEU:O	15:AR:69:TYR:HB3	2.20	0.42
16:AS:83:GLU:HB3	16:AS:84:ALA:H	1.68	0.42
19:AV:28:LYS:HA	19:AV:47:HIS:HE1	1.84	0.42
20:AW:35:THR:HA	20:AW:38:LYS:HD3	2.00	0.42
22:AB:30:A:H2'	22:AB:30:A:N3	2.34	0.42
22:AD:38:MIA:H162	22:AD:38:MIA:H122	1.89	0.42
25:BA:273(D):C:H2'	25:BA:273(E):U:C6	2.54	0.42
25:BA:299:A:H5'	25:BA:300:A:OP2	2.20	0.42
25:BA:507:A:C5'	25:BA:508:G:H5'	2.50	0.42
25:BA:880:G:C2	25:BA:881:G:C8	3.07	0.42
25:BA:1359:A:H5'	25:BA:1359:A:N3	2.35	0.42
25:BA:1582:C:HO2'	25:BA:1586:A:H8	1.56	0.42
25:BA:1872:A:H5"	25:BA:1878:G:OP2	2.19	0.42
25:BA:2114:A:C6	25:BA:2115:G:C6	3.08	0.42
25:BA:2127:G:N1	25:BA:2161:C:O2	2.45	0.42
25:BA:2211:G:H3'	25:BA:2212:A:C2	2.55	0.42
25:BA:2286:A:C8	52:B6:37:ARG:NH1	2.88	0.42
25:BA:2807:G:C2'	25:BA:2808:U:H5"	2.49	0.42
29:BF:34:TRP:NE1	35:BO:8:PRO:HD3	2.35	0.42
31:BH:80:SER:C	31:BH:81:GLU:HG3	2.44	0.42
31:BH:105:LEU:HD23	31:BH:113:VAL:O	2.20	0.42
32:BK:144:VAL:C	32:BK:145:VAL:HG13	2.44	0.42
35:BO:138:LEU:CD1	35:BO:144:GLU:HG3	2.48	0.42
42:BS:45:TYR:CZ	42:BS:49:LYS:HD2	2.55	0.42
44:BU:35:TYR:CD1	44:BU:69:ALA:HB3	2.54	0.42
47:BZ:91:LYS:HA	47:BZ:91:LYS:NZ	2.32	0.42
48:BW:21:LEU:HD13	48:BW:64:LEU:HA	2.01	0.42
50:B4:1:MET:SD	50:B4:6:HIS:NE2	2.92	0.42
52:B6:24:GLU:O	54:B8:34:TRP:HD1	1.97	0.42
1:CA:152:A:N6	1:CA:170:U:C2	2.88	0.42
1:CA:485:G:HO2'	1:CA:486:U:H6	1.59	0.42
1:CA:828:A:H5"	1:CA:859:A:C2	2.54	0.42
1:CA:1200:C:H5'	1:CA:1201:A:H5"	1.99	0.42
2:CE:216:SER:C	2:CE:218:ALA:H	2.28	0.42
3:CF:141:VAL:HG12	3:CF:141:VAL:O	2.20	0.42
6:CI:42:GLU:C	6:CI:44:GLY:H	2.28	0.42
9:CL:18:PHE:HB2	9:CL:62:TYR:HB3	2.01	0.42
14:CQ:44:LEU:HD12	14:CQ:44:LEU:C	2.44	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CU:61:LYS:O	18:CU:65:ILE:HG13	2.20	0.42
19:CV:49:ILE:O	19:CV:60:VAL:N	2.47	0.42
22:CD:21:A:N1	22:CD:55:U:O4	2.52	0.42
25:DA:49:A:H5"	25:DA:51:G:O4'	2.19	0.42
25:DA:139:G:N3	25:DA:141:A:N1	2.68	0.42
25:DA:275:G:H8	25:DA:275:G:OP2	2.02	0.42
25:DA:608:A:H2'	25:DA:609:A:C8	2.55	0.42
25:DA:637:A:H4'	25:DA:638:G:O5'	2.19	0.42
25:DA:1221:C:H2'	25:DA:1222:C:C6	2.54	0.42
25:DA:1225:C:HO2'	41:D2:85:LYS:HB2	1.85	0.42
25:DA:1268:A:C2	25:DA:2013:A:C4	3.08	0.42
25:DA:2286:A:C5'	52:D6:28:ARG:HH22	2.27	0.42
25:DA:2320:A:O2'	25:DA:2321:G:C4	2.73	0.42
25:DA:2415:G:C5	25:DA:2416:C:C4	3.08	0.42
25:DA:2564:A:C2	25:DA:2647:U:H4'	2.55	0.42
26:DB:61:G:C6	26:DB:62:C:C4	3.07	0.42
30:DG:129:GLY:O	30:DG:161:THR:HB	2.20	0.42
31:DH:27:LYS:HD2	31:DH:28:GLY:H	1.85	0.42
31:DH:149:ARG:HG3	31:DH:162:ILE:O	2.19	0.42
32:DK:80:PRO:HB2	32:DK:146:ALA:HB3	2.02	0.42
35:DO:107:LYS:HD2	35:DO:107:LYS:HA	1.94	0.42
36:DP:132:VAL:CG2	36:DP:133:ARG:N	2.83	0.42
38:DQ:46:VAL:HG12	38:DQ:48:LEU:HD12	2.01	0.42
44:DU:39:VAL:C	44:DU:40:GLU:OE2	2.62	0.42
44:DU:76:CYS:O	44:DU:77:PRO:C	2.63	0.42
44:DU:95:LYS:NZ	44:DU:95:LYS:HB2	2.34	0.42
46:D3:36:ILE:HD13	46:D3:36:ILE:N	2.35	0.42
48:DW:38:GLN:HG2	48:DW:44:LEU:HB3	2.02	0.42
1:AA:129(A):G:N3	1:AA:190:G:H5'	2.34	0.42
1:AA:350:G:C6	1:AA:351:G:O6	2.73	0.42
1:AA:475:G:H2'	1:AA:476:G:H8	1.84	0.42
1:AA:484:G:O2'	1:AA:485:G:OP2	2.22	0.42
1:AA:486:U:H2'	1:AA:487:A:H8	1.81	0.42
1:AA:806:C:O2'	1:AA:807:A:H5'	2.20	0.42
1:AA:864:A:H2'	1:AA:865:A:C8	2.55	0.42
1:AA:926:G:C6	1:AA:1505:G:C6	3.08	0.42
1:AA:950:U:OP2	13:AP:102:ARG:HD2	2.20	0.42
2:AE:71:VAL:CG2	2:AE:164:VAL:HG22	2.49	0.42
2:AE:158:LEU:HD22	2:AE:182:ILE:HD11	2.02	0.42
4:AG:170:VAL:HG12	4:AG:171:GLY:N	2.34	0.42
5:AH:78:HIS:HE1	5:AH:143:ARG:H	1.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AI:4:TYR:CD1	6:AI:92:LYS:HA	2.54	0.42
6:AI:44:GLY:HA2	6:AI:59:TYR:CZ	2.54	0.42
7:AJ:121:ALA:O	7:AJ:125:MET:HG3	2.19	0.42
12:AO:80:VAL:HG11	12:AO:97:ILE:HD12	2.02	0.42
17:AT:66:SER:O	17:AT:67:LYS:C	2.61	0.42
20:AW:57:ARG:HD3	20:AW:102:GLY:O	2.20	0.42
22:AD:46:G:C2	22:AD:55:U:C4	3.07	0.42
25:BA:128:C:H2'	25:BA:129:C:C6	2.55	0.42
25:BA:141:A:H1'	25:BA:1408:C:O4'	2.19	0.42
25:BA:143:C:H2'	25:BA:144:C:H6	1.84	0.42
25:BA:862:G:H2'	25:BA:863:A:O4'	2.20	0.42
25:BA:943:U:OP1	35:BO:34:GLY:O	2.38	0.42
25:BA:945:A:N6	25:BA:2448:A:C4	2.88	0.42
25:BA:950:G:H2'	25:BA:951:C:C6	2.55	0.42
25:BA:1411:C:H2'	25:BA:1412:A:O4'	2.20	0.42
25:BA:1621:U:H5"	25:BA:1622:G:OP1	2.20	0.42
25:BA:2015:A:C2	51:B5:6:VAL:HG23	2.55	0.42
25:BA:2367:G:H2'	25:BA:2368:C:C6	2.55	0.42
25:BA:2732:G:H3'	25:BA:2733:A:O4'	2.20	0.42
25:BA:2789:C:C2'	25:BA:2790:A:H5"	2.50	0.42
26:BB:89:G:C6	26:BB:89(A):A:C6	3.08	0.42
27:BD:33:LEU:O	27:BD:35:LYS:N	2.53	0.42
28:BE:111:ARG:HA	37:B0:1:MET:HG3	2.02	0.42
28:BE:116:VAL:HG13	28:BE:122:PHE:CD2	2.55	0.42
29:BF:170:LEU:HA	29:BF:171:PRO:HD3	1.84	0.42
30:BG:11:TYR:HA	30:BG:15:VAL:HB	2.01	0.42
30:BG:63:ILE:HD12	30:BG:141:PHE:CG	2.54	0.42
30:BG:135:LEU:O	30:BG:154:GLY:HA3	2.20	0.42
30:BG:182:LYS:HA	30:BG:182:LYS:HD3	1.79	0.42
33:BM:103:VAL:O	33:BM:106:MET:N	2.46	0.42
42:BS:29:LEU:O	42:BS:33:ARG:HG3	2.18	0.42
44:BU:65:ALA:HA	44:BU:66:PRO:HD3	1.96	0.42
45:BV:80:ARG:HD3	45:BV:82:ARG:NH1	2.34	0.42
45:BV:89:PHE:HE1	45:BV:96:VAL:HG21	1.82	0.42
48:BW:17:SER:HB2	48:BW:18:PRO:HA	2.01	0.42
51:B5:39:MET:C	51:B5:40:LYS:HD2	2.44	0.42
1:CA:29:G:O2'	1:CA:30:U:H5'	2.20	0.42
1:CA:294:U:OP1	1:CA:610:G:O2'	2.24	0.42
1:CA:412:A:N6	4:CG:35:ARG:HG3	2.35	0.42
1:CA:427:U:H3'	1:CA:428:G:H2'	2.01	0.42
1:CA:1054:C:C4	1:CA:1196:U:C4	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1056:U:OP1	3:CF:163:ALA:N	2.53	0.42
1:CA:1151:A:HO2'	10:CM:70:ARG:NH2	2.15	0.42
1:CA:1352:C:O2	1:CA:1371:G:C2	2.73	0.42
2:CE:142:LEU:HD21	2:CE:146:GLN:CD	2.45	0.42
2:CE:169:LYS:O	2:CE:169:LYS:HD3	2.19	0.42
9:CL:53:VAL:C	9:CL:55:ALA:H	2.28	0.42
10:CM:89:ASP:C	10:CM:91:PRO:HD3	2.45	0.42
13:CP:83:ASP:OD2	13:CP:83:ASP:N	2.52	0.42
23:CC:53:G:O2'	23:CC:54:G:H5'	2.20	0.42
25:DA:85:G:C6	25:DA:98:G:C6	3.08	0.42
25:DA:303:U:C2	25:DA:304:G:C8	3.07	0.42
25:DA:411:G:C2	35:DO:71:VAL:CG2	3.02	0.42
25:DA:746:A:H2'	25:DA:2612:C:H5"	2.01	0.42
25:DA:817:C:O2'	25:DA:839:U:H5"	2.20	0.42
25:DA:857:C:N4	25:DA:858:U:O4	2.52	0.42
25:DA:916:G:C2'	25:DA:917:A:H5"	2.50	0.42
25:DA:1025:G:C5	25:DA:1135:C:H1'	2.55	0.42
25:DA:1438:U:O2'	25:DA:1439:A:H5'	2.20	0.42
25:DA:1671:U:O2'	25:DA:1673:U:H5	2.01	0.42
25:DA:2032:G:H21	28:DE:146:THR:CG2	2.24	0.42
25:DA:2157:G:O2'	25:DA:2158:A:H8	2.01	0.42
25:DA:2522:U:O2'	25:DA:2647:U:H5"	2.20	0.42
25:DA:2795:G:H1'	25:DA:2802:G:N2	2.35	0.42
25:DA:2852:G:C2	25:DA:2853:C:C2	3.08	0.42
25:DA:2854:G:N2	25:DA:2864:G:N3	2.68	0.42
27:DD:35:LYS:HE2	27:DD:104:TYR:HB2	2.00	0.42
28:DE:13:ARG:HD2	28:DE:20:ALA:HB1	2.02	0.42
28:DE:199:ARG:HG2	28:DE:200:GLU:N	2.34	0.42
31:DH:152:ARG:O	31:DH:153:LYS:C	2.62	0.42
32:DK:52:ARG:HA	32:DK:55:ALA:HB3	2.01	0.42
32:DK:110:ASP:HA	32:DK:111:PRO:HD3	1.92	0.42
35:DO:147:LEU:CD2	35:DO:148:LEU:H	2.33	0.42
40:D1:58:ARG:HG2	40:D1:62:ILE:CD1	2.49	0.42
44:DU:91:GLU:CD	44:DU:92:ASN:H	2.28	0.42
45:DV:128:VAL:HG13	45:DV:129:SER:N	2.35	0.42
52:D6:11:LEU:HG	52:D6:53:LYS:O	2.18	0.42
1:AA:118:U:C5	1:AA:288:A:C6	3.08	0.42
1:AA:746:A:C5	1:AA:747:C:C5	3.08	0.42
1:AA:812:C:H6	1:AA:812:C:H2'	1.70	0.42
1:AA:943:U:C2'	1:AA:944:G:H5'	2.50	0.42
1:AA:1004:A:O4'	1:AA:1036:G:O6	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1288:A:N1	1:AA:1371:G:H1'	2.35	0.42
1:AA:1331:G:O2'	1:AA:1332:A:C8	2.63	0.42
3:AF:3:ASN:OD1	3:AF:3:ASN:N	2.52	0.42
4:AG:25:ARG:NH1	4:AG:30:LYS:O	2.53	0.42
10:AM:54:PHE:CE1	10:AM:55:LYS:HE3	2.55	0.42
12:AO:57:LEU:HB2	12:AO:61:TYR:HB2	2.01	0.42
13:AP:32:GLU:OE2	13:AP:33:ALA:N	2.52	0.42
17:AT:29:HIS:CG	17:AT:30:PRO:HD2	2.55	0.42
18:AU:21:LYS:O	18:AU:23:LYS:N	2.50	0.42
18:AU:45:SER:HB3	18:AU:51:LEU:HD21	2.02	0.42
22:AB:13:G:H2'	22:AB:14:A:H8	1.85	0.42
22:AB:51:C:OP2	22:AB:51:C:H6	2.02	0.42
23:AC:48:U:HO2'	23:AC:49:C:P	2.27	0.42
25:BA:33:U:H4'	25:BA:34:C:OP1	2.20	0.42
25:BA:196:A:OP2	35:BO:46:LYS:NZ	2.53	0.42
25:BA:245:G:H2'	25:BA:246:C:H6	1.84	0.42
25:BA:270(K):C:O2	25:BA:270(N):G:N1	2.52	0.42
25:BA:270(U):C:H2'	25:BA:270(V):G:H8	1.85	0.42
25:BA:654(I):C:H2'	25:BA:654(J):A:O4'	2.20	0.42
25:BA:910:A:N1	25:BA:2277:G:H1'	2.35	0.42
25:BA:968:G:H2'	25:BA:969:U:C6	2.54	0.42
25:BA:1270:C:H5"	25:BA:1271:G:C5'	2.49	0.42
25:BA:1394:U:C4	25:BA:1395:A:C5	3.07	0.42
25:BA:1729:A:C8	25:BA:1730:U:C5	3.00	0.42
25:BA:1893:C:C5	25:BA:1894:C:C4	3.08	0.42
25:BA:2082:A:H2'	25:BA:2083:G:O4'	2.20	0.42
25:BA:2097:C:O2'	25:BA:2098:U:H5'	2.19	0.42
25:BA:2114:A:N3	25:BA:2114:A:C2'	2.80	0.42
25:BA:2167:U:H2'	25:BA:2168:G:O5'	2.20	0.42
25:BA:2168:G:N2	25:BA:2170:A:N6	2.68	0.42
25:BA:2172:U:H5'	25:BA:2173:A:P	2.59	0.42
26:BB:55:U:H2'	26:BB:56:G:O4'	2.19	0.42
26:BB:66:A:C5	26:BB:108:C:C5	3.08	0.42
27:BD:148:GLU:CB	27:BD:151:LYS:HD2	2.45	0.42
29:BF:42:ALA:O	29:BF:45:ARG:HB2	2.20	0.42
30:BG:10:LYS:HE2	30:BG:175:LEU:O	2.20	0.42
31:BH:56:SER:OG	31:BH:57:ASP:N	2.52	0.42
31:BH:152:ARG:HG2	31:BH:153:LYS:H	1.85	0.42
35:BO:84:ASN:CG	35:BO:117:GLU:HB3	2.45	0.42
35:BO:112:LEU:HD22	35:BO:113:LYS:N	2.35	0.42
37:B0:100:LEU:HD13	37:B0:112:ALA:HA	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BV:115:GLY:HA3	45:BV:174:VAL:CG1	2.50	0.42
46:B3:41:ARG:HA	46:B3:41:ARG:HE	1.83	0.42
54:B8:48:PHE:CE2	54:B8:50:LEU:HD13	2.42	0.42
1:CA:393:A:C2	1:CA:394:G:C8	3.08	0.42
1:CA:922:G:O2'	1:CA:1398:A:N1	2.46	0.42
3:CF:82:GLU:O	3:CF:86:VAL:HG22	2.20	0.42
4:CG:88:VAL:O	4:CG:92:VAL:HG23	2.20	0.42
7:CJ:68:ASN:C	7:CJ:70:LYS:H	2.28	0.42
9:CL:4:TYR:CZ	9:CL:59:PHE:CE2	3.07	0.42
9:CL:95:LYS:HE2	9:CL:95:LYS:C	2.45	0.42
13:CP:116:THR:O	13:CP:118:ALA:N	2.52	0.42
22:CD:18:G:C8	22:CD:66:G:N2	2.87	0.42
25:DA:116:C:H2'	25:DA:117:G:O4'	2.20	0.42
25:DA:218:A:H2	25:DA:235:U:H4'	1.83	0.42
25:DA:288:C:H3'	25:DA:289:A:H8	1.84	0.42
25:DA:464:U:H4'	53:D7:5:TRP:CZ3	2.55	0.42
25:DA:654(I):C:O2	25:DA:654(I):C:O4'	2.37	0.42
25:DA:943:U:OP2	35:DO:36:LYS:CE	2.67	0.42
25:DA:999:U:C5	25:DA:1154:G:C5	3.08	0.42
25:DA:1551:C:H2'	25:DA:1552:G:O4'	2.19	0.42
25:DA:1872:A:C5	25:DA:1878:G:H1'	2.55	0.42
25:DA:2720:U:O4	25:DA:2721:A:N6	2.51	0.42
25:DA:2726:U:HO2'	25:DA:2727:G:H8	1.66	0.42
25:DA:2850:A:C2	25:DA:2851:A:C4	3.08	0.42
28:DE:27:LEU:HD23	39:DR:7:ILE:HD11	2.01	0.42
28:DE:38:THR:C	28:DE:40:GLU:H	2.28	0.42
29:DF:25:PRO:C	29:DF:27:GLU:N	2.76	0.42
30:DG:143:GLU:N	30:DG:143:GLU:OE2	2.53	0.42
33:DM:49:GLY:O	33:DM:119:ARG:NH1	2.52	0.42
36:DP:118:LEU:HD13	36:DP:131:ILE:HG23	2.01	0.42
37:D0:37:THR:OG1	37:D0:40:LYS:HB2	2.20	0.42
41:D2:44:LYS:O	41:D2:46:VAL:HG12	2.20	0.42
44:DU:17:SER:HB3	44:DU:71:LYS:HD2	2.00	0.42
1:AA:39:G:N7	1:AA:547:A:H8	2.18	0.42
1:AA:109:A:C6	1:AA:326:G:C5	3.07	0.42
1:AA:160:A:N6	1:AA:347:G:H1'	2.34	0.42
1:AA:587:G:N2	1:AA:755:G:C5	2.87	0.42
1:AA:687:A:H2'	1:AA:701:C:N4	2.35	0.42
1:AA:688:G:H2'	1:AA:689:C:C6	2.46	0.42
1:AA:812:C:OP1	1:AA:903:G:H1'	2.20	0.42
2:AE:79:ASP:C	2:AE:81:VAL:N	2.78	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AF:79:ARG:O	3:AF:82:GLU:HG3	2.20	0.42
3:AF:95:THR:HG22	3:AF:97:LYS:N	2.20	0.42
5:AH:6:PHE:HA	5:AH:35:GLY:O	2.18	0.42
7:AJ:17:VAL:O	7:AJ:17:VAL:HG12	2.20	0.42
13:AP:66:LEU:O	13:AP:68:GLY:N	2.52	0.42
16:AS:18:ARG:NH1	16:AS:32:TYR:OH	2.53	0.42
18:AU:53:ARG:HA	18:AU:56:THR:OG1	2.19	0.42
22:AD:17:G:C6	22:AD:67:A:C6	3.07	0.42
25:BA:94:G:H21	48:BW:47:ASN:HD21	1.68	0.42
25:BA:142:G:C1'	43:BT:37:THR:HG21	2.49	0.42
25:BA:455:C:N3	25:BA:472:A:H2'	2.34	0.42
25:BA:784:A:C8	25:BA:792:G:C5	3.08	0.42
25:BA:886:C:C4	25:BA:887:A:N3	2.88	0.42
25:BA:1057:A:O2'	25:BA:1058:U:O4'	2.31	0.42
25:BA:1205:U:H4'	25:BA:1206:G:OP2	2.20	0.42
25:BA:1388:G:H2'	25:BA:1389:G:H8	1.85	0.42
25:BA:1498:C:O4'	25:BA:1577:C:H4'	2.20	0.42
25:BA:2197:U:H1'	25:BA:2198:A:C8	2.55	0.42
25:BA:2210:G:H2'	25:BA:2210:G:N3	2.35	0.42
25:BA:2231:C:OP1	47:BZ:42:GLN:HA	2.20	0.42
25:BA:2699:C:H2'	25:BA:2700:C:O4'	2.19	0.42
28:BE:117:MET:CE	28:BE:124:GLY:HA3	2.50	0.42
30:BG:125:PHE:HB3	30:BG:166:ASP:CG	2.44	0.42
31:BH:86:GLU:O	31:BH:87:LEU:CB	2.67	0.42
31:BH:152:ARG:NH2	31:BH:153:LYS:HZ1	2.08	0.42
32:BK:31:LEU:HD21	32:BK:38:LEU:HG	2.02	0.42
32:BK:139:GLN:HE21	32:BK:139:GLN:HB2	1.59	0.42
35:BO:15:ARG:C	35:BO:16:ARG:O	2.62	0.42
35:BO:16:ARG:NH1	35:BO:16:ARG:CG	2.80	0.42
35:BO:61:ARG:CZ	35:BO:61:ARG:HB3	2.46	0.42
38:BQ:99:LYS:HE2	38:BQ:103:GLU:OE1	2.20	0.42
38:BQ:103:GLU:O	38:BQ:106:ARG:HD3	2.19	0.42
45:BV:62:PRO:O	45:BV:63:ASP:HB2	2.19	0.42
45:BV:165:VAL:HB	45:BV:166:SER:HB2	2.02	0.42
48:BW:63:VAL:O	48:BW:67:LYS:HB2	2.20	0.42
1:CA:49:U:O2	1:CA:362:G:H1'	2.20	0.42
1:CA:101:A:O2'	1:CA:102:G:H5'	2.20	0.42
1:CA:585:G:C6	1:CA:586:C:C4	3.07	0.42
1:CA:728:A:N1	1:CA:729:A:C6	2.88	0.42
1:CA:751:U:H1'	15:CR:23:GLY:O	2.19	0.42
1:CA:1028(B):C:N3	1:CA:1032(A):G:N2	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1377:A:H4'	1:CA:1378:C:H5	1.85	0.42
2:CE:17:PHE:HD1	2:CE:17:PHE:HA	1.77	0.42
2:CE:100:GLY:O	2:CE:101:MET:C	2.62	0.42
8:CK:85:ARG:NH1	8:CK:87:SER:O	2.53	0.42
11:CN:18:ARG:HB3	11:CN:33:THR:OG1	2.20	0.42
19:CV:9:VAL:CG1	19:CV:10:PHE:N	2.83	0.42
22:CB:35:G:H2'	22:CB:36:U:C6	2.54	0.42
22:CB:49:A:N3	22:CB:49:A:H2'	2.35	0.42
25:DA:136:G:H2'	25:DA:137:C:C6	2.55	0.42
25:DA:499:U:O3'	44:DU:44:ILE:HD11	2.19	0.42
25:DA:618:G:H2'	25:DA:618(A):C:O4'	2.20	0.42
25:DA:645:C:O2	25:DA:645:C:C2'	2.67	0.42
25:DA:803:U:O2'	25:DA:804:A:H5'	2.20	0.42
25:DA:1786:A:C4	25:DA:1938:A:C6	3.07	0.42
25:DA:2007:C:H2'	25:DA:2008:C:H6	1.85	0.42
25:DA:2094:G:OP1	32:DK:22:LYS:HD2	2.20	0.42
25:DA:2389:G:H5'	25:DA:2390:U:O4'	2.19	0.42
25:DA:2431:U:O2'	25:DA:2433:A:N7	2.47	0.42
25:DA:2473:U:O2	25:DA:2473:U:H3'	2.19	0.42
25:DA:2639:A:C2'	25:DA:2640:G:H5'	2.50	0.42
25:DA:2754:U:C5'	25:DA:2755:C:OP2	2.68	0.42
26:DB:40:U:N3	26:DB:43:C:OP2	2.53	0.42
27:DD:206:LEU:HD23	27:DD:206:LEU:HA	1.91	0.42
28:DE:116:VAL:HG11	28:DE:138:PRO:HB3	2.01	0.42
31:DH:20:ALA:C	31:DH:22:GLY:H	2.25	0.42
31:DH:118:PRO:HG2	31:DH:121:ILE:HG13	2.01	0.42
33:DM:19:GLU:HA	33:DM:59:LYS:O	2.19	0.42
33:DM:54:VAL:HB	33:DM:122:VAL:HG22	2.01	0.42
35:DO:37:GLY:O	35:DO:38:GLN:C	2.63	0.42
39:DR:94:ALA:O	39:DR:95:ARG:CB	2.68	0.42
42:DS:92:ARG:O	42:DS:93:ALA:HB2	2.20	0.42
45:DV:33:LEU:CD2	45:DV:90:VAL:HG21	2.44	0.42
47:DZ:3:LYS:O	47:DZ:12:PRO:HD3	2.20	0.42
47:DZ:50:ARG:HD2	47:DZ:57:GLU:OE1	2.19	0.42
1:AA:437:U:C4	1:AA:438:G:C6	3.07	0.41
1:AA:627:G:O2'	1:AA:628:G:H5'	2.20	0.41
1:AA:1285:A:C1'	1:AA:1286:A:OP2	2.67	0.41
3:AF:178:LEU:C	3:AF:180:ALA:H	2.28	0.41
4:AG:154:ASN:HB2	4:AG:155:LEU:H	1.48	0.41
5:AH:41:VAL:HG23	5:AH:67:VAL:CG1	2.50	0.41
5:AH:80:ILE:HG12	5:AH:81:GLU:N	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AM:4:ILE:HB	10:AM:74:ILE:CG1	2.47	0.41
10:AM:34:VAL:HG22	10:AM:74:ILE:HA	2.02	0.41
13:AP:87:TYR:O	13:AP:88:ARG:C	2.61	0.41
14:AQ:24:CYS:HB2	14:AQ:40:CYS:HB3	1.61	0.41
17:AT:100:LYS:HB2	17:AT:101:ARG:NH1	2.35	0.41
19:AV:39:THR:HG22	19:AV:40:ILE:N	2.25	0.41
20:AW:18:GLN:O	20:AW:22:ARG:HG3	2.20	0.41
22:AB:21:A:H2	22:AB:56:U:O2	2.02	0.41
25:BA:27:G:C2	25:BA:512:G:N3	2.88	0.41
25:BA:881:G:C8	25:BA:882:G:C8	3.08	0.41
25:BA:943:U:OP2	35:BO:36:LYS:CE	2.68	0.41
25:BA:971:C:H2'	25:BA:972:G:H5'	2.02	0.41
25:BA:1047:G:N1	25:BA:1110:G:N7	2.68	0.41
25:BA:1089:G:H5"	25:BA:1090:U:P	2.60	0.41
25:BA:1147:C:O2'	25:BA:1148:A:H5'	2.20	0.41
25:BA:1290:C:H2'	25:BA:1291:C:C6	2.55	0.41
25:BA:1429:G:H2'	25:BA:1430:C:C6	2.55	0.41
25:BA:2164:C:H2'	25:BA:2165:G:O4'	2.20	0.41
25:BA:2286:A:OP1	52:B6:28:ARG:HG3	2.19	0.41
25:BA:2401:U:O2'	25:BA:2402:C:C2	2.60	0.41
25:BA:2675:A:H4'	34:BN:29:ASN:ND2	2.36	0.41
25:BA:2681:C:C2'	25:BA:2682:U:OP2	2.68	0.41
25:BA:2689:U:H4'	25:BA:2690:C:OP2	2.20	0.41
26:BB:11:C:OP2	26:BB:12:C:C5	2.73	0.41
27:BD:17:THR:CG2	27:BD:204:ILE:HA	2.50	0.41
27:BD:65:ILE:HD11	27:BD:67:PHE:CG	2.55	0.41
28:BE:59:VAL:O	28:BE:60:ASN:ND2	2.53	0.41
32:BK:130:TYR:HB3	32:BK:136:VAL:HG13	2.01	0.41
33:BM:57:ALA:O	33:BM:58:ASP:CB	2.68	0.41
36:BP:25:ASP:O	36:BP:26:TYR:CB	2.67	0.41
38:BQ:83:LYS:HE2	38:BQ:83:LYS:HB3	1.95	0.41
43:BT:67:GLY:C	43:BT:69:TYR:N	2.78	0.41
44:BU:76:CYS:O	44:BU:77:PRO:C	2.63	0.41
45:BV:164:ALA:O	45:BV:165:VAL:O	2.38	0.41
53:B7:15:THR:HG22	53:B7:16:HIS:CE1	2.55	0.41
1:CA:29:G:C5	1:CA:30:U:C5	3.08	0.41
1:CA:426:G:P	4:CG:36:ARG:HH21	2.43	0.41
1:CA:453:A:H4'	16:CS:72:ARG:HG3	2.01	0.41
1:CA:1027:C:O2	1:CA:1035:A:C6	2.72	0.41
1:CA:1054:C:N4	1:CA:1196:U:O4	2.53	0.41
1:CA:1329:A:H2'	1:CA:1330:U:H5'	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CH:18:ARG:HH21	5:CH:25:ARG:CB	2.33	0.41
5:CH:105:VAL:HB	5:CH:106:PRO:HD3	2.02	0.41
8:CK:20:TYR:HD1	8:CK:65:TYR:CD2	2.38	0.41
8:CK:44:PHE:CE2	8:CK:109:ILE:HG21	2.55	0.41
10:CM:75:ILE:HG13	10:CM:76:ASN:N	2.35	0.41
11:CN:120:ARG:HA	11:CN:121:PRO:HD3	1.91	0.41
15:CR:31:LEU:HD12	15:CR:31:LEU:HA	1.84	0.41
22:CD:38:MIA:H2'	22:CD:39:A:O4'	2.19	0.41
25:DA:214:G:N2	25:DA:216:A:N3	2.68	0.41
25:DA:298:G:H1'	25:DA:340:A:H61	1.85	0.41
25:DA:493:G:H2'	25:DA:494:G:O4'	2.20	0.41
25:DA:495:G:N2	42:DS:61:ASN:HD21	2.15	0.41
25:DA:607:U:OP1	29:DF:102:PRO:HA	2.20	0.41
25:DA:1278:A:OP1	37:D0:36:THR:HG22	2.20	0.41
25:DA:1342:A:C2	25:DA:1397:U:N1	2.87	0.41
25:DA:1342:A:H8	25:DA:1345:C:C4	2.37	0.41
25:DA:1408:C:H2'	25:DA:1409:C:C6	2.55	0.41
25:DA:1664:A:H1'	25:DA:2726:U:C5	2.55	0.41
25:DA:1678:G:H22	25:DA:1989:G:H1	1.68	0.41
25:DA:1711:C:H2'	25:DA:1712:C:C6	2.54	0.41
25:DA:1773:A:C5	25:DA:1829:A:H1'	2.55	0.41
25:DA:1997:G:O2'	25:DA:1998:G:H5'	2.20	0.41
25:DA:2020:A:OP1	40:D1:27:LEU:HD23	2.20	0.41
25:DA:2286:A:C8	52:D6:37:ARG:NH2	2.88	0.41
25:DA:2294:C:H2'	25:DA:2295:C:H6	1.84	0.41
25:DA:2521:C:H2'	25:DA:2522:U:C6	2.55	0.41
25:DA:2584:U:O2	25:DA:2584:U:O4'	2.37	0.41
25:DA:2720:U:C2	25:DA:2721:A:C8	3.07	0.41
25:DA:2727:G:O2'	34:DN:70:LYS:HE2	2.20	0.41
26:DB:15:A:H1'	26:DB:109:G:C5	2.55	0.41
28:DE:111:ARG:HA	37:D0:2:ARG:HH12	1.85	0.41
29:DF:133:ASN:HB2	29:DF:138:GLU:OE1	2.20	0.41
29:DF:140:LEU:HD13	29:DF:140:LEU:HA	1.81	0.41
29:DF:152:GLU:HG3	29:DF:191:ARG:HD2	2.02	0.41
30:DG:108:ASN:O	30:DG:109:VAL:HG22	2.20	0.41
32:DK:23:PRO:O	32:DK:27:ARG:HB2	2.19	0.41
33:DM:39:ARG:O	33:DM:41:ASP:N	2.51	0.41
33:DM:98:VAL:HG23	33:DM:99:LEU:N	2.35	0.41
39:DR:19:LEU:HA	39:DR:20:PRO:HD3	1.74	0.41
39:DR:23:ARG:O	39:DR:24:PRO:C	2.63	0.41
45:DV:73:GLN:HB3	45:DV:87:ASP:OD2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:D3:46:LYS:HA	46:D3:47:PRO:HD3	1.91	0.41
1:AA:408:A:O2'	1:AA:409:G:H5'	2.20	0.41
1:AA:1003:G:C2'	1:AA:1004:A:C5'	2.95	0.41
1:AA:1030:C:H2'	1:AA:1031:G:O4'	2.19	0.41
1:AA:1053:G:N7	1:AA:1199:U:H3'	2.35	0.41
1:AA:1271:G:H2'	1:AA:1272:G:H5'	2.01	0.41
1:AA:1366:C:OP1	9:AL:117:HIS:CE1	2.67	0.41
1:AA:1378:C:O2	1:AA:1378:C:C2'	2.68	0.41
2:AE:229:VAL:HG12	2:AE:230:VAL:N	2.34	0.41
3:AF:7:PRO:O	3:AF:11:ARG:NH1	2.53	0.41
6:AI:65:VAL:CG2	6:AI:66:GLU:N	2.83	0.41
12:AO:34:CYS:O	12:AO:76:GLU:O	2.37	0.41
13:AP:64:TRP:CD1	13:AP:64:TRP:N	2.88	0.41
13:AP:102:ARG:HE	13:AP:102:ARG:HB2	1.69	0.41
18:AU:40:LEU:C	18:AU:42:ARG:H	2.28	0.41
19:AV:51:VAL:HG12	19:AV:52:TYR:N	2.34	0.41
20:AW:11:SER:C	20:AW:13:LEU:N	2.77	0.41
20:AW:99:LEU:O	20:AW:100:ILE:HB	2.21	0.41
23:AC:63:C:O2	23:AC:64:G:C8	2.73	0.41
25:BA:270(K):C:N3	25:BA:270(N):G:O6	2.53	0.41
25:BA:270(Y):G:C2	25:BA:270(Z):U:O4	2.73	0.41
25:BA:338:G:OP1	44:BU:4:LYS:HD3	2.20	0.41
25:BA:466:A:OP1	53:B7:34:ARG:NH1	2.53	0.41
25:BA:489:G:C5	25:BA:1284:A:C2	3.09	0.41
25:BA:721:C:H2'	25:BA:722:A:C8	2.55	0.41
25:BA:1071:G:O6	25:BA:1091:G:O6	2.38	0.41
25:BA:1510:A:OP1	25:BA:1510:A:O3'	2.39	0.41
25:BA:1651:G:N2	25:BA:2007:C:C2	2.88	0.41
25:BA:1796:U:H2'	25:BA:1797:C:H6	1.85	0.41
25:BA:1799:G:O2'	25:BA:1800:C:OP2	2.32	0.41
25:BA:2163:C:C2'	25:BA:2164:C:H5'	2.50	0.41
25:BA:2167:U:O2'	25:BA:2168:G:P	2.75	0.41
25:BA:2467:C:C3'	25:BA:2468:G:H5'	2.43	0.41
25:BA:2492:U:H2'	25:BA:2493:U:H6	1.83	0.41
25:BA:2578:G:OP2	25:BA:2578:G:H4'	2.19	0.41
27:BD:35:LYS:HG2	27:BD:64:ILE:HG22	2.00	0.41
27:BD:75:ILE:H	27:BD:75:ILE:HG13	1.63	0.41
27:BD:112:GLN:HE21	27:BD:115:GLN:CD	2.25	0.41
28:BE:37:ARG:HA	28:BE:42:ASP:OD2	2.20	0.41
32:BK:33:ARG:HB3	32:BK:35:LEU:HD21	2.00	0.41
32:BK:54:GLN:C	32:BK:56:LYS:N	2.77	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BK:111:PRO:O	32:BK:112:LYS:C	2.63	0.41
32:BK:140:LEU:HD23	32:BK:140:LEU:N	2.35	0.41
35:BO:21:ARG:HB3	35:BO:22:GLY:H	1.59	0.41
36:BP:2:LEU:HD12	36:BP:2:LEU:HA	1.89	0.41
37:B0:55:ALA:HA	37:B0:80:PHE:CE2	2.55	0.41
38:BQ:87:PHE:HZ	38:BQ:98:VAL:HG12	1.85	0.41
41:B2:38:LEU:O	41:B2:51:VAL:HG13	2.20	0.41
42:BS:111:HIS:O	42:BS:112:GLY:C	2.63	0.41
47:BZ:41:ARG:HG3	47:BZ:43:TYR:CZ	2.55	0.41
1:CA:164:U:H2'	1:CA:165:C:C6	2.55	0.41
1:CA:264:U:O2'	17:CT:64:PRO:HB2	2.20	0.41
1:CA:339:C:H2'	1:CA:340:U:H6	1.85	0.41
1:CA:619:U:C2	4:CG:135:LEU:HD22	2.55	0.41
1:CA:1299:A:C2	1:CA:1301:U:C4	3.08	0.41
1:CA:1436:U:H2'	1:CA:1437:C:C6	2.56	0.41
4:CG:32:ALA:O	4:CG:36:ARG:N	2.37	0.41
13:CP:115:LYS:C	13:CP:117:VAL:H	2.28	0.41
16:CS:1:MET:HB2	16:CS:1:MET:HE3	1.62	0.41
20:CW:54:LYS:HA	20:CW:57:ARG:CZ	2.50	0.41
22:CB:46:G:H2'	22:CB:46:G:N3	2.34	0.41
22:CB:79:A:C2'	22:CB:80:C:H5"	2.49	0.41
23:CC:73:A:C6	23:CC:74:A:C6	3.08	0.41
25:DA:35:G:C4	25:DA:454:A:C2	3.08	0.41
25:DA:521:G:H2'	25:DA:522:G:C8	2.55	0.41
25:DA:654(A):A:C2	25:DA:654(U):A:N3	2.88	0.41
25:DA:896:A:C2	45:DV:176:PRO:HB2	2.56	0.41
25:DA:1568:G:H5'	27:DD:60:ARG:HA	2.03	0.41
25:DA:1810:A:H8	25:DA:1810:A:O5'	2.03	0.41
25:DA:2093:G:N7	25:DA:2225:A:H2'	2.35	0.41
25:DA:2135:A:O2'	25:DA:2160:G:H4'	2.19	0.41
25:DA:2336:A:H61	46:D3:43:THR:CG2	2.33	0.41
25:DA:2563:U:O2	25:DA:2565:A:C8	2.73	0.41
25:DA:2858:C:N4	25:DA:2859:G:C6	2.88	0.41
25:DA:2899:G:H2'	25:DA:2900:A:O4'	2.19	0.41
26:DB:39:A:C2	50:D4:1:MET:SD	3.13	0.41
28:DE:8:LYS:CB	28:DE:192:ASN:HA	2.49	0.41
28:DE:203:LYS:O	28:DE:204:ALA:CB	2.67	0.41
30:DG:95:ARG:O	30:DG:96:ARG:C	2.63	0.41
31:DH:13:LYS:NZ	31:DH:13:LYS:HB3	2.35	0.41
32:DK:31:LEU:N	32:DK:32:PRO:CD	2.83	0.41
35:DO:49:ARG:HG2	54:D8:59:LYS:CG	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DO:116:GLY:O	35:DO:117:GLU:C	2.63	0.41
37:D0:94:TYR:O	37:D0:117:VAL:HG12	2.19	0.41
38:DQ:109:GLY:C	38:DQ:111:GLU:N	2.75	0.41
41:D2:43:GLU:O	41:D2:44:LYS:HD3	2.20	0.41
43:DT:50:LYS:O	43:DT:51:VAL:HB	2.20	0.41
47:DZ:5:CYS:CB	47:DZ:8:SER:HG	2.32	0.41
49:DX:39:ASP:OD2	49:DX:44:ARG:NH2	2.41	0.41
1:AA:108:G:C2	1:AA:109:A:H2	2.39	0.41
1:AA:155:C:C2	1:AA:167:G:C2	3.08	0.41
1:AA:310:G:P	16:AS:27:LYS:NZ	2.93	0.41
1:AA:789:U:C6	1:AA:791:G:OP2	2.73	0.41
1:AA:920:U:O4’	1:AA:1080:A:C2	2.74	0.41
1:AA:946:A:O2’	1:AA:1333:A:N3	2.47	0.41
1:AA:965:A:C2	1:AA:969:A:C2	3.08	0.41
1:AA:1239:A:H4’	1:AA:1240:U:H5”	2.02	0.41
1:AA:1337:G:H5”	1:AA:1338:G:OP1	2.20	0.41
1:AA:1396:A:H2	5:AH:19:MET:HG3	1.85	0.41
2:AE:67:THR:HG22	2:AE:68:ILE:N	2.35	0.41
2:AE:79:ASP:C	2:AE:81:VAL:H	2.28	0.41
3:AF:11:ARG:HB3	3:AF:14:ILE:O	2.20	0.41
5:AH:42:GLY:CA	5:AH:66:MET:HE2	2.39	0.41
5:AH:76:ILE:HB	5:AH:77:PRO:HD2	2.02	0.41
6:AI:22:GLU:O	6:AI:26:ILE:HG13	2.21	0.41
7:AJ:139:GLU:O	7:AJ:142:GLU:N	2.53	0.41
8:AK:101:PRO:HG2	8:AK:133:LEU:HD11	2.02	0.41
11:AN:124:LYS:HD2	11:AN:125:PHE:CZ	2.54	0.41
13:AP:94:ARG:C	13:AP:96:LEU:H	2.28	0.41
15:AR:79:ARG:O	15:AR:82:ILE:HG22	2.20	0.41
16:AS:20:VAL:HG11	16:AS:32:TYR:CD1	2.56	0.41
17:AT:76:LEU:HD21	17:AT:79:SER:OG	2.21	0.41
22:AB:14:A:N3	22:AB:14:A:H2’	2.35	0.41
25:BA:654(H):G:N7	25:BA:654(N):G:C2	2.87	0.41
25:BA:1243:G:C3’	35:BO:7:ARG:HH21	2.33	0.41
25:BA:1265:A:H3’	51:B5:19:ARG:NH1	2.35	0.41
25:BA:1661:G:H2’	25:BA:1662:C:H6	1.86	0.41
25:BA:1702:G:H2’	25:BA:1703:G:O4’	2.20	0.41
25:BA:1936:A:C8	25:BA:1940:U:O2	2.73	0.41
25:BA:2149:G:C6	25:BA:2150:U:N3	2.88	0.41
25:BA:2298:A:H62	25:BA:2318:G:H8	1.65	0.41
25:BA:2667:C:H1’	31:BH:109:PHE:CD2	2.55	0.41
25:BA:2788:C:H5”	25:BA:2789:C:OP2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2848:G:H1'	25:BA:2867:G:N2	2.35	0.41
26:BB:16:G:H1	26:BB:68:C:H42	1.68	0.41
35:BO:70:GLN:CD	35:BO:70:GLN:N	2.78	0.41
36:BP:138:ASP:O	36:BP:139:GLU:O	2.39	0.41
37:B0:44:LEU:O	37:B0:45:ARG:C	2.62	0.41
37:B0:77:ARG:C	37:B0:79:LEU:N	2.75	0.41
39:BR:50:ILE:O	39:BR:99:LEU:HD12	2.19	0.41
45:BV:48:PHE:CE2	45:BV:71:VAL:HG11	2.55	0.41
46:B3:11:ARG:HB2	46:B3:11:ARG:HH11	1.85	0.41
46:B3:72:ARG:O	46:B3:73:GLY:C	2.63	0.41
51:B5:56:LYS:H	51:B5:56:LYS:HE3	1.85	0.41
1:CA:21:G:H2'	1:CA:22:G:C8	2.54	0.41
1:CA:57:G:C6	1:CA:58:C:C4	3.08	0.41
1:CA:155:C:H2'	1:CA:156:G:O4'	2.20	0.41
1:CA:191:G:C6	1:CA:192:U:C4	3.09	0.41
1:CA:197:A:C6	1:CA:221:C:H4'	2.56	0.41
1:CA:264:U:HO2'	17:CT:64:PRO:HB2	1.85	0.41
1:CA:1037:C:H2'	1:CA:1038:C:C6	2.56	0.41
1:CA:1098:C:H2'	1:CA:1099:G:O4'	2.20	0.41
1:CA:1124:G:O2'	1:CA:1145:C:C2	2.72	0.41
1:CA:1160:G:H22	1:CA:1177:G:N2	2.16	0.41
1:CA:1206:G:C4	1:CA:1207:G:C8	3.08	0.41
1:CA:1503:A:N6	24:C1:12:A:C4	2.88	0.41
2:CE:163:PHE:HA	2:CE:185:ILE:HG12	2.02	0.41
5:CH:34:VAL:O	5:CH:41:VAL:HA	2.19	0.41
8:CK:86:ILE:HG12	8:CK:135:CYS:HA	2.01	0.41
10:CM:98:ILE:HD12	10:CM:98:ILE:N	2.35	0.41
17:CT:94:ASN:O	17:CT:98:LEU:HG	2.21	0.41
19:CV:32:LYS:NZ	19:CV:32:LYS:HB3	2.35	0.41
20:CW:54:LYS:HA	20:CW:57:ARG:NH1	2.35	0.41
22:CB:44:C:H2'	22:CB:45:C:O4'	2.20	0.41
25:DA:174:C:H2'	25:DA:174:C:O2	2.19	0.41
25:DA:270(B):A:N1	25:DA:273:G:O2'	2.46	0.41
25:DA:288:C:H2'	25:DA:288:C:O2	2.20	0.41
25:DA:491:G:H2'	25:DA:492:A:C8	2.56	0.41
25:DA:500:G:N2	25:DA:502:A:H3'	2.35	0.41
25:DA:513:A:C2	25:DA:514:A:C5	3.08	0.41
25:DA:524:U:H2'	25:DA:525:U:H6	1.83	0.41
25:DA:558:G:P	33:DM:111:PRO:HD2	2.60	0.41
25:DA:634:C:H2'	25:DA:635:C:C6	2.55	0.41
25:DA:638:G:C6	25:DA:639:U:C4	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:744:G:H2'	25:DA:745:G:O4'	2.19	0.41
25:DA:858:U:C2	25:DA:2268:A:C2	3.09	0.41
25:DA:909:A:H2'	25:DA:912:C:H5	1.86	0.41
25:DA:1366:A:H2'	25:DA:1367:A:O4'	2.20	0.41
25:DA:1459:G:C6	25:DA:1461:G:C5	3.08	0.41
25:DA:2157:G:H2'	25:DA:2158:A:C8	2.56	0.41
25:DA:2292:C:OP1	38:DQ:17:ARG:NH2	2.52	0.41
25:DA:2321:G:H2'	25:DA:2321:G:N3	2.35	0.41
25:DA:2342:C:O2'	25:DA:2374:C:H5"	2.20	0.41
25:DA:2377:A:H2'	25:DA:2378:A:C8	2.55	0.41
25:DA:2402:C:O2'	25:DA:2403:C:P	2.79	0.41
25:DA:2635:C:O2'	28:DE:80:GLU:OE2	2.35	0.41
25:DA:2636:U:H4'	28:DE:80:GLU:OE1	2.20	0.41
25:DA:2882:A:C5'	37:D0:96:ARG:HG3	2.45	0.41
28:DE:4:ILE:HG22	28:DE:91:VAL:CG2	2.50	0.41
29:DF:64:ILE:C	29:DF:65:TRP:CD1	2.98	0.41
29:DF:65:TRP:CZ3	29:DF:75:HIS:HD2	2.38	0.41
30:DG:105:LYS:NZ	30:DG:143:GLU:OE1	2.49	0.41
31:DH:20:ALA:HB1	31:DH:21:PRO:HD2	2.02	0.41
34:DN:34:THR:OG1	34:DN:35:VAL:N	2.53	0.41
36:DP:17:LEU:HD22	36:DP:96:VAL:HG13	2.02	0.41
39:DR:103:ARG:O	39:DR:105:LEU:N	2.46	0.41
40:D1:34:LYS:HD3	40:D1:34:LYS:HA	1.75	0.41
53:D7:6:GLN:HA	53:D7:7:PRO:HD2	1.85	0.41
1:AA:31:G:H2'	1:AA:48:C:N4	2.35	0.41
1:AA:33:A:H2'	1:AA:34:C:C6	2.56	0.41
1:AA:76:G:C2	1:AA:95:G:N3	2.89	0.41
1:AA:112:G:P	16:AS:27:LYS:HD2	2.60	0.41
1:AA:1182:G:OP2	1:AA:1182:G:C8	2.73	0.41
1:AA:1326:C:H2'	1:AA:1327:C:C6	2.55	0.41
2:AE:98:LEU:HB2	2:AE:101:MET:HE3	2.01	0.41
6:AI:72:VAL:CG2	6:AI:90:VAL:HG11	2.47	0.41
7:AJ:113:GLU:HG3	7:AJ:119:ARG:HG2	2.01	0.41
8:AK:10:LEU:H	8:AK:10:LEU:CD2	2.33	0.41
8:AK:27:PRO:O	8:AK:32:LYS:NZ	2.44	0.41
9:AL:113:LYS:N	9:AL:113:LYS:HD2	2.35	0.41
10:AM:44:VAL:CG2	10:AM:66:ARG:HH21	2.33	0.41
13:AP:108:ARG:O	13:AP:111:LYS:N	2.51	0.41
17:AT:10:VAL:HG13	17:AT:19:VAL:HB	2.02	0.41
17:AT:43:LEU:HD12	17:AT:68:ARG:HG2	2.02	0.41
20:AW:58:LYS:O	20:AW:61:SER:HB3	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AD:21:A:N1	22:AD:55:U:O4	2.53	0.41
25:BA:307:G:N1	25:BA:310:A:OP2	2.51	0.41
25:BA:614:U:O2	25:BA:614:U:C2'	2.68	0.41
25:BA:1056:G:H4'	25:BA:1086:A:C8	2.56	0.41
25:BA:1444:G:N2	25:BA:1548:C:C2	2.89	0.41
25:BA:1469:A:H2'	25:BA:1470:G:H8	1.84	0.41
25:BA:1690:A:H2'	25:BA:1691:C:O4'	2.20	0.41
25:BA:1786:A:H1'	25:BA:1938:A:H62	1.84	0.41
25:BA:1871:A:C2'	25:BA:1872:A:O5'	2.68	0.41
25:BA:2364:C:H2'	25:BA:2365:G:O4'	2.21	0.41
25:BA:2823:A:OP1	28:BE:113:PHE:HB2	2.20	0.41
26:BB:15:A:OP1	26:BB:15:A:C4'	2.68	0.41
26:BB:24:G:C4	26:BB:56:G:C5	3.08	0.41
26:BB:61:G:C6	26:BB:62:C:C4	3.08	0.41
27:BD:70:TRP:CD1	27:BD:70:TRP:O	2.74	0.41
28:BE:53:PRO:O	28:BE:54:GLN:O	2.39	0.41
30:BG:111:LEU:N	30:BG:112:PRO:HD2	2.35	0.41
30:BG:112:PRO:HG3	50:B4:38:LYS:HD3	2.03	0.41
31:BH:13:LYS:HD3	31:BH:13:LYS:HA	1.78	0.41
32:BK:2:LYS:HG2	32:BK:20:ASP:HB3	2.02	0.41
35:BO:147:LEU:O	35:BO:148:LEU:CB	2.68	0.41
39:BR:51:ARG:HB2	39:BR:98:LYS:HD3	2.03	0.41
40:B1:37:GLU:O	40:B1:40:PHE:HB2	2.20	0.41
48:BW:64:LEU:HD21	48:BW:68:ARG:CZ	2.51	0.41
49:BX:15:TYR:CE1	49:BX:53:LEU:HD21	2.56	0.41
50:B4:37:SER:O	50:B4:42:PHE:CD1	2.73	0.41
50:B4:62:ARG:HD2	50:B4:62:ARG:C	2.45	0.41
51:B5:40:LYS:HB2	51:B5:46:CYS:SG	2.60	0.41
1:CA:632:A:OP1	1:CA:632:A:O4'	2.38	0.41
1:CA:804:U:H5"	1:CA:805:C:OP2	2.20	0.41
1:CA:903:G:H2'	1:CA:904:C:H6	1.86	0.41
1:CA:1028:C:N4	1:CA:1033:G:N1	2.41	0.41
1:CA:1104:G:H4'	2:CE:111:ARG:NH2	2.34	0.41
1:CA:1219:U:O2'	19:CV:34:TRP:HB3	2.20	0.41
1:CA:1250:A:H2	1:CA:1353:G:H21	1.64	0.41
3:CF:130:VAL:O	3:CF:134:ILE:HG12	2.21	0.41
4:CG:58:LEU:HD22	4:CG:62:GLN:HG2	2.03	0.41
9:CL:54:ASP:OD1	9:CL:54:ASP:N	2.53	0.41
10:CM:7:LYS:HB2	10:CM:97:GLU:HB2	2.02	0.41
11:CN:52:GLY:H	11:CN:55:LYS:HE3	1.85	0.41
12:CO:31:ARG:CG	12:CO:32:GLY:N	2.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CP:22:ILE:HB	13:CP:25:ILE:HG12	2.02	0.41
22:CB:13:G:N2	22:CB:23:A:N1	2.67	0.41
23:CC:67:C:H2'	23:CC:68:C:O4'	2.20	0.41
25:DA:155:C:C2	25:DA:171:G:N2	2.89	0.41
25:DA:311:A:C8	25:DA:332:A:N7	2.89	0.41
25:DA:699:A:H2'	25:DA:700:G:O4'	2.21	0.41
25:DA:1000:A:N6	25:DA:1155:A:C8	2.88	0.41
25:DA:1112:G:O3'	31:DH:3:ARG:HA	2.20	0.41
25:DA:1349:A:N6	25:DA:1598:C:N4	2.68	0.41
25:DA:2213:U:H6	25:DA:2213:U:H3'	1.86	0.41
25:DA:2271:G:H2'	25:DA:2272:U:C6	2.55	0.41
25:DA:2699:C:H2'	25:DA:2700:C:O4'	2.20	0.41
25:DA:2762:G:C3'	25:DA:2763:G:C5'	2.91	0.41
25:DA:2817:G:P	37:D0:99:LYS:HZ1	2.42	0.41
26:DB:44:G:C2	26:DB:48:A:C2	3.08	0.41
27:DD:11:PRO:C	27:DD:13:ARG:H	2.28	0.41
27:DD:153:ALA:O	27:DD:157:ARG:NH1	2.53	0.41
30:DG:67:LYS:HB3	30:DG:67:LYS:NZ	2.36	0.41
32:DK:44:LEU:O	32:DK:47:LEU:HB3	2.21	0.41
33:DM:129:PRO:C	33:DM:131:GLN:H	2.24	0.41
37:D0:33:ARG:HG3	37:D0:115:GLU:CG	2.43	0.41
41:D2:1:MET:SD	41:D2:43:GLU:HG2	2.60	0.41
41:D2:91:TYR:HD1	41:D2:91:TYR:HA	1.76	0.41
1:AA:403:C:O2'	1:AA:404:U:H5'	2.20	0.41
1:AA:411:A:C5	1:AA:413:G:N3	2.89	0.41
1:AA:411:A:C6	1:AA:429:U:C5	3.09	0.41
1:AA:537:G:H2'	1:AA:538:G:C8	2.55	0.41
1:AA:1026:G:H2'	1:AA:1026:G:N3	2.35	0.41
1:AA:1139:G:H1	1:AA:1144:G:N2	2.17	0.41
1:AA:1278:U:H5"	1:AA:1279:A:O4'	2.20	0.41
1:AA:1336:C:O2'	1:AA:1337:G:C4	2.69	0.41
2:AE:22:LYS:HZ3	2:AE:22:LYS:N	2.17	0.41
2:AE:104:ASN:O	2:AE:108:ILE:HB	2.21	0.41
3:AF:150:LYS:O	3:AF:201:TYR:N	2.50	0.41
4:AG:3:ARG:NH2	4:AG:5:ILE:HD11	2.34	0.41
6:AI:69:GLU:HG2	6:AI:70:ASP:N	2.35	0.41
20:AW:26:ASN:CB	20:AW:71:THR:HG23	2.42	0.41
22:AD:29:C:O2'	22:AD:30:A:H5'	2.21	0.41
22:AD:77:C:H2'	22:AD:78:C:O4'	2.20	0.41
25:BA:196:A:C4	25:BA:805:G:C6	3.09	0.41
25:BA:297:C:H2'	25:BA:298:G:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:543:C:O2'	25:BA:544:C:H5'	2.21	0.41
25:BA:618:G:H2'	25:BA:618(A):C:O4'	2.20	0.41
25:BA:628:G:H2'	25:BA:629:G:C8	2.56	0.41
25:BA:654(I):C:O2	25:BA:654(I):C:C3'	2.67	0.41
25:BA:879:G:C6	25:BA:898:C:N4	2.75	0.41
25:BA:1091:G:N2	25:BA:1101:U:H1'	2.35	0.41
25:BA:1510:A:N3	25:BA:1510:A:C2'	2.78	0.41
25:BA:1551:C:C2'	25:BA:1552:G:H5'	2.51	0.41
25:BA:2111:C:C5	25:BA:2145:C:C2	3.08	0.41
25:BA:2383:G:O2'	25:BA:2384:G:H5'	2.20	0.41
25:BA:2681:C:HO2'	25:BA:2682:U:P	2.41	0.41
26:BB:93:C:H2'	26:BB:94:C:H6	1.86	0.41
26:BB:99:A:C6	26:BB:100:G:C5	3.09	0.41
29:BF:24:LEU:HA	29:BF:25:PRO:HD2	1.79	0.41
29:BF:123:LEU:HD21	29:BF:199:TRP:CZ3	2.56	0.41
30:BG:101:ILE:HD11	50:B4:9:LEU:HD11	2.02	0.41
31:BH:97:ARG:NH2	31:BH:104:GLU:OE2	2.53	0.41
32:BK:94:ALA:C	32:BK:111:PRO:HG3	2.46	0.41
38:BQ:52:SER:O	38:BQ:56:LEU:HG	2.20	0.41
39:BR:129:ARG:O	39:BR:132:LYS:HG2	2.21	0.41
40:B1:91:ASP:C	40:B1:93:LYS:N	2.78	0.41
41:B2:15:GLU:HG3	41:B2:16:PRO:CD	2.37	0.41
41:B2:61:VAL:HG23	41:B2:61:VAL:O	2.20	0.41
42:BS:107:LEU:HA	42:BS:107:LEU:HD12	1.82	0.41
45:BV:12:GLY:O	45:BV:13:GLU:O	2.38	0.41
46:B3:34:GLY:O	46:B3:35:ASN:C	2.64	0.41
47:BZ:87:PRO:O	47:BZ:89:GLU:N	2.54	0.41
51:B5:13:LYS:HG2	51:B5:16:ARG:NH2	2.35	0.41
51:B5:40:LYS:CG	51:B5:46:CYS:HB3	2.51	0.41
54:B8:61:LEU:O	54:B8:61:LEU:HD12	2.21	0.41
1:CA:64:G:H5'	1:CA:66:G:OP1	2.20	0.41
1:CA:191(B):G:C2	1:CA:191(C):G:C4	3.08	0.41
1:CA:282:A:C5	1:CA:283:C:C6	3.08	0.41
1:CA:655:A:C2	1:CA:754:C:N4	2.88	0.41
1:CA:666:G:H5'	1:CA:726:C:H1'	2.02	0.41
1:CA:706:A:C4'	11:CN:29:ILE:HD11	2.50	0.41
1:CA:1028:C:C2	1:CA:1034:G:N2	2.88	0.41
1:CA:1130:A:C2	1:CA:1146:A:C2	3.09	0.41
1:CA:1357:A:O2'	14:CQ:34:TYR:HE1	2.03	0.41
3:CF:200:ALA:C	3:CF:201:TYR:CD2	2.98	0.41
3:CF:200:ALA:O	3:CF:201:TYR:HD2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CH:47:LYS:HB2	5:CH:47:LYS:NZ	2.35	0.41
7:CJ:50:ILE:O	7:CJ:54:THR:HG23	2.21	0.41
9:CL:88:TYR:C	9:CL:90:PRO:HD3	2.46	0.41
12:CO:20:LYS:H	12:CO:20:LYS:CD	2.33	0.41
12:CO:29:PHE:CB	12:CO:82:ILE:O	2.65	0.41
12:CO:57:LEU:HB2	12:CO:61:TYR:HB2	2.03	0.41
14:CQ:12:ARG:C	14:CQ:14:PRO:HD3	2.46	0.41
25:DA:6:A:O2'	33:DM:129:PRO:HB2	2.20	0.41
25:DA:270(P):C:H2'	25:DA:270(Q):C:C6	2.56	0.41
25:DA:372:G:H5'	47:DZ:66:HIS:CE1	2.56	0.41
25:DA:389:G:N2	35:DO:72:PRO:HG2	2.23	0.41
25:DA:454:A:H4'	25:DA:455:C:OP2	2.19	0.41
25:DA:576:U:H2'	25:DA:577:G:C8	2.56	0.41
25:DA:1063:G:C2	25:DA:1064:C:O2	2.74	0.41
25:DA:1087:G:H5"	25:DA:1088:A:OP2	2.21	0.41
25:DA:1131:G:HO2'	25:DA:1132:A:H8	1.69	0.41
25:DA:1165:U:H2'	25:DA:1166:C:C6	2.55	0.41
25:DA:2129:C:C4	25:DA:2130:U:C4	3.08	0.41
25:DA:2306:C:H2'	25:DA:2307:G:N2	2.35	0.41
25:DA:2346:A:H8	52:D6:24:GLU:CG	2.33	0.41
25:DA:2542:A:OP1	25:DA:2542:A:H4'	2.19	0.41
25:DA:2702:U:H3'	25:DA:2702:U:O2	2.21	0.41
25:DA:2808:U:H2'	25:DA:2809:A:H5'	2.02	0.41
25:DA:2815:C:C5'	51:D5:29:THR:HG21	2.46	0.41
25:DA:2897:U:H2'	25:DA:2898:U:O4'	2.20	0.41
27:DD:73:VAL:HG12	27:DD:120:GLY:CA	2.50	0.41
29:DF:9:ILE:HG12	29:DF:13:SER:O	2.20	0.41
29:DF:117:ARG:O	29:DF:120:GLU:HG2	2.19	0.41
31:DH:20:ALA:C	31:DH:22:GLY:N	2.78	0.41
33:DM:56:ASN:H	33:DM:125:GLY:CA	2.34	0.41
36:DP:8:LYS:O	36:DP:9:TYR:CD1	2.73	0.41
38:DQ:83:LYS:O	38:DQ:83:LYS:HG2	2.21	0.41
38:DQ:89:ARG:O	38:DQ:90:GLY:C	2.64	0.41
38:DQ:93:LYS:HB2	38:DQ:93:LYS:HZ3	1.85	0.41
40:D1:88:ILE:CG2	41:D2:49:THR:HA	2.50	0.41
41:D2:35:LEU:HG	41:D2:37:VAL:HG13	2.02	0.41
43:DT:50:LYS:HA	43:DT:50:LYS:HD2	1.79	0.41
44:DU:60:PHE:CD1	44:DU:60:PHE:O	2.74	0.41
45:DV:158:PRO:CB	45:DV:159:PRO:CD	2.83	0.41
50:D4:38:LYS:C	50:D4:40:HIS:N	2.77	0.41
1:AA:1028(B):C:C4	1:AA:1032(A):G:N1	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1092:A:C6	1:AA:1093:A:C6	3.08	0.41
1:AA:1286:A:C2	21:AX:18:TYR:OH	2.74	0.41
1:AA:1347:G:O2'	1:AA:1348:U:OP2	2.39	0.41
2:AE:19:HIS:NE2	2:AE:20:GLU:OE2	2.53	0.41
3:AF:23:TYR:CD2	3:AF:24:ALA:N	2.88	0.41
4:AG:201:GLN:HA	4:AG:201:GLN:NE2	2.23	0.41
7:AJ:111:ARG:HB3	7:AJ:112:PRO:HD2	2.01	0.41
11:AN:99:GLN:HG2	11:AN:105:VAL:CG2	2.38	0.41
13:AP:81:LEU:HD23	13:AP:81:LEU:HA	1.89	0.41
13:AP:100:GLY:O	13:AP:101:GLN:HB2	2.20	0.41
16:AS:81:ARG:HE	16:AS:81:ARG:HB2	1.74	0.41
22:AD:46:G:H2'	22:AD:47:U:H6	1.84	0.41
22:AD:57:C:C4'	22:AD:58:G:OP2	2.67	0.41
22:AD:59:A:H2'	22:AD:60:A:C8	2.56	0.41
25:BA:91:A:C4	25:BA:92:G:C8	3.09	0.41
25:BA:286:C:H2'	25:BA:287:C:H6	1.84	0.41
25:BA:375:C:H2'	25:BA:376:C:C6	2.56	0.41
25:BA:498:G:H21	44:BU:47:LYS:NZ	2.19	0.41
25:BA:516:C:OP1	51:B5:13:LYS:NZ	2.54	0.41
25:BA:1015:G:C2'	25:BA:1016:G:H5'	2.50	0.41
25:BA:1203:G:H5'	35:BO:3:LEU:HD12	2.02	0.41
25:BA:1535:U:C2	25:BA:1536:A:H3'	2.55	0.41
25:BA:1686:C:H2'	25:BA:1687:G:O4'	2.21	0.41
25:BA:2025:C:H2'	25:BA:2026:C:C6	2.56	0.41
27:BD:35:LYS:NZ	27:BD:64:ILE:C	2.76	0.41
27:BD:45:ASN:OD1	27:BD:46:GLN:N	2.53	0.41
30:BG:125:PHE:HB3	30:BG:166:ASP:OD2	2.21	0.41
30:BG:171:ALA:O	30:BG:175:LEU:HG	2.20	0.41
31:BH:46:GLU:OE2	31:BH:51:ARG:HD2	2.20	0.41
31:BH:54:ARG:NH1	31:BH:65:HIS:ND1	2.60	0.41
31:BH:89:ILE:CG2	31:BH:162:ILE:HG12	2.50	0.41
34:BN:75:SER:HB2	39:BR:74:ARG:HH12	1.85	0.41
35:BO:19:VAL:CB	35:BO:27:HIS:HB3	2.38	0.41
36:BP:19:GLY:CA	36:BP:98:LYS:HD3	2.51	0.41
38:BQ:95:HIS:O	38:BQ:96:GLY:C	2.63	0.41
38:BQ:106:ARG:NH2	38:BQ:107:GLU:HB2	2.36	0.41
40:B1:76:TYR:CD2	40:B1:76:TYR:C	2.98	0.41
40:B1:107:ALA:O	40:B1:111:GLU:HG2	2.20	0.41
43:BT:91:ALA:O	43:BT:92:LEU:HD23	2.20	0.41
44:BU:27:VAL:O	44:BU:27:VAL:HG22	2.19	0.41
50:B4:37:SER:O	50:B4:42:PHE:HD1	2.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:B5:25:LEU:HD12	51:B5:25:LEU:N	2.33	0.41
51:B5:51:TYR:O	51:B5:56:LYS:HE2	2.21	0.41
1:CA:243:A:C2	1:CA:245:C:C2	3.08	0.41
1:CA:250:A:C1'	1:CA:251:G:OP2	2.59	0.41
1:CA:380:G:N2	1:CA:384:G:C5	2.88	0.41
1:CA:427:U:OP2	1:CA:428:G:O2'	2.37	0.41
1:CA:528:C:H41	12:CO:46:ASN:CG	2.28	0.41
1:CA:774:G:N2	1:CA:806:C:C2	2.88	0.41
1:CA:976:G:N2	1:CA:1362:C:H2'	2.35	0.41
1:CA:992:U:O2'	1:CA:993:G:OP2	2.36	0.41
1:CA:1054:C:H42	22:CB:35:G:C1'	2.33	0.41
1:CA:1077:G:C6	1:CA:1081:G:C6	3.08	0.41
1:CA:1104:G:H2'	1:CA:1105:A:H8	1.86	0.41
1:CA:1330:U:H4'	13:CP:23:TYR:CE2	2.56	0.41
2:CE:92:TYR:CD2	2:CE:92:TYR:C	2.98	0.41
7:CJ:85:TYR:CZ	7:CJ:154:TYR:HE1	2.39	0.41
8:CK:109:ILE:HG12	8:CK:110:ALA:N	2.33	0.41
9:CL:110:GLU:O	9:CL:111:ARG:O	2.39	0.41
10:CM:34:VAL:HG13	10:CM:74:ILE:HG22	2.02	0.41
10:CM:54:PHE:CE1	10:CM:55:LYS:CE	3.03	0.41
10:CM:78:ASN:OD1	10:CM:78:ASN:N	2.54	0.41
15:CR:20:GLY:O	15:CR:22:THR:HG23	2.20	0.41
16:CS:13:HIS:C	16:CS:15:PRO:HD3	2.46	0.41
18:CU:36:ASN:OD1	18:CU:36:ASN:N	2.54	0.41
23:CC:14:A:C4	23:CC:23:G:C2	3.08	0.41
25:DA:193:U:O3'	25:DA:803:U:H4'	2.21	0.41
25:DA:270(A):A:N6	25:DA:270(Y):G:H1'	2.35	0.41
25:DA:325:G:O2'	25:DA:326:G:H5'	2.21	0.41
25:DA:975:G:N2	25:DA:990:A:O4'	2.54	0.41
25:DA:1075:C:H2'	25:DA:1076:C:C5	2.55	0.41
25:DA:1111:A:H5'	31:DH:3:ARG:HH11	1.83	0.41
25:DA:1204:A:C2	25:DA:1241:A:N1	2.88	0.41
25:DA:1308:A:H2'	25:DA:1309:G:O4'	2.21	0.41
25:DA:1346:G:C5	25:DA:1347:G:N7	2.89	0.41
25:DA:1451:C:H3'	25:DA:1453:A:H5'	2.01	0.41
25:DA:1794:U:H1'	25:DA:1900:A:C2	2.55	0.41
25:DA:1992:G:H1'	25:DA:1993:U:OP2	2.20	0.41
25:DA:2311:A:O4'	30:DG:82:LEU:HD11	2.20	0.41
25:DA:2383:G:O2'	25:DA:2384:G:H5'	2.19	0.41
25:DA:2447:G:C1'	25:DA:2448:A:OP2	2.68	0.41
25:DA:2729:G:C6	25:DA:2730:C:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2823:A:OP1	28:DE:159:HIS:NE2	2.46	0.41
25:DA:2872:G:C2	25:DA:2873:A:C6	3.09	0.41
26:DB:29:A:OP2	38:DQ:31:SER:HB2	2.21	0.41
29:DF:27:GLU:O	29:DF:28:ILE:HG23	2.20	0.41
29:DF:51:THR:HB	29:DF:88:VAL:CG1	2.50	0.41
30:DG:41:GLN:HB3	30:DG:43:LEU:HD21	2.02	0.41
35:DO:62:LEU:CD1	54:D8:25:MET:HB2	2.48	0.41
36:DP:30:GLY:CA	36:DP:107:ALA:HB2	2.51	0.41
43:DT:31:HIS:HA	43:DT:32:PRO:HD3	1.90	0.41
44:DU:91:GLU:HG3	44:DU:92:ASN:O	2.20	0.41
45:DV:63:ASP:OD2	45:DV:65:GLN:HG3	2.21	0.41
46:D3:81:VAL:O	46:D3:83:PRO:HD3	2.20	0.41
48:DW:9:GLN:NE2	48:DW:56:GLN:HG3	2.35	0.41
53:D7:1:MET:O	53:D7:3:ARG:HD3	2.21	0.41
1:AA:195:A:N7	1:AA:196:A:C6	2.89	0.41
1:AA:502:G:OP1	12:AO:115:SER:CB	2.69	0.41
1:AA:582:U:H2'	1:AA:583:A:C8	2.55	0.41
1:AA:1083:U:C5	1:AA:1084:G:C5	3.09	0.41
1:AA:1269:A:C2	1:AA:1313:U:O4'	2.73	0.41
1:AA:1401:G:C2	1:AA:1402:C:H1'	2.56	0.41
2:AE:22:LYS:HA	2:AE:22:LYS:NZ	2.35	0.41
3:AF:15:THR:HG21	3:AF:181:ASN:HA	2.01	0.41
3:AF:165:THR:O	3:AF:165:THR:CG2	2.68	0.41
4:AG:70:ILE:HG23	4:AG:75:PHE:HB2	2.02	0.41
11:AN:79:SER:HB2	11:AN:106:LYS:CD	2.36	0.41
13:AP:8:GLU:OE1	13:AP:67:GLU:HB2	2.21	0.41
15:AR:55:GLY:HA2	15:AR:58:MET:HE3	2.03	0.41
16:AS:49:LEU:HD12	16:AS:50:LYS:N	2.36	0.41
19:AV:63:THR:HG1	19:AV:65:ASN:HD22	1.64	0.41
25:BA:631:A:N3	25:BA:2415:G:O2'	2.44	0.41
25:BA:714:U:O2	25:BA:716:A:C8	2.73	0.41
25:BA:1043:C:H42	25:BA:1112:G:H1	1.68	0.41
25:BA:1048:A:H5'	25:BA:1049:C:OP2	2.21	0.41
25:BA:1410:G:H2'	25:BA:1411:C:C6	2.56	0.41
25:BA:1839:G:H2'	25:BA:1839:G:N3	2.36	0.41
25:BA:1858:G:H1'	25:BA:1884:A:N6	2.35	0.41
25:BA:1918:A:O2'	25:BA:1920:C:N4	2.54	0.41
25:BA:2143:C:N4	25:BA:2148:G:N1	2.47	0.41
25:BA:2407:G:H2'	25:BA:2407:G:N3	2.35	0.41
25:BA:2523:G:C2'	25:BA:2524:G:H5'	2.51	0.41
25:BA:2543:G:H21	25:BA:2646:C:H5"	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2733:A:H3'	25:BA:2734:A:H5'	2.01	0.41
25:BA:2772:C:H2'	25:BA:2773:C:H6	1.85	0.41
27:BD:94:LEU:HD23	27:BD:94:LEU:HA	1.83	0.41
27:BD:186:HIS:HD2	27:BD:188:GLU:HB2	1.86	0.41
28:BE:4:ILE:HG12	28:BE:5:LEU:N	2.36	0.41
29:BF:34:TRP:CZ3	35:BO:8:PRO:HB3	2.56	0.41
31:BH:4:ILE:HG21	31:BH:6:ARG:NH1	2.36	0.41
45:BV:29:TYR:HE2	45:BV:87:ASP:HB2	1.85	0.41
45:BV:52:SER:O	45:BV:52:SER:OG	2.36	0.41
47:BZ:56:GLN:HA	47:BZ:56:GLN:NE2	2.34	0.41
51:B5:40:LYS:HZ3	51:B5:46:CYS:CB	2.32	0.41
52:B6:45:LYS:O	52:B6:46:HIS:C	2.64	0.41
54:B8:59:LYS:HE2	54:B8:59:LYS:HB3	1.79	0.41
1:CA:189:U:O2	17:CT:63:ARG:NH2	2.53	0.41
1:CA:345:C:HO2'	1:CA:346:G:P	2.42	0.41
1:CA:683:G:H2'	1:CA:684:A:O4'	2.20	0.41
1:CA:740:U:O2'	1:CA:741:G:H5'	2.21	0.41
1:CA:937:A:H1'	1:CA:1379:G:N2	2.36	0.41
1:CA:1054:C:C5	1:CA:1196:U:C4	3.09	0.41
1:CA:1091:U:C2	1:CA:1095:U:C4	3.09	0.41
1:CA:1139:G:N2	1:CA:1143:G:N1	2.68	0.41
1:CA:1150:U:H1'	1:CA:1280:A:N6	2.35	0.41
1:CA:1225:A:OP2	1:CA:1225:A:C8	2.74	0.41
1:CA:1305:G:OP2	1:CA:1305:G:C8	2.74	0.41
1:CA:1514:C:H2'	1:CA:1515:C:C6	2.55	0.41
2:CE:21:ARG:HB3	2:CE:21:ARG:CZ	2.50	0.41
2:CE:36:ARG:HG2	2:CE:37:ASN:ND2	2.36	0.41
6:CI:21:LEU:HD13	6:CI:21:LEU:O	2.20	0.41
9:CL:49:PRO:C	9:CL:51:ARG:H	2.28	0.41
11:CN:82:VAL:CG1	11:CN:108:ILE:HG12	2.50	0.41
13:CP:25:ILE:O	13:CP:29:ARG:HB2	2.19	0.41
13:CP:54:VAL:O	13:CP:58:GLU:HG2	2.19	0.41
22:CB:21:A:C2	22:CB:56:U:O2	2.74	0.41
22:CB:59:A:C2	22:CB:74:C:C2	3.08	0.41
22:CD:22:A:N3	22:CD:22:A:C2'	2.79	0.41
25:DA:270(I):G:H1	25:DA:270(Q):C:H42	1.68	0.41
25:DA:596:G:C5	25:DA:597:U:C5	3.09	0.41
25:DA:705:A:C2	25:DA:706:A:C4	3.08	0.41
25:DA:1725:G:C2	25:DA:1741:C:O2	2.74	0.41
25:DA:1831:G:H2'	25:DA:1832:C:C6	2.56	0.41
25:DA:2265:U:C4	25:DA:2266:A:C5	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2422:A:H4'	25:DA:2422:A:OP1	2.20	0.41
25:DA:2720:U:C4	25:DA:2873:A:C6	3.09	0.41
26:DB:40:U:HO2'	26:DB:43:C:H5	1.68	0.41
27:DD:28:GLU:HB2	27:DD:29:PRO:CD	2.49	0.41
27:DD:43:ARG:HD2	27:DD:44:ASN:CG	2.46	0.41
29:DF:25:PRO:CG	29:DF:26:ALA:H	2.29	0.41
29:DF:107:LYS:HD3	29:DF:107:LYS:HA	1.78	0.41
31:DH:9:ILE:HA	31:DH:10:PRO:HD3	1.96	0.41
33:DM:123:TYR:C	33:DM:125:GLY:N	2.78	0.41
36:DP:85:LYS:HB3	46:D3:9:SER:HB2	2.02	0.41
37:D0:37:THR:HG23	37:D0:40:LYS:HD3	2.03	0.41
40:D1:39:LEU:O	40:D1:40:PHE:C	2.62	0.41
40:D1:92:ARG:NH1	41:D2:11:GLN:O	2.53	0.41
45:DV:112:ARG:HB2	45:DV:113:ALA:H	1.54	0.41
51:D5:38:ALA:HB3	51:D5:48:GLU:HG3	2.02	0.41
53:D7:12:ARG:NH2	53:D7:44:PRO:HB3	2.35	0.41
1:AA:109:A:C8	1:AA:326:G:H2'	2.55	0.41
1:AA:711:G:O2'	1:AA:712:A:H5'	2.21	0.41
1:AA:775:G:O2'	1:AA:776:G:H5'	2.20	0.41
1:AA:1159:U:O4'	1:AA:1182:G:N2	2.54	0.41
1:AA:1266:G:N2	1:AA:1269:A:OP2	2.51	0.41
1:AA:1297:C:O2'	7:AJ:114:ARG:NH1	2.40	0.41
1:AA:1347:G:H22	1:AA:1374:A:P	2.43	0.41
2:AE:121:LEU:HA	2:AE:124:SER:OG	2.20	0.41
4:AG:19:LEU:CD2	4:AG:19:LEU:N	2.82	0.41
7:AJ:73:MET:CG	7:AJ:90:GLU:HA	2.51	0.41
13:AP:11:ARG:O	13:AP:12:ASN:C	2.63	0.41
13:AP:12:ASN:O	13:AP:14:ARG:N	2.54	0.41
13:AP:13:LYS:HE3	13:AP:21:TYR:OH	2.20	0.41
13:AP:94:ARG:O	13:AP:95:GLY:C	2.64	0.41
16:AS:57:ARG:HH21	16:AS:79:VAL:C	2.29	0.41
23:AC:48:U:C1'	23:AC:49:C:P	3.09	0.41
22:AD:12:C:H2'	22:AD:13:G:C8	2.55	0.41
22:AD:67:A:H4'	22:AD:68:A:OP1	2.15	0.41
25:BA:88:G:O2'	25:BA:89:G:H5'	2.21	0.41
25:BA:111:A:C2	25:BA:112:U:C2	3.09	0.41
25:BA:720:C:H2'	25:BA:721:C:C6	2.55	0.41
25:BA:811:U:OP2	35:BO:29:LYS:N	2.42	0.41
25:BA:821:A:O2'	25:BA:945:A:H3'	2.21	0.41
25:BA:878:A:OP1	25:BA:878:A:H4'	2.20	0.41
25:BA:1190:G:OP1	35:BO:30:THR:HG23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2078:C:H2'	25:BA:2079:U:C6	2.56	0.41
25:BA:2078:C:C4	25:BA:2079:U:C4	3.08	0.41
25:BA:2772:C:H2'	25:BA:2773:C:C6	2.55	0.41
27:BD:35:LYS:HE3	27:BD:64:ILE:N	2.36	0.41
27:BD:68:LYS:HB2	27:BD:70:TRP:CZ3	2.56	0.41
32:BK:9:LEU:N	32:BK:9:LEU:CD2	2.84	0.41
34:BN:31:LYS:HB3	34:BN:32:TYR:CE1	2.56	0.41
35:BO:19:VAL:HA	35:BO:27:HIS:HB3	2.03	0.41
36:BP:75:THR:CG2	36:BP:89:ASN:H	2.34	0.41
39:BR:110:ILE:HD11	39:BR:114:LEU:HD12	2.02	0.41
44:BU:46:LYS:HE3	44:BU:63:LYS:HB3	2.01	0.41
50:B4:37:SER:HA	50:B4:42:PHE:CB	2.44	0.41
51:B5:57:VAL:O	51:B5:57:VAL:HG13	2.21	0.41
53:B7:22:MET:HE3	53:B7:22:MET:HB3	1.92	0.41
1:CA:434:U:H2'	1:CA:435:C:H6	1.85	0.41
1:CA:578:C:H2'	1:CA:579:G:O5'	2.21	0.41
1:CA:1053:G:C4	1:CA:1199:U:C5	3.08	0.41
1:CA:1068:G:N7	1:CA:1094:G:C8	2.89	0.41
1:CA:1173:G:H2'	1:CA:1174:G:C8	2.56	0.41
1:CA:1346:A:C8	1:CA:1348:U:O2	2.74	0.41
1:CA:1374:A:O2'	7:CJ:28:ASN:HB3	2.21	0.41
1:CA:1453:G:C6	20:CW:55:ILE:HD11	2.56	0.41
2:CE:26:PRO:C	2:CE:28:PHE:N	2.78	0.41
2:CE:81:VAL:O	2:CE:81:VAL:HG12	2.21	0.41
2:CE:90:MET:HE2	2:CE:90:MET:HB3	1.83	0.41
2:CE:231:GLU:HB3	2:CE:232:PRO:HD2	2.03	0.41
3:CF:18:TRP:C	3:CF:20:SER:H	2.28	0.41
6:CI:96:PRO:HB3	18:CU:30:ASP:CG	2.46	0.41
11:CN:86:GLY:O	11:CN:91:ARG:HD3	2.21	0.41
12:CO:14:LYS:HD2	12:CO:14:LYS:HA	1.95	0.41
20:CW:20:LEU:O	20:CW:24:LEU:HD23	2.21	0.41
22:CB:12:C:C2	22:CB:25:G:C2	3.08	0.41
24:C1:13:A:C2'	24:C1:14:A:OP1	2.69	0.41
25:DA:329:G:C4'	25:DA:330:A:OP2	2.64	0.41
25:DA:511:U:C5	25:DA:512:G:C5	3.08	0.41
25:DA:888:C:H4'	25:DA:889:C:OP2	2.20	0.41
25:DA:898:C:N4	25:DA:899:A:C2	2.89	0.41
25:DA:1069:A:H2	25:DA:1094:U:N3	2.19	0.41
25:DA:1087:G:H2'	25:DA:1089:G:C4'	2.50	0.41
25:DA:1091:G:C5	25:DA:1092:C:N4	2.89	0.41
25:DA:1121:C:H2'	25:DA:1122:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1139:G:O3'	33:DM:24:GLY:HA3	2.20	0.41
25:DA:1773:A:N7	25:DA:1829:A:H1'	2.35	0.41
25:DA:1786:A:N1	25:DA:2606:C:H1'	2.36	0.41
25:DA:1851:U:H2'	25:DA:1852:C:O4'	2.21	0.41
25:DA:2124:G:H2'	25:DA:2125:G:H5'	2.03	0.41
25:DA:2162:G:H2'	25:DA:2163:C:O4'	2.21	0.41
25:DA:2180:U:C4	25:DA:2181:G:C5	3.09	0.41
25:DA:2276:G:H2'	25:DA:2276:G:N3	2.36	0.41
25:DA:2364:C:H4'	46:D3:56:ASP:OD2	2.21	0.41
25:DA:2630:G:N3	25:DA:2630:G:H2'	2.36	0.41
25:DA:2696:U:H2'	25:DA:2697:G:C8	2.56	0.41
25:DA:2724:C:H2'	25:DA:2725:A:C8	2.56	0.41
25:DA:2789:C:H1'	25:DA:2892:A:H2	1.86	0.41
25:DA:2836:U:H2'	25:DA:2837:G:C8	2.56	0.41
29:DF:65:TRP:CZ3	29:DF:72:ARG:HB3	2.56	0.41
31:DH:6:ARG:HH21	31:DH:54:ARG:HH22	1.69	0.41
33:DM:30:ILE:HG22	33:DM:34:LEU:CD2	2.50	0.41
34:DN:43:VAL:HG21	34:DN:52:VAL:HG11	2.02	0.41
36:DP:29:PHE:HB3	36:DP:65:PHE:CE2	2.55	0.41
36:DP:135:ASP:O	36:DP:137:TYR:HD2	2.04	0.41
44:DU:63:LYS:HA	44:DU:63:LYS:HZ2	1.83	0.41
45:DV:105:VAL:HG13	45:DV:106:GLY:N	2.35	0.41
50:D4:49:PHE:CD2	50:D4:50:VAL:N	2.89	0.41
51:D5:58:LEU:HD23	51:D5:58:LEU:HA	1.93	0.41
54:D8:25:MET:HE3	54:D8:25:MET:HB3	1.78	0.41
1:AA:5:U:H2'	1:AA:6:G:OP2	2.20	0.41
1:AA:58:C:O2'	1:AA:59:A:H5'	2.21	0.41
1:AA:87:A:O2'	1:AA:88:C:H5'	2.21	0.41
1:AA:95:G:H3'	1:AA:96:G:C8	2.56	0.41
1:AA:232:G:C5	1:AA:233:C:C5	3.08	0.41
1:AA:233:C:H2'	1:AA:234:C:H6	1.85	0.41
1:AA:498:A:C4'	1:AA:500:G:OP1	2.63	0.41
1:AA:540:G:H2'	1:AA:541:G:O4'	2.20	0.41
1:AA:854:G:H3'	1:AA:871:U:O4	2.20	0.41
1:AA:874:G:C6	1:AA:875:C:C4	3.09	0.41
1:AA:957:U:O2'	1:AA:959:A:N7	2.48	0.41
1:AA:1004:A:O2'	1:AA:1037:C:O2	2.39	0.41
1:AA:1193:G:C2'	1:AA:1194:U:H5'	2.51	0.41
1:AA:1199:U:H5'	10:AM:54:PHE:CE2	2.55	0.41
1:AA:1346:A:O4'	1:AA:1348:U:C6	2.74	0.41
2:AE:178:ARG:HH11	2:AE:178:ARG:CG	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AE:189:ASP:CG	2:AE:190:THR:N	2.79	0.41
5:AH:43:LEU:HD12	5:AH:43:LEU:HA	1.93	0.41
5:AH:69:VAL:HG12	5:AH:71:LEU:HD23	2.01	0.41
6:AI:19:LEU:O	6:AI:23:LYS:HB2	2.21	0.41
7:AJ:109:ASN:OD1	7:AJ:119:ARG:NH2	2.53	0.41
8:AK:86:ILE:HG12	8:AK:135:CYS:HA	2.03	0.41
9:AL:79:LEU:O	9:AL:83:ARG:HG3	2.21	0.41
9:AL:82:ALA:O	9:AL:86:VAL:HG23	2.21	0.41
11:AN:66:LEU:CD2	11:AN:97:ALA:HB1	2.50	0.41
13:AP:65:LYS:HB3	50:B4:50:VAL:HG11	2.03	0.41
16:AS:23:ASP:O	16:AS:24:ALA:C	2.64	0.41
16:AS:76:GLN:O	16:AS:76:GLN:HG2	2.21	0.41
17:AT:78:GLU:O	17:AT:79:SER:C	2.64	0.41
21:AX:9:ARG:O	21:AX:13:ILE:HG13	2.20	0.41
22:AB:17:G:H21	22:AB:66:G:H2'	1.86	0.41
22:AB:21:A:H8	22:AB:46:G:N7	2.15	0.41
22:AB:21:A:O2'	22:AB:46:G:N7	2.51	0.41
22:AB:42:U:H3'	22:AB:43:G:C8	2.56	0.41
23:AC:2:G:H2'	23:AC:3:C:C6	2.55	0.41
23:AC:19:G:C2	23:AC:59:A:C4	3.09	0.41
22:AD:17:G:C4'	22:AD:18:G:OP1	2.67	0.41
22:AD:21:A:H4'	22:AD:22:A:OP1	2.18	0.41
25:BA:43:G:H2'	25:BA:44:A:O4'	2.21	0.41
25:BA:49:A:C8	25:BA:51:G:C2	3.09	0.41
25:BA:71:A:OP2	25:BA:113:G:H5'	2.21	0.41
25:BA:172:C:H2'	25:BA:173:G:O4'	2.20	0.41
25:BA:270(E):G:C6	25:BA:270(F):U:C4	3.09	0.41
25:BA:459:U:H2'	25:BA:460:A:C8	2.56	0.41
25:BA:475:U:N3	25:BA:481:G:O6	2.53	0.41
25:BA:482:A:H4'	44:BU:47:LYS:HD2	2.03	0.41
25:BA:496:G:H1'	42:BS:61:ASN:OD1	2.21	0.41
25:BA:738:G:N3	25:BA:738:G:H2'	2.35	0.41
25:BA:889:C:H5"	25:BA:890:A:O5'	2.21	0.41
25:BA:957:A:N1	25:BA:2458:G:H4'	2.36	0.41
25:BA:1188:U:H2'	25:BA:1189:A:H5'	2.02	0.41
25:BA:1291:C:C5'	25:BA:1536:A:H5'	2.51	0.41
25:BA:1420:U:H2'	25:BA:1421:G:O5'	2.21	0.41
25:BA:1538:G:N2	25:BA:1539:G:H1'	2.36	0.41
25:BA:1588:C:H2'	25:BA:1589:C:C6	2.47	0.41
25:BA:1675:C:H6	25:BA:1675:C:O5'	2.04	0.41
25:BA:1812:A:H2'	25:BA:1813:G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1916:A:H2'	25:BA:1917:U:O4'	2.21	0.41
25:BA:2109:U:O2	25:BA:2181:G:C2	2.74	0.41
25:BA:2199:A:C5'	25:BA:2205:C:OP2	2.69	0.41
25:BA:2259:G:C2	25:BA:2282:G:C6	3.08	0.41
25:BA:2273:A:H2'	25:BA:2274:A:C8	2.56	0.41
25:BA:2439:A:H4'	25:BA:2440:C:O5'	2.21	0.41
25:BA:2749:A:C6	25:BA:2750:A:C6	3.09	0.41
26:BB:6:C:C3'	26:BB:7:G:H5"	2.51	0.41
27:BD:119:ALA:HA	27:BD:130:ALA:O	2.21	0.41
28:BE:77:ILE:C	28:BE:79:ARG:N	2.77	0.41
29:BF:125:LEU:HA	29:BF:194:MET:O	2.21	0.41
29:BF:127:GLU:C	29:BF:129:PHE:N	2.75	0.41
29:BF:132:VAL:HG23	29:BF:133:ASN:N	2.36	0.41
30:BG:38:VAL:HG22	30:BG:93:THR:HG23	2.02	0.41
30:BG:83:ARG:O	30:BG:85:GLY:N	2.54	0.41
31:BH:27:LYS:HD2	31:BH:28:GLY:N	2.36	0.41
31:BH:96:ALA:N	31:BH:128:PRO:O	2.54	0.41
33:BM:96:GLU:CG	33:BM:97:ARG:N	2.84	0.41
35:BO:61:ARG:HG2	54:B8:27:THR:CG2	2.50	0.41
35:BO:106:LEU:O	35:BO:107:LYS:HB2	2.21	0.41
36:BP:66:ILE:O	36:BP:67:ARG:HB2	2.21	0.41
36:BP:109:VAL:HG13	36:BP:110:THR:N	2.36	0.41
40:B1:65:ILE:C	40:B1:67:ALA:N	2.79	0.41
43:BT:47:PHE:O	43:BT:48:LYS:C	2.63	0.41
44:BU:57:GLN:HE21	44:BU:57:GLN:HB2	1.61	0.41
45:BV:53:ILE:CA	45:BV:71:VAL:HG13	2.51	0.41
45:BV:96:VAL:CG2	45:BV:97:GLU:N	2.83	0.41
45:BV:102:LEU:HD22	45:BV:139:VAL:HG21	2.03	0.41
45:BV:105:VAL:O	45:BV:140:ASP:HA	2.21	0.41
45:BV:172:ALA:O	45:BV:173:ALA:HB2	2.21	0.41
49:BX:10:LYS:HD3	49:BX:53:LEU:HD23	2.03	0.41
49:BX:11:SER:HA	49:BX:12:PRO:HD3	1.74	0.41
51:B5:51:TYR:HB3	51:B5:52:TYR:H	1.56	0.41
52:B6:30:THR:HA	52:B6:31:PRO:C	2.45	0.41
1:CA:182:U:H5	1:CA:183:G:C4	2.39	0.41
1:CA:262:A:N6	1:CA:263:A:N6	2.69	0.41
1:CA:426:G:P	4:CG:36:ARG:NH2	2.94	0.41
1:CA:449:C:O2	1:CA:449:C:O4'	2.39	0.41
1:CA:528:C:H4'	1:CA:535:A:C5	2.56	0.41
1:CA:545:C:H5'	4:CG:72:GLU:HB2	2.03	0.41
1:CA:683:G:N2	1:CA:708:C:C2	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:688:G:OP2	1:CA:688:G:O4'	2.39	0.41
1:CA:838:G:C2	1:CA:842:C:H1'	2.56	0.41
1:CA:854:G:H3'	1:CA:855:G:H5"	2.02	0.41
1:CA:1005:A:H3'	1:CA:1006:C:H5'	2.03	0.41
1:CA:1080:A:H4'	5:CH:16:THR:HB	2.03	0.41
1:CA:1125:U:OP2	1:CA:1125:U:H4'	2.20	0.41
1:CA:1151:A:C2'	1:CA:1152:A:O5'	2.69	0.41
1:CA:1162:C:C2	1:CA:1175:G:N2	2.89	0.41
1:CA:1176:A:N6	1:CA:1177:G:C4	2.89	0.41
1:CA:1255:G:C6	1:CA:1279:A:C8	3.08	0.41
1:CA:1291:G:C5	1:CA:1292:U:C5	3.08	0.41
2:CE:12:GLU:HB2	2:CE:16:HIS:HB2	2.03	0.41
2:CE:41:ILE:O	2:CE:41:ILE:HG22	2.21	0.41
2:CE:239:VAL:HG12	2:CE:240:GLN:N	2.36	0.41
3:CF:64:VAL:HG12	3:CF:65:ALA:N	2.36	0.41
4:CG:23:GLY:HA3	4:CG:112:VAL:CG2	2.51	0.41
4:CG:119:GLN:CG	4:CG:123:HIS:CD2	3.04	0.41
5:CH:20:GLN:O	5:CH:21:ALA:C	2.64	0.41
6:CI:24:GLU:OE2	6:CI:28:ARG:NH1	2.49	0.41
6:CI:42:GLU:C	6:CI:44:GLY:N	2.78	0.41
6:CI:43:LEU:H	6:CI:43:LEU:HD12	1.86	0.41
7:CJ:77:SER:HA	7:CJ:86:GLN:HA	2.03	0.41
7:CJ:89:MET:HE3	7:CJ:155:ARG:HB2	2.02	0.41
8:CK:11:THR:HA	8:CK:14:ARG:NH1	2.36	0.41
9:CL:5:TYR:HE2	9:CL:16:ARG:CG	2.33	0.41
9:CL:14:VAL:HB	9:CL:66:ARG:O	2.21	0.41
11:CN:34:ASP:OD1	11:CN:38:ASN:HB2	2.21	0.41
11:CN:100:ALA:C	11:CN:102:GLY:N	2.77	0.41
12:CO:25:LYS:O	12:CO:26:GLY:C	2.64	0.41
12:CO:86:ARG:O	12:CO:96:HIS:HE1	2.03	0.41
13:CP:103:THR:O	13:CP:104:ARG:C	2.64	0.41
19:CV:60:VAL:O	19:CV:62:ILE:HD12	2.21	0.41
20:CW:56:MET:O	20:CW:59:ALA:HB3	2.20	0.41
22:CB:13:G:H5'	22:CB:14:A:OP1	2.21	0.41
25:DA:71:A:C4'	25:DA:72:U:OP2	2.69	0.41
25:DA:141(A):C:H2'	25:DA:142:G:O4'	2.21	0.41
25:DA:155:C:N3	25:DA:171:G:C2	2.88	0.41
25:DA:273(F):C:N3	25:DA:363:G:O6	2.54	0.41
25:DA:337:C:H2'	25:DA:338:G:O5'	2.20	0.41
25:DA:414:C:H1'	25:DA:1864:U:O2'	2.20	0.41
25:DA:439:G:H2'	25:DA:440:G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:581:C:OP1	40:D1:33:ARG:HG3	2.21	0.41
25:DA:637:A:H2'	35:DO:117:GLU:OE2	2.21	0.41
25:DA:651:G:H4'	54:D8:18:ALA:HB3	2.02	0.41
25:DA:748:G:C8	42:DS:89:ALA:HB1	2.56	0.41
25:DA:857:C:OP1	46:D3:77:ARG:NH2	2.50	0.41
25:DA:1019:U:O2'	25:DA:1021:A:H2	2.00	0.41
25:DA:1064:C:C4	25:DA:1065:U:O4	2.74	0.41
25:DA:1070:A:N7	25:DA:1096:A:O2'	2.54	0.41
25:DA:1196:C:O4'	25:DA:1227:A:C2	2.74	0.41
25:DA:1204:A:N1	25:DA:1241:A:C2	2.89	0.41
25:DA:1328:G:H2'	25:DA:1330:C:C4	2.55	0.41
25:DA:1344:G:H4'	25:DA:1384:A:C5	2.56	0.41
25:DA:1460:A:O2'	25:DA:1461:G:P	2.79	0.41
25:DA:1556:C:H2'	25:DA:1557:C:C6	2.56	0.41
25:DA:1899:G:O2'	25:DA:1900:A:OP2	2.36	0.41
25:DA:1950:G:C2	25:DA:1951:U:C5	3.08	0.41
25:DA:2111:C:C6	25:DA:2118:U:H4'	2.56	0.41
25:DA:2531:A:H4'	31:DH:157:TYR:CE2	2.55	0.41
25:DA:2810:A:O3'	28:DE:61:ARG:HG3	2.21	0.41
25:DA:2861:G:C4	25:DA:2862:G:C8	3.08	0.41
26:DB:27:C:C4	26:DB:28:C:C4	3.08	0.41
27:DD:61:LEU:HD13	27:DD:61:LEU:HA	1.90	0.41
27:DD:133:LEU:HD13	27:DD:173:VAL:CG2	2.51	0.41
28:DE:73:GLU:HA	28:DE:74:PRO:HD2	1.81	0.41
28:DE:77:ILE:HA	28:DE:78:LEU:HD23	2.03	0.41
28:DE:87:GLU:C	28:DE:89:ASP:N	2.79	0.41
29:DF:36:VAL:O	29:DF:40:GLN:HB2	2.20	0.41
29:DF:53:THR:O	29:DF:54:ARG:C	2.63	0.41
29:DF:59:TYR:CD1	29:DF:78:ILE:HD12	2.56	0.41
29:DF:96:ASP:OD1	29:DF:96:ASP:C	2.64	0.41
30:DG:23:PHE:HB2	30:DG:25:TYR:CZ	2.56	0.41
30:DG:94:LEU:H	30:DG:94:LEU:HD23	1.86	0.41
32:DK:64:GLU:OE1	32:DK:67:ARG:NH1	2.53	0.41
32:DK:120:ILE:HG22	32:DK:122:GLU:H	1.86	0.41
35:DO:61:ARG:NH2	35:DO:61:ARG:HB3	2.24	0.41
35:DO:114:ILE:HG21	35:DO:130:PHE:CE1	2.56	0.41
36:DP:43:THR:OG1	36:DP:45:GLN:HG2	2.20	0.41
36:DP:59:ARG:C	36:DP:60:ARG:HD2	2.45	0.41
37:D0:14:SER:HA	37:D0:17:ARG:HH12	1.86	0.41
37:D0:65:LEU:HD12	37:D0:65:LEU:HA	1.72	0.41
39:DR:20:PRO:HD2	39:DR:86:ILE:HG23	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:D2:6:LYS:H	41:D2:37:VAL:CG1	2.30	0.41
42:DS:95:ILE:HD13	42:DS:95:ILE:N	2.35	0.41
42:DS:110:LYS:HA	42:DS:110:LYS:HD2	1.71	0.41
43:DT:36:LYS:HG3	43:DT:56:THR:HG23	2.03	0.41
43:DT:41:ASN:N	43:DT:41:ASN:ND2	2.68	0.41
45:DV:61:LEU:HB3	45:DV:62:PRO:HD2	2.03	0.41
45:DV:152:ALA:HA	45:DV:171:ILE:HG13	2.03	0.41
47:DZ:95:LEU:O	47:DZ:96:LYS:HG2	2.21	0.41
48:DW:16:LEU:O	48:DW:20:GLU:HB2	2.20	0.41
51:D5:4:HIS:CB	51:D5:5:PRO:CD	2.85	0.41
52:D6:24:GLU:HA	52:D6:24:GLU:OE1	2.21	0.41
53:D7:15:THR:HG22	53:D7:16:HIS:CE1	2.55	0.41
54:D8:24:ALA:O	54:D8:47:LYS:HA	2.21	0.41
54:D8:29:LYS:O	54:D8:30:ARG:C	2.62	0.41
1:AA:113:G:H2'	1:AA:114:U:H6	1.86	0.41
1:AA:195:A:C5	1:AA:196:A:N1	2.89	0.41
1:AA:266:G:H4'	1:AA:267:C:O5'	2.21	0.41
1:AA:309:G:O2'	1:AA:607:A:N1	2.53	0.41
1:AA:376:G:O2'	1:AA:377:G:H5'	2.21	0.41
1:AA:828:A:H2'	1:AA:829:G:O4'	2.21	0.41
1:AA:872:A:H4'	1:AA:873:A:OP1	2.21	0.41
1:AA:1059:C:H2'	1:AA:1060:C:C6	2.56	0.41
2:AE:45:GLN:O	2:AE:49:GLU:HG3	2.21	0.41
2:AE:119:GLU:C	2:AE:121:LEU:N	2.79	0.41
2:AE:162:ILE:HD13	2:AE:162:ILE:N	2.36	0.41
2:AE:220:ASP:O	2:AE:223:ILE:N	2.54	0.41
3:AF:3:ASN:HB2	3:AF:4:LYS:H	1.73	0.41
4:AG:8:VAL:HG11	4:AG:21:LEU:HB2	2.01	0.41
4:AG:8:VAL:HG13	4:AG:21:LEU:HB2	2.03	0.41
4:AG:27:TYR:OH	6:CI:15:ASP:OD2	2.28	0.41
9:AL:9:ARG:HB3	9:AL:14:VAL:HG22	2.02	0.41
10:AM:75:ILE:HG13	10:AM:76:ASN:N	2.36	0.41
13:AP:3:ARG:HB3	13:AP:9:ILE:HG12	2.02	0.41
22:AD:18:G:O2'	25:BA:2112:G:N9	2.53	0.41
25:BA:307:G:H21	25:BA:330:A:H62	1.69	0.41
25:BA:329:G:OP2	44:BU:71:LYS:HE3	2.21	0.41
25:BA:529:A:N3	25:BA:529:A:C2'	2.84	0.41
25:BA:654(C):G:C6	25:BA:654(S):G:N1	2.89	0.41
25:BA:743:G:H2'	25:BA:744:G:H5'	2.03	0.41
25:BA:1071:G:O6	25:BA:1072:C:N4	2.53	0.41
25:BA:2156:G:C4	25:BA:2157:G:N2	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2266:A:H4'	25:BA:2267:A:N3	2.36	0.41
25:BA:2278:A:OP1	36:BP:11:LYS:HD2	2.21	0.41
25:BA:2347:C:O5'	52:B6:39:TYR:OH	2.28	0.41
25:BA:2430:A:C8	25:BA:2431:U:C5	3.09	0.41
27:BD:44:ASN:ND2	27:BD:44:ASN:N	2.68	0.41
27:BD:61:LEU:O	27:BD:63:ARG:NH1	2.52	0.41
27:BD:149:PRO:O	27:BD:150:LYS:HB2	2.21	0.41
29:BF:170:LEU:HA	29:BF:170:LEU:HD12	1.85	0.41
30:BG:57:ALA:HA	30:BG:90:LEU:HD21	2.04	0.41
30:BG:66:GLN:HG3	30:BG:98:ARG:HD2	2.03	0.41
31:BH:16:SER:O	31:BH:17:VAL:HG23	2.21	0.41
32:BK:96:ASP:O	32:BK:97:ILE:C	2.64	0.41
33:BM:32:THR:HG22	33:BM:37:LYS:HB2	2.03	0.41
35:BO:131:SER:O	35:BO:132:LYS:C	2.63	0.41
36:BP:115:MET:HE3	36:BP:115:MET:HB3	1.96	0.41
38:BQ:30:ARG:HG3	38:BQ:30:ARG:HH11	1.85	0.41
45:BV:25:PRO:O	45:BV:85:HIS:HA	2.21	0.41
45:BV:62:PRO:C	45:BV:64:GLY:HA2	2.44	0.41
51:B5:3:LYS:HA	51:B5:3:LYS:HZ2	1.72	0.41
54:B8:8:LYS:HD2	54:B8:8:LYS:HA	1.82	0.41
1:CA:157:G:H2'	1:CA:158:G:C8	2.56	0.41
1:CA:338:A:H2'	1:CA:339:C:O4'	2.21	0.41
1:CA:524:G:H2'	1:CA:525:C:C6	2.55	0.41
1:CA:604:G:H2'	1:CA:605:U:O4'	2.21	0.41
1:CA:792:A:H4'	1:CA:793:U:O5'	2.21	0.41
1:CA:818:G:C2	1:CA:820:U:O2'	2.72	0.41
1:CA:1055:A:H2'	1:CA:1056:U:O5'	2.21	0.41
1:CA:1106:G:C6	1:CA:1107:C:C4	3.09	0.41
1:CA:1245:A:C6	1:CA:1293:G:C6	3.09	0.41
1:CA:1300:G:C2'	1:CA:1301:U:OP2	2.69	0.41
1:CA:1374:A:H2'	1:CA:1375:A:C5'	2.48	0.41
2:CE:132:LYS:O	2:CE:136:VAL:HG23	2.20	0.41
4:CG:57:ARG:NE	4:CG:205:GLU:OE2	2.54	0.41
5:CH:143:ARG:HB3	5:CH:147:ASP:HB2	2.03	0.41
9:CL:95:LYS:NZ	9:CL:96:LEU:HD13	2.34	0.41
9:CL:108:VAL:O	9:CL:109:VAL:C	2.64	0.41
10:CM:12:ASP:OD1	10:CM:15:THR:HG23	2.21	0.41
13:CP:116:THR:O	13:CP:117:VAL:C	2.63	0.41
25:DA:17:G:H2'	25:DA:18:C:H6	1.86	0.41
25:DA:779:U:OP1	27:DD:49:ILE:CG2	2.68	0.41
25:DA:1022:G:H22	25:DA:1142(A):A:H2	1.61	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1050:A:C5	25:DA:2751:G:C6	3.09	0.41
25:DA:1356:G:C5	25:DA:1357:U:C5	3.09	0.41
25:DA:1478:G:N2	25:DA:1516:U:C2	2.89	0.41
25:DA:1728:G:H8	25:DA:1732:A:H62	1.69	0.41
25:DA:2308:G:O6	25:DA:2311:A:N1	2.54	0.41
25:DA:2318:G:H5'	25:DA:2319:G:P	2.61	0.41
25:DA:2346:A:C8	52:D6:24:GLU:HG2	2.56	0.41
25:DA:2371:G:C4'	52:D6:45:LYS:HG3	2.50	0.41
25:DA:2393:A:P	54:D8:30:ARG:HB3	2.60	0.41
25:DA:2533:A:H4'	25:DA:2664:G:H4'	2.03	0.41
25:DA:2820:A:C6	37:D0:4:LEU:HD11	2.55	0.41
26:DB:90:C:P	36:DP:16:ARG:HH21	2.44	0.41
29:DF:9:ILE:CG1	29:DF:15:SER:H	2.34	0.41
30:DG:33:ARG:H	30:DG:162:THR:HG23	1.85	0.41
35:DO:147:LEU:HD23	35:DO:148:LEU:H	1.86	0.41
38:DQ:4:LEU:HA	38:DQ:8:GLU:OE2	2.21	0.41
40:D1:98:LEU:H	40:D1:98:LEU:HG	1.73	0.41
41:D2:77:ALA:O	41:D2:79:VAL:HG22	2.21	0.41
42:DS:4:LYS:CB	42:DS:106:ILE:HG22	2.51	0.41
43:DT:26:TYR:HB3	43:DT:92:LEU:CD1	2.51	0.41
45:DV:111:VAL:HG13	45:DV:111:VAL:O	2.21	0.41
47:DZ:82:LEU:N	47:DZ:82:LEU:CD2	2.79	0.41
49:DX:9:VAL:HG22	49:DX:53:LEU:O	2.20	0.41
50:D4:56:VAL:HA	50:D4:60:GLN:NE2	2.36	0.41
1:AA:149:A:C2	1:AA:150:C:C2	3.09	0.40
1:AA:622:A:C8	1:AA:623:C:C6	3.09	0.40
1:AA:836:G:OP1	18:AU:61:LYS:NZ	2.37	0.40
1:AA:957:U:H2'	1:AA:959:A:OP2	2.21	0.40
1:AA:1004:A:C2	1:AA:1005:A:C2	3.09	0.40
1:AA:1057:G:O3'	3:AF:197:GLY:HA3	2.21	0.40
1:AA:1305:G:H5"	21:AX:4:GLY:C	2.46	0.40
2:AE:21:ARG:C	2:AE:23:ARG:N	2.77	0.40
2:AE:63:MET:HB3	2:AE:225:ALA:HB1	2.03	0.40
3:AF:28:GLN:O	3:AF:29:TYR:C	2.64	0.40
3:AF:52:LEU:CD2	3:AF:52:LEU:H	2.35	0.40
4:AG:110:PHE:H	4:AG:110:PHE:HD1	1.68	0.40
5:AH:153:LYS:HD3	5:AH:153:LYS:C	2.46	0.40
6:AI:4:TYR:HD1	6:AI:92:LYS:HA	1.84	0.40
7:AJ:30:ILE:HD13	7:AJ:120:ILE:HD13	2.03	0.40
8:AK:118:VAL:C	8:AK:119:LEU:HD23	2.46	0.40
11:AN:73:MET:HG2	11:AN:77:MET:O	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AO:42:PRO:HD3	12:AO:48:ALA:O	2.21	0.40
16:AS:43:LYS:HE3	16:AS:48:TRP:CZ3	2.56	0.40
22:AD:44:C:C2'	22:AD:45:C:H5'	2.51	0.40
25:BA:673:C:H5"	29:BF:81:PRO:HD2	2.03	0.40
25:BA:1026:U:C1'	25:BA:1027:A:P	3.09	0.40
25:BA:1171:G:N2	25:BA:1178:C:N3	2.66	0.40
25:BA:1313:U:H4'	25:BA:1332:G:H4'	2.02	0.40
25:BA:1499:C:O2'	25:BA:1500:G:H5'	2.21	0.40
25:BA:1505:C:H2'	25:BA:1506:C:H6	1.85	0.40
25:BA:2169:A:N6	25:BA:2170:A:C6	2.89	0.40
25:BA:2684:U:C4	25:BA:2685:G:N7	2.89	0.40
26:BB:109:G:C4	26:BB:110:G:C8	3.09	0.40
27:BD:182:LEU:N	27:BD:272:ALA:HB3	2.35	0.40
29:BF:89:VAL:O	29:BF:90:PHE:C	2.65	0.40
29:BF:167:ALA:HB1	29:BF:173:VAL:HG11	2.03	0.40
30:BG:123:ASN:C	30:BG:125:PHE:H	2.29	0.40
32:BK:125:GLU:OE1	32:BK:141:LYS:HA	2.22	0.40
37:B0:12:ARG:O	37:B0:17:ARG:NH2	2.55	0.40
39:BR:78:LEU:O	39:BR:78:LEU:HD23	2.22	0.40
44:BU:33:LYS:H	44:BU:33:LYS:HG3	1.46	0.40
45:BV:53:ILE:HG22	45:BV:71:VAL:HG13	2.03	0.40
50:B4:37:SER:OG	50:B4:42:PHE:CE2	2.71	0.40
50:B4:61:ARG:HE	50:B4:61:ARG:HA	1.85	0.40
1:CA:398:C:H2'	1:CA:399:G:C8	2.55	0.40
1:CA:512:U:O4'	4:CG:43:HIS:HE1	2.04	0.40
1:CA:963:G:N2	10:CM:55:LYS:HG2	2.36	0.40
1:CA:1125:U:C5	10:CM:5:ARG:NH1	2.89	0.40
1:CA:1129:C:H5	1:CA:1141:C:H42	1.69	0.40
1:CA:1206:G:C5	1:CA:1207:G:N7	2.89	0.40
1:CA:1315:U:H2'	1:CA:1316:G:O4'	2.21	0.40
1:CA:1321:C:C5	1:CA:1322:C:C5	3.09	0.40
3:CF:86:VAL:O	3:CF:90:GLU:HG2	2.21	0.40
4:CG:108:LEU:HD12	4:CG:108:LEU:HA	1.74	0.40
5:CH:34:VAL:O	5:CH:34:VAL:HG12	2.20	0.40
9:CL:97:LYS:C	9:CL:99:LEU:H	2.29	0.40
9:CL:114:TYR:N	9:CL:114:TYR:CD2	2.86	0.40
11:CN:109:VAL:HG13	18:CU:86:VAL:HG13	2.03	0.40
13:CP:27:LYS:HE3	13:CP:31:LYS:HE3	2.03	0.40
13:CP:30:ALA:C	13:CP:32:GLU:N	2.79	0.40
16:CS:74:LEU:HD13	16:CS:79:VAL:HG21	2.01	0.40
17:CT:45:HIS:HB2	17:CT:65:ILE:CD1	2.50	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CU:30:ASP:O	18:CU:32:ARG:N	2.54	0.40
22:CD:64:U:C4	22:CD:66:G:OP2	2.74	0.40
25:DA:150:C:H2'	25:DA:151:C:H6	1.86	0.40
25:DA:458:G:C8	53:D7:37:LYS:HG2	2.56	0.40
25:DA:920:G:C4	25:DA:921:G:C8	3.09	0.40
25:DA:959:A:C6	25:DA:960:A:N1	2.89	0.40
25:DA:1029:A:H2'	25:DA:1030:G:O4'	2.21	0.40
25:DA:1324:G:C5	25:DA:1328:G:O6	2.73	0.40
25:DA:1416:G:C2'	25:DA:1417:C:C6	3.04	0.40
25:DA:1503:U:H2'	25:DA:1504:C:C6	2.56	0.40
25:DA:1681:G:HO2'	25:DA:1762:A:HO2'	1.51	0.40
25:DA:2128:C:C4	25:DA:2129:C:C4	3.09	0.40
25:DA:2469:A:OP2	25:DA:2476:A:C2	2.74	0.40
25:DA:2632:A:H61	25:DA:2786:U:H3	1.69	0.40
25:DA:2710:C:OP1	37:D0:15:SER:OG	2.35	0.40
25:DA:2765:A:C2	25:DA:2766:G:O4'	2.70	0.40
28:DE:17:ASP:O	28:DE:18:ASP:HB2	2.21	0.40
28:DE:55:ASN:C	28:DE:57:LYS:N	2.79	0.40
28:DE:120:TRP:CG	28:DE:155:LYS:HB3	2.55	0.40
29:DF:9:ILE:HG22	29:DF:11:VAL:O	2.20	0.40
29:DF:119:ARG:CG	29:DF:119:ARG:NH1	2.84	0.40
30:DG:106:LEU:O	30:DG:110:ALA:HB3	2.20	0.40
30:DG:114:ILE:HD13	30:DG:140:ILE:HG21	2.02	0.40
31:DH:166:GLY:O	31:DH:167:GLU:O	2.38	0.40
32:DK:98:ALA:O	32:DK:101:LEU:HD23	2.21	0.40
33:DM:14:VAL:HG13	33:DM:137:LYS:HG2	2.03	0.40
34:DN:113:LYS:O	34:DN:117:LEU:HD13	2.21	0.40
35:DO:45:LEU:HD12	35:DO:45:LEU:HA	1.84	0.40
35:DO:62:LEU:HD11	54:D8:26:LYS:C	2.46	0.40
37:D0:118:GLU:OE1	37:D0:118:GLU:HA	2.21	0.40
39:DR:36:GLU:OE2	39:DR:41:ARG:HD3	2.21	0.40
39:DR:80:SER:HB3	39:DR:83:ILE:CG1	2.45	0.40
41:D2:7:THR:HG23	41:D2:22:VAL:HG21	2.03	0.40
45:DV:124:ILE:HD12	45:DV:124:ILE:HA	1.96	0.40
47:DZ:83:GLU:O	47:DZ:84:GLY:C	2.63	0.40
50:D4:10:VAL:HA	50:D4:11:PRO:HD2	1.95	0.40
50:D4:53:GLU:OE2	50:D4:58:ARG:HB2	2.20	0.40
1:AA:1047:G:H2'	1:AA:1048:G:H5'	2.03	0.40
1:AA:1161:C:H2'	1:AA:1162:C:C6	2.56	0.40
2:AE:115:LEU:C	2:AE:117:GLU:N	2.80	0.40
3:AF:36:ASP:O	3:AF:40:ARG:HG3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AI:39:LYS:HB3	6:AI:40:VAL:H	1.67	0.40
8:AK:121:ASP:O	8:AK:125:ARG:HB2	2.22	0.40
11:AN:12:ARG:HG2	11:AN:13:GLN:N	2.36	0.40
11:AN:120:ARG:HA	11:AN:121:PRO:HD3	1.85	0.40
14:AQ:12:ARG:C	14:AQ:14:PRO:CD	2.88	0.40
21:AX:9:ARG:HD3	21:AX:22:ARG:HG3	2.02	0.40
22:AB:7:G:N2	22:AB:76:C:O2	2.54	0.40
22:AD:19:C:OP1	22:AD:19:C:O4'	2.40	0.40
22:AD:49:A:H2'	22:AD:50:U:O5'	2.22	0.40
25:BA:76:C:O3'	48:BW:59:ARG:HD3	2.21	0.40
25:BA:195:A:H4'	25:BA:251:A:O2'	2.21	0.40
25:BA:524:U:H2'	25:BA:525:U:H6	1.84	0.40
25:BA:1005:C:O2'	33:BM:28:THR:HG21	2.20	0.40
25:BA:1161:C:H4'	41:B2:8:GLY:HA2	2.03	0.40
25:BA:1212:G:H1'	25:BA:1237:A:N6	2.36	0.40
25:BA:1353:A:O4'	25:BA:1569:A:H2	2.03	0.40
25:BA:1528:A:C2	25:BA:1543:A:N1	2.88	0.40
25:BA:1729:A:N6	25:BA:1731:G:C2	2.90	0.40
25:BA:2075:U:C4	25:BA:2238:G:C6	3.09	0.40
25:BA:2088:G:C6	25:BA:2089:U:C4	3.09	0.40
25:BA:2612:C:C2'	25:BA:2613:U:O5'	2.70	0.40
26:BB:83:G:C6	26:BB:84:C:C5	3.09	0.40
28:BE:181:LEU:HD11	39:BR:7:ILE:HG21	2.03	0.40
30:BG:146:TYR:O	30:BG:148:MET:N	2.46	0.40
31:BH:127:GLU:OE2	31:BH:130:ARG:NH2	2.55	0.40
32:BK:44:LEU:HD12	32:BK:44:LEU:HA	1.87	0.40
33:BM:137:LYS:HD2	33:BM:137:LYS:HA	1.77	0.40
38:BQ:27:SER:HA	38:BQ:88:ASP:HB3	2.02	0.40
39:BR:51:ARG:HB2	39:BR:98:LYS:HD2	2.02	0.40
40:B1:60:LEU:HD13	40:B1:60:LEU:C	2.47	0.40
1:CA:336:C:H2'	1:CA:337:C:H6	1.86	0.40
1:CA:516:U:C4	1:CA:517:G:C6	3.09	0.40
1:CA:600:C:H2'	1:CA:601:C:C6	2.56	0.40
1:CA:965:A:C2	1:CA:969:A:C2	3.09	0.40
1:CA:977:A:H3'	1:CA:977:A:N3	2.35	0.40
1:CA:1028(A):C:N3	1:CA:1032(B):G:C6	2.88	0.40
1:CA:1120:G:H2'	1:CA:1121:U:H6	1.85	0.40
1:CA:1278:U:O2	1:CA:1278:U:C3'	2.69	0.40
1:CA:1330:U:O3'	13:CP:23:TYR:CE2	2.73	0.40
2:CE:168:THR:HG21	2:CE:191:ASP:O	2.22	0.40
3:CF:85:ARG:O	3:CF:88:ARG:N	2.53	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CH:18:ARG:HG2	5:CH:19:MET:N	2.37	0.40
12:CO:74:LEU:HD21	12:CO:104:ALA:HB2	2.03	0.40
13:CP:57:ARG:NH2	50:D4:34:GLU:HB2	2.36	0.40
23:CC:64:G:H2'	23:CC:65:G:H8	1.86	0.40
22:CD:14:A:H1'	22:CD:23:A:C2	2.56	0.40
25:DA:26:G:H1'	25:DA:515:A:N6	2.36	0.40
25:DA:84:A:N6	25:DA:102:G:HO2'	2.05	0.40
25:DA:296:C:O2'	25:DA:297:C:H5'	2.21	0.40
25:DA:1342:A:C5	25:DA:1397:U:C5	3.08	0.40
25:DA:1693:U:O2'	27:DD:14:ARG:NH2	2.54	0.40
25:DA:1790:C:H2'	25:DA:1791:A:C5	2.56	0.40
25:DA:2210:G:H1'	25:DA:2211:G:P	2.61	0.40
25:DA:2302:G:N1	25:DA:2315:G:C6	2.89	0.40
25:DA:2392:A:N1	25:DA:2424:C:N3	2.69	0.40
25:DA:2505:G:O2'	25:DA:2506:U:C6	2.72	0.40
25:DA:2749:A:C6	25:DA:2750:A:N6	2.89	0.40
27:DD:12:SER:HB2	27:DD:208:LYS:HB3	2.04	0.40
27:DD:210:GLY:O	27:DD:213:ARG:HB2	2.20	0.40
30:DG:60:LEU:C	30:DG:60:LEU:HD23	2.46	0.40
33:DM:129:PRO:C	33:DM:131:GLN:N	2.79	0.40
35:DO:126:VAL:HG22	35:DO:145:PRO:HD2	2.03	0.40
37:D0:18:LEU:HD23	37:D0:18:LEU:HA	1.77	0.40
38:DQ:55:ALA:C	38:DQ:57:LYS:H	2.27	0.40
39:DR:125:ARG:O	39:DR:129:ARG:HB2	2.22	0.40
42:DS:2:GLU:HA	42:DS:107:LEU:O	2.22	0.40
1:AA:261:U:H2'	1:AA:263:A:OP2	2.22	0.40
1:AA:408:A:C2	1:AA:409:G:C4	3.09	0.40
1:AA:465:A:N7	1:AA:467:G:N7	2.70	0.40
1:AA:781:A:C3'	1:AA:782:A:H5'	2.52	0.40
1:AA:792:A:H2'	1:AA:792:A:N3	2.35	0.40
1:AA:797:C:OP1	11:AN:124:LYS:HE2	2.21	0.40
1:AA:859:A:H2'	1:AA:860:A:O4'	2.21	0.40
1:AA:872:A:C8	1:AA:874:G:C8	3.08	0.40
1:AA:949:A:C6	1:AA:950:U:C4	3.10	0.40
1:AA:977:A:C8	1:AA:1223:C:C4	3.09	0.40
1:AA:1054:C:C4	22:AB:35:G:H1'	2.55	0.40
1:AA:1129:C:H4'	1:AA:1130:A:C5'	2.51	0.40
1:AA:1411:C:H2'	1:AA:1412:C:H6	1.87	0.40
1:AA:1450:U:O2'	1:AA:1451:A:H8	2.02	0.40
4:AG:195:ALA:O	4:AG:196:LEU:C	2.64	0.40
5:AH:33:VAL:HB	5:AH:112:LEU:HD12	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AI:67:MET:SD	6:AI:75:LEU:HD12	2.61	0.40
8:AK:25:ASP:OD2	8:AK:60:ARG:HG3	2.22	0.40
8:AK:40:ALA:C	8:AK:42:GLU:H	2.28	0.40
11:AN:33:THR:HB	11:AN:37:GLY:C	2.45	0.40
16:AS:9:PHE:HB2	16:AS:16:HIS:O	2.20	0.40
17:AT:67:LYS:CA	17:AT:70:ARG:HH12	2.22	0.40
17:AT:86:GLU:O	17:AT:90:ILE:HG12	2.21	0.40
20:AW:30:LYS:CE	20:AW:80:ARG:HH12	2.34	0.40
22:AB:20:C:H5"	22:AB:22:A:H5'	2.03	0.40
22:AB:38:MIA:H163	22:AB:38:MIA:H122	1.80	0.40
23:AC:56:U:O2	23:AC:58:A:C8	2.74	0.40
22:AD:17:G:C2'	22:AD:66:G:H22	2.28	0.40
22:AD:44:C:H2'	22:AD:45:C:O4'	2.22	0.40
25:BA:51:G:N3	25:BA:119:A:C2	2.90	0.40
25:BA:229:A:O4'	25:BA:230:U:OP2	2.39	0.40
25:BA:515:A:C8	25:BA:516:C:C5	3.09	0.40
25:BA:675:A:OP1	29:BF:63:LYS:NZ	2.54	0.40
25:BA:1533:C:C3'	25:BA:1534:G:C5'	2.88	0.40
25:BA:1590:U:H2'	25:BA:1591:G:H8	1.86	0.40
25:BA:1693:U:O2'	27:BD:14:ARG:NH2	2.54	0.40
25:BA:1816:G:P	27:BD:39:LYS:HE3	2.61	0.40
25:BA:2062:A:N3	25:BA:2062:A:C2'	2.77	0.40
25:BA:2119:A:C2	25:BA:2171:A:H1'	2.56	0.40
25:BA:2164:C:C2'	25:BA:2165:G:H5'	2.52	0.40
25:BA:2346:A:H5"	25:BA:2383:G:C1'	2.51	0.40
25:BA:2690:C:OP2	25:BA:2690:C:C6	2.70	0.40
25:BA:2815:C:H2'	25:BA:2816:C:O4'	2.21	0.40
29:BF:9:ILE:CD1	29:BF:125:LEU:HG	2.49	0.40
30:BG:16:ARG:N	30:BG:17:PRO:CD	2.85	0.40
31:BH:54:ARG:HA	31:BH:55:PRO:HD3	1.96	0.40
34:BN:12:ASP:C	34:BN:12:ASP:OD2	2.63	0.40
35:BO:6:LEU:O	35:BO:7:ARG:O	2.40	0.40
36:BP:58:PHE:O	36:BP:59:ARG:C	2.64	0.40
37:B0:32:GLY:O	37:B0:115:GLU:HA	2.22	0.40
38:BQ:5:THR:HG23	38:BQ:8:GLU:OE2	2.21	0.40
39:BR:89:VAL:O	39:BR:89:VAL:HG22	2.22	0.40
43:BT:29:TRP:CE3	43:BT:78:LYS:HB3	2.56	0.40
45:BV:133:ILE:HA	45:BV:134:PRO:HD2	1.89	0.40
48:BW:6:VAL:O	48:BW:7:ARG:C	2.63	0.40
50:B4:52:THR:O	50:B4:53:GLU:CB	2.65	0.40
52:B6:16:CYS:O	52:B6:17:LYS:HE2	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:B8:26:LYS:HE2	54:B8:47:LYS:HG2	2.04	0.40
1:CA:373:A:C2	1:CA:374:A:C8	3.10	0.40
1:CA:501:C:H2'	1:CA:502:G:C8	2.56	0.40
1:CA:1256:A:N6	1:CA:1277:C:H3'	2.37	0.40
3:CF:119:ARG:O	3:CF:123:GLN:HB2	2.21	0.40
4:CG:170:VAL:CG1	4:CG:174:LEU:HB2	2.52	0.40
8:CK:11:THR:HG22	8:CK:15:ASN:ND2	2.36	0.40
11:CN:105:VAL:HG23	11:CN:105:VAL:O	2.21	0.40
20:CW:33:ILE:HD13	20:CW:63:ILE:HA	2.03	0.40
20:CW:45:GLN:HG2	20:CW:91:LEU:HD22	2.02	0.40
25:DA:532:A:C8	25:DA:2021:C:C5	3.09	0.40
25:DA:536:A:H2'	25:DA:537:C:C6	2.56	0.40
25:DA:628:G:C5	25:DA:636:G:N2	2.90	0.40
25:DA:814:C:H5"	41:D2:84:LYS:HB2	2.03	0.40
25:DA:816:C:N3	25:DA:1192:G:C2	2.89	0.40
25:DA:844:C:C5	25:DA:845:G:C6	3.09	0.40
25:DA:1140:C:O4'	25:DA:1143:A:C2	2.74	0.40
25:DA:1225:C:H4'	41:D2:85:LYS:CD	2.47	0.40
25:DA:1385:G:C6	25:DA:1403:C:N3	2.89	0.40
25:DA:1607:C:C4'	25:DA:1608:A:H5'	2.50	0.40
25:DA:1621:U:H5"	25:DA:1622:G:OP1	2.21	0.40
25:DA:1783:A:C2	25:DA:2587:A:C5	3.09	0.40
26:DB:3:C:C2	26:DB:118:G:C2	3.09	0.40
28:DE:31:CYS:O	28:DE:91:VAL:HG13	2.22	0.40
28:DE:61:ARG:CB	28:DE:62:PRO:CD	2.99	0.40
29:DF:82:ILE:HD13	29:DF:82:ILE:N	2.36	0.40
29:DF:102:PRO:HB2	29:DF:105:VAL:HG23	2.02	0.40
29:DF:161:GLU:HG2	29:DF:164:ARG:HH22	1.86	0.40
32:DK:74:ASN:OD1	32:DK:75:LEU:N	2.42	0.40
35:DO:5:ASP:O	35:DO:6:LEU:O	2.40	0.40
35:DO:46:LYS:HB2	35:DO:51:PHE:CD2	2.57	0.40
35:DO:70:GLN:CD	35:DO:70:GLN:H	2.24	0.40
35:DO:97:PRO:O	35:DO:98:GLU:CB	2.69	0.40
36:DP:132:VAL:HG21	45:DV:81:ARG:NH2	2.36	0.40
37:D0:116:LEU:HD23	37:D0:116:LEU:HA	1.82	0.40
42:DS:40:ASN:C	42:DS:40:ASN:ND2	2.77	0.40
50:D4:14:ILE:HG22	50:D4:21:VAL:O	2.21	0.40
1:AA:22:G:H2'	1:AA:23:C:C6	2.57	0.40
1:AA:69:G:H2'	1:AA:69:G:N3	2.36	0.40
1:AA:250:A:H4'	1:AA:251:G:H5"	2.03	0.40
1:AA:266:G:H8	1:AA:266:G:H2'	1.75	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:273:A:C6	1:AA:274:A:C6	3.09	0.40
1:AA:439:A:H2'	1:AA:440:A:C5'	2.51	0.40
1:AA:452:A:O2'	16:AS:72:ARG:HD2	2.21	0.40
1:AA:502:G:C6	1:AA:503:C:C4	3.09	0.40
1:AA:516:U:C4	1:AA:517:G:C6	3.10	0.40
1:AA:872:A:C5	1:AA:874:G:C8	3.10	0.40
1:AA:977:A:C8	1:AA:1223:C:N3	2.89	0.40
1:AA:1143:G:N1	1:AA:1144:G:N2	2.69	0.40
2:AE:80:ILE:HG22	2:AE:80:ILE:O	2.22	0.40
3:AF:124:ILE:C	3:AF:126:ARG:H	2.29	0.40
4:AG:135:LEU:HA	4:AG:136:PRO:HD2	1.88	0.40
5:AH:60:TYR:CZ	5:AH:64:ARG:CZ	3.04	0.40
15:AR:82:ILE:O	15:AR:86:GLY:N	2.53	0.40
25:BA:347:A:H2'	25:BA:348:G:H8	1.86	0.40
25:BA:413:C:H6	25:BA:413:C:O5'	2.04	0.40
25:BA:498:G:O2'	25:BA:499:U:H5'	2.22	0.40
25:BA:627:A:N6	35:BO:115:LEU:HD13	2.36	0.40
25:BA:654(H):G:N3	25:BA:654(H):G:C2'	2.81	0.40
25:BA:696:G:O2'	25:BA:697:C:H5'	2.20	0.40
25:BA:1057:A:H8	25:BA:1086:A:H2'	1.86	0.40
25:BA:1139:G:O3'	33:BM:24:GLY:HA3	2.21	0.40
25:BA:1171:G:N2	25:BA:1179:C:C2	2.90	0.40
25:BA:1252:G:O4'	40:B1:33:ARG:HD3	2.22	0.40
25:BA:1313:U:OP2	25:BA:1314:C:C5	2.74	0.40
25:BA:1651:G:C2	25:BA:2007:C:N3	2.89	0.40
25:BA:1657:C:H2'	25:BA:1658:C:H6	1.86	0.40
25:BA:1899:G:O2'	25:BA:1900:A:P	2.78	0.40
25:BA:2017:U:H5"	25:BA:2018:G:P	2.61	0.40
25:BA:2119:A:H62	25:BA:2168:G:H22	1.70	0.40
25:BA:2682:U:O2'	39:BR:58:ASN:ND2	2.54	0.40
25:BA:2773:C:OP1	28:BE:164:ARG:HD3	2.21	0.40
26:BB:59:A:H2'	26:BB:60:C:O4'	2.21	0.40
29:BF:7:TYR:O	29:BF:21:ALA:HA	2.21	0.40
30:BG:131:TYR:HB3	30:BG:159:VAL:CG2	2.51	0.40
31:BH:10:PRO:HB2	31:BH:11:VAL:H	1.62	0.40
31:BH:169:VAL:HG13	31:BH:170:ARG:N	2.36	0.40
32:BK:11:ASN:O	32:BK:12:LEU:CB	2.60	0.40
35:BO:65:ARG:HH22	54:B8:46:ARG:CZ	2.34	0.40
36:BP:58:PHE:O	36:BP:58:PHE:CD1	2.74	0.40
41:B2:6:LYS:HD3	41:B2:11:GLN:HG2	2.04	0.40
41:B2:25:LEU:C	41:B2:27:ALA:H	2.29	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BT:24:GLY:O	43:BT:83:VAL:HG22	2.22	0.40
45:BV:122:ARG:H	45:BV:122:ARG:HG3	1.54	0.40
46:B3:50:ASN:HB3	46:B3:63:VAL:HG22	2.03	0.40
47:BZ:91:LYS:HG3	47:BZ:92:LYS:H	1.87	0.40
48:BW:5:GLU:CD	48:BW:5:GLU:H	2.30	0.40
49:BX:11:SER:OG	49:BX:13:ILE:HG12	2.21	0.40
50:B4:47:GLN:HE21	50:B4:47:GLN:HB3	1.67	0.40
50:B4:55:ARG:HG2	50:B4:56:VAL:HG23	2.02	0.40
52:B6:20:ASN:C	52:B6:21:TYR:HD2	2.30	0.40
1:CA:51:A:N7	1:CA:114:U:O2'	2.49	0.40
1:CA:209:U:O2	1:CA:209:U:H2'	2.20	0.40
1:CA:324:G:N1	1:CA:327:A:OP2	2.55	0.40
1:CA:527:G:O2'	1:CA:535:A:N1	2.50	0.40
1:CA:559:A:C5'	1:CA:560:U:H3'	2.52	0.40
1:CA:1008:C:O2	1:CA:1021:G:N1	2.47	0.40
2:CE:55:PHE:HD1	2:CE:55:PHE:HA	1.76	0.40
2:CE:149:LEU:O	2:CE:150:SER:C	2.65	0.40
4:CG:169:LYS:HE2	4:CG:169:LYS:HB3	1.84	0.40
6:CI:55:ASP:HA	6:CI:56:PRO:HD3	1.82	0.40
12:CO:54:LYS:HE2	12:CO:64:THR:HG22	2.02	0.40
22:CB:21:A:H2'	22:CB:46:G:O6	2.21	0.40
22:CD:18:G:C5	22:CD:66:G:C2	3.10	0.40
25:DA:150:C:H2'	25:DA:151:C:C6	2.56	0.40
25:DA:506:G:H5"	25:DA:509:C:H1'	2.04	0.40
25:DA:826:U:OP1	25:DA:2428:G:H3'	2.22	0.40
25:DA:977:G:C6	25:DA:987:G:C6	3.10	0.40
25:DA:1178:C:C4	25:DA:1179:C:C4	3.09	0.40
25:DA:1899:G:H2'	25:DA:1900:A:OP2	2.18	0.40
25:DA:2055:C:H5'	25:DA:2056:G:O5'	2.22	0.40
25:DA:2101:G:H2'	25:DA:2102:U:O4'	2.21	0.40
25:DA:2138:C:N3	25:DA:2153:G:N2	2.61	0.40
25:DA:2271:G:C6	25:DA:2272:U:C4	3.10	0.40
25:DA:2540:C:H2'	25:DA:2541:A:O4'	2.21	0.40
25:DA:2692:C:O2'	25:DA:2693:A:H5'	2.21	0.40
27:DD:136:ILE:HA	27:DD:137:PRO:HD3	1.91	0.40
28:DE:6:GLY:O	28:DE:195:LEU:HD12	2.22	0.40
33:DM:1:MET:HE2	33:DM:1:MET:HB2	1.92	0.40
33:DM:29:LYS:H	33:DM:29:LYS:HG2	1.62	0.40
38:DQ:30:ARG:HG3	38:DQ:35:ILE:HD12	2.03	0.40
41:D2:62:LEU:HD22	41:D2:95:LEU:HB2	2.03	0.40
41:D2:69:LYS:HG3	41:D2:86:GLY:CA	2.40	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DV:58:VAL:O	45:DV:59:LEU:HB2	2.21	0.40
45:DV:113:ALA:O	45:DV:116:VAL:N	2.48	0.40
54:D8:60:LEU:HD23	54:D8:60:LEU:HA	1.91	0.40
1:AA:64:G:C4'	1:AA:65:U:H5'	2.51	0.40
1:AA:142:G:N3	1:AA:143:A:C8	2.90	0.40
1:AA:222:U:N3	1:AA:223:U:C4	2.90	0.40
1:AA:270:A:C5	1:AA:271:C:C4	3.09	0.40
1:AA:413:G:O2'	1:AA:414:A:OP2	2.39	0.40
1:AA:422:C:H1'	1:AA:423:G:N1	2.37	0.40
1:AA:428:G:C5	1:AA:430:A:C6	3.09	0.40
1:AA:502:G:H2'	1:AA:503:C:H6	1.86	0.40
1:AA:581:G:N2	1:AA:582:U:C4	2.89	0.40
1:AA:601:C:H2'	1:AA:602:A:C8	2.57	0.40
1:AA:604:G:C6	1:AA:635:G:C6	3.09	0.40
1:AA:803:G:C6	1:AA:804:U:N3	2.90	0.40
1:AA:1176:A:C2'	1:AA:1177:G:H5"	2.51	0.40
1:AA:1250:A:H4'	9:AL:68:GLY:N	2.36	0.40
1:AA:1322:C:O2	1:AA:1322:C:C2'	2.69	0.40
1:AA:1527:C:N3	1:AA:1528:U:C4	2.89	0.40
3:AF:18:TRP:CH2	14:AQ:55:GLY:HA2	2.57	0.40
5:AH:13:ILE:HD13	5:AH:13:ILE:HA	1.92	0.40
8:AK:86:ILE:O	8:AK:88:LYS:HG3	2.22	0.40
11:AN:48:ILE:HG13	11:AN:63:LEU:CB	2.41	0.40
13:AP:4:ILE:CG2	13:AP:5:ALA:N	2.83	0.40
22:AB:2:G:N2	22:AB:81:C:H1'	2.37	0.40
25:BA:181:A:C2	25:BA:435:C:C5	3.09	0.40
25:BA:273(F):C:O2	25:BA:273(F):C:H2'	2.21	0.40
25:BA:299:A:C6	25:BA:300:A:N1	2.90	0.40
25:BA:327:G:N2	44:BU:70:SER:OG	2.54	0.40
25:BA:1206:G:C6	25:BA:1207:C:C4	3.09	0.40
25:BA:1286:A:N6	25:BA:1329:U:C2	2.89	0.40
25:BA:1363:C:O2'	25:BA:1364:G:H5'	2.22	0.40
25:BA:1550:C:H2'	25:BA:1551:C:H6	1.85	0.40
25:BA:1668:A:H4'	25:BA:1669:A:O5'	2.21	0.40
25:BA:1831:G:H2'	25:BA:1832:C:C6	2.57	0.40
25:BA:2115:G:O6	25:BA:2118:U:OP2	2.39	0.40
25:BA:2116:G:OP1	25:BA:2165:G:N2	2.54	0.40
25:BA:2152:G:H2'	25:BA:2153:G:C8	2.56	0.40
25:BA:2205:C:O2	25:BA:2205:C:H2'	2.21	0.40
25:BA:2474:C:H3'	25:BA:2475:C:C6	2.57	0.40
25:BA:2820:A:H1'	37:B0:3:HIS:CD2	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:30:C:OP2	38:BQ:32:LEU:HD11	2.21	0.40
27:BD:83:GLU:CD	27:BD:104:TYR:HE2	2.30	0.40
28:BE:96:PHE:O	28:BE:175:VAL:HG11	2.21	0.40
28:BE:119:ARG:CD	28:BE:160:TYR:HB2	2.51	0.40
30:BG:57:ALA:CA	30:BG:90:LEU:HD21	2.52	0.40
33:BM:1:MET:HE1	40:B1:95:LEU:CD2	2.52	0.40
34:BN:2:ILE:HD12	34:BN:6:THR:HG21	2.03	0.40
35:BO:97:PRO:O	35:BO:106:LEU:HD12	2.21	0.40
38:BQ:78:LEU:HD23	38:BQ:78:LEU:C	2.47	0.40
39:BR:74:ARG:HD3	39:BR:76:PHE:CE2	2.56	0.40
39:BR:108:ARG:O	39:BR:112:ARG:HG2	2.22	0.40
40:B1:47:TYR:HA	40:B1:50:ARG:NH1	2.35	0.40
42:BS:37:ARG:HD2	42:BS:38:TYR:CE2	2.56	0.40
45:BV:117:LEU:HD22	45:BV:119:GLU:HG3	2.04	0.40
1:CA:62:U:O2'	1:CA:379:C:H1'	2.21	0.40
1:CA:96:G:H2'	1:CA:97:U:O4'	2.21	0.40
1:CA:1054:C:N4	22:CB:35:G:C1'	2.85	0.40
1:CA:1106:G:H5"	3:CF:172:ARG:HG2	2.03	0.40
1:CA:1321:C:H3'	1:CA:1322:C:H5"	2.03	0.40
1:CA:1348:U:H5	1:CA:1373:G:C2	2.40	0.40
2:CE:10:LEU:O	2:CE:13:ALA:HB3	2.21	0.40
2:CE:16:HIS:HE2	2:CE:209:ARG:HG2	1.86	0.40
2:CE:102:LEU:HD12	2:CE:102:LEU:N	2.36	0.40
2:CE:233:SER:O	2:CE:234:PRO:C	2.64	0.40
5:CH:60:TYR:HA	5:CH:63:ARG:CG	2.45	0.40
6:CI:97:PHE:HD2	18:CU:31:LEU:HD21	1.84	0.40
13:CP:16:ASP:OD2	13:CP:17:VAL:N	2.54	0.40
13:CP:65:LYS:HB3	13:CP:69:GLU:OE2	2.22	0.40
16:CS:49:LEU:HD12	16:CS:50:LYS:N	2.36	0.40
18:CU:35:ARG:O	18:CU:37:VAL:N	2.54	0.40
21:CX:6:ARG:O	21:CX:12:LYS:HE2	2.22	0.40
22:CB:9:U:H5'	22:CB:11:C:OP2	2.22	0.40
25:DA:151:C:C2	25:DA:176:G:N2	2.89	0.40
25:DA:522:G:C6	25:DA:523:C:N4	2.89	0.40
25:DA:797:C:H2'	25:DA:798:G:O4'	2.22	0.40
25:DA:850:C:O3'	49:DX:49:LYS:HE2	2.22	0.40
25:DA:908:C:OP2	36:DP:22:LYS:HD3	2.22	0.40
25:DA:957:A:H4'	36:DP:74:TYR:OH	2.21	0.40
25:DA:1431:U:H2'	25:DA:1432:C:C6	2.56	0.40
25:DA:2277:G:C3'	25:DA:2278:A:H5"	2.52	0.40
25:DA:2346:A:H5"	25:DA:2383:G:C1'	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2402:C:H2'	25:DA:2403:C:C5'	2.51	0.40
25:DA:2420:C:OP2	54:D8:33:ASN:HA	2.21	0.40
27:DD:132:PRO:HG3	27:DD:190:TYR:CE1	2.57	0.40
28:DE:64:LYS:HD2	28:DE:66:HIS:CD2	2.57	0.40
28:DE:71:GLY:C	28:DE:73:GLU:N	2.79	0.40
31:DH:139:GLN:C	31:DH:141:VAL:H	2.29	0.40
38:DQ:59:LYS:HD3	38:DQ:60:GLY:N	2.37	0.40
39:DR:86:ILE:HG12	39:DR:86:ILE:O	2.21	0.40
46:D3:31:VAL:CG1	46:D3:35:ASN:HB2	2.43	0.40
48:DW:25:VAL:HG13	48:DW:60:LEU:HB3	2.04	0.40
53:D7:10:ARG:O	53:D7:14:LYS:HB2	2.22	0.40

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:85:U:O2'	31:DH:100:GLY:O[3_555]	1.97	0.23
1:CA:86:U:O2'	25:DA:276:A:OP2[3_545]	2.19	0.01

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
2	AE	235/256 (92%)	170 (72%)	44 (19%)	21 (9%)	0 3
2	CE	235/256 (92%)	161 (68%)	48 (20%)	26 (11%)	0 1
3	AF	203/239 (85%)	157 (77%)	36 (18%)	10 (5%)	1 10
3	CF	204/239 (85%)	151 (74%)	40 (20%)	13 (6%)	1 6
4	AG	206/208 (99%)	169 (82%)	29 (14%)	8 (4%)	2 14
4	CG	206/208 (99%)	167 (81%)	24 (12%)	15 (7%)	1 4
5	AH	149/162 (92%)	128 (86%)	16 (11%)	5 (3%)	3 17

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
5	CH	149/162 (92%)	129 (87%)	18 (12%)	2 (1%)	9 38
6	AI	99/101 (98%)	88 (89%)	8 (8%)	3 (3%)	3 19
6	CI	99/101 (98%)	92 (93%)	7 (7%)	0	100 100
7	AJ	153/156 (98%)	127 (83%)	21 (14%)	5 (3%)	3 17
7	CJ	153/156 (98%)	131 (86%)	16 (10%)	6 (4%)	2 14
8	AK	136/138 (99%)	113 (83%)	15 (11%)	8 (6%)	1 7
8	CK	136/138 (99%)	116 (85%)	17 (12%)	3 (2%)	5 26
9	AL	125/128 (98%)	90 (72%)	26 (21%)	9 (7%)	1 4
9	CL	125/128 (98%)	86 (69%)	30 (24%)	9 (7%)	1 4
10	AM	97/105 (92%)	77 (79%)	17 (18%)	3 (3%)	3 19
10	CM	97/105 (92%)	79 (81%)	13 (13%)	5 (5%)	1 9
11	AN	117/129 (91%)	101 (86%)	11 (9%)	5 (4%)	2 12
11	CN	117/129 (91%)	97 (83%)	16 (14%)	4 (3%)	3 17
12	AO	123/132 (93%)	104 (85%)	7 (6%)	12 (10%)	0 2
12	CO	123/132 (93%)	96 (78%)	21 (17%)	6 (5%)	1 10
13	AP	114/126 (90%)	76 (67%)	26 (23%)	12 (10%)	0 2
13	CP	115/126 (91%)	83 (72%)	18 (16%)	14 (12%)	0 1
14	AQ	56/61 (92%)	37 (66%)	7 (12%)	12 (21%)	0 0
14	CQ	56/61 (92%)	39 (70%)	9 (16%)	8 (14%)	0 1
15	AR	86/89 (97%)	68 (79%)	14 (16%)	4 (5%)	2 11
15	CR	86/89 (97%)	82 (95%)	2 (2%)	2 (2%)	5 25
16	AS	82/88 (93%)	64 (78%)	13 (16%)	5 (6%)	1 7
16	CS	82/88 (93%)	72 (88%)	10 (12%)	0	100 100
17	AT	98/105 (93%)	83 (85%)	9 (9%)	6 (6%)	1 7
17	CT	98/105 (93%)	85 (87%)	10 (10%)	3 (3%)	3 19
18	AU	70/88 (80%)	53 (76%)	13 (19%)	4 (6%)	1 8
18	CU	70/88 (80%)	60 (86%)	7 (10%)	3 (4%)	2 12
19	AV	76/93 (82%)	56 (74%)	12 (16%)	8 (10%)	0 2
19	CV	76/93 (82%)	53 (70%)	16 (21%)	7 (9%)	0 2
20	AW	97/106 (92%)	75 (77%)	14 (14%)	8 (8%)	0 3
20	CW	97/106 (92%)	72 (74%)	16 (16%)	9 (9%)	0 2

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
21	AX	23/27 (85%)	19 (83%)	2 (9%)	2 (9%)	0 3
21	CX	23/27 (85%)	18 (78%)	2 (9%)	3 (13%)	0 1
27	BD	270/276 (98%)	227 (84%)	30 (11%)	13 (5%)	2 11
27	DD	270/276 (98%)	226 (84%)	32 (12%)	12 (4%)	2 12
28	BE	203/206 (98%)	146 (72%)	34 (17%)	23 (11%)	0 1
28	DE	203/206 (98%)	134 (66%)	40 (20%)	29 (14%)	0 1
29	BF	200/210 (95%)	177 (88%)	14 (7%)	9 (4%)	2 12
29	DF	206/210 (98%)	153 (74%)	30 (15%)	23 (11%)	0 1
30	BG	179/182 (98%)	139 (78%)	27 (15%)	13 (7%)	1 4
30	DG	179/182 (98%)	140 (78%)	28 (16%)	11 (6%)	1 7
31	BH	168/180 (93%)	113 (67%)	20 (12%)	35 (21%)	0 0
31	DH	168/180 (93%)	108 (64%)	36 (21%)	24 (14%)	0 1
32	BK	144/148 (97%)	90 (62%)	39 (27%)	15 (10%)	0 2
32	DK	144/148 (97%)	98 (68%)	36 (25%)	10 (7%)	1 5
33	BM	136/140 (97%)	107 (79%)	21 (15%)	8 (6%)	1 7
33	DM	136/140 (97%)	106 (78%)	16 (12%)	14 (10%)	0 2
34	BN	120/122 (98%)	114 (95%)	4 (3%)	2 (2%)	7 32
34	DN	120/122 (98%)	106 (88%)	10 (8%)	4 (3%)	3 17
35	BO	148/150 (99%)	99 (67%)	29 (20%)	20 (14%)	0 1
35	DO	148/150 (99%)	92 (62%)	25 (17%)	31 (21%)	0 0
36	BP	139/141 (99%)	102 (73%)	19 (14%)	18 (13%)	0 1
36	DP	139/141 (99%)	92 (66%)	31 (22%)	16 (12%)	0 1
37	B0	116/118 (98%)	97 (84%)	11 (10%)	8 (7%)	1 5
37	D0	115/118 (98%)	95 (83%)	15 (13%)	5 (4%)	2 12
38	BQ	109/112 (97%)	85 (78%)	17 (16%)	7 (6%)	1 6
38	DQ	109/112 (97%)	73 (67%)	26 (24%)	10 (9%)	0 2
39	BR	135/146 (92%)	105 (78%)	21 (16%)	9 (7%)	1 5
39	DR	135/146 (92%)	108 (80%)	18 (13%)	9 (7%)	1 5
40	B1	115/118 (98%)	102 (89%)	8 (7%)	5 (4%)	2 12
40	D1	115/118 (98%)	91 (79%)	18 (16%)	6 (5%)	1 9
41	B2	99/101 (98%)	81 (82%)	12 (12%)	6 (6%)	1 7

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
41	D2	99/101 (98%)	68 (69%)	17 (17%)	14 (14%)	0 1
42	BS	111/113 (98%)	92 (83%)	13 (12%)	6 (5%)	1 9
42	DS	111/113 (98%)	92 (83%)	15 (14%)	4 (4%)	2 16
43	BT	90/96 (94%)	81 (90%)	5 (6%)	4 (4%)	2 12
43	DT	90/96 (94%)	72 (80%)	13 (14%)	5 (6%)	1 8
44	BU	100/110 (91%)	65 (65%)	21 (21%)	14 (14%)	0 1
44	DU	100/110 (91%)	62 (62%)	19 (19%)	19 (19%)	0 0
45	BV	173/206 (84%)	112 (65%)	32 (18%)	29 (17%)	0 0
45	DV	177/206 (86%)	109 (62%)	39 (22%)	29 (16%)	0 0
46	B3	74/85 (87%)	65 (88%)	6 (8%)	3 (4%)	2 13
46	D3	75/85 (88%)	64 (85%)	8 (11%)	3 (4%)	2 14
47	BZ	95/98 (97%)	79 (83%)	12 (13%)	4 (4%)	2 13
47	DZ	95/98 (97%)	76 (80%)	11 (12%)	8 (8%)	0 3
48	BW	64/72 (89%)	53 (83%)	6 (9%)	5 (8%)	1 4
48	DW	64/72 (89%)	54 (84%)	6 (9%)	4 (6%)	1 6
49	BX	57/60 (95%)	51 (90%)	5 (9%)	1 (2%)	6 31
49	DX	57/60 (95%)	49 (86%)	5 (9%)	3 (5%)	1 9
50	B4	64/71 (90%)	36 (56%)	12 (19%)	16 (25%)	0 0
50	D4	61/71 (86%)	22 (36%)	22 (36%)	17 (28%)	0 0
51	B5	57/60 (95%)	44 (77%)	6 (10%)	7 (12%)	0 1
51	D5	57/60 (95%)	46 (81%)	8 (14%)	3 (5%)	1 9
52	B6	43/54 (80%)	24 (56%)	12 (28%)	7 (16%)	0 0
52	D6	43/54 (80%)	26 (60%)	8 (19%)	9 (21%)	0 0
53	B7	43/49 (88%)	42 (98%)	1 (2%)	0	100 100
53	D7	43/49 (88%)	42 (98%)	1 (2%)	0	100 100
54	B8	58/65 (89%)	42 (72%)	8 (14%)	8 (14%)	0 1
54	D8	58/65 (89%)	37 (64%)	13 (22%)	8 (14%)	0 1
All	All	11319/12052 (94%)	8735 (77%)	1671 (15%)	913 (8%)	1 3

All (913) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AE	195	ASP

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Mol	Chain	Res	Type
2	AE	236	TYR
2	AE	237	ALA
3	AF	4	LYS
3	AF	12	LEU
4	AG	26	CYS
4	AG	151	LYS
4	AG	154	ASN
4	AG	155	LEU
4	AG	191	ARG
5	AH	153	LYS
6	AI	40	VAL
6	AI	42	GLU
6	AI	70	ASP
7	AJ	7	ALA
9	AL	40	LEU
9	AL	56	LEU
9	AL	111	ARG
10	AM	59	SER
11	AN	127	LYS
12	AO	43	LYS
12	AO	44	LYS
12	AO	46	ASN
12	AO	59	SER
12	AO	61	TYR
12	AO	62	GLU
12	AO	112	LYS
13	AP	27	LYS
13	AP	67	GLU
13	AP	83	ASP
13	AP	95	GLY
14	AQ	24	CYS
14	AQ	29	ARG
14	AQ	52	GLN
14	AQ	60	SER
17	AT	99	SER
19	AV	67	VAL
20	AW	96	GLY
21	AX	3	LYS
27	BD	28	GLU
27	BD	122	ASP
27	BD	125	ILE
27	BD	271	ILE

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Mol	Chain	Res	Type
28	BE	22	PRO
28	BE	54	GLN
28	BE	61	ARG
28	BE	68	ALA
28	BE	69	LYS
28	BE	71	GLY
28	BE	78	LEU
28	BE	88	GLY
28	BE	118	LYS
28	BE	132	HIS
29	BF	134	GLY
30	BG	36	LYS
30	BG	96	ARG
31	BH	3	ARG
31	BH	12	PRO
31	BH	17	VAL
31	BH	84	SER
31	BH	86	GLU
31	BH	98	LEU
31	BH	137	ASP
31	BH	138	LYS
31	BH	151	ILE
31	BH	153	LYS
31	BH	154	PRO
31	BH	155	SER
31	BH	159	GLU
31	BH	167	GLU
31	BH	169	VAL
32	BK	87	LYS
32	BK	105	HIS
32	BK	115	ALA
32	BK	117	GLU
32	BK	134	PRO
32	BK	145	VAL
33	BM	22	THR
33	BM	23	LEU
33	BM	58	ASP
33	BM	131	GLN
35	BO	6	LEU
35	BO	16	ARG
35	BO	27	HIS
35	BO	42	SER

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Mol	Chain	Res	Type
35	BO	47	ASP
35	BO	65	ARG
35	BO	67	MET
35	BO	141	ALA
35	BO	148	LEU
36	BP	2	LEU
36	BP	25	ASP
36	BP	26	TYR
36	BP	27	VAL
36	BP	89	ASN
36	BP	134	ARG
36	BP	139	GLU
37	B0	2	ARG
37	B0	4	LEU
37	B0	107	ASP
38	BQ	4	LEU
38	BQ	88	ASP
39	BR	58	ASN
39	BR	106	SER
40	B1	90	VAL
40	B1	91	ASP
40	B1	93	LYS
41	B2	36	PRO
41	B2	45	THR
41	B2	48	GLY
41	B2	49	THR
42	BS	66	GLU
42	BS	111	HIS
43	BT	19	ALA
44	BU	6	HIS
44	BU	11	ASP
44	BU	42	VAL
44	BU	50	ARG
44	BU	57	GLN
44	BU	77	PRO
44	BU	78	ALA
45	BV	6	LYS
45	BV	51	ALA
45	BV	53	ILE
45	BV	118	GLN
45	BV	135	GLU
45	BV	161	VAL

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Mol	Chain	Res	Type
45	BV	165	VAL
47	BZ	92	LYS
48	BW	16	LEU
48	BW	43	GLN
48	BW	47	ASN
48	BW	48	HIS
50	B4	28	LYS
50	B4	40	HIS
50	B4	41	PRO
50	B4	42	PHE
50	B4	43	TYR
50	B4	44	THR
50	B4	46	GLN
50	B4	53	GLU
51	B5	3	LYS
51	B5	4	HIS
51	B5	55	ARG
52	B6	33	LYS
52	B6	46	HIS
54	B8	31	HIS
54	B8	35	GLN
54	B8	36	LYS
54	B8	52	LYS
2	CE	7	VAL
2	CE	74	LYS
2	CE	75	LYS
2	CE	154	LEU
2	CE	191	ASP
2	CE	238	LEU
3	CF	15	THR
3	CF	47	LEU
4	CG	14	ARG
4	CG	26	CYS
4	CG	149	ALA
4	CG	150	GLU
4	CG	151	LYS
7	CJ	33	ASP
8	CK	103	VAL
9	CL	111	ARG
9	CL	118	LYS
11	CN	100	ALA
11	CN	101	SER

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Mol	Chain	Res	Type
12	CO	23	ALA
12	CO	44	LYS
12	CO	93	VAL
13	CP	4	ILE
13	CP	7	VAL
13	CP	84	ILE
13	CP	95	GLY
13	CP	117	VAL
14	CQ	24	CYS
14	CQ	25	VAL
14	CQ	26	ARG
14	CQ	30	ALA
18	CU	59	SER
19	CV	9	VAL
19	CV	11	VAL
20	CW	95	ALA
21	CX	3	LYS
27	DD	26	LYS
27	DD	237	GLU
27	DD	268	ARG
27	DD	271	ILE
28	DE	9	VAL
28	DE	25	VAL
28	DE	37	ARG
28	DE	59	VAL
28	DE	61	ARG
28	DE	78	LEU
28	DE	88	GLY
29	DF	3	GLU
29	DF	17	ARG
29	DF	21	ALA
29	DF	22	ALA
29	DF	23	ASP
29	DF	25	PRO
29	DF	28	ILE
29	DF	62	ARG
29	DF	146	ALA
29	DF	206	ILE
30	DG	14	GLU
30	DG	84	LYS
31	DH	3	ARG
31	DH	8	PRO

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Mol	Chain	Res	Type
31	DH	92	ILE
31	DH	167	GLU
31	DH	168	PRO
32	DK	78	THR
32	DK	107	VAL
32	DK	111	PRO
32	DK	113	ARG
32	DK	117	GLU
32	DK	144	VAL
33	DM	23	LEU
33	DM	131	GLN
34	DN	5	GLN
35	DO	6	LEU
35	DO	10	PRO
35	DO	16	ARG
35	DO	49	ARG
35	DO	51	PHE
35	DO	57	THR
35	DO	58	THR
35	DO	64	LYS
35	DO	65	ARG
35	DO	71	VAL
35	DO	72	PRO
35	DO	98	GLU
35	DO	105	LEU
35	DO	141	ALA
35	DO	147	LEU
36	DP	25	ASP
36	DP	79	LEU
36	DP	89	ASN
36	DP	134	ARG
36	DP	136	ALA
37	D0	3	HIS
37	D0	82	GLU
37	D0	93	GLY
38	DQ	87	PHE
38	DQ	88	ASP
38	DQ	89	ARG
38	DQ	110	LEU
39	DR	84	GLN
39	DR	86	ILE
39	DR	107	ASP

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Mol	Chain	Res	Type
40	D1	90	VAL
40	D1	91	ASP
40	D1	98	LEU
41	D2	71	LEU
41	D2	72	VAL
41	D2	79	VAL
41	D2	80	GLN
41	D2	84	LYS
41	D2	85	LYS
41	D2	99	ILE
42	DS	93	ALA
43	DT	68	ARG
44	DU	3	VAL
44	DU	17	SER
44	DU	47	LYS
44	DU	63	LYS
44	DU	77	PRO
44	DU	90	LEU
45	DV	6	LYS
45	DV	31	ARG
45	DV	53	ILE
45	DV	105	VAL
45	DV	148	ASP
45	DV	159	PRO
45	DV	161	VAL
47	DZ	79	GLY
47	DZ	93	GLU
48	DW	16	LEU
48	DW	48	HIS
50	D4	5	ILE
50	D4	35	VAL
50	D4	52	THR
51	D5	4	HIS
52	D6	15	GLU
52	D6	44	ARG
54	D8	30	ARG
54	D8	32	LEU
54	D8	48	PHE
54	D8	49	VAL
54	D8	51	ALA
2	AE	13	ALA
2	AE	22	LYS

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Mol	Chain	Res	Type
2	AE	26	PRO
2	AE	96	ARG
2	AE	194	PRO
2	AE	239	VAL
3	AF	66	VAL
4	AG	30	LYS
4	AG	89	THR
4	AG	164	ALA
8	AK	2	LEU
8	AK	87	SER
9	AL	44	VAL
9	AL	54	ASP
11	AN	82	VAL
12	AO	45	PRO
12	AO	60	GLY
12	AO	88	LYS
13	AP	4	ILE
13	AP	6	GLY
13	AP	106	ASN
14	AQ	14	PRO
14	AQ	16	PHE
14	AQ	25	VAL
14	AQ	30	ALA
14	AQ	41	ARG
16	AS	48	TRP
16	AS	83	GLU
17	AT	49	GLU
17	AT	78	GLU
18	AU	27	GLY
18	AU	41	LYS
19	AV	41	VAL
20	AW	49	ALA
20	AW	95	ALA
20	AW	99	LEU
20	AW	100	ILE
20	AW	102	GLY
27	BD	33	LEU
27	BD	123	ALA
27	BD	237	GLU
28	BE	2	LYS
28	BE	50	GLY
28	BE	72	VAL

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Mol	Chain	Res	Type
28	BE	187	ALA
29	BF	24	LEU
29	BF	67	GLN
29	BF	73	ALA
29	BF	128	ALA
30	BG	14	GLU
30	BG	24	GLY
30	BG	84	LYS
31	BH	5	GLY
31	BH	10	PRO
31	BH	55	PRO
31	BH	59	ARG
31	BH	81	GLU
31	BH	85	LYS
31	BH	87	LEU
31	BH	152	ARG
31	BH	168	PRO
32	BK	11	ASN
32	BK	13	GLY
32	BK	116	LEU
34	BN	5	GLN
35	BO	10	PRO
35	BO	12	ALA
35	BO	95	VAL
35	BO	106	LEU
35	BO	116	GLY
36	BP	6	ARG
36	BP	59	ARG
36	BP	60	ARG
36	BP	78	PRO
36	BP	80	GLU
36	BP	88	GLY
37	B0	3	HIS
37	B0	29	LEU
37	B0	45	ARG
37	B0	86	ARG
38	BQ	61	ASN
38	BQ	96	GLY
39	BR	2	ASN
39	BR	37	GLY
43	BT	40	LYS
43	BT	67	GLY

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Mol	Chain	Res	Type
45	BV	13	GLU
45	BV	63	ASP
45	BV	81	ARG
45	BV	171	ILE
46	B3	83	PRO
46	B3	84	LEU
47	BZ	79	GLY
47	BZ	91	LYS
50	B4	14	ILE
50	B4	34	GLU
50	B4	39	CYS
51	B5	21	SER
51	B5	45	VAL
52	B6	44	ARG
54	B8	37	SER
54	B8	51	ALA
2	CE	6	THR
2	CE	8	LYS
2	CE	20	GLU
2	CE	21	ARG
2	CE	36	ARG
2	CE	39	ILE
2	CE	77	ALA
2	CE	96	ARG
2	CE	190	THR
3	CF	26	LYS
3	CF	80	GLY
3	CF	100	ALA
3	CF	101	LEU
4	CG	9	CYS
4	CG	10	ARG
4	CG	17	VAL
4	CG	27	TYR
4	CG	35	ARG
5	CH	59	GLY
7	CJ	7	ALA
7	CJ	86	GLN
9	CL	44	VAL
9	CL	109	VAL
9	CL	119	ALA
9	CL	120	ARG
10	CM	17	ASP

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Mol	Chain	Res	Type
10	CM	59	SER
12	CO	58	THR
12	CO	60	GLY
13	CP	3	ARG
13	CP	5	ALA
13	CP	12	ASN
13	CP	85	GLY
14	CQ	15	LYS
14	CQ	23	ARG
14	CQ	28	GLY
17	CT	49	GLU
20	CW	70	SER
20	CW	72	LEU
21	CX	25	LYS
27	DD	33	LEU
27	DD	272	ALA
28	DE	2	LYS
28	DE	51	PHE
28	DE	57	LYS
28	DE	71	GLY
28	DE	77	ILE
28	DE	117	MET
28	DE	132	HIS
28	DE	187	ALA
28	DE	204	ALA
29	DF	11	VAL
29	DF	24	LEU
29	DF	27	GLU
29	DF	61	GLY
29	DF	129	PHE
29	DF	133	ASN
30	DG	5	VAL
30	DG	96	ARG
31	DH	6	ARG
31	DH	59	ARG
31	DH	118	PRO
31	DH	160	LYS
31	DH	169	VAL
32	DK	71	ILE
32	DK	145	VAL
33	DM	56	ASN
33	DM	66	LYS

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Mol	Chain	Res	Type
34	DN	48	PRO
35	DO	56	SER
35	DO	66	GLY
35	DO	67	MET
35	DO	106	LEU
36	DP	4	PRO
36	DP	27	VAL
36	DP	60	ARG
36	DP	88	GLY
36	DP	110	THR
36	DP	135	ASP
37	D0	42	LYS
38	DQ	57	LYS
38	DQ	108	GLY
38	DQ	111	GLU
39	DR	2	ASN
39	DR	106	SER
40	D1	93	LYS
40	D1	100	VAL
41	D2	38	LEU
41	D2	44	LYS
42	DS	63	ASP
42	DS	92	ARG
44	DU	19	LYS
44	DU	43	ASN
44	DU	53	PRO
44	DU	78	ALA
44	DU	85	VAL
44	DU	99	CYS
44	DU	102	CYS
45	DV	60	GLU
45	DV	63	ASP
45	DV	65	GLN
45	DV	108	PRO
45	DV	114	GLY
45	DV	141	VAL
45	DV	145	GLU
45	DV	158	PRO
45	DV	171	ILE
46	D3	15	ASP
47	DZ	28	GLY
47	DZ	55	GLY

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Mol	Chain	Res	Type
47	DZ	84	GLY
48	DW	41	ILE
50	D4	10	VAL
50	D4	22	ILE
50	D4	31	ILE
50	D4	33	VAL
51	D5	57	VAL
52	D6	24	GLU
52	D6	35	GLU
52	D6	42	TRP
54	D8	34	TRP
2	AE	23	ARG
2	AE	150	SER
3	AF	127	ARG
5	AH	70	PRO
5	AH	115	VAL
7	AJ	58	PRO
7	AJ	81	GLY
7	AJ	148	ASN
9	AL	105	ASP
10	AM	86	MET
11	AN	87	THR
12	AO	16	ARG
13	AP	12	ASN
13	AP	13	LYS
13	AP	68	GLY
14	AQ	36	PHE
15	AR	23	GLY
16	AS	44	THR
16	AS	76	GLN
16	AS	77	ALA
18	AU	87	ARG
19	AV	14	HIS
19	AV	30	LEU
20	AW	98	PRO
27	BD	3	VAL
28	BE	56	PRO
28	BE	62	PRO
28	BE	90	THR
29	BF	130	ALA
30	BG	5	VAL
30	BG	79	ASN

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Mol	Chain	Res	Type
30	BG	110	ALA
30	BG	146	TYR
30	BG	148	MET
31	BH	6	ARG
31	BH	27	LYS
31	BH	40	GLU
31	BH	41	MET
32	BK	104	GLN
32	BK	133	HIS
34	BN	97	ARG
35	BO	7	ARG
35	BO	25	SER
35	BO	62	LEU
35	BO	66	GLY
36	BP	66	ILE
36	BP	104	PHE
38	BQ	110	LEU
39	BR	39	ARG
39	BR	136	GLN
41	B2	44	LYS
41	B2	50	PRO
44	BU	5	MET
45	BV	151	HIS
45	BV	159	PRO
45	BV	168	GLU
46	B3	73	GLY
50	B4	58	ARG
51	B5	5	PRO
51	B5	47	PRO
54	B8	3	LYS
54	B8	34	TRP
2	CE	27	LYS
2	CE	37	ASN
2	CE	45	GLN
4	CG	25	ARG
4	CG	171	GLY
7	CJ	69	VAL
7	CJ	131	LYS
8	CK	2	LEU
8	CK	100	ILE
9	CL	55	ALA
10	CM	36	GLY

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Mol	Chain	Res	Type
10	CM	79	ARG
12	CO	76	GLU
14	CQ	16	PHE
18	CU	31	LEU
18	CU	36	ASN
19	CV	66	MET
19	CV	79	THR
20	CW	10	LEU
21	CX	24	ARG
27	DD	46	GLN
28	DE	45	THR
28	DE	74	PRO
28	DE	75	VAL
29	DF	16	GLY
30	DG	110	ALA
31	DH	83	TYR
33	DM	18	ALA
33	DM	128	HIS
34	DN	29	ASN
35	DO	12	ALA
35	DO	136	GLU
36	DP	7	MET
37	D0	45	ARG
38	DQ	4	LEU
38	DQ	86	ALA
39	DR	104	ASN
42	DS	58	ALA
43	DT	19	ALA
43	DT	46	ALA
44	DU	29	GLU
44	DU	50	ARG
44	DU	57	GLN
45	DV	59	LEU
45	DV	62	PRO
45	DV	93	ASP
45	DV	175	VAL
46	D3	55	ARG
46	D3	84	LEU
47	DZ	81	LYS
47	DZ	91	LYS
50	D4	20	ASN
50	D4	23	GLU

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Mol	Chain	Res	Type
50	D4	29	PRO
50	D4	37	SER
50	D4	41	PRO
50	D4	42	PHE
50	D4	50	VAL
50	D4	51	ASP
50	D4	54	GLY
52	D6	45	LYS
52	D6	46	HIS
54	D8	50	LEU
54	D8	53	PRO
2	AE	117	GLU
2	AE	207	ALA
3	AF	181	ASN
11	AN	96	ARG
12	AO	13	GLU
13	AP	7	VAL
13	AP	21	TYR
14	AQ	5	ALA
15	AR	88	ARG
18	AU	20	ALA
19	AV	24	ALA
19	AV	28	LYS
20	AW	97	ALA
27	BD	239	ARG
28	BE	55	ASN
28	BE	79	ARG
28	BE	82	ARG
29	BF	23	ASP
29	BF	129	PHE
29	BF	168	ARG
31	BH	56	SER
32	BK	118	LYS
33	BM	64	GLY
35	BO	117	GLU
36	BP	11	LYS
39	BR	86	ILE
42	BS	65	LEU
44	BU	53	PRO
44	BU	56	PRO
44	BU	90	LEU
45	BV	60	GLU

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Mol	Chain	Res	Type
45	BV	61	LEU
45	BV	110	GLY
45	BV	112	ARG
45	BV	136	PHE
45	BV	152	ALA
49	BX	13	ILE
50	B4	23	GLU
52	B6	16	CYS
52	B6	21	TYR
2	CE	46	LYS
2	CE	216	SER
2	CE	217	ARG
3	CF	20	SER
3	CF	43	LEU
3	CF	146	ALA
4	CG	28	SER
4	CG	32	ALA
5	CH	70	PRO
11	CN	49	GLY
11	CN	64	ALA
13	CP	104	ARG
17	CT	99	SER
20	CW	74	LYS
20	CW	100	ILE
27	DD	3	VAL
27	DD	156	ALA
28	DE	54	GLN
28	DE	69	LYS
28	DE	94	GLU
29	DF	10	PRO
30	DG	35	GLU
30	DG	109	VAL
31	DH	5	GLY
31	DH	41	MET
31	DH	126	PRO
31	DH	130	ARG
31	DH	138	LYS
32	DK	101	LEU
33	DM	2	LYS
33	DM	42	TRP
33	DM	125	GLY
33	DM	130	HIS

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Mol	Chain	Res	Type
34	DN	89	ASN
35	DO	46	LYS
35	DO	47	ASP
35	DO	104	GLY
35	DO	107	LYS
38	DQ	74	ALA
39	DR	131	ALA
41	D2	36	PRO
41	D2	37	VAL
41	D2	45	THR
44	DU	55	TYR
45	DV	66	SER
45	DV	116	VAL
45	DV	162	GLU
47	DZ	96	LYS
49	DX	13	ILE
49	DX	51	ALA
50	D4	25	TYR
2	AE	83	MET
2	AE	85	ALA
2	AE	235	SER
3	AF	26	LYS
3	AF	51	GLY
3	AF	61	ALA
3	AF	84	ILE
3	AF	144	SER
5	AH	12	LEU
5	AH	21	ALA
8	AK	50	ARG
8	AK	129	VAL
8	AK	133	LEU
10	AM	30	SER
11	AN	117	ASN
14	AQ	12	ARG
17	AT	34	LYS
17	AT	68	ARG
19	AV	9	VAL
21	AX	7	ARG
27	BD	35	LYS
27	BD	58	HIS
27	BD	127	VAL
28	BE	21	VAL

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Mol	Chain	Res	Type
28	BE	52	LEU
28	BE	117	MET
30	BG	74	LYS
30	BG	97	ASP
31	BH	13	LYS
31	BH	83	TYR
31	BH	110	SER
33	BM	42	TRP
35	BO	35	HIS
36	BP	90	VAL
36	BP	105	GLU
37	B0	71	GLN
38	BQ	35	ILE
39	BR	94	ALA
40	B1	116	ALA
42	BS	63	ASP
42	BS	112	GLY
43	BT	91	ALA
44	BU	3	VAL
44	BU	58	GLY
45	BV	108	PRO
45	BV	124	ILE
45	BV	141	VAL
45	BV	170	THR
50	B4	24	THR
50	B4	50	VAL
52	B6	22	ALA
2	CE	125	PRO
2	CE	130	ARG
3	CF	51	GLY
4	CG	153	ARG
7	CJ	17	VAL
9	CL	40	LEU
13	CP	21	TYR
19	CV	28	LYS
20	CW	71	THR
27	DD	35	LYS
27	DD	162	SER
28	DE	8	LYS
28	DE	55	ASN
28	DE	82	ARG
28	DE	131	ALA

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Mol	Chain	Res	Type
29	DF	9	ILE
29	DF	132	VAL
30	DG	36	LYS
30	DG	117	PHE
30	DG	153	ARG
31	DH	153	LYS
35	DO	11	GLY
35	DO	35	HIS
35	DO	137	LYS
35	DO	139	LYS
36	DP	57	HIS
36	DP	90	VAL
39	DR	135	ALA
41	D2	49	THR
41	D2	87	HIS
43	DT	40	LYS
43	DT	51	VAL
44	DU	61	ILE
45	DV	61	LEU
45	DV	152	ALA
48	DW	47	ASN
49	DX	16	PRO
51	D5	49	CYS
52	D6	49	HIS
8	AK	83	ILE
9	AL	88	TYR
9	AL	107	ARG
19	AV	8	GLY
30	BG	147	ASP
31	BH	57	ASP
33	BM	128	HIS
39	BR	12	SER
40	B1	88	ILE
42	BS	14	PRO
45	BV	134	PRO
45	BV	156	LYS
2	CE	26	PRO
2	CE	233	SER
3	CF	82	GLU
3	CF	107	GLN
9	CL	67	GLY
10	CM	93	GLY

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Mol	Chain	Res	Type
13	CP	57	ARG
15	CR	86	GLY
15	CR	88	ARG
17	CT	33	GLY
19	CV	67	VAL
20	CW	101	GLY
28	DE	90	THR
29	DF	59	TYR
31	DH	26	VAL
31	DH	55	PRO
33	DM	127	ASP
35	DO	97	PRO
36	DP	19	GLY
36	DP	77	LYS
8	AK	86	ILE
32	BK	7	GLU
32	BK	71	ILE
33	BM	9	VAL
44	BU	98	VAL
45	BV	115	GLY
52	B6	48	VAL
13	CP	38	GLY
27	DD	127	VAL
33	DM	108	PRO
2	AE	15	VAL
2	AE	18	GLY
2	AE	234	PRO
27	BD	34	VAL
50	B4	35	VAL
3	CF	14	ILE
13	CP	6	GLY
32	DK	119	PRO
33	DM	40	PRO
33	DM	134	ARG
35	DO	62	LEU
44	DU	31	LEU
45	DV	157	LEU
2	AE	5	ILE
7	AJ	80	VAL
15	AR	20	GLY
31	BH	7	LEU
31	BH	92	ILE

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Mol	Chain	Res	Type
38	BQ	108	GLY
47	BZ	84	GLY
48	BW	17	SER
19	CV	42	PRO
20	CW	47	GLY
28	DE	52	LEU
29	DF	13	SER
29	DF	193	VAL
30	DG	24	GLY
31	DH	4	ILE
31	DH	12	PRO
31	DH	21	PRO
31	DH	136	ILE
45	DV	128	VAL
45	DV	165	VAL
2	AE	227	GLY
8	AK	51	VAL
9	AL	109	VAL
17	AT	77	VAL
32	BK	131	LYS
45	BV	158	PRO
28	DE	86	PRO
31	DH	7	LEU
39	DR	24	PRO
40	D1	73	GLY
15	AR	19	PRO
45	BV	12	GLY
2	CE	65	GLY
52	D6	52	VAL
45	DV	176	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	AE	205/220 (93%)	167 (82%)	38 (18%)	1 9

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	CE	205/220 (93%)	176 (86%)	29 (14%)	3 16
3	AF	159/188 (85%)	139 (87%)	20 (13%)	4 20
3	CF	160/188 (85%)	144 (90%)	16 (10%)	7 29
4	AG	180/180 (100%)	162 (90%)	18 (10%)	7 29
4	CG	180/180 (100%)	157 (87%)	23 (13%)	4 19
5	AH	116/123 (94%)	95 (82%)	21 (18%)	2 9
5	CH	116/123 (94%)	100 (86%)	16 (14%)	3 17
6	AI	90/90 (100%)	82 (91%)	8 (9%)	9 34
6	CI	90/90 (100%)	81 (90%)	9 (10%)	7 29
7	AJ	126/127 (99%)	102 (81%)	24 (19%)	1 8
7	CJ	126/127 (99%)	104 (82%)	22 (18%)	2 10
8	AK	119/119 (100%)	107 (90%)	12 (10%)	7 29
8	CK	119/119 (100%)	111 (93%)	8 (7%)	15 46
9	AL	98/99 (99%)	88 (90%)	10 (10%)	7 29
9	CL	98/99 (99%)	84 (86%)	14 (14%)	3 16
10	AM	89/92 (97%)	78 (88%)	11 (12%)	4 20
10	CM	89/92 (97%)	76 (85%)	13 (15%)	3 15
11	AN	90/99 (91%)	78 (87%)	12 (13%)	4 18
11	CN	90/99 (91%)	86 (96%)	4 (4%)	25 60
12	AO	104/109 (95%)	93 (89%)	11 (11%)	6 27
12	CO	104/109 (95%)	92 (88%)	12 (12%)	5 24
13	AP	94/101 (93%)	84 (89%)	10 (11%)	6 27
13	CP	94/101 (93%)	84 (89%)	10 (11%)	6 27
14	AQ	48/50 (96%)	40 (83%)	8 (17%)	2 12
14	CQ	48/50 (96%)	44 (92%)	4 (8%)	10 37
15	AR	79/80 (99%)	74 (94%)	5 (6%)	16 48
15	CR	79/80 (99%)	67 (85%)	12 (15%)	3 14
16	AS	72/74 (97%)	66 (92%)	6 (8%)	10 37
16	CS	72/74 (97%)	64 (89%)	8 (11%)	6 25
17	AT	95/97 (98%)	85 (90%)	10 (10%)	6 27
17	CT	95/97 (98%)	91 (96%)	4 (4%)	26 61

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
18	AU	63/77 (82%)	56 (89%)	7 (11%)	6 25
18	CU	63/77 (82%)	53 (84%)	10 (16%)	2 13
19	AV	67/80 (84%)	54 (81%)	13 (19%)	1 8
19	CV	67/80 (84%)	57 (85%)	10 (15%)	3 15
20	AW	76/82 (93%)	66 (87%)	10 (13%)	4 18
20	CW	76/82 (93%)	66 (87%)	10 (13%)	4 18
21	AX	20/22 (91%)	20 (100%)	0	100 100
21	CX	20/22 (91%)	20 (100%)	0	100 100
27	BD	214/218 (98%)	177 (83%)	37 (17%)	2 10
27	DD	214/218 (98%)	179 (84%)	35 (16%)	2 12
28	BE	165/166 (99%)	130 (79%)	35 (21%)	1 6
28	DE	165/166 (99%)	137 (83%)	28 (17%)	2 11
29	BF	161/166 (97%)	133 (83%)	28 (17%)	2 10
29	DF	165/166 (99%)	137 (83%)	28 (17%)	2 11
30	BG	155/156 (99%)	137 (88%)	18 (12%)	5 23
30	DG	155/156 (99%)	138 (89%)	17 (11%)	6 25
31	BH	142/148 (96%)	116 (82%)	26 (18%)	2 9
31	DH	142/148 (96%)	123 (87%)	19 (13%)	4 18
32	BK	122/124 (98%)	102 (84%)	20 (16%)	2 12
32	DK	122/124 (98%)	103 (84%)	19 (16%)	2 13
33	BM	117/119 (98%)	97 (83%)	20 (17%)	2 11
33	DM	117/119 (98%)	95 (81%)	22 (19%)	1 9
34	BN	100/100 (100%)	87 (87%)	13 (13%)	4 19
34	DN	100/100 (100%)	86 (86%)	14 (14%)	3 16
35	BO	116/116 (100%)	84 (72%)	32 (28%)	0 2
35	DO	116/116 (100%)	76 (66%)	40 (34%)	0 1
36	BP	111/111 (100%)	91 (82%)	20 (18%)	2 10
36	DP	111/111 (100%)	89 (80%)	22 (20%)	1 8
37	B0	101/101 (100%)	83 (82%)	18 (18%)	2 10
37	D0	100/101 (99%)	81 (81%)	19 (19%)	1 8
38	BQ	87/88 (99%)	71 (82%)	16 (18%)	1 9

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
38	DQ	87/88 (99%)	79 (91%)	8 (9%)	8 33
39	BR	120/127 (94%)	96 (80%)	24 (20%)	1 7
39	DR	120/127 (94%)	100 (83%)	20 (17%)	2 12
40	B1	93/94 (99%)	84 (90%)	9 (10%)	8 30
40	D1	93/94 (99%)	84 (90%)	9 (10%)	8 30
41	B2	82/82 (100%)	67 (82%)	15 (18%)	2 9
41	D2	82/82 (100%)	67 (82%)	15 (18%)	2 9
42	BS	92/92 (100%)	79 (86%)	13 (14%)	3 16
42	DS	92/92 (100%)	78 (85%)	14 (15%)	3 14
43	BT	74/78 (95%)	61 (82%)	13 (18%)	2 10
43	DT	74/78 (95%)	64 (86%)	10 (14%)	4 18
44	BU	85/91 (93%)	69 (81%)	16 (19%)	1 9
44	DU	85/91 (93%)	65 (76%)	20 (24%)	1 4
45	BV	154/179 (86%)	125 (81%)	29 (19%)	1 9
45	DV	158/179 (88%)	141 (89%)	17 (11%)	6 26
46	B3	61/67 (91%)	57 (93%)	4 (7%)	15 46
46	D3	62/67 (92%)	55 (89%)	7 (11%)	5 24
47	BZ	82/83 (99%)	68 (83%)	14 (17%)	2 11
47	DZ	82/83 (99%)	68 (83%)	14 (17%)	2 11
48	BW	62/67 (92%)	49 (79%)	13 (21%)	1 6
48	DW	62/67 (92%)	49 (79%)	13 (21%)	1 6
49	BX	51/52 (98%)	44 (86%)	7 (14%)	3 17
49	DX	51/52 (98%)	45 (88%)	6 (12%)	5 22
50	B4	59/63 (94%)	47 (80%)	12 (20%)	1 7
50	D4	57/63 (90%)	47 (82%)	10 (18%)	2 10
51	B5	51/52 (98%)	42 (82%)	9 (18%)	2 10
51	D5	51/52 (98%)	42 (82%)	9 (18%)	2 10
52	B6	44/52 (85%)	34 (77%)	10 (23%)	1 5
52	D6	44/52 (85%)	39 (89%)	5 (11%)	5 24
53	B7	38/42 (90%)	33 (87%)	5 (13%)	4 18
53	D7	38/42 (90%)	32 (84%)	6 (16%)	2 13

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
54	B8	50/55 (91%)	37 (74%)	13 (26%)	0 3
54	D8	50/55 (91%)	39 (78%)	11 (22%)	1 5
All	All	9565/9996 (96%)	8131 (85%)	1434 (15%)	3 14

All (1434) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AE	7	VAL
2	AE	8	LYS
2	AE	9	GLU
2	AE	16	HIS
2	AE	17	PHE
2	AE	22	LYS
2	AE	37	ASN
2	AE	45	GLN
2	AE	55	PHE
2	AE	69	LEU
2	AE	71	VAL
2	AE	74	LYS
2	AE	75	LYS
2	AE	76	GLN
2	AE	79	ASP
2	AE	87	ARG
2	AE	90	MET
2	AE	94	ASN
2	AE	96	ARG
2	AE	107	THR
2	AE	108	ILE
2	AE	111	ARG
2	AE	117	GLU
2	AE	145	LEU
2	AE	154	LEU
2	AE	156	LYS
2	AE	158	LEU
2	AE	162	ILE
2	AE	178	ARG
2	AE	187	LEU
2	AE	189	ASP
2	AE	197	VAL
2	AE	200	ILE
2	AE	204	ASN

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Mol	Chain	Res	Type
2	AE	206	ASP
2	AE	213	LEU
2	AE	215	LEU
2	AE	216	SER
3	AF	5	ILE
3	AF	14	ILE
3	AF	15	THR
3	AF	16	ARG
3	AF	17	ASP
3	AF	21	ARG
3	AF	34	LEU
3	AF	45	LYS
3	AF	47	LEU
3	AF	54	ARG
3	AF	58	GLU
3	AF	76	VAL
3	AF	79	ARG
3	AF	93	LYS
3	AF	94	LEU
3	AF	107	GLN
3	AF	128	PHE
3	AF	161	GLU
3	AF	162	GLN
3	AF	191	THR
4	AG	3	ARG
4	AG	5	ILE
4	AG	8	VAL
4	AG	12	CYS
4	AG	19	LEU
4	AG	26	CYS
4	AG	45	GLN
4	AG	58	LEU
4	AG	66	ARG
4	AG	86	LYS
4	AG	96	LEU
4	AG	122	ARG
4	AG	126	ILE
4	AG	131	ARG
4	AG	135	LEU
4	AG	154	ASN
4	AG	194	LEU
4	AG	201	GLN

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Mol	Chain	Res	Type
5	AH	5	ASP
5	AH	9	LYS
5	AH	10	MET
5	AH	12	LEU
5	AH	20	GLN
5	AH	25	ARG
5	AH	31	LEU
5	AH	33	VAL
5	AH	41	VAL
5	AH	47	LYS
5	AH	53	LEU
5	AH	71	LEU
5	AH	79	GLU
5	AH	81	GLU
5	AH	82	VAL
5	AH	101	ILE
5	AH	116	THR
5	AH	121	LYS
5	AH	131	ILE
5	AH	147	ASP
5	AH	153	LYS
6	AI	19	LEU
6	AI	21	LEU
6	AI	30	LEU
6	AI	36	ARG
6	AI	64	GLN
6	AI	65	VAL
6	AI	75	LEU
6	AI	92	LYS
7	AJ	6	ARG
7	AJ	8	GLU
7	AJ	21	VAL
7	AJ	36	LYS
7	AJ	37	ASN
7	AJ	45	ASP
7	AJ	49	ILE
7	AJ	53	LYS
7	AJ	54	THR
7	AJ	56	GLN
7	AJ	57	GLU
7	AJ	66	VAL
7	AJ	78	ARG

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Mol	Chain	Res	Type
7	AJ	80	VAL
7	AJ	86	GLN
7	AJ	89	MET
7	AJ	90	GLU
7	AJ	91	VAL
7	AJ	104	LEU
7	AJ	113	GLU
7	AJ	124	LEU
7	AJ	136	LYS
7	AJ	137	LYS
7	AJ	146	GLU
8	AK	3	THR
8	AK	10	LEU
8	AK	19	VAL
8	AK	26	VAL
8	AK	52	ASP
8	AK	63	LEU
8	AK	68	ARG
8	AK	85	ARG
8	AK	102	ARG
8	AK	105	ARG
8	AK	112	LEU
8	AK	122	ARG
9	AL	2	GLU
9	AL	7	THR
9	AL	9	ARG
9	AL	10	ARG
9	AL	20	ARG
9	AL	44	VAL
9	AL	47	LEU
9	AL	65	VAL
9	AL	99	LEU
9	AL	114	TYR
10	AM	5	ARG
10	AM	13	HIS
10	AM	16	LEU
10	AM	17	ASP
10	AM	38	ILE
10	AM	44	VAL
10	AM	49	VAL
10	AM	60	ARG
10	AM	62	HIS

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Mol	Chain	Res	Type
10	AM	70	ARG
10	AM	96	ILE
11	AN	41	THR
11	AN	48	ILE
11	AN	51	LYS
11	AN	81	ASP
11	AN	92	GLU
11	AN	93	GLN
11	AN	104	GLN
11	AN	109	VAL
11	AN	114	VAL
11	AN	117	ASN
11	AN	122	LYS
11	AN	127	LYS
12	AO	8	VAL
12	AO	18	LYS
12	AO	30	ARG
12	AO	41	THR
12	AO	44	LYS
12	AO	47	SER
12	AO	56	ARG
12	AO	59	SER
12	AO	80	VAL
12	AO	82	ILE
12	AO	93	VAL
13	AP	3	ARG
13	AP	45	VAL
13	AP	46	LYS
13	AP	56	LEU
13	AP	64	TRP
13	AP	86	CYS
13	AP	88	ARG
13	AP	101	GLN
13	AP	106	ASN
13	AP	108	ARG
14	AQ	23	ARG
14	AQ	27	CYS
14	AQ	31	ARG
14	AQ	33	VAL
14	AQ	46	GLU
14	AQ	52	GLN
14	AQ	53	LEU

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Mol	Chain	Res	Type
14	AQ	58	LYS
15	AR	6	GLU
15	AR	17	ARG
15	AR	26	GLU
15	AR	39	LEU
15	AR	76	GLU
16	AS	2	VAL
16	AS	20	VAL
16	AS	52	ASP
16	AS	53	VAL
16	AS	67	THR
16	AS	83	GLU
17	AT	9	VAL
17	AT	14	LYS
17	AT	35	VAL
17	AT	38	ARG
17	AT	60	ILE
17	AT	68	ARG
17	AT	89	LEU
17	AT	92	ARG
17	AT	96	GLU
17	AT	101	ARG
18	AU	21	LYS
18	AU	23	LYS
18	AU	31	LEU
18	AU	32	ARG
18	AU	44	LEU
18	AU	54	ARG
18	AU	76	LEU
19	AV	7	LYS
19	AV	13	ASP
19	AV	29	ARG
19	AV	30	LEU
19	AV	31	ILE
19	AV	33	THR
19	AV	37	ARG
19	AV	43	GLU
19	AV	47	HIS
19	AV	58	VAL
19	AV	60	VAL
19	AV	65	ASN
19	AV	83	HIS

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Mol	Chain	Res	Type
20	AW	10	LEU
20	AW	26	ASN
20	AW	36	LEU
20	AW	41	ILE
20	AW	54	LYS
20	AW	73	HIS
20	AW	75	ASN
20	AW	84	LEU
20	AW	88	VAL
20	AW	99	LEU
27	BD	3	VAL
27	BD	10	THR
27	BD	17	THR
27	BD	18	VAL
27	BD	25	THR
27	BD	28	GLU
27	BD	33	LEU
27	BD	35	LYS
27	BD	44	ASN
27	BD	46	GLN
27	BD	61	LEU
27	BD	64	ILE
27	BD	65	ILE
27	BD	73	VAL
27	BD	94	LEU
27	BD	103	ARG
27	BD	105	ILE
27	BD	106	ILE
27	BD	112	GLN
27	BD	113	VAL
27	BD	116	GLN
27	BD	117	VAL
27	BD	136	ILE
27	BD	141	VAL
27	BD	142	VAL
27	BD	164	GLN
27	BD	169	GLU
27	BD	192	THR
27	BD	218	ARG
27	BD	221	VAL
27	BD	229	VAL
27	BD	242	ARG

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Mol	Chain	Res	Type
27	BD	257	LEU
27	BD	259	THR
27	BD	262	ARG
27	BD	268	ARG
27	BD	271	ILE
28	BE	2	LYS
28	BE	13	ARG
28	BE	14	ILE
28	BE	16	ARG
28	BE	25	VAL
28	BE	26	ILE
28	BE	33	VAL
28	BE	34	VAL
28	BE	41	LYS
28	BE	45	THR
28	BE	47	VAL
28	BE	48	GLN
28	BE	54	GLN
28	BE	57	LYS
28	BE	63	LEU
28	BE	66	HIS
28	BE	67	PHE
28	BE	75	VAL
28	BE	78	LEU
28	BE	91	VAL
28	BE	111	ARG
28	BE	116	VAL
28	BE	144	ARG
28	BE	146	THR
28	BE	154	LYS
28	BE	167	VAL
28	BE	171	GLU
28	BE	175	VAL
28	BE	179	GLU
28	BE	181	LEU
28	BE	188	VAL
28	BE	196	VAL
28	BE	197	ILE
28	BE	200	GLU
28	BE	203	LYS
29	BF	8	GLN
29	BF	9	ILE

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Mol	Chain	Res	Type
29	BF	18	ARG
29	BF	28	ILE
29	BF	33	LEU
29	BF	38	ARG
29	BF	45	ARG
29	BF	46	ARG
29	BF	51	THR
29	BF	57	VAL
29	BF	64	ILE
29	BF	65	TRP
29	BF	67	GLN
29	BF	70	THR
29	BF	82	ILE
29	BF	106	ARG
29	BF	127	GLU
29	BF	132	VAL
29	BF	136	THR
29	BF	145	GLU
29	BF	161	GLU
29	BF	170	LEU
29	BF	174	VAL
29	BF	181	LEU
29	BF	183	VAL
29	BF	201	VAL
29	BF	203	GLN
29	BF	206	ILE
30	BG	3	LEU
30	BG	21	ARG
30	BG	26	GLN
30	BG	28	VAL
30	BG	31	VAL
30	BG	43	LEU
30	BG	45	GLU
30	BG	48	GLU
30	BG	63	ILE
30	BG	64	THR
30	BG	67	LYS
30	BG	80	PHE
30	BG	82	LEU
30	BG	94	LEU
30	BG	101	ILE
30	BG	121	ASN

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Mol	Chain	Res	Type
30	BG	133	LEU
30	BG	165	THR
31	BH	3	ARG
31	BH	4	ILE
31	BH	7	LEU
31	BH	11	VAL
31	BH	13	LYS
31	BH	17	VAL
31	BH	24	VAL
31	BH	32	GLU
31	BH	41	MET
31	BH	43	VAL
31	BH	44	VAL
31	BH	45	VAL
31	BH	57	ASP
31	BH	58	GLU
31	BH	71	LEU
31	BH	88	LEU
31	BH	89	ILE
31	BH	95	ARG
31	BH	104	GLU
31	BH	122	THR
31	BH	139	GLN
31	BH	149	ARG
31	BH	153	LYS
31	BH	158	HIS
31	BH	159	GLU
31	BH	169	VAL
32	BK	9	LEU
32	BK	11	ASN
32	BK	14	ASP
32	BK	35	LEU
32	BK	41	GLU
32	BK	44	LEU
32	BK	57	ARG
32	BK	64	GLU
32	BK	67	ARG
32	BK	71	ILE
32	BK	74	ASN
32	BK	77	LEU
32	BK	85	GLU
32	BK	92	VAL

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Mol	Chain	Res	Type
32	BK	95	LYS
32	BK	110	ASP
32	BK	135	GLU
32	BK	136	VAL
32	BK	139	GLN
32	BK	145	VAL
33	BM	7	LYS
33	BM	15	LEU
33	BM	28	THR
33	BM	32	THR
33	BM	33	LEU
33	BM	34	LEU
33	BM	43	THR
33	BM	45	ASN
33	BM	48	MET
33	BM	60	ILE
33	BM	67	LEU
33	BM	87	LEU
33	BM	96	GLU
33	BM	97	ARG
33	BM	99	LEU
33	BM	106	MET
33	BM	120	LEU
33	BM	131	GLN
33	BM	133	GLN
33	BM	134	ARG
34	BN	1	MET
34	BN	8	LEU
34	BN	20	MET
34	BN	22	ILE
34	BN	23	ARG
34	BN	24	VAL
34	BN	38	VAL
34	BN	66	LYS
34	BN	70	LYS
34	BN	92	GLU
34	BN	94	ARG
34	BN	98	VAL
34	BN	113	LYS
35	BO	7	ARG
35	BO	14	LYS
35	BO	15	ARG

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Mol	Chain	Res	Type
35	BO	16	ARG
35	BO	21	ARG
35	BO	27	HIS
35	BO	30	THR
35	BO	32	THR
35	BO	36	LYS
35	BO	41	ARG
35	BO	45	LEU
35	BO	46	LYS
35	BO	49	ARG
35	BO	58	THR
35	BO	59	LEU
35	BO	61	ARG
35	BO	62	LEU
35	BO	67	MET
35	BO	75	ILE
35	BO	76	LYS
35	BO	88	LEU
35	BO	100	LEU
35	BO	101	VAL
35	BO	105	LEU
35	BO	106	LEU
35	BO	112	LEU
35	BO	135	LEU
35	BO	138	LEU
35	BO	144	GLU
35	BO	146	VAL
35	BO	147	LEU
35	BO	148	LEU
36	BP	1	MET
36	BP	3	MET
36	BP	5	ARG
36	BP	18	LYS
36	BP	21	THR
36	BP	25	ASP
36	BP	26	TYR
36	BP	45	GLN
36	BP	55	VAL
36	BP	77	LYS
36	BP	81	VAL
36	BP	82	ARG
36	BP	83	MET

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Mol	Chain	Res	Type
36	BP	87	LYS
36	BP	90	VAL
36	BP	106	VAL
36	BP	109	VAL
36	BP	110	THR
36	BP	112	GLU
36	BP	138	ASP
37	B0	1	MET
37	B0	2	ARG
37	B0	9	LYS
37	B0	28	LEU
37	B0	29	LEU
37	B0	34	ILE
37	B0	36	THR
37	B0	44	LEU
37	B0	48	VAL
37	B0	65	LEU
37	B0	67	LEU
37	B0	71	GLN
37	B0	79	LEU
37	B0	105	ARG
37	B0	107	ASP
37	B0	113	LEU
37	B0	117	VAL
37	B0	118	GLU
38	BQ	14	VAL
38	BQ	15	ARG
38	BQ	19	LYS
38	BQ	20	ARG
38	BQ	24	LEU
38	BQ	36	TYR
38	BQ	42	ASP
38	BQ	43	GLU
38	BQ	52	SER
38	BQ	58	LEU
38	BQ	80	LEU
38	BQ	83	LYS
38	BQ	89	ARG
38	BQ	101	LEU
38	BQ	106	ARG
38	BQ	111	GLU
39	BR	9	LEU

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Mol	Chain	Res	Type
39	BR	11	GLU
39	BR	15	VAL
39	BR	17	THR
39	BR	27	THR
39	BR	28	VAL
39	BR	30	VAL
39	BR	41	ARG
39	BR	42	ILE
39	BR	49	VAL
39	BR	53	ARG
39	BR	59	THR
39	BR	74	ARG
39	BR	78	LEU
39	BR	86	ILE
39	BR	87	ASP
39	BR	88	ILE
39	BR	89	VAL
39	BR	99	LEU
39	BR	105	LEU
39	BR	108	ARG
39	BR	110	ILE
39	BR	118	ARG
39	BR	128	GLU
40	B1	5	LYS
40	B1	8	VAL
40	B1	22	LYS
40	B1	31	SER
40	B1	34	LYS
40	B1	64	ARG
40	B1	66	ASN
40	B1	74	LEU
40	B1	104	GLN
41	B2	18	LEU
41	B2	19	LYS
41	B2	24	LYS
41	B2	32	THR
41	B2	35	LEU
41	B2	40	LEU
41	B2	45	THR
41	B2	47	VAL
41	B2	52	VAL
41	B2	57	VAL

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Mol	Chain	Res	Type
41	B2	64	HIS
41	B2	70	ILE
41	B2	72	VAL
41	B2	73	SER
41	B2	99	ILE
42	BS	1	MET
42	BS	11	ARG
42	BS	19	LEU
42	BS	37	ARG
42	BS	51	LEU
42	BS	60	ASN
42	BS	65	LEU
42	BS	66	GLU
42	BS	69	LEU
42	BS	76	VAL
42	BS	96	ILE
42	BS	100	THR
42	BS	107	LEU
43	BT	3	THR
43	BT	12	VAL
43	BT	40	LYS
43	BT	41	ASN
43	BT	49	VAL
43	BT	60	ARG
43	BT	65	ARG
43	BT	70	LEU
43	BT	80	ILE
43	BT	81	VAL
43	BT	88	LYS
43	BT	89	ILE
43	BT	92	LEU
44	BU	6	HIS
44	BU	14	LEU
44	BU	19	LYS
44	BU	27	VAL
44	BU	33	LYS
44	BU	38	ILE
44	BU	45	VAL
44	BU	57	GLN
44	BU	61	ILE
44	BU	64	GLU
44	BU	67	LEU

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Mol	Chain	Res	Type
44	BU	76	CYS
44	BU	89	PHE
44	BU	90	LEU
44	BU	97	ARG
44	BU	101	LYS
45	BV	1	MET
45	BV	2	GLU
45	BV	4	ARG
45	BV	5	LEU
45	BV	16	SER
45	BV	19	ARG
45	BV	20	ARG
45	BV	30	ASN
45	BV	37	VAL
45	BV	39	VAL
45	BV	41	LEU
45	BV	61	LEU
45	BV	71	VAL
45	BV	73	GLN
45	BV	86	VAL
45	BV	87	ASP
45	BV	91	LEU
45	BV	105	VAL
45	BV	111	VAL
45	BV	117	LEU
45	BV	119	GLU
45	BV	122	ARG
45	BV	124	ILE
45	BV	132	ASN
45	BV	154	ASP
45	BV	161	VAL
45	BV	169	GLU
45	BV	171	ILE
45	BV	175	VAL
46	B3	35	ASN
46	B3	36	ILE
46	B3	41	ARG
46	B3	46	LYS
47	BZ	4	VAL
47	BZ	19	GLN
47	BZ	25	LYS
47	BZ	26	ARG

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Mol	Chain	Res	Type
47	BZ	30	VAL
47	BZ	38	SER
47	BZ	46	LEU
47	BZ	53	VAL
47	BZ	62	VAL
47	BZ	65	SER
47	BZ	69	LYS
47	BZ	81	LYS
47	BZ	82	LEU
47	BZ	91	LYS
48	BW	5	GLU
48	BW	9	GLN
48	BW	15	LYS
48	BW	16	LEU
48	BW	32	LEU
48	BW	34	GLU
48	BW	41	ILE
48	BW	48	HIS
48	BW	50	ILE
48	BW	53	LEU
48	BW	59	ARG
48	BW	62	THR
48	BW	67	LYS
49	BX	4	LEU
49	BX	30	ARG
49	BX	31	LEU
49	BX	32	GLN
49	BX	38	GLU
49	BX	40	THR
49	BX	44	ARG
50	B4	6	HIS
50	B4	15	ILE
50	B4	16	CYS
50	B4	18	CYS
50	B4	38	LYS
50	B4	39	CYS
50	B4	42	PHE
50	B4	44	THR
50	B4	50	VAL
50	B4	55	ARG
50	B4	61	ARG
50	B4	63	TYR

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Mol	Chain	Res	Type
51	B5	3	LYS
51	B5	4	HIS
51	B5	6	VAL
51	B5	11	THR
51	B5	16	ARG
51	B5	25	LEU
51	B5	40	LYS
51	B5	52	TYR
51	B5	56	LYS
52	B6	10	LEU
52	B6	12	GLU
52	B6	17	LYS
52	B6	25	LYS
52	B6	27	LYS
52	B6	33	LYS
52	B6	36	LEU
52	B6	39	TYR
52	B6	42	TRP
52	B6	44	ARG
53	B7	1	MET
53	B7	8	ASN
53	B7	9	ARG
53	B7	14	LYS
53	B7	24	THR
54	B8	14	VAL
54	B8	15	LYS
54	B8	21	LYS
54	B8	29	LYS
54	B8	31	HIS
54	B8	33	ASN
54	B8	35	GLN
54	B8	41	ILE
54	B8	47	LYS
54	B8	52	LYS
54	B8	56	GLU
54	B8	58	ILE
54	B8	61	LEU
2	CE	5	ILE
2	CE	12	GLU
2	CE	19	HIS
2	CE	21	ARG
2	CE	23	ARG

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Mol	Chain	Res	Type
2	CE	32	ILE
2	CE	42	ILE
2	CE	44	LEU
2	CE	51	LEU
2	CE	67	THR
2	CE	90	MET
2	CE	92	TYR
2	CE	101	MET
2	CE	107	THR
2	CE	108	ILE
2	CE	121	LEU
2	CE	130	ARG
2	CE	137	ARG
2	CE	145	LEU
2	CE	147	LYS
2	CE	153	ARG
2	CE	154	LEU
2	CE	155	LEU
2	CE	170	GLU
2	CE	178	ARG
2	CE	185	ILE
2	CE	187	LEU
2	CE	198	ASP
2	CE	204	ASN
3	CF	5	ILE
3	CF	6	HIS
3	CF	21	ARG
3	CF	23	TYR
3	CF	26	LYS
3	CF	43	LEU
3	CF	52	LEU
3	CF	54	ARG
3	CF	89	GLU
3	CF	131	ARG
3	CF	139	GLN
3	CF	140	ARG
3	CF	161	GLU
3	CF	166	GLU
3	CF	167	TRP
3	CF	192	THR
4	CG	5	ILE
4	CG	9	CYS

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Mol	Chain	Res	Type
4	CG	10	ARG
4	CG	12	CYS
4	CG	13	ARG
4	CG	15	GLU
4	CG	17	VAL
4	CG	19	LEU
4	CG	24	GLU
4	CG	30	LYS
4	CG	36	ARG
4	CG	49	ARG
4	CG	58	LEU
4	CG	70	ILE
4	CG	112	VAL
4	CG	127	THR
4	CG	135	LEU
4	CG	139	ARG
4	CG	151	LYS
4	CG	170	VAL
4	CG	191	ARG
4	CG	199	ASN
4	CG	200	GLU
5	CH	12	LEU
5	CH	13	ILE
5	CH	34	VAL
5	CH	41	VAL
5	CH	47	LYS
5	CH	53	LEU
5	CH	72	GLN
5	CH	75	THR
5	CH	79	GLU
5	CH	91	LEU
5	CH	101	ILE
5	CH	111	GLU
5	CH	115	VAL
5	CH	116	THR
5	CH	137	GLU
5	CH	141	GLN
6	CI	3	ARG
6	CI	14	LEU
6	CI	16	GLN
6	CI	21	LEU
6	CI	24	GLU

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Mol	Chain	Res	Type
6	CI	27	GLN
6	CI	28	ARG
6	CI	45	LEU
6	CI	65	VAL
7	CJ	6	ARG
7	CJ	8	GLU
7	CJ	23	VAL
7	CJ	53	LYS
7	CJ	54	THR
7	CJ	57	GLU
7	CJ	60	LYS
7	CJ	63	LYS
7	CJ	75	VAL
7	CJ	78	ARG
7	CJ	84	ASN
7	CJ	87	VAL
7	CJ	89	MET
7	CJ	104	LEU
7	CJ	114	ARG
7	CJ	125	MET
7	CJ	135	VAL
7	CJ	137	LYS
7	CJ	140	ASP
7	CJ	149	ARG
7	CJ	153	HIS
7	CJ	155	ARG
8	CK	1	MET
8	CK	24	THR
8	CK	26	VAL
8	CK	91	ARG
8	CK	92	ARG
8	CK	97	VAL
8	CK	109	ILE
8	CK	119	LEU
9	CL	10	ARG
9	CL	23	ASN
9	CL	34	ASN
9	CL	58	HIS
9	CL	75	ASP
9	CL	79	LEU
9	CL	95	LYS
9	CL	96	LEU

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Mol	Chain	Res	Type
9	CL	97	LYS
9	CL	99	LEU
9	CL	112	LYS
9	CL	114	TYR
9	CL	117	HIS
9	CL	128	ARG
10	CM	6	ILE
10	CM	8	LEU
10	CM	13	HIS
10	CM	17	ASP
10	CM	34	VAL
10	CM	38	ILE
10	CM	47	PHE
10	CM	57	LYS
10	CM	62	HIS
10	CM	70	ARG
10	CM	80	LYS
10	CM	98	ILE
10	CM	100	THR
11	CN	29	ILE
11	CN	93	GLN
11	CN	109	VAL
11	CN	114	VAL
12	CO	20	LYS
12	CO	29	PHE
12	CO	34	CYS
12	CO	38	ARG
12	CO	39	THR
12	CO	44	LYS
12	CO	51	LYS
12	CO	52	VAL
12	CO	54	LYS
12	CO	61	TYR
12	CO	80	VAL
12	CO	113	SER
13	CP	7	VAL
13	CP	17	VAL
13	CP	64	TRP
13	CP	66	LEU
13	CP	70	LEU
13	CP	82	MET
13	CP	83	ASP

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Mol	Chain	Res	Type
13	CP	92	HIS
13	CP	101	GLN
13	CP	108	ARG
14	CQ	7	ILE
14	CQ	8	GLU
14	CQ	12	ARG
14	CQ	44	LEU
15	CR	3	ILE
15	CR	4	THR
15	CR	6	GLU
15	CR	17	ARG
15	CR	26	GLU
15	CR	31	LEU
15	CR	38	ARG
15	CR	39	LEU
15	CR	41	GLU
15	CR	66	LEU
15	CR	82	ILE
15	CR	83	GLU
16	CS	2	VAL
16	CS	5	ARG
16	CS	16	HIS
16	CS	21	VAL
16	CS	35	LYS
16	CS	43	LYS
16	CS	67	THR
16	CS	74	LEU
17	CT	38	ARG
17	CT	49	GLU
17	CT	52	LYS
17	CT	60	ILE
18	CU	21	LYS
18	CU	26	LEU
18	CU	29	PHE
18	CU	42	ARG
18	CU	44	LEU
18	CU	46	GLU
18	CU	54	ARG
18	CU	58	LEU
18	CU	82	THR
18	CU	86	VAL
19	CV	9	VAL

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Mol	Chain	Res	Type
19	CV	15	LEU
19	CV	22	LEU
19	CV	23	ASN
19	CV	28	LYS
19	CV	60	VAL
19	CV	63	THR
19	CV	64	GLU
19	CV	81	ARG
19	CV	83	HIS
20	CW	9	ASN
20	CW	26	ASN
20	CW	27	LYS
20	CW	36	LEU
20	CW	41	ILE
20	CW	73	HIS
20	CW	74	LYS
20	CW	75	ASN
20	CW	87	LYS
20	CW	93	GLU
27	DD	5	LYS
27	DD	18	VAL
27	DD	25	THR
27	DD	26	LYS
27	DD	27	THR
27	DD	35	LYS
27	DD	40	THR
27	DD	44	ASN
27	DD	46	GLN
27	DD	49	ILE
27	DD	61	LEU
27	DD	65	ILE
27	DD	72	LYS
27	DD	73	VAL
27	DD	94	LEU
27	DD	103	ARG
27	DD	105	ILE
27	DD	111	LEU
27	DD	116	GLN
27	DD	136	ILE
27	DD	138	VAL
27	DD	141	VAL
27	DD	147	LEU

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Mol	Chain	Res	Type
27	DD	166	GLN
27	DD	192	THR
27	DD	200	ASP
27	DD	211	ARG
27	DD	237	GLU
27	DD	242	ARG
27	DD	244	ARG
27	DD	255	LYS
27	DD	257	LEU
27	DD	268	ARG
27	DD	270	ILE
27	DD	271	ILE
28	DE	12	THR
28	DE	33	VAL
28	DE	42	ASP
28	DE	54	GLN
28	DE	58	ARG
28	DE	60	ASN
28	DE	66	HIS
28	DE	67	PHE
28	DE	69	LYS
28	DE	78	LEU
28	DE	82	ARG
28	DE	90	THR
28	DE	91	VAL
28	DE	107	THR
28	DE	116	VAL
28	DE	119	ARG
28	DE	128	SER
28	DE	144	ARG
28	DE	146	THR
28	DE	154	LYS
28	DE	169	ASN
28	DE	170	LEU
28	DE	175	VAL
28	DE	181	LEU
28	DE	188	VAL
28	DE	197	ILE
28	DE	200	GLU
28	DE	203	LYS
29	DF	7	TYR
29	DF	17	ARG

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Mol	Chain	Res	Type
29	DF	20	LEU
29	DF	24	LEU
29	DF	33	LEU
29	DF	38	ARG
29	DF	53	THR
29	DF	57	VAL
29	DF	67	GLN
29	DF	68	LYS
29	DF	74	ARG
29	DF	78	ILE
29	DF	82	ILE
29	DF	83	PHE
29	DF	88	VAL
29	DF	107	LYS
29	DF	110	LEU
29	DF	125	LEU
29	DF	140	LEU
29	DF	152	GLU
29	DF	154	VAL
29	DF	158	THR
29	DF	165	ARG
29	DF	181	LEU
29	DF	183	VAL
29	DF	192	LEU
29	DF	196	LEU
29	DF	203	GLN
30	DG	5	VAL
30	DG	28	VAL
30	DG	43	LEU
30	DG	52	ILE
30	DG	53	LEU
30	DG	62	LEU
30	DG	67	LYS
30	DG	71	THR
30	DG	74	LYS
30	DG	91	ARG
30	DG	94	LEU
30	DG	114	ILE
30	DG	137	GLU
30	DG	138	GLN
30	DG	162	THR
30	DG	167	GLU

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Mol	Chain	Res	Type
30	DG	173	LEU
31	DH	6	ARG
31	DH	32	GLU
31	DH	50	VAL
31	DH	53	GLU
31	DH	70	THR
31	DH	83	TYR
31	DH	85	LYS
31	DH	89	ILE
31	DH	99	VAL
31	DH	103	LEU
31	DH	107	VAL
31	DH	116	GLU
31	DH	123	PHE
31	DH	124	GLU
31	DH	125	VAL
31	DH	143	GLN
31	DH	147	ASN
31	DH	157	TYR
31	DH	158	HIS
32	DK	1	MET
32	DK	6	LEU
32	DK	9	LEU
32	DK	11	ASN
32	DK	37	VAL
32	DK	52	ARG
32	DK	54	GLN
32	DK	56	LYS
32	DK	62	LYS
32	DK	67	ARG
32	DK	75	LEU
32	DK	77	LEU
32	DK	102	SER
32	DK	104	GLN
32	DK	109	ILE
32	DK	110	ASP
32	DK	112	LYS
32	DK	117	GLU
32	DK	133	HIS
33	DM	1	MET
33	DM	29	LYS
33	DM	34	LEU

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Mol	Chain	Res	Type
33	DM	38	HIS
33	DM	39	ARG
33	DM	41	ASP
33	DM	45	ASN
33	DM	48	MET
33	DM	59	LYS
33	DM	60	ILE
33	DM	69	GLN
33	DM	85	ILE
33	DM	87	LEU
33	DM	93	THR
33	DM	94	HIS
33	DM	96	GLU
33	DM	99	LEU
33	DM	106	MET
33	DM	130	HIS
33	DM	131	GLN
33	DM	134	ARG
33	DM	137	LYS
34	DN	5	GLN
34	DN	10	VAL
34	DN	24	VAL
34	DN	49	ARG
34	DN	69	ILE
34	DN	70	LYS
34	DN	78	ARG
34	DN	85	VAL
34	DN	87	ILE
34	DN	94	ARG
34	DN	98	VAL
34	DN	113	LYS
34	DN	115	VAL
34	DN	117	LEU
35	DO	6	LEU
35	DO	14	LYS
35	DO	15	ARG
35	DO	16	ARG
35	DO	21	ARG
35	DO	36	LYS
35	DO	41	ARG
35	DO	45	LEU
35	DO	47	ASP

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Mol	Chain	Res	Type
35	DO	49	ARG
35	DO	50	ARG
35	DO	55	ARG
35	DO	56	SER
35	DO	61	ARG
35	DO	62	LEU
35	DO	64	LYS
35	DO	65	ARG
35	DO	67	MET
35	DO	68	GLN
35	DO	70	GLN
35	DO	71	VAL
35	DO	74	GLU
35	DO	85	LEU
35	DO	87	ASP
35	DO	91	PHE
35	DO	95	VAL
35	DO	99	LEU
35	DO	105	LEU
35	DO	106	LEU
35	DO	107	LYS
35	DO	111	ARG
35	DO	112	LEU
35	DO	114	ILE
35	DO	121	LYS
35	DO	124	LYS
35	DO	125	VAL
35	DO	138	LEU
35	DO	144	GLU
35	DO	147	LEU
35	DO	148	LEU
36	DP	17	LEU
36	DP	18	LYS
36	DP	21	THR
36	DP	25	ASP
36	DP	26	TYR
36	DP	45	GLN
36	DP	54	MET
36	DP	76	LYS
36	DP	79	LEU
36	DP	80	GLU
36	DP	82	ARG

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Mol	Chain	Res	Type
36	DP	83	MET
36	DP	87	LYS
36	DP	90	VAL
36	DP	103	MET
36	DP	106	VAL
36	DP	110	THR
36	DP	112	GLU
36	DP	127	ILE
36	DP	132	VAL
36	DP	133	ARG
36	DP	141	GLN
37	D0	9	LYS
37	D0	18	LEU
37	D0	28	LEU
37	D0	29	LEU
37	D0	34	ILE
37	D0	40	LYS
37	D0	42	LYS
37	D0	44	LEU
37	D0	48	VAL
37	D0	57	ARG
37	D0	63	ARG
37	D0	65	LEU
37	D0	71	GLN
37	D0	75	LEU
37	D0	76	VAL
37	D0	79	LEU
37	D0	81	ASP
37	D0	91	GLN
37	D0	105	ARG
38	DQ	14	VAL
38	DQ	27	SER
38	DQ	80	LEU
38	DQ	93	LYS
38	DQ	101	LEU
38	DQ	106	ARG
38	DQ	107	GLU
38	DQ	110	LEU
39	DR	2	ASN
39	DR	6	LEU
39	DR	8	LYS
39	DR	9	LEU

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Mol	Chain	Res	Type
39	DR	15	VAL
39	DR	17	THR
39	DR	18	ASP
39	DR	21	GLU
39	DR	23	ARG
39	DR	27	THR
39	DR	30	VAL
39	DR	50	ILE
39	DR	61	PHE
39	DR	64	ARG
39	DR	74	ARG
39	DR	88	ILE
39	DR	89	VAL
39	DR	91	ARG
39	DR	121	ILE
39	DR	136	GLN
40	D1	5	LYS
40	D1	64	ARG
40	D1	74	LEU
40	D1	80	ILE
40	D1	92	ARG
40	D1	95	LEU
40	D1	97	ASP
40	D1	98	LEU
40	D1	100	VAL
41	D2	19	LYS
41	D2	38	LEU
41	D2	40	LEU
41	D2	49	THR
41	D2	57	VAL
41	D2	66	ARG
41	D2	71	LEU
41	D2	79	VAL
41	D2	80	GLN
41	D2	81	TYR
41	D2	88	ARG
41	D2	89	GLN
41	D2	91	TYR
41	D2	95	LEU
41	D2	97	LYS
42	DS	11	ARG
42	DS	19	LEU

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Mol	Chain	Res	Type
42	DS	20	VAL
42	DS	39	THR
42	DS	51	LEU
42	DS	65	LEU
42	DS	78	GLU
42	DS	88	ARG
42	DS	95	ILE
42	DS	96	ILE
42	DS	97	LYS
42	DS	100	THR
42	DS	107	LEU
42	DS	111	HIS
43	DT	12	VAL
43	DT	27	THR
43	DT	28	PHE
43	DT	43	VAL
43	DT	45	THR
43	DT	63	LYS
43	DT	66	LEU
43	DT	78	LYS
43	DT	80	ILE
43	DT	83	VAL
44	DU	2	ARG
44	DU	29	GLU
44	DU	30	VAL
44	DU	31	LEU
44	DU	43	ASN
44	DU	45	VAL
44	DU	51	VAL
44	DU	55	TYR
44	DU	57	GLN
44	DU	62	GLU
44	DU	63	LYS
44	DU	64	GLU
44	DU	71	LYS
44	DU	75	ILE
44	DU	76	CYS
44	DU	79	CYS
44	DU	95	LYS
44	DU	96	ILE
44	DU	97	ARG
44	DU	101	LYS

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Mol	Chain	Res	Type
45	DV	5	LEU
45	DV	14	LYS
45	DV	24	LEU
45	DV	30	ASN
45	DV	32	HIS
45	DV	41	LEU
45	DV	56	VAL
45	DV	63	ASP
45	DV	71	VAL
45	DV	74	VAL
45	DV	76	LEU
45	DV	105	VAL
45	DV	119	GLU
45	DV	120	ILE
45	DV	121	HIS
45	DV	123	ASP
45	DV	170	THR
46	D3	12	ASN
46	D3	17	GLN
46	D3	20	ARG
46	D3	31	VAL
46	D3	36	ILE
46	D3	67	VAL
46	D3	70	GLN
47	DZ	4	VAL
47	DZ	19	GLN
47	DZ	56	GLN
47	DZ	74	VAL
47	DZ	76	ARG
47	DZ	78	LYS
47	DZ	80	LEU
47	DZ	81	LYS
47	DZ	82	LEU
47	DZ	83	GLU
47	DZ	90	ILE
47	DZ	91	LYS
47	DZ	92	LYS
47	DZ	93	GLU
48	DW	5	GLU
48	DW	9	GLN
48	DW	15	LYS
48	DW	19	VAL

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Mol	Chain	Res	Type
48	DW	24	LEU
48	DW	25	VAL
48	DW	26	ARG
48	DW	30	ARG
48	DW	47	ASN
48	DW	49	LYS
48	DW	60	LEU
48	DW	64	LEU
48	DW	68	ARG
49	DX	8	LEU
49	DX	18	ASP
49	DX	24	LYS
49	DX	32	GLN
49	DX	58	VAL
49	DX	59	VAL
50	D4	1	MET
50	D4	18	CYS
50	D4	20	ASN
50	D4	21	VAL
50	D4	22	ILE
50	D4	24	THR
50	D4	30	GLU
50	D4	32	TYR
50	D4	46	GLN
50	D4	60	GLN
51	D5	3	LYS
51	D5	4	HIS
51	D5	6	VAL
51	D5	16	ARG
51	D5	25	LEU
51	D5	26	THR
51	D5	29	THR
51	D5	35	GLU
51	D5	48	GLU
52	D6	21	TYR
52	D6	27	LYS
52	D6	30	THR
52	D6	37	ARG
52	D6	53	LYS
53	D7	1	MET
53	D7	4	THR
53	D7	8	ASN

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Mol	Chain	Res	Type
53	D7	32	LYS
53	D7	36	GLN
53	D7	43	THR
54	D8	14	VAL
54	D8	30	ARG
54	D8	32	LEU
54	D8	33	ASN
54	D8	34	TRP
54	D8	40	GLU
54	D8	41	ILE
54	D8	49	VAL
54	D8	56	GLU
54	D8	58	ILE
54	D8	61	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (303) such sidechains are listed below:

Mol	Chain	Res	Type
2	AE	40	HIS
2	AE	45	GLN
2	AE	76	GLN
2	AE	78	GLN
2	AE	94	ASN
2	AE	204	ASN
3	AF	28	GLN
3	AF	37	GLN
3	AF	63	ASN
3	AF	107	GLN
3	AF	136	GLN
3	AF	170	GLN
3	AF	181	ASN
4	AG	42	GLN
4	AG	43	HIS
4	AG	201	GLN
5	AH	20	GLN
5	AH	56	GLN
5	AH	78	HIS
6	AI	13	ASN
6	AI	18	GLN
6	AI	27	GLN
6	AI	57	GLN
6	AI	100	ASN

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Mol	Chain	Res	Type
7	AJ	56	GLN
7	AJ	106	GLN
7	AJ	148	ASN
8	AK	82	HIS
9	AL	23	ASN
9	AL	89	ASN
9	AL	117	HIS
9	AL	124	GLN
10	AM	13	HIS
10	AM	33	GLN
10	AM	56	HIS
10	AM	62	HIS
10	AM	84	GLN
11	AN	26	ASN
11	AN	62	GLN
11	AN	93	GLN
11	AN	117	ASN
12	AO	6	GLN
12	AO	46	ASN
12	AO	72	HIS
13	AP	101	GLN
13	AP	106	ASN
14	AQ	52	GLN
15	AR	37	ASN
15	AR	46	HIS
15	AR	50	HIS
16	AS	82	GLN
17	AT	16	GLN
17	AT	45	HIS
17	AT	94	ASN
19	AV	23	ASN
19	AV	47	HIS
19	AV	65	ASN
20	AW	9	ASN
20	AW	26	ASN
27	BD	58	HIS
27	BD	96	HIS
27	BD	116	GLN
27	BD	143	HIS
27	BD	166	GLN
27	BD	186	HIS
27	BD	198	ASN

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Mol	Chain	Res	Type
28	BE	48	GLN
28	BE	54	GLN
28	BE	192	ASN
29	BF	67	GLN
29	BF	69	HIS
29	BF	169	ASN
29	BF	203	GLN
29	BF	204	ASN
30	BG	40	ASN
30	BG	121	ASN
31	BH	143	GLN
31	BH	147	ASN
32	BK	43	ASN
32	BK	54	GLN
32	BK	105	HIS
32	BK	139	GLN
33	BM	38	HIS
33	BM	45	ASN
33	BM	56	ASN
33	BM	69	GLN
33	BM	101	HIS
33	BM	128	HIS
33	BM	131	GLN
33	BM	133	GLN
34	BN	3	GLN
34	BN	82	ASN
35	BO	9	ASN
35	BO	68	GLN
35	BO	81	GLN
35	BO	84	ASN
35	BO	128	HIS
36	BP	12	GLN
37	B0	3	HIS
37	B0	13	HIS
37	B0	16	HIS
37	B0	24	GLN
37	B0	31	HIS
37	B0	61	HIS
38	BQ	68	GLN
39	BR	38	ASN
39	BR	43	GLN
39	BR	55	ASN

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Mol	Chain	Res	Type
39	BR	84	GLN
39	BR	136	GLN
40	B1	44	ASN
40	B1	49	HIS
40	B1	71	GLN
40	B1	81	HIS
41	B2	11	GLN
41	B2	89	GLN
42	BS	34	ASN
42	BS	57	ASN
42	BS	62	HIS
42	BS	102	HIS
43	BT	31	HIS
43	BT	41	ASN
43	BT	55	ASN
43	BT	87	GLN
44	BU	57	GLN
45	BV	30	ASN
45	BV	32	HIS
45	BV	54	HIS
45	BV	75	ASN
45	BV	132	ASN
46	B3	12	ASN
46	B3	29	GLN
46	B3	35	ASN
46	B3	70	GLN
47	BZ	19	GLN
47	BZ	56	GLN
47	BZ	66	HIS
48	BW	9	GLN
48	BW	47	ASN
49	BX	19	GLN
49	BX	32	GLN
49	BX	33	GLN
49	BX	46	ASN
49	BX	52	HIS
50	B4	20	ASN
50	B4	40	HIS
50	B4	47	GLN
51	B5	4	HIS
51	B5	22	HIS
51	B5	43	HIS

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Mol	Chain	Res	Type
52	B6	20	ASN
52	B6	26	ASN
53	B7	8	ASN
53	B7	36	GLN
54	B8	31	HIS
54	B8	35	GLN
2	CE	45	GLN
2	CE	135	GLN
3	CF	28	GLN
3	CF	98	ASN
3	CF	123	GLN
3	CF	139	GLN
3	CF	170	GLN
4	CG	42	GLN
4	CG	62	GLN
4	CG	123	HIS
4	CG	199	ASN
4	CG	201	GLN
5	CH	141	GLN
6	CI	7	ASN
6	CI	16	GLN
6	CI	32	ASN
6	CI	57	GLN
6	CI	100	ASN
7	CJ	13	GLN
7	CJ	97	GLN
7	CJ	106	GLN
8	CK	81	HIS
9	CL	3	GLN
9	CL	23	ASN
9	CL	117	HIS
9	CL	124	GLN
10	CM	13	HIS
10	CM	21	GLN
10	CM	56	HIS
11	CN	26	ASN
11	CN	93	GLN
11	CN	117	ASN
12	CO	5	ASN
12	CO	46	ASN
12	CO	72	HIS
13	CP	62	ASN

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Mol	Chain	Res	Type
13	CP	77	ASN
13	CP	92	HIS
13	CP	101	GLN
13	CP	106	ASN
15	CR	37	ASN
15	CR	46	HIS
16	CS	65	GLN
16	CS	82	GLN
19	CV	14	HIS
20	CW	9	ASN
20	CW	42	GLN
27	DD	44	ASN
27	DD	58	HIS
27	DD	96	HIS
27	DD	116	GLN
27	DD	166	GLN
27	DD	186	HIS
27	DD	198	ASN
27	DD	227	ASN
28	DE	66	HIS
28	DE	143	ASN
28	DE	192	ASN
29	DF	40	GLN
29	DF	75	HIS
29	DF	169	ASN
29	DF	203	GLN
30	DG	40	ASN
30	DG	79	ASN
30	DG	121	ASN
30	DG	123	ASN
30	DG	138	GLN
31	DH	74	ASN
31	DH	147	ASN
32	DK	54	GLN
32	DK	104	GLN
32	DK	105	HIS
32	DK	133	HIS
33	DM	45	ASN
33	DM	94	HIS
33	DM	101	HIS
33	DM	131	GLN
33	DM	133	GLN

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Mol	Chain	Res	Type
34	DN	3	GLN
34	DN	82	ASN
34	DN	89	ASN
35	DO	27	HIS
35	DO	38	GLN
35	DO	81	GLN
35	DO	84	ASN
35	DO	128	HIS
36	DP	12	GLN
36	DP	45	GLN
36	DP	141	GLN
37	D0	3	HIS
37	D0	11	ASN
37	D0	23	ASN
37	D0	24	GLN
37	D0	53	HIS
37	D0	61	HIS
37	D0	71	GLN
38	DQ	68	GLN
38	DQ	84	GLN
38	DQ	95	HIS
39	DR	43	GLN
39	DR	84	GLN
39	DR	136	GLN
40	D1	49	HIS
40	D1	72	HIS
40	D1	81	HIS
40	D1	94	ASN
40	D1	117	GLN
41	D2	11	GLN
41	D2	80	GLN
41	D2	87	HIS
41	D2	89	GLN
42	DS	34	ASN
42	DS	57	ASN
42	DS	61	ASN
42	DS	62	HIS
42	DS	102	HIS
43	DT	31	HIS
43	DT	41	ASN
43	DT	55	ASN
44	DU	43	ASN

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Mol	Chain	Res	Type
44	DU	57	GLN
45	DV	34	ASN
45	DV	75	ASN
46	D3	12	ASN
47	DZ	16	ASN
47	DZ	56	GLN
47	DZ	66	HIS
48	DW	9	GLN
48	DW	47	ASN
48	DW	56	GLN
48	DW	65	ASN
49	DX	19	GLN
49	DX	52	HIS
50	D4	6	HIS
50	D4	20	ASN
50	D4	40	HIS
50	D4	46	GLN
50	D4	47	GLN
51	D5	4	HIS
51	D5	43	HIS
52	D6	29	ASN
52	D6	32	ASN
52	D6	46	HIS
53	D7	6	GLN
53	D7	8	ASN
53	D7	36	GLN
54	D8	35	GLN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1501/1506 (99%)	295 (19%)	43 (2%)
1	CA	1501/1506 (99%)	296 (19%)	49 (3%)
22	AB	84/85 (98%)	38 (45%)	8 (9%)
22	AD	84/85 (98%)	27 (32%)	5 (5%)
22	CB	84/85 (98%)	38 (45%)	9 (10%)
22	CD	84/85 (98%)	25 (29%)	4 (4%)
23	AC	76/77 (98%)	11 (14%)	1 (1%)
23	CC	76/77 (98%)	13 (17%)	3 (3%)
24	A1	15/16 (93%)	6 (40%)	2 (13%)
24	C1	15/16 (93%)	6 (40%)	3 (20%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
25	BA	2911/2912 (99%)	542 (18%)	51 (1%)
25	DA	2905/2912 (99%)	569 (19%)	53 (1%)
26	BB	121/122 (99%)	17 (14%)	0
26	DB	121/122 (99%)	27 (22%)	1 (0%)
All	All	9578/9606 (99%)	1910 (19%)	232 (2%)

All (1910) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	7	G
1	AA	8	A
1	AA	9	G
1	AA	13	U
1	AA	32	A
1	AA	39	G
1	AA	48	C
1	AA	49	U
1	AA	50	A
1	AA	51	A
1	AA	61	G
1	AA	65	U
1	AA	66	G
1	AA	73	G
1	AA	77	C
1	AA	78	G
1	AA	80	G
1	AA	81	G
1	AA	84	U
1	AA	85	U
1	AA	86	U
1	AA	87	A
1	AA	89	U
1	AA	90	C
1	AA	91	C
1	AA	95	G
1	AA	99	C
1	AA	101	A
1	AA	108	G
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	131	C

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Mol	Chain	Res	Type
1	AA	144	G
1	AA	161	A
1	AA	163	C
1	AA	171	A
1	AA	172	A
1	AA	173	U
1	AA	174	C
1	AA	182	U
1	AA	189	U
1	AA	190	G
1	AA	195	A
1	AA	197	A
1	AA	201	C
1	AA	208	U
1	AA	209	U
1	AA	210	U
1	AA	216	G
1	AA	217	C
1	AA	222	U
1	AA	245	C
1	AA	247	G
1	AA	251	G
1	AA	262	A
1	AA	266	G
1	AA	267	C
1	AA	281	G
1	AA	289	G
1	AA	321	A
1	AA	328	C
1	AA	332	G
1	AA	344	A
1	AA	345	C
1	AA	346	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	367	U
1	AA	372	C
1	AA	384	G
1	AA	390	C
1	AA	397	A
1	AA	398	C

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Mol	Chain	Res	Type
1	AA	406	G
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	419	C
1	AA	422	C
1	AA	423	G
1	AA	424	G
1	AA	429	U
1	AA	430	A
1	AA	439	A
1	AA	440	A
1	AA	465	A
1	AA	466	C
1	AA	467	G
1	AA	485	G
1	AA	496	A
1	AA	497	U
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	518	C
1	AA	521	G
1	AA	527	G
1	AA	531	U
1	AA	533	A
1	AA	545	C
1	AA	547	A
1	AA	559	A
1	AA	560	U
1	AA	561	U
1	AA	564	C
1	AA	572	A
1	AA	573	A
1	AA	576	G
1	AA	577	G
1	AA	596	C
1	AA	618	C
1	AA	623	C
1	AA	630	G
1	AA	631	G
1	AA	632	A

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Mol	Chain	Res	Type
1	AA	653	A
1	AA	662	G
1	AA	665	A
1	AA	687	A
1	AA	688	G
1	AA	701	C
1	AA	702	A
1	AA	704	A
1	AA	723	U
1	AA	749	C
1	AA	755	G
1	AA	774	G
1	AA	777	A
1	AA	791	G
1	AA	792	A
1	AA	793	U
1	AA	794	A
1	AA	813	U
1	AA	817	C
1	AA	820	U
1	AA	821	G
1	AA	827	U
1	AA	828	A
1	AA	841	U
1	AA	842	C
1	AA	843	U
1	AA	848	C
1	AA	859	A
1	AA	872	A
1	AA	873	A
1	AA	874	G
1	AA	876	G
1	AA	902	G
1	AA	914	A
1	AA	916	G
1	AA	925	G
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	960	U
1	AA	968	A

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Mol	Chain	Res	Type
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	983	A
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	1004	A
1	AA	1006	C
1	AA	1008	C
1	AA	1009	G
1	AA	1017	G
1	AA	1021	G
1	AA	1024	G
1	AA	1025	U
1	AA	1026	G
1	AA	1028	C
1	AA	1029	G
1	AA	1032(A)	G
1	AA	1033	G
1	AA	1036	G
1	AA	1040	U
1	AA	1042	G
1	AA	1053	G
1	AA	1054	C
1	AA	1055	A
1	AA	1056	U
1	AA	1066	C
1	AA	1081	G
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1117	G
1	AA	1124	G
1	AA	1125	U
1	AA	1126	U
1	AA	1127	G
1	AA	1129	C

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Mol	Chain	Res	Type
1	AA	1130	A
1	AA	1131	G
1	AA	1133	G
1	AA	1134	G
1	AA	1136	U
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1140	C
1	AA	1146	A
1	AA	1154	G
1	AA	1157	A
1	AA	1158	C
1	AA	1159	U
1	AA	1160	G
1	AA	1177	G
1	AA	1178	G
1	AA	1179	A
1	AA	1181	G
1	AA	1182	G
1	AA	1183	A
1	AA	1187	G
1	AA	1188	A
1	AA	1195	C
1	AA	1196	U
1	AA	1197	G
1	AA	1201	A
1	AA	1212	U
1	AA	1218	C
1	AA	1225	A
1	AA	1227	A
1	AA	1238	A
1	AA	1240	U
1	AA	1241	G
1	AA	1253	G
1	AA	1256	A
1	AA	1257	U
1	AA	1258	G
1	AA	1272	G
1	AA	1278	U
1	AA	1279	A
1	AA	1280	A

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Mol	Chain	Res	Type
1	AA	1281	U
1	AA	1286	A
1	AA	1287	A
1	AA	1288	A
1	AA	1290	G
1	AA	1291	G
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1303	C
1	AA	1305	G
1	AA	1320	C
1	AA	1322	C
1	AA	1323	G
1	AA	1326	C
1	AA	1331	G
1	AA	1332	A
1	AA	1335	C
1	AA	1336	C
1	AA	1338	G
1	AA	1340	A
1	AA	1346	A
1	AA	1347	G
1	AA	1350	A
1	AA	1353	G
1	AA	1363	A
1	AA	1370	G
1	AA	1377	A
1	AA	1401	G
1	AA	1419	G
1	AA	1442	G
1	AA	1443	G
1	AA	1446	A
1	AA	1447	G
1	AA	1451	A
1	AA	1452	C
1	AA	1453	G
1	AA	1487	G
1	AA	1492	A
1	AA	1494	G
1	AA	1497	G
1	AA	1499	A

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Mol	Chain	Res	Type
1	AA	1502	A
1	AA	1503	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1507	A
1	AA	1517	G
1	AA	1519	A
1	AA	1520	G
1	AA	1529	G
22	AB	4	G
22	AB	7	G
22	AB	8	U
22	AB	9	U
22	AB	13	G
22	AB	14	A
22	AB	16	C
22	AB	17	G
22	AB	18	G
22	AB	19	C
22	AB	20	C
22	AB	21	A
22	AB	23	A
22	AB	27	A
22	AB	30	A
22	AB	35	G
22	AB	42	U
22	AB	46	G
22	AB	47	U
22	AB	48	C
22	AB	50	U
22	AB	51	C
22	AB	55	U
22	AB	56	U
22	AB	57	C
22	AB	58	G
22	AB	68	A
22	AB	69	U
22	AB	70	C
22	AB	72	U
22	AB	73	U
22	AB	75	C

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Mol	Chain	Res	Type
22	AB	76	C
22	AB	78	C
22	AB	79	A
22	AB	80	C
22	AB	82	A
22	AB	83	C
23	AC	9	G
23	AC	16	C
23	AC	18	C
23	AC	21	U
23	AC	23	G
23	AC	32	G
23	AC	48	U
23	AC	49	C
23	AC	53	G
23	AC	68	C
23	AC	77	A
22	AD	6	G
22	AD	9	U
22	AD	10	C
22	AD	11	C
22	AD	14	A
22	AD	15	G
22	AD	17	G
22	AD	18	G
22	AD	19	C
22	AD	20	C
22	AD	21	A
22	AD	22	A
22	AD	29	C
22	AD	34	U
22	AD	38	MIA
22	AD	44	C
22	AD	45	C
22	AD	46	G
22	AD	51	C
22	AD	52	G
22	AD	56	U
22	AD	58	G
22	AD	64	U
22	AD	67	A
22	AD	68	A

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Mol	Chain	Res	Type
22	AD	70	C
22	AD	85	A
24	A1	11	U
24	A1	12	A
24	A1	13	A
24	A1	14	A
24	A1	23	A
24	A1	25	A
25	BA	34	C
25	BA	35	G
25	BA	46	C
25	BA	51	G
25	BA	61	G
25	BA	71	A
25	BA	74	A
25	BA	75	G
25	BA	85	G
25	BA	92	G
25	BA	95	G
25	BA	99	U
25	BA	118	A
25	BA	119	A
25	BA	120	U
25	BA	155	C
25	BA	163	U
25	BA	173	G
25	BA	181	A
25	BA	196	A
25	BA	199	A
25	BA	213	A
25	BA	214	G
25	BA	216	A
25	BA	222	A
25	BA	223	A
25	BA	227	A
25	BA	228	A
25	BA	229	A
25	BA	230	U
25	BA	232	G
25	BA	233	A
25	BA	248	G
25	BA	249	C

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Mol	Chain	Res	Type
25	BA	250	G
25	BA	252	G
25	BA	269	U
25	BA	270(K)	C
25	BA	270(L)	U
25	BA	270(M)	U
25	BA	270(O)	U
25	BA	270(P)	C
25	BA	271(C)	U
25	BA	271	G
25	BA	274	G
25	BA	275	G
25	BA	278	A
25	BA	279	C
25	BA	299	A
25	BA	311	A
25	BA	323	G
25	BA	324	A
25	BA	329	G
25	BA	330	A
25	BA	352	G
25	BA	356	G
25	BA	362	U
25	BA	363	G
25	BA	364	C
25	BA	372	G
25	BA	386	G
25	BA	404	C
25	BA	405	U
25	BA	411	G
25	BA	412	A
25	BA	428	A
25	BA	443	A
25	BA	444	C
25	BA	448	U
25	BA	457	A
25	BA	470	A
25	BA	471	A
25	BA	479	A
25	BA	481	G
25	BA	482	A
25	BA	505	A

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Mol	Chain	Res	Type
25	BA	508	G
25	BA	509	C
25	BA	529	A
25	BA	530	G
25	BA	531	C
25	BA	532	A
25	BA	533	G
25	BA	540	G
25	BA	546	C
25	BA	556	G
25	BA	563	G
25	BA	573	G
25	BA	575	A
25	BA	583	G
25	BA	586	A
25	BA	588	U
25	BA	603	A
25	BA	607	U
25	BA	613	U
25	BA	614	U
25	BA	615	G
25	BA	617	G
25	BA	622	G
25	BA	627	A
25	BA	637	A
25	BA	646	A
25	BA	654(A)	A
25	BA	654(G)	C
25	BA	654(I)	C
25	BA	654(K)	C
25	BA	654(M)	C
25	BA	654(N)	G
25	BA	686	G
25	BA	717	G
25	BA	730	C
25	BA	740	U
25	BA	753	C
25	BA	764	A
25	BA	765	G
25	BA	776	G
25	BA	782	A
25	BA	783	A

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Mol	Chain	Res	Type
25	BA	784	A
25	BA	785	G
25	BA	787	U
25	BA	790	C
25	BA	792	G
25	BA	805	G
25	BA	812	C
25	BA	819	A
25	BA	827	U
25	BA	828	U
25	BA	829	A
25	BA	831	G
25	BA	859	G
25	BA	861	A
25	BA	866	A
25	BA	879	G
25	BA	880	G
25	BA	881	G
25	BA	882	G
25	BA	883	G
25	BA	884	C
25	BA	885	C
25	BA	886	C
25	BA	887	A
25	BA	888	C
25	BA	890	A
25	BA	893	C
25	BA	894	C
25	BA	895	U
25	BA	897	C
25	BA	898	C
25	BA	899	A
25	BA	900	A
25	BA	901	A
25	BA	902	C
25	BA	910	A
25	BA	915	C
25	BA	917	A
25	BA	918	A
25	BA	925	C
25	BA	932	G
25	BA	938	G

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Mol	Chain	Res	Type
25	BA	941	A
25	BA	945	A
25	BA	946	G
25	BA	959	A
25	BA	961	C
25	BA	974	G
25	BA	974(A)	C
25	BA	975	G
25	BA	983	A
25	BA	990	A
25	BA	996	A
25	BA	1003	G
25	BA	1005	C
25	BA	1011	G
25	BA	1012	U
25	BA	1013	C
25	BA	1015	G
25	BA	1016	G
25	BA	1022	G
25	BA	1023	U
25	BA	1025	G
25	BA	1026	U
25	BA	1027	A
25	BA	1033	U
25	BA	1034	G
25	BA	1044	G
25	BA	1045	A
25	BA	1046	A
25	BA	1047	G
25	BA	1048	A
25	BA	1050	A
25	BA	1060	U
25	BA	1061	U
25	BA	1062	G
25	BA	1065	U
25	BA	1066	U
25	BA	1067	A
25	BA	1068	G
25	BA	1070	A
25	BA	1071	G
25	BA	1076	C
25	BA	1077	A

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Mol	Chain	Res	Type
25	BA	1078	U
25	BA	1079	C
25	BA	1081	U
25	BA	1082	U
25	BA	1084	A
25	BA	1085	A
25	BA	1086	A
25	BA	1087	G
25	BA	1088	A
25	BA	1089	G
25	BA	1090	U
25	BA	1092	C
25	BA	1093	G
25	BA	1095	A
25	BA	1096	A
25	BA	1097	U
25	BA	1110	G
25	BA	1112	G
25	BA	1122	G
25	BA	1127	A
25	BA	1129	A
25	BA	1131	G
25	BA	1135	C
25	BA	1136	G
25	BA	1139	G
25	BA	1142	U
25	BA	1142(A)	A
25	BA	1151	G
25	BA	1175	U
25	BA	1176	G
25	BA	1178	C
25	BA	1179	C
25	BA	1195	G
25	BA	1204	A
25	BA	1205	U
25	BA	1211	U
25	BA	1220	A
25	BA	1241	A
25	BA	1242	A
25	BA	1244	G
25	BA	1253	A
25	BA	1256	G

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Mol	Chain	Res	Type
25	BA	1265	A
25	BA	1269	A
25	BA	1271	G
25	BA	1272	A
25	BA	1273	U
25	BA	1298	C
25	BA	1300	U
25	BA	1301	A
25	BA	1303	G
25	BA	1313	U
25	BA	1314	C
25	BA	1332	G
25	BA	1349	A
25	BA	1352	U
25	BA	1359	A
25	BA	1360	A
25	BA	1365	A
25	BA	1368	G
25	BA	1370	C
25	BA	1380	G
25	BA	1384	A
25	BA	1385	G
25	BA	1386	C
25	BA	1416	G
25	BA	1417	C
25	BA	1420	U
25	BA	1421	G
25	BA	1428	C
25	BA	1444(A)	A
25	BA	1449	A
25	BA	1449(A)	G
25	BA	1458	C
25	BA	1459	G
25	BA	1460	A
25	BA	1461	G
25	BA	1467	C
25	BA	1471	A
25	BA	1483	G
25	BA	1493	C
25	BA	1497	U
25	BA	1507	A
25	BA	1508	A

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Mol	Chain	Res	Type
25	BA	1509	C
25	BA	1510	A
25	BA	1511	A
25	BA	1522	G
25	BA	1526	G
25	BA	1534	G
25	BA	1535	U
25	BA	1536	A
25	BA	1537	C
25	BA	1538	G
25	BA	1543	A
25	BA	1545	A
25	BA	1548	C
25	BA	1558	A
25	BA	1559	G
25	BA	1560	G
25	BA	1566	A
25	BA	1569	A
25	BA	1578	U
25	BA	1579	A
25	BA	1586	A
25	BA	1608	A
25	BA	1609	A
25	BA	1610	A
25	BA	1617	C
25	BA	1618	A
25	BA	1639	U
25	BA	1648	C
25	BA	1654	A
25	BA	1674	G
25	BA	1675	C
25	BA	1678	G
25	BA	1695	G
25	BA	1728	G
25	BA	1729	A
25	BA	1731	G
25	BA	1733	G
25	BA	1743	G
25	BA	1756	G
25	BA	1762	A
25	BA	1763	G
25	BA	1764	G

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Mol	Chain	Res	Type
25	BA	1773	A
25	BA	1780	A
25	BA	1781	C
25	BA	1791	A
25	BA	1799	G
25	BA	1800	C
25	BA	1801	G
25	BA	1816	G
25	BA	1829	A
25	BA	1835	G
25	BA	1839	G
25	BA	1847	A
25	BA	1858	G
25	BA	1869	G
25	BA	1872	A
25	BA	1878	G
25	BA	1888	G
25	BA	1900	A
25	BA	1906	G
25	BA	1914	C
25	BA	1929	G
25	BA	1930	G
25	BA	1936	A
25	BA	1938	A
25	BA	1955	U
25	BA	1956	U
25	BA	1963	U
25	BA	1967	C
25	BA	1969	A
25	BA	1970	A
25	BA	1971	A
25	BA	1972	A
25	BA	1981	A
25	BA	1982	C
25	BA	1992	G
25	BA	1993	U
25	BA	2020	A
25	BA	2023	G
25	BA	2031	A
25	BA	2032	G
25	BA	2033	A
25	BA	2043	C

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Mol	Chain	Res	Type
25	BA	2051	A
25	BA	2055	C
25	BA	2056	G
25	BA	2060	A
25	BA	2061	G
25	BA	2063	C
25	BA	2069	G
25	BA	2070	G
25	BA	2100	G
25	BA	2110	G
25	BA	2111	C
25	BA	2112	G
25	BA	2113	U
25	BA	2114	A
25	BA	2115	G
25	BA	2123	G
25	BA	2126	A
25	BA	2127	G
25	BA	2128	C
25	BA	2132	U
25	BA	2133	G
25	BA	2135	A
25	BA	2136	C
25	BA	2139	C
25	BA	2146	C
25	BA	2147	G
25	BA	2148	G
25	BA	2157	G
25	BA	2158	A
25	BA	2164	C
25	BA	2166	G
25	BA	2167	U
25	BA	2168	G
25	BA	2171	A
25	BA	2173	A
25	BA	2181	G
25	BA	2190	G
25	BA	2198	A
25	BA	2199	A
25	BA	2205	C
25	BA	2206	C
25	BA	2210	G

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Mol	Chain	Res	Type
25	BA	2211	G
25	BA	2212	A
25	BA	2215	G
25	BA	2225	A
25	BA	2226	C
25	BA	2238	G
25	BA	2239	G
25	BA	2263	C
25	BA	2271	G
25	BA	2272	U
25	BA	2273	A
25	BA	2275	C
25	BA	2278	A
25	BA	2280	G
25	BA	2283	C
25	BA	2287	A
25	BA	2304	G
25	BA	2305	A
25	BA	2307	G
25	BA	2308	G
25	BA	2309	A
25	BA	2310	A
25	BA	2314	C
25	BA	2319	G
25	BA	2320	A
25	BA	2321	G
25	BA	2325	G
25	BA	2336	A
25	BA	2341	G
25	BA	2342	C
25	BA	2346	A
25	BA	2347	C
25	BA	2350	C
25	BA	2383	G
25	BA	2385	C
25	BA	2392	A
25	BA	2396	G
25	BA	2402	C
25	BA	2403	C
25	BA	2406	U
25	BA	2410	G
25	BA	2424	C

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Mol	Chain	Res	Type
25	BA	2425	A
25	BA	2428	G
25	BA	2429	G
25	BA	2430	A
25	BA	2434	A
25	BA	2435	A
25	BA	2439	A
25	BA	2440	C
25	BA	2441	C
25	BA	2448	A
25	BA	2468	G
25	BA	2469	A
25	BA	2474	C
25	BA	2475	C
25	BA	2476	A
25	BA	2478	A
25	BA	2482	G
25	BA	2484	G
25	BA	2498	C
25	BA	2502	G
25	BA	2504	U
25	BA	2505	G
25	BA	2507	C
25	BA	2518	A
25	BA	2525	G
25	BA	2529	G
25	BA	2543	G
25	BA	2554	U
25	BA	2566	A
25	BA	2567	G
25	BA	2569	G
25	BA	2578	G
25	BA	2602	A
25	BA	2609	U
25	BA	2611	U
25	BA	2612	C
25	BA	2613	U
25	BA	2614	A
25	BA	2629	A
25	BA	2636	U
25	BA	2641	G
25	BA	2661	G

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Mol	Chain	Res	Type
25	BA	2665	A
25	BA	2673	G
25	BA	2682	U
25	BA	2683	C
25	BA	2689	U
25	BA	2690	C
25	BA	2691	C
25	BA	2702	U
25	BA	2707	G
25	BA	2712	U
25	BA	2712(A)	A
25	BA	2713	A
25	BA	2714	G
25	BA	2726	U
25	BA	2733	A
25	BA	2734	A
25	BA	2735	G
25	BA	2757	A
25	BA	2758	A
25	BA	2765	A
25	BA	2778	A
25	BA	2779	U
25	BA	2789	C
25	BA	2791	C
25	BA	2794	C
25	BA	2797	U
25	BA	2798	C
25	BA	2799	A
25	BA	2801	A
25	BA	2807	G
25	BA	2808	U
25	BA	2813	A
25	BA	2818	G
25	BA	2820	A
25	BA	2821	A
25	BA	2823	A
25	BA	2830	G
25	BA	2833	G
25	BA	2834	G
25	BA	2835	A
25	BA	2847	U
25	BA	2848	G

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Mol	Chain	Res	Type
25	BA	2872	G
25	BA	2892	A
25	BA	2894	G
25	BA	2902	C
26	BB	1	U
26	BB	7	G
26	BB	12	C
26	BB	13	A
26	BB	15	A
26	BB	27	C
26	BB	40	U
26	BB	45	A
26	BB	56	G
26	BB	58	A
26	BB	67	G
26	BB	73	A
26	BB	74	U
26	BB	75	G
26	BB	81	G
26	BB	96	G
26	BB	109	G
1	CA	9	G
1	CA	22	G
1	CA	32	A
1	CA	39	G
1	CA	41	G
1	CA	47	C
1	CA	48	C
1	CA	50	A
1	CA	51	A
1	CA	65	U
1	CA	76	G
1	CA	78	G
1	CA	81	G
1	CA	84	U
1	CA	86	U
1	CA	87	A
1	CA	90	C
1	CA	91	C
1	CA	95	G
1	CA	116	A
1	CA	118	U

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Mol	Chain	Res	Type
1	CA	121	C
1	CA	131	C
1	CA	146	G
1	CA	163	C
1	CA	174	C
1	CA	182	U
1	CA	188	U
1	CA	189	U
1	CA	191(D)	U
1	CA	195	A
1	CA	197	A
1	CA	198	G
1	CA	208	U
1	CA	209	U
1	CA	210	U
1	CA	216	G
1	CA	231	G
1	CA	244	U
1	CA	247	G
1	CA	251	G
1	CA	266	G
1	CA	267	C
1	CA	281	G
1	CA	289	G
1	CA	321	A
1	CA	328	C
1	CA	329	A
1	CA	330	C
1	CA	332	G
1	CA	345	C
1	CA	346	G
1	CA	347	G
1	CA	350	G
1	CA	351	G
1	CA	352	C
1	CA	353	A
1	CA	354	G
1	CA	365	U
1	CA	367	U
1	CA	372	C
1	CA	373	A
1	CA	384	G

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Mol	Chain	Res	Type
1	CA	397	A
1	CA	398	C
1	CA	406	G
1	CA	411	A
1	CA	412	A
1	CA	413	G
1	CA	421	U
1	CA	422	C
1	CA	423	G
1	CA	424	G
1	CA	429	U
1	CA	430	A
1	CA	439	A
1	CA	442	C
1	CA	453	A
1	CA	466	C
1	CA	467	G
1	CA	478	A
1	CA	484	G
1	CA	485	G
1	CA	486	U
1	CA	496	A
1	CA	497	U
1	CA	505	G
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	518	C
1	CA	519	C
1	CA	527	G
1	CA	530	G
1	CA	531	U
1	CA	532	A
1	CA	533	A
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

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Mol	Chain	Res	Type
1	CA	577	G
1	CA	579	G
1	CA	618	C
1	CA	630	G
1	CA	632	A
1	CA	633	G
1	CA	653	A
1	CA	665	A
1	CA	666	G
1	CA	687	A
1	CA	688	G
1	CA	702	A
1	CA	704	A
1	CA	723	U
1	CA	724	G
1	CA	731	G
1	CA	749	C
1	CA	755	G
1	CA	777	A
1	CA	782	A
1	CA	792	A
1	CA	794	A
1	CA	813	U
1	CA	817	C
1	CA	818	G
1	CA	819	A
1	CA	827	U
1	CA	828	A
1	CA	841	U
1	CA	842	C
1	CA	843	U
1	CA	848	C
1	CA	854	G
1	CA	855	G
1	CA	859	A
1	CA	871	U
1	CA	874	G
1	CA	885	G
1	CA	913	A
1	CA	914	A
1	CA	926	G
1	CA	927	G

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Mol	Chain	Res	Type
1	CA	934	C
1	CA	935	A
1	CA	958	A
1	CA	960	U
1	CA	961	U
1	CA	963	G
1	CA	966	G
1	CA	968	A
1	CA	969	A
1	CA	974	A
1	CA	976	G
1	CA	977	A
1	CA	978	A
1	CA	980	C
1	CA	982	U
1	CA	983	A
1	CA	991	U
1	CA	992	U
1	CA	993	G
1	CA	1004	A
1	CA	1006	C
1	CA	1009	G
1	CA	1016	A
1	CA	1021	G
1	CA	1023	G
1	CA	1024	G
1	CA	1025	U
1	CA	1026	G
1	CA	1027	C
1	CA	1028	C
1	CA	1029	G
1	CA	1030	C
1	CA	1032(A)	G
1	CA	1033	G
1	CA	1036	G
1	CA	1037	C
1	CA	1040	U
1	CA	1045	C
1	CA	1050	G
1	CA	1053	G
1	CA	1054	C
1	CA	1055	A

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Mol	Chain	Res	Type
1	CA	1056	U
1	CA	1066	C
1	CA	1067	A
1	CA	1081	G
1	CA	1086	U
1	CA	1092	A
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1117	G
1	CA	1124	G
1	CA	1125	U
1	CA	1127	G
1	CA	1129	C
1	CA	1130	A
1	CA	1131	G
1	CA	1134	G
1	CA	1136	U
1	CA	1137	C
1	CA	1138	G
1	CA	1139	G
1	CA	1146	A
1	CA	1157	A
1	CA	1158	C
1	CA	1159	U
1	CA	1160	G
1	CA	1161	C
1	CA	1176	A
1	CA	1177	G
1	CA	1178	G
1	CA	1181	G
1	CA	1182	G
1	CA	1183	A
1	CA	1184	G
1	CA	1187	G
1	CA	1190	G
1	CA	1191	A
1	CA	1196	U
1	CA	1197	G
1	CA	1200	C
1	CA	1201	A
1	CA	1202	G

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Mol	Chain	Res	Type
1	CA	1212	U
1	CA	1213	A
1	CA	1214	C
1	CA	1225	A
1	CA	1227	A
1	CA	1238	A
1	CA	1240	U
1	CA	1241	G
1	CA	1256	A
1	CA	1257	U
1	CA	1258	G
1	CA	1270	C
1	CA	1278	U
1	CA	1279	A
1	CA	1280	A
1	CA	1286	A
1	CA	1287	A
1	CA	1288	A
1	CA	1297	C
1	CA	1298	C
1	CA	1299	A
1	CA	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1303	C
1	CA	1305	G
1	CA	1317	C
1	CA	1320	C
1	CA	1322	C
1	CA	1323	G
1	CA	1331	G
1	CA	1335	C
1	CA	1336	C
1	CA	1338	G
1	CA	1346	A
1	CA	1347	G
1	CA	1353	G
1	CA	1363	A
1	CA	1364	U
1	CA	1368	G
1	CA	1370	G
1	CA	1379	G

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Mol	Chain	Res	Type
1	CA	1397	C
1	CA	1419	G
1	CA	1442	G
1	CA	1443	G
1	CA	1446	A
1	CA	1447	G
1	CA	1450	U
1	CA	1451	A
1	CA	1452	C
1	CA	1453	G
1	CA	1454	G
1	CA	1487	G
1	CA	1492	A
1	CA	1494	G
1	CA	1497	G
1	CA	1499	A
1	CA	1503	A
1	CA	1504	G
1	CA	1506	U
1	CA	1517	G
1	CA	1519	A
1	CA	1520	G
1	CA	1529	G
22	CB	2	G
22	CB	4	G
22	CB	7	G
22	CB	8	U
22	CB	9	U
22	CB	14	A
22	CB	16	C
22	CB	17	G
22	CB	18	G
22	CB	19	C
22	CB	20	C
22	CB	21	A
22	CB	22	A
22	CB	23	A
22	CB	26	G
22	CB	27	A
22	CB	34	U
22	CB	42	U
22	CB	43	G

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Mol	Chain	Res	Type
22	CB	46	G
22	CB	47	U
22	CB	48	C
22	CB	50	U
22	CB	51	C
22	CB	52	G
22	CB	53	A
22	CB	54	C
22	CB	57	C
22	CB	58	G
22	CB	68	A
22	CB	70	C
22	CB	75	C
22	CB	76	C
22	CB	78	C
22	CB	79	A
22	CB	80	C
22	CB	83	C
22	CB	84	C
23	CC	9	G
23	CC	16	C
23	CC	18	C
23	CC	19	G
23	CC	20	G
23	CC	21	U
23	CC	22	A
23	CC	23	G
23	CC	32	G
23	CC	47	G
23	CC	48	U
23	CC	49	C
23	CC	50	G
22	CD	6	G
22	CD	8	U
22	CD	9	U
22	CD	10	C
22	CD	13	G
22	CD	15	G
22	CD	17	G
22	CD	18	G
22	CD	19	C
22	CD	20	C

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Mol	Chain	Res	Type
22	CD	21	A
22	CD	22	A
22	CD	23	A
22	CD	44	C
22	CD	46	G
22	CD	49	A
22	CD	50	U
22	CD	51	C
22	CD	52	G
22	CD	55	U
22	CD	56	U
22	CD	58	G
22	CD	67	A
22	CD	82	A
22	CD	85	A
24	C1	11	U
24	C1	12	A
24	C1	13	A
24	C1	14	A
24	C1	23	A
24	C1	25	A
25	DA	5	A
25	DA	10	G
25	DA	34	C
25	DA	46	C
25	DA	50	U
25	DA	60	G
25	DA	71	A
25	DA	72	U
25	DA	74	A
25	DA	75	G
25	DA	83	G
25	DA	90	U
25	DA	91	A
25	DA	92	G
25	DA	95	G
25	DA	99	U
25	DA	101	G
25	DA	102	G
25	DA	118	A
25	DA	119	A
25	DA	120	U

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Mol	Chain	Res	Type
25	DA	121	G
25	DA	129	C
25	DA	138	G
25	DA	140	A
25	DA	154	G
25	DA	155	C
25	DA	172	C
25	DA	173	G
25	DA	174	C
25	DA	175	G
25	DA	182	A
25	DA	196	A
25	DA	199	A
25	DA	205	G
25	DA	206	U
25	DA	214	G
25	DA	215	G
25	DA	216	A
25	DA	221	A
25	DA	222	A
25	DA	225	A
25	DA	228	A
25	DA	229	A
25	DA	233	A
25	DA	248	G
25	DA	249	C
25	DA	252	G
25	DA	270(K)	C
25	DA	270(L)	U
25	DA	270(M)	U
25	DA	270(O)	U
25	DA	271(B)	G
25	DA	271(C)	U
25	DA	271	G
25	DA	273(D)	C
25	DA	274	G
25	DA	275	G
25	DA	276	A
25	DA	278	A
25	DA	279	C
25	DA	283	A
25	DA	289	A

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Mol	Chain	Res	Type
25	DA	311	A
25	DA	312	G
25	DA	327	G
25	DA	329	G
25	DA	330	A
25	DA	338	G
25	DA	342	G
25	DA	352	G
25	DA	355	G
25	DA	356	G
25	DA	357	A
25	DA	363	G
25	DA	363(E)	U
25	DA	363(F)	A
25	DA	364	C
25	DA	372	G
25	DA	386	G
25	DA	391	G
25	DA	394	A
25	DA	395	U
25	DA	405	U
25	DA	406	G
25	DA	411	G
25	DA	428	A
25	DA	443	A
25	DA	444	C
25	DA	448	U
25	DA	454	A
25	DA	455	C
25	DA	457	A
25	DA	470	A
25	DA	481	G
25	DA	504	U
25	DA	505	A
25	DA	509	C
25	DA	512	G
25	DA	529	A
25	DA	530	G
25	DA	531	C
25	DA	532	A
25	DA	533	G
25	DA	543	C

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Mol	Chain	Res	Type
25	DA	547	A
25	DA	548	A
25	DA	549	G
25	DA	556	G
25	DA	563	G
25	DA	573	G
25	DA	575	A
25	DA	603	A
25	DA	607	U
25	DA	609(A)	G
25	DA	614	U
25	DA	615	G
25	DA	617	G
25	DA	619	G
25	DA	621	A
25	DA	622	G
25	DA	626	U
25	DA	627	A
25	DA	637	A
25	DA	645	C
25	DA	646	A
25	DA	650	C
25	DA	651	G
25	DA	654	A
25	DA	654(G)	C
25	DA	654(H)	G
25	DA	654(I)	C
25	DA	654(K)	C
25	DA	654(N)	G
25	DA	654(T)	A
25	DA	669	G
25	DA	670	A
25	DA	682	G
25	DA	686	G
25	DA	717	G
25	DA	720	C
25	DA	721	C
25	DA	722	A
25	DA	730	C
25	DA	753	C
25	DA	758	C
25	DA	762	U

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Mol	Chain	Res	Type
25	DA	764	A
25	DA	776	G
25	DA	779	U
25	DA	782	A
25	DA	784	A
25	DA	785	G
25	DA	789	A
25	DA	791	C
25	DA	792	G
25	DA	793	A
25	DA	805	G
25	DA	812	C
25	DA	819	A
25	DA	827	U
25	DA	828	U
25	DA	832	G
25	DA	846	C
25	DA	859	G
25	DA	866	A
25	DA	878	A
25	DA	880	G
25	DA	882	G
25	DA	885	C
25	DA	887	A
25	DA	888	C
25	DA	889	C
25	DA	890	A
25	DA	892	G
25	DA	894	C
25	DA	896	A
25	DA	897	C
25	DA	899	A
25	DA	900	A
25	DA	901	A
25	DA	902	C
25	DA	903	C
25	DA	910	A
25	DA	915	C
25	DA	916	G
25	DA	917	A
25	DA	924	C
25	DA	926	A

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Mol	Chain	Res	Type
25	DA	932	G
25	DA	933	A
25	DA	934	G
25	DA	938	G
25	DA	941	A
25	DA	945	A
25	DA	946	G
25	DA	958	U
25	DA	959	A
25	DA	961	C
25	DA	974	G
25	DA	980	A
25	DA	983	A
25	DA	990	A
25	DA	991	C
25	DA	996	A
25	DA	1012	U
25	DA	1013	C
25	DA	1015	G
25	DA	1016	G
25	DA	1022	G
25	DA	1023	U
25	DA	1025	G
25	DA	1026	U
25	DA	1028	A
25	DA	1044	G
25	DA	1045	A
25	DA	1047	G
25	DA	1048	A
25	DA	1054	A
25	DA	1057	A
25	DA	1067	A
25	DA	1070	A
25	DA	1071	G
25	DA	1076	C
25	DA	1085	A
25	DA	1086	A
25	DA	1087	G
25	DA	1088	A
25	DA	1089	G
25	DA	1090	U
25	DA	1095	A

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Mol	Chain	Res	Type
25	DA	1096	A
25	DA	1111	A
25	DA	1112	G
25	DA	1122	G
25	DA	1128	A
25	DA	1129	A
25	DA	1130	U
25	DA	1135	C
25	DA	1136	G
25	DA	1139	G
25	DA	1142	U
25	DA	1142(A)	A
25	DA	1143	A
25	DA	1170	G
25	DA	1171	G
25	DA	1173	G
25	DA	1174	A
25	DA	1175	U
25	DA	1176	G
25	DA	1177	A
25	DA	1178	C
25	DA	1204	A
25	DA	1205	U
25	DA	1211	U
25	DA	1220	A
25	DA	1248	G
25	DA	1250	G
25	DA	1253	A
25	DA	1255	U
25	DA	1256	G
25	DA	1271	G
25	DA	1272	A
25	DA	1273	U
25	DA	1298	C
25	DA	1300	U
25	DA	1301	A
25	DA	1314	C
25	DA	1319	G
25	DA	1325	G
25	DA	1329	U
25	DA	1332	G
25	DA	1338	G

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Mol	Chain	Res	Type
25	DA	1345	C
25	DA	1349	A
25	DA	1352	U
25	DA	1359	A
25	DA	1360	A
25	DA	1365	A
25	DA	1368	G
25	DA	1370	C
25	DA	1380	G
25	DA	1384	A
25	DA	1385	G
25	DA	1386	C
25	DA	1398	C
25	DA	1407	C
25	DA	1416	G
25	DA	1417	C
25	DA	1419	A
25	DA	1420	U
25	DA	1421	G
25	DA	1427	A
25	DA	1428	C
25	DA	1437	C
25	DA	1443	G
25	DA	1444(A)	A
25	DA	1445	C
25	DA	1449	A
25	DA	1449(A)	G
25	DA	1455	G
25	DA	1458	C
25	DA	1459	G
25	DA	1460	A
25	DA	1461	G
25	DA	1467	C
25	DA	1471	A
25	DA	1475	G
25	DA	1478	G
25	DA	1482	U
25	DA	1483	G
25	DA	1490	A
25	DA	1493	C
25	DA	1494	A
25	DA	1496	A

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Mol	Chain	Res	Type
25	DA	1508	A
25	DA	1509	C
25	DA	1510	A
25	DA	1522	G
25	DA	1534	G
25	DA	1535	U
25	DA	1539	G
25	DA	1543	A
25	DA	1558	A
25	DA	1559	G
25	DA	1560	G
25	DA	1569	A
25	DA	1578	U
25	DA	1586	A
25	DA	1588	C
25	DA	1608	A
25	DA	1609	A
25	DA	1618	A
25	DA	1622	G
25	DA	1625	C
25	DA	1635	G
25	DA	1639	U
25	DA	1640	C
25	DA	1648	C
25	DA	1651	G
25	DA	1654	A
25	DA	1674	G
25	DA	1675	C
25	DA	1678	G
25	DA	1696	G
25	DA	1700	A
25	DA	1701	A
25	DA	1725	G
25	DA	1728	G
25	DA	1731	G
25	DA	1756	G
25	DA	1758	G
25	DA	1761	C
25	DA	1762	A
25	DA	1763	G
25	DA	1764	G
25	DA	1773	A

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Mol	Chain	Res	Type
25	DA	1780	A
25	DA	1791	A
25	DA	1800	C
25	DA	1801	G
25	DA	1802	A
25	DA	1816	G
25	DA	1820	U
25	DA	1829	A
25	DA	1839	G
25	DA	1847	A
25	DA	1848	A
25	DA	1858	G
25	DA	1872	A
25	DA	1878	G
25	DA	1884	A
25	DA	1888	G
25	DA	1890	A
25	DA	1900	A
25	DA	1906	G
25	DA	1929	G
25	DA	1930	G
25	DA	1936	A
25	DA	1938	A
25	DA	1955	U
25	DA	1956	U
25	DA	1963	U
25	DA	1967	C
25	DA	1970	A
25	DA	1971	A
25	DA	1972	A
25	DA	1993	U
25	DA	2020	A
25	DA	2023	G
25	DA	2031	A
25	DA	2032	G
25	DA	2033	A
25	DA	2043	C
25	DA	2049	G
25	DA	2055	C
25	DA	2056	G
25	DA	2059	A
25	DA	2060	A

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Mol	Chain	Res	Type
25	DA	2061	G
25	DA	2062	A
25	DA	2069	G
25	DA	2071	A
25	DA	2082	A
25	DA	2100	G
25	DA	2101	G
25	DA	2108	C
25	DA	2111	C
25	DA	2112	G
25	DA	2113	U
25	DA	2114	A
25	DA	2117	A
25	DA	2120	G
25	DA	2126	A
25	DA	2127	G
25	DA	2128	C
25	DA	2130	U
25	DA	2131	G
25	DA	2132	U
25	DA	2133	G
25	DA	2136	C
25	DA	2145	C
25	DA	2146	C
25	DA	2147	G
25	DA	2148	G
25	DA	2153	G
25	DA	2159	G
25	DA	2164	C
25	DA	2166	G
25	DA	2167	U
25	DA	2171	A
25	DA	2172	U
25	DA	2173	A
25	DA	2174	C
25	DA	2191	G
25	DA	2192	G
25	DA	2198	A
25	DA	2210	G
25	DA	2211	G
25	DA	2212	A
25	DA	2213	U

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Mol	Chain	Res	Type
25	DA	2215	G
25	DA	2225	A
25	DA	2226	C
25	DA	2238	G
25	DA	2239	G
25	DA	2268	A
25	DA	2273	A
25	DA	2275	C
25	DA	2276	G
25	DA	2278	A
25	DA	2280	G
25	DA	2283	C
25	DA	2287	A
25	DA	2302	G
25	DA	2303	G
25	DA	2307	G
25	DA	2308	G
25	DA	2309	A
25	DA	2319	G
25	DA	2320	A
25	DA	2321	G
25	DA	2325	G
25	DA	2335	A
25	DA	2336	A
25	DA	2346	A
25	DA	2347	C
25	DA	2350	C
25	DA	2383	G
25	DA	2385	C
25	DA	2387	U
25	DA	2388	A
25	DA	2389	G
25	DA	2390	U
25	DA	2392	A
25	DA	2394	C
25	DA	2402	C
25	DA	2403	C
25	DA	2406	U
25	DA	2411	A
25	DA	2414	G
25	DA	2422	A
25	DA	2423	U

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Mol	Chain	Res	Type
25	DA	2425	A
25	DA	2428	G
25	DA	2429	G
25	DA	2430	A
25	DA	2434	A
25	DA	2435	A
25	DA	2439	A
25	DA	2440	C
25	DA	2441	C
25	DA	2448	A
25	DA	2468	G
25	DA	2469	A
25	DA	2470	G
25	DA	2475	C
25	DA	2476	A
25	DA	2482	G
25	DA	2483	C
25	DA	2484	G
25	DA	2496	C
25	DA	2502	G
25	DA	2505	G
25	DA	2506	U
25	DA	2518	A
25	DA	2523	G
25	DA	2525	G
25	DA	2542	A
25	DA	2543	G
25	DA	2554	U
25	DA	2566	A
25	DA	2567	G
25	DA	2569	G
25	DA	2585	U
25	DA	2602	A
25	DA	2603	G
25	DA	2609	U
25	DA	2611	U
25	DA	2612	C
25	DA	2630	G
25	DA	2636	U
25	DA	2646	C
25	DA	2654	A
25	DA	2665	A

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Mol	Chain	Res	Type
25	DA	2673	G
25	DA	2689	U
25	DA	2690	C
25	DA	2702	U
25	DA	2703	C
25	DA	2712(A)	A
25	DA	2713	A
25	DA	2714	G
25	DA	2726	U
25	DA	2732	G
25	DA	2733	A
25	DA	2750	A
25	DA	2751	G
25	DA	2752	C
25	DA	2757	A
25	DA	2758	A
25	DA	2761	G
25	DA	2762	G
25	DA	2763	G
25	DA	2764	A
25	DA	2765	A
25	DA	2766	G
25	DA	2777	G
25	DA	2778	A
25	DA	2779	U
25	DA	2789	C
25	DA	2791	C
25	DA	2797	U
25	DA	2798	C
25	DA	2808	U
25	DA	2818	G
25	DA	2820	A
25	DA	2821	A
25	DA	2833	G
25	DA	2834	G
25	DA	2835	A
25	DA	2844	G
25	DA	2860	A
25	DA	2872	G
25	DA	2873	A
25	DA	2892	A
25	DA	2893	G

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Mol	Chain	Res	Type
25	DA	2894	G
25	DA	2896	C
26	DB	0	A
26	DB	8	U
26	DB	13	A
26	DB	15	A
26	DB	16	G
26	DB	24	G
26	DB	25	A
26	DB	26	A
26	DB	31	C
26	DB	32	C
26	DB	40	U
26	DB	41	U
26	DB	42	C
26	DB	44	G
26	DB	45	A
26	DB	51	G
26	DB	52	A
26	DB	53	A
26	DB	73	A
26	DB	75	G
26	DB	81	G
26	DB	88	C
26	DB	89	G
26	DB	89(A)	A
26	DB	105	G
26	DB	108	C
26	DB	109	G

All (232) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	31	G
1	AA	49	U
1	AA	50	A
1	AA	79	G
1	AA	115	G
1	AA	119	A
1	AA	173	U
1	AA	181	G
1	AA	210	U

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Mol	Chain	Res	Type
1	AA	244	U
1	AA	266	G
1	AA	353	A
1	AA	412	A
1	AA	413	G
1	AA	428	G
1	AA	429	U
1	AA	484	G
1	AA	509	A
1	AA	530	G
1	AA	560	U
1	AA	687	A
1	AA	703	G
1	AA	748	C
1	AA	792	A
1	AA	793	U
1	AA	812	C
1	AA	871	U
1	AA	913	A
1	AA	992	U
1	AA	1025	U
1	AA	1027	C
1	AA	1065	U
1	AA	1126	U
1	AA	1128	C
1	AA	1157	A
1	AA	1178	G
1	AA	1211	U
1	AA	1285	A
1	AA	1322	C
1	AA	1331	G
1	AA	1452	C
1	AA	1498	U
1	AA	1504	G
22	AB	3	U
22	AB	6	G
22	AB	18	G
22	AB	19	C
22	AB	46	G
22	AB	57	C
22	AB	75	C
22	AB	78	C

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Mol	Chain	Res	Type
23	AC	48	U
22	AD	17	G
22	AD	18	G
22	AD	21	A
22	AD	57	C
22	AD	67	A
24	A1	12	A
24	A1	13	A
25	BA	222	A
25	BA	229	A
25	BA	271(B)	G
25	BA	404	C
25	BA	481	G
25	BA	587	C
25	BA	752	A
25	BA	880	G
25	BA	945	A
25	BA	974(A)	C
25	BA	1022	G
25	BA	1026	U
25	BA	1060	U
25	BA	1069	A
25	BA	1081	U
25	BA	1085	A
25	BA	1130	U
25	BA	1177	A
25	BA	1178	C
25	BA	1210	A
25	BA	1312	U
25	BA	1379	A
25	BA	1416	G
25	BA	1420	U
25	BA	1427	A
25	BA	1536	A
25	BA	1558	A
25	BA	1608	A
25	BA	1653	G
25	BA	1694	C
25	BA	1799	G
25	BA	1955	U
25	BA	1992	G
25	BA	2060	A

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Mol	Chain	Res	Type
25	BA	2110	G
25	BA	2135	A
25	BA	2157	G
25	BA	2167	U
25	BA	2172	U
25	BA	2211	G
25	BA	2309	A
25	BA	2346	A
25	BA	2402	C
25	BA	2439	A
25	BA	2481	G
25	BA	2566	A
25	BA	2610	C
25	BA	2613	U
25	BA	2681	C
25	BA	2689	U
25	BA	2756	U
1	CA	31	G
1	CA	64	G
1	CA	85	U
1	CA	86	U
1	CA	89	U
1	CA	115	G
1	CA	197	A
1	CA	201	C
1	CA	209	U
1	CA	243	A
1	CA	250	A
1	CA	266	G
1	CA	328	C
1	CA	345	C
1	CA	412	A
1	CA	421	U
1	CA	429	U
1	CA	452	A
1	CA	485	G
1	CA	509	A
1	CA	510	A
1	CA	560	U
1	CA	632	A
1	CA	687	A
1	CA	723	U

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Mol	Chain	Res	Type
1	CA	748	C
1	CA	812	C
1	CA	873	A
1	CA	913	A
1	CA	991	U
1	CA	992	U
1	CA	1025	U
1	CA	1049	U
1	CA	1053	G
1	CA	1054	C
1	CA	1126	U
1	CA	1128	C
1	CA	1157	A
1	CA	1196	U
1	CA	1285	A
1	CA	1297	C
1	CA	1300	G
1	CA	1301	U
1	CA	1335	C
1	CA	1346	A
1	CA	1442	G
1	CA	1449	C
1	CA	1453	G
1	CA	1498	U
22	CB	3	U
22	CB	6	G
22	CB	18	G
22	CB	19	C
22	CB	21	A
22	CB	46	G
22	CB	57	C
22	CB	75	C
22	CB	78	C
23	CC	19	G
23	CC	47	G
23	CC	48	U
22	CD	17	G
22	CD	18	G
22	CD	21	A
22	CD	57	C
24	C1	11	U
24	C1	12	A

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Mol	Chain	Res	Type
24	C1	13	A
25	DA	49	A
25	DA	71	A
25	DA	128	C
25	DA	196	A
25	DA	204	A
25	DA	205	G
25	DA	278	A
25	DA	653	A
25	DA	654(S)	G
25	DA	669	G
25	DA	752	A
25	DA	790	C
25	DA	877	U
25	DA	888	C
25	DA	893	C
25	DA	958	U
25	DA	1022	G
25	DA	1085	A
25	DA	1089	G
25	DA	1171	G
25	DA	1210	A
25	DA	1379	A
25	DA	1397	U
25	DA	1416	G
25	DA	1420	U
25	DA	1427	A
25	DA	1460	A
25	DA	1558	A
25	DA	1653	G
25	DA	1819	A
25	DA	1955	U
25	DA	1992	G
25	DA	2135	A
25	DA	2170	A
25	DA	2191	G
25	DA	2210	G
25	DA	2211	G
25	DA	2225	A
25	DA	2238	G
25	DA	2275	C
25	DA	2308	G

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Mol	Chain	Res	Type
25	DA	2402	C
25	DA	2439	A
25	DA	2447	G
25	DA	2602	A
25	DA	2610	C
25	DA	2629	A
25	DA	2689	U
25	DA	2756	U
25	DA	2776	A
25	DA	2790	A
25	DA	2859	G
25	DA	2893	G
26	DB	88	C

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

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

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
22	MIA	CD	38	22	28,31,32	1.96	2 (7%)	38,44,47	2.80	13 (34%)
22	MIA	AB	38	22	28,31,32	1.91	3 (10%)	38,44,47	2.61	13 (34%)
22	MIA	CB	38	22	28,31,32	2.01	2 (7%)	38,44,47	2.59	13 (34%)
22	MIA	AD	38	22	28,31,32	1.95	2 (7%)	38,44,47	2.79	12 (31%)

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	MIA	CD	38	22	-	7/15/33/34	0/3/3/3
22	MIA	AB	38	22	-	4/15/33/34	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
22	MIA	CB	38	22	-	4/15/33/34	0/3/3/3
22	MIA	AD	38	22	-	8/15/33/34	0/3/3/3

All (9) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	CB	38	MIA	C6-N6	7.81	1.46	1.34
22	CD	38	MIA	C6-N6	7.48	1.46	1.34
22	AD	38	MIA	C6-N6	7.37	1.45	1.34
22	AB	38	MIA	C6-N6	7.22	1.45	1.34
22	CB	38	MIA	C13-C14	6.08	1.50	1.32
22	CD	38	MIA	C13-C14	5.85	1.49	1.32
22	AD	38	MIA	C13-C14	5.82	1.49	1.32
22	AB	38	MIA	C13-C14	5.75	1.49	1.32
22	AB	38	MIA	C5-N7	-2.04	1.35	1.39

All (51) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	CD	38	MIA	C11-S10-C2	10.16	109.88	102.25
22	AD	38	MIA	C11-S10-C2	9.68	109.51	102.25
22	CB	38	MIA	C11-S10-C2	7.56	107.92	102.25
22	AB	38	MIA	C5-C4-N3	-7.51	119.27	127.18
22	CB	38	MIA	C5-C4-N3	-7.50	119.28	127.18
22	AD	38	MIA	C5-C4-N3	-7.37	119.42	127.18
22	CD	38	MIA	C5-C4-N3	-7.09	119.71	127.18
22	AB	38	MIA	C12-C13-C14	-6.26	115.77	127.01
22	AB	38	MIA	C11-S10-C2	5.96	106.72	102.25
22	AD	38	MIA	C12-C13-C14	-5.29	117.52	127.01
22	CD	38	MIA	C12-C13-C14	-5.20	117.67	127.01
22	CB	38	MIA	C12-C13-C14	-4.85	118.31	127.01
22	AD	38	MIA	N3-C4-N9	4.65	132.89	126.99
22	AB	38	MIA	N3-C4-N9	4.56	132.78	126.99
22	CB	38	MIA	C4-C5-N7	-4.12	105.87	110.58
22	CD	38	MIA	N3-C4-N9	4.12	132.22	126.99
22	AB	38	MIA	C4-C5-C6	4.02	120.12	116.78
22	CB	38	MIA	C4-C5-C6	4.01	120.11	116.78
22	CB	38	MIA	N3-C4-N9	3.83	131.86	126.99
22	CD	38	MIA	C4-C5-C6	3.72	119.87	116.78
22	AD	38	MIA	C4-C5-C6	3.66	119.82	116.78
22	AB	38	MIA	N9-C8-N7	-3.58	108.86	113.94
22	AB	38	MIA	C4-C5-N7	-3.48	106.60	110.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	CB	38	MIA	C5-N7-C8	3.48	108.92	103.45
22	AB	38	MIA	C16-C14-C13	-3.43	112.36	122.66
22	AB	38	MIA	C15-C14-C13	-3.34	112.63	122.66
22	AB	38	MIA	C5-N7-C8	3.33	108.69	103.45
22	CD	38	MIA	C4-C5-N7	-3.32	106.78	110.58
22	AD	38	MIA	N9-C8-N7	-3.28	109.28	113.94
22	CD	38	MIA	C15-C14-C13	-3.24	112.92	122.66
22	CB	38	MIA	N9-C8-N7	-3.22	109.36	113.94
22	CD	38	MIA	N9-C8-N7	-3.22	109.37	113.94
22	AD	38	MIA	C4-C5-N7	-3.16	106.97	110.58
22	AD	38	MIA	C15-C14-C13	-3.10	113.35	122.66
22	AD	38	MIA	C5-N7-C8	3.08	108.29	103.45
22	AD	38	MIA	C16-C14-C13	-3.07	113.45	122.66
22	CD	38	MIA	C5-N7-C8	3.06	108.26	103.45
22	AD	38	MIA	N3-C2-N1	-2.92	121.67	127.00
22	CD	38	MIA	C16-C14-C13	-2.88	114.02	122.66
22	CD	38	MIA	N3-C2-N1	-2.82	121.85	127.00
22	CB	38	MIA	C5-C4-N9	2.80	108.87	105.81
22	AD	38	MIA	C2-N3-C4	2.78	119.58	112.29
22	CB	38	MIA	C2-N3-C4	2.76	119.51	112.29
22	CD	38	MIA	C2-N3-C4	2.72	119.41	112.29
22	AB	38	MIA	C2-N3-C4	2.66	119.25	112.29
22	AB	38	MIA	N3-C2-N1	-2.63	122.21	127.00
22	CB	38	MIA	C16-C14-C13	-2.59	114.89	122.66
22	CB	38	MIA	N3-C2-N1	-2.58	122.30	127.00
22	CB	38	MIA	C15-C14-C13	-2.47	115.25	122.66
22	CD	38	MIA	C5-C4-N9	2.07	108.07	105.81
22	AB	38	MIA	C4-N9-C8	2.06	107.91	105.74

There are no chirality outliers.

All (23) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
22	AB	38	MIA	N1-C2-S10-C11
22	AB	38	MIA	N3-C2-S10-C11
22	AB	38	MIA	C12-C13-C14-C15
22	AB	38	MIA	C12-C13-C14-C16
22	AD	38	MIA	O4'-C4'-C5'-O5'
22	AD	38	MIA	C5-C6-N6-C12
22	AD	38	MIA	N1-C2-S10-C11
22	AD	38	MIA	N3-C2-S10-C11
22	AD	38	MIA	C12-C13-C14-C15

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Mol	Chain	Res	Type	Atoms
22	AD	38	MIA	C12-C13-C14-C16
22	CB	38	MIA	N1-C2-S10-C11
22	CB	38	MIA	N3-C2-S10-C11
22	CB	38	MIA	C12-C13-C14-C15
22	CB	38	MIA	C12-C13-C14-C16
22	CD	38	MIA	C5-C6-N6-C12
22	CD	38	MIA	N1-C2-S10-C11
22	CD	38	MIA	N3-C2-S10-C11
22	CD	38	MIA	C12-C13-C14-C15
22	AD	38	MIA	C3'-C4'-C5'-O5'
22	CD	38	MIA	O4'-C4'-C5'-O5'
22	CD	38	MIA	C3'-C4'-C5'-O5'
22	AD	38	MIA	N1-C6-N6-C12
22	CD	38	MIA	N1-C6-N6-C12

There are no ring outliers.

4 monomers are involved in 11 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
22	CD	38	MIA	4	0
22	AB	38	MIA	2	0
22	CB	38	MIA	3	0
22	AD	38	MIA	2	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1608 ligands modelled in this entry, 1608 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	AA	1502/1506 (99%)	-0.24	5 (0%) 90 79	54, 99, 183, 246	0
1	CA	1502/1506 (99%)	-0.20	13 (0%) 81 61	59, 100, 182, 245	0
2	AE	237/256 (92%)	0.46	11 (4%) 37 20	98, 139, 177, 190	0
2	CE	237/256 (92%)	0.63	11 (4%) 37 20	106, 152, 189, 209	0
3	AF	205/239 (85%)	0.48	7 (3%) 48 27	88, 113, 149, 158	0
3	CF	206/239 (86%)	0.66	15 (7%) 21 11	101, 135, 165, 180	0
4	AG	208/208 (100%)	0.40	6 (2%) 53 31	81, 107, 131, 143	0
4	CG	208/208 (100%)	0.39	9 (4%) 40 21	75, 95, 123, 135	0
5	AH	151/162 (93%)	0.13	2 (1%) 75 53	78, 99, 125, 164	0
5	CH	151/162 (93%)	0.47	8 (5%) 32 16	84, 106, 131, 167	0
6	AI	101/101 (100%)	-0.11	0 100 100	67, 99, 115, 141	0
6	CI	101/101 (100%)	-0.24	0 100 100	76, 96, 115, 153	0
7	AJ	155/156 (99%)	0.56	15 (9%) 13 7	96, 114, 143, 161	0
7	CJ	155/156 (99%)	0.66	13 (8%) 17 9	100, 119, 147, 158	0
8	AK	138/138 (100%)	0.24	0 100 100	81, 103, 117, 132	0
8	CK	138/138 (100%)	0.08	2 (1%) 73 51	81, 108, 125, 136	0
9	AL	127/128 (99%)	0.55	3 (2%) 59 36	83, 138, 159, 166	0
9	CL	127/128 (99%)	0.60	10 (7%) 18 10	95, 147, 165, 171	0
10	AM	99/105 (94%)	0.66	1 (1%) 79 59	81, 140, 167, 178	0
10	CM	99/105 (94%)	0.70	7 (7%) 22 11	103, 154, 174, 180	0
11	AN	119/129 (92%)	0.49	7 (5%) 28 14	62, 95, 130, 161	0
11	CN	119/129 (92%)	0.37	3 (2%) 58 35	74, 99, 133, 164	0
12	AO	125/132 (94%)	0.20	6 (4%) 35 19	59, 75, 107, 162	0
12	CO	125/132 (94%)	0.56	13 (10%) 11 6	63, 91, 126, 166	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	AP	116/126 (92%)	0.45	5 (4%) 40 21	75, 124, 143, 155	0
13	CP	117/126 (92%)	0.74	12 (10%) 12 6	91, 145, 161, 169	0
14	AQ	58/61 (95%)	0.56	3 (5%) 33 17	87, 103, 120, 127	0
14	CQ	58/61 (95%)	0.95	3 (5%) 33 17	108, 125, 150, 154	0
15	AR	88/89 (98%)	0.13	1 (1%) 78 57	70, 94, 116, 120	0
15	CR	88/89 (98%)	0.11	1 (1%) 78 57	67, 96, 124, 136	0
16	AS	84/88 (95%)	0.52	4 (4%) 35 19	87, 109, 134, 174	0
16	CS	84/88 (95%)	0.25	1 (1%) 76 55	76, 91, 118, 157	0
17	AT	100/105 (95%)	0.54	8 (8%) 18 9	80, 102, 118, 129	0
17	CT	100/105 (95%)	0.52	6 (6%) 27 14	75, 100, 126, 144	0
18	AU	72/88 (81%)	0.02	0 100 100	77, 97, 135, 164	0
18	CU	72/88 (81%)	-0.16	0 100 100	85, 103, 149, 172	0
19	AV	78/93 (83%)	0.48	5 (6%) 25 13	97, 120, 145, 156	0
19	CV	78/93 (83%)	0.89	9 (11%) 9 6	128, 152, 178, 186	0
20	AW	99/106 (93%)	0.54	7 (7%) 22 11	96, 121, 148, 153	0
20	CW	99/106 (93%)	0.43	3 (3%) 52 30	86, 106, 141, 153	0
21	AX	25/27 (92%)	0.71	2 (8%) 18 9	97, 107, 121, 153	0
21	CX	25/27 (92%)	1.00	3 (12%) 9 5	101, 129, 150, 171	0
22	AB	84/85 (98%)	0.40	5 (5%) 27 14	76, 148, 167, 178	0
22	AD	84/85 (98%)	0.22	3 (3%) 46 26	70, 147, 206, 218	0
22	CB	84/85 (98%)	0.53	3 (3%) 46 26	92, 155, 171, 179	0
22	CD	84/85 (98%)	0.06	2 (2%) 59 36	74, 147, 207, 212	0
23	AC	77/77 (100%)	-0.12	1 (1%) 75 53	66, 91, 135, 155	0
23	CC	77/77 (100%)	-0.08	1 (1%) 75 53	79, 104, 143, 165	0
24	A1	16/16 (100%)	0.71	3 (18%) 3 2	66, 97, 168, 177	0
24	C1	16/16 (100%)	0.79	3 (18%) 3 2	75, 107, 176, 183	0
25	BA	2912/2912 (100%)	-0.58	12 (0%) 88 76	39, 68, 206, 243	0
25	DA	2907/2912 (99%)	-0.36	15 (0%) 87 72	49, 82, 226, 247	0
26	BB	122/122 (100%)	-0.51	0 100 100	65, 92, 113, 183	0
26	DB	122/122 (100%)	-0.19	2 (1%) 70 47	78, 110, 139, 198	0
27	BD	272/276 (98%)	0.03	7 (2%) 57 34	39, 59, 82, 104	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
27	DD	272/276 (98%)	0.07	7 (2%) 57 34	45, 67, 87, 120	0
28	BE	205/206 (99%)	0.45	15 (7%) 21 11	44, 77, 125, 150	0
28	DE	205/206 (99%)	0.38	12 (5%) 28 14	56, 92, 144, 157	0
29	BF	202/210 (96%)	-0.10	4 (1%) 65 41	42, 75, 110, 127	0
29	DF	208/210 (99%)	0.22	3 (1%) 73 51	53, 93, 155, 185	0
30	BG	181/182 (99%)	0.27	3 (1%) 69 45	79, 105, 136, 146	0
30	DG	181/182 (99%)	0.67	15 (8%) 17 9	96, 128, 157, 168	0
31	BH	170/180 (94%)	0.29	6 (3%) 47 27	71, 105, 126, 151	0
31	DH	170/180 (94%)	1.09	23 (13%) 7 4	143, 193, 217, 231	0
32	BK	146/148 (98%)	0.44	6 (4%) 41 23	72, 120, 141, 153	0
32	DK	146/148 (98%)	0.42	9 (6%) 26 14	73, 120, 147, 151	0
33	BM	138/140 (98%)	0.34	5 (3%) 46 26	58, 79, 115, 136	0
33	DM	138/140 (98%)	0.49	4 (2%) 53 31	72, 104, 137, 147	0
34	BN	122/122 (100%)	-0.08	0 100 100	55, 71, 87, 93	0
34	DN	122/122 (100%)	0.32	2 (1%) 70 47	66, 85, 103, 110	0
35	BO	150/150 (100%)	0.45	11 (7%) 21 11	45, 82, 109, 167	0
35	DO	150/150 (100%)	0.94	24 (16%) 5 3	45, 93, 136, 174	0
36	BP	141/141 (100%)	0.66	19 (13%) 7 4	55, 77, 105, 140	0
36	DP	141/141 (100%)	1.02	25 (17%) 4 2	58, 100, 130, 154	0
37	B0	118/118 (100%)	-0.04	2 (1%) 69 45	53, 74, 96, 106	0
37	D0	117/118 (99%)	0.03	2 (1%) 69 45	62, 81, 100, 117	0
38	BQ	111/112 (99%)	0.02	3 (2%) 56 33	71, 91, 116, 130	0
38	DQ	111/112 (99%)	0.23	4 (3%) 46 26	73, 109, 135, 157	0
39	BR	137/146 (93%)	0.46	9 (6%) 24 12	66, 85, 135, 167	0
39	DR	137/146 (93%)	0.49	6 (4%) 39 21	73, 94, 154, 184	0
40	B1	117/118 (99%)	0.02	2 (1%) 69 45	50, 70, 98, 140	0
40	D1	117/118 (99%)	0.08	1 (0%) 81 61	60, 99, 137, 155	0
41	B2	101/101 (100%)	0.40	6 (5%) 28 14	46, 91, 116, 128	0
41	D2	101/101 (100%)	0.32	3 (2%) 52 30	63, 122, 139, 150	0
42	BS	113/113 (100%)	-0.10	2 (1%) 67 44	44, 67, 99, 152	0
42	DS	113/113 (100%)	0.18	4 (3%) 47 27	61, 75, 109, 161	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
43	BT	92/96 (95%)	0.10	2 (2%) 62 39	54, 69, 95, 112	0
43	DT	92/96 (95%)	0.33	4 (4%) 40 21	65, 81, 109, 122	0
44	BU	102/110 (92%)	0.68	12 (11%) 9 5	70, 94, 144, 165	0
44	DU	102/110 (92%)	1.40	27 (26%) 1 1	78, 111, 162, 172	0
45	BV	175/206 (84%)	0.72	9 (5%) 33 17	79, 120, 189, 194	0
45	DV	179/206 (86%)	0.81	11 (6%) 27 14	111, 152, 207, 219	0
46	B3	76/85 (89%)	0.19	5 (6%) 24 12	51, 72, 92, 125	0
46	D3	77/85 (90%)	0.55	6 (7%) 19 10	64, 87, 110, 151	0
47	BZ	97/98 (98%)	0.43	7 (7%) 21 11	48, 71, 115, 155	0
47	DZ	97/98 (98%)	0.56	6 (6%) 26 14	54, 74, 126, 152	0
48	BW	66/72 (91%)	0.26	6 (9%) 15 8	59, 79, 95, 127	0
48	DW	66/72 (91%)	0.22	3 (4%) 38 20	75, 99, 121, 134	0
49	BX	59/60 (98%)	-0.07	0 100 100	61, 77, 112, 131	0
49	DX	59/60 (98%)	0.19	1 (1%) 69 45	76, 103, 136, 159	0
50	B4	66/71 (92%)	0.56	3 (4%) 38 20	112, 153, 176, 181	0
50	D4	63/71 (88%)	0.73	6 (9%) 14 7	141, 181, 191, 201	0
51	B5	59/60 (98%)	0.70	8 (13%) 7 4	43, 81, 156, 165	0
51	D5	59/60 (98%)	0.53	6 (10%) 12 6	61, 84, 169, 188	0
52	B6	45/54 (83%)	1.54	11 (24%) 2 1	117, 148, 164, 173	0
52	D6	45/54 (83%)	2.04	20 (44%) 0 1	131, 164, 181, 185	0
53	B7	45/49 (91%)	-0.30	1 (2%) 62 39	38, 48, 68, 85	0
53	D7	45/49 (91%)	0.06	1 (2%) 62 39	52, 59, 74, 94	0
54	B8	60/65 (92%)	0.49	8 (13%) 7 4	51, 68, 88, 115	0
54	D8	60/65 (92%)	1.26	11 (18%) 3 2	64, 80, 106, 132	0
All	All	21100/21658 (97%)	0.07	708 (3%) 48 27	38, 95, 177, 247	0

All (708) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
51	B5	2	ALA	9.7
7	CJ	81	GLY	9.6
51	D5	2	ALA	9.3
31	DH	150	ALA	8.3
9	CL	115	GLY	8.1

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Mol	Chain	Res	Type	RSRZ
35	DO	61	ARG	7.6
25	BA	1536	A	6.9
36	BP	86	GLY	6.8
7	CJ	32	ARG	6.3
33	BM	138	LEU	6.2
17	CT	101	ARG	6.1
20	AW	9	ASN	6.0
52	D6	23	THR	6.0
54	D8	40	GLU	6.0
14	CQ	6	LEU	5.9
31	DH	155	SER	5.7
13	CP	8	GLU	5.6
47	BZ	97	LEU	5.6
47	DZ	96	LYS	5.5
36	DP	86	GLY	5.5
19	CV	78	ARG	5.3
17	CT	100	LYS	5.3
28	BE	205	ALA	5.2
54	D8	53	PRO	5.2
4	AG	21	LEU	5.2
36	BP	85	LYS	5.2
41	B2	45	THR	5.1
4	AG	26	CYS	5.1
53	D7	45	ALA	5.0
44	DU	49	VAL	4.9
51	B5	3	LYS	4.9
36	DP	23	GLY	4.8
48	DW	43	GLN	4.8
44	DU	77	PRO	4.8
7	CJ	82	GLY	4.8
47	DZ	85	LEU	4.8
35	DO	46	LYS	4.7
36	BP	23	GLY	4.7
13	AP	8	GLU	4.7
17	AT	101	ARG	4.7
17	AT	98	LEU	4.7
52	D6	13	CYS	4.7
7	CJ	153	HIS	4.6
38	DQ	20	ARG	4.6
52	B6	22	ALA	4.6
44	DU	46	LYS	4.6
31	BH	155	SER	4.6

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Mol	Chain	Res	Type	RSRZ
54	D8	56	GLU	4.5
35	DO	106	LEU	4.5
54	D8	49	VAL	4.5
52	B6	23	THR	4.5
22	CB	83	C	4.5
47	BZ	98	LEU	4.5
52	D6	42	TRP	4.4
4	AG	31	CYS	4.4
30	BG	80	PHE	4.4
35	DO	57	THR	4.4
54	D8	34	TRP	4.4
44	DU	61	ILE	4.4
41	B2	36	PRO	4.3
44	DU	60	PHE	4.3
31	DH	113	VAL	4.3
24	C1	10	G	4.2
27	BD	237	GLU	4.2
4	AG	12	CYS	4.2
44	DU	103	GLY	4.2
31	DH	171	LEU	4.2
24	A1	10	G	4.2
46	D3	9	SER	4.1
35	BO	20	GLY	4.1
35	DO	62	LEU	4.1
3	CF	7	PRO	4.1
25	BA	654(K)	C	4.1
12	CO	23	ALA	4.1
28	BE	204	ALA	4.0
26	DB	88	C	4.0
44	DU	59	GLY	4.0
12	CO	24	LEU	4.0
36	BP	88	GLY	3.9
17	AT	100	LYS	3.9
25	DA	171	G	3.9
12	CO	25	LYS	3.9
52	B6	9	LEU	3.9
7	CJ	80	VAL	3.9
36	DP	1	MET	3.9
52	B6	13	CYS	3.9
36	BP	91	GLU	3.9
50	D4	24	THR	3.9
31	DH	154	PRO	3.9

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Mol	Chain	Res	Type	RSRZ
31	DH	105	LEU	3.9
44	DU	79	CYS	3.8
22	AB	85	A	3.8
35	DO	108	LYS	3.8
7	AJ	84	ASN	3.8
25	BA	654(J)	A	3.8
54	B8	34	TRP	3.8
19	CV	80	TYR	3.8
13	CP	102	ARG	3.8
44	BU	50	ARG	3.8
52	D6	22	ALA	3.8
45	BV	175	VAL	3.8
30	DG	155	MET	3.8
7	AJ	154	TYR	3.8
9	CL	127	LYS	3.7
52	B6	34	LEU	3.7
35	DO	107	LYS	3.7
51	B5	4	HIS	3.7
7	AJ	82	GLY	3.7
27	BD	238	GLY	3.7
43	DT	94	GLY	3.7
22	CB	85	A	3.7
30	DG	139	LEU	3.7
43	DT	69	TYR	3.7
44	DU	47	LYS	3.7
50	D4	63	TYR	3.7
1	CA	1529	G	3.7
28	BE	21	VAL	3.7
36	DP	22	LYS	3.6
36	DP	85	LYS	3.6
17	AT	27	PHE	3.6
3	AF	184	TYR	3.6
36	BP	83	MET	3.6
52	D6	10	LEU	3.6
46	D3	55	ARG	3.6
35	DO	36	LYS	3.6
52	D6	9	LEU	3.6
35	BO	61	ARG	3.5
47	DZ	97	LEU	3.5
4	CG	26	CYS	3.5
2	AE	107	THR	3.5
2	CE	152	PHE	3.5

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Mol	Chain	Res	Type	RSRZ
13	CP	85	GLY	3.5
42	DS	111	HIS	3.5
31	DH	72	ILE	3.5
47	BZ	96	LYS	3.5
44	DU	45	VAL	3.5
39	BR	21	GLU	3.5
22	AB	82	A	3.5
45	BV	165	VAL	3.4
11	CN	128	ALA	3.4
19	CV	7	LYS	3.4
9	CL	110	GLU	3.4
35	DO	52	GLU	3.4
28	DE	76	ARG	3.4
45	DV	28	MET	3.4
3	CF	167	TRP	3.4
35	DO	47	ASP	3.4
27	DD	237	GLU	3.4
47	BZ	85	LEU	3.4
52	D6	34	LEU	3.4
7	CJ	83	ALA	3.4
13	CP	118	ALA	3.4
17	AT	36	ILE	3.4
54	D8	35	GLN	3.4
11	AN	129	SER	3.4
44	DU	48	ALA	3.4
52	B6	27	LYS	3.4
44	DU	58	GLY	3.4
53	B7	45	ALA	3.4
11	CN	127	LYS	3.4
25	DA	2062	A	3.3
11	AN	127	LYS	3.3
13	AP	100	GLY	3.3
44	DU	78	ALA	3.3
46	B3	13	GLY	3.3
35	BO	58	THR	3.3
46	B3	57	PHE	3.3
47	BZ	77	ALA	3.3
28	BE	79	ARG	3.3
30	DG	82	LEU	3.3
44	DU	92	ASN	3.3
46	D3	12	ASN	3.3
14	AQ	28	GLY	3.3

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Mol	Chain	Res	Type	RSRZ
28	DE	204	ALA	3.3
7	AJ	153	HIS	3.3
48	BW	43	GLN	3.3
38	DQ	2	ALA	3.3
10	CM	55	LYS	3.3
22	AB	83	C	3.3
31	DH	168	PRO	3.2
54	D8	50	LEU	3.2
36	DP	83	MET	3.2
25	BA	945	A	3.2
31	DH	169	VAL	3.2
12	CO	14	LYS	3.2
14	CQ	39	LEU	3.2
40	B1	95	LEU	3.2
41	D2	91	TYR	3.2
30	DG	2	PRO	3.2
25	DA	34	C	3.2
35	DO	60	MET	3.2
7	AJ	78	ARG	3.2
11	AN	128	ALA	3.2
3	CF	2	GLY	3.2
17	CT	24	GLU	3.2
52	D6	12	GLU	3.2
47	BZ	92	LYS	3.2
31	DH	71	LEU	3.2
39	DR	1	MET	3.2
1	CA	1224	G	3.2
47	DZ	98	LEU	3.2
32	DK	11	ASN	3.2
27	DD	236	GLY	3.1
36	BP	84	GLY	3.1
36	DP	102	VAL	3.1
19	AV	78	ARG	3.1
45	DV	121	HIS	3.1
46	B3	85	ALA	3.1
12	CO	16	ARG	3.1
43	BT	94	GLY	3.1
10	CM	58	ASP	3.1
2	AE	239	VAL	3.1
36	DP	89	ASN	3.1
3	CF	186	PHE	3.1
10	CM	47	PHE	3.1

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Mol	Chain	Res	Type	RSRZ
22	CB	80	C	3.1
30	BG	137	GLU	3.1
35	DO	51	PHE	3.1
44	BU	49	VAL	3.1
35	BO	106	LEU	3.1
12	AO	16	ARG	3.1
21	CX	25	LYS	3.1
24	C1	12	A	3.1
30	DG	50	ALA	3.0
36	BP	17	LEU	3.0
45	DV	172	ALA	3.0
12	CO	15	VAL	3.0
14	CQ	18	VAL	3.0
30	BG	2	PRO	3.0
35	DO	63	PRO	3.0
31	DH	98	LEU	3.0
25	BA	1537	C	3.0
35	DO	109	GLY	3.0
30	DG	75	LYS	3.0
36	BP	80	GLU	3.0
4	CG	5	ILE	3.0
3	CF	161	GLU	3.0
28	BE	200	GLU	3.0
11	CN	129	SER	3.0
54	D8	51	ALA	3.0
36	DP	87	LYS	3.0
39	DR	104	ASN	3.0
27	DD	36	PRO	3.0
28	BE	187	ALA	3.0
12	CO	17	LYS	3.0
44	DU	76	CYS	3.0
36	DP	37	LEU	2.9
7	AJ	79	ARG	2.9
35	DO	79	ARG	2.9
54	D8	54	GLU	2.9
19	AV	7	LYS	2.9
46	D3	85	ALA	2.9
52	D6	53	LYS	2.9
10	CM	59	SER	2.9
39	DR	106	SER	2.9
25	DA	1536	A	2.9
33	DM	69	GLN	2.9

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Mol	Chain	Res	Type	RSRZ
54	D8	61	LEU	2.9
31	DH	153	LYS	2.9
35	DO	64	LYS	2.9
45	DV	176	PRO	2.9
3	CF	201	TYR	2.9
9	CL	125	TYR	2.9
2	AE	15	VAL	2.9
17	CT	91	ARG	2.9
46	D3	84	LEU	2.9
7	AJ	74	GLU	2.9
35	DO	59	LEU	2.9
36	DP	3	MET	2.9
52	D6	25	LYS	2.9
25	BA	1534	G	2.9
50	D4	59	PHE	2.9
52	B6	10	LEU	2.9
12	CO	65	ALA	2.9
30	DG	142	PRO	2.9
36	BP	20	ALA	2.9
3	CF	184	TYR	2.9
12	CO	61	TYR	2.9
13	CP	100	GLY	2.9
54	B8	35	GLN	2.8
33	DM	129	PRO	2.8
44	BU	91	GLU	2.8
20	AW	8	ARG	2.8
3	CF	87	LEU	2.8
28	BE	193	GLY	2.8
36	BP	87	LYS	2.8
36	BP	92	GLY	2.8
25	BA	2062	A	2.8
28	DE	205	ALA	2.8
31	BH	150	ALA	2.8
25	DA	2156	G	2.8
7	CJ	84	ASN	2.8
19	CV	82	GLY	2.8
30	DG	39	ILE	2.8
30	DG	152	LEU	2.8
39	BR	106	SER	2.8
44	BU	53	PRO	2.8
35	DO	71	VAL	2.8
17	AT	96	GLU	2.8

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Mol	Chain	Res	Type	RSRZ
28	BE	63	LEU	2.8
2	AE	14	GLY	2.8
21	AX	2	GLY	2.8
23	CC	1	C	2.8
14	AQ	20	ALA	2.8
37	D0	101	ALA	2.8
28	BE	64	LYS	2.8
4	CG	19	LEU	2.8
41	B2	43	GLU	2.8
13	CP	4	ILE	2.8
29	BF	134	GLY	2.8
1	AA	5	U	2.8
44	DU	55	TYR	2.8
1	CA	1397	C	2.8
7	CJ	145	ALA	2.8
25	DA	1537	C	2.8
1	CA	1202	G	2.8
35	DO	56	SER	2.8
54	B8	50	LEU	2.8
27	DD	40	THR	2.8
43	DT	3	THR	2.8
45	BV	171	ILE	2.8
9	AL	115	GLY	2.7
19	AV	8	GLY	2.7
20	AW	49	ALA	2.7
4	CG	31	CYS	2.7
28	BE	7	VAL	2.7
45	BV	163	LEU	2.7
31	BH	34	GLU	2.7
36	BP	21	THR	2.7
13	CP	88	ARG	2.7
35	BO	15	ARG	2.7
12	CO	18	LYS	2.7
21	CX	26	LYS	2.7
19	CV	10	PHE	2.7
5	CH	16	THR	2.7
17	CT	99	SER	2.7
29	BF	207	GLY	2.7
29	DF	131	GLY	2.7
28	BE	23	VAL	2.7
51	D5	3	LYS	2.7
24	C1	25	A	2.7

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Mol	Chain	Res	Type	RSRZ
51	D5	51	TYR	2.7
41	B2	37	VAL	2.7
54	B8	61	LEU	2.7
44	BU	56	PRO	2.7
36	DP	63	LYS	2.7
26	DB	89	G	2.7
7	AJ	110	GLN	2.6
10	CM	63	PHE	2.6
16	CS	76	GLN	2.6
39	BR	1	MET	2.6
44	DU	50	ARG	2.6
38	BQ	108	GLY	2.6
17	AT	99	SER	2.6
31	BH	171	LEU	2.6
32	DK	37	VAL	2.6
35	BO	16	ARG	2.6
44	BU	77	PRO	2.6
52	B6	31	PRO	2.6
4	CG	179	GLU	2.6
13	CP	7	VAL	2.6
28	DE	116	VAL	2.6
8	CK	102	ARG	2.6
44	DU	51	VAL	2.6
46	B3	10	THR	2.6
1	CA	1286	A	2.6
7	CJ	79	ARG	2.6
52	D6	27	LYS	2.6
40	D1	91	ASP	2.6
31	BH	5	GLY	2.6
36	DP	88	GLY	2.6
39	DR	55	ASN	2.6
45	BV	117	LEU	2.6
52	D6	36	LEU	2.6
44	BU	2	ARG	2.6
7	CJ	85	TYR	2.6
52	D6	31	PRO	2.6
36	BP	79	LEU	2.6
39	BR	11	GLU	2.6
52	B6	12	GLU	2.6
10	CM	46	ARG	2.6
44	BU	98	VAL	2.6
36	DP	77	LYS	2.6

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Mol	Chain	Res	Type	RSRZ
22	AD	55	U	2.5
2	CE	195	ASP	2.5
2	CE	9	GLU	2.5
22	AD	49	A	2.5
39	DR	11	GLU	2.5
22	AB	80	C	2.5
54	B8	48	PHE	2.5
12	AO	91	PRO	2.5
30	DG	133	LEU	2.5
44	DU	98	VAL	2.5
9	CL	106	ALA	2.5
31	BH	9	ILE	2.5
32	DK	76	THR	2.5
25	DA	1762	A	2.5
19	AV	68	GLY	2.5
22	AD	48	C	2.5
25	DA	2138	C	2.5
28	BE	76	ARG	2.5
48	BW	4	SER	2.5
45	BV	161	VAL	2.5
25	BA	1026	U	2.5
7	AJ	156	TRP	2.5
2	AE	238	LEU	2.5
12	CO	44	LYS	2.5
33	BM	134	ARG	2.5
35	BO	148	LEU	2.5
20	AW	18	GLN	2.5
11	AN	60	ALA	2.5
12	AO	13	GLU	2.5
27	BD	28	GLU	2.5
37	B0	1	MET	2.5
52	D6	26	ASN	2.5
11	AN	25	TYR	2.5
29	DF	61	GLY	2.5
37	D0	7	GLY	2.5
9	AL	126	SER	2.4
24	A1	12	A	2.4
10	CM	54	PHE	2.4
7	AJ	5	ARG	2.4
20	CW	86	ARG	2.4
36	BP	89	ASN	2.4
25	DA	654(I)	C	2.4

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Mol	Chain	Res	Type	RSRZ
25	DA	1816	G	2.4
2	AE	26	PRO	2.4
24	A1	11	U	2.4
25	DA	1535	U	2.4
52	D6	39	TYR	2.4
19	CV	8	GLY	2.4
5	CH	20	GLN	2.4
15	AR	62	GLN	2.4
5	AH	89	ILE	2.4
30	DG	45	GLU	2.4
45	DV	149	SER	2.4
47	BZ	93	GLU	2.4
48	BW	40	SER	2.4
38	BQ	110	LEU	2.4
7	CJ	156	TRP	2.4
27	DD	238	GLY	2.4
44	BU	103	GLY	2.4
44	DU	85	VAL	2.4
1	CA	84	U	2.4
9	CL	128	ARG	2.4
38	DQ	3	ARG	2.4
50	B4	66	SER	2.4
12	CO	58	THR	2.4
21	CX	23	PRO	2.4
27	BD	27	THR	2.4
45	BV	95	PRO	2.4
29	BF	128	ALA	2.4
27	DD	5	LYS	2.4
47	DZ	92	LYS	2.4
25	BA	163	U	2.4
46	B3	84	LEU	2.4
4	CG	12	CYS	2.4
33	BM	46	VAL	2.4
32	DK	20	ASP	2.4
40	B1	91	ASP	2.4
41	B2	101	GLY	2.4
7	CJ	154	TYR	2.4
13	AP	9	ILE	2.4
44	DU	44	ILE	2.4
2	AE	96	ARG	2.4
48	BW	69	ARG	2.4
7	AJ	86	GLN	2.4

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Mol	Chain	Res	Type	RSRZ
36	BP	141	GLN	2.4
2	CE	115	LEU	2.4
43	BT	70	LEU	2.4
9	AL	110	GLU	2.4
49	DX	58	VAL	2.4
28	DE	10	GLY	2.3
31	DH	70	THR	2.3
16	AS	84	ALA	2.3
20	CW	97	ALA	2.3
35	BO	65	ARG	2.3
38	BQ	2	ALA	2.3
52	D6	17	LYS	2.3
4	CG	21	LEU	2.3
48	BW	5	GLU	2.3
52	D6	24	GLU	2.3
54	B8	56	GLU	2.3
13	CP	117	VAL	2.3
32	DK	145	VAL	2.3
51	B5	57	VAL	2.3
36	DP	21	THR	2.3
50	D4	9	LEU	2.3
54	D8	32	LEU	2.3
27	DD	30	GLU	2.3
44	DU	91	GLU	2.3
7	CJ	9	VAL	2.3
32	BK	141	LYS	2.3
13	AP	102	ARG	2.3
32	BK	113	ARG	2.3
28	BE	65	GLY	2.3
36	BP	19	GLY	2.3
35	DO	58	THR	2.3
54	B8	51	ALA	2.3
28	DE	151	TYR	2.3
52	B6	21	TYR	2.3
2	AE	195	ASP	2.3
16	AS	29	ASP	2.3
36	BP	25	ASP	2.3
7	AJ	11	GLN	2.3
1	CA	962	C	2.3
9	CL	116	LYS	2.3
23	AC	1	C	2.3
35	BO	19	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
50	D4	21	VAL	2.3
36	DP	15	GLY	2.3
43	DT	61	GLY	2.3
48	DW	41	ILE	2.3
9	CL	126	SER	2.3
25	DA	1	G	2.3
5	CH	130	ASN	2.3
52	D6	43	CYS	2.3
28	DE	75	VAL	2.3
31	DH	24	VAL	2.3
31	DH	131	VAL	2.3
36	DP	80	GLU	2.3
39	BR	109	GLU	2.3
29	BF	66	PRO	2.3
7	AJ	2	ALA	2.3
16	AS	30	GLY	2.3
33	DM	138	LEU	2.3
20	CW	11	SER	2.3
44	BU	55	TYR	2.3
2	CE	135	GLN	2.3
21	AX	26	LYS	2.3
39	DR	2	ASN	2.3
42	BS	60	ASN	2.3
47	DZ	88	LYS	2.3
4	CG	168	ARG	2.3
19	CV	11	VAL	2.3
36	DP	90	VAL	2.3
1	CA	1190	G	2.2
5	CH	80	ILE	2.2
28	DE	81	ILE	2.2
48	BW	41	ILE	2.2
50	B4	5	ILE	2.2
36	DP	19	GLY	2.2
45	DV	113	ALA	2.2
1	CA	1503	A	2.2
3	AF	201	TYR	2.2
31	DH	38	SER	2.2
1	AA	345	C	2.2
5	CH	27	ARG	2.2
2	AE	136	VAL	2.2
35	BO	71	VAL	2.2
3	CF	56	ASP	2.2

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Mol	Chain	Res	Type	RSRZ
31	DH	151	ILE	2.2
17	CT	98	LEU	2.2
28	DE	117	MET	2.2
32	BK	116	LEU	2.2
51	D5	58	LEU	2.2
2	CE	17	PHE	2.2
32	DK	78	THR	2.2
36	DP	76	LYS	2.2
42	DS	113	LYS	2.2
15	CR	88	ARG	2.2
2	CE	235	SER	2.2
25	BA	5	A	2.2
37	B0	6	SER	2.2
11	AN	21	ILE	2.2
45	DV	171	ILE	2.2
50	D4	22	ILE	2.2
12	CO	126	ALA	2.2
27	BD	177	LEU	2.2
28	DE	187	ALA	2.2
32	BK	146	ALA	2.2
32	DK	72	LEU	2.2
44	DU	54	LYS	2.2
16	AS	71	ARG	2.2
35	DO	35	HIS	2.2
2	CE	165	VAL	2.2
34	DN	42	SER	2.2
42	DS	13	SER	2.2
29	DF	28	ILE	2.2
2	CE	141	GLU	2.2
25	DA	945	A	2.2
2	AE	22	LYS	2.2
7	AJ	32	ARG	2.2
35	DO	15	ARG	2.2
44	DU	89	PHE	2.2
33	BM	130	HIS	2.2
3	CF	207	VAL	2.2
13	CP	87	TYR	2.2
45	DV	96	VAL	2.2
50	B4	56	VAL	2.2
52	D6	11	LEU	2.2
31	DH	85	LYS	2.2
1	CA	1201	A	2.2

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Mol	Chain	Res	Type	RSRZ
1	AA	570	G	2.2
32	DK	133	HIS	2.2
32	DK	35	LEU	2.1
46	D3	17	GLN	2.1
3	CF	160	ALA	2.1
7	AJ	83	ALA	2.1
13	CP	104	ARG	2.1
35	DO	55	ARG	2.1
41	D2	36	PRO	2.1
36	DP	104	PHE	2.1
39	BR	22	PHE	2.1
28	DE	127	ASP	2.1
48	DW	52	ASP	2.1
5	CH	105	VAL	2.1
1	AA	792	A	2.1
3	AF	72	LYS	2.1
4	AG	11	LEU	2.1
9	CL	79	LEU	2.1
12	AO	44	LYS	2.1
30	DG	36	LYS	2.1
44	BU	90	LEU	2.1
54	B8	52	LYS	2.1
13	CP	2	ALA	2.1
44	DU	2	ARG	2.1
51	D5	53	ALA	2.1
36	DP	105	GLU	2.1
44	BU	52	SER	2.1
2	CE	105	PHE	2.1
33	BM	9	VAL	2.1
51	D5	4	HIS	2.1
3	AF	193	TYR	2.1
11	AN	11	LYS	2.1
45	BV	146	ILE	2.1
36	BP	26	TYR	2.1
51	B5	52	TYR	2.1
42	BS	92	ARG	2.1
2	AE	13	ALA	2.1
20	AW	95	ALA	2.1
1	CA	632	A	2.1
51	B5	54	GLY	2.1
2	CE	163	PHE	2.1
35	BO	13	ASN	2.1

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Mol	Chain	Res	Type	RSRZ
22	CD	52	G	2.1
52	B6	52	VAL	2.1
41	B2	38	LEU	2.1
4	AG	73	ARG	2.1
51	B5	51	TYR	2.1
3	AF	129	ALA	2.1
3	CF	117	ALA	2.1
30	DG	42	GLY	2.1
12	AO	59	SER	2.1
17	AT	97	SER	2.1
52	D6	52	VAL	2.1
20	AW	74	LYS	2.1
25	DA	654(J)	A	2.1
5	CH	131	ILE	2.1
35	DO	16	ARG	2.1
45	DV	53	ILE	2.1
45	DV	146	ILE	2.1
19	CV	12	ASP	2.1
45	BV	87	ASP	2.1
28	BE	151	TYR	2.1
30	DG	161	THR	2.1
25	BA	654(I)	C	2.1
1	CA	973	G	2.1
12	AO	92	GLY	2.1
38	DQ	108	GLY	2.1
42	DS	112	GLY	2.1
44	DU	41	GLY	2.1
36	DP	65	PHE	2.1
1	AA	86	U	2.0
3	CF	198	VAL	2.0
14	AQ	4	LYS	2.0
22	CD	55	U	2.0
28	DE	77	ILE	2.0
31	DH	64	LEU	2.0
31	DH	89	ILE	2.0
32	BK	140	LEU	2.0
33	DM	116	LEU	2.0
34	DN	29	ASN	2.0
39	BR	2	ASN	2.0
19	CV	83	HIS	2.0
31	DH	157	TYR	2.0
36	DP	107	ALA	2.0

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Mol	Chain	Res	Type	RSRZ
41	D2	81	TYR	2.0
19	AV	84	GLY	2.0
36	DP	33	GLY	2.0
27	BD	29	PRO	2.0
28	BE	53	PRO	2.0
32	BK	111	PRO	2.0
3	AF	19	GLU	2.0
5	CH	81	GLU	2.0
30	DG	137	GLU	2.0
51	B5	59	GLU	2.0
13	AP	117	VAL	2.0
31	DH	26	VAL	2.0
1	CA	631	G	2.0
9	CL	120	ARG	2.0
22	AB	4	G	2.0
25	DA	2899	G	2.0
39	BR	6	LEU	2.0
3	AF	182	ILE	2.0
44	DU	96	ILE	2.0
3	CF	3	ASN	2.0
20	AW	12	ALA	2.0
39	BR	94	ALA	2.0
10	AM	47	PHE	2.0
27	BD	236	GLY	2.0
4	CG	42	GLN	2.0
45	DV	167	PRO	2.0
5	AH	122	GLU	2.0
25	BA	2311	A	2.0
8	CK	2	LEU	2.0
3	CF	182	ILE	2.0
31	DH	148	ILE	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
22	MIA	CD	38	29/30	0.90	0.14	101,121,146,154	0
22	MIA	CB	38	29/30	0.91	0.12	63,95,112,126	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
22	MIA	AD	38	29/30	0.93	0.12	98,122,141,145	0
22	MIA	AB	38	29/30	0.95	0.10	65,78,90,93	0

6.3 Carbohydrates (i)

There are no oligosaccharides in this entry.

6.4 Ligands (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 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
55	MG	CA	1745	1/1	-0.22	0.20	159,159,159,159	0
55	MG	CA	1781	1/1	-0.18	0.21	172,172,172,172	0
55	MG	BA	3456	1/1	-0.12	0.16	168,168,168,168	0
55	MG	AA	1750	1/1	-0.10	0.28	134,134,134,134	0
55	MG	AA	1805	1/1	-0.08	0.28	152,152,152,152	0
55	MG	AA	1765	1/1	-0.08	0.21	149,149,149,149	0
55	MG	BA	3406	1/1	-0.05	0.11	182,182,182,182	0
55	MG	CB	104	1/1	0.01	0.27	147,147,147,147	0
55	MG	AA	1764	1/1	0.03	0.18	146,146,146,146	0
55	MG	AA	1809	1/1	0.05	0.19	204,204,204,204	0
55	MG	AA	1783	1/1	0.05	0.16	167,167,167,167	0
55	MG	DA	3362	1/1	0.05	0.28	150,150,150,150	0
55	MG	CA	1812	1/1	0.06	0.15	176,176,176,176	0
55	MG	AD	101	1/1	0.08	0.27	154,154,154,154	0
55	MG	BA	3397	1/1	0.09	0.21	131,131,131,131	0
55	MG	BA	3429	1/1	0.10	0.34	146,146,146,146	0
55	MG	BA	3475	1/1	0.14	0.10	212,212,212,212	0
55	MG	BA	3550	1/1	0.15	0.11	131,131,131,131	0
55	MG	BA	3479	1/1	0.16	0.30	146,146,146,146	0
55	MG	CA	1785	1/1	0.22	0.42	155,155,155,155	0
55	MG	DA	3417	1/1	0.22	0.14	135,135,135,135	0
55	MG	DB	212	1/1	0.24	0.35	120,120,120,120	0
55	MG	BA	3420	1/1	0.26	0.19	114,114,114,114	0
55	MG	AA	1758	1/1	0.27	0.19	165,165,165,165	0
55	MG	BA	3446	1/1	0.28	0.35	121,121,121,121	0
55	MG	CA	1627	1/1	0.29	0.19	140,140,140,140	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	CA	1808	1/1	0.32	0.46	153,153,153,153	0
55	MG	BA	3488	1/1	0.32	0.32	137,137,137,137	0
55	MG	DA	3388	1/1	0.33	0.26	138,138,138,138	0
55	MG	DA	3411	1/1	0.33	0.27	144,144,144,144	0
55	MG	DA	3035	1/1	0.33	0.33	124,124,124,124	0
55	MG	CB	103	1/1	0.33	0.17	147,147,147,147	0
55	MG	DA	3229	1/1	0.34	0.29	118,118,118,118	0
55	MG	DA	3219	1/1	0.36	0.20	128,128,128,128	0
55	MG	CA	1796	1/1	0.36	0.21	146,146,146,146	0
55	MG	DA	3351	1/1	0.36	0.24	151,151,151,151	0
55	MG	CA	1675	1/1	0.36	0.42	111,111,111,111	0
55	MG	BA	3469	1/1	0.37	0.28	124,124,124,124	0
55	MG	AA	1810	1/1	0.37	0.40	148,148,148,148	0
55	MG	CA	1737	1/1	0.38	0.24	122,122,122,122	0
55	MG	CA	1630	1/1	0.38	0.20	149,149,149,149	0
55	MG	CA	1778	1/1	0.39	0.34	133,133,133,133	0
55	MG	DA	3405	1/1	0.40	0.23	135,135,135,135	0
55	MG	BA	3202	1/1	0.40	0.35	97,97,97,97	0
55	MG	CD	101	1/1	0.41	0.27	145,145,145,145	0
55	MG	CA	1776	1/1	0.42	0.44	118,118,118,118	0
55	MG	AA	1773	1/1	0.42	0.31	130,130,130,130	0
55	MG	CA	1672	1/1	0.43	0.21	119,119,119,119	0
55	MG	CA	1749	1/1	0.43	0.25	117,117,117,117	0
55	MG	CA	1761	1/1	0.43	0.15	143,143,143,143	0
55	MG	CA	1773	1/1	0.43	0.19	139,139,139,139	0
55	MG	AA	1613	1/1	0.45	0.15	116,116,116,116	0
55	MG	DA	3172	1/1	0.45	0.30	122,122,122,122	0
55	MG	DA	3188	1/1	0.45	0.31	113,113,113,113	0
55	MG	AC	107	1/1	0.45	0.21	124,124,124,124	0
55	MG	AA	1694	1/1	0.46	0.21	142,142,142,142	0
55	MG	AA	1730	1/1	0.46	0.12	113,113,113,113	0
55	MG	DA	3342	1/1	0.47	0.23	122,122,122,122	0
55	MG	CA	1768	1/1	0.48	0.26	138,138,138,138	0
55	MG	CA	1692	1/1	0.48	0.17	157,157,157,157	0
55	MG	DA	3407	1/1	0.48	0.28	103,103,103,103	0
55	MG	DB	220	1/1	0.48	0.15	121,121,121,121	0
55	MG	BA	3378	1/1	0.49	0.15	140,140,140,140	0
55	MG	AA	1757	1/1	0.49	0.43	101,101,101,101	0
55	MG	DD	303	1/1	0.49	0.21	69,69,69,69	0
55	MG	BB	208	1/1	0.50	0.27	117,117,117,117	0
55	MG	AA	1800	1/1	0.50	0.28	131,131,131,131	0
55	MG	DA	3221	1/1	0.50	0.14	154,154,154,154	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BB	211	1/1	0.51	0.21	109,109,109,109	0
55	MG	DA	3194	1/1	0.52	0.29	104,104,104,104	0
55	MG	BA	3245	1/1	0.52	0.26	107,107,107,107	0
55	MG	AA	1785	1/1	0.52	0.17	125,125,125,125	0
55	MG	DA	3177	1/1	0.52	0.13	129,129,129,129	0
55	MG	CA	1764	1/1	0.52	0.23	117,117,117,117	0
55	MG	DA	3321	1/1	0.53	0.24	112,112,112,112	0
55	MG	AD	102	1/1	0.53	0.21	125,125,125,125	0
55	MG	BA	3343	1/1	0.53	0.27	114,114,114,114	0
55	MG	AA	1819	1/1	0.54	0.20	126,126,126,126	0
55	MG	BA	3439	1/1	0.54	0.24	115,115,115,115	0
55	MG	DA	3414	1/1	0.54	0.28	111,111,111,111	0
55	MG	AA	1703	1/1	0.54	0.22	106,106,106,106	0
55	MG	DB	209	1/1	0.54	0.32	130,130,130,130	0
55	MG	DA	3366	1/1	0.54	0.54	105,105,105,105	0
55	MG	BD	301	1/1	0.54	0.34	80,80,80,80	0
55	MG	BA	3393	1/1	0.54	0.28	118,118,118,118	0
55	MG	DA	3372	1/1	0.55	0.21	125,125,125,125	0
55	MG	DB	215	1/1	0.55	0.37	129,129,129,129	0
55	MG	DA	3383	1/1	0.55	0.21	107,107,107,107	0
55	MG	AA	1772	1/1	0.55	0.29	131,131,131,131	0
55	MG	BA	3546	1/1	0.56	0.28	101,101,101,101	0
55	MG	AA	1626	1/1	0.56	0.30	91,91,91,91	0
55	MG	CA	1813	1/1	0.56	0.34	108,108,108,108	0
55	MG	CA	1819	1/1	0.56	0.39	134,134,134,134	0
55	MG	DA	3406	1/1	0.56	0.49	129,129,129,129	0
55	MG	CA	1806	1/1	0.56	0.41	103,103,103,103	0
55	MG	DA	3369	1/1	0.56	0.40	108,108,108,108	0
55	MG	DA	3409	1/1	0.57	0.38	124,124,124,124	0
55	MG	DA	3371	1/1	0.57	0.48	122,122,122,122	0
55	MG	BA	3411	1/1	0.57	0.33	102,102,102,102	0
55	MG	CA	1766	1/1	0.57	0.23	114,114,114,114	0
55	MG	DA	3439	1/1	0.57	0.42	107,107,107,107	0
55	MG	DA	3386	1/1	0.57	0.27	130,130,130,130	0
55	MG	BA	3318	1/1	0.57	0.22	102,102,102,102	0
55	MG	AA	1748	1/1	0.57	0.22	116,116,116,116	0
55	MG	BA	3189	1/1	0.57	0.14	108,108,108,108	0
55	MG	DA	3279	1/1	0.57	0.55	135,135,135,135	0
55	MG	CA	1771	1/1	0.58	0.22	117,117,117,117	0
55	MG	CA	1683	1/1	0.58	0.27	121,121,121,121	0
55	MG	BA	3210	1/1	0.58	0.23	99,99,99,99	0
55	MG	CA	1732	1/1	0.58	0.30	105,105,105,105	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	1682	1/1	0.58	0.18	93,93,93,93	0
55	MG	AA	1648	1/1	0.58	0.21	115,115,115,115	0
55	MG	CA	1788	1/1	0.58	0.25	132,132,132,132	0
55	MG	AA	1801	1/1	0.59	0.19	130,130,130,130	0
55	MG	CA	1736	1/1	0.59	0.14	143,143,143,143	0
55	MG	AG	302	1/1	0.59	0.28	109,109,109,109	0
55	MG	DA	3365	1/1	0.59	0.11	112,112,112,112	0
55	MG	BA	3122	1/1	0.59	0.27	106,106,106,106	0
55	MG	BA	3163	1/1	0.59	0.34	86,86,86,86	0
55	MG	AA	1781	1/1	0.59	0.29	87,87,87,87	0
55	MG	CA	1707	1/1	0.59	0.26	109,109,109,109	0
55	MG	AA	1722	1/1	-	-	62,62,62,62	1
55	MG	DA	3465	1/1	0.60	0.24	112,112,112,112	0
55	MG	BA	3563	1/1	0.60	0.28	100,100,100,100	0
55	MG	DA	3398	1/1	0.60	0.27	101,101,101,101	0
55	MG	DA	3040	1/1	0.60	0.21	118,118,118,118	0
55	MG	BA	3472	1/1	0.60	0.58	133,133,133,133	0
55	MG	DA	3238	1/1	0.60	0.29	105,105,105,105	0
55	MG	AA	1778	1/1	0.61	0.18	143,143,143,143	0
55	MG	DA	3359	1/1	0.61	0.25	111,111,111,111	0
55	MG	AA	1713	1/1	0.61	0.20	98,98,98,98	0
55	MG	DA	3227	1/1	0.61	0.21	118,118,118,118	0
55	MG	DB	218	1/1	0.61	0.19	107,107,107,107	0
55	MG	AA	1700	1/1	0.61	0.17	136,136,136,136	0
55	MG	DA	3445	1/1	0.61	0.34	118,118,118,118	0
55	MG	AA	1818	1/1	0.62	0.26	124,124,124,124	0
55	MG	AA	1782	1/1	0.62	0.26	118,118,118,118	0
55	MG	AA	1775	1/1	0.62	0.23	129,129,129,129	0
55	MG	B6	101	1/1	0.62	0.22	102,102,102,102	0
55	MG	BA	3271	1/1	0.62	0.36	92,92,92,92	0
55	MG	DB	217	1/1	0.62	0.36	97,97,97,97	0
55	MG	DA	3278	1/1	0.62	0.30	100,100,100,100	0
55	MG	BA	3568	1/1	0.62	0.26	106,106,106,106	0
55	MG	DA	3399	1/1	0.62	0.15	117,117,117,117	0
55	MG	BA	3514	1/1	0.63	0.26	113,113,113,113	0
55	MG	CA	1758	1/1	0.63	0.28	107,107,107,107	0
55	MG	DA	3478	1/1	0.63	0.17	89,89,89,89	0
55	MG	AA	1637	1/1	0.63	0.22	112,112,112,112	0
55	MG	DA	3350	1/1	0.63	0.32	120,120,120,120	0
55	MG	DA	3166	1/1	0.63	0.37	90,90,90,90	0
55	MG	CA	1790	1/1	0.63	0.17	142,142,142,142	0
55	MG	AA	1784	1/1	0.63	0.30	112,112,112,112	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3394	1/1	0.63	0.30	101,101,101,101	0
55	MG	BA	3270	1/1	0.63	0.45	96,96,96,96	0
55	MG	BA	3335	1/1	0.64	0.17	102,102,102,102	0
55	MG	BA	3069	1/1	0.64	0.14	93,93,93,93	0
55	MG	DA	3100	1/1	0.64	0.30	116,116,116,116	0
55	MG	DA	3423	1/1	0.64	0.17	118,118,118,118	0
55	MG	DA	3382	1/1	0.64	0.13	121,121,121,121	0
55	MG	CA	1809	1/1	0.64	0.28	93,93,93,93	0
55	MG	CA	1708	1/1	0.64	0.16	124,124,124,124	0
55	MG	DA	3323	1/1	0.64	0.24	104,104,104,104	0
55	MG	CA	1729	1/1	0.64	0.41	102,102,102,102	0
55	MG	DB	211	1/1	0.64	0.20	111,111,111,111	0
55	MG	AA	1696	1/1	0.64	0.26	112,112,112,112	0
55	MG	CB	102	1/1	0.64	0.34	102,102,102,102	0
55	MG	DA	3212	1/1	0.64	0.25	121,121,121,121	0
55	MG	BA	3443	1/1	0.64	0.14	125,125,125,125	0
55	MG	BA	3386	1/1	0.64	0.18	115,115,115,115	0
55	MG	CA	1740	1/1	0.64	0.23	122,122,122,122	0
55	MG	DA	3206	1/1	0.65	0.29	109,109,109,109	0
55	MG	AA	1788	1/1	0.65	0.23	98,98,98,98	0
55	MG	DA	3308	1/1	0.65	0.24	99,99,99,99	0
55	MG	BA	3513	1/1	0.65	0.23	92,92,92,92	0
55	MG	BA	3373	1/1	0.65	0.40	92,92,92,92	0
55	MG	CA	1610	1/1	0.65	0.16	118,118,118,118	0
55	MG	DA	3402	1/1	0.65	0.14	124,124,124,124	0
55	MG	DA	3039	1/1	0.65	0.21	101,101,101,101	0
55	MG	AA	1799	1/1	0.65	0.23	101,101,101,101	0
55	MG	CA	1629	1/1	0.66	0.22	115,115,115,115	0
55	MG	AB	104	1/1	0.66	0.22	97,97,97,97	0
55	MG	AC	102	1/1	0.66	0.37	106,106,106,106	0
55	MG	AA	1795	1/1	0.66	0.25	113,113,113,113	0
55	MG	AA	1687	1/1	0.66	0.19	108,108,108,108	0
55	MG	BA	3445	1/1	0.66	0.27	82,82,82,82	0
55	MG	BA	3414	1/1	0.66	0.28	100,100,100,100	0
55	MG	CA	1710	1/1	0.67	0.27	118,118,118,118	0
55	MG	DA	3448	1/1	0.67	0.24	129,129,129,129	0
55	MG	AA	1678	1/1	0.67	0.26	115,115,115,115	0
55	MG	CA	1673	1/1	0.67	0.26	136,136,136,136	0
55	MG	CA	1815	1/1	0.67	0.12	95,95,95,95	0
55	MG	AA	1736	1/1	0.67	0.32	108,108,108,108	0
55	MG	AA	1631	1/1	0.67	0.21	84,84,84,84	0
55	MG	BA	3449	1/1	0.67	0.29	100,100,100,100	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3239	1/1	0.67	0.43	92,92,92,92	0
55	MG	BA	3125	1/1	0.67	0.30	107,107,107,107	0
55	MG	DA	3426	1/1	0.67	0.38	103,103,103,103	0
55	MG	AA	1724	1/1	0.67	0.16	78,78,78,78	0
55	MG	BB	217	1/1	0.68	0.18	104,104,104,104	0
55	MG	CA	1687	1/1	0.68	0.14	99,99,99,99	0
55	MG	BA	3391	1/1	0.68	0.26	112,112,112,112	0
55	MG	AA	1621	1/1	0.68	0.26	102,102,102,102	0
55	MG	CA	1765	1/1	0.68	0.29	115,115,115,115	0
55	MG	AA	1815	1/1	0.68	0.34	114,114,114,114	0
55	MG	CA	1767	1/1	0.68	0.31	87,87,87,87	0
55	MG	BA	3324	1/1	0.68	0.33	105,105,105,105	0
55	MG	AA	1680	1/1	0.68	0.39	97,97,97,97	0
55	MG	AA	1780	1/1	0.68	0.39	103,103,103,103	0
55	MG	DA	3352	1/1	0.68	0.33	122,122,122,122	0
55	MG	CA	1653	1/1	0.68	0.16	97,97,97,97	0
55	MG	AA	1728	1/1	0.68	0.32	99,99,99,99	0
55	MG	BA	3082	1/1	0.68	0.09	100,100,100,100	0
55	MG	CC	109	1/1	0.68	0.30	114,114,114,114	0
55	MG	AA	1762	1/1	0.68	0.17	121,121,121,121	0
55	MG	AA	1777	1/1	0.69	0.41	115,115,115,115	0
55	MG	CC	103	1/1	0.69	0.20	114,114,114,114	0
55	MG	DA	3336	1/1	0.69	0.10	115,115,115,115	0
55	MG	AC	106	1/1	0.69	0.35	102,102,102,102	0
55	MG	DA	3393	1/1	0.69	0.14	116,116,116,116	0
55	MG	DA	3446	1/1	0.69	0.24	166,166,166,166	0
55	MG	BA	3252	1/1	0.69	0.17	107,107,107,107	0
55	MG	BA	3425	1/1	0.69	0.20	87,87,87,87	0
55	MG	DA	3467	1/1	0.69	0.15	103,103,103,103	0
55	MG	CA	1618	1/1	0.69	0.22	95,95,95,95	0
55	MG	DA	3480	1/1	0.69	0.27	109,109,109,109	0
55	MG	BA	3462	1/1	0.69	0.34	116,116,116,116	0
55	MG	DA	3404	1/1	0.69	0.21	119,119,119,119	0
55	MG	AA	1726	1/1	0.69	0.38	94,94,94,94	0
55	MG	BA	3432	1/1	0.69	0.12	106,106,106,106	0
55	MG	DA	3264	1/1	0.69	0.39	88,88,88,88	0
55	MG	CB	101	1/1	0.69	0.17	106,106,106,106	0
55	MG	BA	3348	1/1	0.69	0.16	96,96,96,96	0
55	MG	AA	1756	1/1	0.69	0.24	85,85,85,85	0
55	MG	DA	3309	1/1	0.70	0.34	116,116,116,116	0
55	MG	AA	1751	1/1	0.70	0.45	105,105,105,105	0
55	MG	AA	1625	1/1	0.70	0.27	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	CA	1803	1/1	0.70	0.19	103,103,103,103	0
55	MG	BE	303	1/1	0.70	0.27	105,105,105,105	0
55	MG	BA	3331	1/1	0.70	0.25	106,106,106,106	0
55	MG	AA	1690	1/1	0.70	0.13	98,98,98,98	0
55	MG	A1	101	1/1	0.70	0.30	102,102,102,102	0
55	MG	DA	3356	1/1	0.70	0.27	76,76,76,76	0
55	MG	BA	3053	1/1	0.70	0.15	106,106,106,106	0
55	MG	DB	210	1/1	0.70	0.17	128,128,128,128	0
55	MG	CA	1814	1/1	0.70	0.28	83,83,83,83	0
55	MG	BB	207	1/1	0.70	0.23	109,109,109,109	0
55	MG	DA	3263	1/1	0.70	0.22	96,96,96,96	0
55	MG	DB	216	1/1	0.70	0.25	100,100,100,100	0
55	MG	DA	3125	1/1	0.70	0.51	74,74,74,74	0
55	MG	CA	1817	1/1	0.70	0.19	106,106,106,106	0
55	MG	BA	3358	1/1	0.70	0.27	98,98,98,98	0
55	MG	BA	3066	1/1	0.70	0.17	99,99,99,99	0
55	MG	DO	201	1/1	0.70	0.28	98,98,98,98	0
55	MG	CA	1677	1/1	0.71	0.26	107,107,107,107	0
55	MG	DA	3307	1/1	0.71	0.28	99,99,99,99	0
55	MG	DA	3451	1/1	0.71	0.31	92,92,92,92	0
55	MG	AA	1643	1/1	0.71	0.53	127,127,127,127	0
55	MG	BA	3437	1/1	0.71	0.28	97,97,97,97	0
55	MG	AA	1779	1/1	0.71	0.12	119,119,119,119	0
55	MG	CA	1777	1/1	0.71	0.22	112,112,112,112	0
55	MG	AA	1688	1/1	0.71	0.20	93,93,93,93	0
55	MG	DA	3225	1/1	0.71	0.40	102,102,102,102	0
55	MG	DA	3192	1/1	0.72	0.21	90,90,90,90	0
55	MG	DA	3087	1/1	0.72	0.33	85,85,85,85	0
55	MG	CA	1786	1/1	0.72	0.24	111,111,111,111	0
55	MG	CA	1733	1/1	0.72	0.41	103,103,103,103	0
55	MG	DA	3400	1/1	0.72	0.23	115,115,115,115	0
55	MG	DA	3134	1/1	0.72	0.20	93,93,93,93	0
55	MG	BA	3510	1/1	0.72	0.34	108,108,108,108	0
55	MG	BA	3290	1/1	0.72	0.23	75,75,75,75	0
55	MG	DA	3353	1/1	0.72	0.29	102,102,102,102	0
55	MG	BA	3487	1/1	0.72	0.29	100,100,100,100	0
55	MG	BA	3242	1/1	0.72	0.09	116,116,116,116	0
55	MG	DA	3392	1/1	0.72	0.22	126,126,126,126	0
55	MG	DA	3486	1/1	0.73	0.24	101,101,101,101	0
55	MG	DB	204	1/1	0.73	0.27	94,94,94,94	0
55	MG	DA	3284	1/1	0.73	0.16	90,90,90,90	0
55	MG	DA	3299	1/1	0.73	0.22	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3403	1/1	0.73	0.57	107,107,107,107	0
55	MG	CA	1688	1/1	0.73	0.33	95,95,95,95	0
55	MG	DA	3024	1/1	0.73	0.34	104,104,104,104	0
55	MG	BA	3380	1/1	0.73	0.26	98,98,98,98	0
55	MG	DA	3258	1/1	0.73	0.20	87,87,87,87	0
55	MG	CA	1804	1/1	0.73	0.25	108,108,108,108	0
55	MG	AA	1767	1/1	0.73	0.25	116,116,116,116	0
55	MG	B2	201	1/1	0.73	0.34	91,91,91,91	0
55	MG	BA	3396	1/1	0.73	0.32	87,87,87,87	0
55	MG	DA	3121	1/1	0.74	0.12	104,104,104,104	0
55	MG	CA	1702	1/1	0.74	0.19	106,106,106,106	0
55	MG	DA	3444	1/1	0.74	0.27	109,109,109,109	0
55	MG	AR	101	1/1	0.74	0.15	114,114,114,114	0
55	MG	DA	3287	1/1	0.74	0.13	120,120,120,120	0
55	MG	AB	101	1/1	0.74	0.12	92,92,92,92	0
55	MG	BA	3544	1/1	0.74	0.31	82,82,82,82	0
55	MG	BA	3448	1/1	0.74	0.24	104,104,104,104	0
55	MG	CA	1731	1/1	0.74	0.37	97,97,97,97	0
55	MG	CK	201	1/1	0.74	0.14	124,124,124,124	0
55	MG	BA	3338	1/1	0.74	0.32	91,91,91,91	0
55	MG	AA	1727	1/1	0.74	0.19	95,95,95,95	0
55	MG	AA	1741	1/1	0.74	0.19	98,98,98,98	0
55	MG	DA	3346	1/1	0.74	0.26	102,102,102,102	0
55	MG	AA	1704	1/1	0.74	0.20	110,110,110,110	0
55	MG	BA	3121	1/1	0.74	0.31	72,72,72,72	0
55	MG	CA	1742	1/1	0.74	0.20	108,108,108,108	0
55	MG	BB	210	1/1	0.74	0.19	81,81,81,81	0
55	MG	AA	1633	1/1	0.74	0.52	102,102,102,102	0
55	MG	AA	1804	1/1	0.74	0.48	113,113,113,113	0
55	MG	AA	1735	1/1	0.74	0.12	102,102,102,102	0
55	MG	CA	1763	1/1	0.74	0.23	100,100,100,100	0
55	MG	BA	3178	1/1	0.74	0.17	96,96,96,96	0
55	MG	BA	3181	1/1	0.74	0.28	69,69,69,69	0
55	MG	DA	3243	1/1	0.75	0.41	97,97,97,97	0
55	MG	DA	3246	1/1	0.75	0.33	89,89,89,89	0
55	MG	AA	1636	1/1	0.75	0.35	95,95,95,95	0
55	MG	BA	3195	1/1	0.75	0.17	97,97,97,97	0
55	MG	CA	1792	1/1	0.75	0.16	104,104,104,104	0
55	MG	BA	3257	1/1	0.75	0.28	87,87,87,87	0
55	MG	BA	3424	1/1	0.75	0.42	84,84,84,84	0
55	MG	BA	3334	1/1	0.75	0.29	67,67,67,67	0
55	MG	BA	3262	1/1	0.75	0.27	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	3037	1/1	0.75	0.35	105,105,105,105	0
55	MG	CA	1738	1/1	0.75	0.24	113,113,113,113	0
55	MG	CA	1810	1/1	0.75	0.22	101,101,101,101	0
55	MG	AA	1796	1/1	0.75	0.30	102,102,102,102	0
55	MG	CA	1616	1/1	0.75	0.26	87,87,87,87	0
55	MG	DA	3322	1/1	0.75	0.39	99,99,99,99	0
55	MG	BA	3438	1/1	0.75	0.33	84,84,84,84	0
55	MG	CA	1621	1/1	0.75	0.29	97,97,97,97	0
55	MG	BA	3289	1/1	0.75	0.27	95,95,95,95	0
55	MG	AA	1749	1/1	0.75	0.37	110,110,110,110	0
55	MG	AA	1695	1/1	0.76	0.19	128,128,128,128	0
55	MG	DA	3319	1/1	0.76	0.17	95,95,95,95	0
55	MG	AB	103	1/1	0.76	0.19	104,104,104,104	0
55	MG	DA	3468	1/1	0.76	0.28	101,101,101,101	0
55	MG	BA	3301	1/1	0.76	0.16	84,84,84,84	0
55	MG	CA	1684	1/1	0.76	0.41	101,101,101,101	0
55	MG	DA	3330	1/1	0.76	0.20	100,100,100,100	0
55	MG	DA	3334	1/1	0.76	0.27	87,87,87,87	0
55	MG	CA	1743	1/1	0.76	0.29	106,106,106,106	0
55	MG	BA	3098	1/1	0.76	0.29	88,88,88,88	0
55	MG	AA	1797	1/1	0.76	0.18	79,79,79,79	0
55	MG	CA	1791	1/1	0.76	0.28	80,80,80,80	0
55	MG	CC	105	1/1	0.76	0.18	94,94,94,94	0
55	MG	DA	3296	1/1	0.76	0.16	93,93,93,93	0
55	MG	DA	3443	1/1	0.76	0.25	94,94,94,94	0
55	MG	DA	3397	1/1	0.76	0.20	105,105,105,105	0
55	MG	CC	107	1/1	0.76	0.19	123,123,123,123	0
55	MG	BA	3400	1/1	0.76	0.24	108,108,108,108	0
55	MG	BA	3556	1/1	0.76	0.30	98,98,98,98	0
55	MG	D1	201	1/1	0.76	0.12	89,89,89,89	0
55	MG	AA	1638	1/1	0.77	0.27	105,105,105,105	0
55	MG	BA	3234	1/1	0.77	0.34	107,107,107,107	0
55	MG	AA	1723	1/1	0.77	0.17	93,93,93,93	0
55	MG	CR	101	1/1	0.77	0.11	135,135,135,135	0
55	MG	DA	3370	1/1	0.77	0.47	81,81,81,81	0
55	MG	DA	3187	1/1	0.77	0.28	101,101,101,101	0
55	MG	BA	3079	1/1	0.77	0.20	103,103,103,103	0
55	MG	DA	3189	1/1	0.77	0.14	86,86,86,86	0
55	MG	BA	3404	1/1	0.77	0.36	100,100,100,100	0
55	MG	DA	3460	1/1	0.77	0.31	116,116,116,116	0
55	MG	DA	3462	1/1	0.77	0.21	98,98,98,98	0
55	MG	AD	103	1/1	0.77	0.15	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3311	1/1	0.77	0.36	109,109,109,109	0
55	MG	BA	3410	1/1	0.77	0.28	84,84,84,84	0
55	MG	DA	3477	1/1	0.77	0.34	88,88,88,88	0
55	MG	AA	1624	1/1	0.77	0.24	94,94,94,94	0
55	MG	DA	3479	1/1	0.77	0.18	97,97,97,97	0
55	MG	DA	3217	1/1	0.77	0.14	125,125,125,125	0
55	MG	DA	3484	1/1	0.77	0.25	84,84,84,84	0
55	MG	CA	1762	1/1	0.77	0.10	108,108,108,108	0
55	MG	DA	3327	1/1	0.77	0.12	93,93,93,93	0
55	MG	CA	1797	1/1	0.77	0.30	85,85,85,85	0
55	MG	BA	3540	1/1	0.77	0.40	83,83,83,83	0
55	MG	BA	3259	1/1	0.77	0.07	109,109,109,109	0
55	MG	BA	3382	1/1	0.77	0.48	93,93,93,93	0
55	MG	BA	3421	1/1	0.77	0.12	97,97,97,97	0
55	MG	BA	3461	1/1	0.77	0.26	98,98,98,98	0
55	MG	AA	1629	1/1	0.77	0.17	95,95,95,95	0
55	MG	BA	3464	1/1	0.77	0.18	91,91,91,91	0
55	MG	BB	201	1/1	0.77	0.25	97,97,97,97	0
55	MG	CA	1661	1/1	0.77	0.25	92,92,92,92	0
55	MG	AA	1803	1/1	0.77	0.28	89,89,89,89	0
55	MG	DA	3360	1/1	0.77	0.19	97,97,97,97	0
55	MG	AA	1706	1/1	0.78	0.17	91,91,91,91	0
55	MG	DA	3251	1/1	0.78	0.35	79,79,79,79	0
55	MG	BA	3191	1/1	0.78	0.13	89,89,89,89	0
55	MG	DA	3358	1/1	0.78	0.45	90,90,90,90	0
55	MG	AA	1711	1/1	0.78	0.18	97,97,97,97	0
55	MG	CA	1625	1/1	0.78	0.20	104,104,104,104	0
55	MG	DA	3273	1/1	0.78	0.15	77,77,77,77	0
55	MG	CA	1711	1/1	0.78	0.35	101,101,101,101	0
55	MG	CA	1719	1/1	0.78	0.31	91,91,91,91	0
55	MG	BA	3565	1/1	0.78	0.33	105,105,105,105	0
55	MG	BA	3065	1/1	0.78	0.27	82,82,82,82	0
55	MG	DA	3288	1/1	0.78	0.14	101,101,101,101	0
55	MG	DA	3290	1/1	0.78	0.33	99,99,99,99	0
55	MG	DA	3374	1/1	0.78	0.15	92,92,92,92	0
55	MG	BA	3276	1/1	0.78	0.10	92,92,92,92	0
55	MG	CA	1648	1/1	0.78	0.32	113,113,113,113	0
55	MG	BA	3483	1/1	0.78	0.16	120,120,120,120	0
55	MG	AA	1743	1/1	0.78	0.14	107,107,107,107	0
55	MG	DA	3390	1/1	0.78	0.23	92,92,92,92	0
55	MG	BA	3224	1/1	0.78	0.29	78,78,78,78	0
55	MG	BA	3495	1/1	0.78	0.37	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	3126	1/1	0.78	0.49	95,95,95,95	0
55	MG	DA	3209	1/1	0.78	0.36	96,96,96,96	0
55	MG	BA	3128	1/1	0.78	0.27	71,71,71,71	0
55	MG	AA	1747	1/1	0.78	0.21	98,98,98,98	0
55	MG	AA	1725	1/1	0.78	0.26	100,100,100,100	0
55	MG	CC	108	1/1	0.78	0.20	95,95,95,95	0
55	MG	CA	1685	1/1	0.78	0.33	91,91,91,91	0
55	MG	B3	102	1/1	0.78	0.19	107,107,107,107	0
55	MG	AA	1649	1/1	0.78	0.24	95,95,95,95	0
55	MG	DA	3344	1/1	0.78	0.17	89,89,89,89	0
55	MG	DA	3029	1/1	0.78	0.30	82,82,82,82	0
55	MG	BA	3427	1/1	0.78	0.35	97,97,97,97	0
55	MG	CA	1807	1/1	0.78	0.27	95,95,95,95	0
55	MG	DA	3412	1/1	0.78	0.35	92,92,92,92	0
55	MG	D5	102	1/1	0.78	0.16	104,104,104,104	0
55	MG	BA	3285	1/1	0.79	0.23	102,102,102,102	0
55	MG	DA	3420	1/1	0.79	0.17	108,108,108,108	0
55	MG	BA	3355	1/1	0.79	0.31	95,95,95,95	0
55	MG	BA	3452	1/1	0.79	0.24	103,103,103,103	0
55	MG	DA	3270	1/1	0.79	0.49	76,76,76,76	0
55	MG	BA	3547	1/1	0.79	0.35	77,77,77,77	0
55	MG	DA	3133	1/1	0.79	0.29	91,91,91,91	0
55	MG	BA	3453	1/1	0.79	0.20	75,75,75,75	0
55	MG	DA	3281	1/1	0.79	0.32	90,90,90,90	0
55	MG	DA	3148	1/1	0.79	0.14	111,111,111,111	0
55	MG	AA	1615	1/1	0.79	0.24	90,90,90,90	0
55	MG	CA	1716	1/1	0.79	0.40	103,103,103,103	0
55	MG	BA	3369	1/1	0.79	0.20	92,92,92,92	0
55	MG	CA	1722	1/1	0.79	0.32	106,106,106,106	0
55	MG	AA	1733	1/1	0.79	0.20	101,101,101,101	0
55	MG	CA	1645	1/1	0.79	0.33	84,84,84,84	0
55	MG	BA	3198	1/1	0.79	0.24	74,74,74,74	0
55	MG	BA	3305	1/1	0.79	0.36	94,94,94,94	0
55	MG	DA	3310	1/1	0.79	0.54	105,105,105,105	0
55	MG	DA	3205	1/1	0.79	0.29	110,110,110,110	0
55	MG	DA	3482	1/1	0.79	0.33	83,83,83,83	0
55	MG	DA	3318	1/1	0.79	0.28	77,77,77,77	0
55	MG	BA	3426	1/1	0.79	0.30	86,86,86,86	0
55	MG	DA	3320	1/1	0.79	0.48	87,87,87,87	0
55	MG	BA	3314	1/1	0.79	0.28	83,83,83,83	0
55	MG	AA	1786	1/1	0.79	0.12	89,89,89,89	0
55	MG	AA	1689	1/1	0.79	0.23	107,107,107,107	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	3043	1/1	0.79	0.26	78,78,78,78	0
55	MG	CA	1681	1/1	0.79	0.33	89,89,89,89	0
55	MG	BA	3333	1/1	0.79	0.31	80,80,80,80	0
55	MG	AA	1630	1/1	0.79	0.29	112,112,112,112	0
55	MG	BA	3274	1/1	0.79	0.33	108,108,108,108	0
55	MG	CA	1759	1/1	0.79	0.25	99,99,99,99	0
55	MG	AA	1814	1/1	0.79	0.13	107,107,107,107	0
55	MG	BA	3278	1/1	0.79	0.14	92,92,92,92	0
55	MG	DA	3050	1/1	0.79	0.22	90,90,90,90	0
55	MG	DA	3054	1/1	0.79	0.09	108,108,108,108	0
55	MG	CA	1617	1/1	0.80	0.40	83,83,83,83	0
55	MG	AA	1787	1/1	0.80	0.25	101,101,101,101	0
55	MG	DA	3442	1/1	0.80	0.30	98,98,98,98	0
55	MG	BA	3482	1/1	0.80	0.22	82,82,82,82	0
55	MG	CA	1746	1/1	0.80	0.17	87,87,87,87	0
55	MG	CA	1747	1/1	0.80	0.34	109,109,109,109	0
55	MG	CA	1624	1/1	0.80	0.20	93,93,93,93	0
55	MG	AA	1729	1/1	0.80	0.25	84,84,84,84	0
55	MG	BA	3374	1/1	0.80	0.25	93,93,93,93	0
55	MG	BA	3033	1/1	0.80	0.31	77,77,77,77	0
55	MG	DA	3213	1/1	0.80	0.20	103,103,103,103	0
55	MG	DA	3384	1/1	0.80	0.33	97,97,97,97	0
55	MG	AG	301	1/1	0.80	0.24	98,98,98,98	0
55	MG	DA	3034	1/1	0.80	0.30	76,76,76,76	0
55	MG	DA	3473	1/1	0.80	0.19	56,56,56,56	0
55	MG	AC	105	1/1	0.80	0.38	102,102,102,102	0
55	MG	DA	3036	1/1	0.80	0.24	100,100,100,100	0
55	MG	BA	3045	1/1	0.80	0.48	105,105,105,105	0
55	MG	AA	1644	1/1	0.80	0.45	94,94,94,94	0
55	MG	BA	3064	1/1	0.80	0.29	87,87,87,87	0
55	MG	CA	1667	1/1	0.80	0.16	98,98,98,98	0
55	MG	DA	3333	1/1	0.80	0.13	95,95,95,95	0
55	MG	DA	3242	1/1	0.80	0.14	81,81,81,81	0
55	MG	DB	208	1/1	0.80	0.09	99,99,99,99	0
55	MG	CA	1671	1/1	0.80	0.23	100,100,100,100	0
55	MG	DA	3339	1/1	0.80	0.43	104,104,104,104	0
55	MG	BA	3543	1/1	0.80	0.18	101,101,101,101	0
55	MG	DA	3114	1/1	0.80	0.40	91,91,91,91	0
55	MG	AA	1746	1/1	0.80	0.36	93,93,93,93	0
55	MG	CA	1816	1/1	0.80	0.28	102,102,102,102	0
55	MG	AA	1732	1/1	0.80	0.29	95,95,95,95	0
55	MG	CA	1676	1/1	0.80	0.35	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	3250	1/1	0.80	0.24	90,90,90,90	0
55	MG	DA	3163	1/1	0.80	0.36	75,75,75,75	0
55	MG	CA	1780	1/1	0.80	0.24	88,88,88,88	0
55	MG	BA	3295	1/1	0.80	0.21	92,92,92,92	0
55	MG	AB	102	1/1	0.80	0.35	96,96,96,96	0
55	MG	CA	1696	1/1	0.81	0.17	104,104,104,104	0
55	MG	DA	3314	1/1	0.81	0.27	95,95,95,95	0
55	MG	BA	3422	1/1	0.81	0.22	110,110,110,110	0
55	MG	CA	1704	1/1	0.81	0.33	88,88,88,88	0
55	MG	DA	3458	1/1	0.81	0.42	75,75,75,75	0
55	MG	BA	3350	1/1	0.81	0.39	92,92,92,92	0
55	MG	BA	3074	1/1	0.81	0.17	91,91,91,91	0
55	MG	CA	1640	1/1	0.81	0.48	89,89,89,89	0
55	MG	DA	3079	1/1	0.81	0.17	103,103,103,103	0
55	MG	DA	3082	1/1	0.81	0.32	91,91,91,91	0
55	MG	BA	3489	1/1	0.81	0.30	95,95,95,95	0
55	MG	DA	3474	1/1	0.81	0.29	60,60,60,60	0
55	MG	BA	3061	1/1	0.81	0.34	73,73,73,73	0
55	MG	BA	3081	1/1	0.81	0.10	91,91,91,91	0
55	MG	BA	3428	1/1	0.81	0.27	91,91,91,91	0
55	MG	BB	218	1/1	0.81	0.22	98,98,98,98	0
55	MG	CA	1669	1/1	0.81	0.36	85,85,85,85	0
55	MG	AA	1737	1/1	0.81	0.20	81,81,81,81	0
55	MG	AA	1816	1/1	0.81	0.25	95,95,95,95	0
55	MG	BO	202	1/1	0.81	0.26	98,98,98,98	0
55	MG	DB	207	1/1	0.81	0.27	69,69,69,69	0
55	MG	BA	3218	1/1	0.81	0.24	64,64,64,64	0
55	MG	CA	1784	1/1	0.81	0.13	92,92,92,92	0
55	MG	DA	3176	1/1	0.81	0.07	105,105,105,105	0
55	MG	BA	3467	1/1	0.81	0.22	69,69,69,69	0
55	MG	AA	1709	1/1	0.81	0.21	56,56,56,56	0
55	MG	BA	3299	1/1	0.81	0.27	66,66,66,66	0
55	MG	BA	3473	1/1	0.81	0.24	92,92,92,92	0
55	MG	BA	3440	1/1	0.81	0.51	96,96,96,96	0
55	MG	BA	3562	1/1	0.81	0.13	91,91,91,91	0
55	MG	DB	219	1/1	0.81	0.17	94,94,94,94	0
55	MG	DA	3199	1/1	0.81	0.16	85,85,85,85	0
55	MG	BA	3225	1/1	0.81	0.27	68,68,68,68	0
55	MG	AA	1808	1/1	0.81	0.31	88,88,88,88	0
55	MG	CA	1755	1/1	0.81	0.46	104,104,104,104	0
55	MG	BA	3567	1/1	0.81	0.26	99,99,99,99	0
55	MG	BA	3371	1/1	0.82	0.33	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3185	1/1	0.82	0.15	78,78,78,78	0
55	MG	BA	3291	1/1	-	-	56,56,56,56	1
55	MG	BA	3564	1/1	0.82	0.22	112,112,112,112	0
55	MG	BA	3481	1/1	0.82	0.23	97,97,97,97	0
55	MG	BA	3095	1/1	0.82	0.25	79,79,79,79	0
55	MG	DA	3298	1/1	0.82	0.28	80,80,80,80	0
55	MG	BA	3041	1/1	0.82	0.26	80,80,80,80	0
55	MG	DA	3304	1/1	0.82	0.21	77,77,77,77	0
55	MG	DA	3373	1/1	0.82	0.41	88,88,88,88	0
55	MG	DA	3021	1/1	0.82	0.31	77,77,77,77	0
55	MG	BA	3183	1/1	0.82	0.28	84,84,84,84	0
55	MG	CA	1751	1/1	0.82	0.25	90,90,90,90	0
55	MG	CA	1753	1/1	0.82	0.15	103,103,103,103	0
55	MG	AS	101	1/1	0.82	0.34	96,96,96,96	0
55	MG	DA	3387	1/1	0.82	0.21	102,102,102,102	0
55	MG	AA	1609	1/1	0.82	0.36	88,88,88,88	0
55	MG	BA	3249	1/1	0.82	0.17	82,82,82,82	0
55	MG	BA	3503	1/1	0.82	0.33	111,111,111,111	0
55	MG	BA	3455	1/1	0.82	0.15	89,89,89,89	0
55	MG	BA	3390	1/1	0.82	0.28	98,98,98,98	0
55	MG	CA	1713	1/1	0.82	0.22	82,82,82,82	0
55	MG	BA	3458	1/1	0.82	0.24	91,91,91,91	0
55	MG	BA	3312	1/1	-	-	62,62,62,62	1
55	MG	AA	1699	1/1	0.82	0.19	99,99,99,99	0
55	MG	AA	1655	1/1	0.82	0.32	78,78,78,78	0
55	MG	CA	1726	1/1	0.82	0.22	73,73,73,73	0
55	MG	BA	3253	1/1	0.82	0.45	92,92,92,92	0
55	MG	DA	3335	1/1	0.82	0.18	80,80,80,80	0
55	MG	BA	3062	1/1	0.82	0.19	79,79,79,79	0
55	MG	AA	1670	1/1	0.82	0.29	75,75,75,75	0
55	MG	BA	3357	1/1	0.82	0.27	78,78,78,78	0
55	MG	DA	3252	1/1	0.82	0.21	99,99,99,99	0
55	MG	CA	1735	1/1	0.82	0.22	119,119,119,119	0
55	MG	DA	3159	1/1	0.82	0.39	68,68,68,68	0
55	MG	CA	1615	1/1	0.82	0.27	106,106,106,106	0
55	MG	DA	3165	1/1	0.82	0.43	73,73,73,73	0
55	MG	CA	1680	1/1	0.82	0.22	99,99,99,99	0
55	MG	DA	3168	1/1	0.82	0.35	87,87,87,87	0
55	MG	BA	3176	1/1	0.82	0.21	78,78,78,78	0
55	MG	BA	3267	1/1	0.82	0.29	62,62,62,62	0
55	MG	BA	3256	1/1	0.83	0.25	80,80,80,80	0
55	MG	DA	3248	1/1	0.83	0.24	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3464	1/1	0.83	0.37	90,90,90,90	0
55	MG	DA	3102	1/1	0.83	0.24	72,72,72,72	0
55	MG	CA	1650	1/1	0.83	0.22	78,78,78,78	0
55	MG	BA	3351	1/1	0.83	0.22	88,88,88,88	0
55	MG	CA	1656	1/1	0.83	0.33	72,72,72,72	0
55	MG	BA	3511	1/1	0.83	0.15	83,83,83,83	0
55	MG	DA	3476	1/1	0.83	0.22	104,104,104,104	0
55	MG	CA	1769	1/1	0.83	0.28	67,67,67,67	0
55	MG	DA	3208	1/1	0.83	0.37	91,91,91,91	0
55	MG	DA	3030	1/1	0.83	0.23	85,85,85,85	0
55	MG	BA	3444	1/1	0.83	0.10	87,87,87,87	0
55	MG	BA	3293	1/1	0.83	0.26	96,96,96,96	0
55	MG	BA	3316	1/1	0.83	0.36	87,87,87,87	0
55	MG	DA	3485	1/1	0.83	0.33	84,84,84,84	0
55	MG	AA	1635	1/1	0.83	0.18	81,81,81,81	0
55	MG	DA	3488	1/1	0.83	0.19	100,100,100,100	0
55	MG	DA	3376	1/1	0.83	0.16	107,107,107,107	0
55	MG	DB	206	1/1	0.83	0.30	89,89,89,89	0
55	MG	DA	3167	1/1	0.83	0.15	95,95,95,95	0
55	MG	BA	3403	1/1	0.83	0.25	71,71,71,71	0
55	MG	DA	3424	1/1	0.83	0.24	83,83,83,83	0
55	MG	AA	1666	1/1	0.83	0.23	103,103,103,103	0
55	MG	DA	3434	1/1	0.83	0.26	73,73,73,73	0
55	MG	DA	3173	1/1	0.83	0.32	90,90,90,90	0
55	MG	DA	3441	1/1	0.83	0.10	89,89,89,89	0
55	MG	DA	3343	1/1	0.83	0.39	91,91,91,91	0
55	MG	BA	3471	1/1	0.83	0.26	126,126,126,126	0
55	MG	DA	3389	1/1	0.83	0.31	97,97,97,97	0
55	MG	CA	1644	1/1	0.83	0.14	101,101,101,101	0
55	MG	DA	3391	1/1	0.83	0.31	102,102,102,102	0
55	MG	DA	3306	1/1	0.83	0.37	96,96,96,96	0
55	MG	CC	106	1/1	0.83	0.43	94,94,94,94	0
55	MG	DA	3453	1/1	0.83	0.38	65,65,65,65	0
55	MG	D3	101	1/1	0.83	0.19	91,91,91,91	0
55	MG	AA	1611	1/1	0.83	0.26	94,94,94,94	0
55	MG	BA	3306	1/1	0.84	0.28	84,84,84,84	0
55	MG	BA	3200	1/1	0.84	0.24	81,81,81,81	0
55	MG	AA	1820	1/1	0.84	0.19	82,82,82,82	0
55	MG	CA	1705	1/1	0.84	0.22	101,101,101,101	0
55	MG	DA	3216	1/1	0.84	0.23	90,90,90,90	0
55	MG	BA	3265	1/1	0.84	0.14	89,89,89,89	0
55	MG	BA	3320	1/1	0.84	0.31	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3338	1/1	0.84	0.28	69,69,69,69	0
55	MG	CA	1709	1/1	0.84	0.15	110,110,110,110	0
55	MG	DA	3340	1/1	0.84	0.25	75,75,75,75	0
55	MG	AA	1614	1/1	0.84	0.29	92,92,92,92	0
55	MG	BA	3329	1/1	0.84	0.47	67,67,67,67	0
55	MG	CA	1782	1/1	0.84	0.15	113,113,113,113	0
55	MG	BA	3451	1/1	0.84	0.40	101,101,101,101	0
55	MG	AA	1753	1/1	0.84	0.09	97,97,97,97	0
55	MG	BA	3223	1/1	0.84	0.47	56,56,56,56	0
55	MG	AA	1738	1/1	0.84	0.20	91,91,91,91	0
55	MG	DA	3245	1/1	0.84	0.25	91,91,91,91	0
55	MG	DA	3354	1/1	0.84	0.23	83,83,83,83	0
55	MG	BA	3138	1/1	0.84	0.35	86,86,86,86	0
55	MG	DA	3076	1/1	0.84	0.14	107,107,107,107	0
55	MG	AA	1616	1/1	0.84	0.15	110,110,110,110	0
55	MG	BA	3279	1/1	0.84	0.29	75,75,75,75	0
55	MG	BA	3344	1/1	0.84	0.27	84,84,84,84	0
55	MG	DA	3466	1/1	0.84	0.26	81,81,81,81	0
55	MG	DA	3261	1/1	0.84	0.14	78,78,78,78	0
55	MG	CA	1652	1/1	0.84	0.21	94,94,94,94	0
55	MG	DA	3469	1/1	0.84	0.32	109,109,109,109	0
55	MG	CA	1799	1/1	0.84	0.18	81,81,81,81	0
55	MG	AA	1794	1/1	0.84	0.33	112,112,112,112	0
55	MG	CA	1655	1/1	0.84	0.16	85,85,85,85	0
55	MG	CA	1805	1/1	0.84	0.30	102,102,102,102	0
55	MG	BA	3566	1/1	0.84	0.27	83,83,83,83	0
55	MG	CA	1658	1/1	0.84	0.39	90,90,90,90	0
55	MG	BA	3466	1/1	0.84	0.44	92,92,92,92	0
55	MG	DA	3379	1/1	0.84	0.35	87,87,87,87	0
55	MG	BA	3416	1/1	0.84	0.24	98,98,98,98	0
55	MG	BA	3349	1/1	0.84	0.26	80,80,80,80	0
55	MG	BA	3470	1/1	0.84	0.30	83,83,83,83	0
55	MG	DA	3293	1/1	0.84	0.41	89,89,89,89	0
55	MG	DA	3294	1/1	0.84	0.38	91,91,91,91	0
55	MG	BA	3288	1/1	0.84	0.26	75,75,75,75	0
55	MG	BA	3078	1/1	0.84	0.31	101,101,101,101	0
55	MG	AA	1715	1/1	0.84	0.32	101,101,101,101	0
55	MG	DA	3301	1/1	0.84	0.34	90,90,90,90	0
55	MG	AA	1720	1/1	0.84	0.44	83,83,83,83	0
55	MG	AA	1617	1/1	0.84	0.29	76,76,76,76	0
55	MG	CA	1678	1/1	0.84	0.46	83,83,83,83	0
55	MG	BA	3366	1/1	0.84	0.22	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	1673	1/1	0.84	0.27	75,75,75,75	0
55	MG	BA	3300	1/1	0.84	0.38	80,80,80,80	0
55	MG	AA	1708	1/1	0.84	0.12	77,77,77,77	0
55	MG	BA	3304	1/1	0.84	0.24	80,80,80,80	0
55	MG	DA	3316	1/1	0.84	0.23	102,102,102,102	0
55	MG	BA	3375	1/1	0.84	0.16	87,87,87,87	0
55	MG	AA	1639	1/1	0.84	0.28	84,84,84,84	0
55	MG	CC	104	1/1	0.84	0.24	98,98,98,98	0
55	MG	CA	1691	1/1	0.84	0.21	90,90,90,90	0
55	MG	CA	1614	1/1	0.84	0.32	79,79,79,79	0
55	MG	BA	3557	1/1	0.85	0.17	94,94,94,94	0
55	MG	DA	3052	1/1	0.85	0.18	78,78,78,78	0
55	MG	AA	1705	1/1	0.85	0.23	81,81,81,81	0
55	MG	BA	3387	1/1	0.85	0.12	88,88,88,88	0
55	MG	BA	3184	1/1	0.85	0.35	46,46,46,46	0
55	MG	BA	3238	1/1	0.85	0.24	75,75,75,75	0
55	MG	DA	3084	1/1	0.85	0.31	57,57,57,57	0
55	MG	BA	3436	1/1	0.85	0.11	107,107,107,107	0
55	MG	AA	1640	1/1	0.85	0.27	71,71,71,71	0
55	MG	BA	3395	1/1	0.85	0.23	90,90,90,90	0
55	MG	CA	1651	1/1	0.85	0.43	77,77,77,77	0
55	MG	BA	3051	1/1	0.85	0.15	103,103,103,103	0
55	MG	CG	301	1/1	0.85	0.45	107,107,107,107	0
55	MG	DA	3126	1/1	0.85	0.22	63,63,63,63	0
55	MG	DA	3324	1/1	0.85	0.26	91,91,91,91	0
55	MG	AA	1771	1/1	0.85	0.41	108,108,108,108	0
55	MG	DA	3329	1/1	0.85	0.24	71,71,71,71	0
55	MG	AA	1676	1/1	0.85	0.34	89,89,89,89	0
55	MG	DA	3332	1/1	0.85	0.28	84,84,84,84	0
55	MG	BA	3319	1/1	0.85	0.35	64,64,64,64	0
55	MG	BA	3362	1/1	0.85	0.26	84,84,84,84	0
55	MG	BB	214	1/1	0.85	0.18	76,76,76,76	0
55	MG	BA	3154	1/1	0.85	0.41	87,87,87,87	0
55	MG	DA	3481	1/1	0.85	0.24	79,79,79,79	0
55	MG	BA	3408	1/1	0.85	0.09	82,82,82,82	0
55	MG	BA	3158	1/1	0.85	0.29	66,66,66,66	0
55	MG	BA	3508	1/1	0.85	0.30	77,77,77,77	0
55	MG	BA	3254	1/1	0.85	0.32	89,89,89,89	0
55	MG	DA	3277	1/1	0.85	0.17	78,78,78,78	0
55	MG	BA	3412	1/1	0.85	0.29	89,89,89,89	0
55	MG	BA	3413	1/1	0.85	0.33	83,83,83,83	0
55	MG	B3	103	1/1	0.85	0.19	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3410	1/1	0.85	0.49	103,103,103,103	0
55	MG	BA	3206	1/1	0.85	0.17	68,68,68,68	0
55	MG	DA	3008	1/1	0.85	0.36	57,57,57,57	0
55	MG	DA	3413	1/1	0.85	0.28	86,86,86,86	0
55	MG	AA	1702	1/1	0.85	0.28	89,89,89,89	0
55	MG	AA	1761	1/1	0.85	0.30	77,77,77,77	0
55	MG	DA	3419	1/1	0.85	0.19	87,87,87,87	0
55	MG	BA	3376	1/1	0.85	0.24	83,83,83,83	0
55	MG	DA	3357	1/1	0.85	0.17	87,87,87,87	0
55	MG	BA	3298	1/1	0.85	0.33	66,66,66,66	0
55	MG	AA	1620	1/1	0.85	0.25	69,69,69,69	0
55	MG	BA	3548	1/1	0.85	0.25	95,95,95,95	0
55	MG	AA	1697	1/1	0.85	0.09	101,101,101,101	0
55	MG	DA	3440	1/1	0.85	0.14	81,81,81,81	0
55	MG	BA	3553	1/1	0.85	0.23	49,49,49,49	0
55	MG	BA	3385	1/1	0.85	0.15	86,86,86,86	0
55	MG	CA	1772	1/1	0.86	0.17	107,107,107,107	0
55	MG	BA	3430	1/1	0.86	0.18	105,105,105,105	0
55	MG	BA	3112	1/1	0.86	0.50	73,73,73,73	0
55	MG	BA	3035	1/1	0.86	0.35	61,61,61,61	0
55	MG	DA	3179	1/1	0.86	0.28	88,88,88,88	0
55	MG	AA	1701	1/1	0.86	0.27	87,87,87,87	0
55	MG	BA	3190	1/1	0.86	0.34	86,86,86,86	0
55	MG	BB	202	1/1	0.86	0.24	74,74,74,74	0
55	MG	BA	3399	1/1	0.86	0.23	99,99,99,99	0
55	MG	AA	1656	1/1	0.86	0.36	87,87,87,87	0
55	MG	DA	3017	1/1	0.86	0.12	90,90,90,90	0
55	MG	BA	3401	1/1	0.86	0.23	86,86,86,86	0
55	MG	DA	3203	1/1	0.86	0.33	74,74,74,74	0
55	MG	AA	1768	1/1	0.86	0.38	71,71,71,71	0
55	MG	DA	3025	1/1	0.86	0.22	70,70,70,70	0
55	MG	DA	3207	1/1	0.86	0.39	83,83,83,83	0
55	MG	BA	3196	1/1	0.86	0.15	103,103,103,103	0
55	MG	DA	3331	1/1	0.86	0.45	91,91,91,91	0
55	MG	AA	1769	1/1	0.86	0.15	95,95,95,95	0
55	MG	DA	3032	1/1	0.86	0.35	77,77,77,77	0
55	MG	BA	3507	1/1	0.86	0.28	79,79,79,79	0
55	MG	BA	3132	1/1	0.86	0.25	76,76,76,76	0
55	MG	CA	1793	1/1	0.86	0.34	110,110,110,110	0
55	MG	BA	3409	1/1	0.86	0.55	98,98,98,98	0
55	MG	BF	302	1/1	0.86	0.13	88,88,88,88	0
55	MG	DA	3043	1/1	0.86	0.23	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3047	1/1	0.86	0.28	67,67,67,67	0
55	MG	BA	3135	1/1	0.86	0.31	69,69,69,69	0
55	MG	DA	3231	1/1	0.86	0.55	101,101,101,101	0
55	MG	DA	3234	1/1	0.86	0.33	73,73,73,73	0
55	MG	DA	3459	1/1	0.86	0.33	76,76,76,76	0
55	MG	CA	1744	1/1	0.86	0.35	73,73,73,73	0
55	MG	AA	1605	1/1	0.86	0.27	75,75,75,75	0
55	MG	DA	3066	1/1	0.86	0.30	76,76,76,76	0
55	MG	DA	3074	1/1	0.86	0.26	65,65,65,65	0
55	MG	BA	3141	1/1	0.86	0.29	78,78,78,78	0
55	MG	BA	3525	1/1	0.86	0.25	51,51,51,51	0
55	MG	BA	3537	1/1	0.86	0.43	73,73,73,73	0
55	MG	BA	3080	1/1	0.86	0.20	64,64,64,64	0
55	MG	BA	3155	1/1	0.86	0.24	114,114,114,114	0
55	MG	DA	3253	1/1	0.86	0.25	77,77,77,77	0
55	MG	DA	3256	1/1	0.86	0.20	91,91,91,91	0
55	MG	DA	3363	1/1	0.86	0.24	78,78,78,78	0
55	MG	DA	3092	1/1	0.86	0.19	87,87,87,87	0
55	MG	DA	3259	1/1	0.86	0.34	92,92,92,92	0
55	MG	CA	1754	1/1	0.86	0.32	92,92,92,92	0
55	MG	DA	3262	1/1	0.86	0.20	99,99,99,99	0
55	MG	AA	1622	1/1	0.86	0.22	87,87,87,87	0
55	MG	DA	3107	1/1	0.86	0.24	55,55,55,55	0
55	MG	CA	1757	1/1	0.86	0.34	95,95,95,95	0
55	MG	DA	3115	1/1	0.86	0.46	64,64,64,64	0
55	MG	BA	3460	1/1	0.86	0.46	97,97,97,97	0
55	MG	DA	3377	1/1	0.86	0.22	87,87,87,87	0
55	MG	AA	1731	1/1	0.86	0.15	90,90,90,90	0
55	MG	BA	3233	1/1	0.86	0.34	66,66,66,66	0
55	MG	DA	3280	1/1	0.86	0.29	91,91,91,91	0
55	MG	BA	3383	1/1	0.86	0.23	94,94,94,94	0
55	MG	CA	1622	1/1	0.86	0.15	110,110,110,110	0
55	MG	DA	3135	1/1	0.86	0.28	87,87,87,87	0
55	MG	DA	3146	1/1	0.86	0.10	89,89,89,89	0
55	MG	DB	213	1/1	0.86	0.18	99,99,99,99	0
55	MG	DA	3147	1/1	0.86	0.13	87,87,87,87	0
55	MG	DA	3291	1/1	0.86	0.09	149,149,149,149	0
55	MG	DA	3292	1/1	0.86	0.34	98,98,98,98	0
55	MG	BA	3384	1/1	0.86	0.42	85,85,85,85	0
55	MG	DA	3151	1/1	0.86	0.26	78,78,78,78	0
55	MG	BA	3171	1/1	0.86	0.27	96,96,96,96	0
55	MG	DD	302	1/1	0.86	0.20	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	3026	1/1	0.86	0.22	43,43,43,43	0
55	MG	BA	3561	1/1	0.86	0.19	84,84,84,84	0
55	MG	AA	1754	1/1	0.86	0.26	95,95,95,95	0
55	MG	BA	3180	1/1	0.86	0.27	91,91,91,91	0
55	MG	BA	3099	1/1	0.86	0.23	75,75,75,75	0
55	MG	DA	3295	1/1	0.87	0.56	76,76,76,76	0
55	MG	AA	1698	1/1	0.87	0.49	76,76,76,76	0
55	MG	BA	3048	1/1	0.87	0.25	60,60,60,60	0
55	MG	BA	3049	1/1	0.87	0.16	75,75,75,75	0
55	MG	DA	3300	1/1	0.87	0.21	75,75,75,75	0
55	MG	BA	3317	1/1	0.87	0.32	70,70,70,70	0
55	MG	CA	1760	1/1	0.87	0.18	105,105,105,105	0
55	MG	DA	3305	1/1	0.87	0.29	93,93,93,93	0
55	MG	BA	3433	1/1	0.87	0.22	99,99,99,99	0
55	MG	AA	1813	1/1	0.87	0.24	85,85,85,85	0
55	MG	BA	3504	1/1	0.87	0.32	88,88,88,88	0
55	MG	DA	3178	1/1	0.87	0.27	88,88,88,88	0
55	MG	B1	202	1/1	0.87	0.13	86,86,86,86	0
55	MG	AA	1755	1/1	0.87	0.26	88,88,88,88	0
55	MG	BA	3054	1/1	0.87	0.23	52,52,52,52	0
55	MG	BA	3509	1/1	0.87	0.28	97,97,97,97	0
55	MG	DA	3415	1/1	0.87	0.36	85,85,85,85	0
55	MG	CA	1690	1/1	0.87	0.19	90,90,90,90	0
55	MG	DA	3418	1/1	0.87	0.17	85,85,85,85	0
55	MG	BA	3321	1/1	0.87	0.23	88,88,88,88	0
55	MG	BA	3322	1/1	0.87	0.17	81,81,81,81	0
55	MG	DA	3198	1/1	0.87	0.31	48,48,48,48	0
55	MG	BA	3192	1/1	0.87	0.33	92,92,92,92	0
55	MG	CA	1700	1/1	0.87	0.27	96,96,96,96	0
55	MG	CA	1701	1/1	0.87	0.29	108,108,108,108	0
55	MG	DA	3325	1/1	0.87	0.34	97,97,97,97	0
55	MG	BA	3326	1/1	0.87	0.28	67,67,67,67	0
55	MG	AA	1685	1/1	0.87	0.29	85,85,85,85	0
55	MG	AA	1798	1/1	0.87	0.29	84,84,84,84	0
55	MG	BA	3129	1/1	0.87	0.31	50,50,50,50	0
55	MG	BA	3268	1/1	0.87	0.13	90,90,90,90	0
55	MG	CA	1783	1/1	0.87	0.08	87,87,87,87	0
55	MG	BA	3450	1/1	0.87	0.25	82,82,82,82	0
55	MG	DA	3447	1/1	0.87	0.36	92,92,92,92	0
55	MG	DA	3046	1/1	0.87	0.27	100,100,100,100	0
55	MG	DA	3449	1/1	0.87	0.32	66,66,66,66	0
55	MG	BA	3199	1/1	0.87	0.22	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3337	1/1	0.87	0.31	86,86,86,86	0
55	MG	DA	3048	1/1	0.87	0.27	76,76,76,76	0
55	MG	AA	1734	1/1	0.87	0.34	93,93,93,93	0
55	MG	BA	3342	1/1	0.87	0.14	66,66,66,66	0
55	MG	CA	1628	1/1	0.87	0.16	123,123,123,123	0
55	MG	AA	1770	1/1	0.87	0.22	80,80,80,80	0
55	MG	BA	3137	1/1	0.87	0.15	88,88,88,88	0
55	MG	CA	1725	1/1	0.87	0.45	86,86,86,86	0
55	MG	CA	1633	1/1	0.87	0.32	61,61,61,61	0
55	MG	CA	1727	1/1	0.87	0.17	84,84,84,84	0
55	MG	CA	1639	1/1	0.87	0.38	59,59,59,59	0
55	MG	DA	3085	1/1	0.87	0.48	81,81,81,81	0
55	MG	BA	3554	1/1	0.87	0.24	48,48,48,48	0
55	MG	DA	3355	1/1	0.87	0.30	83,83,83,83	0
55	MG	AA	1742	1/1	0.87	0.23	88,88,88,88	0
55	MG	DA	3095	1/1	0.87	0.32	89,89,89,89	0
55	MG	AA	1802	1/1	0.87	0.11	75,75,75,75	0
55	MG	CA	1647	1/1	0.87	0.38	96,96,96,96	0
55	MG	DA	3106	1/1	0.87	0.27	57,57,57,57	0
55	MG	AA	1760	1/1	0.87	0.35	77,77,77,77	0
55	MG	DA	3110	1/1	0.87	0.18	61,61,61,61	0
55	MG	AA	1681	1/1	0.87	0.39	72,72,72,72	0
55	MG	AA	1752	1/1	0.87	0.29	67,67,67,67	0
55	MG	DA	3119	1/1	0.87	0.37	65,65,65,65	0
55	MG	BA	3162	1/1	0.87	0.30	67,67,67,67	0
55	MG	DA	3265	1/1	0.87	0.34	76,76,76,76	0
55	MG	DA	3267	1/1	0.87	0.28	80,80,80,80	0
55	MG	AA	1806	1/1	0.87	0.37	85,85,85,85	0
55	MG	BA	3237	1/1	0.87	0.37	102,102,102,102	0
55	MG	DA	3274	1/1	0.87	0.22	85,85,85,85	0
55	MG	DA	3275	1/1	0.87	0.35	85,85,85,85	0
55	MG	BA	3365	1/1	0.87	0.17	81,81,81,81	0
55	MG	DA	3381	1/1	0.87	0.23	90,90,90,90	0
55	MG	DB	214	1/1	0.87	0.14	95,95,95,95	0
55	MG	AA	1763	1/1	0.87	0.19	92,92,92,92	0
55	MG	BA	3042	1/1	0.87	0.40	75,75,75,75	0
55	MG	DA	3142	1/1	0.87	0.17	81,81,81,81	0
55	MG	BA	3243	1/1	0.87	0.13	79,79,79,79	0
55	MG	BA	3372	1/1	0.87	0.32	76,76,76,76	0
55	MG	CA	1750	1/1	0.87	0.23	86,86,86,86	0
55	MG	AA	1683	1/1	0.87	0.38	87,87,87,87	0
55	MG	DA	3153	1/1	0.87	0.18	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	3246	1/1	0.87	0.28	89,89,89,89	0
55	MG	DA	3160	1/1	0.87	0.38	59,59,59,59	0
55	MG	DA	3162	1/1	0.87	0.33	58,58,58,58	0
55	MG	BA	3097	1/1	0.87	0.16	59,59,59,59	0
55	MG	DA	3271	1/1	0.88	0.20	71,71,71,71	0
55	MG	BA	3541	1/1	0.88	0.24	66,66,66,66	0
55	MG	BA	3308	1/1	0.88	0.15	63,63,63,63	0
55	MG	BA	3389	1/1	0.88	0.25	56,56,56,56	0
55	MG	BA	3050	1/1	0.88	0.21	65,65,65,65	0
55	MG	BA	3468	1/1	0.88	0.29	78,78,78,78	0
55	MG	BA	3353	1/1	0.88	0.33	77,77,77,77	0
55	MG	BA	3354	1/1	0.88	0.26	73,73,73,73	0
55	MG	DA	3068	1/1	0.88	0.29	54,54,54,54	0
55	MG	CA	1619	1/1	0.88	0.15	68,68,68,68	0
55	MG	AA	1790	1/1	0.88	0.24	79,79,79,79	0
55	MG	DA	3190	1/1	0.88	0.38	66,66,66,66	0
55	MG	BA	3356	1/1	0.88	0.18	60,60,60,60	0
55	MG	DA	3361	1/1	0.88	0.13	89,89,89,89	0
55	MG	DA	3081	1/1	0.88	0.27	84,84,84,84	0
55	MG	DA	3195	1/1	0.88	0.26	82,82,82,82	0
55	MG	BA	3076	1/1	0.88	0.35	81,81,81,81	0
55	MG	BA	3474	1/1	0.88	0.22	72,72,72,72	0
55	MG	DA	3367	1/1	0.88	0.21	82,82,82,82	0
55	MG	DA	3368	1/1	0.88	0.18	97,97,97,97	0
55	MG	BA	3052	1/1	0.88	0.29	66,66,66,66	0
55	MG	AA	1651	1/1	0.88	0.40	79,79,79,79	0
55	MG	DA	3297	1/1	0.88	0.37	82,82,82,82	0
55	MG	BA	3281	1/1	0.88	0.20	78,78,78,78	0
55	MG	BA	3203	1/1	0.88	0.18	106,106,106,106	0
55	MG	BA	3205	1/1	0.88	0.22	59,59,59,59	0
55	MG	AA	1686	1/1	0.88	0.19	91,91,91,91	0
55	MG	DA	3104	1/1	0.88	0.26	62,62,62,62	0
55	MG	DA	3378	1/1	0.88	0.38	88,88,88,88	0
55	MG	BA	3058	1/1	0.88	0.23	88,88,88,88	0
55	MG	CA	1643	1/1	0.88	0.38	80,80,80,80	0
55	MG	DA	3108	1/1	0.88	0.30	54,54,54,54	0
55	MG	AA	1691	1/1	0.88	0.36	88,88,88,88	0
55	MG	CC	102	1/1	0.88	0.40	85,85,85,85	0
55	MG	DA	3222	1/1	0.88	0.18	75,75,75,75	0
55	MG	BA	3294	1/1	0.88	0.19	61,61,61,61	0
55	MG	CA	1646	1/1	0.88	0.29	88,88,88,88	0
55	MG	DA	3315	1/1	0.88	0.16	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	3501	1/1	0.88	0.44	86,86,86,86	0
55	MG	BA	3220	1/1	0.88	0.25	70,70,70,70	0
55	MG	BA	3013	1/1	0.88	0.20	52,52,52,52	0
55	MG	BA	3505	1/1	0.88	0.28	61,61,61,61	0
55	MG	BA	3063	1/1	0.88	0.16	80,80,80,80	0
55	MG	BB	213	1/1	0.88	0.22	101,101,101,101	0
55	MG	DA	3140	1/1	0.88	0.33	76,76,76,76	0
55	MG	DA	3141	1/1	0.88	0.35	101,101,101,101	0
55	MG	BA	3017	1/1	0.88	0.28	58,58,58,58	0
55	MG	DA	3326	1/1	0.88	0.25	109,109,109,109	0
55	MG	BB	215	1/1	0.88	0.21	91,91,91,91	0
55	MG	BA	3381	1/1	0.88	0.36	87,87,87,87	0
55	MG	BA	3230	1/1	0.88	0.29	48,48,48,48	0
55	MG	BA	3302	1/1	0.88	0.22	83,83,83,83	0
55	MG	DA	3255	1/1	0.88	0.15	82,82,82,82	0
55	MG	AA	1672	1/1	0.88	0.44	67,67,67,67	0
55	MG	DA	3156	1/1	0.88	0.21	78,78,78,78	0
55	MG	BA	3459	1/1	0.88	0.23	81,81,81,81	0
55	MG	BA	3423	1/1	0.88	0.09	90,90,90,90	0
55	MG	BA	3530	1/1	0.88	0.28	71,71,71,71	0
55	MG	CA	1741	1/1	0.88	0.23	85,85,85,85	0
55	MG	CA	1674	1/1	0.88	0.39	88,88,88,88	0
55	MG	BA	3535	1/1	0.88	0.26	82,82,82,82	0
55	MG	BA	3100	1/1	0.88	0.31	93,93,93,93	0
55	MG	AA	1610	1/1	0.88	0.30	58,58,58,58	0
55	MG	BB	204	1/1	0.89	0.27	91,91,91,91	0
55	MG	AA	1650	1/1	0.89	0.23	80,80,80,80	0
55	MG	DA	3080	1/1	0.89	0.22	73,73,73,73	0
55	MG	BA	3090	1/1	0.89	0.11	40,40,40,40	0
55	MG	DA	3210	1/1	0.89	0.27	77,77,77,77	0
55	MG	AA	1671	1/1	0.89	0.13	95,95,95,95	0
55	MG	BA	3347	1/1	0.89	0.22	79,79,79,79	0
55	MG	DA	3214	1/1	0.89	0.32	76,76,76,76	0
55	MG	DA	3215	1/1	0.89	0.27	83,83,83,83	0
55	MG	AC	108	1/1	0.89	0.16	82,82,82,82	0
55	MG	CA	1739	1/1	0.89	0.22	80,80,80,80	0
55	MG	BA	3247	1/1	0.89	0.37	97,97,97,97	0
55	MG	CA	1662	1/1	0.89	0.45	84,84,84,84	0
55	MG	DA	3098	1/1	0.89	0.25	48,48,48,48	0
55	MG	BA	3398	1/1	0.89	0.14	57,57,57,57	0
55	MG	CA	1668	1/1	0.89	0.35	72,72,72,72	0
55	MG	DA	3228	1/1	0.89	0.15	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	1714	1/1	0.89	0.20	89,89,89,89	0
55	MG	AA	1601	1/1	0.89	0.31	60,60,60,60	0
55	MG	BA	3156	1/1	0.89	0.24	61,61,61,61	0
55	MG	DA	3425	1/1	0.89	0.40	88,88,88,88	0
55	MG	DA	3236	1/1	0.89	0.40	62,62,62,62	0
55	MG	AA	1744	1/1	0.89	0.24	79,79,79,79	0
55	MG	DA	3435	1/1	0.89	0.21	51,51,51,51	0
55	MG	CA	1748	1/1	0.89	0.35	76,76,76,76	0
55	MG	DA	3241	1/1	0.89	0.26	75,75,75,75	0
55	MG	DA	3113	1/1	0.89	0.19	80,80,80,80	0
55	MG	BA	3106	1/1	0.89	0.24	89,89,89,89	0
55	MG	BA	3107	1/1	0.89	0.25	81,81,81,81	0
55	MG	BA	3521	1/1	0.89	0.18	45,45,45,45	0
55	MG	DA	3120	1/1	0.89	0.32	73,73,73,73	0
55	MG	BA	3407	1/1	0.89	0.31	73,73,73,73	0
55	MG	B3	101	1/1	0.89	0.52	81,81,81,81	0
55	MG	DA	3347	1/1	0.89	0.13	91,91,91,91	0
55	MG	BA	3209	1/1	0.89	0.34	78,78,78,78	0
55	MG	DA	3129	1/1	0.89	0.36	65,65,65,65	0
55	MG	CA	1756	1/1	0.89	0.27	83,83,83,83	0
55	MG	BA	3457	1/1	0.89	0.17	85,85,85,85	0
55	MG	CA	1682	1/1	0.89	0.20	100,100,100,100	0
55	MG	BA	3258	1/1	0.89	0.38	76,76,76,76	0
55	MG	CA	1604	1/1	0.89	0.18	60,60,60,60	0
55	MG	DA	3463	1/1	0.89	0.41	84,84,84,84	0
55	MG	BA	3538	1/1	0.89	0.17	79,79,79,79	0
55	MG	BA	3539	1/1	0.89	0.25	35,35,35,35	0
55	MG	BA	3361	1/1	0.89	0.16	70,70,70,70	0
55	MG	BA	3067	1/1	0.89	0.17	79,79,79,79	0
55	MG	BA	3315	1/1	0.89	0.40	93,93,93,93	0
55	MG	BA	3216	1/1	0.89	0.26	53,53,53,53	0
55	MG	DA	3272	1/1	0.89	0.42	68,68,68,68	0
55	MG	DA	3364	1/1	0.89	0.12	93,93,93,93	0
55	MG	DA	3155	1/1	0.89	0.09	90,90,90,90	0
55	MG	BA	3113	1/1	0.89	0.20	47,47,47,47	0
55	MG	CA	1697	1/1	0.89	0.12	84,84,84,84	0
55	MG	AA	1791	1/1	0.89	0.40	90,90,90,90	0
55	MG	BA	3222	1/1	0.89	0.41	68,68,68,68	0
55	MG	AA	1792	1/1	0.89	0.19	97,97,97,97	0
55	MG	BA	3551	1/1	0.89	0.28	64,64,64,64	0
55	MG	BA	3123	1/1	0.89	0.29	81,81,81,81	0
55	MG	AA	1653	1/1	0.89	0.42	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3285	1/1	0.89	0.34	79,79,79,79	0
55	MG	DA	3375	1/1	0.89	0.14	86,86,86,86	0
55	MG	DB	202	1/1	0.89	0.18	91,91,91,91	0
55	MG	BA	3323	1/1	0.89	0.19	73,73,73,73	0
55	MG	DB	205	1/1	0.89	0.27	73,73,73,73	0
55	MG	DA	3169	1/1	0.89	0.23	92,92,92,92	0
55	MG	BA	3023	1/1	0.89	0.38	64,64,64,64	0
55	MG	BA	3325	1/1	0.89	0.16	81,81,81,81	0
55	MG	DA	3380	1/1	0.89	0.28	80,80,80,80	0
55	MG	DA	3038	1/1	0.89	0.28	73,73,73,73	0
55	MG	BA	3231	1/1	0.89	0.30	46,46,46,46	0
55	MG	CA	1712	1/1	0.89	0.41	76,76,76,76	0
55	MG	BA	3187	1/1	0.89	0.39	73,73,73,73	0
55	MG	CA	1641	1/1	0.89	0.18	64,64,64,64	0
55	MG	BA	3478	1/1	0.89	0.28	61,61,61,61	0
55	MG	AA	1774	1/1	0.89	0.36	69,69,69,69	0
55	MG	BA	3284	1/1	0.89	0.38	75,75,75,75	0
55	MG	BA	3236	1/1	0.89	0.33	67,67,67,67	0
55	MG	AC	103	1/1	0.89	0.27	66,66,66,66	0
55	MG	DA	3057	1/1	0.89	0.33	56,56,56,56	0
55	MG	DA	3064	1/1	0.89	0.28	70,70,70,70	0
55	MG	AA	1759	1/1	0.89	0.07	66,66,66,66	0
55	MG	DA	3396	1/1	0.89	0.26	76,76,76,76	0
55	MG	CA	1794	1/1	0.89	0.09	67,67,67,67	0
55	MG	DA	3072	1/1	0.89	0.32	65,65,65,65	0
55	MG	BA	3341	1/1	0.89	0.34	89,89,89,89	0
55	MG	DA	3149	1/1	0.90	0.20	93,93,93,93	0
55	MG	BA	3512	1/1	0.90	0.36	90,90,90,90	0
55	MG	AA	1664	1/1	0.90	0.18	53,53,53,53	0
55	MG	AA	1665	1/1	0.90	0.10	52,52,52,52	0
55	MG	BA	3520	1/1	0.90	0.30	40,40,40,40	0
55	MG	DA	3421	1/1	0.90	0.12	84,84,84,84	0
55	MG	DA	3042	1/1	0.90	0.32	51,51,51,51	0
55	MG	BB	206	1/1	0.90	0.15	79,79,79,79	0
55	MG	DA	3161	1/1	0.90	0.20	55,55,55,55	0
55	MG	DA	3044	1/1	0.90	0.39	66,66,66,66	0
55	MG	DA	3431	1/1	0.90	0.19	69,69,69,69	0
55	MG	CA	1802	1/1	0.90	0.22	73,73,73,73	0
55	MG	BA	3219	1/1	0.90	0.30	68,68,68,68	0
55	MG	DA	3438	1/1	0.90	0.26	79,79,79,79	0
55	MG	BA	3131	1/1	0.90	0.25	41,41,41,41	0
55	MG	BB	209	1/1	0.90	0.21	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3051	1/1	0.90	0.17	87,87,87,87	0
55	MG	AA	1679	1/1	0.90	0.33	83,83,83,83	0
55	MG	CA	1693	1/1	0.90	0.31	103,103,103,103	0
55	MG	AA	1618	1/1	0.90	0.16	91,91,91,91	0
55	MG	DA	3060	1/1	0.90	0.27	67,67,67,67	0
55	MG	AA	1652	1/1	0.90	0.47	72,72,72,72	0
55	MG	BA	3332	1/1	0.90	0.31	76,76,76,76	0
55	MG	BA	3297	1/1	0.90	0.25	86,86,86,86	0
55	MG	DA	3181	1/1	0.90	0.14	50,50,50,50	0
55	MG	AA	1807	1/1	0.90	0.15	88,88,88,88	0
55	MG	DA	3282	1/1	0.90	0.23	64,64,64,64	0
55	MG	DA	3283	1/1	0.90	0.20	88,88,88,88	0
55	MG	BA	3229	1/1	0.90	0.28	65,65,65,65	0
55	MG	BA	3542	1/1	0.90	0.31	85,85,85,85	0
55	MG	BA	3336	1/1	0.90	0.09	78,78,78,78	0
55	MG	BA	3480	1/1	0.90	0.23	76,76,76,76	0
55	MG	DA	3289	1/1	0.90	0.28	62,62,62,62	0
55	MG	BA	3075	1/1	0.90	0.23	75,75,75,75	0
55	MG	BA	3263	1/1	0.90	0.28	80,80,80,80	0
55	MG	CG	302	1/1	0.90	0.12	89,89,89,89	0
55	MG	AA	1634	1/1	0.90	0.31	67,67,67,67	0
55	MG	AA	1776	1/1	0.90	0.26	67,67,67,67	0
55	MG	DA	3091	1/1	0.90	0.23	74,74,74,74	0
55	MG	BA	3039	1/1	0.90	0.23	55,55,55,55	0
55	MG	CA	1714	1/1	0.90	0.21	87,87,87,87	0
55	MG	BA	3269	1/1	0.90	0.23	79,79,79,79	0
55	MG	DA	3099	1/1	0.90	0.48	83,83,83,83	0
55	MG	BA	3119	1/1	0.90	0.31	61,61,61,61	0
55	MG	CA	1601	1/1	0.90	0.28	67,67,67,67	0
55	MG	CA	1665	1/1	0.90	0.32	70,70,70,70	0
55	MG	CA	1774	1/1	0.90	0.20	75,75,75,75	0
55	MG	CA	1775	1/1	0.90	0.33	69,69,69,69	0
55	MG	CA	1666	1/1	0.90	0.20	90,90,90,90	0
55	MG	CA	1603	1/1	0.90	0.27	60,60,60,60	0
55	MG	DA	3487	1/1	0.90	0.27	85,85,85,85	0
55	MG	BA	3161	1/1	0.90	0.33	45,45,45,45	0
55	MG	DA	3218	1/1	0.90	0.25	86,86,86,86	0
55	MG	DB	203	1/1	0.90	0.17	111,111,111,111	0
55	MG	CA	1779	1/1	0.90	0.13	109,109,109,109	0
55	MG	CA	1606	1/1	0.90	0.22	65,65,65,65	0
55	MG	DA	3005	1/1	0.90	0.22	48,48,48,48	0
55	MG	AA	1712	1/1	0.90	0.16	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3226	1/1	0.90	0.30	85,85,85,85	0
55	MG	DA	3395	1/1	0.90	0.22	87,87,87,87	0
55	MG	DA	3016	1/1	0.90	0.31	78,78,78,78	0
55	MG	DA	3124	1/1	0.90	0.24	47,47,47,47	0
55	MG	CA	1612	1/1	0.90	0.27	75,75,75,75	0
55	MG	AA	1642	1/1	0.90	0.36	70,70,70,70	0
55	MG	DA	3127	1/1	0.90	0.41	73,73,73,73	0
55	MG	DA	3235	1/1	0.90	0.29	69,69,69,69	0
55	MG	AA	1607	1/1	0.90	0.20	86,86,86,86	0
55	MG	BA	3124	1/1	0.90	0.27	66,66,66,66	0
55	MG	DA	3028	1/1	0.90	0.36	73,73,73,73	0
55	MG	DA	3328	1/1	0.90	0.28	84,84,84,84	0
55	MG	BA	3083	1/1	0.90	0.43	47,47,47,47	0
55	MG	BA	3282	1/1	0.90	0.38	103,103,103,103	0
55	MG	DA	3031	1/1	0.90	0.17	70,70,70,70	0
55	MG	DE	301	1/1	0.90	0.34	59,59,59,59	0
55	MG	BA	3463	1/1	0.90	0.10	101,101,101,101	0
55	MG	DA	3033	1/1	0.90	0.34	83,83,83,83	0
55	MG	CA	1620	1/1	0.90	0.17	64,64,64,64	0
55	MG	BA	3089	1/1	0.90	0.28	61,61,61,61	0
55	MG	D8	101	1/1	0.90	0.14	88,88,88,88	0
55	MG	CA	1723	1/1	0.91	0.31	90,90,90,90	0
55	MG	AA	1674	1/1	0.91	0.19	56,56,56,56	0
55	MG	AA	1619	1/1	0.91	0.28	58,58,58,58	0
55	MG	BA	3201	1/1	0.91	0.31	64,64,64,64	0
55	MG	DA	3250	1/1	0.91	0.17	62,62,62,62	0
55	MG	BA	3352	1/1	0.91	0.30	75,75,75,75	0
55	MG	BF	303	1/1	0.91	0.12	78,78,78,78	0
55	MG	CA	1657	1/1	0.91	0.31	68,68,68,68	0
55	MG	DA	3154	1/1	0.91	0.19	77,77,77,77	0
55	MG	DA	3432	1/1	0.91	0.28	64,64,64,64	0
55	MG	BO	201	1/1	0.91	0.12	78,78,78,78	0
55	MG	DA	3345	1/1	0.91	0.22	85,85,85,85	0
55	MG	DA	3436	1/1	0.91	0.28	66,66,66,66	0
55	MG	DA	3437	1/1	0.91	0.31	66,66,66,66	0
55	MG	CA	1659	1/1	0.91	0.37	75,75,75,75	0
55	MG	BA	3022	1/1	0.91	0.16	46,46,46,46	0
55	MG	B1	201	1/1	0.91	0.34	71,71,71,71	0
55	MG	BA	3240	1/1	0.91	0.33	73,73,73,73	0
55	MG	BA	3086	1/1	0.91	0.17	56,56,56,56	0
55	MG	BA	3477	1/1	0.91	0.33	77,77,77,77	0
55	MG	BA	3545	1/1	0.91	0.15	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	1812	1/1	0.91	0.34	69,69,69,69	0
55	MG	DA	3268	1/1	0.91	0.31	77,77,77,77	0
55	MG	DA	3053	1/1	0.91	0.26	72,72,72,72	0
55	MG	BA	3024	1/1	0.91	0.31	44,44,44,44	0
55	MG	DA	3056	1/1	0.91	0.44	52,52,52,52	0
55	MG	DA	3171	1/1	0.91	0.17	73,73,73,73	0
55	MG	BA	3442	1/1	0.91	0.30	90,90,90,90	0
55	MG	BA	3549	1/1	0.91	0.34	55,55,55,55	0
55	MG	DA	3174	1/1	0.91	0.32	63,63,63,63	0
55	MG	AA	1645	1/1	0.91	0.17	65,65,65,65	0
55	MG	CA	1605	1/1	0.91	0.29	90,90,90,90	0
55	MG	BA	3027	1/1	0.91	0.16	41,41,41,41	0
55	MG	BA	3070	1/1	0.91	0.32	68,68,68,68	0
55	MG	CA	1611	1/1	0.91	0.38	82,82,82,82	0
55	MG	DA	3183	1/1	0.91	0.23	75,75,75,75	0
55	MG	DA	3184	1/1	0.91	0.32	78,78,78,78	0
55	MG	CA	1679	1/1	0.91	0.20	80,80,80,80	0
55	MG	DA	3077	1/1	0.91	0.30	72,72,72,72	0
55	MG	BA	3485	1/1	0.91	0.18	98,98,98,98	0
55	MG	BA	3555	1/1	0.91	0.15	47,47,47,47	0
55	MG	BA	3287	1/1	0.91	0.21	60,60,60,60	0
55	MG	BA	3447	1/1	0.91	0.35	72,72,72,72	0
55	MG	BA	3559	1/1	0.91	0.31	86,86,86,86	0
55	MG	BA	3182	1/1	0.91	0.37	45,45,45,45	0
55	MG	AA	1716	1/1	0.91	0.12	82,82,82,82	0
55	MG	AA	1654	1/1	0.91	0.23	77,77,77,77	0
55	MG	BA	3330	1/1	0.91	0.17	61,61,61,61	0
55	MG	BA	3292	1/1	0.91	0.25	63,63,63,63	0
55	MG	BA	3101	1/1	0.91	0.21	66,66,66,66	0
55	MG	BA	3105	1/1	0.91	0.13	71,71,71,71	0
55	MG	CA	1626	1/1	0.91	0.26	69,69,69,69	0
55	MG	DA	3101	1/1	0.91	0.28	76,76,76,76	0
55	MG	DB	201	1/1	0.91	0.13	92,92,92,92	0
55	MG	AA	1745	1/1	0.91	0.18	83,83,83,83	0
55	MG	DA	3211	1/1	0.91	0.31	79,79,79,79	0
55	MG	BA	3056	1/1	0.91	0.28	57,57,57,57	0
55	MG	BA	3418	1/1	0.91	0.28	82,82,82,82	0
55	MG	BB	203	1/1	0.91	0.31	71,71,71,71	0
55	MG	CA	1632	1/1	0.91	0.18	53,53,53,53	0
55	MG	BA	3228	1/1	0.91	0.38	82,82,82,82	0
55	MG	CA	1638	1/1	0.91	0.26	68,68,68,68	0
55	MG	DA	3007	1/1	0.91	0.18	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	3260	1/1	0.91	0.31	65,65,65,65	0
55	MG	DA	3220	1/1	0.91	0.23	64,64,64,64	0
55	MG	DA	3012	1/1	0.91	0.26	50,50,50,50	0
55	MG	DA	3013	1/1	0.91	0.22	51,51,51,51	0
55	MG	DA	3015	1/1	0.91	0.30	64,64,64,64	0
55	MG	BA	3339	1/1	0.91	0.23	74,74,74,74	0
55	MG	BA	3146	1/1	0.91	0.25	62,62,62,62	0
55	MG	BA	3517	1/1	0.91	0.30	69,69,69,69	0
55	MG	BA	3001	1/1	0.91	0.42	55,55,55,55	0
55	MG	DA	3128	1/1	0.91	0.28	47,47,47,47	0
55	MG	DD	301	1/1	0.91	0.38	51,51,51,51	0
55	MG	BA	3003	1/1	0.91	0.20	50,50,50,50	0
55	MG	BA	3524	1/1	0.91	0.22	43,43,43,43	0
55	MG	BA	3266	1/1	0.91	0.32	71,71,71,71	0
55	MG	DA	3237	1/1	0.91	0.20	79,79,79,79	0
55	MG	D0	201	1/1	0.91	0.19	63,63,63,63	0
55	MG	BA	3232	1/1	0.91	0.26	57,57,57,57	0
55	MG	DA	3139	1/1	0.91	0.26	53,53,53,53	0
55	MG	CA	1720	1/1	0.91	0.36	68,68,68,68	0
55	MG	BA	3115	1/1	0.91	0.30	41,41,41,41	0
55	MG	DA	3103	1/1	0.92	0.25	60,60,60,60	0
55	MG	BA	3493	1/1	0.92	0.22	51,51,51,51	0
55	MG	AA	1663	1/1	0.92	0.35	72,72,72,72	0
55	MG	BA	3046	1/1	0.92	0.30	56,56,56,56	0
55	MG	BA	3502	1/1	0.92	0.33	78,78,78,78	0
55	MG	AA	1739	1/1	0.92	0.29	82,82,82,82	0
55	MG	BA	3226	1/1	0.92	0.23	69,69,69,69	0
55	MG	DA	3223	1/1	0.92	0.28	81,81,81,81	0
55	MG	BA	3109	1/1	0.92	0.29	81,81,81,81	0
55	MG	DA	3422	1/1	0.92	0.25	75,75,75,75	0
55	MG	DA	3001	1/1	0.92	0.27	46,46,46,46	0
55	MG	DA	3117	1/1	0.92	0.17	61,61,61,61	0
55	MG	CA	1698	1/1	0.92	0.23	79,79,79,79	0
55	MG	BA	3310	1/1	0.92	0.24	76,76,76,76	0
55	MG	BA	3402	1/1	0.92	0.21	76,76,76,76	0
55	MG	DA	3233	1/1	0.92	0.30	90,90,90,90	0
55	MG	DA	3009	1/1	0.92	0.27	53,53,53,53	0
55	MG	DA	3011	1/1	0.92	0.29	50,50,50,50	0
55	MG	CA	1770	1/1	0.92	0.32	82,82,82,82	0
55	MG	BA	3028	1/1	0.92	0.25	52,52,52,52	0
55	MG	DA	3014	1/1	0.92	0.27	76,76,76,76	0
55	MG	CA	1703	1/1	0.92	0.32	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	3029	1/1	0.92	0.21	57,57,57,57	0
55	MG	DA	3341	1/1	0.92	0.29	56,56,56,56	0
55	MG	BA	3405	1/1	0.92	0.18	82,82,82,82	0
55	MG	CA	1706	1/1	0.92	0.44	79,79,79,79	0
55	MG	DA	3136	1/1	0.92	0.47	73,73,73,73	0
55	MG	DA	3137	1/1	0.92	0.23	53,53,53,53	0
55	MG	DA	3022	1/1	0.92	0.27	74,74,74,74	0
55	MG	BA	3148	1/1	0.92	0.09	56,56,56,56	0
55	MG	BA	3149	1/1	0.92	0.22	41,41,41,41	0
55	MG	DA	3026	1/1	0.92	0.24	73,73,73,73	0
55	MG	BA	3272	1/1	0.92	0.16	59,59,59,59	0
55	MG	CA	1642	1/1	0.92	0.23	83,83,83,83	0
55	MG	BA	3516	1/1	0.92	0.20	88,88,88,88	0
55	MG	DA	3257	1/1	0.92	0.36	77,77,77,77	0
55	MG	BA	3194	1/1	0.92	0.16	74,74,74,74	0
55	MG	BA	3087	1/1	0.92	0.19	38,38,38,38	0
55	MG	BA	3277	1/1	0.92	0.26	79,79,79,79	0
55	MG	BA	3522	1/1	0.92	0.32	45,45,45,45	0
55	MG	AA	1604	1/1	0.92	0.21	52,52,52,52	0
55	MG	BA	3367	1/1	0.92	0.39	72,72,72,72	0
55	MG	CA	1787	1/1	0.92	0.17	84,84,84,84	0
55	MG	BA	3526	1/1	0.92	0.25	41,41,41,41	0
55	MG	BA	3368	1/1	0.92	0.21	59,59,59,59	0
55	MG	DA	3471	1/1	0.92	0.13	60,60,60,60	0
55	MG	BA	3532	1/1	0.92	0.29	54,54,54,54	0
55	MG	BA	3534	1/1	0.92	0.21	69,69,69,69	0
55	MG	DA	3164	1/1	0.92	0.18	67,67,67,67	0
55	MG	BA	3012	1/1	0.92	0.26	45,45,45,45	0
55	MG	BA	3280	1/1	0.92	0.21	80,80,80,80	0
55	MG	CA	1730	1/1	0.92	0.16	79,79,79,79	0
55	MG	BA	3093	1/1	0.92	0.33	57,57,57,57	0
55	MG	AA	1766	1/1	0.92	0.12	98,98,98,98	0
55	MG	CA	1800	1/1	0.92	0.25	99,99,99,99	0
55	MG	CA	1660	1/1	0.92	0.12	85,85,85,85	0
55	MG	AA	1628	1/1	0.92	0.44	77,77,77,77	0
55	MG	AA	1646	1/1	0.92	0.35	60,60,60,60	0
55	MG	DA	3055	1/1	0.92	0.32	52,52,52,52	0
55	MG	BA	3168	1/1	0.92	0.25	47,47,47,47	0
55	MG	BA	3204	1/1	0.92	0.11	56,56,56,56	0
55	MG	DA	3286	1/1	0.92	0.42	78,78,78,78	0
55	MG	B5	101	1/1	0.92	0.11	49,49,49,49	0
55	MG	DA	3180	1/1	0.92	0.18	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	3379	1/1	0.92	0.32	78,78,78,78	0
55	MG	BA	3169	1/1	0.92	0.23	45,45,45,45	0
55	MG	CA	1670	1/1	0.92	0.32	67,67,67,67	0
55	MG	DA	3069	1/1	0.92	0.49	76,76,76,76	0
55	MG	CA	1811	1/1	0.92	0.32	69,69,69,69	0
55	MG	AC	101	1/1	0.92	0.21	55,55,55,55	0
55	MG	BA	3172	1/1	0.92	0.38	74,74,74,74	0
55	MG	BA	3173	1/1	0.92	0.27	58,58,58,58	0
55	MG	BA	3211	1/1	0.92	0.21	55,55,55,55	0
55	MG	CA	1609	1/1	0.92	0.23	71,71,71,71	0
55	MG	BA	3175	1/1	0.92	0.20	62,62,62,62	0
55	MG	BA	3217	1/1	0.92	0.24	40,40,40,40	0
55	MG	BA	3127	1/1	0.92	0.08	73,73,73,73	0
55	MG	CA	1613	1/1	0.92	0.22	84,84,84,84	0
55	MG	CA	1752	1/1	0.92	0.47	80,80,80,80	0
55	MG	DA	3088	1/1	0.92	0.18	62,62,62,62	0
55	MG	BA	3059	1/1	0.92	0.36	63,63,63,63	0
55	MG	BA	3484	1/1	0.92	0.40	87,87,87,87	0
55	MG	DA	3094	1/1	0.92	0.21	48,48,48,48	0
55	MG	AA	1623	1/1	0.92	0.28	63,63,63,63	0
55	MG	BA	3345	1/1	0.92	0.14	46,46,46,46	0
55	MG	DA	3312	1/1	0.92	0.29	75,75,75,75	0
55	MG	BA	3346	1/1	0.92	0.34	69,69,69,69	0
55	MG	CC	101	1/1	0.92	0.32	77,77,77,77	0
55	MG	BA	3560	1/1	0.92	0.28	69,69,69,69	0
55	MG	BA	3103	1/1	0.92	0.32	76,76,76,76	0
56	ZN	AG	303	1/1	0.92	0.26	100,100,100,100	0
56	ZN	AQ	101	1/1	0.92	0.14	142,142,142,142	0
55	MG	DA	3232	1/1	0.93	0.09	56,56,56,56	0
55	MG	BA	3283	1/1	0.93	0.18	56,56,56,56	0
55	MG	AA	1717	1/1	0.93	0.30	73,73,73,73	0
55	MG	BA	3364	1/1	0.93	0.21	72,72,72,72	0
55	MG	BA	3019	1/1	0.93	0.20	45,45,45,45	0
55	MG	DA	3045	1/1	0.93	0.39	71,71,71,71	0
55	MG	DA	3143	1/1	0.93	0.30	74,74,74,74	0
55	MG	AA	1793	1/1	0.93	0.16	87,87,87,87	0
55	MG	BA	3328	1/1	0.93	0.17	52,52,52,52	0
55	MG	BA	3047	1/1	0.93	0.12	46,46,46,46	0
55	MG	DA	3428	1/1	0.93	0.34	59,59,59,59	0
55	MG	CA	1623	1/1	0.93	0.30	75,75,75,75	0
55	MG	CA	1686	1/1	0.93	0.27	77,77,77,77	0
55	MG	DA	3152	1/1	0.93	0.24	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	AA	1710	1/1	0.93	0.16	56,56,56,56	0
55	MG	BA	3071	1/1	0.93	0.15	63,63,63,63	0
55	MG	AA	1669	1/1	0.93	0.25	77,77,77,77	0
55	MG	BA	3136	1/1	0.93	0.10	53,53,53,53	0
55	MG	DA	3157	1/1	0.93	0.18	51,51,51,51	0
55	MG	BA	3104	1/1	0.93	0.15	82,82,82,82	0
55	MG	AA	1740	1/1	0.93	0.44	76,76,76,76	0
55	MG	DA	3059	1/1	0.93	0.33	61,61,61,61	0
55	MG	DA	3348	1/1	0.93	0.19	56,56,56,56	0
55	MG	DA	3349	1/1	0.93	0.18	78,78,78,78	0
55	MG	CA	1694	1/1	0.93	0.18	80,80,80,80	0
55	MG	DA	3061	1/1	0.93	0.30	53,53,53,53	0
55	MG	BA	3415	1/1	0.93	0.17	65,65,65,65	0
55	MG	AA	1608	1/1	0.93	0.22	65,65,65,65	0
55	MG	BA	3417	1/1	0.93	0.34	86,86,86,86	0
55	MG	DA	3450	1/1	0.93	0.26	54,54,54,54	0
55	MG	CA	1699	1/1	0.93	0.54	87,87,87,87	0
55	MG	DA	3071	1/1	0.93	0.43	57,57,57,57	0
55	MG	DA	3266	1/1	0.93	0.35	82,82,82,82	0
55	MG	BA	3188	1/1	0.93	0.24	64,64,64,64	0
55	MG	DA	3170	1/1	0.93	0.31	59,59,59,59	0
55	MG	DA	3461	1/1	0.93	0.35	97,97,97,97	0
55	MG	AA	1693	1/1	0.93	0.22	72,72,72,72	0
55	MG	BA	3340	1/1	0.93	0.24	69,69,69,69	0
55	MG	BA	3528	1/1	0.93	0.21	32,32,32,32	0
55	MG	BA	3529	1/1	0.93	0.30	42,42,42,42	0
55	MG	DA	3175	1/1	0.93	0.33	60,60,60,60	0
55	MG	BA	3227	1/1	0.93	0.30	64,64,64,64	0
55	MG	DA	3276	1/1	0.93	0.14	81,81,81,81	0
55	MG	BA	3108	1/1	0.93	0.28	58,58,58,58	0
55	MG	BA	3533	1/1	0.93	0.37	91,91,91,91	0
55	MG	DA	3472	1/1	0.93	0.20	53,53,53,53	0
55	MG	DA	3083	1/1	0.93	0.16	65,65,65,65	0
55	MG	AA	1675	1/1	0.93	0.15	81,81,81,81	0
55	MG	BF	301	1/1	0.93	0.16	79,79,79,79	0
55	MG	BA	3151	1/1	0.93	0.48	97,97,97,97	0
55	MG	BA	3536	1/1	0.93	0.07	37,37,37,37	0
55	MG	DA	3090	1/1	0.93	0.30	71,71,71,71	0
55	MG	BA	3153	1/1	0.93	0.33	78,78,78,78	0
55	MG	BA	3110	1/1	0.93	0.22	69,69,69,69	0
55	MG	DA	3093	1/1	0.93	0.26	52,52,52,52	0
55	MG	BA	3004	1/1	0.93	0.21	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	3388	1/1	0.93	0.23	76,76,76,76	0
55	MG	DA	3097	1/1	0.93	0.30	53,53,53,53	0
55	MG	BA	3055	1/1	0.93	0.48	78,78,78,78	0
55	MG	DA	3010	1/1	0.93	0.23	53,53,53,53	0
55	MG	BA	3431	1/1	0.93	0.17	66,66,66,66	0
55	MG	DA	3200	1/1	0.93	0.37	55,55,55,55	0
55	MG	CA	1721	1/1	0.93	0.30	82,82,82,82	0
55	MG	DA	3204	1/1	0.93	0.17	48,48,48,48	0
55	MG	BA	3311	1/1	0.93	0.28	68,68,68,68	0
55	MG	BA	3157	1/1	0.93	0.31	50,50,50,50	0
55	MG	BA	3434	1/1	0.93	0.26	69,69,69,69	0
55	MG	BA	3435	1/1	0.93	0.29	49,49,49,49	0
55	MG	BA	3392	1/1	0.93	0.35	78,78,78,78	0
55	MG	DA	3019	1/1	0.93	0.24	79,79,79,79	0
55	MG	DA	3020	1/1	0.93	0.20	45,45,45,45	0
55	MG	BA	3275	1/1	0.93	0.24	60,60,60,60	0
55	MG	BA	3394	1/1	0.93	0.26	80,80,80,80	0
55	MG	BA	3486	1/1	0.93	0.23	42,42,42,42	0
55	MG	BA	3034	1/1	0.93	0.23	40,40,40,40	0
55	MG	CA	1607	1/1	0.93	0.14	70,70,70,70	0
55	MG	DA	3027	1/1	0.93	0.11	47,47,47,47	0
55	MG	CA	1734	1/1	0.93	0.19	80,80,80,80	0
55	MG	CA	1608	1/1	0.93	0.17	74,74,74,74	0
55	MG	BA	3009	1/1	0.93	0.23	58,58,58,58	0
55	MG	BA	3036	1/1	0.93	0.22	58,58,58,58	0
55	MG	CA	1798	1/1	0.93	0.34	74,74,74,74	0
55	MG	BA	3010	1/1	0.93	0.26	45,45,45,45	0
55	MG	DA	3408	1/1	0.93	0.17	66,66,66,66	0
55	MG	DA	3224	1/1	0.93	0.15	75,75,75,75	0
55	MG	BA	3011	1/1	0.93	0.29	40,40,40,40	0
55	MG	DA	3130	1/1	0.93	0.25	49,49,49,49	0
55	MG	CA	1801	1/1	0.93	0.27	81,81,81,81	0
55	MG	BA	3498	1/1	0.93	0.16	40,40,40,40	0
55	MG	AA	1662	1/1	0.93	0.15	41,41,41,41	0
55	MG	AA	1647	1/1	0.93	0.31	81,81,81,81	0
55	MG	DA	3416	1/1	0.93	0.48	77,77,77,77	0
55	MG	CA	1649	1/1	0.94	0.50	77,77,77,77	0
55	MG	AA	1627	1/1	0.94	0.21	62,62,62,62	0
55	MG	DA	3006	1/1	0.94	0.26	50,50,50,50	0
55	MG	BA	3094	1/1	0.94	0.30	68,68,68,68	0
55	MG	BA	3018	1/1	0.94	0.30	44,44,44,44	0
55	MG	B0	201	1/1	0.94	0.23	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3433	1/1	0.94	0.44	50,50,50,50	0
55	MG	DA	3086	1/1	0.94	0.46	75,75,75,75	0
55	MG	CA	1654	1/1	0.94	0.25	78,78,78,78	0
55	MG	DA	3260	1/1	0.94	0.27	73,73,73,73	0
55	MG	BA	3174	1/1	0.94	0.27	46,46,46,46	0
55	MG	DA	3089	1/1	0.94	0.45	60,60,60,60	0
55	MG	BA	3044	1/1	0.94	0.17	68,68,68,68	0
55	MG	AA	1684	1/1	0.94	0.27	83,83,83,83	0
55	MG	BA	3307	1/1	0.94	0.39	79,79,79,79	0
55	MG	CA	1724	1/1	0.94	0.13	87,87,87,87	0
55	MG	BA	3177	1/1	0.94	0.17	34,34,34,34	0
55	MG	BA	3309	1/1	0.94	0.40	77,77,77,77	0
55	MG	DA	3269	1/1	0.94	0.29	78,78,78,78	0
55	MG	DA	3018	1/1	0.94	0.22	46,46,46,46	0
55	MG	BA	3130	1/1	0.94	0.36	50,50,50,50	0
55	MG	CA	1789	1/1	0.94	0.17	71,71,71,71	0
55	MG	AA	1718	1/1	0.94	0.09	82,82,82,82	0
55	MG	BA	3441	1/1	0.94	0.22	84,84,84,84	0
55	MG	DA	3186	1/1	0.94	0.20	60,60,60,60	0
55	MG	CA	1602	1/1	0.94	0.32	64,64,64,64	0
55	MG	DA	3455	1/1	0.94	0.11	44,44,44,44	0
55	MG	BA	3313	1/1	0.94	0.20	74,74,74,74	0
55	MG	AA	1719	1/1	0.94	0.24	80,80,80,80	0
55	MG	DA	3105	1/1	0.94	0.20	37,37,37,37	0
55	MG	BA	3133	1/1	0.94	0.16	42,42,42,42	0
55	MG	AA	1667	1/1	0.94	0.51	78,78,78,78	0
55	MG	BA	3496	1/1	0.94	0.17	45,45,45,45	0
55	MG	DA	3197	1/1	0.94	0.21	48,48,48,48	0
55	MG	DA	3109	1/1	0.94	0.29	55,55,55,55	0
55	MG	BA	3497	1/1	0.94	0.12	30,30,30,30	0
55	MG	BA	3102	1/1	0.94	0.15	68,68,68,68	0
55	MG	DA	3201	1/1	0.94	0.24	76,76,76,76	0
55	MG	DA	3202	1/1	0.94	0.29	67,67,67,67	0
55	MG	DA	3470	1/1	0.94	0.32	54,54,54,54	0
55	MG	BA	3500	1/1	0.94	0.45	64,64,64,64	0
55	MG	BA	3360	1/1	0.94	0.26	81,81,81,81	0
55	MG	DA	3116	1/1	0.94	0.28	61,61,61,61	0
55	MG	BA	3558	1/1	0.94	0.31	85,85,85,85	0
55	MG	DA	3475	1/1	0.94	0.25	62,62,62,62	0
55	MG	BA	3072	1/1	0.94	0.33	67,67,67,67	0
55	MG	BA	3073	1/1	0.94	0.26	65,65,65,65	0
55	MG	BA	3025	1/1	0.94	0.34	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	3145	1/1	0.94	0.16	54,54,54,54	0
55	MG	BA	3506	1/1	0.94	0.27	73,73,73,73	0
55	MG	AA	1817	1/1	0.94	0.14	61,61,61,61	0
55	MG	DA	3385	1/1	0.94	0.29	86,86,86,86	0
55	MG	DA	3483	1/1	0.94	0.42	82,82,82,82	0
55	MG	BA	3147	1/1	0.94	0.23	47,47,47,47	0
55	MG	BA	3454	1/1	0.94	0.41	80,80,80,80	0
55	MG	AA	1602	1/1	0.94	0.19	71,71,71,71	0
55	MG	DA	3302	1/1	0.94	0.33	69,69,69,69	0
55	MG	BA	3005	1/1	0.94	0.25	40,40,40,40	0
55	MG	DA	3132	1/1	0.94	0.24	77,77,77,77	0
55	MG	BA	3239	1/1	0.94	0.12	69,69,69,69	0
55	MG	BA	3327	1/1	0.94	0.21	69,69,69,69	0
55	MG	BA	3006	1/1	0.94	0.36	58,58,58,58	0
55	MG	BA	3241	1/1	0.94	0.25	62,62,62,62	0
55	MG	BA	3032	1/1	0.94	0.22	41,41,41,41	0
55	MG	BA	3518	1/1	0.94	0.35	36,36,36,36	0
55	MG	BA	3008	1/1	0.94	0.25	44,44,44,44	0
55	MG	DA	3313	1/1	0.94	0.06	84,84,84,84	0
55	MG	CA	1695	1/1	0.94	0.35	69,69,69,69	0
55	MG	BA	3419	1/1	0.94	0.34	80,80,80,80	0
55	MG	AA	1657	1/1	0.94	0.26	76,76,76,76	0
55	MG	DA	3145	1/1	0.94	0.22	54,54,54,54	0
55	MG	DA	3058	1/1	0.94	0.24	53,53,53,53	0
55	MG	DA	3230	1/1	0.94	0.40	74,74,74,74	0
55	MG	BA	3465	1/1	0.94	0.35	61,61,61,61	0
55	MG	CA	1635	1/1	0.94	0.33	72,72,72,72	0
55	MG	BB	212	1/1	0.94	0.40	74,74,74,74	0
55	MG	AA	1707	1/1	0.94	0.14	81,81,81,81	0
55	MG	DA	3065	1/1	0.94	0.33	75,75,75,75	0
55	MG	BA	3117	1/1	0.94	0.28	52,52,52,52	0
55	MG	BA	3118	1/1	0.94	0.31	49,49,49,49	0
55	MG	BB	216	1/1	0.94	0.28	63,63,63,63	0
55	MG	BA	3084	1/1	0.94	0.26	37,37,37,37	0
55	MG	DA	3240	1/1	0.94	0.20	55,55,55,55	0
55	MG	AA	1789	1/1	0.94	0.23	63,63,63,63	0
55	MG	DA	3158	1/1	0.94	0.27	80,80,80,80	0
55	MG	AA	1658	1/1	0.94	0.24	56,56,56,56	0
55	MG	D5	101	1/1	0.94	0.28	58,58,58,58	0
55	MG	BA	3165	1/1	0.94	0.24	60,60,60,60	0
55	MG	D7	101	1/1	0.94	0.35	86,86,86,86	0
55	MG	AA	1811	1/1	0.94	0.33	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	DA	3078	1/1	0.94	0.37	76,76,76,76	0
55	MG	BA	3015	1/1	0.94	0.25	35,35,35,35	0
55	MG	BA	3016	1/1	0.95	0.30	48,48,48,48	0
55	MG	DA	3131	1/1	0.95	0.26	48,48,48,48	0
55	MG	BA	3160	1/1	0.95	0.21	44,44,44,44	0
55	MG	BA	3264	1/1	0.95	0.32	61,61,61,61	0
55	MG	AA	1668	1/1	0.95	0.33	68,68,68,68	0
55	MG	CA	1728	1/1	0.95	0.32	58,58,58,58	0
55	MG	BA	3120	1/1	0.95	0.26	42,42,42,42	0
55	MG	BA	3212	1/1	0.95	0.30	68,68,68,68	0
55	MG	DA	3138	1/1	0.95	0.32	54,54,54,54	0
55	MG	DA	3247	1/1	0.95	0.27	58,58,58,58	0
55	MG	CA	1818	1/1	0.95	0.32	81,81,81,81	0
55	MG	DA	3249	1/1	0.95	0.10	81,81,81,81	0
55	MG	BA	3214	1/1	0.95	0.33	58,58,58,58	0
55	MG	BA	3296	1/1	0.95	0.24	60,60,60,60	0
55	MG	BA	3215	1/1	0.95	0.22	44,44,44,44	0
55	MG	CA	1689	1/1	0.95	0.24	73,73,73,73	0
55	MG	DA	3254	1/1	0.95	0.34	80,80,80,80	0
55	MG	DA	3144	1/1	0.95	0.40	66,66,66,66	0
55	MG	BA	3030	1/1	0.95	0.23	41,41,41,41	0
55	MG	BA	3140	1/1	0.95	0.33	67,67,67,67	0
55	MG	BA	3167	1/1	0.95	0.27	45,45,45,45	0
55	MG	BA	3085	1/1	0.95	0.23	38,38,38,38	0
55	MG	AN	201	1/1	0.95	0.11	67,67,67,67	0
55	MG	AA	1612	1/1	0.95	0.07	88,88,88,88	0
55	MG	DA	3041	1/1	0.95	0.37	47,47,47,47	0
55	MG	DA	3429	1/1	0.95	0.30	54,54,54,54	0
55	MG	BA	3359	1/1	0.95	0.40	78,78,78,78	0
55	MG	AA	1721	1/1	0.95	0.26	60,60,60,60	0
55	MG	AC	104	1/1	0.95	0.26	64,64,64,64	0
55	MG	AA	1659	1/1	0.95	0.29	46,46,46,46	0
55	MG	BA	3077	1/1	0.95	0.06	83,83,83,83	0
55	MG	BE	301	1/1	0.95	0.09	57,57,57,57	0
55	MG	BE	302	1/1	0.95	0.29	40,40,40,40	0
55	MG	BA	3002	1/1	0.95	0.25	40,40,40,40	0
55	MG	BA	3519	1/1	0.95	0.23	24,24,24,24	0
55	MG	CA	1664	1/1	0.95	0.28	64,64,64,64	0
55	MG	DA	3003	1/1	0.95	0.19	58,58,58,58	0
55	MG	BA	3337	1/1	0.95	0.29	52,52,52,52	0
55	MG	BA	3096	1/1	0.95	0.31	63,63,63,63	0
55	MG	BA	3038	1/1	0.95	0.14	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	3179	1/1	0.95	0.26	72,72,72,72	0
55	MG	BA	3370	1/1	0.95	0.33	78,78,78,78	0
55	MG	AA	1692	1/1	0.95	0.26	73,73,73,73	0
55	MG	BA	3527	1/1	0.95	0.05	40,40,40,40	0
55	MG	BA	3490	1/1	0.95	0.23	36,36,36,36	0
55	MG	CA	1631	1/1	0.95	0.22	65,65,65,65	0
55	MG	CA	1715	1/1	0.95	0.32	89,89,89,89	0
55	MG	DA	3452	1/1	0.95	0.25	52,52,52,52	0
55	MG	BA	3286	1/1	0.95	0.32	46,46,46,46	0
55	MG	BA	3494	1/1	0.95	0.30	76,76,76,76	0
55	MG	DA	3456	1/1	0.95	0.32	57,57,57,57	0
55	MG	AA	1661	1/1	0.95	0.26	56,56,56,56	0
55	MG	CA	1636	1/1	0.95	0.21	53,53,53,53	0
55	MG	CA	1637	1/1	0.95	0.14	70,70,70,70	0
55	MG	DA	3073	1/1	0.95	0.35	84,84,84,84	0
55	MG	BW	101	1/1	0.95	0.15	64,64,64,64	0
55	MG	DA	3401	1/1	0.95	0.10	75,75,75,75	0
55	MG	DA	3075	1/1	0.95	0.23	57,57,57,57	0
56	ZN	CG	303	1/1	0.95	0.23	109,109,109,109	0
55	MG	DA	3303	1/1	0.96	0.19	76,76,76,76	0
55	MG	DA	3023	1/1	0.96	0.06	47,47,47,47	0
55	MG	BA	3492	1/1	0.96	0.49	54,54,54,54	0
55	MG	DA	3096	1/1	0.96	0.30	47,47,47,47	0
55	MG	BA	3255	1/1	0.96	0.26	50,50,50,50	0
55	MG	CA	1634	1/1	0.96	0.35	58,58,58,58	0
55	MG	BA	3007	1/1	0.96	0.14	36,36,36,36	0
55	MG	DA	3063	1/1	0.96	0.20	45,45,45,45	0
55	MG	BA	3273	1/1	0.96	0.29	73,73,73,73	0
55	MG	CA	1717	1/1	0.96	0.36	73,73,73,73	0
55	MG	CA	1718	1/1	0.96	0.14	64,64,64,64	0
55	MG	DA	3067	1/1	0.96	0.17	50,50,50,50	0
55	MG	CA	1663	1/1	0.96	0.32	80,80,80,80	0
55	MG	BA	3185	1/1	0.96	0.10	46,46,46,46	0
55	MG	DA	3317	1/1	0.96	0.26	58,58,58,58	0
55	MG	DA	3070	1/1	0.96	0.30	49,49,49,49	0
55	MG	DA	3150	1/1	0.96	0.39	77,77,77,77	0
55	MG	DA	3193	1/1	0.96	0.35	48,48,48,48	0
55	MG	BA	3476	1/1	0.96	0.24	47,47,47,47	0
55	MG	DA	3002	1/1	0.96	0.31	48,48,48,48	0
55	MG	BA	3213	1/1	0.96	0.24	41,41,41,41	0
55	MG	DA	3004	1/1	0.96	0.10	39,39,39,39	0
55	MG	BA	3164	1/1	0.96	0.25	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	3523	1/1	0.96	0.30	36,36,36,36	0
55	MG	BA	3088	1/1	0.96	0.27	57,57,57,57	0
55	MG	BA	3261	1/1	0.96	0.32	57,57,57,57	0
55	MG	DA	3118	1/1	0.96	0.30	55,55,55,55	0
55	MG	BB	205	1/1	0.96	0.17	71,71,71,71	0
55	MG	BA	3111	1/1	0.96	0.16	55,55,55,55	0
55	MG	AA	1641	1/1	0.96	0.19	56,56,56,56	0
55	MG	DA	3122	1/1	0.96	0.26	69,69,69,69	0
55	MG	AA	1603	1/1	0.96	0.20	65,65,65,65	0
55	MG	BA	3552	1/1	0.96	0.22	45,45,45,45	0
55	MG	BA	3170	1/1	0.96	0.19	54,54,54,54	0
55	MG	BA	3114	1/1	0.96	0.09	37,37,37,37	0
55	MG	DA	3049	1/1	0.96	0.32	55,55,55,55	0
55	MG	BA	3531	1/1	0.96	0.18	31,31,31,31	0
55	MG	BA	3251	1/1	0.96	0.38	80,80,80,80	0
55	MG	DA	3427	1/1	0.96	0.24	56,56,56,56	0
55	MG	BA	3303	1/1	0.96	0.34	73,73,73,73	0
55	MG	BA	3207	1/1	0.96	0.48	70,70,70,70	0
55	MG	BA	3152	1/1	0.96	0.27	58,58,58,58	0
55	MG	BA	3142	1/1	0.96	0.12	49,49,49,49	0
55	MG	BA	3491	1/1	0.96	0.21	41,41,41,41	0
55	MG	BA	3014	1/1	0.97	0.34	43,43,43,43	0
55	MG	BA	3193	1/1	0.97	0.04	46,46,46,46	0
55	MG	BA	3040	1/1	0.97	0.29	74,74,74,74	0
55	MG	DA	3430	1/1	0.97	0.35	52,52,52,52	0
55	MG	BA	3092	1/1	0.97	0.20	67,67,67,67	0
55	MG	DA	3191	1/1	0.97	0.41	55,55,55,55	0
55	MG	BA	3363	1/1	0.97	0.26	57,57,57,57	0
55	MG	BA	3134	1/1	0.97	0.15	59,59,59,59	0
55	MG	AA	1632	1/1	0.97	0.16	55,55,55,55	0
55	MG	DA	3111	1/1	0.97	0.17	45,45,45,45	0
55	MG	DA	3112	1/1	0.97	0.26	63,63,63,63	0
55	MG	BA	3150	1/1	0.97	0.35	49,49,49,49	0
55	MG	AA	1677	1/1	0.97	0.26	73,73,73,73	0
55	MG	BA	3057	1/1	0.97	0.09	46,46,46,46	0
55	MG	BA	3020	1/1	0.97	0.15	29,29,29,29	0
55	MG	BA	3221	1/1	0.97	0.38	59,59,59,59	0
55	MG	B7	101	1/1	0.97	0.24	72,72,72,72	0
55	MG	BA	3068	1/1	0.97	0.31	56,56,56,56	0
55	MG	BA	3186	1/1	0.97	0.16	45,45,45,45	0
55	MG	BA	3244	1/1	0.97	0.11	34,34,34,34	0
55	MG	BA	3031	1/1	0.97	0.30	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	BA	3021	1/1	0.97	0.20	42,42,42,42	0
55	MG	BA	3515	1/1	0.97	0.20	81,81,81,81	0
55	MG	BA	3143	1/1	0.97	0.13	43,43,43,43	0
55	MG	BA	3377	1/1	0.97	0.37	64,64,64,64	0
55	MG	DA	3182	1/1	0.97	0.14	47,47,47,47	0
55	MG	BA	3248	1/1	0.97	0.10	34,34,34,34	0
55	MG	DA	3454	1/1	0.97	0.27	52,52,52,52	0
55	MG	BA	3208	1/1	0.97	0.36	55,55,55,55	0
55	MG	DA	3244	1/1	0.97	0.40	80,80,80,80	0
55	MG	BA	3144	1/1	0.97	0.32	39,39,39,39	0
55	MG	BA	3159	1/1	0.97	0.23	57,57,57,57	0
55	MG	DA	3062	1/1	0.98	0.16	39,39,39,39	0
55	MG	DA	3123	1/1	0.98	0.39	50,50,50,50	0
55	MG	BA	3139	1/1	0.98	0.31	43,43,43,43	0
55	MG	BA	3091	1/1	0.98	0.35	73,73,73,73	0
55	MG	BA	3166	1/1	0.98	0.15	28,28,28,28	0
55	MG	BA	3197	1/1	0.98	0.33	57,57,57,57	0
55	MG	BA	3499	1/1	0.98	0.32	38,38,38,38	0
55	MG	BA	3116	1/1	0.98	0.38	50,50,50,50	0
55	MG	AA	1606	1/1	0.98	0.04	77,77,77,77	0
55	MG	DA	3196	1/1	0.98	0.12	45,45,45,45	0
55	MG	BA	3235	1/1	0.98	0.31	39,39,39,39	0
55	MG	DA	3037	1/1	0.98	0.09	71,71,71,71	0
55	MG	BA	3060	1/1	0.98	0.17	51,51,51,51	0
55	MG	CA	1795	1/1	0.98	0.35	73,73,73,73	0
56	ZN	CQ	101	1/1	0.98	0.06	118,118,118,118	0
55	MG	DA	3457	1/1	0.99	0.24	48,48,48,48	0
55	MG	AA	1660	1/1	0.99	0.41	77,77,77,77	0

6.5 Other polymers (i)

There are no such residues in this entry.