Full wwPDB X-ray Structure Validation Report ⓘ

Mar 15, 2026 – 12:30 PM UTC

PDB ID	:	4WQR / pdb_00004wqr
Title	:	Complex of 70S ribosome with tRNA-Phe and mRNA with C-A mismatch in the first position in the A-site.
Authors	:	Rozov, A.; Demeshkina, N.; Yusupov, M.; Yusupova, G.
Deposited on	:	2014-10-22
Resolution	:	3.15 Å(reported)

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

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

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

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

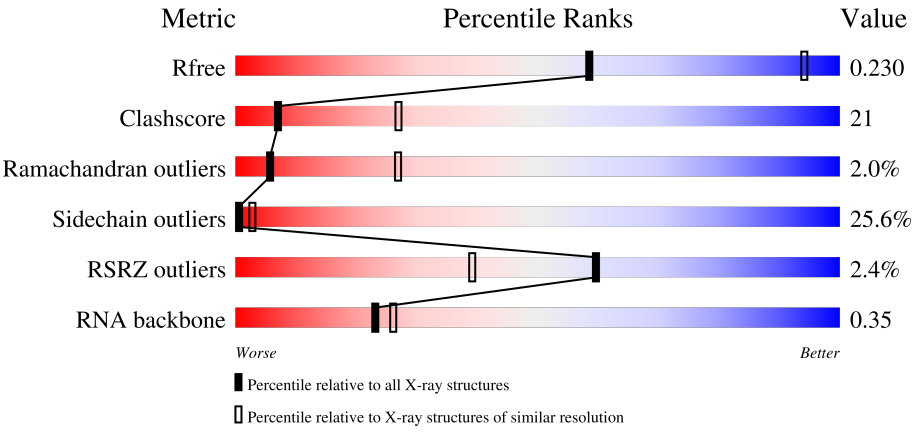
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (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 3.15 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	2361 (3.20-3.12)
Clashscore	190562	2486 (3.20-3.12)
Ramachandran outliers	187476	2405 (3.20-3.12)
Sidechain outliers	187428	2404 (3.20-3.12)
RSRZ outliers	180081	2361 (3.20-3.12)
RNA backbone	3983	1113 (3.42-2.90)

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

Mol	Chain	Length	Quality of chain
1	13	1522	34% 49% 15%
1	1G	1522	35% 47% 15%
2	12	256	3% 45% 37% 10% 7%
2	1E	256	5% 34% 45% 12% 7%

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Mol	Chain	Length	Quality of chain
3	22	239	2% 36% 41% 9% 14%
3	2E	239	% 44% 35% 6% 14%
4	32	209	4% 45% 39% 14%
4	3E	209	6% 38% 47% 13%
5	42	162	2% 37% 42% 14% 7%
5	4E	162	2% 43% 38% 12% 7%
6	52	101	42% 50% 8%
6	5E	101	50% 46%
7	62	156	5% 46% 44% 10%
7	6E	156	8% 50% 40% 10%
8	72	138	4% 45% 37% 17%
8	7E	138	4% 37% 51% 12%
9	82	128	8% 44% 45% 9%
9	8E	128	4% 43% 43% 13%
10	1A	105	10% 39% 44% 10% 6%
10	1I	105	3% 33% 42% 18% 6%
11	2A	129	2% 45% 30% 16% 8%
11	2I	129	5% 41% 38% 12% 8%
12	3A	132	4% 47% 36% 11% 5%
12	3I	132	2% 47% 36% 11% 5%
13	4A	126	9% 32% 48% 12% 7%
13	4I	126	5% 42% 38% 13% 6%
14	5A	61	20% 48% 43% 5% 5%
14	5I	61	5% 39% 43% 15%
15	6A	89	% 58% 34% 7%

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Mol	Chain	Length	Quality of chain
15	6I	89	3% 52% 39% 7%
16	7A	88	42% 41% 13% 5%
16	7I	88	10% 27% 51% 15% 5%
17	8A	105	48% 41% 7% 5%
17	8I	105	39% 46% 8% 5%
18	9A	88	38% 36% 8% 18%
18	9I	88	40% 38% 5% 18%
19	AA	93	5% 25% 48% 10% 16%
19	AI	93	3% 32% 33% 14% 8% 13%
20	BA	106	45% 38% 8% 7%
20	BI	106	10% 46% 36% 10% 7%
21	1B	27	33% 44% 41% 7% 7%
21	1F	27	44% 41% 7% 7%
22	1K	76	7% 36% 38% 26%
22	1L	76	9% 32% 42% 26%
23	2K	77	35% 43% 19%
23	2L	77	34% 44% 18%
24	3K	76	4% 25% 29% 46%
24	3L	76	4% 17% 45% 38%
25	4K	30	10% 27% 10% 53%
25	4L	30	10% 7% 80%
26	14	2917	36% 47% 16%
26	1H	2917	35% 49% 16%
27	16	122	43% 48% 8%
27	1J	122	28% 48% 25%

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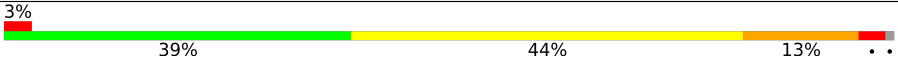
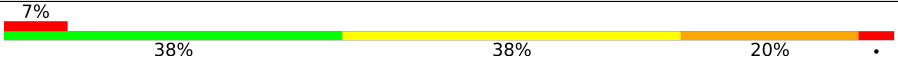
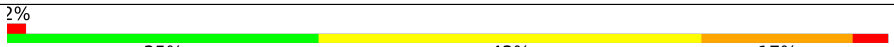
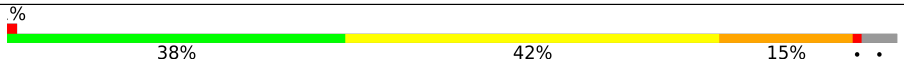
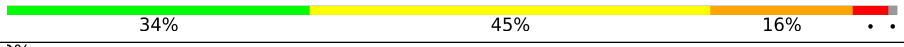
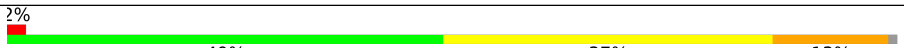
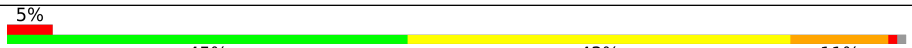
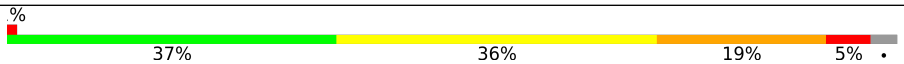
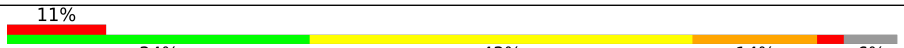
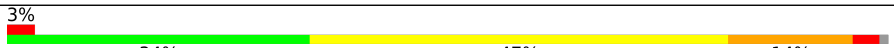
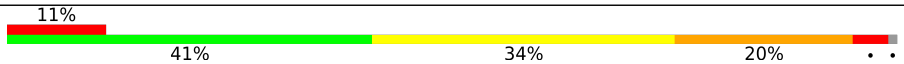
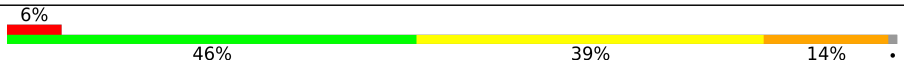
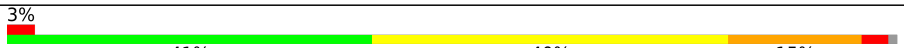
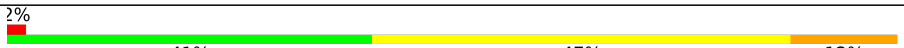
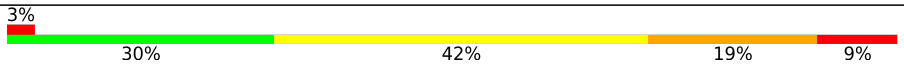
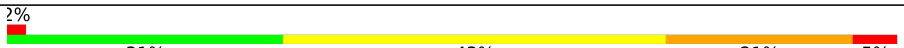
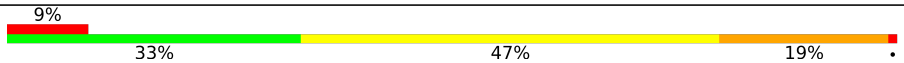
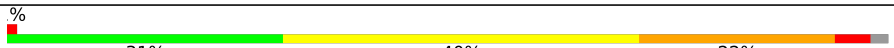
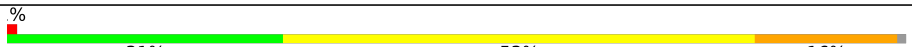
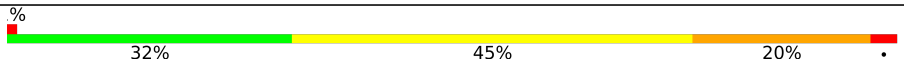
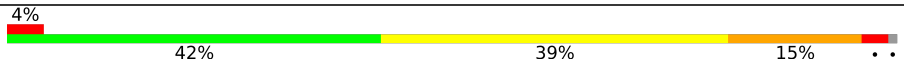
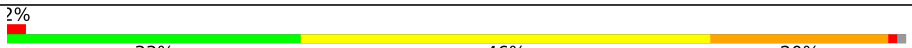
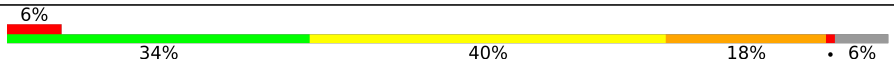
Mol	Chain	Length	Quality of chain
28	11	276	
28	19	276	
29	21	206	
29	29	206	
30	31	210	
30	39	210	
31	41	182	
31	49	182	
32	51	180	
32	59	180	
33	61	148	
33	69	148	
34	15	140	
34	58	140	
35	25	122	
35	68	122	
36	35	150	
36	78	150	
37	45	141	
37	88	141	
38	55	118	
38	98	118	
39	65	112	
39	A8	112	
40	75	146	

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Mol	Chain	Length	Quality of chain
40	B8	146	4% 29% 45% 18% 6%
41	85	118	3% 46% 42% 9%
41	C8	118	% 41% 47% 10%
42	95	101	7% 42% 41% 14%
42	D8	101	3% 38% 47% 14%
43	A5	113	43% 44% 12%
43	E8	113	41% 44% 14%
44	B5	96	2% 46% 36% 12%
44	F8	96	% 38% 46% 15%
45	C5	110	5% 28% 40% 24% 5%
45	G8	110	5% 28% 37% 23% 6% 5%
46	D5	206	26% 47% 12% 13%
46	H8	206	% 29% 44% 9% 15%
47	E5	85	4% 29% 49% 11% 9%
47	I8	85	4% 44% 38% 13% 6%
48	F5	98	4% 43% 43% 12%
48	J8	98	3% 44% 36% 18%
49	G5	72	% 35% 38% 15% 8%
49	K8	72	3% 28% 42% 15% 8% 7%
50	H5	60	45% 35% 17%
50	L8	60	43% 22% 27% 5%
51	I5	71	% 30% 41% 18% 11%
51	M8	71	6% 25% 44% 20% 7%
52	J5	60	40% 45% 12%
52	N8	60	43% 32% 17% 5%

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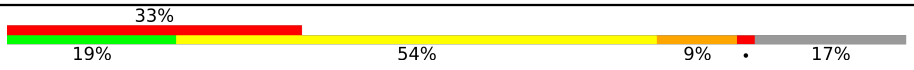
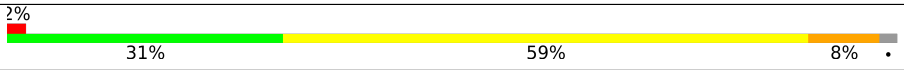
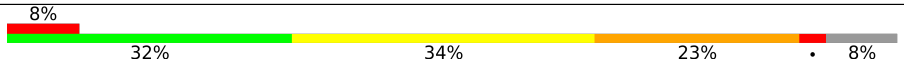
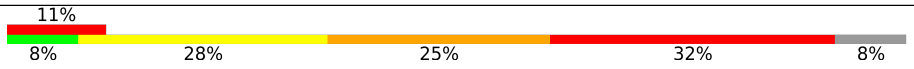
Mol	Chain	Length	Quality of chain
53	K5	54	
53	O8	54	
54	L5	49	
54	P8	49	
55	M5	65	
55	Q8	65	

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
56	MG	13	1648	-	-	-	X
56	MG	13	1680	-	-	-	X
56	MG	13	1689	-	-	-	X
56	MG	13	1693	-	-	-	X
56	MG	13	1704	-	-	-	X
56	MG	13	1712	-	-	-	X
56	MG	14	3112	-	-	-	X
56	MG	14	3128	-	-	-	X
56	MG	14	3218	-	-	-	X
56	MG	14	3240	-	-	-	X
56	MG	14	3241	-	-	-	X
56	MG	14	3252	-	-	-	X
56	MG	14	3254	-	-	-	X
56	MG	1G	1642	-	-	-	X
56	MG	1G	1655	-	-	-	X
56	MG	1G	1662	-	-	-	X
56	MG	1G	1664	-	-	-	X
56	MG	1G	1669	-	-	-	X
56	MG	1G	1677	-	-	-	X
56	MG	1G	1682	-	-	-	X
56	MG	2L	102	-	-	-	X
56	MG	4A	201	-	-	-	X

2 Entry composition

There are 58 unique types of molecules in this entry. The entry contains 300537 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	13	1498	Total	C	N	O	P	0	0	0
			32207	14334	5973	10402	1498			
1	1G	1497	Total	C	N	O	P	0	0	0
			32182	14324	5968	10394	1496			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	1E	237	Total	C	N	O	S	0	0	0
			1924	1228	344	347	5			
2	12	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	2E	205	Total	C	N	O	S	0	0	0
			1605	1011	313	280	1			
3	22	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	3E	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			
4	32	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	4E	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			
5	42	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	5E	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
6	52	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	6E	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
7	62	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	7E	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			
8	72	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	8E	127	Total	C	N	O	0	0	0
			1010	639	197	174			
9	82	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	1I	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	1A	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	2I	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			
11	2A	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	3I	125	Total	C	N	O	S	0	0	0
			975	614	196	164	1			
12	3A	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	4I	118	Total	C	N	O	S	0	0	0
			938	580	193	163	2			
13	4A	117	Total	C	N	O	S	0	0	0
			933	577	192	162	2			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
4I	119	ALA	GLY	conflict	UNP P80377
4A	119	ALA	GLY	conflict	UNP P80377

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	5I	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
14	5A	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	6I	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			
15	6A	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	7I	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			
16	7A	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	8I	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			
17	8A	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	9I	72	Total	C	N	O	0	0	0
			591	376	117	98			
18	9A	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	AI	81	Total	C	N	O	S	0	0	0
			647	413	119	113	2			
19	AA	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	BI	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	BA	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	1F	25	Total	C	N	O	0	0	0
			217	134	52	31			
21	1B	25	Total	C	N	O	0	0	0
			217	134	52	31			

- Molecule 22 is a RNA chain called tRNA-Phe.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
22	1K	76	Total	C	N	O	P	S	0	0	0
			1626	729	290	531	75	1			
22	1L	76	Total	C	N	O	P	S	0	0	0
			1626	729	290	531	75	1			

- Molecule 23 is a RNA chain called tRNA-fMet.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
23	2K	77	Total	C	N	O	P	S	0	0	0
			1646	735	298	535	77	1			
23	2L	77	Total	C	N	O	P	S	0	0	0
			1646	735	298	535	77	1			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
2K	18	C	U	conflict	GB 675817920
2L	18	C	U	conflict	GB 675817920

- Molecule 24 is a RNA chain called tRNA-Phe.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	3K	76	Total	C	N	O	P	0	0	0
			1619	723	290	531	75			
24	3L	76	Total	C	N	O	P	0	0	0
			1619	723	290	531	75			

- Molecule 25 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	4K	14	Total	C	N	O	P	0	0	0
			301	136	60	91	14			
25	4L	6	Total	C	N	O	P	0	0	0
			131	59	27	39	6			

- Molecule 26 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	1H	2912	Total	C	N	O	P	0	0	0
			62707	27911	11722	20163	2911			
26	14	2909	Total	C	N	O	P	0	0	0
			62647	27884	11716	20139	2908			

There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
1H	161	U	-	insertion	GB 48268
1H	493	G	-	insertion	GB 48268
1H	1228	G	-	insertion	GB 48268
14	161	U	-	insertion	GB 48268
14	493	G	-	insertion	GB 48268
14	1228	G	-	insertion	GB 48268

- Molecule 27 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	16	122	Total	C	N	O	P	0	0	0
			2617	1166	486	844	121			
27	1J	122	Total	C	N	O	P	0	0	0
			2617	1166	486	844	121			

- Molecule 28 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	11	273	Total	C	N	O	S	0	0	0
			2120	1338	421	358	3			
28	19	273	Total	C	N	O	S	0	0	0
			2120	1338	421	358	3			

- Molecule 29 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	21	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			
29	29	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			

- Molecule 30 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	31	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			
30	39	208	Total	C	N	O	S	0	0	0
			1627	1037	304	283	3			

- Molecule 31 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	41	181	Total	C	N	O	S	0	0	0
			1473	942	268	259	4			
31	49	181	Total	C	N	O	S	0	0	0
			1473	942	268	259	4			

- Molecule 32 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	51	174	Total	C	N	O	S	0	0	0
			1336	848	251	236	1			
32	59	170	Total	C	N	O	S	0	0	0
			1307	829	245	232	1			

- Molecule 33 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	61	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			
33	69	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			

- Molecule 34 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	58	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
34	15	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

- Molecule 35 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	68	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			
35	25	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 36 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	78	150	Total	C	N	O	S	0	0	0
			1145	712	232	198	3			
36	35	150	Total	C	N	O	S	0	0	0
			1145	712	232	198	3			

- Molecule 37 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	88	138	Total	C	N	O	S	0	0	0
			1087	693	208	180	6			
37	45	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 38 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	98	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
38	55	117	Total	C	N	O		0	0	0
			960	599	202	159				

- Molecule 39 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
39	A8	111	Total	C	N	O	0	0	0
			882	556	176	150			
39	65	111	Total	C	N	O	0	0	0
			882	556	176	150			

- Molecule 40 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	B8	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			
40	75	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			

- Molecule 41 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	C8	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			
41	85	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			

- Molecule 42 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	D8	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			
42	95	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			

- Molecule 43 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	E8	113	Total	C	N	O	S	0	0	0
			900	566	177	155	2			
43	A5	113	Total	C	N	O	S	0	0	0
			900	566	177	155	2			

- Molecule 44 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	F8	94	Total	C	N	O	S	0	0	0
			742	482	134	125	1			
44	B5	93	Total	C	N	O		0	0	0
			730	474	132	124				

- Molecule 45 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	G8	104	Total	C	N	O	S	0	0	0
			791	510	149	127	5			
45	C5	104	Total	C	N	O	S	0	0	0
			794	510	152	127	5			

- Molecule 46 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	H8	175	Total	C	N	O	S	0	0	0
			1397	892	251	251	3			
46	D5	179	Total	C	N	O	S	0	0	0
			1428	911	255	259	3			

- Molecule 47 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	I8	80	Total	C	N	O	S	0	0	0
			627	388	132	106	1			
47	E5	77	Total	C	N	O	S	0	0	0
			613	379	129	104	1			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
I8	6	ALA	GLY	conflict	UNP P60493
I8	8	ALA	GLY	conflict	UNP P60493
E5	6	ALA	GLY	conflict	UNP P60493
E5	8	ALA	GLY	conflict	UNP P60493

- Molecule 48 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	J8	97	Total	C	N	O	S	0	0	0
			763	481	150	131	1			
48	F5	97	Total	C	N	O	S	0	0	0
			763	481	150	131	1			

- Molecule 49 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	K8	67	Total	C	N	O	S	0	0	0
			563	349	114	99	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	G5	66	Total	C	N	O	S	0	0	0
			558	346	113	98	1			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
50	L8	57	Total	C	N	O	0	0	0
			452	288	88	76			
50	H5	59	Total	C	N	O	0	0	0
			469	298	90	81			

- Molecule 51 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	M8	66	Total	C	N	O	S	0	0	0
			533	335	96	97	5			
51	I5	63	Total	C	N	O	S	0	0	0
			515	326	93	91	5			

- Molecule 52 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	N8	58	Total	C	N	O	S	0	0	0
			454	285	89	75	5			
52	J5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			

- Molecule 53 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	O8	45	Total	C	N	O	S	0	0	0
			389	241	79	65	4			
53	K5	45	Total	C	N	O	S	0	0	0
			389	241	79	65	4			

- Molecule 54 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	P8	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			
54	L5	46	Total	C	N	O	S	0	0	0
			398	245	98	53	2			

- Molecule 55 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	Q8	60	Total 480	C 306	N 98	O 74	S 2	0	0	0
55	M5	60	Total 477	C 303	N 98	O 74	S 2	0	0	0

- Molecule 56 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	13	151	Total 151	Mg 151	0	0
56	3E	2	Total 2	Mg 2	0	0
56	5E	1	Total 1	Mg 1	0	0
56	3I	1	Total 1	Mg 1	0	0
56	AI	1	Total 1	Mg 1	0	0
56	1K	2	Total 2	Mg 2	0	0
56	2K	3	Total 3	Mg 3	0	0
56	1H	529	Total 529	Mg 529	0	0
56	16	13	Total 13	Mg 13	0	0
56	11	4	Total 4	Mg 4	0	0
56	21	2	Total 2	Mg 2	0	0
56	31	1	Total 1	Mg 1	0	0
56	41	2	Total 2	Mg 2	0	0
56	78	2	Total 2	Mg 2	0	0
56	88	2	Total 2	Mg 2	0	0
56	98	1	Total 1	Mg 1	0	0
56	C8	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	E8	1	Total Mg 1 1	0	0
56	I8	2	Total Mg 2 2	0	0
56	J8	2	Total Mg 2 2	0	0
56	L8	1	Total Mg 1 1	0	0
56	P8	1	Total Mg 1 1	0	0
56	Q8	1	Total Mg 1 1	0	0
56	1G	103	Total Mg 103 103	0	0
56	4A	1	Total Mg 1 1	0	0
56	6A	1	Total Mg 1 1	0	0
56	2L	2	Total Mg 2 2	0	0
56	14	389	Total Mg 389 389	0	0
56	1J	9	Total Mg 9 9	0	0
56	29	2	Total Mg 2 2	0	0
56	49	1	Total Mg 1 1	0	0
56	35	1	Total Mg 1 1	0	0
56	75	1	Total Mg 1 1	0	0
56	85	1	Total Mg 1 1	0	0
56	C5	1	Total Mg 1 1	0	0
56	F5	1	Total Mg 1 1	0	0

- Molecule 57 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	3E	1	Total Zn 1 1	0	0
57	5I	1	Total Zn 1 1	0	0
57	G8	1	Total Zn 1 1	0	0
57	32	1	Total Zn 1 1	0	0
57	5A	1	Total Zn 1 1	0	0
57	C5	1	Total Zn 1 1	0	0

- Molecule 58 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	13	212	Total O 212 212	0	0
58	3E	1	Total O 1 1	0	0
58	4E	2	Total O 2 2	0	0
58	8E	2	Total O 2 2	0	0
58	1I	2	Total O 2 2	0	0
58	3I	1	Total O 1 1	0	0
58	5I	2	Total O 2 2	0	0
58	1K	1	Total O 1 1	0	0
58	3K	1	Total O 1 1	0	0
58	4K	4	Total O 4 4	0	0
58	1H	1097	Total O 1097 1097	0	0
58	16	16	Total O 16 16	0	0
58	11	9	Total O 9 9	0	0
58	21	5	Total O 5 5	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	31	10	Total O 10 10	0	0
58	58	1	Total O 1 1	0	0
58	78	4	Total O 4 4	0	0
58	98	1	Total O 1 1	0	0
58	C8	2	Total O 2 2	0	0
58	D8	1	Total O 1 1	0	0
58	E8	2	Total O 2 2	0	0
58	G8	3	Total O 3 3	0	0
58	I8	6	Total O 6 6	0	0
58	L8	2	Total O 2 2	0	0
58	P8	2	Total O 2 2	0	0
58	Q8	2	Total O 2 2	0	0
58	1G	99	Total O 99 99	0	0
58	7A	2	Total O 2 2	0	0
58	BA	1	Total O 1 1	0	0
58	14	730	Total O 730 730	0	0
58	1J	12	Total O 12 12	0	0
58	19	11	Total O 11 11	0	0
58	29	6	Total O 6 6	0	0
58	39	7	Total O 7 7	0	0
58	55	1	Total O 1 1	0	0

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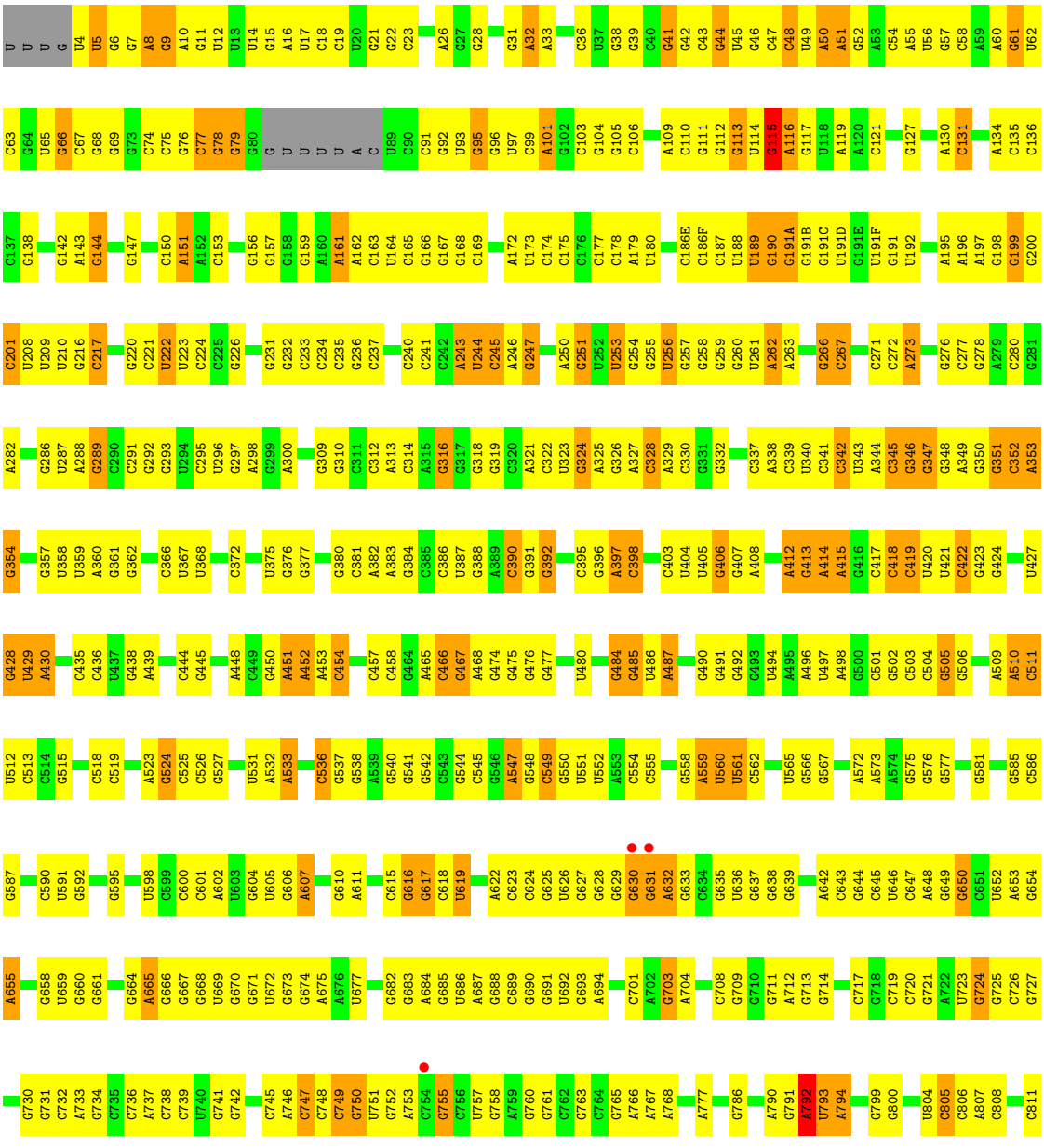
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	85	1	Total O 1 1	0	0
58	A5	1	Total O 1 1	0	0
58	H5	1	Total O 1 1	0	0
58	L5	1	Total O 1 1	0	0

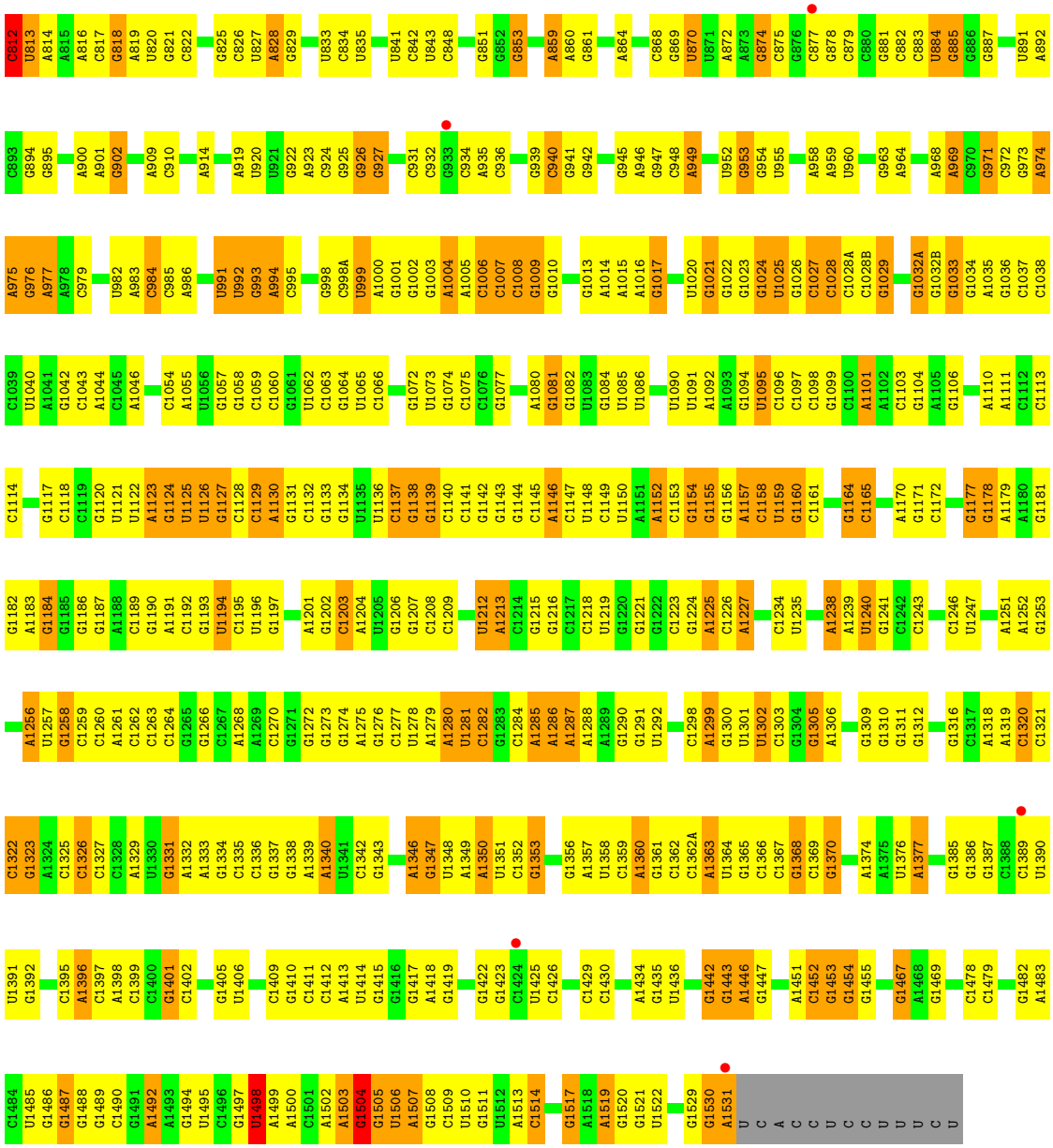
3 Residue-property plots (i)

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

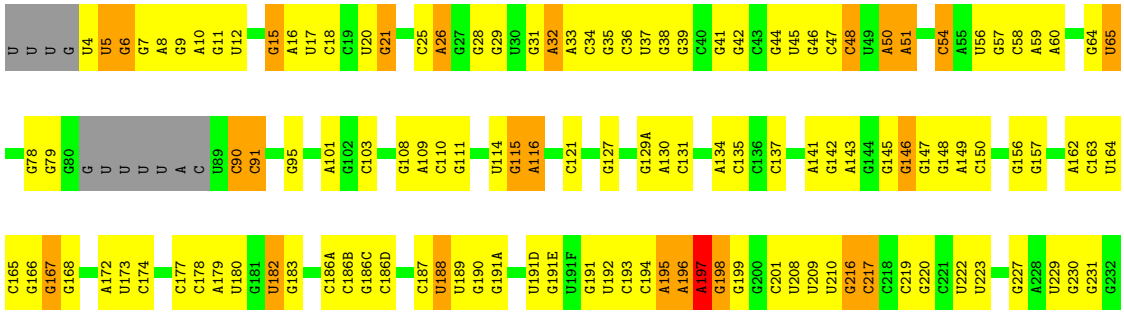
Chain 13:

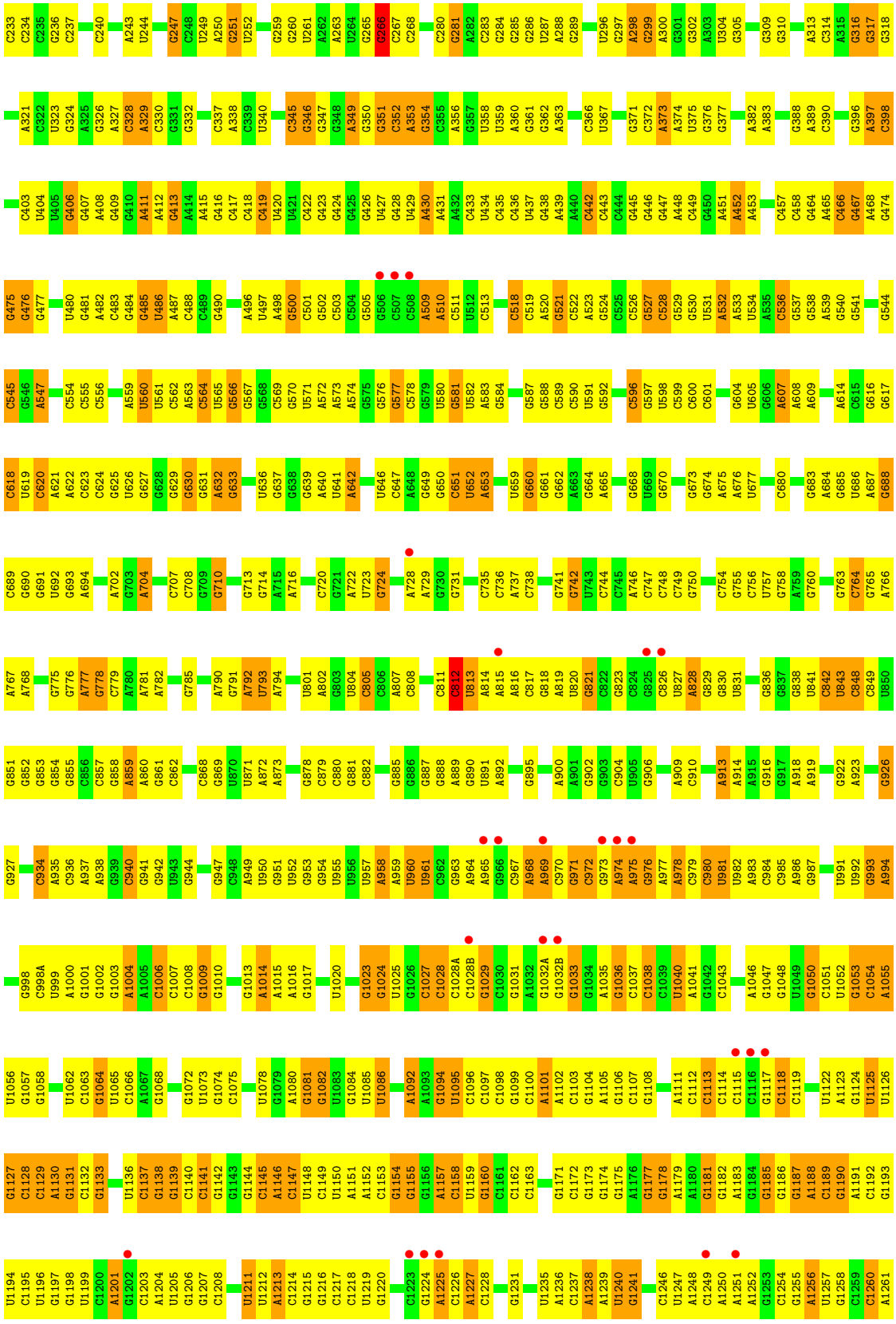


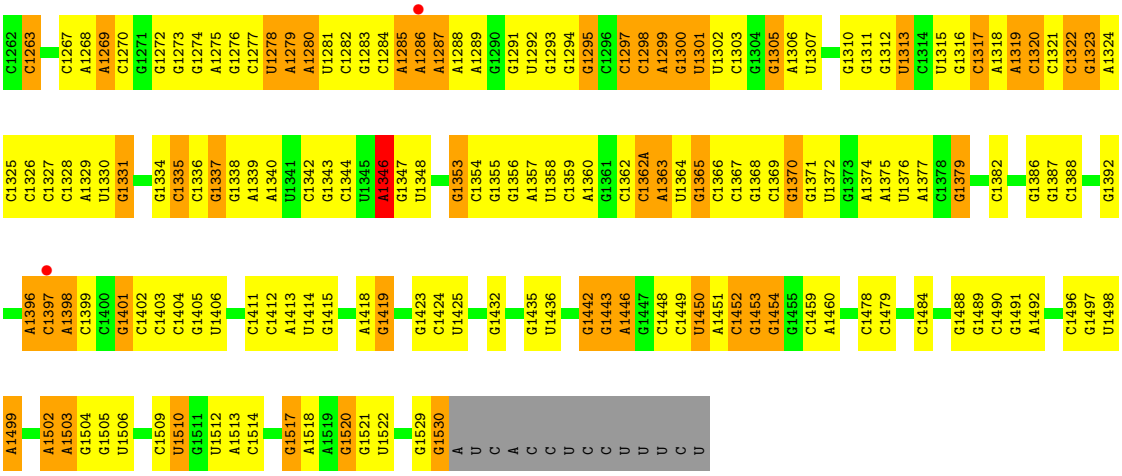


• Molecule 1: 16S ribosomal RNA

Chain 1G:

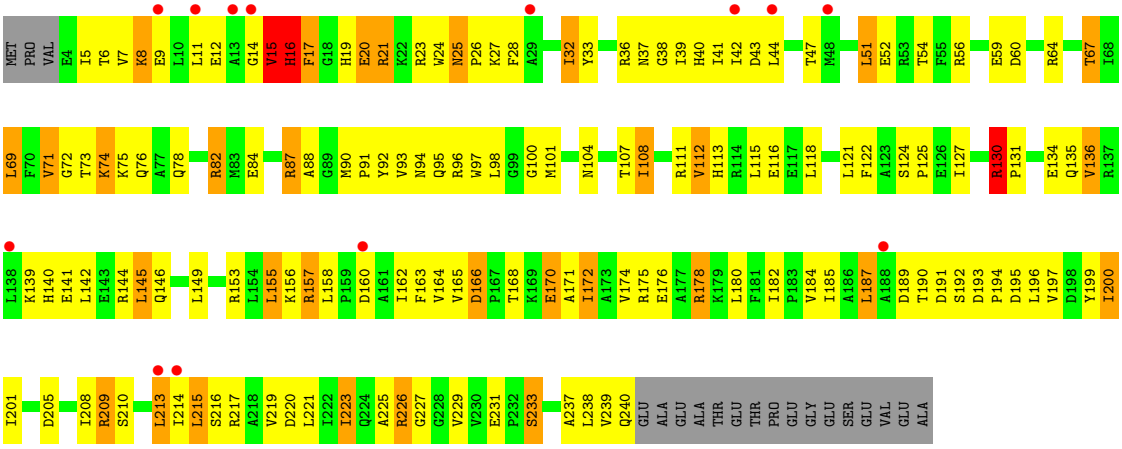






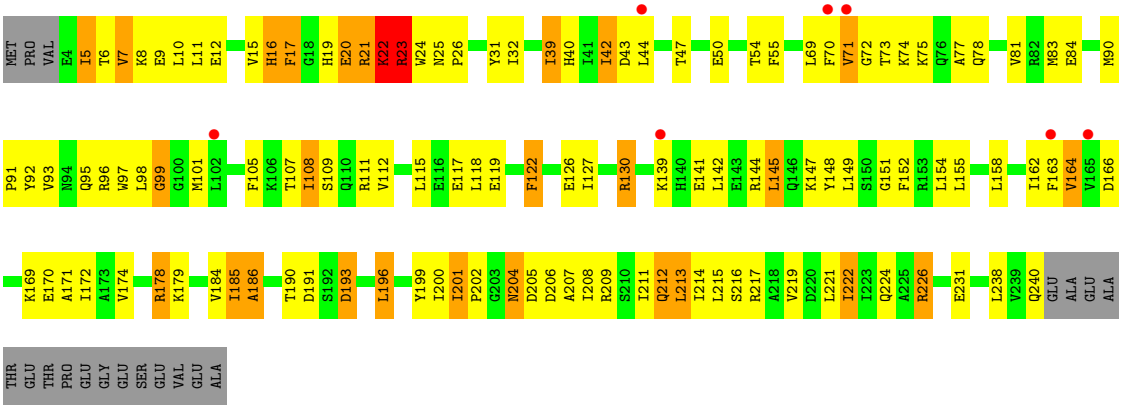
• Molecule 2: 30S ribosomal protein S2

Chain 1E:



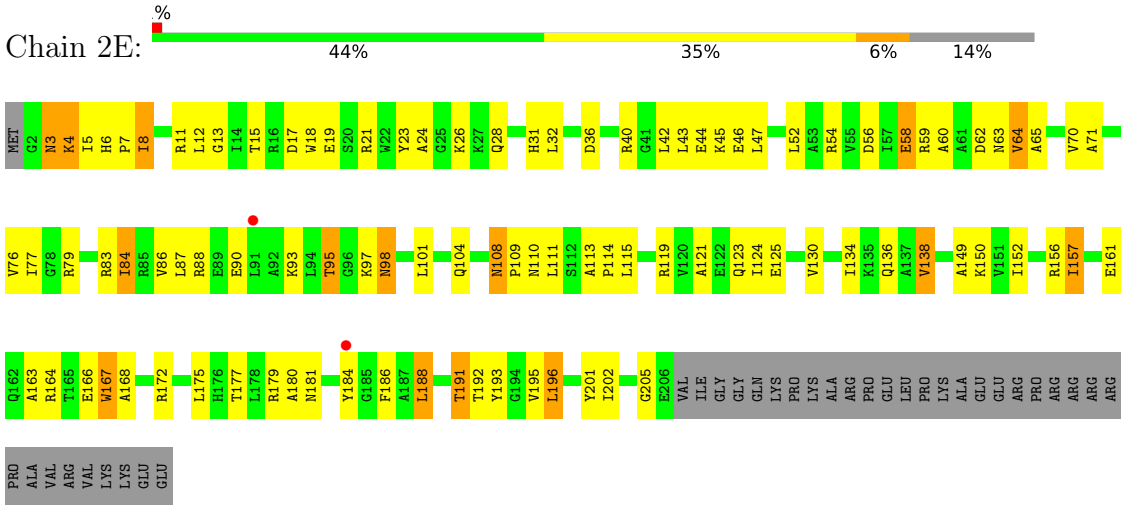
• Molecule 2: 30S ribosomal protein S2

Chain 12:



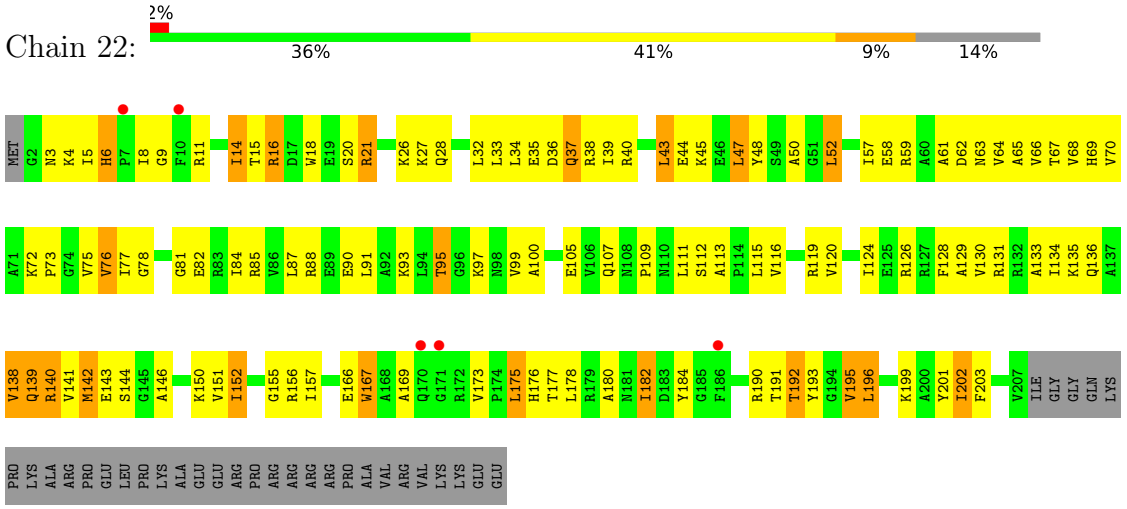
• Molecule 3: 30S ribosomal protein S3

Chain 2E:



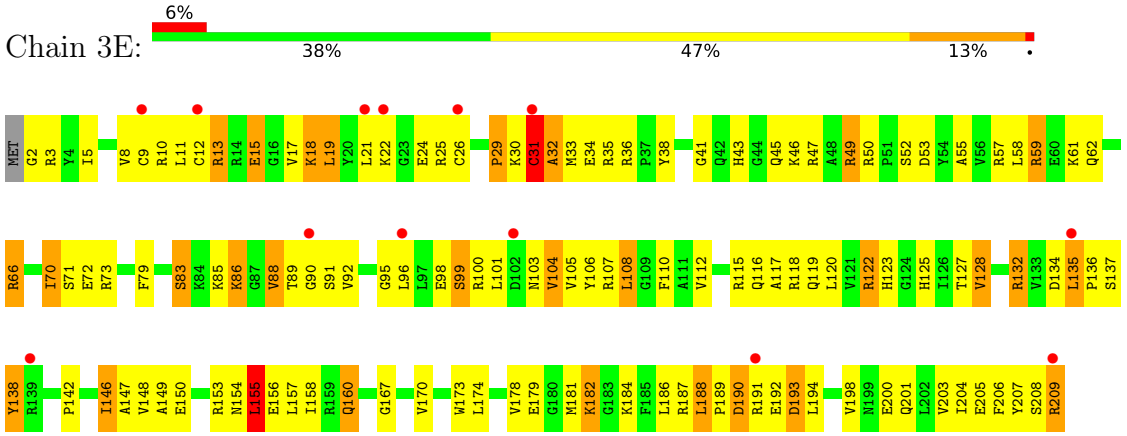
• Molecule 3: 30S ribosomal protein S3

Chain 22:



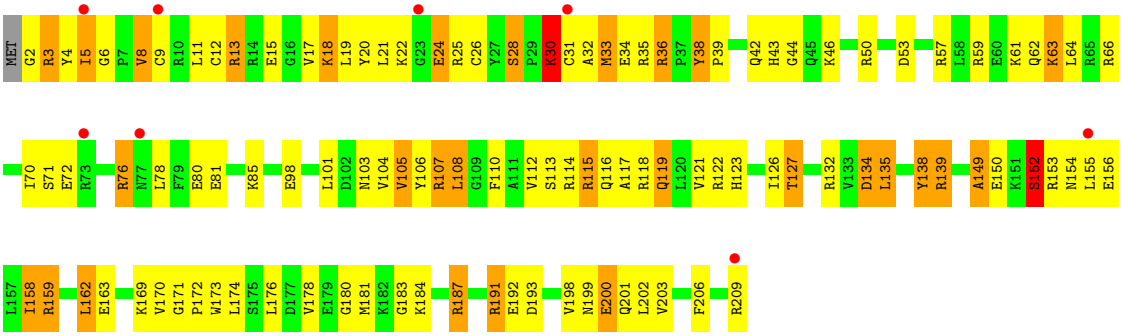
• Molecule 4: 30S ribosomal protein S4

Chain 3E:



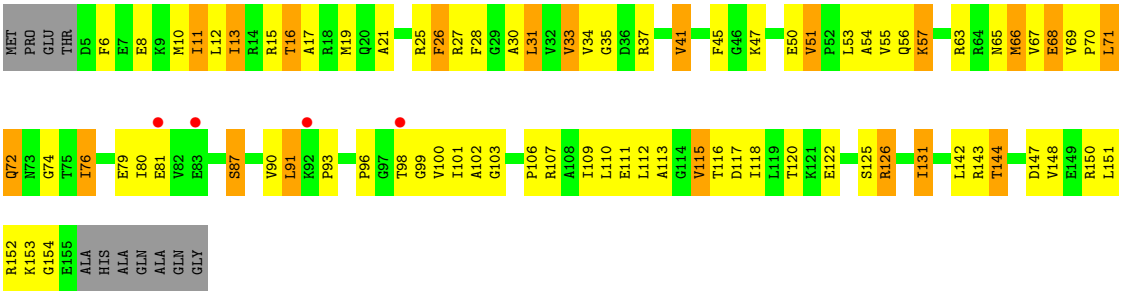
• Molecule 4: 30S ribosomal protein S4

Chain 32:



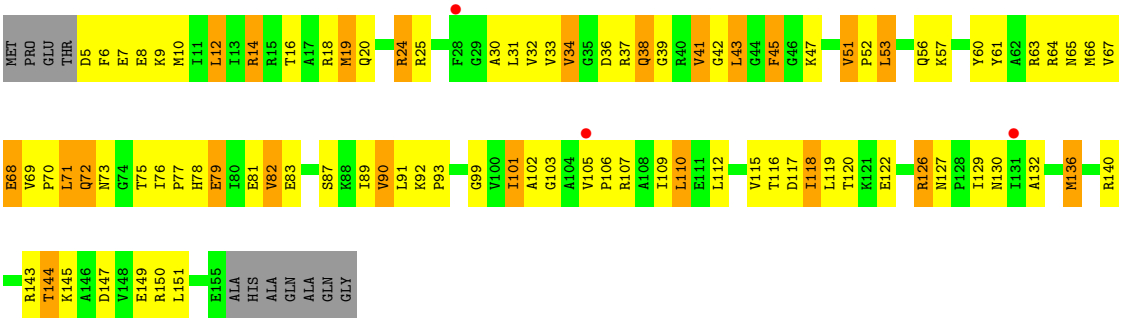
• Molecule 5: 30S ribosomal protein S5

Chain 4E:



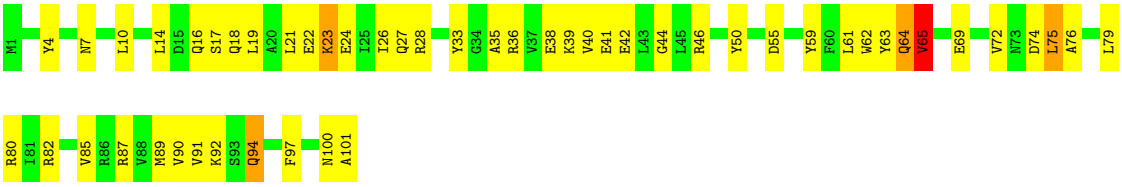
• Molecule 5: 30S ribosomal protein S5

Chain 42:



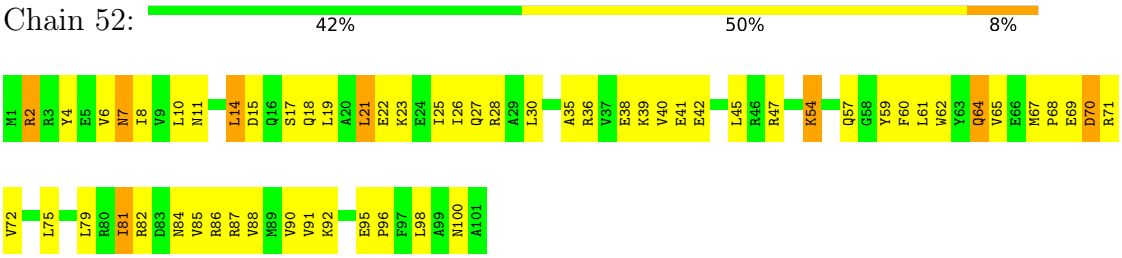
• Molecule 6: 30S ribosomal protein S6

Chain 5E:



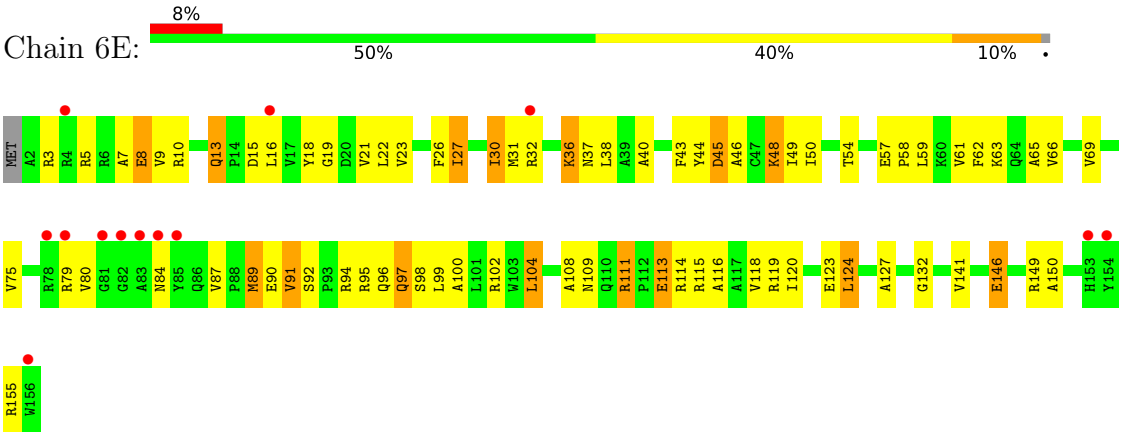
• Molecule 6: 30S ribosomal protein S6

Chain 52:



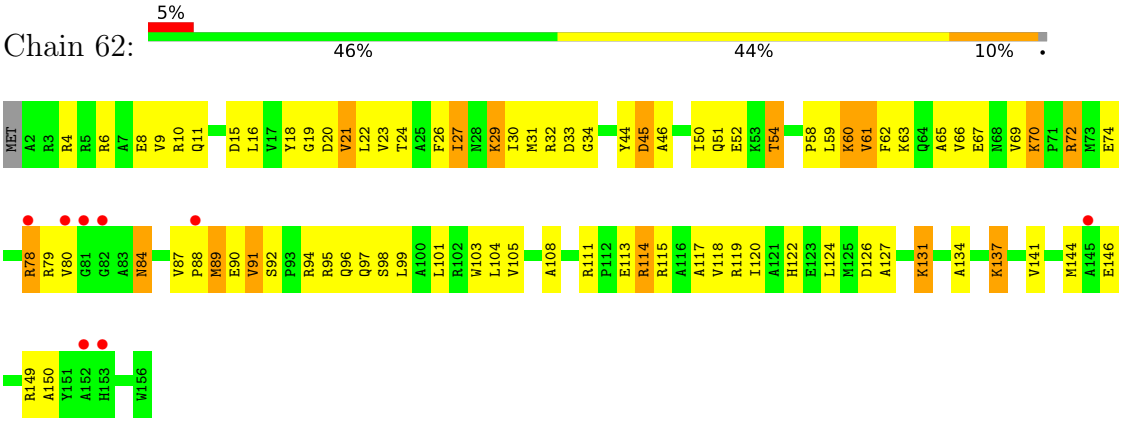
• Molecule 7: 30S ribosomal protein S7

Chain 6E:



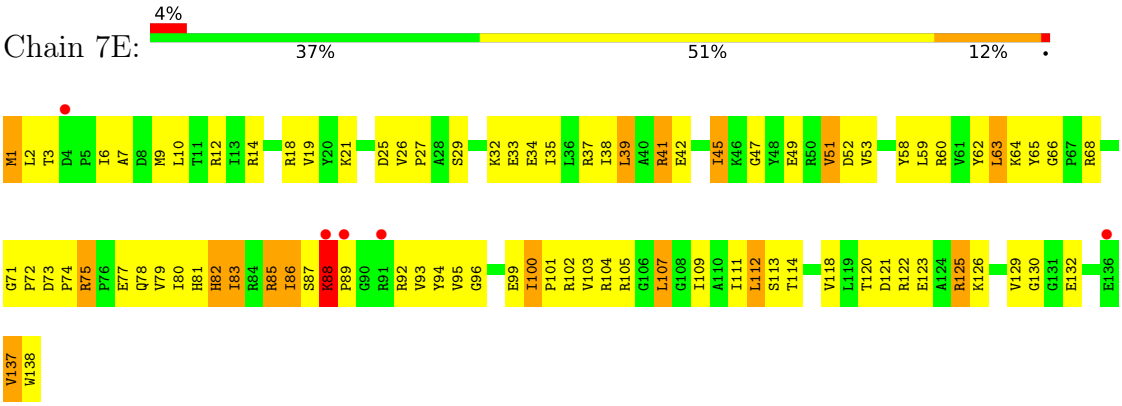
• Molecule 7: 30S ribosomal protein S7

Chain 62:



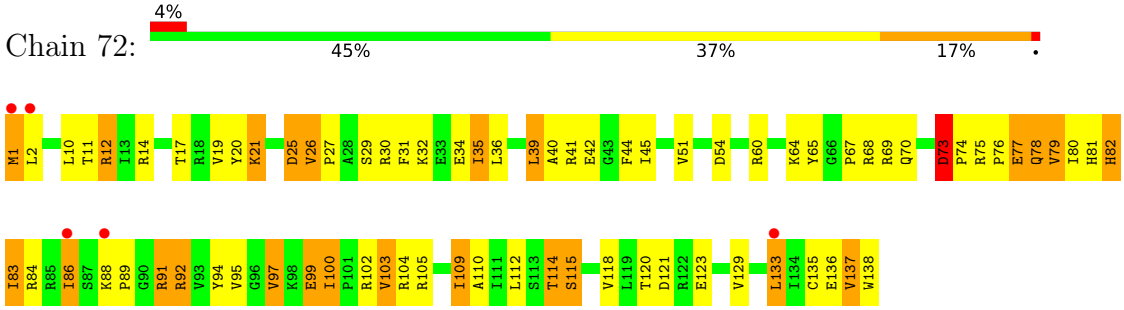
• Molecule 8: 30S ribosomal protein S8

Chain 7E:



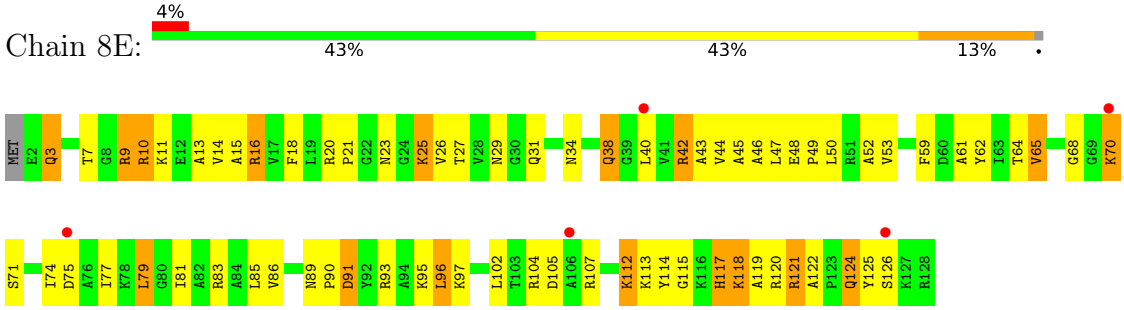
• Molecule 8: 30S ribosomal protein S8

Chain 72:



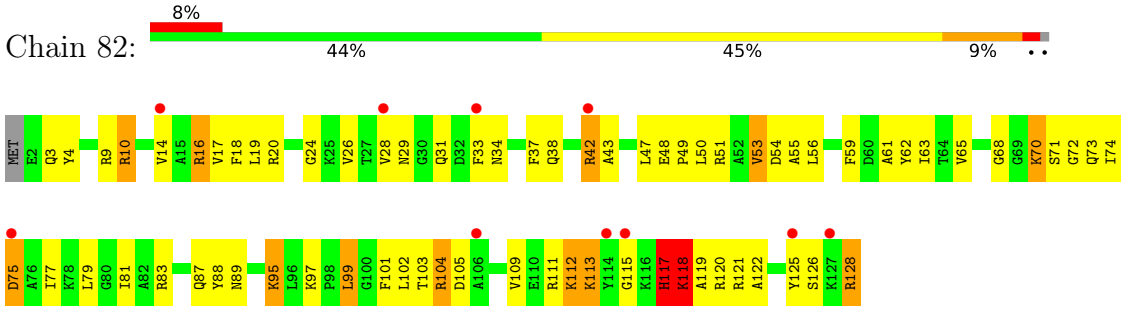
• Molecule 9: 30S ribosomal protein S9

Chain 8E:



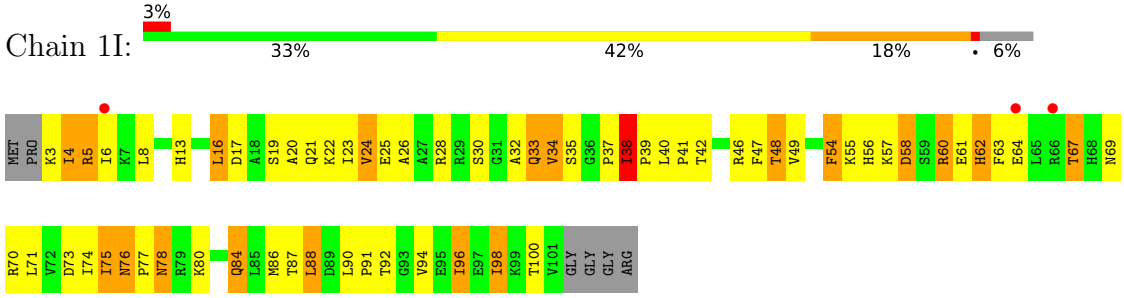
• Molecule 9: 30S ribosomal protein S9

Chain 82:



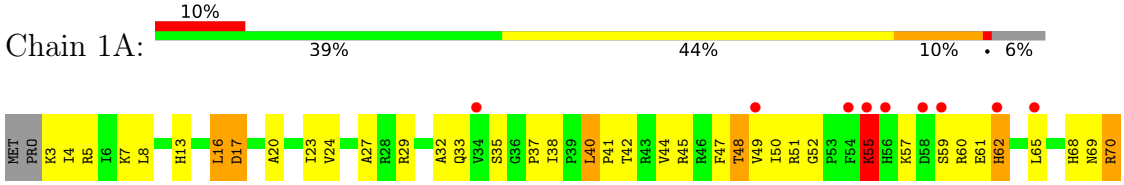
• Molecule 10: 30S ribosomal protein S10

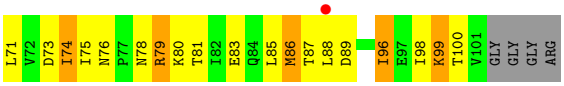
Chain 1I:



• Molecule 10: 30S ribosomal protein S10

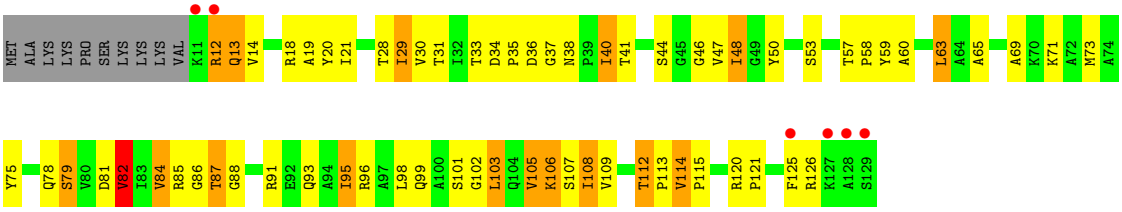
Chain 1A:





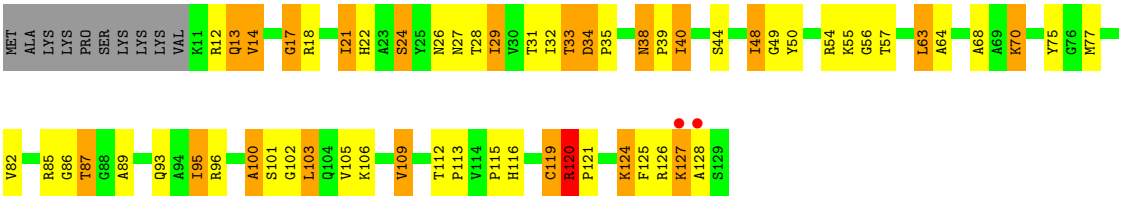
• Molecule 11: 30S ribosomal protein S11

Chain 2I:



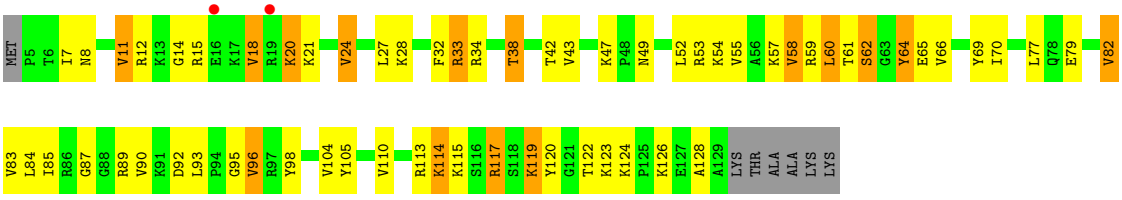
• Molecule 11: 30S ribosomal protein S11

Chain 2A:



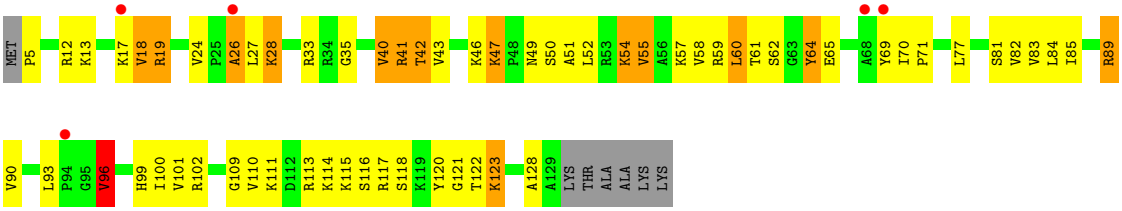
• Molecule 12: 30S ribosomal protein S12

Chain 3I:



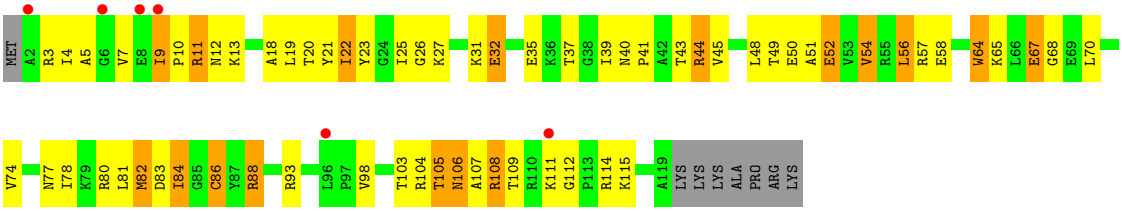
• Molecule 12: 30S ribosomal protein S12

Chain 3A:



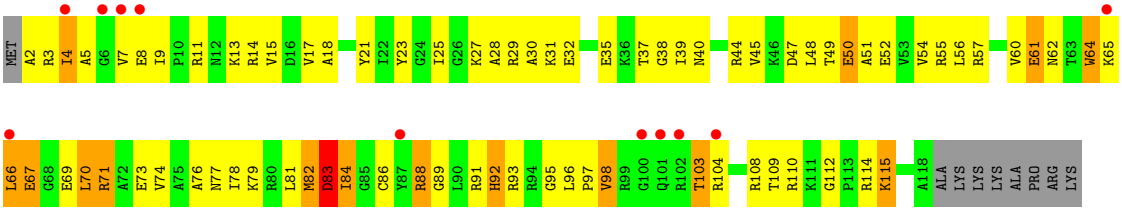
• Molecule 13: 30S ribosomal protein S13

Chain 4I:



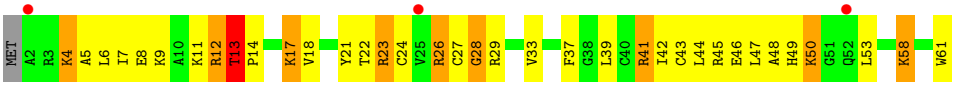
• Molecule 13: 30S ribosomal protein S13

Chain 4A:



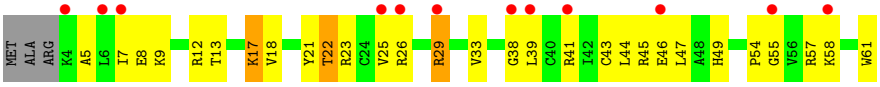
• Molecule 14: 30S ribosomal protein S14 type Z

Chain 5I:



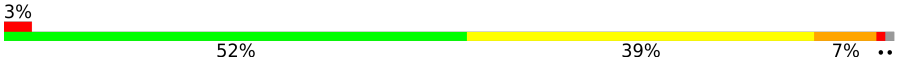
• Molecule 14: 30S ribosomal protein S14 type Z

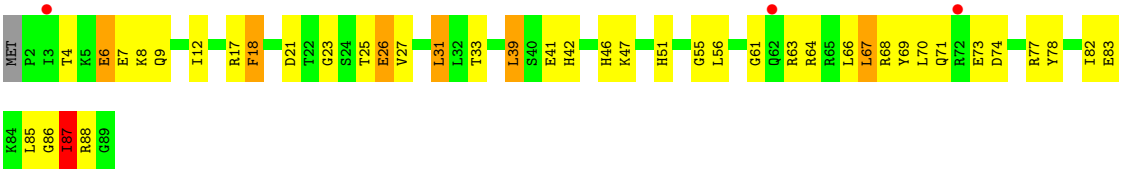
Chain 5A:



• Molecule 15: 30S ribosomal protein S15

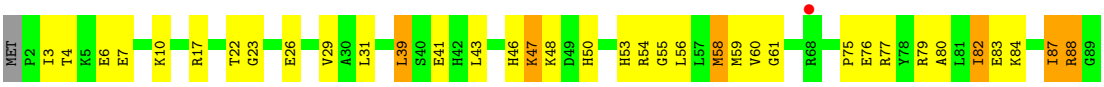
Chain 6I:





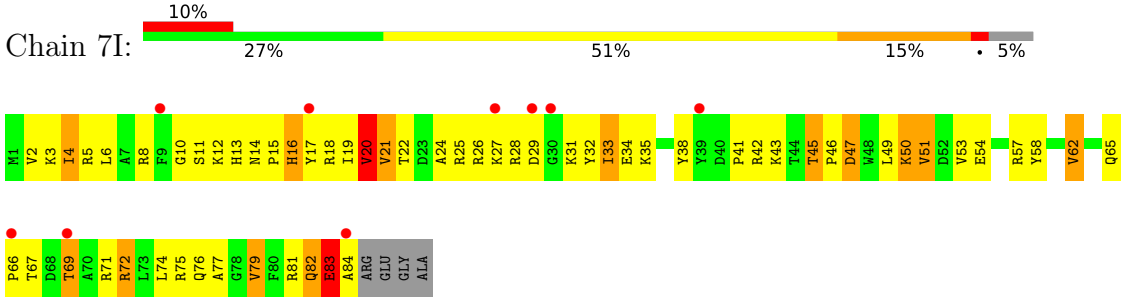
• Molecule 15: 30S ribosomal protein S15

Chain 6A:



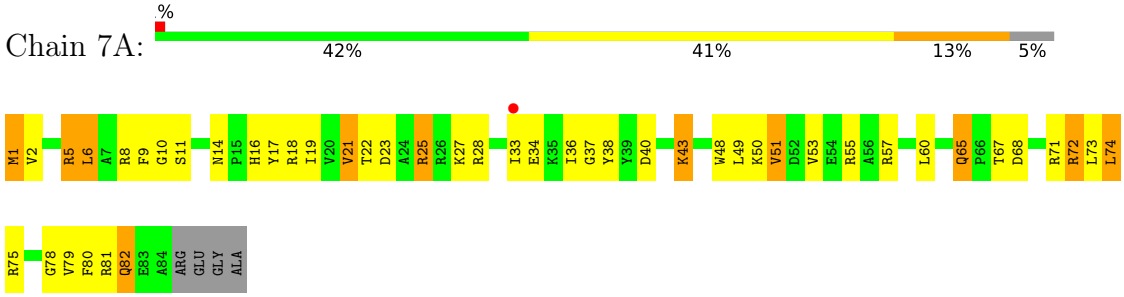
• Molecule 16: 30S ribosomal protein S16

Chain 7I:



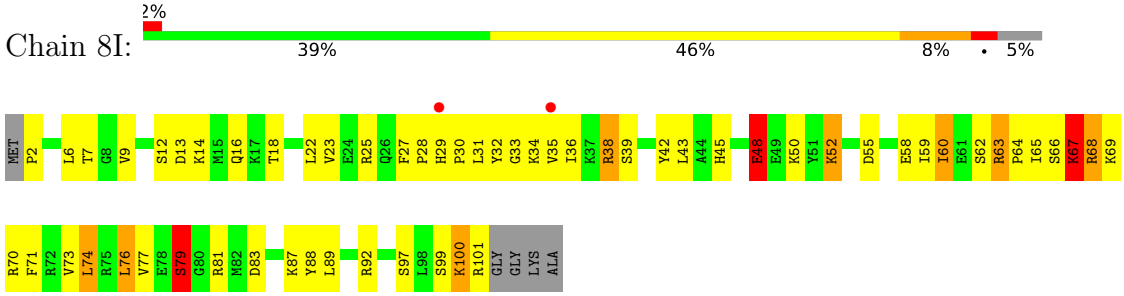
• Molecule 16: 30S ribosomal protein S16

Chain 7A:



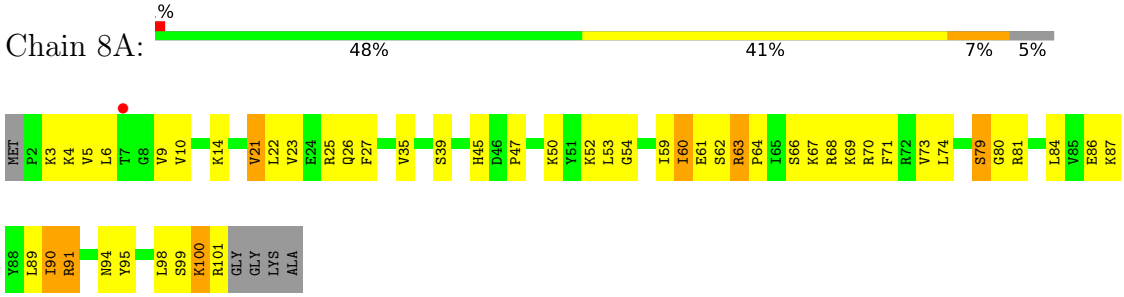
• Molecule 17: 30S ribosomal protein S17

Chain 8I:



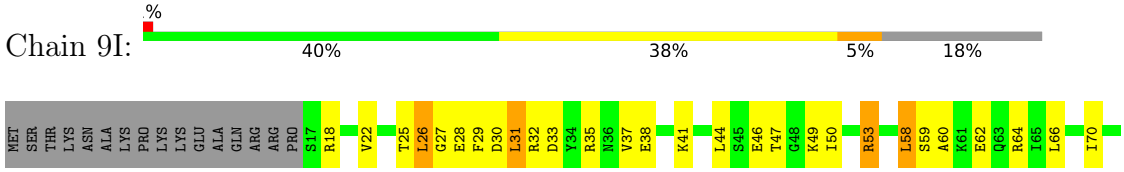
• Molecule 17: 30S ribosomal protein S17

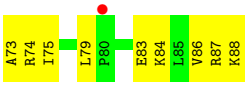
Chain 8A:



• Molecule 18: 30S ribosomal protein S18

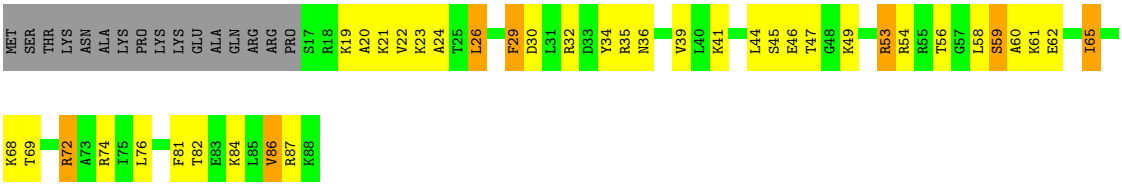
Chain 9I:





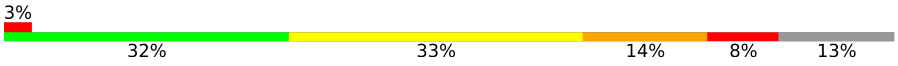
• Molecule 18: 30S ribosomal protein S18

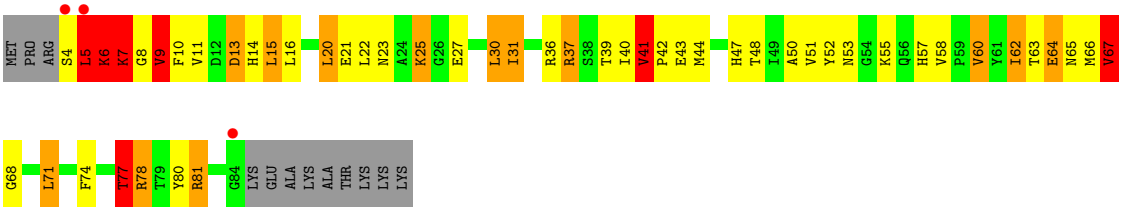
Chain 9A:



• Molecule 19: 30S ribosomal protein S19

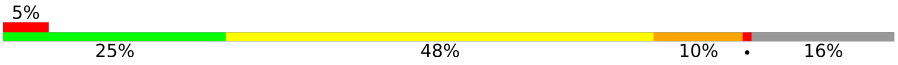
Chain AI:

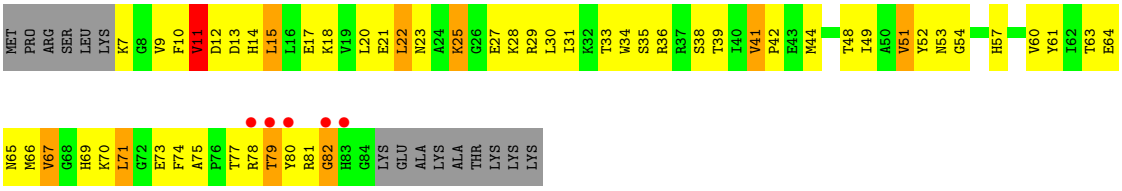




• Molecule 19: 30S ribosomal protein S19

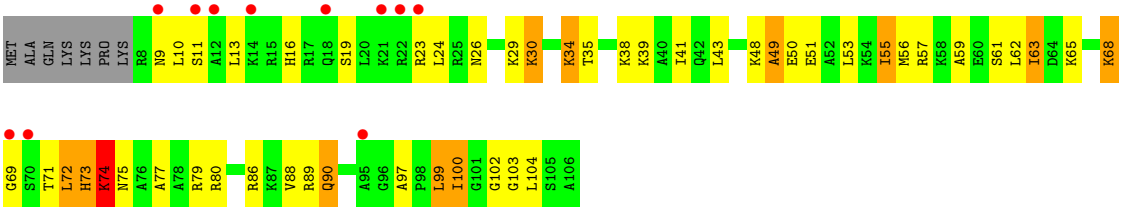
Chain AA:





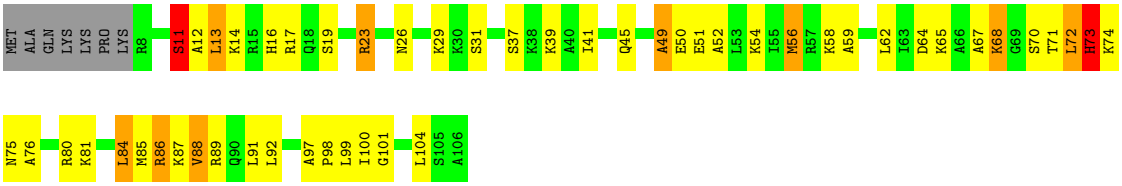
• Molecule 20: 30S ribosomal protein S20

Chain BI:



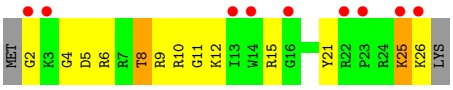
• Molecule 20: 30S ribosomal protein S20

Chain BA:

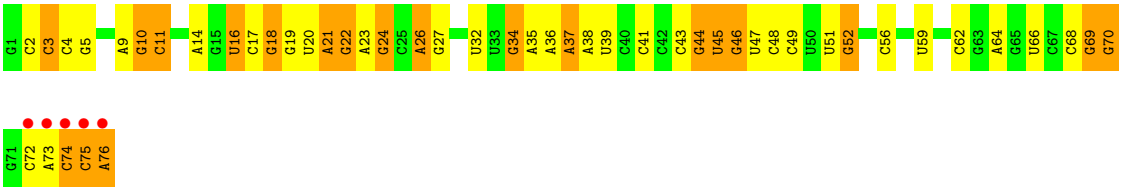


• Molecule 21: 30S ribosomal protein Thx

• Molecule 21: 30S ribosomal protein Thx

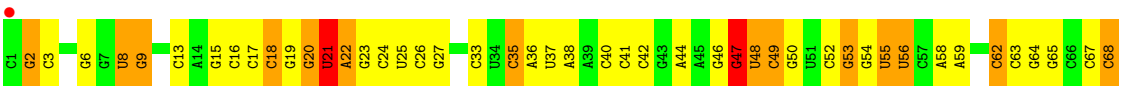


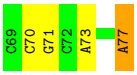
• Molecule 22: tRNA-Phe



• Molecule 22: tRNA-Phe

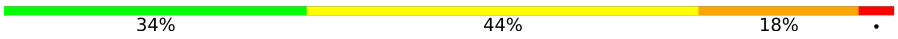
• Molecule 23: tRNA-fMet

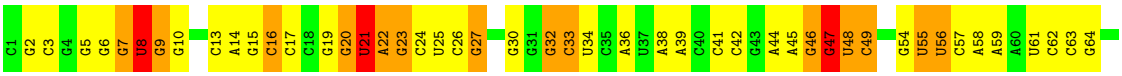




• Molecule 23: tRNA-fMet

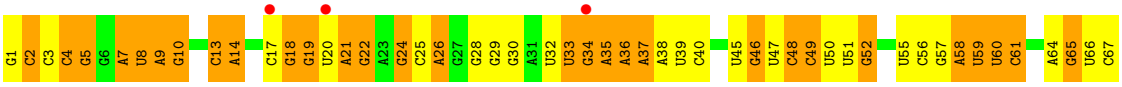
Chain 2L:





• Molecule 24: tRNA-Phe

Chain 3K:



• Molecule 24: tRNA-Phe

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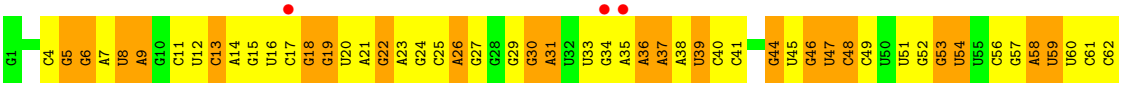

• Molecule 25: mRNA

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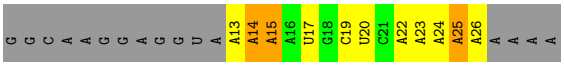
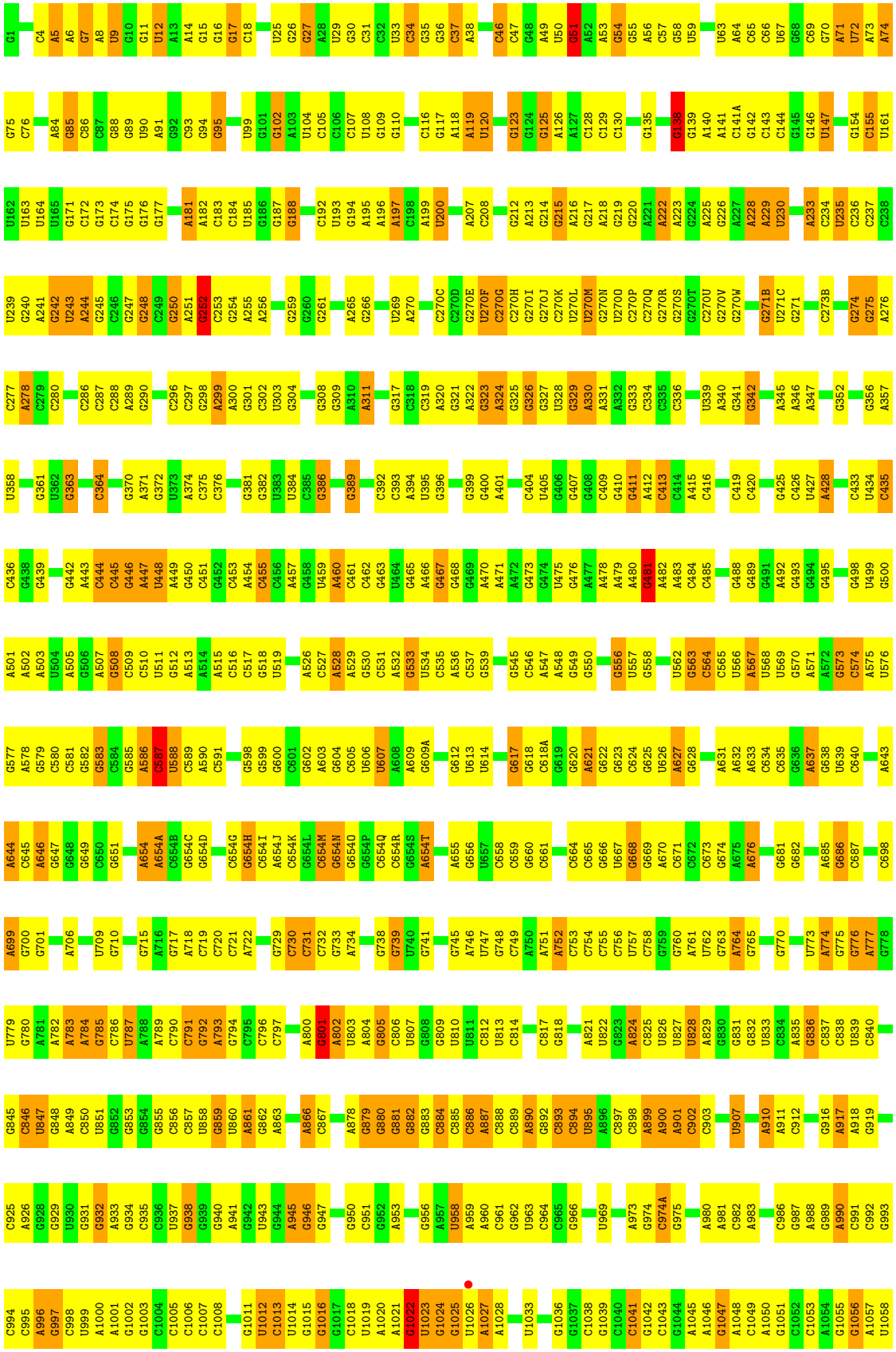


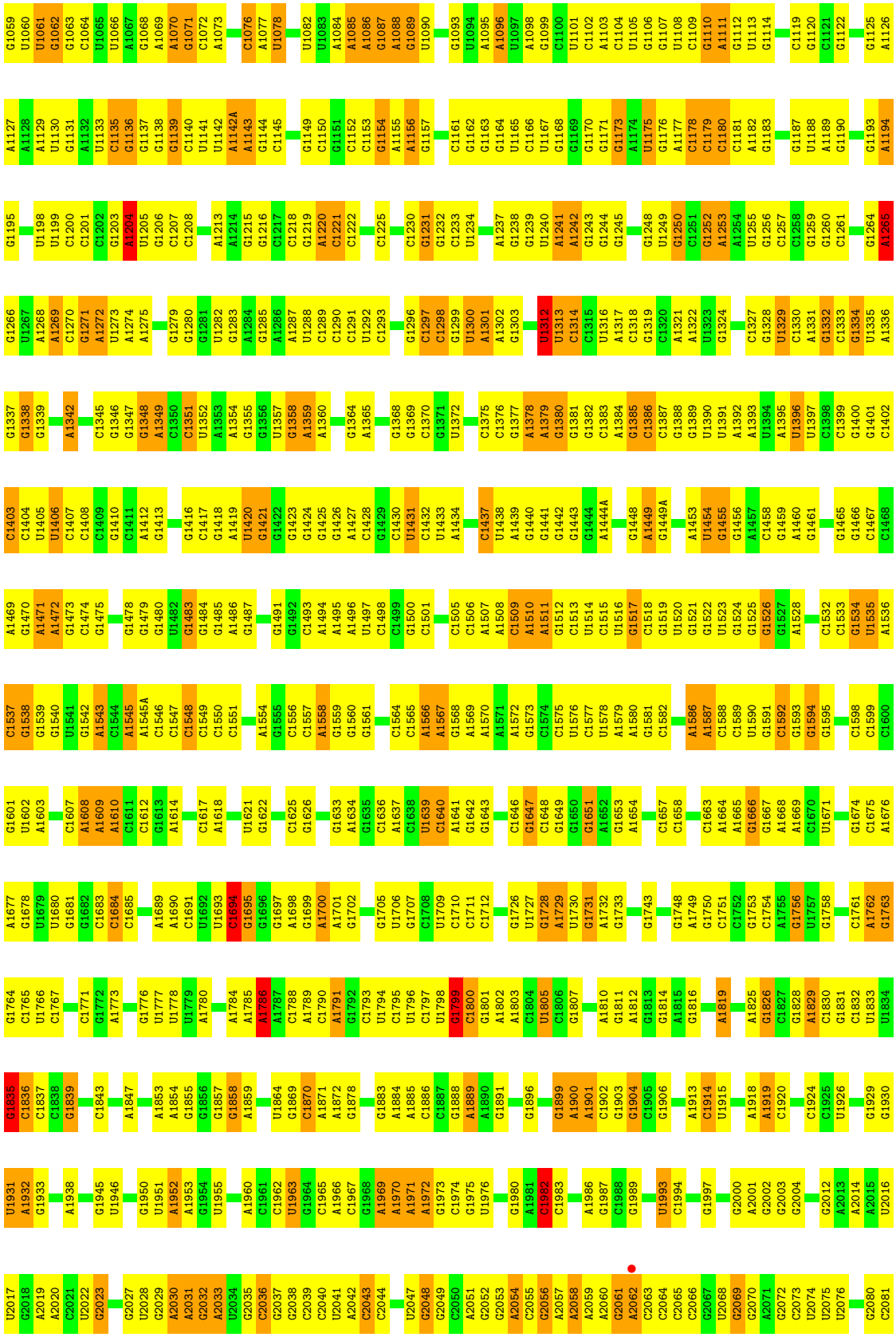
• Molecule 25: mRNA

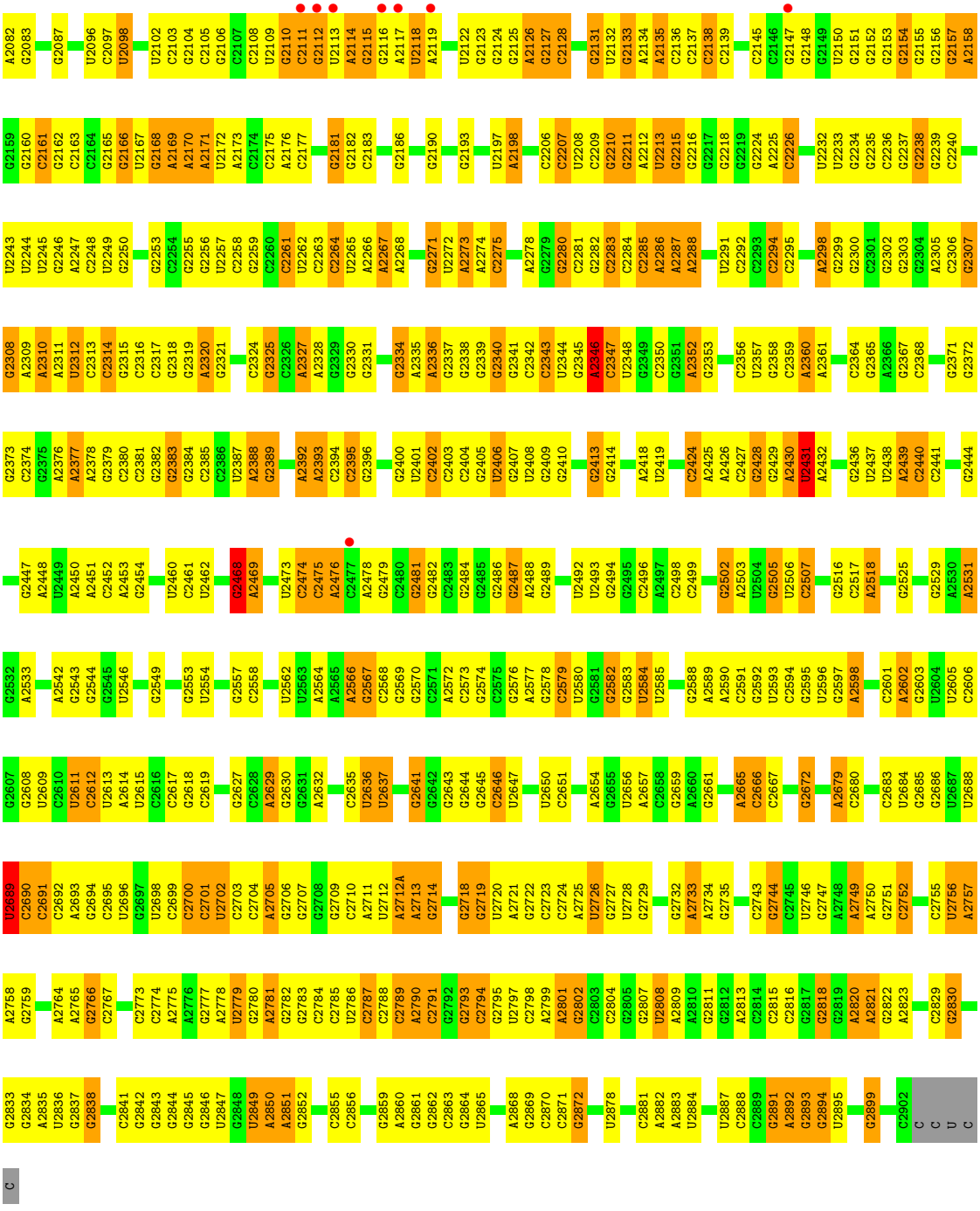
Chain 4L:

• Molecule 26: 23S ribosomal RNA

Chain 1H:







• Molecule 26: 23S ribosomal RNA

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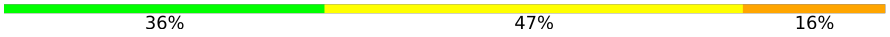

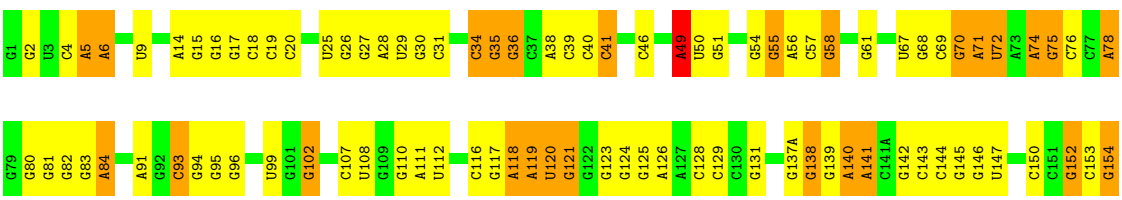

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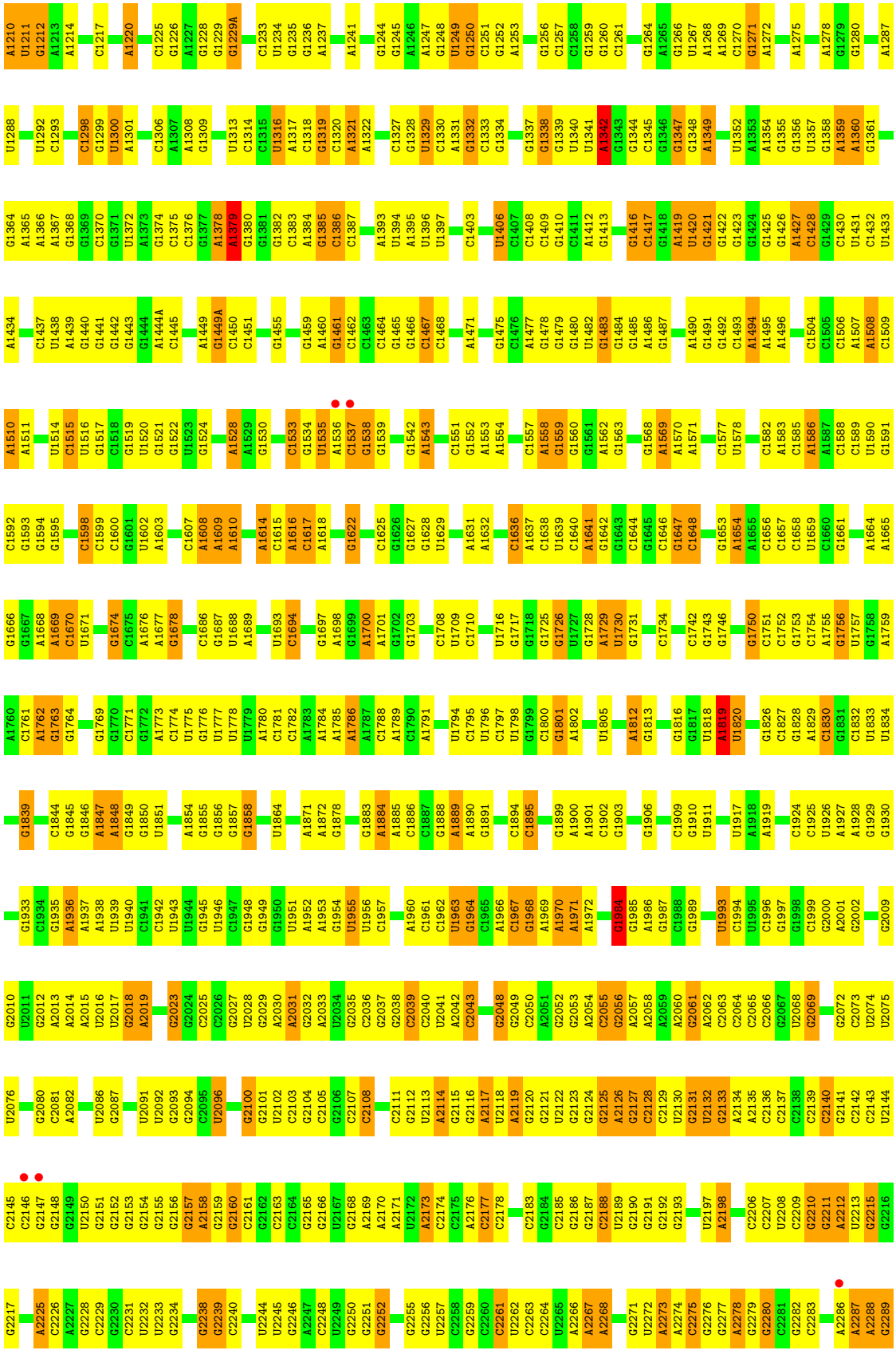
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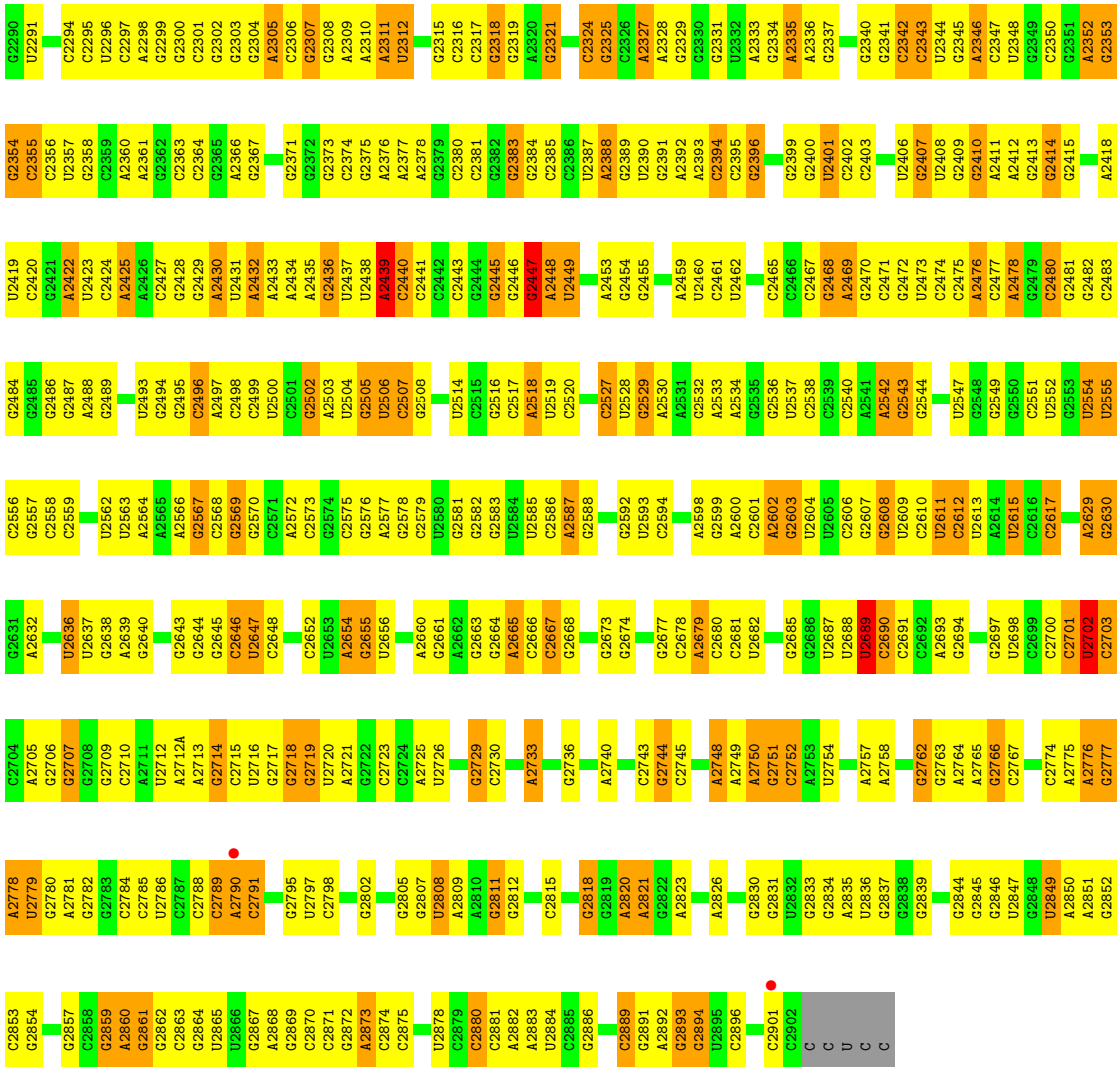

• Molecule 27: 5S ribosomal RNA

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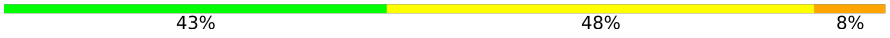
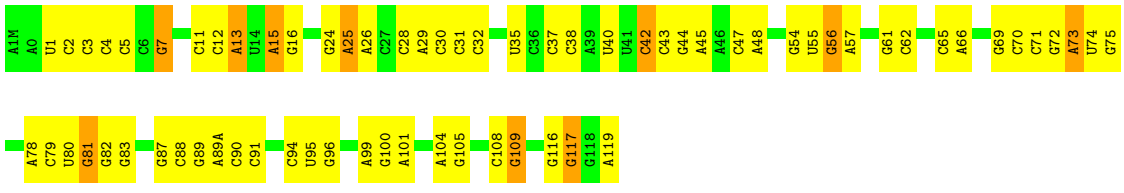
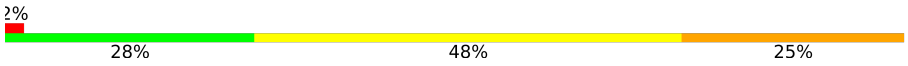
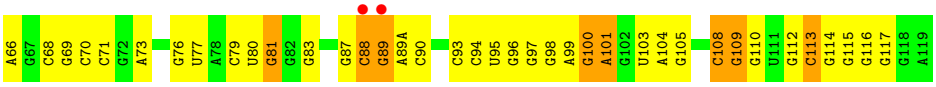




• Molecule 27: 5S ribosomal RNA

Chain 1J:





• Molecule 28: 50S ribosomal protein L2

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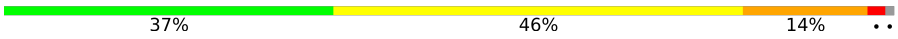

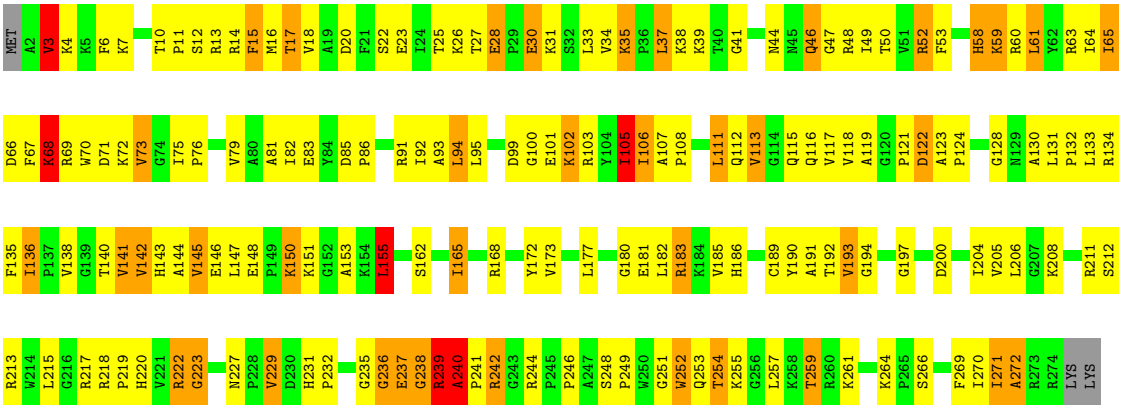

• Molecule 28: 50S ribosomal protein L2

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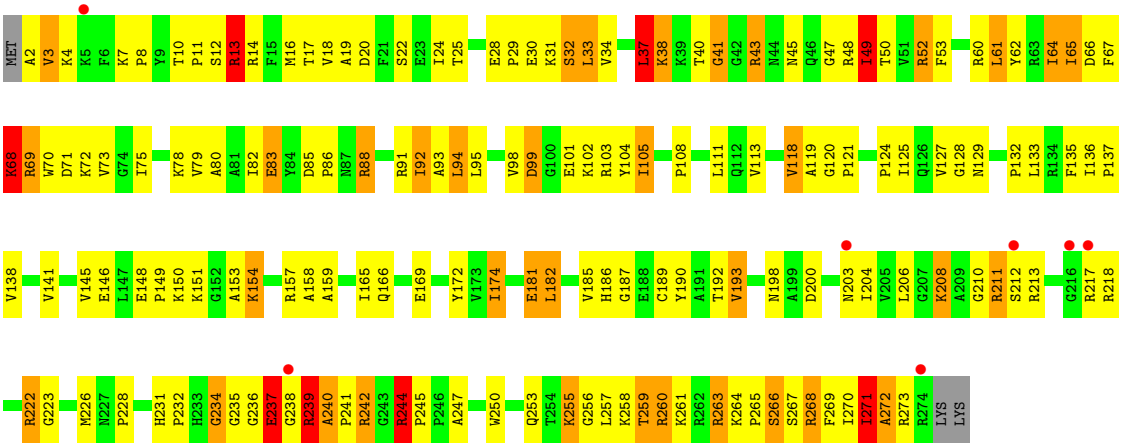

• Molecule 29: 50S ribosomal protein L3

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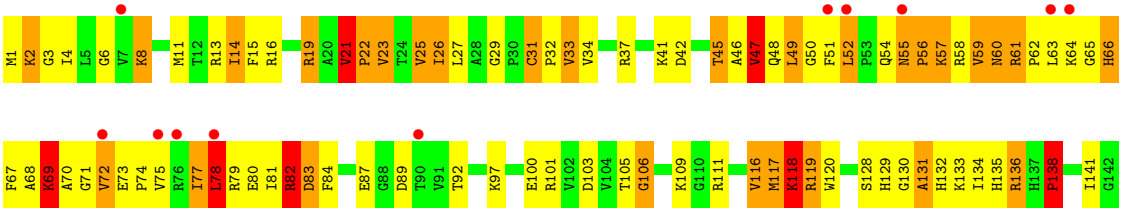
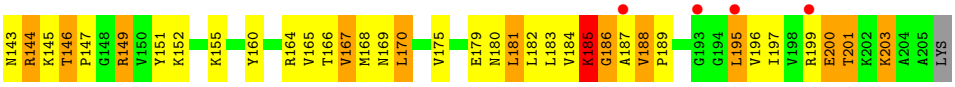
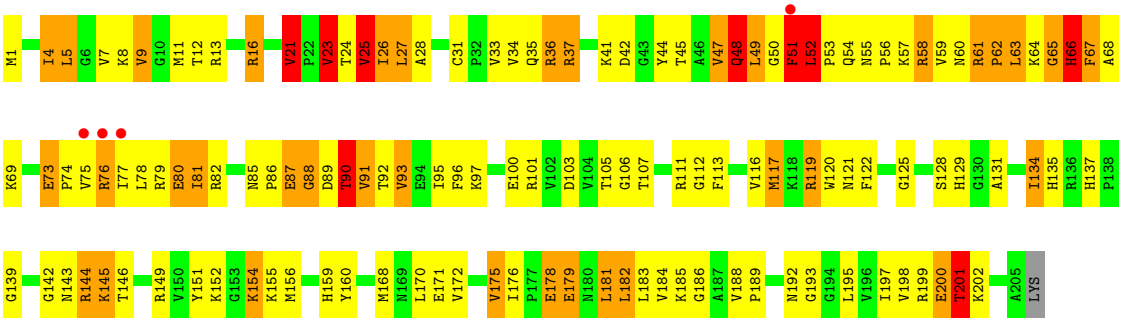




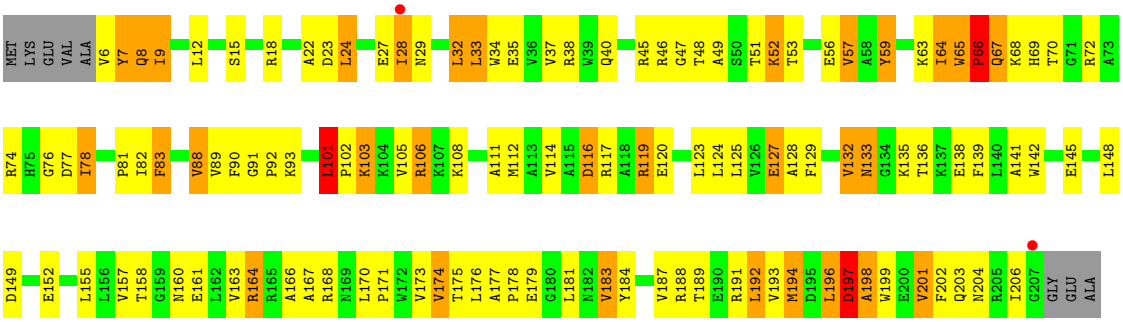
• Molecule 29: 50S ribosomal protein L3

Chain 29:



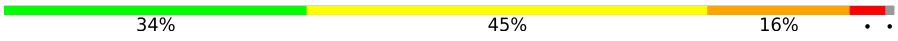
• Molecule 30: 50S ribosomal protein L4

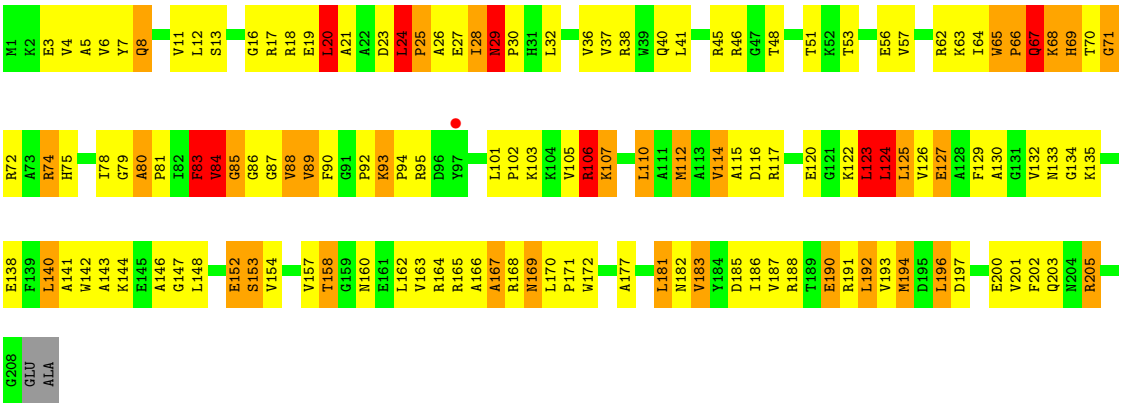
Chain 31:



• Molecule 30: 50S ribosomal protein L4

Chain 39:





• Molecule 31: 50S ribosomal protein L5

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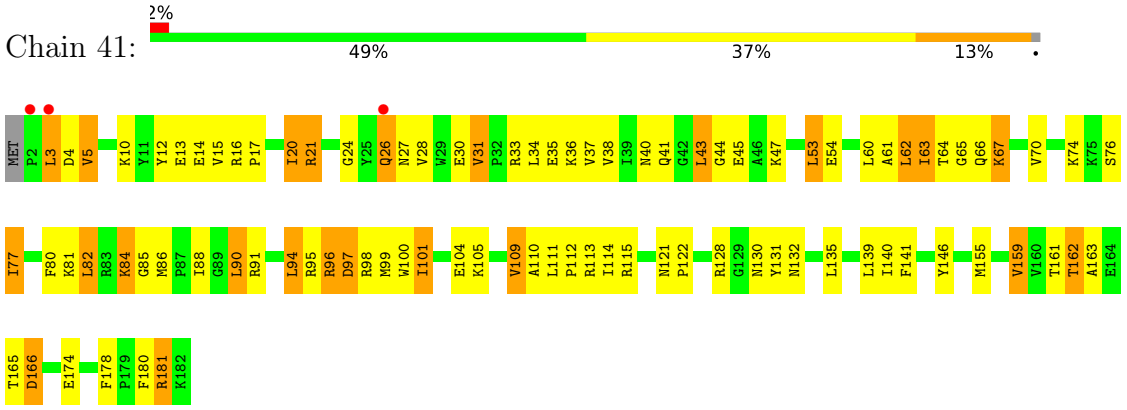
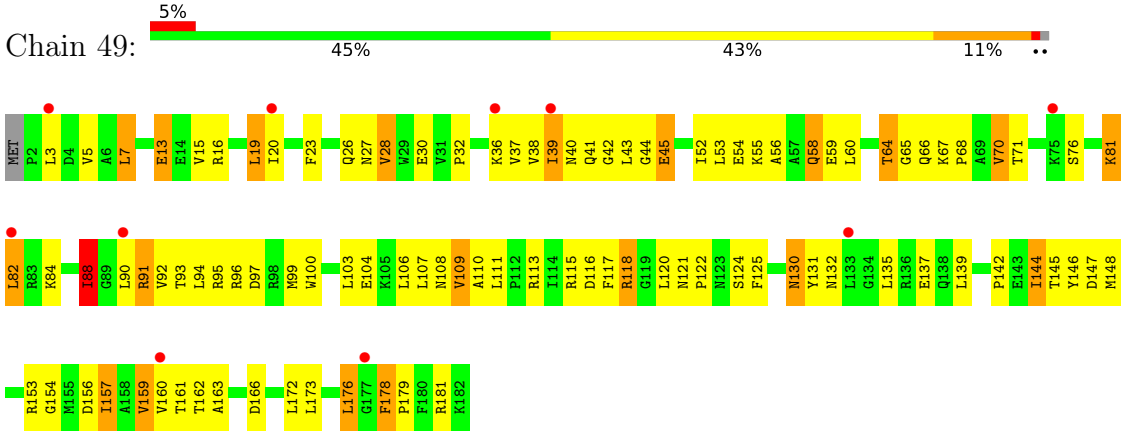


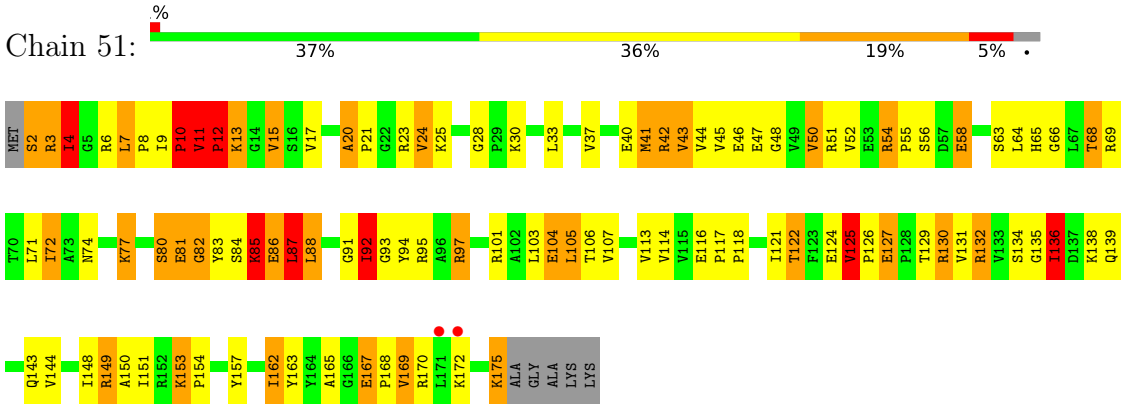
• Molecule 31: 50S ribosomal protein L5

Chain 49:



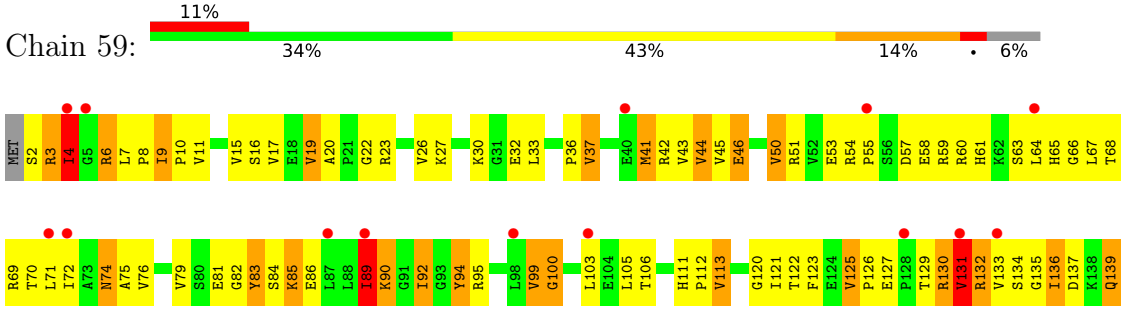
• Molecule 32: 50S ribosomal protein L6

Chain 51:



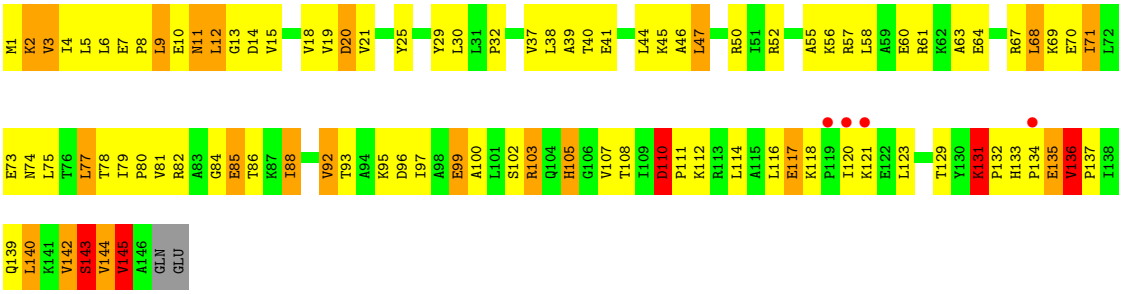
• Molecule 32: 50S ribosomal protein L6

Chain 59:



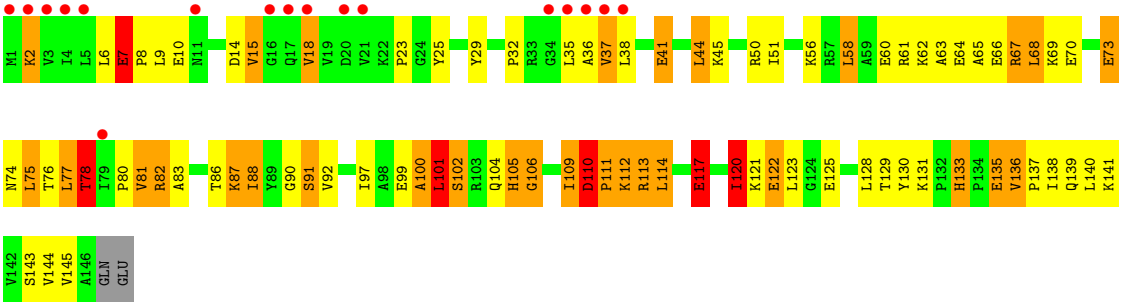
• Molecule 33: 50S ribosomal protein L9

Chain 61:



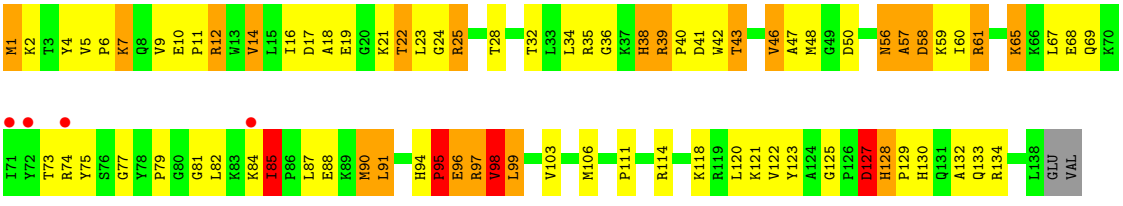
• Molecule 33: 50S ribosomal protein L9

Chain 69:



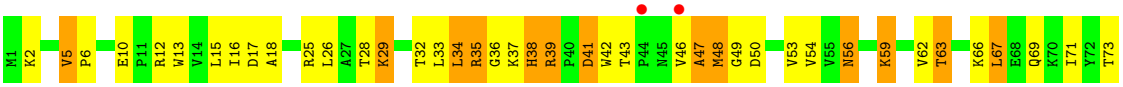
• Molecule 34: 50S ribosomal protein L13

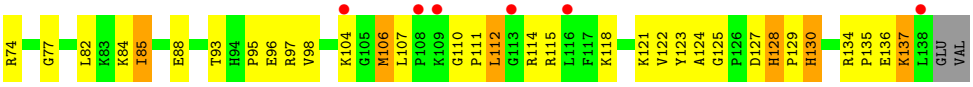
Chain 58:



• Molecule 34: 50S ribosomal protein L13

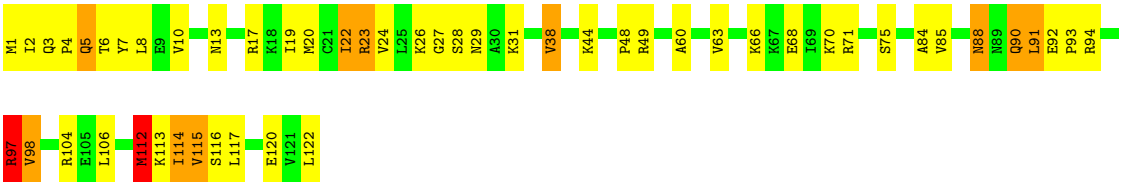
Chain 15:





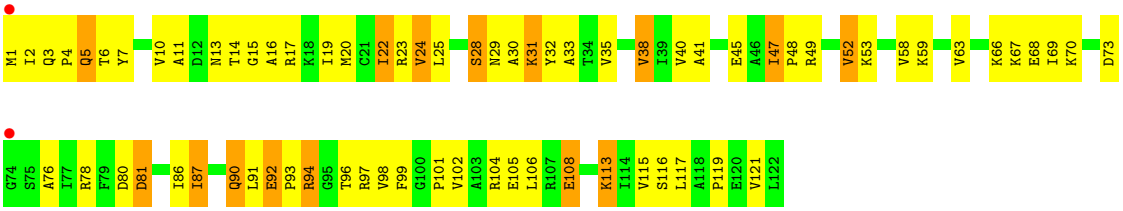
• Molecule 35: 50S ribosomal protein L14

Chain 68:



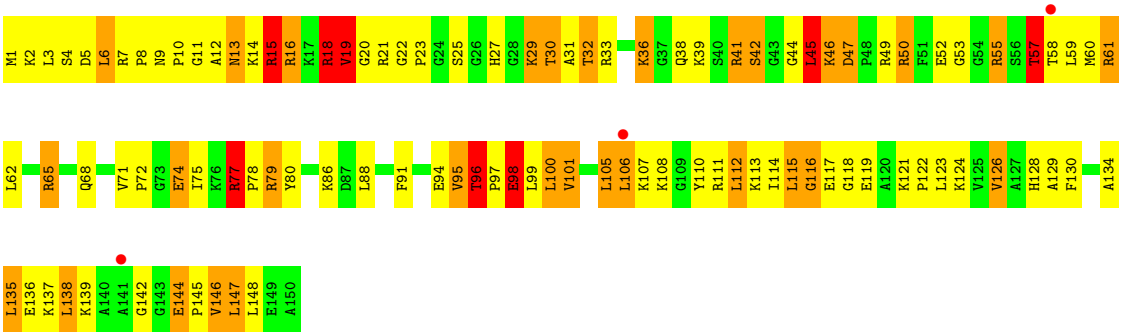
• Molecule 35: 50S ribosomal protein L14

Chain 25:



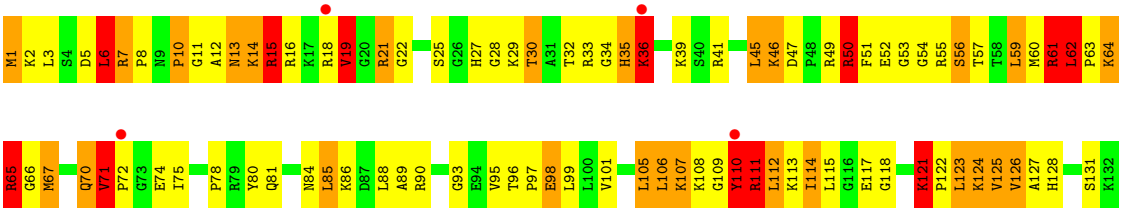
• Molecule 36: 50S ribosomal protein L15

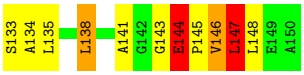
Chain 78:



• Molecule 36: 50S ribosomal protein L15

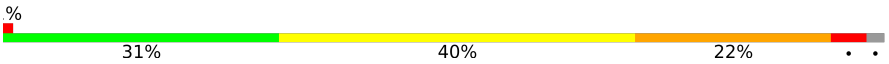
Chain 35:

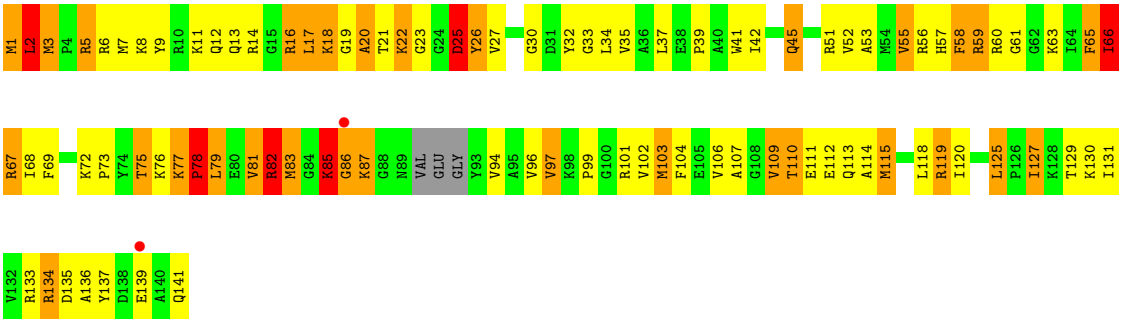




• Molecule 37: 50S ribosomal protein L16

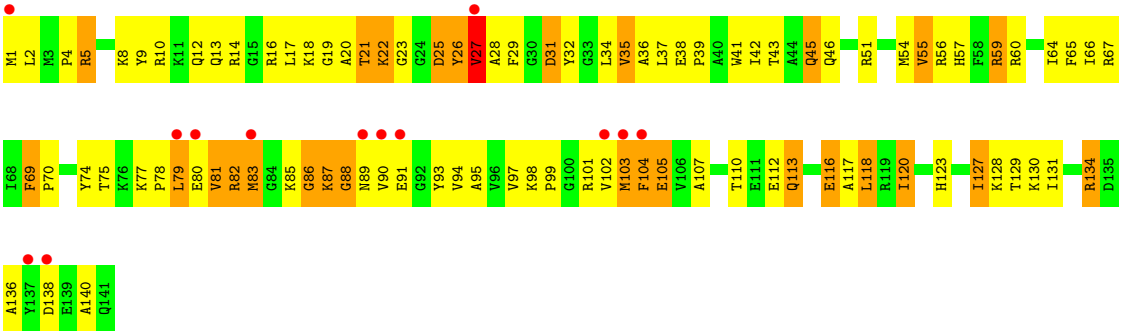
Chain 88:





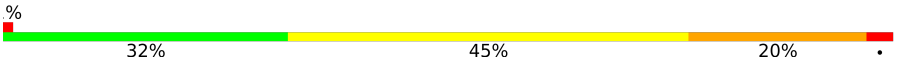
• Molecule 37: 50S ribosomal protein L16

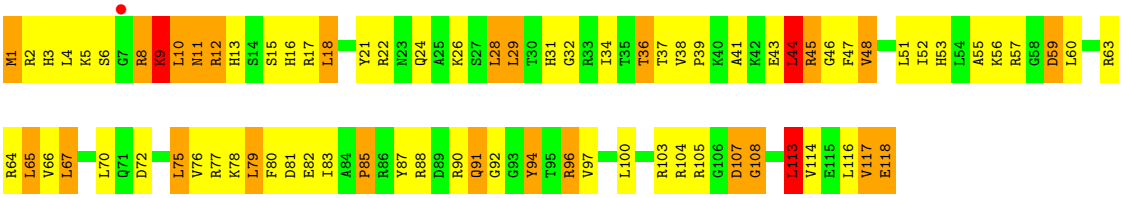
Chain 45:



• Molecule 38: 50S ribosomal protein L17

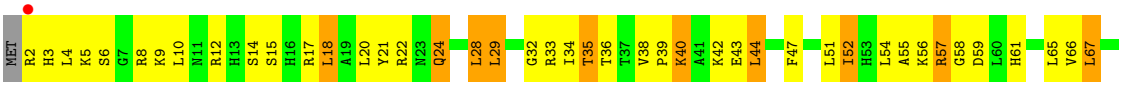
Chain 98:





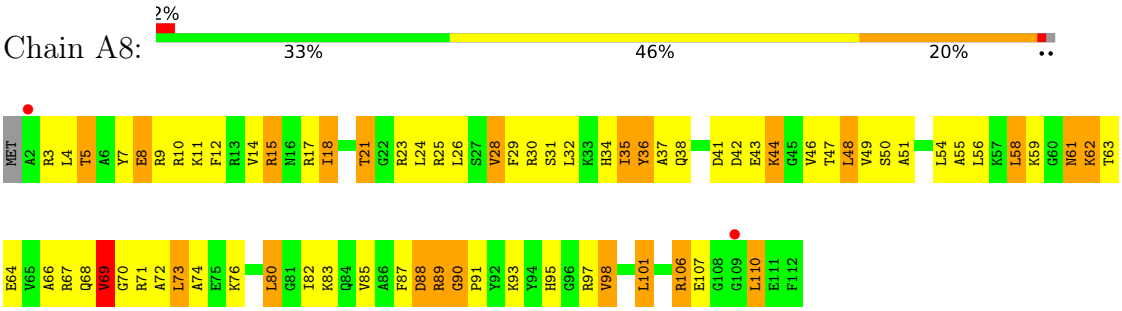
• Molecule 38: 50S ribosomal protein L17

Chain 55:



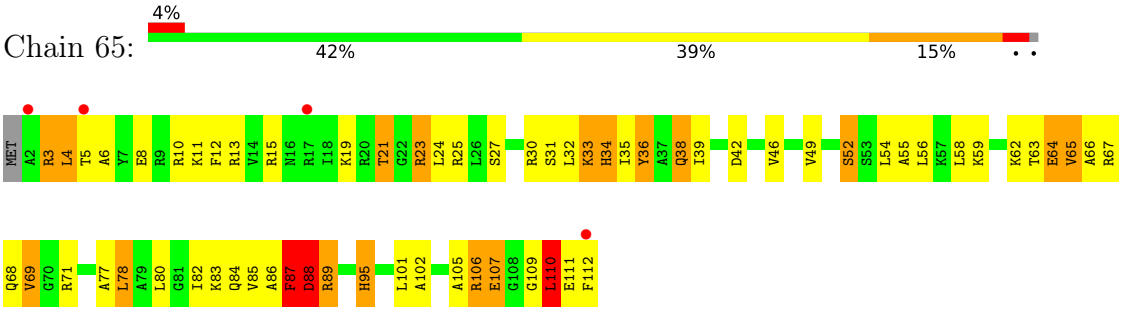
• Molecule 39: 50S ribosomal protein L18

Chain A8:



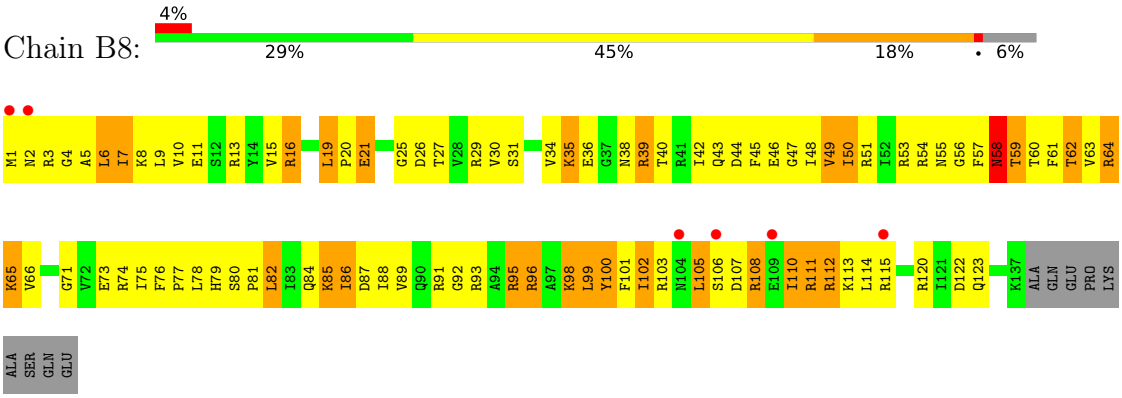
• Molecule 39: 50S ribosomal protein L18

Chain 65:



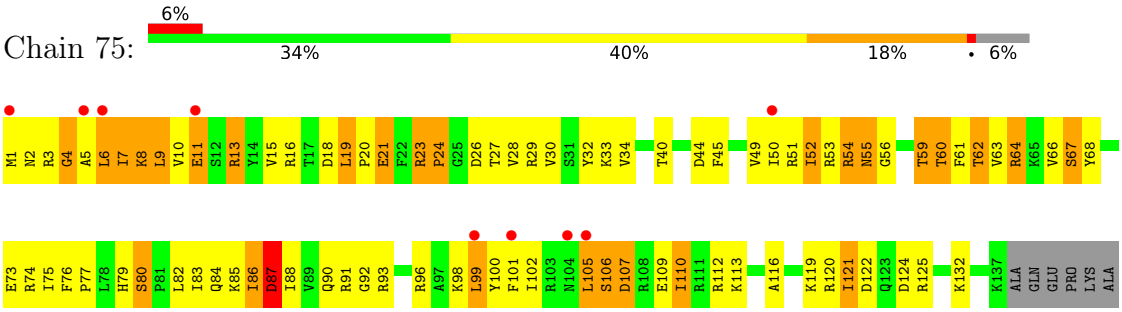
• Molecule 40: 50S ribosomal protein L19

Chain B8:



• Molecule 40: 50S ribosomal protein L19

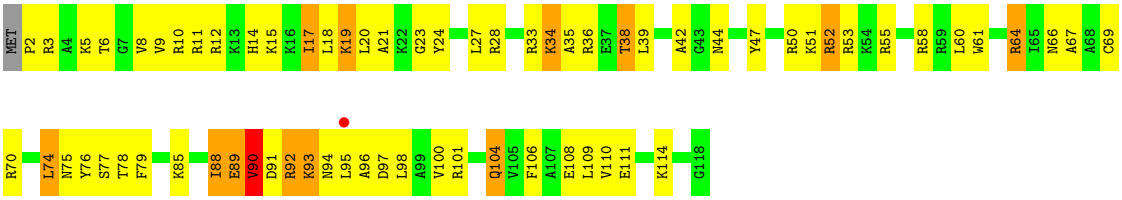
Chain 75:



SER
GLN
GLU

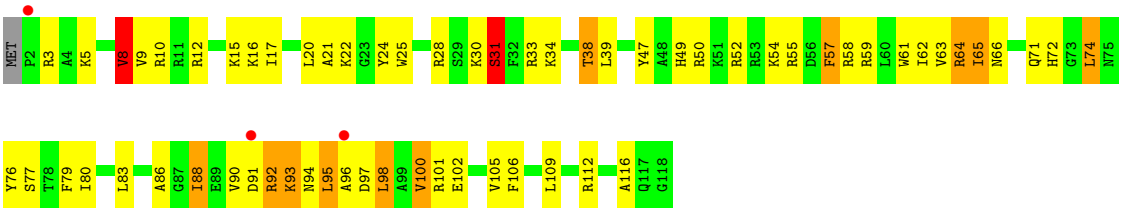
• Molecule 41: 50S ribosomal protein L20

Chain C8:



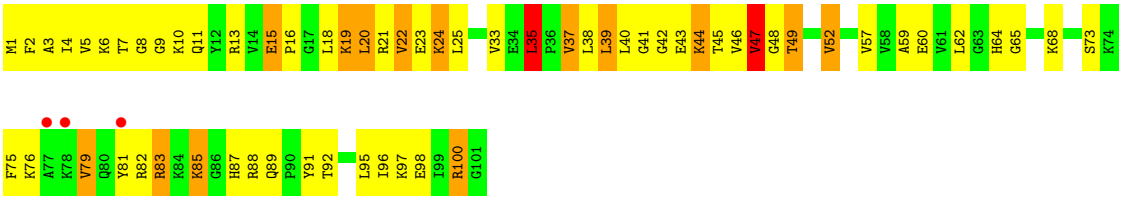
• Molecule 41: 50S ribosomal protein L20

Chain 85:



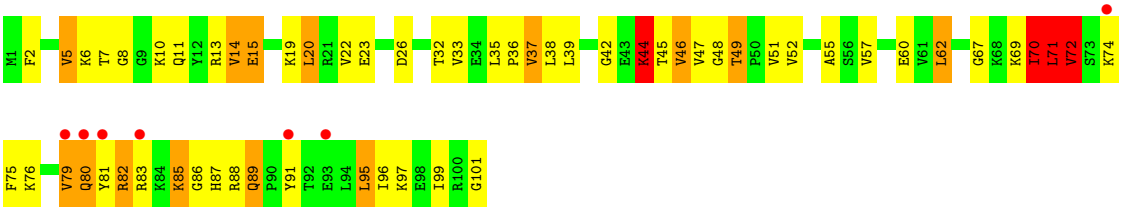
• Molecule 42: 50S ribosomal protein L21

Chain D8:



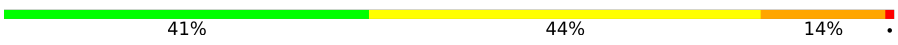
• Molecule 42: 50S ribosomal protein L21

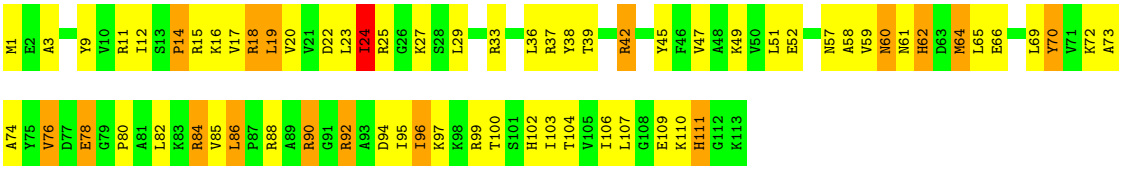
Chain 95:



• Molecule 43: 50S ribosomal protein L22

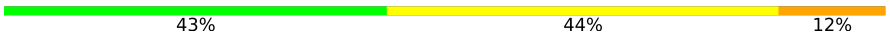
Chain E8:

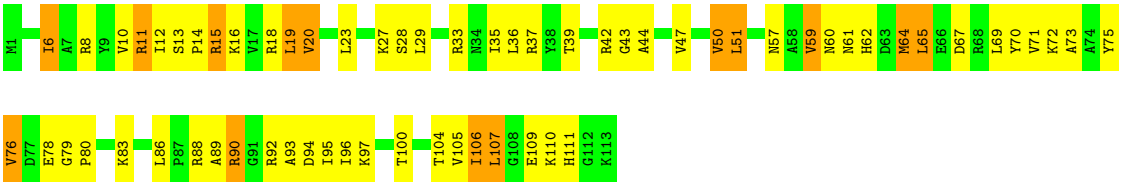




• Molecule 43: 50S ribosomal protein L22

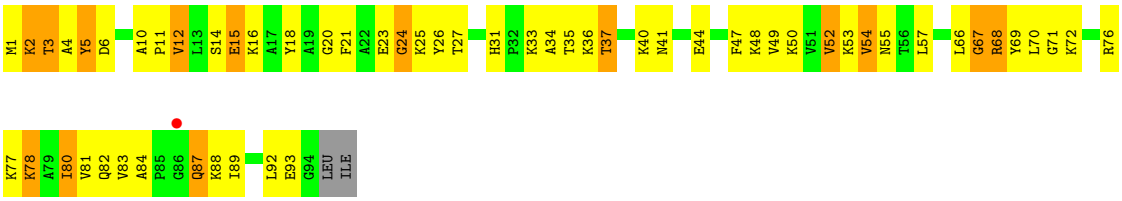
Chain A5:





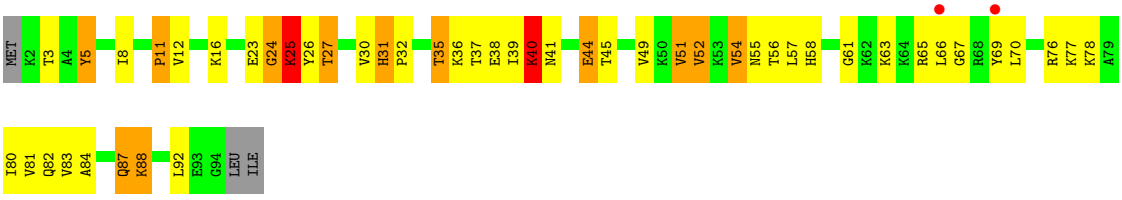
• Molecule 44: 50S ribosomal protein L23

Chain F8:



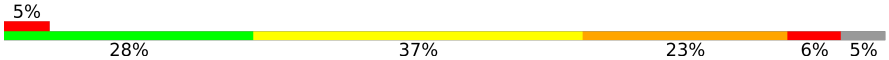
• Molecule 44: 50S ribosomal protein L23

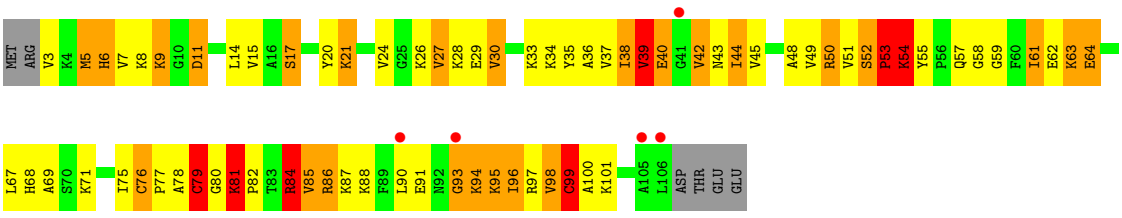
Chain B5:



• Molecule 45: 50S ribosomal protein L24

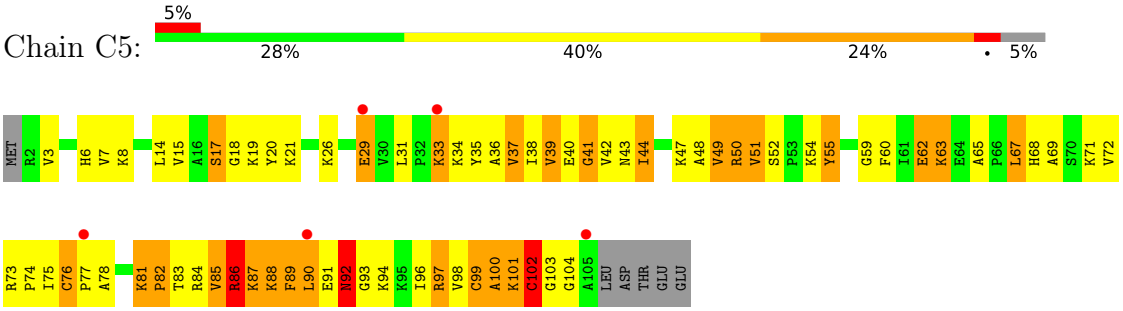
Chain G8:





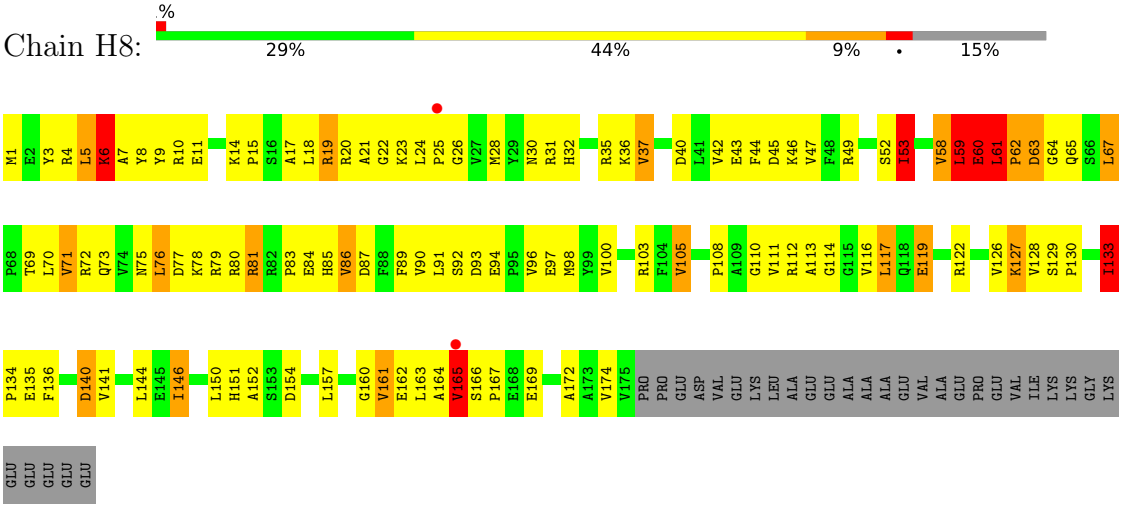
• Molecule 45: 50S ribosomal protein L24

Chain C5:



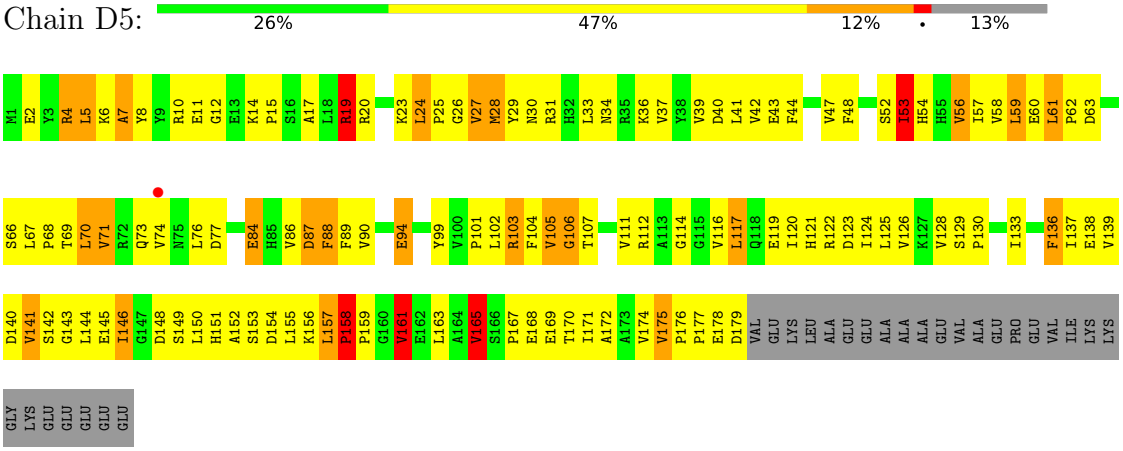
• Molecule 46: 50S ribosomal protein L25

Chain H8:



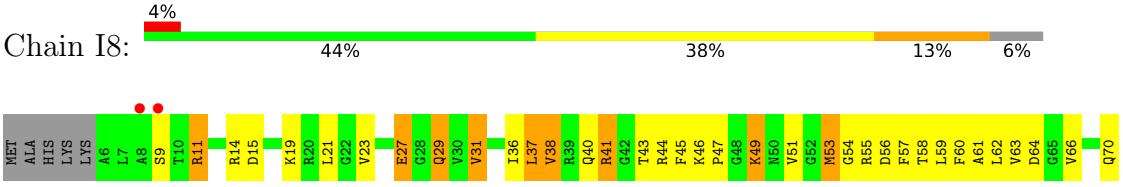
• Molecule 46: 50S ribosomal protein L25

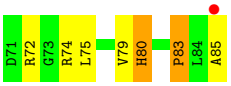
Chain D5:



• Molecule 47: 50S ribosomal protein L27

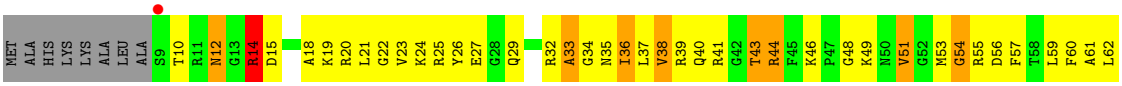
Chain I8:

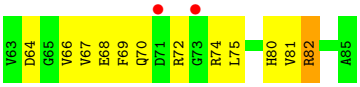




• Molecule 47: 50S ribosomal protein L27

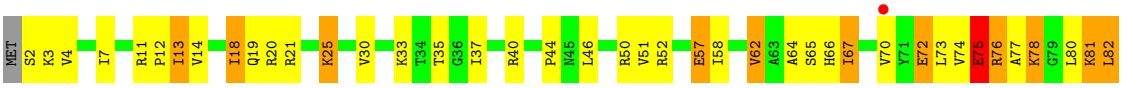
Chain E5:

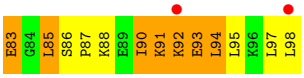




• Molecule 48: 50S ribosomal protein L28

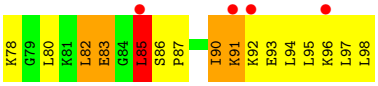
Chain J8:





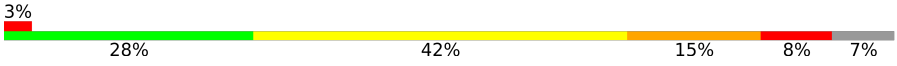
• Molecule 48: 50S ribosomal protein L28

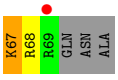
Chain F5:



• Molecule 49: 50S ribosomal protein L29

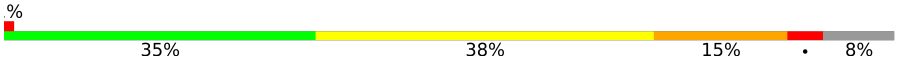
Chain K8:

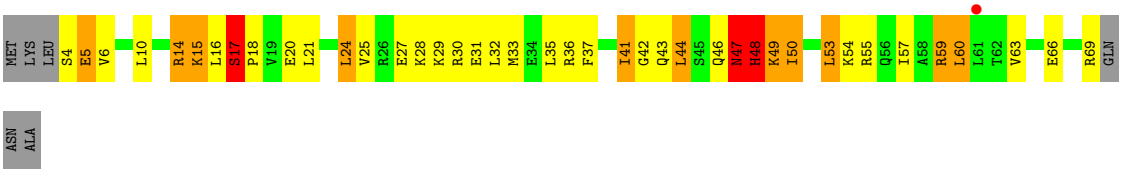




• Molecule 49: 50S ribosomal protein L29

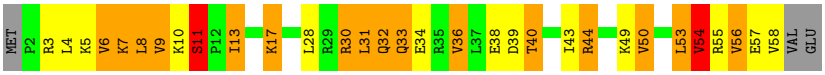
Chain G5:





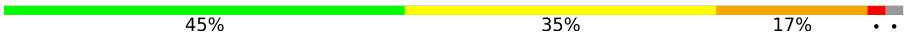
• Molecule 50: 50S ribosomal protein L30

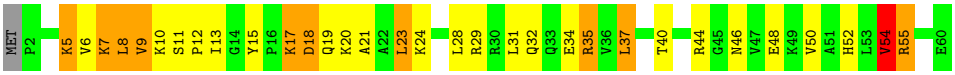
Chain L8:



• Molecule 50: 50S ribosomal protein L30

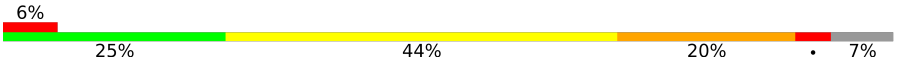
Chain H5:

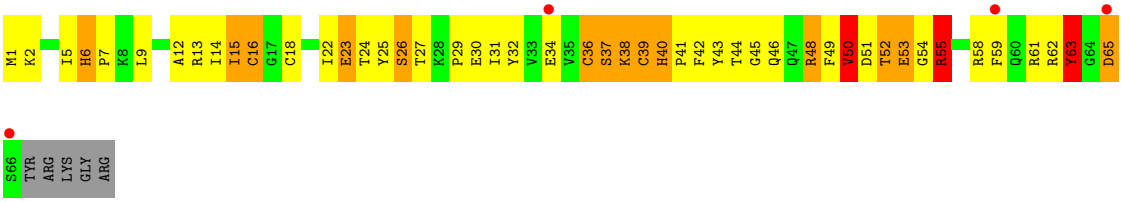




• Molecule 51: 50S ribosomal protein L31

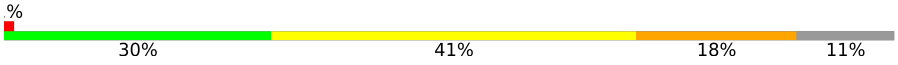
Chain M8:

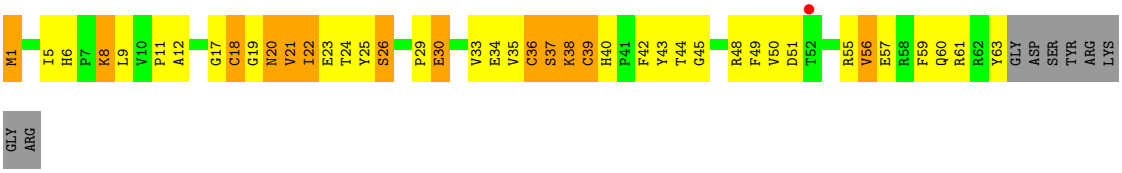




• Molecule 51: 50S ribosomal protein L31

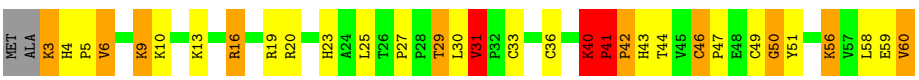
Chain I5:





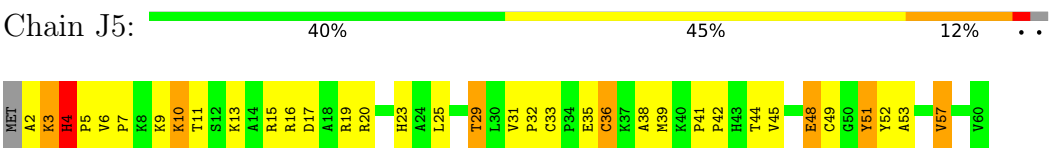
• Molecule 52: 50S ribosomal protein L32

Chain N8:



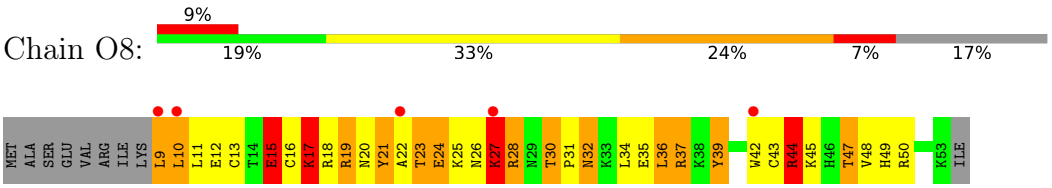
• Molecule 52: 50S ribosomal protein L32

Chain J5:



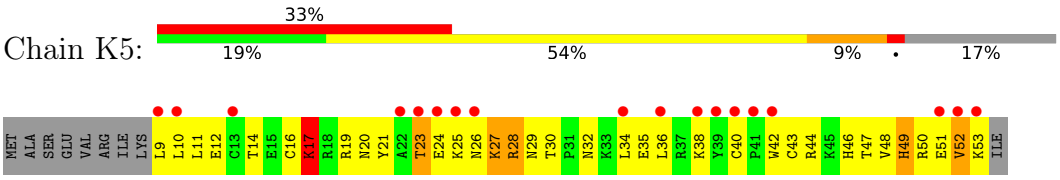
• Molecule 53: 50S ribosomal protein L33

Chain O8:



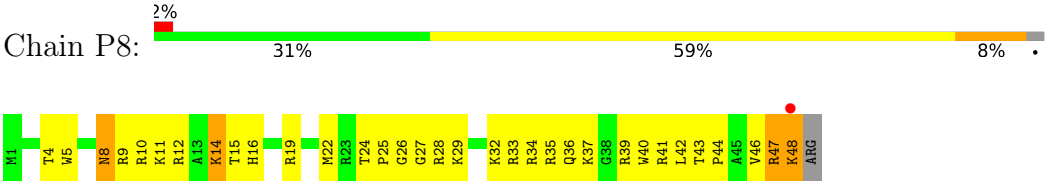
• Molecule 53: 50S ribosomal protein L33

Chain K5:



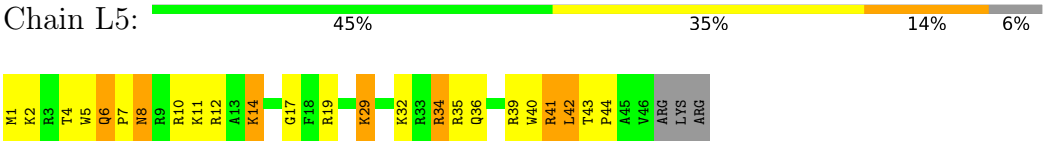
• Molecule 54: 50S ribosomal protein L34

Chain P8:



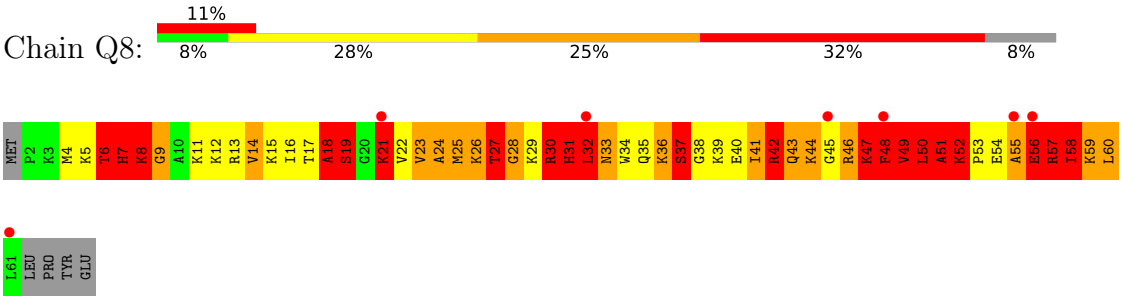
• Molecule 54: 50S ribosomal protein L34

Chain L5:



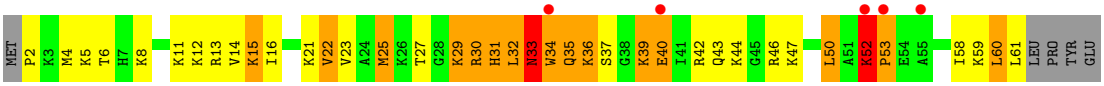
• Molecule 55: 50S ribosomal protein L35

Chain Q8:



• Molecule 55: 50S ribosomal protein L35

Chain M5:


MET
P2
K3
M4
K5
T6
H7
K8
K11
K12
R13
V14
K15
I16
K21
V22
V23
A24
M25
K26
T27
G28
K29
R30
H31
L32
N33
W34
Q35
K36
S37
G38
K39
E40
I41
R42
Q43
K44
G45
R46
K47
L50
A51
K52
P53
E54
A55
I58
K59
L60
L61
LEU
PRO
TYR
GLU

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	210.10Å 448.80Å 621.30Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	152.19 – 3.15 152.19 – 3.15	Depositor EDS
% Data completeness (in resolution range)	99.9 (152.19-3.15) 93.3 (152.19-3.15)	Depositor EDS
R_{merge}	0.37	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.89 (at 3.13Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.189 , 0.231 0.190 , 0.230	Depositor DCC
R_{free} test set	2000 reflections (0.20%)	wwPDB-VP
Wilson B-factor (Å^2)	87.9	Xtriage
Anisotropy	0.303	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.27 , 70.9	EDS
L-test for twinning[2]	$< \|L\| > = 0.45$, $< L^2 > = 0.27$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	300537	wwPDB-VP
Average B, all atoms (Å^2)	115.0	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: 4SU, MIA, 7MG, ZN, PSU, OMC, MG, 5MU

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	13	0.45	0/36052	0.73	9/56266 (0.0%)
1	1G	0.39	0/36025	0.65	10/56227 (0.0%)
2	12	0.52	0/1959	1.05	17/2642 (0.6%)
2	1E	0.60	0/1959	1.07	12/2642 (0.5%)
3	22	0.52	0/1636	1.03	6/2205 (0.3%)
3	2E	0.65	0/1629	1.02	2/2195 (0.1%)
4	32	0.63	0/1733	1.18	13/2318 (0.6%)
4	3E	0.72	0/1733	1.12	5/2318 (0.2%)
5	42	0.62	0/1171	1.10	5/1576 (0.3%)
5	4E	0.70	0/1171	1.14	3/1576 (0.2%)
6	52	0.69	0/856	1.02	0/1154
6	5E	0.72	0/856	1.07	1/1154 (0.1%)
7	62	0.55	0/1276	0.96	0/1709
7	6E	0.60	0/1276	1.04	7/1709 (0.4%)
8	72	0.52	0/1136	1.08	3/1527 (0.2%)
8	7E	0.69	0/1136	1.22	11/1527 (0.7%)
9	82	0.51	0/1029	1.01	5/1379 (0.4%)
9	8E	0.60	0/1029	1.08	2/1379 (0.1%)
10	1A	0.53	0/814	0.98	4/1095 (0.4%)
10	1I	0.68	1/814 (0.1%)	1.00	4/1095 (0.4%)
11	2A	0.67	0/900	1.25	10/1213 (0.8%)
11	2I	0.78	1/900 (0.1%)	1.26	5/1213 (0.4%)
12	3A	0.78	0/991	1.10	4/1327 (0.3%)
12	3I	0.90	0/991	1.34	10/1327 (0.8%)
13	4A	0.50	0/943	0.99	6/1265 (0.5%)
13	4I	0.64	0/948	1.08	3/1272 (0.2%)
14	5A	0.59	0/485	0.98	2/643 (0.3%)
14	5I	0.77	1/501 (0.2%)	1.18	5/664 (0.8%)
15	6A	0.61	0/745	0.96	1/992 (0.1%)
15	6I	0.79	0/745	1.24	2/992 (0.2%)
16	7A	0.65	0/721	1.04	2/970 (0.2%)
16	7I	0.66	0/721	1.04	5/970 (0.5%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	8A	0.64	0/847	0.98	1/1131 (0.1%)
17	8I	0.73	0/847	1.13	4/1131 (0.4%)
18	9A	0.65	0/596	1.00	0/790
18	9I	0.70	0/596	1.11	0/790
19	AA	0.60	0/638	1.12	5/860 (0.6%)
19	AI	0.78	2/661 (0.3%)	1.29	6/890 (0.7%)
20	BA	0.63	0/765	1.16	1/1007 (0.1%)
20	BI	0.58	0/765	1.11	3/1007 (0.3%)
21	1B	0.65	0/221	1.02	0/288
21	1F	0.59	0/221	1.00	0/288
22	1K	0.30	0/1739	0.49	0/2708
22	1L	0.24	0/1739	0.40	0/2708
23	2K	0.60	2/1721 (0.1%)	0.77	0/2682
23	2L	0.52	1/1721 (0.1%)	0.69	0/2682
24	3K	0.31	0/1809	0.60	0/2819
24	3L	0.28	0/1809	0.50	0/2819
25	4K	0.51	0/338	0.67	0/524
25	4L	0.51	0/147	0.83	2/227 (0.9%)
26	14	0.53	0/70167	0.80	28/109541 (0.0%)
26	1H	0.63	0/70233	0.90	51/109643 (0.0%)
27	16	0.55	0/2928	0.85	0/4568
27	1J	0.45	0/2928	0.73	0/4568
28	11	1.17	6/2170 (0.3%)	1.57	44/2926 (1.5%)
28	19	0.98	2/2170 (0.1%)	1.46	29/2926 (1.0%)
29	21	0.92	0/1601	1.50	28/2160 (1.3%)
29	29	0.93	1/1601 (0.1%)	1.42	20/2160 (0.9%)
30	31	1.01	1/1620 (0.1%)	1.43	18/2194 (0.8%)
30	39	0.85	1/1662 (0.1%)	1.42	22/2249 (1.0%)
31	41	0.74	0/1498	1.23	7/2016 (0.3%)
31	49	0.55	0/1498	1.04	8/2016 (0.4%)
32	51	0.86	0/1362	1.50	24/1841 (1.3%)
32	59	0.54	0/1332	1.18	12/1802 (0.7%)
33	61	0.72	0/1151	1.25	16/1558 (1.0%)
33	69	0.68	0/1151	1.21	15/1558 (1.0%)
34	15	0.66	0/1131	1.18	12/1525 (0.8%)
34	58	0.84	0/1131	1.27	11/1525 (0.7%)
35	25	0.81	0/943	1.27	6/1269 (0.5%)
35	68	0.94	2/943 (0.2%)	1.28	9/1269 (0.7%)
36	35	0.98	3/1162 (0.3%)	1.66	27/1544 (1.7%)
36	78	1.04	3/1162 (0.3%)	1.59	23/1544 (1.5%)
37	45	0.96	2/1143 (0.2%)	1.35	9/1527 (0.6%)
37	88	1.24	5/1107 (0.5%)	1.66	29/1478 (2.0%)
38	55	0.87	0/974	1.22	0/1302

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	98	0.88	0/982	1.31	7/1312 (0.5%)
39	65	0.72	0/892	1.30	4/1187 (0.3%)
39	A8	0.88	0/892	1.39	8/1187 (0.7%)
40	75	0.80	0/1155	1.15	5/1542 (0.3%)
40	B8	0.86	0/1155	1.28	8/1542 (0.5%)
41	85	0.79	0/982	1.17	4/1306 (0.3%)
41	C8	0.95	1/982 (0.1%)	1.22	2/1306 (0.2%)
42	95	0.90	2/790 (0.3%)	1.39	7/1057 (0.7%)
42	D8	0.86	0/790	1.27	6/1057 (0.6%)
43	A5	0.92	0/911	1.21	4/1220 (0.3%)
43	E8	0.90	0/911	1.37	7/1220 (0.6%)
44	B5	0.97	1/744 (0.1%)	1.31	8/1000 (0.8%)
44	F8	1.06	0/756	1.38	10/1014 (1.0%)
45	C5	1.01	3/807 (0.4%)	1.36	8/1076 (0.7%)
45	G8	0.96	0/804	1.46	11/1073 (1.0%)
46	D5	0.59	0/1460	1.17	10/1982 (0.5%)
46	H8	0.74	2/1427 (0.1%)	1.32	16/1935 (0.8%)
47	E5	0.79	0/621	1.34	11/827 (1.3%)
47	I8	1.04	1/635 (0.2%)	1.39	3/847 (0.4%)
48	F5	0.86	0/770	1.34	6/1022 (0.6%)
48	J8	1.00	1/770 (0.1%)	1.30	3/1022 (0.3%)
49	G5	0.72	0/560	1.24	2/741 (0.3%)
49	K8	0.99	0/565	1.42	7/748 (0.9%)
50	H5	0.63	0/474	1.17	3/635 (0.5%)
50	L8	1.05	0/457	1.63	9/613 (1.5%)
51	I5	0.71	0/527	1.23	4/709 (0.6%)
51	M8	0.79	0/545	1.29	4/733 (0.5%)
52	J5	0.91	0/473	1.42	4/639 (0.6%)
52	N8	0.97	0/468	1.84	10/632 (1.6%)
53	K5	0.86	0/396	1.41	5/529 (0.9%)
53	O8	1.10	1/396 (0.3%)	1.39	8/529 (1.5%)
54	L5	1.06	0/406	1.47	5/536 (0.9%)
54	P8	1.26	0/426	1.48	3/561 (0.5%)
55	M5	1.29	2/483 (0.4%)	1.68	14/634 (2.2%)
55	Q8	1.93	16/486 (3.3%)	2.34	28/638 (4.4%)
All	All	0.62	64/322727 (0.0%)	0.94	898/483212 (0.2%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
2	12	0	1
2	1E	0	1
4	32	0	4
4	3E	0	1
9	82	0	2
10	1A	0	2
11	2A	0	2
12	3A	0	1
12	3I	0	1
15	6I	0	1
19	AI	0	2
20	BA	0	3
28	11	0	1
28	19	0	4
29	21	0	3
29	29	0	4
30	31	0	1
30	39	0	6
31	41	0	2
31	49	0	1
32	59	0	3
33	61	0	5
33	69	0	2
34	15	0	2
34	58	0	2
35	68	0	1
36	35	0	4
36	78	0	2
37	45	0	6
37	88	0	2
38	55	0	1
38	98	0	3
39	65	0	2
39	A8	0	2
40	75	0	1
40	B8	0	1
41	85	0	2
41	C8	0	2
42	95	0	1
43	A5	0	3
44	B5	0	2
44	F8	0	1
45	C5	0	3

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Mol	Chain	#Chirality outliers	#Planarity outliers
45	G8	0	3
46	D5	0	2
46	H8	0	2
47	I8	0	2
48	F5	0	1
48	J8	0	2
49	G5	0	3
49	K8	0	3
51	I5	0	2
51	M8	0	2
52	N8	0	2
53	K5	0	3
53	O8	0	3
55	M5	0	3
55	Q8	0	13
All	All	0	142

All (64) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	Q8	6	THR	CA-CB	11.77	1.70	1.53
55	Q8	49	VAL	CA-CB	10.68	1.69	1.54
37	88	82	ARG	CA-C	10.56	1.67	1.52
55	M5	52	LYS	CA-C	9.73	1.65	1.52
37	88	82	ARG	N-CA	9.63	1.58	1.46
55	Q8	48	PHE	CA-C	-9.60	1.42	1.53
23	2L	21	U	C5-C6	8.29	1.50	1.34
55	Q8	25	MET	CA-C	8.23	1.63	1.52
36	35	61	ARG	CA-C	8.10	1.62	1.52
23	2K	21	U	C5-C6	7.62	1.49	1.34
41	C8	9	VAL	CA-CB	-7.62	1.46	1.54
55	Q8	26	LYS	CA-C	7.56	1.62	1.52
36	78	19	VAL	CA-CB	7.44	1.64	1.54
55	M5	34	TRP	N-CA	7.33	1.55	1.46
19	AI	41	VAL	CA-CB	7.15	1.63	1.54
48	J8	7	ILE	CA-CB	-6.96	1.48	1.55
53	O8	15	GLU	CA-C	6.96	1.55	1.52
36	78	18	ARG	CA-C	-6.95	1.44	1.52
28	11	144	ALA	CA-CB	-6.92	1.41	1.53
28	19	271	ILE	CA-C	6.87	1.61	1.52
42	95	72	VAL	CA-CB	6.83	1.63	1.54
37	45	82	ARG	CA-C	6.82	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	88	79	LEU	N-CA	6.79	1.54	1.46
55	Q8	60	LEU	CA-C	6.76	1.61	1.53
29	29	135	HIS	CA-C	-6.70	1.43	1.52
28	11	271	ILE	CA-C	6.64	1.61	1.53
28	19	272	ALA	CA-C	6.60	1.60	1.52
36	35	19	VAL	CA-C	6.57	1.60	1.52
30	39	84	VAL	CA-CB	6.53	1.63	1.54
28	11	122	ASP	CB-CG	6.48	1.68	1.52
36	35	71	VAL	CA-CB	6.20	1.58	1.53
28	11	106	ILE	CA-CB	6.19	1.61	1.54
42	95	79	VAL	CA-C	6.16	1.60	1.52
37	88	83	MET	N-CA	6.13	1.54	1.46
28	11	11	PRO	CA-C	-6.02	1.45	1.52
11	2I	120	ARG	CA-C	-5.92	1.46	1.52
37	88	79	LEU	CA-C	5.91	1.60	1.52
55	Q8	23	VAL	C-O	-5.88	1.16	1.23
55	Q8	26	LYS	N-CA	5.86	1.52	1.46
47	I8	79	VAL	CA-CB	5.86	1.61	1.54
46	H8	165	VAL	CA-CB	5.84	1.62	1.54
55	Q8	18	ALA	CA-CB	-5.74	1.45	1.53
45	C5	85	VAL	CA-C	5.66	1.59	1.52
23	2K	8	4SU	O3'-P	5.62	1.61	1.56
35	68	97	ARG	CA-C	5.60	1.60	1.52
30	31	9	ILE	CA-CB	5.53	1.59	1.54
37	45	27	VAL	CA-CB	5.34	1.61	1.54
55	Q8	56	GLU	CA-C	5.31	1.59	1.53
55	Q8	37	SER	CA-C	5.25	1.58	1.52
55	Q8	32	LEU	CA-C	-5.23	1.46	1.53
36	78	15	ARG	CA-C	5.20	1.59	1.52
45	C5	83	THR	CA-CB	5.19	1.60	1.53
46	H8	53	ILE	CA-CB	5.18	1.61	1.54
19	AI	5	LEU	CA-C	5.18	1.59	1.52
35	68	38	VAL	CA-CB	5.18	1.61	1.54
45	C5	98	VAL	CA-CB	5.17	1.60	1.54
10	1I	38	ILE	CA-CB	5.17	1.59	1.53
55	Q8	25	MET	N-CA	5.15	1.52	1.46
28	11	102	LYS	CA-C	5.14	1.58	1.52
55	Q8	24	ALA	CA-C	5.14	1.60	1.53
55	Q8	44	LYS	CA-C	-5.11	1.46	1.52
14	5I	13	THR	CA-CB	5.05	1.61	1.53
55	Q8	49	VAL	N-CA	-5.05	1.40	1.46
44	B5	52	VAL	CA-C	5.03	1.60	1.52

All (898) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	88	86	GLY	N-CA-C	-16.90	94.81	112.04
52	N8	40	LYS	CA-C-N	-16.31	103.58	120.38
52	N8	40	LYS	C-N-CA	-16.31	103.58	120.38
28	19	272	ALA	N-CA-C	14.61	131.25	107.73
28	11	271	ILE	N-CA-C	14.50	127.25	111.88
28	19	235	GLY	N-CA-C	13.87	125.13	111.95
50	L8	11	SER	CA-C-N	12.66	133.04	119.87
50	L8	11	SER	C-N-CA	12.66	133.04	119.87
52	J5	4	HIS	CA-C-N	-12.05	107.25	119.90
52	J5	4	HIS	C-N-CA	-12.05	107.25	119.90
55	Q8	28	GLY	N-CA-C	12.01	129.86	114.25
32	59	153	LYS	CA-C-N	-12.01	104.83	119.84
32	59	153	LYS	C-N-CA	-12.01	104.83	119.84
46	H8	161	VAL	N-CA-C	11.96	122.30	107.70
32	51	167	GLU	CA-C-N	-11.89	104.97	119.84
32	51	167	GLU	C-N-CA	-11.89	104.97	119.84
42	95	49	THR	CA-C-N	-11.68	105.25	119.84
42	95	49	THR	C-N-CA	-11.68	105.25	119.84
28	11	272	ALA	N-CA-C	11.53	123.07	108.19
42	95	80	GLN	N-CA-C	11.51	126.36	108.07
55	Q8	25	MET	N-CA-C	11.46	135.21	110.80
32	51	125	VAL	CA-C-N	11.42	134.12	119.84
32	51	125	VAL	C-N-CA	11.42	134.12	119.84
49	G5	42	GLY	N-CA-C	-11.34	98.76	112.48
36	35	62	LEU	N-CA-C	11.26	134.69	109.81
48	F5	29	GLY	N-CA-C	11.20	126.88	110.63
46	D5	14	LYS	CA-C-N	11.18	130.97	119.56
46	D5	14	LYS	C-N-CA	11.18	130.97	119.56
11	2I	102	GLY	N-CA-C	-11.06	95.65	110.58
36	78	71	VAL	CA-C-N	-11.05	108.40	119.56
36	78	71	VAL	C-N-CA	-11.05	108.40	119.56
45	C5	39	VAL	N-CA-C	10.97	123.44	112.90
8	72	73	ASP	CA-C-N	10.90	130.65	119.64
8	72	73	ASP	C-N-CA	10.90	130.65	119.64
39	A8	110	LEU	N-CA-C	10.84	124.05	108.00
46	H8	161	VAL	CB-CA-C	-10.84	101.55	111.74
32	51	9	ILE	CA-C-N	10.75	133.28	119.84
32	51	9	ILE	C-N-CA	10.75	133.28	119.84
55	M5	33	ASN	N-CA-C	10.54	126.03	107.80
30	39	80	ALA	CA-C-N	-10.43	106.81	119.84
30	39	80	ALA	C-N-CA	-10.43	106.81	119.84
36	35	62	LEU	CA-C-N	10.38	132.81	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	35	62	LEU	C-N-CA	10.38	132.81	119.84
37	45	82	ARG	N-CA-C	10.36	128.46	113.02
11	2A	127	LYS	N-CA-C	10.34	123.68	110.24
52	N8	41	PRO	CA-C-N	10.03	132.37	119.84
52	N8	41	PRO	C-N-CA	10.03	132.37	119.84
32	51	11	VAL	CA-C-N	9.88	132.18	119.84
32	51	11	VAL	C-N-CA	9.88	132.18	119.84
29	29	88	GLY	N-CA-C	9.79	127.54	110.80
34	58	46	VAL	N-CA-C	9.68	119.27	111.62
28	19	244	ARG	CA-C-N	-9.64	110.44	120.38
28	19	244	ARG	C-N-CA	-9.64	110.44	120.38
52	N8	50	GLY	N-CA-C	9.44	124.06	112.64
37	88	83	MET	N-CA-C	9.34	121.84	110.91
29	29	73	GLU	CA-C-N	9.24	131.38	119.84
29	29	73	GLU	C-N-CA	9.24	131.38	119.84
36	35	144	GLU	CA-C-N	9.20	129.32	120.31
36	35	144	GLU	C-N-CA	9.20	129.32	120.31
36	35	19	VAL	N-CA-C	9.18	120.54	107.88
29	21	132	HIS	N-CA-C	9.07	123.53	111.28
55	Q8	32	LEU	N-CA-C	-9.04	97.73	111.56
35	68	29	ASN	N-CA-C	9.01	123.59	112.59
49	G5	44	LEU	N-CA-C	-9.00	101.83	113.17
36	78	15	ARG	N-CA-C	8.95	122.87	110.35
37	88	78	PRO	N-CA-C	8.89	124.96	114.03
29	21	52	LEU	CA-C-N	8.83	128.57	119.56
29	21	52	LEU	C-N-CA	8.83	128.57	119.56
31	41	121	ASN	CA-C-N	-8.83	108.81	119.84
31	41	121	ASN	C-N-CA	-8.83	108.81	119.84
46	D5	157	LEU	CA-C-N	8.82	129.46	120.38
46	D5	157	LEU	C-N-CA	8.82	129.46	120.38
29	21	21	VAL	CA-C-N	8.78	130.81	119.84
29	21	21	VAL	C-N-CA	8.78	130.81	119.84
30	39	68	LYS	CA-C-N	-8.76	109.75	123.23
30	39	68	LYS	C-N-CA	-8.76	109.75	123.23
41	C8	9	VAL	N-CA-C	8.75	119.33	110.23
36	35	65	ARG	N-CA-C	-8.59	92.50	110.80
33	61	136	VAL	CA-C-N	8.57	129.24	119.99
33	61	136	VAL	C-N-CA	8.57	129.24	119.99
50	L8	54	VAL	N-CA-C	8.56	127.15	109.34
33	69	120	ILE	N-CA-C	8.51	118.48	110.74
30	39	83	PHE	N-CA-C	8.50	123.88	113.17
29	29	125	GLY	CA-C-N	8.44	128.20	119.76

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	29	125	GLY	C-N-CA	8.44	128.20	119.76
28	11	235	GLY	N-CA-C	8.37	122.43	110.46
42	D8	49	THR	CA-C-N	-8.34	110.29	118.97
42	D8	49	THR	C-N-CA	-8.34	110.29	118.97
43	E8	64	MET	N-CA-C	8.31	126.08	113.61
28	11	238	GLY	N-CA-C	8.30	121.48	111.93
29	29	80	GLU	N-CA-C	8.27	124.46	113.72
36	35	71	VAL	CA-C-N	-8.26	111.28	119.87
36	35	71	VAL	C-N-CA	-8.26	111.28	119.87
28	11	240	ALA	CA-C-N	8.24	130.15	119.84
28	11	240	ALA	C-N-CA	8.24	130.15	119.84
2	12	17	PHE	N-CA-C	8.22	122.39	109.81
20	BA	12	ALA	N-CA-C	-8.21	102.82	112.92
45	C5	103	GLY	N-CA-C	8.19	130.06	115.80
47	E5	22	GLY	N-CA-C	8.18	123.73	112.52
11	2A	120	ARG	CA-C-N	8.17	128.32	120.31
11	2A	120	ARG	C-N-CA	8.17	128.32	120.31
51	I5	20	ASN	N-CA-C	8.15	118.70	108.19
28	11	229	VAL	CB-CA-C	-8.15	101.37	112.04
29	21	31	CYS	CA-C-N	8.11	129.97	119.84
29	21	31	CYS	C-N-CA	8.11	129.97	119.84
5	4E	67	VAL	N-CA-C	8.09	119.02	108.35
41	85	9	VAL	N-CA-C	8.08	118.18	110.42
33	69	110	ASP	CA-C-N	8.07	129.93	119.84
33	69	110	ASP	C-N-CA	8.07	129.93	119.84
8	7E	100	ILE	CA-C-N	8.02	128.50	119.92
8	7E	100	ILE	C-N-CA	8.02	128.50	119.92
30	39	67	GLN	CA-C-N	-7.97	110.60	122.56
30	39	67	GLN	C-N-CA	-7.97	110.60	122.56
1	13	1498	U	C2'-C3'-O3'	7.95	121.42	109.50
12	3I	18	VAL	N-CA-C	7.94	122.08	111.44
43	E8	92	ARG	N-CA-C	7.94	121.46	111.69
37	88	82	ARG	N-CA-C	7.92	127.67	110.80
37	88	18	LYS	N-CA-C	7.91	120.97	110.53
4	32	171	GLY	CA-C-N	7.88	128.62	119.47
4	32	171	GLY	C-N-CA	7.88	128.62	119.47
36	78	96	THR	CA-C-N	-7.88	113.69	121.65
36	78	96	THR	C-N-CA	-7.88	113.69	121.65
29	29	21	VAL	CA-C-N	7.87	127.87	119.76
29	29	21	VAL	C-N-CA	7.87	127.87	119.76
4	32	180	GLY	N-CA-C	-7.86	104.91	114.66
4	3E	32	ALA	N-CA-C	-7.86	94.06	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	32	6	GLY	CA-C-N	7.85	129.65	119.84
4	32	6	GLY	C-N-CA	7.85	129.65	119.84
19	AI	25	LYS	N-CA-C	-7.85	94.09	110.80
38	98	3	HIS	CA-C-N	-7.84	109.64	122.65
38	98	3	HIS	C-N-CA	-7.84	109.64	122.65
53	K5	49	HIS	N-CA-C	7.82	120.06	110.91
34	58	57	ALA	N-CA-C	-7.80	100.81	110.41
29	29	52	LEU	CA-C-N	7.80	129.59	119.84
29	29	52	LEU	C-N-CA	7.80	129.59	119.84
51	M8	51	ASP	N-CA-C	7.79	120.37	110.24
36	78	25	SER	N-CA-C	-7.77	102.77	111.71
26	1H	587	C	C4'-C3'-O3'	7.70	120.95	109.40
55	Q8	52	LYS	N-CA-C	-7.66	98.38	110.10
54	L5	17	GLY	N-CA-C	7.65	120.73	111.93
26	1H	271(B)	G	P-O3'-C3'	7.63	128.86	119.70
54	L5	6	GLN	CA-C-N	7.62	127.61	119.76
54	L5	6	GLN	C-N-CA	7.62	127.61	119.76
36	78	47	ASP	CA-C-N	7.62	127.79	119.87
36	78	47	ASP	C-N-CA	7.62	127.79	119.87
44	B5	40	LYS	CA-C-N	-7.61	110.75	122.16
44	B5	40	LYS	C-N-CA	-7.61	110.75	122.16
20	BI	74	LYS	CB-CA-C	-7.59	105.72	116.34
41	C8	19	LYS	N-CA-C	-7.58	102.95	111.14
37	88	57	HIS	CA-C-N	-7.56	111.95	123.14
37	88	57	HIS	C-N-CA	-7.56	111.95	123.14
41	85	8	VAL	N-CA-C	7.56	120.50	111.05
30	39	71	GLY	N-CA-C	-7.55	104.08	114.64
29	21	58	ARG	N-CA-C	-7.53	103.68	113.17
30	39	93	LYS	CA-C-N	-7.53	112.00	119.76
30	39	93	LYS	C-N-CA	-7.53	112.00	119.76
36	35	36	LYS	N-CA-C	7.50	119.11	108.00
44	B5	5	TYR	N-CA-C	-7.50	104.15	113.38
26	14	2439	A	P-O3'-C3'	7.50	131.44	120.20
37	88	106	VAL	CB-CA-C	-7.47	101.64	111.13
40	B8	113	LYS	N-CA-C	-7.44	102.78	112.68
49	K8	17	SER	N-CA-C	7.44	121.38	110.14
53	K5	23	THR	N-CA-C	7.44	121.05	109.52
30	39	106	ARG	N-CA-C	-7.42	102.88	110.97
2	12	231	GLU	CA-C-N	7.39	127.44	119.90
2	12	231	GLU	C-N-CA	7.39	127.44	119.90
26	14	1786	A	N9-C1'-C2'	7.38	125.08	114.00
3	22	6	HIS	CA-C-N	7.37	127.01	119.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	22	6	HIS	C-N-CA	7.37	127.01	119.56
11	2A	128	ALA	N-CA-C	7.36	118.89	108.00
43	E8	62	HIS	N-CA-C	-7.36	98.25	109.95
32	51	4	ILE	N-CA-C	7.34	119.68	109.55
28	19	13	ARG	N-CA-C	-7.33	102.68	111.69
8	7E	75	ARG	CA-C-N	7.32	128.31	120.11
8	7E	75	ARG	C-N-CA	7.32	128.31	120.11
32	59	167	GLU	CA-C-N	7.31	128.98	119.84
32	59	167	GLU	C-N-CA	7.31	128.98	119.84
42	95	82	ARG	N-CA-C	7.24	121.12	108.75
36	35	107	LYS	N-CA-C	7.23	121.68	112.86
55	Q8	7	HIS	N-CA-C	7.21	126.17	110.80
37	88	65	PHE	N-CA-C	7.16	122.30	113.50
40	75	13	ARG	N-CA-C	-7.11	104.21	113.17
50	L8	56	VAL	N-CA-C	7.11	118.84	108.53
55	Q8	60	LEU	N-CA-C	7.10	121.20	111.54
33	61	144	VAL	N-CA-C	7.08	117.69	108.35
53	O8	21	TYR	N-CA-C	7.05	118.44	108.00
39	A8	59	LYS	N-CA-C	7.03	119.55	108.79
30	39	95	ARG	N-CA-C	7.03	119.54	108.79
52	N8	46	CYS	N-CA-C	7.02	117.67	109.60
33	69	102	SER	N-CA-C	-6.99	95.91	110.80
44	F8	67	GLY	N-CA-C	-6.97	96.65	113.18
30	31	101	LEU	CA-C-N	-6.93	112.62	119.76
30	31	101	LEU	C-N-CA	-6.93	112.62	119.76
46	H8	14	LYS	CA-C-N	6.93	126.56	119.56
46	H8	14	LYS	C-N-CA	6.93	126.56	119.56
30	31	93	LYS	CA-C-N	-6.93	112.63	119.76
30	31	93	LYS	C-N-CA	-6.93	112.63	119.76
2	1E	16	HIS	N-CA-C	6.92	121.89	113.17
14	5I	28	GLY	N-CA-C	-6.92	105.54	115.64
36	35	13	ASN	N-CA-C	-6.92	104.84	113.28
35	25	90	GLN	N-CA-C	-6.92	104.84	113.28
6	5E	65	VAL	N-CA-C	6.90	123.70	109.34
46	H8	110	GLY	N-CA-C	-6.90	102.93	112.18
36	35	147	LEU	CA-CB-CG	6.90	140.44	116.30
8	7E	73	ASP	CA-C-N	6.89	127.17	119.32
8	7E	73	ASP	C-N-CA	6.89	127.17	119.32
30	39	24	LEU	CA-C-N	-6.89	111.23	119.84
30	39	24	LEU	C-N-CA	-6.89	111.23	119.84
33	69	131	LYS	CA-C-N	6.89	143.53	127.00
33	69	131	LYS	C-N-CA	6.89	143.53	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	45	69	PHE	CA-C-N	6.88	128.44	119.84
37	45	69	PHE	C-N-CA	6.88	128.44	119.84
26	1H	1573	G	OP1-P-O3'	-6.87	87.40	108.00
8	7E	71	GLY	N-CA-C	-6.85	98.36	112.34
36	35	28	GLY	N-CA-C	-6.85	103.35	112.81
55	M5	53	PRO	CA-C-N	6.85	129.77	120.38
55	M5	53	PRO	C-N-CA	6.85	129.77	120.38
16	7A	65	GLN	CA-C-N	-6.85	113.74	120.52
16	7A	65	GLN	C-N-CA	-6.85	113.74	120.52
26	1H	752	A	C2'-C3'-O3'	6.84	119.76	109.50
53	O8	28	ARG	N-CA-C	6.84	120.66	109.85
32	51	9	ILE	N-CA-C	6.82	115.64	108.95
4	32	154	ASN	N-CA-C	6.82	120.47	111.75
30	31	7	TYR	N-CA-C	6.81	120.81	112.23
50	L8	40	THR	CA-C-N	-6.80	111.89	118.97
50	L8	40	THR	C-N-CA	-6.80	111.89	118.97
37	88	2	LEU	N-CA-C	-6.80	96.32	110.80
26	1H	945	A	C4-N9-C1'	6.79	146.69	126.30
45	G8	79	CYS	N-CA-C	6.79	125.27	110.80
34	15	69	GLN	N-CA-C	6.76	121.85	112.45
17	8I	79	SER	N-CA-C	6.76	119.81	110.35
37	88	81	VAL	N-CA-C	6.76	118.87	107.18
37	88	75	THR	N-CA-C	6.75	120.47	110.48
32	51	136	ILE	CB-CA-C	-6.74	103.21	112.24
43	E8	62	HIS	CA-C-N	-6.74	113.48	122.85
43	E8	62	HIS	C-N-CA	-6.74	113.48	122.85
28	11	35	LYS	CA-C-N	-6.73	113.71	120.31
28	11	35	LYS	C-N-CA	-6.73	113.71	120.31
52	N8	27	PRO	O-C-N	6.73	124.31	121.15
28	11	251	GLY	N-CA-C	6.71	122.68	114.69
33	69	78	THR	N-CA-C	6.71	120.63	111.17
44	B5	25	LYS	N-CA-C	6.70	119.66	108.20
45	C5	82	PRO	N-CA-C	6.68	121.55	111.14
2	1E	182	ILE	N-CA-C	6.66	113.62	107.56
32	51	54	ARG	CA-C-N	6.66	125.90	118.97
32	51	54	ARG	C-N-CA	6.66	125.90	118.97
30	31	65	TRP	CA-C-N	6.66	127.19	119.47
30	31	65	TRP	C-N-CA	6.66	127.19	119.47
29	29	23	VAL	N-CA-C	6.64	123.14	109.34
36	78	20	GLY	N-CA-C	6.63	132.53	113.30
48	F5	36	GLY	N-CA-C	6.63	128.89	113.18
39	65	88	ASP	O-C-N	6.62	126.44	121.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
50	L8	9	VAL	N-CA-C	6.62	119.25	112.90
26	1H	945	A	O4'-C1'-N9	6.62	118.13	108.20
26	1H	801	G	O5'-P-OP2	-6.62	88.15	108.00
46	H8	67	LEU	CA-C-N	6.61	128.10	119.84
46	H8	67	LEU	C-N-CA	6.61	128.10	119.84
9	82	20	ARG	CA-C-N	6.61	126.63	119.89
9	82	20	ARG	C-N-CA	6.61	126.63	119.89
34	58	95	PRO	CA-C-O	-6.60	113.70	121.95
2	12	25	ASN	CA-C-N	6.59	126.29	119.56
2	12	25	ASN	C-N-CA	6.59	126.29	119.56
36	35	36	LYS	CB-CA-C	-6.59	107.11	116.34
42	95	70	ILE	N-CA-C	6.59	118.48	112.29
36	78	116	GLY	N-CA-C	6.59	123.48	110.77
45	G8	5	MET	CB-CA-C	-6.58	107.20	115.89
43	E8	24	ILE	N-CA-C	6.58	115.81	106.53
15	6I	18	PHE	CA-C-N	-6.58	112.89	119.93
15	6I	18	PHE	C-N-CA	-6.58	112.89	119.93
19	AA	82	GLY	N-CA-C	6.58	128.76	113.18
26	1H	1297	C	OP2-P-O3'	-6.57	88.29	108.00
2	12	23	ARG	N-CA-C	-6.56	96.45	107.80
55	M5	39	LYS	N-CA-C	-6.56	100.57	110.28
26	1H	2468	G	O4'-C1'-N9	6.56	118.04	108.20
29	21	61	ARG	CA-C-N	-6.54	112.19	120.23
29	21	61	ARG	C-N-CA	-6.54	112.19	120.23
34	15	2	LYS	N-CA-C	-6.54	97.67	108.07
26	14	2447	G	P-O3'-C3'	6.54	130.00	120.20
50	L8	55	ARG	N-CA-C	6.53	119.25	109.25
55	Q8	48	PHE	N-CA-C	6.52	117.07	108.07
53	O8	24	GLU	N-CA-C	6.51	116.65	108.45
35	68	112	MET	N-CA-C	6.50	120.67	112.87
28	11	264	LYS	CA-C-N	6.49	127.00	119.47
28	11	264	LYS	C-N-CA	6.49	127.00	119.47
28	11	180	GLY	N-CA-C	-6.49	106.36	115.32
46	D5	106	GLY	N-CA-C	6.48	120.87	112.18
30	31	76	GLY	CA-C-N	6.48	130.04	120.90
30	31	76	GLY	C-N-CA	6.48	130.04	120.90
26	14	752	A	C2'-C3'-O3'	6.48	119.22	109.50
33	69	83	ALA	N-CA-C	6.48	118.80	109.14
45	G8	99	CYS	N-CA-C	6.48	118.88	111.11
26	14	2225	A	C4'-C3'-O3'	6.46	119.09	109.40
1	13	1504	G	C4'-C3'-O3'	6.46	119.09	109.40
36	35	50	ARG	CA-C-N	-6.46	113.09	122.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	35	50	ARG	C-N-CA	-6.46	113.09	122.19
10	1A	88	LEU	N-CA-C	-6.45	105.05	113.17
26	1H	791	C	OP1-P-O3'	-6.45	88.66	108.00
36	35	111	ARG	N-CA-C	6.45	120.02	110.48
36	78	22	GLY	CA-C-N	6.44	126.36	119.85
36	78	22	GLY	C-N-CA	6.44	126.36	119.85
51	I5	56	VAL	N-CA-C	6.44	118.72	109.51
29	29	61	ARG	CA-C-N	-6.43	111.80	119.84
29	29	61	ARG	C-N-CA	-6.43	111.80	119.84
44	F8	25	LYS	N-CA-C	6.43	119.22	108.73
36	78	98	GLU	N-CA-C	-6.43	103.51	112.12
46	D5	149	SER	N-CA-C	6.42	118.28	108.07
4	3E	12	CYS	N-CA-C	-6.41	103.42	111.11
28	11	220	HIS	CA-C-N	-6.41	115.25	123.19
28	11	220	HIS	C-N-CA	-6.41	115.25	123.19
48	F5	38	SER	N-CA-C	6.41	118.59	108.79
55	M5	29	LYS	N-CA-C	-6.40	105.22	113.16
7	6E	132	GLY	N-CA-C	6.39	119.28	111.93
42	D8	35	LEU	CA-C-N	6.38	127.82	119.84
42	D8	35	LEU	C-N-CA	6.38	127.82	119.84
28	19	49	ILE	N-CA-CB	6.37	118.09	110.95
32	59	130	ARG	CB-CA-C	-6.36	108.22	115.79
26	1H	138	G	N9-C1'-C2'	6.36	121.53	112.00
33	69	131	LYS	C-N-CD	-6.34	106.66	120.60
49	K8	16	LEU	N-CA-C	-6.33	97.93	108.75
37	45	31	ASP	N-CA-C	6.33	119.12	111.40
45	G8	93	GLY	CA-C-O	-6.31	117.18	122.29
43	A5	64	MET	N-CA-C	6.30	121.11	113.17
3	22	78	GLY	N-CA-C	-6.30	102.88	112.84
45	C5	98	VAL	N-CA-C	-6.29	105.12	112.98
45	G8	98	VAL	N-CA-C	-6.29	105.57	112.80
55	M5	52	LYS	N-CA-C	6.29	123.70	109.81
26	1H	2689	U	C4'-C3'-O3'	6.28	118.83	109.40
35	68	5	GLN	N-CA-CB	-6.28	107.82	114.10
37	88	79	LEU	CA-C-N	6.28	131.67	121.74
37	88	79	LEU	C-N-CA	6.28	131.67	121.74
2	12	130	ARG	CA-C-N	6.28	126.23	119.76
2	12	130	ARG	C-N-CA	6.28	126.23	119.76
1	1G	1346	A	P-O3'-C3'	6.27	129.61	120.20
44	F8	3	THR	CA-C-N	6.27	132.99	121.70
44	F8	3	THR	C-N-CA	6.27	132.99	121.70
39	A8	90	GLY	CA-C-N	-6.27	112.01	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
39	A8	90	GLY	C-N-CA	-6.27	112.01	119.84
29	29	51	PHE	N-CA-C	6.26	124.13	110.80
11	2A	34	ASP	CA-C-N	-6.26	113.36	119.87
11	2A	34	ASP	C-N-CA	-6.26	113.36	119.87
46	D5	158	PRO	CA-C-N	-6.26	112.46	118.97
46	D5	158	PRO	C-N-CA	-6.26	112.46	118.97
46	H8	92	SER	N-CA-C	-6.25	100.68	109.69
26	14	2701	C	O3'-P-O5'	6.25	113.37	104.00
53	O8	13	CYS	N-CA-C	6.25	118.63	108.26
49	K8	15	LYS	CA-C-N	6.24	132.92	121.94
49	K8	15	LYS	C-N-CA	6.24	132.92	121.94
31	41	65	GLY	N-CA-C	-6.24	106.63	115.43
28	19	98	VAL	N-CA-C	-6.23	103.84	112.50
40	B8	4	GLY	N-CA-C	-6.22	105.25	112.83
26	1H	222	A	C2'-C3'-O3'	6.21	118.82	109.50
45	G8	17	SER	N-CA-C	6.21	118.29	108.79
40	75	87	ASP	CA-C-N	-6.21	114.61	122.37
40	75	87	ASP	C-N-CA	-6.21	114.61	122.37
37	45	105	GLU	N-CA-C	6.20	119.64	109.85
54	L5	41	ARG	N-CA-C	6.20	118.87	108.02
19	AA	78	ARG	N-CA-C	6.20	117.72	110.97
1	13	792	A	O4'-C1'-N9	6.19	117.48	108.20
33	61	143	SER	N-CA-C	6.19	123.98	110.80
26	1H	1204	A	O4'-C1'-N9	6.18	117.46	108.20
36	78	9	ASN	CA-C-N	6.16	127.54	119.84
36	78	9	ASN	C-N-CA	6.16	127.54	119.84
30	39	16	GLY	N-CA-C	-6.16	106.02	114.64
29	21	69	LYS	N-CA-C	-6.16	105.75	113.20
53	K5	40	CYS	N-CA-C	6.15	117.78	109.24
32	51	44	VAL	N-CA-C	6.15	116.72	107.75
38	98	9	LYS	N-CA-C	-6.14	99.64	109.96
32	51	131	VAL	N-CA-C	6.14	116.86	107.77
36	35	56	SER	N-CA-C	6.14	120.77	113.16
12	3I	15	ARG	N-CA-C	6.13	121.69	113.72
35	25	94	ARG	N-CA-C	-6.13	105.07	112.54
33	69	7	GLU	CA-C-N	-6.12	113.38	119.99
33	69	7	GLU	C-N-CA	-6.12	113.38	119.99
19	AA	75	ALA	CA-C-N	6.12	125.88	119.76
19	AA	75	ALA	C-N-CA	6.12	125.88	119.76
29	21	184	VAL	CA-C-N	-6.10	114.11	123.14
29	21	184	VAL	C-N-CA	-6.10	114.11	123.14
40	B8	13	ARG	N-CA-C	-6.09	105.49	113.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	61	131	LYS	CA-C-N	6.09	141.61	127.00
33	61	131	LYS	C-N-CA	6.09	141.61	127.00
1	1G	913	A	C2'-C3'-O3'	6.09	118.63	109.50
32	51	92	ILE	N-CA-C	6.08	121.99	109.34
37	45	104	PHE	N-CA-C	6.07	123.74	110.80
8	7E	88	LYS	CA-C-N	-6.07	112.76	119.19
8	7E	88	LYS	C-N-CA	-6.07	112.76	119.19
28	11	68	LYS	CA-C-N	-6.07	111.76	122.26
28	11	68	LYS	C-N-CA	-6.07	111.76	122.26
55	Q8	52	LYS	CB-CA-C	6.07	118.00	108.84
4	32	38	TYR	CA-C-N	6.07	126.63	120.38
4	32	38	TYR	C-N-CA	6.07	126.63	120.38
32	59	153	LYS	N-CA-C	6.06	123.21	109.81
14	5I	41	ARG	N-CA-C	6.05	119.50	111.75
55	M5	32	LEU	CA-C-N	-6.05	113.67	122.44
55	M5	32	LEU	C-N-CA	-6.05	113.67	122.44
46	H8	133	ILE	CA-C-N	6.04	127.39	119.84
46	H8	133	ILE	C-N-CA	6.04	127.39	119.84
47	E5	46	LYS	CA-C-N	6.04	127.39	119.84
47	E5	46	LYS	C-N-CA	6.04	127.39	119.84
26	1H	1694	C	P-O3'-C3'	6.04	129.26	120.20
37	88	69	PHE	CA-C-N	6.04	127.39	119.84
37	88	69	PHE	C-N-CA	6.04	127.39	119.84
26	14	2702	U	N1-C1'-C2'	6.04	121.06	112.00
35	68	98	VAL	N-CA-C	6.04	118.05	108.87
1	1G	812	C	C2'-C3'-O3'	6.03	118.55	109.50
34	58	98	VAL	N-CA-C	-6.03	104.43	111.00
38	98	38	VAL	CB-CA-C	-6.03	107.97	113.70
26	14	741	G	O5'-P-OP1	-6.03	89.92	108.00
7	6E	13	GLN	CA-C-N	6.02	126.03	119.89
7	6E	13	GLN	C-N-CA	6.02	126.03	119.89
10	1A	52	GLY	CA-C-N	6.01	125.73	119.05
10	1A	52	GLY	C-N-CA	6.01	125.73	119.05
29	21	106	GLY	N-CA-C	6.00	118.21	111.85
39	A8	5	THR	N-CA-C	6.00	118.28	110.43
33	69	106	GLY	N-CA-C	-5.99	106.82	114.37
37	88	17	LEU	N-CA-C	5.99	119.55	112.72
4	32	34	GLU	N-CA-C	-5.99	105.55	112.86
28	11	194	GLY	N-CA-C	5.98	118.14	112.04
28	19	68	LYS	CA-C-N	-5.98	112.67	122.54
28	19	68	LYS	C-N-CA	-5.98	112.67	122.54
33	61	131	LYS	C-N-CD	-5.97	107.47	120.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	29	87	GLU	CA-C-N	-5.97	114.10	121.38
29	29	87	GLU	C-N-CA	-5.97	114.10	121.38
39	A8	110	LEU	CB-CA-C	-5.97	107.99	116.34
50	H5	11	SER	CA-C-N	5.96	125.58	119.56
50	H5	11	SER	C-N-CA	5.96	125.58	119.56
51	M8	63	TYR	N-CA-C	5.96	117.58	111.14
31	49	45	GLU	N-CA-C	-5.96	105.50	112.89
2	1E	25	ASN	CA-C-N	5.96	125.58	119.56
2	1E	25	ASN	C-N-CA	5.96	125.58	119.56
36	78	46	LYS	N-CA-C	5.96	119.60	112.93
50	L8	54	VAL	CB-CA-C	-5.95	101.53	111.29
26	1H	2598	A	O5'-P-OP1	-5.95	90.15	108.00
47	E5	40	GLN	N-CA-C	5.95	117.89	108.79
42	95	42	GLY	N-CA-C	5.94	119.83	112.64
55	Q8	52	LYS	CA-C-N	5.94	141.25	127.00
55	Q8	52	LYS	C-N-CA	5.94	141.25	127.00
28	19	241	PRO	CA-C-O	-5.94	113.94	122.31
2	1E	166	ASP	CA-C-N	-5.93	113.90	121.91
2	1E	166	ASP	C-N-CA	-5.93	113.90	121.91
37	88	125	LEU	CA-C-N	5.93	125.61	119.56
37	88	125	LEU	C-N-CA	5.93	125.61	119.56
11	2A	17	GLY	N-CA-C	5.93	120.99	112.81
45	C5	86	ARG	N-CA-C	5.91	118.53	110.55
29	21	131	ALA	CA-C-N	5.91	131.14	122.63
29	21	131	ALA	C-N-CA	5.91	131.14	122.63
28	19	48	ARG	CA-C-N	-5.90	113.53	121.80
28	19	48	ARG	C-N-CA	-5.90	113.53	121.80
3	22	143	GLU	N-CA-C	-5.90	105.84	113.16
34	58	61	ARG	N-CA-C	-5.90	101.00	110.14
31	41	3	LEU	N-CA-C	5.90	120.33	113.20
35	68	26	LYS	CA-C-N	-5.89	116.06	122.55
35	68	26	LYS	C-N-CA	-5.89	116.06	122.55
28	19	256	GLY	N-CA-C	5.89	122.09	115.08
30	39	147	GLY	N-CA-C	-5.88	106.86	115.63
26	14	1379	A	N9-C1'-C2'	5.88	122.83	114.00
2	1E	171	ALA	N-CA-C	-5.88	105.76	113.17
16	7I	79	VAL	N-CA-C	5.88	116.52	110.82
26	14	49	A	P-O3'-C3'	5.88	129.02	120.20
37	88	78	PRO	CA-C-O	-5.86	110.77	118.86
55	Q8	52	LYS	C-N-CD	-5.85	107.72	120.60
3	22	82	GLU	CB-CA-C	-5.85	109.28	117.23
4	3E	12	CYS	CA-CB-SG	5.84	127.84	114.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1790	C	O3'-P-O5'	-5.84	95.23	104.00
37	88	22	LYS	N-CA-C	-5.84	103.22	110.41
55	Q8	21	LYS	N-CA-C	5.84	118.42	108.02
37	88	106	VAL	N-CA-C	5.84	118.84	110.09
12	3I	95	GLY	CA-C-N	-5.83	115.09	122.43
12	3I	95	GLY	C-N-CA	-5.83	115.09	122.43
5	42	71	LEU	N-CA-C	5.82	118.27	110.35
37	88	85	LYS	N-CA-C	-5.82	100.57	109.65
1	1G	812	C	P-O3'-C3'	5.81	128.92	120.20
28	11	145	VAL	N-CA-C	5.80	117.10	109.21
30	39	154	VAL	N-CA-C	5.80	116.22	107.75
15	6A	47	LYS	N-CA-C	-5.80	105.86	113.17
43	A5	6	ILE	N-CA-C	5.80	116.23	108.11
35	25	92	GLU	CA-C-N	-5.80	113.81	119.90
35	25	92	GLU	C-N-CA	-5.80	113.81	119.90
46	D5	19	ARG	N-CA-C	-5.79	104.97	111.28
26	1H	2261	C	OP1-P-O3'	-5.79	90.63	108.00
37	88	86	GLY	CA-C-O	-5.79	118.28	122.45
26	1H	481	G	C4'-C3'-O3'	5.77	118.06	109.40
26	1H	2439	A	OP2-P-O3'	-5.77	90.68	108.00
12	3I	38	THR	N-CA-C	-5.77	103.83	111.96
35	68	90	GLN	N-CA-C	-5.77	106.22	113.20
36	78	65	ARG	N-CA-C	5.77	118.61	108.75
5	4E	103	GLY	N-CA-C	-5.76	103.78	112.89
26	1H	1799	G	C2'-C3'-O3'	5.76	118.14	109.50
34	58	24	GLY	N-CA-C	-5.76	105.22	113.86
55	Q8	30	ARG	N-CA-C	5.76	118.84	108.48
26	1H	1786	A	N9-C1'-C2'	5.75	122.63	114.00
32	51	12	PRO	CA-C-N	5.75	132.52	121.54
32	51	12	PRO	C-N-CA	5.75	132.52	121.54
29	29	49	LEU	N-CA-C	5.75	118.39	110.35
12	3I	14	GLY	CA-C-O	-5.75	116.76	121.76
46	H8	22	GLY	N-CA-C	-5.75	106.73	115.00
28	11	37	LEU	CA-C-N	-5.74	114.87	122.85
28	11	37	LEU	C-N-CA	-5.74	114.87	122.85
30	31	91	GLY	CA-C-N	5.73	125.67	119.76
30	31	91	GLY	C-N-CA	5.73	125.67	119.76
40	B8	100	TYR	N-CA-C	-5.73	106.33	113.38
28	19	234	GLY	N-CA-C	5.73	119.33	111.54
28	11	107	ALA	CA-C-N	5.72	125.67	119.78
28	11	107	ALA	C-N-CA	5.72	125.67	119.78
26	1H	1899	G	O3'-P-O5'	-5.72	95.42	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
51	I5	55	ARG	N-CA-C	5.71	115.56	108.19
28	11	223	GLY	N-CA-C	-5.71	105.76	113.24
33	69	100	ALA	CA-C-N	-5.70	114.33	122.77
33	69	100	ALA	C-N-CA	-5.70	114.33	122.77
17	8I	48	GLU	CA-C-N	-5.70	112.93	122.17
17	8I	48	GLU	C-N-CA	-5.70	112.93	122.17
28	11	236	GLY	N-CA-C	5.70	126.69	113.18
45	G8	95	LYS	N-CA-C	-5.70	99.86	108.52
36	78	23	PRO	CA-C-N	-5.70	113.63	122.86
36	78	23	PRO	C-N-CA	-5.70	113.63	122.86
19	AI	6	LYS	N-CA-C	5.69	122.93	110.80
33	61	110	ASP	CA-C-N	5.69	140.67	127.00
33	61	110	ASP	C-N-CA	5.69	140.67	127.00
20	BI	49	ALA	CB-CA-C	-5.67	109.52	117.23
30	31	66	PRO	N-CA-C	5.67	122.03	113.81
39	65	34	HIS	N-CA-C	5.67	118.73	110.17
12	3I	119	LYS	N-CA-C	-5.66	103.05	110.53
11	2I	82	VAL	N-CA-C	5.66	121.12	109.34
46	H8	157	LEU	CA-C-N	5.66	126.21	120.38
46	H8	157	LEU	C-N-CA	5.66	126.21	120.38
26	1H	1022	G	P-O3'-C3'	5.66	128.69	120.20
4	32	3	ARG	CB-CA-C	-5.66	110.04	116.54
1	1G	197	A	P-O3'-C3'	5.64	128.66	120.20
42	D8	39	LEU	N-CA-C	5.64	120.27	113.17
44	F8	5	TYR	N-CA-C	-5.64	106.07	113.17
41	85	30	LYS	N-CA-C	5.64	119.33	112.23
26	1H	1805	U	OP1-P-O3'	-5.64	91.09	108.00
9	8E	3	GLN	N-CA-C	5.63	117.03	108.07
26	1H	1639	U	O5'-P-OP2	-5.63	91.09	108.00
31	49	121	ASN	CA-C-N	5.63	125.25	119.56
31	49	121	ASN	C-N-CA	5.63	125.25	119.56
46	H8	146	ILE	N-CA-C	5.63	116.32	108.89
55	Q8	47	LYS	CA-CB-CG	-5.62	102.85	114.10
39	A8	28	VAL	N-CA-C	5.62	116.09	107.77
50	H5	54	VAL	N-CA-C	5.62	118.66	109.78
30	39	68	LYS	N-CA-C	5.62	119.83	112.13
38	98	108	GLY	N-CA-C	-5.61	107.02	115.32
14	5I	27	CYS	N-CA-C	5.61	118.24	111.40
29	21	23	VAL	N-CA-C	5.61	117.39	108.87
32	59	152	ARG	N-CA-C	5.61	117.04	108.52
51	I5	37	SER	N-CA-C	5.60	115.24	107.73
29	29	36	ARG	N-CA-C	5.60	120.80	113.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	11	229	VAL	N-CA-CB	5.59	117.46	110.47
28	19	240	ALA	CA-C-N	5.59	125.57	120.21
28	19	240	ALA	C-N-CA	5.59	125.57	120.21
53	O8	21	TYR	CB-CA-C	-5.58	108.53	116.34
19	AI	77	THR	N-CA-C	5.58	118.55	111.69
28	11	155	LEU	N-CA-C	5.58	117.89	110.53
55	M5	34	TRP	N-CA-C	5.58	122.68	110.80
29	29	48	GLN	N-CA-C	5.57	119.17	112.93
39	A8	69	VAL	N-CA-C	-5.57	105.76	113.00
55	Q8	26	LYS	N-CA-C	5.57	121.99	113.19
55	Q8	49	VAL	CA-CB-CG2	5.56	119.86	110.40
55	Q8	23	VAL	N-CA-C	5.56	116.71	108.65
8	7E	66	GLY	CA-C-N	5.56	125.99	119.99
8	7E	66	GLY	C-N-CA	5.56	125.99	119.99
29	21	65	GLY	N-CA-C	-5.56	100.00	113.18
13	4A	112	GLY	CA-C-N	5.56	125.53	120.03
13	4A	112	GLY	C-N-CA	5.56	125.53	120.03
12	3I	24	VAL	CA-C-N	5.55	125.65	119.32
12	3I	24	VAL	C-N-CA	5.55	125.65	119.32
32	51	82	GLY	N-CA-C	5.55	126.34	113.18
36	35	121	LYS	CA-C-N	5.55	126.78	119.84
36	35	121	LYS	C-N-CA	5.55	126.78	119.84
26	1H	2346	A	O4'-C1'-N9	5.54	116.52	108.20
29	21	186	GLY	N-CA-C	5.54	126.32	113.18
40	75	80	SER	CA-C-N	5.54	125.64	119.32
40	75	80	SER	C-N-CA	5.54	125.64	119.32
53	O8	42	TRP	CA-CB-CG	5.54	124.12	113.60
1	13	792	A	N9-C1'-C2'	5.54	122.31	114.00
45	G8	81	LYS	CA-C-N	5.53	140.28	127.00
45	G8	81	LYS	C-N-CA	5.53	140.28	127.00
32	59	111	HIS	CA-C-N	5.53	125.83	119.92
32	59	111	HIS	C-N-CA	5.53	125.83	119.92
14	5I	13	THR	N-CA-C	5.52	122.02	109.81
34	58	85	ILE	CB-CA-C	-5.52	104.39	110.52
37	88	19	GLY	N-CA-C	5.52	126.25	113.18
28	11	124	PRO	CA-C-N	-5.52	115.58	122.48
28	11	124	PRO	C-N-CA	-5.52	115.58	122.48
32	51	20	ALA	N-CA-C	-5.51	103.69	110.31
44	F8	3	THR	CB-CA-C	5.51	121.38	110.42
17	8I	67	LYS	N-CA-C	-5.49	102.06	110.30
1	1G	266	G	C2'-C3'-O3'	5.49	117.73	109.50
26	14	784	A	O3'-P-O5'	-5.49	95.77	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	1297	C	P-O3'-C3'	5.48	128.43	120.20
11	2I	40	ILE	N-CA-C	-5.48	106.35	111.45
47	E5	35	ASN	CA-C-N	-5.48	113.73	122.50
47	E5	35	ASN	C-N-CA	-5.48	113.73	122.50
31	41	44	GLY	N-CA-C	-5.48	100.20	113.18
2	1E	23	ARG	N-CA-C	-5.48	106.45	113.02
37	45	80	GLU	N-CA-C	5.47	117.08	109.31
26	14	1984	G	O5'-P-OP2	-5.47	91.60	108.00
29	21	141	ILE	N-CA-C	5.46	118.14	112.90
47	E5	82	ARG	CA-C-N	5.46	124.98	119.19
47	E5	82	ARG	C-N-CA	5.46	124.98	119.19
9	8E	118	LYS	N-CA-C	5.46	119.25	112.59
4	32	202	LEU	N-CA-C	-5.46	106.12	112.89
10	1I	58	ASP	N-CA-C	-5.46	103.49	110.53
51	M8	37	SER	N-CA-C	-5.46	104.20	111.24
26	14	2689	U	P-O3'-C3'	5.45	128.38	120.20
7	6E	3	ARG	N-CA-C	5.45	117.08	111.03
2	12	158	LEU	CA-C-N	5.45	125.75	119.92
2	12	158	LEU	C-N-CA	5.45	125.75	119.92
31	49	178	PHE	CA-C-N	5.45	125.62	119.90
31	49	178	PHE	C-N-CA	5.45	125.62	119.90
9	82	89	ASN	CA-C-N	5.45	125.27	119.28
9	82	89	ASN	C-N-CA	5.45	125.27	119.28
52	N8	31	VAL	CA-C-N	5.44	125.61	119.90
52	N8	31	VAL	C-N-CA	5.44	125.61	119.90
26	14	2447	G	C4'-C3'-O3'	5.44	117.56	109.40
14	5I	27	CYS	CA-CB-SG	-5.44	101.89	114.40
30	39	8	GLN	N-CA-C	5.44	117.52	108.99
34	15	47	ALA	N-CA-C	5.43	118.74	111.24
28	11	106	ILE	N-CA-CB	5.42	116.44	110.53
45	C5	83	THR	N-CA-C	-5.42	101.95	110.36
10	1A	89	ASP	N-CA-C	5.42	117.56	109.59
19	AA	25	LYS	CB-CA-C	-5.42	109.86	117.23
34	15	39	ARG	CA-C-N	-5.42	113.06	119.84
34	15	39	ARG	C-N-CA	-5.42	113.06	119.84
26	1H	51	G	O5'-P-OP1	-5.42	91.74	108.00
26	1H	787	U	O5'-P-OP1	5.42	124.25	108.00
47	I8	29	GLN	CA-C-N	-5.42	116.10	122.93
47	I8	29	GLN	C-N-CA	-5.42	116.10	122.93
30	31	9	ILE	CA-C-N	5.41	126.61	119.84
30	31	9	ILE	C-N-CA	5.41	126.61	119.84
5	4E	148	VAL	N-CA-C	5.41	115.62	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
45	G8	39	VAL	N-CA-C	5.41	116.72	111.91
30	39	29	ASN	CA-C-N	5.41	126.60	119.84
30	39	29	ASN	C-N-CA	5.41	126.60	119.84
26	1H	1379	A	N9-C1'-C2'	5.41	122.11	114.00
55	Q8	47	LYS	CA-C-N	-5.41	114.23	122.23
55	Q8	47	LYS	C-N-CA	-5.41	114.23	122.23
26	1H	752	A	P-O3'-C3'	5.40	128.30	120.20
26	14	141	A	OP2-P-O3'	5.40	117.08	105.20
2	1E	15	VAL	N-CA-C	5.40	118.08	112.90
45	C5	85	VAL	N-CA-C	5.40	120.56	109.34
55	M5	53	PRO	N-CA-C	5.39	118.94	110.80
28	11	73	VAL	N-CA-C	5.39	116.36	109.30
36	35	10	PRO	N-CA-C	5.39	120.93	113.98
13	4I	84	ILE	N-CA-C	-5.38	104.23	111.44
25	4L	13	A	P-O3'-C3'	5.38	128.28	120.20
28	11	191	ALA	CA-C-N	-5.38	115.12	122.93
28	11	191	ALA	C-N-CA	-5.38	115.12	122.93
30	31	197	ASP	N-CA-C	-5.38	99.33	110.80
26	14	49	A	C4'-C3'-O3'	5.38	117.47	109.40
32	59	95	ARG	N-CA-C	5.38	115.23	108.45
34	58	25	ARG	N-CA-C	-5.38	105.33	111.14
40	B8	25	GLY	CA-C-N	-5.38	115.58	123.00
40	B8	25	GLY	C-N-CA	-5.38	115.58	123.00
26	14	1602	U	O5'-P-OP2	5.38	124.13	108.00
28	11	41	GLY	N-CA-C	-5.37	107.83	115.30
31	49	88	ILE	N-CA-C	5.37	118.15	112.83
48	F5	85	LEU	CA-C-N	5.37	126.45	120.06
48	F5	85	LEU	C-N-CA	5.37	126.45	120.06
28	19	237	GLU	N-CA-C	5.37	122.23	110.80
55	M5	33	ASN	CA-C-N	5.37	131.79	121.54
55	M5	33	ASN	C-N-CA	5.37	131.79	121.54
26	1H	2431	U	OP2-P-O3'	-5.36	91.92	108.00
20	BI	74	LYS	N-CA-C	5.36	115.93	108.00
26	14	2689	U	C4'-C3'-O3'	5.36	117.44	109.40
36	78	77	ARG	CA-C-N	5.35	125.52	119.90
36	78	77	ARG	C-N-CA	5.35	125.52	119.90
4	32	63	LYS	N-CA-C	-5.35	105.09	111.03
3	2E	205	GLY	N-CA-C	5.35	118.07	110.74
19	AI	60	VAL	CA-C-N	5.35	128.30	120.71
19	AI	60	VAL	C-N-CA	5.35	128.30	120.71
13	4A	67	GLU	CB-CA-C	-5.34	109.96	117.23
28	19	247	ALA	N-CA-C	5.34	117.09	109.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	45	93	TYR	N-CA-C	5.34	118.26	109.72
26	1H	1899	G	N3-C4-N9	-5.33	109.99	126.00
14	5A	13	THR	CB-CA-C	-5.33	105.69	110.71
28	19	271	ILE	N-CA-C	5.33	116.11	106.61
46	D5	56	VAL	N-CA-C	5.33	116.66	108.71
44	F8	52	VAL	N-CA-C	5.33	119.24	113.43
12	3I	117	ARG	N-CA-C	5.33	122.14	110.80
13	4A	83	ASP	N-CA-C	-5.33	103.86	110.41
28	11	105	ILE	CA-C-N	-5.32	114.31	121.66
28	11	105	ILE	C-N-CA	-5.32	114.31	121.66
45	G8	11	ASP	N-CA-C	5.32	117.16	110.24
36	35	99	LEU	N-CA-C	-5.32	105.53	112.23
37	88	25	ASP	N-CA-C	5.32	122.13	110.80
32	59	100	GLY	N-CA-C	5.32	120.14	112.81
12	3A	55	VAL	N-CA-C	5.31	114.17	107.70
1	13	812	C	C2'-C3'-O3'	5.30	117.46	109.50
34	58	7	LYS	N-CA-C	-5.30	102.05	109.69
44	F8	3	THR	N-CA-C	-5.30	99.50	110.80
52	N8	40	LYS	N-CA-C	-5.30	100.91	109.82
28	19	98	VAL	CA-C-N	5.30	127.64	120.38
28	19	98	VAL	C-N-CA	5.30	127.64	120.38
31	49	65	GLY	N-CA-C	-5.30	107.37	115.00
28	19	259	THR	N-CA-C	5.30	119.90	113.38
31	41	40	ASN	N-CA-C	5.29	117.02	108.34
26	1H	1303	G	OP1-P-O3'	-5.29	92.12	108.00
28	11	246	PRO	CA-C-O	-5.29	115.31	121.34
30	31	47	GLY	CA-C-O	5.29	126.38	120.03
33	69	67	ARG	N-CA-C	-5.29	105.43	111.14
55	Q8	27	THR	N-CA-C	-5.29	102.70	111.37
30	31	157	VAL	N-CA-C	5.28	115.46	107.75
26	14	2702	U	O4'-C1'-N1	5.28	116.41	108.50
1	13	5	U	P-O3'-C3'	5.27	128.11	120.20
55	Q8	17	THR	CA-C-N	-5.27	114.14	121.99
55	Q8	17	THR	C-N-CA	-5.27	114.14	121.99
46	H8	172	ALA	N-CA-C	5.26	116.00	108.74
48	J8	62	VAL	CB-CA-C	-5.26	102.72	110.82
36	78	115	LEU	N-CA-C	5.26	116.51	108.42
1	13	792	A	C3'-C2'-C1'	-5.25	96.25	101.50
2	12	126	GLU	N-CA-C	-5.25	106.65	113.16
16	7I	16	HIS	N-CA-C	-5.25	101.47	109.65
37	88	26	TYR	N-CA-C	5.25	120.33	113.30
49	K8	50	ILE	N-CA-C	-5.25	105.42	110.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
52	J5	13	LYS	N-CA-C	-5.25	105.24	111.69
28	11	52	ARG	NE-CZ-NH2	5.25	123.92	119.20
34	58	39	ARG	CA-C-N	-5.25	113.28	119.84
34	58	39	ARG	C-N-CA	-5.25	113.28	119.84
46	H8	6	LYS	N-CA-C	-5.25	99.63	110.80
1	1G	266	G	P-O3'-C3'	5.25	128.07	120.20
28	19	41	GLY	N-CA-C	-5.24	100.76	113.18
34	15	10	GLU	CA-C-N	5.24	125.00	119.76
34	15	10	GLU	C-N-CA	5.24	125.00	119.76
49	K8	14	ARG	N-CA-C	-5.24	103.22	110.35
47	E5	54	GLY	CA-C-N	5.24	129.06	120.63
47	E5	54	GLY	C-N-CA	5.24	129.06	120.63
38	98	113	LEU	CA-C-N	-5.23	115.89	123.11
38	98	113	LEU	C-N-CA	-5.23	115.89	123.11
30	31	83	PHE	N-CA-C	5.23	118.02	110.28
32	59	90	LYS	N-CA-C	5.23	117.28	109.59
26	1H	1826	G	OP1-P-O3'	5.23	123.68	108.00
26	1H	252	G	O5'-P-OP1	5.22	123.67	108.00
2	1E	14	GLY	N-CA-C	5.22	125.55	113.18
29	21	117	MET	CA-C-N	5.22	131.51	121.54
29	21	117	MET	C-N-CA	5.22	131.51	121.54
28	19	4	LYS	N-CA-C	5.21	117.59	110.24
41	85	31	SER	N-CA-C	5.21	117.01	108.52
54	L5	34	ARG	NE-CZ-NH1	-5.21	116.29	121.50
54	P8	28	ARG	N-CA-C	-5.21	105.68	111.36
7	6E	57	GLU	CA-C-N	5.20	125.25	119.32
7	6E	57	GLU	C-N-CA	5.20	125.25	119.32
36	35	50	ARG	N-CA-C	5.20	120.48	113.72
47	I8	21	LEU	N-CA-C	-5.20	102.36	110.42
2	12	226	ARG	N-CA-C	-5.20	99.72	110.80
26	14	2436	G	O5'-P-OP1	-5.20	92.40	108.00
26	1H	1248	G	C2'-C3'-O3'	-5.20	101.70	109.50
26	1H	1312	U	C2'-C3'-O3'	5.20	117.30	109.50
29	21	8	LYS	N-CA-C	-5.20	102.22	109.96
28	11	52	ARG	NE-CZ-NH1	-5.20	116.31	121.50
35	25	29	ASN	N-CA-C	5.20	119.58	112.88
11	2I	112	THR	CA-C-N	5.19	126.62	120.23
11	2I	112	THR	C-N-CA	5.19	126.62	120.23
28	19	37	LEU	CA-C-N	5.19	131.05	121.70
28	19	37	LEU	C-N-CA	5.19	131.05	121.70
36	35	22	GLY	CA-C-N	5.19	125.24	119.32
36	35	22	GLY	C-N-CA	5.19	125.24	119.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	11	91	ARG	CA-C-N	-5.19	116.75	123.19
28	11	91	ARG	C-N-CA	-5.19	116.75	123.19
16	7I	83	GLU	CB-CA-C	-5.19	110.61	116.63
42	D8	37	VAL	N-CA-C	5.19	115.81	107.98
2	12	16	HIS	N-CA-C	5.19	119.71	113.17
29	21	47	VAL	CB-CA-C	-5.18	104.56	110.73
51	M8	55	ARG	N-CA-C	5.18	117.01	111.36
55	Q8	43	GLN	N-CA-C	5.18	125.52	111.00
29	29	131	ALA	N-CA-C	5.17	117.59	111.33
12	3A	43	VAL	N-CA-C	5.17	116.11	108.45
25	4L	13	A	C2'-C3'-O3'	5.17	117.26	109.50
5	42	53	LEU	N-CA-C	-5.17	105.72	111.36
10	1I	33	GLN	N-CA-C	5.17	117.53	110.24
55	Q8	42	ARG	CA-C-N	5.17	131.00	121.70
55	Q8	42	ARG	C-N-CA	5.17	131.00	121.70
55	M5	21	LYS	CA-C-N	-5.17	116.41	123.12
55	M5	21	LYS	C-N-CA	-5.17	116.41	123.12
32	51	85	LYS	CA-C-N	5.16	131.40	121.54
32	51	85	LYS	C-N-CA	5.16	131.40	121.54
44	F8	10	ALA	CA-C-N	-5.16	115.25	120.31
44	F8	10	ALA	C-N-CA	-5.16	115.25	120.31
26	1H	1297	C	OP1-P-O3'	5.16	123.49	108.00
29	21	201	THR	N-CA-C	5.16	117.92	110.28
48	F5	39	LYS	N-CA-C	5.16	118.63	109.96
48	J8	2	SER	CA-C-N	-5.16	115.13	122.77
48	J8	2	SER	C-N-CA	-5.16	115.13	122.77
54	P8	34	ARG	N-CA-C	-5.16	105.74	111.36
8	72	135	CYS	N-CA-C	5.16	116.68	108.79
26	14	1819	A	C4'-C3'-O3'	5.16	117.13	109.40
26	1H	2030	A	N9-C1'-C2'	5.15	119.73	112.00
53	O8	15	GLU	N-CA-C	5.15	116.34	108.30
26	14	809	G	OP2-P-O3'	-5.15	92.56	108.00
4	3E	29	PRO	CA-C-O	-5.14	115.40	121.67
39	65	88	ASP	CA-C-N	5.14	131.36	121.54
39	65	88	ASP	C-N-CA	5.14	131.36	121.54
40	B8	111	ARG	N-CA-C	-5.14	103.61	110.55
1	1G	913	A	P-O3'-C3'	5.14	127.91	120.20
28	19	66	ASP	N-CA-C	5.14	116.68	108.41
26	1H	945	A	C8-N9-C1'	-5.14	112.29	127.70
33	61	60	GLU	N-CA-C	-5.14	107.06	113.38
26	14	2701	C	P-O3'-C3'	5.14	127.90	120.20
1	13	115	G	C2'-C3'-O3'	5.13	117.20	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	1342	A	N9-C1'-C2'	5.13	121.69	114.00
36	35	25	SER	N-CA-C	-5.13	106.86	113.01
37	45	88	GLY	N-CA-C	-5.13	107.52	115.67
32	51	87	LEU	N-CA-C	5.13	121.72	110.80
33	61	135	GLU	N-CA-C	5.12	114.80	108.19
37	88	33	GLY	N-CA-C	5.12	121.43	112.10
53	O8	19	ARG	N-CA-C	5.12	121.72	110.80
44	B5	11	PRO	CA-C-N	-5.12	114.30	122.50
44	B5	11	PRO	C-N-CA	-5.12	114.30	122.50
52	J5	51	TYR	CA-CB-CG	5.12	123.12	113.90
26	1H	676	A	O4'-C1'-N9	5.12	116.18	108.50
2	12	186	ALA	N-CA-C	5.12	115.97	107.73
37	88	125	LEU	N-CA-C	5.12	117.37	110.31
5	42	103	GLY	N-CA-C	-5.12	104.61	112.85
19	AI	67	VAL	N-CA-C	5.12	119.98	109.34
2	12	21	ARG	CA-C-N	-5.11	114.16	122.34
2	12	21	ARG	C-N-CA	-5.11	114.16	122.34
14	5A	17	LYS	N-CA-C	5.11	118.99	112.34
28	19	83	GLU	N-CA-C	5.11	117.73	109.40
1	1G	1346	A	C2'-C3'-O3'	5.11	117.17	109.50
53	K5	21	TYR	N-CA-C	5.11	118.08	109.95
29	21	29	GLY	N-CA-C	-5.11	106.05	112.23
40	B8	114	LEU	N-CA-C	5.11	118.65	112.93
43	E8	42	ARG	NE-CZ-NH1	-5.11	116.39	121.50
10	1I	54	PHE	CA-C-N	-5.11	114.05	121.76
10	1I	54	PHE	C-N-CA	-5.11	114.05	121.76
42	95	20	LEU	N-CA-C	5.11	116.74	108.26
26	1H	1829	A	O5'-P-OP1	-5.11	92.68	108.00
45	C5	41	GLY	N-CA-C	-5.10	103.89	112.77
26	1H	2589	A	OP2-P-O3'	5.10	123.31	108.00
12	3A	62	SER	N-CA-C	5.10	117.95	107.69
26	1H	845	G	P-O3'-C3'	5.10	127.85	120.20
32	51	86	GLU	N-CA-C	5.10	121.66	110.80
36	78	45	LEU	N-CA-C	5.10	117.39	110.35
33	61	110	ASP	N-CA-C	5.10	119.18	112.35
1	13	422	C	P-O3'-C3'	5.10	127.84	120.20
13	4I	37	THR	N-CA-C	-5.09	106.75	113.17
28	11	237	GLU	CA-C-N	-5.09	115.27	120.10
28	11	237	GLU	C-N-CA	-5.09	115.27	120.10
33	61	84	GLY	CA-C-N	-5.08	115.89	123.11
33	61	84	GLY	C-N-CA	-5.08	115.89	123.11
55	Q8	42	ARG	N-CA-C	5.08	116.70	108.26

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	746	A	O5'-P-OP2	5.08	123.23	108.00
2	12	99	GLY	N-CA-C	5.08	118.14	111.03
34	15	124	ALA	N-CA-C	-5.08	102.13	109.59
44	B5	31	HIS	CA-C-N	5.08	124.57	119.19
44	B5	31	HIS	C-N-CA	5.08	124.57	119.19
55	Q8	41	ILE	N-CA-C	-5.07	106.97	112.80
54	P8	36	GLN	N-CA-C	5.07	118.24	111.75
31	49	160	VAL	N-CA-C	5.07	115.27	108.17
26	1H	1265	A	C5'-C4'-C3'	-5.07	107.60	115.20
26	1H	1835	G	C5'-C4'-C3'	-5.07	108.40	116.00
34	15	85	ILE	CA-C-N	5.07	125.28	120.31
34	15	85	ILE	C-N-CA	5.07	125.28	120.31
3	2E	157	ILE	CB-CA-C	-5.06	105.76	111.23
26	14	528	A	C4-N9-C1'	-5.06	111.11	126.30
30	39	123	LEU	N-CA-C	5.06	121.58	110.80
28	19	154	LYS	N-CA-C	5.06	120.30	113.72
7	6E	87	VAL	N-CA-C	5.06	114.02	108.05
4	3E	198	VAL	N-CA-C	5.05	116.91	109.63
13	4A	40	ASN	CA-C-N	5.05	124.55	119.19
13	4A	40	ASN	C-N-CA	5.05	124.55	119.19
33	61	118	LYS	CA-C-N	5.05	125.05	119.90
33	61	118	LYS	C-N-CA	5.05	125.05	119.90
12	3A	128	ALA	CB-CA-C	-5.05	110.37	117.23
55	Q8	49	VAL	O-C-N	5.04	128.88	122.57
11	2A	13	GLN	N-CA-C	5.04	117.71	109.59
34	15	110	GLY	CA-C-N	5.04	124.49	119.24
34	15	110	GLY	C-N-CA	5.04	124.49	119.24
26	1H	774	A	C8-N9-C1'	5.04	142.82	127.70
2	1E	130	ARG	CA-C-N	5.03	125.31	119.92
2	1E	130	ARG	C-N-CA	5.03	125.31	119.92
31	41	109	VAL	CB-CA-C	-5.03	107.43	111.71
9	82	115	GLY	N-CA-C	-5.03	109.09	115.08
35	25	81	ASP	N-CA-C	5.03	115.17	108.38
4	32	149	ALA	CB-CA-C	-5.03	109.81	115.79
26	14	1141	U	P-O3'-C3'	5.03	127.74	120.20
49	K8	44	LEU	N-CA-C	-5.02	106.99	113.02
17	8A	27	PHE	N-CA-C	5.02	114.08	108.25
28	11	252	TRP	N-CA-C	5.02	117.16	110.53
29	21	185	LYS	CA-C-N	5.02	131.25	121.41
29	21	185	LYS	C-N-CA	5.02	131.25	121.41
3	22	182	ILE	N-CA-C	5.02	115.08	107.75
43	A5	10	VAL	CA-C-N	-5.02	115.03	122.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
43	A5	10	VAL	C-N-CA	-5.02	115.03	122.41
16	7I	20	VAL	N-CA-C	5.02	115.60	108.42
53	K5	17	LYS	N-CA-C	-5.02	100.11	110.80
16	7I	65	GLN	N-CA-C	5.01	117.46	109.64
26	1H	1982	C	O5'-P-OP2	-5.01	92.96	108.00
5	42	105	VAL	CA-C-N	-5.01	114.66	119.87
5	42	105	VAL	C-N-CA	-5.01	114.66	119.87
26	14	2225	A	N9-C1'-C2'	-5.01	106.48	114.00
47	E5	14	ARG	N-CA-C	5.01	117.86	110.59
26	1H	802	A	OP1-P-O3'	-5.01	92.96	108.00
26	14	784	A	C4'-C3'-O3'	-5.01	105.49	113.00
35	68	71	ARG	CA-C-N	5.01	124.62	119.56
35	68	71	ARG	C-N-CA	5.01	124.62	119.56
11	2A	38	ASN	CA-C-N	5.00	125.23	119.83
11	2A	38	ASN	C-N-CA	5.00	125.23	119.83
13	4I	82	MET	N-CA-C	-5.00	104.08	110.53

There are no chirality outliers.

All (142) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
28	11	197	GLY	Peptide
2	12	22	LYS	Peptide
34	15	41	ASP	Peptide
34	15	50	ASP	Peptide
28	19	237	GLU	Peptide
28	19	271	ILE	Peptide
28	19	32	SER	Peptide
28	19	37	LEU	Peptide
10	1A	55	LYS	Peptide
10	1A	87	THR	Peptide
2	1E	15	VAL	Peptide
29	21	56	PRO	Peptide
29	21	57	LYS	Peptide
29	21	82	ARG	Peptide
29	29	139	GLY	Peptide
29	29	186	GLY	Peptide
29	29	201	THR	Peptide
29	29	65	GLY	Peptide
11	2A	126	ARG	Peptide
11	2A	49	GLY	Peptide
30	31	133	ASN	Peptide

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Mol	Chain	Res	Type	Group
4	32	152	SER	Peptide
4	32	28	SER	Peptide
4	32	30	LYS	Peptide
4	32	33	MET	Peptide
36	35	110	TYR	Peptide
36	35	36	LYS	Peptide
36	35	64	LYS	Peptide
36	35	70	GLN	Peptide
30	39	127	GLU	Peptide
30	39	166	ALA	Peptide
30	39	20	LEU	Peptide
30	39	24	LEU	Peptide
30	39	26	ALA	Peptide
30	39	85	GLY	Peptide
12	3A	18	VAL	Peptide
4	3E	31	CYS	Peptide
12	3I	87	GLY	Peptide
31	41	85	GLY	Peptide
31	41	95	ARG	Peptide
37	45	134	ARG	Peptide
37	45	25	ASP	Peptide
37	45	26	TYR	Peptide
37	45	79	LEU	Peptide
37	45	86	GLY	Peptide
37	45	87	LYS	Peptide
31	49	13	GLU	Peptide
38	55	106	GLY	Peptide
34	58	56	ASN	Peptide
34	58	95	PRO	Peptide
32	59	155	SER	Peptide
32	59	89	ILE	Peptide
32	59	90	LYS	Peptide
33	61	11	ASN	Peptide
33	61	114	LEU	Peptide
33	61	134	PRO	Peptide
33	61	143	SER	Peptide
33	61	82	ARG	Peptide
39	65	59	LYS	Peptide
39	65	87	PHE	Peptide
35	68	27	GLY	Peptide
33	69	101	LEU	Peptide
33	69	112	LYS	Peptide

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Mol	Chain	Res	Type	Group
15	6I	87	ILE	Peptide
40	75	4	GLY	Peptide
36	78	11	GLY	Peptide
36	78	5	ASP	Peptide
9	82	117	HIS	Peptide
9	82	118	LYS	Peptide
41	85	72	HIS	Peptide
41	85	98	LEU	Peptide
37	88	58	PHE	Peptide
37	88	78	PRO	Peptide
42	95	44	LYS	Peptide
38	98	1	MET	Peptide
38	98	44	LEU	Peptide
38	98	8	ARG	Peptide
43	A5	109	GLU	Peptide
43	A5	43	GLY	Peptide
43	A5	93	ALA	Peptide
39	A8	106	ARG	Peptide
39	A8	110	LEU	Peptide
19	AI	6	LYS	Peptide
19	AI	7	LYS	Peptide
44	B5	24	GLY	Peptide
44	B5	61	GLY	Peptide
40	B8	58	ASN	Peptide
20	BA	101	GLY	Peptide
20	BA	11	SER	Peptide
20	BA	72	LEU	Peptide
45	C5	100	ALA	Peptide
45	C5	102	CYS	Peptide
45	C5	81	LYS	Peptide
41	C8	90	VAL	Peptide
41	C8	92	ARG	Peptide
46	D5	142	SER	Peptide
46	D5	61	LEU	Peptide
48	F5	85	LEU	Peptide
44	F8	24	GLY	Peptide
49	G5	15	LYS	Peptide
49	G5	17	SER	Peptide
49	G5	43	GLN	Peptide
45	G8	5	MET	Peptide
45	G8	53	PRO	Peptide
45	G8	54	LYS	Peptide

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Mol	Chain	Res	Type	Group
46	H8	59	LEU	Peptide
46	H8	63	ASP	Peptide
51	I5	26	SER	Peptide
51	I5	36	CYS	Peptide
47	I8	83	PRO	Peptide
47	I8	9	SER	Peptide
48	J8	75	GLU	Peptide
48	J8	85	LEU	Peptide
53	K5	16	CYS	Peptide
53	K5	43	CYS	Peptide
53	K5	44	ARG	Peptide
49	K8	17	SER	Peptide
49	K8	46	GLN	Peptide
49	K8	5	GLU	Peptide
55	M5	30	ARG	Peptide
55	M5	33	ASN	Peptide
55	M5	40	GLU	Peptide
51	M8	38	LYS	Peptide
51	M8	40	HIS	Peptide
52	N8	41	PRO	Peptide
52	N8	5	PRO	Peptide
53	O8	15	GLU	Peptide
53	O8	27	LYS	Peptide
53	O8	44	ARG	Peptide
55	Q8	18	ALA	Peptide
55	Q8	19	SER	Peptide
55	Q8	27	THR	Peptide
55	Q8	33	ASN	Peptide
55	Q8	37	SER	Peptide
55	Q8	49	VAL	Peptide
55	Q8	51	ALA	Peptide
55	Q8	52	LYS	Peptide
55	Q8	56	GLU	Peptide
55	Q8	57	ARG	Peptide
55	Q8	6	THR	Peptide
55	Q8	7	HIS	Peptide
55	Q8	9	GLY	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	13	32207	0	16256	878	0
1	1G	32182	0	16244	871	0
2	12	1924	0	1975	87	0
2	1E	1924	0	1975	106	0
3	22	1612	0	1677	81	0
3	2E	1605	0	1668	65	0
4	32	1703	0	1763	98	0
4	3E	1703	0	1762	104	0
5	42	1155	0	1213	61	0
5	4E	1155	0	1213	56	0
6	52	843	0	857	46	0
6	5E	843	0	857	39	0
7	62	1257	0	1296	62	0
7	6E	1257	0	1296	50	0
8	72	1116	0	1177	57	0
8	7E	1116	0	1177	65	0
9	82	1010	0	1037	74	0
9	8E	1010	0	1037	60	0
10	1A	801	0	849	43	0
10	1I	801	0	849	63	0
11	2A	885	0	904	39	0
11	2I	885	0	904	45	0
12	3A	975	0	1062	46	0
12	3I	975	0	1062	45	0
13	4A	933	0	992	70	0
13	4I	938	0	997	51	0
14	5A	476	0	511	31	0
14	5I	492	0	529	30	0
15	6A	734	0	771	24	0
15	6I	734	0	771	32	0
16	7A	705	0	725	43	0
16	7I	705	0	725	55	0
17	8A	834	0	904	25	0
17	8I	834	0	904	51	0
18	9A	591	0	662	27	0
18	9I	591	0	662	29	0
19	AA	624	0	636	50	0
19	AI	647	0	665	59	0
20	BA	763	0	861	45	0
20	BI	763	0	861	44	0
21	1B	217	0	234	12	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
21	1F	217	0	234	13	0
22	1K	1626	0	834	29	0
22	1L	1626	0	834	41	0
23	2K	1646	0	845	37	0
23	2L	1646	0	845	39	0
24	3K	1619	0	822	52	0
24	3L	1619	0	822	60	0
25	4K	301	0	153	10	0
25	4L	131	0	66	5	0
26	14	62647	0	31580	1629	1
26	1H	62707	0	31607	1780	1
27	16	2617	0	1328	71	0
27	1J	2617	0	1328	100	0
28	11	2120	0	2197	129	0
28	19	2120	0	2197	122	0
29	21	1568	0	1634	112	0
29	29	1568	0	1634	127	0
30	31	1585	0	1632	106	0
30	39	1627	0	1680	107	0
31	41	1473	0	1535	77	0
31	49	1473	0	1535	72	0
32	51	1336	0	1418	99	0
32	59	1307	0	1382	73	0
33	61	1136	0	1223	63	0
33	69	1136	0	1223	56	0
34	15	1104	0	1180	55	0
34	58	1104	0	1180	73	0
35	25	933	0	996	49	0
35	68	933	0	996	44	0
36	35	1145	0	1228	118	0
36	78	1145	0	1228	123	0
37	45	1122	0	1179	86	0
37	88	1087	0	1129	91	0
38	55	960	0	1021	65	0
38	98	968	0	1033	72	0
39	65	882	0	943	62	0
39	A8	882	0	943	68	0
40	75	1141	0	1202	71	0
40	B8	1141	0	1202	79	0
41	85	964	0	1022	57	0
41	C8	964	0	1022	71	0
42	95	779	0	852	69	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
42	D8	779	0	852	43	0
43	A5	900	0	964	36	0
43	E8	900	0	964	50	0
44	B5	730	0	780	32	0
44	F8	742	0	803	59	0
45	C5	794	0	884	59	0
45	G8	791	0	882	58	0
46	D5	1428	0	1454	93	0
46	H8	1397	0	1430	86	0
47	E5	613	0	633	49	0
47	I8	627	0	642	34	0
48	F5	763	0	848	33	0
48	J8	763	0	848	38	0
49	G5	558	0	610	32	1
49	K8	563	0	612	45	1
50	H5	469	0	518	16	0
50	L8	452	0	503	32	0
51	I5	515	0	514	42	0
51	M8	533	0	526	49	0
52	J5	459	0	480	34	0
52	N8	454	0	475	33	0
53	K5	389	0	404	22	0
53	O8	389	0	404	33	0
54	L5	398	0	441	19	0
54	P8	418	0	467	24	0
55	M5	477	0	540	50	0
55	Q8	480	0	549	133	0
56	11	4	0	0	0	0
56	13	151	0	0	0	0
56	14	389	0	0	0	0
56	16	13	0	0	0	0
56	1G	103	0	0	0	0
56	1H	529	0	0	0	0
56	1J	9	0	0	0	0
56	1K	2	0	0	0	0
56	21	2	0	0	0	0
56	29	2	0	0	0	0
56	2K	3	0	0	0	0
56	2L	2	0	0	0	0
56	31	1	0	0	0	0
56	35	1	0	0	0	0
56	3E	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	3I	1	0	0	0	0
56	41	2	0	0	0	0
56	49	1	0	0	0	0
56	4A	1	0	0	0	0
56	5E	1	0	0	0	0
56	6A	1	0	0	0	0
56	75	1	0	0	0	0
56	78	2	0	0	0	0
56	85	1	0	0	0	0
56	88	2	0	0	0	0
56	98	1	0	0	0	0
56	AI	1	0	0	0	0
56	C5	1	0	0	0	0
56	C8	1	0	0	0	0
56	E8	1	0	0	0	0
56	F5	1	0	0	0	0
56	I8	2	0	0	0	0
56	J8	2	0	0	0	0
56	L8	1	0	0	0	0
56	P8	1	0	0	0	0
56	Q8	1	0	0	0	0
57	32	1	0	0	0	0
57	3E	1	0	0	0	0
57	5A	1	0	0	0	0
57	5I	1	0	0	0	0
57	C5	1	0	0	0	0
57	G8	1	0	0	0	0
58	11	9	0	0	0	0
58	13	212	0	0	36	0
58	14	730	0	0	169	0
58	16	16	0	0	2	0
58	19	11	0	0	0	0
58	1G	99	0	0	22	0
58	1H	1097	0	0	264	0
58	1I	2	0	0	0	0
58	1J	12	0	0	3	0
58	1K	1	0	0	0	0
58	21	5	0	0	3	0
58	29	6	0	0	0	0
58	31	10	0	0	0	0
58	39	7	0	0	0	0
58	3E	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	3I	1	0	0	0	0
58	3K	1	0	0	0	0
58	4E	2	0	0	0	0
58	4K	4	0	0	0	0
58	55	1	0	0	0	0
58	58	1	0	0	0	0
58	5I	2	0	0	0	0
58	78	4	0	0	0	0
58	7A	2	0	0	0	0
58	85	1	0	0	0	0
58	8E	2	0	0	0	0
58	98	1	0	0	0	0
58	A5	1	0	0	0	0
58	BA	1	0	0	0	0
58	C8	2	0	0	1	0
58	D8	1	0	0	0	0
58	E8	2	0	0	0	0
58	G8	3	0	0	0	0
58	H5	1	0	0	0	0
58	I8	6	0	0	0	0
58	L5	1	0	0	0	0
58	L8	2	0	0	0	0
58	P8	2	0	0	0	0
58	Q8	2	0	0	0	0
All	All	300537	0	200491	10068	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 21.

All (10068) 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)
4:32:9:CYS:SG	4:32:31:CYS:HB2	1.81	1.19
26:1H:2714:G:OP2	58:1H:3670:HOH:O	1.68	1.11
36:78:19:VAL:HG12	36:78:21:ARG:H	1.15	1.07
26:14:2593:U:O4	58:14:4084:HOH:O	1.72	1.07
26:1H:1614:A:OP1	58:1H:3921:HOH:O	1.73	1.06
26:14:2685:G:O6	58:14:4089:HOH:O	1.75	1.04
26:14:450:G:O6	58:14:4019:HOH:O	1.74	1.04
26:1H:1359:A:N1	26:1H:1372:U:N3	2.06	1.03
26:14:274:G:H2'	26:14:275:G:H4'	1.41	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:730:C:OP2	58:1H:3689:HOH:O	1.76	1.02
55:Q8:46:ARG:HH21	55:Q8:48:PHE:HB3	1.19	1.01
26:1H:585:G:OP2	58:1H:4547:HOH:O	1.78	1.00
26:14:1582:C:HO2'	26:14:1586:A:H8	1.03	1.00
26:1H:810:U:OP1	58:1H:3713:HOH:O	1.77	1.00
46:H8:128:VAL:HA	46:H8:161:VAL:HG11	1.44	0.99
26:14:2017:U:OP1	58:14:3577:HOH:O	1.80	0.99
26:14:2505:G:O6	58:14:3717:HOH:O	1.81	0.99
26:14:1689:A:H62	26:14:1698:A:H2	1.09	0.98
26:14:676:A:H8	26:14:2069:G:H21	1.07	0.97
39:65:85:VAL:H	39:65:110:LEU:HB3	1.29	0.97
55:M5:52:LYS:HZ3	55:M5:53:PRO:HA	1.30	0.97
26:1H:2593:U:O4	58:1H:3683:HOH:O	1.81	0.97
26:1H:973:A:OP2	58:1H:4553:HOH:O	1.81	0.97
26:14:1614:A:OP1	58:14:3409:HOH:O	1.83	0.97
55:M5:34:TRP:CG	55:M5:35:GLN:H	1.83	0.96
26:1H:563:G:OP2	58:1H:3636:HOH:O	1.83	0.95
2:1E:104:ASN:HD21	2:1E:107:THR:HB	1.29	0.95
26:14:568:U:O4	58:14:4004:HOH:O	1.81	0.95
26:1H:135:G:N7	58:1H:4152:HOH:O	1.97	0.94
26:1H:1601:G:N7	58:1H:4021:HOH:O	1.98	0.94
26:1H:2017:U:OP1	58:1H:4641:HOH:O	1.83	0.94
26:1H:2577:A:OP1	58:1H:3800:HOH:O	1.83	0.94
1:13:1348:U:H3	1:13:1374:A:H2	1.09	0.94
26:1H:511:U:OP2	58:1H:4662:HOH:O	1.85	0.94
26:1H:2582:G:OP2	58:1H:3812:HOH:O	1.84	0.94
26:14:517:C:OP1	52:J5:16:ARG:NH2	2.00	0.94
27:1J:80:U:H2'	27:1J:81:G:H21	1.30	0.94
26:1H:2248:C:OP2	58:1H:3722:HOH:O	1.85	0.93
26:1H:586:A:OP2	58:1H:3885:HOH:O	1.84	0.93
26:14:1771:C:HO2'	26:14:1786:A:H8	1.00	0.93
26:1H:2705:A:OP2	58:1H:4669:HOH:O	1.86	0.93
26:1H:751:A:OP1	58:1H:3923:HOH:O	1.85	0.92
45:C5:97:ARG:NH1	45:C5:104:GLY:O	2.02	0.92
1:13:1502:A:H2	1:13:1505:G:H1	1.11	0.92
26:1H:2298:A:H62	26:1H:2318:G:H8	1.14	0.92
26:1H:2308:G:H1	26:1H:2311:A:H2	1.10	0.92
1:13:601:C:H2'	1:13:602:A:H8	1.35	0.92
2:1E:185:ILE:HG22	2:1E:199:TYR:HB2	1.50	0.92
26:1H:1327:C:OP2	58:1H:3645:HOH:O	1.88	0.92
26:1H:450:G:O6	58:1H:3896:HOH:O	1.88	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:567:A:OP1	58:1H:3606:HOH:O	1.88	0.91
41:C8:8:VAL:HG23	41:C8:11:ARG:HH21	1.32	0.91
32:59:159:GLU:O	32:59:163:TYR:OH	1.86	0.91
36:35:19:VAL:HG13	36:35:21:ARG:H	1.35	0.91
26:14:741:G:OP1	58:14:4071:HOH:O	1.88	0.91
26:1H:741:G:OP1	58:1H:3970:HOH:O	1.87	0.91
26:1H:1771:C:HO2'	26:1H:1786:A:H8	0.94	0.91
26:1H:2271:G:N7	58:1H:4245:HOH:O	2.02	0.91
26:1H:2334:G:O6	47:I8:74:ARG:NH2	2.03	0.90
26:1H:1622:G:OP2	58:1H:4308:HOH:O	1.88	0.90
28:11:17:THR:HG22	28:11:205:VAL:H	1.36	0.90
26:14:1043:C:N3	26:14:1112:G:N2	2.20	0.90
26:14:2720:U:H3	26:14:2873:A:H2	1.19	0.90
13:4I:23:TYR:HB3	13:4I:67:GLU:HB2	1.54	0.90
26:14:882:G:H22	26:14:894:C:H42	1.20	0.90
1:13:1128:C:O2	1:13:1146:A:N6	2.04	0.89
31:41:21:ARG:HG2	31:41:21:ARG:HH11	1.37	0.89
26:14:1616:A:O2'	58:14:3542:HOH:O	1.88	0.89
42:95:85:LYS:HD2	42:95:86:GLY:H	1.36	0.89
26:1H:1021:A:H2'	26:1H:1023:U:H5'	1.55	0.89
26:1H:1138:G:H21	34:58:106:MET:HE3	1.37	0.89
37:88:82:ARG:HD2	37:88:82:ARG:N	1.85	0.89
26:1H:1997:G:OP2	58:1H:4005:HOH:O	1.89	0.89
54:P8:9:ARG:HH21	54:P8:47:ARG:HD2	1.35	0.89
26:1H:399:G:OP2	58:1H:4045:HOH:O	1.90	0.89
40:B8:26:ASP:HB3	40:B8:92:GLY:H	1.38	0.89
1:13:1506:U:O2'	58:13:1803:HOH:O	1.89	0.89
26:1H:730:C:H3'	58:1H:3687:HOH:O	1.71	0.89
26:1H:2249:U:O4	58:1H:3722:HOH:O	1.91	0.89
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.07	0.88
26:1H:1639:U:OP1	58:1H:3675:HOH:O	1.91	0.88
3:2E:60:ALA:H	3:2E:63:ASN:HB3	1.38	0.88
26:1H:1187:G:OP2	58:1H:3882:HOH:O	1.90	0.88
46:H8:30:ASN:HD22	46:H8:90:VAL:HB	1.38	0.88
1:1G:1502:A:H2	1:1G:1505:G:H1	1.20	0.88
1:13:235:C:H5'	17:8I:70:ARG:HG2	1.55	0.88
1:13:737:A:H2'	1:13:738:C:H6	1.35	0.88
26:1H:330:A:HO2'	26:1H:331:A:H8	0.93	0.88
26:1H:265:A:H8	26:1H:266:G:H1'	1.39	0.88
26:1H:1778:U:H2'	26:1H:1784:A:N6	1.88	0.88
26:14:2701:C:H3'	26:14:2702:U:H5"	1.54	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2407:G:OP1	58:1H:4630:HOH:O	1.92	0.88
1:13:74:C:H42	1:13:96:G:H1	1.19	0.88
26:1H:1327:C:OP2	58:1H:3643:HOH:O	1.91	0.88
26:1H:620:G:H4'	26:1H:621:A:H5"	1.54	0.87
26:1H:846:C:O2'	58:1H:3757:HOH:O	1.90	0.87
26:1H:2656:U:H3	26:1H:2665:A:H2	1.22	0.87
4:3E:107:ARG:HH22	4:3E:194:LEU:HD22	1.38	0.87
7:62:70:LYS:HG2	7:62:96:GLN:HB3	1.57	0.87
1:1G:21:G:OP1	58:1G:1836:HOH:O	1.92	0.87
26:1H:2533:A:OP2	58:1H:4420:HOH:O	1.92	0.87
1:13:352:C:OP1	58:13:1899:HOH:O	1.91	0.87
14:5I:29:ARG:HH21	14:5I:41:ARG:HH12	1.18	0.87
26:1H:510:C:OP1	58:1H:4662:HOH:O	1.90	0.87
26:14:1997:G:OP2	58:14:3494:HOH:O	1.91	0.87
26:14:2035:G:OP1	58:14:3603:HOH:O	1.92	0.87
41:85:92:ARG:HD3	41:85:94:ASN:HB3	1.57	0.87
26:1H:882:G:H22	26:1H:894:C:H42	1.20	0.86
26:1H:1453:A:OP2	58:1H:4658:HOH:O	1.92	0.86
26:14:446:G:OP2	58:14:3695:HOH:O	1.93	0.86
26:14:654(D):G:H22	26:14:654(Q):C:H42	1.23	0.86
1:13:768:A:OP2	58:13:1840:HOH:O	1.92	0.86
26:1H:748:G:OP2	58:1H:4460:HOH:O	1.92	0.86
37:88:12:GLN:HE21	37:88:72:LYS:HG3	1.38	0.86
1:1G:521:G:O6	1:1G:528:C:N4	2.07	0.86
13:4A:81:LEU:HD13	13:4A:88:ARG:HD2	1.56	0.86
26:1H:945:A:OP1	58:1H:4113:HOH:O	1.94	0.86
55:Q8:5:LYS:H	55:Q8:59:LYS:HZ2	1.24	0.86
26:14:751:A:OP1	58:14:3408:HOH:O	1.94	0.86
26:14:2431:U:OP1	58:14:3415:HOH:O	1.94	0.86
29:21:105:THR:OG1	29:21:199:ARG:NH2	2.08	0.86
26:14:249:C:OP1	58:14:3411:HOH:O	1.94	0.86
26:14:1019:U:H3	26:14:1142(A):A:H62	1.24	0.86
26:14:1828:G:OP1	58:14:3449:HOH:O	1.94	0.86
2:12:42:ILE:HD11	2:12:202:PRO:HB2	1.57	0.85
26:14:662:G:H5'	36:35:15:ARG:HA	1.57	0.85
26:14:1330:C:OP1	58:14:3641:HOH:O	1.94	0.85
32:51:83:TYR:HB3	32:51:135:GLY:H	1.40	0.85
1:13:1003:G:N2	1:13:1037:C:N3	2.23	0.85
26:1H:1253:A:N7	58:1H:3713:HOH:O	2.08	0.85
26:1H:2432:A:OP2	58:1H:3905:HOH:O	1.92	0.85
26:14:2588:G:OP1	58:14:3471:HOH:O	1.94	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:95:71:LEU:N	42:95:86:GLY:HA2	1.91	0.85
17:8I:76:LEU:HD12	17:8I:77:VAL:H	1.42	0.85
39:A8:34:HIS:HB2	39:A8:36:TYR:HE1	1.41	0.85
1:13:21:G:OP1	58:13:1836:HOH:O	1.93	0.85
26:14:1327:C:OP2	58:14:3551:HOH:O	1.93	0.85
27:1J:15:A:H5'	27:1J:16:G:H8	1.42	0.85
26:1H:2608:G:N7	58:1H:3814:HOH:O	2.08	0.85
26:14:400:G:N7	58:14:4115:HOH:O	2.10	0.85
26:14:1664:A:OP2	58:14:3497:HOH:O	1.91	0.85
26:1H:860:U:H5	26:1H:917:A:C2	1.94	0.85
26:1H:2035:G:OP1	58:1H:3793:HOH:O	1.94	0.85
26:1H:574:C:OP1	58:1H:4544:HOH:O	1.94	0.85
26:1H:1689:A:H62	26:1H:1698:A:H2	1.24	0.85
11:2A:29:ILE:HG22	11:2A:44:SER:HB2	1.58	0.85
14:5A:21:TYR:HE1	14:5A:23:ARG:HE	1.23	0.85
1:13:1157:A:H61	1:13:1178:G:H21	1.25	0.84
26:1H:442:G:H1'	30:31:48:THR:HG21	1.58	0.84
26:1H:945:A:OP2	58:1H:4578:HOH:O	1.93	0.84
29:21:117:MET:HE1	29:21:136:ARG:HA	1.58	0.84
55:Q8:49:VAL:HB	55:Q8:52:LYS:O	1.77	0.84
26:1H:1828:G:OP1	58:1H:4688:HOH:O	1.93	0.84
26:1H:2502:G:OP2	58:1H:3629:HOH:O	1.92	0.84
1:13:812:C:N3	58:13:1809:HOH:O	2.09	0.84
26:1H:1639:U:OP2	58:1H:4526:HOH:O	1.94	0.84
55:Q8:49:VAL:HG21	55:Q8:53:PRO:HD2	1.59	0.84
1:1G:396:G:O2'	1:1G:398:C:OP1	1.94	0.84
1:1G:1129:C:H41	1:1G:1141:C:H42	1.25	0.84
26:14:848:G:H2'	26:14:849:A:H8	1.42	0.84
26:1H:1164:G:H2'	26:1H:1165:U:C6	2.12	0.84
32:51:150:ALA:O	32:51:153:LYS:NZ	2.10	0.84
1:1G:975:A:H4'	1:1G:976:G:H5"	1.59	0.84
26:14:1327:C:OP2	58:14:3556:HOH:O	1.95	0.84
26:14:1845:G:N7	58:14:3856:HOH:O	2.10	0.84
26:14:907:U:O2'	37:45:101:ARG:NH2	2.10	0.84
29:29:81:ILE:HG22	29:29:82:ARG:H	1.43	0.84
26:1H:1434:A:H61	26:1H:1558:A:N6	1.76	0.84
26:1H:2068:U:H3	26:1H:2430:A:H2	1.22	0.84
30:39:116:ASP:OD2	36:35:1:MET:N	2.09	0.84
36:35:39:LYS:HD2	36:35:45:LEU:HD21	1.59	0.84
26:14:910:A:H62	37:45:12:GLN:HA	1.41	0.84
8:7E:34:GLU:OE1	8:7E:37:ARG:NH1	2.10	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2452:C:OP1	58:1H:4435:HOH:O	1.95	0.84
26:1H:780:G:H21	26:1H:783:A:H62	1.20	0.84
26:1H:2400:G:H2'	26:1H:2401:U:H6	1.43	0.84
12:3I:32:PHE:HB3	12:3I:84:LEU:HD11	1.60	0.83
26:1H:577:G:O6	58:1H:4650:HOH:O	1.96	0.83
26:14:1037:G:O6	26:14:1118:C:N4	2.11	0.83
26:1H:574:C:OP2	58:1H:4652:HOH:O	1.94	0.83
26:1H:1525:G:H2'	26:1H:1526:G:H8	1.43	0.83
26:14:1622:G:OP2	58:14:3866:HOH:O	1.95	0.83
28:11:60:ARG:HD3	28:11:86:PRO:HB2	1.58	0.83
28:11:93:ALA:HB3	28:11:105:ILE:HG22	1.58	0.83
39:A8:7:TYR:HA	39:A8:10:ARG:HH21	1.43	0.83
6:5E:50:TYR:OH	18:9I:74:ARG:O	1.94	0.83
26:1H:226:G:H21	26:1H:228:A:H2	1.26	0.83
26:14:1382:G:N7	58:14:3691:HOH:O	2.11	0.83
26:14:2267:A:OP2	58:14:3824:HOH:O	1.94	0.83
26:1H:1332:G:OP1	58:1H:4561:HOH:O	1.96	0.83
49:K8:50:ILE:HD12	49:K8:51:ARG:H	1.43	0.83
9:82:128:ARG:NH2	23:2L:34:U:OP2	2.11	0.83
1:13:664:G:H22	1:13:741:G:H1	1.26	0.83
26:1H:450:G:OP2	58:1H:3893:HOH:O	1.96	0.83
1:13:975:A:H4'	1:13:976:G:H5"	1.58	0.83
26:1H:1249:U:OP1	58:1H:3886:HOH:O	1.97	0.83
26:1H:2781:A:H5"	26:1H:2782:G:H5'	1.60	0.83
1:13:606:G:N3	1:13:632:A:N6	2.27	0.83
26:1H:1794:U:H2'	26:1H:1795:C:H6	1.43	0.83
41:85:66:ASN:HB2	41:85:76:TYR:HB2	1.61	0.83
1:13:144:G:N2	1:13:178:C:O2	2.09	0.83
26:1H:1658:C:OP1	58:1H:4531:HOH:O	1.95	0.83
26:1H:2056:G:OP2	58:1H:3624:HOH:O	1.96	0.83
26:1H:2447:G:OP2	58:1H:3853:HOH:O	1.96	0.83
30:31:6:VAL:N	30:31:24:LEU:O	2.12	0.83
26:14:2331:G:H4'	47:E5:43:THR:H	1.44	0.83
27:1J:40:U:O2	27:1J:45:A:N6	2.10	0.83
26:1H:963:U:OP1	58:1H:3857:HOH:O	1.96	0.83
18:9I:59:SER:HB3	18:9I:62:GLU:HB2	1.61	0.82
26:14:2610:C:O2'	58:14:3716:HOH:O	1.97	0.82
36:35:85:LEU:HA	36:35:88:LEU:HB3	1.59	0.82
1:13:510:A:OP2	4:3E:49:ARG:NH2	2.11	0.82
1:13:1145:C:H4'	1:13:1146:A:H5'	1.61	0.82
40:B8:6:LEU:HA	40:B8:9:LEU:HB2	1.61	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:94:G:N3	49:G5:47:ASN:ND2	2.27	0.82
1:13:972:C:OP1	58:13:1830:HOH:O	1.98	0.82
26:1H:1900:A:H5'	26:1H:1900:A:H8	1.45	0.82
1:1G:827:U:H3	1:1G:872:A:H62	1.27	0.82
26:14:848:G:H2'	26:14:849:A:C8	2.13	0.82
46:D5:111:VAL:HB	46:D5:143:GLY:HA3	1.61	0.82
26:1H:676:A:H8	26:1H:2069:G:H21	1.27	0.82
46:H8:62:PRO:C	46:H8:64:GLY:HA2	2.05	0.82
26:1H:411:G:OP1	58:1H:4630:HOH:O	1.98	0.82
1:13:524:G:H2'	1:13:525:C:C6	2.15	0.82
8:7E:120:THR:H	8:7E:123:GLU:HB2	1.43	0.82
41:85:92:ARG:HD2	41:85:95:LEU:HD12	1.60	0.82
24:3K:76:A:H8	26:1H:2394:C:H42	1.25	0.82
46:H8:76:LEU:H	46:H8:76:LEU:HD22	1.44	0.82
1:1G:957:U:O2'	1:1G:959:A:N7	2.12	0.82
1:1G:998:G:N2	1:1G:1043:C:N3	2.27	0.82
26:14:2499:C:OP1	58:14:4009:HOH:O	1.96	0.82
49:G5:25:VAL:HG12	49:G5:60:LEU:HD23	1.60	0.82
54:L5:35:ARG:HG3	54:L5:42:LEU:HD11	1.59	0.82
26:1H:910:A:N7	37:88:13:GLN:HG3	1.94	0.82
26:14:1041:C:H42	26:14:1114:G:H22	1.25	0.82
26:14:2127:G:O6	26:14:2161:C:N4	2.13	0.82
33:69:75:LEU:HD22	33:69:76:THR:H	1.44	0.82
26:1H:1410:G:O6	26:1H:1592:C:N4	2.09	0.82
32:51:30:LYS:HE3	32:51:81:GLU:H	1.45	0.82
26:1H:2033:A:OP1	58:1H:4060:HOH:O	1.98	0.81
24:3L:52:G:H1	24:3L:62:C:H42	1.26	0.81
46:D5:5:LEU:HG	46:D5:47:VAL:HG21	1.61	0.81
1:13:736:C:H2'	1:13:737:A:C8	2.14	0.81
26:1H:2502:G:N7	58:1H:3855:HOH:O	2.13	0.81
2:1E:21:ARG:HB2	2:1E:39:ILE:HA	1.61	0.81
26:1H:602:G:HO2'	26:1H:604:G:HO2'	1.24	0.81
26:1H:624:C:OP1	58:1H:4303:HOH:O	1.97	0.81
37:88:14:ARG:HG2	37:88:41:TRP:HH2	1.45	0.81
1:1G:976:G:N2	1:1G:1362(A):C:OP2	2.09	0.81
26:14:631:A:OP2	55:M5:47:LYS:NZ	2.10	0.81
26:14:1022:G:O2'	26:14:1024:G:O6	1.96	0.81
26:14:2264:C:N4	47:E5:15:ASP:OD2	2.11	0.81
33:69:102:SER:O	33:69:106:GLY:N	2.13	0.81
46:H8:108:PRO:HB2	46:H8:112:ARG:HA	1.62	0.81
1:1G:1162:C:H42	1:1G:1174:G:H1	1.29	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1309:G:N7	58:14:3847:HOH:O	2.12	0.81
26:1H:187:G:OP2	58:1H:4410:HOH:O	1.98	0.81
26:1H:2712(A):A:OP2	58:1H:3670:HOH:O	1.97	0.81
26:14:958:U:OP2	37:45:14:ARG:NH1	2.13	0.81
26:14:1970:A:OP1	58:14:3455:HOH:O	1.98	0.81
1:13:1110:A:OP2	58:13:1960:HOH:O	1.98	0.81
48:J8:83:GLU:HG2	48:J8:85:LEU:H	1.46	0.81
1:1G:673:G:H2'	1:1G:674:G:C8	2.16	0.81
26:14:2873:A:H8	38:55:6:SER:H	1.29	0.81
1:13:1004:A:O5'	1:13:1025:U:N3	2.12	0.81
55:Q8:53:PRO:HA	55:Q8:55:ALA:N	1.96	0.81
1:1G:1452:C:H4'	1:1G:1453:G:H5'	1.63	0.81
7:62:20:ASP:HB3	7:62:23:VAL:HG23	1.62	0.81
26:14:1658:C:OP1	58:14:3490:HOH:O	1.99	0.81
26:1H:732:C:OP2	58:1H:4074:HOH:O	1.98	0.81
26:1H:1828:G:OP2	58:1H:4634:HOH:O	1.97	0.81
36:78:47:ASP:OD2	36:78:50:ARG:NH2	2.14	0.81
30:39:5:ALA:HB1	30:39:125:LEU:HD21	1.63	0.81
1:13:36:C:OP1	12:3I:123:LYS:NZ	2.13	0.81
1:13:352:C:O2'	1:13:354:G:OP1	1.98	0.81
38:98:12:ARG:HD3	38:98:16:HIS:CG	2.15	0.81
45:G8:30:VAL:HG22	45:G8:37:VAL:HG12	1.63	0.81
1:1G:475:G:OP1	16:7A:81:ARG:NH2	2.13	0.81
1:13:1240:U:OP2	7:6E:116:ALA:N	2.13	0.81
26:1H:2256:G:N7	58:1H:4119:HOH:O	2.12	0.81
19:AA:60:VAL:HG21	19:AA:74:PHE:HB3	1.63	0.81
26:1H:1952:A:C5	35:68:22:ILE:HD11	2.15	0.80
38:98:12:ARG:HG2	38:98:12:ARG:HH11	1.44	0.80
19:AA:29:ARG:HH11	19:AA:48:THR:HG23	1.46	0.80
1:13:1027:C:N4	1:13:1032(A):G:O6	2.14	0.80
26:1H:2598:A:OP1	58:1H:3652:HOH:O	2.00	0.80
26:1H:2392:A:H2	26:1H:2424:C:H42	1.30	0.80
1:1G:411:A:H62	1:1G:413:G:H21	1.28	0.80
11:2A:32:ILE:HD11	11:2A:68:ALA:HB1	1.63	0.80
26:1H:1257:C:H4'	30:31:83:PHE:CD1	2.17	0.80
26:1H:2210:G:H5'	26:1H:2211:G:C8	2.17	0.80
8:7E:27:PRO:O	8:7E:32:LYS:NZ	2.15	0.80
26:1H:2584:U:H2'	26:1H:2585:U:H2'	1.64	0.80
28:11:146:GLU:HB2	28:11:189:CYS:HB3	1.63	0.80
26:14:259:G:H21	26:14:621:A:H8	1.29	0.80
27:1J:5:C:H42	27:1J:115:G:H1	1.30	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2074:U:OP1	58:14:3403:HOH:O	1.98	0.80
7:6E:111:ARG:NH1	7:6E:113:GLU:OE2	2.14	0.80
26:1H:265:A:C8	26:1H:266:G:H1'	2.15	0.80
26:1H:1780:A:OP1	58:1H:3626:HOH:O	1.99	0.80
26:1H:2713:A:OP2	58:1H:3673:HOH:O	2.00	0.80
26:14:2392:A:H2	26:14:2424:C:H42	1.26	0.80
26:1H:945:A:OP1	58:1H:4115:HOH:O	2.00	0.80
26:1H:1484:G:N2	26:1H:1505:C:O2	2.14	0.80
21:1B:8:THR:HG22	21:1B:11:GLY:H	1.47	0.80
26:14:833:U:O2	36:35:55:ARG:NH1	2.14	0.80
26:14:2210:G:O5'	26:14:2211:G:N2	2.14	0.80
26:1H:1152:C:H3'	58:1H:4003:HOH:O	1.80	0.79
26:14:459:U:H5"	54:L5:40:TRP:CD2	2.17	0.79
1:13:504:C:OP1	58:13:1880:HOH:O	2.00	0.79
1:1G:1298:C:OP2	7:62:114:ARG:NH2	2.15	0.79
26:14:141:A:H8	26:14:1595:G:H21	1.28	0.79
28:19:69:ARG:NH2	28:19:128:GLY:O	2.15	0.79
1:1G:690:G:H1	11:2A:55:LYS:HZ3	1.28	0.79
26:14:1774:C:OP1	58:14:4078:HOH:O	1.98	0.79
1:13:659:U:H2'	1:13:660:G:C8	2.17	0.79
17:8I:76:LEU:HD11	17:8I:79:SER:HB3	1.64	0.79
26:1H:1061:U:H4'	26:1H:1070:A:H1'	1.64	0.79
36:78:19:VAL:HB	36:78:27:HIS:HB2	1.62	0.79
3:22:141:VAL:HA	3:22:144:SER:HB3	1.64	0.79
26:14:1678:G:H22	26:14:1989:G:H22	1.28	0.79
1:13:1500:A:OP1	58:13:1804:HOH:O	2.00	0.79
26:1H:1386:C:H2'	26:1H:1387:C:H6	1.47	0.79
29:21:105:THR:HG22	29:21:106:GLY:H	1.44	0.79
30:39:78:ILE:HA	30:39:83:PHE:CD2	2.17	0.79
30:39:192:LEU:HD22	30:39:194:MET:HE2	1.64	0.79
35:25:115:VAL:HG13	35:25:121:VAL:HG21	1.63	0.79
44:B5:27:THR:HB	44:B5:80:ILE:HG22	1.63	0.79
26:14:453:C:OP1	58:14:4019:HOH:O	2.00	0.79
51:I5:22:ILE:HG12	51:I5:23:GLU:H	1.47	0.79
29:21:135:HIS:CD2	58:21:405:HOH:O	2.35	0.79
23:2K:62:C:H2'	23:2K:63:C:H6	1.47	0.79
36:78:29:LYS:HD3	36:78:30:THR:HG22	1.63	0.79
52:N8:40:LYS:HZ3	52:N8:46:CYS:HB3	1.47	0.79
20:BI:71:THR:HG22	20:BI:72:LEU:H	1.45	0.79
30:39:25:PRO:HB2	30:39:27:GLU:H	1.47	0.79
1:13:538:G:H5"	12:3I:114:LYS:HB2	1.64	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1141:C:H2'	1:1G:1142:G:H8	1.47	0.79
2:1E:82:ARG:NE	2:1E:92:TYR:OH	2.16	0.78
33:61:39:ALA:HB1	33:61:44:LEU:HD13	1.64	0.78
5:42:31:LEU:HA	5:42:45:PHE:HB2	1.66	0.78
29:29:66:HIS:NE2	29:29:73:GLU:OE1	2.16	0.78
42:95:71:LEU:H	42:95:86:GLY:HA2	1.47	0.78
5:4E:33:VAL:HG11	5:4E:109:ILE:HG12	1.65	0.78
10:1I:22:LYS:NZ	10:1I:88:LEU:O	2.17	0.78
26:1H:2593:U:H2'	26:1H:2594:C:H6	1.48	0.78
26:1H:1658:C:OP1	58:1H:4532:HOH:O	1.99	0.78
26:1H:2057:A:OP2	58:1H:3621:HOH:O	2.00	0.78
5:4E:110:LEU:HD13	5:4E:118:ILE:HD13	1.64	0.78
20:BI:57:ARG:HH22	20:BI:102:GLY:HA2	1.49	0.78
26:1H:674:G:H1'	30:31:74:ARG:HD3	1.64	0.78
26:1H:801:G:OP2	58:1H:4182:HOH:O	1.99	0.78
30:31:167:ALA:HB1	30:31:173:VAL:HG11	1.65	0.78
34:58:65:LYS:HB3	34:58:69:GLN:HG3	1.64	0.78
5:42:81:GLU:HG2	5:42:90:VAL:HG13	1.66	0.78
12:3A:60:LEU:HB2	12:3A:64:TYR:HB2	1.65	0.78
26:1H:1643:G:N7	58:1H:3942:HOH:O	2.16	0.78
1:1G:961:U:O2	1:1G:1201:A:N6	2.16	0.78
12:3A:59:ARG:NH2	12:3A:65:GLU:OE1	2.17	0.78
26:14:1858:G:O2'	26:14:1884:A:N6	2.16	0.78
29:29:61:ARG:HA	29:29:63:LEU:HG	1.66	0.78
30:39:103:LYS:HA	30:39:106:ARG:HG3	1.66	0.78
26:1H:2431:U:OP2	58:1H:3908:HOH:O	2.01	0.78
1:1G:36:C:OP1	12:3A:123:LYS:NZ	2.16	0.78
1:13:1023:G:H3'	1:13:1024:G:H5"	1.64	0.78
26:1H:860:U:C5	26:1H:917:A:H2	2.02	0.78
31:41:105:LYS:HE2	51:M8:26:SER:HB2	1.65	0.78
55:Q8:4:MET:HE2	55:Q8:59:LYS:HZ3	1.46	0.78
5:42:33:VAL:HG21	5:42:109:ILE:HG12	1.63	0.78
1:13:736:C:H2'	1:13:737:A:H8	1.48	0.78
26:1H:761:A:N7	58:1H:4073:HOH:O	2.17	0.78
26:1H:1516:U:H2'	26:1H:1517:G:H8	1.48	0.78
26:1H:2502:G:OP2	58:1H:3631:HOH:O	2.01	0.78
29:21:135:HIS:HE1	58:21:404:HOH:O	1.45	0.78
22:1L:74:C:N4	26:14:2554:U:O2	2.16	0.78
26:14:273(C):C:H42	26:14:363(C):G:H1	1.29	0.78
26:14:1225:C:O3'	42:95:85:LYS:HA	1.83	0.78
42:95:35:LEU:O	42:95:37:VAL:HG22	1.83	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:D5:27:VAL:HG12	46:D5:87:ASP:HB3	1.65	0.78
1:13:262:A:H2'	1:13:263:A:C8	2.19	0.78
26:1H:763:G:OP1	58:1H:3691:HOH:O	2.01	0.78
26:1H:878:A:N6	26:1H:899:A:O2'	2.17	0.78
26:1H:67:U:H3	26:1H:74:A:H2	1.30	0.78
26:1H:510:C:OP1	58:1H:4667:HOH:O	2.02	0.78
32:51:4:ILE:HD13	32:51:4:ILE:H	1.49	0.78
3:22:11:ARG:NH2	3:22:177:THR:O	2.17	0.78
9:82:9:ARG:HG2	9:82:14:VAL:HG22	1.66	0.78
41:85:28:ARG:NH1	41:85:38:THR:OG1	2.16	0.78
48:F5:24:ALA:HB3	48:F5:27:GLU:HG3	1.66	0.78
1:13:1367:C:H5'	10:1I:60:ARG:HH21	1.49	0.77
26:1H:2636:U:OP1	29:21:79:ARG:HA	1.84	0.77
7:62:79:ARG:HG2	7:62:84:ASN:HB3	1.66	0.77
26:14:607:U:H3	26:14:621:A:H2	1.29	0.77
26:1H:248:G:H5'	26:1H:250:G:N7	1.98	0.77
26:1H:1171:G:N2	26:1H:1178:C:N3	2.32	0.77
44:F8:24:GLY:HA3	44:F8:82:GLN:HE22	1.50	0.77
1:1G:560:U:H5'	1:1G:566:G:N2	1.99	0.77
13:4A:57:ARG:HH12	51:I5:17:GLY:HA3	1.49	0.77
24:3L:18:G:H2'	24:3L:57:G:H1	1.46	0.77
30:39:101:LEU:O	30:39:106:ARG:NH1	2.17	0.77
39:65:3:ARG:HE	39:65:4:LEU:N	1.82	0.77
26:14:1890:A:OP2	58:14:3914:HOH:O	2.02	0.77
26:14:2448:A:OP1	58:14:4009:HOH:O	2.03	0.77
37:45:54:MET:HE2	37:45:118:LEU:HD22	1.66	0.77
26:1H:878:A:N6	26:1H:899:A:HO2'	1.81	0.77
26:14:660:G:H21	36:35:12:ALA:HB2	1.49	0.77
41:85:90:VAL:HA	42:95:39:LEU:HD23	1.64	0.77
26:1H:654(D):G:H1	26:1H:654(Q):C:H42	1.31	0.77
26:1H:1727:U:H3	26:1H:1733:G:H1	1.32	0.77
5:4E:8:GLU:OE1	5:4E:63:ARG:NH2	2.17	0.77
26:1H:2785:C:OP1	29:21:41:LYS:NZ	2.16	0.77
46:H8:163:LEU:HB3	46:H8:165:VAL:H	1.50	0.77
1:1G:324:G:N7	58:1G:1848:HOH:O	2.17	0.77
20:BA:50:GLU:HA	20:BA:100:ILE:HG21	1.67	0.77
26:14:2415:G:H4'	36:35:67:MET:H	1.50	0.77
17:8I:88:TYR:HD1	17:8I:89:LEU:HD23	1.48	0.77
19:AI:15:LEU:HB2	19:AI:31:ILE:HD11	1.66	0.77
26:1H:2057:A:OP2	58:1H:3624:HOH:O	2.01	0.77
1:1G:1310:G:H5'	13:4A:77:ASN:HD21	1.48	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:82:MET:HG2	13:4A:83:ASP:H	1.49	0.77
40:75:1:MET:HB3	40:75:5:ALA:HB3	1.66	0.77
26:1H:987:G:OP2	58:1H:3995:HOH:O	2.02	0.77
33:61:73:GLU:HG3	33:61:136:VAL:HG23	1.67	0.77
4:32:162:LEU:HD13	4:32:181:MET:HE2	1.67	0.77
28:19:60:ARG:NH1	28:19:86:PRO:O	2.17	0.77
30:31:66:PRO:O	30:31:67:GLN:HB3	1.84	0.77
1:1G:999:U:H2'	1:1G:1000:A:H8	1.50	0.77
1:1G:1149:C:OP2	9:82:9:ARG:NH1	2.18	0.77
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.66	0.77
26:14:2250:G:C4	37:45:82:ARG:HG3	2.20	0.77
1:13:177:C:OP1	20:BI:65:LYS:NZ	2.16	0.77
43:E8:14:PRO:HB3	43:E8:18:ARG:HH12	1.49	0.77
46:H8:7:ALA:HB2	46:H8:59:LEU:HD22	1.67	0.77
26:14:240:G:O6	58:14:3613:HOH:O	2.03	0.77
26:14:2343:C:HO2'	26:14:2373:G:HO2'	1.33	0.77
29:29:12:THR:O	29:29:23:VAL:HG23	1.85	0.77
37:45:26:TYR:O	37:45:28:ALA:N	2.17	0.77
26:1H:2685:G:N7	58:1H:4089:HOH:O	2.18	0.76
1:1G:179:A:OP2	58:1G:1895:HOH:O	2.03	0.76
1:1G:500:G:N2	1:1G:545:C:O2	2.18	0.76
26:14:1676:A:OP2	58:14:3433:HOH:O	2.02	0.76
26:14:1970:A:OP2	58:14:3458:HOH:O	2.03	0.76
1:1G:353:A:H5'	1:1G:353:A:H8	1.50	0.76
26:14:2632:A:HO2'	26:14:2811:G:HO2'	1.30	0.76
1:1G:1028(A):C:O2	1:1G:1033:G:N2	2.17	0.76
13:4A:97:PRO:HA	13:4A:110:ARG:HD3	1.67	0.76
26:14:802:A:OP1	58:14:3908:HOH:O	2.02	0.76
27:16:42:C:O3'	31:41:67:LYS:NZ	2.16	0.76
30:31:29:ASN:H	30:31:112:MET:HE1	1.48	0.76
46:H8:19:ARG:NH1	46:H8:84:GLU:O	2.19	0.76
1:1G:588:G:H1	1:1G:651:C:H42	1.34	0.76
26:14:152:G:H1	26:14:174:C:H42	1.30	0.76
26:14:1664:A:OP1	58:14:3504:HOH:O	2.04	0.76
26:14:2207:C:H42	26:14:2217:G:H1	1.33	0.76
39:65:106:ARG:NH1	39:65:107:GLU:OE2	2.18	0.76
1:13:601:C:H2'	1:13:602:A:C8	2.19	0.76
26:1H:2718:G:N7	58:1H:4512:HOH:O	2.17	0.76
1:1G:426:G:OP1	4:32:36:ARG:NH2	2.18	0.76
1:1G:979:C:H3'	1:1G:980:C:H5"	1.67	0.76
26:14:629:G:O6	26:14:634:C:N4	2.17	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:69:130:TYR:HB3	33:69:136:VAL:HG13	1.67	0.76
46:D5:44:PHE:HE2	46:D5:86:VAL:HG11	1.51	0.76
26:1H:1557:C:OP2	26:1H:1558:A:O2'	2.04	0.76
26:14:397:G:N7	58:14:3932:HOH:O	2.19	0.76
26:14:509:C:OP1	58:14:3884:HOH:O	2.04	0.76
26:14:1048:A:N6	26:14:1112:G:O2'	2.18	0.76
26:14:2287:A:H62	26:14:2344:U:H3	1.32	0.76
26:1H:761:A:OP1	58:1H:3689:HOH:O	2.03	0.76
26:1H:1701:A:OP2	58:1H:4389:HOH:O	2.04	0.76
26:1H:2759:G:OP2	58:1H:4474:HOH:O	2.02	0.76
26:14:578:A:OP2	58:14:3576:HOH:O	2.02	0.76
26:14:630:G:N2	26:14:633:A:OP2	2.16	0.76
26:14:1060:U:H4'	26:14:1061:U:H5"	1.68	0.76
26:14:2120:G:N2	26:14:2178:C:N3	2.34	0.76
1:13:692:U:O2'	1:13:694:A:N7	2.19	0.76
26:1H:2028:U:O4	58:1H:4060:HOH:O	2.03	0.76
28:11:223:GLY:HA3	28:11:231:HIS:ND1	2.01	0.76
4:3E:9:CYS:HB3	4:3E:32:ALA:HB2	1.67	0.76
29:21:111:ARG:HD3	29:21:160:TYR:CD2	2.21	0.76
1:1G:1074:G:O2'	1:1G:1101:A:N1	2.18	0.76
31:49:41:GLN:NE2	31:49:154:GLY:O	2.19	0.76
26:1H:1952:A:C6	35:68:22:ILE:HD11	2.20	0.76
29:21:131:ALA:HB1	58:21:404:HOH:O	1.86	0.76
34:58:130:HIS:C	34:58:134:ARG:HH22	1.93	0.76
55:Q8:30:ARG:HH11	55:Q8:30:ARG:HG3	1.51	0.76
55:Q8:49:VAL:HG12	55:Q8:52:LYS:HB2	1.68	0.76
3:22:152:ILE:HG12	3:22:167:TRP:HB2	1.67	0.76
26:14:140:A:H8	26:14:1408:C:HO2'	1.29	0.76
26:14:2114:A:N6	26:14:2119:A:N7	2.34	0.76
26:14:2272:U:O4	58:14:3822:HOH:O	2.00	0.76
26:14:2375:G:N7	58:14:3706:HOH:O	2.17	0.76
26:14:2786:U:O2'	29:29:62:PRO:O	2.02	0.76
35:25:73:ASP:OD2	40:75:32:TYR:OH	2.04	0.76
1:13:1366:C:O2'	10:1I:60:ARG:NH2	2.20	0.75
19:AI:78:ARG:HE	19:AI:78:ARG:H	1.28	0.75
26:1H:862:G:OP2	58:1H:3993:HOH:O	2.02	0.75
1:13:272:C:H2'	1:13:273:A:H8	1.51	0.75
26:1H:270(E):G:H1	26:1H:270(U):C:H42	1.32	0.75
33:61:110:ASP:OD1	33:61:110:ASP:N	2.19	0.75
1:1G:156:G:N2	1:1G:165:C:O2	2.16	0.75
1:1G:195:A:OP2	58:1G:1894:HOH:O	2.04	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1238:A:N3	1:1G:1241:G:O2'	2.19	0.75
1:13:1306:A:H61	1:13:1331:G:H1'	1.52	0.75
17:8I:13:ASP:OD1	17:8I:14:LYS:NZ	2.19	0.75
26:1H:1478:G:H2'	26:1H:1479:G:H8	1.49	0.75
26:1H:1676:A:OP2	58:1H:3708:HOH:O	2.04	0.75
11:2A:48:ILE:HD11	11:2A:64:ALA:HA	1.68	0.75
26:14:2782:G:OP2	58:14:3786:HOH:O	2.03	0.75
34:15:56:ASN:HA	34:15:125:GLY:H	1.52	0.75
4:3E:25:ARG:NH1	4:3E:30:LYS:O	2.20	0.75
11:2I:34:ASP:HB3	11:2I:40:ILE:HD11	1.68	0.75
26:1H:1381:G:N7	58:1H:4562:HOH:O	2.18	0.75
26:1H:330:A:O2'	26:1H:331:A:H8	1.69	0.75
26:1H:883:G:O6	26:1H:893:C:N4	2.18	0.75
26:1H:1314:C:OP1	58:1H:4561:HOH:O	2.03	0.75
34:58:96:GLU:HG2	34:58:97:ARG:N	1.99	0.75
4:32:31:CYS:C	4:32:33:MET:H	1.93	0.75
1:1G:547:A:OP1	58:1G:1804:HOH:O	2.05	0.75
1:1G:768:A:OP2	58:1G:1811:HOH:O	2.03	0.75
16:7A:53:VAL:HG13	16:7A:79:VAL:HG22	1.67	0.75
31:49:56:ALA:HA	31:49:59:GLU:HB2	1.69	0.75
31:49:161:THR:HG22	31:49:163:ALA:H	1.51	0.75
26:1H:620:G:H4'	26:1H:621:A:C5'	2.17	0.75
26:1H:1153:C:OP2	58:1H:4000:HOH:O	2.03	0.75
26:1H:1900:A:H5'	26:1H:1900:A:C8	2.22	0.75
26:1H:999:U:OP2	58:1H:4004:HOH:O	2.04	0.75
26:1H:2709:G:O2'	58:1H:3679:HOH:O	2.04	0.75
26:1H:270(E):G:N2	26:1H:270(U):C:N3	2.33	0.75
7:62:113:GLU:O	7:62:119:ARG:HD3	1.86	0.75
26:14:912:C:OP1	37:45:8:LYS:NZ	2.20	0.75
26:14:1729:A:H2'	26:14:1731:G:N2	2.02	0.75
36:35:55:ARG:HG2	36:35:56:SER:H	1.52	0.75
26:14:2705:A:OP2	58:14:3522:HOH:O	2.05	0.74
30:39:120:GLU:HG3	30:39:122:LYS:HZ2	1.51	0.74
1:13:717:C:H5"	1:13:717:C:H6	1.51	0.74
1:13:737:A:H2'	1:13:738:C:C6	2.22	0.74
1:13:1305:G:H21	1:13:1331:G:H2'	1.51	0.74
34:58:39:ARG:NH2	34:58:41:ASP:OD2	2.20	0.74
26:14:654(B):C:O2	26:14:654(S):G:N2	2.19	0.74
40:B8:108:ARG:HA	40:B8:111:ARG:NE	2.02	0.74
26:14:1636:C:OP2	58:14:4091:HOH:O	2.04	0.74
23:2K:47:7MG:H81	23:2K:48:U:H5	1.53	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:B8:26:ASP:HB2	40:B8:91:ARG:HA	1.69	0.74
46:H8:151:HIS:ND1	46:H8:169:GLU:O	2.19	0.74
55:Q8:34:TRP:CB	55:Q8:35:GLN:HA	2.17	0.74
1:1G:785:G:N7	58:1G:1860:HOH:O	2.19	0.74
9:82:111:ARG:HB3	9:82:113:LYS:HE2	1.68	0.74
1:13:926:G:N2	25:4K:15:A:OP2	2.19	0.74
1:13:1003:G:H1	1:13:1037:C:H42	1.33	0.74
1:13:1286:A:H5"	21:1F:26:LYS:HB2	1.69	0.74
38:98:29:LEU:HB3	38:98:75:LEU:HD11	1.67	0.74
26:14:2581:G:O6	58:14:3718:HOH:O	2.02	0.74
41:85:90:VAL:HG22	42:95:39:LEU:HB3	1.68	0.74
1:13:1454:G:OP1	20:BI:39:LYS:NZ	2.14	0.74
39:A8:34:HIS:HB2	39:A8:36:TYR:CE1	2.23	0.74
48:J8:92:LYS:HA	48:J8:95:LEU:HB2	1.70	0.74
55:Q8:46:ARG:NH2	55:Q8:48:PHE:HB3	1.99	0.74
26:14:973:A:OP2	58:14:4007:HOH:O	2.04	0.74
26:14:1006:C:H1'	34:15:106:MET:HE3	1.67	0.74
26:1H:860:U:H5	26:1H:917:A:H2	1.32	0.74
27:16:7:G:H4'	39:A8:29:PHE:CD2	2.23	0.74
26:14:1298:C:OP2	58:14:4064:HOH:O	2.04	0.74
26:14:2498:C:OP2	58:14:4053:HOH:O	2.06	0.74
29:29:23:VAL:HG11	29:29:183:LEU:HD23	1.68	0.74
36:35:30:THR:HG21	36:35:35:HIS:H	1.53	0.74
1:13:1129:C:H4'	1:13:1130:A:H5'	1.70	0.74
15:6I:6:GLU:HA	15:6I:9:GLN:HB2	1.69	0.74
26:1H:392:C:OP1	58:1H:3749:HOH:O	2.06	0.74
26:1H:878:A:H61	26:1H:899:A:HO2'	1.36	0.74
26:1H:1516:U:H2'	26:1H:1517:G:C8	2.23	0.74
41:C8:92:ARG:O	41:C8:94:ASN:N	2.20	0.74
1:1G:1125:U:O4	10:1A:5:ARG:NH1	2.21	0.74
26:14:2357:U:OP1	47:E5:20:ARG:NH1	2.21	0.74
46:D5:71:VAL:HA	46:D5:88:PHE:HA	1.69	0.74
11:2I:107:SER:HA	18:9I:87:ARG:HD2	1.70	0.74
26:1H:4:C:O2	26:1H:2899:G:N2	2.20	0.74
1:1G:1213:A:N6	1:1G:1215:G:N3	2.35	0.74
53:K5:24:GLU:HG3	53:K5:25:LYS:H	1.52	0.74
1:13:673:G:H2'	1:13:674:G:C8	2.23	0.73
1:13:1224:G:C6	1:13:1322:C:H1'	2.23	0.73
1:13:1500:A:OP1	58:13:1802:HOH:O	2.06	0.73
26:1H:802:A:OP1	58:1H:4587:HOH:O	2.06	0.73
26:1H:1359:A:H2	26:1H:1372:U:O4	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2115:G:N2	26:1H:2172:U:O2	2.21	0.73
26:1H:2580:U:H4'	29:21:130:GLY:HA3	1.70	0.73
37:88:135:ASP:HB3	37:88:137:TYR:H	1.51	0.73
26:14:450:G:OP2	58:14:4104:HOH:O	2.05	0.73
26:1H:1036:G:N2	26:1H:1119:C:O2	2.20	0.73
26:14:654:A:O2'	26:14:654(A):A:N7	2.21	0.73
26:14:1642:G:N7	58:14:3951:HOH:O	2.21	0.73
36:35:71:VAL:HG13	36:35:72:PRO:HD3	1.70	0.73
4:3E:15:GLU:OE2	4:3E:59:ARG:NH2	2.20	0.73
10:1I:28:ARG:HG3	10:1I:34:VAL:HG22	1.69	0.73
26:1H:563:G:OP2	58:1H:3635:HOH:O	2.05	0.73
26:1H:1430:C:H2'	26:1H:1431:U:C6	2.22	0.73
26:1H:1899:G:H22	26:1H:1902:C:H5	1.37	0.73
26:1H:2794:C:N4	26:1H:2802:G:O6	2.21	0.73
28:11:142:VAL:HG23	28:11:193:VAL:HA	1.69	0.73
10:1A:3:LYS:N	10:1A:74:ILE:O	2.21	0.73
26:14:399:G:OP2	58:14:4113:HOH:O	2.05	0.73
26:14:2000:G:OP2	58:14:3947:HOH:O	2.05	0.73
1:13:150:C:H2'	1:13:151:A:H8	1.52	0.73
23:2K:16:C:OP2	23:2K:17:C:N4	2.21	0.73
26:1H:2308:G:N1	26:1H:2311:A:H2	1.86	0.73
31:41:64:THR:HG23	31:41:94:LEU:HD13	1.69	0.73
48:J8:91:LYS:O	48:J8:94:LEU:N	2.20	0.73
26:14:619:G:H5"	26:14:620:G:N2	2.04	0.73
26:14:2652:C:H42	26:14:2668:G:H1	1.36	0.73
40:75:4:GLY:HA2	40:75:8:LYS:HZ2	1.51	0.73
9:8E:50:LEU:HD23	9:8E:85:LEU:HD11	1.70	0.73
20:BI:69:GLY:O	20:BI:73:HIS:NE2	2.22	0.73
26:1H:120:U:OP2	58:1H:4135:HOH:O	2.05	0.73
26:1H:1113:U:H5'	32:51:2:SER:HB2	1.70	0.73
1:1G:639:G:H2'	1:1G:640:A:H8	1.52	0.73
1:1G:1251:A:H2'	1:1G:1252:A:C8	2.23	0.73
40:75:4:GLY:O	40:75:7:ILE:N	2.22	0.73
53:K5:28:ARG:HB3	53:K5:32:ASN:HA	1.68	0.73
26:1H:400:G:O6	58:1H:4042:HOH:O	2.03	0.73
46:H8:165:VAL:HB	46:H8:166:SER:HA	1.71	0.73
1:1G:1003:G:N2	1:1G:1037:C:O2	2.15	0.73
26:14:1754:C:OP1	40:75:96:ARG:NH1	2.20	0.73
26:14:1839:G:OP2	58:14:3985:HOH:O	2.06	0.73
26:1H:409:C:OP1	58:1H:3749:HOH:O	2.06	0.73
26:1H:2593:U:H2'	26:1H:2594:C:C6	2.23	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:192:U:H2'	1:1G:193:C:H6	1.52	0.73
1:1G:426:G:OP1	4:32:38:TYR:OH	2.05	0.73
26:14:84:A:N6	26:14:102:G:O2'	2.16	0.73
36:35:14:LYS:O	36:35:16:ARG:N	2.22	0.73
42:95:57:VAL:HG23	42:95:99:ILE:H	1.53	0.73
55:M5:40:GLU:H	55:M5:43:GLN:HG3	1.53	0.73
1:13:533:A:OP1	58:13:1870:HOH:O	2.06	0.73
5:4E:45:PHE:CE2	5:4E:47:LYS:HD2	2.24	0.73
26:1H:49:A:N7	26:1H:120:U:H5	1.85	0.73
26:1H:1077:A:H3'	26:1H:1078:U:H5'	1.70	0.73
26:1H:2392:A:H8	36:78:61:ARG:HG2	1.53	0.73
26:1H:2400:G:H2'	26:1H:2401:U:C6	2.23	0.73
38:98:56:LYS:NZ	38:98:90:ARG:O	2.20	0.73
39:A8:25:ARG:NH1	39:A8:42:ASP:OD2	2.22	0.73
4:32:18:LYS:HD3	4:32:31:CYS:SG	2.29	0.73
26:14:882:G:H22	26:14:894:C:N4	1.87	0.73
26:14:1257:C:H4'	30:39:83:PHE:CE1	2.24	0.73
26:14:2121:G:H1	26:14:2177:C:H42	1.35	0.73
30:39:25:PRO:HB3	30:39:28:ILE:HG23	1.70	0.73
46:D5:139:VAL:HG13	46:D5:156:LYS:HE2	1.70	0.73
1:13:1007:C:H42	1:13:1022:G:H1	1.36	0.73
10:1I:34:VAL:HG12	10:1I:74:ILE:HG23	1.70	0.73
26:1H:176:G:O2'	26:1H:177:G:H5'	1.89	0.73
26:1H:1055:G:O2'	26:1H:1086:A:N6	2.22	0.73
27:16:80:U:H2'	27:16:81:G:H21	1.53	0.73
36:78:52:GLU:HG3	36:78:57:THR:HA	1.71	0.73
24:3L:11:C:H2'	24:3L:12:U:H6	1.54	0.73
26:14:2502:G:OP2	58:14:4030:HOH:O	2.06	0.73
42:95:70:ILE:N	42:95:86:GLY:O	2.18	0.73
26:1H:1438:U:H2'	26:1H:1439:A:H8	1.54	0.73
26:1H:2347:C:OP1	53:O8:39:TYR:OH	2.06	0.73
29:21:111:ARG:HD3	29:21:160:TYR:CE2	2.24	0.73
55:Q8:46:ARG:HH21	55:Q8:48:PHE:CB	1.97	0.73
1:1G:1316:G:H22	1:1G:1319:A:H5"	1.52	0.73
19:AA:20:LEU:O	19:AA:23:ASN:ND2	2.21	0.73
26:14:1899:G:N2	26:14:1902:C:N4	2.36	0.73
32:59:6:ARG:HH11	32:59:6:ARG:H	1.35	0.73
40:75:50:ILE:HD11	40:75:102:ILE:HD11	1.69	0.73
45:C5:19:LYS:HG3	45:C5:20:TYR:H	1.53	0.73
26:1H:1803:A:O2'	28:11:259:THR:HG21	1.89	0.72
26:1H:2492:U:H2'	26:1H:2493:U:C6	2.24	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:Q8:57:ARG:HD3	55:Q8:57:ARG:N	2.03	0.72
26:14:2343:C:O2'	26:14:2373:G:O2'	2.05	0.72
1:13:1358:U:OP2	1:13:1359:C:N4	2.20	0.72
2:1E:8:LYS:HG2	2:1E:9:GLU:H	1.55	0.72
26:1H:1495:A:OP2	58:1H:4431:HOH:O	2.06	0.72
26:1H:2312:U:H5'	31:41:88:ILE:HD12	1.70	0.72
32:51:124:GLU:HB3	32:51:132:ARG:HB3	1.70	0.72
34:58:96:GLU:C	34:58:98:VAL:H	1.96	0.72
55:Q8:21:LYS:HE2	55:Q8:48:PHE:HE1	1.54	0.72
55:Q8:31:HIS:ND1	55:Q8:31:HIS:O	2.22	0.72
24:3L:8:U:H3	24:3L:14:A:H62	1.33	0.72
44:B5:5:TYR:HB3	49:G5:33:MET:HB2	1.70	0.72
26:1H:331:A:N1	58:1H:3844:HOH:O	2.22	0.72
26:1H:2033:A:H8	58:1H:4060:HOH:O	1.71	0.72
44:F8:3:THR:OG1	44:F8:4:ALA:HA	1.88	0.72
1:1G:371:G:H1	1:1G:390:C:H42	1.35	0.72
27:1J:80:U:H2'	27:1J:81:G:N2	2.05	0.72
44:B5:41:ASN:HA	44:B5:44:GLU:HB2	1.71	0.72
1:13:1008:C:N4	1:13:1021:G:O6	2.18	0.72
9:8E:96:LEU:HD23	9:8E:102:LEU:HD21	1.70	0.72
26:1H:1994:C:OP1	58:1H:4006:HOH:O	2.06	0.72
43:E8:96:ILE:HD13	43:E8:96:ILE:H	1.52	0.72
45:G8:87:LYS:HB3	45:G8:94:LYS:HG2	1.70	0.72
46:H8:165:VAL:HB	46:H8:167:PRO:HD3	1.71	0.72
1:1G:947:G:O3'	13:4A:109:THR:OG1	2.07	0.72
26:14:1308:A:OP2	58:14:3849:HOH:O	2.08	0.72
26:14:2468:G:H3'	26:14:2476:A:N1	2.04	0.72
39:65:84:GLN:HA	39:65:110:LEU:HD12	1.70	0.72
23:2K:47:7MG:H82	23:2K:47:7MG:H5'	1.72	0.72
26:1H:1525:G:H2'	26:1H:1526:G:C8	2.24	0.72
1:1G:707:C:H2'	1:1G:708:C:H6	1.53	0.72
26:14:731:C:OP1	58:14:4108:HOH:O	2.08	0.72
26:14:2572:A:C8	29:29:144:ARG:HD2	2.23	0.72
1:13:963:G:N2	1:13:972:C:N3	2.31	0.72
1:13:1213:A:O2'	1:13:1215:G:N7	2.17	0.72
26:1H:1828:G:OP1	58:1H:4686:HOH:O	2.07	0.72
1:1G:1248:A:N3	9:82:70:LYS:NZ	2.37	0.72
11:2A:27:ASN:OD1	11:2A:28:THR:N	2.22	0.72
55:Q8:6:THR:N	55:Q8:59:LYS:HE3	2.04	0.72
55:Q8:49:VAL:HG23	55:Q8:50:LEU:H	1.55	0.72
1:1G:8:A:C6	4:32:209:ARG:HB2	2.24	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1311:G:N2	1:1G:1326:C:O2	2.20	0.72
3:22:65:ALA:HA	3:22:100:ALA:HB3	1.71	0.72
16:7A:37:GLY:HA2	16:7A:50:LYS:HD3	1.70	0.72
26:14:1061:U:H4'	26:14:1070:A:H1'	1.70	0.72
40:75:8:LYS:HZ2	40:75:8:LYS:HB2	1.55	0.72
9:8E:112:LYS:HA	9:8E:119:ALA:HB2	1.70	0.72
24:3K:19:G:OP1	24:3K:60:U:N3	2.19	0.72
28:11:10:THR:OG1	28:11:13:ARG:HB2	1.90	0.72
1:1G:376:G:O3'	16:7A:5:ARG:NH1	2.22	0.72
9:82:28:VAL:HG22	9:82:63:ILE:HB	1.72	0.72
27:1J:15:A:H5'	27:1J:16:G:C8	2.25	0.72
31:49:40:ASN:HB2	31:49:91:ARG:HG3	1.72	0.72
45:C5:52:SER:HA	45:C5:55:TYR:O	1.89	0.72
1:13:963:G:N3	10:1I:55:LYS:NZ	2.38	0.72
24:3K:72:C:H3'	24:3K:73:A:H5"	1.72	0.72
26:1H:761:A:OP1	58:1H:3686:HOH:O	2.08	0.72
26:1H:1639:U:O2'	26:1H:1640:C:H5'	1.89	0.72
26:14:1264:G:OP1	52:J5:19:ARG:NH2	2.21	0.72
26:14:2134:A:O2'	26:14:2159:G:N2	2.22	0.72
26:14:2340:G:H2'	26:14:2341:G:H8	1.53	0.72
26:14:2393:A:H4'	36:35:62:LEU:H	1.52	0.72
26:1H:974(A):C:OP1	58:1H:4189:HOH:O	2.07	0.72
26:1H:2693:A:H2'	26:1H:2694:G:H8	1.54	0.72
30:31:29:ASN:N	30:31:112:MET:HE1	2.05	0.72
30:31:155:LEU:HD11	30:31:176:LEU:HD13	1.72	0.72
38:98:67:LEU:HD13	38:98:76:VAL:HG21	1.71	0.72
1:1G:1432:G:N2	58:1G:1858:HOH:O	2.23	0.72
26:14:1899:G:H21	26:14:1902:C:N4	1.87	0.72
26:14:2327:A:H2'	26:14:2328:A:C8	2.25	0.72
1:13:547:A:OP1	4:3E:73:ARG:NH2	2.23	0.71
26:1H:764:A:H2	28:11:219:PRO:HG3	1.53	0.71
26:1H:951:C:O2	26:1H:966:G:N2	2.20	0.71
29:21:116:VAL:HG11	29:21:138:PRO:HB3	1.71	0.71
26:1H:240:G:O6	58:1H:4452:HOH:O	2.06	0.71
1:1G:1256:A:N6	1:1G:1278:U:OP2	2.22	0.71
5:42:102:ALA:HB1	5:42:106:PRO:HG2	1.73	0.71
14:5I:29:ARG:HH21	14:5I:41:ARG:NH1	1.88	0.71
29:21:201:THR:HG22	29:21:203:LYS:H	1.55	0.71
26:14:674:G:O2'	30:39:74:ARG:HG3	1.89	0.71
26:14:1434:A:H61	26:14:1558:A:H62	1.37	0.71
40:75:92:GLY:HA2	40:75:116:ALA:HA	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:5I:26:ARG:NH1	14:5I:43:CYS:SG	2.63	0.71
26:1H:731:C:OP2	58:1H:3690:HOH:O	2.07	0.71
26:1H:1479:G:N7	26:1H:1510:A:N6	2.37	0.71
26:1H:2871:C:N3	58:1H:4092:HOH:O	2.22	0.71
38:98:100:LEU:HD11	38:98:113:LEU:HD13	1.72	0.71
1:1G:1298:C:H41	7:62:114:ARG:HB3	1.54	0.71
26:14:34:C:O2'	26:14:35:G:OP1	2.06	0.71
1:13:877:C:OP1	8:7E:88:LYS:NZ	2.18	0.71
1:13:1194:U:H2'	1:13:1195:C:C6	2.26	0.71
20:BI:26:ASN:HB2	20:BI:71:THR:HG23	1.72	0.71
26:1H:252:G:OP2	36:78:50:ARG:NH1	2.24	0.71
26:1H:910:A:H62	37:88:12:GLN:HA	1.55	0.71
26:1H:2053:G:OP1	58:1H:3801:HOH:O	2.08	0.71
12:3A:70:ILE:HD13	12:3A:77:LEU:HD12	1.73	0.71
26:14:2096:U:H3	26:14:2193:G:H1	1.37	0.71
1:13:559:A:OP1	5:4E:126:ARG:NH2	2.23	0.71
4:3E:15:GLU:OE1	4:3E:66:ARG:NH1	2.22	0.71
26:1H:256:A:OP2	58:1H:4457:HOH:O	2.07	0.71
26:1H:993:G:OP1	41:C8:50:ARG:NH2	2.24	0.71
31:41:112:PRO:HB3	51:M8:37:SER:H	1.55	0.71
1:1G:1157:A:H61	1:1G:1178:G:H21	1.38	0.71
39:65:34:HIS:HE2	39:65:54:LEU:HD13	1.56	0.71
55:M5:33:ASN:OD1	55:M5:33:ASN:N	2.23	0.71
55:M5:52:LYS:NZ	55:M5:53:PRO:HA	2.03	0.71
5:4E:63:ARG:HA	5:4E:66:MET:HE2	1.73	0.71
24:3K:50:U:H3	24:3K:64:A:H61	1.37	0.71
26:1H:2597:G:O3'	58:1H:3651:HOH:O	2.07	0.71
37:88:32:TYR:CE2	37:88:133:ARG:HG3	2.26	0.71
47:I8:11:ARG:O	47:I8:14:ARG:NH2	2.24	0.71
52:N8:40:LYS:HE2	52:N8:47:PRO:HD2	1.71	0.71
20:BA:51:GLU:HA	20:BA:54:LYS:HE3	1.73	0.71
26:14:1332:G:N2	26:14:1609:A:O2'	2.23	0.71
27:1J:42:C:N3	31:49:91:ARG:NH2	2.39	0.71
37:45:22:LYS:HG2	37:45:23:GLY:HA2	1.72	0.71
6:5E:23:LYS:HD3	6:5E:61:LEU:HD21	1.73	0.71
23:2K:40:C:O2'	24:3K:35:A:O2'	2.08	0.71
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.25	0.71
26:14:2392:A:H1'	36:35:61:ARG:HH21	1.54	0.71
46:D5:30:ASN:HA	46:D5:89:PHE:HE1	1.54	0.71
1:13:14:U:OP2	58:13:1860:HOH:O	2.09	0.71
26:1H:516:C:OP1	52:N8:13:LYS:NZ	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:958:U:OP2	37:88:14:ARG:NH1	2.21	0.71
26:1H:2286:A:H2'	53:O8:31:PRO:HD3	1.72	0.71
30:31:6:VAL:HG11	30:31:119:ARG:HA	1.72	0.71
38:98:91:GLN:NE2	38:98:91:GLN:O	2.21	0.71
26:14:67:U:H3	26:14:74:A:H2	1.35	0.71
30:39:135:LYS:HB3	30:39:138:GLU:HG3	1.73	0.71
22:1K:27:G:N2	22:1K:43:C:O2	2.14	0.71
26:1H:2419:U:O4	55:Q8:29:LYS:NZ	2.13	0.71
26:1H:2887:U:H2'	26:1H:2888:C:H6	1.55	0.71
15:6A:87:ILE:HG22	15:6A:88:ARG:H	1.55	0.71
26:14:2499:C:OP2	58:14:4052:HOH:O	2.08	0.71
37:45:85:LYS:HG2	37:45:86:GLY:H	1.56	0.71
10:1I:57:LYS:HD2	10:1I:60:ARG:HH12	1.56	0.70
26:1H:2758:A:OP2	58:1H:4479:HOH:O	2.08	0.70
53:O8:9:LEU:HB3	53:O8:27:LYS:HA	1.73	0.70
6:52:7:ASN:HD22	18:9A:76:LEU:HD11	1.54	0.70
46:D5:53:ILE:HG22	46:D5:71:VAL:HG13	1.71	0.70
10:1I:48:THR:HA	10:1I:62:HIS:HB3	1.72	0.70
1:1G:1002:G:H2'	1:1G:1003:G:C8	2.26	0.70
26:14:1412:A:H2'	26:14:1413:G:C8	2.26	0.70
26:14:2420:C:N4	55:M5:31:HIS:O	2.24	0.70
31:49:97:ASP:HA	31:49:100:TRP:HD1	1.55	0.70
46:D5:30:ASN:HD22	46:D5:90:VAL:HB	1.55	0.70
26:1H:1418:G:OP1	26:1H:1588:C:O2'	2.09	0.70
26:1H:2135:A:N6	26:1H:2156:G:O2'	2.23	0.70
26:1H:2292:C:OP1	39:A8:17:ARG:NH2	2.23	0.70
6:52:23:LYS:HE3	6:52:61:LEU:HD21	1.71	0.70
26:1H:534:U:H5'	41:C8:42:ALA:HB1	1.74	0.70
26:1H:1434:A:H61	26:1H:1558:A:H61	1.39	0.70
26:1H:1918:A:O2'	26:1H:1920:C:N4	2.24	0.70
36:78:138:LEU:HD12	36:78:144:GLU:HG3	1.73	0.70
39:A8:37:ALA:HB2	39:A8:101:LEU:HD21	1.73	0.70
1:1G:501:C:H2'	1:1G:502:G:H8	1.57	0.70
1:1G:1348:U:H4'	9:82:120:ARG:HD2	1.73	0.70
26:14:2846:G:N7	58:14:3519:HOH:O	2.23	0.70
30:39:188:ARG:HA	36:35:3:LEU:HD11	1.73	0.70
17:8I:67:LYS:HA	17:8I:70:ARG:HH12	1.54	0.70
26:1H:848:G:H2'	26:1H:849:A:C8	2.26	0.70
26:1H:910:A:C5	37:88:13:GLN:HG3	2.26	0.70
26:1H:1330:C:OP1	58:1H:3963:HOH:O	2.10	0.70
26:1H:1332:G:N2	26:1H:1609:A:O2'	2.23	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1494:A:H2'	26:1H:1495:A:C8	2.27	0.70
26:14:2878:U:O4	58:14:3855:HOH:O	2.09	0.70
32:59:10:PRO:HD2	32:59:50:VAL:HG13	1.71	0.70
32:59:106:THR:HG22	32:59:112:PRO:HB3	1.73	0.70
1:13:233:C:H2'	1:13:234:C:H6	1.57	0.70
1:13:659:U:H2'	1:13:660:G:H8	1.55	0.70
7:6E:95:ARG:HH21	7:6E:99:LEU:HD11	1.55	0.70
23:2K:47:7MG:H81	23:2K:48:U:C5	2.25	0.70
26:1H:142:G:H1'	44:F8:37:THR:HG21	1.71	0.70
26:1H:1899:G:N2	26:1H:1902:C:H5	1.90	0.70
41:C8:92:ARG:NH1	41:C8:94:ASN:OD1	2.25	0.70
45:G8:94:LYS:HA	45:G8:94:LYS:HZ3	1.53	0.70
55:Q8:37:SER:HA	55:Q8:39:LYS:O	1.90	0.70
1:1G:330:C:O2	58:1G:1821:HOH:O	2.10	0.70
1:1G:1235:U:O2'	1:1G:1305:G:O5'	2.09	0.70
26:14:2331:G:O2'	47:E5:43:THR:HB	1.92	0.70
31:49:16:ARG:NH2	31:49:28:VAL:O	2.23	0.70
1:13:1391:U:H2'	1:13:1392:G:C8	2.27	0.70
26:1H:1156:A:C8	41:C8:51:LYS:HD2	2.26	0.70
26:1H:1385:G:HO2'	26:1H:1396:U:H6	1.37	0.70
26:1H:2838:G:N7	58:1H:4251:HOH:O	2.25	0.70
27:16:101:A:OP2	58:16:303:HOH:O	2.08	0.70
39:A8:48:LEU:HD23	39:A8:82:ILE:HD11	1.74	0.70
53:O8:32:ASN:OD1	53:O8:32:ASN:N	2.23	0.70
1:1G:539:A:OP2	12:3A:115:LYS:NZ	2.24	0.70
26:14:796:C:H2'	26:14:797:C:C6	2.26	0.70
26:14:2818:G:OP2	38:55:42:LYS:NZ	2.25	0.70
26:14:2837:G:N7	58:14:3851:HOH:O	2.24	0.70
51:I5:34:GLU:HG2	51:I5:35:VAL:H	1.57	0.70
1:13:1423:G:OP1	35:68:49:ARG:NH2	2.25	0.70
26:1H:76:C:O2'	49:K8:62:THR:HG21	1.91	0.70
26:1H:568:U:O4	58:1H:4553:HOH:O	2.04	0.70
26:1H:860:U:C5	26:1H:917:A:C2	2.78	0.70
26:1H:2711:A:OP2	58:1H:3670:HOH:O	2.09	0.70
49:K8:18:PRO:HA	49:K8:21:LEU:HB2	1.73	0.70
28:19:223:GLY:HA2	28:19:226:MET:HG3	1.71	0.70
45:C5:99:CYS:SG	45:C5:100:ALA:N	2.65	0.70
1:13:403:C:OP1	4:3E:137:SER:OG	2.08	0.70
1:1G:371:G:O2'	1:1G:373:A:N7	2.24	0.70
26:14:1170:G:O6	26:14:1179:C:N4	2.25	0.70
12:3I:70:ILE:HD13	12:3I:77:LEU:HD12	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:F8:2:LYS:HG2	49:K8:26:ARG:HE	1.55	0.70
26:14:154:G:O6	26:14:172:C:N4	2.24	0.70
28:19:72:LYS:NZ	28:19:99:ASP:OD2	2.22	0.70
26:1H:1858:G:O6	58:1H:4447:HOH:O	2.10	0.69
26:1H:2134:A:OP2	26:1H:2157:G:N2	2.25	0.69
1:1G:1132:C:H42	1:1G:1142:G:H1	1.40	0.69
26:14:1111:A:H4'	32:59:3:ARG:HD3	1.73	0.69
26:14:1891:G:O6	58:14:3913:HOH:O	2.04	0.69
1:13:77:C:H1'	1:13:92:G:H1	1.56	0.69
11:2I:86:GLY:N	11:2I:112:THR:OG1	2.19	0.69
26:1H:578:A:OP2	58:1H:4640:HOH:O	2.08	0.69
38:98:87:TYR:HE1	38:98:117:VAL:HG12	1.56	0.69
1:13:56:U:H4'	33:69:82:ARG:HH21	1.57	0.69
2:1E:226:ARG:HG3	2:1E:227:GLY:H	1.57	0.69
26:1H:1382:G:O6	58:1H:4567:HOH:O	2.07	0.69
26:1H:1794:U:H2'	26:1H:1795:C:C6	2.26	0.69
27:16:44:G:O2'	27:16:47:C:N4	2.25	0.69
43:E8:14:PRO:HG2	43:E8:78:GLU:HB2	1.73	0.69
43:E8:73:ALA:HB3	43:E8:106:ILE:HB	1.73	0.69
1:1G:64:G:H4'	1:1G:65:U:H5"	1.74	0.69
1:1G:957:U:H1'	1:1G:960:U:C5	2.27	0.69
2:12:91:PRO:HG3	2:12:154:LEU:HB2	1.74	0.69
26:14:424:G:O6	58:14:3828:HOH:O	2.09	0.69
27:1J:2:C:H2'	27:1J:3:C:H6	1.58	0.69
1:13:1157:A:N6	1:13:1178:G:H21	1.88	0.69
1:13:1368:G:H5"	9:8E:112:LYS:HB3	1.73	0.69
26:1H:1204:A:H61	26:1H:1240:U:H2'	1.56	0.69
51:M8:48:ARG:HA	51:M8:48:ARG:HH11	1.57	0.69
1:1G:1149:C:O2'	1:1G:1280:A:N1	2.24	0.69
18:9A:32:ARG:HD3	18:9A:65:ILE:HD11	1.73	0.69
26:14:1257:C:H4'	30:39:83:PHE:CD1	2.27	0.69
36:35:121:LYS:HG3	36:35:122:PRO:HD2	1.73	0.69
45:C5:73:ARG:NH2	45:C5:81:LYS:O	2.26	0.69
55:M5:22:VAL:HB	55:M5:53:PRO:HG3	1.74	0.69
1:13:1435:G:H2'	1:13:1436:U:C6	2.27	0.69
1:13:1508:G:OP1	58:13:1802:HOH:O	2.09	0.69
52:N8:41:PRO:HD2	52:N8:44:THR:HG21	1.74	0.69
1:1G:519:C:H2'	1:1G:520:A:O4'	1.91	0.69
26:14:1828:G:OP1	58:14:3447:HOH:O	2.10	0.69
26:14:2364:C:H4'	47:E5:56:ASP:OD1	1.91	0.69
31:49:106:LEU:HA	31:49:110:ALA:HB3	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:15:104:LYS:HA	34:15:107:LEU:HD12	1.73	0.69
1:13:111:G:H5"	16:7I:27:LYS:HG2	1.74	0.69
26:1H:2213:U:O2	48:J8:52:ARG:NH2	2.25	0.69
26:1H:2334:G:H5'	39:A8:9:ARG:HG2	1.74	0.69
32:51:74:ASN:HA	32:51:77:LYS:HD3	1.74	0.69
40:B8:64:ARG:HB2	40:B8:73:GLU:HG2	1.74	0.69
46:H8:4:ARG:NH1	46:H8:60:GLU:OE1	2.25	0.69
26:14:1021:A:H62	26:14:1141:U:H3	1.38	0.69
36:35:105:LEU:O	36:35:106:LEU:HB3	1.92	0.69
16:7I:74:LEU:HA	16:7I:77:ALA:HB2	1.75	0.69
26:1H:1678:G:H22	26:1H:1989:G:H22	1.38	0.69
55:Q8:53:PRO:HB3	55:Q8:56:GLU:H	1.58	0.69
24:3L:33:U:N3	24:3L:36:A:OP2	2.25	0.69
26:14:2210:G:H3'	26:14:2211:G:C2	2.28	0.69
26:14:2777:G:H5"	26:14:2778:A:H5'	1.75	0.69
41:85:49:HIS:HA	41:85:52:ARG:HB2	1.75	0.69
1:13:523:A:H61	12:3I:92:ASP:HB2	1.55	0.69
1:13:1160:G:H22	1:13:1177:G:H22	1.40	0.69
20:BI:26:ASN:O	20:BI:30:LYS:HB2	1.93	0.69
26:1H:280:C:N3	26:1H:361:G:N2	2.41	0.69
26:1H:323:G:C8	30:31:171:PRO:HG3	2.28	0.69
26:1H:760:G:OP1	58:1H:3829:HOH:O	2.09	0.69
26:1H:2031:A:O2'	26:1H:2454:G:N2	2.26	0.69
26:1H:2210:G:H3'	26:1H:2211:G:C8	2.28	0.69
27:16:44:G:H1'	27:16:47:C:H42	1.58	0.69
27:16:100:G:OP1	58:16:315:HOH:O	2.09	0.69
32:51:15:VAL:HG12	32:51:28:GLY:HA3	1.73	0.69
33:61:8:PRO:HA	33:61:14:ASP:HA	1.73	0.69
45:G8:55:TYR:HB2	45:G8:58:GLY:HA3	1.75	0.69
1:1G:979:C:H5	1:1G:980:C:C6	2.11	0.69
1:1G:1132:C:N3	1:1G:1142:G:N2	2.40	0.69
2:12:178:ARG:NH1	2:12:196:LEU:O	2.20	0.69
26:14:802:A:H4'	58:14:3622:HOH:O	1.93	0.69
26:14:1757:U:H3	26:14:1762:A:H2	1.39	0.69
26:14:2689:U:P	26:14:2719:G:H22	2.14	0.69
30:39:79:GLY:HA2	30:39:86:GLY:HA2	1.74	0.69
43:A5:62:HIS:HB2	43:A5:64:MET:HG3	1.75	0.69
39:A8:24:LEU:HB2	39:A8:85:VAL:HG12	1.75	0.69
1:1G:1286:A:H5'	21:1B:25:LYS:HZ3	1.58	0.69
5:42:9:LYS:HB2	5:42:112:LEU:HD11	1.74	0.69
30:39:28:ILE:HA	30:39:112:MET:HG2	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:504:C:OP1	58:13:1883:HOH:O	2.11	0.69
1:13:560:U:O2'	1:13:561:U:OP2	2.11	0.69
1:13:1302:U:OP2	13:4I:21:TYR:OH	2.08	0.69
33:61:131:LYS:HB3	33:61:132:PRO:HA	1.74	0.69
37:88:75:THR:HG21	37:88:85:LYS:HD2	1.73	0.69
26:14:1187:G:OP2	58:14:3586:HOH:O	2.10	0.69
2:1E:100:GLY:O	2:1E:104:ASN:N	2.25	0.68
16:7I:50:LYS:HD3	16:7I:51:VAL:H	1.58	0.68
22:1K:37:MIA:H112	22:1K:38:A:H1'	1.75	0.68
22:1K:76:A:H2	26:1H:2602:A:H2	1.40	0.68
26:1H:2233:U:H2'	26:1H:2234:G:C8	2.28	0.68
26:1H:2249:U:O4	58:1H:3724:HOH:O	2.10	0.68
46:H8:152:ALA:HB3	46:H8:167:PRO:HA	1.73	0.68
1:1G:114:U:H2'	1:1G:115:G:C8	2.28	0.68
1:1G:345:C:H1'	1:1G:346:G:C2	2.28	0.68
16:7A:11:SER:H	16:7A:14:ASN:HB3	1.57	0.68
26:14:973:A:OP2	58:14:4004:HOH:O	2.09	0.68
43:A5:14:PRO:HG2	43:A5:78:GLU:HG3	1.73	0.68
9:8E:49:PRO:HA	9:8E:52:ALA:HB3	1.74	0.68
26:1H:2469:A:H2	26:1H:2481:G:H21	1.41	0.68
37:88:104:PHE:HE2	37:88:125:LEU:HD11	1.58	0.68
43:E8:24:ILE:HG12	43:E8:36:LEU:HD21	1.74	0.68
1:1G:452:A:O2'	1:1G:453:A:O4'	2.07	0.68
13:4A:82:MET:HG2	13:4A:83:ASP:N	2.09	0.68
20:BA:26:ASN:HD22	20:BA:71:THR:HA	1.58	0.68
26:14:2061:G:OP2	58:14:4027:HOH:O	2.10	0.68
30:39:88:VAL:HG23	30:39:89:VAL:O	1.93	0.68
49:G5:47:ASN:O	49:G5:49:LYS:N	2.25	0.68
1:13:1159:U:O4'	1:13:1182:G:N2	2.26	0.68
17:8I:81:ARG:NH2	17:8I:83:ASP:OD2	2.26	0.68
26:1H:2027:G:N7	58:1H:4063:HOH:O	2.25	0.68
40:B8:16:ARG:HE	40:B8:19:LEU:HD21	1.58	0.68
48:J8:18:ILE:HG13	48:J8:37:ILE:HG23	1.75	0.68
2:12:212:GLN:HE22	2:12:216:SER:HB2	1.58	0.68
26:14:96:G:H4'	49:G5:48:HIS:CE1	2.28	0.68
26:14:943:U:OP2	36:35:36:LYS:HG3	1.93	0.68
31:49:109:VAL:HG11	31:49:142:PRO:HG3	1.75	0.68
37:45:25:ASP:HB3	37:45:102:VAL:HG23	1.73	0.68
45:C5:76:CYS:SG	45:C5:97:ARG:HG3	2.33	0.68
10:1I:61:GLU:OE1	14:5I:58:LYS:NZ	2.27	0.68
26:1H:566:U:OP1	36:78:29:LYS:NZ	2.22	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:625:G:N7	36:78:107:LYS:NZ	2.42	0.68
26:1H:1188:U:H4'	42:D8:79:VAL:HG22	1.76	0.68
28:11:30:GLU:HB3	28:11:33:LEU:HB2	1.74	0.68
44:F8:36:LYS:HG2	44:F8:54:VAL:HB	1.75	0.68
1:1G:631:G:H3'	1:1G:632:A:H8	1.57	0.68
19:AA:38:SER:HB2	19:AA:71:LEU:HG	1.74	0.68
26:14:792:G:O6	58:14:3469:HOH:O	2.06	0.68
26:14:1678:G:H22	26:14:1989:G:N2	1.92	0.68
16:7I:47:ASP:N	16:7I:47:ASP:OD1	2.24	0.68
26:1H:2126:A:N6	26:1H:2163:C:O2	2.26	0.68
1:1G:554:C:H2'	1:1G:555:C:C6	2.28	0.68
13:4A:60:VAL:HG13	13:4A:64:TRP:HE1	1.58	0.68
34:15:13:TRP:O	34:15:135:PRO:HD2	1.94	0.68
35:25:47:ILE:HG13	35:25:48:PRO:HD2	1.76	0.68
40:75:56:GLY:O	40:75:59:THR:HG23	1.92	0.68
26:1H:2287:A:N6	26:1H:2344:U:H3	1.92	0.68
28:11:136:ILE:O	28:11:168:ARG:NH2	2.27	0.68
40:B8:58:ASN:C	40:B8:58:ASN:HD22	2.02	0.68
45:G8:76:CYS:O	45:G8:78:ALA:N	2.27	0.68
1:1G:1154:G:H2'	1:1G:1155:G:H8	1.58	0.68
26:14:309:G:N3	26:14:329:G:O2'	2.27	0.68
26:14:2392:A:H2	26:14:2424:C:N4	1.91	0.68
37:45:21:THR:HG22	37:45:23:GLY:HA3	1.75	0.68
37:45:57:HIS:NE2	37:45:116:GLU:HB3	2.08	0.68
52:J5:20:ARG:HG2	52:J5:23:HIS:CD2	2.28	0.68
26:1H:71:A:H2	44:F8:31:HIS:HE1	1.40	0.68
26:1H:850:C:O3'	50:L8:49:LYS:NZ	2.26	0.68
26:1H:1857:G:N7	58:1H:4448:HOH:O	2.26	0.68
32:51:83:TYR:HB3	32:51:135:GLY:N	2.08	0.68
40:B8:26:ASP:CB	40:B8:92:GLY:H	2.06	0.68
1:1G:664:G:H22	1:1G:741:G:H1	1.42	0.68
30:39:117:ARG:HH12	36:35:1:MET:H2	1.39	0.68
38:55:20:LEU:HD21	38:55:40:LYS:HD3	1.74	0.68
26:1H:1678:G:N2	26:1H:1989:G:H22	1.92	0.68
26:1H:1771:C:OP2	58:1H:3986:HOH:O	2.12	0.68
26:1H:2313:C:H4'	31:41:91:ARG:HG3	1.74	0.68
31:41:67:LYS:HE2	51:M8:6:HIS:CE1	2.29	0.68
32:51:113:VAL:HG11	32:51:151:ILE:HD13	1.76	0.68
36:78:1:MET:HE2	36:78:6:LEU:HD13	1.75	0.68
26:14:674:G:OP2	58:14:3905:HOH:O	2.10	0.68
26:14:2750:A:OP2	32:59:6:ARG:NH2	2.27	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:G5:17:SER:N	49:G5:20:GLU:OE2	2.26	0.68
23:2K:54:G:H2'	23:2K:55:5MU:H6	1.57	0.68
26:1H:810:U:OP1	58:1H:3711:HOH:O	2.11	0.68
26:1H:879:G:O6	26:1H:898:C:N4	2.26	0.68
28:11:182:LEU:H	28:11:272:ALA:HB3	1.58	0.68
37:88:5:ARG:H	37:88:5:ARG:HD3	1.59	0.68
54:P8:9:ARG:NH2	54:P8:47:ARG:HD2	2.07	0.68
1:1G:1130:A:H62	1:1G:1144:G:H21	1.40	0.68
23:2L:24:C:H2'	23:2L:25:U:C6	2.28	0.68
26:14:67:U:H2'	26:14:68:G:H8	1.58	0.68
26:14:71:A:H2	44:B5:31:HIS:HE2	1.42	0.68
26:14:2157:G:HO2'	26:14:2158:A:H8	1.39	0.68
46:D5:69:THR:HG22	46:D5:90:VAL:HG22	1.76	0.68
1:1G:978:A:O2'	1:1G:1322:C:N3	2.27	0.68
9:82:128:ARG:NH1	23:2L:36:A:OP2	2.27	0.68
12:3A:117:ARG:HB3	12:3A:122:THR:HB	1.76	0.68
22:1L:76:A:H62	26:14:2583:G:H21	1.41	0.68
26:14:1300:U:OP1	58:14:4093:HOH:O	2.12	0.68
26:14:1778:U:H2'	26:14:1784:A:N6	2.09	0.68
26:14:1890:A:OP2	58:14:3912:HOH:O	2.12	0.68
26:14:2228:G:O6	58:14:4035:HOH:O	2.12	0.68
26:14:2720:U:N3	26:14:2873:A:H2	1.90	0.68
1:13:287:U:H2'	1:13:288:A:H8	1.57	0.67
1:13:1422:G:H5"	35:68:48:PRO:HB3	1.75	0.67
20:BI:43:LEU:HD13	20:BI:51:GLU:HB3	1.75	0.67
26:1H:376:C:OP1	58:1H:3754:HOH:O	2.12	0.67
26:1H:836:G:H5"	26:1H:837:C:OP2	1.94	0.67
26:14:1188:U:O2'	26:14:1189:A:H5'	1.93	0.67
26:14:1849:G:H2'	26:14:1850:G:H8	1.60	0.67
26:14:2445:G:N7	58:14:4029:HOH:O	2.26	0.67
26:1H:299:A:H5'	26:1H:300:A:OP2	1.94	0.67
26:1H:376:C:OP2	58:1H:3750:HOH:O	2.12	0.67
26:1H:1253:A:N7	58:1H:3710:HOH:O	2.27	0.67
28:11:181:GLU:HA	28:11:272:ALA:HB3	1.75	0.67
29:21:120:TRP:CD2	29:21:155:LYS:HD3	2.29	0.67
1:1G:538:G:H5"	12:3A:114:LYS:HB2	1.77	0.67
2:12:19:HIS:NE2	2:12:205:ASP:OD1	2.25	0.67
2:12:144:ARG:HH21	2:12:148:TYR:HD2	1.43	0.67
26:14:1828:G:OP2	58:14:3421:HOH:O	2.12	0.67
26:14:2709:G:N3	58:14:3434:HOH:O	2.27	0.67
36:35:57:THR:HB	36:35:60:MET:HB2	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1305:G:N2	1:13:1331:G:H2'	2.09	0.67
26:1H:2364:C:H4'	47:I8:56:ASP:OD1	1.95	0.67
30:39:4:VAL:HA	30:39:19:GLU:HB3	1.77	0.67
1:13:156:G:H1	1:13:165:C:H42	1.42	0.67
20:BI:53:LEU:HD12	20:BI:56:MET:HE2	1.77	0.67
22:1K:76:A:H8	26:1H:2507:C:H1'	1.58	0.67
26:1H:1697:G:OP2	26:1H:1698:A:O2'	2.07	0.67
26:1H:2074:U:P	58:1H:4530:HOH:O	2.53	0.67
33:61:110:ASP:HB2	33:61:112:LYS:H	1.59	0.67
43:E8:60:ASN:HD22	43:E8:60:ASN:N	1.90	0.67
1:1G:513:C:H42	1:1G:538:G:H1	1.40	0.67
26:14:34:C:HO2'	26:14:35:G:P	2.16	0.67
26:14:1784:A:H5"	58:14:4067:HOH:O	1.93	0.67
4:3E:167:GLY:HA2	28:19:135:PHE:HE1	1.60	0.67
26:1H:155:C:H42	26:1H:171:G:H1	1.40	0.67
26:1H:751:A:OP1	58:1H:3922:HOH:O	2.11	0.67
26:1H:2262:U:OP1	26:1H:2387:U:O2'	2.10	0.67
26:1H:2287:A:H62	26:1H:2344:U:H3	1.39	0.67
46:H8:63:ASP:OD2	46:H8:65:GLN:NE2	2.27	0.67
1:1G:793:U:OP1	58:1G:1859:HOH:O	2.10	0.67
1:1G:1306:A:N6	1:1G:1331:G:O2'	2.27	0.67
26:14:2688:U:H5	26:14:2720:U:OP2	1.77	0.67
46:D5:17:ALA:HA	46:D5:20:ARG:HD2	1.76	0.67
1:13:405:U:O4	4:3E:2:GLY:N	2.28	0.67
1:13:624:C:O3'	16:7I:10:GLY:HA2	1.93	0.67
1:13:1348:U:H4'	9:8E:120:ARG:HD2	1.74	0.67
26:1H:2410:G:N7	58:1H:3729:HOH:O	2.28	0.67
37:88:72:LYS:HB3	37:88:94:VAL:HG23	1.75	0.67
40:B8:56:GLY:O	40:B8:59:THR:HG22	1.94	0.67
45:G8:76:CYS:SG	45:G8:97:ARG:HG2	2.35	0.67
50:L8:38:GLU:CD	50:L8:38:GLU:H	2.01	0.67
1:1G:963:G:N3	10:1A:55:LYS:NZ	2.41	0.67
9:82:53:VAL:HG22	9:82:95:LYS:HZ2	1.59	0.67
26:14:1047:G:H2'	26:14:1110:G:H1	1.58	0.67
26:14:1406:U:H6	26:14:1406:U:H5"	1.58	0.67
1:13:353:A:H8	1:13:353:A:H5'	1.58	0.67
1:13:395:C:N4	58:13:1901:HOH:O	2.28	0.67
12:3I:90:VAL:HG12	12:3I:92:ASP:H	1.59	0.67
26:1H:587:C:O2	36:78:33:ARG:NH1	2.27	0.67
26:1H:1517:G:H5"	26:1H:1518:C:OP2	1.94	0.67
26:1H:1646:C:O3'	58:1H:3926:HOH:O	2.13	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1997:G:H5"	58:1H:4005:HOH:O	1.94	0.67
33:61:110:ASP:HB2	33:61:112:LYS:HG2	1.76	0.67
1:1G:186(A):C:H5"	20:BA:86:ARG:HH21	1.59	0.67
1:1G:625:G:H2'	1:1G:626:U:H6	1.60	0.67
24:3L:76:A:H8	26:14:2394:C:H42	1.38	0.67
26:14:305:U:H2'	26:14:306:U:C6	2.29	0.67
26:14:1130:U:O2	29:29:149:ARG:NH2	2.27	0.67
26:14:1971:A:OP1	58:14:3452:HOH:O	2.12	0.67
31:49:124:SER:HB2	31:49:131:TYR:CE2	2.30	0.67
36:35:11:GLY:C	36:35:13:ASN:H	2.01	0.67
1:13:1182:G:H4'	1:13:1183:A:H5"	1.74	0.67
1:13:1266:G:N7	58:13:2005:HOH:O	2.27	0.67
22:1K:51:U:H2'	22:1K:52:G:H8	1.59	0.67
26:1H:1418:G:OP2	58:1H:4023:HOH:O	2.10	0.67
26:1H:1510:A:O2'	26:1H:1512:G:N7	2.27	0.67
26:1H:2690:C:H5"	26:1H:2872:G:H21	1.60	0.67
35:68:63:VAL:HG12	35:68:106:LEU:HD11	1.75	0.67
53:O8:10:LEU:HD23	55:Q8:32:LEU:HD22	1.76	0.67
6:52:81:ILE:HD11	28:19:125:ILE:HG12	1.77	0.67
26:14:1416:G:O2'	26:14:1417:C:O5'	2.12	0.67
26:14:2286:A:H2'	53:K5:28:ARG:HH21	1.60	0.67
46:D5:4:ARG:HA	46:D5:58:VAL:HB	1.76	0.67
1:13:272:C:H2'	1:13:273:A:C8	2.28	0.67
1:13:1216:G:OP2	58:13:1998:HOH:O	2.11	0.67
3:2E:84:ILE:HG13	3:2E:101:LEU:HD22	1.75	0.67
26:1H:1633:G:OP2	58:1H:4371:HOH:O	2.12	0.67
1:1G:1503:A:N3	25:4L:13:A:N6	2.42	0.67
10:1A:40:LEU:HG	10:1A:41:PRO:HD2	1.75	0.67
24:3L:71:G:O2'	26:14:1851:U:O2'	2.01	0.67
26:14:987:G:O2'	26:14:1000:A:N3	2.28	0.67
26:14:1024:G:H3'	26:14:1025:G:H5"	1.77	0.67
26:14:1226:G:OP1	42:95:69:LYS:NZ	2.26	0.67
27:1J:13:A:H5"	27:1J:15:A:C6	2.29	0.67
38:55:33:ARG:NH2	38:55:115:GLU:OE2	2.26	0.67
38:55:74:LYS:HE3	38:55:77:ARG:HH21	1.59	0.67
38:55:86:ARG:NH2	38:55:87:TYR:OH	2.27	0.67
1:13:417:C:H2'	1:13:418:C:H6	1.60	0.67
13:4I:3:ARG:HE	13:4I:9:ILE:HD11	1.60	0.67
26:1H:1657:C:OP2	29:21:136:ARG:HG3	1.94	0.67
26:1H:2074:U:OP1	58:1H:4530:HOH:O	2.12	0.67
26:1H:2788:C:O2'	26:1H:2809:A:N3	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:31:127:GLU:HG2	30:31:196:LEU:HB2	1.75	0.67
37:88:21:THR:HG22	37:88:99:PRO:O	1.95	0.67
1:1G:1126:U:H4'	1:1G:1127:G:N7	2.10	0.67
3:22:87:LEU:HA	3:22:90:GLU:HG2	1.76	0.67
26:14:399:G:OP2	58:14:4118:HOH:O	2.12	0.67
26:14:1419:A:H2'	26:14:1421:G:N7	2.09	0.67
26:14:1754:C:H2'	26:14:1755:A:C8	2.29	0.67
45:C5:48:ALA:HB3	45:C5:59:GLY:C	2.20	0.67
1:13:490:G:OP2	4:3E:132:ARG:NH2	2.26	0.66
11:2I:98:LEU:O	11:2I:101:SER:OG	2.11	0.66
26:1H:1509:C:H2'	26:1H:1511:A:C8	2.29	0.66
29:21:105:THR:HG21	29:21:164:ARG:NH1	2.10	0.66
49:K8:32:LEU:HD11	49:K8:54:LYS:HG2	1.75	0.66
55:Q8:25:MET:HE3	55:Q8:46:ARG:HH11	1.58	0.66
1:1G:310:G:OP2	16:7A:27:LYS:NZ	2.21	0.66
1:1G:1127:G:H22	1:1G:1144:G:H1	1.43	0.66
5:42:122:GLU:O	5:42:126:ARG:NH1	2.28	0.66
26:14:2598:A:OP1	58:14:4081:HOH:O	2.12	0.66
26:1H:731:C:OP2	58:1H:3689:HOH:O	2.13	0.66
29:21:27:LEU:HD22	40:B8:1:MET:HE1	1.77	0.66
37:88:12:GLN:HG2	37:88:73:PRO:HD2	1.76	0.66
19:AA:9:VAL:HG13	51:I5:63:TYR:HE1	1.59	0.66
26:1H:446:G:OP2	58:1H:3702:HOH:O	2.13	0.66
26:1H:567:A:OP1	58:1H:3601:HOH:O	2.13	0.66
26:1H:1298:C:H5"	26:1H:1299:G:OP2	1.96	0.66
1:13:1118:C:H1'	1:13:1179:A:C4	2.31	0.66
6:5E:38:GLU:OE1	6:5E:64:GLN:NE2	2.27	0.66
15:6I:6:GLU:CD	15:6I:6:GLU:H	2.04	0.66
26:1H:138:G:N2	44:F8:44:GLU:OE2	2.22	0.66
26:1H:298:G:P	45:G8:84:ARG:HH12	2.18	0.66
26:1H:1636:C:OP2	58:1H:3609:HOH:O	2.13	0.66
39:A8:88:ASP:O	39:A8:89:ARG:HB3	1.95	0.66
46:H8:17:ALA:HA	46:H8:20:ARG:HB2	1.78	0.66
1:1G:411:A:C5	1:1G:413:G:H1'	2.31	0.66
1:1G:957:U:H1'	1:1G:960:U:H5	1.61	0.66
26:14:760:G:OP1	58:14:4111:HOH:O	2.12	0.66
26:14:1111:A:H4'	32:59:3:ARG:HH11	1.61	0.66
30:39:123:LEU:O	30:39:125:LEU:N	2.27	0.66
36:35:125:VAL:O	36:35:144:GLU:HB3	1.96	0.66
26:1H:991:C:H2'	26:1H:992:C:H6	1.61	0.66
26:1H:1021:A:H62	26:1H:1141:U:H3	1.43	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2492:U:H2'	26:1H:2493:U:H6	1.58	0.66
33:61:7:GLU:HA	33:61:15:VAL:HG22	1.76	0.66
26:14:1443:G:N7	58:14:3772:HOH:O	2.28	0.66
26:14:2873:A:H8	38:55:6:SER:N	1.92	0.66
47:E5:49:LYS:HG3	47:E5:80:HIS:HB3	1.77	0.66
55:M5:34:TRP:CD1	55:M5:35:GLN:H	2.13	0.66
26:1H:1438:U:H2'	26:1H:1439:A:C8	2.30	0.66
29:21:70:ALA:O	29:21:73:GLU:N	2.29	0.66
31:41:131:TYR:O	31:41:159:VAL:HG22	1.96	0.66
22:1L:74:C:H1'	22:1L:75:C:H5'	1.76	0.66
26:14:2598:A:OP1	58:14:4079:HOH:O	2.11	0.66
33:69:76:THR:HG21	33:69:140:LEU:HD12	1.77	0.66
35:25:68:GLU:HB3	35:25:78:ARG:HD3	1.77	0.66
38:55:38:VAL:HG12	38:55:42:LYS:HD2	1.77	0.66
1:13:143:A:H2	1:13:220:G:H1	1.43	0.66
26:1H:250:G:H2'	26:1H:251:A:C8	2.31	0.66
26:1H:1153:C:OP2	58:1H:4003:HOH:O	2.12	0.66
26:1H:1165:U:H2'	26:1H:1166:C:C6	2.31	0.66
39:A8:14:VAL:HG21	39:A8:89:ARG:HE	1.59	0.66
43:E8:70:TYR:HD1	43:E8:70:TYR:H	1.44	0.66
49:K8:15:LYS:H	49:K8:67:LYS:NZ	1.94	0.66
26:14:1949:G:O6	58:14:3816:HOH:O	2.10	0.66
26:14:2080:G:H5'	48:F5:35:THR:OG1	1.95	0.66
33:69:70:GLU:O	33:69:74:ASN:ND2	2.28	0.66
1:13:630:G:N2	58:13:1982:HOH:O	2.28	0.66
26:1H:1257:C:H4'	30:31:83:PHE:CE1	2.31	0.66
26:1H:1332:G:N2	26:1H:1610:A:C8	2.64	0.66
26:1H:2659:G:H4'	32:51:175:LYS:HD2	1.77	0.66
26:1H:2701:C:H2'	26:1H:2702:U:H2'	1.77	0.66
29:21:82:ARG:O	29:21:84:PHE:N	2.28	0.66
48:J8:87:PRO:HA	48:J8:90:ILE:HG13	1.78	0.66
55:Q8:53:PRO:HA	55:Q8:54:GLU:C	2.21	0.66
24:3L:56:C:H5'	26:14:2169:A:C8	2.30	0.66
26:14:531:C:H4'	26:14:532:A:H5"	1.78	0.66
26:14:900:A:H3'	26:14:901:A:H8	1.61	0.66
26:14:1225:C:O2'	42:95:85:LYS:N	2.28	0.66
29:29:65:GLY:O	29:29:67:PHE:N	2.27	0.66
39:65:34:HIS:NE2	39:65:54:LEU:HD13	2.11	0.66
40:75:85:LYS:NZ	40:75:87:ASP:OD2	2.24	0.66
51:I5:48:ARG:HH22	51:I5:51:ASP:HB3	1.61	0.66
1:13:1160:G:H1	1:13:1177:G:H22	1.44	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1429:C:H2'	1:13:1430:C:C6	2.31	0.66
26:1H:1331:A:O3'	58:1H:4559:HOH:O	2.13	0.66
26:1H:1334:G:OP2	58:1H:3955:HOH:O	2.14	0.66
26:1H:1693:U:H1'	28:11:14:ARG:NH2	2.11	0.66
26:1H:2701:C:H3'	26:1H:2702:U:H5"	1.78	0.66
32:51:54:ARG:HD3	32:51:65:HIS:ND1	2.11	0.66
10:1A:48:THR:HA	10:1A:62:HIS:HB3	1.76	0.66
26:14:39:C:O2	30:39:46:ARG:NH2	2.29	0.66
26:14:1599:C:H2'	26:14:1600:C:H6	1.59	0.66
43:A5:13:SER:HB3	43:A5:16:LYS:HD2	1.78	0.66
1:13:376:G:O3'	16:7I:5:ARG:NH1	2.29	0.66
26:1H:213:A:OP2	58:1H:4290:HOH:O	2.14	0.66
45:G8:81:LYS:HB3	45:G8:82:PRO:HA	1.78	0.66
51:M8:65:ASP:OD1	51:M8:65:ASP:N	2.28	0.66
5:42:70:PRO:HB3	5:42:144:THR:HG22	1.77	0.66
17:8A:5:VAL:HG22	17:8A:60:ILE:HG12	1.78	0.66
26:14:987:G:OP2	58:14:4040:HOH:O	2.14	0.66
26:14:1464:C:HO2'	26:14:1528:A:H8	1.41	0.66
40:75:77:PRO:HG2	40:75:80:SER:HB2	1.77	0.66
46:D5:152:ALA:HB3	46:D5:167:PRO:HA	1.78	0.66
51:I5:11:PRO:HA	51:I5:25:TYR:HA	1.77	0.66
1:13:627:G:H2'	1:13:628:G:H8	1.61	0.65
1:13:835:U:H3	1:13:851:G:H1	1.44	0.65
19:AI:39:THR:HG22	19:AI:40:ILE:H	1.60	0.65
22:1K:76:A:H2	26:1H:2602:A:C2	2.13	0.65
26:1H:570:G:OP2	58:1H:3873:HOH:O	2.12	0.65
26:1H:770:G:OP2	58:1H:4400:HOH:O	2.13	0.65
26:1H:1671:U:OP2	58:1H:3665:HOH:O	2.13	0.65
26:1H:2165:G:N7	26:1H:2166:G:N2	2.44	0.65
39:A8:28:VAL:HG11	39:A8:98:VAL:HG12	1.77	0.65
55:Q8:6:THR:H	55:Q8:59:LYS:HE3	1.60	0.65
2:12:70:PHE:O	2:12:93:VAL:N	2.20	0.65
4:32:8:VAL:HA	4:32:11:LEU:HD12	1.78	0.65
4:32:24:GLU:N	4:32:24:GLU:OE2	2.28	0.65
26:14:780:G:H21	26:14:783:A:H62	1.44	0.65
26:14:1079:C:N4	26:14:1088:A:OP1	2.29	0.65
36:35:113:LYS:HD3	36:35:115:LEU:HD21	1.78	0.65
40:75:20:PRO:HD2	40:75:86:ILE:HG23	1.78	0.65
1:13:1062:U:H2'	1:13:1063:C:C6	2.30	0.65
10:1I:46:ARG:NH2	10:1I:64:GLU:OE1	2.29	0.65
26:1H:2789:C:O2	26:1H:2894:G:N2	2.28	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:31:67:GLN:HG3	30:31:67:GLN:O	1.96	0.65
45:G8:87:LYS:O	45:G8:94:LYS:HB2	1.95	0.65
1:1G:1145:C:O2'	1:1G:1146:A:N7	2.29	0.65
13:4A:66:LEU:HA	13:4A:70:LEU:HB2	1.77	0.65
20:BA:64:ASP:OD2	20:BA:81:LYS:NZ	2.20	0.65
26:14:1847:A:H8	26:14:1847:A:OP1	1.79	0.65
27:1J:6:C:H2'	27:1J:7:G:H5"	1.78	0.65
37:45:75:THR:HB	37:45:86:GLY:HA3	1.78	0.65
1:13:191(F):U:H2'	1:13:191:G:H8	1.61	0.65
1:13:292:G:N7	1:13:293:G:H1'	2.12	0.65
1:13:396:G:O2'	1:13:398:C:OP1	2.09	0.65
22:1K:14:A:N6	22:1K:22:G:N3	2.44	0.65
26:1H:1056:G:H21	26:1H:1103:A:H62	1.44	0.65
26:1H:1586:A:H3'	26:1H:1587:A:H8	1.60	0.65
32:51:6:ARG:HB3	32:51:65:HIS:CG	2.32	0.65
55:Q8:7:HIS:ND1	55:Q8:7:HIS:O	2.29	0.65
26:14:270(Q):C:H5"	33:69:45:LYS:HE3	1.78	0.65
26:14:1073:A:OP2	26:14:1094:U:N3	2.29	0.65
26:14:1864:U:OP1	26:14:2410:G:O2'	2.14	0.65
1:13:191(F):U:H2'	1:13:191:G:C8	2.31	0.65
5:4E:142:LEU:O	5:4E:143:ARG:NH1	2.28	0.65
26:1H:453:C:OP1	58:1H:3896:HOH:O	2.15	0.65
34:58:56:ASN:N	34:58:125:GLY:O	2.15	0.65
51:M8:52:THR:OG1	51:M8:53:GLU:N	2.29	0.65
1:1G:940:C:H2'	1:1G:941:G:C8	2.32	0.65
5:42:143:ARG:NH1	8:72:77:GLU:OE2	2.26	0.65
34:15:47:ALA:HB2	34:15:112:LEU:HD21	1.78	0.65
36:35:47:ASP:OD2	36:35:50:ARG:NH1	2.29	0.65
1:13:926:G:H5'	1:13:927:G:O5'	1.96	0.65
4:3E:22:LYS:HB2	4:3E:26:CYS:SG	2.37	0.65
4:3E:88:VAL:HB	4:3E:91:SER:HB2	1.78	0.65
26:1H:646:A:H2'	26:1H:647:G:O4'	1.96	0.65
26:1H:1024:G:H3'	26:1H:1025:G:H5"	1.78	0.65
26:1H:2849:U:H4'	26:1H:2868:A:C2	2.32	0.65
32:51:4:ILE:HG21	32:51:6:ARG:NH1	2.12	0.65
49:K8:5:GLU:HA	49:K8:5:GLU:OE2	1.93	0.65
1:1G:359:U:H2'	1:1G:360:A:C8	2.31	0.65
26:14:910:A:C5	37:45:13:GLN:HG3	2.31	0.65
1:13:407:G:OP1	4:3E:115:ARG:NH1	2.30	0.65
1:13:859:A:H2'	1:13:860:A:H8	1.60	0.65
1:13:1352:C:H2'	1:13:1353:G:C8	2.31	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:97:LYS:HB2	9:8E:102:LEU:HD12	1.79	0.65
24:3K:22:G:N7	24:3K:46:G:N2	2.45	0.65
26:1H:187:G:N7	58:1H:4406:HOH:O	2.29	0.65
26:1H:1386:C:H2'	26:1H:1387:C:C6	2.31	0.65
26:1H:2032:G:H21	29:21:146:THR:HG23	1.61	0.65
40:B8:3:ARG:O	40:B8:7:ILE:N	2.27	0.65
8:72:29:SER:HB3	8:72:32:LYS:HG3	1.77	0.65
26:14:2681:C:H5	26:14:2725:A:H62	1.42	0.65
26:14:2718:G:N7	58:14:3760:HOH:O	2.29	0.65
40:75:98:LYS:HB3	40:75:100:TYR:CE2	2.31	0.65
5:4E:91:LEU:HD12	5:4E:120:THR:HG22	1.79	0.65
26:1H:731:C:H5"	58:1H:3827:HOH:O	1.96	0.65
26:1H:2837:G:N7	58:1H:4253:HOH:O	2.28	0.65
26:1H:2887:U:H2'	26:1H:2888:C:C6	2.31	0.65
32:51:12:PRO:HG2	32:51:13:LYS:HG2	1.78	0.65
33:61:144:VAL:HG22	33:61:145:VAL:HG23	1.79	0.65
4:32:156:GLU:HA	4:32:159:ARG:HD2	1.78	0.65
26:14:1211:U:OP1	26:14:1211:U:H2'	1.97	0.65
26:14:2150:U:H2'	26:14:2151:G:H8	1.62	0.65
48:F5:14:VAL:HG11	48:F5:39:LYS:HD3	1.79	0.65
23:2K:3:C:H42	23:2K:71:G:H1	1.44	0.65
26:1H:439:G:O6	58:1H:4674:HOH:O	2.10	0.65
26:1H:945:A:N3	58:1H:3865:HOH:O	2.28	0.65
26:1H:1253:A:C8	58:1H:3713:HOH:O	2.48	0.65
26:1H:1889:A:N1	26:1H:2234:G:H1'	2.12	0.65
26:1H:2263:C:OP2	58:1H:4140:HOH:O	2.14	0.65
28:11:108:PRO:HG3	28:11:143:HIS:CE1	2.31	0.65
55:Q8:49:VAL:HG12	55:Q8:52:LYS:CB	2.27	0.65
1:1G:1179:A:H4'	9:82:103:THR:HA	1.78	0.65
1:1G:1316:G:N2	1:1G:1319:A:H5"	2.11	0.65
4:32:31:CYS:C	4:32:33:MET:N	2.54	0.65
13:4A:37:THR:O	13:4A:55:ARG:NH2	2.29	0.65
26:14:2615:U:C2	52:J5:7:PRO:HA	2.32	0.65
29:29:8:LYS:HB3	29:29:193:GLY:H	1.62	0.65
46:D5:60:GLU:HA	46:D5:66:SER:HA	1.78	0.65
1:13:74:C:N4	1:13:96:G:H1	1.93	0.65
1:13:339:C:OP2	35:68:97:ARG:NH1	2.28	0.65
1:13:505:G:OP1	58:13:1880:HOH:O	2.14	0.65
1:13:649:G:H2'	1:13:650:G:H8	1.62	0.65
1:13:974:A:OP2	14:5I:41:ARG:NH1	2.30	0.65
14:5I:9:LYS:HA	14:5I:12:ARG:HG2	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1377:G:OP2	58:1H:4125:HOH:O	2.15	0.65
26:1H:2331:G:O3'	47:I8:43:THR:HG22	1.95	0.65
30:31:160:ASN:OD1	30:31:163:VAL:HG23	1.96	0.65
32:51:149:ARG:HA	32:51:162:ILE:HG21	1.78	0.65
5:42:82:VAL:HG12	5:42:89:ILE:HG22	1.77	0.65
19:AA:63:THR:OG1	19:AA:65:ASN:O	2.15	0.65
26:14:2836:U:H2'	26:14:2837:G:C8	2.32	0.65
1:13:963:G:H21	10:1I:55:LYS:HE2	1.62	0.65
26:1H:270(L):U:H3	33:61:50:ARG:HG2	1.62	0.65
26:1H:779:U:OP1	28:11:49:ILE:HG13	1.95	0.65
26:1H:847:U:OP2	58:1H:3755:HOH:O	2.14	0.65
26:1H:1164:G:H2'	26:1H:1165:U:H6	1.60	0.65
36:78:13:ASN:ND2	36:78:15:ARG:HD3	2.12	0.65
38:98:63:ARG:HB2	38:98:80:PHE:HE2	1.62	0.65
1:1G:555:C:H2'	1:1G:556:C:C6	2.32	0.65
10:1A:51:ARG:HB2	10:1A:60:ARG:HA	1.78	0.65
26:14:38:A:H1'	30:39:48:THR:HB	1.77	0.65
26:14:801:G:OP2	58:14:3736:HOH:O	2.14	0.65
26:14:1945:G:H2'	26:14:1946:U:H6	1.61	0.65
26:14:2064:C:H2'	26:14:2065:C:C6	2.32	0.65
26:14:2453:A:H61	26:14:2500:U:H3	1.44	0.65
27:1J:4:C:H42	27:1J:116:G:H1	1.45	0.65
29:29:33:VAL:HG12	29:29:89:ASP:HB3	1.77	0.65
42:95:85:LYS:CD	42:95:86:GLY:H	2.08	0.65
50:H5:46:ASN:O	50:H5:50:VAL:HG22	1.97	0.65
19:AI:30:LEU:HD22	19:AI:30:LEU:H	1.62	0.64
26:1H:1400:G:H2'	26:1H:1401:G:C8	2.33	0.64
26:1H:2855:C:H2'	26:1H:2856:C:H6	1.61	0.64
29:21:64:LYS:O	29:21:70:ALA:HB2	1.97	0.64
47:I8:49:LYS:HG3	47:I8:80:HIS:HB3	1.80	0.64
55:Q8:54:GLU:O	55:Q8:56:GLU:N	2.30	0.64
11:2A:33:THR:OG1	11:2A:34:ASP:O	2.16	0.64
26:14:2415:G:H4'	36:35:67:MET:N	2.11	0.64
40:75:55:ASN:N	40:75:59:THR:HG22	2.12	0.64
42:95:44:LYS:O	42:95:46:VAL:N	2.24	0.64
1:13:474:G:H2'	1:13:475:G:C8	2.33	0.64
1:13:1000:A:H2'	1:13:1001:G:H8	1.61	0.64
13:4I:3:ARG:HB3	13:4I:9:ILE:HG12	1.79	0.64
26:1H:1932:A:H2'	26:1H:1933:G:O4'	1.96	0.64
29:21:3:GLY:HA3	29:21:81:ILE:HG21	1.79	0.64
1:1G:54:C:N4	1:1G:353:A:OP2	2.29	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:458:C:H42	1:1G:474:G:H1	1.44	0.64
1:1G:1376:U:OP1	7:62:98:SER:OG	2.15	0.64
26:14:2050:C:H1'	29:29:156:MET:HE2	1.79	0.64
11:2I:99:GLN:HG2	11:2I:105:VAL:HG21	1.78	0.64
36:78:101:VAL:HG12	36:78:106:LEU:HD12	1.79	0.64
38:98:51:LEU:HD22	38:98:66:VAL:HG13	1.79	0.64
3:22:81:GLY:HA2	3:22:85:ARG:HD3	1.79	0.64
3:22:182:ILE:HG22	3:22:203:PHE:HA	1.80	0.64
1:13:1346:A:H5"	9:8E:120:ARG:HH12	1.61	0.64
19:AI:63:THR:HG22	19:AI:66:MET:HE3	1.80	0.64
27:16:90:C:H5'	37:88:18:LYS:HA	1.77	0.64
28:11:177:LEU:HD11	28:11:183:ARG:HG2	1.80	0.64
30:31:6:VAL:HG21	30:31:119:ARG:HB2	1.79	0.64
3:22:91:LEU:O	3:22:95:THR:OG1	2.15	0.64
26:14:1332:G:N2	26:14:1610:A:C8	2.65	0.64
26:14:2261:C:O2'	26:14:2262:U:H5'	1.97	0.64
28:19:148:GLU:HB2	28:19:151:LYS:HD2	1.78	0.64
46:D5:139:VAL:HG22	46:D5:156:LYS:HG2	1.78	0.64
48:F5:87:PRO:HA	48:F5:90:ILE:HG13	1.78	0.64
1:13:501:C:OP2	12:3I:124:LYS:NZ	2.25	0.64
1:13:939:G:H5"	7:6E:102:ARG:NH2	2.12	0.64
1:13:1002:G:O6	1:13:1038:C:N4	2.30	0.64
1:13:1059:C:O3'	14:5I:45:ARG:NH2	2.31	0.64
1:13:1190:G:OP1	3:2E:4:LYS:HA	1.98	0.64
1:13:1429:C:H2'	1:13:1430:C:H6	1.61	0.64
1:13:1505:G:OP1	58:13:1804:HOH:O	2.14	0.64
26:1H:654(H):G:N7	26:1H:654(N):G:N2	2.45	0.64
26:1H:1230:C:H2'	26:1H:1231:G:C8	2.32	0.64
26:1H:1702:G:O6	58:1H:4393:HOH:O	2.12	0.64
26:1H:2061:G:OP2	26:1H:2502:G:H5'	1.98	0.64
26:1H:2161:C:H2'	26:1H:2162:G:H8	1.61	0.64
28:11:16:MET:HE3	28:11:211:ARG:HD3	1.80	0.64
26:14:2471:C:N4	26:14:2476:A:O2'	2.31	0.64
42:95:14:VAL:HB	42:95:96:ILE:HG13	1.79	0.64
44:B5:36:LYS:HG2	44:B5:54:VAL:HB	1.79	0.64
1:13:323:U:H2'	1:13:324:G:O4'	1.98	0.64
2:1E:141:GLU:O	2:1E:145:LEU:HB2	1.98	0.64
26:1H:450:G:OP2	58:1H:3889:HOH:O	2.15	0.64
26:1H:1971:A:C4	28:11:241:PRO:HD3	2.33	0.64
26:1H:2306:C:H3'	26:1H:2307:G:H5'	1.79	0.64
30:31:152:GLU:HG3	30:31:191:ARG:HD2	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:88:103:MET:HE1	37:88:127:ILE:HD11	1.80	0.64
10:1A:8:LEU:HD22	10:1A:20:ALA:HB2	1.80	0.64
26:14:1113:U:OP1	32:59:3:ARG:N	2.31	0.64
1:13:881:G:OP2	12:3I:12:ARG:NH2	2.30	0.64
1:13:991:U:O2'	1:13:992:U:O5'	2.15	0.64
18:9I:59:SER:OG	18:9I:60:ALA:N	2.30	0.64
20:BI:86:ARG:NH1	20:BI:90:GLN:OE1	2.30	0.64
26:1H:851:U:P	50:L8:49:LYS:HZ2	2.20	0.64
26:1H:2080:G:O6	58:1H:4320:HOH:O	2.11	0.64
55:Q8:34:TRP:HB3	55:Q8:35:GLN:HA	1.78	0.64
1:1G:1126:U:H4'	1:1G:1127:G:C8	2.33	0.64
4:32:127:THR:HG21	4:32:149:ALA:HB2	1.79	0.64
5:42:36:ASP:HB2	5:42:38:GLN:HG3	1.80	0.64
20:BA:87:LYS:HE3	20:BA:91:LEU:HD11	1.79	0.64
23:2L:20:G:C2	23:2L:58:A:C2	2.86	0.64
26:14:884:C:N4	26:14:892:G:O6	2.30	0.64
26:14:1040:C:O2	26:14:1115:G:N2	2.20	0.64
9:8E:121:ARG:NH1	9:8E:122:ALA:O	2.31	0.64
24:3K:34:G:N7	24:3K:35:A:H8	1.95	0.64
26:1H:495:G:O2'	43:E8:62:HIS:HE1	1.80	0.64
26:1H:1533:C:H3'	26:1H:1534:G:H5"	1.80	0.64
26:1H:2352:A:H2'	26:1H:2353:G:O4'	1.98	0.64
24:3L:36:A:N7	24:3L:37:A:N6	2.46	0.64
26:14:996:A:N6	26:14:1160:G:C6	2.66	0.64
2:1E:178:ARG:HG3	8:7E:72:PRO:HA	1.80	0.64
7:6E:50:ILE:HB	7:6E:58:PRO:HB3	1.79	0.64
26:1H:1534:G:H2'	26:1H:1535:U:H4'	1.80	0.64
55:Q8:49:VAL:CG2	55:Q8:53:PRO:HD2	2.27	0.64
3:22:136:GLN:O	3:22:140:ARG:N	2.29	0.64
26:14:2304:G:O2'	31:49:156:ASP:OD1	2.11	0.64
29:29:33:VAL:HG11	29:29:36:ARG:HH21	1.62	0.64
45:C5:17:SER:HB3	45:C5:71:LYS:HB3	1.79	0.64
1:13:477:G:N7	58:13:2008:HOH:O	2.29	0.64
26:1H:547:A:H2'	26:1H:548:A:C8	2.33	0.64
41:C8:8:VAL:HG23	41:C8:11:ARG:NH2	2.11	0.64
1:1G:297:G:N2	1:1G:300:A:OP2	2.31	0.64
3:22:14:ILE:HG12	3:22:15:THR:H	1.62	0.64
3:22:152:ILE:HB	3:22:199:LYS:HB2	1.80	0.64
4:32:4:TYR:CE2	4:32:11:LEU:HD11	2.33	0.64
15:6A:54:ARG:NH1	15:6A:58:MET:SD	2.71	0.64
26:14:590:A:H2'	26:14:591:C:C6	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:994:C:OP2	41:85:54:LYS:NZ	2.27	0.64
26:14:1022:G:H22	26:14:1142(A):A:H2	1.45	0.64
30:39:129:PHE:HA	30:39:142:TRP:CD1	2.33	0.64
41:85:100:VAL:O	41:85:101:ARG:HG2	1.98	0.64
45:C5:87:LYS:H	45:C5:94:LYS:HG2	1.62	0.64
1:13:750:G:N3	15:6I:23:GLY:HA3	2.13	0.63
3:2E:42:LEU:O	3:2E:46:GLU:HG2	1.98	0.63
26:1H:2002:G:N7	58:1H:4225:HOH:O	2.30	0.63
32:51:83:TYR:CG	32:51:134:SER:HA	2.33	0.63
4:32:61:LYS:NZ	4:32:72:GLU:OE2	2.29	0.63
7:62:84:ASN:OD1	7:62:84:ASN:N	2.31	0.63
26:14:619:G:H5"	26:14:620:G:H21	1.61	0.63
26:14:2056:G:H1	52:J5:4:HIS:HB3	1.62	0.63
26:14:2074:U:H2'	26:14:2075:U:C6	2.33	0.63
26:14:2646:C:H2'	26:14:2647:U:O4'	1.98	0.63
44:B5:55:ASN:HB2	44:B5:80:ILE:HG13	1.79	0.63
2:1E:28:PHE:HD1	2:1E:194:PRO:HD3	1.63	0.63
4:3E:95:GLY:O	4:3E:99:SER:OG	2.16	0.63
26:1H:981:A:H8	26:1H:982:C:C5	2.15	0.63
39:A8:29:PHE:HD1	39:A8:30:ARG:N	1.95	0.63
42:D8:59:ALA:HB2	42:D8:96:ILE:HD13	1.79	0.63
55:Q8:16:ILE:HD13	55:Q8:56:GLU:OE2	1.97	0.63
1:1G:532:A:N6	1:1G:1206:G:O2'	2.31	0.63
1:1G:1028:C:H42	1:1G:1033:G:H1	1.45	0.63
1:1G:1218:C:OP2	14:5A:9:LYS:NZ	2.26	0.63
10:1I:40:LEU:HB2	10:1I:69:ASN:HB3	1.80	0.63
13:4I:23:TYR:HD2	13:4I:67:GLU:HA	1.64	0.63
26:1H:2377:A:H2'	26:1H:2378:A:C8	2.33	0.63
37:88:51:ARG:HH12	37:88:52:VAL:HG23	1.63	0.63
24:3L:48:C:N4	24:3L:59:U:O2	2.31	0.63
32:59:6:ARG:H	32:59:6:ARG:HD2	1.64	0.63
8:7E:87:SER:HB2	8:7E:93:VAL:N	2.13	0.63
17:8I:76:LEU:HD12	17:8I:77:VAL:N	2.13	0.63
26:1H:410:G:H3'	58:1H:4628:HOH:O	1.99	0.63
26:1H:1316:U:H2'	26:1H:1317:A:C8	2.34	0.63
26:1H:1430:C:H2'	26:1H:1431:U:H6	1.61	0.63
30:31:8:GLN:H	30:31:8:GLN:CD	2.06	0.63
45:G8:99:CYS:SG	45:G8:100:ALA:N	2.72	0.63
45:G8:100:ALA:HB1	45:G8:101:LYS:HB2	1.81	0.63
13:4A:3:ARG:HB2	51:I5:34:GLU:HG3	1.80	0.63
26:14:1593:G:H2'	26:14:1594:G:C8	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:116:G:H5'	39:65:55:ALA:HB2	1.80	0.63
1:13:200:G:H1	1:13:217:C:H42	1.45	0.63
1:13:686:U:O4	1:13:703:G:H1'	1.99	0.63
1:13:1263:C:H2'	1:13:1264:C:H6	1.64	0.63
26:1H:1018:C:H2'	26:1H:1019:U:H6	1.64	0.63
26:1H:2068:U:N3	26:1H:2430:A:H2	1.94	0.63
38:98:104:ARG:NH1	38:98:107:ASP:OD2	2.32	0.63
1:1G:690:G:H1	11:2A:55:LYS:NZ	1.96	0.63
26:14:779:U:O4	58:14:3960:HOH:O	2.10	0.63
29:29:89:ASP:O	29:29:91:VAL:N	2.29	0.63
55:M5:40:GLU:HA	55:M5:43:GLN:HB2	1.79	0.63
1:13:859:A:H2'	1:13:860:A:C8	2.34	0.63
5:4E:13:ILE:HD12	5:4E:30:ALA:HA	1.80	0.63
26:1H:2056:G:C2	26:1H:2057:A:C8	2.87	0.63
34:58:6:PRO:HG3	34:58:41:ASP:HB2	1.80	0.63
41:C8:28:ARG:NH1	41:C8:38:THR:OG1	2.25	0.63
2:12:77:ALA:HB2	2:12:211:ILE:HD13	1.79	0.63
4:32:173:TRP:CZ3	4:32:193:ASP:HB3	2.34	0.63
23:2L:41:C:H2'	23:2L:42:C:H6	1.64	0.63
26:14:588:U:H2'	26:14:589:C:C6	2.32	0.63
26:14:1926:U:H2'	26:14:1928:A:OP2	1.99	0.63
42:95:6:LYS:H	42:95:37:VAL:HG12	1.64	0.63
1:13:77:C:O2'	1:13:92:G:N2	2.32	0.63
1:13:179:A:H2'	1:13:180:U:H6	1.64	0.63
1:13:1505:G:P	58:13:1804:HOH:O	2.57	0.63
26:1H:141:A:C8	26:1H:1408:C:H1'	2.33	0.63
26:1H:1405:U:H2'	26:1H:1406:U:C6	2.33	0.63
26:1H:2061:G:P	58:1H:3633:HOH:O	2.57	0.63
26:1H:2360:A:OP1	55:Q8:48:PHE:HB2	1.98	0.63
26:1H:2594:C:N4	58:1H:3683:HOH:O	2.32	0.63
34:58:18:ALA:HA	34:58:21:LYS:HG3	1.80	0.63
1:1G:964:A:N3	1:1G:969:A:O2'	2.32	0.63
1:1G:998:G:H2'	1:1G:998(A):C:C6	2.34	0.63
26:14:1828:G:OP2	58:14:3417:HOH:O	2.15	0.63
32:59:6:ARG:HH11	32:59:6:ARG:N	1.97	0.63
34:15:95:PRO:O	34:15:98:VAL:HG22	1.98	0.63
38:55:52:ILE:O	38:55:55:ALA:N	2.32	0.63
46:D5:153:SER:HB3	46:D5:167:PRO:HG3	1.80	0.63
9:8E:42:ARG:HH11	9:8E:71:SER:HB3	1.63	0.63
13:4I:4:ILE:HG22	13:4I:5:ALA:H	1.63	0.63
15:6I:39:LEU:HD13	15:6I:56:LEU:HB2	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:149:LEU:HD23	2:12:152:PHE:HB3	1.80	0.63
6:52:96:PRO:HB3	18:9A:30:ASP:CG	2.23	0.63
26:14:760:G:OP1	58:14:4109:HOH:O	2.15	0.63
29:29:47:VAL:HG21	29:29:86:PRO:HD2	1.81	0.63
32:59:26:VAL:HG12	32:59:33:LEU:H	1.63	0.63
1:13:1178:G:N7	9:8E:97:LYS:NZ	2.46	0.63
3:2E:40:ARG:O	3:2E:44:GLU:HG2	1.98	0.63
23:2K:52:C:O2	23:2K:64:G:N2	2.28	0.63
23:2K:54:G:H2'	23:2K:55:5MU:C6	2.34	0.63
36:78:19:VAL:HG12	36:78:21:ARG:N	2.01	0.63
37:88:66:ILE:HG22	37:88:67:ARG:H	1.64	0.63
46:H8:73:GLN:HB2	46:H8:87:ASP:HB2	1.81	0.63
1:1G:677:U:H3	1:1G:713:G:H22	1.47	0.63
26:14:1784:A:H4'	26:14:1785:A:O5'	1.99	0.63
26:14:2645:G:H3'	26:14:2646:C:H5'	1.81	0.63
30:39:117:ARG:NH1	36:35:1:MET:H2	1.96	0.63
1:13:131:C:OP1	1:13:190:G:N2	2.32	0.62
1:13:1318:A:H1'	19:AI:37:ARG:HH21	1.64	0.62
19:AI:40:ILE:HD11	19:AI:62:ILE:HG23	1.79	0.62
26:1H:1252:G:N3	41:C8:33:ARG:HD2	2.14	0.62
26:1H:1406:U:H2'	26:1H:1407:C:C6	2.33	0.62
26:1H:1728:G:H8	26:1H:1732:A:H62	1.47	0.62
1:1G:554:C:H2'	1:1G:555:C:H6	1.62	0.62
1:1G:707:C:H2'	1:1G:708:C:C6	2.34	0.62
1:1G:963:G:N2	1:1G:972:C:N3	2.44	0.62
29:29:197:ILE:HD11	29:29:199:ARG:HE	1.64	0.62
51:I5:56:VAL:HG22	51:I5:57:GLU:HG3	1.81	0.62
26:1H:1101:U:H2'	26:1H:1102:C:C6	2.34	0.62
26:1H:1798:U:C5'	28:11:259:THR:HG22	2.27	0.62
39:A8:74:ALA:HB1	39:A8:107:GLU:O	1.99	0.62
1:1G:760:G:N2	17:8A:94:ASN:OD1	2.32	0.62
1:1G:1139:G:H4'	1:1G:1140:C:H5'	1.80	0.62
7:62:21:VAL:HG23	7:62:22:LEU:HD12	1.79	0.62
7:62:92:SER:HB2	7:62:95:ARG:HB2	1.81	0.62
26:14:579:G:H2'	26:14:580:C:C6	2.34	0.62
26:14:1329:U:H5"	26:14:1330:C:H5	1.65	0.62
26:14:2275:C:O2'	37:45:83:MET:HA	1.99	0.62
26:14:2415:G:O3'	36:35:66:GLY:HA3	1.99	0.62
27:1J:62:C:H2'	27:1J:63:G:H8	1.62	0.62
31:49:60:LEU:O	31:49:64:THR:HG22	1.98	0.62
32:59:82:GLY:HA3	32:59:135:GLY:O	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:674:G:H2'	1:13:675:A:H8	1.64	0.62
1:13:1316:G:N2	1:13:1318:A:H3'	2.15	0.62
26:1H:49:A:N7	26:1H:120:U:C5	2.67	0.62
26:1H:571:A:OP2	58:1H:4551:HOH:O	2.16	0.62
26:1H:1316:U:H2'	26:1H:1317:A:H8	1.64	0.62
26:1H:1412:A:H2'	26:1H:1413:G:C8	2.35	0.62
26:1H:2096:U:H3	26:1H:2193:G:H1	1.47	0.62
36:78:68:GLN:NE2	55:Q8:12:LYS:HB3	2.14	0.62
38:98:10:LEU:O	38:98:12:ARG:N	2.32	0.62
50:L8:39:ASP:OD2	50:L8:44:ARG:NH1	2.33	0.62
2:12:166:ASP:CG	2:12:169:LYS:HB2	2.24	0.62
23:2L:10:G:N2	23:2L:27:G:H1'	2.14	0.62
26:14:330:A:H2	26:14:1210:A:O2'	1.82	0.62
27:1J:52:A:H62	39:65:33:LYS:HG3	1.63	0.62
39:65:3:ARG:HE	39:65:4:LEU:H	1.47	0.62
45:C5:87:LYS:HB2	45:C5:94:LYS:HA	1.80	0.62
1:13:1286:A:C8	1:13:1287:A:H4'	2.34	0.62
7:6E:95:ARG:NH2	7:6E:99:LEU:HD11	2.14	0.62
7:6E:115:ARG:O	7:6E:118:VAL:HG12	1.98	0.62
13:4I:10:PRO:HB2	13:4I:18:ALA:HB1	1.81	0.62
26:1H:1264:G:OP1	52:N8:19:ARG:NH2	2.31	0.62
26:1H:1729:A:H2'	26:1H:1731:G:N7	2.13	0.62
35:68:7:TYR:CZ	35:68:44:LYS:HG3	2.34	0.62
1:1G:1335:C:OP1	1:1G:1337:G:N2	2.30	0.62
24:3L:5:G:H1	24:3L:68:C:H42	1.46	0.62
24:3L:30:G:H2'	24:3L:31:A:H8	1.65	0.62
26:14:67:U:H2'	26:14:68:G:C8	2.34	0.62
26:14:819:A:OP2	26:14:1187:G:N2	2.32	0.62
26:14:990:A:H5'	26:14:990:A:H8	1.63	0.62
29:29:55:ASN:O	29:29:57:LYS:NZ	2.32	0.62
37:45:34:LEU:HB2	37:45:118:LEU:HD13	1.81	0.62
1:13:156:G:H1	1:13:165:C:N4	1.97	0.62
26:1H:862:G:OP2	58:1H:3992:HOH:O	2.16	0.62
26:1H:2057:A:P	58:1H:3621:HOH:O	2.56	0.62
36:78:78:PRO:HB3	36:78:111:ARG:NH2	2.14	0.62
38:98:41:ALA:O	38:98:44:LEU:N	2.33	0.62
1:1G:1220:G:O3'	19:AA:36:ARG:HD3	1.99	0.62
1:1G:1279:A:O2'	1:1G:1282:C:N4	2.32	0.62
2:12:5:ILE:HA	2:12:221:LEU:HD21	1.80	0.62
3:22:18:TRP:NE1	14:5A:55:GLY:H	1.97	0.62
4:32:98:GLU:OE2	4:32:103:ASN:ND2	2.31	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:151:LEU:HD22	8:72:67:PRO:HD3	1.81	0.62
8:72:25:ASP:OD1	8:72:25:ASP:N	2.32	0.62
26:14:491:G:H2'	26:14:492:A:C8	2.35	0.62
26:14:1040:C:H2'	26:14:1041:C:C6	2.35	0.62
26:14:1340:U:H4'	26:14:1394:U:O2'	1.99	0.62
27:1J:70:C:H2'	27:1J:71:C:H6	1.63	0.62
1:13:474:G:H2'	1:13:475:G:H8	1.61	0.62
2:1E:5:ILE:HG13	2:1E:6:THR:N	2.14	0.62
26:1H:998:C:H3'	58:1H:4004:HOH:O	1.99	0.62
45:G8:85:VAL:HG22	45:G8:98:VAL:HB	1.80	0.62
51:M8:13:ARG:H	51:M8:30:GLU:H	1.47	0.62
1:1G:940:C:H2'	1:1G:941:G:H8	1.62	0.62
26:14:2010:G:N7	58:14:3546:HOH:O	2.31	0.62
26:14:2291:U:H5"	26:14:2380:C:O2'	1.98	0.62
29:29:101:ARG:CZ	29:29:171:GLU:HB2	2.30	0.62
1:13:1346:A:H5"	9:8E:120:ARG:NH1	2.14	0.62
1:13:1412:C:H42	1:13:1488:G:H1	1.48	0.62
2:1E:163:PHE:CD1	2:1E:185:ILE:HG13	2.35	0.62
10:1I:8:LEU:HD12	10:1I:20:ALA:HB2	1.80	0.62
16:7I:26:ARG:HH21	16:7I:31:LYS:HD3	1.63	0.62
26:1H:270(I):G:H1	26:1H:270(Q):C:H42	1.47	0.62
34:58:4:TYR:O	41:C8:64:ARG:NH1	2.32	0.62
46:H8:10:ARG:HG3	46:H8:36:LYS:HB3	1.81	0.62
55:Q8:6:THR:HA	55:Q8:58:ILE:H	1.64	0.62
1:1G:1130:A:N6	1:1G:1144:G:H21	1.97	0.62
1:1G:1423:G:H2'	1:1G:1424:C:C6	2.35	0.62
13:4A:23:TYR:CZ	13:4A:71:ARG:HG3	2.35	0.62
26:14:273(C):C:N4	26:14:363(C):G:H1	1.96	0.62
26:14:661:C:H1'	36:35:12:ALA:HA	1.81	0.62
27:1J:8:U:H3	27:1J:112:G:H1	1.47	0.62
45:C5:68:HIS:HB3	45:C5:71:LYS:HG3	1.81	0.62
14:5I:29:ARG:NH2	14:5I:41:ARG:HH12	1.94	0.62
19:AI:40:ILE:HG23	19:AI:41:VAL:HG13	1.81	0.62
28:11:70:TRP:CG	28:11:150:LYS:HZ1	2.18	0.62
40:B8:54:ARG:HA	40:B8:59:THR:HB	1.82	0.62
55:Q8:53:PRO:HB3	55:Q8:56:GLU:N	2.14	0.62
1:1G:1224:G:C6	1:1G:1322:C:H1'	2.34	0.62
2:12:7:VAL:HG22	2:12:8:LYS:H	1.63	0.62
14:5A:21:TYR:OH	14:5A:23:ARG:NH2	2.31	0.62
20:BA:49:ALA:HA	20:BA:52:ALA:HB3	1.81	0.62
27:1J:21:G:H2'	27:1J:22:U:O4'	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:65:34:HIS:HD2	39:65:54:LEU:HB2	1.64	0.62
1:13:404:U:OP1	4:3E:118:ARG:NH1	2.33	0.62
2:1E:74:LYS:HE3	2:1E:166:ASP:HB2	1.81	0.62
26:1H:2428:G:N3	36:78:61:ARG:NH1	2.48	0.62
26:1H:2698:U:H2'	26:1H:2699:C:C6	2.35	0.62
26:1H:2787:C:H1'	29:21:62:PRO:HG3	1.81	0.62
28:11:72:LYS:HD2	28:11:75:ILE:HD12	1.81	0.62
35:68:88:ASN:HD22	35:68:88:ASN:H	1.47	0.62
37:88:86:GLY:HA3	37:88:87:LYS:HD3	1.81	0.62
50:L8:31:LEU:O	50:L8:32:GLN:HB2	2.00	0.62
2:12:12:GLU:HB3	2:12:213:LEU:HD13	1.82	0.62
6:52:69:GLU:H	6:52:69:GLU:CD	2.07	0.62
7:62:62:PHE:HA	7:62:124:LEU:HD13	1.81	0.62
33:69:80:PRO:HA	33:69:143:SER:HA	1.80	0.62
39:65:15:ARG:O	39:65:19:LYS:HD3	2.00	0.62
40:75:26:ASP:O	40:75:49:VAL:HG22	1.99	0.62
42:95:87:HIS:CE1	42:95:89:GLN:HB2	2.35	0.62
12:3I:52:LEU:O	12:3I:54:LYS:NZ	2.32	0.62
17:8I:65:ILE:HG21	17:8I:69:LYS:HE2	1.80	0.62
23:2K:21:U:H4'	23:2K:22:A:OP1	1.98	0.62
51:M8:18:CYS:HB3	51:M8:39:CYS:SG	2.40	0.62
1:1G:300:A:H1'	1:1G:565:U:O2	2.00	0.62
1:1G:980:C:H5'	1:1G:981:U:C5	2.35	0.62
1:1G:1007:C:O2	1:1G:1023:G:N2	2.33	0.62
7:62:113:GLU:HB2	7:62:119:ARG:HG2	1.80	0.62
26:14:571:A:H5'	26:14:2030:A:N7	2.15	0.62
46:D5:23:LYS:HD3	46:D5:40:ASP:HA	1.81	0.62
1:13:1280:A:C8	10:1I:41:PRO:HD3	2.35	0.61
1:13:1349:A:OP2	9:8E:118:LYS:NZ	2.33	0.61
5:4E:102:ALA:HB1	5:4E:106:PRO:HG2	1.81	0.61
10:1I:30:SER:OG	10:1I:84:GLN:NE2	2.33	0.61
17:8I:66:SER:OG	17:8I:69:LYS:HB2	1.99	0.61
19:AI:5:LEU:HB3	19:AI:10:PHE:HE1	1.65	0.61
26:1H:517:C:OP1	52:N8:16:ARG:NH2	2.33	0.61
26:1H:2531:A:C8	32:51:175:LYS:HG2	2.34	0.61
26:1H:2793:G:N2	26:1H:2804:C:O2	2.33	0.61
29:21:149:ARG:HH11	29:21:149:ARG:HG3	1.64	0.61
33:61:1:MET:O	33:61:20:ASP:HA	1.98	0.61
40:B8:111:ARG:HD3	40:B8:111:ARG:H	1.65	0.61
51:M8:39:CYS:SG	51:M8:41:PRO:HD3	2.40	0.61
13:4A:49:THR:HG22	13:4A:51:ALA:H	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BA:86:ARG:CZ	20:BA:86:ARG:HB2	2.30	0.61
24:3L:19:G:O5'	24:3L:57:G:N2	2.33	0.61
26:14:323:G:HO2'	26:14:1205:U:H3	0.67	0.61
26:14:479:A:N3	26:14:481:G:H5"	2.15	0.61
34:15:38:HIS:CD2	34:15:39:ARG:HG3	2.35	0.61
41:85:76:TYR:CZ	41:85:80:ILE:HG13	2.35	0.61
1:13:1423:G:P	35:68:49:ARG:HH22	2.22	0.61
10:1I:32:ALA:HB3	10:1I:76:ASN:O	2.00	0.61
24:3K:69:G:H2'	24:3K:70:G:C8	2.35	0.61
26:1H:607:U:H3	26:1H:621:A:H2	1.42	0.61
26:1H:1843:C:H5'	28:11:253:GLN:OE1	1.99	0.61
30:31:103:LYS:HA	30:31:106:ARG:HG3	1.82	0.61
32:51:4:ILE:HG13	32:51:6:ARG:NE	2.14	0.61
44:F8:1:MET:C	44:F8:3:THR:H	2.08	0.61
44:F8:1:MET:O	44:F8:3:THR:HG23	1.99	0.61
52:N8:58:LEU:HD22	52:N8:60:VAL:HG13	1.82	0.61
1:1G:434:U:H2'	1:1G:435:C:C6	2.35	0.61
2:12:47:THR:HA	2:12:202:PRO:HG2	1.80	0.61
4:32:104:VAL:HA	4:32:107:ARG:HB2	1.82	0.61
8:72:19:VAL:HG23	8:72:21:LYS:HB2	1.82	0.61
18:9A:22:VAL:HG12	18:9A:56:THR:HA	1.82	0.61
26:14:581:C:H2'	26:14:582:G:H8	1.65	0.61
26:14:1252:G:N3	41:85:33:ARG:HD2	2.16	0.61
35:25:25:LEU:HB2	35:25:38:VAL:HG23	1.82	0.61
29:21:170:LEU:HD21	29:21:187:ALA:HB3	1.83	0.61
32:51:92:ILE:CD1	32:51:93:GLY:H	2.14	0.61
42:D8:60:GLU:HB2	42:D8:97:LYS:HE2	1.82	0.61
1:1G:407:G:O2'	4:32:116:GLN:HG3	2.01	0.61
1:1G:1268:A:H2'	1:1G:1269:A:C8	2.35	0.61
4:32:4:TYR:HE2	4:32:11:LEU:HD11	1.64	0.61
22:1L:26:A:H61	22:1L:44:G:H22	1.48	0.61
26:14:273(D):C:H42	26:14:363(B):G:H1	1.48	0.61
26:14:676:A:H8	26:14:2069:G:N2	1.90	0.61
26:14:824:A:H1'	26:14:2358:G:N7	2.14	0.61
1:13:664:G:N2	1:13:741:G:H1	1.97	0.61
2:1E:52:GLU:HG2	2:1E:56:ARG:HH21	1.66	0.61
2:1E:67:THR:HG21	2:1E:155:LEU:HG	1.83	0.61
26:1H:1021:A:C8	26:1H:1021:A:H3'	2.35	0.61
29:21:201:THR:CG2	29:21:203:LYS:H	2.13	0.61
40:B8:2:ASN:O	40:B8:3:ARG:HG2	2.00	0.61
55:Q8:35:GLN:O	55:Q8:37:SER:N	2.26	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:50:ILE:HD12	7:62:61:VAL:HG11	1.81	0.61
18:9A:34:TYR:HB3	18:9A:69:THR:HB	1.81	0.61
26:14:739:G:OP1	58:14:3635:HOH:O	2.16	0.61
26:14:2537:U:H2'	26:14:2538:C:C6	2.35	0.61
26:14:2567:G:H2'	26:14:2568:C:C6	2.35	0.61
38:55:97:VAL:HG12	38:55:114:VAL:HG22	1.81	0.61
26:1H:607:U:OP1	30:31:102:PRO:HA	2.01	0.61
35:68:88:ASN:ND2	35:68:92:GLU:H	1.97	0.61
4:32:64:LEU:HB2	4:32:198:VAL:HG11	1.83	0.61
26:14:19:C:H2'	26:14:20:C:H6	1.64	0.61
26:14:1569:A:H5'	28:19:61:LEU:HD21	1.82	0.61
32:59:42:ARG:NH1	32:59:53:GLU:O	2.32	0.61
1:13:243:A:H4'	1:13:244:U:H5"	1.83	0.61
1:13:637:G:H2'	1:13:638:G:C8	2.36	0.61
5:4E:144:THR:H	5:4E:147:ASP:HB2	1.66	0.61
26:1H:141:A:OP2	26:1H:141(A):C:N4	2.28	0.61
26:1H:468:G:N7	54:P8:39:ARG:NH2	2.49	0.61
26:1H:814:C:N4	26:1H:1193:G:O6	2.17	0.61
26:1H:1899:G:H1	26:1H:1902:C:H41	1.48	0.61
26:1H:2255:G:OP2	58:1H:4121:HOH:O	2.16	0.61
38:98:21:TYR:HB3	38:98:47:PHE:CD2	2.35	0.61
46:H8:53:ILE:HG22	46:H8:71:VAL:HG22	1.82	0.61
26:14:71:A:H5'	26:14:71:A:C8	2.36	0.61
29:29:93:VAL:HG22	29:29:182:LEU:HD13	1.82	0.61
29:29:112:GLY:O	29:29:159:HIS:HA	2.01	0.61
1:13:619:U:H3	4:3E:134:ASP:HB2	1.66	0.61
1:13:1077:G:N2	1:13:1080:A:OP2	2.24	0.61
3:2E:52:LEU:HA	3:2E:70:VAL:HG12	1.81	0.61
13:4I:49:THR:HG22	13:4I:51:ALA:H	1.65	0.61
26:1H:1351:C:OP2	58:1H:4124:HOH:O	2.16	0.61
26:1H:1798:U:H5'	28:11:259:THR:HG22	1.82	0.61
26:1H:2688:U:H5	26:1H:2720:U:OP2	1.83	0.61
31:41:61:ALA:O	51:M8:7:PRO:HG2	2.01	0.61
36:78:62:LEU:HD13	55:Q8:23:VAL:HG21	1.81	0.61
1:1G:690:G:H2'	1:1G:691:G:O4'	2.00	0.61
1:1G:1105:A:H2'	1:1G:1106:G:H8	1.66	0.61
24:3L:9:A:H2'	24:3L:11:C:H41	1.65	0.61
26:14:1954:G:C2	26:14:2551:C:H5"	2.35	0.61
26:14:2815:C:H5'	52:J5:29:THR:HG21	1.83	0.61
34:15:56:ASN:H	34:15:125:GLY:HA3	1.66	0.61
35:25:63:VAL:HG12	35:25:106:LEU:HD11	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:994:A:N7	1:13:1216:G:H4'	2.16	0.61
1:13:1497:G:C2'	1:13:1498:U:H5'	2.30	0.61
4:3E:150:GLU:HG3	4:3E:153:ARG:HE	1.64	0.61
4:3E:153:ARG:HH11	4:3E:181:MET:HB2	1.65	0.61
32:51:8:PRO:HG2	32:51:69:ARG:NH2	2.16	0.61
37:88:137:TYR:CE1	46:H8:83:PRO:HG3	2.36	0.61
1:1G:547:A:OP1	58:1G:1801:HOH:O	2.16	0.61
5:42:37:ARG:HG2	5:42:112:LEU:HA	1.83	0.61
26:14:250:G:P	36:35:60:MET:HE1	2.41	0.61
26:14:2557:G:H2'	26:14:2558:C:C6	2.36	0.61
31:49:60:LEU:HD21	31:49:92:VAL:HG11	1.83	0.61
35:25:14:THR:HG22	35:25:52:VAL:HB	1.81	0.61
40:75:45:PHE:CE2	40:75:74:ARG:HD3	2.36	0.61
40:75:105:LEU:HD23	40:75:109:GLU:HG3	1.81	0.61
1:13:1122:U:O4	1:13:1123:A:N6	2.33	0.61
8:7E:87:SER:HB2	8:7E:93:VAL:H	1.66	0.61
13:4I:80:ARG:NH1	19:AI:65:ASN:O	2.34	0.61
26:1H:637:A:H2'	36:78:117:GLU:OE1	2.00	0.61
26:1H:2836:U:H2'	26:1H:2837:G:C8	2.36	0.61
49:K8:47:ASN:O	49:K8:49:LYS:N	2.34	0.61
50:L8:5:LYS:HD2	50:L8:34:GLU:OE1	2.00	0.61
1:1G:358:U:H2'	1:1G:359:U:H6	1.66	0.61
1:1G:728:A:H2'	1:1G:729:A:C8	2.34	0.61
1:1G:1014:A:H4'	19:AA:14:HIS:CE1	2.36	0.61
12:3A:28:LYS:HZ1	12:3A:33:ARG:HH22	1.48	0.61
26:14:2432:A:H5"	26:14:2433:A:OP2	2.00	0.61
28:19:146:GLU:HB2	28:19:189:CYS:HB3	1.82	0.61
37:45:34:LEU:HD11	37:45:129:THR:HB	1.83	0.61
8:7E:10:LEU:HD22	8:7E:83:ILE:HD11	1.81	0.61
19:AI:5:LEU:HD13	19:AI:10:PHE:CD1	2.35	0.61
26:1H:587:C:OP2	36:78:21:ARG:NH2	2.34	0.61
26:1H:1055:G:H1'	26:1H:1085:A:C2	2.36	0.61
26:1H:1143:A:OP1	34:58:25:ARG:NH2	2.15	0.61
26:1H:1221:C:H2'	26:1H:1222:C:C6	2.36	0.61
26:1H:1252:G:O4'	41:C8:33:ARG:HD3	2.01	0.61
26:1H:1332:G:N2	26:1H:1610:A:H8	1.97	0.61
26:1H:1786:A:H2	26:1H:2606:C:H1'	1.64	0.61
26:1H:1839:G:H5"	26:1H:1839:G:H8	1.64	0.61
26:1H:2683:C:OP1	40:B8:53:ARG:NH2	2.33	0.61
12:3A:27:LEU:HD23	12:3A:33:ARG:HG2	1.82	0.61
26:14:94:G:OP1	45:C5:54:LYS:NZ	2.32	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:994:C:O2'	26:14:996:A:OP1	2.17	0.61
26:14:1316:U:O2'	26:14:1317:A:H5'	2.00	0.61
26:14:1332:G:N2	26:14:1610:A:H8	1.98	0.61
26:14:1688:U:O2	26:14:1700:A:H5'	2.00	0.61
1:13:50:A:H1'	1:13:52:G:C8	2.36	0.60
1:13:429:U:OP2	4:3E:36:ARG:NH2	2.34	0.60
1:13:637:G:H2'	1:13:638:G:H8	1.66	0.60
16:7I:3:LYS:HG3	16:7I:24:ALA:HB2	1.83	0.60
37:88:66:ILE:HG22	37:88:67:ARG:N	2.15	0.60
37:88:109:VAL:HG13	37:88:113:GLN:HB3	1.83	0.60
40:B8:66:VAL:HA	40:B8:71:GLY:HA2	1.83	0.60
1:1G:362:G:H4'	12:3A:33:ARG:HH21	1.66	0.60
1:1G:680:C:H42	1:1G:710:G:H1	1.48	0.60
4:32:31:CYS:O	4:32:33:MET:N	2.34	0.60
10:1A:79:ARG:H	10:1A:79:ARG:HD3	1.65	0.60
13:4A:78:ILE:HD13	13:4A:92:HIS:CE1	2.36	0.60
26:14:140:A:C8	26:14:1408:C:O2'	2.51	0.60
26:14:2126:A:N1	26:14:2163:C:O2'	2.24	0.60
47:E5:53:MET:HG3	47:E5:59:LEU:HD23	1.83	0.60
1:13:505:G:N7	58:13:1882:HOH:O	2.31	0.60
2:1E:189:ASP:HB2	2:1E:205:ASP:CG	2.27	0.60
26:1H:1359:A:C2	26:1H:1372:U:O4	2.51	0.60
32:51:92:ILE:HD12	32:51:93:GLY:H	1.66	0.60
34:58:46:VAL:HG11	34:58:48:MET:HG3	1.82	0.60
35:68:60:ALA:HB1	35:68:84:ALA:HB1	1.83	0.60
1:1G:1315:U:H2'	1:1G:1316:G:O4'	2.01	0.60
3:22:139:GLN:HG3	3:22:142:MET:HE2	1.83	0.60
4:32:119:GLN:HG2	4:32:123:HIS:HE1	1.66	0.60
9:82:42:ARG:HD3	9:82:71:SER:HB3	1.82	0.60
26:14:1516:U:H2'	26:14:1517:G:C8	2.36	0.60
26:14:1955:U:OP2	58:14:3818:HOH:O	2.16	0.60
26:14:2296:U:H4'	26:14:2297:C:OP1	2.01	0.60
26:14:2823:A:OP1	29:29:113:PHE:HB2	2.01	0.60
30:39:133:ASN:HA	30:39:162:LEU:HD23	1.81	0.60
37:45:57:HIS:CD2	37:45:117:ALA:HB2	2.35	0.60
1:13:1004:A:P	1:13:1025:U:H3	2.25	0.60
3:2E:84:ILE:HD11	3:2E:88:ARG:HH21	1.67	0.60
3:2E:119:ARG:O	3:2E:123:GLN:HG3	2.00	0.60
11:2I:73:MET:HG2	11:2I:103:LEU:HD13	1.82	0.60
26:1H:270(E):G:H1	26:1H:270(U):C:N4	1.99	0.60
26:1H:2413:G:O6	58:1H:3735:HOH:O	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1132:C:H2'	1:1G:1133:G:H8	1.65	0.60
1:1G:1226:C:H4'	19:AA:80:TYR:CZ	2.36	0.60
8:72:68:ARG:NH1	8:72:70:GLN:HG2	2.16	0.60
26:14:1014:U:H2'	26:14:1015:G:H8	1.65	0.60
26:14:2068:U:H3	26:14:2430:A:H2	1.45	0.60
27:1J:88:C:H3'	27:1J:89:G:N7	2.16	0.60
37:45:35:VAL:HG12	37:45:36:ALA:H	1.65	0.60
46:D5:8:TYR:CD1	46:D5:62:PRO:HG3	2.36	0.60
1:13:1414:U:H2'	1:13:1415:G:H8	1.66	0.60
2:1E:84:GLU:HB3	2:1E:219:VAL:HG21	1.83	0.60
26:1H:1901:A:OP2	28:11:255:LYS:HE2	2.01	0.60
27:16:30:C:H2'	27:16:31:C:H5'	1.84	0.60
29:21:117:MET:HE1	29:21:136:ARG:CA	2.31	0.60
29:21:152:LYS:HD3	34:58:77:GLY:HA3	1.83	0.60
32:51:17:VAL:HG21	32:51:50:VAL:HG11	1.82	0.60
33:61:123:LEU:HD23	33:61:143:SER:HA	1.83	0.60
34:58:46:VAL:CG1	34:58:48:MET:HG3	2.31	0.60
49:K8:14:ARG:NH1	49:K8:66:GLU:OE2	2.35	0.60
5:42:42:GLY:HA3	5:42:65:ASN:O	2.01	0.60
12:3A:27:LEU:HB3	12:3A:33:ARG:HG2	1.83	0.60
14:5A:26:ARG:O	14:5A:26:ARG:HG2	2.01	0.60
26:14:1288:U:C2	26:14:1327:C:O2	2.54	0.60
26:14:1337:G:H2'	26:14:1338:G:H8	1.67	0.60
26:14:1434:A:H61	26:14:1558:A:N6	2.00	0.60
26:14:1849:G:H2'	26:14:1850:G:C8	2.36	0.60
30:39:18:ARG:HG2	30:39:19:GLU:H	1.67	0.60
48:F5:76:ARG:HG3	48:F5:94:LEU:HD13	1.81	0.60
1:13:1004:A:H1'	1:13:1036:G:N2	2.17	0.60
1:13:1239:A:H62	1:13:1299:A:H62	1.49	0.60
1:13:1349:A:H2'	1:13:1350:A:H8	1.66	0.60
3:2E:77:ILE:O	3:2E:84:ILE:HG22	2.01	0.60
4:3E:62:GLN:O	4:3E:66:ARG:HB2	2.02	0.60
26:1H:84:A:OP2	45:G8:8:LYS:NZ	2.30	0.60
26:1H:2330:G:H2'	26:1H:2331:G:O4'	2.01	0.60
26:1H:2378:A:H2'	39:A8:21:THR:HG21	1.83	0.60
26:1H:2562:U:O2'	35:68:23:ARG:NH1	2.34	0.60
29:21:101:ARG:HG2	29:21:169:ASN:OD1	2.01	0.60
39:A8:66:ALA:HA	39:A8:69:VAL:HG12	1.83	0.60
1:1G:430:A:OP2	4:32:8:VAL:HG23	2.01	0.60
1:1G:1095:U:P	1:1G:1108:G:H1	2.24	0.60
22:1L:27:G:N2	22:1L:43:C:O2	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1889:A:H3'	58:14:3914:HOH:O	2.01	0.60
28:19:93:ALA:HB3	28:19:105:ILE:HG22	1.84	0.60
36:35:13:ASN:C	36:35:15:ARG:H	2.08	0.60
45:C5:74:PRO:HG2	45:C5:82:PRO:HG2	1.83	0.60
55:M5:59:LYS:O	55:M5:60:LEU:HG	2.01	0.60
1:13:368:U:OP1	33:69:91:SER:OG	2.19	0.60
1:13:667:G:H4'	15:6I:51:HIS:CE1	2.36	0.60
1:13:1395:C:O2'	1:13:1401:G:O2'	2.17	0.60
20:BI:89:ARG:HD2	20:BI:104:LEU:HD21	1.83	0.60
26:1H:1355:G:O6	58:1H:3717:HOH:O	2.16	0.60
26:1H:2469:A:H61	26:1H:2481:G:H1'	1.65	0.60
46:H8:93:ASP:HA	46:H8:130:PRO:HG2	1.83	0.60
1:1G:338:A:H2	1:1G:351:G:H22	1.50	0.60
1:1G:539:A:H2'	1:1G:540:G:C8	2.37	0.60
4:32:126:ILE:HG22	4:32:127:THR:H	1.66	0.60
26:14:839:U:H2'	26:14:840:C:C6	2.37	0.60
26:14:2656:U:H3	26:14:2665:A:H2	1.45	0.60
29:29:76:ARG:HG3	29:29:195:LEU:HD22	1.83	0.60
36:35:39:LYS:HD2	36:35:45:LEU:CD2	2.30	0.60
44:B5:5:TYR:CZ	49:G5:30:ARG:HG3	2.37	0.60
49:G5:10:LEU:HD13	49:G5:59:ARG:HG2	1.84	0.60
1:13:1256:A:OP2	3:2E:26:LYS:NZ	2.35	0.60
26:1H:2774:C:H2'	26:1H:2775:A:O4'	2.01	0.60
29:21:167:VAL:HG21	29:21:187:ALA:HB3	1.84	0.60
40:B8:50:ILE:HD13	40:B8:64:ARG:HB3	1.82	0.60
49:K8:48:HIS:N	49:K8:50:ILE:HD11	2.16	0.60
1:1G:520:A:N1	1:1G:536:C:H1'	2.16	0.60
1:1G:958:A:N3	1:1G:985:C:O2'	2.30	0.60
8:72:97:VAL:HA	8:72:100:ILE:HD11	1.83	0.60
9:82:33:PHE:HE1	9:82:37:PHE:HD2	1.49	0.60
26:14:336:C:H5"	45:C5:6:HIS:CD2	2.37	0.60
26:14:1041:C:H42	26:14:1114:G:N2	1.98	0.60
27:1J:13:A:N1	27:1J:69:G:O2'	2.29	0.60
35:25:4:PRO:O	35:25:5:GLN:HB2	2.01	0.60
36:35:55:ARG:HG2	36:35:56:SER:N	2.16	0.60
1:13:240:C:H2'	1:13:241:C:H6	1.67	0.60
1:13:345:C:O2'	1:13:346:G:N2	2.33	0.60
5:4E:70:PRO:O	5:4E:72:GLN:NE2	2.34	0.60
9:8E:115:GLY:HA2	10:1I:58:ASP:OD1	2.01	0.60
20:BI:49:ALA:HB2	20:BI:99:LEU:HD23	1.84	0.60
26:1H:250:G:P	36:78:60:MET:HE1	2.41	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1022:G:H4'	26:1H:1023:U:O5'	2.02	0.60
26:1H:1337:G:H2'	26:1H:1338:G:H8	1.65	0.60
26:1H:2345:G:H4'	26:1H:2346:A:O5'	2.01	0.60
41:C8:69:CYS:HB3	41:C8:74:LEU:HD13	1.84	0.60
2:12:15:VAL:O	2:12:209:ARG:NH2	2.34	0.60
5:42:60:TYR:HB3	5:42:64:ARG:HH21	1.64	0.60
17:8A:66:SER:OG	17:8A:69:LYS:HB2	2.02	0.60
18:9A:53:ARG:HH21	18:9A:60:ALA:N	1.99	0.60
24:3L:72:C:H3'	24:3L:73:A:H5"	1.83	0.60
26:14:801:G:OP2	58:14:3734:HOH:O	2.16	0.60
26:14:2776:A:OP1	26:14:2776:A:H3'	2.01	0.60
29:29:31:CYS:HB3	29:29:49:LEU:HB3	1.81	0.60
33:69:14:ASP:OD1	33:69:15:VAL:N	2.34	0.60
1:13:1086:U:H3	1:13:1099:G:H22	1.49	0.60
1:13:1287:A:H2'	1:13:1288:A:C8	2.37	0.60
4:3E:26:CYS:HA	4:3E:31:CYS:HB2	1.82	0.60
24:3K:76:A:H5"	48:J8:30:VAL:HG11	1.83	0.60
26:1H:427:U:OP2	58:1H:4623:HOH:O	2.17	0.60
26:1H:2392:A:H2	26:1H:2424:C:N4	1.97	0.60
1:1G:1182:G:H5'	1:1G:1183:A:H5'	1.82	0.60
26:14:892:G:N2	26:14:894:C:OP1	2.35	0.60
26:14:1250:G:OP2	36:35:21:ARG:HD3	2.02	0.60
26:14:1479:G:O2'	26:14:1558:A:H5'	2.02	0.60
26:14:1653:G:C6	38:55:9:LYS:HB2	2.36	0.60
26:14:2784:C:H2'	26:14:2785:C:C6	2.37	0.60
28:19:17:THR:O	28:19:211:ARG:NH2	2.34	0.60
30:39:46:ARG:HG2	30:39:46:ARG:HH11	1.66	0.60
36:35:59:LEU:O	36:35:59:LEU:HD22	2.02	0.60
1:13:671:G:H2'	1:13:672:U:H6	1.67	0.60
1:13:991:U:C4	1:13:1212:U:H1'	2.36	0.60
6:5E:61:LEU:HD23	6:5E:63:TYR:HE1	1.67	0.60
26:1H:419:C:H2'	26:1H:420:C:O4'	2.02	0.60
26:1H:492:A:H2'	26:1H:493:G:O4'	2.02	0.60
26:1H:2053:G:OP1	29:21:144:ARG:HD3	2.02	0.60
33:61:143:SER:HB2	33:61:144:VAL:HG12	1.82	0.60
34:58:96:GLU:HG2	34:58:97:ARG:H	1.64	0.60
1:1G:890:G:O2'	1:1G:906:G:O6	2.20	0.60
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.84	0.60
5:42:61:TYR:HA	5:42:64:ARG:HB2	1.82	0.60
26:14:1709:U:H2'	26:14:1710:C:C6	2.37	0.60
26:14:2414:G:H21	36:35:67:MET:HE1	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:2:C:H2'	27:1J:3:C:C6	2.36	0.60
34:15:56:ASN:HB2	34:15:59:LYS:HG3	1.83	0.60
51:I5:23:GLU:HG3	51:I5:24:THR:H	1.67	0.60
1:13:116:A:H61	1:13:313:A:H1'	1.67	0.59
1:13:642:A:N3	8:7E:113:SER:OG	2.35	0.59
1:13:1263:C:H2'	1:13:1264:C:C6	2.37	0.59
1:13:1503:A:O2'	25:4K:13:A:N6	2.35	0.59
14:5I:21:TYR:OH	14:5I:23:ARG:NH2	2.35	0.59
26:1H:943:U:P	58:1H:4508:HOH:O	2.60	0.59
26:1H:2829:C:H2'	26:1H:2830:G:H5"	1.84	0.59
27:16:12:C:O2'	47:I8:74:ARG:HG2	2.02	0.59
34:58:96:GLU:O	34:58:98:VAL:HG12	2.02	0.59
44:F8:89:ILE:HG22	44:F8:92:LEU:HB2	1.83	0.59
1:1G:538:G:H3'	12:3A:115:LYS:HZ3	1.67	0.59
22:1L:12:U:O2	22:1L:24:G:N2	2.35	0.59
26:14:176:G:O2'	26:14:177:G:H5'	2.02	0.59
26:14:459:U:H2'	26:14:460:A:C8	2.37	0.59
26:14:524:U:H2'	26:14:525:U:H6	1.66	0.59
26:14:2317:C:H2'	26:14:2318:G:O4'	2.02	0.59
36:35:78:PRO:HA	36:35:110:TYR:CD2	2.36	0.59
37:45:34:LEU:HD12	37:45:130:LYS:O	2.02	0.59
37:45:75:THR:HA	37:45:89:ASN:HA	1.84	0.59
38:55:106:GLY:O	38:55:107:ASP:HB3	2.02	0.59
1:13:1157:A:H61	1:13:1178:G:N2	1.96	0.59
1:13:1410:G:H2'	1:13:1411:C:H6	1.67	0.59
9:8E:42:ARG:NH1	9:8E:71:SER:O	2.35	0.59
26:1H:946:G:OP2	58:1H:4576:HOH:O	2.16	0.59
26:1H:1093:G:O2'	26:1H:1099:G:N2	2.35	0.59
26:1H:2685:G:OP2	40:B8:51:ARG:NH2	2.34	0.59
32:51:4:ILE:HB	32:51:6:ARG:HG3	1.84	0.59
1:1G:1396:A:H4'	1:1G:1397:C:OP2	2.01	0.59
26:14:459:U:H2'	26:14:460:A:H8	1.67	0.59
26:14:831:G:H5"	26:14:832:G:OP2	2.02	0.59
26:14:1665:A:H4'	35:25:67:LYS:HB2	1.84	0.59
32:59:41:MET:HE2	32:59:64:LEU:HB2	1.84	0.59
33:69:18:VAL:HG21	33:69:44:LEU:HD21	1.84	0.59
36:35:146:VAL:HG13	36:35:147:LEU:HD13	1.85	0.59
53:K5:26:ASN:OD1	53:K5:28:ARG:HG2	2.02	0.59
3:2E:3:ASN:N	3:2E:3:ASN:OD1	2.36	0.59
3:2E:15:THR:HG21	3:2E:181:ASN:HA	1.83	0.59
10:1I:38:ILE:HG23	10:1I:71:LEU:HB3	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:58:A:O2'	24:3K:59:U:OP1	2.21	0.59
26:1H:229:A:H4'	26:1H:230:U:H5'	1.83	0.59
26:1H:1290:C:H2'	26:1H:1291:C:C6	2.38	0.59
27:16:80:U:H2'	27:16:81:G:N2	2.17	0.59
49:K8:23:LYS:NZ	49:K8:27:GLU:OE2	2.23	0.59
1:1G:987:G:N2	1:1G:1218:C:N3	2.38	0.59
2:12:84:GLU:HB3	2:12:219:VAL:HG11	1.85	0.59
3:22:18:TRP:CD1	14:5A:54:PRO:HA	2.37	0.59
26:14:125:G:H5"	54:L5:19:ARG:HD3	1.83	0.59
26:14:1798:U:H5'	28:19:259:THR:OG1	2.02	0.59
26:14:1818:U:H2'	28:19:157:ARG:HD3	1.83	0.59
26:14:2037:G:H2'	26:14:2038:G:C8	2.37	0.59
38:55:82:GLU:H	38:55:85:PRO:HG2	1.66	0.59
42:95:35:LEU:HB3	42:95:37:VAL:CG1	2.32	0.59
1:13:313:A:H2'	1:13:314:C:C6	2.37	0.59
1:13:406:G:H2'	1:13:407:G:H8	1.66	0.59
1:13:1014:A:H4'	19:AI:14:HIS:CD2	2.38	0.59
13:4I:39:ILE:HD12	13:4I:56:LEU:HG	1.83	0.59
20:BI:50:GLU:HB2	20:BI:100:ILE:HD13	1.85	0.59
23:2K:62:C:H2'	23:2K:63:C:C6	2.34	0.59
26:1H:833:U:O2	36:78:55:ARG:NH1	2.31	0.59
26:1H:1478:G:H2'	26:1H:1479:G:C8	2.35	0.59
26:1H:1602:U:O4	58:1H:4018:HOH:O	2.16	0.59
26:1H:2210:G:H5'	26:1H:2211:G:N7	2.17	0.59
53:O8:15:GLU:HB3	53:O8:49:HIS:CD2	2.38	0.59
55:Q8:9:GLY:O	55:Q8:13:ARG:HD2	2.03	0.59
1:1G:243:A:H4'	1:1G:244:U:H5"	1.83	0.59
4:32:119:GLN:O	4:32:123:HIS:ND1	2.35	0.59
10:1A:3:LYS:NZ	10:1A:75:ILE:O	2.36	0.59
26:14:672:C:H5'	30:39:89:VAL:HG13	1.84	0.59
26:14:1292:U:H2'	26:14:1293:C:C6	2.37	0.59
26:14:1774:C:OP1	58:14:4076:HOH:O	2.16	0.59
31:49:36:LYS:HG2	31:49:38:VAL:HG23	1.85	0.59
31:49:43:LEU:HD12	31:49:45:GLU:OE1	2.02	0.59
1:13:1000:A:H2'	1:13:1001:G:C8	2.37	0.59
4:3E:29:PRO:HA	4:3E:34:GLU:HG3	1.84	0.59
6:5E:36:ARG:HH21	6:5E:38:GLU:HG2	1.66	0.59
24:3K:19:G:C6	26:1H:2112:G:H1'	2.38	0.59
26:1H:125:G:H5'	26:1H:125:G:C8	2.38	0.59
26:1H:1021:A:H3'	26:1H:1021:A:H8	1.68	0.59
26:1H:1027:A:C2	26:1H:2488:A:H5'	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2702:U:H6	26:1H:2702:U:OP1	1.85	0.59
58:1H:4503:HOH:O	27:16:100:G:H5"	2.03	0.59
29:21:51:PHE:O	29:21:74:PRO:HB2	2.02	0.59
39:A8:26:LEU:HD23	39:A8:87:PHE:CD1	2.37	0.59
42:D8:65:GLY:HA3	42:D8:91:TYR:CE1	2.36	0.59
55:Q8:48:PHE:CG	55:Q8:49:VAL:HG13	2.37	0.59
23:2L:24:C:H2'	23:2L:25:U:H6	1.67	0.59
26:14:2690:C:OP2	38:55:14:SER:HB3	2.01	0.59
35:25:31:LYS:HB3	35:25:32:TYR:CD1	2.37	0.59
38:55:33:ARG:HD3	38:55:113:LEU:HD12	1.85	0.59
40:75:53:ARG:HH11	40:75:60:THR:HG23	1.67	0.59
1:13:1502:A:H2	1:13:1505:G:N1	1.92	0.59
13:4I:65:LYS:HZ2	51:M8:52:THR:HB	1.66	0.59
26:1H:125:G:H5'	26:1H:125:G:H8	1.68	0.59
26:1H:1252:G:N7	41:C8:36:ARG:NH1	2.51	0.59
26:1H:1577:C:OP2	58:1H:4025:HOH:O	2.17	0.59
26:1H:2264:C:H5"	26:1H:2265:U:OP2	2.03	0.59
39:A8:93:LYS:HG2	39:A8:95:HIS:HB2	1.84	0.59
42:D8:41:GLY:O	42:D8:45:THR:HA	2.02	0.59
47:I8:64:ASP:HB2	47:I8:85:ALA:HB1	1.84	0.59
1:1G:1004:A:H8	1:1G:1036:G:H22	1.51	0.59
46:D5:58:VAL:HG12	46:D5:60:GLU:HB3	1.83	0.59
1:13:947:G:O3'	13:4I:109:THR:OG1	2.20	0.59
1:13:1096:C:H2'	1:13:1097:C:H6	1.66	0.59
11:2I:30:VAL:HG21	11:2I:65:ALA:HA	1.83	0.59
13:4I:40:ASN:HB3	13:4I:43:THR:HG23	1.85	0.59
14:5I:48:ALA:HB2	14:5I:53:LEU:HD12	1.84	0.59
16:7I:20:VAL:HG21	16:7I:32:TYR:CD2	2.37	0.59
26:1H:512:G:N7	58:1H:4665:HOH:O	2.36	0.59
26:1H:1178:C:H4'	26:1H:1179:C:OP1	2.01	0.59
26:1H:2815:C:H2'	26:1H:2816:C:H6	1.67	0.59
31:41:67:LYS:HE2	31:41:67:LYS:H	1.67	0.59
31:41:94:LEU:H	31:41:94:LEU:HD23	1.67	0.59
33:61:92:VAL:HG13	33:61:120:ILE:HG23	1.84	0.59
46:H8:126:VAL:HG12	46:H8:163:LEU:HA	1.83	0.59
52:N8:20:ARG:HG2	52:N8:23:HIS:CE1	2.38	0.59
1:1G:108:G:H5'	1:1G:109:A:H5"	1.83	0.59
1:1G:179:A:H2'	1:1G:180:U:H6	1.66	0.59
1:1G:280:C:H3'	1:1G:281:G:H5'	1.85	0.59
1:1G:736:C:H2'	1:1G:737:A:C8	2.38	0.59
3:22:155:GLY:HA3	3:22:196:LEU:HD13	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:99:LEU:HB3	9:82:101:PHE:CD1	2.38	0.59
26:14:607:U:OP1	30:39:102:PRO:HA	2.02	0.59
26:14:1952:A:C6	35:25:22:ILE:HD11	2.37	0.59
40:75:24:PRO:HA	40:75:49:VAL:HG23	1.84	0.59
1:13:973:G:H3'	1:13:974:A:H5"	1.85	0.59
16:7I:11:SER:HB2	16:7I:14:ASN:HB3	1.82	0.59
26:1H:65:C:H2'	26:1H:66:C:H6	1.67	0.59
26:1H:428:A:OP1	58:1H:4617:HOH:O	2.17	0.59
26:1H:535:C:O3'	41:C8:53:ARG:NH1	2.35	0.59
26:1H:1216:G:OP2	41:C8:12:ARG:NH2	2.34	0.59
26:1H:1831:G:H2'	26:1H:1832:C:H6	1.68	0.59
26:1H:2306:C:H3'	26:1H:2307:G:C5'	2.33	0.59
26:1H:2431:U:OP2	58:1H:3905:HOH:O	2.16	0.59
26:1H:2801:A:H2'	26:1H:2802:G:H4'	1.83	0.59
29:21:119:ARG:HH11	29:21:120:TRP:NE1	2.00	0.59
34:58:127:ASP:OD1	34:58:127:ASP:N	2.35	0.59
35:68:93:PRO:HG3	35:68:114:ILE:HG12	1.84	0.59
1:1G:617:G:H1	1:1G:623:C:H42	1.50	0.59
1:1G:764:C:H5"	15:6A:50:HIS:ND1	2.17	0.59
1:1G:1127:G:N3	1:1G:1147:C:N4	2.50	0.59
7:62:16:LEU:HD12	9:82:42:ARG:HA	1.85	0.59
16:7A:38:TYR:CE2	16:7A:50:LYS:HD2	2.38	0.59
22:1L:76:A:O5'	26:14:2602:A:N6	2.36	0.59
26:14:329:G:H8	26:14:329:G:OP1	1.84	0.59
27:1J:40:U:C5	51:I5:1:MET:HB3	2.36	0.59
36:35:5:ASP:O	36:35:7:ARG:NH1	2.36	0.59
47:E5:48:GLY:HA3	47:E5:80:HIS:ND1	2.17	0.59
48:F5:92:LYS:O	48:F5:95:LEU:N	2.31	0.59
1:13:827:U:C5	1:13:870:U:C4	2.91	0.59
6:5E:69:GLU:O	6:5E:72:VAL:HG12	2.03	0.59
7:6E:5:ARG:NH1	7:6E:8:GLU:OE2	2.36	0.59
21:1F:9:ARG:HH22	21:1F:23:PRO:HD2	1.68	0.59
26:1H:764:A:O4'	28:11:213:ARG:HG3	2.03	0.59
26:1H:2138:C:H42	26:1H:2153:G:H1	1.50	0.59
44:F8:15:GLU:HG3	44:F8:16:LYS:N	2.18	0.59
1:1G:954:G:H21	1:1G:1227:A:H62	1.51	0.59
1:1G:1423:G:H2'	1:1G:1424:C:H6	1.66	0.59
5:42:145:LYS:O	5:42:149:GLU:N	2.34	0.59
6:52:100:ASN:OD1	18:9A:23:LYS:NZ	2.23	0.59
21:1B:2:GLY:O	21:1B:5:ASP:N	2.29	0.59
26:14:584:C:OP2	41:85:10:ARG:NH2	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1197:G:H2'	26:14:1198:U:H6	1.68	0.59
26:14:2528:U:O2'	26:14:2530:A:OP1	2.15	0.59
46:D5:163:LEU:HD23	46:D5:163:LEU:H	1.67	0.59
17:8I:88:TYR:CD1	17:8I:89:LEU:HD23	2.35	0.59
26:1H:929:G:O6	58:1H:3758:HOH:O	2.17	0.59
31:41:97:ASP:O	31:41:100:TRP:N	2.35	0.59
36:78:114:ILE:HD11	36:78:130:PHE:HD2	1.68	0.59
41:C8:106:PHE:O	41:C8:109:LEU:HB2	2.03	0.59
45:G8:15:VAL:HG21	45:G8:42:VAL:HG21	1.84	0.59
1:1G:1108:G:H5'	3:22:176:HIS:HD2	1.68	0.59
5:42:7:GLU:OE1	5:42:37:ARG:NH2	2.35	0.59
27:1J:24:G:H5'	27:1J:25:A:C8	2.38	0.59
42:95:85:LYS:HB3	42:95:87:HIS:H	1.68	0.59
45:C5:87:LYS:HG2	45:C5:88:LYS:HD2	1.85	0.59
4:3E:83:SER:HA	4:3E:89:THR:HG23	1.84	0.58
6:5E:22:GLU:O	6:5E:26:ILE:HG13	2.03	0.58
26:1H:1385:G:O2'	26:1H:1396:U:H6	1.86	0.58
26:1H:2131:G:H5"	26:1H:2133:G:H4'	1.85	0.58
26:1H:2684:U:C4	26:1H:2685:G:N7	2.71	0.58
26:1H:2734:A:H5'	26:1H:2735:G:OP2	2.02	0.58
26:1H:2780:G:OP1	34:58:118:LYS:NZ	2.30	0.58
29:21:33:VAL:O	29:21:69:LYS:HD2	2.03	0.58
55:Q8:30:ARG:HH11	55:Q8:30:ARG:CG	2.13	0.58
1:1G:861:G:C5	1:1G:862:C:H5	2.20	0.58
4:32:13:ARG:C	4:32:15:GLU:H	2.11	0.58
6:52:36:ARG:NH2	6:52:38:GLU:OE2	2.36	0.58
26:14:78:A:OP1	49:G5:14:ARG:NH2	2.36	0.58
26:14:1025:G:H8	26:14:1025:G:OP1	1.85	0.58
28:19:222:ARG:HB2	28:19:222:ARG:HH11	1.66	0.58
46:D5:130:PRO:HA	46:D5:133:ILE:HD11	1.84	0.58
55:M5:30:ARG:O	55:M5:32:LEU:N	2.35	0.58
1:13:1505:G:H5'	58:13:1801:HOH:O	2.02	0.58
23:2K:64:G:H2'	23:2K:65:G:H8	1.67	0.58
26:1H:2591:C:OP2	28:11:239:ARG:HB2	2.04	0.58
52:N8:30:LEU:HD23	52:N8:41:PRO:HA	1.85	0.58
55:Q8:34:TRP:CE3	55:Q8:36:LYS:HD3	2.38	0.58
55:Q8:49:VAL:HB	55:Q8:52:LYS:C	2.27	0.58
1:1G:522:C:OP2	12:3A:69:TYR:OH	2.21	0.58
17:8A:22:LEU:HD11	17:8A:39:SER:HB2	1.83	0.58
21:1B:2:GLY:O	21:1B:4:GLY:N	2.36	0.58
26:14:635:C:O2'	26:14:639:U:OP1	2.20	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1858:G:H2'	26:14:1883:G:H22	1.68	0.58
49:G5:29:LYS:HG3	49:G5:57:ILE:HD13	1.85	0.58
1:13:1074:G:O2'	1:13:1101:A:N1	2.31	0.58
1:13:1226:C:H4'	19:AI:80:TYR:OH	2.02	0.58
1:13:1369:C:H2'	1:13:1370:G:C8	2.37	0.58
26:1H:155:C:N4	26:1H:171:G:H1	2.00	0.58
26:1H:1069:A:H4'	26:1H:1070:A:H5"	1.84	0.58
26:1H:1375:C:H2'	26:1H:1376:C:H6	1.67	0.58
26:1H:1575:C:H2'	26:1H:1576:U:C6	2.38	0.58
26:1H:1831:G:H2'	26:1H:1832:C:C6	2.38	0.58
26:1H:2845:G:OP2	58:1H:4683:HOH:O	2.17	0.58
38:98:87:TYR:HD1	38:98:90:ARG:HD2	1.67	0.58
40:B8:20:PRO:HD2	40:B8:86:ILE:HG23	1.85	0.58
44:F8:3:THR:HA	44:F8:6:ASP:OD2	2.03	0.58
45:G8:85:VAL:HG23	45:G8:96:ILE:HB	1.83	0.58
51:M8:38:LYS:NZ	51:M8:44:THR:OG1	2.36	0.58
1:1G:501:C:H2'	1:1G:502:G:C8	2.38	0.58
1:1G:777:A:H2	11:2A:119:CYS:HB3	1.69	0.58
9:82:17:VAL:HA	9:82:63:ILE:HG12	1.85	0.58
9:82:63:ILE:HD11	9:82:81:ILE:HD11	1.85	0.58
26:14:1328:G:O6	58:14:3555:HOH:O	2.16	0.58
26:14:2645:G:N2	26:14:2767:C:OP2	2.35	0.58
35:25:2:ILE:HD12	35:25:6:THR:HG21	1.85	0.58
1:13:536:C:H2'	1:13:537:G:C8	2.38	0.58
1:13:727:G:N2	1:13:730:G:OP2	2.21	0.58
10:1I:4:ILE:HG12	10:1I:100:THR:HA	1.83	0.58
10:1I:6:ILE:HG22	10:1I:98:ILE:HG13	1.85	0.58
11:2I:121:PRO:HG2	11:2I:126:ARG:HG3	1.85	0.58
26:1H:270(M):U:OP1	26:1H:270(N):G:N2	2.36	0.58
26:1H:698:C:O2'	26:1H:734:A:N6	2.36	0.58
39:A8:35:ILE:HG22	39:A8:97:ARG:HH21	1.66	0.58
39:A8:61:ASN:HB3	39:A8:64:GLU:HG3	1.84	0.58
55:Q8:27:THR:O	55:Q8:29:LYS:HA	2.02	0.58
8:72:32:LYS:HA	8:72:35:ILE:HD12	1.85	0.58
26:14:2823:A:OP1	29:29:159:HIS:NE2	2.37	0.58
51:I5:49:PHE:HD2	51:I5:50:VAL:HG22	1.67	0.58
1:13:1497:G:H2'	1:13:1498:U:H5'	1.86	0.58
2:1E:11:LEU:HB3	2:1E:213:LEU:HD11	1.85	0.58
6:5E:24:GLU:HG3	6:5E:28:ARG:NH2	2.18	0.58
12:3I:53:ARG:HH12	12:3I:92:ASP:CB	2.17	0.58
20:BI:71:THR:HG22	20:BI:72:LEU:N	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:71:A:C2	44:F8:31:HIS:HE1	2.21	0.58
26:1H:1329:U:H5"	26:1H:1330:C:H5	1.68	0.58
26:1H:2331:G:O2'	26:1H:2336:A:N1	2.30	0.58
28:11:132:PRO:HD3	28:11:190:TYR:CZ	2.38	0.58
39:A8:26:LEU:HD11	39:A8:73:LEU:HD13	1.86	0.58
46:H8:128:VAL:HB	46:H8:161:VAL:HG21	1.84	0.58
1:1G:742:G:H5'	15:6A:58:MET:HE1	1.85	0.58
1:1G:1286:A:C8	1:1G:1287:A:H4'	2.38	0.58
4:32:103:ASN:OD1	4:32:114:ARG:NH2	2.32	0.58
26:14:287:C:H2'	26:14:288:C:C6	2.38	0.58
26:14:602:G:O2'	26:14:655:A:N6	2.36	0.58
26:14:2157:G:O2'	26:14:2158:A:H8	1.85	0.58
26:14:2232:U:P	48:F5:40:ARG:HH12	2.26	0.58
26:14:2749:A:N1	26:14:2750:A:N6	2.51	0.58
28:19:67:PHE:HB3	28:19:153:ALA:H	1.68	0.58
36:35:3:LEU:H	36:35:3:LEU:HD12	1.68	0.58
1:13:313:A:H2'	1:13:314:C:H6	1.69	0.58
1:13:1325:C:H2'	1:13:1326:C:H6	1.68	0.58
1:13:1453:G:C8	20:BI:39:LYS:HE2	2.38	0.58
2:1E:73:THR:OG1	2:1E:170:GLU:OE2	2.11	0.58
4:3E:62:GLN:HB3	4:3E:66:ARG:NH1	2.18	0.58
5:4E:35:GLY:HA3	5:4E:112:LEU:HB3	1.86	0.58
26:1H:639:U:H2'	26:1H:640:C:C6	2.39	0.58
26:1H:1567:A:H5"	28:11:58:HIS:ND1	2.19	0.58
26:1H:1785:A:H4'	26:1H:1982:C:O2'	2.04	0.58
33:61:75:LEU:HB3	33:61:105:HIS:CD2	2.39	0.58
35:68:4:PRO:O	35:68:5:GLN:HB2	2.01	0.58
36:78:122:PRO:HA	36:78:142:GLY:HA3	1.84	0.58
1:1G:1154:G:H2'	1:1G:1155:G:C8	2.38	0.58
5:42:78:HIS:HA	8:72:105:ARG:HG3	1.86	0.58
9:82:18:PHE:HD2	9:82:62:TYR:HD2	1.49	0.58
24:3L:5:G:H2'	24:3L:6:G:H8	1.68	0.58
26:14:1467:C:H2'	26:14:1468:C:H6	1.69	0.58
26:14:1486:A:H2'	26:14:1487:G:H8	1.68	0.58
26:14:1510:A:H2'	26:14:1511:A:C8	2.39	0.58
26:14:2812:G:N2	26:14:2889:C:O2	2.36	0.58
36:35:98:GLU:HA	36:35:101:VAL:HG12	1.86	0.58
39:65:83:LYS:HG3	39:65:84:GLN:HG2	1.85	0.58
1:13:963:G:H21	10:1I:55:LYS:CE	2.16	0.58
11:2I:18:ARG:HB3	11:2I:33:THR:OG1	2.03	0.58
26:1H:1270:C:H5"	26:1H:1271:G:H5'	1.83	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1388:G:H2'	26:1H:1389:G:H8	1.67	0.58
26:1H:1800:C:OP2	28:11:183:ARG:NH2	2.32	0.58
26:1H:2105:C:H2'	26:1H:2106:G:C8	2.38	0.58
28:11:17:THR:HG22	28:11:205:VAL:N	2.13	0.58
28:11:145:VAL:HG12	28:11:146:GLU:O	2.04	0.58
1:1G:481:G:O2'	1:1G:483:C:N4	2.36	0.58
1:1G:980:C:H3'	1:1G:981:U:C6	2.39	0.58
2:12:19:HIS:CG	2:12:20:GLU:H	2.22	0.58
5:42:101:ILE:HD11	5:42:119:LEU:HD23	1.85	0.58
16:7A:22:THR:HA	16:7A:33:ILE:HG12	1.84	0.58
26:14:1759:A:H4'	26:14:2715:C:O4'	2.04	0.58
27:1J:88:C:H3'	27:1J:89:G:C8	2.38	0.58
28:19:206:LEU:HD22	28:19:211:ARG:HG2	1.85	0.58
44:B5:8:ILE:O	49:G5:36:ARG:NH2	2.37	0.58
47:E5:66:VAL:HG12	47:E5:67:VAL:H	1.69	0.58
48:F5:85:LEU:HA	48:F5:87:PRO:HD2	1.85	0.58
55:M5:29:LYS:HB3	55:M5:44:LYS:HB2	1.86	0.58
1:13:674:G:H2'	1:13:675:A:C8	2.38	0.58
1:13:677:U:H3	1:13:713:G:H22	1.52	0.58
1:13:948:C:O2'	1:13:949:A:H5'	2.03	0.58
3:2E:134:ILE:O	3:2E:138:VAL:HG12	2.03	0.58
13:4I:74:VAL:O	13:4I:78:ILE:HD12	2.03	0.58
26:1H:527:C:H4'	26:1H:528:A:H5'	1.85	0.58
26:1H:588:U:H2'	26:1H:589:C:C6	2.39	0.58
26:1H:634:C:H2'	26:1H:635:C:C6	2.37	0.58
26:1H:1110:G:O2'	26:1H:1111:A:H8	1.87	0.58
39:A8:89:ARG:HG2	39:A8:89:ARG:O	2.03	0.58
45:G8:55:TYR:CE1	45:G8:61:ILE:HD11	2.39	0.58
1:1G:619:U:N3	4:32:134:ASP:OD1	2.35	0.58
6:52:11:ASN:ND2	6:52:84:ASN:OD1	2.36	0.58
12:3A:46:LYS:HE2	12:3A:47:LYS:HB2	1.86	0.58
24:3L:18:G:H2'	24:3L:57:G:N1	2.18	0.58
26:14:270(J):G:C2	26:14:270(K):C:H1'	2.39	0.58
26:14:605:C:O2	26:14:657:U:O2'	2.21	0.58
26:14:718:A:H3'	26:14:719:C:H6	1.68	0.58
26:14:1093:G:O2'	26:14:1099:G:N2	2.37	0.58
26:14:1520:U:H2'	26:14:1521:G:O4'	2.03	0.58
31:49:64:THR:HG23	31:49:66:GLN:H	1.67	0.58
36:35:84:ASN:ND2	36:35:117:GLU:HB3	2.19	0.58
44:B5:11:PRO:HB3	44:B5:92:LEU:HD21	1.86	0.58
46:D5:157:LEU:HG	46:D5:161:VAL:HG11	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:413:G:N2	1:13:428:G:H1'	2.19	0.58
2:1E:33:TYR:HB2	2:1E:43:ASP:HB2	1.85	0.58
24:3K:50:U:H3	24:3K:64:A:N6	2.00	0.58
26:1H:270(N):G:OP1	33:61:57:ARG:NH2	2.37	0.58
26:1H:286:C:H2'	26:1H:287:C:H6	1.68	0.58
26:1H:2019:A:H2	26:1H:2035:G:H22	1.52	0.58
30:31:64:ILE:HG23	30:31:65:TRP:CD1	2.39	0.58
38:98:72:ASP:O	38:98:76:VAL:HG23	2.02	0.58
38:98:103:ARG:HD2	38:98:108:GLY:O	2.03	0.58
46:H8:72:ARG:NH2	46:H8:97:GLU:O	2.27	0.58
5:42:10:MET:HA	5:42:32:VAL:HG22	1.86	0.58
26:14:453:C:OP1	58:14:4015:HOH:O	2.17	0.58
26:14:854:G:H2'	26:14:855:G:H8	1.69	0.58
26:14:1570:A:H2'	26:14:1571:A:C8	2.39	0.58
26:14:2340:G:H2'	26:14:2341:G:C8	2.38	0.58
32:59:8:PRO:HG2	32:59:69:ARG:HH21	1.67	0.58
41:85:47:TYR:HA	41:85:50:ARG:NH2	2.19	0.58
50:H5:10:LYS:NZ	50:H5:15:TYR:OH	2.29	0.58
51:I5:18:CYS:SG	51:I5:19:GLY:HA2	2.43	0.58
11:2I:85:ARG:HD3	11:2I:113:PRO:HD3	1.86	0.58
22:1K:76:A:C8	26:1H:2507:C:H1'	2.39	0.58
24:3K:64:A:C2	24:3K:65:G:H1'	2.39	0.58
26:1H:1342:A:OP2	58:1H:4018:HOH:O	2.17	0.58
26:1H:1653:G:H3'	38:98:2:ARG:HG2	1.85	0.58
38:98:13:HIS:CE1	38:98:15:SER:HB3	2.38	0.58
47:I8:55:ARG:HG3	47:I8:55:ARG:HH11	1.69	0.58
1:1G:632:A:H1'	1:1G:633:G:OP2	2.04	0.58
1:1G:1324:A:H2'	1:1G:1325:C:C6	2.39	0.58
5:42:140:ARG:O	5:42:143:ARG:NH2	2.37	0.58
6:52:7:ASN:N	6:52:7:ASN:OD1	2.37	0.58
9:82:29:ASN:N	9:82:63:ILE:O	2.36	0.58
22:1L:9:A:OP2	22:1L:13:C:N4	2.36	0.58
26:14:2298:A:H1'	26:14:2321:G:N2	2.18	0.58
29:29:89:ASP:C	29:29:91:VAL:H	2.11	0.58
1:13:451:A:N6	1:13:480:U:H2'	2.18	0.57
1:13:604:G:H2'	1:13:605:U:O4'	2.04	0.57
1:13:1004:A:H1'	1:13:1036:G:H22	1.69	0.57
20:BI:61:SER:O	20:BI:65:LYS:HB2	2.04	0.57
26:1H:507:A:H5"	26:1H:508:G:H5'	1.86	0.57
26:1H:582:G:H2'	26:1H:583:G:C8	2.39	0.57
26:1H:780:G:H21	26:1H:783:A:N6	1.97	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:814:C:N3	26:1H:1193:G:N1	2.46	0.57
26:1H:1864:U:OP1	26:1H:2410:G:O2'	2.19	0.57
26:1H:2300:G:H1	26:1H:2316:C:H42	1.52	0.57
27:16:15:A:H5'	27:16:16:G:C8	2.38	0.57
29:21:8:LYS:HA	29:21:26:ILE:HG22	1.86	0.57
40:B8:31:SER:OG	40:B8:85:LYS:NZ	2.36	0.57
1:1G:345:C:O2'	1:1G:346:G:O5'	2.21	0.57
1:1G:600:C:H2'	1:1G:601:C:C6	2.39	0.57
1:1G:960:U:H4'	1:1G:961:U:H5"	1.85	0.57
1:1G:1298:C:O2'	1:1G:1299:A:OP2	2.19	0.57
3:22:44:GLU:HA	3:22:52:LEU:HD11	1.86	0.57
3:22:57:ILE:HG12	3:22:66:VAL:HG22	1.86	0.57
4:32:176:LEU:HG	4:32:178:VAL:HG13	1.85	0.57
7:62:67:GLU:OE2	7:62:70:LYS:NZ	2.35	0.57
9:82:51:ARG:HG2	9:82:56:LEU:HB2	1.84	0.57
19:AA:80:TYR:CZ	19:AA:82:GLY:HA2	2.38	0.57
26:14:751:A:OP1	58:14:3410:HOH:O	2.17	0.57
26:14:1927:A:H2'	26:14:1928:A:C8	2.38	0.57
26:14:2280:G:O2'	26:14:2388:A:N1	2.32	0.57
29:29:8:LYS:HG2	29:29:192:ASN:HA	1.86	0.57
30:39:67:GLN:HG3	30:39:67:GLN:O	2.04	0.57
33:69:6:LEU:HB2	33:69:36:ALA:HA	1.86	0.57
44:B5:36:LYS:HG3	44:B5:56:THR:HG23	1.86	0.57
47:E5:18:ALA:HB3	47:E5:20:ARG:HH21	1.67	0.57
1:13:276:G:O3'	17:8I:68:ARG:NH1	2.37	0.57
1:13:412:A:OP2	4:3E:35:ARG:NH2	2.37	0.57
6:5E:39:LYS:HB2	6:5E:64:GLN:HB2	1.86	0.57
9:8E:112:LYS:CA	9:8E:119:ALA:HB2	2.33	0.57
12:3I:47:LYS:HA	12:3I:49:ASN:H	1.68	0.57
15:6I:78:TYR:CZ	15:6I:82:ILE:HD11	2.39	0.57
26:1H:732:C:H3'	58:1H:4070:HOH:O	2.04	0.57
26:1H:1139:G:O2'	26:1H:1143:A:N1	2.32	0.57
26:1H:1283:G:N2	26:1H:1285:G:H3'	2.20	0.57
26:1H:1807:G:N7	58:1H:4385:HOH:O	2.32	0.57
26:1H:2023:G:H5'	26:1H:2617:C:H4'	1.86	0.57
26:1H:2062:A:H2'	26:1H:2062:A:N3	2.19	0.57
26:1H:2283:C:H2'	26:1H:2284:C:O4'	2.04	0.57
35:68:7:TYR:CE1	35:68:20:MET:HE3	2.39	0.57
36:78:114:ILE:HD11	36:78:130:PHE:CD2	2.38	0.57
1:1G:1256:A:N6	1:1G:1277:C:H3'	2.18	0.57
2:12:145:LEU:O	2:12:149:LEU:HB2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:877:U:O4	26:14:899:A:N6	2.37	0.57
26:14:996:A:H4'	41:85:92:ARG:CZ	2.34	0.57
26:14:2233:U:H2'	26:14:2234:G:C8	2.39	0.57
27:1J:87:G:H3'	27:1J:88:C:C5'	2.32	0.57
38:55:67:LEU:HD12	38:55:76:VAL:HG11	1.86	0.57
41:85:50:ARG:HH22	42:95:72:VAL:HG23	1.68	0.57
47:E5:54:GLY:O	47:E5:57:PHE:N	2.36	0.57
1:13:1396:A:H4'	1:13:1397:C:H5"	1.86	0.57
3:2E:167:TRP:CD1	3:2E:168:ALA:N	2.72	0.57
6:5E:101:ALA:HB2	18:9I:28:GLU:HG2	1.86	0.57
9:8E:9:ARG:HD2	9:8E:14:VAL:HG13	1.84	0.57
9:8E:21:PRO:HA	9:8E:59:PHE:HA	1.84	0.57
26:1H:701:G:N2	26:1H:731:C:O2	2.33	0.57
26:1H:1403:C:C5'	26:1H:1471:A:H1'	2.34	0.57
27:16:29:A:H2'	27:16:30:C:O4'	2.04	0.57
33:61:69:LYS:HG3	33:61:136:VAL:HB	1.86	0.57
46:H8:52:SER:O	46:H8:52:SER:OG	2.13	0.57
1:1G:457:C:H2'	1:1G:458:C:C6	2.39	0.57
1:1G:999:U:H2'	1:1G:1000:A:C8	2.34	0.57
1:1G:1238:A:H62	1:1G:1301:U:H3	1.50	0.57
24:3L:58:A:O2'	24:3L:59:U:O5'	2.21	0.57
26:14:1087:G:H2'	26:14:1089:G:H1'	1.86	0.57
26:14:1430:C:H2'	26:14:1431:U:C6	2.40	0.57
26:14:2135:A:O2'	26:14:2160:G:O2'	2.21	0.57
26:14:2392:A:OP2	55:M5:32:LEU:HD23	2.04	0.57
42:95:85:LYS:HD2	42:95:86:GLY:N	2.14	0.57
9:8E:34:ASN:O	9:8E:38:GLN:HB2	2.04	0.57
17:8I:83:ASP:N	17:8I:83:ASP:OD1	2.37	0.57
26:1H:574:C:OP1	58:1H:4541:HOH:O	2.17	0.57
26:1H:607:U:C2	26:1H:621:A:N1	2.71	0.57
26:1H:1657:C:H2'	26:1H:1658:C:C6	2.40	0.57
26:1H:1919:A:H5"	26:1H:1920:C:OP2	2.04	0.57
44:F8:11:PRO:HB3	44:F8:92:LEU:HD21	1.86	0.57
44:F8:26:TYR:O	44:F8:81:VAL:HG12	2.05	0.57
50:L8:8:LEU:HD13	50:L8:31:LEU:HD23	1.85	0.57
55:Q8:57:ARG:HA	55:Q8:58:ILE:C	2.29	0.57
1:1G:1119:C:OP2	9:82:9:ARG:NH2	2.37	0.57
1:1G:1190:G:H5'	3:22:176:HIS:CE1	2.40	0.57
1:1G:1499:A:H1'	1:1G:1520:G:H5'	1.85	0.57
19:AA:79:THR:O	19:AA:79:THR:OG1	2.23	0.57
22:1L:51:U:H2'	22:1L:52:G:C8	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1600:C:OP1	44:B5:58:HIS:NE2	2.28	0.57
34:15:42:TRP:HA	34:15:48:MET:HE1	1.87	0.57
38:55:72:ASP:O	38:55:76:VAL:HG12	2.04	0.57
42:95:69:LYS:HB3	42:95:88:ARG:HG3	1.85	0.57
4:3E:79:PHE:O	4:3E:83:SER:HB2	2.04	0.57
26:1H:172:C:H2'	26:1H:173:G:H8	1.70	0.57
26:1H:443:A:H1'	26:1H:1201:C:O4'	2.04	0.57
26:1H:1062:G:N1	26:1H:1076:C:O2	2.36	0.57
26:1H:1424:G:H2'	26:1H:1425:G:O4'	2.05	0.57
26:1H:1771:C:H1'	26:1H:1786:A:C8	2.39	0.57
26:1H:1965:C:H2'	26:1H:1966:A:C8	2.39	0.57
26:1H:2232:U:P	48:J8:40:ARG:HH12	2.27	0.57
26:1H:2684:U:H1'	35:68:70:LYS:HD2	1.87	0.57
27:16:42:C:O2'	31:41:67:LYS:HE3	2.04	0.57
33:61:21:VAL:HG21	33:61:25:TYR:HD2	1.68	0.57
37:88:66:ILE:O	37:88:104:PHE:N	2.38	0.57
1:1G:60:A:N6	1:1G:110:C:N3	2.50	0.57
1:1G:1206:G:O2'	3:22:192:THR:O	2.12	0.57
14:5A:21:TYR:HE1	14:5A:23:ARG:NE	1.98	0.57
24:3L:76:A:H8	26:14:2394:C:N4	2.02	0.57
26:14:288:C:H2'	26:14:289:A:C8	2.38	0.57
26:14:918:A:O2'	27:1J:96:G:N2	2.37	0.57
26:14:2506:U:O5'	26:14:2506:U:H6	1.87	0.57
37:45:22:LYS:N	37:45:23:GLY:HA3	2.19	0.57
45:C5:42:VAL:HG13	45:C5:65:ALA:HB3	1.86	0.57
46:D5:39:VAL:HG21	46:D5:44:PHE:HD2	1.69	0.57
2:1E:24:TRP:CZ3	2:1E:26:PRO:HA	2.39	0.57
16:7I:34:GLU:HG2	16:7I:35:LYS:N	2.19	0.57
26:1H:303:U:H2'	26:1H:304:G:H8	1.69	0.57
26:1H:950:G:H2'	26:1H:951:C:C6	2.40	0.57
26:1H:2062:A:OP1	58:1H:4649:HOH:O	2.17	0.57
36:78:49:ARG:HE	55:Q8:57:ARG:HG2	1.69	0.57
37:88:14:ARG:HG2	37:88:41:TRP:CH2	2.34	0.57
38:98:55:ALA:HA	38:98:80:PHE:CE1	2.38	0.57
44:F8:49:VAL:HG12	44:F8:50:LYS:N	2.20	0.57
50:L8:28:LEU:HD23	50:L8:33:GLN:HG2	1.86	0.57
1:1G:1111:A:H2'	1:1G:1112:C:C6	2.39	0.57
23:2L:47:7MG:H3'	23:2L:48:U:C6	2.39	0.57
23:2L:63:C:H2'	23:2L:64:G:C8	2.39	0.57
26:14:1041:C:N4	26:14:1114:G:H22	1.99	0.57
26:14:2860:A:H5"	26:14:2861:G:OP2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:15:A:H1'	27:1J:109:G:C4	2.39	0.57
30:39:3:GLU:HG3	30:39:20:LEU:O	2.04	0.57
32:59:81:GLU:HG2	32:59:83:TYR:H	1.69	0.57
37:45:25:ASP:OD1	37:45:25:ASP:N	2.38	0.57
1:13:110:C:H2'	1:13:111:G:O4'	2.05	0.57
3:2E:40:ARG:HH11	3:2E:40:ARG:HG3	1.69	0.57
5:4E:11:ILE:HD11	5:4E:31:LEU:HD13	1.85	0.57
17:8I:66:SER:O	17:8I:70:ARG:NH1	2.38	0.57
26:1H:7:G:H2'	26:1H:8:A:O4'	2.04	0.57
26:1H:298:G:OP2	45:G8:84:ARG:NH1	2.36	0.57
26:1H:661:C:HO2'	36:78:14:LYS:H	1.51	0.57
26:1H:1045:A:H1'	26:1H:1047:G:N3	2.19	0.57
26:1H:2404:C:OP2	58:1H:4219:HOH:O	2.17	0.57
28:11:71:ASP:OD2	28:11:103:ARG:NH2	2.37	0.57
30:31:127:GLU:OE1	30:31:128:ALA:N	2.37	0.57
1:1G:565:U:OP2	1:1G:566:G:O2'	2.23	0.57
5:42:93:PRO:HG2	8:72:105:ARG:NE	2.19	0.57
9:82:4:TYR:HB2	9:82:19:LEU:HB2	1.85	0.57
26:14:1677:A:H2'	26:14:1678:G:C8	2.40	0.57
26:14:2311:A:N6	31:49:44:GLY:HA3	2.19	0.57
26:14:2745:C:O2	32:59:139:GLN:NE2	2.29	0.57
27:1J:62:C:H2'	27:1J:63:G:C8	2.38	0.57
29:29:36:ARG:NH1	29:29:85:ASN:OD1	2.33	0.57
47:E5:66:VAL:HG12	47:E5:67:VAL:N	2.20	0.57
48:F5:29:GLY:O	48:F5:30:VAL:HG22	2.04	0.57
3:2E:19:GLU:O	3:2E:40:ARG:NH2	2.38	0.57
4:3E:18:LYS:NZ	4:3E:26:CYS:O	2.34	0.57
13:4I:20:THR:HG23	13:4I:26:GLY:HA3	1.87	0.57
26:1H:141:A:H8	26:1H:1408:C:H1'	1.70	0.57
26:1H:1331:A:O2'	26:1H:1332:G:H8	1.88	0.57
26:1H:1448:G:H1'	26:1H:1528:A:H62	1.70	0.57
26:1H:1520:U:H2'	26:1H:1521:G:O4'	2.05	0.57
26:1H:1654:A:OP2	38:98:1:MET:N	2.27	0.57
26:1H:2064:C:H2'	26:1H:2065:C:C6	2.39	0.57
29:21:120:TRP:CE3	29:21:155:LYS:HD3	2.40	0.57
40:B8:15:VAL:HG23	40:B8:79:HIS:CE1	2.39	0.57
40:B8:107:ASP:O	40:B8:110:ILE:HG23	2.05	0.57
45:G8:94:LYS:HG3	45:G8:95:LYS:H	1.69	0.57
1:1G:359:U:H2'	1:1G:360:A:H8	1.66	0.57
3:22:129:ALA:O	3:22:133:ALA:N	2.38	0.57
4:32:59:ARG:HA	4:32:62:GLN:HB2	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:86:CYS:SG	13:4A:88:ARG:HB3	2.45	0.57
18:9A:22:VAL:C	18:9A:24:ALA:H	2.13	0.57
23:2L:63:C:H2'	23:2L:64:G:H8	1.68	0.57
26:14:2693:A:H2'	26:14:2694:G:H8	1.70	0.57
31:49:39:ILE:HG23	31:49:157:ILE:HG23	1.85	0.57
47:E5:27:GLU:HB2	47:E5:69:PHE:HD1	1.69	0.57
1:13:271:C:H2'	1:13:272:C:H6	1.70	0.57
4:3E:107:ARG:NH2	4:3E:194:LEU:HD22	2.15	0.57
17:8I:48:GLU:O	17:8I:50:LYS:HG2	2.03	0.57
26:1H:172:C:H2'	26:1H:173:G:C8	2.40	0.57
26:1H:1049:C:H2'	26:1H:1050:A:H5'	1.87	0.57
26:1H:1250:G:OP2	36:78:18:ARG:NH1	2.38	0.57
26:1H:2489:G:O2'	26:1H:2518:A:N6	2.38	0.57
26:1H:2496:C:OP1	37:88:82:ARG:HD3	2.05	0.57
27:16:75:G:H21	46:H8:85:HIS:CE1	2.23	0.57
30:31:51:THR:HG23	30:31:92:PRO:HG2	1.87	0.57
1:1G:1081:G:OP1	5:42:18:ARG:HB2	2.05	0.57
3:22:8:ILE:HD11	3:22:184:TYR:HB3	1.85	0.57
3:22:8:ILE:HG23	3:22:16:ARG:HG2	1.87	0.57
12:3A:24:VAL:O	12:3A:26:ALA:N	2.37	0.57
26:14:31:C:OP1	58:14:3729:HOH:O	2.18	0.57
26:14:443:A:H1'	26:14:1201:C:O4'	2.04	0.57
26:14:794:G:H2'	26:14:795:C:C6	2.39	0.57
26:14:1036:G:OP1	32:59:59:ARG:N	2.35	0.57
26:14:1485:G:H2'	26:14:1486:A:C8	2.40	0.57
26:14:1819:A:H4'	26:14:1820:U:O5'	2.04	0.57
28:19:40:THR:OG1	28:19:41:GLY:N	2.37	0.57
32:59:23:ARG:HA	32:59:36:PRO:HA	1.87	0.57
32:59:137:ASP:HB3	32:59:140:LYS:HB3	1.87	0.57
42:95:69:LYS:HD3	42:95:86:GLY:HA3	1.86	0.57
4:3E:43:HIS:HA	4:3E:46:LYS:HZ3	1.69	0.57
10:1I:16:LEU:HD23	10:1I:94:VAL:HG13	1.86	0.57
10:1I:48:THR:OG1	10:1I:62:HIS:ND1	2.38	0.57
24:3K:60:U:O2'	24:3K:61:C:OP1	2.18	0.57
26:1H:1607:C:H4'	26:1H:1608:A:O5'	2.05	0.57
27:16:15:A:H1'	27:16:109:G:C8	2.40	0.57
36:78:80:TYR:CZ	36:78:111:ARG:HD3	2.40	0.57
45:G8:35:TYR:CD2	45:G8:69:ALA:HB3	2.39	0.57
55:Q8:27:THR:HG22	55:Q8:29:LYS:HB3	1.86	0.57
1:1G:1037:C:H2'	1:1G:1038:C:C6	2.40	0.57
3:22:20:SER:HB2	3:22:40:ARG:HH12	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:111:ARG:HD2	14:5A:61:TRP:OXT	2.05	0.57
26:14:144:C:H2'	26:14:145:G:H8	1.69	0.57
26:14:184:C:H2'	26:14:185:U:H6	1.70	0.57
26:14:688:U:C2'	26:14:689:A:H5'	2.35	0.57
29:29:25:VAL:HG12	29:29:26:ILE:H	1.69	0.57
32:59:20:ALA:O	32:59:22:GLY:N	2.36	0.57
1:13:255:G:P	17:8I:69:LYS:HZ3	2.28	0.56
8:7E:86:ILE:HG22	8:7E:87:SER:H	1.70	0.56
26:1H:286:C:H2'	26:1H:287:C:C6	2.40	0.56
26:1H:2272:U:H5"	26:1H:2273:A:OP1	2.05	0.56
28:11:79:VAL:HG12	28:11:113:VAL:HA	1.87	0.56
30:31:139:PHE:HB2	30:31:166:ALA:HB1	1.86	0.56
41:C8:92:ARG:HD3	41:C8:94:ASN:HB3	1.86	0.56
43:E8:86:LEU:C	43:E8:86:LEU:HD12	2.29	0.56
50:L8:7:LYS:HB2	50:L8:34:GLU:HG2	1.87	0.56
55:Q8:53:PRO:HB3	55:Q8:56:GLU:HG3	1.86	0.56
1:1G:503:C:OP2	12:3A:116:SER:HB3	2.05	0.56
1:1G:1163:C:N3	1:1G:1174:G:N2	2.52	0.56
1:1G:1191:A:OP1	3:22:4:LYS:NZ	2.34	0.56
22:1L:55:U:H2'	22:1L:57:G:OP2	2.05	0.56
26:14:95:G:O2'	49:G5:48:HIS:HB3	2.05	0.56
26:14:424:G:OP1	48:F5:96:LYS:NZ	2.38	0.56
26:14:1796:U:H2'	26:14:1797:C:C6	2.40	0.56
26:14:2849:U:O4	40:75:23:ARG:NH2	2.38	0.56
27:1J:101:A:OP2	58:1J:311:HOH:O	2.17	0.56
27:1J:104:A:H2'	27:1J:105:G:O4'	2.05	0.56
38:55:8:ARG:HH11	38:55:39:PRO:HB3	1.68	0.56
49:G5:53:LEU:O	49:G5:57:ILE:HG13	2.05	0.56
1:13:586:C:O2'	1:13:878:G:H4'	2.05	0.56
11:2I:95:ILE:HD13	11:2I:108:ILE:HG21	1.86	0.56
26:1H:1105:U:H2'	26:1H:1106:G:C8	2.40	0.56
26:1H:1568:G:H4'	28:11:59:LYS:HB3	1.87	0.56
33:61:47:LEU:HA	33:61:50:ARG:HB2	1.87	0.56
34:58:22:THR:HG22	34:58:23:LEU:N	2.20	0.56
39:A8:51:ALA:HB3	39:A8:73:LEU:HG	1.86	0.56
46:H8:76:LEU:H	46:H8:76:LEU:CD2	2.15	0.56
1:1G:142:G:H2'	1:1G:143:A:H8	1.69	0.56
1:1G:954:G:H2'	1:1G:955:U:C6	2.40	0.56
7:62:78:ARG:CZ	7:62:80:VAL:HB	2.36	0.56
8:72:120:THR:HG23	8:72:123:GLU:H	1.70	0.56
9:82:43:ALA:HA	9:82:74:ILE:HD13	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:660:G:H21	36:35:12:ALA:CB	2.17	0.56
26:14:2410:G:C2	26:14:2411:A:H1'	2.40	0.56
32:59:19:VAL:HG12	32:59:20:ALA:H	1.69	0.56
34:15:15:LEU:HB2	34:15:134:ARG:HG2	1.85	0.56
40:75:4:GLY:HA2	40:75:8:LYS:HB2	1.86	0.56
46:D5:5:LEU:HD11	46:D5:44:PHE:HA	1.87	0.56
46:D5:44:PHE:CE2	46:D5:86:VAL:HG11	2.37	0.56
1:13:390:C:O3'	16:7I:28:ARG:NH2	2.38	0.56
1:13:438:G:O2'	1:13:494:U:O4	2.21	0.56
1:13:652:U:O4	1:13:752:G:O2'	2.14	0.56
1:13:1026:G:H1	1:13:1035:A:H61	1.54	0.56
1:13:1026:G:H1	1:13:1035:A:N6	2.03	0.56
1:13:1453:G:H2'	20:BI:39:LYS:HE2	1.86	0.56
4:3E:155:LEU:HD12	4:3E:158:ILE:HD11	1.86	0.56
26:1H:443:A:N7	30:31:45:ARG:HG2	2.21	0.56
26:1H:1016:G:O6	58:1H:4298:HOH:O	2.17	0.56
26:1H:1042:G:H1	26:1H:1113:U:H3	1.53	0.56
26:1H:2257:U:O2'	26:1H:2258:C:H5'	2.05	0.56
26:1H:2566:A:H4'	26:1H:2567:G:O5'	2.05	0.56
28:11:71:ASP:CB	28:11:103:ARG:HH22	2.18	0.56
31:41:33:ARG:O	31:41:162:THR:HG23	2.06	0.56
31:41:161:THR:HG22	31:41:163:ALA:H	1.68	0.56
32:51:46:GLU:OE1	32:51:51:ARG:NH2	2.38	0.56
43:E8:14:PRO:HB3	43:E8:18:ARG:NH1	2.20	0.56
44:F8:12:VAL:HG13	44:F8:27:THR:O	2.06	0.56
55:Q8:49:VAL:HG12	55:Q8:52:LYS:CG	2.36	0.56
1:1G:222:U:H2'	1:1G:223:U:C6	2.40	0.56
1:1G:1329:A:H5'	13:4A:29:ARG:HE	1.70	0.56
4:32:53:ASP:O	4:32:57:ARG:NH1	2.39	0.56
4:32:76:ARG:NH2	4:32:80:GLU:OE1	2.37	0.56
7:62:115:ARG:O	7:62:118:VAL:HG22	2.04	0.56
8:72:12:ARG:HE	8:72:26:VAL:HA	1.70	0.56
24:3L:18:G:H1'	24:3L:58:A:H2	1.70	0.56
26:14:389:G:N1	36:35:71:VAL:HG12	2.20	0.56
26:14:575:A:OP2	26:14:2055:C:N4	2.33	0.56
26:14:582:G:H2'	26:14:583:G:C8	2.41	0.56
26:14:667:U:O2	55:M5:2:PRO:HD2	2.05	0.56
26:14:920:G:H2'	26:14:921:G:C8	2.40	0.56
26:14:1021:A:H8	26:14:1021:A:H3'	1.70	0.56
26:14:2286:A:H4'	26:14:2287:A:O4'	2.04	0.56
30:39:64:ILE:HG13	30:39:65:TRP:CD1	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:183:VAL:O	30:39:187:VAL:HG23	2.05	0.56
32:59:152:ARG:HD2	32:59:153:LYS:HG3	1.86	0.56
33:69:81:VAL:HG23	33:69:143:SER:HB2	1.87	0.56
40:75:99:LEU:HD22	40:75:101:PHE:HE1	1.71	0.56
1:13:36:C:O2'	12:3I:117:ARG:NH2	2.38	0.56
1:13:1149:C:H2'	1:13:1150:U:H6	1.71	0.56
12:3I:62:SER:HB2	12:3I:64:TYR:CD1	2.40	0.56
24:3K:30:G:N2	24:3K:40:C:O2	2.36	0.56
26:1H:322:A:H5'	26:1H:340:A:H1'	1.87	0.56
26:1H:1608:A:H4'	58:1H:3840:HOH:O	2.04	0.56
34:58:43:THR:O	34:58:46:VAL:HG12	2.05	0.56
36:78:49:ARG:HA	55:Q8:54:GLU:HG2	1.88	0.56
36:78:130:PHE:HE1	36:78:146:VAL:HG23	1.69	0.56
40:B8:57:PHE:O	40:B8:58:ASN:ND2	2.38	0.56
45:G8:82:PRO:HG3	45:G8:97:ARG:HG3	1.88	0.56
53:O8:44:ARG:O	53:O8:45:LYS:HG2	2.05	0.56
55:Q8:34:TRP:HB3	55:Q8:36:LYS:H	1.69	0.56
55:Q8:48:PHE:O	55:Q8:49:VAL:HG22	2.05	0.56
1:1G:1321:C:C2	1:1G:1322:C:H5	2.24	0.56
3:22:138:VAL:HG23	3:22:151:VAL:HG23	1.86	0.56
26:14:61:G:OP2	49:G5:54:LYS:NZ	2.39	0.56
26:14:527:C:OP2	26:14:2779:U:H5	1.89	0.56
26:14:823:G:H2'	26:14:824:A:C8	2.41	0.56
26:14:981:A:N1	26:14:2027:G:O2'	2.38	0.56
26:14:1167:U:C2	26:14:1183:G:N2	2.73	0.56
26:14:2311:A:H62	31:49:44:GLY:HA3	1.71	0.56
30:39:181:LEU:HD23	30:39:186:ILE:HD11	1.87	0.56
34:15:128:HIS:CE1	34:15:130:HIS:HA	2.41	0.56
51:I5:12:ALA:O	51:I5:24:THR:OG1	2.22	0.56
1:13:277:C:P	17:8I:68:ARG:HH12	2.29	0.56
1:13:828:A:H2'	1:13:829:G:O4'	2.06	0.56
6:5E:16:GLN:HG2	6:5E:17:SER:N	2.19	0.56
7:6E:5:ARG:HG2	7:6E:7:ALA:H	1.70	0.56
7:6E:150:ALA:HB2	11:2I:50:TYR:OH	2.05	0.56
26:1H:763:G:O2'	26:1H:764:A:H3'	2.05	0.56
26:1H:1190:G:N7	58:1H:3874:HOH:O	2.33	0.56
30:31:164:ARG:HG2	30:31:164:ARG:HH11	1.71	0.56
32:51:4:ILE:HD11	32:51:7:LEU:HD21	1.87	0.56
38:98:63:ARG:HB2	38:98:80:PHE:CE2	2.40	0.56
39:A8:88:ASP:OD1	39:A8:90:GLY:N	2.33	0.56
46:H8:67:LEU:HD22	46:H8:90:VAL:HG11	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:Q8:48:PHE:CD2	55:Q8:49:VAL:HG13	2.41	0.56
1:1G:1443:G:O2'	40:75:122:ASP:OD2	2.23	0.56
6:52:82:ARG:HB2	6:52:85:VAL:HG23	1.86	0.56
11:2A:100:ALA:O	11:2A:102:GLY:N	2.38	0.56
24:3L:11:C:H2'	24:3L:12:U:C6	2.37	0.56
26:14:250:G:OP1	36:35:60:MET:HE1	2.05	0.56
26:14:736:C:OP1	58:14:3867:HOH:O	2.18	0.56
26:14:746:A:H2'	26:14:2612:C:H5"	1.87	0.56
26:14:854:G:H2'	26:14:855:G:C8	2.39	0.56
26:14:2134:A:H62	26:14:2157:G:H1'	1.69	0.56
26:14:2277:G:H2'	26:14:2278:A:H5"	1.87	0.56
32:59:152:ARG:HG3	32:59:153:LYS:HB2	1.88	0.56
33:69:112:LYS:HA	33:69:114:LEU:H	1.69	0.56
42:95:69:LYS:HB2	42:95:86:GLY:HA3	1.87	0.56
53:K5:9:LEU:HD13	53:K5:11:LEU:HD21	1.85	0.56
53:K5:36:LEU:HD23	53:K5:50:ARG:HD3	1.87	0.56
1:13:963:G:H21	10:1I:55:LYS:NZ	2.03	0.56
5:4E:110:LEU:CD1	5:4E:118:ILE:HD13	2.35	0.56
11:2I:106:LYS:O	11:2I:107:SER:OG	2.24	0.56
13:4I:105:THR:OG1	13:4I:106:ASN:N	2.39	0.56
26:1H:993:G:C4	26:1H:994:C:H5	2.23	0.56
26:1H:1221:C:H2'	26:1H:1222:C:H6	1.70	0.56
26:1H:1748:G:H2'	26:1H:1749:A:C8	2.40	0.56
36:78:58:THR:HG21	55:Q8:52:LYS:HE2	1.86	0.56
1:1G:713:G:H2'	1:1G:714:G:C8	2.39	0.56
1:1G:750:G:N3	15:6A:23:GLY:HA3	2.20	0.56
4:32:8:VAL:O	4:32:11:LEU:N	2.32	0.56
16:7A:57:ARG:HG3	16:7A:79:VAL:HG13	1.86	0.56
26:14:328:U:H4'	45:C5:68:HIS:CD2	2.40	0.56
26:14:959:A:N6	26:14:960:A:N1	2.54	0.56
26:14:2273:A:H2'	26:14:2274:A:C8	2.41	0.56
37:45:32:TYR:O	37:45:105:GLU:HB2	2.05	0.56
46:D5:138:GLU:O	46:D5:156:LYS:HG3	2.05	0.56
1:13:1278:U:H5"	1:13:1279:A:O4'	2.05	0.56
4:3E:173:TRP:CZ3	4:3E:193:ASP:HB3	2.41	0.56
21:1F:9:ARG:O	21:1F:13:ILE:HG13	2.06	0.56
31:41:67:LYS:HE3	31:41:67:LYS:O	2.06	0.56
36:78:52:GLU:OE1	36:78:55:ARG:NE	2.28	0.56
41:C8:92:ARG:HD2	42:D8:11:GLN:HB2	1.87	0.56
45:G8:9:LYS:HA	45:G8:27:VAL:HG22	1.88	0.56
55:Q8:48:PHE:N	55:Q8:48:PHE:CD1	2.74	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:680:C:N4	1:1G:710:G:H1	2.02	0.56
8:72:110:ALA:HB3	8:72:121:ASP:HB3	1.86	0.56
26:14:966:G:H2'	26:14:967:C:H6	1.70	0.56
28:19:52:ARG:HB2	28:19:53:PHE:CD2	2.41	0.56
32:59:130:ARG:HH12	32:59:132:ARG:HH22	1.51	0.56
36:35:85:LEU:HB3	36:35:114:ILE:HD11	1.86	0.56
40:75:55:ASN:O	40:75:55:ASN:ND2	2.31	0.56
52:J5:3:LYS:HA	52:J5:3:LYS:HE3	1.88	0.56
1:13:1022:G:H2'	1:13:1023:G:H8	1.71	0.56
2:1E:98:LEU:HG	2:1E:101:MET:HE3	1.87	0.56
4:3E:61:LYS:HG3	4:3E:203:VAL:HG13	1.87	0.56
12:3I:58:VAL:O	12:3I:65:GLU:HA	2.06	0.56
14:5I:23:ARG:HD2	14:5I:28:GLY:O	2.05	0.56
24:3K:37:A:O2'	24:3K:38:A:O5'	2.23	0.56
26:1H:442:G:C4	26:1H:444:C:C5	2.94	0.56
26:1H:2498:C:O2'	26:1H:2499:C:H5'	2.06	0.56
43:E8:58:ALA:O	43:E8:64:MET:HB2	2.06	0.56
49:K8:63:VAL:HA	49:K8:66:GLU:HG3	1.88	0.56
1:1G:167:G:H2'	1:1G:168:G:H8	1.70	0.56
1:1G:737:A:H2'	1:1G:738:C:H6	1.69	0.56
1:1G:1513:A:H2'	1:1G:1514:C:C6	2.39	0.56
2:12:9:GLU:HA	2:12:12:GLU:HG3	1.88	0.56
9:82:112:LYS:HA	9:82:119:ALA:CB	2.35	0.56
26:14:1268:A:H2'	26:14:1269:A:O4'	2.05	0.56
26:14:1514:U:O2'	26:14:1515:C:H5'	2.06	0.56
26:14:2119:A:N6	26:14:2170:A:N7	2.53	0.56
26:14:2120:G:H2'	26:14:2121:G:H8	1.70	0.56
26:14:2880:C:H1'	38:55:92:GLY:HA3	1.87	0.56
33:69:73:GLU:HG3	33:69:136:VAL:HG23	1.87	0.56
42:95:60:GLU:HG3	42:95:97:LYS:HE2	1.86	0.56
42:95:71:LEU:H	42:95:86:GLY:CA	2.16	0.56
46:D5:152:ALA:HB2	46:D5:169:GLU:O	2.06	0.56
55:M5:34:TRP:CG	55:M5:35:GLN:N	2.61	0.56
1:13:767:A:H3'	58:13:1840:HOH:O	2.05	0.56
1:13:804:U:H5"	1:13:805:C:OP2	2.05	0.56
1:13:919:A:O2'	1:13:920:U:H5'	2.06	0.56
1:13:1508:G:P	58:13:1803:HOH:O	2.64	0.56
2:1E:59:GLU:HG3	2:1E:225:ALA:HB2	1.87	0.56
20:BI:57:ARG:HH12	20:BI:102:GLY:C	2.14	0.56
26:1H:185:U:H4'	26:1H:218:A:H4'	1.88	0.56
26:1H:399:G:OP2	58:1H:4043:HOH:O	2.18	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1349:A:OP1	58:1H:4126:HOH:O	2.18	0.56
26:1H:2594:C:H2'	26:1H:2595:G:C8	2.41	0.56
28:11:52:ARG:HB2	28:11:53:PHE:CD2	2.41	0.56
29:21:79:ARG:HG3	29:21:80:GLU:O	2.06	0.56
29:21:119:ARG:HH11	29:21:120:TRP:HE1	1.54	0.56
40:B8:26:ASP:O	40:B8:49:VAL:HG12	2.06	0.56
1:1G:1239:A:H62	1:1G:1299:A:H62	1.54	0.56
1:1G:1305:G:H22	1:1G:1331:G:C2'	2.19	0.56
2:12:109:SER:HA	2:12:112:VAL:HG23	1.86	0.56
6:52:6:VAL:HG13	6:52:90:VAL:HG22	1.87	0.56
24:3L:13:C:H2'	24:3L:14:A:H8	1.71	0.56
24:3L:71:G:H2'	24:3L:72:C:O4'	2.05	0.56
26:14:309:G:O3'	45:C5:18:GLY:HA3	2.05	0.56
26:14:1427:A:H4'	26:14:1428:C:O4'	2.05	0.56
26:14:1693:U:O2'	28:19:14:ARG:NH2	2.39	0.56
26:14:1966:A:H4'	26:14:1967:C:OP1	2.06	0.56
26:14:2294:C:OP1	39:65:89:ARG:NH2	2.39	0.56
26:14:2867:G:OP2	40:75:119:LYS:NZ	2.31	0.56
37:45:66:ILE:HG13	37:45:67:ARG:H	1.69	0.56
42:95:35:LEU:HB3	42:95:37:VAL:HG11	1.88	0.56
23:2K:20:G:C2	23:2K:58:A:N3	2.74	0.56
26:1H:241:A:H5"	58:1H:4304:HOH:O	2.06	0.56
26:1H:674:G:C1'	30:31:74:ARG:HD3	2.35	0.56
26:1H:1514:U:H2'	26:1H:1515:C:H6	1.71	0.56
26:1H:2371:G:H4'	53:O8:45:LYS:HG3	1.88	0.56
26:1H:2431:U:H3'	58:1H:3905:HOH:O	2.05	0.56
26:1H:2629:A:OP1	26:1H:2629:A:H4'	2.05	0.56
31:41:47:LYS:HD3	31:41:81:LYS:CB	2.36	0.56
34:58:12:ARG:HH21	34:58:14:VAL:HG22	1.71	0.56
36:78:122:PRO:HA	36:78:142:GLY:CA	2.36	0.56
1:1G:1075:C:OP1	2:12:179:LYS:NZ	2.30	0.56
9:82:24:GLY:HA2	9:82:59:PHE:O	2.06	0.56
26:14:214:G:H4'	26:14:214:G:OP1	2.03	0.56
26:14:649:G:H2'	26:14:650:C:C6	2.41	0.56
28:19:71:ASP:OD2	28:19:103:ARG:NH1	2.32	0.56
28:19:153:ALA:O	28:19:157:ARG:NH1	2.37	0.56
33:69:123:LEU:HD22	33:69:143:SER:HB3	1.88	0.56
36:35:64:LYS:HB2	55:M5:30:ARG:HH22	1.70	0.56
37:45:87:LYS:HB3	37:45:90:VAL:HG23	1.88	0.56
48:F5:86:SER:N	48:F5:87:PRO:HD2	2.20	0.56
51:I5:22:ILE:HG12	51:I5:23:GLU:N	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:189:ASP:HB3	2:1E:191:ASP:HB2	1.89	0.55
19:AI:42:PRO:HD3	51:M8:63:TYR:OH	2.06	0.55
26:1H:1163:G:C2	26:1H:1164:G:C8	2.95	0.55
26:1H:2695:C:H2'	26:1H:2696:U:H6	1.71	0.55
26:1H:2883:A:H5'	26:1H:2884:U:H5'	1.87	0.55
40:B8:77:PRO:HG2	40:B8:80:SER:HB2	1.87	0.55
43:E8:88:ARG:NH1	43:E8:94:ASP:OD2	2.31	0.55
45:G8:87:LYS:HD2	45:G8:96:ILE:HD11	1.87	0.55
53:O8:15:GLU:OE2	53:O8:44:ARG:NH2	2.39	0.55
1:1G:827:U:H3	1:1G:872:A:N6	2.00	0.55
1:1G:1220:G:H5'	19:AA:35:SER:HA	1.87	0.55
2:12:115:LEU:HB2	2:12:145:LEU:HD12	1.87	0.55
6:52:100:ASN:ND2	18:9A:26:LEU:O	2.39	0.55
26:14:2324:C:H5"	26:14:2325:G:H5'	1.88	0.55
26:14:2875:C:OP1	40:75:3:ARG:NH1	2.39	0.55
30:39:83:PHE:C	30:39:85:GLY:H	2.13	0.55
31:49:42:GLY:O	31:49:43:LEU:HD13	2.04	0.55
47:E5:51:VAL:HG23	47:E5:81:VAL:HG23	1.87	0.55
1:13:113:G:H2'	1:13:114:U:H6	1.71	0.55
1:13:1013:G:N2	1:13:1016:A:OP2	2.40	0.55
3:2E:58:GLU:HB2	3:2E:65:ALA:HB3	1.88	0.55
26:1H:50:U:H3'	26:1H:51:G:H5'	1.88	0.55
26:1H:2019:A:C6	26:1H:2020:A:N7	2.74	0.55
29:21:97:LYS:N	29:21:100:GLU:OE1	2.39	0.55
30:31:40:GLN:NE2	30:31:184:TYR:HB3	2.21	0.55
30:31:129:PHE:HA	30:31:142:TRP:NE1	2.21	0.55
31:41:35:GLU:OE1	31:41:36:LYS:N	2.39	0.55
43:E8:12:ILE:HG13	43:E8:42:ARG:NH1	2.22	0.55
48:J8:3:LYS:O	48:J8:12:PRO:HD3	2.06	0.55
55:Q8:48:PHE:CD1	55:Q8:49:VAL:HG13	2.42	0.55
1:1G:649:G:H2'	1:1G:650:G:H8	1.71	0.55
26:14:573:G:O2'	26:14:574:C:H3'	2.06	0.55
26:14:2029:G:H2'	26:14:2031:A:OP1	2.07	0.55
26:14:2378:A:O5'	26:14:2378:A:H8	1.89	0.55
51:I5:20:ASN:HD21	51:I5:36:CYS:HB2	1.70	0.55
1:13:654:G:C2'	1:13:655:A:H5'	2.36	0.55
1:13:724:G:C2	1:13:725:G:C8	2.94	0.55
1:13:1128:C:H6	1:13:1139:G:C6	2.24	0.55
5:4E:126:ARG:HG3	5:4E:126:ARG:HH11	1.71	0.55
24:3K:76:A:H8	26:1H:2394:C:N4	2.01	0.55
26:1H:2572:A:N7	29:21:145:LYS:HB2	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:853:G:H2'	1:1G:854:G:H8	1.71	0.55
17:8A:99:SER:O	17:8A:100:LYS:NZ	2.36	0.55
24:3L:52:G:N2	24:3L:62:C:N3	2.39	0.55
26:14:2345:G:N3	26:14:2381:C:H2'	2.21	0.55
29:29:52:LEU:C	29:29:74:PRO:HB3	2.31	0.55
36:35:15:ARG:HB2	36:35:15:ARG:CZ	2.36	0.55
36:35:85:LEU:HB2	36:35:88:LEU:HD23	1.88	0.55
37:45:25:ASP:CB	37:45:102:VAL:H	2.20	0.55
1:13:187:C:O2	1:13:191(A):G:N1	2.39	0.55
1:13:419:C:H5'	1:13:420:U:OP2	2.07	0.55
1:13:669:U:C2	1:13:670:G:C8	2.95	0.55
9:8E:25:LYS:NZ	9:8E:26:VAL:O	2.39	0.55
14:5I:24:CYS:HB3	14:5I:28:GLY:H	1.71	0.55
15:6I:17:ARG:HD3	15:6I:26:GLU:HG3	1.87	0.55
26:1H:686:G:OP1	54:P8:11:LYS:NZ	2.40	0.55
26:1H:831:G:N2	36:78:53:GLY:O	2.39	0.55
26:1H:1279:G:H4'	38:98:31:HIS:CD2	2.40	0.55
26:1H:1433:U:O2	26:1H:1561:G:C2	2.60	0.55
26:1H:2645:G:H3'	26:1H:2646:C:H5'	1.88	0.55
1:1G:196:A:OP1	20:BA:68:LYS:NZ	2.40	0.55
1:1G:1128:C:H4'	9:82:16:ARG:HH22	1.72	0.55
2:12:12:GLU:HB2	2:12:16:HIS:CG	2.42	0.55
6:52:70:ASP:OD1	6:52:70:ASP:N	2.39	0.55
26:14:1233:C:H2'	26:14:1234:U:H6	1.71	0.55
26:14:1419:A:N6	26:14:1494:A:N1	2.45	0.55
26:14:1945:G:H2'	26:14:1946:U:C6	2.39	0.55
26:14:2052:G:O4'	29:29:142:GLY:HA3	2.06	0.55
26:14:2564:A:OP1	26:14:2648:C:H4'	2.06	0.55
27:1J:3:C:H2'	27:1J:4:C:C6	2.42	0.55
27:1J:38:C:H42	27:1J:44:G:H1	1.52	0.55
28:19:70:TRP:CD1	28:19:70:TRP:C	2.85	0.55
1:13:406:G:H2'	1:13:407:G:C8	2.40	0.55
1:13:1157:A:H8	1:13:1158:C:N4	2.03	0.55
2:1E:15:VAL:HG21	2:1E:209:ARG:HB3	1.89	0.55
3:2E:3:ASN:O	3:2E:4:LYS:HG2	2.07	0.55
8:7E:6:ILE:HB	8:7E:85:ARG:HH12	1.71	0.55
8:7E:7:ALA:HB2	8:7E:85:ARG:HH11	1.72	0.55
11:2I:19:ALA:O	11:2I:82:VAL:HA	2.05	0.55
18:9I:66:LEU:O	18:9I:70:ILE:HG13	2.07	0.55
26:1H:638:G:C5	26:1H:651:G:C2	2.95	0.55
26:1H:1441:G:H2'	26:1H:1442:G:H8	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1668:A:H4'	26:1H:1669:A:O5'	2.05	0.55
27:16:15:A:H3'	27:16:16:G:H5'	1.88	0.55
27:16:78:A:C2	27:16:99:A:C4	2.94	0.55
31:41:62:LEU:HD12	51:M8:27:THR:HG21	1.89	0.55
55:Q8:48:PHE:N	55:Q8:48:PHE:HD1	2.04	0.55
1:1G:513:C:N4	1:1G:538:G:H1	2.03	0.55
1:1G:532:A:H62	1:1G:1207:G:H5'	1.71	0.55
1:1G:994:A:C5	1:1G:1216:G:H4'	2.40	0.55
1:1G:1298:C:H1'	1:1G:1299:A:C6	2.42	0.55
1:1G:1326:C:H2'	1:1G:1327:C:C6	2.41	0.55
1:1G:1478:C:H2'	1:1G:1479:C:H6	1.71	0.55
2:12:127:ILE:HA	2:12:130:ARG:HG3	1.88	0.55
2:12:162:ILE:HD11	2:12:184:VAL:HG13	1.88	0.55
5:42:107:ARG:O	5:42:110:LEU:N	2.39	0.55
22:1L:18:G:O2'	22:1L:19:G:OP1	2.24	0.55
22:1L:23:A:H2'	22:1L:24:G:H8	1.72	0.55
26:14:315:G:H2'	26:14:316:C:C6	2.40	0.55
26:14:755:C:H2'	26:14:756:C:C6	2.41	0.55
26:14:2015:A:N3	52:J5:2:ALA:N	2.54	0.55
26:14:2256:G:H2'	26:14:2257:U:H6	1.71	0.55
32:59:149:ARG:HH21	32:59:154:PRO:HB2	1.72	0.55
46:D5:70:LEU:O	46:D5:89:PHE:N	2.39	0.55
55:M5:60:LEU:HD12	55:M5:61:LEU:H	1.71	0.55
1:13:343:U:N3	1:13:347:G:C6	2.74	0.55
1:13:1160:G:H1	1:13:1177:G:N2	2.04	0.55
1:13:1160:G:N2	1:13:1177:G:H22	2.03	0.55
1:13:1410:G:H2'	1:13:1411:C:C6	2.41	0.55
6:5E:100:ASN:HB2	18:9I:27:GLY:O	2.05	0.55
26:1H:484:C:H2'	26:1H:485:C:C6	2.41	0.55
26:1H:969:U:OP1	50:L8:17:LYS:HG2	2.06	0.55
26:1H:1694:C:H4'	26:1H:1695:G:O5'	2.06	0.55
26:1H:1788:C:H2'	26:1H:1789:A:H8	1.71	0.55
26:1H:2392:A:C8	36:78:61:ARG:HG2	2.40	0.55
30:31:28:ILE:HG22	30:31:112:MET:HE3	1.88	0.55
32:51:77:LYS:NZ	32:51:82:GLY:O	2.37	0.55
33:61:102:SER:HA	33:61:107:VAL:O	2.07	0.55
42:D8:3:ALA:HB1	42:D8:38:LEU:HD11	1.89	0.55
44:F8:3:THR:HA	44:F8:6:ASP:CG	2.31	0.55
45:G8:76:CYS:HB2	45:G8:82:PRO:HD3	1.88	0.55
55:Q8:48:PHE:HD1	55:Q8:48:PHE:H	1.54	0.55
1:1G:111:G:H8	1:1G:111:G:O5'	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:6:HIS:HB3	14:5A:49:HIS:CD2	2.42	0.55
7:62:146:GLU:O	7:62:149:ARG:HB2	2.07	0.55
20:BA:73:HIS:HB3	20:BA:74:LYS:HG2	1.89	0.55
26:14:247:G:H4'	26:14:386:G:C5	2.41	0.55
26:14:832:G:H5'	36:35:45:LEU:HD11	1.89	0.55
26:14:1360:A:H5"	26:14:1361:G:OP2	2.07	0.55
26:14:2439:A:H5'	26:14:2439:A:C8	2.40	0.55
31:49:37:VAL:HG23	31:49:99:MET:HE3	1.88	0.55
34:15:136:GLU:O	34:15:137:LYS:NZ	2.40	0.55
36:35:63:PRO:O	55:M5:30:ARG:NH2	2.40	0.55
36:35:127:ALA:O	36:35:147:LEU:N	2.37	0.55
45:C5:87:LYS:HG2	45:C5:88:LYS:H	1.71	0.55
1:13:452:A:H2'	1:13:453:A:C8	2.42	0.55
1:13:1014:A:C2	1:13:1219:U:H1'	2.42	0.55
19:AI:78:ARG:HE	19:AI:78:ARG:N	2.03	0.55
26:1H:225:A:N6	26:1H:419:C:H4'	2.22	0.55
26:1H:1797:C:O2'	28:11:259:THR:HB	2.07	0.55
33:61:120:ILE:HD12	33:61:121:LYS:H	1.71	0.55
46:H8:9:TYR:CE1	46:H8:35:ARG:HD3	2.41	0.55
1:1G:1435:G:H2'	1:1G:1436:U:H6	1.63	0.55
7:62:23:VAL:O	7:62:27:ILE:HG12	2.07	0.55
20:BA:16:HIS:O	20:BA:19:SER:N	2.39	0.55
26:14:208:C:H2'	26:14:209:C:H6	1.71	0.55
26:14:289:A:H3'	26:14:290:G:H8	1.71	0.55
26:14:646:A:H2'	26:14:647:G:O4'	2.07	0.55
26:14:1666:G:OP1	35:25:66:LYS:HD3	2.07	0.55
29:29:92:THR:O	29:29:95:ILE:HG13	2.06	0.55
32:59:144:VAL:HA	32:59:147:ASN:HB2	1.88	0.55
40:75:24:PRO:HD3	40:75:52:ILE:HG13	1.89	0.55
42:95:76:LYS:HB2	42:95:79:VAL:HG23	1.88	0.55
53:K5:9:LEU:N	53:K5:27:LYS:HG3	2.21	0.55
8:7E:83:ILE:HB	8:7E:137:VAL:HG13	1.88	0.55
19:AI:50:ALA:HB1	19:AI:57:HIS:HB3	1.88	0.55
24:3K:71:G:H2'	24:3K:72:C:O4'	2.07	0.55
26:1H:2171:A:O2'	26:1H:2172:U:O5'	2.24	0.55
29:21:2:LYS:HD2	29:21:200:GLU:OE2	2.07	0.55
37:88:68:ILE:HG23	37:88:103:MET:HB3	1.88	0.55
39:A8:26:LEU:HD23	39:A8:87:PHE:HD1	1.70	0.55
44:F8:24:GLY:O	44:F8:83:VAL:HG22	2.07	0.55
55:Q8:23:VAL:HG13	55:Q8:46:ARG:HG3	1.89	0.55
55:Q8:52:LYS:N	55:Q8:52:LYS:HD2	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1281:U:H3'	1:1G:1282:C:C5	2.42	0.55
3:22:34:LEU:HD11	3:22:38:ARG:HH21	1.71	0.55
8:72:29:SER:H	8:72:32:LYS:HB2	1.71	0.55
12:3A:100:ILE:HG22	12:3A:101:VAL:N	2.21	0.55
19:AA:18:LYS:O	19:AA:22:LEU:HB2	2.07	0.55
24:3L:18:G:H2'	24:3L:57:G:H22	1.72	0.55
26:14:337:C:H2'	26:14:338:G:O4'	2.06	0.55
26:14:606:U:H4'	26:14:658:C:H4'	1.89	0.55
26:14:1689:A:N6	26:14:1698:A:H2	1.92	0.55
26:14:2494:G:H2'	26:14:2495:G:H8	1.71	0.55
26:14:2697:G:H2'	26:14:2698:U:O4'	2.07	0.55
28:19:20:ASP:OD2	28:19:22:SER:OG	2.24	0.55
28:19:43:ARG:HH11	28:19:43:ARG:CG	2.19	0.55
28:19:118:VAL:HG22	28:19:119:ALA:H	1.72	0.55
29:29:111:ARG:HA	38:55:2:ARG:HH12	1.70	0.55
38:55:81:ASP:O	38:55:82:GLU:HB3	2.07	0.55
41:85:8:VAL:HG11	41:85:12:ARG:HH21	1.72	0.55
46:D5:8:TYR:HD1	46:D5:62:PRO:HG3	1.70	0.55
1:13:814:A:N7	1:13:816:A:C4	2.75	0.55
2:1E:174:VAL:HG13	2:1E:184:VAL:HG11	1.88	0.55
3:2E:191:THR:HG22	3:2E:192:THR:H	1.72	0.55
13:4I:108:ARG:N	13:4I:108:ARG:HD2	2.20	0.55
14:5I:4:LYS:O	14:5I:7:ILE:HG13	2.06	0.55
24:3K:70:G:C6	24:3K:71:G:C5	2.95	0.55
26:1H:582:G:H2'	26:1H:583:G:H8	1.72	0.55
26:1H:673:C:H5"	30:31:81:PRO:HD2	1.88	0.55
26:1H:937:U:H2'	26:1H:938:G:O4'	2.07	0.55
26:1H:1803:A:H4'	28:11:259:THR:CG2	2.36	0.55
26:1H:2032:G:H21	29:21:146:THR:CG2	2.20	0.55
26:1H:2157:G:O2'	26:1H:2158:A:O5'	2.21	0.55
26:1H:2376:A:N1	39:A8:87:PHE:HD2	2.05	0.55
32:51:154:PRO:HD3	32:51:162:ILE:O	2.06	0.55
33:61:4:ILE:HG12	33:61:18:VAL:HG22	1.89	0.55
1:1G:588:G:H1	1:1G:651:C:N4	2.02	0.55
1:1G:1305:G:H22	1:1G:1331:G:H2'	1.72	0.55
1:1G:1411:C:H2'	1:1G:1412:C:C6	2.42	0.55
10:1A:32:ALA:HA	10:1A:76:ASN:HB2	1.88	0.55
15:6A:39:LEU:HD12	15:6A:56:LEU:HD13	1.89	0.55
26:14:323:G:O2'	26:14:1205:U:N3	2.13	0.55
26:14:871:U:OP1	37:45:5:ARG:HG3	2.07	0.55
26:14:972:G:O2'	58:14:3594:HOH:O	2.18	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:986:C:O2'	26:14:1001:A:O2'	2.25	0.55
26:14:1485:G:H2'	26:14:1486:A:H8	1.70	0.55
26:14:1537:C:H2'	26:14:1538:G:C8	2.41	0.55
26:14:2103:C:H2'	26:14:2104:G:C8	2.42	0.55
26:14:2294:C:P	39:65:89:ARG:HH22	2.30	0.55
26:14:2363:C:O2	47:E5:39:ARG:NH2	2.39	0.55
26:14:2420:C:N4	55:M5:31:HIS:HB3	2.22	0.55
26:14:2432:A:C8	48:F5:33:LYS:HD2	2.41	0.55
26:14:2540:C:O2'	26:14:2740:A:N3	2.37	0.55
29:29:81:ILE:HG22	29:29:82:ARG:N	2.18	0.55
29:29:101:ARG:O	29:29:201:THR:OG1	2.24	0.55
30:39:25:PRO:C	30:39:27:GLU:N	2.65	0.55
40:75:21:GLU:O	40:75:91:ARG:NH2	2.37	0.55
40:75:54:ARG:HA	40:75:59:THR:HB	1.89	0.55
44:B5:84:ALA:O	44:B5:87:GLN:HG3	2.06	0.55
1:13:438:G:H4'	4:3E:123:HIS:CD2	2.41	0.55
1:13:486:U:H2'	1:13:487:A:H8	1.71	0.55
26:1H:796:C:H2'	26:1H:797:C:C6	2.42	0.55
26:1H:1062:G:H1'	26:1H:1088:A:C5	2.42	0.55
26:1H:1478:G:O2'	26:1H:1558:A:H2	1.90	0.55
26:1H:2341:G:H2'	26:1H:2342:C:C6	2.42	0.55
34:58:58:ASP:HB2	34:58:95:PRO:HB2	1.89	0.55
35:68:75:SER:OG	40:B8:74:ARG:NH2	2.40	0.55
40:B8:58:ASN:ND2	40:B8:58:ASN:O	2.36	0.55
53:O8:36:LEU:HD22	53:O8:50:ARG:HG2	1.88	0.55
1:1G:1125:U:OP2	1:1G:1145:C:N4	2.39	0.55
1:1G:1320:C:H1'	19:AA:73:GLU:HG2	1.89	0.55
1:1G:1365:G:H2'	1:1G:1366:C:H6	1.71	0.55
2:12:219:VAL:O	2:12:222:ILE:HG13	2.07	0.55
9:82:77:ILE:O	9:82:81:ILE:HG12	2.07	0.55
12:3A:41:ARG:HB3	12:3A:41:ARG:HH11	1.72	0.55
26:14:739:G:P	58:14:3635:HOH:O	2.65	0.55
26:14:975:G:C2	26:14:990:A:C8	2.95	0.55
26:14:1496:A:H8	26:14:1577:C:HO2'	1.53	0.55
39:65:78:LEU:HD12	39:65:107:GLU:HB3	1.89	0.55
46:D5:175:VAL:HA	46:D5:177:PRO:HD3	1.88	0.55
51:I5:34:GLU:HG2	51:I5:35:VAL:N	2.22	0.55
1:13:417:C:H2'	1:13:418:C:C6	2.42	0.54
1:13:626:U:C2	1:13:627:G:C8	2.95	0.54
1:13:826:C:H2'	1:13:827:U:O2	2.07	0.54
8:7E:21:LYS:O	8:7E:65:TYR:OH	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:9I:44:LEU:HD11	18:9I:70:ILE:HG21	1.88	0.54
26:1H:881:G:O6	26:1H:895:U:N3	2.38	0.54
26:1H:2773:C:H5"	29:21:164:ARG:HG2	1.89	0.54
1:1G:527:G:O6	12:3A:49:ASN:ND2	2.37	0.54
1:1G:674:G:H21	11:2A:116:HIS:HB2	1.71	0.54
29:29:62:PRO:C	29:29:64:LYS:H	2.15	0.54
1:13:376:G:H5"	16:7I:5:ARG:HD2	1.89	0.54
1:13:392:G:H5'	16:7I:12:LYS:HE3	1.89	0.54
4:3E:117:ALA:O	4:3E:120:LEU:HB2	2.08	0.54
6:5E:61:LEU:HD23	6:5E:63:TYR:CE1	2.41	0.54
16:7I:77:ALA:HB3	16:7I:79:VAL:H	1.72	0.54
26:1H:1055:G:H1'	26:1H:1085:A:H2	1.71	0.54
26:1H:1265:A:H3'	52:N8:19:ARG:NH1	2.23	0.54
29:21:48:GLN:OE1	29:21:77:ILE:HD13	2.07	0.54
44:F8:1:MET:C	44:F8:3:THR:N	2.65	0.54
52:N8:50:GLY:H	52:N8:56:LYS:HG3	1.72	0.54
55:Q8:9:GLY:N	55:Q8:12:LYS:HG3	2.23	0.54
1:1G:881:G:P	12:3A:12:ARG:HH12	2.29	0.54
1:1G:888:G:O2'	1:1G:1488:G:O2'	2.23	0.54
4:32:18:LYS:HG3	4:32:20:TYR:H	1.71	0.54
26:14:1034:G:H2'	26:14:1035:U:O4'	2.07	0.54
26:14:2295:C:H5	39:65:13:ARG:HH22	1.55	0.54
27:1J:52:A:O2'	27:1J:53:A:N7	2.37	0.54
28:19:3:VAL:H	28:19:20:ASP:HB2	1.72	0.54
29:29:68:ALA:O	29:29:69:LYS:HB2	2.07	0.54
33:69:101:LEU:HB2	33:69:105:HIS:HB2	1.88	0.54
38:55:70:LEU:HD13	38:55:75:LEU:HD13	1.89	0.54
46:D5:158:PRO:HD2	46:D5:161:VAL:HG13	1.88	0.54
49:G5:10:LEU:O	49:G5:14:ARG:HB2	2.08	0.54
1:13:240:C:H2'	1:13:241:C:C6	2.41	0.54
17:8I:22:LEU:HD11	17:8I:39:SER:HB3	1.89	0.54
17:8I:31:LEU:HD23	17:8I:32:TYR:CZ	2.42	0.54
23:2K:2:G:H2'	23:2K:3:C:C6	2.42	0.54
26:1H:1639:U:H4'	26:1H:2699:C:H4'	1.89	0.54
27:16:89:G:H2'	27:16:89(A):A:C8	2.43	0.54
29:21:143:ASN:HD22	29:21:147:PRO:HD2	1.72	0.54
40:B8:93:ARG:HG3	40:B8:93:ARG:HH11	1.70	0.54
1:1G:141:A:H1'	1:1G:182:U:O2	2.08	0.54
1:1G:607:A:H2'	1:1G:608:A:O4'	2.07	0.54
1:1G:1248:A:H2'	9:82:70:LYS:NZ	2.22	0.54
3:22:150:LYS:HG3	3:22:169:ALA:HB2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6A:50:HIS:O	15:6A:53:HIS:HB3	2.06	0.54
26:14:571:A:OP2	58:14:4005:HOH:O	2.18	0.54
26:14:839:U:H2'	26:14:840:C:H6	1.72	0.54
26:14:920:G:H2'	26:14:921:G:H8	1.72	0.54
26:14:1337:G:H2'	26:14:1338:G:C8	2.42	0.54
26:14:1686:C:H2'	26:14:1687:G:O4'	2.07	0.54
26:14:2849:U:H4'	26:14:2868:A:C2	2.42	0.54
46:D5:40:ASP:OD2	46:D5:43:GLU:HG2	2.07	0.54
1:13:688:G:H2'	1:13:689:C:H6	1.72	0.54
1:13:820:U:H4'	1:13:821:G:OP2	2.07	0.54
1:13:1510:U:H2'	1:13:1511:G:C8	2.43	0.54
2:1E:238:LEU:H	2:1E:238:LEU:HD12	1.71	0.54
4:3E:192:GLU:OE1	4:3E:192:GLU:N	2.31	0.54
11:2I:46:GLY:HA2	11:2I:50:TYR:O	2.08	0.54
25:4K:23:A:H3'	25:4K:24:A:C8	2.43	0.54
26:1H:428:A:P	58:1H:4617:HOH:O	2.66	0.54
26:1H:1472:A:H2'	26:1H:1473:G:C8	2.42	0.54
26:1H:1641:A:H2'	26:1H:1642:G:O4'	2.08	0.54
26:1H:2035:G:H4'	26:1H:2036:C:OP2	2.07	0.54
29:21:51:PHE:CD2	29:21:52:LEU:HG	2.42	0.54
37:88:30:GLY:HA2	37:88:107:ALA:HB2	1.90	0.54
49:K8:58:ALA:O	49:K8:62:THR:HG22	2.07	0.54
49:K8:59:ARG:O	49:K8:62:THR:HG23	2.07	0.54
1:1G:547:A:OP2	4:32:2:GLY:N	2.40	0.54
1:1G:1369:C:OP2	9:82:112:LYS:N	2.40	0.54
4:32:15:GLU:OE1	4:32:66:ARG:NH1	2.41	0.54
19:AA:66:MET:HB3	19:AA:69:HIS:CD2	2.42	0.54
26:14:1486:A:H2'	26:14:1487:G:C8	2.42	0.54
26:14:2250:G:C6	37:45:82:ARG:HD2	2.42	0.54
26:14:2745:C:H4'	32:59:142:GLY:O	2.07	0.54
28:19:75:ILE:O	28:19:118:VAL:HG23	2.07	0.54
29:29:63:LEU:O	29:29:66:HIS:CG	2.60	0.54
32:59:41:MET:N	32:59:41:MET:SD	2.80	0.54
37:45:110:THR:HG23	37:45:113:GLN:NE2	2.22	0.54
39:65:85:VAL:HG22	39:65:110:LEU:HG	1.88	0.54
47:E5:18:ALA:HB3	47:E5:20:ARG:HE	1.73	0.54
1:13:1288:A:N3	1:13:1352:C:O2'	2.37	0.54
4:3E:209:ARG:HA	4:3E:209:ARG:HH11	1.73	0.54
10:1I:24:VAL:HG12	10:1I:25:GLU:HG3	1.88	0.54
26:1H:296:C:H2'	26:1H:297:C:H6	1.72	0.54
26:1H:821:A:H2'	26:1H:946:G:H5"	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1204:A:H2	26:1H:1241:A:N1	2.04	0.54
26:1H:1401:G:H2'	26:1H:1402:C:C6	2.42	0.54
26:1H:2250:G:C8	26:1H:2496:C:H5"	2.43	0.54
26:1H:2505:G:H2'	26:1H:2576:G:O6	2.07	0.54
26:1H:2592:G:C5	26:1H:2593:U:C4	2.95	0.54
28:11:76:PRO:HB2	28:11:116:GLN:NE2	2.23	0.54
34:58:95:PRO:O	34:58:96:GLU:CD	2.50	0.54
40:B8:55:ASN:H	40:B8:59:THR:HB	1.71	0.54
43:E8:82:LEU:HD13	43:E8:84:ARG:HH21	1.72	0.54
1:1G:114:U:O2'	1:1G:115:G:H5'	2.07	0.54
1:1G:1096:C:H2'	1:1G:1097:C:H6	1.71	0.54
1:1G:1217:C:H5"	14:5A:9:LYS:HE2	1.90	0.54
8:72:86:ILE:HD12	8:72:133:LEU:HD11	1.88	0.54
12:3A:41:ARG:HD2	12:3A:42:THR:H	1.71	0.54
17:8A:99:SER:C	17:8A:100:LYS:HZ3	2.15	0.54
19:AA:9:VAL:HG13	51:I5:63:TYR:CE1	2.41	0.54
20:BA:87:LYS:O	20:BA:91:LEU:HG	2.07	0.54
23:2L:22:A:N6	23:2L:47:7MG:H2'	2.23	0.54
26:14:17:G:H2'	26:14:18:C:H6	1.72	0.54
26:14:19:C:H2'	26:14:20:C:C6	2.42	0.54
26:14:172:C:H2'	26:14:173:G:H8	1.72	0.54
26:14:2446:G:C3'	26:14:2447:G:H5"	2.38	0.54
29:29:154:LYS:HE3	29:29:154:LYS:HA	1.88	0.54
30:39:112:MET:O	30:39:115:ALA:HB3	2.07	0.54
44:B5:5:TYR:HD1	49:G5:33:MET:SD	2.31	0.54
52:J5:31:VAL:HG13	52:J5:42:PRO:HG3	1.89	0.54
1:13:201:C:H42	1:13:216:G:H1	1.54	0.54
1:13:1412:C:H2'	1:13:1413:A:C8	2.43	0.54
1:13:1486:G:H2'	1:13:1487:G:O4'	2.07	0.54
26:1H:1265:A:H8	26:1H:1265:A:OP1	1.89	0.54
40:B8:81:PRO:HG2	40:B8:82:LEU:HD12	1.89	0.54
43:E8:88:ARG:HB3	43:E8:92:ARG:HB3	1.88	0.54
44:F8:12:VAL:HG13	44:F8:27:THR:HG23	1.88	0.54
44:F8:67:GLY:O	44:F8:69:TYR:N	2.41	0.54
1:1G:298:A:H5"	1:1G:299:G:OP2	2.06	0.54
1:1G:564:C:O2'	8:72:91:ARG:NH2	2.39	0.54
1:1G:1342:C:H4'	9:82:125:TYR:HB3	1.90	0.54
3:22:45:LYS:O	3:22:48:TYR:HB3	2.08	0.54
26:14:638:G:H2'	26:14:639:U:O4'	2.07	0.54
26:14:1021:A:H3'	26:14:1021:A:C8	2.43	0.54
26:14:1636:C:H2'	26:14:1637:A:C8	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1856:G:H1	26:14:1886:C:N4	2.06	0.54
26:14:2275:C:H6	26:14:2275:C:H5'	1.72	0.54
26:14:2287:A:N6	26:14:2344:U:H3	2.03	0.54
26:14:2542:A:N3	26:14:2542:A:H5"	2.23	0.54
28:19:255:LYS:HE3	28:19:255:LYS:H	1.72	0.54
30:39:153:SER:OG	30:39:190:GLU:HB2	2.07	0.54
38:55:72:ASP:OD2	38:55:75:LEU:HB2	2.08	0.54
1:13:407:G:H1	1:13:435:C:H42	1.55	0.54
1:13:1016:A:H2'	1:13:1017:G:O4'	2.08	0.54
1:13:1309:G:N2	1:13:1329:A:H1'	2.22	0.54
26:1H:140:A:H8	26:1H:1408:C:HO2'	1.55	0.54
26:1H:618:G:H2'	26:1H:618(A):C:H6	1.71	0.54
26:1H:761:A:H5"	58:1H:3686:HOH:O	2.07	0.54
30:31:7:TYR:HA	30:31:22:ALA:O	2.08	0.54
31:41:110:ALA:HA	31:41:140:ILE:O	2.07	0.54
43:E8:18:ARG:HD3	43:E8:76:VAL:HG13	1.90	0.54
46:H8:103:ARG:HG3	46:H8:136:PHE:CD2	2.43	0.54
52:N8:40:LYS:NZ	52:N8:46:CYS:HB3	2.19	0.54
1:1G:1272:G:C2	1:1G:1273:G:H1'	2.42	0.54
1:1G:1360:A:H8	1:1G:1360:A:OP1	1.91	0.54
1:1G:1411:C:H2'	1:1G:1412:C:H6	1.71	0.54
13:4A:2:ALA:HB1	51:I5:34:GLU:HB3	1.89	0.54
20:BA:49:ALA:HB2	20:BA:92:LEU:HD22	1.88	0.54
26:14:152:G:H1	26:14:174:C:N4	2.04	0.54
26:14:1113:U:H2'	26:14:1114:G:O4'	2.08	0.54
26:14:1141:U:H5"	26:14:1142(A):A:O4'	2.08	0.54
26:14:1298:C:H5"	26:14:1299:G:OP2	2.08	0.54
26:14:2054:A:H5"	26:14:2055:C:O5'	2.06	0.54
35:25:97:ARG:CZ	35:25:99:PHE:HE1	2.20	0.54
46:D5:7:ALA:O	46:D5:8:TYR:CG	2.60	0.54
1:13:44:G:C2	1:13:45:U:H1'	2.43	0.54
1:13:179:A:H2'	1:13:180:U:C6	2.43	0.54
1:13:444:C:H2'	1:13:445:G:H8	1.73	0.54
1:13:544:G:H2'	1:13:545:C:H6	1.72	0.54
18:9I:50:ILE:HG12	18:9I:70:ILE:HD12	1.90	0.54
19:AI:6:LYS:O	19:AI:7:LYS:HB3	2.06	0.54
29:21:181:LEU:HD21	40:B8:7:ILE:HG23	1.90	0.54
31:41:109:VAL:O	31:41:113:ARG:HG3	2.08	0.54
33:61:3:VAL:HG12	33:61:38:LEU:HA	1.89	0.54
36:78:130:PHE:CE1	36:78:146:VAL:HG23	2.43	0.54
43:E8:17:VAL:HG13	43:E8:76:VAL:HG11	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:187:C:H2'	1:1G:188:U:O4'	2.08	0.54
1:1G:994:A:C2	14:5A:5:ALA:HB2	2.42	0.54
2:12:185:ILE:HG22	2:12:199:TYR:HB2	1.90	0.54
4:32:150:GLU:C	4:32:152:SER:H	2.16	0.54
26:14:898:C:H3'	26:14:899:A:H5"	1.90	0.54
26:14:910:A:N3	26:14:2264:C:O2'	2.39	0.54
27:1J:9:G:H5'	39:65:25:ARG:HH12	1.72	0.54
36:35:8:PRO:HG2	36:35:13:ASN:HB3	1.90	0.54
40:75:18:ASP:OD1	40:75:18:ASP:N	2.38	0.54
1:13:186(E):C:H42	1:13:191(B):G:H1	1.55	0.54
1:13:924:C:H2'	1:13:925:G:C8	2.43	0.54
1:13:1318:A:H5"	19:AI:10:PHE:CD2	2.43	0.54
8:7E:39:LEU:HB3	8:7E:45:ILE:HD11	1.90	0.54
9:8E:89:ASN:O	9:8E:91:ASP:N	2.39	0.54
24:3K:48:C:C5	24:3K:59:U:H1'	2.43	0.54
26:1H:270(K):C:O2'	26:1H:270(N):G:N2	2.39	0.54
26:1H:309:G:N3	26:1H:329:G:O2'	2.41	0.54
26:1H:589:C:H2'	26:1H:590:A:C8	2.43	0.54
26:1H:1514:U:H2'	26:1H:1515:C:C6	2.42	0.54
26:1H:1590:U:H2'	26:1H:1591:G:C8	2.42	0.54
26:1H:1593:G:H2'	26:1H:1594:G:C8	2.42	0.54
29:21:77:ILE:O	29:21:79:ARG:N	2.39	0.54
29:21:167:VAL:HG13	29:21:189:PRO:HD3	1.90	0.54
33:61:99:GLU:HG2	33:61:103:ARG:HH21	1.73	0.54
34:58:133:GLN:OE1	34:58:133:GLN:N	2.37	0.54
36:78:111:ARG:HG2	36:78:128:HIS:CG	2.43	0.54
39:A8:67:ARG:NH1	39:A8:67:ARG:HB2	2.23	0.54
55:Q8:34:TRP:HB3	55:Q8:36:LYS:N	2.22	0.54
55:Q8:46:ARG:NH2	55:Q8:47:LYS:O	2.41	0.54
1:1G:198:G:H2'	1:1G:199:G:H8	1.73	0.54
1:1G:590:C:H2'	1:1G:591:U:H6	1.72	0.54
1:1G:1027:C:O2'	1:1G:1035:A:N6	2.41	0.54
26:14:303:U:H2'	26:14:304:G:C8	2.43	0.54
26:14:566:U:H2'	26:14:567:A:O4'	2.08	0.54
26:14:731:C:H5"	58:14:4110:HOH:O	2.07	0.54
26:14:2304:G:N2	26:14:2312:U:O4	2.36	0.54
29:29:11:MET:HA	29:29:24:THR:HA	1.88	0.54
30:39:132:VAL:C	30:39:134:GLY:H	2.14	0.54
38:55:107:ASP:C	38:55:107:ASP:OD1	2.50	0.54
46:D5:6:LYS:HE2	46:D5:43:GLU:HG3	1.89	0.54
55:M5:33:ASN:O	55:M5:36:LYS:HE3	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:630:G:H2'	1:13:631:G:O4'	2.07	0.54
1:13:1342:C:O2'	9:8E:124:GLN:HG2	2.07	0.54
10:1I:46:ARG:HB2	10:1I:46:ARG:HH11	1.73	0.54
26:1H:729:G:C8	28:11:208:LYS:HD3	2.43	0.54
26:1H:988:A:P	50:L8:11:SER:HB2	2.48	0.54
26:1H:1047:G:O2'	26:1H:1111:A:N6	2.40	0.54
26:1H:2808:U:H5'	26:1H:2891:G:O6	2.08	0.54
32:51:23:ARG:HH12	32:51:25:LYS:HD2	1.72	0.54
34:58:4:TYR:CE2	41:C8:100:VAL:HG11	2.42	0.54
1:1G:11:G:C5	1:1G:12:U:C5	2.96	0.54
1:1G:1177:G:O2'	1:1G:1178:G:O4'	2.26	0.54
5:42:41:VAL:O	5:42:67:VAL:N	2.41	0.54
15:6A:43:LEU:HD11	15:6A:53:HIS:HA	1.89	0.54
20:BA:97:ALA:O	20:BA:99:LEU:HD12	2.08	0.54
23:2L:47:7MG:H3'	23:2L:48:U:H6	1.73	0.54
26:14:84:A:H61	26:14:102:G:HO2'	1.51	0.54
26:14:2165:G:H2'	26:14:2166:G:H5'	1.89	0.54
27:1J:31:C:H2'	27:1J:32:C:H5'	1.90	0.54
28:19:200:ASP:OD1	28:19:203:ASN:ND2	2.41	0.54
30:39:141:ALA:O	30:39:144:LYS:HB3	2.07	0.54
38:55:98:LEU:HB2	38:55:113:LEU:CD2	2.38	0.54
45:C5:17:SER:HB2	45:C5:71:LYS:HD2	1.90	0.54
47:E5:72:ARG:HB3	47:E5:75:LEU:HB2	1.90	0.54
1:13:237:C:H5"	17:8I:25:ARG:CZ	2.37	0.53
6:5E:97:PHE:HD2	18:9I:31:LEU:HD21	1.71	0.53
19:AI:53:ASN:O	19:AI:77:THR:HG22	2.07	0.53
26:1H:2105:C:H2'	26:1H:2106:G:H8	1.72	0.53
26:1H:2475:C:H4'	26:1H:2476:A:OP1	2.08	0.53
40:B8:29:ARG:NH1	40:B8:46:GLU:OE2	2.38	0.53
44:F8:3:THR:CB	44:F8:6:ASP:HB2	2.38	0.53
47:I8:44:ARG:HB2	47:I8:44:ARG:HH11	1.73	0.53
1:1G:382:A:H2'	1:1G:383:A:C8	2.43	0.53
1:1G:861:G:C4	1:1G:862:C:H5	2.27	0.53
3:22:36:ASP:HA	3:22:39:ILE:HD12	1.89	0.53
3:22:70:VAL:HG11	3:22:76:VAL:HG11	1.90	0.53
4:32:107:ARG:HE	4:32:173:TRP:HZ2	1.56	0.53
5:42:101:ILE:H	5:42:101:ILE:HD13	1.73	0.53
20:BA:85:MET:HB2	20:BA:104:LEU:HD21	1.90	0.53
26:14:1007:C:OP1	34:15:37:LYS:NZ	2.40	0.53
26:14:1167:U:O2	26:14:1183:G:N2	2.41	0.53
26:14:1347:G:H5"	26:14:1348:G:OP2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1654:A:H1'	26:14:2823:A:H5'	1.90	0.53
26:14:2001:A:H2'	26:14:2002:G:C8	2.43	0.53
26:14:2094:G:H5'	33:69:25:TYR:CD1	2.43	0.53
26:14:2103:C:H2'	26:14:2104:G:H8	1.73	0.53
26:14:2567:G:H2'	26:14:2568:C:H6	1.72	0.53
28:19:253:GLN:HB3	28:19:255:LYS:NZ	2.23	0.53
33:69:63:ALA:HA	33:69:66:GLU:HG2	1.91	0.53
36:35:30:THR:HG21	36:35:35:HIS:N	2.22	0.53
1:13:554:C:H2'	1:13:555:C:H6	1.73	0.53
2:1E:8:LYS:H	2:1E:8:LYS:HE2	1.73	0.53
26:1H:381:G:C4	26:1H:394:A:C2	2.96	0.53
26:1H:1642:G:N7	58:1H:3947:HOH:O	2.34	0.53
26:1H:2784:C:O2'	29:21:37:ARG:NH1	2.40	0.53
28:11:46:GLN:HB2	28:11:48:ARG:HG2	1.90	0.53
31:41:166:ASP:N	31:41:166:ASP:OD1	2.41	0.53
36:78:2:LYS:HE3	36:78:4:SER:HB3	1.91	0.53
42:D8:59:ALA:CB	42:D8:96:ILE:HD13	2.38	0.53
26:14:218:A:H2	26:14:235:U:H4'	1.72	0.53
26:14:678:C:H2'	26:14:679:C:C6	2.43	0.53
26:14:1229:G:H2'	26:14:1229(A):G:H5"	1.90	0.53
32:59:9:ILE:HG22	32:59:51:ARG:HA	1.89	0.53
35:25:15:GLY:O	35:25:47:ILE:HB	2.08	0.53
44:B5:40:LYS:HA	44:B5:51:VAL:HG11	1.90	0.53
51:I5:12:ALA:HB1	51:I5:29:PRO:HA	1.90	0.53
53:K5:51:GLU:HG2	53:K5:52:VAL:H	1.73	0.53
1:13:130:A:O2'	1:13:131:C:O5'	2.24	0.53
1:13:412:A:H4'	1:13:413:G:O5'	2.08	0.53
3:2E:175:LEU:HD21	3:2E:201:TYR:CE2	2.44	0.53
8:7E:87:SER:CB	8:7E:93:VAL:H	2.22	0.53
11:2I:48:ILE:HG12	11:2I:63:LEU:HB2	1.90	0.53
13:4I:65:LYS:NZ	51:M8:52:THR:HB	2.22	0.53
17:8I:43:LEU:HD12	17:8I:68:ARG:HG2	1.90	0.53
26:1H:606:U:H4'	26:1H:658:C:H4'	1.89	0.53
26:1H:1401:G:H2'	26:1H:1402:C:H6	1.73	0.53
26:1H:2022:U:O2'	26:1H:2617:C:H5'	2.09	0.53
26:1H:2335:A:C8	26:1H:2337:G:C5	2.96	0.53
26:1H:2408:U:H2'	26:1H:2409:G:C8	2.43	0.53
26:1H:2747:G:OP1	32:51:138:LYS:NZ	2.40	0.53
42:D8:46:VAL:HG12	42:D8:47:VAL:H	1.73	0.53
44:F8:80:ILE:HG13	44:F8:80:ILE:O	2.08	0.53
53:O8:16:CYS:O	53:O8:17:LYS:HB2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:P8:24:THR:HG23	54:P8:27:GLY:H	1.73	0.53
1:1G:428:G:C5	1:1G:430:A:C6	2.96	0.53
1:1G:1131:G:H2'	1:1G:1132:C:C6	2.43	0.53
2:12:163:PHE:HD1	2:12:185:ILE:HG13	1.73	0.53
3:22:112:SER:O	3:22:116:VAL:HG23	2.08	0.53
26:14:288:C:O2	26:14:353:G:N2	2.35	0.53
26:14:588:U:O4	26:14:670:A:H1'	2.08	0.53
26:14:1056:G:H1'	26:14:1103:A:H61	1.73	0.53
26:14:1542:G:O6	26:14:1543:A:N6	2.42	0.53
26:14:1774:C:P	58:14:4078:HOH:O	2.65	0.53
26:14:2844:G:H3'	26:14:2845:G:H8	1.72	0.53
31:49:55:LYS:O	31:49:58:GLN:HG3	2.07	0.53
32:59:17:VAL:HG23	32:59:26:VAL:HA	1.89	0.53
37:45:110:THR:OG1	37:45:112:GLU:OE1	2.23	0.53
41:85:92:ARG:C	41:85:94:ASN:H	2.16	0.53
52:J5:32:PRO:HG3	52:J5:39:MET:HE1	1.91	0.53
55:M5:22:VAL:HG12	55:M5:50:LEU:HB2	1.90	0.53
1:13:280:C:C2	17:8I:38:ARG:HG3	2.44	0.53
1:13:491:G:H2'	1:13:492:G:O4'	2.08	0.53
3:2E:18:TRP:HE3	3:2E:18:TRP:H	1.56	0.53
6:5E:36:ARG:NH2	6:5E:38:GLU:HG2	2.24	0.53
7:6E:92:SER:O	7:6E:96:GLN:HG3	2.08	0.53
11:2I:44:SER:OG	11:2I:47:VAL:HG23	2.07	0.53
16:7I:34:GLU:HG2	16:7I:35:LYS:H	1.72	0.53
26:1H:631:A:OP1	36:78:65:ARG:NH2	2.41	0.53
26:1H:699:A:H2'	26:1H:700:G:O4'	2.08	0.53
26:1H:1339:G:H21	26:1H:1603:A:H1'	1.74	0.53
26:1H:1796:U:H2'	26:1H:1797:C:C6	2.43	0.53
26:1H:2347:C:P	55:Q8:36:LYS:HE3	2.48	0.53
26:1H:2461:C:H2'	26:1H:2462:U:C6	2.43	0.53
26:1H:2611:U:H6	26:1H:2611:U:H5'	1.72	0.53
28:11:223:GLY:HA3	28:11:231:HIS:CE1	2.44	0.53
30:31:179:GLU:H	30:31:179:GLU:CD	2.16	0.53
37:88:51:ARG:NH1	37:88:52:VAL:HG23	2.23	0.53
38:98:63:ARG:NH2	38:98:80:PHE:HD2	2.07	0.53
38:98:91:GLN:H	38:98:91:GLN:CD	2.15	0.53
55:Q8:14:VAL:HG11	55:Q8:21:LYS:HZ1	1.72	0.53
1:1G:1062:U:H2'	1:1G:1063:C:C6	2.43	0.53
7:62:27:ILE:HA	7:62:30:ILE:HD12	1.90	0.53
19:AA:28:LYS:HG2	19:AA:29:ARG:H	1.71	0.53
20:BA:72:LEU:O	20:BA:73:HIS:HB2	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1L:10:G:H2'	22:1L:11:C:C6	2.44	0.53
26:14:25:U:H5'	43:A5:79:GLY:HA2	1.90	0.53
26:14:842:G:O5'	26:14:842:G:H8	1.91	0.53
26:14:1665:A:OP2	58:14:3506:HOH:O	2.18	0.53
26:14:1935:G:H1'	26:14:1964:G:N2	2.23	0.53
26:14:2378:A:H4'	39:65:23:ARG:HH11	1.73	0.53
27:1J:13:A:H2'	27:1J:70:C:O2'	2.09	0.53
29:29:105:THR:OG1	29:29:199:ARG:NH2	2.41	0.53
33:69:109:ILE:HB	33:69:130:TYR:CZ	2.43	0.53
34:15:96:GLU:H	34:15:96:GLU:CD	2.17	0.53
36:35:62:LEU:HG	55:M5:25:MET:HB2	1.90	0.53
39:65:67:ARG:NH1	39:65:67:ARG:HB2	2.24	0.53
40:75:99:LEU:HD22	40:75:101:PHE:CE1	2.43	0.53
1:13:448:A:P	1:13:485:G:H22	2.30	0.53
1:13:486:U:H2'	1:13:487:A:C8	2.44	0.53
2:1E:94:ASN:OD1	2:1E:95:GLN:N	2.40	0.53
3:2E:79:ARG:NH1	18:9A:87:ARG:HH12	2.06	0.53
8:7E:12:ARG:NH1	8:7E:27:PRO:HD2	2.24	0.53
11:2I:21:ILE:HD13	11:2I:84:VAL:HG12	1.90	0.53
17:8I:14:LYS:H	17:8I:14:LYS:HD2	1.72	0.53
26:1H:1337:G:H2'	26:1H:1338:G:C8	2.43	0.53
26:1H:1766:U:H2'	26:1H:1767:C:H6	1.73	0.53
26:1H:2291:U:O2'	26:1H:2374:C:O2	2.25	0.53
26:1H:2579:C:H2'	26:1H:2580:U:O4'	2.08	0.53
27:16:87:G:N2	27:16:89(A):A:OP2	2.40	0.53
30:31:32:LEU:CD2	30:31:105:VAL:HG13	2.39	0.53
43:E8:38:TYR:HE2	52:N8:41:PRO:HD3	1.73	0.53
50:L8:9:VAL:HG22	50:L8:54:VAL:HA	1.91	0.53
54:P8:16:HIS:HB2	54:P8:44:PRO:HG2	1.91	0.53
1:1G:1275:A:H2'	1:1G:1276:G:O4'	2.09	0.53
2:12:74:LYS:HE3	2:12:166:ASP:HB2	1.89	0.53
7:62:15:ASP:OD1	7:62:44:TYR:OH	2.25	0.53
11:2A:14:VAL:HG11	11:2A:35:PRO:HD3	1.90	0.53
14:5A:25:VAL:O	14:5A:26:ARG:HB3	2.09	0.53
22:1L:54:U:H5'	37:45:51:ARG:HH22	1.73	0.53
24:3L:46:G:H2'	24:3L:47:U:H4'	1.91	0.53
26:14:780:G:OP1	28:19:218:ARG:NH2	2.41	0.53
26:14:826:U:H2'	26:14:828:U:O4'	2.08	0.53
26:14:1776:G:OP2	58:14:3427:HOH:O	2.19	0.53
33:69:77:LEU:HD13	33:69:141:LYS:HD2	1.91	0.53
36:35:80:TYR:CD2	36:35:111:ARG:HB3	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1504:G:OP1	1:13:1507:A:H4'	2.09	0.53
10:1I:42:THR:HG23	10:1I:67:THR:O	2.08	0.53
12:3I:117:ARG:HB3	12:3I:122:THR:HB	1.89	0.53
26:1H:2347:C:P	53:O8:39:TYR:HH	2.27	0.53
28:11:68:LYS:HB3	28:11:70:TRP:CH2	2.43	0.53
29:21:105:THR:HG22	29:21:106:GLY:N	2.21	0.53
33:61:67:ARG:O	33:61:71:ILE:HG22	2.08	0.53
34:58:38:HIS:O	41:C8:67:ALA:HB1	2.08	0.53
35:68:7:TYR:HE1	35:68:20:MET:HE3	1.73	0.53
36:78:39:LYS:HG3	36:78:45:LEU:HD23	1.91	0.53
41:C8:6:THR:N	58:C8:302:HOH:O	2.40	0.53
49:K8:47:ASN:O	49:K8:49:LYS:HG3	2.08	0.53
1:1G:589:C:N3	1:1G:650:G:N2	2.54	0.53
1:1G:617:G:N7	58:1G:1839:HOH:O	2.33	0.53
1:1G:821:G:H5"	58:1G:1865:HOH:O	2.09	0.53
1:1G:1226:C:H4'	19:AA:80:TYR:OH	2.07	0.53
7:62:15:ASP:HB3	7:62:19:GLY:H	1.73	0.53
7:62:65:ALA:HB1	7:62:127:ALA:HB3	1.91	0.53
9:82:103:THR:HG22	9:82:105:ASP:H	1.73	0.53
26:14:31:C:OP1	58:14:3732:HOH:O	2.19	0.53
26:14:576:U:H5	58:14:3567:HOH:O	1.91	0.53
26:14:2702:U:O2'	26:14:2703:C:C5	2.60	0.53
26:14:2712:U:H2'	26:14:2714:G:H5"	1.90	0.53
27:1J:16:G:H2'	27:1J:17:C:C6	2.44	0.53
29:29:56:PRO:HD2	29:29:58:ARG:HD3	1.90	0.53
30:39:89:VAL:HG12	30:39:90:PHE:H	1.73	0.53
30:39:132:VAL:O	30:39:134:GLY:N	2.42	0.53
34:15:67:LEU:O	34:15:88:GLU:HG3	2.08	0.53
43:A5:50:VAL:HG22	43:A5:105:VAL:HG23	1.89	0.53
1:13:765:G:H5"	1:13:766:A:OP1	2.08	0.53
1:13:1160:G:H22	1:13:1177:G:N2	2.07	0.53
1:13:1349:A:H2'	1:13:1350:A:C8	2.44	0.53
8:7E:41:ARG:NH1	8:7E:123:GLU:OE1	2.42	0.53
8:7E:45:ILE:HB	8:7E:47:GLY:H	1.73	0.53
20:BI:97:ALA:O	20:BI:99:LEU:N	2.42	0.53
24:3K:28:G:H2'	24:3K:29:G:H8	1.74	0.53
26:1H:85:G:OP2	45:G8:9:LYS:HB2	2.08	0.53
26:1H:396:G:O4'	48:J8:13:ILE:HD11	2.09	0.53
27:16:2:C:H2'	27:16:3:C:C6	2.43	0.53
28:11:108:PRO:HG3	28:11:143:HIS:HE1	1.72	0.53
29:21:119:ARG:HD2	29:21:120:TRP:CE2	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:H8:117:LEU:H	46:H8:117:LEU:HD13	1.74	0.53
50:L8:7:LYS:O	50:L8:54:VAL:HG23	2.08	0.53
1:1G:157:G:H1	1:1G:164:U:H3	1.57	0.53
1:1G:778:G:O2'	11:2A:119:CYS:HB2	2.09	0.53
9:82:112:LYS:HE3	9:82:118:LYS:H	1.72	0.53
19:AA:35:SER:O	19:AA:71:LEU:HD12	2.09	0.53
21:1B:9:ARG:NE	21:1B:10:ARG:HG2	2.23	0.53
26:14:194:G:H2'	26:14:195:A:O4'	2.09	0.53
26:14:353:G:H2'	26:14:354:G:C8	2.43	0.53
26:14:1019:U:H3	26:14:1142(A):A:N6	1.99	0.53
26:14:1638:C:H1'	26:14:2698:U:O2'	2.09	0.53
26:14:2689:U:OP2	26:14:2719:G:N2	2.42	0.53
29:29:51:PHE:O	29:29:52:LEU:HB2	2.07	0.53
44:B5:35:THR:HB	44:B5:38:GLU:H	1.73	0.53
1:13:652:U:O2'	1:13:653:A:O5'	2.26	0.53
1:13:1418:A:C2	1:13:1483:A:C2	2.97	0.53
4:3E:112:VAL:HG12	4:3E:116:GLN:OE1	2.08	0.53
6:5E:44:GLY:HA2	6:5E:59:TYR:CE2	2.44	0.53
15:6I:74:ASP:HB3	15:6I:77:ARG:HB3	1.91	0.53
26:1H:389:G:H22	36:78:72:PRO:HD3	1.73	0.53
26:1H:654(G):C:O2	26:1H:654(N):G:N2	2.41	0.53
26:1H:1013:C:O2'	26:1H:1014:U:H5'	2.08	0.53
26:1H:1019:U:O2'	26:1H:1021:A:H2	1.92	0.53
26:1H:1417:C:H2'	26:1H:1418:G:O4'	2.08	0.53
26:1H:1653:G:H3'	38:98:2:ARG:CG	2.39	0.53
27:16:73:A:C4	27:16:104:A:C2	2.97	0.53
41:C8:95:LEU:HG	42:D8:4:ILE:HD13	1.91	0.53
53:O8:26:ASN:ND2	53:O8:35:GLU:OE2	2.42	0.53
1:1G:688:G:H2'	1:1G:689:C:H6	1.74	0.53
18:9A:53:ARG:HA	18:9A:56:THR:OG1	2.09	0.53
26:14:251:A:C5	26:14:252:G:H1'	2.44	0.53
26:14:688:U:H2'	26:14:689:A:H5'	1.91	0.53
26:14:1358:G:O2'	26:14:1359:A:H5'	2.08	0.53
26:14:2299:G:H2'	26:14:2300:G:C8	2.43	0.53
26:14:2502:G:H8	58:14:3687:HOH:O	1.92	0.53
28:19:166:GLN:HB3	28:19:174:ILE:HG22	1.91	0.53
31:49:172:LEU:O	31:49:176:LEU:HB2	2.08	0.53
39:65:64:GLU:O	39:65:68:GLN:HG3	2.09	0.53
45:C5:39:VAL:HG23	45:C5:41:GLY:H	1.73	0.53
48:F5:8:SER:HB3	48:F5:66:HIS:CD2	2.44	0.53
49:G5:59:ARG:O	49:G5:63:VAL:HG23	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:J5:16:ARG:HG3	52:J5:17:ASP:N	2.24	0.53
1:13:452:A:H62	1:13:480:U:H3	1.56	0.53
1:13:719:C:H1'	18:9I:49:LYS:HB3	1.91	0.53
1:13:1492:A:H1'	25:4K:20:U:O2'	2.08	0.53
13:4I:49:THR:O	13:4I:52:GLU:HG3	2.09	0.53
18:9I:58:LEU:HD23	18:9I:62:GLU:HB3	1.91	0.53
24:3K:24:G:H2'	24:3K:25:C:C6	2.44	0.53
26:1H:415:A:H2'	26:1H:416:C:O4'	2.08	0.53
26:1H:528:A:C2	26:1H:2043:C:H4'	2.44	0.53
26:1H:963:U:H5"	58:1H:3858:HOH:O	2.09	0.53
26:1H:1441:G:H2'	26:1H:1442:G:C8	2.43	0.53
26:1H:1500:G:N2	28:11:99:ASP:O	2.36	0.53
26:1H:2461:C:H2'	26:1H:2462:U:H6	1.74	0.53
26:1H:2617:C:H2'	26:1H:2618:G:H8	1.73	0.53
30:31:52:LYS:O	30:31:88:VAL:HG23	2.09	0.53
7:62:91:VAL:HG12	7:62:95:ARG:HB3	1.90	0.53
11:2A:86:GLY:N	11:2A:112:THR:OG1	2.38	0.53
16:7A:19:ILE:HB	16:7A:36:ILE:O	2.08	0.53
26:14:1278:A:OP1	38:55:36:THR:HG22	2.09	0.53
26:14:2371:G:O2'	53:K5:46:HIS:ND1	2.32	0.53
26:14:2390:U:O2'	26:14:2391:G:H5'	2.09	0.53
29:29:96:PHE:O	29:29:175:VAL:HG11	2.08	0.53
55:M5:40:GLU:N	55:M5:43:GLN:HG3	2.22	0.53
1:13:7:G:H5'	1:13:298:A:O4'	2.09	0.53
1:13:615:C:C2	1:13:616:G:C8	2.97	0.53
1:13:616:G:C2	1:13:617:G:N7	2.77	0.53
1:13:984:C:H2'	1:13:985:C:C6	2.44	0.53
12:3I:66:VAL:HG21	12:3I:98:TYR:CE1	2.43	0.53
13:4I:11:ARG:HG2	13:4I:12:ASN:H	1.73	0.53
26:1H:270(V):G:H2'	26:1H:270(W):G:H8	1.74	0.53
26:1H:302:C:H2'	26:1H:303:U:C6	2.44	0.53
26:1H:512:G:C8	58:1H:4665:HOH:O	2.53	0.53
26:1H:527:C:OP2	26:1H:2779:U:H5	1.91	0.53
26:1H:821:A:H5"	26:1H:822:U:H6	1.74	0.53
26:1H:2693:A:H2'	26:1H:2694:G:C8	2.40	0.53
28:11:182:LEU:N	28:11:272:ALA:HB3	2.23	0.53
36:78:113:LYS:HG2	36:78:115:LEU:HD23	1.89	0.53
40:B8:99:LEU:HB3	40:B8:101:PHE:CE1	2.44	0.53
41:C8:14:HIS:O	41:C8:18:LEU:HD12	2.09	0.53
46:H8:45:ASP:OD2	46:H8:49:ARG:NH1	2.42	0.53
55:Q8:38:GLY:HA2	55:Q8:39:LYS:O	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:142:G:H2'	1:1G:143:A:C8	2.44	0.53
1:1G:407:G:OP1	4:32:115:ARG:NE	2.41	0.53
1:1G:513:C:N3	1:1G:538:G:N2	2.50	0.53
2:12:193:ASP:OD1	2:12:196:LEU:HG	2.09	0.53
5:42:5:ASP:HA	5:42:63:ARG:HH12	1.73	0.53
26:14:1169:G:N2	26:14:1180:C:O2	2.41	0.53
26:14:1449(A):G:H2'	26:14:1450:C:H6	1.73	0.53
26:14:1678:G:N2	26:14:1989:G:H22	2.01	0.53
26:14:1999:C:H4'	26:14:2723:C:O2	2.08	0.53
26:14:2016:U:OP1	58:14:3792:HOH:O	2.18	0.53
36:35:39:LYS:HB2	36:35:45:LEU:HD21	1.90	0.53
45:C5:49:VAL:O	45:C5:51:VAL:HG12	2.09	0.53
1:13:93:U:H2'	1:13:95:G:O4'	2.09	0.52
1:13:427:U:H3'	1:13:428:G:H2'	1.90	0.52
1:13:558:G:H5"	1:13:559:A:OP2	2.08	0.52
26:1H:394:A:C6	26:1H:395:U:N3	2.76	0.52
26:1H:569:U:C4	26:1H:570:G:C6	2.97	0.52
26:1H:988:A:O5'	50:L8:11:SER:HB2	2.09	0.52
26:1H:999:U:P	58:1H:3999:HOH:O	2.67	0.52
26:1H:1062:G:H2'	26:1H:1063:G:C8	2.44	0.52
26:1H:1093:G:H1'	26:1H:1099:G:H22	1.74	0.52
26:1H:1290:C:H2'	26:1H:1291:C:H6	1.73	0.52
26:1H:1784:A:OP1	58:1H:3967:HOH:O	2.19	0.52
26:1H:1839:G:H5"	26:1H:1839:G:C8	2.43	0.52
26:1H:2155:G:H2'	26:1H:2156:G:H5'	1.90	0.52
26:1H:2807:G:H3'	26:1H:2808:U:H5"	1.92	0.52
29:21:32:PRO:HD2	29:21:50:GLY:O	2.09	0.52
36:78:19:VAL:CB	36:78:27:HIS:HB2	2.37	0.52
46:H8:127:LYS:NZ	46:H8:162:GLU:OE2	2.42	0.52
1:1G:179:A:H2'	1:1G:180:U:C6	2.43	0.52
1:1G:1226:C:N4	13:4A:104:ARG:HD2	2.24	0.52
1:1G:1256:A:OP2	3:22:26:LYS:NZ	2.42	0.52
1:1G:1490:C:H2'	1:1G:1491:G:O4'	2.09	0.52
30:39:140:LEU:HD21	30:39:170:LEU:HD21	1.90	0.52
31:49:118:ARG:HB3	31:49:181:ARG:HG3	1.91	0.52
42:95:7:THR:HG23	42:95:22:VAL:HG21	1.89	0.52
1:13:4:U:O4	8:7E:105:ARG:HD2	2.10	0.52
2:1E:111:ARG:HG2	2:1E:111:ARG:HH11	1.72	0.52
5:4E:100:VAL:O	5:4E:107:ARG:NH2	2.42	0.52
10:1I:54:PHE:CD2	10:1I:55:LYS:HG2	2.43	0.52
20:BI:30:LYS:HE2	20:BI:72:LEU:HD22	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:507:A:H5"	26:1H:508:G:H3'	1.90	0.52
26:1H:2138:C:N4	26:1H:2153:G:H1	2.07	0.52
26:1H:2724:C:OP1	29:21:118:LYS:HE3	2.09	0.52
32:51:86:GLU:H	32:51:86:GLU:CD	2.16	0.52
37:88:135:ASP:HB3	37:88:137:TYR:N	2.23	0.52
2:12:23:ARG:C	2:12:23:ARG:HD3	2.34	0.52
6:52:19:LEU:HD11	6:52:59:TYR:CD2	2.44	0.52
24:3L:35:A:H2	25:4L:14:A:C6	2.27	0.52
26:14:71:A:OP2	26:14:71:A:H3'	2.08	0.52
26:14:275:G:H2'	26:14:276:A:C8	2.44	0.52
26:14:696:G:H2'	26:14:697:C:H6	1.75	0.52
26:14:748:G:C8	43:A5:89:ALA:HB1	2.45	0.52
27:1J:9:G:P	39:65:25:ARG:HH22	2.32	0.52
30:39:164:ARG:O	30:39:167:ALA:HB3	2.08	0.52
31:49:95:ARG:HG2	31:49:96:ARG:HG2	1.91	0.52
34:15:62:VAL:HG22	34:15:66:LYS:HD2	1.91	0.52
44:B5:67:GLY:O	44:B5:69:TYR:N	2.40	0.52
48:F5:52:ARG:HH11	48:F5:57:GLU:HB2	1.74	0.52
5:4E:8:GLU:HG2	5:4E:34:VAL:HG22	1.91	0.52
13:4I:106:ASN:O	13:4I:106:ASN:ND2	2.35	0.52
14:5I:6:LEU:HB3	14:5I:23:ARG:NH2	2.23	0.52
17:8I:29:HIS:N	17:8I:34:LYS:O	2.39	0.52
26:1H:35:G:H2'	26:1H:36:G:O4'	2.08	0.52
26:1H:280:C:N3	26:1H:361:G:C2	2.77	0.52
26:1H:300:A:H2'	26:1H:334:C:H1'	1.92	0.52
26:1H:518:G:H5'	43:E8:18:ARG:NH2	2.25	0.52
26:1H:654(A):A:H2	26:1H:654(T):A:N1	2.07	0.52
26:1H:857:C:H4'	47:I8:23:VAL:HG21	1.90	0.52
26:1H:1649:G:O2'	38:98:107:ASP:OD1	2.13	0.52
28:11:121:PRO:HB3	28:11:135:PHE:CE2	2.44	0.52
41:C8:92:ARG:NE	42:D8:11:GLN:H	2.06	0.52
48:J8:65:SER:OG	48:J8:66:HIS:ND1	2.31	0.52
55:Q8:4:MET:HE2	55:Q8:59:LYS:NZ	2.21	0.52
55:Q8:39:LYS:O	55:Q8:40:GLU:HB3	2.09	0.52
1:1G:103:C:OP2	20:BA:14:LYS:HE2	2.08	0.52
1:1G:1096:C:H2'	1:1G:1097:C:C6	2.44	0.52
2:12:50:GLU:HB3	2:12:200:ILE:O	2.10	0.52
3:22:39:ILE:O	3:22:43:LEU:HB2	2.10	0.52
5:42:12:LEU:O	5:42:30:ALA:HA	2.09	0.52
5:42:145:LYS:O	5:42:149:GLU:HG2	2.09	0.52
23:2L:46:G:H4'	23:2L:47:7MG:OP1	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2315:G:H2'	26:14:2316:C:C6	2.45	0.52
26:14:2440:C:H5'	58:14:3470:HOH:O	2.09	0.52
26:14:2448:A:N1	58:14:3682:HOH:O	2.34	0.52
26:14:2572:A:H62	29:29:145:LYS:HD2	1.74	0.52
29:29:179:GLU:HB3	29:29:181:LEU:HD22	1.90	0.52
32:59:121:ILE:HG23	32:59:133:VAL:HG13	1.91	0.52
37:45:39:PRO:HD3	37:45:99:PRO:HD3	1.90	0.52
41:85:98:LEU:HA	41:85:100:VAL:O	2.08	0.52
46:D5:15:PRO:HB2	46:D5:19:ARG:NH2	2.24	0.52
47:E5:37:LEU:HG	47:E5:60:PHE:HA	1.92	0.52
1:13:757:U:OP1	1:13:822:C:O2'	2.27	0.52
1:13:958:A:O4'	19:AI:55:LYS:NZ	2.43	0.52
1:13:971:G:N2	1:13:1363:A:OP2	2.34	0.52
2:1E:97:TRP:CZ3	2:1E:172:ILE:HB	2.45	0.52
2:1E:100:GLY:N	2:1E:176:GLU:OE2	2.42	0.52
5:4E:68:GLU:O	5:4E:70:PRO:HD3	2.10	0.52
9:8E:79:LEU:HD22	9:8E:83:ARG:HG3	1.91	0.52
10:1I:40:LEU:HB2	10:1I:69:ASN:CB	2.39	0.52
15:6I:27:VAL:O	15:6I:31:LEU:HB2	2.08	0.52
19:AI:51:VAL:O	19:AI:57:HIS:HA	2.09	0.52
26:1H:4:C:H2'	26:1H:5:A:C8	2.44	0.52
26:1H:220:G:O2'	26:1H:233:A:N3	2.41	0.52
26:1H:621:A:O4'	26:1H:621:A:N3	2.41	0.52
26:1H:1403:C:H5'	26:1H:1471:A:H1'	1.92	0.52
26:1H:1566:A:O2'	26:1H:1567:A:H5'	2.09	0.52
26:1H:2150:U:H2'	26:1H:2151:G:C8	2.45	0.52
28:11:69:ARG:HH21	28:11:130:ALA:H	1.57	0.52
32:51:46:GLU:CD	32:51:51:ARG:HH22	2.18	0.52
33:61:12:LEU:HG	33:61:19:VAL:HG21	1.92	0.52
47:I8:60:PHE:CD1	47:I8:60:PHE:N	2.77	0.52
1:1G:56:U:H2'	1:1G:57:G:C8	2.45	0.52
1:1G:518:C:H5"	1:1G:519:C:C6	2.45	0.52
1:1G:763:G:H2'	1:1G:764:C:C6	2.44	0.52
1:1G:804:U:H5"	1:1G:805:C:OP2	2.08	0.52
1:1G:854:G:O6	58:1G:1881:HOH:O	2.19	0.52
1:1G:1080:A:H5'	5:42:14:ARG:NH2	2.24	0.52
1:1G:1328:C:OP1	21:1B:21:TYR:OH	2.24	0.52
9:82:16:ARG:O	9:82:63:ILE:HG23	2.10	0.52
13:4A:81:LEU:HB3	13:4A:88:ARG:HG3	1.92	0.52
26:14:1327:C:O3'	38:55:105:ARG:NH2	2.43	0.52
26:14:1536:A:H3'	26:14:1537:C:O4'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1538:G:H2'	26:14:1539:G:H8	1.73	0.52
26:14:1963:U:H5"	26:14:1963:U:O2	2.10	0.52
26:14:2023:G:OP2	26:14:2617:C:H4'	2.08	0.52
26:14:2131:G:C5'	26:14:2158:A:H61	2.22	0.52
37:45:39:PRO:HA	37:45:97:VAL:O	2.09	0.52
43:A5:69:LEU:HD22	43:A5:107:LEU:HB3	1.92	0.52
1:13:10:A:OP2	5:4E:126:ARG:HD3	2.10	0.52
1:13:31:G:O2'	1:13:48:C:N4	2.43	0.52
1:13:693:G:H2'	1:13:694:A:C8	2.45	0.52
1:13:1063:C:H3'	1:13:1064:G:H2'	1.90	0.52
1:13:1125:U:H5'	1:13:1126:U:C5	2.45	0.52
4:3E:100:ARG:NH1	4:3E:137:SER:HA	2.25	0.52
5:4E:51:VAL:O	5:4E:55:VAL:HG23	2.10	0.52
7:6E:15:ASP:OD2	7:6E:44:TYR:OH	2.28	0.52
19:AI:51:VAL:HG12	19:AI:52:TYR:H	1.74	0.52
24:3K:70:G:H2'	24:3K:71:G:O4'	2.10	0.52
26:1H:1187:G:P	58:1H:3882:HOH:O	2.66	0.52
26:1H:1510:A:H4'	26:1H:1511:A:N7	2.25	0.52
26:1H:1683:C:H2'	26:1H:1684:C:C6	2.44	0.52
26:1H:1899:G:H22	26:1H:1902:C:H41	1.58	0.52
26:1H:2785:C:H2'	26:1H:2786:U:O4'	2.10	0.52
28:11:26:LYS:HE2	28:11:94:LEU:HD12	1.90	0.52
32:51:154:PRO:HB3	32:51:163:TYR:CE2	2.45	0.52
37:88:23:GLY:O	37:88:25:ASP:HB3	2.10	0.52
38:98:44:LEU:HD22	38:98:48:VAL:HG22	1.92	0.52
39:A8:35:ILE:HD11	39:A8:101:LEU:HD23	1.90	0.52
43:E8:60:ASN:N	43:E8:60:ASN:ND2	2.57	0.52
43:E8:74:ALA:HA	43:E8:104:THR:O	2.09	0.52
47:I8:72:ARG:HB3	47:I8:75:LEU:HB2	1.90	0.52
50:L8:4:LEU:HG	50:L8:39:ASP:HB2	1.92	0.52
1:1G:195:A:C6	1:1G:196:A:N1	2.78	0.52
1:1G:604:G:H2'	1:1G:605:U:O4'	2.10	0.52
1:1G:993:G:O2'	1:1G:994:A:N7	2.42	0.52
1:1G:1372:U:OP1	9:82:72:GLY:N	2.43	0.52
2:12:77:ALA:O	2:12:81:VAL:HG23	2.08	0.52
3:22:47:LEU:HG	3:22:68:VAL:HG11	1.91	0.52
8:72:12:ARG:NH2	8:72:27:PRO:HD3	2.23	0.52
9:82:117:HIS:O	9:82:118:LYS:HB2	2.07	0.52
13:4A:29:ARG:HB3	13:4A:64:TRP:CZ2	2.45	0.52
13:4A:60:VAL:HG13	13:4A:64:TRP:NE1	2.24	0.52
26:14:138:G:N2	44:B5:44:GLU:OE2	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2506:U:H4'	26:14:2507:C:OP1	2.07	0.52
26:14:2638:G:OP2	29:29:82:ARG:NH2	2.42	0.52
26:14:2860:A:N7	26:14:2861:G:H1'	2.25	0.52
29:29:89:ASP:CG	29:29:90:THR:H	2.18	0.52
35:25:59:LYS:HB3	35:25:87:ILE:HG22	1.91	0.52
39:65:102:ALA:HA	39:65:105:ALA:HB3	1.91	0.52
40:75:55:ASN:H	40:75:59:THR:HG22	1.74	0.52
43:A5:51:LEU:HD23	43:A5:105:VAL:HG11	1.92	0.52
46:D5:117:LEU:HD12	46:D5:119:GLU:HG2	1.91	0.52
52:J5:11:THR:HG23	52:J5:15:ARG:HB3	1.92	0.52
1:13:360:A:H2'	1:13:361:G:C8	2.44	0.52
1:13:375:U:OP1	16:7I:69:THR:HG21	2.10	0.52
1:13:767:A:H2'	1:13:768:A:O4'	2.10	0.52
1:13:1028(A):C:H42	1:13:1032(A):G:H1	1.58	0.52
1:13:1148:U:H2'	1:13:1149:C:O4'	2.09	0.52
17:8I:28:PRO:HA	17:8I:34:LYS:O	2.09	0.52
19:AI:4:SER:C	19:AI:5:LEU:HG	2.35	0.52
24:3K:71:G:H2'	24:3K:72:C:H5"	1.91	0.52
26:1H:1049:C:C2'	26:1H:1050:A:H5'	2.40	0.52
26:1H:1127:A:O2'	26:1H:2518:A:OP1	2.20	0.52
26:1H:1547:C:H2'	26:1H:1548:C:C6	2.43	0.52
26:1H:1826:G:OP2	28:11:222:ARG:HB3	2.10	0.52
26:1H:1931:U:H5	26:1H:1969:A:N7	2.08	0.52
26:1H:2233:U:H2'	26:1H:2234:G:H8	1.72	0.52
30:31:37:VAL:HG21	36:78:6:LEU:HD21	1.91	0.52
32:51:97:ARG:NH2	32:51:104:GLU:OE2	2.40	0.52
39:A8:11:LYS:HD3	39:A8:91:PRO:HD3	1.91	0.52
41:C8:47:TYR:CD1	41:C8:47:TYR:C	2.88	0.52
46:H8:11:GLU:HA	46:H8:36:LYS:HE3	1.92	0.52
1:1G:32:A:H2'	1:1G:33:A:C8	2.44	0.52
1:1G:1207:G:H2'	1:1G:1208:C:C6	2.44	0.52
2:12:95:GLN:OE1	2:12:147:LYS:HG2	2.09	0.52
26:14:40:C:H2'	26:14:41:C:H6	1.75	0.52
26:14:1492:G:OP1	26:14:2210:G:N1	2.31	0.52
26:14:2353:G:H2'	26:14:2354:G:O4'	2.10	0.52
27:1J:14:U:H4'	27:1J:70:C:O2	2.10	0.52
27:1J:52:A:N6	39:65:33:LYS:HG3	2.25	0.52
28:19:237:GLU:HG3	28:19:239:ARG:H	1.75	0.52
31:49:39:ILE:HD11	31:49:94:LEU:HD11	1.91	0.52
34:15:42:TRP:O	41:85:64:ARG:NH2	2.33	0.52
49:G5:5:GLU:CD	49:G5:5:GLU:H	2.18	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:407:G:O2'	4:3E:116:GLN:HG3	2.09	0.52
3:2E:7:PRO:O	3:2E:11:ARG:NH1	2.43	0.52
11:2I:20:TYR:HB2	11:2I:31:THR:HG22	1.92	0.52
17:8I:59:ILE:HG22	17:8I:73:VAL:HA	1.91	0.52
19:AI:11:VAL:HG13	19:AI:16:LEU:HD22	1.92	0.52
26:1H:654(M):C:H5'	26:1H:654(N):G:C5	2.45	0.52
26:1H:1855:G:N7	58:1H:4282:HOH:O	2.33	0.52
26:1H:2611:U:H2'	52:N8:3:LYS:HG3	1.91	0.52
32:51:105:LEU:HD23	32:51:105:LEU:H	1.73	0.52
36:78:2:LYS:HG2	36:78:4:SER:HB3	1.92	0.52
36:78:18:ARG:C	36:78:19:VAL:HG22	2.34	0.52
39:A8:30:ARG:HG3	39:A8:30:ARG:O	2.09	0.52
39:A8:48:LEU:CD2	39:A8:82:ILE:HD11	2.39	0.52
43:E8:57:ASN:O	43:E8:61:ASN:HB2	2.10	0.52
43:E8:84:ARG:HB3	43:E8:96:ILE:HD11	1.91	0.52
55:Q8:35:GLN:C	55:Q8:37:SER:H	2.15	0.52
1:1G:358:U:H2'	1:1G:359:U:C6	2.45	0.52
1:1G:590:C:H2'	1:1G:591:U:C6	2.45	0.52
10:1A:4:ILE:HA	10:1A:100:THR:HG22	1.91	0.52
21:1B:6:ARG:HD3	21:1B:15:ARG:CZ	2.39	0.52
26:14:27:G:O2'	26:14:28:A:OP2	2.27	0.52
26:14:363(B):G:H2'	26:14:363(C):G:C8	2.45	0.52
26:14:782:A:H5'	26:14:783:A:C2	2.45	0.52
26:14:1844:C:O3'	28:19:258:LYS:NZ	2.38	0.52
26:14:1936:A:C8	26:14:1940:U:O2	2.63	0.52
26:14:2418:A:OP1	55:M5:29:LYS:NZ	2.38	0.52
26:14:2447:G:H3'	58:14:4011:HOH:O	2.08	0.52
32:59:105:LEU:HG	32:59:113:VAL:HG13	1.92	0.52
47:E5:25:ARG:HD2	47:E5:29:GLN:NE2	2.25	0.52
54:L5:10:ARG:O	54:L5:14:LYS:HB2	2.10	0.52
1:13:77:C:H2'	1:13:78:G:H5"	1.91	0.52
1:13:222:U:H2'	1:13:223:U:H6	1.74	0.52
1:13:974:A:OP2	14:5I:29:ARG:NH2	2.43	0.52
1:13:976:G:H5'	1:13:1358:U:O2'	2.10	0.52
1:13:1081:G:H2'	1:13:1082:G:H8	1.75	0.52
1:13:1443:G:O2'	40:B8:122:ASP:OD2	2.23	0.52
5:4E:122:GLU:HG2	5:4E:131:ILE:HD12	1.92	0.52
26:1H:566:U:P	36:78:29:LYS:HZ2	2.32	0.52
26:1H:607:U:O2	26:1H:621:A:N1	2.43	0.52
26:1H:1012:U:O4	34:58:25:ARG:HA	2.09	0.52
26:1H:1266:G:O2'	26:1H:2012:G:O6	2.19	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1591:G:H2'	26:1H:1592:C:C6	2.44	0.52
26:1H:1858:G:H2'	26:1H:1883:G:N2	2.25	0.52
26:1H:1950:G:N2	58:1H:4011:HOH:O	1.99	0.52
26:1H:2314:C:H2'	26:1H:2315:G:H8	1.75	0.52
26:1H:2367:G:H2'	26:1H:2368:C:H6	1.75	0.52
28:11:17:THR:CG2	28:11:204:ILE:HA	2.39	0.52
38:98:21:TYR:OH	38:98:43:GLU:HG2	2.10	0.52
38:98:52:ILE:O	38:98:55:ALA:N	2.42	0.52
49:K8:8:LYS:HZ3	49:K8:12:GLU:HG2	1.74	0.52
1:1G:538:G:H2'	1:1G:539:A:C8	2.45	0.52
1:1G:538:G:H2'	1:1G:539:A:H8	1.74	0.52
1:1G:616:G:N3	1:1G:617:G:C8	2.78	0.52
1:1G:909:A:H2'	1:1G:910:C:O4'	2.10	0.52
10:1A:5:ARG:HG3	10:1A:73:ASP:OD1	2.10	0.52
11:2A:17:GLY:HA3	11:2A:77:MET:SD	2.50	0.52
24:3L:52:G:H1	24:3L:62:C:N4	2.03	0.52
24:3L:64:A:C2	24:3L:65:G:H1'	2.45	0.52
26:14:1270:C:H5"	26:14:1271:G:H5'	1.92	0.52
34:15:128:HIS:NE2	34:15:134:ARG:HD2	2.25	0.52
1:13:654:G:H2'	1:13:655:A:H5'	1.92	0.52
2:1E:17:PHE:HD1	2:1E:17:PHE:H	1.56	0.52
2:1E:59:GLU:HB2	2:1E:221:LEU:HD11	1.91	0.52
4:3E:25:ARG:NH1	4:3E:30:LYS:HG3	2.24	0.52
13:4I:82:MET:O	13:4I:84:ILE:N	2.41	0.52
26:1H:11:G:H2'	26:1H:12:U:H5'	1.92	0.52
26:1H:194:G:H2'	26:1H:195:A:O4'	2.09	0.52
26:1H:580:C:H2'	26:1H:581:C:C6	2.45	0.52
26:1H:674:G:P	58:1H:4586:HOH:O	2.67	0.52
26:1H:839:U:H2'	26:1H:840:C:C6	2.44	0.52
26:1H:987:G:O2'	26:1H:1000:A:N3	2.39	0.52
26:1H:1853:A:H2'	26:1H:1854:A:C8	2.45	0.52
26:1H:2343:C:O2'	26:1H:2373:G:O2'	2.23	0.52
26:1H:2845:G:O2'	26:1H:2846:G:H5'	2.09	0.52
29:21:1:MET:N	29:21:83:ASP:O	2.42	0.52
29:21:46:ALA:HB1	29:21:80:GLU:HB3	1.91	0.52
31:41:104:GLU:CD	51:M8:23:GLU:HG3	2.34	0.52
34:58:128:HIS:HB2	34:58:129:PRO:HD2	1.90	0.52
37:88:37:LEU:HD21	37:88:130:LYS:HE2	1.92	0.52
1:1G:340:U:H3	1:1G:349:A:H61	1.56	0.52
1:1G:587:G:N2	1:1G:754:C:OP2	2.43	0.52
1:1G:983:A:O2'	1:1G:1050:G:OP2	2.20	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1191:A:OP1	3:22:3:ASN:ND2	2.34	0.52
2:12:9:GLU:HB2	2:12:217:ARG:NH2	2.24	0.52
26:14:796:C:H2'	26:14:797:C:H6	1.73	0.52
26:14:1028:A:N3	26:14:2486:G:O2'	2.36	0.52
28:19:80:ALA:HB3	28:19:94:LEU:HB3	1.92	0.52
28:19:267:SER:O	28:19:268:ARG:HG2	2.10	0.52
32:59:44:VAL:HG13	32:59:51:ARG:HB2	1.92	0.52
37:45:37:LEU:HD11	37:45:130:LYS:HB2	1.91	0.52
42:95:85:LYS:HG3	42:95:87:HIS:N	2.25	0.52
43:A5:18:ARG:HG3	43:A5:76:VAL:HG13	1.92	0.52
2:1E:124:SER:HB2	2:1E:125:PRO:HD2	1.91	0.52
24:3K:18:G:O2'	24:3K:19:G:OP1	2.26	0.52
26:1H:102:G:OP1	49:K8:7:ARG:NH2	2.42	0.52
26:1H:588:U:C2	30:31:90:PHE:CE1	2.97	0.52
26:1H:600:G:N2	26:1H:605:C:O3'	2.42	0.52
26:1H:1107:G:H2'	26:1H:1108:U:C6	2.45	0.52
26:1H:1788:C:H2'	26:1H:1789:A:C8	2.45	0.52
26:1H:2001:A:H2'	26:1H:2002:G:C8	2.45	0.52
27:16:37:C:C2'	27:16:38:C:H5'	2.40	0.52
31:41:5:VAL:H	51:M8:25:TYR:HE2	1.58	0.52
33:61:129:THR:HA	33:61:137:PRO:HA	1.91	0.52
35:68:122:LEU:HD23	40:B8:43:GLN:HE22	1.75	0.52
46:H8:105:VAL:O	46:H8:140:ASP:HA	2.10	0.52
53:O8:30:THR:HA	53:O8:31:PRO:C	2.35	0.52
1:1G:838:G:N2	1:1G:849:C:N3	2.57	0.52
1:1G:975:A:C4'	1:1G:976:G:H5"	2.38	0.52
1:1G:1132:C:H2'	1:1G:1133:G:C8	2.45	0.52
1:1G:1281:U:H3'	1:1G:1282:C:H5	1.75	0.52
7:62:46:ALA:O	7:62:50:ILE:HG12	2.09	0.52
11:2A:21:ILE:HD12	11:2A:95:ILE:HD13	1.92	0.52
23:2L:48:U:H4'	23:2L:49:C:H5'	1.92	0.52
26:14:566:U:OP1	36:35:29:LYS:HD2	2.09	0.52
26:14:654(D):G:N2	26:14:654(Q):C:H42	2.01	0.52
26:14:1204:A:O2'	26:14:1205:U:OP2	2.26	0.52
26:14:1729:A:C2	26:14:1730:U:H5	2.27	0.52
26:14:2557:G:H2'	26:14:2558:C:H6	1.75	0.52
28:19:37:LEU:HA	28:19:38:LYS:CG	2.40	0.52
30:39:4:VAL:HG11	30:39:17:ARG:CZ	2.40	0.52
38:55:21:TYR:OH	38:55:43:GLU:HG2	2.09	0.52
42:95:10:LYS:NZ	42:95:23:GLU:OE1	2.43	0.52
1:13:444:C:H2'	1:13:445:G:C8	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:806:C:H2'	1:13:807:A:H8	1.74	0.51
5:4E:126:ARG:HG3	5:4E:126:ARG:NH1	2.25	0.51
13:4I:27:LYS:HD3	13:4I:31:LYS:HZ3	1.74	0.51
23:2K:64:G:H2'	23:2K:65:G:C8	2.44	0.51
24:3K:7:A:O2'	24:3K:49:C:O4'	2.21	0.51
26:1H:65:C:H2'	26:1H:66:C:C6	2.45	0.51
26:1H:661:C:O3'	36:78:15:ARG:NE	2.43	0.51
26:1H:882:G:N2	26:1H:894:C:H42	2.00	0.51
26:1H:1028:A:N6	26:1H:1125:G:H2'	2.25	0.51
26:1H:1086:A:H1'	26:1H:1103:A:H61	1.76	0.51
26:1H:1242:A:H5"	26:1H:1243:G:OP2	2.10	0.51
35:68:88:ASN:HD21	35:68:92:GLU:H	1.56	0.51
38:98:55:ALA:HB2	38:98:79:LEU:HD13	1.93	0.51
39:A8:15:ARG:HD2	39:A8:88:ASP:OD2	2.09	0.51
52:N8:31:VAL:HB	52:N8:41:PRO:O	2.10	0.51
55:Q8:48:PHE:CE1	55:Q8:49:VAL:HG13	2.46	0.51
1:1G:830:G:H2'	1:1G:831:U:O4'	2.10	0.51
1:1G:1122:U:C4	1:1G:1123:A:N7	2.78	0.51
1:1G:1157:A:H61	1:1G:1178:G:N2	2.07	0.51
1:1G:1268:A:N3	1:1G:1326:C:O2'	2.43	0.51
1:1G:1286:A:H8	1:1G:1286:A:H3'	1.75	0.51
2:12:178:ARG:NH2	8:72:68:ARG:HH22	2.08	0.51
7:62:69:VAL:HG12	7:62:103:TRP:HE3	1.75	0.51
26:14:198:C:H5'	26:14:2244:U:OP1	2.09	0.51
26:14:718:A:H3'	26:14:719:C:C6	2.44	0.51
26:14:1180:C:H2'	26:14:1181:C:C6	2.44	0.51
26:14:1188:U:C2'	26:14:1189:A:H5'	2.40	0.51
26:14:1678:G:N2	26:14:1989:G:N2	2.56	0.51
26:14:1901:A:N3	26:14:1901:A:H2'	2.25	0.51
26:14:2139:C:N4	26:14:2152:G:O6	2.43	0.51
26:14:2207:C:N3	26:14:2217:G:N2	2.47	0.51
26:14:2636:U:OP1	29:29:80:GLU:HB2	2.10	0.51
27:1J:50:G:OP1	39:65:63:THR:HG23	2.09	0.51
29:29:60:ASN:C	29:29:62:PRO:HD3	2.36	0.51
32:59:137:ASP:HB2	32:59:140:LYS:HE2	1.90	0.51
35:25:16:ALA:HB2	35:25:52:VAL:HG11	1.92	0.51
39:65:27:SER:HA	39:65:88:ASP:HB2	1.91	0.51
41:85:102:GLU:HG3	42:95:2:PHE:CE2	2.45	0.51
47:E5:51:VAL:N	47:E5:62:LEU:HD12	2.26	0.51
1:13:237:C:H5"	17:8I:25:ARG:NH2	2.25	0.51
1:13:1453:G:H8	20:BI:39:LYS:HE2	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:58:TYR:O	8:7E:59:LEU:HD23	2.09	0.51
26:1H:719:C:H2'	26:1H:720:C:C6	2.45	0.51
26:1H:962:G:H2'	26:1H:963:U:C6	2.45	0.51
26:1H:1388:G:O2'	26:1H:1389:G:H5'	2.10	0.51
26:1H:1636:C:H2'	26:1H:1637:A:C8	2.45	0.51
26:1H:2210:G:H5'	26:1H:2211:G:H8	1.73	0.51
32:51:83:TYR:CB	32:51:134:SER:HA	2.40	0.51
44:F8:11:PRO:HD3	49:K8:37:PHE:CD2	2.45	0.51
1:1G:284:G:H2'	1:1G:285:G:H8	1.75	0.51
1:1G:567:G:O2'	58:1G:1835:HOH:O	2.19	0.51
1:1G:1111:A:H2'	1:1G:1112:C:H6	1.75	0.51
6:52:23:LYS:NZ	6:52:42:GLU:OE2	2.34	0.51
16:7A:74:LEU:HD13	16:7A:79:VAL:HG21	1.93	0.51
26:14:621:A:H3'	26:14:622:G:H8	1.74	0.51
26:14:2068:U:N3	26:14:2430:A:H2	2.07	0.51
26:14:2245:U:H5"	26:14:2246:G:H5'	1.92	0.51
26:14:2461:C:H2'	26:14:2462:U:C6	2.45	0.51
27:1J:29:A:H5"	27:1J:30:C:OP2	2.10	0.51
28:19:68:LYS:HD3	28:19:70:TRP:CZ2	2.45	0.51
28:19:255:LYS:H	28:19:255:LYS:CE	2.23	0.51
33:69:135:GLU:CD	33:69:135:GLU:H	2.17	0.51
1:13:1503:A:HO2'	25:4K:13:A:N6	2.08	0.51
2:1E:215:LEU:O	2:1E:219:VAL:HG23	2.10	0.51
3:2E:6:HIS:ND1	3:2E:7:PRO:HD2	2.25	0.51
9:8E:43:ALA:HA	9:8E:74:ILE:HD13	1.91	0.51
23:2K:24:C:H2'	23:2K:25:U:C6	2.46	0.51
26:1H:141(A):C:H2'	26:1H:142:G:O4'	2.11	0.51
26:1H:764:A:N3	28:11:213:ARG:HD3	2.25	0.51
26:1H:1509:C:H3'	26:1H:1510:A:H5"	1.93	0.51
26:1H:1891:G:N7	58:1H:4325:HOH:O	2.34	0.51
28:11:134:ARG:HD3	28:11:135:PHE:CZ	2.46	0.51
32:51:101:ARG:NH2	32:51:121:ILE:O	2.43	0.51
33:61:77:LEU:HD11	33:61:140:LEU:HD23	1.91	0.51
41:C8:92:ARG:CZ	42:D8:11:GLN:H	2.24	0.51
42:D8:43:GLU:OE2	42:D8:44:LYS:NZ	2.38	0.51
46:H8:58:VAL:O	46:H8:60:GLU:N	2.42	0.51
49:K8:15:LYS:H	49:K8:67:LYS:HZ1	1.58	0.51
55:Q8:45:GLY:CA	55:Q8:46:ARG:C	2.83	0.51
55:Q8:53:PRO:HG3	55:Q8:56:GLU:HG3	1.92	0.51
1:1G:31:G:O2'	1:1G:48:C:N4	2.43	0.51
1:1G:1316:G:H4'	14:5A:18:VAL:HG11	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1369:C:H2'	1:1G:1370:G:O4'	2.10	0.51
4:32:108:LEU:HD11	4:32:174:LEU:HB3	1.92	0.51
13:4A:81:LEU:HD22	13:4A:88:ARG:HG2	1.91	0.51
23:2L:21:U:O2	23:2L:21:U:H2'	2.10	0.51
24:3L:30:G:H2'	24:3L:31:A:C8	2.44	0.51
26:14:943:U:P	36:35:36:LYS:HG3	2.50	0.51
26:14:2261:C:H1'	26:14:2388:A:N3	2.26	0.51
26:14:2690:C:OP1	38:55:17:ARG:NH1	2.42	0.51
33:69:92:VAL:HB	33:69:120:ILE:HG13	1.91	0.51
36:35:144:GLU:CD	36:35:144:GLU:N	2.68	0.51
38:55:21:TYR:HB3	38:55:47:PHE:CD2	2.45	0.51
40:75:107:ASP:N	40:75:107:ASP:OD1	2.44	0.51
1:13:21:G:OP1	58:13:1838:HOH:O	2.19	0.51
7:6E:79:ARG:NE	7:6E:84:ASN:HB2	2.25	0.51
10:1I:5:ARG:HB2	10:1I:73:ASP:HA	1.92	0.51
26:1H:181:A:H1'	26:1H:435:C:H5'	1.91	0.51
26:1H:1047:G:H2'	26:1H:1110:G:N2	2.25	0.51
26:1H:2065:C:H2'	26:1H:2066:C:C6	2.46	0.51
26:1H:2345:G:N3	26:1H:2381:C:H2'	2.26	0.51
26:1H:2453:A:H2'	26:1H:2454:G:O4'	2.11	0.51
46:H8:111:VAL:HG11	46:H8:146:ILE:HD11	1.92	0.51
51:M8:26:SER:OG	51:M8:27:THR:O	2.26	0.51
1:1G:411:A:H62	1:1G:413:G:N2	2.01	0.51
1:1G:442:C:H2'	1:1G:443:C:C6	2.46	0.51
1:1G:581:G:OP1	15:6A:61:GLY:HA3	2.10	0.51
1:1G:630:G:H3'	1:1G:631:G:C8	2.45	0.51
1:1G:765:G:N2	1:1G:813:U:OP2	2.35	0.51
1:1G:1338:G:N7	1:1G:1339:A:C6	2.78	0.51
1:1G:1446:A:OP1	1:1G:1446:A:H4'	2.11	0.51
2:12:92:TYR:CD1	2:12:151:GLY:HA3	2.46	0.51
26:14:142:G:H2'	26:14:143:C:H6	1.75	0.51
26:14:903:C:H2'	26:14:904:C:C6	2.46	0.51
26:14:1113:U:P	32:59:3:ARG:H	2.33	0.51
26:14:1900:A:OP2	58:14:3461:HOH:O	2.19	0.51
27:1J:15:A:H3'	27:1J:16:G:H5'	1.92	0.51
29:29:51:PHE:CE2	29:29:52:LEU:HG	2.45	0.51
34:15:111:PRO:HA	34:15:114:ARG:NH1	2.25	0.51
37:45:25:ASP:HB3	37:45:102:VAL:CG2	2.39	0.51
4:3E:128:VAL:HG23	4:3E:146:ILE:HG23	1.92	0.51
9:8E:97:LYS:HD3	9:8E:102:LEU:HB2	1.92	0.51
16:7I:53:VAL:O	16:7I:57:ARG:HG3	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8I:29:HIS:CD2	17:8I:30:PRO:HD2	2.45	0.51
22:1K:36:A:H62	22:1K:37:MIA:H122	1.75	0.51
22:1K:76:A:C2	26:1H:2602:A:H2	2.25	0.51
24:3K:51:U:H2'	24:3K:52:G:C8	2.46	0.51
26:1H:1346:G:H2'	26:1H:1347:G:H8	1.74	0.51
26:1H:2320:A:H2'	26:1H:2320:A:N3	2.25	0.51
26:1H:2815:C:H5'	52:N8:29:THR:HG21	1.93	0.51
27:16:43:C:H5"	51:M8:1:MET:HG2	1.93	0.51
28:11:71:ASP:HB2	28:11:103:ARG:HH22	1.76	0.51
36:78:98:GLU:O	36:78:101:VAL:HG13	2.11	0.51
36:78:101:VAL:HA	36:78:105:LEU:O	2.11	0.51
44:F8:3:THR:HB	44:F8:6:ASP:HB2	1.93	0.51
55:Q8:6:THR:HG22	55:Q8:59:LYS:HG3	1.91	0.51
1:1G:287:U:H2'	1:1G:288:A:C8	2.46	0.51
1:1G:313:A:H2'	1:1G:314:C:C6	2.46	0.51
16:7A:57:ARG:HA	16:7A:60:LEU:HD12	1.92	0.51
18:9A:32:ARG:HA	18:9A:69:THR:HG21	1.93	0.51
18:9A:41:LYS:O	18:9A:41:LYS:HD3	2.11	0.51
20:BA:26:ASN:HA	20:BA:29:LYS:HG2	1.92	0.51
26:14:117:G:OP1	26:14:124:G:N1	2.38	0.51
26:14:2016:U:O2	52:J5:7:PRO:HG2	2.11	0.51
26:14:2443:C:OP1	30:39:68:LYS:HG3	2.11	0.51
26:14:2542:A:H4'	26:14:2542:A:OP1	2.11	0.51
26:14:2575:C:H2'	26:14:2578:G:O6	2.11	0.51
27:1J:42:C:C4	31:49:91:ARG:NH2	2.79	0.51
28:19:69:ARG:NE	28:19:105:ILE:HD11	2.25	0.51
29:29:26:ILE:HG22	29:29:27:LEU:C	2.35	0.51
32:59:55:PRO:HG2	32:59:61:HIS:CD2	2.46	0.51
33:69:117:GLU:H	33:69:117:GLU:CD	2.18	0.51
45:C5:86:ARG:HG3	45:C5:87:LYS:N	2.24	0.51
48:F5:18:ILE:HG12	48:F5:37:ILE:HG13	1.92	0.51
1:13:191(C):G:H2'	1:13:191(D):U:O4'	2.11	0.51
1:13:484:G:O2'	1:13:485:G:OP2	2.25	0.51
1:13:511:C:H4'	4:3E:43:HIS:CD2	2.45	0.51
1:13:1208:C:H2'	1:13:1209:C:O4'	2.10	0.51
1:13:1325:C:H2'	1:13:1326:C:C6	2.46	0.51
1:13:1385:G:N7	58:13:1950:HOH:O	2.34	0.51
9:8E:10:ARG:NH1	9:8E:75:ASP:OD2	2.44	0.51
26:1H:566:U:P	36:78:29:LYS:NZ	2.84	0.51
26:1H:618:G:H2'	26:1H:618(A):C:C6	2.46	0.51
26:1H:654:A:H2'	26:1H:654(A):A:H5"	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1140:C:OP1	34:58:23:LEU:HB3	2.10	0.51
26:1H:1359:A:O4'	26:1H:1359:A:N3	2.42	0.51
26:1H:1899:G:H22	26:1H:1902:C:N4	2.08	0.51
26:1H:1899:G:H1	26:1H:1902:C:N4	2.07	0.51
29:21:11:MET:HE3	29:21:186:GLY:HA2	1.93	0.51
30:31:192:LEU:HD21	30:31:194:MET:HE2	1.92	0.51
41:C8:97:ASP:O	41:C8:101:ARG:N	2.41	0.51
55:Q8:45:GLY:N	55:Q8:46:ARG:O	2.43	0.51
1:1G:445:G:H2'	1:1G:446:G:C8	2.45	0.51
1:1G:859:A:OP2	1:1G:869:G:N2	2.37	0.51
8:72:30:ARG:O	8:72:34:GLU:HG2	2.10	0.51
24:3L:58:A:O2'	24:3L:60:U:OP2	2.27	0.51
26:14:686:G:OP1	54:L5:11:LYS:HE2	2.11	0.51
26:14:1366:A:H2'	26:14:1367:A:O4'	2.10	0.51
26:14:1753:G:N1	26:14:1756:G:C2	2.79	0.51
26:14:2130:U:H2'	26:14:2158:A:N1	2.26	0.51
26:14:2602:A:H4'	26:14:2603:G:O5'	2.10	0.51
28:19:182:LEU:H	28:19:272:ALA:HB2	1.76	0.51
30:39:5:ALA:CB	30:39:125:LEU:HD21	2.39	0.51
30:39:40:GLN:HE22	30:39:182:ASN:HB2	1.76	0.51
30:39:146:ALA:HB3	30:39:148:LEU:HG	1.92	0.51
32:59:54:ARG:HD3	32:59:65:HIS:ND1	2.26	0.51
33:69:29:TYR:O	33:69:32:PRO:HD2	2.10	0.51
55:M5:8:LYS:HB3	55:M5:12:LYS:HE3	1.92	0.51
1:13:922:G:C6	1:13:923:A:C6	2.98	0.51
1:13:963:G:H1	1:13:972:C:H42	1.59	0.51
1:13:998:G:H2'	1:13:998(A):C:C6	2.46	0.51
1:13:1305:G:O2'	1:13:1331:G:N2	2.44	0.51
12:3I:27:LEU:HD23	12:3I:33:ARG:HB2	1.92	0.51
26:1H:71:A:H2	44:F8:31:HIS:CE1	2.26	0.51
26:1H:300:A:N3	26:1H:319:C:H1'	2.26	0.51
26:1H:779:U:O4	58:1H:4569:HOH:O	2.19	0.51
26:1H:784:A:H5"	28:11:227:ASN:ND2	2.25	0.51
26:1H:1260:G:H2'	26:1H:1261:C:C6	2.45	0.51
26:1H:1388:G:H2'	26:1H:1389:G:C8	2.45	0.51
26:1H:2841:C:H2'	26:1H:2842:G:H8	1.74	0.51
27:16:24:G:N7	27:16:56:G:H2'	2.25	0.51
29:21:116:VAL:O	29:21:117:MET:HB3	2.10	0.51
32:51:4:ILE:HG21	32:51:6:ARG:HH11	1.76	0.51
1:1G:1286:A:C8	1:1G:1286:A:H3'	2.46	0.51
2:12:98:LEU:O	2:12:101:MET:HG2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:41:GLU:HG3	6:52:62:TRP:CE3	2.46	0.51
13:4A:70:LEU:O	13:4A:74:VAL:HG23	2.10	0.51
22:1L:14:A:C2	22:1L:22:G:H1'	2.46	0.51
26:14:126:A:O5'	54:L5:19:ARG:HG3	2.11	0.51
26:14:218:A:C2	26:14:235:U:H4'	2.45	0.51
26:14:287:C:H2'	26:14:288:C:H6	1.76	0.51
26:14:817:C:H2'	26:14:818:G:O4'	2.10	0.51
26:14:863:A:H2	26:14:914:C:N4	2.08	0.51
26:14:1161:C:H2'	26:14:1162:G:H8	1.76	0.51
26:14:1266:G:O5'	43:A5:15:ARG:NH2	2.44	0.51
26:14:1386:C:H2'	26:14:1387:C:C6	2.46	0.51
26:14:1557:C:H5"	26:14:1558:A:OP2	2.11	0.51
26:14:1639:U:P	58:14:4066:HOH:O	2.67	0.51
26:14:2016:U:H2'	26:14:2017:U:C6	2.45	0.51
26:14:2331:G:H4'	47:E5:43:THR:N	2.21	0.51
26:14:2383:G:O2'	26:14:2384:G:H5'	2.10	0.51
26:14:2655:G:N2	26:14:2665:A:OP2	2.44	0.51
26:14:2788:C:O2'	26:14:2809:A:N3	2.44	0.51
28:19:12:SER:O	28:19:16:MET:HE3	2.11	0.51
38:55:78:LYS:O	38:55:83:ILE:HG13	2.11	0.51
48:F5:92:LYS:O	48:F5:93:GLU:C	2.54	0.51
1:13:295:C:H2'	1:13:296:U:O4'	2.10	0.51
3:2E:167:TRP:CD1	3:2E:167:TRP:C	2.88	0.51
12:3I:53:ARG:HH12	12:3I:92:ASP:HB2	1.76	0.51
16:7I:45:THR:HG22	16:7I:46:PRO:HD2	1.93	0.51
19:AI:41:VAL:H	19:AI:44:MET:HB2	1.75	0.51
23:2K:17:C:H2'	23:2K:18:C:H2'	1.92	0.51
26:1H:192:C:P	58:1H:4537:HOH:O	2.68	0.51
26:1H:580:C:H2'	26:1H:581:C:H6	1.76	0.51
26:1H:751:A:P	58:1H:3922:HOH:O	2.69	0.51
26:1H:993:G:C4	26:1H:994:C:C5	2.99	0.51
26:1H:2053:G:H5'	29:21:144:ARG:O	2.10	0.51
32:51:149:ARG:HA	32:51:162:ILE:CG2	2.40	0.51
34:58:90:MET:O	34:58:94:HIS:N	2.30	0.51
42:D8:76:LYS:HB2	42:D8:81:TYR:HB3	1.93	0.51
46:H8:3:TYR:O	46:H8:58:VAL:HG23	2.11	0.51
46:H8:5:LEU:HD23	46:H8:47:VAL:HG21	1.93	0.51
1:1G:353:A:H5'	1:1G:353:A:C8	2.40	0.51
1:1G:403:C:N4	58:1G:1804:HOH:O	2.44	0.51
1:1G:625:G:H2'	1:1G:626:U:C6	2.44	0.51
1:1G:1055:A:C6	1:1G:1056:U:O2	2.64	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1105:A:H2'	1:1G:1106:G:C8	2.45	0.51
1:1G:1194:U:H2'	1:1G:1195:C:C6	2.46	0.51
3:22:84:ILE:HG12	3:22:88:ARG:NH2	2.26	0.51
10:1A:38:ILE:HB	10:1A:71:LEU:HB3	1.93	0.51
13:4A:3:ARG:HG2	13:4A:9:ILE:HG13	1.93	0.51
26:14:137(A):G:H2'	26:14:139:G:C8	2.46	0.51
26:14:1171:G:O2'	26:14:1173:G:O4'	2.29	0.51
26:14:1449(A):G:H2'	26:14:1450:C:C6	2.46	0.51
26:14:1942:C:OP2	26:14:1943:U:O2'	2.19	0.51
26:14:2757:A:N1	32:59:67:LEU:HD22	2.26	0.51
37:45:26:TYR:O	37:45:26:TYR:CD1	2.64	0.51
52:J5:3:LYS:HA	52:J5:3:LYS:CE	2.38	0.51
1:13:524:G:H8	1:13:524:G:O5'	1.94	0.51
3:2E:64:VAL:HG23	3:2E:98:ASN:O	2.11	0.51
4:3E:92:VAL:O	4:3E:96:LEU:HD22	2.11	0.51
5:4E:81:GLU:HG2	5:4E:90:VAL:HG23	1.93	0.51
18:9I:53:ARG:NE	18:9I:59:SER:O	2.43	0.51
22:1K:44:G:H2'	22:1K:45:U:C6	2.46	0.51
26:1H:325:G:H2'	26:1H:326:G:H8	1.76	0.51
26:1H:2033:A:OP1	58:1H:4062:HOH:O	2.18	0.51
32:51:51:ARG:HG2	32:51:52:VAL:H	1.76	0.51
38:98:18:LEU:HD11	38:98:22:ARG:CZ	2.41	0.51
1:1G:448:A:P	1:1G:485:G:H22	2.34	0.51
1:1G:815:A:N7	1:1G:1509:C:O2'	2.40	0.51
1:1G:1028(A):C:H5	1:1G:1029:G:C2	2.29	0.51
1:1G:1478:C:H2'	1:1G:1479:C:C6	2.45	0.51
3:22:6:HIS:CG	14:5A:49:HIS:HB3	2.46	0.51
9:82:26:VAL:HG13	9:82:61:ALA:HB3	1.93	0.51
14:5A:43:CYS:O	14:5A:46:GLU:HG3	2.11	0.51
16:7A:75:ARG:O	16:7A:78:GLY:N	2.40	0.51
19:AA:11:VAL:HG12	19:AA:39:THR:HB	1.93	0.51
26:14:1378:A:O2'	26:14:1380:G:N7	2.40	0.51
26:14:1726:G:N2	26:14:1734:C:O2	2.40	0.51
26:14:2061:G:P	58:14:4027:HOH:O	2.68	0.51
29:29:9:VAL:HG12	40:75:8:LYS:HZ3	1.76	0.51
29:29:120:TRP:CE3	29:29:155:LYS:HD3	2.45	0.51
31:49:32:PRO:HB2	31:49:172:LEU:HD22	1.92	0.51
45:C5:87:LYS:CB	45:C5:94:LYS:HA	2.40	0.51
1:13:793:U:H5'	1:13:794:A:H5"	1.92	0.51
1:13:1186:G:H21	14:5I:61:TRP:C	2.19	0.51
1:13:1194:U:H2'	1:13:1195:C:H6	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1446:A:OP1	1:13:1446:A:H4'	2.11	0.51
1:13:1447:G:H8	1:13:1447:G:O5'	1.94	0.51
2:1E:178:ARG:HB2	2:1E:178:ARG:HH11	1.76	0.51
4:3E:30:LYS:CB	4:3E:35:ARG:HE	2.24	0.51
4:3E:52:SER:O	4:3E:55:ALA:HB3	2.11	0.51
4:3E:173:TRP:CD1	4:3E:189:PRO:HG3	2.46	0.51
26:1H:654(D):G:N2	26:1H:654(R):C:N3	2.59	0.51
26:1H:671:C:OP1	36:78:42:SER:O	2.29	0.51
26:1H:1200:C:H5'	58:1H:3697:HOH:O	2.11	0.51
26:1H:1407:C:H2'	26:1H:1408:C:H6	1.75	0.51
26:1H:1805:U:O2	28:11:50:THR:HB	2.11	0.51
27:16:31:C:H2'	27:16:32:C:H6	1.76	0.51
30:31:8:GLN:CD	30:31:8:GLN:N	2.68	0.51
30:31:53:THR:O	30:31:56:GLU:N	2.39	0.51
32:51:33:LEU:HD21	32:51:136:ILE:HB	1.93	0.51
34:58:132:ALA:HB1	34:58:133:GLN:OE1	2.11	0.51
37:88:59:ARG:C	37:88:61:GLY:H	2.18	0.51
38:98:32:GLY:HA2	38:98:116:LEU:HD12	1.92	0.51
45:G8:85:VAL:O	45:G8:86:ARG:HD3	2.11	0.51
50:L8:7:LYS:HE3	50:L8:32:GLN:HA	1.93	0.51
19:AA:10:PHE:O	51:I5:63:TYR:OH	2.28	0.51
26:14:71:A:H2	44:B5:31:HIS:NE2	2.07	0.51
26:14:706:A:H2'	26:14:707:G:O4'	2.11	0.51
26:14:2387:U:P	47:E5:55:ARG:HH22	2.34	0.51
37:45:110:THR:HG23	37:45:113:GLN:HE21	1.76	0.51
41:85:74:LEU:HD13	41:85:79:PHE:HB2	1.92	0.51
48:F5:51:VAL:HG23	48:F5:58:ILE:HB	1.93	0.51
1:13:114:U:O2'	1:13:115:G:H5'	2.10	0.50
1:13:757:U:H2'	1:13:758:G:O4'	2.11	0.50
1:13:813:U:OP2	1:13:813:U:H6	1.94	0.50
1:13:1221:G:O3'	19:AI:77:THR:HG21	2.11	0.50
1:13:1226:C:H2'	13:4I:103:THR:HB	1.93	0.50
1:13:1530:G:O2'	1:13:1531:A:OP2	2.24	0.50
19:AI:36:ARG:NH1	19:AI:52:TYR:O	2.41	0.50
24:3K:33:U:H3'	24:3K:34:G:H5"	1.93	0.50
26:1H:627:A:H4'	26:1H:628:G:OP1	2.11	0.50
26:1H:674:G:OP2	58:1H:4586:HOH:O	2.18	0.50
26:1H:757:U:H2'	26:1H:758:C:O4'	2.11	0.50
27:16:7:G:O5'	39:A8:29:PHE:CE2	2.64	0.50
32:51:83:TYR:CG	32:51:84:SER:N	2.78	0.50
34:58:133:GLN:HG2	34:58:134:ARG:H	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:O8:26:ASN:OD1	53:O8:28:ARG:HB2	2.11	0.50
55:Q8:48:PHE:CE2	55:Q8:49:VAL:HG13	2.46	0.50
1:1G:1151:A:O2'	1:1G:1152:A:O5'	2.28	0.50
1:1G:1449:C:H3'	1:1G:1450:U:H4'	1.93	0.50
7:62:32:ARG:O	7:62:34:GLY:N	2.44	0.50
13:4A:3:ARG:HG2	13:4A:9:ILE:CG1	2.41	0.50
26:14:330:A:H2	26:14:1210:A:HO2'	1.56	0.50
26:14:751:A:H2'	26:14:789:A:C2	2.47	0.50
26:14:959:A:C6	26:14:960:A:C2	2.99	0.50
26:14:1357:U:H2'	26:14:1358:G:O4'	2.11	0.50
26:14:1856:G:H1	26:14:1886:C:H42	1.59	0.50
26:14:1994:C:OP1	58:14:3493:HOH:O	2.19	0.50
26:14:2115:G:H2'	26:14:2116:G:C8	2.46	0.50
32:59:60:ARG:O	32:59:63:SER:OG	2.29	0.50
39:65:109:GLY:O	39:65:110:LEU:HD22	2.11	0.50
41:85:90:VAL:HG22	42:95:39:LEU:CB	2.38	0.50
44:B5:24:GLY:HA3	44:B5:82:GLN:HG3	1.93	0.50
47:E5:23:VAL:HG13	47:E5:38:VAL:HG23	1.93	0.50
1:13:690:G:H2'	1:13:691:G:O4'	2.12	0.50
1:13:1002:G:C4	1:13:1003:G:C8	3.00	0.50
1:13:1106:G:H5"	3:2E:172:ARG:HG2	1.92	0.50
1:13:1152:A:H4'	10:1I:13:HIS:CD2	2.46	0.50
1:13:1243:C:OP1	21:1F:10:ARG:HG3	2.11	0.50
5:4E:15:ARG:NH1	25:4K:25:A:H3'	2.25	0.50
10:1I:35:SER:OG	10:1I:73:ASP:HB2	2.11	0.50
13:4I:84:ILE:HG13	19:AI:74:PHE:HE2	1.76	0.50
26:1H:556:G:H2'	26:1H:557:U:C6	2.45	0.50
26:1H:1800:C:OP1	28:11:266:SER:OG	2.24	0.50
26:1H:2577:A:H4'	52:N8:3:LYS:HB3	1.93	0.50
30:31:108:LYS:O	30:31:112:MET:HG3	2.10	0.50
30:31:123:LEU:HD12	30:31:124:LEU:H	1.75	0.50
40:B8:20:PRO:HG2	40:B8:86:ILE:O	2.12	0.50
44:F8:24:GLY:CA	44:F8:82:GLN:HE22	2.19	0.50
48:J8:91:LYS:CG	48:J8:92:LYS:H	2.23	0.50
51:M8:54:GLY:O	51:M8:58:ARG:N	2.43	0.50
1:1G:265:G:O3'	17:8A:66:SER:HA	2.11	0.50
1:1G:589:C:C2	1:1G:650:G:N2	2.77	0.50
1:1G:1040:U:H2'	1:1G:1041:A:H8	1.75	0.50
1:1G:1293:G:H2'	1:1G:1294:G:C8	2.46	0.50
24:3L:48:C:C5	24:3L:59:U:H1'	2.46	0.50
26:14:71:A:H5'	26:14:71:A:H8	1.74	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1530:G:O6	26:14:1542:G:N2	2.44	0.50
26:14:2134:A:N6	26:14:2157:G:O2'	2.43	0.50
26:14:2808:U:H5"	26:14:2891:G:O6	2.11	0.50
34:15:128:HIS:HB2	34:15:129:PRO:HD2	1.94	0.50
41:85:92:ARG:HH22	42:95:10:LYS:HA	1.76	0.50
1:13:266:G:H5"	1:13:267:C:C5	2.46	0.50
1:13:560:U:H5'	1:13:566:G:N2	2.25	0.50
1:13:587:G:N2	1:13:755:G:C5	2.79	0.50
1:13:628:G:H2'	1:13:629:G:C8	2.46	0.50
1:13:684:A:C6	1:13:685:G:C6	3.00	0.50
1:13:878:G:H5'	8:7E:89:PRO:HG2	1.93	0.50
8:7E:49:GLU:O	8:7E:51:VAL:HG13	2.10	0.50
11:2I:57:THR:HG22	11:2I:60:ALA:H	1.76	0.50
26:1H:276:A:C8	26:1H:278:A:H2	2.29	0.50
26:1H:1142(A):A:C4	26:1H:1144:G:C8	2.99	0.50
26:1H:2469:A:O2'	37:88:56:ARG:NE	2.41	0.50
27:16:48:A:H4'	39:A8:95:HIS:HD2	1.76	0.50
30:31:34:TRP:HB2	36:78:6:LEU:HG	1.94	0.50
36:78:29:LYS:CD	36:78:30:THR:HG22	2.37	0.50
37:88:75:THR:HA	37:88:87:LYS:O	2.12	0.50
43:E8:12:ILE:HD13	43:E8:17:VAL:HB	1.93	0.50
43:E8:38:TYR:OH	52:N8:47:PRO:HG3	2.12	0.50
45:G8:82:PRO:HG3	45:G8:97:ARG:HA	1.93	0.50
45:G8:97:ARG:HD2	45:G8:97:ARG:N	2.26	0.50
47:I8:44:ARG:HB2	47:I8:44:ARG:NH1	2.26	0.50
1:1G:164:U:H2'	1:1G:165:C:H6	1.77	0.50
1:1G:685:G:C2	1:1G:686:U:C4	2.99	0.50
1:1G:749:C:H2'	1:1G:750:G:H8	1.77	0.50
1:1G:986:A:H1'	19:AA:54:GLY:O	2.11	0.50
1:1G:1260:C:H3'	1:1G:1260:C:H6	1.76	0.50
3:22:70:VAL:HG21	3:22:76:VAL:HG11	1.94	0.50
4:32:172:PRO:HD2	4:32:173:TRP:CZ3	2.46	0.50
12:3A:60:LEU:HB2	12:3A:64:TYR:CB	2.38	0.50
24:3L:51:U:H2'	24:3L:52:G:H8	1.76	0.50
26:14:57:C:H2'	26:14:58:G:O4'	2.12	0.50
26:14:433:C:C4	26:14:434:U:O4	2.65	0.50
26:14:1333:C:H2'	26:14:1334:G:H8	1.77	0.50
26:14:1348:G:C6	26:14:1349:A:N1	2.79	0.50
26:14:2239:G:P	58:14:3404:HOH:O	2.69	0.50
27:1J:113:C:O2'	39:65:46:VAL:HG13	2.12	0.50
30:39:114:VAL:HG21	30:39:202:PHE:CE1	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:117:ARG:NH1	30:39:120:GLU:OE1	2.44	0.50
36:35:60:MET:C	36:35:61:ARG:HG2	2.33	0.50
36:35:89:ALA:HB1	36:35:121:LYS:HD2	1.93	0.50
38:55:103:ARG:HH21	38:55:110:PRO:HB3	1.76	0.50
1:13:153:C:N4	1:13:168:G:H1	2.09	0.50
3:2E:124:ILE:HG12	3:2E:130:VAL:HG22	1.93	0.50
7:6E:18:TYR:HD2	7:6E:59:LEU:HD22	1.76	0.50
9:8E:7:THR:O	9:8E:83:ARG:HD2	2.11	0.50
10:1I:57:LYS:O	10:1I:60:ARG:NH1	2.45	0.50
13:4I:108:ARG:NH1	13:4I:112:GLY:O	2.44	0.50
17:8I:45:HIS:O	17:8I:73:VAL:HG23	2.12	0.50
23:2K:70:C:H2'	23:2K:71:G:O4'	2.11	0.50
26:1H:910:A:C4	37:88:13:GLN:NE2	2.80	0.50
26:1H:2294:C:C4	26:1H:2295:C:C5	3.00	0.50
28:11:70:TRP:CD1	28:11:70:TRP:C	2.90	0.50
28:11:85:ASP:HB2	28:11:92:ILE:HG12	1.93	0.50
28:11:108:PRO:HD2	28:11:111:LEU:HG	1.94	0.50
31:41:37:VAL:H	31:41:99:MET:HE3	1.75	0.50
31:41:104:GLU:OE1	51:M8:23:GLU:HG3	2.11	0.50
33:61:68:LEU:HA	33:61:71:ILE:CG2	2.41	0.50
34:58:36:GLY:HA2	34:58:38:HIS:CE1	2.46	0.50
54:P8:9:ARG:HE	54:P8:47:ARG:HB2	1.76	0.50
54:P8:15:THR:HG22	54:P8:16:HIS:CE1	2.46	0.50
1:1G:662:G:O2'	1:1G:836:G:OP1	2.28	0.50
1:1G:777:A:C2	11:2A:119:CYS:HB3	2.45	0.50
1:1G:1095:U:OP1	1:1G:1108:G:N2	2.44	0.50
1:1G:1153:C:H2'	1:1G:1154:G:C8	2.46	0.50
1:1G:1224:G:N1	1:1G:1322:C:H1'	2.27	0.50
1:1G:1231:G:O3'	9:82:126:SER:OG	2.24	0.50
3:22:91:LEU:HB2	3:22:99:VAL:HG11	1.94	0.50
22:1L:75:C:H2'	22:1L:76:A:H5"	1.93	0.50
26:14:547:A:H3'	26:14:548:A:C8	2.47	0.50
26:14:602:G:N2	26:14:655:A:C8	2.77	0.50
26:14:656:G:H2'	26:14:657:U:O4'	2.11	0.50
26:14:686:G:N7	54:L5:5:TRP:CH2	2.80	0.50
26:14:1152:C:H4'	41:85:77:SER:HA	1.94	0.50
26:14:1794:U:O2'	26:14:1795:C:H5'	2.12	0.50
29:29:120:TRP:CD2	29:29:155:LYS:HD3	2.47	0.50
33:69:76:THR:HG23	33:69:77:LEU:N	2.26	0.50
40:75:5:ALA:O	40:75:9:LEU:HB2	2.11	0.50
1:13:79:G:H2'	1:13:79:G:N3	2.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1414:U:H2'	1:13:1415:G:C8	2.45	0.50
2:1E:163:PHE:HA	2:1E:185:ILE:O	2.12	0.50
6:5E:10:LEU:HD13	6:5E:61:LEU:HD13	1.93	0.50
6:5E:75:LEU:HD22	6:5E:79:LEU:HG	1.94	0.50
12:3I:93:LEU:O	12:3I:96:VAL:HG13	2.12	0.50
15:6I:12:ILE:HG12	15:6I:31:LEU:HD11	1.94	0.50
16:7I:17:TYR:HE2	16:7I:41:PRO:HG3	1.75	0.50
26:1H:250:G:OP1	36:78:60:MET:HE1	2.12	0.50
26:1H:475:U:C4	26:1H:481:G:O6	2.65	0.50
26:1H:817:C:H4'	26:1H:932:G:C5	2.47	0.50
26:1H:1465:G:H5'	26:1H:1528:A:H1'	1.94	0.50
26:1H:2344:U:O2'	53:O8:37:ARG:HG2	2.11	0.50
26:1H:2700:C:C2'	26:1H:2701:C:H5'	2.40	0.50
28:11:147:LEU:HD13	28:11:155:LEU:HD21	1.93	0.50
30:31:23:ASP:CG	30:31:24:LEU:H	2.19	0.50
30:31:29:ASN:H	30:31:112:MET:CE	2.22	0.50
46:H8:6:LYS:HE3	46:H8:8:TYR:HE1	1.75	0.50
12:3A:55:VAL:HA	12:3A:70:ILE:HG13	1.92	0.50
16:7A:18:ARG:HA	16:7A:38:TYR:HA	1.92	0.50
16:7A:68:ASP:O	16:7A:71:ARG:HB3	2.12	0.50
21:1B:9:ARG:CZ	21:1B:10:ARG:HG2	2.42	0.50
26:14:392:C:H5"	26:14:409:C:H5"	1.93	0.50
26:14:1871:A:H2'	26:14:1872:A:C8	2.46	0.50
26:14:2472:G:H8	26:14:2472:G:O5'	1.94	0.50
26:14:2660:A:H8	26:14:2660:A:OP1	1.94	0.50
33:69:29:TYR:C	33:69:32:PRO:HD2	2.37	0.50
36:35:15:ARG:HB2	36:35:15:ARG:NH1	2.27	0.50
39:65:87:PHE:CZ	39:65:102:ALA:HB2	2.46	0.50
47:E5:26:TYR:O	47:E5:29:GLN:HB2	2.12	0.50
55:M5:11:LYS:N	55:M5:59:LYS:HZ1	2.10	0.50
1:13:407:G:H2'	1:13:408:A:C8	2.46	0.50
1:13:625:G:H2'	1:13:626:U:H6	1.75	0.50
7:6E:69:VAL:HG12	7:6E:100:ALA:HA	1.93	0.50
11:2I:78:GLN:O	11:2I:103:LEU:HA	2.11	0.50
15:6I:6:GLU:CD	15:6I:6:GLU:N	2.69	0.50
19:AI:7:LYS:HB3	19:AI:7:LYS:NZ	2.27	0.50
19:AI:30:LEU:HA	19:AI:48:THR:O	2.11	0.50
26:1H:527:C:OP2	26:1H:2779:U:C5	2.64	0.50
26:1H:581:C:H2'	26:1H:582:G:H8	1.77	0.50
26:1H:1346:G:H2'	26:1H:1347:G:C8	2.46	0.50
26:1H:1420:U:HO2'	26:1H:1421:G:P	2.35	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1636:C:P	58:1H:3609:HOH:O	2.69	0.50
27:16:91:C:H5"	46:H8:79:ARG:NH2	2.26	0.50
29:21:134:ILE:C	29:21:134:ILE:HD12	2.36	0.50
55:Q8:7:HIS:CD2	55:Q8:57:ARG:NH2	2.79	0.50
55:Q8:25:MET:HG2	55:Q8:46:ARG:HG2	1.94	0.50
2:12:43:ASP:O	2:12:47:THR:OG1	2.29	0.50
2:12:141:GLU:O	2:12:145:LEU:HB2	2.12	0.50
4:32:61:LYS:HA	4:32:203:VAL:HG22	1.93	0.50
26:14:39:C:O2'	26:14:40:C:H5'	2.12	0.50
26:14:184:C:H2'	26:14:185:U:C6	2.46	0.50
26:14:323:G:H5'	30:39:169:ASN:HD21	1.77	0.50
26:14:1729:A:H2	26:14:1730:U:H5	1.58	0.50
30:39:51:THR:HG23	30:39:92:PRO:HG2	1.93	0.50
31:49:103:LEU:HD22	31:49:178:PHE:HZ	1.76	0.50
32:59:76:VAL:HA	32:59:79:VAL:HG22	1.94	0.50
35:25:13:ASN:HD21	35:25:97:ARG:H	1.60	0.50
36:35:101:VAL:HG23	36:35:107:LYS:N	2.26	0.50
46:D5:30:ASN:HA	46:D5:89:PHE:CE1	2.41	0.50
1:13:1157:A:H1'	1:13:1158:C:C4	2.46	0.50
12:3I:42:THR:HG22	12:3I:54:LYS:HG3	1.92	0.50
13:4I:107:ALA:HB3	13:4I:111:LYS:HD2	1.93	0.50
16:7I:53:VAL:HG13	16:7I:79:VAL:HG22	1.93	0.50
20:BI:73:HIS:HB3	20:BI:74:LYS:HZ3	1.75	0.50
26:1H:59:U:O2'	26:1H:73:A:H2'	2.11	0.50
26:1H:565:C:H4'	58:1H:3712:HOH:O	2.11	0.50
26:1H:631:A:H61	26:1H:2402:C:N4	2.09	0.50
26:1H:855:G:O2'	47:I8:27:GLU:HG2	2.12	0.50
26:1H:2109:U:N3	26:1H:2110:G:O6	2.45	0.50
26:1H:2124:G:H2'	26:1H:2125:G:H5'	1.92	0.50
26:1H:2327:A:H2'	26:1H:2328:A:H8	1.77	0.50
37:88:35:VAL:HG13	37:88:130:LYS:HB3	1.94	0.50
40:B8:47:GLY:HA3	40:B8:65:LYS:HB3	1.93	0.50
42:D8:20:LEU:HD21	42:D8:22:VAL:HG23	1.94	0.50
46:H8:119:GLU:H	46:H8:119:GLU:CD	2.19	0.50
49:K8:22:GLU:OE2	49:K8:68:ARG:NH2	2.37	0.50
1:1G:963:G:H21	10:1A:55:LYS:NZ	2.09	0.50
1:1G:987:G:H1	1:1G:1218:C:H42	1.59	0.50
1:1G:1207:G:H2'	1:1G:1208:C:H6	1.77	0.50
2:12:70:PHE:HB2	2:12:92:TYR:HB2	1.94	0.50
11:2A:48:ILE:HG23	11:2A:63:LEU:HD22	1.94	0.50
19:AA:29:ARG:HD3	19:AA:48:THR:H	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:107:C:H2'	26:14:108:U:H6	1.76	0.50
26:14:185:U:H4'	26:14:218:A:H4'	1.93	0.50
26:14:528:A:C2	26:14:2043:C:H4'	2.47	0.50
26:14:2472:G:H21	26:14:2478:A:H62	1.58	0.50
26:14:2677:G:H2'	26:14:2678:C:C6	2.46	0.50
28:19:267:SER:HA	28:19:270:ILE:HD12	1.94	0.50
30:39:83:PHE:O	30:39:85:GLY:N	2.45	0.50
37:45:17:LEU:HD21	37:45:41:TRP:HE1	1.75	0.50
42:95:76:LYS:HD2	42:95:80:GLN:O	2.11	0.50
52:J5:36:CYS:HG	52:J5:49:CYS:HB3	1.77	0.50
15:6I:63:ARG:O	15:6I:67:LEU:HD12	2.12	0.50
17:8I:65:ILE:HB	17:8I:69:LYS:HB3	1.94	0.50
26:1H:459:U:H5"	54:P8:40:TRP:CD2	2.46	0.50
26:1H:1335:U:H2'	26:1H:1336:A:O4'	2.12	0.50
26:1H:1913:A:H4'	26:1H:1914:C:H5'	1.93	0.50
26:1H:2243:U:O2'	26:1H:2244:U:H5'	2.12	0.50
26:1H:2261:C:O2'	26:1H:2262:U:H5'	2.11	0.50
28:11:231:HIS:CD2	28:11:249:PRO:HA	2.47	0.50
30:31:101:LEU:CD1	30:31:105:VAL:HB	2.42	0.50
32:51:4:ILE:C	32:51:6:ARG:H	2.19	0.50
32:51:10:PRO:HG2	32:51:50:VAL:O	2.12	0.50
41:C8:6:THR:HG21	41:C8:10:ARG:HB2	1.93	0.50
1:1G:485:G:O2'	1:1G:486:U:O5'	2.30	0.50
1:1G:979:C:H3'	1:1G:980:C:C5'	2.39	0.50
1:1G:1316:G:H5"	14:5A:17:LYS:NZ	2.27	0.50
2:12:97:TRP:CZ3	2:12:99:GLY:HA2	2.47	0.50
3:22:18:TRP:HE1	14:5A:55:GLY:H	1.60	0.50
13:4A:57:ARG:NH1	51:I5:34:GLU:O	2.45	0.50
26:14:654(C):G:H2'	26:14:654(D):G:O4'	2.11	0.50
26:14:1025:G:C4	26:14:1135:C:H1'	2.46	0.50
26:14:1352:U:O2	26:14:1570:A:H2	1.95	0.50
26:14:1430:C:H2'	26:14:1431:U:H6	1.75	0.50
26:14:2688:U:H1'	26:14:2721:A:N6	2.27	0.50
28:19:71:ASP:CG	28:19:103:ARG:HH12	2.19	0.50
30:39:36:VAL:HG11	30:39:183:VAL:HG11	1.93	0.50
30:39:93:LYS:HB3	30:39:94:PRO:HD2	1.93	0.50
32:59:6:ARG:HD3	32:59:54:ARG:HH12	1.77	0.50
41:85:92:ARG:O	41:85:94:ASN:N	2.44	0.50
49:G5:25:VAL:O	49:G5:29:LYS:HB2	2.10	0.50
1:13:55:A:H2	33:69:82:ARG:HG2	1.76	0.50
1:13:985:C:H2'	1:13:986:A:C8	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:90:GLY:HA3	4:3E:204:ILE:HD11	1.92	0.50
7:6E:27:ILE:HA	7:6E:30:ILE:HD12	1.94	0.50
8:7E:53:VAL:HB	8:7E:58:TYR:CD2	2.46	0.50
9:8E:26:VAL:HG13	9:8E:61:ALA:HB3	1.94	0.50
12:3I:126:LYS:HG3	12:3I:128:ALA:H	1.76	0.50
22:1K:16:U:O2'	22:1K:18:G:OP2	2.28	0.50
26:1H:33:U:H4'	26:1H:34:C:OP1	2.11	0.50
26:1H:184:C:H2'	26:1H:185:U:C6	2.47	0.50
26:1H:212:G:H2'	26:1H:213:A:O4'	2.12	0.50
26:1H:225:A:H61	26:1H:419:C:H4'	1.77	0.50
26:1H:564:C:H2'	26:1H:565:C:O4'	2.11	0.50
26:1H:981:A:C8	26:1H:982:C:C5	2.98	0.50
26:1H:2169:A:H3'	26:1H:2170:A:C8	2.47	0.50
26:1H:2591:C:OP1	28:11:239:ARG:HG3	2.12	0.50
26:1H:2705:A:O2'	26:1H:2852:G:OP1	2.23	0.50
26:1H:2766:G:H2'	26:1H:2766:G:N3	2.27	0.50
27:16:25:A:H5"	27:16:26:A:OP2	2.12	0.50
27:16:73:A:H2'	27:16:73:A:N3	2.27	0.50
27:16:116:G:C5'	39:A8:55:ALA:HB2	2.42	0.50
28:11:60:ARG:HD3	28:11:86:PRO:CB	2.38	0.50
30:31:65:TRP:CZ3	30:31:72:ARG:HB3	2.47	0.50
31:41:112:PRO:HB3	51:M8:36:CYS:HA	1.93	0.50
31:41:112:PRO:HG3	51:M8:38:LYS:HD2	1.94	0.50
38:98:60:LEU:O	38:98:64:ARG:HG3	2.12	0.50
39:A8:5:THR:HG23	39:A8:8:GLU:OE2	2.11	0.50
40:B8:62:THR:HG22	40:B8:75:ILE:HG12	1.94	0.50
48:J8:64:ALA:HA	48:J8:67:ILE:HG13	1.93	0.50
50:L8:6:VAL:HG12	50:L8:56:VAL:HG22	1.94	0.50
53:O8:17:LYS:O	53:O8:19:ARG:N	2.42	0.50
1:1G:313:A:H2'	1:1G:314:C:H6	1.77	0.50
1:1G:971:G:N2	1:1G:1363:A:OP2	2.34	0.50
1:1G:994:A:N3	14:5A:5:ALA:HB2	2.26	0.50
1:1G:1131:G:H2'	1:1G:1132:C:H6	1.77	0.50
1:1G:1228:C:P	13:4A:115:LYS:HZ3	2.35	0.50
1:1G:1418:A:H2	26:14:1948:G:N3	2.10	0.50
1:1G:1502:A:H2	1:1G:1505:G:N1	2.01	0.50
2:12:12:GLU:HB3	2:12:213:LEU:HD22	1.94	0.50
4:32:138:TYR:HD1	4:32:139:ARG:N	2.10	0.50
22:1L:19:G:N2	22:1L:56:C:H42	2.09	0.50
26:14:270(L):U:O2	33:69:50:ARG:HD2	2.12	0.50
26:14:747:U:C6	52:J5:2:ALA:HB3	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1646:C:O3'	58:14:3541:HOH:O	2.20	0.50
26:14:2306:C:H3'	26:14:2307:G:H5"	1.94	0.50
26:14:2528:U:O3'	26:14:2529:G:N2	2.29	0.50
28:19:172:TYR:CD1	28:19:186:HIS:HA	2.47	0.50
1:13:598:U:H4'	8:7E:94:TYR:CD2	2.47	0.49
2:1E:226:ARG:HG3	2:1E:227:GLY:N	2.25	0.49
4:3E:148:VAL:HG21	4:3E:158:ILE:HG21	1.93	0.49
8:7E:103:VAL:HG12	8:7E:104:ARG:HG3	1.92	0.49
11:2I:13:GLN:HG3	11:2I:75:TYR:O	2.12	0.49
13:4I:32:GLU:O	13:4I:35:GLU:HG2	2.12	0.49
26:1H:193:U:H5	58:1H:4537:HOH:O	1.95	0.49
26:1H:550:G:O2'	26:1H:1220:A:N3	2.40	0.49
26:1H:557:U:H2'	26:1H:558:G:H8	1.75	0.49
26:1H:573:G:O2'	26:1H:574:C:H3'	2.11	0.49
26:1H:1528:A:C6	26:1H:1545:A:N1	2.80	0.49
26:1H:1836:C:H2'	26:1H:1837:C:H6	1.78	0.49
26:1H:1971:A:N3	28:11:241:PRO:HD3	2.27	0.49
27:16:37:C:H2'	27:16:38:C:H5'	1.94	0.49
28:11:238:GLY:O	28:11:240:ALA:N	2.44	0.49
36:78:18:ARG:O	36:78:19:VAL:HG22	2.11	0.49
42:D8:24:LYS:HA	42:D8:92:THR:HG23	1.92	0.49
51:M8:38:LYS:HD2	51:M8:38:LYS:H	1.77	0.49
1:1G:1118:C:OP1	9:82:104:ARG:NH1	2.45	0.49
1:1G:1152:A:O3'	10:1A:13:HIS:NE2	2.45	0.49
2:12:70:PHE:HB2	2:12:92:TYR:CB	2.42	0.49
7:62:95:ARG:HH21	7:62:99:LEU:HD11	1.77	0.49
10:1A:32:ALA:HB2	10:1A:81:THR:HG21	1.94	0.49
10:1A:48:THR:OG1	10:1A:62:HIS:HB3	2.12	0.49
26:14:476:G:H4'	26:14:502:A:N1	2.27	0.49
26:14:531:C:OP1	26:14:561:G:N2	2.45	0.49
26:14:987:G:OP2	58:14:4038:HOH:O	2.20	0.49
26:14:1071:G:N2	26:14:1087:G:H22	2.10	0.49
26:14:2113:U:N3	26:14:2114:A:O2'	2.42	0.49
26:14:2262:U:H4'	26:14:2328:A:C2	2.46	0.49
26:14:2639:A:O3'	34:15:97:ARG:NH2	2.36	0.49
35:25:17:ARG:HB2	35:25:45:GLU:HG2	1.94	0.49
37:45:136:ALA:HB1	37:45:138:ASP:OD1	2.11	0.49
38:55:59:ASP:OD2	38:55:61:HIS:HB3	2.12	0.49
40:75:16:ARG:HD3	40:75:79:HIS:HA	1.94	0.49
40:75:16:ARG:HH21	40:75:19:LEU:HD21	1.77	0.49
1:13:975:A:H5'	1:13:975:A:H8	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1130:A:O2'	9:8E:3:GLN:NE2	2.45	0.49
1:13:1321:C:H3'	1:13:1322:C:H5"	1.93	0.49
7:6E:40:ALA:O	7:6E:44:TYR:HB2	2.11	0.49
13:4I:27:LYS:HA	13:4I:31:LYS:NZ	2.27	0.49
19:AI:63:THR:OG1	19:AI:64:GLU:N	2.45	0.49
21:1F:9:ARG:NH2	21:1F:23:PRO:HD2	2.26	0.49
26:1H:511:U:H5"	26:1H:512:G:OP2	2.12	0.49
26:1H:932:G:H4'	26:1H:933:A:O5'	2.12	0.49
26:1H:1858:G:O2'	26:1H:1884:A:N6	2.45	0.49
26:1H:2127:G:H2'	26:1H:2128:C:O4'	2.11	0.49
26:1H:2273:A:H2'	26:1H:2274:A:C8	2.46	0.49
26:1H:2392:A:P	55:Q8:30:ARG:HH22	2.34	0.49
26:1H:2699:C:H2'	26:1H:2700:C:O4'	2.12	0.49
26:1H:2864:G:H2'	26:1H:2865:U:C6	2.47	0.49
29:21:119:ARG:HG2	29:21:160:TYR:HB2	1.94	0.49
36:78:18:ARG:HH21	36:78:18:ARG:HG2	1.77	0.49
40:B8:79:HIS:N	40:B8:79:HIS:CD2	2.79	0.49
45:G8:29:GLU:HB3	45:G8:38:ILE:CG2	2.43	0.49
46:H8:44:PHE:CE2	46:H8:86:VAL:HG11	2.47	0.49
1:1G:15:G:H4'	5:42:24:ARG:NH1	2.28	0.49
1:1G:692:U:O2'	1:1G:694:A:N7	2.32	0.49
1:1G:818:G:N2	1:1G:873:A:OP1	2.44	0.49
4:32:31:CYS:SG	4:32:31:CYS:O	2.70	0.49
4:32:126:ILE:HG22	4:32:127:THR:N	2.26	0.49
5:42:147:ASP:O	5:42:151:LEU:HG	2.12	0.49
22:1L:14:A:H3'	22:1L:15:G:H8	1.77	0.49
22:1L:76:A:H62	26:14:2583:G:N2	2.10	0.49
26:14:239:U:H2'	26:14:240:G:O4'	2.12	0.49
26:14:363(E):U:H5'	26:14:363(F):A:OP2	2.11	0.49
26:14:370:G:H4'	26:14:371:A:OP2	2.11	0.49
26:14:618:G:H2'	26:14:618(A):C:O4'	2.12	0.49
26:14:672:C:H5'	30:39:89:VAL:CG1	2.41	0.49
26:14:779:U:OP1	28:19:49:ILE:HG22	2.12	0.49
26:14:832:G:H5'	36:35:45:LEU:CD1	2.42	0.49
26:14:2019:A:OP2	52:J5:9:LYS:NZ	2.44	0.49
26:14:2061:G:H5"	26:14:2503:A:C2	2.46	0.49
30:39:102:PRO:HB2	30:39:105:VAL:HG23	1.93	0.49
44:B5:67:GLY:C	44:B5:69:TYR:H	2.20	0.49
46:D5:99:TYR:CZ	46:D5:125:LEU:HD12	2.46	0.49
53:K5:14:THR:O	53:K5:49:HIS:HA	2.11	0.49
1:13:883:C:C2'	1:13:884:U:H5'	2.41	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1137:C:O2	1:13:1138:G:N2	2.45	0.49
1:13:1177:G:O2'	1:13:1178:G:O5'	2.28	0.49
2:1E:88:ALA:O	2:1E:226:ARG:NH1	2.45	0.49
3:2E:121:ALA:O	3:2E:125:GLU:HG3	2.12	0.49
4:3E:100:ARG:HH12	4:3E:137:SER:HA	1.76	0.49
5:4E:26:PHE:CD1	5:4E:26:PHE:N	2.80	0.49
7:6E:43:PHE:O	7:6E:46:ALA:HB3	2.12	0.49
12:3I:60:LEU:HB2	12:3I:64:TYR:HB2	1.93	0.49
26:1H:327:G:H2'	26:1H:328:U:C6	2.47	0.49
26:1H:660:G:H21	36:78:12:ALA:HA	1.77	0.49
26:1H:1265:A:OP2	58:1H:3618:HOH:O	2.18	0.49
26:1H:1348:G:H5"	26:1H:1349:A:OP2	2.12	0.49
26:1H:1469:A:H2'	26:1H:1470:G:H8	1.78	0.49
26:1H:2345:G:H1'	26:1H:2382:G:H5'	1.93	0.49
26:1H:2577:A:P	58:1H:3800:HOH:O	2.64	0.49
27:16:11:C:O5'	27:16:12:C:H5	1.95	0.49
30:31:149:ASP:OD1	30:31:149:ASP:N	2.33	0.49
34:58:46:VAL:HG13	34:58:47:ALA:N	2.27	0.49
40:B8:45:PHE:HE2	40:B8:63:VAL:HB	1.77	0.49
42:D8:19:LYS:HG3	42:D8:95:LEU:HD23	1.94	0.49
1:1G:323:U:H5'	20:BA:23:ARG:HB2	1.94	0.49
1:1G:371:G:H1	1:1G:390:C:N4	2.07	0.49
1:1G:676:A:H1'	11:2A:115:PRO:HB3	1.93	0.49
1:1G:766:A:H2'	1:1G:767:A:O4'	2.13	0.49
1:1G:922:G:N3	1:1G:1398:A:H2	2.09	0.49
1:1G:1014:A:H2'	1:1G:1015:A:C8	2.47	0.49
1:1G:1298:C:H4'	1:1G:1299:A:C8	2.48	0.49
2:12:142:LEU:O	2:12:142:LEU:HD23	2.12	0.49
8:72:99:GLU:OE2	8:72:100:ILE:N	2.33	0.49
11:2A:109:VAL:HG13	18:9A:86:VAL:HG13	1.94	0.49
12:3A:52:LEU:O	12:3A:54:LYS:NZ	2.45	0.49
26:14:297:C:H2'	26:14:298:G:O4'	2.12	0.49
26:14:639:U:H3	26:14:649:G:H1	1.60	0.49
26:14:1858:G:H2'	26:14:1883:G:N2	2.27	0.49
28:19:108:PRO:HG2	28:19:111:LEU:HB2	1.93	0.49
29:29:8:LYS:HB3	29:29:193:GLY:N	2.27	0.49
31:49:145:THR:O	31:49:146:TYR:HB3	2.12	0.49
36:35:78:PRO:HA	36:35:110:TYR:CE2	2.47	0.49
48:F5:52:ARG:NH1	48:F5:57:GLU:HB2	2.27	0.49
1:13:188:U:O2'	1:13:189:U:H5'	2.12	0.49
1:13:739:C:O2'	15:6I:42:HIS:ND1	2.29	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1132:C:H2'	1:13:1133:G:H8	1.77	0.49
1:13:1154:G:H2'	1:13:1155:G:H8	1.78	0.49
1:13:1301:U:O2'	1:13:1302:U:H5'	2.12	0.49
3:2E:11:ARG:HE	3:2E:180:ALA:HB3	1.77	0.49
3:2E:156:ARG:HG2	3:2E:163:ALA:HB2	1.93	0.49
4:3E:173:TRP:CD1	4:3E:174:LEU:HG	2.47	0.49
4:3E:190:ASP:HB2	4:3E:193:ASP:OD1	2.13	0.49
8:7E:21:LYS:O	8:7E:63:LEU:HD23	2.13	0.49
23:2K:48:U:O2'	23:2K:49:C:OP2	2.26	0.49
24:3K:64:A:H8	24:3K:64:A:O5'	1.95	0.49
26:1H:510:C:H3'	58:1H:4662:HOH:O	2.12	0.49
26:1H:1007:C:OP1	34:58:35:ARG:NH1	2.42	0.49
26:1H:1568:G:H5"	28:11:61:LEU:HD22	1.94	0.49
26:1H:1899:G:N2	26:1H:1902:C:C5	2.65	0.49
26:1H:1965:C:H3'	26:1H:1966:A:H2'	1.95	0.49
26:1H:2058:A:N6	58:1H:3619:HOH:O	2.42	0.49
26:1H:2405:G:OP1	36:78:77:ARG:NH2	2.45	0.49
26:1H:2689:U:OP2	26:1H:2719:G:N2	2.33	0.49
28:11:16:MET:HE3	28:11:211:ARG:HH11	1.76	0.49
34:58:68:GLU:HG3	34:58:88:GLU:OE2	2.12	0.49
1:1G:722:A:C8	1:1G:724:G:H1'	2.47	0.49
1:1G:1321:C:H3'	1:1G:1322:C:H5"	1.94	0.49
1:1G:1367:C:H5'	10:1A:60:ARG:NH2	2.28	0.49
26:14:118:A:N3	26:14:178:G:H1'	2.28	0.49
26:14:279:C:N4	26:14:361:G:H1	2.10	0.49
26:14:289:A:H5'	26:14:290:G:OP2	2.12	0.49
26:14:303:U:H2'	26:14:304:G:H8	1.77	0.49
26:14:1945:G:C4	26:14:1946:U:C5	3.01	0.49
26:14:1952:A:C5	35:25:22:ILE:HD11	2.47	0.49
26:14:2116:G:N3	26:14:2117:A:N6	2.60	0.49
26:14:2674:G:H4'	35:25:30:ALA:HB2	1.95	0.49
26:14:2852:G:H2'	26:14:2853:C:C6	2.46	0.49
28:19:124:PRO:HG2	28:19:129:ASN:ND2	2.28	0.49
29:29:11:MET:SD	29:29:24:THR:HG22	2.52	0.49
39:65:106:ARG:O	39:65:106:ARG:HD2	2.13	0.49
1:13:244:U:H4'	1:13:245:C:O5'	2.12	0.49
1:13:524:G:H2'	1:13:525:C:C5	2.47	0.49
1:13:575:G:C5	1:13:881:G:C2	3.00	0.49
2:1E:47:THR:HG22	2:1E:51:LEU:HD12	1.93	0.49
3:2E:8:ILE:HD13	3:2E:184:TYR:HB3	1.94	0.49
7:6E:45:ASP:O	7:6E:49:ILE:HG12	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:18:PHE:HB2	9:8E:62:TYR:HB3	1.93	0.49
17:8I:18:THR:HG21	17:8I:69:LYS:HD2	1.95	0.49
23:2K:63:C:O2	23:2K:64:G:C8	2.65	0.49
26:1H:29:U:H2'	26:1H:30:G:C8	2.47	0.49
26:1H:518:G:H5'	43:E8:18:ARG:HH21	1.77	0.49
26:1H:579:G:H2'	26:1H:580:C:C6	2.47	0.49
26:1H:805:G:OP2	36:78:41:ARG:HG2	2.13	0.49
26:1H:806:C:OP2	36:78:41:ARG:HD3	2.12	0.49
26:1H:2243:U:H2'	26:1H:2244:U:C6	2.47	0.49
31:41:37:VAL:HG22	31:41:159:VAL:HG12	1.93	0.49
32:51:118:PRO:HD2	32:51:121:ILE:HB	1.93	0.49
36:78:91:PHE:O	36:78:121:LYS:NZ	2.45	0.49
37:88:21:THR:HG21	37:88:101:ARG:N	2.27	0.49
41:C8:75:ASN:HB3	41:C8:77:SER:H	1.77	0.49
43:E8:37:ARG:HH22	52:N8:47:PRO:CB	2.25	0.49
46:H8:28:MET:HG3	46:H8:37:VAL:HG11	1.94	0.49
52:N8:49:CYS:SG	52:N8:60:VAL:HB	2.53	0.49
1:1G:419:C:H5'	1:1G:420:U:OP2	2.13	0.49
1:1G:617:G:OP2	58:1G:1842:HOH:O	2.18	0.49
1:1G:827:U:H5'	1:1G:828:A:OP2	2.13	0.49
1:1G:1108:G:OP1	3:22:175:LEU:HD12	2.13	0.49
1:1G:1300:G:O2'	1:1G:1301:U:O5'	2.25	0.49
1:1G:1368:G:OP2	9:82:112:LYS:HD2	2.11	0.49
2:12:221:LEU:HA	2:12:224:GLN:HB2	1.94	0.49
26:14:192:C:P	58:14:4102:HOH:O	2.70	0.49
26:14:278:A:H8	26:14:278:A:OP2	1.96	0.49
26:14:1204:A:H2	26:14:1241:A:N1	2.11	0.49
26:14:1669:A:H5"	26:14:1670:C:OP2	2.11	0.49
26:14:1678:G:N3	26:14:1678:G:H2'	2.28	0.49
26:14:1993:U:H4'	29:29:128:SER:HB3	1.95	0.49
26:14:2271:G:OP1	47:E5:18:ALA:HB1	2.12	0.49
26:14:2301:C:H3'	26:14:2301:C:H6	1.77	0.49
28:19:29:PRO:HA	28:19:83:GLU:OE1	2.12	0.49
31:49:125:PHE:HB3	31:49:166:ASP:HB2	1.94	0.49
39:65:5:THR:O	39:65:8:GLU:N	2.44	0.49
41:85:8:VAL:O	41:85:12:ARG:HG3	2.13	0.49
43:A5:20:VAL:CG2	43:A5:47:VAL:HG21	2.43	0.49
51:I5:43:TYR:CG	51:I5:43:TYR:O	2.66	0.49
1:13:953:G:H2'	1:13:954:G:O4'	2.13	0.49
1:13:1147:C:O2	9:8E:16:ARG:NH1	2.45	0.49
19:AI:41:VAL:HG11	19:AI:67:VAL:HA	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:64:GLU:O	19:AI:67:VAL:HG13	2.12	0.49
26:1H:303:U:H2'	26:1H:304:G:C8	2.46	0.49
26:1H:459:U:H2'	26:1H:460:A:C8	2.46	0.49
26:1H:784:A:OP1	26:1H:2588:G:H5"	2.13	0.49
26:1H:912:C:OP1	37:88:8:LYS:NZ	2.42	0.49
26:1H:1668:A:N6	26:1H:1676:A:H61	2.11	0.49
26:1H:1754:C:H5	40:B8:96:ARG:CZ	2.25	0.49
27:16:7:G:H4'	39:A8:29:PHE:HD2	1.73	0.49
31:41:139:LEU:HD22	31:41:146:TYR:HD1	1.76	0.49
37:88:17:LEU:HD21	37:88:96:VAL:HG13	1.95	0.49
38:98:77:ARG:O	38:98:80:PHE:N	2.46	0.49
40:B8:108:ARG:HA	40:B8:111:ARG:CZ	2.42	0.49
46:H8:31:ARG:HD2	46:H8:32:HIS:CE1	2.47	0.49
55:Q8:48:PHE:CZ	55:Q8:49:VAL:HG13	2.47	0.49
1:1G:229:U:H2'	1:1G:230:G:H8	1.78	0.49
1:1G:1127:G:C2'	1:1G:1147:C:H42	2.26	0.49
3:22:73:PRO:HG3	3:22:105:GLU:HG3	1.93	0.49
4:32:149:ALA:O	4:32:153:ARG:HG2	2.12	0.49
4:32:173:TRP:HB3	4:32:187:ARG:HH11	1.76	0.49
9:82:33:PHE:CE2	9:82:47:LEU:HD23	2.47	0.49
10:1A:13:HIS:O	10:1A:17:ASP:HB2	2.12	0.49
15:6A:77:ARG:HA	15:6A:80:ALA:HB3	1.94	0.49
20:BA:45:GLN:HB2	20:BA:91:LEU:HD13	1.94	0.49
24:3L:53:G:H2'	24:3L:54:U:C6	2.48	0.49
26:14:5:A:H2'	26:14:6:A:C8	2.48	0.49
26:14:17:G:H2'	26:14:18:C:C6	2.48	0.49
26:14:30:G:O6	58:14:3893:HOH:O	2.18	0.49
26:14:662:G:H5'	36:35:15:ARG:CA	2.36	0.49
26:14:1217:C:OP1	41:85:15:LYS:NZ	2.37	0.49
26:14:1441:G:H2'	26:14:1442:G:H8	1.78	0.49
26:14:2019:A:N7	52:J5:9:LYS:HD2	2.27	0.49
26:14:2027:G:H2'	26:14:2028:U:O4'	2.13	0.49
26:14:2439:A:H5'	26:14:2439:A:H8	1.77	0.49
26:14:2716:U:O2'	26:14:2717:G:H5'	2.12	0.49
28:19:43:ARG:HH11	28:19:43:ARG:HG2	1.77	0.49
34:15:15:LEU:HD13	34:15:16:ILE:N	2.28	0.49
37:45:29:PHE:HB3	37:45:65:PHE:CE2	2.48	0.49
38:55:51:LEU:HD22	38:55:66:VAL:HG13	1.93	0.49
40:75:4:GLY:O	40:75:6:LEU:N	2.45	0.49
40:75:64:ARG:CB	40:75:73:GLU:HG2	2.42	0.49
50:H5:8:LEU:HD22	50:H5:10:LYS:O	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:H5:9:VAL:HG11	50:H5:55:ARG:HB2	1.94	0.49
1:13:142:G:C2	1:13:143:A:C5	3.00	0.49
1:13:232:G:H2'	1:13:233:C:H6	1.78	0.49
1:13:457:C:H2'	1:13:458:C:H6	1.78	0.49
1:13:619:U:O2	4:3E:135:LEU:HD22	2.12	0.49
1:13:792:A:H4'	1:13:793:U:O5'	2.12	0.49
1:13:1034:G:N2	1:13:1035:A:N7	2.60	0.49
1:13:1366:C:H2'	1:13:1367:C:C6	2.47	0.49
9:8E:89:ASN:C	9:8E:91:ASP:H	2.21	0.49
26:1H:30:G:H2'	26:1H:31:C:C6	2.48	0.49
26:1H:57:C:H2'	26:1H:58:G:O4'	2.13	0.49
26:1H:311:A:C6	26:1H:328:U:C4	3.01	0.49
26:1H:459:U:H2'	26:1H:460:A:H8	1.77	0.49
26:1H:581:C:H2'	26:1H:582:G:C8	2.47	0.49
26:1H:1239:G:H2'	26:1H:1240:U:O4'	2.12	0.49
26:1H:1327:C:H2'	26:1H:1328:G:O4'	2.13	0.49
26:1H:1403:C:H5"	26:1H:1471:A:H1'	1.95	0.49
26:1H:1680:U:O2	26:1H:1763:G:H3'	2.12	0.49
26:1H:1798:U:H5"	28:11:259:THR:HG22	1.94	0.49
27:16:3:C:H2'	27:16:4:C:C6	2.48	0.49
32:51:20:ALA:HB1	32:51:21:PRO:HD2	1.94	0.49
38:98:53:HIS:ND1	38:98:94:TYR:OH	2.34	0.49
40:B8:100:TYR:HB3	40:B8:103:ARG:NH1	2.26	0.49
45:G8:39:VAL:HB	45:G8:42:VAL:HG13	1.93	0.49
53:O8:47:THR:HG22	53:O8:48:VAL:H	1.77	0.49
1:1G:408:A:H2'	1:1G:409:G:O4'	2.12	0.49
1:1G:652:U:H2'	1:1G:653:A:H5"	1.95	0.49
1:1G:1129:C:H41	1:1G:1141:C:N4	2.03	0.49
5:42:60:TYR:CB	5:42:64:ARG:HH21	2.26	0.49
19:AA:23:ASN:HA	19:AA:27:GLU:HG3	1.95	0.49
20:BA:11:SER:HA	20:BA:13:LEU:H	1.77	0.49
23:2L:24:C:C2	23:2L:25:U:C5	3.00	0.49
26:14:146:G:H2'	26:14:147:U:O4'	2.12	0.49
26:14:208:C:H2'	26:14:209:C:C6	2.47	0.49
26:14:389:G:H1	36:35:71:VAL:HG12	1.75	0.49
26:14:831:G:N7	58:14:3673:HOH:O	2.34	0.49
26:14:1015:G:O2'	26:14:1016:G:H5'	2.12	0.49
26:14:1462:C:H4'	26:14:2703:C:H5'	1.94	0.49
26:14:1771:C:H1'	26:14:1786:A:C8	2.47	0.49
26:14:1826:G:H4'	28:19:242:ARG:NH1	2.28	0.49
26:14:2593:U:H2'	26:14:2594:C:C6	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2629:A:H2'	26:14:2629:A:N3	2.28	0.49
29:29:120:TRP:CD1	29:29:155:LYS:HB3	2.48	0.49
32:59:30:LYS:HE2	32:59:136:ILE:HG22	1.95	0.49
33:69:120:ILE:HG22	33:69:122:GLU:H	1.78	0.49
34:15:38:HIS:CD2	34:15:39:ARG:H	2.30	0.49
35:25:24:VAL:HB	35:25:33:ALA:HB2	1.93	0.49
46:D5:11:GLU:CG	46:D5:12:GLY:H	2.25	0.49
46:D5:128:VAL:HG22	46:D5:129:SER:H	1.77	0.49
1:13:324:G:N1	1:13:327:A:OP2	2.44	0.49
1:13:413:G:H22	1:13:428:G:H1'	1.77	0.49
1:13:947:G:H2'	1:13:948:C:O4'	2.13	0.49
1:13:1129:C:N4	1:13:1139:G:H1	2.11	0.49
3:2E:6:HIS:HB2	14:5I:49:HIS:HD1	1.77	0.49
4:3E:31:CYS:SG	4:3E:32:ALA:N	2.83	0.49
7:6E:94:ARG:O	7:6E:97:GLN:HB3	2.13	0.49
26:1H:530:G:C5	26:1H:2022:U:H5"	2.48	0.49
26:1H:654(A):A:C2	26:1H:654(T):A:N1	2.81	0.49
26:1H:731:C:P	58:1H:3689:HOH:O	2.70	0.49
26:1H:886:C:H5'	26:1H:887:A:OP2	2.13	0.49
26:1H:1903:G:C2'	26:1H:1904:G:H5'	2.43	0.49
28:11:27:THR:HG23	28:11:28:GLU:HG2	1.93	0.49
31:41:21:ARG:HG2	31:41:21:ARG:NH1	2.16	0.49
32:51:154:PRO:HB3	32:51:163:TYR:CZ	2.47	0.49
36:78:113:LYS:HA	36:78:129:ALA:O	2.12	0.49
39:A8:63:THR:O	39:A8:66:ALA:HB3	2.12	0.49
41:C8:104:GLN:H	41:C8:104:GLN:CD	2.20	0.49
45:G8:49:VAL:HG21	45:G8:55:TYR:HE2	1.78	0.49
1:1G:599:C:H2'	1:1G:600:C:C6	2.47	0.49
1:1G:735:C:H2'	1:1G:736:C:H6	1.78	0.49
1:1G:952:U:H4'	1:1G:964:A:N1	2.28	0.49
1:1G:1376:U:H2'	1:1G:1377:A:C8	2.47	0.49
7:62:92:SER:HB3	7:62:94:ARG:HG3	1.93	0.49
8:72:44:PHE:HD1	8:72:80:ILE:HG12	1.77	0.49
13:4A:27:LYS:HD2	13:4A:31:LYS:HE3	1.93	0.49
26:14:528:A:C2	26:14:2042:A:H2'	2.47	0.49
26:14:1161:C:H2'	26:14:1162:G:C8	2.48	0.49
26:14:1331:A:O2'	26:14:1332:G:H8	1.95	0.49
26:14:1439:A:C2	26:14:1553:A:C5	3.00	0.49
26:14:1889:A:O2'	26:14:2087:G:H5'	2.13	0.49
28:19:79:VAL:HG12	28:19:113:VAL:HA	1.95	0.49
37:45:41:TRP:HZ3	37:45:74:TYR:HE1	1.59	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:G5:25:VAL:HA	49:G5:28:LYS:HB2	1.94	0.49
1:13:725:G:H2'	1:13:726:C:H6	1.78	0.49
1:13:1128:C:C6	1:13:1139:G:C6	3.00	0.49
1:13:1285:A:H4'	1:13:1286:A:C5'	2.43	0.49
2:1E:69:LEU:HD22	2:1E:91:PRO:HB2	1.95	0.49
2:1E:166:ASP:C	2:1E:168:THR:H	2.20	0.49
4:3E:9:CYS:O	4:3E:13:ARG:HG2	2.13	0.49
4:3E:72:GLU:OE1	4:3E:207:TYR:OH	2.27	0.49
5:4E:100:VAL:HG22	5:4E:115:VAL:HG12	1.95	0.49
13:4I:81:LEU:HD22	13:4I:88:ARG:HB3	1.94	0.49
16:7I:71:ARG:O	16:7I:75:ARG:N	2.46	0.49
20:BI:53:LEU:HA	20:BI:56:MET:HB3	1.94	0.49
22:1K:10:G:H2'	22:1K:11:C:C6	2.48	0.49
22:1K:14:A:C6	22:1K:22:G:N3	2.81	0.49
26:1H:445:C:O2'	26:1H:446:G:H5'	2.13	0.49
26:1H:1189:A:OP2	58:1H:3874:HOH:O	2.19	0.49
26:1H:1328:G:H2'	26:1H:1330:C:C5	2.48	0.49
26:1H:1568:G:P	28:11:63:ARG:HH12	2.36	0.49
26:1H:1678:G:N2	26:1H:1989:G:N2	2.60	0.49
26:1H:2324:C:H5"	26:1H:2325:G:H5"	1.95	0.49
26:1H:2577:A:H5"	26:1H:2578:G:H5'	1.95	0.49
28:11:6:PHE:HE1	28:11:18:VAL:HG23	1.78	0.49
46:H8:4:ARG:HD3	46:H8:60:GLU:OE2	2.12	0.49
48:J8:81:LYS:HD2	48:J8:81:LYS:N	2.28	0.49
1:1G:115:G:H1'	1:1G:116:A:N7	2.27	0.49
1:1G:409:G:OP1	4:32:25:ARG:HB2	2.13	0.49
1:1G:490:G:OP2	4:32:132:ARG:NH2	2.23	0.49
26:14:273(D):C:N4	26:14:363(B):G:H1	2.10	0.49
26:14:600:G:N2	26:14:605:C:O3'	2.46	0.49
26:14:1024:G:C3'	26:14:1025:G:H5"	2.41	0.49
26:14:1204:A:C2	26:14:1241:A:N1	2.80	0.49
26:14:1322:A:N1	26:14:1333:C:O2'	2.43	0.49
26:14:2080:G:O2'	26:14:2081:C:H5'	2.12	0.49
26:14:2128:C:H42	26:14:2160:G:H1	1.60	0.49
26:14:2575:C:H5'	29:29:143:ASN:O	2.12	0.49
27:1J:50:G:OP1	39:65:62:LYS:HB2	2.13	0.49
29:29:176:ILE:HB	29:29:181:LEU:HB2	1.95	0.49
30:39:146:ALA:CB	30:39:148:LEU:HG	2.42	0.49
31:49:104:GLU:HG2	51:I5:23:GLU:HG3	1.93	0.49
37:45:103:MET:O	37:45:104:PHE:HB2	2.12	0.49
37:45:118:LEU:HD12	37:45:131:ILE:HG23	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:55:57:ARG:NE	38:55:59:ASP:OD1	2.38	0.49
40:75:53:ARG:NH1	40:75:60:THR:HG23	2.27	0.49
45:C5:97:ARG:HG2	45:C5:102:CYS:O	2.13	0.49
46:D5:99:TYR:HA	46:D5:124:ILE:O	2.12	0.49
1:13:296:U:H2'	1:13:297:G:C8	2.48	0.49
1:13:511:C:C2	1:13:512:U:C5	3.00	0.49
11:2I:34:ASP:HB2	11:2I:35:PRO:HD2	1.94	0.49
12:3I:43:VAL:HG23	12:3I:93:LEU:HD22	1.95	0.49
22:1K:5:G:H1'	22:1K:69:G:N2	2.26	0.49
26:1H:70:G:H21	26:1H:71:A:N6	2.11	0.49
26:1H:184:C:H2'	26:1H:185:U:H6	1.78	0.49
26:1H:1443:G:C2	26:1H:1549:C:N3	2.81	0.49
26:1H:2460:U:H2'	26:1H:2461:C:H6	1.78	0.49
27:16:13:A:N6	27:16:70:C:H5'	2.27	0.49
33:61:110:ASP:OD1	33:61:111:PRO:HA	2.12	0.49
35:68:112:MET:HA	35:68:115:VAL:HG13	1.93	0.49
37:88:20:ALA:HB2	46:H8:79:ARG:HG2	1.93	0.49
46:H8:7:ALA:HB3	46:H8:61:LEU:HB3	1.93	0.49
49:K8:18:PRO:O	49:K8:22:GLU:HG3	2.12	0.49
1:1G:302:G:O2'	1:1G:556:C:H5"	2.13	0.49
1:1G:373:A:C2	1:1G:374:A:C8	3.01	0.49
1:1G:1211:U:H1'	1:1G:1213:A:C2	2.48	0.49
1:1G:1375:A:H4'	7:62:29:LYS:HE3	1.95	0.49
8:72:20:TYR:CE2	8:72:75:ARG:HB3	2.48	0.49
11:2A:22:HIS:HB3	11:2A:29:ILE:HG12	1.95	0.49
17:8A:63:ARG:HG2	17:8A:64:PRO:HD2	1.95	0.49
19:AA:20:LEU:HA	19:AA:23:ASN:HD22	1.77	0.49
26:14:639:U:H2'	26:14:640:C:C6	2.47	0.49
26:14:2185:C:H2'	26:14:2186:G:C8	2.47	0.49
26:14:2378:A:O2'	39:65:21:THR:HG21	2.13	0.49
26:14:2701:C:H3'	26:14:2702:U:C5'	2.37	0.49
27:1J:13:A:H5"	27:1J:15:A:N6	2.28	0.49
30:39:53:THR:HG22	30:39:56:GLU:CD	2.38	0.49
30:39:66:PRO:O	30:39:67:GLN:HB3	2.13	0.49
31:49:103:LEU:HD22	31:49:178:PHE:CZ	2.48	0.49
37:45:38:GLU:HB2	37:45:127:ILE:HG22	1.94	0.49
47:E5:53:MET:HG3	47:E5:59:LEU:CD2	2.42	0.49
1:13:232:G:H2'	1:13:233:C:C6	2.47	0.48
1:13:745:C:OP1	1:13:851:G:O2'	2.30	0.48
1:13:963:G:C2	10:1I:55:LYS:NZ	2.81	0.48
1:13:1126:U:H3	1:13:1127:G:N2	2.11	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:108:LEU:HD11	4:3E:174:LEU:HD22	1.94	0.48
4:3E:148:VAL:HG12	4:3E:149:ALA:O	2.13	0.48
4:3E:155:LEU:O	4:3E:157:LEU:N	2.46	0.48
26:1H:11:G:C2'	26:1H:12:U:H5'	2.44	0.48
26:1H:321:G:O3'	30:31:168:ARG:NH2	2.44	0.48
26:1H:322:A:P	30:31:168:ARG:HH21	2.35	0.48
26:1H:1138:G:H21	34:58:106:MET:CE	2.18	0.48
26:1H:1170:G:N2	26:1H:1180:C:C2	2.81	0.48
26:1H:1213:A:H1'	26:1H:1238:G:N3	2.27	0.48
26:1H:2319:G:N1	26:1H:2334:G:OP2	2.46	0.48
26:1H:2406:U:H3'	58:1H:3728:HOH:O	2.12	0.48
28:11:12:SER:O	28:11:16:MET:HB2	2.12	0.48
29:21:60:ASN:OD1	29:21:62:PRO:HD2	2.13	0.48
33:61:29:TYR:C	33:61:32:PRO:HD2	2.38	0.48
36:78:91:PHE:N	36:78:91:PHE:CD1	2.81	0.48
36:78:111:ARG:HG2	36:78:128:HIS:CD2	2.48	0.48
50:L8:6:VAL:HB	50:L8:54:VAL:HG21	1.94	0.48
1:1G:1346:A:H3'	1:1G:1346:A:OP2	2.13	0.48
4:32:138:TYR:CD1	4:32:139:ARG:N	2.81	0.48
8:72:17:THR:O	8:72:78:GLN:NE2	2.46	0.48
9:82:102:LEU:O	9:82:103:THR:OG1	2.28	0.48
26:14:666:G:H5"	36:35:47:ASP:O	2.13	0.48
26:14:861:A:N3	27:1J:79:C:O2'	2.46	0.48
26:14:2412:A:H2'	26:14:2413:G:O4'	2.13	0.48
26:14:2569:G:C2	26:14:2570:G:C8	3.01	0.48
27:1J:10:C:C4	27:1J:11:C:C5	3.01	0.48
27:1J:40:U:H1'	27:1J:46:A:N1	2.28	0.48
29:29:33:VAL:HG11	29:29:36:ARG:NH2	2.27	0.48
30:39:120:GLU:HG3	30:39:122:LYS:NZ	2.23	0.48
35:25:105:GLU:HA	35:25:108:GLU:OE1	2.13	0.48
38:55:24:GLN:OE1	38:55:36:THR:HG21	2.11	0.48
38:55:32:GLY:HA2	38:55:116:LEU:CD1	2.43	0.48
40:75:4:GLY:HA2	40:75:8:LYS:NZ	2.26	0.48
49:G5:37:PHE:O	49:G5:41:ILE:HG12	2.13	0.48
1:13:38:G:C2	1:13:397:A:C2	3.01	0.48
1:13:55:A:C5	1:13:56:U:C5	3.01	0.48
1:13:244:U:H4'	1:13:245:C:C5'	2.43	0.48
1:13:648:A:H2'	1:13:649:G:C8	2.48	0.48
1:13:1203:C:H2'	1:13:1204:A:O4'	2.13	0.48
1:13:1478:C:H2'	1:13:1479:C:C6	2.48	0.48
2:1E:76:GLN:HA	2:1E:208:ILE:HG12	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:58:GLU:HB2	3:2E:65:ALA:CB	2.43	0.48
4:3E:53:ASP:HB3	4:3E:57:ARG:NH1	2.28	0.48
6:5E:23:LYS:HB2	6:5E:23:LYS:NZ	2.28	0.48
11:2I:34:ASP:OD1	11:2I:36:ASP:N	2.40	0.48
11:2I:79:SER:HB2	11:2I:106:LYS:HD2	1.94	0.48
23:2K:52:C:H2'	23:2K:53:G:O4'	2.13	0.48
24:3K:66:U:H2'	24:3K:67:C:C6	2.48	0.48
26:1H:324:A:C2'	26:1H:325:G:H5'	2.42	0.48
26:1H:449:A:OP2	58:1H:3897:HOH:O	2.20	0.48
26:1H:658:C:H2'	26:1H:659:C:C6	2.48	0.48
26:1H:1268:A:H2'	26:1H:1269:A:O4'	2.13	0.48
26:1H:1771:C:OP1	58:1H:3983:HOH:O	2.20	0.48
26:1H:2401:U:H2'	26:1H:2402:C:C6	2.49	0.48
26:1H:2627:G:N2	26:1H:2777:G:OP2	2.46	0.48
26:1H:2694:G:C4	26:1H:2695:C:C5	3.01	0.48
30:31:123:LEU:HD12	30:31:124:LEU:N	2.28	0.48
30:31:138:GLU:O	30:31:141:ALA:HB3	2.13	0.48
35:68:85:VAL:HG11	35:68:114:ILE:HD13	1.94	0.48
38:98:13:HIS:ND1	38:98:15:SER:HB3	2.28	0.48
40:B8:78:LEU:O	40:B8:78:LEU:HD13	2.12	0.48
51:M8:26:SER:OG	51:M8:27:THR:N	2.45	0.48
1:1G:1028(A):C:H42	1:1G:1032(B):G:H22	1.61	0.48
1:1G:1249:C:O2'	9:82:73:GLN:OE1	2.31	0.48
7:62:111:ARG:NH2	7:62:122:HIS:HB3	2.27	0.48
12:3A:27:LEU:HD21	12:3A:61:THR:OG1	2.13	0.48
26:14:5:A:H2'	26:14:6:A:N7	2.27	0.48
26:14:39:C:H2'	26:14:40:C:C6	2.49	0.48
26:14:320:A:H4'	26:14:322:A:C8	2.48	0.48
26:14:524:U:H2'	26:14:525:U:C6	2.47	0.48
26:14:1043:C:H42	26:14:1112:G:H1	1.60	0.48
26:14:1210:A:H5'	26:14:1212:G:O4'	2.13	0.48
26:14:1425:G:H2'	26:14:1426:G:C8	2.47	0.48
26:14:1536:A:C8	26:14:1537:C:H1'	2.48	0.48
26:14:2018:G:P	52:J5:9:LYS:HZ1	2.36	0.48
26:14:2131:G:OP1	26:14:2132:U:H3'	2.13	0.48
26:14:2394:C:OP1	36:35:63:PRO:HG2	2.13	0.48
26:14:2873:A:C8	38:55:5:LYS:HA	2.48	0.48
29:29:31:CYS:O	29:29:91:VAL:HG22	2.14	0.48
32:59:149:ARG:HG2	32:59:162:ILE:HG22	1.95	0.48
45:C5:63:LYS:NZ	45:C5:63:LYS:HA	2.28	0.48
49:G5:33:MET:O	49:G5:37:PHE:HD1	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:I5:22:ILE:HD13	51:I5:22:ILE:H	1.76	0.48
51:I5:37:SER:C	51:I5:39:CYS:H	2.21	0.48
1:13:113:G:H2'	1:13:114:U:C6	2.47	0.48
1:13:255:G:H1'	17:8I:16:GLN:OE1	2.13	0.48
1:13:590:C:H2'	1:13:591:U:H6	1.78	0.48
1:13:600:C:H2'	1:13:601:C:C6	2.48	0.48
2:1E:163:PHE:HD1	2:1E:185:ILE:HG13	1.78	0.48
4:3E:19:LEU:HD23	4:3E:21:LEU:HD21	1.95	0.48
6:5E:33:TYR:CD2	6:5E:75:LEU:HD23	2.48	0.48
13:4I:3:ARG:CZ	13:4I:7:VAL:HG13	2.43	0.48
14:5I:6:LEU:HB3	14:5I:23:ARG:HH22	1.79	0.48
18:9I:47:THR:O	18:9I:83:GLU:N	2.37	0.48
26:1H:6:A:H4'	34:58:129:PRO:HB3	1.94	0.48
26:1H:69:C:H2'	26:1H:70:G:H8	1.78	0.48
26:1H:1028:A:N3	26:1H:2486:G:O2'	2.37	0.48
26:1H:1427:A:C2	28:11:31:LYS:HE2	2.48	0.48
26:1H:1432:C:H2'	26:1H:1433:U:O4'	2.11	0.48
26:1H:1593:G:H2'	26:1H:1594:G:H8	1.79	0.48
26:1H:1705:G:C6	26:1H:1706:U:C4	3.01	0.48
26:1H:2371:G:C4'	53:O8:45:LYS:HG3	2.43	0.48
26:1H:2689:U:H5"	26:1H:2713:A:C2	2.49	0.48
26:1H:2721:A:H2'	26:1H:2722:G:O4'	2.13	0.48
32:51:12:PRO:HD3	32:51:48:GLY:O	2.12	0.48
37:88:66:ILE:O	37:88:67:ARG:HB2	2.14	0.48
39:A8:38:GLN:HG3	39:A8:47:THR:HG21	1.94	0.48
41:C8:58:ARG:HA	41:C8:61:TRP:CE3	2.48	0.48
43:E8:72:LYS:N	43:E8:106:ILE:O	2.46	0.48
45:G8:44:ILE:HA	45:G8:64:GLU:HA	1.93	0.48
49:K8:42:GLY:O	49:K8:44:LEU:N	2.46	0.48
55:Q8:47:LYS:NZ	55:Q8:47:LYS:HB2	2.27	0.48
1:1G:1006:C:N3	1:1G:1007:C:N4	2.61	0.48
1:1G:1141:C:H2'	1:1G:1142:G:C8	2.38	0.48
10:1A:38:ILE:N	10:1A:71:LEU:O	2.37	0.48
26:14:248:G:H5'	26:14:250:G:N7	2.27	0.48
26:14:568:U:H6	26:14:568:U:H5"	1.79	0.48
26:14:751:A:P	58:14:3410:HOH:O	2.71	0.48
26:14:1127:A:N3	26:14:2518:A:H5'	2.28	0.48
26:14:1533:C:H42	26:14:1538:G:H1	1.60	0.48
26:14:2335:A:C8	26:14:2337:G:C5	3.01	0.48
27:1J:12:C:O2'	47:E5:74:ARG:HG2	2.12	0.48
27:1J:46:A:H2'	27:1J:47:C:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:29:9:VAL:HG12	40:75:8:LYS:NZ	2.29	0.48
32:59:3:ARG:HD2	32:59:4:ILE:HG13	1.95	0.48
37:45:54:MET:HE2	37:45:118:LEU:CD2	2.39	0.48
40:75:51:ARG:HB3	40:75:62:THR:HG23	1.94	0.48
42:95:85:LYS:CB	42:95:87:HIS:H	2.27	0.48
44:B5:57:LEU:N	44:B5:57:LEU:HD23	2.28	0.48
46:D5:19:ARG:NH1	46:D5:84:GLU:O	2.45	0.48
46:D5:103:ARG:HE	46:D5:136:PHE:HB3	1.78	0.48
54:L5:8:ASN:C	54:L5:8:ASN:OD1	2.57	0.48
1:13:806:C:H2'	1:13:807:A:C8	2.48	0.48
1:13:1103:C:H2'	1:13:1104:G:O4'	2.13	0.48
1:13:1425:U:H2'	1:13:1426:C:C6	2.49	0.48
1:13:1485:U:O2'	1:13:1486:G:H5'	2.13	0.48
1:13:1503:A:O2'	25:4K:13:A:C6	2.67	0.48
2:1E:19:HIS:HB3	2:1E:189:ASP:OD2	2.14	0.48
6:5E:82:ARG:HB2	6:5E:85:VAL:HG23	1.95	0.48
26:1H:141:A:H1'	26:1H:1408:C:O4'	2.14	0.48
26:1H:654(H):G:H2'	26:1H:654(H):G:N3	2.28	0.48
26:1H:1301:A:N3	26:1H:1301:A:H2'	2.29	0.48
26:1H:2213:U:O4'	48:J8:52:ARG:NH2	2.46	0.48
26:1H:2789:C:H1'	26:1H:2892:A:H2	1.78	0.48
26:1H:2860:A:C8	26:1H:2861:G:H1'	2.48	0.48
32:51:149:ARG:HG3	32:51:162:ILE:HG22	1.95	0.48
34:58:73:THR:HB	34:58:82:LEU:HD11	1.95	0.48
45:G8:53:PRO:O	45:G8:54:LYS:NZ	2.40	0.48
48:J8:25:LYS:NZ	48:J8:25:LYS:HB3	2.28	0.48
1:1G:316:G:OP2	1:1G:351:G:O2'	2.31	0.48
1:1G:433:C:H2'	1:1G:434:U:C6	2.49	0.48
1:1G:1277:C:O2'	1:1G:1279:A:H8	1.95	0.48
1:1G:1362:C:H2'	1:1G:1362(A):C:H5"	1.96	0.48
1:1G:1489:G:H2'	1:1G:1490:C:O4'	2.13	0.48
2:12:208:ILE:HA	2:12:211:ILE:HD12	1.94	0.48
3:22:14:ILE:HG12	3:22:15:THR:N	2.29	0.48
6:52:25:ILE:HD13	6:52:82:ARG:CD	2.43	0.48
7:62:18:TYR:HB3	7:62:59:LEU:HD12	1.94	0.48
26:14:568:U:O2'	58:14:4012:HOH:O	2.18	0.48
26:14:587:C:O2	36:35:33:ARG:NH1	2.47	0.48
26:14:821:A:O2'	26:14:946:G:OP2	2.21	0.48
26:14:1344:G:O2'	26:14:1385:G:H2'	2.13	0.48
26:14:1641:A:H5"	26:14:1642:G:OP2	2.12	0.48
26:14:2275:C:H6	26:14:2275:C:C5'	2.25	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2286:A:H8	26:14:2287:A:N6	2.12	0.48
26:14:2318:G:H5'	26:14:2319:G:OP2	2.13	0.48
29:29:111:ARG:HB2	29:29:160:TYR:O	2.13	0.48
47:E5:21:LEU:HD11	47:E5:41:ARG:NH1	2.28	0.48
1:13:337:C:H2'	1:13:338:A:C8	2.48	0.48
1:13:1178:G:H5"	9:8E:93:ARG:NH2	2.28	0.48
13:4I:50:GLU:O	13:4I:54:VAL:HG23	2.13	0.48
16:7I:12:LYS:C	16:7I:14:ASN:H	2.20	0.48
26:1H:217:G:P	58:1H:4616:HOH:O	2.70	0.48
26:1H:243:U:OP2	55:Q8:8:LYS:NZ	2.38	0.48
26:1H:956:G:OP2	37:88:14:ARG:NH2	2.46	0.48
26:1H:1021:A:H8	26:1H:1022:G:H5"	1.79	0.48
26:1H:1087:G:C5	26:1H:1089:G:H1'	2.48	0.48
26:1H:1142(A):A:C4	26:1H:1144:G:N7	2.82	0.48
26:1H:2846:G:N7	58:1H:4680:HOH:O	2.34	0.48
28:11:118:VAL:HG22	28:11:119:ALA:H	1.79	0.48
30:31:34:TRP:CZ3	30:31:35:GLU:HG2	2.49	0.48
30:31:174:VAL:HG11	30:31:189:THR:HG21	1.96	0.48
38:98:29:LEU:HD23	38:98:70:LEU:HD11	1.94	0.48
41:C8:52:ARG:HA	41:C8:55:ARG:HG3	1.96	0.48
46:H8:63:ASP:HB2	46:H8:65:GLN:HG3	1.95	0.48
51:M8:38:LYS:O	51:M8:39:CYS:HB3	2.12	0.48
1:1G:1189:C:H5"	1:1G:1190:G:OP2	2.12	0.48
1:1G:1203:C:H2'	1:1G:1204:A:O4'	2.14	0.48
3:22:61:ALA:C	3:22:63:ASN:H	2.22	0.48
5:42:39:GLY:HA2	5:42:71:LEU:HD12	1.95	0.48
8:72:20:TYR:HA	8:72:65:TYR:CZ	2.47	0.48
19:AA:51:VAL:O	19:AA:57:HIS:HA	2.13	0.48
26:14:38:A:H2'	26:14:39:C:C6	2.49	0.48
26:14:511:U:C5	26:14:512:G:C5	3.02	0.48
26:14:953:A:H2'	26:14:954:G:H8	1.77	0.48
26:14:1006:C:H5'	34:15:28:THR:HG23	1.95	0.48
26:14:1416:G:H21	26:14:1586:A:N6	2.12	0.48
26:14:2495:G:O3'	37:45:81:VAL:HG12	2.13	0.48
27:1J:41:U:C4	31:49:70:VAL:HG23	2.48	0.48
40:75:105:LEU:CD2	40:75:109:GLU:HG3	2.44	0.48
1:13:135:C:H2'	1:13:136:C:H5'	1.95	0.48
1:13:291:C:N4	1:13:309:G:H1	2.12	0.48
1:13:428:G:O4'	1:13:430:A:C8	2.67	0.48
1:13:992:U:O2'	1:13:993:G:OP2	2.29	0.48
1:13:1123:A:O2'	10:1I:37:PRO:O	2.24	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1150:U:O2	10:1I:39:PRO:HG2	2.14	0.48
1:13:1417:G:N2	1:13:1482:G:H2'	2.29	0.48
2:1E:168:THR:OG1	2:1E:192:SER:HB2	2.13	0.48
3:2E:43:LEU:O	3:2E:47:LEU:HB2	2.13	0.48
5:4E:13:ILE:HD12	5:4E:13:ILE:HA	1.74	0.48
5:4E:68:GLU:O	5:4E:68:GLU:HG3	2.13	0.48
15:6I:82:ILE:O	15:6I:86:GLY:N	2.44	0.48
24:3K:5:G:H1'	24:3K:69:G:N2	2.29	0.48
26:1H:86:C:H4'	26:1H:104:U:H1'	1.95	0.48
26:1H:668:G:H2'	26:1H:670:A:H62	1.78	0.48
26:1H:1591:G:H2'	26:1H:1592:C:H6	1.79	0.48
26:1H:1598:C:O2'	26:1H:1599:C:H5'	2.13	0.48
26:1H:2109:U:O2'	26:1H:2181:G:N2	2.47	0.48
26:1H:2206:C:H2'	26:1H:2207:C:H6	1.77	0.48
26:1H:2864:G:H2'	26:1H:2865:U:H6	1.79	0.48
29:21:6:GLY:O	29:21:195:LEU:HD23	2.13	0.48
31:41:67:LYS:CE	51:M8:6:HIS:CE1	2.95	0.48
33:61:68:LEU:HA	33:61:71:ILE:HG22	1.96	0.48
41:C8:93:LYS:O	41:C8:96:ALA:HB2	2.13	0.48
45:G8:40:GLU:O	45:G8:40:GLU:HG3	2.13	0.48
51:M8:14:ILE:HA	51:M8:31:ILE:O	2.14	0.48
55:Q8:4:MET:HB2	55:Q8:59:LYS:HD2	1.95	0.48
55:Q8:21:LYS:HE2	55:Q8:21:LYS:C	2.38	0.48
55:Q8:45:GLY:HA2	55:Q8:46:ARG:C	2.38	0.48
1:1G:451:A:N6	1:1G:480:U:H2'	2.28	0.48
1:1G:617:G:C2	1:1G:618:C:C5	3.01	0.48
1:1G:622:A:C8	1:1G:623:C:C6	3.02	0.48
1:1G:675:A:N1	1:1G:716:A:H2	2.12	0.48
1:1G:737:A:H2'	1:1G:738:C:C6	2.47	0.48
1:1G:1072:G:C6	1:1G:1073:U:C4	3.01	0.48
1:1G:1114:C:H2'	1:1G:1115:C:H6	1.78	0.48
12:3A:27:LEU:HB3	12:3A:33:ARG:CG	2.44	0.48
12:3A:89:ARG:O	12:3A:99:HIS:HE1	1.96	0.48
22:1L:18:G:O2'	22:1L:60:U:O4	2.31	0.48
26:14:307:G:N2	26:14:310:A:O5'	2.38	0.48
26:14:329:G:P	45:C5:71:LYS:HD3	2.54	0.48
26:14:943:U:OP2	36:35:36:LYS:HE3	2.13	0.48
26:14:955:C:OP1	37:45:85:LYS:NZ	2.47	0.48
26:14:996:A:C2	26:14:997:G:C8	3.02	0.48
26:14:1027:A:C2	26:14:2488:A:H5'	2.49	0.48
26:14:1069:A:H2'	26:14:1073:A:N7	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1196:C:O2'	26:14:1228:G:O2'	2.27	0.48
26:14:2134:A:OP2	26:14:2157:G:N2	2.45	0.48
26:14:2537:U:H2'	26:14:2538:C:H6	1.75	0.48
26:14:2647:U:H2'	26:14:2648:C:C6	2.49	0.48
27:1J:31:C:C2'	27:1J:32:C:H5'	2.44	0.48
28:19:253:GLN:HB2	28:19:257:LEU:HD12	1.94	0.48
37:45:42:ILE:O	37:45:95:ALA:N	2.44	0.48
41:85:28:ARG:HH11	41:85:38:THR:HG1	1.53	0.48
46:D5:52:SER:C	46:D5:54:HIS:H	2.21	0.48
1:13:450:G:OP1	16:7I:43:LYS:NZ	2.47	0.48
1:13:872:A:C4	1:13:874:G:N7	2.82	0.48
1:13:1452:C:H4'	1:13:1453:G:O5'	2.13	0.48
2:1E:112:VAL:O	2:1E:115:LEU:N	2.47	0.48
10:1I:46:ARG:HB2	10:1I:46:ARG:NH1	2.29	0.48
23:2K:26:C:H2'	23:2K:27:G:O4'	2.14	0.48
26:1H:142:G:C1'	44:F8:37:THR:HG21	2.42	0.48
26:1H:1142(A):A:N3	26:1H:1144:G:C8	2.82	0.48
26:1H:1564:C:H2'	26:1H:1565:C:C6	2.49	0.48
26:1H:1680:U:H2'	26:1H:1681:G:O4'	2.13	0.48
26:1H:2340:G:O2'	26:1H:2341:G:H5'	2.14	0.48
26:1H:2347:C:H4'	53:O8:39:TYR:HE2	1.79	0.48
26:1H:2791:C:N3	26:1H:2807:G:N2	2.61	0.48
27:16:90:C:P	37:88:16:ARG:HH21	2.36	0.48
38:98:26:LYS:HE2	38:98:70:LEU:O	2.13	0.48
40:B8:16:ARG:HH21	40:B8:19:LEU:HD21	1.77	0.48
45:G8:68:HIS:O	45:G8:71:LYS:HB2	2.14	0.48
1:1G:468:A:O2'	16:7A:82:GLN:HG2	2.13	0.48
1:1G:485:G:H1'	1:1G:486:U:H5	1.78	0.48
1:1G:625:G:C4	1:1G:626:U:C5	3.02	0.48
1:1G:1052:U:H5"	1:1G:1053:G:OP2	2.14	0.48
1:1G:1305:G:H1	1:1G:1331:G:H2'	1.79	0.48
3:22:21:ARG:O	3:22:58:GLU:HA	2.13	0.48
7:62:87:VAL:HG22	7:62:88:PRO:O	2.14	0.48
10:1A:49:VAL:O	10:1A:60:ARG:HB2	2.13	0.48
19:AA:61:TYR:CE2	19:AA:63:THR:HA	2.48	0.48
23:2L:9:G:N3	23:2L:46:G:H2'	2.29	0.48
26:14:863:A:H2'	26:14:864:G:H8	1.78	0.48
26:14:1179:C:H2'	26:14:1180:C:C6	2.49	0.48
26:14:2508:G:HO2'	26:14:2554:U:HO2'	1.62	0.48
26:14:2563:U:H4'	35:25:28:SER:HA	1.96	0.48
28:19:124:PRO:HG2	28:19:129:ASN:HD21	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:15:39:ARG:NH1	34:15:41:ASP:HB2	2.29	0.48
36:35:52:GLU:O	36:35:54:GLY:N	2.36	0.48
45:C5:39:VAL:HG23	45:C5:41:GLY:N	2.29	0.48
1:13:501:C:H2'	1:13:502:G:H8	1.79	0.48
1:13:558:G:C4	1:13:559:A:C2	3.01	0.48
1:13:1027:C:H1'	1:13:1028:C:C5	2.49	0.48
1:13:1036:G:N7	1:13:1037:C:N4	2.61	0.48
7:6E:146:GLU:O	7:6E:149:ARG:HB2	2.13	0.48
26:1H:324:A:H2'	26:1H:325:G:H5'	1.95	0.48
26:1H:356:G:H2'	26:1H:357:A:H8	1.78	0.48
26:1H:484:C:H2'	26:1H:485:C:H6	1.79	0.48
26:1H:747:U:O2	26:1H:2014:A:H1'	2.13	0.48
26:1H:917:A:N6	27:16:80:U:H4'	2.29	0.48
26:1H:934:G:H2'	26:1H:935:C:H6	1.78	0.48
26:1H:1709:U:H2'	26:1H:1710:C:C6	2.48	0.48
26:1H:1728:G:C2	26:1H:1730:U:OP2	2.67	0.48
26:1H:2126:A:H2'	26:1H:2126:A:N3	2.28	0.48
26:1H:2309:A:C5	26:1H:2310:A:H8	2.32	0.48
26:1H:2402:C:OP1	26:1H:2402:C:H4'	2.12	0.48
27:16:15:A:H1'	27:16:109:G:N9	2.29	0.48
31:41:67:LYS:HE2	51:M8:6:HIS:HE1	1.75	0.48
33:61:2:LYS:NZ	33:61:20:ASP:HB3	2.29	0.48
42:D8:15:GLU:HG3	42:D8:16:PRO:HD2	1.96	0.48
49:K8:15:LYS:HD3	49:K8:67:LYS:NZ	2.29	0.48
1:1G:32:A:C2	1:1G:33:A:C4	3.02	0.48
1:1G:509:A:C8	1:1G:509:A:H3'	2.49	0.48
1:1G:563:A:N6	58:1G:1833:HOH:O	2.45	0.48
1:1G:1129:C:N4	1:1G:1141:C:H42	2.04	0.48
1:1G:1248:A:H2'	9:82:70:LYS:HZ1	1.78	0.48
3:22:18:TRP:HD1	14:5A:54:PRO:HA	1.77	0.48
3:22:199:LYS:HB3	3:22:201:TYR:HE1	1.78	0.48
7:62:45:ASP:HB3	7:62:117:ALA:HB1	1.95	0.48
24:3L:18:G:C2'	24:3L:57:G:H22	2.26	0.48
26:14:1534:G:O2'	26:14:1538:G:N2	2.45	0.48
26:14:2238:G:N7	58:14:3607:HOH:O	2.35	0.48
26:14:2608:G:H8	26:14:2608:G:O5'	1.96	0.48
26:14:2869:G:H2'	26:14:2870:C:O4'	2.12	0.48
30:39:181:LEU:CD2	30:39:186:ILE:HD11	2.43	0.48
32:59:30:LYS:HB3	32:59:79:VAL:O	2.14	0.48
42:95:85:LYS:HG3	42:95:87:HIS:HA	1.95	0.48
48:F5:67:ILE:N	48:F5:68:PRO:HD2	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:157:G:H1	1:13:164:U:H3	1.62	0.48
2:1E:6:THR:OG1	2:1E:7:VAL:N	2.44	0.48
2:1E:170:GLU:CD	2:1E:170:GLU:N	2.71	0.48
3:2E:83:ARG:O	3:2E:86:VAL:HG22	2.13	0.48
4:3E:108:LEU:HD23	4:3E:110:PHE:HE1	1.78	0.48
8:7E:104:ARG:HB2	8:7E:107:LEU:HB3	1.95	0.48
22:1K:44:G:H2'	22:1K:45:U:C5	2.49	0.48
24:3K:1:G:H3'	24:3K:2:C:H5"	1.96	0.48
26:1H:141:A:H8	26:1H:1595:G:H21	1.62	0.48
26:1H:1168:G:C2	26:1H:1182:A:C2	3.02	0.48
26:1H:1533:C:H3'	26:1H:1534:G:C5'	2.44	0.48
26:1H:2232:U:OP1	48:J8:40:ARG:NH1	2.45	0.48
28:11:44:ASN:OD1	28:11:46:GLN:HG3	2.14	0.48
30:31:135:LYS:HB3	30:31:138:GLU:HG3	1.96	0.48
31:41:16:ARG:O	31:41:20:ILE:HG12	2.14	0.48
38:98:117:VAL:O	38:98:118:GLU:HB2	2.12	0.48
46:H8:44:PHE:HE2	46:H8:86:VAL:HG11	1.78	0.48
1:1G:583:A:H2'	1:1G:584:G:O4'	2.13	0.48
6:52:30:LEU:HD23	6:52:75:LEU:HD11	1.95	0.48
12:3A:110:VAL:HG23	12:3A:120:TYR:HB3	1.95	0.48
26:14:841:A:H2'	26:14:842:G:C8	2.49	0.48
26:14:925:C:H2'	26:14:926:A:H8	1.78	0.48
26:14:940:G:N3	26:14:1191:G:H4'	2.29	0.48
26:14:1131:G:HO2'	26:14:1132:A:H8	1.62	0.48
26:14:1142:U:O2	26:14:1142:U:H2'	2.13	0.48
26:14:2211:G:O2'	26:14:2212:A:OP1	2.32	0.48
27:1J:94:C:H2'	27:1J:95:U:C6	2.49	0.48
42:95:22:VAL:HG22	42:95:23:GLU:H	1.78	0.48
1:13:57:G:H2'	1:13:58:C:C6	2.49	0.48
1:13:376:G:OP1	16:7I:5:ARG:HB2	2.13	0.48
1:13:1117:G:O3'	9:8E:104:ARG:HD3	2.13	0.48
1:13:1216:G:H5"	14:5I:5:ALA:HB2	1.96	0.48
3:2E:71:ALA:HB2	3:2E:109:PRO:HB3	1.96	0.48
4:3E:57:ARG:HE	4:3E:205:GLU:HB3	1.78	0.48
7:6E:31:MET:SD	7:6E:36:LYS:HG2	2.54	0.48
13:4I:27:LYS:HA	13:4I:31:LYS:HZ2	1.79	0.48
15:6I:26:GLU:OE2	15:6I:77:ARG:NH1	2.45	0.48
20:BI:35:THR:O	20:BI:38:LYS:HB2	2.13	0.48
22:1K:3:C:H6	22:1K:3:C:O5'	1.97	0.48
26:1H:396:G:O3'	48:J8:44:PRO:HA	2.14	0.48
26:1H:1215:G:C5	26:1H:1216:G:C8	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1637:A:H4'	26:1H:2711:A:O2'	2.14	0.48
29:21:25:VAL:HB	29:21:183:LEU:HD12	1.96	0.48
31:41:33:ARG:HB2	31:41:162:THR:HG21	1.96	0.48
31:41:96:ARG:O	31:41:97:ASP:HB2	2.14	0.48
38:98:45:ARG:HB3	38:98:46:GLY:H	1.57	0.48
44:F8:34:ALA:O	44:F8:77:LYS:NZ	2.47	0.48
47:I8:63:VAL:HG23	47:I8:64:ASP:O	2.14	0.48
51:M8:23:GLU:OE1	51:M8:24:THR:N	2.47	0.48
52:N8:50:GLY:N	52:N8:56:LYS:HG3	2.28	0.48
55:Q8:6:THR:H	55:Q8:59:LYS:CE	2.24	0.48
55:Q8:38:GLY:HA2	55:Q8:39:LYS:C	2.39	0.48
55:Q8:46:ARG:NH1	55:Q8:46:ARG:HB2	2.29	0.48
1:1G:868:C:H2'	1:1G:869:G:O4'	2.13	0.48
1:1G:1065:U:H6	1:1G:1190:G:H21	1.62	0.48
1:1G:1295:G:H21	1:1G:1302:U:H3	1.61	0.48
1:1G:1312:G:N2	1:1G:1325:C:O2	2.40	0.48
1:1G:1316:G:N2	1:1G:1318:A:H3'	2.29	0.48
1:1G:1448:C:H2'	1:1G:1449:C:O4'	2.13	0.48
10:1A:96:ILE:HD11	10:1A:98:ILE:HG12	1.96	0.48
19:AA:11:VAL:HB	19:AA:12:ASP:OD1	2.14	0.48
21:1B:25:LYS:HE3	21:1B:26:LYS:HG2	1.95	0.48
22:1L:10:G:O2'	22:1L:11:C:OP1	2.29	0.48
23:2L:44:A:H2'	23:2L:45:A:C8	2.49	0.48
24:3L:56:C:H3'	24:3L:57:G:H8	1.78	0.48
26:14:175:G:C2'	26:14:176:G:H5'	2.43	0.48
26:14:2114:A:N6	26:14:2119:A:H62	2.12	0.48
26:14:2291:U:O2'	26:14:2374:C:O2	2.29	0.48
28:19:239:ARG:HB2	28:19:240:ALA:H	1.44	0.48
29:29:4:ILE:HD12	29:29:198:VAL:HB	1.96	0.48
31:49:7:LEU:HB2	31:49:104:GLU:OE1	2.14	0.48
31:49:173:LEU:HD22	31:49:178:PHE:CE1	2.49	0.48
45:C5:81:LYS:HB2	45:C5:99:CYS:SG	2.54	0.48
45:C5:82:PRO:HB3	45:C5:97:ARG:HB3	1.96	0.48
50:H5:23:LEU:HD23	50:H5:28:LEU:HB2	1.96	0.48
1:13:22:G:H2'	1:13:23:C:C6	2.49	0.47
1:13:112:G:H2'	1:13:113:G:H5'	1.96	0.47
1:13:977:A:O2'	1:13:979:C:OP2	2.28	0.47
1:13:1291:G:OP1	7:6E:37:ASN:ND2	2.47	0.47
2:1E:157:ARG:HB3	2:1E:157:ARG:NH1	2.28	0.47
6:5E:7:ASN:ND2	6:5E:62:TRP:HD1	2.12	0.47
7:6E:40:ALA:HB1	7:6E:44:TYR:CD2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:455:C:N3	26:1H:473:G:H5'	2.29	0.47
26:1H:567:A:N6	58:1H:4551:HOH:O	2.46	0.47
26:1H:706:A:OP1	28:11:7:LYS:HE3	2.14	0.47
26:1H:900:A:H5'	26:1H:901:A:OP2	2.14	0.47
26:1H:1006:C:O2	34:58:106:MET:HG2	2.14	0.47
26:1H:1021:A:C8	26:1H:1021:A:C3'	2.97	0.47
26:1H:1230:C:H2'	26:1H:1231:G:H8	1.77	0.47
26:1H:1300:U:H3'	58:1H:3608:HOH:O	2.14	0.47
26:1H:1533:C:C3'	26:1H:1534:G:H5"	2.44	0.47
26:1H:1900:A:N1	26:1H:1970:A:C6	2.82	0.47
26:1H:2114:A:H5"	26:1H:2117:A:OP2	2.14	0.47
26:1H:2378:A:H4'	39:A8:23:ARG:NH1	2.29	0.47
26:1H:2392:A:N1	26:1H:2424:C:N3	2.61	0.47
28:11:38:LYS:HE2	28:11:39:LYS:O	2.14	0.47
32:51:43:VAL:HB	32:51:52:VAL:HG22	1.96	0.47
37:88:17:LEU:HD23	37:88:17:LEU:HA	1.53	0.47
37:88:21:THR:OG1	37:88:22:LYS:O	2.31	0.47
38:98:45:ARG:HD2	38:98:97:VAL:HG21	1.95	0.47
1:1G:464:G:C6	1:1G:466:C:H5'	2.48	0.47
1:1G:1256:A:H62	1:1G:1277:C:H3'	1.78	0.47
3:22:113:ALA:HB2	3:22:202:ILE:HG13	1.95	0.47
5:42:6:PHE:HD1	5:42:36:ASP:HB3	1.79	0.47
5:42:109:ILE:HG22	5:42:110:LEU:HD23	1.96	0.47
7:62:72:ARG:NH2	7:62:96:GLN:OE1	2.46	0.47
15:6A:75:PRO:HB2	15:6A:79:ARG:HH12	1.79	0.47
17:8A:86:GLU:O	17:8A:90:ILE:HG12	2.13	0.47
20:BA:81:LYS:O	20:BA:85:MET:HG2	2.14	0.47
22:1L:51:U:H2'	22:1L:52:G:H8	1.77	0.47
22:1L:73:A:O2'	22:1L:75:C:OP2	2.32	0.47
26:14:244:A:C2	26:14:255:A:C4	3.02	0.47
26:14:775:G:C4	26:14:794:G:C8	3.02	0.47
26:14:2165:G:C2'	26:14:2166:G:H5'	2.44	0.47
26:14:2187:G:C5	26:14:2188:C:C4	3.02	0.47
26:14:2520:C:H41	26:14:2542:A:H62	1.61	0.47
26:14:2850:A:C2	26:14:2851:A:C4	3.01	0.47
31:49:107:LEU:HD21	31:49:178:PHE:CE2	2.49	0.47
37:45:26:TYR:O	37:45:26:TYR:HD1	1.96	0.47
39:65:62:LYS:O	39:65:66:ALA:N	2.42	0.47
45:C5:33:LYS:HE2	45:C5:34:LYS:HG3	1.96	0.47
1:13:166:G:H2'	1:13:167:G:C8	2.48	0.47
4:3E:104:VAL:O	4:3E:107:ARG:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:57:ARG:HB2	13:4I:57:ARG:HH11	1.79	0.47
15:6I:87:ILE:HG22	15:6I:88:ARG:N	2.29	0.47
16:7I:18:ARG:NH1	16:7I:32:TYR:OH	2.47	0.47
26:1H:557:U:H2'	26:1H:558:G:C8	2.49	0.47
26:1H:1077:A:H5'	26:1H:1078:U:OP2	2.13	0.47
26:1H:1103:A:H3'	26:1H:1104:C:C6	2.49	0.47
26:1H:1479:G:O2'	26:1H:1558:A:H5'	2.14	0.47
26:1H:1568:G:N3	28:11:58:HIS:HE1	2.12	0.47
26:1H:2346:A:O2'	53:O8:24:GLU:OE2	2.31	0.47
31:41:94:LEU:HD23	31:41:94:LEU:N	2.28	0.47
35:68:104:ARG:HD3	40:B8:36:GLU:HG2	1.94	0.47
1:1G:446:G:H2'	1:1G:447:G:O4'	2.14	0.47
1:1G:922:G:H4'	5:42:20:GLN:HA	1.96	0.47
7:62:69:VAL:HG13	7:62:134:ALA:O	2.13	0.47
24:3L:51:U:H2'	24:3L:52:G:C8	2.49	0.47
26:14:355:G:H2'	26:14:356:G:C8	2.49	0.47
26:14:478:A:N1	26:14:500:G:H4'	2.28	0.47
26:14:1607:C:H4'	26:14:1608:A:O5'	2.13	0.47
26:14:1665:A:C4'	35:25:67:LYS:HB2	2.44	0.47
26:14:1778:U:P	58:14:3630:HOH:O	2.71	0.47
26:14:2134:A:H62	26:14:2157:G:C1'	2.26	0.47
26:14:2134:A:C2	26:14:2159:G:H1'	2.49	0.47
26:14:2776:A:H4'	26:14:2777:G:O5'	2.14	0.47
26:14:2854:G:C2	26:14:2864:G:C2	3.01	0.47
27:1J:39:A:N1	51:I5:1:MET:N	2.56	0.47
33:69:61:ARG:HA	33:69:64:GLU:HB2	1.96	0.47
38:55:94:TYR:C	38:55:117:VAL:HG23	2.39	0.47
1:13:10:A:O2'	1:13:11:G:H5'	2.14	0.47
1:13:626:U:H5"	16:7I:38:TYR:CD2	2.49	0.47
1:13:1323:G:H4'	1:13:1362(A):C:N3	2.29	0.47
1:13:1339:A:H2'	1:13:1340:A:O4'	2.15	0.47
1:13:1442:G:C6	1:13:1446:A:N6	2.82	0.47
13:4I:82:MET:C	13:4I:84:ILE:H	2.22	0.47
16:7I:13:HIS:C	16:7I:15:PRO:HD3	2.39	0.47
26:1H:197:A:N6	26:1H:2430:A:H2'	2.27	0.47
26:1H:528:A:N1	26:1H:2042:A:H2'	2.29	0.47
26:1H:1111:A:H5'	32:51:3:ARG:HD2	1.96	0.47
26:1H:1453:A:O2'	26:1H:1454:U:H2'	2.13	0.47
26:1H:2032:G:N2	29:21:146:THR:HG23	2.29	0.47
27:16:16:G:N2	27:16:69:G:H1'	2.29	0.47
28:11:112:GLN:H	28:11:115:GLN:HG3	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:31:114:VAL:HG21	30:31:202:PHE:CZ	2.50	0.47
32:51:30:LYS:HE3	32:51:81:GLU:N	2.22	0.47
33:61:29:TYR:O	33:61:32:PRO:HD2	2.13	0.47
42:D8:10:LYS:NZ	42:D8:23:GLU:OE1	2.47	0.47
55:Q8:56:GLU:HA	55:Q8:58:ILE:HG22	1.95	0.47
1:1G:229:U:H2'	1:1G:230:G:C8	2.49	0.47
1:1G:447:G:O6	1:1G:485:G:H2'	2.14	0.47
1:1G:673:G:H5"	6:52:87:ARG:NH1	2.29	0.47
1:1G:1198:G:H2'	1:1G:1199:U:H6	1.80	0.47
5:42:72:GLN:O	5:42:75:THR:HG22	2.14	0.47
9:82:111:ARG:HG2	9:82:112:LYS:H	1.79	0.47
19:AA:51:VAL:HG12	19:AA:52:TYR:H	1.79	0.47
20:BA:51:GLU:HA	20:BA:54:LYS:HB3	1.96	0.47
26:14:20:C:OP1	41:85:22:LYS:NZ	2.33	0.47
26:14:1658:C:H2'	26:14:1659:U:C6	2.49	0.47
26:14:2012:G:OP1	43:A5:11:ARG:NH2	2.44	0.47
26:14:2503:A:OP1	58:14:3571:HOH:O	2.19	0.47
26:14:2712:U:OP1	26:14:2714:G:H4'	2.14	0.47
27:1J:56:G:H4'	27:1J:57:A:C8	2.49	0.47
27:1J:100:G:O5'	58:1J:309:HOH:O	2.20	0.47
28:19:273:ARG:O	28:19:273:ARG:HG2	2.15	0.47
45:C5:40:GLU:CD	45:C5:40:GLU:N	2.72	0.47
1:13:377:G:H5'	16:7I:5:ARG:HH12	1.78	0.47
1:13:380:G:N2	1:13:384:G:C5	2.83	0.47
1:13:791:G:C6	1:13:792:A:C2	3.02	0.47
2:1E:87:ARG:NH2	2:1E:233:SER:HB2	2.30	0.47
9:8E:29:ASN:OD1	9:8E:65:VAL:N	2.46	0.47
26:1H:1188:U:C4'	42:D8:79:VAL:HG22	2.43	0.47
26:1H:1203:G:H5'	36:78:3:LEU:HD13	1.96	0.47
26:1H:1726:G:H2'	26:1H:1727:U:O4'	2.14	0.47
26:1H:2311:A:H1'	31:41:88:ILE:HD13	1.95	0.47
26:1H:2452:C:OP1	58:1H:4436:HOH:O	2.20	0.47
26:1H:2783:G:H2'	26:1H:2784:C:C6	2.49	0.47
27:16:40:U:H5	51:M8:2:LYS:HE2	1.79	0.47
29:21:45:THR:O	29:21:83:ASP:N	2.48	0.47
31:41:77:ILE:O	31:41:81:LYS:O	2.32	0.47
31:41:84:LYS:O	31:41:84:LYS:HG3	2.14	0.47
32:51:3:ARG:CZ	32:51:3:ARG:HA	2.44	0.47
32:51:37:VAL:HG22	32:51:68:THR:HG22	1.96	0.47
32:51:83:TYR:CD2	32:51:134:SER:HA	2.50	0.47
34:58:41:ASP:O	41:C8:64:ARG:NH2	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:58:99:LEU:O	34:58:103:VAL:HG23	2.14	0.47
35:68:120:GLU:HG2	35:68:122:LEU:HG	1.95	0.47
54:P8:37:LYS:HG3	54:P8:37:LYS:O	2.14	0.47
55:Q8:24:ALA:O	55:Q8:46:ARG:HG2	2.14	0.47
55:Q8:34:TRP:HB2	55:Q8:35:GLN:HA	1.95	0.47
1:1G:251:G:H4'	1:1G:252:U:O5'	2.14	0.47
1:1G:1454:G:OP1	20:BA:39:LYS:NZ	2.38	0.47
2:12:6:THR:OG1	2:12:7:VAL:N	2.47	0.47
6:52:35:ALA:HA	6:52:67:MET:HB3	1.95	0.47
7:62:101:LEU:O	7:62:105:VAL:HG23	2.14	0.47
11:2A:87:THR:O	11:2A:87:THR:OG1	2.26	0.47
13:4A:57:ARG:O	13:4A:61:GLU:HB2	2.14	0.47
26:14:460:A:H5"	26:14:461:C:OP2	2.15	0.47
26:14:603:A:H8	26:14:604:G:H1'	1.79	0.47
26:14:1016:G:H2'	26:14:1017:G:O4'	2.15	0.47
26:14:1252:G:O4'	41:85:33:ARG:HD3	2.15	0.47
26:14:1439:A:C2	26:14:1553:A:C4	3.02	0.47
26:14:1774:C:O5'	26:14:1774:C:H6	1.97	0.47
26:14:2002:G:O6	58:14:3797:HOH:O	2.20	0.47
26:14:2259:G:C2	26:14:2282:G:N1	2.83	0.47
29:29:25:VAL:O	29:29:26:ILE:HG12	2.14	0.47
29:29:33:VAL:HG23	29:29:47:VAL:HG13	1.95	0.47
33:69:88:ILE:HG13	33:69:121:LYS:C	2.39	0.47
37:45:20:ALA:HA	37:45:99:PRO:HG2	1.96	0.47
42:95:62:LEU:HD21	42:95:95:LEU:HB2	1.97	0.47
54:L5:29:LYS:HA	54:L5:32:LYS:HB2	1.95	0.47
1:13:15:G:OP1	1:13:1396:A:O2'	2.24	0.47
1:13:807:A:H2'	1:13:808:C:C6	2.50	0.47
1:13:1156:G:H2'	1:13:1157:A:H5"	1.96	0.47
1:13:1504:G:H3'	1:13:1504:G:P	2.54	0.47
3:2E:191:THR:HG21	3:2E:193:TYR:CZ	2.50	0.47
7:6E:16:LEU:HD12	9:8E:42:ARG:HA	1.96	0.47
11:2I:34:ASP:OD2	11:2I:38:ASN:HB2	2.15	0.47
12:3I:47:LYS:HA	12:3I:49:ASN:N	2.29	0.47
19:AI:41:VAL:HB	19:AI:42:PRO:HA	1.95	0.47
26:1H:207:A:H2'	26:1H:208:C:O4'	2.14	0.47
26:1H:270(G):C:H2'	26:1H:270(H):C:O4'	2.14	0.47
26:1H:296:C:H2'	26:1H:297:C:C6	2.50	0.47
26:1H:589:C:H2'	26:1H:590:A:H8	1.79	0.47
26:1H:805:G:P	36:78:41:ARG:HG2	2.54	0.47
26:1H:861:A:H5"	58:1H:3993:HOH:O	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1106:G:H2'	26:1H:1107:G:O4'	2.13	0.47
26:1H:1215:G:C4	26:1H:1216:G:C8	3.02	0.47
26:1H:1324:G:C4	26:1H:1328:G:O6	2.67	0.47
26:1H:1404:C:O2'	26:1H:1405:U:H5'	2.14	0.47
26:1H:1510:A:OP1	26:1H:1511:A:H5'	2.13	0.47
26:1H:1665:A:N7	58:1H:4084:HOH:O	2.35	0.47
26:1H:1811:G:H2'	26:1H:1812:A:O4'	2.13	0.47
26:1H:2284:C:C2'	26:1H:2285:C:H5'	2.45	0.47
26:1H:2367:G:H2'	26:1H:2368:C:C6	2.49	0.47
26:1H:2383:G:O2'	26:1H:2384:G:H5'	2.15	0.47
27:16:15:A:O2'	27:16:109:G:C8	2.60	0.47
27:16:54:G:H2'	27:16:55:U:H6	1.78	0.47
28:11:140:THR:HG22	28:11:141:VAL:O	2.15	0.47
35:68:8:LEU:HB2	35:68:19:ILE:HG13	1.96	0.47
44:F8:3:THR:CB	44:F8:4:ALA:HA	2.43	0.47
45:G8:54:LYS:O	45:G8:55:TYR:CG	2.67	0.47
1:1G:438:G:C4'	4:32:123:HIS:HD2	2.27	0.47
1:1G:537:G:H2'	1:1G:538:G:C8	2.50	0.47
1:1G:1013:G:N2	1:1G:1017:G:O6	2.46	0.47
1:1G:1099:G:OP1	2:12:148:TYR:OH	2.32	0.47
1:1G:1188:A:O3'	14:5A:58:LYS:HE3	2.15	0.47
1:1G:1327:C:H2'	1:1G:1328:C:C6	2.50	0.47
2:12:54:THR:HG23	2:12:199:TYR:HB3	1.97	0.47
4:32:18:LYS:NZ	4:32:26:CYS:O	2.33	0.47
5:42:18:ARG:HH21	5:42:25:ARG:HB3	1.79	0.47
26:14:297:C:O2	26:14:341:G:N2	2.42	0.47
26:14:579:G:H2'	26:14:580:C:H6	1.76	0.47
26:14:581:C:H2'	26:14:582:G:C8	2.46	0.47
26:14:698:C:O2'	26:14:734:A:N6	2.47	0.47
26:14:1971:A:H5"	58:14:3452:HOH:O	2.12	0.47
26:14:2154:G:H2'	26:14:2155:G:O4'	2.13	0.47
26:14:2311:A:C8	31:49:88:ILE:HG12	2.49	0.47
26:14:2342:C:O2'	26:14:2374:C:H5"	2.15	0.47
26:14:2883:A:H5'	26:14:2884:U:H5'	1.94	0.47
27:1J:99:A:C4	27:1J:100:G:C8	3.03	0.47
30:39:172:TRP:CD1	30:39:172:TRP:H	2.32	0.47
50:H5:35:ARG:HB3	50:H5:37:LEU:HD21	1.96	0.47
1:13:127:G:O2'	17:8I:2:PRO:O	2.33	0.47
1:13:196:A:O2'	1:13:221:C:O2'	2.29	0.47
1:13:618:C:H5"	1:13:619:U:H5"	1.96	0.47
1:13:1084:G:C5	1:13:1085:U:C4	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:76:ILE:HG13	5:4E:93:PRO:HB3	1.96	0.47
26:1H:813:U:H2'	26:1H:814:C:C6	2.49	0.47
26:1H:1171:G:N2	26:1H:1179:C:N3	2.62	0.47
26:1H:1647:G:H3'	26:1H:1647:G:OP2	2.13	0.47
26:1H:2081:C:H2'	26:1H:2082:A:C8	2.50	0.47
26:1H:2695:C:H2'	26:1H:2696:U:C6	2.49	0.47
26:1H:2815:C:H2'	26:1H:2816:C:C6	2.49	0.47
27:16:29:A:OP2	39:A8:31:SER:HB2	2.15	0.47
32:51:94:TYR:HA	32:51:106:THR:O	2.14	0.47
33:61:46:ALA:O	33:61:50:ARG:N	2.42	0.47
41:C8:88:ILE:O	41:C8:90:VAL:N	2.47	0.47
43:E8:38:TYR:CE2	52:N8:41:PRO:HD3	2.48	0.47
51:M8:22:ILE:C	51:M8:24:THR:HG23	2.40	0.47
1:1G:192:U:H2'	1:1G:193:C:C6	2.41	0.47
1:1G:918:A:H2'	1:1G:919:A:O4'	2.15	0.47
2:12:144:ARG:HG3	2:12:145:LEU:N	2.28	0.47
4:32:112:VAL:HG12	4:32:116:GLN:OE1	2.14	0.47
6:52:42:GLU:OE1	6:52:59:TYR:OH	2.22	0.47
6:52:100:ASN:ND2	18:9A:23:LYS:O	2.45	0.47
11:2A:120:ARG:HA	11:2A:121:PRO:HD3	1.67	0.47
13:4A:23:TYR:HE1	13:4A:70:LEU:HD12	1.79	0.47
17:8A:79:SER:OG	17:8A:80:GLY:N	2.47	0.47
22:1L:46:G:H2'	22:1L:48:C:H1'	1.96	0.47
26:14:93:C:H5'	26:14:94:G:OP2	2.15	0.47
26:14:996:A:N3	26:14:997:G:C8	2.82	0.47
26:14:1450:C:H2'	26:14:1451:C:C6	2.50	0.47
26:14:2025:C:N4	58:14:3606:HOH:O	2.47	0.47
26:14:2208:U:H2'	26:14:2209:C:C6	2.49	0.47
26:14:2447:G:O2'	58:14:4050:HOH:O	2.20	0.47
26:14:2702:U:HO2'	26:14:2703:C:H5	1.55	0.47
32:59:22:GLY:O	32:59:37:VAL:HG12	2.14	0.47
42:95:48:GLY:HA3	42:95:51:VAL:C	2.40	0.47
47:E5:48:GLY:HA3	47:E5:80:HIS:CE1	2.48	0.47
52:J5:4:HIS:O	52:J5:5:PRO:C	2.55	0.47
1:13:254:G:OP1	17:8I:68:ARG:HB3	2.15	0.47
1:13:339:C:H2'	1:13:340:U:H6	1.80	0.47
1:13:648:A:H2'	1:13:649:G:H8	1.80	0.47
1:13:945:G:C2	1:13:946:A:C8	3.02	0.47
1:13:1218:C:H2'	1:13:1219:U:C6	2.50	0.47
1:13:1347:G:OP2	9:8E:107:ARG:HG2	2.14	0.47
1:13:1360:A:O2'	1:13:1361:G:H5'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1360:A:H2'	1:13:1361:G:C8	2.50	0.47
1:13:1389:C:H2'	1:13:1390:U:O4'	2.15	0.47
2:1E:7:VAL:HB	2:1E:217:ARG:HH11	1.79	0.47
2:1E:74:LYS:NZ	2:1E:205:ASP:O	2.47	0.47
3:2E:134:ILE:HG22	3:2E:168:ALA:HB3	1.97	0.47
4:3E:147:ALA:HB2	4:3E:182:LYS:HB3	1.97	0.47
8:7E:49:GLU:HG2	8:7E:62:TYR:HE2	1.79	0.47
9:8E:86:VAL:O	9:8E:90:PRO:HB3	2.15	0.47
11:2I:18:ARG:O	11:2I:33:THR:N	2.45	0.47
19:AI:40:ILE:HA	19:AI:44:MET:SD	2.54	0.47
19:AI:68:GLY:HA3	51:M8:59:PHE:CZ	2.49	0.47
20:BI:30:LYS:NZ	20:BI:80:ARG:HH12	2.12	0.47
20:BI:34:LYS:O	20:BI:38:LYS:HG3	2.14	0.47
26:1H:66:C:H2'	26:1H:67:U:H6	1.79	0.47
26:1H:460:A:H5"	26:1H:461:C:OP2	2.14	0.47
26:1H:1163:G:C2	26:1H:1164:G:N7	2.83	0.47
26:1H:1250:G:OP2	36:78:21:ARG:NH1	2.46	0.47
26:1H:1296:G:O2'	26:1H:1297:C:H5'	2.14	0.47
26:1H:1523:U:C2	26:1H:1524:G:C8	3.02	0.47
26:1H:2224:G:H4'	26:1H:2226:C:C2	2.49	0.47
26:1H:2394:C:H2'	26:1H:2395:C:H6	1.78	0.47
26:1H:2432:A:C4	48:J8:33:LYS:HG2	2.49	0.47
26:1H:2680:C:H5'	29:21:189:PRO:HA	1.97	0.47
28:11:3:VAL:HG12	28:11:17:THR:HG23	1.97	0.47
28:11:67:PHE:HB3	28:11:153:ALA:H	1.80	0.47
32:51:77:LYS:HE2	32:51:138:LYS:HD2	1.96	0.47
34:58:96:GLU:C	34:58:98:VAL:N	2.66	0.47
35:68:112:MET:HA	35:68:115:VAL:HG22	1.97	0.47
38:98:10:LEU:O	38:98:11:ASN:C	2.58	0.47
40:B8:3:ARG:O	40:B8:6:LEU:N	2.48	0.47
40:B8:16:ARG:HH21	40:B8:19:LEU:CD2	2.28	0.47
44:F8:55:ASN:HB2	44:F8:80:ILE:HG13	1.96	0.47
47:I8:54:GLY:O	47:I8:57:PHE:N	2.44	0.47
55:Q8:28:GLY:N	55:Q8:29:LYS:HB3	2.29	0.47
1:1G:4:U:O4	8:72:105:ARG:HD3	2.15	0.47
1:1G:186(C):G:C6	1:1G:186(D):C:C4	3.03	0.47
1:1G:390:C:O3'	16:7A:28:ARG:NH2	2.45	0.47
1:1G:630:G:H3'	1:1G:631:G:H8	1.80	0.47
1:1G:685:G:N1	1:1G:686:U:O4	2.47	0.47
1:1G:954:G:H21	1:1G:1227:A:N6	2.10	0.47
1:1G:957:U:H2'	1:1G:959:A:OP2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1123:A:O2'	10:1A:37:PRO:O	2.15	0.47
1:1G:1127:G:N2	1:1G:1144:G:H22	2.13	0.47
1:1G:1320:C:OP1	19:AA:70:LYS:HE3	2.14	0.47
2:12:21:ARG:HA	2:12:39:ILE:HA	1.95	0.47
3:22:9:GLY:HA3	14:5A:49:HIS:HA	1.95	0.47
4:32:105:VAL:HG12	4:32:117:ALA:HB1	1.95	0.47
4:32:173:TRP:O	4:32:174:LEU:HD23	2.15	0.47
11:2A:103:LEU:HD12	11:2A:103:LEU:HA	1.69	0.47
14:5A:45:ARG:O	14:5A:49:HIS:ND1	2.47	0.47
19:AA:66:MET:SD	19:AA:66:MET:N	2.88	0.47
24:3L:70:G:H2'	24:3L:71:G:O4'	2.14	0.47
26:14:116:C:H2'	26:14:117:G:O4'	2.13	0.47
26:14:235:U:H2'	26:14:236:C:C6	2.49	0.47
26:14:609(A):G:H2'	26:14:610:C:C6	2.50	0.47
26:14:654(A):A:H2'	26:14:654(B):C:C6	2.50	0.47
26:14:839:U:H3	26:14:939:G:H1	1.63	0.47
26:14:1000:A:C6	26:14:1001:A:N1	2.83	0.47
26:14:2266:A:H5'	26:14:2267:A:C5	2.49	0.47
26:14:2495:G:H2'	26:14:2496:C:H6	1.80	0.47
26:14:2555:U:C5	26:14:2556:C:C2	3.03	0.47
26:14:2586:C:C2'	26:14:2587:A:H5'	2.44	0.47
26:14:2611:U:H6	26:14:2611:U:H5'	1.79	0.47
26:14:2777:G:OP2	26:14:2781:A:O2'	2.26	0.47
27:1J:88:C:P	27:1J:88:C:H6	2.38	0.47
28:19:16:MET:CE	28:19:208:LYS:HG2	2.44	0.47
28:19:34:VAL:HG11	28:19:61:LEU:HG	1.95	0.47
29:29:62:PRO:O	29:29:64:LYS:N	2.46	0.47
30:39:29:ASN:HA	30:39:30:PRO:HD3	1.67	0.47
30:39:65:TRP:CZ3	30:39:72:ARG:HB3	2.50	0.47
30:39:89:VAL:O	30:39:90:PHE:C	2.58	0.47
30:39:132:VAL:HG13	30:39:133:ASN:ND2	2.29	0.47
34:15:36:GLY:H	34:15:42:TRP:HZ3	1.62	0.47
36:35:93:GLY:H	36:35:123:LEU:HD12	1.80	0.47
38:55:104:ARG:HB2	38:55:107:ASP:OD1	2.15	0.47
41:85:91:ASP:CG	41:85:96:ALA:HB2	2.40	0.47
46:D5:30:ASN:ND2	46:D5:90:VAL:HB	2.28	0.47
1:13:490:G:H2'	1:13:491:G:H8	1.79	0.47
1:13:631:G:C8	1:13:632:A:C2	3.03	0.47
1:13:834:C:C2	1:13:853:G:C2	3.02	0.47
1:13:872:A:C5	1:13:874:G:C8	3.03	0.47
1:13:1057:G:H2'	1:13:1058:G:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1276:G:N3	1:13:1282:C:O2'	2.42	0.47
2:1E:11:LEU:HD12	2:1E:217:ARG:HH12	1.80	0.47
2:1E:195:ASP:O	8:7E:74:PRO:HG3	2.15	0.47
3:2E:6:HIS:HB2	14:5I:49:HIS:ND1	2.29	0.47
5:4E:10:MET:O	5:4E:10:MET:HG3	2.15	0.47
8:7E:45:ILE:HD12	8:7E:47:GLY:HA2	1.95	0.47
9:8E:18:PHE:HD2	9:8E:62:TYR:HD2	1.63	0.47
11:2I:87:THR:HG22	11:2I:88:GLY:H	1.79	0.47
12:3I:49:ASN:ND2	12:3I:92:ASP:OD2	2.34	0.47
19:AI:44:MET:O	19:AI:47:HIS:HB2	2.15	0.47
26:1H:108:U:C2	26:1H:109:G:C8	3.03	0.47
26:1H:1024:G:C3'	26:1H:1025:G:H5"	2.43	0.47
26:1H:1144:G:C4	26:1H:1145:C:C5	3.02	0.47
26:1H:2152:G:H2'	26:1H:2153:G:O4'	2.14	0.47
26:1H:2264:C:N4	47:I8:15:ASP:OD2	2.45	0.47
26:1H:2592:G:C6	26:1H:2593:U:C4	3.03	0.47
26:1H:2612:C:C5	26:1H:2613:U:H5	2.33	0.47
31:41:47:LYS:HD3	31:41:81:LYS:HB3	1.97	0.47
32:51:4:ILE:HG13	32:51:6:ARG:CZ	2.45	0.47
33:61:131:LYS:HB3	33:61:132:PRO:CA	2.43	0.47
38:98:94:TYR:O	38:98:117:VAL:HB	2.14	0.47
44:F8:5:TYR:CE1	49:K8:30:ARG:HD2	2.50	0.47
55:Q8:14:VAL:O	55:Q8:15:LYS:HD3	2.14	0.47
55:Q8:49:VAL:HA	55:Q8:52:LYS:HG2	1.97	0.47
1:1G:446:G:H1	1:1G:488:C:H42	1.63	0.47
1:1G:763:G:H2'	1:1G:764:C:H6	1.80	0.47
1:1G:951:G:N3	1:1G:970:C:O2'	2.38	0.47
1:1G:1287:A:N3	1:1G:1353:G:O2'	2.38	0.47
1:1G:1503:A:H1'	25:4L:13:A:H61	1.79	0.47
4:32:117:ALA:O	4:32:121:VAL:HG23	2.14	0.47
7:62:60:LYS:HD2	7:62:60:LYS:HA	1.65	0.47
18:9A:22:VAL:HG22	18:9A:23:LYS:H	1.80	0.47
26:14:550:G:O2'	26:14:1220:A:N3	2.41	0.47
26:14:912:C:C2	26:14:913:U:C5	3.03	0.47
26:14:1332:G:N2	26:14:1609:A:HO2'	2.13	0.47
26:14:1970:A:OP2	58:14:3459:HOH:O	2.20	0.47
26:14:2114:A:H61	26:14:2170:A:N6	2.13	0.47
26:14:2300:G:C2	26:14:2301:C:N3	2.82	0.47
26:14:2328:A:H2'	26:14:2329:G:C8	2.50	0.47
26:14:2702:U:O2'	26:14:2703:C:H5	1.97	0.47
26:14:2774:C:H2'	26:14:2775:A:O4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:59:46:GLU:OE2	32:59:51:ARG:NH1	2.47	0.47
33:69:129:THR:HA	33:69:137:PRO:HA	1.97	0.47
36:35:63:PRO:CA	55:M5:13:ARG:HG2	2.45	0.47
36:35:65:ARG:HE	55:M5:15:LYS:HB3	1.79	0.47
37:45:117:ALA:HA	37:45:120:ILE:HB	1.96	0.47
43:A5:73:ALA:H	43:A5:106:ILE:HG12	1.78	0.47
45:C5:87:LYS:HB2	45:C5:96:ILE:HD11	1.96	0.47
51:I5:20:ASN:HB3	51:I5:39:CYS:SG	2.55	0.47
1:13:390:C:H2'	1:13:391:G:C8	2.50	0.47
1:13:975:A:H5'	1:13:975:A:C8	2.49	0.47
1:13:1376:U:H2'	1:13:1377:A:C8	2.49	0.47
2:1E:17:PHE:HB3	2:1E:44:LEU:HD11	1.97	0.47
2:1E:87:ARG:NH1	2:1E:220:ASP:OD1	2.47	0.47
3:2E:58:GLU:H	3:2E:65:ALA:HB3	1.80	0.47
10:1I:6:ILE:HG22	10:1I:98:ILE:CG1	2.44	0.47
26:1H:562:U:O4	26:1H:2036:C:H1'	2.15	0.47
26:1H:1144:G:H2'	26:1H:1145:C:H6	1.79	0.47
26:1H:1386:C:OP2	26:1H:1396:U:H5	1.98	0.47
26:1H:1973:G:H2'	26:1H:1974:C:H6	1.80	0.47
26:1H:2081:C:H2'	26:1H:2082:A:H8	1.79	0.47
26:1H:2157:G:HO2'	26:1H:2158:A:P	2.38	0.47
26:1H:2309:A:C6	26:1H:2310:A:C8	3.03	0.47
26:1H:2846:G:H2'	26:1H:2847:U:O4'	2.14	0.47
27:16:116:G:H5"	39:A8:55:ALA:HB2	1.96	0.47
34:58:57:ALA:C	34:58:59:LYS:H	2.23	0.47
37:88:32:TYR:CZ	37:88:111:GLU:HG3	2.50	0.47
39:A8:47:THR:HG22	39:A8:48:LEU:H	1.78	0.47
40:B8:60:THR:HG22	40:B8:77:PRO:HA	1.96	0.47
42:D8:21:ARG:HG2	42:D8:91:TYR:CE2	2.50	0.47
45:G8:35:TYR:CE2	45:G8:69:ALA:HB3	2.49	0.47
46:H8:116:VAL:H	46:H8:174:VAL:HG13	1.80	0.47
46:H8:133:ILE:HA	46:H8:134:PRO:HD2	1.76	0.47
49:K8:47:ASN:HB2	49:K8:50:ILE:HD11	1.97	0.47
55:Q8:23:VAL:O	55:Q8:46:ARG:HG3	2.15	0.47
1:1G:577:G:C8	1:1G:816:A:C6	3.02	0.47
1:1G:691:G:N7	11:2A:26:ASN:HB3	2.30	0.47
1:1G:1154:G:N3	1:1G:1155:G:C8	2.82	0.47
1:1G:1177:G:OP2	9:82:97:LYS:NZ	2.48	0.47
1:1G:1392:G:H21	1:1G:1502:A:H8	1.62	0.47
5:42:79:GLU:OE1	8:72:104:ARG:HA	2.15	0.47
8:72:40:ALA:HA	8:72:45:ILE:HG13	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1A:45:ARG:HB3	10:1A:65:LEU:HB3	1.97	0.47
15:6A:39:LEU:HD12	15:6A:56:LEU:HB2	1.96	0.47
16:7A:21:VAL:HG22	16:7A:33:ILE:HB	1.97	0.47
18:9A:45:SER:OG	18:9A:46:GLU:N	2.48	0.47
26:14:69:C:H2'	26:14:70:G:H8	1.80	0.47
26:14:110:G:C2	26:14:111:A:C8	3.02	0.47
26:14:142:G:H2'	26:14:143:C:C6	2.50	0.47
26:14:270(J):G:N2	26:14:270(K):C:H1'	2.30	0.47
26:14:531:C:OP1	26:14:561:G:C2	2.67	0.47
26:14:932:G:OP1	50:H5:29:ARG:NH1	2.48	0.47
26:14:1114:G:H2'	26:14:1115:G:C8	2.50	0.47
26:14:1354:A:H2'	26:14:1355:G:O4'	2.15	0.47
26:14:1558:A:H4'	26:14:1559:G:H5'	1.97	0.47
26:14:1664:A:OP1	58:14:3507:HOH:O	2.20	0.47
26:14:2173:A:P	26:14:2173:A:H8	2.38	0.47
26:14:2228:G:OP1	28:19:261:LYS:HE3	2.15	0.47
26:14:2542:A:H1'	26:14:2543:G:C8	2.50	0.47
27:1J:14:U:H5'	27:1J:71:C:O4'	2.15	0.47
32:59:85:LYS:HG2	32:59:141:VAL:HG12	1.96	0.47
34:15:121:LYS:HB3	34:15:123:TYR:CE1	2.50	0.47
37:45:118:LEU:HD22	37:45:118:LEU:HA	1.68	0.47
41:85:90:VAL:CG2	42:95:39:LEU:HB3	2.43	0.47
42:95:71:LEU:O	42:95:72:VAL:HG12	2.15	0.47
52:J5:48:GLU:H	52:J5:48:GLU:HG2	1.35	0.47
54:L5:12:ARG:NH2	54:L5:44:PRO:HB3	2.30	0.47
1:13:44:G:OP1	16:7I:12:LYS:HB3	2.15	0.47
1:13:427:U:H5'	4:3E:41:GLY:HA2	1.97	0.47
1:13:1332:A:H2'	1:13:1333:A:C8	2.50	0.47
1:13:1386:G:O2'	1:13:1387:G:H5'	2.14	0.47
11:2I:12:ARG:HG3	11:2I:13:GLN:N	2.31	0.47
22:1K:14:A:N1	22:1K:22:G:H1'	2.30	0.47
26:1H:182:A:H2'	26:1H:183:C:C6	2.50	0.47
26:1H:444:C:H4'	30:31:49:ALA:HB2	1.95	0.47
26:1H:1288:U:H4'	26:1H:1289:C:OP2	2.15	0.47
26:1H:1317:A:H2'	26:1H:1318:C:C6	2.50	0.47
26:1H:1456:G:OP2	58:1H:4659:HOH:O	2.19	0.47
26:1H:2182:G:H2'	26:1H:2183:C:C6	2.50	0.47
26:1H:2396:G:H5"	48:J8:25:LYS:HE2	1.96	0.47
26:1H:2468:G:OP1	37:88:119:ARG:NH2	2.44	0.47
26:1H:2542:A:H4'	26:1H:2543:G:C8	2.50	0.47
26:1H:2557:G:O2'	26:1H:2558:C:H5'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:11:69:ARG:NH2	28:11:128:GLY:O	2.29	0.47
43:E8:3:ALA:HB3	43:E8:58:ALA:HB2	1.95	0.47
45:G8:34:LYS:HD3	45:G8:36:ALA:HB2	1.97	0.47
46:H8:59:LEU:O	46:H8:60:GLU:HB2	2.14	0.47
46:H8:113:ALA:N	46:H8:114:GLY:HA2	2.29	0.47
48:J8:92:LYS:HA	48:J8:95:LEU:CB	2.43	0.47
49:K8:15:LYS:HD3	49:K8:67:LYS:HZ1	1.80	0.47
50:L8:31:LEU:HB3	50:L8:32:GLN:OE1	2.15	0.47
55:Q8:57:ARG:HB2	55:Q8:59:LYS:HE2	1.97	0.47
1:1G:397:A:H3'	1:1G:397:A:N3	2.30	0.47
1:1G:791:G:C6	1:1G:792:A:N7	2.82	0.47
1:1G:843:U:H3'	1:1G:848:C:O4'	2.15	0.47
1:1G:1004:A:H2	1:1G:1024:G:C5	2.32	0.47
1:1G:1092:A:C2	1:1G:1183:A:H2	2.32	0.47
4:32:152:SER:O	4:32:153:ARG:C	2.58	0.47
13:4A:35:GLU:O	13:4A:38:GLY:N	2.44	0.47
19:AA:66:MET:HE1	51:I5:56:VAL:HA	1.96	0.47
20:BA:50:GLU:HA	20:BA:100:ILE:HG12	1.97	0.47
24:3L:4:C:H2'	24:3L:5:G:O4'	2.15	0.47
26:14:55:G:C2	26:14:116:C:C2	3.03	0.47
26:14:196:A:C8	36:35:46:LYS:HD2	2.50	0.47
26:14:249:C:H4'	26:14:250:G:O5'	2.15	0.47
26:14:459:U:H5"	54:L5:40:TRP:CE2	2.49	0.47
26:14:654(B):C:H2'	26:14:654(C):G:C8	2.49	0.47
26:14:676:A:H2	26:14:802:A:H61	1.61	0.47
26:14:864:G:C6	26:14:865:C:N4	2.83	0.47
26:14:1251:C:H5	58:14:3962:HOH:O	1.98	0.47
26:14:1341:U:O4	44:B5:16:LYS:NZ	2.40	0.47
26:14:1416:G:H21	26:14:1586:A:H62	1.62	0.47
26:14:2197:U:H1'	26:14:2198:A:C8	2.50	0.47
26:14:2467:C:H4'	37:45:123:HIS:CE1	2.50	0.47
26:14:2502:G:OP2	58:14:4028:HOH:O	2.20	0.47
26:14:2693:A:H2'	26:14:2694:G:C8	2.49	0.47
26:14:2750:A:H8	26:14:2752:C:H41	1.63	0.47
30:39:25:PRO:HB2	30:39:27:GLU:O	2.15	0.47
42:95:44:LYS:C	42:95:46:VAL:H	2.20	0.47
47:E5:66:VAL:CG1	47:E5:67:VAL:H	2.27	0.47
50:H5:19:GLN:OE1	50:H5:52:HIS:NE2	2.47	0.47
1:13:32:A:C2	1:13:33:A:C4	3.04	0.46
1:13:544:G:H2'	1:13:545:C:C6	2.50	0.46
1:13:1073:U:H2'	1:13:1074:G:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:115:LEU:HD21	2:1E:153:ARG:HD3	1.98	0.46
5:4E:91:LEU:HD12	5:4E:120:THR:CG2	2.45	0.46
8:7E:87:SER:HB2	8:7E:93:VAL:HG23	1.97	0.46
14:5I:39:LEU:HD11	14:5I:47:LEU:HD12	1.96	0.46
26:1H:265:A:H1'	26:1H:266:G:O4'	2.15	0.46
26:1H:775:G:O5'	26:1H:777:A:H1'	2.15	0.46
26:1H:1260:G:H2'	26:1H:1261:C:H6	1.80	0.46
26:1H:1835:G:N3	26:1H:1835:G:H2'	2.29	0.46
26:1H:2309:A:C4	26:1H:2310:A:H8	2.33	0.46
26:1H:2756:U:H1'	26:1H:2757:A:H5"	1.97	0.46
32:51:51:ARG:HG2	32:51:52:VAL:N	2.30	0.46
35:68:88:ASN:ND2	35:68:92:GLU:O	2.47	0.46
36:78:38:GLN:O	36:78:41:ARG:HB2	2.15	0.46
36:78:59:LEU:O	36:78:59:LEU:HD12	2.15	0.46
37:88:81:VAL:C	37:88:82:ARG:HD2	2.38	0.46
55:Q8:53:PRO:CB	55:Q8:56:GLU:HG3	2.45	0.46
1:1G:826:C:H5'	8:72:12:ARG:NH1	2.30	0.46
1:1G:881:G:C6	1:1G:882:C:C4	3.03	0.46
1:1G:1263:C:N3	1:1G:1273:G:N2	2.64	0.46
2:12:8:LYS:HG2	2:12:11:LEU:HD22	1.97	0.46
7:62:50:ILE:O	7:62:54:THR:HG23	2.15	0.46
8:72:68:ARG:HH11	8:72:70:GLN:HG2	1.79	0.46
9:82:99:LEU:HB3	9:82:101:PHE:CE1	2.49	0.46
12:3A:109:GLY:HA3	12:3A:121:GLY:O	2.15	0.46
15:6A:55:GLY:O	15:6A:59:MET:HG3	2.14	0.46
23:2L:13:C:O2'	26:14:1924:C:H4'	2.16	0.46
26:14:307:G:H2'	26:14:309:G:OP2	2.15	0.46
26:14:1012:U:O4	34:15:25:ARG:HA	2.15	0.46
26:14:1590:U:H2'	26:14:1591:G:H8	1.80	0.46
26:14:2279:G:N2	26:14:2280:G:H1'	2.31	0.46
26:14:2299:G:N1	26:14:2318:G:C8	2.82	0.46
26:14:2472:G:C4	26:14:2475:C:N4	2.83	0.46
29:29:23:VAL:HA	29:29:184:VAL:O	2.15	0.46
29:29:117:MET:HB2	29:29:122:PHE:O	2.15	0.46
46:D5:106:GLY:HA3	46:D5:140:ASP:OD2	2.15	0.46
47:E5:36:ILE:HD11	47:E5:39:ARG:HG2	1.97	0.46
48:F5:20:ARG:HG2	48:F5:20:ARG:HH11	1.80	0.46
1:13:103:C:C2	1:13:104:G:C8	3.04	0.46
1:13:250:A:H4'	1:13:251:G:C5'	2.45	0.46
1:13:490:G:H2'	1:13:491:G:C8	2.50	0.46
1:13:627:G:H2'	1:13:628:G:C8	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1305:G:H8	1:13:1305:G:OP2	1.97	0.46
2:1E:98:LEU:HB2	2:1E:101:MET:HG3	1.96	0.46
15:6I:71:GLN:O	15:6I:71:GLN:HG2	2.14	0.46
20:BI:30:LYS:CE	20:BI:80:ARG:HH12	2.29	0.46
26:1H:1962:C:H4'	26:1H:1963:U:H5	1.80	0.46
26:1H:2250:G:C4	37:88:82:ARG:HG2	2.50	0.46
26:1H:2564:A:C2	26:1H:2647:U:H4'	2.50	0.46
26:1H:2577:A:H2'	26:1H:2614:A:N6	2.30	0.46
34:58:42:TRP:N	41:C8:64:ARG:HD2	2.31	0.46
34:58:96:GLU:O	34:58:98:VAL:N	2.44	0.46
36:78:38:GLN:HG2	36:78:45:LEU:HD13	1.97	0.46
36:78:91:PHE:O	36:78:123:LEU:HD11	2.15	0.46
51:M8:9:LEU:HD12	51:M8:27:THR:N	2.29	0.46
54:P8:35:ARG:NH1	54:P8:42:LEU:HD11	2.30	0.46
55:Q8:48:PHE:O	55:Q8:49:VAL:CG2	2.63	0.46
1:1G:194:C:H5"	20:BA:65:LYS:HZ2	1.80	0.46
1:1G:599:C:H2'	1:1G:600:C:H6	1.81	0.46
1:1G:600:C:H2'	1:1G:601:C:H6	1.80	0.46
1:1G:616:G:C2	1:1G:617:G:C8	3.04	0.46
1:1G:811:C:H4'	1:1G:900:A:N6	2.29	0.46
1:1G:1158:C:N4	1:1G:1181:G:H22	2.13	0.46
1:1G:1442:G:C6	1:1G:1446:A:N6	2.83	0.46
2:12:118:LEU:HB3	2:12:142:LEU:HD12	1.96	0.46
4:32:173:TRP:CD1	4:32:174:LEU:HG	2.51	0.46
5:42:19:MET:HE2	5:42:24:ARG:HB3	1.96	0.46
5:42:57:LYS:O	5:42:60:TYR:HB2	2.15	0.46
6:52:81:ILE:HD11	28:19:125:ILE:CG1	2.43	0.46
8:72:11:THR:HG23	8:72:14:ARG:HH12	1.81	0.46
10:1A:27:ALA:HB2	10:1A:85:LEU:HD11	1.96	0.46
22:1L:19:G:N7	26:14:882:G:H4'	2.30	0.46
22:1L:56:C:N4	22:1L:57:G:O6	2.49	0.46
23:2L:26:C:H2'	23:2L:27:G:O4'	2.16	0.46
26:14:1019:U:OP1	26:14:1035:U:O2'	2.24	0.46
26:14:1049:C:O2	26:14:1113:U:H4'	2.15	0.46
26:14:1131:G:H4'	34:15:82:LEU:HB2	1.97	0.46
26:14:1656:C:H2'	26:14:1657:C:H6	1.80	0.46
26:14:1786:A:C2	26:14:2606:C:H1'	2.50	0.46
26:14:2052:G:H4'	29:29:143:ASN:N	2.30	0.46
26:14:2666:C:H3'	26:14:2667:C:H6	1.80	0.46
28:19:83:GLU:OE2	28:19:104:TYR:HE1	1.98	0.46
31:49:120:LEU:HG	31:49:179:PRO:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:85:86:ALA:HB2	41:85:116:ALA:HB2	1.97	0.46
42:95:57:VAL:HG23	42:95:99:ILE:N	2.28	0.46
46:D5:10:ARG:NH2	46:D5:26:GLY:O	2.48	0.46
47:E5:60:PHE:CD1	47:E5:60:PHE:N	2.83	0.46
50:H5:18:ASP:HA	50:H5:21:ALA:HB3	1.97	0.46
53:K5:52:VAL:HG22	53:K5:53:LYS:H	1.80	0.46
1:13:97:U:H2'	1:13:99:C:C6	2.50	0.46
1:13:192:U:O4'	20:BI:103:GLY:HA2	2.15	0.46
1:13:271:C:H2'	1:13:272:C:C6	2.50	0.46
1:13:316:G:OP2	1:13:351:G:O2'	2.28	0.46
1:13:538:G:OP2	12:3I:115:LYS:HG3	2.14	0.46
1:13:711:G:O2'	1:13:712:A:H5'	2.15	0.46
1:13:963:G:N2	10:1I:55:LYS:NZ	2.63	0.46
1:13:1124:G:N7	1:13:1145:C:H2'	2.30	0.46
2:1E:187:LEU:HA	2:1E:201:ILE:O	2.16	0.46
5:4E:106:PRO:O	5:4E:110:LEU:HG	2.15	0.46
26:1H:16:G:H2'	26:1H:17:G:H8	1.80	0.46
26:1H:626:U:O4	36:78:107:LYS:HD3	2.15	0.46
26:1H:655:A:H8	26:1H:656:G:O4'	1.98	0.46
26:1H:821:A:C2'	26:1H:946:G:H5"	2.45	0.46
26:1H:900:A:H3'	26:1H:901:A:H8	1.81	0.46
26:1H:2288:A:C2	26:1H:2325:G:C8	3.03	0.46
26:1H:2302:G:C6	26:1H:2315:G:C6	3.03	0.46
26:1H:2450:A:C2	26:1H:2451:A:C4	3.04	0.46
27:16:31:C:H2'	27:16:32:C:C6	2.51	0.46
30:31:132:VAL:HG23	30:31:133:ASN:N	2.29	0.46
32:51:11:VAL:HG12	32:51:12:PRO:HD2	1.97	0.46
34:58:133:GLN:H	34:58:133:GLN:CD	2.22	0.46
41:C8:88:ILE:C	41:C8:90:VAL:H	2.23	0.46
44:F8:57:LEU:HG	44:F8:78:LYS:HG3	1.97	0.46
45:G8:20:TYR:CE1	45:G8:43:ASN:HA	2.51	0.46
45:G8:49:VAL:HG21	45:G8:55:TYR:CE2	2.50	0.46
50:L8:7:LYS:C	50:L8:54:VAL:HG23	2.40	0.46
53:O8:43:CYS:HB3	53:O8:44:ARG:HH11	1.80	0.46
1:1G:197:A:H8	1:1G:198:G:N9	2.13	0.46
1:1G:362:G:O2'	12:3A:33:ARG:NH2	2.48	0.46
1:1G:536:C:H2'	1:1G:537:G:C8	2.50	0.46
1:1G:862:C:O2	1:1G:862:C:H2'	2.16	0.46
1:1G:976:G:H5'	1:1G:1358:U:O2'	2.15	0.46
1:1G:1127:G:N3	1:1G:1127:G:H2'	2.30	0.46
1:1G:1300:G:HO2'	1:1G:1301:U:P	2.38	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:25:ILE:HD13	6:52:82:ARG:HD2	1.97	0.46
6:52:67:MET:HB2	6:52:68:PRO:HD2	1.98	0.46
23:2L:32:G:C5	23:2L:33:OMC:C5	3.04	0.46
26:14:527:C:H4'	26:14:528:A:O5'	2.15	0.46
26:14:662:G:OP1	36:35:15:ARG:NH2	2.47	0.46
26:14:933:A:C5	26:14:934:G:C8	3.03	0.46
26:14:1161:C:O2'	42:95:8:GLY:HA2	2.15	0.46
26:14:1278:A:O2'	38:55:34:ILE:HD11	2.16	0.46
26:14:1342:A:C2	26:14:1397:U:C2	3.03	0.46
26:14:1441:G:H2'	26:14:1442:G:C8	2.51	0.46
26:14:2231:C:OP1	48:F5:42:GLN:HA	2.16	0.46
26:14:2360:A:H2'	26:14:2361:A:O4'	2.15	0.46
29:29:37:ARG:NE	29:29:42:ASP:OD2	2.48	0.46
30:39:122:LYS:HD3	30:39:191:ARG:HH21	1.80	0.46
30:39:205:ARG:HB2	30:39:205:ARG:NH1	2.30	0.46
34:15:35:ARG:HB2	34:15:42:TRP:CZ3	2.49	0.46
37:45:86:GLY:O	37:45:88:GLY:N	2.47	0.46
40:75:16:ARG:HB3	40:75:18:ASP:OD1	2.15	0.46
42:95:67:GLY:O	42:95:88:ARG:HG2	2.15	0.46
46:D5:126:VAL:HA	46:D5:163:LEU:HA	1.97	0.46
1:13:77:C:H1'	1:13:92:G:H22	1.79	0.46
1:13:924:C:H2'	1:13:925:G:H8	1.78	0.46
1:13:1007:C:N4	1:13:1022:G:H1	2.08	0.46
2:1E:192:SER:OG	2:1E:193:ASP:N	2.46	0.46
5:4E:30:ALA:O	5:4E:45:PHE:HA	2.15	0.46
7:6E:5:ARG:NH1	7:6E:7:ALA:HA	2.31	0.46
19:AI:25:LYS:HG2	19:AI:27:GLU:OE1	2.15	0.46
26:1H:412:A:H5"	26:1H:413:C:OP2	2.15	0.46
26:1H:576:U:H5	58:1H:4654:HOH:O	1.99	0.46
26:1H:709:U:H2'	26:1H:710:G:C8	2.50	0.46
26:1H:729:G:OP2	28:11:13:ARG:NH1	2.46	0.46
26:1H:866:A:H5"	26:1H:867:C:OP2	2.15	0.46
26:1H:958:U:OP2	37:88:14:ARG:HD3	2.15	0.46
26:1H:975:G:H1'	26:1H:990:A:C2	2.50	0.46
26:1H:1162:G:H1'	42:D8:23:GLU:OE2	2.16	0.46
26:1H:2516:G:O2'	26:1H:2517:C:H5'	2.15	0.46
27:16:94:C:H2'	27:16:95:U:C6	2.50	0.46
36:78:135:LEU:HD13	36:78:139:LYS:NZ	2.31	0.46
40:B8:26:ASP:CB	40:B8:91:ARG:HA	2.42	0.46
44:F8:57:LEU:N	44:F8:57:LEU:HD23	2.31	0.46
48:J8:78:LYS:HE3	48:J8:78:LYS:H	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:10:A:H2'	1:1G:11:G:H8	1.79	0.46
1:1G:852:G:C6	1:1G:853:G:N7	2.83	0.46
1:1G:1328:C:O2'	13:4A:29:ARG:NE	2.48	0.46
3:22:195:VAL:O	3:22:196:LEU:HD22	2.16	0.46
6:52:54:LYS:HE2	6:52:54:LYS:HB2	1.66	0.46
8:72:97:VAL:HG22	8:72:129:VAL:C	2.40	0.46
10:1A:61:GLU:OE1	14:5A:58:LYS:HE2	2.16	0.46
11:2A:124:LYS:H	11:2A:124:LYS:HG2	1.28	0.46
14:5A:23:ARG:HD2	14:5A:29:ARG:O	2.16	0.46
26:14:95:G:H4'	49:G5:46:GLN:HB2	1.97	0.46
26:14:506:G:H5"	26:14:509:C:O2'	2.15	0.46
26:14:631:A:H2'	26:14:632:A:O4'	2.15	0.46
26:14:830:G:H4'	26:14:831:G:OP2	2.16	0.46
26:14:873:G:N2	26:14:905:U:C2	2.84	0.46
26:14:2376:A:H2'	26:14:2377:A:C8	2.50	0.46
26:14:2779:U:OP1	58:14:3844:HOH:O	2.20	0.46
28:19:18:VAL:HG12	28:19:19:ALA:N	2.31	0.46
28:19:121:PRO:HB3	28:19:135:PHE:CD2	2.50	0.46
32:59:8:PRO:HG2	32:59:69:ARG:HE	1.80	0.46
36:35:13:ASN:O	36:35:15:ARG:N	2.48	0.46
39:65:77:ALA:O	39:65:80:LEU:HB2	2.15	0.46
1:13:258:G:H2'	1:13:259:G:H8	1.79	0.46
1:13:457:C:H2'	1:13:458:C:C6	2.49	0.46
1:13:474:G:H5"	16:7I:81:ARG:CZ	2.45	0.46
1:13:976:G:N2	1:13:1362(A):C:OP2	2.49	0.46
2:1E:54:THR:HG21	2:1E:201:ILE:HD11	1.96	0.46
5:4E:147:ASP:HA	5:4E:150:ARG:NH2	2.30	0.46
26:1H:445:C:OP1	41:C8:2:PRO:HA	2.15	0.46
26:1H:803:U:C4	26:1H:804:A:N7	2.84	0.46
26:1H:1232:G:C6	26:1H:1233:C:C4	3.03	0.46
26:1H:1387:C:C2	26:1H:1388:G:C8	3.04	0.46
26:1H:1534:G:C2'	26:1H:1535:U:H4'	2.45	0.46
26:1H:2156:G:H2'	26:1H:2157:G:N3	2.30	0.46
26:1H:2358:G:C5	26:1H:2359:C:C5	3.04	0.46
26:1H:2635:C:H5"	29:21:78:LEU:HA	1.98	0.46
26:1H:2705:A:H3'	26:1H:2706:G:H8	1.80	0.46
35:68:44:LYS:HD3	35:68:44:LYS:HA	1.72	0.46
40:B8:31:SER:HB2	40:B8:84:GLN:HB3	1.96	0.46
45:G8:40:GLU:HB2	45:G8:64:GLU:OE1	2.14	0.46
55:Q8:46:ARG:CZ	55:Q8:46:ARG:HA	2.44	0.46
55:Q8:49:VAL:HG12	55:Q8:52:LYS:HG2	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:298:A:O5'	1:1G:298:A:H8	1.98	0.46
1:1G:926:G:C6	1:1G:1505:G:C6	3.03	0.46
1:1G:1324:A:H4'	1:1G:1362:C:H4'	1.98	0.46
1:1G:1401:G:C2	1:1G:1402:C:H1'	2.50	0.46
3:22:11:ARG:HH21	3:22:180:ALA:HB3	1.81	0.46
6:52:79:LEU:HB3	6:52:88:VAL:HG21	1.98	0.46
7:62:45:ASP:HB3	7:62:117:ALA:CB	2.46	0.46
13:4A:81:LEU:O	13:4A:89:GLY:HA3	2.16	0.46
18:9A:59:SER:HB2	18:9A:62:GLU:H	1.79	0.46
19:AA:36:ARG:HD2	19:AA:52:TYR:O	2.16	0.46
19:AA:41:VAL:HG12	19:AA:42:PRO:HD2	1.97	0.46
20:BA:13:LEU:O	20:BA:17:ARG:HG3	2.15	0.46
23:2L:56:PSU:N3	23:2L:59:A:OP2	2.36	0.46
23:2L:62:C:H2'	23:2L:63:C:H6	1.81	0.46
26:14:1260:G:C6	26:14:1261:C:C4	3.03	0.46
26:14:2420:C:H41	55:M5:31:HIS:HB3	1.81	0.46
26:14:2845:G:H2'	26:14:2846:G:C8	2.51	0.46
29:29:58:ARG:HD2	29:29:58:ARG:H	1.80	0.46
38:55:32:GLY:HA2	38:55:116:LEU:HD12	1.96	0.46
40:75:64:ARG:HB2	40:75:73:GLU:HG2	1.96	0.46
46:D5:124:ILE:HD11	46:D5:165:VAL:HG11	1.97	0.46
1:13:112:G:C2'	1:13:113:G:H5'	2.46	0.46
1:13:342:C:N3	1:13:348:G:C2	2.83	0.46
1:13:598:U:H4'	8:7E:94:TYR:CG	2.51	0.46
1:13:894:G:H2'	1:13:895:G:O4'	2.16	0.46
1:13:1346:A:C6	7:6E:10:ARG:HD3	2.50	0.46
4:3E:167:GLY:HA2	28:19:135:PHE:CE1	2.47	0.46
5:4E:74:GLY:O	5:4E:115:VAL:HA	2.16	0.46
8:7E:114:THR:HG22	8:7E:130:GLY:O	2.16	0.46
16:7I:74:LEU:HD22	16:7I:79:VAL:HG21	1.96	0.46
26:1H:370:G:H4'	26:1H:371:A:OP2	2.15	0.46
26:1H:500:G:N2	26:1H:502:A:H3'	2.30	0.46
26:1H:556:G:H2'	26:1H:557:U:H6	1.80	0.46
26:1H:602:G:O2'	26:1H:655:A:N6	2.48	0.46
26:1H:1070:A:N7	26:1H:1096:A:H2'	2.31	0.46
26:1H:1575:C:H2'	26:1H:1576:U:H6	1.77	0.46
26:1H:1581:G:C6	26:1H:1582:C:C4	3.04	0.46
26:1H:2052:G:H4'	29:21:143:ASN:O	2.16	0.46
26:1H:2235:G:H2'	26:1H:2236:C:C6	2.50	0.46
26:1H:2286:A:OP1	53:O8:28:ARG:NH2	2.48	0.46
26:1H:2335:A:C8	26:1H:2337:G:C6	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2388:A:C2'	26:1H:2389:G:H5'	2.46	0.46
26:1H:2841:C:H2'	26:1H:2842:G:C8	2.49	0.46
34:58:96:GLU:HB2	34:58:122:VAL:HG12	1.96	0.46
37:88:104:PHE:CE2	37:88:125:LEU:HD11	2.45	0.46
39:A8:18:ILE:O	39:A8:21:THR:OG1	2.32	0.46
39:A8:80:LEU:HA	39:A8:80:LEU:HD13	1.65	0.46
44:F8:24:GLY:HA3	44:F8:82:GLN:NE2	2.24	0.46
55:Q8:39:LYS:HE3	55:Q8:40:GLU:H	1.80	0.46
1:1G:197:A:H3'	1:1G:197:A:OP2	2.15	0.46
1:1G:216:G:H2'	1:1G:217:C:C6	2.50	0.46
1:1G:360:A:H2'	1:1G:361:G:C8	2.50	0.46
1:1G:539:A:H2'	1:1G:540:G:H8	1.78	0.46
1:1G:659:U:N3	1:1G:660:G:N7	2.63	0.46
1:1G:790:A:H8	1:1G:790:A:O5'	1.98	0.46
3:22:135:LYS:NZ	5:42:52:PRO:HG2	2.30	0.46
4:32:155:LEU:O	4:32:158:ILE:HD12	2.16	0.46
8:72:42:GLU:HG3	8:72:109:ILE:HD12	1.97	0.46
26:14:442:G:C6	26:14:444:C:N4	2.84	0.46
26:14:448:U:H4'	58:14:4020:HOH:O	2.15	0.46
26:14:997:G:H2'	26:14:998:C:H6	1.81	0.46
26:14:1014:U:H2'	26:14:1015:G:C8	2.48	0.46
26:14:1197:G:H2'	26:14:1198:U:C6	2.49	0.46
26:14:1328:G:H2'	26:14:1330:C:C5	2.50	0.46
26:14:1431:U:H2'	26:14:1432:C:C6	2.51	0.46
26:14:1951:U:N3	26:14:1954:G:OP2	2.39	0.46
26:14:2142:C:H2'	26:14:2143:C:C6	2.50	0.46
27:1J:5:C:N4	27:1J:115:G:H1	2.06	0.46
27:1J:101:A:OP2	27:1J:101:A:H8	1.99	0.46
33:69:97:ILE:O	33:69:100:ALA:HB3	2.16	0.46
40:75:8:LYS:O	40:75:11:GLU:HB2	2.15	0.46
43:A5:29:LEU:HD11	43:A5:33:ARG:HE	1.81	0.46
1:13:17:U:H2'	1:13:18:C:C6	2.51	0.46
1:13:1365:G:H2'	1:13:1366:C:C6	2.51	0.46
2:1E:185:ILE:HA	2:1E:199:TYR:O	2.16	0.46
7:6E:26:PHE:CE2	7:6E:30:ILE:HD11	2.50	0.46
16:7I:49:LEU:HD12	16:7I:50:LYS:H	1.81	0.46
26:1H:182:A:H2'	26:1H:183:C:H6	1.81	0.46
26:1H:389:G:O5'	26:1H:389:G:H8	1.99	0.46
26:1H:748:G:OP2	43:E8:88:ARG:HG3	2.15	0.46
26:1H:749:C:H5"	58:1H:4461:HOH:O	2.14	0.46
26:1H:1259:G:H2'	26:1H:1260:G:H8	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1359:A:C2	26:1H:1372:U:C4	3.04	0.46
26:1H:1749:A:C4	26:1H:1750:G:C8	3.03	0.46
26:1H:1972:A:H2'	26:1H:1973:G:H8	1.81	0.46
26:1H:2261:C:H1'	26:1H:2388:A:N3	2.31	0.46
26:1H:2602:A:H4'	26:1H:2603:G:O5'	2.15	0.46
26:1H:2844:G:O6	58:1H:4096:HOH:O	2.20	0.46
30:31:114:VAL:HG21	30:31:202:PHE:CE1	2.51	0.46
32:51:8:PRO:O	32:51:10:PRO:HD3	2.16	0.46
32:51:85:LYS:HD3	32:51:85:LYS:HA	1.44	0.46
45:G8:52:SER:OG	45:G8:53:PRO:HD2	2.15	0.46
45:G8:88:LYS:HD3	45:G8:88:LYS:HA	1.69	0.46
55:Q8:25:MET:HB2	55:Q8:42:ARG:HB2	1.98	0.46
1:1G:236:G:H1'	17:8A:4:LYS:NZ	2.31	0.46
1:1G:1530:G:H8	1:1G:1530:G:H5"	1.81	0.46
2:12:209:ARG:HD3	2:12:240:GLN:HE22	1.79	0.46
16:7A:43:LYS:HE2	16:7A:43:LYS:HB2	1.62	0.46
26:14:26:G:OP1	43:A5:80:PRO:HB3	2.16	0.46
26:14:196:A:O4'	36:35:46:LYS:HE2	2.15	0.46
26:14:548:A:H2'	26:14:549:G:O4'	2.16	0.46
26:14:717:G:H2'	26:14:718:A:O4'	2.16	0.46
26:14:1011:G:H2'	26:14:1013:C:O4'	2.15	0.46
26:14:1104:C:H2'	26:14:1105:U:C6	2.49	0.46
26:14:1160:G:C6	26:14:1161:C:C4	3.04	0.46
26:14:1599:C:H2'	26:14:1600:C:C6	2.47	0.46
26:14:1599:C:C5	26:14:1600:C:H5	2.34	0.46
26:14:1857:G:O2'	26:14:1885:A:N6	2.48	0.46
26:14:1970:A:OP1	26:14:1970:A:H4'	2.16	0.46
26:14:2419:U:O4	55:M5:31:HIS:CD2	2.69	0.46
26:14:2845:G:N2	26:14:2871:C:O2	2.43	0.46
30:39:130:ALA:H	30:39:142:TRP:CD1	2.34	0.46
31:49:60:LEU:HD22	31:49:68:PRO:HB3	1.98	0.46
33:69:2:LYS:H	33:69:2:LYS:HG2	1.39	0.46
33:69:41:GLU:O	33:69:45:LYS:HG2	2.16	0.46
40:75:85:LYS:HD2	40:75:87:ASP:OD1	2.16	0.46
41:85:88:ILE:HG22	41:85:90:VAL:HG23	1.98	0.46
45:C5:19:LYS:CG	45:C5:20:TYR:H	2.17	0.46
46:D5:29:TYR:CE2	46:D5:87:ASP:HB2	2.51	0.46
47:E5:34:GLY:HA2	47:E5:61:ALA:O	2.16	0.46
1:13:42:G:H2'	1:13:43:C:O4'	2.16	0.46
1:13:403:C:H4'	4:3E:122:ARG:NH1	2.30	0.46
1:13:713:G:H2'	1:13:714:G:C8	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:730:G:C5	1:13:731:G:H1'	2.51	0.46
2:1E:209:ARG:HG3	2:1E:240:GLN:NE2	2.30	0.46
5:4E:153:LYS:HG3	5:4E:154:GLY:H	1.80	0.46
7:6E:91:VAL:HB	7:6E:96:GLN:HG2	1.98	0.46
11:2I:125:PHE:N	11:2I:125:PHE:CD1	2.82	0.46
16:7I:21:VAL:O	16:7I:33:ILE:N	2.44	0.46
26:1H:236:C:H2'	26:1H:237:C:H6	1.81	0.46
26:1H:239:U:H2'	26:1H:240:G:O4'	2.16	0.46
26:1H:289:A:H2'	26:1H:290:G:O4'	2.15	0.46
26:1H:356:G:H2'	26:1H:357:A:C8	2.51	0.46
26:1H:901:A:H5'	26:1H:902:C:OP2	2.16	0.46
26:1H:903:C:O2'	46:H8:169:GLU:OE1	2.34	0.46
26:1H:2102:U:H2'	26:1H:2103:C:C6	2.51	0.46
26:1H:2104:G:N1	26:1H:2186:G:C2	2.84	0.46
26:1H:2168:G:OP1	26:1H:2168:G:H4'	2.16	0.46
26:1H:2549:G:H5"	26:1H:2549:G:H8	1.81	0.46
29:21:103:ASP:OD2	29:21:168:MET:HG2	2.15	0.46
31:41:67:LYS:NZ	51:M8:6:HIS:CE1	2.84	0.46
32:51:86:GLU:HG3	32:51:165:ALA:HB3	1.98	0.46
33:61:55:ALA:HA	33:61:58:LEU:HB3	1.98	0.46
38:98:13:HIS:H	38:98:13:HIS:CD2	2.33	0.46
40:B8:45:PHE:CZ	40:B8:65:LYS:HG2	2.50	0.46
42:D8:9:GLY:O	42:D8:10:LYS:HG3	2.16	0.46
52:N8:9:LYS:HD3	52:N8:9:LYS:HA	1.58	0.46
1:1G:15:G:H2'	1:1G:16:A:C8	2.51	0.46
1:1G:25:C:H2'	1:1G:26:A:H8	1.81	0.46
1:1G:448:A:H2'	1:1G:449:C:O2	2.16	0.46
1:1G:922:G:C2	1:1G:923:A:C4	3.04	0.46
1:1G:973:G:O3'	14:5A:41:ARG:NH2	2.45	0.46
1:1G:1512:U:C2	1:1G:1513:A:C8	3.04	0.46
3:22:136:GLN:O	3:22:139:GLN:N	2.49	0.46
4:32:159:ARG:H	4:32:159:ARG:HG3	1.55	0.46
9:82:42:ARG:NH1	9:82:71:SER:O	2.48	0.46
9:82:53:VAL:C	9:82:55:ALA:H	2.24	0.46
24:3L:76:A:O2'	26:14:2394:C:N3	2.45	0.46
26:14:492:A:H2'	26:14:493:G:O4'	2.15	0.46
26:14:1115:G:H2'	26:14:1116:C:C6	2.51	0.46
26:14:1421:G:C2	26:14:1422:G:C8	3.04	0.46
26:14:1569:A:H2'	26:14:1570:A:O4'	2.15	0.46
26:14:1598:C:O3'	44:B5:35:THR:HG22	2.15	0.46
29:29:181:LEU:HD12	29:29:181:LEU:HA	1.77	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:69:77:LEU:HA	33:69:141:LYS:HB3	1.98	0.46
36:35:11:GLY:C	36:35:13:ASN:N	2.71	0.46
38:55:58:GLY:HA2	38:55:80:PHE:CE2	2.50	0.46
39:65:11:LYS:HE3	39:65:15:ARG:HH22	1.80	0.46
51:I5:42:PHE:O	51:I5:43:TYR:HB3	2.15	0.46
1:13:358:U:H2'	1:13:359:U:O4'	2.16	0.46
1:13:712:A:H2'	1:13:713:G:C8	2.50	0.46
1:13:891:U:H2'	1:13:892:A:H8	1.80	0.46
1:13:1139:G:H4'	1:13:1140:C:C5'	2.46	0.46
1:13:1298:C:H2'	7:6E:114:ARG:HH21	1.81	0.46
2:1E:69:LEU:HD13	2:1E:92:TYR:HA	1.98	0.46
4:3E:142:PRO:HB3	4:3E:186:LEU:O	2.16	0.46
13:4I:67:GLU:OE2	13:4I:68:GLY:N	2.48	0.46
13:4I:84:ILE:HG23	13:4I:86:CYS:H	1.79	0.46
22:1K:26:A:H61	22:1K:44:G:N2	2.13	0.46
23:2K:35:C:H5"	23:2K:36:A:OP2	2.16	0.46
24:3K:57:G:O5'	24:3K:57:G:H8	1.99	0.46
26:1H:270(J):G:H3'	26:1H:270(K):C:H6	1.81	0.46
26:1H:907:U:O2'	37:88:101:ARG:NH2	2.46	0.46
26:1H:2436:G:C6	26:1H:2437:U:C4	3.03	0.46
26:1H:2436:G:C5	26:1H:2437:U:C5	3.04	0.46
26:1H:2590:A:H2'	26:1H:2591:C:H6	1.79	0.46
26:1H:2712:U:H1'	26:1H:2712(A):A:C8	2.51	0.46
27:16:71:C:C2	27:16:72:G:C8	3.03	0.46
30:31:40:GLN:HE22	30:31:184:TYR:HB3	1.81	0.46
32:51:42:ARG:HB2	32:51:42:ARG:NH1	2.30	0.46
32:51:86:GLU:HB2	32:51:165:ALA:HB3	1.97	0.46
33:61:40:THR:O	33:61:44:LEU:HB2	2.16	0.46
34:58:132:ALA:O	34:58:134:ARG:NH2	2.49	0.46
37:88:87:LYS:HD3	37:88:87:LYS:HA	1.70	0.46
39:A8:95:HIS:O	39:A8:98:VAL:HG23	2.16	0.46
46:H8:75:ASN:O	46:H8:84:GLU:N	2.41	0.46
1:1G:37:U:O2'	1:1G:547:A:N1	2.42	0.46
1:1G:134:A:H61	16:7A:25:ARG:NH1	2.13	0.46
1:1G:259:G:H2'	1:1G:260:G:O4'	2.15	0.46
1:1G:438:G:H5'	4:32:123:HIS:HD2	1.81	0.46
1:1G:624:C:O3'	16:7A:10:GLY:HA2	2.16	0.46
1:1G:998:G:H22	1:1G:1043:C:H42	1.64	0.46
1:1G:1320:C:O2	19:AA:36:ARG:NH2	2.49	0.46
3:22:91:LEU:CB	3:22:99:VAL:HG11	2.45	0.46
8:72:64:LYS:O	8:72:79:VAL:HB	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6A:17:ARG:HD3	15:6A:26:GLU:HG3	1.98	0.46
16:7A:8:ARG:HD3	16:7A:17:TYR:CE1	2.51	0.46
20:BA:67:ALA:HA	20:BA:73:HIS:HA	1.97	0.46
26:14:212:G:H2'	26:14:213:A:O4'	2.16	0.46
26:14:300:A:N6	58:14:3654:HOH:O	2.38	0.46
26:14:1339:G:H21	26:14:1603:A:H1'	1.81	0.46
26:14:1889:A:N1	26:14:2234:G:H1'	2.31	0.46
26:14:2048:G:N7	58:14:3562:HOH:O	2.36	0.46
26:14:2419:U:H5'	53:K5:23:THR:HG21	1.97	0.46
27:1J:109:G:C5	27:1J:110:G:N7	2.84	0.46
31:49:27:ASN:HB3	31:49:30:GLU:HG3	1.98	0.46
1:13:300:A:H1'	1:13:565:U:O2	2.16	0.46
1:13:382:A:H2'	1:13:383:A:C8	2.51	0.46
1:13:435:C:H2'	1:13:436:C:H6	1.81	0.46
1:13:536:C:H2'	1:13:537:G:H8	1.77	0.46
1:13:819:A:H4'	1:13:820:U:OP2	2.16	0.46
1:13:1023:G:H3'	1:13:1024:G:C5'	2.42	0.46
1:13:1133:G:N2	1:13:1141:C:N3	2.56	0.46
1:13:1298:C:P	7:6E:114:ARG:HH22	2.39	0.46
2:1E:104:ASN:ND2	2:1E:107:THR:HB	2.13	0.46
6:5E:33:TYR:HB2	6:5E:75:LEU:HG	1.98	0.46
7:6E:104:LEU:HD13	7:6E:104:LEU:HA	1.81	0.46
9:8E:9:ARG:HB3	9:8E:14:VAL:HG22	1.97	0.46
13:4I:82:MET:HG2	13:4I:93:ARG:HG3	1.96	0.46
18:9I:53:ARG:HE	18:9I:59:SER:C	2.24	0.46
24:3K:24:G:C6	24:3K:25:C:N4	2.84	0.46
24:3K:25:C:N4	24:3K:26:A:C8	2.84	0.46
26:1H:66:C:H2'	26:1H:67:U:C6	2.51	0.46
26:1H:155:C:H5'	26:1H:161:U:OP2	2.16	0.46
26:1H:631:A:H61	26:1H:2402:C:H42	1.64	0.46
26:1H:654(C):G:H2'	26:1H:654(D):G:O4'	2.15	0.46
26:1H:1161:C:H1'	42:D8:8:GLY:O	2.16	0.46
26:1H:1591:G:O2'	26:1H:1592:C:H5'	2.15	0.46
26:1H:1709:U:H1'	26:1H:2860:A:N3	2.31	0.46
26:1H:2053:G:P	58:1H:3801:HOH:O	2.74	0.46
26:1H:2280:G:C2'	26:1H:2281:C:H5'	2.46	0.46
26:1H:2317:C:H2'	26:1H:2318:G:H5'	1.98	0.46
26:1H:2801:A:H2'	26:1H:2802:G:C4'	2.46	0.46
27:16:116:G:H2'	27:16:117:G:O4'	2.15	0.46
28:11:232:PRO:HB3	28:11:244:ARG:CZ	2.46	0.46
31:41:62:LEU:HD12	31:41:62:LEU:HA	1.68	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:51:105:LEU:HD23	32:51:105:LEU:N	2.31	0.46
33:61:81:VAL:HG21	33:61:88:ILE:HD13	1.96	0.46
45:G8:28:LYS:HD2	45:G8:40:GLU:HB3	1.97	0.46
46:H8:80:ARG:H	46:H8:80:ARG:HG2	1.60	0.46
46:H8:146:ILE:HA	46:H8:174:VAL:O	2.15	0.46
49:K8:42:GLY:C	49:K8:44:LEU:H	2.24	0.46
1:1G:570:G:H1'	1:1G:820:U:C4	2.51	0.46
1:1G:578:C:OP1	58:1G:1866:HOH:O	2.20	0.46
1:1G:1016:A:H3'	1:1G:1017:G:C8	2.52	0.46
1:1G:1323:G:H2'	1:1G:1324:A:C8	2.50	0.46
3:22:70:VAL:HG11	3:22:76:VAL:CG1	2.46	0.46
4:32:12:CYS:SG	4:32:18:LYS:HG3	2.56	0.46
5:42:31:LEU:HD22	5:42:43:LEU:HD11	1.98	0.46
5:42:68:GLU:OE2	5:42:70:PRO:HG3	2.16	0.46
8:72:39:LEU:HD12	8:72:39:LEU:HA	1.78	0.46
8:72:89:PRO:HA	8:72:92:ARG:HE	1.81	0.46
13:4A:84:ILE:C	13:4A:86:CYS:H	2.23	0.46
18:9A:61:LYS:O	18:9A:65:ILE:HG22	2.15	0.46
26:14:384:U:H2'	26:14:385:C:H6	1.80	0.46
26:14:863:A:H2'	26:14:864:G:C8	2.51	0.46
26:14:952:G:C6	26:14:966:G:C6	3.04	0.46
26:14:1153:C:OP1	41:85:93:LYS:NZ	2.47	0.46
26:14:1225:C:H4'	42:95:85:LYS:HG2	1.98	0.46
26:14:2016:U:H2'	26:14:2017:U:H6	1.79	0.46
26:14:2068:U:N3	26:14:2430:A:C2	2.76	0.46
26:14:2231:C:H2'	26:14:2232:U:O4'	2.16	0.46
26:14:2781:A:H5"	26:14:2782:G:H5'	1.98	0.46
27:1J:28:C:H42	27:1J:56:G:H1	1.62	0.46
28:19:132:PRO:HG3	28:19:190:TYR:CE1	2.51	0.46
30:39:41:LEU:HD23	30:39:41:LEU:HA	1.67	0.46
30:39:196:LEU:HD22	30:39:196:LEU:HA	1.82	0.46
37:45:22:LYS:HG2	37:45:23:GLY:CA	2.42	0.46
45:C5:20:TYR:CZ	45:C5:42:VAL:HA	2.51	0.46
45:C5:62:GLU:CD	45:C5:63:LYS:H	2.23	0.46
1:13:105:G:H2'	1:13:106:C:C6	2.50	0.45
1:13:142:G:H2'	1:13:143:A:C8	2.50	0.45
1:13:186(E):C:N4	1:13:191(B):G:H1	2.15	0.45
1:13:544:G:C5	1:13:545:C:C5	3.04	0.45
1:13:952:U:O4	13:4I:104:ARG:HD3	2.16	0.45
1:13:1073:U:H2'	1:13:1074:G:H8	1.81	0.45
1:13:1329:A:N7	21:1F:7:ARG:NH2	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:36:ARG:C	2:1E:38:GLY:H	2.24	0.45
5:4E:11:ILE:HD11	5:4E:31:LEU:HD22	1.98	0.45
8:7E:25:ASP:OD1	8:7E:60:ARG:HG3	2.16	0.45
25:4K:13:A:O2'	25:4K:14:A:OP1	2.33	0.45
26:1H:483:A:O2'	45:G8:59:GLY:HA2	2.16	0.45
26:1H:989:G:N7	50:L8:13:ILE:HD11	2.31	0.45
26:1H:1437:C:C2	26:1H:1438:U:C5	3.04	0.45
26:1H:2114:A:H2'	26:1H:2168:G:H5"	1.98	0.45
26:1H:2590:A:H2'	26:1H:2591:C:C6	2.52	0.45
28:11:119:ALA:CB	28:11:130:ALA:HB3	2.46	0.45
31:41:63:ILE:HD12	31:41:141:PHE:CE2	2.51	0.45
31:41:98:ARG:HA	31:41:101:ILE:HG23	1.97	0.45
31:41:99:MET:HG3	31:41:100:TRP:N	2.31	0.45
36:78:86:LYS:HB3	36:78:118:GLY:CA	2.45	0.45
38:98:28:LEU:HD23	38:98:28:LEU:HA	1.77	0.45
41:C8:75:ASN:HB2	41:C8:78:THR:OG1	2.16	0.45
43:E8:24:ILE:HD12	43:E8:24:ILE:O	2.16	0.45
46:H8:60:GLU:HB3	46:H8:61:LEU:H	1.46	0.45
47:I8:23:VAL:HG13	47:I8:38:VAL:HG23	1.97	0.45
47:I8:53:MET:HG3	47:I8:59:LEU:CD2	2.46	0.45
1:1G:90:C:H2'	1:1G:91:C:C6	2.51	0.45
1:1G:618:C:H5'	1:1G:619:U:H5"	1.98	0.45
1:1G:801:U:H2'	1:1G:802:A:C8	2.51	0.45
1:1G:826:C:H2'	1:1G:827:U:C6	2.51	0.45
1:1G:857:C:H2'	1:1G:858:G:O4'	2.16	0.45
1:1G:1157:A:H4'	1:1G:1158:C:O5'	2.17	0.45
3:22:27:LYS:HB2	3:22:28:GLN:NE2	2.31	0.45
4:32:153:ARG:NH1	4:32:181:MET:HB2	2.31	0.45
8:72:114:THR:OG1	8:72:115:SER:N	2.49	0.45
11:2A:85:ARG:HA	11:2A:112:THR:OG1	2.16	0.45
13:4A:13:LYS:NZ	13:4A:21:TYR:OH	2.49	0.45
26:14:17:G:H4'	41:85:25:TRP:CH2	2.52	0.45
26:14:443:A:H2	26:14:1245:G:N3	2.14	0.45
26:14:847:U:H5'	26:14:848:G:OP2	2.16	0.45
26:14:1005:C:O2'	34:15:28:THR:HG21	2.16	0.45
26:14:1011:G:C2	26:14:1151:G:C2	3.04	0.45
26:14:1049:C:H42	26:14:2751:G:H1	1.64	0.45
26:14:1786:A:H2	26:14:2606:C:H1'	1.81	0.45
26:14:2002:G:C6	58:14:3797:HOH:O	2.69	0.45
26:14:2212:A:H1'	26:14:2215:G:C5	2.51	0.45
26:14:2346:A:C2	26:14:2383:G:C2	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2393:A:C2'	26:14:2394:C:H5'	2.45	0.45
27:1J:99:A:H3'	58:1J:309:HOH:O	2.16	0.45
27:1J:103:U:O2'	46:D5:29:TYR:OH	2.32	0.45
32:59:54:ARG:NH2	32:59:57:ASP:OD1	2.36	0.45
36:35:63:PRO:HA	55:M5:13:ARG:HA	1.98	0.45
41:85:21:ALA:HA	41:85:24:TYR:CE2	2.51	0.45
49:G5:31:GLU:HB2	49:G5:53:LEU:HD11	1.98	0.45
1:13:41:G:H2'	1:13:42:G:C8	2.51	0.45
1:13:741:G:H2'	1:13:742:G:O4'	2.16	0.45
1:13:825:G:C6	1:13:826:C:C4	3.05	0.45
1:13:1057:G:C5	1:13:1204:A:C2	3.04	0.45
1:13:1113:C:H2'	1:13:1114:C:H6	1.81	0.45
7:6E:15:ASP:O	7:6E:19:GLY:HA2	2.15	0.45
8:7E:42:GLU:HG3	8:7E:109:ILE:HD12	1.98	0.45
9:8E:118:LYS:O	9:8E:119:ALA:HB3	2.17	0.45
20:BI:49:ALA:HB1	20:BI:99:LEU:HB2	1.98	0.45
23:2K:67:C:H2'	23:2K:68:C:O4'	2.15	0.45
24:3K:19:G:O2'	24:3K:57:G:N3	2.47	0.45
26:1H:654(D):G:H1	26:1H:654(Q):C:N4	2.08	0.45
26:1H:674:G:H1'	30:31:74:ARG:HH11	1.81	0.45
26:1H:1170:G:N2	26:1H:1180:C:O2	2.50	0.45
26:1H:1358:G:N2	26:1H:1372:U:C5	2.84	0.45
26:1H:1412:A:H2'	26:1H:1413:G:H8	1.77	0.45
26:1H:1748:G:H2'	26:1H:1749:A:H8	1.81	0.45
26:1H:1776:G:OP2	58:1H:3656:HOH:O	2.21	0.45
26:1H:2418:A:OP2	55:Q8:39:LYS:NZ	2.41	0.45
26:1H:2531:A:H5'	32:51:157:TYR:CZ	2.52	0.45
26:1H:2590:A:C2	26:1H:2605:U:C2	3.05	0.45
29:21:49:LEU:HD12	29:21:49:LEU:HA	1.72	0.45
30:31:174:VAL:CG1	30:31:189:THR:HG21	2.47	0.45
34:58:10:GLU:HG3	34:58:11:PRO:HD2	1.99	0.45
39:A8:47:THR:HG22	39:A8:48:LEU:N	2.31	0.45
42:D8:21:ARG:HG2	42:D8:91:TYR:HE2	1.80	0.45
50:L8:10:LYS:HB3	50:L8:53:LEU:HD23	1.98	0.45
51:M8:15:ILE:HG22	51:M8:16:CYS:H	1.81	0.45
1:1G:433:C:H2'	1:1G:434:U:H6	1.78	0.45
1:1G:591:U:OP2	8:72:30:ARG:HD3	2.17	0.45
1:1G:661:G:H1	1:1G:744:C:H42	1.64	0.45
1:1G:1086:U:H3	1:1G:1099:G:H22	1.64	0.45
1:1G:1129:C:N4	1:1G:1142:G:O6	2.35	0.45
1:1G:1517:G:C6	1:1G:1518:A:C5	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:127:ASN:OD1	5:42:130:ASN:ND2	2.47	0.45
9:82:95:LYS:HE2	9:82:95:LYS:HB2	1.77	0.45
13:4A:78:ILE:HA	13:4A:81:LEU:HD12	1.98	0.45
15:6A:4:THR:OG1	15:6A:7:GLU:HB2	2.17	0.45
16:7A:49:LEU:HD12	16:7A:50:LYS:N	2.31	0.45
16:7A:72:ARG:HD2	16:7A:73:LEU:HD23	1.98	0.45
26:14:150:C:H42	26:14:176:G:H1	1.63	0.45
26:14:747:U:O2	26:14:2014:A:H1'	2.16	0.45
26:14:784:A:C8	26:14:792:G:C5	3.05	0.45
26:14:972:G:OP2	26:14:974:G:H5"	2.16	0.45
26:14:1060:U:H5"	26:14:1061:U:C6	2.50	0.45
26:14:1093:G:N1	26:14:1097:U:OP2	2.48	0.45
26:14:1164:G:H1	26:14:1185:C:H42	1.63	0.45
26:14:1813:G:H1'	28:19:50:THR:OG1	2.16	0.45
26:14:2666:C:H3'	26:14:2667:C:C6	2.51	0.45
26:14:2805:G:H2'	26:14:2807:G:H8	1.81	0.45
26:14:2882:A:H5'	38:55:96:ARG:HG3	1.97	0.45
27:1J:87:G:N2	27:1J:89:G:H3'	2.31	0.45
28:19:94:LEU:HD23	28:19:94:LEU:HA	1.77	0.45
29:29:100:GLU:O	29:29:172:VAL:HG23	2.16	0.45
30:39:27:GLU:O	30:39:28:ILE:HG12	2.16	0.45
30:39:200:GLU:O	30:39:203:GLN:HB2	2.16	0.45
35:25:3:GLN:HB2	35:25:4:PRO:HD2	1.97	0.45
38:55:79:LEU:HA	38:55:83:ILE:HB	1.98	0.45
42:95:85:LYS:HG3	42:95:87:HIS:CA	2.46	0.45
1:13:448:A:OP2	1:13:485:G:N2	2.33	0.45
1:13:515:G:N7	58:13:1869:HOH:O	2.36	0.45
1:13:685:G:O2'	1:13:686:U:H5'	2.16	0.45
1:13:724:G:O2'	1:13:725:G:H5'	2.16	0.45
1:13:973:G:OP1	10:1I:57:LYS:HD3	2.16	0.45
1:13:1020:U:H2'	1:13:1021:G:C8	2.52	0.45
1:13:1312:G:H5'	19:AI:6:LYS:CD	2.46	0.45
2:1E:36:ARG:HA	2:1E:36:ARG:HD2	1.81	0.45
6:5E:62:TRP:CE2	18:9I:35:ARG:NH2	2.85	0.45
8:7E:85:ARG:HD3	8:7E:86:ILE:O	2.16	0.45
10:1I:17:ASP:O	10:1I:21:GLN:HG2	2.16	0.45
19:AI:40:ILE:O	19:AI:41:VAL:HG22	2.16	0.45
19:AI:78:ARG:H	19:AI:78:ARG:NE	2.04	0.45
26:1H:2111:C:O2'	26:1H:2119:A:OP1	2.34	0.45
26:1H:2690:C:H5"	26:1H:2872:G:N2	2.29	0.45
30:31:6:VAL:N	30:31:24:LEU:HB3	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:31:32:LEU:HD22	30:31:105:VAL:HG13	1.98	0.45
30:31:119:ARG:HE	30:31:119:ARG:HB3	1.58	0.45
38:98:72:ASP:OD2	38:98:75:LEU:HB2	2.16	0.45
39:A8:11:LYS:O	39:A8:15:ARG:HB2	2.16	0.45
46:H8:44:PHE:CD1	46:H8:44:PHE:C	2.94	0.45
55:Q8:21:LYS:HD2	55:Q8:21:LYS:HA	1.70	0.45
55:Q8:22:VAL:HG22	55:Q8:47:LYS:NZ	2.31	0.45
55:Q8:34:TRP:CB	55:Q8:35:GLN:CA	2.92	0.45
1:1G:1072:G:H2'	1:1G:1073:U:C6	2.52	0.45
2:12:105:PHE:HA	2:12:108:ILE:HB	1.97	0.45
3:22:37:GLN:O	3:22:40:ARG:HG3	2.17	0.45
8:72:82:HIS:HB3	8:72:138:TRP:CZ3	2.51	0.45
10:1A:35:SER:HB3	10:1A:73:ASP:HB2	1.97	0.45
17:8A:3:LYS:HB3	17:8A:61:GLU:HB3	1.98	0.45
17:8A:87:LYS:O	17:8A:91:ARG:HG3	2.16	0.45
22:1L:72:C:H2'	22:1L:73:A:H5"	1.99	0.45
26:14:307:G:O2'	26:14:309:G:N7	2.48	0.45
26:14:307:G:H21	26:14:330:A:H62	1.63	0.45
26:14:311:A:C6	26:14:328:U:C4	3.05	0.45
26:14:342:G:H2'	26:14:343:C:H6	1.81	0.45
26:14:484:C:H2'	26:14:485:C:H6	1.82	0.45
26:14:690:G:O2'	28:19:43:ARG:NH2	2.49	0.45
26:14:906:G:OP1	37:45:140:ALA:HB3	2.16	0.45
26:14:1131:G:C2	26:14:1132:A:C4	3.05	0.45
26:14:1225:C:H4'	42:95:85:LYS:CG	2.45	0.45
26:14:1235:G:C6	26:14:1236:G:N1	2.84	0.45
26:14:1364:G:OP2	48:F5:2:SER:N	2.48	0.45
26:14:1648:C:H42	26:14:2009:G:H1	1.64	0.45
26:14:1751:C:O2'	26:14:1752:C:H5'	2.15	0.45
26:14:2762:G:H5'	26:14:2763:G:OP2	2.15	0.45
27:1J:116:G:C5'	39:65:55:ALA:HB2	2.46	0.45
29:29:5:LEU:HD23	29:29:51:PHE:HB2	1.98	0.45
29:29:13:ARG:HA	29:29:21:VAL:O	2.16	0.45
30:39:63:LYS:HE2	30:39:67:GLN:HB3	1.98	0.45
35:25:10:VAL:CG1	35:25:19:ILE:HG23	2.46	0.45
37:45:19:GLY:O	37:45:99:PRO:HD2	2.16	0.45
39:65:31:SER:OG	39:65:34:HIS:N	2.48	0.45
40:75:19:LEU:HB3	40:75:86:ILE:CG2	2.46	0.45
46:D5:24:LEU:HD12	46:D5:25:PRO:O	2.16	0.45
48:F5:82:LEU:HB2	48:F5:83:GLU:H	1.59	0.45
51:I5:37:SER:OG	51:I5:38:LYS:N	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:22:G:H2'	1:13:23:C:H6	1.80	0.45
1:13:153:C:H42	1:13:168:G:H1	1.63	0.45
1:13:222:U:C2	1:13:223:U:C5	3.05	0.45
1:13:263:A:OP2	20:BI:79:ARG:NH1	2.49	0.45
1:13:468:A:O2'	16:7I:82:GLN:HG2	2.17	0.45
1:13:540:G:H2'	1:13:541:G:O4'	2.16	0.45
1:13:555:C:OP2	12:3I:20:LYS:NZ	2.48	0.45
1:13:1028:C:H42	1:13:1033:G:H1	1.64	0.45
1:13:1074:G:C2	1:13:1075:C:C2	3.05	0.45
1:13:1164:G:C6	1:13:1165:C:C4	3.04	0.45
1:13:1513:A:H2'	1:13:1514:C:C6	2.51	0.45
2:1E:189:ASP:HB3	2:1E:191:ASP:H	1.82	0.45
2:1E:210:SER:O	2:1E:214:ILE:HG12	2.16	0.45
3:2E:149:ALA:HA	3:2E:201:TYR:O	2.15	0.45
6:5E:100:ASN:ND2	18:9I:26:LEU:O	2.49	0.45
8:7E:38:ILE:HD11	8:7E:118:VAL:O	2.17	0.45
19:AI:51:VAL:HG12	19:AI:52:TYR:N	2.31	0.45
22:1K:74:C:H1'	22:1K:75:C:H5'	1.96	0.45
23:2K:77:A:O2'	26:1H:2602:A:N7	2.39	0.45
26:1H:29:U:H2'	26:1H:30:G:H8	1.82	0.45
26:1H:270(K):C:O2'	26:1H:270(M):U:OP1	2.17	0.45
26:1H:721:C:H2'	26:1H:722:A:C8	2.51	0.45
26:1H:881:G:H5'	26:1H:882:G:O5'	2.15	0.45
26:1H:1108:U:O4	26:1H:1109:C:N4	2.49	0.45
26:1H:1204:A:N1	26:1H:1241:A:H2	2.14	0.45
26:1H:1312:U:H4'	26:1H:1313:U:O5'	2.17	0.45
26:1H:1471:A:C2	26:1H:1472:A:C8	3.04	0.45
26:1H:1500:G:O2'	28:11:100:GLY:O	2.30	0.45
26:1H:1888:G:H5'	26:1H:1889:A:OP1	2.16	0.45
26:1H:2208:U:H4'	28:11:151:LYS:HG2	1.97	0.45
26:1H:2542:A:H4'	26:1H:2543:G:H8	1.80	0.45
26:1H:2859:G:C6	26:1H:2860:A:N6	2.85	0.45
28:11:136:ILE:H	28:11:136:ILE:HG12	1.61	0.45
29:21:47:VAL:O	29:21:80:GLU:HA	2.16	0.45
33:61:79:ILE:HD13	33:61:79:ILE:HA	1.73	0.45
36:78:94:GLU:OE1	36:78:124:LYS:HD3	2.17	0.45
1:1G:8:A:N6	4:32:209:ARG:HB2	2.30	0.45
1:1G:646:U:H2'	1:1G:647:C:C6	2.50	0.45
1:1G:926:G:C6	1:1G:1505:G:C5	3.04	0.45
1:1G:1072:G:C2	1:1G:1073:U:C2	3.05	0.45
1:1G:1198:G:H2'	1:1G:1199:U:C6	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1228:C:H5'	13:4A:114:ARG:HB3	1.99	0.45
7:62:21:VAL:O	7:62:24:THR:HB	2.17	0.45
7:62:26:PHE:CD2	7:62:30:ILE:HD11	2.52	0.45
13:4A:7:VAL:HG11	31:49:115:ARG:HE	1.81	0.45
19:AA:12:ASP:OD1	19:AA:12:ASP:N	2.47	0.45
22:1L:73:A:O3'	22:1L:74:C:H3'	2.17	0.45
24:3L:9:A:OP1	24:3L:46:G:O2'	2.29	0.45
26:14:2:G:N2	26:14:2901:C:H42	2.14	0.45
26:14:2074:U:P	58:14:3403:HOH:O	2.70	0.45
26:14:2453:A:H2'	26:14:2454:G:O4'	2.16	0.45
26:14:2655:G:O2'	26:14:2664:G:O6	2.32	0.45
26:14:2751:G:N1	32:59:2:SER:HB3	2.30	0.45
29:29:128:SER:OG	29:29:129:HIS:N	2.49	0.45
29:29:195:LEU:HD12	29:29:195:LEU:HA	1.76	0.45
30:39:132:VAL:HG22	30:39:133:ASN:OD1	2.16	0.45
31:49:81:LYS:HB3	31:49:82:LEU:H	1.55	0.45
38:55:29:LEU:HD23	38:55:70:LEU:HD11	1.98	0.45
39:65:102:ALA:O	39:65:105:ALA:N	2.49	0.45
45:C5:75:ILE:HG23	45:C5:76:CYS:N	2.32	0.45
46:D5:151:HIS:HB2	46:D5:154:ASP:CG	2.42	0.45
55:M5:59:LYS:C	55:M5:60:LEU:HG	2.41	0.45
1:13:687:A:C2'	1:13:701:C:H41	2.30	0.45
1:13:881:G:P	12:3I:12:ARG:HH22	2.38	0.45
1:13:1206:G:C6	1:13:1207:G:C5	3.04	0.45
1:13:1274:G:H2'	1:13:1275:A:H8	1.80	0.45
1:13:1399:C:O2	58:13:1909:HOH:O	2.18	0.45
3:2E:24:ALA:HB2	3:2E:32:LEU:HD12	1.98	0.45
5:4E:54:ALA:HA	5:4E:57:LYS:HG3	1.98	0.45
7:6E:120:ILE:O	7:6E:124:LEU:HB2	2.17	0.45
8:7E:104:ARG:HD2	8:7E:138:TRP:CG	2.52	0.45
8:7E:122:ARG:O	8:7E:126:LYS:HG3	2.16	0.45
11:2I:21:ILE:HG13	11:2I:30:VAL:HG12	1.97	0.45
12:3I:84:LEU:HB2	12:3I:105:TYR:CE2	2.52	0.45
20:BI:39:LYS:HB2	20:BI:55:ILE:HG21	1.97	0.45
20:BI:73:HIS:HB3	20:BI:74:LYS:HG3	1.99	0.45
22:1K:74:C:O2'	22:1K:75:C:C6	2.70	0.45
26:1H:1296:G:OP1	26:1H:2709:G:O2'	2.31	0.45
26:1H:2161:C:H2'	26:1H:2162:G:C8	2.48	0.45
26:1H:2208:U:O2'	26:1H:2209:C:H5'	2.16	0.45
26:1H:2820:A:O2'	26:1H:2821:A:OP1	2.34	0.45
30:31:198:ALA:O	30:31:201:VAL:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:51:4:ILE:O	32:51:4:ILE:HG12	2.16	0.45
38:98:55:ALA:HA	38:98:80:PHE:HE1	1.78	0.45
40:B8:39:ARG:HD2	40:B8:40:THR:H	1.82	0.45
44:F8:82:GLN:HE21	44:F8:83:VAL:N	2.14	0.45
52:N8:40:LYS:HD3	52:N8:46:CYS:SG	2.56	0.45
53:O8:11:LEU:O	53:O8:23:THR:HB	2.17	0.45
1:1G:406:G:H5'	4:32:5:ILE:HG22	1.97	0.45
1:1G:411:A:N7	1:1G:413:G:N3	2.64	0.45
1:1G:1117:G:O3'	9:82:104:ARG:HD2	2.16	0.45
1:1G:1272:G:N3	1:1G:1273:G:H1'	2.31	0.45
3:22:90:GLU:OE2	3:22:93:LYS:HD2	2.16	0.45
3:22:173:VAL:HG12	3:22:175:LEU:HG	1.99	0.45
26:14:16:G:H2'	26:14:17:G:H8	1.82	0.45
26:14:601:C:O2	26:14:605:C:H4'	2.17	0.45
26:14:783:A:H8	26:14:784:A:H4'	1.80	0.45
26:14:797:C:H2'	26:14:798:G:O4'	2.15	0.45
26:14:1423:G:OP1	26:14:1492:G:O2'	2.31	0.45
26:14:1754:C:H5	40:75:96:ARG:NH2	2.15	0.45
26:14:1885:A:H5'	26:14:1886:C:OP2	2.16	0.45
26:14:1971:A:H1'	28:19:240:ALA:O	2.16	0.45
26:14:2748:A:H2'	26:14:2749:A:H8	1.82	0.45
27:1J:45:A:N3	27:1J:45:A:H2'	2.30	0.45
27:1J:61:G:C6	27:1J:62:C:C4	3.04	0.45
28:19:213:ARG:HA	28:19:213:ARG:HD2	1.73	0.45
31:49:41:GLN:HB3	31:49:43:LEU:HD21	1.98	0.45
33:69:69:LYS:O	33:69:73:GLU:HB2	2.16	0.45
34:15:67:LEU:HD23	34:15:88:GLU:HG2	1.98	0.45
36:35:97:PRO:HG3	36:35:112:LEU:HD12	1.98	0.45
37:45:43:THR:O	37:45:46:GLN:HB2	2.17	0.45
39:65:11:LYS:O	39:65:15:ARG:HG2	2.16	0.45
44:B5:32:PRO:HA	44:B5:77:LYS:HB2	1.98	0.45
46:D5:19:ARG:HE	46:D5:19:ARG:HB2	1.34	0.45
50:H5:12:PRO:HB2	50:H5:20:LYS:HG2	1.98	0.45
1:13:22:G:H4'	1:13:885:G:C8	2.52	0.45
1:13:189:U:O2	17:8I:63:ARG:NH2	2.49	0.45
1:13:223:U:H2'	1:13:224:C:O4'	2.17	0.45
1:13:565:U:H3'	1:13:566:G:H2'	1.98	0.45
1:13:591:U:H2'	1:13:592:G:C8	2.52	0.45
1:13:724:G:N3	1:13:725:G:C8	2.85	0.45
1:13:939:G:C6	1:13:940:C:C4	3.04	0.45
1:13:963:G:N2	1:13:972:C:C2	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:964:A:N3	1:13:969:A:O2'	2.46	0.45
1:13:1015:A:H2'	1:13:1016:A:C8	2.52	0.45
1:13:1081:G:H2'	1:13:1082:G:C8	2.51	0.45
6:5E:97:PHE:O	18:9I:31:LEU:HD23	2.16	0.45
8:7E:39:LEU:HD13	8:7E:111:ILE:HD11	1.99	0.45
9:8E:42:ARG:HE	9:8E:42:ARG:HB2	1.37	0.45
17:8I:29:HIS:O	17:8I:33:GLY:N	2.36	0.45
26:1H:244:A:H4'	36:78:74:GLU:HB3	1.97	0.45
26:1H:396:G:C8	48:J8:13:ILE:HD11	2.52	0.45
26:1H:527:C:N4	26:1H:2777:G:O2'	2.50	0.45
26:1H:530:G:N3	26:1H:530:G:O4'	2.49	0.45
26:1H:562:U:C4	26:1H:2036:C:O4'	2.69	0.45
26:1H:719:C:H2'	26:1H:720:C:H6	1.81	0.45
26:1H:751:A:C6	26:1H:789:A:C5	3.05	0.45
26:1H:1001:A:H2'	26:1H:1002:G:O4'	2.16	0.45
26:1H:1766:U:H2'	26:1H:1767:C:C6	2.51	0.45
26:1H:1858:G:C6	26:1H:1883:G:C6	3.04	0.45
26:1H:2153:G:H2'	26:1H:2154:G:O4'	2.16	0.45
26:1H:2347:C:OP2	55:Q8:36:LYS:HE3	2.16	0.45
26:1H:2427:C:H5"	26:1H:2428:G:OP1	2.16	0.45
26:1H:2636:U:P	29:21:79:ARG:HA	2.56	0.45
26:1H:2645:G:C3'	26:1H:2646:C:H5'	2.46	0.45
29:21:57:LYS:HE2	29:21:59:VAL:HG12	1.98	0.45
32:51:170:ARG:HD3	32:51:170:ARG:HA	1.54	0.45
38:98:9:LYS:HA	38:98:17:ARG:NE	2.32	0.45
40:B8:112:ARG:HA	40:B8:115:ARG:NE	2.32	0.45
47:I8:53:MET:HG3	47:I8:59:LEU:HD23	1.97	0.45
1:1G:219:C:H2'	1:1G:220:G:O4'	2.17	0.45
1:1G:309:G:O2'	1:1G:607:A:N1	2.50	0.45
1:1G:438:G:H4'	4:32:123:HIS:HD2	1.82	0.45
1:1G:591:U:H2'	1:1G:592:G:C8	2.51	0.45
1:1G:860:A:H2'	1:1G:861:G:O4'	2.16	0.45
1:1G:967:C:H2'	1:1G:968:A:C8	2.51	0.45
1:1G:1310:G:H5'	13:4A:77:ASN:ND2	2.23	0.45
1:1G:1386:G:C2	1:1G:1387:G:C8	3.05	0.45
3:22:36:ASP:OD1	3:22:57:ILE:HG21	2.16	0.45
4:32:81:GLU:O	4:32:85:LYS:HB2	2.16	0.45
12:3A:69:TYR:HB2	12:3A:96:VAL:HG11	1.99	0.45
15:6A:53:HIS:O	15:6A:56:LEU:HB3	2.15	0.45
17:8A:45:HIS:NE2	17:8A:47:PRO:HB3	2.31	0.45
20:BA:56:MET:HE2	20:BA:56:MET:HB3	1.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BA:56:MET:HG2	20:BA:84:LEU:HD13	1.99	0.45
23:2L:32:G:C4	23:2L:33:OMC:C5	3.05	0.45
26:14:1011:G:N3	26:14:1151:G:C2	2.85	0.45
26:14:1069:A:H4'	26:14:1070:A:H5"	1.98	0.45
26:14:1321:A:H2'	26:14:1322:A:O4'	2.16	0.45
26:14:1386:C:OP2	26:14:1396:U:H5	1.99	0.45
26:14:1420:U:O2'	26:14:1421:G:OP1	2.29	0.45
26:14:1590:U:H2'	26:14:1591:G:C8	2.52	0.45
26:14:1784:A:H4'	26:14:1785:A:C5'	2.46	0.45
26:14:2529:G:H21	26:14:2529:G:P	2.38	0.45
27:1J:44:G:C2	27:1J:48:A:C2	3.04	0.45
27:1J:99:A:C5	27:1J:100:G:C8	3.04	0.45
29:29:51:PHE:O	29:29:74:PRO:HB2	2.16	0.45
29:29:103:ASP:OD1	29:29:201:THR:HG23	2.16	0.45
36:35:88:LEU:HD22	36:35:114:ILE:HD13	1.97	0.45
39:65:54:LEU:HA	39:65:54:LEU:HD12	1.77	0.45
45:C5:87:LYS:CG	45:C5:88:LYS:H	2.30	0.45
46:D5:61:LEU:HB3	46:D5:62:PRO:O	2.16	0.45
1:13:555:C:P	12:3I:20:LYS:NZ	2.90	0.45
1:13:826:C:H4'	8:7E:12:ARG:HG2	1.99	0.45
1:13:861:G:H4'	8:7E:18:ARG:HH21	1.82	0.45
1:13:994:A:C8	1:13:1216:G:H4'	2.51	0.45
1:13:1365:G:H2'	1:13:1366:C:H6	1.82	0.45
1:13:1425:U:H2'	1:13:1426:C:H6	1.82	0.45
3:2E:195:VAL:C	3:2E:196:LEU:HD23	2.42	0.45
6:5E:35:ALA:HB1	6:5E:65:VAL:HG21	1.98	0.45
9:8E:125:TYR:HD1	9:8E:126:SER:H	1.63	0.45
12:3I:8:ASN:HA	12:3I:11:VAL:HG23	1.98	0.45
21:1F:2:GLY:O	21:1F:4:GLY:N	2.50	0.45
23:2K:37:U:H2'	23:2K:38:A:O4'	2.17	0.45
26:1H:26:G:OP1	43:E8:80:PRO:HB3	2.16	0.45
26:1H:287:C:H2'	26:1H:288:C:H6	1.82	0.45
26:1H:302:C:H2'	26:1H:303:U:H6	1.82	0.45
26:1H:323:G:C2	26:1H:333:G:H1'	2.51	0.45
26:1H:1392:A:C6	26:1H:1393:A:N1	2.85	0.45
26:1H:1405:U:H2'	26:1H:1406:U:H6	1.78	0.45
26:1H:1511:A:H2'	26:1H:1512:G:O4'	2.17	0.45
26:1H:1537:C:O5'	26:1H:1537:C:H6	1.99	0.45
26:1H:2373:G:H1	26:1H:2380:C:H42	1.63	0.45
26:1H:2672:G:H5"	26:1H:2672:G:H8	1.81	0.45
26:1H:2712:U:O2'	26:1H:2713:A:H5'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:69:G:C5	27:16:70:C:C5	3.04	0.45
28:11:20:ASP:OD2	28:11:22:SER:HB2	2.17	0.45
30:31:176:LEU:HB3	30:31:177:ALA:O	2.17	0.45
31:41:67:LYS:HE2	31:41:67:LYS:N	2.32	0.45
37:88:63:LYS:HE2	37:88:65:PHE:CZ	2.52	0.45
38:98:117:VAL:HG13	38:98:118:GLU:N	2.31	0.45
40:B8:26:ASP:HB3	40:B8:92:GLY:N	2.18	0.45
43:E8:33:ARG:NE	43:E8:52:GLU:OE1	2.50	0.45
49:K8:15:LYS:H	49:K8:67:LYS:HZ3	1.64	0.45
55:Q8:33:ASN:ND2	55:Q8:33:ASN:O	2.50	0.45
1:1G:415:A:C5	1:1G:416:G:C5	3.05	0.45
1:1G:619:U:O2	4:32:135:LEU:HD22	2.17	0.45
1:1G:1127:G:C6	1:1G:1145:C:N3	2.85	0.45
4:32:199:ASN:C	4:32:201:GLN:H	2.25	0.45
12:3A:35:GLY:HA3	12:3A:58:VAL:CG1	2.47	0.45
24:3L:36:A:H2'	24:3L:37:A:N7	2.32	0.45
26:14:223:A:N1	26:14:407:G:O2'	2.40	0.45
26:14:635:C:H2'	26:14:636:G:O4'	2.16	0.45
26:14:775:G:C5	26:14:794:G:C8	3.04	0.45
26:14:1171:G:O2'	26:14:1173:G:OP2	2.35	0.45
26:14:1338:G:N3	26:14:1393:A:H2	2.14	0.45
26:14:1627:G:OP2	58:14:3836:HOH:O	2.21	0.45
26:14:2262:U:O2'	26:14:2263:C:H5'	2.16	0.45
30:39:165:ARG:HA	30:39:168:ARG:HH11	1.81	0.45
34:15:15:LEU:HD22	34:15:53:VAL:HB	1.99	0.45
34:15:16:ILE:HB	34:15:54:VAL:HG22	1.99	0.45
39:65:88:ASP:HB3	39:65:89:ARG:H	1.44	0.45
41:85:59:ARG:O	41:85:63:VAL:HG23	2.16	0.45
42:95:80:GLN:CD	42:95:81:TYR:H	2.24	0.45
43:A5:59:VAL:HG12	43:A5:60:ASN:ND2	2.31	0.45
45:C5:73:ARG:NH2	45:C5:82:PRO:O	2.49	0.45
54:L5:34:ARG:HB3	54:L5:42:LEU:HD22	1.99	0.45
1:13:625:G:H4'	16:7I:16:HIS:CD2	2.51	0.45
1:13:737:A:C4	1:13:738:C:C5	3.05	0.45
1:13:760:G:H2'	1:13:761:G:H5'	1.99	0.45
1:13:909:A:H2'	1:13:910:C:O4'	2.16	0.45
1:13:922:G:H1'	5:4E:19:MET:HB2	1.98	0.45
1:13:1412:C:N4	1:13:1488:G:H1	2.13	0.45
4:3E:9:CYS:HB3	4:3E:32:ALA:CB	2.44	0.45
4:3E:107:ARG:HH22	4:3E:194:LEU:CD2	2.19	0.45
14:5I:42:ILE:O	14:5I:46:GLU:HG3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:5I:50:LYS:HB3	14:5I:50:LYS:HE3	1.66	0.45
19:AI:37:ARG:H	19:AI:37:ARG:HG3	1.36	0.45
20:BI:48:LYS:HE3	20:BI:48:LYS:HB3	1.73	0.45
26:1H:325:G:H2'	26:1H:326:G:C8	2.52	0.45
26:1H:880:G:O2'	26:1H:881:G:O5'	2.27	0.45
26:1H:889:C:H3'	26:1H:890:A:H4'	1.99	0.45
26:1H:1018:C:O3'	26:1H:1120:G:N2	2.50	0.45
26:1H:1207:C:H2'	26:1H:1208:C:H6	1.81	0.45
26:1H:1259:G:O2'	26:1H:1260:G:H5'	2.17	0.45
26:1H:1538:G:H2'	26:1H:1539:G:H8	1.82	0.45
26:1H:2062:A:N6	26:1H:2503:A:H62	2.15	0.45
26:1H:2287:A:C2	26:1H:2346:A:C2	3.05	0.45
29:21:27:LEU:HD13	40:B8:1:MET:HE1	1.97	0.45
29:21:105:THR:HG21	29:21:164:ARG:CZ	2.46	0.45
30:31:197:ASP:O	30:31:199:TRP:N	2.49	0.45
31:41:178:PHE:O	31:41:180:PHE:HD1	2.00	0.45
33:61:30:LEU:HD23	33:61:30:LEU:HA	1.81	0.45
33:61:85:GLU:OE2	33:61:85:GLU:HA	2.17	0.45
37:88:52:VAL:HA	37:88:55:VAL:HG13	1.98	0.45
39:A8:25:ARG:HH12	39:A8:42:ASP:CG	2.25	0.45
39:A8:70:GLY:HA2	39:A8:101:LEU:HD13	1.98	0.45
40:B8:50:ILE:HD11	40:B8:102:ILE:HD11	1.97	0.45
40:B8:107:ASP:O	40:B8:111:ARG:NH1	2.50	0.45
41:C8:75:ASN:HB3	41:C8:77:SER:N	2.32	0.45
44:F8:82:GLN:NE2	44:F8:82:GLN:HA	2.31	0.45
46:H8:40:ASP:OD1	46:H8:43:GLU:HG3	2.17	0.45
52:N8:33:CYS:SG	52:N8:40:LYS:HD3	2.56	0.45
1:1G:8:A:C5	4:32:209:ARG:HB2	2.51	0.45
1:1G:129(A):G:C6	1:1G:188:U:H4'	2.51	0.45
1:1G:177:C:H2'	1:1G:178:C:H6	1.82	0.45
1:1G:310:G:P	16:7A:27:LYS:HD3	2.56	0.45
1:1G:427:U:H3'	1:1G:428:G:H2'	1.98	0.45
1:1G:1149:C:H2'	1:1G:1150:U:C6	2.51	0.45
6:52:7:ASN:ND2	18:9A:76:LEU:HD11	2.28	0.45
10:1A:16:LEU:HD23	10:1A:16:LEU:HA	1.84	0.45
17:8A:10:VAL:HG21	17:8A:52:LYS:O	2.17	0.45
23:2L:5:G:H2'	23:2L:6:G:O4'	2.17	0.45
24:3L:44:G:H2'	24:3L:45:U:O4'	2.16	0.45
26:14:193:U:H5	58:14:4102:HOH:O	1.98	0.45
26:14:315:G:H2'	26:14:316:C:H6	1.81	0.45
26:14:439:G:H2'	26:14:440:G:H8	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1348:G:H2'	26:14:1348:G:N3	2.32	0.45
26:14:1614:A:H61	43:A5:88:ARG:H	1.63	0.45
26:14:2400:G:H3'	26:14:2401:U:H6	1.80	0.45
26:14:2469:A:H2	26:14:2481:G:N2	2.15	0.45
27:1J:48:A:H4'	39:65:95:HIS:CD2	2.52	0.45
28:19:237:GLU:HB3	28:19:238:GLY:H	1.59	0.45
29:29:178:GLU:H	29:29:178:GLU:CD	2.23	0.45
33:69:111:PRO:O	33:69:112:LYS:C	2.60	0.45
43:A5:72:LYS:HB3	43:A5:106:ILE:HG13	1.99	0.45
48:F5:73:LEU:HB3	48:F5:90:ILE:HG22	1.99	0.45
53:K5:19:ARG:NH2	53:K5:52:VAL:HG21	2.32	0.45
1:13:66:G:C2	1:13:67:C:C6	3.04	0.45
1:13:542:G:H5'	4:3E:41:GLY:HA3	1.98	0.45
1:13:628:G:H2'	1:13:629:G:H8	1.81	0.45
1:13:665:A:N3	1:13:732:C:H2'	2.32	0.45
1:13:1022:G:H2'	1:13:1023:G:C8	2.50	0.45
1:13:1367:C:H5'	10:1I:60:ARG:NH2	2.26	0.45
1:13:1368:G:H5"	9:8E:112:LYS:CB	2.43	0.45
4:3E:153:ARG:O	4:3E:181:MET:HE1	2.17	0.45
8:7E:96:GLY:H	8:7E:99:GLU:CD	2.25	0.45
11:2I:99:GLN:HA	11:2I:105:VAL:HG21	1.99	0.45
14:5I:37:PHE:CE2	14:5I:53:LEU:HD13	2.51	0.45
16:7I:58:TYR:O	16:7I:62:VAL:HG22	2.17	0.45
24:3K:19:G:N2	26:1H:2112:G:H21	2.15	0.45
26:1H:37:C:H2'	26:1H:38:A:C8	2.52	0.45
26:1H:46:C:H2'	26:1H:47:C:C6	2.52	0.45
26:1H:69:C:H2'	26:1H:70:G:C8	2.51	0.45
26:1H:270(C):C:O2'	26:1H:273(B):C:H5'	2.17	0.45
26:1H:277:C:H3'	26:1H:278:A:O4'	2.17	0.45
26:1H:527:C:H4'	26:1H:528:A:C5'	2.46	0.45
26:1H:1042:G:C6	26:1H:1043:C:C4	3.05	0.45
26:1H:1329:U:H5"	26:1H:1330:C:C5	2.51	0.45
26:1H:1364:G:OP1	48:J8:3:LYS:HG2	2.17	0.45
26:1H:1810:A:H2'	26:1H:1811:G:O4'	2.17	0.45
27:16:7:G:H5"	27:16:7:G:H8	1.82	0.45
28:11:27:THR:C	28:11:28:GLU:HG2	2.42	0.45
28:11:155:LEU:HD13	28:11:155:LEU:N	2.32	0.45
31:41:128:ARG:HB2	31:41:128:ARG:HH21	1.81	0.45
34:58:18:ALA:H	34:58:21:LYS:NZ	2.15	0.45
35:68:13:ASN:ND2	35:68:97:ARG:HB3	2.31	0.45
36:78:80:TYR:CE2	36:78:111:ARG:HD3	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:88:134:ARG:NH2	46:H8:122:ARG:HD2	2.31	0.45
44:F8:3:THR:HG22	44:F8:6:ASP:HB2	1.99	0.45
46:H8:6:LYS:HE3	46:H8:8:TYR:CE1	2.51	0.45
1:1G:567:G:O6	12:3A:5:PRO:HD3	2.17	0.45
1:1G:973:G:O4'	10:1A:55:LYS:HB3	2.17	0.45
4:32:19:LEU:HB2	4:32:21:LEU:HD21	1.98	0.45
4:32:191:ARG:NH1	4:32:200:GLU:OE1	2.45	0.45
9:82:53:VAL:HG22	9:82:95:LYS:NZ	2.29	0.45
9:82:128:ARG:NH2	23:2L:34:U:P	2.90	0.45
12:3A:59:ARG:CZ	12:3A:65:GLU:HB2	2.46	0.45
12:3A:100:ILE:HG22	12:3A:101:VAL:H	1.80	0.45
19:AA:23:ASN:HA	19:AA:27:GLU:CG	2.47	0.45
23:2L:16:C:O2'	23:2L:62:C:OP1	2.28	0.45
26:14:458:G:O2'	54:L5:39:ARG:HD3	2.17	0.45
26:14:602:G:OP2	26:14:602:G:H8	1.99	0.45
26:14:1396:U:O2	26:14:1396:U:H2'	2.17	0.45
26:14:1551:C:H2'	26:14:1552:G:O4'	2.17	0.45
26:14:2113:U:O4	26:14:2168:G:O2'	2.32	0.45
26:14:2847:U:OP1	40:75:98:LYS:HE2	2.16	0.45
27:1J:33:G:N3	27:1J:50:G:C2	2.85	0.45
28:19:267:SER:C	28:19:269:PHE:H	2.23	0.45
29:29:119:ARG:HD2	29:29:120:TRP:CE2	2.52	0.45
30:39:81:PRO:HB3	30:39:87:GLY:O	2.17	0.45
31:49:38:VAL:HG22	31:49:93:THR:HG23	1.98	0.45
34:15:29:LYS:H	34:15:29:LYS:HG2	1.42	0.45
39:65:86:ALA:O	39:65:87:PHE:HB2	2.17	0.45
41:85:92:ARG:CZ	42:95:11:GLN:H	2.30	0.45
1:13:438:G:OP1	4:3E:125:HIS:HE1	2.00	0.45
1:13:558:G:H2'	1:13:559:A:H2	1.81	0.45
1:13:833:U:H3	1:13:853:G:H1	1.65	0.45
11:2I:121:PRO:HG2	11:2I:126:ARG:CG	2.47	0.45
12:3I:33:ARG:O	12:3I:85:ILE:HG12	2.17	0.45
20:BI:55:ILE:HD13	20:BI:55:ILE:HA	1.81	0.45
24:3K:4:C:H2'	24:3K:5:G:O4'	2.17	0.45
26:1H:270(E):G:C6	26:1H:270(F):U:C4	3.05	0.45
26:1H:442:G:N3	30:31:48:THR:CG2	2.80	0.45
26:1H:536:A:H2'	26:1H:537:C:C6	2.52	0.45
26:1H:1378:A:O2'	26:1H:1380:G:N7	2.43	0.45
26:1H:1512:G:H2'	26:1H:1513:C:C6	2.52	0.45
26:1H:1639:U:C2'	26:1H:1640:C:H5'	2.47	0.45
26:1H:2016:U:H1'	52:N8:6:VAL:HG13	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:57:A:H8	27:16:57:A:O5'	2.00	0.45
30:31:24:LEU:HD21	30:31:114:VAL:HG12	1.98	0.45
33:61:129:THR:HG22	33:61:137:PRO:HB3	1.99	0.45
36:78:95:VAL:O	36:78:126:VAL:HG23	2.17	0.45
40:B8:5:ALA:O	40:B8:8:LYS:HG2	2.17	0.45
40:B8:120:ARG:HA	40:B8:123:GLN:HG2	1.99	0.45
45:G8:93:GLY:O	45:G8:94:LYS:HB2	2.17	0.45
46:H8:128:VAL:CB	46:H8:161:VAL:HG21	2.47	0.45
48:J8:50:ARG:HD2	48:J8:57:GLU:OE2	2.17	0.45
1:1G:57:G:H2'	1:1G:58:C:C6	2.52	0.45
1:1G:532:A:N7	1:1G:1207:G:H4'	2.32	0.45
1:1G:569:C:H1'	1:1G:574:A:C4	2.51	0.45
1:1G:1057:G:H2'	1:1G:1058:G:C8	2.52	0.45
1:1G:1162:C:C2	1:1G:1175:G:C2	3.05	0.45
1:1G:1250:A:H4'	9:82:68:GLY:N	2.32	0.45
5:42:129:ILE:O	5:42:132:ALA:HB3	2.17	0.45
6:52:86:ARG:O	6:52:87:ARG:HG2	2.17	0.45
7:62:50:ILE:HB	7:62:58:PRO:HG3	1.99	0.45
7:62:131:LYS:HB3	7:62:131:LYS:HE3	1.58	0.45
11:2A:56:GLY:O	11:2A:89:ALA:HB3	2.17	0.45
12:3A:110:VAL:HB	12:3A:113:ARG:HB2	1.99	0.45
13:4A:23:TYR:CE1	13:4A:70:LEU:HD12	2.52	0.45
14:5A:47:LEU:HA	14:5A:47:LEU:HD23	1.68	0.45
23:2L:3:C:H5'	26:14:2255:G:O2'	2.17	0.45
24:3L:36:A:H2'	24:3L:37:A:C8	2.52	0.45
26:14:484:C:H2'	26:14:485:C:C6	2.52	0.45
26:14:807:U:H4'	26:14:2446:G:OP1	2.16	0.45
26:14:942:G:H4'	26:14:1190:G:H5'	1.98	0.45
26:14:959:A:C6	26:14:960:A:N1	2.85	0.45
26:14:1439:A:C8	26:14:1440:G:C8	3.05	0.45
26:14:1495:A:O2'	26:14:1496:A:H5'	2.17	0.45
26:14:2301:C:C5	26:14:2302:G:N7	2.85	0.45
26:14:2716:U:H2'	26:14:2717:G:C8	2.53	0.45
29:29:50:GLY:HA2	29:29:78:LEU:HB3	1.99	0.45
29:29:117:MET:HA	29:29:122:PHE:N	2.32	0.45
31:49:135:LEU:HD11	31:49:157:ILE:HD11	1.99	0.45
37:45:43:THR:HB	37:45:45:GLN:HG2	1.98	0.45
39:65:6:ALA:O	39:65:10:ARG:HG3	2.17	0.45
41:85:58:ARG:HA	41:85:61:TRP:CE3	2.52	0.45
41:85:62:ILE:HD11	41:85:93:LYS:HD3	1.98	0.45
51:I5:37:SER:HB3	51:I5:39:CYS:HB2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:984:C:H2'	1:13:985:C:H6	1.82	0.44
2:1E:11:LEU:HD13	2:1E:217:ARG:HH22	1.81	0.44
2:1E:87:ARG:HH21	2:1E:233:SER:HB2	1.82	0.44
4:3E:138:TYR:CD1	4:3E:138:TYR:C	2.95	0.44
10:1I:90:LEU:N	10:1I:91:PRO:HD3	2.32	0.44
18:9I:37:VAL:O	18:9I:41:LYS:N	2.36	0.44
24:3K:8:U:O2'	24:3K:9:A:OP1	2.28	0.44
26:1H:66:C:C2	26:1H:67:U:C6	3.06	0.44
26:1H:609:A:H8	26:1H:609:A:O5'	2.00	0.44
26:1H:1590:U:H2'	26:1H:1591:G:H8	1.79	0.44
26:1H:1945:G:C4	26:1H:1946:U:C5	3.06	0.44
26:1H:2388:A:H2'	26:1H:2389:G:H5'	1.99	0.44
26:1H:2444:G:O6	58:1H:4648:HOH:O	2.20	0.44
26:1H:2661:G:OP2	26:1H:2661:G:H8	2.00	0.44
26:1H:2723:C:OP1	29:21:109:LYS:HD3	2.17	0.44
29:21:144:ARG:HH11	29:21:144:ARG:HG3	1.82	0.44
31:41:16:ARG:N	31:41:17:PRO:HD2	2.31	0.44
33:61:10:GLU:HG3	33:61:10:GLU:O	2.16	0.44
38:98:24:GLN:HE22	38:98:36:THR:CG2	2.29	0.44
38:98:53:HIS:HB2	38:98:94:TYR:HE2	1.82	0.44
41:C8:11:ARG:O	41:C8:15:LYS:HG3	2.17	0.44
42:D8:25:LEU:H	42:D8:92:THR:CG2	2.30	0.44
48:J8:76:ARG:HH11	48:J8:94:LEU:HD22	1.81	0.44
49:K8:55:ARG:O	49:K8:58:ALA:HB3	2.16	0.44
1:1G:286:G:C6	1:1G:287:U:C4	3.05	0.44
1:1G:1343:G:H4'	9:82:122:ALA:HB3	1.98	0.44
2:12:185:ILE:CG2	2:12:199:TYR:HB2	2.46	0.44
4:32:25:ARG:NH1	4:32:31:CYS:HA	2.32	0.44
4:32:43:HIS:O	4:32:46:LYS:HB2	2.17	0.44
11:2A:38:ASN:HA	11:2A:39:PRO:HD3	1.84	0.44
12:3A:93:LEU:HB3	12:3A:96:VAL:HG21	1.99	0.44
17:8A:95:TYR:HA	17:8A:98:LEU:HG	1.99	0.44
26:14:117:G:C6	26:14:119:A:C6	3.05	0.44
26:14:279:C:H42	26:14:361:G:H1	1.64	0.44
26:14:396:G:O4'	48:F5:13:ILE:HD11	2.17	0.44
26:14:668:G:H2'	26:14:670:A:H62	1.82	0.44
26:14:1112:G:H2'	26:14:1113:U:C6	2.52	0.44
26:14:1165:U:H2'	26:14:1166:C:C6	2.52	0.44
26:14:1385:G:C4	26:14:1386:C:C5	3.05	0.44
26:14:2324:C:H42	26:14:2331:G:H1	1.65	0.44
28:19:65:ILE:HD11	28:19:67:PHE:CE1	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:49:130:ASN:HB3	31:49:159:VAL:O	2.16	0.44
32:59:82:GLY:O	32:59:134:SER:HA	2.17	0.44
32:59:83:TYR:O	32:59:84:SER:OG	2.34	0.44
37:45:29:PHE:HD2	37:45:65:PHE:CZ	2.35	0.44
43:A5:36:LEU:HD11	43:A5:47:VAL:HG12	1.98	0.44
43:A5:71:VAL:HA	43:A5:107:LEU:HD12	1.99	0.44
46:D5:60:GLU:HB2	46:D5:66:SER:OG	2.18	0.44
53:K5:28:ARG:NH1	53:K5:30:THR:O	2.50	0.44
1:13:161:A:H2'	1:13:162:A:C8	2.52	0.44
2:1E:185:ILE:CG2	2:1E:199:TYR:HB2	2.35	0.44
6:5E:76:ALA:O	6:5E:80:ARG:HG3	2.18	0.44
11:2I:41:THR:HG21	11:2I:71:LYS:HB3	1.99	0.44
13:4I:49:THR:C	13:4I:51:ALA:N	2.74	0.44
17:8I:60:ILE:O	17:8I:62:SER:OG	2.33	0.44
24:3K:35:A:C6	24:3K:36:A:N6	2.86	0.44
26:1H:1259:G:H2'	26:1H:1260:G:C8	2.52	0.44
26:1H:1380:G:N2	26:1H:1570:A:C2	2.85	0.44
26:1H:1439:A:H3'	26:1H:1440:G:H8	1.82	0.44
26:1H:1469:A:H2'	26:1H:1470:G:C8	2.52	0.44
26:1H:1556:C:H2'	26:1H:1557:C:C6	2.51	0.44
26:1H:1625:C:H2'	26:1H:1626:G:O4'	2.18	0.44
26:1H:1899:G:N2	26:1H:1902:C:H41	2.15	0.44
26:1H:2097:C:C2'	26:1H:2098:U:H5'	2.47	0.44
26:1H:2262:U:H4'	26:1H:2328:A:C2	2.52	0.44
27:16:30:C:H2'	27:16:31:C:C5'	2.46	0.44
30:31:183:VAL:O	30:31:187:VAL:HG23	2.17	0.44
49:K8:61:LEU:HD23	49:K8:61:LEU:HA	1.59	0.44
55:Q8:14:VAL:HB	55:Q8:21:LYS:HE3	1.99	0.44
1:1G:34:C:H2'	1:1G:35:G:C8	2.52	0.44
1:1G:417:C:H2'	1:1G:418:C:C6	2.53	0.44
1:1G:720:C:O5'	1:1G:720:C:H6	2.00	0.44
1:1G:1007:C:H2'	1:1G:1008:C:O4'	2.16	0.44
1:1G:1054:C:N4	22:1L:34:G:C8	2.86	0.44
1:1G:1272:G:H2'	1:1G:1273:G:O4'	2.17	0.44
1:1G:1322:C:O2'	1:1G:1323:G:H5'	2.18	0.44
1:1G:1355:G:H2'	1:1G:1356:G:C8	2.52	0.44
1:1G:1509:C:H2'	1:1G:1510:U:O4'	2.17	0.44
2:12:214:ILE:HG22	2:12:215:LEU:HD22	2.00	0.44
4:32:101:LEU:HA	4:32:101:LEU:HD12	1.69	0.44
5:42:34:VAL:O	5:42:41:VAL:HG12	2.16	0.44
13:4A:79:LYS:HE2	13:4A:82:MET:HE1	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:111:A:H4'	49:G5:69:ARG:NH2	2.32	0.44
26:14:360:G:H2'	26:14:361:G:O4'	2.16	0.44
26:14:491:G:H2'	26:14:492:A:H8	1.78	0.44
26:14:753:C:H2'	26:14:754:C:H6	1.81	0.44
26:14:1677:A:H2'	26:14:1678:G:H8	1.81	0.44
26:14:2331:G:H5'	47:E5:44:ARG:HG2	1.99	0.44
26:14:2395:C:H2'	26:14:2396:G:O4'	2.17	0.44
26:14:2412:A:C2	26:14:2413:G:H1'	2.53	0.44
26:14:2472:G:N2	26:14:2478:A:H62	2.14	0.44
26:14:2629:A:H4'	26:14:2630:G:H5'	1.99	0.44
27:1J:15:A:H1'	27:1J:109:G:N9	2.32	0.44
27:1J:31:C:N4	39:65:32:LEU:HD13	2.33	0.44
29:29:134:ILE:HD12	29:29:134:ILE:O	2.16	0.44
30:39:124:LEU:HB3	30:39:126:VAL:CG1	2.47	0.44
32:59:66:GLY:O	32:59:69:ARG:HB3	2.17	0.44
36:35:39:LYS:CD	36:35:45:LEU:HD21	2.40	0.44
38:55:35:THR:HG21	38:55:100:LEU:HD11	1.99	0.44
42:95:55:ALA:HA	42:95:101:GLY:HA2	1.98	0.44
46:D5:10:ARG:HH21	46:D5:26:GLY:H	1.66	0.44
46:D5:39:VAL:HG21	46:D5:44:PHE:HB2	1.99	0.44
46:D5:158:PRO:HB2	46:D5:159:PRO:HD2	1.99	0.44
55:M5:8:LYS:HD3	55:M5:8:LYS:N	2.31	0.44
1:13:948:C:C2'	1:13:949:A:H5'	2.47	0.44
1:13:958:A:C6	1:13:959:A:N1	2.85	0.44
1:13:1347:G:H22	1:13:1374:A:P	2.39	0.44
2:1E:136:VAL:O	2:1E:140:HIS:N	2.50	0.44
3:2E:115:LEU:HA	3:2E:115:LEU:HD23	1.66	0.44
5:4E:126:ARG:HH11	5:4E:126:ARG:CG	2.30	0.44
8:7E:87:SER:HB2	8:7E:93:VAL:CB	2.47	0.44
11:2I:59:TYR:CE2	11:2I:63:LEU:HD11	2.53	0.44
19:AI:5:LEU:CB	19:AI:10:PHE:HE1	2.31	0.44
26:1H:64:A:O3'	44:F8:71:GLY:HA3	2.17	0.44
26:1H:357:A:H2'	26:1H:358:U:H6	1.82	0.44
26:1H:444:C:C4'	30:31:49:ALA:HB2	2.47	0.44
26:1H:537:C:H2'	26:1H:539:G:C8	2.52	0.44
26:1H:785:G:C5	26:1H:786:C:C5	3.04	0.44
26:1H:973:A:O4'	26:1H:1188:U:C6	2.71	0.44
26:1H:1454:U:O2'	26:1H:1455:G:N7	2.50	0.44
26:1H:1756:G:H1'	26:1H:1758:G:C2	2.52	0.44
26:1H:2253:G:OP1	58:1H:3724:HOH:O	2.21	0.44
26:1H:2275:C:O2'	37:88:83:MET:HA	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2286:A:H8	53:O8:37:ARG:HH11	1.66	0.44
26:1H:2303:G:O2'	31:41:132:ASN:HB2	2.17	0.44
27:16:88:C:H2'	27:16:89:G:O4'	2.17	0.44
28:11:26:LYS:CE	28:11:94:LEU:HD12	2.47	0.44
29:21:149:ARG:HH11	29:21:149:ARG:CG	2.30	0.44
30:31:57:VAL:HG13	30:31:59:TYR:CD2	2.52	0.44
31:41:99:MET:HE3	31:41:99:MET:HB2	1.56	0.44
33:61:93:THR:O	33:61:97:ILE:HG13	2.18	0.44
35:68:116:SER:OG	35:68:117:LEU:N	2.50	0.44
39:A8:49:VAL:HG12	39:A8:73:LEU:HD23	2.00	0.44
46:H8:60:GLU:O	46:H8:61:LEU:HD23	2.16	0.44
47:I8:19:LYS:HA	47:I8:19:LYS:HD3	1.59	0.44
48:J8:87:PRO:O	48:J8:88:LYS:C	2.61	0.44
53:O8:20:ASN:C	53:O8:21:TYR:CG	2.96	0.44
54:P8:46:VAL:HG22	54:P8:48:LYS:HE3	2.00	0.44
1:1G:15:G:N7	1:1G:1396:A:C2	2.84	0.44
1:1G:79:G:H2'	1:1G:79:G:N3	2.32	0.44
1:1G:651:C:H2'	1:1G:652:U:C6	2.53	0.44
1:1G:1013:G:O2'	1:1G:1014:A:N7	2.46	0.44
1:1G:1106:G:C2	1:1G:1107:C:C6	3.06	0.44
1:1G:1237:C:O2'	1:1G:1300:G:N2	2.49	0.44
1:1G:1298:C:H5"	7:62:114:ARG:HH12	1.82	0.44
1:1G:1387:G:H2'	1:1G:1388:C:C6	2.53	0.44
1:1G:1459:C:H2'	1:1G:1460:A:O4'	2.17	0.44
13:4A:13:LYS:HA	13:4A:44:ARG:HH11	1.83	0.44
13:4A:50:GLU:O	13:4A:54:VAL:HG23	2.16	0.44
18:9A:69:THR:HA	18:9A:72:ARG:HB2	1.98	0.44
19:AA:53:ASN:HA	19:AA:77:THR:HG22	1.99	0.44
21:1B:6:ARG:O	21:1B:12:LYS:HE2	2.17	0.44
24:3L:36:A:H5'	24:3L:37:A:OP2	2.18	0.44
26:14:322:A:H3'	30:39:169:ASN:OD1	2.17	0.44
26:14:900:A:H2'	26:14:900:A:N3	2.32	0.44
26:14:2076:U:H5"	26:14:2238:G:H22	1.82	0.44
26:14:2092:U:H4'	26:14:2093:G:O5'	2.17	0.44
26:14:2414:G:H21	36:35:67:MET:CE	2.30	0.44
26:14:2729:G:H2'	26:14:2730:C:H6	1.81	0.44
28:19:267:SER:C	28:19:269:PHE:N	2.73	0.44
30:39:68:LYS:HB3	30:39:69:HIS:CD2	2.53	0.44
31:49:95:ARG:HG2	31:49:96:ARG:H	1.82	0.44
32:59:75:ALA:O	32:59:79:VAL:HG13	2.18	0.44
40:75:80:SER:HB3	40:75:83:ILE:HG13	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:286:G:C6	1:13:287:U:C4	3.04	0.44
1:13:475:G:H2'	1:13:476:G:H8	1.83	0.44
1:13:644:G:H2'	1:13:645:C:O4'	2.18	0.44
1:13:1285:A:H4'	1:13:1286:A:H5'	1.98	0.44
4:3E:59:ARG:HH22	4:3E:66:ARG:HH22	1.66	0.44
4:3E:86:LYS:H	4:3E:86:LYS:HD2	1.83	0.44
7:6E:5:ARG:CZ	7:6E:7:ALA:HA	2.48	0.44
7:6E:46:ALA:O	7:6E:49:ILE:N	2.50	0.44
13:4I:7:VAL:HB	31:41:115:ARG:NH1	2.32	0.44
16:7I:38:TYR:CE1	16:7I:50:LYS:HB2	2.52	0.44
17:8I:31:LEU:HD23	17:8I:32:TYR:CE2	2.52	0.44
24:3K:37:A:HO2'	24:3K:38:A:C5'	2.29	0.44
26:1H:242:G:H5'	55:Q8:60:LEU:CD1	2.48	0.44
26:1H:374:A:C2	26:1H:401:A:C4	3.06	0.44
26:1H:449:A:H3'	58:1H:3893:HOH:O	2.17	0.44
26:1H:587:C:H4'	26:1H:588:U:O5'	2.17	0.44
26:1H:859:G:O2'	26:1H:916:G:O6	2.27	0.44
26:1H:886:C:C6	26:1H:887:A:H1'	2.52	0.44
26:1H:1053:C:H42	26:1H:1106:G:H1	1.64	0.44
26:1H:1111:A:H5'	32:51:3:ARG:CD	2.48	0.44
26:1H:1534:G:H2'	26:1H:1534:G:N3	2.33	0.44
26:1H:1657:C:H2'	26:1H:1658:C:H6	1.80	0.44
26:1H:1675:C:N3	29:21:128:SER:OG	2.49	0.44
26:1H:2123:G:H1	26:1H:2175:C:H42	1.65	0.44
26:1H:2650:U:H2'	26:1H:2651:C:C6	2.53	0.44
26:1H:2689:U:P	26:1H:2719:G:H22	2.38	0.44
30:31:68:LYS:O	30:31:69:HIS:HB2	2.17	0.44
30:31:101:LEU:O	30:31:106:ARG:NH1	2.51	0.44
31:41:26:GLN:HG3	31:41:30:GLU:OE1	2.18	0.44
34:58:74:ARG:CZ	34:58:85:ILE:HD11	2.48	0.44
34:58:121:LYS:HB3	34:58:123:TYR:HE1	1.81	0.44
35:68:4:PRO:O	35:68:5:GLN:CB	2.66	0.44
36:78:15:ARG:CB	36:78:16:ARG:HB2	2.47	0.44
36:78:39:LYS:HG3	36:78:45:LEU:CD2	2.46	0.44
39:A8:62:LYS:HB3	39:A8:97:ARG:HD2	1.99	0.44
39:A8:72:ALA:O	39:A8:76:LYS:HG3	2.17	0.44
41:C8:39:LEU:HA	41:C8:39:LEU:HD23	1.76	0.44
47:I8:23:VAL:HA	47:I8:38:VAL:HG22	2.00	0.44
55:Q8:47:LYS:HA	55:Q8:47:LYS:HD3	1.51	0.44
1:1G:17:U:H2'	1:1G:18:C:C6	2.51	0.44
1:1G:373:A:N3	1:1G:374:A:C8	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:438:G:H5'	4:32:123:HIS:CD2	2.52	0.44
1:1G:1028(A):C:N4	1:1G:1032(B):G:H22	2.15	0.44
1:1G:1068:G:N7	1:1G:1094:G:C8	2.86	0.44
1:1G:1321:C:C2	1:1G:1322:C:C5	3.03	0.44
2:12:185:ILE:HG22	2:12:199:TYR:CD1	2.53	0.44
5:42:92:LYS:HB3	5:42:119:LEU:HB2	1.99	0.44
6:52:2:ARG:HD3	6:52:92:LYS:HE3	2.00	0.44
6:52:8:ILE:HG13	6:52:88:VAL:HG22	1.99	0.44
11:2A:70:LYS:HB2	11:2A:70:LYS:HE3	1.65	0.44
13:4A:60:VAL:C	13:4A:62:ASN:H	2.25	0.44
16:7A:16:HIS:CD2	16:7A:16:HIS:N	2.84	0.44
16:7A:40:ASP:HB3	16:7A:48:TRP:HB2	1.98	0.44
22:1L:11:C:C4	22:1L:12:U:C4	3.05	0.44
26:14:120:U:OP2	58:14:3995:HOH:O	2.21	0.44
26:14:270(R):G:H2'	26:14:270(S):G:C8	2.51	0.44
26:14:1894:C:C2'	26:14:1895:C:H5'	2.47	0.44
26:14:1910:G:O2'	26:14:1911:U:H5'	2.18	0.44
26:14:1993:U:H4'	29:29:128:SER:CB	2.47	0.44
26:14:2228:G:C5	26:14:2229:C:C4	3.05	0.44
32:59:58:GLU:HB2	32:59:61:HIS:CE1	2.52	0.44
35:25:11:ALA:HB1	35:25:99:PHE:O	2.17	0.44
36:35:101:VAL:HG23	36:35:107:LYS:H	1.83	0.44
36:35:128:HIS:HA	36:35:147:LEU:HA	1.99	0.44
37:45:41:TRP:CZ3	37:45:74:TYR:HE1	2.35	0.44
39:65:67:ARG:O	39:65:71:ARG:HB2	2.18	0.44
40:75:45:PHE:CD2	40:75:74:ARG:HD3	2.52	0.44
41:85:39:LEU:HD23	41:85:39:LEU:HA	1.67	0.44
45:C5:92:ASN:HB3	45:C5:93:GLY:H	1.65	0.44
47:E5:32:ARG:O	47:E5:34:GLY:N	2.43	0.44
55:M5:6:THR:HG22	55:M5:59:LYS:O	2.17	0.44
1:13:115:G:C2	1:13:289:G:N7	2.86	0.44
1:13:414:A:H2'	1:13:415:A:C8	2.52	0.44
1:13:636:U:H2'	1:13:637:G:H8	1.83	0.44
1:13:649:G:N3	1:13:650:G:C8	2.85	0.44
1:13:720:C:C4	1:13:721:G:C5	3.05	0.44
1:13:1124:G:N3	1:13:1127:G:N2	2.65	0.44
1:13:1442:G:C6	1:13:1446:A:C6	3.05	0.44
4:3E:61:LYS:HD2	4:3E:207:TYR:OH	2.17	0.44
8:7E:77:GLU:HG2	8:7E:78:GLN:H	1.82	0.44
10:1I:47:PHE:CE2	14:5I:37:PHE:HE1	2.36	0.44
19:AI:5:LEU:HB3	19:AI:10:PHE:CE1	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:90:U:H4'	26:1H:91:A:H5'	1.99	0.44
26:1H:478:A:C6	26:1H:480:A:C6	3.05	0.44
26:1H:739:G:OP2	26:1H:739:G:H8	1.99	0.44
26:1H:754:C:H2'	26:1H:755:C:C6	2.53	0.44
26:1H:755:C:H2'	26:1H:756:C:C6	2.53	0.44
26:1H:860:U:H2'	26:1H:861:A:H8	1.83	0.44
26:1H:879:G:O5'	26:1H:879:G:H8	2.00	0.44
26:1H:1204:A:N6	26:1H:1240:U:H2'	2.30	0.44
26:1H:1542:G:OP2	26:1H:1543:A:O2'	2.35	0.44
26:1H:1799:G:H5'	26:1H:1819:A:H61	1.83	0.44
26:1H:2287:A:H2	26:1H:2346:A:C2	2.35	0.44
26:1H:2373:G:H1	26:1H:2380:C:N4	2.16	0.44
26:1H:2743:C:H2'	26:1H:2744:G:O4'	2.18	0.44
28:11:75:ILE:HD13	28:11:99:ASP:OD2	2.18	0.44
29:21:128:SER:OG	29:21:129:HIS:N	2.50	0.44
30:31:7:TYR:O	30:31:22:ALA:N	2.48	0.44
32:51:125:VAL:HG12	32:51:127:GLU:O	2.18	0.44
33:61:5:LEU:HD12	33:61:13:GLY:O	2.17	0.44
35:68:10:VAL:HG23	35:68:17:ARG:O	2.18	0.44
39:A8:9:ARG:O	39:A8:12:PHE:N	2.51	0.44
39:A8:36:TYR:N	39:A8:36:TYR:CD1	2.85	0.44
42:D8:44:LYS:NZ	42:D8:44:LYS:HA	2.33	0.44
48:J8:72:GLU:O	48:J8:76:ARG:HG2	2.18	0.44
50:L8:50:VAL:HG23	50:L8:54:VAL:HG12	1.99	0.44
50:L8:54:VAL:O	50:L8:54:VAL:HG13	2.17	0.44
1:1G:448:A:OP2	1:1G:485:G:N1	2.45	0.44
1:1G:476:G:O2'	1:1G:477:G:H5'	2.17	0.44
1:1G:807:A:H2'	1:1G:808:C:C6	2.53	0.44
1:1G:1082:G:H8	1:1G:1082:G:OP2	2.01	0.44
1:1G:1118:C:H1'	1:1G:1179:A:C4	2.53	0.44
1:1G:1280:A:P	10:1A:40:LEU:HD21	2.58	0.44
1:1G:1330:U:H4'	13:4A:23:TYR:CE2	2.53	0.44
2:12:8:LYS:HE2	2:12:213:LEU:HD21	1.98	0.44
2:12:204:ASN:OD1	2:12:204:ASN:N	2.51	0.44
6:52:15:ASP:OD1	6:52:17:SER:N	2.49	0.44
11:2A:54:ARG:H	11:2A:54:ARG:HG3	1.58	0.44
26:14:513:A:C2	26:14:514:A:C5	3.05	0.44
26:14:586:A:N1	26:14:809:G:O2'	2.42	0.44
26:14:747:U:OP1	52:J5:3:LYS:HD3	2.16	0.44
26:14:756:C:C2'	26:14:757:U:H5'	2.48	0.44
26:14:1005:C:O2	26:14:1143:A:C6	2.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1011:G:C6	26:14:1013:C:C4	3.06	0.44
26:14:1225:C:H5"	42:95:85:LYS:NZ	2.33	0.44
26:14:2425:A:H5'	26:14:2427:C:O4'	2.18	0.44
30:39:158:THR:O	30:39:177:ALA:HA	2.18	0.44
43:A5:15:ARG:O	43:A5:19:LEU:HD13	2.16	0.44
43:A5:27:LYS:O	43:A5:71:VAL:HG23	2.18	0.44
46:D5:146:ILE:C	46:D5:148:ASP:H	2.24	0.44
47:E5:12:ASN:HA	47:E5:14:ARG:HH21	1.82	0.44
53:K5:51:GLU:HG2	53:K5:52:VAL:N	2.32	0.44
1:13:109:A:N7	1:13:326:G:H2'	2.33	0.44
1:13:322:C:H5	1:13:328:C:C5	2.36	0.44
1:13:412:A:C8	4:3E:35:ARG:NH1	2.85	0.44
1:13:626:U:H2'	1:13:627:G:H8	1.82	0.44
1:13:992:U:H2'	1:13:1043:C:H41	1.83	0.44
2:1E:28:PHE:O	2:1E:32:ILE:HG22	2.18	0.44
8:7E:1:MET:HB3	8:7E:2:LEU:H	1.61	0.44
16:7I:58:TYR:C	16:7I:58:TYR:CD1	2.95	0.44
26:1H:500:G:N1	26:1H:503:A:OP2	2.48	0.44
26:1H:686:G:H22	54:P8:15:THR:HG21	1.83	0.44
26:1H:1479:G:C4	26:1H:1480:G:C8	3.06	0.44
26:1H:1500:G:C5	26:1H:1501:C:C4	3.06	0.44
26:1H:1753:G:N1	26:1H:1756:G:C2	2.86	0.44
26:1H:2000:G:C6	26:1H:2001:A:N7	2.86	0.44
26:1H:2850:A:C2	26:1H:2851:A:C4	3.06	0.44
27:16:15:A:H1'	27:16:109:G:C4	2.52	0.44
27:16:25:A:H2'	27:16:26:A:O4'	2.18	0.44
40:B8:51:ARG:HB2	40:B8:98:LYS:HD3	1.99	0.44
40:B8:93:ARG:HG3	40:B8:93:ARG:NH1	2.33	0.44
41:C8:21:ALA:HA	41:C8:24:TYR:CE2	2.53	0.44
43:E8:19:LEU:HD23	52:N8:25:LEU:HD21	2.00	0.44
43:E8:45:TYR:CE1	43:E8:49:LYS:HD2	2.53	0.44
44:F8:47:PHE:O	44:F8:49:VAL:HG23	2.17	0.44
45:G8:17:SER:HA	45:G8:21:LYS:HB2	1.99	0.44
45:G8:90:LEU:HA	45:G8:91:GLU:C	2.42	0.44
46:H8:15:PRO:O	46:H8:19:ARG:HB2	2.18	0.44
54:P8:10:ARG:O	54:P8:10:ARG:HG2	2.18	0.44
54:P8:24:THR:HG23	54:P8:27:GLY:N	2.33	0.44
55:Q8:32:LEU:HD23	55:Q8:32:LEU:H	1.83	0.44
1:1G:485:G:HO2'	1:1G:486:U:H6	1.61	0.44
1:1G:629:G:H2'	1:1G:630:G:O4'	2.18	0.44
1:1G:744:C:O2'	1:1G:851:G:N2	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1147:C:O2	9:82:16:ARG:NE	2.51	0.44
1:1G:1153:C:H2'	1:1G:1154:G:H8	1.83	0.44
1:1G:1157:A:O5'	1:1G:1158:C:H5	2.01	0.44
1:1G:1157:A:N6	1:1G:1178:G:H21	2.11	0.44
1:1G:1237:C:H5"	1:1G:1238:A:O4'	2.17	0.44
1:1G:1255:G:C2	1:1G:1283:G:C2	3.05	0.44
3:22:113:ALA:HA	3:22:202:ILE:HD11	2.00	0.44
4:32:61:LYS:HE2	4:32:206:PHE:CE2	2.52	0.44
9:82:33:PHE:HE2	9:82:47:LEU:HD23	1.82	0.44
26:14:49:A:C5	26:14:177:G:C6	3.06	0.44
26:14:81:G:O2'	26:14:295:G:O2'	2.35	0.44
26:14:301:G:C4	26:14:302:C:C5	3.06	0.44
26:14:562:U:O4	26:14:2036:C:H1'	2.17	0.44
26:14:723:G:H2'	26:14:724:U:O4'	2.18	0.44
26:14:815:C:H2'	26:14:816:C:C6	2.52	0.44
26:14:829:A:N7	26:14:2248:C:H5'	2.33	0.44
26:14:923:C:H2'	26:14:924:C:C6	2.53	0.44
26:14:1022:G:C6	26:14:1140:C:C4	3.06	0.44
26:14:1709:U:O4'	26:14:2860:A:H1'	2.18	0.44
26:14:2392:A:H1'	36:35:61:ARG:NH2	2.27	0.44
26:14:2473:U:O2	26:14:2473:U:H2'	2.17	0.44
26:14:2599:G:OP2	28:19:236:GLY:N	2.51	0.44
27:1J:18:G:H2'	27:1J:19:G:H5"	1.99	0.44
28:19:2:ALA:HB3	28:19:20:ASP:HB2	2.00	0.44
28:19:85:ASP:OD2	28:19:88:ARG:HD2	2.18	0.44
29:29:57:LYS:HD3	29:29:57:LYS:HA	1.66	0.44
31:49:144:ILE:HG22	31:49:148:MET:HB3	2.00	0.44
33:69:128:LEU:O	33:69:137:PRO:HA	2.18	0.44
35:25:93:PRO:HD3	35:25:113:LYS:HG3	1.99	0.44
45:C5:54:LYS:C	45:C5:55:TYR:CG	2.96	0.44
52:J5:52:TYR:CD1	52:J5:53:ALA:N	2.86	0.44
1:13:465:A:N7	1:13:467:G:N7	2.65	0.44
1:13:901:A:C5	1:13:902:G:H1'	2.53	0.44
1:13:942:G:C2	1:13:1342:C:C2	3.06	0.44
1:13:1084:G:H2'	1:13:1085:U:C5	2.52	0.44
1:13:1489:G:H2'	1:13:1490:C:O4'	2.18	0.44
1:13:1504:G:O3'	58:13:1804:HOH:O	2.21	0.44
8:7E:64:LYS:HB3	8:7E:79:VAL:HG21	2.00	0.44
11:2I:114:VAL:HA	11:2I:115:PRO:HD2	1.90	0.44
16:7I:28:ARG:HD2	16:7I:29:ASP:OD1	2.17	0.44
26:1H:1086:A:H1'	26:1H:1103:A:N6	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1576:U:N3	26:1H:1577:C:C5	2.85	0.44
26:1H:2012:G:OP2	43:E8:16:LYS:NZ	2.51	0.44
26:1H:2818:G:H4'	26:1H:2837:G:O4'	2.18	0.44
27:16:79:C:O5'	27:16:79:C:H6	2.00	0.44
36:78:49:ARG:HG3	55:Q8:57:ARG:HD2	2.00	0.44
37:88:109:VAL:HG12	37:88:114:ALA:HB2	2.00	0.44
38:98:92:GLY:H	38:98:94:TYR:HE1	1.66	0.44
43:E8:82:LEU:HD13	43:E8:84:ARG:NH2	2.32	0.44
48:J8:83:GLU:C	48:J8:85:LEU:H	2.26	0.44
55:Q8:6:THR:HG22	55:Q8:59:LYS:CG	2.47	0.44
1:1G:109:A:H5'	1:1G:110:C:C5	2.53	0.44
1:1G:129(A):G:C2	1:1G:188:U:O2'	2.71	0.44
1:1G:476:G:H2'	1:1G:477:G:H8	1.83	0.44
1:1G:683:G:C6	1:1G:684:A:C6	3.06	0.44
1:1G:1300:G:C5	1:1G:1334:G:C6	3.06	0.44
2:12:190:THR:O	2:12:191:ASP:HB3	2.18	0.44
4:32:108:LEU:CD2	4:32:183:GLY:HA3	2.47	0.44
5:42:118:ILE:HG12	5:42:119:LEU:H	1.83	0.44
5:42:118:ILE:HG12	5:42:119:LEU:N	2.32	0.44
6:52:95:GLU:HA	6:52:96:PRO:HD3	1.83	0.44
12:3A:40:VAL:HG11	12:3A:77:LEU:HB3	2.00	0.44
12:3A:60:LEU:HD23	12:3A:64:TYR:HB3	1.99	0.44
13:4A:78:ILE:HD13	13:4A:92:HIS:HE1	1.82	0.44
26:14:447:A:C8	26:14:473:G:C6	3.06	0.44
26:14:749:C:H4'	26:14:1271:G:N3	2.33	0.44
26:14:886:C:H1'	26:14:890:A:C2	2.53	0.44
26:14:1047:G:N2	26:14:1111:A:H62	2.16	0.44
26:14:1131:G:O6	26:14:2040:C:H1'	2.18	0.44
26:14:1179:C:H2'	26:14:1180:C:H6	1.82	0.44
26:14:1674:G:H1'	26:14:1676:A:N6	2.32	0.44
26:14:1986:A:H2'	26:14:1987:G:C8	2.53	0.44
26:14:2012:G:OP2	43:A5:16:LYS:NZ	2.50	0.44
26:14:2286:A:C8	26:14:2287:A:N6	2.86	0.44
26:14:2611:U:H1'	52:J5:3:LYS:HE2	2.00	0.44
26:14:2864:G:C6	26:14:2865:U:N3	2.86	0.44
27:1J:43:C:OP1	51:I5:6:HIS:HE1	2.01	0.44
28:19:37:LEU:HD23	28:19:62:TYR:HB2	1.99	0.44
28:19:70:TRP:CD1	28:19:71:ASP:N	2.86	0.44
28:19:244:ARG:HB2	28:19:245:PRO:HD2	2.00	0.44
28:19:263:ARG:HE	28:19:263:ARG:HB2	1.30	0.44
30:39:83:PHE:C	30:39:85:GLY:N	2.75	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:49:15:VAL:O	31:49:19:LEU:HD23	2.17	0.44
31:49:145:THR:C	31:49:147:ASP:H	2.25	0.44
37:45:25:ASP:HB3	37:45:102:VAL:H	1.81	0.44
38:55:54:LEU:HD12	38:55:54:LEU:HA	1.85	0.44
42:95:80:GLN:C	42:95:81:TYR:HD1	2.26	0.44
47:E5:49:LYS:HZ3	47:E5:82:ARG:CZ	2.31	0.44
1:13:159:G:N2	1:13:161:A:H5"	2.33	0.44
1:13:1187:G:O5'	9:8E:113:LYS:NZ	2.41	0.44
1:13:1280:A:H3'	1:13:1281:U:H5'	1.99	0.44
1:13:1521:G:H2'	1:13:1522:U:C6	2.53	0.44
3:2E:7:PRO:O	3:2E:11:ARG:HG2	2.17	0.44
3:2E:8:ILE:O	3:2E:11:ARG:N	2.45	0.44
4:3E:85:LYS:HG2	4:3E:86:LYS:N	2.32	0.44
5:4E:69:VAL:O	5:4E:71:LEU:N	2.51	0.44
10:1I:63:PHE:HA	14:5I:58:LYS:HA	1.98	0.44
10:1I:78:ASN:OD1	10:1I:78:ASN:N	2.51	0.44
15:6I:33:THR:HG21	15:6I:85:LEU:HD22	1.99	0.44
15:6I:87:ILE:O	15:6I:88:ARG:C	2.61	0.44
26:1H:143:C:H2'	26:1H:144:C:H6	1.83	0.44
26:1H:250:G:H5'	36:78:60:MET:CE	2.48	0.44
26:1H:270(R):G:H2'	26:1H:270(S):G:C8	2.53	0.44
26:1H:320:A:H2'	30:31:136:THR:HG21	2.00	0.44
26:1H:623:G:H2'	26:1H:624:C:C6	2.52	0.44
26:1H:686:G:N2	54:P8:15:THR:HG21	2.33	0.44
26:1H:946:G:P	58:1H:4573:HOH:O	2.76	0.44
26:1H:1000:A:C8	26:1H:1154:G:N2	2.86	0.44
26:1H:1038:C:H2'	26:1H:1039:G:O4'	2.18	0.44
26:1H:1338:G:O2'	26:1H:1393:A:N1	2.42	0.44
26:1H:1471:A:N3	26:1H:1472:A:C8	2.85	0.44
26:1H:1528:A:C2	26:1H:1543:A:N1	2.86	0.44
26:1H:1543:A:H3'	26:1H:1543:A:OP2	2.17	0.44
26:1H:2058:A:H5"	26:1H:2059:A:OP2	2.18	0.44
26:1H:2691:C:O3'	26:1H:2871:C:H4'	2.17	0.44
30:31:175:THR:C	30:31:176:LEU:HD12	2.43	0.44
34:58:17:ASP:C	34:58:19:GLU:H	2.25	0.44
38:98:44:LEU:HD23	38:98:44:LEU:HA	1.82	0.44
40:B8:74:ARG:HD3	40:B8:76:PHE:CZ	2.52	0.44
41:C8:92:ARG:HD3	41:C8:94:ASN:CB	2.48	0.44
42:D8:46:VAL:HG11	42:D8:52:VAL:HG21	1.99	0.44
42:D8:47:VAL:HG22	42:D8:48:GLY:N	2.33	0.44
47:I8:44:ARG:HG2	47:I8:45:PHE:CE1	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:L8:38:GLU:OE2	50:L8:38:GLU:N	2.37	0.44
51:M8:40:HIS:CG	51:M8:45:GLY:HA3	2.53	0.44
1:1G:51:A:C6	1:1G:353:A:C2	3.06	0.44
1:1G:1255:G:OP1	10:1A:45:ARG:NH1	2.48	0.44
1:1G:1261:A:H61	1:1G:1274:G:H1'	1.83	0.44
1:1G:1299:A:N1	1:1G:1301:U:N3	2.65	0.44
1:1G:1331:G:OP1	1:1G:1331:G:H4'	2.17	0.44
6:52:60:PHE:C	6:52:61:LEU:HD12	2.43	0.44
8:72:69:ARG:HD3	8:72:76:PRO:HA	1.99	0.44
13:4A:76:ALA:HA	13:4A:79:LYS:HB2	2.00	0.44
13:4A:86:CYS:HB2	19:AA:73:GLU:HB3	1.99	0.44
17:8A:21:VAL:HG11	17:8A:59:ILE:HG13	2.00	0.44
26:14:607:U:H5	26:14:619:G:C5	2.36	0.44
26:14:1142(A):A:C4	26:14:1144:G:C8	3.06	0.44
26:14:1461:G:H2'	26:14:1462:C:C6	2.52	0.44
26:14:1665:A:H1'	35:25:1:MET:HG3	2.00	0.44
26:14:1805:U:H5"	28:19:250:TRP:CD2	2.53	0.44
26:14:2115:G:H8	26:14:2117:A:OP2	2.00	0.44
26:14:2123:G:C2	26:14:2176:A:C6	3.06	0.44
26:14:2168:G:N2	26:14:2170:A:OP2	2.51	0.44
26:14:2400:G:H3'	26:14:2401:U:C6	2.52	0.44
26:14:2422:A:H8	26:14:2422:A:H2'	1.64	0.44
26:14:2438:U:O3'	26:14:2439:A:H3'	2.16	0.44
26:14:2527:C:C4	26:14:2528:U:C5	3.06	0.44
28:19:92:ILE:HG21	28:19:92:ILE:HD13	1.72	0.44
28:19:242:ARG:N	28:19:242:ARG:HD3	2.32	0.44
29:29:89:ASP:OD1	29:29:90:THR:N	2.50	0.44
29:29:106:GLY:HA3	29:29:189:PRO:HB2	1.99	0.44
34:15:128:HIS:CE1	34:15:134:ARG:HD2	2.52	0.44
38:55:29:LEU:HB3	38:55:75:LEU:HD21	2.00	0.44
38:55:92:GLY:O	38:55:94:TYR:CE1	2.71	0.44
46:D5:157:LEU:HA	46:D5:158:PRO:HD2	1.72	0.44
47:E5:26:TYR:HB2	47:E5:29:GLN:OE1	2.17	0.44
51:I5:40:HIS:CG	51:I5:45:GLY:HA3	2.53	0.44
53:K5:36:LEU:HA	53:K5:50:ARG:HG2	1.99	0.44
1:13:61:G:H2'	1:13:62:U:O4'	2.18	0.44
1:13:407:G:O4'	4:3E:119:GLN:NE2	2.51	0.44
1:13:501:C:H2'	1:13:502:G:C8	2.52	0.44
1:13:1015:A:H2'	1:13:1016:A:H8	1.83	0.44
1:13:1028(B):C:OP2	1:13:1029:G:H5"	2.18	0.44
1:13:1118:C:OP1	9:8E:104:ARG:NH1	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1191:A:H2'	1:13:1192:C:C6	2.53	0.44
1:13:1226:C:H4'	19:AI:80:TYR:CZ	2.52	0.44
1:13:1356:G:H2'	1:13:1357:A:C8	2.53	0.44
5:4E:96:PRO:HA	5:4E:117:ASP:CG	2.43	0.44
6:5E:41:GLU:HB2	6:5E:62:TRP:CE3	2.53	0.44
13:4I:13:LYS:O	13:4I:44:ARG:NE	2.51	0.44
20:BI:53:LEU:HD22	20:BI:53:LEU:H	1.82	0.44
20:BI:63:ILE:HG22	20:BI:77:ALA:HB1	1.99	0.44
24:3K:4:C:H2'	24:3K:5:G:C8	2.53	0.44
26:1H:50:U:H3'	26:1H:51:G:C5'	2.48	0.44
26:1H:128:C:H2'	26:1H:129:C:H6	1.83	0.44
26:1H:297:C:H2'	26:1H:298:G:O4'	2.18	0.44
26:1H:643:A:O2'	26:1H:644:A:H5'	2.18	0.44
26:1H:1750:G:C2	26:1H:1751:C:C5	3.06	0.44
26:1H:2048:G:H1'	26:1H:2823:A:N6	2.32	0.44
26:1H:2636:U:H2'	26:1H:2637:U:C6	2.52	0.44
32:51:126:PRO:HG2	32:51:130:ARG:HH12	1.83	0.44
34:58:127:ASP:O	34:58:128:HIS:HB3	2.18	0.44
35:68:88:ASN:OD1	35:68:90:GLN:HB2	2.18	0.44
36:78:42:SER:O	36:78:44:GLY:N	2.51	0.44
36:78:144:GLU:HA	36:78:145:PRO:HD3	1.91	0.44
41:C8:79:PHE:CD1	41:C8:79:PHE:C	2.96	0.44
45:G8:9:LYS:HA	45:G8:27:VAL:CG2	2.46	0.44
55:Q8:7:HIS:CD2	55:Q8:57:ARG:HH22	2.36	0.44
1:1G:828:A:H2'	1:1G:829:G:O4'	2.18	0.44
1:1G:854:G:N1	1:1G:855:G:N7	2.66	0.44
1:1G:942:G:C2	1:1G:1342:C:C2	3.06	0.44
1:1G:965:A:C2	1:1G:969:A:C2	3.06	0.44
1:1G:1338:G:N7	1:1G:1339:A:C5	2.86	0.44
1:1G:1343:G:H2'	1:1G:1344:C:C6	2.53	0.44
2:12:98:LEU:HD23	2:12:98:LEU:HA	1.83	0.44
3:22:70:VAL:HG12	3:22:72:LYS:H	1.83	0.44
3:22:109:PRO:HB2	3:22:115:LEU:HD12	1.99	0.44
4:32:108:LEU:HB3	4:32:110:PHE:CE1	2.53	0.44
7:62:137:LYS:O	7:62:141:VAL:HG23	2.18	0.44
10:1A:99:LYS:CE	10:1A:100:THR:H	2.31	0.44
11:2A:24:SER:OG	11:2A:26:ASN:N	2.46	0.44
11:2A:29:ILE:HG22	11:2A:44:SER:CB	2.38	0.44
26:14:307:G:N2	26:14:309:G:H3'	2.33	0.44
26:14:469:G:OP2	58:14:3711:HOH:O	2.21	0.44
26:14:932:G:H4'	26:14:933:A:O5'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1331:A:H2'	26:14:1333:C:C5	2.53	0.44
26:14:2780:G:OP1	34:15:118:LYS:HE2	2.18	0.44
27:1J:109:G:C6	27:1J:110:G:C5	3.05	0.44
28:19:13:ARG:HA	28:19:13:ARG:HD2	1.59	0.44
28:19:148:GLU:CB	28:19:151:LYS:HD2	2.47	0.44
29:29:31:CYS:HB2	29:29:91:VAL:CG2	2.48	0.44
30:39:102:PRO:O	30:39:105:VAL:N	2.48	0.44
32:59:89:ILE:CG2	32:59:130:ARG:HA	2.48	0.44
34:15:56:ASN:O	34:15:56:ASN:ND2	2.43	0.44
36:35:14:LYS:C	36:35:16:ARG:H	2.26	0.44
36:35:107:LYS:O	36:35:109:GLY:N	2.42	0.44
36:35:126:VAL:HG13	36:35:145:PRO:HB2	2.00	0.44
45:C5:36:ALA:HA	45:C5:67:LEU:O	2.17	0.44
46:D5:10:ARG:HH21	46:D5:26:GLY:N	2.15	0.44
46:D5:44:PHE:CE1	46:D5:48:PHE:HB2	2.53	0.44
1:13:51:A:C6	1:13:353:A:C2	3.06	0.43
1:13:60:A:H4'	1:13:61:G:H5'	2.00	0.43
1:13:112:G:OP1	16:7I:27:LYS:HD2	2.18	0.43
1:13:232:G:C5	1:13:233:C:C5	3.06	0.43
1:13:253:U:OP2	17:8I:67:LYS:NZ	2.44	0.43
1:13:458:C:H42	1:13:474:G:H1	1.66	0.43
1:13:765:G:H2'	58:13:1807:HOH:O	2.17	0.43
1:13:1009:G:C2	1:13:1010:G:C8	3.05	0.43
1:13:1284:C:H3'	1:13:1285:A:H8	1.83	0.43
1:13:1310:G:O2'	1:13:1311:G:H5'	2.17	0.43
2:1E:25:ASN:HA	2:1E:26:PRO:HD3	1.73	0.43
2:1E:121:LEU:HA	2:1E:124:SER:OG	2.18	0.43
7:6E:61:VAL:HG12	7:6E:124:LEU:HD23	1.99	0.43
8:7E:86:ILE:HG22	8:7E:87:SER:N	2.32	0.43
10:1I:26:ALA:HB1	10:1I:84:GLN:HG2	2.00	0.43
26:1H:247:G:O6	55:Q8:8:LYS:HB3	2.17	0.43
26:1H:483:A:O4'	45:G8:48:ALA:HB1	2.18	0.43
26:1H:883:G:H2'	26:1H:884:C:H4'	1.99	0.43
26:1H:919:G:H4'	27:16:81:G:H4'	2.00	0.43
26:1H:1022:G:N2	26:1H:1142(A):A:N1	2.65	0.43
26:1H:1137:G:H2'	26:1H:1138:G:H8	1.82	0.43
26:1H:1945:G:H2'	26:1H:1946:U:C6	2.54	0.43
26:1H:2308:G:H2'	26:1H:2308:G:N3	2.33	0.43
26:1H:2400:G:C4	26:1H:2401:U:C5	3.06	0.43
26:1H:2863:C:O2'	26:1H:2864:G:H5'	2.18	0.43
29:21:37:ARG:HA	29:21:42:ASP:OD2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:21:181:LEU:HD12	29:21:181:LEU:HA	1.59	0.43
30:31:111:ALA:HB2	30:31:206:ILE:HG21	2.00	0.43
31:41:47:LYS:NZ	31:41:81:LYS:HB2	2.33	0.43
33:61:79:ILE:HD11	33:61:100:ALA:CB	2.48	0.43
34:58:96:GLU:HB2	34:58:122:VAL:CG1	2.48	0.43
36:78:13:ASN:CG	36:78:15:ARG:HD3	2.43	0.43
36:78:29:LYS:HB3	36:78:30:THR:H	1.50	0.43
36:78:49:ARG:HG3	55:Q8:57:ARG:NE	2.33	0.43
36:78:86:LYS:HB3	36:78:118:GLY:HA3	2.00	0.43
36:78:100:LEU:HD12	36:78:100:LEU:HA	1.70	0.43
37:88:39:PRO:HA	37:88:97:VAL:O	2.17	0.43
37:88:115:MET:HE2	37:88:115:MET:HB3	1.84	0.43
42:D8:2:PHE:O	42:D8:42:GLY:N	2.51	0.43
48:J8:85:LEU:N	48:J8:85:LEU:HD22	2.33	0.43
1:1G:818:G:O2'	1:1G:819:A:H5'	2.17	0.43
1:1G:1158:C:N3	1:1G:1160:G:C8	2.86	0.43
1:1G:1346:A:C6	7:62:10:ARG:NH1	2.86	0.43
6:52:2:ARG:HB3	6:52:4:TYR:CE1	2.53	0.43
8:72:73:ASP:HA	8:72:74:PRO:HD2	1.77	0.43
13:4A:92:HIS:CD2	13:4A:98:VAL:HG11	2.53	0.43
16:7A:23:ASP:OD1	16:7A:25:ARG:HG3	2.17	0.43
24:3L:8:U:H4'	24:3L:9:A:OP1	2.17	0.43
26:14:74:A:H4'	26:14:75:G:O5'	2.17	0.43
26:14:1496:A:H8	26:14:1577:C:O2'	2.01	0.43
26:14:1647:G:OP2	58:14:3540:HOH:O	2.21	0.43
26:14:1693:U:H4'	26:14:1694:C:OP2	2.19	0.43
26:14:2156:G:O6	26:14:2157:G:N2	2.51	0.43
26:14:2572:A:N7	29:29:144:ARG:HD2	2.32	0.43
26:14:2791:C:C4	26:14:2893:G:C6	3.06	0.43
29:29:73:GLU:HA	29:29:74:PRO:HD2	1.61	0.43
30:39:185:ASP:HA	30:39:188:ARG:HE	1.83	0.43
33:69:38:LEU:HD12	33:69:38:LEU:H	1.83	0.43
38:55:10:LEU:O	38:55:12:ARG:HG3	2.18	0.43
42:95:5:VAL:HB	42:95:37:VAL:HG11	2.00	0.43
46:D5:170:THR:C	46:D5:172:ALA:H	2.25	0.43
52:J5:45:VAL:HG22	52:J5:51:TYR:CE2	2.53	0.43
53:K5:17:LYS:C	53:K5:19:ARG:H	2.26	0.43
53:K5:28:ARG:CD	53:K5:32:ASN:H	2.31	0.43
1:13:312:C:H2'	1:13:313:A:H8	1.83	0.43
1:13:465:A:H2'	1:13:466:C:H5"	2.00	0.43
1:13:590:C:H2'	1:13:591:U:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:724:G:O6	1:13:733:A:N6	2.51	0.43
1:13:1367:C:H4'	10:1I:48:THR:HG21	1.98	0.43
2:1E:93:VAL:HG21	2:1E:97:TRP:HD1	1.83	0.43
3:2E:23:TYR:CD1	3:2E:24:ALA:N	2.87	0.43
3:2E:108:ASN:ND2	3:2E:110:ASN:HB2	2.33	0.43
8:7E:122:ARG:HB3	8:7E:126:LYS:HE2	1.99	0.43
11:2I:41:THR:HG21	11:2I:71:LYS:CB	2.49	0.43
12:3I:110:VAL:CG2	12:3I:120:TYR:HB3	2.48	0.43
17:8I:14:LYS:HD2	17:8I:14:LYS:N	2.33	0.43
23:2K:3:C:N4	23:2K:71:G:H1	2.13	0.43
24:3K:9:A:H3'	24:3K:10:G:C8	2.53	0.43
26:1H:460:A:H3'	26:1H:461:C:H6	1.82	0.43
26:1H:463:G:N2	26:1H:466:A:OP2	2.39	0.43
26:1H:639:U:H3	26:1H:649:G:H1	1.66	0.43
26:1H:780:G:N2	26:1H:783:A:H62	2.00	0.43
26:1H:986:C:C2'	26:1H:987:G:H5'	2.48	0.43
26:1H:1071:G:P	26:1H:1071:G:H8	2.41	0.43
26:1H:1288:U:C2	26:1H:1327:C:O2	2.71	0.43
26:1H:1589:C:H2'	26:1H:1590:U:C6	2.53	0.43
26:1H:1766:U:O2'	26:1H:1767:C:H5'	2.18	0.43
26:1H:2038:G:H2'	26:1H:2039:C:H6	1.83	0.43
26:1H:2518:A:H5'	26:1H:2518:A:C8	2.53	0.43
26:1H:2862:G:H2'	26:1H:2863:C:H6	1.83	0.43
26:1H:2893:G:H4'	26:1H:2894:G:O4'	2.19	0.43
27:16:44:G:C2	27:16:48:A:C2	3.06	0.43
29:21:21:VAL:HA	29:21:22:PRO:HD3	1.53	0.43
30:31:59:TYR:CD1	30:31:78:ILE:HD11	2.54	0.43
31:41:10:LYS:O	31:41:15:VAL:HG23	2.18	0.43
31:41:122:PRO:HB3	31:41:180:PHE:HD2	1.81	0.43
34:58:42:TRP:HA	34:58:48:MET:SD	2.58	0.43
35:68:68:GLU:CD	35:68:68:GLU:H	2.25	0.43
36:78:97:PRO:HA	36:78:100:LEU:HB2	1.99	0.43
46:H8:160:GLY:O	46:H8:161:VAL:HG13	2.18	0.43
51:M8:43:TYR:O	51:M8:46:GLN:HA	2.18	0.43
52:N8:46:CYS:SG	52:N8:50:GLY:HA2	2.59	0.43
1:1G:135:C:C2	16:7A:1:MET:HB3	2.53	0.43
1:1G:198:G:H2'	1:1G:199:G:C8	2.51	0.43
1:1G:636:U:H2'	1:1G:637:G:C8	2.54	0.43
1:1G:688:G:O2'	1:1G:704:A:N1	2.40	0.43
1:1G:814:A:N7	1:1G:816:A:C4	2.86	0.43
1:1G:823:G:N3	8:72:1:MET:HE1	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:101:LEU:HD23	4:32:121:VAL:HG13	1.99	0.43
6:52:39:LYS:HE3	6:52:64:GLN:HE21	1.83	0.43
16:7A:14:ASN:O	16:7A:16:HIS:N	2.50	0.43
16:7A:34:GLU:OE1	16:7A:55:ARG:NH1	2.52	0.43
19:AA:66:MET:HA	19:AA:67:VAL:O	2.18	0.43
26:14:68:G:H2'	26:14:69:C:C6	2.53	0.43
26:14:992:C:H2'	26:14:993:G:H8	1.83	0.43
26:14:997:G:P	41:85:58:ARG:HH21	2.41	0.43
26:14:1438:U:O2	26:14:1438:U:H2'	2.16	0.43
26:14:1756:G:OP2	58:14:3804:HOH:O	2.21	0.43
26:14:1954:G:H1'	26:14:1956:U:O4	2.17	0.43
26:14:2211:G:O2'	26:14:2212:A:P	2.76	0.43
26:14:2632:A:O2'	26:14:2811:G:O2'	2.12	0.43
26:14:2743:C:H2'	26:14:2744:G:O4'	2.17	0.43
26:14:2748:A:H2'	26:14:2749:A:C8	2.53	0.43
30:39:83:PHE:O	30:39:84:VAL:HB	2.18	0.43
32:59:99:VAL:HG13	32:59:100:GLY:H	1.83	0.43
40:75:29:ARG:HD3	40:75:44:ASP:OD2	2.18	0.43
41:85:88:ILE:C	41:85:90:VAL:H	2.26	0.43
44:B5:5:TYR:CE1	49:G5:30:ARG:HG3	2.53	0.43
51:I5:8:LYS:HD3	51:I5:8:LYS:HA	1.82	0.43
51:I5:23:GLU:HG3	51:I5:24:THR:N	2.33	0.43
1:13:525:C:O5'	1:13:525:C:H6	2.01	0.43
1:13:611:A:H61	1:13:629:G:H1	1.65	0.43
1:13:818:G:C2	1:13:820:U:O2'	2.69	0.43
1:13:939:G:C6	1:13:940:C:N4	2.86	0.43
1:13:955:U:H1'	1:13:1227:A:N6	2.33	0.43
1:13:993:G:H2'	1:13:993:G:N3	2.33	0.43
1:13:1073:U:O2'	2:1E:104:ASN:OD1	2.37	0.43
1:13:1098:C:C2	1:13:1099:G:C8	3.06	0.43
1:13:1320:C:N4	19:AI:36:ARG:HG3	2.34	0.43
13:4I:22:ILE:HB	13:4I:25:ILE:HD12	2.01	0.43
19:AI:81:ARG:HE	19:AI:81:ARG:HB2	1.61	0.43
26:1H:140:A:C8	26:1H:1408:C:O2'	2.69	0.43
26:1H:375:C:H2'	26:1H:376:C:C6	2.54	0.43
26:1H:433:C:H2'	26:1H:434:U:C6	2.54	0.43
26:1H:476:G:N1	26:1H:479:A:OP2	2.52	0.43
26:1H:895:U:H4'	26:1H:895:U:OP1	2.16	0.43
26:1H:981:A:H1'	26:1H:2037:G:O4'	2.18	0.43
26:1H:1337:G:C4	26:1H:1338:G:C8	3.06	0.43
26:1H:1389:G:C2	26:1H:1399:C:O2	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1491:G:O4'	28:11:99:ASP:HB3	2.18	0.43
26:1H:1705:G:C6	26:1H:1706:U:N3	2.86	0.43
26:1H:1885:A:H2'	26:1H:1886:C:O4'	2.17	0.43
26:1H:2137:C:N3	26:1H:2138:C:N4	2.67	0.43
26:1H:2358:G:H2'	26:1H:2359:C:H6	1.83	0.43
26:1H:2862:G:C4	26:1H:2863:C:C5	3.07	0.43
29:21:14:ILE:HD13	29:21:14:ILE:HA	1.63	0.43
33:61:11:ASN:O	33:61:12:LEU:HB2	2.17	0.43
35:68:91:LEU:HD12	35:68:91:LEU:HA	1.72	0.43
36:78:42:SER:C	36:78:44:GLY:H	2.27	0.43
37:88:30:GLY:CA	37:88:107:ALA:HB2	2.47	0.43
41:C8:88:ILE:O	41:C8:88:ILE:HG22	2.19	0.43
44:F8:31:HIS:CD2	44:F8:33:LYS:H	2.37	0.43
45:G8:45:VAL:N	45:G8:63:LYS:O	2.43	0.43
46:H8:26:GLY:HA2	46:H8:85:HIS:CD2	2.53	0.43
55:Q8:23:VAL:HG22	55:Q8:24:ALA:N	2.32	0.43
1:1G:59:A:N1	58:1G:1824:HOH:O	2.36	0.43
1:1G:137:C:C2	1:1G:227:G:C2	3.06	0.43
1:1G:895:G:H1	1:1G:904:C:H42	1.64	0.43
1:1G:1103:C:H2'	1:1G:1104:G:O4'	2.18	0.43
1:1G:1225:A:H5"	13:4A:103:THR:OG1	2.17	0.43
4:32:59:ARG:O	4:32:63:LYS:N	2.52	0.43
7:62:105:VAL:O	7:62:108:ALA:HB3	2.18	0.43
13:4A:91:ARG:NE	13:4A:97:PRO:O	2.51	0.43
20:BA:64:ASP:OD1	20:BA:81:LYS:HD2	2.18	0.43
20:BA:88:VAL:O	20:BA:92:LEU:HG	2.19	0.43
26:14:84:A:H5"	45:C5:8:LYS:HG3	1.99	0.43
26:14:192:C:OP1	58:14:4099:HOH:O	2.21	0.43
26:14:898:C:N4	26:14:899:A:N3	2.66	0.43
26:14:948:G:C2	26:14:970:C:O2	2.72	0.43
26:14:1953:A:H5"	26:14:1954:G:OP2	2.18	0.43
26:14:2065:C:H5"	26:14:2252:G:H1'	2.00	0.43
26:14:2129:C:C4	26:14:2130:U:C4	3.06	0.43
26:14:2295:C:H41	39:65:13:ARG:NH2	2.15	0.43
26:14:2301:C:N4	26:14:2315:G:O6	2.51	0.43
26:14:2468:G:H3'	26:14:2476:A:C2	2.53	0.43
26:14:2562:U:H4'	35:25:25:LEU:HD21	2.00	0.43
26:14:2576:G:O2'	26:14:2579:C:OP2	2.30	0.43
27:1J:66:A:C6	27:1J:108:C:C6	3.06	0.43
30:39:117:ARG:HG3	30:39:192:LEU:HD12	2.00	0.43
44:B5:31:HIS:HA	44:B5:32:PRO:HD3	1.77	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:D5:59:LEU:HD22	46:D5:59:LEU:HA	1.65	0.43
46:D5:148:ASP:OD2	46:D5:175:VAL:HG11	2.18	0.43
49:G5:18:PRO:O	49:G5:21:LEU:HB2	2.19	0.43
50:H5:50:VAL:O	50:H5:54:VAL:HG23	2.18	0.43
55:M5:14:VAL:CG1	55:M5:22:VAL:HG13	2.48	0.43
1:13:19:C:OP1	5:4E:125:SER:OG	2.21	0.43
1:13:626:U:H2'	1:13:627:G:C8	2.53	0.43
1:13:799:G:C6	1:13:800:G:C4	3.06	0.43
6:5E:14:LEU:HA	6:5E:14:LEU:HD23	1.53	0.43
13:4I:84:ILE:HD11	19:AI:66:MET:CG	2.48	0.43
23:2K:21:U:H6	23:2K:21:U:H2'	1.61	0.43
26:1H:74:A:H5"	26:1H:74:A:H8	1.83	0.43
26:1H:507:A:C5'	26:1H:508:G:H5'	2.47	0.43
26:1H:515:A:H1'	26:1H:581:C:H1'	2.01	0.43
26:1H:1257:C:H4'	30:31:83:PHE:HD1	1.77	0.43
26:1H:1532:C:N3	26:1H:1539:G:N2	2.62	0.43
26:1H:2027:G:O2'	26:1H:2028:U:H5'	2.18	0.43
26:1H:2337:G:H2'	26:1H:2338:G:H8	1.83	0.43
26:1H:2572:A:C8	29:21:144:ARG:HB3	2.53	0.43
26:1H:2572:A:C4	29:21:144:ARG:NH1	2.87	0.43
26:1H:2592:G:C6	26:1H:2593:U:N3	2.87	0.43
26:1H:2692:C:O2'	26:1H:2693:A:H5'	2.18	0.43
28:11:238:GLY:O	28:11:239:ARG:C	2.60	0.43
28:11:269:PHE:N	28:11:269:PHE:CD1	2.86	0.43
30:31:184:TYR:CE1	36:78:3:LEU:HD11	2.53	0.43
31:41:81:LYS:HB3	31:41:82:LEU:H	1.57	0.43
34:58:96:GLU:CG	34:58:97:ARG:H	2.31	0.43
36:78:31:ALA:O	36:78:32:THR:HB	2.19	0.43
37:88:5:ARG:O	37:88:6:ARG:C	2.61	0.43
40:B8:21:GLU:H	40:B8:21:GLU:HG3	1.56	0.43
41:C8:28:ARG:O	41:C8:35:ALA:HA	2.19	0.43
46:H8:23:LYS:HD3	46:H8:40:ASP:HA	1.99	0.43
1:1G:15:G:H4'	5:42:24:ARG:HH12	1.82	0.43
1:1G:198:G:C6	1:1G:220:G:C2	3.06	0.43
1:1G:537:G:H5"	12:3A:113:ARG:NH1	2.34	0.43
1:1G:589:C:H42	1:1G:650:G:H1	1.66	0.43
1:1G:953:G:H2'	1:1G:954:G:O4'	2.18	0.43
1:1G:1065:U:C5	1:1G:1190:G:N3	2.87	0.43
3:22:35:GLU:HG2	3:22:39:ILE:HD11	2.00	0.43
3:22:50:ALA:HB3	3:22:76:VAL:HG12	2.00	0.43
6:52:14:LEU:HD12	6:52:18:GLN:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:50:ILE:HG21	7:62:58:PRO:HA	1.99	0.43
8:72:69:ARG:NH1	8:72:75:ARG:O	2.51	0.43
13:4A:15:VAL:HG12	13:4A:45:VAL:HG22	1.99	0.43
19:AA:66:MET:N	19:AA:67:VAL:HB	2.34	0.43
26:14:120:U:P	58:14:3994:HOH:O	2.76	0.43
26:14:637:A:H2'	36:35:117:GLU:OE2	2.19	0.43
26:14:664:C:H2'	26:14:665:C:H6	1.82	0.43
26:14:816:C:P	58:14:3587:HOH:O	2.77	0.43
26:14:881:G:N7	26:14:882:G:C2	2.87	0.43
26:14:966:G:H2'	26:14:967:C:C6	2.52	0.43
26:14:1138:G:H21	34:15:106:MET:CE	2.32	0.43
26:14:1214:A:H8	26:14:1214:A:O5'	2.01	0.43
26:14:1259:G:H2'	26:14:1260:G:C8	2.54	0.43
26:14:1534:G:H3'	26:14:1535:U:C5'	2.49	0.43
26:14:1615:C:C5	26:14:1617:C:C4	3.06	0.43
26:14:1638:C:H5"	26:14:2710:C:O2	2.18	0.43
26:14:1833:U:H2'	26:14:1834:U:O4'	2.19	0.43
26:14:1997:G:OP2	58:14:3495:HOH:O	2.21	0.43
26:14:2115:G:H4'	26:14:2168:G:N7	2.33	0.43
26:14:2287:A:C2	26:14:2289:G:C8	3.07	0.43
26:14:2682:U:C5	29:29:11:MET:HE2	2.54	0.43
26:14:2830:G:O2'	26:14:2883:A:N1	2.44	0.43
29:29:151:TYR:CD2	29:29:154:LYS:NZ	2.86	0.43
30:39:46:ARG:HG2	30:39:46:ARG:NH1	2.32	0.43
36:35:51:PHE:CE2	36:35:53:GLY:HA2	2.53	0.43
36:35:147:LEU:HD23	36:35:148:LEU:H	1.83	0.43
37:45:1:MET:HB2	37:45:69:PHE:HE1	1.83	0.43
40:75:55:ASN:ND2	40:75:55:ASN:C	2.76	0.43
41:85:16:LYS:O	41:85:20:LEU:HD13	2.19	0.43
41:85:61:TRP:O	41:85:65:ILE:HD13	2.18	0.43
45:C5:90:LEU:HA	45:C5:91:GLU:HA	1.86	0.43
46:D5:67:LEU:HA	46:D5:68:PRO:HD3	1.68	0.43
46:D5:102:LEU:HD22	46:D5:104:PHE:HE1	1.84	0.43
55:M5:15:LYS:HE3	55:M5:16:ILE:O	2.18	0.43
55:M5:29:LYS:HB3	55:M5:44:LYS:HD2	2.01	0.43
1:13:256:U:H2'	1:13:257:G:C8	2.53	0.43
1:13:595:G:H22	1:13:643:C:H41	1.66	0.43
1:13:926:G:H5'	1:13:927:G:C5'	2.49	0.43
1:13:1126:U:N3	1:13:1127:G:C2	2.86	0.43
1:13:1126:U:O2'	1:13:1127:G:OP1	2.34	0.43
3:2E:24:ALA:HB1	3:2E:28:GLN:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1I:23:ILE:H	10:1I:23:ILE:HG13	1.67	0.43
10:1I:40:LEU:HB3	10:1I:41:PRO:HD2	1.99	0.43
11:2I:33:THR:HB	11:2I:37:GLY:C	2.43	0.43
13:4I:64:TRP:CD1	13:4I:64:TRP:H	2.35	0.43
21:1F:12:LYS:O	21:1F:16:GLY:N	2.51	0.43
24:3K:13:C:O2'	24:3K:14:A:H5'	2.18	0.43
26:1H:51:G:N3	26:1H:119:A:C2	2.86	0.43
26:1H:142:G:H1'	44:F8:37:THR:CG2	2.44	0.43
26:1H:444:C:H2'	26:1H:445:C:H6	1.83	0.43
26:1H:449:A:C6	26:1H:450:G:C5	3.06	0.43
26:1H:583:G:H5"	41:C8:10:ARG:NH1	2.33	0.43
26:1H:738:G:C6	26:1H:739:G:C2	3.06	0.43
26:1H:1329:U:H3'	26:1H:1330:C:H6	1.82	0.43
26:1H:1586:A:H3'	26:1H:1587:A:C8	2.46	0.43
26:1H:2125:G:N2	26:1H:2172:U:OP1	2.52	0.43
26:1H:2206:C:H2'	26:1H:2207:C:C6	2.52	0.43
26:1H:2643:G:H2'	26:1H:2644:G:O4'	2.19	0.43
26:1H:2849:U:OP2	40:B8:95:ARG:NH1	2.52	0.43
27:16:61:G:C6	27:16:62:C:C4	3.06	0.43
29:21:66:HIS:ND1	29:21:66:HIS:O	2.51	0.43
31:41:41:GLN:HG3	31:41:60:LEU:HD11	1.99	0.43
37:88:68:ILE:CG2	37:88:103:MET:HB3	2.47	0.43
44:F8:66:LEU:O	44:F8:66:LEU:HG	2.19	0.43
48:J8:85:LEU:HD13	48:J8:85:LEU:HA	1.48	0.43
49:K8:47:ASN:C	49:K8:49:LYS:H	2.25	0.43
55:Q8:5:LYS:H	55:Q8:59:LYS:NZ	2.06	0.43
55:Q8:49:VAL:CG2	55:Q8:50:LEU:H	2.22	0.43
1:1G:376:G:H5"	16:7A:5:ARG:HD3	2.01	0.43
1:1G:389:A:H2'	1:1G:389:A:N3	2.33	0.43
1:1G:596:C:H2'	1:1G:597:G:C8	2.53	0.43
1:1G:1252:A:H61	1:1G:1285:A:H61	1.67	0.43
1:1G:1288:A:N1	1:1G:1371:G:H1'	2.34	0.43
2:12:72:GLY:C	2:12:74:LYS:H	2.26	0.43
2:12:118:LEU:O	2:12:122:PHE:N	2.51	0.43
3:22:59:ARG:HG2	3:22:64:VAL:HG23	2.01	0.43
6:52:10:LEU:HD12	6:52:10:LEU:N	2.33	0.43
6:52:21:LEU:HD22	6:52:21:LEU:HA	1.76	0.43
8:72:83:ILE:HB	8:72:137:VAL:HG13	1.99	0.43
9:82:119:ALA:O	9:82:120:ARG:HB2	2.18	0.43
9:82:121:ARG:NH1	9:82:122:ALA:O	2.52	0.43
23:2L:34:U:O2'	23:2L:36:A:N7	2.45	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:35:G:H2'	26:14:36:G:O4'	2.17	0.43
26:14:40:C:H2'	26:14:41:C:C6	2.51	0.43
26:14:1485:G:H1	26:14:1504:C:H42	1.67	0.43
26:14:1953:A:H2	26:14:2549:G:N3	2.17	0.43
26:14:2038:G:H2'	26:14:2039:C:C6	2.53	0.43
26:14:2187:G:C6	26:14:2188:C:C4	3.07	0.43
26:14:2256:G:C5	26:14:2257:U:C5	3.06	0.43
26:14:2262:U:H4'	26:14:2328:A:H2	1.83	0.43
26:14:2300:G:N2	26:14:2317:C:C2	2.87	0.43
26:14:2391:G:O6	26:14:2425:A:H8	2.01	0.43
27:1J:113:C:OP2	27:1J:113:C:H6	2.02	0.43
29:29:91:VAL:HG23	29:29:91:VAL:O	2.18	0.43
32:59:41:MET:HB3	32:59:42:ARG:H	1.64	0.43
32:59:130:ARG:O	32:59:131:VAL:HB	2.18	0.43
36:35:62:LEU:CD2	55:M5:27:THR:HA	2.48	0.43
39:65:34:HIS:CD2	39:65:54:LEU:HD13	2.54	0.43
44:B5:25:LYS:HA	44:B5:81:VAL:O	2.19	0.43
46:D5:87:ASP:N	46:D5:87:ASP:OD1	2.51	0.43
52:J5:3:LYS:O	52:J5:4:HIS:C	2.58	0.43
1:13:380:G:C2	1:13:384:G:C6	3.06	0.43
1:13:595:G:N2	1:13:643:C:N4	2.66	0.43
1:13:717:C:H5"	1:13:717:C:C6	2.42	0.43
1:13:1096:C:H2'	1:13:1097:C:C6	2.51	0.43
1:13:1284:C:H3'	1:13:1285:A:C8	2.54	0.43
2:1E:88:ALA:HB3	2:1E:90:MET:HG2	2.01	0.43
4:3E:173:TRP:CG	4:3E:189:PRO:HG3	2.53	0.43
13:4I:84:ILE:HG23	13:4I:86:CYS:HB3	2.00	0.43
15:6I:69:TYR:CE1	15:6I:73:GLU:HG3	2.54	0.43
15:6I:78:TYR:CE1	15:6I:82:ILE:HD11	2.54	0.43
24:3K:28:G:H2'	24:3K:29:G:C8	2.53	0.43
26:1H:445:C:OP1	58:1H:3702:HOH:O	2.20	0.43
26:1H:547:A:C6	26:1H:548:A:C6	3.07	0.43
26:1H:1027:A:H2	26:1H:2487:G:HO2'	1.66	0.43
26:1H:1179:C:H2'	26:1H:1180:C:C6	2.54	0.43
26:1H:1607:C:N4	26:1H:1621:U:H2'	2.32	0.43
26:1H:1793:C:O2	26:1H:1900:A:H2	2.02	0.43
26:1H:2334:G:C2	39:A8:12:PHE:CD1	3.07	0.43
29:21:97:LYS:O	29:21:100:GLU:HG3	2.18	0.43
30:31:192:LEU:HD23	30:31:193:VAL:N	2.33	0.43
32:51:92:ILE:H	32:51:92:ILE:HG13	1.59	0.43
33:61:69:LYS:O	33:61:73:GLU:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:98:10:LEU:O	38:98:12:ARG:HG2	2.18	0.43
38:98:92:GLY:N	38:98:94:TYR:HE1	2.15	0.43
39:A8:89:ARG:O	39:A8:90:GLY:C	2.61	0.43
41:C8:88:ILE:C	41:C8:90:VAL:N	2.77	0.43
41:C8:92:ARG:NH2	42:D8:10:LYS:HB3	2.33	0.43
42:D8:64:HIS:ND1	42:D8:92:THR:HG22	2.33	0.43
1:1G:404:U:OP1	4:32:118:ARG:NH1	2.48	0.43
1:1G:1171:G:H2'	1:1G:1172:C:C6	2.54	0.43
1:1G:1313:U:OP1	19:AA:7:LYS:N	2.51	0.43
2:12:22:LYS:HB3	2:12:40:HIS:CE1	2.54	0.43
2:12:119:GLU:HA	2:12:122:PHE:HD2	1.83	0.43
7:62:74:GLU:O	7:62:89:MET:N	2.51	0.43
7:62:111:ARG:NH1	7:62:126:ASP:OD2	2.31	0.43
8:72:89:PRO:HA	8:72:92:ARG:HH21	1.83	0.43
13:4A:28:ALA:C	13:4A:30:ALA:H	2.27	0.43
26:14:480:A:H1'	45:C5:44:ILE:HG12	2.01	0.43
26:14:513:A:C2	26:14:514:A:C4	3.06	0.43
26:14:844:C:C5	26:14:845:G:C6	3.07	0.43
26:14:1138:G:C4	26:14:1139:G:H1'	2.52	0.43
26:14:2002:G:N7	58:14:3797:HOH:O	2.36	0.43
26:14:2031:A:N3	26:14:2455:G:O2'	2.44	0.43
26:14:2031:A:C6	26:14:2498:C:H1'	2.53	0.43
26:14:2056:G:N3	26:14:2056:G:H2'	2.34	0.43
26:14:2140:C:H1'	26:14:2152:G:N2	2.34	0.43
26:14:2547:U:O2	35:25:23:ARG:NH2	2.50	0.43
27:1J:28:C:P	39:65:36:TYR:HH	2.42	0.43
29:29:199:ARG:HB3	29:29:200:GLU:OE1	2.19	0.43
33:69:76:THR:HG22	33:69:139:GLN:O	2.18	0.43
35:25:31:LYS:HB3	35:25:32:TYR:CE1	2.54	0.43
37:45:55:VAL:HG23	37:45:64:ILE:HD12	1.99	0.43
40:75:106:SER:HA	40:75:110:ILE:HD12	1.99	0.43
41:85:31:SER:O	41:85:31:SER:OG	2.37	0.43
46:D5:28:MET:HE1	46:D5:59:LEU:HD12	2.00	0.43
55:M5:4:MET:HB3	55:M5:60:LEU:HD13	2.00	0.43
1:13:75:C:H2'	1:13:76:G:O4'	2.18	0.43
1:13:349:A:O2'	1:13:350:G:H5'	2.18	0.43
1:13:585:G:O2'	1:13:879:C:H5"	2.19	0.43
1:13:683:G:C6	1:13:684:A:C6	3.07	0.43
1:13:1128:C:O2'	1:13:1139:G:O6	2.37	0.43
2:1E:149:LEU:O	2:1E:153:ARG:N	2.52	0.43
2:1E:149:LEU:HD23	2:1E:149:LEU:HA	1.79	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:223:ILE:H	2:1E:223:ILE:HG12	1.55	0.43
3:2E:59:ARG:HA	3:2E:63:ASN:O	2.19	0.43
18:9I:38:GLU:HA	18:9I:41:LYS:NZ	2.33	0.43
26:1H:836:G:C5	26:1H:837:C:C4	3.07	0.43
26:1H:1181:C:O2'	26:1H:1182:A:H5'	2.19	0.43
26:1H:1321:A:H2'	26:1H:1322:A:O4'	2.18	0.43
26:1H:1419:A:C8	26:1H:1421:G:C6	3.07	0.43
26:1H:1510:A:N3	26:1H:1510:A:H2'	2.33	0.43
26:1H:1826:G:H4'	28:11:242:ARG:CZ	2.48	0.43
26:1H:2061:G:H5'	58:1H:3633:HOH:O	2.18	0.43
26:1H:2821:A:H2'	26:1H:2822:G:O4'	2.19	0.43
32:51:95:ARG:HB3	32:51:95:ARG:NH1	2.34	0.43
34:58:41:ASP:C	41:C8:64:ARG:HD2	2.44	0.43
36:78:57:THR:HB	36:78:59:LEU:H	1.83	0.43
37:88:34:LEU:HD23	37:88:104:PHE:HD2	1.82	0.43
37:88:77:LYS:HE3	37:88:82:ARG:HA	2.00	0.43
37:88:110:THR:HG23	37:88:113:GLN:OE1	2.18	0.43
39:A8:29:PHE:CD1	39:A8:30:ARG:N	2.82	0.43
41:C8:66:ASN:CB	41:C8:76:TYR:HB2	2.49	0.43
41:C8:97:ASP:HB2	41:C8:101:ARG:HH11	1.83	0.43
43:E8:64:MET:O	43:E8:65:LEU:HB2	2.18	0.43
46:H8:18:LEU:O	46:H8:21:ALA:HB3	2.18	0.43
47:I8:51:VAL:N	47:I8:62:LEU:HD12	2.33	0.43
51:M8:39:CYS:C	51:M8:41:PRO:HD3	2.44	0.43
1:1G:316:G:H2'	1:1G:317:G:C8	2.53	0.43
1:1G:407:G:H2'	1:1G:408:A:C8	2.53	0.43
1:1G:1274:G:N2	1:1G:1275:A:N7	2.57	0.43
1:1G:1292:U:H5'	9:82:38:GLN:NE2	2.34	0.43
1:1G:1299:A:C6	1:1G:1301:U:C2	3.06	0.43
1:1G:1317:C:H5"	1:1G:1318:A:OP2	2.19	0.43
3:22:18:TRP:HE1	14:5A:55:GLY:N	2.16	0.43
7:62:15:ASP:HB3	7:62:19:GLY:N	2.34	0.43
9:82:10:ARG:HD2	9:82:105:ASP:HB3	2.00	0.43
19:AA:71:LEU:HD23	19:AA:71:LEU:HA	1.75	0.43
26:14:238:C:C2	26:14:260:G:C2	3.06	0.43
26:14:335:C:H4'	45:C5:73:ARG:CZ	2.48	0.43
26:14:341:G:C6	26:14:342:G:C5	3.06	0.43
26:14:607:U:N3	26:14:621:A:C2	2.78	0.43
26:14:686:G:N2	26:14:788:A:H61	2.16	0.43
26:14:1161:C:H1'	42:95:8:GLY:O	2.18	0.43
26:14:1198:U:C2	26:14:1199:U:C5	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1204:A:HO2'	26:14:1205:U:P	2.41	0.43
26:14:1375:C:H2'	26:14:1376:C:H6	1.82	0.43
26:14:1608:A:H1'	26:14:1610:A:OP2	2.19	0.43
26:14:1812:A:O2'	28:19:45:ASN:N	2.51	0.43
26:14:1900:A:N1	26:14:1970:A:C6	2.86	0.43
26:14:1954:G:N2	26:14:1956:U:C2	2.87	0.43
26:14:2298:A:N6	26:14:2318:G:C8	2.86	0.43
26:14:2480:C:H5'	26:14:2481:G:OP2	2.18	0.43
27:1J:9:G:OP1	39:65:25:ARG:NH2	2.51	0.43
29:29:33:VAL:HG12	29:29:89:ASP:CB	2.44	0.43
30:39:152:GLU:CD	30:39:191:ARG:HD2	2.44	0.43
30:39:160:ASN:HB3	30:39:163:VAL:HB	2.00	0.43
31:49:64:THR:OG1	31:49:94:LEU:HD21	2.19	0.43
34:15:17:ASP:O	34:15:18:ALA:HB3	2.18	0.43
36:35:110:TYR:HB3	36:35:111:ARG:H	1.47	0.43
41:85:66:ASN:CB	41:85:76:TYR:HB2	2.41	0.43
46:D5:59:LEU:HB3	46:D5:60:GLU:H	1.48	0.43
48:F5:85:LEU:HB3	48:F5:87:PRO:HG2	1.99	0.43
51:I5:29:PRO:C	51:I5:30:GLU:HG3	2.43	0.43
1:13:68:G:N2	1:13:69:G:H1'	2.33	0.43
1:13:101:A:H8	1:13:101:A:OP2	2.02	0.43
1:13:1316:G:H5"	14:5I:17:LYS:NZ	2.34	0.43
7:6E:113:GLU:HB2	7:6E:118:VAL:HG13	2.00	0.43
8:7E:94:TYR:HE1	8:7E:132:GLU:HB2	1.83	0.43
13:4I:54:VAL:O	13:4I:58:GLU:HG3	2.19	0.43
18:9I:31:LEU:HD23	18:9I:31:LEU:H	1.84	0.43
20:BI:56:MET:HG3	20:BI:88:VAL:HG21	2.00	0.43
26:1H:8:A:H2'	26:1H:9:U:C6	2.53	0.43
26:1H:58:G:N2	26:1H:70:G:C4	2.87	0.43
26:1H:183:C:H42	26:1H:213:A:H61	1.67	0.43
26:1H:265:A:C2	26:1H:428:A:C2	3.07	0.43
26:1H:270(V):G:H2'	26:1H:270(W):G:C8	2.53	0.43
26:1H:481:G:H1'	26:1H:507:A:N1	2.34	0.43
26:1H:518:G:H2'	26:1H:519:U:C6	2.54	0.43
26:1H:581:C:OP1	41:C8:33:ARG:HG3	2.18	0.43
26:1H:775:G:C4	26:1H:794:G:C8	3.06	0.43
26:1H:1665:A:H1'	35:68:1:MET:HG3	2.01	0.43
26:1H:1843:C:O5'	26:1H:1843:C:H6	2.02	0.43
26:1H:2031:A:HO2'	26:1H:2454:G:N2	2.16	0.43
26:1H:2593:U:C4	58:1H:3683:HOH:O	2.57	0.43
30:31:125:LEU:HD11	30:31:199:TRP:CD2	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:41:26:GLN:OE1	31:41:27:ASN:HB2	2.19	0.43
32:51:52:VAL:HG12	32:51:65:HIS:CD2	2.53	0.43
37:88:133:ARG:O	37:88:134:ARG:HB2	2.17	0.43
41:C8:91:ASP:O	41:C8:92:ARG:C	2.60	0.43
42:D8:35:LEU:O	42:D8:37:VAL:N	2.52	0.43
44:F8:21:PHE:HE1	44:F8:92:LEU:HD13	1.83	0.43
55:Q8:30:ARG:HB2	55:Q8:30:ARG:CZ	2.49	0.43
1:1G:266:G:H5"	1:1G:268:C:H41	1.83	0.43
1:1G:375:U:O3'	16:7A:6:LEU:HB2	2.17	0.43
1:1G:532:A:H2	3:22:156:ARG:HH12	1.64	0.43
1:1G:620:C:H3'	1:1G:621:A:H8	1.84	0.43
1:1G:756:C:H2'	1:1G:757:U:O4'	2.19	0.43
1:1G:1172:C:H2'	1:1G:1173:G:H8	1.83	0.43
17:8A:10:VAL:HG23	17:8A:54:GLY:N	2.32	0.43
26:14:619:G:H5'	26:14:620:G:OP2	2.19	0.43
26:14:900:A:H5"	26:14:901:A:OP2	2.19	0.43
26:14:909:A:C8	26:14:912:C:N4	2.87	0.43
26:14:993:G:N3	42:95:89:GLN:NE2	2.59	0.43
26:14:1021:A:C8	26:14:1021:A:C3'	3.02	0.43
26:14:1259:G:H2'	26:14:1260:G:H8	1.84	0.43
26:14:1754:C:N3	26:14:2716:U:O2'	2.51	0.43
26:14:1848:A:C4	26:14:1849:G:C8	3.06	0.43
26:14:2015:A:H1'	52:J5:2:ALA:HA	2.01	0.43
26:14:2040:C:H2'	26:14:2041:U:O4'	2.19	0.43
26:14:2072:G:H2'	26:14:2073:C:O4'	2.19	0.43
26:14:2091:U:OP2	26:14:2092:U:O2'	2.24	0.43
26:14:2207:C:N4	26:14:2217:G:H1	2.08	0.43
26:14:2228:G:C6	26:14:2229:C:C4	3.07	0.43
26:14:2299:G:N1	26:14:2318:G:H8	2.17	0.43
26:14:2376:A:H2	39:65:112:PHE:HB3	1.84	0.43
30:39:21:ALA:C	30:39:23:ASP:H	2.25	0.43
32:59:68:THR:O	32:59:72:ILE:HG13	2.19	0.43
33:69:65:ALA:O	33:69:68:LEU:N	2.51	0.43
33:69:109:ILE:HB	33:69:130:TYR:OH	2.18	0.43
35:25:19:ILE:HD12	35:25:41:ALA:CB	2.49	0.43
36:35:2:LYS:O	36:35:5:ASP:HB2	2.19	0.43
37:45:1:MET:HB3	37:45:2:LEU:H	1.61	0.43
40:75:90:GLN:OE1	40:75:121:ILE:HD11	2.18	0.43
46:D5:11:GLU:HG3	46:D5:12:GLY:H	1.83	0.43
1:13:232:G:C5	1:13:233:C:C4	3.07	0.43
1:13:412:A:H1'	1:13:413:G:OP2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:749:C:H2'	1:13:750:G:H8	1.83	0.43
1:13:1342:C:H2'	1:13:1343:G:C8	2.54	0.43
2:1E:71:VAL:HG12	2:1E:93:VAL:HB	2.00	0.43
2:1E:111:ARG:HG2	2:1E:111:ARG:NH1	2.33	0.43
5:4E:15:ARG:HB2	5:4E:28:PHE:CE2	2.54	0.43
5:4E:110:LEU:O	5:4E:115:VAL:HB	2.19	0.43
6:5E:94:GLN:H	6:5E:94:GLN:HG3	1.55	0.43
7:6E:111:ARG:HB3	7:6E:113:GLU:OE2	2.18	0.43
8:7E:88:LYS:O	8:7E:92:ARG:HD3	2.18	0.43
9:8E:10:ARG:HD2	9:8E:11:LYS:HG3	1.99	0.43
9:8E:70:LYS:O	9:8E:74:ILE:HG13	2.19	0.43
16:7I:53:VAL:HG13	16:7I:79:VAL:HA	2.01	0.43
26:1H:828:U:H2'	26:1H:829:A:C8	2.54	0.43
26:1H:950:G:H2'	26:1H:951:C:H6	1.82	0.43
26:1H:1153:C:C4	26:1H:1154:G:C5	3.07	0.43
26:1H:1484:G:C2	26:1H:1485:G:C8	3.06	0.43
26:1H:1727:U:H2'	26:1H:1728:G:O4'	2.18	0.43
26:1H:1830:C:O2'	26:1H:1831:G:H5'	2.17	0.43
26:1H:1975:G:H5"	58:1H:3984:HOH:O	2.17	0.43
26:1H:2017:U:P	58:1H:4643:HOH:O	2.76	0.43
26:1H:2298:A:H2'	26:1H:2299:G:O4'	2.19	0.43
26:1H:2679:A:H61	26:1H:2728:U:H3	1.65	0.43
26:1H:2830:G:N3	26:1H:2883:A:H2	2.16	0.43
26:1H:2843:G:O2'	26:1H:2844:G:H5'	2.18	0.43
35:68:2:ILE:HD12	35:68:6:THR:HG21	2.01	0.43
36:78:80:TYR:CD2	36:78:111:ARG:HB3	2.53	0.43
37:88:103:MET:H	37:88:103:MET:HG2	1.40	0.43
39:A8:41:ASP:OD2	39:A8:44:LYS:HB2	2.19	0.43
42:D8:98:GLU:OE2	42:D8:100:ARG:NH1	2.49	0.43
45:G8:94:LYS:HG3	45:G8:95:LYS:N	2.33	0.43
53:O8:25:LYS:HB3	53:O8:25:LYS:HE3	1.80	0.43
55:Q8:18:ALA:O	55:Q8:19:SER:OG	2.34	0.43
1:1G:674:G:N2	11:2A:116:HIS:HB2	2.33	0.43
1:1G:937:A:C5	1:1G:938:A:N7	2.87	0.43
1:1G:979:C:C5	1:1G:980:C:C6	3.00	0.43
1:1G:1009:G:C2	1:1G:1010:G:C8	3.06	0.43
1:1G:1050:G:C6	1:1G:1051:C:N4	2.87	0.43
7:62:92:SER:O	7:62:96:GLN:HG3	2.18	0.43
8:72:36:LEU:HD23	8:72:36:LEU:HA	1.86	0.43
19:AA:23:ASN:HA	19:AA:27:GLU:CD	2.43	0.43
26:14:139:G:N2	26:14:141:A:N1	2.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:664:C:H2'	26:14:665:C:C6	2.53	0.43
26:14:931:G:H3'	26:14:931:G:C8	2.54	0.43
26:14:947:G:H2'	26:14:948:G:C8	2.54	0.43
26:14:1027:A:H5'	27:1J:88:C:H41	1.84	0.43
26:14:1141:U:P	34:15:63:THR:HG21	2.59	0.43
26:14:1507:A:C2	26:14:1508:A:H1'	2.54	0.43
26:14:1956:U:C2	26:14:1957:C:C6	3.06	0.43
26:14:2305:A:H8	31:49:156:ASP:OD2	2.02	0.43
26:14:2352:A:N1	47:E5:33:ALA:O	2.52	0.43
26:14:2592:G:C6	26:14:2593:U:C4	3.07	0.43
26:14:2640:G:OP1	34:15:97:ARG:NH1	2.45	0.43
26:14:2820:A:C6	38:55:4:LEU:HD11	2.54	0.43
28:19:228:PRO:HG3	28:19:234:GLY:O	2.18	0.43
29:29:35:GLN:HG2	29:29:37:ARG:HG2	2.01	0.43
31:49:81:LYS:HA	31:49:81:LYS:HD3	1.69	0.43
37:45:110:THR:H	37:45:113:GLN:HE21	1.67	0.43
39:65:23:ARG:NH2	39:65:84:GLN:HG3	2.34	0.43
40:75:3:ARG:O	40:75:4:GLY:C	2.59	0.43
46:D5:94:GLU:O	46:D5:130:PRO:HD3	2.18	0.43
55:M5:35:GLN:HG3	55:M5:35:GLN:O	2.19	0.43
1:13:4:U:C4	8:7E:105:ARG:HD2	2.54	0.43
1:13:8:A:H62	4:3E:208:SER:HB2	1.84	0.43
1:13:658:G:H2'	1:13:659:U:C6	2.54	0.43
1:13:668:G:O2'	15:6I:46:HIS:HB3	2.19	0.43
1:13:671:G:C4	1:13:672:U:C6	3.07	0.43
1:13:711:G:H2'	1:13:712:A:H8	1.84	0.43
1:13:790:A:C6	1:13:791:G:C6	3.07	0.43
1:13:983:A:H5'	1:13:984:C:OP2	2.19	0.43
1:13:1225:A:H2'	1:13:1225:A:N3	2.34	0.43
2:1E:5:ILE:HG13	2:1E:6:THR:H	1.83	0.43
4:3E:13:ARG:NH1	4:3E:38:TYR:O	2.52	0.43
4:3E:98:GLU:O	4:3E:103:ASN:ND2	2.52	0.43
4:3E:167:GLY:CA	28:19:135:PHE:HE1	2.29	0.43
5:4E:63:ARG:O	5:4E:66:MET:HG3	2.19	0.43
24:3K:38:A:C2	24:3K:39:U:C4	3.07	0.43
26:1H:71:A:OP1	26:1H:72:U:H2'	2.19	0.43
26:1H:467:G:OP1	54:P8:33:ARG:NH1	2.48	0.43
26:1H:660:G:O3'	30:31:38:ARG:NH2	2.52	0.43
26:1H:818:G:H5'	26:1H:839:U:OP1	2.19	0.43
26:1H:1219:G:OP2	41:C8:19:LYS:NZ	2.39	0.43
26:1H:1359:A:N1	26:1H:1372:U:C4	2.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1496:A:H8	26:1H:1577:C:O2'	2.02	0.43
26:1H:1545(A):A:H2'	26:1H:1546:C:O4'	2.19	0.43
26:1H:1592:C:H2'	26:1H:1593:G:H8	1.84	0.43
26:1H:1666:G:C2'	26:1H:1667:G:H5'	2.49	0.43
26:1H:1705:G:C2'	26:1H:1706:U:H5'	2.49	0.43
26:1H:1869:G:N2	26:1H:1872:A:OP2	2.48	0.43
26:1H:2256:G:C5	58:1H:4119:HOH:O	2.69	0.43
26:1H:2352:A:N6	26:1H:2365:G:O2'	2.51	0.43
26:1H:2360:A:O2'	36:78:61:ARG:NH2	2.52	0.43
26:1H:2557:G:H2'	26:1H:2558:C:C6	2.54	0.43
26:1H:2725:A:C4	26:1H:2727:G:C8	3.07	0.43
28:11:248:SER:HB3	28:11:252:TRP:CZ3	2.54	0.43
29:21:23:VAL:HA	29:21:185:LYS:HA	2.00	0.43
30:31:177:ALA:HB1	30:31:178:PRO:HD2	2.01	0.43
32:51:116:GLU:HG3	32:51:117:PRO:HD2	2.01	0.43
33:61:79:ILE:HA	33:61:80:PRO:HD2	1.93	0.43
34:58:133:GLN:O	34:58:134:ARG:HB2	2.18	0.43
36:78:136:GLU:O	36:78:137:LYS:C	2.61	0.43
37:88:7:MET:HE2	37:88:7:MET:HB3	1.98	0.43
38:98:8:ARG:NH1	38:98:39:PRO:HB3	2.34	0.43
38:98:78:LYS:O	38:98:83:ILE:HG13	2.19	0.43
44:F8:1:MET:HE1	49:K8:22:GLU:HB3	2.01	0.43
44:F8:31:HIS:CD2	44:F8:33:LYS:HB2	2.54	0.43
49:K8:48:HIS:H	49:K8:50:ILE:HD11	1.83	0.43
52:N8:3:LYS:HB2	52:N8:4:HIS:H	1.61	0.43
1:1G:17:U:H1'	1:1G:1080:A:H1'	2.01	0.43
1:1G:582:U:H1'	1:1G:760:G:C6	2.54	0.43
1:1G:636:U:H2'	1:1G:637:G:H8	1.84	0.43
1:1G:673:G:H2'	1:1G:674:G:H8	1.78	0.43
1:1G:757:U:O2'	1:1G:879:C:O2	2.37	0.43
1:1G:861:G:C4	1:1G:862:C:C5	3.06	0.43
1:1G:892:A:O2'	1:1G:1415:G:H4'	2.19	0.43
1:1G:974:A:P	14:5A:41:ARG:HH12	2.42	0.43
2:12:186:ALA:O	2:12:201:ILE:HG12	2.19	0.43
4:32:22:LYS:HG3	4:32:26:CYS:SG	2.59	0.43
4:32:101:LEU:HB2	4:32:138:TYR:HB3	2.00	0.43
11:2A:124:LYS:HB2	11:2A:125:PHE:CD1	2.53	0.43
13:4A:7:VAL:HG11	31:49:115:ARG:NE	2.34	0.43
13:4A:13:LYS:HA	13:4A:44:ARG:NH1	2.34	0.43
18:9A:32:ARG:HB2	18:9A:65:ILE:HD11	2.01	0.43
26:14:654(E):C:H42	26:14:654(P):G:H1	1.64	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:878:A:N6	26:14:899:A:O2'	2.52	0.43
26:14:1967:C:H2'	26:14:1968:G:O4'	2.18	0.43
26:14:2065:C:H2'	26:14:2066:C:C6	2.54	0.43
26:14:2107:C:H2'	26:14:2108:C:O4'	2.19	0.43
26:14:2150:U:H2'	26:14:2151:G:C8	2.49	0.43
26:14:2318:G:N2	39:65:3:ARG:HB2	2.34	0.43
26:14:2766:G:N3	26:14:2766:G:H2'	2.34	0.43
26:14:2789:C:H3'	26:14:2790:A:H5"	2.00	0.43
26:14:2861:G:O2'	26:14:2862:G:H5'	2.19	0.43
29:29:119:ARG:HA	29:29:160:TYR:CD2	2.54	0.43
43:A5:29:LEU:HD21	43:A5:33:ARG:NH2	2.34	0.43
44:B5:66:LEU:HD23	44:B5:66:LEU:HA	1.88	0.43
46:D5:44:PHE:HE1	46:D5:48:PHE:CD2	2.37	0.43
47:E5:24:LYS:O	47:E5:25:ARG:HD3	2.18	0.43
1:13:63:C:N4	1:13:105:G:O6	2.52	0.42
1:13:869:G:H4'	1:13:872:A:O4'	2.18	0.42
1:13:1060:C:O2'	10:1I:56:HIS:ND1	2.52	0.42
1:13:1258:G:H2'	1:13:1259:C:C6	2.54	0.42
6:5E:7:ASN:HD21	6:5E:62:TRP:HD1	1.67	0.42
14:5I:11:LYS:C	14:5I:13:THR:H	2.27	0.42
20:BI:29:LYS:HE3	20:BI:29:LYS:HB2	1.80	0.42
26:1H:188:G:H1	26:1H:208:C:H42	1.67	0.42
26:1H:341:G:H2'	26:1H:342:G:O4'	2.19	0.42
26:1H:1282:U:H2'	26:1H:1283:G:C8	2.54	0.42
26:1H:1677:A:H2'	26:1H:1678:G:C8	2.54	0.42
26:1H:1972:A:OP2	58:1H:4636:HOH:O	2.21	0.42
26:1H:2266:A:H4'	26:1H:2267:A:N3	2.34	0.42
26:1H:2617:C:O2'	26:1H:2618:G:H5'	2.19	0.42
28:11:44:ASN:O	28:11:46:GLN:O	2.36	0.42
28:11:105:ILE:HD12	28:11:105:ILE:HA	1.55	0.42
30:31:163:VAL:O	30:31:166:ALA:HB3	2.18	0.42
32:51:97:ARG:O	32:51:103:LEU:HD12	2.18	0.42
32:51:144:VAL:O	32:51:148:ILE:HG12	2.19	0.42
34:58:18:ALA:CA	34:58:21:LYS:HG3	2.49	0.42
34:58:75:TYR:HA	34:58:81:GLY:O	2.19	0.42
34:58:91:LEU:HA	34:58:95:PRO:HA	2.01	0.42
34:58:129:PRO:O	34:58:134:ARG:NH1	2.52	0.42
37:88:118:LEU:HD23	37:88:118:LEU:HA	1.89	0.42
43:E8:29:LEU:HD21	43:E8:33:ARG:NH2	2.34	0.42
48:J8:20:ARG:HG2	48:J8:20:ARG:HH11	1.84	0.42
49:K8:14:ARG:HG2	49:K8:63:VAL:HG11	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:P8:10:ARG:HG2	54:P8:14:LYS:HD3	2.01	0.42
1:1G:1305:G:O2'	1:1G:1306:A:H8	2.01	0.42
1:1G:1521:G:H2'	1:1G:1522:U:H6	1.84	0.42
2:12:6:THR:H	2:12:221:LEU:HD11	1.84	0.42
2:12:101:MET:HA	2:12:101:MET:HE2	2.01	0.42
5:42:51:VAL:HG23	5:42:52:PRO:HD3	2.01	0.42
9:82:34:ASN:O	9:82:38:GLN:HB2	2.19	0.42
26:14:710:G:C2	26:14:722:A:C2	3.06	0.42
26:14:751:A:C6	26:14:789:A:C5	3.07	0.42
26:14:820:A:H2'	26:14:821:A:C8	2.54	0.42
26:14:1777:U:O2'	26:14:1778:U:H5'	2.19	0.42
26:14:1925:C:C2'	26:14:1926:U:H5'	2.49	0.42
26:14:2579:C:H4'	29:29:134:ILE:HG12	2.01	0.42
26:14:2600:A:N6	58:14:4084:HOH:O	2.43	0.42
29:29:12:THR:C	29:29:23:VAL:HG23	2.44	0.42
29:29:134:ILE:HA	29:29:137:HIS:CD2	2.53	0.42
30:39:110:LEU:O	30:39:114:VAL:HG23	2.19	0.42
30:39:157:VAL:HB	30:39:194:MET:HB3	1.99	0.42
31:49:111:LEU:HD23	31:49:111:LEU:HA	1.83	0.42
33:69:7:GLU:HG3	33:69:8:PRO:HD2	2.01	0.42
33:69:110:ASP:HA	33:69:111:PRO:HD3	1.82	0.42
35:25:47:ILE:HD12	35:25:47:ILE:HA	1.79	0.42
40:75:8:LYS:HZ2	40:75:8:LYS:CB	2.29	0.42
40:75:53:ARG:HG3	40:75:53:ARG:O	2.19	0.42
40:75:54:ARG:HB3	40:75:54:ARG:HH11	1.84	0.42
41:85:106:PHE:O	41:85:109:LEU:HB2	2.19	0.42
42:95:35:LEU:HB3	42:95:37:VAL:HG13	2.00	0.42
46:D5:141:VAL:HG11	46:D5:150:LEU:HD22	2.01	0.42
53:K5:48:VAL:HG21	53:K5:50:ARG:NH2	2.34	0.42
1:13:186(F):C:H2'	1:13:187:C:O4'	2.19	0.42
1:13:591:U:H2'	1:13:592:G:H8	1.84	0.42
1:13:668:G:C6	1:13:669:U:C5	3.07	0.42
1:13:694:A:H5"	11:2I:53:SER:OG	2.20	0.42
1:13:827:U:C5	1:13:872:A:N1	2.87	0.42
1:13:931:C:O2'	1:13:932:C:H5'	2.19	0.42
1:13:1350:A:C6	1:13:1351:U:N3	2.87	0.42
2:1E:75:LYS:HA	2:1E:78:GLN:HB2	2.00	0.42
3:2E:95:THR:HB	3:2E:97:LYS:H	1.84	0.42
5:4E:53:LEU:O	5:4E:56:GLN:HB2	2.18	0.42
9:8E:45:ALA:O	9:8E:48:GLU:HG2	2.19	0.42
9:8E:114:TYR:HB2	10:1I:60:ARG:HG3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:70:LEU:HD11	15:6I:77:ARG:HG2	2.01	0.42
17:8I:34:LYS:HD3	17:8I:36:ILE:HG22	2.00	0.42
18:9I:38:GLU:HA	18:9I:41:LYS:HE3	2.01	0.42
26:1H:109:G:H2'	26:1H:110:G:O4'	2.18	0.42
26:1H:784:A:H5"	28:11:227:ASN:HD21	1.84	0.42
26:1H:1163:G:N3	26:1H:1164:G:C8	2.88	0.42
26:1H:1188:U:O2'	26:1H:1189:A:H5'	2.19	0.42
26:1H:1423:G:C6	26:1H:1424:G:N7	2.87	0.42
26:1H:1473:G:H2'	26:1H:1474:C:O4'	2.20	0.42
26:1H:1486:A:H2'	26:1H:1487:G:C8	2.55	0.42
26:1H:1486:A:H2'	26:1H:1487:G:H8	1.84	0.42
26:1H:1550:C:H2'	26:1H:1551:C:C6	2.54	0.42
26:1H:1777:U:O2'	26:1H:1778:U:H5'	2.19	0.42
26:1H:1945:G:H2'	26:1H:1946:U:H6	1.83	0.42
26:1H:2017:U:O2	52:N8:10:LYS:HB2	2.19	0.42
26:1H:2138:C:N3	26:1H:2153:G:N2	2.55	0.42
26:1H:2287:A:C2	26:1H:2346:A:H2	2.37	0.42
28:11:14:ARG:HD3	28:11:15:PHE:CZ	2.53	0.42
28:11:172:TYR:HD1	28:11:185:VAL:C	2.27	0.42
32:51:101:ARG:NH1	32:51:122:THR:OG1	2.48	0.42
34:58:22:THR:HG22	34:58:23:LEU:H	1.84	0.42
36:78:121:LYS:HE2	36:78:121:LYS:HB3	1.82	0.42
38:98:29:LEU:HD12	38:98:29:LEU:HA	1.69	0.42
40:B8:105:LEU:C	40:B8:107:ASP:H	2.27	0.42
41:C8:90:VAL:HG12	41:C8:91:ASP:HA	2.01	0.42
41:C8:110:VAL:O	41:C8:114:LYS:N	2.38	0.42
43:E8:12:ILE:HG13	43:E8:42:ARG:HH11	1.83	0.42
44:F8:5:TYR:HB3	49:K8:33:MET:HB2	2.01	0.42
46:H8:9:TYR:HE1	46:H8:28:MET:HE1	1.84	0.42
52:N8:42:PRO:HB2	52:N8:43:HIS:ND1	2.34	0.42
1:1G:6:G:O2'	1:1G:7:G:O5'	2.37	0.42
1:1G:247:G:OP2	17:8A:100:LYS:HE2	2.19	0.42
1:1G:304:U:H2'	1:1G:305:G:C8	2.54	0.42
1:1G:502:G:C2	1:1G:503:C:C2	3.07	0.42
1:1G:668:G:O2'	15:6A:46:HIS:HB3	2.18	0.42
1:1G:812:C:H1'	1:1G:813:U:OP2	2.19	0.42
1:1G:1080:A:H5"	1:1G:1081:G:OP2	2.19	0.42
1:1G:1097:C:H2'	1:1G:1098:C:H6	1.83	0.42
1:1G:1148:U:H2'	1:1G:1149:C:O4'	2.19	0.42
1:1G:1295:G:O2'	13:4A:14:ARG:NH1	2.52	0.42
1:1G:1326:C:H2'	1:1G:1327:C:H6	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1357:A:C5	1:1G:1358:U:C4	3.07	0.42
1:1G:1459:C:OP1	20:BA:31:SER:OG	2.35	0.42
2:12:24:TRP:NE1	2:12:26:PRO:HG3	2.34	0.42
18:9A:74:ARG:HB3	18:9A:81:PHE:CE1	2.54	0.42
19:AA:66:MET:HA	19:AA:67:VAL:C	2.44	0.42
20:BA:14:LYS:HA	20:BA:17:ARG:CZ	2.49	0.42
20:BA:26:ASN:HB2	20:BA:71:THR:HG23	2.00	0.42
20:BA:37:SER:O	20:BA:41:ILE:HG12	2.20	0.42
20:BA:64:ASP:OD1	20:BA:64:ASP:N	2.52	0.42
26:14:26:G:C6	26:14:27:G:N1	2.87	0.42
26:14:55:G:H2'	26:14:56:A:C8	2.55	0.42
26:14:55:G:H2'	26:14:56:A:H8	1.83	0.42
26:14:80:G:C6	26:14:81:G:C5	3.07	0.42
26:14:221:A:C4	26:14:266:G:N7	2.87	0.42
26:14:273(F):C:H3'	26:14:274:G:H5"	2.02	0.42
26:14:890:A:H2'	26:14:892:G:C8	2.54	0.42
26:14:1022:G:C5	26:14:1140:C:C4	3.07	0.42
26:14:1280:G:H5"	26:14:1280:G:C8	2.53	0.42
26:14:1668:A:OP1	35:25:5:GLN:HG2	2.20	0.42
26:14:1794:U:H2'	26:14:1795:C:H6	1.84	0.42
26:14:1801:G:O6	26:14:2206:C:O2'	2.35	0.42
26:14:1839:G:N3	26:14:1839:G:H2'	2.34	0.42
27:1J:7:G:N2	39:65:38:GLN:OE1	2.34	0.42
27:1J:83:G:H1	27:1J:93:C:H42	1.67	0.42
28:19:64:ILE:O	28:19:64:ILE:HG12	2.18	0.42
31:49:19:LEU:HD13	31:49:23:PHE:HE2	1.84	0.42
31:49:76:SER:OG	31:49:84:LYS:N	2.51	0.42
37:45:19:GLY:H	37:45:98:LYS:HZ3	1.67	0.42
37:45:43:THR:O	37:45:46:GLN:N	2.52	0.42
40:75:61:PHE:CE1	40:75:76:PHE:HB2	2.54	0.42
47:E5:66:VAL:CG1	47:E5:67:VAL:N	2.82	0.42
50:H5:7:LYS:HG3	50:H5:34:GLU:CG	2.49	0.42
1:13:21:G:H2'	1:13:22:G:C8	2.54	0.42
1:13:347:G:H8	1:13:347:G:OP2	2.03	0.42
1:13:560:U:O5'	1:13:560:U:H6	2.01	0.42
1:13:746:A:C2'	1:13:747:C:H5'	2.49	0.42
1:13:1090:U:H2'	1:13:1091:U:C6	2.54	0.42
1:13:1110:A:OP2	58:13:1958:HOH:O	2.22	0.42
1:13:1145:C:H5"	1:13:1146:A:OP1	2.20	0.42
1:13:1309:G:C6	1:13:1329:A:C2	3.07	0.42
2:1E:60:ASP:HB3	2:1E:64:ARG:NH1	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:70:ILE:HD12	4:3E:70:ILE:HA	1.82	0.42
4:3E:120:LEU:HD23	4:3E:120:LEU:HA	1.86	0.42
5:4E:41:VAL:HG13	5:4E:113:ALA:HB2	2.00	0.42
11:2I:29:ILE:HG13	11:2I:44:SER:HB3	2.01	0.42
16:7I:4:ILE:HD12	16:7I:66:PRO:HB3	2.02	0.42
16:7I:72:ARG:O	16:7I:75:ARG:HB3	2.18	0.42
22:1K:74:C:O2'	22:1K:75:C:O5'	2.37	0.42
23:2K:8:4SU:O2	23:2K:22:A:H2	2.01	0.42
23:2K:56:PSU:O4	23:2K:58:A:C8	2.72	0.42
26:1H:139:G:N3	26:1H:141:A:N1	2.67	0.42
26:1H:219:G:H2'	26:1H:220:G:C8	2.54	0.42
26:1H:301:G:C4	26:1H:302:C:C5	3.08	0.42
26:1H:583:G:H5"	41:C8:10:ARG:HH12	1.85	0.42
26:1H:665:C:H2'	26:1H:666:G:C8	2.54	0.42
26:1H:671:C:H42	26:1H:809:G:H1	1.65	0.42
26:1H:674:G:O2'	30:31:74:ARG:HD3	2.19	0.42
26:1H:835:A:N6	26:1H:836:G:C6	2.88	0.42
26:1H:847:U:C5	26:1H:933:A:N1	2.87	0.42
26:1H:1426:G:H2'	26:1H:1427:A:C8	2.54	0.42
26:1H:1472:A:H2'	26:1H:1473:G:H8	1.84	0.42
26:1H:1931:U:C5	26:1H:1969:A:N7	2.87	0.42
26:1H:2072:G:H2'	26:1H:2073:C:O4'	2.19	0.42
30:31:63:LYS:HE3	30:31:65:TRP:O	2.18	0.42
33:61:93:THR:OG1	33:61:96:ASP:OD1	2.21	0.42
37:88:56:ARG:HD2	37:88:56:ARG:HA	1.90	0.42
42:D8:35:LEU:C	42:D8:37:VAL:N	2.76	0.42
45:G8:79:CYS:HB2	45:G8:80:GLY:H	1.51	0.42
47:I8:75:LEU:HA	47:I8:75:LEU:HD23	1.56	0.42
48:J8:73:LEU:HD11	48:J8:95:LEU:HD21	2.01	0.42
49:K8:50:ILE:HD12	49:K8:51:ARG:N	2.23	0.42
49:K8:64:LEU:HD22	49:K8:68:ARG:HD2	1.99	0.42
55:Q8:52:LYS:HA	55:Q8:54:GLU:HB2	2.02	0.42
1:1G:540:G:H2'	1:1G:541:G:O4'	2.19	0.42
1:1G:838:G:N2	1:1G:842:C:H1'	2.34	0.42
1:1G:1187:G:H4'	9:82:111:ARG:HH11	1.83	0.42
4:32:13:ARG:C	4:32:15:GLU:N	2.77	0.42
4:32:25:ARG:HG2	4:32:30:LYS:O	2.19	0.42
8:72:10:LEU:HD22	8:72:83:ILE:HD11	2.00	0.42
8:72:92:ARG:HB3	8:72:94:TYR:CE2	2.53	0.42
10:1A:24:VAL:HG21	10:1A:37:PRO:HG3	2.00	0.42
16:7A:22:THR:CA	16:7A:33:ILE:HG12	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1L:76:A:N6	26:14:2583:G:H21	2.11	0.42
23:2L:5:G:N1	23:2L:69:C:O2	2.52	0.42
24:3L:58:A:H4'	24:3L:59:U:OP1	2.20	0.42
26:14:259:G:N2	26:14:621:A:H8	2.05	0.42
26:14:1043:C:H2'	26:14:1044:G:H5'	2.01	0.42
26:14:1359:A:N7	26:14:1372:U:O4	2.52	0.42
26:14:1592:C:O5'	26:14:1592:C:H6	2.02	0.42
26:14:1743:G:C2	26:14:1746:G:C8	3.07	0.42
26:14:1832:C:N4	26:14:1833:U:C4	2.87	0.42
26:14:2348:U:OP2	55:M5:42:ARG:NH2	2.52	0.42
26:14:2706:G:C2	26:14:2707:G:H1'	2.54	0.42
29:29:76:ARG:C	29:29:78:LEU:H	2.26	0.42
29:29:151:TYR:HD2	29:29:154:LYS:NZ	2.17	0.42
30:39:63:LYS:HE3	30:39:75:HIS:O	2.18	0.42
31:49:53:LEU:HD12	31:49:54:GLU:N	2.34	0.42
31:49:108:ASN:O	51:I5:37:SER:HA	2.19	0.42
35:25:78:ARG:NH2	40:75:73:GLU:OE2	2.53	0.42
36:35:138:LEU:HD22	36:35:138:LEU:HA	1.90	0.42
38:55:58:GLY:HA2	38:55:80:PHE:HE2	1.84	0.42
40:75:33:LYS:HZ2	40:75:84:GLN:HG3	1.84	0.42
42:95:72:VAL:O	42:95:72:VAL:HG13	2.19	0.42
42:95:85:LYS:CG	42:95:86:GLY:H	2.31	0.42
44:B5:26:TYR:O	44:B5:81:VAL:HG22	2.18	0.42
53:K5:35:GLU:HB2	53:K5:51:GLU:HB2	2.01	0.42
54:L5:19:ARG:HG2	54:L5:19:ARG:HH11	1.84	0.42
1:13:8:A:N7	4:3E:208:SER:HB3	2.34	0.42
1:13:49:U:O2	1:13:362:G:H1'	2.19	0.42
1:13:551:U:H2'	1:13:552:U:C6	2.54	0.42
1:13:648:A:C6	1:13:649:G:C6	3.07	0.42
1:13:1145:C:H4'	1:13:1146:A:H8	1.84	0.42
1:13:1409:C:H2'	1:13:1410:G:H8	1.83	0.42
1:13:1434:A:H2'	1:13:1435:G:O4'	2.19	0.42
7:6E:108:ALA:HB2	7:6E:123:GLU:HG2	2.01	0.42
8:7E:100:ILE:HA	8:7E:101:PRO:HD3	1.85	0.42
8:7E:121:ASP:HB2	8:7E:125:ARG:NH2	2.34	0.42
11:2I:59:TYR:CZ	11:2I:63:LEU:HD11	2.54	0.42
12:3I:59:ARG:HA	12:3I:65:GLU:HA	2.00	0.42
16:7I:57:ARG:NH2	16:7I:79:VAL:O	2.48	0.42
19:AI:5:LEU:HD13	19:AI:10:PHE:HD1	1.84	0.42
26:1H:410:G:H2'	58:1H:4631:HOH:O	2.19	0.42
26:1H:1142(A):A:C2	26:1H:1144:G:C8	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1543:A:C8	26:1H:1545:A:H5"	2.54	0.42
26:1H:1798:U:H5'	28:11:259:THR:CG2	2.48	0.42
26:1H:2040:C:H2'	26:1H:2041:U:O4'	2.18	0.42
26:1H:2746:U:O4	26:1H:2755:C:H4'	2.19	0.42
28:11:182:LEU:H	28:11:272:ALA:CB	2.30	0.42
31:41:130:ASN:HB3	31:41:159:VAL:O	2.18	0.42
32:51:80:SER:C	32:51:81:GLU:HG3	2.45	0.42
34:58:73:THR:HG22	34:58:84:LYS:HG2	2.02	0.42
37:88:41:TRP:HB3	37:88:94:VAL:HG11	2.02	0.42
38:98:48:VAL:O	38:98:51:LEU:N	2.52	0.42
44:F8:2:LYS:HG2	49:K8:26:ARG:NE	2.30	0.42
53:O8:17:LYS:C	53:O8:19:ARG:H	2.27	0.42
1:1G:29:G:H5'	1:1G:296:U:OP1	2.20	0.42
1:1G:135:C:O2	16:7A:1:MET:HB3	2.18	0.42
1:1G:476:G:C4	1:1G:477:G:C8	3.07	0.42
1:1G:746:A:H2'	1:1G:747:C:C6	2.55	0.42
1:1G:1512:U:N3	1:1G:1513:A:N7	2.66	0.42
3:22:3:ASN:HD22	3:22:3:ASN:H	1.67	0.42
5:42:43:LEU:HB3	5:42:136:MET:SD	2.60	0.42
8:72:136:GLU:HG3	8:72:136:GLU:O	2.18	0.42
15:6A:39:LEU:CD1	15:6A:56:LEU:HB2	2.49	0.42
17:8A:59:ILE:HG22	17:8A:71:PHE:CD2	2.54	0.42
22:1L:38:A:H2'	22:1L:39:PSU:H6	1.84	0.42
23:2L:7:G:H3'	23:2L:8:4SU:C5'	2.48	0.42
26:14:315:G:C6	26:14:316:C:C4	3.07	0.42
26:14:866:A:H5"	26:14:867:C:OP2	2.19	0.42
26:14:999:U:C5	26:14:1154:G:C5	3.07	0.42
26:14:1068:G:O2'	26:14:1069:A:O4'	2.30	0.42
26:14:1163:G:H2'	26:14:1164:G:H8	1.83	0.42
26:14:1217:C:OP2	41:85:15:LYS:HE3	2.20	0.42
26:14:1999:C:O2	26:14:2687:U:O2'	2.34	0.42
26:14:2057:A:H2'	26:14:2058:A:C8	2.54	0.42
26:14:2141:G:C6	26:14:2151:G:C6	3.07	0.42
26:14:2275:C:C5'	26:14:2275:C:C6	3.01	0.42
26:14:2431:U:O2	26:14:2433:A:C8	2.72	0.42
28:19:120:GLY:HA2	28:19:190:TYR:OH	2.19	0.42
29:29:90:THR:O	29:29:91:VAL:C	2.62	0.42
30:39:132:VAL:C	30:39:134:GLY:N	2.76	0.42
32:59:70:THR:O	32:59:74:ASN:N	2.52	0.42
36:35:122:PRO:HB3	36:35:141:ALA:HB1	2.02	0.42
47:E5:72:ARG:CB	47:E5:75:LEU:HB2	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:F5:11:ARG:HB3	48:F5:11:ARG:CZ	2.49	0.42
1:13:142:G:O2'	1:13:196:A:N1	2.48	0.42
1:13:286:G:C6	1:13:287:U:N3	2.87	0.42
1:13:605:U:C2'	1:13:606:G:H5'	2.49	0.42
1:13:1234:C:H2'	1:13:1235:U:C6	2.54	0.42
1:13:1238:A:N3	1:13:1241:G:O2'	2.49	0.42
1:13:1316:G:N1	1:13:1319:A:OP2	2.50	0.42
1:13:1368:G:OP2	9:8E:112:LYS:HE2	2.19	0.42
1:13:1500:A:P	58:13:1804:HOH:O	2.73	0.42
4:3E:135:LEU:HA	4:3E:136:PRO:HD2	1.80	0.42
5:4E:35:GLY:HA3	5:4E:112:LEU:O	2.19	0.42
7:6E:48:LYS:HB3	7:6E:48:LYS:HE2	1.80	0.42
7:6E:62:PHE:HA	7:6E:124:LEU:HD21	2.00	0.42
8:7E:9:MET:O	8:7E:12:ARG:N	2.50	0.42
10:1I:62:HIS:CD2	10:1I:62:HIS:N	2.86	0.42
12:3I:53:ARG:HG3	12:3I:53:ARG:HH11	1.84	0.42
15:6I:18:PHE:CZ	15:6I:21:ASP:HB2	2.54	0.42
15:6I:55:GLY:O	15:6I:56:LEU:C	2.63	0.42
15:6I:71:GLN:HG3	15:6I:78:TYR:CD2	2.55	0.42
15:6I:74:ASP:CG	15:6I:77:ARG:HB3	2.44	0.42
19:AI:10:PHE:CD1	19:AI:10:PHE:N	2.87	0.42
20:BI:59:ALA:HA	20:BI:62:LEU:HD12	2.00	0.42
26:1H:26:G:C6	26:1H:27:G:N1	2.87	0.42
26:1H:138:G:H2'	26:1H:139:G:C8	2.54	0.42
26:1H:236:C:H2'	26:1H:237:C:C6	2.55	0.42
26:1H:301:G:C6	26:1H:317:G:C5	3.08	0.42
26:1H:644:A:C2	26:1H:646:A:C4	3.08	0.42
26:1H:646:A:C8	26:1H:647:G:H1'	2.55	0.42
26:1H:773:U:C4'	28:11:47:GLY:HA3	2.49	0.42
26:1H:825:C:O2	36:78:55:ARG:NH2	2.51	0.42
26:1H:1136:G:H2'	26:1H:1136:G:N3	2.34	0.42
26:1H:1161:C:O2'	42:D8:8:GLY:HA2	2.19	0.42
26:1H:1204:A:C2	26:1H:1241:A:N1	2.86	0.42
26:1H:1265:A:OP2	58:1H:3616:HOH:O	2.20	0.42
26:1H:1689:A:C6	26:1H:1700:A:C2	3.07	0.42
26:1H:1711:C:H2'	26:1H:1712:C:C6	2.54	0.42
26:1H:1986:A:C2	26:1H:1987:G:C5	3.08	0.42
26:1H:2074:U:H2'	26:1H:2075:U:C6	2.54	0.42
26:1H:2259:G:C2	26:1H:2282:G:N1	2.87	0.42
29:21:67:PHE:O	29:21:69:LYS:HE2	2.19	0.42
29:21:182:LEU:HD12	29:21:183:LEU:H	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:31:78:ILE:HA	30:31:83:PHE:CD2	2.54	0.42
31:41:81:LYS:HA	31:41:81:LYS:HD3	1.84	0.42
31:41:111:LEU:HD23	31:41:114:ILE:HD12	2.01	0.42
31:41:128:ARG:HB2	31:41:128:ARG:NH2	2.35	0.42
32:51:101:ARG:HE	32:51:101:ARG:HB3	1.60	0.42
35:68:104:ARG:NH1	40:B8:36:GLU:OE2	2.53	0.42
37:88:1:MET:O	37:88:2:LEU:HB2	2.20	0.42
37:88:30:GLY:O	37:88:134:ARG:HD2	2.19	0.42
55:Q8:34:TRP:HB3	55:Q8:35:GLN:CA	2.48	0.42
1:1G:149:A:H2'	1:1G:150:C:C6	2.54	0.42
1:1G:474:G:C2	1:1G:475:G:C5	3.08	0.42
1:1G:735:C:O2'	1:1G:736:C:H5'	2.20	0.42
1:1G:778:G:H2'	1:1G:779:C:O4'	2.19	0.42
1:1G:1053:G:O2'	1:1G:1054:C:OP2	2.35	0.42
1:1G:1151:A:OP1	10:1A:42:THR:N	2.44	0.42
1:1G:1418:A:H5"	1:1G:1419:G:OP2	2.19	0.42
4:32:30:LYS:CB	4:32:35:ARG:HD2	2.48	0.42
5:42:69:VAL:O	5:42:71:LEU:N	2.50	0.42
8:72:51:VAL:HG11	8:72:60:ARG:HH21	1.84	0.42
13:4A:49:THR:N	13:4A:52:GLU:OE1	2.25	0.42
16:7A:9:PHE:HB2	16:7A:16:HIS:O	2.20	0.42
20:BA:26:ASN:CB	20:BA:71:THR:HG23	2.50	0.42
23:2L:20:G:H1	23:2L:57:C:N4	2.17	0.42
26:14:30:G:C5	26:14:31:C:C4	3.08	0.42
26:14:69:C:H2'	26:14:70:G:C8	2.54	0.42
26:14:325:G:H2'	26:14:326:G:O4'	2.19	0.42
26:14:513:A:N3	26:14:514:A:C8	2.88	0.42
26:14:675:A:C6	26:14:676:A:C6	3.07	0.42
26:14:1023:U:H4'	26:14:1123:C:OP1	2.19	0.42
26:14:1788:C:H2'	26:14:1789:A:H8	1.83	0.42
26:14:1854:A:H2'	26:14:1855:G:O4'	2.20	0.42
26:14:2185:C:H2'	26:14:2186:G:H8	1.84	0.42
26:14:2305:A:C6	31:49:154:GLY:N	2.88	0.42
26:14:2344:U:OP1	53:K5:38:LYS:HD3	2.19	0.42
26:14:2352:A:C2	47:E5:33:ALA:HB1	2.54	0.42
26:14:2388:A:O2'	26:14:2389:G:H5'	2.20	0.42
26:14:2654:A:H8	26:14:2654:A:OP1	2.03	0.42
27:1J:89:G:C8	27:1J:89:G:OP2	2.73	0.42
29:29:97:LYS:O	29:29:100:GLU:HG3	2.19	0.42
29:29:181:LEU:HD11	40:75:7:ILE:HD11	2.01	0.42
34:15:34:LEU:O	34:15:49:GLY:HA3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:45:2:LEU:O	37:45:70:PRO:HG2	2.20	0.42
37:45:31:ASP:H	37:45:107:ALA:HB2	1.84	0.42
37:45:36:ALA:HB2	37:45:103:MET:SD	2.59	0.42
39:65:24:LEU:HB2	39:65:85:VAL:HG12	2.01	0.42
40:75:106:SER:C	40:75:107:ASP:OD1	2.63	0.42
45:C5:73:ARG:HE	45:C5:73:ARG:HB3	1.48	0.42
46:D5:44:PHE:C	46:D5:44:PHE:CD1	2.97	0.42
46:D5:69:THR:HB	46:D5:88:PHE:HB2	2.01	0.42
48:F5:80:LEU:HD23	48:F5:82:LEU:HD21	2.01	0.42
51:I5:21:VAL:HG22	51:I5:22:ILE:H	1.84	0.42
1:13:46:G:H2'	1:13:366:C:C5	2.54	0.42
1:13:134:A:H1'	1:13:325:A:C5	2.55	0.42
1:13:310:G:OP2	16:7I:27:LYS:NZ	2.28	0.42
1:13:375:U:C4	1:13:376:G:N7	2.88	0.42
1:13:635:G:C6	1:13:636:U:C4	3.08	0.42
1:13:1124:G:C2	1:13:1127:G:N2	2.87	0.42
2:1E:7:VAL:HG21	2:1E:11:LEU:HD12	2.02	0.42
2:1E:11:LEU:O	2:1E:16:HIS:NE2	2.53	0.42
3:2E:19:GLU:HB3	3:2E:40:ARG:NH2	2.35	0.42
20:BI:68:LYS:HB2	20:BI:68:LYS:HE3	1.67	0.42
26:1H:53:A:H2'	26:1H:54:G:O4'	2.20	0.42
26:1H:425:G:C2	26:1H:426:C:C6	3.07	0.42
26:1H:960:A:H61	37:88:82:ARG:HH21	1.67	0.42
26:1H:962:G:H4'	26:1H:2496:C:O2'	2.20	0.42
26:1H:1194:A:H8	26:1H:1194:A:OP2	2.03	0.42
26:1H:1297:C:OP1	26:1H:2710:C:H4'	2.19	0.42
26:1H:1471:A:C4	26:1H:1472:A:C8	3.08	0.42
26:1H:1651:G:H5'	38:98:39:PRO:HG2	2.00	0.42
26:1H:2641:G:H5"	26:1H:2641:G:H8	1.85	0.42
26:1H:2766:G:H5"	26:1H:2767:C:OP2	2.19	0.42
26:1H:2878:U:O4	58:1H:4250:HOH:O	2.21	0.42
28:11:81:ALA:HB3	28:11:94:LEU:HB3	2.02	0.42
30:31:108:LYS:HE2	30:31:108:LYS:HB3	1.76	0.42
31:41:12:TYR:HD1	31:41:16:ARG:HD3	1.83	0.42
32:51:86:GLU:HG2	32:51:87:LEU:H	1.84	0.42
32:51:91:GLY:O	32:51:94:TYR:HB2	2.19	0.42
36:78:106:LEU:O	36:78:106:LEU:HD22	2.19	0.42
41:C8:92:ARG:C	41:C8:94:ASN:N	2.78	0.42
47:I8:37:LEU:HD11	47:I8:61:ALA:N	2.35	0.42
51:M8:1:MET:HB3	51:M8:1:MET:HE3	1.81	0.42
1:1G:430:A:C4	1:1G:431:A:C8	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:434:U:H2'	1:1G:435:C:H6	1.80	0.42
1:1G:683:G:N2	1:1G:707:C:O2	2.44	0.42
1:1G:728:A:C2	1:1G:729:A:C5	3.08	0.42
1:1G:754:C:H3'	1:1G:755:G:H5'	2.01	0.42
1:1G:1320:C:C1'	19:AA:73:GLU:HG2	2.48	0.42
3:22:111:LEU:HD21	3:22:146:ALA:HB2	2.00	0.42
6:52:22:GLU:O	6:52:26:ILE:HG13	2.19	0.42
7:62:18:TYR:CD2	7:62:59:LEU:HD12	2.54	0.42
7:62:65:ALA:HB3	7:62:124:LEU:HD22	2.01	0.42
25:4L:15:A:H8	25:4L:15:A:O5'	2.02	0.42
26:14:51:G:N3	26:14:119:A:C2	2.88	0.42
26:14:118:A:OP2	26:14:119:A:H5"	2.20	0.42
26:14:271(B):G:N7	26:14:421:U:H2'	2.35	0.42
26:14:289:A:H3'	26:14:290:G:C8	2.52	0.42
26:14:300:A:H1'	26:14:319:C:H1'	2.01	0.42
26:14:531:C:OP1	26:14:561:G:N1	2.52	0.42
26:14:634:C:H2'	26:14:635:C:C6	2.54	0.42
26:14:729:G:H2'	26:14:1775:U:O2	2.18	0.42
26:14:864:G:H8	26:14:864:G:O5'	2.03	0.42
26:14:873:G:H1'	37:45:29:PHE:HE2	1.85	0.42
26:14:902:C:H2'	26:14:903:C:C6	2.55	0.42
26:14:1035:U:H2'	26:14:1036:G:C8	2.54	0.42
26:14:2420:C:OP1	55:M5:34:TRP:HB3	2.18	0.42
26:14:2784:C:H2'	26:14:2785:C:H6	1.83	0.42
26:14:2854:G:N2	26:14:2864:G:C4	2.87	0.42
27:1J:23:G:C2	27:1J:24:G:O6	2.72	0.42
29:29:16:ARG:HB2	29:29:21:VAL:HG21	2.01	0.42
29:29:53:PRO:O	29:29:54:GLN:C	2.62	0.42
36:35:63:PRO:HB3	55:M5:13:ARG:HG2	2.02	0.42
36:35:131:SER:HB3	36:35:134:ALA:CB	2.50	0.42
36:35:138:LEU:HD12	36:35:144:GLU:HG3	2.00	0.42
38:55:94:TYR:O	38:55:117:VAL:HG23	2.20	0.42
40:75:33:LYS:HD3	40:75:82:LEU:O	2.19	0.42
45:C5:76:CYS:HB2	45:C5:97:ARG:HE	1.84	0.42
46:D5:111:VAL:HG22	46:D5:112:ARG:HH11	1.85	0.42
1:13:57:G:C5	1:13:58:C:C4	3.07	0.42
1:13:254:G:O3'	17:8I:69:LYS:NZ	2.43	0.42
1:13:282:A:N3	1:13:282:A:H2'	2.34	0.42
1:13:353:A:H5'	1:13:353:A:C8	2.47	0.42
1:13:515:G:N2	1:13:537:G:C4	2.88	0.42
1:13:549:C:C2	1:13:550:G:C8	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:872:A:C8	1:13:874:G:C8	3.08	0.42
1:13:963:G:N2	10:1I:55:LYS:HZ1	2.17	0.42
1:13:1144:G:H21	1:13:1146:A:H62	1.66	0.42
1:13:1240:U:C5	7:6E:32:ARG:HD2	2.53	0.42
1:13:1288:A:O3'	21:1F:10:ARG:NH2	2.53	0.42
2:1E:15:VAL:HB	2:1E:210:SER:HB2	2.01	0.42
4:3E:30:LYS:HB2	4:3E:35:ARG:HE	1.83	0.42
12:3I:24:VAL:HB	12:3I:27:LEU:HD12	2.02	0.42
14:5I:6:LEU:HD23	14:5I:6:LEU:HA	1.91	0.42
15:6I:61:GLY:O	15:6I:64:ARG:HB3	2.19	0.42
19:AI:13:ASP:HA	19:AI:16:LEU:HB3	2.02	0.42
26:1H:129:C:H2'	26:1H:130:C:C6	2.55	0.42
26:1H:364:C:H6	26:1H:364:C:H5'	1.84	0.42
26:1H:1051:G:OP2	26:1H:1051:G:H8	2.02	0.42
26:1H:1470:G:H5"	26:1H:1471:A:OP1	2.20	0.42
26:1H:2197:U:H1'	26:1H:2198:A:C8	2.55	0.42
26:1H:2238:G:H2'	26:1H:2238:G:N3	2.34	0.42
26:1H:2336:A:H61	47:I8:43:THR:HB	1.84	0.42
26:1H:2364:C:H2'	26:1H:2365:G:O4'	2.19	0.42
26:1H:2693:A:C4	26:1H:2694:G:C8	3.07	0.42
27:16:95:U:H2'	27:16:96:G:C8	2.55	0.42
28:11:85:ASP:OD1	28:11:86:PRO:HD2	2.20	0.42
29:21:78:LEU:O	29:21:79:ARG:HB2	2.19	0.42
30:31:34:TRP:CH2	36:78:8:PRO:HB3	2.55	0.42
31:41:112:PRO:HB3	51:M8:37:SER:N	2.28	0.42
34:58:1:MET:HE2	42:D8:13:ARG:H	1.83	0.42
38:98:45:ARG:HD2	38:98:97:VAL:CG2	2.48	0.42
40:B8:34:VAL:C	40:B8:35:LYS:HD2	2.44	0.42
43:E8:110:LYS:HG3	43:E8:111:HIS:H	1.84	0.42
44:F8:41:ASN:OD1	44:F8:41:ASN:N	2.52	0.42
45:G8:84:ARG:NE	45:G8:84:ARG:O	2.53	0.42
55:Q8:39:LYS:CD	55:Q8:40:GLU:H	2.32	0.42
1:1G:21:G:OP2	58:1G:1834:HOH:O	2.22	0.42
1:1G:130:A:H1'	1:1G:263:A:O2'	2.19	0.42
1:1G:518:C:H5"	1:1G:519:C:H6	1.85	0.42
1:1G:608:A:H2'	1:1G:609:A:O4'	2.20	0.42
1:1G:758:G:H4'	1:1G:880:C:H4'	2.02	0.42
10:1A:78:ASN:OD1	10:1A:80:LYS:HB3	2.20	0.42
13:4A:73:GLU:O	13:4A:77:ASN:HB2	2.18	0.42
18:9A:29:PHE:N	18:9A:29:PHE:CD1	2.87	0.42
24:3L:25:C:C4	24:3L:26:A:C8	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3L:51:U:C2	24:3L:52:G:C8	3.08	0.42
26:14:16:G:O2'	26:14:17:G:H5'	2.18	0.42
26:14:225:A:N6	26:14:226:G:C2	2.88	0.42
26:14:945:A:C4	26:14:2448:A:C2	3.07	0.42
26:14:1011:G:N3	26:14:1151:G:N2	2.67	0.42
26:14:1067:A:N3	26:14:1067:A:H2'	2.34	0.42
26:14:1268:A:C2	26:14:2013:A:C4	3.08	0.42
26:14:1465:G:N2	26:14:1466:G:H1'	2.35	0.42
26:14:1483:G:C2	26:14:1484:G:C8	3.08	0.42
26:14:1491:G:O2'	28:19:101:GLU:HB2	2.19	0.42
26:14:1769:G:C5	26:14:1984:G:C6	3.08	0.42
26:14:2782:G:N7	58:14:3788:HOH:O	2.37	0.42
27:1J:93:C:H2'	27:1J:94:C:H6	1.84	0.42
27:1J:117:G:O5'	27:1J:117:G:H8	2.01	0.42
28:19:118:VAL:HG22	28:19:119:ALA:N	2.33	0.42
28:19:136:ILE:HA	28:19:137:PRO:HD3	1.88	0.42
28:19:158:ALA:O	28:19:159:ALA:C	2.62	0.42
31:49:88:ILE:HD12	31:49:88:ILE:HA	1.89	0.42
34:15:96:GLU:HB2	34:15:122:VAL:HG12	2.00	0.42
42:95:48:GLY:HA3	42:95:52:VAL:N	2.35	0.42
46:D5:52:SER:O	46:D5:54:HIS:N	2.52	0.42
46:D5:71:VAL:HB	46:D5:88:PHE:CD2	2.55	0.42
53:K5:28:ARG:HA	53:K5:28:ARG:HH11	1.84	0.42
1:13:636:U:H2'	1:13:637:G:C8	2.55	0.42
1:13:652:U:C4	1:13:752:G:N3	2.88	0.42
1:13:664:G:P	18:9I:64:ARG:HH21	2.42	0.42
1:13:1327:C:OP2	21:1F:12:LYS:NZ	2.44	0.42
2:1E:130:ARG:HA	2:1E:131:PRO:HD3	1.88	0.42
3:2E:4:LYS:HE3	3:2E:4:LYS:HB3	1.57	0.42
3:2E:84:ILE:HD11	3:2E:88:ARG:NH2	2.32	0.42
4:3E:173:TRP:CE3	4:3E:193:ASP:HB3	2.54	0.42
5:4E:98:THR:HG22	5:4E:99:GLY:O	2.20	0.42
7:6E:65:ALA:HB1	7:6E:127:ALA:HB3	2.01	0.42
17:8I:63:ARG:HG3	17:8I:64:PRO:N	2.35	0.42
21:1F:5:ASP:O	21:1F:11:GLY:HA3	2.20	0.42
26:1H:300:A:H1'	26:1H:319:C:O4'	2.19	0.42
26:1H:463:G:N2	26:1H:465:G:H3'	2.35	0.42
26:1H:498:G:C6	26:1H:499:U:C4	3.08	0.42
26:1H:681:G:H2'	26:1H:682:G:O4'	2.20	0.42
26:1H:950:G:C5	26:1H:951:C:C4	3.08	0.42
26:1H:989:G:C5	50:L8:13:ILE:HG13	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1113:U:H2'	26:1H:1114:G:C8	2.54	0.42
26:1H:1825:A:O4'	28:11:254:THR:HG21	2.20	0.42
26:1H:2235:G:H2'	26:1H:2236:C:H6	1.85	0.42
26:1H:2404:C:O3'	36:78:77:ARG:NH2	2.52	0.42
26:1H:2818:G:O2'	26:1H:2837:G:H5'	2.20	0.42
29:21:15:PHE:HA	29:21:19:ARG:O	2.19	0.42
32:51:130:ARG:NH1	32:51:130:ARG:HB3	2.35	0.42
36:78:112:LEU:HD23	36:78:112:LEU:HA	1.87	0.42
38:98:12:ARG:HD3	38:98:16:HIS:CD2	2.53	0.42
40:B8:61:PHE:CE1	40:B8:76:PHE:HB2	2.55	0.42
44:F8:84:ALA:HB3	44:F8:87:GLN:OE1	2.19	0.42
46:H8:61:LEU:CD2	46:H8:67:LEU:HD12	2.49	0.42
1:1G:165:C:H2'	1:1G:166:G:C8	2.55	0.42
1:1G:1063:C:H3'	1:1G:1064:G:H2'	2.02	0.42
2:12:22:LYS:H	2:12:22:LYS:HG3	1.70	0.42
2:12:71:VAL:HG23	2:12:164:VAL:HG22	2.02	0.42
3:22:62:ASP:O	3:22:97:LYS:HB2	2.20	0.42
5:42:99:GLY:O	5:42:117:ASP:HA	2.19	0.42
9:82:111:ARG:HG2	9:82:112:LYS:N	2.34	0.42
16:7A:36:ILE:O	16:7A:36:ILE:HG13	2.19	0.42
18:9A:45:SER:N	18:9A:49:LYS:O	2.51	0.42
20:BA:76:ALA:O	20:BA:80:ARG:HG2	2.18	0.42
22:1L:73:A:H5'	22:1L:74:C:OP2	2.19	0.42
24:3L:66:U:H2'	24:3L:67:C:C6	2.55	0.42
26:14:628:G:HO2'	26:14:651:G:HO2'	1.64	0.42
26:14:654(C):G:C2	26:14:654(S):G:C2	3.08	0.42
26:14:819:A:H2'	26:14:820:A:H5'	2.01	0.42
26:14:1063:G:C4	26:14:1076:C:N4	2.88	0.42
26:14:1357:U:OP2	58:14:3624:HOH:O	2.22	0.42
26:14:1479:G:C2'	26:14:1480:G:H5'	2.49	0.42
26:14:1794:U:H2'	26:14:1795:C:C6	2.55	0.42
26:14:1902:C:N4	26:14:1903:G:C4	2.87	0.42
26:14:2273:A:H2'	26:14:2274:A:H8	1.81	0.42
28:19:16:MET:HE2	28:19:208:LYS:HG2	2.01	0.42
28:19:33:LEU:HD12	28:19:33:LEU:HA	1.70	0.42
29:29:182:LEU:C	29:29:183:LEU:HD12	2.45	0.42
29:29:197:ILE:HD11	29:29:199:ARG:HH21	1.85	0.42
31:49:95:ARG:CG	31:49:96:ARG:H	2.33	0.42
32:59:68:THR:HG22	32:59:72:ILE:HD11	2.02	0.42
33:69:113:ARG:HA	33:69:113:ARG:HD3	1.76	0.42
35:25:22:ILE:HA	35:25:22:ILE:HD12	1.43	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:45:86:GLY:C	37:45:88:GLY:H	2.27	0.42
45:C5:35:TYR:CE2	45:C5:69:ALA:HB3	2.54	0.42
52:J5:41:PRO:HG2	52:J5:44:THR:OG1	2.19	0.42
1:13:323:U:H5'	20:BI:23:ARG:HB2	2.01	0.42
1:13:386:C:H2'	1:13:387:U:O4'	2.20	0.42
1:13:1121:U:H2'	1:13:1122:U:C6	2.55	0.42
10:1I:54:PHE:CZ	10:1I:55:LYS:NZ	2.82	0.42
11:2I:69:ALA:O	11:2I:73:MET:HG3	2.19	0.42
12:3I:34:ARG:HH11	12:3I:82:VAL:HG21	1.84	0.42
12:3I:70:ILE:CD1	12:3I:77:LEU:HD12	2.47	0.42
15:6I:4:THR:O	15:6I:7:GLU:HB3	2.20	0.42
17:8I:59:ILE:HB	17:8I:71:PHE:HD2	1.85	0.42
22:1K:23:A:H2'	22:1K:24:G:O4'	2.19	0.42
24:3K:18:G:H2'	24:3K:57:G:N2	2.34	0.42
26:1H:142:G:O3'	44:F8:35:THR:HG21	2.19	0.42
26:1H:274:G:H2'	26:1H:275:G:H4'	2.02	0.42
26:1H:361:G:H8	26:1H:361:G:O5'	2.03	0.42
26:1H:448:U:O4	26:1H:583:G:H1'	2.19	0.42
26:1H:483:A:H5"	45:G8:50:ARG:HE	1.84	0.42
26:1H:996:A:C2	26:1H:997:G:C8	3.08	0.42
26:1H:1058:U:H2'	26:1H:1059:G:H8	1.84	0.42
26:1H:1183:G:OP2	26:1H:1183:G:H8	2.02	0.42
26:1H:1437:C:H2'	26:1H:1438:U:C6	2.54	0.42
26:1H:2215:G:H2'	26:1H:2216:G:H8	1.85	0.42
27:16:99:A:C4	27:16:100:G:C8	3.07	0.42
29:21:77:ILE:HG22	29:21:78:LEU:N	2.34	0.42
33:61:95:LYS:HE3	33:61:99:GLU:OE2	2.20	0.42
37:88:58:PHE:O	37:88:60:ARG:N	2.53	0.42
38:98:57:ARG:HB3	38:98:59:ASP:OD1	2.19	0.42
39:A8:14:VAL:HG21	39:A8:89:ARG:NE	2.29	0.42
39:A8:24:LEU:CD1	39:A8:41:ASP:HB2	2.50	0.42
40:B8:50:ILE:CD1	40:B8:102:ILE:HD11	2.50	0.42
44:F8:52:VAL:N	44:F8:82:GLN:O	2.38	0.42
1:1G:20:U:H2'	1:1G:21:G:O4'	2.20	0.42
1:1G:45:U:H2'	1:1G:46:G:C8	2.55	0.42
1:1G:78:G:C2	1:1G:79:G:C8	3.08	0.42
1:1G:522:C:H2'	1:1G:523:A:O4'	2.20	0.42
1:1G:639:G:O2'	1:1G:640:A:H5'	2.20	0.42
1:1G:1006:C:H2'	1:1G:1007:C:C6	2.55	0.42
1:1G:1269:A:H5"	1:1G:1270:C:OP2	2.20	0.42
1:1G:1356:G:H2'	1:1G:1357:A:C8	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1442:G:C5	1:1G:1446:A:C6	3.08	0.42
2:12:19:HIS:CG	2:12:20:GLU:N	2.86	0.42
4:32:5:ILE:H	4:32:5:ILE:HG13	1.67	0.42
8:72:31:PHE:CE2	8:72:35:ILE:HD11	2.55	0.42
15:6A:87:ILE:HG22	15:6A:88:ARG:N	2.30	0.42
22:1L:26:A:H5"	22:1L:27:G:N7	2.34	0.42
26:14:94:G:O2'	49:G5:46:GLN:HB3	2.20	0.42
26:14:235:U:H2'	26:14:236:C:H6	1.85	0.42
26:14:795:C:O2'	26:14:796:C:H5'	2.20	0.42
26:14:869:G:C2	26:14:870:A:C8	3.08	0.42
26:14:934:G:H2'	26:14:935:C:C6	2.55	0.42
26:14:1426:G:H8	26:14:1426:G:O5'	2.02	0.42
26:14:1778:U:OP2	58:14:3630:HOH:O	2.22	0.42
26:14:2100:G:N2	26:14:2190:G:H1'	2.34	0.42
26:14:2831:G:P	29:29:58:ARG:HH11	2.43	0.42
28:19:159:ALA:HB1	28:19:198:ASN:O	2.20	0.42
30:39:70:THR:OG1	30:39:71:GLY:N	2.52	0.42
30:39:143:ALA:HB1	30:39:148:LEU:HB2	2.02	0.42
33:69:78:THR:HG21	33:69:104:GLN:HG3	2.02	0.42
34:15:38:HIS:CD2	34:15:38:HIS:H	2.36	0.42
35:25:66:LYS:HD2	35:25:81:ASP:HA	2.01	0.42
36:35:86:LYS:HB3	36:35:118:GLY:HA3	2.02	0.42
38:55:67:LEU:O	38:55:71:GLN:N	2.48	0.42
39:65:66:ALA:HA	39:65:69:VAL:HG12	2.00	0.42
42:95:83:ARG:HD2	42:95:83:ARG:HA	1.78	0.42
45:C5:88:LYS:O	45:C5:89:PHE:HB3	2.19	0.42
46:D5:54:HIS:HB3	46:D5:101:PRO:HG3	2.02	0.42
1:13:730:G:N2	1:13:766:A:OP1	2.43	0.42
2:1E:72:GLY:HA3	2:1E:165:VAL:HG22	2.01	0.42
4:3E:188:LEU:HD22	4:3E:188:LEU:HA	1.74	0.42
7:6E:89:MET:HE3	7:6E:155:ARG:HB2	2.02	0.42
19:AI:20:LEU:O	19:AI:23:ASN:HB2	2.19	0.42
20:BI:30:LYS:HD2	20:BI:30:LYS:HA	1.78	0.42
22:1K:70:G:OP1	22:1K:70:G:H4'	2.18	0.42
24:3K:32:U:O2	24:3K:33:U:H5"	2.20	0.42
26:1H:250:G:H5'	36:78:60:MET:SD	2.59	0.42
26:1H:270:A:OP1	58:1H:4580:HOH:O	2.21	0.42
26:1H:299:A:N6	26:1H:300:A:N6	2.68	0.42
26:1H:732:C:H2'	26:1H:733:G:O4'	2.20	0.42
26:1H:849:A:H5"	26:1H:850:C:OP2	2.20	0.42
26:1H:1442:G:C2	26:1H:1550:C:O2	2.73	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1689:A:C2	26:1H:1690:A:C5	3.07	0.42
26:1H:1728:G:H3'	26:1H:1729:A:H5"	2.02	0.42
26:1H:1858:G:H2'	26:1H:1883:G:H22	1.84	0.42
26:1H:2032:G:H1'	29:21:145:LYS:HE3	2.02	0.42
26:1H:2076:U:H5	26:1H:2596:U:O2	2.02	0.42
26:1H:2790:A:H4'	26:1H:2791:C:OP2	2.20	0.42
26:1H:2849:U:P	40:B8:95:ARG:HH12	2.42	0.42
28:11:67:PHE:CD1	28:11:153:ALA:HB3	2.55	0.42
28:11:172:TYR:CD1	28:11:186:HIS:HA	2.55	0.42
29:21:116:VAL:HG11	29:21:138:PRO:CB	2.44	0.42
31:41:43:LEU:N	31:41:88:ILE:O	2.46	0.42
33:61:79:ILE:O	33:61:142:VAL:HA	2.20	0.42
36:78:59:LEU:O	55:Q8:13:ARG:HD3	2.19	0.42
44:F8:67:GLY:C	44:F8:69:TYR:H	2.27	0.42
46:H8:70:LEU:HD11	46:H8:98:MET:HE3	2.02	0.42
50:L8:8:LEU:HD13	50:L8:31:LEU:HA	2.01	0.42
1:1G:28:G:C6	1:1G:29:G:C5	3.07	0.42
1:1G:146:G:C2	1:1G:147:G:C8	3.08	0.42
1:1G:186(A):C:H2'	1:1G:186(B):C:C6	2.55	0.42
1:1G:186(A):C:H2'	1:1G:186(B):C:H6	1.85	0.42
1:1G:352:C:O2'	1:1G:354:G:OP1	2.34	0.42
1:1G:887:G:H21	1:1G:1489:G:H4'	1.85	0.42
1:1G:934:C:O2'	1:1G:1344:C:OP2	2.27	0.42
1:1G:1113:C:H2'	1:1G:1114:C:C6	2.55	0.42
1:1G:1227:A:O2'	13:4A:115:LYS:HD2	2.20	0.42
1:1G:1278:U:H5'	1:1G:1279:A:O4'	2.20	0.42
1:1G:1402:C:H2'	1:1G:1403:C:O4'	2.19	0.42
4:32:24:GLU:HG2	4:32:25:ARG:H	1.84	0.42
6:52:68:PRO:HG2	6:52:71:ARG:HG3	2.01	0.42
9:82:48:GLU:N	9:82:49:PRO:HD2	2.35	0.42
13:4A:23:TYR:HB3	13:4A:67:GLU:HA	2.02	0.42
15:6A:58:MET:HB2	15:6A:58:MET:HE2	1.61	0.42
16:7A:74:LEU:HB3	16:7A:80:PHE:HE1	1.85	0.42
19:AA:15:LEU:HD22	19:AA:15:LEU:HA	1.96	0.42
24:3L:29:G:H2'	24:3L:30:G:C8	2.55	0.42
26:14:30:G:H2'	26:14:31:C:C6	2.55	0.42
26:14:107:C:H2'	26:14:108:U:C6	2.55	0.42
26:14:691:C:H2'	26:14:692:C:C6	2.55	0.42
26:14:756:C:H2'	26:14:757:U:H5'	2.01	0.42
26:14:769:G:H5'	26:14:1379:A:N6	2.34	0.42
26:14:773:U:H5'	28:19:47:GLY:HA3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:905:U:H5"	26:14:906:G:OP2	2.20	0.42
26:14:914:C:N3	26:14:915:C:H1'	2.35	0.42
26:14:975:G:H1'	26:14:990:A:C2	2.55	0.42
26:14:1000:A:C6	26:14:1001:A:C6	3.08	0.42
26:14:1359:A:N7	26:14:1372:U:C4	2.88	0.42
26:14:1374:G:H2'	26:14:1375:C:C6	2.55	0.42
26:14:1750:G:O2'	26:14:1751:C:H5'	2.20	0.42
26:14:1986:A:OP1	58:14:3747:HOH:O	2.21	0.42
26:14:2014:A:H2'	26:14:2015:A:C8	2.55	0.42
26:14:2207:C:O2	28:19:151:LYS:NZ	2.52	0.42
26:14:2394:C:H2'	26:14:2395:C:C6	2.54	0.42
26:14:2750:A:H5'	32:59:6:ARG:HH22	1.85	0.42
26:14:2789:C:H1'	26:14:2892:A:H2	1.85	0.42
31:49:109:VAL:O	31:49:113:ARG:HG3	2.20	0.42
32:59:89:ILE:HG23	32:59:130:ARG:HA	2.02	0.42
36:35:6:LEU:HD13	36:35:6:LEU:HA	1.77	0.42
39:65:62:LYS:HA	39:65:65:VAL:HG12	2.02	0.42
43:A5:89:ALA:O	43:A5:90:ARG:HB2	2.20	0.42
45:C5:7:VAL:HG21	45:C5:37:VAL:HG11	2.02	0.42
54:L5:36:GLN:O	54:L5:36:GLN:HG2	2.20	0.42
1:13:119:A:N6	1:13:288:A:H1'	2.35	0.41
1:13:247:G:OP2	17:8I:100:LYS:HB2	2.20	0.41
1:13:985:C:H2'	1:13:986:A:H8	1.85	0.41
1:13:1072:G:H2'	1:13:1073:U:O4'	2.20	0.41
1:13:1268:A:N3	1:13:1326:C:O2'	2.52	0.41
1:13:1286:A:H5"	21:1F:26:LYS:HD3	2.02	0.41
4:3E:57:ARG:HB3	4:3E:206:PHE:HB2	2.02	0.41
4:3E:142:PRO:HG3	4:3E:187:ARG:HA	2.02	0.41
8:7E:25:ASP:HA	8:7E:59:LEU:O	2.20	0.41
9:8E:46:ALA:HB2	9:8E:74:ILE:HG23	2.01	0.41
11:2I:57:THR:HA	11:2I:58:PRO:HD2	1.76	0.41
18:9I:38:GLU:H	18:9I:38:GLU:HG2	1.61	0.41
26:1H:71:A:C2	44:F8:31:HIS:CE1	3.04	0.41
26:1H:88:G:C2'	26:1H:89:G:H5'	2.49	0.41
26:1H:234:C:N3	26:1H:235:U:C5	2.88	0.41
26:1H:617:G:H2'	26:1H:618:G:O4'	2.19	0.41
26:1H:718:A:H8	26:1H:718:A:O5'	2.01	0.41
26:1H:721:C:H2'	26:1H:722:A:H8	1.85	0.41
26:1H:818:G:N7	26:1H:1187:G:C6	2.88	0.41
26:1H:993:G:C6	26:1H:1162:G:C6	3.08	0.41
26:1H:1113:U:OP1	32:51:2:SER:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1206:G:C6	26:1H:1207:C:C4	3.07	0.41
26:1H:1666:G:O2'	26:1H:1667:G:H5'	2.19	0.41
26:1H:2347:C:P	53:O8:39:TYR:OH	2.76	0.41
26:1H:2408:U:H2'	26:1H:2409:G:H8	1.85	0.41
26:1H:2546:U:O4	58:1H:4469:HOH:O	2.21	0.41
26:1H:2850:A:C8	26:1H:2869:G:O4'	2.72	0.41
28:11:4:LYS:HA	28:11:4:LYS:HD3	1.90	0.41
30:31:116:ASP:O	30:31:120:GLU:HG3	2.20	0.41
35:68:22:ILE:HD13	35:68:22:ILE:HA	1.45	0.41
38:98:91:GLN:NE2	38:98:91:GLN:H	2.18	0.41
43:E8:59:VAL:HG12	43:E8:60:ASN:HD22	1.85	0.41
45:G8:44:ILE:H	45:G8:44:ILE:HG13	1.67	0.41
49:K8:33:MET:HB3	49:K8:33:MET:HE2	1.81	0.41
53:O8:10:LEU:CD2	55:Q8:32:LEU:HD22	2.48	0.41
54:P8:25:PRO:O	54:P8:26:GLY:C	2.63	0.41
1:1G:191:G:C2	1:1G:192:U:C2	3.07	0.41
1:1G:567:G:N2	58:1G:1833:HOH:O	2.50	0.41
1:1G:580:U:H2'	1:1G:581:G:O4'	2.20	0.41
1:1G:736:C:OP2	18:9A:68:LYS:HE2	2.20	0.41
1:1G:1095:U:OP1	1:1G:1108:G:N1	2.48	0.41
1:1G:1227:A:C8	1:1G:1227:A:H3'	2.55	0.41
5:42:102:ALA:HB2	5:42:120:THR:HG21	2.02	0.41
8:72:12:ARG:HH21	8:72:27:PRO:HD3	1.84	0.41
11:2A:85:ARG:HD3	11:2A:113:PRO:HD3	2.02	0.41
16:7A:43:LYS:HG3	16:7A:48:TRP:CE3	2.55	0.41
22:1L:29:G:N2	22:1L:42:C:O2	2.52	0.41
23:2L:20:G:H1	23:2L:57:C:H42	1.68	0.41
24:3L:35:A:H2	25:4L:14:A:N6	2.18	0.41
24:3L:65:G:N3	24:3L:65:G:H2'	2.35	0.41
26:14:273(C):C:H5'	26:14:273(D):C:OP2	2.20	0.41
26:14:638:G:C6	26:14:639:U:C4	3.07	0.41
26:14:792:G:H3'	26:14:793:A:H5'	2.02	0.41
26:14:817:C:H6	26:14:817:C:O5'	2.03	0.41
26:14:947:G:N2	26:14:971:C:C2	2.88	0.41
26:14:2093:G:OP1	33:69:23:PRO:HG2	2.20	0.41
26:14:2844:G:N2	26:14:2874:C:C2	2.88	0.41
28:19:37:LEU:CB	28:19:38:LYS:HG2	2.50	0.41
28:19:260:ARG:NH2	28:19:264:LYS:HD3	2.34	0.41
29:29:26:ILE:HG22	29:29:28:ALA:N	2.35	0.41
31:49:116:ASP:O	31:49:117:PHE:HB3	2.19	0.41
34:15:115:ARG:O	34:15:118:LYS:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:35:124:LYS:HE2	36:35:124:LYS:HA	2.02	0.41
38:55:8:ARG:NE	38:55:43:GLU:OE2	2.53	0.41
39:65:36:TYR:HA	39:65:52:SER:HB3	2.02	0.41
40:75:19:LEU:HB3	40:75:86:ILE:HG21	2.01	0.41
41:85:100:VAL:C	41:85:102:GLU:H	2.28	0.41
42:95:85:LYS:HG3	42:95:87:HIS:H	1.84	0.41
43:A5:64:MET:HB3	43:A5:64:MET:HE2	1.58	0.41
44:B5:35:THR:O	44:B5:39:ILE:HG13	2.19	0.41
51:I5:49:PHE:CD2	51:I5:50:VAL:HG22	2.52	0.41
1:13:9:G:C2	1:13:26:A:N1	2.88	0.41
1:13:260:G:H2'	1:13:261:U:C6	2.55	0.41
1:13:358:U:H5"	33:69:87:LYS:HG2	2.01	0.41
1:13:397:A:N7	1:13:548:G:C8	2.89	0.41
1:13:646:U:H2'	1:13:647:C:C6	2.54	0.41
1:13:712:A:C6	1:13:713:G:C6	3.07	0.41
1:13:835:U:OP2	18:9I:60:ALA:HB3	2.19	0.41
1:13:977:A:C8	1:13:1223:C:N3	2.88	0.41
1:13:1054:C:N3	22:1K:34:G:H1'	2.34	0.41
1:13:1399:C:C2	1:13:1502:A:N6	2.88	0.41
1:13:1405:G:H1'	1:13:1519:A:O4'	2.20	0.41
2:1E:17:PHE:HB3	2:1E:44:LEU:HD21	2.02	0.41
2:1E:47:THR:O	2:1E:51:LEU:HB2	2.20	0.41
3:2E:152:ILE:HG12	3:2E:167:TRP:HB2	2.02	0.41
6:5E:4:TYR:CD1	6:5E:92:LYS:HA	2.55	0.41
6:5E:72:VAL:CG2	6:5E:90:VAL:HG11	2.51	0.41
8:7E:82:HIS:CE1	8:7E:138:TRP:NE1	2.88	0.41
10:1I:86:MET:HE3	10:1I:87:THR:HG23	2.02	0.41
12:3I:21:LYS:HD2	12:3I:21:LYS:N	2.34	0.41
23:2K:8:4SU:O5'	23:2K:8:4SU:H6	2.19	0.41
23:2K:9:G:N3	23:2K:46:G:H2'	2.35	0.41
26:1H:146:G:H2'	26:1H:147:U:O4'	2.20	0.41
26:1H:442:G:C6	26:1H:444:C:N4	2.88	0.41
26:1H:612:G:H2'	26:1H:613:U:O2	2.20	0.41
26:1H:776:G:C8	26:1H:793:A:C2	3.07	0.41
26:1H:1110:G:O2'	26:1H:1111:A:O5'	2.32	0.41
26:1H:1167:U:C2	26:1H:1183:G:N2	2.88	0.41
26:1H:1215:G:C5	26:1H:1216:G:N7	2.88	0.41
26:1H:1547:C:H2'	26:1H:1548:C:H6	1.84	0.41
26:1H:1647:G:C8	26:1H:1647:G:H5'	2.54	0.41
26:1H:1690:A:H2'	26:1H:1691:C:O4'	2.20	0.41
26:1H:2061:G:H5"	26:1H:2503:A:C2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2679:A:H4'	29:21:165:VAL:HG11	2.02	0.41
27:16:12:C:C2	47:I8:74:ARG:NH1	2.88	0.41
27:16:28:C:OP1	39:A8:31:SER:OG	2.28	0.41
28:11:65:ILE:HD12	28:11:66:ASP:N	2.34	0.41
28:11:182:LEU:HD23	28:11:182:LEU:HA	1.89	0.41
29:21:188:VAL:HA	29:21:189:PRO:HD3	1.72	0.41
31:41:20:ILE:O	31:41:24:GLY:N	2.52	0.41
32:51:124:GLU:C	32:51:126:PRO:HD3	2.44	0.41
33:61:75:LEU:HB3	33:61:105:HIS:HD2	1.84	0.41
36:78:79:ARG:HB2	36:78:110:TYR:HD1	1.85	0.41
36:78:116:GLY:H	36:78:134:ALA:HB2	1.84	0.41
36:78:144:GLU:CD	36:78:144:GLU:N	2.74	0.41
37:88:11:LYS:HE2	37:88:86:GLY:HA2	2.00	0.41
49:K8:17:SER:HB3	49:K8:18:PRO:HD2	2.02	0.41
50:L8:10:LYS:HD3	50:L8:53:LEU:HD23	2.00	0.41
1:1G:260:G:H2'	1:1G:261:U:C6	2.55	0.41
1:1G:406:G:C2	1:1G:407:G:C8	3.09	0.41
1:1G:487:A:H2'	1:1G:488:C:O4'	2.20	0.41
1:1G:509:A:C6	1:1G:510:A:N1	2.87	0.41
1:1G:598:U:H2'	1:1G:599:C:C6	2.55	0.41
1:1G:707:C:OP1	11:2A:85:ARG:NH1	2.54	0.41
1:1G:944:G:C4	1:1G:1340:A:N1	2.88	0.41
1:1G:1055:A:C6	1:1G:1206:G:C4	3.08	0.41
1:1G:1320:C:C4	1:1G:1321:C:C4	3.08	0.41
1:1G:1374:A:H2'	1:1G:1375:A:H5'	2.02	0.41
4:32:173:TRP:HA	4:32:187:ARG:HD3	2.02	0.41
7:62:26:PHE:O	7:62:30:ILE:HG13	2.20	0.41
7:62:78:ARG:O	7:62:84:ASN:HA	2.19	0.41
13:4A:96:LEU:HD22	13:4A:97:PRO:HD2	2.01	0.41
22:1L:21:A:N6	22:1L:46:G:N3	2.68	0.41
23:2L:32:G:H5"	23:2L:33:OMC:OP2	2.20	0.41
26:14:439:G:H2'	26:14:440:G:C8	2.55	0.41
26:14:844:C:C2'	26:14:845:G:H5'	2.50	0.41
26:14:868:U:C4	26:14:869:G:N7	2.88	0.41
26:14:1639:U:OP2	58:14:4066:HOH:O	2.22	0.41
26:14:2250:G:OP1	26:14:2275:C:H2'	2.19	0.41
26:14:2256:G:H2'	26:14:2257:U:C6	2.54	0.41
26:14:2857:G:C6	26:14:2861:G:O6	2.73	0.41
28:19:92:ILE:HA	28:19:105:ILE:O	2.20	0.41
28:19:95:LEU:O	28:19:102:LYS:HA	2.20	0.41
29:29:34:VAL:HG11	29:29:64:LYS:HD3	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:49:96:ARG:HG2	31:49:96:ARG:HH11	1.85	0.41
33:69:90:GLY:O	33:69:121:LYS:HD2	2.20	0.41
37:45:4:PRO:HD3	37:45:70:PRO:O	2.20	0.41
41:85:65:ILE:HG22	41:85:66:ASN:N	2.34	0.41
41:85:88:ILE:HG22	41:85:90:VAL:CG2	2.50	0.41
44:B5:11:PRO:HD3	49:G5:37:PHE:CD2	2.55	0.41
45:C5:48:ALA:HB1	45:C5:50:ARG:NE	2.36	0.41
46:D5:99:TYR:CE2	46:D5:125:LEU:HD12	2.56	0.41
47:E5:21:LEU:HD23	47:E5:21:LEU:HA	1.88	0.41
50:H5:50:VAL:HG23	50:H5:54:VAL:HG21	2.02	0.41
1:13:266:G:H8	1:13:266:G:H2'	1.75	0.41
1:13:381:C:H2'	1:13:382:A:O4'	2.20	0.41
1:13:453:A:C6	1:13:454:C:C4	3.08	0.41
1:13:682:G:H2'	1:13:683:G:O4'	2.21	0.41
1:13:1080:A:H5"	5:4E:16:THR:HG21	2.01	0.41
1:13:1120:G:C2	1:13:1154:G:C2	3.09	0.41
1:13:1129:C:N4	1:13:1142:G:O6	2.52	0.41
4:3E:17:VAL:C	4:3E:33:MET:HE2	2.46	0.41
7:6E:26:PHE:CD2	7:6E:30:ILE:HD11	2.55	0.41
9:8E:77:ILE:O	9:8E:81:ILE:HG12	2.20	0.41
26:1H:18:C:O3'	41:C8:23:GLY:HA2	2.20	0.41
26:1H:99:U:C6	26:1H:102:G:C2	3.08	0.41
26:1H:255:A:H1'	26:1H:384:U:C6	2.55	0.41
26:1H:745:G:OP2	29:21:133:LYS:HE2	2.20	0.41
26:1H:991:C:H42	26:1H:1163:G:H1	1.68	0.41
26:1H:1173:G:N2	26:1H:1175:U:H5	2.18	0.41
26:1H:1332:G:P	58:1H:4559:HOH:O	2.78	0.41
26:1H:1448:G:N2	26:1H:1449:A:N6	2.68	0.41
26:1H:1572:A:H8	26:1H:1572:A:O5'	2.03	0.41
26:1H:1614:A:N6	43:E8:88:ARG:H	2.17	0.41
26:1H:1665:A:C2'	26:1H:1666:G:H5'	2.50	0.41
26:1H:1952:A:C6	35:68:22:ILE:CD1	2.99	0.41
26:1H:2239:G:P	58:1H:4527:HOH:O	2.78	0.41
26:1H:2408:U:O5'	26:1H:2408:U:H6	2.03	0.41
26:1H:2543:G:H2'	26:1H:2544:G:O4'	2.20	0.41
26:1H:2749:A:H1'	32:51:63:SER:OG	2.19	0.41
28:11:6:PHE:CE1	28:11:18:VAL:HG23	2.55	0.41
30:31:33:LEU:HD23	36:78:1:MET:HG3	2.01	0.41
30:31:117:ARG:O	30:31:120:GLU:HB2	2.21	0.41
33:61:40:THR:HG22	33:61:41:GLU:OE1	2.20	0.41
33:61:107:VAL:HG12	33:61:108:THR:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:98:37:THR:OG1	38:98:39:PRO:HD2	2.21	0.41
40:B8:19:LEU:HA	40:B8:20:PRO:HD3	1.81	0.41
42:D8:35:LEU:C	42:D8:37:VAL:H	2.28	0.41
46:H8:30:ASN:ND2	46:H8:90:VAL:HB	2.19	0.41
46:H8:126:VAL:HA	46:H8:164:ALA:H	1.84	0.41
46:H8:146:ILE:HD13	46:H8:174:VAL:HG12	2.02	0.41
47:I8:31:VAL:HG21	47:I8:61:ALA:HB2	2.02	0.41
47:I8:47:PRO:HB3	47:I8:51:VAL:HG12	2.01	0.41
50:L8:7:LYS:HD2	50:L8:34:GLU:HG2	2.01	0.41
53:O8:21:TYR:HB2	53:O8:22:ALA:H	1.50	0.41
54:P8:12:ARG:NH2	54:P8:44:PRO:HB3	2.35	0.41
54:P8:47:ARG:HB2	54:P8:47:ARG:HH11	1.84	0.41
1:1G:284:G:H2'	1:1G:285:G:C8	2.54	0.41
1:1G:309:G:H1'	1:1G:608:A:C2	2.55	0.41
1:1G:376:G:H5"	16:7A:5:ARG:CD	2.50	0.41
1:1G:781:A:H4'	1:1G:1522:U:O2'	2.21	0.41
1:1G:949:A:H2'	1:1G:950:U:C6	2.55	0.41
1:1G:1002:G:H22	1:1G:1038:C:H42	1.67	0.41
1:1G:1023:G:H2'	1:1G:1024:G:H5"	2.02	0.41
1:1G:1320:C:N3	19:AA:36:ARG:NH2	2.68	0.41
1:1G:1424:C:H2'	1:1G:1425:U:O4'	2.20	0.41
3:22:72:LYS:HG3	3:22:75:VAL:HG23	2.02	0.41
4:32:30:LYS:HB2	4:32:35:ARG:HD2	2.02	0.41
9:82:14:VAL:O	9:82:65:VAL:HA	2.20	0.41
10:1A:68:HIS:HB3	10:1A:70:ARG:HH21	1.85	0.41
12:3A:110:VAL:CG2	12:3A:120:TYR:HB3	2.51	0.41
13:4A:15:VAL:HA	13:4A:18:ALA:HB3	2.02	0.41
13:4A:37:THR:HG21	13:4A:56:LEU:HD23	2.01	0.41
20:BA:89:ARG:HH11	20:BA:104:LEU:HB3	1.86	0.41
26:14:522:G:H2'	26:14:523:C:C6	2.55	0.41
26:14:654:A:H8	26:14:654:A:OP1	2.03	0.41
26:14:725:G:O5'	26:14:725:G:H8	2.03	0.41
26:14:860:U:C2	26:14:2268:A:C8	3.08	0.41
26:14:962:G:C2	26:14:963:U:C2	3.08	0.41
26:14:1708:C:O2'	26:14:1709:U:H5'	2.19	0.41
26:14:2065:C:H1'	26:14:2449:U:H3	1.86	0.41
26:14:2366:A:H2'	26:14:2367:G:O4'	2.20	0.41
26:14:2407:G:O5'	26:14:2407:G:C8	2.74	0.41
26:14:2639:A:C2	26:14:2778:A:C8	3.08	0.41
26:14:2729:G:H2'	26:14:2730:C:C6	2.56	0.41
34:15:12:ARG:HH21	34:15:38:HIS:CE1	2.38	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:25:22:ILE:HG22	35:25:40:VAL:HB	2.01	0.41
35:25:90:GLN:O	35:25:91:LEU:HB2	2.19	0.41
39:65:67:ARG:HB2	39:65:67:ARG:CZ	2.50	0.41
49:G5:50:ILE:HG22	49:G5:54:LYS:HE3	2.03	0.41
51:I5:9:LEU:HD22	51:I5:9:LEU:H	1.85	0.41
1:13:16:A:O2'	1:13:17:U:H5'	2.20	0.41
1:13:95:G:H3'	1:13:96:G:H8	1.85	0.41
1:13:236:G:H5"	17:8I:42:TYR:OH	2.20	0.41
1:13:428:G:C8	1:13:430:A:C5	3.08	0.41
1:13:607:A:C2	16:7I:31:LYS:HG3	2.56	0.41
1:13:615:C:N3	1:13:616:G:N7	2.68	0.41
1:13:658:G:H2'	1:13:659:U:H6	1.85	0.41
1:13:976:G:C8	1:13:1362:C:N4	2.87	0.41
1:13:1193:G:P	3:2E:167:TRP:HZ3	2.43	0.41
1:13:1207:G:C6	1:13:1208:C:C4	3.09	0.41
1:13:1277:C:O2'	1:13:1279:A:H1'	2.21	0.41
1:13:1350:A:C2	1:13:1351:U:C2	3.08	0.41
2:1E:27:LYS:HB2	2:1E:194:PRO:HD2	2.02	0.41
4:3E:105:VAL:HG13	4:3E:110:PHE:HB2	2.01	0.41
4:3E:150:GLU:OE1	4:3E:150:GLU:N	2.53	0.41
6:5E:100:ASN:O	18:9I:28:GLU:HG3	2.19	0.41
10:1I:3:LYS:N	10:1I:75:ILE:HA	2.34	0.41
13:4I:80:ARG:HH11	19:AI:65:ASN:HB2	1.85	0.41
17:8I:58:GLU:HB2	17:8I:74:LEU:HB3	2.02	0.41
22:1K:21:A:N7	22:1K:46:G:C6	2.89	0.41
26:1H:25:U:H2'	26:1H:26:G:C8	2.54	0.41
26:1H:94:G:H2'	26:1H:95:G:O4'	2.20	0.41
26:1H:142:G:H2'	26:1H:143:C:C6	2.55	0.41
26:1H:200:U:O2	26:1H:386:G:N2	2.53	0.41
26:1H:583:G:OP2	41:C8:10:ARG:HD2	2.20	0.41
26:1H:633:A:H2'	26:1H:634:C:H5'	2.02	0.41
26:1H:720:C:H2'	26:1H:721:C:C6	2.56	0.41
26:1H:1389:G:C2	26:1H:1390:U:C2	3.08	0.41
26:1H:2348:U:OP1	55:Q8:36:LYS:HD2	2.20	0.41
26:1H:2475:C:O2'	26:1H:2476:A:H5'	2.20	0.41
26:1H:2732:G:H3'	26:1H:2733:A:C4'	2.50	0.41
26:1H:2811:G:OP1	29:21:60:ASN:HB2	2.21	0.41
32:51:41:MET:HE2	32:51:55:PRO:HD2	2.01	0.41
34:58:17:ASP:O	34:58:56:ASN:HB2	2.21	0.41
41:C8:17:ILE:O	41:C8:20:LEU:HB2	2.20	0.41
48:J8:91:LYS:O	48:J8:93:GLU:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:K8:14:ARG:HD3	49:K8:66:GLU:OE1	2.19	0.41
50:L8:30:ARG:H	50:L8:30:ARG:HG3	1.76	0.41
51:M8:49:PHE:CD2	51:M8:50:VAL:HB	2.55	0.41
55:Q8:32:LEU:HG	55:Q8:33:ASN:N	2.35	0.41
1:1G:337:C:H2'	1:1G:338:A:C8	2.55	0.41
1:1G:408:A:OP1	4:32:113:SER:OG	2.31	0.41
1:1G:1057:G:O2'	1:1G:1058:G:H5'	2.20	0.41
1:1G:1254:C:OP1	10:1A:45:ARG:HA	2.19	0.41
2:12:7:VAL:HG13	2:12:8:LYS:HG3	2.03	0.41
4:32:42:GLN:HG2	4:32:43:HIS:ND1	2.36	0.41
7:62:65:ALA:CB	7:62:124:LEU:HD22	2.51	0.41
9:82:33:PHE:HE1	9:82:37:PHE:CD2	2.35	0.41
16:7A:9:PHE:CE1	16:7A:18:ARG:HG3	2.56	0.41
21:1B:2:GLY:C	21:1B:4:GLY:N	2.78	0.41
24:3L:39:U:O2	24:3L:39:U:H2'	2.20	0.41
26:14:270(P):C:H2'	26:14:270(Q):C:C6	2.55	0.41
26:14:650:C:H5"	26:14:651:G:OP2	2.20	0.41
26:14:660:G:N2	36:35:12:ALA:HB2	2.26	0.41
26:14:663:G:H2'	26:14:664:C:O4'	2.20	0.41
26:14:699:A:H2'	26:14:700:G:O4'	2.20	0.41
26:14:911:A:H2'	37:45:9:TYR:OH	2.20	0.41
26:14:1496:A:C8	26:14:1577:C:O2'	2.71	0.41
26:14:1762:A:H4'	26:14:1763:G:OP2	2.19	0.41
26:14:1952:A:C2	35:25:22:ILE:HG13	2.55	0.41
26:14:2271:G:H5"	47:E5:20:ARG:NE	2.34	0.41
26:14:2428:G:H21	36:35:61:ARG:HH11	1.69	0.41
26:14:2472:G:N1	26:14:2476:A:O2'	2.53	0.41
26:14:2536:G:C6	26:14:2537:U:C4	3.09	0.41
28:19:30:GLU:O	28:19:31:LYS:C	2.63	0.41
28:19:127:VAL:HA	28:19:193:VAL:HG22	2.02	0.41
28:19:231:HIS:ND1	28:19:232:PRO:HD2	2.35	0.41
34:15:5:VAL:HG12	34:15:6:PRO:HD2	2.02	0.41
37:45:43:THR:HG22	37:45:94:VAL:HG12	2.01	0.41
37:45:66:ILE:HG13	37:45:67:ARG:N	2.35	0.41
37:45:102:VAL:O	37:45:102:VAL:HG12	2.20	0.41
38:55:52:ILE:O	38:55:54:LEU:N	2.53	0.41
43:A5:90:ARG:HH11	43:A5:90:ARG:HG3	1.85	0.41
45:C5:101:LYS:C	45:C5:102:CYS:SG	3.03	0.41
46:D5:39:VAL:HG21	46:D5:44:PHE:CD2	2.52	0.41
48:F5:34:THR:O	48:F5:34:THR:HG22	2.20	0.41
1:13:429:U:H1'	1:13:430:A:H5"	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:622:A:C8	1:13:623:C:C6	3.09	0.41
1:13:827:U:C5	1:13:870:U:C5	3.09	0.41
1:13:998(A):C:O2'	1:13:999:U:H5'	2.21	0.41
1:13:1154:G:H2'	1:13:1155:G:C8	2.56	0.41
1:13:1171:G:O2'	1:13:1172:C:H5'	2.20	0.41
4:3E:160:GLN:O	4:3E:160:GLN:NE2	2.53	0.41
5:4E:16:THR:OG1	5:4E:17:ALA:N	2.54	0.41
13:4I:84:ILE:HD11	19:AI:66:MET:HG2	2.03	0.41
17:8I:7:THR:OG1	17:8I:58:GLU:HG2	2.19	0.41
22:1K:51:U:H2'	22:1K:52:G:C8	2.47	0.41
26:1H:253:C:H2'	26:1H:254:G:O4'	2.19	0.41
26:1H:339:U:O5'	26:1H:339:U:H6	2.03	0.41
26:1H:729:G:O2'	26:1H:763:G:H4'	2.21	0.41
26:1H:824:A:H1'	26:1H:2358:G:N7	2.36	0.41
26:1H:832:G:H4'	36:78:45:LEU:HD11	2.01	0.41
26:1H:1047:G:HO2'	26:1H:1048:A:H8	1.65	0.41
26:1H:1198:U:H2'	26:1H:1199:U:C6	2.56	0.41
26:1H:1668:A:OP1	35:68:5:GLN:HG3	2.20	0.41
26:1H:1825:A:OP1	28:11:249:PRO:HD3	2.21	0.41
26:1H:2128:C:N4	26:1H:2160:G:H1	2.17	0.41
26:1H:2171:A:H8	26:1H:2171:A:P	2.43	0.41
26:1H:2339:G:N2	26:1H:2340:G:C4	2.89	0.41
26:1H:2619:C:H4'	29:21:151:TYR:O	2.20	0.41
26:1H:2694:G:H2'	26:1H:2695:C:H6	1.86	0.41
27:16:7:G:O5'	39:A8:29:PHE:HE2	2.03	0.41
27:16:44:G:H1'	27:16:47:C:N4	2.32	0.41
28:11:148:GLU:CD	28:11:151:LYS:HE3	2.45	0.41
29:21:2:LYS:HD3	29:21:200:GLU:HB2	2.03	0.41
30:31:64:ILE:HD13	30:31:64:ILE:HA	1.70	0.41
30:31:179:GLU:OE1	30:31:179:GLU:N	2.39	0.41
31:41:112:PRO:HB3	51:M8:36:CYS:CA	2.51	0.41
32:51:24:VAL:HG11	32:51:72:ILE:HD11	2.03	0.41
32:51:92:ILE:C	32:51:94:TYR:H	2.28	0.41
32:51:124:GLU:HG2	32:51:126:PRO:HG3	2.03	0.41
37:88:25:ASP:OD2	46:H8:78:LYS:NZ	2.40	0.41
37:88:52:VAL:O	37:88:53:ALA:C	2.63	0.41
41:C8:44:ASN:ND2	42:D8:75:PHE:O	2.39	0.41
46:H8:59:LEU:HA	46:H8:59:LEU:HD23	1.64	0.41
48:J8:75:GLU:O	48:J8:77:ALA:N	2.54	0.41
51:M8:22:ILE:HA	51:M8:24:THR:HG23	2.02	0.41
1:1G:247:G:OP2	17:8A:100:LYS:HG2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:374:A:C6	1:1G:375:U:C4	3.09	0.41
1:1G:464:G:N2	1:1G:467:G:C8	2.88	0.41
1:1G:520:A:OP1	12:3A:52:LEU:HB2	2.20	0.41
1:1G:781:A:H2'	1:1G:782:A:H5'	2.03	0.41
1:1G:1097:C:H2'	1:1G:1098:C:C6	2.56	0.41
1:1G:1099:G:C6	1:1G:1100:C:N3	2.88	0.41
1:1G:1185:G:H2'	1:1G:1186:G:O4'	2.20	0.41
1:1G:1260:C:P	1:1G:1284:C:H4'	2.61	0.41
1:1G:1379:G:OP1	7:62:6:ARG:NH1	2.54	0.41
1:1G:1496:C:H2'	1:1G:1497:G:C8	2.55	0.41
2:12:217:ARG:HB2	2:12:217:ARG:NH1	2.36	0.41
3:22:73:PRO:O	3:22:77:ILE:HG13	2.20	0.41
4:32:113:SER:OG	4:32:116:GLN:HB2	2.20	0.41
5:42:106:PRO:O	5:42:110:LEU:HG	2.21	0.41
6:52:6:VAL:HG12	6:52:8:ILE:HD11	2.03	0.41
6:52:30:LEU:HD23	6:52:30:LEU:HA	1.82	0.41
9:82:10:ARG:NH1	9:82:105:ASP:OD2	2.53	0.41
10:1A:4:ILE:HG12	10:1A:100:THR:HG22	2.02	0.41
14:5A:21:TYR:HD1	14:5A:22:THR:O	2.03	0.41
17:8A:59:ILE:HG22	17:8A:71:PHE:HD2	1.84	0.41
22:1L:11:C:H2'	22:1L:12:U:C6	2.56	0.41
23:2L:54:G:H2'	23:2L:55:5MU:C6	2.56	0.41
26:14:633:A:H2'	26:14:634:C:H5'	2.02	0.41
26:14:767:U:O2'	26:14:768:G:H5'	2.21	0.41
26:14:982:C:O5'	26:14:982:C:H6	2.02	0.41
26:14:1319:G:C6	26:14:1320:C:N4	2.89	0.41
26:14:1716:U:H2'	26:14:1717:G:H8	1.84	0.41
26:14:2543:G:H2'	26:14:2544:G:C8	2.55	0.41
26:14:2656:U:C4	26:14:2664:G:N2	2.89	0.41
26:14:2815:C:C5'	52:J5:29:THR:HG21	2.49	0.41
28:19:8:PRO:HB3	28:19:14:ARG:HB2	2.02	0.41
28:19:210:GLY:O	28:19:213:ARG:HB2	2.19	0.41
30:39:29:ASN:OD1	30:39:32:LEU:HB2	2.21	0.41
30:39:40:GLN:NE2	30:39:182:ASN:HB2	2.34	0.41
35:25:13:ASN:C	35:25:15:GLY:N	2.77	0.41
36:35:85:LEU:CA	36:35:88:LEU:HB3	2.41	0.41
37:45:116:GLU:O	37:45:117:ALA:HB3	2.19	0.41
38:55:51:LEU:HA	38:55:51:LEU:HD23	1.83	0.41
43:A5:70:TYR:O	43:A5:107:LEU:HD12	2.19	0.41
43:A5:90:ARG:HG3	43:A5:90:ARG:NH1	2.35	0.41
47:E5:29:GLN:O	47:E5:67:VAL:HG23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:J5:38:ALA:CB	52:J5:48:GLU:HG3	2.51	0.41
54:L5:12:ARG:HH21	54:L5:44:PRO:HB3	1.86	0.41
1:13:243:A:C2	1:13:246:A:C8	3.08	0.41
1:13:654:G:C6	1:13:655:A:C5	3.08	0.41
1:13:684:A:N6	1:13:685:G:C6	2.88	0.41
1:13:811:C:H4'	1:13:900:A:N6	2.35	0.41
1:13:1057:G:C4	1:13:1204:A:C2	3.09	0.41
1:13:1120:G:H2'	1:13:1121:U:C6	2.55	0.41
1:13:1152:A:C6	1:13:1153:C:C4	3.09	0.41
2:1E:108:ILE:O	2:1E:111:ARG:HB2	2.20	0.41
4:3E:187:ARG:O	4:3E:189:PRO:HD3	2.21	0.41
8:7E:87:SER:OG	8:7E:92:ARG:HA	2.21	0.41
15:6I:8:LYS:O	15:6I:12:ILE:HG13	2.21	0.41
24:3K:32:U:H2'	24:3K:33:U:H5"	2.03	0.41
26:1H:526:A:N3	26:1H:2044:C:H1'	2.36	0.41
26:1H:658:C:H2'	26:1H:659:C:H6	1.84	0.41
26:1H:686:G:H4'	26:1H:687:C:OP2	2.21	0.41
26:1H:1144:G:H2'	26:1H:1145:C:C6	2.55	0.41
26:1H:1181:C:C2'	26:1H:1182:A:H5'	2.51	0.41
26:1H:1299:G:H3'	26:1H:1639:U:O4	2.20	0.41
26:1H:1354:A:H2'	26:1H:1355:G:O4'	2.21	0.41
26:1H:1474:C:H2'	26:1H:1475:G:C8	2.55	0.41
26:1H:1498:C:O4'	26:1H:1577:C:H4'	2.20	0.41
26:1H:2119:A:H62	26:1H:2168:G:N2	2.18	0.41
26:1H:2127:G:N1	26:1H:2162:G:N3	2.68	0.41
26:1H:2393:A:H2'	26:1H:2394:C:H6	1.85	0.41
26:1H:2614:A:H3'	58:1H:3613:HOH:O	2.20	0.41
26:1H:2666:C:H5"	26:1H:2667:C:OP2	2.20	0.41
26:1H:2733:A:C2	26:1H:2734:A:H1'	2.56	0.41
26:1H:2820:A:H2'	26:1H:2820:A:N3	2.36	0.41
27:16:94:C:H2'	27:16:95:U:H6	1.86	0.41
27:16:99:A:C6	27:16:100:G:C5	3.08	0.41
28:11:25:THR:HG21	28:11:113:VAL:HG21	2.03	0.41
32:51:56:SER:OG	32:51:58:GLU:HG2	2.21	0.41
37:88:16:ARG:HH11	37:88:16:ARG:HD3	1.76	0.41
41:C8:90:VAL:HA	42:D8:39:LEU:HD23	2.02	0.41
44:F8:18:TYR:C	44:F8:20:GLY:N	2.78	0.41
51:M8:12:ALA:HA	51:M8:29:PRO:HB3	2.02	0.41
54:P8:9:ARG:HH11	54:P8:9:ARG:HD2	1.71	0.41
1:1G:109:A:H5'	1:1G:110:C:H5	1.85	0.41
1:1G:236:G:H2'	1:1G:237:C:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:570:G:H2'	1:1G:571:U:C6	2.55	0.41
1:1G:1002:G:H1	1:1G:1038:C:H42	1.68	0.41
1:1G:1129:C:C4	1:1G:1139:G:N1	2.89	0.41
1:1G:1218:C:H2'	1:1G:1219:U:C6	2.56	0.41
1:1G:1220:G:H1'	19:AA:52:TYR:HD2	1.86	0.41
1:1G:1228:C:OP1	13:4A:115:LYS:NZ	2.54	0.41
1:1G:1239:A:H4'	1:1G:1240:U:C5'	2.50	0.41
2:12:19:HIS:CD2	2:12:20:GLU:HG2	2.56	0.41
8:72:103:VAL:HG21	8:72:110:ALA:HB2	2.02	0.41
17:8A:59:ILE:HD13	17:8A:73:VAL:HA	2.02	0.41
22:1L:52:G:C2	22:1L:63:G:C2	3.09	0.41
26:14:71:A:H4'	26:14:72:U:H5"	2.03	0.41
26:14:242:G:C8	55:M5:5:LYS:HG3	2.55	0.41
26:14:322:A:H5'	26:14:340:A:H1'	2.03	0.41
26:14:363(B):G:H2'	26:14:363(C):G:H8	1.84	0.41
26:14:609(A):G:N2	26:14:619:G:H1'	2.36	0.41
26:14:822:U:O2'	26:14:823:G:H5'	2.21	0.41
26:14:1027:A:N6	26:14:1126:A:C4	2.88	0.41
26:14:1420:U:O2'	26:14:1421:G:P	2.79	0.41
26:14:1477:A:H2'	26:14:1478:G:O4'	2.21	0.41
26:14:1830:C:H6	26:14:1830:C:O5'	2.04	0.41
26:14:1925:C:O2'	26:14:1926:U:H5'	2.21	0.41
26:14:2408:U:O2'	26:14:2409:G:H5'	2.21	0.41
26:14:2516:G:C6	26:14:2517:C:N4	2.88	0.41
26:14:2533:A:N6	26:14:2534:A:C6	2.89	0.41
26:14:2556:C:H2'	26:14:2557:G:O4'	2.21	0.41
26:14:2859:G:C8	26:14:2859:G:H3'	2.55	0.41
27:1J:97:G:H2'	27:1J:98:G:O4'	2.20	0.41
28:19:133:LEU:HB2	28:19:187:GLY:HA2	2.02	0.41
32:59:85:LYS:NZ	32:59:142:GLY:HA2	2.35	0.41
33:69:6:LEU:HD13	33:69:37:VAL:CG2	2.51	0.41
35:25:101:PRO:HG3	40:75:67:SER:OG	2.20	0.41
36:35:49:ARG:NH1	55:M5:4:MET:HE2	2.36	0.41
38:55:29:LEU:HD12	38:55:29:LEU:HA	1.75	0.41
46:D5:29:TYR:HB3	46:D5:34:ASN:OD1	2.20	0.41
46:D5:178:GLU:HG3	46:D5:179:ASP:H	1.86	0.41
48:F5:49:VAL:HG11	48:F5:70:VAL:HG11	2.03	0.41
48:F5:65:SER:OG	48:F5:66:HIS:ND1	2.30	0.41
1:13:1251:A:H2'	1:13:1252:A:C8	2.56	0.41
3:2E:186:PHE:CE2	3:2E:188:LEU:HD23	2.56	0.41
8:7E:100:ILE:HD13	8:7E:112:LEU:HD21	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:23:ASN:OD1	9:8E:25:LYS:HB2	2.20	0.41
11:2I:112:THR:HA	11:2I:113:PRO:HD3	1.63	0.41
16:7I:4:ILE:HA	16:7I:20:VAL:O	2.21	0.41
17:8I:67:LYS:O	17:8I:68:ARG:HB3	2.21	0.41
23:2K:24:C:H2'	23:2K:25:U:H6	1.86	0.41
26:1H:129:C:H2'	26:1H:130:C:H6	1.86	0.41
26:1H:175:G:O2'	26:1H:176:G:H5'	2.21	0.41
26:1H:242:G:H5'	55:Q8:60:LEU:HD11	2.03	0.41
26:1H:319:C:C2	26:1H:333:G:N2	2.89	0.41
26:1H:528:A:O4'	26:1H:528:A:N3	2.50	0.41
26:1H:911:A:H2'	37:88:9:TYR:OH	2.20	0.41
26:1H:1025:G:C4	26:1H:1135:C:H1'	2.56	0.41
26:1H:1025:G:H8	26:1H:1025:G:OP1	2.03	0.41
26:1H:1301:A:H2	26:1H:1626:G:H21	1.66	0.41
26:1H:1331:A:H2'	26:1H:1333:C:C5	2.55	0.41
26:1H:1973:G:H2'	26:1H:1974:C:C6	2.56	0.41
26:1H:2218:G:O2'	28:11:148:GLU:OE1	2.33	0.41
26:1H:2246:G:H2'	26:1H:2247:A:C8	2.56	0.41
26:1H:2298:A:H5"	26:1H:2299:G:OP2	2.21	0.41
26:1H:2438:U:O2'	26:1H:2440:C:OP1	2.31	0.41
26:1H:2881:C:C2	26:1H:2882:A:C8	3.08	0.41
28:11:65:ILE:HG13	28:11:67:PHE:CE2	2.56	0.41
28:11:101:GLU:HG3	28:11:102:LYS:N	2.35	0.41
29:21:67:PHE:C	29:21:69:LYS:H	2.29	0.41
30:31:34:TRP:CZ2	36:78:8:PRO:HB3	2.55	0.41
30:31:64:ILE:HG23	30:31:65:TRP:NE1	2.36	0.41
30:31:196:LEU:C	30:31:197:ASP:O	2.62	0.41
33:61:117:GLU:H	33:61:117:GLU:HG2	1.47	0.41
36:78:96:THR:C	36:78:98:GLU:H	2.28	0.41
36:78:147:LEU:O	36:78:148:LEU:HD23	2.20	0.41
38:98:94:TYR:CD1	38:98:94:TYR:N	2.88	0.41
39:A8:66:ALA:HA	39:A8:69:VAL:CG1	2.49	0.41
41:C8:34:LYS:HA	41:C8:34:LYS:HE3	2.03	0.41
43:E8:22:ASP:HA	43:E8:25:ARG:NH1	2.35	0.41
43:E8:78:GLU:OE1	43:E8:99:ARG:HD3	2.20	0.41
44:F8:49:VAL:CG1	44:F8:50:LYS:N	2.82	0.41
44:F8:50:LYS:O	44:F8:83:VAL:HA	2.21	0.41
46:H8:19:ARG:NH1	46:H8:84:GLU:HB2	2.36	0.41
55:Q8:47:LYS:HB2	55:Q8:47:LYS:HZ3	1.86	0.41
55:Q8:51:ALA:C	55:Q8:52:LYS:HD2	2.45	0.41
1:1G:109:A:C6	1:1G:326:G:C6	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:145:G:H2'	1:1G:146:G:O4'	2.21	0.41
1:1G:693:G:H2'	1:1G:694:A:O4'	2.21	0.41
1:1G:791:G:C5	1:1G:792:A:N7	2.89	0.41
1:1G:828:A:C4	1:1G:859:A:C8	3.08	0.41
1:1G:1001:G:O6	1:1G:1002:G:N2	2.53	0.41
1:1G:1048:G:H3'	1:1G:1048:G:C8	2.55	0.41
1:1G:1057:G:C5	1:1G:1204:A:C2	3.08	0.41
1:1G:1323:G:H4'	1:1G:1362(A):C:C2	2.56	0.41
1:1G:1324:A:H5'	1:1G:1362:C:O2'	2.21	0.41
3:22:18:TRP:H	3:22:18:TRP:HE3	1.68	0.41
17:8A:14:LYS:HB2	17:8A:14:LYS:HE3	1.86	0.41
23:2L:14:A:C2	23:2L:23:G:C4	3.09	0.41
26:14:553:U:C4	26:14:554:U:C4	3.09	0.41
26:14:663:G:C5	26:14:664:C:C5	3.08	0.41
26:14:817:C:O2'	26:14:839:U:H5"	2.20	0.41
26:14:872:A:C6	26:14:906:G:C2	3.09	0.41
26:14:1062:G:N2	26:14:1077:A:N3	2.67	0.41
26:14:1235:G:C5	26:14:1236:G:C6	3.08	0.41
26:14:1356:G:C5	26:14:1357:U:C5	3.09	0.41
26:14:1894:C:O2'	26:14:1895:C:H5'	2.21	0.41
26:14:2387:U:H1'	47:E5:41:ARG:CD	2.49	0.41
26:14:2459:A:C5	26:14:2460:U:C5	3.08	0.41
26:14:2733:A:H61	29:29:202:LYS:HB3	1.86	0.41
26:14:2839:G:H21	38:55:92:GLY:HA2	1.86	0.41
28:19:133:LEU:HD23	28:19:133:LEU:HA	1.94	0.41
29:29:48:GLN:OE1	29:29:78:LEU:HD13	2.21	0.41
37:45:69:PHE:CD1	37:45:70:PRO:HD2	2.56	0.41
50:H5:5:LYS:HB3	50:H5:5:LYS:HE3	1.64	0.41
52:J5:36:CYS:HG	52:J5:49:CYS:CB	2.33	0.41
55:M5:39:LYS:HG2	55:M5:43:GLN:HG3	2.02	0.41
1:13:418:C:O2'	1:13:540:G:H1'	2.21	0.41
1:13:1234:C:O2'	1:13:1235:U:H5'	2.21	0.41
1:13:1256:A:H4'	1:13:1258:G:C4	2.56	0.41
1:13:1256:A:N3	1:13:1277:C:C4	2.89	0.41
1:13:1333:A:H2'	1:13:1334:G:O4'	2.20	0.41
1:13:1348:U:N3	1:13:1374:A:H2	1.94	0.41
5:4E:87:SER:HB3	5:4E:125:SER:O	2.20	0.41
19:AI:71:LEU:HD23	19:AI:71:LEU:HA	1.88	0.41
24:3K:25:C:C4	24:3K:26:A:C8	3.09	0.41
26:1H:195:A:H4'	26:1H:251:A:O2'	2.21	0.41
26:1H:275:G:C8	26:1H:363:G:C5	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:447:A:C2	26:1H:473:G:C8	3.09	0.41
26:1H:1137:G:H2'	26:1H:1138:G:C8	2.55	0.41
26:1H:1357:U:C4	26:1H:1358:G:C5	3.08	0.41
26:1H:1761:C:H5"	26:1H:1762:A:OP2	2.21	0.41
26:1H:2003:G:H2'	26:1H:2004:G:O5'	2.20	0.41
26:1H:2283:C:C2	26:1H:2389:G:C2	3.08	0.41
29:21:52:LEU:O	29:21:75:VAL:HG23	2.20	0.41
30:31:40:GLN:NE2	30:31:184:TYR:CB	2.83	0.41
30:31:46:ARG:HD2	30:31:46:ARG:HA	1.73	0.41
31:41:12:TYR:CD1	31:41:16:ARG:HD3	2.56	0.41
31:41:63:ILE:HG12	31:41:64:THR:N	2.36	0.41
32:51:8:PRO:HD2	32:51:69:ARG:HE	1.85	0.41
32:51:42:ARG:HB2	32:51:42:ARG:HH11	1.86	0.41
37:88:45:GLN:H	37:88:45:GLN:CD	2.27	0.41
40:B8:43:GLN:HG2	40:B8:44:ASP:N	2.35	0.41
42:D8:20:LEU:HD21	42:D8:22:VAL:CG2	2.51	0.41
43:E8:23:LEU:HD22	52:N8:25:LEU:HD12	2.02	0.41
43:E8:90:ARG:HE	43:E8:90:ARG:HB3	1.45	0.41
45:G8:8:LYS:HG2	45:G8:11:ASP:OD1	2.20	0.41
46:H8:135:GLU:H	46:H8:135:GLU:HG2	1.70	0.41
47:I8:53:MET:CG	47:I8:59:LEU:HD23	2.51	0.41
54:P8:8:ASN:OD1	54:P8:8:ASN:C	2.64	0.41
55:Q8:4:MET:CB	55:Q8:59:LYS:HD2	2.51	0.41
1:1G:18:C:H4'	1:1G:1078:U:O2	2.21	0.41
1:1G:382:A:H2'	1:1G:383:A:H8	1.83	0.41
1:1G:437:U:C4	1:1G:438:G:C5	3.09	0.41
1:1G:468:A:O2'	16:7A:81:ARG:HA	2.20	0.41
1:1G:1010:G:C2	1:1G:1020:U:H1'	2.56	0.41
3:22:131:ARG:HH21	3:22:166:GLU:CD	2.29	0.41
5:42:76:ILE:HG23	5:42:77:PRO:HD2	2.02	0.41
6:52:14:LEU:HB2	6:52:18:GLN:OE1	2.19	0.41
10:1A:7:LYS:O	10:1A:96:ILE:HB	2.21	0.41
10:1A:8:LEU:HG	10:1A:96:ILE:HG21	2.02	0.41
14:5A:38:GLY:O	14:5A:39:LEU:HD23	2.21	0.41
15:6A:56:LEU:O	15:6A:60:VAL:HG23	2.21	0.41
17:8A:81:ARG:HG2	17:8A:84:LEU:HD12	2.03	0.41
19:AA:17:GLU:O	19:AA:21:GLU:HG2	2.21	0.41
26:14:121:G:C2	26:14:131:G:C4	3.09	0.41
26:14:153:C:H42	26:14:173:G:H1	1.67	0.41
26:14:270(I):G:H2'	26:14:270(J):G:H8	1.86	0.41
26:14:693:C:H42	26:14:769:G:H1	1.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1005:C:C2	26:14:1143:A:C5	3.09	0.41
26:14:1141:U:H6	26:14:1141:U:H2'	1.59	0.41
26:14:1648:C:N4	26:14:2009:G:H1	2.19	0.41
26:14:1709:U:H2'	26:14:1710:C:H6	1.81	0.41
26:14:1961:C:O2'	26:14:1962:C:H5'	2.21	0.41
26:14:2017:U:O2	52:J5:10:LYS:HB2	2.21	0.41
26:14:2128:C:C4	26:14:2129:C:C4	3.09	0.41
26:14:2392:A:H8	36:35:61:ARG:HD2	1.86	0.41
26:14:2611:U:O2	52:J5:3:LYS:HE3	2.21	0.41
26:14:2851:A:H2'	26:14:2852:G:C8	2.55	0.41
27:1J:33:G:H1'	27:1J:50:G:N2	2.36	0.41
27:1J:40:U:C2'	27:1J:45:A:H61	2.33	0.41
27:1J:57:A:C2'	27:1J:58:A:H5'	2.51	0.41
31:49:104:GLU:HG2	51:I5:23:GLU:CG	2.50	0.41
32:59:120:GLY:O	32:59:121:ILE:HD13	2.21	0.41
32:59:137:ASP:CB	32:59:140:LYS:HB3	2.49	0.41
33:69:76:THR:HG21	33:69:140:LEU:HA	2.03	0.41
36:35:144:GLU:HA	36:35:145:PRO:HD3	1.76	0.41
37:45:102:VAL:O	37:45:103:MET:C	2.64	0.41
41:85:50:ARG:NH2	42:95:72:VAL:HG23	2.34	0.41
42:95:20:LEU:HA	42:95:20:LEU:HD12	1.76	0.41
46:D5:111:VAL:HG12	46:D5:145:GLU:HB2	2.03	0.41
50:H5:6:VAL:O	50:H5:34:GLU:HA	2.20	0.41
1:13:9:G:C2	1:13:26:A:C2	3.08	0.41
1:13:198:G:C2	1:13:199:G:C8	3.09	0.41
1:13:222:U:H2'	1:13:223:U:C6	2.55	0.41
1:13:338:A:P	35:68:97:ARG:HH12	2.43	0.41
1:13:708:C:H2'	1:13:709:G:H8	1.86	0.41
1:13:923:A:OP1	5:4E:21:ALA:HB2	2.21	0.41
1:13:963:G:H5'	58:13:1942:HOH:O	2.20	0.41
1:13:979:C:N4	58:13:1827:HOH:O	2.54	0.41
1:13:1091:U:C2	1:13:1095:U:N3	2.89	0.41
1:13:1247:U:H3	1:13:1290:G:H1	1.67	0.41
2:1E:20:GLU:HG3	2:1E:191:ASP:N	2.36	0.41
3:2E:113:ALA:HB3	3:2E:114:PRO:HD3	2.02	0.41
4:3E:107:ARG:HA	4:3E:107:ARG:HD2	1.78	0.41
4:3E:138:TYR:C	4:3E:138:TYR:HD1	2.29	0.41
4:3E:155:LEU:O	4:3E:156:GLU:C	2.63	0.41
6:5E:42:GLU:O	6:5E:42:GLU:HG2	2.20	0.41
6:5E:44:GLY:HA2	6:5E:59:TYR:CZ	2.56	0.41
7:6E:91:VAL:HG12	7:6E:95:ARG:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6E:109:ASN:OD1	7:6E:119:ARG:NH2	2.49	0.41
8:7E:81:HIS:HB2	8:7E:138:TRP:CZ3	2.56	0.41
8:7E:82:HIS:ND1	8:7E:138:TRP:CE2	2.89	0.41
9:8E:13:ALA:HB2	9:8E:68:GLY:HA3	2.03	0.41
9:8E:15:ALA:HB2	9:8E:65:VAL:HG23	2.02	0.41
10:1I:8:LEU:HD22	10:1I:96:ILE:HG22	2.02	0.41
10:1I:33:GLN:O	10:1I:75:ILE:HG13	2.21	0.41
10:1I:57:LYS:CD	10:1I:60:ARG:HH12	2.31	0.41
11:2I:59:TYR:OH	11:2I:63:LEU:HD21	2.21	0.41
12:3I:28:LYS:HA	12:3I:28:LYS:HD2	1.77	0.41
12:3I:53:ARG:HB3	12:3I:69:TYR:HE1	1.86	0.41
16:7I:17:TYR:CE2	16:7I:41:PRO:HG3	2.56	0.41
16:7I:77:ALA:HB1	16:7I:79:VAL:HG23	2.03	0.41
17:8I:52:LYS:HD2	17:8I:55:ASP:OD1	2.21	0.41
18:9I:26:LEU:HD12	18:9I:29:PHE:CE1	2.56	0.41
20:BI:43:LEU:HD23	20:BI:43:LEU:HA	1.92	0.41
22:1K:2:C:H2'	22:1K:3:C:C5	2.56	0.41
22:1K:34:G:H5"	22:1K:35:A:OP2	2.21	0.41
23:2K:19:G:C2	23:2K:59:A:C5	3.09	0.41
23:2K:41:C:O2'	23:2K:42:C:H5'	2.21	0.41
24:3K:37:A:HO2'	24:3K:38:A:C4'	2.34	0.41
26:1H:17:G:H2'	26:1H:18:C:C6	2.56	0.41
26:1H:107:C:H2'	26:1H:108:U:H6	1.86	0.41
26:1H:117:G:C6	26:1H:119:A:C6	3.09	0.41
26:1H:128:C:H2'	26:1H:129:C:C6	2.56	0.41
26:1H:154:G:H2'	26:1H:155:C:C6	2.56	0.41
26:1H:174:C:H2'	26:1H:175:G:O4'	2.19	0.41
26:1H:188:G:H1	26:1H:208:C:N4	2.19	0.41
26:1H:234:C:C2	26:1H:235:U:C6	3.09	0.41
26:1H:259:G:HO2'	26:1H:621:A:HO2'	1.50	0.41
26:1H:511:U:C5	26:1H:512:G:C5	3.09	0.41
26:1H:760:G:C2'	26:1H:761:A:H5'	2.51	0.41
26:1H:802:A:P	58:1H:4587:HOH:O	2.77	0.41
26:1H:806:C:C2	26:1H:807:U:C5	3.09	0.41
26:1H:818:G:H4'	26:1H:838:C:O3'	2.21	0.41
26:1H:931:G:C4	26:1H:933:A:C8	3.08	0.41
26:1H:960:A:C8	26:1H:962:G:C8	3.08	0.41
26:1H:962:G:H2'	26:1H:963:U:H6	1.86	0.41
26:1H:963:U:H2'	26:1H:964:C:C6	2.56	0.41
26:1H:993:G:H2'	26:1H:994:C:H6	1.86	0.41
26:1H:994:C:O2	26:1H:994:C:H2'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:994:C:H5”	26:1H:995:C:OP1	2.21	0.41
26:1H:1001:A:C8	26:1H:1002:G:C8	3.09	0.41
26:1H:1041:C:H2’	26:1H:1042:G:C8	2.56	0.41
26:1H:1165:U:C2	26:1H:1166:C:C5	3.08	0.41
26:1H:1465:G:C6	26:1H:1466:G:C5	3.09	0.41
26:1H:1675:C:H2’	26:1H:1676:A:O4’	2.21	0.41
26:1H:1732:A:H2’	26:1H:1733:G:O4’	2.20	0.41
26:1H:1761:C:H42	26:1H:1762:A:H62	1.67	0.41
26:1H:1870:C:H2’	26:1H:1871:A:O4’	2.21	0.41
26:1H:2356:C:H2’	26:1H:2357:U:O4’	2.20	0.41
26:1H:2704:C:H2’	26:1H:2705:A:C8	2.55	0.41
26:1H:2751:G:O2’	26:1H:2752:C:H5’	2.21	0.41
28:11:165:ILE:H	28:11:165:ILE:HG12	1.44	0.41
29:21:15:PHE:HB3	40:B8:81:PRO:HG3	2.02	0.41
29:21:31:CYS:HA	29:21:32:PRO:HD3	1.64	0.41
29:21:68:ALA:C	29:21:70:ALA:H	2.27	0.41
31:41:53:LEU:HG	31:41:90:LEU:HD21	2.02	0.41
31:41:61:ALA:HA	31:41:66:GLN:O	2.21	0.41
33:61:9:LEU:HD12	33:61:9:LEU:HA	1.86	0.41
33:61:99:GLU:HG2	33:61:103:ARG:NH2	2.36	0.41
34:58:40:PRO:HB3	41:C8:67:ALA:HB3	2.03	0.41
34:58:65:LYS:HB2	34:58:65:LYS:HE3	1.50	0.41
35:68:88:ASN:HD21	35:68:92:GLU:HG3	1.86	0.41
37:88:1:MET:HB3	37:88:2:LEU:H	1.67	0.41
38:98:52:ILE:HB	38:98:94:TYR:HD2	1.86	0.41
39:A8:36:TYR:N	39:A8:36:TYR:HD1	2.18	0.41
40:B8:108:ARG:O	40:B8:111:ARG:HG2	2.20	0.41
41:C8:90:VAL:O	41:C8:92:ARG:N	2.54	0.41
45:G8:76:CYS:C	45:G8:78:ALA:H	2.26	0.41
46:H8:7:ALA:HB3	46:H8:61:LEU:CB	2.51	0.41
47:I8:41:ARG:NE	47:I8:41:ARG:HA	2.33	0.41
48:J8:82:LEU:HD22	48:J8:82:LEU:H	1.86	0.41
49:K8:16:LEU:HG	49:K8:17:SER:N	2.31	0.41
50:L8:4:LEU:O	50:L8:36:VAL:HA	2.21	0.41
50:L8:28:LEU:HA	50:L8:33:GLN:OE1	2.21	0.41
52:N8:40:LYS:HG3	52:N8:47:PRO:HD2	2.02	0.41
53:O8:11:LEU:HD22	53:O8:26:ASN:HB3	2.03	0.41
1:1G:4:U:H3’	1:1G:5:U:H5’	2.02	0.41
1:1G:485:G:O2’	1:1G:486:U:H6	2.03	0.41
1:1G:596:C:H2’	1:1G:597:G:H8	1.86	0.41
1:1G:728:A:H2’	1:1G:729:A:H8	1.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:735:C:H2'	1:1G:736:C:C6	2.56	0.41
1:1G:775:G:H2'	1:1G:776:G:O4'	2.20	0.41
1:1G:1002:G:H22	1:1G:1038:C:N4	2.18	0.41
1:1G:1104:G:O3'	2:12:111:ARG:NH2	2.53	0.41
1:1G:1205:U:O2'	3:22:195:VAL:HG13	2.20	0.41
1:1G:1300:G:O2'	1:1G:1301:U:P	2.79	0.41
2:12:5:ILE:HG12	2:12:6:THR:HG22	2.02	0.41
2:12:22:LYS:HE3	2:12:22:LYS:HB2	1.66	0.41
2:12:207:ALA:O	2:12:211:ILE:HG13	2.21	0.41
2:12:219:VAL:HG23	2:12:222:ILE:HD11	2.03	0.41
3:22:33:LEU:O	3:22:36:ASP:N	2.53	0.41
3:22:130:VAL:O	3:22:134:ILE:HG12	2.21	0.41
6:52:8:ILE:N	6:52:8:ILE:HD12	2.36	0.41
7:62:95:ARG:NH2	7:62:99:LEU:HD11	2.35	0.41
8:72:54:ASP:N	8:72:54:ASP:OD1	2.53	0.41
8:72:78:GLN:H	8:72:78:GLN:HG2	1.47	0.41
9:82:65:VAL:HG21	9:82:73:GLN:HB3	2.03	0.41
10:1A:50:ILE:H	10:1A:50:ILE:HD12	1.86	0.41
10:1A:83:GLU:HA	10:1A:86:MET:HE2	2.02	0.41
11:2A:40:ILE:HA	11:2A:40:ILE:HD13	1.68	0.41
14:5A:41:ARG:O	14:5A:45:ARG:HB2	2.20	0.41
15:6A:76:GLU:HA	15:6A:79:ARG:HH11	1.85	0.41
22:1L:23:A:H2'	22:1L:24:G:C8	2.54	0.41
24:3L:8:U:O2'	24:3L:9:A:H5"	2.21	0.41
24:3L:9:A:N6	24:3L:22:G:C8	2.89	0.41
24:3L:15:G:C6	24:3L:48:C:N3	2.89	0.41
24:3L:18:G:H2'	24:3L:57:G:N2	2.36	0.41
26:14:137(A):G:H2'	26:14:139:G:N7	2.35	0.41
26:14:234:C:H2'	26:14:235:U:H6	1.85	0.41
26:14:531:C:C5	26:14:2035:G:C2	3.09	0.41
26:14:536:A:H2'	26:14:537:C:C6	2.56	0.41
26:14:540:G:C6	26:14:541:C:C4	3.09	0.41
26:14:582:G:H2'	26:14:583:G:H8	1.86	0.41
26:14:629:G:N1	26:14:634:C:N3	2.49	0.41
26:14:660:G:H21	36:35:12:ALA:CA	2.34	0.41
26:14:740:U:H5"	26:14:1784:A:H3'	2.03	0.41
26:14:1409:C:H2'	26:14:1410:G:O4'	2.21	0.41
26:14:1420:U:HO2'	26:14:1421:G:P	2.44	0.41
26:14:1568:G:H5'	28:19:60:ARG:HA	2.03	0.41
26:14:1599:C:C4	26:14:1600:C:C5	3.08	0.41
26:14:1628:G:H2'	26:14:1629:U:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1716:U:O2'	26:14:1717:G:H5'	2.20	0.41
26:14:1970:A:P	58:14:3458:HOH:O	2.74	0.41
26:14:2101:G:H2'	26:14:2102:U:O4'	2.20	0.41
26:14:2238:G:N3	26:14:2238:G:H2'	2.35	0.41
26:14:2245:U:O2'	26:14:2436:G:OP2	2.35	0.41
26:14:2355:C:H5"	26:14:2356:C:OP2	2.21	0.41
26:14:2399:G:H2'	26:14:2400:G:O4'	2.21	0.41
26:14:2436:G:C5	26:14:2437:U:C5	3.09	0.41
26:14:2558:C:C4	26:14:2559:C:C5	3.09	0.41
26:14:2643:G:H2'	26:14:2644:G:O4'	2.21	0.41
26:14:2850:A:C8	26:14:2869:G:O4'	2.73	0.41
26:14:2893:G:H5'	26:14:2894:G:OP1	2.21	0.41
27:1J:76:G:H2'	27:1J:77:U:O4'	2.20	0.41
28:19:37:LEU:HB2	28:19:38:LYS:HG2	2.02	0.41
28:19:264:LYS:HE2	28:19:266:SER:HB3	2.02	0.41
28:19:271:ILE:HG12	28:19:271:ILE:O	2.21	0.41
29:29:9:VAL:HG23	29:29:26:ILE:O	2.21	0.41
29:29:23:VAL:O	29:29:184:VAL:O	2.39	0.41
30:39:53:THR:HG22	30:39:56:GLU:OE1	2.21	0.41
30:39:80:ALA:O	30:39:83:PHE:HB2	2.21	0.41
31:49:68:PRO:HB2	31:49:90:LEU:HD12	2.03	0.41
31:49:104:GLU:OE1	51:I5:23:GLU:HG2	2.21	0.41
32:59:27:LYS:HD2	32:59:32:GLU:HG3	2.03	0.41
32:59:92:ILE:HD11	32:59:160:LYS:NZ	2.36	0.41
34:15:17:ASP:O	34:15:56:ASN:ND2	2.54	0.41
34:15:63:THR:H	34:15:63:THR:HG23	1.60	0.41
34:15:127:ASP:HB3	34:15:128:HIS:H	1.59	0.41
35:25:68:GLU:HB3	35:25:78:ARG:HB2	2.03	0.41
36:35:27:HIS:HB3	36:35:32:THR:HG23	2.02	0.41
38:55:18:LEU:HD22	38:55:22:ARG:HG3	2.03	0.41
38:55:44:LEU:HD23	38:55:44:LEU:HA	1.83	0.41
38:55:74:LYS:CE	38:55:77:ARG:HH21	2.31	0.41
38:55:96:ARG:NH2	38:55:117:VAL:HG13	2.36	0.41
42:95:36:PRO:C	42:95:37:VAL:HG13	2.46	0.41
43:A5:42:ARG:C	43:A5:44:ALA:HB3	2.46	0.41
45:C5:15:VAL:HG12	45:C5:21:LYS:HA	2.03	0.41
45:C5:67:LEU:HA	45:C5:67:LEU:HD12	1.67	0.41
45:C5:77:PRO:O	45:C5:78:ALA:HB3	2.21	0.41
46:D5:155:LEU:O	46:D5:157:LEU:HD13	2.21	0.41
54:L5:6:GLN:HA	54:L5:7:PRO:HD3	1.81	0.41
55:M5:32:LEU:HD12	55:M5:32:LEU:HA	1.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M5:34:TRP:CD1	55:M5:35:GLN:N	2.86	0.41
1:13:114:U:H2'	1:13:115:G:C8	2.56	0.41
1:13:502:G:C6	1:13:503:C:C4	3.09	0.41
1:13:587:G:C2	1:13:755:G:C5	3.09	0.41
1:13:875:C:O2'	8:7E:14:ARG:NH1	2.54	0.41
1:13:958:A:C6	1:13:959:A:C6	3.09	0.41
1:13:1029:G:H1'	1:13:1032(A):G:H22	1.86	0.41
1:13:1124:G:H5'	10:1I:35:SER:HB2	2.02	0.41
1:13:1171:G:H2'	1:13:1172:C:C6	2.55	0.41
1:13:1291:G:H2'	1:13:1292:U:C6	2.56	0.41
1:13:1415:G:C6	1:13:1486:G:C6	3.09	0.41
16:7I:26:ARG:HE	16:7I:31:LYS:HB3	1.86	0.41
16:7I:74:LEU:HA	16:7I:74:LEU:HD23	1.87	0.41
16:7I:83:GLU:HB3	16:7I:84:ALA:H	1.52	0.41
17:8I:48:GLU:O	17:8I:50:LYS:N	2.54	0.41
19:AI:40:ILE:HG23	19:AI:67:VAL:O	2.21	0.41
25:4K:23:A:H3'	25:4K:24:A:H8	1.83	0.41
26:1H:51:G:H1'	26:1H:119:A:N1	2.36	0.41
26:1H:590:A:H2'	26:1H:591:C:C6	2.56	0.41
26:1H:638:G:H2'	26:1H:639:U:C6	2.55	0.41
26:1H:856:C:H5'	47:I8:27:GLU:OE2	2.21	0.41
26:1H:943:U:OP2	58:1H:4508:HOH:O	2.21	0.41
26:1H:1483:G:H2'	26:1H:1484:G:H8	1.85	0.41
26:1H:2028:U:H2'	26:1H:2029:G:O4'	2.21	0.41
26:1H:2473:U:O2'	26:1H:2474:C:H5'	2.21	0.41
26:1H:2702:U:OP1	26:1H:2702:U:C6	2.70	0.41
26:1H:2788:C:P	29:21:61:ARG:HH22	2.43	0.41
30:31:78:ILE:HA	30:31:83:PHE:CE2	2.56	0.41
30:31:125:LEU:HA	30:31:125:LEU:HD23	1.80	0.41
31:41:36:LYS:HG2	31:41:38:VAL:HG23	2.02	0.41
33:61:4:ILE:HD11	33:61:44:LEU:HD12	2.03	0.41
34:58:42:TRP:HA	34:58:48:MET:CE	2.51	0.41
37:88:52:VAL:HG13	37:88:56:ARG:HG2	2.03	0.41
37:88:59:ARG:C	37:88:61:GLY:N	2.78	0.41
37:88:85:LYS:HG3	37:88:86:GLY:N	2.36	0.41
39:A8:58:LEU:HD12	39:A8:68:GLN:OE1	2.21	0.41
46:H8:69:THR:HA	46:H8:89:PHE:O	2.21	0.41
46:H8:128:VAL:HG22	46:H8:129:SER:O	2.20	0.41
51:M8:40:HIS:HA	51:M8:44:THR:O	2.22	0.41
55:Q8:30:ARG:CG	55:Q8:30:ARG:NH1	2.76	0.41
1:1G:15:G:H2'	1:1G:16:A:H8	1.87	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:503:C:H6	1:1G:503:C:O5'	2.04	0.41
1:1G:626:U:C2	1:1G:627:G:C8	3.09	0.41
1:1G:1442:G:H2'	1:1G:1443:G:H5"	2.02	0.41
2:12:19:HIS:HE1	2:12:206:ASP:HB2	1.86	0.41
5:42:42:GLY:HA3	5:42:66:MET:HA	2.02	0.41
9:82:3:GLN:O	9:82:4:TYR:HD1	2.04	0.41
9:82:10:ARG:HD3	9:82:75:ASP:HB3	2.03	0.41
13:4A:29:ARG:HD3	13:4A:64:TRP:CE3	2.55	0.41
15:6A:10:LYS:HA	15:6A:10:LYS:HD2	1.92	0.41
20:BA:13:LEU:HD12	20:BA:13:LEU:HA	1.70	0.41
22:1L:72:C:C2'	22:1L:73:A:H5"	2.51	0.41
24:3L:58:A:H1'	24:3L:60:U:C5	2.56	0.41
26:14:277:C:H5"	26:14:278:A:C8	2.55	0.41
26:14:494:G:OP1	43:A5:8:ARG:HD3	2.21	0.41
26:14:1056:G:H1'	26:14:1103:A:N6	2.36	0.41
26:14:1188:U:H2'	26:14:1189:A:H8	1.85	0.41
26:14:1537:C:H2'	26:14:1538:G:N9	2.36	0.41
26:14:1839:G:C8	26:14:1927:A:H1'	2.55	0.41
26:14:2116:G:C2	26:14:2117:A:N6	2.89	0.41
26:14:2208:U:H4'	28:19:151:LYS:HG2	2.02	0.41
26:14:2298:A:H61	26:14:2318:G:H2'	1.86	0.41
26:14:2507:C:H2'	26:14:2508:G:O4'	2.21	0.41
26:14:2637:U:C4	26:14:2638:G:C6	3.08	0.41
26:14:2720:U:C2	26:14:2721:A:C8	3.09	0.41
27:1J:33:G:N3	27:1J:50:G:N2	2.68	0.41
27:1J:44:G:O2'	27:1J:48:A:N6	2.54	0.41
28:19:149:PRO:O	28:19:150:LYS:HB2	2.21	0.41
30:39:78:ILE:HA	30:39:83:PHE:CE2	2.52	0.41
30:39:107:LYS:HD3	30:39:107:LYS:HA	1.56	0.41
36:35:62:LEU:CD1	55:M5:30:ARG:HH21	2.34	0.41
37:45:70:PRO:HA	37:45:94:VAL:O	2.20	0.41
42:95:87:HIS:HE1	42:95:89:GLN:HB2	1.83	0.41
43:A5:29:LEU:HD21	43:A5:33:ARG:HH21	1.85	0.41
43:A5:57:ASN:HA	43:A5:61:ASN:HD22	1.85	0.41
46:D5:103:ARG:NE	46:D5:136:PHE:HB3	2.36	0.41
1:13:247:G:O6	1:13:278:G:C6	2.74	0.40
1:13:726:C:H2'	1:13:727:G:H8	1.85	0.40
1:13:1183:A:O2'	1:13:1184:G:OP1	2.32	0.40
1:13:1498:U:C4	25:4K:17:U:H5"	2.56	0.40
2:1E:12:GLU:C	2:1E:16:HIS:CD2	2.99	0.40
2:1E:97:TRP:CZ3	2:1E:172:ILE:HD12	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:176:GLU:O	2:1E:180:LEU:HG	2.21	0.40
6:5E:18:GLN:O	6:5E:21:LEU:HB2	2.21	0.40
13:4I:40:ASN:HA	13:4I:41:PRO:HD3	1.96	0.40
15:6I:26:GLU:H	15:6I:26:GLU:HG2	1.47	0.40
21:1F:6:ARG:O	21:1F:12:LYS:HD2	2.21	0.40
26:1H:104:U:C5	26:1H:105:C:C5	3.09	0.40
26:1H:568:U:OP1	36:78:36:LYS:HE3	2.21	0.40
26:1H:754:C:H4'	26:1H:1272:A:N6	2.37	0.40
26:1H:826:U:H2'	26:1H:828:U:O4'	2.21	0.40
26:1H:858:U:O2	26:1H:2268:A:H2'	2.21	0.40
26:1H:1225:C:O2'	42:D8:85:LYS:HA	2.21	0.40
26:1H:1523:U:H2'	26:1H:1524:G:O4'	2.21	0.40
26:1H:1556:C:H2'	26:1H:1557:C:H6	1.86	0.40
26:1H:1803:A:H61	26:1H:1814:G:H1'	1.85	0.40
26:1H:2075:U:C4	26:1H:2238:G:C6	3.09	0.40
26:1H:2744:G:N2	32:51:143:GLN:OE1	2.53	0.40
32:51:6:ARG:HG2	32:51:66:GLY:CA	2.51	0.40
33:61:57:ARG:O	33:61:61:ARG:HB2	2.21	0.40
33:61:63:ALA:O	33:61:67:ARG:HD3	2.21	0.40
34:58:111:PRO:HA	34:58:114:ARG:NH1	2.35	0.40
36:78:49:ARG:NE	55:Q8:57:ARG:HG2	2.35	0.40
37:88:136:ALA:HB2	46:H8:52:SER:HB2	2.02	0.40
39:A8:67:ARG:O	39:A8:71:ARG:HG3	2.21	0.40
40:B8:55:ASN:N	40:B8:59:THR:HB	2.35	0.40
40:B8:62:THR:CG2	40:B8:75:ILE:HG12	2.50	0.40
43:E8:9:TYR:CD1	43:E8:102:HIS:HE1	2.39	0.40
43:E8:29:LEU:HD12	43:E8:29:LEU:O	2.20	0.40
46:H8:25:PRO:O	46:H8:85:HIS:HA	2.21	0.40
48:J8:58:ILE:HG23	48:J8:87:PRO:HG3	2.04	0.40
49:K8:48:HIS:ND1	49:K8:48:HIS:C	2.79	0.40
1:1G:38:G:N2	1:1G:397:A:C4	2.90	0.40
1:1G:50:A:N1	1:1G:360:A:O2'	2.45	0.40
1:1G:167:G:C4	1:1G:168:G:C8	3.09	0.40
1:1G:376:G:O2'	1:1G:377:G:H5'	2.21	0.40
1:1G:1084:G:H5'	1:1G:1102:A:OP2	2.21	0.40
1:1G:1137:C:H1'	1:1G:1138:G:C2	2.56	0.40
1:1G:1306:A:C6	1:1G:1307:U:C2	3.09	0.40
4:32:39:PRO:O	4:32:44:GLY:HA3	2.21	0.40
9:82:83:ARG:O	9:82:87:GLN:HB2	2.20	0.40
15:6A:82:ILE:HD13	15:6A:88:ARG:HB2	2.01	0.40
20:BA:58:LYS:O	20:BA:58:LYS:HD3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1B:6:ARG:HD3	21:1B:15:ARG:NH2	2.36	0.40
22:1L:18:G:O2'	22:1L:19:G:P	2.79	0.40
23:2L:14:A:H2'	23:2L:15:G:H5'	2.02	0.40
23:2L:30:G:N2	23:2L:42:C:O2	2.46	0.40
24:3L:69:G:N1	24:3L:70:G:C6	2.89	0.40
26:14:430:G:H5"	26:14:431:U:OP2	2.21	0.40
26:14:515:A:N1	26:14:1260:G:O2'	2.48	0.40
26:14:631:A:O2'	36:35:67:MET:HB3	2.21	0.40
26:14:674:G:H1'	30:39:74:ARG:HD3	2.03	0.40
26:14:686:G:C8	54:L5:7:PRO:HA	2.57	0.40
26:14:686:G:O6	54:L5:12:ARG:HG3	2.21	0.40
26:14:1142:U:H5"	26:14:1142(A):A:C8	2.56	0.40
26:14:2439:A:H4'	26:14:2440:C:O5'	2.20	0.40
30:39:170:LEU:HA	30:39:171:PRO:HD3	1.92	0.40
32:59:94:TYR:CD1	32:59:94:TYR:N	2.89	0.40
37:45:69:PHE:HA	37:45:70:PRO:HD2	1.68	0.40
39:65:15:ARG:HD2	39:65:25:ARG:HH21	1.85	0.40
46:D5:7:ALA:O	46:D5:8:TYR:CD2	2.75	0.40
46:D5:114:GLY:HA2	46:D5:174:VAL:HG11	2.04	0.40
48:F5:91:LYS:O	48:F5:92:LYS:C	2.64	0.40
49:G5:20:GLU:O	49:G5:24:LEU:HB2	2.21	0.40
1:13:272:C:C2	1:13:273:A:C8	3.08	0.40
1:13:338:A:C6	1:13:339:C:C4	3.09	0.40
1:13:465:A:N7	1:13:467:G:C5	2.89	0.40
1:13:658:G:C6	1:13:659:U:C4	3.08	0.40
1:13:868:C:H2'	1:13:869:G:O4'	2.20	0.40
1:13:940:C:H2'	1:13:941:G:C8	2.56	0.40
1:13:1170:A:C8	1:13:1171:G:C8	3.09	0.40
1:13:1285:A:H4'	1:13:1286:A:O5'	2.21	0.40
6:5E:97:PHE:N	18:9I:30:ASP:OD1	2.53	0.40
9:8E:10:ARG:NE	9:8E:105:ASP:OD2	2.54	0.40
9:8E:20:ARG:HA	9:8E:21:PRO:HD3	1.95	0.40
10:1I:5:ARG:HB2	10:1I:73:ASP:OD1	2.22	0.40
10:1I:76:ASN:HA	10:1I:77:PRO:HD2	1.92	0.40
12:3I:113:ARG:O	12:3I:114:LYS:HD2	2.21	0.40
16:7I:15:PRO:HD2	16:7I:42:ARG:HD3	2.03	0.40
26:1H:14:A:O5'	26:1H:14:A:H8	2.02	0.40
26:1H:15:G:C4	26:1H:16:G:C8	3.09	0.40
26:1H:46:C:OP2	26:1H:215:G:H2'	2.21	0.40
26:1H:447:A:C4	26:1H:473:G:N7	2.90	0.40
26:1H:489:G:N3	26:1H:489:G:H2'	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:637:A:O5'	36:78:116:GLY:HA3	2.22	0.40
26:1H:1612:C:O3'	54:P8:5:TRP:HB3	2.21	0.40
26:1H:1640:C:H2'	26:1H:1641:A:C8	2.57	0.40
26:1H:1663:C:O2'	26:1H:2686:G:H4'	2.21	0.40
26:1H:1784:A:H4'	26:1H:1785:A:O5'	2.22	0.40
26:1H:2035:G:P	58:1H:3793:HOH:O	2.74	0.40
26:1H:2244:U:H2'	26:1H:2245:U:O4'	2.21	0.40
28:11:69:ARG:NH2	28:11:130:ALA:H	2.19	0.40
28:11:236:GLY:O	28:11:237:GLU:C	2.62	0.40
29:21:77:ILE:C	29:21:79:ARG:H	2.29	0.40
30:31:206:ILE:HG21	30:31:206:ILE:HD13	1.86	0.40
31:41:181:ARG:HB3	31:41:181:ARG:HH11	1.86	0.40
32:51:88:LEU:HB3	32:51:130:ARG:HG2	2.03	0.40
38:98:96:ARG:NH2	38:98:118:GLU:H	2.20	0.40
46:H8:126:VAL:HA	46:H8:164:ALA:N	2.36	0.40
48:J8:11:ARG:HH11	48:J8:11:ARG:HD2	1.75	0.40
53:O8:15:GLU:CG	53:O8:16:CYS:N	2.84	0.40
1:1G:103:C:O2'	1:1G:172:A:N1	2.52	0.40
1:1G:109:A:H2'	1:1G:326:G:N2	2.37	0.40
1:1G:328:C:H4'	1:1G:329:A:C5'	2.51	0.40
1:1G:526:C:C4	1:1G:527:G:H1'	2.56	0.40
1:1G:1055:A:N6	1:1G:1056:U:O2	2.55	0.40
1:1G:1141:C:C2	1:1G:1142:G:C8	3.09	0.40
1:1G:1310:G:C5'	13:4A:77:ASN:HD21	2.27	0.40
1:1G:1329:A:H5"	13:4A:25:ILE:O	2.21	0.40
5:42:76:ILE:O	5:42:93:PRO:HB3	2.21	0.40
8:72:34:GLU:HB3	8:72:118:VAL:HG21	2.04	0.40
10:1A:33:GLN:HB3	10:1A:75:ILE:HG12	2.04	0.40
11:2A:40:ILE:HG23	11:2A:75:TYR:CD2	2.56	0.40
23:2L:38:A:H2'	23:2L:39:A:O4'	2.21	0.40
26:14:144:C:C2	26:14:145:G:C8	3.09	0.40
26:14:513:A:C2	26:14:514:A:C8	3.10	0.40
26:14:675:A:C8	26:14:804:A:C6	3.09	0.40
26:14:827:U:H4'	26:14:828:U:O2	2.21	0.40
26:14:1019:U:O2'	26:14:1021:A:H2	2.04	0.40
26:14:1249:U:O2	26:14:1249:U:H2'	2.21	0.40
26:14:1614:A:H2	58:14:3409:HOH:O	2.02	0.40
26:14:1668:A:H4'	26:14:1669:A:O5'	2.21	0.40
26:14:2187:G:H2'	26:14:2188:C:O4'	2.20	0.40
26:14:2287:A:C4	26:14:2289:G:C8	3.09	0.40
26:14:2303:G:O2'	31:49:132:ASN:ND2	2.48	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2327:A:H2'	26:14:2328:A:H8	1.81	0.40
26:14:2607:G:H2'	26:14:2608:G:O4'	2.21	0.40
26:14:2660:A:H2'	26:14:2661:G:O4'	2.21	0.40
26:14:2821:A:O2'	26:14:2826:A:N1	2.48	0.40
26:14:2881:C:C4	26:14:2882:A:N7	2.89	0.40
27:1J:13:A:O2'	27:1J:14:U:H3'	2.20	0.40
27:1J:68:C:H6	27:1J:68:C:O5'	2.04	0.40
28:19:264:LYS:HA	28:19:265:PRO:HD2	1.95	0.40
29:29:5:LEU:HB2	29:29:51:PHE:CG	2.56	0.40
29:29:26:ILE:HD12	29:29:26:ILE:HG23	1.74	0.40
29:29:56:PRO:C	29:29:58:ARG:H	2.29	0.40
33:69:62:LYS:HE2	33:69:133:HIS:ND1	2.35	0.40
33:69:99:GLU:H	33:69:99:GLU:HG3	1.60	0.40
34:15:16:ILE:HG21	34:15:26:LEU:HD11	2.03	0.40
34:15:121:LYS:HB3	34:15:123:TYR:HE1	1.86	0.40
35:25:76:ALA:HB3	40:75:75:ILE:HD12	2.03	0.40
36:35:39:LYS:CB	36:35:45:LEU:HD21	2.51	0.40
36:35:124:LYS:HA	36:35:143:GLY:O	2.22	0.40
38:55:28:LEU:HD23	38:55:28:LEU:HA	1.78	0.40
41:85:91:ASP:OD1	41:85:96:ALA:HB2	2.22	0.40
41:85:92:ARG:C	41:85:94:ASN:N	2.80	0.40
42:95:75:PHE:HE1	42:95:81:TYR:CE1	2.38	0.40
44:B5:26:TYR:OH	44:B5:88:LYS:HB2	2.21	0.40
50:H5:17:LYS:NZ	50:H5:21:ALA:HB2	2.35	0.40
1:13:291:C:C2	1:13:310:G:C2	3.10	0.40
1:13:324:G:N2	1:13:326:G:H3'	2.37	0.40
1:13:339:C:H2'	1:13:340:U:C6	2.56	0.40
1:13:435:C:H2'	1:13:436:C:C6	2.55	0.40
1:13:721:G:N1	1:13:733:A:C2	2.89	0.40
1:13:1111:A:N1	3:2E:177:THR:HG23	2.36	0.40
1:13:1133:G:H2'	1:13:1134:G:C8	2.56	0.40
1:13:1312:G:H5'	19:AI:6:LYS:HD2	2.03	0.40
2:1E:200:ILE:O	2:1E:201:ILE:HD13	2.22	0.40
3:2E:19:GLU:HG3	3:2E:54:ARG:CZ	2.51	0.40
3:2E:40:ARG:HG3	3:2E:40:ARG:NH1	2.36	0.40
3:2E:62:ASP:OD1	3:2E:62:ASP:N	2.53	0.40
7:6E:95:ARG:HB3	7:6E:95:ARG:HE	1.69	0.40
8:7E:75:ARG:HE	8:7E:75:ARG:HB2	1.48	0.40
12:3I:53:ARG:HG3	12:3I:93:LEU:HD21	2.02	0.40
12:3I:117:ARG:C	12:3I:119:LYS:O	2.64	0.40
13:4I:77:ASN:OD1	51:M8:55:ARG:HD2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:4:THR:OG1	15:6I:7:GLU:HB2	2.21	0.40
20:BI:16:HIS:O	20:BI:19:SER:HB2	2.21	0.40
26:1H:230:U:H6	26:1H:230:U:OP2	2.03	0.40
26:1H:309:G:O2'	26:1H:329:G:C8	2.73	0.40
26:1H:749:C:C4	26:1H:1618:A:C2	3.09	0.40
26:1H:792:G:OP1	26:1H:792:G:H3'	2.21	0.40
26:1H:1110:G:O2'	26:1H:1111:A:C8	2.71	0.40
26:1H:2053:G:N2	26:1H:2054:A:C4	2.90	0.40
26:1H:2117:A:H2'	26:1H:2118:U:C6	2.56	0.40
26:1H:2829:C:C2'	26:1H:2830:G:H5"	2.52	0.40
28:11:133:LEU:HD23	28:11:133:LEU:HA	1.87	0.40
32:51:4:ILE:C	32:51:6:ARG:N	2.79	0.40
34:58:10:GLU:HA	34:58:11:PRO:HD3	1.96	0.40
37:88:20:ALA:O	37:88:21:THR:C	2.65	0.40
37:88:77:LYS:HA	37:88:78:PRO:HD3	1.92	0.40
40:B8:9:LEU:HD23	40:B8:9:LEU:HA	1.94	0.40
41:C8:76:TYR:CD1	41:C8:76:TYR:C	3.00	0.40
49:K8:51:ARG:NH1	49:K8:55:ARG:HH12	2.19	0.40
51:M8:15:ILE:HB	51:M8:32:TYR:HD1	1.86	0.40
55:Q8:7:HIS:O	55:Q8:8:LYS:C	2.63	0.40
55:Q8:33:ASN:HA	55:Q8:34:TRP:CD1	2.57	0.40
1:1G:407:G:C2	1:1G:436:C:C2	3.09	0.40
1:1G:861:G:N2	1:1G:872:A:H2	2.18	0.40
1:1G:983:A:H3'	1:1G:983:A:N3	2.35	0.40
1:1G:1226:C:H2'	13:4A:103:THR:HB	2.03	0.40
1:1G:1354:C:O5'	1:1G:1354:C:H6	2.04	0.40
4:32:18:LYS:HG2	4:32:20:TYR:CD1	2.57	0.40
6:52:10:LEU:HB2	6:52:59:TYR:HB3	2.03	0.40
7:62:150:ALA:HB2	11:2A:50:TYR:OH	2.22	0.40
8:72:17:THR:HG22	8:72:78:GLN:HE21	1.86	0.40
12:3A:117:ARG:HE	12:3A:123:LYS:C	2.29	0.40
16:7A:50:LYS:HG2	16:7A:51:VAL:N	2.36	0.40
26:14:353:G:H2'	26:14:354:G:H8	1.83	0.40
26:14:363:G:H2'	26:14:363(A):A:O4'	2.20	0.40
26:14:384:U:H2'	26:14:385:C:C6	2.55	0.40
26:14:415:A:H2'	26:14:416:C:C6	2.57	0.40
26:14:455:C:N3	26:14:473:G:H5'	2.36	0.40
26:14:1109:C:H2'	26:14:1110:G:N9	2.36	0.40
26:14:1190:G:O2'	26:14:1191:G:H5'	2.21	0.40
26:14:1299:G:OP1	58:14:4092:HOH:O	2.22	0.40
26:14:1467:C:H2'	26:14:1468:C:C6	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1480:G:C6	26:14:1482:U:N3	2.90	0.40
26:14:1826:G:H2'	26:14:1827:C:H6	1.85	0.40
26:14:1846:G:H5"	26:14:1847:A:OP2	2.22	0.40
26:14:2288:A:H8	26:14:2288:A:O5'	2.03	0.40
26:14:2493:U:H2'	26:14:2494:G:O4'	2.21	0.40
26:14:2582:G:C2	26:14:2583:G:C8	3.09	0.40
26:14:2679:A:H2'	26:14:2680:C:O4'	2.21	0.40
26:14:2782:G:OP2	58:14:3788:HOH:O	2.22	0.40
27:1J:57:A:H8	27:1J:57:A:O5'	2.03	0.40
28:19:11:PRO:C	28:19:13:ARG:H	2.28	0.40
28:19:181:GLU:HA	28:19:272:ALA:HB1	2.02	0.40
29:29:171:GLU:OE2	29:29:185:LYS:HE2	2.21	0.40
36:35:85:LEU:HA	36:35:88:LEU:CB	2.41	0.40
42:95:15:GLU:O	42:95:96:ILE:HB	2.21	0.40
42:95:71:LEU:HD13	42:95:71:LEU:HA	1.77	0.40
43:A5:12:ILE:HG13	43:A5:42:ARG:NH1	2.37	0.40
46:D5:126:VAL:HG12	46:D5:163:LEU:HB3	2.03	0.40
48:F5:97:LEU:O	48:F5:98:LEU:HD23	2.21	0.40
1:13:12:U:O2'	1:13:526:C:H4'	2.22	0.40
1:13:67:C:H2'	1:13:68:G:C8	2.57	0.40
1:13:669:U:N3	1:13:670:G:N7	2.69	0.40
1:13:883:C:O2'	1:13:884:U:H5'	2.20	0.40
1:13:1006:C:H2'	1:13:1007:C:H5"	2.03	0.40
1:13:1024:G:H2'	1:13:1025:U:C6	2.56	0.40
1:13:1396:A:O4'	1:13:1398:A:H1'	2.21	0.40
1:13:1467:G:O5'	1:13:1467:G:H8	2.04	0.40
1:13:1517:G:H1'	26:1H:1919:A:O3'	2.21	0.40
2:1E:17:PHE:HB2	2:1E:42:ILE:HG22	2.03	0.40
2:1E:88:ALA:HB2	2:1E:219:VAL:HG13	2.04	0.40
2:1E:135:GLN:O	2:1E:139:LYS:HB2	2.22	0.40
3:2E:87:LEU:O	3:2E:90:GLU:N	2.54	0.40
3:2E:150:LYS:HD3	3:2E:152:ILE:HD11	2.04	0.40
4:3E:89:THR:N	4:3E:92:VAL:HG23	2.36	0.40
9:8E:112:LYS:HD3	9:8E:117:HIS:O	2.22	0.40
16:7I:82:GLN:HG2	16:7I:82:GLN:H	1.65	0.40
18:9I:73:ALA:HB3	18:9I:79:LEU:HD12	2.04	0.40
19:AI:8:GLY:C	19:AI:9:VAL:HG23	2.45	0.40
23:2K:9:G:H21	23:2K:47:7MG:C5'	2.34	0.40
26:1H:55:G:C2	26:1H:116:C:C2	3.09	0.40
26:1H:248:G:C2	26:1H:2431:U:H4'	2.56	0.40
26:1H:252:G:P	36:78:50:ARG:HH12	2.44	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:374:A:C8	26:1H:375:C:C5	3.10	0.40
26:1H:910:A:C6	26:1H:911:A:C6	3.09	0.40
26:1H:1791:A:H4'	28:11:206:LEU:HB2	2.04	0.40
26:1H:1831:G:C4	26:1H:1975:G:N2	2.89	0.40
26:1H:1993:U:H4'	29:21:128:SER:HB2	2.03	0.40
26:1H:2744:G:C8	26:1H:2755:C:C6	3.10	0.40
26:1H:2870:C:H5"	38:98:65:LEU:HD21	2.02	0.40
29:21:70:ALA:O	29:21:71:GLY:C	2.65	0.40
31:41:16:ARG:NH1	31:41:31:VAL:HG22	2.37	0.40
32:51:124:GLU:O	32:51:126:PRO:HD3	2.22	0.40
35:68:106:LEU:HD23	35:68:106:LEU:HA	1.67	0.40
36:78:108:LYS:C	36:78:110:TYR:H	2.30	0.40
36:78:135:LEU:HD23	36:78:135:LEU:HA	1.73	0.40
37:88:17:LEU:HD13	37:88:39:PRO:HB2	2.03	0.40
41:C8:69:CYS:HB3	41:C8:74:LEU:CD1	2.50	0.40
1:1G:25:C:H2'	1:1G:26:A:C8	2.55	0.40
1:1G:233:C:H2'	1:1G:234:C:H6	1.87	0.40
1:1G:641:U:O3'	1:1G:642:A:H8	2.05	0.40
1:1G:878:G:H5'	8:72:89:PRO:HG2	2.04	0.40
1:1G:1054:C:O2'	1:1G:1055:A:O5'	2.38	0.40
1:1G:1192:C:N4	1:1G:1193:G:C2	2.90	0.40
1:1G:1413:A:H2'	1:1G:1414:U:O4'	2.21	0.40
2:12:119:GLU:HA	2:12:122:PHE:CD2	2.57	0.40
2:12:171:ALA:HA	2:12:174:VAL:HG23	2.04	0.40
4:32:8:VAL:HG12	4:32:21:LEU:HD12	2.03	0.40
7:62:94:ARG:O	7:62:97:GLN:HB3	2.22	0.40
12:3A:69:TYR:CG	12:3A:90:VAL:HG21	2.56	0.40
18:9A:19:LYS:HG3	18:9A:20:ALA:H	1.87	0.40
20:BA:59:ALA:O	20:BA:62:LEU:N	2.55	0.40
20:BA:97:ALA:HA	20:BA:98:PRO:HD3	1.81	0.40
26:14:265:A:H1'	26:14:266:G:O4'	2.22	0.40
26:14:370:G:O5'	26:14:370:G:H8	2.04	0.40
26:14:1096:A:C5	26:14:1097:U:H1'	2.56	0.40
26:14:1557:C:OP2	26:14:1558:A:O2'	2.39	0.40
26:14:1562:A:H2'	26:14:1563:G:O4'	2.21	0.40
26:14:1939:U:OP1	26:14:2604:U:O2'	2.36	0.40
26:14:1952:A:H5"	26:14:1953:A:OP2	2.21	0.40
26:14:2086:U:H2'	26:14:2087:G:C8	2.56	0.40
26:14:2124:G:H2'	26:14:2125:G:H5'	2.03	0.40
26:14:2133:G:O2'	26:14:2158:A:N6	2.55	0.40
26:14:2331:G:O3'	47:E5:43:THR:HG22	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2495:G:H2'	26:14:2496:C:C6	2.55	0.40
26:14:2520:C:H41	26:14:2542:A:N6	2.19	0.40
26:14:2586:C:H2'	26:14:2587:A:H5'	2.03	0.40
29:29:88:GLY:HA2	29:29:89:ASP:HA	1.15	0.40
29:29:151:TYR:HD2	29:29:154:LYS:HZ2	1.69	0.40
32:59:125:VAL:HG22	32:59:126:PRO:HA	2.04	0.40
35:25:7:TYR:HE1	35:25:20:MET:CE	2.35	0.40
35:25:16:ALA:HB2	35:25:52:VAL:CG1	2.51	0.40
35:25:119:PRO:HB2	40:75:68:TYR:CE2	2.56	0.40
37:45:59:ARG:O	37:45:60:ARG:HG3	2.22	0.40
37:45:85:LYS:HG2	37:45:86:GLY:N	2.32	0.40
41:85:57:PHE:HD1	41:85:57:PHE:HA	1.81	0.40
43:A5:65:LEU:HD23	43:A5:65:LEU:HA	1.94	0.40
45:C5:75:ILE:O	45:C5:76:CYS:HB3	2.21	0.40
1:13:277:C:H2'	1:13:278:G:H8	1.87	0.40
1:13:750:G:C2	1:13:751:U:C5	3.09	0.40
1:13:814:A:C8	1:13:816:A:C4	3.09	0.40
1:13:1118:C:O4'	1:13:1179:A:H1'	2.21	0.40
5:4E:37:ARG:HH12	5:4E:111:GLU:HB3	1.87	0.40
7:6E:45:ASP:OD1	7:6E:48:LYS:NZ	2.52	0.40
8:7E:39:LEU:HB3	8:7E:45:ILE:CD1	2.52	0.40
9:8E:97:LYS:HA	9:8E:97:LYS:HD2	1.91	0.40
12:3I:113:ARG:C	12:3I:114:LYS:HD2	2.47	0.40
14:5I:47:LEU:HD23	14:5I:47:LEU:HA	1.84	0.40
24:3K:21:A:H61	24:3K:46:G:H2'	1.86	0.40
26:1H:95:G:O2'	49:K8:48:HIS:HB3	2.22	0.40
26:1H:123:G:O6	26:1H:128:C:N3	2.55	0.40
26:1H:270(O):U:H3	33:61:52:ARG:HH21	1.69	0.40
26:1H:336:C:H5"	45:G8:6:HIS:CD2	2.55	0.40
26:1H:533:G:H5'	41:C8:24:TYR:CE1	2.56	0.40
26:1H:598:G:H2'	26:1H:599:G:O4'	2.21	0.40
26:1H:774:A:H2	26:1H:787:U:HO2'	1.62	0.40
26:1H:880:G:H22	26:1H:897:C:N4	2.20	0.40
26:1H:1087:G:O6	26:1H:1089:G:N2	2.54	0.40
26:1H:1519:G:C2'	26:1H:1520:U:H5'	2.52	0.40
26:1H:1972:A:H2'	26:1H:1973:G:C8	2.56	0.40
26:1H:2082:A:H2'	26:1H:2083:G:O4'	2.20	0.40
26:1H:2335:A:N7	26:1H:2337:G:C5	2.90	0.40
26:1H:2549:G:H5"	26:1H:2549:G:C8	2.57	0.40
26:1H:2726:U:H5'	26:1H:2726:U:O2	2.21	0.40
27:16:12:C:N3	47:I8:74:ARG:NH1	2.70	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:31:101:LEU:HA	30:31:101:LEU:HD22	1.64	0.40
36:78:122:PRO:HA	36:78:142:GLY:N	2.36	0.40
38:98:2:ARG:O	38:98:5:LYS:HB2	2.22	0.40
38:98:81:ASP:O	38:98:85:PRO:HG2	2.22	0.40
40:B8:85:LYS:HE3	40:B8:87:ASP:OD2	2.20	0.40
42:D8:83:ARG:HA	42:D8:83:ARG:HD3	1.82	0.40
44:F8:89:ILE:O	44:F8:93:GLU:HG2	2.22	0.40
46:H8:100:VAL:HG21	46:H8:134:PRO:HG2	2.03	0.40
51:M8:42:PHE:O	51:M8:43:TYR:HB3	2.21	0.40
1:1G:147:G:C2	1:1G:148:G:C8	3.09	0.40
1:1G:474:G:H2'	1:1G:475:G:C8	2.56	0.40
1:1G:520:A:OP2	12:3A:51:ALA:HB1	2.22	0.40
1:1G:649:G:H2'	1:1G:650:G:C8	2.54	0.40
1:1G:1122:U:N3	1:1G:1123:A:N7	2.69	0.40
1:1G:1182:G:H5'	1:1G:1183:A:C5'	2.48	0.40
1:1G:1246:C:H2'	1:1G:1247:U:H6	1.86	0.40
2:12:101:MET:O	2:12:105:PHE:HB2	2.22	0.40
3:22:155:GLY:O	3:22:157:ILE:HG13	2.22	0.40
4:32:153:ARG:HD3	4:32:153:ARG:HA	1.72	0.40
9:82:47:LEU:HB2	9:82:50:LEU:HD12	2.02	0.40
9:82:99:LEU:HB3	9:82:101:PHE:HD1	1.82	0.40
12:3A:71:PRO:O	12:3A:102:ARG:NH1	2.50	0.40
13:4A:4:ILE:HG12	13:4A:5:ALA:N	2.34	0.40
13:4A:28:ALA:C	13:4A:30:ALA:N	2.78	0.40
20:BA:84:LEU:HD23	20:BA:84:LEU:HA	1.92	0.40
26:14:29:U:O2'	26:14:30:G:H5'	2.21	0.40
26:14:172:C:H2'	26:14:173:G:C8	2.54	0.40
26:14:827:U:O2	26:14:2246:G:H4'	2.21	0.40
26:14:1032:A:N1	26:14:1122:G:O6	2.54	0.40
26:14:1149:G:C2	26:14:1150:C:N3	2.89	0.40
26:14:1260:G:H2'	26:14:1261:C:C6	2.56	0.40
26:14:1432:C:H2'	26:14:1433:U:O4'	2.22	0.40
26:14:1519:G:C6	26:14:1520:U:C4	3.09	0.40
26:14:1954:G:N3	26:14:2551:C:H5"	2.37	0.40
26:14:2244:U:O5'	26:14:2244:U:H6	2.04	0.40
26:14:2298:A:N6	26:14:2318:G:H2'	2.36	0.40
26:14:2705:A:H2'	26:14:2706:G:O4'	2.21	0.40
26:14:2766:G:C2	26:14:2767:C:C6	3.09	0.40
26:14:2862:G:C6	26:14:2863:C:C4	3.09	0.40
28:19:182:LEU:H	28:19:272:ALA:CB	2.34	0.40
28:19:206:LEU:HD23	28:19:206:LEU:HA	1.80	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:29:37:ARG:HD2	29:29:80:GLU:OE2	2.21	0.40
29:29:152:LYS:HG3	34:15:77:GLY:O	2.21	0.40
31:49:99:MET:HE3	31:49:99:MET:HB2	1.75	0.40
31:49:122:PRO:O	31:49:125:PHE:HD2	2.04	0.40
33:69:58:LEU:O	33:69:61:ARG:N	2.54	0.40
39:65:39:ILE:HD13	39:65:39:ILE:HA	1.91	0.40
43:A5:75:TYR:CZ	43:A5:104:THR:HG21	2.56	0.40
45:C5:19:LYS:C	45:C5:21:LYS:H	2.30	0.40
45:C5:42:VAL:O	45:C5:65:ALA:N	2.45	0.40
46:D5:24:LEU:HA	46:D5:25:PRO:HD3	1.96	0.40
46:D5:104:PHE:O	46:D5:105:VAL:HB	2.21	0.40
47:E5:27:GLU:HG3	47:E5:68:GLU:HA	2.03	0.40
49:G5:27:GLU:O	49:G5:31:GLU:HG3	2.22	0.40
52:J5:4:HIS:O	52:J5:6:VAL:HG23	2.21	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)
49:K8:17:SER:OG	26:14:307:G:OP1[2_564]	1.99	0.21
26:1H:277:C:O2'	49:G5:49:LYS:NZ[2_564]	2.13	0.07

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	12	235/256 (92%)	194 (83%)	38 (16%)	3 (1%)	9 36
2	1E	235/256 (92%)	198 (84%)	35 (15%)	2 (1%)	14 43
3	22	204/239 (85%)	180 (88%)	24 (12%)	0	100 100
3	2E	203/239 (85%)	179 (88%)	23 (11%)	1 (0%)	24 55

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
4	32	206/209 (99%)	181 (88%)	24 (12%)	1 (0%)	24 55
4	3E	206/209 (99%)	190 (92%)	14 (7%)	2 (1%)	12 41
5	42	149/162 (92%)	141 (95%)	8 (5%)	0	100 100
5	4E	149/162 (92%)	139 (93%)	9 (6%)	1 (1%)	18 49
6	52	99/101 (98%)	95 (96%)	4 (4%)	0	100 100
6	5E	99/101 (98%)	91 (92%)	8 (8%)	0	100 100
7	62	153/156 (98%)	146 (95%)	6 (4%)	1 (1%)	18 49
7	6E	153/156 (98%)	142 (93%)	11 (7%)	0	100 100
8	72	136/138 (99%)	126 (93%)	8 (6%)	2 (2%)	8 33
8	7E	136/138 (99%)	124 (91%)	11 (8%)	1 (1%)	18 49
9	82	125/128 (98%)	111 (89%)	13 (10%)	1 (1%)	16 46
9	8E	125/128 (98%)	107 (86%)	18 (14%)	0	100 100
10	1A	97/105 (92%)	91 (94%)	6 (6%)	0	100 100
10	1I	97/105 (92%)	90 (93%)	7 (7%)	0	100 100
11	2A	117/129 (91%)	102 (87%)	12 (10%)	3 (3%)	4 21
11	2I	117/129 (91%)	103 (88%)	13 (11%)	1 (1%)	14 43
12	3A	123/132 (93%)	100 (81%)	18 (15%)	5 (4%)	2 14
12	3I	123/132 (93%)	105 (85%)	18 (15%)	0	100 100
13	4A	115/126 (91%)	94 (82%)	19 (16%)	2 (2%)	7 30
13	4I	116/126 (92%)	94 (81%)	22 (19%)	0	100 100
14	5A	56/61 (92%)	47 (84%)	8 (14%)	1 (2%)	6 29
14	5I	58/61 (95%)	47 (81%)	9 (16%)	2 (3%)	3 16
15	6A	86/89 (97%)	82 (95%)	4 (5%)	0	100 100
15	6I	86/89 (97%)	77 (90%)	9 (10%)	0	100 100
16	7A	82/88 (93%)	77 (94%)	5 (6%)	0	100 100
16	7I	82/88 (93%)	75 (92%)	6 (7%)	1 (1%)	10 37
17	8A	98/105 (93%)	91 (93%)	7 (7%)	0	100 100
17	8I	98/105 (93%)	93 (95%)	5 (5%)	0	100 100
18	9A	70/88 (80%)	65 (93%)	5 (7%)	0	100 100
18	9I	70/88 (80%)	62 (89%)	7 (10%)	1 (1%)	9 34
19	AA	76/93 (82%)	61 (80%)	13 (17%)	2 (3%)	4 21

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
19	AI	79/93 (85%)	65 (82%)	10 (13%)	4 (5%)	1 10
20	BA	97/106 (92%)	84 (87%)	11 (11%)	2 (2%)	5 26
20	BI	97/106 (92%)	82 (84%)	14 (14%)	1 (1%)	12 41
21	1B	23/27 (85%)	21 (91%)	2 (9%)	0	100 100
21	1F	23/27 (85%)	21 (91%)	2 (9%)	0	100 100
28	11	271/276 (98%)	252 (93%)	14 (5%)	5 (2%)	6 29
28	19	271/276 (98%)	252 (93%)	14 (5%)	5 (2%)	6 29
29	21	203/206 (98%)	161 (79%)	30 (15%)	12 (6%)	1 8
29	29	203/206 (98%)	156 (77%)	35 (17%)	12 (6%)	1 8
30	31	200/210 (95%)	183 (92%)	15 (8%)	2 (1%)	12 41
30	39	206/210 (98%)	159 (77%)	41 (20%)	6 (3%)	3 20
31	41	179/182 (98%)	159 (89%)	17 (10%)	3 (2%)	7 30
31	49	179/182 (98%)	158 (88%)	20 (11%)	1 (1%)	21 52
32	51	172/180 (96%)	148 (86%)	17 (10%)	7 (4%)	2 14
32	59	168/180 (93%)	129 (77%)	34 (20%)	5 (3%)	3 19
33	61	144/148 (97%)	117 (81%)	23 (16%)	4 (3%)	4 20
33	69	144/148 (97%)	119 (83%)	21 (15%)	4 (3%)	4 20
34	15	136/140 (97%)	124 (91%)	11 (8%)	1 (1%)	18 49
34	58	136/140 (97%)	116 (85%)	16 (12%)	4 (3%)	3 20
35	25	120/122 (98%)	111 (92%)	9 (8%)	0	100 100
35	68	120/122 (98%)	111 (92%)	8 (7%)	1 (1%)	16 46
36	35	148/150 (99%)	114 (77%)	28 (19%)	6 (4%)	2 14
36	78	148/150 (99%)	121 (82%)	21 (14%)	6 (4%)	2 14
37	45	139/141 (99%)	114 (82%)	23 (16%)	2 (1%)	9 34
37	88	134/141 (95%)	110 (82%)	18 (13%)	6 (4%)	2 12
38	55	115/118 (98%)	104 (90%)	9 (8%)	2 (2%)	7 30
38	98	116/118 (98%)	97 (84%)	18 (16%)	1 (1%)	14 43
39	65	109/112 (97%)	87 (80%)	18 (16%)	4 (4%)	2 15
39	A8	109/112 (97%)	90 (83%)	18 (16%)	1 (1%)	14 43
40	75	135/146 (92%)	119 (88%)	15 (11%)	1 (1%)	18 49
40	B8	135/146 (92%)	122 (90%)	13 (10%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
41	85	115/118 (98%)	99 (86%)	15 (13%)	1 (1%)	14 43
41	C8	115/118 (98%)	101 (88%)	10 (9%)	4 (4%)	3 16
42	95	99/101 (98%)	78 (79%)	16 (16%)	5 (5%)	1 10
42	D8	99/101 (98%)	94 (95%)	3 (3%)	2 (2%)	6 27
43	A5	111/113 (98%)	100 (90%)	11 (10%)	0	100 100
43	E8	111/113 (98%)	101 (91%)	10 (9%)	0	100 100
44	B5	91/96 (95%)	82 (90%)	8 (9%)	1 (1%)	11 39
44	F8	92/96 (96%)	84 (91%)	7 (8%)	1 (1%)	11 39
45	C5	102/110 (93%)	75 (74%)	22 (22%)	5 (5%)	1 11
45	G8	102/110 (93%)	82 (80%)	14 (14%)	6 (6%)	1 8
46	D5	177/206 (86%)	130 (73%)	37 (21%)	10 (6%)	1 9
46	H8	173/206 (84%)	136 (79%)	28 (16%)	9 (5%)	1 10
47	E5	75/85 (88%)	66 (88%)	8 (11%)	1 (1%)	9 36
47	I8	78/85 (92%)	65 (83%)	12 (15%)	1 (1%)	9 36
48	F5	95/98 (97%)	88 (93%)	6 (6%)	1 (1%)	11 39
48	J8	95/98 (97%)	86 (90%)	7 (7%)	2 (2%)	5 26
49	G5	64/72 (89%)	59 (92%)	3 (5%)	2 (3%)	3 18
49	K8	65/72 (90%)	60 (92%)	3 (5%)	2 (3%)	3 18
50	H5	57/60 (95%)	53 (93%)	4 (7%)	0	100 100
50	L8	55/60 (92%)	50 (91%)	4 (7%)	1 (2%)	6 29
51	I5	61/71 (86%)	34 (56%)	24 (39%)	3 (5%)	1 11
51	M8	64/71 (90%)	40 (62%)	21 (33%)	3 (5%)	2 11
52	J5	57/60 (95%)	50 (88%)	6 (10%)	1 (2%)	6 29
52	N8	56/60 (93%)	48 (86%)	6 (11%)	2 (4%)	2 16
53	K5	43/54 (80%)	26 (60%)	14 (33%)	3 (7%)	1 5
53	O8	43/54 (80%)	28 (65%)	13 (30%)	2 (5%)	2 11
54	L5	44/49 (90%)	42 (96%)	2 (4%)	0	100 100
54	P8	46/49 (94%)	45 (98%)	1 (2%)	0	100 100
55	M5	58/65 (89%)	47 (81%)	9 (16%)	2 (3%)	3 16
55	Q8	58/65 (89%)	31 (53%)	16 (28%)	11 (19%)	0 0
All	All	11340/12054 (94%)	9786 (86%)	1332 (12%)	222 (2%)	6 27

All (222) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	1E	237	ALA
18	9I	22	VAL
29	21	83	ASP
32	51	169	VAL
36	78	57	THR
41	C8	89	GLU
45	G8	54	LYS
49	K8	48	HIS
50	L8	54	VAL
51	M8	50	VAL
52	N8	41	PRO
55	Q8	7	HIS
55	Q8	44	LYS
55	Q8	50	LEU
55	Q8	55	ALA
9	82	118	LYS
19	AA	11	VAL
28	19	237	GLU
29	29	25	VAL
29	29	66	HIS
30	39	28	ILE
30	39	84	VAL
37	45	27	VAL
38	55	107	ASP
42	95	45	THR
46	D5	53	ILE
46	D5	165	VAL
46	D5	171	ILE
48	F5	30	VAL
51	I5	5	ILE
8	7E	86	ILE
14	5I	13	THR
29	21	60	ASN
29	21	78	LEU
31	41	96	ARG
32	51	168	PRO
37	88	66	ILE
37	88	79	LEU
38	98	11	ASN
41	C8	93	LYS
42	D8	47	VAL
46	H8	60	GLU

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Mol	Chain	Res	Type
46	H8	165	VAL
53	O8	17	LYS
55	Q8	8	LYS
55	Q8	36	LYS
55	Q8	49	VAL
55	Q8	51	ALA
4	32	32	ALA
11	2A	48	ILE
11	2A	100	ALA
12	3A	18	VAL
12	3A	26	ALA
14	5A	29	ARG
20	BA	73	HIS
28	19	33	LEU
29	29	51	PHE
29	29	81	ILE
29	29	90	THR
32	59	131	VAL
33	69	111	PRO
33	69	117	GLU
36	35	15	ARG
36	35	35	HIS
39	65	89	ARG
45	C5	17	SER
45	C5	29	GLU
46	D5	105	VAL
49	G5	47	ASN
49	G5	48	HIS
52	J5	57	VAL
55	M5	35	GLN
4	3E	31	CYS
4	3E	155	LEU
19	AI	7	LYS
19	AI	67	VAL
29	21	56	PRO
29	21	82	ARG
33	61	145	VAL
34	58	127	ASP
34	58	128	HIS
36	78	36	LYS
37	88	2	LEU
39	A8	88	ASP

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Mol	Chain	Res	Type
41	C8	88	ILE
44	F8	68	ARG
45	G8	53	PRO
46	H8	6	LYS
47	I8	83	PRO
48	J8	75	GLU
48	J8	76	ARG
52	N8	42	PRO
7	62	33	ASP
11	2A	101	SER
29	29	9	VAL
30	39	124	LEU
30	39	167	ALA
32	59	92	ILE
33	69	145	VAL
42	95	71	LEU
46	D5	7	ALA
47	E5	33	ALA
51	I5	26	SER
53	K5	17	LYS
14	5I	14	PRO
28	11	122	ASP
28	11	239	ARG
29	21	21	VAL
29	21	118	LYS
30	31	198	ALA
31	41	97	ASP
32	51	10	PRO
32	51	167	GLU
33	61	133	HIS
34	58	97	ARG
35	68	97	ARG
36	78	42	SER
37	88	20	ALA
45	G8	84	ARG
46	H8	59	LEU
49	K8	47	ASN
55	Q8	31	HIS
20	BA	49	ALA
28	19	239	ARG
34	15	128	HIS
36	35	6	LEU

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Mol	Chain	Res	Type
39	65	110	LEU
40	75	2	ASN
42	95	37	VAL
45	C5	92	ASN
46	D5	116	VAL
46	D5	158	PRO
46	D5	161	VAL
55	M5	31	HIS
28	11	3	VAL
31	41	5	VAL
32	51	12	PRO
34	58	22	THR
36	78	19	VAL
45	G8	76	CYS
45	G8	81	LYS
46	H8	81	ARG
51	M8	5	ILE
53	O8	18	ARG
2	12	73	THR
8	72	73	ASP
12	3A	19	ARG
29	29	26	ILE
29	29	62	PRO
30	39	25	PRO
32	59	168	PRO
36	35	108	LYS
39	65	87	PHE
41	85	93	LYS
42	95	44	LYS
45	C5	101	LYS
53	K5	42	TRP
2	1E	239	VAL
16	7I	51	VAL
30	31	24	LEU
33	61	12	LEU
37	88	3	MET
41	C8	90	VAL
51	M8	34	GLU
55	Q8	47	LYS
2	12	7	VAL
12	3A	47	LYS
13	4A	95	GLY

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Mol	Chain	Res	Type
29	29	63	LEU
29	29	77	ILE
38	55	3	HIS
39	65	111	GLU
51	I5	33	VAL
5	4E	115	VAL
11	2I	82	VAL
19	AI	41	VAL
28	11	240	ALA
29	21	55	ASN
29	21	72	VAL
32	51	92	ILE
33	61	131	LYS
36	78	95	VAL
45	G8	77	PRO
37	45	78	PRO
44	B5	51	VAL
46	D5	141	VAL
3	2E	13	GLY
29	21	22	PRO
42	D8	49	THR
55	Q8	58	ILE
2	12	39	ILE
8	72	100	ILE
12	3A	96	VAL
13	4A	84	ILE
28	19	3	VAL
30	39	89	VAL
31	49	5	VAL
28	11	123	ALA
36	78	7	ARG
46	H8	61	LEU
46	H8	62	PRO
46	H8	141	VAL
19	AA	67	VAL
29	29	52	LEU
33	69	144	VAL
42	95	72	VAL
19	AI	9	VAL
20	BI	63	ILE
29	21	4	ILE
29	21	138	PRO

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Mol	Chain	Res	Type
37	88	27	VAL
46	H8	53	ILE
28	19	118	VAL
29	29	91	VAL
32	59	4	ILE
32	59	167	GLU
36	35	7	ARG
36	35	34	GLY
53	K5	52	VAL
32	51	127	GLU
45	C5	76	CYS
46	D5	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	12	205/220 (93%)	168 (82%)	37 (18%)	2 8
2	1E	205/220 (93%)	148 (72%)	57 (28%)	0 2
3	22	160/188 (85%)	126 (79%)	34 (21%)	1 5
3	2E	159/188 (85%)	126 (79%)	33 (21%)	1 6
4	32	180/181 (99%)	141 (78%)	39 (22%)	1 5
4	3E	180/181 (99%)	130 (72%)	50 (28%)	0 2
5	42	116/123 (94%)	83 (72%)	33 (28%)	0 1
5	4E	116/123 (94%)	85 (73%)	31 (27%)	0 2
6	52	90/90 (100%)	72 (80%)	18 (20%)	1 6
6	5E	90/90 (100%)	76 (84%)	14 (16%)	2 12
7	62	126/127 (99%)	97 (77%)	29 (23%)	1 4
7	6E	126/127 (99%)	98 (78%)	28 (22%)	1 5
8	72	119/119 (100%)	87 (73%)	32 (27%)	0 2
8	7E	119/119 (100%)	93 (78%)	26 (22%)	1 5

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
9	82	98/99 (99%)	79 (81%)	19 (19%)	1 7
9	8E	98/99 (99%)	75 (76%)	23 (24%)	1 4
10	1A	89/92 (97%)	70 (79%)	19 (21%)	1 5
10	1I	89/92 (97%)	67 (75%)	22 (25%)	1 3
11	2A	90/99 (91%)	64 (71%)	26 (29%)	0 1
11	2I	90/99 (91%)	69 (77%)	21 (23%)	1 4
12	3A	104/109 (95%)	82 (79%)	22 (21%)	1 5
12	3I	104/109 (95%)	84 (81%)	20 (19%)	1 7
13	4A	94/101 (93%)	69 (73%)	25 (27%)	0 2
13	4I	94/101 (93%)	71 (76%)	23 (24%)	1 3
14	5A	48/50 (96%)	41 (85%)	7 (15%)	3 14
14	5I	49/50 (98%)	37 (76%)	12 (24%)	1 3
15	6A	79/80 (99%)	64 (81%)	15 (19%)	1 7
15	6I	79/80 (99%)	67 (85%)	12 (15%)	3 12
16	7A	72/74 (97%)	59 (82%)	13 (18%)	2 8
16	7I	72/74 (97%)	51 (71%)	21 (29%)	0 1
17	8A	95/97 (98%)	73 (77%)	22 (23%)	1 4
17	8I	95/97 (98%)	73 (77%)	22 (23%)	1 4
18	9A	63/77 (82%)	46 (73%)	17 (27%)	0 2
18	9I	63/77 (82%)	50 (79%)	13 (21%)	1 6
19	AA	67/80 (84%)	50 (75%)	17 (25%)	0 3
19	AI	70/80 (88%)	48 (69%)	22 (31%)	0 1
20	BA	76/82 (93%)	65 (86%)	11 (14%)	3 14
20	BI	76/82 (93%)	59 (78%)	17 (22%)	1 4
21	1B	20/22 (91%)	18 (90%)	2 (10%)	7 27
21	1F	20/22 (91%)	18 (90%)	2 (10%)	7 27
28	11	214/218 (98%)	160 (75%)	54 (25%)	0 3
28	19	214/218 (98%)	160 (75%)	54 (25%)	0 3
29	21	165/166 (99%)	119 (72%)	46 (28%)	0 2
29	29	165/166 (99%)	120 (73%)	45 (27%)	0 2
30	31	161/166 (97%)	116 (72%)	45 (28%)	0 2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
30	39	165/166 (99%)	120 (73%)	45 (27%)	0	2
31	41	155/156 (99%)	119 (77%)	36 (23%)	1	4
31	49	155/156 (99%)	126 (81%)	29 (19%)	1	8
32	51	145/148 (98%)	99 (68%)	46 (32%)	0	1
32	59	142/148 (96%)	100 (70%)	42 (30%)	0	1
33	61	122/124 (98%)	88 (72%)	34 (28%)	0	2
33	69	122/124 (98%)	82 (67%)	40 (33%)	0	1
34	15	117/119 (98%)	93 (80%)	24 (20%)	1	6
34	58	117/119 (98%)	88 (75%)	29 (25%)	1	3
35	25	100/100 (100%)	73 (73%)	27 (27%)	0	2
35	68	100/100 (100%)	84 (84%)	16 (16%)	2	11
36	35	116/116 (100%)	70 (60%)	46 (40%)	0	0
36	78	116/116 (100%)	79 (68%)	37 (32%)	0	1
37	45	111/111 (100%)	86 (78%)	25 (22%)	1	4
37	88	104/111 (94%)	72 (69%)	32 (31%)	0	1
38	55	100/101 (99%)	75 (75%)	25 (25%)	0	3
38	98	101/101 (100%)	71 (70%)	30 (30%)	0	1
39	65	87/88 (99%)	61 (70%)	26 (30%)	0	1
39	A8	87/88 (99%)	60 (69%)	27 (31%)	0	1
40	75	120/127 (94%)	77 (64%)	43 (36%)	0	0
40	B8	120/127 (94%)	84 (70%)	36 (30%)	0	1
41	85	93/94 (99%)	72 (77%)	21 (23%)	1	4
41	C8	93/94 (99%)	76 (82%)	17 (18%)	2	8
42	95	82/82 (100%)	61 (74%)	21 (26%)	0	3
42	D8	82/82 (100%)	54 (66%)	28 (34%)	0	0
43	A5	92/92 (100%)	63 (68%)	29 (32%)	0	1
43	E8	92/92 (100%)	62 (67%)	30 (33%)	0	1
44	B5	74/78 (95%)	52 (70%)	22 (30%)	0	1
44	F8	76/78 (97%)	58 (76%)	18 (24%)	1	4
45	C5	85/91 (93%)	54 (64%)	31 (36%)	0	0
45	G8	85/91 (93%)	50 (59%)	35 (41%)	0	0

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
46	D5	158/179 (88%)	115 (73%)	43 (27%)	0	2
46	H8	154/179 (86%)	126 (82%)	28 (18%)	2	8
47	E5	62/67 (92%)	51 (82%)	11 (18%)	2	8
47	I8	61/67 (91%)	45 (74%)	16 (26%)	0	2
48	F5	82/83 (99%)	64 (78%)	18 (22%)	1	5
48	J8	82/83 (99%)	53 (65%)	29 (35%)	0	0
49	G5	62/67 (92%)	41 (66%)	21 (34%)	0	0
49	K8	62/67 (92%)	39 (63%)	23 (37%)	0	0
50	H5	51/52 (98%)	33 (65%)	18 (35%)	0	0
50	L8	49/52 (94%)	30 (61%)	19 (39%)	0	0
51	I5	57/63 (90%)	45 (79%)	12 (21%)	1	6
51	M8	59/63 (94%)	43 (73%)	16 (27%)	0	2
52	J5	51/52 (98%)	41 (80%)	10 (20%)	1	7
52	N8	51/52 (98%)	39 (76%)	12 (24%)	1	4
53	K5	44/52 (85%)	36 (82%)	8 (18%)	2	8
53	O8	44/52 (85%)	30 (68%)	14 (32%)	0	1
54	L5	39/42 (93%)	30 (77%)	9 (23%)	1	4
54	P8	41/42 (98%)	30 (73%)	11 (27%)	0	2
55	M5	49/55 (89%)	37 (76%)	12 (24%)	1	3
55	Q8	50/55 (91%)	29 (58%)	21 (42%)	0	0
All	All	9568/9998 (96%)	7120 (74%)	2448 (26%)	0	3

All (2448) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1E	8	LYS
2	1E	15	VAL
2	1E	16	HIS
2	1E	17	PHE
2	1E	20	GLU
2	1E	21	ARG
2	1E	32	ILE
2	1E	37	ASN
2	1E	40	HIS
2	1E	41	ILE

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Mol	Chain	Res	Type
2	1E	51	LEU
2	1E	67	THR
2	1E	69	LEU
2	1E	71	VAL
2	1E	74	LYS
2	1E	82	ARG
2	1E	87	ARG
2	1E	96	ARG
2	1E	108	ILE
2	1E	112	VAL
2	1E	113	HIS
2	1E	116	GLU
2	1E	118	LEU
2	1E	122	PHE
2	1E	127	ILE
2	1E	130	ARG
2	1E	134	GLU
2	1E	136	VAL
2	1E	142	LEU
2	1E	144	ARG
2	1E	145	LEU
2	1E	146	GLN
2	1E	155	LEU
2	1E	156	LYS
2	1E	157	ARG
2	1E	158	LEU
2	1E	160	ASP
2	1E	162	ILE
2	1E	164	VAL
2	1E	170	GLU
2	1E	172	ILE
2	1E	175	ARG
2	1E	178	ARG
2	1E	187	LEU
2	1E	190	THR
2	1E	196	LEU
2	1E	197	VAL
2	1E	200	ILE
2	1E	209	ARG
2	1E	213	LEU
2	1E	215	LEU
2	1E	216	SER

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Mol	Chain	Res	Type
2	1E	223	ILE
2	1E	226	ARG
2	1E	229	VAL
2	1E	231	GLU
2	1E	233	SER
3	2E	3	ASN
3	2E	4	LYS
3	2E	5	ILE
3	2E	8	ILE
3	2E	12	LEU
3	2E	17	ASP
3	2E	21	ARG
3	2E	31	HIS
3	2E	36	ASP
3	2E	45	LYS
3	2E	56	ASP
3	2E	58	GLU
3	2E	64	VAL
3	2E	76	VAL
3	2E	84	ILE
3	2E	93	LYS
3	2E	95	THR
3	2E	98	ASN
3	2E	104	GLN
3	2E	108	ASN
3	2E	111	LEU
3	2E	136	GLN
3	2E	138	VAL
3	2E	157	ILE
3	2E	161	GLU
3	2E	164	ARG
3	2E	166	GLU
3	2E	167	TRP
3	2E	179	ARG
3	2E	188	LEU
3	2E	191	THR
3	2E	196	LEU
3	2E	202	ILE
4	3E	3	ARG
4	3E	5	ILE
4	3E	8	VAL
4	3E	10	ARG

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Mol	Chain	Res	Type
4	3E	11	LEU
4	3E	13	ARG
4	3E	15	GLU
4	3E	18	LYS
4	3E	19	LEU
4	3E	24	GLU
4	3E	31	CYS
4	3E	45	GLN
4	3E	47	ARG
4	3E	49	ARG
4	3E	50	ARG
4	3E	58	LEU
4	3E	59	ARG
4	3E	66	ARG
4	3E	70	ILE
4	3E	71	SER
4	3E	83	SER
4	3E	86	LYS
4	3E	88	VAL
4	3E	99	SER
4	3E	101	LEU
4	3E	104	VAL
4	3E	106	TYR
4	3E	108	LEU
4	3E	122	ARG
4	3E	127	THR
4	3E	128	VAL
4	3E	132	ARG
4	3E	135	LEU
4	3E	138	TYR
4	3E	146	ILE
4	3E	154	ASN
4	3E	155	LEU
4	3E	160	GLN
4	3E	170	VAL
4	3E	178	VAL
4	3E	179	GLU
4	3E	182	LYS
4	3E	184	LYS
4	3E	188	LEU
4	3E	190	ASP
4	3E	191	ARG

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Mol	Chain	Res	Type
4	3E	193	ASP
4	3E	200	GLU
4	3E	201	GLN
4	3E	209	ARG
5	4E	6	PHE
5	4E	11	ILE
5	4E	12	LEU
5	4E	13	ILE
5	4E	16	THR
5	4E	25	ARG
5	4E	26	PHE
5	4E	27	ARG
5	4E	31	LEU
5	4E	33	VAL
5	4E	41	VAL
5	4E	50	GLU
5	4E	51	VAL
5	4E	57	LYS
5	4E	65	ASN
5	4E	66	MET
5	4E	68	GLU
5	4E	71	LEU
5	4E	72	GLN
5	4E	76	ILE
5	4E	79	GLU
5	4E	80	ILE
5	4E	87	SER
5	4E	91	LEU
5	4E	101	ILE
5	4E	116	THR
5	4E	126	ARG
5	4E	131	ILE
5	4E	144	THR
5	4E	151	LEU
5	4E	152	ARG
6	5E	19	LEU
6	5E	23	LYS
6	5E	27	GLN
6	5E	40	VAL
6	5E	46	ARG
6	5E	55	ASP
6	5E	64	GLN

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Mol	Chain	Res	Type
6	5E	65	VAL
6	5E	74	ASP
6	5E	75	LEU
6	5E	87	ARG
6	5E	89	MET
6	5E	91	VAL
6	5E	94	GLN
7	6E	8	GLU
7	6E	9	VAL
7	6E	13	GLN
7	6E	21	VAL
7	6E	22	LEU
7	6E	23	VAL
7	6E	27	ILE
7	6E	30	ILE
7	6E	36	LYS
7	6E	38	LEU
7	6E	45	ASP
7	6E	48	LYS
7	6E	54	THR
7	6E	63	LYS
7	6E	66	VAL
7	6E	75	VAL
7	6E	80	VAL
7	6E	89	MET
7	6E	90	GLU
7	6E	91	VAL
7	6E	97	GLN
7	6E	98	SER
7	6E	104	LEU
7	6E	111	ARG
7	6E	113	GLU
7	6E	124	LEU
7	6E	141	VAL
7	6E	146	GLU
8	7E	1	MET
8	7E	3	THR
8	7E	19	VAL
8	7E	26	VAL
8	7E	29	SER
8	7E	33	GLU
8	7E	35	ILE

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Mol	Chain	Res	Type
8	7E	39	LEU
8	7E	41	ARG
8	7E	45	ILE
8	7E	51	VAL
8	7E	52	ASP
8	7E	63	LEU
8	7E	68	ARG
8	7E	80	ILE
8	7E	82	HIS
8	7E	83	ILE
8	7E	85	ARG
8	7E	88	LYS
8	7E	95	VAL
8	7E	102	ARG
8	7E	107	LEU
8	7E	112	LEU
8	7E	125	ARG
8	7E	129	VAL
8	7E	137	VAL
9	8E	9	ARG
9	8E	10	ARG
9	8E	16	ARG
9	8E	25	LYS
9	8E	27	THR
9	8E	31	GLN
9	8E	38	GLN
9	8E	40	LEU
9	8E	42	ARG
9	8E	44	VAL
9	8E	47	LEU
9	8E	53	VAL
9	8E	64	THR
9	8E	65	VAL
9	8E	70	LYS
9	8E	79	LEU
9	8E	91	ASP
9	8E	95	LYS
9	8E	96	LEU
9	8E	112	LYS
9	8E	117	HIS
9	8E	121	ARG
9	8E	124	GLN

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Mol	Chain	Res	Type
10	1I	4	ILE
10	1I	5	ARG
10	1I	16	LEU
10	1I	19	SER
10	1I	24	VAL
10	1I	34	VAL
10	1I	38	ILE
10	1I	48	THR
10	1I	49	VAL
10	1I	60	ARG
10	1I	62	HIS
10	1I	67	THR
10	1I	70	ARG
10	1I	75	ILE
10	1I	76	ASN
10	1I	78	ASN
10	1I	80	LYS
10	1I	84	GLN
10	1I	88	LEU
10	1I	92	THR
10	1I	96	ILE
10	1I	98	ILE
11	2I	12	ARG
11	2I	13	GLN
11	2I	14	VAL
11	2I	28	THR
11	2I	29	ILE
11	2I	48	ILE
11	2I	63	LEU
11	2I	79	SER
11	2I	81	ASP
11	2I	84	VAL
11	2I	87	THR
11	2I	91	ARG
11	2I	93	GLN
11	2I	95	ILE
11	2I	96	ARG
11	2I	103	LEU
11	2I	105	VAL
11	2I	106	LYS
11	2I	108	ILE
11	2I	109	VAL

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Mol	Chain	Res	Type
11	2I	114	VAL
12	3I	7	ILE
12	3I	11	VAL
12	3I	18	VAL
12	3I	20	LYS
12	3I	33	ARG
12	3I	38	THR
12	3I	55	VAL
12	3I	57	LYS
12	3I	58	VAL
12	3I	60	LEU
12	3I	61	THR
12	3I	62	SER
12	3I	64	TYR
12	3I	79	GLU
12	3I	82	VAL
12	3I	83	VAL
12	3I	89	ARG
12	3I	96	VAL
12	3I	104	VAL
12	3I	114	LYS
13	4I	9	ILE
13	4I	11	ARG
13	4I	19	LEU
13	4I	22	ILE
13	4I	32	GLU
13	4I	44	ARG
13	4I	45	VAL
13	4I	48	LEU
13	4I	52	GLU
13	4I	54	VAL
13	4I	56	LEU
13	4I	64	TRP
13	4I	67	GLU
13	4I	70	LEU
13	4I	83	ASP
13	4I	86	CYS
13	4I	88	ARG
13	4I	98	VAL
13	4I	105	THR
13	4I	106	ASN
13	4I	108	ARG

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Mol	Chain	Res	Type
13	4I	114	ARG
13	4I	115	LYS
14	5I	4	LYS
14	5I	8	GLU
14	5I	12	ARG
14	5I	17	LYS
14	5I	18	VAL
14	5I	22	THR
14	5I	23	ARG
14	5I	26	ARG
14	5I	33	VAL
14	5I	44	LEU
14	5I	50	LYS
14	5I	58	LYS
15	6I	6	GLU
15	6I	25	THR
15	6I	26	GLU
15	6I	31	LEU
15	6I	39	LEU
15	6I	41	GLU
15	6I	47	LYS
15	6I	66	LEU
15	6I	67	LEU
15	6I	68	ARG
15	6I	83	GLU
15	6I	87	ILE
16	7I	2	VAL
16	7I	4	ILE
16	7I	6	LEU
16	7I	8	ARG
16	7I	19	ILE
16	7I	20	VAL
16	7I	21	VAL
16	7I	22	THR
16	7I	25	ARG
16	7I	33	ILE
16	7I	45	THR
16	7I	47	ASP
16	7I	50	LYS
16	7I	54	GLU
16	7I	62	VAL
16	7I	67	THR

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Mol	Chain	Res	Type
16	7I	69	THR
16	7I	72	ARG
16	7I	76	GLN
16	7I	82	GLN
16	7I	83	GLU
17	8I	6	LEU
17	8I	9	VAL
17	8I	12	SER
17	8I	23	VAL
17	8I	27	PHE
17	8I	35	VAL
17	8I	38	ARG
17	8I	48	GLU
17	8I	52	LYS
17	8I	60	ILE
17	8I	63	ARG
17	8I	67	LYS
17	8I	68	ARG
17	8I	74	LEU
17	8I	76	LEU
17	8I	79	SER
17	8I	87	LYS
17	8I	92	ARG
17	8I	97	SER
17	8I	99	SER
17	8I	100	LYS
17	8I	101	ARG
18	9I	18	ARG
18	9I	25	THR
18	9I	26	LEU
18	9I	31	LEU
18	9I	32	ARG
18	9I	33	ASP
18	9I	46	GLU
18	9I	53	ARG
18	9I	58	LEU
18	9I	75	ILE
18	9I	84	LYS
18	9I	86	VAL
18	9I	88	LYS
19	AI	5	LEU
19	AI	7	LYS

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Mol	Chain	Res	Type
19	AI	9	VAL
19	AI	13	ASP
19	AI	15	LEU
19	AI	20	LEU
19	AI	21	GLU
19	AI	22	LEU
19	AI	30	LEU
19	AI	31	ILE
19	AI	37	ARG
19	AI	41	VAL
19	AI	43	GLU
19	AI	58	VAL
19	AI	60	VAL
19	AI	62	ILE
19	AI	64	GLU
19	AI	67	VAL
19	AI	71	LEU
19	AI	77	THR
19	AI	78	ARG
19	AI	81	ARG
20	BI	9	ASN
20	BI	10	LEU
20	BI	11	SER
20	BI	13	LEU
20	BI	24	LEU
20	BI	30	LYS
20	BI	34	LYS
20	BI	41	ILE
20	BI	55	ILE
20	BI	68	LYS
20	BI	72	LEU
20	BI	73	HIS
20	BI	74	LYS
20	BI	75	ASN
20	BI	90	GLN
20	BI	99	LEU
20	BI	100	ILE
21	1F	10	ARG
21	1F	12	LYS
28	11	3	VAL
28	11	15	PHE
28	11	17	THR

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Mol	Chain	Res	Type
28	11	23	GLU
28	11	28	GLU
28	11	30	GLU
28	11	34	VAL
28	11	35	LYS
28	11	37	LEU
28	11	46	GLN
28	11	58	HIS
28	11	59	LYS
28	11	61	LEU
28	11	64	ILE
28	11	65	ILE
28	11	68	LYS
28	11	73	VAL
28	11	82	ILE
28	11	83	GLU
28	11	94	LEU
28	11	95	LEU
28	11	105	ILE
28	11	106	ILE
28	11	111	LEU
28	11	113	VAL
28	11	117	VAL
28	11	131	LEU
28	11	136	ILE
28	11	138	VAL
28	11	141	VAL
28	11	142	VAL
28	11	150	LYS
28	11	155	LEU
28	11	162	SER
28	11	165	ILE
28	11	173	VAL
28	11	183	ARG
28	11	192	THR
28	11	193	VAL
28	11	200	ASP
28	11	212	SER
28	11	215	LEU
28	11	217	ARG
28	11	218	ARG
28	11	222	ARG

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Mol	Chain	Res	Type
28	11	229	VAL
28	11	239	ARG
28	11	242	ARG
28	11	254	THR
28	11	257	LEU
28	11	259	THR
28	11	261	LYS
28	11	270	ILE
28	11	271	ILE
29	21	2	LYS
29	21	13	ARG
29	21	14	ILE
29	21	16	ARG
29	21	19	ARG
29	21	25	VAL
29	21	26	ILE
29	21	33	VAL
29	21	34	VAL
29	21	45	THR
29	21	47	VAL
29	21	49	LEU
29	21	54	GLN
29	21	55	ASN
29	21	59	VAL
29	21	63	LEU
29	21	66	HIS
29	21	69	LYS
29	21	72	VAL
29	21	77	ILE
29	21	78	LEU
29	21	87	GLU
29	21	89	ASP
29	21	92	THR
29	21	116	VAL
29	21	118	LYS
29	21	119	ARG
29	21	136	ARG
29	21	138	PRO
29	21	144	ARG
29	21	146	THR
29	21	149	ARG
29	21	166	THR

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Mol	Chain	Res	Type
29	21	167	VAL
29	21	170	LEU
29	21	175	VAL
29	21	179	GLU
29	21	180	ASN
29	21	181	LEU
29	21	185	LYS
29	21	188	VAL
29	21	195	LEU
29	21	196	VAL
29	21	197	ILE
29	21	200	GLU
29	21	203	LYS
30	31	8	GLN
30	31	9	ILE
30	31	12	LEU
30	31	15	SER
30	31	18	ARG
30	31	27	GLU
30	31	28	ILE
30	31	32	LEU
30	31	33	LEU
30	31	52	LYS
30	31	57	VAL
30	31	59	TYR
30	31	64	ILE
30	31	66	PRO
30	31	67	GLN
30	31	70	THR
30	31	77	ASP
30	31	78	ILE
30	31	82	ILE
30	31	88	VAL
30	31	89	VAL
30	31	101	LEU
30	31	103	LYS
30	31	106	ARG
30	31	116	ASP
30	31	119	ARG
30	31	127	GLU
30	31	132	VAL
30	31	145	GLU

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Mol	Chain	Res	Type
30	31	148	LEU
30	31	158	THR
30	31	161	GLU
30	31	164	ARG
30	31	170	LEU
30	31	174	VAL
30	31	181	LEU
30	31	183	VAL
30	31	188	ARG
30	31	192	LEU
30	31	194	MET
30	31	196	LEU
30	31	197	ASP
30	31	201	VAL
30	31	203	GLN
30	31	204	ASN
31	41	3	LEU
31	41	4	ASP
31	41	13	GLU
31	41	14	GLU
31	41	20	ILE
31	41	21	ARG
31	41	26	GLN
31	41	28	VAL
31	41	31	VAL
31	41	34	LEU
31	41	43	LEU
31	41	45	GLU
31	41	53	LEU
31	41	54	GLU
31	41	62	LEU
31	41	63	ILE
31	41	67	LYS
31	41	70	VAL
31	41	74	LYS
31	41	76	SER
31	41	77	ILE
31	41	80	PHE
31	41	82	LEU
31	41	84	LYS
31	41	86	MET
31	41	90	LEU

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Mol	Chain	Res	Type
31	41	94	LEU
31	41	101	ILE
31	41	135	LEU
31	41	155	MET
31	41	159	VAL
31	41	162	THR
31	41	165	THR
31	41	166	ASP
31	41	174	GLU
31	41	181	ARG
32	51	2	SER
32	51	3	ARG
32	51	4	ILE
32	51	7	LEU
32	51	10	PRO
32	51	11	VAL
32	51	13	LYS
32	51	15	VAL
32	51	24	VAL
32	51	40	GLU
32	51	41	MET
32	51	42	ARG
32	51	43	VAL
32	51	45	VAL
32	51	47	GLU
32	51	50	VAL
32	51	58	GLU
32	51	64	LEU
32	51	68	THR
32	51	71	LEU
32	51	72	ILE
32	51	77	LYS
32	51	80	SER
32	51	81	GLU
32	51	85	LYS
32	51	87	LEU
32	51	88	LEU
32	51	92	ILE
32	51	97	ARG
32	51	104	GLU
32	51	105	LEU
32	51	107	VAL

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Mol	Chain	Res	Type
32	51	114	VAL
32	51	122	THR
32	51	125	VAL
32	51	129	THR
32	51	130	ARG
32	51	132	ARG
32	51	136	ILE
32	51	139	GLN
32	51	149	ARG
32	51	153	LYS
32	51	162	ILE
32	51	169	VAL
32	51	172	LYS
32	51	175	LYS
33	61	2	LYS
33	61	3	VAL
33	61	6	LEU
33	61	9	LEU
33	61	20	ASP
33	61	37	VAL
33	61	45	LYS
33	61	47	LEU
33	61	56	LYS
33	61	64	GLU
33	61	68	LEU
33	61	70	GLU
33	61	71	ILE
33	61	74	ASN
33	61	77	LEU
33	61	78	THR
33	61	85	GLU
33	61	86	THR
33	61	88	ILE
33	61	92	VAL
33	61	99	GLU
33	61	103	ARG
33	61	105	HIS
33	61	110	ASP
33	61	116	LEU
33	61	117	GLU
33	61	131	LYS
33	61	135	GLU

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Mol	Chain	Res	Type
33	61	136	VAL
33	61	139	GLN
33	61	140	LEU
33	61	142	VAL
33	61	143	SER
33	61	145	VAL
34	58	1	MET
34	58	2	LYS
34	58	5	VAL
34	58	7	LYS
34	58	9	VAL
34	58	12	ARG
34	58	14	VAL
34	58	16	ILE
34	58	28	THR
34	58	32	THR
34	58	34	LEU
34	58	38	HIS
34	58	43	THR
34	58	50	ASP
34	58	58	ASP
34	58	60	ILE
34	58	61	ARG
34	58	65	LYS
34	58	67	LEU
34	58	79	PRO
34	58	85	ILE
34	58	87	LEU
34	58	90	MET
34	58	91	LEU
34	58	96	GLU
34	58	98	VAL
34	58	99	LEU
34	58	120	LEU
34	58	127	ASP
35	68	3	GLN
35	68	22	ILE
35	68	23	ARG
35	68	24	VAL
35	68	28	SER
35	68	31	LYS
35	68	38	VAL

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Mol	Chain	Res	Type
35	68	66	LYS
35	68	88	ASN
35	68	91	LEU
35	68	94	ARG
35	68	98	VAL
35	68	112	MET
35	68	113	LYS
35	68	114	ILE
35	68	115	VAL
36	78	6	LEU
36	78	10	PRO
36	78	13	ASN
36	78	15	ARG
36	78	16	ARG
36	78	18	ARG
36	78	19	VAL
36	78	29	LYS
36	78	30	THR
36	78	32	THR
36	78	41	ARG
36	78	45	LEU
36	78	46	LYS
36	78	50	ARG
36	78	55	ARG
36	78	57	THR
36	78	61	ARG
36	78	74	GLU
36	78	75	ILE
36	78	77	ARG
36	78	79	ARG
36	78	88	LEU
36	78	96	THR
36	78	98	GLU
36	78	99	LEU
36	78	100	LEU
36	78	101	VAL
36	78	105	LEU
36	78	106	LEU
36	78	112	LEU
36	78	119	GLU
36	78	126	VAL
36	78	135	LEU

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Mol	Chain	Res	Type
36	78	138	LEU
36	78	144	GLU
36	78	146	VAL
36	78	147	LEU
37	88	1	MET
37	88	3	MET
37	88	5	ARG
37	88	16	ARG
37	88	25	ASP
37	88	26	TYR
37	88	42	ILE
37	88	45	GLN
37	88	55	VAL
37	88	59	ARG
37	88	66	ILE
37	88	67	ARG
37	88	76	LYS
37	88	77	LYS
37	88	82	ARG
37	88	85	LYS
37	88	87	LYS
37	88	97	VAL
37	88	102	VAL
37	88	103	MET
37	88	109	VAL
37	88	110	THR
37	88	112	GLU
37	88	115	MET
37	88	119	ARG
37	88	120	ILE
37	88	127	ILE
37	88	129	THR
37	88	131	ILE
37	88	134	ARG
37	88	139	GLU
37	88	141	GLN
38	98	4	LEU
38	98	6	SER
38	98	9	LYS
38	98	10	LEU
38	98	12	ARG
38	98	18	LEU

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Mol	Chain	Res	Type
38	98	28	LEU
38	98	29	LEU
38	98	34	ILE
38	98	36	THR
38	98	44	LEU
38	98	45	ARG
38	98	48	VAL
38	98	59	ASP
38	98	65	LEU
38	98	67	LEU
38	98	75	LEU
38	98	79	LEU
38	98	82	GLU
38	98	85	PRO
38	98	88	ARG
38	98	91	GLN
38	98	94	TYR
38	98	96	ARG
38	98	105	ARG
38	98	107	ASP
38	98	113	LEU
38	98	114	VAL
38	98	117	VAL
38	98	118	GLU
39	A8	3	ARG
39	A8	4	LEU
39	A8	8	GLU
39	A8	15	ARG
39	A8	18	ILE
39	A8	21	THR
39	A8	32	LEU
39	A8	35	ILE
39	A8	36	TYR
39	A8	43	GLU
39	A8	44	LYS
39	A8	46	VAL
39	A8	48	LEU
39	A8	50	SER
39	A8	54	LEU
39	A8	56	LEU
39	A8	58	LEU
39	A8	61	ASN

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Mol	Chain	Res	Type
39	A8	62	LYS
39	A8	69	VAL
39	A8	73	LEU
39	A8	80	LEU
39	A8	83	LYS
39	A8	89	ARG
39	A8	98	VAL
39	A8	101	LEU
39	A8	106	ARG
40	B8	6	LEU
40	B8	7	ILE
40	B8	10	VAL
40	B8	11	GLU
40	B8	16	ARG
40	B8	19	LEU
40	B8	21	GLU
40	B8	27	THR
40	B8	30	VAL
40	B8	35	LYS
40	B8	38	ASN
40	B8	39	ARG
40	B8	42	ILE
40	B8	48	ILE
40	B8	49	VAL
40	B8	50	ILE
40	B8	58	ASN
40	B8	59	THR
40	B8	62	THR
40	B8	64	ARG
40	B8	65	LYS
40	B8	82	LEU
40	B8	85	LYS
40	B8	86	ILE
40	B8	88	ILE
40	B8	89	VAL
40	B8	95	ARG
40	B8	96	ARG
40	B8	98	LYS
40	B8	99	LEU
40	B8	102	ILE
40	B8	105	LEU
40	B8	106	SER

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Mol	Chain	Res	Type
40	B8	108	ARG
40	B8	110	ILE
40	B8	112	ARG
41	C8	3	ARG
41	C8	5	LYS
41	C8	17	ILE
41	C8	27	LEU
41	C8	34	LYS
41	C8	38	THR
41	C8	52	ARG
41	C8	60	LEU
41	C8	64	ARG
41	C8	70	ARG
41	C8	74	LEU
41	C8	85	LYS
41	C8	89	GLU
41	C8	98	LEU
41	C8	104	GLN
41	C8	108	GLU
41	C8	111	GLU
42	D8	1	MET
42	D8	5	VAL
42	D8	6	LYS
42	D8	7	THR
42	D8	15	GLU
42	D8	18	LEU
42	D8	19	LYS
42	D8	20	LEU
42	D8	22	VAL
42	D8	24	LYS
42	D8	33	VAL
42	D8	35	LEU
42	D8	40	LEU
42	D8	44	LYS
42	D8	47	VAL
42	D8	52	VAL
42	D8	57	VAL
42	D8	62	LEU
42	D8	68	LYS
42	D8	73	SER
42	D8	79	VAL
42	D8	82	ARG

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Mol	Chain	Res	Type
42	D8	83	ARG
42	D8	85	LYS
42	D8	87	HIS
42	D8	88	ARG
42	D8	89	GLN
42	D8	100	ARG
43	E8	1	MET
43	E8	11	ARG
43	E8	14	PRO
43	E8	15	ARG
43	E8	18	ARG
43	E8	19	LEU
43	E8	20	VAL
43	E8	24	ILE
43	E8	27	LYS
43	E8	39	THR
43	E8	47	VAL
43	E8	51	LEU
43	E8	60	ASN
43	E8	66	GLU
43	E8	69	LEU
43	E8	70	TYR
43	E8	76	VAL
43	E8	78	GLU
43	E8	84	ARG
43	E8	85	VAL
43	E8	86	LEU
43	E8	90	ARG
43	E8	95	ILE
43	E8	96	ILE
43	E8	97	LYS
43	E8	100	THR
43	E8	103	ILE
43	E8	107	LEU
43	E8	109	GLU
43	E8	111	HIS
44	F8	2	LYS
44	F8	12	VAL
44	F8	14	SER
44	F8	15	GLU
44	F8	23	GLU
44	F8	37	THR

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Mol	Chain	Res	Type
44	F8	40	LYS
44	F8	48	LYS
44	F8	53	LYS
44	F8	54	VAL
44	F8	68	ARG
44	F8	70	LEU
44	F8	72	LYS
44	F8	76	ARG
44	F8	78	LYS
44	F8	80	ILE
44	F8	87	GLN
44	F8	88	LYS
45	G8	3	VAL
45	G8	6	HIS
45	G8	7	VAL
45	G8	9	LYS
45	G8	14	LEU
45	G8	21	LYS
45	G8	24	VAL
45	G8	26	LYS
45	G8	27	VAL
45	G8	30	VAL
45	G8	33	LYS
45	G8	38	ILE
45	G8	39	VAL
45	G8	40	GLU
45	G8	42	VAL
45	G8	44	ILE
45	G8	50	ARG
45	G8	51	VAL
45	G8	52	SER
45	G8	53	PRO
45	G8	54	LYS
45	G8	57	GLN
45	G8	61	ILE
45	G8	62	GLU
45	G8	63	LYS
45	G8	64	GLU
45	G8	67	LEU
45	G8	75	ILE
45	G8	79	CYS
45	G8	84	ARG

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Mol	Chain	Res	Type
45	G8	85	VAL
45	G8	86	ARG
45	G8	94	LYS
45	G8	96	ILE
45	G8	99	CYS
46	H8	1	MET
46	H8	5	LEU
46	H8	19	ARG
46	H8	24	LEU
46	H8	37	VAL
46	H8	42	VAL
46	H8	46	LYS
46	H8	53	ILE
46	H8	58	VAL
46	H8	60	GLU
46	H8	61	LEU
46	H8	71	VAL
46	H8	76	LEU
46	H8	77	ASP
46	H8	81	ARG
46	H8	86	VAL
46	H8	91	LEU
46	H8	94	GLU
46	H8	96	VAL
46	H8	105	VAL
46	H8	117	LEU
46	H8	119	GLU
46	H8	127	LYS
46	H8	133	ILE
46	H8	140	ASP
46	H8	144	LEU
46	H8	150	LEU
46	H8	154	ASP
47	I8	11	ARG
47	I8	27	GLU
47	I8	29	GLN
47	I8	31	VAL
47	I8	36	ILE
47	I8	37	LEU
47	I8	38	VAL
47	I8	40	GLN
47	I8	41	ARG

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Mol	Chain	Res	Type
47	I8	46	LYS
47	I8	49	LYS
47	I8	53	MET
47	I8	58	THR
47	I8	66	VAL
47	I8	70	GLN
47	I8	80	HIS
48	J8	4	VAL
48	J8	13	ILE
48	J8	14	VAL
48	J8	18	ILE
48	J8	19	GLN
48	J8	21	ARG
48	J8	25	LYS
48	J8	35	THR
48	J8	46	LEU
48	J8	51	VAL
48	J8	57	GLU
48	J8	62	VAL
48	J8	67	ILE
48	J8	70	VAL
48	J8	72	GLU
48	J8	74	VAL
48	J8	78	LYS
48	J8	80	LEU
48	J8	81	LYS
48	J8	82	LEU
48	J8	83	GLU
48	J8	86	SER
48	J8	90	ILE
48	J8	91	LYS
48	J8	92	LYS
48	J8	93	GLU
48	J8	94	LEU
48	J8	97	LEU
48	J8	98	LEU
49	K8	4	SER
49	K8	5	GLU
49	K8	6	VAL
49	K8	10	LEU
49	K8	16	LEU
49	K8	19	VAL

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Mol	Chain	Res	Type
49	K8	24	LEU
49	K8	25	VAL
49	K8	41	ILE
49	K8	45	SER
49	K8	46	GLN
49	K8	47	ASN
49	K8	48	HIS
49	K8	49	LYS
49	K8	50	ILE
49	K8	52	ASP
49	K8	53	LEU
49	K8	54	LYS
49	K8	55	ARG
49	K8	59	ARG
49	K8	62	THR
49	K8	64	LEU
49	K8	67	LYS
50	L8	3	ARG
50	L8	6	VAL
50	L8	7	LYS
50	L8	8	LEU
50	L8	11	SER
50	L8	13	ILE
50	L8	17	LYS
50	L8	30	ARG
50	L8	31	LEU
50	L8	32	GLN
50	L8	33	GLN
50	L8	36	VAL
50	L8	40	THR
50	L8	43	ILE
50	L8	44	ARG
50	L8	50	VAL
50	L8	53	LEU
50	L8	57	GLU
50	L8	58	VAL
51	M8	6	HIS
51	M8	15	ILE
51	M8	16	CYS
51	M8	23	GLU
51	M8	26	SER
51	M8	36	CYS

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Mol	Chain	Res	Type
51	M8	39	CYS
51	M8	48	ARG
51	M8	50	VAL
51	M8	52	THR
51	M8	53	GLU
51	M8	55	ARG
51	M8	61	ARG
51	M8	62	ARG
51	M8	63	TYR
51	M8	65	ASP
52	N8	3	LYS
52	N8	6	VAL
52	N8	9	LYS
52	N8	16	ARG
52	N8	29	THR
52	N8	31	VAL
52	N8	36	CYS
52	N8	40	LYS
52	N8	51	TYR
52	N8	56	LYS
52	N8	59	GLU
52	N8	60	VAL
53	O8	9	LEU
53	O8	10	LEU
53	O8	12	GLU
53	O8	17	LYS
53	O8	23	THR
53	O8	27	LYS
53	O8	30	THR
53	O8	32	ASN
53	O8	34	LEU
53	O8	36	LEU
53	O8	37	ARG
53	O8	39	TYR
53	O8	44	ARG
53	O8	47	THR
54	P8	4	THR
54	P8	8	ASN
54	P8	14	LYS
54	P8	19	ARG
54	P8	22	MET
54	P8	29	LYS

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Mol	Chain	Res	Type
54	P8	32	LYS
54	P8	41	ARG
54	P8	43	THR
54	P8	47	ARG
54	P8	48	LYS
55	Q8	6	THR
55	Q8	8	LYS
55	Q8	11	LYS
55	Q8	14	VAL
55	Q8	19	SER
55	Q8	21	LYS
55	Q8	26	LYS
55	Q8	30	ARG
55	Q8	31	HIS
55	Q8	32	LEU
55	Q8	41	ILE
55	Q8	42	ARG
55	Q8	43	GLN
55	Q8	46	ARG
55	Q8	47	LYS
55	Q8	48	PHE
55	Q8	50	LEU
55	Q8	52	LYS
55	Q8	57	ARG
55	Q8	58	ILE
55	Q8	59	LYS
2	12	5	ILE
2	12	10	LEU
2	12	17	PHE
2	12	20	GLU
2	12	22	LYS
2	12	23	ARG
2	12	31	TYR
2	12	32	ILE
2	12	42	ILE
2	12	44	LEU
2	12	55	PHE
2	12	69	LEU
2	12	71	VAL
2	12	83	MET
2	12	90	MET
2	12	96	ARG

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Mol	Chain	Res	Type
2	12	107	THR
2	12	108	ILE
2	12	117	GLU
2	12	122	PHE
2	12	139	LYS
2	12	145	LEU
2	12	155	LEU
2	12	164	VAL
2	12	170	GLU
2	12	172	ILE
2	12	178	ARG
2	12	185	ILE
2	12	193	ASP
2	12	196	LEU
2	12	201	ILE
2	12	204	ASN
2	12	212	GLN
2	12	213	LEU
2	12	222	ILE
2	12	226	ARG
2	12	238	LEU
3	22	5	ILE
3	22	14	ILE
3	22	16	ARG
3	22	21	ARG
3	22	32	LEU
3	22	37	GLN
3	22	43	LEU
3	22	47	LEU
3	22	52	LEU
3	22	67	THR
3	22	69	HIS
3	22	76	VAL
3	22	95	THR
3	22	107	GLN
3	22	119	ARG
3	22	120	VAL
3	22	124	ILE
3	22	126	ARG
3	22	128	PHE
3	22	138	VAL
3	22	139	GLN

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Mol	Chain	Res	Type
3	22	140	ARG
3	22	142	MET
3	22	152	ILE
3	22	167	TRP
3	22	175	LEU
3	22	178	LEU
3	22	190	ARG
3	22	191	THR
3	22	192	THR
3	22	193	TYR
3	22	195	VAL
3	22	196	LEU
3	22	202	ILE
4	32	3	ARG
4	32	5	ILE
4	32	8	VAL
4	32	13	ARG
4	32	17	VAL
4	32	18	LYS
4	32	24	GLU
4	32	28	SER
4	32	30	LYS
4	32	36	ARG
4	32	50	ARG
4	32	70	ILE
4	32	71	SER
4	32	76	ARG
4	32	78	LEU
4	32	105	VAL
4	32	106	TYR
4	32	107	ARG
4	32	108	LEU
4	32	115	ARG
4	32	119	GLN
4	32	122	ARG
4	32	127	THR
4	32	134	ASP
4	32	135	LEU
4	32	138	TYR
4	32	139	ARG
4	32	152	SER
4	32	158	ILE

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Mol	Chain	Res	Type
4	32	159	ARG
4	32	162	LEU
4	32	163	GLU
4	32	169	LYS
4	32	170	VAL
4	32	184	LYS
4	32	187	ARG
4	32	191	ARG
4	32	192	GLU
4	32	200	GLU
5	42	8	GLU
5	42	12	LEU
5	42	14	ARG
5	42	16	THR
5	42	19	MET
5	42	24	ARG
5	42	34	VAL
5	42	38	GLN
5	42	41	VAL
5	42	43	LEU
5	42	45	PHE
5	42	47	LYS
5	42	51	VAL
5	42	53	LEU
5	42	56	GLN
5	42	68	GLU
5	42	72	GLN
5	42	73	ASN
5	42	79	GLU
5	42	82	VAL
5	42	83	GLU
5	42	87	SER
5	42	90	VAL
5	42	91	LEU
5	42	101	ILE
5	42	110	LEU
5	42	115	VAL
5	42	116	THR
5	42	118	ILE
5	42	126	ARG
5	42	136	MET
5	42	144	THR

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Mol	Chain	Res	Type
5	42	150	ARG
6	52	2	ARG
6	52	7	ASN
6	52	14	LEU
6	52	21	LEU
6	52	27	GLN
6	52	28	ARG
6	52	40	VAL
6	52	45	LEU
6	52	47	ARG
6	52	54	LYS
6	52	57	GLN
6	52	64	GLN
6	52	65	VAL
6	52	70	ASP
6	52	72	VAL
6	52	81	ILE
6	52	91	VAL
6	52	98	LEU
7	62	4	ARG
7	62	8	GLU
7	62	9	VAL
7	62	11	GLN
7	62	21	VAL
7	62	27	ILE
7	62	29	LYS
7	62	31	MET
7	62	45	ASP
7	62	51	GLN
7	62	52	GLU
7	62	54	THR
7	62	60	LYS
7	62	61	VAL
7	62	63	LYS
7	62	66	VAL
7	62	70	LYS
7	62	72	ARG
7	62	78	ARG
7	62	84	ASN
7	62	89	MET
7	62	90	GLU
7	62	91	VAL

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Mol	Chain	Res	Type
7	62	104	LEU
7	62	114	ARG
7	62	120	ILE
7	62	131	LYS
7	62	137	LYS
7	62	144	MET
8	72	1	MET
8	72	2	LEU
8	72	12	ARG
8	72	21	LYS
8	72	25	ASP
8	72	26	VAL
8	72	35	ILE
8	72	39	LEU
8	72	41	ARG
8	72	73	ASP
8	72	77	GLU
8	72	78	GLN
8	72	79	VAL
8	72	81	HIS
8	72	82	HIS
8	72	83	ILE
8	72	84	ARG
8	72	86	ILE
8	72	88	LYS
8	72	91	ARG
8	72	92	ARG
8	72	95	VAL
8	72	97	VAL
8	72	99	GLU
8	72	102	ARG
8	72	103	VAL
8	72	109	ILE
8	72	112	LEU
8	72	114	THR
8	72	115	SER
8	72	133	LEU
8	72	137	VAL
9	82	10	ARG
9	82	16	ARG
9	82	31	GLN
9	82	42	ARG

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Mol	Chain	Res	Type
9	82	53	VAL
9	82	54	ASP
9	82	70	LYS
9	82	75	ASP
9	82	79	LEU
9	82	88	TYR
9	82	95	LYS
9	82	99	LEU
9	82	104	ARG
9	82	109	VAL
9	82	112	LYS
9	82	113	LYS
9	82	117	HIS
9	82	118	LYS
9	82	128	ARG
10	1A	16	LEU
10	1A	17	ASP
10	1A	23	ILE
10	1A	29	ARG
10	1A	40	LEU
10	1A	44	VAL
10	1A	47	PHE
10	1A	48	THR
10	1A	55	LYS
10	1A	57	LYS
10	1A	59	SER
10	1A	62	HIS
10	1A	69	ASN
10	1A	70	ARG
10	1A	74	ILE
10	1A	79	ARG
10	1A	86	MET
10	1A	96	ILE
10	1A	99	LYS
11	2A	12	ARG
11	2A	13	GLN
11	2A	14	VAL
11	2A	18	ARG
11	2A	21	ILE
11	2A	24	SER
11	2A	29	ILE
11	2A	31	THR

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Mol	Chain	Res	Type
11	2A	33	THR
11	2A	40	ILE
11	2A	57	THR
11	2A	63	LEU
11	2A	70	LYS
11	2A	82	VAL
11	2A	87	THR
11	2A	93	GLN
11	2A	95	ILE
11	2A	96	ARG
11	2A	103	LEU
11	2A	105	VAL
11	2A	106	LYS
11	2A	109	VAL
11	2A	119	CYS
11	2A	120	ARG
11	2A	124	LYS
11	2A	127	LYS
12	3A	13	LYS
12	3A	17	LYS
12	3A	19	ARG
12	3A	28	LYS
12	3A	40	VAL
12	3A	41	ARG
12	3A	42	THR
12	3A	50	SER
12	3A	54	LYS
12	3A	57	LYS
12	3A	60	LEU
12	3A	64	TYR
12	3A	81	SER
12	3A	82	VAL
12	3A	83	VAL
12	3A	84	LEU
12	3A	85	ILE
12	3A	89	ARG
12	3A	96	VAL
12	3A	111	LYS
12	3A	118	SER
12	3A	123	LYS
13	4A	4	ILE
13	4A	8	GLU

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Mol	Chain	Res	Type
13	4A	11	ARG
13	4A	17	VAL
13	4A	32	GLU
13	4A	39	ILE
13	4A	47	ASP
13	4A	48	LEU
13	4A	50	GLU
13	4A	61	GLU
13	4A	64	TRP
13	4A	65	LYS
13	4A	66	LEU
13	4A	69	GLU
13	4A	70	LEU
13	4A	71	ARG
13	4A	82	MET
13	4A	83	ASP
13	4A	88	ARG
13	4A	92	HIS
13	4A	93	ARG
13	4A	98	VAL
13	4A	103	THR
13	4A	108	ARG
13	4A	115	LYS
14	5A	7	ILE
14	5A	8	GLU
14	5A	12	ARG
14	5A	22	THR
14	5A	33	VAL
14	5A	44	LEU
14	5A	57	ARG
15	6A	3	ILE
15	6A	6	GLU
15	6A	22	THR
15	6A	29	VAL
15	6A	31	LEU
15	6A	39	LEU
15	6A	41	GLU
15	6A	47	LYS
15	6A	48	LYS
15	6A	58	MET
15	6A	82	ILE
15	6A	83	GLU

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Mol	Chain	Res	Type
15	6A	84	LYS
15	6A	87	ILE
15	6A	88	ARG
16	7A	1	MET
16	7A	2	VAL
16	7A	5	ARG
16	7A	6	LEU
16	7A	21	VAL
16	7A	25	ARG
16	7A	43	LYS
16	7A	51	VAL
16	7A	65	GLN
16	7A	67	THR
16	7A	72	ARG
16	7A	74	LEU
16	7A	82	GLN
17	8A	6	LEU
17	8A	9	VAL
17	8A	21	VAL
17	8A	23	VAL
17	8A	25	ARG
17	8A	26	GLN
17	8A	35	VAL
17	8A	50	LYS
17	8A	53	LEU
17	8A	60	ILE
17	8A	62	SER
17	8A	63	ARG
17	8A	67	LYS
17	8A	68	ARG
17	8A	70	ARG
17	8A	74	LEU
17	8A	79	SER
17	8A	89	LEU
17	8A	90	ILE
17	8A	91	ARG
17	8A	100	LYS
17	8A	101	ARG
18	9A	21	LYS
18	9A	26	LEU
18	9A	29	PHE
18	9A	35	ARG

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Mol	Chain	Res	Type
18	9A	36	ASN
18	9A	39	VAL
18	9A	44	LEU
18	9A	47	THR
18	9A	53	ARG
18	9A	54	ARG
18	9A	58	LEU
18	9A	59	SER
18	9A	65	ILE
18	9A	72	ARG
18	9A	82	THR
18	9A	84	LYS
18	9A	86	VAL
19	AA	11	VAL
19	AA	13	ASP
19	AA	15	LEU
19	AA	22	LEU
19	AA	25	LYS
19	AA	30	LEU
19	AA	31	ILE
19	AA	33	THR
19	AA	34	TRP
19	AA	41	VAL
19	AA	44	MET
19	AA	49	ILE
19	AA	51	VAL
19	AA	64	GLU
19	AA	71	LEU
19	AA	79	THR
19	AA	81	ARG
20	BA	11	SER
20	BA	13	LEU
20	BA	23	ARG
20	BA	56	MET
20	BA	68	LYS
20	BA	70	SER
20	BA	73	HIS
20	BA	75	ASN
20	BA	84	LEU
20	BA	86	ARG
20	BA	88	VAL
21	1B	8	THR

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Mol	Chain	Res	Type
21	1B	25	LYS
28	19	7	LYS
28	19	10	THR
28	19	13	ARG
28	19	24	ILE
28	19	25	THR
28	19	28	GLU
28	19	32	SER
28	19	37	LEU
28	19	38	LYS
28	19	43	ARG
28	19	49	ILE
28	19	52	ARG
28	19	61	LEU
28	19	64	ILE
28	19	65	ILE
28	19	68	LYS
28	19	69	ARG
28	19	73	VAL
28	19	78	LYS
28	19	82	ILE
28	19	88	ARG
28	19	91	ARG
28	19	92	ILE
28	19	94	LEU
28	19	99	ASP
28	19	105	ILE
28	19	138	VAL
28	19	141	VAL
28	19	145	VAL
28	19	154	LYS
28	19	165	ILE
28	19	169	GLU
28	19	174	ILE
28	19	181	GLU
28	19	182	LEU
28	19	185	VAL
28	19	192	THR
28	19	193	VAL
28	19	204	ILE
28	19	208	LYS
28	19	211	ARG

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Mol	Chain	Res	Type
28	19	212	SER
28	19	217	ARG
28	19	222	ARG
28	19	237	GLU
28	19	239	ARG
28	19	242	ARG
28	19	244	ARG
28	19	255	LYS
28	19	260	ARG
28	19	263	ARG
28	19	266	SER
28	19	268	ARG
28	19	271	ILE
29	29	1	MET
29	29	4	ILE
29	29	5	LEU
29	29	7	VAL
29	29	16	ARG
29	29	21	VAL
29	29	23	VAL
29	29	25	VAL
29	29	27	LEU
29	29	37	ARG
29	29	41	LYS
29	29	44	TYR
29	29	45	THR
29	29	47	VAL
29	29	48	GLN
29	29	58	ARG
29	29	59	VAL
29	29	66	HIS
29	29	67	PHE
29	29	75	VAL
29	29	76	ARG
29	29	79	ARG
29	29	87	GLU
29	29	90	THR
29	29	93	VAL
29	29	107	THR
29	29	116	VAL
29	29	117	MET
29	29	119	ARG

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Mol	Chain	Res	Type
29	29	121	ASN
29	29	134	ILE
29	29	144	ARG
29	29	145	LYS
29	29	146	THR
29	29	154	LYS
29	29	168	MET
29	29	170	LEU
29	29	175	VAL
29	29	178	GLU
29	29	179	GLU
29	29	181	LEU
29	29	182	LEU
29	29	188	VAL
29	29	200	GLU
29	29	201	THR
30	39	6	VAL
30	39	7	TYR
30	39	8	GLN
30	39	11	VAL
30	39	12	LEU
30	39	13	SER
30	39	20	LEU
30	39	24	LEU
30	39	29	ASN
30	39	37	VAL
30	39	38	ARG
30	39	45	ARG
30	39	57	VAL
30	39	62	ARG
30	39	65	TRP
30	39	66	PRO
30	39	67	GLN
30	39	69	HIS
30	39	74	ARG
30	39	83	PHE
30	39	88	VAL
30	39	106	ARG
30	39	107	LYS
30	39	110	LEU
30	39	112	MET
30	39	114	VAL

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Mol	Chain	Res	Type
30	39	123	LEU
30	39	124	LEU
30	39	125	LEU
30	39	127	GLU
30	39	140	LEU
30	39	152	GLU
30	39	153	SER
30	39	158	THR
30	39	169	ASN
30	39	181	LEU
30	39	183	VAL
30	39	190	GLU
30	39	192	LEU
30	39	193	VAL
30	39	194	MET
30	39	196	LEU
30	39	197	ASP
30	39	201	VAL
30	39	205	ARG
31	49	3	LEU
31	49	7	LEU
31	49	13	GLU
31	49	19	LEU
31	49	20	ILE
31	49	26	GLN
31	49	28	VAL
31	49	39	ILE
31	49	52	ILE
31	49	58	GLN
31	49	64	THR
31	49	67	LYS
31	49	70	VAL
31	49	71	THR
31	49	81	LYS
31	49	82	LEU
31	49	88	ILE
31	49	91	ARG
31	49	109	VAL
31	49	118	ARG
31	49	130	ASN
31	49	137	GLU
31	49	139	LEU

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Mol	Chain	Res	Type
31	49	144	ILE
31	49	153	ARG
31	49	157	ILE
31	49	159	VAL
31	49	162	THR
31	49	176	LEU
32	59	3	ARG
32	59	4	ILE
32	59	6	ARG
32	59	7	LEU
32	59	9	ILE
32	59	11	VAL
32	59	15	VAL
32	59	16	SER
32	59	19	VAL
32	59	37	VAL
32	59	41	MET
32	59	43	VAL
32	59	44	VAL
32	59	45	VAL
32	59	46	GLU
32	59	50	VAL
32	59	71	LEU
32	59	74	ASN
32	59	83	TYR
32	59	85	LYS
32	59	86	GLU
32	59	89	ILE
32	59	94	TYR
32	59	99	VAL
32	59	103	LEU
32	59	113	VAL
32	59	122	THR
32	59	123	PHE
32	59	125	VAL
32	59	127	GLU
32	59	129	THR
32	59	131	VAL
32	59	132	ARG
32	59	136	ILE
32	59	139	GLN
32	59	143	GLN

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Mol	Chain	Res	Type
32	59	144	VAL
32	59	147	ASN
32	59	152	ARG
32	59	164	TYR
32	59	167	GLU
32	59	171	LEU
33	69	2	LYS
33	69	7	GLU
33	69	9	LEU
33	69	10	GLU
33	69	15	VAL
33	69	18	VAL
33	69	35	LEU
33	69	37	VAL
33	69	41	GLU
33	69	44	LEU
33	69	51	ILE
33	69	56	LYS
33	69	58	LEU
33	69	60	GLU
33	69	67	ARG
33	69	68	LEU
33	69	73	GLU
33	69	75	LEU
33	69	77	LEU
33	69	78	THR
33	69	81	VAL
33	69	82	ARG
33	69	86	THR
33	69	87	LYS
33	69	88	ILE
33	69	91	SER
33	69	101	LEU
33	69	105	HIS
33	69	109	ILE
33	69	110	ASP
33	69	113	ARG
33	69	114	LEU
33	69	117	GLU
33	69	120	ILE
33	69	122	GLU
33	69	125	GLU

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Mol	Chain	Res	Type
33	69	133	HIS
33	69	135	GLU
33	69	136	VAL
33	69	138	ILE
34	15	5	VAL
34	15	29	LYS
34	15	32	THR
34	15	33	LEU
34	15	34	LEU
34	15	35	ARG
34	15	38	HIS
34	15	43	THR
34	15	46	VAL
34	15	48	MET
34	15	56	ASN
34	15	59	LYS
34	15	63	THR
34	15	67	LEU
34	15	71	ILE
34	15	73	THR
34	15	74	ARG
34	15	84	LYS
34	15	85	ILE
34	15	93	THR
34	15	106	MET
34	15	112	LEU
34	15	130	HIS
34	15	137	LYS
35	25	5	GLN
35	25	22	ILE
35	25	24	VAL
35	25	28	SER
35	25	31	LYS
35	25	35	VAL
35	25	38	VAL
35	25	47	ILE
35	25	49	ARG
35	25	52	VAL
35	25	53	LYS
35	25	58	VAL
35	25	69	ILE
35	25	70	LYS

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Mol	Chain	Res	Type
35	25	80	ASP
35	25	86	ILE
35	25	87	ILE
35	25	92	GLU
35	25	94	ARG
35	25	96	THR
35	25	98	VAL
35	25	102	VAL
35	25	104	ARG
35	25	108	GLU
35	25	113	LYS
35	25	116	SER
35	25	117	LEU
36	35	1	MET
36	35	6	LEU
36	35	10	PRO
36	35	14	LYS
36	35	15	ARG
36	35	18	ARG
36	35	19	VAL
36	35	21	ARG
36	35	30	THR
36	35	36	LYS
36	35	41	ARG
36	35	45	LEU
36	35	46	LYS
36	35	50	ARG
36	35	59	LEU
36	35	61	ARG
36	35	62	LEU
36	35	65	ARG
36	35	67	MET
36	35	70	GLN
36	35	71	VAL
36	35	74	GLU
36	35	75	ILE
36	35	81	GLN
36	35	85	LEU
36	35	90	ARG
36	35	95	VAL
36	35	96	THR
36	35	98	GLU

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Mol	Chain	Res	Type
36	35	105	LEU
36	35	106	LEU
36	35	110	TYR
36	35	111	ARG
36	35	112	LEU
36	35	114	ILE
36	35	121	LYS
36	35	123	LEU
36	35	124	LYS
36	35	125	VAL
36	35	126	VAL
36	35	133	SER
36	35	135	LEU
36	35	138	LEU
36	35	144	GLU
36	35	146	VAL
36	35	147	LEU
37	45	5	ARG
37	45	10	ARG
37	45	16	ARG
37	45	18	LYS
37	45	21	THR
37	45	22	LYS
37	45	27	VAL
37	45	35	VAL
37	45	45	GLN
37	45	55	VAL
37	45	56	ARG
37	45	59	ARG
37	45	77	LYS
37	45	79	LEU
37	45	81	VAL
37	45	83	MET
37	45	91	GLU
37	45	103	MET
37	45	113	GLN
37	45	116	GLU
37	45	118	LEU
37	45	120	ILE
37	45	127	ILE
37	45	128	LYS
37	45	134	ARG

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Mol	Chain	Res	Type
38	55	15	SER
38	55	18	LEU
38	55	24	GLN
38	55	28	LEU
38	55	29	LEU
38	55	35	THR
38	55	40	LYS
38	55	44	LEU
38	55	52	ILE
38	55	56	LYS
38	55	57	ARG
38	55	65	LEU
38	55	67	LEU
38	55	73	VAL
38	55	74	LYS
38	55	75	LEU
38	55	76	VAL
38	55	79	LEU
38	55	81	ASP
38	55	82	GLU
38	55	91	GLN
38	55	95	THR
38	55	102	GLU
38	55	111	LEU
38	55	117	VAL
39	65	3	ARG
39	65	4	LEU
39	65	12	PHE
39	65	21	THR
39	65	23	ARG
39	65	30	ARG
39	65	33	LYS
39	65	35	ILE
39	65	36	TYR
39	65	38	GLN
39	65	42	ASP
39	65	49	VAL
39	65	52	SER
39	65	56	LEU
39	65	58	LEU
39	65	64	GLU
39	65	65	VAL

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Mol	Chain	Res	Type
39	65	69	VAL
39	65	78	LEU
39	65	82	ILE
39	65	88	ASP
39	65	95	HIS
39	65	101	LEU
39	65	106	ARG
39	65	107	GLU
39	65	110	LEU
40	75	6	LEU
40	75	7	ILE
40	75	8	LYS
40	75	9	LEU
40	75	10	VAL
40	75	11	GLU
40	75	13	ARG
40	75	15	VAL
40	75	19	LEU
40	75	21	GLU
40	75	23	ARG
40	75	24	PRO
40	75	27	THR
40	75	28	VAL
40	75	30	VAL
40	75	34	VAL
40	75	40	THR
40	75	52	ILE
40	75	54	ARG
40	75	55	ASN
40	75	59	THR
40	75	60	THR
40	75	62	THR
40	75	63	VAL
40	75	64	ARG
40	75	66	VAL
40	75	67	SER
40	75	86	ILE
40	75	87	ASP
40	75	88	ILE
40	75	93	ARG
40	75	99	LEU
40	75	105	LEU

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Mol	Chain	Res	Type
40	75	106	SER
40	75	107	ASP
40	75	110	ILE
40	75	112	ARG
40	75	113	LYS
40	75	120	ARG
40	75	121	ILE
40	75	124	ASP
40	75	125	ARG
40	75	132	LYS
41	85	3	ARG
41	85	5	LYS
41	85	8	VAL
41	85	17	ILE
41	85	31	SER
41	85	34	LYS
41	85	38	THR
41	85	55	ARG
41	85	57	PHE
41	85	64	ARG
41	85	65	ILE
41	85	71	GLN
41	85	74	LEU
41	85	83	LEU
41	85	88	ILE
41	85	92	ARG
41	85	95	LEU
41	85	97	ASP
41	85	100	VAL
41	85	105	VAL
41	85	112	ARG
42	95	5	VAL
42	95	13	ARG
42	95	14	VAL
42	95	15	GLU
42	95	19	LYS
42	95	26	ASP
42	95	32	THR
42	95	33	VAL
42	95	38	LEU
42	95	46	VAL
42	95	47	VAL

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Mol	Chain	Res	Type
42	95	49	THR
42	95	62	LEU
42	95	70	ILE
42	95	71	LEU
42	95	74	LYS
42	95	82	ARG
42	95	85	LYS
42	95	89	GLN
42	95	91	TYR
42	95	95	LEU
43	A5	6	ILE
43	A5	11	ARG
43	A5	15	ARG
43	A5	19	LEU
43	A5	20	VAL
43	A5	23	LEU
43	A5	28	SER
43	A5	35	ILE
43	A5	37	ARG
43	A5	39	THR
43	A5	50	VAL
43	A5	51	LEU
43	A5	59	VAL
43	A5	65	LEU
43	A5	67	ASP
43	A5	76	VAL
43	A5	83	LYS
43	A5	86	LEU
43	A5	90	ARG
43	A5	92	ARG
43	A5	94	ASP
43	A5	95	ILE
43	A5	96	ILE
43	A5	97	LYS
43	A5	100	THR
43	A5	106	ILE
43	A5	107	LEU
43	A5	110	LYS
43	A5	111	HIS
44	B5	3	THR
44	B5	12	VAL
44	B5	23	GLU

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Mol	Chain	Res	Type
44	B5	25	LYS
44	B5	27	THR
44	B5	30	VAL
44	B5	35	THR
44	B5	37	THR
44	B5	40	LYS
44	B5	44	GLU
44	B5	45	THR
44	B5	49	VAL
44	B5	52	VAL
44	B5	54	VAL
44	B5	63	LYS
44	B5	65	ARG
44	B5	70	LEU
44	B5	76	ARG
44	B5	78	LYS
44	B5	83	VAL
44	B5	87	GLN
44	B5	88	LYS
45	C5	3	VAL
45	C5	14	LEU
45	C5	26	LYS
45	C5	29	GLU
45	C5	31	LEU
45	C5	33	LYS
45	C5	37	VAL
45	C5	38	ILE
45	C5	43	ASN
45	C5	44	ILE
45	C5	47	LYS
45	C5	49	VAL
45	C5	50	ARG
45	C5	51	VAL
45	C5	55	TYR
45	C5	60	PHE
45	C5	62	GLU
45	C5	63	LYS
45	C5	67	LEU
45	C5	72	VAL
45	C5	84	ARG
45	C5	85	VAL
45	C5	86	ARG

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Mol	Chain	Res	Type
45	C5	87	LYS
45	C5	88	LYS
45	C5	89	PHE
45	C5	90	LEU
45	C5	92	ASN
45	C5	97	ARG
45	C5	99	CYS
45	C5	102	CYS
46	D5	2	GLU
46	D5	4	ARG
46	D5	5	LEU
46	D5	19	ARG
46	D5	24	LEU
46	D5	27	VAL
46	D5	28	MET
46	D5	31	ARG
46	D5	33	LEU
46	D5	36	LYS
46	D5	37	VAL
46	D5	41	LEU
46	D5	42	VAL
46	D5	53	ILE
46	D5	56	VAL
46	D5	57	ILE
46	D5	59	LEU
46	D5	63	ASP
46	D5	70	LEU
46	D5	71	VAL
46	D5	73	GLN
46	D5	74	VAL
46	D5	76	LEU
46	D5	77	ASP
46	D5	84	GLU
46	D5	87	ASP
46	D5	88	PHE
46	D5	94	GLU
46	D5	103	ARG
46	D5	107	THR
46	D5	117	LEU
46	D5	120	ILE
46	D5	121	HIS
46	D5	122	ARG

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Mol	Chain	Res	Type
46	D5	123	ASP
46	D5	136	PHE
46	D5	137	ILE
46	D5	144	LEU
46	D5	146	ILE
46	D5	161	VAL
46	D5	165	VAL
46	D5	168	GLU
46	D5	175	VAL
47	E5	10	THR
47	E5	12	ASN
47	E5	14	ARG
47	E5	19	LYS
47	E5	36	ILE
47	E5	38	VAL
47	E5	43	THR
47	E5	44	ARG
47	E5	51	VAL
47	E5	64	ASP
47	E5	70	GLN
48	F5	4	VAL
48	F5	11	ARG
48	F5	13	ILE
48	F5	19	GLN
48	F5	25	LYS
48	F5	35	THR
48	F5	38	SER
48	F5	46	LEU
48	F5	56	GLN
48	F5	59	THR
48	F5	62	VAL
48	F5	76	ARG
48	F5	78	LYS
48	F5	82	LEU
48	F5	83	GLU
48	F5	85	LEU
48	F5	90	ILE
48	F5	91	LYS
49	G5	4	SER
49	G5	5	GLU
49	G5	6	VAL
49	G5	14	ARG

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Mol	Chain	Res	Type
49	G5	15	LYS
49	G5	16	LEU
49	G5	17	SER
49	G5	24	LEU
49	G5	32	LEU
49	G5	35	LEU
49	G5	41	ILE
49	G5	44	LEU
49	G5	47	ASN
49	G5	48	HIS
49	G5	49	LYS
49	G5	50	ILE
49	G5	53	LEU
49	G5	55	ARG
49	G5	59	ARG
49	G5	60	LEU
49	G5	66	GLU
50	H5	5	LYS
50	H5	7	LYS
50	H5	8	LEU
50	H5	9	VAL
50	H5	13	ILE
50	H5	17	LYS
50	H5	18	ASP
50	H5	23	LEU
50	H5	24	LYS
50	H5	31	LEU
50	H5	32	GLN
50	H5	35	ARG
50	H5	37	LEU
50	H5	40	THR
50	H5	44	ARG
50	H5	48	GLU
50	H5	54	VAL
50	H5	55	ARG
51	I5	1	MET
51	I5	8	LYS
51	I5	18	CYS
51	I5	21	VAL
51	I5	22	ILE
51	I5	30	GLU
51	I5	38	LYS

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Mol	Chain	Res	Type
51	I5	39	CYS
51	I5	44	THR
51	I5	59	PHE
51	I5	60	GLN
51	I5	61	ARG
52	J5	3	LYS
52	J5	4	HIS
52	J5	10	LYS
52	J5	25	LEU
52	J5	29	THR
52	J5	33	CYS
52	J5	35	GLU
52	J5	36	CYS
52	J5	48	GLU
52	J5	57	VAL
53	K5	10	LEU
53	K5	12	GLU
53	K5	20	ASN
53	K5	27	LYS
53	K5	28	ARG
53	K5	29	ASN
53	K5	34	LEU
53	K5	47	THR
54	L5	1	MET
54	L5	2	LYS
54	L5	4	THR
54	L5	8	ASN
54	L5	14	LYS
54	L5	29	LYS
54	L5	41	ARG
54	L5	42	LEU
54	L5	43	THR
55	M5	15	LYS
55	M5	22	VAL
55	M5	23	VAL
55	M5	25	MET
55	M5	33	ASN
55	M5	36	LYS
55	M5	37	SER
55	M5	46	ARG
55	M5	50	LEU
55	M5	52	LYS

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Mol	Chain	Res	Type
55	M5	58	ILE
55	M5	60	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (97) such sidechains are listed below:

Mol	Chain	Res	Type
2	1E	212	GLN
3	2E	6	HIS
3	2E	28	GLN
3	2E	104	GLN
4	3E	43	HIS
5	4E	73	ASN
6	5E	18	GLN
6	5E	64	GLN
6	5E	94	GLN
10	1I	13	HIS
10	1I	84	GLN
15	6I	50	HIS
16	7I	16	HIS
17	8I	93	GLN
19	AI	14	HIS
20	BI	9	ASN
28	11	201	HIS
29	21	35	GLN
29	21	55	ASN
29	21	121	ASN
29	21	143	ASN
30	31	204	ASN
31	41	41	GLN
31	41	66	GLN
32	51	158	HIS
33	61	105	HIS
34	58	128	HIS
35	68	88	ASN
36	78	13	ASN
37	88	12	GLN
37	88	123	HIS
38	98	13	HIS
40	B8	58	ASN
40	B8	123	GLN
42	D8	80	GLN
42	D8	87	HIS

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Mol	Chain	Res	Type
43	E8	62	HIS
43	E8	102	HIS
44	F8	31	HIS
44	F8	82	GLN
45	G8	43	ASN
46	H8	32	HIS
47	I8	70	GLN
51	M8	60	GLN
2	12	146	GLN
2	12	212	GLN
3	22	28	GLN
3	22	107	GLN
3	22	118	GLN
3	22	139	GLN
3	22	170	GLN
4	32	199	ASN
6	52	64	GLN
7	62	106	GLN
7	62	148	ASN
9	82	34	ASN
10	1A	62	HIS
11	2A	13	GLN
11	2A	62	GLN
13	4A	77	ASN
13	4A	92	HIS
15	6A	62	GLN
15	6A	71	GLN
16	7A	82	GLN
19	AA	23	ASN
19	AA	47	HIS
28	19	116	GLN
28	19	129	ASN
28	19	203	ASN
29	29	135	HIS
29	29	137	HIS
31	49	40	ASN
31	49	123	ASN
32	59	74	ASN
34	15	38	HIS
34	15	56	ASN
34	15	133	GLN
36	35	27	HIS

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Mol	Chain	Res	Type
37	45	12	GLN
37	45	45	GLN
37	45	113	GLN
38	55	61	HIS
38	55	71	GLN
38	55	91	GLN
40	75	43	GLN
40	75	58	ASN
42	95	89	GLN
43	A5	60	ASN
45	C5	92	ASN
46	D5	121	HIS
49	G5	48	HIS
49	G5	56	GLN
51	I5	6	HIS
51	I5	20	ASN
52	J5	23	HIS
55	M5	35	GLN
55	M5	43	GLN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	13	1496/1522 (98%)	363 (24%)	29 (1%)
1	1G	1495/1522 (98%)	367 (24%)	36 (2%)
22	1K	75/76 (98%)	36 (48%)	1 (1%)
22	1L	75/76 (98%)	32 (42%)	3 (4%)
23	2K	76/77 (98%)	21 (27%)	3 (3%)
23	2L	76/77 (98%)	19 (25%)	4 (5%)
24	3K	75/76 (98%)	39 (52%)	8 (10%)
24	3L	75/76 (98%)	41 (54%)	3 (4%)
25	4K	13/30 (43%)	6 (46%)	1 (7%)
25	4L	6/30 (20%)	2 (33%)	1 (16%)
26	14	2908/2917 (99%)	781 (26%)	51 (1%)
26	1H	2911/2917 (99%)	746 (25%)	61 (2%)
27	16	121/122 (99%)	21 (17%)	1 (0%)
27	1J	121/122 (99%)	35 (28%)	2 (1%)
All	All	9523/9640 (98%)	2509 (26%)	204 (2%)

All (2509) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	13	5	U
1	13	6	G
1	13	8	A
1	13	9	G
1	13	28	G
1	13	32	A
1	13	39	G
1	13	41	G
1	13	44	G
1	13	47	C
1	13	48	C
1	13	50	A
1	13	51	A
1	13	54	C
1	13	61	G
1	13	65	U
1	13	66	G
1	13	77	C
1	13	78	G
1	13	79	G
1	13	91	C
1	13	95	G
1	13	101	A
1	13	113	G
1	13	115	G
1	13	116	A
1	13	117	G
1	13	121	C
1	13	131	C
1	13	138	G
1	13	144	G
1	13	147	G
1	13	151	A
1	13	161	A
1	13	163	C
1	13	169	C
1	13	172	A
1	13	173	U
1	13	174	C
1	13	175	C
1	13	189	U
1	13	190	G
1	13	191(A)	G

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Mol	Chain	Res	Type
1	13	195	A
1	13	197	A
1	13	199	G
1	13	201	C
1	13	208	U
1	13	209	U
1	13	210	U
1	13	217	C
1	13	222	U
1	13	226	G
1	13	231	G
1	13	243	A
1	13	244	U
1	13	245	C
1	13	247	G
1	13	251	G
1	13	253	U
1	13	256	U
1	13	262	A
1	13	266	G
1	13	267	C
1	13	273	A
1	13	289	G
1	13	316	G
1	13	318	G
1	13	319	G
1	13	321	A
1	13	324	G
1	13	328	C
1	13	329	A
1	13	330	C
1	13	332	G
1	13	341	C
1	13	342	C
1	13	344	A
1	13	345	C
1	13	346	G
1	13	347	G
1	13	351	G
1	13	352	C
1	13	353	A
1	13	354	G

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Mol	Chain	Res	Type
1	13	357	G
1	13	367	U
1	13	372	C
1	13	388	G
1	13	390	C
1	13	392	G
1	13	397	A
1	13	398	C
1	13	406	G
1	13	412	A
1	13	413	G
1	13	414	A
1	13	415	A
1	13	418	C
1	13	419	C
1	13	421	U
1	13	423	G
1	13	424	G
1	13	428	G
1	13	429	U
1	13	430	A
1	13	439	A
1	13	451	A
1	13	452	A
1	13	454	C
1	13	466	C
1	13	467	G
1	13	484	G
1	13	485	G
1	13	487	A
1	13	496	A
1	13	497	U
1	13	498	A
1	13	505	G
1	13	506	G
1	13	509	A
1	13	510	A
1	13	511	C
1	13	513	C
1	13	518	C
1	13	519	C
1	13	524	G

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Mol	Chain	Res	Type
1	13	527	G
1	13	531	U
1	13	532	A
1	13	533	A
1	13	536	C
1	13	547	A
1	13	549	C
1	13	559	A
1	13	561	U
1	13	562	C
1	13	567	G
1	13	572	A
1	13	573	A
1	13	576	G
1	13	577	G
1	13	581	G
1	13	607	A
1	13	610	G
1	13	616	G
1	13	617	G
1	13	619	U
1	13	630	G
1	13	631	G
1	13	632	A
1	13	633	G
1	13	639	G
1	13	650	G
1	13	655	A
1	13	661	G
1	13	665	A
1	13	666	G
1	13	704	A
1	13	723	U
1	13	724	G
1	13	734	G
1	13	747	C
1	13	748	C
1	13	749	C
1	13	750	G
1	13	753	A
1	13	755	G
1	13	763	G

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Mol	Chain	Res	Type
1	13	777	A
1	13	786	G
1	13	792	A
1	13	793	U
1	13	794	A
1	13	805	C
1	13	812	C
1	13	813	U
1	13	817	C
1	13	818	G
1	13	828	A
1	13	841	U
1	13	842	C
1	13	843	U
1	13	848	C
1	13	853	G
1	13	859	A
1	13	864	A
1	13	870	U
1	13	874	G
1	13	882	C
1	13	884	U
1	13	885	G
1	13	887	G
1	13	902	G
1	13	914	A
1	13	926	G
1	13	927	G
1	13	934	C
1	13	935	A
1	13	936	C
1	13	940	C
1	13	949	A
1	13	953	G
1	13	960	U
1	13	968	A
1	13	969	A
1	13	971	G
1	13	974	A
1	13	975	A
1	13	976	G
1	13	977	A

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Mol	Chain	Res	Type
1	13	982	U
1	13	984	C
1	13	991	U
1	13	992	U
1	13	993	G
1	13	994	A
1	13	995	C
1	13	999	U
1	13	1004	A
1	13	1005	A
1	13	1006	C
1	13	1007	C
1	13	1008	C
1	13	1009	G
1	13	1017	G
1	13	1021	G
1	13	1024	G
1	13	1025	U
1	13	1028	C
1	13	1029	G
1	13	1032(A)	G
1	13	1032(B)	G
1	13	1033	G
1	13	1040	U
1	13	1042	G
1	13	1044	A
1	13	1046	A
1	13	1055	A
1	13	1065	U
1	13	1066	C
1	13	1081	G
1	13	1092	A
1	13	1094	G
1	13	1095	U
1	13	1101	A
1	13	1123	A
1	13	1124	G
1	13	1125	U
1	13	1126	U
1	13	1127	G
1	13	1129	C
1	13	1130	A

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Mol	Chain	Res	Type
1	13	1131	G
1	13	1136	U
1	13	1137	C
1	13	1138	G
1	13	1139	G
1	13	1143	G
1	13	1146	A
1	13	1152	A
1	13	1154	G
1	13	1155	G
1	13	1157	A
1	13	1158	C
1	13	1159	U
1	13	1160	G
1	13	1161	C
1	13	1164	G
1	13	1165	C
1	13	1177	G
1	13	1178	G
1	13	1181	G
1	13	1184	G
1	13	1189	C
1	13	1194	U
1	13	1196	U
1	13	1197	G
1	13	1201	A
1	13	1202	G
1	13	1203	C
1	13	1212	U
1	13	1213	A
1	13	1225	A
1	13	1227	A
1	13	1238	A
1	13	1240	U
1	13	1246	C
1	13	1253	G
1	13	1256	A
1	13	1257	U
1	13	1258	G
1	13	1260	C
1	13	1261	A
1	13	1262	C

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Mol	Chain	Res	Type
1	13	1270	C
1	13	1272	G
1	13	1273	G
1	13	1280	A
1	13	1281	U
1	13	1282	C
1	13	1285	A
1	13	1286	A
1	13	1287	A
1	13	1299	A
1	13	1300	G
1	13	1302	U
1	13	1303	C
1	13	1305	G
1	13	1320	C
1	13	1322	C
1	13	1323	G
1	13	1326	C
1	13	1331	G
1	13	1335	C
1	13	1336	C
1	13	1337	G
1	13	1338	G
1	13	1340	A
1	13	1346	A
1	13	1347	G
1	13	1350	A
1	13	1353	G
1	13	1360	A
1	13	1363	A
1	13	1364	U
1	13	1368	G
1	13	1370	G
1	13	1377	A
1	13	1396	A
1	13	1401	G
1	13	1402	C
1	13	1406	U
1	13	1419	G
1	13	1442	G
1	13	1443	G
1	13	1446	A

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Mol	Chain	Res	Type
1	13	1451	A
1	13	1452	C
1	13	1453	G
1	13	1454	G
1	13	1455	G
1	13	1467	G
1	13	1469	G
1	13	1487	G
1	13	1492	A
1	13	1494	G
1	13	1495	U
1	13	1498	U
1	13	1499	A
1	13	1503	A
1	13	1504	G
1	13	1505	G
1	13	1506	U
1	13	1507	A
1	13	1509	C
1	13	1514	C
1	13	1517	G
1	13	1519	A
1	13	1520	G
1	13	1529	G
1	13	1530	G
1	13	1531	A
22	1K	3	C
22	1K	4	C
22	1K	9	A
22	1K	10	G
22	1K	11	C
22	1K	16	U
22	1K	17	C
22	1K	18	G
22	1K	19	G
22	1K	20	U
22	1K	21	A
22	1K	22	G
22	1K	24	G
22	1K	26	A
22	1K	34	G
22	1K	41	C

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Mol	Chain	Res	Type
22	1K	44	G
22	1K	45	U
22	1K	46	G
22	1K	47	U
22	1K	48	C
22	1K	49	C
22	1K	52	G
22	1K	56	C
22	1K	59	U
22	1K	62	C
22	1K	64	A
22	1K	66	U
22	1K	68	C
22	1K	69	G
22	1K	70	G
22	1K	72	C
22	1K	73	A
22	1K	74	C
22	1K	75	C
22	1K	76	A
23	2K	2	G
23	2K	6	G
23	2K	9	G
23	2K	13	C
23	2K	15	G
23	2K	18	C
23	2K	20	G
23	2K	21	U
23	2K	22	A
23	2K	23	G
23	2K	35	C
23	2K	44	A
23	2K	47	7MG
23	2K	48	U
23	2K	49	C
23	2K	50	G
23	2K	53	G
23	2K	62	C
23	2K	68	C
23	2K	73	A
23	2K	77	A
24	3K	2	C

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Mol	Chain	Res	Type
24	3K	3	C
24	3K	4	C
24	3K	5	G
24	3K	7	A
24	3K	9	A
24	3K	10	G
24	3K	13	C
24	3K	14	A
24	3K	17	C
24	3K	19	G
24	3K	20	U
24	3K	21	A
24	3K	22	G
24	3K	24	G
24	3K	26	A
24	3K	33	U
24	3K	34	G
24	3K	35	A
24	3K	36	A
24	3K	37	A
24	3K	45	U
24	3K	46	G
24	3K	47	U
24	3K	48	C
24	3K	49	C
24	3K	52	G
24	3K	55	U
24	3K	56	C
24	3K	58	A
24	3K	59	U
24	3K	60	U
24	3K	61	C
24	3K	65	G
24	3K	69	G
24	3K	70	G
24	3K	72	C
24	3K	73	A
24	3K	76	A
25	4K	14	A
25	4K	15	A
25	4K	19	C
25	4K	22	A

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Mol	Chain	Res	Type
25	4K	25	A
25	4K	26	A
26	1H	5	A
26	1H	7	G
26	1H	9	U
26	1H	12	U
26	1H	17	G
26	1H	27	G
26	1H	34	C
26	1H	37	C
26	1H	46	C
26	1H	51	G
26	1H	54	G
26	1H	56	A
26	1H	63	U
26	1H	71	A
26	1H	72	U
26	1H	74	A
26	1H	75	G
26	1H	85	G
26	1H	93	C
26	1H	95	G
26	1H	102	G
26	1H	118	A
26	1H	119	A
26	1H	120	U
26	1H	123	G
26	1H	125	G
26	1H	126	A
26	1H	138	G
26	1H	147	U
26	1H	155	C
26	1H	163	U
26	1H	164	U
26	1H	181	A
26	1H	188	G
26	1H	196	A
26	1H	197	A
26	1H	199	A
26	1H	200	U
26	1H	214	G
26	1H	215	G

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Mol	Chain	Res	Type
26	1H	216	A
26	1H	222	A
26	1H	223	A
26	1H	228	A
26	1H	229	A
26	1H	230	U
26	1H	233	A
26	1H	235	U
26	1H	243	U
26	1H	244	A
26	1H	245	G
26	1H	248	G
26	1H	250	G
26	1H	252	G
26	1H	261	G
26	1H	269	U
26	1H	270(F)	U
26	1H	270(G)	C
26	1H	270(M)	U
26	1H	270(P)	C
26	1H	271(B)	G
26	1H	271(C)	U
26	1H	271	G
26	1H	274	G
26	1H	275	G
26	1H	278	A
26	1H	299	A
26	1H	308	G
26	1H	311	A
26	1H	323	G
26	1H	324	A
26	1H	326	G
26	1H	329	G
26	1H	330	A
26	1H	342	G
26	1H	345	A
26	1H	346	A
26	1H	347	A
26	1H	352	G
26	1H	363	G
26	1H	364	C
26	1H	372	G

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Mol	Chain	Res	Type
26	1H	382	G
26	1H	386	G
26	1H	389	G
26	1H	393	C
26	1H	405	U
26	1H	407	G
26	1H	411	G
26	1H	413	C
26	1H	428	A
26	1H	435	C
26	1H	436	C
26	1H	444	C
26	1H	445	C
26	1H	446	G
26	1H	447	A
26	1H	448	U
26	1H	451	C
26	1H	454	A
26	1H	455	C
26	1H	457	A
26	1H	460	A
26	1H	462	C
26	1H	467	G
26	1H	470	A
26	1H	471	A
26	1H	481	G
26	1H	482	A
26	1H	488	G
26	1H	501	A
26	1H	505	A
26	1H	508	G
26	1H	509	C
26	1H	513	A
26	1H	529	A
26	1H	531	C
26	1H	532	A
26	1H	533	G
26	1H	545	G
26	1H	546	C
26	1H	549	G
26	1H	556	G
26	1H	563	G

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Mol	Chain	Res	Type
26	1H	564	C
26	1H	567	A
26	1H	573	G
26	1H	574	C
26	1H	575	A
26	1H	583	G
26	1H	586	A
26	1H	587	C
26	1H	588	U
26	1H	603	A
26	1H	607	U
26	1H	609(A)	G
26	1H	614	U
26	1H	617	G
26	1H	621	A
26	1H	622	G
26	1H	627	A
26	1H	632	A
26	1H	637	A
26	1H	644	A
26	1H	645	C
26	1H	646	A
26	1H	654	A
26	1H	654(A)	A
26	1H	654(H)	G
26	1H	654(I)	C
26	1H	654(J)	A
26	1H	654(K)	C
26	1H	654(M)	C
26	1H	654(N)	G
26	1H	654(O)	G
26	1H	654(T)	A
26	1H	664	C
26	1H	667	U
26	1H	669	G
26	1H	686	G
26	1H	699	A
26	1H	715	G
26	1H	717	G
26	1H	730	C
26	1H	731	C
26	1H	739	G

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Mol	Chain	Res	Type
26	1H	752	A
26	1H	753	C
26	1H	762	U
26	1H	765	G
26	1H	776	G
26	1H	777	A
26	1H	782	A
26	1H	783	A
26	1H	784	A
26	1H	785	G
26	1H	790	C
26	1H	791	C
26	1H	792	G
26	1H	793	A
26	1H	801	G
26	1H	805	G
26	1H	812	C
26	1H	824	A
26	1H	827	U
26	1H	828	U
26	1H	836	G
26	1H	846	C
26	1H	847	U
26	1H	853	G
26	1H	859	G
26	1H	861	A
26	1H	863	A
26	1H	866	A
26	1H	879	G
26	1H	880	G
26	1H	881	G
26	1H	882	G
26	1H	884	C
26	1H	885	C
26	1H	886	C
26	1H	887	A
26	1H	888	C
26	1H	890	A
26	1H	892	G
26	1H	893	C
26	1H	894	C
26	1H	895	U

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Mol	Chain	Res	Type
26	1H	899	A
26	1H	900	A
26	1H	901	A
26	1H	902	C
26	1H	907	U
26	1H	910	A
26	1H	917	A
26	1H	918	A
26	1H	925	C
26	1H	926	A
26	1H	932	G
26	1H	938	G
26	1H	940	G
26	1H	941	A
26	1H	946	G
26	1H	947	G
26	1H	953	A
26	1H	958	U
26	1H	959	A
26	1H	961	C
26	1H	974	G
26	1H	974(A)	C
26	1H	980	A
26	1H	983	A
26	1H	990	A
26	1H	996	A
26	1H	997	G
26	1H	1003	G
26	1H	1005	C
26	1H	1008	C
26	1H	1011	G
26	1H	1012	U
26	1H	1013	C
26	1H	1015	G
26	1H	1016	G
26	1H	1020	A
26	1H	1022	G
26	1H	1023	U
26	1H	1024	G
26	1H	1025	G
26	1H	1026	U
26	1H	1027	A

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Mol	Chain	Res	Type
26	1H	1033	U
26	1H	1041	C
26	1H	1046	A
26	1H	1047	G
26	1H	1056	G
26	1H	1057	A
26	1H	1060	U
26	1H	1061	U
26	1H	1062	G
26	1H	1064	C
26	1H	1066	U
26	1H	1068	G
26	1H	1070	A
26	1H	1071	G
26	1H	1072	C
26	1H	1073	A
26	1H	1076	C
26	1H	1078	U
26	1H	1082	U
26	1H	1084	A
26	1H	1085	A
26	1H	1086	A
26	1H	1087	G
26	1H	1088	A
26	1H	1089	G
26	1H	1090	U
26	1H	1095	A
26	1H	1096	A
26	1H	1098	A
26	1H	1111	A
26	1H	1112	G
26	1H	1122	G
26	1H	1126	A
26	1H	1129	A
26	1H	1130	U
26	1H	1131	G
26	1H	1133	U
26	1H	1135	C
26	1H	1136	G
26	1H	1139	G
26	1H	1142	U
26	1H	1142(A)	A

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Mol	Chain	Res	Type
26	1H	1143	A
26	1H	1149	G
26	1H	1150	C
26	1H	1154	G
26	1H	1155	A
26	1H	1156	A
26	1H	1157	G
26	1H	1173	G
26	1H	1175	U
26	1H	1176	G
26	1H	1177	A
26	1H	1178	C
26	1H	1179	C
26	1H	1180	C
26	1H	1194	A
26	1H	1195	G
26	1H	1204	A
26	1H	1205	U
26	1H	1218	C
26	1H	1220	A
26	1H	1221	C
26	1H	1231	G
26	1H	1234	U
26	1H	1237	A
26	1H	1241	A
26	1H	1242	A
26	1H	1244	G
26	1H	1245	G
26	1H	1250	G
26	1H	1253	A
26	1H	1255	U
26	1H	1256	G
26	1H	1265	A
26	1H	1269	A
26	1H	1271	G
26	1H	1272	A
26	1H	1273	U
26	1H	1274	A
26	1H	1275	A
26	1H	1280	G
26	1H	1287	A
26	1H	1292	U

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Mol	Chain	Res	Type
26	1H	1293	C
26	1H	1298	C
26	1H	1300	U
26	1H	1301	A
26	1H	1302	A
26	1H	1313	U
26	1H	1314	C
26	1H	1319	G
26	1H	1329	U
26	1H	1332	G
26	1H	1334	G
26	1H	1338	G
26	1H	1342	A
26	1H	1345	C
26	1H	1348	G
26	1H	1349	A
26	1H	1351	C
26	1H	1352	U
26	1H	1358	G
26	1H	1359	A
26	1H	1360	A
26	1H	1365	A
26	1H	1368	G
26	1H	1369	G
26	1H	1370	C
26	1H	1378	A
26	1H	1379	A
26	1H	1380	G
26	1H	1383	C
26	1H	1384	A
26	1H	1385	G
26	1H	1386	C
26	1H	1391	U
26	1H	1395	A
26	1H	1396	U
26	1H	1397	U
26	1H	1403	C
26	1H	1406	U
26	1H	1416	G
26	1H	1420	U
26	1H	1421	G
26	1H	1428	C

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Mol	Chain	Res	Type
26	1H	1431	U
26	1H	1437	C
26	1H	1444(A)	A
26	1H	1449	A
26	1H	1449(A)	G
26	1H	1454	U
26	1H	1455	G
26	1H	1458	C
26	1H	1459	G
26	1H	1460	A
26	1H	1461	G
26	1H	1467	C
26	1H	1471	A
26	1H	1472	A
26	1H	1483	G
26	1H	1493	C
26	1H	1497	U
26	1H	1506	C
26	1H	1507	A
26	1H	1508	A
26	1H	1509	C
26	1H	1510	A
26	1H	1511	A
26	1H	1517	G
26	1H	1522	G
26	1H	1526	G
26	1H	1534	G
26	1H	1535	U
26	1H	1536	A
26	1H	1537	C
26	1H	1538	G
26	1H	1540	G
26	1H	1543	A
26	1H	1545	A
26	1H	1548	C
26	1H	1554	A
26	1H	1558	A
26	1H	1559	G
26	1H	1560	G
26	1H	1566	A
26	1H	1567	A
26	1H	1569	A

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Mol	Chain	Res	Type
26	1H	1578	U
26	1H	1579	A
26	1H	1580	A
26	1H	1586	A
26	1H	1587	A
26	1H	1592	C
26	1H	1594	G
26	1H	1608	A
26	1H	1609	A
26	1H	1610	A
26	1H	1617	C
26	1H	1634	A
26	1H	1640	C
26	1H	1647	G
26	1H	1648	C
26	1H	1651	G
26	1H	1664	A
26	1H	1666	G
26	1H	1674	G
26	1H	1684	C
26	1H	1685	C
26	1H	1694	C
26	1H	1695	G
26	1H	1699	G
26	1H	1700	A
26	1H	1707	G
26	1H	1728	G
26	1H	1729	A
26	1H	1731	G
26	1H	1743	G
26	1H	1756	G
26	1H	1762	A
26	1H	1763	G
26	1H	1764	G
26	1H	1765	C
26	1H	1773	A
26	1H	1786	A
26	1H	1791	A
26	1H	1799	G
26	1H	1800	C
26	1H	1801	G
26	1H	1802	A

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Mol	Chain	Res	Type
26	1H	1816	G
26	1H	1819	A
26	1H	1829	A
26	1H	1833	U
26	1H	1835	G
26	1H	1836	C
26	1H	1839	G
26	1H	1847	A
26	1H	1858	G
26	1H	1859	A
26	1H	1870	C
26	1H	1878	G
26	1H	1889	A
26	1H	1896	G
26	1H	1900	A
26	1H	1901	A
26	1H	1904	G
26	1H	1906	G
26	1H	1914	C
26	1H	1915	U
26	1H	1919	A
26	1H	1924	C
26	1H	1926	U
26	1H	1929	G
26	1H	1930	G
26	1H	1931	U
26	1H	1932	A
26	1H	1938	A
26	1H	1951	U
26	1H	1952	A
26	1H	1953	A
26	1H	1955	U
26	1H	1960	A
26	1H	1963	U
26	1H	1967	C
26	1H	1969	A
26	1H	1970	A
26	1H	1971	A
26	1H	1972	A
26	1H	1976	U
26	1H	1982	C
26	1H	1983	C

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Mol	Chain	Res	Type
26	1H	1993	U
26	1H	2023	G
26	1H	2030	A
26	1H	2031	A
26	1H	2032	G
26	1H	2033	A
26	1H	2036	C
26	1H	2043	C
26	1H	2047	U
26	1H	2048	G
26	1H	2049	G
26	1H	2051	A
26	1H	2054	A
26	1H	2055	C
26	1H	2056	G
26	1H	2058	A
26	1H	2060	A
26	1H	2061	G
26	1H	2062	A
26	1H	2063	C
26	1H	2069	G
26	1H	2070	G
26	1H	2087	G
26	1H	2098	U
26	1H	2108	C
26	1H	2110	G
26	1H	2111	C
26	1H	2112	G
26	1H	2113	U
26	1H	2114	A
26	1H	2115	G
26	1H	2116	G
26	1H	2118	U
26	1H	2122	U
26	1H	2126	A
26	1H	2127	G
26	1H	2128	C
26	1H	2131	G
26	1H	2132	U
26	1H	2133	G
26	1H	2135	A
26	1H	2136	C

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Mol	Chain	Res	Type
26	1H	2138	C
26	1H	2139	C
26	1H	2145	C
26	1H	2147	G
26	1H	2148	G
26	1H	2154	G
26	1H	2157	G
26	1H	2158	A
26	1H	2161	C
26	1H	2166	G
26	1H	2167	U
26	1H	2168	G
26	1H	2169	A
26	1H	2170	A
26	1H	2171	A
26	1H	2173	A
26	1H	2176	A
26	1H	2177	C
26	1H	2181	G
26	1H	2190	G
26	1H	2198	A
26	1H	2207	C
26	1H	2210	G
26	1H	2211	G
26	1H	2212	A
26	1H	2213	U
26	1H	2215	G
26	1H	2225	A
26	1H	2226	C
26	1H	2237	G
26	1H	2238	G
26	1H	2240	C
26	1H	2264	C
26	1H	2267	A
26	1H	2271	G
26	1H	2273	A
26	1H	2275	C
26	1H	2278	A
26	1H	2280	G
26	1H	2283	C
26	1H	2285	C
26	1H	2286	A

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Mol	Chain	Res	Type
26	1H	2287	A
26	1H	2288	A
26	1H	2294	C
26	1H	2298	A
26	1H	2305	A
26	1H	2307	G
26	1H	2308	G
26	1H	2310	A
26	1H	2312	U
26	1H	2314	C
26	1H	2320	A
26	1H	2321	G
26	1H	2325	G
26	1H	2327	A
26	1H	2334	G
26	1H	2336	A
26	1H	2340	G
26	1H	2343	C
26	1H	2346	A
26	1H	2347	C
26	1H	2350	C
26	1H	2352	A
26	1H	2360	A
26	1H	2361	A
26	1H	2372	G
26	1H	2377	A
26	1H	2379	G
26	1H	2383	G
26	1H	2385	C
26	1H	2388	A
26	1H	2389	G
26	1H	2392	A
26	1H	2393	A
26	1H	2395	C
26	1H	2402	C
26	1H	2403	C
26	1H	2406	U
26	1H	2413	G
26	1H	2414	G
26	1H	2424	C
26	1H	2425	A
26	1H	2428	G

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Mol	Chain	Res	Type
26	1H	2429	G
26	1H	2430	A
26	1H	2431	U
26	1H	2439	A
26	1H	2440	C
26	1H	2441	C
26	1H	2448	A
26	1H	2468	G
26	1H	2469	A
26	1H	2474	C
26	1H	2475	C
26	1H	2476	A
26	1H	2478	A
26	1H	2479	G
26	1H	2482	G
26	1H	2484	G
26	1H	2487	G
26	1H	2494	G
26	1H	2502	G
26	1H	2505	G
26	1H	2506	U
26	1H	2507	C
26	1H	2518	A
26	1H	2525	G
26	1H	2529	G
26	1H	2531	A
26	1H	2553	G
26	1H	2554	U
26	1H	2566	A
26	1H	2567	G
26	1H	2568	C
26	1H	2569	G
26	1H	2570	G
26	1H	2573	C
26	1H	2574	G
26	1H	2579	C
26	1H	2582	G
26	1H	2583	G
26	1H	2584	U
26	1H	2601	C
26	1H	2602	A
26	1H	2609	U

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Mol	Chain	Res	Type
26	1H	2611	U
26	1H	2612	C
26	1H	2615	U
26	1H	2629	A
26	1H	2630	G
26	1H	2632	A
26	1H	2636	U
26	1H	2637	U
26	1H	2641	G
26	1H	2646	C
26	1H	2654	A
26	1H	2657	A
26	1H	2665	A
26	1H	2666	C
26	1H	2672	G
26	1H	2679	A
26	1H	2689	U
26	1H	2690	C
26	1H	2691	C
26	1H	2700	C
26	1H	2701	C
26	1H	2702	U
26	1H	2703	C
26	1H	2705	A
26	1H	2707	G
26	1H	2712(A)	A
26	1H	2713	A
26	1H	2714	G
26	1H	2718	G
26	1H	2719	G
26	1H	2726	U
26	1H	2729	G
26	1H	2733	A
26	1H	2744	G
26	1H	2749	A
26	1H	2750	A
26	1H	2752	C
26	1H	2757	A
26	1H	2764	A
26	1H	2765	A
26	1H	2766	G
26	1H	2778	A

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Mol	Chain	Res	Type
26	1H	2779	U
26	1H	2781	A
26	1H	2787	C
26	1H	2789	C
26	1H	2790	A
26	1H	2791	C
26	1H	2793	G
26	1H	2794	C
26	1H	2795	G
26	1H	2797	U
26	1H	2798	C
26	1H	2799	A
26	1H	2801	A
26	1H	2802	G
26	1H	2808	U
26	1H	2813	A
26	1H	2818	G
26	1H	2820	A
26	1H	2821	A
26	1H	2830	G
26	1H	2833	G
26	1H	2834	G
26	1H	2835	A
26	1H	2838	G
26	1H	2849	U
26	1H	2850	A
26	1H	2851	A
26	1H	2872	G
26	1H	2891	G
26	1H	2892	A
26	1H	2893	G
26	1H	2894	G
26	1H	2895	U
26	1H	2899	G
27	16	1	U
27	16	5	C
27	16	7	G
27	16	13	A
27	16	15	A
27	16	25	A
27	16	35	U
27	16	42	C

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Mol	Chain	Res	Type
27	16	45	A
27	16	56	G
27	16	65	C
27	16	66	A
27	16	73	A
27	16	74	U
27	16	81	G
27	16	82	G
27	16	83	G
27	16	105	G
27	16	109	G
27	16	117	G
27	16	119	A
1	1G	5	U
1	1G	6	G
1	1G	9	G
1	1G	15	G
1	1G	21	G
1	1G	26	A
1	1G	32	A
1	1G	39	G
1	1G	41	G
1	1G	42	G
1	1G	44	G
1	1G	47	C
1	1G	48	C
1	1G	50	A
1	1G	51	A
1	1G	54	C
1	1G	65	U
1	1G	90	C
1	1G	91	C
1	1G	95	G
1	1G	101	A
1	1G	115	G
1	1G	116	A
1	1G	121	C
1	1G	127	G
1	1G	131	C
1	1G	146	G
1	1G	162	A
1	1G	163	C

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Mol	Chain	Res	Type
1	1G	167	G
1	1G	174	C
1	1G	182	U
1	1G	183	G
1	1G	188	U
1	1G	189	U
1	1G	190	G
1	1G	191(A)	G
1	1G	191(D)	U
1	1G	191(E)	G
1	1G	195	A
1	1G	196	A
1	1G	197	A
1	1G	198	G
1	1G	208	U
1	1G	209	U
1	1G	210	U
1	1G	216	G
1	1G	217	C
1	1G	231	G
1	1G	240	C
1	1G	247	G
1	1G	249	U
1	1G	250	A
1	1G	251	G
1	1G	266	G
1	1G	267	C
1	1G	281	G
1	1G	283	C
1	1G	289	G
1	1G	298	A
1	1G	299	G
1	1G	316	G
1	1G	317	G
1	1G	318	G
1	1G	321	A
1	1G	328	C
1	1G	329	A
1	1G	332	G
1	1G	345	C
1	1G	346	G
1	1G	347	G

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Mol	Chain	Res	Type
1	1G	349	A
1	1G	350	G
1	1G	351	G
1	1G	352	C
1	1G	353	A
1	1G	354	G
1	1G	356	A
1	1G	363	A
1	1G	366	C
1	1G	367	U
1	1G	372	C
1	1G	373	A
1	1G	388	G
1	1G	397	A
1	1G	398	C
1	1G	406	G
1	1G	411	A
1	1G	412	A
1	1G	413	G
1	1G	419	C
1	1G	422	C
1	1G	423	G
1	1G	424	G
1	1G	429	U
1	1G	430	A
1	1G	439	A
1	1G	442	C
1	1G	452	A
1	1G	465	A
1	1G	466	C
1	1G	467	G
1	1G	475	G
1	1G	476	G
1	1G	482	A
1	1G	484	G
1	1G	485	G
1	1G	486	U
1	1G	496	A
1	1G	497	U
1	1G	498	A
1	1G	500	G
1	1G	505	G

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Mol	Chain	Res	Type
1	1G	509	A
1	1G	510	A
1	1G	511	C
1	1G	518	C
1	1G	521	G
1	1G	524	G
1	1G	527	G
1	1G	528	C
1	1G	529	G
1	1G	530	G
1	1G	531	U
1	1G	532	A
1	1G	533	A
1	1G	534	U
1	1G	536	C
1	1G	544	G
1	1G	545	C
1	1G	547	A
1	1G	559	A
1	1G	560	U
1	1G	561	U
1	1G	562	C
1	1G	564	C
1	1G	566	G
1	1G	572	A
1	1G	573	A
1	1G	576	G
1	1G	577	G
1	1G	581	G
1	1G	596	C
1	1G	607	A
1	1G	614	A
1	1G	618	C
1	1G	620	C
1	1G	630	G
1	1G	632	A
1	1G	633	G
1	1G	642	A
1	1G	651	C
1	1G	652	U
1	1G	653	A
1	1G	660	G

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Mol	Chain	Res	Type
1	1G	665	A
1	1G	670	G
1	1G	687	A
1	1G	688	G
1	1G	702	A
1	1G	704	A
1	1G	710	G
1	1G	723	U
1	1G	724	G
1	1G	731	G
1	1G	742	G
1	1G	748	C
1	1G	764	C
1	1G	777	A
1	1G	778	G
1	1G	792	A
1	1G	793	U
1	1G	794	A
1	1G	805	C
1	1G	813	U
1	1G	817	C
1	1G	821	G
1	1G	828	A
1	1G	841	U
1	1G	842	C
1	1G	843	U
1	1G	848	C
1	1G	859	A
1	1G	871	U
1	1G	885	G
1	1G	889	A
1	1G	891	U
1	1G	902	G
1	1G	914	A
1	1G	916	G
1	1G	926	G
1	1G	927	G
1	1G	934	C
1	1G	935	A
1	1G	936	C
1	1G	940	C
1	1G	958	A

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Mol	Chain	Res	Type
1	1G	960	U
1	1G	961	U
1	1G	968	A
1	1G	969	A
1	1G	971	G
1	1G	972	C
1	1G	974	A
1	1G	975	A
1	1G	976	G
1	1G	977	A
1	1G	978	A
1	1G	980	C
1	1G	981	U
1	1G	982	U
1	1G	984	C
1	1G	991	U
1	1G	992	U
1	1G	993	G
1	1G	994	A
1	1G	1004	A
1	1G	1006	C
1	1G	1009	G
1	1G	1014	A
1	1G	1023	G
1	1G	1024	G
1	1G	1025	U
1	1G	1027	C
1	1G	1028	C
1	1G	1028(B)	C
1	1G	1029	G
1	1G	1031	G
1	1G	1032(A)	G
1	1G	1033	G
1	1G	1036	G
1	1G	1038	C
1	1G	1040	U
1	1G	1046	A
1	1G	1047	G
1	1G	1050	G
1	1G	1053	G
1	1G	1054	C
1	1G	1055	A

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Mol	Chain	Res	Type
1	1G	1064	G
1	1G	1066	C
1	1G	1081	G
1	1G	1082	G
1	1G	1085	U
1	1G	1086	U
1	1G	1092	A
1	1G	1094	G
1	1G	1095	U
1	1G	1101	A
1	1G	1113	C
1	1G	1118	C
1	1G	1124	G
1	1G	1125	U
1	1G	1127	G
1	1G	1128	C
1	1G	1129	C
1	1G	1130	A
1	1G	1131	G
1	1G	1133	G
1	1G	1136	U
1	1G	1137	C
1	1G	1138	G
1	1G	1139	G
1	1G	1141	C
1	1G	1145	C
1	1G	1146	A
1	1G	1147	C
1	1G	1154	G
1	1G	1155	G
1	1G	1157	A
1	1G	1158	C
1	1G	1159	U
1	1G	1160	G
1	1G	1177	G
1	1G	1178	G
1	1G	1181	G
1	1G	1185	G
1	1G	1187	G
1	1G	1188	A
1	1G	1189	C
1	1G	1190	G

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Mol	Chain	Res	Type
1	1G	1196	U
1	1G	1197	G
1	1G	1201	A
1	1G	1211	U
1	1G	1212	U
1	1G	1213	A
1	1G	1214	C
1	1G	1225	A
1	1G	1227	A
1	1G	1236	A
1	1G	1238	A
1	1G	1240	U
1	1G	1241	G
1	1G	1256	A
1	1G	1257	U
1	1G	1258	G
1	1G	1260	C
1	1G	1263	C
1	1G	1267	C
1	1G	1269	A
1	1G	1278	U
1	1G	1279	A
1	1G	1280	A
1	1G	1286	A
1	1G	1287	A
1	1G	1289	A
1	1G	1291	G
1	1G	1295	G
1	1G	1297	C
1	1G	1298	C
1	1G	1299	A
1	1G	1300	G
1	1G	1301	U
1	1G	1303	C
1	1G	1305	G
1	1G	1313	U
1	1G	1317	C
1	1G	1319	A
1	1G	1320	C
1	1G	1322	C
1	1G	1323	G
1	1G	1331	G

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Mol	Chain	Res	Type
1	1G	1335	C
1	1G	1336	C
1	1G	1337	G
1	1G	1346	A
1	1G	1347	G
1	1G	1353	G
1	1G	1359	C
1	1G	1362(A)	C
1	1G	1363	A
1	1G	1364	U
1	1G	1365	G
1	1G	1370	G
1	1G	1379	G
1	1G	1382	C
1	1G	1396	A
1	1G	1397	C
1	1G	1398	A
1	1G	1399	C
1	1G	1401	G
1	1G	1404	C
1	1G	1405	G
1	1G	1406	U
1	1G	1419	G
1	1G	1442	G
1	1G	1443	G
1	1G	1446	A
1	1G	1450	U
1	1G	1451	A
1	1G	1452	C
1	1G	1453	G
1	1G	1454	G
1	1G	1484	C
1	1G	1492	A
1	1G	1498	U
1	1G	1499	A
1	1G	1502	A
1	1G	1503	A
1	1G	1504	G
1	1G	1506	U
1	1G	1510	U
1	1G	1517	G
1	1G	1520	G

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Mol	Chain	Res	Type
1	1G	1529	G
1	1G	1530	G
22	1L	8	U
22	1L	9	A
22	1L	10	G
22	1L	11	C
22	1L	13	C
22	1L	16	U
22	1L	17	C
22	1L	18	G
22	1L	19	G
22	1L	21	A
22	1L	22	G
22	1L	25	C
22	1L	26	A
22	1L	27	G
22	1L	36	A
22	1L	46	G
22	1L	47	U
22	1L	48	C
22	1L	51	U
22	1L	56	C
22	1L	58	A
22	1L	59	U
22	1L	61	C
22	1L	64	A
22	1L	68	C
22	1L	69	G
22	1L	70	G
22	1L	72	C
22	1L	73	A
22	1L	74	C
22	1L	75	C
22	1L	76	A
23	2L	2	G
23	2L	7	G
23	2L	8	4SU
23	2L	9	G
23	2L	16	C
23	2L	17	C
23	2L	19	G
23	2L	21	U

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Mol	Chain	Res	Type
23	2L	22	A
23	2L	23	G
23	2L	27	G
23	2L	32	G
23	2L	47	7MG
23	2L	48	U
23	2L	49	C
23	2L	61	U
23	2L	68	C
23	2L	70	C
23	2L	77	A
24	3L	5	G
24	3L	6	G
24	3L	7	A
24	3L	9	A
24	3L	13	C
24	3L	16	U
24	3L	17	C
24	3L	18	G
24	3L	19	G
24	3L	20	U
24	3L	21	A
24	3L	22	G
24	3L	23	A
24	3L	24	G
24	3L	26	A
24	3L	27	G
24	3L	30	G
24	3L	31	A
24	3L	34	G
24	3L	36	A
24	3L	37	A
24	3L	38	A
24	3L	39	U
24	3L	40	C
24	3L	41	C
24	3L	44	G
24	3L	46	G
24	3L	47	U
24	3L	48	C
24	3L	49	C
24	3L	53	G

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Mol	Chain	Res	Type
24	3L	54	U
24	3L	58	A
24	3L	59	U
24	3L	61	C
24	3L	65	G
24	3L	66	U
24	3L	68	C
24	3L	72	C
24	3L	73	A
24	3L	76	A
25	4L	14	A
25	4L	15	A
26	14	4	C
26	14	5	A
26	14	6	A
26	14	9	U
26	14	14	A
26	14	15	G
26	14	34	C
26	14	35	G
26	14	36	G
26	14	41	C
26	14	46	C
26	14	49	A
26	14	50	U
26	14	54	G
26	14	55	G
26	14	58	G
26	14	70	G
26	14	71	A
26	14	72	U
26	14	74	A
26	14	75	G
26	14	76	C
26	14	78	A
26	14	82	G
26	14	83	G
26	14	84	A
26	14	91	A
26	14	93	C
26	14	99	U
26	14	102	G

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Mol	Chain	Res	Type
26	14	112	U
26	14	118	A
26	14	119	A
26	14	120	U
26	14	121	G
26	14	129	C
26	14	138	G
26	14	140	A
26	14	152	G
26	14	154	G
26	14	155	C
26	14	161	U
26	14	162	U
26	14	176	G
26	14	181	A
26	14	183	C
26	14	196	A
26	14	197	A
26	14	199	A
26	14	205	G
26	14	214	G
26	14	216	A
26	14	218	A
26	14	221	A
26	14	222	A
26	14	225	A
26	14	229	A
26	14	233	A
26	14	240	G
26	14	248	G
26	14	249	C
26	14	250	G
26	14	252	G
26	14	265	A
26	14	266	G
26	14	270(G)	C
26	14	270(K)	C
26	14	270(L)	U
26	14	270(M)	U
26	14	270(O)	U
26	14	271(B)	G
26	14	271(C)	U

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Mol	Chain	Res	Type
26	14	271	G
26	14	273(D)	C
26	14	273(F)	C
26	14	274	G
26	14	275	G
26	14	276	A
26	14	277	C
26	14	278	A
26	14	279	C
26	14	283	A
26	14	289	A
26	14	310	A
26	14	311	A
26	14	324	A
26	14	327	G
26	14	329	G
26	14	330	A
26	14	331	A
26	14	335	C
26	14	336	C
26	14	346	A
26	14	352	G
26	14	363	G
26	14	363(A)	A
26	14	363(E)	U
26	14	386	G
26	14	391	G
26	14	396	G
26	14	399	G
26	14	405	U
26	14	406	G
26	14	411	G
26	14	412	A
26	14	428	A
26	14	443	A
26	14	444	C
26	14	447	A
26	14	448	U
26	14	451	C
26	14	454	A
26	14	455	C
26	14	457	A

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Mol	Chain	Res	Type
26	14	459	U
26	14	460	A
26	14	470	A
26	14	471	A
26	14	479	A
26	14	481	G
26	14	498	G
26	14	501	A
26	14	503	A
26	14	504	U
26	14	505	A
26	14	509	C
26	14	510	C
26	14	513	A
26	14	528	A
26	14	529	A
26	14	531	C
26	14	532	A
26	14	533	G
26	14	537	C
26	14	549	G
26	14	556	G
26	14	563	G
26	14	573	G
26	14	575	A
26	14	587	C
26	14	599	G
26	14	602	G
26	14	603	A
26	14	607	U
26	14	609(A)	G
26	14	613	U
26	14	614	U
26	14	615	G
26	14	617	G
26	14	618	G
26	14	618(A)	C
26	14	620	G
26	14	621	A
26	14	622	G
26	14	627	A
26	14	637	A

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Mol	Chain	Res	Type
26	14	645	C
26	14	646	A
26	14	650	C
26	14	651	G
26	14	654	A
26	14	654(E)	C
26	14	654(G)	C
26	14	654(H)	G
26	14	654(I)	C
26	14	654(K)	C
26	14	654(L)	G
26	14	654(N)	G
26	14	654(T)	A
26	14	654(V)	A
26	14	667	U
26	14	669	G
26	14	672	C
26	14	676	A
26	14	686	G
26	14	689	A
26	14	699	A
26	14	715	G
26	14	717	G
26	14	720	C
26	14	722	A
26	14	730	C
26	14	748	G
26	14	750	A
26	14	752	A
26	14	753	C
26	14	757	U
26	14	758	C
26	14	762	U
26	14	765	G
26	14	769	G
26	14	771	G
26	14	775	G
26	14	776	G
26	14	779	U
26	14	782	A
26	14	784	A
26	14	785	G

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Mol	Chain	Res	Type
26	14	792	G
26	14	797	C
26	14	805	G
26	14	812	C
26	14	819	A
26	14	820	A
26	14	827	U
26	14	828	U
26	14	831	G
26	14	832	G
26	14	836	G
26	14	845	G
26	14	846	C
26	14	847	U
26	14	858	U
26	14	859	G
26	14	863	A
26	14	865	C
26	14	866	A
26	14	869	G
26	14	880	G
26	14	881	G
26	14	882	G
26	14	885	C
26	14	886	C
26	14	887	A
26	14	888	C
26	14	889	C
26	14	890	A
26	14	894	C
26	14	896	A
26	14	897	C
26	14	899	A
26	14	900	A
26	14	901	A
26	14	902	C
26	14	903	C
26	14	904	C
26	14	905	U
26	14	910	A
26	14	914	C
26	14	915	C

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Mol	Chain	Res	Type
26	14	917	A
26	14	918	A
26	14	919	G
26	14	932	G
26	14	933	A
26	14	938	G
26	14	941	A
26	14	945	A
26	14	946	G
26	14	952	G
26	14	957	A
26	14	958	U
26	14	959	A
26	14	961	C
26	14	968	G
26	14	972	G
26	14	974	G
26	14	974(A)	C
26	14	980	A
26	14	983	A
26	14	986	C
26	14	989	G
26	14	990	A
26	14	991	C
26	14	996	A
26	14	1002	G
26	14	1005	C
26	14	1012	U
26	14	1013	C
26	14	1017	G
26	14	1020	A
26	14	1022	G
26	14	1023	U
26	14	1025	G
26	14	1026	U
26	14	1028	A
26	14	1034	G
26	14	1035	U
26	14	1037	G
26	14	1038	C
26	14	1039	G
26	14	1044	G

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Mol	Chain	Res	Type
26	14	1045	A
26	14	1046	A
26	14	1047	G
26	14	1048	A
26	14	1050	A
26	14	1051	G
26	14	1054	A
26	14	1056	G
26	14	1057	A
26	14	1058	U
26	14	1059	G
26	14	1060	U
26	14	1062	G
26	14	1065	U
26	14	1067	A
26	14	1068	G
26	14	1070	A
26	14	1073	A
26	14	1077	A
26	14	1079	C
26	14	1082	U
26	14	1083	U
26	14	1085	A
26	14	1086	A
26	14	1087	G
26	14	1088	A
26	14	1090	U
26	14	1091	G
26	14	1093	G
26	14	1094	U
26	14	1095	A
26	14	1096	A
26	14	1097	U
26	14	1098	A
26	14	1105	U
26	14	1110	G
26	14	1111	A
26	14	1112	G
26	14	1122	G
26	14	1129	A
26	14	1130	U
26	14	1135	C

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Mol	Chain	Res	Type
26	14	1136	G
26	14	1138	G
26	14	1139	G
26	14	1141	U
26	14	1142	U
26	14	1142(A)	A
26	14	1143	A
26	14	1144	G
26	14	1149	G
26	14	1155	A
26	14	1157	G
26	14	1160	G
26	14	1167	U
26	14	1170	G
26	14	1173	G
26	14	1174	A
26	14	1175	U
26	14	1177	A
26	14	1178	C
26	14	1183	G
26	14	1204	A
26	14	1205	U
26	14	1206	G
26	14	1210	A
26	14	1211	U
26	14	1212	G
26	14	1220	A
26	14	1229(A)	G
26	14	1237	A
26	14	1244	G
26	14	1247	A
26	14	1248	G
26	14	1249	U
26	14	1250	G
26	14	1253	A
26	14	1256	G
26	14	1267	U
26	14	1271	G
26	14	1272	A
26	14	1275	A
26	14	1287	A
26	14	1298	C

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Mol	Chain	Res	Type
26	14	1300	U
26	14	1301	A
26	14	1306	C
26	14	1313	U
26	14	1314	C
26	14	1316	U
26	14	1318	C
26	14	1319	G
26	14	1321	A
26	14	1329	U
26	14	1332	G
26	14	1338	G
26	14	1342	A
26	14	1345	C
26	14	1347	G
26	14	1349	A
26	14	1359	A
26	14	1360	A
26	14	1365	A
26	14	1368	G
26	14	1370	C
26	14	1378	A
26	14	1379	A
26	14	1383	C
26	14	1384	A
26	14	1385	G
26	14	1386	C
26	14	1395	A
26	14	1403	C
26	14	1406	U
26	14	1416	G
26	14	1417	C
26	14	1419	A
26	14	1420	U
26	14	1421	G
26	14	1427	A
26	14	1428	C
26	14	1437	C
26	14	1444(A)	A
26	14	1445	C
26	14	1449	A
26	14	1449(A)	G

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Mol	Chain	Res	Type
26	14	1455	G
26	14	1459	G
26	14	1460	A
26	14	1461	G
26	14	1467	C
26	14	1471	A
26	14	1475	G
26	14	1483	G
26	14	1490	A
26	14	1493	C
26	14	1494	A
26	14	1506	C
26	14	1508	A
26	14	1509	C
26	14	1510	A
26	14	1515	C
26	14	1522	G
26	14	1524	G
26	14	1528	A
26	14	1533	C
26	14	1535	U
26	14	1537	C
26	14	1538	G
26	14	1543	A
26	14	1554	A
26	14	1558	A
26	14	1559	G
26	14	1560	G
26	14	1569	A
26	14	1578	U
26	14	1583	A
26	14	1585	C
26	14	1586	A
26	14	1588	C
26	14	1589	C
26	14	1598	C
26	14	1608	A
26	14	1609	A
26	14	1610	A
26	14	1614	A
26	14	1616	A
26	14	1617	C

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Mol	Chain	Res	Type
26	14	1618	A
26	14	1622	G
26	14	1625	C
26	14	1631	A
26	14	1632	A
26	14	1636	C
26	14	1640	C
26	14	1641	A
26	14	1644	C
26	14	1647	G
26	14	1648	C
26	14	1654	A
26	14	1661	G
26	14	1669	A
26	14	1670	C
26	14	1671	U
26	14	1674	G
26	14	1678	G
26	14	1694	C
26	14	1697	G
26	14	1700	A
26	14	1701	A
26	14	1703	G
26	14	1725	G
26	14	1726	G
26	14	1728	G
26	14	1729	A
26	14	1730	U
26	14	1742	C
26	14	1750	G
26	14	1756	G
26	14	1761	C
26	14	1762	A
26	14	1763	G
26	14	1764	G
26	14	1773	A
26	14	1780	A
26	14	1781	C
26	14	1782	C
26	14	1791	A
26	14	1800	C
26	14	1801	G

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Mol	Chain	Res	Type
26	14	1802	A
26	14	1812	A
26	14	1816	G
26	14	1819	A
26	14	1820	U
26	14	1829	A
26	14	1830	C
26	14	1839	G
26	14	1847	A
26	14	1848	A
26	14	1858	G
26	14	1878	G
26	14	1884	A
26	14	1888	G
26	14	1889	A
26	14	1895	C
26	14	1906	G
26	14	1909	C
26	14	1917	U
26	14	1919	A
26	14	1929	G
26	14	1930	G
26	14	1933	G
26	14	1936	A
26	14	1937	A
26	14	1938	A
26	14	1955	U
26	14	1960	A
26	14	1963	U
26	14	1964	G
26	14	1967	C
26	14	1968	G
26	14	1969	A
26	14	1970	A
26	14	1971	A
26	14	1972	A
26	14	1985	G
26	14	1993	U
26	14	1996	C
26	14	2018	G
26	14	2019	A
26	14	2023	G

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Mol	Chain	Res	Type
26	14	2031	A
26	14	2032	G
26	14	2033	A
26	14	2039	C
26	14	2043	C
26	14	2048	G
26	14	2049	G
26	14	2053	G
26	14	2055	C
26	14	2056	G
26	14	2060	A
26	14	2061	G
26	14	2062	A
26	14	2063	C
26	14	2069	G
26	14	2082	A
26	14	2096	U
26	14	2100	G
26	14	2105	C
26	14	2108	C
26	14	2111	C
26	14	2112	G
26	14	2114	A
26	14	2117	A
26	14	2118	U
26	14	2119	A
26	14	2122	U
26	14	2125	G
26	14	2126	A
26	14	2127	G
26	14	2128	C
26	14	2131	G
26	14	2132	U
26	14	2133	G
26	14	2136	C
26	14	2137	C
26	14	2140	C
26	14	2144	U
26	14	2145	C
26	14	2146	C
26	14	2147	G
26	14	2148	G

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Mol	Chain	Res	Type
26	14	2153	G
26	14	2157	G
26	14	2158	A
26	14	2160	G
26	14	2171	A
26	14	2173	A
26	14	2174	C
26	14	2177	C
26	14	2183	C
26	14	2188	C
26	14	2189	U
26	14	2191	G
26	14	2192	G
26	14	2198	A
26	14	2210	G
26	14	2211	G
26	14	2212	A
26	14	2213	U
26	14	2215	G
26	14	2225	A
26	14	2226	C
26	14	2238	G
26	14	2239	G
26	14	2240	C
26	14	2251	G
26	14	2252	G
26	14	2261	C
26	14	2267	A
26	14	2268	A
26	14	2273	A
26	14	2275	C
26	14	2276	G
26	14	2278	A
26	14	2280	G
26	14	2283	C
26	14	2287	A
26	14	2288	A
26	14	2289	G
26	14	2305	A
26	14	2307	G
26	14	2308	G
26	14	2309	A

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Mol	Chain	Res	Type
26	14	2310	A
26	14	2311	A
26	14	2312	U
26	14	2318	G
26	14	2321	G
26	14	2324	C
26	14	2325	G
26	14	2327	A
26	14	2333	A
26	14	2334	G
26	14	2335	A
26	14	2336	A
26	14	2342	C
26	14	2343	C
26	14	2346	A
26	14	2347	C
26	14	2350	C
26	14	2352	A
26	14	2353	G
26	14	2354	G
26	14	2355	C
26	14	2383	G
26	14	2385	C
26	14	2388	A
26	14	2394	C
26	14	2396	G
26	14	2401	U
26	14	2402	C
26	14	2403	C
26	14	2406	U
26	14	2407	G
26	14	2410	G
26	14	2414	G
26	14	2422	A
26	14	2423	U
26	14	2425	A
26	14	2429	G
26	14	2430	A
26	14	2432	A
26	14	2434	A
26	14	2435	A
26	14	2439	A

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Mol	Chain	Res	Type
26	14	2440	C
26	14	2441	C
26	14	2445	G
26	14	2447	G
26	14	2448	A
26	14	2449	U
26	14	2465	C
26	14	2468	G
26	14	2469	A
26	14	2470	G
26	14	2474	C
26	14	2476	A
26	14	2477	C
26	14	2478	A
26	14	2480	C
26	14	2482	G
26	14	2483	C
26	14	2484	G
26	14	2487	G
26	14	2489	G
26	14	2496	C
26	14	2497	A
26	14	2502	G
26	14	2504	U
26	14	2505	G
26	14	2506	U
26	14	2507	C
26	14	2514	U
26	14	2518	A
26	14	2519	U
26	14	2527	C
26	14	2529	G
26	14	2532	G
26	14	2542	A
26	14	2543	G
26	14	2552	U
26	14	2554	U
26	14	2555	U
26	14	2566	A
26	14	2567	G
26	14	2569	G
26	14	2573	C

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Mol	Chain	Res	Type
26	14	2577	A
26	14	2585	U
26	14	2587	A
26	14	2601	C
26	14	2602	A
26	14	2603	G
26	14	2608	G
26	14	2609	U
26	14	2611	U
26	14	2612	C
26	14	2613	U
26	14	2615	U
26	14	2617	C
26	14	2630	G
26	14	2636	U
26	14	2646	C
26	14	2647	U
26	14	2654	A
26	14	2655	G
26	14	2663	G
26	14	2665	A
26	14	2667	C
26	14	2673	G
26	14	2679	A
26	14	2689	U
26	14	2690	C
26	14	2691	C
26	14	2700	C
26	14	2702	U
26	14	2703	C
26	14	2707	G
26	14	2712(A)	A
26	14	2713	A
26	14	2714	G
26	14	2718	G
26	14	2719	G
26	14	2726	U
26	14	2729	G
26	14	2733	A
26	14	2736	G
26	14	2744	G
26	14	2748	A

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Mol	Chain	Res	Type
26	14	2750	A
26	14	2751	G
26	14	2752	C
26	14	2754	U
26	14	2758	A
26	14	2762	G
26	14	2764	A
26	14	2765	A
26	14	2766	G
26	14	2777	G
26	14	2778	A
26	14	2779	U
26	14	2789	C
26	14	2790	A
26	14	2791	C
26	14	2795	G
26	14	2797	U
26	14	2798	C
26	14	2802	G
26	14	2808	U
26	14	2811	G
26	14	2818	G
26	14	2820	A
26	14	2821	A
26	14	2833	G
26	14	2834	G
26	14	2835	A
26	14	2849	U
26	14	2860	A
26	14	2861	G
26	14	2872	G
26	14	2873	A
26	14	2880	C
26	14	2886	G
26	14	2889	C
26	14	2894	G
26	14	2896	C
27	1J	0	A
27	1J	2	C
27	1J	5	C
27	1J	7	G
27	1J	8	U

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Mol	Chain	Res	Type
27	1J	12	C
27	1J	13	A
27	1J	15	A
27	1J	16	G
27	1J	19	G
27	1J	22	U
27	1J	24	G
27	1J	29	A
27	1J	30	C
27	1J	32	C
27	1J	41	U
27	1J	42	C
27	1J	44	G
27	1J	45	A
27	1J	47	C
27	1J	52	A
27	1J	53	A
27	1J	58	A
27	1J	73	A
27	1J	81	G
27	1J	88	C
27	1J	89	G
27	1J	89(A)	A
27	1J	90	C
27	1J	100	G
27	1J	101	A
27	1J	108	C
27	1J	109	G
27	1J	113	C
27	1J	114	G

All (204) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	13	5	U
1	13	50	A
1	13	115	G
1	13	244	U
1	13	251	G
1	13	266	G
1	13	412	A
1	13	422	C

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Mol	Chain	Res	Type
1	13	428	G
1	13	429	U
1	13	484	G
1	13	509	A
1	13	560	U
1	13	703	G
1	13	748	C
1	13	793	U
1	13	812	C
1	13	991	U
1	13	992	U
1	13	1027	C
1	13	1065	U
1	13	1126	U
1	13	1285	A
1	13	1302	U
1	13	1336	C
1	13	1452	C
1	13	1453	G
1	13	1498	U
1	13	1504	G
22	1K	10	G
23	2K	21	U
23	2K	47	7MG
23	2K	48	U
24	3K	2	C
24	3K	8	U
24	3K	18	G
24	3K	33	U
24	3K	36	A
24	3K	58	A
24	3K	60	U
24	3K	71	G
25	4K	25	A
26	1H	125	G
26	1H	196	A
26	1H	199	A
26	1H	222	A
26	1H	229	A
26	1H	242	G
26	1H	271(B)	G
26	1H	404	C

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Mol	Chain	Res	Type
26	1H	481	G
26	1H	508	G
26	1H	528	A
26	1H	587	C
26	1H	668	G
26	1H	685	A
26	1H	752	A
26	1H	764	A
26	1H	776	G
26	1H	800	A
26	1H	880	G
26	1H	974	G
26	1H	1022	G
26	1H	1026	U
26	1H	1060	U
26	1H	1084	A
26	1H	1085	A
26	1H	1110	G
26	1H	1178	C
26	1H	1241	A
26	1H	1252	G
26	1H	1301	A
26	1H	1312	U
26	1H	1378	A
26	1H	1396	U
26	1H	1420	U
26	1H	1508	A
26	1H	1558	A
26	1H	1608	A
26	1H	1609	A
26	1H	1694	C
26	1H	1699	G
26	1H	1799	G
26	1H	1800	C
26	1H	1900	A
26	1H	1980	G
26	1H	2060	A
26	1H	2062	A
26	1H	2111	C
26	1H	2135	A
26	1H	2157	G
26	1H	2167	U

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Mol	Chain	Res	Type
26	1H	2225	A
26	1H	2286	A
26	1H	2307	G
26	1H	2426	A
26	1H	2428	G
26	1H	2475	C
26	1H	2481	G
26	1H	2566	A
26	1H	2611	U
26	1H	2689	U
26	1H	2756	U
27	16	108	C
1	1G	115	G
1	1G	173	U
1	1G	197	A
1	1G	201	C
1	1G	250	A
1	1G	266	G
1	1G	327	A
1	1G	328	C
1	1G	345	C
1	1G	412	A
1	1G	429	U
1	1G	465	A
1	1G	485	G
1	1G	509	A
1	1G	528	C
1	1G	560	U
1	1G	632	A
1	1G	687	A
1	1G	723	U
1	1G	793	U
1	1G	812	C
1	1G	913	A
1	1G	992	U
1	1G	1054	C
1	1G	1064	G
1	1G	1128	C
1	1G	1157	A
1	1G	1212	U
1	1G	1285	A
1	1G	1297	C

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Mol	Chain	Res	Type
1	1G	1298	C
1	1G	1300	G
1	1G	1346	A
1	1G	1396	A
1	1G	1453	G
1	1G	1498	U
22	1L	10	G
22	1L	18	G
22	1L	73	A
23	2L	20	G
23	2L	21	U
23	2L	46	G
23	2L	48	U
24	3L	8	U
24	3L	58	A
24	3L	71	G
25	4L	13	A
26	14	34	C
26	14	49	A
26	14	123	G
26	14	128	C
26	14	196	A
26	14	197	A
26	14	278	A
26	14	310	A
26	14	385	C
26	14	503	A
26	14	528	A
26	14	685	A
26	14	686	G
26	14	752	A
26	14	764	A
26	14	783	A
26	14	886	C
26	14	960	A
26	14	974	G
26	14	990	A
26	14	1085	A
26	14	1141	U
26	14	1378	A
26	14	1420	U
26	14	1460	A

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Mol	Chain	Res	Type
26	14	1558	A
26	14	1608	A
26	14	1609	A
26	14	1647	G
26	14	1819	A
26	14	1984	G
26	14	2191	G
26	14	2210	G
26	14	2211	G
26	14	2225	A
26	14	2238	G
26	14	2275	C
26	14	2335	A
26	14	2406	U
26	14	2425	A
26	14	2439	A
26	14	2447	G
26	14	2506	U
26	14	2602	A
26	14	2629	A
26	14	2689	U
26	14	2726	U
26	14	2776	A
26	14	2778	A
26	14	2859	G
26	14	2893	G
27	1J	52	A
27	1J	88	C

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

16 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	1K	37	22	28,31,32	2.24	5 (17%)	38,44,47	2.46	10 (26%)
23	5MU	2L	55	23	19,22,23	3.96	5 (26%)	27,32,35	3.34	10 (37%)
22	MIA	1L	37	22	28,31,32	2.32	4 (14%)	38,44,47	3.32	14 (36%)
22	PSU	1K	32	22	18,21,22	2.37	5 (27%)	21,30,33	1.65	4 (19%)
22	PSU	1L	32	22	18,21,22	2.57	6 (33%)	21,30,33	1.58	4 (19%)
23	PSU	2K	56	23	18,21,22	2.40	4 (22%)	21,30,33	2.05	5 (23%)
23	7MG	2K	47	23	23,26,27	3.21	7 (30%)	27,39,42	2.79	11 (40%)
23	5MU	2K	55	23,56	19,22,23	4.01	5 (26%)	27,32,35	3.56	8 (29%)
23	4SU	2K	8	23	18,21,22	1.96	3 (16%)	25,30,33	3.00	6 (24%)
22	PSU	1K	39	22	18,21,22	2.27	5 (27%)	21,30,33	1.81	4 (19%)
23	4SU	2L	8	23	18,21,22	1.82	3 (16%)	25,30,33	2.57	5 (20%)
23	OMC	2L	33	23	19,22,23	1.78	3 (15%)	25,31,34	1.18	3 (12%)
23	7MG	2L	47	23	23,26,27	3.14	7 (30%)	27,39,42	2.93	10 (37%)
23	PSU	2L	56	23	18,21,22	2.66	5 (27%)	21,30,33	1.81	5 (23%)
23	OMC	2K	33	23	19,22,23	1.72	3 (15%)	25,31,34	1.09	3 (12%)
22	PSU	1L	39	22	18,21,22	2.61	5 (27%)	21,30,33	1.42	3 (14%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
22	MIA	1K	37	22	-	5/15/33/34	0/3/3/3
23	5MU	2L	55	23	-	0/7/25/26	0/2/2/2
22	MIA	1L	37	22	-	7/15/33/34	0/3/3/3
22	PSU	1K	32	22	-	0/7/25/26	0/2/2/2
22	PSU	1L	32	22	-	0/7/25/26	0/2/2/2
23	PSU	2K	56	23	-	1/7/25/26	0/2/2/2
23	7MG	2K	47	23	-	1/7/37/38	0/3/3/3
23	5MU	2K	55	23,56	-	0/7/25/26	0/2/2/2
23	4SU	2K	8	23	-	0/7/25/26	0/2/2/2
22	PSU	1K	39	22	-	2/7/25/26	0/2/2/2
23	4SU	2L	8	23	-	0/7/25/26	0/2/2/2
23	OMC	2L	33	23	-	1/9/27/28	0/2/2/2
23	7MG	2L	47	23	-	3/7/37/38	0/3/3/3
23	PSU	2L	56	23	-	0/7/25/26	0/2/2/2
23	OMC	2K	33	23	-	0/9/27/28	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
22	PSU	1L	39	22	-	0/7/25/26	0/2/2/2

All (75) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2K	55	5MU	C2-N1	13.27	1.59	1.38
23	2L	55	5MU	C2-N1	12.92	1.58	1.38
23	2K	47	7MG	C4-N9	-8.82	1.27	1.37
22	1K	37	MIA	C13-C14	8.33	1.57	1.32
23	2L	47	7MG	C5-N7	8.30	1.46	1.35
22	1L	37	MIA	C13-C14	8.23	1.57	1.32
23	2L	47	7MG	C4-N9	-7.30	1.28	1.37
23	2K	47	7MG	C5-N7	7.29	1.44	1.35
22	1L	39	PSU	C6-N1	6.88	1.47	1.36
22	1L	37	MIA	C6-N6	6.72	1.44	1.34
22	1L	32	PSU	C6-N1	6.61	1.47	1.36
22	1K	37	MIA	C6-N6	6.56	1.44	1.34
23	2L	56	PSU	C6-N1	6.46	1.46	1.36
23	2L	47	7MG	C4-N3	6.20	1.48	1.34
23	2L	56	PSU	C2-N1	6.19	1.44	1.36
23	2L	8	4SU	C5-C4	6.18	1.49	1.42
23	2L	55	5MU	C4-N3	-6.17	1.27	1.38
22	1K	39	PSU	C6-N1	6.16	1.46	1.36
23	2K	8	4SU	C5-C4	6.01	1.49	1.42
23	2K	47	7MG	C4-N3	5.99	1.48	1.34
23	2K	55	5MU	C2-N3	5.98	1.48	1.38
23	2K	56	PSU	C6-N1	5.95	1.46	1.36
22	1K	32	PSU	C6-N1	5.94	1.46	1.36
23	2L	55	5MU	C2-N3	5.83	1.48	1.38
22	1L	32	PSU	C2-N1	5.75	1.44	1.36
23	2K	55	5MU	C4-N3	-5.71	1.28	1.38
22	1L	39	PSU	C2-N1	5.70	1.44	1.36
23	2K	55	5MU	C4-C5	5.51	1.53	1.44
23	2K	55	5MU	C6-N1	5.39	1.47	1.38
23	2K	56	PSU	C2-N1	5.39	1.43	1.36
23	2L	55	5MU	C4-C5	5.34	1.53	1.44
23	2L	55	5MU	C6-N1	5.26	1.47	1.38
22	1K	32	PSU	C2-N1	5.14	1.43	1.36
23	2K	47	7MG	C5-C4	-4.78	1.23	1.37
23	2L	33	OMC	C2-N3	4.78	1.45	1.36
23	2K	33	OMC	C2-N3	4.74	1.45	1.36
23	2K	47	7MG	C8-N7	4.74	1.65	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	47	7MG	C8-N7	4.64	1.64	1.42
23	2L	47	7MG	C5-C4	-4.63	1.23	1.37
22	1L	37	MIA	C2-S10	4.56	1.79	1.75
23	2K	56	PSU	C1'-C5	-4.55	1.40	1.50
23	2L	33	OMC	C4-N4	4.48	1.44	1.33
22	1K	39	PSU	C2-N1	4.44	1.42	1.36
22	1K	32	PSU	C1'-C5	-4.36	1.40	1.50
23	2K	33	OMC	C4-N4	4.28	1.44	1.33
22	1L	39	PSU	C1'-C5	-4.12	1.41	1.50
23	2L	56	PSU	C1'-C5	-4.04	1.41	1.50
23	2K	8	4SU	C2-N1	3.97	1.44	1.38
22	1K	39	PSU	C1'-C5	-3.92	1.41	1.50
22	1L	32	PSU	C1'-C5	-3.51	1.42	1.50
23	2L	56	PSU	C2-N3	3.45	1.43	1.37
22	1L	32	PSU	C2-N3	3.43	1.43	1.37
23	2L	33	OMC	C5-C4	3.40	1.50	1.42
23	2L	47	7MG	C2-N2	3.30	1.41	1.34
23	2K	33	OMC	C5-C4	3.28	1.50	1.42
22	1L	39	PSU	C2-N3	3.26	1.42	1.37
23	2L	8	4SU	C2-N1	3.25	1.43	1.38
22	1L	32	PSU	C4-C5	3.14	1.53	1.44
22	1K	32	PSU	C2-N3	3.08	1.42	1.37
23	2L	56	PSU	C4-C5	3.07	1.52	1.44
23	2K	47	7MG	C2-N2	3.05	1.41	1.34
23	2K	8	4SU	C6-N1	2.83	1.44	1.38
23	2K	56	PSU	C2-N3	2.75	1.42	1.37
22	1K	39	PSU	C2-N3	2.61	1.41	1.37
23	2L	8	4SU	C6-N1	2.58	1.44	1.38
22	1K	32	PSU	C4-C5	2.57	1.51	1.44
22	1L	39	PSU	C4-C5	2.47	1.51	1.44
22	1K	37	MIA	C5-N7	-2.44	1.34	1.39
22	1K	37	MIA	C2-S10	2.40	1.77	1.75
23	2K	47	7MG	C8-N9	2.31	1.47	1.45
22	1K	39	PSU	C4-C5	2.19	1.50	1.44
22	1L	37	MIA	C5-N7	-2.13	1.35	1.39
22	1K	37	MIA	C15-C14	2.10	1.56	1.50
23	2L	47	7MG	C5-C6	2.02	1.48	1.43
22	1L	32	PSU	C6-C5	2.01	1.37	1.35

All (105) bond angle outliers are listed below:

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1L	37	MIA	C11-S10-C2	11.21	110.67	102.25
23	2K	55	5MU	C5-C4-N3	10.61	124.55	115.32
23	2L	55	5MU	C5-C4-N3	10.46	124.42	115.32
22	1L	37	MIA	C12-C13-C14	-10.00	109.05	127.01
23	2K	8	4SU	C4-N3-C2	-9.63	118.09	127.31
23	2L	8	4SU	C4-N3-C2	-8.82	118.86	127.31
22	1K	37	MIA	C12-C13-C14	-8.60	111.57	127.01
23	2L	47	7MG	C4-C5-N7	8.25	115.13	105.38
23	2K	8	4SU	C5-C4-N3	8.21	122.39	114.75
23	2K	47	7MG	C4-C5-N7	8.19	115.06	105.38
23	2K	55	5MU	C5-C6-N1	-7.12	115.58	123.31
22	1L	37	MIA	C5-C4-N3	-6.96	119.85	127.18
23	2K	55	5MU	C6-C5-C4	6.84	123.66	118.02
23	2K	55	5MU	C4-N3-C2	-6.63	118.65	127.34
23	2L	8	4SU	C5-C4-N3	6.61	120.90	114.75
23	2L	55	5MU	C4-N3-C2	-6.44	118.89	127.34
23	2K	47	7MG	C5-C4-N9	6.35	114.47	106.33
23	2L	55	5MU	C5-C6-N1	-6.16	116.62	123.31
23	2K	55	5MU	C5M-C5-C6	-6.07	114.63	122.85
23	2L	55	5MU	C6-C5-C4	6.03	122.99	118.02
22	1K	37	MIA	C5-C4-N3	-6.02	120.84	127.18
23	2L	47	7MG	C5-C4-N9	5.52	113.41	106.33
23	2K	8	4SU	C5-C4-S4	-5.46	118.07	124.31
23	2L	47	7MG	C5-C6-N1	5.28	120.24	110.94
23	2L	55	5MU	C5M-C5-C6	-5.23	115.78	122.85
22	1L	37	MIA	N3-C4-N9	5.14	133.52	126.99
23	2K	55	5MU	O4-C4-C5	-5.04	119.15	124.92
23	2K	56	PSU	C4-N3-C2	-5.01	119.48	126.37
23	2L	47	7MG	C2-N3-C4	4.83	120.61	112.30
23	2K	56	PSU	N1-C2-N3	4.76	120.19	115.17
23	2L	8	4SU	N3-C2-N1	4.55	120.81	114.89
23	2L	56	PSU	N1-C2-N3	4.43	119.84	115.17
23	2L	47	7MG	C6-C5-N7	-4.38	125.14	131.93
23	2L	56	PSU	C4-N3-C2	-4.26	120.50	126.37
23	2K	47	7MG	C6-C5-N7	-4.22	125.40	131.93
22	1L	37	MIA	C16-C14-C13	-4.20	110.05	122.66
23	2L	47	7MG	C5-C4-N3	-4.19	120.27	128.13
22	1K	39	PSU	N1-C2-N3	4.13	119.53	115.17
23	2L	55	5MU	O4-C4-C5	-4.12	120.20	124.92
23	2K	47	7MG	C5-C6-N1	4.12	118.19	110.94
22	1K	37	MIA	C16-C14-C13	-3.99	110.68	122.66

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1L	32	PSU	C4-N3-C2	-3.93	120.96	126.37
22	1L	37	MIA	C5-N7-C8	3.90	109.58	103.45
22	1K	32	PSU	C4-N3-C2	-3.86	121.05	126.37
22	1K	37	MIA	C15-C14-C13	-3.85	111.09	122.66
22	1L	37	MIA	C15-C14-C13	-3.83	111.15	122.66
22	1K	39	PSU	C6-N1-C2	-3.83	119.14	122.69
23	2K	56	PSU	C6-N1-C2	-3.81	119.15	122.69
22	1K	37	MIA	C5-N7-C8	3.81	109.44	103.45
22	1L	32	PSU	N1-C2-N3	3.80	119.17	115.17
22	1K	32	PSU	N1-C2-N3	3.79	119.17	115.17
22	1K	37	MIA	N3-C4-N9	3.77	131.77	126.99
23	2K	8	4SU	N3-C2-N1	3.71	119.72	114.89
22	1K	39	PSU	C4-N3-C2	-3.67	121.31	126.37
22	1K	37	MIA	C4-C5-N7	-3.62	106.45	110.58
22	1L	39	PSU	C4-N3-C2	-3.61	121.39	126.37
22	1L	37	MIA	C4-C5-N7	-3.51	106.57	110.58
23	2L	47	7MG	O6-C6-C5	-3.41	119.25	127.62
23	2K	47	7MG	O6-C6-C5	-3.41	119.26	127.62
23	2K	47	7MG	C2-N3-C4	3.35	118.07	112.30
23	2K	47	7MG	N9-C8-N7	-3.23	98.80	103.37
22	1K	37	MIA	N9-C8-N7	-3.19	109.41	113.94
22	1L	37	MIA	C2-N3-C4	3.18	120.63	112.29
23	2L	47	7MG	N9-C8-N7	-3.00	99.12	103.37
22	1L	37	MIA	N9-C8-N7	-2.97	109.72	113.94
22	1K	32	PSU	C6-N1-C2	-2.91	119.99	122.69
23	2L	47	7MG	C2-N1-C6	-2.90	119.85	125.11
22	1K	39	PSU	O2-C2-N1	-2.85	119.85	122.79
22	1K	37	MIA	C6-C5-N7	2.82	135.51	132.43
22	1L	37	MIA	C6-C5-N7	2.78	135.46	132.43
22	1L	39	PSU	N1-C2-N3	2.78	118.10	115.17
23	2K	55	5MU	C5M-C5-C4	2.74	121.71	118.78
23	2L	33	OMC	C1'-N1-C2	2.72	124.46	118.44
22	1K	32	PSU	O2-C2-N1	-2.72	119.99	122.79
23	2K	47	7MG	C5-C4-N3	-2.67	123.11	128.13
22	1L	37	MIA	N3-C2-N1	-2.65	122.17	127.00
23	2L	33	OMC	N4-C4-N3	2.64	122.63	117.91
23	2K	8	4SU	C1'-N1-C2	2.55	122.17	117.59
22	1K	37	MIA	C2-N3-C4	2.54	118.94	112.29
23	2L	8	4SU	C5-C4-S4	-2.52	121.43	124.31
23	2L	55	5MU	O4-C4-N3	-2.52	115.38	120.11
23	2L	33	OMC	C1'-N1-C6	-2.46	115.53	120.78
22	1L	32	PSU	C6-N1-C2	-2.45	120.41	122.69

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2L	56	PSU	C6-N1-C2	-2.43	120.43	122.69
23	2L	8	4SU	S4-C4-N3	-2.42	117.67	120.20
22	1L	37	MIA	N6-C6-N1	2.38	121.52	118.33
23	2L	55	5MU	N3-C2-N1	2.37	117.98	114.89
23	2L	56	PSU	C6-C5-C4	2.33	119.75	118.17
23	2K	47	7MG	C2-N1-C6	-2.31	120.92	125.11
23	2K	47	7MG	N2-C2-N1	2.30	121.61	116.76
23	2L	55	5MU	C5M-C5-C4	2.29	121.23	118.78
23	2K	33	OMC	N4-C4-N3	2.27	121.96	117.91
23	2K	56	PSU	C5-C4-N3	2.24	121.49	116.55
22	1L	39	PSU	C6-N1-C2	-2.24	120.62	122.69
23	2L	55	5MU	C6-N1-C2	-2.23	119.08	121.30
23	2L	47	7MG	N1-C2-N3	-2.20	119.30	123.32
23	2K	33	OMC	C1'-N1-C6	-2.19	116.10	120.78
23	2K	56	PSU	O4-C4-C5	-2.16	118.64	124.01
23	2K	8	4SU	C1'-N1-C6	-2.10	116.29	120.78
22	1L	32	PSU	O2-C2-N1	-2.08	120.64	122.79
23	2K	47	7MG	N9-C4-N3	-2.08	122.42	125.46
23	2L	56	PSU	O2-C2-N1	-2.07	120.65	122.79
22	1L	37	MIA	C16-C14-C15	-2.03	109.91	114.59
23	2K	33	OMC	C1'-N1-C2	2.03	122.93	118.44
23	2K	55	5MU	O4-C4-N3	-2.03	116.30	120.11

There are no chirality outliers.

All (20) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
22	1K	37	MIA	C5-C6-N6-C12
22	1K	37	MIA	N1-C2-S10-C11
22	1K	37	MIA	N3-C2-S10-C11
22	1K	37	MIA	C12-C13-C14-C16
22	1L	37	MIA	C5-C6-N6-C12
22	1L	37	MIA	N1-C6-N6-C12
22	1L	37	MIA	N1-C2-S10-C11
22	1L	37	MIA	N3-C2-S10-C11
22	1L	37	MIA	C12-C13-C14-C15
22	1L	37	MIA	C12-C13-C14-C16
23	2L	47	7MG	C3'-C4'-C5'-O5'
23	2L	47	7MG	O4'-C4'-C5'-O5'
22	1K	37	MIA	N1-C6-N6-C12
23	2L	47	7MG	C4'-C5'-O5'-P
22	1K	39	PSU	O4'-C1'-C5-C4

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Mol	Chain	Res	Type	Atoms
23	2K	56	PSU	O4'-C1'-C5-C4
22	1L	37	MIA	N6-C12-C13-C14
22	1K	39	PSU	O4'-C1'-C5-C6
23	2K	47	7MG	O4'-C4'-C5'-O5'
23	2L	33	OMC	C2'-C1'-N1-C2

There are no ring outliers.

11 monomers are involved in 22 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
22	1K	37	MIA	2	0
23	2L	55	5MU	1	0
23	2K	56	PSU	1	0
23	2K	47	7MG	4	0
23	2K	55	5MU	2	0
23	2K	8	4SU	2	0
23	2L	8	4SU	1	0
23	2L	33	OMC	3	0
23	2L	47	7MG	4	0
23	2L	56	PSU	1	0
22	1L	39	PSU	1	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1245 ligands modelled in this entry, 1245 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

There are no such residues in this entry.

5.8 Polymer linkage issues

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	13	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	13	1530:G	O3'	1531:A	P	3.03

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	13	1498/1522 (98%)	-0.40	8 (0%) 87 75	61, 110, 194, 290	0
1	1G	1497/1522 (98%)	-0.20	27 (1%) 67 47	73, 129, 204, 306	0
2	12	237/256 (92%)	0.37	7 (2%) 52 32	151, 185, 205, 218	0
2	1E	237/256 (92%)	0.21	13 (5%) 30 17	119, 155, 183, 193	0
3	22	206/239 (86%)	0.38	5 (2%) 59 39	149, 166, 190, 202	0
3	2E	205/239 (85%)	-0.04	2 (0%) 79 62	98, 122, 159, 171	0
4	32	208/209 (99%)	0.45	8 (3%) 44 26	107, 128, 153, 160	0
4	3E	208/209 (99%)	0.38	13 (6%) 26 15	92, 122, 146, 155	0
5	42	151/162 (93%)	0.24	3 (1%) 65 44	118, 139, 159, 195	0
5	4E	151/162 (93%)	0.02	4 (2%) 57 36	88, 109, 135, 174	0
6	52	101/101 (100%)	-0.38	0 100 100	92, 115, 133, 160	0
6	5E	101/101 (100%)	-0.16	0 100 100	87, 110, 132, 154	0
7	62	155/156 (99%)	0.05	8 (5%) 33 19	124, 143, 178, 199	0
7	6E	155/156 (99%)	0.13	13 (8%) 17 10	110, 129, 160, 179	0
8	72	138/138 (100%)	0.20	5 (3%) 46 27	115, 145, 160, 163	0
8	7E	138/138 (100%)	0.06	5 (3%) 46 27	93, 118, 128, 142	0
9	82	127/128 (99%)	0.57	10 (7%) 18 10	123, 171, 189, 197	0
9	8E	127/128 (99%)	0.32	5 (3%) 43 25	94, 149, 170, 180	0
10	1A	99/105 (94%)	0.68	10 (10%) 12 7	139, 174, 192, 197	0
10	1I	99/105 (94%)	0.21	3 (3%) 52 32	90, 148, 181, 187	0
11	2A	119/129 (92%)	-0.04	2 (1%) 69 48	94, 125, 152, 183	0
11	2I	119/129 (92%)	0.05	6 (5%) 34 20	77, 113, 153, 182	0
12	3A	125/132 (94%)	0.18	5 (4%) 42 24	91, 114, 144, 175	0
12	3I	125/132 (94%)	-0.24	2 (1%) 70 50	74, 84, 117, 179	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	4A	117/126 (92%)	0.40	11 (9%) 14 8	127, 171, 192, 200	0
13	4I	118/126 (93%)	0.20	6 (5%) 33 19	86, 127, 148, 156	0
14	5A	58/61 (95%)	1.39	12 (20%) 2 2	152, 166, 179, 184	0
14	5I	60/61 (98%)	0.43	3 (5%) 34 20	92, 113, 128, 135	0
15	6A	88/89 (98%)	-0.15	1 (1%) 78 60	96, 125, 143, 148	0
15	6I	88/89 (98%)	0.01	3 (3%) 48 28	82, 104, 122, 129	0
16	7A	84/88 (95%)	0.10	1 (1%) 76 57	100, 117, 142, 174	0
16	7I	84/88 (95%)	0.82	9 (10%) 11 6	110, 126, 158, 174	0
17	8A	100/105 (95%)	0.14	1 (1%) 79 62	105, 122, 138, 160	0
17	8I	100/105 (95%)	0.01	2 (2%) 65 44	97, 114, 125, 129	0
18	9A	72/88 (81%)	-0.32	0 100 100	106, 128, 167, 178	0
18	9I	72/88 (81%)	-0.17	1 (1%) 73 53	90, 113, 143, 175	0
19	AA	78/93 (83%)	0.36	5 (6%) 25 14	160, 189, 203, 207	0
19	AI	81/93 (87%)	0.10	3 (3%) 45 26	103, 127, 156, 165	0
20	BA	99/106 (93%)	0.11	0 100 100	97, 118, 150, 162	0
20	BI	99/106 (93%)	0.61	11 (11%) 10 6	115, 131, 165, 172	0
21	1B	25/27 (92%)	1.60	9 (36%) 1 1	125, 153, 169, 189	0
21	1F	25/27 (92%)	0.38	0 100 100	100, 112, 127, 154	0
22	1K	73/76 (96%)	-0.04	5 (6%) 23 13	97, 221, 259, 264	0
22	1L	73/76 (96%)	0.17	7 (9%) 13 8	134, 254, 277, 285	0
23	2K	72/77 (93%)	-0.45	1 (1%) 73 53	73, 95, 128, 139	0
23	2L	72/77 (93%)	-0.28	0 100 100	87, 121, 153, 165	0
24	3K	76/76 (100%)	0.39	3 (3%) 43 25	77, 253, 279, 282	0
24	3L	76/76 (100%)	0.31	3 (3%) 43 25	89, 259, 278, 280	0
25	4K	14/30 (46%)	-0.07	0 100 100	76, 107, 151, 155	0
25	4L	6/30 (20%)	0.46	0 100 100	100, 108, 158, 160	0
26	14	2909/2917 (99%)	-0.62	9 (0%) 90 81	53, 91, 249, 335	0
26	1H	2912/2917 (99%)	-0.75	10 (0%) 90 81	40, 77, 231, 309	0
27	16	122/122 (100%)	-0.81	0 100 100	69, 98, 122, 202	0
27	1J	122/122 (100%)	-0.14	2 (1%) 70 50	89, 133, 162, 212	0
28	11	273/276 (98%)	-0.34	0 100 100	43, 66, 84, 98	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	19	273/276 (98%)	0.06	7 (2%) 57 36	54, 80, 97, 112	0
29	21	205/206 (99%)	0.19	15 (7%) 21 12	49, 94, 143, 161	0
29	29	205/206 (99%)	0.09	4 (1%) 65 44	64, 99, 146, 173	0
30	31	202/210 (96%)	-0.32	2 (0%) 79 62	47, 80, 119, 141	0
30	39	208/210 (99%)	-0.11	1 (0%) 87 75	60, 109, 170, 198	0
31	41	181/182 (99%)	-0.11	3 (1%) 69 48	83, 109, 145, 156	0
31	49	181/182 (99%)	0.28	10 (5%) 30 17	127, 154, 181, 199	0
32	51	174/180 (96%)	-0.16	2 (1%) 78 60	85, 109, 129, 142	0
32	59	170/180 (94%)	0.71	19 (11%) 10 6	155, 205, 228, 248	0
33	61	146/148 (98%)	0.01	4 (2%) 56 35	80, 139, 157, 163	0
33	69	146/148 (98%)	0.64	17 (11%) 9 6	88, 135, 157, 168	0
34	15	138/140 (98%)	0.22	8 (5%) 29 16	85, 116, 149, 165	0
34	58	138/140 (98%)	0.06	4 (2%) 53 34	69, 95, 137, 156	0
35	25	122/122 (100%)	-0.19	2 (1%) 70 50	73, 93, 108, 124	0
35	68	122/122 (100%)	-0.42	0 100 100	61, 80, 99, 112	0
36	35	150/150 (100%)	0.26	4 (2%) 56 35	62, 113, 145, 183	0
36	78	150/150 (100%)	0.08	3 (2%) 65 44	49, 85, 116, 166	0
37	45	141/141 (100%)	0.61	13 (9%) 14 8	81, 111, 145, 155	0
37	88	138/141 (97%)	-0.10	2 (1%) 73 53	56, 83, 107, 138	0
38	55	117/118 (99%)	-0.19	1 (0%) 81 64	64, 84, 99, 117	0
38	98	118/118 (100%)	-0.16	1 (0%) 82 66	63, 87, 109, 120	0
39	65	111/112 (99%)	0.37	4 (3%) 46 27	98, 128, 148, 162	0
39	A8	111/112 (99%)	-0.05	2 (1%) 67 47	75, 94, 123, 133	0
40	75	137/146 (93%)	0.18	9 (6%) 24 14	83, 101, 161, 195	0
40	B8	137/146 (93%)	0.19	6 (4%) 39 22	76, 97, 154, 179	0
41	85	117/118 (99%)	0.05	3 (2%) 57 36	73, 104, 150, 174	0
41	C8	117/118 (99%)	0.11	1 (0%) 81 64	56, 82, 115, 134	0
42	95	101/101 (100%)	0.39	7 (6%) 23 13	71, 134, 155, 175	0
42	D8	101/101 (100%)	0.25	3 (2%) 52 32	61, 111, 141, 155	0
43	A5	113/113 (100%)	-0.20	0 100 100	66, 80, 117, 174	0
43	E8	113/113 (100%)	-0.29	0 100 100	58, 76, 112, 159	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	B5	93/96 (96%)	-0.12	2 (2%) 62 41	71, 89, 113, 121	0
44	F8	94/96 (97%)	-0.24	1 (1%) 78 60	56, 73, 97, 117	0
45	C5	104/110 (94%)	0.31	5 (4%) 35 20	89, 122, 160, 166	0
45	G8	104/110 (94%)	0.21	5 (4%) 35 20	75, 98, 142, 149	0
46	D5	179/206 (86%)	0.18	1 (0%) 85 72	124, 161, 240, 246	0
46	H8	175/206 (84%)	0.06	2 (1%) 78 60	86, 128, 212, 218	0
47	E5	77/85 (90%)	0.30	3 (3%) 43 25	77, 96, 116, 162	0
47	I8	80/85 (94%)	-0.02	3 (3%) 44 26	58, 77, 114, 117	0
48	F5	97/98 (98%)	0.22	4 (4%) 41 24	63, 89, 143, 161	0
48	J8	97/98 (98%)	-0.13	3 (3%) 51 31	54, 77, 128, 161	0
49	G5	66/72 (91%)	0.03	1 (1%) 72 52	89, 112, 130, 148	0
49	K8	67/72 (93%)	-0.03	2 (2%) 52 32	65, 81, 99, 132	0
50	H5	59/60 (98%)	-0.14	0 100 100	80, 109, 155, 173	0
50	L8	57/60 (95%)	-0.48	0 100 100	64, 83, 112, 120	0
51	I5	63/71 (88%)	0.04	1 (1%) 70 50	167, 206, 219, 221	0
51	M8	66/71 (92%)	0.37	4 (6%) 27 15	114, 161, 192, 200	0
52	J5	59/60 (98%)	0.05	0 100 100	66, 91, 159, 212	0
52	N8	58/60 (96%)	0.06	0 100 100	53, 100, 178, 183	0
53	K5	45/54 (83%)	1.68	18 (40%) 1 1	141, 181, 194, 201	0
53	O8	45/54 (83%)	0.58	5 (11%) 10 6	117, 148, 168, 171	0
54	L5	46/49 (93%)	-0.39	0 100 100	53, 63, 75, 86	0
54	P8	48/49 (97%)	-0.43	1 (2%) 63 42	46, 51, 88, 112	0
55	M5	60/65 (92%)	0.40	5 (8%) 17 10	73, 86, 108, 133	0
55	Q8	60/65 (92%)	0.90	7 (11%) 9 5	61, 73, 104, 119	0
All	All	21056/21694 (97%)	-0.17	512 (2%) 59 39	40, 109, 201, 335	0

All (512) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
27	1J	88	C	8.1
22	1K	73	A	7.5
40	B8	1	MET	7.2
7	62	81	GLY	7.0
14	5A	6	LEU	6.9

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Mol	Chain	Res	Type	RSRZ
9	82	115	GLY	6.4
24	3L	34	G	6.1
9	82	106	ALA	6.0
33	69	4	ILE	6.0
13	4A	102	ARG	6.0
40	B8	104	ASN	5.9
32	59	171	LEU	5.7
22	1L	76	A	5.7
22	1K	76	A	5.4
1	1G	1286	A	5.2
40	75	104	ASN	5.1
8	72	2	LEU	5.1
37	45	1	MET	5.1
33	69	36	ALA	4.9
32	59	169	VAL	4.9
33	69	1	MET	4.9
11	2I	129	SER	4.8
33	69	3	VAL	4.8
24	3K	17	C	4.7
22	1L	75	C	4.7
26	1H	2113	U	4.6
32	59	55	PRO	4.6
8	72	1	MET	4.4
20	BI	18	GLN	4.4
20	BI	70	SER	4.4
7	62	82	GLY	4.4
5	4E	81	GLU	4.4
53	K5	25	LYS	4.4
29	21	90	THR	4.4
9	8E	106	ALA	4.3
33	69	18	VAL	4.3
8	7E	4	ASP	4.3
7	6E	83	ALA	4.3
37	45	91	GLU	4.2
33	69	20	ASP	4.2
11	2I	12	ARG	4.2
28	19	238	GLY	4.2
19	AA	78	ARG	4.1
21	1B	2	GLY	4.1
13	4A	4	ILE	4.1
12	3A	26	ALA	4.1
55	Q8	32	LEU	4.1

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Mol	Chain	Res	Type	RSRZ
53	K5	13	CYS	4.0
9	82	127	LYS	4.0
29	21	78	LEU	4.0
7	6E	82	GLY	4.0
8	7E	88	LYS	4.0
40	75	6	LEU	3.9
40	75	11	GLU	3.9
40	B8	106	SER	3.8
11	2I	125	PHE	3.8
24	3L	17	C	3.8
33	69	16	GLY	3.8
29	29	76	ARG	3.8
37	45	90	VAL	3.8
32	59	4	ILE	3.8
19	AA	82	GLY	3.7
42	95	93	GLU	3.7
11	2I	128	ALA	3.7
29	21	76	ARG	3.7
44	B5	69	TYR	3.7
32	59	131	VAL	3.7
14	5A	38	GLY	3.7
11	2A	128	ALA	3.7
1	1G	1202	G	3.7
24	3K	20	U	3.7
36	35	110	TYR	3.7
32	59	168	PRO	3.6
9	8E	126	SER	3.6
26	1H	2117	A	3.6
28	19	5	LYS	3.6
26	14	1026	U	3.6
4	3E	12	CYS	3.6
55	M5	40	GLU	3.5
2	12	163	PHE	3.5
29	21	75	VAL	3.5
1	1G	1032(B)	G	3.5
53	O8	27	LYS	3.5
33	69	35	LEU	3.5
35	25	1	MET	3.5
22	1K	74	C	3.5
32	51	171	LEU	3.4
55	Q8	56	GLU	3.4
42	95	91	TYR	3.4

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Mol	Chain	Res	Type	RSRZ
38	98	7	GLY	3.4
4	32	73	ARG	3.4
1	1G	1032(A)	G	3.4
11	2A	127	LYS	3.3
29	21	72	VAL	3.3
7	6E	154	TYR	3.3
33	69	34	GLY	3.3
1	1G	1251	A	3.3
3	22	7	PRO	3.3
49	K8	69	ARG	3.3
16	7I	84	ALA	3.3
42	D8	77	ALA	3.3
14	5I	52	GLN	3.3
19	AA	79	THR	3.3
22	1K	75	C	3.2
34	15	116	LEU	3.2
9	82	33	PHE	3.2
4	3E	31	CYS	3.2
29	21	193	GLY	3.2
53	K5	42	TRP	3.2
29	21	7	VAL	3.2
22	1L	73	A	3.2
13	4I	6	GLY	3.2
29	21	55	ASN	3.2
10	1A	58	ASP	3.1
37	45	138	ASP	3.1
20	BI	9	ASN	3.1
19	AA	80	TYR	3.1
33	69	37	VAL	3.1
42	95	83	ARG	3.1
8	72	86	ILE	3.1
37	45	79	LEU	3.1
40	75	99	LEU	3.1
53	O8	42	TRP	3.1
37	45	80	GLU	3.1
37	45	137	TYR	3.1
19	AA	83	HIS	3.1
48	F5	96	LYS	3.1
9	82	75	ASP	3.1
4	32	9	CYS	3.1
53	K5	39	TYR	3.1
40	75	5	ALA	3.1

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Mol	Chain	Res	Type	RSRZ
26	14	1537	C	3.1
36	35	36	LYS	3.1
13	4I	2	ALA	3.1
14	5A	46	GLU	3.1
28	19	217	ARG	3.0
45	C5	29	GLU	3.0
29	21	52	LEU	3.0
1	1G	975	A	3.0
53	K5	22	ALA	3.0
8	7E	136	GLU	3.0
37	45	103	MET	3.0
53	K5	24	GLU	3.0
53	K5	41	PRO	3.0
1	1G	506	G	3.0
2	12	102	LEU	3.0
53	K5	9	LEU	3.0
31	49	75	LYS	3.0
2	1E	9	GLU	3.0
10	1A	54	PHE	3.0
31	49	39	ILE	3.0
1	1G	969	A	3.0
10	1I	66	ARG	3.0
36	35	18	ARG	3.0
10	1A	59	SER	3.0
21	1B	16	GLY	3.0
4	3E	9	CYS	3.0
29	29	77	ILE	2.9
33	69	11	ASN	2.9
38	55	2	ARG	2.9
39	65	2	ALA	2.9
39	65	5	THR	2.9
14	5A	41	ARG	2.9
26	14	1536	A	2.9
14	5A	26	ARG	2.9
31	49	82	LEU	2.9
42	D8	78	LYS	2.9
8	7E	89	PRO	2.9
10	1A	34	VAL	2.9
7	6E	81	GLY	2.9
37	45	104	PHE	2.9
1	1G	973	G	2.9
1	1G	1224	G	2.9

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Mol	Chain	Res	Type	RSRZ
3	2E	91	LEU	2.9
4	3E	21	LEU	2.9
21	1B	13	ILE	2.9
54	P8	48	LYS	2.9
31	41	26	GLN	2.8
28	19	274	ARG	2.8
29	21	63	LEU	2.8
45	C5	90	LEU	2.8
22	1L	1	G	2.8
39	65	17	ARG	2.8
33	61	121	LYS	2.8
48	F5	85	LEU	2.8
53	K5	52	VAL	2.8
11	2I	127	LYS	2.8
31	41	3	LEU	2.8
28	19	203	ASN	2.8
37	45	83	MET	2.8
22	1K	72	C	2.8
22	1L	74	C	2.8
4	3E	135	LEU	2.8
3	22	10	PHE	2.8
42	95	74	LYS	2.8
1	1G	966	G	2.8
32	59	133	VAL	2.8
14	5A	39	LEU	2.8
32	59	87	LEU	2.8
29	21	51	PHE	2.7
1	1G	1028(B)	C	2.7
13	4I	8	GLU	2.7
51	M8	34	GLU	2.7
7	6E	156	TRP	2.7
1	1G	1117	G	2.7
22	1L	71	G	2.7
55	Q8	21	LYS	2.7
41	C8	95	LEU	2.7
51	M8	66	SER	2.7
7	62	78	ARG	2.7
14	5A	58	LYS	2.7
21	1B	3	LYS	2.7
1	1G	1116	C	2.7
30	39	97	TYR	2.7
14	5A	7	ILE	2.7

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Mol	Chain	Res	Type	RSRZ
4	3E	26	CYS	2.7
8	72	88	LYS	2.7
20	BI	11	SER	2.7
14	5I	2	ALA	2.7
1	1G	508	C	2.7
22	1L	72	C	2.7
51	M8	59	PHE	2.7
4	32	209	ARG	2.7
13	4A	104	ARG	2.7
37	88	139	GLU	2.7
16	7I	69	THR	2.7
21	1B	14	TRP	2.7
19	AI	4	SER	2.7
2	12	70	PHE	2.6
45	G8	41	GLY	2.6
1	1G	1397	C	2.6
10	1I	64	GLU	2.6
45	C5	105	ALA	2.6
47	I8	85	ALA	2.6
53	O8	9	LEU	2.6
53	K5	10	LEU	2.6
7	6E	153	HIS	2.6
40	75	50	ILE	2.6
42	95	80	GLN	2.6
19	AI	84	GLY	2.6
49	K8	66	GLU	2.6
7	6E	16	LEU	2.6
31	49	133	LEU	2.6
2	1E	214	ILE	2.6
53	K5	53	LYS	2.6
40	75	101	PHE	2.6
26	1H	2112	G	2.6
26	1H	2116	G	2.6
33	69	38	LEU	2.6
45	G8	106	LEU	2.6
1	13	1531	A	2.6
9	82	125	TYR	2.6
16	7A	33	ILE	2.6
53	K5	26	ASN	2.6
32	59	64	LEU	2.6
53	K5	36	LEU	2.6
46	H8	165	VAL	2.6

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Mol	Chain	Res	Type	RSRZ
8	7E	91	ARG	2.6
29	21	64	LYS	2.6
4	32	31	CYS	2.6
31	49	20	ILE	2.6
5	42	28	PHE	2.6
12	3A	94	PRO	2.6
47	I8	9	SER	2.6
32	59	71	LEU	2.6
44	B5	66	LEU	2.6
5	42	105	VAL	2.6
21	1B	26	LYS	2.6
34	58	74	ARG	2.6
34	58	72	TYR	2.5
42	95	81	TYR	2.5
33	61	134	PRO	2.5
34	15	113	GLY	2.5
36	78	106	LEU	2.5
14	5I	25	VAL	2.5
14	5A	25	VAL	2.5
17	8I	35	VAL	2.5
24	3K	34	G	2.5
37	45	27	VAL	2.5
53	O8	22	ALA	2.5
16	7I	9	PHE	2.5
16	7I	39	TYR	2.5
46	H8	25	PRO	2.5
20	BI	69	GLY	2.5
31	49	3	LEU	2.5
15	6A	68	ARG	2.5
2	1E	29	ALA	2.5
53	K5	23	THR	2.5
26	14	2790	A	2.5
26	14	2147	G	2.5
1	13	1424	C	2.5
7	6E	4	ARG	2.5
9	82	28	VAL	2.5
21	1B	23	PRO	2.5
20	BI	22	ARG	2.5
47	E5	73	GLY	2.5
37	45	102	VAL	2.5
1	1G	507	C	2.5
23	2K	1	C	2.5

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Mol	Chain	Res	Type	RSRZ
16	7I	29	ASP	2.5
40	B8	2	ASN	2.5
34	15	104	LYS	2.5
29	21	195	LEU	2.5
7	6E	85	TYR	2.5
13	4A	6	GLY	2.5
48	J8	70	VAL	2.5
32	59	89	ILE	2.4
53	K5	40	CYS	2.4
14	5A	4	LYS	2.4
41	85	91	ASP	2.4
26	1H	2147	G	2.4
7	62	153	HIS	2.4
49	G5	61	LEU	2.4
53	O8	10	LEU	2.4
2	1E	160	ASP	2.4
31	41	2	PRO	2.4
32	59	128	PRO	2.4
31	49	177	GLY	2.4
42	95	79	VAL	2.4
7	62	152	ALA	2.4
33	69	17	GLN	2.4
33	69	79	ILE	2.4
7	6E	79	ARG	2.4
20	BI	21	LYS	2.4
48	J8	92	LYS	2.4
55	M5	52	LYS	2.4
32	59	40	GLU	2.4
13	4I	96	LEU	2.4
29	29	75	VAL	2.4
34	15	46	VAL	2.4
51	M8	65	ASP	2.4
37	88	86	GLY	2.4
13	4A	101	GLN	2.4
32	51	172	LYS	2.4
1	13	754	C	2.4
1	1G	826	C	2.4
1	1G	1115	C	2.4
32	59	98	LEU	2.4
33	69	5	LEU	2.4
55	M5	34	TRP	2.4
36	78	58	THR	2.4

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Mol	Chain	Res	Type	RSRZ
39	A8	109	GLY	2.4
12	3A	17	LYS	2.4
48	F5	91	LYS	2.4
3	22	170	GLN	2.4
4	32	155	LEU	2.4
1	1G	815	A	2.4
1	13	877	C	2.3
16	7I	30	GLY	2.3
7	6E	84	ASN	2.3
34	58	84	LYS	2.3
36	78	141	ALA	2.3
2	12	44	LEU	2.3
15	6I	62	GLN	2.3
45	G8	90	LEU	2.3
5	4E	83	GLU	2.3
55	M5	53	PRO	2.3
1	1G	965	A	2.3
4	32	5	ILE	2.3
9	82	42	ARG	2.3
32	59	170	ARG	2.3
20	BI	95	ALA	2.3
1	1G	1223	C	2.3
4	3E	96	LEU	2.3
26	1H	2111	C	2.3
26	14	2146	C	2.3
2	12	71	VAL	2.3
27	1J	89	G	2.3
20	BI	14	LYS	2.3
21	1B	25	LYS	2.3
4	3E	209	ARG	2.3
4	32	77	ASN	2.3
10	1A	88	LEU	2.3
1	1G	1225	A	2.3
39	65	112	PHE	2.3
55	Q8	48	PHE	2.3
13	4I	111	LYS	2.3
20	BI	23	ARG	2.3
2	1E	188	ALA	2.3
3	2E	184	TYR	2.3
40	B8	109	GLU	2.3
2	1E	13	ALA	2.3
2	1E	14	GLY	2.3

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Mol	Chain	Res	Type	RSRZ
29	21	187	ALA	2.3
1	13	1389	C	2.3
55	Q8	61	LEU	2.3
28	19	212	SER	2.3
29	29	51	PHE	2.3
42	D8	81	TYR	2.3
33	69	2	LYS	2.3
37	45	89	ASN	2.3
12	3I	16	GLU	2.2
13	4A	8	GLU	2.2
10	1I	6	ILE	2.2
33	61	119	PRO	2.2
1	1G	728	A	2.2
1	1G	974	A	2.2
26	1H	1026	U	2.2
26	1H	2062	A	2.2
5	4E	98	THR	2.2
2	12	139	LYS	2.2
7	6E	32	ARG	2.2
15	6I	72	ARG	2.2
26	14	2901	C	2.2
34	15	44	PRO	2.2
3	22	186	PHE	2.2
17	8A	7	THR	2.2
31	49	36	LYS	2.2
21	1B	22	ARG	2.2
2	12	165	VAL	2.2
13	4A	7	VAL	2.2
2	1E	42	ILE	2.2
2	1E	11	LEU	2.2
13	4A	66	LEU	2.2
47	E5	71	ASP	2.2
18	9I	80	PRO	2.2
55	Q8	45	GLY	2.2
16	7I	27	LYS	2.2
14	5A	29	ARG	2.2
1	1G	825	G	2.2
2	1E	44	LEU	2.2
31	49	90	LEU	2.2
53	K5	51	GLU	2.2
45	G8	93	GLY	2.2
47	I8	8	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
10	1A	55	LYS	2.2
13	4A	65	LYS	2.2
34	15	109	LYS	2.2
26	1H	2477	C	2.2
17	8I	29	HIS	2.2
51	I5	52	THR	2.2
47	E5	9	SER	2.2
10	1A	65	LEU	2.2
19	AI	5	LEU	2.2
2	1E	48	MET	2.2
11	2I	11	LYS	2.2
30	31	207	GLY	2.2
41	85	2	PRO	2.2
45	C5	77	PRO	2.2
1	13	933	G	2.2
7	62	80	VAL	2.1
5	42	131	ILE	2.1
2	1E	213	LEU	2.1
8	72	133	LEU	2.1
9	8E	40	LEU	2.1
34	15	138	LEU	2.1
48	J8	98	LEU	2.1
12	3A	68	ALA	2.1
12	3I	19	ARG	2.1
32	59	5	GLY	2.1
44	F8	86	GLY	2.1
12	3A	69	TYR	2.1
26	1H	2119	A	2.1
48	F5	92	LYS	2.1
26	14	1093	G	2.1
39	A8	2	ALA	2.1
40	B8	115	ARG	2.1
45	G8	105	ALA	2.1
55	M5	55	ALA	2.1
1	1G	1249	C	2.1
34	15	108	PRO	2.1
33	69	21	VAL	2.1
46	D5	74	VAL	2.1
30	31	28	ILE	2.1
32	59	148	ILE	2.1
4	3E	191	ARG	2.1
7	6E	78	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
7	62	145	ALA	2.1
20	BI	12	ALA	2.1
7	62	88	PRO	2.1
16	7I	66	PRO	2.1
28	19	216	GLY	2.1
1	13	630	G	2.1
9	82	14	VAL	2.1
5	4E	92	LYS	2.1
10	1A	62	HIS	2.1
33	61	120	ILE	2.1
40	75	105	LEU	2.1
29	21	199	ARG	2.1
16	7I	17	TYR	2.1
40	75	1	MET	2.1
35	25	74	GLY	2.1
36	35	72	PRO	2.1
31	49	160	VAL	2.1
4	3E	22	LYS	2.1
45	C5	33	LYS	2.1
32	59	72	ILE	2.1
34	58	71	ILE	2.1
10	1A	56	HIS	2.1
4	3E	90	GLY	2.1
14	5A	55	GLY	2.1
4	3E	139	ARG	2.0
32	59	103	LEU	2.0
4	3E	102	ASP	2.0
9	8E	75	ASP	2.0
9	82	114	TYR	2.0
13	4A	87	TYR	2.0
26	14	2286	A	2.0
55	Q8	55	ALA	2.0
13	4A	100	GLY	2.0
53	K5	38	LYS	2.0
1	13	631	G	2.0
2	1E	138	LEU	2.0
53	K5	34	LEU	2.0
13	4I	9	ILE	2.0
41	85	96	ALA	2.0
3	22	171	GLY	2.0
4	32	23	GLY	2.0
9	8E	70	LYS	2.0

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Mol	Chain	Res	Type	RSRZ
10	1A	49	VAL	2.0
24	3L	35	A	2.0
15	6I	3	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
23	4SU	2L	8	20/21	0.81	0.12	124,129,135,138	0
23	5MU	2L	55	21/22	0.86	0.09	126,131,137,141	0
23	7MG	2K	47	24/25	0.87	0.08	97,107,122,130	0
23	7MG	2L	47	24/25	0.88	0.09	130,140,145,148	0
23	PSU	2L	56	20/21	0.89	0.08	121,128,134,135	0
23	5MU	2K	55	21/22	0.90	0.10	99,108,119,128	0
23	PSU	2K	56	20/21	0.90	0.07	97,104,114,116	0
23	4SU	2K	8	20/21	0.91	0.10	86,95,103,110	0
22	MIA	1L	37	29/30	0.93	0.10	121,132,138,150	0
22	PSU	1L	39	20/21	0.93	0.08	113,140,153,154	0
22	PSU	1K	32	20/21	0.93	0.09	112,119,129,131	0
22	PSU	1L	32	20/21	0.94	0.09	139,147,158,158	0
22	PSU	1K	39	20/21	0.95	0.08	90,106,111,114	0
23	OMC	2L	33	21/22	0.96	0.07	105,111,114,116	0
23	OMC	2K	33	21/22	0.96	0.10	79,84,93,100	0
22	MIA	1K	37	29/30	0.97	0.08	88,98,114,119	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, 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
56	MG	13	1705	1/1	0.23	0.36	138,138,138,138	0
56	MG	1G	1673	1/1	0.26	0.30	138,138,138,138	0
56	MG	14	3182	1/1	0.32	0.27	152,152,152,152	0
56	MG	1H	3332	1/1	0.34	0.32	138,138,138,138	0
56	MG	6A	101	1/1	0.35	0.30	126,126,126,126	0
56	MG	1G	1685	1/1	0.40	0.27	139,139,139,139	0
56	MG	1G	1655	1/1	0.40	0.43	124,124,124,124	0
56	MG	1G	1641	1/1	0.40	0.33	121,121,121,121	0
56	MG	13	1696	1/1	0.43	0.31	137,137,137,137	0
56	MG	1G	1683	1/1	0.45	0.29	123,123,123,123	0
56	MG	14	3233	1/1	0.45	0.27	112,112,112,112	0
56	MG	1J	204	1/1	0.46	0.39	100,100,100,100	0
56	MG	13	1639	1/1	0.49	0.33	98,98,98,98	0
56	MG	13	1658	1/1	0.49	0.26	92,92,92,92	0
56	MG	13	1682	1/1	0.52	0.29	92,92,92,92	0
56	MG	75	201	1/1	0.52	0.23	108,108,108,108	0
56	MG	14	3204	1/1	0.54	0.21	126,126,126,126	0
56	MG	13	1708	1/1	0.54	0.32	116,116,116,116	0
56	MG	1G	1678	1/1	0.55	0.28	114,114,114,114	0
56	MG	14	3240	1/1	0.55	0.52	103,103,103,103	0
56	MG	14	3252	1/1	0.56	0.45	117,117,117,117	0
56	MG	13	1668	1/1	0.57	0.36	111,111,111,111	0
56	MG	13	1671	1/1	0.58	0.23	110,110,110,110	0
56	MG	14	3197	1/1	0.58	0.38	94,94,94,94	0
56	MG	13	1615	1/1	0.59	0.32	103,103,103,103	0
56	MG	13	1677	1/1	0.59	0.40	109,109,109,109	0
56	MG	1H	3142	1/1	0.59	0.23	101,101,101,101	0
56	MG	1H	3269	1/1	0.59	0.27	99,99,99,99	0
56	MG	1G	1620	1/1	0.60	0.34	111,111,111,111	0
56	MG	1H	3335	1/1	0.60	0.34	97,97,97,97	0
56	MG	13	1712	1/1	0.61	0.42	114,114,114,114	0
56	MG	3E	301	1/1	0.61	0.22	128,128,128,128	0
56	MG	13	1685	1/1	0.62	0.28	123,123,123,123	0
56	MG	13	1616	1/1	0.62	0.39	98,98,98,98	0
56	MG	1H	3318	1/1	0.62	0.12	86,86,86,86	0
56	MG	13	1672	1/1	0.63	0.18	118,118,118,118	0
56	MG	1J	207	1/1	0.63	0.25	109,109,109,109	0
56	MG	1H	3226	1/1	0.63	0.33	97,97,97,97	0
56	MG	1H	3229	1/1	0.64	0.29	112,112,112,112	0
56	MG	14	3178	1/1	0.64	0.28	95,95,95,95	0
56	MG	13	1711	1/1	0.64	0.23	109,109,109,109	0
56	MG	1H	3214	1/1	0.64	0.14	79,79,79,79	0
56	MG	1H	3022	1/1	0.64	0.35	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3215	1/1	0.64	0.32	111,111,111,111	0
56	MG	1H	3183	1/1	0.65	0.24	76,76,76,76	0
56	MG	14	3254	1/1	0.65	0.54	81,81,81,81	0
56	MG	14	3082	1/1	0.65	0.38	97,97,97,97	0
56	MG	14	3239	1/1	0.65	0.27	88,88,88,88	0
56	MG	1G	1659	1/1	0.65	0.33	110,110,110,110	0
56	MG	1G	1675	1/1	0.66	0.28	96,96,96,96	0
56	MG	14	3037	1/1	0.66	0.29	103,103,103,103	0
56	MG	14	3250	1/1	0.66	0.24	108,108,108,108	0
56	MG	1H	3259	1/1	0.66	0.25	115,115,115,115	0
56	MG	2L	102	1/1	0.67	0.44	103,103,103,103	0
56	MG	1H	3270	1/1	0.67	0.22	106,106,106,106	0
56	MG	1H	3294	1/1	0.67	0.30	122,122,122,122	0
56	MG	14	3146	1/1	0.67	0.25	105,105,105,105	0
56	MG	1H	3300	1/1	0.67	0.32	90,90,90,90	0
56	MG	13	1699	1/1	0.67	0.34	98,98,98,98	0
56	MG	16	209	1/1	0.68	0.24	90,90,90,90	0
56	MG	1G	1668	1/1	0.68	0.25	116,116,116,116	0
56	MG	13	1693	1/1	0.68	0.45	109,109,109,109	0
56	MG	1G	1684	1/1	0.68	0.26	113,113,113,113	0
56	MG	1H	3328	1/1	0.69	0.18	86,86,86,86	0
56	MG	13	1692	1/1	0.69	0.24	114,114,114,114	0
56	MG	14	3008	1/1	0.69	0.29	58,58,58,58	0
56	MG	13	1702	1/1	0.69	0.22	112,112,112,112	0
56	MG	1H	3279	1/1	0.69	0.31	100,100,100,100	0
56	MG	1G	1676	1/1	0.69	0.17	157,157,157,157	0
56	MG	13	1654	1/1	0.69	0.18	105,105,105,105	0
56	MG	13	1609	1/1	0.69	0.28	94,94,94,94	0
56	MG	1G	1647	1/1	0.69	0.35	102,102,102,102	0
56	MG	13	1709	1/1	0.69	0.32	127,127,127,127	0
56	MG	1H	3329	1/1	0.70	0.18	99,99,99,99	0
56	MG	1H	3184	1/1	0.70	0.31	94,94,94,94	0
56	MG	14	3230	1/1	0.70	0.22	103,103,103,103	0
56	MG	13	1701	1/1	0.70	0.33	103,103,103,103	0
56	MG	16	201	1/1	0.70	0.23	96,96,96,96	0
56	MG	2K	101	1/1	0.70	0.20	86,86,86,86	0
56	MG	13	1690	1/1	0.70	0.22	96,96,96,96	0
56	MG	14	3118	1/1	0.70	0.20	92,92,92,92	0
56	MG	1G	1677	1/1	0.70	0.46	106,106,106,106	0
56	MG	1G	1623	1/1	0.70	0.27	114,114,114,114	0
56	MG	13	1704	1/1	0.70	0.43	95,95,95,95	0
56	MG	13	1700	1/1	0.70	0.24	100,100,100,100	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	13	1686	1/1	0.71	0.33	106,106,106,106	0
56	MG	1H	3274	1/1	0.71	0.32	87,87,87,87	0
56	MG	1H	3324	1/1	0.71	0.17	93,93,93,93	0
56	MG	14	3119	1/1	0.71	0.39	88,88,88,88	0
56	MG	13	1703	1/1	0.72	0.32	91,91,91,91	0
56	MG	1H	3127	1/1	0.72	0.28	84,84,84,84	0
56	MG	16	207	1/1	0.72	0.26	87,87,87,87	0
56	MG	14	3110	1/1	0.72	0.31	88,88,88,88	0
56	MG	1G	1651	1/1	0.72	0.20	102,102,102,102	0
56	MG	13	1640	1/1	0.72	0.18	95,95,95,95	0
56	MG	16	210	1/1	0.72	0.29	97,97,97,97	0
56	MG	13	1676	1/1	0.72	0.24	104,104,104,104	0
56	MG	1G	1669	1/1	0.72	0.44	103,103,103,103	0
56	MG	1G	1670	1/1	0.72	0.29	98,98,98,98	0
56	MG	1G	1671	1/1	0.72	0.35	96,96,96,96	0
57	ZN	G8	201	1/1	0.72	0.19	188,188,188,188	0
56	MG	13	1689	1/1	0.73	0.48	97,97,97,97	0
56	MG	14	3128	1/1	0.73	0.43	98,98,98,98	0
56	MG	1G	1662	1/1	0.73	0.44	100,100,100,100	0
56	MG	14	3246	1/1	0.73	0.25	98,98,98,98	0
56	MG	1G	1639	1/1	0.73	0.40	99,99,99,99	0
56	MG	1H	3281	1/1	0.73	0.16	60,60,60,60	0
56	MG	14	3183	1/1	0.73	0.38	83,83,83,83	0
56	MG	13	1632	1/1	0.73	0.39	77,77,77,77	0
56	MG	1H	3273	1/1	0.73	0.40	97,97,97,97	0
56	MG	14	3114	1/1	0.73	0.33	72,72,72,72	0
56	MG	13	1653	1/1	0.73	0.22	111,111,111,111	0
56	MG	14	3097	1/1	0.74	0.34	80,80,80,80	0
56	MG	13	1662	1/1	0.74	0.32	113,113,113,113	0
56	MG	14	3213	1/1	0.74	0.34	93,93,93,93	0
56	MG	1J	201	1/1	0.74	0.18	114,114,114,114	0
56	MG	14	3218	1/1	0.75	0.40	82,82,82,82	0
56	MG	1H	3250	1/1	0.75	0.27	90,90,90,90	0
56	MG	1H	3171	1/1	0.75	0.27	101,101,101,101	0
56	MG	1G	1624	1/1	0.75	0.31	85,85,85,85	0
56	MG	13	1614	1/1	0.75	0.34	97,97,97,97	0
56	MG	13	1680	1/1	0.75	0.65	97,97,97,97	0
56	MG	1G	1642	1/1	0.75	0.49	110,110,110,110	0
56	MG	1G	1664	1/1	0.76	0.41	88,88,88,88	0
56	MG	14	3194	1/1	0.76	0.16	140,140,140,140	0
56	MG	14	3117	1/1	0.76	0.36	84,84,84,84	0
56	MG	13	1638	1/1	0.76	0.28	107,107,107,107	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1G	1635	1/1	0.76	0.28	96,96,96,96	0
56	MG	1G	1618	1/1	0.76	0.23	85,85,85,85	0
56	MG	13	1710	1/1	0.76	0.36	125,125,125,125	0
56	MG	1J	206	1/1	0.76	0.25	91,91,91,91	0
56	MG	14	3157	1/1	0.76	0.30	107,107,107,107	0
56	MG	1G	1672	1/1	0.76	0.33	100,100,100,100	0
56	MG	13	1750	1/1	0.76	0.21	97,97,97,97	0
56	MG	1H	3271	1/1	0.77	0.35	90,90,90,90	0
56	MG	14	3148	1/1	0.77	0.35	75,75,75,75	0
56	MG	1G	1658	1/1	0.77	0.38	96,96,96,96	0
56	MG	16	206	1/1	0.77	0.21	76,76,76,76	0
56	MG	1H	3327	1/1	0.77	0.30	110,110,110,110	0
56	MG	1G	1638	1/1	0.77	0.28	154,154,154,154	0
56	MG	14	3112	1/1	0.77	0.43	90,90,90,90	0
56	MG	14	3258	1/1	0.77	0.20	90,90,90,90	0
56	MG	14	3113	1/1	0.77	0.39	96,96,96,96	0
56	MG	AI	101	1/1	0.77	0.22	119,119,119,119	0
56	MG	1H	3295	1/1	0.77	0.29	94,94,94,94	0
56	MG	1G	1601	1/1	0.77	0.25	94,94,94,94	0
56	MG	1H	3098	1/1	0.77	0.21	74,74,74,74	0
56	MG	1H	3120	1/1	0.77	0.18	68,68,68,68	0
56	MG	1H	3211	1/1	0.78	0.16	88,88,88,88	0
56	MG	1G	1629	1/1	0.78	0.37	89,89,89,89	0
56	MG	1H	3212	1/1	0.78	0.35	92,92,92,92	0
56	MG	13	1635	1/1	0.78	0.28	73,73,73,73	0
56	MG	1H	3059	1/1	0.78	0.27	63,63,63,63	0
56	MG	1G	1640	1/1	0.78	0.19	99,99,99,99	0
56	MG	11	304	1/1	0.78	0.29	68,68,68,68	0
56	MG	14	3145	1/1	0.78	0.23	90,90,90,90	0
56	MG	13	1648	1/1	0.78	0.50	89,89,89,89	0
56	MG	14	3028	1/1	0.78	0.32	81,81,81,81	0
56	MG	1H	3304	1/1	0.78	0.21	79,79,79,79	0
56	MG	14	3170	1/1	0.78	0.26	88,88,88,88	0
56	MG	14	3387	1/1	0.78	0.27	74,74,74,74	0
56	MG	14	3079	1/1	0.78	0.30	69,69,69,69	0
56	MG	1G	1648	1/1	0.78	0.16	115,115,115,115	0
56	MG	1H	3200	1/1	0.78	0.19	98,98,98,98	0
56	MG	14	3102	1/1	0.78	0.29	76,76,76,76	0
56	MG	14	3109	1/1	0.78	0.31	85,85,85,85	0
56	MG	16	205	1/1	0.78	0.21	88,88,88,88	0
56	MG	1H	3035	1/1	0.79	0.27	86,86,86,86	0
56	MG	14	3002	1/1	0.79	0.24	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	13	1688	1/1	0.79	0.21	102,102,102,102	0
56	MG	13	1694	1/1	0.79	0.29	95,95,95,95	0
56	MG	13	1610	1/1	0.79	0.18	72,72,72,72	0
56	MG	14	3196	1/1	0.79	0.26	91,91,91,91	0
56	MG	14	3255	1/1	0.79	0.27	94,94,94,94	0
56	MG	14	3071	1/1	0.79	0.24	88,88,88,88	0
56	MG	14	3203	1/1	0.79	0.39	111,111,111,111	0
56	MG	13	1679	1/1	0.79	0.28	95,95,95,95	0
56	MG	1J	202	1/1	0.79	0.33	81,81,81,81	0
56	MG	1H	3296	1/1	0.79	0.26	81,81,81,81	0
56	MG	14	3089	1/1	0.79	0.28	87,87,87,87	0
56	MG	13	1619	1/1	0.79	0.18	82,82,82,82	0
56	MG	29	302	1/1	0.79	0.39	85,85,85,85	0
56	MG	4A	201	1/1	0.79	0.41	115,115,115,115	0
56	MG	1H	3030	1/1	0.79	0.28	70,70,70,70	0
56	MG	1G	1682	1/1	0.80	0.44	102,102,102,102	0
56	MG	1H	3047	1/1	0.80	0.21	71,71,71,71	0
56	MG	14	3241	1/1	0.80	0.51	90,90,90,90	0
56	MG	1G	1619	1/1	0.80	0.18	130,130,130,130	0
56	MG	1H	3164	1/1	0.80	0.31	70,70,70,70	0
56	MG	14	3083	1/1	0.80	0.30	93,93,93,93	0
56	MG	1G	1679	1/1	0.80	0.19	105,105,105,105	0
56	MG	14	3031	1/1	0.80	0.27	73,73,73,73	0
56	MG	14	3234	1/1	0.80	0.37	80,80,80,80	0
56	MG	1H	3165	1/1	0.81	0.21	68,68,68,68	0
56	MG	1G	1611	1/1	0.81	0.26	91,91,91,91	0
56	MG	1H	3252	1/1	0.81	0.25	83,83,83,83	0
56	MG	1H	3034	1/1	0.81	0.20	91,91,91,91	0
56	MG	1H	3106	1/1	0.81	0.21	78,78,78,78	0
56	MG	14	3232	1/1	0.81	0.25	109,109,109,109	0
56	MG	1H	3108	1/1	0.81	0.23	58,58,58,58	0
56	MG	1H	3116	1/1	0.81	0.12	61,61,61,61	0
56	MG	1H	3203	1/1	0.81	0.25	76,76,76,76	0
56	MG	14	3125	1/1	0.81	0.18	105,105,105,105	0
56	MG	14	3126	1/1	0.81	0.19	71,71,71,71	0
56	MG	1H	3207	1/1	0.81	0.28	79,79,79,79	0
56	MG	14	3141	1/1	0.81	0.28	84,84,84,84	0
56	MG	14	3029	1/1	0.81	0.33	84,84,84,84	0
56	MG	2K	102	1/1	0.81	0.34	76,76,76,76	0
56	MG	1H	3046	1/1	0.81	0.24	80,80,80,80	0
56	MG	14	3068	1/1	0.81	0.29	73,73,73,73	0
56	MG	1G	1674	1/1	0.81	0.12	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3171	1/1	0.81	0.25	91,91,91,91	0
56	MG	1H	3131	1/1	0.81	0.24	79,79,79,79	0
56	MG	13	1606	1/1	0.81	0.30	80,80,80,80	0
56	MG	13	1678	1/1	0.81	0.26	110,110,110,110	0
56	MG	1H	3297	1/1	0.81	0.23	80,80,80,80	0
56	MG	1H	3230	1/1	0.81	0.32	66,66,66,66	0
56	MG	14	3100	1/1	0.81	0.17	70,70,70,70	0
56	MG	98	201	1/1	0.81	0.50	99,99,99,99	0
56	MG	1G	1665	1/1	0.82	0.43	104,104,104,104	0
56	MG	13	1691	1/1	0.82	0.19	101,101,101,101	0
56	MG	13	1605	1/1	0.82	0.30	81,81,81,81	0
56	MG	14	3019	1/1	0.82	0.34	56,56,56,56	0
56	MG	14	3227	1/1	0.82	0.54	103,103,103,103	0
56	MG	1G	1634	1/1	0.82	0.23	110,110,110,110	0
56	MG	14	3122	1/1	0.82	0.23	81,81,81,81	0
56	MG	13	1650	1/1	0.82	0.33	98,98,98,98	0
56	MG	1G	1636	1/1	0.82	0.37	94,94,94,94	0
56	MG	13	1622	1/1	0.82	0.34	85,85,85,85	0
56	MG	14	3044	1/1	0.82	0.33	82,82,82,82	0
56	MG	1H	3181	1/1	0.82	0.21	99,99,99,99	0
56	MG	1H	3305	1/1	0.82	0.24	87,87,87,87	0
56	MG	1H	3308	1/1	0.82	0.28	81,81,81,81	0
56	MG	14	3149	1/1	0.82	0.32	89,89,89,89	0
56	MG	1H	3312	1/1	0.82	0.31	82,82,82,82	0
56	MG	14	3168	1/1	0.82	0.22	74,74,74,74	0
56	MG	41	302	1/1	0.82	0.25	94,94,94,94	0
56	MG	1H	3123	1/1	0.82	0.26	73,73,73,73	0
56	MG	14	3093	1/1	0.82	0.36	63,63,63,63	0
56	MG	1H	3275	1/1	0.82	0.24	94,94,94,94	0
56	MG	1H	3325	1/1	0.82	0.12	64,64,64,64	0
56	MG	14	3186	1/1	0.82	0.20	86,86,86,86	0
56	MG	13	1636	1/1	0.82	0.19	93,93,93,93	0
56	MG	13	1641	1/1	0.82	0.32	90,90,90,90	0
56	MG	1H	3290	1/1	0.82	0.27	94,94,94,94	0
56	MG	C5	201	1/1	0.82	0.20	102,102,102,102	0
56	MG	1H	3133	1/1	0.82	0.20	61,61,61,61	0
56	MG	13	1643	1/1	0.83	0.22	96,96,96,96	0
56	MG	1G	1617	1/1	0.83	0.26	99,99,99,99	0
56	MG	1H	3326	1/1	0.83	0.22	94,94,94,94	0
56	MG	1H	3045	1/1	0.83	0.22	75,75,75,75	0
56	MG	14	3235	1/1	0.83	0.10	76,76,76,76	0
56	MG	14	3237	1/1	0.83	0.26	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3285	1/1	0.83	0.28	89,89,89,89	0
56	MG	14	3096	1/1	0.83	0.30	78,78,78,78	0
56	MG	1H	3236	1/1	0.83	0.28	78,78,78,78	0
56	MG	1H	3245	1/1	0.83	0.20	91,91,91,91	0
56	MG	1H	3026	1/1	0.83	0.33	85,85,85,85	0
56	MG	13	1670	1/1	0.83	0.35	92,92,92,92	0
56	MG	1H	3257	1/1	0.83	0.24	82,82,82,82	0
56	MG	14	3016	1/1	0.83	0.21	68,68,68,68	0
56	MG	1H	3299	1/1	0.83	0.24	93,93,93,93	0
56	MG	13	1683	1/1	0.83	0.25	78,78,78,78	0
56	MG	1H	3156	1/1	0.83	0.34	78,78,78,78	0
56	MG	1H	3223	1/1	0.83	0.16	69,69,69,69	0
56	MG	1H	3224	1/1	0.83	0.34	89,89,89,89	0
56	MG	14	3039	1/1	0.83	0.34	79,79,79,79	0
56	MG	14	3123	1/1	0.83	0.22	82,82,82,82	0
56	MG	1H	3225	1/1	0.83	0.25	79,79,79,79	0
56	MG	14	3217	1/1	0.83	0.24	88,88,88,88	0
56	MG	1H	3188	1/1	0.83	0.17	62,62,62,62	0
56	MG	1H	3227	1/1	0.83	0.37	93,93,93,93	0
56	MG	14	3018	1/1	0.84	0.23	68,68,68,68	0
56	MG	1G	1637	1/1	0.84	0.21	124,124,124,124	0
56	MG	14	3026	1/1	0.84	0.33	90,90,90,90	0
56	MG	14	3210	1/1	0.84	0.30	88,88,88,88	0
56	MG	1H	3036	1/1	0.84	0.27	85,85,85,85	0
56	MG	1H	3105	1/1	0.84	0.33	68,68,68,68	0
56	MG	1G	1602	1/1	0.84	0.31	72,72,72,72	0
56	MG	14	3036	1/1	0.84	0.22	68,68,68,68	0
56	MG	14	3224	1/1	0.84	0.30	90,90,90,90	0
56	MG	1G	1609	1/1	0.84	0.26	101,101,101,101	0
56	MG	1H	3006	1/1	0.84	0.30	55,55,55,55	0
56	MG	14	3040	1/1	0.84	0.19	49,49,49,49	0
56	MG	1G	1612	1/1	0.84	0.13	94,94,94,94	0
56	MG	14	3135	1/1	0.84	0.21	54,54,54,54	0
56	MG	14	3050	1/1	0.84	0.22	81,81,81,81	0
56	MG	1H	3243	1/1	0.84	0.26	88,88,88,88	0
56	MG	1H	3033	1/1	0.84	0.25	75,75,75,75	0
56	MG	1H	3246	1/1	0.84	0.25	88,88,88,88	0
56	MG	1G	1657	1/1	0.84	0.32	87,87,87,87	0
56	MG	14	3154	1/1	0.84	0.15	79,79,79,79	0
56	MG	14	3249	1/1	0.84	0.10	69,69,69,69	0
56	MG	1H	3187	1/1	0.84	0.23	89,89,89,89	0
56	MG	14	3164	1/1	0.84	0.12	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3253	1/1	0.84	0.39	86,86,86,86	0
56	MG	14	3166	1/1	0.84	0.22	112,112,112,112	0
56	MG	1G	1622	1/1	0.84	0.30	90,90,90,90	0
56	MG	13	1645	1/1	0.84	0.25	83,83,83,83	0
56	MG	1H	3198	1/1	0.84	0.25	71,71,71,71	0
56	MG	14	3173	1/1	0.84	0.32	82,82,82,82	0
56	MG	13	1663	1/1	0.84	0.17	82,82,82,82	0
56	MG	1H	3264	1/1	0.84	0.21	76,76,76,76	0
56	MG	1J	205	1/1	0.84	0.26	98,98,98,98	0
56	MG	1H	3070	1/1	0.84	0.30	74,74,74,74	0
56	MG	14	3185	1/1	0.84	0.22	64,64,64,64	0
56	MG	14	3107	1/1	0.84	0.26	76,76,76,76	0
56	MG	14	3191	1/1	0.84	0.20	94,94,94,94	0
56	MG	14	3015	1/1	0.84	0.21	69,69,69,69	0
56	MG	78	202	1/1	0.84	0.17	78,78,78,78	0
57	ZN	C5	202	1/1	0.84	0.14	181,181,181,181	0
56	MG	1H	3172	1/1	0.85	0.27	70,70,70,70	0
56	MG	14	3130	1/1	0.85	0.29	75,75,75,75	0
56	MG	1H	3309	1/1	0.85	0.19	87,87,87,87	0
56	MG	1H	3238	1/1	0.85	0.19	71,71,71,71	0
56	MG	1H	3174	1/1	0.85	0.20	78,78,78,78	0
56	MG	88	201	1/1	0.85	0.28	79,79,79,79	0
56	MG	1H	3128	1/1	0.85	0.17	71,71,71,71	0
56	MG	1H	3213	1/1	0.85	0.36	86,86,86,86	0
56	MG	1H	3249	1/1	0.85	0.38	89,89,89,89	0
56	MG	1G	1607	1/1	0.85	0.20	92,92,92,92	0
56	MG	1H	3028	1/1	0.85	0.24	77,77,77,77	0
56	MG	13	1646	1/1	0.85	0.22	100,100,100,100	0
56	MG	1H	3256	1/1	0.85	0.39	74,74,74,74	0
56	MG	13	1751	1/1	0.85	0.23	70,70,70,70	0
56	MG	13	1695	1/1	0.85	0.18	88,88,88,88	0
56	MG	1G	1656	1/1	0.85	0.38	102,102,102,102	0
56	MG	13	1687	1/1	0.85	0.38	79,79,79,79	0
56	MG	1H	3085	1/1	0.85	0.26	74,74,74,74	0
56	MG	1H	3301	1/1	0.85	0.34	84,84,84,84	0
56	MG	1K	101	1/1	0.85	0.21	88,88,88,88	0
56	MG	1H	3205	1/1	0.85	0.29	80,80,80,80	0
56	MG	1G	1616	1/1	0.86	0.34	79,79,79,79	0
56	MG	1H	3286	1/1	0.86	0.31	91,91,91,91	0
56	MG	1H	3316	1/1	0.86	0.31	64,64,64,64	0
56	MG	13	1743	1/1	0.86	0.08	156,156,156,156	0
56	MG	14	3223	1/1	0.86	0.31	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1G	1652	1/1	0.86	0.53	86,86,86,86	0
56	MG	1G	1653	1/1	0.86	0.30	91,91,91,91	0
56	MG	1G	1680	1/1	0.86	0.45	107,107,107,107	0
56	MG	14	3053	1/1	0.86	0.23	55,55,55,55	0
56	MG	14	3064	1/1	0.86	0.21	68,68,68,68	0
56	MG	1G	1681	1/1	0.86	0.36	106,106,106,106	0
56	MG	1G	1654	1/1	0.86	0.25	86,86,86,86	0
56	MG	1H	3175	1/1	0.86	0.37	92,92,92,92	0
56	MG	14	3081	1/1	0.86	0.25	71,71,71,71	0
56	MG	13	1667	1/1	0.86	0.25	87,87,87,87	0
56	MG	13	1625	1/1	0.86	0.19	61,61,61,61	0
56	MG	14	3245	1/1	0.86	0.27	84,84,84,84	0
56	MG	1G	1686	1/1	0.86	0.32	84,84,84,84	0
56	MG	14	3092	1/1	0.86	0.19	68,68,68,68	0
56	MG	1H	3109	1/1	0.86	0.33	93,93,93,93	0
56	MG	1H	3083	1/1	0.86	0.25	55,55,55,55	0
56	MG	1G	1632	1/1	0.86	0.21	86,86,86,86	0
56	MG	1H	3160	1/1	0.86	0.18	92,92,92,92	0
56	MG	1H	3118	1/1	0.86	0.38	93,93,93,93	0
56	MG	1G	1666	1/1	0.86	0.25	94,94,94,94	0
56	MG	14	3336	1/1	0.86	0.12	123,123,123,123	0
56	MG	1G	1603	1/1	0.86	0.23	83,83,83,83	0
56	MG	1H	3276	1/1	0.86	0.22	81,81,81,81	0
56	MG	13	1642	1/1	0.86	0.31	89,89,89,89	0
56	MG	14	3020	1/1	0.86	0.18	72,72,72,72	0
56	MG	1H	3087	1/1	0.86	0.23	72,72,72,72	0
56	MG	14	3027	1/1	0.86	0.23	91,91,91,91	0
56	MG	14	3201	1/1	0.86	0.20	86,86,86,86	0
56	MG	14	3202	1/1	0.86	0.13	115,115,115,115	0
56	MG	49	301	1/1	0.86	0.12	116,116,116,116	0
56	MG	3I	201	1/1	0.86	0.24	70,70,70,70	0
56	MG	1G	1615	1/1	0.86	0.13	103,103,103,103	0
56	MG	14	3208	1/1	0.86	0.22	94,94,94,94	0
56	MG	14	3121	1/1	0.86	0.31	79,79,79,79	0
56	MG	1H	3097	1/1	0.87	0.31	41,41,41,41	0
56	MG	14	3136	1/1	0.87	0.19	60,60,60,60	0
56	MG	14	3226	1/1	0.87	0.29	83,83,83,83	0
56	MG	14	3001	1/1	0.87	0.23	58,58,58,58	0
56	MG	14	3076	1/1	0.87	0.21	79,79,79,79	0
56	MG	1H	3228	1/1	0.87	0.19	71,71,71,71	0
56	MG	13	1698	1/1	0.87	0.27	90,90,90,90	0
56	MG	14	3011	1/1	0.87	0.36	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3055	1/1	0.87	0.26	52,52,52,52	0
56	MG	16	202	1/1	0.87	0.32	66,66,66,66	0
56	MG	1H	3206	1/1	0.87	0.17	77,77,77,77	0
56	MG	1G	1650	1/1	0.87	0.28	111,111,111,111	0
56	MG	13	1657	1/1	0.87	0.05	87,87,87,87	0
56	MG	14	3169	1/1	0.87	0.27	81,81,81,81	0
56	MG	14	3022	1/1	0.87	0.23	61,61,61,61	0
56	MG	14	3024	1/1	0.87	0.22	79,79,79,79	0
56	MG	13	1669	1/1	0.87	0.17	142,142,142,142	0
56	MG	1H	3244	1/1	0.87	0.23	89,89,89,89	0
56	MG	1H	3073	1/1	0.87	0.18	53,53,53,53	0
56	MG	1H	3111	1/1	0.87	0.20	100,100,100,100	0
56	MG	1H	3313	1/1	0.87	0.29	80,80,80,80	0
56	MG	14	3032	1/1	0.87	0.17	60,60,60,60	0
56	MG	14	3034	1/1	0.87	0.28	64,64,64,64	0
56	MG	1H	3280	1/1	0.87	0.12	80,80,80,80	0
56	MG	1H	3186	1/1	0.87	0.34	89,89,89,89	0
56	MG	13	1732	1/1	0.87	0.11	132,132,132,132	0
56	MG	1J	203	1/1	0.87	0.25	79,79,79,79	0
56	MG	1G	1661	1/1	0.87	0.27	87,87,87,87	0
56	MG	1H	3251	1/1	0.87	0.21	96,96,96,96	0
56	MG	13	1634	1/1	0.87	0.29	80,80,80,80	0
56	MG	14	3124	1/1	0.87	0.22	81,81,81,81	0
56	MG	14	3052	1/1	0.87	0.50	74,74,74,74	0
56	MG	1H	3196	1/1	0.87	0.24	90,90,90,90	0
56	MG	14	3060	1/1	0.87	0.27	65,65,65,65	0
56	MG	13	1660	1/1	0.87	0.16	108,108,108,108	0
56	MG	14	3131	1/1	0.87	0.41	93,93,93,93	0
56	MG	14	3132	1/1	0.87	0.13	75,75,75,75	0
56	MG	1H	3082	1/1	0.88	0.26	64,64,64,64	0
56	MG	14	3009	1/1	0.88	0.32	63,63,63,63	0
56	MG	1H	3291	1/1	0.88	0.15	71,71,71,71	0
56	MG	14	3219	1/1	0.88	0.45	89,89,89,89	0
56	MG	14	3220	1/1	0.88	0.13	77,77,77,77	0
56	MG	14	3139	1/1	0.88	0.26	69,69,69,69	0
56	MG	1H	3293	1/1	0.88	0.25	82,82,82,82	0
56	MG	1H	3044	1/1	0.88	0.34	75,75,75,75	0
56	MG	14	3085	1/1	0.88	0.27	77,77,77,77	0
56	MG	14	3229	1/1	0.88	0.23	82,82,82,82	0
56	MG	14	3147	1/1	0.88	0.17	95,95,95,95	0
56	MG	13	1707	1/1	0.88	0.09	104,104,104,104	0
56	MG	13	1603	1/1	0.88	0.22	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3124	1/1	0.88	0.21	89,89,89,89	0
56	MG	14	3156	1/1	0.88	0.24	80,80,80,80	0
56	MG	14	3021	1/1	0.88	0.21	80,80,80,80	0
56	MG	1H	3216	1/1	0.88	0.37	68,68,68,68	0
56	MG	13	1665	1/1	0.88	0.40	86,86,86,86	0
56	MG	1H	3048	1/1	0.88	0.29	84,84,84,84	0
56	MG	1H	3099	1/1	0.88	0.20	64,64,64,64	0
56	MG	1H	3102	1/1	0.88	0.37	75,75,75,75	0
56	MG	14	3248	1/1	0.88	0.25	85,85,85,85	0
56	MG	1H	3190	1/1	0.88	0.23	88,88,88,88	0
56	MG	13	1621	1/1	0.88	0.18	97,97,97,97	0
56	MG	14	3251	1/1	0.88	0.22	102,102,102,102	0
56	MG	14	3177	1/1	0.88	0.41	80,80,80,80	0
56	MG	1G	1644	1/1	0.88	0.39	74,74,74,74	0
56	MG	13	1629	1/1	0.88	0.24	87,87,87,87	0
56	MG	1H	3014	1/1	0.88	0.21	57,57,57,57	0
56	MG	1G	1605	1/1	0.88	0.23	101,101,101,101	0
56	MG	1H	3315	1/1	0.88	0.24	77,77,77,77	0
56	MG	14	3187	1/1	0.88	0.11	62,62,62,62	0
56	MG	14	3120	1/1	0.88	0.23	78,78,78,78	0
56	MG	14	3193	1/1	0.88	0.26	74,74,74,74	0
56	MG	1H	3232	1/1	0.88	0.17	90,90,90,90	0
56	MG	1H	3234	1/1	0.88	0.22	74,74,74,74	0
56	MG	1H	3235	1/1	0.88	0.31	82,82,82,82	0
56	MG	1H	3202	1/1	0.88	0.19	80,80,80,80	0
56	MG	13	1631	1/1	0.88	0.20	82,82,82,82	0
56	MG	1H	3241	1/1	0.88	0.35	70,70,70,70	0
56	MG	14	3127	1/1	0.88	0.21	83,83,83,83	0
56	MG	1H	3283	1/1	0.88	0.14	67,67,67,67	0
56	MG	85	201	1/1	0.88	0.57	87,87,87,87	0
56	MG	1H	3081	1/1	0.88	0.27	63,63,63,63	0
56	MG	14	3212	1/1	0.88	0.28	90,90,90,90	0
56	MG	1H	3115	1/1	0.88	0.12	59,59,59,59	0
56	MG	14	3165	1/1	0.89	0.23	81,81,81,81	0
56	MG	1H	3237	1/1	0.89	0.13	62,62,62,62	0
56	MG	13	1656	1/1	0.89	0.19	83,83,83,83	0
56	MG	J8	102	1/1	0.89	0.09	66,66,66,66	0
56	MG	1H	3094	1/1	0.89	0.32	76,76,76,76	0
56	MG	1H	3278	1/1	0.89	0.12	82,82,82,82	0
56	MG	1H	3052	1/1	0.89	0.29	52,52,52,52	0
56	MG	14	3174	1/1	0.89	0.18	96,96,96,96	0
56	MG	1H	3010	1/1	0.89	0.19	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3058	1/1	0.89	0.33	69,69,69,69	0
56	MG	13	1624	1/1	0.89	0.35	71,71,71,71	0
56	MG	1H	3066	1/1	0.89	0.16	62,62,62,62	0
56	MG	1H	3067	1/1	0.89	0.26	74,74,74,74	0
56	MG	1H	3148	1/1	0.89	0.11	47,47,47,47	0
56	MG	1H	3019	1/1	0.89	0.15	71,71,71,71	0
56	MG	1H	3255	1/1	0.89	0.14	68,68,68,68	0
56	MG	1H	3159	1/1	0.89	0.16	65,65,65,65	0
56	MG	1H	3524	1/1	0.89	0.27	49,49,49,49	0
56	MG	14	3073	1/1	0.89	0.23	58,58,58,58	0
56	MG	14	3007	1/1	0.89	0.23	54,54,54,54	0
56	MG	14	3198	1/1	0.89	0.13	82,82,82,82	0
56	MG	1H	3021	1/1	0.89	0.16	58,58,58,58	0
56	MG	14	3134	1/1	0.89	0.25	88,88,88,88	0
56	MG	1H	3163	1/1	0.89	0.29	74,74,74,74	0
56	MG	1H	3231	1/1	0.89	0.19	63,63,63,63	0
56	MG	1H	3265	1/1	0.89	0.40	92,92,92,92	0
56	MG	1G	1628	1/1	0.89	0.29	76,76,76,76	0
56	MG	1H	3267	1/1	0.89	0.16	84,84,84,84	0
56	MG	1G	1630	1/1	0.89	0.26	76,76,76,76	0
56	MG	14	3214	1/1	0.89	0.25	81,81,81,81	0
56	MG	1G	1631	1/1	0.89	0.22	89,89,89,89	0
56	MG	1K	102	1/1	0.89	0.41	93,93,93,93	0
56	MG	1H	3303	1/1	0.89	0.17	88,88,88,88	0
56	MG	1H	3023	1/1	0.89	0.25	57,57,57,57	0
56	MG	31	301	1/1	0.89	0.12	62,62,62,62	0
56	MG	13	1618	1/1	0.89	0.29	71,71,71,71	0
56	MG	14	3163	1/1	0.89	0.29	71,71,71,71	0
56	MG	13	1644	1/1	0.89	0.24	77,77,77,77	0
56	MG	1H	3078	1/1	0.90	0.21	60,60,60,60	0
56	MG	1H	3242	1/1	0.90	0.22	86,86,86,86	0
56	MG	14	3133	1/1	0.90	0.28	82,82,82,82	0
56	MG	1H	3079	1/1	0.90	0.15	52,52,52,52	0
56	MG	1H	3080	1/1	0.90	0.23	53,53,53,53	0
56	MG	1H	3282	1/1	0.90	0.28	68,68,68,68	0
56	MG	13	1674	1/1	0.90	0.34	95,95,95,95	0
56	MG	13	1607	1/1	0.90	0.25	78,78,78,78	0
56	MG	1H	3248	1/1	0.90	0.09	81,81,81,81	0
56	MG	1H	3333	1/1	0.90	0.42	99,99,99,99	0
56	MG	13	1613	1/1	0.90	0.28	83,83,83,83	0
56	MG	14	3225	1/1	0.90	0.09	96,96,96,96	0
56	MG	14	3084	1/1	0.90	0.11	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3025	1/1	0.90	0.17	86,86,86,86	0
56	MG	14	3086	1/1	0.90	0.14	53,53,53,53	0
56	MG	14	3155	1/1	0.90	0.11	82,82,82,82	0
56	MG	14	3017	1/1	0.90	0.22	85,85,85,85	0
56	MG	1H	3121	1/1	0.90	0.25	88,88,88,88	0
56	MG	2K	103	1/1	0.90	0.15	59,59,59,59	0
56	MG	1H	3003	1/1	0.90	0.26	63,63,63,63	0
56	MG	14	3236	1/1	0.90	0.17	89,89,89,89	0
56	MG	13	1628	1/1	0.90	0.36	77,77,77,77	0
56	MG	13	1602	1/1	0.90	0.23	68,68,68,68	0
56	MG	16	208	1/1	0.90	0.15	70,70,70,70	0
56	MG	14	3105	1/1	0.90	0.25	75,75,75,75	0
56	MG	1H	3258	1/1	0.90	0.27	68,68,68,68	0
56	MG	1H	3013	1/1	0.90	0.19	53,53,53,53	0
56	MG	11	302	1/1	0.90	0.28	82,82,82,82	0
56	MG	14	3111	1/1	0.90	0.18	86,86,86,86	0
56	MG	14	3176	1/1	0.90	0.20	71,71,71,71	0
56	MG	1H	3100	1/1	0.90	0.18	71,71,71,71	0
56	MG	21	302	1/1	0.90	0.21	73,73,73,73	0
56	MG	1H	3140	1/1	0.90	0.23	59,59,59,59	0
56	MG	14	3116	1/1	0.90	0.16	77,77,77,77	0
56	MG	13	1630	1/1	0.90	0.19	57,57,57,57	0
56	MG	1H	3144	1/1	0.90	0.34	78,78,78,78	0
56	MG	1H	3307	1/1	0.90	0.40	80,80,80,80	0
56	MG	14	3372	1/1	0.90	0.12	88,88,88,88	0
56	MG	14	3188	1/1	0.90	0.10	83,83,83,83	0
56	MG	14	3190	1/1	0.90	0.30	77,77,77,77	0
56	MG	14	3038	1/1	0.90	0.17	74,74,74,74	0
56	MG	1H	3233	1/1	0.90	0.24	75,75,75,75	0
56	MG	1H	3199	1/1	0.90	0.32	86,86,86,86	0
56	MG	1H	3103	1/1	0.90	0.23	76,76,76,76	0
56	MG	1H	3154	1/1	0.90	0.15	66,66,66,66	0
56	MG	14	3051	1/1	0.90	0.43	71,71,71,71	0
56	MG	13	1623	1/1	0.90	0.26	85,85,85,85	0
56	MG	1H	3020	1/1	0.90	0.18	56,56,56,56	0
56	MG	14	3056	1/1	0.90	0.20	64,64,64,64	0
56	MG	14	3129	1/1	0.90	0.29	76,76,76,76	0
56	MG	14	3206	1/1	0.90	0.25	90,90,90,90	0
56	MG	14	3207	1/1	0.90	0.40	93,93,93,93	0
56	MG	14	3057	1/1	0.90	0.24	80,80,80,80	0
56	MG	1H	3247	1/1	0.91	0.20	65,65,65,65	0
56	MG	14	3144	1/1	0.91	0.19	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3219	1/1	0.91	0.36	82,82,82,82	0
56	MG	14	3216	1/1	0.91	0.15	70,70,70,70	0
56	MG	14	3090	1/1	0.91	0.16	90,90,90,90	0
56	MG	1H	3074	1/1	0.91	0.25	65,65,65,65	0
56	MG	1H	3076	1/1	0.91	0.21	75,75,75,75	0
56	MG	1H	3134	1/1	0.91	0.44	90,90,90,90	0
56	MG	14	3222	1/1	0.91	0.25	87,87,87,87	0
56	MG	1H	3287	1/1	0.91	0.17	85,85,85,85	0
56	MG	1H	3011	1/1	0.91	0.22	54,54,54,54	0
56	MG	13	1684	1/1	0.91	0.31	95,95,95,95	0
56	MG	14	3104	1/1	0.91	0.36	86,86,86,86	0
56	MG	14	3160	1/1	0.91	0.35	88,88,88,88	0
56	MG	14	3161	1/1	0.91	0.23	70,70,70,70	0
56	MG	14	3033	1/1	0.91	0.25	69,69,69,69	0
56	MG	14	3231	1/1	0.91	0.14	77,77,77,77	0
56	MG	14	3106	1/1	0.91	0.25	70,70,70,70	0
56	MG	1G	1645	1/1	0.91	0.32	92,92,92,92	0
56	MG	14	3108	1/1	0.91	0.30	64,64,64,64	0
56	MG	14	3035	1/1	0.91	0.27	71,71,71,71	0
56	MG	1H	3330	1/1	0.91	0.29	94,94,94,94	0
56	MG	1H	3029	1/1	0.91	0.20	65,65,65,65	0
56	MG	14	3238	1/1	0.91	0.38	77,77,77,77	0
56	MG	1H	3049	1/1	0.91	0.17	74,74,74,74	0
56	MG	13	1747	1/1	0.91	0.06	140,140,140,140	0
56	MG	1H	3406	1/1	0.91	0.13	86,86,86,86	0
56	MG	1H	3499	1/1	0.91	0.09	77,77,77,77	0
56	MG	1H	3114	1/1	0.91	0.09	59,59,59,59	0
56	MG	13	1651	1/1	0.91	0.24	73,73,73,73	0
56	MG	14	3179	1/1	0.91	0.16	86,86,86,86	0
56	MG	2L	101	1/1	0.91	0.24	88,88,88,88	0
56	MG	1H	3004	1/1	0.91	0.23	57,57,57,57	0
56	MG	1H	3005	1/1	0.91	0.24	46,46,46,46	0
56	MG	1H	3063	1/1	0.91	0.25	47,47,47,47	0
56	MG	13	1675	1/1	0.91	0.13	92,92,92,92	0
56	MG	1H	3042	1/1	0.91	0.25	53,53,53,53	0
56	MG	14	3066	1/1	0.91	0.27	65,65,65,65	0
56	MG	1G	1627	1/1	0.91	0.35	77,77,77,77	0
56	MG	14	3010	1/1	0.91	0.18	58,58,58,58	0
56	MG	1H	3008	1/1	0.91	0.20	56,56,56,56	0
56	MG	14	3074	1/1	0.91	0.19	63,63,63,63	0
56	MG	1H	3125	1/1	0.91	0.26	77,77,77,77	0
56	MG	14	3077	1/1	0.91	0.22	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	13	1612	1/1	0.91	0.27	70,70,70,70	0
56	MG	1G	1667	1/1	0.91	0.29	97,97,97,97	0
56	MG	1H	3176	1/1	0.91	0.46	90,90,90,90	0
56	MG	1H	3215	1/1	0.91	0.34	71,71,71,71	0
56	MG	14	3205	1/1	0.91	0.28	91,91,91,91	0
56	MG	1H	3101	1/1	0.91	0.31	80,80,80,80	0
56	MG	14	3137	1/1	0.91	0.21	53,53,53,53	0
56	MG	14	3138	1/1	0.91	0.09	57,57,57,57	0
56	MG	14	3209	1/1	0.91	0.18	71,71,71,71	0
56	MG	1H	3217	1/1	0.91	0.11	61,61,61,61	0
56	MG	14	3140	1/1	0.91	0.22	65,65,65,65	0
56	MG	14	3069	1/1	0.92	0.29	63,63,63,63	0
56	MG	1H	3135	1/1	0.92	0.19	68,68,68,68	0
56	MG	1H	3001	1/1	0.92	0.25	45,45,45,45	0
56	MG	13	1745	1/1	0.92	0.08	119,119,119,119	0
56	MG	14	3005	1/1	0.92	0.22	48,48,48,48	0
56	MG	1H	3110	1/1	0.92	0.25	64,64,64,64	0
56	MG	14	3211	1/1	0.92	0.45	82,82,82,82	0
56	MG	1H	3193	1/1	0.92	0.24	67,67,67,67	0
56	MG	1H	3146	1/1	0.92	0.14	42,42,42,42	0
56	MG	14	3142	1/1	0.92	0.20	73,73,73,73	0
56	MG	14	3143	1/1	0.92	0.33	70,70,70,70	0
56	MG	P8	101	1/1	0.92	0.18	70,70,70,70	0
56	MG	1H	3272	1/1	0.92	0.26	71,71,71,71	0
56	MG	14	3013	1/1	0.92	0.14	66,66,66,66	0
56	MG	1H	3197	1/1	0.92	0.08	68,68,68,68	0
56	MG	1H	3068	1/1	0.92	0.24	67,67,67,67	0
56	MG	1H	3323	1/1	0.92	0.22	87,87,87,87	0
56	MG	14	3150	1/1	0.92	0.21	64,64,64,64	0
56	MG	14	3151	1/1	0.92	0.20	52,52,52,52	0
56	MG	14	3152	1/1	0.92	0.14	61,61,61,61	0
56	MG	1H	3149	1/1	0.92	0.27	77,77,77,77	0
56	MG	1H	3090	1/1	0.92	0.31	66,66,66,66	0
56	MG	1H	3037	1/1	0.92	0.18	64,64,64,64	0
56	MG	1H	3239	1/1	0.92	0.24	84,84,84,84	0
56	MG	14	3158	1/1	0.92	0.15	75,75,75,75	0
56	MG	1G	1614	1/1	0.92	0.27	78,78,78,78	0
56	MG	1H	3240	1/1	0.92	0.31	77,77,77,77	0
56	MG	1H	3158	1/1	0.92	0.13	55,55,55,55	0
56	MG	1H	3095	1/1	0.92	0.39	78,78,78,78	0
56	MG	1H	3096	1/1	0.92	0.23	70,70,70,70	0
56	MG	1H	3050	1/1	0.92	0.24	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3051	1/1	0.92	0.24	72,72,72,72	0
56	MG	1G	1621	1/1	0.92	0.13	92,92,92,92	0
56	MG	1H	3075	1/1	0.92	0.19	53,53,53,53	0
56	MG	1H	3490	1/1	0.92	0.12	92,92,92,92	0
56	MG	1H	3170	1/1	0.92	0.23	86,86,86,86	0
56	MG	1G	1626	1/1	0.92	0.27	78,78,78,78	0
56	MG	1H	3041	1/1	0.92	0.18	57,57,57,57	0
56	MG	13	1673	1/1	0.92	0.16	83,83,83,83	0
56	MG	14	3115	1/1	0.92	0.29	86,86,86,86	0
56	MG	1H	3126	1/1	0.92	0.25	88,88,88,88	0
56	MG	16	203	1/1	0.92	0.11	91,91,91,91	0
56	MG	14	3041	1/1	0.92	0.41	76,76,76,76	0
56	MG	14	3184	1/1	0.92	0.23	53,53,53,53	0
56	MG	14	3043	1/1	0.92	0.22	57,57,57,57	0
56	MG	14	3257	1/1	0.92	0.48	99,99,99,99	0
56	MG	13	1620	1/1	0.92	0.34	69,69,69,69	0
56	MG	14	3259	1/1	0.92	0.15	67,67,67,67	0
56	MG	14	3045	1/1	0.92	0.16	60,60,60,60	0
56	MG	14	3360	1/1	0.92	0.19	112,112,112,112	0
56	MG	14	3047	1/1	0.92	0.23	59,59,59,59	0
56	MG	14	3378	1/1	0.92	0.08	92,92,92,92	0
56	MG	14	3385	1/1	0.92	0.20	113,113,113,113	0
56	MG	14	3189	1/1	0.92	0.54	86,86,86,86	0
56	MG	13	1659	1/1	0.92	0.10	107,107,107,107	0
56	MG	1H	3180	1/1	0.92	0.28	67,67,67,67	0
56	MG	14	3192	1/1	0.92	0.26	85,85,85,85	0
56	MG	1H	3104	1/1	0.92	0.11	67,67,67,67	0
56	MG	1H	3182	1/1	0.92	0.34	82,82,82,82	0
56	MG	1H	3018	1/1	0.92	0.31	83,83,83,83	0
56	MG	1H	3302	1/1	0.92	0.08	81,81,81,81	0
56	MG	14	3059	1/1	0.92	0.13	59,59,59,59	0
56	MG	14	3199	1/1	0.92	0.21	84,84,84,84	0
56	MG	35	201	1/1	0.92	0.22	76,76,76,76	0
56	MG	14	3200	1/1	0.92	0.15	82,82,82,82	0
56	MG	11	303	1/1	0.92	0.09	75,75,75,75	0
56	MG	1H	3064	1/1	0.92	0.15	45,45,45,45	0
56	MG	21	301	1/1	0.92	0.26	55,55,55,55	0
56	MG	1H	3263	1/1	0.92	0.25	82,82,82,82	0
56	MG	1H	3510	1/1	0.93	0.10	99,99,99,99	0
56	MG	14	3023	1/1	0.93	0.16	66,66,66,66	0
56	MG	1H	3107	1/1	0.93	0.20	84,84,84,84	0
56	MG	5E	201	1/1	0.93	0.14	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3095	1/1	0.93	0.23	72,72,72,72	0
56	MG	14	3221	1/1	0.93	0.16	88,88,88,88	0
56	MG	1H	3007	1/1	0.93	0.19	40,40,40,40	0
56	MG	1H	3038	1/1	0.93	0.20	76,76,76,76	0
56	MG	16	204	1/1	0.93	0.24	86,86,86,86	0
56	MG	1H	3218	1/1	0.93	0.15	76,76,76,76	0
56	MG	1H	3306	1/1	0.93	0.17	81,81,81,81	0
56	MG	1H	3189	1/1	0.93	0.28	77,77,77,77	0
56	MG	1H	3129	1/1	0.93	0.16	77,77,77,77	0
56	MG	1H	3277	1/1	0.93	0.35	84,84,84,84	0
56	MG	14	3167	1/1	0.93	0.24	71,71,71,71	0
56	MG	1H	3311	1/1	0.93	0.10	70,70,70,70	0
56	MG	1H	3191	1/1	0.93	0.09	59,59,59,59	0
56	MG	1H	3039	1/1	0.93	0.28	70,70,70,70	0
56	MG	1G	1633	1/1	0.93	0.24	92,92,92,92	0
56	MG	1H	3132	1/1	0.93	0.35	74,74,74,74	0
56	MG	13	1655	1/1	0.93	0.19	80,80,80,80	0
56	MG	1H	3317	1/1	0.93	0.15	66,66,66,66	0
56	MG	1H	3168	1/1	0.93	0.22	84,84,84,84	0
56	MG	1H	3319	1/1	0.93	0.21	76,76,76,76	0
56	MG	14	3046	1/1	0.93	0.19	65,65,65,65	0
56	MG	14	3242	1/1	0.93	0.36	78,78,78,78	0
56	MG	14	3243	1/1	0.93	0.42	81,81,81,81	0
56	MG	14	3244	1/1	0.93	0.19	80,80,80,80	0
56	MG	78	201	1/1	0.93	0.24	70,70,70,70	0
56	MG	14	3049	1/1	0.93	0.28	71,71,71,71	0
56	MG	13	1681	1/1	0.93	0.34	83,83,83,83	0
56	MG	13	1697	1/1	0.93	0.35	75,75,75,75	0
56	MG	1H	3138	1/1	0.93	0.20	69,69,69,69	0
56	MG	1H	3056	1/1	0.93	0.20	54,54,54,54	0
56	MG	14	3054	1/1	0.93	0.26	59,59,59,59	0
56	MG	14	3055	1/1	0.93	0.15	60,60,60,60	0
56	MG	1H	3088	1/1	0.93	0.17	61,61,61,61	0
56	MG	1H	3143	1/1	0.93	0.20	68,68,68,68	0
56	MG	1H	3261	1/1	0.93	0.20	58,58,58,58	0
56	MG	13	1617	1/1	0.93	0.22	70,70,70,70	0
56	MG	14	3061	1/1	0.93	0.29	71,71,71,71	0
56	MG	14	3287	1/1	0.93	0.08	99,99,99,99	0
56	MG	14	3334	1/1	0.93	0.06	116,116,116,116	0
56	MG	14	3195	1/1	0.93	0.51	96,96,96,96	0
56	MG	14	3063	1/1	0.93	0.10	62,62,62,62	0
56	MG	14	3365	1/1	0.93	0.08	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3006	1/1	0.93	0.24	60,60,60,60	0
56	MG	14	3373	1/1	0.93	0.06	125,125,125,125	0
56	MG	14	3065	1/1	0.93	0.46	49,49,49,49	0
56	MG	1H	3208	1/1	0.93	0.15	71,71,71,71	0
56	MG	14	3067	1/1	0.93	0.40	84,84,84,84	0
56	MG	1G	1606	1/1	0.93	0.18	94,94,94,94	0
56	MG	1H	3122	1/1	0.93	0.41	78,78,78,78	0
56	MG	14	3070	1/1	0.93	0.32	59,59,59,59	0
56	MG	1G	1608	1/1	0.93	0.14	90,90,90,90	0
56	MG	1H	3266	1/1	0.93	0.38	75,75,75,75	0
56	MG	14	3012	1/1	0.93	0.21	49,49,49,49	0
56	MG	1H	3404	1/1	0.93	0.12	86,86,86,86	0
56	MG	14	3014	1/1	0.93	0.20	81,81,81,81	0
56	MG	1H	3298	1/1	0.93	0.24	73,73,73,73	0
56	MG	1G	1613	1/1	0.93	0.44	87,87,87,87	0
56	MG	1H	3431	1/1	0.93	0.07	117,117,117,117	0
56	MG	1H	3489	1/1	0.93	0.10	86,86,86,86	0
56	MG	1H	3092	1/1	0.93	0.17	52,52,52,52	0
56	MG	1G	1663	1/1	0.93	0.14	89,89,89,89	0
56	MG	3E	302	1/1	0.93	0.07	125,125,125,125	0
56	MG	88	202	1/1	0.94	0.12	69,69,69,69	0
56	MG	1H	3192	1/1	0.94	0.17	81,81,81,81	0
56	MG	14	3175	1/1	0.94	0.22	88,88,88,88	0
56	MG	J8	101	1/1	0.94	0.24	72,72,72,72	0
56	MG	1H	3388	1/1	0.94	0.08	63,63,63,63	0
56	MG	L8	101	1/1	0.94	0.18	72,72,72,72	0
56	MG	13	1661	1/1	0.94	0.12	95,95,95,95	0
56	MG	14	3180	1/1	0.94	0.31	93,93,93,93	0
56	MG	Q8	101	1/1	0.94	0.12	53,53,53,53	0
56	MG	1H	3195	1/1	0.94	0.14	68,68,68,68	0
56	MG	1H	3415	1/1	0.94	0.06	100,100,100,100	0
56	MG	1H	3427	1/1	0.94	0.15	78,78,78,78	0
56	MG	1H	3430	1/1	0.94	0.11	71,71,71,71	0
56	MG	1H	3169	1/1	0.94	0.16	74,74,74,74	0
56	MG	1H	3445	1/1	0.94	0.12	91,91,91,91	0
56	MG	1H	3450	1/1	0.94	0.06	119,119,119,119	0
56	MG	1H	3473	1/1	0.94	0.11	92,92,92,92	0
56	MG	14	3075	1/1	0.94	0.29	61,61,61,61	0
56	MG	13	1633	1/1	0.94	0.32	73,73,73,73	0
56	MG	13	1649	1/1	0.94	0.14	79,79,79,79	0
56	MG	1H	3493	1/1	0.94	0.06	113,113,113,113	0
56	MG	14	3080	1/1	0.94	0.18	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3498	1/1	0.94	0.13	64,64,64,64	0
56	MG	13	1739	1/1	0.94	0.08	118,118,118,118	0
56	MG	1H	3253	1/1	0.94	0.33	64,64,64,64	0
56	MG	1H	3518	1/1	0.94	0.14	74,74,74,74	0
56	MG	1H	3112	1/1	0.94	0.32	72,72,72,72	0
56	MG	14	3030	1/1	0.94	0.10	74,74,74,74	0
56	MG	1H	3529	1/1	0.94	0.11	55,55,55,55	0
56	MG	1H	3113	1/1	0.94	0.17	73,73,73,73	0
56	MG	1H	3150	1/1	0.94	0.12	52,52,52,52	0
56	MG	1H	3177	1/1	0.94	0.09	62,62,62,62	0
56	MG	1H	3179	1/1	0.94	0.12	59,59,59,59	0
56	MG	1H	3289	1/1	0.94	0.18	77,77,77,77	0
56	MG	14	3366	1/1	0.94	0.10	83,83,83,83	0
56	MG	14	3371	1/1	0.94	0.08	108,108,108,108	0
56	MG	1H	3152	1/1	0.94	0.21	53,53,53,53	0
56	MG	13	1664	1/1	0.94	0.29	71,71,71,71	0
56	MG	1H	3321	1/1	0.94	0.07	72,72,72,72	0
56	MG	1H	3322	1/1	0.94	0.14	77,77,77,77	0
56	MG	1H	3292	1/1	0.94	0.33	79,79,79,79	0
56	MG	16	213	1/1	0.94	0.07	102,102,102,102	0
56	MG	11	301	1/1	0.94	0.19	48,48,48,48	0
56	MG	14	3159	1/1	0.94	0.07	60,60,60,60	0
56	MG	1H	3031	1/1	0.94	0.14	63,63,63,63	0
56	MG	1H	3157	1/1	0.94	0.18	65,65,65,65	0
56	MG	14	3162	1/1	0.94	0.20	60,60,60,60	0
56	MG	13	1604	1/1	0.94	0.17	89,89,89,89	0
56	MG	29	301	1/1	0.94	0.15	49,49,49,49	0
56	MG	13	1637	1/1	0.94	0.28	59,59,59,59	0
56	MG	1H	3119	1/1	0.94	0.35	86,86,86,86	0
56	MG	1H	3061	1/1	0.94	0.18	61,61,61,61	0
56	MG	1H	3012	1/1	0.94	0.25	52,52,52,52	0
56	MG	1H	3024	1/1	0.94	0.26	53,53,53,53	0
56	MG	1H	3166	1/1	0.94	0.20	60,60,60,60	0
56	MG	F5	101	1/1	0.94	0.30	74,74,74,74	0
56	MG	1H	3334	1/1	0.94	0.15	77,77,77,77	0
56	MG	1G	1643	1/1	0.94	0.25	79,79,79,79	0
56	MG	1H	3523	1/1	0.95	0.26	37,37,37,37	0
56	MG	1H	3254	1/1	0.95	0.26	84,84,84,84	0
56	MG	1H	3527	1/1	0.95	0.10	69,69,69,69	0
56	MG	1H	3320	1/1	0.95	0.21	86,86,86,86	0
56	MG	1H	3053	1/1	0.95	0.16	48,48,48,48	0
56	MG	1H	3086	1/1	0.95	0.30	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3072	1/1	0.95	0.15	75,75,75,75	0
56	MG	1H	3054	1/1	0.95	0.09	53,53,53,53	0
56	MG	1H	3147	1/1	0.95	0.17	49,49,49,49	0
56	MG	1H	3201	1/1	0.95	0.14	79,79,79,79	0
56	MG	1H	3260	1/1	0.95	0.36	82,82,82,82	0
56	MG	14	3025	1/1	0.95	0.20	53,53,53,53	0
56	MG	1H	3072	1/1	0.95	0.13	46,46,46,46	0
56	MG	13	1601	1/1	0.95	0.12	83,83,83,83	0
56	MG	13	1741	1/1	0.95	0.05	138,138,138,138	0
56	MG	1H	3057	1/1	0.95	0.14	40,40,40,40	0
56	MG	1H	3153	1/1	0.95	0.13	57,57,57,57	0
56	MG	1H	3016	1/1	0.95	0.19	61,61,61,61	0
56	MG	1H	3268	1/1	0.95	0.30	80,80,80,80	0
56	MG	1H	3209	1/1	0.95	0.15	60,60,60,60	0
56	MG	14	3088	1/1	0.95	0.16	44,44,44,44	0
56	MG	1H	3377	1/1	0.95	0.07	100,100,100,100	0
56	MG	1H	3210	1/1	0.95	0.11	95,95,95,95	0
56	MG	1H	3077	1/1	0.95	0.17	69,69,69,69	0
56	MG	13	1742	1/1	0.95	0.08	102,102,102,102	0
56	MG	14	3278	1/1	0.95	0.07	84,84,84,84	0
56	MG	14	3094	1/1	0.95	0.20	82,82,82,82	0
56	MG	14	3295	1/1	0.95	0.10	87,87,87,87	0
56	MG	14	3329	1/1	0.95	0.10	89,89,89,89	0
56	MG	41	301	1/1	0.95	0.13	77,77,77,77	0
56	MG	13	1713	1/1	0.95	0.08	77,77,77,77	0
56	MG	14	3354	1/1	0.95	0.22	77,77,77,77	0
56	MG	14	3356	1/1	0.95	0.09	85,85,85,85	0
56	MG	13	1727	1/1	0.95	0.10	117,117,117,117	0
56	MG	14	3363	1/1	0.95	0.09	96,96,96,96	0
56	MG	14	3099	1/1	0.95	0.16	68,68,68,68	0
56	MG	13	1729	1/1	0.95	0.07	111,111,111,111	0
56	MG	1H	3117	1/1	0.95	0.35	63,63,63,63	0
56	MG	1H	3136	1/1	0.95	0.16	66,66,66,66	0
56	MG	1G	1693	1/1	0.95	0.06	125,125,125,125	0
56	MG	1H	3310	1/1	0.95	0.27	82,82,82,82	0
56	MG	E8	201	1/1	0.95	0.10	79,79,79,79	0
56	MG	14	3048	1/1	0.95	0.16	65,65,65,65	0
56	MG	1H	3455	1/1	0.95	0.07	111,111,111,111	0
56	MG	1H	3464	1/1	0.95	0.06	111,111,111,111	0
56	MG	1H	3469	1/1	0.95	0.13	96,96,96,96	0
56	MG	1H	3137	1/1	0.95	0.18	67,67,67,67	0
56	MG	14	3003	1/1	0.95	0.14	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3484	1/1	0.95	0.10	89,89,89,89	0
56	MG	1H	3487	1/1	0.95	0.06	101,101,101,101	0
56	MG	13	1608	1/1	0.95	0.13	75,75,75,75	0
56	MG	1H	3222	1/1	0.95	0.27	77,77,77,77	0
56	MG	1G	1604	1/1	0.95	0.11	95,95,95,95	0
56	MG	14	3172	1/1	0.95	0.13	93,93,93,93	0
56	MG	1H	3314	1/1	0.95	0.17	110,110,110,110	0
56	MG	14	3228	1/1	0.95	0.08	192,192,192,192	0
56	MG	1H	3032	1/1	0.95	0.23	46,46,46,46	0
56	MG	1H	3194	1/1	0.95	0.19	48,48,48,48	0
56	MG	1H	3141	1/1	0.95	0.10	53,53,53,53	0
56	MG	1H	3084	1/1	0.95	0.13	66,66,66,66	0
56	MG	1H	3331	1/1	0.96	0.30	74,74,74,74	0
56	MG	14	3087	1/1	0.96	0.07	59,59,59,59	0
56	MG	1H	3511	1/1	0.96	0.10	76,76,76,76	0
56	MG	1H	3517	1/1	0.96	0.06	71,71,71,71	0
56	MG	1G	1687	1/1	0.96	0.06	121,121,121,121	0
56	MG	14	3247	1/1	0.96	0.08	61,61,61,61	0
56	MG	1H	3091	1/1	0.96	0.12	43,43,43,43	0
56	MG	1G	1696	1/1	0.96	0.05	98,98,98,98	0
56	MG	14	3042	1/1	0.96	0.13	48,48,48,48	0
56	MG	1G	1697	1/1	0.96	0.07	108,108,108,108	0
56	MG	13	1724	1/1	0.96	0.07	102,102,102,102	0
56	MG	1H	3060	1/1	0.96	0.29	48,48,48,48	0
56	MG	14	3098	1/1	0.96	0.20	53,53,53,53	0
56	MG	1H	3284	1/1	0.96	0.09	190,190,190,190	0
56	MG	1H	3528	1/1	0.96	0.08	77,77,77,77	0
56	MG	13	1706	1/1	0.96	0.09	108,108,108,108	0
56	MG	1H	3262	1/1	0.96	0.10	57,57,57,57	0
56	MG	14	3269	1/1	0.96	0.08	90,90,90,90	0
56	MG	13	1652	1/1	0.96	0.06	79,79,79,79	0
56	MG	14	3282	1/1	0.96	0.07	92,92,92,92	0
56	MG	14	3004	1/1	0.96	0.15	53,53,53,53	0
56	MG	14	3289	1/1	0.96	0.07	77,77,77,77	0
56	MG	1G	1610	1/1	0.96	0.05	98,98,98,98	0
56	MG	14	3297	1/1	0.96	0.06	107,107,107,107	0
56	MG	14	3315	1/1	0.96	0.08	71,71,71,71	0
56	MG	14	3324	1/1	0.96	0.06	107,107,107,107	0
56	MG	1H	3405	1/1	0.96	0.09	75,75,75,75	0
56	MG	1H	3288	1/1	0.96	0.08	60,60,60,60	0
56	MG	14	3335	1/1	0.96	0.07	91,91,91,91	0
56	MG	1H	3151	1/1	0.96	0.18	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3338	1/1	0.96	0.06	107,107,107,107	0
56	MG	14	3340	1/1	0.96	0.10	83,83,83,83	0
56	MG	1H	3417	1/1	0.96	0.07	65,65,65,65	0
56	MG	1H	3422	1/1	0.96	0.08	83,83,83,83	0
56	MG	14	3058	1/1	0.96	0.22	49,49,49,49	0
56	MG	13	1744	1/1	0.96	0.04	144,144,144,144	0
56	MG	1G	1660	1/1	0.96	0.11	92,92,92,92	0
56	MG	1H	3428	1/1	0.96	0.13	100,100,100,100	0
56	MG	1H	3221	1/1	0.96	0.33	92,92,92,92	0
56	MG	1H	3065	1/1	0.96	0.28	51,51,51,51	0
56	MG	1H	3442	1/1	0.96	0.05	100,100,100,100	0
56	MG	1H	3178	1/1	0.96	0.27	68,68,68,68	0
56	MG	14	3383	1/1	0.96	0.09	93,93,93,93	0
56	MG	1H	3040	1/1	0.96	0.08	47,47,47,47	0
56	MG	13	1627	1/1	0.96	0.10	57,57,57,57	0
56	MG	1H	3461	1/1	0.96	0.09	105,105,105,105	0
56	MG	1G	1625	1/1	0.96	0.39	82,82,82,82	0
56	MG	13	1738	1/1	0.96	0.11	113,113,113,113	0
56	MG	1H	3069	1/1	0.96	0.21	45,45,45,45	0
56	MG	13	1748	1/1	0.96	0.09	156,156,156,156	0
56	MG	1H	3139	1/1	0.96	0.14	65,65,65,65	0
56	MG	1H	3185	1/1	0.96	0.40	68,68,68,68	0
56	MG	14	3181	1/1	0.96	0.33	86,86,86,86	0
56	MG	1H	3071	1/1	0.96	0.14	51,51,51,51	0
56	MG	13	1749	1/1	0.96	0.08	101,101,101,101	0
56	MG	13	1666	1/1	0.96	0.07	99,99,99,99	0
56	MG	1H	3496	1/1	0.96	0.09	59,59,59,59	0
56	MG	C8	201	1/1	0.96	0.17	74,74,74,74	0
56	MG	1H	3089	1/1	0.96	0.08	44,44,44,44	0
56	MG	13	1740	1/1	0.96	0.11	91,91,91,91	0
57	ZN	3E	303	1/1	0.96	0.27	110,110,110,110	0
56	MG	1H	3502	1/1	0.96	0.10	49,49,49,49	0
56	MG	1H	3508	1/1	0.96	0.06	96,96,96,96	0
56	MG	1G	1701	1/1	0.97	0.05	128,128,128,128	0
56	MG	14	3272	1/1	0.97	0.06	59,59,59,59	0
56	MG	14	3274	1/1	0.97	0.09	99,99,99,99	0
56	MG	14	3276	1/1	0.97	0.07	64,64,64,64	0
56	MG	1G	1703	1/1	0.97	0.05	124,124,124,124	0
56	MG	14	3281	1/1	0.97	0.11	79,79,79,79	0
56	MG	1H	3363	1/1	0.97	0.05	89,89,89,89	0
56	MG	1H	3043	1/1	0.97	0.09	50,50,50,50	0
56	MG	1H	3488	1/1	0.97	0.08	102,102,102,102	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3378	1/1	0.97	0.13	83,83,83,83	0
56	MG	1H	3093	1/1	0.97	0.36	61,61,61,61	0
56	MG	14	3305	1/1	0.97	0.10	112,112,112,112	0
56	MG	14	3313	1/1	0.97	0.10	81,81,81,81	0
56	MG	1H	3491	1/1	0.97	0.05	121,121,121,121	0
56	MG	14	3321	1/1	0.97	0.08	97,97,97,97	0
56	MG	14	3322	1/1	0.97	0.06	101,101,101,101	0
56	MG	1H	3492	1/1	0.97	0.08	108,108,108,108	0
56	MG	14	3326	1/1	0.97	0.04	110,110,110,110	0
56	MG	14	3328	1/1	0.97	0.05	98,98,98,98	0
56	MG	1H	3397	1/1	0.97	0.06	96,96,96,96	0
56	MG	14	3330	1/1	0.97	0.05	104,104,104,104	0
56	MG	14	3091	1/1	0.97	0.14	54,54,54,54	0
56	MG	13	1721	1/1	0.97	0.11	94,94,94,94	0
56	MG	13	1746	1/1	0.97	0.04	127,127,127,127	0
56	MG	1H	3002	1/1	0.97	0.11	30,30,30,30	0
56	MG	1H	3410	1/1	0.97	0.07	62,62,62,62	0
56	MG	14	3348	1/1	0.97	0.06	97,97,97,97	0
56	MG	14	3349	1/1	0.97	0.05	110,110,110,110	0
56	MG	14	3352	1/1	0.97	0.08	106,106,106,106	0
56	MG	1H	3412	1/1	0.97	0.08	101,101,101,101	0
56	MG	14	3355	1/1	0.97	0.13	97,97,97,97	0
56	MG	1H	3204	1/1	0.97	0.21	76,76,76,76	0
56	MG	14	3359	1/1	0.97	0.06	97,97,97,97	0
56	MG	13	1611	1/1	0.97	0.21	70,70,70,70	0
56	MG	14	3361	1/1	0.97	0.06	115,115,115,115	0
56	MG	13	1726	1/1	0.97	0.05	91,91,91,91	0
56	MG	13	1626	1/1	0.97	0.04	65,65,65,65	0
56	MG	1H	3520	1/1	0.97	0.06	109,109,109,109	0
56	MG	14	3370	1/1	0.97	0.06	88,88,88,88	0
56	MG	14	3103	1/1	0.97	0.10	52,52,52,52	0
56	MG	1H	3521	1/1	0.97	0.05	49,49,49,49	0
56	MG	1H	3522	1/1	0.97	0.10	99,99,99,99	0
56	MG	1H	3027	1/1	0.97	0.22	64,64,64,64	0
56	MG	14	3380	1/1	0.97	0.07	58,58,58,58	0
56	MG	14	3382	1/1	0.97	0.08	85,85,85,85	0
56	MG	1H	3017	1/1	0.97	0.17	43,43,43,43	0
56	MG	13	1715	1/1	0.97	0.05	116,116,116,116	0
56	MG	13	1719	1/1	0.97	0.05	64,64,64,64	0
56	MG	14	3389	1/1	0.97	0.13	62,62,62,62	0
56	MG	1H	3130	1/1	0.97	0.31	82,82,82,82	0
56	MG	1H	3161	1/1	0.97	0.23	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3145	1/1	0.97	0.15	49,49,49,49	0
56	MG	1H	3456	1/1	0.97	0.07	111,111,111,111	0
56	MG	13	1737	1/1	0.97	0.04	122,122,122,122	0
56	MG	1H	3349	1/1	0.97	0.11	70,70,70,70	0
56	MG	1H	3465	1/1	0.97	0.10	95,95,95,95	0
56	MG	1J	208	1/1	0.97	0.04	109,109,109,109	0
56	MG	1H	3466	1/1	0.97	0.05	106,106,106,106	0
56	MG	1G	1649	1/1	0.97	0.08	145,145,145,145	0
56	MG	1H	3355	1/1	0.97	0.14	53,53,53,53	0
56	MG	1G	1690	1/1	0.97	0.05	90,90,90,90	0
56	MG	1G	1691	1/1	0.97	0.05	119,119,119,119	0
56	MG	1H	3359	1/1	0.97	0.04	102,102,102,102	0
56	MG	14	3256	1/1	0.97	0.09	75,75,75,75	0
56	MG	1G	1695	1/1	0.97	0.07	103,103,103,103	0
56	MG	1H	3475	1/1	0.97	0.07	77,77,77,77	0
56	MG	1H	3480	1/1	0.97	0.04	122,122,122,122	0
56	MG	14	3266	1/1	0.97	0.05	69,69,69,69	0
56	MG	13	1647	1/1	0.98	0.30	75,75,75,75	0
56	MG	1H	3356	1/1	0.98	0.04	67,67,67,67	0
56	MG	1H	3433	1/1	0.98	0.06	77,77,77,77	0
56	MG	1H	3435	1/1	0.98	0.06	95,95,95,95	0
56	MG	1H	3439	1/1	0.98	0.06	76,76,76,76	0
56	MG	1H	3441	1/1	0.98	0.08	82,82,82,82	0
56	MG	1H	3357	1/1	0.98	0.06	52,52,52,52	0
56	MG	1H	3173	1/1	0.98	0.07	79,79,79,79	0
56	MG	14	3301	1/1	0.98	0.05	81,81,81,81	0
56	MG	14	3304	1/1	0.98	0.05	91,91,91,91	0
56	MG	1H	3361	1/1	0.98	0.04	105,105,105,105	0
56	MG	14	3312	1/1	0.98	0.07	97,97,97,97	0
56	MG	1H	3451	1/1	0.98	0.08	94,94,94,94	0
56	MG	1H	3062	1/1	0.98	0.10	35,35,35,35	0
56	MG	14	3317	1/1	0.98	0.11	89,89,89,89	0
56	MG	14	3319	1/1	0.98	0.06	88,88,88,88	0
56	MG	14	3153	1/1	0.98	0.05	60,60,60,60	0
56	MG	1H	3364	1/1	0.98	0.05	70,70,70,70	0
56	MG	14	3323	1/1	0.98	0.05	96,96,96,96	0
56	MG	1H	3457	1/1	0.98	0.10	91,91,91,91	0
56	MG	14	3325	1/1	0.98	0.04	103,103,103,103	0
56	MG	1H	3365	1/1	0.98	0.04	91,91,91,91	0
56	MG	14	3327	1/1	0.98	0.04	120,120,120,120	0
56	MG	1H	3366	1/1	0.98	0.04	68,68,68,68	0
56	MG	1H	3369	1/1	0.98	0.06	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3372	1/1	0.98	0.08	65,65,65,65	0
56	MG	14	3333	1/1	0.98	0.04	91,91,91,91	0
56	MG	1H	3468	1/1	0.98	0.04	109,109,109,109	0
56	MG	1H	3220	1/1	0.98	0.05	61,61,61,61	0
56	MG	14	3101	1/1	0.98	0.04	55,55,55,55	0
56	MG	14	3337	1/1	0.98	0.06	83,83,83,83	0
56	MG	1H	3471	1/1	0.98	0.13	94,94,94,94	0
56	MG	1G	1688	1/1	0.98	0.04	73,73,73,73	0
56	MG	14	3341	1/1	0.98	0.04	103,103,103,103	0
56	MG	13	1723	1/1	0.98	0.04	105,105,105,105	0
56	MG	1H	3380	1/1	0.98	0.07	82,82,82,82	0
56	MG	14	3350	1/1	0.98	0.14	84,84,84,84	0
56	MG	14	3351	1/1	0.98	0.03	99,99,99,99	0
56	MG	1G	1692	1/1	0.98	0.05	111,111,111,111	0
56	MG	1H	3478	1/1	0.98	0.03	111,111,111,111	0
56	MG	1G	1694	1/1	0.98	0.04	104,104,104,104	0
56	MG	1H	3384	1/1	0.98	0.04	62,62,62,62	0
56	MG	14	3358	1/1	0.98	0.06	117,117,117,117	0
56	MG	1H	3483	1/1	0.98	0.04	117,117,117,117	0
56	MG	1H	3386	1/1	0.98	0.06	58,58,58,58	0
56	MG	1G	1699	1/1	0.98	0.08	122,122,122,122	0
56	MG	1H	3167	1/1	0.98	0.15	62,62,62,62	0
56	MG	14	3364	1/1	0.98	0.06	77,77,77,77	0
56	MG	1G	1702	1/1	0.98	0.09	146,146,146,146	0
56	MG	1H	3390	1/1	0.98	0.04	55,55,55,55	0
56	MG	14	3367	1/1	0.98	0.09	92,92,92,92	0
56	MG	1H	3015	1/1	0.98	0.09	57,57,57,57	0
56	MG	1H	3155	1/1	0.98	0.31	72,72,72,72	0
56	MG	1H	3162	1/1	0.98	0.05	55,55,55,55	0
56	MG	1G	1646	1/1	0.98	0.12	84,84,84,84	0
56	MG	14	3377	1/1	0.98	0.09	52,52,52,52	0
56	MG	1H	3336	1/1	0.98	0.07	52,52,52,52	0
56	MG	14	3379	1/1	0.98	0.08	60,60,60,60	0
56	MG	I8	101	1/1	0.98	0.07	88,88,88,88	0
56	MG	14	3381	1/1	0.98	0.12	79,79,79,79	0
56	MG	1H	3407	1/1	0.98	0.05	84,84,84,84	0
56	MG	1H	3494	1/1	0.98	0.07	95,95,95,95	0
56	MG	14	3384	1/1	0.98	0.05	110,110,110,110	0
56	MG	1H	3337	1/1	0.98	0.07	56,56,56,56	0
56	MG	14	3386	1/1	0.98	0.09	51,51,51,51	0
56	MG	1H	3411	1/1	0.98	0.03	101,101,101,101	0
56	MG	14	3388	1/1	0.98	0.07	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3338	1/1	0.98	0.05	49,49,49,49	0
56	MG	1H	3501	1/1	0.98	0.04	70,70,70,70	0
56	MG	1H	3414	1/1	0.98	0.07	80,80,80,80	0
56	MG	1H	3503	1/1	0.98	0.04	115,115,115,115	0
56	MG	1H	3505	1/1	0.98	0.13	78,78,78,78	0
56	MG	1H	3339	1/1	0.98	0.07	50,50,50,50	0
56	MG	1H	3509	1/1	0.98	0.03	82,82,82,82	0
56	MG	1H	3344	1/1	0.98	0.05	48,48,48,48	0
56	MG	1H	3419	1/1	0.98	0.05	53,53,53,53	0
56	MG	1J	209	1/1	0.98	0.06	94,94,94,94	0
56	MG	1H	3516	1/1	0.98	0.05	100,100,100,100	0
56	MG	1H	3420	1/1	0.98	0.05	65,65,65,65	0
56	MG	1H	3348	1/1	0.98	0.10	60,60,60,60	0
56	MG	14	3260	1/1	0.98	0.04	62,62,62,62	0
56	MG	14	3265	1/1	0.98	0.06	61,61,61,61	0
56	MG	14	3078	1/1	0.98	0.11	68,68,68,68	0
56	MG	1H	3423	1/1	0.98	0.04	93,93,93,93	0
56	MG	14	3270	1/1	0.98	0.04	75,75,75,75	0
56	MG	14	3271	1/1	0.98	0.05	63,63,63,63	0
56	MG	1H	3009	1/1	0.98	0.12	47,47,47,47	0
57	ZN	32	301	1/1	0.98	0.24	123,123,123,123	0
57	ZN	5A	101	1/1	0.98	0.04	160,160,160,160	0
56	MG	1H	3353	1/1	0.98	0.04	61,61,61,61	0
56	MG	1G	1700	1/1	0.99	0.03	126,126,126,126	0
56	MG	13	1716	1/1	0.99	0.05	89,89,89,89	0
56	MG	13	1731	1/1	0.99	0.05	69,69,69,69	0
56	MG	1H	3358	1/1	0.99	0.07	65,65,65,65	0
56	MG	14	3273	1/1	0.99	0.07	53,53,53,53	0
56	MG	1H	3408	1/1	0.99	0.03	58,58,58,58	0
56	MG	14	3275	1/1	0.99	0.02	71,71,71,71	0
56	MG	13	1722	1/1	0.99	0.11	94,94,94,94	0
56	MG	14	3277	1/1	0.99	0.03	67,67,67,67	0
56	MG	1H	3360	1/1	0.99	0.04	105,105,105,105	0
56	MG	14	3279	1/1	0.99	0.03	95,95,95,95	0
56	MG	14	3280	1/1	0.99	0.05	88,88,88,88	0
56	MG	13	1733	1/1	0.99	0.06	101,101,101,101	0
56	MG	1H	3413	1/1	0.99	0.03	71,71,71,71	0
56	MG	14	3283	1/1	0.99	0.03	57,57,57,57	0
56	MG	14	3285	1/1	0.99	0.03	57,57,57,57	0
56	MG	1H	3495	1/1	0.99	0.10	53,53,53,53	0
56	MG	14	3288	1/1	0.99	0.05	62,62,62,62	0
56	MG	1H	3362	1/1	0.99	0.04	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3290	1/1	0.99	0.03	61,61,61,61	0
56	MG	14	3291	1/1	0.99	0.04	54,54,54,54	0
56	MG	14	3292	1/1	0.99	0.03	90,90,90,90	0
56	MG	14	3293	1/1	0.99	0.04	68,68,68,68	0
56	MG	14	3294	1/1	0.99	0.05	69,69,69,69	0
56	MG	1H	3497	1/1	0.99	0.05	51,51,51,51	0
56	MG	13	1734	1/1	0.99	0.07	87,87,87,87	0
56	MG	14	3298	1/1	0.99	0.04	59,59,59,59	0
56	MG	14	3299	1/1	0.99	0.04	82,82,82,82	0
56	MG	1H	3416	1/1	0.99	0.03	69,69,69,69	0
56	MG	14	3303	1/1	0.99	0.05	107,107,107,107	0
56	MG	1H	3500	1/1	0.99	0.03	80,80,80,80	0
56	MG	13	1717	1/1	0.99	0.05	105,105,105,105	0
56	MG	14	3306	1/1	0.99	0.03	49,49,49,49	0
56	MG	14	3307	1/1	0.99	0.06	70,70,70,70	0
56	MG	14	3308	1/1	0.99	0.04	68,68,68,68	0
56	MG	14	3309	1/1	0.99	0.04	86,86,86,86	0
56	MG	14	3310	1/1	0.99	0.04	78,78,78,78	0
56	MG	14	3311	1/1	0.99	0.04	82,82,82,82	0
56	MG	1H	3418	1/1	0.99	0.06	56,56,56,56	0
56	MG	1H	3340	1/1	0.99	0.03	41,41,41,41	0
56	MG	14	3314	1/1	0.99	0.05	64,64,64,64	0
56	MG	1H	3504	1/1	0.99	0.06	75,75,75,75	0
56	MG	14	3316	1/1	0.99	0.03	82,82,82,82	0
56	MG	1H	3341	1/1	0.99	0.04	49,49,49,49	0
56	MG	14	3318	1/1	0.99	0.03	63,63,63,63	0
56	MG	1H	3506	1/1	0.99	0.07	88,88,88,88	0
56	MG	14	3320	1/1	0.99	0.02	72,72,72,72	0
56	MG	1H	3507	1/1	0.99	0.06	94,94,94,94	0
56	MG	1H	3367	1/1	0.99	0.07	83,83,83,83	0
56	MG	1H	3368	1/1	0.99	0.04	76,76,76,76	0
56	MG	1H	3425	1/1	0.99	0.03	67,67,67,67	0
56	MG	1H	3426	1/1	0.99	0.08	53,53,53,53	0
56	MG	1H	3512	1/1	0.99	0.04	44,44,44,44	0
56	MG	1H	3513	1/1	0.99	0.03	58,58,58,58	0
56	MG	1H	3514	1/1	0.99	0.04	51,51,51,51	0
56	MG	1H	3515	1/1	0.99	0.03	46,46,46,46	0
56	MG	1H	3342	1/1	0.99	0.03	57,57,57,57	0
56	MG	14	3331	1/1	0.99	0.03	65,65,65,65	0
56	MG	14	3332	1/1	0.99	0.03	88,88,88,88	0
56	MG	1H	3370	1/1	0.99	0.05	51,51,51,51	0
56	MG	1H	3429	1/1	0.99	0.06	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3519	1/1	0.99	0.09	94,94,94,94	0
56	MG	1H	3371	1/1	0.99	0.05	53,53,53,53	0
56	MG	13	1718	1/1	0.99	0.04	88,88,88,88	0
56	MG	1H	3373	1/1	0.99	0.07	63,63,63,63	0
56	MG	14	3339	1/1	0.99	0.04	85,85,85,85	0
56	MG	1H	3434	1/1	0.99	0.03	72,72,72,72	0
56	MG	1H	3374	1/1	0.99	0.04	63,63,63,63	0
56	MG	14	3342	1/1	0.99	0.03	72,72,72,72	0
56	MG	14	3343	1/1	0.99	0.04	100,100,100,100	0
56	MG	14	3344	1/1	0.99	0.09	85,85,85,85	0
56	MG	14	3345	1/1	0.99	0.05	72,72,72,72	0
56	MG	14	3346	1/1	0.99	0.08	80,80,80,80	0
56	MG	14	3347	1/1	0.99	0.06	75,75,75,75	0
56	MG	1H	3526	1/1	0.99	0.02	46,46,46,46	0
56	MG	1H	3436	1/1	0.99	0.03	79,79,79,79	0
56	MG	1H	3437	1/1	0.99	0.16	82,82,82,82	0
56	MG	1H	3438	1/1	0.99	0.03	52,52,52,52	0
56	MG	1H	3375	1/1	0.99	0.05	75,75,75,75	0
56	MG	14	3353	1/1	0.99	0.07	99,99,99,99	0
56	MG	1H	3376	1/1	0.99	0.04	70,70,70,70	0
56	MG	1H	3346	1/1	0.99	0.07	64,64,64,64	0
56	MG	1H	3443	1/1	0.99	0.03	76,76,76,76	0
56	MG	14	3357	1/1	0.99	0.14	82,82,82,82	0
56	MG	1H	3444	1/1	0.99	0.04	97,97,97,97	0
56	MG	1H	3347	1/1	0.99	0.03	59,59,59,59	0
56	MG	1H	3446	1/1	0.99	0.05	84,84,84,84	0
56	MG	1H	3447	1/1	0.99	0.03	81,81,81,81	0
56	MG	14	3362	1/1	0.99	0.03	78,78,78,78	0
56	MG	1H	3448	1/1	0.99	0.09	68,68,68,68	0
56	MG	1H	3449	1/1	0.99	0.04	66,66,66,66	0
56	MG	16	211	1/1	0.99	0.03	84,84,84,84	0
56	MG	16	212	1/1	0.99	0.05	79,79,79,79	0
56	MG	1H	3379	1/1	0.99	0.06	79,79,79,79	0
56	MG	14	3368	1/1	0.99	0.05	53,53,53,53	0
56	MG	14	3369	1/1	0.99	0.03	96,96,96,96	0
56	MG	13	1725	1/1	0.99	0.06	90,90,90,90	0
56	MG	1H	3453	1/1	0.99	0.04	91,91,91,91	0
56	MG	1H	3454	1/1	0.99	0.05	106,106,106,106	0
56	MG	1H	3382	1/1	0.99	0.03	60,60,60,60	0
56	MG	14	3374	1/1	0.99	0.04	57,57,57,57	0
56	MG	14	3375	1/1	0.99	0.04	61,61,61,61	0
56	MG	14	3376	1/1	0.99	0.03	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	13	1714	1/1	0.99	0.03	62,62,62,62	0
56	MG	1H	3385	1/1	0.99	0.03	66,66,66,66	0
56	MG	1H	3458	1/1	0.99	0.08	109,109,109,109	0
56	MG	1H	3459	1/1	0.99	0.06	64,64,64,64	0
56	MG	1H	3460	1/1	0.99	0.14	63,63,63,63	0
56	MG	1H	3350	1/1	0.99	0.04	43,43,43,43	0
56	MG	1H	3462	1/1	0.99	0.06	81,81,81,81	0
56	MG	1H	3463	1/1	0.99	0.03	82,82,82,82	0
56	MG	1H	3351	1/1	0.99	0.03	50,50,50,50	0
56	MG	14	3062	1/1	0.99	0.05	69,69,69,69	0
56	MG	1H	3389	1/1	0.99	0.03	51,51,51,51	0
56	MG	13	1720	1/1	0.99	0.04	66,66,66,66	0
56	MG	1H	3467	1/1	0.99	0.06	86,86,86,86	0
56	MG	1H	3391	1/1	0.99	0.03	53,53,53,53	0
56	MG	1H	3392	1/1	0.99	0.05	42,42,42,42	0
56	MG	1H	3470	1/1	0.99	0.04	98,98,98,98	0
56	MG	1H	3396	1/1	0.99	0.12	79,79,79,79	0
56	MG	1H	3354	1/1	0.99	0.05	61,61,61,61	0
56	MG	1H	3474	1/1	0.99	0.03	91,91,91,91	0
56	MG	1H	3399	1/1	0.99	0.02	67,67,67,67	0
56	MG	1H	3476	1/1	0.99	0.09	65,65,65,65	0
56	MG	1H	3477	1/1	0.99	0.04	82,82,82,82	0
56	MG	1H	3400	1/1	0.99	0.03	68,68,68,68	0
56	MG	1H	3479	1/1	0.99	0.18	67,67,67,67	0
56	MG	1H	3401	1/1	0.99	0.08	50,50,50,50	0
56	MG	1H	3481	1/1	0.99	0.11	79,79,79,79	0
56	MG	1H	3402	1/1	0.99	0.04	49,49,49,49	0
56	MG	13	1728	1/1	0.99	0.04	95,95,95,95	0
56	MG	14	3261	1/1	0.99	0.03	54,54,54,54	0
56	MG	14	3263	1/1	0.99	0.05	60,60,60,60	0
56	MG	14	3264	1/1	0.99	0.04	53,53,53,53	0
57	ZN	5I	101	1/1	0.99	0.03	111,111,111,111	0
56	MG	1G	1698	1/1	0.99	0.04	91,91,91,91	0
56	MG	1H	3486	1/1	0.99	0.06	61,61,61,61	0
56	MG	14	3267	1/1	0.99	0.03	67,67,67,67	0
56	MG	14	3268	1/1	0.99	0.05	64,64,64,64	0
56	MG	1H	3452	1/1	1.00	0.04	69,69,69,69	0
56	MG	14	3286	1/1	1.00	0.03	58,58,58,58	0
56	MG	1H	3387	1/1	1.00	0.03	57,57,57,57	0
56	MG	13	1735	1/1	1.00	0.05	77,77,77,77	0
56	MG	1H	3345	1/1	1.00	0.03	47,47,47,47	0
56	MG	1H	3403	1/1	1.00	0.02	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3262	1/1	1.00	0.02	88,88,88,88	0
56	MG	1H	3381	1/1	1.00	0.07	46,46,46,46	0
56	MG	1H	3525	1/1	1.00	0.03	43,43,43,43	0
56	MG	13	1736	1/1	1.00	0.07	86,86,86,86	0
56	MG	1H	3421	1/1	1.00	0.08	64,64,64,64	0
56	MG	14	3296	1/1	1.00	0.04	53,53,53,53	0
56	MG	1H	3440	1/1	1.00	0.02	63,63,63,63	0
56	MG	1H	3482	1/1	1.00	0.05	66,66,66,66	0
56	MG	1G	1689	1/1	1.00	0.04	80,80,80,80	0
56	MG	14	3300	1/1	1.00	0.02	47,47,47,47	0
56	MG	1H	3383	1/1	1.00	0.09	48,48,48,48	0
56	MG	14	3302	1/1	1.00	0.03	73,73,73,73	0
56	MG	1H	3393	1/1	1.00	0.03	44,44,44,44	0
56	MG	1H	3485	1/1	1.00	0.03	81,81,81,81	0
56	MG	1H	3424	1/1	1.00	0.03	49,49,49,49	0
56	MG	1H	3394	1/1	1.00	0.02	54,54,54,54	0
56	MG	1H	3409	1/1	1.00	0.02	83,83,83,83	0
56	MG	I8	102	1/1	1.00	0.06	67,67,67,67	0
56	MG	1H	3395	1/1	1.00	0.02	48,48,48,48	0
56	MG	1H	3352	1/1	1.00	0.03	43,43,43,43	0
56	MG	13	1730	1/1	1.00	0.10	75,75,75,75	0
56	MG	1H	3398	1/1	1.00	0.03	63,63,63,63	0
56	MG	1H	3343	1/1	1.00	0.02	48,48,48,48	0
56	MG	1H	3432	1/1	1.00	0.03	83,83,83,83	0
56	MG	1H	3472	1/1	1.00	0.04	61,61,61,61	0
56	MG	14	3284	1/1	1.00	0.02	49,49,49,49	0

6.5 Other polymers (i)

There are no such residues in this entry.