Full wwPDB X-ray Structure Validation Report ⓘ

Mar 20, 2026 – 07:43 PM UTC

PDB ID	:	4WSM / pdb_00004wsm
Title	:	Complex of 70S ribosome with tRNA-Leu and mRNA with G-U mismatch in the first position in the A- and P-sites
Authors	:	Rozov, A.; Demeshkina, N.; Yusupov, M.; Yusupova, G.
Deposited on	:	2014-10-28
Resolution	:	3.30 Å(reported)

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

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

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

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

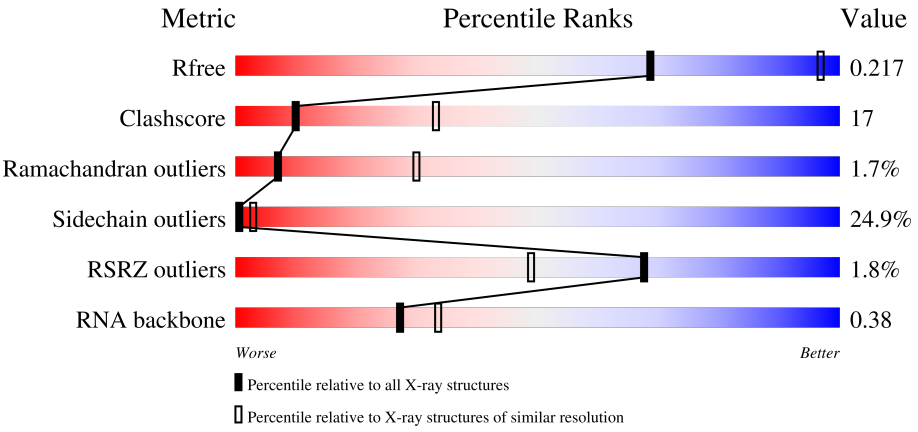
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (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 3.30 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1169 (3.32-3.28)
Clashscore	190562	1209 (3.32-3.28)
Ramachandran outliers	187476	1188 (3.32-3.28)
Sidechain outliers	187428	1187 (3.32-3.28)
RSRZ outliers	180081	1169 (3.32-3.28)
RNA backbone	3983	1048 (3.60-3.00)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments 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	40% 46% 12%
1	1G	1522	40% 44% 14%
2	12	256	3% 38% 38% 17% 7%
2	1E	256	39% 42% 11% 7%

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Mol	Chain	Length	Quality of chain
3	22	239	3% 37% 38% 10% 14%
3	2E	239	43% 31% 11% 14%
4	32	209	6% 38% 47% 12%
4	3E	209	4% 47% 43% 9%
5	42	162	43% 40% 10% 7%
5	4E	162	42% 40% 11% 7%
6	52	101	44% 43% 13%
6	5E	101	5% 48% 42% 11%
7	62	156	41% 44% 9% 6%
7	6E	156	5% 53% 31% 8% 8%
8	72	138	53% 39% 7%
8	7E	138	48% 42% 9%
9	82	128	5% 45% 42% 9%
9	8E	128	5% 35% 51% 12%
10	1A	105	7% 37% 45% 11% 6%
10	1I	105	38% 46% 10% 6%
11	2A	129	44% 36% 10% 10%
11	2I	129	4% 41% 41% 8% 10%
12	3A	132	7% 48% 30% 16% 5%
12	3I	132	41% 39% 11% 8%
13	4A	126	4% 42% 39% 11% 8%
13	4I	126	40% 40% 13% 8%
14	5A	61	11% 39% 46% 8% 5%
14	5I	61	38% 48% 13%
15	6A	89	51% 43% 6%

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Mol	Chain	Length	Quality of chain
15	6I	89	53% 40% 6%
16	7A	88	44% 42% 8% 5%
16	7I	88	3% 44% 44% 7% 5%
17	8A	105	3% 44% 46% 5% 6%
17	8I	105	5% 50% 39% 7% 5%
18	9A	88	41% 27% 9% 22%
18	9I	88	39% 25% 11% 24%
19	AA	93	2% 31% 42% 11% 16%
19	AI	93	2% 39% 34% 9% 14%
20	BA	106	2% 42% 42% 9% 7%
20	BI	106	8% 43% 42% 8% 7%
21	1B	27	44% 52% 33% 7% 7%
21	1F	27	15% 48% 33% 15%
22	1K	87	6% 38% 39% 23%
22	1L	87	3% 30% 53% 17%
23	2K	87	7% 33% 24% 32% 9%
23	2L	87	20% 38% 31% 8%
24	3K	87	25% 43% 21% 11%
24	3L	87	2% 29% 37% 20% 14%
25	4K	60	10% 10% 7% 73%
25	4L	60	17% 12% 7% 65%
26	14	2917	43% 44% 13%
26	1H	2917	42% 44% 13%
27	16	122	45% 48% 7%
27	1J	122	2% 38% 40% 22%

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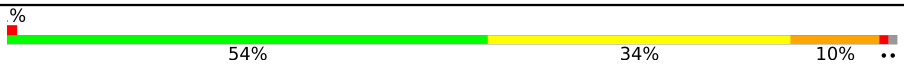
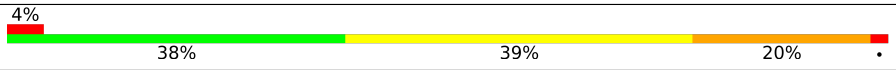
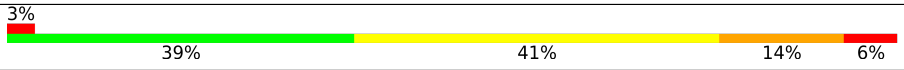
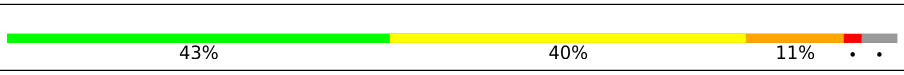
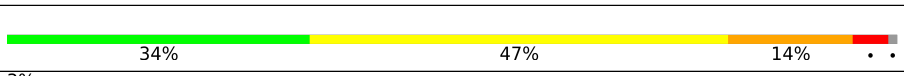
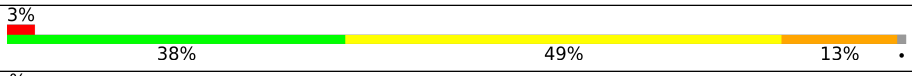
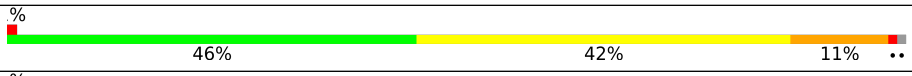
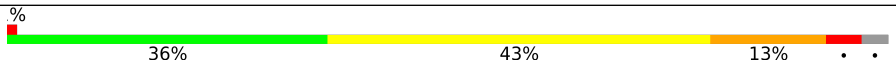
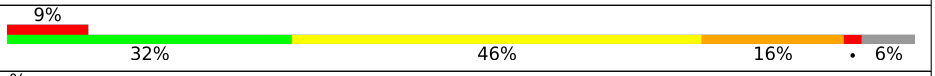
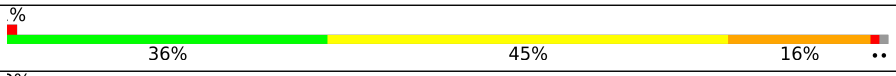
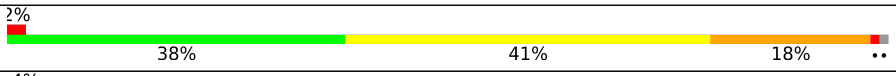
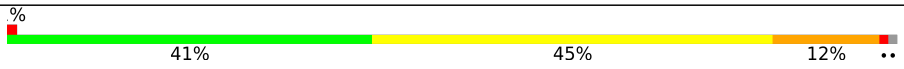
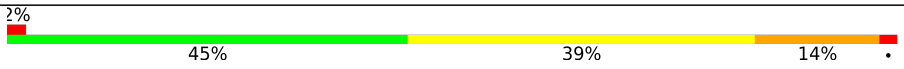
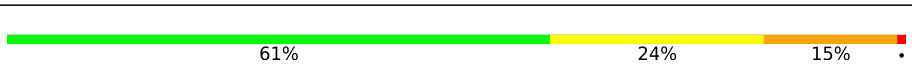
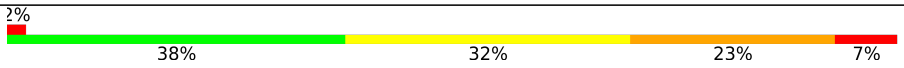
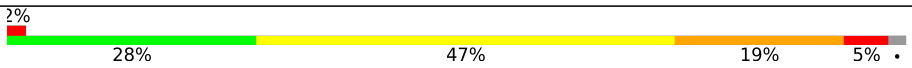
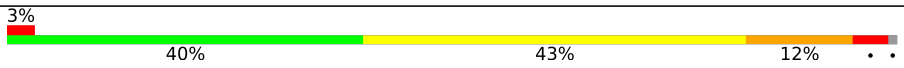
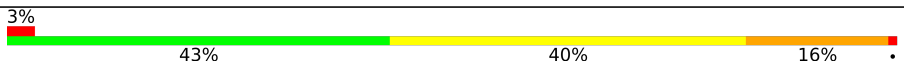
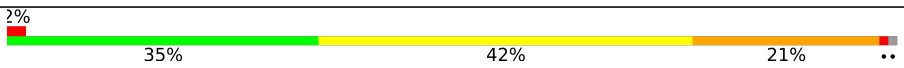
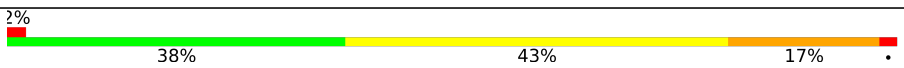
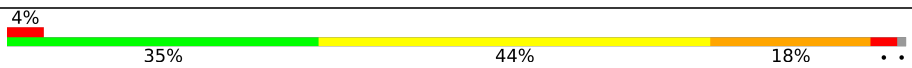
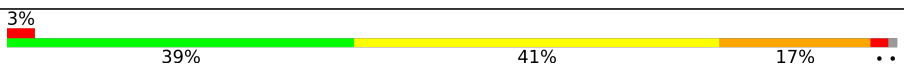
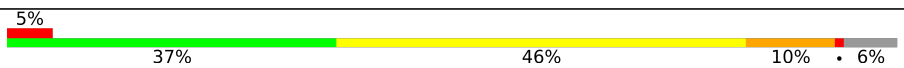
Mol	Chain	Length	Quality of chain
28	11	276	
28	19	276	
29	21	206	
29	29	206	
30	31	210	
30	39	210	
31	41	182	
31	49	182	
32	51	180	
32	59	180	
33	61	148	
33	69	148	
34	15	140	
34	58	140	
35	25	122	
35	68	122	
36	35	150	
36	78	150	
37	45	141	
37	88	141	
38	55	118	
38	98	118	
39	65	112	
39	A8	112	
40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

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Mol	Chain	Length	Quality of chain
40	B8	146	3% 29% 45% 13% 12%
41	85	118	51% 36% 11%
41	C8	118	2% 47% 39% 12%
42	95	101	5% 41% 38% 19%
42	D8	101	4% 42% 42% 13%
43	A5	113	48% 42% 10%
43	E8	113	% 51% 38% 9%
44	B5	96	2% 45% 34% 16%
44	F8	96	50% 40% 8%
45	C5	110	2% 35% 33% 24% 5%
45	G8	110	4% 33% 42% 14% 5% 6%
46	D5	206	% 23% 32% 8% 34%
46	H8	206	% 33% 34% 14% 17%
47	E5	85	4% 44% 33% 18% 6%
47	I8	85	4% 53% 34% 11%
48	F5	98	3% 47% 32% 17%
48	J8	98	3% 49% 33% 14%
49	G5	72	% 46% 35% 8% 7%
49	K8	72	% 28% 39% 21% 7% 6%
50	H5	60	3% 48% 35% 13%
50	L8	60	50% 30% 13% 5%
51	I5	71	32% 39% 14% 11%
51	M8	71	21% 51% 17% 7%
52	J5	60	5% 43% 38% 10% 7%
52	N8	60	5% 32% 43% 12% 5% 8%

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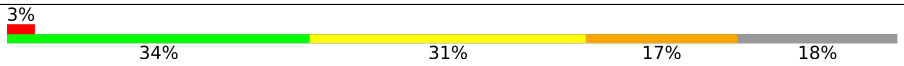
Mol	Chain	Length	Quality of chain
53	L5	49	
53	P8	49	
54	M5	65	
54	Q8	65	

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
55	MG	13	1715	-	-	-	X
55	MG	14	3270	-	-	-	X
55	MG	14	3290	-	-	-	X
55	MG	14	3335	-	-	-	X
55	MG	14	3350	-	-	-	X
55	MG	14	3360	-	-	-	X
55	MG	14	3387	-	-	-	X
55	MG	1G	1719	-	-	-	X
55	MG	1H	3126	-	-	-	X
55	MG	1H	3250	-	-	-	X
55	MG	1H	3356	-	-	-	X
55	MG	1H	3373	-	-	-	X

2 Entry composition (i)

There are 57 unique types of molecules in this entry. The entry contains 299429 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	1507	Total	C	N	O	P	0	0	0
			32389	14416	5999	10467	1507			
1	1G	1513	Total	C	N	O	P	0	0	0
			32511	14472	6018	10509	1512			

- 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
			1702	1066	339	290	7			
4	32	208	Total	C	N	O	S	0	0	0
			1702	1066	339	290	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
			842	531	155	153	3			
6	52	101	Total	C	N	O	S	0	0	0
			842	531	155	153	3			

- Molecule 7 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	6E	144	Total	C	N	O	S	0	0	0
			1157	718	230	203	6			
7	62	147	Total	C	N	O	S	0	0	0
			1200	750	237	207	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
			1115	705	215	192	3			
8	72	138	Total	C	N	O	S	0	0	0
			1115	705	215	192	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
			1009	639	197	173			
9	82	124	Total	C	N	O	0	0	0
			983	624	190	169			

- 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	116	Total	C	N	O	S	0	0	0
			864	537	164	160	3			
11	2A	116	Total	C	N	O	S	0	0	0
			864	537	164	160	3			

- Molecule 12 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	3I	122	Total	C	N	O	S	0	0	0
			956	603	193	159	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	116	Total	C	N	O	S	0	0	0
			928	574	191	161	2			
13	4A	116	Total	C	N	O	S	0	0	0
			928	574	191	161	2			

- 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
			491	312	104	71	4			
14	5A	58	Total	C	N	O	S	0	0	0
			475	303	99	69	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
			733	459	147	125	2			
15	6A	88	Total	C	N	O	S	0	0	0
			733	459	147	125	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	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			

- Molecule 18 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	9I	67	Total	C	N	O	0	0	0
			550	352	107	91			
18	9A	69	Total	C	N	O	0	0	0
			564	361	110	93			

- Molecule 19 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AI	80	Total	C	N	O	S	0	0	0
			643	411	118	112	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
			762	470	162	128	2			
20	BA	99	Total	C	N	O	S	0	0	0
			762	470	162	128	2			

- Molecule 21 is a protein called 30S ribosomal protein Thx.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	1F	23	Total	C	N	O	0	0	0
			199	122	48	29			
21	1B	25	Total	C	N	O	0	0	0
			217	134	52	31			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	1K	87	Total	C	N	O	P	0	0	0
			1863	831	333	612	87			
22	1L	87	Total	C	N	O	P	0	0	0
			1863	831	333	612	87			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	2K	79	Total	C	N	O	P	0	0	0
			1692	755	300	558	79			
23	2L	80	Total	C	N	O	P	0	0	0
			1712	764	303	565	80			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	3K	77	Total	C	N	O	P	0	0	0
			1646	733	292	544	77			
24	3L	75	Total	C	N	O	P	0	0	0
			1601	713	282	531	75			

- Molecule 25 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	4K	16	Total	C	N	O	P	0	0	0
			336	150	50	120	16			
25	4L	21	Total	C	N	O	P	0	0	0
			438	196	64	157	21			

- 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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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
			2126	1341	424	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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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			
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
			932	588	171	169	4			
35	25	122	Total	C	N	O	S	0	0	0
			932	588	171	169	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	78	147	Total	C	N	O	S	0	0	0
			1122	698	229	192	3			
36	35	150	Total	C	N	O	S	0	0	0
			1144	712	232	197	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	88	141	Total	C	N	O	S	0	0	0
			1121	715	212	187	7			
37	45	140	Total	C	N	O	S	0	0	0
			1113	710	211	186	6			

- 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
			967	604	203	159	1			
38	55	117	Total	C	N	O		0	0	0
			959	599	202	158				

- 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
			881	556	176	149			
39	65	111	Total	C	N	O	0	0	0
			881	556	176	149			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	B8	129	Total	C	N	O	S	0	0	0
			1081	674	223	183	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
			963	610	202	150	1			
41	85	117	Total	C	N	O	S	0	0	0
			963	610	202	150	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
			778	501	142	134	1			
42	95	101	Total	C	N	O	S	0	0	0
			778	501	142	134	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	E8	112	Total	C	N	O	S	0	0	0
			890	560	175	153	2			
43	A5	113	Total	C	N	O	S	0	0	0
			899	566	177	154	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	92	Total	C	N	O		0	0	0
			725	471	131	123				

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	G8	103	Total	C	N	O	S	0	0	0
			783	504	148	126	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	171	Total	C	N	O	S	0	0	0
			1373	876	247	247	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	D5	135	Total	C	N	O	S	0	0	0
			1120	720	202	195	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	I8	83	Total	C	N	O	S	0	0	0
			656	407	139	109	1			
47	E5	80	Total	C	N	O	S	0	0	0
			627	388	132	106	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	95	Total	C	N	O	S	0	0	0
			746	469	148	128	1			
48	F5	94	Total	C	N	O	S	0	0	0
			737	463	146	127	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	K8	68	Total	C	N	O	S	0	0	0
			575	358	116	100	1			
49	G5	67	Total	C	N	O	S	0	0	0
			567	351	115	100	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
			468	298	90	80			

- 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	55	Total	C	N	O	S	0	0	0
			429	269	86	69	5			
52	J5	56	Total	C	N	O	S	0	0	0
			434	272	87	70	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	P8	47	Total	C	N	O	S	0	0	0
			409	251	102	54	2			
53	L5	47	Total	C	N	O	S	0	0	0
			409	251	102	54	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	Q8	60	Total	C	N	O	S	0	0	0
			480	306	98	74	2			
54	M5	53	Total	C	N	O	S	0	0	0
			422	270	87	63	2			

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	13	146	Total	Mg	0	0
			146	146		
55	3E	1	Total	Mg	0	0
			1	1		
55	5E	1	Total	Mg	0	0
			1	1		
55	3I	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	1K	1	Total Mg 1 1	0	0
55	2K	3	Total Mg 3 3	0	0
55	1H	512	Total Mg 512 512	0	0
55	16	5	Total Mg 5 5	0	0
55	11	1	Total Mg 1 1	0	0
55	21	2	Total Mg 2 2	0	0
55	31	1	Total Mg 1 1	0	0
55	78	1	Total Mg 1 1	0	0
55	88	4	Total Mg 4 4	0	0
55	98	1	Total Mg 1 1	0	0
55	G8	1	Total Mg 1 1	0	0
55	I8	2	Total Mg 2 2	0	0
55	J8	1	Total Mg 1 1	0	0
55	P8	1	Total Mg 1 1	0	0
55	1G	143	Total Mg 143 143	0	0
55	32	1	Total Mg 1 1	0	0
55	7A	1	Total Mg 1 1	0	0
55	2L	2	Total Mg 2 2	0	0
55	14	490	Total Mg 490 490	0	0
55	1J	2	Total Mg 2 2	0	0
55	29	3	Total Mg 3 3	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	25	1	Total Mg 1 1	0	0
55	45	2	Total Mg 2 2	0	0
55	85	2	Total Mg 2 2	0	0
55	E5	2	Total Mg 2 2	0	0

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

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	3E	1	Total Zn 1 1	0	0
56	5I	1	Total Zn 1 1	0	0
56	G8	1	Total Zn 1 1	0	0
56	32	1	Total Zn 1 1	0	0
56	5A	1	Total Zn 1 1	0	0
56	C5	1	Total Zn 1 1	0	0

- Molecule 57 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	13	74	Total O 74 74	0	0
57	3E	1	Total O 1 1	0	0
57	6I	1	Total O 1 1	0	0
57	BI	1	Total O 1 1	0	0
57	1H	552	Total O 552 552	0	0
57	11	1	Total O 1 1	0	0
57	21	1	Total O 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	31	4	Total O 4 4	0	0
57	78	2	Total O 2 2	0	0
57	B8	1	Total O 1 1	0	0
57	C8	2	Total O 2 2	0	0
57	D8	1	Total O 1 1	0	0
57	E8	1	Total O 1 1	0	0
57	I8	3	Total O 3 3	0	0
57	J8	1	Total O 1 1	0	0
57	P8	1	Total O 1 1	0	0
57	1G	73	Total O 73 73	0	0
57	6A	2	Total O 2 2	0	0
57	7A	1	Total O 1 1	0	0
57	4L	2	Total O 2 2	0	0
57	14	520	Total O 520 520	0	0
57	19	8	Total O 8 8	0	0
57	29	2	Total O 2 2	0	0
57	39	4	Total O 4 4	0	0
57	35	1	Total O 1 1	0	0
57	55	2	Total O 2 2	0	0
57	85	1	Total O 1 1	0	0
57	A5	1	Total O 1 1	0	0

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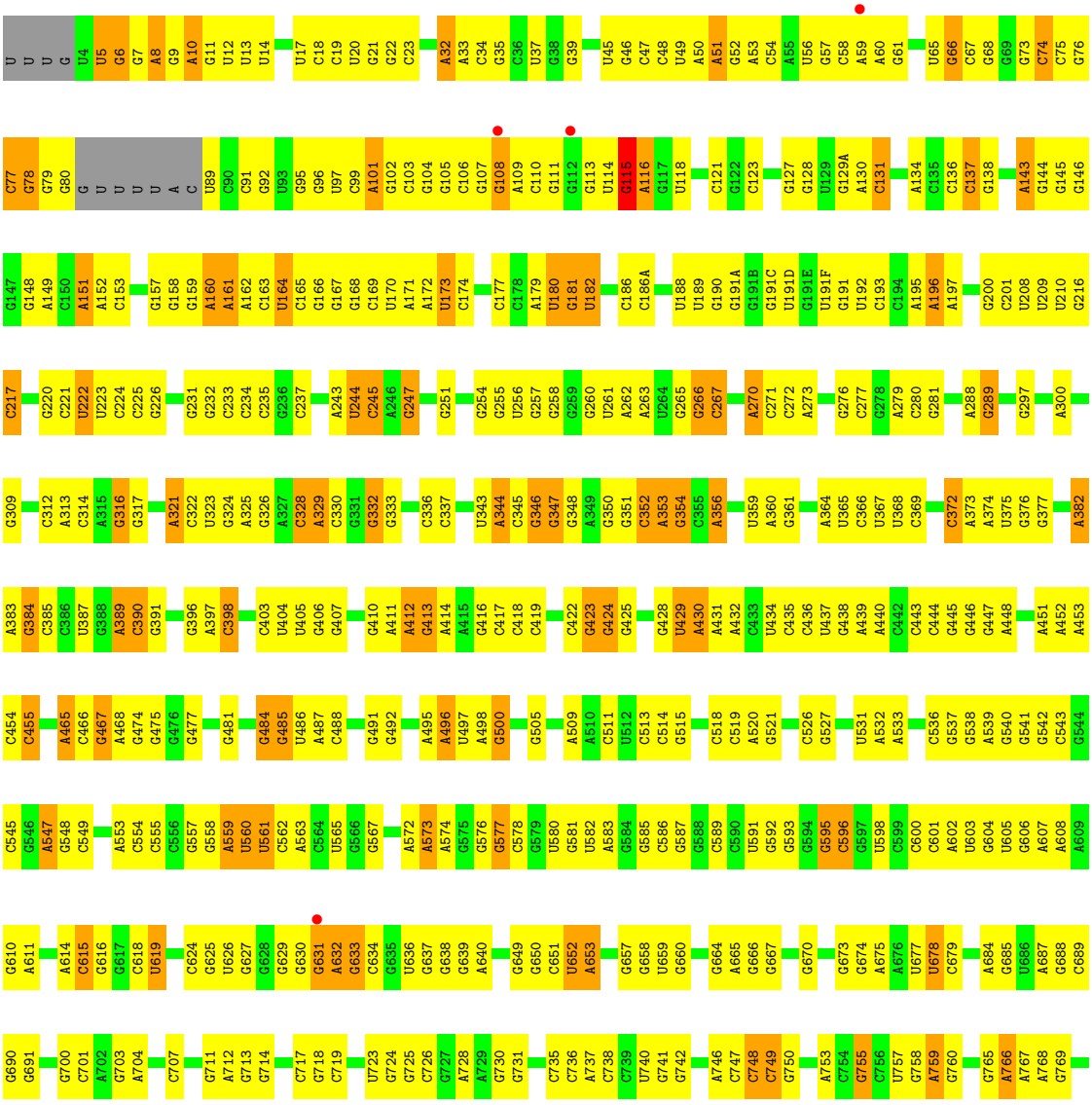
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	M5	3	Total O 3 3	0	0

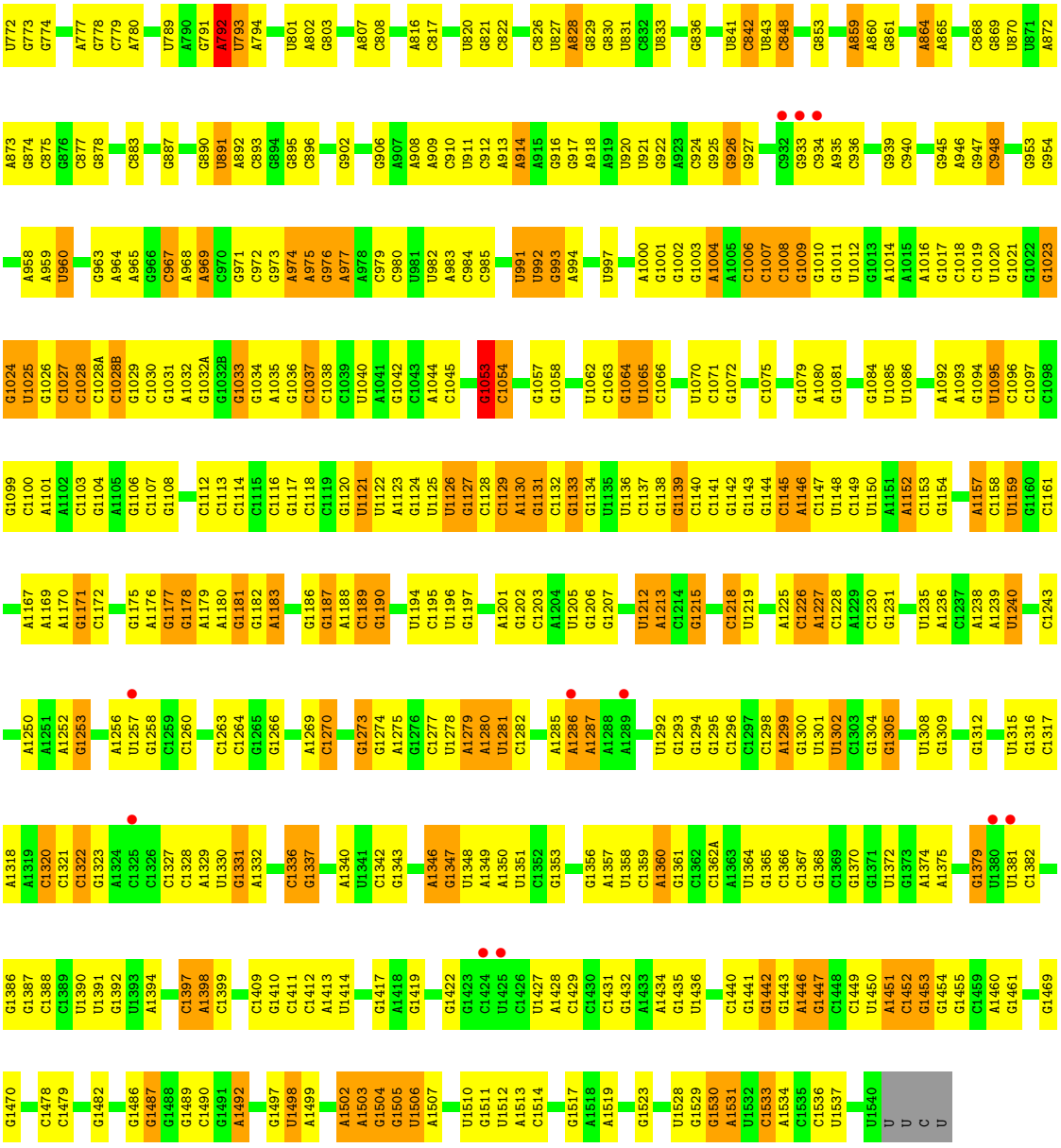
3 Residue-property plots (i)

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

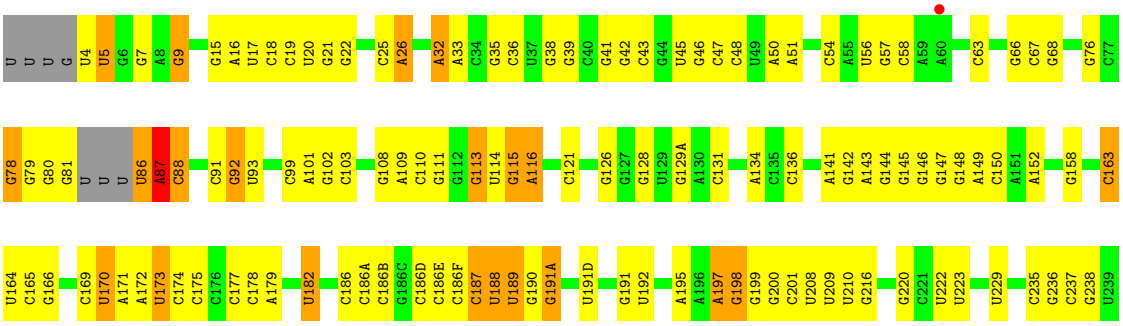
Chain 13:

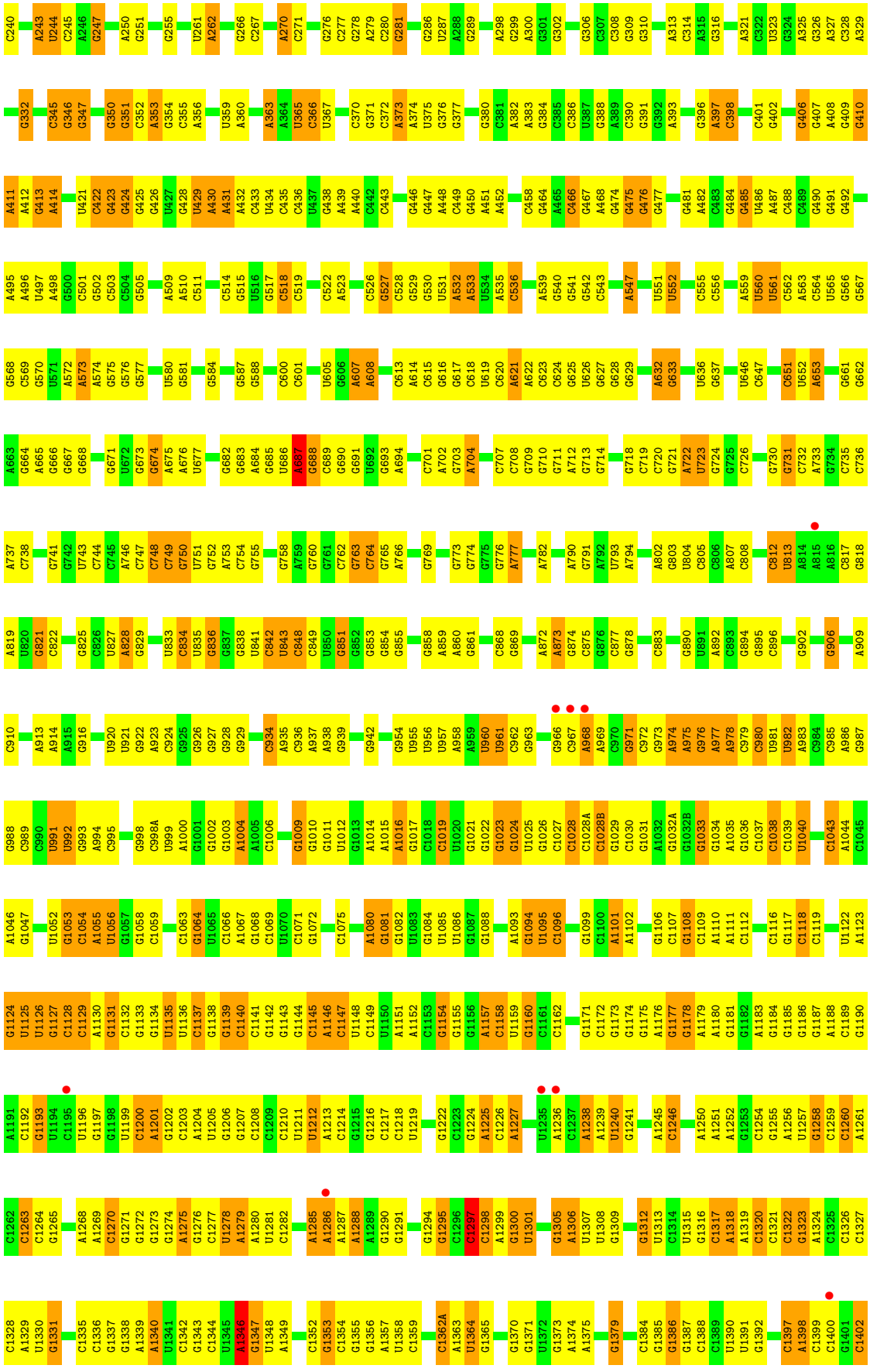


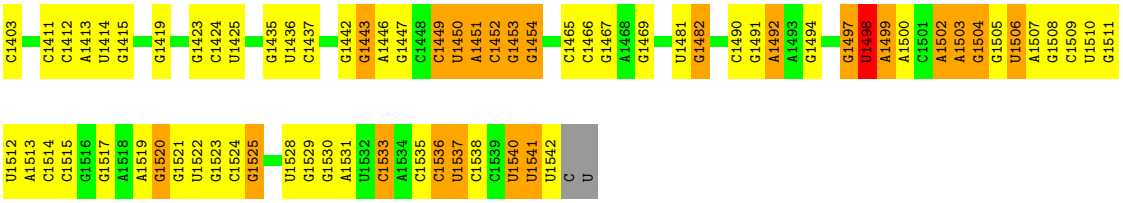


• Molecule 1: 16S ribosomal RNA

Chain 1G:

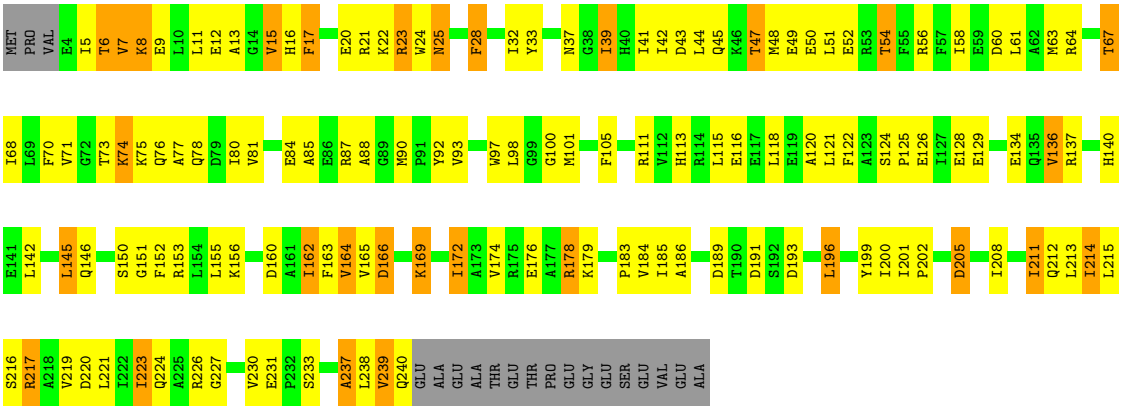






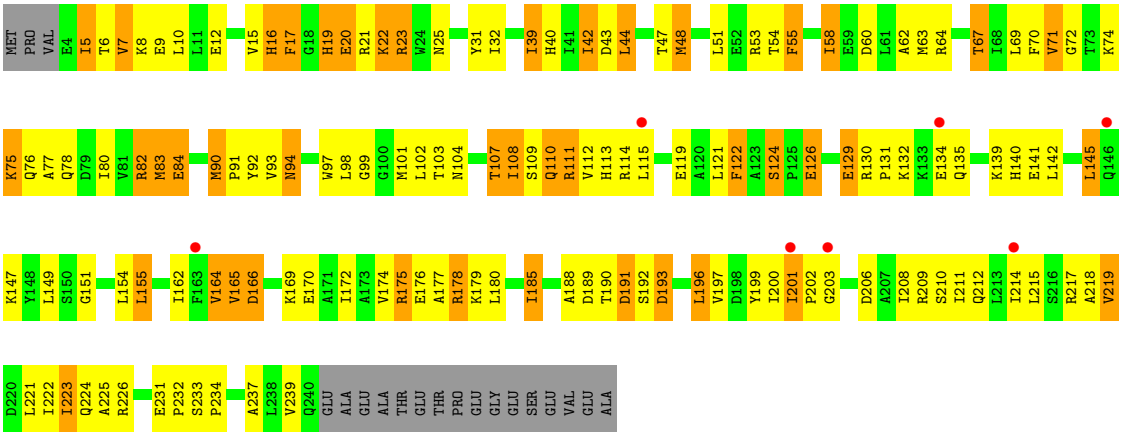
• Molecule 2: 30S ribosomal protein S2

Chain 1E:



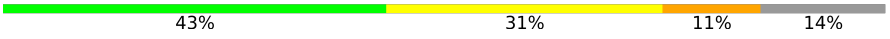
• Molecule 2: 30S ribosomal protein S2

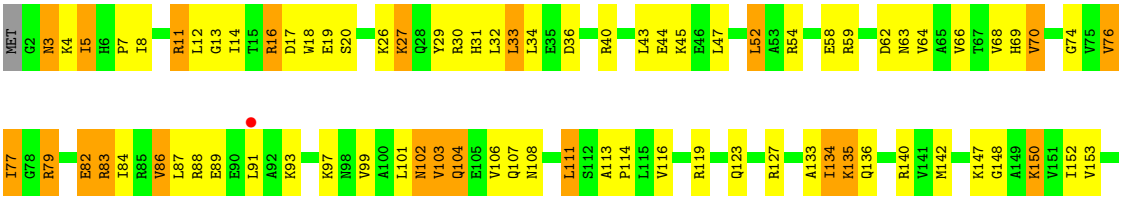
Chain 12:

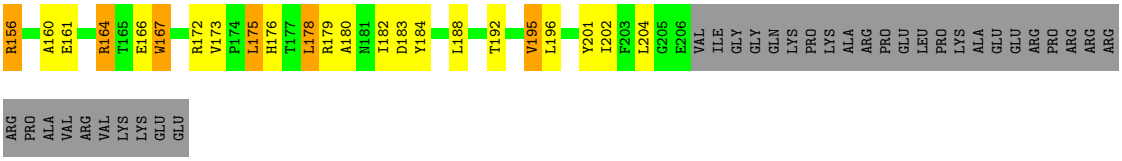


• Molecule 3: 30S ribosomal protein S3

Chain 2E:

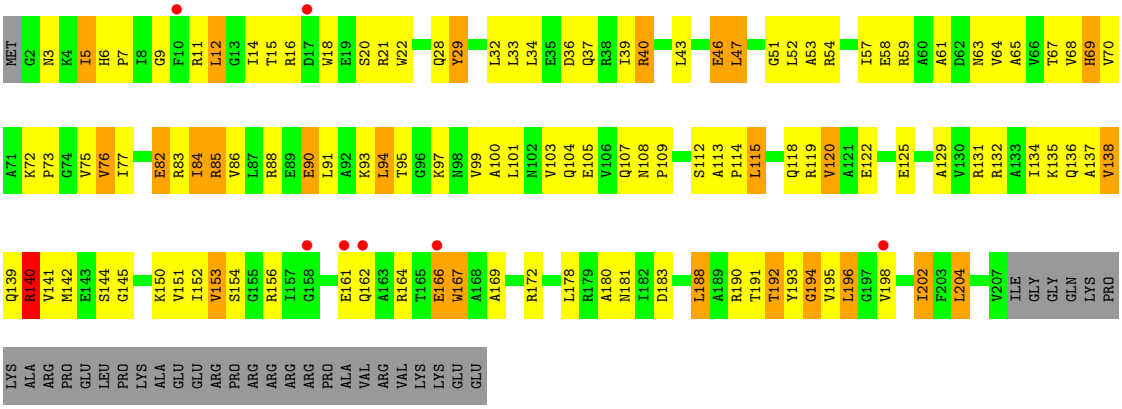






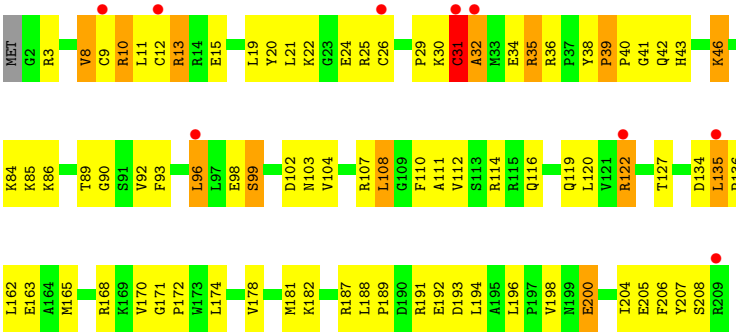
• Molecule 3: 30S ribosomal protein S3

Chain 22:



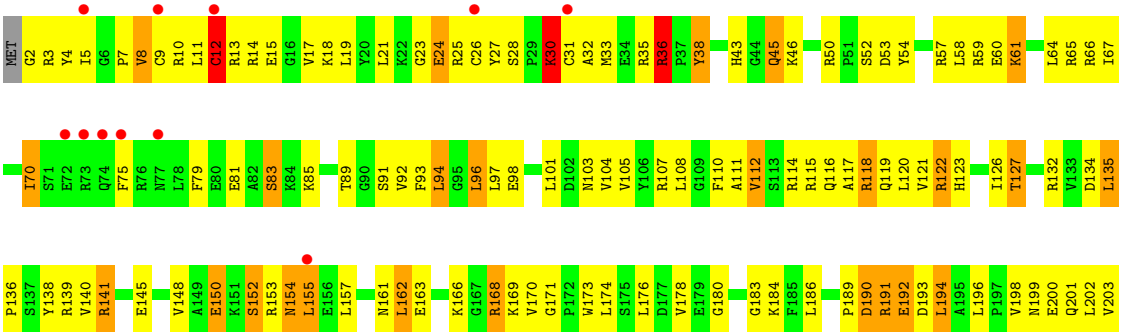
• Molecule 4: 30S ribosomal protein S4

Chain 3E:



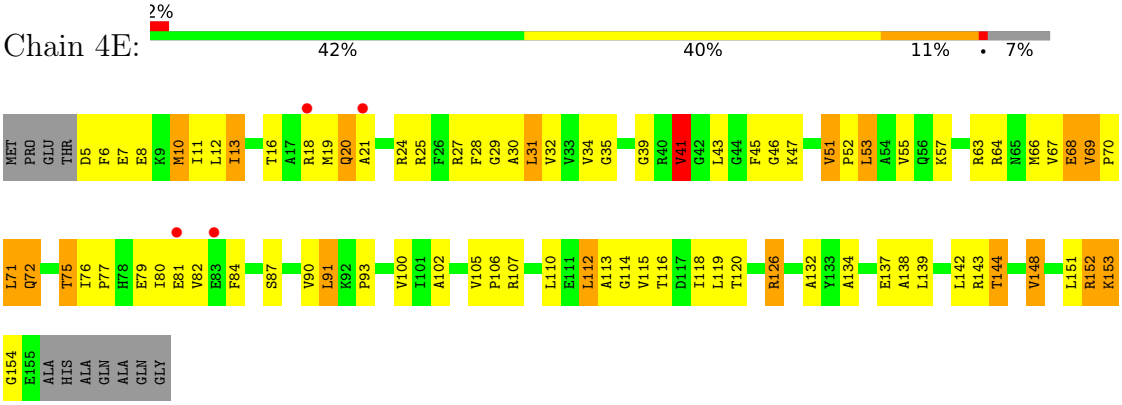
• Molecule 4: 30S ribosomal protein S4

Chain 32:



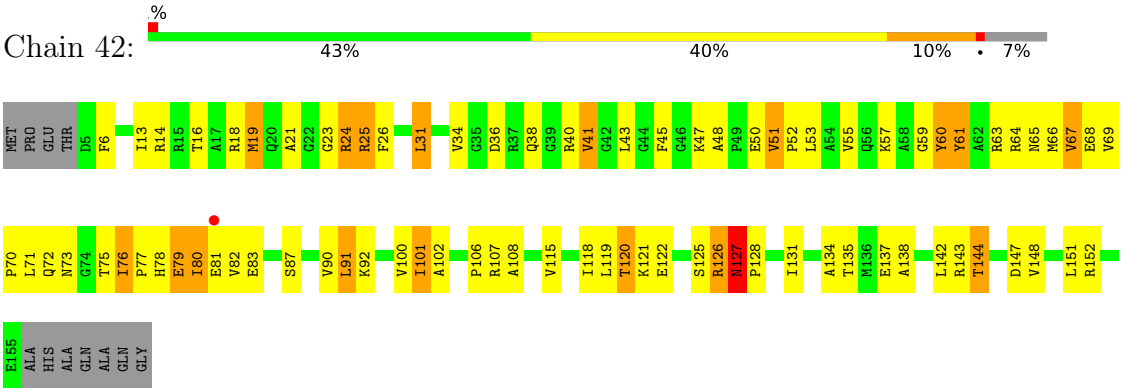
• Molecule 5: 30S ribosomal protein S5

Chain 4E:



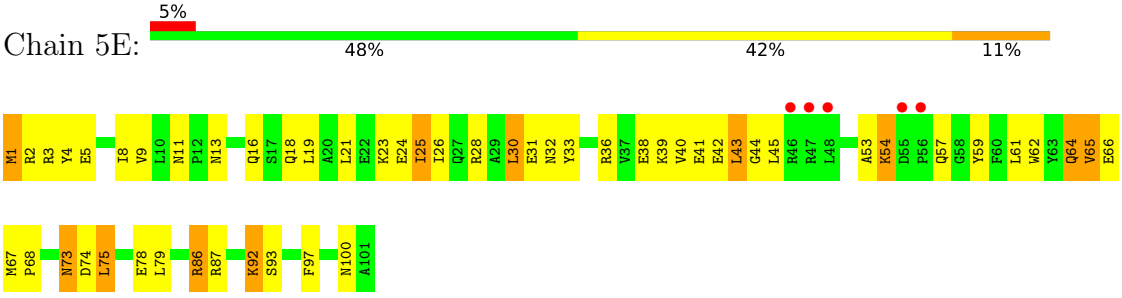
• Molecule 5: 30S ribosomal protein S5

Chain 42:



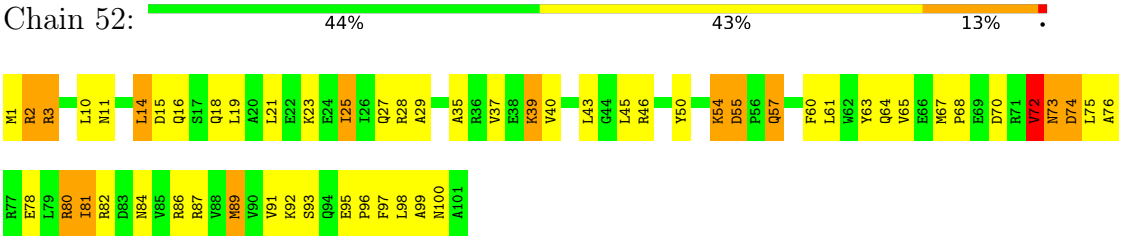
• Molecule 6: 30S ribosomal protein S6

Chain 5E:



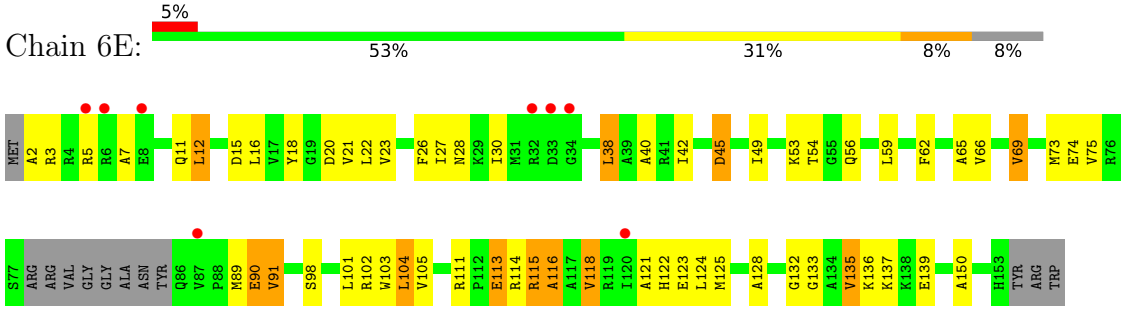
• Molecule 6: 30S ribosomal protein S6

Chain 52:



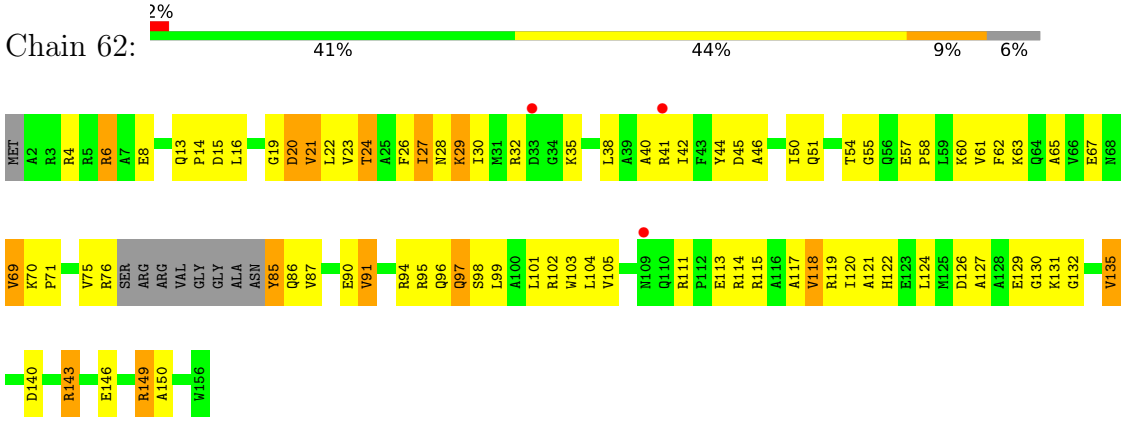
• Molecule 7: 30S ribosomal protein S7

Chain 6E:



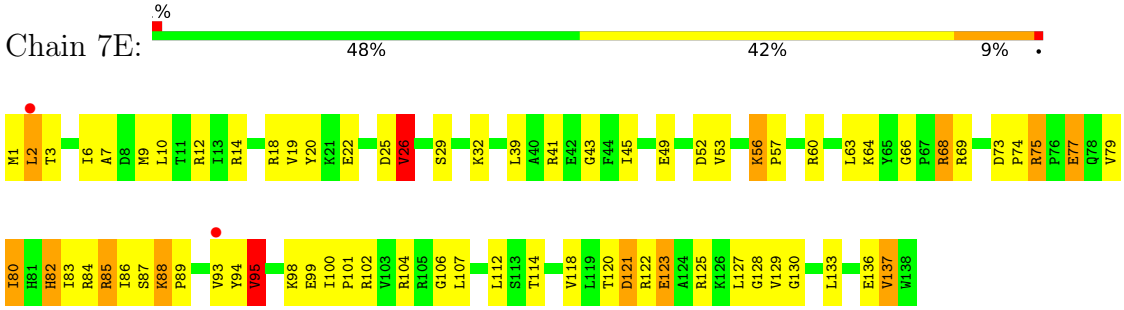
• Molecule 7: 30S ribosomal protein S7

Chain 62:



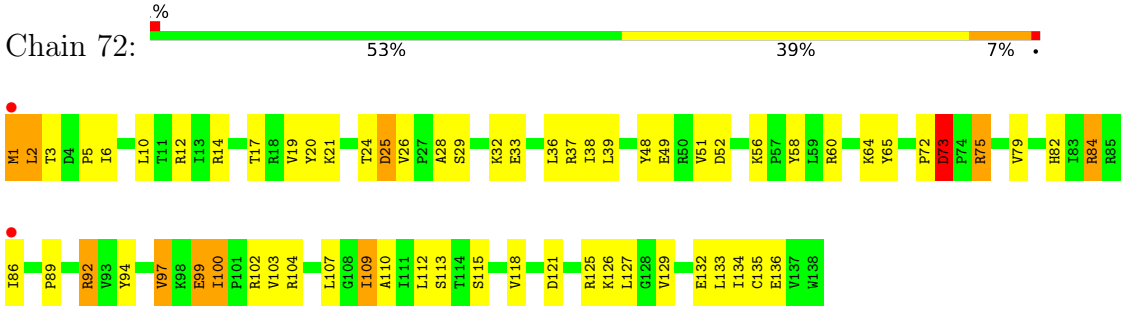
• Molecule 8: 30S ribosomal protein S8

Chain 7E:



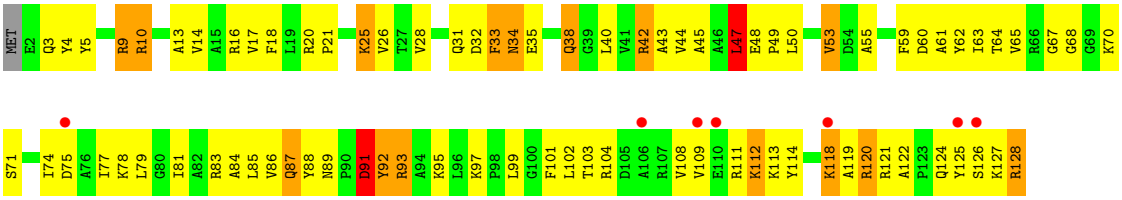
• Molecule 8: 30S ribosomal protein S8

Chain 72:



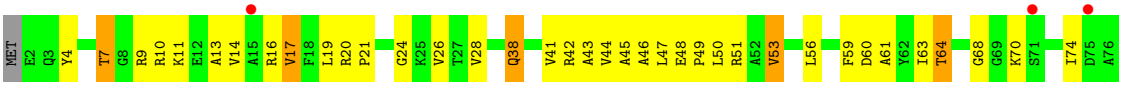
• Molecule 9: 30S ribosomal protein S9

Chain 8E:



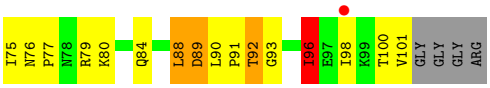
• Molecule 9: 30S ribosomal protein S9

Chain 82:



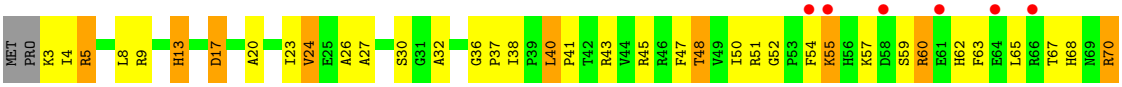
• Molecule 10: 30S ribosomal protein S10

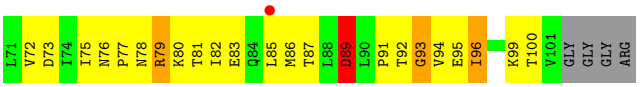
Chain 1I:



• Molecule 10: 30S ribosomal protein S10

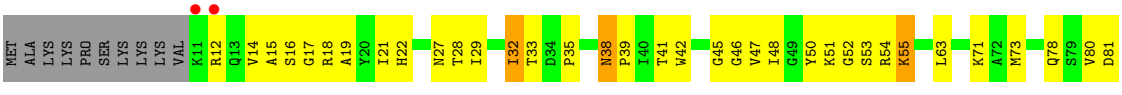
Chain 1A:

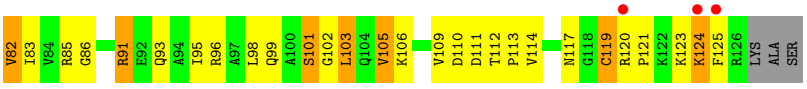




• Molecule 11: 30S ribosomal protein S11

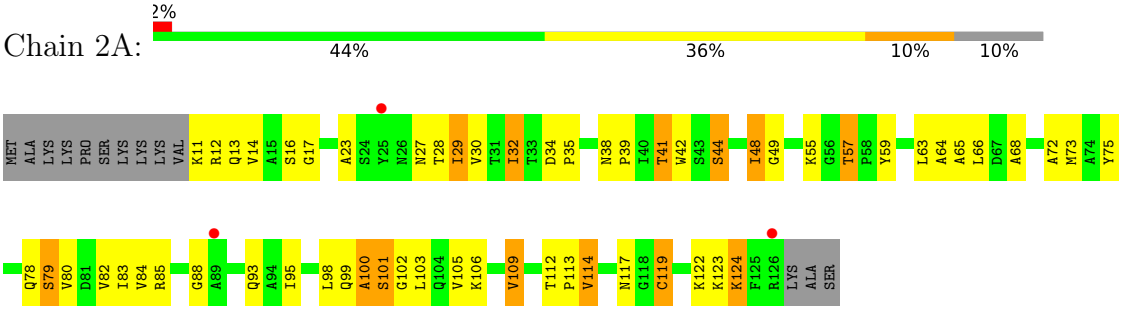
Chain 2I:





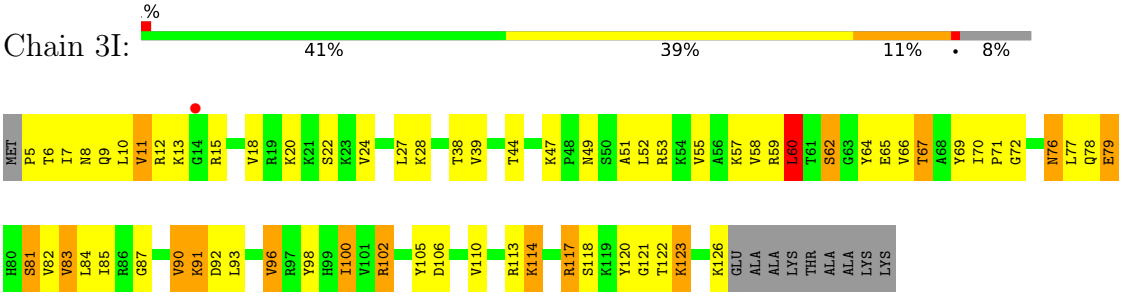
• Molecule 11: 30S ribosomal protein S11

Chain 2A:



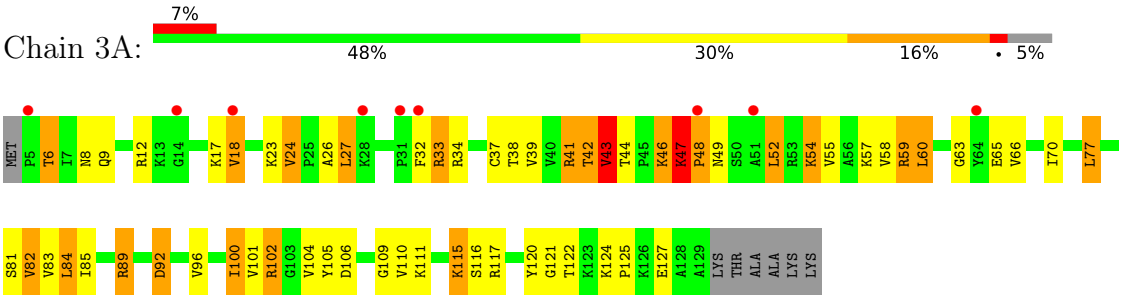
• Molecule 12: 30S ribosomal protein S12

Chain 3I:



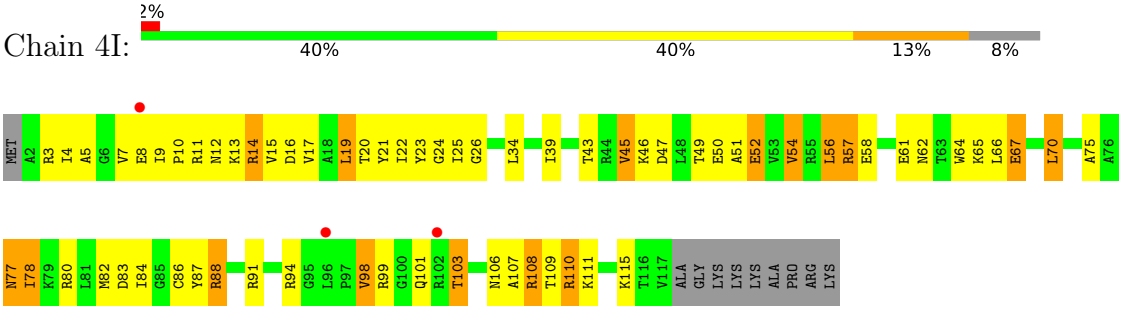
• Molecule 12: 30S ribosomal protein S12

Chain 3A:



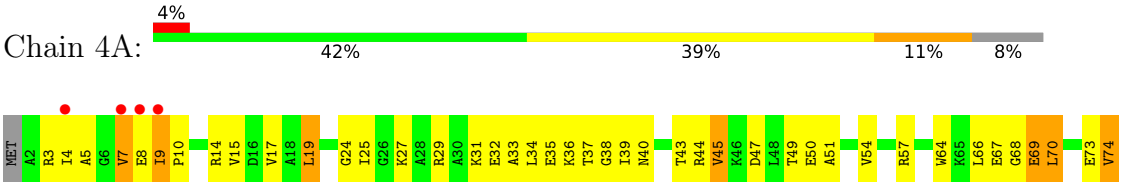
• Molecule 13: 30S ribosomal protein S13

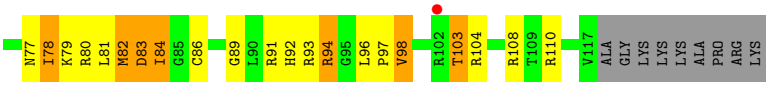
Chain 4I:



• Molecule 13: 30S ribosomal protein S13

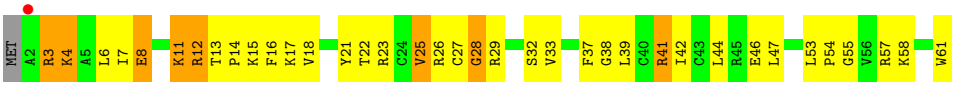
Chain 4A:





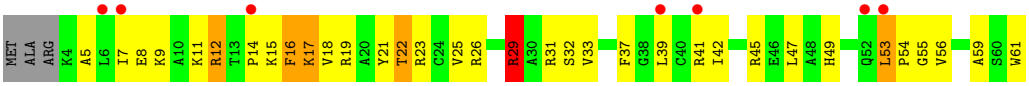
• Molecule 14: 30S ribosomal protein S14 type Z

Chain 5I:



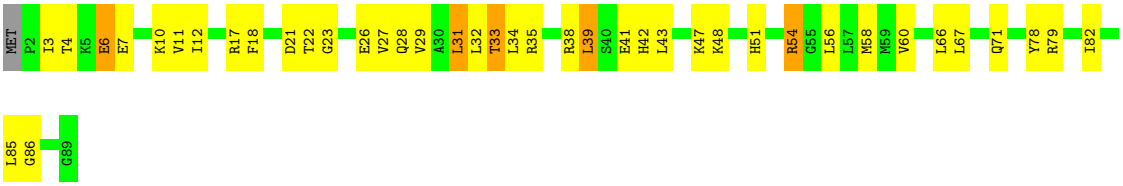
• Molecule 14: 30S ribosomal protein S14 type Z

Chain 5A:



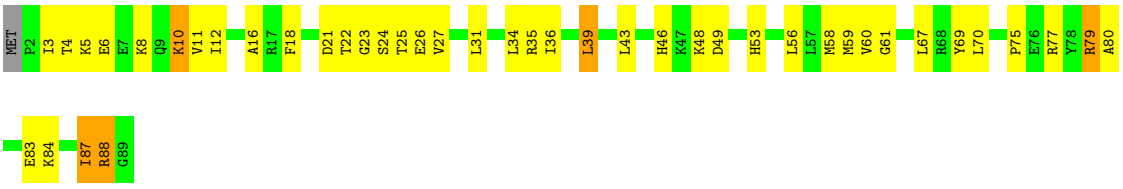
• Molecule 15: 30S ribosomal protein S15

Chain 6I:



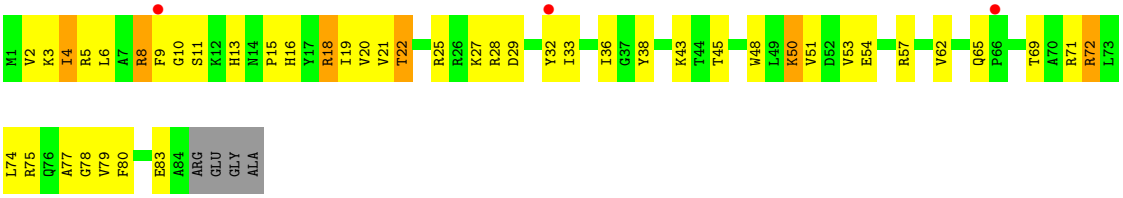
• Molecule 15: 30S ribosomal protein S15

Chain 6A:



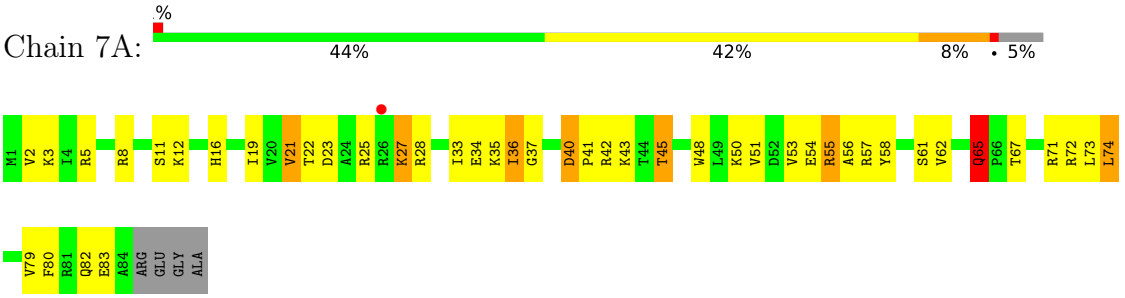
• Molecule 16: 30S ribosomal protein S16

Chain 7I:



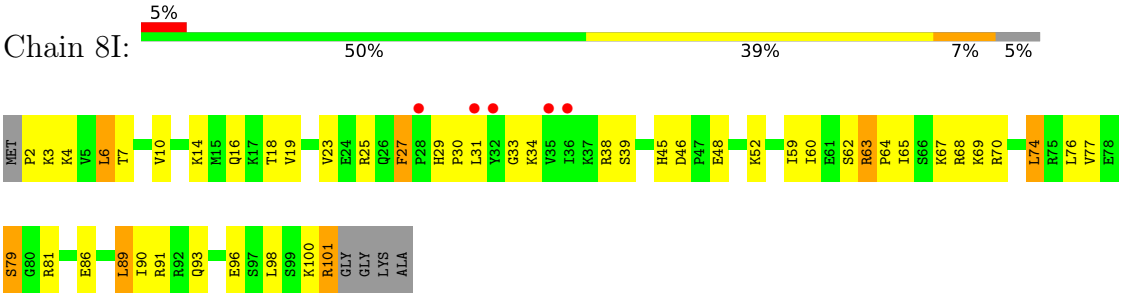
• Molecule 16: 30S ribosomal protein S16

Chain 7A:



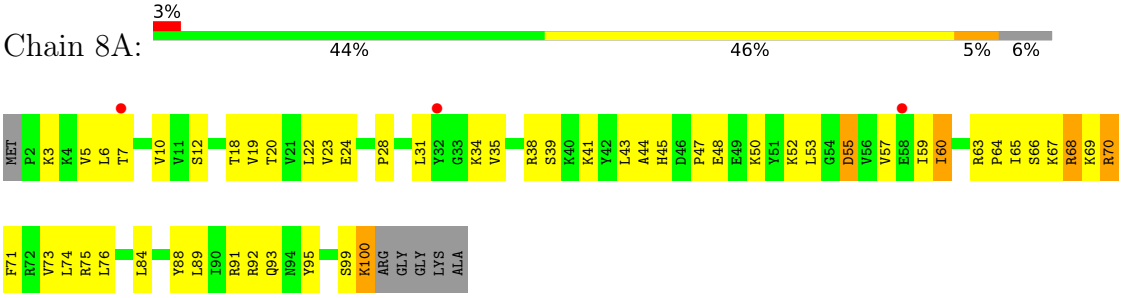
• Molecule 17: 30S ribosomal protein S17

Chain 8I:



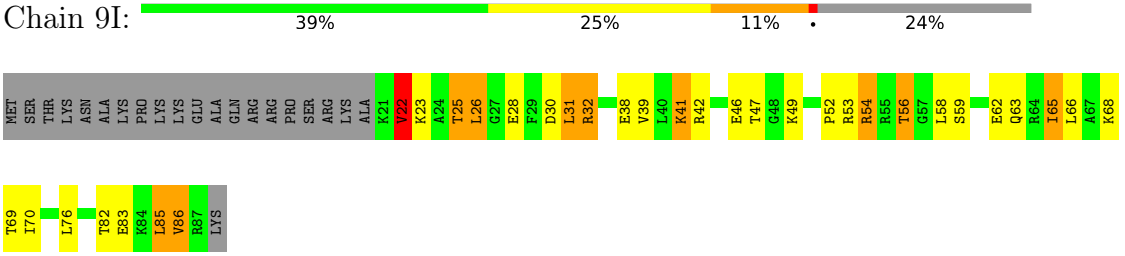
• Molecule 17: 30S ribosomal protein S17

Chain 8A:



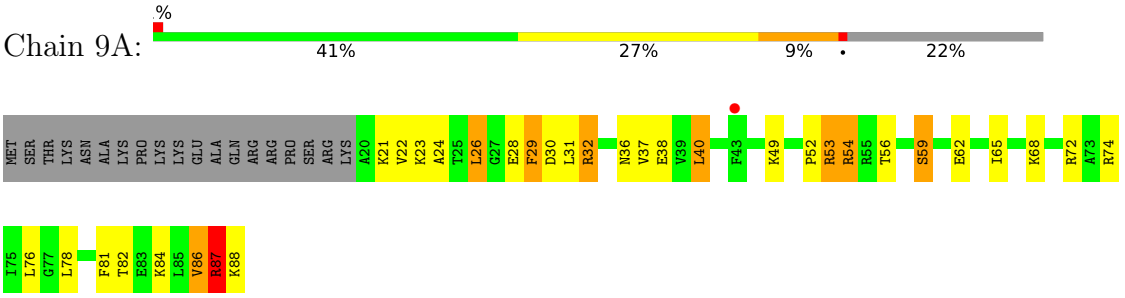
• Molecule 18: 30S ribosomal protein S18

Chain 9I:



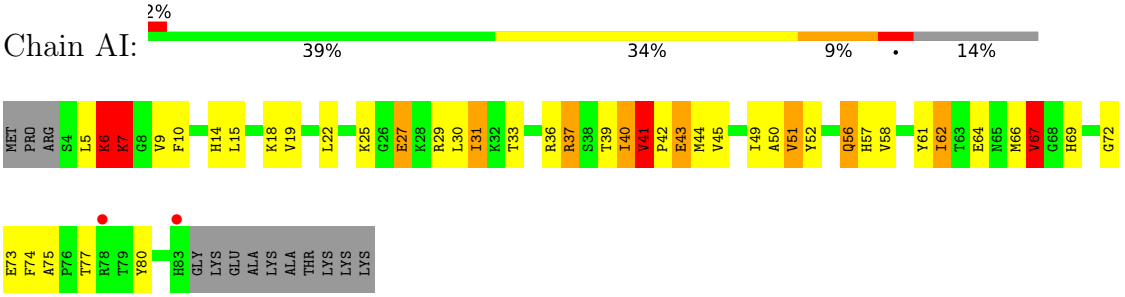
• Molecule 18: 30S ribosomal protein S18

Chain 9A:



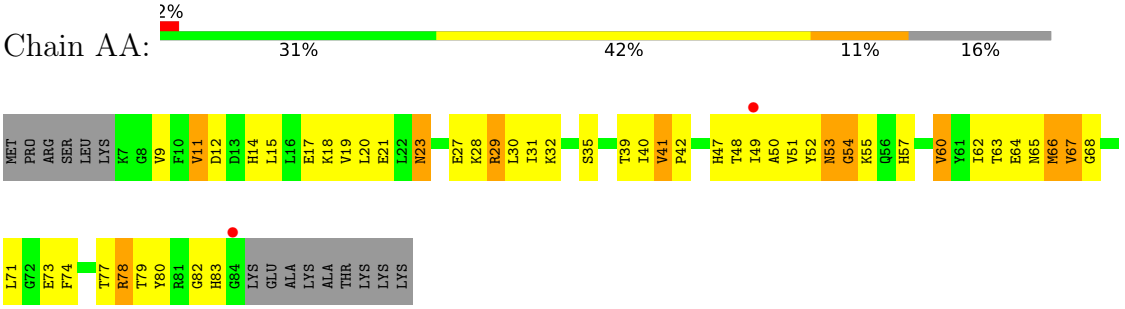
• Molecule 19: 30S ribosomal protein S19

Chain AI:



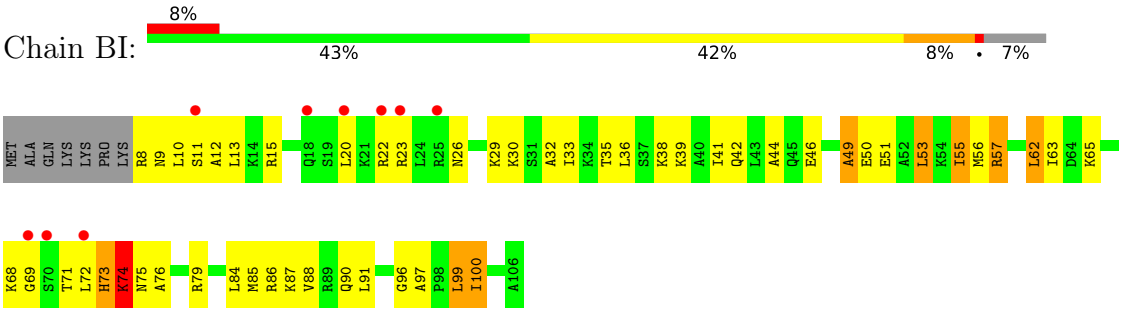
• Molecule 19: 30S ribosomal protein S19

Chain AA:



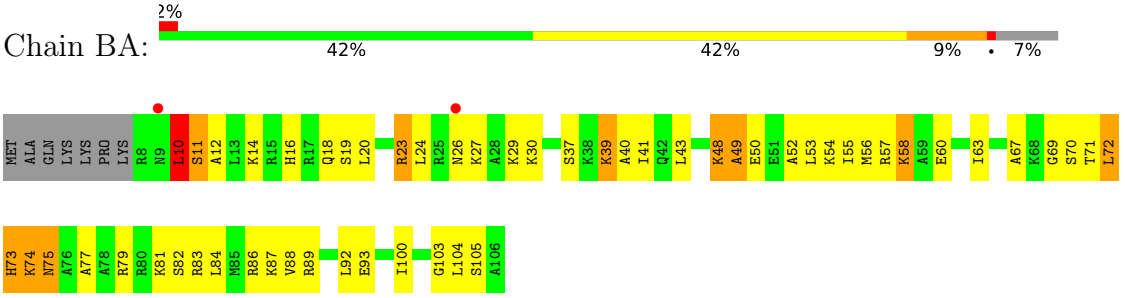
• Molecule 20: 30S ribosomal protein S20

Chain BI:



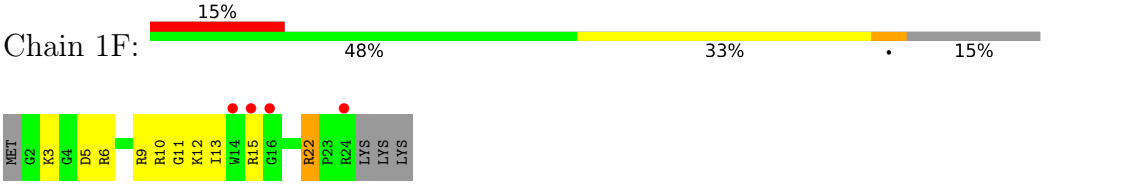
• Molecule 20: 30S ribosomal protein S20

Chain BA:



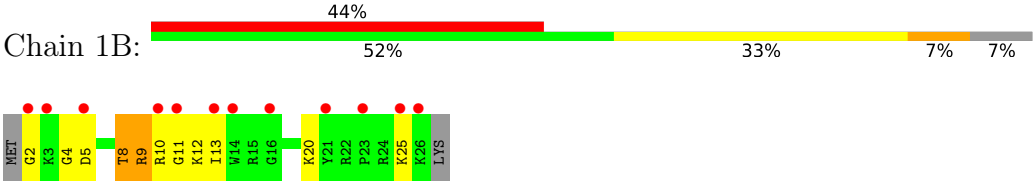
• Molecule 21: 30S ribosomal protein Thx

Chain 1F:



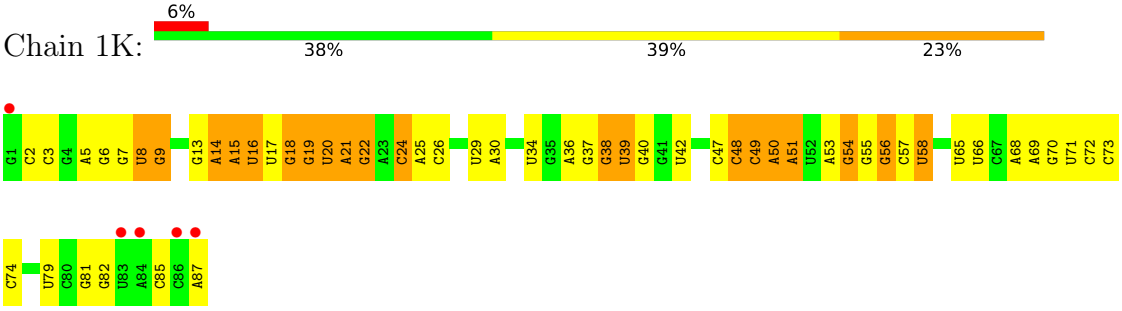
• Molecule 21: 30S ribosomal protein Thx

Chain 1B:



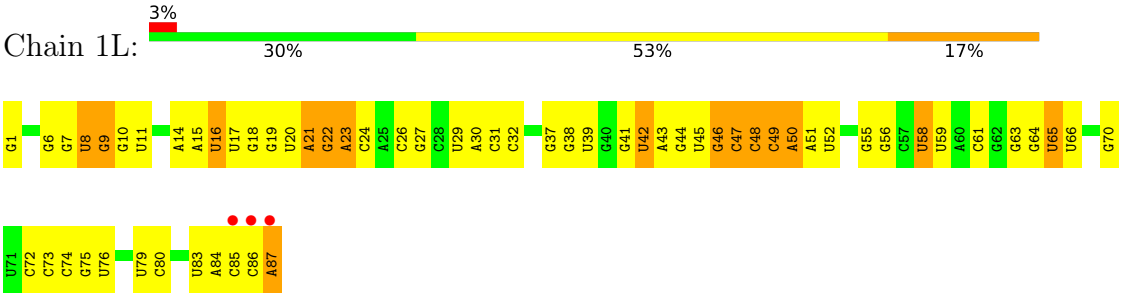
• Molecule 22: tRNA-Leu

Chain 1K:



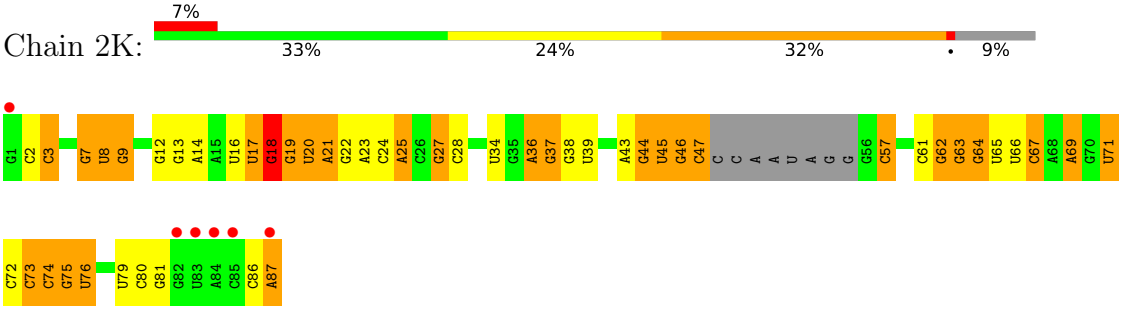
• Molecule 22: tRNA-Leu

Chain 1L:



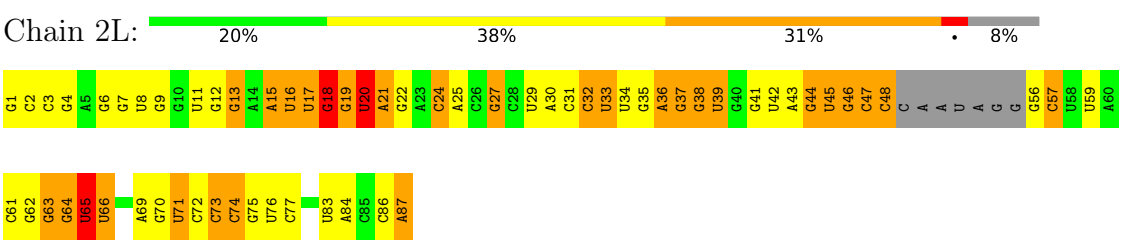
• Molecule 23: tRNA-Leu

Chain 2K:



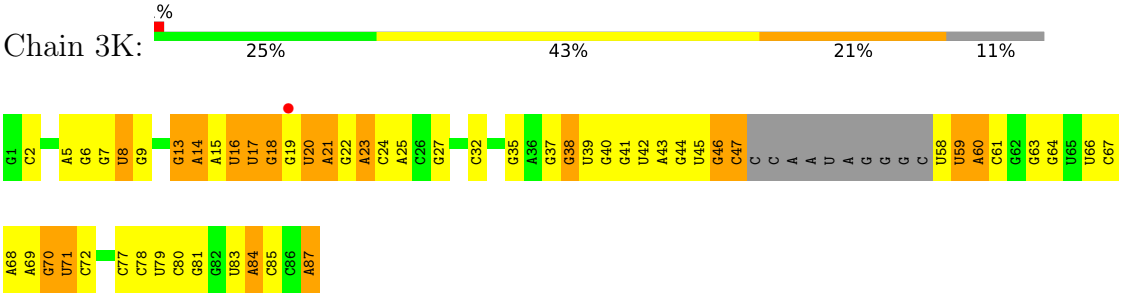
• Molecule 23: tRNA-Leu

Chain 2L:



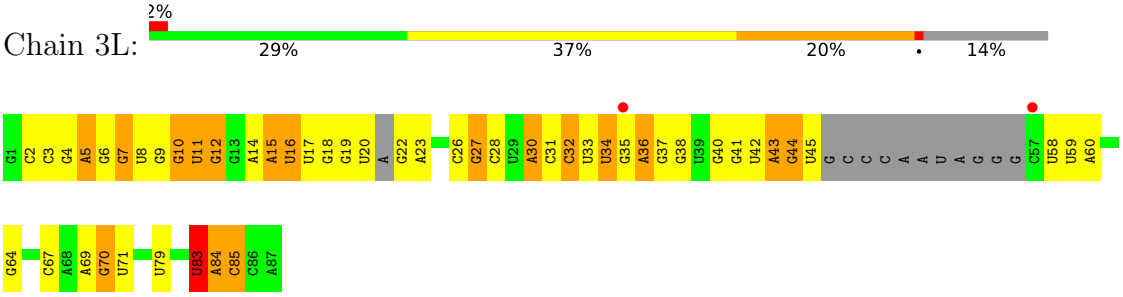
• Molecule 24: tRNA-Leu

Chain 3K:



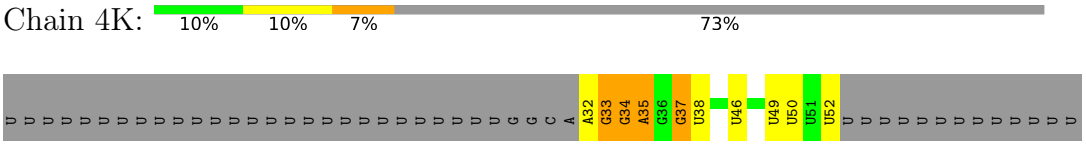
• Molecule 24: tRNA-Leu

Chain 3L:



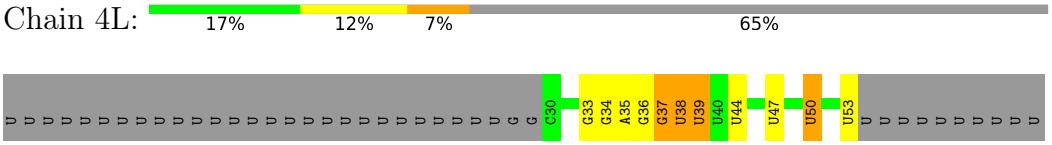
• Molecule 25: mRNA

Chain 4K:



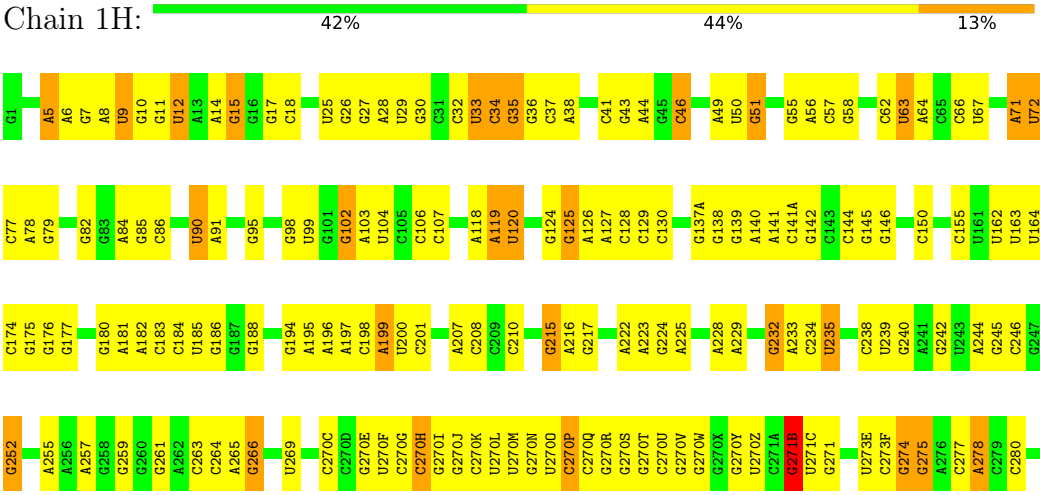
• Molecule 25: mRNA

Chain 4L:



• Molecule 26: 23S ribosomal RNA

Chain 1H:



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U383 U384 C385 G386 U387 G388 G389 A390 G396 G397 G398 G399 C404 U405 G406 G407 G411 A428 A429 A432 C433 G438 G439 G440 U441 G442 A443 C444 C445 C446 A447 U448 A449 G450 C451 G452 C455 C456 A457 G458 U459 C462 G463 U464 G465 A466 G467 G468 G469 A470 A471 A472
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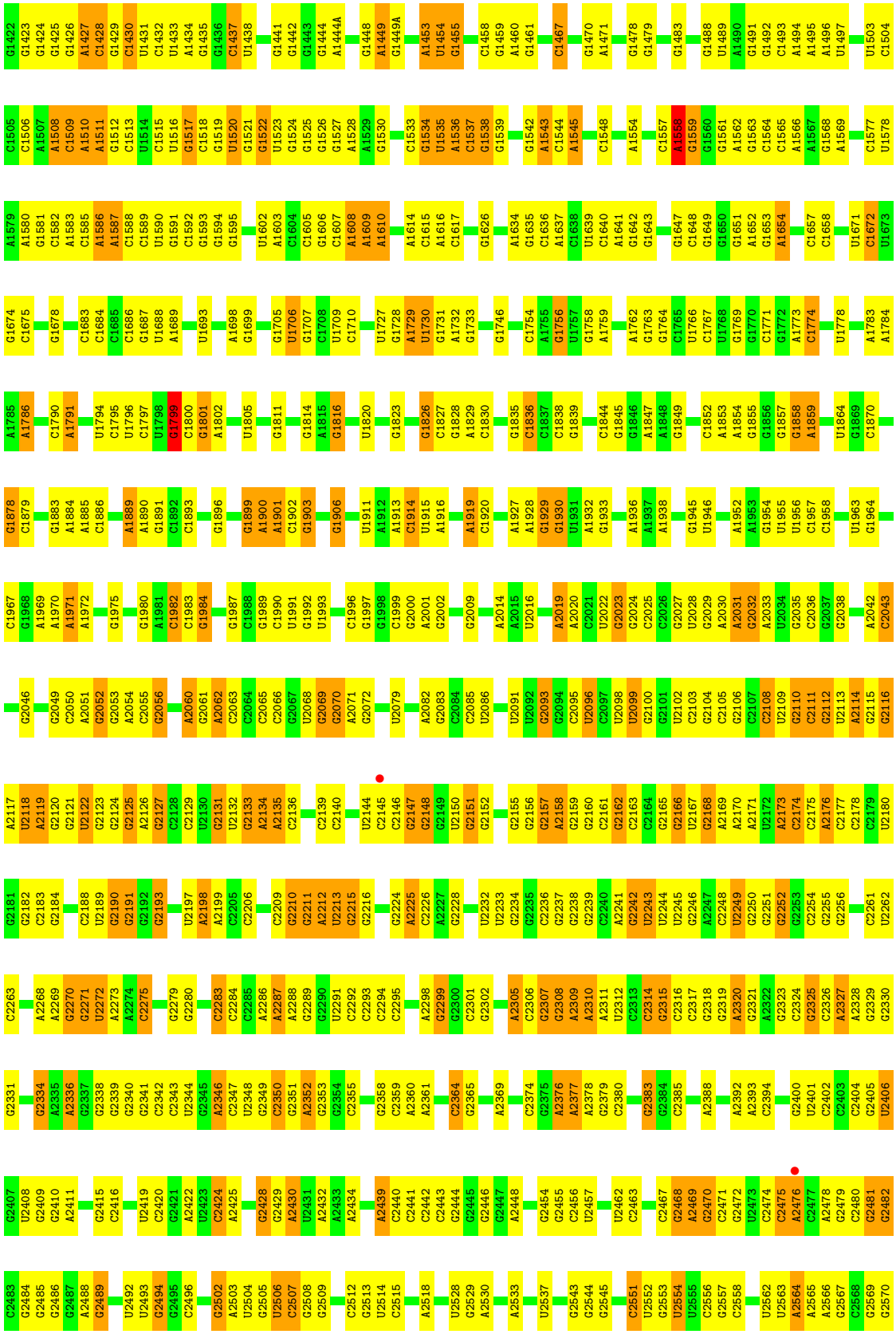
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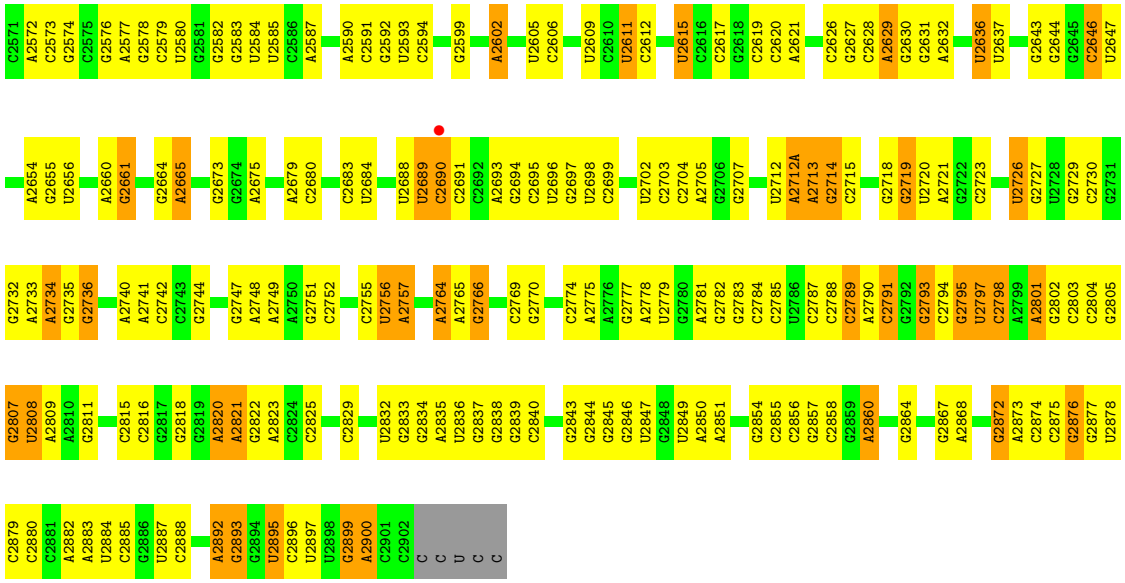
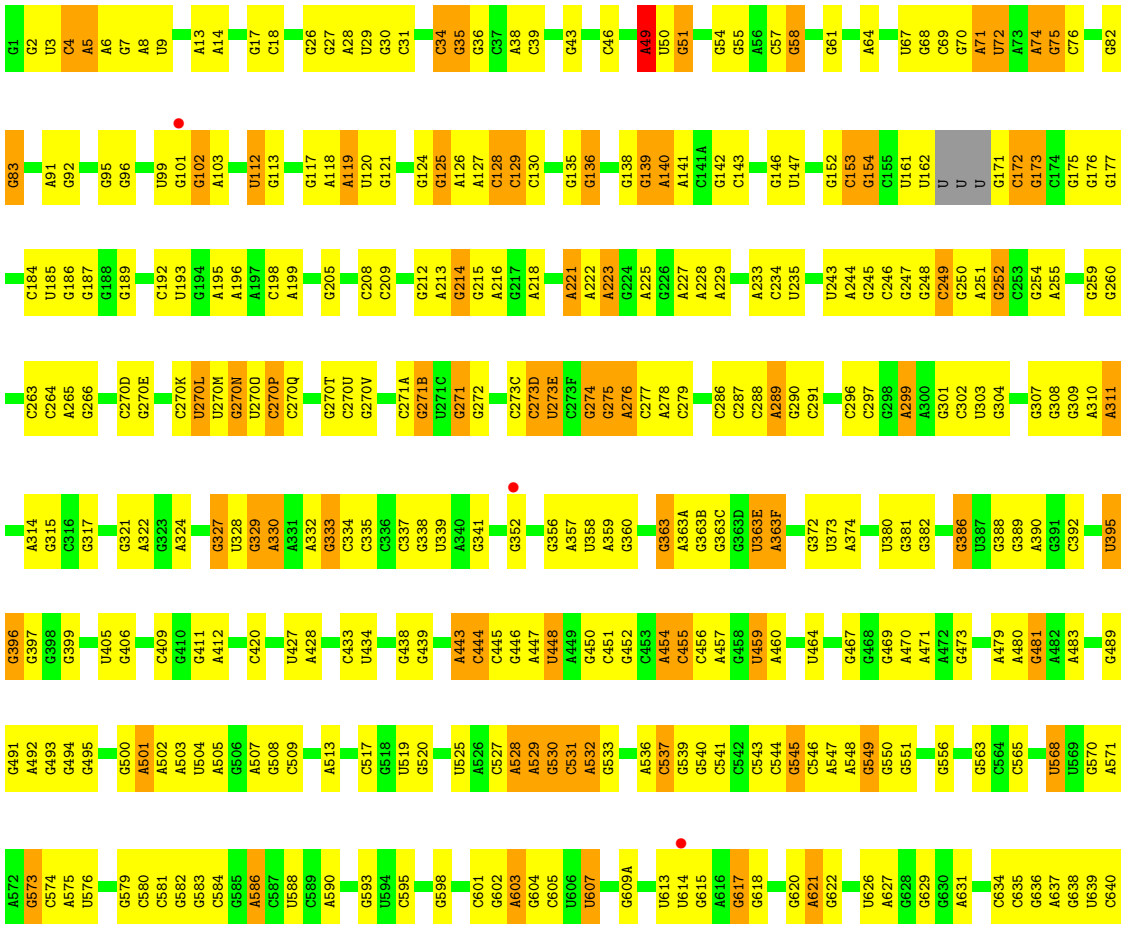
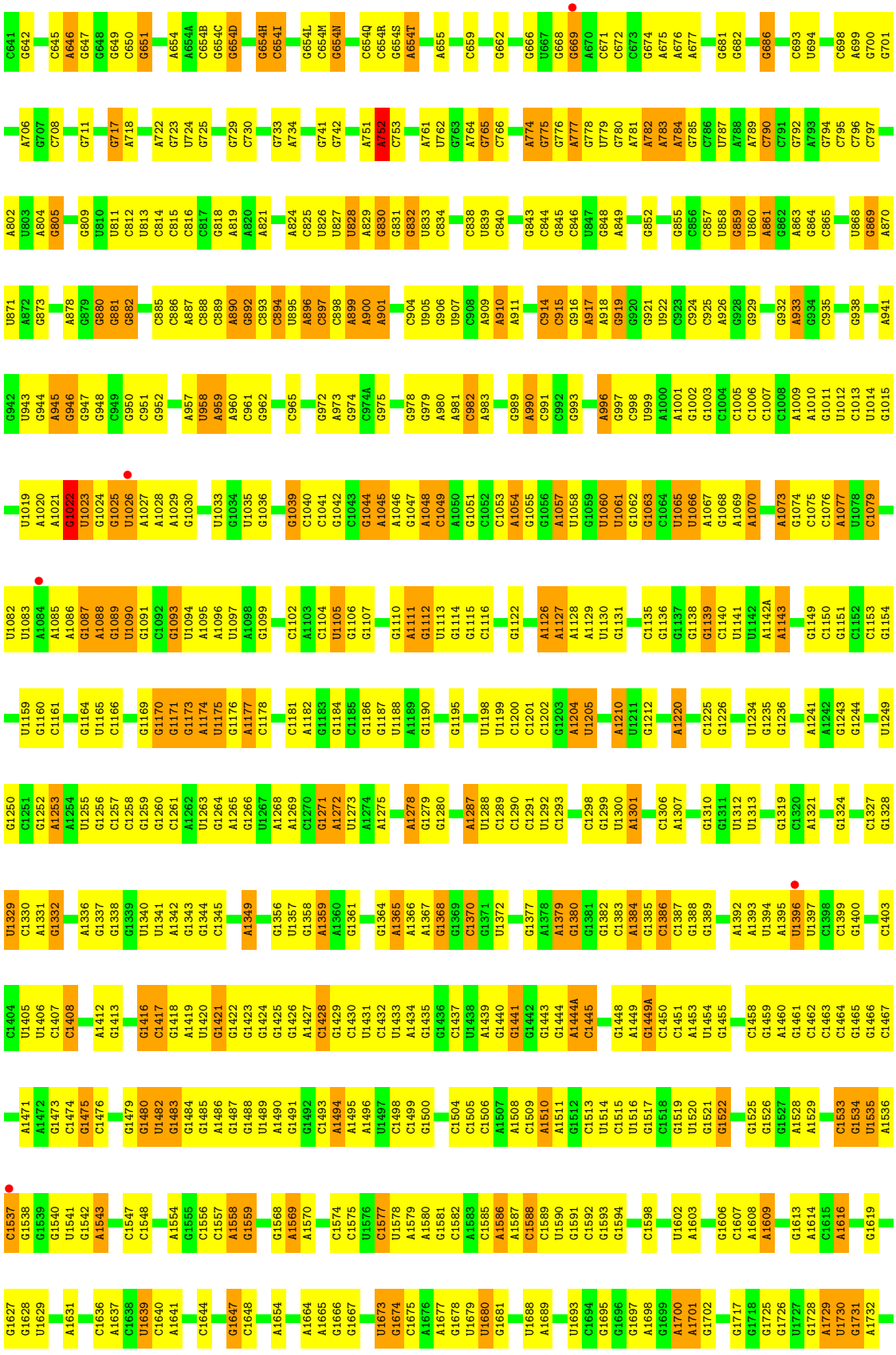
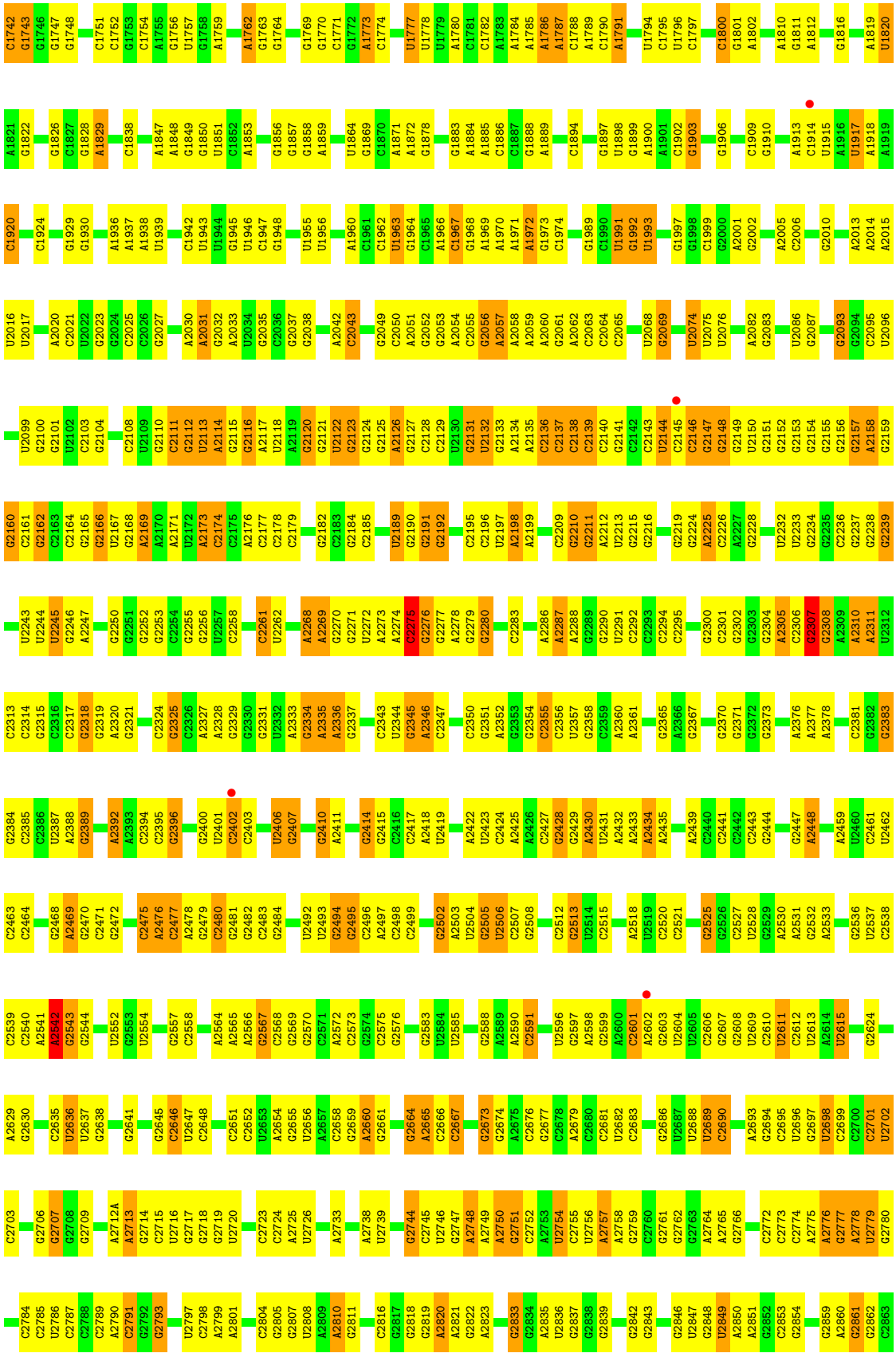


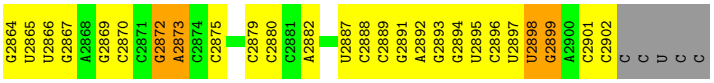
• Molecule 26: 23S ribosomal RNA

Chain 14:



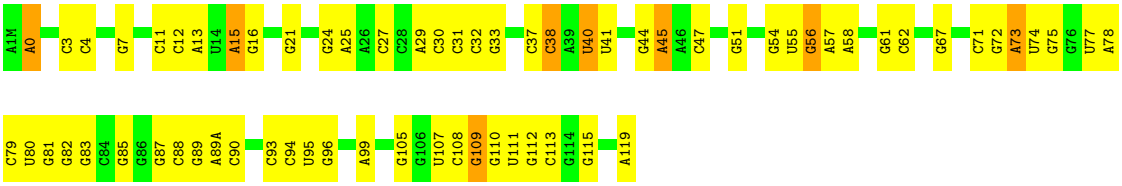






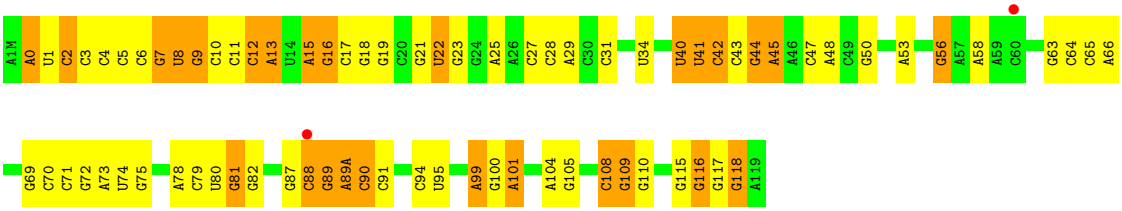
• Molecule 27: 5S ribosomal RNA

Chain 16:



• Molecule 27: 5S ribosomal RNA

Chain 1J:



• Molecule 28: 50S ribosomal protein L2

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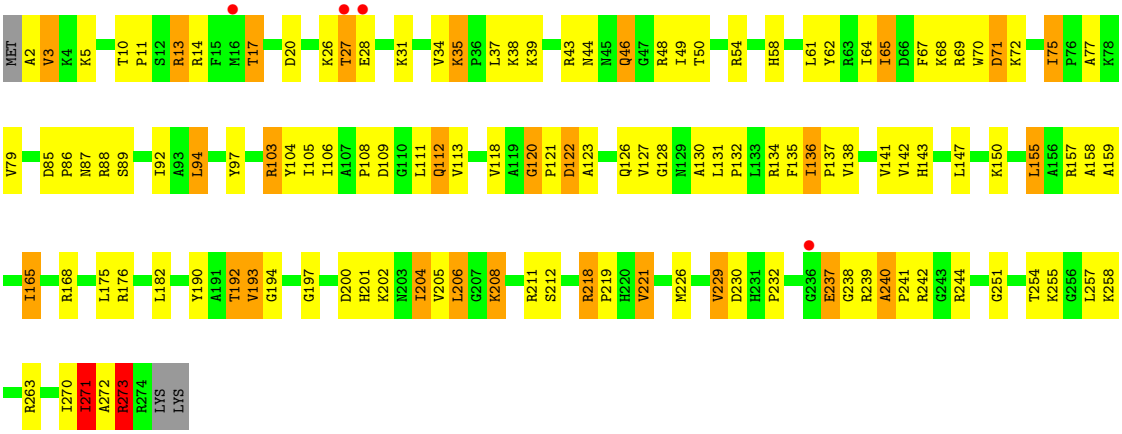

• Molecule 28: 50S ribosomal protein L2

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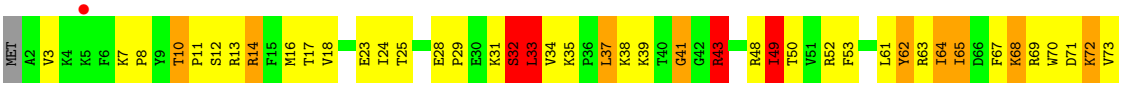

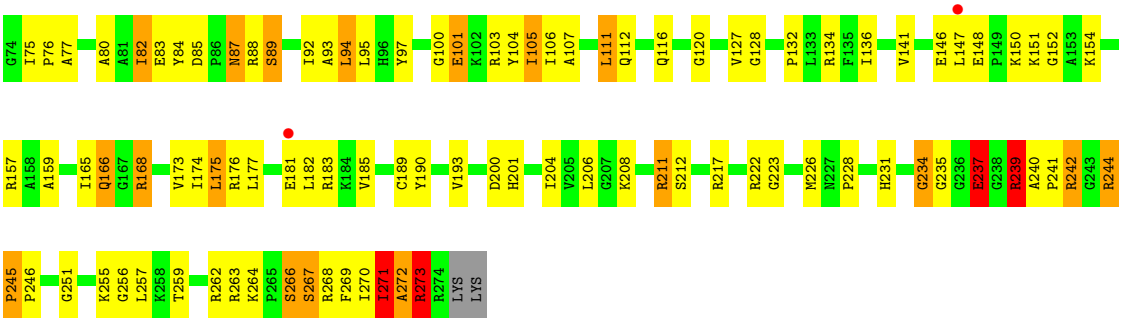

• Molecule 29: 50S ribosomal protein L3

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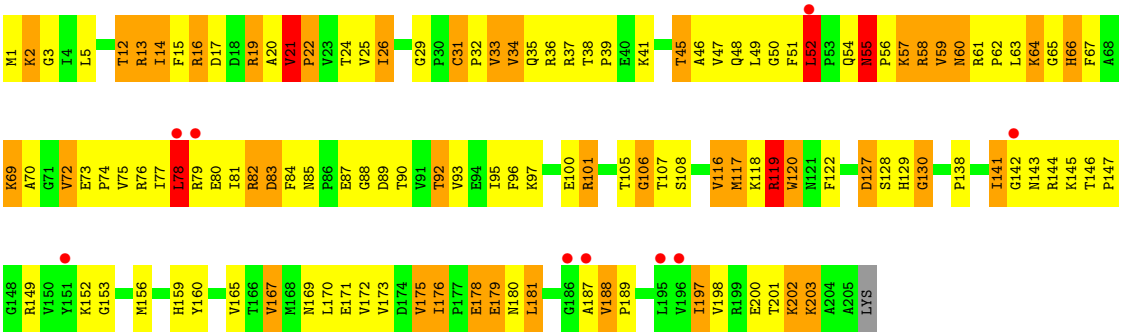
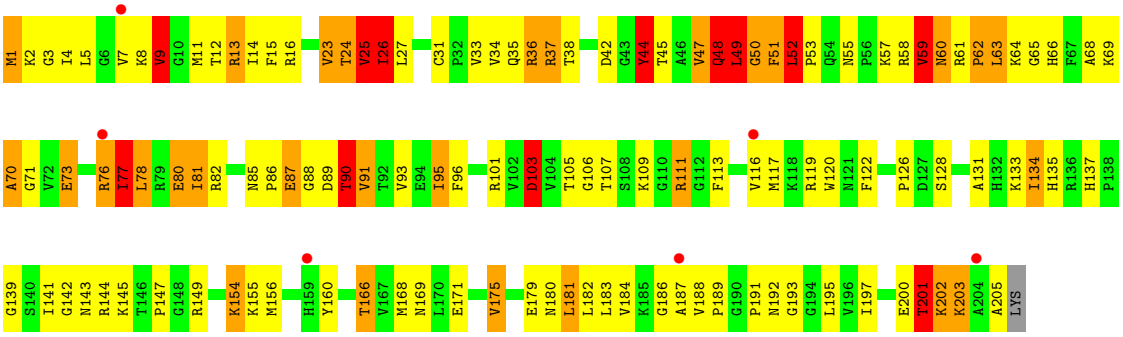


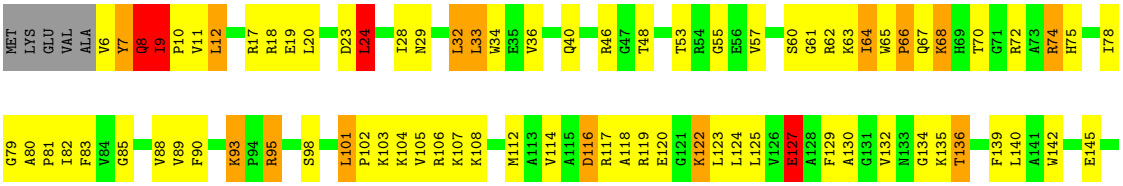
• Molecule 29: 50S ribosomal protein L3

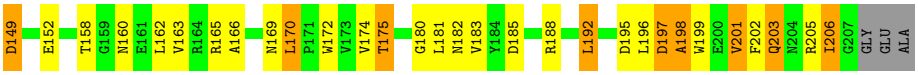
Chain 29:



• Molecule 30: 50S ribosomal protein L4

Chain 31:





• Molecule 30: 50S ribosomal protein L4

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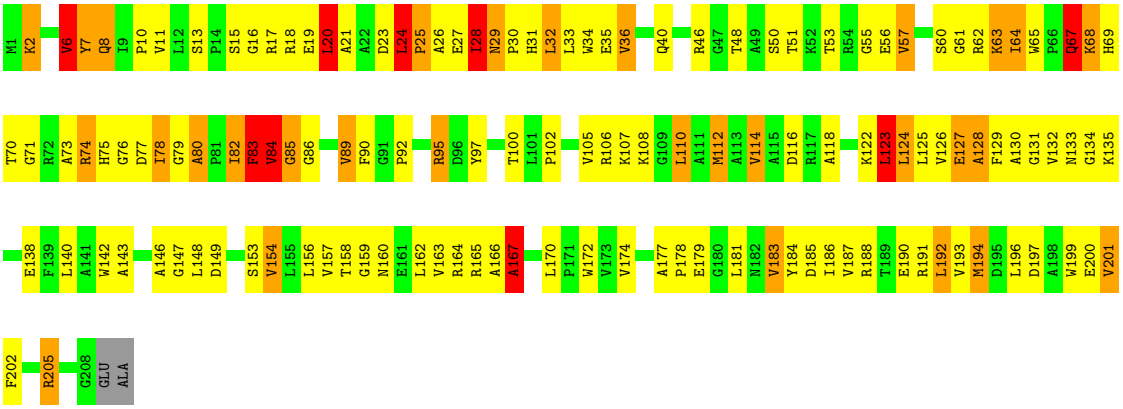

• Molecule 31: 50S ribosomal protein L5

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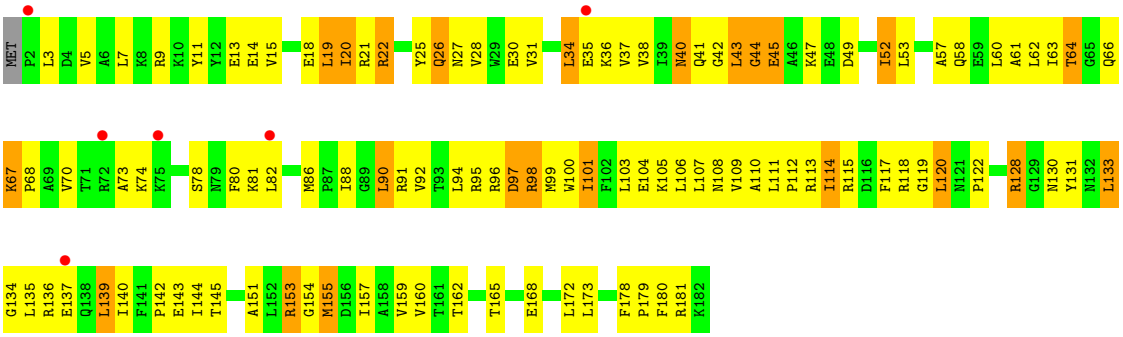

• Molecule 31: 50S ribosomal protein L5

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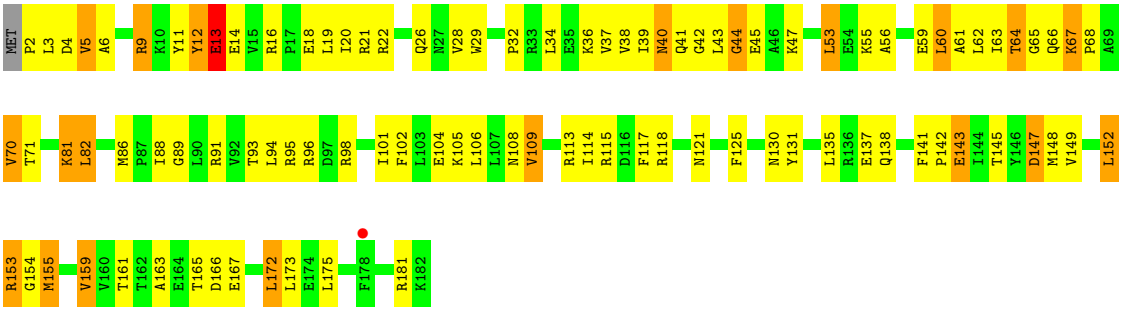

• Molecule 32: 50S ribosomal protein L6

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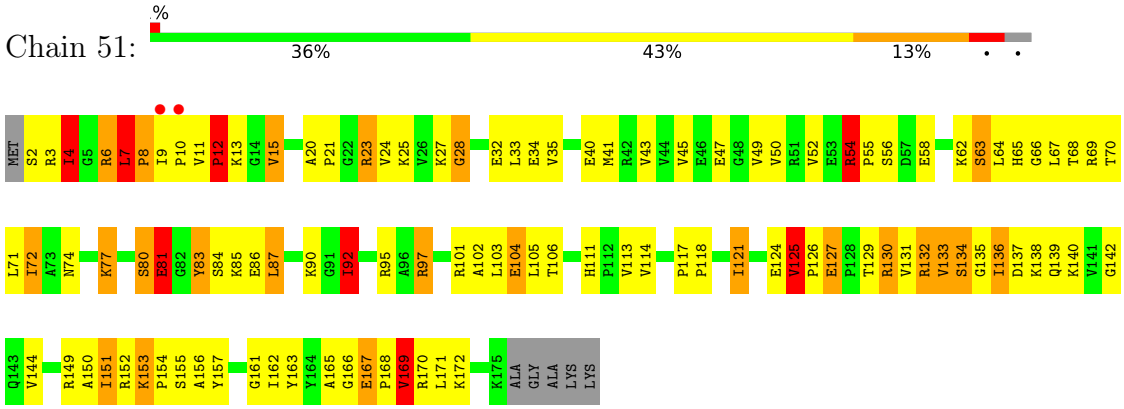

• Molecule 32: 50S ribosomal protein L6

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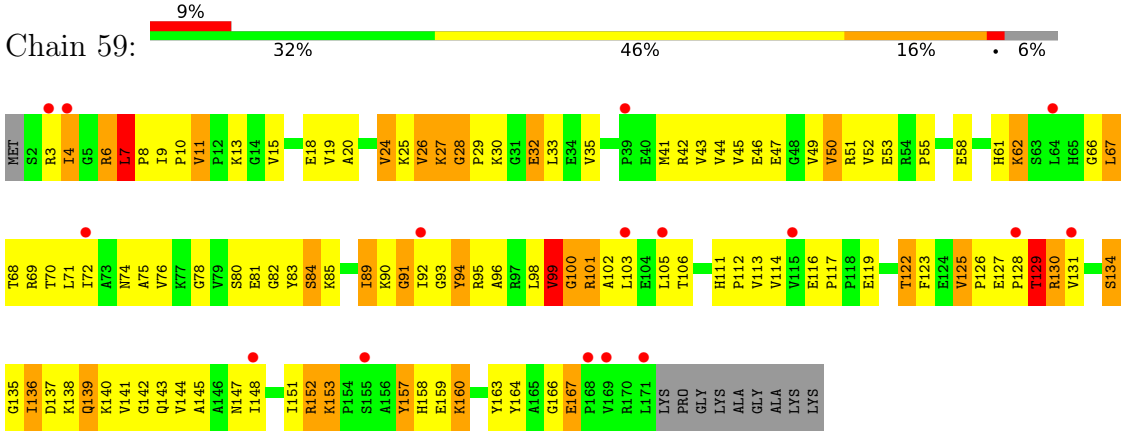

• Molecule 33: 50S ribosomal protein L9

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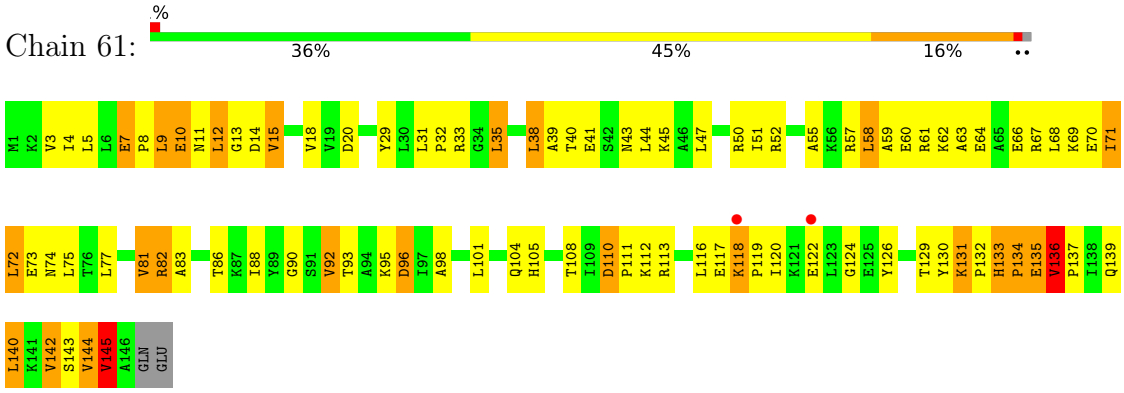
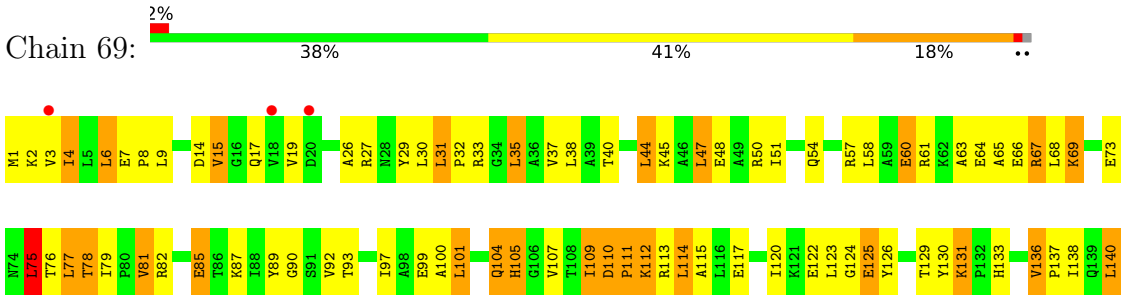


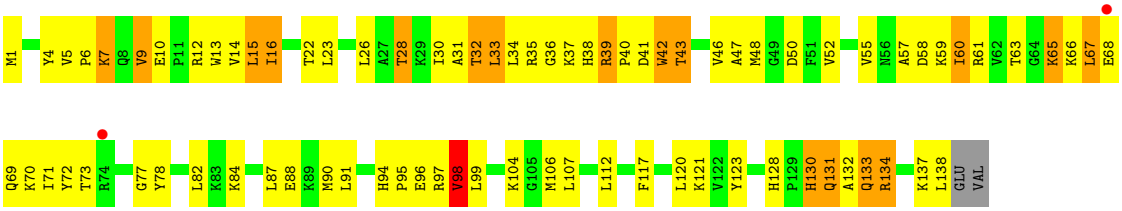
• Molecule 33: 50S ribosomal protein L9

Chain 69:



• Molecule 34: 50S ribosomal protein L13

Chain 58:



• Molecule 34: 50S ribosomal protein L13

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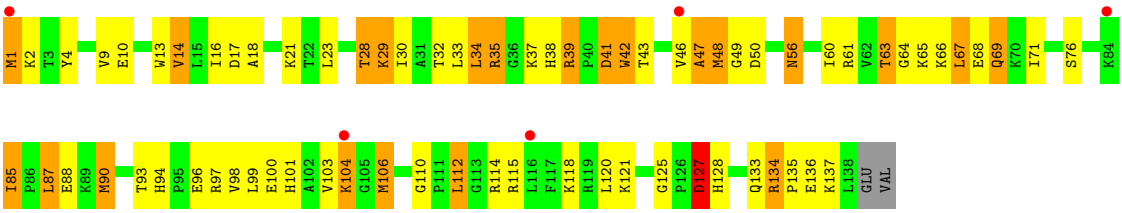
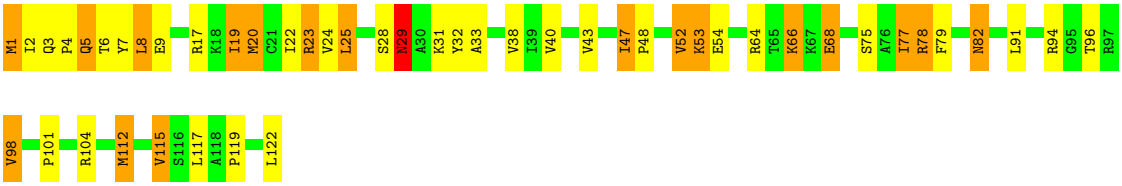


• Molecule 35: 50S ribosomal protein L14

Chain 68:



• Molecule 35: 50S ribosomal protein L14

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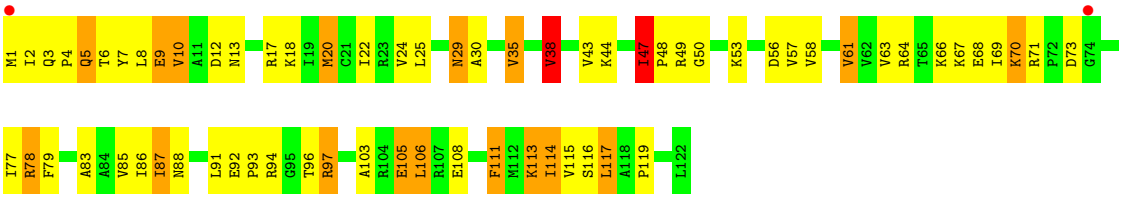
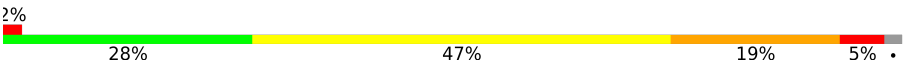
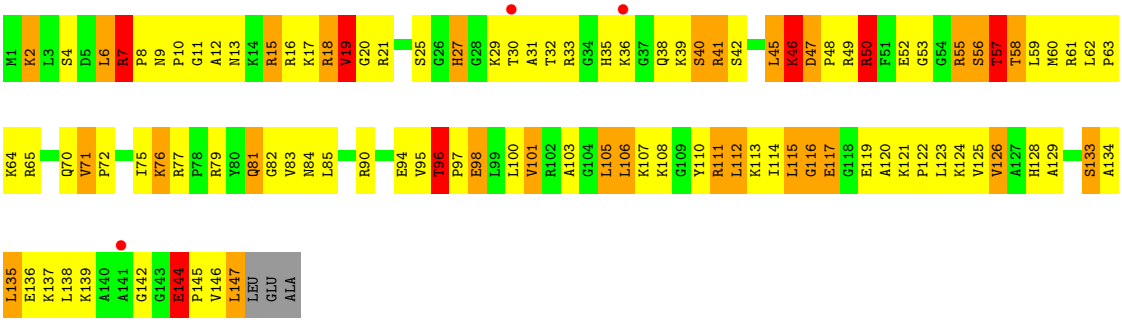


• Molecule 36: 50S ribosomal protein L15

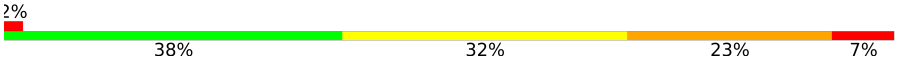
Chain 78:

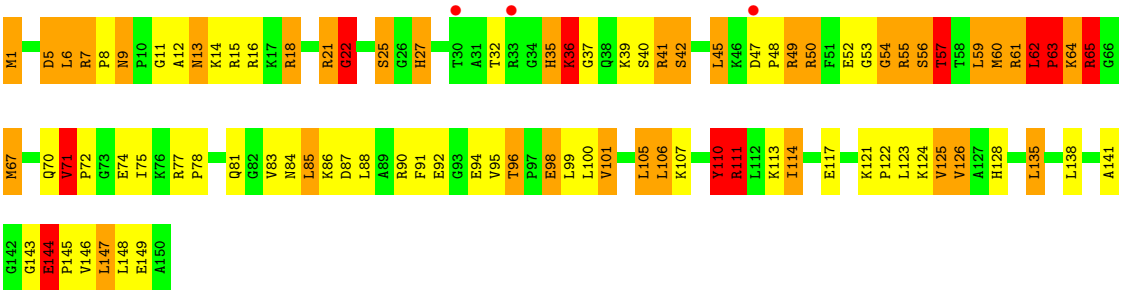




• Molecule 36: 50S ribosomal protein L15

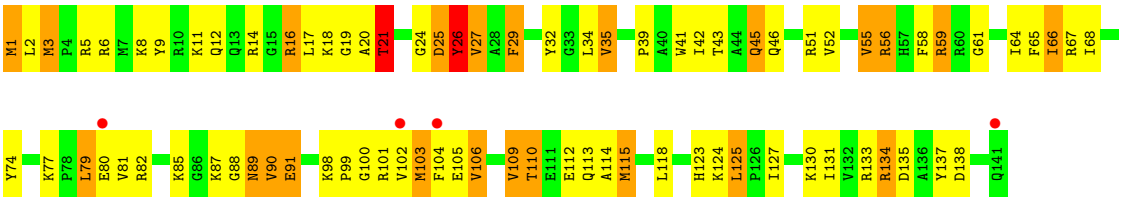
Chain 35:





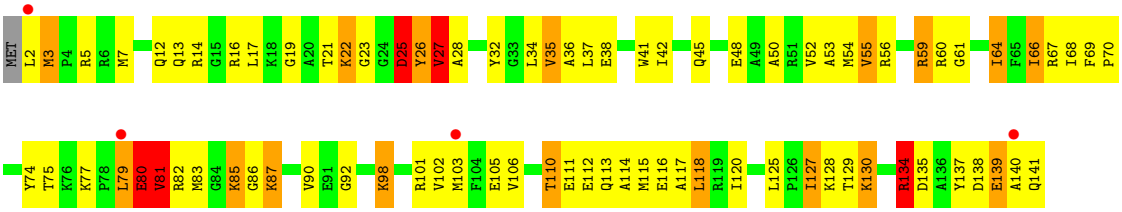
• Molecule 37: 50S ribosomal protein L16

Chain 88:



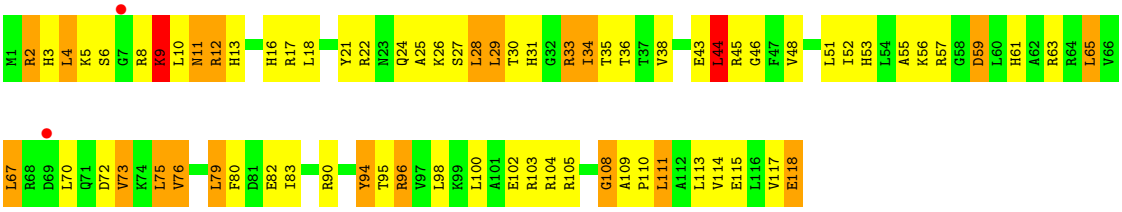
• Molecule 37: 50S ribosomal protein L16

Chain 45:



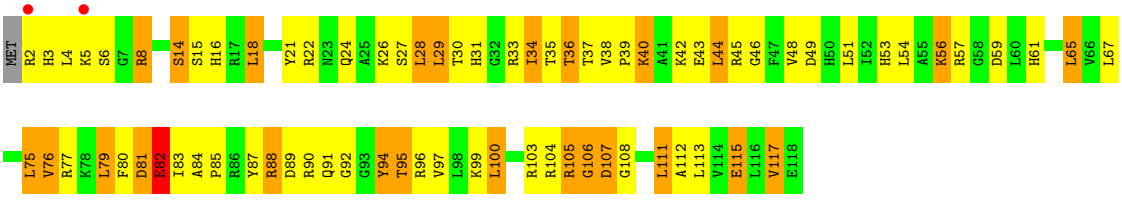
• Molecule 38: 50S ribosomal protein L17

Chain 98:



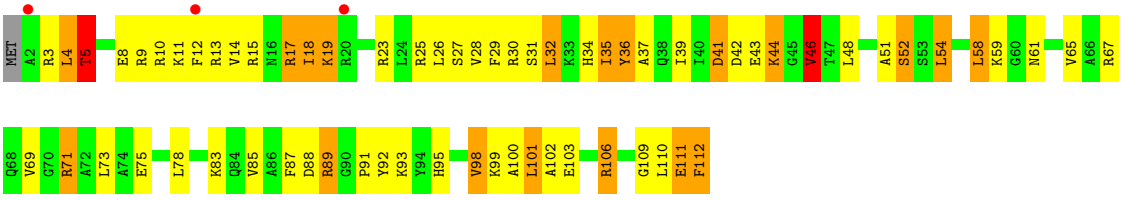
• Molecule 38: 50S ribosomal protein L17

Chain 55:



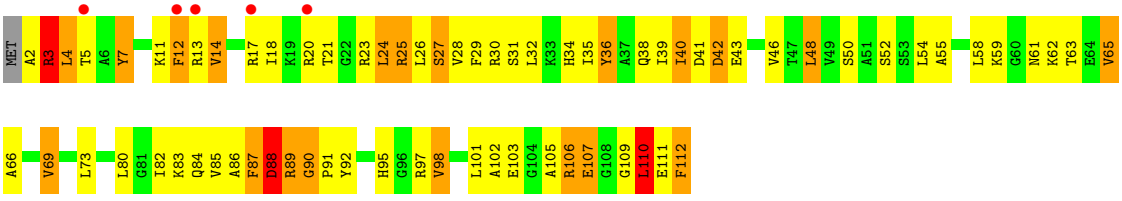
• Molecule 39: 50S ribosomal protein L18

Chain A8:



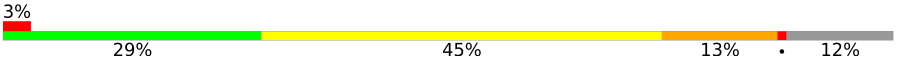
• Molecule 39: 50S ribosomal protein L18

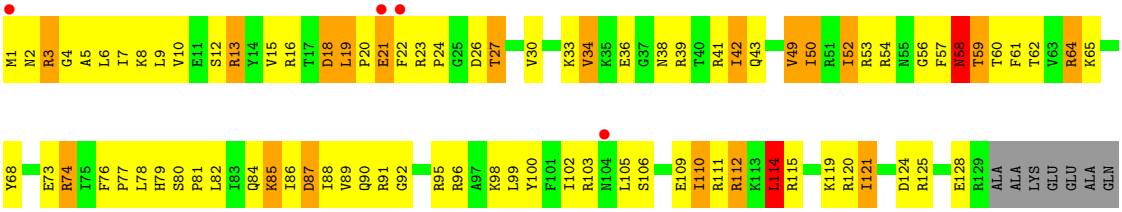
Chain 65:



• Molecule 40: 50S ribosomal protein L19

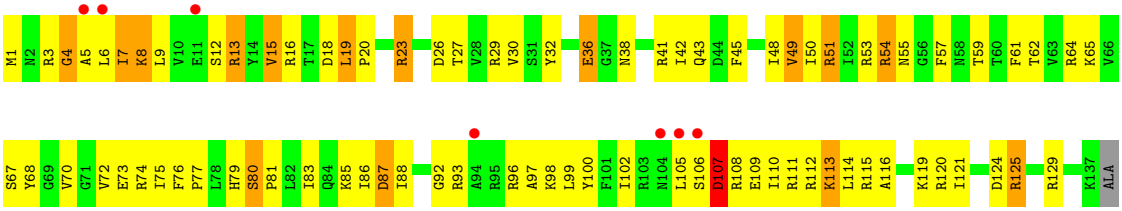
Chain B8:





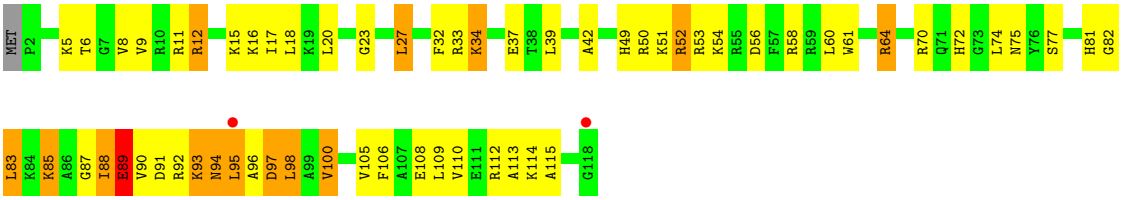
• Molecule 40: 50S ribosomal protein L19

Chain 75:



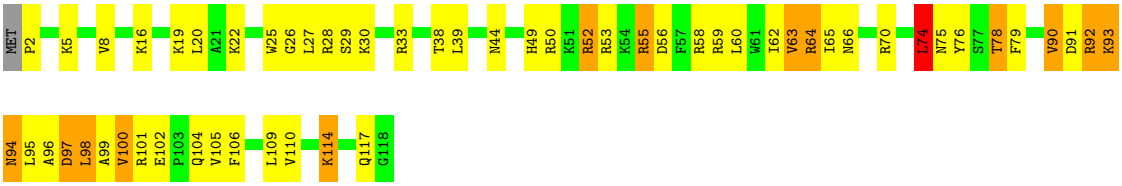
• Molecule 41: 50S ribosomal protein L20

Chain C8:



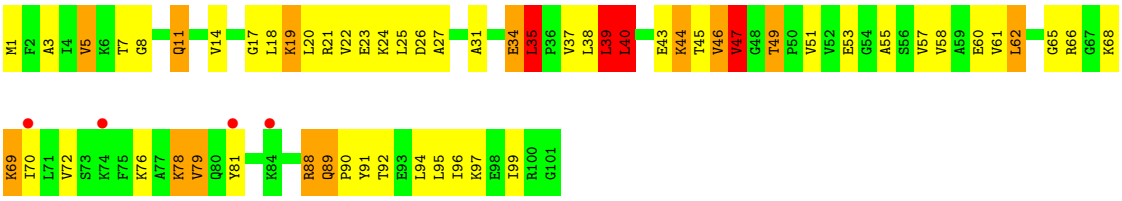
• Molecule 41: 50S ribosomal protein L20

Chain 85:



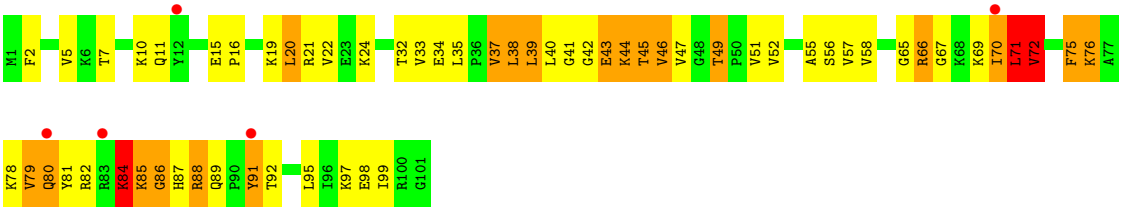
• Molecule 42: 50S ribosomal protein L21

Chain D8:



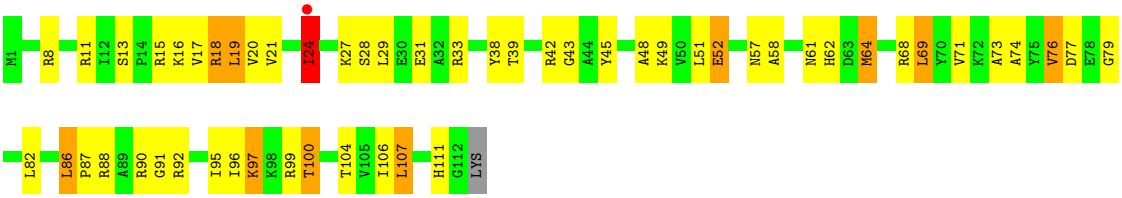
• Molecule 42: 50S ribosomal protein L21

Chain 95:



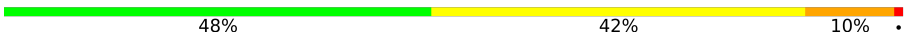
• Molecule 43: 50S ribosomal protein L22

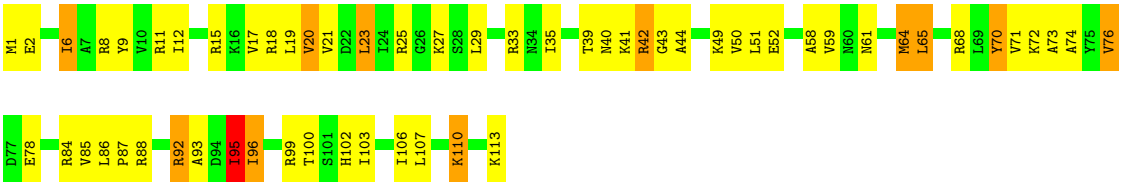
Chain E8:



• Molecule 43: 50S ribosomal protein L22

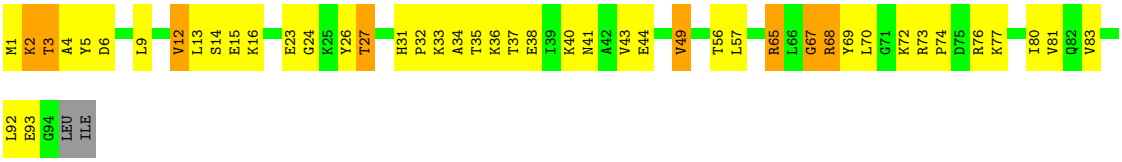
Chain A5:





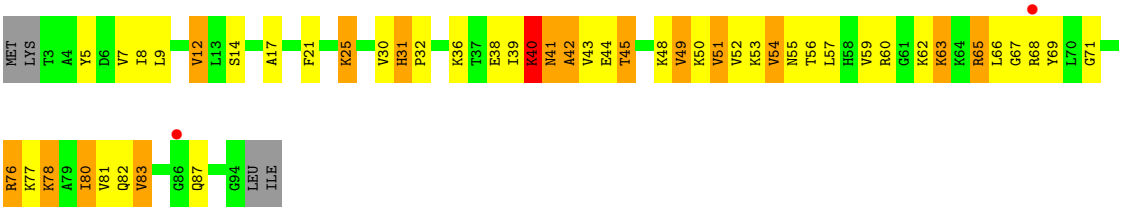
• Molecule 44: 50S ribosomal protein L23

Chain F8:



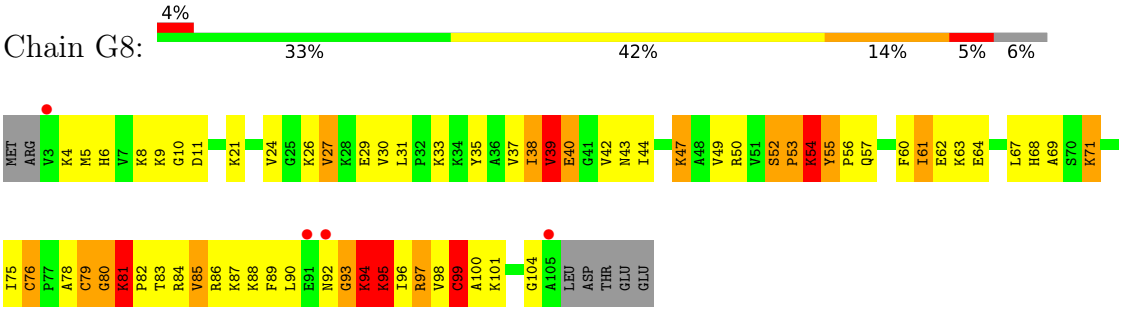
• Molecule 44: 50S ribosomal protein L23

Chain B5:



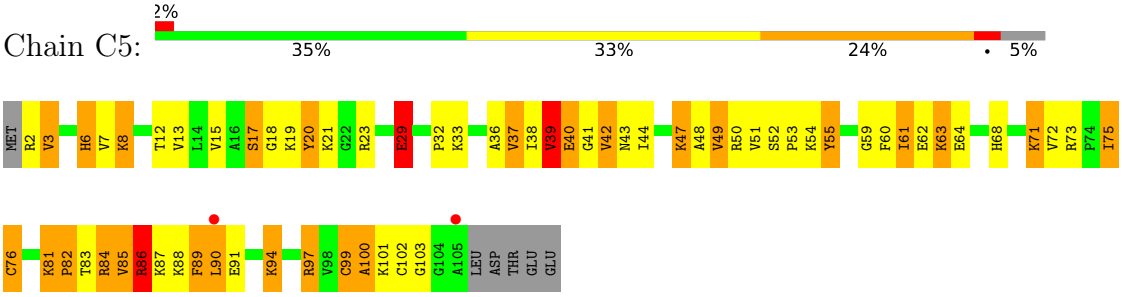
• Molecule 45: 50S ribosomal protein L24

Chain G8:



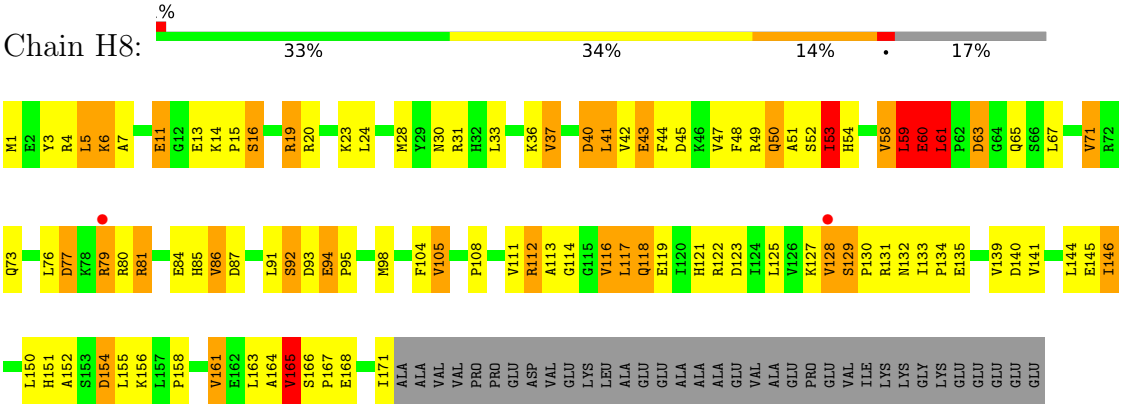
• Molecule 45: 50S ribosomal protein L24

Chain C5:



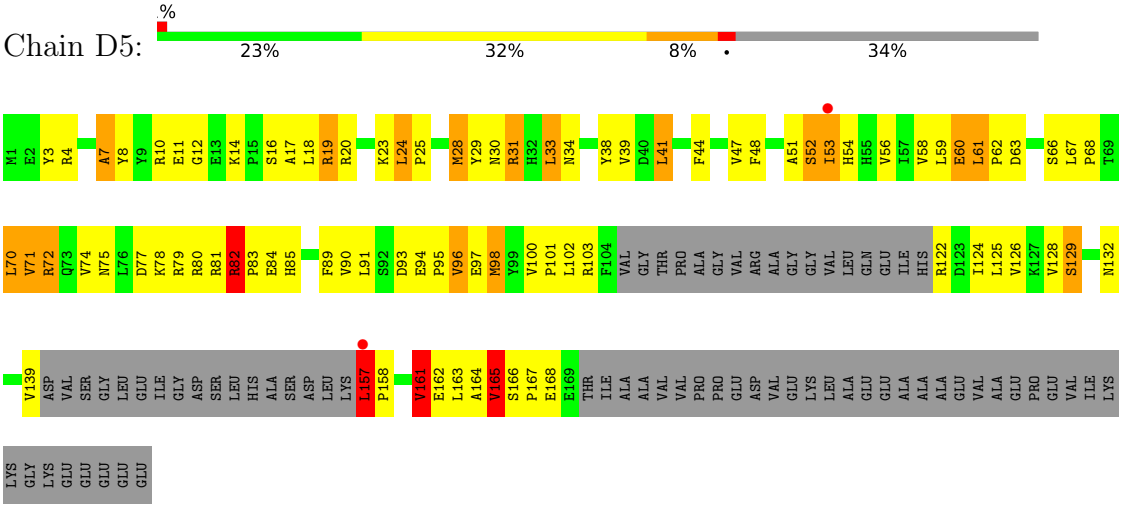
• Molecule 46: 50S ribosomal protein L25

Chain H8:



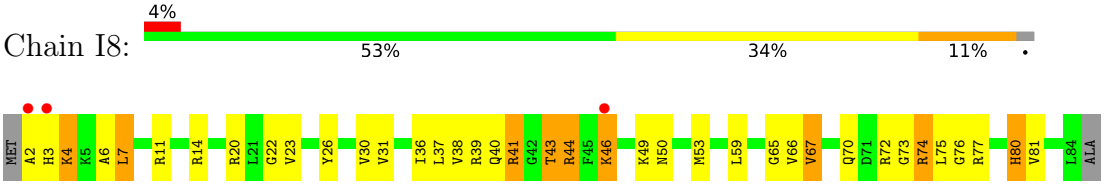
• Molecule 46: 50S ribosomal protein L25

Chain D5:



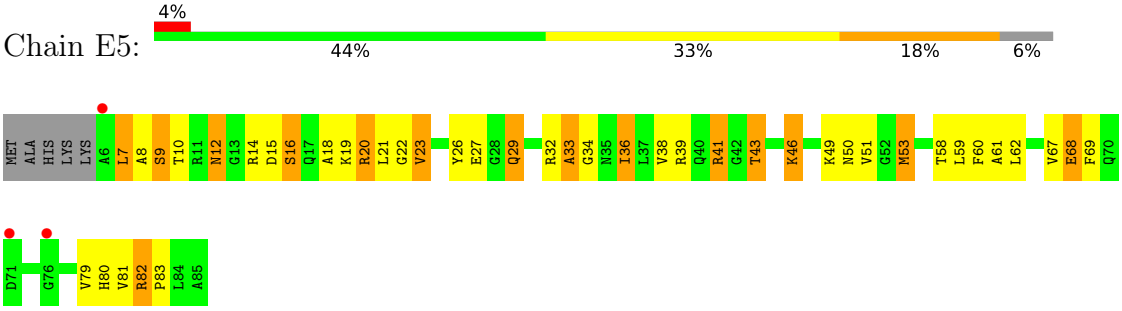
• Molecule 47: 50S ribosomal protein L27

Chain I8:



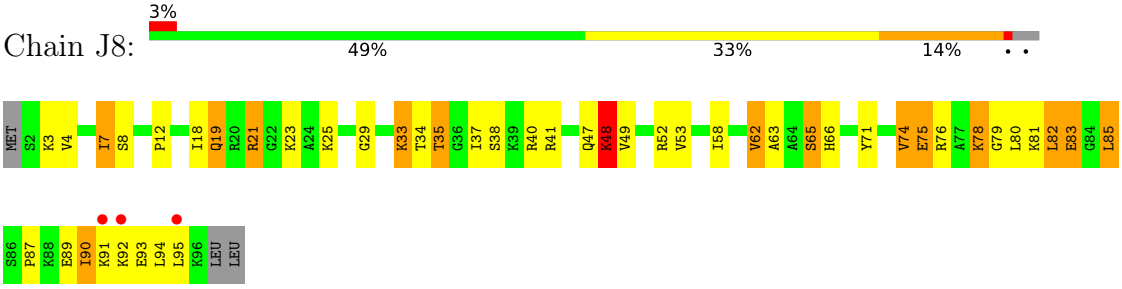
• Molecule 47: 50S ribosomal protein L27

Chain E5:



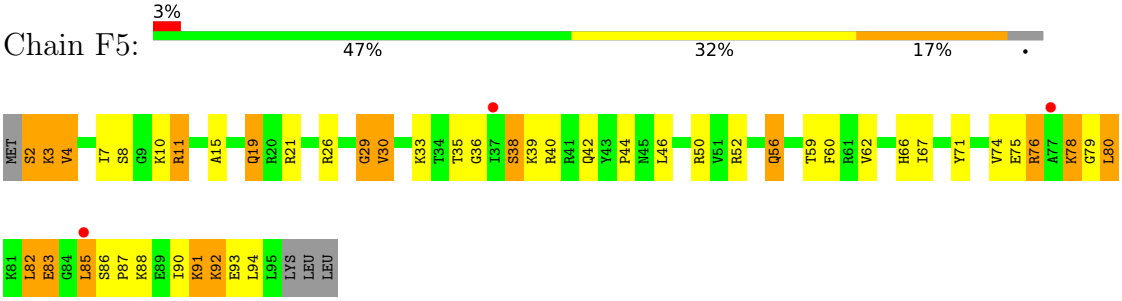
• Molecule 48: 50S ribosomal protein L28

Chain J8:



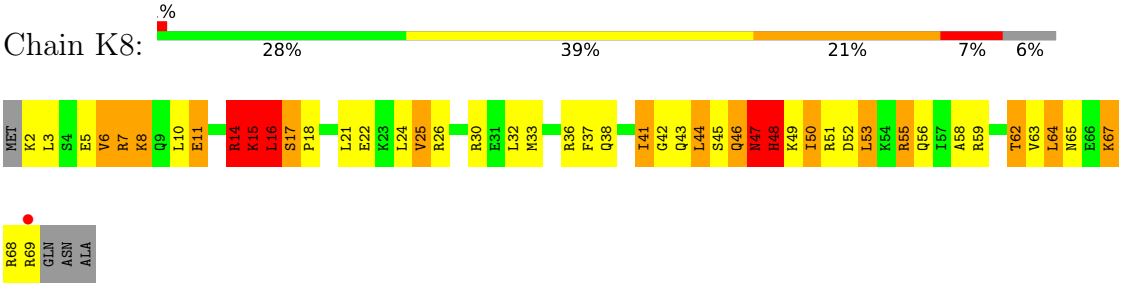
• Molecule 48: 50S ribosomal protein L28

Chain F5:



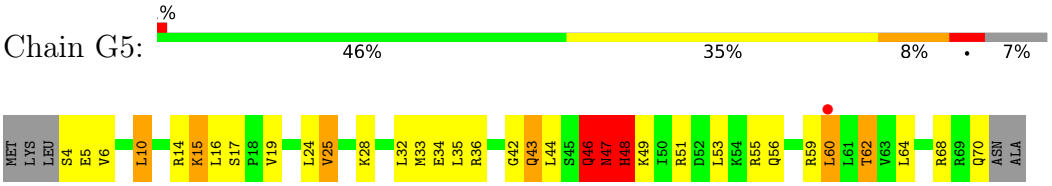
• Molecule 49: 50S ribosomal protein L29

Chain K8:



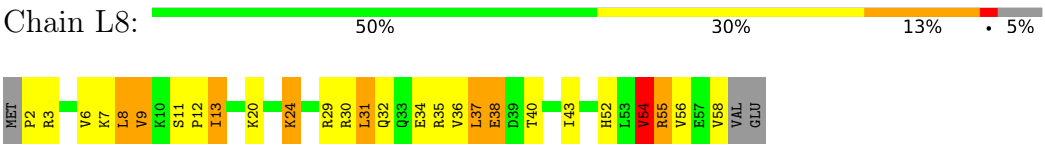
• Molecule 49: 50S ribosomal protein L29

Chain G5:



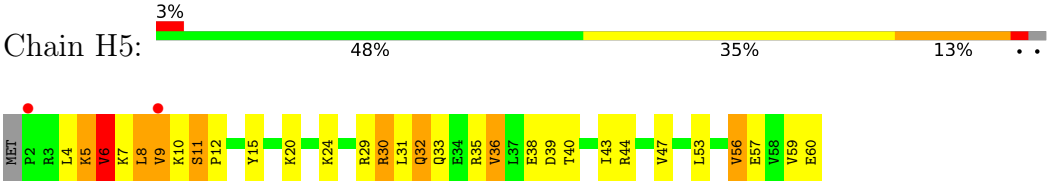
• Molecule 50: 50S ribosomal protein L30

Chain L8:



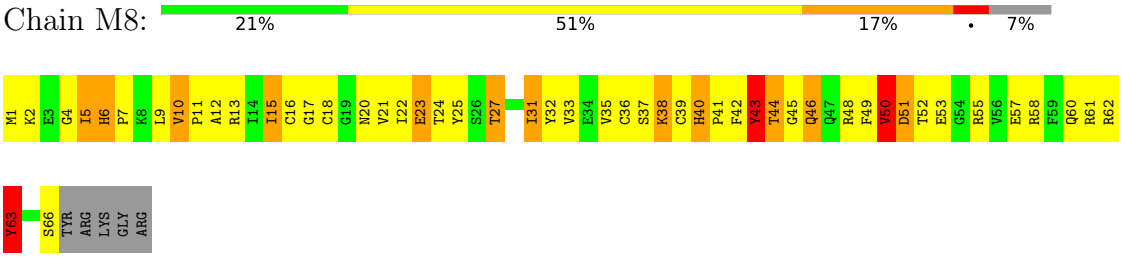
• Molecule 50: 50S ribosomal protein L30

Chain H5:



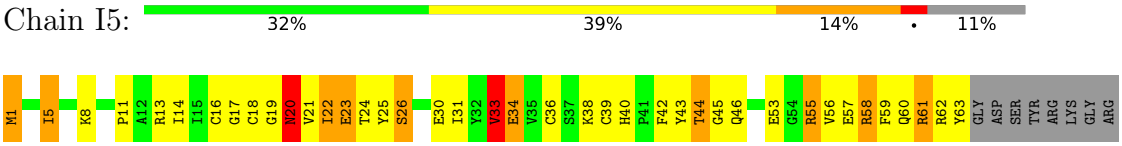
• Molecule 51: 50S ribosomal protein L31

Chain M8:



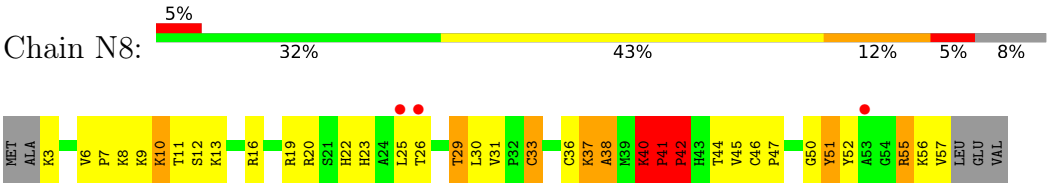
• Molecule 51: 50S ribosomal protein L31

Chain I5:



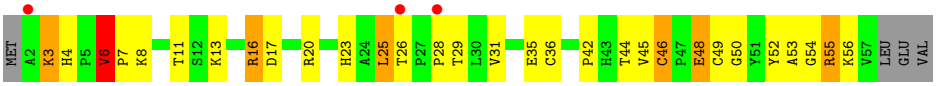
• Molecule 52: 50S ribosomal protein L32

Chain N8:



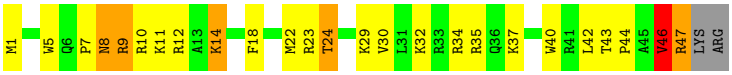
• Molecule 52: 50S ribosomal protein L32

Chain J5:



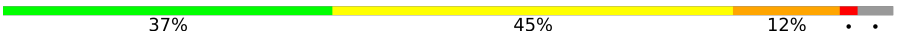
• Molecule 53: 50S ribosomal protein L34

Chain P8:



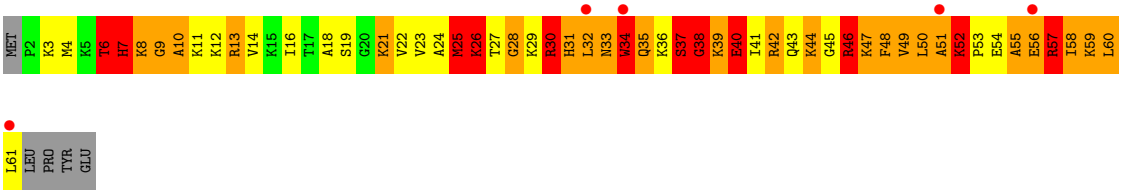
• Molecule 53: 50S ribosomal protein L34

Chain L5:



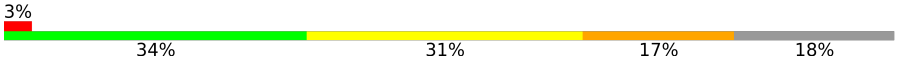
• Molecule 54: 50S ribosomal protein L35

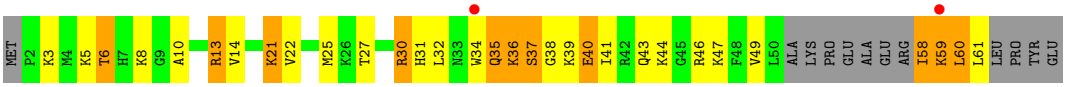
Chain Q8:



• Molecule 54: 50S ribosomal protein L35

Chain M5:





4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	209.50Å 449.90Å 618.70Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	153.31 – 3.30 153.31 – 3.30	Depositor EDS
% Data completeness (in resolution range)	100.0 (153.31-3.30) 91.4 (153.31-3.30)	Depositor EDS
R_{merge}	0.54	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.47 (at 3.33Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.185 , (Not available) (Not available) , 0.217	Depositor DCC
R_{free} test set	2000 reflections (0.23%)	wwPDB-VP
Wilson B-factor (Å^2)	96.6	Xtriage
Anisotropy	0.284	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.27 , 64.5	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	299429	wwPDB-VP
Average B, all atoms (Å^2)	116.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.55% 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: OMG, PSU, 5MU, MG, 1MG, ZN, H2U

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	0.38	0/36254	0.62	7/56581 (0.0%)
1	1G	0.36	0/36390	0.60	8/56793 (0.0%)
2	12	0.54	0/1959	1.11	16/2642 (0.6%)
2	1E	0.55	0/1959	1.03	6/2642 (0.2%)
3	22	0.58	0/1636	1.02	8/2205 (0.4%)
3	2E	0.63	0/1629	0.98	1/2195 (0.0%)
4	32	0.63	0/1732	1.17	15/2318 (0.6%)
4	3E	0.67	0/1732	1.13	11/2318 (0.5%)
5	42	0.61	0/1171	1.10	7/1576 (0.4%)
5	4E	0.68	0/1171	1.06	5/1576 (0.3%)
6	52	0.63	0/855	1.09	7/1154 (0.6%)
6	5E	0.68	0/855	0.96	3/1154 (0.3%)
7	62	0.53	0/1218	0.99	2/1632 (0.1%)
7	6E	0.53	0/1171	0.93	1/1567 (0.1%)
8	72	0.55	0/1135	1.03	5/1527 (0.3%)
8	7E	0.63	0/1135	1.23	12/1527 (0.8%)
9	82	0.50	0/1002	1.00	1/1346 (0.1%)
9	8E	0.54	0/1028	0.99	1/1379 (0.1%)
10	1A	0.54	0/814	1.02	5/1095 (0.5%)
10	1I	0.68	0/814	1.10	5/1095 (0.5%)
11	2A	0.63	0/879	1.16	5/1187 (0.4%)
11	2I	0.64	0/879	1.17	6/1187 (0.5%)
12	3A	0.76	0/991	1.12	3/1327 (0.2%)
12	3I	0.80	0/972	1.31	8/1301 (0.6%)
13	4A	0.48	0/938	0.93	2/1258 (0.2%)
13	4I	0.54	0/938	1.02	2/1258 (0.2%)
14	5A	0.56	0/484	1.02	2/643 (0.3%)
14	5I	0.66	0/500	1.19	2/664 (0.3%)
15	6A	0.64	0/744	0.95	0/992
15	6I	0.63	0/744	1.04	0/992
16	7A	0.67	0/721	1.08	5/970 (0.5%)
16	7I	0.61	0/721	1.00	0/970

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	8A	0.60	0/836	1.03	0/1117
17	8I	0.61	0/847	1.11	5/1131 (0.4%)
18	9A	0.68	0/569	1.19	4/757 (0.5%)
18	9I	0.62	0/555	0.99	2/739 (0.3%)
19	AA	0.56	0/638	1.05	3/860 (0.3%)
19	AI	0.62	1/657 (0.2%)	1.10	3/885 (0.3%)
20	BA	0.63	0/764	1.17	5/1007 (0.5%)
20	BI	0.54	0/764	1.04	5/1007 (0.5%)
21	1B	0.58	0/221	0.99	0/288
21	1F	0.48	0/203	1.07	2/266 (0.8%)
22	1K	0.30	0/1988	0.48	0/3099
22	1L	0.25	0/1988	0.46	0/3099
23	2K	0.42	0/1746	0.71	0/2719
23	2L	0.41	0/1768	0.73	1/2753 (0.0%)
24	3K	0.29	0/1838	0.52	0/2862
24	3L	0.32	0/1786	0.59	1/2778 (0.0%)
25	4K	0.42	0/372	0.52	0/574
25	4L	0.36	0/485	0.45	0/749
26	14	0.45	0/70167	0.68	10/109541 (0.0%)
26	1H	0.48	0/70233	0.71	15/109643 (0.0%)
27	16	0.42	0/2928	0.67	0/4568
27	1J	0.39	0/2928	0.67	0/4568
28	11	0.85	1/2176 (0.0%)	1.32	12/2933 (0.4%)
28	19	0.85	1/2170 (0.0%)	1.36	34/2926 (1.2%)
29	21	0.79	0/1601	1.45	22/2160 (1.0%)
29	29	0.86	0/1601	1.43	20/2160 (0.9%)
30	31	0.84	0/1620	1.29	14/2194 (0.6%)
30	39	0.79	1/1662 (0.1%)	1.36	24/2249 (1.1%)
31	41	0.55	0/1498	1.03	3/2016 (0.1%)
31	49	0.47	0/1498	1.02	6/2016 (0.3%)
32	51	0.73	0/1362	1.37	22/1841 (1.2%)
32	59	0.59	0/1332	1.31	21/1802 (1.2%)
33	61	0.69	0/1151	1.14	10/1558 (0.6%)
33	69	0.64	1/1151 (0.1%)	1.10	6/1558 (0.4%)
34	15	0.67	0/1131	1.16	9/1525 (0.6%)
34	58	0.71	0/1131	1.21	9/1525 (0.6%)
35	25	0.77	0/942	1.19	7/1269 (0.6%)
35	68	0.74	0/942	1.15	5/1269 (0.4%)
36	35	0.75	0/1161	1.51	27/1544 (1.7%)
36	78	0.81	0/1139	1.46	24/1514 (1.6%)
37	45	0.80	1/1134 (0.1%)	1.22	9/1517 (0.6%)
37	88	0.84	1/1142 (0.1%)	1.32	10/1527 (0.7%)
38	55	0.77	0/973	1.16	6/1302 (0.5%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	98	0.68	0/981	1.15	6/1312 (0.5%)
39	65	0.72	1/891 (0.1%)	1.27	13/1187 (1.1%)
39	A8	0.70	0/891	1.12	2/1187 (0.2%)
40	75	0.74	0/1155	1.12	6/1542 (0.4%)
40	B8	0.76	0/1095	1.18	4/1463 (0.3%)
41	85	0.72	0/981	1.13	2/1306 (0.2%)
41	C8	0.81	0/981	1.16	6/1306 (0.5%)
42	95	0.83	1/789 (0.1%)	1.29	7/1057 (0.7%)
42	D8	0.74	0/789	1.20	6/1057 (0.6%)
43	A5	0.85	1/910 (0.1%)	1.18	3/1220 (0.2%)
43	E8	0.81	0/901	1.18	4/1209 (0.3%)
44	B5	0.85	0/739	1.20	7/993 (0.7%)
44	F8	0.82	0/756	1.19	6/1014 (0.6%)
45	C5	0.85	0/807	1.31	6/1076 (0.6%)
45	G8	0.96	1/796 (0.1%)	1.45	13/1062 (1.2%)
46	D5	0.61	0/1145	1.19	12/1547 (0.8%)
46	H8	0.62	1/1403 (0.1%)	1.18	10/1901 (0.5%)
47	E5	0.77	0/635	1.33	8/848 (0.9%)
47	I8	0.80	0/665	1.13	3/885 (0.3%)
48	F5	0.79	0/744	1.26	4/989 (0.4%)
48	J8	0.82	0/753	1.26	4/1000 (0.4%)
49	G5	0.67	0/569	1.26	6/753 (0.8%)
49	K8	0.78	0/577	1.32	6/763 (0.8%)
50	H5	0.64	0/473	1.20	3/635 (0.5%)
50	L8	0.79	0/457	1.28	5/613 (0.8%)
51	I5	0.64	0/527	1.19	2/709 (0.3%)
51	M8	0.57	0/545	1.13	2/733 (0.3%)
52	J5	0.82	1/448 (0.2%)	1.28	6/606 (1.0%)
52	N8	0.85	1/443 (0.2%)	1.55	8/599 (1.3%)
53	L5	0.80	0/417	1.18	1/550 (0.2%)
53	P8	0.92	0/417	1.13	1/550 (0.2%)
54	M5	0.86	0/426	1.26	3/556 (0.5%)
54	Q8	1.27	3/486 (0.6%)	1.91	16/638 (2.5%)
All	All	0.52	17/322561 (0.0%)	0.83	708/483352 (0.1%)

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

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	1E	0	3
4	32	0	3
4	3E	0	1
9	82	0	1
9	8E	0	1
10	1A	0	1
11	2A	0	1
12	3A	0	2
12	3I	0	1
13	4A	0	1
14	5A	0	1
19	AI	0	2
20	BA	0	2
28	11	0	1
28	19	0	3
29	21	0	4
29	29	0	8
30	31	0	1
30	39	0	6
31	49	0	1
33	61	0	3
33	69	0	3
34	15	0	1
36	35	0	7
36	78	0	2
37	45	0	5
37	88	0	3
38	55	0	2
38	98	0	1
40	75	0	2
40	B8	0	2
41	85	0	2
41	C8	0	1
42	95	0	1
43	A5	0	1
45	C5	0	4
45	G8	0	4
46	H8	0	3
47	E5	0	2
47	I8	0	2
48	F5	0	1
48	J8	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
49	G5	0	3
49	K8	0	5
51	I5	0	1
51	M8	0	3
52	J5	0	1
52	N8	0	2
53	P8	0	1
54	M5	0	2
54	Q8	0	12
All	All	0	128

All (17) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
45	G8	79	CYS	CA-C	10.46	1.57	1.52
39	65	88	ASP	CA-C	-6.92	1.49	1.53
42	95	72	VAL	CA-CB	6.58	1.63	1.54
54	Q8	6	THR	CA-CB	6.31	1.64	1.53
52	J5	6	VAL	CA-C	6.26	1.57	1.52
37	88	21	THR	CA-CB	6.05	1.62	1.53
54	Q8	31	HIS	CA-C	5.72	1.58	1.52
19	AI	41	VAL	CA-CB	5.69	1.61	1.54
52	N8	41	PRO	CA-C	5.67	1.57	1.52
46	H8	165	VAL	CA-CB	5.58	1.62	1.54
28	11	271	ILE	CA-C	5.42	1.60	1.52
43	A5	95	ILE	CA-CB	5.36	1.61	1.54
54	Q8	51	ALA	CA-C	5.32	1.59	1.52
37	45	81	VAL	CA-CB	5.18	1.61	1.54
33	69	145	VAL	CA-CB	5.06	1.61	1.54
30	39	84	VAL	CA-CB	5.04	1.61	1.54
28	19	271	ILE	CA-C	5.03	1.59	1.52

All (708) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	29	52	LEU	CA-C-N	14.73	136.12	119.32
29	29	52	LEU	C-N-CA	14.73	136.12	119.32
32	59	153	LYS	CA-C-N	-14.00	102.34	119.84
32	59	153	LYS	C-N-CA	-14.00	102.34	119.84
36	35	144	GLU	CA-C-N	13.41	133.79	120.52
36	35	144	GLU	C-N-CA	13.41	133.79	120.52
29	21	52	LEU	CA-C-N	12.50	132.07	119.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	21	52	LEU	C-N-CA	12.50	132.07	119.82
32	51	167	GLU	CA-C-N	-12.49	104.22	119.84
32	51	167	GLU	C-N-CA	-12.49	104.22	119.84
52	N8	40	LYS	CA-C-N	-12.20	107.82	120.38
52	N8	40	LYS	C-N-CA	-12.20	107.82	120.38
45	C5	39	VAL	N-CA-C	12.08	124.49	112.90
29	21	21	VAL	CA-C-N	11.54	134.27	119.84
29	21	21	VAL	C-N-CA	11.54	134.27	119.84
52	N8	41	PRO	CA-C-N	11.53	134.25	119.84
52	N8	41	PRO	C-N-CA	11.53	134.25	119.84
28	19	235	GLY	N-CA-C	11.39	125.04	112.29
42	95	49	THR	CA-C-N	-11.35	105.65	119.84
42	95	49	THR	C-N-CA	-11.35	105.65	119.84
45	G8	79	CYS	N-CA-C	11.19	125.76	108.30
11	2I	102	GLY	N-CA-C	-11.14	94.60	111.42
30	31	80	ALA	CA-C-N	10.58	130.18	119.82
30	31	80	ALA	C-N-CA	10.58	130.18	119.82
50	H5	11	SER	CA-C-N	10.45	130.06	119.82
50	H5	11	SER	C-N-CA	10.45	130.06	119.82
33	69	110	ASP	CA-C-N	10.42	132.86	119.84
33	69	110	ASP	C-N-CA	10.42	132.86	119.84
36	35	13	ASN	N-CA-C	10.16	121.65	108.34
30	39	71	GLY	N-CA-C	-9.95	101.25	115.27
12	3I	18	VAL	N-CA-C	9.87	119.90	110.42
28	11	271	ILE	N-CA-C	9.78	122.29	112.90
36	78	144	GLU	CA-C-N	9.78	130.55	119.99
36	78	144	GLU	C-N-CA	9.78	130.55	119.99
32	51	11	VAL	CA-C-N	9.70	131.96	119.84
32	51	11	VAL	C-N-CA	9.70	131.96	119.84
49	G5	44	LEU	N-CA-C	-9.55	101.63	113.38
54	Q8	28	GLY	N-CA-C	-9.47	90.73	113.18
28	11	273	ARG	N-CA-C	9.39	124.81	108.75
4	32	36	ARG	CA-C-N	-9.26	112.29	121.65
4	32	36	ARG	C-N-CA	-9.26	112.29	121.65
50	L8	11	SER	CA-C-N	9.15	129.38	119.87
50	L8	11	SER	C-N-CA	9.15	129.38	119.87
28	19	272	ALA	N-CA-C	9.14	130.28	110.80
8	7E	75	ARG	CA-C-N	9.04	129.59	119.92
8	7E	75	ARG	C-N-CA	9.04	129.59	119.92
20	BA	12	ALA	N-CA-C	-8.91	101.95	113.17
29	29	80	GLU	N-CA-C	8.89	124.32	113.38
30	39	80	ALA	CA-C-N	-8.81	108.82	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	39	80	ALA	C-N-CA	-8.81	108.82	119.84
45	C5	103	GLY	N-CA-C	8.73	131.00	115.80
37	88	125	LEU	CA-C-N	8.70	128.92	119.87
37	88	125	LEU	C-N-CA	8.70	128.92	119.87
11	2A	119	CYS	N-CA-C	8.69	121.82	110.43
46	D5	82	ARG	CA-C-N	8.60	128.93	119.90
46	D5	82	ARG	C-N-CA	8.60	128.93	119.90
30	31	7	TYR	N-CA-C	8.51	122.16	111.69
52	J5	4	HIS	CA-C-N	8.51	128.52	119.76
52	J5	4	HIS	C-N-CA	8.51	128.52	119.76
29	29	88	GLY	N-CA-C	8.46	125.26	110.80
8	7E	56	LYS	CA-C-N	8.45	130.40	119.84
8	7E	56	LYS	C-N-CA	8.45	130.40	119.84
46	D5	157	LEU	CA-C-N	8.43	129.07	120.38
46	D5	157	LEU	C-N-CA	8.43	129.07	120.38
47	E5	22	GLY	N-CA-C	8.40	123.78	111.76
45	G8	81	LYS	CA-C-N	8.25	146.80	127.00
45	G8	81	LYS	C-N-CA	8.25	146.80	127.00
11	2I	38	ASN	CA-C-N	8.21	128.72	119.93
11	2I	38	ASN	C-N-CA	8.21	128.72	119.93
42	95	80	GLN	N-CA-C	8.20	121.11	108.07
30	39	68	LYS	CA-C-N	-8.18	110.77	123.13
30	39	68	LYS	C-N-CA	-8.18	110.77	123.13
51	I5	55	ARG	N-CA-C	8.15	118.71	108.19
36	35	36	LYS	N-CA-C	8.15	120.06	108.00
31	41	44	GLY	N-CA-C	-8.12	104.59	114.66
29	21	58	ARG	N-CA-C	-8.08	102.47	113.30
36	78	25	SER	N-CA-C	-8.06	102.57	111.36
30	31	9	ILE	CA-C-N	8.04	129.88	119.84
30	31	9	ILE	C-N-CA	8.04	129.88	119.84
41	C8	9	VAL	N-CA-C	7.99	118.05	110.30
49	G5	42	GLY	N-CA-C	-7.93	102.88	112.48
30	39	24	LEU	CA-C-N	-7.93	109.93	119.84
30	39	24	LEU	C-N-CA	-7.93	109.93	119.84
40	75	13	ARG	N-CA-C	-7.90	103.43	113.23
2	12	231	GLU	CA-C-N	7.87	128.34	119.92
2	12	231	GLU	C-N-CA	7.87	128.34	119.92
32	59	93	GLY	N-CA-C	7.82	131.72	113.18
28	11	240	ALA	CA-C-N	7.81	129.33	120.98
28	11	240	ALA	C-N-CA	7.81	129.33	120.98
43	E8	24	ILE	N-CA-C	7.77	117.48	106.53
12	3I	117	ARG	N-CA-C	7.66	121.55	111.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	2A	114	VAL	CA-C-N	-7.65	112.59	120.85
11	2A	114	VAL	C-N-CA	-7.65	112.59	120.85
33	69	124	GLY	N-CA-C	7.62	120.14	110.38
29	29	131	ALA	N-CA-C	7.62	121.51	111.75
10	1I	31	GLY	N-CA-C	7.60	122.90	111.42
8	72	73	ASP	CA-C-N	7.58	127.30	119.64
8	72	73	ASP	C-N-CA	7.58	127.30	119.64
29	21	65	GLY	N-CA-C	-7.57	95.23	113.18
49	K8	16	LEU	N-CA-C	-7.54	95.35	108.69
32	59	167	GLU	CA-C-N	7.51	129.23	119.84
32	59	167	GLU	C-N-CA	7.51	129.23	119.84
37	88	21	THR	N-CA-C	7.51	118.47	107.88
36	35	9	ASN	CA-C-N	-7.48	110.49	119.84
36	35	9	ASN	C-N-CA	-7.48	110.49	119.84
43	E8	64	MET	N-CA-C	7.47	123.31	113.30
49	K8	17	SER	N-CA-C	7.46	120.19	108.55
33	61	144	VAL	N-CA-C	7.43	118.30	107.75
31	41	119	GLY	N-CA-C	7.42	119.57	112.08
54	Q8	7	HIS	N-CA-C	7.39	126.55	110.80
14	5I	28	GLY	N-CA-C	-7.39	104.86	115.64
30	39	95	ARG	N-CA-C	7.38	118.01	108.34
38	98	108	GLY	N-CA-C	-7.36	104.89	115.27
28	19	234	GLY	N-CA-C	7.36	121.56	111.54
36	78	15	ARG	N-CA-C	7.35	120.61	110.24
42	D8	35	LEU	CA-C-N	7.32	128.99	119.84
42	D8	35	LEU	C-N-CA	7.32	128.99	119.84
16	7A	65	GLN	CA-C-N	-7.22	113.27	120.21
16	7A	65	GLN	C-N-CA	-7.22	113.27	120.21
28	19	41	GLY	N-CA-C	-7.22	96.06	113.18
10	1A	52	GLY	CA-C-N	7.16	126.66	118.85
10	1A	52	GLY	C-N-CA	7.16	126.66	118.85
34	15	110	GLY	CA-C-N	7.16	127.48	119.32
34	15	110	GLY	C-N-CA	7.16	127.48	119.32
32	59	100	GLY	N-CA-C	7.15	122.68	112.81
29	29	48	GLN	N-CA-C	7.14	120.93	112.93
44	B5	40	LYS	CA-C-N	-7.14	112.34	122.41
44	B5	40	LYS	C-N-CA	-7.14	112.34	122.41
1	13	1498	U	P-O3'-C3'	7.12	130.88	120.20
32	59	130	ARG	CB-CA-C	-7.11	107.33	115.79
36	78	96	THR	CA-C-N	-7.11	110.95	119.84
36	78	96	THR	C-N-CA	-7.11	110.95	119.84
45	G8	99	CYS	N-CA-C	7.11	119.93	111.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1G	1498	U	C2'-C3'-O3'	7.10	120.15	109.50
48	J8	48	LYS	CA-C-N	7.09	134.47	121.70
48	J8	48	LYS	C-N-CA	7.09	134.47	121.70
2	1E	23	ARG	N-CA-C	-7.07	104.73	113.15
8	7E	26	VAL	CA-C-N	7.06	127.10	119.90
8	7E	26	VAL	C-N-CA	7.06	127.10	119.90
40	B8	4	GLY	N-CA-C	-7.05	104.22	112.83
32	59	111	HIS	CA-C-N	7.04	126.97	120.21
32	59	111	HIS	C-N-CA	7.04	126.97	120.21
29	29	49	LEU	N-CA-C	7.04	120.20	110.35
12	3I	70	ILE	CA-C-N	7.04	127.60	120.14
12	3I	70	ILE	C-N-CA	7.04	127.60	120.14
46	H8	129	SER	CA-C-N	7.02	127.00	119.28
46	H8	129	SER	C-N-CA	7.02	127.00	119.28
4	3E	32	ALA	N-CA-C	-7.02	95.85	110.80
28	11	120	GLY	CA-C-N	7.01	127.17	119.87
28	11	120	GLY	C-N-CA	7.01	127.17	119.87
28	19	49	ILE	N-CA-CB	7.01	118.18	110.53
2	1E	25	ASN	CA-C-N	7.01	126.71	119.56
2	1E	25	ASN	C-N-CA	7.01	126.71	119.56
37	88	65	PHE	N-CA-C	7.01	122.84	113.72
18	9A	87	ARG	CB-CA-C	-7.01	108.50	116.63
30	39	82	ILE	N-CA-C	-6.98	105.92	112.83
28	11	75	ILE	CA-C-N	-6.98	113.51	120.21
28	11	75	ILE	C-N-CA	-6.98	113.51	120.21
37	88	24	GLY	N-CA-C	-6.96	99.39	111.50
41	C8	96	ALA	N-CA-C	-6.95	95.99	110.80
31	49	44	GLY	N-CA-C	-6.95	106.22	115.32
48	F5	67	ILE	CB-CA-C	-6.94	107.10	113.70
2	12	23	ARG	N-CA-C	-6.94	95.80	107.80
32	59	160	LYS	N-CA-C	6.94	119.26	110.24
18	9A	38	GLU	N-CA-C	-6.93	103.65	111.14
54	Q8	52	LYS	C-N-CD	-6.91	105.39	120.60
29	21	2	LYS	N-CA-C	6.90	119.47	110.43
39	65	88	ASP	O-C-N	6.89	126.64	121.47
19	AA	54	GLY	N-CA-C	-6.89	106.49	114.69
3	22	162	GLN	N-CA-C	-6.86	99.51	109.59
28	11	237	GLU	CA-C-N	-6.86	114.81	120.98
28	11	237	GLU	C-N-CA	-6.86	114.81	120.98
38	98	9	LYS	CA-C-N	-6.84	112.49	123.23
38	98	9	LYS	C-N-CA	-6.84	112.49	123.23
34	58	39	ARG	CA-C-N	-6.84	111.29	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	58	39	ARG	C-N-CA	-6.84	111.29	119.84
2	12	25	ASN	CA-C-N	6.82	126.51	119.82
2	12	25	ASN	C-N-CA	6.82	126.51	119.82
36	78	98	GLU	N-CA-C	-6.81	102.36	111.96
46	D5	14	LYS	CA-C-N	6.80	127.36	119.47
46	D5	14	LYS	C-N-CA	6.80	127.36	119.47
31	49	155	MET	N-CA-C	6.80	117.47	107.88
45	G8	81	LYS	C-N-CD	-6.80	105.64	120.60
12	3A	77	LEU	N-CA-C	6.76	119.52	109.59
39	65	5	THR	N-CA-C	6.75	119.01	110.24
17	8I	79	SER	N-CA-C	6.74	119.79	110.35
45	G8	95	LYS	N-CA-C	-6.74	98.28	108.52
45	C5	101	LYS	N-CA-C	6.73	120.45	111.30
36	78	9	ASN	CA-C-N	6.73	126.99	119.32
36	78	9	ASN	C-N-CA	6.73	126.99	119.32
4	32	38	TYR	CA-C-N	6.72	127.31	120.38
4	32	38	TYR	C-N-CA	6.72	127.31	120.38
36	35	7	ARG	CA-C-N	-6.72	113.60	120.85
36	35	7	ARG	C-N-CA	-6.72	113.60	120.85
54	Q8	52	LYS	CA-C-N	6.71	143.11	127.00
54	Q8	52	LYS	C-N-CA	6.71	143.11	127.00
51	I5	20	ASN	N-CA-C	6.71	116.90	108.45
28	19	35	LYS	CA-C-N	-6.70	113.04	120.14
28	19	35	LYS	C-N-CA	-6.70	113.04	120.14
45	G8	81	LYS	N-CA-C	-6.70	95.00	109.81
48	J8	47	GLN	N-CA-C	6.70	118.94	108.96
34	58	130	HIS	N-CA-C	6.69	121.15	112.92
28	19	107	ALA	CA-C-N	6.69	126.65	120.03
28	19	107	ALA	C-N-CA	6.69	126.65	120.03
2	12	165	VAL	N-CA-C	6.68	117.30	110.82
30	31	75	HIS	N-CA-C	6.67	119.20	109.07
41	85	94	ASN	N-CA-C	-6.66	103.50	111.69
4	32	85	LYS	N-CA-C	-6.66	97.36	108.75
1	1G	1297	C	C2'-C3'-O3'	6.65	119.48	109.50
20	BI	74	LYS	CB-CA-C	-6.65	107.03	116.34
54	Q8	13	ARG	N-CA-C	6.64	122.20	113.30
29	21	130	GLY	N-CA-C	6.64	120.20	112.50
31	49	143	GLU	N-CA-C	-6.63	105.23	113.38
29	29	87	GLU	CA-C-N	-6.62	113.30	121.38
29	29	87	GLU	C-N-CA	-6.62	113.30	121.38
36	78	50	ARG	NE-CZ-NH2	6.62	125.16	119.20
1	13	1498	U	C2'-C3'-O3'	6.61	119.41	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
38	98	72	ASP	N-CA-C	6.61	119.29	108.52
44	F8	3	THR	CA-C-N	6.59	133.56	121.70
44	F8	3	THR	C-N-CA	6.59	133.56	121.70
41	85	74	LEU	N-CA-C	6.59	118.80	110.24
28	19	154	LYS	N-CA-C	6.57	121.45	113.17
28	11	13	ARG	N-CA-C	-6.56	104.76	112.89
32	59	129	THR	N-CA-C	6.56	118.29	107.73
46	H8	67	LEU	CA-C-N	6.54	128.02	119.84
46	H8	67	LEU	C-N-CA	6.54	128.02	119.84
36	35	36	LYS	CB-CA-C	-6.53	107.20	116.34
2	12	90	MET	CA-C-N	6.51	126.49	119.78
2	12	90	MET	C-N-CA	6.51	126.49	119.78
30	39	6	VAL	N-CA-C	6.51	118.35	112.17
33	61	136	VAL	CA-C-N	6.49	126.99	119.99
33	61	136	VAL	C-N-CA	6.49	126.99	119.99
18	9A	40	LEU	N-CA-C	6.49	119.67	111.69
45	C5	82	PRO	N-CA-C	6.48	121.68	111.38
2	12	17	PHE	N-CA-C	6.47	120.17	110.14
32	51	166	GLY	N-CA-C	-6.46	105.45	112.04
43	A5	6	ILE	N-CA-C	6.46	117.19	107.75
47	E5	82	ARG	CA-C-N	6.44	126.57	119.87
47	E5	82	ARG	C-N-CA	6.44	126.57	119.87
34	15	127	ASP	CB-CA-C	-6.43	107.41	115.89
45	G8	4	LYS	N-CA-C	6.42	118.28	111.28
54	Q8	22	VAL	N-CA-C	6.42	117.28	107.77
20	BI	9	ASN	N-CA-C	6.42	118.82	109.07
26	1H	271(B)	G	P-O3'-C3'	6.41	127.40	119.70
41	C8	70	ARG	N-CA-C	-6.36	105.48	113.18
35	68	29	ASN	N-CA-C	6.34	119.95	112.72
46	D5	100	VAL	CA-C-N	6.33	127.20	120.11
46	D5	100	VAL	C-N-CA	6.33	127.20	120.11
40	B8	114	LEU	N-CA-C	6.33	120.02	112.93
39	A8	5	THR	N-CA-C	6.32	118.46	110.24
38	98	38	VAL	CA-C-N	-6.30	112.52	119.19
38	98	38	VAL	C-N-CA	-6.30	112.52	119.19
48	F5	36	GLY	N-CA-C	6.29	128.10	113.18
39	65	46	VAL	N-CA-C	6.29	117.15	107.78
9	8E	91	ASP	N-CA-C	-6.29	105.25	113.17
6	52	72	VAL	N-CA-C	6.29	116.44	110.53
5	42	23	GLY	N-CA-C	6.28	118.42	110.38
38	55	40	LYS	N-CA-C	-6.28	104.52	111.36
12	3I	121	GLY	N-CA-C	6.27	122.63	113.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
16	7A	83	GLU	CB-CA-C	-6.27	108.70	117.23
28	19	273	ARG	N-CA-C	6.27	124.15	110.80
32	51	4	ILE	N-CA-C	6.26	118.64	109.63
54	Q8	10	ALA	N-CA-C	-6.26	103.17	111.24
45	G8	60	PHE	N-CA-C	6.24	118.62	108.26
35	25	50	GLY	N-CA-C	-6.24	98.87	110.73
26	1H	752	A	C2'-C3'-O3'	6.24	118.86	109.50
54	Q8	25	MET	CA-C-N	-6.23	113.92	123.14
54	Q8	25	MET	C-N-CA	-6.23	113.92	123.14
28	19	245	PRO	CA-C-N	6.22	126.59	119.93
28	19	245	PRO	C-N-CA	6.22	126.59	119.93
9	82	17	VAL	N-CA-C	6.21	116.81	107.75
32	59	28	GLY	CA-C-N	6.19	125.68	119.24
32	59	28	GLY	C-N-CA	6.19	125.68	119.24
20	BA	74	LYS	CB-CA-C	-6.19	109.42	116.54
54	Q8	49	VAL	N-CA-C	6.18	122.20	109.34
37	88	106	VAL	CB-CA-C	-6.18	104.53	111.45
29	29	51	PHE	N-CA-C	6.17	123.94	110.80
29	21	188	VAL	N-CA-C	6.16	114.75	109.02
3	22	145	GLY	N-CA-C	6.15	122.11	114.37
10	1I	62	HIS	N-CA-C	6.13	119.18	109.50
29	21	119	ARG	N-CA-C	-6.13	102.18	111.56
10	1A	93	GLY	N-CA-C	-6.13	106.47	115.72
17	8I	33	GLY	N-CA-C	6.12	123.20	115.42
4	32	171	GLY	CA-C-N	6.12	127.49	119.84
4	32	171	GLY	C-N-CA	6.12	127.49	119.84
32	51	81	GLU	N-CA-C	6.10	118.64	111.02
45	C5	86	ARG	N-CA-C	6.10	118.78	110.55
12	3A	43	VAL	N-CA-C	6.10	118.24	108.85
34	58	98	VAL	N-CA-C	-6.09	105.12	111.58
38	55	82	GLU	CA-C-N	-6.09	117.00	122.97
38	55	82	GLU	C-N-CA	-6.09	117.00	122.97
4	3E	12	CYS	N-CA-C	-6.09	101.33	111.37
45	G8	39	VAL	N-CA-C	6.09	117.33	111.91
19	AA	83	HIS	N-CA-C	6.08	118.15	110.24
48	J8	79	GLY	N-CA-C	6.08	127.59	113.18
32	59	91	GLY	N-CA-C	-6.05	103.57	111.37
46	D5	166	SER	CA-C-N	6.04	127.40	119.84
46	D5	166	SER	C-N-CA	6.04	127.40	119.84
26	1H	2439	A	OP1-P-O3'	6.03	126.10	108.00
5	4E	67	VAL	N-CA-C	6.02	116.29	108.35
36	78	71	VAL	CA-C-N	-6.01	113.49	119.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	78	71	VAL	C-N-CA	-6.01	113.49	119.56
13	4I	101	GLN	CB-CA-C	-6.01	107.96	115.89
53	L5	8	ASN	N-CA-C	-6.00	98.86	109.06
34	15	10	GLU	CA-C-N	6.00	126.20	119.90
34	15	10	GLU	C-N-CA	6.00	126.20	119.90
39	65	110	LEU	CA-CB-CG	5.99	137.25	116.30
54	Q8	26	LYS	N-CA-C	5.99	119.41	107.62
28	19	31	LYS	N-CA-C	-5.98	102.06	110.50
4	3E	39	PRO	CA-C-N	5.97	125.94	120.21
4	3E	39	PRO	C-N-CA	5.97	125.94	120.21
29	21	127	ASP	N-CA-C	-5.97	105.85	113.02
36	78	47	ASP	CA-C-N	5.97	125.67	119.05
36	78	47	ASP	C-N-CA	5.97	125.67	119.05
29	29	2	LYS	N-CA-C	5.95	118.46	111.02
46	H8	118	GLN	N-CA-C	5.95	117.87	110.91
5	42	67	VAL	N-CA-C	5.95	116.92	108.42
20	BI	96	GLY	N-CA-C	5.94	122.23	110.77
31	49	147	ASP	N-CA-C	-5.93	106.04	113.28
47	E5	15	ASP	N-CA-C	-5.92	99.79	107.73
45	C5	42	VAL	N-CA-C	5.92	117.05	109.30
1	1G	1297	C	P-O3'-C3'	5.91	129.07	120.20
30	39	8	GLN	N-CA-C	5.91	117.95	109.14
8	7E	73	ASP	CA-C-N	5.91	126.01	119.87
8	7E	73	ASP	C-N-CA	5.91	126.01	119.87
42	95	86	GLY	N-CA-C	-5.91	99.19	113.18
6	5E	11	ASN	CA-C-N	5.90	125.52	119.56
6	5E	11	ASN	C-N-CA	5.90	125.52	119.56
29	29	23	VAL	N-CA-C	5.90	121.61	109.34
19	AI	6	LYS	N-CA-C	5.89	123.34	110.80
30	31	79	GLY	N-CA-C	-5.88	107.36	114.66
32	59	130	ARG	N-CA-C	5.88	120.14	109.32
34	58	134	ARG	N-CA-C	5.87	122.79	109.81
19	AA	78	ARG	N-CA-C	5.87	120.60	113.38
29	21	141	ILE	N-CA-C	5.87	118.64	112.83
4	32	201	GLN	N-CA-C	-5.87	106.08	113.18
42	95	70	ILE	N-CA-C	5.86	117.80	112.29
45	G8	80	GLY	N-CA-C	5.86	127.06	113.18
17	8I	46	ASP	CA-C-N	5.85	125.06	118.97
17	8I	46	ASP	C-N-CA	5.85	125.06	118.97
53	P8	24	THR	N-CA-C	5.85	118.00	110.39
3	22	29	TYR	N-CA-C	5.84	117.45	111.14
37	45	3	MET	CA-C-N	5.84	125.85	119.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	45	3	MET	C-N-CA	5.84	125.85	119.89
47	E5	46	LYS	CA-C-N	5.84	127.14	119.84
47	E5	46	LYS	C-N-CA	5.84	127.14	119.84
36	35	49	ARG	N-CA-C	-5.84	104.60	110.97
51	M8	55	ARG	N-CA-C	5.84	117.34	110.97
30	39	67	GLN	CA-C-N	-5.84	114.55	121.90
30	39	67	GLN	C-N-CA	-5.84	114.55	121.90
34	58	59	LYS	N-CA-C	-5.83	105.74	112.92
46	H8	61	LEU	CA-C-N	5.83	127.13	119.84
46	H8	61	LEU	C-N-CA	5.83	127.13	119.84
37	45	80	GLU	CB-CA-C	-5.83	109.86	116.63
40	B8	13	ARG	N-CA-C	-5.81	105.85	113.17
1	13	1053	G	P-O3'-C3'	5.81	128.91	120.20
28	19	85	ASP	CA-C-N	5.80	125.91	119.87
28	19	85	ASP	C-N-CA	5.80	125.91	119.87
1	1G	812	C	C2'-C3'-O3'	5.80	118.20	109.50
2	12	126	GLU	N-CA-C	-5.80	106.06	113.02
54	M5	21	LYS	CA-C-N	-5.79	115.59	123.12
54	M5	21	LYS	C-N-CA	-5.79	115.59	123.12
37	88	26	TYR	N-CA-C	5.79	120.35	112.88
43	A5	42	ARG	N-CA-C	-5.79	106.05	113.23
36	78	35	HIS	N-CA-C	5.78	123.12	110.80
36	35	55	ARG	N-CA-C	-5.78	102.37	110.35
49	K8	63	VAL	N-CA-C	-5.78	105.09	110.53
36	35	107	LYS	N-CA-C	5.78	119.91	112.86
21	1F	22	ARG	CA-C-N	5.77	125.96	119.90
21	1F	22	ARG	C-N-CA	5.77	125.96	119.90
34	15	47	ALA	N-CA-C	5.77	117.66	110.91
6	52	81	ILE	N-CA-C	5.77	116.42	110.36
29	29	103	ASP	N-CA-C	-5.77	103.09	110.53
30	39	85	GLY	N-CA-C	-5.77	105.76	115.62
6	52	55	ASP	CA-C-N	5.76	125.29	119.19
6	52	55	ASP	C-N-CA	5.76	125.29	119.19
40	75	48	ILE	CA-C-N	-5.76	115.53	122.90
40	75	48	ILE	C-N-CA	-5.76	115.53	122.90
28	19	264	LYS	CA-C-N	5.75	125.37	119.56
28	19	264	LYS	C-N-CA	5.75	125.37	119.56
47	E5	9	SER	N-CA-C	5.75	123.05	110.80
39	65	34	HIS	N-CA-C	5.74	118.22	109.95
1	13	1053	G	C4'-C3'-O3'	5.73	118.00	109.40
32	51	35	VAL	CA-C-N	-5.73	113.64	119.83
32	51	35	VAL	C-N-CA	-5.73	113.64	119.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	32	30	LYS	CA-C-N	-5.73	113.42	122.76
4	32	30	LYS	C-N-CA	-5.73	113.42	122.76
37	45	98	LYS	CA-C-N	-5.72	114.04	119.76
37	45	98	LYS	C-N-CA	-5.72	114.04	119.76
49	K8	16	LEU	CA-C-N	-5.71	112.89	123.11
49	K8	16	LEU	C-N-CA	-5.71	112.89	123.11
29	21	120	TRP	N-CA-C	5.70	120.36	113.17
36	35	62	LEU	CA-C-N	5.70	127.95	120.25
36	35	62	LEU	C-N-CA	5.70	127.95	120.25
26	14	2275	C	P-O3'-C3'	5.70	128.75	120.20
36	35	22	GLY	CA-C-N	-5.70	113.31	119.24
36	35	22	GLY	C-N-CA	-5.70	113.31	119.24
48	F5	38	SER	N-CA-C	5.70	117.76	108.76
19	AI	75	ALA	CA-C-N	5.68	125.69	119.90
19	AI	75	ALA	C-N-CA	5.68	125.69	119.90
34	58	57	ALA	N-CA-C	-5.68	103.03	110.53
1	1G	87	A	P-O3'-C3'	5.67	128.70	120.20
39	A8	46	VAL	N-CA-C	5.65	116.82	108.45
42	D8	49	THR	CA-C-N	-5.65	113.36	119.24
42	D8	49	THR	C-N-CA	-5.65	113.36	119.24
33	61	131	LYS	CA-C-N	5.65	140.56	127.00
33	61	131	LYS	C-N-CA	5.65	140.56	127.00
30	39	167	ALA	CA-C-N	5.65	129.29	120.82
30	39	167	ALA	C-N-CA	5.65	129.29	120.82
3	22	194	GLY	N-CA-C	5.64	117.80	112.04
29	21	61	ARG	CA-C-N	-5.64	113.29	120.23
29	21	61	ARG	C-N-CA	-5.64	113.29	120.23
6	5E	65	VAL	N-CA-C	5.64	121.07	109.34
2	12	232	PRO	N-CA-C	5.64	120.08	111.34
32	51	125	VAL	CA-C-N	5.63	126.88	119.84
32	51	125	VAL	C-N-CA	5.63	126.88	119.84
39	65	58	LEU	N-CA-C	5.63	115.55	108.45
54	M5	38	GLY	N-CA-C	-5.63	105.97	112.50
7	6E	116	ALA	N-CA-C	5.63	117.28	111.03
29	29	133	LYS	CA-C-N	-5.62	117.62	122.96
29	29	133	LYS	C-N-CA	-5.62	117.62	122.96
30	39	75	HIS	N-CA-C	5.62	117.61	109.07
32	59	166	GLY	N-CA-C	5.62	120.64	112.55
4	3E	196	LEU	CA-C-N	5.61	125.32	119.82
4	3E	196	LEU	C-N-CA	5.61	125.32	119.82
23	2L	20	U	P-O3'-C3'	5.61	128.62	120.20
30	39	21	ALA	N-CA-C	5.61	117.14	110.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	39	2	LYS	N-CA-C	5.60	117.99	108.02
4	3E	171	GLY	CA-C-N	5.59	125.96	119.47
4	3E	171	GLY	C-N-CA	5.59	125.96	119.47
49	G5	43	GLN	N-CA-C	5.58	118.11	110.24
5	42	80	ILE	N-CA-C	5.58	116.40	108.42
46	D5	7	ALA	CB-CA-C	-5.58	109.15	115.79
52	N8	41	PRO	N-CA-C	5.57	117.50	110.70
5	42	48	ALA	CA-C-N	5.57	126.80	119.84
5	42	48	ALA	C-N-CA	5.57	126.80	119.84
38	55	82	GLU	N-CA-C	5.56	121.97	113.51
20	BI	49	ALA	CB-CA-C	-5.56	109.67	117.23
49	G5	46	GLN	CA-C-N	5.55	132.15	121.54
49	G5	46	GLN	C-N-CA	5.55	132.15	121.54
28	19	256	GLY	N-CA-C	5.55	121.69	115.08
30	39	123	LEU	N-CA-C	5.55	122.62	110.80
30	31	24	LEU	CA-C-N	5.54	126.77	119.84
30	31	24	LEU	C-N-CA	5.54	126.77	119.84
46	D5	52	SER	N-CA-C	5.54	118.89	111.24
33	61	131	LYS	C-N-CD	-5.54	108.42	120.60
36	35	55	ARG	CA-C-N	-5.54	114.95	123.14
36	35	55	ARG	C-N-CA	-5.54	114.95	123.14
16	7A	40	ASP	CA-C-N	5.53	125.62	119.87
16	7A	40	ASP	C-N-CA	5.53	125.62	119.87
43	A5	64	MET	N-CA-C	5.53	119.72	112.92
3	2E	70	VAL	N-CA-C	5.53	116.66	108.65
29	29	73	GLU	CA-C-N	5.52	126.74	119.84
29	29	73	GLU	C-N-CA	5.52	126.74	119.84
1	13	115	G	P-O3'-C3'	5.51	128.47	120.20
44	B5	31	HIS	CA-C-N	5.51	124.86	118.85
44	B5	31	HIS	C-N-CA	5.51	124.86	118.85
28	11	230	ASP	N-CA-C	5.51	119.97	112.04
37	45	64	ILE	N-CA-C	5.51	114.67	106.85
34	58	131	GLN	N-CA-C	5.50	117.71	111.11
28	19	175	LEU	CA-C-N	-5.50	115.69	122.84
28	19	175	LEU	C-N-CA	-5.50	115.69	122.84
36	78	15	ARG	CA-C-N	5.50	131.60	121.70
36	78	15	ARG	C-N-CA	5.50	131.60	121.70
37	88	29	PHE	N-CA-C	5.50	120.67	113.30
32	51	127	GLU	CA-C-N	5.50	124.84	118.85
32	51	127	GLU	C-N-CA	5.50	124.84	118.85
26	1H	138	G	N9-C1'-C2'	5.49	120.24	112.00
26	1H	2346	A	O4'-C1'-N9	5.49	116.43	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
13	4A	83	ASP	N-CA-C	-5.49	103.14	110.55
26	1H	2060	A	P-O3'-C3'	5.48	128.43	120.20
47	I8	7	LEU	N-CA-C	5.47	118.00	109.52
35	25	38	VAL	N-CA-C	5.47	116.00	108.12
11	2I	101	SER	CA-C-N	5.47	129.19	120.55
11	2I	101	SER	C-N-CA	5.47	129.19	120.55
49	G5	16	LEU	N-CA-C	-5.47	99.18	108.26
20	BI	74	LYS	N-CA-C	5.46	116.09	108.00
4	3E	198	VAL	N-CA-C	5.46	116.63	109.21
33	61	118	LYS	CA-C-N	5.46	125.45	119.89
33	61	118	LYS	C-N-CA	5.46	125.45	119.89
10	1A	89	ASP	N-CA-C	5.45	118.25	110.24
2	1E	166	ASP	CA-C-N	-5.45	114.55	121.91
2	1E	166	ASP	C-N-CA	-5.45	114.55	121.91
29	21	31	CYS	CA-C-N	5.45	126.66	119.84
29	21	31	CYS	C-N-CA	5.45	126.66	119.84
11	2A	57	THR	CA-C-N	5.45	125.09	119.05
11	2A	57	THR	C-N-CA	5.45	125.09	119.05
30	39	159	GLY	N-CA-C	-5.45	105.69	113.86
26	1H	1799	G	C2'-C3'-O3'	5.44	117.66	109.50
8	72	75	ARG	CA-C-N	5.44	125.34	119.85
8	72	75	ARG	C-N-CA	5.44	125.34	119.85
26	14	49	A	C4'-C3'-O3'	5.44	117.56	109.40
36	35	111	ARG	N-CA-C	5.44	118.40	109.76
28	19	87	ASN	N-CA-C	5.43	119.89	113.16
26	1H	1786	A	N9-C1'-C2'	5.42	122.13	114.00
48	F5	29	GLY	N-CA-C	5.42	118.21	110.46
30	31	8	GLN	N-CA-C	5.42	118.29	107.62
43	E8	86	LEU	CA-C-N	-5.42	114.38	119.85
43	E8	86	LEU	C-N-CA	-5.42	114.38	119.85
35	25	29	ASN	N-CA-C	5.41	119.57	112.92
35	25	57	VAL	N-CA-C	5.40	115.56	107.51
36	35	54	GLY	CA-C-O	5.40	124.96	118.97
50	L8	24	LYS	N-CA-C	-5.39	105.48	111.36
8	7E	95	VAL	N-CA-C	5.39	115.62	107.75
4	32	135	LEU	CA-C-N	5.38	126.56	119.84
4	32	135	LEU	C-N-CA	5.38	126.56	119.84
13	4A	74	VAL	N-CA-C	-5.38	106.62	112.80
8	7E	2	LEU	N-CA-C	5.37	117.20	110.91
4	32	83	SER	CA-C-N	-5.37	115.28	122.42
4	32	83	SER	C-N-CA	-5.37	115.28	122.42
32	59	95	ARG	N-CA-C	5.37	115.37	108.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
18	9I	22	VAL	N-CA-C	5.36	120.50	109.34
54	Q8	30	ARG	N-CA-C	5.36	122.22	110.80
5	42	127	ASN	CA-C-N	5.36	124.81	119.24
5	42	127	ASN	C-N-CA	5.36	124.81	119.24
42	D8	40	LEU	N-CA-C	5.36	116.28	108.14
33	61	143	SER	N-CA-C	5.36	122.21	110.80
44	F8	3	THR	CB-CA-C	5.36	121.08	110.42
36	35	63	PRO	CA-C-O	-5.36	115.39	121.98
29	29	24	THR	CB-CA-C	-5.35	102.36	110.06
37	45	92	GLY	N-CA-C	5.34	117.03	111.95
26	1H	1204	A	O4'-C1'-N9	5.34	116.22	108.20
36	78	58	THR	N-CA-C	-5.34	105.60	113.61
54	Q8	40	GLU	N-CA-C	-5.34	106.78	113.72
12	3A	127	GLU	N-CA-C	5.33	118.25	111.69
32	51	12	PRO	CA-C-N	5.33	131.72	121.54
32	51	12	PRO	C-N-CA	5.33	131.72	121.54
41	C8	95	LEU	CA-C-O	5.33	127.55	121.58
42	D8	39	LEU	N-CA-C	5.33	119.89	113.17
36	78	46	LYS	N-CA-C	5.33	118.90	112.93
37	88	89	ASN	N-CA-C	5.33	117.50	108.02
46	H8	63	ASP	N-CA-C	-5.33	104.06	111.30
40	B8	3	ARG	N-CA-C	-5.32	104.07	111.52
7	62	130	GLY	N-CA-C	5.32	122.09	114.64
32	51	7	LEU	N-CA-C	5.32	118.30	109.79
51	M8	51	ASP	N-CA-C	5.32	117.15	110.24
52	N8	33	CYS	CA-C-N	5.32	124.77	119.24
52	N8	33	CYS	C-N-CA	5.32	124.77	119.24
6	52	95	GLU	CA-C-N	5.32	125.62	119.93
6	52	95	GLU	C-N-CA	5.32	125.62	119.93
52	J5	25	LEU	N-CA-C	5.32	118.48	109.76
3	22	108	ASN	CA-C-N	-5.31	113.20	119.84
3	22	108	ASN	C-N-CA	-5.31	113.20	119.84
26	14	1786	A	N9-C1'-C2'	5.31	121.96	114.00
29	29	36	ARG	N-CA-C	5.31	119.86	113.17
26	14	1022	G	C2'-C3'-O3'	5.30	117.45	109.50
33	69	75	LEU	N-CA-C	5.30	116.90	108.79
29	21	117	MET	CA-C-N	5.30	131.66	121.54
29	21	117	MET	C-N-CA	5.30	131.66	121.54
49	K8	14	ARG	N-CA-C	-5.29	102.46	110.24
26	1H	1558	A	P-O3'-C3'	5.29	128.14	120.20
7	62	55	GLY	N-CA-C	-5.29	108.39	115.32
29	29	50	GLY	N-CA-C	5.29	125.72	113.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
42	95	82	ARG	N-CA-C	5.28	117.29	108.99
10	1I	59	SER	N-CA-C	5.28	117.09	110.91
38	55	94	TYR	N-CA-C	-5.28	106.52	113.17
30	39	83	PHE	N-CA-C	5.28	119.82	113.17
10	1I	58	ASP	N-CA-C	-5.28	103.56	110.53
40	75	29	ARG	CA-C-N	-5.28	116.65	123.19
40	75	29	ARG	C-N-CA	-5.28	116.65	123.19
47	I8	22	GLY	N-CA-C	5.27	117.97	110.74
45	G8	92	ASN	N-CA-C	5.27	115.31	107.88
26	1H	1558	A	C2'-C3'-O3'	5.27	117.41	109.50
2	12	193	ASP	CA-C-N	5.27	124.45	118.97
2	12	193	ASP	C-N-CA	5.27	124.45	118.97
44	F8	67	GLY	N-CA-C	-5.27	100.70	113.18
46	H8	150	LEU	CA-C-N	-5.27	115.32	121.64
46	H8	150	LEU	C-N-CA	-5.27	115.32	121.64
4	32	12	CYS	N-CA-C	-5.27	104.79	111.11
10	1A	92	THR	N-CA-C	-5.27	106.53	113.17
4	3E	13	ARG	N-CA-C	5.26	116.82	111.14
35	25	58	VAL	N-CA-C	5.26	117.63	108.95
34	15	69	GLN	N-CA-C	5.26	118.16	111.69
11	2I	81	ASP	N-CA-C	5.26	119.79	113.17
30	31	127	GLU	N-CA-C	5.26	118.00	108.69
32	51	54	ARG	CA-C-N	5.26	124.76	119.19
32	51	54	ARG	C-N-CA	5.26	124.76	119.19
12	3I	72	GLY	CA-C-O	-5.25	118.67	122.45
45	G8	93	GLY	CA-C-O	-5.25	117.74	122.57
13	4I	98	VAL	N-CA-C	5.25	116.72	111.00
17	8I	23	VAL	N-CA-C	5.25	115.65	107.99
36	35	25	SER	N-CA-C	-5.25	105.73	111.82
8	7E	66	GLY	CA-C-N	5.24	125.65	119.99
8	7E	66	GLY	C-N-CA	5.24	125.65	119.99
32	59	84	SER	CB-CA-C	-5.23	109.01	116.34
26	1H	271(B)	G	C2'-C3'-O3'	5.23	117.34	109.50
41	C8	95	LEU	CA-C-N	5.23	131.52	121.54
41	C8	95	LEU	C-N-CA	5.23	131.52	121.54
14	5A	53	LEU	CA-C-N	5.22	125.47	119.83
14	5A	53	LEU	C-N-CA	5.22	125.47	119.83
26	1H	2468	G	O4'-C1'-N9	5.22	116.03	108.20
26	14	752	A	C2'-C3'-O3'	5.21	117.32	109.50
54	Q8	38	GLY	CA-C-N	5.21	131.49	121.54
54	Q8	38	GLY	C-N-CA	5.21	131.49	121.54
44	B5	25	LYS	N-CA-C	5.21	117.11	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	13	115	G	C4'-C3'-O3'	5.20	117.20	109.40
28	19	136	ILE	CA-C-N	5.20	125.50	119.93
28	19	136	ILE	C-N-CA	5.20	125.50	119.93
39	65	88	ASP	CA-C-N	5.20	131.48	121.54
39	65	88	ASP	C-N-CA	5.20	131.48	121.54
1	1G	1346	A	P-O3'-C3'	5.20	128.00	120.20
36	35	57	THR	N-CA-C	5.20	121.87	110.80
10	1I	96	ILE	N-CA-C	5.20	117.33	108.86
40	75	80	SER	N-CA-C	5.20	115.58	109.60
52	N8	38	ALA	N-CA-C	5.19	118.09	109.94
35	25	47	ILE	CA-C-N	5.19	125.24	119.32
35	25	47	ILE	C-N-CA	5.19	125.24	119.32
28	19	10	THR	CA-C-N	-5.19	114.89	120.03
28	19	10	THR	C-N-CA	-5.19	114.89	120.03
4	3E	12	CYS	CA-CB-SG	5.19	126.33	114.40
44	F8	73	ARG	N-CA-C	-5.18	102.50	110.07
30	39	106	ARG	N-CA-C	-5.18	105.32	110.97
14	5I	12	ARG	N-CA-C	-5.18	107.13	112.93
28	19	31	LYS	CA-C-O	-5.18	115.91	121.56
33	69	7	GLU	CA-C-N	-5.18	114.65	120.14
33	69	7	GLU	C-N-CA	-5.18	114.65	120.14
5	4E	41	VAL	CB-CA-C	-5.17	103.17	110.82
36	35	71	VAL	CA-C-N	-5.17	114.76	119.82
36	35	71	VAL	C-N-CA	-5.17	114.76	119.82
2	12	16	HIS	N-CA-C	5.17	119.68	113.17
32	59	153	LYS	N-CA-C	5.17	121.23	109.81
28	19	48	ARG	CA-C-N	-5.16	114.54	121.66
28	19	48	ARG	C-N-CA	-5.16	114.54	121.66
26	14	49	A	P-O3'-C3'	5.16	127.94	120.20
3	22	140	ARG	CA-C-N	-5.16	116.92	122.59
3	22	140	ARG	C-N-CA	-5.16	116.92	122.59
31	49	12	TYR	CA-C-N	-5.15	114.88	123.33
31	49	12	TYR	C-N-CA	-5.15	114.88	123.33
52	J5	46	CYS	CA-C-N	5.15	124.76	119.56
52	J5	46	CYS	C-N-CA	5.15	124.76	119.56
26	14	2542	A	P-O3'-C3'	5.15	127.92	120.20
26	1H	945	A	C4-N9-C1'	5.15	141.74	126.30
18	9A	32	ARG	N-CA-C	-5.14	106.98	113.20
28	19	43	ARG	N-CA-C	5.14	118.19	109.76
38	55	31	HIS	N-CA-C	5.14	119.64	112.90
36	35	54	GLY	N-CA-C	-5.14	107.60	115.00
5	4E	69	VAL	CA-C-N	5.14	126.26	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	4E	69	VAL	C-N-CA	5.14	126.26	119.84
26	1H	752	A	P-O3'-C3'	5.14	127.91	120.20
36	78	55	ARG	CA-C-N	-5.13	115.17	123.23
36	78	55	ARG	C-N-CA	-5.13	115.17	123.23
34	58	132	ALA	N-CA-C	5.13	116.60	109.31
1	1G	812	C	P-O3'-C3'	5.13	127.90	120.20
12	3I	83	VAL	N-CA-C	5.13	114.96	107.88
32	59	7	LEU	N-CA-C	5.13	121.14	109.81
50	L8	54	VAL	N-CA-C	5.12	119.99	109.34
50	L8	55	ARG	N-CA-C	5.12	117.58	109.24
34	15	39	ARG	CA-C-N	-5.12	113.45	119.84
34	15	39	ARG	C-N-CA	-5.12	113.45	119.84
36	78	116	GLY	N-CA-C	5.11	120.64	110.77
29	21	55	ASN	CA-C-N	-5.11	113.45	119.84
29	21	55	ASN	C-N-CA	-5.11	113.45	119.84
39	65	7	TYR	N-CA-C	-5.11	105.71	111.28
12	3I	60	LEU	N-CA-C	5.11	117.45	110.55
52	J5	13	LYS	N-CA-C	-5.11	104.98	111.11
39	65	90	GLY	CA-C-N	5.10	124.71	119.56
39	65	90	GLY	C-N-CA	5.10	124.71	119.56
50	H5	6	VAL	N-CA-C	5.09	115.19	107.75
1	1G	687	A	P-O3'-C3'	5.09	127.84	120.20
39	65	42	ASP	N-CA-C	-5.09	103.96	110.53
44	B5	42	ALA	N-CA-C	-5.09	99.96	110.80
47	I8	65	GLY	N-CA-C	5.09	117.45	110.58
1	13	792	A	N9-C1'-C2'	5.09	121.63	114.00
31	41	40	ASN	N-CA-C	5.08	116.69	108.26
37	45	25	ASP	N-CA-C	5.08	121.62	110.80
32	59	152	ARG	N-CA-C	5.08	116.24	108.52
2	12	166	ASP	CA-C-N	5.08	124.74	119.56
2	12	166	ASP	C-N-CA	5.08	124.74	119.56
33	61	15	VAL	N-CA-C	5.08	116.77	109.51
44	F8	3	THR	CA-C-O	-5.07	113.26	120.51
26	14	2307	G	O4'-C1'-N9	5.07	116.11	108.50
44	B5	53	LYS	N-CA-C	5.07	116.67	108.26
30	31	197	ASP	N-CA-C	-5.07	100.01	110.80
6	52	60	PHE	N-CA-C	5.07	116.99	108.73
35	68	5	GLN	N-CA-CB	-5.06	109.04	114.10
20	BA	10	LEU	CA-C-N	-5.06	113.41	122.32
20	BA	10	LEU	C-N-CA	-5.06	113.41	122.32
20	BA	74	LYS	N-CA-C	5.06	116.01	108.31
37	45	86	GLY	N-CA-C	5.06	120.30	112.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	51	28	GLY	CA-C-N	5.05	125.33	119.47
32	51	28	GLY	C-N-CA	5.05	125.33	119.47
47	E5	82	ARG	CB-CA-C	5.05	115.89	110.08
30	31	66	PRO	N-CA-C	5.05	120.17	113.86
26	14	2701	C	O3'-P-O5'	5.05	111.57	104.00
42	95	20	LEU	N-CA-C	5.04	117.62	108.69
36	78	53	GLY	N-CA-C	-5.04	108.28	115.64
37	88	27	VAL	CB-CA-C	-5.04	103.03	111.29
30	31	19	GLU	N-CA-C	5.03	117.17	109.07
35	68	66	LYS	N-CA-C	-5.03	106.65	112.89
30	39	147	GLY	N-CA-C	-5.03	108.13	115.63
28	19	62	TYR	N-CA-C	5.03	116.89	107.99
28	19	259	THR	N-CA-C	5.03	119.56	113.38
35	68	47	ILE	CA-C-N	5.02	125.31	119.93
35	68	47	ILE	C-N-CA	5.02	125.31	119.93
28	19	272	ALA	CA-C-N	5.02	131.13	121.54
28	19	272	ALA	C-N-CA	5.02	131.13	121.54
18	9I	23	LYS	N-CA-C	-5.02	106.66	112.89
2	1E	75	LYS	N-CA-C	-5.02	106.67	112.89
8	72	28	ALA	N-CA-C	5.02	117.99	109.76
24	3L	83	U	C4'-C3'-O3'	5.02	120.53	113.00
36	35	40	SER	N-CA-C	-5.02	106.67	112.89
32	51	7	LEU	CA-C-N	5.01	126.11	119.84
32	51	7	LEU	C-N-CA	5.01	126.11	119.84
36	78	145	PRO	N-CA-C	5.01	119.90	111.32
26	14	2225	A	C4'-C3'-O3'	5.01	116.92	109.40
5	4E	148	VAL	N-CA-C	5.01	115.24	110.53
39	65	3	ARG	N-CA-C	5.01	117.97	109.76
29	21	106	GLY	N-CA-C	5.00	116.70	111.95

There are no chirality outliers.

All (128) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
28	11	273	ARG	Peptide
2	12	19	HIS	Peptide
34	15	41	ASP	Peptide
28	19	237	GLU	Peptide
28	19	32	SER	Peptide
28	19	37	LEU	Peptide
10	1A	55	LYS	Peptide
2	1E	15	VAL	Peptide

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Mol	Chain	Res	Type	Group
2	1E	169	LYS	Peptide
2	1E	237	ALA	Peptide
29	21	153	GLY	Peptide
29	21	57	LYS	Peptide
29	21	78	LEU	Peptide
29	21	82	ARG	Peptide
29	29	117	MET	Peptide
29	29	139	GLY	Peptide
29	29	186	GLY	Peptide
29	29	201	THR	Peptide
29	29	203	LYS	Peptide
29	29	44	TYR	Peptide
29	29	53	PRO	Peptide
29	29	70	ALA	Peptide
11	2A	49	GLY	Peptide
30	31	196	LEU	Peptide
4	32	154	ASN	Peptide
4	32	155	LEU	Peptide
4	32	30	LYS	Peptide
36	35	110	TYR	Peptide
36	35	22	GLY	Peptide
36	35	36	LYS	Peptide
36	35	5	ASP	Peptide
36	35	56	SER	Peptide
36	35	60	MET	Peptide
36	35	63	PRO	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	89	VAL	Peptide
12	3A	18	VAL	Peptide
12	3A	89	ARG	Peptide
4	3E	31	CYS	Peptide
12	3I	87	GLY	Peptide
37	45	134	ARG	Peptide
37	45	135	ASP	Peptide
37	45	137	TYR	Peptide
37	45	25	ASP	Peptide
37	45	26	TYR	Peptide
31	49	13	GLU	Peptide

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Mol	Chain	Res	Type	Group
13	4A	94	ARG	Peptide
38	55	105	ARG	Peptide
38	55	106	GLY	Peptide
14	5A	29	ARG	Peptide
33	61	11	ASN	Peptide
33	61	134	PRO	Peptide
33	61	82	ARG	Peptide
33	69	112	LYS	Peptide
33	69	143	SER	Peptide
33	69	85	GLU	Peptide
40	75	12	SER	Peptide
40	75	4	GLY	Peptide
36	78	11	GLY	Peptide
36	78	115	LEU	Peptide
9	82	117	HIS	Peptide
41	85	90	VAL	Peptide
41	85	98	LEU	Peptide
37	88	21	THR	Peptide
37	88	58	PHE	Peptide
37	88	79	LEU	Peptide
9	8E	47	LEU	Peptide
42	95	85	LYS	Peptide
38	98	44	LEU	Peptide
43	A5	43	GLY	Peptide
19	AI	6	LYS	Peptide
19	AI	7	LYS	Peptide
40	B8	12	SER	Peptide
40	B8	58	ASN	Peptide
20	BA	11	SER	Peptide
20	BA	72	LEU	Peptide
45	C5	100	ALA	Peptide
45	C5	39	VAL	Peptide
45	C5	81	LYS	Peptide
45	C5	90	LEU	Peptide
41	C8	115	ALA	Peptide
47	E5	7	LEU	Peptide
47	E5	83	PRO	Peptide
48	F5	78	LYS	Peptide
49	G5	15	LYS	Peptide
49	G5	17	SER	Peptide
49	G5	43	GLN	Peptide
45	G8	53	PRO	Peptide

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Mol	Chain	Res	Type	Group
45	G8	54	LYS	Peptide
45	G8	80	GLY	Peptide
45	G8	94	LYS	Peptide
46	H8	165	VAL	Peptide
46	H8	59	LEU	Peptide
46	H8	63	ASP	Peptide
51	I5	26	SER	Peptide
47	I8	2	ALA	Peptide
47	I8	6	ALA	Peptide
52	J5	3	LYS	Peptide
48	J8	75	GLU	Peptide
49	K8	15	LYS	Peptide
49	K8	16	LEU	Peptide
49	K8	17	SER	Peptide
49	K8	45	SER	Peptide
49	K8	46	GLN	Peptide
54	M5	35	GLN	Peptide
54	M5	40	GLU	Peptide
51	M8	4	GLY	Peptide
51	M8	40	HIS	Peptide
51	M8	43	TYR	Peptide
52	N8	41	PRO	Peptide
52	N8	42	PRO	Peptide
53	P8	46	VAL	Peptide
54	Q8	18	ALA	Peptide
54	Q8	26	LYS	Peptide
54	Q8	33	ASN	Peptide
54	Q8	37	SER	Peptide
54	Q8	38	GLY	Peptide
54	Q8	46	ARG	Peptide
54	Q8	48	PHE	Peptide
54	Q8	56	GLU	Peptide
54	Q8	57	ARG	Peptide
54	Q8	6	THR	Peptide
54	Q8	7	HIS	Peptide
54	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	32389	0	16350	724	0
1	1G	32511	0	16414	718	0
2	12	1924	0	1975	101	0
2	1E	1924	0	1975	92	0
3	22	1612	0	1677	84	0
3	2E	1605	0	1668	71	0
4	32	1702	0	1763	106	0
4	3E	1702	0	1763	81	0
5	42	1155	0	1213	52	0
5	4E	1155	0	1213	55	0
6	52	842	0	857	35	0
6	5E	842	0	857	35	0
7	62	1200	0	1238	51	0
7	6E	1157	0	1202	45	0
8	72	1115	0	1177	47	0
8	7E	1115	0	1177	43	0
9	82	983	0	1006	79	0
9	8E	1009	0	1037	69	0
10	1A	801	0	849	58	0
10	1I	801	0	849	54	0
11	2A	864	0	881	38	0
11	2I	864	0	881	40	0
12	3A	975	0	1062	42	0
12	3I	956	0	1046	48	0
13	4A	928	0	987	53	0
13	4I	928	0	987	58	0
14	5A	475	0	511	36	0
14	5I	491	0	529	33	0
15	6A	733	0	771	34	0
15	6I	733	0	771	26	0
16	7A	705	0	725	27	0
16	7I	705	0	725	41	0
17	8A	823	0	891	32	0
17	8I	834	0	904	39	0
18	9A	564	0	631	26	0
18	9I	550	0	613	23	0
19	AA	624	0	636	42	0
19	AI	643	0	662	43	0
20	BA	762	0	861	42	0
20	BI	762	0	861	41	0
21	1B	217	0	234	11	0
21	1F	199	0	208	8	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
22	1K	1863	0	942	42	0
22	1L	1863	0	942	37	0
23	2K	1692	0	859	44	0
23	2L	1712	0	870	61	0
24	3K	1646	0	830	36	0
24	3L	1601	0	809	30	0
25	4K	336	0	168	8	0
25	4L	438	0	220	11	0
26	14	62647	0	31582	1260	0
26	1H	62707	0	31614	1355	1
27	16	2617	0	1328	60	0
27	1J	2617	0	1328	71	0
28	11	2126	0	2208	91	0
28	19	2120	0	2197	88	0
29	21	1568	0	1634	97	0
29	29	1568	0	1634	109	0
30	31	1585	0	1632	88	0
30	39	1627	0	1680	99	0
31	41	1473	0	1535	96	0
31	49	1473	0	1535	70	0
32	51	1336	0	1418	81	0
32	59	1307	0	1382	73	0
33	61	1136	0	1223	59	0
33	69	1136	0	1223	58	0
34	15	1104	0	1180	55	0
34	58	1104	0	1180	58	0
35	25	932	0	996	44	0
35	68	932	0	996	36	0
36	35	1144	0	1228	85	0
36	78	1122	0	1206	98	0
37	45	1113	0	1167	64	0
37	88	1121	0	1179	69	0
38	55	959	0	1021	53	0
38	98	967	0	1033	58	0
39	65	881	0	943	59	0
39	A8	881	0	943	57	0
40	75	1141	0	1202	55	0
40	B8	1081	0	1141	65	0
41	85	963	0	1022	65	0
41	C8	963	0	1022	64	0
42	95	778	0	852	64	0
42	D8	778	0	852	42	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
43	A5	899	0	964	34	0
43	E8	890	0	951	32	0
44	B5	725	0	778	41	0
44	F8	742	0	803	32	0
45	C5	794	0	884	52	0
45	G8	783	0	870	45	0
46	D5	1120	0	1146	55	0
46	H8	1373	0	1402	80	0
47	E5	627	0	645	41	0
47	I8	656	0	679	32	0
48	F5	737	0	813	40	0
48	J8	746	0	826	35	0
49	G5	567	0	618	21	0
49	K8	575	0	634	39	0
50	H5	468	0	518	15	1
50	L8	452	0	503	19	0
51	I5	515	0	514	33	0
51	M8	533	0	526	51	0
52	J5	434	0	454	21	0
52	N8	429	0	449	31	0
53	L5	409	0	454	22	0
53	P8	409	0	454	19	0
54	M5	422	0	484	30	0
54	Q8	480	0	549	96	0
55	11	1	0	0	0	0
55	13	146	0	0	0	0
55	14	490	0	0	0	0
55	16	5	0	0	0	0
55	1G	143	0	0	0	0
55	1H	512	0	0	0	0
55	1J	2	0	0	0	0
55	1K	1	0	0	0	0
55	21	2	0	0	0	0
55	25	1	0	0	0	0
55	29	3	0	0	0	0
55	2K	3	0	0	0	0
55	2L	2	0	0	0	0
55	31	1	0	0	0	0
55	32	1	0	0	0	0
55	3E	1	0	0	0	0
55	3I	1	0	0	0	0
55	45	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	5E	1	0	0	0	0
55	78	1	0	0	0	0
55	7A	1	0	0	0	0
55	85	2	0	0	0	0
55	88	4	0	0	0	0
55	98	1	0	0	0	0
55	E5	2	0	0	0	0
55	G8	1	0	0	0	0
55	I8	2	0	0	0	0
55	J8	1	0	0	0	0
55	P8	1	0	0	0	0
56	32	1	0	0	0	0
56	3E	1	0	0	0	0
56	5A	1	0	0	0	0
56	5I	1	0	0	0	0
56	C5	1	0	0	0	0
56	G8	1	0	0	0	0
57	11	1	0	0	0	0
57	13	74	0	0	11	0
57	14	520	0	0	102	0
57	19	8	0	0	2	0
57	1G	73	0	0	6	0
57	1H	552	0	0	122	0
57	21	1	0	0	1	0
57	29	2	0	0	0	0
57	31	4	0	0	2	0
57	35	1	0	0	0	0
57	39	4	0	0	0	0
57	3E	1	0	0	0	0
57	4L	2	0	0	0	0
57	55	2	0	0	0	0
57	6A	2	0	0	0	0
57	6I	1	0	0	0	0
57	78	2	0	0	0	0
57	7A	1	0	0	0	0
57	85	1	0	0	0	0
57	A5	1	0	0	0	0
57	B8	1	0	0	0	0
57	BI	1	0	0	0	0
57	C8	2	0	0	1	0
57	D8	1	0	0	0	0
57	E8	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	I8	3	0	0	0	0
57	J8	1	0	0	0	0
57	M5	3	0	0	0	0
57	P8	1	0	0	0	0
All	All	299429	0	199511	8330	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 17.

All (8330) 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)
26:1H:2032:G:N7	57:1H:4116:HOH:O	1.81	1.11
2:12:185:ILE:HG22	2:12:199:TYR:HB2	1.39	1.04
26:1H:810:U:OP1	57:1H:4123:HOH:O	1.75	1.03
26:1H:2308:G:H1	26:1H:2311:A:H2	1.07	1.02
26:1H:763:G:OP1	57:1H:3623:HOH:O	1.80	1.00
26:1H:1602:U:O4	57:1H:3791:HOH:O	1.78	1.00
28:19:37:LEU:HA	28:19:38:LYS:HB3	1.45	0.99
1:13:1305:G:H22	1:13:1331:G:H2'	1.25	0.98
26:14:2448:A:OP1	57:14:3631:HOH:O	1.81	0.98
26:14:2701:C:H3'	26:14:2702:U:H5"	1.46	0.97
4:32:26:CYS:HA	4:32:31:CYS:HB3	1.44	0.97
1:13:1502:A:H2	1:13:1505:G:H1	0.99	0.96
26:1H:2056:G:N7	57:1H:3925:HOH:O	1.98	0.96
50:L8:8:LEU:HA	50:L8:54:VAL:HB	1.46	0.96
26:14:1647:G:OP2	57:14:3939:HOH:O	1.81	0.96
26:1H:1774:C:OP1	57:1H:3665:HOH:O	1.84	0.95
26:14:1496:A:H8	26:14:1577:C:HO2'	1.00	0.95
54:M5:40:GLU:H	54:M5:43:GLN:HG3	1.27	0.95
26:1H:1388:G:N7	57:1H:3802:HOH:O	1.99	0.94
26:14:2624:G:N7	57:14:3935:HOH:O	1.98	0.94
26:14:1639:U:OP1	57:14:3953:HOH:O	1.85	0.94
26:1H:330:A:HO2'	26:1H:331:A:H8	1.10	0.94
26:14:1332:G:N2	26:14:1609:A:O2'	2.01	0.94
26:1H:761:A:OP1	57:1H:3618:HOH:O	1.86	0.94
26:1H:567:A:OP1	57:1H:3603:HOH:O	1.86	0.93
32:59:6:ARG:HB2	32:59:66:GLY:HA2	1.50	0.93
34:15:47:ALA:HB2	34:15:112:LEU:HD21	1.49	0.93
26:1H:217:G:OP2	57:1H:3643:HOH:O	1.86	0.93
26:14:1349:A:OP1	57:14:3543:HOH:O	1.84	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2L:37:G:H1	25:4L:47:U:H3	1.11	0.93
26:1H:751:A:OP1	57:1H:3745:HOH:O	1.84	0.93
30:39:53:THR:HG23	30:39:55:GLY:H	1.34	0.92
32:59:137:ASP:HB3	32:59:140:LYS:HB2	1.49	0.92
26:1H:452:G:OP2	57:1H:3740:HOH:O	1.86	0.92
26:1H:1614:A:OP1	57:1H:3742:HOH:O	1.87	0.92
1:1G:758:G:N7	57:1G:1869:HOH:O	2.03	0.92
26:14:676:A:H8	26:14:2069:G:H21	1.11	0.92
26:14:1774:C:OP1	57:14:3551:HOH:O	1.88	0.92
1:13:200:G:H1	1:13:217:C:H42	1.16	0.92
20:BA:82:SER:OG	20:BA:86:ARG:NH2	2.03	0.92
26:1H:801:G:OP2	57:1H:3907:HOH:O	1.87	0.92
26:1H:2287:A:N6	26:1H:2344:U:H3	1.69	0.91
26:14:741:G:OP1	57:14:3546:HOH:O	1.88	0.91
26:14:4:C:H42	26:14:2899:G:H22	1.10	0.91
8:7E:87:SER:HB2	8:7E:93:VAL:HB	1.52	0.91
23:2L:1:G:H1	23:2L:83:U:H3	1.18	0.91
26:14:1899:G:N2	26:14:1902:C:H41	1.68	0.91
29:21:201:THR:HG22	29:21:203:LYS:H	1.36	0.90
26:14:1613:G:N7	57:14:3608:HOH:O	2.05	0.90
3:22:32:LEU:HB3	3:22:59:ARG:HH12	1.36	0.90
26:1H:1890:A:OP2	57:1H:4002:HOH:O	1.90	0.90
1:1G:975:A:H4'	1:1G:976:G:H5"	1.52	0.90
1:13:137:C:H42	1:13:226:G:H1	0.98	0.89
26:1H:363(B):G:H2'	26:1H:363(C):G:H8	1.37	0.89
26:14:450:G:OP2	57:14:3656:HOH:O	1.87	0.89
26:14:751:A:OP1	57:14:3508:HOH:O	1.89	0.89
26:1H:1359:A:N1	26:1H:1372:U:N3	2.20	0.89
26:14:2415:G:H4'	36:35:67:MET:H	1.38	0.89
31:41:109:VAL:HG11	31:41:142:PRO:HD3	1.55	0.89
22:1L:46:G:H22	22:1L:58:U:H1'	1.34	0.89
26:1H:2053:G:OP1	57:1H:3670:HOH:O	1.91	0.89
26:1H:2576:G:OP1	57:1H:3671:HOH:O	1.91	0.89
26:1H:1823:G:N7	57:1H:4094:HOH:O	2.05	0.88
1:13:8:A:H62	4:3E:208:SER:HB2	1.38	0.88
1:1G:1502:A:H2	1:1G:1505:G:H1	1.20	0.88
26:14:1757:U:H3	26:14:1762:A:H2	1.21	0.88
26:14:1992:G:N7	57:14:3588:HOH:O	2.07	0.88
27:16:21:G:H1	27:16:62:C:H42	1.21	0.88
26:14:1061:U:H5'	26:14:1070:A:H1'	1.53	0.88
26:1H:450:G:OP2	57:1H:3739:HOH:O	1.91	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:78:52:GLU:HG3	36:78:57:THR:HA	1.56	0.87
26:14:2499:C:OP2	57:14:3526:HOH:O	1.89	0.87
26:14:576:U:OP1	57:14:3614:HOH:O	1.91	0.87
26:14:631:A:OP2	54:M5:47:LYS:NZ	2.07	0.87
26:1H:586:A:OP2	57:1H:3733:HOH:O	1.91	0.87
36:78:101:VAL:HG12	36:78:106:LEU:HD12	1.55	0.87
26:14:880:G:O6	26:14:894:C:N4	2.07	0.87
26:1H:731:C:OP2	57:1H:3621:HOH:O	1.93	0.87
30:31:40:GLN:HE22	30:31:182:ASN:HB2	1.38	0.87
1:1G:1178:G:H5"	9:82:93:ARG:HH22	1.37	0.87
1:1G:1348:U:H3	1:1G:1374:A:H2	1.13	0.87
26:1H:2096:U:H3	26:1H:2193:G:H1	1.22	0.87
54:Q8:37:SER:HA	54:Q8:40:GLU:HB3	1.57	0.87
26:1H:880:G:N2	26:1H:897:C:N3	2.22	0.87
26:14:1678:G:N2	26:14:1989:G:H22	1.73	0.87
26:1H:1062:G:N2	26:1H:1076:C:O2	2.07	0.86
1:1G:1305:G:H22	1:1G:1331:G:H2'	1.40	0.86
2:1E:17:PHE:HB3	2:1E:44:LEU:HD21	1.57	0.86
26:1H:571:A:OP2	57:1H:3713:HOH:O	1.93	0.86
26:1H:676:A:H8	26:1H:2069:G:H21	1.15	0.86
26:1H:2843:G:H1	26:1H:2874:C:H42	1.23	0.86
26:14:2448:A:OP2	57:14:3526:HOH:O	1.92	0.86
1:1G:147:G:H1	1:1G:175:C:H42	1.24	0.86
41:85:49:HIS:HA	41:85:52:ARG:HB2	1.56	0.86
1:13:963:G:N3	10:1I:55:LYS:NZ	2.23	0.86
26:1H:607:U:H3	26:1H:621:A:H2	1.23	0.86
26:1H:1021:A:H62	26:1H:1141:U:H3	1.23	0.86
26:1H:2334:G:O6	47:I8:74:ARG:NH2	2.07	0.86
37:45:25:ASP:HB3	37:45:102:VAL:HG23	1.55	0.86
26:14:1614:A:OP1	57:14:3506:HOH:O	1.94	0.85
1:13:877:C:OP1	8:7E:88:LYS:NZ	2.09	0.85
26:1H:733:G:N7	57:1H:3838:HOH:O	2.09	0.85
26:1H:585:G:OP2	57:1H:3692:HOH:O	1.94	0.85
27:16:0:A:H62	27:16:119:A:H61	1.25	0.85
28:19:242:ARG:O	57:19:307:HOH:O	1.93	0.85
26:14:833:U:O2	36:35:55:ARG:NH1	2.10	0.85
26:1H:1899:G:H22	26:1H:1902:C:H41	1.20	0.85
39:A8:11:LYS:HD3	39:A8:91:PRO:HD3	1.58	0.85
45:G8:83:THR:HG22	45:G8:84:ARG:HG3	1.59	0.85
48:J8:83:GLU:HG2	48:J8:85:LEU:H	1.40	0.85
3:22:70:VAL:HG21	3:22:76:VAL:HG11	1.59	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:539:A:OP2	12:3A:115:LYS:NZ	2.09	0.84
26:14:1614:A:OP1	57:14:3509:HOH:O	1.95	0.84
26:14:1856:G:H1	26:14:1886:C:H42	1.20	0.84
26:1H:748:G:OP2	57:1H:4036:HOH:O	1.95	0.84
26:1H:1342:A:OP2	57:1H:3789:HOH:O	1.94	0.84
48:J8:92:LYS:HA	48:J8:95:LEU:HB2	1.60	0.84
43:E8:79:GLY:HA3	43:E8:100:THR:HG22	1.60	0.84
1:13:1309:G:OP2	13:4I:99:ARG:NH2	2.09	0.84
26:14:274:G:N7	26:14:363:G:N2	2.26	0.84
1:13:177:C:OP1	20:BI:65:LYS:NZ	2.11	0.84
13:4I:54:VAL:HA	13:4I:57:ARG:HB3	1.59	0.84
26:1H:1731:G:H2'	26:1H:1732:A:H8	1.42	0.84
26:1H:249:C:OP1	57:1H:3617:HOH:O	1.93	0.84
22:1L:47:C:N3	22:1L:56:G:N2	2.25	0.84
26:14:2598:A:OP1	57:14:3565:HOH:O	1.96	0.84
26:1H:563:G:OP2	57:1H:3610:HOH:O	1.95	0.83
26:1H:1310:G:OP2	53:P8:9:ARG:NH1	2.11	0.83
36:78:50:ARG:HB2	36:78:50:ARG:HH21	1.42	0.83
1:1G:1503:A:H5'	1:1G:1531:A:H1'	1.60	0.83
26:14:910:A:H62	37:45:12:GLN:HA	1.43	0.83
26:1H:2406:U:OP1	57:1H:4139:HOH:O	1.94	0.83
1:1G:976:G:N2	1:1G:1362(A):C:OP2	2.10	0.83
26:1H:2580:U:H4'	29:21:130:GLY:HA3	1.58	0.83
1:13:1318:A:H1'	19:AI:37:ARG:HH21	1.44	0.83
26:1H:67:U:H3	26:1H:74:A:H2	1.27	0.83
26:1H:1496:A:H8	26:1H:1577:C:HO2'	1.24	0.83
26:1H:602:G:HO2'	26:1H:604:G:HO2'	1.20	0.83
26:14:857:C:H4'	47:E5:23:VAL:HG21	1.61	0.83
10:1A:47:PHE:HB2	10:1A:63:PHE:HB2	1.61	0.82
26:14:958:U:OP2	37:45:14:ARG:NH1	2.12	0.82
26:1H:49:A:N7	26:1H:120:U:H5	1.77	0.82
23:2K:2:C:H2'	23:2K:3:C:C6	2.14	0.82
26:1H:780:G:H21	26:1H:783:A:H62	1.27	0.82
26:1H:2562:U:H1'	35:68:23:ARG:HH11	1.43	0.82
26:1H:2577:A:OP1	57:1H:3668:HOH:O	1.97	0.82
19:AI:42:PRO:HD3	51:M8:63:TYR:HE2	1.45	0.82
30:31:9:ILE:HD11	30:31:125:LEU:H	1.45	0.82
26:1H:2878:U:O4	57:1H:3959:HOH:O	1.95	0.82
27:1J:48:A:H4'	39:65:95:HIS:HD2	1.45	0.82
26:14:1365:A:O2'	48:F5:11:ARG:NH2	2.12	0.82
26:1H:1253:A:N7	57:1H:4123:HOH:O	2.13	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1364:G:OP2	48:F5:2:SER:N	2.12	0.82
1:13:963:G:H1	1:13:972:C:H42	1.25	0.82
1:13:1348:U:H3	1:13:1374:A:H2	1.27	0.82
2:1E:189:ASP:HB2	2:1E:205:ASP:HB3	1.62	0.82
22:1L:87:A:H8	26:14:2583:G:H21	1.24	0.82
26:1H:654(B):C:H2'	26:1H:654(C):G:H8	1.44	0.82
48:J8:48:LYS:HB3	48:J8:49:VAL:HA	1.60	0.82
1:1G:1340:A:O2'	23:2L:32:C:O2'	1.98	0.82
19:AI:40:ILE:O	51:M8:63:TYR:OH	1.98	0.82
2:1E:185:ILE:HG22	2:1E:199:TYR:HB2	1.62	0.81
3:22:134:ILE:HG13	3:22:153:VAL:HG21	1.63	0.81
26:14:1664:A:OP2	57:14:3587:HOH:O	1.96	0.81
30:39:25:PRO:HB2	30:39:27:GLU:H	1.45	0.81
26:1H:1187:G:O6	57:1H:3720:HOH:O	1.97	0.81
26:14:993:G:OP1	41:85:50:ARG:NH2	2.12	0.81
35:25:35:VAL:HG11	35:25:103:ALA:HB3	1.63	0.81
54:M5:59:LYS:HZ2	54:M5:59:LYS:HA	1.45	0.81
22:1K:87:A:H8	26:1H:2583:G:H21	1.24	0.81
26:1H:399:G:OP2	57:1H:3823:HOH:O	1.96	0.81
29:21:29:GLY:H	29:21:51:PHE:HE1	1.25	0.81
46:H8:19:ARG:HH11	46:H8:84:GLU:HB2	1.45	0.81
8:72:73:ASP:HB2	8:72:75:ARG:HH21	1.45	0.81
26:14:2597:G:O3'	57:14:3564:HOH:O	1.98	0.81
1:13:1422:G:H5"	35:68:48:PRO:HB3	1.60	0.81
26:1H:993:G:OP1	41:C8:50:ARG:NH2	2.14	0.81
30:31:185:ASP:OD1	30:31:188:ARG:NH1	2.13	0.81
38:98:26:LYS:HG2	38:98:70:LEU:HD22	1.62	0.81
8:7E:10:LEU:HD22	8:7E:83:ILE:HD11	1.63	0.81
26:1H:2213:U:O2	48:J8:52:ARG:NH2	2.14	0.81
29:29:181:LEU:HD11	40:75:7:ILE:HD11	1.62	0.81
1:13:1435:G:H2'	1:13:1436:U:C6	2.15	0.81
5:4E:142:LEU:O	5:4E:143:ARG:NH1	2.14	0.81
26:14:1754:C:OP1	40:75:96:ARG:NH1	2.14	0.81
23:2K:2:C:H2'	23:2K:3:C:H6	1.44	0.81
6:5E:67:MET:HE1	6:5E:75:LEU:HG	1.63	0.80
26:14:790:C:O5'	57:14:3663:HOH:O	1.99	0.80
26:14:2245:U:H5"	26:14:2246:G:H5'	1.63	0.80
29:21:1:MET:N	29:21:83:ASP:O	2.14	0.80
29:21:116:VAL:HG11	29:21:138:PRO:HB3	1.62	0.80
1:1G:542:G:OP1	4:32:10:ARG:NH2	2.15	0.80
3:22:138:VAL:HG23	3:22:151:VAL:HG23	1.62	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:787:U:OP1	57:14:3664:HOH:O	1.99	0.80
27:1J:11:C:OP2	27:1J:12:C:N4	2.15	0.80
1:1G:928:G:O2'	1:1G:1533:C:OP1	1.99	0.80
26:14:1434:A:H61	26:14:1558:A:H62	1.26	0.80
26:1H:730:C:H3'	57:1H:3621:HOH:O	1.81	0.80
8:72:64:LYS:HG2	8:72:79:VAL:HG21	1.63	0.80
26:14:780:G:H21	26:14:783:A:H62	1.29	0.80
26:14:1225:C:H4'	42:95:85:LYS:HA	1.64	0.80
31:49:11:TYR:OH	31:49:16:ARG:NH1	2.14	0.80
26:1H:1997:G:OP2	57:1H:3786:HOH:O	2.00	0.80
29:21:55:ASN:HB3	29:21:58:ARG:HD2	1.64	0.80
1:1G:353:A:H5'	1:1G:353:A:H8	1.44	0.80
19:AA:60:VAL:HG21	19:AA:74:PHE:HB3	1.64	0.80
26:14:1022:G:H22	26:14:1142(A):A:H2	1.30	0.80
43:A5:92:ARG:HG2	43:A5:92:ARG:HH11	1.46	0.80
26:1H:1634:A:OP2	57:1H:3951:HOH:O	1.99	0.80
54:Q8:47:LYS:HA	54:Q8:47:LYS:NZ	1.97	0.80
41:85:92:ARG:HD3	41:85:94:ASN:HB3	1.63	0.80
26:1H:2837:G:N7	57:1H:3962:HOH:O	2.15	0.80
32:51:25:LYS:HG2	32:51:34:GLU:HG2	1.64	0.80
2:1E:21:ARG:HB2	2:1E:39:ILE:HA	1.64	0.79
26:1H:943:U:OP2	57:1H:4133:HOH:O	1.98	0.79
26:1H:2781:A:H5"	26:1H:2782:G:H5'	1.62	0.79
33:61:8:PRO:HA	33:61:14:ASP:HA	1.64	0.79
26:14:1225:C:O2'	42:95:85:LYS:N	2.15	0.79
50:L8:35:ARG:HB3	50:L8:37:LEU:HD21	1.64	0.79
26:14:2498:C:OP2	57:14:3526:HOH:O	1.99	0.79
4:3E:9:CYS:HB3	4:3E:32:ALA:HB2	1.64	0.79
26:14:674:G:H1'	30:39:74:ARG:HD3	1.61	0.79
24:3K:83:U:H2'	24:3K:84:A:H5"	1.63	0.79
26:1H:382:G:O6	57:1H:4008:HOH:O	2.01	0.79
30:31:6:VAL:HG11	30:31:119:ARG:HA	1.63	0.79
12:3A:84:LEU:HD12	12:3A:104:VAL:HG11	1.63	0.79
26:14:2681:C:H5	26:14:2725:A:H62	1.31	0.79
28:19:13:ARG:NH1	28:19:16:MET:SD	2.55	0.79
49:K8:8:LYS:HA	49:K8:11:GLU:HB3	1.61	0.79
26:14:2016:U:OP1	57:14:3851:HOH:O	2.00	0.79
40:75:92:GLY:HA2	40:75:116:ALA:HA	1.64	0.79
28:11:242:ARG:H	28:11:242:ARG:HD2	1.47	0.79
40:B8:3:ARG:HB2	40:B8:6:LEU:HB2	1.63	0.79
26:1H:10:G:O2'	26:1H:2801:A:N3	2.15	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:31:66:PRO:O	30:31:67:GLN:HB3	1.82	0.79
1:1G:1255:G:O2'	1:1G:1258:G:O2'	2.00	0.79
26:14:1006:C:H1'	34:15:106:MET:HE3	1.65	0.79
26:1H:880:G:H1	26:1H:897:C:H42	1.30	0.79
2:12:67:THR:HG21	2:12:155:LEU:HD21	1.63	0.79
44:B5:8:ILE:O	49:G5:36:ARG:NH2	2.15	0.79
26:1H:1388:G:H2'	26:1H:1389:G:H8	1.48	0.78
26:14:2448:A:O5'	57:14:3635:HOH:O	2.01	0.78
54:Q8:50:LEU:C	54:Q8:52:LYS:H	1.91	0.78
26:14:570:G:O6	57:14:3631:HOH:O	2.01	0.78
1:13:1452:C:O2'	1:13:1453:G:OP2	2.02	0.78
28:11:273:ARG:NE	28:11:273:ARG:O	2.16	0.78
49:K8:47:ASN:O	49:K8:49:LYS:N	2.15	0.78
23:2L:31:C:O2	23:2L:41:G:N2	2.15	0.78
39:65:3:ARG:HH21	39:65:4:LEU:HB2	1.49	0.78
26:1H:1689:A:H62	26:1H:1698:A:H2	1.30	0.78
26:1H:1980:G:O2'	26:1H:1982:C:OP2	2.02	0.78
31:41:64:THR:HG22	31:41:66:GLN:H	1.47	0.78
31:49:118:ARG:HB3	31:49:181:ARG:HG3	1.66	0.78
41:85:90:VAL:HG22	42:95:39:LEU:HB2	1.63	0.78
6:5E:38:GLU:HB2	6:5E:64:GLN:HB3	1.65	0.78
26:1H:796:C:H2'	26:1H:797:C:C6	2.18	0.78
26:1H:1643:G:N7	57:1H:3753:HOH:O	2.16	0.78
27:16:40:U:O2	27:16:45:A:N6	2.17	0.78
1:1G:286:G:N7	57:1G:1824:HOH:O	2.17	0.78
26:14:2315:G:OP1	31:49:36:LYS:NZ	2.14	0.78
26:14:1041:C:H42	26:14:1114:G:H22	1.28	0.78
1:13:1321:C:H3'	1:13:1322:C:H5"	1.66	0.78
26:1H:363(B):G:H2'	26:1H:363(C):G:C8	2.18	0.78
1:13:410:G:O6	57:13:1819:HOH:O	2.00	0.78
26:14:1030:G:OP2	37:45:128:LYS:NZ	2.16	0.78
37:45:34:LEU:HD11	37:45:129:THR:HB	1.66	0.78
1:13:975:A:H4'	1:13:976:G:H5"	1.66	0.78
26:1H:963:U:OP1	57:1H:3697:HOH:O	2.02	0.78
26:1H:1534:G:H2'	26:1H:1535:U:H4'	1.65	0.78
26:14:125:G:H5"	53:L5:19:ARG:HD3	1.64	0.78
26:14:1249:U:OP1	57:14:3520:HOH:O	2.02	0.78
26:14:2287:A:N6	26:14:2344:U:H3	1.81	0.78
51:I5:22:ILE:HG12	51:I5:23:GLU:H	1.48	0.78
24:3K:7:G:H3'	24:3K:8:U:H5"	1.65	0.77
40:75:1:MET:HB3	40:75:6:LEU:HB2	1.65	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:31:6:VAL:N	30:31:24:LEU:O	2.16	0.77
26:1H:142:G:H1'	44:F8:37:THR:HG21	1.66	0.77
20:BA:82:SER:HG	20:BA:86:ARG:HH22	1.30	0.77
46:D5:94:GLU:HB3	46:D5:96:VAL:HG23	1.66	0.77
26:1H:2256:G:N7	57:1H:3880:HOH:O	2.16	0.77
42:D8:17:GLY:N	42:D8:96:ILE:O	2.17	0.77
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.20	0.77
26:14:1856:G:N2	26:14:1886:C:N3	2.28	0.77
35:25:73:ASP:OD2	40:75:32:TYR:OH	2.02	0.77
1:13:1003:G:N2	1:13:1037:C:N3	2.32	0.77
3:2E:76:VAL:HG21	3:2E:103:VAL:HG21	1.65	0.77
5:4E:102:ALA:HB1	5:4E:106:PRO:HG2	1.67	0.77
26:1H:442:G:H1'	30:31:48:THR:HG21	1.65	0.77
33:61:144:VAL:HG13	33:61:145:VAL:HG23	1.67	0.77
1:1G:987:G:N2	1:1G:1218:C:N3	2.31	0.77
29:29:33:VAL:HG12	29:29:89:ASP:HB3	1.66	0.77
49:G5:25:VAL:HG12	49:G5:60:LEU:HD23	1.65	0.77
45:G8:94:LYS:HA	45:G8:94:LYS:HZ3	1.50	0.77
2:12:54:THR:HG21	2:12:201:ILE:HD11	1.66	0.77
46:D5:19:ARG:HH11	46:D5:84:GLU:HB2	1.48	0.77
34:58:90:MET:HE2	34:58:94:HIS:HB2	1.67	0.77
1:1G:1263:C:N4	1:1G:1272:G:O6	2.17	0.77
26:14:1616:A:O2'	57:14:3941:HOH:O	1.93	0.77
9:8E:28:VAL:HG22	9:8E:63:ILE:HB	1.65	0.77
24:3K:13:G:H1	24:3K:23:A:HO2'	1.32	0.77
26:1H:2112:G:H22	26:1H:2169:A:H61	1.32	0.77
52:N8:42:PRO:O	52:N8:44:THR:HG22	1.85	0.77
26:14:1403:C:OP1	26:14:1522:G:N2	2.18	0.77
26:14:1828:G:OP2	57:14:3531:HOH:O	2.01	0.77
1:13:1226:C:H2'	13:4I:103:THR:HB	1.65	0.76
26:1H:252:G:OP2	36:78:50:ARG:NH1	2.18	0.76
26:1H:259:G:O2'	26:1H:621:A:O2'	1.98	0.76
26:1H:761:A:OP2	57:1H:3836:HOH:O	2.02	0.76
54:Q8:53:PRO:HA	54:Q8:55:ALA:N	2.00	0.76
1:1G:1298:C:OP2	7:62:114:ARG:NH2	2.18	0.76
45:C5:73:ARG:NH2	45:C5:81:LYS:O	2.18	0.76
8:7E:41:ARG:NH1	8:7E:123:GLU:OE1	2.17	0.76
26:14:2718:G:N7	57:14:3996:HOH:O	2.18	0.76
10:1I:6:ILE:HG22	10:1I:98:ILE:HG12	1.68	0.76
1:1G:443:C:H42	1:1G:491:G:H1	1.30	0.76
28:19:181:GLU:HG3	28:19:272:ALA:HB3	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:65:84:GLN:HA	39:65:110:LEU:HD12	1.65	0.76
39:65:106:ARG:NH1	39:65:106:ARG:O	2.18	0.76
22:1K:49:C:N4	22:1K:55:G:O6	2.19	0.76
31:41:97:ASP:O	31:41:100:TRP:N	2.17	0.76
50:L8:12:PRO:O	50:L8:20:LYS:NZ	2.19	0.76
31:41:37:VAL:HG22	31:41:159:VAL:HG12	1.67	0.76
36:78:62:LEU:HD13	54:Q8:23:VAL:HG11	1.66	0.76
1:13:438:G:N7	57:13:1866:HOH:O	2.18	0.76
1:13:538:G:H5"	12:3I:114:LYS:HB2	1.67	0.76
2:1E:178:ARG:NH1	2:1E:196:LEU:O	2.18	0.76
4:32:157:LEU:O	4:32:161:ASN:ND2	2.16	0.76
29:29:50:GLY:HA2	29:29:78:LEU:HB3	1.67	0.76
40:B8:50:ILE:HD11	40:B8:102:ILE:HD11	1.67	0.76
46:H8:31:ARG:NH1	46:H8:94:GLU:OE1	2.19	0.76
17:8A:88:TYR:OH	17:8A:92:ARG:NH1	2.19	0.76
1:13:591:U:H2'	1:13:592:G:H8	1.51	0.76
26:1H:2038:G:O6	57:1H:3657:HOH:O	2.03	0.76
43:E8:13:SER:HB3	43:E8:16:LYS:HD2	1.66	0.76
29:29:8:LYS:HB3	29:29:193:GLY:H	1.50	0.76
33:69:81:VAL:HG23	33:69:143:SER:HB2	1.68	0.76
26:14:517:C:OP1	52:J5:16:ARG:NH2	2.18	0.76
26:14:2837:G:N7	57:14:3966:HOH:O	2.17	0.76
1:1G:152:A:N6	1:1G:170:U:O2	2.19	0.76
1:1G:1454:G:OP1	20:BA:39:LYS:NZ	2.17	0.76
26:14:586:A:OP2	57:14:3517:HOH:O	2.03	0.76
26:14:1627:G:OP1	57:14:3902:HOH:O	2.04	0.76
48:F5:91:LYS:HZ3	48:F5:91:LYS:HA	1.51	0.76
27:1J:40:U:H5	51:I5:1:MET:HB3	1.50	0.75
34:15:4:TYR:O	41:85:64:ARG:NH1	2.19	0.75
1:13:262:A:H2'	1:13:263:A:C8	2.21	0.75
26:1H:2210:G:H5'	26:1H:2211:G:N7	2.01	0.75
26:1H:2494:G:O2'	37:88:80:GLU:HB3	1.86	0.75
1:1G:1047:G:H1	1:1G:1210:C:H42	1.34	0.75
26:14:124:G:N7	57:14:3849:HOH:O	2.20	0.75
26:1H:141:A:H8	26:1H:1595:G:H21	1.34	0.75
26:14:1022:G:O2'	26:14:1023:U:OP2	2.04	0.75
26:1H:2035:G:OP1	57:1H:3659:HOH:O	2.03	0.75
26:14:329:G:OP2	45:C5:71:LYS:NZ	2.19	0.75
34:15:14:VAL:HA	34:15:135:PRO:HD2	1.67	0.75
44:B5:36:LYS:HG2	44:B5:54:VAL:HB	1.69	0.75
1:13:1027:C:O2	1:13:1035:A:N6	2.19	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:398:G:N7	57:1H:4090:HOH:O	2.19	0.75
26:1H:1525:G:H2'	26:1H:1526:G:H8	1.51	0.75
28:11:71:ASP:N	28:11:71:ASP:OD1	2.17	0.75
29:29:36:ARG:NH1	29:29:85:ASN:OD1	2.19	0.75
26:1H:730:C:OP2	57:1H:3621:HOH:O	2.05	0.75
27:1J:116:G:H5"	39:65:55:ALA:HB2	1.68	0.75
42:95:43:GLU:O	42:95:45:THR:OG1	2.04	0.75
26:14:1048:A:N6	26:14:1112:G:O2'	2.19	0.75
31:49:67:LYS:HE3	51:I5:5:ILE:HB	1.67	0.75
12:3I:82:VAL:HG13	12:3I:105:TYR:HB3	1.68	0.75
13:4I:58:GLU:O	13:4I:62:ASN:ND2	2.18	0.75
26:1H:860:U:H5	26:1H:917:A:C2	2.03	0.75
26:1H:910:A:H62	37:88:12:GLN:HA	1.52	0.75
28:11:108:PRO:HG3	28:11:143:HIS:CE1	2.22	0.75
29:21:127:ASP:OD1	57:21:401:HOH:O	2.03	0.75
1:1G:1497:G:H2'	1:1G:1498:U:H5'	1.69	0.75
26:14:943:U:OP2	36:35:36:LYS:NZ	2.16	0.75
47:I8:11:ARG:O	47:I8:14:ARG:NH2	2.20	0.75
30:39:25:PRO:HB3	30:39:28:ILE:HG23	1.67	0.75
1:1G:1259:C:N4	1:1G:1260:C:O2	2.19	0.74
20:BA:69:GLY:O	20:BA:73:HIS:NE2	2.20	0.74
24:3L:32:C:O2	24:3L:40:G:N1	2.19	0.74
40:75:54:ARG:HB3	40:75:54:ARG:HH11	1.49	0.74
24:3K:46:G:H2'	24:3K:47:C:H5'	1.68	0.74
26:1H:732:C:OP2	57:1H:3841:HOH:O	2.05	0.74
26:1H:2035:G:OP1	57:1H:3656:HOH:O	2.04	0.74
33:61:92:VAL:HG13	33:61:120:ILE:HG23	1.69	0.74
22:1L:37:G:H1	25:4L:50:U:H3	1.34	0.74
26:14:2141:G:N1	26:14:2150:U:O2	2.19	0.74
29:29:55:ASN:O	29:29:57:LYS:NZ	2.16	0.74
29:29:111:ARG:HG2	29:29:111:ARG:HH11	1.52	0.74
26:1H:1899:G:H22	26:1H:1902:C:N4	1.84	0.74
1:1G:91:C:H2'	1:1G:92:G:H8	1.52	0.74
1:1G:278:G:N7	17:8A:92:ARG:NH2	2.35	0.74
1:1G:664:G:H22	1:1G:741:G:H1	1.34	0.74
41:85:98:LEU:HB2	41:85:102:GLU:HB2	1.69	0.74
26:1H:1359:A:H2	26:1H:1372:U:O4	1.70	0.74
26:1H:2032:G:H21	29:21:146:THR:HG23	1.50	0.74
29:21:57:LYS:HG3	29:21:59:VAL:HG12	1.69	0.74
42:95:85:LYS:HB3	42:95:87:HIS:H	1.51	0.74
52:J5:49:CYS:SG	52:J5:50:GLY:N	2.61	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:6:LYS:HE3	51:M8:62:ARG:HB2	1.69	0.74
40:B8:85:LYS:NZ	40:B8:87:ASP:OD1	2.19	0.74
51:M8:37:SER:OG	51:M8:42:PHE:O	2.04	0.74
48:F5:92:LYS:HD3	48:F5:93:GLU:H	1.51	0.74
40:B8:52:ILE:HG23	40:B8:61:PHE:HB3	1.68	0.74
44:B5:41:ASN:HA	44:B5:44:GLU:HB2	1.69	0.74
11:2I:91:ARG:NH2	11:2I:110:ASP:OD2	2.18	0.74
26:1H:958:U:H5'	37:88:14:ARG:HD3	1.68	0.74
26:1H:1386:C:H2'	26:1H:1387:C:H6	1.52	0.74
27:16:15:A:H5'	27:16:16:G:C8	2.23	0.74
33:69:77:LEU:HD13	33:69:141:LYS:HD2	1.69	0.74
1:13:137:C:N4	1:13:226:G:H1	1.82	0.74
26:14:399:G:OP2	57:14:3703:HOH:O	2.06	0.74
13:4I:39:ILE:HD12	13:4I:56:LEU:HD23	1.70	0.74
26:1H:1058:U:H3	26:1H:1080:A:H61	1.34	0.74
26:1H:2140:C:H42	26:1H:2151:G:H1	1.35	0.74
47:I8:46:LYS:HE3	47:I8:76:GLY:HA3	1.70	0.74
1:1G:988:G:N2	1:1G:1217:C:O2	2.17	0.74
26:14:2255:G:H21	47:E5:9:SER:H	1.34	0.74
28:19:181:GLU:HA	28:19:272:ALA:HB1	1.69	0.74
26:1H:399:G:OP2	57:1H:3821:HOH:O	2.06	0.73
1:1G:222:U:H2'	1:1G:223:U:C6	2.22	0.73
4:32:60:GLU:HG2	4:32:202:LEU:HB2	1.69	0.73
5:42:60:TYR:HB3	5:42:64:ARG:HH21	1.51	0.73
22:1L:9:G:O2'	22:1L:10:G:N7	2.19	0.73
27:1J:90:C:OP2	37:45:16:ARG:NH2	2.21	0.73
38:55:103:ARG:NH1	38:55:108:GLY:O	2.20	0.73
26:1H:620:G:H4'	26:1H:621:A:H5"	1.71	0.73
26:14:54:G:O6	57:14:3945:HOH:O	2.06	0.73
1:13:1129:C:H4'	1:13:1130:A:H5'	1.69	0.73
1:13:1226:C:O2'	13:4I:111:LYS:NZ	2.21	0.73
1:1G:1329:A:H5'	13:4A:29:ARG:HE	1.53	0.73
26:14:249:C:OP1	57:14:3513:HOH:O	2.05	0.73
35:25:64:ARG:HB2	35:25:83:ALA:HB3	1.70	0.73
38:98:55:ALA:HA	38:98:80:PHE:CE1	2.24	0.73
46:H8:154:ASP:N	46:H8:154:ASP:OD1	2.21	0.73
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.68	0.73
44:B5:55:ASN:HB2	44:B5:80:ILE:HG13	1.69	0.73
26:1H:1537:C:H2'	26:1H:1538:G:O4'	1.87	0.73
26:14:617:G:OP1	30:39:40:GLN:NE2	2.18	0.73
26:14:1897:G:N7	57:14:3708:HOH:O	2.21	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:35:85:LEU:HB3	36:35:114:ILE:HD11	1.70	0.73
42:95:21:ARG:NH2	42:95:65:GLY:O	2.22	0.73
1:1G:987:G:H1	1:1G:1218:C:H42	1.37	0.73
26:14:452:G:OP2	57:14:3655:HOH:O	2.06	0.73
54:M5:59:LYS:C	54:M5:60:LEU:HG	2.12	0.73
1:13:411:A:C4	1:13:413:G:H1'	2.23	0.73
26:1H:1607:C:OP1	57:1H:4098:HOH:O	2.05	0.73
36:78:114:ILE:HD13	36:78:125:VAL:HG11	1.70	0.73
39:A8:37:ALA:HB2	39:A8:101:LEU:HD21	1.71	0.73
13:4A:3:ARG:HG2	13:4A:9:ILE:HG12	1.69	0.73
26:14:662:G:H5"	36:35:16:ARG:HG2	1.70	0.73
26:14:2327:A:H2'	26:14:2328:A:C8	2.24	0.73
26:14:2645:G:H3'	26:14:2646:C:H5'	1.71	0.73
45:C5:99:CYS:SG	45:C5:100:ALA:N	2.62	0.73
47:E5:32:ARG:O	47:E5:34:GLY:N	2.21	0.73
1:13:372:C:H42	1:13:389:A:H62	1.37	0.73
26:14:2520:C:H41	26:14:2542:A:H62	1.33	0.73
39:65:3:ARG:NH2	39:65:4:LEU:HB2	2.04	0.73
26:1H:2099:U:O2	26:1H:2190:G:N1	2.18	0.72
26:14:363:G:H2'	26:14:363(A):A:H8	1.53	0.72
51:I5:55:ARG:HD2	51:I5:56:VAL:HG12	1.71	0.72
1:13:664:G:H22	1:13:741:G:H1	1.34	0.72
1:13:1305:G:H8	1:13:1305:G:OP2	1.72	0.72
26:1H:945:A:OP2	57:1H:3866:HOH:O	2.07	0.72
9:82:112:LYS:HE3	9:82:118:LYS:H	1.52	0.72
26:14:573:G:O2'	26:14:574:C:H3'	1.89	0.72
26:1H:1678:G:N2	26:1H:1989:G:H22	1.87	0.72
37:88:89:ASN:O	37:88:91:GLU:HB2	1.89	0.72
26:14:2355:C:H1'	47:E5:39:ARG:HH21	1.54	0.72
32:59:81:GLU:O	32:59:138:LYS:NZ	2.22	0.72
32:59:152:ARG:HG3	32:59:153:LYS:HB2	1.71	0.72
45:C5:17:SER:HB2	45:C5:71:LYS:HD2	1.69	0.72
26:1H:2287:A:H61	26:1H:2344:U:H3	1.37	0.72
23:2L:86:C:H3'	23:2L:87:A:H5"	1.71	0.72
26:14:1525:G:H2'	26:14:1526:G:H8	1.55	0.72
26:14:2239:G:OP2	57:14:3502:HOH:O	2.08	0.72
26:14:2503:A:OP1	57:14:3614:HOH:O	2.06	0.72
29:29:61:ARG:O	29:29:63:LEU:N	2.20	0.72
40:75:65:LYS:HE3	40:75:67:SER:HB2	1.70	0.72
47:E5:21:LEU:HD11	47:E5:41:ARG:HH11	1.52	0.72
39:A8:28:VAL:HG11	39:A8:98:VAL:HG13	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:107:THR:O	2:12:110:GLN:NE2	2.22	0.72
16:7A:53:VAL:HG13	16:7A:79:VAL:HG22	1.69	0.72
23:2L:87:A:H2'	23:2L:87:A:N3	2.03	0.72
5:4E:10:MET:HB2	5:4E:32:VAL:HG22	1.69	0.72
29:21:105:THR:HB	29:21:197:ILE:HG23	1.72	0.72
31:49:121:ASN:O	31:49:131:TYR:OH	2.07	0.72
1:13:451:A:OP1	1:13:481:G:N2	2.21	0.72
26:1H:528:A:O2'	26:1H:529:A:H5"	1.90	0.72
4:32:8:VAL:O	4:32:11:LEU:N	2.20	0.72
26:14:2499:C:OP1	57:14:3631:HOH:O	2.06	0.72
1:13:601:C:H2'	1:13:602:A:H8	1.55	0.72
10:1I:35:SER:HB2	10:1I:73:ASP:HB2	1.72	0.72
46:H8:16:SER:O	46:H8:20:ARG:NH1	2.22	0.72
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.23	0.72
34:58:30:ILE:HG23	34:58:52:VAL:HG11	1.72	0.72
19:AA:41:VAL:HG12	19:AA:42:PRO:HD2	1.70	0.72
26:14:2793:G:N2	26:14:2804:C:O2	2.22	0.72
1:13:1502:A:H2	1:13:1505:G:N1	1.82	0.72
28:11:72:LYS:HG2	28:11:103:ARG:HH21	1.53	0.72
4:32:105:VAL:HG13	4:32:110:PHE:HB2	1.72	0.72
11:2A:29:ILE:HG22	11:2A:44:SER:HB2	1.72	0.72
26:14:491:G:H2'	26:14:492:A:C8	2.24	0.72
26:14:796:C:H2'	26:14:797:C:C6	2.25	0.72
26:14:1060:U:H4'	26:14:1061:U:H5"	1.72	0.72
26:14:1665:A:O2'	35:25:1:MET:N	2.19	0.72
26:1H:1479:G:N7	26:1H:1510:A:N6	2.38	0.71
26:1H:2068:U:H3	26:1H:2430:A:H2	1.36	0.71
1:1G:192:U:O4'	20:BA:103:GLY:HA2	1.90	0.71
26:14:831:G:N7	57:14:3685:HOH:O	2.22	0.71
43:A5:72:LYS:HB3	43:A5:106:ILE:HG13	1.69	0.71
17:8I:76:LEU:HD21	17:8I:79:SER:HB3	1.71	0.71
32:51:86:GLU:HG3	32:51:165:ALA:HB3	1.71	0.71
1:1G:971:G:N2	1:1G:1363:A:OP2	2.22	0.71
3:22:59:ARG:HG2	3:22:64:VAL:HG23	1.70	0.71
23:2L:71:U:H5"	23:2L:72:C:H5	1.55	0.71
26:14:2153:G:N2	26:14:2154:G:O6	2.21	0.71
26:1H:2632:A:HO2'	26:1H:2811:G:HO2'	1.34	0.71
46:H8:131:ARG:NH2	46:H8:132:ASN:OD1	2.23	0.71
19:AA:78:ARG:H	19:AA:78:ARG:HD3	1.53	0.71
2:1E:60:ASP:HB3	2:1E:64:ARG:HH12	1.56	0.71
26:1H:2309:A:C5	26:1H:2310:A:H8	2.08	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:58:96:GLU:O	34:58:98:VAL:N	2.23	0.71
23:2L:36:A:H2'	23:2L:37:G:H8	1.55	0.71
26:14:172:C:H2'	26:14:173:G:H8	1.54	0.71
26:14:270(N):G:OP1	33:69:57:ARG:NH1	2.23	0.71
26:14:1250:G:OP1	57:14:3522:HOH:O	2.08	0.71
26:14:1377:G:OP2	57:14:3539:HOH:O	2.08	0.71
28:19:16:MET:HE1	28:19:208:LYS:HE3	1.71	0.71
30:39:116:ASP:OD2	36:35:1:MET:N	2.24	0.71
26:1H:2884:U:O2	52:N8:52:TYR:OH	2.04	0.71
9:82:45:ALA:O	9:82:78:LYS:NZ	2.24	0.71
26:14:1678:G:H22	26:14:1989:G:H22	1.37	0.71
26:14:2243:U:OP1	57:14:3643:HOH:O	2.07	0.71
26:1H:1525:G:H2'	26:1H:1526:G:C8	2.25	0.71
26:14:620:G:H4'	26:14:621:A:H5"	1.71	0.71
26:14:1434:A:H61	26:14:1558:A:N6	1.88	0.71
30:39:123:LEU:O	30:39:125:LEU:N	2.23	0.71
40:75:51:ARG:HG2	40:75:98:LYS:HD2	1.71	0.71
20:BI:69:GLY:O	20:BI:73:HIS:NE2	2.24	0.71
44:F8:65:ARG:HG3	44:F8:67:GLY:H	1.55	0.71
26:14:1428:C:N4	26:14:1570:A:OP2	2.20	0.71
27:1J:80:U:H2'	27:1J:81:G:H21	1.56	0.71
42:95:85:LYS:HB3	42:95:87:HIS:N	2.04	0.71
8:7E:6:ILE:HB	8:7E:85:ARG:HH12	1.56	0.71
1:1G:458:C:N3	1:1G:474:G:N2	2.38	0.71
1:1G:998:G:H22	1:1G:1043:C:H42	1.38	0.71
42:95:35:LEU:O	42:95:37:VAL:HG22	1.90	0.71
1:1G:827:U:H3	1:1G:872:A:H62	1.39	0.71
26:14:586:A:OP2	57:14:3519:HOH:O	2.08	0.71
39:65:3:ARG:HE	39:65:4:LEU:H	1.38	0.71
20:BI:73:HIS:HB3	20:BI:74:LYS:HD2	1.72	0.70
26:1H:639:U:H3	26:1H:649:G:H1	1.36	0.70
26:1H:2636:U:OP1	29:21:79:ARG:HA	1.91	0.70
1:1G:359:U:H2'	1:1G:360:A:C8	2.26	0.70
1:1G:1118:C:OP1	9:82:104:ARG:NH1	2.23	0.70
26:14:1556:C:H2'	26:14:1557:C:H6	1.54	0.70
28:19:93:ALA:HB3	28:19:105:ILE:HG22	1.73	0.70
11:2I:22:HIS:HB3	11:2I:29:ILE:HG23	1.73	0.70
42:D8:60:GLU:HB2	42:D8:97:LYS:HE2	1.74	0.70
1:1G:45:U:H2'	1:1G:46:G:C8	2.25	0.70
17:8A:12:SER:HB3	17:8A:20:THR:HB	1.73	0.70
26:14:2469:A:H2	26:14:2481:G:H21	1.39	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1454:G:OP1	20:BI:39:LYS:NZ	2.17	0.70
4:3E:162:LEU:HD12	4:3E:181:MET:HE2	1.73	0.70
26:1H:307:G:N7	57:1H:3993:HOH:O	2.24	0.70
27:16:90:C:H5'	37:88:18:LYS:HA	1.73	0.70
9:82:53:VAL:HG13	9:82:95:LYS:HE3	1.73	0.70
1:13:166:G:H2'	1:13:167:G:H8	1.56	0.70
4:3E:107:ARG:HH22	4:3E:194:LEU:HD22	1.55	0.70
28:11:182:LEU:H	28:11:272:ALA:HB3	1.55	0.70
1:1G:1219:U:OP1	14:5A:19:ARG:NH1	2.25	0.70
26:14:2111:C:N3	26:14:2118:U:O2'	2.21	0.70
30:39:63:LYS:HE2	30:39:67:GLN:HB3	1.74	0.70
3:2E:91:LEU:HB2	3:2E:99:VAL:HG21	1.73	0.70
9:82:50:LEU:HB3	9:82:56:LEU:HA	1.73	0.70
10:1A:48:THR:OG1	10:1A:62:HIS:ND1	2.21	0.70
22:1L:22:G:N2	22:1L:59:U:O4'	2.24	0.70
23:2L:20:U:O2'	23:2L:21:A:OP2	2.10	0.70
26:14:1864:U:OP1	26:14:2410:G:O2'	2.09	0.70
2:1E:87:ARG:NH2	2:1E:220:ASP:OD1	2.24	0.70
15:6I:17:ARG:HD3	15:6I:26:GLU:HG3	1.73	0.70
26:1H:1164:G:H2'	26:1H:1165:U:C6	2.25	0.70
26:1H:1437:C:H2'	26:1H:1438:U:H6	1.56	0.70
40:B8:6:LEU:HA	40:B8:9:LEU:HB2	1.73	0.70
54:Q8:47:LYS:HA	54:Q8:47:LYS:HZ2	1.56	0.70
28:19:68:LYS:HB3	28:19:70:TRP:CH2	2.27	0.70
39:65:27:SER:HA	39:65:88:ASP:HB2	1.73	0.70
1:13:1189:C:O2	57:13:1842:HOH:O	2.05	0.70
9:8E:26:VAL:HG13	9:8E:61:ALA:HB3	1.73	0.70
9:8E:97:LYS:HD3	9:8E:102:LEU:HB2	1.73	0.70
24:3K:22:G:N7	24:3K:59:U:N3	2.39	0.70
26:14:2588:G:OP1	57:14:3567:HOH:O	2.09	0.70
36:35:94:GLU:HG3	36:35:124:LYS:HG2	1.72	0.70
23:2K:37:G:H1	25:4K:46:U:H3	1.37	0.70
26:1H:520:G:OP2	57:1H:3899:HOH:O	2.09	0.70
26:1H:1839:G:OP2	57:1H:3833:HOH:O	2.09	0.70
1:1G:1240:U:H1'	7:62:38:LEU:HD21	1.73	0.70
26:14:1636:C:OP2	57:14:3598:HOH:O	2.08	0.70
1:13:1086:U:H3	1:13:1099:G:H22	1.40	0.70
5:4E:91:LEU:HD12	5:4E:120:THR:HG22	1.72	0.70
26:1H:913:U:O4	57:1H:3774:HOH:O	2.07	0.70
37:88:130:LYS:NZ	46:H8:81:ARG:HG2	2.07	0.70
26:14:1416:G:O2'	26:14:1417:C:O5'	2.09	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2557:G:H2'	26:14:2558:C:C6	2.26	0.70
33:61:110:ASP:HB2	33:61:112:LYS:H	1.57	0.70
29:29:60:ASN:HB3	29:29:61:ARG:C	2.17	0.70
44:B5:49:VAL:HB	44:B5:83:VAL:HG21	1.73	0.70
1:13:21:G:OP1	57:13:1807:HOH:O	2.10	0.69
12:3I:24:VAL:HB	12:3I:27:LEU:HD12	1.73	0.69
17:8I:45:HIS:HB2	17:8I:65:ILE:HD13	1.74	0.69
26:1H:1253:A:N6	57:1H:4120:HOH:O	2.25	0.69
26:1H:2023:G:H5'	26:1H:2617:C:H4'	1.72	0.69
32:51:20:ALA:HB3	32:51:23:ARG:HG3	1.74	0.69
2:12:21:ARG:HA	2:12:39:ILE:HA	1.74	0.69
26:1H:429:A:OP2	57:1H:4126:HOH:O	2.09	0.69
26:1H:1047:G:O2'	26:1H:1111:A:N6	2.25	0.69
34:58:32:THR:HG22	34:58:37:LYS:HB2	1.73	0.69
28:19:76:PRO:HB2	28:19:116:GLN:OE1	1.92	0.69
35:25:63:VAL:HG12	35:25:106:LEU:HD11	1.73	0.69
26:1H:831:G:OP1	57:1H:3705:HOH:O	2.09	0.69
1:1G:588:G:H1	1:1G:651:C:H42	1.41	0.69
32:59:26:VAL:HG12	32:59:33:LEU:H	1.54	0.69
26:1H:2593:U:H2'	26:1H:2594:C:C6	2.27	0.69
51:M8:52:THR:OG1	51:M8:53:GLU:N	2.26	0.69
1:1G:560:U:O2'	1:1G:561:U:OP2	2.09	0.69
3:22:70:VAL:HG12	3:22:72:LYS:H	1.56	0.69
1:13:624:C:H2'	1:13:625:G:H8	1.58	0.69
41:C8:92:ARG:O	41:C8:94:ASN:N	2.25	0.69
6:52:37:VAL:HA	6:52:65:VAL:HG12	1.75	0.69
26:1H:674:G:H1'	30:31:74:ARG:HD3	1.73	0.69
26:1H:1441:G:H2'	26:1H:1442:G:H8	1.58	0.69
2:1E:7:VAL:HG11	2:1E:217:ARG:HH11	1.57	0.69
26:1H:102:G:OP1	49:K8:7:ARG:NH2	2.25	0.69
26:1H:1858:G:H2'	26:1H:1883:G:H22	1.57	0.69
35:68:98:VAL:HG13	35:68:117:LEU:HB3	1.75	0.69
1:1G:991:U:O4	1:1G:1212:U:O2'	2.10	0.69
1:1G:992:U:H3	1:1G:1044:A:H62	1.41	0.69
30:39:68:LYS:HG3	30:39:69:HIS:CE1	2.27	0.69
26:1H:76:C:O2'	49:K8:62:THR:HG21	1.91	0.69
26:1H:2485:G:H5"	37:88:46:GLN:HE21	1.58	0.69
29:21:82:ARG:O	29:21:84:PHE:N	2.25	0.69
30:31:6:VAL:HG21	30:31:119:ARG:HB2	1.74	0.69
31:41:41:GLN:HG2	31:41:155:MET:HB3	1.74	0.69
33:61:40:THR:O	33:61:44:LEU:HB2	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:68:19:ILE:HG22	35:68:43:VAL:HA	1.73	0.69
54:Q8:9:GLY:HA2	54:Q8:12:LYS:HB2	1.74	0.69
3:22:84:ILE:HD11	3:22:88:ARG:HH21	1.56	0.69
26:14:593:G:H4'	54:M5:60:LEU:HD22	1.75	0.69
26:14:1382:G:N7	57:14:3696:HOH:O	2.26	0.69
26:14:2304:G:N2	26:14:2313:C:N3	2.41	0.69
26:14:2513:G:O2'	29:29:154:LYS:NZ	2.25	0.69
29:29:65:GLY:HA2	29:29:66:HIS:HB3	1.75	0.69
30:39:178:PRO:HB2	30:39:201:VAL:HG11	1.75	0.69
41:85:28:ARG:NH1	41:85:38:THR:OG1	2.26	0.69
53:L5:31:LEU:HD22	53:L5:42:LEU:HD13	1.74	0.69
10:1I:57:LYS:O	10:1I:60:ARG:NH1	2.24	0.69
22:1K:5:A:H61	22:1K:79:U:H3	1.39	0.69
26:1H:1434:A:H61	26:1H:1558:A:N6	1.91	0.69
1:1G:87:A:O2'	1:1G:88:C:OP2	2.10	0.69
3:22:94:LEU:HD12	3:22:95:THR:HG23	1.75	0.69
31:49:18:GLU:OE1	31:49:21:ARG:NH2	2.25	0.69
7:6E:15:ASP:HB3	7:6E:20:ASP:H	1.58	0.69
20:BI:86:ARG:NH1	20:BI:86:ARG:O	2.25	0.69
26:1H:1778:U:H2'	26:1H:1784:A:N6	2.08	0.69
26:1H:2127:G:N1	26:1H:2162:G:N3	2.41	0.69
26:1H:2135:A:H4'	26:1H:2160:G:H4'	1.75	0.69
26:14:2104:G:O6	26:14:2185:C:N4	2.25	0.69
13:4I:15:VAL:HG22	13:4I:45:VAL:HG12	1.76	0.68
27:16:3:C:H2'	27:16:4:C:C6	2.27	0.68
1:1G:448:A:P	1:1G:485:G:H22	2.15	0.68
26:14:1019:U:H3	26:14:1142(A):A:H62	1.40	0.68
26:14:1784:A:OP1	57:14:3549:HOH:O	2.09	0.68
26:1H:662:G:OP1	36:78:15:ARG:NE	2.24	0.68
26:1H:2272:U:O4	57:1H:3954:HOH:O	2.11	0.68
34:58:13:TRP:HB2	34:58:133:GLN:HG2	1.75	0.68
34:58:33:LEU:HD12	34:58:38:HIS:CD2	2.28	0.68
1:1G:536:C:OP2	57:1G:1809:HOH:O	2.11	0.68
26:14:61:G:OP1	49:G5:51:ARG:NH1	2.26	0.68
28:19:69:ARG:NH2	28:19:128:GLY:O	2.26	0.68
26:1H:2646:C:OP2	26:1H:2732:G:O2'	2.10	0.68
36:78:19:VAL:HB	36:78:27:HIS:HB2	1.76	0.68
1:1G:1095:U:P	1:1G:1108:G:H1	2.15	0.68
52:J5:55:ARG:HB2	52:J5:55:ARG:HH11	1.58	0.68
1:13:1128:C:H5"	9:8E:16:ARG:HH22	1.58	0.68
2:1E:118:LEU:HD13	2:1E:142:LEU:HA	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:918:A:N3	27:16:80:U:O2'	2.26	0.68
26:1H:2121:G:N2	26:1H:2177:C:N3	2.41	0.68
32:51:101:ARG:NH2	32:51:121:ILE:O	2.26	0.68
26:14:2472:G:H2'	26:14:2475:C:H41	1.56	0.68
31:41:64:THR:HG23	31:41:94:LEU:HD13	1.76	0.68
1:1G:539:A:H2'	1:1G:540:G:C8	2.28	0.68
7:62:113:GLU:HB2	7:62:119:ARG:HG2	1.75	0.68
26:14:252:G:OP2	36:35:50:ARG:NH2	2.24	0.68
31:49:4:ASP:CG	31:49:5:VAL:H	2.01	0.68
1:13:101:A:H2'	1:13:102:G:H8	1.59	0.68
22:1K:47:C:H42	22:1K:56:G:H1	1.41	0.68
26:1H:1405:U:H2'	26:1H:1406:U:C6	2.29	0.68
28:11:142:VAL:HG23	28:11:193:VAL:HA	1.76	0.68
34:58:65:LYS:HB3	34:58:69:GLN:HG3	1.74	0.68
54:Q8:30:ARG:NH1	54:Q8:30:ARG:HB2	2.09	0.68
26:14:1673:U:H5"	26:14:1674:G:OP2	1.93	0.68
26:14:2103:C:H2'	26:14:2104:G:C8	2.29	0.68
29:29:59:VAL:HB	29:29:60:ASN:HA	1.75	0.68
1:13:77:C:HO2'	1:13:92:G:H22	1.41	0.68
1:13:618:C:H5"	1:13:619:U:H5"	1.76	0.68
1:13:735:C:H2'	1:13:736:C:H6	1.58	0.68
16:7I:22:THR:HA	16:7I:33:ILE:HG13	1.75	0.68
26:1H:1253:A:C8	57:1H:4123:HOH:O	2.47	0.68
47:I8:38:VAL:HG12	47:I8:40:GLN:HG2	1.75	0.68
1:1G:1391:U:H2'	1:1G:1392:G:C8	2.29	0.68
26:14:2588:G:OP2	57:14:3574:HOH:O	2.12	0.68
15:6I:39:LEU:HB3	15:6I:56:LEU:HD12	1.74	0.68
26:1H:245:G:O6	54:Q8:8:LYS:NZ	2.27	0.68
26:1H:1607:C:H4'	26:1H:1608:A:O5'	1.94	0.68
45:G8:76:CYS:O	45:G8:78:ALA:N	2.25	0.68
17:8A:18:THR:OG1	17:8A:69:LYS:NZ	2.20	0.68
26:14:1266:G:O4'	43:A5:15:ARG:NH2	2.26	0.68
26:14:2270:G:OP2	57:14:3779:HOH:O	2.11	0.68
1:13:328:C:H4'	1:13:329:A:H5"	1.74	0.68
26:1H:2292:C:OP1	39:A8:17:ARG:NH2	2.27	0.68
22:1L:48:C:O2'	22:1L:49:C:OP1	2.11	0.68
23:2L:72:C:H2'	23:2L:73:C:H6	1.59	0.68
26:14:1257:C:H4'	30:39:83:PHE:CD1	2.28	0.68
35:25:53:LYS:N	35:25:56:ASP:OD2	2.26	0.68
1:13:1190:G:H5"	3:2E:176:HIS:CE1	2.30	0.67
11:2I:98:LEU:O	11:2I:101:SER:OG	2.10	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:730:C:OP2	57:1H:3618:HOH:O	2.12	0.67
36:78:64:LYS:HE3	54:Q8:12:LYS:HD2	1.76	0.67
54:Q8:35:GLN:C	54:Q8:37:SER:H	2.00	0.67
26:14:1174:A:H62	26:14:1177:A:H4'	1.59	0.67
26:14:2256:G:O6	57:14:3681:HOH:O	2.11	0.67
27:1J:13:A:N1	27:1J:69:G:O2'	2.23	0.67
41:85:92:ARG:HH22	42:95:10:LYS:HA	1.60	0.67
51:I5:13:ARG:HG2	51:I5:22:ILE:HG13	1.76	0.67
23:2K:12:G:H1	23:2K:24:C:H42	1.42	0.67
23:2K:62:G:O2'	23:2K:63:G:OP2	2.12	0.67
35:68:119:PRO:HB2	40:B8:68:TYR:CE2	2.29	0.67
26:14:528:A:C2	26:14:2042:A:H2'	2.29	0.67
26:14:1175:U:O2	26:14:1176:G:N2	2.27	0.67
26:14:1774:C:OP1	57:14:3555:HOH:O	2.10	0.67
26:14:2683:C:OP1	40:75:53:ARG:NH2	2.27	0.67
50:H5:10:LYS:NZ	50:H5:15:TYR:OH	2.23	0.67
1:13:1503:A:H5"	1:13:1531:A:H1'	1.76	0.67
19:AI:5:LEU:HB3	19:AI:10:PHE:HE1	1.59	0.67
26:1H:250:G:P	36:78:60:MET:HE1	2.35	0.67
26:1H:1816:G:N7	28:11:35:LYS:NZ	2.42	0.67
27:16:95:U:H2'	27:16:96:G:C8	2.29	0.67
26:14:1992:G:OP2	57:14:3586:HOH:O	2.12	0.67
26:14:2292:C:OP1	39:65:17:ARG:NH2	2.24	0.67
26:14:2415:G:H4'	36:35:67:MET:N	2.09	0.67
37:45:25:ASP:O	46:D5:78:LYS:NZ	2.27	0.67
26:1H:2815:C:H5'	52:N8:29:THR:HG21	1.75	0.67
46:H8:117:LEU:HD22	46:H8:118:GLN:H	1.60	0.67
1:1G:376:G:H5"	16:7A:5:ARG:HD2	1.75	0.67
1:1G:547:A:OP2	4:32:2:GLY:N	2.26	0.67
2:12:111:ARG:HA	2:12:111:ARG:HH11	1.58	0.67
23:2L:74:C:H2'	23:2L:75:G:C8	2.29	0.67
26:14:1525:G:H2'	26:14:1526:G:C8	2.29	0.67
1:13:974:A:OP2	14:5I:41:ARG:NH1	2.27	0.67
9:8E:13:ALA:HB2	9:8E:68:GLY:HA3	1.76	0.67
26:1H:2002:G:O6	57:1H:3940:HOH:O	2.12	0.67
1:1G:261:U:OP2	20:BA:79:ARG:NH2	2.28	0.67
2:12:91:PRO:HG2	2:12:155:LEU:HG	1.75	0.67
19:AA:66:MET:SD	19:AA:66:MET:N	2.67	0.67
40:75:108:ARG:HA	40:75:111:ARG:HG3	1.77	0.67
46:D5:70:LEU:O	46:D5:89:PHE:N	2.23	0.67
46:D5:97:GLU:HB3	46:D5:125:LEU:HD11	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:H5:6:VAL:HG12	50:H5:56:VAL:HB	1.77	0.67
45:G8:97:ARG:CZ	45:G8:104:GLY:HA3	2.25	0.67
14:5A:45:ARG:O	14:5A:49:HIS:ND1	2.27	0.67
22:1K:30:A:N6	22:1K:42:U:O4	2.19	0.67
22:1K:49:C:N3	22:1K:55:G:N1	2.43	0.67
26:1H:1397:U:OP2	26:1H:1398:C:N4	2.21	0.67
44:F8:1:MET:C	44:F8:3:THR:H	2.02	0.67
1:1G:929:G:H1	1:1G:1388:C:H42	1.42	0.67
22:1L:15:A:H8	22:1L:16:U:C5	2.12	0.67
26:14:894:C:O2	26:14:896:A:N6	2.28	0.67
26:14:910:A:C5	37:45:13:GLN:HG3	2.30	0.67
26:14:2745:C:O2	32:59:139:GLN:NE2	2.28	0.67
48:J8:48:LYS:HB3	48:J8:49:VAL:CA	2.24	0.67
26:14:634:C:H2'	26:14:635:C:C6	2.30	0.67
13:4I:23:TYR:HD1	13:4I:67:GLU:HA	1.60	0.67
26:1H:1138:G:H21	34:58:106:MET:HE3	1.59	0.67
32:51:86:GLU:H	32:51:86:GLU:CD	2.01	0.67
1:13:1063:C:H3'	1:13:1064:G:H2'	1.76	0.67
26:1H:581:C:H2'	26:1H:582:G:H8	1.58	0.67
27:16:95:U:H2'	27:16:96:G:H8	1.58	0.67
31:41:35:GLU:HG3	31:41:36:LYS:HB2	1.76	0.67
49:K8:47:ASN:C	49:K8:49:LYS:H	2.02	0.67
1:1G:1453:G:H22	20:BA:54:LYS:HZ2	1.43	0.67
26:14:529:A:H4'	26:14:530:G:H5'	1.77	0.67
26:14:1250:G:OP2	36:35:21:ARG:NH1	2.28	0.67
26:14:2849:U:O4	40:75:23:ARG:NH2	2.28	0.67
44:B5:9:LEU:HA	49:G5:36:ARG:HH21	1.60	0.67
1:13:45:U:H2'	1:13:46:G:C8	2.30	0.66
26:1H:1496:A:H8	26:1H:1577:C:O2'	1.78	0.66
32:51:124:GLU:HB3	32:51:132:ARG:HB3	1.76	0.66
8:72:113:SER:HB2	8:72:134:ILE:HD11	1.75	0.66
23:2L:83:U:O4	23:2L:84:A:N6	2.27	0.66
26:14:1263:U:OP2	57:14:3820:HOH:O	2.12	0.66
26:14:2528:U:O2'	26:14:2530:A:OP1	2.12	0.66
31:49:41:GLN:NE2	31:49:154:GLY:O	2.27	0.66
43:A5:86:LEU:HD12	43:A5:87:PRO:HD2	1.77	0.66
1:13:1273:G:H3'	1:13:1274:G:H8	1.60	0.66
26:1H:1357:U:OP2	57:1H:3809:HOH:O	2.12	0.66
26:14:654(B):C:H2'	26:14:654(C):G:C8	2.29	0.66
40:75:87:ASP:N	40:75:87:ASP:OD1	2.28	0.66
51:I5:56:VAL:HG22	51:I5:57:GLU:HG3	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1I:84:GLN:HE21	10:1I:88:LEU:HD22	1.61	0.66
26:1H:945:A:OP1	57:1H:3872:HOH:O	2.12	0.66
26:1H:2405:G:OP1	36:78:77:ARG:NH2	2.29	0.66
34:58:96:GLU:C	34:58:98:VAL:H	2.02	0.66
48:J8:53:VAL:HB	48:J8:58:ILE:HD13	1.76	0.66
1:1G:977:A:H1'	1:1G:982:U:O4	1.95	0.66
26:14:2414:G:H21	36:35:67:MET:HE1	1.59	0.66
26:14:2447:G:H3'	57:14:3633:HOH:O	1.94	0.66
37:45:26:TYR:O	37:45:28:ALA:N	2.28	0.66
1:13:235:C:H5'	17:8I:70:ARG:HG2	1.78	0.66
35:68:112:MET:HA	35:68:115:VAL:HG13	1.78	0.66
46:H8:140:ASP:OD2	46:H8:156:LYS:NZ	2.25	0.66
3:22:32:LEU:HD22	3:22:59:ARG:HH22	1.60	0.66
4:32:119:GLN:HG2	4:32:123:HIS:CD2	2.31	0.66
10:1A:3:LYS:NZ	10:1A:75:ILE:O	2.28	0.66
10:1A:91:PRO:HB2	10:1A:93:GLY:H	1.61	0.66
45:C5:29:GLU:OE1	45:C5:29:GLU:N	2.28	0.66
46:D5:30:ASN:HD22	46:D5:90:VAL:HB	1.61	0.66
2:1E:17:PHE:HD1	2:1E:17:PHE:H	1.44	0.66
29:21:24:THR:HG21	29:21:188:VAL:HG22	1.78	0.66
29:21:97:LYS:N	29:21:100:GLU:OE1	2.24	0.66
35:68:104:ARG:NH2	40:B8:43:GLN:OE1	2.27	0.66
26:14:71:A:H2	44:B5:31:HIS:HE2	1.41	0.66
26:14:2497:A:O3'	57:14:3523:HOH:O	2.12	0.66
26:14:2591:C:OP1	28:19:239:ARG:HG3	1.95	0.66
22:1K:47:C:N3	22:1K:56:G:N2	2.43	0.66
26:1H:489:G:N7	43:E8:49:LYS:NZ	2.42	0.66
26:1H:617:G:OP1	30:31:40:GLN:NE2	2.29	0.66
26:1H:1503:U:H2'	26:1H:1504:C:H6	1.60	0.66
26:1H:2212:A:H1'	26:1H:2215:G:C5	2.30	0.66
28:11:38:LYS:HE2	28:11:39:LYS:O	1.96	0.66
40:B8:50:ILE:HD13	40:B8:64:ARG:HB3	1.77	0.66
1:1G:973:G:O3'	14:5A:41:ARG:NH2	2.27	0.66
4:32:150:GLU:C	4:32:152:SER:H	2.03	0.66
12:3A:27:LEU:HG	12:3A:33:ARG:HG2	1.78	0.66
26:14:1899:G:N2	26:14:1902:C:N4	2.44	0.66
26:14:2810:A:N6	26:14:2891:G:O2'	2.29	0.66
29:29:37:ARG:NE	29:29:42:ASP:OD2	2.26	0.66
34:15:18:ALA:HA	34:15:21:LYS:HG3	1.78	0.66
47:E5:18:ALA:HB3	47:E5:20:ARG:HH21	1.61	0.66
4:3E:22:LYS:HB2	4:3E:26:CYS:SG	2.36	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3I:90:VAL:HG11	12:3I:93:LEU:HG	1.77	0.66
26:1H:2134:A:OP2	26:1H:2157:G:N2	2.29	0.66
26:14:259:G:H21	26:14:621:A:H8	1.40	0.66
32:59:159:GLU:O	32:59:163:TYR:OH	2.13	0.66
26:1H:529:A:H4'	26:1H:530:G:H5'	1.78	0.66
26:1H:2392:A:H2	26:1H:2424:C:H42	1.42	0.66
46:H8:28:MET:HG3	46:H8:37:VAL:HG11	1.78	0.66
54:Q8:53:PRO:HA	54:Q8:54:GLU:C	2.21	0.66
1:1G:587:G:N2	1:1G:754:C:OP2	2.29	0.66
12:3A:41:ARG:HD2	12:3A:42:THR:H	1.60	0.66
31:49:61:ALA:HB2	31:49:68:PRO:HD3	1.78	0.66
36:35:147:LEU:HG	36:35:148:LEU:H	1.60	0.66
50:H5:59:VAL:HG12	50:H5:60:GLU:H	1.61	0.66
1:13:601:C:H2'	1:13:602:A:C8	2.30	0.66
1:1G:359:U:H2'	1:1G:360:A:H8	1.59	0.66
26:14:1427:A:H4'	26:14:1428:C:O4'	1.96	0.66
43:A5:65:LEU:HD13	43:A5:68:ARG:HD3	1.78	0.66
13:4I:20:THR:HG23	13:4I:26:GLY:HA3	1.78	0.66
26:1H:760:G:OP1	57:1H:3688:HOH:O	2.13	0.66
46:H8:11:GLU:O	46:H8:36:LYS:NZ	2.28	0.66
51:M8:40:HIS:CD2	51:M8:45:GLY:HA3	2.31	0.66
54:Q8:53:PRO:HB3	54:Q8:56:GLU:H	1.61	0.66
1:1G:1111:A:H2'	1:1G:1112:C:C6	2.31	0.66
26:14:784:A:OP1	57:14:3568:HOH:O	2.13	0.66
1:13:1062:U:H2'	1:13:1063:C:C6	2.31	0.65
1:13:1305:G:H22	1:13:1331:G:C2'	2.05	0.65
7:6E:62:PHE:HD1	7:6E:124:LEU:HD11	1.60	0.65
33:61:3:VAL:HG12	33:61:38:LEU:HA	1.78	0.65
33:61:120:ILE:HD11	33:61:126:TYR:CE2	2.31	0.65
1:1G:1316:G:H4'	14:5A:18:VAL:HG11	1.78	0.65
26:14:459:U:H5"	53:L5:40:TRP:CD2	2.32	0.65
26:14:1021:A:H62	26:14:1141:U:H3	1.44	0.65
33:69:75:LEU:HD22	33:69:76:THR:H	1.61	0.65
1:13:1149:C:H2'	1:13:1150:U:C6	2.30	0.65
1:13:1182:G:H4'	1:13:1183:A:H5"	1.77	0.65
10:1I:46:ARG:HB2	10:1I:46:ARG:HH11	1.61	0.65
26:1H:33:U:H4'	26:1H:34:C:OP1	1.96	0.65
26:1H:330:A:O2'	26:1H:331:A:H8	1.79	0.65
26:1H:1341:U:O4	44:F8:16:LYS:NZ	2.30	0.65
42:D8:34:GLU:HB2	42:D8:58:VAL:HG22	1.79	0.65
49:K8:42:GLY:C	49:K8:44:LEU:H	2.04	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:973:G:H1'	10:1A:55:LYS:NZ	2.12	0.65
10:1A:48:THR:HG1	10:1A:62:HIS:CE1	2.13	0.65
26:14:2377:A:H4'	39:65:111:GLU:HG2	1.78	0.65
35:25:119:PRO:HB2	40:75:68:TYR:CE2	2.30	0.65
1:13:1305:G:N2	1:13:1331:G:H2'	2.05	0.65
26:1H:2355:C:O2	47:I8:39:ARG:NH2	2.30	0.65
40:B8:27:THR:HG23	40:B8:90:GLN:HB3	1.78	0.65
1:1G:1326:C:OP1	21:1B:12:LYS:NZ	2.28	0.65
1:1G:1469:G:O6	57:1G:1831:HOH:O	2.11	0.65
3:22:7:PRO:O	3:22:11:ARG:NH1	2.28	0.65
24:3L:37:G:H22	25:4L:44:U:H3	1.43	0.65
26:14:273(C):C:H42	26:14:363(C):G:H1	1.44	0.65
1:13:439:A:H2'	1:13:440:A:O4'	1.97	0.65
1:13:963:G:N2	1:13:972:C:N3	2.32	0.65
26:1H:1826:G:H4'	28:11:242:ARG:HH21	1.62	0.65
2:12:115:LEU:HD13	2:12:145:LEU:HB3	1.78	0.65
22:1L:31:C:O2	22:1L:41:G:N2	2.28	0.65
37:45:117:ALA:HA	37:45:120:ILE:HB	1.76	0.65
1:13:1149:C:H2'	1:13:1150:U:H6	1.61	0.65
1:13:1213:A:O2'	1:13:1215:G:N7	2.27	0.65
8:7E:106:GLY:HA2	8:7E:122:ARG:HH12	1.60	0.65
34:58:90:MET:HE3	34:58:90:MET:HA	1.78	0.65
36:78:138:LEU:HD12	36:78:144:GLU:HG3	1.78	0.65
46:H8:108:PRO:HB2	46:H8:112:ARG:HA	1.78	0.65
21:1B:9:ARG:HG3	21:1B:10:ARG:N	2.12	0.65
23:2L:73:C:H2'	23:2L:74:C:C6	2.32	0.65
26:14:544:C:H2'	26:14:545:G:H5'	1.77	0.65
26:14:571:A:OP2	57:14:3987:HOH:O	2.13	0.65
26:14:1069:A:H2	26:14:1094:U:H3	1.43	0.65
26:14:1252:G:O4'	41:85:33:ARG:HD3	1.95	0.65
27:1J:42:C:O2'	31:49:67:LYS:O	2.12	0.65
32:59:26:VAL:HG21	32:59:75:ALA:HB1	1.77	0.65
46:D5:54:HIS:HB3	46:D5:101:PRO:HD3	1.77	0.65
29:21:39:PRO:HD3	29:21:45:THR:HG23	1.78	0.65
45:G8:76:CYS:HB2	45:G8:82:PRO:HD3	1.79	0.65
46:H8:111:VAL:HG21	46:H8:146:ILE:HG13	1.78	0.65
1:1G:1014:A:H4'	19:AA:14:HIS:CE1	2.31	0.65
11:2A:34:ASP:HB2	11:2A:35:PRO:HD2	1.77	0.65
33:69:130:TYR:HB3	33:69:136:VAL:HG13	1.78	0.65
40:75:16:ARG:HH12	40:75:83:ILE:HB	1.61	0.65
5:4E:71:LEU:HD22	5:4E:114:GLY:HA3	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:9I:38:GLU:OE1	18:9I:41:LYS:NZ	2.29	0.65
22:1K:37:G:H1	25:4K:49:U:H3	1.43	0.65
26:1H:299:A:H5'	26:1H:300:A:OP2	1.97	0.65
26:1H:761:A:OP1	57:1H:3622:HOH:O	2.14	0.65
26:1H:784:A:C5	28:11:229:VAL:HG21	2.32	0.65
26:1H:2577:A:H5"	26:1H:2578:G:H5'	1.78	0.65
40:B8:64:ARG:HB2	40:B8:73:GLU:HG2	1.78	0.65
2:12:178:ARG:NH1	2:12:196:LEU:O	2.27	0.65
6:52:35:ALA:HB2	6:52:67:MET:HE3	1.77	0.65
26:14:2287:A:H62	26:14:2344:U:H3	1.43	0.65
26:14:2444:G:OP2	30:39:68:LYS:HE2	1.97	0.65
46:D5:163:LEU:HD23	46:D5:163:LEU:H	1.60	0.65
1:13:21:G:OP1	57:13:1810:HOH:O	2.13	0.65
26:1H:2168:G:OP1	26:1H:2168:G:H4'	1.97	0.65
26:1H:2306:C:N4	31:41:42:GLY:O	2.30	0.65
1:1G:32:A:H2'	1:1G:33:A:C8	2.31	0.65
1:1G:380:G:N2	1:1G:383:A:OP2	2.30	0.65
1:1G:1224:G:N1	1:1G:1322:C:H1'	2.10	0.65
26:14:309:G:H4'	45:C5:18:GLY:HA3	1.79	0.65
26:14:1024:G:H3'	26:14:1025:G:H5"	1.79	0.65
26:14:1939:U:OP1	26:14:2604:U:O2'	2.11	0.65
26:1H:1388:G:H2'	26:1H:1389:G:C8	2.30	0.65
33:61:120:ILE:HD11	33:61:126:TYR:CZ	2.31	0.65
1:1G:1412:C:H2'	1:1G:1413:A:C8	2.32	0.65
3:22:73:PRO:O	3:22:77:ILE:N	2.22	0.65
23:2L:72:C:H2'	23:2L:73:C:C6	2.32	0.65
26:14:2010:G:H5"	43:A5:42:ARG:HB2	1.78	0.65
26:14:2058:A:OP1	57:14:3855:HOH:O	2.15	0.65
26:14:2746:U:OP1	32:59:85:LYS:NZ	2.22	0.65
27:1J:28:C:H42	27:1J:56:G:H1	1.44	0.65
4:3E:83:SER:HA	4:3E:89:THR:HG23	1.79	0.65
26:1H:71:A:H2	44:F8:31:HIS:CE1	2.15	0.65
53:P8:8:ASN:OD1	53:P8:11:LYS:N	2.24	0.65
1:1G:1503:A:OP1	1:1G:1531:A:O2'	2.15	0.65
26:14:491:G:H2'	26:14:492:A:H8	1.62	0.65
28:19:24:ILE:HA	28:19:82:ILE:HG22	1.79	0.65
42:95:58:VAL:HB	42:95:98:GLU:HB2	1.79	0.65
51:I5:57:GLU:O	51:I5:61:ARG:NH2	2.28	0.65
26:1H:1520:U:H2'	26:1H:1521:G:O4'	1.97	0.64
26:1H:2576:G:OP1	57:1H:3667:HOH:O	2.14	0.64
37:88:104:PHE:HE2	37:88:125:LEU:HD11	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:H8:5:LEU:HD23	46:H8:47:VAL:HG21	1.79	0.64
1:1G:973:G:O4'	10:1A:55:LYS:HG3	1.96	0.64
26:14:2112:G:O2'	26:14:2114:A:N6	2.27	0.64
26:14:2557:G:H2'	26:14:2558:C:H6	1.60	0.64
1:13:468:A:H5"	16:7I:80:PHE:HB3	1.77	0.64
26:1H:1249:U:OP1	57:1H:3734:HOH:O	2.14	0.64
26:1H:1997:G:OP2	57:1H:3785:HOH:O	2.15	0.64
26:1H:2255:G:OP2	57:1H:3878:HOH:O	2.14	0.64
43:E8:57:ASN:O	43:E8:61:ASN:HB2	1.97	0.64
48:J8:87:PRO:HA	48:J8:90:ILE:HG12	1.79	0.64
13:4A:29:ARG:HB3	13:4A:64:TRP:CZ2	2.33	0.64
26:14:1359:A:H62	26:14:1372:U:H3	1.45	0.64
2:1E:134:GLU:HA	2:1E:137:ARG:HB3	1.78	0.64
19:AI:40:ILE:HG23	19:AI:41:VAL:HG13	1.79	0.64
26:1H:1103:A:H3'	26:1H:1104:C:H6	1.62	0.64
1:1G:280:C:H3'	1:1G:281:G:H5'	1.78	0.64
1:1G:636:U:H2'	1:1G:637:G:H8	1.62	0.64
1:1G:1119:C:OP1	9:82:83:ARG:NH1	2.30	0.64
9:82:28:VAL:HG22	9:82:63:ILE:HB	1.80	0.64
27:1J:15:A:H5'	27:1J:16:G:C8	2.32	0.64
40:75:125:ARG:HG3	40:75:129:ARG:HH21	1.62	0.64
26:1H:1826:G:O2'	28:11:242:ARG:NH2	2.31	0.64
26:1H:2408:U:H2'	26:1H:2409:G:H8	1.63	0.64
26:14:1485:G:H1	26:14:1504:C:H42	1.44	0.64
26:14:1828:G:OP2	57:14:3532:HOH:O	2.15	0.64
48:F5:60:PHE:HE2	48:F5:91:LYS:HD3	1.63	0.64
1:13:14:U:OP2	57:13:1815:HOH:O	2.15	0.64
1:13:946:A:H2'	1:13:947:G:C8	2.33	0.64
20:BI:71:THR:HG22	20:BI:72:LEU:H	1.61	0.64
26:1H:41:C:H42	26:1H:438:G:H1	1.45	0.64
52:N8:40:LYS:HE2	52:N8:47:PRO:HD2	1.80	0.64
1:1G:1095:U:OP1	1:1G:1108:G:N2	2.30	0.64
1:1G:1342:C:H4'	9:82:125:TYR:HB2	1.79	0.64
1:1G:1356:G:H2'	1:1G:1357:A:C8	2.32	0.64
14:5A:37:PHE:HZ	14:5A:56:VAL:HG21	1.63	0.64
16:7A:22:THR:HA	16:7A:33:ILE:HG13	1.78	0.64
26:14:1973:G:H2'	26:14:1974:C:C6	2.31	0.64
34:15:38:HIS:NE2	34:15:50:ASP:OD2	2.30	0.64
1:13:148:G:H2'	1:13:149:A:H8	1.61	0.64
1:13:1132:C:H2'	1:13:1133:G:H8	1.60	0.64
1:13:1240:U:OP2	7:6E:116:ALA:N	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:152:ILE:HG12	3:2E:167:TRP:HB2	1.80	0.64
6:5E:39:LYS:H	6:5E:64:GLN:HB2	1.63	0.64
26:1H:2679:A:H4'	29:21:165:VAL:HG11	1.80	0.64
32:51:27:LYS:HA	32:51:32:GLU:HA	1.79	0.64
36:78:36:LYS:O	36:78:40:SER:HB3	1.98	0.64
37:88:87:LYS:HG2	37:88:88:GLY:H	1.63	0.64
40:B8:5:ALA:HA	40:B8:8:LYS:HG2	1.80	0.64
1:1G:409:G:H1	1:1G:433:C:H42	1.45	0.64
26:14:1794:U:H2'	26:14:1795:C:H6	1.61	0.64
26:14:2715:C:H2'	26:14:2716:U:H6	1.61	0.64
28:19:132:PRO:HG3	28:19:190:TYR:CE1	2.33	0.64
30:39:20:LEU:HG	30:39:199:TRP:HH2	1.63	0.64
43:A5:35:ILE:HG23	52:J5:28:PRO:HD2	1.80	0.64
47:E5:26:TYR:O	47:E5:29:GLN:HB2	1.98	0.64
1:13:991:U:H4'	1:13:992:U:H5"	1.78	0.64
32:51:4:ILE:HG13	32:51:6:ARG:HB2	1.79	0.64
34:58:9:VAL:HG11	34:58:39:ARG:HH12	1.62	0.64
48:J8:18:ILE:HG12	48:J8:37:ILE:HG12	1.80	0.64
1:1G:1127:G:H2'	1:1G:1147:C:H42	1.62	0.64
13:4A:86:CYS:HB2	19:AA:73:GLU:HB3	1.80	0.64
13:4A:96:LEU:O	13:4A:110:ARG:NE	2.28	0.64
26:14:1729:A:H2'	26:14:1731:G:H22	1.63	0.64
26:1H:29:U:H2'	26:1H:30:G:C8	2.33	0.64
35:68:7:TYR:CE1	35:68:20:MET:HE3	2.33	0.64
54:Q8:49:VAL:HG13	54:Q8:50:LEU:O	1.96	0.64
1:1G:1012:U:H3	1:1G:1017:G:H1	1.46	0.64
26:1H:547:A:H2'	26:1H:548:A:C8	2.33	0.64
26:1H:974(A):C:OP1	57:1H:3911:HOH:O	2.15	0.64
26:1H:1228:G:OP2	41:C8:16:LYS:NZ	2.30	0.64
26:1H:2444:G:OP2	30:31:68:LYS:HE2	1.98	0.64
44:F8:26:TYR:HD1	44:F8:92:LEU:HD12	1.63	0.64
1:1G:413:G:O2'	1:1G:414:A:OP2	2.11	0.64
1:1G:426:G:OP1	4:32:38:TYR:OH	2.12	0.64
23:2L:36:A:H2'	23:2L:37:G:C8	2.33	0.64
26:14:2116:G:N1	26:14:2162:G:OP1	2.31	0.64
30:39:157:VAL:HB	30:39:194:MET:HB3	1.79	0.64
11:2I:85:ARG:HE	11:2I:111:ASP:HB3	1.63	0.64
26:1H:907:U:O2'	37:88:101:ARG:NH2	2.29	0.64
31:41:64:THR:HG21	31:41:92:VAL:HG21	1.79	0.64
32:51:33:LEU:HD21	32:51:136:ILE:HB	1.80	0.64
2:12:179:LYS:HA	8:72:72:PRO:HG3	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1L:87:A:HO3'	26:14:2506:U:HO2'	1.46	0.64
29:29:103:ASP:OD1	29:29:201:THR:HG23	1.98	0.64
26:1H:635:C:O2'	26:1H:639:U:OP1	2.15	0.63
26:1H:1728:G:H8	26:1H:1732:A:H62	1.45	0.63
26:1H:1830:C:H42	26:1H:1975:G:H1	1.44	0.63
26:1H:1849:G:N2	26:1H:1893:C:O2	2.26	0.63
26:1H:2147:G:H2'	26:1H:2148:G:H4'	1.80	0.63
33:61:131:LYS:HB3	33:61:132:PRO:HA	1.79	0.63
48:J8:92:LYS:O	48:J8:94:LEU:N	2.31	0.63
1:1G:413:G:HO2'	1:1G:428:G:H22	1.47	0.63
7:62:21:VAL:HG23	7:62:22:LEU:HD12	1.80	0.63
22:1L:64:G:H1	22:1L:72:C:H42	1.45	0.63
26:14:751:A:OP1	57:14:3505:HOH:O	2.15	0.63
26:14:1111:A:H4'	32:59:3:ARG:HD3	1.80	0.63
26:14:2749:A:N1	26:14:2750:A:N6	2.46	0.63
37:45:114:ALA:O	37:45:118:LEU:HB2	1.98	0.63
26:1H:2419:U:O4	54:Q8:29:LYS:NZ	2.18	0.63
26:1H:2729:G:H2'	26:1H:2730:C:C6	2.34	0.63
30:31:85:GLY:O	57:31:501:HOH:O	2.15	0.63
1:1G:142:G:H2'	1:1G:143:A:H8	1.61	0.63
2:12:7:VAL:HG22	2:12:8:LYS:H	1.62	0.63
5:42:51:VAL:HG23	5:42:52:PRO:HD3	1.79	0.63
26:14:492:A:H2'	26:14:493:G:O4'	1.97	0.63
27:1J:41:U:C4	31:49:70:VAL:HG23	2.32	0.63
29:29:12:THR:O	29:29:23:VAL:HG22	1.98	0.63
1:13:237:C:H5"	17:8I:25:ARG:CZ	2.28	0.63
9:8E:112:LYS:HA	9:8E:119:ALA:HB2	1.80	0.63
26:1H:1187:G:OP2	57:1H:3727:HOH:O	2.15	0.63
26:1H:2502:G:H5"	26:1H:2503:A:H5"	1.81	0.63
30:31:130:ALA:H	30:31:132:VAL:HG13	1.63	0.63
48:J8:8:SER:HB3	48:J8:66:HIS:CD2	2.33	0.63
10:1A:32:ALA:HA	10:1A:76:ASN:HB2	1.80	0.63
12:3A:27:LEU:HB3	12:3A:33:ARG:HD3	1.79	0.63
13:4A:34:LEU:O	13:4A:38:GLY:N	2.32	0.63
33:69:3:VAL:HG12	33:69:38:LEU:HA	1.78	0.63
1:13:222:U:H2'	1:13:223:U:C6	2.34	0.63
26:1H:1434:A:H61	26:1H:1558:A:H62	1.46	0.63
30:31:129:PHE:HA	30:31:142:TRP:NE1	2.13	0.63
31:41:40:ASN:HB2	31:41:91:ARG:HG2	1.79	0.63
42:D8:3:ALA:HB1	42:D8:38:LEU:HD11	1.80	0.63
54:Q8:36:LYS:HG2	54:Q8:39:LYS:NZ	2.14	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:35:147:LEU:CG	36:35:148:LEU:H	2.10	0.63
39:65:85:VAL:H	39:65:110:LEU:HB3	1.64	0.63
1:13:1028(A):C:H2'	1:13:1028(B):C:H5	1.64	0.63
26:1H:185:U:H2'	26:1H:186:G:H8	1.62	0.63
26:1H:270(I):G:H1	26:1H:270(Q):C:H42	1.44	0.63
26:1H:2788:C:O2'	26:1H:2809:A:N3	2.30	0.63
1:1G:709:G:H2'	1:1G:710:G:H8	1.63	0.63
11:2A:85:ARG:HD3	11:2A:113:PRO:HD3	1.78	0.63
29:29:33:VAL:HG12	29:29:89:ASP:CB	2.27	0.63
1:13:224:C:H2'	1:13:225:C:C6	2.33	0.63
19:AI:40:ILE:HD11	19:AI:62:ILE:HG23	1.79	0.63
26:1H:2392:A:OP2	54:Q8:30:ARG:NH2	2.31	0.63
29:21:12:THR:OG1	29:21:13:ARG:N	2.31	0.63
33:61:69:LYS:HA	33:61:136:VAL:HB	1.80	0.63
46:H8:111:VAL:HG11	46:H8:146:ILE:HB	1.80	0.63
1:1G:1291:G:OP1	7:62:41:ARG:NH2	2.32	0.63
2:12:83:MET:HE1	2:12:234:PRO:HD2	1.79	0.63
9:82:4:TYR:HB2	9:82:19:LEU:HB2	1.78	0.63
26:14:1252:G:N3	41:85:33:ARG:HD2	2.13	0.63
28:19:182:LEU:H	28:19:272:ALA:HB2	1.63	0.63
1:13:1342:C:H2'	1:13:1343:G:C8	2.34	0.63
26:1H:581:C:H2'	26:1H:582:G:C8	2.34	0.63
26:1H:1165:U:H2'	26:1H:1166:C:C6	2.34	0.63
26:1H:1510:A:O2'	26:1H:1512:G:N7	2.28	0.63
26:1H:1899:G:N2	26:1H:1902:C:H5	1.96	0.63
1:1G:1533:C:H42	25:4L:39:U:H3	1.45	0.63
4:32:108:LEU:HD21	4:32:183:GLY:HA3	1.79	0.63
18:9A:22:VAL:HG22	18:9A:23:LYS:H	1.64	0.63
26:14:265:A:N6	26:14:427:U:O2'	2.31	0.63
26:14:1260:G:H2'	26:14:1261:C:C6	2.33	0.63
36:35:64:LYS:HB3	54:M5:30:ARG:HH22	1.62	0.63
40:75:107:ASP:CG	40:75:109:GLU:HB2	2.24	0.63
46:D5:72:ARG:NH2	46:D5:97:GLU:O	2.30	0.63
26:1H:2176:A:H2'	26:1H:2177:C:H6	1.62	0.63
26:1H:2406:U:OP1	57:1H:4136:HOH:O	2.16	0.63
26:1H:2836:U:H2'	26:1H:2837:G:C8	2.33	0.63
1:1G:1142:G:H3'	1:1G:1143:G:C8	2.33	0.63
1:1G:1492:A:OP1	12:3A:46:LYS:HB2	1.99	0.63
2:12:58:ILE:O	2:12:62:ALA:N	2.32	0.63
15:6A:87:ILE:HG22	15:6A:88:ARG:H	1.64	0.63
26:14:2148:G:H2'	26:14:2149:G:H8	1.64	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:24:LEU:HD12	30:39:25:PRO:HD3	1.81	0.63
38:55:77:ARG:O	38:55:80:PHE:N	2.31	0.63
2:1E:8:LYS:HG2	2:1E:9:GLU:HG2	1.80	0.63
9:8E:53:VAL:HG12	9:8E:55:ALA:H	1.64	0.63
19:AI:5:LEU:HD13	19:AI:10:PHE:HD1	1.64	0.63
38:98:104:ARG:HG3	38:98:111:LEU:HD21	1.81	0.63
53:P8:12:ARG:HH21	53:P8:44:PRO:HB3	1.64	0.63
1:1G:1151:A:O2'	1:1G:1152:A:O5'	2.17	0.63
1:1G:1379:G:OP1	7:62:6:ARG:NH1	2.31	0.63
26:14:2302:G:N2	26:14:2314:C:O2	2.31	0.63
26:14:2306:C:H3'	26:14:2307:G:H5"	1.81	0.63
32:59:69:ARG:HA	32:59:72:ILE:HD12	1.80	0.63
45:C5:50:ARG:HB3	45:C5:53:PRO:HG3	1.81	0.63
1:13:67:C:H2'	1:13:68:G:H8	1.64	0.62
1:13:651:C:H2'	1:13:652:U:H6	1.64	0.62
3:2E:59:ARG:HH12	3:2E:97:LYS:HE3	1.64	0.62
7:6E:111:ARG:NH1	7:6E:113:GLU:OE2	2.32	0.62
21:1F:12:LYS:HB3	21:1F:22:ARG:HD2	1.81	0.62
27:16:111:U:H2'	27:16:112:G:H8	1.64	0.62
30:31:40:GLN:NE2	30:31:182:ASN:HB2	2.13	0.62
32:51:4:ILE:HB	32:51:6:ARG:HG3	1.80	0.62
13:4A:10:PRO:HG2	13:4A:45:VAL:HG11	1.81	0.62
26:14:443:A:H1'	26:14:1201:C:O4'	1.99	0.62
41:85:74:LEU:HD13	41:85:79:PHE:HB2	1.81	0.62
1:13:1106:G:H5"	3:2E:172:ARG:HG2	1.81	0.62
10:1I:50:ILE:HA	10:1I:60:ARG:HB3	1.81	0.62
26:1H:1290:C:H2'	26:1H:1291:C:C6	2.34	0.62
26:1H:2079:U:O4	57:1H:3998:HOH:O	2.16	0.62
26:1H:2420:C:H41	54:Q8:29:LYS:HA	1.63	0.62
28:11:72:LYS:HD2	28:11:75:ILE:HD12	1.81	0.62
1:1G:860:A:H2'	1:1G:861:G:O4'	1.99	0.62
16:7A:34:GLU:OE1	16:7A:55:ARG:NH1	2.31	0.62
26:14:602:G:O2'	26:14:655:A:N6	2.32	0.62
26:14:1204:A:O2'	26:14:1205:U:OP2	2.16	0.62
26:14:1405:U:H2'	26:14:1406:U:C6	2.34	0.62
33:69:101:LEU:HB3	33:69:105:HIS:HB2	1.80	0.62
1:13:413:G:N7	4:3E:35:ARG:NH1	2.47	0.62
5:4E:100:VAL:HG12	5:4E:118:ILE:HG22	1.81	0.62
48:J8:3:LYS:O	48:J8:12:PRO:HD3	1.98	0.62
26:14:95:G:H4'	49:G5:46:GLN:HB2	1.81	0.62
26:14:287:C:H2'	26:14:288:C:H6	1.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1257:C:H4'	30:39:83:PHE:CE1	2.34	0.62
26:14:1754:C:P	40:75:96:ARG:HH12	2.21	0.62
26:14:2271:G:H5"	47:E5:20:ARG:NE	2.13	0.62
44:B5:60:ARG:HH11	44:B5:60:ARG:HA	1.64	0.62
1:13:1178:G:N2	1:13:1181:G:H8	1.96	0.62
2:1E:88:ALA:HB2	2:1E:219:VAL:HG13	1.80	0.62
10:1I:49:VAL:O	10:1I:60:ARG:HB2	1.99	0.62
16:7I:43:LYS:HA	16:7I:48:TRP:HB2	1.81	0.62
18:9I:52:PRO:HB2	18:9I:54:ARG:HD3	1.80	0.62
26:1H:77:C:H5"	49:K8:10:LEU:HD11	1.81	0.62
26:1H:95:G:H4'	49:K8:46:GLN:HB3	1.81	0.62
26:1H:1045:A:H1'	26:1H:1047:G:N3	2.14	0.62
41:C8:8:VAL:HG23	41:C8:11:ARG:HH21	1.64	0.62
42:D8:19:LYS:HG3	42:D8:95:LEU:HD23	1.80	0.62
1:1G:673:G:H2'	1:1G:674:G:C8	2.34	0.62
1:1G:1028:C:H42	1:1G:1033:G:H1	1.47	0.62
6:52:89:MET:HE3	18:9A:76:LEU:HG	1.81	0.62
8:72:86:ILE:HG12	8:72:135:CYS:HA	1.80	0.62
22:1L:41:G:H2'	22:1L:42:U:C6	2.33	0.62
26:14:2690:C:OP2	38:55:14:SER:HB3	1.98	0.62
26:14:2811:G:OP1	29:29:61:ARG:HB3	1.99	0.62
26:14:2816:C:O3'	38:55:99:LYS:NZ	2.32	0.62
41:85:92:ARG:O	41:85:94:ASN:N	2.33	0.62
46:D5:4:ARG:HB3	46:D5:58:VAL:HB	1.81	0.62
7:6E:65:ALA:HB2	7:6E:128:ALA:HB2	1.81	0.62
19:AI:6:LYS:O	19:AI:7:LYS:NZ	2.26	0.62
36:78:79:ARG:HB3	36:78:110:TYR:CD1	2.34	0.62
45:G8:39:VAL:HB	45:G8:42:VAL:HG11	1.80	0.62
48:J8:7:ILE:HD13	48:J8:62:VAL:HG11	1.81	0.62
54:Q8:32:LEU:HG	54:Q8:33:ASN:HD22	1.64	0.62
1:1G:978:A:O2'	1:1G:1322:C:N3	2.32	0.62
5:42:102:ALA:HB1	5:42:106:PRO:HG2	1.81	0.62
26:14:1464:C:HO2'	26:14:1528:A:H8	1.47	0.62
27:1J:15:A:H1'	27:1J:109:G:N9	2.14	0.62
35:25:2:ILE:HD12	35:25:6:THR:HG21	1.80	0.62
1:13:581:G:N2	1:13:760:G:N7	2.47	0.62
5:4E:63:ARG:HA	5:4E:66:MET:HE2	1.80	0.62
29:21:77:ILE:O	29:21:79:ARG:N	2.33	0.62
41:C8:88:ILE:C	41:C8:90:VAL:H	2.08	0.62
3:22:11:ARG:HE	3:22:180:ALA:HB3	1.65	0.62
26:14:1106:G:H2'	26:14:1107:G:C8	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:29:58:ARG:HH21	29:29:58:ARG:HG2	1.65	0.62
29:29:81:ILE:HG22	29:29:82:ARG:H	1.64	0.62
30:39:32:LEU:HD11	30:39:105:VAL:HG13	1.80	0.62
46:D5:4:ARG:NH1	46:D5:60:GLU:OE2	2.32	0.62
2:1E:115:LEU:HD13	2:1E:145:LEU:HB3	1.81	0.62
26:1H:1430:C:H2'	26:1H:1431:U:C6	2.34	0.62
38:98:27:SER:HB3	38:98:34:ILE:HD11	1.80	0.62
1:1G:407:G:O6	1:1G:435:C:N4	2.20	0.62
1:1G:892:A:O2'	1:1G:1415:G:H4'	2.00	0.62
17:8A:7:THR:O	17:8A:23:VAL:HG13	2.00	0.62
19:AA:63:THR:OG1	19:AA:65:ASN:O	2.15	0.62
20:BA:16:HIS:O	20:BA:19:SER:OG	2.16	0.62
22:1L:21:A:O2'	22:1L:59:U:O4	2.16	0.62
26:14:234:C:H2'	26:14:235:U:H6	1.63	0.62
26:14:848:G:H2'	26:14:849:A:C8	2.35	0.62
30:39:36:VAL:HB	30:39:183:VAL:HG11	1.82	0.62
3:2E:119:ARG:O	3:2E:123:GLN:HB2	2.00	0.62
6:5E:42:GLU:OE1	6:5E:59:TYR:OH	2.13	0.62
26:1H:1216:G:OP2	41:C8:12:ARG:NH2	2.32	0.62
26:1H:2855:C:H2'	26:1H:2856:C:H6	1.65	0.62
46:H8:19:ARG:NH1	46:H8:84:GLU:HB2	2.14	0.62
26:14:185:U:H2'	26:14:186:G:C8	2.35	0.62
51:I5:58:ARG:NE	51:I5:58:ARG:HA	2.14	0.62
1:13:223:U:H2'	1:13:224:C:H6	1.63	0.62
23:2K:61:C:N4	23:2K:62:G:O6	2.33	0.62
24:3K:7:G:H1	24:3K:77:C:H42	1.48	0.62
26:1H:607:U:OP1	30:31:102:PRO:HA	1.99	0.62
26:1H:1093:G:N2	26:1H:1097:U:OP2	2.24	0.62
26:1H:2593:U:H2'	26:1H:2594:C:H6	1.65	0.62
32:51:113:VAL:HG11	32:51:151:ILE:HD13	1.79	0.62
37:88:110:THR:HG23	37:88:113:GLN:OE1	1.99	0.62
9:82:9:ARG:HG2	9:82:14:VAL:HG22	1.80	0.62
10:1A:3:LYS:HD2	10:1A:77:PRO:HG3	1.82	0.62
22:1L:21:A:H1'	22:1L:22:G:O5'	1.98	0.62
26:14:1079:C:N4	26:14:1088:A:OP1	2.30	0.62
26:14:2272:U:O4	57:14:3776:HOH:O	2.11	0.62
42:95:85:LYS:HD2	42:95:87:HIS:HA	1.82	0.62
46:D5:19:ARG:NH1	46:D5:84:GLU:HB2	2.15	0.62
48:F5:85:LEU:HA	48:F5:87:PRO:HD2	1.80	0.62
17:8I:76:LEU:HD11	17:8I:79:SER:HB3	1.80	0.62
26:1H:1009:A:OP2	34:58:37:LYS:NZ	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1309:G:H4'	53:P8:7:PRO:HB2	1.81	0.62
26:1H:2331:G:H4'	47:I8:43:THR:H	1.65	0.62
36:78:126:VAL:HG12	36:78:147:LEU:HD21	1.81	0.62
38:98:12:ARG:HG2	38:98:12:ARG:HH11	1.65	0.62
52:N8:50:GLY:H	52:N8:56:LYS:HB2	1.64	0.62
1:1G:1226:C:H2'	13:4A:103:THR:HB	1.80	0.62
26:14:1165:U:H2'	26:14:1166:C:C6	2.35	0.62
26:14:2074:U:OP1	57:14:3503:HOH:O	2.16	0.62
37:45:139:GLU:HG2	37:45:140:ALA:H	1.65	0.62
39:65:3:ARG:HE	39:65:4:LEU:N	1.98	0.62
12:3I:28:LYS:HD2	12:3I:62:SER:HB3	1.81	0.61
16:7I:57:ARG:NH2	16:7I:78:GLY:O	2.33	0.61
21:1F:10:ARG:HE	21:1F:13:ILE:HD12	1.64	0.61
36:78:50:ARG:HH21	36:78:50:ARG:CB	2.12	0.61
40:B8:56:GLY:O	40:B8:59:THR:HG22	2.00	0.61
1:1G:413:G:O2'	1:1G:428:G:N2	2.33	0.61
9:82:114:TYR:HE2	10:1A:60:ARG:H	1.46	0.61
18:9A:37:VAL:HG11	18:9A:78:LEU:HB3	1.80	0.61
24:3L:30:A:N1	24:3L:43:A:N6	2.47	0.61
26:14:2295:C:H5	39:65:13:ARG:HH22	1.47	0.61
26:14:2738:A:OP2	57:14:4010:HOH:O	2.16	0.61
27:1J:44:G:H5"	27:1J:45:A:OP1	2.00	0.61
31:49:66:GLN:OE1	31:49:98:ARG:NH1	2.32	0.61
49:G5:56:GLN:HG2	49:G5:59:ARG:HH21	1.65	0.61
26:1H:528:A:N1	26:1H:2042:A:H2'	2.15	0.61
26:1H:1252:G:N3	41:C8:33:ARG:HD2	2.15	0.61
31:41:109:VAL:HG22	51:M8:33:VAL:HG21	1.82	0.61
54:Q8:8:LYS:H	54:Q8:8:LYS:HD2	1.65	0.61
1:1G:688:G:H2'	1:1G:689:C:H6	1.65	0.61
2:12:91:PRO:HG3	2:12:154:LEU:HB2	1.81	0.61
4:32:108:LEU:HD12	4:32:170:VAL:HG11	1.81	0.61
14:5A:21:TYR:OH	14:5A:23:ARG:NH2	2.33	0.61
26:14:581:C:H2'	26:14:582:G:C8	2.35	0.61
26:14:1260:G:H2'	26:14:1261:C:H6	1.65	0.61
26:14:2777:G:H5"	26:14:2778:A:H5'	1.81	0.61
29:29:65:GLY:C	29:29:68:ALA:HB2	2.26	0.61
1:13:130:A:OP2	17:8I:63:ARG:NH2	2.33	0.61
40:B8:26:ASP:HB3	40:B8:92:GLY:H	1.64	0.61
46:H8:165:VAL:HB	46:H8:166:SER:HA	1.81	0.61
1:1G:45:U:H2'	1:1G:46:G:H8	1.65	0.61
1:1G:1118:C:H1'	1:1G:1179:A:C4	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:174:VAL:HA	2:12:177:ALA:HB3	1.83	0.61
8:72:37:ARG:HH21	8:72:38:ILE:HG13	1.66	0.61
16:7A:21:VAL:HG22	16:7A:33:ILE:HB	1.82	0.61
26:14:1693:U:O2'	28:19:14:ARG:NH2	2.33	0.61
35:25:1:MET:HE3	35:25:67:LYS:HG2	1.81	0.61
38:55:38:VAL:HG22	38:55:112:ALA:HB2	1.81	0.61
1:13:67:C:H2'	1:13:68:G:C8	2.35	0.61
25:4K:33:G:H2'	25:4K:34:G:C8	2.35	0.61
26:1H:1731:G:H2'	26:1H:1732:A:C8	2.30	0.61
26:1H:2636:U:H2'	26:1H:2637:U:C6	2.35	0.61
44:F8:3:THR:OG1	44:F8:4:ALA:HA	2.00	0.61
54:Q8:38:GLY:H	54:Q8:41:ILE:HG13	1.66	0.61
20:BA:49:ALA:HA	20:BA:52:ALA:HB3	1.81	0.61
26:1H:2784:C:H2'	26:1H:2785:C:H6	1.65	0.61
49:K8:42:GLY:O	49:K8:44:LEU:N	2.31	0.61
1:1G:503:C:OP2	12:3A:116:SER:HB3	2.00	0.61
1:1G:1449:C:H3'	1:1G:1450:U:H4'	1.82	0.61
7:62:62:PHE:HA	7:62:124:LEU:HD22	1.82	0.61
19:AA:40:ILE:O	19:AA:68:GLY:N	2.34	0.61
26:14:581:C:H2'	26:14:582:G:H8	1.65	0.61
26:14:2068:U:H3	26:14:2430:A:H2	1.47	0.61
26:14:2701:C:H3'	26:14:2702:U:C5'	2.27	0.61
28:19:10:THR:OG1	28:19:13:ARG:HB2	1.99	0.61
37:45:22:LYS:N	37:45:23:GLY:HA3	2.13	0.61
1:13:1367:C:H5'	10:1I:60:ARG:HH21	1.66	0.61
26:1H:1278:A:H5"	38:98:36:THR:HG22	1.82	0.61
46:H8:45:ASP:O	46:H8:49:ARG:HG3	2.01	0.61
1:1G:91:C:H2'	1:1G:92:G:C8	2.35	0.61
26:14:489:G:N7	43:A5:49:LYS:NZ	2.48	0.61
31:49:135:LEU:HB2	31:49:155:MET:HG2	1.82	0.61
34:15:56:ASN:H	34:15:125:GLY:HA3	1.64	0.61
1:13:560:U:H4'	1:13:561:U:H5"	1.83	0.61
2:1E:45:GLN:NE2	2:1E:49:GLU:OE1	2.33	0.61
4:3E:122:ARG:HG2	4:3E:122:ARG:HH11	1.64	0.61
8:7E:95:VAL:HG12	8:7E:99:GLU:HB2	1.83	0.61
23:2K:9:G:H21	23:2K:21:A:H8	1.49	0.61
26:1H:731:C:H2'	26:1H:732:C:H6	1.64	0.61
26:1H:1021:A:C8	26:1H:1021:A:H3'	2.35	0.61
26:1H:1891:G:O6	57:1H:4003:HOH:O	2.16	0.61
26:1H:2379:G:O2'	39:A8:17:ARG:NH1	2.34	0.61
31:41:60:LEU:HD12	31:41:68:PRO:HG3	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:41:133:LEU:HD11	31:41:157:ILE:HB	1.82	0.61
36:78:60:MET:HA	54:Q8:13:ARG:NH1	2.16	0.61
1:1G:382:A:H8	1:1G:382:A:O5'	1.83	0.61
8:72:86:ILE:HD11	8:72:136:GLU:HG2	1.83	0.61
9:82:114:TYR:CD2	10:1A:60:ARG:HG3	2.35	0.61
49:G5:47:ASN:O	49:G5:49:LYS:N	2.29	0.61
1:13:186:C:H2'	1:13:186(A):C:H6	1.65	0.61
1:13:973:G:H3'	1:13:974:A:H5"	1.81	0.61
18:9I:47:THR:HA	18:9I:83:GLU:HB2	1.82	0.61
26:1H:1140:C:OP1	34:58:23:LEU:HB3	2.01	0.61
26:1H:1416:G:O2'	26:1H:1417:C:O5'	2.18	0.61
27:16:80:U:H2'	27:16:81:G:H21	1.65	0.61
28:11:182:LEU:N	28:11:272:ALA:HB3	2.15	0.61
38:98:63:ARG:HG3	38:98:80:PHE:CE2	2.35	0.61
49:K8:15:LYS:H	49:K8:67:LYS:HE2	1.65	0.61
2:12:70:PHE:HB2	2:12:92:TYR:HB2	1.82	0.61
12:3A:41:ARG:HB3	12:3A:41:ARG:HH11	1.66	0.61
13:4A:49:THR:HG22	13:4A:51:ALA:H	1.66	0.61
26:14:639:U:H2'	26:14:640:C:C6	2.35	0.61
26:14:654(H):G:N7	26:14:654(N):G:N1	2.48	0.61
33:69:120:ILE:HG22	33:69:122:GLU:H	1.64	0.61
5:4E:51:VAL:O	5:4E:55:VAL:HG23	2.00	0.61
12:3I:53:ARG:HG3	12:3I:93:LEU:HD21	1.82	0.61
12:3I:71:PRO:O	12:3I:102:ARG:HD3	2.01	0.61
18:9I:85:LEU:HD12	18:9I:86:VAL:H	1.65	0.61
26:1H:2307:G:O6	31:41:44:GLY:N	2.34	0.61
26:14:223:A:O2'	26:14:420:C:O2	2.19	0.61
26:14:2074:U:H2'	26:14:2075:U:C6	2.36	0.61
27:1J:90:C:P	37:45:16:ARG:HH21	2.23	0.61
46:D5:60:GLU:HA	46:D5:66:SER:HA	1.83	0.61
1:13:1528:U:O2	1:13:1530:G:H5"	2.01	0.61
1:1G:345:C:O2'	1:1G:346:G:O5'	2.19	0.61
1:1G:1119:C:H42	1:1G:1154:G:H1	1.48	0.61
4:32:60:GLU:OE2	4:32:199:ASN:N	2.33	0.61
9:82:63:ILE:HD11	9:82:81:ILE:HD11	1.82	0.61
26:14:1264:G:H2'	26:14:2014:A:N6	2.16	0.61
26:14:1358:G:N1	26:14:1372:U:OP2	2.24	0.61
33:69:54:GLN:HA	33:69:57:ARG:HD3	1.83	0.61
1:13:35:G:O2'	12:3I:118:SER:O	2.11	0.60
1:13:352:C:O2'	1:13:354:G:OP1	2.18	0.60
3:2E:16:ARG:NH2	3:2E:183:ASP:OD1	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:42:PRO:HD3	51:M8:63:TYR:CE2	2.31	0.60
34:58:73:THR:HG22	34:58:84:LYS:HG3	1.82	0.60
40:B8:58:ASN:C	40:B8:58:ASN:HD22	2.08	0.60
40:B8:106:SER:HB2	40:B8:109:GLU:HB2	1.83	0.60
43:E8:18:ARG:HD3	43:E8:76:VAL:HG22	1.81	0.60
47:I8:37:LEU:HD22	47:I8:67:VAL:HG11	1.83	0.60
1:1G:981:U:O2	14:5A:31:ARG:NH2	2.33	0.60
6:52:100:ASN:ND2	18:9A:26:LEU:O	2.33	0.60
7:62:91:VAL:HG12	7:62:95:ARG:HB3	1.81	0.60
26:14:824:A:H1'	26:14:2358:G:N7	2.16	0.60
26:14:1678:G:N2	26:14:1989:G:N2	2.47	0.60
26:14:2052:G:C8	29:29:141:ILE:HD11	2.35	0.60
26:14:2148:G:H2'	26:14:2149:G:C8	2.36	0.60
26:14:2331:G:O3'	47:E5:43:THR:HG22	2.00	0.60
36:35:52:GLU:OE2	36:35:57:THR:HA	2.01	0.60
41:85:29:SER:OG	41:85:30:LYS:NZ	2.32	0.60
1:13:833:U:H3	1:13:853:G:H1	1.48	0.60
10:1I:48:THR:HA	10:1I:62:HIS:CB	2.31	0.60
11:2I:15:ALA:HB1	11:2I:78:GLN:HG3	1.82	0.60
17:8I:18:THR:OG1	17:8I:69:LYS:NZ	2.33	0.60
54:Q8:45:GLY:HA2	54:Q8:46:ARG:C	2.27	0.60
1:1G:310:G:OP2	16:7A:27:LYS:NZ	2.33	0.60
1:1G:683:G:N2	1:1G:707:C:O2	2.31	0.60
15:6A:39:LEU:HD12	15:6A:56:LEU:HB2	1.84	0.60
26:14:811:U:H2'	36:35:21:ARG:HA	1.83	0.60
26:14:1790:C:H2'	26:14:1791:A:C5	2.36	0.60
43:A5:25:ARG:NH2	43:A5:74:ALA:O	2.34	0.60
1:13:453:A:H4'	16:7I:72:ARG:HB2	1.83	0.60
1:13:1004:A:O5'	1:13:1025:U:N3	2.35	0.60
1:13:1279:A:O2'	1:13:1281:U:OP2	2.15	0.60
1:13:1410:G:H2'	1:13:1411:C:C6	2.36	0.60
26:1H:930:U:H4'	26:1H:931:G:O5'	2.01	0.60
26:1H:1231:G:H2'	26:1H:1232:G:C8	2.37	0.60
26:1H:1441:G:H2'	26:1H:1442:G:C8	2.36	0.60
26:1H:2341:G:H2'	26:1H:2342:C:C6	2.36	0.60
26:1H:2884:U:H2'	26:1H:2885:C:O4'	2.01	0.60
27:16:73:A:H3'	27:16:74:U:H6	1.66	0.60
30:31:62:ARG:HH21	30:31:64:ILE:HD13	1.65	0.60
1:1G:985:C:H2'	1:1G:986:A:C8	2.36	0.60
1:1G:1133:G:N2	1:1G:1141:C:N3	2.38	0.60
9:82:10:ARG:HD2	9:82:105:ASP:HB3	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1496:A:H8	26:14:1577:C:O2'	1.79	0.60
26:14:2210:G:H3'	26:14:2211:G:N2	2.15	0.60
36:35:36:LYS:HE3	36:35:39:LYS:HB3	1.84	0.60
1:13:591:U:H2'	1:13:592:G:C8	2.36	0.60
49:K8:18:PRO:HA	49:K8:21:LEU:HB2	1.81	0.60
51:M8:24:THR:OG1	51:M8:25:TYR:N	2.24	0.60
54:Q8:59:LYS:H	54:Q8:59:LYS:HE3	1.67	0.60
1:1G:1270:C:O2'	1:1G:1313:U:O2'	2.20	0.60
2:12:208:ILE:HA	2:12:211:ILE:HD12	1.84	0.60
4:32:118:ARG:HH21	4:32:118:ARG:HB2	1.67	0.60
1:13:864:A:H3'	1:13:865:A:C8	2.36	0.60
28:11:242:ARG:HD2	28:11:242:ARG:N	2.15	0.60
42:D8:1:MET:SD	42:D8:43:GLU:HB3	2.42	0.60
51:M8:23:GLU:OE1	51:M8:24:THR:N	2.34	0.60
1:1G:718:G:H5'	11:2A:117:ASN:ND2	2.17	0.60
1:1G:921:U:O2'	5:42:19:MET:O	2.14	0.60
1:1G:1187:G:O5'	9:82:113:LYS:NZ	2.34	0.60
9:82:4:TYR:CZ	9:82:88:TYR:HB3	2.36	0.60
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.84	0.60
10:1A:9:ARG:HE	10:1A:95:GLU:HG2	1.67	0.60
26:14:274:G:H2'	26:14:275:G:H4'	1.82	0.60
26:14:1963:U:H5"	26:14:1963:U:O2	2.00	0.60
27:1J:15:A:H1'	27:1J:109:G:C4	2.37	0.60
44:B5:50:LYS:HB2	44:B5:87:GLN:NE2	2.16	0.60
8:7E:20:TYR:HE2	8:7E:75:ARG:HD2	1.66	0.60
20:BI:49:ALA:HB2	20:BI:99:LEU:HD23	1.84	0.60
26:1H:2838:G:N7	57:1H:3960:HOH:O	2.30	0.60
36:78:101:VAL:HA	36:78:105:LEU:O	2.01	0.60
45:G8:30:VAL:HG22	45:G8:37:VAL:HG12	1.84	0.60
4:32:13:ARG:C	4:32:15:GLU:H	2.09	0.60
26:14:2328:A:H2'	26:14:2329:G:C8	2.37	0.60
36:35:22:GLY:HA3	36:35:25:SER:H	1.66	0.60
1:13:192:U:H2'	1:13:193:C:H6	1.65	0.60
1:13:407:G:O4'	4:3E:119:GLN:NE2	2.34	0.60
1:13:890:G:O2'	1:13:906:G:O6	2.18	0.60
26:1H:1167:U:H2'	26:1H:1168:G:C8	2.37	0.60
39:A8:44:LYS:HB3	39:A8:46:VAL:HB	1.84	0.60
40:B8:2:ASN:O	40:B8:3:ARG:HG2	2.01	0.60
15:6A:11:VAL:HG21	15:6A:34:LEU:HD13	1.83	0.60
19:AA:50:ALA:HB1	19:AA:57:HIS:HB3	1.83	0.60
26:14:2745:C:H4'	32:59:142:GLY:O	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:29:3:GLY:HA3	29:29:81:ILE:HD12	1.82	0.60
36:35:39:LYS:HA	36:35:45:LEU:HD13	1.84	0.60
1:13:1455:G:H5'	20:BI:32:ALA:HB2	1.81	0.60
5:4E:8:GLU:OE1	5:4E:63:ARG:NH2	2.34	0.60
10:1I:34:VAL:HG12	10:1I:74:ILE:HG12	1.82	0.60
16:7I:53:VAL:HG13	16:7I:79:VAL:HG22	1.82	0.60
41:C8:85:LYS:HA	41:C8:85:LYS:NZ	2.16	0.60
53:P8:46:VAL:O	53:P8:47:ARG:HB2	2.02	0.60
54:Q8:33:ASN:HB2	54:Q8:34:TRP:CE3	2.37	0.60
1:1G:922:G:N3	1:1G:1398:A:H2	2.00	0.60
1:1G:963:G:N2	10:1A:55:LYS:HE3	2.17	0.60
26:14:172:C:H2'	26:14:173:G:C8	2.35	0.60
26:14:469:G:O6	53:L5:37:LYS:HE2	2.01	0.60
26:14:540:G:H2'	26:14:541:C:H6	1.67	0.60
26:14:1428:C:O2'	26:14:1569:A:OP2	2.15	0.60
26:14:1491:G:O2'	28:19:101:GLU:HB2	2.02	0.60
26:14:2394:C:OP1	36:35:64:LYS:HB2	2.01	0.60
28:19:37:LEU:CA	28:19:38:LYS:HB3	2.27	0.60
29:29:25:VAL:O	29:29:26:ILE:HG12	2.02	0.60
39:65:21:THR:HG23	39:65:23:ARG:H	1.66	0.60
42:95:35:LEU:HB3	42:95:37:VAL:CG1	2.32	0.60
1:13:1053:G:H4'	1:13:1054:C:O5'	2.02	0.60
1:13:1187:G:O5'	9:8E:113:LYS:NZ	2.34	0.60
1:13:1273:G:H3'	1:13:1274:G:C8	2.36	0.60
3:2E:89:GLU:OE2	3:2E:93:LYS:NZ	2.35	0.60
6:5E:18:GLN:HA	6:5E:21:LEU:HB2	1.84	0.60
12:3I:82:VAL:HG12	12:3I:106:ASP:OD2	2.02	0.60
26:1H:232:G:H5"	26:1H:232:G:H8	1.66	0.60
26:1H:1024:G:H3'	26:1H:1025:G:H5"	1.84	0.60
26:1H:1113:U:H2'	26:1H:1114:G:C8	2.37	0.60
34:58:26:LEU:O	34:58:30:ILE:HG13	2.01	0.60
40:B8:26:ASP:O	40:B8:49:VAL:HG12	2.02	0.60
1:1G:976:G:H5'	1:1G:1358:U:O2'	2.02	0.60
6:52:74:ASP:OD1	6:52:74:ASP:N	2.34	0.60
9:82:97:LYS:HB3	9:82:98:PRO:HD3	1.84	0.60
10:1A:50:ILE:HA	10:1A:60:ARG:HB3	1.84	0.60
12:3A:47:LYS:HG2	12:3A:48:PRO:HD2	1.84	0.60
18:9A:22:VAL:C	18:9A:24:ALA:H	2.08	0.60
26:14:192:C:P	57:14:3644:HOH:O	2.60	0.60
26:14:579:G:H2'	26:14:580:C:C6	2.36	0.60
27:1J:18:G:H1	27:1J:65:C:H42	1.48	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:40:U:C5	51:I5:1:MET:HB3	2.35	0.60
35:25:47:ILE:HG13	35:25:48:PRO:HD2	1.84	0.60
1:13:181:G:O2'	1:13:182:U:O5'	2.19	0.60
1:13:1292:U:H2'	1:13:1293:G:C8	2.36	0.60
1:13:1327:C:OP2	21:1F:12:LYS:NZ	2.34	0.60
14:5I:6:LEU:O	14:5I:23:ARG:NH2	2.35	0.60
26:1H:2162:G:H2'	26:1H:2163:C:C6	2.36	0.60
26:1H:2693:A:H2'	26:1H:2694:G:H8	1.67	0.60
26:1H:2789:C:H2'	26:1H:2790:A:H5"	1.84	0.60
1:1G:382:A:H2'	1:1G:383:A:H8	1.65	0.60
2:12:103:THR:HG23	2:12:176:GLU:HB3	1.83	0.60
26:14:290:G:H2'	26:14:291:C:O4'	2.02	0.60
26:14:528:A:OP2	34:15:114:ARG:NH1	2.34	0.60
26:14:620:G:N3	26:14:620:G:H5'	2.16	0.60
29:29:8:LYS:HG2	29:29:192:ASN:HA	1.83	0.60
32:59:7:LEU:HD12	32:59:8:PRO:HD3	1.83	0.60
34:15:42:TRP:O	41:85:64:ARG:NH2	2.34	0.60
41:85:92:ARG:HG2	42:95:11:GLN:OE1	2.01	0.60
53:L5:35:ARG:HG3	53:L5:42:LEU:HD11	1.84	0.60
1:13:1279:A:OP2	10:1I:9:ARG:NH1	2.35	0.59
1:13:1312:G:OP1	51:M8:58:ARG:NH2	2.35	0.59
26:1H:384:U:H2'	26:1H:385:C:H6	1.67	0.59
26:1H:883:G:N2	26:1H:893:C:O2	2.33	0.59
26:1H:946:G:OP1	57:1H:4106:HOH:O	2.17	0.59
26:1H:2291:U:O2'	26:1H:2374:C:O2	2.18	0.59
26:1H:2305:A:H1'	31:41:136:ARG:HH12	1.66	0.59
54:Q8:33:ASN:HB2	54:Q8:34:TRP:CD2	2.37	0.59
20:BA:50:GLU:HA	20:BA:100:ILE:HG21	1.84	0.59
30:39:31:HIS:HB2	36:35:9:ASN:OD1	2.02	0.59
40:75:107:ASP:OD1	40:75:109:GLU:HB2	2.02	0.59
45:C5:52:SER:HA	45:C5:55:TYR:O	2.02	0.59
1:13:37:U:O2'	1:13:500:G:H4'	2.02	0.59
1:13:619:U:H3	4:3E:134:ASP:HB2	1.65	0.59
2:1E:74:LYS:HB2	2:1E:76:GLN:HG3	1.83	0.59
26:1H:270(J):G:N2	26:1H:270(Q):C:N3	2.50	0.59
26:1H:566:U:O4	42:D8:78:LYS:HD3	2.02	0.59
26:1H:676:A:H8	26:1H:2069:G:N2	1.95	0.59
26:1H:2062:A:H62	26:1H:2503:A:H62	1.47	0.59
45:G8:87:LYS:H	45:G8:94:LYS:HG2	1.67	0.59
1:1G:86:U:H6	1:1G:87:A:C2	2.20	0.59
4:32:173:TRP:CD1	4:32:174:LEU:HG	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:2:ARG:HD3	6:52:92:LYS:HE3	1.82	0.59
26:14:646:A:H2'	26:14:647:G:O4'	2.03	0.59
26:14:795:C:H2'	26:14:796:C:C6	2.37	0.59
26:14:1786:A:H2	26:14:2606:C:H1'	1.65	0.59
28:19:182:LEU:H	28:19:272:ALA:CB	2.15	0.59
30:39:27:GLU:O	30:39:28:ILE:HG12	2.01	0.59
31:49:115:ARG:NH2	31:49:137:GLU:OE1	2.35	0.59
32:59:71:LEU:O	32:59:75:ALA:N	2.35	0.59
2:1E:115:LEU:HA	2:1E:118:LEU:HD12	1.84	0.59
3:2E:26:LYS:HG3	3:2E:27:LYS:HE2	1.83	0.59
15:6I:78:TYR:CZ	15:6I:82:ILE:HD11	2.37	0.59
26:1H:480:A:OP2	45:G8:47:LYS:HD3	2.02	0.59
26:1H:751:A:H5'	43:E8:90:ARG:HA	1.83	0.59
26:1H:860:U:C5	26:1H:917:A:C2	2.90	0.59
26:1H:2199:A:O3'	48:J8:48:LYS:HD3	2.02	0.59
26:1H:2400:G:H1	26:1H:2416:C:H42	1.50	0.59
26:1H:2899:G:N2	26:1H:2900:A:N1	2.50	0.59
57:1H:3789:HOH:O	44:F8:56:THR:O	2.15	0.59
30:31:158:THR:OG1	30:31:195:ASP:OD2	2.20	0.59
31:41:97:ASP:O	31:41:99:MET:N	2.34	0.59
39:A8:93:LYS:HG2	39:A8:95:HIS:HB2	1.84	0.59
51:M8:17:GLY:HA3	51:M8:35:VAL:HG23	1.84	0.59
54:Q8:38:GLY:N	54:Q8:41:ILE:HG13	2.17	0.59
54:Q8:53:PRO:HB3	54:Q8:56:GLU:N	2.16	0.59
1:1G:1536:C:H2'	1:1G:1537:U:C5	2.36	0.59
26:14:1443:G:H1	26:14:1548:C:H42	1.49	0.59
34:15:56:ASN:HA	34:15:125:GLY:H	1.66	0.59
35:25:4:PRO:O	35:25:5:GLN:HB2	2.02	0.59
42:95:35:LEU:HD13	42:95:37:VAL:HG11	1.84	0.59
45:C5:20:TYR:CZ	45:C5:42:VAL:HA	2.37	0.59
46:D5:28:MET:HE1	46:D5:61:LEU:HD21	1.84	0.59
1:13:196:A:O2'	1:13:197:A:H2'	2.03	0.59
1:13:1391:U:H2'	1:13:1392:G:C8	2.38	0.59
4:3E:65:ARG:NH1	4:3E:70:ILE:O	2.34	0.59
9:8E:128:ARG:NH1	23:2K:34:U:OP2	2.27	0.59
26:1H:259:G:H21	26:1H:621:A:H8	1.49	0.59
26:1H:1515:C:H2'	26:1H:1516:U:C6	2.36	0.59
1:1G:1305:G:H22	1:1G:1331:G:C2'	2.12	0.59
2:12:42:ILE:HD11	2:12:202:PRO:HB2	1.83	0.59
9:82:95:LYS:HZ1	9:82:96:LEU:HD13	1.67	0.59
19:AA:23:ASN:HA	19:AA:27:GLU:HG3	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:539:G:H2'	26:14:540:G:H8	1.67	0.59
26:14:2836:U:H2'	26:14:2837:G:C8	2.37	0.59
27:1J:104:A:H2'	27:1J:105:G:O4'	2.03	0.59
41:85:92:ARG:C	41:85:94:ASN:H	2.10	0.59
1:13:789:U:H5	1:13:791:G:H3'	1.67	0.59
10:1I:77:PRO:HB2	10:1I:79:ARG:HH12	1.67	0.59
13:4I:3:ARG:HE	13:4I:9:ILE:HD11	1.67	0.59
26:1H:1102:C:H2'	26:1H:1103:A:C8	2.37	0.59
26:1H:1166:C:H2'	26:1H:1167:U:C6	2.37	0.59
26:1H:1262:A:N3	52:N8:10:LYS:HE3	2.17	0.59
26:1H:1454:U:H5	38:98:73:VAL:HG13	1.67	0.59
1:1G:406:G:O6	1:1G:436:C:N4	2.32	0.59
1:1G:677:U:H3	1:1G:713:G:H22	1.49	0.59
26:14:1329:U:H5"	26:14:1330:C:H5	1.67	0.59
36:35:63:PRO:HB3	54:M5:30:ARG:NH1	2.16	0.59
41:85:91:ASP:O	41:85:92:ARG:HG3	2.03	0.59
3:2E:20:SER:OG	3:2E:40:ARG:NH2	2.33	0.59
7:6E:62:PHE:CD1	7:6E:124:LEU:HD11	2.38	0.59
14:5I:15:LYS:HG2	14:5I:16:PHE:HD2	1.67	0.59
24:3K:6:G:O2'	24:3K:7:G:O4'	2.21	0.59
37:88:135:ASP:HB3	37:88:137:TYR:H	1.68	0.59
4:32:139:ARG:HH11	4:32:139:ARG:HG3	1.67	0.59
9:82:113:LYS:H	9:82:119:ALA:HB2	1.67	0.59
26:14:1336:A:H2'	26:14:1337:G:C8	2.38	0.59
26:14:2748:A:H2'	26:14:2749:A:H8	1.66	0.59
27:1J:50:G:OP1	39:65:62:LYS:HB2	2.03	0.59
38:55:38:VAL:HG12	38:55:42:LYS:HD2	1.85	0.59
45:C5:15:VAL:HG12	45:C5:21:LYS:HA	1.84	0.59
2:1E:7:VAL:HG11	2:1E:217:ARG:NH1	2.17	0.59
4:3E:150:GLU:HA	4:3E:153:ARG:HG2	1.84	0.59
29:21:70:ALA:O	29:21:73:GLU:N	2.35	0.59
31:41:113:ARG:HD2	51:M8:33:VAL:HG13	1.85	0.59
49:K8:50:ILE:HD12	49:K8:51:ARG:H	1.68	0.59
1:1G:382:A:H2'	1:1G:383:A:C8	2.37	0.59
1:1G:963:G:H21	10:1A:55:LYS:HE3	1.67	0.59
2:12:5:ILE:HA	2:12:221:LEU:HD11	1.85	0.59
26:14:459:U:H2'	26:14:460:A:H8	1.68	0.59
26:14:1534:G:H3'	26:14:1535:U:H5"	1.85	0.59
26:14:2158:A:H1'	26:14:2159:G:C8	2.37	0.59
29:29:89:ASP:CG	29:29:90:THR:H	2.11	0.59
33:69:14:ASP:OD1	33:69:15:VAL:N	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:69:100:ALA:O	33:69:104:GLN:HB3	2.03	0.59
1:13:861:G:H4'	8:7E:18:ARG:NH2	2.18	0.59
1:13:1348:U:H4'	9:8E:120:ARG:HD2	1.83	0.59
10:1I:8:LEU:HD22	10:1I:96:ILE:HG22	1.85	0.59
23:2K:19:G:O3'	23:2K:20:U:H2'	2.03	0.59
26:1H:443:A:H1'	26:1H:1201:C:O4'	2.02	0.59
26:1H:1171:G:N7	26:1H:1174:A:N6	2.51	0.59
38:98:48:VAL:HA	38:98:51:LEU:HB2	1.83	0.59
1:1G:1134:G:C2	1:1G:1135:U:H1'	2.38	0.59
1:1G:1154:G:H2'	1:1G:1155:G:C8	2.38	0.59
9:82:92:TYR:O	9:82:95:LYS:NZ	2.23	0.59
26:14:1364:G:OP1	48:F5:3:LYS:HD2	2.02	0.59
26:14:1639:U:H4'	26:14:2699:C:H4'	1.85	0.59
1:13:1034:G:N2	1:13:1035:A:N7	2.50	0.59
26:1H:1058:U:H3	26:1H:1080:A:N6	2.01	0.59
26:1H:2735:G:H2'	26:1H:2736:G:C8	2.37	0.59
27:16:30:C:H2'	27:16:31:C:H5'	1.84	0.59
29:21:2:LYS:HA	29:21:84:PHE:CD1	2.37	0.59
1:1G:9:G:OP1	5:42:122:GLU:HB2	2.02	0.59
1:1G:235:C:H5'	17:8A:70:ARG:HG2	1.85	0.59
5:42:24:ARG:NH1	5:42:24:ARG:HB3	2.17	0.59
9:82:17:VAL:HG22	9:82:63:ILE:HG12	1.85	0.59
10:1A:30:SER:HB2	10:1A:81:THR:HA	1.83	0.59
20:BA:54:LYS:HA	20:BA:57:ARG:HH12	1.68	0.59
23:2L:44:G:H2'	23:2L:45:U:O4'	2.03	0.59
26:14:467:G:OP1	53:L5:33:ARG:NH1	2.36	0.59
26:14:674:G:O2'	30:39:74:ARG:HG3	2.03	0.59
32:59:81:GLU:HG2	32:59:83:TYR:H	1.68	0.59
44:B5:36:LYS:HA	44:B5:39:ILE:HD12	1.83	0.59
49:G5:10:LEU:HD13	49:G5:59:ARG:HD2	1.85	0.59
1:13:57:G:H2'	1:13:58:C:C6	2.38	0.59
1:13:359:U:H2'	1:13:360:A:C8	2.37	0.59
1:13:651:C:H2'	1:13:652:U:C6	2.38	0.59
1:13:1130:A:O2'	9:8E:3:GLN:NE2	2.36	0.59
10:1I:5:ARG:HB2	10:1I:73:ASP:OD1	2.03	0.59
26:1H:2883:A:H5'	26:1H:2884:U:H5'	1.84	0.59
28:11:206:LEU:O	28:11:211:ARG:HD3	2.02	0.59
54:Q8:47:LYS:HD3	54:Q8:47:LYS:C	2.28	0.59
1:1G:1451:A:H5"	1:1G:1452:C:C5	2.38	0.59
3:22:150:LYS:NZ	3:22:152:ILE:HD11	2.18	0.59
4:32:31:CYS:C	4:32:33:MET:H	2.09	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:11:ASN:HB3	6:52:14:LEU:HD13	1.84	0.59
8:72:12:ARG:HD3	8:72:26:VAL:HG12	1.84	0.59
10:1A:17:ASP:OD2	10:1A:70:ARG:NH1	2.36	0.59
13:4A:80:ARG:NH1	19:AA:66:MET:HG2	2.17	0.59
26:14:708:C:H42	26:14:723:G:H1	1.51	0.59
26:14:2143:C:H2'	26:14:2144:U:H4'	1.83	0.59
30:39:7:TYR:HD1	30:39:18:ARG:H	1.51	0.59
1:13:166:G:H2'	1:13:167:G:C8	2.37	0.58
1:13:1167:A:H2'	1:13:1169:A:C8	2.38	0.58
4:3E:108:LEU:HD23	4:3E:110:PHE:HE1	1.68	0.58
13:4I:87:TYR:O	13:4I:91:ARG:HG2	2.02	0.58
26:1H:1021:A:H3'	26:1H:1021:A:H8	1.68	0.58
26:1H:1259:G:H2'	26:1H:1260:G:H8	1.68	0.58
26:1H:1899:G:N2	26:1H:1902:C:C5	2.71	0.58
26:1H:2099:U:H2'	26:1H:2100:G:C8	2.38	0.58
1:1G:1067:A:HO2'	1:1G:1093:A:HO2'	1.45	0.58
3:22:112:SER:HB3	3:22:115:LEU:HB2	1.85	0.58
11:2A:41:THR:OG1	11:2A:42:TRP:N	2.36	0.58
13:4A:29:ARG:HD2	13:4A:64:TRP:CE2	2.38	0.58
26:14:1066:U:H1'	26:14:1073:A:H61	1.68	0.58
36:35:122:PRO:HB3	36:35:141:ALA:HB1	1.85	0.58
13:4I:49:THR:HB	13:4I:52:GLU:HG3	1.85	0.58
26:1H:518:G:H2'	26:1H:519:U:H6	1.69	0.58
26:1H:945:A:OP2	26:1H:945:A:H4'	2.03	0.58
26:1H:1252:G:O4'	41:C8:33:ARG:HD3	2.03	0.58
26:1H:2150:U:H2'	26:1H:2151:G:C8	2.38	0.58
26:1H:2309:A:C5	26:1H:2310:A:C8	2.91	0.58
36:78:122:PRO:HA	36:78:142:GLY:HA3	1.84	0.58
54:Q8:28:GLY:HA2	54:Q8:31:HIS:NE2	2.18	0.58
1:1G:474:G:H2'	1:1G:475:G:C8	2.38	0.58
1:1G:1343:G:H2'	1:1G:1344:C:C6	2.38	0.58
2:12:166:ASP:OD2	2:12:169:LYS:HB2	2.02	0.58
26:14:996:A:H4'	41:85:92:ARG:CZ	2.33	0.58
26:14:1486:A:H2'	26:14:1487:G:C8	2.38	0.58
27:1J:50:G:OP1	39:65:63:THR:HG23	2.04	0.58
30:39:143:ALA:O	30:39:148:LEU:HB2	2.02	0.58
32:59:15:VAL:HG12	32:59:29:PRO:HD2	1.85	0.58
12:3I:110:VAL:HG23	12:3I:120:TYR:HB3	1.85	0.58
13:4I:15:VAL:HG23	13:4I:43:THR:O	2.03	0.58
14:5I:29:ARG:HH21	14:5I:42:ILE:HD11	1.66	0.58
26:1H:1512:G:H2'	26:1H:1513:C:C6	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2228:G:OP2	28:11:263:ARG:NH2	2.36	0.58
26:1H:2359:C:H5"	54:Q8:49:VAL:HG21	1.85	0.58
26:1H:2469:A:H61	26:1H:2481:G:H1'	1.68	0.58
32:51:83:TYR:HB3	32:51:134:SER:HA	1.86	0.58
1:1G:668:G:O2'	15:6A:46:HIS:HB3	2.04	0.58
1:1G:838:G:H1	1:1G:848:C:H42	1.51	0.58
1:1G:1122:U:O4	1:1G:1123:A:N6	2.37	0.58
23:2L:32:C:O2'	23:2L:33:U:OP1	2.15	0.58
26:14:1253:A:OP1	57:14:3839:HOH:O	2.17	0.58
26:14:1342:A:H2	26:14:1602:U:H3	1.51	0.58
26:14:2371:G:O6	57:14:3861:HOH:O	2.14	0.58
44:B5:67:GLY:C	44:B5:69:TYR:H	2.10	0.58
7:6E:111:ARG:HD2	7:6E:123:GLU:HB2	1.85	0.58
26:1H:71:A:C2	44:F8:31:HIS:CE1	2.91	0.58
26:1H:1657:C:H2'	26:1H:1658:C:H6	1.68	0.58
36:78:19:VAL:CB	36:78:27:HIS:HB2	2.33	0.58
3:22:129:ALA:HB3	3:22:132:ARG:HB3	1.85	0.58
8:72:99:GLU:OE2	8:72:100:ILE:N	2.21	0.58
10:1A:47:PHE:O	10:1A:63:PHE:N	2.24	0.58
13:4A:82:MET:SD	13:4A:83:ASP:N	2.76	0.58
21:1B:2:GLY:O	21:1B:4:GLY:N	2.36	0.58
23:2L:29:U:H2'	23:2L:30:A:H8	1.68	0.58
26:14:943:U:OP2	36:35:36:LYS:HG3	2.03	0.58
29:29:111:ARG:HB2	29:29:160:TYR:HB3	1.85	0.58
1:13:1348:U:H2'	1:13:1349:A:H8	1.69	0.58
9:8E:21:PRO:HA	9:8E:59:PHE:HA	1.86	0.58
16:7I:19:ILE:HB	16:7I:36:ILE:O	2.02	0.58
20:BI:86:ARG:HH12	20:BI:90:GLN:HB2	1.69	0.58
26:1H:729:G:OP2	28:11:13:ARG:NH1	2.29	0.58
26:1H:960:A:C8	26:1H:962:G:C8	2.91	0.58
26:1H:1386:C:H2'	26:1H:1387:C:C6	2.36	0.58
26:1H:2599:G:N7	28:11:237:GLU:HG2	2.19	0.58
28:11:85:ASP:OD2	28:11:88:ARG:NH1	2.27	0.58
4:32:24:GLU:HG2	4:32:25:ARG:H	1.67	0.58
11:2A:98:LEU:O	11:2A:101:SER:OG	2.14	0.58
26:14:67:U:H3	26:14:74:A:H2	1.50	0.58
26:14:221:A:N6	26:14:265:A:H8	2.00	0.58
26:14:2853:C:H2'	26:14:2854:G:C8	2.38	0.58
32:59:10:PRO:HD3	32:59:50:VAL:O	2.03	0.58
33:69:77:LEU:HD12	33:69:78:THR:H	1.68	0.58
34:15:67:LEU:O	34:15:88:GLU:HG3	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:5:LEU:HD13	19:AI:10:PHE:CD1	2.38	0.58
22:1K:18:G:H4'	22:1K:19:G:OP1	2.03	0.58
26:1H:1858:G:O2'	26:1H:1859:A:O5'	2.22	0.58
39:A8:58:LEU:HD12	39:A8:65:VAL:HG13	1.85	0.58
1:1G:353:A:H5'	1:1G:353:A:C8	2.34	0.58
1:1G:1043:C:H2'	1:1G:1044:A:H8	1.69	0.58
4:32:31:CYS:C	4:32:33:MET:N	2.59	0.58
26:14:1593:G:H2'	26:14:1594:G:C8	2.39	0.58
30:39:18:ARG:HG2	30:39:19:GLU:H	1.67	0.58
36:35:47:ASP:OD2	36:35:50:ARG:NH1	2.36	0.58
46:D5:48:PHE:HA	46:D5:51:ALA:HB3	1.84	0.58
1:13:758:G:O2'	1:13:759:A:H5'	2.04	0.58
1:13:975:A:H5'	1:13:975:A:H8	1.69	0.58
26:1H:2120:G:N2	26:1H:2178:C:O2	2.32	0.58
2:12:174:VAL:HG11	2:12:196:LEU:HD13	1.86	0.58
2:12:233:SER:HB2	2:12:234:PRO:HD2	1.85	0.58
24:3L:42:U:H2'	24:3L:43:A:H8	1.69	0.58
26:14:139:G:N2	26:14:141:A:N1	2.48	0.58
26:14:271:G:H2'	26:14:272:G:C8	2.39	0.58
26:14:2873:A:C8	38:55:5:LYS:HA	2.38	0.58
29:29:9:VAL:HA	40:75:3:ARG:HG3	1.85	0.58
31:49:4:ASP:OD2	51:I5:25:TYR:OH	2.22	0.58
47:E5:21:LEU:HD11	47:E5:41:ARG:NH1	2.19	0.58
1:13:17:U:H2'	1:13:18:C:C6	2.39	0.58
1:13:1239:A:O2'	7:6E:114:ARG:O	2.18	0.58
1:13:1366:C:H2'	1:13:1367:C:C6	2.39	0.58
4:3E:147:ALA:HB2	4:3E:182:LYS:HB3	1.85	0.58
6:5E:3:ARG:NH1	6:5E:38:GLU:OE2	2.36	0.58
8:7E:39:LEU:HB3	8:7E:45:ILE:HG12	1.85	0.58
12:3I:60:LEU:HB2	12:3I:64:TYR:HB2	1.86	0.58
21:1F:15:ARG:HH11	21:1F:15:ARG:HB2	1.68	0.58
26:1H:1264:G:OP1	52:N8:19:ARG:NH2	2.27	0.58
26:1H:1983:C:H2'	26:1H:1984:G:H5"	1.85	0.58
38:98:56:LYS:NZ	38:98:90:ARG:O	2.36	0.58
46:H8:3:TYR:O	46:H8:58:VAL:HG13	2.03	0.58
1:1G:222:U:H2'	1:1G:223:U:H6	1.67	0.58
1:1G:1142:G:H3'	1:1G:1143:G:H8	1.68	0.58
4:32:93:PHE:O	4:32:96:LEU:HB2	2.04	0.58
45:C5:52:SER:HA	45:C5:55:TYR:C	2.28	0.58
50:H5:7:LYS:HE2	50:H5:32:GLN:HG3	1.85	0.58
1:13:864:A:H3'	1:13:865:A:H8	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1349:A:H2'	1:13:1350:A:H8	1.69	0.58
3:2E:104:GLN:OE1	3:2E:107:GLN:NE2	2.37	0.58
5:4E:79:GLU:HG3	5:4E:93:PRO:HD2	1.85	0.58
7:6E:74:GLU:HG2	7:6E:91:VAL:HG22	1.85	0.58
26:1H:1523:U:H2'	26:1H:1524:G:O4'	2.04	0.58
30:31:197:ASP:O	30:31:199:TRP:N	2.37	0.58
49:K8:33:MET:HG3	49:K8:36:ARG:HH21	1.68	0.58
1:1G:736:C:H2'	1:1G:737:A:C8	2.39	0.58
7:62:67:GLU:OE2	7:62:70:LYS:NZ	2.36	0.58
26:14:459:U:H5"	53:L5:40:TRP:CE2	2.39	0.58
26:14:1534:G:H3'	26:14:1535:U:C5'	2.34	0.58
29:29:111:ARG:HA	38:55:2:ARG:HH12	1.68	0.58
1:13:376:G:H1	1:13:387:U:H3	1.51	0.58
1:13:1128:C:O2'	1:13:1129:C:H5"	2.02	0.58
7:6E:118:VAL:HG23	7:6E:122:HIS:NE2	2.19	0.58
26:1H:1913:A:H4'	26:1H:1914:C:H5"	1.86	0.58
26:1H:2131:G:H5"	26:1H:2133:G:H4'	1.86	0.58
26:1H:2467:C:O2	37:88:124:LYS:NZ	2.37	0.58
41:C8:83:LEU:HD13	41:C8:113:ALA:HB2	1.86	0.58
43:E8:29:LEU:HD21	43:E8:33:ARG:NH2	2.18	0.58
48:J8:82:LEU:H	48:J8:82:LEU:HD22	1.68	0.58
1:1G:720:C:H3'	1:1G:721:G:H2'	1.85	0.58
4:32:157:LEU:HD12	4:32:161:ASN:HD21	1.69	0.58
20:BA:26:ASN:O	20:BA:30:LYS:HB2	2.03	0.58
23:2L:44:G:H5'	23:2L:44:G:H8	1.68	0.58
26:14:662:G:OP1	36:35:14:LYS:NZ	2.20	0.58
26:14:1388:G:H2'	26:14:1389:G:H8	1.68	0.58
26:14:1794:U:H2'	26:14:1795:C:C6	2.38	0.58
1:13:486:U:H2'	1:13:487:A:C8	2.38	0.57
1:13:861:G:H4'	8:7E:18:ARG:HH21	1.68	0.57
2:1E:211:ILE:HA	2:1E:214:ILE:HD12	1.86	0.57
24:3K:21:A:N6	24:3K:46:G:H1'	2.19	0.57
26:1H:1657:C:H2'	26:1H:1658:C:C6	2.38	0.57
26:1H:1814:G:O6	57:1H:3815:HOH:O	2.17	0.57
26:1H:2360:A:OP1	54:Q8:49:VAL:HB	2.03	0.57
29:21:116:VAL:O	29:21:117:MET:HB3	2.04	0.57
1:1G:345:C:H1'	1:1G:346:G:C2	2.39	0.57
23:2L:38:1MG:H2'	23:2L:39:PSU:C6	2.39	0.57
26:14:30:G:H2'	26:14:31:C:C6	2.39	0.57
26:14:1418:G:OP1	26:14:1588:C:O2'	2.22	0.57
26:14:2343:C:HO2'	26:14:2373:G:HO2'	1.48	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2849:U:H1'	26:14:2866:U:O2	2.04	0.57
30:39:78:ILE:HA	30:39:83:PHE:CD2	2.39	0.57
30:39:146:ALA:HB1	30:39:148:LEU:HG	1.86	0.57
46:D5:52:SER:O	46:D5:54:HIS:N	2.36	0.57
50:H5:39:ASP:O	50:H5:44:ARG:NH2	2.36	0.57
1:13:1412:C:H2'	1:13:1413:A:C8	2.39	0.57
9:8E:97:LYS:HB2	9:8E:102:LEU:HD12	1.85	0.57
12:3I:58:VAL:O	12:3I:65:GLU:HA	2.04	0.57
26:1H:1932:A:H2'	26:1H:1933:G:O4'	2.03	0.57
26:1H:2331:G:O3'	47:I8:43:THR:HG22	2.03	0.57
27:16:12:C:O2	47:I8:74:ARG:NH1	2.35	0.57
31:41:35:GLU:OE1	31:41:36:LYS:N	2.37	0.57
32:51:43:VAL:HB	32:51:52:VAL:HG23	1.85	0.57
32:51:83:TYR:HD1	32:51:84:SER:H	1.50	0.57
32:51:86:GLU:HG2	32:51:87:LEU:H	1.68	0.57
11:2A:57:THR:HG22	11:2A:59:TYR:H	1.69	0.57
23:2L:38:1MG:H2'	23:2L:39:PSU:H6	1.69	0.57
24:3L:31:C:O2	24:3L:41:G:N2	2.34	0.57
26:14:848:G:C4	26:14:933:A:H8	2.22	0.57
26:14:2698:U:H2'	26:14:2699:C:C6	2.38	0.57
32:59:74:ASN:O	32:59:78:GLY:N	2.38	0.57
32:59:129:THR:HB	32:59:130:ARG:HG3	1.86	0.57
33:69:14:ASP:O	33:69:17:GLN:HB2	2.03	0.57
1:13:670:G:H21	6:5E:73:ASN:HD21	1.52	0.57
1:13:1006:C:O2	1:13:1023:G:N2	2.33	0.57
16:7I:51:VAL:HG21	16:7I:74:LEU:HD21	1.85	0.57
26:1H:84:A:OP2	45:G8:8:LYS:NZ	2.28	0.57
26:1H:771:G:OP1	53:P8:10:ARG:NH1	2.38	0.57
26:1H:833:U:O2	36:78:55:ARG:NH1	2.36	0.57
26:1H:1141:U:H6	34:58:63:THR:HG1	1.49	0.57
26:1H:2857:G:N2	26:1H:2860:A:OP2	2.31	0.57
26:1H:2867:G:OP2	40:B8:119:LYS:NZ	2.27	0.57
28:11:2:ALA:HB1	28:11:200:ASP:OD2	2.03	0.57
33:61:29:TYR:C	33:61:32:PRO:HD2	2.29	0.57
1:1G:963:G:H21	10:1A:55:LYS:CE	2.17	0.57
19:AA:9:VAL:HG13	51:I5:63:TYR:CE1	2.39	0.57
26:14:2365:G:O6	54:M5:39:LYS:NZ	2.37	0.57
26:14:2819:G:O6	57:14:4000:HOH:O	2.16	0.57
26:14:2861:G:C2	26:14:2862:G:C4	2.92	0.57
26:1H:1013:C:H42	26:1H:1149:G:H1	1.50	0.57
26:1H:1055:G:O2'	26:1H:1086:A:N6	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2840:C:H5”	38:98:53:HIS:CD2	2.39	0.57
28:11:72:LYS:HG2	28:11:103:ARG:NH2	2.19	0.57
29:21:67:PHE:O	29:21:69:LYS:HD2	2.04	0.57
32:51:4:ILE:C	32:51:6:ARG:H	2.12	0.57
12:3A:52:LEU:O	12:3A:54:LYS:NZ	2.23	0.57
26:14:2853:C:H2’	26:14:2854:G:H8	1.68	0.57
31:49:161:THR:HG22	31:49:163:ALA:H	1.69	0.57
1:13:690:G:H2’	1:13:691:G:O4’	2.04	0.57
1:13:1286:A:H2’	1:13:1287:A:H4’	1.85	0.57
26:1H:1538:G:H2’	26:1H:1539:G:H8	1.70	0.57
57:1H:3907:HOH:O	30:31:55:GLY:HA2	2.04	0.57
30:31:29:ASN:H	30:31:112:MET:CE	2.17	0.57
31:41:37:VAL:HG23	31:41:99:MET:HE3	1.86	0.57
31:41:173:LEU:HB3	31:41:178:PHE:HD2	1.69	0.57
49:K8:15:LYS:H	49:K8:15:LYS:HE3	1.70	0.57
51:M8:43:TYR:CG	51:M8:44:THR:N	2.72	0.57
1:1G:1106:G:H5”	3:22:172:ARG:HG2	1.86	0.57
4:32:24:GLU:OE1	4:32:112:VAL:HG21	2.04	0.57
26:14:1188:U:H4’	42:95:79:VAL:HG12	1.87	0.57
26:14:2121:G:O6	26:14:2177:C:N4	2.37	0.57
26:14:2414:G:H21	36:35:67:MET:CE	2.17	0.57
26:14:2873:A:H8	38:55:6:SER:H	1.49	0.57
29:29:182:LEU:O	29:29:183:LEU:HD12	2.04	0.57
1:13:108:G:H5”	1:13:109:A:H5”	1.84	0.57
1:13:1510:U:H2’	1:13:1511:G:C8	2.40	0.57
6:5E:45:LEU:HD12	6:5E:59:TYR:HD2	1.69	0.57
32:51:3:ARG:HH21	32:51:7:LEU:HD11	1.69	0.57
32:51:4:ILE:HD13	32:51:4:ILE:H	1.68	0.57
35:68:75:SER:HB2	40:B8:74:ARG:HH12	1.69	0.57
44:F8:32:PRO:HA	44:F8:77:LYS:HD2	1.86	0.57
51:M8:16:CYS:SG	51:M8:17:GLY:N	2.75	0.57
1:1G:689:C:H2’	1:1G:690:G:H5’	1.87	0.57
1:1G:1126:U:C4	1:1G:1281:U:C6	2.92	0.57
26:14:71:A:H5’	26:14:71:A:C8	2.40	0.57
26:14:244:A:C2	26:14:255:A:C4	2.92	0.57
26:14:1386:C:H2’	26:14:1387:C:C6	2.39	0.57
26:14:2318:G:N2	39:65:3:ARG:HG2	2.20	0.57
28:19:32:SER:O	28:19:33:LEU:HB2	2.04	0.57
39:65:89:ARG:O	39:65:92:TYR:N	2.38	0.57
49:G5:25:VAL:HA	49:G5:28:LYS:HB2	1.86	0.57
1:13:624:C:H2’	1:13:625:G:C8	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:139:LEU:HA	5:4E:142:LEU:HD12	1.86	0.57
9:8E:47:LEU:H	9:8E:47:LEU:HD22	1.70	0.57
12:3I:66:VAL:HG22	12:3I:67:THR:H	1.69	0.57
26:1H:732:C:H3'	57:1H:3837:HOH:O	2.05	0.57
29:21:119:ARG:HD3	29:21:160:TYR:HB2	1.86	0.57
33:61:63:ALA:HA	33:61:66:GLU:HG2	1.86	0.57
33:61:124:GLY:H	33:61:142:VAL:HG23	1.69	0.57
38:98:12:ARG:O	38:98:17:ARG:NH2	2.37	0.57
40:B8:26:ASP:HB2	40:B8:91:ARG:HA	1.86	0.57
50:L8:9:VAL:HG22	50:L8:54:VAL:HA	1.86	0.57
52:N8:30:LEU:HD23	52:N8:41:PRO:HA	1.84	0.57
1:1G:920:U:H2'	1:1G:921:U:C6	2.39	0.57
1:1G:1016:A:O2'	1:1G:1217:C:O2'	2.21	0.57
1:1G:1117:G:H4'	9:82:104:ARG:HD2	1.86	0.57
1:1G:1239:A:H4'	1:1G:1240:U:H5'	1.85	0.57
24:3L:6:G:O2'	24:3L:7:G:O4'	2.23	0.57
26:14:2471:C:N4	26:14:2476:A:O2'	2.38	0.57
28:19:17:THR:O	28:19:211:ARG:NH2	2.37	0.57
29:29:68:ALA:C	29:29:70:ALA:H	2.13	0.57
34:15:35:ARG:HB2	34:15:42:TRP:CZ3	2.39	0.57
40:75:8:LYS:HA	40:75:8:LYS:HZ2	1.69	0.57
1:13:1227:A:OP1	19:AI:80:TYR:OH	2.16	0.57
26:1H:1515:C:H2'	26:1H:1516:U:H6	1.69	0.57
29:21:105:THR:HG22	29:21:106:GLY:H	1.70	0.57
36:78:100:LEU:HD23	36:78:112:LEU:HD11	1.86	0.57
40:B8:54:ARG:HA	40:B8:59:THR:HB	1.86	0.57
1:1G:146:G:H2'	1:1G:147:G:H8	1.69	0.57
26:14:1062:G:H21	26:14:1088:A:H2	1.52	0.57
26:14:2280:G:O2'	26:14:2388:A:N1	2.35	0.57
40:75:23:ARG:HG3	40:75:120:ARG:NH1	2.20	0.57
47:E5:36:ILE:HD11	47:E5:39:ARG:HG2	1.85	0.57
1:13:600:C:H2'	1:13:601:C:C6	2.40	0.57
1:13:614:A:H2'	1:13:615:C:C6	2.40	0.57
1:13:1440:C:H2'	1:13:1441:G:O4'	2.04	0.57
26:1H:1899:G:N2	26:1H:1902:C:H41	1.97	0.57
34:58:96:GLU:O	34:58:98:VAL:HG12	2.04	0.57
38:98:33:ARG:HG3	38:98:115:GLU:HB3	1.86	0.57
16:7A:19:ILE:HB	16:7A:36:ILE:O	2.04	0.57
26:14:651:G:OP2	54:M5:21:LYS:NZ	2.32	0.57
26:14:2138:C:O2'	26:14:2154:G:N2	2.36	0.57
26:14:2232:U:OP2	48:F5:40:ARG:NH2	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:65:41:ASP:HB2	39:65:48:LEU:HD21	1.87	0.57
39:65:106:ARG:NH1	39:65:107:GLU:OE1	2.37	0.57
41:85:92:ARG:CD	41:85:94:ASN:HB3	2.31	0.57
47:E5:53:MET:HG3	47:E5:59:LEU:HD23	1.87	0.57
10:1I:89:ASP:N	10:1I:89:ASP:OD1	2.37	0.57
12:3I:38:THR:HG22	12:3I:39:VAL:HG23	1.87	0.57
26:1H:1107:G:H2'	26:1H:1108:U:C6	2.39	0.57
26:1H:2125:G:H21	26:1H:2173:A:H62	1.52	0.57
43:E8:19:LEU:HB3	52:N8:25:LEU:HD12	1.85	0.57
54:Q8:13:ARG:O	54:Q8:23:VAL:HG23	2.05	0.57
1:1G:1499:A:H1'	1:1G:1520:G:H5'	1.87	0.57
3:22:150:LYS:HG3	3:22:169:ALA:HB2	1.87	0.57
6:52:67:MET:HE1	6:52:75:LEU:HD22	1.87	0.57
23:2L:19:G:H3'	23:2L:19:G:OP2	2.04	0.57
26:14:38:A:H2'	26:14:39:C:C6	2.40	0.57
26:14:1138:G:H21	34:15:106:MET:CE	2.18	0.57
26:14:2319:G:N2	26:14:2334:G:OP1	2.33	0.57
26:14:2324:C:H5"	26:14:2325:G:H5'	1.86	0.57
26:14:2427:C:H5"	26:14:2428:G:OP1	2.05	0.57
33:69:26:ALA:O	33:69:31:LEU:HB2	2.05	0.57
38:55:84:ALA:N	38:55:85:PRO:HD2	2.20	0.57
26:1H:665:C:H2'	26:1H:666:G:C8	2.40	0.56
26:1H:2475:C:H4'	26:1H:2476:A:OP1	2.05	0.56
30:31:32:LEU:HD21	30:31:105:VAL:HG13	1.86	0.56
33:61:83:ALA:HB2	33:61:144:VAL:HG23	1.87	0.56
49:K8:15:LYS:HE3	49:K8:15:LYS:N	2.20	0.56
16:7A:72:ARG:HD2	16:7A:73:LEU:HD23	1.87	0.56
23:2L:2:C:H2'	23:2L:3:C:H6	1.70	0.56
26:14:363:G:H2'	26:14:363(A):A:C8	2.39	0.56
26:14:2126:A:H2	26:14:2162:G:H22	1.52	0.56
26:14:2165:G:OP2	26:14:2166:G:N2	2.38	0.56
51:I5:42:PHE:O	51:I5:43:TYR:HB3	2.04	0.56
1:13:186:C:H2'	1:13:186(A):C:C6	2.40	0.56
1:13:243:A:H4'	1:13:244:U:H5"	1.87	0.56
18:9I:31:LEU:HD12	18:9I:65:ILE:HB	1.86	0.56
26:1H:503:A:H4'	26:1H:504:U:H5'	1.87	0.56
26:1H:2159:G:H2'	26:1H:2160:G:O4'	2.05	0.56
26:1H:2408:U:H2'	26:1H:2409:G:C8	2.39	0.56
27:16:21:G:H1	27:16:62:C:N4	1.99	0.56
31:41:67:LYS:HE2	51:M8:6:HIS:CE1	2.40	0.56
1:1G:1043:C:H2'	1:1G:1044:A:C8	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1321:C:H3'	1:1G:1322:C:H5"	1.87	0.56
2:12:70:PHE:HB2	2:12:92:TYR:CB	2.35	0.56
25:4L:35:A:H2'	25:4L:36:G:C8	2.40	0.56
26:14:443:A:H5"	26:14:444:C:OP1	2.05	0.56
26:14:910:A:N7	37:45:13:GLN:HG3	2.20	0.56
26:14:2314:C:H5'	31:49:38:VAL:HG11	1.85	0.56
1:13:537:G:H5"	12:3I:113:ARG:NH1	2.21	0.56
1:13:559:A:OP1	5:4E:126:ARG:NH2	2.38	0.56
1:13:1004:A:P	1:13:1025:U:H3	2.29	0.56
1:13:1122:U:O4	1:13:1123:A:N6	2.38	0.56
4:3E:152:SER:HB3	4:3E:155:LEU:HD12	1.87	0.56
9:8E:48:GLU:N	9:8E:49:PRO:HD2	2.19	0.56
18:9I:38:GLU:HA	18:9I:41:LYS:HE3	1.85	0.56
26:1H:507:A:H5"	26:1H:508:G:H3'	1.85	0.56
26:1H:566:U:OP1	36:78:29:LYS:NZ	2.38	0.56
26:1H:1332:G:H21	26:1H:1610:A:H8	1.54	0.56
26:1H:2306:C:H3'	26:1H:2307:G:H5'	1.87	0.56
26:1H:2793:G:N2	26:1H:2804:C:O2	2.38	0.56
36:78:59:LEU:HD21	54:Q8:10:ALA:HB2	1.88	0.56
38:98:10:LEU:O	38:98:12:ARG:HG2	2.03	0.56
51:M8:16:CYS:SG	51:M8:36:CYS:N	2.78	0.56
1:1G:957:U:H1'	1:1G:960:U:C5	2.40	0.56
1:1G:1028(A):C:H2'	1:1G:1028(B):C:H5"	1.87	0.56
1:1G:1086:U:H3	1:1G:1099:G:H22	1.53	0.56
2:12:9:GLU:HB2	2:12:217:ARG:HH12	1.69	0.56
7:62:15:ASP:O	7:62:19:GLY:HA2	2.05	0.56
10:1A:48:THR:HG1	10:1A:62:HIS:HD1	1.33	0.56
12:3A:47:LYS:O	12:3A:49:ASN:N	2.37	0.56
17:8A:57:VAL:HG12	17:8A:76:LEU:HA	1.88	0.56
26:14:221:A:H61	26:14:265:A:H8	1.53	0.56
26:14:1331:A:O2'	26:14:1332:G:H8	1.87	0.56
26:14:1581:G:H2'	26:14:1582:C:O4'	2.05	0.56
26:14:2873:A:H8	38:55:6:SER:N	2.03	0.56
28:19:228:PRO:HD3	28:19:234:GLY:O	2.05	0.56
46:D5:126:VAL:HA	46:D5:163:LEU:HA	1.86	0.56
51:I5:13:ARG:HA	51:I5:22:ILE:HB	1.87	0.56
1:13:76:G:H2'	1:13:77:C:H5'	1.86	0.56
3:2E:188:LEU:HD13	3:2E:195:VAL:HG11	1.87	0.56
18:9I:53:ARG:HA	18:9I:56:THR:HG23	1.88	0.56
23:2K:87:A:N3	23:2K:87:A:H2'	2.21	0.56
26:1H:780:G:H21	26:1H:783:A:N6	2.00	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:782:A:H5'	26:1H:783:A:C2	2.40	0.56
1:1G:632:A:H4'	1:1G:633:G:O5'	2.05	0.56
1:1G:998:G:H22	1:1G:1043:C:N4	2.01	0.56
1:1G:1497:G:C2'	1:1G:1498:U:H5'	2.36	0.56
1:1G:1524:C:H2'	1:1G:1525:G:C8	2.40	0.56
9:82:97:LYS:HD3	9:82:102:LEU:HB2	1.85	0.56
13:4A:33:ALA:O	13:4A:37:THR:OG1	2.14	0.56
26:14:127:A:H5"	26:14:128:C:C6	2.40	0.56
26:14:1786:A:C2	26:14:2606:C:H1'	2.40	0.56
52:J5:46:CYS:SG	52:J5:48:GLU:HG2	2.45	0.56
1:13:173:U:H5"	1:13:197:A:O4'	2.05	0.56
7:6E:5:ARG:HG2	7:6E:7:ALA:H	1.71	0.56
24:3K:17:U:O2'	24:3K:68:A:N1	2.34	0.56
26:1H:120:U:OP2	57:1H:3889:HOH:O	2.18	0.56
26:1H:862:G:OP2	57:1H:3781:HOH:O	2.18	0.56
26:1H:1266:G:O5'	43:E8:15:ARG:NH2	2.39	0.56
26:1H:1901:A:OP2	28:11:255:LYS:HE2	2.06	0.56
27:16:15:A:H5'	27:16:16:G:H8	1.70	0.56
39:A8:87:PHE:CE2	39:A8:102:ALA:HB2	2.40	0.56
44:F8:12:VAL:HG13	44:F8:27:THR:O	2.06	0.56
1:1G:401:C:H2'	1:1G:402:G:C8	2.40	0.56
1:1G:843:U:H3'	1:1G:848:C:O4'	2.06	0.56
26:14:357:A:H8	26:14:357:A:O5'	1.89	0.56
26:14:859:G:O2'	26:14:916:G:O6	2.17	0.56
26:14:1200:C:H5'	57:14:3972:HOH:O	2.04	0.56
30:39:123:LEU:O	30:39:193:VAL:HA	2.05	0.56
30:39:130:ALA:H	30:39:142:TRP:CD1	2.23	0.56
1:13:750:G:N3	15:6I:23:GLY:HA3	2.21	0.56
1:13:1360:A:H2'	1:13:1361:G:O4'	2.05	0.56
9:8E:112:LYS:HD2	9:8E:113:LYS:N	2.20	0.56
26:1H:248:G:H5'	26:1H:250:G:N7	2.19	0.56
26:1H:357:A:H2'	26:1H:358:U:H6	1.70	0.56
26:1H:818:G:H5'	26:1H:839:U:OP1	2.05	0.56
26:1H:1533:C:H2'	26:1H:1534:G:C2	2.41	0.56
26:1H:2091:U:O4	57:1H:4142:HOH:O	2.14	0.56
37:88:85:LYS:HG3	47:I8:7:LEU:HD13	1.88	0.56
50:L8:38:GLU:CD	50:L8:38:GLU:H	2.14	0.56
3:22:61:ALA:C	3:22:63:ASN:H	2.14	0.56
26:14:221:A:N6	26:14:265:A:C8	2.73	0.56
26:14:299:A:N1	26:14:322:A:O2'	2.38	0.56
26:14:698:C:O2'	26:14:734:A:N6	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1198:U:H2'	26:14:1199:U:H6	1.71	0.56
26:14:1665:A:H1'	35:25:1:MET:HG2	1.88	0.56
26:14:2006:C:O2'	26:14:2823:A:N3	2.37	0.56
26:14:2128:C:H42	26:14:2160:G:N2	2.04	0.56
28:19:177:LEU:HD11	28:19:183:ARG:HD2	1.88	0.56
36:35:8:PRO:HB2	36:35:12:ALA:HB3	1.87	0.56
48:F5:86:SER:N	48:F5:87:PRO:HD2	2.20	0.56
52:J5:16:ARG:HG3	52:J5:17:ASP:N	2.19	0.56
1:13:639:G:H2'	1:13:640:A:H8	1.70	0.56
20:BI:53:LEU:O	20:BI:57:ARG:HD3	2.05	0.56
26:1H:607:U:N3	26:1H:621:A:H2	1.97	0.56
26:1H:1063:G:N1	26:1H:1076:C:O2'	2.38	0.56
29:21:78:LEU:O	29:21:79:ARG:HB2	2.06	0.56
36:78:83:VAL:HG12	36:78:112:LEU:HD21	1.86	0.56
37:88:20:ALA:HB1	37:88:99:PRO:HB2	1.88	0.56
43:E8:18:ARG:HH11	43:E8:76:VAL:HG22	1.70	0.56
54:Q8:54:GLU:O	54:Q8:56:GLU:N	2.39	0.56
1:1G:539:A:H2'	1:1G:540:G:H8	1.69	0.56
1:1G:1216:G:H5"	14:5A:5:ALA:HB3	1.87	0.56
1:1G:1238:A:H62	1:1G:1301:U:H3	1.53	0.56
1:1G:1312:G:H2'	1:1G:1313:U:C6	2.40	0.56
22:1L:63:G:N2	22:1L:73:C:O2	2.29	0.56
26:14:642:G:N2	26:14:645:C:OP2	2.37	0.56
26:14:1556:C:H2'	26:14:1557:C:C6	2.37	0.56
26:14:1688:U:O2	26:14:1700:A:H5'	2.05	0.56
52:J5:6:VAL:HG22	52:J5:7:PRO:HD2	1.86	0.56
1:13:145:G:H2'	1:13:146:G:H8	1.71	0.56
1:13:1304:G:N2	1:13:1332:A:OP2	2.30	0.56
1:13:1441:G:H21	1:13:1460:A:H62	1.52	0.56
9:8E:26:VAL:HB	9:8E:33:PHE:HB2	1.88	0.56
14:5I:21:TYR:OH	14:5I:23:ARG:NH2	2.39	0.56
26:1H:631:A:OP1	36:78:65:ARG:NH2	2.21	0.56
26:1H:2121:G:H1	26:1H:2177:C:H42	1.53	0.56
30:31:33:LEU:HB3	36:78:6:LEU:HD11	1.86	0.56
33:61:110:ASP:OD1	33:61:111:PRO:HA	2.06	0.56
54:Q8:57:ARG:HD3	54:Q8:57:ARG:N	2.21	0.56
1:1G:1297:C:OP1	13:4A:44:ARG:NH2	2.21	0.56
2:12:7:VAL:HG13	2:12:8:LYS:HG3	1.86	0.56
7:62:69:VAL:HG22	7:62:135:VAL:HG23	1.87	0.56
22:1L:31:C:H2'	22:1L:32:C:H6	1.71	0.56
26:14:752:A:H3'	53:L5:1:MET:SD	2.46	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1054:A:H2'	26:14:1055:G:H8	1.70	0.56
26:14:2543:G:H2'	26:14:2544:G:C8	2.41	0.56
26:14:2761:G:H1'	32:59:143:GLN:HE22	1.70	0.56
36:35:101:VAL:HA	36:35:105:LEU:O	2.06	0.56
48:F5:29:GLY:O	48:F5:30:VAL:HG22	2.06	0.56
5:4E:72:GLN:HE22	5:4E:144:THR:HG22	1.71	0.56
10:1I:22:LYS:NZ	10:1I:90:LEU:HB2	2.21	0.56
17:8I:67:LYS:HA	17:8I:70:ARG:HH12	1.71	0.56
26:1H:130:C:O3'	26:1H:1349:A:H1'	2.06	0.56
26:1H:523:C:O2	26:1H:553:U:O2'	2.24	0.56
26:1H:825:C:O2	36:78:55:ARG:NH2	2.39	0.56
30:31:63:LYS:HE3	30:31:67:GLN:HB2	1.88	0.56
33:61:117:GLU:OE2	33:61:117:GLU:N	2.38	0.56
36:78:82:GLY:HA2	36:78:113:LYS:O	2.06	0.56
36:78:116:GLY:H	36:78:134:ALA:HB2	1.70	0.56
1:1G:158:G:H1	1:1G:163:C:H42	1.54	0.56
1:1G:1143:G:H2'	1:1G:1144:G:C8	2.41	0.56
18:9A:37:VAL:HA	18:9A:40:LEU:HB2	1.87	0.56
26:14:1430:C:H2'	26:14:1431:U:C6	2.41	0.56
26:14:1677:A:H2'	26:14:1678:G:C8	2.41	0.56
26:14:2156:G:N7	26:14:2157:G:N2	2.54	0.56
26:14:2469:A:O2'	37:45:56:ARG:HG2	2.06	0.56
29:29:147:PRO:HB2	29:29:149:ARG:HG2	1.88	0.56
26:1H:660:G:H21	36:78:12:ALA:HA	1.71	0.56
26:1H:1068:G:H1'	26:1H:1096:A:H1'	1.87	0.56
26:1H:1169:G:H1	26:1H:1180:C:H42	1.53	0.56
26:1H:1503:U:H2'	26:1H:1504:C:C6	2.40	0.56
26:1H:1534:G:H22	26:1H:1538:G:H22	1.53	0.56
41:C8:88:ILE:O	41:C8:90:VAL:N	2.39	0.56
1:1G:464:G:C6	1:1G:466:C:H5'	2.41	0.56
1:1G:523:A:H61	12:3A:92:ASP:HB2	1.71	0.56
1:1G:1522:U:H2'	1:1G:1523:G:H8	1.70	0.56
21:1B:8:THR:HB	21:1B:11:GLY:H	1.70	0.56
26:14:568:U:N3	57:14:3987:HOH:O	2.32	0.56
26:14:1087:G:H2'	26:14:1089:G:H1'	1.88	0.56
26:14:2020:A:O2'	26:14:2021:C:H5'	2.05	0.56
26:14:2209:C:O2	26:14:2216:G:C2	2.59	0.56
49:G5:47:ASN:C	49:G5:49:LYS:H	2.14	0.56
1:13:413:G:N2	1:13:428:G:H1'	2.21	0.55
1:13:1410:G:H2'	1:13:1411:C:H6	1.72	0.55
19:AI:40:ILE:HG12	19:AI:41:VAL:N	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:994:C:H3'	41:C8:54:LYS:HE3	1.88	0.55
26:1H:2305:A:H1'	31:41:136:ARG:NH1	2.21	0.55
26:1H:2485:G:H5"	37:88:46:GLN:NE2	2.21	0.55
30:31:67:GLN:HG3	30:31:67:GLN:O	2.05	0.55
42:D8:31:ALA:O	42:D8:60:GLU:HG2	2.05	0.55
1:1G:1125:U:O4	10:1A:5:ARG:NH2	2.40	0.55
1:1G:1285:A:H4'	1:1G:1286:A:O5'	2.06	0.55
4:32:7:PRO:HB2	4:32:10:ARG:HD2	1.88	0.55
4:32:98:GLU:OE2	4:32:103:ASN:ND2	2.34	0.55
22:1L:61:C:H42	22:1L:75:G:H1	1.52	0.55
27:1J:48:A:H4'	39:65:95:HIS:CD2	2.33	0.55
30:39:25:PRO:C	30:39:27:GLU:N	2.64	0.55
46:D5:52:SER:O	46:D5:52:SER:OG	2.20	0.55
47:E5:27:GLU:HG3	47:E5:68:GLU:HA	1.88	0.55
1:13:746:A:H2'	1:13:747:C:C6	2.41	0.55
1:13:748:C:H4'	1:13:749:C:O5'	2.06	0.55
1:13:953:G:H2'	1:13:954:G:O4'	2.06	0.55
5:4E:84:PHE:HB3	5:4E:134:ALA:HB2	1.88	0.55
26:1H:873:G:H1'	37:88:29:PHE:HE2	1.71	0.55
26:1H:1021:A:OP2	34:58:65:LYS:NZ	2.27	0.55
26:1H:1026:U:O2'	26:1H:1027:A:O5'	2.20	0.55
30:31:65:TRP:CZ3	30:31:72:ARG:HB3	2.41	0.55
53:P8:30:VAL:O	53:P8:34:ARG:HG3	2.06	0.55
1:1G:1347:G:N7	9:82:107:ARG:NH1	2.55	0.55
3:22:70:VAL:HG12	3:22:72:LYS:N	2.21	0.55
17:8A:48:GLU:HB2	17:8A:50:LYS:HB2	1.88	0.55
26:14:333:G:H5"	26:14:334:C:OP2	2.06	0.55
27:1J:63:G:H2'	27:1J:64:C:C6	2.42	0.55
28:19:75:ILE:H	28:19:75:ILE:HD12	1.70	0.55
30:39:57:VAL:HG11	30:39:79:GLY:HA3	1.88	0.55
33:69:4:ILE:HG21	33:69:47:LEU:HD13	1.88	0.55
1:13:673:G:H2'	1:13:674:G:C8	2.41	0.55
5:4E:126:ARG:HG3	5:4E:126:ARG:HH11	1.70	0.55
12:3I:91:LYS:HG3	12:3I:91:LYS:O	2.06	0.55
16:7I:71:ARG:O	16:7I:75:ARG:N	2.39	0.55
26:1H:1510:A:OP1	26:1H:1511:A:H5'	2.06	0.55
26:1H:1516:U:H2'	26:1H:1517:G:H8	1.71	0.55
26:1H:1533:C:H3'	26:1H:1534:G:C5'	2.36	0.55
26:1H:2611:U:H6	26:1H:2611:U:H5'	1.70	0.55
57:1H:4089:HOH:O	48:J8:65:SER:HB3	2.05	0.55
27:16:73:A:H5'	27:16:74:U:OP2	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:88:59:ARG:C	37:88:61:GLY:H	2.14	0.55
45:G8:55:TYR:N	45:G8:56:PRO:HD3	2.21	0.55
54:Q8:50:LEU:C	54:Q8:52:LYS:N	2.58	0.55
1:1G:158:G:N2	1:1G:163:C:N3	2.50	0.55
1:1G:229:U:O2'	16:7A:23:ASP:OD2	2.20	0.55
1:1G:1126:U:N3	1:1G:1281:U:O4'	2.39	0.55
6:52:86:ARG:O	6:52:87:ARG:HG2	2.07	0.55
7:62:20:ASP:HB3	7:62:23:VAL:HG23	1.88	0.55
11:2A:98:LEU:HA	11:2A:101:SER:HB3	1.88	0.55
26:14:1060:U:H4'	26:14:1061:U:C5'	2.35	0.55
26:14:1141:U:H2'	34:15:63:THR:HG21	1.88	0.55
26:14:1174:A:N6	26:14:1177:A:H4'	2.22	0.55
37:45:35:VAL:HG12	37:45:36:ALA:H	1.70	0.55
37:45:38:GLU:HG3	37:45:127:ILE:HG22	1.89	0.55
37:45:60:ARG:HH11	37:45:61:GLY:HA2	1.71	0.55
38:55:45:ARG:HA	38:55:95:THR:HG21	1.88	0.55
54:M5:37:SER:HB2	54:M5:39:LYS:O	2.06	0.55
1:13:328:C:H4'	1:13:329:A:C5'	2.36	0.55
1:13:674:G:H2'	1:13:675:A:H8	1.71	0.55
1:13:916:G:H2'	1:13:917:G:H8	1.71	0.55
16:7I:9:PHE:HE2	16:7I:18:ARG:HH21	1.54	0.55
23:2K:73:C:H2'	23:2K:74:C:H6	1.71	0.55
26:1H:573:G:O2'	26:1H:574:C:H3'	2.06	0.55
26:1H:958:U:OP2	37:88:14:ARG:NH1	2.38	0.55
26:1H:1339:G:N2	26:1H:1603:A:H1'	2.22	0.55
26:1H:1688:U:H2'	26:1H:1698:A:N6	2.22	0.55
26:1H:2103:C:H2'	26:1H:2104:G:C8	2.42	0.55
30:31:158:THR:HG23	30:31:160:ASN:H	1.70	0.55
36:78:18:ARG:O	36:78:19:VAL:HG13	2.06	0.55
40:B8:84:GLN:HG2	40:B8:85:LYS:HG2	1.87	0.55
11:2A:48:ILE:HD11	11:2A:64:ALA:HA	1.89	0.55
12:3A:58:VAL:O	12:3A:65:GLU:HA	2.05	0.55
14:5A:29:ARG:HB3	14:5A:31:ARG:H	1.70	0.55
26:14:907:U:O2'	37:45:101:ARG:NH2	2.36	0.55
26:14:1885:A:H5'	26:14:1886:C:OP2	2.05	0.55
31:49:32:PRO:HB2	31:49:172:LEU:HD13	1.88	0.55
32:59:137:ASP:OD1	32:59:138:LYS:N	2.38	0.55
34:15:61:ARG:HA	34:15:61:ARG:CZ	2.36	0.55
37:45:134:ARG:HH22	46:D5:122:ARG:NH1	2.04	0.55
41:85:75:ASN:OD1	41:85:78:THR:OG1	2.18	0.55
1:13:598:U:H4'	8:7E:94:TYR:CD2	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:102:ASP:OD1	4:3E:103:ASN:N	2.39	0.55
4:3E:107:ARG:HH12	4:3E:194:LEU:HD22	1.71	0.55
23:2K:71:U:H5"	23:2K:72:C:C5	2.41	0.55
26:1H:760:G:C2'	26:1H:761:A:H5'	2.36	0.55
26:1H:2232:U:P	48:J8:40:ARG:HH12	2.29	0.55
41:C8:106:PHE:HA	41:C8:109:LEU:HD12	1.88	0.55
52:N8:40:LYS:NZ	52:N8:46:CYS:HB3	2.21	0.55
54:Q8:59:LYS:H	54:Q8:59:LYS:CE	2.19	0.55
1:1G:1347:G:N2	1:1G:1373:G:H2'	2.22	0.55
1:1G:1375:A:H4'	7:62:29:LYS:HE3	1.89	0.55
4:32:111:ALA:HB3	4:32:117:ALA:HB2	1.87	0.55
24:3L:42:U:H2'	24:3L:43:A:C8	2.42	0.55
26:14:479:A:N3	26:14:481:G:H5"	2.21	0.55
26:14:540:G:H2'	26:14:541:C:C6	2.41	0.55
26:14:1292:U:H2'	26:14:1293:C:C6	2.40	0.55
27:1J:88:C:H3'	27:1J:89:G:N7	2.21	0.55
30:39:108:LYS:O	30:39:112:MET:HB2	2.05	0.55
32:59:136:ILE:HD12	32:59:137:ASP:HB2	1.87	0.55
36:35:121:LYS:HG2	36:35:122:PRO:HD2	1.88	0.55
1:13:626:U:C2	1:13:627:G:C8	2.95	0.55
1:13:1028:C:H42	1:13:1033:G:H22	1.53	0.55
23:2K:44:G:O2'	23:2K:45:U:OP1	2.25	0.55
26:1H:71:A:H4'	26:1H:72:U:H5"	1.87	0.55
26:1H:1021:A:H3'	26:1H:1022:G:H5"	1.87	0.55
26:1H:2315:G:OP1	31:41:36:LYS:NZ	2.34	0.55
31:41:112:PRO:HB3	51:M8:37:SER:H	1.71	0.55
38:98:9:LYS:HA	38:98:17:ARG:NE	2.22	0.55
1:1G:683:G:H2'	1:1G:684:A:C8	2.42	0.55
1:1G:1152:A:OP1	10:1A:68:HIS:NE2	2.39	0.55
14:5A:15:LYS:HG2	14:5A:16:PHE:CE2	2.42	0.55
18:9A:86:VAL:HG12	18:9A:87:ARG:NH1	2.22	0.55
19:AA:64:GLU:H	19:AA:64:GLU:CD	2.12	0.55
23:2L:29:U:H2'	23:2L:30:A:C8	2.42	0.55
24:3L:37:G:N2	25:4L:44:U:H3	2.05	0.55
26:14:1747:G:H2'	26:14:1748:G:H8	1.71	0.55
26:14:1771:C:O2'	26:14:1786:A:H8	1.88	0.55
36:35:63:PRO:HB3	54:M5:30:ARG:CZ	2.37	0.55
39:65:7:TYR:CZ	39:65:91:PRO:HG3	2.42	0.55
39:65:28:VAL:HG11	39:65:98:VAL:HG12	1.87	0.55
1:13:221:C:H2'	1:13:222:U:H6	1.72	0.55
1:13:1023:G:H3'	1:13:1024:G:H5"	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1316:G:H4'	14:5I:18:VAL:HG11	1.89	0.55
5:4E:81:GLU:HG2	5:4E:90:VAL:HG23	1.89	0.55
26:1H:1494:A:H2'	26:1H:1495:A:C8	2.41	0.55
26:1H:2111:C:H5	26:1H:2147:G:C6	2.25	0.55
26:1H:2262:U:H2'	26:1H:2263:C:H6	1.72	0.55
26:1H:2882:A:OP1	38:98:96:ARG:HD3	2.06	0.55
29:21:60:ASN:OD1	29:21:62:PRO:HD2	2.06	0.55
38:98:29:LEU:HB3	38:98:75:LEU:HD21	1.89	0.55
40:B8:50:ILE:CD1	40:B8:102:ILE:HD11	2.35	0.55
1:1G:299:G:H2'	1:1G:300:A:C8	2.42	0.55
8:72:25:ASP:OD1	8:72:25:ASP:N	2.39	0.55
9:82:99:LEU:HB3	9:82:101:PHE:CE1	2.41	0.55
17:8A:63:ARG:HG2	17:8A:64:PRO:HD2	1.89	0.55
26:14:113:G:H8	26:14:113:G:O5'	1.89	0.55
26:14:830:G:H4'	26:14:831:G:OP2	2.06	0.55
26:14:1771:C:H1'	26:14:1786:A:C8	2.41	0.55
26:14:2052:G:O4'	29:29:142:GLY:HA3	2.06	0.55
26:14:2138:C:O2	26:14:2154:G:N1	2.40	0.55
33:69:82:ARG:O	33:69:89:TYR:HD2	1.89	0.55
34:15:42:TRP:HA	34:15:48:MET:HE1	1.89	0.55
41:85:66:ASN:HB2	41:85:76:TYR:HB2	1.87	0.55
1:13:376:G:O3'	16:7I:5:ARG:NH1	2.40	0.55
1:13:498:A:H4'	1:13:500:G:OP1	2.06	0.55
2:1E:76:GLN:O	2:1E:208:ILE:HG12	2.07	0.55
26:1H:1509:C:H3'	26:1H:1510:A:H5"	1.89	0.55
26:1H:2376:A:H2'	26:1H:2377:A:O4'	2.07	0.55
26:1H:2481:G:O2'	26:1H:2482:G:O5'	2.25	0.55
26:1H:2553:G:H2'	26:1H:2554:U:H4'	1.89	0.55
28:11:10:THR:OG1	28:11:13:ARG:HB2	2.06	0.55
37:88:85:LYS:CG	47:I8:7:LEU:HD13	2.37	0.55
45:G8:85:VAL:HG22	45:G8:98:VAL:HB	1.88	0.55
1:1G:448:A:OP2	1:1G:485:G:N2	2.37	0.55
11:2A:16:SER:OG	11:2A:79:SER:OG	2.23	0.55
26:14:787:U:P	57:14:3662:HOH:O	2.63	0.55
26:14:1047:G:H21	26:14:1111:A:H62	1.55	0.55
26:14:1199:U:H2'	26:14:1200:C:C6	2.41	0.55
26:14:1366:A:H2'	26:14:1367:A:O4'	2.06	0.55
26:14:2387:U:H1'	47:E5:41:ARG:NE	2.22	0.55
26:14:2443:C:OP1	30:39:68:LYS:HG2	2.06	0.55
28:19:68:LYS:HB3	28:19:70:TRP:CZ3	2.42	0.55
31:49:22:ARG:HH12	31:49:175:LEU:HD21	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:49:109:VAL:HG11	31:49:142:PRO:HG3	1.87	0.55
41:85:92:ARG:NH2	42:95:11:GLN:H	2.05	0.55
2:1E:174:VAL:HG11	2:1E:196:LEU:HD13	1.87	0.55
13:4I:88:ARG:HD2	13:4I:98:VAL:HG12	1.89	0.55
17:8I:29:HIS:CD2	17:8I:30:PRO:HD2	2.42	0.55
19:AI:6:LYS:HE3	51:M8:62:ARG:HD2	1.89	0.55
26:1H:1231:G:H2'	26:1H:1232:G:H8	1.72	0.55
26:1H:2052:G:H4'	29:21:143:ASN:O	2.06	0.55
29:21:24:THR:HG21	29:21:188:VAL:CG2	2.37	0.55
1:1G:737:A:H2'	1:1G:738:C:C6	2.41	0.55
1:1G:1179:A:OP2	9:82:93:ARG:NH2	2.40	0.55
1:1G:1281:U:OP2	1:1G:1282:C:N4	2.35	0.55
7:62:95:ARG:HH21	7:62:99:LEU:HD11	1.72	0.55
26:14:1997:G:H5"	57:14:3984:HOH:O	2.07	0.55
26:14:2774:C:H2'	26:14:2775:A:O4'	2.06	0.55
34:15:35:ARG:HB2	34:15:42:TRP:HZ3	1.71	0.55
35:25:43:VAL:HG23	35:25:56:ASP:O	2.07	0.55
36:35:125:VAL:O	36:35:144:GLU:HB3	2.07	0.55
41:85:16:LYS:O	41:85:20:LEU:HD13	2.06	0.55
41:85:92:ARG:NH2	42:95:10:LYS:HA	2.21	0.55
1:13:1228:C:OP1	13:4I:108:ARG:NH2	2.40	0.55
2:1E:212:GLN:O	2:1E:216:SER:OG	2.15	0.55
9:8E:10:ARG:HG3	9:8E:75:ASP:HB2	1.88	0.55
26:1H:2791:C:N4	26:1H:2805:G:H1	2.05	0.55
34:58:47:ALA:HB2	34:58:112:LEU:HD11	1.89	0.55
45:G8:82:PRO:HG3	45:G8:97:ARG:HG3	1.89	0.55
46:H8:116:VAL:HG23	46:H8:146:ILE:HG12	1.89	0.55
1:1G:411:A:H62	1:1G:413:G:H21	1.54	0.55
2:12:16:HIS:HD2	2:12:210:SER:HA	1.71	0.55
23:2L:18:OMG:P	23:2L:71:U:H3	2.30	0.55
26:14:390:A:C6	36:35:71:VAL:HG21	2.42	0.55
26:14:2873:A:H8	38:55:5:LYS:HA	1.72	0.55
32:59:66:GLY:O	32:59:70:THR:OG1	2.20	0.55
40:75:77:PRO:HG2	40:75:80:SER:HB2	1.88	0.55
42:95:21:ARG:HE	42:95:91:TYR:HB3	1.71	0.55
45:C5:47:LYS:HG3	45:C5:60:PHE:CE2	2.41	0.55
1:13:179:A:H2'	1:13:180:U:H6	1.71	0.54
1:13:1523:G:OP1	11:2I:123:LYS:HE3	2.06	0.54
6:5E:9:VAL:HB	6:5E:87:ARG:HB2	1.88	0.54
13:4I:23:TYR:HB3	13:4I:67:GLU:HB2	1.88	0.54
13:4I:75:ALA:HA	13:4I:78:ILE:HG13	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BI:97:ALA:O	20:BI:99:LEU:N	2.39	0.54
26:1H:71:A:C2	44:F8:31:HIS:HE1	2.25	0.54
26:1H:973:A:OP2	57:1H:3717:HOH:O	2.17	0.54
26:1H:2849:U:OP2	40:B8:95:ARG:NH1	2.40	0.54
28:11:17:THR:HB	28:11:205:VAL:H	1.72	0.54
29:21:70:ALA:HB1	29:21:73:GLU:HB2	1.88	0.54
31:41:131:TYR:O	31:41:159:VAL:HG22	2.07	0.54
51:M8:13:ARG:HA	51:M8:24:THR:HG21	1.90	0.54
1:1G:116:A:H61	1:1G:313:A:H1'	1.72	0.54
1:1G:186(A):C:H2'	1:1G:186(B):C:H6	1.72	0.54
2:12:109:SER:HA	2:12:112:VAL:HG23	1.89	0.54
4:32:36:ARG:HB3	4:32:38:TYR:CE1	2.41	0.54
7:62:97:GLN:HG3	7:62:98:SER:N	2.21	0.54
26:14:35:G:H2'	26:14:36:G:O4'	2.07	0.54
26:14:363(F):A:OP2	26:14:363(F):A:H8	1.89	0.54
26:14:483:A:H4'	45:C5:49:VAL:HA	1.89	0.54
26:14:1533:C:N3	26:14:1534:G:O2'	2.33	0.54
26:14:2250:G:C6	37:45:83:MET:HB3	2.42	0.54
26:14:2294:C:P	39:65:89:ARG:HH22	2.29	0.54
26:14:2311:A:H62	31:49:44:GLY:HA3	1.70	0.54
29:29:25:VAL:HG12	29:29:26:ILE:H	1.72	0.54
30:39:6:VAL:HB	30:39:124:LEU:HA	1.89	0.54
32:59:119:GLU:N	32:59:119:GLU:OE2	2.34	0.54
47:E5:21:LEU:HD21	47:E5:41:ARG:HH12	1.71	0.54
1:13:138:G:H1	1:13:225:C:H42	1.53	0.54
1:13:1368:G:H5"	9:8E:112:LYS:HB3	1.88	0.54
2:1E:47:THR:HG23	2:1E:202:PRO:HG2	1.88	0.54
5:4E:20:GLN:HG2	5:4E:21:ALA:H	1.72	0.54
8:7E:104:ARG:HB3	8:7E:107:LEU:HB2	1.89	0.54
18:9I:26:LEU:HB3	18:9I:42:ARG:HH22	1.72	0.54
26:1H:654(E):C:N3	26:1H:654(P):G:N2	2.48	0.54
26:1H:924:C:H2'	26:1H:925:C:C6	2.43	0.54
26:1H:1437:C:C2	26:1H:1438:U:C5	2.95	0.54
26:1H:2882:A:H5'	38:98:96:ARG:HG3	1.87	0.54
31:41:112:PRO:HB2	51:M8:36:CYS:HA	1.88	0.54
46:H8:134:PRO:HG3	46:H8:161:VAL:HG11	1.87	0.54
54:Q8:36:LYS:HG2	54:Q8:39:LYS:HZ2	1.72	0.54
1:1G:1075:C:H4'	2:12:175:ARG:HH22	1.71	0.54
10:1A:9:ARG:HB2	10:1A:95:GLU:HB3	1.88	0.54
26:14:551:G:H1'	26:14:1220:A:C6	2.42	0.54
26:14:975:G:H1'	26:14:990:A:C2	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:997:G:O2'	26:14:998:C:H5'	2.07	0.54
27:1J:116:G:C5'	39:65:55:ALA:HB2	2.36	0.54
31:49:125:PHE:HB3	31:49:166:ASP:HB2	1.89	0.54
41:85:92:ARG:CZ	42:95:11:GLN:H	2.21	0.54
46:D5:53:ILE:HG22	46:D5:71:VAL:HG13	1.87	0.54
1:13:353:A:H8	1:13:353:A:H5'	1.73	0.54
1:13:992:U:H4'	1:13:993:G:O5'	2.06	0.54
5:4E:70:PRO:O	5:4E:77:PRO:HD3	2.08	0.54
15:6I:82:ILE:O	15:6I:86:GLY:N	2.40	0.54
18:9I:66:LEU:HD11	18:9I:70:ILE:HD11	1.89	0.54
23:2K:71:U:H5"	23:2K:72:C:H5	1.72	0.54
26:1H:127:A:H5"	26:1H:128:C:C6	2.42	0.54
26:1H:935:C:H2'	26:1H:936:C:H6	1.72	0.54
1:1G:735:C:H2'	1:1G:736:C:H6	1.71	0.54
1:1G:974:A:P	14:5A:41:ARG:HH22	2.30	0.54
1:1G:1142:G:H2'	1:1G:1143:G:O4'	2.07	0.54
26:14:271:G:H2'	26:14:272:G:H8	1.72	0.54
26:14:2472:G:H2'	26:14:2475:C:N4	2.21	0.54
26:14:2716:U:O2'	26:14:2717:G:H5'	2.07	0.54
1:13:143:A:H2	1:13:220:G:H1	1.56	0.54
1:13:434:U:H2'	1:13:435:C:C6	2.42	0.54
1:13:1305:G:OP2	1:13:1305:G:C8	2.57	0.54
9:8E:50:LEU:HD23	9:8E:85:LEU:HD11	1.88	0.54
9:8E:125:TYR:HD1	9:8E:126:SER:N	2.05	0.54
26:1H:58:G:H5'	44:F8:74:PRO:HB3	1.88	0.54
26:1H:722:A:H2'	26:1H:723:G:C8	2.42	0.54
26:1H:935:C:H2'	26:1H:936:C:C6	2.42	0.54
26:1H:1060:U:C4	26:1H:1062:G:H4'	2.41	0.54
26:1H:1889:A:N1	26:1H:2234:G:H1'	2.21	0.54
26:1H:2176:A:H2'	26:1H:2177:C:C6	2.41	0.54
32:51:169:VAL:O	32:51:170:ARG:NE	2.39	0.54
34:58:70:LYS:HE3	34:58:72:TYR:CE1	2.42	0.54
1:1G:114:U:H2'	1:1G:115:G:C8	2.43	0.54
1:1G:977:A:H2'	1:1G:978:A:H5'	1.90	0.54
1:1G:1352:C:H2'	1:1G:1353:G:C8	2.42	0.54
2:12:92:TYR:HE2	2:12:94:ASN:HB2	1.72	0.54
15:6A:87:ILE:HG22	15:6A:88:ARG:N	2.21	0.54
26:14:857:C:H2'	26:14:858:U:C6	2.43	0.54
26:14:1048:A:H2	26:14:1112:G:H21	1.55	0.54
26:14:1149:G:H2'	26:14:1150:C:C6	2.42	0.54
26:14:1412:A:H2'	26:14:1413:G:C8	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1665:A:H4'	35:25:67:LYS:HB2	1.90	0.54
26:14:2015:A:OP1	43:A5:92:ARG:NH2	2.40	0.54
26:14:2378:A:O2'	39:65:21:THR:HG21	2.08	0.54
43:A5:6:ILE:HG22	43:A5:8:ARG:HG3	1.89	0.54
45:C5:86:ARG:HG3	45:C5:87:LYS:N	2.21	0.54
1:13:1427:U:H2'	1:13:1428:A:C8	2.43	0.54
4:3E:43:HIS:O	4:3E:46:LYS:HG3	2.08	0.54
32:51:126:PRO:HB2	32:51:130:ARG:HH22	1.72	0.54
46:H8:105:VAL:O	46:H8:140:ASP:HA	2.08	0.54
1:1G:171:A:H2'	1:1G:172:A:C8	2.41	0.54
1:1G:501:C:H2'	1:1G:502:G:C8	2.42	0.54
7:62:101:LEU:O	7:62:105:VAL:HG23	2.07	0.54
29:29:76:ARG:HG2	29:29:195:LEU:HD22	1.88	0.54
30:39:15:SER:OG	30:39:16:GLY:N	2.39	0.54
36:35:39:LYS:HG3	36:35:45:LEU:HD22	1.90	0.54
1:13:56:U:H2'	1:13:57:G:C8	2.43	0.54
1:13:658:G:H2'	1:13:659:U:H6	1.73	0.54
1:13:859:A:H2'	1:13:860:A:O4'	2.06	0.54
26:1H:1259:G:H2'	26:1H:1260:G:C8	2.42	0.54
26:1H:2299:G:H1	26:1H:2318:G:H8	1.55	0.54
31:41:11:TYR:HA	31:41:15:VAL:HB	1.90	0.54
35:68:7:TYR:HE1	35:68:20:MET:HE3	1.73	0.54
37:88:134:ARG:HE	46:H8:122:ARG:NH2	2.06	0.54
39:A8:42:ASP:O	39:A8:43:GLU:HB2	2.08	0.54
48:J8:58:ILE:HG23	48:J8:87:PRO:HG3	1.88	0.54
49:K8:52:ASP:O	49:K8:56:GLN:HB2	2.08	0.54
7:62:26:PHE:CD1	7:62:30:ILE:HD11	2.43	0.54
26:14:536:A:OP1	41:85:53:ARG:NH1	2.40	0.54
26:14:1061:U:C5'	26:14:1070:A:H1'	2.32	0.54
26:14:1138:G:H21	34:15:106:MET:HE1	1.72	0.54
26:14:1310:G:OP2	53:L5:9:ARG:NE	2.41	0.54
26:14:1429:G:H2'	26:14:1430:C:C6	2.42	0.54
28:19:71:ASP:CG	28:19:103:ARG:HH12	2.14	0.54
28:19:208:LYS:HG3	28:19:211:ARG:H	1.73	0.54
42:95:69:LYS:HG2	42:95:86:GLY:HA3	1.90	0.54
42:95:85:LYS:HD2	42:95:87:HIS:H	1.73	0.54
46:D5:79:ARG:HB3	46:D5:80:ARG:HD2	1.90	0.54
1:13:1188:A:N6	57:13:1842:HOH:O	2.41	0.54
1:13:1301:U:O2'	1:13:1302:U:H5'	2.08	0.54
4:3E:141:ARG:HB2	4:3E:141:ARG:NH1	2.22	0.54
13:4I:108:ARG:HA	13:4I:108:ARG:HH11	1.70	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1126:A:H4'	26:1H:1127:A:O5'	2.08	0.54
26:1H:1250:G:OP2	36:78:18:ARG:NH1	2.40	0.54
26:1H:1805:U:O2	28:11:50:THR:HB	2.07	0.54
26:1H:2209:C:O2	26:1H:2216:G:C2	2.60	0.54
26:1H:2684:U:O2'	35:68:68:GLU:HG3	2.08	0.54
33:61:73:GLU:HG3	33:61:136:VAL:HG23	1.90	0.54
36:78:13:ASN:OD1	36:78:15:ARG:HD3	2.07	0.54
17:8A:45:HIS:HE2	17:8A:47:PRO:HB3	1.71	0.54
22:1L:21:A:H4'	22:1L:22:G:OP1	2.07	0.54
24:3L:22:G:H1'	24:3L:70:G:H22	1.71	0.54
26:14:607:U:H3	26:14:621:A:H2	1.54	0.54
26:14:833:U:H2'	26:14:834:C:C6	2.43	0.54
26:14:2138:C:H1'	26:14:2154:G:H1	1.73	0.54
29:29:106:GLY:HA3	29:29:189:PRO:HB2	1.89	0.54
39:65:42:ASP:O	39:65:43:GLU:HB2	2.06	0.54
51:I5:18:CYS:HB2	51:I5:36:CYS:HB3	1.90	0.54
1:13:592:G:H2'	1:13:593:G:H8	1.73	0.54
1:13:664:G:N2	1:13:741:G:H1	2.04	0.54
14:5I:23:ARG:HD2	14:5I:28:GLY:O	2.08	0.54
30:31:172:TRP:CD1	30:31:172:TRP:H	2.26	0.54
39:A8:34:HIS:CE1	39:A8:54:LEU:HD23	2.43	0.54
1:1G:960:U:H3	1:1G:1225:A:H1'	1.73	0.54
1:1G:985:C:H2'	1:1G:986:A:H8	1.72	0.54
3:22:33:LEU:O	3:22:36:ASP:N	2.41	0.54
3:22:113:ALA:HA	3:22:202:ILE:HD11	1.90	0.54
7:62:94:ARG:H	7:62:94:ARG:HD3	1.72	0.54
26:14:944:G:H2'	57:14:3688:HOH:O	2.07	0.54
26:14:1054:A:H2'	26:14:1055:G:C8	2.43	0.54
26:14:1327:C:O3'	38:55:105:ARG:NH2	2.41	0.54
26:14:1899:G:H21	26:14:1902:C:H41	1.53	0.54
29:29:109:LYS:HE2	29:29:191:PRO:HA	1.90	0.54
33:69:101:LEU:HD12	33:69:109:ILE:HD12	1.89	0.54
35:25:111:PHE:O	35:25:115:VAL:HG23	2.06	0.54
42:95:76:LYS:HB2	42:95:79:VAL:HG23	1.88	0.54
44:B5:42:ALA:O	44:B5:45:THR:N	2.40	0.54
1:13:1469:G:H2'	1:13:1470:G:C8	2.43	0.54
9:8E:17:VAL:HA	9:8E:63:ILE:HG12	1.89	0.54
13:4I:23:TYR:CD1	13:4I:67:GLU:HA	2.41	0.54
26:1H:1053:C:N3	26:1H:1107:G:N2	2.56	0.54
26:1H:1406:U:H2'	26:1H:1407:C:C6	2.43	0.54
26:1H:2046:G:H1'	52:N8:22:HIS:CE1	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2629:A:O2'	26:1H:2630:G:H5"	2.07	0.54
33:61:96:ASP:OD1	33:61:96:ASP:N	2.41	0.54
1:1G:25:C:H2'	1:1G:26:A:H8	1.72	0.54
6:52:45:LEU:HD13	6:52:57:GLN:OE1	2.08	0.54
7:62:115:ARG:HB3	7:62:118:VAL:HG13	1.89	0.54
10:1A:99:LYS:HD3	10:1A:100:THR:H	1.72	0.54
24:3L:22:G:H1'	24:3L:70:G:N2	2.23	0.54
26:14:1520:U:H2'	26:14:1521:G:O4'	2.07	0.54
26:14:2462:U:H2'	26:14:2463:C:C6	2.43	0.54
26:14:2778:A:H8	26:14:2778:A:H5"	1.73	0.54
29:29:89:ASP:C	29:29:91:VAL:H	2.14	0.54
54:M5:36:LYS:HA	54:M5:36:LYS:HE2	1.90	0.54
1:13:536:C:H2'	1:13:537:G:C8	2.43	0.54
2:1E:52:GLU:HG2	2:1E:56:ARG:HH12	1.73	0.54
6:5E:97:PHE:N	18:9I:30:ASP:OD1	2.40	0.54
11:2I:46:GLY:HA2	11:2I:50:TYR:O	2.08	0.54
26:1H:1113:U:H5'	32:51:2:SER:HB2	1.90	0.54
26:1H:1316:U:H2'	26:1H:1317:A:C8	2.43	0.54
26:1H:1339:G:H21	26:1H:1603:A:H1'	1.72	0.54
26:1H:1418:G:OP1	26:1H:1588:C:O2'	2.22	0.54
26:1H:1728:G:H2'	26:1H:1731:G:O6	2.07	0.54
26:1H:2197:U:H1'	26:1H:2198:A:C8	2.43	0.54
26:1H:2580:U:H4'	29:21:130:GLY:CA	2.33	0.54
26:1H:2875:C:H2'	26:1H:2876:G:O4'	2.08	0.54
1:1G:979:C:H5"	1:1G:980:C:OP2	2.08	0.54
1:1G:1402:C:H2'	1:1G:1403:C:O4'	2.08	0.54
9:82:10:ARG:NH2	9:82:11:LYS:HE2	2.23	0.54
9:82:77:ILE:O	9:82:81:ILE:HG12	2.07	0.54
12:3A:82:VAL:HG23	12:3A:106:ASP:OD2	2.08	0.54
28:19:75:ILE:HG22	28:19:97:TYR:HD2	1.73	0.54
31:49:34:LEU:HD21	31:49:172:LEU:HD21	1.89	0.54
1:13:891:U:H2'	1:13:892:A:H8	1.73	0.53
1:13:1131:G:H2'	1:13:1132:C:H6	1.72	0.53
1:13:1397:C:H4'	1:13:1398:A:OP2	2.08	0.53
2:1E:6:THR:OG1	2:1E:7:VAL:N	2.40	0.53
5:4E:75:THR:OG1	5:4E:76:ILE:N	2.39	0.53
7:6E:62:PHE:HA	7:6E:124:LEU:HD21	1.90	0.53
11:2I:19:ALA:HB2	11:2I:32:ILE:HG23	1.89	0.53
22:1K:29:U:H2'	22:1K:30:A:C8	2.43	0.53
26:1H:1035:U:H2'	26:1H:1036:G:C8	2.43	0.53
30:31:29:ASN:H	30:31:112:MET:HE1	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:31:29:ASN:HB3	30:31:112:MET:HE1	1.90	0.53
32:51:86:GLU:OE1	32:51:86:GLU:N	2.38	0.53
37:88:14:ARG:HG2	37:88:41:TRP:HH2	1.72	0.53
39:A8:14:VAL:O	39:A8:18:ILE:HD13	2.08	0.53
41:C8:75:ASN:HB3	41:C8:77:SER:N	2.23	0.53
1:1G:607:A:H2'	1:1G:608:A:O4'	2.08	0.53
1:1G:983:A:N1	1:1G:1222:G:N2	2.54	0.53
1:1G:1481:U:H2'	1:1G:1482:G:C8	2.44	0.53
26:14:790:C:OP2	57:14:3661:HOH:O	2.19	0.53
26:14:1579:A:H2'	26:14:1580:A:C8	2.42	0.53
26:14:1751:C:H2'	26:14:1752:C:C6	2.43	0.53
26:14:2016:U:O2	52:J5:7:PRO:HG2	2.08	0.53
26:14:2823:A:OP1	29:29:113:PHE:HB2	2.07	0.53
33:69:27:ARG:HG2	48:F5:71:TYR:CZ	2.43	0.53
1:13:631:G:H2'	1:13:632:A:N3	2.23	0.53
1:13:718:G:H5'	11:2I:117:ASN:ND2	2.24	0.53
1:13:917:G:H2'	1:13:918:A:C8	2.44	0.53
1:13:980:C:O2	57:13:1802:HOH:O	2.18	0.53
26:1H:1156:A:C8	41:C8:51:LYS:HD2	2.43	0.53
26:1H:1423:G:N7	57:1H:3919:HOH:O	2.34	0.53
26:1H:1686:C:H2'	26:1H:1687:G:O4'	2.09	0.53
26:1H:2584:U:H2'	26:1H:2585:U:H2'	1.90	0.53
31:41:98:ARG:NE	51:M8:1:MET:SD	2.81	0.53
36:78:97:PRO:HB3	36:78:112:LEU:HD12	1.91	0.53
38:98:103:ARG:HD2	38:98:108:GLY:O	2.09	0.53
41:C8:92:ARG:CZ	42:D8:11:GLN:H	2.21	0.53
45:G8:49:VAL:HG21	45:G8:55:TYR:CD2	2.43	0.53
54:Q8:59:LYS:H	54:Q8:59:LYS:CD	2.19	0.53
1:1G:652:U:H1'	1:1G:653:A:H2	1.72	0.53
1:1G:1305:G:O2'	1:1G:1306:A:O5'	2.22	0.53
2:12:119:GLU:HA	2:12:122:PHE:HD2	1.73	0.53
6:52:14:LEU:HD23	6:52:19:LEU:HB2	1.89	0.53
6:52:91:VAL:HG11	18:9A:72:ARG:NH1	2.23	0.53
7:62:143:ARG:HB3	7:62:143:ARG:HH11	1.74	0.53
22:1L:14:A:N1	22:1L:22:G:O2'	2.41	0.53
23:2L:62:G:O2'	23:2L:63:G:O5'	2.25	0.53
24:3L:15:A:H4'	24:3L:15:A:OP1	2.07	0.53
26:14:774:A:O2'	26:14:775:G:O5'	2.25	0.53
26:14:1288:U:C2	26:14:1327:C:O2	2.61	0.53
26:14:1796:U:H2'	26:14:1797:C:C6	2.43	0.53
27:1J:44:G:H1'	27:1J:47:C:N4	2.22	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:29:31:CYS:N	29:29:90:THR:O	2.33	0.53
29:29:47:VAL:HG21	29:29:86:PRO:HD2	1.90	0.53
34:15:13:TRP:HB2	34:15:133:GLN:HB3	1.89	0.53
36:35:95:VAL:HA	36:35:99:LEU:HD23	1.88	0.53
42:95:7:THR:HG23	42:95:22:VAL:HG21	1.89	0.53
1:13:77:C:O2'	1:13:92:G:N2	2.25	0.53
1:13:105:G:H2'	1:13:106:C:C6	2.42	0.53
1:13:1003:G:H1	1:13:1037:C:H42	1.56	0.53
1:13:1431:C:H2'	1:13:1432:G:O4'	2.09	0.53
15:6I:32:LEU:O	15:6I:35:ARG:N	2.42	0.53
26:1H:586:A:OP2	57:1H:3731:HOH:O	2.19	0.53
26:1H:1244:G:OP1	36:78:7:ARG:HD3	2.08	0.53
26:1H:1467:C:H42	26:1H:1525:G:H1	1.57	0.53
26:1H:2156:G:H2'	26:1H:2157:G:C2	2.43	0.53
31:41:37:VAL:O	31:41:94:LEU:HD23	2.08	0.53
36:78:52:GLU:OE2	36:78:58:THR:HG22	2.07	0.53
45:G8:76:CYS:SG	45:G8:97:ARG:HG2	2.49	0.53
1:1G:722:A:H2	1:1G:733:A:H61	1.56	0.53
1:1G:1132:C:H2'	1:1G:1133:G:H8	1.74	0.53
1:1G:1226:C:N4	13:4A:104:ARG:HD2	2.24	0.53
13:4A:78:ILE:HD13	13:4A:92:HIS:CE1	2.44	0.53
18:9A:31:LEU:HD23	18:9A:31:LEU:H	1.71	0.53
24:3L:67:C:N3	26:14:2169:A:N6	2.56	0.53
26:14:527:C:N4	26:14:2779:U:OP2	2.41	0.53
26:14:1044:G:H4'	26:14:1048:A:H1'	1.91	0.53
26:14:2111:C:H42	26:14:2147:G:H21	1.55	0.53
33:69:99:GLU:H	33:69:99:GLU:CD	2.15	0.53
40:75:53:ARG:HG3	40:75:53:ARG:O	2.07	0.53
40:75:96:ARG:HG2	40:75:96:ARG:HH11	1.73	0.53
51:I5:22:ILE:HG12	51:I5:23:GLU:N	2.22	0.53
2:1E:136:VAL:O	2:1E:140:HIS:N	2.42	0.53
10:1I:3:LYS:N	10:1I:75:ILE:O	2.41	0.53
17:8I:68:ARG:H	17:8I:70:ARG:NH1	2.06	0.53
26:1H:2324:C:H5"	26:1H:2325:G:H5'	1.90	0.53
26:1H:2479:G:O5'	26:1H:2479:G:H8	1.91	0.53
26:1H:2735:G:H2'	26:1H:2736:G:H8	1.73	0.53
28:11:218:ARG:HB3	28:11:219:PRO:HD2	1.91	0.53
35:68:4:PRO:O	35:68:5:GLN:HB2	2.07	0.53
43:E8:48:ALA:O	43:E8:52:GLU:HB2	2.08	0.53
1:1G:25:C:H2'	1:1G:26:A:C8	2.43	0.53
1:1G:371:G:H1	1:1G:390:C:H42	1.55	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:682:G:H1	1:1G:708:C:H42	1.55	0.53
1:1G:1505:G:H4'	1:1G:1506:U:H5"	1.91	0.53
9:82:63:ILE:HD13	9:82:77:ILE:HG23	1.91	0.53
11:2A:32:ILE:HD11	11:2A:68:ALA:HB1	1.90	0.53
13:4A:79:LYS:HG3	13:4A:82:MET:SD	2.49	0.53
26:14:314:A:H2'	26:14:315:G:C8	2.44	0.53
26:14:2110:G:O2'	26:14:2120:G:OP1	2.15	0.53
27:1J:15:A:H1'	27:1J:109:G:C8	2.43	0.53
27:1J:94:C:H2'	27:1J:95:U:C6	2.43	0.53
29:29:35:GLN:O	29:29:48:GLN:HB2	2.09	0.53
30:39:102:PRO:HB2	30:39:105:VAL:HG23	1.90	0.53
31:49:71:THR:N	31:49:89:GLY:O	2.37	0.53
33:69:85:GLU:HA	33:69:123:LEU:HD12	1.90	0.53
36:35:59:LEU:HD21	54:M5:10:ALA:HA	1.89	0.53
1:13:372:C:N4	1:13:389:A:H62	2.04	0.53
4:3E:104:VAL:O	4:3E:107:ARG:N	2.41	0.53
16:7I:8:ARG:C	16:7I:9:PHE:HD1	2.17	0.53
24:3K:46:G:H2'	24:3K:47:C:C5'	2.37	0.53
26:1H:906:G:OP1	37:88:26:TYR:OH	2.21	0.53
26:1H:1316:U:H2'	26:1H:1317:A:H8	1.73	0.53
26:1H:1411:C:H2'	26:1H:1412:A:H8	1.73	0.53
26:1H:1453:A:O2'	26:1H:1454:U:H2'	2.08	0.53
26:1H:1636:C:H2'	26:1H:1637:A:C8	2.43	0.53
30:31:60:SER:OG	30:31:61:GLY:N	2.42	0.53
34:58:6:PRO:HG3	34:58:41:ASP:HB2	1.90	0.53
41:C8:97:ASP:OD1	41:C8:98:LEU:N	2.42	0.53
45:G8:93:GLY:O	45:G8:94:LYS:HB2	2.08	0.53
1:1G:878:G:H5'	8:72:89:PRO:HG2	1.90	0.53
1:1G:1541:U:O2'	1:1G:1542:U:O4'	2.24	0.53
5:42:36:ASP:CG	5:42:38:GLN:HB2	2.34	0.53
7:62:143:ARG:HB3	7:62:143:ARG:NH1	2.24	0.53
9:82:7:THR:H	9:82:83:ARG:HD2	1.73	0.53
26:14:64:A:O3'	44:B5:71:GLY:HA3	2.09	0.53
26:14:588:U:H1'	30:39:90:PHE:CG	2.44	0.53
26:14:829:A:N7	26:14:2247:A:O2'	2.35	0.53
26:14:2786:U:O2	29:29:62:PRO:HB3	2.09	0.53
47:E5:29:GLN:O	47:E5:67:VAL:HG23	2.08	0.53
26:1H:1006:C:H1'	34:58:106:MET:HE3	1.90	0.53
26:1H:1586:A:H3'	26:1H:1587:A:H8	1.74	0.53
26:1H:2807:G:H3'	26:1H:2808:U:H5"	1.90	0.53
31:41:173:LEU:HB3	31:41:178:PHE:CD2	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:78:49:ARG:HG3	54:Q8:57:ARG:HE	1.73	0.53
1:1G:164:U:H2'	1:1G:165:C:C6	2.42	0.53
1:1G:377:G:H1	1:1G:386:C:H42	1.56	0.53
1:1G:410:G:N1	1:1G:431:A:OP2	2.41	0.53
1:1G:674:G:H2'	1:1G:675:A:C8	2.44	0.53
1:1G:1112:C:C4	3:22:178:LEU:HD23	2.43	0.53
1:1G:1157:A:H8	1:1G:1158:C:C5	2.27	0.53
2:12:71:VAL:HB	2:12:164:VAL:HG13	1.90	0.53
9:82:51:ARG:HG2	9:82:56:LEU:HD22	1.89	0.53
11:2A:13:GLN:HA	11:2A:75:TYR:O	2.08	0.53
19:AA:9:VAL:HG13	51:I5:63:TYR:HE1	1.73	0.53
26:14:654(R):C:N4	26:14:654(S):G:O6	2.42	0.53
32:59:42:ARG:NH1	32:59:53:GLU:O	2.37	0.53
40:75:4:GLY:O	40:75:7:ILE:N	2.41	0.53
1:13:1139:G:H4'	1:13:1140:C:H5'	1.91	0.53
26:1H:265:A:C8	26:1H:266:G:H1'	2.44	0.53
26:1H:674:G:C1'	30:31:74:ARG:HD3	2.37	0.53
26:1H:1069:A:O2'	26:1H:1072:C:OP2	2.26	0.53
26:1H:1329:U:H5"	26:1H:1330:C:H5	1.73	0.53
26:1H:1337:G:H2'	26:1H:1338:G:H8	1.74	0.53
26:1H:1359:A:C2	26:1H:1372:U:O4	2.57	0.53
30:31:181:LEU:O	30:31:205:ARG:NH2	2.41	0.53
38:98:117:VAL:HG22	38:98:118:GLU:H	1.73	0.53
54:Q8:7:HIS:ND1	54:Q8:7:HIS:O	2.42	0.53
54:Q8:14:VAL:HB	54:Q8:21:LYS:HE2	1.90	0.53
1:1G:1521:G:H2'	1:1G:1522:U:C6	2.43	0.53
6:52:25:ILE:HD12	6:52:82:ARG:HD2	1.90	0.53
9:82:43:ALA:HA	9:82:74:ILE:HD13	1.90	0.53
13:4A:40:ASN:HB3	13:4A:43:THR:HG23	1.90	0.53
13:4A:91:ARG:NH1	13:4A:96:LEU:HD13	2.24	0.53
26:14:844:C:H3'	26:14:845:G:C8	2.44	0.53
26:14:2219:G:H2'	26:14:2224:G:H5'	1.90	0.53
31:49:40:ASN:HB2	31:49:91:ARG:HB2	1.90	0.53
36:35:84:ASN:ND2	36:35:117:GLU:HB3	2.24	0.53
37:45:27:VAL:H	37:45:102:VAL:HG21	1.74	0.53
39:65:39:ILE:HD12	39:65:85:VAL:HG11	1.91	0.53
43:A5:9:TYR:H	43:A5:102:HIS:CE1	2.25	0.53
46:D5:23:LYS:HB3	46:D5:38:TYR:CD1	2.44	0.53
3:2E:83:ARG:HA	3:2E:86:VAL:HG13	1.91	0.53
7:6E:73:MET:HA	7:6E:90:GLU:HA	1.91	0.53
10:1I:46:ARG:NH2	10:1I:64:GLU:OE1	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7I:77:ALA:HB3	16:7I:79:VAL:HG23	1.91	0.53
26:1H:50:U:H3'	26:1H:51:G:H5'	1.91	0.53
26:1H:124:G:N2	26:1H:126:A:O3'	2.42	0.53
26:1H:270(P):C:H2'	26:1H:270(Q):C:C6	2.44	0.53
26:1H:637:A:H2'	36:78:117:GLU:OE1	2.09	0.53
33:61:4:ILE:HG12	33:61:18:VAL:HG22	1.91	0.53
37:88:20:ALA:HA	37:88:98:LYS:HB3	1.90	0.53
1:1G:147:G:N2	1:1G:148:G:C4	2.77	0.53
1:1G:622:A:C8	1:1G:623:C:C6	2.97	0.53
2:12:44:LEU:HD23	2:12:44:LEU:H	1.74	0.53
2:12:84:GLU:OE2	2:12:212:GLN:NE2	2.42	0.53
9:82:85:LEU:HD12	9:82:92:TYR:CD2	2.44	0.53
20:BA:26:ASN:HB3	20:BA:71:THR:OG1	2.09	0.53
26:14:990:A:H5'	26:14:990:A:H8	1.73	0.53
26:14:1432:C:H2'	26:14:1433:U:O4'	2.08	0.53
26:14:1444(A):A:H2'	26:14:1444(A):A:N3	2.24	0.53
37:45:34:LEU:HB2	37:45:118:LEU:HD13	1.90	0.53
1:13:920:U:H2'	1:13:921:U:C6	2.44	0.53
1:13:1107:C:C4	1:13:1108:G:C8	2.97	0.53
7:6E:38:LEU:O	7:6E:42:ILE:HG13	2.09	0.53
9:8E:3:GLN:OE1	9:8E:20:ARG:NH1	2.42	0.53
13:4I:4:ILE:HG22	13:4I:5:ALA:H	1.73	0.53
15:6I:29:VAL:HG11	15:6I:67:LEU:HD21	1.90	0.53
26:1H:692:C:O2'	28:11:38:LYS:HE3	2.09	0.53
26:1H:825:C:H5'	57:1H:3680:HOH:O	2.09	0.53
26:1H:1086:A:O2'	26:1H:1103:A:N1	2.38	0.53
26:1H:1110:G:O2'	26:1H:1111:A:O5'	2.26	0.53
26:1H:1378:A:O2'	26:1H:1380:G:N7	2.40	0.53
26:1H:2062:A:H2'	26:1H:2062:A:N3	2.23	0.53
37:88:66:ILE:O	37:88:104:PHE:N	2.40	0.53
39:A8:5:THR:OG1	39:A8:8:GLU:HG2	2.08	0.53
41:C8:88:ILE:C	41:C8:90:VAL:N	2.66	0.53
54:Q8:27:THR:HG22	54:Q8:42:ARG:HH21	1.74	0.53
1:1G:529:G:O6	12:3A:49:ASN:HA	2.09	0.53
1:1G:628:G:H2'	1:1G:629:G:H8	1.73	0.53
2:12:104:ASN:OD1	2:12:107:THR:OG1	2.26	0.53
6:52:50:TYR:OH	18:9A:74:ARG:O	2.22	0.53
26:14:1449(A):G:H2'	26:14:1450:C:H6	1.74	0.53
26:14:2655:G:N2	26:14:2665:A:OP2	2.42	0.53
33:69:60:GLU:HG3	33:69:61:ARG:N	2.24	0.53
42:95:35:LEU:HB3	42:95:37:VAL:HG11	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:95:71:LEU:O	42:95:72:VAL:HG12	2.08	0.53
44:B5:65:ARG:HG3	44:B5:67:GLY:H	1.72	0.53
45:C5:17:SER:OG	45:C5:18:GLY:O	2.25	0.53
48:F5:2:SER:O	48:F5:4:VAL:HG13	2.09	0.53
1:13:991:U:C4	1:13:1212:U:H1'	2.44	0.53
1:13:1070:U:H2'	1:13:1071:C:H6	1.73	0.53
1:13:1131:G:H2'	1:13:1132:C:C6	2.44	0.53
1:13:1250:A:OP1	9:8E:67:GLY:N	2.30	0.53
10:1I:48:THR:HA	10:1I:62:HIS:HB3	1.90	0.53
14:5I:15:LYS:HG2	14:5I:16:PHE:CD2	2.44	0.53
23:2K:7:G:H8	23:2K:7:G:OP2	1.92	0.53
23:2K:63:G:C4	23:2K:64:G:C8	2.97	0.53
26:1H:1039:G:H1	26:1H:1116:C:H42	1.56	0.53
26:1H:1178:C:H4'	26:1H:1179:C:OP1	2.08	0.53
27:16:7:G:H4'	39:A8:29:PHE:CD2	2.44	0.53
31:41:7:LEU:HB2	31:41:104:GLU:HB2	1.90	0.53
40:B8:87:ASP:OD1	40:B8:87:ASP:N	2.42	0.53
1:1G:1502:A:H2	1:1G:1505:G:N1	2.00	0.53
26:14:860:U:H1'	26:14:2268:A:H5'	1.91	0.53
26:14:2239:G:H5'	28:19:251:GLY:HA3	1.89	0.53
26:14:2757:A:N1	32:59:67:LEU:HD23	2.24	0.53
36:35:27:HIS:HB3	36:35:32:THR:HG23	1.90	0.53
40:75:4:GLY:HA2	40:75:8:LYS:HB2	1.90	0.53
51:I5:23:GLU:C	51:I5:24:THR:HG1	2.15	0.53
1:13:223:U:H2'	1:13:224:C:C6	2.43	0.52
1:13:749:C:H2'	1:13:750:G:H8	1.73	0.52
1:13:1033:G:H2'	1:13:1034:G:H8	1.74	0.52
1:13:1178:G:N2	1:13:1181:G:C8	2.76	0.52
1:13:1422:G:H1	1:13:1478:C:H42	1.55	0.52
2:1E:70:PHE:O	2:1E:93:VAL:N	2.32	0.52
7:6E:16:LEU:HD21	9:8E:45:ALA:HB2	1.91	0.52
10:1I:59:SER:O	10:1I:59:SER:OG	2.21	0.52
22:1K:8:U:H1'	22:1K:22:G:H21	1.74	0.52
22:1K:87:A:O3'	26:1H:2506:U:H1'	2.08	0.52
26:1H:49:A:N7	26:1H:120:U:C5	2.68	0.52
26:1H:277:C:H3'	26:1H:278:A:O4'	2.10	0.52
26:1H:1437:C:H2'	26:1H:1438:U:C6	2.42	0.52
26:1H:1858:G:H1'	26:1H:1884:A:N6	2.24	0.52
26:1H:2729:G:H2'	26:1H:2730:C:H6	1.73	0.52
27:16:15:A:H1'	27:16:109:G:N9	2.24	0.52
31:41:151:ALA:O	31:41:153:ARG:NH1	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:674:G:H2'	1:1G:675:A:H8	1.72	0.52
4:32:168:ARG:HD3	4:32:169:LYS:H	1.74	0.52
13:4A:4:ILE:HG23	13:4A:5:ALA:H	1.74	0.52
19:AA:27:GLU:O	19:AA:47:HIS:NE2	2.39	0.52
26:14:250:G:P	36:35:60:MET:HE1	2.49	0.52
26:14:843:G:H1	26:14:935:C:H42	1.56	0.52
26:14:1041:C:H2'	26:14:1042:G:H8	1.73	0.52
26:14:2789:C:H1'	26:14:2892:A:H2	1.74	0.52
1:13:554:C:H2'	1:13:555:C:C6	2.44	0.52
1:13:728:A:C5	15:6I:54:ARG:HD2	2.44	0.52
1:13:939:G:H5"	7:6E:102:ARG:NH2	2.24	0.52
1:13:959:A:HO2'	1:13:984:C:HO2'	1.56	0.52
1:13:1280:A:H3'	1:13:1281:U:H5'	1.91	0.52
1:13:1513:A:H2'	1:13:1514:C:C6	2.43	0.52
4:3E:98:GLU:HG3	4:3E:103:ASN:HD21	1.73	0.52
8:7E:7:ALA:HB2	8:7E:85:ARG:HD2	1.91	0.52
26:1H:176:G:O2'	26:1H:177:G:H5'	2.09	0.52
26:1H:882:G:OP1	26:1H:882:G:H4'	2.09	0.52
26:1H:2062:A:N6	26:1H:2503:A:H62	2.07	0.52
26:1H:2224:G:H4'	26:1H:2226:C:C2	2.45	0.52
27:16:21:G:N2	27:16:62:C:N3	2.46	0.52
30:31:140:LEU:HD13	30:31:170:LEU:HD21	1.91	0.52
36:78:2:LYS:HD3	36:78:4:SER:HB2	1.91	0.52
1:1G:535:A:H5"	57:1G:1809:HOH:O	2.08	0.52
1:1G:994:A:C2	14:5A:5:ALA:HB2	2.44	0.52
3:22:47:LEU:HD11	3:22:70:VAL:HG22	1.92	0.52
4:32:107:ARG:HH22	4:32:196:LEU:HD21	1.73	0.52
5:42:76:ILE:HG22	5:42:77:PRO:HD2	1.91	0.52
23:2L:71:U:H5"	23:2L:72:C:C5	2.40	0.52
26:14:308:G:C8	26:14:501:A:H1'	2.44	0.52
26:14:1026:U:H2'	27:1J:88:C:N4	2.24	0.52
26:14:1778:U:H2'	26:14:1784:A:N6	2.24	0.52
26:14:2719:G:OP2	57:14:3591:HOH:O	2.18	0.52
36:35:98:GLU:HA	36:35:101:VAL:HG12	1.91	0.52
1:13:221:C:H2'	1:13:222:U:C6	2.44	0.52
1:13:1152:A:O3'	10:1I:13:HIS:NE2	2.42	0.52
1:13:1243:C:H42	1:13:1294:G:H1	1.57	0.52
1:13:1469:G:H2'	1:13:1470:G:H8	1.75	0.52
4:3E:13:ARG:HD3	4:3E:36:ARG:O	2.09	0.52
12:3I:66:VAL:HG21	12:3I:98:TYR:HE1	1.75	0.52
23:2K:73:C:H2'	23:2K:74:C:C6	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1510:A:H2'	26:1H:1510:A:N3	2.23	0.52
26:1H:2022:U:O2'	26:1H:2617:C:H5'	2.09	0.52
26:1H:2244:U:H2'	26:1H:2245:U:O4'	2.09	0.52
26:1H:2488:A:H2'	26:1H:2489:G:O4'	2.09	0.52
26:1H:2784:C:H2'	26:1H:2785:C:C6	2.43	0.52
28:11:132:PRO:HD3	28:11:190:TYR:CZ	2.44	0.52
29:21:5:LEU:HD12	29:21:51:PHE:HB2	1.90	0.52
32:51:20:ALA:HB1	32:51:21:PRO:HD2	1.89	0.52
40:B8:3:ARG:O	40:B8:7:ILE:N	2.36	0.52
46:H8:125:LEU:HG	46:H8:164:ALA:HB2	1.91	0.52
1:1G:841:U:O2'	1:1G:842:C:H5"	2.09	0.52
1:1G:854:G:C2	1:1G:855:G:C8	2.97	0.52
1:1G:1128:C:H4'	9:82:16:ARG:HH12	1.75	0.52
22:1L:75:G:H2'	22:1L:76:U:C6	2.43	0.52
23:2L:15:A:H2'	23:2L:70:G:H1	1.75	0.52
26:14:363(E):U:H5'	26:14:363(F):A:OP2	2.10	0.52
26:14:947:G:H2'	26:14:948:G:C8	2.44	0.52
26:14:1278:A:OP1	38:55:36:THR:HG22	2.09	0.52
26:14:1729:A:H2'	26:14:1731:G:N2	2.24	0.52
26:14:2262:U:P	47:E5:19:LYS:HE3	2.49	0.52
34:15:99:LEU:O	34:15:103:VAL:HG23	2.10	0.52
1:13:356:A:N3	1:13:368:U:O2'	2.42	0.52
1:13:792:A:H4'	1:13:793:U:O5'	2.09	0.52
1:13:1117:G:H5"	9:8E:104:ARG:NH1	2.25	0.52
27:16:29:A:H2'	27:16:30:C:O4'	2.09	0.52
39:A8:109:GLY:HA3	39:A8:110:LEU:HD23	1.91	0.52
54:Q8:50:LEU:O	54:Q8:52:LYS:N	2.40	0.52
1:1G:632:A:H1'	1:1G:633:G:OP2	2.10	0.52
7:62:46:ALA:O	7:62:50:ILE:HG12	2.09	0.52
24:3L:9:G:H3'	24:3L:10:G:H5"	1.91	0.52
26:14:654(I):C:H5"	26:14:654(M):C:H42	1.73	0.52
26:14:1169:G:C2	26:14:1170:G:H1'	2.44	0.52
28:19:83:GLU:HB2	28:19:92:ILE:HG13	1.92	0.52
28:19:242:ARG:HH11	28:19:242:ARG:H	1.58	0.52
31:49:138:GLN:OE1	31:49:153:ARG:HG2	2.09	0.52
35:25:71:ARG:NE	35:25:105:GLU:OE1	2.37	0.52
41:85:66:ASN:ND2	41:85:70:ARG:HE	2.07	0.52
1:13:486:U:H2'	1:13:487:A:H8	1.75	0.52
26:1H:37:C:H2'	26:1H:38:A:C8	2.44	0.52
26:1H:144:C:H2'	26:1H:145:G:H8	1.74	0.52
26:1H:1914:C:H2'	26:1H:1915:U:O4'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2308:G:H2'	26:1H:2308:G:N3	2.25	0.52
28:11:155:LEU:HD13	28:11:155:LEU:N	2.25	0.52
32:51:104:GLU:HB2	32:51:114:VAL:HG13	1.91	0.52
33:61:62:LYS:HA	33:61:133:HIS:NE2	2.25	0.52
40:B8:121:ILE:O	40:B8:124:ASP:HB2	2.09	0.52
1:1G:111:G:H8	1:1G:111:G:O5'	1.92	0.52
13:4A:92:HIS:CD2	13:4A:98:VAL:HG11	2.45	0.52
22:1L:64:G:O3'	37:45:56:ARG:NH2	2.43	0.52
26:14:185:U:H4'	26:14:218:A:H4'	1.91	0.52
26:14:247:G:H4'	26:14:386:G:C5	2.44	0.52
26:14:307:G:O5'	26:14:307:G:H8	1.93	0.52
26:14:1606:G:H5"	26:14:1607:C:OP1	2.10	0.52
26:14:1871:A:H2'	26:14:1872:A:C8	2.45	0.52
26:14:2635:C:OP1	29:29:77:ILE:HB	2.08	0.52
30:39:30:PRO:O	30:39:33:LEU:N	2.42	0.52
1:13:270:A:H2'	1:13:271:C:O4'	2.10	0.52
1:13:736:C:H2'	1:13:737:A:H8	1.75	0.52
1:13:789:U:C5	1:13:791:G:H3'	2.45	0.52
1:13:922:G:H1'	5:4E:19:MET:HB2	1.91	0.52
4:3E:29:PRO:HA	4:3E:34:GLU:HG3	1.92	0.52
6:5E:23:LYS:HG3	6:5E:61:LEU:HD21	1.90	0.52
26:1H:309:G:N3	26:1H:329:G:O2'	2.43	0.52
26:1H:728:G:H4'	28:11:13:ARG:HD3	1.91	0.52
26:1H:861:A:N3	27:16:79:C:O2'	2.43	0.52
26:1H:881:G:H5'	26:1H:882:G:O5'	2.09	0.52
26:1H:1342:A:OP1	44:F8:36:LYS:NZ	2.30	0.52
26:1H:1838:C:O3'	57:1H:3834:HOH:O	2.19	0.52
29:21:152:LYS:HG2	34:58:78:TYR:CE1	2.45	0.52
38:98:2:ARG:HG2	38:98:2:ARG:HH11	1.74	0.52
43:E8:17:VAL:HG13	43:E8:76:VAL:HG11	1.92	0.52
54:Q8:29:LYS:O	54:Q8:30:ARG:NH1	2.39	0.52
54:Q8:31:HIS:O	54:Q8:31:HIS:ND1	2.40	0.52
1:1G:1148:U:H2'	1:1G:1149:C:O4'	2.10	0.52
3:22:36:ASP:OD1	3:22:57:ILE:HG21	2.10	0.52
9:82:49:PRO:HD3	9:82:78:LYS:HZ2	1.75	0.52
26:14:193:U:H5	57:14:3644:HOH:O	1.93	0.52
26:14:483:A:H1'	45:C5:60:PHE:CE1	2.45	0.52
30:39:165:ARG:HB3	30:39:165:ARG:HH11	1.74	0.52
37:45:26:TYR:O	37:45:26:TYR:HD1	1.93	0.52
48:F5:15:ALA:O	48:F5:40:ARG:HG2	2.10	0.52
1:13:404:U:H2'	1:13:405:U:C6	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:973:G:O4'	10:1I:55:LYS:HB3	2.10	0.52
13:4I:39:ILE:HD13	13:4I:52:GLU:HB3	1.92	0.52
26:1H:587:C:OP2	36:78:21:ARG:NH2	2.43	0.52
26:1H:1047:G:H2'	26:1H:1110:G:N1	2.25	0.52
26:1H:1332:G:N2	26:1H:1609:A:O2'	2.42	0.52
26:1H:1454:U:O2'	26:1H:1455:G:N7	2.42	0.52
26:1H:1534:G:H3'	26:1H:1534:G:N3	2.24	0.52
26:1H:2110:G:N2	26:1H:2180:U:O2	2.43	0.52
26:1H:2748:A:OP1	32:51:70:THR:OG1	2.18	0.52
26:1H:2843:G:H1	26:1H:2874:C:N4	2.00	0.52
30:31:114:VAL:HG21	30:31:202:PHE:CZ	2.45	0.52
1:1G:173:U:O2	1:1G:197:A:N6	2.43	0.52
1:1G:313:A:H2'	1:1G:314:C:C6	2.45	0.52
1:1G:858:G:OP2	1:1G:858:G:H8	1.93	0.52
1:1G:1274:G:H2'	1:1G:1275:A:C8	2.44	0.52
5:42:126:ARG:HH11	5:42:126:ARG:HG3	1.74	0.52
7:62:126:ASP:HB3	7:62:131:LYS:O	2.09	0.52
16:7A:74:LEU:HD12	16:7A:79:VAL:HG21	1.91	0.52
20:BA:67:ALA:HB2	20:BA:77:ALA:HB2	1.92	0.52
26:14:13:A:N1	26:14:525:U:H2'	2.25	0.52
26:14:57:C:H2'	26:14:58:G:O4'	2.10	0.52
26:14:270(L):U:O2	33:69:50:ARG:HD2	2.10	0.52
26:14:1225:C:C4'	42:95:85:LYS:HA	2.36	0.52
26:14:2646:C:H2'	26:14:2647:U:O4'	2.10	0.52
28:19:166:GLN:HB3	28:19:174:ILE:HG22	1.91	0.52
40:75:61:PHE:CE1	40:75:76:PHE:HB2	2.45	0.52
48:F5:91:LYS:HA	48:F5:91:LYS:NZ	2.23	0.52
1:13:765:G:H5"	1:13:766:A:OP1	2.10	0.52
1:13:791:G:C6	1:13:792:A:C2	2.98	0.52
5:4E:28:PHE:O	5:4E:47:LYS:HA	2.10	0.52
6:5E:39:LYS:HD3	6:5E:64:GLN:HG3	1.91	0.52
7:6E:69:VAL:HG22	7:6E:135:VAL:HG13	1.90	0.52
13:4I:14:ARG:HB2	13:4I:14:ARG:HH11	1.75	0.52
23:2K:86:C:H3'	23:2K:87:A:H5"	1.89	0.52
26:1H:1038:C:H2'	26:1H:1039:G:O4'	2.09	0.52
26:1H:1582:C:H2'	26:1H:1583:A:O4'	2.10	0.52
26:1H:1635:G:H2'	26:1H:1636:C:C6	2.45	0.52
36:78:144:GLU:OE2	36:78:144:GLU:N	2.42	0.52
54:Q8:35:GLN:HB3	54:Q8:37:SER:O	2.10	0.52
54:Q8:52:LYS:HA	54:Q8:54:GLU:HB2	1.91	0.52
1:1G:751:U:H4'	15:6A:24:SER:HA	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1028:C:N4	1:1G:1033:G:H1	2.08	0.52
2:12:82:ARG:NH1	2:12:92:TYR:OH	2.43	0.52
8:72:14:ARG:O	8:72:17:THR:HG22	2.09	0.52
11:2A:100:ALA:O	11:2A:102:GLY:N	2.43	0.52
13:4A:86:CYS:HA	19:AA:73:GLU:O	2.10	0.52
15:6A:35:ARG:NH2	15:6A:59:MET:HE2	2.24	0.52
17:8A:59:ILE:HD13	17:8A:73:VAL:HA	1.92	0.52
23:2L:86:C:H2'	23:2L:87:A:C8	2.45	0.52
24:3L:5:A:H61	24:3L:79:U:H3	1.58	0.52
26:14:99:U:H4'	26:14:102:G:H1'	1.91	0.52
26:14:1184:G:H5'	50:H5:29:ARG:HH21	1.75	0.52
26:14:2318:G:H1	39:65:2:ALA:HA	1.73	0.52
32:59:122:THR:OG1	32:59:134:SER:OG	2.28	0.52
36:35:111:ARG:HG3	36:35:128:HIS:CG	2.45	0.52
37:45:17:LEU:HD21	37:45:41:TRP:HE1	1.75	0.52
38:55:37:THR:OG1	38:55:40:LYS:HE3	2.10	0.52
45:C5:63:LYS:NZ	45:C5:63:LYS:HA	2.25	0.52
1:13:312:C:H2'	1:13:313:A:H8	1.74	0.52
1:13:403:C:O3'	4:3E:122:ARG:HD2	2.10	0.52
1:13:624:C:O3'	16:7I:10:GLY:HA2	2.10	0.52
1:13:963:G:H21	10:1I:55:LYS:CE	2.22	0.52
1:13:1179:A:H2'	1:13:1180:A:O4'	2.10	0.52
2:1E:77:ALA:HB1	2:1E:165:VAL:HG11	1.90	0.52
9:8E:18:PHE:HD2	9:8E:62:TYR:HD2	1.58	0.52
10:1I:92:THR:OG1	10:1I:93:GLY:N	2.43	0.52
13:4I:3:ARG:HD3	13:4I:7:VAL:HG13	1.92	0.52
19:AI:40:ILE:HG22	19:AI:69:HIS:O	2.10	0.52
26:1H:86:C:H4'	26:1H:104:U:H1'	1.91	0.52
26:1H:844:C:H3'	26:1H:845:G:H8	1.74	0.52
26:1H:848:G:H2'	26:1H:849:A:C8	2.45	0.52
26:1H:1729:A:HO2'	26:1H:1730:U:P	2.33	0.52
26:1H:2712:U:H1'	26:1H:2712(A):A:C8	2.45	0.52
32:51:40:GLU:OE1	32:51:41:MET:N	2.43	0.52
43:E8:73:ALA:HB3	43:E8:106:ILE:HD12	1.91	0.52
53:P8:35:ARG:HG3	53:P8:42:LEU:HD11	1.92	0.52
10:1A:65:LEU:HD12	14:5A:55:GLY:O	2.10	0.52
26:14:29:U:O4	57:14:3809:HOH:O	2.19	0.52
26:14:780:G:N2	26:14:783:A:H62	2.03	0.52
26:14:1609:A:OP2	57:14:3603:HOH:O	2.19	0.52
26:14:2601:C:H2'	26:14:2603:G:C8	2.45	0.52
26:14:2882:A:H5'	38:55:96:ARG:HG3	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:123:LEU:HB2	30:39:192:LEU:HB3	1.90	0.52
31:49:143:GLU:N	31:49:143:GLU:OE2	2.42	0.52
53:L5:8:ASN:C	53:L5:8:ASN:OD1	2.52	0.52
1:13:1075:C:OP1	2:1E:179:LYS:NZ	2.27	0.52
17:8I:25:ARG:CZ	17:8I:27:PHE:HE2	2.23	0.52
18:9I:66:LEU:O	18:9I:70:ILE:HG13	2.10	0.52
26:1H:263:C:H2'	26:1H:264:C:O4'	2.10	0.52
26:1H:389:G:H22	36:78:72:PRO:HD3	1.74	0.52
26:1H:1535:U:H2'	26:1H:1536:A:H5"	1.92	0.52
26:1H:1543:A:H3'	26:1H:1543:A:OP2	2.10	0.52
26:1H:2068:U:N3	26:1H:2430:A:H2	2.07	0.52
26:1H:2383:G:N7	54:Q8:34:TRP:CZ2	2.76	0.52
44:F8:24:GLY:O	44:F8:83:VAL:HG22	2.10	0.52
1:1G:413:G:HO2'	1:1G:414:A:P	2.28	0.52
2:12:70:PHE:O	2:12:93:VAL:N	2.39	0.52
5:42:6:PHE:HB2	5:42:34:VAL:HG22	1.92	0.52
10:1A:36:GLY:O	10:1A:38:ILE:HG13	2.10	0.52
11:2A:32:ILE:HD13	11:2A:72:ALA:HB2	1.92	0.52
15:6A:56:LEU:O	15:6A:60:VAL:HG23	2.10	0.52
19:AA:29:ARG:NH1	19:AA:48:THR:H	2.08	0.52
23:2L:74:C:H2'	23:2L:75:G:H8	1.74	0.52
26:14:1021:A:H2'	26:14:1023:U:H5'	1.91	0.52
26:14:1198:U:H2'	26:14:1199:U:C6	2.45	0.52
26:14:1838:C:N4	26:14:1898:U:H2'	2.25	0.52
28:19:12:SER:O	28:19:16:MET:HE3	2.10	0.52
28:19:70:TRP:CD1	28:19:70:TRP:C	2.88	0.52
34:15:96:GLU:H	34:15:96:GLU:CD	2.17	0.52
46:D5:25:PRO:O	46:D5:85:HIS:HA	2.09	0.52
1:13:446:G:H1	1:13:488:C:H42	1.58	0.51
2:1E:12:GLU:C	2:1E:16:HIS:HD2	2.18	0.51
2:1E:164:VAL:HG23	2:1E:186:ALA:HB2	1.91	0.51
3:2E:43:LEU:HD22	3:2E:47:LEU:HD12	1.92	0.51
3:2E:83:ARG:O	3:2E:86:VAL:HG22	2.09	0.51
10:1I:48:THR:HA	10:1I:62:HIS:HB2	1.90	0.51
24:3K:32:C:O2	24:3K:40:G:N2	2.38	0.51
26:1H:14:A:H3'	26:1H:15:G:H5"	1.92	0.51
26:1H:445:C:H2'	26:1H:446:G:C8	2.45	0.51
26:1H:518:G:H2'	26:1H:519:U:C6	2.45	0.51
26:1H:1449:A:H5'	26:1H:1449(A):G:OP2	2.10	0.51
26:1H:1945:G:H2'	26:1H:1946:U:C6	2.44	0.51
27:16:112:G:H2'	27:16:113:C:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:21:37:ARG:O	29:21:45:THR:HA	2.10	0.51
31:41:34:LEU:HD23	31:41:172:LEU:HD21	1.90	0.51
1:1G:165:C:H2'	1:1G:166:G:C8	2.45	0.51
1:1G:551:U:H2'	1:1G:552:U:H6	1.74	0.51
1:1G:580:U:H5"	15:6A:58:MET:HG2	1.92	0.51
1:1G:1179:A:H2'	1:1G:1180:A:O4'	2.10	0.51
4:32:57:ARG:HE	4:32:205:GLU:HB3	1.73	0.51
19:AA:66:MET:HE3	19:AA:67:VAL:O	2.10	0.51
23:2L:32:C:H2'	23:2L:33:U:O4'	2.10	0.51
26:14:28:A:O2'	26:14:583:G:H5'	2.10	0.51
26:14:2270:G:OP2	57:14:3775:HOH:O	2.19	0.51
26:14:2666:C:C2'	26:14:2667:C:H5'	2.40	0.51
27:1J:6:C:C2	27:1J:115:G:N2	2.78	0.51
29:29:47:VAL:HG12	29:29:49:LEU:HD23	1.92	0.51
44:B5:55:ASN:HB2	44:B5:80:ILE:CG1	2.37	0.51
48:F5:4:VAL:HG11	48:F5:11:ARG:NH1	2.25	0.51
1:13:1504:G:H3'	1:13:1504:G:P	2.51	0.51
4:3E:141:ARG:HB2	4:3E:141:ARG:HH11	1.75	0.51
16:7I:50:LYS:HD3	16:7I:51:VAL:H	1.75	0.51
26:1H:185:U:H2'	26:1H:186:G:C8	2.44	0.51
26:1H:357:A:H2'	26:1H:358:U:C6	2.46	0.51
26:1H:816:C:OP2	57:1H:3724:HOH:O	2.19	0.51
26:1H:1203:G:H3'	26:1H:1204:A:H5"	1.91	0.51
26:1H:1709:U:H2'	26:1H:1710:C:C6	2.45	0.51
26:1H:2656:U:H3	26:1H:2665:A:H2	1.58	0.51
28:11:136:ILE:HG22	28:11:137:PRO:HD2	1.92	0.51
36:78:56:SER:O	36:78:61:ARG:HG3	2.11	0.51
1:1G:540:G:H2'	1:1G:541:G:O4'	2.09	0.51
2:12:175:ARG:O	2:12:179:LYS:HB2	2.09	0.51
26:14:973:A:OP2	57:14:3989:HOH:O	2.19	0.51
26:14:1479:G:O2'	26:14:1558:A:H5'	2.10	0.51
26:14:1802:A:N1	26:14:1822:G:H1'	2.25	0.51
26:14:1972:A:H2'	26:14:1973:G:H8	1.73	0.51
57:14:3726:HOH:O	30:39:55:GLY:HA2	2.09	0.51
29:29:105:THR:OG1	29:29:166:THR:HG23	2.10	0.51
1:13:945:G:C2	1:13:946:A:C8	2.99	0.51
1:13:1095:U:H2'	1:13:1096:C:C6	2.45	0.51
2:1E:120:ALA:O	2:1E:124:SER:OG	2.16	0.51
3:2E:142:MET:SD	3:2E:148:GLY:HA2	2.50	0.51
7:6E:69:VAL:HG21	7:6E:104:LEU:HD21	1.92	0.51
26:1H:2392:A:H1'	36:78:61:ARG:HH11	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2693:A:H2'	26:1H:2694:G:C8	2.46	0.51
27:16:93:C:H2'	27:16:94:C:H6	1.74	0.51
39:A8:67:ARG:HD3	39:A8:71:ARG:NH2	2.26	0.51
41:C8:34:LYS:NZ	41:C8:37:GLU:OE1	2.40	0.51
45:G8:94:LYS:HZ2	45:G8:95:LYS:H	1.58	0.51
1:1G:308:C:H2'	1:1G:309:G:H8	1.75	0.51
1:1G:765:G:N2	1:1G:813:U:OP2	2.43	0.51
1:1G:1187:G:P	9:82:113:LYS:HZ1	2.33	0.51
2:12:19:HIS:HD2	2:12:20:GLU:HG2	1.75	0.51
3:22:16:ARG:HH12	3:22:181:ASN:ND2	2.09	0.51
14:5A:7:ILE:HA	14:5A:23:ARG:HE	1.74	0.51
19:AA:29:ARG:HD3	19:AA:48:THR:OG1	2.10	0.51
26:14:1041:C:N4	26:14:1114:G:H22	2.04	0.51
26:14:1505:C:H2'	26:14:1506:C:C6	2.46	0.51
26:14:2495:G:H5"	26:14:2496:C:OP2	2.09	0.51
26:14:2748:A:H2'	26:14:2749:A:C8	2.46	0.51
29:29:57:LYS:HA	29:29:58:ARG:O	2.11	0.51
30:39:28:ILE:HA	30:39:112:MET:HG2	1.91	0.51
30:39:178:PRO:HG2	30:39:179:GLU:OE1	2.10	0.51
37:45:103:MET:HE1	37:45:127:ILE:HD11	1.91	0.51
40:75:80:SER:HB3	40:75:83:ILE:HG13	1.91	0.51
53:L5:12:ARG:HH21	53:L5:44:PRO:HB3	1.75	0.51
1:13:107:G:O6	20:BI:15:ARG:HG3	2.10	0.51
1:13:323:U:H2'	1:13:324:G:O4'	2.10	0.51
1:13:1014:A:H4'	19:AI:14:HIS:CG	2.45	0.51
8:7E:29:SER:OG	8:7E:32:LYS:HE3	2.10	0.51
19:AI:41:VAL:HG11	19:AI:67:VAL:HA	1.93	0.51
26:1H:321:G:OP2	30:31:135:LYS:HG3	2.11	0.51
26:1H:796:C:H2'	26:1H:797:C:H6	1.73	0.51
26:1H:1007:C:OP1	34:58:35:ARG:NH1	2.44	0.51
26:1H:1396:U:O2	26:1H:1396:U:H2'	2.08	0.51
26:1H:2815:C:O2'	52:N8:42:PRO:HG2	2.11	0.51
26:1H:2849:U:H4'	26:1H:2868:A:C2	2.46	0.51
28:11:46:GLN:C	28:11:48:ARG:H	2.19	0.51
29:21:119:ARG:HB3	29:21:120:TRP:CD1	2.45	0.51
30:31:103:LYS:HG2	30:31:106:ARG:HH21	1.75	0.51
32:51:85:LYS:HE3	32:51:142:GLY:HA2	1.93	0.51
45:G8:40:GLU:HA	45:G8:42:VAL:N	2.26	0.51
46:H8:48:PHE:HE1	46:H8:71:VAL:HG11	1.75	0.51
1:1G:41:G:H2'	1:1G:42:G:C8	2.46	0.51
1:1G:581:G:OP1	15:6A:61:GLY:HA3	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1095:U:H2'	1:1G:1096:C:O4'	2.11	0.51
7:62:15:ASP:OD1	7:62:44:TYR:OH	2.29	0.51
12:3A:100:ILE:HG22	12:3A:101:VAL:N	2.24	0.51
17:8A:99:SER:OG	17:8A:100:LYS:N	2.44	0.51
22:1L:10:G:H2'	22:1L:11:U:C6	2.46	0.51
24:3L:2:C:H2'	24:3L:3:C:C6	2.45	0.51
26:14:43:G:H1'	26:14:438:G:N2	2.25	0.51
26:14:128:C:H2'	26:14:129:C:H6	1.76	0.51
26:14:1014:U:H2'	26:14:1015:G:H8	1.75	0.51
26:14:1810:A:H2'	26:14:1811:G:O4'	2.11	0.51
26:14:2320:A:N6	26:14:2333:A:H2'	2.26	0.51
26:14:2682:U:O2'	29:29:13:ARG:HG2	2.10	0.51
26:14:2754:U:H5'	26:14:2755:C:OP2	2.10	0.51
33:69:109:ILE:H	33:69:109:ILE:HD13	1.75	0.51
51:I5:16:CYS:HA	51:I5:33:VAL:HG22	1.91	0.51
1:13:580:U:H2'	1:13:581:G:O4'	2.11	0.51
1:13:736:C:H2'	1:13:737:A:C8	2.45	0.51
1:13:1171:G:H2'	1:13:1172:C:C6	2.45	0.51
1:13:1226:C:H4'	19:AI:80:TYR:OH	2.09	0.51
2:1E:85:ALA:O	2:1E:90:MET:N	2.43	0.51
18:9I:22:VAL:HA	18:9I:25:THR:OG1	2.10	0.51
23:2K:21:A:H2	23:2K:57:C:H42	1.58	0.51
26:1H:736:C:O5'	26:1H:736:C:H6	1.93	0.51
26:1H:1184:G:H5'	50:L8:29:ARG:HH11	1.75	0.51
26:1H:1222:C:H2'	26:1H:1223:C:H6	1.75	0.51
26:1H:1312:U:H4'	26:1H:1313:U:O5'	2.10	0.51
26:1H:2210:G:H2'	26:1H:2211:G:C6	2.44	0.51
28:11:77:ALA:HB2	28:11:97:TYR:CD1	2.45	0.51
28:11:221:VAL:HG22	28:11:226:MET:HE3	1.92	0.51
33:61:47:LEU:O	33:61:51:ILE:HG13	2.10	0.51
33:61:129:THR:HA	33:61:137:PRO:HA	1.92	0.51
1:1G:142:G:H2'	1:1G:143:A:C8	2.44	0.51
1:1G:438:G:H4'	4:32:123:HIS:ND1	2.25	0.51
1:1G:628:G:H2'	1:1G:629:G:C8	2.46	0.51
1:1G:1134:G:N2	1:1G:1140:C:N3	2.57	0.51
5:42:31:LEU:HD23	5:42:45:PHE:HB2	1.92	0.51
10:1A:78:ASN:OD1	10:1A:80:LYS:HB3	2.11	0.51
26:14:929:G:H8	26:14:929:G:O5'	1.94	0.51
26:14:2082:A:H3'	26:14:2083:G:H8	1.74	0.51
27:1J:7:G:H3'	27:1J:8:U:H5"	1.92	0.51
29:29:11:MET:SD	29:29:24:THR:HG22	2.50	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:D5:7:ALA:O	46:D5:8:TYR:CG	2.63	0.51
48:F5:87:PRO:O	48:F5:91:LYS:N	2.42	0.51
1:13:657:G:H4'	15:6I:28:GLN:HG2	1.93	0.51
1:13:1097:C:O2'	1:13:1169:A:N3	2.36	0.51
1:13:1134:G:H1	1:13:1140:C:H42	1.58	0.51
2:1E:22:LYS:C	2:1E:24:TRP:H	2.17	0.51
26:1H:84:A:N1	26:1H:98:G:O2'	2.36	0.51
26:1H:274:G:H2'	26:1H:275:G:H4'	1.92	0.51
26:1H:654(B):C:H2'	26:1H:654(C):G:C8	2.34	0.51
26:1H:1034:G:H2'	26:1H:1035:U:O4'	2.10	0.51
26:1H:1423:G:H2'	26:1H:1424:G:H8	1.75	0.51
26:1H:1533:C:H3'	26:1H:1534:G:H5"	1.92	0.51
29:21:16:ARG:HG3	29:21:17:ASP:HB2	1.93	0.51
38:98:44:LEU:HD22	38:98:48:VAL:HG13	1.93	0.51
38:98:76:VAL:HG13	38:98:80:PHE:CE2	2.45	0.51
40:B8:90:GLN:HG3	40:B8:91:ARG:N	2.25	0.51
40:B8:112:ARG:HA	40:B8:115:ARG:CZ	2.40	0.51
41:C8:87:GLY:C	41:C8:89:GLU:H	2.19	0.51
45:G8:8:LYS:O	45:G8:11:ASP:HB2	2.09	0.51
46:H8:164:ALA:O	46:H8:165:VAL:HG22	2.10	0.51
1:1G:1312:G:H2'	1:1G:1313:U:H6	1.75	0.51
2:12:101:MET:HB2	2:12:102:LEU:HD12	1.93	0.51
19:AA:29:ARG:HB2	19:AA:30:LEU:HD22	1.92	0.51
26:14:1367:A:H5"	26:14:1368:G:OP2	2.10	0.51
26:14:1533:C:C4	26:14:1534:G:H1'	2.45	0.51
26:14:1819:A:H4'	26:14:1820:U:H5"	1.91	0.51
26:14:1973:G:H2'	26:14:1974:C:H6	1.74	0.51
26:14:2331:G:O2'	26:14:2336:A:N1	2.42	0.51
26:14:2575:C:H5'	29:29:143:ASN:O	2.11	0.51
26:14:2611:U:C4	52:J5:3:LYS:HG2	2.45	0.51
36:35:144:GLU:CD	36:35:144:GLU:N	2.69	0.51
37:45:19:GLY:O	37:45:98:LYS:HB3	2.10	0.51
38:55:8:ARG:HH11	38:55:39:PRO:HB3	1.74	0.51
48:F5:8:SER:OG	48:F5:10:LYS:HG3	2.11	0.51
48:F5:52:ARG:HA	48:F5:56:GLN:O	2.11	0.51
1:13:411:A:N9	1:13:413:G:H1'	2.26	0.51
1:13:1374:A:O2'	7:6E:28:ASN:HB3	2.11	0.51
2:1E:93:VAL:HG21	2:1E:97:TRP:HD1	1.76	0.51
6:5E:39:LYS:H	6:5E:64:GLN:CB	2.23	0.51
26:1H:2024:G:H2'	26:1H:2025:C:H6	1.75	0.51
26:1H:2533:A:OP1	26:1H:2665:A:H1'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:41:112:PRO:HG2	51:M8:36:CYS:HB2	1.92	0.51
36:78:17:LYS:HE2	36:78:27:HIS:CD2	2.45	0.51
37:88:66:ILE:HG22	37:88:67:ARG:N	2.24	0.51
38:98:117:VAL:O	38:98:118:GLU:HB2	2.09	0.51
41:C8:92:ARG:NH2	42:D8:11:GLN:H	2.09	0.51
46:H8:81:ARG:HG3	46:H8:81:ARG:O	2.11	0.51
49:K8:48:HIS:N	49:K8:50:ILE:HD11	2.26	0.51
54:Q8:39:LYS:HA	54:Q8:42:ARG:HD3	1.92	0.51
1:1G:1323:G:H2'	1:1G:1324:A:C8	2.46	0.51
13:4A:79:LYS:O	13:4A:82:MET:N	2.41	0.51
15:6A:16:ALA:HB1	15:6A:21:ASP:HB3	1.91	0.51
24:3L:44:G:H2'	24:3L:44:G:N3	2.26	0.51
26:14:882:G:H22	26:14:894:C:N4	2.09	0.51
26:14:1159:U:O2'	26:14:1160:G:H5'	2.11	0.51
26:14:1592:C:H2'	26:14:1593:G:C8	2.45	0.51
26:14:2124:G:H1	26:14:2173:A:N6	2.09	0.51
26:14:2715:C:H2'	26:14:2716:U:C6	2.45	0.51
26:14:2776:A:OP1	26:14:2776:A:H3'	2.10	0.51
30:39:78:ILE:C	30:39:80:ALA:H	2.19	0.51
32:59:103:LEU:HD23	32:59:103:LEU:H	1.75	0.51
48:F5:92:LYS:O	48:F5:94:LEU:N	2.43	0.51
1:13:404:U:H2'	1:13:405:U:H6	1.76	0.51
15:6I:12:ILE:HG12	15:6I:31:LEU:HD11	1.91	0.51
16:7I:8:ARG:O	16:7I:9:PHE:HD1	1.93	0.51
26:1H:270(E):G:H1	26:1H:270(U):C:H42	1.59	0.51
26:1H:535:C:O3'	41:C8:53:ARG:NH1	2.43	0.51
26:1H:805:G:OP2	36:78:41:ARG:HG2	2.11	0.51
26:1H:2432:A:C4	48:J8:33:LYS:HG2	2.46	0.51
31:41:20:ILE:HG23	31:41:25:TYR:HD2	1.76	0.51
32:51:90:LYS:HG3	32:51:163:TYR:CD1	2.46	0.51
33:61:39:ALA:HB1	33:61:44:LEU:HD13	1.92	0.51
33:61:68:LEU:HA	33:61:71:ILE:CG2	2.41	0.51
33:61:93:THR:HA	33:61:119:PRO:HB3	1.92	0.51
34:58:78:TYR:CD1	34:58:78:TYR:N	2.79	0.51
36:78:98:GLU:O	36:78:101:VAL:HG13	2.11	0.51
45:G8:52:SER:O	45:G8:56:PRO:HA	2.11	0.51
1:1G:551:U:H2'	1:1G:552:U:C6	2.46	0.51
1:1G:1512:U:H2'	1:1G:1513:A:C8	2.46	0.51
11:2A:109:VAL:HG13	18:9A:86:VAL:HG13	1.92	0.51
20:BA:37:SER:O	20:BA:41:ILE:HG23	2.11	0.51
21:1B:9:ARG:O	21:1B:13:ILE:HG13	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:296:C:H2'	26:14:297:C:H6	1.75	0.51
26:14:399:G:OP2	57:14:3700:HOH:O	2.18	0.51
26:14:675:A:C8	26:14:804:A:C6	2.98	0.51
36:35:49:ARG:NH1	54:M5:58:ILE:HG23	2.25	0.51
42:95:39:LEU:H	42:95:39:LEU:HD12	1.75	0.51
46:D5:30:ASN:HD21	46:D5:33:LEU:HB3	1.75	0.51
1:13:266:G:H5"	1:13:267:C:H5	1.76	0.51
2:1E:74:LYS:O	2:1E:78:GLN:HB2	2.11	0.51
4:3E:99:SER:HB3	4:3E:139:ARG:HG3	1.93	0.51
12:3I:110:VAL:CG2	12:3I:120:TYR:HB3	2.40	0.51
19:AI:50:ALA:HB1	19:AI:57:HIS:HB3	1.93	0.51
19:AI:51:VAL:O	19:AI:57:HIS:HA	2.11	0.51
26:1H:1161:C:H4'	42:D8:8:GLY:HA2	1.92	0.51
26:1H:1266:G:O4'	43:E8:15:ARG:NH2	2.44	0.51
26:1H:1523:U:O5'	26:1H:1523:U:H6	1.94	0.51
26:1H:1528:A:H2	26:1H:1542:G:C2	2.29	0.51
54:Q8:23:VAL:HG22	54:Q8:24:ALA:N	2.26	0.51
1:1G:722:A:H2'	1:1G:722:A:N3	2.26	0.51
1:1G:1199:U:H4'	10:1A:54:PHE:CE1	2.46	0.51
7:62:50:ILE:HB	7:62:58:PRO:HG3	1.91	0.51
7:62:76:ARG:C	7:62:86:GLN:HB2	2.36	0.51
17:8A:55:ASP:OD1	17:8A:55:ASP:N	2.44	0.51
26:14:469:G:O6	53:L5:39:ARG:NH1	2.44	0.51
26:14:483:A:H5'	45:C5:49:VAL:HG22	1.93	0.51
26:14:1153:C:H2'	26:14:1154:G:O4'	2.11	0.51
26:14:1485:G:H1	26:14:1504:C:N4	2.07	0.51
28:19:65:ILE:HD11	28:19:67:PHE:CE1	2.45	0.51
41:85:92:ARG:HD2	41:85:95:LEU:HD12	1.92	0.51
1:13:963:G:H5'	57:13:1840:HOH:O	2.12	0.51
1:13:1366:C:O2'	10:1I:60:ARG:NH2	2.44	0.51
6:5E:36:ARG:HH21	6:5E:38:GLU:HG2	1.75	0.51
7:6E:15:ASP:HB3	7:6E:20:ASP:N	2.25	0.51
10:1I:49:VAL:HG23	14:5I:41:ARG:HB2	1.93	0.51
26:1H:589:C:H2'	26:1H:590:A:C8	2.46	0.51
26:1H:2036:C:N4	57:1H:3659:HOH:O	2.44	0.51
29:21:35:GLN:HG3	29:21:36:ARG:N	2.26	0.51
38:98:10:LEU:O	38:98:12:ARG:N	2.44	0.51
42:D8:69:LYS:HB2	42:D8:88:ARG:HG2	1.91	0.51
45:G8:76:CYS:C	45:G8:78:ALA:H	2.16	0.51
49:K8:58:ALA:O	49:K8:62:THR:HG22	2.11	0.51
1:1G:323:U:H5'	20:BA:23:ARG:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:980:C:H5”	1:1G:981:U:C5	2.46	0.51
2:12:97:TRP:HZ3	2:12:99:GLY:HA2	1.75	0.51
3:22:9:GLY:HA2	3:22:12:LEU:HG	1.93	0.51
3:22:36:ASP:HA	3:22:39:ILE:HD12	1.93	0.51
4:32:148:VAL:O	4:32:152:SER:OG	2.16	0.51
9:82:24:GLY:HA2	9:82:59:PHE:O	2.10	0.51
26:14:500:G:N2	26:14:502:A:H3’	2.26	0.51
26:14:1007:C:H5”	34:15:35:ARG:NH1	2.26	0.51
26:14:1033:U:H1’	26:14:2750:A:N1	2.25	0.51
26:14:1187:G:H8	26:14:1187:G:O5’	1.94	0.51
26:14:1784:A:H5”	57:14:3549:HOH:O	2.09	0.51
27:1J:28:C:OP1	39:65:31:SER:OG	2.20	0.51
40:75:113:LYS:O	40:75:114:LEU:HD23	2.11	0.51
1:13:446:G:H2’	1:13:447:G:O4’	2.12	0.50
1:13:1064:G:OP1	1:13:1386:G:H4’	2.11	0.50
3:2E:13:GLY:HA3	14:5I:57:ARG:HD2	1.93	0.50
26:1H:34:C:OP2	26:1H:34:C:H6	1.93	0.50
26:1H:844:C:H3’	26:1H:845:G:C8	2.46	0.50
26:1H:1265:A:H3’	52:N8:19:ARG:NH1	2.25	0.50
26:1H:1602:U:H5	57:1H:3792:HOH:O	1.93	0.50
26:1H:1999:C:H5”	26:1H:2723:C:O2’	2.11	0.50
26:1H:2146:C:H4’	26:1H:2147:G:N7	2.26	0.50
26:1H:2789:C:H1’	26:1H:2892:A:H2	1.76	0.50
26:1H:2791:C:N4	26:1H:2893:G:O6	2.44	0.50
29:21:45:THR:O	29:21:83:ASP:N	2.45	0.50
32:51:4:ILE:HG13	32:51:6:ARG:NE	2.26	0.50
40:B8:100:TYR:HD1	40:B8:103:ARG:NH2	2.08	0.50
47:I8:50:ASN:HB2	47:I8:81:VAL:O	2.10	0.50
1:1G:136:C:O2’	16:7A:65:GLN:OE1	2.29	0.50
1:1G:999:U:O4	1:1G:1000:A:N6	2.42	0.50
1:1G:1203:C:H2’	1:1G:1204:A:O4’	2.11	0.50
4:32:61:LYS:HA	4:32:203:VAL:HG22	1.93	0.50
4:32:108:LEU:HD13	4:32:174:LEU:HB3	1.93	0.50
26:14:270(E):G:H1	26:14:270(U):C:H42	1.58	0.50
26:14:1159:U:H2’	26:14:1160:G:H8	1.75	0.50
26:14:1379:A:H4’	26:14:1380:G:OP2	2.11	0.50
26:14:1450:C:H2’	26:14:1451:C:C6	2.45	0.50
26:14:2850:A:C2	26:14:2851:A:C4	2.99	0.50
27:1J:13:A:H2’	27:1J:70:C:O2’	2.11	0.50
1:13:1079:G:H2’	1:13:1080:A:C8	2.46	0.50
1:13:1189:C:OP1	10:1I:51:ARG:NH2	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:54:THR:HG21	2:1E:201:ILE:HD11	1.93	0.50
2:1E:226:ARG:HG3	2:1E:227:GLY:H	1.76	0.50
4:3E:111:ALA:HB2	4:3E:120:LEU:HD12	1.93	0.50
5:4E:148:VAL:O	5:4E:151:LEU:HB2	2.10	0.50
26:1H:818:G:H4'	26:1H:838:C:O3'	2.10	0.50
26:1H:1046:A:O2'	26:1H:1047:G:OP1	2.28	0.50
26:1H:1328:G:H2'	26:1H:1330:C:C5	2.46	0.50
26:1H:1705:G:C2'	26:1H:1706:U:H5'	2.42	0.50
26:1H:2293:C:H5"	39:A8:89:ARG:HH22	1.75	0.50
27:16:3:C:H2'	27:16:4:C:H6	1.75	0.50
32:51:4:ILE:HG21	32:51:6:ARG:NH1	2.25	0.50
32:51:54:ARG:HD3	32:51:65:HIS:ND1	2.26	0.50
34:58:137:LYS:HG3	34:58:138:LEU:O	2.11	0.50
45:G8:97:ARG:HD2	45:G8:97:ARG:N	2.26	0.50
49:K8:59:ARG:O	49:K8:62:THR:HG23	2.11	0.50
1:1G:197:A:H1'	1:1G:198:G:O4'	2.10	0.50
1:1G:373:A:C2	1:1G:374:A:C8	2.99	0.50
1:1G:1538:C:H42	25:4L:34:G:H1	1.60	0.50
2:12:19:HIS:CD2	2:12:20:GLU:HG2	2.46	0.50
2:12:131:PRO:HG2	2:12:134:GLU:HB2	1.93	0.50
4:32:112:VAL:HG12	4:32:116:GLN:OE1	2.11	0.50
4:32:199:ASN:HB3	4:32:202:LEU:HG	1.92	0.50
20:BA:49:ALA:HB2	20:BA:92:LEU:HD22	1.93	0.50
26:14:900:A:H3'	26:14:901:A:H8	1.76	0.50
26:14:1850:G:H2'	26:14:1851:U:O4'	2.11	0.50
26:14:2074:U:P	57:14:3503:HOH:O	2.69	0.50
26:14:2540:C:H2'	26:14:2541:A:O4'	2.11	0.50
26:14:2875:C:O2'	40:75:1:MET:N	2.44	0.50
28:19:181:GLU:HG3	28:19:272:ALA:CB	2.40	0.50
33:69:45:LYS:O	33:69:48:GLU:HB3	2.12	0.50
33:69:76:THR:HG21	33:69:140:LEU:HD12	1.93	0.50
34:15:28:THR:HG22	34:15:29:LYS:HE3	1.93	0.50
35:25:111:PHE:HB3	35:25:114:ILE:HG13	1.92	0.50
41:85:97:ASP:OD1	41:85:98:LEU:N	2.43	0.50
1:13:826:C:H2'	1:13:827:U:O2	2.12	0.50
2:1E:163:PHE:CD1	2:1E:185:ILE:HG13	2.46	0.50
5:4E:100:VAL:O	5:4E:107:ARG:NH2	2.45	0.50
10:1I:57:LYS:HG3	10:1I:60:ARG:HH12	1.77	0.50
12:3I:83:VAL:HG21	12:3I:100:ILE:HG12	1.93	0.50
24:3K:71:U:O2'	24:3K:72:C:O4'	2.29	0.50
26:1H:172:C:H2'	26:1H:173:G:C8	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:528:A:C2	26:1H:2043:C:H4'	2.46	0.50
26:1H:1124:C:H2'	26:1H:1125:G:O4'	2.12	0.50
26:1H:1592:C:H2'	26:1H:1593:G:H8	1.76	0.50
27:16:11:C:O5'	27:16:12:C:H5	1.94	0.50
28:11:92:ILE:HD12	28:11:104:TYR:CE1	2.46	0.50
29:21:64:LYS:O	29:21:70:ALA:HB2	2.11	0.50
31:41:106:LEU:HG	31:41:107:LEU:HD23	1.93	0.50
32:51:10:PRO:HG2	32:51:50:VAL:O	2.11	0.50
32:51:152:ARG:HG3	32:51:161:GLY:HA2	1.92	0.50
36:78:113:LYS:HA	36:78:129:ALA:O	2.11	0.50
39:A8:35:ILE:HD11	39:A8:101:LEU:HD23	1.93	0.50
46:H8:113:ALA:N	46:H8:114:GLY:HA2	2.26	0.50
1:1G:1371:G:OP1	9:82:11:LYS:HB3	2.12	0.50
2:12:77:ALA:HB2	2:12:211:ILE:HD13	1.93	0.50
3:22:134:ILE:HD12	3:22:151:VAL:HG11	1.92	0.50
4:32:126:ILE:HG22	4:32:127:THR:H	1.77	0.50
12:3A:82:VAL:HB	12:3A:105:TYR:HB3	1.94	0.50
15:6A:75:PRO:HB2	15:6A:79:ARG:CZ	2.41	0.50
20:BA:73:HIS:CB	20:BA:74:LYS:HZ2	2.25	0.50
26:14:34:C:O2'	26:14:35:G:OP1	2.25	0.50
26:14:805:G:OP2	36:35:41:ARG:HG2	2.12	0.50
26:14:890:A:H2'	26:14:892:G:H8	1.76	0.50
26:14:1111:A:H5'	32:59:3:ARG:HD3	1.93	0.50
26:14:1126:A:H4'	26:14:1127:A:O5'	2.11	0.50
26:14:1516:U:H2'	26:14:1517:G:H8	1.76	0.50
38:55:59:ASP:OD2	38:55:61:HIS:HB3	2.11	0.50
47:E5:49:LYS:HG2	47:E5:80:HIS:ND1	2.26	0.50
1:13:232:G:H1'	1:13:262:A:N1	2.26	0.50
1:13:674:G:H2'	1:13:675:A:C8	2.47	0.50
1:13:1000:A:H2'	1:13:1001:G:C8	2.47	0.50
6:5E:5:GLU:HB3	6:5E:62:TRP:HE1	1.76	0.50
9:8E:47:LEU:HA	9:8E:49:PRO:HD2	1.93	0.50
26:1H:125:G:C6	53:P8:10:ARG:HG3	2.46	0.50
26:1H:270(L):U:C2	33:61:50:ARG:HG2	2.47	0.50
26:1H:646:A:H2'	26:1H:647:G:O4'	2.11	0.50
26:1H:821:A:H62	26:1H:972:G:H21	1.59	0.50
26:1H:1041:C:H42	26:1H:1114:G:H1	1.57	0.50
26:1H:1354:A:H5"	28:11:38:LYS:HD3	1.94	0.50
26:1H:1996:C:O3'	57:1H:3785:HOH:O	2.19	0.50
34:58:43:THR:HG23	41:C8:64:ARG:HH22	1.76	0.50
34:58:90:MET:O	34:58:94:HIS:N	2.43	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1538:C:H42	25:4L:34:G:H22	1.59	0.50
4:32:65:ARG:HG3	4:32:70:ILE:HG22	1.93	0.50
7:62:26:PHE:CE1	7:62:30:ILE:HD11	2.47	0.50
9:82:102:LEU:O	9:82:103:THR:OG1	2.25	0.50
26:14:531:C:H4'	26:14:532:A:H5"	1.93	0.50
26:14:868:U:N3	26:14:869:G:N7	2.59	0.50
26:14:1021:A:H3'	26:14:1021:A:C8	2.46	0.50
26:14:1021:A:H3'	26:14:1021:A:H8	1.76	0.50
26:14:1040:C:H2'	26:14:1041:C:C6	2.47	0.50
26:14:1910:G:H1	26:14:1920:C:H42	1.58	0.50
27:1J:101:A:OP2	27:1J:101:A:H8	1.94	0.50
33:69:75:LEU:HD13	33:69:77:LEU:N	2.26	0.50
41:85:65:ILE:HD11	41:85:93:LYS:HA	1.94	0.50
45:C5:86:ARG:NE	45:C5:87:LYS:O	2.40	0.50
1:13:1148:U:H2'	1:13:1149:C:O4'	2.11	0.50
1:13:1171:G:O2'	1:13:1172:C:H5'	2.11	0.50
1:13:1366:C:H2'	1:13:1367:C:H6	1.75	0.50
2:1E:58:ILE:O	2:1E:61:LEU:N	2.45	0.50
7:6E:12:LEU:HD21	7:6E:28:ASN:ND2	2.27	0.50
22:1K:14:A:H61	22:1K:21:A:H2	1.59	0.50
26:1H:527:C:H4'	26:1H:528:A:O5'	2.12	0.50
26:1H:972:G:OP2	26:1H:973:A:O2'	2.27	0.50
26:1H:1209:G:H21	26:1H:1210:A:H62	1.58	0.50
26:1H:1264:G:H3'	26:1H:1265:A:H5"	1.93	0.50
26:1H:1606:G:OP1	57:1H:4102:HOH:O	2.19	0.50
26:1H:2116:G:OP2	26:1H:2166:G:O2'	2.24	0.50
26:1H:2336:A:H61	47:I8:43:THR:HB	1.76	0.50
27:16:88:C:H2'	27:16:89:G:O4'	2.12	0.50
28:11:70:TRP:CH2	28:11:150:LYS:HA	2.47	0.50
28:11:238:GLY:O	28:11:239:ARG:C	2.51	0.50
29:21:105:THR:HG22	29:21:106:GLY:N	2.27	0.50
1:1G:365:U:H5"	1:1G:366:C:OP1	2.11	0.50
1:1G:422:C:O2'	1:1G:423:G:C2	2.65	0.50
1:1G:1387:G:H2'	1:1G:1388:C:C6	2.47	0.50
6:52:11:ASN:HB3	6:52:14:LEU:CD1	2.42	0.50
18:9A:74:ARG:HB3	18:9A:81:PHE:CE1	2.46	0.50
24:3L:84:A:H2'	24:3L:85:C:H6	1.77	0.50
26:14:96:G:H4'	49:G5:48:HIS:CD2	2.47	0.50
26:14:234:C:H2'	26:14:235:U:C6	2.44	0.50
26:14:752:A:OP1	53:L5:3:ARG:NH2	2.40	0.50
26:14:1537:C:H2'	26:14:1538:G:C8	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1542:G:H3'	26:14:1543:A:H5"	1.93	0.50
26:14:2693:A:H2'	26:14:2694:G:C8	2.47	0.50
26:14:2820:A:C6	38:55:4:LEU:HD11	2.47	0.50
34:15:21:LYS:O	34:15:60:ILE:HG13	2.11	0.50
34:15:23:LEU:HA	34:15:60:ILE:HD11	1.94	0.50
34:15:133:GLN:HG3	34:15:135:PRO:HG3	1.93	0.50
38:55:29:LEU:HB3	38:55:75:LEU:HD21	1.94	0.50
52:J5:20:ARG:HA	52:J5:23:HIS:ND1	2.27	0.50
1:13:1349:A:H2'	1:13:1350:A:C8	2.47	0.50
5:4E:82:VAL:HG21	5:4E:138:ALA:HA	1.94	0.50
9:8E:128:ARG:NH2	23:2K:36:A:OP2	2.41	0.50
20:BI:50:GLU:HG3	20:BI:100:ILE:HG12	1.92	0.50
21:1F:5:ASP:O	21:1F:11:GLY:HA3	2.12	0.50
26:1H:11:G:H2'	26:1H:12:U:H5'	1.94	0.50
26:1H:467:G:O5'	26:1H:467:G:H8	1.94	0.50
26:1H:873:G:H1'	37:88:29:PHE:CE2	2.46	0.50
26:1H:1022:G:N7	34:58:66:LYS:NZ	2.59	0.50
26:1H:1132:A:O2'	26:1H:1133:U:H5'	2.11	0.50
26:1H:1729:A:O2'	26:1H:1730:U:OP1	2.27	0.50
26:1H:2210:G:H5'	26:1H:2211:G:C5	2.47	0.50
37:88:82:ARG:HE	47:I8:4:LYS:NZ	2.10	0.50
45:G8:100:ALA:HB1	45:G8:101:LYS:CB	2.42	0.50
46:H8:4:ARG:HA	46:H8:58:VAL:HG22	1.93	0.50
1:1G:276:G:O3'	17:8A:68:ARG:NH1	2.45	0.50
1:1G:373:A:N3	1:1G:374:A:C8	2.80	0.50
1:1G:518:C:H5"	1:1G:519:C:C6	2.47	0.50
1:1G:1239:A:H4'	1:1G:1240:U:C5'	2.41	0.50
2:12:48:MET:HA	2:12:51:LEU:HB2	1.94	0.50
4:32:26:CYS:HA	4:32:31:CYS:CB	2.31	0.50
7:62:113:GLU:O	7:62:119:ARG:HD3	2.11	0.50
13:4A:3:ARG:HH21	31:49:113:ARG:HH21	1.59	0.50
16:7A:53:VAL:O	16:7A:57:ARG:HG3	2.12	0.50
20:BA:40:ALA:O	20:BA:43:LEU:N	2.44	0.50
24:3L:26:C:H2'	24:3L:27:G:O4'	2.12	0.50
26:14:358:U:H2'	26:14:359:A:C8	2.47	0.50
26:14:1640:C:H2'	26:14:1641:A:C8	2.46	0.50
26:14:1731:G:N3	26:14:1731:G:H5"	2.27	0.50
26:14:2037:G:H2'	26:14:2038:G:C8	2.46	0.50
26:14:2495:G:H5'	37:45:82:ARG:HG2	1.93	0.50
26:14:2880:C:O2'	38:55:90:ARG:HD3	2.12	0.50
30:39:185:ASP:OD1	30:39:188:ARG:NH2	2.33	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:59:20:ALA:HB3	32:59:24:VAL:HA	1.93	0.50
33:69:112:LYS:HA	33:69:114:LEU:H	1.77	0.50
38:55:106:GLY:O	38:55:107:ASP:HB3	2.10	0.50
1:13:73:G:H2'	1:13:74:C:O4'	2.11	0.50
1:13:279:A:C5	17:8I:98:LEU:HD12	2.47	0.50
1:13:376:G:H5"	16:7I:5:ARG:HB2	1.93	0.50
1:13:1504:G:OP1	1:13:1507:A:H4'	2.12	0.50
1:13:1505:G:H4'	1:13:1506:U:H5"	1.92	0.50
9:8E:5:TYR:OH	9:8E:16:ARG:HG2	2.11	0.50
9:8E:34:ASN:O	9:8E:38:GLN:HB2	2.11	0.50
11:2I:54:ARG:NH2	24:3K:40:G:O3'	2.45	0.50
12:3I:5:PRO:HG2	12:3I:10:LEU:HD21	1.94	0.50
23:2K:19:G:OP1	23:2K:19:G:H3'	2.12	0.50
26:1H:270(O):U:O4	33:61:52:ARG:HG2	2.12	0.50
26:1H:1100:C:H2'	26:1H:1101:U:C6	2.46	0.50
26:1H:1103:A:H3'	26:1H:1104:C:C6	2.44	0.50
26:1H:1332:G:H5'	26:1H:1332:G:C8	2.47	0.50
26:1H:2052:G:C8	29:21:141:ILE:HD11	2.47	0.50
36:78:138:LEU:CD1	36:78:144:GLU:HG3	2.42	0.50
37:88:82:ARG:HH21	47:I8:4:LYS:NZ	2.09	0.50
40:B8:58:ASN:O	40:B8:58:ASN:ND2	2.37	0.50
45:G8:50:ARG:NH1	45:G8:50:ARG:HB2	2.27	0.50
3:22:183:ASP:HB3	3:22:202:ILE:HG13	1.93	0.50
14:5A:26:ARG:O	14:5A:26:ARG:HG2	2.12	0.50
19:AA:66:MET:HA	19:AA:67:VAL:C	2.36	0.50
26:14:142:G:H2'	26:14:143:C:H6	1.76	0.50
26:14:459:U:H2'	26:14:460:A:C8	2.47	0.50
26:14:1462:C:H2'	26:14:1463:C:H6	1.77	0.50
26:14:1800:C:OP2	28:19:183:ARG:NH2	2.44	0.50
26:14:2113:U:OP1	26:14:2114:A:N6	2.44	0.50
26:14:2361:A:O5'	54:M5:27:THR:OG1	2.30	0.50
26:14:2418:A:H2'	26:14:2419:U:C6	2.46	0.50
28:19:12:SER:HB2	28:19:208:LYS:HB3	1.93	0.50
1:13:95:G:H3'	1:13:96:G:C8	2.47	0.50
2:1E:160:ASP:O	2:1E:183:PRO:HD2	2.12	0.50
4:3E:162:LEU:HA	4:3E:165:MET:HB2	1.93	0.50
23:2K:87:A:H4'	26:1H:2602:A:C6	2.47	0.50
26:1H:1614:A:N1	43:E8:91:GLY:HA2	2.27	0.50
26:1H:2470:G:H5'	37:88:56:ARG:NH2	2.27	0.50
26:1H:2630:G:H2'	26:1H:2631:G:C8	2.47	0.50
27:16:11:C:H3'	27:16:12:C:H6	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:55:U:H2'	27:16:56:G:C8	2.46	0.50
28:11:70:TRP:CE2	28:11:150:LYS:HD2	2.47	0.50
36:78:16:ARG:HG2	36:78:17:LYS:N	2.27	0.50
39:A8:41:ASP:OD2	39:A8:44:LYS:HB2	2.12	0.50
45:G8:85:VAL:HG23	45:G8:96:ILE:HG22	1.94	0.50
54:Q8:53:PRO:HB3	54:Q8:56:GLU:HG3	1.94	0.50
1:1G:895:G:H2'	1:1G:896:C:C6	2.46	0.50
4:32:25:ARG:O	4:32:28:SER:N	2.45	0.50
17:8A:66:SER:OG	17:8A:69:LYS:HB2	2.11	0.50
26:14:68:G:H2'	26:14:69:C:O4'	2.11	0.50
26:14:321:G:OP1	30:39:135:LYS:NZ	2.45	0.50
26:14:539:G:H2'	26:14:540:G:C8	2.45	0.50
26:14:957:A:C6	26:14:2459:A:C8	3.00	0.50
26:14:1019:U:HO2'	26:14:1021:A:H2	1.55	0.50
26:14:1386:C:H2'	26:14:1387:C:H6	1.77	0.50
26:14:1636:C:H2'	26:14:1637:A:C8	2.46	0.50
37:45:25:ASP:HB3	37:45:102:VAL:CG2	2.34	0.50
1:13:563:A:N7	1:13:567:G:H1'	2.26	0.50
4:3E:206:PHE:HD1	4:3E:207:TYR:CD1	2.30	0.50
19:AI:39:THR:HG22	19:AI:40:ILE:H	1.76	0.50
26:1H:1022:G:O6	34:58:66:LYS:NZ	2.44	0.50
26:1H:1062:G:N2	26:1H:1088:A:N1	2.60	0.50
26:1H:2514:U:H3	26:1H:2570:G:H1	1.59	0.50
26:1H:2815:C:H2'	26:1H:2816:C:C6	2.46	0.50
27:16:79:C:O5'	27:16:79:C:H6	1.95	0.50
28:11:109:ASP:HB2	28:11:197:GLY:CA	2.41	0.50
29:21:51:PHE:O	29:21:74:PRO:HB2	2.12	0.50
30:31:10:PRO:O	30:31:124:LEU:HD12	2.11	0.50
32:51:6:ARG:HA	32:51:66:GLY:HA2	1.94	0.50
33:61:10:GLU:HG3	33:61:10:GLU:O	2.12	0.50
35:68:25:LEU:HD12	35:68:38:VAL:O	2.12	0.50
36:78:96:THR:C	36:78:98:GLU:H	2.20	0.50
42:D8:38:LEU:HD21	42:D8:40:LEU:O	2.12	0.50
49:K8:64:LEU:O	49:K8:68:ARG:HG3	2.12	0.50
49:K8:65:ASN:O	49:K8:69:ARG:HG3	2.12	0.50
1:1G:1037:C:H2'	1:1G:1038:C:C6	2.47	0.50
1:1G:1260:C:H3'	1:1G:1260:C:H6	1.77	0.50
1:1G:1443:G:N2	40:75:119:LYS:HB2	2.27	0.50
8:72:20:TYR:HA	8:72:65:TYR:CE2	2.47	0.50
26:14:1439:A:H2'	26:14:1440:G:O4'	2.12	0.50
26:14:2147:G:H2'	26:14:2148:G:H4'	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2720:U:N3	26:14:2873:A:C2	2.78	0.50
35:25:69:ILE:HD12	35:25:77:ILE:O	2.12	0.50
37:45:27:VAL:HG11	46:D5:81:ARG:NH2	2.26	0.50
37:45:69:PHE:CD1	37:45:70:PRO:HD2	2.47	0.50
1:13:820:U:H4'	1:13:821:G:OP2	2.12	0.49
1:13:1227:A:OP2	13:4I:111:LYS:HE3	2.11	0.49
2:1E:80:ILE:HD11	2:1E:208:ILE:HG23	1.94	0.49
6:5E:5:GLU:HB3	6:5E:62:TRP:NE1	2.27	0.49
26:1H:207:A:H2'	26:1H:208:C:O4'	2.12	0.49
26:1H:356:G:H2'	26:1H:357:A:H8	1.75	0.49
26:1H:911:A:H2'	37:88:9:TYR:OH	2.12	0.49
26:1H:1652:A:OP1	38:98:8:ARG:NH1	2.43	0.49
26:1H:2019:A:N7	52:N8:9:LYS:NZ	2.57	0.49
26:1H:2301:C:H2'	26:1H:2302:G:H8	1.77	0.49
26:1H:2734:A:H5'	26:1H:2735:G:OP2	2.12	0.49
31:41:47:LYS:HD3	31:41:81:LYS:HB2	1.94	0.49
31:41:122:PRO:HB3	31:41:180:PHE:CD2	2.47	0.49
33:61:75:LEU:HB3	33:61:105:HIS:CD2	2.47	0.49
40:B8:74:ARG:HD3	40:B8:76:PHE:CZ	2.47	0.49
46:H8:73:GLN:HB2	46:H8:87:ASP:HB2	1.94	0.49
1:1G:430:A:OP2	4:32:8:VAL:HG23	2.11	0.49
1:1G:804:U:H5"	1:1G:805:C:OP2	2.12	0.49
1:1G:1058:G:H2'	1:1G:1059:C:C6	2.47	0.49
1:1G:1135:U:O2'	1:1G:1138:G:O6	2.20	0.49
1:1G:1320:C:H2'	1:1G:1321:C:O4'	2.12	0.49
2:12:53:ARG:HH12	2:12:199:TYR:HA	1.77	0.49
5:42:24:ARG:HB3	5:42:24:ARG:HH11	1.77	0.49
7:62:111:ARG:NH2	7:62:122:HIS:HB3	2.27	0.49
16:7A:36:ILE:HD12	16:7A:56:ALA:HB2	1.94	0.49
20:BA:72:LEU:O	20:BA:73:HIS:HB2	2.11	0.49
23:2L:13:G:H4'	26:14:1924:C:H4'	1.94	0.49
26:14:271(A):C:O2'	26:14:271(B):G:H5'	2.12	0.49
26:14:339:U:O5'	26:14:339:U:H6	1.94	0.49
26:14:1582:C:HO2'	26:14:1586:A:H8	1.60	0.49
26:14:2638:G:OP2	29:29:82:ARG:NH2	2.45	0.49
27:1J:89(A):A:H5'	27:1J:90:C:OP2	2.12	0.49
34:15:4:TYR:CD2	41:85:100:VAL:HG11	2.47	0.49
37:45:103:MET:HE3	37:45:125:LEU:HD13	1.93	0.49
39:65:106:ARG:O	39:65:106:ARG:HD2	2.12	0.49
1:13:45:U:H2'	1:13:46:G:H8	1.76	0.49
1:13:255:G:H1'	17:8I:16:GLN:OE1	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:741:G:H2'	1:13:742:G:O4'	2.11	0.49
1:13:1190:G:OP1	3:2E:5:ILE:N	2.41	0.49
1:13:1348:U:N3	1:13:1374:A:H2	2.04	0.49
2:1E:17:PHE:HB2	2:1E:42:ILE:HG22	1.93	0.49
4:3E:155:LEU:HB3	4:3E:158:ILE:HG13	1.93	0.49
12:3I:6:THR:OG1	12:3I:9:GLN:HG3	2.12	0.49
19:AI:51:VAL:HG12	19:AI:52:TYR:H	1.77	0.49
26:1H:620:G:H4'	26:1H:621:A:C5'	2.41	0.49
26:1H:900:A:H3'	26:1H:901:A:H8	1.77	0.49
26:1H:1058:U:N3	26:1H:1059:G:N7	2.61	0.49
26:1H:1590:U:H2'	26:1H:1591:G:C8	2.47	0.49
57:1H:4131:HOH:O	36:78:39:LYS:HB3	2.12	0.49
29:21:147:PRO:HB2	29:21:149:ARG:HG3	1.94	0.49
29:21:152:LYS:HD3	34:58:77:GLY:HA3	1.94	0.49
30:31:198:ALA:O	30:31:201:VAL:N	2.45	0.49
49:K8:37:PHE:O	49:K8:41:ILE:HG22	2.13	0.49
54:Q8:35:GLN:C	54:Q8:37:SER:N	2.68	0.49
1:1G:300:A:H1'	1:1G:565:U:O2	2.11	0.49
1:1G:1127:G:H2'	1:1G:1127:G:N3	2.26	0.49
1:1G:1131:G:H2'	1:1G:1132:C:H6	1.75	0.49
2:12:60:ASP:O	2:12:64:ARG:N	2.43	0.49
5:42:80:ILE:HG13	8:72:104:ARG:NH2	2.27	0.49
7:62:143:ARG:O	7:62:146:GLU:HB2	2.12	0.49
23:2L:73:C:H2'	23:2L:74:C:H6	1.75	0.49
26:14:579:G:H2'	26:14:580:C:H6	1.76	0.49
26:14:2030:A:H4'	26:14:2031:A:C8	2.47	0.49
26:14:2056:G:O3'	52:J5:8:LYS:NZ	2.45	0.49
26:14:2395:C:H2'	26:14:2396:G:O4'	2.12	0.49
26:14:2636:U:O2'	29:29:44:TYR:OH	2.20	0.49
38:55:28:LEU:HB2	38:55:34:ILE:HB	1.94	0.49
41:85:106:PHE:O	41:85:109:LEU:HB2	2.13	0.49
42:95:15:GLU:HG3	42:95:16:PRO:HD2	1.93	0.49
1:13:74:C:N3	1:13:96:G:N2	2.44	0.49
1:13:573:A:N3	1:13:883:C:O2'	2.44	0.49
1:13:1001:G:C6	1:13:1002:G:N7	2.81	0.49
3:2E:5:ILE:HG22	10:1I:51:ARG:HH12	1.77	0.49
7:6E:11:GLN:OE1	7:6E:12:LEU:N	2.46	0.49
7:6E:65:ALA:O	7:6E:69:VAL:HG23	2.12	0.49
13:4I:9:ILE:HG22	13:4I:10:PRO:O	2.11	0.49
14:5I:4:LYS:HA	14:5I:7:ILE:HG12	1.93	0.49
22:1K:15:A:H5"	22:1K:16:U:H5"	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1K:68:A:H2'	22:1K:69:A:H5'	1.93	0.49
24:3K:83:U:C2'	24:3K:84:A:H5"	2.36	0.49
25:4K:34:G:H2'	25:4K:35:A:C8	2.47	0.49
26:1H:18:C:O3'	41:C8:23:GLY:HA2	2.13	0.49
26:1H:140:A:H8	26:1H:1408:C:HO2'	1.56	0.49
26:1H:456:C:H3'	44:F8:68:ARG:NH2	2.27	0.49
26:1H:1170:G:N2	26:1H:1180:C:O2	2.45	0.49
26:1H:1188:U:H5'	42:D8:79:VAL:HG22	1.93	0.49
26:1H:2250:G:OP1	37:88:85:LYS:NZ	2.45	0.49
26:1H:2880:C:O2'	38:98:90:ARG:NH1	2.39	0.49
29:21:34:VAL:HG22	29:21:48:GLN:HB3	1.92	0.49
29:21:36:ARG:NH1	29:21:85:ASN:OD1	2.45	0.49
36:78:17:LYS:HE2	36:78:27:HIS:HD2	1.77	0.49
37:88:34:LEU:HD23	37:88:104:PHE:HD2	1.78	0.49
46:H8:53:ILE:HG22	46:H8:71:VAL:HG13	1.93	0.49
1:1G:1172:C:H2'	1:1G:1173:G:H8	1.76	0.49
13:4A:57:ARG:HH12	51:I5:17:GLY:HA3	1.78	0.49
19:AA:27:GLU:HG2	19:AA:47:HIS:NE2	2.27	0.49
22:1L:7:G:H3'	22:1L:8:U:C5'	2.41	0.49
23:2L:42:U:O4	23:2L:43:A:N6	2.44	0.49
26:14:153:C:OP1	48:F5:88:LYS:NZ	2.41	0.49
26:14:649:G:H2'	26:14:650:C:C6	2.48	0.49
26:14:898:C:H3'	26:14:899:A:H5"	1.94	0.49
26:14:1005:C:N3	26:14:1143:A:C4	2.81	0.49
26:14:1154:G:OP2	41:85:58:ARG:NH1	2.43	0.49
26:14:1176:G:H5'	26:14:1177:A:OP1	2.12	0.49
26:14:1677:A:H2'	26:14:1678:G:H8	1.77	0.49
26:14:2808:U:H5"	26:14:2891:G:O6	2.12	0.49
29:29:134:ILE:HD12	29:29:134:ILE:O	2.13	0.49
37:45:25:ASP:HB3	37:45:102:VAL:H	1.76	0.49
1:13:113:G:O2'	1:13:354:G:H5'	2.12	0.49
1:13:1218:C:H2'	1:13:1219:U:C6	2.48	0.49
5:4E:153:LYS:HD3	5:4E:154:GLY:O	2.13	0.49
11:2I:19:ALA:O	11:2I:82:VAL:HA	2.12	0.49
23:2K:12:G:C2	23:2K:13:G:H1'	2.47	0.49
26:1H:270(T):G:C6	26:1H:270(U):C:C4	3.00	0.49
26:1H:654(H):G:O6	26:1H:654(N):G:N2	2.45	0.49
26:1H:963:U:H5"	57:1H:3699:HOH:O	2.11	0.49
26:1H:1239:G:H2'	26:1H:1240:U:O4'	2.12	0.49
26:1H:1591:G:H2'	26:1H:1592:C:C6	2.47	0.49
26:1H:2428:G:O6	57:1H:3680:HOH:O	2.19	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:0:A:H62	27:16:119:A:N6	2.02	0.49
27:16:67:G:H8	27:16:67:G:O5'	1.96	0.49
35:68:119:PRO:HB2	40:B8:68:TYR:CD2	2.47	0.49
38:98:79:LEU:HA	38:98:83:ILE:HD12	1.94	0.49
39:A8:67:ARG:HH21	39:A8:103:GLU:HG3	1.77	0.49
46:H8:48:PHE:HA	46:H8:51:ALA:HB3	1.94	0.49
54:Q8:45:GLY:CA	54:Q8:46:ARG:C	2.86	0.49
1:1G:491:G:H2'	1:1G:492:G:O4'	2.12	0.49
1:1G:1400:C:C2	23:2L:35:G:C2	3.00	0.49
1:1G:1466:C:H2'	1:1G:1467:G:O4'	2.12	0.49
1:1G:1522:U:H2'	1:1G:1523:G:C8	2.47	0.49
13:4A:80:ARG:O	13:4A:84:ILE:HB	2.11	0.49
26:14:34:C:HO2'	26:14:35:G:P	2.35	0.49
26:14:972:G:OP2	26:14:973:A:O2'	2.29	0.49
26:14:1486:A:H2'	26:14:1487:G:H8	1.78	0.49
38:55:33:ARG:HG3	38:55:115:GLU:HB3	1.94	0.49
46:D5:52:SER:C	46:D5:54:HIS:H	2.20	0.49
46:D5:75:ASN:O	46:D5:84:GLU:HG2	2.12	0.49
1:13:129(A):G:C2	1:13:188:U:O2'	2.65	0.49
1:13:247:G:OP2	17:8I:100:LYS:N	2.22	0.49
1:13:735:C:H2'	1:13:736:C:C6	2.43	0.49
1:13:868:C:H2'	1:13:869:G:O4'	2.12	0.49
1:13:1432:G:O6	57:13:1848:HOH:O	2.15	0.49
19:AI:19:VAL:HG11	19:AI:44:MET:HG2	1.93	0.49
19:AI:31:ILE:HG23	19:AI:49:ILE:HG12	1.93	0.49
21:1F:9:ARG:O	21:1F:13:ILE:HG13	2.12	0.49
26:1H:82:G:N2	26:1H:103:A:OP2	2.36	0.49
26:1H:483:A:H2'	26:1H:484:C:O4'	2.13	0.49
26:1H:723:G:H2'	26:1H:724:U:O4'	2.13	0.49
26:1H:1015:G:OP2	26:1H:1015:G:H8	1.96	0.49
26:1H:1199:U:H2'	26:1H:1200:C:O4'	2.13	0.49
26:1H:1517:G:H2'	26:1H:1518:C:C6	2.48	0.49
26:1H:2615:U:C2	52:N8:7:PRO:HA	2.48	0.49
26:1H:2630:G:H2'	26:1H:2631:G:H8	1.78	0.49
27:16:75:G:H21	46:H8:85:HIS:CE1	2.30	0.49
28:11:65:ILE:HD11	28:11:67:PHE:CE1	2.47	0.49
30:31:9:ILE:HD11	30:31:125:LEU:N	2.20	0.49
34:58:96:GLU:C	34:58:98:VAL:N	2.70	0.49
39:A8:15:ARG:O	39:A8:19:LYS:HD3	2.12	0.49
1:1G:262:A:H5'	20:BA:74:LYS:HZ3	1.77	0.49
1:1G:973:G:H1'	10:1A:55:LYS:HZ2	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:16:LEU:HD13	9:82:44:VAL:HG22	1.93	0.49
10:1A:4:ILE:HA	10:1A:100:THR:HG22	1.94	0.49
15:6A:24:SER:OG	15:6A:27:VAL:HG23	2.13	0.49
23:2L:18:OMG:OP1	23:2L:18:OMG:H4'	2.12	0.49
23:2L:24:C:H2'	23:2L:25:A:H8	1.77	0.49
26:14:598:G:H1	26:14:659:C:H42	1.59	0.49
26:14:858:U:O2	26:14:2268:A:H2'	2.12	0.49
26:14:1268:A:C2	26:14:2013:A:C4	3.00	0.49
26:14:2134:A:C2	26:14:2159:G:H1'	2.48	0.49
31:49:42:GLY:O	31:49:43:LEU:HD13	2.13	0.49
35:25:92:GLU:HG2	35:25:113:LYS:NZ	2.27	0.49
45:C5:39:VAL:HG23	45:C5:41:GLY:N	2.27	0.49
46:D5:39:VAL:HG21	46:D5:44:PHE:HD2	1.77	0.49
1:13:8:A:N7	4:3E:208:SER:HB3	2.27	0.49
1:13:376:G:H4'	16:7I:5:ARG:NH1	2.27	0.49
1:13:413:G:H2'	1:13:428:G:H22	1.77	0.49
10:1I:33:GLN:HG2	10:1I:75:ILE:HG13	1.94	0.49
10:1I:84:GLN:O	10:1I:88:LEU:HB2	2.12	0.49
12:3I:90:VAL:O	12:3I:91:LYS:HB3	2.11	0.49
26:1H:779:U:OP1	28:11:49:ILE:HG13	2.12	0.49
26:1H:1639:U:O2'	26:1H:1640:C:H5'	2.12	0.49
26:1H:2854:G:H2'	26:1H:2855:C:C6	2.48	0.49
29:21:119:ARG:HH11	29:21:119:ARG:HG3	1.76	0.49
32:51:6:ARG:HB3	32:51:65:HIS:CG	2.47	0.49
33:61:110:ASP:CB	33:61:112:LYS:H	2.25	0.49
1:1G:145:G:N2	1:1G:177:C:O2	2.42	0.49
1:1G:995:C:H6	1:1G:995:C:O5'	1.96	0.49
1:1G:1261:A:H61	1:1G:1274:G:H1'	1.78	0.49
4:32:150:GLU:C	4:32:152:SER:N	2.69	0.49
8:72:100:ILE:HG21	8:72:125:ARG:HE	1.77	0.49
26:14:839:U:H2'	26:14:840:C:C6	2.47	0.49
26:14:921:G:C6	26:14:922:U:C4	3.01	0.49
26:14:2199:A:OP1	48:F5:50:ARG:NH2	2.45	0.49
26:14:2238:G:OP2	57:14:3812:HOH:O	2.20	0.49
28:19:134:ARG:O	28:19:168:ARG:NH1	2.45	0.49
30:39:83:PHE:C	30:39:85:GLY:H	2.20	0.49
30:39:181:LEU:HD22	30:39:186:ILE:HD11	1.95	0.49
32:59:35:VAL:HG13	32:59:71:LEU:HD23	1.94	0.49
34:15:28:THR:HA	34:15:106:MET:HE2	1.94	0.49
42:95:5:VAL:HB	42:95:37:VAL:CG1	2.42	0.49
44:B5:59:VAL:CG2	44:B5:76:ARG:HD3	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:659:U:H2'	1:13:660:G:H8	1.77	0.49
9:8E:118:LYS:HE2	9:8E:118:LYS:HB3	1.65	0.49
11:2I:125:PHE:N	11:2I:125:PHE:CD1	2.79	0.49
26:1H:1242:A:N1	36:78:4:SER:OG	2.37	0.49
26:1H:2151:G:H2'	26:1H:2152:G:C8	2.48	0.49
27:16:71:C:H2'	27:16:72:G:H8	1.76	0.49
28:11:112:GLN:OE1	28:11:112:GLN:N	2.46	0.49
28:11:131:LEU:HB2	28:11:136:ILE:CD1	2.43	0.49
28:11:182:LEU:HB3	28:11:271:ILE:HG13	1.94	0.49
31:41:26:GLN:CD	31:41:27:ASN:HB2	2.37	0.49
32:51:170:ARG:HA	32:51:170:ARG:HE	1.77	0.49
36:78:57:THR:HB	36:78:59:LEU:H	1.78	0.49
36:78:136:GLU:HA	36:78:139:LYS:HE2	1.95	0.49
38:98:12:ARG:HD3	38:98:16:HIS:CG	2.46	0.49
38:98:57:ARG:HB3	38:98:59:ASP:OD2	2.12	0.49
46:H8:105:VAL:N	46:H8:139:VAL:O	2.43	0.49
1:1G:782:A:O3'	1:1G:1515:C:H4'	2.12	0.49
4:32:190:ASP:N	4:32:190:ASP:OD1	2.45	0.49
5:42:41:VAL:O	5:42:67:VAL:HG12	2.13	0.49
8:72:49:GLU:O	8:72:51:VAL:HG13	2.13	0.49
10:1A:76:ASN:HB3	10:1A:78:ASN:HD22	1.78	0.49
23:2L:47:C:O2'	23:2L:48:C:O5'	2.28	0.49
26:14:1234:U:H2'	26:14:1235:G:O4'	2.13	0.49
26:14:2773:C:OP1	29:29:166:THR:OG1	2.31	0.49
30:39:18:ARG:HG2	30:39:19:GLU:N	2.27	0.49
30:39:153:SER:OG	30:39:190:GLU:HB2	2.12	0.49
33:69:29:TYR:HD2	33:69:30:LEU:HD23	1.78	0.49
38:55:49:ASP:OD1	38:55:95:THR:HB	2.13	0.49
49:G5:64:LEU:HD21	49:G5:68:ARG:HH11	1.78	0.49
1:13:234:C:H2'	1:13:235:C:H6	1.76	0.49
1:13:368:U:C6	33:69:90:GLY:HA3	2.47	0.49
1:13:429:U:O2'	4:3E:22:LYS:NZ	2.39	0.49
1:13:778:G:H1'	11:2I:119:CYS:HB3	1.93	0.49
1:13:1296:C:H5'	13:4I:14:ARG:HH12	1.77	0.49
9:8E:43:ALA:HA	9:8E:74:ILE:HD13	1.95	0.49
11:2I:41:THR:HG22	11:2I:42:TRP:H	1.77	0.49
12:3I:93:LEU:HB2	12:3I:96:VAL:CG1	2.43	0.49
13:4I:84:ILE:HG13	19:AI:74:PHE:HE1	1.78	0.49
24:3K:87:A:O2'	26:1H:2394:C:O2	2.31	0.49
26:1H:634:C:H2'	26:1H:635:C:C6	2.47	0.49
26:1H:860:U:C5	26:1H:917:A:H2	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1278:A:C5'	38:98:36:THR:HG22	2.41	0.49
26:1H:1291:C:H2'	26:1H:1292:U:H6	1.78	0.49
26:1H:1728:G:H5'	26:1H:1729:A:OP2	2.12	0.49
26:1H:2493:U:H2'	26:1H:2494:G:O4'	2.12	0.49
33:61:75:LEU:HB3	33:61:105:HIS:HD2	1.77	0.49
33:61:124:GLY:H	33:61:142:VAL:CG2	2.25	0.49
34:58:121:LYS:HB2	34:58:123:TYR:HE1	1.78	0.49
37:88:17:LEU:HB3	37:88:39:PRO:HB2	1.95	0.49
37:88:19:GLY:O	37:88:21:THR:OG1	2.19	0.49
40:B8:21:GLU:OE1	40:B8:91:ARG:NH2	2.46	0.49
42:D8:65:GLY:HA3	42:D8:91:TYR:CE1	2.47	0.49
47:I8:23:VAL:HA	47:I8:38:VAL:HG22	1.95	0.49
54:Q8:8:LYS:HD2	54:Q8:8:LYS:N	2.27	0.49
1:1G:1084:G:H5'	1:1G:1102:A:OP2	2.13	0.49
1:1G:1386:G:C2	1:1G:1387:G:C8	3.01	0.49
1:1G:1411:C:H2'	1:1G:1412:C:C6	2.47	0.49
8:72:20:TYR:CE2	8:72:75:ARG:HG2	2.47	0.49
10:1A:26:ALA:C	10:1A:85:LEU:HD21	2.38	0.49
26:14:1039:G:H1	26:14:1116:C:H42	1.61	0.49
26:14:1045:A:H1'	26:14:1047:G:N3	2.28	0.49
26:14:1171:G:O2'	26:14:1173:G:N3	2.44	0.49
26:14:1999:C:H4'	26:14:2723:C:O2	2.12	0.49
26:14:2099:U:H3	26:14:2190:G:H1	1.60	0.49
26:14:2279:G:O6	47:E5:14:ARG:HD2	2.13	0.49
26:14:2468:G:H3'	26:14:2476:A:C2	2.48	0.49
29:29:89:ASP:O	29:29:91:VAL:N	2.35	0.49
37:45:79:LEU:H	37:45:79:LEU:HD22	1.78	0.49
48:F5:35:THR:O	48:F5:35:THR:OG1	2.30	0.49
1:13:272:C:H2'	1:13:273:A:C8	2.48	0.49
6:5E:92:LYS:HB2	6:5E:92:LYS:NZ	2.27	0.49
7:6E:23:VAL:O	7:6E:27:ILE:N	2.46	0.49
10:1I:54:PHE:CD2	10:1I:55:LYS:HG2	2.46	0.49
11:2I:16:SER:O	11:2I:35:PRO:HG3	2.13	0.49
12:3I:117:ARG:HB3	12:3I:122:THR:HB	1.94	0.49
13:4I:86:CYS:HB2	19:AI:73:GLU:HB3	1.93	0.49
16:7I:77:ALA:CB	16:7I:79:VAL:HG23	2.43	0.49
22:1K:56:G:H2'	22:1K:57:C:C6	2.48	0.49
26:1H:270(G):C:H2'	26:1H:270(H):C:O4'	2.13	0.49
26:1H:1025:G:C4	26:1H:1135:C:H1'	2.48	0.49
26:1H:1142:U:O2	26:1H:1142:U:H2'	2.13	0.49
26:1H:1509:C:H2'	26:1H:1511:A:C8	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1729:A:H8	26:1H:1730:U:H6	1.59	0.49
26:1H:2029:G:H2'	26:1H:2031:A:OP1	2.13	0.49
29:21:67:PHE:C	29:21:69:LYS:H	2.20	0.49
29:21:96:PHE:O	29:21:175:VAL:HG11	2.12	0.49
38:98:30:THR:HG22	38:98:31:HIS:ND1	2.28	0.49
39:A8:10:ARG:HG3	39:A8:13:ARG:NH1	2.27	0.49
39:A8:30:ARG:HG2	39:A8:30:ARG:HH11	1.77	0.49
50:L8:7:LYS:HE3	50:L8:32:GLN:HA	1.94	0.49
52:N8:33:CYS:SG	52:N8:40:LYS:HD3	2.52	0.49
54:Q8:46:ARG:NH2	54:Q8:48:PHE:HA	2.28	0.49
1:1G:1127:G:N2	1:1G:1144:G:H1	2.10	0.49
6:52:97:PHE:O	18:9A:31:LEU:HD23	2.13	0.49
10:1A:32:ALA:HB2	10:1A:81:THR:HG21	1.94	0.49
13:4A:81:LEU:HD23	13:4A:86:CYS:SG	2.53	0.49
15:6A:8:LYS:O	15:6A:12:ILE:HG13	2.12	0.49
26:14:519:U:H2'	26:14:520:G:H8	1.77	0.49
26:14:1430:C:H2'	26:14:1431:U:H6	1.78	0.49
26:14:2056:G:H2'	26:14:2056:G:N3	2.28	0.49
26:14:2709:G:H1'	57:14:3958:HOH:O	2.12	0.49
30:39:107:LYS:HE2	30:39:205:ARG:HD2	1.95	0.49
32:59:10:PRO:HD2	32:59:50:VAL:H	1.77	0.49
37:45:34:LEU:HD12	37:45:130:LYS:O	2.13	0.49
45:C5:87:LYS:NZ	45:C5:88:LYS:O	2.37	0.49
1:13:266:G:H5"	1:13:267:C:C5	2.48	0.49
1:13:300:A:H1'	1:13:565:U:O2	2.13	0.49
1:13:322:C:O3'	20:BI:23:ARG:HG3	2.13	0.49
1:13:1296:C:H5'	13:4I:14:ARG:NH1	2.28	0.49
4:3E:8:VAL:HG13	4:3E:21:LEU:HD12	1.95	0.49
5:4E:41:VAL:HG13	5:4E:113:ALA:HB2	1.94	0.49
10:1I:23:ILE:HA	10:1I:26:ALA:HB3	1.95	0.49
11:2I:50:TYR:O	11:2I:55:LYS:HD3	2.12	0.49
11:2I:99:GLN:HA	11:2I:105:VAL:HG11	1.95	0.49
12:3I:28:LYS:NZ	12:3I:62:SER:HB3	2.27	0.49
26:1H:75:G:H4'	49:K8:55:ARG:NH1	2.28	0.49
26:1H:836:G:H2'	26:1H:837:C:C6	2.48	0.49
26:1H:1359:A:H2'	26:1H:1360:A:H5'	1.95	0.49
26:1H:1605:C:H2'	26:1H:1606:G:O4'	2.13	0.49
26:1H:1903:G:OP2	28:11:241:PRO:HB2	2.12	0.49
26:1H:2236:C:H2'	26:1H:2237:G:O4'	2.13	0.49
27:16:83:G:H4'	50:L8:52:HIS:CG	2.48	0.49
31:41:68:PRO:HB3	31:41:92:VAL:HB	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:51:8:PRO:HG2	32:51:69:ARG:NH2	2.28	0.49
48:J8:71:TYR:O	48:J8:74:VAL:HG12	2.13	0.49
53:P8:10:ARG:HG2	53:P8:14:LYS:HD3	1.95	0.49
1:1G:197:A:C8	1:1G:198:G:H1'	2.48	0.49
1:1G:1294:G:H2'	1:1G:1295:G:C8	2.48	0.49
2:12:124:SER:O	2:12:126:GLU:N	2.40	0.49
4:32:111:ALA:HB2	4:32:120:LEU:HD12	1.93	0.49
7:62:65:ALA:HB1	7:62:127:ALA:HB3	1.95	0.49
8:72:29:SER:H	8:72:32:LYS:HB2	1.76	0.49
23:2L:43:A:O2'	23:2L:44:G:H5'	2.13	0.49
26:14:83:G:N2	26:14:102:G:H2'	2.27	0.49
26:14:777:A:O2'	26:14:778:G:H5'	2.13	0.49
26:14:1972:A:H2'	26:14:1973:G:C8	2.48	0.49
26:14:2095:C:H2'	26:14:2096:U:O4'	2.13	0.49
26:14:2872:G:C4	26:14:2873:A:C2	3.01	0.49
26:14:2880:C:H1'	38:55:92:GLY:HA3	1.94	0.49
27:1J:74:U:H1'	46:D5:34:ASN:HD21	1.78	0.49
44:B5:63:LYS:H	44:B5:63:LYS:CE	2.25	0.49
45:C5:87:LYS:HB3	45:C5:94:LYS:HA	1.95	0.49
46:D5:11:GLU:HG3	46:D5:12:GLY:H	1.78	0.49
47:E5:53:MET:HG3	47:E5:59:LEU:CD2	2.42	0.49
1:13:97:U:H2'	1:13:99:C:H6	1.77	0.48
1:13:110:C:O2'	16:7I:25:ARG:O	2.28	0.48
1:13:136:C:H2'	1:13:137:C:H5"	1.95	0.48
4:3E:90:GLY:O	4:3E:93:PHE:HB3	2.12	0.48
7:6E:27:ILE:HD12	7:6E:40:ALA:HA	1.95	0.48
7:6E:45:ASP:O	7:6E:49:ILE:HG12	2.13	0.48
13:4I:84:ILE:HG23	13:4I:86:CYS:H	1.78	0.48
19:AI:6:LYS:O	19:AI:7:LYS:HB3	2.11	0.48
20:BI:56:MET:HE1	20:BI:85:MET:HG2	1.94	0.48
24:3K:41:G:H2'	24:3K:42:U:C6	2.48	0.48
26:1H:665:C:H2'	26:1H:666:G:H8	1.78	0.48
26:1H:971:C:H2'	26:1H:972:G:O4'	2.13	0.48
26:1H:1564:C:O2'	26:1H:1565:C:H5'	2.12	0.48
26:1H:1885:A:H2'	26:1H:1886:C:O4'	2.13	0.48
26:1H:2286:A:H4'	26:1H:2287:A:O4'	2.13	0.48
29:21:78:LEU:O	29:21:78:LEU:HD23	2.13	0.48
34:58:104:LYS:HB2	34:58:117:PHE:CD1	2.47	0.48
43:E8:24:ILE:HD12	43:E8:24:ILE:O	2.12	0.48
43:E8:27:LYS:HB3	43:E8:31:GLU:HG3	1.95	0.48
54:Q8:21:LYS:C	54:Q8:21:LYS:HZ3	2.21	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:975:A:H4'	1:1G:976:G:C5'	2.33	0.48
2:12:196:LEU:HD12	2:12:197:VAL:HG23	1.95	0.48
4:32:23:GLY:H	4:32:26:CYS:HB2	1.77	0.48
5:42:51:VAL:O	5:42:55:VAL:HG23	2.13	0.48
5:42:59:GLY:O	5:42:63:ARG:HG2	2.13	0.48
9:82:26:VAL:HG22	9:82:61:ALA:N	2.28	0.48
9:82:95:LYS:HZ1	9:82:96:LEU:HB2	1.78	0.48
26:14:49:A:H5"	26:14:51:G:O4'	2.12	0.48
26:14:494:G:H5'	43:A5:8:ARG:HD3	1.95	0.48
26:14:1434:A:H2'	26:14:1435:G:C8	2.48	0.48
26:14:1689:A:H62	26:14:1698:A:H2	1.60	0.48
26:14:1754:C:N3	26:14:2716:U:O2'	2.41	0.48
26:14:2121:G:H2'	26:14:2122:U:C6	2.47	0.48
26:14:2250:G:C8	26:14:2496:C:H5"	2.46	0.48
26:14:2572:A:N7	29:29:145:LYS:HG3	2.28	0.48
30:39:79:GLY:HA2	30:39:86:GLY:HA2	1.95	0.48
31:49:2:PRO:HG2	31:49:4:ASP:HB3	1.95	0.48
1:13:474:G:H2'	1:13:475:G:C8	2.48	0.48
1:13:600:C:H4'	8:7E:128:GLY:O	2.13	0.48
1:13:606:G:N2	1:13:632:A:N1	2.61	0.48
1:13:963:G:H4'	57:13:1838:HOH:O	2.13	0.48
1:13:1190:G:OP1	3:2E:4:LYS:HA	2.12	0.48
11:2I:21:ILE:O	11:2I:85:ARG:N	2.40	0.48
13:4I:3:ARG:HG2	13:4I:9:ILE:HG12	1.94	0.48
26:1H:989:G:N7	50:L8:13:ILE:HD11	2.27	0.48
26:1H:2110:G:C6	26:1H:2120:G:N7	2.81	0.48
26:1H:2401:U:H2'	26:1H:2402:C:C1'	2.43	0.48
26:1H:2740:A:H2'	26:1H:2741:A:C8	2.48	0.48
27:16:93:C:H2'	27:16:94:C:C6	2.47	0.48
28:11:108:PRO:HG3	28:11:143:HIS:HE1	1.74	0.48
32:51:7:LEU:N	32:51:8:PRO:HD3	2.28	0.48
34:58:73:THR:HB	34:58:82:LEU:HD11	1.94	0.48
35:68:64:ARG:HG2	35:68:79:PHE:CG	2.48	0.48
37:88:45:GLN:CD	37:88:45:GLN:H	2.21	0.48
39:A8:110:LEU:HD22	39:A8:111:GLU:HB2	1.95	0.48
46:H8:77:ASP:OD2	46:H8:80:ARG:NH1	2.47	0.48
51:M8:40:HIS:CG	51:M8:45:GLY:HA3	2.48	0.48
54:Q8:25:MET:HB3	54:Q8:42:ARG:HB3	1.95	0.48
1:1G:243:A:H4'	1:1G:244:U:O5'	2.12	0.48
1:1G:1157:A:H8	1:1G:1158:C:C4	2.31	0.48
1:1G:1490:C:H2'	1:1G:1491:G:O4'	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:92:TYR:CD1	2:12:151:GLY:HA3	2.48	0.48
4:32:64:LEU:HA	4:32:67:ILE:HD12	1.95	0.48
11:2A:16:SER:HG	11:2A:79:SER:HG	1.54	0.48
13:4A:3:ARG:HA	13:4A:8:GLU:O	2.13	0.48
26:14:126:A:O5'	53:L5:19:ARG:HG3	2.13	0.48
26:14:495:G:N3	43:A5:61:ASN:ND2	2.59	0.48
26:14:706:A:OP1	28:19:7:LYS:NZ	2.31	0.48
26:14:821:A:H2'	26:14:946:G:H5"	1.94	0.48
26:14:861:A:N3	27:1J:79:C:O2'	2.46	0.48
26:14:880:G:C2	26:14:881:G:C8	3.01	0.48
26:14:1519:G:H2'	26:14:1520:U:O4'	2.14	0.48
26:14:2503:A:OP2	26:14:2503:A:H3'	2.13	0.48
27:1J:2:C:O2	27:1J:118:G:N2	2.37	0.48
27:1J:94:C:H2'	27:1J:95:U:H6	1.78	0.48
30:39:164:ARG:O	30:39:167:ALA:HB3	2.12	0.48
31:49:62:LEU:HG	31:49:143:GLU:HB3	1.94	0.48
37:45:80:GLU:O	37:45:81:VAL:HG22	2.13	0.48
45:C5:17:SER:O	45:C5:21:LYS:HB2	2.13	0.48
52:J5:36:CYS:SG	52:J5:49:CYS:SG	3.11	0.48
1:13:376:G:H4'	16:7I:5:ARG:HH11	1.78	0.48
1:13:659:U:H2'	1:13:660:G:C8	2.48	0.48
1:13:757:U:H2'	1:13:758:G:O4'	2.14	0.48
4:3E:92:VAL:O	4:3E:96:LEU:HD22	2.12	0.48
17:8I:86:GLU:O	17:8I:90:ILE:HG12	2.13	0.48
26:1H:17:G:H2'	26:1H:18:C:C6	2.48	0.48
26:1H:128:C:H2'	26:1H:129:C:H6	1.79	0.48
26:1H:606:U:H4'	26:1H:658:C:H4'	1.95	0.48
26:1H:1318:C:H5	57:1H:3767:HOH:O	1.97	0.48
30:31:9:ILE:HG23	30:31:20:LEU:O	2.13	0.48
35:68:2:ILE:HB	35:68:33:ALA:HB3	1.95	0.48
45:G8:44:ILE:HD12	45:G8:62:GLU:CD	2.38	0.48
1:1G:128:G:H4'	17:8A:3:LYS:HG2	1.94	0.48
1:1G:501:C:H2'	1:1G:502:G:H8	1.78	0.48
1:1G:653:A:C8	8:72:56:LYS:HE3	2.49	0.48
1:1G:685:G:C2	1:1G:686:U:C4	3.01	0.48
1:1G:753:A:OP1	15:6A:69:TYR:OH	2.24	0.48
3:22:18:TRP:NE1	14:5A:53:LEU:O	2.46	0.48
6:52:1:MET:HB3	6:52:67:MET:O	2.13	0.48
6:52:14:LEU:HB2	6:52:18:GLN:HB2	1.95	0.48
7:62:146:GLU:O	7:62:149:ARG:HB2	2.13	0.48
26:14:765:G:H2'	26:14:766:C:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1536:A:C8	26:14:1537:C:H1'	2.48	0.48
26:14:1917:U:H3'	26:14:1918:A:H8	1.79	0.48
26:14:2357:U:OP1	47:E5:20:ARG:HD2	2.13	0.48
26:14:2819:G:OP1	57:14:3950:HOH:O	2.20	0.48
30:39:65:TRP:HZ3	30:39:73:ALA:HB3	1.78	0.48
33:69:120:ILE:HD12	33:69:126:TYR:CE2	2.48	0.48
40:75:50:ILE:HD11	40:75:102:ILE:HD11	1.93	0.48
1:13:1145:C:H4'	1:13:1146:A:O5'	2.12	0.48
2:1E:178:ARG:HH21	8:7E:74:PRO:HB3	1.78	0.48
12:3I:53:ARG:HB3	12:3I:69:TYR:HE1	1.78	0.48
15:6I:39:LEU:O	15:6I:42:HIS:HB3	2.14	0.48
15:6I:71:GLN:O	15:6I:71:GLN:HG2	2.13	0.48
26:1H:462:C:H42	26:1H:467:G:H1	1.61	0.48
26:1H:802:A:OP1	57:1H:4017:HOH:O	2.20	0.48
26:1H:1257:C:H4'	30:31:83:PHE:CD1	2.48	0.48
27:16:11:C:H3'	27:16:12:C:C6	2.48	0.48
36:78:121:LYS:HE2	36:78:123:LEU:HD21	1.94	0.48
38:98:94:TYR:CD1	38:98:94:TYR:N	2.79	0.48
41:C8:6:THR:N	57:C8:202:HOH:O	2.45	0.48
44:F8:1:MET:C	44:F8:3:THR:N	2.67	0.48
49:K8:3:LEU:O	49:K8:6:VAL:HG13	2.13	0.48
1:1G:542:G:N2	1:1G:543:C:C2	2.81	0.48
1:1G:580:U:H2'	1:1G:581:G:O4'	2.12	0.48
1:1G:769:G:H4'	1:1G:1513:A:H4'	1.95	0.48
2:12:23:ARG:HH21	2:12:191:ASP:HB2	1.78	0.48
2:12:115:LEU:HB2	2:12:145:LEU:HD12	1.95	0.48
6:52:76:ALA:O	6:52:80:ARG:HB2	2.13	0.48
26:14:483:A:H1'	45:C5:60:PHE:HE1	1.76	0.48
26:14:1001:A:H2'	26:14:1002:G:O4'	2.12	0.48
26:14:1344:G:H4'	26:14:1384:A:N7	2.28	0.48
29:29:15:PHE:CD2	40:75:81:PRO:HD3	2.49	0.48
30:39:118:ALA:HB2	30:39:123:LEU:HD21	1.94	0.48
31:49:108:ASN:OD1	31:49:108:ASN:N	2.46	0.48
33:69:8:PRO:HD3	33:69:15:VAL:HG22	1.94	0.48
33:69:77:LEU:HD22	33:69:141:LYS:HE3	1.94	0.48
37:45:59:ARG:O	37:45:60:ARG:HG3	2.12	0.48
42:95:76:LYS:HD2	42:95:80:GLN:HB3	1.95	0.48
46:D5:24:LEU:HD12	46:D5:25:PRO:O	2.13	0.48
46:D5:163:LEU:HD12	46:D5:165:VAL:HG23	1.95	0.48
1:13:103:C:H2'	1:13:104:G:C8	2.49	0.48
1:13:1002:G:C5	1:13:1003:G:C8	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1434:A:H2'	1:13:1435:G:O4'	2.13	0.48
3:2E:68:VAL:HG12	3:2E:70:VAL:HG13	1.94	0.48
4:3E:84:LYS:HA	4:3E:85:LYS:C	2.38	0.48
5:4E:39:GLY:HA3	5:4E:71:LEU:HD11	1.94	0.48
12:3I:28:LYS:HZ2	12:3I:62:SER:HB3	1.78	0.48
13:4I:82:MET:C	13:4I:84:ILE:H	2.20	0.48
15:6I:39:LEU:HD13	15:6I:56:LEU:HB2	1.94	0.48
26:1H:210:C:OP1	53:P8:29:LYS:HD2	2.14	0.48
26:1H:722:A:C2	26:1H:723:G:C4	3.01	0.48
26:1H:775:G:C5	26:1H:794:G:C8	3.01	0.48
26:1H:1759:A:H4'	26:1H:2715:C:O4'	2.13	0.48
26:1H:2360:A:H2'	26:1H:2361:A:O4'	2.14	0.48
26:1H:2845:G:H2'	26:1H:2846:G:C8	2.48	0.48
31:41:106:LEU:HD11	31:41:111:LEU:HG	1.95	0.48
36:78:103:ALA:HB3	36:78:105:LEU:HD12	1.95	0.48
39:A8:51:ALA:HB3	39:A8:73:LEU:HG	1.95	0.48
39:A8:83:LYS:O	39:A8:110:LEU:HB2	2.13	0.48
42:D8:5:VAL:HB	42:D8:35:LEU:HD11	1.94	0.48
48:J8:58:ILE:CG2	48:J8:87:PRO:HG3	2.44	0.48
1:1G:308:C:H2'	1:1G:309:G:C8	2.49	0.48
1:1G:790:A:H2'	1:1G:791:G:C8	2.48	0.48
1:1G:1251:A:H2'	1:1G:1252:A:C8	2.48	0.48
4:32:54:TYR:CE2	4:32:58:LEU:HD12	2.49	0.48
4:32:65:ARG:HD3	4:32:75:PHE:CG	2.48	0.48
5:42:101:ILE:O	5:42:120:THR:HG23	2.13	0.48
10:1A:83:GLU:HA	10:1A:86:MET:HE2	1.95	0.48
26:14:358:U:H2'	26:14:359:A:H8	1.78	0.48
26:14:445:C:OP1	41:85:2:PRO:HA	2.13	0.48
26:14:446:G:P	57:14:3971:HOH:O	2.72	0.48
26:14:681:G:H2'	26:14:682:G:O4'	2.12	0.48
26:14:1007:C:H5"	34:15:35:ARG:HH11	1.78	0.48
26:14:2512:C:H4'	29:29:122:PHE:CE2	2.48	0.48
27:1J:15:A:H5'	27:1J:16:G:N7	2.29	0.48
28:19:95:LEU:HD11	28:19:105:ILE:HD12	1.95	0.48
1:13:1031:G:H2'	1:13:1032:A:H5'	1.95	0.48
1:13:1037:C:H2'	1:13:1038:C:H6	1.77	0.48
3:2E:3:ASN:O	3:2E:4:LYS:HG2	2.14	0.48
3:2E:84:ILE:HA	3:2E:87:LEU:HD12	1.95	0.48
14:5I:17:LYS:HE3	14:5I:18:VAL:HG13	1.96	0.48
15:6I:79:ARG:CZ	15:6I:79:ARG:HB3	2.43	0.48
20:BI:42:GLN:O	20:BI:46:GLU:HG3	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1K:57:C:H2'	22:1K:58:U:H4'	1.95	0.48
26:1H:1184:G:H5'	50:L8:29:ARG:NH1	2.29	0.48
26:1H:1411:C:H2'	26:1H:1412:A:C8	2.49	0.48
26:1H:1754:C:OP1	40:B8:96:ARG:NH1	2.46	0.48
26:1H:1835:G:H5'	26:1H:1836:C:OP2	2.13	0.48
26:1H:2492:U:H2'	26:1H:2493:U:H6	1.79	0.48
26:1H:2756:U:H4'	26:1H:2757:A:OP1	2.12	0.48
26:1H:2829:C:H5'	29:21:76:ARG:HH22	1.78	0.48
28:11:109:ASP:HB2	28:11:197:GLY:HA3	1.96	0.48
31:41:111:LEU:HD21	31:41:120:LEU:HD21	1.96	0.48
34:58:33:LEU:HD12	34:58:38:HIS:HD2	1.76	0.48
41:C8:88:ILE:HD11	41:C8:112:ARG:HB3	1.95	0.48
44:F8:3:THR:HA	44:F8:6:ASP:OD2	2.13	0.48
46:H8:45:ASP:OD1	46:H8:49:ARG:NH1	2.46	0.48
46:H8:95:PRO:HB2	46:H8:127:LYS:HD2	1.96	0.48
51:M8:9:LEU:N	51:M8:27:THR:OG1	2.45	0.48
54:Q8:24:ALA:HA	54:Q8:44:LYS:HB2	1.94	0.48
54:Q8:30:ARG:HB2	54:Q8:30:ARG:HH11	1.78	0.48
1:1G:280:C:OP1	17:8A:91:ARG:NH2	2.44	0.48
1:1G:620:C:H2'	1:1G:621:A:O4'	2.14	0.48
1:1G:1084:G:C5	1:1G:1085:U:C4	3.00	0.48
3:22:51:GLY:O	3:22:70:VAL:HG13	2.13	0.48
4:32:157:LEU:HD12	4:32:161:ASN:ND2	2.28	0.48
10:1A:24:VAL:HG21	10:1A:37:PRO:HD3	1.95	0.48
10:1A:62:HIS:HB3	14:5A:59:ALA:HB3	1.95	0.48
10:1A:81:THR:OG1	10:1A:82:ILE:N	2.46	0.48
13:4A:97:PRO:HA	13:4A:110:ARG:HD3	1.94	0.48
15:6A:43:LEU:HD11	15:6A:53:HIS:HA	1.95	0.48
20:BA:54:LYS:HA	20:BA:57:ARG:NH1	2.28	0.48
21:1B:8:THR:HG22	21:1B:10:ARG:H	1.79	0.48
24:3L:6:G:O2'	24:3L:7:G:O5'	2.27	0.48
26:14:274:G:H8	26:14:274:G:H3'	1.79	0.48
26:14:635:C:H2'	26:14:636:G:O4'	2.13	0.48
26:14:2468:G:H3'	26:14:2476:A:N1	2.29	0.48
26:14:2542:A:H2'	26:14:2542:A:N3	2.27	0.48
27:1J:3:C:H42	27:1J:117:G:H1	1.61	0.48
30:39:162:LEU:H	30:39:162:LEU:HD12	1.79	0.48
34:15:34:LEU:O	34:15:49:GLY:HA3	2.13	0.48
45:C5:84:ARG:HE	45:C5:85:VAL:C	2.20	0.48
1:13:519:C:H2'	1:13:520:A:O4'	2.14	0.48
1:13:1004:A:C2	1:13:1025:U:H1'	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1070:U:H2'	1:13:1071:C:C6	2.49	0.48
1:13:1266:G:N2	1:13:1270:C:N3	2.61	0.48
13:4I:52:GLU:O	13:4I:56:LEU:HB2	2.14	0.48
16:7I:3:LYS:O	16:7I:21:VAL:HA	2.13	0.48
24:3K:67:C:O2'	24:3K:68:A:H5'	2.14	0.48
25:4K:32:A:H4'	25:4K:33:G:OP1	2.13	0.48
26:1H:458:G:C5	53:P8:37:LYS:HE3	2.48	0.48
26:1H:606:U:OP2	30:31:104:LYS:NZ	2.42	0.48
26:1H:996:A:O3'	41:C8:92:ARG:HG2	2.12	0.48
26:1H:1427:A:H4'	26:1H:1428:C:O4'	2.14	0.48
26:1H:1496:A:C8	26:1H:1577:C:O2'	2.59	0.48
26:1H:1562:A:H2'	26:1H:1563:G:C8	2.48	0.48
26:1H:2454:G:H1'	57:1H:4116:HOH:O	2.12	0.48
27:16:40:U:O4	51:M8:2:LYS:N	2.47	0.48
28:11:70:TRP:CD1	28:11:70:TRP:C	2.91	0.48
29:21:201:THR:HG22	29:21:203:LYS:N	2.18	0.48
37:88:109:VAL:HG12	37:88:114:ALA:HB2	1.94	0.48
51:M8:57:GLU:HA	51:M8:60:GLN:OE1	2.14	0.48
54:Q8:26:LYS:HE3	54:Q8:26:LYS:HB2	1.68	0.48
54:Q8:32:LEU:HG	54:Q8:33:ASN:ND2	2.28	0.48
1:1G:306:G:O5'	1:1G:306:G:H8	1.96	0.48
1:1G:974:A:H5'	1:1G:975:A:OP1	2.13	0.48
1:1G:1080:A:H5"	1:1G:1081:G:OP2	2.12	0.48
1:1G:1226:C:H4'	19:AA:80:TYR:OH	2.13	0.48
5:42:57:LYS:HE2	5:42:61:TYR:OH	2.14	0.48
23:2L:27:G:H1	23:2L:45:U:H3	1.60	0.48
26:14:1268:A:H2'	26:14:1269:A:O4'	2.13	0.48
26:14:1510:A:H2'	26:14:1511:A:C8	2.49	0.48
26:14:2505:G:H2'	26:14:2576:G:O6	2.14	0.48
26:14:2784:C:H1'	29:29:37:ARG:HH21	1.78	0.48
27:1J:21:G:H2'	27:1J:22:U:O4'	2.13	0.48
34:15:137:LYS:HD3	34:15:137:LYS:HA	1.63	0.48
53:L5:34:ARG:HG2	53:L5:39:ARG:HG3	1.94	0.48
1:13:595:G:H1'	1:13:596:C:H5	1.79	0.48
1:13:909:A:H2'	1:13:910:C:O4'	2.14	0.48
1:13:1442:G:C6	1:13:1446:A:N6	2.82	0.48
7:6E:133:GLY:O	7:6E:136:LYS:HB2	2.14	0.48
22:1K:8:U:H1'	22:1K:22:G:N2	2.28	0.48
22:1K:21:A:H2'	22:1K:21:A:N3	2.29	0.48
26:1H:144:C:H2'	26:1H:145:G:C8	2.49	0.48
26:1H:448:U:O4	26:1H:583:G:H1'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1641:A:H2'	26:1H:1642:G:O4'	2.14	0.48
26:1H:2160:G:C2	26:1H:2161:C:H1'	2.49	0.48
26:1H:2233:U:H2'	26:1H:2234:G:C8	2.49	0.48
31:41:139:LEU:HA	31:41:144:ILE:HB	1.95	0.48
36:78:144:GLU:N	36:78:144:GLU:CD	2.71	0.48
37:88:68:ILE:HD13	37:88:103:MET:HB3	1.96	0.48
41:C8:17:ILE:HG23	41:C8:39:LEU:HD12	1.95	0.48
41:C8:75:ASN:HB3	41:C8:77:SER:H	1.78	0.48
42:D8:27:ALA:HB3	42:D8:61:VAL:HG11	1.96	0.48
52:N8:3:LYS:HE3	52:N8:3:LYS:HB3	1.56	0.48
1:1G:134:A:H61	16:7A:25:ARG:NH1	2.11	0.48
1:1G:937:A:H1'	1:1G:1379:G:N2	2.29	0.48
1:1G:1322:C:O2'	1:1G:1323:G:H5'	2.14	0.48
26:14:848:G:C4	26:14:933:A:C8	3.02	0.48
27:1J:72:G:O2'	27:1J:104:A:N6	2.46	0.48
28:19:24:ILE:HD13	28:19:84:TYR:HB2	1.95	0.48
31:49:4:ASP:CG	31:49:5:VAL:N	2.70	0.48
35:25:116:SER:OG	35:25:117:LEU:N	2.46	0.48
38:55:33:ARG:HA	38:55:115:GLU:HA	1.95	0.48
46:D5:29:TYR:HA	46:D5:33:LEU:O	2.14	0.48
51:I5:13:ARG:HB3	51:I5:22:ILE:HG21	1.96	0.48
1:13:179:A:H2'	1:13:180:U:C6	2.49	0.48
1:13:1016:A:H2'	1:13:1017:G:O4'	2.13	0.48
1:13:1318:A:H1'	19:AI:37:ARG:NH2	2.23	0.48
3:2E:52:LEU:HA	3:2E:70:VAL:HG12	1.96	0.48
7:6E:5:ARG:NE	7:6E:7:ALA:HA	2.28	0.48
7:6E:132:GLY:O	7:6E:135:VAL:HG23	2.14	0.48
8:7E:41:ARG:O	8:7E:41:ARG:HG2	2.14	0.48
18:9I:46:GLU:HG2	18:9I:85:LEU:HD13	1.95	0.48
26:1H:150:C:H42	26:1H:176:G:H1	1.60	0.48
26:1H:322:A:OP2	30:31:169:ASN:HB2	2.14	0.48
26:1H:1408:C:C2	26:1H:1595:G:N2	2.82	0.48
26:1H:1786:A:C2	26:1H:2606:C:H1'	2.49	0.48
26:1H:2317:C:H2'	26:1H:2318:G:O4'	2.14	0.48
29:21:16:ARG:HH21	29:21:173:VAL:HG13	1.79	0.48
29:21:167:VAL:HG21	29:21:187:ALA:CB	2.44	0.48
32:51:77:LYS:O	32:51:77:LYS:HG2	2.13	0.48
33:61:57:ARG:HG2	33:61:61:ARG:HH12	1.79	0.48
48:J8:87:PRO:HA	48:J8:90:ILE:CG1	2.43	0.48
52:N8:40:LYS:HG3	52:N8:47:PRO:HD2	1.95	0.48
1:1G:390:C:H2'	1:1G:391:G:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:737:A:H2'	1:1G:738:C:H6	1.78	0.48
1:1G:998(A):C:H2'	1:1G:999:U:C6	2.49	0.48
1:1G:1278:U:H5'	1:1G:1279:A:H5'	1.96	0.48
1:1G:1513:A:H2'	1:1G:1514:C:C6	2.49	0.48
12:3A:8:ASN:OD1	17:8A:34:LYS:HE2	2.13	0.48
26:14:794:G:H2'	26:14:795:C:C6	2.48	0.48
26:14:1076:C:C5	26:14:1077:A:H1'	2.49	0.48
26:14:1425:G:H2'	26:14:1426:G:C8	2.49	0.48
26:14:1496:A:H2'	26:14:1498:C:C5	2.49	0.48
26:14:2068:U:N3	26:14:2430:A:H2	2.11	0.48
26:14:2086:U:H2'	26:14:2087:G:C8	2.48	0.48
26:14:2346:A:C2	26:14:2383:G:C2	3.02	0.48
28:19:271:ILE:O	28:19:272:ALA:HB2	2.13	0.48
29:29:58:ARG:O	29:29:59:VAL:HG22	2.14	0.48
40:75:107:ASP:OD1	40:75:107:ASP:N	2.45	0.48
44:B5:40:LYS:HA	44:B5:51:VAL:HG11	1.95	0.48
1:13:110:C:H2'	1:13:111:G:O4'	2.14	0.48
1:13:725:G:H2'	1:13:726:C:H6	1.79	0.48
12:3I:51:ALA:O	12:3I:52:LEU:HD23	2.14	0.48
13:4I:108:ARG:N	13:4I:108:ARG:HD2	2.29	0.48
23:2K:43:A:O2'	23:2K:44:G:P	2.72	0.48
26:1H:141(A):C:H2'	26:1H:142:G:O4'	2.13	0.48
26:1H:662:G:H5"	36:78:16:ARG:HB2	1.95	0.48
26:1H:710:G:H2'	26:1H:711:G:C8	2.49	0.48
26:1H:880:G:HO2'	26:1H:881:G:C5'	2.27	0.48
26:1H:1929:G:H4'	26:1H:1930:G:OP1	2.14	0.48
26:1H:2183:C:H2'	26:1H:2184:G:H8	1.79	0.48
26:1H:2305:A:O2'	31:41:136:ARG:NH1	2.47	0.48
26:1H:2508:G:H2'	26:1H:2509:G:H8	1.79	0.48
26:1H:2795:G:H2'	26:1H:2798:C:H5"	1.96	0.48
30:31:101:LEU:HD22	30:31:102:PRO:HD2	1.95	0.48
30:31:130:ALA:C	30:31:132:VAL:H	2.22	0.48
32:51:102:ALA:HA	32:51:117:PRO:HD3	1.95	0.48
39:A8:99:LYS:O	39:A8:103:GLU:HG2	2.14	0.48
48:J8:92:LYS:HD2	48:J8:95:LEU:HD12	1.96	0.48
1:1G:19:C:OP1	5:42:125:SER:OG	2.28	0.48
1:1G:967:C:H2'	1:1G:968:A:N7	2.29	0.48
1:1G:1317:C:H5"	1:1G:1318:A:OP2	2.14	0.48
4:32:43:HIS:HA	4:32:46:LYS:HE3	1.96	0.48
8:72:51:VAL:HG11	8:72:60:ARG:HE	1.78	0.48
19:AA:51:VAL:O	19:AA:57:HIS:HA	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:140:A:C8	26:14:1408:C:O2'	2.66	0.48
26:14:184:C:H2'	26:14:185:U:H6	1.79	0.48
26:14:380:U:H2'	26:14:381:G:H8	1.79	0.48
26:14:529:A:H8	26:14:530:G:C6	2.32	0.48
26:14:662:G:H5'	36:35:14:LYS:CB	2.43	0.48
26:14:864:G:C6	26:14:865:C:N4	2.82	0.48
26:14:1291:C:H2'	26:14:1292:U:C6	2.49	0.48
26:14:1488:G:C6	26:14:1489:U:C2	3.02	0.48
26:14:1537:C:H2'	26:14:1538:G:H8	1.78	0.48
26:14:2064:C:H2'	26:14:2065:C:C6	2.49	0.48
26:14:2533:A:O2'	26:14:2664:G:H5'	2.13	0.48
29:29:5:LEU:HD22	29:29:49:LEU:HD12	1.95	0.48
29:29:31:CYS:HB3	29:29:49:LEU:HB2	1.96	0.48
30:39:95:ARG:HG3	30:39:97:TYR:CE1	2.49	0.48
35:25:63:VAL:O	35:25:64:ARG:HG3	2.14	0.48
41:85:91:ASP:OD1	41:85:96:ALA:HB2	2.14	0.48
1:13:560:U:H4'	1:13:561:U:C5'	2.43	0.47
2:1E:98:LEU:HB2	2:1E:101:MET:HG3	1.96	0.47
3:2E:79:ARG:NH2	11:2A:99:GLN:HG2	2.29	0.47
4:3E:155:LEU:O	4:3E:157:LEU:N	2.47	0.47
24:3K:85:C:H4'	48:J8:23:LYS:HB2	1.95	0.47
26:1H:198:C:C2'	26:1H:199:A:H5"	2.44	0.47
26:1H:545:G:H2'	26:1H:546:C:H5"	1.96	0.47
26:1H:639:U:H2'	26:1H:640:C:C6	2.49	0.47
26:1H:1045:A:C2	26:1H:1111:A:C5	3.02	0.47
26:1H:1175:U:H4'	26:1H:1176:G:H4'	1.96	0.47
26:1H:2035:G:H4'	26:1H:2036:C:OP2	2.13	0.47
26:1H:2243:U:H2'	26:1H:2244:U:C6	2.48	0.47
26:1H:2248:C:H2'	26:1H:2249:U:O4'	2.13	0.47
26:1H:2502:G:H5"	26:1H:2503:A:C5'	2.44	0.47
27:16:78:A:C2	27:16:99:A:C4	3.02	0.47
28:11:130:ALA:HB2	28:11:192:THR:HB	1.96	0.47
32:51:137:ASP:HB3	32:51:140:LYS:HB3	1.95	0.47
38:98:3:HIS:O	38:98:5:LYS:N	2.47	0.47
38:98:76:VAL:HG13	38:98:80:PHE:HE2	1.77	0.47
43:E8:58:ALA:O	43:E8:64:MET:HB2	2.14	0.47
45:G8:99:CYS:SG	45:G8:100:ALA:N	2.86	0.47
50:L8:31:LEU:O	50:L8:32:GLN:HB2	2.14	0.47
1:1G:750:G:N2	15:6A:23:GLY:HA3	2.29	0.47
2:12:222:ILE:O	2:12:226:ARG:HB2	2.14	0.47
3:22:94:LEU:HD12	3:22:95:THR:H	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:70:LEU:O	13:4A:74:VAL:HG23	2.14	0.47
14:5A:25:VAL:O	14:5A:26:ARG:HB3	2.12	0.47
23:2L:47:C:N4	23:2L:57:C:H42	2.12	0.47
26:14:795:C:O2'	26:14:796:C:H5'	2.14	0.47
26:14:1047:G:N2	26:14:1111:A:H62	2.12	0.47
26:14:1181:C:H2'	26:14:1182:A:C8	2.49	0.47
26:14:2537:U:H2'	26:14:2538:C:C6	2.49	0.47
26:14:2693:A:H2'	26:14:2694:G:H8	1.79	0.47
50:H5:39:ASP:CG	50:H5:44:ARG:HH21	2.22	0.47
1:13:60:A:H8	1:13:60:A:OP1	1.97	0.47
1:13:587:G:N2	1:13:755:G:C5	2.82	0.47
1:13:1167:A:C6	1:13:1169:A:C6	3.02	0.47
2:1E:174:VAL:HG13	2:1E:184:VAL:HG11	1.95	0.47
4:3E:108:LEU:HB3	4:3E:110:PHE:CD1	2.48	0.47
7:6E:73:MET:HG2	7:6E:90:GLU:HB3	1.95	0.47
10:1I:4:ILE:HG12	10:1I:100:THR:HG23	1.96	0.47
11:2I:52:GLY:H	11:2I:55:LYS:HG3	1.79	0.47
15:6I:56:LEU:O	15:6I:60:VAL:HG23	2.14	0.47
16:7I:22:THR:OG1	16:7I:32:TYR:HA	2.14	0.47
22:1K:24:C:H2'	22:1K:25:A:O4'	2.14	0.47
26:1H:448:U:C4	26:1H:583:G:H1'	2.50	0.47
26:1H:588:U:H1'	30:31:90:PHE:CG	2.49	0.47
26:1H:753:C:O2'	26:1H:754:C:H5'	2.14	0.47
26:1H:1170:G:N2	26:1H:1180:C:C2	2.83	0.47
26:1H:1372:U:H2'	26:1H:1373:A:H8	1.79	0.47
27:16:7:G:O5'	39:A8:29:PHE:CE2	2.66	0.47
29:21:21:VAL:HA	29:21:22:PRO:HD3	1.45	0.47
31:41:35:GLU:OE1	31:41:95:ARG:HB3	2.14	0.47
32:51:80:SER:C	32:51:81:GLU:HG3	2.39	0.47
38:98:44:LEU:HD23	38:98:44:LEU:HA	1.73	0.47
45:G8:81:LYS:HB3	45:G8:82:PRO:HA	1.96	0.47
1:1G:56:U:H2'	1:1G:57:G:C8	2.49	0.47
1:1G:1399:C:C2	1:1G:1502:A:N6	2.82	0.47
3:22:139:GLN:NE2	3:22:142:MET:SD	2.85	0.47
23:2L:20:U:C4	23:2L:22:G:H4'	2.48	0.47
26:14:528:A:H2	26:14:2043:C:C5'	2.27	0.47
26:14:671:C:H2'	26:14:672:C:C6	2.48	0.47
26:14:1041:C:H2'	26:14:1042:G:C8	2.49	0.47
26:14:2139:C:N4	26:14:2152:G:O6	2.48	0.47
30:39:29:ASN:N	30:39:112:MET:HE3	2.28	0.47
33:69:111:PRO:O	33:69:113:ARG:HB2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:45:38:GLU:HG3	37:45:127:ILE:CG2	2.44	0.47
1:13:1133:G:N2	1:13:1141:C:O2	2.47	0.47
1:13:1179:A:H4'	9:8E:103:THR:HA	1.96	0.47
1:13:1280:A:C3'	1:13:1281:U:H5'	2.45	0.47
15:6I:6:GLU:CD	15:6I:6:GLU:H	2.22	0.47
18:9I:85:LEU:HD12	18:9I:86:VAL:N	2.28	0.47
24:3K:63:G:H2'	24:3K:64:G:O4'	2.15	0.47
26:1H:919:G:H4'	27:16:81:G:H4'	1.95	0.47
26:1H:1915:U:H2'	26:1H:1916:A:O4'	2.13	0.47
26:1H:2254:C:H3'	57:1H:3881:HOH:O	2.13	0.47
26:1H:2376:A:H2	39:A8:112:PHE:HB3	1.78	0.47
27:16:44:G:H1'	27:16:47:C:H42	1.79	0.47
31:41:45:GLU:H	31:41:45:GLU:HG2	1.36	0.47
33:61:98:ALA:HB2	33:61:111:PRO:HB3	1.97	0.47
47:I8:49:LYS:HB2	47:I8:80:HIS:HB3	1.96	0.47
52:N8:41:PRO:HD2	52:N8:44:THR:CG2	2.44	0.47
54:Q8:33:ASN:OD1	54:Q8:34:TRP:HB2	2.13	0.47
1:1G:7:G:H21	5:42:121:LYS:HG2	1.79	0.47
1:1G:1224:G:C2	1:1G:1322:C:H1'	2.49	0.47
13:4A:27:LYS:HE3	13:4A:31:LYS:NZ	2.30	0.47
22:1L:44:G:H2'	22:1L:45:U:O4'	2.14	0.47
26:14:184:C:H2'	26:14:185:U:C6	2.48	0.47
26:14:270(D):C:H2'	26:14:270(E):G:C8	2.50	0.47
26:14:796:C:H2'	26:14:797:C:H6	1.73	0.47
26:14:1966:A:H4'	26:14:1967:C:OP1	2.14	0.47
26:14:2275:C:O2	37:45:85:LYS:HG3	2.14	0.47
26:14:2849:U:H5'	26:14:2867:G:N2	2.29	0.47
29:29:120:TRP:CD1	29:29:155:LYS:HB3	2.49	0.47
30:39:181:LEU:CD2	30:39:186:ILE:HD11	2.44	0.47
45:C5:39:VAL:HG23	45:C5:41:GLY:H	1.78	0.47
1:13:658:G:H2'	1:13:659:U:C6	2.49	0.47
1:13:982:U:H5"	14:5I:6:LEU:HD13	1.96	0.47
1:13:1064:G:H4'	1:13:1065:U:OP1	2.13	0.47
1:13:1390:U:H2'	1:13:1391:U:H6	1.79	0.47
1:13:1441:G:H5"	1:13:1442:G:H5'	1.96	0.47
2:1E:100:GLY:N	2:1E:176:GLU:OE2	2.42	0.47
11:2I:41:THR:HG21	11:2I:71:LYS:HD3	1.95	0.47
17:8I:76:LEU:HD12	17:8I:77:VAL:H	1.80	0.47
20:BI:12:ALA:O	20:BI:15:ARG:HB2	2.12	0.47
22:1K:53:A:H62	22:1K:54:G:H21	1.62	0.47
26:1H:794:G:H2'	26:1H:795:C:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1260:G:H2'	26:1H:1261:C:C6	2.49	0.47
26:1H:1534:G:H21	26:1H:1535:U:H5"	1.79	0.47
30:31:23:ASP:CG	30:31:24:LEU:H	2.22	0.47
33:61:110:ASP:CG	33:61:130:TYR:HE1	2.22	0.47
38:98:10:LEU:O	38:98:11:ASN:C	2.56	0.47
43:E8:38:TYR:OH	52:N8:47:PRO:HG3	2.15	0.47
1:1G:255:G:O6	1:1G:270:A:N6	2.48	0.47
1:1G:429:U:OP1	4:32:13:ARG:NH2	2.36	0.47
2:12:102:LEU:HD12	2:12:102:LEU:H	1.80	0.47
4:32:8:VAL:HG12	4:32:21:LEU:HD12	1.96	0.47
8:72:97:VAL:HG22	8:72:129:VAL:C	2.40	0.47
17:8A:45:HIS:ND1	17:8A:65:ILE:HG21	2.29	0.47
26:14:1202:C:H42	26:14:1243:G:H1	1.61	0.47
26:14:1328:G:H2'	26:14:1330:C:C5	2.50	0.47
26:14:1784:A:H4'	26:14:1785:A:O5'	2.15	0.47
26:14:2477:C:H5'	26:14:2479:G:O6	2.14	0.47
33:69:101:LEU:HB2	33:69:107:VAL:O	2.13	0.47
38:55:88:ARG:HD2	38:55:89:ASP:OD1	2.13	0.47
40:75:51:ARG:HD3	40:75:100:TYR:OH	2.15	0.47
45:C5:20:TYR:CE2	45:C5:42:VAL:HA	2.50	0.47
48:F5:8:SER:HB3	48:F5:66:HIS:CD2	2.50	0.47
53:L5:24:THR:O	53:L5:28:ARG:HG3	2.14	0.47
1:13:830:G:H2'	1:13:831:U:O4'	2.15	0.47
1:13:972:C:O2	10:1I:55:LYS:HD3	2.14	0.47
2:1E:85:ALA:HB1	2:1E:90:MET:O	2.14	0.47
2:1E:239:VAL:O	2:1E:239:VAL:HG12	2.14	0.47
4:3E:8:VAL:CG1	4:3E:21:LEU:HB2	2.44	0.47
4:3E:159:ARG:O	4:3E:163:GLU:N	2.46	0.47
26:1H:387:U:O4	57:1H:4006:HOH:O	2.19	0.47
26:1H:844:C:H2'	26:1H:845:G:O4'	2.14	0.47
26:1H:1013:C:N4	26:1H:1149:G:H1	2.12	0.47
26:1H:1786:A:H2	26:1H:2606:C:H1'	1.79	0.47
26:1H:2125:G:H21	26:1H:2173:A:N6	2.10	0.47
26:1H:2287:A:C2	26:1H:2289:G:C8	3.03	0.47
28:11:68:LYS:HB3	28:11:70:TRP:CZ3	2.49	0.47
37:88:66:ILE:HG22	37:88:67:ARG:H	1.79	0.47
39:A8:5:THR:HG23	39:A8:8:GLU:OE2	2.15	0.47
43:E8:97:LYS:HE2	43:E8:99:ARG:NH2	2.28	0.47
1:1G:517:G:N2	1:1G:533:A:OP2	2.41	0.47
1:1G:890:G:O2'	1:1G:906:G:O6	2.21	0.47
2:12:55:PHE:HD1	2:12:58:ILE:HG13	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:91:SER:HA	4:32:94:LEU:HD12	1.97	0.47
7:62:91:VAL:HB	7:62:96:GLN:HG2	1.97	0.47
9:82:16:ARG:NH1	9:82:64:THR:HG21	2.29	0.47
10:1A:76:ASN:HB3	10:1A:78:ASN:ND2	2.29	0.47
26:14:1485:G:H2'	26:14:1486:A:H8	1.79	0.47
26:14:1967:C:H2'	26:14:1968:G:O4'	2.14	0.47
31:49:181:ARG:NH1	31:49:181:ARG:HB3	2.30	0.47
43:A5:33:ARG:NH1	43:A5:52:GLU:OE2	2.48	0.47
45:C5:75:ILE:O	45:C5:76:CYS:HB3	2.15	0.47
47:E5:23:VAL:HA	47:E5:38:VAL:HG22	1.96	0.47
51:I5:21:VAL:HG22	51:I5:22:ILE:H	1.79	0.47
54:M5:59:LYS:HA	54:M5:59:LYS:NZ	2.24	0.47
1:13:684:A:N6	1:13:685:G:C6	2.83	0.47
1:13:769:G:H4'	1:13:1513:A:H4'	1.97	0.47
1:13:976:G:H5'	1:13:1358:U:O2'	2.14	0.47
1:13:1346:A:H5"	9:8E:120:ARG:HH12	1.80	0.47
3:2E:18:TRP:CD1	14:5I:55:GLY:H	2.33	0.47
6:5E:1:MET:SD	6:5E:66:GLU:HG2	2.55	0.47
13:4I:16:ASP:HA	13:4I:19:LEU:HD22	1.95	0.47
20:BI:35:THR:HG22	20:BI:38:LYS:NZ	2.30	0.47
22:1K:48:C:N3	22:1K:56:G:N2	2.62	0.47
26:1H:654(A):A:H2	26:1H:654(T):A:N1	2.12	0.47
26:1H:880:G:O2'	26:1H:881:G:O5'	2.30	0.47
26:1H:1072:C:H2'	26:1H:1093:G:O6	2.15	0.47
26:1H:1756:G:H1'	26:1H:1758:G:C2	2.49	0.47
26:1H:2455:G:H2'	26:1H:2456:C:C6	2.50	0.47
30:31:108:LYS:O	30:31:112:MET:HG3	2.14	0.47
31:41:173:LEU:HD22	31:41:178:PHE:CE2	2.50	0.47
33:61:40:THR:HB	33:61:43:ASN:H	1.79	0.47
34:58:7:LYS:HE3	34:58:7:LYS:HB3	1.71	0.47
43:E8:82:LEU:HD23	43:E8:82:LEU:HA	1.60	0.47
54:Q8:21:LYS:HA	54:Q8:21:LYS:HD2	1.55	0.47
1:1G:188:U:O2'	1:1G:189:U:H5'	2.15	0.47
1:1G:316:G:OP2	1:1G:351:G:O2'	2.31	0.47
4:32:24:GLU:OE2	4:32:24:GLU:N	2.47	0.47
14:5A:17:LYS:HD2	14:5A:18:VAL:N	2.29	0.47
26:14:274:G:H3'	26:14:274:G:C8	2.50	0.47
26:14:957:A:N6	26:14:2459:A:C8	2.83	0.47
26:14:2196:C:O2'	26:14:2197:U:H5'	2.14	0.47
26:14:2872:G:C5	26:14:2873:A:C2	3.03	0.47
45:C5:12:THR:O	45:C5:75:ILE:HB	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:D5:24:LEU:HD23	46:D5:41:LEU:HA	1.95	0.47
52:J5:52:TYR:HD1	52:J5:53:ALA:H	1.62	0.47
1:13:191(F):U:H2'	1:13:191:G:C8	2.50	0.47
1:13:309:G:H1'	1:13:608:A:C2	2.50	0.47
1:13:412:A:H4'	1:13:413:G:O5'	2.14	0.47
1:13:689:C:P	11:2I:46:GLY:HA3	2.55	0.47
1:13:1269:A:H2	1:13:1312:G:N3	2.13	0.47
3:2E:74:GLY:HA2	3:2E:77:ILE:HB	1.97	0.47
4:3E:103:ASN:O	4:3E:107:ARG:HG2	2.14	0.47
4:3E:110:PHE:HE2	4:3E:148:VAL:HG23	1.79	0.47
4:3E:192:GLU:N	4:3E:192:GLU:OE1	2.47	0.47
9:8E:25:LYS:HD3	9:8E:60:ASP:HB3	1.97	0.47
12:3I:55:VAL:HG12	12:3I:69:TYR:HA	1.97	0.47
12:3I:57:LYS:HE3	12:3I:65:GLU:HG2	1.96	0.47
21:1F:15:ARG:HB2	21:1F:15:ARG:NH1	2.28	0.47
22:1K:81:G:H2'	22:1K:82:G:O4'	2.14	0.47
26:1H:300:A:H2'	26:1H:334:C:H1'	1.97	0.47
26:1H:363(F):A:H4'	26:1H:364:C:H5'	1.96	0.47
26:1H:439:G:H2'	26:1H:440:G:C8	2.50	0.47
26:1H:485:C:H2'	26:1H:486:C:C6	2.49	0.47
26:1H:731:C:H2'	26:1H:732:C:C6	2.47	0.47
26:1H:760:G:H2'	26:1H:761:A:H5'	1.96	0.47
26:1H:1021:A:C8	26:1H:1022:G:H5"	2.50	0.47
26:1H:1138:G:H21	34:58:106:MET:CE	2.26	0.47
26:1H:1250:G:OP2	36:78:21:ARG:NH1	2.47	0.47
26:1H:1508:A:O2'	26:1H:1509:C:O5'	2.31	0.47
26:1H:1794:U:H2'	26:1H:1795:C:H6	1.78	0.47
26:1H:1827:C:C2'	26:1H:1828:G:H5'	2.45	0.47
26:1H:2271:G:H5"	47:I8:20:ARG:HG2	1.96	0.47
26:1H:2643:G:H2'	26:1H:2644:G:O4'	2.14	0.47
27:16:32:C:C2	27:16:51:G:N2	2.82	0.47
27:16:119:A:H2'	27:16:119:A:N3	2.30	0.47
28:11:2:ALA:HA	28:11:20:ASP:HB3	1.97	0.47
29:21:55:ASN:CB	29:21:58:ARG:HD2	2.42	0.47
29:21:170:LEU:HD21	29:21:187:ALA:HB3	1.97	0.47
30:31:149:ASP:OD1	30:31:149:ASP:N	2.42	0.47
31:41:73:ALA:HB2	31:41:88:ILE:HD11	1.97	0.47
32:51:92:ILE:H	32:51:92:ILE:HG13	1.37	0.47
37:88:138:ASP:OD1	37:88:138:ASP:N	2.45	0.47
41:C8:8:VAL:O	41:C8:12:ARG:HG3	2.15	0.47
41:C8:105:VAL:HG22	42:D8:45:THR:HG21	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:F8:67:GLY:C	44:F8:69:TYR:H	2.22	0.47
1:1G:110:C:H2'	1:1G:111:G:O4'	2.14	0.47
1:1G:407:G:O2'	4:32:116:GLN:HG3	2.15	0.47
1:1G:652:U:C5	1:1G:752:G:N3	2.83	0.47
1:1G:713:G:H2'	1:1G:714:G:C8	2.50	0.47
1:1G:934:C:O2'	1:1G:1344:C:OP2	2.30	0.47
1:1G:1277:C:O2'	1:1G:1279:A:H1'	2.15	0.47
1:1G:1278:U:H5'	1:1G:1279:A:C5'	2.44	0.47
3:22:72:LYS:NZ	3:22:75:VAL:HG23	2.29	0.47
3:22:109:PRO:HB2	3:22:115:LEU:HG	1.97	0.47
4:32:141:ARG:HG2	4:32:141:ARG:HH11	1.80	0.47
5:42:60:TYR:HB3	5:42:64:ARG:NH2	2.25	0.47
6:52:96:PRO:HB3	18:9A:30:ASP:CG	2.40	0.47
10:1A:30:SER:CB	10:1A:81:THR:HA	2.44	0.47
15:6A:39:LEU:CD1	15:6A:56:LEU:HB2	2.44	0.47
20:BA:56:MET:HG3	20:BA:84:LEU:HD22	1.96	0.47
23:2L:15:A:H2'	23:2L:70:G:N1	2.30	0.47
23:2L:65:5MU:C4	23:2L:66:PSU:C2	3.03	0.47
24:3L:27:G:H2'	24:3L:28:C:O4'	2.13	0.47
24:3L:84:A:H2'	24:3L:85:C:C6	2.49	0.47
26:14:212:G:H2'	26:14:213:A:O4'	2.14	0.47
26:14:273(C):C:H5'	26:14:273(D):C:OP2	2.15	0.47
26:14:290:G:H8	26:14:290:G:O5'	1.97	0.47
26:14:481:G:OP2	45:C5:47:LYS:HD3	2.14	0.47
26:14:864:G:H1'	26:14:914:C:N4	2.30	0.47
26:14:996:A:N6	26:14:1160:G:C6	2.83	0.47
26:14:1588:C:H5'	26:14:1589:C:OP2	2.13	0.47
26:14:1759:A:H4'	26:14:2715:C:O4'	2.14	0.47
26:14:2344:U:H4'	26:14:2345:G:OP1	2.14	0.47
26:14:2352:A:C2	47:E5:33:ALA:HB1	2.50	0.47
26:14:2479:G:C6	26:14:2480:C:C4	3.03	0.47
26:14:2889:C:H3'	26:14:2891:G:C8	2.49	0.47
29:29:95:ILE:H	29:29:95:ILE:HG13	1.46	0.47
30:39:132:VAL:C	30:39:134:GLY:H	2.22	0.47
32:59:11:VAL:HB	32:59:13:LYS:HE2	1.97	0.47
32:59:96:ALA:H	32:59:128:PRO:HA	1.79	0.47
36:35:78:PRO:HA	36:35:110:TYR:CD2	2.50	0.47
39:65:86:ALA:O	39:65:87:PHE:HB2	2.15	0.47
41:85:49:HIS:O	41:85:53:ARG:N	2.48	0.47
42:95:66:ARG:HB2	42:95:88:ARG:HB3	1.95	0.47
44:B5:50:LYS:HB2	44:B5:87:GLN:HE22	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:C5:19:LYS:C	45:C5:21:LYS:H	2.22	0.47
47:E5:50:ASN:O	47:E5:62:LEU:HB2	2.15	0.47
48:F5:44:PRO:HB2	48:F5:46:LEU:CD1	2.44	0.47
1:13:737:A:H2'	1:13:738:C:C6	2.49	0.47
2:1E:5:ILE:HG13	2:1E:6:THR:H	1.79	0.47
7:6E:103:TRP:CE2	7:6E:137:LYS:HD3	2.50	0.47
7:6E:121:ALA:O	7:6E:125:MET:HB2	2.15	0.47
11:2I:45:GLY:O	11:2I:50:TYR:HB2	2.15	0.47
13:4I:107:ALA:O	13:4I:110:ARG:N	2.47	0.47
24:3K:7:G:H3'	24:3K:8:U:C5'	2.41	0.47
26:1H:828:U:H4'	26:1H:831:G:N1	2.30	0.47
26:1H:1512:G:C5	26:1H:1513:C:C4	3.03	0.47
31:41:26:GLN:OE1	31:41:27:ASN:HB2	2.15	0.47
39:A8:36:TYR:N	39:A8:36:TYR:CD1	2.82	0.47
41:C8:94:ASN:HB3	41:C8:95:LEU:HD22	1.96	0.47
45:G8:97:ARG:NH1	45:G8:104:GLY:HA3	2.30	0.47
48:J8:78:LYS:HE3	48:J8:78:LYS:H	1.80	0.47
1:1G:286:G:H2'	1:1G:287:U:H6	1.80	0.47
1:1G:562:C:H4'	1:1G:563:A:O5'	2.14	0.47
1:1G:1162:C:H42	1:1G:1174:G:H1	1.62	0.47
3:22:135:LYS:O	3:22:139:GLN:HB2	2.15	0.47
4:32:45:GLN:C	4:32:46:LYS:HG2	2.40	0.47
4:32:163:GLU:HA	4:32:166:LYS:HG3	1.96	0.47
13:4A:86:CYS:O	13:4A:89:GLY:N	2.38	0.47
26:14:528:A:H2	26:14:2043:C:H5'	1.80	0.47
26:14:782:A:C6	28:19:226:MET:HE2	2.50	0.47
26:14:873:G:C2	26:14:905:U:O2	2.67	0.47
26:14:1259:G:H2'	26:14:1260:G:C8	2.50	0.47
26:14:1482:U:H5'	26:14:1483:G:OP2	2.14	0.47
26:14:1666:G:OP1	35:25:66:LYS:HD3	2.15	0.47
26:14:1945:G:H2'	26:14:1946:U:H6	1.79	0.47
26:14:2273:A:O2'	26:14:2274:A:H5'	2.15	0.47
29:29:111:ARG:HG2	29:29:111:ARG:NH1	2.27	0.47
29:29:120:TRP:CG	29:29:155:LYS:HB3	2.50	0.47
31:49:16:ARG:O	31:49:20:ILE:HG13	2.15	0.47
35:25:68:GLU:HB3	35:25:78:ARG:HH11	1.79	0.47
38:55:100:LEU:HD21	38:55:113:LEU:HD22	1.97	0.47
40:75:3:ARG:HG2	40:75:4:GLY:N	2.30	0.47
44:B5:57:LEU:N	44:B5:57:LEU:HD23	2.29	0.47
1:13:779:C:H2'	1:13:780:A:O4'	2.15	0.47
1:13:1104:G:O5'	2:1E:111:ARG:HD2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1356:G:H2'	1:13:1357:A:C8	2.49	0.47
3:2E:150:LYS:HD2	3:2E:201:TYR:HD2	1.80	0.47
5:4E:43:LEU:HD21	5:4E:132:ALA:HB1	1.97	0.47
20:BI:50:GLU:HB2	20:BI:100:ILE:HB	1.97	0.47
22:1K:49:C:H2'	22:1K:50:A:H4'	1.96	0.47
26:1H:997:G:O2'	26:1H:998:C:H5'	2.14	0.47
26:1H:1204:A:H2	26:1H:1241:A:N1	2.13	0.47
26:1H:2377:A:H2'	26:1H:2378:A:C8	2.50	0.47
26:1H:2475:C:O2'	26:1H:2476:A:H5'	2.15	0.47
26:1H:2689:U:H5"	26:1H:2713:A:C2	2.50	0.47
42:D8:79:VAL:CG1	42:D8:81:TYR:HB3	2.45	0.47
1:1G:690:G:H2'	1:1G:691:G:O4'	2.15	0.47
5:42:92:LYS:N	5:42:119:LEU:O	2.41	0.47
22:1L:15:A:H8	22:1L:16:U:H5	1.60	0.47
26:14:395:U:H2'	26:14:396:G:N7	2.29	0.47
26:14:813:U:H2'	26:14:814:C:C6	2.50	0.47
26:14:2147:G:C5	26:14:2148:G:H1'	2.50	0.47
26:14:2356:C:H4'	47:E5:20:ARG:HG3	1.97	0.47
27:1J:44:G:C2	27:1J:48:A:C2	3.03	0.47
39:65:30:ARG:HD2	39:65:97:ARG:HD3	1.96	0.47
47:E5:51:VAL:N	47:E5:62:LEU:HD12	2.30	0.47
1:13:313:A:H2'	1:13:314:C:C6	2.50	0.47
1:13:554:C:H2'	1:13:555:C:H6	1.79	0.47
1:13:560:U:O2'	1:13:561:U:OP2	2.30	0.47
1:13:865:A:H2	1:13:918:A:H4'	1.80	0.47
1:13:1175:G:C6	1:13:1176:A:C2	3.03	0.47
1:13:1186:G:H21	14:5I:61:TRP:HA	1.80	0.47
2:1E:17:PHE:N	2:1E:17:PHE:CD1	2.83	0.47
4:3E:122:ARG:HG2	4:3E:122:ARG:NH1	2.30	0.47
14:5I:27:CYS:HB2	14:5I:29:ARG:H	1.80	0.47
19:AI:36:ARG:HD2	19:AI:52:TYR:O	2.15	0.47
23:2K:18:OMG:H1'	23:2K:19:G:OP2	2.15	0.47
26:1H:458:G:O2'	26:1H:469:G:O6	2.24	0.47
26:1H:956:G:OP2	37:88:14:ARG:NH2	2.48	0.47
26:1H:1105:U:H2'	26:1H:1106:G:H8	1.80	0.47
26:1H:1516:U:H2'	26:1H:1517:G:C8	2.50	0.47
26:1H:2359:C:H2'	26:1H:2360:A:O4'	2.15	0.47
26:1H:2474:C:H3'	26:1H:2475:C:C6	2.50	0.47
39:A8:99:LYS:HE2	39:A8:103:GLU:OE1	2.15	0.47
42:D8:3:ALA:CB	42:D8:38:LEU:HD11	2.43	0.47
48:J8:23:LYS:HB3	48:J8:29:GLY:HA3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:Q8:34:TRP:HA	54:Q8:35:GLN:HA	1.55	0.47
1:1G:687:A:C6	1:1G:704:A:N7	2.83	0.47
1:1G:976:G:OP1	14:5A:31:ARG:HB3	2.15	0.47
1:1G:979:C:O2'	14:5A:19:ARG:NH2	2.47	0.47
8:72:94:TYR:CE1	8:72:132:GLU:HB2	2.49	0.47
9:82:95:LYS:HB2	9:82:95:LYS:HE2	1.50	0.47
14:5A:39:LEU:HD13	14:5A:47:LEU:HD12	1.97	0.47
26:14:38:A:H2'	26:14:39:C:H6	1.78	0.47
26:14:270(P):C:H2'	26:14:270(Q):C:C6	2.50	0.47
26:14:636:G:N7	36:35:113:LYS:NZ	2.61	0.47
26:14:1997:G:H8	57:14:3984:HOH:O	1.97	0.47
26:14:2432:A:H2'	26:14:2433:A:C8	2.50	0.47
27:1J:11:C:H3'	27:1J:12:C:C6	2.50	0.47
28:19:33:LEU:HD21	28:19:103:ARG:HA	1.97	0.47
30:39:160:ASN:HB3	30:39:163:VAL:HB	1.97	0.47
32:59:41:MET:HB3	32:59:42:ARG:H	1.61	0.47
32:59:125:VAL:HG22	32:59:126:PRO:HA	1.97	0.47
41:85:92:ARG:NH1	42:95:11:GLN:O	2.48	0.47
42:95:2:PHE:H	42:95:42:GLY:HA3	1.79	0.47
44:B5:50:LYS:H	44:B5:83:VAL:HG23	1.78	0.47
1:13:539:A:H2'	1:13:540:G:C8	2.50	0.46
1:13:1113:C:H2'	1:13:1114:C:C6	2.50	0.46
2:1E:85:ALA:HB3	2:1E:92:TYR:CD2	2.50	0.46
3:2E:33:LEU:O	3:2E:36:ASP:HB2	2.15	0.46
4:3E:85:LYS:CG	4:3E:86:LYS:H	2.27	0.46
17:8I:4:LYS:HG3	17:8I:6:LEU:HD21	1.96	0.46
17:8I:93:GLN:O	17:8I:96:GLU:HG3	2.16	0.46
20:BI:10:LEU:HD21	20:BI:12:ALA:HB3	1.97	0.46
26:1H:1283:G:N2	26:1H:1285:G:H3'	2.29	0.46
26:1H:2843:G:H2'	26:1H:2844:G:H8	1.79	0.46
32:51:8:PRO:O	32:51:10:PRO:HD3	2.15	0.46
32:51:131:VAL:HG22	32:51:132:ARG:H	1.80	0.46
32:51:157:TYR:HE1	32:51:172:LYS:HB2	1.79	0.46
33:61:144:VAL:HG22	33:61:145:VAL:N	2.31	0.46
34:58:28:THR:O	34:58:31:ALA:HB3	2.15	0.46
44:F8:1:MET:HE2	44:F8:2:LYS:HG2	1.97	0.46
48:J8:89:GLU:O	48:J8:93:GLU:HB2	2.15	0.46
48:J8:90:ILE:HA	48:J8:94:LEU:HD12	1.96	0.46
48:J8:92:LYS:H	48:J8:95:LEU:HD12	1.78	0.46
1:1G:187:C:O2	1:1G:191(A):G:N1	2.48	0.46
1:1G:616:G:C2	1:1G:617:G:C8	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:84:GLU:O	2:12:219:VAL:HG11	2.15	0.46
3:22:136:GLN:O	3:22:139:GLN:N	2.48	0.46
4:32:4:TYR:CE2	4:32:11:LEU:HD11	2.50	0.46
4:32:57:ARG:HH22	5:42:107:ARG:CD	2.29	0.46
4:32:119:GLN:HE21	4:32:123:HIS:CD2	2.33	0.46
9:82:113:LYS:HD3	9:82:119:ALA:HB1	1.97	0.46
13:4A:96:LEU:C	13:4A:110:ARG:HE	2.23	0.46
26:14:586:A:N1	26:14:809:G:O2'	2.39	0.46
26:14:676:A:H8	26:14:2069:G:N2	1.94	0.46
26:14:733:G:O6	26:14:761:A:C8	2.68	0.46
26:14:881:G:N7	26:14:882:G:C2	2.83	0.46
26:14:1160:G:C5	26:14:1161:C:C5	3.03	0.46
26:14:1484:G:H2'	26:14:1485:G:H8	1.80	0.46
26:14:1777:U:O2'	26:14:1778:U:H5'	2.15	0.46
26:14:2136:C:H5	26:14:2156:G:H21	1.62	0.46
26:14:2351:G:OP2	54:M5:46:ARG:NE	2.48	0.46
26:14:2674:G:H4'	35:25:30:ALA:HB2	1.97	0.46
26:14:2695:C:H2'	26:14:2696:U:H6	1.80	0.46
27:1J:80:U:H2'	27:1J:81:G:N2	2.26	0.46
28:19:11:PRO:C	28:19:13:ARG:H	2.23	0.46
28:19:70:TRP:CH2	28:19:150:LYS:HA	2.50	0.46
31:49:118:ARG:HD2	31:49:118:ARG:N	2.30	0.46
45:C5:59:GLY:O	45:C5:61:ILE:HG13	2.15	0.46
46:D5:94:GLU:O	46:D5:129:SER:HA	2.15	0.46
1:13:582:U:H2'	1:13:583:A:C8	2.50	0.46
1:13:926:G:C6	1:13:1505:G:C5	3.03	0.46
12:3I:8:ASN:O	12:3I:12:ARG:HG3	2.14	0.46
13:4I:65:LYS:O	13:4I:66:LEU:HD23	2.15	0.46
26:1H:239:U:H2'	26:1H:240:G:C8	2.50	0.46
26:1H:340:A:H2'	26:1H:341:G:O4'	2.14	0.46
26:1H:478:A:C6	26:1H:480:A:C6	3.03	0.46
26:1H:1593:G:H2'	26:1H:1594:G:C8	2.49	0.46
26:1H:2016:U:H1'	52:N8:6:VAL:HG13	1.97	0.46
26:1H:2250:G:O2'	26:1H:2496:C:OP1	2.32	0.46
26:1H:2306:C:H3'	26:1H:2307:G:C5'	2.45	0.46
29:21:33:VAL:CG1	29:21:89:ASP:HA	2.45	0.46
31:41:52:ILE:HD13	31:41:52:ILE:HA	1.79	0.46
33:61:55:ALA:HA	33:61:58:LEU:HD22	1.97	0.46
36:78:46:LYS:O	36:78:47:ASP:HB3	2.15	0.46
44:F8:57:LEU:N	44:F8:57:LEU:HD23	2.30	0.46
1:1G:63:C:OP1	1:1G:384:G:N2	2.42	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:280:C:N3	17:8A:39:SER:OG	2.40	0.46
1:1G:976:G:OP1	14:5A:32:SER:N	2.48	0.46
1:1G:1275:A:H2'	1:1G:1276:G:O4'	2.15	0.46
1:1G:1541:U:H2'	1:1G:1542:U:C6	2.49	0.46
3:22:21:ARG:O	3:22:58:GLU:HA	2.15	0.46
8:72:6:ILE:O	8:72:10:LEU:HG	2.14	0.46
8:72:29:SER:HB3	8:72:32:LYS:CG	2.45	0.46
13:4A:69:GLU:O	13:4A:73:GLU:HB2	2.15	0.46
13:4A:81:LEU:O	13:4A:89:GLY:HA3	2.15	0.46
26:14:307:G:N2	26:14:310:A:OP2	2.46	0.46
26:14:617:G:H5'	30:39:40:GLN:HE22	1.80	0.46
26:14:959:A:C6	26:14:960:A:N1	2.84	0.46
26:14:1485:G:H2'	26:14:1486:A:C8	2.50	0.46
26:14:1542:G:O6	26:14:1543:A:N6	2.48	0.46
26:14:2210:G:H3'	26:14:2211:G:C2	2.49	0.46
26:14:2791:C:H42	26:14:2807:G:H22	1.62	0.46
29:29:8:LYS:HB3	29:29:193:GLY:N	2.23	0.46
33:69:115:ALA:HB2	33:69:131:LYS:HE3	1.98	0.46
35:25:13:ASN:HD21	35:25:97:ARG:H	1.62	0.46
37:45:55:VAL:HG23	37:45:64:ILE:HD12	1.98	0.46
40:75:1:MET:SD	40:75:6:LEU:HD13	2.55	0.46
45:C5:54:LYS:C	45:C5:55:TYR:CG	2.93	0.46
1:13:134:A:H61	16:7I:25:ARG:NH1	2.13	0.46
1:13:542:G:H5'	4:3E:41:GLY:HA3	1.98	0.46
3:2E:156:ARG:HB3	3:2E:160:ALA:O	2.15	0.46
11:2I:91:ARG:O	11:2I:95:ILE:HG13	2.16	0.46
26:1H:548:A:C6	26:1H:549:G:H1'	2.51	0.46
26:1H:991:C:C5	26:1H:1185:C:N4	2.83	0.46
26:1H:1021:A:H8	26:1H:1022:G:H5"	1.80	0.46
26:1H:1401:G:H2'	26:1H:1402:C:H6	1.79	0.46
26:1H:1971:A:C4	28:11:241:PRO:HD3	2.50	0.46
26:1H:2309:A:C6	26:1H:2310:A:H8	2.32	0.46
26:1H:2680:C:H5'	29:21:189:PRO:HA	1.97	0.46
28:11:26:LYS:HE2	28:11:94:LEU:HD12	1.98	0.46
30:31:120:GLU:HB3	30:31:122:LYS:HG2	1.97	0.46
38:98:52:ILE:O	38:98:55:ALA:N	2.49	0.46
45:G8:10:GLY:O	45:G8:26:LYS:HE2	2.15	0.46
46:H8:151:HIS:HB3	46:H8:168:GLU:HA	1.98	0.46
49:K8:15:LYS:HD3	49:K8:67:LYS:HZ3	1.81	0.46
1:1G:584:G:O6	57:1G:1860:HOH:O	2.20	0.46
1:1G:709:G:H2'	1:1G:710:G:C8	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1101:A:H4'	1:1G:1102:A:O5'	2.15	0.46
2:12:42:ILE:CD1	2:12:202:PRO:HB2	2.45	0.46
13:4A:77:ASN:HD22	13:4A:77:ASN:C	2.23	0.46
19:AA:35:SER:O	19:AA:71:LEU:HD12	2.15	0.46
26:14:26:G:C6	26:14:27:G:N1	2.84	0.46
26:14:185:U:H2'	26:14:186:G:H8	1.77	0.46
26:14:2335:A:C8	26:14:2337:G:C5	3.04	0.46
27:1J:0:A:H2'	27:1J:1:U:C6	2.50	0.46
28:19:223:GLY:HA3	28:19:231:HIS:CE1	2.50	0.46
29:29:179:GLU:O	29:29:180:ASN:HB2	2.15	0.46
37:45:25:ASP:CB	37:45:102:VAL:H	2.28	0.46
37:45:37:LEU:HD21	37:45:130:LYS:HB3	1.95	0.46
42:95:72:VAL:O	42:95:72:VAL:HG13	2.16	0.46
43:A5:110:LYS:HD2	43:A5:110:LYS:HA	1.55	0.46
1:13:153:C:H42	1:13:168:G:H1	1.62	0.46
1:13:455:C:H42	1:13:477:G:H1	1.64	0.46
1:13:1118:C:H1'	1:13:1179:A:C4	2.50	0.46
2:1E:92:TYR:CE2	2:1E:151:GLY:HA3	2.50	0.46
11:2I:103:LEU:O	11:2I:105:VAL:HG12	2.15	0.46
13:4I:65:LYS:HE2	51:M8:50:VAL:HG13	1.97	0.46
19:AI:18:LYS:HD3	19:AI:31:ILE:HB	1.97	0.46
26:1H:194:G:H2'	26:1H:195:A:O4'	2.16	0.46
26:1H:443:A:O2'	26:1H:1200:C:O2'	2.16	0.46
26:1H:443:A:H5"	26:1H:444:C:OP1	2.15	0.46
26:1H:1204:A:C2	26:1H:1241:A:N1	2.84	0.46
26:1H:1337:G:H2'	26:1H:1338:G:C8	2.50	0.46
26:1H:1416:G:HO2'	26:1H:1417:C:H6	1.62	0.46
26:1H:1581:G:C6	26:1H:1582:C:C4	3.04	0.46
26:1H:1709:U:H2'	26:1H:1710:C:H6	1.80	0.46
26:1H:2291:U:H5"	26:1H:2380:C:O2'	2.15	0.46
26:1H:2543:G:H2'	26:1H:2544:G:O4'	2.16	0.46
26:1H:2564:A:C2	26:1H:2647:U:H4'	2.49	0.46
27:16:73:A:H2'	27:16:73:A:N3	2.30	0.46
28:11:165:ILE:H	28:11:165:ILE:HG12	1.57	0.46
32:51:170:ARG:O	32:51:171:LEU:HD12	2.14	0.46
35:68:75:SER:CB	40:B8:74:ARG:HH12	2.28	0.46
39:A8:11:LYS:O	39:A8:15:ARG:HB2	2.15	0.46
51:M8:49:PHE:HD1	51:M8:50:VAL:HB	1.80	0.46
1:1G:973:G:H3'	1:1G:974:A:H5"	1.98	0.46
1:1G:1022:G:N3	1:1G:1023:G:H1'	2.30	0.46
1:1G:1374:A:O2'	7:62:28:ASN:HB3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1412:C:H2'	1:1G:1413:A:H8	1.81	0.46
8:72:20:TYR:HA	8:72:65:TYR:CZ	2.51	0.46
10:1A:40:LEU:HG	10:1A:41:PRO:HD2	1.96	0.46
14:5A:47:LEU:HD23	14:5A:47:LEU:HA	1.80	0.46
19:AA:17:GLU:O	19:AA:21:GLU:HG2	2.15	0.46
20:BA:89:ARG:NH1	20:BA:105:SER:O	2.38	0.46
22:1L:14:A:H1'	22:1L:23:A:C6	2.50	0.46
26:14:666:G:H5"	36:35:47:ASP:O	2.15	0.46
26:14:1312:U:H4'	26:14:1313:U:O5'	2.15	0.46
26:14:1386:C:OP2	26:14:1396:U:H5	1.98	0.46
26:14:2159:G:C2	26:14:2160:G:H1'	2.51	0.46
26:14:2169:A:H3'	26:14:2169:A:N3	2.30	0.46
26:14:2515:C:O2	26:14:2570:G:C2	2.69	0.46
26:14:2596:U:H2'	26:14:2597:G:O4'	2.16	0.46
26:14:2745:C:H1'	32:59:143:GLN:HG2	1.97	0.46
28:19:148:GLU:HB2	28:19:151:LYS:HD2	1.97	0.46
29:29:5:LEU:CD2	29:29:49:LEU:HD12	2.45	0.46
30:39:36:VAL:O	30:39:40:GLN:HB2	2.15	0.46
30:39:177:ALA:HB1	30:39:178:PRO:HD2	1.97	0.46
31:49:113:ARG:NH1	31:49:142:PRO:HB3	2.31	0.46
34:15:90:MET:HE1	34:15:97:ARG:HD2	1.97	0.46
44:B5:57:LEU:HD11	44:B5:78:LYS:HD2	1.97	0.46
1:13:13:U:O2	1:13:914:A:H3'	2.16	0.46
1:13:22:G:C6	1:13:23:C:C4	3.04	0.46
1:13:163:C:H2'	1:13:164:U:C4	2.51	0.46
1:13:542:G:OP1	4:3E:10:ARG:NH2	2.45	0.46
1:13:562:C:H1'	12:3I:15:ARG:HB3	1.97	0.46
1:13:1117:G:O3'	9:8E:104:ARG:HD3	2.14	0.46
1:13:1230:C:H2'	1:13:1231:G:H8	1.79	0.46
4:3E:25:ARG:NH1	4:3E:30:LYS:O	2.48	0.46
9:8E:4:TYR:CZ	9:8E:88:TYR:HB2	2.51	0.46
15:6I:33:THR:HG21	15:6I:85:LEU:HD22	1.98	0.46
16:7I:38:TYR:CE1	16:7I:50:LYS:HB2	2.50	0.46
23:2K:20:U:H1'	23:2K:21:A:OP2	2.16	0.46
26:1H:26:G:C6	26:1H:27:G:N1	2.83	0.46
26:1H:329:G:H4'	26:1H:330:A:OP2	2.15	0.46
26:1H:824:A:H1'	26:1H:2358:G:N7	2.30	0.46
26:1H:884:C:O2	26:1H:892:G:N2	2.49	0.46
26:1H:1044:G:O2'	26:1H:1111:A:N6	2.47	0.46
26:1H:1162:G:H1'	42:D8:23:GLU:OE2	2.16	0.46
26:1H:1729:A:H8	26:1H:1730:U:C6	2.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2188:C:H2'	26:1H:2189:U:O4'	2.16	0.46
28:11:27:THR:HG23	28:11:28:GLU:HG2	1.97	0.46
29:21:101:ARG:HG2	29:21:169:ASN:OD1	2.16	0.46
29:21:167:VAL:HG21	29:21:187:ALA:HB1	1.98	0.46
30:31:116:ASP:HA	30:31:119:ARG:NH2	2.31	0.46
32:51:54:ARG:HG3	32:51:56:SER:O	2.15	0.46
33:61:33:ARG:HB3	33:61:35:LEU:HD23	1.96	0.46
35:68:101:PRO:HB3	35:68:122:LEU:CD1	2.46	0.46
45:G8:21:LYS:HB3	45:G8:21:LYS:HE2	1.68	0.46
54:Q8:32:LEU:CG	54:Q8:33:ASN:HD22	2.29	0.46
1:1G:410:G:N1	1:1G:429:U:O2	2.48	0.46
1:1G:438:G:H4'	4:32:123:HIS:CE1	2.51	0.46
1:1G:487:A:H2'	1:1G:488:C:O4'	2.15	0.46
1:1G:807:A:H2'	1:1G:808:C:C6	2.51	0.46
1:1G:1011:G:N1	1:1G:1019:C:O2	2.49	0.46
1:1G:1281:U:H3'	1:1G:1282:C:C5	2.50	0.46
2:12:189:ASP:HB3	2:12:203:GLY:O	2.15	0.46
11:2A:27:ASN:OD1	11:2A:28:THR:N	2.45	0.46
12:3A:70:ILE:HD13	12:3A:77:LEU:HD12	1.97	0.46
13:4A:32:GLU:O	13:4A:35:GLU:HG2	2.15	0.46
26:14:7:G:H2'	26:14:8:A:C8	2.50	0.46
26:14:382:G:H1	26:14:392:C:H42	1.64	0.46
26:14:620:G:H4'	26:14:621:A:C5'	2.42	0.46
26:14:775:G:C5	26:14:794:G:C8	3.04	0.46
26:14:815:C:H2'	26:14:816:C:H6	1.81	0.46
26:14:863:A:H2'	26:14:864:G:C8	2.50	0.46
26:14:1094:U:H4'	26:14:1097:U:C5	2.51	0.46
26:14:2101:G:N2	26:14:2189:U:O2	2.48	0.46
26:14:2308:G:O2'	26:14:2310:A:H2	1.98	0.46
26:14:2694:G:C4	26:14:2695:C:C5	3.04	0.46
29:29:116:VAL:HG23	29:29:120:TRP:HD1	1.80	0.46
30:39:29:ASN:OD1	30:39:112:MET:HE1	2.16	0.46
33:69:38:LEU:HD12	33:69:38:LEU:H	1.81	0.46
37:45:68:ILE:HG12	37:45:103:MET:HB2	1.98	0.46
42:95:24:LYS:HA	42:95:92:THR:OG1	2.15	0.46
45:C5:3:VAL:HG11	45:C5:32:PRO:HB2	1.97	0.46
1:13:103:C:H2'	1:13:104:G:H8	1.80	0.46
1:13:324:G:OP1	20:BI:22:ARG:HG2	2.16	0.46
1:13:452:A:O2'	1:13:453:A:O4'	2.30	0.46
1:13:636:U:H2'	1:13:637:G:C8	2.50	0.46
1:13:1028(A):C:H2'	1:13:1028(B):C:C5	2.47	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:60:ASP:HB3	2:1E:64:ARG:NH1	2.28	0.46
2:1E:238:LEU:H	2:1E:238:LEU:HD12	1.81	0.46
5:4E:30:ALA:N	5:4E:46:GLY:O	2.46	0.46
13:4I:8:GLU:OE2	13:4I:22:ILE:HA	2.16	0.46
26:1H:288:C:H2'	26:1H:289:A:C8	2.51	0.46
26:1H:497:A:C5	26:1H:498:G:C8	3.04	0.46
26:1H:795:C:H2'	26:1H:796:C:C6	2.50	0.46
26:1H:1036:G:H1	26:1H:1119:C:H42	1.62	0.46
26:1H:1141:U:H6	34:58:63:THR:OG1	1.99	0.46
26:1H:1830:C:N4	26:1H:1975:G:H1	2.12	0.46
26:1H:2562:U:H1'	35:68:23:ARG:HD3	1.97	0.46
26:1H:2579:C:H2'	26:1H:2580:U:O4'	2.15	0.46
32:51:125:VAL:HG13	32:51:131:VAL:HG23	1.97	0.46
34:58:104:LYS:HB2	34:58:117:PHE:CE1	2.51	0.46
35:68:52:VAL:C	35:68:53:LYS:HD2	2.41	0.46
44:F8:44:GLU:HG2	44:F8:49:VAL:O	2.15	0.46
46:H8:141:VAL:O	46:H8:144:LEU:HG	2.16	0.46
51:M8:39:CYS:SG	51:M8:41:PRO:HD3	2.56	0.46
1:1G:1004:A:H3'	1:1G:1004:A:N3	2.30	0.46
1:1G:1288:A:H4'	21:1B:13:ILE:HD13	1.98	0.46
1:1G:1290:G:H21	9:82:70:LYS:NZ	2.13	0.46
1:1G:1328:C:H2'	1:1G:1329:A:C8	2.51	0.46
2:12:214:ILE:O	2:12:218:ALA:HB2	2.16	0.46
3:22:47:LEU:HD12	3:22:52:LEU:HB3	1.96	0.46
6:52:3:ARG:HB3	6:52:3:ARG:HH11	1.81	0.46
12:3A:84:LEU:C	12:3A:85:ILE:HD12	2.41	0.46
17:8A:67:LYS:O	17:8A:68:ARG:HB3	2.16	0.46
18:9A:22:VAL:O	18:9A:23:LYS:HB3	2.15	0.46
26:14:1453:A:O2'	26:14:1454:U:H2'	2.15	0.46
26:14:2320:A:C6	26:14:2333:A:C8	3.04	0.46
26:14:2494:G:C4	26:14:2495:G:C8	3.04	0.46
27:1J:70:C:H2'	27:1J:71:C:H6	1.79	0.46
31:49:53:LEU:HA	31:49:56:ALA:HB3	1.96	0.46
31:49:98:ARG:HE	31:49:98:ARG:HB2	1.49	0.46
36:35:77:ARG:HB2	36:35:78:PRO:HD2	1.98	0.46
38:55:87:TYR:OH	38:55:117:VAL:O	2.31	0.46
39:65:109:GLY:C	39:65:110:LEU:HD13	2.41	0.46
44:B5:25:LYS:HA	44:B5:81:VAL:O	2.15	0.46
1:13:429:U:H1'	1:13:430:A:H5"	1.96	0.46
1:13:443:C:H2'	1:13:444:C:H6	1.81	0.46
1:13:491:G:H2'	1:13:492:G:H8	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:514:C:H2'	1:13:515:G:C8	2.51	0.46
1:13:1032:A:N1	26:14:2114:A:H5"	2.30	0.46
3:2E:3:ASN:OD1	3:2E:3:ASN:N	2.48	0.46
8:7E:12:ARG:HD3	8:7E:26:VAL:HB	1.98	0.46
8:7E:43:GLY:O	8:7E:64:LYS:HD3	2.16	0.46
15:6I:3:ILE:HD12	15:6I:34:LEU:HD23	1.97	0.46
22:1K:18:G:N2	22:1K:20:U:OP1	2.49	0.46
26:1H:142:G:C1'	44:F8:37:THR:HG21	2.43	0.46
26:1H:2053:G:P	57:1H:3670:HOH:O	2.66	0.46
26:1H:2065:C:H2'	26:1H:2066:C:C6	2.51	0.46
26:1H:2287:A:H2	26:1H:2346:A:C2	2.34	0.46
26:1H:2360:A:C2	26:1H:2361:A:H1'	2.50	0.46
26:1H:2683:C:H5"	40:B8:53:ARG:HH12	1.81	0.46
26:1H:2764:A:N6	26:1H:2766:G:C2	2.84	0.46
26:1H:2769:C:N4	26:1H:2770:G:C5	2.84	0.46
29:21:50:GLY:O	29:21:74:PRO:HG3	2.16	0.46
31:41:106:LEU:HD12	31:41:110:ALA:HB3	1.97	0.46
32:51:150:ALA:O	32:51:153:LYS:HE2	2.16	0.46
37:88:115:MET:HE2	37:88:115:MET:HB3	1.68	0.46
40:B8:57:PHE:CE1	40:B8:79:HIS:HB2	2.51	0.46
41:C8:83:LEU:HD12	41:C8:88:ILE:HB	1.97	0.46
43:E8:29:LEU:O	43:E8:29:LEU:HG	2.10	0.46
45:G8:61:ILE:HD13	45:G8:63:LYS:HD3	1.97	0.46
49:K8:2:LYS:O	49:K8:6:VAL:HG12	2.15	0.46
1:1G:1023:G:H3'	1:1G:1024:G:H5"	1.97	0.46
1:1G:1132:C:H2'	1:1G:1133:G:C8	2.51	0.46
1:1G:1338:G:H2'	1:1G:1339:A:O4'	2.16	0.46
1:1G:1523:G:OP1	11:2A:123:LYS:HD2	2.15	0.46
2:12:114:ARG:NH1	2:12:141:GLU:OE2	2.48	0.46
2:12:165:VAL:HG23	2:12:166:ASP:N	2.31	0.46
3:22:150:LYS:HZ1	3:22:152:ILE:HD11	1.79	0.46
24:3L:34:U:H2'	24:3L:36:A:OP2	2.16	0.46
26:14:208:C:H2'	26:14:209:C:H6	1.81	0.46
26:14:330:A:H2	26:14:1210:A:HO2'	1.59	0.46
26:14:789:A:H3'	57:14:3663:HOH:O	2.16	0.46
26:14:818:G:H4'	26:14:838:C:O3'	2.15	0.46
26:14:900:A:OP1	26:14:900:A:H4'	2.14	0.46
26:14:1022:G:C6	26:14:1140:C:C4	3.03	0.46
26:14:2252:G:H2'	26:14:2253:G:O4'	2.16	0.46
26:14:2745:C:H2'	26:14:2746:U:C6	2.51	0.46
31:49:64:THR:HA	31:49:102:PHE:HD1	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:69:92:VAL:O	33:69:120:ILE:HG12	2.15	0.46
34:15:114:ARG:O	34:15:118:LYS:HG3	2.16	0.46
37:45:81:VAL:HG23	37:45:82:ARG:N	2.31	0.46
40:75:4:GLY:O	40:75:5:ALA:C	2.58	0.46
41:85:66:ASN:HD21	41:85:70:ARG:HE	1.62	0.46
46:D5:48:PHE:CE1	46:D5:52:SER:HA	2.51	0.46
47:E5:38:VAL:HB	47:E5:59:LEU:HD12	1.98	0.46
53:L5:10:ARG:O	53:L5:14:LYS:HB2	2.16	0.46
1:13:191:G:C6	1:13:192:U:C4	3.04	0.46
1:13:243:A:H4'	1:13:244:U:C5'	2.46	0.46
1:13:347:G:N2	1:13:348:G:N3	2.64	0.46
1:13:413:G:H2'	1:13:428:G:N2	2.31	0.46
1:13:603:U:H2'	1:13:604:G:C8	2.51	0.46
2:1E:8:LYS:HG2	2:1E:9:GLU:H	1.79	0.46
2:1E:74:LYS:NZ	2:1E:169:LYS:HG3	2.30	0.46
3:2E:136:GLN:HG2	3:2E:140:ARG:NH1	2.31	0.46
5:4E:11:ILE:HD11	5:4E:31:LEU:HD13	1.98	0.46
5:4E:68:GLU:O	5:4E:70:PRO:HD3	2.15	0.46
18:9I:58:LEU:HG	18:9I:62:GLU:HB3	1.97	0.46
19:AI:18:LYS:HG2	19:AI:22:LEU:HD13	1.98	0.46
24:3K:8:U:H4'	24:3K:8:U:OP1	2.16	0.46
26:1H:1491:G:O2'	26:1H:1492:G:H5'	2.16	0.46
26:1H:1799:G:N2	28:11:155:LEU:HD12	2.31	0.46
26:1H:1906:G:OP2	26:1H:1929:G:O2'	2.31	0.46
26:1H:2046:G:H1'	52:N8:22:HIS:HE1	1.81	0.46
28:11:121:PRO:HB3	28:11:135:PHE:CE2	2.51	0.46
32:51:90:LYS:HE2	32:51:90:LYS:HB3	1.75	0.46
38:98:102:GLU:O	38:98:111:LEU:HD12	2.15	0.46
45:G8:9:LYS:O	45:G8:27:VAL:HG22	2.16	0.46
51:M8:13:ARG:NH1	51:M8:22:ILE:HG23	2.31	0.46
54:Q8:59:LYS:HB2	54:Q8:60:LEU:HG	1.97	0.46
1:1G:147:G:H1	1:1G:175:C:N4	2.03	0.46
1:1G:1205:U:O2'	3:22:195:VAL:HG13	2.15	0.46
1:1G:1265:G:C2	1:1G:1271:G:C2	3.04	0.46
1:1G:1342:C:H4'	9:82:125:TYR:CB	2.44	0.46
1:1G:1540:U:H3	25:4L:33:G:H22	1.64	0.46
16:7A:23:ASP:O	16:7A:25:ARG:N	2.48	0.46
18:9A:52:PRO:O	18:9A:56:THR:HG23	2.15	0.46
26:14:360:G:H8	26:14:360:G:O5'	1.98	0.46
26:14:779:U:OP1	28:19:49:ILE:HG22	2.15	0.46
26:14:914:C:N3	26:14:915:C:H1'	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1090:U:N3	26:14:1102:C:H1'	2.30	0.46
26:14:1338:G:N3	26:14:1393:A:H2	2.14	0.46
26:14:1462:C:H2'	26:14:1463:C:C6	2.51	0.46
26:14:1717:G:N2	26:14:1742:C:O2	2.44	0.46
26:14:1945:G:H2'	26:14:1946:U:C6	2.51	0.46
26:14:2607:G:H2'	26:14:2608:G:O4'	2.15	0.46
29:29:55:ASN:C	29:29:57:LYS:H	2.23	0.46
35:25:47:ILE:HD12	35:25:47:ILE:HA	1.75	0.46
37:45:48:GLU:O	37:45:52:VAL:HG23	2.15	0.46
42:95:69:LYS:HE3	42:95:86:GLY:HA3	1.98	0.46
43:A5:65:LEU:CD1	43:A5:68:ARG:HD3	2.45	0.46
51:I5:20:ASN:ND2	51:I5:39:CYS:SG	2.89	0.46
1:13:396:G:O2'	1:13:398:C:OP1	2.21	0.46
1:13:1152:A:H4'	10:1I:13:HIS:CD2	2.50	0.46
6:5E:62:TRP:CH2	6:5E:64:GLN:HG2	2.51	0.46
24:3K:37:G:H2'	24:3K:38:G:O4'	2.16	0.46
26:1H:320:A:H2'	30:31:136:THR:HG21	1.97	0.46
26:1H:534:U:H5'	41:C8:42:ALA:HB1	1.97	0.46
26:1H:846:C:C4	26:1H:930:U:C4	3.04	0.46
26:1H:1021:A:C8	26:1H:1021:A:C3'	2.99	0.46
26:1H:1021:A:N6	26:1H:1141:U:C2	2.84	0.46
26:1H:1277:G:O2'	38:98:24:GLN:HG2	2.15	0.46
26:1H:1291:C:H2'	26:1H:1292:U:C6	2.51	0.46
26:1H:1678:G:H8	26:1H:1678:G:O5'	1.99	0.46
26:1H:2323:G:H2'	26:1H:2324:C:O4'	2.16	0.46
26:1H:2553:G:H2'	26:1H:2554:U:C4'	2.46	0.46
26:1H:2572:A:N7	29:21:145:LYS:HB2	2.31	0.46
26:1H:2726:U:H4'	35:68:1:MET:HE1	1.98	0.46
26:1H:2815:C:H2'	26:1H:2816:C:H6	1.81	0.46
30:31:134:GLY:H	30:31:162:LEU:HB3	1.80	0.46
34:58:60:ILE:H	34:58:60:ILE:HG13	1.45	0.46
35:68:43:VAL:HG12	35:68:54:GLU:HA	1.98	0.46
41:C8:49:HIS:HA	41:C8:52:ARG:HG2	1.98	0.46
46:H8:48:PHE:CE1	46:H8:71:VAL:HG11	2.51	0.46
46:H8:59:LEU:HA	46:H8:59:LEU:HD23	1.58	0.46
1:1G:15:G:H2'	1:1G:16:A:O4'	2.16	0.46
1:1G:722:A:H4'	1:1G:723:U:OP1	2.16	0.46
1:1G:980:C:H5'	1:1G:981:U:OP2	2.16	0.46
1:1G:999:U:H2'	1:1G:1000:A:C8	2.51	0.46
1:1G:1109:C:H2'	1:1G:1110:A:O4'	2.16	0.46
2:12:22:LYS:H	2:12:22:LYS:HG3	1.60	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:84:ILE:HD11	3:22:88:ARG:NH2	2.28	0.46
3:22:95:THR:C	3:22:97:LYS:H	2.24	0.46
4:32:9:CYS:HA	4:32:12:CYS:HB2	1.97	0.46
4:32:176:LEU:HG	4:32:178:VAL:HG13	1.98	0.46
11:2A:23:ALA:HB1	11:2A:88:GLY:HA3	1.98	0.46
11:2A:122:LYS:HD3	11:2A:124:LYS:HE2	1.98	0.46
17:8A:92:ARG:HG2	17:8A:95:TYR:CE2	2.51	0.46
26:14:6:A:H2'	26:14:6:A:N3	2.31	0.46
26:14:654(C):G:H2'	26:14:654(D):G:O4'	2.16	0.46
26:14:1171:G:H4'	26:14:1173:G:OP1	2.16	0.46
26:14:1448:G:H1'	26:14:1528:A:H62	1.81	0.46
26:14:2093:G:N2	26:14:2196:C:O2	2.40	0.46
26:14:2131:G:H5"	26:14:2158:A:N1	2.31	0.46
26:14:2197:U:H1'	26:14:2198:A:C8	2.51	0.46
26:14:2658:C:H5"	32:59:158:HIS:HE1	1.80	0.46
30:39:133:ASN:HA	30:39:162:LEU:HD22	1.98	0.46
34:15:17:ASP:O	34:15:18:ALA:HB3	2.16	0.46
42:95:20:LEU:HD12	42:95:20:LEU:HA	1.64	0.46
42:95:34:GLU:OE1	42:95:56:SER:HB2	2.16	0.46
48:F5:85:LEU:H	48:F5:85:LEU:HG	1.25	0.46
1:13:280:C:N3	17:8I:39:SER:N	2.62	0.46
1:13:587:G:H8	1:13:587:G:O5'	1.98	0.46
1:13:730:G:C5	1:13:731:G:H1'	2.51	0.46
1:13:953:G:H5'	1:13:965:A:H61	1.81	0.46
2:1E:74:LYS:H	2:1E:74:LYS:HG2	1.50	0.46
3:2E:43:LEU:O	3:2E:47:LEU:HB2	2.16	0.46
3:2E:147:LYS:HD3	3:2E:147:LYS:HA	1.80	0.46
14:5I:25:VAL:HG13	14:5I:38:GLY:O	2.15	0.46
20:BI:73:HIS:O	20:BI:76:ALA:HB3	2.16	0.46
26:1H:55:G:H2'	26:1H:56:A:H8	1.80	0.46
26:1H:273(F):C:H3'	26:1H:274:G:H5"	1.97	0.46
26:1H:1095:A:H2'	26:1H:1095:A:N3	2.31	0.46
26:1H:1358:G:O2'	26:1H:1359:A:H5"	2.16	0.46
26:1H:1771:C:H1'	26:1H:1786:A:C8	2.50	0.46
26:1H:2251:G:H2'	26:1H:2252:G:H8	1.81	0.46
26:1H:2299:G:N1	26:1H:2318:G:H8	2.14	0.46
26:1H:2629:A:OP1	26:1H:2629:A:H4'	2.16	0.46
26:1H:2690:C:H5"	26:1H:2872:G:H21	1.81	0.46
26:1H:2769:C:C4	26:1H:2770:G:C5	3.04	0.46
31:41:111:LEU:HA	31:41:114:ILE:HD12	1.97	0.46
34:58:40:PRO:O	41:C8:64:ARG:HG2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:88:59:ARG:C	37:88:61:GLY:N	2.74	0.46
48:J8:62:VAL:HG23	48:J8:63:ALA:O	2.16	0.46
50:L8:6:VAL:HG12	50:L8:56:VAL:HG13	1.97	0.46
51:M8:12:ALA:HB3	51:M8:24:THR:HB	1.97	0.46
52:N8:30:LEU:HA	52:N8:41:PRO:O	2.15	0.46
54:Q8:6:THR:HG22	54:Q8:59:LYS:HE3	1.97	0.46
1:1G:623:C:C4	1:1G:624:C:C5	3.04	0.46
1:1G:636:U:H2'	1:1G:637:G:C8	2.47	0.46
1:1G:1052:U:O2'	1:1G:1055:A:OP2	2.13	0.46
1:1G:1397:C:O2'	1:1G:1398:A:OP1	2.27	0.46
2:12:72:GLY:HA2	2:12:165:VAL:CG2	2.46	0.46
4:32:27:TYR:HD1	4:32:27:TYR:HA	1.58	0.46
16:7A:16:HIS:CD2	16:7A:16:HIS:N	2.84	0.46
17:8A:45:HIS:NE2	17:8A:47:PRO:HB3	2.30	0.46
17:8A:59:ILE:HG23	17:8A:71:PHE:HB3	1.98	0.46
18:9A:29:PHE:N	18:9A:29:PHE:CD1	2.84	0.46
26:14:1204:A:C2	26:14:1241:A:N1	2.84	0.46
26:14:1225:C:H2'	26:14:1226:G:C8	2.51	0.46
26:14:1956:U:H1'	26:14:2552:U:OP1	2.16	0.46
26:14:2261:C:C6	47:E5:16:SER:HB3	2.50	0.46
26:14:2275:C:O2	37:45:85:LYS:HE3	2.16	0.46
26:14:2689:U:P	26:14:2719:G:H22	2.38	0.46
26:14:2897:U:H5'	26:14:2898:U:OP2	2.16	0.46
27:1J:27:C:O3'	39:65:36:TYR:OH	2.34	0.46
28:19:73:VAL:HG13	28:19:120:GLY:HA3	1.96	0.46
29:29:203:LYS:HG2	29:29:205:ALA:CB	2.46	0.46
31:49:55:LYS:NZ	31:49:148:MET:HE3	2.31	0.46
32:59:99:VAL:HG13	32:59:100:GLY:H	1.79	0.46
39:65:14:VAL:HG21	39:65:90:GLY:O	2.16	0.46
47:E5:12:ASN:HA	47:E5:14:ARG:HH21	1.81	0.46
1:13:159:G:O2'	1:13:161:A:N7	2.40	0.45
1:13:329:A:C4	1:13:332:G:C5	3.04	0.45
1:13:437:U:C5'	4:3E:155:LEU:HD21	2.46	0.45
1:13:465:A:N7	1:13:467:G:C6	2.84	0.45
1:13:772:U:H2'	1:13:773:G:H8	1.81	0.45
1:13:993:G:H4'	1:13:994:A:OP2	2.16	0.45
13:4I:77:ASN:HA	13:4I:80:ARG:HB3	1.98	0.45
26:1H:225:A:O2'	26:1H:257:A:H4'	2.16	0.45
26:1H:1087:G:N2	26:1H:1102:C:O2	2.48	0.45
26:1H:1820:U:O2	28:11:202:LYS:HB3	2.16	0.45
26:1H:2492:U:H2'	26:1H:2493:U:C6	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2695:C:H2'	26:1H:2696:U:H6	1.81	0.45
27:16:111:U:H2'	27:16:112:G:C8	2.49	0.45
28:11:3:VAL:HG13	28:11:17:THR:HG23	1.97	0.45
30:31:199:TRP:NE1	30:31:203:GLN:OE1	2.49	0.45
37:88:133:ARG:O	37:88:134:ARG:HB2	2.15	0.45
39:A8:26:LEU:HD22	39:A8:87:PHE:CD2	2.51	0.45
46:H8:93:ASP:HA	46:H8:130:PRO:HG2	1.98	0.45
1:1G:986:A:H1'	19:AA:54:GLY:O	2.16	0.45
1:1G:1158:C:N3	1:1G:1160:G:C8	2.84	0.45
2:12:132:LYS:O	2:12:135:GLN:HB2	2.15	0.45
2:12:221:LEU:HA	2:12:224:GLN:HB3	1.98	0.45
4:32:59:ARG:NH2	4:32:66:ARG:HH12	2.14	0.45
10:1A:45:ARG:HB3	10:1A:65:LEU:HB3	1.97	0.45
11:2A:73:MET:SD	11:2A:103:LEU:HD13	2.56	0.45
15:6A:26:GLU:HG3	15:6A:77:ARG:NH1	2.31	0.45
18:9A:29:PHE:N	18:9A:29:PHE:HD1	2.14	0.45
23:2L:22:G:C2	23:2L:59:U:C2	3.04	0.45
26:14:218:A:H2	26:14:235:U:H4'	1.80	0.45
26:14:249:C:OP1	57:14:3515:HOH:O	2.20	0.45
26:14:568:U:O4	57:14:3989:HOH:O	2.20	0.45
26:14:1361:G:H1	26:14:1370:C:H42	1.63	0.45
26:14:2469:A:H2	26:14:2481:G:N2	2.09	0.45
26:14:2536:G:C6	26:14:2537:U:C4	3.04	0.45
32:59:19:VAL:HG12	32:59:20:ALA:H	1.80	0.45
38:55:87:TYR:HE1	38:55:117:VAL:HG12	1.80	0.45
39:65:102:ALA:HA	39:65:105:ALA:HB3	1.98	0.45
40:75:62:THR:HG22	40:75:75:ILE:HG12	1.98	0.45
45:C5:48:ALA:HB3	45:C5:59:GLY:HA2	1.98	0.45
1:13:827:U:C5	1:13:872:A:N1	2.84	0.45
1:13:874:G:C6	1:13:875:C:N4	2.85	0.45
1:13:1304:G:C5	1:13:1305:G:C6	3.05	0.45
1:13:1390:U:H2'	1:13:1391:U:C6	2.51	0.45
2:1E:223:ILE:H	2:1E:223:ILE:HG12	1.53	0.45
16:7I:4:ILE:HA	16:7I:20:VAL:O	2.17	0.45
26:1H:74:A:H3'	49:K8:51:ARG:HH22	1.80	0.45
26:1H:479:A:C2	26:1H:481:G:H5'	2.52	0.45
26:1H:975:G:H1'	26:1H:990:A:C2	2.51	0.45
26:1H:1100:C:H2'	26:1H:1101:U:H6	1.82	0.45
26:1H:1321:A:H2'	26:1H:1322:A:O4'	2.15	0.45
26:1H:1354:A:H2'	26:1H:1355:G:O4'	2.17	0.45
26:1H:1997:G:P	57:1H:3785:HOH:O	2.74	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2275:C:H5'	26:1H:2275:C:H6	1.82	0.45
26:1H:2795:G:H3'	26:1H:2797:U:C5'	2.45	0.45
26:1H:2850:A:C2	26:1H:2851:A:C4	3.04	0.45
27:16:11:C:OP2	27:16:12:C:N4	2.44	0.45
28:11:3:VAL:O	28:11:3:VAL:HG12	2.15	0.45
39:A8:14:VAL:HG21	39:A8:89:ARG:HD3	1.98	0.45
41:C8:112:ARG:HH21	42:D8:47:VAL:HG13	1.82	0.45
42:D8:25:LEU:HD12	42:D8:94:LEU:HD21	1.98	0.45
48:J8:78:LYS:HE3	48:J8:78:LYS:N	2.30	0.45
1:1G:141:A:H1'	1:1G:182:U:C2	2.51	0.45
1:1G:410:G:H21	1:1G:432:A:H62	1.63	0.45
4:32:13:ARG:C	4:32:15:GLU:N	2.74	0.45
4:32:150:GLU:HA	4:32:153:ARG:HG2	1.99	0.45
7:62:27:ILE:HG21	7:62:40:ALA:HA	1.98	0.45
9:82:48:GLU:N	9:82:49:PRO:HD2	2.31	0.45
9:82:118:LYS:NZ	9:82:118:LYS:HB3	2.32	0.45
11:2A:17:GLY:N	11:2A:79:SER:O	2.40	0.45
26:14:392:C:H5"	26:14:409:C:H5"	1.97	0.45
26:14:676:A:H1'	26:14:2443:C:H1'	1.97	0.45
26:14:1199:U:H2'	26:14:1200:C:H6	1.80	0.45
26:14:2801:A:C5'	26:14:2895:U:H4'	2.46	0.45
26:14:2864:G:OP1	40:75:119:LYS:HD3	2.16	0.45
28:19:175:LEU:HD12	28:19:185:VAL:HG21	1.98	0.45
32:59:27:LYS:HD2	32:59:32:GLU:HG2	1.97	0.45
35:25:87:ILE:HD12	35:25:93:PRO:HA	1.98	0.45
50:H5:9:VAL:HG22	50:H5:53:LEU:O	2.16	0.45
1:13:875:C:H4'	8:7E:18:ARG:NH1	2.31	0.45
1:13:1413:A:H2	1:13:1487:G:H22	1.64	0.45
2:1E:125:PRO:O	2:1E:126:GLU:HB2	2.17	0.45
4:3E:25:ARG:NH1	4:3E:30:LYS:HG3	2.31	0.45
8:7E:121:ASP:HB2	8:7E:125:ARG:NH2	2.32	0.45
11:2I:38:ASN:HA	11:2I:39:PRO:HD3	1.75	0.45
13:4I:82:MET:O	13:4I:84:ILE:N	2.47	0.45
23:2K:81:G:H8	23:2K:81:G:O5'	2.00	0.45
26:1H:308:G:H2'	26:1H:309:G:C8	2.51	0.45
26:1H:782:A:C2	28:11:226:MET:HG2	2.52	0.45
26:1H:1526:G:H2'	26:1H:1527:G:O4'	2.15	0.45
26:1H:2114:A:H2'	26:1H:2114:A:N3	2.31	0.45
28:11:127:VAL:HA	28:11:193:VAL:HG22	1.98	0.45
29:21:143:ASN:HB2	29:21:147:PRO:HD2	1.98	0.45
41:C8:18:LEU:HA	41:C8:18:LEU:HD23	1.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:H8:44:PHE:CE2	46:H8:86:VAL:HG11	2.52	0.45
1:1G:842:C:H1'	1:1G:848:C:N3	2.31	0.45
1:1G:1119:C:OP2	9:82:9:ARG:NH2	2.50	0.45
1:1G:1145:C:H5"	1:1G:1146:A:OP1	2.17	0.45
1:1G:1305:G:HO2'	1:1G:1306:A:P	2.38	0.45
1:1G:1327:C:OP1	21:1B:20:LYS:HB3	2.16	0.45
3:22:47:LEU:HG	3:22:68:VAL:HG11	1.97	0.45
4:32:30:LYS:HD3	4:32:35:ARG:HH11	1.81	0.45
11:2A:29:ILE:O	11:2A:29:ILE:HG12	2.16	0.45
14:5A:53:LEU:HD23	14:5A:53:LEU:HA	1.72	0.45
16:7A:58:TYR:O	16:7A:61:SER:HB3	2.16	0.45
26:14:139:G:H1'	26:14:140:A:H2	1.82	0.45
26:14:480:A:H1'	45:C5:44:ILE:HG12	1.99	0.45
26:14:626:U:O2	36:35:105:LEU:HD23	2.16	0.45
26:14:724:U:H2'	26:14:725:G:O4'	2.17	0.45
26:14:1139:G:O2'	26:14:1143:A:N1	2.47	0.45
26:14:1484:G:H2'	26:14:1485:G:C8	2.51	0.45
26:14:1500:G:O2'	28:19:100:GLY:O	2.27	0.45
26:14:2050:C:H1'	29:29:156:MET:HE2	1.99	0.45
26:14:2392:A:OP2	54:M5:31:HIS:NE2	2.44	0.45
28:19:41:GLY:HA3	28:19:43:ARG:HE	1.81	0.45
29:29:76:ARG:C	29:29:78:LEU:H	2.24	0.45
30:39:53:THR:HG22	30:39:56:GLU:CG	2.47	0.45
31:49:37:VAL:HG22	31:49:159:VAL:HG12	1.97	0.45
34:15:34:LEU:HD21	34:15:120:LEU:HD13	1.97	0.45
38:55:57:ARG:HB3	38:55:59:ASP:OD1	2.16	0.45
44:B5:44:GLU:HG3	44:B5:51:VAL:CG2	2.47	0.45
47:E5:32:ARG:C	47:E5:34:GLY:H	2.18	0.45
1:13:130:A:N7	17:8I:63:ARG:HB2	2.32	0.45
1:13:164:U:H2'	1:13:165:C:C6	2.50	0.45
1:13:767:A:H2'	1:13:768:A:O4'	2.16	0.45
5:4E:68:GLU:O	5:4E:68:GLU:HG3	2.17	0.45
8:7E:87:SER:HB2	8:7E:93:VAL:CB	2.36	0.45
11:2I:18:ARG:HG2	11:2I:33:THR:OG1	2.16	0.45
12:3I:76:ASN:OD1	12:3I:76:ASN:N	2.32	0.45
14:5I:11:LYS:C	14:5I:13:THR:H	2.25	0.45
16:7I:28:ARG:HG2	16:7I:29:ASP:OD1	2.16	0.45
17:8I:69:LYS:C	17:8I:70:ARG:HD2	2.42	0.45
20:BI:74:LYS:HB3	20:BI:75:ASN:H	1.42	0.45
22:1K:72:C:H2'	22:1K:73:C:H6	1.81	0.45
23:2K:8:U:OP1	23:2K:8:U:H4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2K:75:G:O2'	23:2K:76:U:O5'	2.34	0.45
26:1H:493:G:H2'	26:1H:494:G:O4'	2.17	0.45
26:1H:536:A:OP1	41:C8:53:ARG:NH1	2.50	0.45
26:1H:587:C:N3	36:78:33:ARG:NH1	2.65	0.45
26:1H:1359:A:C2	26:1H:1372:U:C4	3.05	0.45
26:1H:1754:C:P	40:B8:96:ARG:HH12	2.39	0.45
26:1H:2082:A:H2'	26:1H:2083:G:O4'	2.16	0.45
26:1H:2105:C:H2'	26:1H:2106:G:H8	1.81	0.45
26:1H:2576:G:H3'	57:1H:3671:HOH:O	2.15	0.45
28:11:79:VAL:HG21	28:11:111:LEU:HD11	1.98	0.45
29:21:201:THR:HG22	29:21:202:LYS:N	2.31	0.45
30:31:114:VAL:O	30:31:118:ALA:N	2.35	0.45
31:41:49:ASP:OD2	31:41:52:ILE:HG12	2.17	0.45
31:41:62:LEU:O	31:41:143:GLU:HG2	2.16	0.45
39:A8:15:ARG:HA	39:A8:15:ARG:HD3	1.64	0.45
47:I8:41:ARG:NE	47:I8:41:ARG:HA	2.30	0.45
48:J8:85:LEU:HD13	48:J8:85:LEU:HA	1.82	0.45
54:Q8:30:ARG:HB2	54:Q8:30:ARG:CZ	2.46	0.45
1:1G:408:A:H2'	1:1G:409:G:O4'	2.16	0.45
1:1G:818:G:O2'	1:1G:819:A:H5'	2.15	0.45
2:12:9:GLU:HB2	2:12:217:ARG:NH1	2.30	0.45
2:12:70:PHE:H	2:12:92:TYR:HA	1.81	0.45
2:12:208:ILE:HD12	2:12:239:VAL:HG11	1.97	0.45
4:32:13:ARG:HD3	4:32:36:ARG:O	2.16	0.45
10:1A:38:ILE:O	10:1A:70:ARG:HG3	2.17	0.45
23:2L:16:U:O2	23:2L:16:U:H2'	2.16	0.45
26:14:31:C:N4	57:14:3807:HOH:O	2.48	0.45
26:14:686:G:H1	53:L5:16:HIS:CD2	2.35	0.45
26:14:1464:C:O2'	26:14:1528:A:H8	1.98	0.45
26:14:1619:G:N7	57:14:3602:HOH:O	2.35	0.45
26:14:1701:A:H5"	26:14:1702:G:OP2	2.16	0.45
26:14:2111:C:H42	26:14:2147:G:N2	2.15	0.45
26:14:2195:C:O2'	26:14:2196:C:H5'	2.16	0.45
29:29:96:PHE:O	29:29:175:VAL:HG11	2.16	0.45
30:39:114:VAL:HG21	30:39:202:PHE:CZ	2.51	0.45
31:49:59:GLU:HB2	31:49:153:ARG:HH21	1.81	0.45
31:49:64:THR:HA	31:49:102:PHE:CD1	2.51	0.45
34:15:39:ARG:C	34:15:41:ASP:H	2.24	0.45
35:25:9:GLU:HG3	35:25:18:LYS:HG3	1.99	0.45
35:25:88:ASN:HD21	35:25:92:GLU:HB2	1.81	0.45
39:65:61:ASN:CG	39:65:62:LYS:H	2.24	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:65:89:ARG:O	39:65:90:GLY:C	2.60	0.45
43:A5:20:VAL:O	43:A5:23:LEU:HB2	2.16	0.45
1:13:32:A:H2'	1:13:33:A:C8	2.51	0.45
1:13:160:A:H8	1:13:160:A:OP1	1.98	0.45
1:13:431:A:H2'	1:13:432:A:O4'	2.17	0.45
1:13:468:A:H4'	16:7I:80:PHE:O	2.17	0.45
1:13:542:G:O2'	1:13:543:C:H5'	2.17	0.45
1:13:757:U:OP1	1:13:822:C:O2'	2.35	0.45
1:13:973:G:OP1	10:1I:57:LYS:HD3	2.17	0.45
2:1E:98:LEU:HB2	2:1E:101:MET:HE3	1.97	0.45
3:2E:133:ALA:HA	3:2E:136:GLN:HB3	1.99	0.45
6:5E:97:PHE:HB3	18:9I:32:ARG:HD3	1.99	0.45
8:7E:121:ASP:OD1	8:7E:121:ASP:N	2.49	0.45
19:AI:7:LYS:NZ	19:AI:7:LYS:HB3	2.31	0.45
19:AI:40:ILE:HD11	19:AI:62:ILE:CG2	2.44	0.45
26:1H:250:G:H2'	26:1H:251:A:C8	2.51	0.45
26:1H:280:C:C2	26:1H:361:G:N2	2.84	0.45
26:1H:288:C:H2'	26:1H:289:A:H8	1.82	0.45
26:1H:571:A:H5'	26:1H:2030:A:N7	2.31	0.45
26:1H:1433:U:O2	26:1H:1561:G:C2	2.70	0.45
26:1H:1654:A:H1'	26:1H:2823:A:H5'	1.97	0.45
26:1H:2325:G:H2'	26:1H:2326:C:H6	1.81	0.45
27:16:15:A:H1'	27:16:109:G:C4	2.51	0.45
28:11:136:ILE:O	28:11:168:ARG:NH2	2.49	0.45
31:41:9:ARG:O	31:41:13:GLU:HG2	2.16	0.45
32:51:136:ILE:HD12	32:51:137:ASP:H	1.81	0.45
33:61:133:HIS:HB2	33:61:134:PRO:HD2	1.97	0.45
36:78:133:SER:O	36:78:137:LYS:HG3	2.16	0.45
37:88:32:TYR:O	37:88:105:GLU:HA	2.17	0.45
1:1G:543:C:OP1	4:32:14:ARG:HD2	2.16	0.45
1:1G:821:G:H2'	1:1G:822:C:H6	1.82	0.45
1:1G:1126:U:H4'	1:1G:1127:G:C5	2.51	0.45
1:1G:1140:C:H2'	1:1G:1141:C:H6	1.82	0.45
3:22:95:THR:HB	3:22:97:LYS:HG2	1.97	0.45
5:42:18:ARG:HH21	5:42:25:ARG:HG2	1.81	0.45
9:82:78:LYS:HE3	9:82:101:PHE:CD2	2.52	0.45
9:82:119:ALA:O	9:82:120:ARG:HB2	2.15	0.45
10:1A:8:LEU:HD22	10:1A:20:ALA:HB2	1.97	0.45
10:1A:47:PHE:N	10:1A:63:PHE:O	2.29	0.45
11:2A:85:ARG:HA	11:2A:112:THR:OG1	2.17	0.45
12:3A:49:ASN:N	12:3A:49:ASN:OD1	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:71:A:H2	44:B5:31:HIS:NE2	2.12	0.45
26:14:154:G:O6	26:14:172:C:N4	2.49	0.45
26:14:246:C:N4	54:M5:8:LYS:HG3	2.31	0.45
26:14:1412:A:H2'	26:14:1413:G:H8	1.82	0.45
26:14:2383:G:O2'	26:14:2384:G:H5'	2.16	0.45
26:14:2647:U:O2	26:14:2673:G:N2	2.39	0.45
28:19:92:ILE:HD12	28:19:104:TYR:CE1	2.50	0.45
29:29:31:CYS:O	29:29:91:VAL:HG22	2.16	0.45
30:39:83:PHE:O	30:39:84:VAL:HB	2.15	0.45
36:35:85:LEU:HA	36:35:88:LEU:HB2	1.98	0.45
52:J5:16:ARG:NH1	52:J5:17:ASP:OD2	2.50	0.45
1:13:718:G:H5'	11:2I:117:ASN:CG	2.42	0.45
1:13:1157:A:N6	1:13:1178:G:H21	2.13	0.45
3:2E:79:ARG:O	3:2E:82:GLU:HB2	2.16	0.45
9:8E:121:ARG:NH1	9:8E:122:ALA:O	2.50	0.45
12:3I:9:GLN:O	12:3I:13:LYS:HG2	2.17	0.45
12:3I:47:LYS:HE2	12:3I:47:LYS:HB3	1.68	0.45
20:BI:56:MET:HG3	20:BI:88:VAL:HG21	1.99	0.45
23:2K:9:G:N2	23:2K:21:A:H8	2.14	0.45
26:1H:180:G:OP2	53:P8:32:LYS:HE2	2.17	0.45
26:1H:200:U:O2	26:1H:386:G:N2	2.49	0.45
26:1H:589:C:H2'	26:1H:590:A:H8	1.81	0.45
26:1H:1332:G:N2	26:1H:1610:A:C8	2.85	0.45
26:1H:2157:G:O2'	26:1H:2158:A:O5'	2.29	0.45
26:1H:2275:C:H5'	26:1H:2275:C:C6	2.52	0.45
26:1H:2741:A:H2'	26:1H:2742:C:O4'	2.17	0.45
30:31:107:LYS:HD2	30:31:206:ILE:HA	1.98	0.45
31:41:107:LEU:HD21	31:41:178:PHE:CE1	2.51	0.45
33:61:104:GLN:O	33:61:105:HIS:HB2	2.16	0.45
36:78:19:VAL:CB	36:78:20:GLY:HA2	2.46	0.45
41:C8:110:VAL:O	41:C8:114:LYS:N	2.45	0.45
1:1G:126:G:OP1	1:1G:605:U:O2'	2.33	0.45
1:1G:673:G:O3'	6:52:87:ARG:NH2	2.50	0.45
1:1G:1250:A:H4'	9:82:68:GLY:N	2.30	0.45
5:42:70:PRO:HB3	5:42:144:THR:HG22	1.99	0.45
6:52:25:ILE:O	6:52:29:ALA:N	2.35	0.45
10:1A:89:ASP:OD1	10:1A:89:ASP:N	2.48	0.45
26:14:996:A:H4'	41:85:92:ARG:NE	2.31	0.45
26:14:1903:G:OP2	28:19:241:PRO:HB2	2.16	0.45
26:14:2124:G:H2'	26:14:2124:G:N3	2.32	0.45
26:14:2724:C:OP1	29:29:111:ARG:NH1	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:183:VAL:O	30:39:187:VAL:HG23	2.16	0.45
33:69:93:THR:O	33:69:97:ILE:HG13	2.16	0.45
35:25:64:ARG:HG2	35:25:79:PHE:CG	2.52	0.45
39:65:110:LEU:HD23	39:65:112:PHE:CZ	2.52	0.45
1:13:1512:U:H3	1:13:1523:G:H1	1.64	0.45
3:2E:7:PRO:O	3:2E:11:ARG:HG3	2.17	0.45
3:2E:40:ARG:O	3:2E:44:GLU:HG2	2.17	0.45
4:3E:187:ARG:HH22	4:3E:193:ASP:CG	2.25	0.45
17:8I:89:LEU:HD13	17:8I:89:LEU:HA	1.69	0.45
26:1H:6:A:H2'	26:1H:7:G:O4'	2.16	0.45
26:1H:38:A:H1'	30:31:48:THR:O	2.17	0.45
26:1H:182:A:H2'	26:1H:183:C:C6	2.52	0.45
26:1H:354:G:H2'	26:1H:355:G:H8	1.82	0.45
26:1H:1121:C:H5"	26:1H:1122:G:OP2	2.16	0.45
26:1H:2112:G:H22	26:1H:2169:A:N6	2.09	0.45
26:1H:2245:U:H5"	26:1H:2246:G:H5'	1.99	0.45
26:1H:2312:U:H5'	31:41:88:ILE:HG13	1.99	0.45
26:1H:2331:G:O2'	47:I8:43:THR:HB	2.16	0.45
26:1H:2562:U:H4'	35:68:25:LEU:HD23	1.98	0.45
28:11:254:THR:O	28:11:254:THR:OG1	2.34	0.45
29:21:52:LEU:O	29:21:75:VAL:HG23	2.17	0.45
30:31:64:ILE:HG23	30:31:65:TRP:CD1	2.52	0.45
31:41:66:GLN:HA	51:M8:6:HIS:CE1	2.51	0.45
35:68:64:ARG:O	35:68:82:ASN:HA	2.17	0.45
37:88:25:ASP:HA	37:88:100:GLY:O	2.16	0.45
39:A8:10:ARG:HG3	39:A8:13:ARG:HH12	1.81	0.45
45:G8:100:ALA:HB1	45:G8:101:LYS:HG3	1.98	0.45
54:Q8:37:SER:HB2	54:Q8:40:GLU:OE1	2.17	0.45
1:1G:424:G:H2'	1:1G:425:G:H8	1.82	0.45
1:1G:522:C:H2'	1:1G:523:A:O4'	2.16	0.45
1:1G:560:U:H5'	1:1G:566:G:N2	2.32	0.45
1:1G:619:U:N3	4:32:134:ASP:OD1	2.50	0.45
1:1G:666:G:H5'	1:1G:726:C:H1'	1.99	0.45
1:1G:675:A:H2'	1:1G:676:A:O4'	2.17	0.45
1:1G:980:C:H2'	14:5A:21:TYR:HE2	1.81	0.45
1:1G:1125:U:H5	10:1A:5:ARG:NH1	2.14	0.45
1:1G:1263:C:H2'	1:1G:1264:C:O4'	2.17	0.45
1:1G:1274:G:H2'	1:1G:1275:A:H8	1.79	0.45
1:1G:1364:U:O2'	1:1G:1365:G:H5'	2.17	0.45
4:32:25:ARG:NH2	4:32:30:LYS:HD2	2.32	0.45
5:42:60:TYR:O	5:42:64:ARG:HG3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8A:28:PRO:HA	17:8A:35:VAL:HA	1.98	0.45
19:AA:64:GLU:OE1	19:AA:64:GLU:N	2.31	0.45
26:14:307:G:H22	26:14:310:A:P	2.39	0.45
26:14:363(B):G:H2'	26:14:363(C):G:H8	1.81	0.45
26:14:775:G:C4	26:14:794:G:C8	3.05	0.45
26:14:1204:A:N1	26:14:1241:A:C2	2.85	0.45
26:14:1225:C:O3'	42:95:85:LYS:HA	2.16	0.45
26:14:1514:U:H2'	26:14:1515:C:C6	2.52	0.45
27:1J:43:C:O2	31:49:95:ARG:NH2	2.39	0.45
27:1J:104:A:OP1	46:D5:72:ARG:NH1	2.50	0.45
28:19:69:ARG:NE	28:19:105:ILE:HD11	2.31	0.45
28:19:176:ARG:HG3	28:19:182:LEU:HD22	1.99	0.45
35:25:70:LYS:HZ2	35:25:70:LYS:HB3	1.81	0.45
36:35:143:GLY:HA2	36:35:144:GLU:OE2	2.16	0.45
48:F5:83:GLU:CD	48:F5:83:GLU:N	2.75	0.45
49:G5:47:ASN:HD22	49:G5:47:ASN:H	1.63	0.45
51:I5:22:ILE:H	51:I5:22:ILE:HD13	1.81	0.45
1:13:631:G:H2'	1:13:632:A:C2	2.52	0.45
1:13:713:G:H2'	1:13:714:G:C8	2.51	0.45
1:13:1298:C:H4'	1:13:1299:A:O4'	2.16	0.45
9:8E:114:TYR:CD2	10:1I:59:SER:HA	2.52	0.45
12:3I:59:ARG:HA	12:3I:65:GLU:HA	1.98	0.45
22:1K:39:PSU:H3'	22:1K:40:G:H8	1.81	0.45
23:2K:79:U:H2'	23:2K:80:C:C6	2.52	0.45
26:1H:602:G:O2'	26:1H:655:A:N6	2.48	0.45
26:1H:729:G:N7	28:11:208:LYS:HG3	2.31	0.45
26:1H:1000:A:OP2	26:1H:1154:G:N1	2.34	0.45
26:1H:1319:G:C6	26:1H:1320:C:N4	2.85	0.45
26:1H:1636:C:H2'	26:1H:1637:A:H8	1.82	0.45
26:1H:2392:A:H2	26:1H:2424:C:N4	2.13	0.45
26:1H:2515:C:O2	26:1H:2570:G:C2	2.70	0.45
27:16:29:A:H2'	27:16:30:C:C6	2.52	0.45
27:16:61:G:C6	27:16:62:C:C4	3.05	0.45
28:11:175:LEU:HA	28:11:175:LEU:HD23	1.67	0.45
36:78:135:LEU:HD22	36:78:139:LYS:HD3	1.99	0.45
38:98:25:ALA:HB3	38:98:70:LEU:HD21	1.98	0.45
46:H8:7:ALA:HB2	46:H8:59:LEU:HD22	1.98	0.45
48:J8:19:GLN:O	48:J8:35:THR:N	2.45	0.45
53:P8:5:TRP:HA	53:P8:5:TRP:CE3	2.51	0.45
1:1G:35:G:H2'	1:1G:36:C:C6	2.51	0.45
1:1G:410:G:H5"	1:1G:411:A:OP1	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:662:G:O2'	1:1G:836:G:OP1	2.31	0.45
1:1G:1023:G:H5"	1:1G:1024:G:N2	2.32	0.45
1:1G:1052:U:H5"	1:1G:1053:G:OP2	2.17	0.45
1:1G:1175:G:C2	1:1G:1176:A:C5	3.04	0.45
2:12:63:MET:HG3	2:12:225:ALA:HB1	1.99	0.45
3:22:82:GLU:O	3:22:85:ARG:N	2.45	0.45
9:82:112:LYS:HE3	9:82:118:LYS:N	2.25	0.45
23:2L:2:C:H2'	23:2L:3:C:C6	2.49	0.45
26:14:198:C:H5'	26:14:2244:U:OP1	2.16	0.45
26:14:826:U:H4'	36:35:55:ARG:HA	1.99	0.45
26:14:881:G:O6	26:14:882:G:N2	2.50	0.45
26:14:950:G:H2'	26:14:951:C:O4'	2.17	0.45
26:14:1993:U:H4'	29:29:128:SER:OG	2.17	0.45
26:14:2432:A:C2	48:F5:35:THR:HG22	2.52	0.45
26:14:2695:C:H2'	26:14:2696:U:C6	2.52	0.45
31:49:63:ILE:HG22	31:49:143:GLU:HB2	1.97	0.45
35:25:3:GLN:HB2	35:25:4:PRO:HD2	1.99	0.45
1:13:115:G:H4'	1:13:116:A:O5'	2.17	0.45
1:13:559:A:H4'	1:13:560:U:H5"	1.99	0.45
1:13:667:G:H4'	15:6I:51:HIS:CE1	2.51	0.45
1:13:701:C:O2	1:13:703:G:N1	2.49	0.45
1:13:911:U:H2'	1:13:912:C:C6	2.52	0.45
8:7E:83:ILE:HB	8:7E:137:VAL:HG13	1.99	0.45
10:1I:42:THR:HG23	10:1I:67:THR:O	2.17	0.45
13:4I:91:ARG:HA	13:4I:91:ARG:HD2	1.69	0.45
26:1H:306:U:C5	26:1H:307:G:C5	3.05	0.45
26:1H:1086:A:H1'	26:1H:1103:A:H61	1.81	0.45
26:1H:1169:G:H2'	26:1H:1170:G:O4'	2.16	0.45
26:1H:1467:C:N4	26:1H:1525:G:H1	2.15	0.45
26:1H:1683:C:H2'	26:1H:1684:C:H6	1.81	0.45
26:1H:1906:G:H5"	26:1H:1929:G:O2'	2.17	0.45
26:1H:2329:G:H2'	26:1H:2330:G:C8	2.52	0.45
26:1H:2628:C:H1'	26:1H:2781:A:H2'	1.99	0.45
28:11:182:LEU:O	28:11:271:ILE:HG12	2.16	0.45
35:68:17:ARG:HA	35:68:17:ARG:HH11	1.81	0.45
40:B8:34:VAL:HG22	40:B8:41:ARG:HB3	1.99	0.45
44:F8:1:MET:HG2	44:F8:2:LYS:H	1.81	0.45
46:H8:54:HIS:O	46:H8:98:MET:HE1	2.17	0.45
46:H8:58:VAL:O	46:H8:60:GLU:N	2.50	0.45
48:J8:21:ARG:HE	48:J8:21:ARG:HB3	1.34	0.45
1:1G:149:A:H2'	1:1G:150:C:C6	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:411:A:N7	1:1G:413:G:N3	2.64	0.45
1:1G:719:C:H5	1:1G:720:C:C4	2.35	0.45
1:1G:1039:C:H3'	1:1G:1040:U:H5"	1.98	0.45
2:12:75:LYS:HA	2:12:78:GLN:CB	2.43	0.45
4:32:64:LEU:HB2	4:32:198:VAL:HG11	1.99	0.45
7:62:85:TYR:N	7:62:85:TYR:CD1	2.85	0.45
19:AA:19:VAL:HB	19:AA:20:LEU:HD22	1.98	0.45
26:14:17:G:H2'	26:14:18:C:C6	2.52	0.45
26:14:1225:C:H4'	42:95:85:LYS:HD3	1.98	0.45
26:14:1271:G:O3'	26:14:1272:A:H4'	2.17	0.45
26:14:1421:G:C2	26:14:1422:G:C8	3.04	0.45
26:14:2116:G:H1	26:14:2162:G:P	2.40	0.45
26:14:2244:U:H2'	26:14:2245:U:O4'	2.17	0.45
26:14:2406:U:C2	36:35:72:PRO:HB2	2.52	0.45
26:14:2749:A:O2'	32:59:62:LYS:HD3	2.17	0.45
27:1J:17:C:H2'	27:1J:18:G:O4'	2.17	0.45
30:39:32:LEU:O	30:39:36:VAL:HG22	2.17	0.45
37:45:26:TYR:O	37:45:26:TYR:CD1	2.70	0.45
37:45:66:ILE:O	37:45:67:ARG:HB2	2.17	0.45
40:75:99:LEU:HA	40:75:99:LEU:HD23	1.51	0.45
41:85:55:ARG:H	41:85:55:ARG:HG2	1.51	0.45
41:85:99:ALA:HB2	41:85:106:PHE:CD1	2.52	0.45
46:D5:82:ARG:HA	46:D5:83:PRO:HD3	1.69	0.45
47:E5:32:ARG:HB3	47:E5:33:ALA:H	1.55	0.45
54:M5:32:LEU:HD12	54:M5:32:LEU:O	2.17	0.45
1:13:51:A:C6	1:13:353:A:C2	3.06	0.45
1:13:79:G:H2'	1:13:79:G:N3	2.32	0.45
1:13:1409:C:H2'	1:13:1410:G:H8	1.82	0.45
1:13:1442:G:C5	1:13:1446:A:C6	3.05	0.45
3:2E:134:ILE:HA	3:2E:134:ILE:HD13	1.63	0.45
3:2E:135:LYS:NZ	5:4E:52:PRO:HG2	2.31	0.45
6:5E:5:GLU:HG3	6:5E:93:SER:OG	2.17	0.45
9:8E:84:ALA:O	9:8E:87:GLN:HB2	2.17	0.45
9:8E:112:LYS:HD2	9:8E:113:LYS:H	1.81	0.45
12:3I:51:ALA:C	12:3I:52:LEU:HD23	2.41	0.45
20:BI:44:ALA:HB2	20:BI:88:VAL:HG13	1.98	0.45
22:1K:15:A:N7	22:1K:16:U:H5	2.15	0.45
22:1K:38:1MG:O2'	26:1H:1913:A:N1	2.49	0.45
26:1H:456:C:H3'	44:F8:68:ARG:HH22	1.82	0.45
26:1H:699:A:H2'	26:1H:700:G:O4'	2.17	0.45
26:1H:1094:U:HO2'	26:1H:1096:A:P	2.40	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1857:G:O2'	26:1H:1885:A:N6	2.45	0.45
26:1H:2118:U:H5"	26:1H:2119:A:OP1	2.16	0.45
26:1H:2210:G:H2'	26:1H:2211:G:N1	2.32	0.45
26:1H:2309:A:H2'	26:1H:2310:A:O4'	2.17	0.45
26:1H:2401:U:H2'	26:1H:2402:C:H1'	1.99	0.45
26:1H:2572:A:C8	29:21:144:ARG:HD3	2.52	0.45
26:1H:2740:A:N6	26:1H:2764:A:C8	2.85	0.45
29:21:178:GLU:H	29:21:178:GLU:HG3	1.52	0.45
31:41:26:GLN:HG3	31:41:30:GLU:OE1	2.16	0.45
51:M8:40:HIS:CE1	51:M8:45:GLY:HA3	2.53	0.45
52:N8:11:THR:HG22	52:N8:12:SER:O	2.17	0.45
1:1G:960:U:H4'	1:1G:961:U:C5'	2.47	0.45
1:1G:1002:G:H2'	1:1G:1003:G:C8	2.51	0.45
1:1G:1129:C:C4	1:1G:1139:G:N1	2.85	0.45
1:1G:1306:A:N6	1:1G:1331:G:H1'	2.32	0.45
5:42:68:GLU:O	5:42:70:PRO:HD3	2.16	0.45
6:52:72:VAL:HG13	6:52:73:ASN:OD1	2.16	0.45
19:AA:65:ASN:OD1	19:AA:65:ASN:N	2.50	0.45
26:14:135:G:H2'	26:14:136:G:O4'	2.17	0.45
26:14:671:C:H2'	26:14:672:C:H6	1.81	0.45
26:14:671:C:OP1	36:35:42:SER:O	2.35	0.45
26:14:780:G:H21	26:14:783:A:N6	2.06	0.45
26:14:1063:G:H1	26:14:1075:C:H1'	1.81	0.45
26:14:2286:A:H4'	26:14:2287:A:O4'	2.17	0.45
26:14:2417:C:H2'	26:14:2418:A:H8	1.81	0.45
26:14:2636:U:OP1	29:29:80:GLU:HB2	2.17	0.45
26:14:2772:C:H2'	26:14:2773:C:C6	2.52	0.45
34:15:96:GLU:O	34:15:100:GLU:HG3	2.17	0.45
36:35:65:ARG:HH22	54:M5:47:LYS:HE2	1.82	0.45
37:45:21:THR:HG21	37:45:101:ARG:HD2	1.99	0.45
38:55:87:TYR:CE1	38:55:117:VAL:HG12	2.52	0.45
38:55:100:LEU:HD12	38:55:111:LEU:HB2	1.98	0.45
44:B5:5:TYR:HD1	49:G5:33:MET:SD	2.40	0.45
45:C5:6:HIS:CE1	45:C5:7:VAL:HG13	2.52	0.45
45:C5:40:GLU:N	45:C5:40:GLU:OE2	2.50	0.45
1:13:652:U:HO2'	1:13:653:A:P	2.40	0.44
1:13:1147:C:O2'	9:8E:16:ARG:HD3	2.18	0.44
1:13:1202:G:O2'	14:5I:27:CYS:HB3	2.17	0.44
8:7E:6:ILE:O	8:7E:9:MET:N	2.50	0.44
10:1I:76:ASN:HA	10:1I:77:PRO:HD2	1.80	0.44
14:5I:3:ARG:O	14:5I:7:ILE:HG23	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:184:C:H1'	26:1H:217:G:H1'	1.98	0.44
26:1H:242:G:H5'	54:Q8:60:LEU:HD13	1.98	0.44
26:1H:244:A:C2	26:1H:255:A:C4	3.05	0.44
26:1H:557:U:H2'	26:1H:558:G:C8	2.52	0.44
26:1H:1543:A:C2	26:1H:1545:A:C4	3.05	0.44
26:1H:1557:C:H5"	26:1H:1558:A:OP2	2.17	0.44
26:1H:1889:A:H2'	26:1H:1890:A:O4'	2.17	0.44
26:1H:2393:A:H5'	36:78:63:PRO:HB3	1.98	0.44
26:1H:2636:U:H2'	26:1H:2637:U:H6	1.78	0.44
26:1H:2698:U:H2'	26:1H:2699:C:C6	2.52	0.44
26:1H:2820:A:O2'	26:1H:2821:A:OP1	2.31	0.44
28:11:69:ARG:NH2	28:11:128:GLY:O	2.35	0.44
32:51:97:ARG:HE	32:51:97:ARG:HB2	1.43	0.44
40:B8:60:THR:HG22	40:B8:77:PRO:HA	1.98	0.44
45:G8:83:THR:HG22	45:G8:84:ARG:HE	1.83	0.44
49:K8:64:LEU:HD21	49:K8:68:ARG:NH1	2.33	0.44
51:M8:10:VAL:HG22	51:M8:11:PRO:HD2	1.99	0.44
54:Q8:34:TRP:H	54:Q8:34:TRP:HE3	1.64	0.44
1:1G:892:A:HO2'	1:1G:1415:G:H4'	1.81	0.44
5:42:135:THR:O	5:42:138:ALA:HB3	2.17	0.44
14:5A:12:ARG:HB2	14:5A:14:PRO:HD3	1.99	0.44
20:BA:55:ILE:O	20:BA:58:LYS:N	2.49	0.44
26:14:601:C:O2	26:14:605:C:H4'	2.16	0.44
26:14:603:A:H8	26:14:604:G:H1'	1.81	0.44
26:14:1485:G:N2	26:14:1504:C:N3	2.43	0.44
26:14:2507:C:H2'	26:14:2508:G:O4'	2.16	0.44
26:14:2567:G:H2'	26:14:2568:C:C6	2.52	0.44
26:14:2698:U:H2'	26:14:2699:C:H6	1.81	0.44
26:14:2784:C:H1'	29:29:37:ARG:NH2	2.31	0.44
28:19:28:GLU:HG3	28:19:29:PRO:HD2	1.99	0.44
32:59:94:TYR:N	32:59:94:TYR:CD1	2.83	0.44
34:15:1:MET:HE1	41:85:97:ASP:CG	2.42	0.44
35:25:111:PHE:N	35:25:111:PHE:CD1	2.85	0.44
39:65:18:ILE:O	39:65:21:THR:HG22	2.16	0.44
47:E5:27:GLU:HB2	47:E5:69:PHE:HD1	1.82	0.44
1:13:51:A:N7	1:13:114:U:O2'	2.48	0.44
1:13:374:A:C6	1:13:375:U:C4	3.05	0.44
1:13:976:G:C8	1:13:1358:U:C2	3.05	0.44
1:13:1128:C:H42	1:13:1143:G:H1	1.63	0.44
2:1E:21:ARG:C	2:1E:23:ARG:H	2.25	0.44
17:8I:67:LYS:HA	17:8I:70:ARG:NH1	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:43:GLU:CD	19:AI:43:GLU:H	2.24	0.44
26:1H:106:C:H2'	26:1H:107:C:H6	1.81	0.44
30:31:24:LEU:HD12	30:31:24:LEU:HA	1.76	0.44
32:51:153:LYS:H	32:51:153:LYS:HD2	1.81	0.44
46:H8:5:LEU:HD13	46:H8:6:LYS:HB2	1.99	0.44
50:L8:7:LYS:HG3	50:L8:34:GLU:HG2	1.97	0.44
1:1G:600:C:H2'	1:1G:601:C:C6	2.52	0.44
1:1G:1116:C:H42	1:1G:1184:G:H1	1.64	0.44
1:1G:1145:C:H4'	1:1G:1146:A:O5'	2.17	0.44
1:1G:1190:G:OP1	3:22:5:ILE:HG23	2.18	0.44
1:1G:1399:C:H4'	1:1G:1400:C:H5"	1.99	0.44
3:22:113:ALA:HB3	3:22:114:PRO:HD3	1.98	0.44
3:22:141:VAL:HA	3:22:144:SER:HB2	1.99	0.44
4:32:168:ARG:HD3	4:32:169:LYS:N	2.32	0.44
6:52:54:LYS:HB2	6:52:54:LYS:NZ	2.32	0.44
8:72:5:PRO:HB2	8:72:32:LYS:HE2	2.00	0.44
22:1L:29:U:H3	22:1L:43:A:H2	1.65	0.44
26:14:464:U:H4'	53:L5:5:TRP:CZ3	2.53	0.44
26:14:699:A:H2'	26:14:700:G:O4'	2.16	0.44
26:14:1113:U:H2'	26:14:1114:G:O4'	2.18	0.44
26:14:1665:A:N6	57:14:3584:HOH:O	2.29	0.44
26:14:2236:C:H2'	26:14:2237:G:O4'	2.17	0.44
26:14:2287:A:H2	26:14:2346:A:C2	2.36	0.44
26:14:2410:G:H2'	26:14:2411:A:O4'	2.17	0.44
26:14:2820:A:C5	38:55:4:LEU:HD11	2.52	0.44
26:14:2822:G:H2'	26:14:2823:A:H5"	2.00	0.44
27:1J:10:C:C4	27:1J:11:C:C5	3.05	0.44
28:19:228:PRO:HD3	28:19:234:GLY:C	2.41	0.44
32:59:4:ILE:HB	32:59:7:LEU:HD11	2.00	0.44
32:59:90:LYS:O	32:59:160:LYS:HA	2.18	0.44
34:15:85:ILE:HD12	34:15:90:MET:HE3	1.99	0.44
36:35:105:LEU:O	36:35:106:LEU:HB3	2.17	0.44
38:55:103:ARG:HD3	43:A5:40:ASN:ND2	2.31	0.44
42:95:80:GLN:CD	42:95:81:TYR:H	2.25	0.44
44:B5:21:PHE:N	44:B5:21:PHE:CD1	2.84	0.44
46:D5:29:TYR:HB3	46:D5:34:ASN:OD1	2.17	0.44
48:F5:92:LYS:O	48:F5:93:GLU:C	2.59	0.44
1:13:46:G:H2'	1:13:366:C:C5	2.52	0.44
1:13:540:G:H2'	1:13:541:G:O4'	2.17	0.44
1:13:614:A:H2'	1:13:615:C:H6	1.81	0.44
1:13:1374:A:C4	1:13:1375:A:C8	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1511:G:H2'	1:13:1512:U:O4'	2.18	0.44
3:2E:77:ILE:HA	3:2E:84:ILE:CD1	2.47	0.44
4:3E:191:ARG:HD3	4:3E:200:GLU:OE1	2.17	0.44
20:BI:55:ILE:HD13	20:BI:55:ILE:HA	1.90	0.44
24:3K:67:C:H2'	24:3K:68:A:H8	1.82	0.44
26:1H:354:G:H2'	26:1H:355:G:C8	2.52	0.44
26:1H:463:G:H5"	26:1H:464:U:OP2	2.17	0.44
26:1H:768:G:O2'	26:1H:1379:A:N6	2.50	0.44
26:1H:855:G:C6	26:1H:856:C:C4	3.06	0.44
26:1H:931:G:O2'	50:L8:24:LYS:HE2	2.18	0.44
26:1H:1372:U:H2'	26:1H:1373:A:C8	2.52	0.44
26:1H:1435:G:O5'	26:1H:1435:G:H8	2.00	0.44
26:1H:2655:G:O2'	26:1H:2664:G:O6	2.35	0.44
29:21:176:ILE:HB	29:21:181:LEU:HB2	1.99	0.44
30:31:63:LYS:HG2	30:31:65:TRP:O	2.17	0.44
32:51:157:TYR:HD1	32:51:157:TYR:HA	1.71	0.44
33:61:81:VAL:HG11	33:61:88:ILE:HD13	1.99	0.44
35:68:104:ARG:NH1	40:B8:36:GLU:OE2	2.50	0.44
42:D8:14:VAL:HB	42:D8:96:ILE:HG13	2.00	0.44
49:K8:14:ARG:HB3	49:K8:15:LYS:NZ	2.33	0.44
50:L8:35:ARG:HB3	50:L8:37:LEU:CD2	2.40	0.44
54:Q8:57:ARG:HA	54:Q8:58:ILE:C	2.42	0.44
1:1G:447:G:H1	1:1G:485:G:HO2'	1.64	0.44
1:1G:458:C:H42	1:1G:474:G:H1	1.65	0.44
1:1G:838:G:H8	1:1G:838:G:O5'	2.00	0.44
1:1G:877:C:O2	8:72:3:THR:OG1	2.30	0.44
26:14:565:C:H4'	26:14:1253:A:C6	2.52	0.44
26:14:839:U:H2'	26:14:840:C:H6	1.82	0.44
26:14:2367:G:O5'	26:14:2367:G:H8	2.00	0.44
26:14:2387:U:H1'	47:E5:41:ARG:HE	1.82	0.44
28:19:8:PRO:HB3	28:19:14:ARG:HB2	1.99	0.44
30:39:53:THR:HG23	30:39:55:GLY:N	2.16	0.44
31:49:64:THR:HB	31:49:94:LEU:HD11	1.98	0.44
32:59:144:VAL:O	32:59:148:ILE:HG12	2.18	0.44
38:55:81:ASP:O	38:55:82:GLU:HB3	2.17	0.44
42:95:85:LYS:HD2	42:95:87:HIS:CA	2.46	0.44
45:C5:88:LYS:O	45:C5:89:PHE:HB3	2.16	0.44
1:13:1118:C:P	9:8E:104:ARG:HH11	2.41	0.44
1:13:1128:C:H4'	9:8E:16:ARG:HH12	1.83	0.44
1:13:1252:A:H2'	1:13:1253:G:O4'	2.17	0.44
1:13:1302:U:OP2	13:4I:21:TYR:OH	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1346:A:C8	1:13:1348:U:C2	3.05	0.44
11:2I:86:GLY:N	11:2I:112:THR:OG1	2.32	0.44
15:6I:4:THR:OG1	15:6I:7:GLU:HB2	2.18	0.44
17:8I:63:ARG:HG3	17:8I:64:PRO:N	2.31	0.44
17:8I:100:LYS:CB	17:8I:101:ARG:HE	2.31	0.44
26:1H:270(C):C:H42	26:1H:270(W):G:H1	1.65	0.44
26:1H:1086:A:H5"	26:1H:1087:G:OP1	2.18	0.44
26:1H:1470:G:N2	26:1H:1522:G:OP2	2.50	0.44
26:1H:1778:U:H2'	26:1H:1784:A:C6	2.52	0.44
26:1H:2287:A:H62	26:1H:2344:U:H3	1.59	0.44
26:1H:2583:G:H2'	26:1H:2584:U:O2	2.18	0.44
26:1H:2675:A:H5"	35:68:31:LYS:HD3	2.00	0.44
26:1H:2684:U:OP2	40:B8:53:ARG:NH1	2.51	0.44
32:51:85:LYS:O	32:51:133:VAL:HG23	2.18	0.44
34:58:12:ARG:HB3	34:58:50:ASP:OD1	2.18	0.44
36:78:84:ASN:HA	36:78:115:LEU:O	2.18	0.44
40:B8:125:ARG:O	40:B8:128:GLU:HB3	2.17	0.44
46:H8:104:PHE:CE2	46:H8:119:GLU:HG2	2.52	0.44
1:1G:178:C:H2'	1:1G:179:A:O4'	2.17	0.44
1:1G:186(D):C:H2'	1:1G:186(E):C:C6	2.52	0.44
1:1G:573:A:N3	1:1G:883:C:O2'	2.48	0.44
1:1G:1003:G:H2'	1:1G:1004:A:H4'	1.98	0.44
1:1G:1112:C:C2	3:22:178:LEU:HB2	2.53	0.44
1:1G:1307:U:H2'	1:1G:1308:U:O4'	2.17	0.44
3:22:125:GLU:HG2	3:22:190:ARG:O	2.16	0.44
3:22:167:TRP:H	3:22:167:TRP:HE3	1.66	0.44
5:42:107:ARG:HH22	5:42:108:ALA:HB2	1.83	0.44
7:62:132:GLY:HA3	7:62:135:VAL:HB	1.98	0.44
12:3A:102:ARG:HE	12:3A:102:ARG:HB3	1.56	0.44
19:AA:53:ASN:OD1	19:AA:55:LYS:HB3	2.17	0.44
20:BA:50:GLU:HA	20:BA:100:ILE:HG12	2.00	0.44
24:3L:9:G:N2	24:3L:11:U:O4	2.50	0.44
26:14:2418:A:H2'	26:14:2419:U:H6	1.82	0.44
32:59:76:VAL:O	32:59:80:SER:OG	2.21	0.44
43:A5:1:MET:CE	43:A5:2:GLU:H	2.30	0.44
44:B5:67:GLY:C	44:B5:69:TYR:N	2.76	0.44
1:13:191(C):G:H2'	1:13:191(D):U:O4'	2.17	0.44
1:13:254:G:O2'	17:8I:16:GLN:O	2.34	0.44
1:13:418:C:H2'	1:13:419:C:H6	1.82	0.44
1:13:580:U:OP1	15:6I:54:ARG:NH2	2.48	0.44
1:13:1450:U:O2'	1:13:1451:A:H3'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1489:G:H2'	1:13:1490:C:O4'	2.18	0.44
2:1E:21:ARG:HG3	2:1E:22:LYS:HZ3	1.82	0.44
3:2E:88:ARG:HA	3:2E:91:LEU:HD12	1.98	0.44
4:3E:107:ARG:HH11	4:3E:114:ARG:NH2	2.14	0.44
5:4E:39:GLY:HA2	5:4E:113:ALA:HB1	1.99	0.44
7:6E:115:ARG:O	7:6E:118:VAL:HG13	2.17	0.44
8:7E:64:LYS:HG2	8:7E:79:VAL:HG21	2.00	0.44
9:8E:77:ILE:O	9:8E:81:ILE:HG12	2.17	0.44
13:4I:11:ARG:HG3	13:4I:46:LYS:HD2	1.99	0.44
16:7I:74:LEU:HD22	16:7I:79:VAL:HG21	1.99	0.44
26:1H:1858:G:HO2'	26:1H:1859:A:P	2.40	0.44
26:1H:1899:G:O2'	26:1H:1900:A:OP2	2.31	0.44
26:1H:2376:A:C2	39:A8:112:PHE:HB3	2.52	0.44
26:1H:2428:G:H21	36:78:61:ARG:HH21	1.66	0.44
26:1H:2896:C:H2'	26:1H:2897:U:H6	1.83	0.44
29:21:119:ARG:HG3	29:21:119:ARG:NH1	2.33	0.44
29:21:179:GLU:O	29:21:180:ASN:HB2	2.18	0.44
31:41:11:TYR:O	31:41:15:VAL:HB	2.18	0.44
31:41:104:GLU:OE1	51:M8:23:GLU:HG3	2.18	0.44
33:61:29:TYR:O	33:61:32:PRO:HD2	2.17	0.44
33:61:71:ILE:HG12	33:61:72:LEU:HD13	1.99	0.44
34:58:32:THR:O	34:58:36:GLY:N	2.47	0.44
38:98:109:ALA:HA	38:98:110:PRO:HD2	1.89	0.44
45:G8:35:TYR:CE2	45:G8:69:ALA:HB3	2.52	0.44
45:G8:76:CYS:HA	45:G8:97:ARG:HG2	1.99	0.44
46:H8:50:GLN:H	46:H8:50:GLN:HG2	1.53	0.44
46:H8:132:ASN:HD22	46:H8:134:PRO:HD3	1.82	0.44
46:H8:155:LEU:HD23	46:H8:155:LEU:HA	1.87	0.44
48:J8:92:LYS:O	48:J8:93:GLU:C	2.60	0.44
1:1G:569:C:H5"	1:1G:570:G:OP1	2.17	0.44
1:1G:833:U:O2'	1:1G:834:C:H5'	2.17	0.44
1:1G:1036:G:H5'	1:1G:1037:C:OP2	2.17	0.44
4:32:24:GLU:HG2	4:32:25:ARG:N	2.32	0.44
5:42:127:ASN:HA	5:42:128:PRO:HD3	1.86	0.44
9:82:114:TYR:HD2	10:1A:60:ARG:HG3	1.82	0.44
26:14:601:C:O2'	26:14:605:C:H5"	2.16	0.44
26:14:957:A:N1	26:14:2459:A:C8	2.85	0.44
26:14:1093:G:H1	26:14:1097:U:H5"	1.82	0.44
26:14:1257:C:H2'	26:14:1258:C:C6	2.52	0.44
26:14:1342:A:H2	26:14:1602:U:N3	2.16	0.44
26:14:1542:G:O5'	26:14:1543:A:H5"	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1771:C:C1’	26:14:1786:A:C8	3.01	0.44
26:14:1962:C:O2’	26:14:1964:G:OP2	2.35	0.44
26:14:2492:U:H2’	26:14:2493:U:C6	2.53	0.44
26:14:2525:G:N2	26:14:2539:C:C2	2.85	0.44
26:14:2681:C:C4	26:14:2724:C:C5	3.06	0.44
28:19:146:GLU:OE2	28:19:152:GLY:N	2.43	0.44
29:29:126:PRO:O	29:29:135:HIS:HD2	2.00	0.44
31:49:63:ILE:HD12	31:49:141:PHE:CD2	2.52	0.44
36:35:52:GLU:O	36:35:54:GLY:N	2.50	0.44
48:F5:19:GLN:HB3	48:F5:35:THR:O	2.16	0.44
54:M5:40:GLU:H	54:M5:43:GLN:CG	2.14	0.44
54:M5:40:GLU:N	54:M5:43:GLN:HG3	2.11	0.44
1:13:74:C:H2’	1:13:75:C:O4’	2.18	0.44
1:13:265:G:O2’	17:8I:67:LYS:N	2.51	0.44
1:13:390:C:H2’	1:13:391:G:C8	2.52	0.44
1:13:633:G:H5”	1:13:634:C:OP2	2.17	0.44
1:13:801:U:H2’	1:13:802:A:H8	1.81	0.44
1:13:963:G:C2	10:1I:55:LYS:NZ	2.84	0.44
2:1E:54:THR:O	2:1E:58:ILE:HG13	2.18	0.44
3:2E:180:ALA:HB1	3:2E:182:ILE:HG13	1.99	0.44
11:2I:33:THR:HA	11:2I:39:PRO:HA	1.99	0.44
24:3K:14:A:H2’	24:3K:14:A:N3	2.33	0.44
26:1H:34:C:OP2	26:1H:34:C:C6	2.70	0.44
26:1H:139:G:N3	26:1H:141:A:N1	2.65	0.44
26:1H:740:U:H2’	26:1H:741:G:C8	2.53	0.44
26:1H:2050:C:H1’	29:21:156:MET:HE2	1.98	0.44
26:1H:2887:U:H2’	26:1H:2888:C:C6	2.52	0.44
29:21:20:ALA:O	29:21:21:VAL:HB	2.18	0.44
29:21:100:GLU:O	29:21:172:VAL:HG23	2.17	0.44
36:78:94:GLU:OE1	36:78:124:LYS:HD3	2.18	0.44
36:78:134:ALA:O	36:78:138:LEU:HB2	2.17	0.44
37:88:1:MET:HB3	37:88:2:LEU:H	1.58	0.44
38:98:24:GLN:OE1	38:98:36:THR:HG21	2.17	0.44
39:A8:3:ARG:HG2	39:A8:4:LEU:N	2.33	0.44
42:D8:25:LEU:H	42:D8:92:THR:CG2	2.30	0.44
43:E8:29:LEU:HD22	43:E8:69:LEU:CD1	2.48	0.44
45:G8:68:HIS:HB3	45:G8:71:LYS:HG2	2.00	0.44
46:H8:121:HIS:HB2	46:H8:171:ILE:HD12	2.00	0.44
1:1G:302:G:O2’	1:1G:556:C:H5”	2.17	0.44
1:1G:1128:C:N3	1:1G:1139:G:N1	2.66	0.44
1:1G:1176:A:C2’	1:1G:1177:G:H5’	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:58:ILE:H	2:12:58:ILE:HG12	1.51	0.44
4:32:189:PRO:HB2	4:32:194:LEU:HD21	1.99	0.44
4:32:192:GLU:H	4:32:192:GLU:HG3	1.50	0.44
12:3A:41:ARG:HH12	12:3A:43:VAL:HG22	1.82	0.44
13:4A:14:ARG:HA	13:4A:43:THR:O	2.17	0.44
14:5A:41:ARG:HG3	14:5A:42:ILE:HG12	1.99	0.44
19:AA:49:ILE:HD11	19:AA:62:ILE:HD11	2.00	0.44
19:AA:79:THR:O	19:AA:79:THR:OG1	2.27	0.44
26:14:214:G:H4'	26:14:214:G:OP1	2.17	0.44
26:14:825:C:H4'	26:14:2428:G:C5	2.53	0.44
26:14:945:A:H2	57:14:3690:HOH:O	2.00	0.44
26:14:1024:G:H8	26:14:1024:G:O5'	2.00	0.44
26:14:1255:U:OP2	26:14:2502:G:N2	2.50	0.44
26:14:1340:U:C2	26:14:1603:A:O4'	2.71	0.44
26:14:2313:C:H2'	26:14:2314:C:C6	2.52	0.44
26:14:2659:G:O2'	26:14:2661:G:N7	2.46	0.44
28:19:80:ALA:HB3	28:19:94:LEU:HB3	1.99	0.44
31:49:19:LEU:HD23	31:49:19:LEU:HA	1.80	0.44
33:69:143:SER:OG	33:69:145:VAL:N	2.51	0.44
36:35:35:HIS:HB3	36:35:36:LYS:H	1.53	0.44
37:45:60:ARG:NH1	37:45:61:GLY:HA2	2.33	0.44
40:75:26:ASP:O	40:75:49:VAL:HG13	2.17	0.44
43:A5:21:VAL:HG21	43:A5:76:VAL:HG12	2.00	0.44
43:A5:61:ASN:OD1	43:A5:61:ASN:N	2.50	0.44
1:13:128:G:H4'	17:8I:3:LYS:HG2	2.00	0.44
1:13:435:C:H2'	1:13:436:C:H6	1.83	0.44
1:13:842:C:H1'	1:13:848:C:H42	1.83	0.44
1:13:977:A:O2'	1:13:979:C:OP2	2.32	0.44
1:13:1171:G:H8	1:13:1171:G:O5'	2.00	0.44
2:1E:172:ILE:H	2:1E:172:ILE:HG13	1.47	0.44
6:5E:8:ILE:HD12	6:5E:26:ILE:HD13	2.00	0.44
9:8E:78:LYS:HE2	9:8E:101:PHE:CE1	2.52	0.44
13:4I:50:GLU:O	13:4I:54:VAL:HG23	2.18	0.44
14:5I:7:ILE:HG22	14:5I:28:GLY:HA3	2.00	0.44
17:8I:10:VAL:HG13	17:8I:19:VAL:HB	1.99	0.44
23:2K:67:C:O2'	31:41:78:SER:HB2	2.17	0.44
24:3K:59:U:O2'	24:3K:60:A:OP1	2.31	0.44
26:1H:270(Y):G:C2	26:1H:270(Z):U:O4	2.71	0.44
26:1H:608:A:H1'	26:1H:621:A:N6	2.33	0.44
26:1H:1024:G:O5'	26:1H:1024:G:H8	2.01	0.44
26:1H:1252:G:H5"	57:1H:3639:HOH:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1417:C:H2'	26:1H:1418:G:O4'	2.17	0.44
26:1H:1535:U:H2'	26:1H:1535:U:O2	2.16	0.44
26:1H:1859:A:C2	26:1H:1884:A:H1'	2.53	0.44
26:1H:2098:U:O2	26:1H:2191:G:N2	2.36	0.44
26:1H:2576:G:P	57:1H:3669:HOH:O	2.75	0.44
28:11:44:ASN:O	28:11:46:GLN:O	2.35	0.44
31:41:142:PRO:HB2	51:M8:31:ILE:HD12	2.00	0.44
33:61:144:VAL:HG22	33:61:145:VAL:H	1.82	0.44
34:58:4:TYR:CE2	41:C8:100:VAL:HG11	2.53	0.44
34:58:71:ILE:HG21	34:58:84:LYS:HG2	1.98	0.44
37:88:135:ASP:HB2	37:88:138:ASP:OD1	2.17	0.44
46:H8:117:LEU:HD22	46:H8:118:GLN:N	2.30	0.44
1:1G:730:G:C5	1:1G:731:G:H1'	2.53	0.44
1:1G:1111:A:H8	1:1G:1111:A:O5'	2.00	0.44
1:1G:1125:U:H2'	1:1G:1126:U:C6	2.53	0.44
1:1G:1127:G:H1'	1:1G:1148:U:O2	2.18	0.44
1:1G:1157:A:C8	1:1G:1158:C:C5	3.06	0.44
1:1G:1171:G:H2'	1:1G:1172:C:C6	2.53	0.44
1:1G:1207:G:C6	1:1G:1208:C:C4	3.06	0.44
1:1G:1315:U:H2'	1:1G:1316:G:O4'	2.17	0.44
1:1G:1500:A:H5"	1:1G:1508:G:H5"	2.00	0.44
3:22:53:ALA:HB2	3:22:115:LEU:HD23	1.99	0.44
4:32:162:LEU:HD21	4:32:178:VAL:HG11	2.00	0.44
5:42:34:VAL:O	5:42:41:VAL:HG12	2.18	0.44
8:72:19:VAL:HG23	8:72:21:LYS:HB2	1.99	0.44
20:BA:63:ILE:HG21	20:BA:81:LYS:HG3	2.00	0.44
26:14:186:G:H2'	26:14:187:G:H8	1.83	0.44
26:14:1065:U:N3	26:14:1074:G:H1'	2.32	0.44
26:14:1131:G:OP2	26:14:2515:C:H4'	2.17	0.44
26:14:1190:G:OP1	36:35:32:THR:HA	2.17	0.44
26:14:1259:G:H2'	26:14:1260:G:H8	1.82	0.44
26:14:1341:U:OP2	26:14:1394:U:O2'	2.22	0.44
26:14:1388:G:H2'	26:14:1389:G:C8	2.51	0.44
26:14:1423:G:C4	26:14:1424:G:C8	3.06	0.44
26:14:1480:G:H1	26:14:1513:C:H42	1.66	0.44
28:19:71:ASP:OD1	28:19:103:ARG:NH1	2.49	0.44
31:49:43:LEU:HD12	31:49:45:GLU:CD	2.43	0.44
31:49:61:ALA:HA	31:49:64:THR:HG23	2.00	0.44
33:69:114:LEU:O	33:69:114:LEU:HD22	2.17	0.44
36:35:96:THR:HG23	36:35:99:LEU:HB3	2.00	0.44
48:F5:76:ARG:HB2	48:F5:94:LEU:HD13	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:J5:16:ARG:HH11	52:J5:17:ASP:CG	2.26	0.44
1:13:7:G:H2'	5:4E:119:LEU:HD22	1.98	0.44
1:13:8:A:N6	4:3E:205:GLU:O	2.51	0.44
1:13:260:G:H2'	1:13:261:U:C6	2.53	0.44
1:13:329:A:C5	1:13:332:G:C6	3.06	0.44
1:13:589:C:H42	1:13:650:G:H1	1.65	0.44
1:13:1177:G:OP1	1:13:1177:G:H4'	2.18	0.44
1:13:1308:U:OP1	13:4I:98:VAL:HG23	2.18	0.44
3:2E:4:LYS:HE3	3:2E:4:LYS:HB3	1.66	0.44
3:2E:173:VAL:HG12	3:2E:175:LEU:HG	2.00	0.44
9:8E:16:ARG:HB2	9:8E:64:THR:OG1	2.16	0.44
13:4I:66:LEU:O	13:4I:70:LEU:HB2	2.17	0.44
24:3K:42:U:H2'	24:3K:43:A:H8	1.82	0.44
26:1H:43:G:H2'	26:1H:44:A:O4'	2.18	0.44
26:1H:90:U:H1'	26:1H:91:A:C8	2.52	0.44
26:1H:795:C:H2'	26:1H:796:C:H6	1.82	0.44
26:1H:886:C:H3'	26:1H:887:A:C5'	2.48	0.44
26:1H:1106:G:H2'	26:1H:1107:G:O4'	2.18	0.44
26:1H:2182:G:N2	26:1H:2183:C:O2	2.51	0.44
26:1H:2197:U:O2'	26:1H:2198:A:H2'	2.17	0.44
26:1H:2804:C:H2'	26:1H:2805:G:C8	2.53	0.44
30:31:32:LEU:HD22	30:31:32:LEU:HA	1.53	0.44
30:31:85:GLY:C	57:31:501:HOH:O	2.59	0.44
31:41:111:LEU:HD13	31:41:179:PRO:HG2	2.00	0.44
33:61:88:ILE:HG22	33:61:90:GLY:N	2.33	0.44
34:58:66:LYS:O	34:58:70:LYS:HB3	2.17	0.44
38:98:12:ARG:HG2	38:98:12:ARG:NH1	2.31	0.44
41:C8:90:VAL:O	41:C8:91:ASP:C	2.60	0.44
42:D8:62:LEU:HD12	42:D8:62:LEU:HA	1.80	0.44
46:H8:30:ASN:ND2	46:H8:33:LEU:HB3	2.32	0.44
47:I8:46:LYS:HG2	47:I8:77:ARG:O	2.17	0.44
53:P8:12:ARG:NH2	53:P8:44:PRO:HB3	2.32	0.44
1:1G:555:C:H2'	1:1G:556:C:C6	2.53	0.44
1:1G:974:A:P	14:5A:41:ARG:HH12	2.41	0.44
1:1G:1139:G:H22	1:1G:1143:G:N2	2.16	0.44
1:1G:1256:A:H5"	1:1G:1258:G:C4	2.52	0.44
3:22:181:ASN:OD1	3:22:204:LEU:HB2	2.18	0.44
7:62:16:LEU:HD11	9:82:45:ALA:HB2	1.99	0.44
8:72:92:ARG:HA	8:72:92:ARG:HD2	1.60	0.44
9:82:10:ARG:NH1	9:82:105:ASP:OD2	2.51	0.44
26:14:301:G:C6	26:14:317:G:C6	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:774:A:HO2'	26:14:775:G:P	2.40	0.44
26:14:795:C:H2'	26:14:796:C:H6	1.80	0.44
26:14:868:U:C2	26:14:869:G:C8	3.06	0.44
26:14:1680:U:H2'	26:14:1681:G:O4'	2.18	0.44
26:14:2865:U:C4	26:14:2866:U:C4	3.05	0.44
28:19:33:LEU:HA	28:19:64:ILE:HG23	1.99	0.44
30:39:67:GLN:O	30:39:67:GLN:HG3	2.18	0.44
30:39:154:VAL:HA	30:39:191:ARG:O	2.18	0.44
30:39:170:LEU:HD22	30:39:172:TRP:NE1	2.33	0.44
33:69:4:ILE:CG2	33:69:47:LEU:HD13	2.46	0.44
36:35:135:LEU:HD23	36:35:135:LEU:HA	1.82	0.44
41:85:50:ARG:HH22	42:95:72:VAL:HG23	1.83	0.44
42:95:85:LYS:HD2	42:95:87:HIS:N	2.32	0.44
45:C5:82:PRO:HB2	45:C5:83:THR:O	2.17	0.44
48:F5:85:LEU:HB2	48:F5:88:LYS:HG3	2.00	0.44
50:H5:5:LYS:HB3	50:H5:5:LYS:HE3	1.58	0.44
1:13:66:G:C2	1:13:67:C:C6	3.05	0.44
1:13:109:A:C6	1:13:326:G:C6	3.05	0.44
1:13:256:U:H2'	1:13:257:G:O4'	2.18	0.44
1:13:711:G:H2'	1:13:712:A:H8	1.83	0.44
1:13:947:G:OP1	13:4I:108:ARG:HB3	2.18	0.44
1:13:1036:G:H2'	1:13:1037:C:C2	2.53	0.44
1:13:1365:G:H2'	1:13:1366:C:H6	1.83	0.44
1:13:1387:G:H2'	1:13:1388:C:C6	2.53	0.44
2:1E:124:SER:HB2	2:1E:125:PRO:HD2	1.99	0.44
12:3I:77:LEU:HD22	12:3I:81:SER:HB2	2.00	0.44
13:4I:98:VAL:HG22	13:4I:110:ARG:HH21	1.82	0.44
18:9I:32:ARG:HD2	18:9I:65:ILE:HG21	2.00	0.44
19:AI:49:ILE:HG22	19:AI:51:VAL:HG22	2.00	0.44
22:1K:15:A:N3	22:1K:15:A:H2'	2.33	0.44
26:1H:787:U:H5"	26:1H:788:A:H5'	2.00	0.44
26:1H:833:U:H1'	36:78:55:ARG:NH1	2.33	0.44
26:1H:978:G:C2'	26:1H:979:G:H5'	2.48	0.44
26:1H:1050:A:C8	26:1H:2751:G:C5	3.06	0.44
26:1H:2070:G:C2	26:1H:2442:C:C2	3.06	0.44
30:31:160:ASN:OD1	30:31:163:VAL:HG23	2.18	0.44
31:41:154:GLY:C	31:41:155:MET:HE2	2.42	0.44
34:58:16:ILE:HG21	34:58:26:LEU:HD11	1.99	0.44
37:88:134:ARG:HH21	46:H8:122:ARG:CZ	2.31	0.44
38:98:28:LEU:O	38:98:28:LEU:HD22	2.18	0.44
38:98:29:LEU:HD12	38:98:29:LEU:HA	1.74	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:A8:41:ASP:HB3	39:A8:48:LEU:HD11	2.00	0.44
40:B8:18:ASP:OD1	40:B8:18:ASP:N	2.50	0.44
43:E8:17:VAL:HG23	43:E8:43:GLY:HA3	1.99	0.44
51:M8:18:CYS:HB3	51:M8:39:CYS:CB	2.48	0.44
52:N8:20:ARG:HA	52:N8:23:HIS:ND1	2.32	0.44
1:1G:197:A:H3'	1:1G:197:A:OP2	2.17	0.44
1:1G:286:G:H2'	1:1G:287:U:C6	2.53	0.44
1:1G:371:G:O2'	1:1G:373:A:N7	2.44	0.44
1:1G:613:C:H2'	1:1G:614:A:O4'	2.18	0.44
1:1G:750:G:C2	15:6A:23:GLY:HA3	2.53	0.44
1:1G:763:G:H2'	1:1G:764:C:H6	1.83	0.44
1:1G:828:A:H2'	1:1G:829:G:O4'	2.18	0.44
1:1G:921:U:H2'	1:1G:922:G:O4'	2.17	0.44
1:1G:1107:C:C4	1:1G:1108:G:C8	3.06	0.44
1:1G:1157:A:C8	1:1G:1158:C:C4	3.06	0.44
1:1G:1245:A:H2'	1:1G:1246:C:O4'	2.18	0.44
1:1G:1384:C:H2'	1:1G:1385:G:C8	2.53	0.44
1:1G:1508:G:H2'	1:1G:1509:C:O4'	2.17	0.44
2:12:8:LYS:C	2:12:10:LEU:H	2.26	0.44
2:12:237:ALA:C	2:12:239:VAL:H	2.26	0.44
13:4A:84:ILE:HG12	19:AA:63:THR:HG21	1.99	0.44
18:9A:22:VAL:C	18:9A:24:ALA:N	2.76	0.44
22:1L:47:C:H42	22:1L:56:G:H22	1.66	0.44
26:14:243:U:OP1	54:M5:6:THR:OG1	2.30	0.44
26:14:629:G:H5"	26:14:650:C:O2'	2.18	0.44
26:14:1035:U:H2'	26:14:1036:G:C8	2.53	0.44
28:19:77:ALA:HB2	28:19:97:TYR:CD2	2.53	0.44
29:29:145:LYS:HE3	29:29:145:LYS:HB3	1.86	0.44
33:69:29:TYR:C	33:69:32:PRO:HD2	2.42	0.44
39:65:7:TYR:HE1	39:65:11:LYS:NZ	2.16	0.44
41:85:92:ARG:C	41:85:94:ASN:N	2.76	0.44
51:I5:18:CYS:HB3	51:I5:19:GLY:HA2	2.00	0.44
1:13:79:G:N2	1:13:89:U:C2	2.86	0.43
1:13:196:A:OP1	20:BI:68:LYS:NZ	2.51	0.43
1:13:437:U:H5"	4:3E:155:LEU:HD21	2.00	0.43
1:13:547:A:H4'	1:13:548:G:O5'	2.18	0.43
1:13:639:G:H2'	1:13:640:A:C8	2.52	0.43
1:13:859:A:H2'	1:13:860:A:C8	2.53	0.43
1:13:908:A:H2'	1:13:909:A:C8	2.53	0.43
1:13:958:A:C6	1:13:959:A:C6	3.05	0.43
1:13:1178:G:C8	1:13:1178:G:H3'	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1372:U:H5"	9:8E:71:SER:HB2	2.00	0.43
1:13:1428:A:H2'	1:13:1429:C:O4'	2.17	0.43
1:13:1452:C:HO2'	1:13:1453:G:P	2.35	0.43
1:13:1486:G:H2'	1:13:1487:G:C1'	2.48	0.43
3:2E:19:GLU:HA	3:2E:54:ARG:HH12	1.83	0.43
3:2E:108:ASN:HB3	3:2E:111:LEU:HB2	2.00	0.43
4:3E:78:LEU:HB3	4:3E:93:PHE:HE1	1.83	0.43
4:3E:162:LEU:HA	4:3E:162:LEU:HD23	1.74	0.43
8:7E:56:LYS:HA	8:7E:57:PRO:HD3	1.83	0.43
11:2I:124:LYS:HG3	11:2I:125:PHE:CE1	2.53	0.43
12:3I:90:VAL:HG11	12:3I:93:LEU:CG	2.46	0.43
14:5I:4:LYS:O	14:5I:7:ILE:HG12	2.18	0.43
23:2K:72:C:H2'	23:2K:73:C:H6	1.83	0.43
24:3K:16:U:H2'	24:3K:18:G:OP2	2.17	0.43
24:3K:21:A:C5	24:3K:58:U:H1'	2.52	0.43
25:4K:37:G:H8	25:4K:37:G:OP2	2.01	0.43
26:1H:137(A):G:H1'	44:F8:41:ASN:ND2	2.32	0.43
26:1H:466:A:O4'	26:1H:683:C:H4'	2.18	0.43
26:1H:563:G:OP2	57:1H:3607:HOH:O	2.20	0.43
26:1H:588:U:O4	26:1H:670:A:H1'	2.18	0.43
26:1H:1105:U:H2'	26:1H:1106:G:C8	2.53	0.43
26:1H:2528:U:H2'	26:1H:2530:A:O5'	2.18	0.43
29:21:31:CYS:HA	29:21:32:PRO:HD3	1.68	0.43
30:31:93:LYS:HD2	30:31:93:LYS:HA	1.50	0.43
30:31:139:PHE:HB2	30:31:166:ALA:HB1	2.00	0.43
36:78:116:GLY:N	36:78:134:ALA:HB2	2.33	0.43
37:88:51:ARG:HD2	37:88:66:ILE:HD11	1.99	0.43
41:C8:17:ILE:HD12	41:C8:32:PHE:HE1	1.83	0.43
46:H8:30:ASN:HD21	46:H8:33:LEU:HB3	1.83	0.43
54:Q8:49:VAL:O	54:Q8:49:VAL:HG22	2.18	0.43
1:1G:458:C:N4	1:1G:464:G:O6	2.51	0.43
1:1G:616:G:N3	1:1G:617:G:C8	2.86	0.43
1:1G:924:C:O2'	1:1G:1502:A:N6	2.50	0.43
1:1G:942:G:C2	1:1G:1342:C:C2	3.06	0.43
1:1G:1055:A:H5"	1:1G:1056:U:OP2	2.18	0.43
1:1G:1277:C:O2'	1:1G:1279:A:H8	2.01	0.43
1:1G:1329:A:C5'	13:4A:29:ARG:HE	2.27	0.43
1:1G:1357:A:N7	1:1G:1358:U:C5	2.86	0.43
1:1G:1481:U:H2'	1:1G:1482:G:H8	1.82	0.43
3:22:37:GLN:O	3:22:40:ARG:N	2.51	0.43
4:32:101:LEU:HA	4:32:101:LEU:HD12	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:90:VAL:O	5:42:91:LEU:HD13	2.17	0.43
7:62:13:GLN:HA	7:62:14:PRO:HD3	1.82	0.43
9:82:47:LEU:C	9:82:49:PRO:HD2	2.43	0.43
10:1A:79:ARG:HB3	10:1A:79:ARG:HH11	1.83	0.43
15:6A:10:LYS:HD2	15:6A:10:LYS:HA	1.67	0.43
23:2L:87:A:N3	23:2L:87:A:C2'	2.77	0.43
26:14:654(I):C:H5"	26:14:654(M):C:N4	2.33	0.43
26:14:906:G:O3'	37:45:67:ARG:NH2	2.51	0.43
26:14:1278:A:H2'	26:14:1279:G:C8	2.53	0.43
26:14:1440:G:C4	26:14:1441:G:C8	3.06	0.43
26:14:1729:A:H8	26:14:1729:A:OP1	2.01	0.43
32:59:18:GLU:HB2	32:59:25:LYS:HD2	2.00	0.43
36:35:1:MET:HB2	36:35:5:ASP:OD2	2.18	0.43
36:35:144:GLU:HA	36:35:145:PRO:HD3	1.62	0.43
39:65:109:GLY:O	39:65:110:LEU:HD22	2.18	0.43
47:E5:34:GLY:HA2	47:E5:61:ALA:O	2.18	0.43
49:G5:47:ASN:HD22	49:G5:47:ASN:N	2.13	0.43
1:13:134:A:H1'	1:13:325:A:C4	2.53	0.43
1:13:277:C:H5"	17:8I:68:ARG:NH2	2.32	0.43
1:13:624:C:H4'	16:7I:11:SER:N	2.33	0.43
1:13:1057:G:H2'	1:13:1058:G:O4'	2.18	0.43
1:13:1132:C:H2'	1:13:1133:G:C8	2.46	0.43
1:13:1148:U:O3'	9:8E:14:VAL:HG11	2.18	0.43
1:13:1446:A:O2'	1:13:1447:G:H5'	2.19	0.43
2:1E:20:GLU:HG3	2:1E:191:ASP:N	2.33	0.43
2:1E:237:ALA:O	2:1E:239:VAL:HG23	2.18	0.43
6:5E:21:LEU:O	6:5E:24:GLU:HB3	2.18	0.43
8:7E:9:MET:SD	8:7E:32:LYS:HG2	2.58	0.43
14:5I:21:TYR:HE2	14:5I:23:ARG:NE	2.15	0.43
20:BI:97:ALA:O	20:BI:99:LEU:HD13	2.18	0.43
26:1H:28:A:O2'	26:1H:583:G:H5'	2.18	0.43
26:1H:35:G:H2'	26:1H:36:G:O4'	2.18	0.43
26:1H:579:G:H2'	26:1H:580:C:C6	2.53	0.43
26:1H:607:U:N3	26:1H:621:A:C2	2.78	0.43
26:1H:654:A:H3'	26:1H:654:A:N3	2.32	0.43
26:1H:769:G:H4'	26:1H:1379:A:N1	2.33	0.43
26:1H:1224:G:OP2	42:D8:66:ARG:NH2	2.50	0.43
26:1H:1534:G:N2	26:1H:1538:G:H22	2.16	0.43
26:1H:1990:C:H2'	26:1H:1991:U:C6	2.53	0.43
26:1H:2023:G:H4'	26:1H:2617:C:O3'	2.18	0.43
26:1H:2102:U:H2'	26:1H:2103:C:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2822:G:H2'	26:1H:2823:A:H5"	2.00	0.43
27:16:57:A:H5'	31:41:26:GLN:OE1	2.18	0.43
28:11:201:HIS:O	28:11:204:ILE:HG23	2.17	0.43
29:21:13:ARG:HD2	40:B8:58:ASN:HB3	2.00	0.43
30:31:11:VAL:HG22	30:31:125:LEU:HB2	1.99	0.43
31:41:142:PRO:HB2	51:M8:31:ILE:HB	2.00	0.43
32:51:74:ASN:ND2	32:51:138:LYS:HD3	2.34	0.43
33:61:5:LEU:HD12	33:61:13:GLY:O	2.18	0.43
36:78:39:LYS:HB2	36:78:45:LEU:CD2	2.47	0.43
36:78:58:THR:HG21	54:Q8:52:LYS:NZ	2.33	0.43
37:88:14:ARG:HG2	37:88:41:TRP:CH2	2.53	0.43
38:98:96:ARG:CZ	38:98:117:VAL:HG23	2.49	0.43
39:A8:89:ARG:HG3	39:A8:92:TYR:O	2.17	0.43
40:B8:106:SER:O	40:B8:110:ILE:HB	2.18	0.43
51:M8:13:ARG:CA	51:M8:24:THR:HG21	2.49	0.43
54:Q8:16:ILE:HD13	54:Q8:56:GLU:OE2	2.18	0.43
1:1G:78:G:O6	1:1G:91:C:N4	2.50	0.43
1:1G:129(A):G:C2	1:1G:191(A):G:C8	3.06	0.43
1:1G:374:A:C6	1:1G:375:U:C4	3.06	0.43
1:1G:1069:C:H42	1:1G:1106:G:H1	1.67	0.43
1:1G:1355:G:H2'	1:1G:1356:G:O4'	2.18	0.43
2:12:48:MET:HA	2:12:51:LEU:HD12	1.99	0.43
5:42:6:PHE:HD1	5:42:36:ASP:HB3	1.83	0.43
6:52:10:LEU:HA	6:52:84:ASN:O	2.18	0.43
9:82:99:LEU:HB3	9:82:101:PHE:CD1	2.53	0.43
10:1A:13:HIS:O	10:1A:17:ASP:HB2	2.17	0.43
15:6A:67:LEU:HD23	15:6A:67:LEU:HA	1.85	0.43
16:7A:34:GLU:HG2	16:7A:35:LYS:N	2.33	0.43
20:BA:75:ASN:O	20:BA:79:ARG:HB2	2.18	0.43
26:14:1058:U:O5'	26:14:1058:U:H6	2.01	0.43
26:14:2520:C:HO2'	26:14:2565:A:HO2'	1.65	0.43
26:14:2637:U:C4	26:14:2638:G:C6	3.06	0.43
26:14:2676:C:H2'	26:14:2677:G:H8	1.83	0.43
27:1J:74:U:H2'	27:1J:75:G:O4'	2.18	0.43
30:39:131:GLY:HA2	30:39:138:GLU:HB3	2.01	0.43
33:69:76:THR:HG23	33:69:77:LEU:N	2.33	0.43
34:15:35:ARG:H	34:15:35:ARG:HG2	1.66	0.43
40:75:23:ARG:O	40:75:26:ASP:HB2	2.17	0.43
43:A5:78:GLU:OE2	43:A5:99:ARG:HD3	2.18	0.43
46:D5:157:LEU:HA	46:D5:158:PRO:HD2	1.85	0.43
51:I5:11:PRO:HA	51:I5:25:TYR:CG	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:J5:56:LYS:HE2	52:J5:56:LYS:HB3	1.74	0.43
1:13:625:G:H4'	16:7I:16:HIS:CG	2.53	0.43
1:13:1159:U:O4'	1:13:1182:G:N2	2.51	0.43
1:13:1318:A:H5"	19:AI:10:PHE:CD2	2.53	0.43
1:13:1379:G:N7	7:6E:2:ALA:HB3	2.33	0.43
4:3E:107:ARG:NH2	4:3E:194:LEU:HD22	2.26	0.43
4:3E:155:LEU:HD13	4:3E:158:ILE:HD11	2.00	0.43
4:3E:156:GLU:O	4:3E:160:GLN:HB2	2.18	0.43
8:7E:114:THR:HG22	8:7E:130:GLY:C	2.44	0.43
10:1I:90:LEU:N	10:1I:91:PRO:HD3	2.34	0.43
11:2I:27:ASN:OD1	11:2I:28:THR:N	2.52	0.43
16:7I:74:LEU:HA	16:7I:74:LEU:HD23	1.62	0.43
20:BI:53:LEU:HA	20:BI:56:MET:HB3	1.99	0.43
22:1K:87:A:C8	26:1H:2507:C:H1'	2.53	0.43
23:2K:12:G:C6	23:2K:13:G:C4	3.07	0.43
23:2K:19:G:O6	23:2K:69:A:H5"	2.17	0.43
26:1H:384:U:H2'	26:1H:385:C:C6	2.50	0.43
26:1H:673:C:H5"	30:31:81:PRO:HD2	2.00	0.43
26:1H:1242:A:C8	26:1H:1243:G:C8	3.06	0.43
26:1H:1707:G:C5	26:1H:1756:G:C6	3.06	0.43
26:1H:1710:C:H4'	26:1H:2858:C:O2	2.17	0.43
26:1H:1845:G:OP1	28:11:258:LYS:NZ	2.43	0.43
26:1H:1878:G:H2'	26:1H:1879:C:C6	2.54	0.43
26:1H:2251:G:H2'	26:1H:2252:G:C8	2.53	0.43
26:1H:2474:C:H3'	26:1H:2475:C:H6	1.84	0.43
27:16:30:C:OP2	39:A8:32:LEU:HD21	2.18	0.43
34:58:67:LEU:HD23	34:58:88:GLU:HB3	2.00	0.43
35:68:101:PRO:HB3	35:68:122:LEU:HD12	2.00	0.43
39:A8:106:ARG:H	39:A8:106:ARG:HG3	1.48	0.43
46:H8:48:PHE:CE1	46:H8:71:VAL:HG21	2.53	0.43
52:N8:37:LYS:HG3	52:N8:38:ALA:N	2.32	0.43
54:Q8:46:ARG:HH21	54:Q8:48:PHE:HA	1.83	0.43
1:1G:17:U:H2'	1:1G:18:C:C6	2.53	0.43
1:1G:693:G:H2'	1:1G:694:A:C8	2.53	0.43
1:1G:939:G:H5'	7:62:102:ARG:CZ	2.48	0.43
1:1G:1004:A:H2	1:1G:1024:G:C8	2.36	0.43
1:1G:1053:G:O2'	1:1G:1054:C:OP2	2.30	0.43
1:1G:1129:C:O5'	1:1G:1130:A:H5'	2.18	0.43
3:22:47:LEU:HB3	3:22:52:LEU:HD13	1.99	0.43
5:42:122:GLU:O	5:42:126:ARG:NH1	2.52	0.43
8:72:73:ASP:HB2	8:72:75:ARG:NH2	2.21	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2A:38:ASN:HA	11:2A:39:PRO:HD3	1.90	0.43
23:2L:31:C:H2'	23:2L:32:C:H6	1.84	0.43
26:14:142:G:H2'	26:14:143:C:C6	2.53	0.43
26:14:250:G:OP2	54:M5:13:ARG:NH2	2.51	0.43
26:14:531:C:C5	26:14:2035:G:C2	3.06	0.43
26:14:1336:A:H2'	26:14:1337:G:H8	1.83	0.43
26:14:1444:G:H2'	26:14:1445:C:C5	2.53	0.43
26:14:1849:G:H2'	26:14:1850:G:H8	1.83	0.43
26:14:2689:U:H5"	26:14:2713:A:C2	2.53	0.43
26:14:2887:U:H2'	26:14:2888:C:C6	2.53	0.43
27:1J:66:A:C2	27:1J:108:C:C4	3.06	0.43
27:1J:87:G:H2'	27:1J:88:C:H5'	2.00	0.43
28:19:146:GLU:HB2	28:19:189:CYS:HB3	1.99	0.43
35:25:12:ASP:HB3	35:25:85:VAL:HG23	1.98	0.43
36:35:36:LYS:HB3	36:35:37:GLY:H	1.39	0.43
39:65:24:LEU:HD12	39:65:40:ILE:O	2.18	0.43
43:A5:70:TYR:OH	43:A5:72:LYS:HD2	2.19	0.43
1:13:102:G:O2'	1:13:151:A:N3	2.40	0.43
1:13:131:C:O2	1:13:131:C:H2'	2.18	0.43
1:13:244:U:H4'	1:13:245:C:O5'	2.18	0.43
1:13:321:A:C2	1:13:333:G:C2	3.07	0.43
1:13:574:A:N3	1:13:883:C:H1'	2.34	0.43
1:13:875:C:H4'	8:7E:18:ARG:HH12	1.83	0.43
1:13:875:C:O2'	8:7E:14:ARG:NH1	2.48	0.43
1:13:1099:G:H2'	1:13:1100:C:C6	2.52	0.43
1:13:1126:U:N3	1:13:1127:G:C2	2.85	0.43
2:1E:5:ILE:HB	2:1E:221:LEU:HD23	2.01	0.43
5:4E:8:GLU:HG2	5:4E:34:VAL:HG22	2.00	0.43
6:5E:16:GLN:HA	6:5E:19:LEU:HD12	2.00	0.43
17:8I:90:ILE:O	17:8I:93:GLN:HB3	2.18	0.43
22:1K:34:U:H2'	22:1K:36:A:OP2	2.18	0.43
22:1K:53:A:N7	22:1K:54:G:H1'	2.33	0.43
23:2K:27:G:H4'	23:2K:27:G:OP1	2.19	0.43
23:2K:27:G:N3	23:2K:27:G:H5"	2.33	0.43
23:2K:46:G:O2'	23:2K:47:C:O5'	2.37	0.43
23:2K:62:G:HO2'	23:2K:63:G:P	2.39	0.43
26:1H:749:C:H5"	57:1H:4040:HOH:O	2.17	0.43
26:1H:934:G:H2'	26:1H:935:C:H6	1.84	0.43
26:1H:1263:U:H2'	26:1H:1264:G:C8	2.53	0.43
26:1H:1400:G:H2'	26:1H:1401:G:C8	2.53	0.43
26:1H:1801:G:O6	26:1H:2206:C:O2'	2.35	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2627:G:N2	26:1H:2777:G:OP2	2.51	0.43
26:1H:2797:U:H5"	26:1H:2798:C:OP2	2.18	0.43
28:11:147:LEU:HD13	28:11:155:LEU:HD21	1.99	0.43
28:11:263:ARG:HH11	28:11:263:ARG:HB2	1.82	0.43
29:21:66:HIS:ND1	29:21:66:HIS:O	2.51	0.43
29:21:92:THR:O	29:21:95:ILE:HG22	2.18	0.43
36:78:2:LYS:HD3	36:78:4:SER:CB	2.47	0.43
36:78:27:HIS:O	36:78:31:ALA:HA	2.18	0.43
40:B8:85:LYS:HZ1	40:B8:87:ASP:CG	2.20	0.43
41:C8:90:VAL:HG22	42:D8:39:LEU:HB3	1.99	0.43
1:1G:101:A:C2'	1:1G:102:G:H5'	2.48	0.43
1:1G:129(A):G:C6	1:1G:188:U:H4'	2.54	0.43
1:1G:277:C:OP1	17:8A:41:LYS:HE3	2.18	0.43
1:1G:332:G:OP2	20:BA:10:LEU:HD12	2.18	0.43
1:1G:363:A:OP1	12:3A:33:ARG:HG3	2.18	0.43
1:1G:396:G:O2'	1:1G:398:C:OP1	2.22	0.43
1:1G:552:U:H1'	12:3A:32:PHE:CE1	2.54	0.43
1:1G:731:G:OP1	1:1G:766:A:H1'	2.19	0.43
1:1G:758:G:H8	1:1G:758:G:O5'	2.01	0.43
1:1G:1309:G:C6	1:1G:1329:A:C2	3.06	0.43
1:1G:1330:U:H5'	13:4A:24:GLY:H	1.84	0.43
2:12:72:GLY:C	2:12:74:LYS:H	2.26	0.43
2:12:162:ILE:O	2:12:185:ILE:HG12	2.18	0.43
8:72:100:ILE:HG21	8:72:125:ARG:NE	2.33	0.43
26:14:38:A:H1'	30:39:48:THR:HB	2.00	0.43
26:14:273(C):C:N4	26:14:363(C):G:H1	2.12	0.43
26:14:307:G:N2	26:14:309:G:H3'	2.34	0.43
26:14:676:A:H2	26:14:802:A:H61	1.61	0.43
26:14:729:G:O5'	28:19:208:LYS:NZ	2.48	0.43
26:14:2531:A:H5'	32:59:157:TYR:CZ	2.54	0.43
30:39:128:ALA:O	30:39:129:PHE:C	2.62	0.43
31:49:82:LEU:HA	31:49:86:MET:SD	2.59	0.43
32:59:138:LYS:HA	32:59:138:LYS:HD2	1.83	0.43
35:25:113:LYS:H	35:25:113:LYS:HG2	1.33	0.43
36:35:47:ASP:HB3	36:35:49:ARG:N	2.32	0.43
39:65:26:LEU:O	39:65:88:ASP:HB2	2.18	0.43
40:75:50:ILE:HA	40:75:99:LEU:HB2	1.99	0.43
42:95:5:VAL:HB	42:95:37:VAL:HB	1.99	0.43
52:J5:54:GLY:C	52:J5:55:ARG:HG3	2.43	0.43
1:13:34:C:H2'	1:13:35:G:C8	2.53	0.43
1:13:688:G:C5	1:13:700:G:C2	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:740:U:O2'	1:13:741:G:H5'	2.18	0.43
1:13:791:G:H2'	1:13:792:A:H5'	2.01	0.43
1:13:1351:U:O4	9:8E:118:LYS:HE3	2.18	0.43
1:13:1358:U:H2'	1:13:1359:C:O4'	2.19	0.43
1:13:1417:G:C6	1:13:1482:G:C6	3.06	0.43
3:2E:29:TYR:OH	14:5I:54:PRO:O	2.27	0.43
3:2E:164:ARG:HE	3:2E:164:ARG:HB3	1.38	0.43
3:2E:184:TYR:HD2	3:2E:201:TYR:CE1	2.36	0.43
4:3E:165:MET:SD	4:3E:168:ARG:HD3	2.58	0.43
5:4E:53:LEU:O	5:4E:57:LYS:HG2	2.19	0.43
5:4E:112:LEU:HD22	5:4E:112:LEU:HA	1.72	0.43
7:6E:26:PHE:O	7:6E:30:ILE:HG13	2.18	0.43
11:2I:19:ALA:HA	11:2I:32:ILE:HA	1.99	0.43
14:5I:8:GLU:HA	14:5I:11:LYS:HD2	1.99	0.43
20:BI:30:LYS:HA	20:BI:33:ILE:HG12	2.01	0.43
26:1H:628:G:H2'	26:1H:629:G:C8	2.53	0.43
26:1H:812:C:H1'	26:1H:1250:G:C2	2.54	0.43
26:1H:1358:G:N2	26:1H:1372:U:C5	2.87	0.43
26:1H:2157:G:HO2'	26:1H:2158:A:P	2.41	0.43
26:1H:2314:C:H2'	26:1H:2315:G:H8	1.83	0.43
26:1H:2340:G:O2'	26:1H:2341:G:H5'	2.18	0.43
26:1H:2481:G:O2'	26:1H:2482:G:H8	2.02	0.43
26:1H:2660:A:H2'	26:1H:2661:G:O4'	2.19	0.43
30:31:136:THR:O	30:31:140:LEU:HB2	2.18	0.43
35:68:77:ILE:HG12	35:68:78:ARG:N	2.34	0.43
45:G8:94:LYS:NZ	45:G8:95:LYS:H	2.15	0.43
51:M8:48:ARG:HD3	51:M8:48:ARG:HA	1.87	0.43
52:N8:45:VAL:HG12	52:N8:51:TYR:CD2	2.54	0.43
1:1G:1129:C:H4'	1:1G:1130:A:O5'	2.18	0.43
1:1G:1306:A:C6	1:1G:1307:U:C2	3.06	0.43
1:1G:1329:A:H2'	1:1G:1330:U:O4'	2.19	0.43
1:1G:1510:U:H2'	1:1G:1511:G:C8	2.53	0.43
5:42:147:ASP:O	5:42:151:LEU:HG	2.18	0.43
15:6A:4:THR:C	15:6A:6:GLU:N	2.75	0.43
26:14:337:C:H2'	26:14:338:G:O4'	2.19	0.43
26:14:396:G:H8	26:14:396:G:O5'	2.01	0.43
26:14:397:G:N7	57:14:3832:HOH:O	2.36	0.43
26:14:570:G:H5"	57:14:3985:HOH:O	2.17	0.43
26:14:1041:C:N3	26:14:1115:G:N2	2.66	0.43
26:14:1105:U:H2'	26:14:1106:G:O4'	2.19	0.43
26:14:1287:A:C5	26:14:1288:U:C4	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1591:G:H2'	26:14:1592:C:O4'	2.18	0.43
26:14:2300:G:H2'	26:14:2301:C:C6	2.54	0.43
26:14:2376:A:H2'	26:14:2377:A:O4'	2.19	0.43
26:14:2432:A:C8	48:F5:33:LYS:HD2	2.54	0.43
26:14:2480:C:H5'	26:14:2481:G:OP2	2.19	0.43
26:14:2660:A:H2'	26:14:2661:G:O4'	2.19	0.43
28:19:62:TYR:HA	28:19:87:ASN:HD21	1.84	0.43
33:69:129:THR:HA	33:69:137:PRO:HA	2.01	0.43
38:55:104:ARG:O	38:55:108:GLY:HA2	2.19	0.43
39:65:17:ARG:HH11	39:65:17:ARG:HG3	1.82	0.43
39:65:103:GLU:O	39:65:106:ARG:NE	2.52	0.43
40:75:16:ARG:NH1	40:75:80:SER:O	2.45	0.43
44:B5:9:LEU:HA	49:G5:36:ARG:NH2	2.31	0.43
44:B5:59:VAL:HG21	44:B5:76:ARG:HD3	2.01	0.43
49:G5:47:ASN:N	49:G5:47:ASN:ND2	2.66	0.43
1:13:1044:A:C5	1:13:1045:C:H1'	2.54	0.43
1:13:1205:U:H2'	1:13:1206:G:C8	2.54	0.43
3:2E:62:ASP:OD1	3:2E:97:LYS:HG2	2.17	0.43
4:3E:20:TYR:CZ	6:52:15:ASP:HB3	2.53	0.43
4:3E:135:LEU:HA	4:3E:136:PRO:HD2	1.85	0.43
6:5E:26:ILE:O	6:5E:30:LEU:HD12	2.18	0.43
7:6E:16:LEU:HD11	9:8E:42:ARG:HA	2.01	0.43
11:2I:120:ARG:HA	11:2I:121:PRO:HD3	1.83	0.43
12:3I:66:VAL:HG21	12:3I:98:TYR:CE1	2.54	0.43
14:5I:27:CYS:HB2	14:5I:29:ARG:HB2	2.00	0.43
16:7I:13:HIS:C	16:7I:15:PRO:HD3	2.44	0.43
17:8I:74:LEU:HD22	17:8I:74:LEU:HA	1.83	0.43
20:BI:39:LYS:O	20:BI:42:GLN:HB3	2.19	0.43
26:1H:51:G:H1'	26:1H:119:A:N1	2.33	0.43
26:1H:234:C:H2'	26:1H:235:U:O4'	2.19	0.43
26:1H:234:C:H2'	26:1H:235:U:H6	1.83	0.43
26:1H:271(B):G:H8	26:1H:271(B):G:H2'	1.67	0.43
26:1H:1184:G:C5	26:1H:1185:C:C5	3.06	0.43
26:1H:1412:A:H2'	26:1H:1413:G:C8	2.54	0.43
26:1H:1533:C:C2	26:1H:1534:G:N2	2.86	0.43
26:1H:1827:C:O2'	26:1H:1828:G:H5'	2.18	0.43
26:1H:2704:C:H2'	26:1H:2705:A:O4'	2.18	0.43
27:16:12:C:C2	47:I8:74:ARG:NH1	2.87	0.43
29:21:48:GLN:OE1	29:21:77:ILE:HG21	2.18	0.43
31:41:36:LYS:HG2	31:41:38:VAL:HG23	2.00	0.43
31:41:128:ARG:HB2	31:41:128:ARG:NH2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:51:118:PRO:HD2	32:51:121:ILE:HG21	2.00	0.43
38:98:18:LEU:HD11	38:98:22:ARG:CZ	2.49	0.43
39:A8:32:LEU:HD23	39:A8:32:LEU:N	2.33	0.43
40:B8:3:ARG:O	40:B8:3:ARG:HG3	2.19	0.43
41:C8:92:ARG:HB3	42:D8:11:GLN:CD	2.43	0.43
45:G8:9:LYS:HA	45:G8:27:VAL:HG22	2.00	0.43
51:M8:38:LYS:HD2	51:M8:38:LYS:N	2.34	0.43
1:1G:4:U:H3'	1:1G:5:U:H5'	2.00	0.43
1:1G:476:G:H2'	1:1G:477:G:C8	2.54	0.43
1:1G:1034:G:H2'	1:1G:1035:A:C8	2.54	0.43
1:1G:1063:C:H3'	1:1G:1064:G:H2'	2.00	0.43
1:1G:1436:U:H2'	1:1G:1437:C:O4'	2.18	0.43
2:12:40:HIS:HB2	2:12:190:THR:HG21	2.01	0.43
3:22:91:LEU:HD11	3:22:101:LEU:HD12	2.00	0.43
6:52:39:LYS:HE3	6:52:39:LYS:HB3	1.55	0.43
8:72:103:VAL:HG21	8:72:109:ILE:O	2.19	0.43
10:1A:87:THR:HG23	10:1A:89:ASP:CG	2.43	0.43
12:3A:59:ARG:NH1	12:3A:63:GLY:HA2	2.33	0.43
19:AA:17:GLU:HG2	19:AA:21:GLU:OE1	2.19	0.43
26:14:189:G:OP2	48:F5:39:LYS:HE2	2.19	0.43
26:14:311:A:C8	26:14:332:A:N7	2.87	0.43
26:14:373:U:H2'	26:14:374:A:H8	1.84	0.43
26:14:783:A:H8	26:14:784:A:H4'	1.84	0.43
26:14:1141:U:H2'	34:15:63:THR:CG2	2.47	0.43
26:14:2173:A:C2	26:14:2174:C:H1'	2.53	0.43
26:14:2461:C:H2'	26:14:2462:U:C6	2.53	0.43
26:14:2820:A:O5'	38:55:4:LEU:HD23	2.19	0.43
27:1J:11:C:O5'	27:1J:12:C:H5	2.00	0.43
27:1J:18:G:H1	27:1J:65:C:N4	2.14	0.43
29:29:89:ASP:OD1	29:29:90:THR:N	2.51	0.43
31:49:117:PHE:O	31:49:117:PHE:CG	2.72	0.43
32:59:82:GLY:HA3	32:59:135:GLY:O	2.18	0.43
36:35:101:VAL:HB	36:35:106:LEU:HD23	2.01	0.43
37:45:25:ASP:OD1	37:45:25:ASP:N	2.52	0.43
42:95:35:LEU:C	42:95:37:VAL:HG13	2.43	0.43
48:F5:83:GLU:CD	48:F5:83:GLU:H	2.27	0.43
1:13:77:C:H2'	1:13:78:G:H5"	2.00	0.43
1:13:127:G:O2'	17:8I:2:PRO:O	2.36	0.43
1:13:234:C:H2'	1:13:235:C:C6	2.52	0.43
1:13:424:G:N2	1:13:425:G:C4	2.86	0.43
1:13:558:G:H5"	1:13:559:A:OP2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:684:A:C6	1:13:685:G:C6	3.06	0.43
1:13:865:A:C2	1:13:918:A:H4'	2.54	0.43
1:13:1007:C:H5'	1:13:1008:C:OP2	2.19	0.43
1:13:1328:C:H2'	1:13:1329:A:C8	2.53	0.43
2:1E:84:GLU:O	2:1E:88:ALA:N	2.48	0.43
2:1E:111:ARG:HG2	2:1E:111:ARG:HH11	1.82	0.43
9:8E:34:ASN:OD1	9:8E:34:ASN:N	2.52	0.43
20:BI:29:LYS:HB2	20:BI:29:LYS:HE3	1.65	0.43
20:BI:91:LEU:HD23	20:BI:91:LEU:HA	1.90	0.43
22:1K:69:A:H1'	22:1K:71:U:C5	2.54	0.43
24:3K:39:U:H2'	24:3K:40:G:H5'	2.01	0.43
26:1H:557:U:H2'	26:1H:558:G:H8	1.83	0.43
26:1H:638:G:C5	26:1H:651:G:C2	3.06	0.43
26:1H:784:A:C8	26:1H:792:G:C5	3.06	0.43
26:1H:944:G:H5"	26:1H:945:A:H5'	2.01	0.43
26:1H:1028:A:N3	26:1H:2486:G:O2'	2.45	0.43
26:1H:1167:U:C2	26:1H:1183:G:N2	2.87	0.43
26:1H:2174:C:H2'	26:1H:2175:C:C6	2.53	0.43
26:1H:2334:G:C2	39:A8:12:PHE:CD1	3.07	0.43
26:1H:2349:G:C6	26:1H:2350:C:C5	3.07	0.43
26:1H:2756:U:H1'	26:1H:2757:A:H5"	2.00	0.43
28:11:85:ASP:HB2	28:11:92:ILE:HG12	2.01	0.43
29:21:77:ILE:C	29:21:79:ARG:H	2.25	0.43
46:H8:40:ASP:OD2	46:H8:43:GLU:HB2	2.19	0.43
1:1G:1054:C:H4'	1:1G:1055:A:C5'	2.49	0.43
1:1G:1327:C:H2'	1:1G:1328:C:H6	1.83	0.43
1:1G:1348:U:H4'	9:82:120:ARG:HD2	1.99	0.43
2:12:76:GLN:NE2	2:12:206:ASP:OD1	2.51	0.43
5:42:69:VAL:O	5:42:71:LEU:N	2.51	0.43
5:42:152:ARG:O	8:72:64:LYS:HD3	2.19	0.43
18:9A:53:ARG:HE	18:9A:59:SER:C	2.27	0.43
26:14:71:A:H4'	26:14:72:U:H5"	1.99	0.43
26:14:330:A:H2	26:14:1210:A:O2'	2.00	0.43
26:14:550:G:O2'	26:14:1220:A:N3	2.46	0.43
26:14:674:G:C1'	30:39:74:ARG:HD3	2.41	0.43
26:14:815:C:H2'	26:14:816:C:C6	2.53	0.43
26:14:1024:G:C3'	26:14:1025:G:H5"	2.42	0.43
26:14:1448:G:H1'	26:14:1528:A:N6	2.34	0.43
26:14:1568:G:P	28:19:63:ARG:HH12	2.42	0.43
26:14:1947:C:H2'	26:14:1948:G:O4'	2.19	0.43
26:14:2744:G:C8	26:14:2755:C:C6	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:19:267:SER:C	28:19:269:PHE:N	2.76	0.43
30:39:129:PHE:HA	30:39:142:TRP:CD1	2.53	0.43
32:59:27:LYS:HE3	32:59:28:GLY:N	2.33	0.43
32:59:58:GLU:HB2	32:59:61:HIS:CE1	2.53	0.43
35:25:10:VAL:HG13	35:25:17:ARG:O	2.18	0.43
38:55:44:LEU:HD22	38:55:48:VAL:HG23	2.00	0.43
46:D5:124:ILE:HD11	46:D5:165:VAL:HG21	1.99	0.43
1:13:152:A:N6	1:13:170:U:C2	2.87	0.43
1:13:288:A:H2'	1:13:289:G:H4'	1.99	0.43
1:13:498:A:C6	1:13:547:A:C8	3.06	0.43
1:13:553:A:H5"	12:3I:24:VAL:HG21	2.01	0.43
1:13:1194:U:H2'	1:13:1195:C:C6	2.54	0.43
1:13:1331:G:OP2	13:4I:23:TYR:HD2	2.02	0.43
1:13:1366:C:O3'	10:1I:60:ARG:NH2	2.52	0.43
2:1E:212:GLN:OE1	2:1E:216:SER:OG	2.37	0.43
3:2E:136:GLN:HG2	3:2E:140:ARG:HH12	1.83	0.43
13:4I:66:LEU:C	13:4I:70:LEU:HB2	2.44	0.43
16:7I:53:VAL:HG21	16:7I:77:ALA:HB1	2.01	0.43
26:1H:29:U:H2'	26:1H:30:G:H8	1.80	0.43
26:1H:465:G:O5'	26:1H:465:G:H8	2.01	0.43
26:1H:569:U:C4	26:1H:570:G:C6	3.07	0.43
26:1H:638:G:H2'	26:1H:639:U:O4'	2.19	0.43
26:1H:666:G:H1'	54:Q8:4:MET:HE3	2.01	0.43
26:1H:1222:C:C2	26:1H:1223:C:C5	3.07	0.43
26:1H:2348:U:OP1	54:Q8:36:LYS:HB3	2.19	0.43
27:16:12:C:H2'	47:I8:73:GLY:HA3	2.01	0.43
27:16:87:G:N2	27:16:89(A):A:OP2	2.47	0.43
38:98:4:LEU:HA	38:98:4:LEU:HD13	1.48	0.43
40:B8:102:ILE:HA	40:B8:105:LEU:HD22	2.01	0.43
43:E8:24:ILE:H	43:E8:24:ILE:HG13	1.71	0.43
44:F8:5:TYR:CZ	49:K8:30:ARG:HB2	2.53	0.43
44:F8:31:HIS:CD2	44:F8:33:LYS:H	2.37	0.43
51:M8:40:HIS:NE2	51:M8:45:GLY:HA3	2.34	0.43
1:1G:56:U:H2'	1:1G:57:G:H8	1.83	0.43
1:1G:833:U:H2'	1:1G:834:C:H6	1.84	0.43
1:1G:923:A:H5'	5:42:21:ALA:HB2	1.99	0.43
1:1G:976:G:P	14:5A:32:SER:H	2.42	0.43
1:1G:1206:G:C6	1:1G:1207:G:C6	3.07	0.43
1:1G:1348:U:N3	1:1G:1374:A:H2	1.97	0.43
2:12:42:ILE:CG1	2:12:202:PRO:HB2	2.48	0.43
2:12:47:THR:HG23	2:12:202:PRO:HD2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:191:THR:OG1	3:22:194:GLY:O	2.33	0.43
4:32:93:PHE:CZ	4:32:97:LEU:HD11	2.53	0.43
4:32:154:ASN:ND2	4:32:155:LEU:HG	2.33	0.43
4:32:178:VAL:C	4:32:180:GLY:H	2.27	0.43
7:62:86:GLN:OE1	7:62:86:GLN:N	2.51	0.43
9:82:112:LYS:HD3	9:82:113:LYS:O	2.19	0.43
13:4A:54:VAL:HA	13:4A:57:ARG:HB3	2.01	0.43
15:6A:77:ARG:HA	15:6A:80:ALA:HB3	2.01	0.43
19:AA:80:TYR:CZ	19:AA:82:GLY:HA2	2.54	0.43
20:BA:48:LYS:O	20:BA:50:GLU:N	2.51	0.43
20:BA:79:ARG:HE	20:BA:83:ARG:NH1	2.17	0.43
23:2L:72:C:C6	23:2L:73:C:H5	2.37	0.43
26:14:74:A:H4'	26:14:75:G:O5'	2.19	0.43
26:14:270(T):G:C6	26:14:270(U):C:C4	3.06	0.43
26:14:662:G:H5'	36:35:14:LYS:HB2	2.00	0.43
26:14:813:U:C2	26:14:1195:G:N2	2.87	0.43
26:14:1392:A:N6	26:14:1393:A:N6	2.67	0.43
26:14:2030:A:H4'	26:14:2031:A:H8	1.84	0.43
26:14:2839:G:H5'	38:55:46:GLY:HA2	2.00	0.43
27:1J:40:U:H1'	27:1J:45:A:H61	1.83	0.43
29:29:37:ARG:HD3	29:29:44:TYR:CE2	2.53	0.43
29:29:200:GLU:OE1	29:29:200:GLU:N	2.52	0.43
32:59:84:SER:OG	32:59:85:LYS:N	2.51	0.43
36:35:78:PRO:HA	36:35:110:TYR:HD2	1.83	0.43
39:65:12:PHE:HD1	39:65:12:PHE:HA	1.66	0.43
39:65:66:ALA:O	39:65:69:VAL:HG13	2.19	0.43
41:85:74:LEU:HD11	41:85:110:VAL:HG13	2.01	0.43
1:13:159:G:N2	1:13:162:A:OP2	2.51	0.43
1:13:160:A:H2'	1:13:161:A:O4'	2.19	0.43
1:13:687:A:C2'	1:13:701:C:H41	2.31	0.43
3:2E:69:HIS:HA	3:2E:104:GLN:O	2.19	0.43
3:2E:195:VAL:O	3:2E:196:LEU:HD23	2.19	0.43
5:4E:35:GLY:HA3	5:4E:112:LEU:O	2.19	0.43
6:5E:33:TYR:CD2	6:5E:75:LEU:HD23	2.54	0.43
8:7E:120:THR:H	8:7E:123:GLU:HG3	1.84	0.43
14:5I:25:VAL:HG22	14:5I:39:LEU:HD23	2.00	0.43
23:2K:62:G:O2'	23:2K:63:G:P	2.77	0.43
26:1H:265:A:H1'	26:1H:266:G:O4'	2.18	0.43
26:1H:363:G:H2'	26:1H:363(A):A:C8	2.54	0.43
26:1H:761:A:H5"	57:1H:3620:HOH:O	2.18	0.43
26:1H:1265:A:C8	26:1H:1267:U:C2	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1509:C:H2'	26:1H:1511:A:H8	1.84	0.43
26:1H:1530:G:O6	26:1H:1542:G:N2	2.52	0.43
26:1H:1614:A:P	57:1H:3743:HOH:O	2.76	0.43
26:1H:1615:C:C2	43:E8:87:PRO:HG2	2.54	0.43
26:1H:2173:A:H8	26:1H:2173:A:OP1	2.02	0.43
26:1H:2689:U:H5"	26:1H:2713:A:H2	1.84	0.43
26:1H:2697:G:H2'	26:1H:2698:U:O4'	2.18	0.43
26:1H:2747:G:H5"	32:51:70:THR:CG2	2.49	0.43
26:1H:2774:C:H2'	26:1H:2775:A:O4'	2.18	0.43
26:1H:2836:U:C4	26:1H:2883:A:N6	2.86	0.43
26:1H:2838:G:C6	26:1H:2839:G:C5	3.07	0.43
27:16:37:C:H2'	27:16:38:C:O4'	2.18	0.43
28:11:43:ARG:HD2	28:11:49:ILE:HG12	2.01	0.43
30:31:127:GLU:OE2	30:31:127:GLU:HA	2.19	0.43
31:41:110:ALA:HA	31:41:140:ILE:O	2.19	0.43
34:58:94:HIS:C	34:58:95:PRO:O	2.61	0.43
34:58:112:LEU:HD12	34:58:112:LEU:HA	1.73	0.43
36:78:19:VAL:HG21	36:78:27:HIS:CG	2.53	0.43
46:H8:14:LYS:HA	46:H8:15:PRO:HD2	1.75	0.43
46:H8:92:SER:O	46:H8:130:PRO:HG2	2.18	0.43
49:K8:47:ASN:C	49:K8:49:LYS:N	2.71	0.43
54:Q8:9:GLY:H	54:Q8:12:LYS:H	1.66	0.43
1:1G:434:U:H2'	1:1G:435:C:C6	2.54	0.43
1:1G:821:G:H2'	1:1G:822:C:C6	2.53	0.43
3:22:14:ILE:HG12	3:22:15:THR:H	1.84	0.43
8:72:20:TYR:HE2	8:72:75:ARG:HG2	1.83	0.43
10:1A:94:VAL:HG12	10:1A:96:ILE:HD13	1.99	0.43
11:2A:65:ALA:HB1	11:2A:98:LEU:HD21	2.00	0.43
12:3A:24:VAL:O	12:3A:26:ALA:N	2.51	0.43
12:3A:47:LYS:CG	12:3A:48:PRO:HD2	2.47	0.43
12:3A:124:LYS:HA	12:3A:125:PRO:HD3	1.92	0.43
16:7A:45:THR:O	16:7A:48:TRP:HD1	2.01	0.43
17:8A:6:LEU:HD23	17:8A:6:LEU:HA	1.76	0.43
18:9A:22:VAL:HG12	18:9A:56:THR:HA	2.00	0.43
20:BA:73:HIS:HB3	20:BA:74:LYS:HZ2	1.83	0.43
21:1B:8:THR:HB	21:1B:11:GLY:N	2.33	0.43
23:2L:63:G:N3	23:2L:64:G:C8	2.87	0.43
25:4L:37:G:H2'	25:4L:38:U:C6	2.53	0.43
26:14:438:G:H2'	26:14:439:G:H8	1.83	0.43
26:14:869:G:C2	26:14:909:A:C2	3.07	0.43
26:14:1019:U:O2'	26:14:1021:A:H2	2.02	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1164:G:H2'	26:14:1165:U:C6	2.54	0.43
26:14:1537:C:C2	26:14:1538:G:N7	2.86	0.43
26:14:1820:U:O2	28:19:201:HIS:HB3	2.19	0.43
26:14:1853:A:N3	26:14:2233:U:O2'	2.47	0.43
26:14:2191:G:C5	26:14:2192:G:C8	3.05	0.43
27:1J:7:G:H4'	39:65:29:PHE:CD2	2.54	0.43
27:1J:40:U:OP2	27:1J:40:U:H6	2.01	0.43
29:29:11:MET:HA	29:29:24:THR:HA	2.00	0.43
32:59:19:VAL:O	32:59:25:LYS:HE3	2.18	0.43
34:15:30:ILE:HG22	34:15:34:LEU:HD22	2.01	0.43
35:25:113:LYS:O	35:25:117:LEU:HD23	2.19	0.43
39:65:110:LEU:HD23	39:65:112:PHE:CE1	2.53	0.43
41:85:66:ASN:OD1	41:85:76:TYR:N	2.46	0.43
42:95:84:LYS:HA	42:95:84:LYS:HD2	1.50	0.43
1:13:46:G:H2'	1:13:366:C:H5	1.83	0.43
1:13:474:G:C6	1:13:475:G:C6	3.07	0.43
1:13:828:A:H2'	1:13:829:G:O4'	2.18	0.43
1:13:909:A:H3'	1:13:910:C:H6	1.84	0.43
1:13:1346:A:H61	1:13:1374:A:H3'	1.84	0.43
1:13:1533:C:H2'	1:13:1534:A:O4'	2.18	0.43
2:1E:33:TYR:HB2	2:1E:43:ASP:HB2	2.00	0.43
6:5E:18:GLN:HG2	6:5E:21:LEU:HD22	2.01	0.43
12:3I:90:VAL:HG12	12:3I:91:LYS:N	2.34	0.43
22:1K:87:A:N6	26:1H:2583:G:O2'	2.52	0.43
26:1H:432:A:C6	26:1H:433:C:C4	3.07	0.43
26:1H:529:A:H8	26:1H:530:G:C6	2.36	0.43
26:1H:539:G:H2'	26:1H:540:G:H8	1.84	0.43
26:1H:586:A:P	57:1H:3735:HOH:O	2.76	0.43
26:1H:755:C:H2'	26:1H:756:C:C6	2.53	0.43
26:1H:807:U:H2'	26:1H:808:G:O4'	2.18	0.43
26:1H:1168:G:C2	26:1H:1182:A:C2	3.07	0.43
26:1H:1790:C:H2'	26:1H:1791:A:C5	2.54	0.43
26:1H:1796:U:H2'	26:1H:1797:C:C6	2.54	0.43
26:1H:2165:G:N7	26:1H:2166:G:N2	2.51	0.43
31:41:108:ASN:HD22	51:M8:21:VAL:HG11	1.83	0.43
31:41:130:ASN:HB3	31:41:160:VAL:HA	2.00	0.43
32:51:15:VAL:HG12	32:51:28:GLY:HA3	2.01	0.43
40:B8:57:PHE:O	40:B8:58:ASN:ND2	2.52	0.43
42:D8:43:GLU:HA	42:D8:44:LYS:HA	1.87	0.43
42:D8:76:LYS:O	42:D8:79:VAL:HG12	2.19	0.43
45:G8:95:LYS:O	45:G8:96:ILE:HG13	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:H8:4:ARG:CZ	46:H8:58:VAL:HG21	2.49	0.43
51:M8:15:ILE:HB	51:M8:32:TYR:CE2	2.53	0.43
54:Q8:6:THR:HG22	54:Q8:59:LYS:HD2	2.01	0.43
1:1G:66:G:C2	1:1G:67:C:C6	3.07	0.43
1:1G:409:G:C6	1:1G:410:G:C4	3.07	0.43
4:32:114:ARG:O	4:32:118:ARG:N	2.52	0.43
5:42:83:GLU:HG3	5:42:83:GLU:O	2.18	0.43
12:3A:60:LEU:HD13	12:3A:60:LEU:HA	1.85	0.43
14:5A:37:PHE:CZ	14:5A:56:VAL:HG21	2.49	0.43
20:BA:14:LYS:HE2	20:BA:18:GLN:OE1	2.19	0.43
26:14:251:A:C5	26:14:252:G:H1'	2.54	0.43
26:14:321:G:C4	26:14:341:G:H4'	2.54	0.43
26:14:328:U:H4'	45:C5:68:HIS:CD2	2.54	0.43
26:14:481:G:C4	26:14:507:A:C2	3.07	0.43
26:14:947:G:H2'	26:14:948:G:H8	1.82	0.43
26:14:999:U:H5"	26:14:1154:G:O6	2.19	0.43
26:14:2492:U:H2'	26:14:2493:U:H6	1.83	0.43
26:14:2694:G:C5	26:14:2695:C:C5	3.07	0.43
26:14:2786:U:H2'	26:14:2787:C:O4'	2.19	0.43
28:19:266:SER:O	28:19:269:PHE:HB2	2.19	0.43
29:29:58:ARG:HG2	29:29:58:ARG:NH2	2.31	0.43
31:49:81:LYS:HD2	31:49:86:MET:HE1	2.00	0.43
38:55:24:GLN:OE1	38:55:36:THR:HG21	2.19	0.43
43:A5:58:ALA:HB1	43:A5:64:MET:HB2	2.00	0.43
1:13:232:G:C5	1:13:233:C:C5	3.07	0.42
1:13:384:G:C6	1:13:385:C:N4	2.87	0.42
1:13:755:G:H8	1:13:755:G:O5'	2.02	0.42
1:13:1142:G:C5	1:13:1143:G:H1'	2.54	0.42
1:13:1277:C:O2'	1:13:1279:A:H1'	2.18	0.42
2:1E:21:ARG:HG3	2:1E:22:LYS:NZ	2.34	0.42
2:1E:162:ILE:O	2:1E:185:ILE:HG12	2.18	0.42
4:3E:148:VAL:HG21	4:3E:158:ILE:HG21	2.01	0.42
9:8E:18:PHE:HD2	9:8E:62:TYR:CD2	2.37	0.42
10:1I:32:ALA:CB	10:1I:76:ASN:HB2	2.49	0.42
20:BI:75:ASN:O	20:BI:79:ARG:HB2	2.18	0.42
26:1H:62:C:H5"	26:1H:63:U:OP2	2.20	0.42
26:1H:174:C:H2'	26:1H:175:G:O4'	2.19	0.42
26:1H:304:G:C2	26:1H:314:A:C2	3.06	0.42
26:1H:318:C:O2'	26:1H:319:C:H5'	2.18	0.42
26:1H:780:G:C2	26:1H:782:A:C2	3.07	0.42
26:1H:1155:A:H3'	57:1H:3677:HOH:O	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1429:G:H1'	26:1H:1568:G:H1'	2.00	0.42
26:1H:1766:U:H2'	26:1H:1767:C:H6	1.83	0.42
26:1H:2801:A:OP2	26:1H:2895:U:O2'	2.25	0.42
30:31:8:GLN:H	30:31:8:GLN:CD	2.26	0.42
30:31:123:LEU:HD13	30:31:192:LEU:HB3	2.00	0.42
30:31:170:LEU:HD13	30:31:170:LEU:HA	1.85	0.42
32:51:151:ILE:H	32:51:151:ILE:HG13	1.63	0.42
36:78:47:ASP:OD2	36:78:50:ARG:NH2	2.52	0.42
40:B8:26:ASP:OD2	40:B8:120:ARG:NH2	2.40	0.42
44:F8:14:SER:O	44:F8:15:GLU:C	2.61	0.42
46:H8:4:ARG:NH1	46:H8:60:GLU:OE2	2.51	0.42
49:K8:47:ASN:HB2	49:K8:50:ILE:HD11	2.00	0.42
1:1G:750:G:O3'	15:6A:18:PHE:HZ	2.02	0.42
1:1G:909:A:H2'	1:1G:910:C:O4'	2.19	0.42
1:1G:1465:C:H2'	1:1G:1466:C:O4'	2.18	0.42
3:22:119:ARG:HH22	3:22:140:ARG:HG2	1.82	0.42
3:22:136:GLN:HA	3:22:139:GLN:HB3	2.01	0.42
3:22:154:SER:O	3:22:196:LEU:HD13	2.19	0.42
4:32:120:LEU:HD23	4:32:120:LEU:HA	1.81	0.42
4:32:173:TRP:O	4:32:186:LEU:HB2	2.19	0.42
7:62:42:ILE:HG23	7:62:117:ALA:HB2	2.01	0.42
9:82:111:ARG:HE	9:82:111:ARG:HB3	1.49	0.42
13:4A:91:ARG:HB3	13:4A:98:VAL:HG12	2.01	0.42
18:9A:21:LYS:HE3	18:9A:54:ARG:O	2.18	0.42
19:AA:15:LEU:HD22	19:AA:18:LYS:HB2	2.00	0.42
23:2L:21:A:C2	23:2L:46:G:C4	3.07	0.42
24:3L:15:A:H8	24:3L:16:U:C4	2.36	0.42
24:3L:33:U:H2'	24:3L:34:U:C5	2.54	0.42
24:3L:83:U:C2'	24:3L:84:A:H5'	2.48	0.42
26:14:130:C:O3'	26:14:1349:A:H1'	2.19	0.42
26:14:598:G:H5'	36:35:11:GLY:HA3	2.01	0.42
26:14:669:G:C2'	26:14:669:G:N3	2.81	0.42
26:14:1005:C:H2'	26:14:1006:C:C6	2.54	0.42
26:14:1006:C:H1'	34:15:106:MET:HB3	2.01	0.42
26:14:2232:U:P	48:F5:40:ARG:HH22	2.42	0.42
26:14:2402:C:H5	26:14:2415:G:H22	1.66	0.42
26:14:2656:U:H3	26:14:2665:A:H2	1.65	0.42
26:14:2801:A:H5"	26:14:2895:U:H4'	2.00	0.42
26:14:2848:G:C8	40:75:97:ALA:HB2	2.54	0.42
29:29:57:LYS:HA	29:29:58:ARG:C	2.44	0.42
29:29:101:ARG:CZ	29:29:171:GLU:HB2	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:59:30:LYS:NZ	32:59:136:ILE:O	2.52	0.42
33:69:33:ARG:HB3	33:69:35:LEU:HD21	2.01	0.42
34:15:1:MET:HB2	34:15:2:LYS:H	1.55	0.42
36:35:88:LEU:HD12	36:35:88:LEU:HA	1.84	0.42
38:55:76:VAL:O	38:55:80:PHE:N	2.52	0.42
41:85:99:ALA:HB2	41:85:106:PHE:CG	2.54	0.42
44:B5:49:VAL:HA	44:B5:87:GLN:OE1	2.19	0.42
45:C5:76:CYS:SG	45:C5:97:ARG:HG3	2.59	0.42
47:E5:60:PHE:N	47:E5:60:PHE:CD1	2.87	0.42
1:13:1316:G:N2	1:13:1318:A:H3'	2.34	0.42
1:13:1387:G:H2'	1:13:1388:C:H6	1.84	0.42
1:13:1413:A:H2'	1:13:1414:U:O4'	2.18	0.42
1:13:1442:G:H1	1:13:1461:G:H21	1.67	0.42
1:13:1453:G:H2'	20:BI:39:LYS:HE2	2.01	0.42
5:4E:110:LEU:HD13	5:4E:118:ILE:HG21	2.00	0.42
12:3I:47:LYS:HA	12:3I:49:ASN:H	1.85	0.42
26:1H:78:A:H2'	26:1H:79:G:H8	1.84	0.42
26:1H:232:G:H5"	26:1H:232:G:C8	2.50	0.42
26:1H:459:U:H5"	53:P8:40:TRP:CD2	2.54	0.42
26:1H:547:A:C6	26:1H:548:A:N6	2.87	0.42
26:1H:612:G:O2'	26:1H:616:A:N1	2.45	0.42
26:1H:2093:G:C6	26:1H:2225:A:C8	3.07	0.42
26:1H:2512:C:H4'	29:21:122:PHE:CE2	2.54	0.42
27:16:109:G:C6	27:16:110:G:C5	3.07	0.42
29:21:3:GLY:HA3	29:21:81:ILE:HG21	2.00	0.42
32:51:83:TYR:HA	32:51:135:GLY:H	1.82	0.42
33:61:7:GLU:HG2	33:61:9:LEU:HD22	2.01	0.42
35:68:29:ASN:OD1	35:68:29:ASN:N	2.44	0.42
36:78:62:LEU:HB3	54:Q8:23:VAL:HG21	2.01	0.42
36:78:84:ASN:HB3	36:78:117:GLU:O	2.18	0.42
39:A8:36:TYR:N	39:A8:36:TYR:HD1	2.17	0.42
41:C8:90:VAL:HG22	42:D8:39:LEU:HG	2.01	0.42
41:C8:92:ARG:HD3	41:C8:94:ASN:HB2	2.01	0.42
45:G8:29:GLU:HB3	45:G8:38:ILE:HG23	2.00	0.42
46:H8:163:LEU:C	46:H8:165:VAL:H	2.27	0.42
51:M8:46:GLN:HG3	51:M8:48:ARG:HG2	2.01	0.42
54:Q8:57:ARG:HH11	54:Q8:57:ARG:H	1.66	0.42
1:1G:186(A):C:H2'	1:1G:186(B):C:C6	2.54	0.42
1:1G:198:G:H2'	1:1G:199:G:H8	1.84	0.42
1:1G:448:A:H2'	1:1G:449:C:O2	2.19	0.42
1:1G:750:G:H21	15:6A:23:GLY:HA3	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1176:A:O2'	1:1G:1177:G:H5'	2.19	0.42
1:1G:1423:G:H2'	1:1G:1424:C:C6	2.54	0.42
5:42:76:ILE:HG23	5:42:142:LEU:HD13	2.01	0.42
12:3A:109:GLY:HA3	12:3A:121:GLY:O	2.19	0.42
13:4A:3:ARG:HB2	51:I5:34:GLU:CG	2.48	0.42
23:2L:31:C:H2'	23:2L:32:C:C6	2.54	0.42
26:14:28:A:C2	26:14:513:A:C8	3.06	0.42
26:14:303:U:H2'	26:14:304:G:C8	2.54	0.42
26:14:380:U:H2'	26:14:381:G:C8	2.54	0.42
26:14:448:U:C4	26:14:583:G:H1'	2.54	0.42
26:14:832:G:H21	36:35:53:GLY:HA3	1.83	0.42
26:14:1540:G:H2'	26:14:1541:U:C6	2.54	0.42
26:14:1590:U:H2'	26:14:1591:G:C8	2.53	0.42
28:19:37:LEU:O	28:19:37:LEU:HD12	2.19	0.42
28:19:52:ARG:HB2	28:19:53:PHE:CD2	2.54	0.42
29:29:81:ILE:O	29:29:82:ARG:HB2	2.20	0.42
33:69:65:ALA:O	33:69:69:LYS:N	2.52	0.42
36:35:121:LYS:O	36:35:123:LEU:N	2.47	0.42
41:85:90:VAL:HA	42:95:39:LEU:HD22	2.01	0.42
45:C5:87:LYS:NZ	45:C5:89:PHE:HB3	2.33	0.42
51:I5:14:ILE:HG12	51:I5:33:VAL:HG21	2.01	0.42
52:J5:52:TYR:CD1	52:J5:53:ALA:N	2.86	0.42
1:13:11:G:C5	1:13:12:U:C5	3.06	0.42
1:13:49:U:C4	1:13:364:A:C5	3.08	0.42
1:13:1203:C:H6	1:13:1203:C:O5'	2.02	0.42
4:3E:188:LEU:HD23	4:3E:188:LEU:HA	1.81	0.42
6:5E:100:ASN:O	18:9I:28:GLU:HG2	2.19	0.42
8:7E:82:HIS:CD2	8:7E:82:HIS:C	2.96	0.42
11:2I:112:THR:HA	11:2I:113:PRO:HD3	1.90	0.42
19:AI:15:LEU:HB2	19:AI:31:ILE:HD11	2.01	0.42
22:1K:2:C:H2'	22:1K:3:C:C6	2.54	0.42
24:3K:20:U:H2'	24:3K:70:G:O6	2.20	0.42
24:3K:59:U:O2'	24:3K:60:A:P	2.77	0.42
26:1H:483:A:C8	26:1H:484:C:C5	3.08	0.42
26:1H:998:C:H2'	26:1H:999:U:O4'	2.19	0.42
26:1H:1228:G:C2'	26:1H:1229:G:H5'	2.49	0.42
26:1H:2213:U:H6	26:1H:2213:U:H2'	1.71	0.42
26:1H:2467:C:H4'	37:88:123:HIS:ND1	2.34	0.42
26:1H:2689:U:H4'	26:1H:2690:C:H5'	2.00	0.42
30:31:12:LEU:HD11	30:31:17:ARG:CZ	2.49	0.42
31:41:43:LEU:HG	31:41:45:GLU:HG3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:58:107:LEU:HA	34:58:107:LEU:HD23	1.80	0.42
41:C8:27:LEU:HD22	41:C8:27:LEU:HA	1.71	0.42
46:H8:24:LEU:HD22	46:H8:41:LEU:HD23	2.00	0.42
1:1G:92:G:H2'	1:1G:93:U:O4'	2.19	0.42
1:1G:113:G:H2'	1:1G:114:U:H6	1.84	0.42
1:1G:200:G:O2'	1:1G:201:C:H5'	2.19	0.42
1:1G:514:C:H2'	1:1G:515:G:O4'	2.20	0.42
1:1G:707:C:OP1	11:2A:85:ARG:NH1	2.52	0.42
1:1G:749:C:H2'	1:1G:750:G:H8	1.84	0.42
1:1G:1199:U:H4'	10:1A:54:PHE:CZ	2.55	0.42
1:1G:1254:C:OP1	10:1A:45:ARG:HA	2.19	0.42
1:1G:1346:A:H3'	1:1G:1346:A:OP2	2.19	0.42
2:12:6:THR:OG1	2:12:7:VAL:N	2.53	0.42
4:32:101:LEU:HD23	4:32:121:VAL:CG1	2.50	0.42
4:32:148:VAL:HG12	4:32:152:SER:HB2	2.00	0.42
4:32:173:TRP:NE1	4:32:174:LEU:HG	2.34	0.42
8:72:10:LEU:O	8:72:14:ARG:HB2	2.19	0.42
10:1A:27:ALA:HA	10:1A:85:LEU:HD11	2.01	0.42
12:3A:41:ARG:HB3	12:3A:41:ARG:NH1	2.33	0.42
13:4A:67:GLU:HG3	13:4A:68:GLY:H	1.84	0.42
19:AA:51:VAL:HG12	19:AA:52:TYR:H	1.84	0.42
24:3L:84:A:H3'	24:3L:84:A:C8	2.54	0.42
26:14:218:A:C2	26:14:235:U:H4'	2.54	0.42
26:14:455:C:N3	26:14:473:G:H5'	2.34	0.42
26:14:871:U:OP1	37:45:5:ARG:HG2	2.19	0.42
26:14:1014:U:H2'	26:14:1015:G:C8	2.54	0.42
26:14:1027:A:H5'	27:1J:88:C:H41	1.84	0.42
26:14:2131:G:OP2	26:14:2132:U:H5'	2.19	0.42
26:14:2370:G:H2'	26:14:2371:G:O4'	2.19	0.42
26:14:2527:C:N4	26:14:2528:U:C4	2.87	0.42
27:1J:9:G:OP1	39:65:25:ARG:NH2	2.51	0.42
34:15:34:LEU:HD12	34:15:34:LEU:HA	1.71	0.42
40:75:4:GLY:N	40:75:7:ILE:HG22	2.34	0.42
41:85:91:ASP:CG	41:85:96:ALA:HB2	2.44	0.42
43:A5:20:VAL:HG11	43:A5:44:ALA:H	1.84	0.42
46:D5:3:TYR:HB3	46:D5:47:VAL:HG13	2.01	0.42
46:D5:67:LEU:HA	46:D5:68:PRO:HD3	1.87	0.42
48:F5:75:GLU:HG3	48:F5:75:GLU:O	2.19	0.42
48:F5:79:GLY:C	48:F5:80:LEU:HG	2.43	0.42
52:J5:31:VAL:HG13	52:J5:42:PRO:HG3	2.01	0.42
1:13:17:U:O4'	1:13:1080:A:H1'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:313:A:H2'	1:13:314:C:H6	1.84	0.42
1:13:611:A:H61	1:13:629:G:H1	1.68	0.42
1:13:933:G:OP2	7:6E:3:ARG:HB2	2.19	0.42
1:13:967:C:O5'	1:13:967:C:H6	2.02	0.42
1:13:1120:G:N2	1:13:1153:C:O2	2.44	0.42
1:13:1292:U:H2'	1:13:1293:G:H8	1.81	0.42
2:1E:105:PHE:HE1	2:1E:152:PHE:CZ	2.37	0.42
2:1E:153:ARG:O	2:1E:156:LYS:NZ	2.47	0.42
4:3E:150:GLU:HA	4:3E:153:ARG:CG	2.50	0.42
4:3E:188:LEU:HA	4:3E:189:PRO:HD3	1.82	0.42
5:4E:118:ILE:HG12	5:4E:119:LEU:N	2.35	0.42
7:6E:101:LEU:O	7:6E:105:VAL:HG23	2.20	0.42
9:8E:9:ARG:HD2	9:8E:14:VAL:HG13	2.02	0.42
9:8E:102:LEU:HD23	9:8E:102:LEU:HA	1.83	0.42
26:1H:10:G:H21	26:1H:2801:A:HO2'	1.63	0.42
26:1H:270(L):U:O2	33:61:50:ARG:HG2	2.19	0.42
26:1H:307:G:N2	26:1H:309:G:H3'	2.34	0.42
26:1H:466:A:N3	26:1H:683:C:H1'	2.35	0.42
26:1H:654(H):G:H2'	26:1H:654(H):G:N3	2.34	0.42
26:1H:722:A:H2'	26:1H:723:G:H8	1.81	0.42
26:1H:883:G:N1	26:1H:893:C:N3	2.53	0.42
26:1H:1111:A:N3	26:1H:1112:G:H1'	2.33	0.42
26:1H:1820:U:C2	28:11:202:LYS:HD3	2.54	0.42
26:1H:2577:A:C5'	26:1H:2578:G:H5'	2.47	0.42
28:11:158:ALA:O	28:11:159:ALA:C	2.61	0.42
29:21:16:ARG:NH2	29:21:173:VAL:HG13	2.34	0.42
31:41:113:ARG:HD3	31:41:140:ILE:O	2.19	0.42
32:51:6:ARG:HG2	32:51:66:GLY:N	2.34	0.42
35:68:25:LEU:HD21	35:68:40:VAL:HG23	2.01	0.42
35:68:64:ARG:HG2	35:68:79:PHE:CD2	2.54	0.42
36:78:76:LYS:HD3	36:78:76:LYS:HA	1.79	0.42
38:98:45:ARG:HB3	38:98:46:GLY:H	1.58	0.42
41:C8:58:ARG:HA	41:C8:61:TRP:CE3	2.55	0.42
51:M8:15:ILE:HG23	51:M8:20:ASN:ND2	2.35	0.42
54:Q8:36:LYS:HG2	54:Q8:39:LYS:HZ1	1.84	0.42
54:Q8:57:ARG:CB	54:Q8:59:LYS:HE2	2.49	0.42
1:1G:551:U:O2'	1:1G:552:U:H5'	2.18	0.42
1:1G:1205:U:H2'	1:1G:1206:G:C8	2.53	0.42
1:1G:1349:A:OP2	9:82:118:LYS:NZ	2.50	0.42
1:1G:1349:A:P	9:82:118:LYS:HZ1	2.42	0.42
2:12:32:ILE:N	2:12:43:ASP:HB2	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:189:ASP:H	2:12:192:SER:HB2	1.84	0.42
8:72:121:ASP:OD2	8:72:125:ARG:NH2	2.52	0.42
9:82:105:ASP:OD1	9:82:107:ARG:HD3	2.20	0.42
10:1A:54:PHE:CD2	10:1A:55:LYS:HD2	2.54	0.42
11:2A:59:TYR:CZ	11:2A:63:LEU:HD21	2.55	0.42
19:AA:12:ASP:OD1	19:AA:12:ASP:N	2.50	0.42
26:14:4:C:H42	26:14:2899:G:N2	1.94	0.42
26:14:357:A:H2'	26:14:358:U:C6	2.55	0.42
26:14:590:A:OP1	30:39:95:ARG:NH1	2.52	0.42
26:14:993:G:N3	42:95:89:GLN:NE2	2.67	0.42
26:14:1003:G:N2	26:14:1153:C:C2	2.88	0.42
26:14:1465:G:C4	26:14:1466:G:C8	3.06	0.42
26:14:1473:G:H2'	26:14:1474:C:O4'	2.20	0.42
26:14:1629:U:O2	26:14:2698:U:H5"	2.19	0.42
26:14:1942:C:OP2	26:14:1943:U:O2'	2.31	0.42
26:14:2139:C:N3	26:14:2153:G:H1'	2.34	0.42
26:14:2336:A:H61	47:E5:43:THR:HG21	1.83	0.42
26:14:2647:U:H3	26:14:2673:G:H1	1.67	0.42
26:14:2846:G:H2'	26:14:2847:U:O4'	2.20	0.42
30:39:10:PRO:HG2	30:39:13:SER:HB3	2.00	0.42
30:39:123:LEU:HA	30:39:192:LEU:O	2.19	0.42
31:49:101:ILE:O	31:49:105:LYS:HG3	2.19	0.42
34:15:101:HIS:O	34:15:104:LYS:HB3	2.19	0.42
35:25:35:VAL:HG11	35:25:103:ALA:CB	2.42	0.42
36:35:55:ARG:HG2	36:35:56:SER:N	2.33	0.42
42:95:2:PHE:O	42:95:42:GLY:N	2.52	0.42
42:95:44:LYS:HG2	42:95:45:THR:OG1	2.19	0.42
1:13:102:G:C6	1:13:103:C:C4	3.07	0.42
1:13:350:G:O2'	1:13:351:G:H5'	2.19	0.42
1:13:353:A:H5'	1:13:353:A:C8	2.53	0.42
1:13:924:C:H2'	1:13:925:G:C8	2.54	0.42
1:13:947:G:H2'	1:13:948:C:C6	2.55	0.42
1:13:1009:G:N2	1:13:1010:G:H1'	2.34	0.42
1:13:1108:G:H2'	1:13:1108:G:N3	2.34	0.42
1:13:1170:A:H8	1:13:1170:A:O5'	2.03	0.42
1:13:1478:C:H2'	1:13:1479:C:C6	2.54	0.42
1:13:1492:A:H1'	25:4K:50:U:O2'	2.19	0.42
3:2E:16:ARG:HH11	3:2E:16:ARG:HB2	1.84	0.42
3:2E:59:ARG:NH1	3:2E:97:LYS:HE3	2.33	0.42
4:3E:79:PHE:HE1	4:3E:204:ILE:HD12	1.84	0.42
4:3E:112:VAL:HG12	4:3E:116:GLN:OE1	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:148:VAL:HG21	8:7E:107:LEU:HD13	2.02	0.42
6:5E:25:ILE:HG23	6:5E:28:ARG:HH12	1.85	0.42
6:5E:53:ALA:C	6:5E:54:LYS:HG2	2.43	0.42
9:8E:28:VAL:N	9:8E:31:GLN:O	2.26	0.42
10:1I:54:PHE:HZ	10:1I:55:LYS:HZ2	1.61	0.42
17:8I:90:ILE:HA	17:8I:93:GLN:HB3	2.01	0.42
26:1H:455:C:N3	26:1H:473:G:H5'	2.35	0.42
26:1H:562:U:O4	26:1H:2036:C:H1'	2.20	0.42
26:1H:994:C:OP1	41:C8:53:ARG:NH2	2.52	0.42
26:1H:1488:G:C5	26:1H:1489:U:C5	3.07	0.42
26:1H:1844:C:H2'	26:1H:1845:G:H8	1.85	0.42
26:1H:2024:G:H2'	26:1H:2025:C:C6	2.55	0.42
26:1H:2108:C:H2'	26:1H:2109:U:O4'	2.20	0.42
26:1H:2314:C:H5"	31:41:38:VAL:HG11	2.01	0.42
26:1H:2325:G:C4	26:1H:2326:C:C5	3.07	0.42
26:1H:2469:A:H5'	26:1H:2469:A:N3	2.34	0.42
30:31:64:ILE:HD12	30:31:64:ILE:O	2.19	0.42
30:31:120:GLU:CB	30:31:122:LYS:HG2	2.50	0.42
31:41:98:ARG:HA	31:41:101:ILE:HG23	2.02	0.42
32:51:62:LYS:HB3	32:51:62:LYS:HE2	1.79	0.42
32:51:124:GLU:O	32:51:132:ARG:N	2.53	0.42
39:A8:110:LEU:HA	39:A8:111:GLU:HA	1.90	0.42
47:I8:53:MET:HG3	47:I8:59:LEU:HD23	2.01	0.42
53:P8:18:PHE:CE1	53:P8:22:MET:HG3	2.54	0.42
1:1G:243:A:C2	1:1G:245:C:C2	3.07	0.42
1:1G:393:A:OP2	16:7A:12:LYS:NZ	2.25	0.42
1:1G:523:A:N6	12:3A:92:ASP:HB2	2.33	0.42
1:1G:570:G:C6	1:1G:873:A:C2	3.08	0.42
1:1G:746:A:H2'	1:1G:747:C:C6	2.53	0.42
1:1G:967:C:H4'	9:82:125:TYR:OH	2.19	0.42
1:1G:1256:A:H62	1:1G:1277:C:H3'	1.84	0.42
2:12:91:PRO:HG2	2:12:155:LEU:CG	2.44	0.42
5:42:71:LEU:HD21	5:42:115:VAL:HG22	2.02	0.42
6:52:67:MET:HB2	6:52:68:PRO:HD2	2.02	0.42
8:72:110:ALA:HB3	8:72:121:ASP:HB3	2.02	0.42
9:82:95:LYS:NZ	9:82:96:LEU:HB2	2.34	0.42
9:82:95:LYS:HE2	9:82:96:LEU:N	2.33	0.42
11:2A:84:VAL:HG11	11:2A:95:ILE:HD11	2.01	0.42
12:3A:38:THR:HG21	12:3A:65:GLU:OE2	2.20	0.42
12:3A:43:VAL:HG23	12:3A:55:VAL:HG11	2.02	0.42
12:3A:100:ILE:HG22	12:3A:101:VAL:H	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:9A:87:ARG:HB3	18:9A:88:LYS:H	1.50	0.42
24:3L:11:U:H2'	24:3L:12:G:N7	2.33	0.42
26:14:273(D):C:H5'	26:14:273(E):U:OP2	2.19	0.42
26:14:548:A:C6	26:14:549:G:H1'	2.54	0.42
26:14:1869:G:N2	26:14:1872:A:C8	2.88	0.42
26:14:2255:G:N2	47:E5:9:SER:H	2.09	0.42
26:14:2748:A:O2'	32:59:66:GLY:HA3	2.20	0.42
27:1J:3:C:H2'	27:1J:4:C:C6	2.54	0.42
30:39:110:LEU:O	30:39:114:VAL:HG23	2.19	0.42
32:59:26:VAL:HG12	32:59:33:LEU:N	2.30	0.42
33:69:51:ILE:O	33:69:54:GLN:HG2	2.19	0.42
33:69:145:VAL:HB	33:69:146:ALA:H	1.61	0.42
36:35:110:TYR:HB3	36:35:111:ARG:H	1.66	0.42
37:45:17:LEU:HD21	37:45:41:TRP:NE1	2.33	0.42
38:55:53:HIS:HA	38:55:56:LYS:HD3	2.01	0.42
39:65:91:PRO:HG2	39:65:92:TYR:CE1	2.54	0.42
46:D5:31:ARG:HE	46:D5:31:ARG:HB2	1.48	0.42
1:13:347:G:H8	1:13:347:G:OP2	2.03	0.42
1:13:746:A:H2'	1:13:747:C:H6	1.85	0.42
1:13:1071:C:H2'	1:13:1072:G:C8	2.54	0.42
1:13:1206:G:C6	1:13:1207:G:C5	3.08	0.42
1:13:1236:A:OP1	21:1F:3:LYS:HE3	2.20	0.42
1:13:1364:U:O2'	1:13:1365:G:H5'	2.19	0.42
1:13:1399:C:C2	1:13:1502:A:N6	2.87	0.42
3:2E:32:LEU:HD23	3:2E:32:LEU:HA	1.89	0.42
12:3I:78:GLN:HB3	12:3I:79:GLU:H	1.64	0.42
17:8I:18:THR:HG23	17:8I:69:LYS:HD2	2.00	0.42
24:3K:5:A:O2'	24:3K:6:G:H5'	2.20	0.42
26:1H:551:G:OP1	42:D8:68:LYS:NZ	2.52	0.42
26:1H:614:U:O4	30:31:175:THR:HG22	2.19	0.42
26:1H:817:C:C4	26:1H:818:G:C5	3.08	0.42
26:1H:934:G:H2'	26:1H:935:C:C6	2.53	0.42
26:1H:1385:G:H1'	26:1H:1386:C:C6	2.54	0.42
26:1H:1426:G:H2'	26:1H:1427:A:C8	2.55	0.42
26:1H:1671:U:H2'	26:1H:1672:C:H5"	2.02	0.42
26:1H:2239:G:H5'	28:11:251:GLY:HA3	2.01	0.42
28:11:11:PRO:C	28:11:13:ARG:H	2.27	0.42
30:31:101:LEU:HD23	30:31:101:LEU:HA	1.77	0.42
31:41:34:LEU:HD22	31:41:34:LEU:HA	1.86	0.42
31:41:134:GLY:C	31:41:135:LEU:HD12	2.45	0.42
33:61:68:LEU:HA	33:61:71:ILE:HG22	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:61:75:LEU:HD23	33:61:105:HIS:CD2	2.54	0.42
33:61:77:LEU:HB2	33:61:140:LEU:HB3	2.01	0.42
37:88:16:ARG:HE	37:88:16:ARG:HB3	1.41	0.42
37:88:34:LEU:HB2	37:88:118:LEU:HD22	2.01	0.42
39:A8:9:ARG:O	39:A8:12:PHE:N	2.52	0.42
43:E8:45:TYR:CD1	43:E8:45:TYR:C	2.97	0.42
44:F8:2:LYS:HG2	49:K8:26:ARG:HE	1.84	0.42
49:K8:21:LEU:HD23	49:K8:21:LEU:HA	1.90	0.42
1:1G:790:A:C6	1:1G:791:G:C6	3.08	0.42
1:1G:894:G:C6	1:1G:895:G:C6	3.08	0.42
1:1G:962:C:H1'	1:1G:1201:A:C6	2.54	0.42
1:1G:1136:U:H5"	1:1G:1137:C:C5	2.55	0.42
2:12:129:GLU:HB3	2:12:130:ARG:H	1.56	0.42
3:22:131:ARG:HG3	3:22:166:GLU:OE1	2.20	0.42
5:42:118:ILE:HG12	5:42:119:LEU:N	2.35	0.42
26:14:260:G:O4'	26:14:621:A:H1'	2.20	0.42
26:14:335:C:O5'	26:14:335:C:H6	2.02	0.42
26:14:444:C:OP2	41:85:2:PRO:HD3	2.19	0.42
26:14:638:G:H2'	26:14:639:U:O4'	2.19	0.42
26:14:848:G:N9	26:14:933:A:H8	2.17	0.42
26:14:996:A:H2'	26:14:997:G:H8	1.84	0.42
26:14:1202:C:N4	26:14:1243:G:H1	2.17	0.42
26:14:1275:A:C5	38:55:16:HIS:CD2	3.07	0.42
26:14:1963:U:O2	26:14:1963:U:H2'	2.20	0.42
26:14:2274:A:C5	26:14:2276:G:C8	3.06	0.42
26:14:2666:C:H3'	26:14:2667:C:H6	1.84	0.42
31:49:12:TYR:O	31:49:16:ARG:HB3	2.19	0.42
32:59:106:THR:HG22	32:59:112:PRO:HB2	2.02	0.42
32:59:141:VAL:O	32:59:145:ALA:N	2.45	0.42
40:75:36:GLU:CD	40:75:41:ARG:HH11	2.28	0.42
41:85:114:LYS:H	41:85:114:LYS:HG2	1.49	0.42
46:D5:98:MET:HE3	46:D5:98:MET:HB2	1.67	0.42
47:E5:21:LEU:HD23	47:E5:21:LEU:HA	1.85	0.42
50:H5:30:ARG:H	50:H5:30:ARG:HG3	1.57	0.42
51:I5:38:LYS:HA	51:I5:44:THR:HG21	2.02	0.42
1:13:10:A:H2'	1:13:11:G:H8	1.85	0.42
1:13:343:U:O2'	1:13:346:G:O6	2.31	0.42
1:13:484:G:O2'	1:13:485:G:OP2	2.33	0.42
1:13:1092:A:C6	1:13:1093:A:C6	3.08	0.42
1:13:1317:C:H2'	1:13:1318:A:O4'	2.19	0.42
2:1E:67:THR:HA	2:1E:90:MET:SD	2.60	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:70:VAL:N	3:2E:106:VAL:HG23	2.35	0.42
5:4E:143:ARG:NE	8:7E:77:GLU:OE1	2.52	0.42
9:8E:32:ASP:HB3	9:8E:35:GLU:HB3	2.01	0.42
22:1K:9:G:H2'	22:1K:9:G:N3	2.35	0.42
26:1H:953:A:OP2	37:88:16:ARG:HD3	2.20	0.42
26:1H:1141:U:H4'	26:1H:1142(A):A:O4'	2.19	0.42
26:1H:2378:A:H5"	39:A8:23:ARG:NH2	2.35	0.42
26:1H:2592:G:C6	26:1H:2593:U:N3	2.88	0.42
28:11:62:TYR:HA	28:11:87:ASN:OD1	2.20	0.42
29:21:46:ALA:HB2	29:21:82:ARG:HA	2.02	0.42
30:31:32:LEU:O	30:31:36:VAL:HG23	2.19	0.42
34:58:91:LEU:HA	34:58:91:LEU:HD23	1.71	0.42
36:78:27:HIS:ND1	36:78:27:HIS:N	2.68	0.42
39:A8:30:ARG:HG2	39:A8:30:ARG:NH1	2.34	0.42
40:B8:106:SER:HB2	40:B8:109:GLU:H	1.84	0.42
42:D8:35:LEU:C	42:D8:37:VAL:N	2.78	0.42
43:E8:71:VAL:HA	43:E8:107:LEU:HD12	2.00	0.42
54:Q8:53:PRO:HA	54:Q8:55:ALA:H	1.81	0.42
1:1G:191:G:H1'	20:BA:104:LEU:O	2.19	0.42
1:1G:568:G:N3	1:1G:574:A:H2	2.18	0.42
1:1G:743:U:H2'	1:1G:744:C:C6	2.55	0.42
1:1G:833:U:O2	1:1G:854:G:C2	2.73	0.42
1:1G:1424:C:H2'	1:1G:1425:U:O4'	2.20	0.42
2:12:108:ILE:HD13	2:12:108:ILE:HA	1.75	0.42
2:12:109:SER:O	2:12:113:HIS:ND1	2.52	0.42
4:32:70:ILE:CG2	4:32:75:PHE:HB2	2.50	0.42
6:52:61:LEU:HB3	6:52:63:TYR:CE1	2.55	0.42
12:3A:110:VAL:CG2	12:3A:120:TYR:HB3	2.50	0.42
20:BA:14:LYS:O	20:BA:18:GLN:HG3	2.20	0.42
22:1L:15:A:N1	22:1L:59:U:N3	2.68	0.42
23:2L:86:C:H3'	23:2L:87:A:C5'	2.46	0.42
26:14:4:C:O2'	26:14:5:A:OP1	2.31	0.42
26:14:28:A:C5	26:14:29:U:C5	3.07	0.42
26:14:669:G:N3	26:14:669:G:H2'	2.34	0.42
26:14:826:U:H2'	26:14:828:U:O4'	2.19	0.42
26:14:861:A:C2	26:14:917:A:C4	3.08	0.42
26:14:880:G:H1	26:14:897:C:H42	1.66	0.42
26:14:957:A:N1	26:14:2459:A:H8	2.18	0.42
26:14:1053:C:H42	26:14:1106:G:H1	1.67	0.42
26:14:1499:C:H2'	26:14:1500:G:C8	2.55	0.42
26:14:2198:A:C2	33:69:29:TYR:HB2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2468:G:N2	26:14:2481:G:O2'	2.38	0.42
26:14:2833:G:H3'	26:14:2833:G:C8	2.54	0.42
27:1J:88:C:H4'	27:1J:89:G:OP1	2.17	0.42
28:19:89:SER:HB2	28:19:159:ALA:H	1.85	0.42
28:19:267:SER:O	28:19:268:ARG:HG2	2.19	0.42
30:39:63:LYS:HA	30:39:76:GLY:O	2.19	0.42
32:59:47:GLU:O	32:59:49:VAL:HG22	2.20	0.42
32:59:55:PRO:HG2	32:59:61:HIS:CD2	2.55	0.42
32:59:89:ILE:HD12	32:59:130:ARG:HA	2.02	0.42
34:15:64:GLY:C	34:15:66:LYS:H	2.27	0.42
41:85:19:LYS:O	41:85:22:LYS:HG3	2.20	0.42
41:85:50:ARG:HG2	41:85:53:ARG:NH2	2.35	0.42
41:85:91:ASP:C	41:85:93:LYS:H	2.27	0.42
42:95:38:LEU:HD13	42:95:55:ALA:HB1	2.02	0.42
1:13:297:G:H4'	1:13:557:G:H4'	2.02	0.42
1:13:1342:C:H2'	1:13:1343:G:H8	1.81	0.42
4:3E:8:VAL:O	4:3E:11:LEU:N	2.41	0.42
10:1I:77:PRO:HB2	10:1I:79:ARG:NH1	2.34	0.42
16:7I:33:ILE:HG13	16:7I:33:ILE:H	1.68	0.42
18:9I:53:ARG:HH21	18:9I:59:SER:HA	1.84	0.42
23:2K:18:OMG:H4'	23:2K:19:G:O5'	2.19	0.42
26:1H:508:G:N3	26:1H:508:G:H5"	2.34	0.42
26:1H:734:A:O2'	26:1H:1635:G:H5'	2.19	0.42
26:1H:848:G:O6	26:1H:929:G:H2'	2.19	0.42
26:1H:950:G:H2'	26:1H:951:C:C6	2.55	0.42
26:1H:998:C:OP2	41:C8:93:LYS:NZ	2.46	0.42
26:1H:1444:G:C2	26:1H:1548:C:C2	3.08	0.42
26:1H:1653:G:C6	38:98:9:LYS:HG3	2.55	0.42
26:1H:2025:C:OP1	29:21:149:ARG:HD3	2.20	0.42
26:1H:2098:U:H2'	26:1H:2099:U:O4'	2.20	0.42
26:1H:2283:C:H2'	26:1H:2284:C:O4'	2.20	0.42
26:1H:2747:G:O6	26:1H:2755:C:H5"	2.19	0.42
26:1H:2846:G:C6	26:1H:2847:U:C4	3.08	0.42
27:16:55:U:O2'	27:16:57:A:N7	2.52	0.42
29:21:101:ARG:NH2	29:21:171:GLU:HB2	2.35	0.42
32:51:155:SER:OG	32:51:156:ALA:N	2.53	0.42
37:88:20:ALA:HB3	46:H8:79:ARG:CZ	2.49	0.42
37:88:79:LEU:HA	37:88:79:LEU:HD23	1.56	0.42
37:88:106:VAL:HG21	37:88:114:ALA:HB1	2.02	0.42
40:B8:16:ARG:HE	40:B8:19:LEU:HD21	1.85	0.42
47:I8:23:VAL:HG22	47:I8:38:VAL:HG22	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:K8:22:GLU:O	49:K8:25:VAL:HG12	2.20	0.42
49:K8:50:ILE:HD12	49:K8:51:ARG:N	2.33	0.42
51:M8:16:CYS:HB3	51:M8:18:CYS:SG	2.59	0.42
1:1G:247:G:OP2	17:8A:100:LYS:N	2.53	0.42
1:1G:446:G:H2'	1:1G:447:G:O4'	2.20	0.42
1:1G:835:U:H3	1:1G:851:G:H1	1.66	0.42
1:1G:992:U:H3	1:1G:1044:A:N6	2.12	0.42
1:1G:1157:A:N6	1:1G:1177:G:H1	2.17	0.42
1:1G:1359:C:OP1	14:5A:22:THR:OG1	2.37	0.42
2:12:119:GLU:HA	2:12:122:PHE:CD2	2.54	0.42
3:22:29:TYR:OH	14:5A:54:PRO:HD2	2.19	0.42
7:62:150:ALA:HB1	11:2A:57:THR:HG21	2.00	0.42
8:72:33:GLU:OE1	8:72:48:TYR:HE1	2.03	0.42
9:82:46:ALA:HA	9:82:78:LYS:HB2	2.00	0.42
19:AA:32:LYS:HB3	19:AA:57:HIS:ND1	2.35	0.42
20:BA:70:SER:HA	20:BA:73:HIS:NE2	2.34	0.42
22:1L:1:G:H1	22:1L:83:U:H3	1.66	0.42
23:2L:62:G:N2	23:2L:63:G:N3	2.68	0.42
26:14:69:C:H2'	26:14:70:G:C8	2.54	0.42
26:14:741:G:H2'	26:14:742:G:C8	2.55	0.42
26:14:1028:A:H2'	26:14:1029:A:C8	2.54	0.42
26:14:1337:G:H2'	26:14:1338:G:H8	1.85	0.42
26:14:1475:G:H5'	26:14:1476:C:OP2	2.20	0.42
26:14:1480:G:C6	26:14:1482:U:C4	3.07	0.42
26:14:1569:A:H2'	26:14:1570:A:C8	2.55	0.42
26:14:1628:G:H2'	26:14:1629:U:C6	2.55	0.42
26:14:1903:G:P	28:19:241:PRO:HB2	2.60	0.42
26:14:2239:G:OP2	28:19:244:ARG:NH2	2.46	0.42
32:59:101:ARG:HG3	32:59:102:ALA:N	2.35	0.42
33:69:111:PRO:O	33:69:112:LYS:C	2.62	0.42
34:15:134:ARG:N	34:15:135:PRO:HD3	2.33	0.42
35:25:25:LEU:HB2	35:25:38:VAL:O	2.19	0.42
37:45:50:ALA:O	37:45:53:ALA:HB3	2.19	0.42
38:55:27:SER:HB3	38:55:34:ILE:HD11	2.00	0.42
40:75:18:ASP:OD1	40:75:18:ASP:N	2.53	0.42
45:C5:83:THR:HG22	45:C5:84:ARG:H	1.84	0.42
46:D5:91:LEU:HD23	46:D5:91:LEU:H	1.84	0.42
1:13:12:U:O2'	1:13:526:C:H4'	2.19	0.42
1:13:22:G:O2'	1:13:913:A:N1	2.52	0.42
1:13:157:G:H2'	1:13:158:G:H8	1.83	0.42
3:2E:3:ASN:C	3:2E:4:LYS:HG2	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6E:150:ALA:HB2	11:2I:50:TYR:CE2	2.54	0.42
8:7E:68:ARG:O	8:7E:68:ARG:HG3	2.18	0.42
9:8E:83:ARG:O	9:8E:86:VAL:HG12	2.19	0.42
26:1H:306:U:H2'	26:1H:307:G:O4'	2.20	0.42
26:1H:547:A:C6	26:1H:548:A:C6	3.08	0.42
26:1H:616:A:C4	30:31:180:GLY:HA2	2.55	0.42
26:1H:664:C:H4'	26:1H:941:A:OP1	2.20	0.42
26:1H:676:A:N1	26:1H:802:A:N1	2.67	0.42
26:1H:996:A:H4'	41:C8:92:ARG:NE	2.35	0.42
26:1H:1167:U:H2'	26:1H:1168:G:H8	1.84	0.42
26:1H:1188:U:H4'	42:D8:79:VAL:HG22	2.02	0.42
26:1H:1558:A:H4'	26:1H:1559:G:H5'	2.02	0.42
26:1H:2125:G:H1	26:1H:2171:A:H5"	1.85	0.42
26:1H:2287:A:H2	26:1H:2346:A:H2	1.66	0.42
28:11:136:ILE:H	28:11:136:ILE:HG12	1.59	0.42
32:51:54:ARG:HA	32:51:55:PRO:HD3	1.84	0.42
38:98:98:LEU:HA	38:98:98:LEU:HD23	1.77	0.42
41:C8:82:GLY:HA3	41:C8:113:ALA:HB1	2.01	0.42
43:E8:28:SER:OG	43:E8:31:GLU:HG2	2.20	0.42
53:P8:10:ARG:O	53:P8:14:LYS:HB2	2.19	0.42
1:1G:270:A:H5"	1:1G:271:C:OP2	2.19	0.42
1:1G:350:G:H5"	1:1G:350:G:H8	1.84	0.42
1:1G:490:G:OP2	4:32:132:ARG:NH2	2.53	0.42
1:1G:719:C:O2'	18:9A:49:LYS:HB3	2.20	0.42
1:1G:1023:G:H2'	1:1G:1023:G:N3	2.35	0.42
1:1G:1190:G:H3'	3:22:3:ASN:OD1	2.20	0.42
1:1G:1245:A:O5'	1:1G:1245:A:H8	2.03	0.42
1:1G:1291:G:O2'	9:82:38:GLN:OE1	2.27	0.42
3:22:114:PRO:O	3:22:118:GLN:NE2	2.36	0.42
4:32:4:TYR:HE2	4:32:11:LEU:HD21	1.85	0.42
4:32:45:GLN:H	4:32:45:GLN:HG2	1.64	0.42
12:3A:59:ARG:NH2	12:3A:65:GLU:OE1	2.53	0.42
20:BA:20:LEU:HD23	20:BA:20:LEU:HA	1.84	0.42
24:3L:15:A:N6	24:3L:70:G:O2'	2.52	0.42
26:14:82:G:N1	26:14:103:A:OP2	2.48	0.42
26:14:254:G:N7	54:M5:5:LYS:HE2	2.35	0.42
26:14:654(C):G:C2	26:14:654(S):G:N1	2.88	0.42
26:14:1047:G:H2'	26:14:1110:G:H22	1.85	0.42
26:14:1784:A:H4'	26:14:1785:A:C5'	2.50	0.42
26:14:2178:C:H2'	26:14:2179:C:H6	1.83	0.42
26:14:2370:G:C6	26:14:2371:G:C6	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2615:U:C2	52:J5:7:PRO:HA	2.55	0.42
28:19:72:LYS:HD3	28:19:97:TYR:CE2	2.55	0.42
29:29:182:LEU:HA	29:29:182:LEU:HD12	1.75	0.42
31:49:152:LEU:HD22	31:49:152:LEU:HA	1.85	0.42
43:A5:95:ILE:HG12	43:A5:95:ILE:O	2.20	0.42
44:B5:9:LEU:CA	49:G5:36:ARG:HH21	2.31	0.42
50:H5:4:LEU:O	50:H5:36:VAL:HA	2.20	0.42
1:13:5:U:H4'	1:13:6:G:O5'	2.19	0.42
1:13:113:G:H2'	1:13:114:U:H6	1.85	0.42
1:13:136:C:O2'	16:7I:65:GLN:HG3	2.20	0.42
1:13:390:C:O3'	16:7I:28:ARG:NH2	2.49	0.42
1:13:577:G:C8	1:13:816:A:C6	3.08	0.42
1:13:1266:G:N2	1:13:1270:C:C2	2.88	0.42
1:13:1330:U:H3'	1:13:1331:G:O4'	2.19	0.42
1:13:1336:C:H4'	1:13:1337:G:O5'	2.20	0.42
2:1E:70:PHE:HE1	2:1E:90:MET:HB2	1.85	0.42
2:1E:74:LYS:HE3	2:1E:74:LYS:HB3	1.93	0.42
5:4E:7:GLU:N	5:4E:35:GLY:O	2.48	0.42
7:6E:49:ILE:O	7:6E:53:LYS:HG3	2.20	0.42
9:8E:93:ARG:HB2	9:8E:93:ARG:HH11	1.85	0.42
19:AI:64:GLU:O	19:AI:67:VAL:HG13	2.20	0.42
23:2K:72:C:H2'	23:2K:73:C:C6	2.55	0.42
26:1H:41:C:N4	26:1H:438:G:H1	2.13	0.42
26:1H:442:G:H4'	30:31:46:ARG:HG3	2.02	0.42
26:1H:1015:G:H1	26:1H:1147:C:H42	1.68	0.42
26:1H:1094:U:H1'	26:1H:1096:A:H5'	2.00	0.42
26:1H:1178:C:H1'	26:1H:1179:C:C6	2.55	0.42
26:1H:1424:G:H2'	26:1H:1425:G:O4'	2.20	0.42
26:1H:1538:G:H2'	26:1H:1539:G:C8	2.53	0.42
26:1H:1693:U:H1'	28:11:14:ARG:NH2	2.35	0.42
26:1H:2241:A:O2'	26:1H:2242:G:H5'	2.18	0.42
26:1H:2726:U:O2'	26:1H:2727:G:H8	2.02	0.42
26:1H:2795:G:H3'	26:1H:2797:U:H5"	2.01	0.42
32:51:68:THR:O	32:51:72:ILE:HD12	2.20	0.42
32:51:106:THR:O	32:51:106:THR:OG1	2.37	0.42
46:H8:52:SER:O	46:H8:53:ILE:HG12	2.19	0.42
1:1G:20:U:H2'	1:1G:21:G:O4'	2.20	0.42
1:1G:690:G:H22	11:2A:55:LYS:NZ	2.18	0.42
1:1G:954:G:O6	1:1G:1225:A:N6	2.53	0.42
1:1G:1239:A:C4	1:1G:1298:C:N4	2.88	0.42
1:1G:1258:G:H2'	1:1G:1259:C:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1413:A:H2'	1:1G:1414:U:O4'	2.19	0.42
3:22:32:LEU:HD22	3:22:59:ARG:NH2	2.32	0.42
4:32:19:LEU:HB3	4:32:21:LEU:HD21	2.02	0.42
6:52:61:LEU:HB3	6:52:63:TYR:HE1	1.84	0.42
7:62:71:PRO:HD3	7:62:103:TRP:CZ3	2.55	0.42
8:72:29:SER:HB3	8:72:32:LYS:HG3	2.02	0.42
11:2A:48:ILE:HG13	11:2A:63:LEU:HB3	2.02	0.42
13:4A:3:ARG:NH2	31:49:113:ARG:HE	2.18	0.42
15:6A:53:HIS:O	15:6A:56:LEU:N	2.52	0.42
16:7A:23:ASP:OD1	16:7A:25:ARG:HG3	2.19	0.42
22:1L:42:U:H2'	22:1L:43:A:O4'	2.19	0.42
22:1L:79:U:H2'	22:1L:80:C:C6	2.55	0.42
26:14:171:G:H2'	26:14:172:C:C6	2.55	0.42
26:14:603:A:H4'	26:14:604:G:O5'	2.20	0.42
26:14:780:G:H5"	26:14:781:A:P	2.60	0.42
26:14:919:G:N2	26:14:2269:A:OP2	2.53	0.42
26:14:1027:A:N6	26:14:1126:A:C4	2.88	0.42
26:14:1788:C:H2'	26:14:1789:A:O4'	2.20	0.42
26:14:2564:A:OP1	26:14:2648:C:H4'	2.19	0.42
26:14:2636:U:H4'	29:29:80:GLU:CD	2.45	0.42
26:14:2686:G:C2	26:14:2724:C:O2	2.73	0.42
28:19:148:GLU:CB	28:19:151:LYS:HD2	2.50	0.42
29:29:101:ARG:HD2	29:29:169:ASN:ND2	2.35	0.42
31:49:66:GLN:NE2	31:49:93:THR:O	2.53	0.42
32:59:116:GLU:HA	32:59:117:PRO:HD2	1.93	0.42
33:69:125:GLU:OE2	33:69:141:LYS:NZ	2.51	0.42
35:25:7:TYR:CE1	35:25:20:MET:HB2	2.55	0.42
35:25:117:LEU:HD13	35:25:117:LEU:HA	1.89	0.42
36:35:62:LEU:HA	36:35:63:PRO:HD3	1.49	0.42
41:85:59:ARG:O	41:85:63:VAL:HG22	2.20	0.42
41:85:92:ARG:NH1	42:95:11:GLN:H	2.17	0.42
42:95:21:ARG:HH21	42:95:91:TYR:C	2.28	0.42
42:95:35:LEU:HB3	42:95:37:VAL:HG13	2.01	0.42
44:B5:32:PRO:HA	44:B5:77:LYS:HB2	2.02	0.42
46:D5:164:ALA:O	46:D5:165:VAL:HG13	2.20	0.42
47:E5:49:LYS:O	47:E5:50:ASN:HB2	2.19	0.42
51:I5:58:ARG:HH11	51:I5:61:ARG:NE	2.17	0.42
1:13:56:U:H2'	1:13:57:G:H8	1.84	0.41
1:13:438:G:N1	1:13:495:A:OP2	2.37	0.41
1:13:604:G:H2'	1:13:605:U:O4'	2.20	0.41
1:13:735:C:O2'	1:13:736:C:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1084:G:C5	1:13:1085:U:C4	3.08	0.41
1:13:1375:A:OP1	7:6E:28:ASN:ND2	2.45	0.41
2:1E:97:TRP:CZ3	2:1E:172:ILE:HB	2.54	0.41
2:1E:146:GLN:O	2:1E:150:SER:HB2	2.20	0.41
4:3E:30:LYS:O	4:3E:31:CYS:C	2.63	0.41
4:3E:161:ASN:O	4:3E:165:MET:HB2	2.20	0.41
5:4E:152:ARG:H	5:4E:152:ARG:HG3	1.51	0.41
6:5E:2:ARG:HB2	6:5E:4:TYR:CE1	2.55	0.41
6:5E:44:GLY:HA2	6:5E:59:TYR:CE2	2.55	0.41
9:8E:89:ASN:C	9:8E:91:ASP:H	2.27	0.41
17:8I:93:GLN:NE2	17:8I:96:GLU:OE1	2.35	0.41
18:9I:56:THR:OG1	18:9I:58:LEU:HD13	2.19	0.41
20:BI:56:MET:CE	20:BI:85:MET:HG2	2.50	0.41
26:1H:8:A:H2'	26:1H:9:U:O4'	2.20	0.41
26:1H:71:A:OP1	26:1H:72:U:H2'	2.19	0.41
26:1H:881:G:H2'	26:1H:881:G:N3	2.35	0.41
26:1H:922:U:H1'	47:I8:26:TYR:CE2	2.55	0.41
26:1H:1166:C:H2'	26:1H:1167:U:H6	1.83	0.41
26:1H:1593:G:C2	26:1H:1594:G:C5	3.08	0.41
26:1H:1794:U:H2'	26:1H:1795:C:C6	2.54	0.41
26:1H:2287:A:C2	26:1H:2346:A:C2	3.08	0.41
26:1H:2330:G:H2'	26:1H:2331:G:O4'	2.19	0.41
26:1H:2563:U:O2'	35:68:28:SER:HB3	2.20	0.41
29:21:128:SER:OG	29:21:129:HIS:N	2.50	0.41
31:41:57:ALA:HB2	31:41:90:LEU:HG	2.02	0.41
31:41:112:PRO:CB	51:M8:37:SER:H	2.32	0.41
31:41:118:ARG:HB2	31:41:181:ARG:NH1	2.35	0.41
31:41:122:PRO:HB3	31:41:180:PHE:HD2	1.84	0.41
32:51:154:PRO:HD3	32:51:162:ILE:O	2.20	0.41
36:78:59:LEU:O	54:Q8:13:ARG:HD2	2.20	0.41
40:B8:114:LEU:HA	40:B8:114:LEU:HD23	1.62	0.41
41:C8:106:PHE:O	41:C8:109:LEU:HB2	2.20	0.41
44:F8:34:ALA:HA	44:F8:38:GLU:OE1	2.20	0.41
46:H8:45:ASP:CG	46:H8:49:ARG:HH11	2.27	0.41
49:K8:49:LYS:O	49:K8:53:LEU:HB2	2.20	0.41
53:P8:22:MET:HE3	53:P8:22:MET:HB3	1.69	0.41
1:1G:102:G:C6	1:1G:103:C:C4	3.08	0.41
1:1G:171:A:C2	1:1G:172:A:C4	3.08	0.41
1:1G:390:C:O2'	16:7A:28:ARG:NH1	2.51	0.41
1:1G:532:A:H5'	3:22:161:GLU:OE2	2.20	0.41
1:1G:626:U:C2	1:1G:627:G:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:920:U:H2'	1:1G:921:U:H6	1.82	0.41
3:22:120:VAL:HG21	3:22:137:ALA:HB2	2.00	0.41
4:32:174:LEU:HA	4:32:174:LEU:HD23	1.81	0.41
8:72:36:LEU:HA	8:72:36:LEU:HD23	1.78	0.41
9:82:38:GLN:O	9:82:38:GLN:NE2	2.53	0.41
12:3A:57:LYS:HE3	12:3A:57:LYS:HB2	1.97	0.41
17:8A:5:VAL:HG22	17:8A:60:ILE:HG12	2.02	0.41
20:BA:23:ARG:O	20:BA:27:LYS:HB2	2.19	0.41
23:2L:47:C:HO2'	23:2L:48:C:P	2.43	0.41
26:14:76:C:O2'	49:G5:62:THR:OG1	2.37	0.41
26:14:195:A:H61	26:14:198:C:H3'	1.85	0.41
26:14:208:C:H2'	26:14:209:C:C6	2.55	0.41
26:14:492:A:C2	26:14:493:G:H1'	2.54	0.41
26:14:925:C:H2'	26:14:926:A:H8	1.85	0.41
26:14:979:G:C4	26:14:982:C:N4	2.88	0.41
26:14:1054:A:N6	26:14:1104:C:H42	2.18	0.41
26:14:2290:G:H2'	26:14:2291:U:O4'	2.19	0.41
26:14:2688:U:C5	26:14:2720:U:OP2	2.73	0.41
26:14:2706:G:N2	26:14:2707:G:H1'	2.35	0.41
26:14:2778:A:H5"	26:14:2778:A:C8	2.53	0.41
26:14:2869:G:H2'	26:14:2870:C:O4'	2.20	0.41
26:14:2901:C:H2'	26:14:2902:C:H5'	2.02	0.41
31:49:60:LEU:HD22	31:49:68:PRO:HB3	2.02	0.41
31:49:114:ILE:CG2	31:49:117:PHE:HB2	2.50	0.41
32:59:151:ILE:O	32:59:152:ARG:HB2	2.19	0.41
40:75:64:ARG:CB	40:75:73:GLU:HG2	2.49	0.41
42:95:44:LYS:O	42:95:46:VAL:N	2.50	0.41
45:C5:81:LYS:HB2	45:C5:99:CYS:SG	2.60	0.41
45:C5:87:LYS:CG	45:C5:88:LYS:H	2.33	0.41
53:L5:12:ARG:NH2	53:L5:44:PRO:HB3	2.34	0.41
1:13:32:A:C2	1:13:33:A:C4	3.08	0.41
1:13:445:G:H2'	1:13:446:G:C8	2.56	0.41
1:13:861:G:O2'	1:13:874:G:O2'	2.37	0.41
1:13:878:G:H5'	8:7E:89:PRO:HG2	2.01	0.41
1:13:1103:C:H2'	1:13:1104:G:O4'	2.21	0.41
1:13:1104:G:H4'	2:1E:111:ARG:NH1	2.35	0.41
1:13:1226:C:H4'	1:13:1227:A:OP1	2.20	0.41
18:9I:58:LEU:HD23	18:9I:63:GLN:HA	2.01	0.41
26:1H:295:G:C6	26:1H:344:G:C2	3.08	0.41
26:1H:608:A:C2	26:1H:621:A:C5	3.08	0.41
26:1H:937:U:H2'	26:1H:938:G:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1126:A:H8	26:1H:1126:A:O5'	2.03	0.41
26:1H:1266:G:OP2	52:N8:19:ARG:NH1	2.51	0.41
26:1H:1592:C:H2'	26:1H:1593:G:C8	2.53	0.41
26:1H:1899:G:O2'	26:1H:1900:A:P	2.78	0.41
26:1H:2636:U:H1'	26:1H:2783:G:N2	2.35	0.41
26:1H:2713:A:H3'	26:1H:2714:G:H5"	2.00	0.41
26:1H:2749:A:H1'	32:51:63:SER:OG	2.20	0.41
32:51:4:ILE:O	32:51:4:ILE:HG12	2.18	0.41
33:61:58:LEU:HD23	33:61:59:ALA:HB2	2.01	0.41
33:61:67:ARG:O	33:61:71:ILE:HG22	2.20	0.41
37:88:74:TYR:O	37:88:90:VAL:O	2.38	0.41
39:A8:27:SER:HA	39:A8:88:ASP:CB	2.50	0.41
40:B8:100:TYR:HB3	40:B8:103:ARG:NH1	2.34	0.41
46:H8:129:SER:HA	46:H8:130:PRO:HD3	1.76	0.41
1:1G:449:C:O2	1:1G:449:C:O4'	2.39	0.41
1:1G:1227:A:H8	1:1G:1227:A:H3'	1.83	0.41
1:1G:1286:A:P	21:1B:25:LYS:HE2	2.60	0.41
1:1G:1384:C:H2'	1:1G:1385:G:H8	1.85	0.41
2:12:145:LEU:O	2:12:149:LEU:HB2	2.20	0.41
3:22:73:PRO:O	3:22:76:VAL:HG22	2.20	0.41
4:32:50:ARG:H	4:32:50:ARG:HG3	1.62	0.41
5:42:107:ARG:NH2	5:42:108:ALA:HB2	2.34	0.41
5:42:126:ARG:HG3	5:42:126:ARG:NH1	2.35	0.41
7:62:115:ARG:O	7:62:118:VAL:HG22	2.19	0.41
7:62:118:VAL:O	7:62:121:ALA:HB3	2.19	0.41
9:82:13:ALA:HB2	9:82:68:GLY:HA3	2.00	0.41
12:3A:82:VAL:O	12:3A:106:ASP:HB2	2.19	0.41
15:6A:25:THR:HG21	15:6A:70:LEU:HB2	2.02	0.41
26:14:607:U:OP1	30:39:102:PRO:HA	2.20	0.41
26:14:1088:A:N3	26:14:1088:A:H2'	2.35	0.41
26:14:1299:G:H5'	26:14:1301:A:O4'	2.20	0.41
26:14:1396:U:O2	26:14:1396:U:H2'	2.19	0.41
26:14:2146:C:O2'	26:14:2147:G:OP2	2.35	0.41
26:14:2271:G:H2'	26:14:2272:U:C6	2.56	0.41
26:14:2772:C:H5'	29:29:168:MET:SD	2.60	0.41
26:14:2887:U:H2'	26:14:2888:C:H6	1.84	0.41
30:39:34:TRP:CE3	30:39:35:GLU:HG2	2.55	0.41
30:39:63:LYS:HB2	30:39:63:LYS:HE3	1.94	0.41
32:59:33:LEU:HD11	32:59:78:GLY:HA3	2.02	0.41
34:15:127:ASP:OD1	34:15:127:ASP:N	2.52	0.41
39:65:35:ILE:HB	39:65:97:ARG:NH2	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:65:80:LEU:HD23	39:65:80:LEU:HA	1.85	0.41
41:85:30:LYS:HA	41:85:30:LYS:HD3	1.76	0.41
41:85:60:LEU:O	41:85:63:VAL:HG23	2.20	0.41
41:85:62:ILE:HD11	41:85:93:LYS:HD3	2.02	0.41
46:D5:8:TYR:HA	46:D5:62:PRO:HD3	2.02	0.41
51:I5:40:HIS:CE1	51:I5:45:GLY:HA3	2.55	0.41
1:13:243:A:H4'	1:13:244:U:H3'	2.01	0.41
1:13:276:G:O2'	17:8I:68:ARG:NH1	2.53	0.41
1:13:895:G:H2'	1:13:896:C:C6	2.56	0.41
1:13:924:C:H2'	1:13:925:G:H8	1.84	0.41
2:1E:78:GLN:O	2:1E:81:VAL:HG12	2.19	0.41
3:2E:113:ALA:HB3	3:2E:114:PRO:HD3	2.02	0.41
3:2E:150:LYS:HD2	3:2E:201:TYR:CD2	2.56	0.41
4:3E:30:LYS:HA	4:3E:35:ARG:CG	2.51	0.41
5:4E:12:LEU:HB3	5:4E:31:LEU:HB2	2.01	0.41
5:4E:31:LEU:HD22	5:4E:43:LEU:HD11	2.02	0.41
10:1I:7:LYS:C	10:1I:8:LEU:HD23	2.46	0.41
13:4I:107:ALA:O	13:4I:109:THR:N	2.54	0.41
19:AI:27:GLU:H	19:AI:27:GLU:HG3	1.74	0.41
26:1H:1144:G:H2'	26:1H:1145:C:H6	1.84	0.41
26:1H:1159:U:P	50:L8:30:ARG:HH12	2.43	0.41
26:1H:1187:G:H5"	42:D8:81:TYR:CE2	2.54	0.41
26:1H:1257:C:H4'	30:31:83:PHE:CE1	2.56	0.41
26:1H:1359:A:C2	26:1H:1372:U:N3	2.83	0.41
26:1H:1448:G:H1'	26:1H:1528:A:H62	1.85	0.41
26:1H:2270:G:OP2	57:1H:3952:HOH:O	2.22	0.41
26:1H:2314:C:H2'	26:1H:2315:G:C8	2.55	0.41
26:1H:2506:U:O2	26:1H:2506:U:H2'	2.19	0.41
26:1H:2564:A:H5"	26:1H:2565:A:OP2	2.20	0.41
31:41:111:LEU:HD22	31:41:117:PHE:CE1	2.55	0.41
51:M8:13:ARG:HH12	51:M8:22:ILE:HG23	1.85	0.41
1:1G:588:G:H1	1:1G:651:C:N4	2.14	0.41
1:1G:646:U:H2'	1:1G:647:C:C6	2.55	0.41
1:1G:802:A:H3'	1:1G:803:G:C8	2.55	0.41
1:1G:1317:C:H3'	1:1G:1318:A:C8	2.56	0.41
2:12:211:ILE:O	2:12:215:LEU:HD23	2.21	0.41
3:22:21:ARG:HA	3:22:21:ARG:HE	1.84	0.41
3:22:65:ALA:HA	3:22:100:ALA:HB3	2.02	0.41
3:22:88:ARG:O	3:22:88:ARG:HG2	2.19	0.41
3:22:109:PRO:HB2	3:22:115:LEU:CD1	2.50	0.41
4:32:79:PHE:CE2	4:32:204:ILE:HD13	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:126:ILE:HG22	4:32:127:THR:N	2.35	0.41
9:82:20:ARG:O	9:82:60:ASP:HB2	2.19	0.41
15:6A:26:GLU:OE2	15:6A:77:ARG:HB2	2.20	0.41
21:1B:2:GLY:O	21:1B:5:ASP:N	2.33	0.41
23:2L:12:G:H1	23:2L:24:C:H42	1.68	0.41
26:14:270(U):C:C2	26:14:270(V):G:C8	3.08	0.41
26:14:951:C:O2'	26:14:952:G:H5'	2.20	0.41
26:14:2001:A:H2'	26:14:2002:G:O4'	2.21	0.41
26:14:2057:A:H2'	26:14:2058:A:C8	2.55	0.41
26:14:2233:U:H2'	26:14:2234:G:C8	2.55	0.41
29:29:1:MET:HE3	29:29:200:GLU:HG3	2.01	0.41
29:29:36:ARG:HG2	29:29:47:VAL:HG22	2.03	0.41
29:29:111:ARG:HH11	29:29:111:ARG:CG	2.27	0.41
30:39:124:LEU:HD13	30:39:191:ARG:HH22	1.85	0.41
30:39:126:VAL:HG21	30:39:142:TRP:CH2	2.56	0.41
31:49:166:ASP:N	31:49:166:ASP:OD1	2.51	0.41
33:69:110:ASP:HA	33:69:111:PRO:HD3	1.69	0.41
36:35:86:LYS:HG3	36:35:87:ASP:N	2.35	0.41
36:35:126:VAL:HG13	36:35:145:PRO:HG2	2.01	0.41
37:45:110:THR:HG23	37:45:113:GLN:OE1	2.20	0.41
39:65:3:ARG:HH21	39:65:4:LEU:CB	2.25	0.41
1:13:452:A:H2'	1:13:453:A:C8	2.55	0.41
1:13:1315:U:H2'	1:13:1316:G:O4'	2.20	0.41
1:13:1316:G:H5"	14:5I:17:LYS:NZ	2.35	0.41
1:13:1320:C:C2	19:AI:72:GLY:HA3	2.55	0.41
1:13:1347:G:H22	1:13:1374:A:P	2.43	0.41
4:3E:172:PRO:HB2	4:3E:187:ARG:HH12	1.86	0.41
13:4I:12:ASN:HB3	13:4I:13:LYS:H	1.58	0.41
14:5I:58:LYS:HB2	14:5I:58:LYS:HE3	1.84	0.41
16:7I:38:TYR:CZ	16:7I:50:LYS:HB2	2.56	0.41
17:8I:100:LYS:HB2	17:8I:101:ARG:HE	1.85	0.41
19:AI:42:PRO:O	19:AI:45:VAL:HG22	2.20	0.41
26:1H:99:U:C6	26:1H:102:G:C2	3.07	0.41
26:1H:873:G:N2	26:1H:905:U:C2	2.88	0.41
26:1H:2271:G:C5'	47:I8:20:ARG:HG2	2.49	0.41
26:1H:2415:G:C6	26:1H:2416:C:C4	3.09	0.41
26:1H:2462:U:H2'	26:1H:2463:C:C6	2.55	0.41
27:16:81:G:C6	27:16:82:G:C5	3.09	0.41
31:41:105:LYS:HB2	31:41:105:LYS:HE3	1.81	0.41
32:51:12:PRO:HB2	32:51:13:LYS:HE2	2.01	0.41
36:78:111:ARG:HG2	36:78:128:HIS:CD2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:D8:89:GLN:HA	42:D8:90:PRO:HD2	1.81	0.41
46:H8:158:PRO:O	46:H8:161:VAL:HG22	2.20	0.41
47:I8:38:VAL:CG1	47:I8:40:GLN:HG2	2.46	0.41
52:N8:40:LYS:HG2	52:N8:46:CYS:SG	2.61	0.41
54:Q8:34:TRP:HE3	54:Q8:34:TRP:N	2.19	0.41
1:1G:236:G:H2'	1:1G:237:C:O4'	2.20	0.41
1:1G:450:G:N7	1:1G:481:G:C6	2.89	0.41
1:1G:667:G:O2'	15:6A:49:ASP:OD1	2.36	0.41
1:1G:748:C:H4'	1:1G:749:C:O5'	2.20	0.41
1:1G:750:G:H1'	15:6A:22:THR:OG1	2.20	0.41
1:1G:894:G:C6	1:1G:895:G:C5	3.09	0.41
2:12:67:THR:HG22	2:12:90:MET:HE1	2.02	0.41
4:32:118:ARG:O	4:32:122:ARG:HB2	2.20	0.41
5:42:79:GLU:OE1	8:72:104:ARG:HA	2.20	0.41
26:14:447:A:C6	26:14:454:A:C8	3.08	0.41
26:14:1288:U:H4'	26:14:1289:C:OP2	2.20	0.41
26:14:1494:A:C2	26:14:1495:A:C4	3.08	0.41
26:14:1717:G:C6	26:14:1743:G:C6	3.08	0.41
26:14:2544:G:O5'	26:14:2544:G:H8	2.03	0.41
27:1J:22:U:H5'	27:1J:23:G:OP2	2.20	0.41
28:19:116:GLN:HE21	28:19:116:GLN:HB2	1.64	0.41
30:39:110:LEU:HD12	30:39:205:ARG:HG2	2.02	0.41
34:15:43:THR:H	34:15:48:MET:HE1	1.84	0.41
34:15:69:GLN:O	34:15:71:ILE:HG23	2.21	0.41
41:85:44:ASN:HD21	42:95:75:PHE:H	1.67	0.41
44:B5:62:LYS:HA	44:B5:63:LYS:HZ3	1.85	0.41
1:13:123:C:OP1	1:13:312:C:H5'	2.21	0.41
1:13:453:A:C6	1:13:454:C:C4	3.09	0.41
1:13:802:A:H3'	1:13:803:G:C8	2.56	0.41
1:13:1002:G:C2	1:13:1003:G:H1'	2.56	0.41
1:13:1304:G:C6	1:13:1305:G:C6	3.09	0.41
2:1E:166:ASP:HB3	2:1E:169:LYS:HB2	2.01	0.41
8:7E:87:SER:HB2	8:7E:93:VAL:H	1.86	0.41
8:7E:107:LEU:HD23	8:7E:107:LEU:HA	1.83	0.41
9:8E:118:LYS:O	9:8E:119:ALA:HB3	2.20	0.41
26:1H:242:G:C8	54:Q8:3:LYS:HG3	2.56	0.41
26:1H:565:C:H4'	57:1H:4120:HOH:O	2.19	0.41
26:1H:686:G:OP2	26:1H:686:G:H4'	2.21	0.41
26:1H:821:A:O2'	26:1H:945:A:H3'	2.20	0.41
26:1H:1286:A:C5	26:1H:1289:C:C4	3.09	0.41
26:1H:2121:G:H2'	26:1H:2122:U:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2338:G:H2'	26:1H:2339:G:H8	1.85	0.41
26:1H:2795:G:C4	26:1H:2802:G:O6	2.74	0.41
29:21:14:ILE:HD13	29:21:14:ILE:HA	1.80	0.41
29:21:15:PHE:CD2	40:B8:81:PRO:HD3	2.56	0.41
35:68:2:ILE:HD11	35:68:82:ASN:HB3	2.02	0.41
35:68:8:LEU:HD12	35:68:82:ASN:HB2	2.01	0.41
37:88:87:LYS:HG2	37:88:88:GLY:N	2.34	0.41
38:98:21:TYR:OH	38:98:43:GLU:HG2	2.20	0.41
39:A8:25:ARG:O	39:A8:39:ILE:HA	2.21	0.41
41:C8:72:HIS:ND1	41:C8:110:VAL:HG21	2.35	0.41
46:H8:60:GLU:O	46:H8:61:LEU:HD23	2.21	0.41
46:H8:128:VAL:CG2	46:H8:161:VAL:HG12	2.50	0.41
50:L8:2:PRO:HB2	50:L8:3:ARG:H	1.59	0.41
50:L8:55:ARG:O	50:L8:55:ARG:HG3	2.20	0.41
1:1G:750:G:N3	15:6A:23:GLY:HA3	2.35	0.41
1:1G:1300:G:O2'	1:1G:1301:U:P	2.78	0.41
1:1G:1374:A:H2'	1:1G:1375:A:H5'	2.02	0.41
11:2A:79:SER:OG	11:2A:106:LYS:HD2	2.20	0.41
26:14:176:G:O2'	26:14:177:G:H5'	2.20	0.41
26:14:198:C:H4'	26:14:2243:U:O2'	2.21	0.41
26:14:1019:U:OP1	26:14:1035:U:O2'	2.25	0.41
26:14:1225:C:C3'	42:95:85:LYS:HA	2.51	0.41
26:14:1667:G:O2'	26:14:1991:U:O4	2.27	0.41
26:14:1856:G:H1	26:14:1886:C:N4	2.02	0.41
26:14:1856:G:C6	26:14:1857:G:C5	3.08	0.41
26:14:2123:G:N2	26:14:2176:A:C6	2.88	0.41
27:1J:99:A:C4	27:1J:100:G:C8	3.08	0.41
29:29:59:VAL:CB	29:29:60:ASN:HA	2.45	0.41
29:29:81:ILE:HG22	29:29:82:ARG:N	2.35	0.41
30:39:46:ARG:O	30:39:48:THR:HG23	2.20	0.41
30:39:60:SER:OG	30:39:61:GLY:N	2.53	0.41
31:49:9:ARG:HG2	31:49:13:GLU:OE2	2.20	0.41
39:65:83:LYS:HE2	39:65:83:LYS:HB3	1.77	0.41
40:75:26:ASP:OD1	40:75:120:ARG:NH2	2.54	0.41
43:A5:64:MET:HE2	43:A5:64:MET:HB3	1.98	0.41
44:B5:31:HIS:HA	44:B5:32:PRO:HD3	1.78	0.41
46:D5:17:ALA:HA	46:D5:20:ARG:HD2	2.02	0.41
46:D5:161:VAL:HB	46:D5:162:GLU:H	1.50	0.41
1:13:97:U:H2'	1:13:99:C:C6	2.55	0.41
1:13:148:G:N2	1:13:149:A:C5	2.89	0.41
1:13:344:A:O2'	1:13:346:G:N7	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:377:G:OP1	16:7I:3:LYS:HD2	2.19	0.41
1:13:537:G:H2'	1:13:538:G:C8	2.55	0.41
1:13:626:U:N3	1:13:627:G:N7	2.68	0.41
1:13:659:U:C2	1:13:660:G:C8	3.08	0.41
1:13:711:G:H2'	1:13:712:A:C8	2.56	0.41
1:13:1014:A:C2	1:13:1219:U:H1'	2.56	0.41
1:13:1226:C:O2'	13:4I:103:THR:O	2.33	0.41
1:13:1357:A:C5	1:13:1358:U:C4	3.08	0.41
3:2E:8:ILE:HG23	3:2E:16:ARG:HG2	2.03	0.41
4:3E:153:ARG:O	4:3E:181:MET:HE1	2.21	0.41
5:4E:45:PHE:CE2	5:4E:47:LYS:HD2	2.55	0.41
5:4E:106:PRO:O	5:4E:110:LEU:HG	2.21	0.41
6:5E:41:GLU:O	6:5E:43:LEU:HD12	2.20	0.41
10:1I:38:ILE:HG23	10:1I:71:LEU:HB3	2.01	0.41
11:2I:17:GLY:C	11:2I:80:VAL:HG12	2.45	0.41
12:3I:123:LYS:H	12:3I:123:LYS:HG2	1.73	0.41
14:5I:39:LEU:HD13	14:5I:47:LEU:HD12	2.02	0.41
15:6I:32:LEU:C	15:6I:34:LEU:N	2.77	0.41
15:6I:35:ARG:HA	15:6I:38:ARG:HB2	2.01	0.41
20:BI:26:ASN:HB2	20:BI:71:THR:HG23	2.03	0.41
20:BI:53:LEU:HD23	20:BI:100:ILE:HG22	2.02	0.41
26:1H:552:G:H2'	26:1H:553:U:O4'	2.21	0.41
26:1H:598:G:C1'	36:78:12:ALA:HB2	2.50	0.41
26:1H:775:G:C2	26:1H:777:A:N6	2.88	0.41
26:1H:800:A:H4'	26:1H:801:G:O5'	2.19	0.41
26:1H:1069:A:H4'	26:1H:1070:A:H5"	2.02	0.41
26:1H:1108:U:O4	26:1H:1109:C:N4	2.53	0.41
26:1H:1528:A:C2	26:1H:1542:G:C2	3.08	0.41
26:1H:2054:A:H2'	52:N8:8:LYS:HE2	2.03	0.41
26:1H:2590:A:H2'	26:1H:2591:C:C6	2.55	0.41
26:1H:2655:G:N2	26:1H:2665:A:OP2	2.47	0.41
28:11:85:ASP:OD1	28:11:86:PRO:HD2	2.20	0.41
29:21:147:PRO:HB2	29:21:149:ARG:CG	2.51	0.41
31:41:99:MET:HG3	31:41:100:TRP:N	2.35	0.41
38:98:33:ARG:HH12	52:N8:55:ARG:HB3	1.84	0.41
38:98:67:LEU:HA	38:98:67:LEU:HD13	1.75	0.41
41:C8:11:ARG:O	41:C8:15:LYS:HG3	2.21	0.41
1:1G:423:G:N2	1:1G:424:G:C4	2.88	0.41
1:1G:526:C:C5	1:1G:527:G:H1'	2.55	0.41
1:1G:1009:G:C2	1:1G:1010:G:C8	3.09	0.41
2:12:5:ILE:O	2:12:5:ILE:HG12	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:20:GLU:HG2	2:12:20:GLU:H	1.72	0.41
3:22:15:THR:HG21	3:22:181:ASN:HA	2.01	0.41
5:42:131:ILE:O	5:42:134:ALA:HB3	2.20	0.41
7:62:24:THR:O	7:62:27:ILE:HG12	2.21	0.41
12:3A:12:ARG:HE	12:3A:12:ARG:HB3	1.57	0.41
13:4A:81:LEU:HB3	13:4A:89:GLY:CA	2.50	0.41
17:8A:88:TYR:CE1	17:8A:92:ARG:HD3	2.55	0.41
20:BA:41:ILE:HD12	20:BA:87:LYS:HE3	2.02	0.41
23:2L:61:C:O5'	23:2L:61:C:H6	2.04	0.41
26:14:138:G:H1	44:B5:44:GLU:CD	2.27	0.41
26:14:327:G:C6	26:14:328:U:N3	2.89	0.41
26:14:634:C:H2'	26:14:635:C:H6	1.81	0.41
26:14:1429:G:C5	26:14:1568:G:C6	3.09	0.41
26:14:1574:C:O5'	26:14:1574:C:H6	2.03	0.41
26:14:1728:G:C6	26:14:1730:U:OP2	2.74	0.41
26:14:2137:C:OP2	26:14:2137:C:H6	2.03	0.41
26:14:2433:A:H5"	26:14:2434:A:P	2.61	0.41
30:39:122:LYS:HB3	30:39:191:ARG:HB2	2.02	0.41
31:49:6:ALA:N	51:I5:23:GLU:OE2	2.53	0.41
40:75:19:LEU:HA	40:75:20:PRO:HD3	1.84	0.41
43:A5:29:LEU:HD12	43:A5:29:LEU:O	2.20	0.41
48:F5:80:LEU:HB3	48:F5:82:LEU:HG	2.02	0.41
1:13:1004:A:H1'	1:13:1036:G:N2	2.35	0.41
1:13:1011:G:H2'	1:13:1012:U:O4'	2.20	0.41
1:13:1062:U:H2'	1:13:1063:C:C5	2.56	0.41
2:1E:98:LEU:HD12	2:1E:101:MET:HE3	2.02	0.41
3:2E:156:ARG:HB3	3:2E:156:ARG:HE	1.48	0.41
9:8E:20:ARG:HA	9:8E:21:PRO:HD3	1.91	0.41
14:5I:37:PHE:CE1	14:5I:53:LEU:HD13	2.55	0.41
24:3K:21:A:H62	24:3K:46:G:H1'	1.86	0.41
24:3K:21:A:N7	24:3K:58:U:H1'	2.35	0.41
24:3K:63:G:O6	24:3K:72:C:N4	2.54	0.41
26:1H:5:A:H2'	26:1H:6:A:C8	2.55	0.41
26:1H:25:U:C4	26:1H:26:G:C6	3.09	0.41
26:1H:32:C:O2'	26:1H:33:U:H5'	2.20	0.41
26:1H:57:C:H2'	26:1H:58:G:O4'	2.20	0.41
26:1H:246:C:N4	54:Q8:8:LYS:HG2	2.35	0.41
26:1H:1783:A:C6	26:1H:2587:A:C2	3.09	0.41
26:1H:1919:A:H5"	26:1H:1920:C:OP2	2.21	0.41
26:1H:1927:A:C6	26:1H:1928:A:C6	3.08	0.41
26:1H:1954:G:N3	26:1H:2551:C:H5"	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2071:A:H2'	26:1H:2072:G:C8	2.56	0.41
26:1H:2287:A:N3	26:1H:2289:G:C8	2.89	0.41
26:1H:2312:U:OP2	31:41:74:LYS:HD3	2.21	0.41
26:1H:2315:G:H5"	26:1H:2316:C:OP2	2.20	0.41
26:1H:2689:U:P	26:1H:2719:G:H22	2.43	0.41
27:16:12:C:O2'	47:I8:74:ARG:HG2	2.20	0.41
31:41:26:GLN:HE21	31:41:26:GLN:HB2	1.74	0.41
31:41:44:GLY:O	31:41:47:LYS:HE3	2.20	0.41
31:41:60:LEU:HD23	31:41:60:LEU:HA	1.82	0.41
31:41:61:ALA:HB2	31:41:67:LYS:HA	2.03	0.41
33:61:113:ARG:H	33:61:116:LEU:HD13	1.85	0.41
38:98:65:LEU:HA	38:98:65:LEU:HD12	1.71	0.41
40:B8:22:PHE:N	40:B8:22:PHE:CD1	2.89	0.41
40:B8:33:LYS:HG3	40:B8:82:LEU:HA	2.01	0.41
1:1G:38:G:C2	1:1G:397:A:C2	3.09	0.41
1:1G:42:G:H2'	1:1G:43:C:O4'	2.19	0.41
1:1G:134:A:H1'	1:1G:325:A:C5	2.56	0.41
1:1G:345:C:HO2'	1:1G:346:G:P	2.42	0.41
1:1G:407:G:OP1	4:32:115:ARG:NH2	2.48	0.41
1:1G:731:G:O2'	1:1G:732:C:H5'	2.21	0.41
1:1G:825:G:H1	1:1G:875:C:H42	1.68	0.41
1:1G:827:U:H3	1:1G:872:A:N6	2.11	0.41
1:1G:868:C:H2'	1:1G:869:G:O4'	2.20	0.41
1:1G:928:G:C2	1:1G:1390:U:O2	2.73	0.41
2:12:188:ALA:O	2:12:203:GLY:N	2.54	0.41
4:32:57:ARG:HH22	5:42:107:ARG:HD3	1.85	0.41
6:52:99:ALA:HB1	18:9A:62:GLU:OE2	2.20	0.41
7:62:120:ILE:O	7:62:124:LEU:HB2	2.21	0.41
13:4A:3:ARG:NH1	13:4A:7:VAL:HG12	2.35	0.41
19:AA:80:TYR:CE2	19:AA:82:GLY:HA2	2.56	0.41
20:BA:10:LEU:O	20:BA:10:LEU:HD13	2.21	0.41
20:BA:50:GLU:HA	20:BA:100:ILE:CG2	2.50	0.41
25:4L:33:G:H2'	25:4L:34:G:C8	2.55	0.41
26:14:117:G:C6	26:14:119:A:C6	3.09	0.41
26:14:125:G:H4'	26:14:126:A:OP2	2.21	0.41
26:14:537:C:H5'	26:14:539:G:OP2	2.21	0.41
26:14:654(S):G:C2	26:14:654(T):A:C6	3.08	0.41
26:14:921:G:C5	26:14:922:U:C5	3.09	0.41
26:14:957:A:H4'	37:45:74:TYR:OH	2.21	0.41
26:14:981:A:N1	26:14:2027:G:O2'	2.48	0.41
26:14:1421:G:C2	26:14:1422:G:N7	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1537:C:O2'	26:14:1538:G:O4'	2.23	0.41
26:14:1574:C:H2'	26:14:1575:C:C6	2.55	0.41
26:14:2635:C:H5'	29:29:77:ILE:O	2.20	0.41
26:14:2681:C:O2	26:14:2681:C:H2'	2.21	0.41
28:19:245:PRO:HA	28:19:246:PRO:HD3	1.83	0.41
30:39:68:LYS:HD2	30:39:68:LYS:HA	1.97	0.41
33:69:4:ILE:H	33:69:4:ILE:HG12	1.55	0.41
34:15:87:LEU:HD23	34:15:87:LEU:HA	1.85	0.41
40:75:15:VAL:HG23	40:75:79:HIS:CE1	2.55	0.41
41:85:114:LYS:HA	41:85:117:GLN:HG3	2.03	0.41
43:A5:73:ALA:O	43:A5:106:ILE:HG12	2.21	0.41
45:C5:36:ALA:O	45:C5:37:VAL:HG13	2.21	0.41
53:L5:22:MET:HE3	53:L5:22:MET:HB3	1.95	0.41
54:M5:60:LEU:HB2	54:M5:61:LEU:H	1.34	0.41
1:13:257:G:C4	1:13:258:G:C8	3.09	0.41
1:13:382:A:H2'	1:13:383:A:C8	2.55	0.41
1:13:626:U:H2'	1:13:627:G:C8	2.55	0.41
1:13:963:G:H21	10:1I:55:LYS:NZ	2.18	0.41
1:13:1121:U:C4	1:13:1122:U:C4	3.09	0.41
1:13:1235:U:H2'	1:13:1236:A:O4'	2.21	0.41
3:2E:204:LEU:HD23	3:2E:204:LEU:HA	1.85	0.41
4:3E:108:LEU:CD1	4:3E:174:LEU:HD13	2.51	0.41
10:1I:22:LYS:HZ1	10:1I:90:LEU:HB2	1.84	0.41
11:2I:73:MET:SD	11:2I:103:LEU:HD22	2.60	0.41
13:4I:24:GLY:C	13:4I:25:ILE:HG13	2.45	0.41
26:1H:265:A:H8	26:1H:266:G:H1'	1.86	0.41
26:1H:273(F):C:H3'	26:1H:274:G:C5'	2.50	0.41
26:1H:439:G:H2'	26:1H:440:G:H8	1.85	0.41
26:1H:447:A:C8	26:1H:473:G:C6	3.09	0.41
26:1H:573:G:OP2	42:D8:78:LYS:NZ	2.53	0.41
26:1H:608:A:C4	26:1H:621:A:C6	3.09	0.41
26:1H:674:G:O2'	30:31:74:ARG:HG3	2.21	0.41
26:1H:706:A:H2'	26:1H:707:G:O4'	2.20	0.41
26:1H:751:A:N7	57:1H:3741:HOH:O	2.53	0.41
26:1H:956:G:N2	26:1H:959:A:H3'	2.35	0.41
26:1H:1055:G:H1'	26:1H:1085:A:C2	2.55	0.41
26:1H:1342:A:O2'	26:1H:1344:G:OP2	2.33	0.41
26:1H:1864:U:OP1	26:1H:2411:A:H5'	2.20	0.41
26:1H:1956:U:H1'	26:1H:2552:U:OP1	2.21	0.41
26:1H:2000:G:C2'	26:1H:2001:A:H5'	2.51	0.41
26:1H:2342:C:O2	26:1H:2374:C:H4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2406:U:C2	36:78:75:ILE:HD13	2.56	0.41
26:1H:2712:U:OP1	26:1H:2714:G:H4'	2.21	0.41
28:11:182:LEU:HB3	28:11:271:ILE:CG1	2.51	0.41
31:41:61:ALA:O	51:M8:7:PRO:HG3	2.20	0.41
32:51:87:LEU:HA	32:51:163:TYR:O	2.20	0.41
33:61:104:GLN:HG2	33:61:105:HIS:ND1	2.35	0.41
36:78:38:GLN:O	36:78:41:ARG:HB2	2.21	0.41
38:98:13:HIS:CE1	38:98:16:HIS:HB2	2.55	0.41
41:C8:85:LYS:HA	41:C8:85:LYS:HZ3	1.84	0.41
1:1G:279:A:OP2	17:8A:95:TYR:OH	2.26	0.41
1:1G:575:G:H4'	1:1G:575:G:OP1	2.21	0.41
1:1G:625:G:C5	1:1G:626:U:C5	3.08	0.41
1:1G:861:G:HO2'	1:1G:874:G:HO2'	1.68	0.41
1:1G:1002:G:H2'	1:1G:1003:G:H8	1.85	0.41
1:1G:1124:G:OP2	1:1G:1124:G:H8	2.03	0.41
1:1G:1200:C:H5'	1:1G:1201:A:H5"	2.02	0.41
1:1G:1329:A:H5"	13:4A:25:ILE:O	2.21	0.41
1:1G:1385:G:C2	1:1G:1386:G:C8	3.09	0.41
2:12:23:ARG:NH2	2:12:191:ASP:HB2	2.35	0.41
2:12:97:TRP:CZ3	2:12:99:GLY:HA2	2.55	0.41
4:32:134:ASP:O	4:32:136:PRO:HD3	2.21	0.41
11:2A:66:LEU:HA	11:2A:66:LEU:HD23	1.84	0.41
13:4A:14:ARG:HG2	13:4A:44:ARG:HE	1.85	0.41
13:4A:15:VAL:O	13:4A:19:LEU:HG	2.21	0.41
22:1L:10:G:H2'	22:1L:11:U:H6	1.86	0.41
22:1L:47:C:N4	22:1L:56:G:H22	2.19	0.41
26:14:70:G:H5"	26:14:112:U:O2	2.20	0.41
26:14:152:G:H2'	26:14:153:C:O4'	2.21	0.41
26:14:638:G:C5	26:14:651:G:C2	3.09	0.41
26:14:1356:G:H2'	26:14:1357:U:O4'	2.19	0.41
26:14:1787:A:N3	26:14:1787:A:H2'	2.34	0.41
27:1J:56:G:O5'	27:1J:56:G:H8	2.04	0.41
29:29:11:MET:HG3	29:29:24:THR:N	2.36	0.41
29:29:11:MET:CE	29:29:187:ALA:H	2.34	0.41
29:29:71:GLY:C	29:29:73:GLU:H	2.29	0.41
29:29:76:ARG:CG	29:29:195:LEU:HD22	2.50	0.41
30:39:64:ILE:H	30:39:64:ILE:HG12	1.53	0.41
32:59:159:GLU:HB3	32:59:160:LYS:H	1.57	0.41
35:25:103:ALA:O	35:25:106:LEU:HB2	2.20	0.41
36:35:61:ARG:H	36:35:61:ARG:HG2	1.54	0.41
39:65:26:LEU:HB3	39:65:87:PHE:HA	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:95:21:ARG:HH22	42:95:65:GLY:C	2.27	0.41
42:95:41:GLY:HA3	42:95:46:VAL:HG11	2.03	0.41
42:95:67:GLY:O	42:95:88:ARG:HD2	2.21	0.41
44:B5:21:PHE:N	44:B5:21:PHE:HD1	2.18	0.41
44:B5:56:THR:HB	44:B5:77:LYS:HE2	2.03	0.41
45:C5:19:LYS:O	45:C5:21:LYS:N	2.54	0.41
46:D5:30:ASN:ND2	46:D5:90:VAL:HB	2.33	0.41
48:F5:86:SER:N	48:F5:87:PRO:CD	2.84	0.41
53:L5:32:LYS:HE3	53:L5:32:LYS:HB3	1.79	0.41
1:13:10:A:OP2	5:4E:126:ARG:HD3	2.20	0.41
1:13:52:G:H2'	1:13:53:A:H8	1.86	0.41
1:13:186:C:H3'	1:13:186:C:H6	1.86	0.41
1:13:276:G:C6	1:13:277:C:C4	3.08	0.41
1:13:322:C:O2'	20:BI:23:ARG:HD2	2.20	0.41
1:13:391:G:O3'	16:7I:8:ARG:NH2	2.54	0.41
1:13:423:G:N2	1:13:424:G:C8	2.89	0.41
1:13:491:G:H2'	1:13:492:G:C8	2.55	0.41
1:13:495:A:C2	1:13:496:A:C5	3.09	0.41
1:13:626:U:H2'	1:13:627:G:H8	1.85	0.41
1:13:719:C:O2'	18:9I:49:LYS:HB3	2.21	0.41
1:13:807:A:H2'	1:13:808:C:C6	2.55	0.41
1:13:892:A:C6	1:13:893:C:C4	3.09	0.41
1:13:1112:C:O5'	1:13:1112:C:H6	2.04	0.41
1:13:1171:G:H2'	1:13:1172:C:H6	1.86	0.41
1:13:1263:C:H2'	1:13:1264:C:H6	1.85	0.41
1:13:1349:A:OP1	9:8E:118:LYS:HB2	2.20	0.41
1:13:1357:A:O5'	1:13:1359:C:N4	2.54	0.41
4:3E:39:PRO:HA	4:3E:40:PRO:HD3	1.74	0.41
6:5E:86:ARG:O	6:5E:87:ARG:HG2	2.21	0.41
7:6E:18:TYR:HB3	7:6E:59:LEU:HD12	2.01	0.41
7:6E:150:ALA:HB2	11:2I:50:TYR:HE2	1.86	0.41
9:8E:18:PHE:CD2	9:8E:62:TYR:HD2	2.38	0.41
9:8E:53:VAL:HG22	9:8E:92:TYR:CE1	2.56	0.41
10:1I:6:ILE:O	10:1I:71:LEU:HD12	2.21	0.41
11:2I:78:GLN:O	11:2I:103:LEU:HA	2.21	0.41
12:3I:84:LEU:HB2	12:3I:105:TYR:CE2	2.56	0.41
13:4I:39:ILE:CD1	13:4I:56:LEU:HD23	2.46	0.41
15:6I:18:PHE:CZ	15:6I:21:ASP:HB2	2.55	0.41
16:7I:53:VAL:CG2	16:7I:77:ALA:HB1	2.50	0.41
22:1K:5:A:H2'	22:1K:6:G:O4'	2.21	0.41
22:1K:50:A:H5'	22:1K:51:A:H5"	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:43:A:N3	24:3K:43:A:H2'	2.36	0.41
26:1H:46:C:OP2	26:1H:215:G:H2'	2.20	0.41
26:1H:270(V):G:H2'	26:1H:270(W):G:O4'	2.21	0.41
26:1H:612:G:C6	26:1H:613:U:C4	3.09	0.41
26:1H:817:C:H5"	57:1H:3718:HOH:O	2.21	0.41
26:1H:1091:G:C2	26:1H:1101:U:H1'	2.56	0.41
26:1H:1249:U:P	57:1H:3732:HOH:O	2.78	0.41
26:1H:1519:G:H2'	26:1H:1520:U:O4'	2.20	0.41
26:1H:1653:G:H3'	38:98:2:ARG:HG3	2.02	0.41
26:1H:1992:G:C2	26:1H:1997:G:C5	3.09	0.41
26:1H:2131:G:C5'	26:1H:2133:G:H4'	2.50	0.41
26:1H:2306:C:H2'	26:1H:2307:G:H21	1.85	0.41
26:1H:2318:G:H22	39:A8:3:ARG:H	1.66	0.41
26:1H:2376:A:N1	39:A8:87:PHE:HB3	2.35	0.41
26:1H:2442:C:H2'	26:1H:2443:C:C6	2.56	0.41
26:1H:2591:C:H2'	26:1H:2592:G:C8	2.56	0.41
26:1H:2626:C:H2'	26:1H:2627:G:O4'	2.21	0.41
26:1H:2688:U:H5	26:1H:2720:U:OP2	2.04	0.41
26:1H:2721:A:H1'	26:1H:2873:A:O2'	2.20	0.41
29:21:116:VAL:HG21	29:21:122:PHE:CE2	2.56	0.41
30:31:129:PHE:O	30:31:130:ALA:HB3	2.21	0.41
31:41:18:GLU:CD	31:41:21:ARG:HH21	2.29	0.41
31:41:64:THR:HG22	31:41:66:GLN:N	2.25	0.41
32:51:12:PRO:HB2	32:51:13:LYS:H	1.70	0.41
32:51:87:LEU:HB2	32:51:131:VAL:HG12	2.01	0.41
33:61:9:LEU:HD21	33:61:35:LEU:CD1	2.51	0.41
36:78:96:THR:HG23	36:78:126:VAL:HG21	2.03	0.41
37:88:35:VAL:HG13	37:88:130:LYS:O	2.21	0.41
37:88:55:VAL:HG12	37:88:64:ILE:HD12	2.02	0.41
37:88:90:VAL:HG23	37:88:91:GLU:H	1.86	0.41
37:88:103:MET:HE3	37:88:125:LEU:HD13	2.03	0.41
37:88:125:LEU:HD23	37:88:125:LEU:HA	1.80	0.41
37:88:130:LYS:HZ2	46:H8:81:ARG:HG2	1.84	0.41
39:A8:67:ARG:O	39:A8:71:ARG:HG2	2.21	0.41
40:B8:19:LEU:HA	40:B8:20:PRO:HD3	1.88	0.41
40:B8:23:ARG:O	40:B8:24:PRO:C	2.64	0.41
41:C8:92:ARG:C	41:C8:94:ASN:N	2.79	0.41
42:D8:21:ARG:HG2	42:D8:91:TYR:CE2	2.56	0.41
42:D8:35:LEU:C	42:D8:37:VAL:H	2.28	0.41
42:D8:53:GLU:C	42:D8:55:ALA:H	2.29	0.41
45:G8:89:PHE:HD1	45:G8:90:LEU:C	2.29	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:G8:99:CYS:N	45:G8:100:ALA:HA	2.35	0.41
46:H8:133:ILE:O	46:H8:135:GLU:N	2.54	0.41
48:J8:48:LYS:HZ3	48:J8:48:LYS:HG3	1.79	0.41
50:L8:13:ILE:HD13	50:L8:13:ILE:HA	1.63	0.41
1:1G:449:C:H6	16:7A:42:ARG:HD2	1.86	0.41
1:1G:559:A:H4'	1:1G:560:U:H5"	2.03	0.41
1:1G:613:C:H6	1:1G:613:C:H3'	1.85	0.41
1:1G:956:U:H2'	1:1G:957:U:O4'	2.21	0.41
1:1G:1137:C:H5"	1:1G:1138:G:OP1	2.21	0.41
1:1G:1140:C:H2'	1:1G:1141:C:C6	2.56	0.41
1:1G:1189:C:H5"	1:1G:1190:G:OP2	2.21	0.41
1:1G:1504:G:H4'	1:1G:1505:G:O4'	2.21	0.41
4:32:138:TYR:CD1	4:32:138:TYR:C	2.99	0.41
7:62:70:LYS:HD3	7:62:96:GLN:HB3	2.02	0.41
8:72:1:MET:HE2	8:72:2:LEU:H	1.86	0.41
9:82:111:ARG:HD2	14:5A:61:TRP:C	2.46	0.41
11:2A:29:ILE:CG2	11:2A:44:SER:HB2	2.44	0.41
17:8A:19:VAL:HG23	17:8A:44:ALA:HB3	2.03	0.41
23:2L:73:C:H2'	23:2L:74:C:C5	2.55	0.41
23:2L:76:U:H2'	23:2L:77:C:H6	1.86	0.41
26:14:51:G:N3	26:14:119:A:C2	2.89	0.41
26:14:146:G:H2'	26:14:147:U:O4'	2.21	0.41
26:14:373:U:H2'	26:14:374:A:C8	2.56	0.41
26:14:890:A:O2'	26:14:892:G:H5'	2.21	0.41
26:14:1061:U:H5"	26:14:1062:G:OP2	2.21	0.41
26:14:1343:G:C2'	26:14:1344:G:H5'	2.51	0.41
26:14:1426:G:H5"	26:14:1559:G:N1	2.36	0.41
26:14:1665:A:C4'	35:25:67:LYS:HB2	2.51	0.41
26:14:2020:A:P	41:85:27:LEU:HD23	2.61	0.41
26:14:2111:C:N4	26:14:2118:U:H1'	2.36	0.41
26:14:2273:A:H2'	26:14:2274:A:C8	2.55	0.41
26:14:2305:A:C2	31:49:154:GLY:HA3	2.55	0.41
26:14:2360:A:H2'	26:14:2361:A:O4'	2.21	0.41
26:14:2381:C:O5'	26:14:2381:C:H6	2.03	0.41
26:14:2388:A:C2'	26:14:2389:G:H5'	2.51	0.41
26:14:2469:A:OP1	26:14:2469:A:H4'	2.20	0.41
26:14:2499:C:OP2	57:14:3528:HOH:O	2.21	0.41
26:14:2651:C:O2'	26:14:2652:C:H5'	2.20	0.41
26:14:2720:U:O2	26:14:2720:U:H2'	2.20	0.41
26:14:2784:C:H2'	26:14:2785:C:C6	2.56	0.41
28:19:222:ARG:CZ	57:19:304:HOH:O	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:39:15:SER:OG	30:39:17:ARG:N	2.52	0.41
30:39:51:THR:HG23	30:39:92:PRO:HG2	2.03	0.41
32:59:6:ARG:HB2	32:59:66:GLY:CA	2.34	0.41
32:59:91:GLY:HA3	32:59:160:LYS:HB3	2.03	0.41
33:69:44:LEU:HA	33:69:44:LEU:HD22	1.83	0.41
36:35:55:ARG:HG2	36:35:56:SER:H	1.86	0.41
36:35:86:LYS:C	36:35:88:LEU:H	2.28	0.41
42:95:51:VAL:HG12	42:95:52:VAL:N	2.36	0.41
42:95:78:LYS:O	42:95:79:VAL:HG13	2.19	0.41
43:A5:84:ARG:O	43:A5:96:ILE:HD13	2.21	0.41
44:B5:60:ARG:HA	44:B5:60:ARG:NH1	2.33	0.41
45:C5:19:LYS:C	45:C5:21:LYS:N	2.79	0.41
46:D5:44:PHE:CE1	46:D5:48:PHE:HB2	2.55	0.41
50:H5:11:SER:HA	50:H5:12:PRO:HD2	1.67	0.41
54:M5:59:LYS:HZ3	54:M5:59:LYS:HG2	1.78	0.41
1:13:52:G:H2'	1:13:53:A:O4'	2.21	0.41
1:13:585:G:C6	1:13:586:C:C4	3.09	0.41
2:1E:21:ARG:O	2:1E:23:ARG:N	2.54	0.41
2:1E:47:THR:O	2:1E:51:LEU:N	2.34	0.41
4:3E:13:ARG:HD2	4:3E:38:TYR:O	2.21	0.41
9:8E:127:LYS:HG2	9:8E:127:LYS:O	2.21	0.41
18:9I:26:LEU:HB3	18:9I:42:ARG:NH2	2.36	0.41
26:1H:176:G:C2'	26:1H:177:G:H5'	2.51	0.41
26:1H:249:C:O2	54:Q8:12:LYS:HE3	2.21	0.41
26:1H:494:G:OP1	43:E8:8:ARG:HD3	2.21	0.41
26:1H:934:G:C4	26:1H:935:C:C5	3.09	0.41
26:1H:946:G:OP1	57:1H:3866:HOH:O	2.21	0.41
26:1H:2053:G:H5'	29:21:144:ARG:O	2.21	0.41
26:1H:2854:G:C6	26:1H:2864:G:N1	2.89	0.41
31:41:117:PHE:HE1	31:41:120:LEU:HD23	1.85	0.41
34:58:13:TRP:O	34:58:134:ARG:HA	2.20	0.41
36:78:85:LEU:HD13	36:78:120:ALA:HB2	2.03	0.41
37:88:85:LYS:HG3	47:I8:7:LEU:HB3	2.02	0.41
40:B8:54:ARG:HA	40:B8:59:THR:CB	2.51	0.41
42:D8:46:VAL:HG12	42:D8:47:VAL:H	1.86	0.41
43:E8:74:ALA:HA	43:E8:104:THR:O	2.21	0.41
46:H8:117:LEU:CD1	46:H8:117:LEU:H	2.34	0.41
1:1G:468:A:H4'	16:7A:80:PHE:O	2.21	0.41
1:1G:605:U:H3	1:1G:633:G:H1	1.68	0.41
1:1G:1055:A:N6	1:1G:1206:G:C5	2.89	0.41
1:1G:1326:C:H2'	1:1G:1327:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:91:SER:OG	4:32:191:ARG:HG3	2.20	0.41
5:42:143:ARG:HD3	5:42:143:ARG:HA	1.93	0.41
6:52:72:VAL:O	6:52:75:LEU:HB3	2.21	0.41
8:72:100:ILE:HD11	8:72:112:LEU:HD11	2.02	0.41
11:2A:12:ARG:HG2	11:2A:13:GLN:N	2.36	0.41
13:4A:50:GLU:O	13:4A:54:VAL:HG23	2.21	0.41
16:7A:40:ASP:HA	16:7A:41:PRO:HD2	1.81	0.41
18:9A:76:LEU:HA	18:9A:76:LEU:HD23	1.68	0.41
22:1L:31:C:H2'	22:1L:32:C:C6	2.55	0.41
22:1L:49:C:C5	22:1L:50:A:H1'	2.56	0.41
26:14:275:G:H5"	26:14:363:G:O6	2.21	0.41
26:14:693:C:H2'	26:14:694:U:H6	1.86	0.41
26:14:1249:U:H2'	36:35:18:ARG:HH12	1.86	0.41
26:14:1399:C:O2'	26:14:1400:G:H5'	2.20	0.41
28:19:111:LEU:HD23	28:19:111:LEU:HA	1.84	0.41
28:19:244:ARG:HB2	28:19:245:PRO:HD2	2.02	0.41
36:35:47:ASP:HB3	36:35:48:PRO:CA	2.51	0.41
38:55:18:LEU:HD11	38:55:22:ARG:CZ	2.51	0.41
43:A5:29:LEU:HD21	43:A5:33:ARG:NH2	2.36	0.41
44:B5:12:VAL:HG22	44:B5:17:ALA:HB2	2.03	0.41
47:E5:21:LEU:HD21	47:E5:41:ARG:NH1	2.34	0.41
52:J5:42:PRO:O	52:J5:44:THR:HG23	2.21	0.41
1:13:11:G:C6	1:13:12:U:C4	3.09	0.40
1:13:118:U:C5	1:13:288:A:C6	3.09	0.40
1:13:678:U:H2'	1:13:679:C:C6	2.57	0.40
3:2E:52:LEU:O	3:2E:52:LEU:HD23	2.21	0.40
7:6E:22:LEU:HG	7:6E:62:PHE:HE2	1.87	0.40
15:6I:43:LEU:HD23	15:6I:43:LEU:HA	1.87	0.40
19:AI:40:ILE:O	19:AI:41:VAL:HG22	2.21	0.40
23:2K:24:C:H2'	23:2K:25:A:O4'	2.22	0.40
23:2K:87:A:H4'	26:1H:2602:A:C5	2.56	0.40
25:4K:34:G:H2'	25:4K:35:A:H8	1.85	0.40
26:1H:141:A:C8	26:1H:1408:C:H1'	2.56	0.40
26:1H:994:C:O2'	26:1H:996:A:OP1	2.34	0.40
26:1H:1247:A:OP1	30:31:95:ARG:NH2	2.54	0.40
26:1H:1854:A:H2'	26:1H:1855:G:O4'	2.22	0.40
26:1H:1957:C:H2'	26:1H:1958:C:C6	2.57	0.40
26:1H:2052:G:O4'	29:21:142:GLY:HA3	2.21	0.40
26:1H:2422:A:N7	54:Q8:30:ARG:NH2	2.55	0.40
26:1H:2471:C:H2'	26:1H:2472:G:O4'	2.21	0.40
26:1H:2747:G:H5"	32:51:70:THR:HG21	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2757:A:N1	32:51:67:LEU:HD22	2.36	0.40
33:61:129:THR:HG22	33:61:137:PRO:HB3	2.02	0.40
34:58:46:VAL:O	34:58:47:ALA:HB3	2.21	0.40
39:A8:36:TYR:HB3	39:A8:52:SER:HB3	2.04	0.40
40:B8:26:ASP:CB	40:B8:92:GLY:H	2.32	0.40
43:E8:79:GLY:CA	43:E8:100:THR:HG22	2.39	0.40
45:G8:94:LYS:HZ3	45:G8:94:LYS:CA	2.28	0.40
46:H8:11:GLU:HA	46:H8:36:LYS:HE3	2.03	0.40
46:H8:23:LYS:HD3	46:H8:40:ASP:HA	2.02	0.40
46:H8:77:ASP:OD1	46:H8:80:ARG:HD2	2.21	0.40
46:H8:152:ALA:HB3	46:H8:167:PRO:HA	2.03	0.40
47:I8:44:ARG:HH11	47:I8:44:ARG:HD2	1.77	0.40
49:K8:2:LYS:O	49:K8:5:GLU:HB2	2.21	0.40
49:K8:33:MET:HE3	49:K8:37:PHE:CE1	2.56	0.40
54:Q8:27:THR:HG22	54:Q8:42:ARG:HE	1.86	0.40
1:1G:109:A:C6	1:1G:326:G:C6	3.09	0.40
1:1G:838:G:N2	1:1G:849:C:C4	2.89	0.40
1:1G:954:G:H2'	1:1G:955:U:C6	2.56	0.40
1:1G:1206:G:H4'	3:22:192:THR:O	2.21	0.40
1:1G:1273:G:OP2	1:1G:1273:G:H8	2.04	0.40
1:1G:1523:G:C6	1:1G:1524:C:C4	3.09	0.40
3:22:6:HIS:CD2	14:5A:49:HIS:HB3	2.56	0.40
4:32:92:VAL:O	4:32:96:LEU:HD12	2.20	0.40
6:52:23:LYS:HG2	6:52:61:LEU:HD21	2.03	0.40
9:82:21:PRO:HA	9:82:59:PHE:HA	2.02	0.40
13:4A:25:ILE:HD13	13:4A:25:ILE:HA	1.84	0.40
19:AA:71:LEU:HD23	19:AA:71:LEU:HA	1.68	0.40
26:14:960:A:C8	26:14:962:G:C8	3.09	0.40
26:14:1011:G:OP2	41:85:70:ARG:NH2	2.53	0.40
26:14:1139:G:H8	26:14:1139:G:O5'	2.03	0.40
26:14:1171:G:N3	26:14:1173:G:H1'	2.35	0.40
26:14:1418:G:H8	26:14:1418:G:O5'	2.03	0.40
26:14:1449(A):G:H2'	26:14:1450:C:C6	2.54	0.40
26:14:2124:G:H1	26:14:2173:A:H61	1.69	0.40
26:14:2184:G:H2'	26:14:2185:C:C6	2.56	0.40
26:14:2258:C:O2'	26:14:2427:C:OP2	2.35	0.40
26:14:2311:A:H8	31:49:88:ILE:HG12	1.85	0.40
26:14:2676:C:H2'	26:14:2677:G:C8	2.55	0.40
27:1J:78:A:H2'	27:1J:79:C:O4'	2.21	0.40
28:19:206:LEU:HD22	28:19:211:ARG:HG2	2.02	0.40
29:29:34:VAL:HG21	29:29:78:LEU:HD22	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:29:195:LEU:HD12	29:29:195:LEU:HA	1.81	0.40
29:29:201:THR:HG22	29:29:202:LYS:N	2.37	0.40
29:29:203:LYS:HG2	29:29:205:ALA:HB3	2.02	0.40
32:59:46:GLU:CD	32:59:51:ARG:HH12	2.29	0.40
34:15:43:THR:N	34:15:48:MET:HE1	2.35	0.40
37:45:79:LEU:H	37:45:79:LEU:HD13	1.86	0.40
37:45:111:GLU:OE1	37:45:115:MET:HE3	2.21	0.40
38:55:79:LEU:HA	38:55:83:ILE:HB	2.04	0.40
39:65:65:VAL:O	39:65:69:VAL:HG12	2.21	0.40
41:85:25:TRP:CD1	41:85:26:GLY:N	2.89	0.40
47:E5:7:LEU:O	47:E5:8:ALA:HB2	2.22	0.40
49:G5:4:SER:N	49:G5:6:VAL:HG22	2.36	0.40
1:13:153:C:N4	1:13:168:G:H22	2.18	0.40
1:13:316:G:H2'	1:13:316:G:N3	2.36	0.40
1:13:448:A:P	1:13:485:G:H22	2.45	0.40
1:13:677:U:H3	1:13:713:G:H22	1.69	0.40
1:13:953:G:C6	1:13:954:G:C4	3.09	0.40
1:13:960:U:O2	1:13:960:U:H2'	2.21	0.40
1:13:984:C:H2'	1:13:985:C:C6	2.56	0.40
1:13:1010:G:N2	1:13:1019:C:N3	2.63	0.40
3:2E:64:VAL:HG12	3:2E:66:VAL:HG23	2.02	0.40
4:3E:8:VAL:HG13	4:3E:21:LEU:HB2	2.03	0.40
5:4E:13:ILE:HA	5:4E:29:GLY:O	2.22	0.40
5:4E:69:VAL:HA	5:4E:70:PRO:HD3	1.78	0.40
7:6E:104:LEU:HD13	7:6E:104:LEU:HA	1.71	0.40
8:7E:82:HIS:NE2	8:7E:136:GLU:OE2	2.54	0.40
8:7E:100:ILE:HA	8:7E:101:PRO:HD3	1.72	0.40
13:4I:49:THR:HG22	13:4I:51:ALA:H	1.86	0.40
13:4I:88:ARG:HH11	13:4I:88:ARG:HB3	1.85	0.40
26:1H:234:C:H2'	26:1H:235:U:C6	2.56	0.40
26:1H:270(R):G:H2'	26:1H:270(S):G:C8	2.57	0.40
26:1H:464:U:H2'	26:1H:465:G:O4'	2.21	0.40
26:1H:643:A:N1	26:1H:2369:A:O2'	2.48	0.40
26:1H:675:A:C6	26:1H:676:A:C6	3.10	0.40
26:1H:704:G:O2'	26:1H:726:G:N2	2.42	0.40
26:1H:774:A:C2	26:1H:787:U:O2'	2.73	0.40
26:1H:1299:G:H3'	26:1H:1639:U:O4	2.21	0.40
26:1H:1342:A:N1	26:1H:1345:C:C2	2.89	0.40
26:1H:1375:C:H2'	26:1H:1376:C:H6	1.85	0.40
26:1H:1413:G:N2	26:1H:1589:C:O2	2.54	0.40
26:1H:1516:U:C2	26:1H:1517:G:C8	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1683:C:H2'	26:1H:1684:C:C6	2.56	0.40
26:1H:2123:G:H2'	26:1H:2124:G:H8	1.86	0.40
26:1H:2294:C:C4	26:1H:2295:C:C5	3.09	0.40
26:1H:2620:C:H2'	26:1H:2621:A:O4'	2.21	0.40
29:21:15:PHE:HA	29:21:19:ARG:O	2.21	0.40
29:21:88:GLY:O	29:21:89:ASP:HB2	2.21	0.40
29:21:188:VAL:HA	29:21:189:PRO:HD3	1.90	0.40
30:31:23:ASP:CG	30:31:24:LEU:N	2.79	0.40
31:41:18:GLU:OE1	31:41:22:ARG:HD2	2.21	0.40
31:41:19:LEU:HD23	31:41:19:LEU:HA	1.80	0.40
32:51:149:ARG:NH1	32:51:154:PRO:HG3	2.36	0.40
32:51:153:LYS:H	32:51:153:LYS:CD	2.33	0.40
34:58:15:LEU:HD13	34:58:16:ILE:N	2.36	0.40
34:58:42:TRP:O	41:C8:64:ARG:HD2	2.21	0.40
36:78:47:ASP:HA	36:78:48:PRO:HD3	1.73	0.40
36:78:81:GLN:HG2	36:78:106:LEU:HD22	2.04	0.40
40:B8:42:ILE:HG21	40:B8:84:GLN:NE2	2.36	0.40
41:C8:20:LEU:HD23	41:C8:20:LEU:HA	1.83	0.40
1:1G:187:C:H2'	1:1G:188:U:O4'	2.20	0.40
1:1G:370:C:H2'	1:1G:371:G:C8	2.56	0.40
1:1G:711:G:O2'	1:1G:712:A:H5'	2.21	0.40
1:1G:777:A:H2	11:2A:119:CYS:HB3	1.86	0.40
1:1G:973:G:C1'	10:1A:55:LYS:HG3	2.51	0.40
1:1G:1240:U:H2'	7:62:32:ARG:NH2	2.35	0.40
1:1G:1323:G:H4'	1:1G:1362(A):C:C2	2.56	0.40
1:1G:1392:G:H21	1:1G:1502:A:H8	1.67	0.40
2:12:180:LEU:HA	2:12:180:LEU:HD23	1.72	0.40
2:12:188:ALA:N	2:12:201:ILE:O	2.50	0.40
3:22:61:ALA:O	3:22:63:ASN:N	2.52	0.40
3:22:69:HIS:ND1	3:22:69:HIS:N	2.70	0.40
3:22:90:GLU:HA	3:22:93:LYS:HB3	2.03	0.40
3:22:91:LEU:HB2	3:22:99:VAL:HG21	2.03	0.40
4:32:8:VAL:C	4:32:10:ARG:N	2.79	0.40
8:72:84:ARG:O	8:72:135:CYS:HB2	2.22	0.40
15:6A:4:THR:C	15:6A:6:GLU:H	2.29	0.40
15:6A:84:LYS:HE2	15:6A:84:LYS:HB2	1.94	0.40
16:7A:37:GLY:HA3	16:7A:50:LYS:O	2.21	0.40
16:7A:74:LEU:O	16:7A:79:VAL:HG23	2.21	0.40
26:14:275:G:H2'	26:14:276:A:C8	2.56	0.40
26:14:288:C:H2'	26:14:289:A:C8	2.56	0.40
26:14:433:C:C4	26:14:434:U:O4	2.74	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:993:G:O4'	42:95:87:HIS:CD2	2.74	0.40
26:14:1049:C:N3	26:14:2751:G:N1	2.58	0.40
26:14:1057:A:H2'	26:14:1058:U:O4'	2.22	0.40
26:14:2394:C:P	54:M5:30:ARG:NH1	2.94	0.40
26:14:2720:U:N3	26:14:2873:A:H2	2.19	0.40
27:1J:31:C:H4'	31:49:29:TRP:HH2	1.86	0.40
29:29:23:VAL:HA	29:29:184:VAL:O	2.21	0.40
32:59:35:VAL:HG21	32:59:75:ALA:HB2	2.03	0.40
33:69:64:GLU:HG2	33:69:67:ARG:HD2	2.02	0.40
33:69:77:LEU:CD1	33:69:78:THR:H	2.31	0.40
36:35:14:LYS:HB3	36:35:14:LYS:HE2	1.96	0.40
40:75:45:PHE:CE2	40:75:74:ARG:HB2	2.57	0.40
43:A5:27:LYS:O	43:A5:71:VAL:HG23	2.21	0.40
46:D5:157:LEU:HA	46:D5:157:LEU:HD12	1.76	0.40
49:G5:28:LYS:HD3	49:G5:28:LYS:HA	1.91	0.40
54:M5:41:ILE:O	54:M5:44:LYS:N	2.51	0.40
1:13:160:A:H1'	1:13:344:A:C5	2.56	0.40
1:13:422:C:H4'	1:13:423:G:O5'	2.21	0.40
1:13:632:A:H8	1:13:633:G:N9	2.19	0.40
1:13:964:A:N3	1:13:969:A:O2'	2.44	0.40
2:1E:25:ASN:O	2:1E:28:PHE:HB2	2.21	0.40
4:3E:46:LYS:HZ3	4:3E:46:LYS:HG2	1.81	0.40
5:4E:24:ARG:HE	5:4E:24:ARG:HB3	1.58	0.40
8:7E:80:ILE:H	8:7E:80:ILE:HG12	1.58	0.40
9:8E:53:VAL:HG21	9:8E:85:LEU:HD13	2.03	0.40
10:1I:80:LYS:O	10:1I:80:LYS:HD3	2.21	0.40
14:5I:17:LYS:HG3	14:5I:18:VAL:N	2.36	0.40
20:BI:62:LEU:HA	20:BI:65:LYS:HB3	2.03	0.40
22:1K:53:A:C8	22:1K:54:G:H1'	2.56	0.40
26:1H:725:G:O5'	26:1H:725:G:H8	2.04	0.40
26:1H:1110:G:O2'	26:1H:1111:A:C8	2.75	0.40
26:1H:1153:C:C4	26:1H:1154:G:C5	3.08	0.40
26:1H:1432:C:H2'	26:1H:1433:U:O4'	2.22	0.40
26:1H:1649:G:C6	26:1H:2009:G:C6	3.09	0.40
26:1H:2027:G:C5	26:1H:2028:U:C5	3.09	0.40
26:1H:2261:C:O2'	26:1H:2262:U:H5'	2.20	0.40
26:1H:2364:C:H2'	26:1H:2365:G:O4'	2.21	0.40
26:1H:2850:A:H3'	26:1H:2851:A:H8	1.86	0.40
28:11:142:VAL:HA	28:11:194:GLY:H	1.87	0.40
28:11:232:PRO:HB3	28:11:244:ARG:NH1	2.36	0.40
30:31:34:TRP:NE1	36:78:8:PRO:HD3	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:78:49:ARG:HG3	54:Q8:57:ARG:NE	2.35	0.40
41:C8:93:LYS:H	41:C8:93:LYS:HG3	1.60	0.40
41:C8:95:LEU:HD22	41:C8:95:LEU:N	2.37	0.40
46:H8:140:ASP:CG	46:H8:141:VAL:H	2.28	0.40
54:Q8:14:VAL:HG12	54:Q8:23:VAL:HB	2.03	0.40
1:1G:115:G:H4'	1:1G:116:A:O5'	2.21	0.40
1:1G:355:C:C4	1:1G:356:A:N7	2.89	0.40
1:1G:514:C:C2	1:1G:515:G:C8	3.09	0.40
1:1G:567:G:H2'	1:1G:568:G:O4'	2.22	0.40
1:1G:1129:C:C4	1:1G:1139:G:C2	3.10	0.40
1:1G:1192:C:C5	1:1G:1193:G:C8	3.10	0.40
1:1G:1218:C:OP2	14:5A:9:LYS:NZ	2.41	0.40
1:1G:1347:G:C5	9:82:107:ARG:NH1	2.89	0.40
1:1G:1423:G:H2'	1:1G:1424:C:H6	1.86	0.40
2:12:223:ILE:H	2:12:223:ILE:HG12	1.66	0.40
3:22:46:GLU:H	3:22:46:GLU:HG2	1.55	0.40
5:42:76:ILE:CG2	5:42:77:PRO:HD2	2.51	0.40
6:52:11:ASN:O	6:52:14:LEU:HD22	2.22	0.40
8:72:25:ASP:HB3	8:72:58:TYR:HB3	2.03	0.40
26:14:227:A:C2	26:14:2407:G:H1'	2.56	0.40
26:14:881:G:N3	26:14:881:G:H2'	2.37	0.40
26:14:1160:G:C6	26:14:1161:C:C4	3.09	0.40
26:14:1324:G:C5	26:14:1328:G:O6	2.73	0.40
26:14:1416:G:C2	26:14:1417:C:C4	3.09	0.40
26:14:1677:A:H8	26:14:1677:A:O5'	2.04	0.40
26:14:1770:G:H2'	26:14:1771:C:H6	1.87	0.40
26:14:1914:C:C5	26:14:1915:U:C2	3.10	0.40
26:14:2277:G:H5"	37:45:87:LYS:HB2	2.02	0.40
26:14:2520:C:H2'	26:14:2521:C:C6	2.56	0.40
26:14:2590:A:OP2	28:19:237:GLU:HB3	2.21	0.40
27:1J:109:G:C6	27:1J:110:G:C5	3.10	0.40
32:59:11:VAL:O	32:59:13:LYS:HG3	2.21	0.40
35:25:61:VAL:HG13	35:25:85:VAL:HG12	2.03	0.40
40:75:76:PHE:HA	40:75:77:PRO:HD2	1.91	0.40
43:A5:29:LEU:CG	43:A5:33:ARG:HH21	2.35	0.40
46:D5:94:GLU:OE1	46:D5:95:PRO:HD2	2.21	0.40
50:H5:8:LEU:HD13	50:H5:31:LEU:HA	2.03	0.40
1:13:336:C:O2'	1:13:337:C:H5'	2.21	0.40
1:13:416:G:C5	1:13:417:C:C4	3.10	0.40
1:13:637:G:H2'	1:13:638:G:C8	2.56	0.40
1:13:808:C:OP1	15:6I:48:LYS:HE2	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:926:G:C6	1:13:1505:G:C6	3.10	0.40
1:13:1017:G:H2'	1:13:1018:C:O4'	2.21	0.40
2:1E:21:ARG:HG2	2:1E:22:LYS:HB2	2.03	0.40
3:2E:77:ILE:HA	3:2E:84:ILE:HD11	2.04	0.40
6:5E:67:MET:HB2	6:5E:68:PRO:HD2	2.03	0.40
19:AI:52:TYR:CE1	19:AI:56:GLN:HA	2.57	0.40
22:1K:6:G:H2'	22:1K:7:G:C8	2.56	0.40
26:1H:270(G):C:H6	26:1H:270(G):C:O5'	2.05	0.40
26:1H:438:G:O5'	26:1H:438:G:H8	2.04	0.40
26:1H:463:G:N1	26:1H:467:G:C6	2.90	0.40
26:1H:861:A:C2	26:1H:917:A:C5	3.09	0.40
26:1H:1078:U:O2	26:1H:1088:A:H2	2.04	0.40
26:1H:1234:U:H2'	26:1H:1235:G:H5'	2.04	0.40
26:1H:1387:C:O2	26:1H:1387:C:H2'	2.21	0.40
26:1H:2320:A:H8	26:1H:2321:G:N1	2.20	0.40
26:1H:2404:C:N4	26:1H:2405:G:C6	2.90	0.40
30:31:28:ILE:HD13	30:31:116:ASP:HB2	2.03	0.40
32:51:149:ARG:HH11	32:51:149:ARG:HD2	1.71	0.40
33:61:135:GLU:HB2	33:61:136:VAL:H	1.64	0.40
36:78:107:LYS:HB3	36:78:108:LYS:H	1.67	0.40
37:88:118:LEU:HA	37:88:118:LEU:HD23	1.87	0.40
39:A8:100:ALA:HA	39:A8:103:GLU:HG2	2.04	0.40
40:B8:110:ILE:O	40:B8:110:ILE:HD13	2.20	0.40
46:H8:131:ARG:HB3	46:H8:131:ARG:CZ	2.51	0.40
1:1G:149:A:H8	1:1G:149:A:O5'	2.04	0.40
1:1G:173:U:O2	1:1G:197:A:C6	2.75	0.40
1:1G:346:G:N2	1:1G:347:G:C8	2.89	0.40
1:1G:688:G:H2'	1:1G:689:C:C6	2.51	0.40
1:1G:1036:G:N7	1:1G:1037:C:N4	2.68	0.40
2:12:221:LEU:HA	2:12:224:GLN:CB	2.52	0.40
3:22:188:LEU:HA	3:22:188:LEU:HD22	1.82	0.40
5:42:60:TYR:HB3	5:42:64:ARG:HE	1.86	0.40
10:1A:51:ARG:HB2	10:1A:60:ARG:HA	2.02	0.40
22:1L:65:5MU:H6	22:1L:65:5MU:O5'	2.04	0.40
23:2L:64:G:O6	23:2L:72:C:N4	2.55	0.40
26:14:141:A:C8	26:14:1408:C:H1'	2.56	0.40
26:14:141:A:H1'	26:14:1408:C:O4'	2.22	0.40
26:14:388:G:O2'	26:14:389:G:N7	2.50	0.40
26:14:446:G:OP2	57:14:3971:HOH:O	2.21	0.40
26:14:579:G:C8	26:14:2017:U:C4	3.10	0.40
26:14:603:A:C8	26:14:604:G:H1'	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:871:U:H4'	37:45:69:PHE:CD2	2.56	0.40
26:14:1773:A:C5	26:14:1829:A:H1'	2.56	0.40
26:14:2697:G:H2'	26:14:2698:U:O4'	2.20	0.40
29:29:134:ILE:HG22	29:29:137:HIS:CG	2.56	0.40
30:39:40:GLN:HG2	30:39:184:TYR:HB2	2.03	0.40
31:49:64:THR:OG1	31:49:65:GLY:N	2.55	0.40
31:49:114:ILE:HG22	31:49:117:PHE:HB2	2.03	0.40
31:49:145:THR:HG22	51:I5:31:ILE:HG21	2.04	0.40
34:15:29:LYS:H	34:15:29:LYS:HG2	1.71	0.40
36:35:92:GLU:HA	36:35:123:LEU:HD22	2.03	0.40
38:55:56:LYS:HE3	38:55:94:TYR:CE1	2.57	0.40
41:85:39:LEU:HA	41:85:39:LEU:HD23	1.80	0.40
44:B5:7:VAL:HG12	44:B5:8:ILE:HD12	2.03	0.40
45:C5:8:LYS:HB2	45:C5:8:LYS:HE3	1.84	0.40
1:13:49:U:C2	1:13:361:G:N2	2.90	0.40
1:13:515:G:N2	1:13:537:G:C4	2.89	0.40
1:13:545:C:H5'	4:3E:72:GLU:HB2	2.03	0.40
1:13:577:G:O2'	1:13:578:C:H5'	2.21	0.40
1:13:958:A:C6	1:13:959:A:N1	2.89	0.40
1:13:1063:C:OP2	1:13:1064:G:O2'	2.36	0.40
2:1E:113:HIS:O	2:1E:116:GLU:HB2	2.21	0.40
3:2E:13:GLY:H	14:5I:57:ARG:HD2	1.86	0.40
3:2E:101:LEU:HD23	3:2E:102:ASN:N	2.37	0.40
3:2E:178:LEU:HD13	3:2E:178:LEU:HA	1.87	0.40
5:4E:76:ILE:O	5:4E:93:PRO:HB3	2.22	0.40
5:4E:139:LEU:HA	5:4E:142:LEU:CD1	2.49	0.40
9:8E:111:ARG:HG3	9:8E:112:LYS:H	1.86	0.40
11:2I:48:ILE:HG21	11:2I:63:LEU:HD12	2.03	0.40
12:3I:11:VAL:HG13	17:8I:29:HIS:CE1	2.56	0.40
12:3I:39:VAL:H	12:3I:57:LYS:HB3	1.87	0.40
20:BI:10:LEU:HG	20:BI:12:ALA:H	1.86	0.40
22:1K:15:A:N1	22:1K:70:G:C6	2.89	0.40
26:1H:390:A:C6	36:78:71:VAL:HG21	2.56	0.40
26:1H:537:C:H2'	26:1H:539:G:O4'	2.21	0.40
26:1H:598:G:O4'	36:78:12:ALA:HB2	2.21	0.40
26:1H:705:A:C8	26:1H:727:A:C2	3.10	0.40
26:1H:747:U:O2	26:1H:2014:A:H1'	2.22	0.40
26:1H:972:G:OP1	26:1H:974:G:H5'	2.21	0.40
26:1H:1260:G:H2'	26:1H:1261:C:H6	1.86	0.40
26:1H:1590:U:H2'	26:1H:1591:G:H8	1.85	0.40
26:1H:1727:U:H3	26:1H:1733:G:H1	1.70	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2085:C:H2'	26:1H:2086:U:O4'	2.22	0.40
26:1H:2291:U:H2'	26:1H:2292:C:C6	2.57	0.40
26:1H:2309:A:N7	26:1H:2310:A:C8	2.90	0.40
26:1H:2352:A:H2'	26:1H:2353:G:O4'	2.21	0.40
26:1H:2557:G:H2'	26:1H:2558:C:C6	2.56	0.40
26:1H:2619:C:O2'	26:1H:2620:C:H5'	2.21	0.40
26:1H:2636:U:OP2	29:21:79:ARG:HD2	2.21	0.40
26:1H:2802:G:N3	26:1H:2802:G:H2'	2.37	0.40
26:1H:2846:G:C5	26:1H:2847:U:C4	3.09	0.40
28:11:120:GLY:HA3	28:11:122:ASP:OD1	2.22	0.40
28:11:134:ARG:HG3	28:11:135:PHE:CE1	2.56	0.40
29:21:26:ILE:HD11	29:21:198:VAL:HG21	2.04	0.40
35:68:6:THR:HG22	35:68:7:TYR:O	2.22	0.40
37:88:34:LEU:HD23	37:88:104:PHE:CD2	2.57	0.40
41:C8:34:LYS:HE3	41:C8:34:LYS:HA	2.03	0.40
41:C8:92:ARG:HD3	41:C8:94:ASN:CB	2.52	0.40
44:F8:1:MET:CG	44:F8:2:LYS:H	2.33	0.40
46:H8:116:VAL:H	46:H8:146:ILE:HG12	1.86	0.40
47:I8:72:ARG:CB	47:I8:75:LEU:HB2	2.51	0.40
1:1G:57:G:C5	1:1G:58:C:C4	3.10	0.40
1:1G:300:A:O2'	1:1G:564:C:N3	2.51	0.40
1:1G:383:A:H5"	1:1G:384:G:OP2	2.21	0.40
1:1G:532:A:H2	3:22:156:ARG:HH22	1.70	0.40
1:1G:999:U:H2'	1:1G:1000:A:H8	1.87	0.40
1:1G:1014:A:H2'	1:1G:1015:A:C8	2.56	0.40
1:1G:1068:G:N7	1:1G:1094:G:C8	2.90	0.40
1:1G:1071:C:H2'	1:1G:1072:G:H8	1.86	0.40
1:1G:1117:G:O3'	9:82:104:ARG:HD2	2.22	0.40
1:1G:1275:A:N6	1:1G:1276:G:C6	2.90	0.40
5:42:50:GLU:HB2	5:42:53:LEU:HD13	2.04	0.40
5:42:101:ILE:HD11	5:42:119:LEU:HD23	2.02	0.40
8:72:20:TYR:HD1	8:72:65:TYR:CD2	2.39	0.40
8:72:38:ILE:HD11	8:72:118:VAL:O	2.22	0.40
10:1A:5:ARG:HB2	10:1A:73:ASP:OD1	2.22	0.40
12:3A:6:THR:HG23	12:3A:9:GLN:OE1	2.21	0.40
20:BA:75:ASN:OD1	20:BA:75:ASN:N	2.48	0.40
24:3L:3:C:H2'	24:3L:4:G:O4'	2.21	0.40
26:14:263:C:H2'	26:14:264:C:O4'	2.21	0.40
26:14:717:G:H2'	26:14:718:A:O4'	2.21	0.40
26:14:870:A:H2'	26:14:871:U:O4'	2.21	0.40
26:14:1280:G:H1	26:14:1290:C:H42	1.68	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1405:U:H2'	26:14:1406:U:H6	1.80	0.40
26:14:1647:G:P	26:14:1647:G:H3'	2.62	0.40
26:14:1859:A:N6	26:14:1883:G:O2'	2.55	0.40
26:14:2842:G:H2'	26:14:2843:G:O4'	2.21	0.40
27:1J:1:U:C2'	27:1J:2:C:H5'	2.52	0.40
30:39:78:ILE:C	30:39:80:ALA:N	2.80	0.40
33:69:6:LEU:HA	33:69:6:LEU:HD12	1.70	0.40
33:69:63:ALA:O	33:69:66:GLU:HB2	2.21	0.40
34:15:99:LEU:O	34:15:99:LEU:HD23	2.21	0.40
37:45:16:ARG:HE	37:45:16:ARG:HB3	1.67	0.40
38:55:21:TYR:OH	38:55:43:GLU:HG2	2.22	0.40
38:55:65:LEU:HA	38:55:65:LEU:HD12	1.77	0.40
38:55:83:ILE:C	38:55:85:PRO:HD2	2.47	0.40
45:C5:75:ILE:HD12	45:C5:75:ILE:HA	1.85	0.40
45:C5:90:LEU:HA	45:C5:91:GLU:HA	1.73	0.40
48:F5:60:PHE:CE2	48:F5:91:LYS:HD3	2.49	0.40
50:H5:35:ARG:HH11	50:H5:35:ARG:HD2	1.78	0.40
50:H5:43:ILE:O	50:H5:47:VAL:HG23	2.22	0.40
51:I5:33:VAL:HG22	51:I5:33:VAL:O	2.21	0.40

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:654(O):G:N2	50:H5:57:GLU:OE1[2_464]	2.18	0.02

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%)	198 (84%)	35 (15%)	2 (1%)	14 43

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
2	1E	235/256 (92%)	200 (85%)	33 (14%)	2 (1%)	14 43
3	22	204/239 (85%)	181 (89%)	23 (11%)	0	100 100
3	2E	203/239 (85%)	185 (91%)	18 (9%)	0	100 100
4	32	206/209 (99%)	175 (85%)	30 (15%)	1 (0%)	24 55
4	3E	206/209 (99%)	194 (94%)	9 (4%)	3 (2%)	8 32
5	42	149/162 (92%)	139 (93%)	10 (7%)	0	100 100
5	4E	149/162 (92%)	142 (95%)	6 (4%)	1 (1%)	18 49
6	52	99/101 (98%)	97 (98%)	2 (2%)	0	100 100
6	5E	99/101 (98%)	94 (95%)	5 (5%)	0	100 100
7	62	143/156 (92%)	137 (96%)	6 (4%)	0	100 100
7	6E	140/156 (90%)	134 (96%)	6 (4%)	0	100 100
8	72	136/138 (99%)	125 (92%)	10 (7%)	1 (1%)	18 49
8	7E	136/138 (99%)	124 (91%)	11 (8%)	1 (1%)	18 49
9	82	122/128 (95%)	109 (89%)	12 (10%)	1 (1%)	16 45
9	8E	125/128 (98%)	106 (85%)	19 (15%)	0	100 100
10	1A	97/105 (92%)	90 (93%)	7 (7%)	0	100 100
10	1I	97/105 (92%)	90 (93%)	7 (7%)	0	100 100
11	2A	114/129 (88%)	103 (90%)	8 (7%)	3 (3%)	4 23
11	2I	114/129 (88%)	102 (90%)	10 (9%)	2 (2%)	6 29
12	3A	123/132 (93%)	99 (80%)	20 (16%)	4 (3%)	3 19
12	3I	120/132 (91%)	102 (85%)	18 (15%)	0	100 100
13	4A	114/126 (90%)	95 (83%)	18 (16%)	1 (1%)	14 43
13	4I	114/126 (90%)	95 (83%)	18 (16%)	1 (1%)	14 43
14	5A	56/61 (92%)	46 (82%)	9 (16%)	1 (2%)	6 29
14	5I	58/61 (95%)	49 (84%)	8 (14%)	1 (2%)	7 30
15	6A	86/89 (97%)	81 (94%)	5 (6%)	0	100 100
15	6I	86/89 (97%)	80 (93%)	6 (7%)	0	100 100
16	7A	82/88 (93%)	77 (94%)	5 (6%)	0	100 100
16	7I	82/88 (93%)	76 (93%)	6 (7%)	0	100 100
17	8A	97/105 (92%)	92 (95%)	5 (5%)	0	100 100
17	8I	98/105 (93%)	91 (93%)	7 (7%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
18	9A	67/88 (76%)	61 (91%)	6 (9%)	0	100 100
18	9I	65/88 (74%)	63 (97%)	1 (2%)	1 (2%)	8 32
19	AA	76/93 (82%)	62 (82%)	12 (16%)	2 (3%)	4 23
19	AI	78/93 (84%)	65 (83%)	11 (14%)	2 (3%)	4 23
20	BA	97/106 (92%)	87 (90%)	8 (8%)	2 (2%)	5 26
20	BI	97/106 (92%)	82 (84%)	15 (16%)	0	100 100
21	1B	23/27 (85%)	21 (91%)	2 (9%)	0	100 100
21	1F	21/27 (78%)	20 (95%)	1 (5%)	0	100 100
28	11	271/276 (98%)	257 (95%)	10 (4%)	4 (2%)	8 32
28	19	271/276 (98%)	247 (91%)	17 (6%)	7 (3%)	4 23
29	21	203/206 (98%)	162 (80%)	32 (16%)	9 (4%)	2 13
29	29	203/206 (98%)	154 (76%)	38 (19%)	11 (5%)	1 10
30	31	200/210 (95%)	183 (92%)	15 (8%)	2 (1%)	12 40
30	39	206/210 (98%)	165 (80%)	33 (16%)	8 (4%)	2 16
31	41	179/182 (98%)	156 (87%)	20 (11%)	3 (2%)	7 30
31	49	179/182 (98%)	153 (86%)	24 (13%)	2 (1%)	11 39
32	51	172/180 (96%)	148 (86%)	17 (10%)	7 (4%)	2 15
32	59	168/180 (93%)	131 (78%)	33 (20%)	4 (2%)	4 24
33	61	144/148 (97%)	117 (81%)	24 (17%)	3 (2%)	5 26
33	69	144/148 (97%)	116 (81%)	25 (17%)	3 (2%)	5 26
34	15	136/140 (97%)	119 (88%)	16 (12%)	1 (1%)	18 49
34	58	136/140 (97%)	118 (87%)	15 (11%)	3 (2%)	5 26
35	25	120/122 (98%)	115 (96%)	5 (4%)	0	100 100
35	68	120/122 (98%)	114 (95%)	6 (5%)	0	100 100
36	35	148/150 (99%)	115 (78%)	24 (16%)	9 (6%)	1 9
36	78	145/150 (97%)	117 (81%)	23 (16%)	5 (3%)	3 18
37	45	138/141 (98%)	109 (79%)	27 (20%)	2 (1%)	9 33
37	88	139/141 (99%)	115 (83%)	21 (15%)	3 (2%)	5 26
38	55	115/118 (98%)	101 (88%)	12 (10%)	2 (2%)	7 30
38	98	116/118 (98%)	101 (87%)	14 (12%)	1 (1%)	14 43
39	65	109/112 (97%)	87 (80%)	20 (18%)	2 (2%)	6 29

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
39	A8	109/112 (97%)	92 (84%)	16 (15%)	1 (1%)	14 43
40	75	135/146 (92%)	120 (89%)	14 (10%)	1 (1%)	18 49
40	B8	127/146 (87%)	113 (89%)	14 (11%)	0	100 100
41	85	115/118 (98%)	104 (90%)	10 (9%)	1 (1%)	14 43
41	C8	115/118 (98%)	104 (90%)	8 (7%)	3 (3%)	4 23
42	95	99/101 (98%)	77 (78%)	17 (17%)	5 (5%)	1 11
42	D8	99/101 (98%)	91 (92%)	6 (6%)	2 (2%)	6 27
43	A5	111/113 (98%)	104 (94%)	5 (4%)	2 (2%)	6 29
43	E8	110/113 (97%)	101 (92%)	9 (8%)	0	100 100
44	B5	90/96 (94%)	84 (93%)	4 (4%)	2 (2%)	5 26
44	F8	92/96 (96%)	83 (90%)	7 (8%)	2 (2%)	5 26
45	C5	102/110 (93%)	73 (72%)	24 (24%)	5 (5%)	1 12
45	G8	101/110 (92%)	78 (77%)	19 (19%)	4 (4%)	2 15
46	D5	129/206 (63%)	101 (78%)	24 (19%)	4 (3%)	3 20
46	H8	169/206 (82%)	137 (81%)	26 (15%)	6 (4%)	2 17
47	E5	78/85 (92%)	68 (87%)	9 (12%)	1 (1%)	9 35
47	I8	81/85 (95%)	74 (91%)	7 (9%)	0	100 100
48	F5	92/98 (94%)	82 (89%)	9 (10%)	1 (1%)	11 39
48	J8	93/98 (95%)	84 (90%)	7 (8%)	2 (2%)	5 26
49	G5	65/72 (90%)	61 (94%)	2 (3%)	2 (3%)	3 20
49	K8	66/72 (92%)	61 (92%)	2 (3%)	3 (4%)	2 13
50	H5	57/60 (95%)	55 (96%)	2 (4%)	0	100 100
50	L8	55/60 (92%)	53 (96%)	1 (2%)	1 (2%)	6 29
51	I5	61/71 (86%)	35 (57%)	23 (38%)	3 (5%)	1 12
51	M8	64/71 (90%)	41 (64%)	20 (31%)	3 (5%)	2 12
52	J5	54/60 (90%)	50 (93%)	4 (7%)	0	100 100
52	N8	53/60 (88%)	46 (87%)	5 (9%)	2 (4%)	2 16
53	L5	45/49 (92%)	44 (98%)	1 (2%)	0	100 100
53	P8	45/49 (92%)	41 (91%)	3 (7%)	1 (2%)	5 26
54	M5	49/65 (75%)	41 (84%)	7 (14%)	1 (2%)	6 27
54	Q8	58/65 (89%)	34 (59%)	18 (31%)	6 (10%)	0 2

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
All	All	11130/11946 (93%)	9701 (87%)	1242 (11%)	187 (2%)	7 30

All (187) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
29	21	83	ASP
32	51	169	VAL
36	78	57	THR
38	98	11	ASN
46	H8	165	VAL
49	K8	48	HIS
54	Q8	51	ALA
2	12	7	VAL
9	82	118	LYS
11	2A	48	ILE
19	AA	11	VAL
20	BA	73	HIS
28	19	237	GLU
29	29	25	VAL
29	29	59	VAL
30	39	28	ILE
37	45	27	VAL
37	45	81	VAL
38	55	107	ASP
46	D5	53	ILE
46	D5	165	VAL
47	E5	33	ALA
48	F5	30	VAL
49	G5	47	ASN
54	M5	34	TRP
8	7E	86	ILE
18	9I	22	VAL
29	21	78	LEU
31	41	98	ARG
32	51	168	PRO
34	58	97	ARG
37	88	66	ILE
37	88	90	VAL
41	C8	89	GLU
41	C8	93	LYS
45	G8	81	LYS
46	H8	60	GLU

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Mol	Chain	Res	Type
51	M8	50	VAL
52	N8	41	PRO
52	N8	42	PRO
54	Q8	8	LYS
54	Q8	55	ALA
11	2A	100	ALA
12	3A	18	VAL
14	5A	29	ARG
20	BA	49	ALA
29	29	81	ILE
30	39	84	VAL
36	35	57	THR
39	65	89	ARG
45	C5	29	GLU
49	G5	48	HIS
51	I5	5	ILE
13	4I	83	ASP
19	AI	67	VAL
29	21	118	LYS
33	61	145	VAL
34	58	22	THR
36	78	42	SER
44	F8	68	ARG
45	G8	54	LYS
46	H8	6	LYS
48	J8	75	GLU
48	J8	76	ARG
49	K8	43	GLN
54	Q8	39	LYS
11	2A	101	SER
28	19	273	ARG
29	29	51	PHE
29	29	90	THR
30	39	124	LEU
30	39	167	ALA
33	69	111	PRO
33	69	145	VAL
36	35	35	HIS
36	35	64	LYS
39	65	87	PHE
44	B5	68	ARG
46	D5	161	VAL

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Mol	Chain	Res	Type
2	1E	13	ALA
4	3E	31	CYS
11	2I	91	ARG
14	5I	14	PRO
28	11	122	ASP
29	21	21	VAL
29	21	56	PRO
29	21	60	ASN
33	61	12	LEU
46	H8	59	LEU
49	K8	47	ASN
54	Q8	34	TRP
12	3A	48	PRO
29	29	9	VAL
29	29	26	ILE
30	39	128	ALA
30	39	149	ASP
32	59	92	ILE
36	35	6	LEU
36	35	65	ARG
36	35	110	TYR
43	A5	93	ALA
45	C5	17	SER
51	I5	26	SER
29	21	55	ASN
31	41	5	VAL
31	41	97	ASP
33	61	133	HIS
34	58	128	HIS
45	G8	53	PRO
51	M8	63	TYR
54	Q8	44	LYS
8	72	73	ASP
28	19	33	LEU
28	19	239	ARG
29	29	91	VAL
30	39	25	PRO
31	49	47	LYS
36	35	42	SER
38	55	3	HIS
41	85	93	LYS
42	95	71	LEU

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Mol	Chain	Res	Type
42	95	84	LYS
45	C5	20	TYR
46	D5	167	PRO
2	1E	239	VAL
4	3E	83	SER
4	3E	155	LEU
28	11	3	VAL
28	11	240	ALA
30	31	198	ALA
32	51	12	PRO
32	51	167	GLU
36	78	7	ARG
37	88	3	MET
39	A8	61	ASN
42	D8	47	VAL
44	F8	40	LYS
4	32	32	ALA
28	19	32	SER
28	19	240	ALA
40	75	107	ASP
43	A5	12	ILE
51	I5	33	VAL
11	2I	82	VAL
29	21	22	PRO
32	51	8	PRO
32	51	92	ILE
36	78	95	VAL
46	H8	53	ILE
51	M8	5	ILE
53	P8	46	VAL
28	19	3	VAL
32	59	99	VAL
32	59	131	VAL
34	15	128	HIS
36	35	7	ARG
5	4E	115	VAL
2	12	39	ILE
29	29	62	PRO
29	29	77	ILE
31	49	5	VAL
32	59	4	ILE
33	69	144	VAL

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Mol	Chain	Res	Type
36	35	62	LEU
42	95	72	VAL
30	31	24	LEU
42	D8	49	THR
45	G8	76	CYS
46	H8	61	LEU
12	3A	96	VAL
29	29	52	LEU
44	B5	51	VAL
19	AI	9	VAL
28	11	123	ALA
29	21	72	VAL
32	51	127	GLU
36	78	19	VAL
41	C8	88	ILE
50	L8	54	VAL
12	3A	47	LYS
13	4A	84	ILE
19	AA	67	VAL
30	39	89	VAL
45	C5	3	VAL
42	95	37	VAL
42	95	99	ILE
45	C5	76	CYS

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%)	155 (76%)	50 (24%)	1 3
2	1E	205/220 (93%)	158 (77%)	47 (23%)	1 4
3	22	160/188 (85%)	119 (74%)	41 (26%)	0 2
3	2E	159/188 (85%)	116 (73%)	43 (27%)	0 2
4	32	180/181 (99%)	140 (78%)	40 (22%)	1 5

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
4	3E	180/181 (99%)	147 (82%)	33 (18%)	2 7
5	42	116/123 (94%)	81 (70%)	35 (30%)	0 1
5	4E	116/123 (94%)	87 (75%)	29 (25%)	0 3
6	52	90/90 (100%)	64 (71%)	26 (29%)	0 2
6	5E	90/90 (100%)	71 (79%)	19 (21%)	1 5
7	62	121/127 (95%)	91 (75%)	30 (25%)	1 3
7	6E	118/127 (93%)	99 (84%)	19 (16%)	2 12
8	72	119/119 (100%)	99 (83%)	20 (17%)	2 11
8	7E	119/119 (100%)	88 (74%)	31 (26%)	0 2
9	82	95/99 (96%)	81 (85%)	14 (15%)	3 14
9	8E	98/99 (99%)	71 (72%)	27 (28%)	0 2
10	1A	89/92 (97%)	72 (81%)	17 (19%)	1 7
10	1I	89/92 (97%)	71 (80%)	18 (20%)	1 6
11	2A	88/99 (89%)	71 (81%)	17 (19%)	1 6
11	2I	88/99 (89%)	71 (81%)	17 (19%)	1 6
12	3A	104/109 (95%)	72 (69%)	32 (31%)	0 1
12	3I	103/109 (94%)	82 (80%)	21 (20%)	1 6
13	4A	94/101 (93%)	76 (81%)	18 (19%)	1 7
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%)	36 (74%)	13 (26%)	0 2
15	6A	79/80 (99%)	68 (86%)	11 (14%)	3 15
15	6I	79/80 (99%)	66 (84%)	13 (16%)	2 11
16	7A	72/74 (97%)	54 (75%)	18 (25%)	0 3
16	7I	72/74 (97%)	58 (81%)	14 (19%)	1 6
17	8A	94/97 (97%)	76 (81%)	18 (19%)	1 7
17	8I	95/97 (98%)	77 (81%)	18 (19%)	1 7
18	9A	60/77 (78%)	46 (77%)	14 (23%)	1 4
18	9I	59/77 (77%)	44 (75%)	15 (25%)	0 3
19	AA	67/80 (84%)	56 (84%)	11 (16%)	2 11
19	AI	70/80 (88%)	50 (71%)	20 (29%)	0 2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
20	BA	76/82 (93%)	63 (83%)	13 (17%)	2 10
20	BI	76/82 (93%)	58 (76%)	18 (24%)	1 4
21	1B	20/22 (91%)	18 (90%)	2 (10%)	7 27
21	1F	18/22 (82%)	17 (94%)	1 (6%)	19 47
28	11	215/218 (99%)	172 (80%)	43 (20%)	1 6
28	19	214/218 (98%)	163 (76%)	51 (24%)	1 4
29	21	165/166 (99%)	121 (73%)	44 (27%)	0 2
29	29	165/166 (99%)	121 (73%)	44 (27%)	0 2
30	31	161/166 (97%)	123 (76%)	38 (24%)	1 4
30	39	165/166 (99%)	122 (74%)	43 (26%)	0 2
31	41	155/156 (99%)	117 (76%)	38 (24%)	1 3
31	49	155/156 (99%)	126 (81%)	29 (19%)	1 7
32	51	145/148 (98%)	104 (72%)	41 (28%)	0 2
32	59	142/148 (96%)	106 (75%)	36 (25%)	0 3
33	61	122/124 (98%)	87 (71%)	35 (29%)	0 2
33	69	122/124 (98%)	84 (69%)	38 (31%)	0 1
34	15	117/119 (98%)	83 (71%)	34 (29%)	0 2
34	58	117/119 (98%)	88 (75%)	29 (25%)	1 3
35	25	100/100 (100%)	71 (71%)	29 (29%)	0 2
35	68	100/100 (100%)	74 (74%)	26 (26%)	0 2
36	35	116/116 (100%)	73 (63%)	43 (37%)	0 1
36	78	114/116 (98%)	80 (70%)	34 (30%)	0 1
37	45	110/111 (99%)	77 (70%)	33 (30%)	0 1
37	88	111/111 (100%)	81 (73%)	30 (27%)	0 2
38	55	100/101 (99%)	70 (70%)	30 (30%)	0 1
38	98	101/101 (100%)	72 (71%)	29 (29%)	0 2
39	65	87/88 (99%)	59 (68%)	28 (32%)	0 1
39	A8	87/88 (99%)	60 (69%)	27 (31%)	0 1
40	75	120/127 (94%)	84 (70%)	36 (30%)	0 1
40	B8	115/127 (91%)	79 (69%)	36 (31%)	0 1
41	85	93/94 (99%)	77 (83%)	16 (17%)	2 10

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
41	C8	93/94 (99%)	75 (81%)	18 (19%)	1	6
42	95	82/82 (100%)	58 (71%)	24 (29%)	0	2
42	D8	82/82 (100%)	55 (67%)	27 (33%)	0	1
43	A5	92/92 (100%)	68 (74%)	24 (26%)	0	2
43	E8	91/92 (99%)	67 (74%)	24 (26%)	0	2
44	B5	74/78 (95%)	54 (73%)	20 (27%)	0	2
44	F8	76/78 (97%)	60 (79%)	16 (21%)	1	5
45	C5	85/91 (93%)	55 (65%)	30 (35%)	0	1
45	G8	84/91 (92%)	56 (67%)	28 (33%)	0	1
46	D5	125/179 (70%)	92 (74%)	33 (26%)	0	2
46	H8	152/179 (85%)	116 (76%)	36 (24%)	1	4
47	E5	62/67 (92%)	46 (74%)	16 (26%)	0	2
47	I8	66/67 (98%)	52 (79%)	14 (21%)	1	5
48	F5	79/83 (95%)	56 (71%)	23 (29%)	0	2
48	J8	80/83 (96%)	58 (72%)	22 (28%)	0	2
49	G5	63/67 (94%)	45 (71%)	18 (29%)	0	2
49	K8	64/67 (96%)	43 (67%)	21 (33%)	0	1
50	H5	51/52 (98%)	38 (74%)	13 (26%)	0	3
50	L8	49/52 (94%)	38 (78%)	11 (22%)	1	5
51	I5	57/63 (90%)	41 (72%)	16 (28%)	0	2
51	M8	59/63 (94%)	43 (73%)	16 (27%)	0	2
52	J5	48/52 (92%)	38 (79%)	10 (21%)	1	6
52	N8	48/52 (92%)	36 (75%)	12 (25%)	0	3
53	L5	40/42 (95%)	27 (68%)	13 (32%)	0	1
53	P8	40/42 (95%)	31 (78%)	9 (22%)	1	5
54	M5	44/55 (80%)	30 (68%)	14 (32%)	0	1
54	Q8	50/55 (91%)	28 (56%)	22 (44%)	0	0
All	All	9404/9894 (95%)	7061 (75%)	2343 (25%)	0	3

All (2343) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1E	6	THR

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Mol	Chain	Res	Type
2	1E	7	VAL
2	1E	8	LYS
2	1E	11	LEU
2	1E	15	VAL
2	1E	17	PHE
2	1E	28	PHE
2	1E	32	ILE
2	1E	37	ASN
2	1E	39	ILE
2	1E	41	ILE
2	1E	47	THR
2	1E	48	MET
2	1E	50	GLU
2	1E	54	THR
2	1E	63	MET
2	1E	67	THR
2	1E	68	ILE
2	1E	71	VAL
2	1E	73	THR
2	1E	74	LYS
2	1E	121	LEU
2	1E	122	PHE
2	1E	128	GLU
2	1E	129	GLU
2	1E	136	VAL
2	1E	145	LEU
2	1E	155	LEU
2	1E	162	ILE
2	1E	164	VAL
2	1E	172	ILE
2	1E	178	ARG
2	1E	193	ASP
2	1E	196	LEU
2	1E	200	ILE
2	1E	205	ASP
2	1E	211	ILE
2	1E	213	LEU
2	1E	214	ILE
2	1E	215	LEU
2	1E	217	ARG
2	1E	223	ILE
2	1E	224	GLN

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Mol	Chain	Res	Type
2	1E	230	VAL
2	1E	231	GLU
2	1E	233	SER
2	1E	240	GLN
3	2E	3	ASN
3	2E	5	ILE
3	2E	11	ARG
3	2E	12	LEU
3	2E	14	ILE
3	2E	16	ARG
3	2E	17	ASP
3	2E	27	LYS
3	2E	30	ARG
3	2E	31	HIS
3	2E	33	LEU
3	2E	34	LEU
3	2E	45	LYS
3	2E	52	LEU
3	2E	58	GLU
3	2E	63	ASN
3	2E	76	VAL
3	2E	77	ILE
3	2E	79	ARG
3	2E	82	GLU
3	2E	83	ARG
3	2E	86	VAL
3	2E	102	ASN
3	2E	103	VAL
3	2E	104	GLN
3	2E	111	LEU
3	2E	116	VAL
3	2E	127	ARG
3	2E	134	ILE
3	2E	135	LYS
3	2E	150	LYS
3	2E	153	VAL
3	2E	156	ARG
3	2E	161	GLU
3	2E	164	ARG
3	2E	166	GLU
3	2E	167	TRP
3	2E	175	LEU

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Mol	Chain	Res	Type
3	2E	178	LEU
3	2E	179	ARG
3	2E	192	THR
3	2E	195	VAL
3	2E	202	ILE
4	3E	3	ARG
4	3E	8	VAL
4	3E	10	ARG
4	3E	15	GLU
4	3E	19	LEU
4	3E	24	GLU
4	3E	31	CYS
4	3E	35	ARG
4	3E	42	GLN
4	3E	46	LYS
4	3E	49	ARG
4	3E	52	SER
4	3E	53	ASP
4	3E	58	LEU
4	3E	66	ARG
4	3E	78	LEU
4	3E	81	GLU
4	3E	96	LEU
4	3E	99	SER
4	3E	108	LEU
4	3E	122	ARG
4	3E	127	THR
4	3E	135	LEU
4	3E	140	VAL
4	3E	141	ARG
4	3E	151	LYS
4	3E	153	ARG
4	3E	155	LEU
4	3E	158	ILE
4	3E	160	GLN
4	3E	170	VAL
4	3E	178	VAL
4	3E	200	GLU
5	4E	5	ASP
5	4E	6	PHE
5	4E	10	MET
5	4E	13	ILE

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Mol	Chain	Res	Type
5	4E	16	THR
5	4E	18	ARG
5	4E	20	GLN
5	4E	25	ARG
5	4E	27	ARG
5	4E	31	LEU
5	4E	41	VAL
5	4E	51	VAL
5	4E	53	LEU
5	4E	64	ARG
5	4E	68	GLU
5	4E	71	LEU
5	4E	72	GLN
5	4E	75	THR
5	4E	80	ILE
5	4E	87	SER
5	4E	91	LEU
5	4E	105	VAL
5	4E	112	LEU
5	4E	116	THR
5	4E	126	ARG
5	4E	137	GLU
5	4E	144	THR
5	4E	152	ARG
5	4E	153	LYS
6	5E	1	MET
6	5E	13	ASN
6	5E	25	ILE
6	5E	30	LEU
6	5E	31	GLU
6	5E	32	ASN
6	5E	40	VAL
6	5E	43	LEU
6	5E	54	LYS
6	5E	57	GLN
6	5E	64	GLN
6	5E	65	VAL
6	5E	73	ASN
6	5E	74	ASP
6	5E	75	LEU
6	5E	78	GLU
6	5E	79	LEU

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Mol	Chain	Res	Type
6	5E	86	ARG
6	5E	92	LYS
7	6E	12	LEU
7	6E	21	VAL
7	6E	38	LEU
7	6E	45	ASP
7	6E	54	THR
7	6E	56	GLN
7	6E	66	VAL
7	6E	69	VAL
7	6E	75	VAL
7	6E	89	MET
7	6E	90	GLU
7	6E	91	VAL
7	6E	98	SER
7	6E	104	LEU
7	6E	113	GLU
7	6E	115	ARG
7	6E	118	VAL
7	6E	135	VAL
7	6E	139	GLU
8	7E	1	MET
8	7E	2	LEU
8	7E	3	THR
8	7E	19	VAL
8	7E	22	GLU
8	7E	25	ASP
8	7E	26	VAL
8	7E	49	GLU
8	7E	52	ASP
8	7E	53	VAL
8	7E	60	ARG
8	7E	63	LEU
8	7E	68	ARG
8	7E	69	ARG
8	7E	77	GLU
8	7E	80	ILE
8	7E	82	HIS
8	7E	84	ARG
8	7E	85	ARG
8	7E	88	LYS
8	7E	95	VAL

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Mol	Chain	Res	Type
8	7E	98	LYS
8	7E	102	ARG
8	7E	112	LEU
8	7E	118	VAL
8	7E	121	ASP
8	7E	123	GLU
8	7E	127	LEU
8	7E	129	VAL
8	7E	133	LEU
8	7E	137	VAL
9	8E	9	ARG
9	8E	10	ARG
9	8E	25	LYS
9	8E	33	PHE
9	8E	34	ASN
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	65	VAL
9	8E	70	LYS
9	8E	79	LEU
9	8E	87	GLN
9	8E	91	ASP
9	8E	92	TYR
9	8E	93	ARG
9	8E	95	LYS
9	8E	99	LEU
9	8E	108	VAL
9	8E	109	VAL
9	8E	112	LYS
9	8E	118	LYS
9	8E	120	ARG
9	8E	124	GLN
9	8E	128	ARG
10	1I	5	ARG
10	1I	13	HIS
10	1I	24	VAL
10	1I	29	ARG
10	1I	30	SER

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Mol	Chain	Res	Type
10	1I	38	ILE
10	1I	40	LEU
10	1I	43	ARG
10	1I	44	VAL
10	1I	46	ARG
10	1I	49	VAL
10	1I	61	GLU
10	1I	70	ARG
10	1I	88	LEU
10	1I	89	ASP
10	1I	92	THR
10	1I	96	ILE
10	1I	101	VAL
11	2I	12	ARG
11	2I	14	VAL
11	2I	32	ILE
11	2I	47	VAL
11	2I	51	LYS
11	2I	53	SER
11	2I	55	LYS
11	2I	83	ILE
11	2I	93	GLN
11	2I	96	ARG
11	2I	103	LEU
11	2I	105	VAL
11	2I	106	LYS
11	2I	109	VAL
11	2I	114	VAL
11	2I	119	CYS
11	2I	124	LYS
12	3I	7	ILE
12	3I	11	VAL
12	3I	20	LYS
12	3I	22	SER
12	3I	44	THR
12	3I	60	LEU
12	3I	62	SER
12	3I	67	THR
12	3I	76	ASN
12	3I	79	GLU
12	3I	81	SER
12	3I	85	ILE

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Mol	Chain	Res	Type
12	3I	90	VAL
12	3I	91	LYS
12	3I	92	ASP
12	3I	96	VAL
12	3I	100	ILE
12	3I	102	ARG
12	3I	114	LYS
12	3I	123	LYS
12	3I	126	LYS
13	4I	14	ARG
13	4I	17	VAL
13	4I	19	LEU
13	4I	34	LEU
13	4I	45	VAL
13	4I	47	ASP
13	4I	52	GLU
13	4I	54	VAL
13	4I	56	LEU
13	4I	57	ARG
13	4I	61	GLU
13	4I	64	TRP
13	4I	67	GLU
13	4I	70	LEU
13	4I	77	ASN
13	4I	78	ILE
13	4I	88	ARG
13	4I	94	ARG
13	4I	103	THR
13	4I	106	ASN
13	4I	108	ARG
13	4I	110	ARG
13	4I	115	LYS
14	5I	3	ARG
14	5I	4	LYS
14	5I	8	GLU
14	5I	11	LYS
14	5I	12	ARG
14	5I	22	THR
14	5I	25	VAL
14	5I	26	ARG
14	5I	32	SER
14	5I	33	VAL

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Mol	Chain	Res	Type
14	5I	41	ARG
14	5I	44	LEU
14	5I	46	GLU
15	6I	6	GLU
15	6I	10	LYS
15	6I	11	VAL
15	6I	22	THR
15	6I	27	VAL
15	6I	31	LEU
15	6I	33	THR
15	6I	39	LEU
15	6I	41	GLU
15	6I	47	LYS
15	6I	54	ARG
15	6I	58	MET
15	6I	66	LEU
16	7I	2	VAL
16	7I	4	ILE
16	7I	6	LEU
16	7I	8	ARG
16	7I	18	ARG
16	7I	22	THR
16	7I	27	LYS
16	7I	45	THR
16	7I	50	LYS
16	7I	54	GLU
16	7I	62	VAL
16	7I	69	THR
16	7I	72	ARG
16	7I	83	GLU
17	8I	6	LEU
17	8I	7	THR
17	8I	14	LYS
17	8I	27	PHE
17	8I	31	LEU
17	8I	34	LYS
17	8I	38	ARG
17	8I	48	GLU
17	8I	52	LYS
17	8I	59	ILE
17	8I	60	ILE
17	8I	62	SER

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Mol	Chain	Res	Type
17	8I	63	ARG
17	8I	74	LEU
17	8I	81	ARG
17	8I	89	LEU
17	8I	91	ARG
17	8I	101	ARG
18	9I	25	THR
18	9I	26	LEU
18	9I	31	LEU
18	9I	32	ARG
18	9I	39	VAL
18	9I	41	LYS
18	9I	54	ARG
18	9I	56	THR
18	9I	65	ILE
18	9I	68	LYS
18	9I	69	THR
18	9I	76	LEU
18	9I	82	THR
18	9I	85	LEU
18	9I	86	VAL
19	AI	6	LYS
19	AI	7	LYS
19	AI	25	LYS
19	AI	27	GLU
19	AI	29	ARG
19	AI	30	LEU
19	AI	31	ILE
19	AI	33	THR
19	AI	37	ARG
19	AI	40	ILE
19	AI	41	VAL
19	AI	43	GLU
19	AI	51	VAL
19	AI	56	GLN
19	AI	58	VAL
19	AI	61	TYR
19	AI	62	ILE
19	AI	66	MET
19	AI	67	VAL
19	AI	77	THR
20	BI	8	ARG

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Mol	Chain	Res	Type
20	BI	11	SER
20	BI	13	LEU
20	BI	20	LEU
20	BI	36	LEU
20	BI	41	ILE
20	BI	51	GLU
20	BI	53	LEU
20	BI	55	ILE
20	BI	57	ARG
20	BI	62	LEU
20	BI	63	ILE
20	BI	73	HIS
20	BI	74	LYS
20	BI	84	LEU
20	BI	87	LYS
20	BI	99	LEU
20	BI	100	ILE
21	1F	6	ARG
28	11	5	LYS
28	11	17	THR
28	11	27	THR
28	11	31	LYS
28	11	34	VAL
28	11	35	LYS
28	11	37	LEU
28	11	46	GLN
28	11	54	ARG
28	11	58	HIS
28	11	61	LEU
28	11	64	ILE
28	11	65	ILE
28	11	71	ASP
28	11	89	SER
28	11	94	LEU
28	11	103	ARG
28	11	105	ILE
28	11	106	ILE
28	11	112	GLN
28	11	113	VAL
28	11	118	VAL
28	11	126	GLN
28	11	136	ILE

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Mol	Chain	Res	Type
28	11	138	VAL
28	11	141	VAL
28	11	155	LEU
28	11	157	ARG
28	11	165	ILE
28	11	176	ARG
28	11	192	THR
28	11	193	VAL
28	11	204	ILE
28	11	206	LEU
28	11	208	LYS
28	11	212	SER
28	11	218	ARG
28	11	221	VAL
28	11	229	VAL
28	11	257	LEU
28	11	270	ILE
28	11	271	ILE
28	11	273	ARG
29	21	12	THR
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	38	THR
29	21	41	LYS
29	21	45	THR
29	21	47	VAL
29	21	49	LEU
29	21	52	LEU
29	21	54	GLN
29	21	59	VAL
29	21	63	LEU
29	21	64	LYS
29	21	66	HIS
29	21	69	LYS
29	21	72	VAL
29	21	78	LEU

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Mol	Chain	Res	Type
29	21	80	GLU
29	21	87	GLU
29	21	90	THR
29	21	92	THR
29	21	93	VAL
29	21	101	ARG
29	21	107	THR
29	21	108	SER
29	21	116	VAL
29	21	119	ARG
29	21	159	HIS
29	21	167	VAL
29	21	175	VAL
29	21	176	ILE
29	21	178	GLU
29	21	179	GLU
29	21	181	LEU
29	21	197	ILE
29	21	200	GLU
29	21	202	LYS
29	21	203	LYS
30	31	7	TYR
30	31	8	GLN
30	31	9	ILE
30	31	12	LEU
30	31	18	ARG
30	31	32	LEU
30	31	33	LEU
30	31	53	THR
30	31	57	VAL
30	31	64	ILE
30	31	68	LYS
30	31	70	THR
30	31	74	ARG
30	31	78	ILE
30	31	82	ILE
30	31	88	VAL
30	31	89	VAL
30	31	93	LYS
30	31	95	ARG
30	31	98	SER
30	31	101	LEU

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Mol	Chain	Res	Type
30	31	116	ASP
30	31	117	ARG
30	31	122	LYS
30	31	127	GLU
30	31	136	THR
30	31	145	GLU
30	31	149	ASP
30	31	152	GLU
30	31	165	ARG
30	31	170	LEU
30	31	174	VAL
30	31	175	THR
30	31	183	VAL
30	31	192	LEU
30	31	201	VAL
30	31	203	GLN
30	31	206	ILE
31	41	3	LEU
31	41	14	GLU
31	41	19	LEU
31	41	20	ILE
31	41	22	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	52	ILE
31	41	53	LEU
31	41	58	GLN
31	41	63	ILE
31	41	64	THR
31	41	67	LYS
31	41	70	VAL
31	41	80	PHE
31	41	82	LEU
31	41	86	MET
31	41	90	LEU
31	41	96	ARG
31	41	101	ILE
31	41	103	LEU

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Mol	Chain	Res	Type
31	41	114	ILE
31	41	115	ARG
31	41	120	LEU
31	41	128	ARG
31	41	133	LEU
31	41	137	GLU
31	41	139	LEU
31	41	145	THR
31	41	153	ARG
31	41	155	MET
31	41	162	THR
31	41	165	THR
31	41	168	GLU
32	51	4	ILE
32	51	6	ARG
32	51	7	LEU
32	51	9	ILE
32	51	15	VAL
32	51	23	ARG
32	51	24	VAL
32	51	45	VAL
32	51	47	GLU
32	51	49	VAL
32	51	54	ARG
32	51	58	GLU
32	51	63	SER
32	51	64	LEU
32	51	71	LEU
32	51	72	ILE
32	51	77	LYS
32	51	80	SER
32	51	81	GLU
32	51	83	TYR
32	51	87	LEU
32	51	92	ILE
32	51	95	ARG
32	51	97	ARG
32	51	103	LEU
32	51	104	GLU
32	51	105	LEU
32	51	111	HIS
32	51	121	ILE

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Mol	Chain	Res	Type
32	51	125	VAL
32	51	129	THR
32	51	130	ARG
32	51	132	ARG
32	51	133	VAL
32	51	134	SER
32	51	136	ILE
32	51	139	GLN
32	51	144	VAL
32	51	151	ILE
32	51	153	LYS
32	51	169	VAL
33	61	7	GLU
33	61	9	LEU
33	61	10	GLU
33	61	12	LEU
33	61	15	VAL
33	61	20	ASP
33	61	31	LEU
33	61	35	LEU
33	61	38	LEU
33	61	41	GLU
33	61	45	LYS
33	61	58	LEU
33	61	60	GLU
33	61	64	GLU
33	61	70	GLU
33	61	71	ILE
33	61	72	LEU
33	61	74	ASN
33	61	81	VAL
33	61	82	ARG
33	61	86	THR
33	61	92	VAL
33	61	95	LYS
33	61	96	ASP
33	61	101	LEU
33	61	108	THR
33	61	110	ASP
33	61	118	LYS
33	61	122	GLU
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	145	VAL
34	58	1	MET
34	58	5	VAL
34	58	7	LYS
34	58	9	VAL
34	58	10	GLU
34	58	14	VAL
34	58	15	LEU
34	58	16	ILE
34	58	28	THR
34	58	32	THR
34	58	33	LEU
34	58	34	LEU
34	58	42	TRP
34	58	43	THR
34	58	48	MET
34	58	55	VAL
34	58	58	ASP
34	58	60	ILE
34	58	61	ARG
34	58	65	LYS
34	58	67	LEU
34	58	68	GLU
34	58	87	LEU
34	58	98	VAL
34	58	99	LEU
34	58	120	LEU
34	58	130	HIS
34	58	131	GLN
34	58	133	GLN
35	68	1	MET
35	68	3	GLN
35	68	8	LEU
35	68	9	GLU
35	68	19	ILE
35	68	20	MET
35	68	22	ILE
35	68	23	ARG

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Mol	Chain	Res	Type
35	68	24	VAL
35	68	25	LEU
35	68	29	ASN
35	68	32	TYR
35	68	47	ILE
35	68	52	VAL
35	68	53	LYS
35	68	66	LYS
35	68	68	GLU
35	68	77	ILE
35	68	78	ARG
35	68	82	ASN
35	68	91	LEU
35	68	94	ARG
35	68	96	THR
35	68	98	VAL
35	68	112	MET
35	68	115	VAL
36	78	2	LYS
36	78	6	LEU
36	78	7	ARG
36	78	10	PRO
36	78	18	ARG
36	78	19	VAL
36	78	27	HIS
36	78	30	THR
36	78	32	THR
36	78	40	SER
36	78	41	ARG
36	78	45	LEU
36	78	46	LYS
36	78	50	ARG
36	78	56	SER
36	78	57	THR
36	78	70	GLN
36	78	76	LYS
36	78	81	GLN
36	78	90	ARG
36	78	96	THR
36	78	101	VAL
36	78	105	LEU
36	78	106	LEU

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Mol	Chain	Res	Type
36	78	111	ARG
36	78	112	LEU
36	78	117	GLU
36	78	119	GLU
36	78	126	VAL
36	78	133	SER
36	78	135	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	6	ARG
37	88	8	LYS
37	88	11	LYS
37	88	16	ARG
37	88	25	ASP
37	88	26	TYR
37	88	27	VAL
37	88	35	VAL
37	88	42	ILE
37	88	43	THR
37	88	45	GLN
37	88	52	VAL
37	88	55	VAL
37	88	56	ARG
37	88	59	ARG
37	88	77	LYS
37	88	81	VAL
37	88	91	GLU
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	127	ILE
37	88	131	ILE
37	88	134	ARG
38	98	2	ARG
38	98	4	LEU

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Mol	Chain	Res	Type
38	98	6	SER
38	98	9	LYS
38	98	12	ARG
38	98	28	LEU
38	98	29	LEU
38	98	33	ARG
38	98	34	ILE
38	98	35	THR
38	98	44	LEU
38	98	59	ASP
38	98	61	HIS
38	98	65	LEU
38	98	67	LEU
38	98	73	VAL
38	98	75	LEU
38	98	76	VAL
38	98	79	LEU
38	98	82	GLU
38	98	94	TYR
38	98	95	THR
38	98	96	ARG
38	98	100	LEU
38	98	105	ARG
38	98	111	LEU
38	98	113	LEU
38	98	114	VAL
38	98	118	GLU
39	A8	4	LEU
39	A8	5	THR
39	A8	17	ARG
39	A8	18	ILE
39	A8	19	LYS
39	A8	31	SER
39	A8	32	LEU
39	A8	35	ILE
39	A8	36	TYR
39	A8	41	ASP
39	A8	44	LYS
39	A8	46	VAL
39	A8	52	SER
39	A8	54	LEU
39	A8	58	LEU

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Mol	Chain	Res	Type
39	A8	59	LYS
39	A8	69	VAL
39	A8	71	ARG
39	A8	75	GLU
39	A8	78	LEU
39	A8	85	VAL
39	A8	89	ARG
39	A8	98	VAL
39	A8	101	LEU
39	A8	106	ARG
39	A8	111	GLU
39	A8	112	PHE
40	B8	1	MET
40	B8	10	VAL
40	B8	13	ARG
40	B8	15	VAL
40	B8	18	ASP
40	B8	19	LEU
40	B8	21	GLU
40	B8	27	THR
40	B8	30	VAL
40	B8	34	VAL
40	B8	38	ASN
40	B8	39	ARG
40	B8	42	ILE
40	B8	49	VAL
40	B8	50	ILE
40	B8	52	ILE
40	B8	58	ASN
40	B8	59	THR
40	B8	62	THR
40	B8	64	ARG
40	B8	65	LYS
40	B8	74	ARG
40	B8	78	LEU
40	B8	80	SER
40	B8	85	LYS
40	B8	86	ILE
40	B8	87	ASP
40	B8	88	ILE
40	B8	89	VAL
40	B8	98	LYS

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Mol	Chain	Res	Type
40	B8	99	LEU
40	B8	110	ILE
40	B8	111	ARG
40	B8	112	ARG
40	B8	114	LEU
40	B8	121	ILE
41	C8	5	LYS
41	C8	12	ARG
41	C8	27	LEU
41	C8	34	LYS
41	C8	52	ARG
41	C8	56	ASP
41	C8	60	LEU
41	C8	64	ARG
41	C8	74	LEU
41	C8	81	HIS
41	C8	83	LEU
41	C8	85	LYS
41	C8	89	GLU
41	C8	94	ASN
41	C8	97	ASP
41	C8	98	LEU
41	C8	100	VAL
41	C8	108	GLU
42	D8	5	VAL
42	D8	7	THR
42	D8	11	GLN
42	D8	18	LEU
42	D8	19	LYS
42	D8	20	LEU
42	D8	22	VAL
42	D8	24	LYS
42	D8	26	ASP
42	D8	34	GLU
42	D8	35	LEU
42	D8	39	LEU
42	D8	40	LEU
42	D8	44	LYS
42	D8	46	VAL
42	D8	47	VAL
42	D8	51	VAL
42	D8	57	VAL

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Mol	Chain	Res	Type
42	D8	62	LEU
42	D8	69	LYS
42	D8	70	ILE
42	D8	72	VAL
42	D8	78	LYS
42	D8	79	VAL
42	D8	88	ARG
42	D8	89	GLN
42	D8	99	ILE
43	E8	11	ARG
43	E8	18	ARG
43	E8	19	LEU
43	E8	20	VAL
43	E8	21	VAL
43	E8	24	ILE
43	E8	39	THR
43	E8	42	ARG
43	E8	51	LEU
43	E8	52	GLU
43	E8	62	HIS
43	E8	68	ARG
43	E8	69	LEU
43	E8	76	VAL
43	E8	77	ASP
43	E8	86	LEU
43	E8	88	ARG
43	E8	92	ARG
43	E8	95	ILE
43	E8	96	ILE
43	E8	97	LYS
43	E8	100	THR
43	E8	107	LEU
43	E8	111	HIS
44	F8	2	LYS
44	F8	9	LEU
44	F8	12	VAL
44	F8	13	LEU
44	F8	23	GLU
44	F8	27	THR
44	F8	35	THR
44	F8	43	VAL
44	F8	49	VAL

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Mol	Chain	Res	Type
44	F8	65	ARG
44	F8	70	LEU
44	F8	72	LYS
44	F8	76	ARG
44	F8	80	ILE
44	F8	81	VAL
44	F8	93	GLU
45	G8	5	MET
45	G8	6	HIS
45	G8	24	VAL
45	G8	27	VAL
45	G8	31	LEU
45	G8	33	LYS
45	G8	38	ILE
45	G8	39	VAL
45	G8	40	GLU
45	G8	43	ASN
45	G8	47	LYS
45	G8	52	SER
45	G8	54	LYS
45	G8	55	TYR
45	G8	57	GLN
45	G8	61	ILE
45	G8	64	GLU
45	G8	67	LEU
45	G8	71	LYS
45	G8	75	ILE
45	G8	79	CYS
45	G8	85	VAL
45	G8	86	ARG
45	G8	88	LYS
45	G8	94	LYS
45	G8	95	LYS
45	G8	97	ARG
45	G8	99	CYS
46	H8	1	MET
46	H8	5	LEU
46	H8	11	GLU
46	H8	13	GLU
46	H8	16	SER
46	H8	19	ARG
46	H8	37	VAL

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Mol	Chain	Res	Type
46	H8	40	ASP
46	H8	41	LEU
46	H8	42	VAL
46	H8	43	GLU
46	H8	50	GLN
46	H8	53	ILE
46	H8	58	VAL
46	H8	60	GLU
46	H8	61	LEU
46	H8	65	GLN
46	H8	71	VAL
46	H8	76	LEU
46	H8	77	ASP
46	H8	79	ARG
46	H8	81	ARG
46	H8	86	VAL
46	H8	91	LEU
46	H8	92	SER
46	H8	94	GLU
46	H8	105	VAL
46	H8	112	ARG
46	H8	116	VAL
46	H8	117	LEU
46	H8	123	ASP
46	H8	128	VAL
46	H8	145	GLU
46	H8	146	ILE
46	H8	154	ASP
46	H8	161	VAL
47	I8	3	HIS
47	I8	4	LYS
47	I8	30	VAL
47	I8	31	VAL
47	I8	36	ILE
47	I8	41	ARG
47	I8	43	THR
47	I8	44	ARG
47	I8	46	LYS
47	I8	66	VAL
47	I8	67	VAL
47	I8	70	GLN
47	I8	74	ARG

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Mol	Chain	Res	Type
47	I8	80	HIS
48	J8	4	VAL
48	J8	7	ILE
48	J8	19	GLN
48	J8	21	ARG
48	J8	25	LYS
48	J8	33	LYS
48	J8	34	THR
48	J8	35	THR
48	J8	38	SER
48	J8	41	ARG
48	J8	48	LYS
48	J8	62	VAL
48	J8	65	SER
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	85	LEU
48	J8	90	ILE
48	J8	91	LYS
49	K8	6	VAL
49	K8	7	ARG
49	K8	8	LYS
49	K8	11	GLU
49	K8	14	ARG
49	K8	15	LYS
49	K8	16	LEU
49	K8	24	LEU
49	K8	25	VAL
49	K8	32	LEU
49	K8	38	GLN
49	K8	41	ILE
49	K8	44	LEU
49	K8	47	ASN
49	K8	48	HIS
49	K8	50	ILE
49	K8	53	LEU
49	K8	55	ARG
49	K8	62	THR

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Mol	Chain	Res	Type
49	K8	64	LEU
49	K8	67	LYS
50	L8	8	LEU
50	L8	9	VAL
50	L8	13	ILE
50	L8	31	LEU
50	L8	36	VAL
50	L8	37	LEU
50	L8	38	GLU
50	L8	40	THR
50	L8	43	ILE
50	L8	54	VAL
50	L8	58	VAL
51	M8	5	ILE
51	M8	6	HIS
51	M8	10	VAL
51	M8	15	ILE
51	M8	23	GLU
51	M8	27	THR
51	M8	31	ILE
51	M8	38	LYS
51	M8	43	TYR
51	M8	44	THR
51	M8	46	GLN
51	M8	50	VAL
51	M8	51	ASP
51	M8	61	ARG
51	M8	63	TYR
51	M8	66	SER
52	N8	10	LYS
52	N8	13	LYS
52	N8	16	ARG
52	N8	26	THR
52	N8	29	THR
52	N8	31	VAL
52	N8	36	CYS
52	N8	37	LYS
52	N8	40	LYS
52	N8	51	TYR
52	N8	55	ARG
52	N8	57	VAL
53	P8	1	MET

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Mol	Chain	Res	Type
53	P8	8	ASN
53	P8	9	ARG
53	P8	14	LYS
53	P8	23	ARG
53	P8	24	THR
53	P8	43	THR
53	P8	46	VAL
53	P8	47	ARG
54	Q8	11	LYS
54	Q8	19	SER
54	Q8	21	LYS
54	Q8	25	MET
54	Q8	26	LYS
54	Q8	30	ARG
54	Q8	32	LEU
54	Q8	34	TRP
54	Q8	35	GLN
54	Q8	37	SER
54	Q8	40	GLU
54	Q8	42	ARG
54	Q8	43	GLN
54	Q8	46	ARG
54	Q8	47	LYS
54	Q8	50	LEU
54	Q8	52	LYS
54	Q8	57	ARG
54	Q8	58	ILE
54	Q8	59	LYS
54	Q8	60	LEU
54	Q8	61	LEU
2	12	5	ILE
2	12	12	GLU
2	12	15	VAL
2	12	17	PHE
2	12	20	GLU
2	12	22	LYS
2	12	31	TYR
2	12	42	ILE
2	12	44	LEU
2	12	48	MET
2	12	55	PHE
2	12	58	ILE

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Mol	Chain	Res	Type
2	12	67	THR
2	12	69	LEU
2	12	71	VAL
2	12	75	LYS
2	12	80	ILE
2	12	82	ARG
2	12	83	MET
2	12	84	GLU
2	12	94	ASN
2	12	98	LEU
2	12	107	THR
2	12	108	ILE
2	12	110	GLN
2	12	111	ARG
2	12	121	LEU
2	12	122	PHE
2	12	124	SER
2	12	129	GLU
2	12	139	LYS
2	12	140	HIS
2	12	142	LEU
2	12	145	LEU
2	12	147	LYS
2	12	155	LEU
2	12	164	VAL
2	12	170	GLU
2	12	172	ILE
2	12	175	ARG
2	12	178	ARG
2	12	185	ILE
2	12	191	ASP
2	12	193	ASP
2	12	196	LEU
2	12	200	ILE
2	12	201	ILE
2	12	209	ARG
2	12	219	VAL
2	12	223	ILE
3	22	5	ILE
3	22	12	LEU
3	22	20	SER
3	22	22	TRP

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Mol	Chain	Res	Type
3	22	28	GLN
3	22	34	LEU
3	22	40	ARG
3	22	43	LEU
3	22	46	GLU
3	22	47	LEU
3	22	54	ARG
3	22	67	THR
3	22	69	HIS
3	22	76	VAL
3	22	82	GLU
3	22	83	ARG
3	22	84	ILE
3	22	85	ARG
3	22	86	VAL
3	22	90	GLU
3	22	94	LEU
3	22	103	VAL
3	22	104	GLN
3	22	105	GLU
3	22	107	GLN
3	22	115	LEU
3	22	120	VAL
3	22	122	GLU
3	22	138	VAL
3	22	140	ARG
3	22	153	VAL
3	22	164	ARG
3	22	166	GLU
3	22	167	TRP
3	22	188	LEU
3	22	192	THR
3	22	193	TYR
3	22	196	LEU
3	22	198	VAL
3	22	202	ILE
3	22	204	LEU
4	32	3	ARG
4	32	5	ILE
4	32	8	VAL
4	32	12	CYS
4	32	17	VAL

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Mol	Chain	Res	Type
4	32	18	LYS
4	32	24	GLU
4	32	30	LYS
4	32	36	ARG
4	32	45	GLN
4	32	52	SER
4	32	53	ASP
4	32	61	LYS
4	32	70	ILE
4	32	81	GLU
4	32	83	SER
4	32	89	THR
4	32	94	LEU
4	32	96	LEU
4	32	104	VAL
4	32	112	VAL
4	32	118	ARG
4	32	122	ARG
4	32	127	THR
4	32	135	LEU
4	32	140	VAL
4	32	141	ARG
4	32	145	GLU
4	32	150	GLU
4	32	152	SER
4	32	162	LEU
4	32	168	ARG
4	32	184	LYS
4	32	190	ASP
4	32	191	ARG
4	32	192	GLU
4	32	193	ASP
4	32	194	LEU
4	32	200	GLU
4	32	205	GLU
5	42	13	ILE
5	42	14	ARG
5	42	16	THR
5	42	19	MET
5	42	24	ARG
5	42	25	ARG
5	42	26	PHE

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Mol	Chain	Res	Type
5	42	31	LEU
5	42	40	ARG
5	42	41	VAL
5	42	43	LEU
5	42	47	LYS
5	42	51	VAL
5	42	60	TYR
5	42	61	TYR
5	42	65	ASN
5	42	66	MET
5	42	72	GLN
5	42	73	ASN
5	42	75	THR
5	42	76	ILE
5	42	78	HIS
5	42	79	GLU
5	42	81	GLU
5	42	82	VAL
5	42	87	SER
5	42	91	LEU
5	42	100	VAL
5	42	101	ILE
5	42	120	THR
5	42	126	ARG
5	42	127	ASN
5	42	137	GLU
5	42	144	THR
5	42	148	VAL
6	52	2	ARG
6	52	3	ARG
6	52	14	LEU
6	52	16	GLN
6	52	21	LEU
6	52	25	ILE
6	52	27	GLN
6	52	28	ARG
6	52	39	LYS
6	52	40	VAL
6	52	43	LEU
6	52	46	ARG
6	52	54	LYS
6	52	55	ASP

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Mol	Chain	Res	Type
6	52	57	GLN
6	52	64	GLN
6	52	70	ASP
6	52	72	VAL
6	52	73	ASN
6	52	74	ASP
6	52	78	GLU
6	52	80	ARG
6	52	81	ILE
6	52	89	MET
6	52	93	SER
6	52	98	LEU
7	62	4	ARG
7	62	6	ARG
7	62	8	GLU
7	62	20	ASP
7	62	21	VAL
7	62	24	THR
7	62	27	ILE
7	62	29	LYS
7	62	35	LYS
7	62	45	ASP
7	62	51	GLN
7	62	54	THR
7	62	57	GLU
7	62	60	LYS
7	62	61	VAL
7	62	63	LYS
7	62	69	VAL
7	62	75	VAL
7	62	85	TYR
7	62	87	VAL
7	62	90	GLU
7	62	91	VAL
7	62	97	GLN
7	62	104	LEU
7	62	118	VAL
7	62	129	GLU
7	62	135	VAL
7	62	140	ASP
7	62	143	ARG
7	62	149	ARG

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Mol	Chain	Res	Type
8	72	1	MET
8	72	2	LEU
8	72	24	THR
8	72	25	ASP
8	72	39	LEU
8	72	52	ASP
8	72	73	ASP
8	72	82	HIS
8	72	84	ARG
8	72	92	ARG
8	72	97	VAL
8	72	99	GLU
8	72	100	ILE
8	72	102	ARG
8	72	107	LEU
8	72	109	ILE
8	72	115	SER
8	72	126	LYS
8	72	127	LEU
8	72	133	LEU
9	82	7	THR
9	82	38	GLN
9	82	41	VAL
9	82	42	ARG
9	82	53	VAL
9	82	64	THR
9	82	79	LEU
9	82	85	LEU
9	82	95	LYS
9	82	96	LEU
9	82	102	LEU
9	82	104	ARG
9	82	113	LYS
9	82	118	LYS
10	1A	5	ARG
10	1A	13	HIS
10	1A	17	ASP
10	1A	23	ILE
10	1A	24	VAL
10	1A	40	LEU
10	1A	43	ARG
10	1A	48	THR

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Mol	Chain	Res	Type
10	1A	57	LYS
10	1A	59	SER
10	1A	60	ARG
10	1A	67	THR
10	1A	70	ARG
10	1A	72	VAL
10	1A	79	ARG
10	1A	89	ASP
10	1A	96	ILE
11	2A	11	LYS
11	2A	14	VAL
11	2A	29	ILE
11	2A	30	VAL
11	2A	32	ILE
11	2A	41	THR
11	2A	44	SER
11	2A	78	GLN
11	2A	79	SER
11	2A	80	VAL
11	2A	82	VAL
11	2A	83	ILE
11	2A	93	GLN
11	2A	105	VAL
11	2A	109	VAL
11	2A	114	VAL
11	2A	124	LYS
12	3A	6	THR
12	3A	17	LYS
12	3A	23	LYS
12	3A	24	VAL
12	3A	27	LEU
12	3A	33	ARG
12	3A	34	ARG
12	3A	37	CYS
12	3A	39	VAL
12	3A	41	ARG
12	3A	42	THR
12	3A	43	VAL
12	3A	44	THR
12	3A	46	LYS
12	3A	47	LYS
12	3A	52	LEU

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Mol	Chain	Res	Type
12	3A	54	LYS
12	3A	59	ARG
12	3A	60	LEU
12	3A	66	VAL
12	3A	81	SER
12	3A	82	VAL
12	3A	83	VAL
12	3A	84	LEU
12	3A	89	ARG
12	3A	92	ASP
12	3A	100	ILE
12	3A	102	ARG
12	3A	111	LYS
12	3A	115	LYS
12	3A	117	ARG
12	3A	122	THR
13	4A	7	VAL
13	4A	9	ILE
13	4A	17	VAL
13	4A	19	LEU
13	4A	36	LYS
13	4A	39	ILE
13	4A	45	VAL
13	4A	47	ASP
13	4A	66	LEU
13	4A	69	GLU
13	4A	70	LEU
13	4A	78	ILE
13	4A	82	MET
13	4A	93	ARG
13	4A	94	ARG
13	4A	98	VAL
13	4A	103	THR
13	4A	108	ARG
14	5A	8	GLU
14	5A	11	LYS
14	5A	12	ARG
14	5A	16	PHE
14	5A	17	LYS
14	5A	22	THR
14	5A	33	VAL
15	6A	3	ILE

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Mol	Chain	Res	Type
15	6A	5	LYS
15	6A	10	LYS
15	6A	31	LEU
15	6A	36	ILE
15	6A	39	LEU
15	6A	48	LYS
15	6A	79	ARG
15	6A	83	GLU
15	6A	87	ILE
15	6A	88	ARG
16	7A	2	VAL
16	7A	3	LYS
16	7A	8	ARG
16	7A	11	SER
16	7A	21	VAL
16	7A	27	LYS
16	7A	36	ILE
16	7A	43	LYS
16	7A	45	THR
16	7A	51	VAL
16	7A	54	GLU
16	7A	55	ARG
16	7A	62	VAL
16	7A	65	GLN
16	7A	67	THR
16	7A	71	ARG
16	7A	74	LEU
16	7A	82	GLN
17	8A	10	VAL
17	8A	22	LEU
17	8A	24	GLU
17	8A	31	LEU
17	8A	38	ARG
17	8A	43	LEU
17	8A	52	LYS
17	8A	53	LEU
17	8A	55	ASP
17	8A	60	ILE
17	8A	68	ARG
17	8A	70	ARG
17	8A	74	LEU
17	8A	75	ARG

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Mol	Chain	Res	Type
17	8A	84	LEU
17	8A	89	LEU
17	8A	93	GLN
17	8A	100	LYS
18	9A	26	LEU
18	9A	28	GLU
18	9A	29	PHE
18	9A	32	ARG
18	9A	36	ASN
18	9A	53	ARG
18	9A	54	ARG
18	9A	59	SER
18	9A	65	ILE
18	9A	68	LYS
18	9A	82	THR
18	9A	84	LYS
18	9A	86	VAL
18	9A	87	ARG
19	AA	11	VAL
19	AA	23	ASN
19	AA	28	LYS
19	AA	29	ARG
19	AA	31	ILE
19	AA	39	THR
19	AA	41	VAL
19	AA	53	ASN
19	AA	60	VAL
19	AA	66	MET
19	AA	77	THR
20	BA	10	LEU
20	BA	11	SER
20	BA	23	ARG
20	BA	24	LEU
20	BA	29	LYS
20	BA	39	LYS
20	BA	48	LYS
20	BA	53	LEU
20	BA	58	LYS
20	BA	60	GLU
20	BA	75	ASN
20	BA	88	VAL
20	BA	93	GLU

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Mol	Chain	Res	Type
21	1B	8	THR
21	1B	9	ARG
28	19	14	ARG
28	19	18	VAL
28	19	23	GLU
28	19	25	THR
28	19	32	SER
28	19	33	LEU
28	19	34	VAL
28	19	39	LYS
28	19	43	ARG
28	19	49	ILE
28	19	50	THR
28	19	61	LEU
28	19	64	ILE
28	19	65	ILE
28	19	68	LYS
28	19	72	LYS
28	19	82	ILE
28	19	88	ARG
28	19	89	SER
28	19	94	LEU
28	19	101	GLU
28	19	105	ILE
28	19	106	ILE
28	19	111	LEU
28	19	112	GLN
28	19	127	VAL
28	19	141	VAL
28	19	147	LEU
28	19	157	ARG
28	19	165	ILE
28	19	166	GLN
28	19	168	ARG
28	19	173	VAL
28	19	193	VAL
28	19	200	ASP
28	19	204	ILE
28	19	211	ARG
28	19	212	SER
28	19	217	ARG
28	19	239	ARG

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Mol	Chain	Res	Type
28	19	242	ARG
28	19	244	ARG
28	19	255	LYS
28	19	257	LEU
28	19	262	ARG
28	19	263	ARG
28	19	266	SER
28	19	267	SER
28	19	270	ILE
28	19	271	ILE
28	19	273	ARG
29	29	1	MET
29	29	4	ILE
29	29	7	VAL
29	29	9	VAL
29	29	13	ARG
29	29	14	ILE
29	29	16	ARG
29	29	25	VAL
29	29	26	ILE
29	29	27	LEU
29	29	37	ARG
29	29	38	THR
29	29	44	TYR
29	29	45	THR
29	29	47	VAL
29	29	48	GLN
29	29	49	LEU
29	29	52	LEU
29	29	59	VAL
29	29	60	ASN
29	29	63	LEU
29	29	64	LYS
29	29	69	LYS
29	29	76	ARG
29	29	77	ILE
29	29	78	LEU
29	29	87	GLU
29	29	90	THR
29	29	93	VAL
29	29	95	ILE
29	29	103	ASP

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Mol	Chain	Res	Type
29	29	107	THR
29	29	111	ARG
29	29	119	ARG
29	29	134	ILE
29	29	144	ARG
29	29	154	LYS
29	29	166	THR
29	29	175	VAL
29	29	181	LEU
29	29	188	VAL
29	29	197	ILE
29	29	201	THR
29	29	202	LYS
30	39	2	LYS
30	39	6	VAL
30	39	7	TYR
30	39	8	GLN
30	39	11	VAL
30	39	20	LEU
30	39	23	ASP
30	39	24	LEU
30	39	28	ILE
30	39	29	ASN
30	39	32	LEU
30	39	36	VAL
30	39	50	SER
30	39	57	VAL
30	39	62	ARG
30	39	63	LYS
30	39	64	ILE
30	39	67	GLN
30	39	70	THR
30	39	74	ARG
30	39	77	ASP
30	39	78	ILE
30	39	82	ILE
30	39	83	PHE
30	39	100	THR
30	39	110	LEU
30	39	112	MET
30	39	114	VAL
30	39	123	LEU

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Mol	Chain	Res	Type
30	39	127	GLU
30	39	140	LEU
30	39	154	VAL
30	39	156	LEU
30	39	158	THR
30	39	174	VAL
30	39	183	VAL
30	39	192	LEU
30	39	194	MET
30	39	196	LEU
30	39	197	ASP
30	39	200	GLU
30	39	201	VAL
30	39	205	ARG
31	49	3	LEU
31	49	9	ARG
31	49	13	GLU
31	49	14	GLU
31	49	26	GLN
31	49	28	VAL
31	49	39	ILE
31	49	40	ASN
31	49	53	LEU
31	49	60	LEU
31	49	64	THR
31	49	67	LYS
31	49	70	VAL
31	49	81	LYS
31	49	82	LEU
31	49	96	ARG
31	49	104	GLU
31	49	106	LEU
31	49	109	VAL
31	49	130	ASN
31	49	147	ASP
31	49	149	VAL
31	49	152	LEU
31	49	153	ARG
31	49	159	VAL
31	49	165	THR
31	49	167	GLU
31	49	172	LEU

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Mol	Chain	Res	Type
31	49	173	LEU
32	59	6	ARG
32	59	7	LEU
32	59	9	ILE
32	59	11	VAL
32	59	24	VAL
32	59	26	VAL
32	59	27	LYS
32	59	32	GLU
32	59	43	VAL
32	59	44	VAL
32	59	45	VAL
32	59	50	VAL
32	59	52	VAL
32	59	62	LYS
32	59	67	LEU
32	59	68	THR
32	59	89	ILE
32	59	94	TYR
32	59	98	LEU
32	59	99	VAL
32	59	101	ARG
32	59	105	LEU
32	59	113	VAL
32	59	114	VAL
32	59	122	THR
32	59	123	PHE
32	59	125	VAL
32	59	127	GLU
32	59	129	THR
32	59	134	SER
32	59	136	ILE
32	59	139	GLN
32	59	147	ASN
32	59	157	TYR
32	59	164	TYR
32	59	167	GLU
33	69	1	MET
33	69	2	LYS
33	69	4	ILE
33	69	6	LEU
33	69	9	LEU

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Mol	Chain	Res	Type
33	69	15	VAL
33	69	19	VAL
33	69	31	LEU
33	69	35	LEU
33	69	37	VAL
33	69	40	THR
33	69	44	LEU
33	69	47	LEU
33	69	58	LEU
33	69	60	GLU
33	69	67	ARG
33	69	68	LEU
33	69	69	LYS
33	69	73	GLU
33	69	75	LEU
33	69	77	LEU
33	69	78	THR
33	69	79	ILE
33	69	81	VAL
33	69	87	LYS
33	69	101	LEU
33	69	104	GLN
33	69	105	HIS
33	69	109	ILE
33	69	114	LEU
33	69	117	GLU
33	69	125	GLU
33	69	131	LYS
33	69	133	HIS
33	69	136	VAL
33	69	138	ILE
33	69	140	LEU
33	69	142	VAL
34	15	1	MET
34	15	9	VAL
34	15	14	VAL
34	15	16	ILE
34	15	28	THR
34	15	29	LYS
34	15	32	THR
34	15	33	LEU
34	15	34	LEU

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Mol	Chain	Res	Type
34	15	35	ARG
34	15	37	LYS
34	15	42	TRP
34	15	46	VAL
34	15	48	MET
34	15	56	ASN
34	15	63	THR
34	15	65	LYS
34	15	67	LEU
34	15	68	GLU
34	15	76	SER
34	15	85	ILE
34	15	87	LEU
34	15	90	MET
34	15	93	THR
34	15	94	HIS
34	15	98	VAL
34	15	104	LYS
34	15	106	MET
34	15	112	LEU
34	15	115	ARG
34	15	121	LYS
34	15	127	ASP
34	15	134	ARG
34	15	136	GLU
35	25	5	GLN
35	25	8	LEU
35	25	9	GLU
35	25	10	VAL
35	25	20	MET
35	25	22	ILE
35	25	24	VAL
35	25	29	ASN
35	25	35	VAL
35	25	38	VAL
35	25	44	LYS
35	25	47	ILE
35	25	49	ARG
35	25	61	VAL
35	25	70	LYS
35	25	78	ARG
35	25	86	ILE

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Mol	Chain	Res	Type
35	25	87	ILE
35	25	91	LEU
35	25	94	ARG
35	25	96	THR
35	25	97	ARG
35	25	105	GLU
35	25	106	LEU
35	25	108	GLU
35	25	111	PHE
35	25	113	LYS
35	25	114	ILE
35	25	117	LEU
36	35	1	MET
36	35	6	LEU
36	35	13	ASN
36	35	15	ARG
36	35	18	ARG
36	35	21	ARG
36	35	27	HIS
36	35	36	LYS
36	35	41	ARG
36	35	45	LEU
36	35	50	ARG
36	35	57	THR
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	83	VAL
36	35	85	LEU
36	35	90	ARG
36	35	91	PHE
36	35	96	THR
36	35	98	GLU
36	35	100	LEU
36	35	101	VAL

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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	114	ILE
36	35	125	VAL
36	35	126	VAL
36	35	135	LEU
36	35	138	LEU
36	35	144	GLU
36	35	146	VAL
36	35	147	LEU
36	35	149	GLU
37	45	2	LEU
37	45	3	MET
37	45	7	MET
37	45	22	LYS
37	45	27	VAL
37	45	32	TYR
37	45	35	VAL
37	45	42	ILE
37	45	45	GLN
37	45	54	MET
37	45	55	VAL
37	45	59	ARG
37	45	66	ILE
37	45	75	THR
37	45	77	LYS
37	45	79	LEU
37	45	80	GLU
37	45	81	VAL
37	45	85	LYS
37	45	87	LYS
37	45	90	VAL
37	45	105	GLU
37	45	106	VAL
37	45	110	THR
37	45	112	GLU
37	45	116	GLU
37	45	118	LEU
37	45	127	ILE
37	45	130	LYS

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Mol	Chain	Res	Type
37	45	134	ARG
37	45	138	ASP
37	45	139	GLU
37	45	141	GLN
38	55	8	ARG
38	55	14	SER
38	55	15	SER
38	55	18	LEU
38	55	26	LYS
38	55	28	LEU
38	55	29	LEU
38	55	30	THR
38	55	34	ILE
38	55	35	THR
38	55	36	THR
38	55	44	LEU
38	55	51	LEU
38	55	54	LEU
38	55	56	LYS
38	55	65	LEU
38	55	67	LEU
38	55	75	LEU
38	55	76	VAL
38	55	79	LEU
38	55	81	ASP
38	55	82	GLU
38	55	88	ARG
38	55	91	GLN
38	55	95	THR
38	55	97	VAL
38	55	100	LEU
38	55	111	LEU
38	55	115	GLU
38	55	117	VAL
39	65	3	ARG
39	65	4	LEU
39	65	12	PHE
39	65	14	VAL
39	65	20	ARG
39	65	24	LEU
39	65	25	ARG
39	65	27	SER

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Mol	Chain	Res	Type
39	65	32	LEU
39	65	36	TYR
39	65	38	GLN
39	65	40	ILE
39	65	48	LEU
39	65	50	SER
39	65	52	SER
39	65	54	LEU
39	65	59	LYS
39	65	65	VAL
39	65	69	VAL
39	65	73	LEU
39	65	82	ILE
39	65	88	ASP
39	65	98	VAL
39	65	101	LEU
39	65	106	ARG
39	65	107	GLU
39	65	110	LEU
39	65	112	PHE
40	75	7	ILE
40	75	8	LYS
40	75	9	LEU
40	75	13	ARG
40	75	15	VAL
40	75	19	LEU
40	75	23	ARG
40	75	27	THR
40	75	30	VAL
40	75	36	GLU
40	75	38	ASN
40	75	42	ILE
40	75	43	GLN
40	75	49	VAL
40	75	51	ARG
40	75	54	ARG
40	75	55	ASN
40	75	57	PHE
40	75	59	THR
40	75	70	VAL
40	75	72	VAL
40	75	85	LYS

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Mol	Chain	Res	Type
40	75	86	ILE
40	75	87	ASP
40	75	88	ILE
40	75	93	ARG
40	75	105	LEU
40	75	106	SER
40	75	107	ASP
40	75	110	ILE
40	75	112	ARG
40	75	113	LYS
40	75	115	ARG
40	75	121	ILE
40	75	124	ASP
40	75	125	ARG
41	85	5	LYS
41	85	8	VAL
41	85	52	ARG
41	85	55	ARG
41	85	56	ASP
41	85	63	VAL
41	85	64	ARG
41	85	74	LEU
41	85	78	THR
41	85	92	ARG
41	85	97	ASP
41	85	100	VAL
41	85	101	ARG
41	85	104	GLN
41	85	105	VAL
41	85	114	LYS
42	95	19	LYS
42	95	32	THR
42	95	33	VAL
42	95	38	LEU
42	95	39	LEU
42	95	40	LEU
42	95	43	GLU
42	95	44	LYS
42	95	45	THR
42	95	46	VAL
42	95	47	VAL
42	95	49	THR

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Mol	Chain	Res	Type
42	95	57	VAL
42	95	66	ARG
42	95	70	ILE
42	95	71	LEU
42	95	75	PHE
42	95	76	LYS
42	95	79	VAL
42	95	84	LYS
42	95	88	ARG
42	95	91	TYR
42	95	95	LEU
42	95	97	LYS
43	A5	11	ARG
43	A5	17	VAL
43	A5	18	ARG
43	A5	19	LEU
43	A5	20	VAL
43	A5	23	LEU
43	A5	39	THR
43	A5	41	LYS
43	A5	50	VAL
43	A5	51	LEU
43	A5	59	VAL
43	A5	65	LEU
43	A5	70	TYR
43	A5	76	VAL
43	A5	85	VAL
43	A5	88	ARG
43	A5	92	ARG
43	A5	95	ILE
43	A5	96	ILE
43	A5	100	THR
43	A5	103	ILE
43	A5	107	LEU
43	A5	110	LYS
43	A5	113	LYS
44	B5	12	VAL
44	B5	14	SER
44	B5	30	VAL
44	B5	38	GLU
44	B5	40	LYS
44	B5	41	ASN

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Mol	Chain	Res	Type
44	B5	43	VAL
44	B5	45	THR
44	B5	48	LYS
44	B5	49	VAL
44	B5	52	VAL
44	B5	54	VAL
44	B5	63	LYS
44	B5	65	ARG
44	B5	66	LEU
44	B5	76	ARG
44	B5	78	LYS
44	B5	80	ILE
44	B5	82	GLN
44	B5	83	VAL
45	C5	2	ARG
45	C5	6	HIS
45	C5	8	LYS
45	C5	13	VAL
45	C5	23	ARG
45	C5	29	GLU
45	C5	33	LYS
45	C5	37	VAL
45	C5	38	ILE
45	C5	40	GLU
45	C5	43	ASN
45	C5	47	LYS
45	C5	49	VAL
45	C5	51	VAL
45	C5	55	TYR
45	C5	61	ILE
45	C5	62	GLU
45	C5	63	LYS
45	C5	64	GLU
45	C5	71	LYS
45	C5	72	VAL
45	C5	75	ILE
45	C5	84	ARG
45	C5	85	VAL
45	C5	86	ARG
45	C5	89	PHE
45	C5	94	LYS
45	C5	97	ARG

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Mol	Chain	Res	Type
45	C5	99	CYS
45	C5	102	CYS
46	D5	10	ARG
46	D5	16	SER
46	D5	18	LEU
46	D5	19	ARG
46	D5	24	LEU
46	D5	28	MET
46	D5	31	ARG
46	D5	33	LEU
46	D5	41	LEU
46	D5	56	VAL
46	D5	59	LEU
46	D5	60	GLU
46	D5	61	LEU
46	D5	63	ASP
46	D5	70	LEU
46	D5	71	VAL
46	D5	72	ARG
46	D5	74	VAL
46	D5	77	ASP
46	D5	82	ARG
46	D5	93	ASP
46	D5	96	VAL
46	D5	98	MET
46	D5	102	LEU
46	D5	103	ARG
46	D5	128	VAL
46	D5	129	SER
46	D5	132	ASN
46	D5	139	VAL
46	D5	157	LEU
46	D5	161	VAL
46	D5	165	VAL
46	D5	168	GLU
47	E5	10	THR
47	E5	12	ASN
47	E5	16	SER
47	E5	20	ARG
47	E5	23	VAL
47	E5	29	GLN
47	E5	36	ILE

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Mol	Chain	Res	Type
47	E5	41	ARG
47	E5	43	THR
47	E5	46	LYS
47	E5	53	MET
47	E5	58	THR
47	E5	68	GLU
47	E5	79	VAL
47	E5	81	VAL
47	E5	82	ARG
48	F5	2	SER
48	F5	3	LYS
48	F5	4	VAL
48	F5	7	ILE
48	F5	11	ARG
48	F5	19	GLN
48	F5	21	ARG
48	F5	26	ARG
48	F5	38	SER
48	F5	42	GLN
48	F5	56	GLN
48	F5	59	THR
48	F5	62	VAL
48	F5	74	VAL
48	F5	76	ARG
48	F5	78	LYS
48	F5	80	LEU
48	F5	82	LEU
48	F5	83	GLU
48	F5	85	LEU
48	F5	90	ILE
48	F5	91	LYS
48	F5	92	LYS
49	G5	5	GLU
49	G5	10	LEU
49	G5	14	ARG
49	G5	15	LYS
49	G5	19	VAL
49	G5	24	LEU
49	G5	25	VAL
49	G5	32	LEU
49	G5	34	GLU
49	G5	35	LEU

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Mol	Chain	Res	Type
49	G5	46	GLN
49	G5	47	ASN
49	G5	48	HIS
49	G5	53	LEU
49	G5	55	ARG
49	G5	60	LEU
49	G5	62	THR
49	G5	70	GLN
50	H5	5	LYS
50	H5	6	VAL
50	H5	8	LEU
50	H5	9	VAL
50	H5	20	LYS
50	H5	24	LYS
50	H5	30	ARG
50	H5	32	GLN
50	H5	33	GLN
50	H5	36	VAL
50	H5	38	GLU
50	H5	40	THR
50	H5	56	VAL
51	I5	1	MET
51	I5	8	LYS
51	I5	20	ASN
51	I5	22	ILE
51	I5	23	GLU
51	I5	30	GLU
51	I5	33	VAL
51	I5	34	GLU
51	I5	44	THR
51	I5	46	GLN
51	I5	53	GLU
51	I5	58	ARG
51	I5	59	PHE
51	I5	60	GLN
51	I5	61	ARG
51	I5	62	ARG
52	J5	6	VAL
52	J5	11	THR
52	J5	16	ARG
52	J5	25	LEU
52	J5	26	THR

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Mol	Chain	Res	Type
52	J5	29	THR
52	J5	35	GLU
52	J5	45	VAL
52	J5	48	GLU
52	J5	55	ARG
53	L5	1	MET
53	L5	2	LYS
53	L5	4	THR
53	L5	8	ASN
53	L5	11	LYS
53	L5	14	LYS
53	L5	24	THR
53	L5	32	LYS
53	L5	33	ARG
53	L5	42	LEU
53	L5	43	THR
53	L5	46	VAL
53	L5	47	ARG
54	M5	3	LYS
54	M5	6	THR
54	M5	13	ARG
54	M5	14	VAL
54	M5	22	VAL
54	M5	25	MET
54	M5	30	ARG
54	M5	35	GLN
54	M5	36	LYS
54	M5	37	SER
54	M5	49	VAL
54	M5	58	ILE
54	M5	59	LYS
54	M5	60	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (57) such sidechains are listed below:

Mol	Chain	Res	Type
3	2E	104	GLN
3	2E	107	GLN
3	2E	108	ASN
4	3E	160	GLN
6	5E	73	ASN
6	5E	100	ASN

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Mol	Chain	Res	Type
9	8E	73	GLN
9	8E	87	GLN
10	1I	84	GLN
13	4I	77	ASN
15	6I	62	GLN
20	BI	9	ASN
28	11	201	HIS
29	21	35	GLN
31	41	58	GLN
34	58	69	GLN
35	68	3	GLN
35	68	90	GLN
37	88	12	GLN
37	88	13	GLN
38	98	50	HIS
39	A8	95	HIS
42	D8	80	GLN
43	E8	60	ASN
43	E8	62	HIS
44	F8	31	HIS
46	H8	73	GLN
49	K8	38	GLN
4	32	201	GLN
5	42	38	GLN
6	52	13	ASN
6	52	27	GLN
7	62	56	GLN
7	62	153	HIS
9	82	34	ASN
9	82	58	HIS
11	2A	38	ASN
11	2A	99	GLN
13	4A	92	HIS
18	9A	36	ASN
28	19	87	ASN
28	19	126	GLN
29	29	55	ASN
30	39	8	GLN
31	49	27	ASN
31	49	123	ASN
33	69	104	GLN
34	15	8	GLN

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Mol	Chain	Res	Type
36	35	35	HIS
37	45	12	GLN
37	45	123	HIS
39	65	95	HIS
43	A5	102	HIS
46	D5	34	ASN
48	F5	19	GLN
49	G5	38	GLN
52	J5	22	HIS

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	13	1505/1522 (98%)	330 (21%)	31 (2%)
1	1G	1512/1522 (99%)	371 (24%)	38 (2%)
22	1K	86/87 (98%)	23 (26%)	1 (1%)
22	1L	86/87 (98%)	31 (36%)	4 (4%)
23	2K	77/87 (88%)	32 (41%)	8 (10%)
23	2L	79/87 (90%)	32 (40%)	8 (10%)
24	3K	75/87 (86%)	35 (46%)	4 (5%)
24	3L	72/87 (82%)	34 (47%)	5 (6%)
25	4K	14/60 (23%)	6 (42%)	0
25	4L	19/60 (31%)	5 (26%)	0
26	14	2908/2917 (99%)	700 (24%)	40 (1%)
26	1H	2911/2917 (99%)	674 (23%)	52 (1%)
27	16	121/122 (99%)	21 (17%)	1 (0%)
27	1J	121/122 (99%)	36 (29%)	4 (3%)
All	All	9586/9764 (98%)	2330 (24%)	196 (2%)

All (2330) 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	10	A
1	13	19	C
1	13	20	U
1	13	32	A
1	13	39	G

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Mol	Chain	Res	Type
1	13	47	C
1	13	48	C
1	13	50	A
1	13	51	A
1	13	54	C
1	13	59	A
1	13	61	G
1	13	65	U
1	13	66	G
1	13	74	C
1	13	77	C
1	13	78	G
1	13	80	G
1	13	91	C
1	13	101	A
1	13	108	G
1	13	115	G
1	13	116	A
1	13	121	C
1	13	131	C
1	13	137	C
1	13	143	A
1	13	144	G
1	13	151	A
1	13	160	A
1	13	161	A
1	13	164	U
1	13	169	C
1	13	171	A
1	13	172	A
1	13	173	U
1	13	174	C
1	13	180	U
1	13	182	U
1	13	189	U
1	13	190	G
1	13	191(A)	G
1	13	195	A
1	13	196	A
1	13	201	C
1	13	208	U
1	13	209	U

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Mol	Chain	Res	Type
1	13	210	U
1	13	216	G
1	13	217	C
1	13	222	U
1	13	231	G
1	13	244	U
1	13	245	C
1	13	247	G
1	13	251	G
1	13	266	G
1	13	267	C
1	13	270	A
1	13	281	G
1	13	289	G
1	13	316	G
1	13	317	G
1	13	321	A
1	13	328	C
1	13	329	A
1	13	330	C
1	13	332	G
1	13	344	A
1	13	345	C
1	13	346	G
1	13	347	G
1	13	352	C
1	13	353	A
1	13	354	G
1	13	356	A
1	13	365	U
1	13	367	U
1	13	369	C
1	13	372	C
1	13	373	A
1	13	382	A
1	13	384	G
1	13	389	A
1	13	390	C
1	13	397	A
1	13	398	C
1	13	406	G
1	13	412	A

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Mol	Chain	Res	Type
1	13	413	G
1	13	414	A
1	13	423	G
1	13	424	G
1	13	429	U
1	13	430	A
1	13	455	C
1	13	465	A
1	13	466	C
1	13	467	G
1	13	485	G
1	13	496	A
1	13	497	U
1	13	500	G
1	13	505	G
1	13	509	A
1	13	511	C
1	13	513	C
1	13	518	C
1	13	521	G
1	13	527	G
1	13	531	U
1	13	532	A
1	13	533	A
1	13	547	A
1	13	549	C
1	13	559	A
1	13	561	U
1	13	572	A
1	13	573	A
1	13	576	G
1	13	577	G
1	13	595	G
1	13	596	C
1	13	607	A
1	13	610	G
1	13	615	C
1	13	616	G
1	13	619	U
1	13	630	G
1	13	631	G
1	13	632	A

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Mol	Chain	Res	Type
1	13	633	G
1	13	649	G
1	13	652	U
1	13	653	A
1	13	665	A
1	13	666	G
1	13	678	U
1	13	704	A
1	13	707	C
1	13	717	C
1	13	723	U
1	13	724	G
1	13	748	C
1	13	749	C
1	13	753	A
1	13	755	G
1	13	759	A
1	13	766	A
1	13	774	G
1	13	777	A
1	13	792	A
1	13	793	U
1	13	794	A
1	13	817	C
1	13	828	A
1	13	836	G
1	13	841	U
1	13	842	C
1	13	843	U
1	13	848	C
1	13	859	A
1	13	864	A
1	13	870	U
1	13	873	A
1	13	887	G
1	13	891	U
1	13	902	G
1	13	914	A
1	13	926	G
1	13	927	G
1	13	934	C
1	13	935	A

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Mol	Chain	Res	Type
1	13	936	C
1	13	940	C
1	13	948	C
1	13	960	U
1	13	967	C
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
1	13	983	A
1	13	991	U
1	13	992	U
1	13	993	G
1	13	997	U
1	13	1004	A
1	13	1006	C
1	13	1007	C
1	13	1008	C
1	13	1009	G
1	13	1020	U
1	13	1021	G
1	13	1023	G
1	13	1024	G
1	13	1025	U
1	13	1026	G
1	13	1028	C
1	13	1028(B)	C
1	13	1029	G
1	13	1030	C
1	13	1032(A)	G
1	13	1033	G
1	13	1037	C
1	13	1040	U
1	13	1042	G
1	13	1053	G
1	13	1054	C
1	13	1064	G
1	13	1065	U
1	13	1066	C

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Mol	Chain	Res	Type
1	13	1081	G
1	13	1094	G
1	13	1095	U
1	13	1101	A
1	13	1116	C
1	13	1121	U
1	13	1124	G
1	13	1125	U
1	13	1126	U
1	13	1127	G
1	13	1129	C
1	13	1130	A
1	13	1131	G
1	13	1133	G
1	13	1136	U
1	13	1137	C
1	13	1138	G
1	13	1139	G
1	13	1144	G
1	13	1146	A
1	13	1152	A
1	13	1154	G
1	13	1157	A
1	13	1158	C
1	13	1159	U
1	13	1161	C
1	13	1171	G
1	13	1177	G
1	13	1178	G
1	13	1181	G
1	13	1183	A
1	13	1187	G
1	13	1189	C
1	13	1190	G
1	13	1196	U
1	13	1197	G
1	13	1201	A
1	13	1212	U
1	13	1213	A
1	13	1215	G
1	13	1218	C
1	13	1225	A

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Mol	Chain	Res	Type
1	13	1226	C
1	13	1227	A
1	13	1238	A
1	13	1240	U
1	13	1253	G
1	13	1256	A
1	13	1257	U
1	13	1258	G
1	13	1260	C
1	13	1270	C
1	13	1273	G
1	13	1275	A
1	13	1278	U
1	13	1279	A
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	1295	G
1	13	1299	A
1	13	1300	G
1	13	1305	G
1	13	1320	C
1	13	1322	C
1	13	1323	G
1	13	1331	G
1	13	1336	C
1	13	1337	G
1	13	1340	A
1	13	1346	A
1	13	1347	G
1	13	1353	G
1	13	1360	A
1	13	1362(A)	C
1	13	1370	G
1	13	1379	G
1	13	1381	U
1	13	1382	C
1	13	1394	A
1	13	1398	A

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Mol	Chain	Res	Type
1	13	1419	G
1	13	1442	G
1	13	1443	G
1	13	1446	A
1	13	1447	G
1	13	1449	C
1	13	1451	A
1	13	1452	C
1	13	1453	G
1	13	1487	G
1	13	1492	A
1	13	1497	G
1	13	1498	U
1	13	1499	A
1	13	1502	A
1	13	1503	A
1	13	1504	G
1	13	1505	G
1	13	1506	U
1	13	1517	G
1	13	1519	A
1	13	1529	G
1	13	1530	G
1	13	1531	A
1	13	1533	C
1	13	1536	C
1	13	1537	U
22	1K	8	U
22	1K	9	G
22	1K	13	G
22	1K	14	A
22	1K	15	A
22	1K	16	U
22	1K	17	U
22	1K	18	G
22	1K	19	G
22	1K	20	U
22	1K	21	A
22	1K	22	G
22	1K	24	C
22	1K	26	C
22	1K	48	C

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Mol	Chain	Res	Type
22	1K	49	C
22	1K	50	A
22	1K	51	A
22	1K	54	G
22	1K	56	G
22	1K	58	U
22	1K	74	C
22	1K	85	C
23	2K	3	C
23	2K	7	G
23	2K	8	U
23	2K	9	G
23	2K	14	A
23	2K	16	U
23	2K	17	H2U
23	2K	18	OMG
23	2K	19	G
23	2K	20	U
23	2K	21	A
23	2K	22	G
23	2K	23	A
23	2K	25	A
23	2K	27	G
23	2K	28	C
23	2K	37	G
23	2K	44	G
23	2K	45	U
23	2K	46	G
23	2K	47	C
23	2K	57	C
23	2K	62	G
23	2K	63	G
23	2K	64	G
23	2K	67	C
23	2K	69	A
23	2K	71	U
23	2K	74	C
23	2K	75	G
23	2K	76	U
23	2K	87	A
24	3K	2	C
24	3K	8	U

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Mol	Chain	Res	Type
24	3K	9	G
24	3K	13	G
24	3K	14	A
24	3K	15	A
24	3K	16	U
24	3K	17	U
24	3K	18	G
24	3K	19	G
24	3K	20	U
24	3K	21	A
24	3K	23	A
24	3K	24	C
24	3K	25	A
24	3K	27	G
24	3K	35	G
24	3K	38	G
24	3K	44	G
24	3K	45	U
24	3K	46	G
24	3K	47	C
24	3K	59	U
24	3K	60	A
24	3K	61	C
24	3K	66	U
24	3K	69	A
24	3K	70	G
24	3K	71	U
24	3K	78	C
24	3K	79	U
24	3K	80	C
24	3K	81	G
24	3K	84	A
24	3K	87	A
25	4K	33	G
25	4K	34	G
25	4K	35	A
25	4K	37	G
25	4K	38	U
25	4K	52	U
26	1H	5	A
26	1H	9	U
26	1H	12	U

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Mol	Chain	Res	Type
26	1H	15	G
26	1H	34	C
26	1H	35	G
26	1H	46	C
26	1H	51	G
26	1H	63	U
26	1H	64	A
26	1H	66	C
26	1H	71	A
26	1H	72	U
26	1H	74	A
26	1H	75	G
26	1H	85	G
26	1H	90	U
26	1H	102	G
26	1H	118	A
26	1H	119	A
26	1H	120	U
26	1H	125	G
26	1H	146	G
26	1H	155	C
26	1H	162	U
26	1H	163	U
26	1H	164	U
26	1H	171	G
26	1H	173	G
26	1H	181	A
26	1H	188	G
26	1H	196	A
26	1H	197	A
26	1H	199	A
26	1H	201	C
26	1H	215	G
26	1H	216	A
26	1H	222	A
26	1H	223	A
26	1H	224	G
26	1H	228	A
26	1H	229	A
26	1H	232	G
26	1H	233	A
26	1H	235	U

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Mol	Chain	Res	Type
26	1H	238	C
26	1H	248	G
26	1H	252	G
26	1H	261	G
26	1H	266	G
26	1H	269	U
26	1H	270(F)	U
26	1H	270(H)	C
26	1H	270(K)	C
26	1H	270(M)	U
26	1H	270(N)	G
26	1H	270(P)	C
26	1H	271(B)	G
26	1H	271(C)	U
26	1H	271	G
26	1H	273(E)	U
26	1H	274	G
26	1H	275	G
26	1H	278	A
26	1H	299	A
26	1H	311	A
26	1H	324	A
26	1H	329	G
26	1H	330	A
26	1H	331	A
26	1H	334	C
26	1H	335	C
26	1H	338	G
26	1H	352	G
26	1H	363	G
26	1H	363(F)	A
26	1H	364	C
26	1H	372	G
26	1H	380	U
26	1H	386	G
26	1H	396	G
26	1H	405	U
26	1H	407	G
26	1H	411	G
26	1H	428	A
26	1H	443	A
26	1H	444	C

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Mol	Chain	Res	Type
26	1H	448	U
26	1H	452	G
26	1H	455	C
26	1H	457	A
26	1H	463	G
26	1H	467	G
26	1H	470	A
26	1H	471	A
26	1H	481	G
26	1H	482	A
26	1H	491	G
26	1H	501	A
26	1H	504	U
26	1H	505	A
26	1H	508	G
26	1H	509	C
26	1H	528	A
26	1H	529	A
26	1H	530	G
26	1H	531	C
26	1H	532	A
26	1H	533	G
26	1H	546	C
26	1H	547	A
26	1H	549	G
26	1H	563	G
26	1H	573	G
26	1H	575	A
26	1H	586	A
26	1H	587	C
26	1H	588	U
26	1H	603	A
26	1H	607	U
26	1H	614	U
26	1H	615	G
26	1H	617	G
26	1H	618	G
26	1H	621	A
26	1H	622	G
26	1H	626	U
26	1H	627	A
26	1H	631	A

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Mol	Chain	Res	Type
26	1H	637	A
26	1H	645	C
26	1H	646	A
26	1H	654	A
26	1H	654(H)	G
26	1H	654(I)	C
26	1H	654(K)	C
26	1H	654(M)	C
26	1H	654(O)	G
26	1H	654(V)	A
26	1H	665	C
26	1H	668	G
26	1H	669	G
26	1H	676	A
26	1H	686	G
26	1H	714	U
26	1H	717	G
26	1H	730	C
26	1H	738	G
26	1H	746	A
26	1H	747	U
26	1H	752	A
26	1H	753	C
26	1H	762	U
26	1H	764	A
26	1H	765	G
26	1H	775	G
26	1H	776	G
26	1H	782	A
26	1H	784	A
26	1H	785	G
26	1H	790	C
26	1H	791	C
26	1H	792	G
26	1H	801	G
26	1H	805	G
26	1H	812	C
26	1H	813	U
26	1H	827	U
26	1H	828	U
26	1H	836	G
26	1H	845	G

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Mol	Chain	Res	Type
26	1H	846	C
26	1H	847	U
26	1H	859	G
26	1H	877	U
26	1H	878	A
26	1H	879	G
26	1H	880	G
26	1H	881	G
26	1H	882	G
26	1H	883	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
26	1H	896	A
26	1H	900	A
26	1H	901	A
26	1H	907	U
26	1H	910	A
26	1H	914	C
26	1H	917	A
26	1H	918	A
26	1H	932	G
26	1H	940	G
26	1H	941	A
26	1H	946	G
26	1H	953	A
26	1H	957	A
26	1H	959	A
26	1H	961	C
26	1H	974	G
26	1H	974(A)	C
26	1H	983	A
26	1H	996	A
26	1H	1003	G
26	1H	1011	G

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Mol	Chain	Res	Type
26	1H	1012	U
26	1H	1013	C
26	1H	1015	G
26	1H	1017	G
26	1H	1020	A
26	1H	1022	G
26	1H	1023	U
26	1H	1025	G
26	1H	1027	A
26	1H	1032	A
26	1H	1033	U
26	1H	1036	G
26	1H	1037	G
26	1H	1039	G
26	1H	1041	C
26	1H	1046	A
26	1H	1047	G
26	1H	1051	G
26	1H	1055	G
26	1H	1057	A
26	1H	1059	G
26	1H	1060	U
26	1H	1061	U
26	1H	1062	G
26	1H	1063	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	1074	G
26	1H	1076	C
26	1H	1077	A
26	1H	1078	U
26	1H	1080	A
26	1H	1081	U
26	1H	1082	U
26	1H	1084	A
26	1H	1085	A
26	1H	1086	A
26	1H	1087	G

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Mol	Chain	Res	Type
26	1H	1088	A
26	1H	1090	U
26	1H	1093	G
26	1H	1095	A
26	1H	1096	A
26	1H	1097	U
26	1H	1104	C
26	1H	1111	A
26	1H	1112	G
26	1H	1121	C
26	1H	1126	A
26	1H	1127	A
26	1H	1128	A
26	1H	1129	A
26	1H	1130	U
26	1H	1135	C
26	1H	1136	G
26	1H	1139	G
26	1H	1142	U
26	1H	1142(A)	A
26	1H	1144	G
26	1H	1151	G
26	1H	1156	A
26	1H	1169	G
26	1H	1170	G
26	1H	1173	G
26	1H	1174	A
26	1H	1175	U
26	1H	1176	G
26	1H	1177	A
26	1H	1178	C
26	1H	1179	C
26	1H	1190	G
26	1H	1194	A
26	1H	1195	G
26	1H	1200	C
26	1H	1204	A
26	1H	1205	U
26	1H	1218	C
26	1H	1220	A
26	1H	1221	C
26	1H	1225	C

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Mol	Chain	Res	Type
26	1H	1240	U
26	1H	1241	A
26	1H	1244	G
26	1H	1248	G
26	1H	1253	A
26	1H	1256	G
26	1H	1265	A
26	1H	1267	U
26	1H	1269	A
26	1H	1271	G
26	1H	1272	A
26	1H	1273	U
26	1H	1274	A
26	1H	1284	A
26	1H	1287	A
26	1H	1292	U
26	1H	1300	U
26	1H	1301	A
26	1H	1305	C
26	1H	1310	G
26	1H	1313	U
26	1H	1314	C
26	1H	1321	A
26	1H	1329	U
26	1H	1341	U
26	1H	1344	G
26	1H	1347	G
26	1H	1349	A
26	1H	1359	A
26	1H	1360	A
26	1H	1365	A
26	1H	1378	A
26	1H	1380	G
26	1H	1384	A
26	1H	1385	G
26	1H	1386	C
26	1H	1395	A
26	1H	1416	G
26	1H	1417	C
26	1H	1420	U
26	1H	1421	G
26	1H	1427	A

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Mol	Chain	Res	Type
26	1H	1428	C
26	1H	1430	C
26	1H	1437	C
26	1H	1444(A)	A
26	1H	1449	A
26	1H	1453	A
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	1478	G
26	1H	1483	G
26	1H	1493	C
26	1H	1497	U
26	1H	1506	C
26	1H	1508	A
26	1H	1509	C
26	1H	1510	A
26	1H	1511	A
26	1H	1517	G
26	1H	1520	U
26	1H	1522	G
26	1H	1534	G
26	1H	1535	U
26	1H	1536	A
26	1H	1537	C
26	1H	1538	G
26	1H	1543	A
26	1H	1544	C
26	1H	1545	A
26	1H	1554	A
26	1H	1558	A
26	1H	1559	G
26	1H	1566	A
26	1H	1569	A
26	1H	1578	U
26	1H	1580	A
26	1H	1585	C

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Mol	Chain	Res	Type
26	1H	1586	A
26	1H	1587	A
26	1H	1608	A
26	1H	1609	A
26	1H	1610	A
26	1H	1616	A
26	1H	1617	C
26	1H	1626	G
26	1H	1647	G
26	1H	1648	C
26	1H	1651	G
26	1H	1654	A
26	1H	1672	C
26	1H	1674	G
26	1H	1675	C
26	1H	1699	G
26	1H	1706	U
26	1H	1729	A
26	1H	1730	U
26	1H	1746	G
26	1H	1756	G
26	1H	1763	G
26	1H	1764	G
26	1H	1769	G
26	1H	1773	A
26	1H	1774	C
26	1H	1791	A
26	1H	1799	G
26	1H	1800	C
26	1H	1801	G
26	1H	1802	A
26	1H	1811	G
26	1H	1816	G
26	1H	1826	G
26	1H	1829	A
26	1H	1836	C
26	1H	1847	A
26	1H	1852	C
26	1H	1853	A
26	1H	1858	G
26	1H	1859	A
26	1H	1870	C

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Mol	Chain	Res	Type
26	1H	1878	G
26	1H	1889	A
26	1H	1896	G
26	1H	1900	A
26	1H	1901	A
26	1H	1903	G
26	1H	1906	G
26	1H	1911	U
26	1H	1914	C
26	1H	1919	A
26	1H	1929	G
26	1H	1930	G
26	1H	1936	A
26	1H	1938	A
26	1H	1952	A
26	1H	1955	U
26	1H	1963	U
26	1H	1964	G
26	1H	1967	C
26	1H	1969	A
26	1H	1970	A
26	1H	1971	A
26	1H	1972	A
26	1H	1982	C
26	1H	1984	G
26	1H	1987	G
26	1H	1993	U
26	1H	2019	A
26	1H	2020	A
26	1H	2023	G
26	1H	2031	A
26	1H	2032	G
26	1H	2033	A
26	1H	2043	C
26	1H	2049	G
26	1H	2051	A
26	1H	2052	G
26	1H	2055	C
26	1H	2056	G
26	1H	2060	A
26	1H	2061	G
26	1H	2062	A

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Mol	Chain	Res	Type
26	1H	2063	C
26	1H	2069	G
26	1H	2070	G
26	1H	2093	G
26	1H	2095	C
26	1H	2096	U
26	1H	2099	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	2117	A
26	1H	2118	U
26	1H	2119	A
26	1H	2122	U
26	1H	2125	G
26	1H	2126	A
26	1H	2127	G
26	1H	2129	C
26	1H	2131	G
26	1H	2132	U
26	1H	2133	G
26	1H	2134	A
26	1H	2135	A
26	1H	2136	C
26	1H	2139	C
26	1H	2144	U
26	1H	2145	C
26	1H	2147	G
26	1H	2148	G
26	1H	2151	G
26	1H	2155	G
26	1H	2157	G
26	1H	2158	A
26	1H	2162	G
26	1H	2166	G
26	1H	2167	U
26	1H	2168	G

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Mol	Chain	Res	Type
26	1H	2170	A
26	1H	2173	A
26	1H	2174	C
26	1H	2176	A
26	1H	2190	G
26	1H	2191	G
26	1H	2193	G
26	1H	2198	A
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	2238	G
26	1H	2243	U
26	1H	2249	U
26	1H	2252	G
26	1H	2268	A
26	1H	2269	A
26	1H	2270	G
26	1H	2271	G
26	1H	2273	A
26	1H	2275	C
26	1H	2279	G
26	1H	2280	G
26	1H	2283	C
26	1H	2287	A
26	1H	2288	A
26	1H	2298	A
26	1H	2299	G
26	1H	2305	A
26	1H	2307	G
26	1H	2308	G
26	1H	2309	A
26	1H	2310	A
26	1H	2314	C
26	1H	2315	G
26	1H	2319	G
26	1H	2320	A
26	1H	2325	G
26	1H	2327	A

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Mol	Chain	Res	Type
26	1H	2334	G
26	1H	2336	A
26	1H	2343	C
26	1H	2347	C
26	1H	2350	C
26	1H	2351	G
26	1H	2352	A
26	1H	2364	C
26	1H	2376	A
26	1H	2377	A
26	1H	2383	G
26	1H	2385	C
26	1H	2388	A
26	1H	2406	U
26	1H	2410	G
26	1H	2424	C
26	1H	2425	A
26	1H	2428	G
26	1H	2429	G
26	1H	2430	A
26	1H	2434	A
26	1H	2439	A
26	1H	2440	C
26	1H	2441	C
26	1H	2446	G
26	1H	2448	A
26	1H	2457	U
26	1H	2468	G
26	1H	2469	A
26	1H	2470	G
26	1H	2475	C
26	1H	2476	A
26	1H	2478	A
26	1H	2480	C
26	1H	2482	G
26	1H	2484	G
26	1H	2489	G
26	1H	2494	G
26	1H	2502	G
26	1H	2504	U
26	1H	2505	G
26	1H	2506	U

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Mol	Chain	Res	Type
26	1H	2507	C
26	1H	2513	G
26	1H	2518	A
26	1H	2529	G
26	1H	2537	U
26	1H	2545	G
26	1H	2551	C
26	1H	2554	U
26	1H	2556	C
26	1H	2564	A
26	1H	2566	A
26	1H	2567	G
26	1H	2569	G
26	1H	2573	C
26	1H	2574	G
26	1H	2582	G
26	1H	2602	A
26	1H	2605	U
26	1H	2609	U
26	1H	2611	U
26	1H	2612	C
26	1H	2615	U
26	1H	2629	A
26	1H	2636	U
26	1H	2646	C
26	1H	2654	A
26	1H	2661	G
26	1H	2665	A
26	1H	2673	G
26	1H	2689	U
26	1H	2690	C
26	1H	2691	C
26	1H	2702	U
26	1H	2703	C
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	2733	A

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Mol	Chain	Res	Type
26	1H	2734	A
26	1H	2736	G
26	1H	2744	G
26	1H	2752	C
26	1H	2756	U
26	1H	2757	A
26	1H	2764	A
26	1H	2765	A
26	1H	2766	G
26	1H	2778	A
26	1H	2779	U
26	1H	2787	C
26	1H	2789	C
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	2801	A
26	1H	2803	C
26	1H	2807	G
26	1H	2808	U
26	1H	2818	G
26	1H	2820	A
26	1H	2821	A
26	1H	2825	C
26	1H	2832	U
26	1H	2833	G
26	1H	2834	G
26	1H	2835	A
26	1H	2860	A
26	1H	2872	G
26	1H	2876	G
26	1H	2877	G
26	1H	2879	C
26	1H	2892	A
26	1H	2893	G
26	1H	2895	U
26	1H	2899	G
26	1H	2900	A
27	16	0	A

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Mol	Chain	Res	Type
27	16	13	A
27	16	15	A
27	16	24	G
27	16	25	A
27	16	27	C
27	16	33	G
27	16	38	C
27	16	40	U
27	16	41	U
27	16	45	A
27	16	54	G
27	16	56	G
27	16	58	A
27	16	73	A
27	16	77	U
27	16	85	G
27	16	105	G
27	16	107	U
27	16	109	G
27	16	115	G
1	1G	5	U
1	1G	9	G
1	1G	22	G
1	1G	26	A
1	1G	32	A
1	1G	39	G
1	1G	47	C
1	1G	48	C
1	1G	50	A
1	1G	51	A
1	1G	54	C
1	1G	68	G
1	1G	76	G
1	1G	78	G
1	1G	79	G
1	1G	80	G
1	1G	81	G
1	1G	87	A
1	1G	88	C
1	1G	92	G
1	1G	99	C
1	1G	108	G

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Mol	Chain	Res	Type
1	1G	113	G
1	1G	115	G
1	1G	116	A
1	1G	121	C
1	1G	131	C
1	1G	144	G
1	1G	163	C
1	1G	169	C
1	1G	170	U
1	1G	173	U
1	1G	174	C
1	1G	182	U
1	1G	186	C
1	1G	186(F)	C
1	1G	187	C
1	1G	188	U
1	1G	189	U
1	1G	190	G
1	1G	191(A)	G
1	1G	191(D)	U
1	1G	195	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	220	G
1	1G	238	G
1	1G	240	C
1	1G	243	A
1	1G	244	U
1	1G	247	G
1	1G	250	A
1	1G	251	G
1	1G	262	A
1	1G	266	G
1	1G	267	C
1	1G	270	A
1	1G	281	G
1	1G	289	G
1	1G	298	A

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Mol	Chain	Res	Type
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
1	1G	350	G
1	1G	351	G
1	1G	352	C
1	1G	353	A
1	1G	354	G
1	1G	363	A
1	1G	365	U
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	410	G
1	1G	411	A
1	1G	412	A
1	1G	413	G
1	1G	414	A
1	1G	421	U
1	1G	422	C
1	1G	423	G
1	1G	424	G
1	1G	429	U
1	1G	430	A
1	1G	431	A
1	1G	439	A
1	1G	440	A
1	1G	451	A
1	1G	452	A
1	1G	466	C
1	1G	467	G
1	1G	475	G
1	1G	476	G

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Mol	Chain	Res	Type
1	1G	482	A
1	1G	484	G
1	1G	485	G
1	1G	486	U
1	1G	495	A
1	1G	496	A
1	1G	497	U
1	1G	498	A
1	1G	505	G
1	1G	509	A
1	1G	510	A
1	1G	511	C
1	1G	518	C
1	1G	527	G
1	1G	530	G
1	1G	531	U
1	1G	532	A
1	1G	533	A
1	1G	536	C
1	1G	547	A
1	1G	552	U
1	1G	561	U
1	1G	572	A
1	1G	573	A
1	1G	576	G
1	1G	577	G
1	1G	607	A
1	1G	608	A
1	1G	615	C
1	1G	618	C
1	1G	621	A
1	1G	632	A
1	1G	633	G
1	1G	651	C
1	1G	653	A
1	1G	661	G
1	1G	665	A
1	1G	671	G
1	1G	674	G
1	1G	687	A
1	1G	688	G
1	1G	701	C

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Mol	Chain	Res	Type
1	1G	702	A
1	1G	703	G
1	1G	704	A
1	1G	722	A
1	1G	723	U
1	1G	724	G
1	1G	731	G
1	1G	749	C
1	1G	750	G
1	1G	755	G
1	1G	760	G
1	1G	762	C
1	1G	763	G
1	1G	764	C
1	1G	773	G
1	1G	774	G
1	1G	776	G
1	1G	777	A
1	1G	793	U
1	1G	794	A
1	1G	813	U
1	1G	817	C
1	1G	821	G
1	1G	828	A
1	1G	834	C
1	1G	836	G
1	1G	842	C
1	1G	843	U
1	1G	848	C
1	1G	851	G
1	1G	853	G
1	1G	859	A
1	1G	873	A
1	1G	902	G
1	1G	906	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

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Mol	Chain	Res	Type
1	1G	938	A
1	1G	958	A
1	1G	960	U
1	1G	961	U
1	1G	966	G
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	982	U
1	1G	989	C
1	1G	991	U
1	1G	992	U
1	1G	993	G
1	1G	1004	A
1	1G	1006	C
1	1G	1009	G
1	1G	1016	A
1	1G	1019	C
1	1G	1021	G
1	1G	1023	G
1	1G	1024	G
1	1G	1025	U
1	1G	1026	G
1	1G	1027	C
1	1G	1028	C
1	1G	1028(B)	C
1	1G	1029	G
1	1G	1030	C
1	1G	1031	G
1	1G	1032(A)	G
1	1G	1033	G
1	1G	1038	C
1	1G	1040	U
1	1G	1043	C
1	1G	1046	A

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Mol	Chain	Res	Type
1	1G	1053	G
1	1G	1054	C
1	1G	1055	A
1	1G	1056	U
1	1G	1064	G
1	1G	1066	C
1	1G	1080	A
1	1G	1081	G
1	1G	1082	G
1	1G	1088	G
1	1G	1094	G
1	1G	1095	U
1	1G	1096	C
1	1G	1101	A
1	1G	1108	G
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	1131	G
1	1G	1135	U
1	1G	1137	C
1	1G	1139	G
1	1G	1140	C
1	1G	1146	A
1	1G	1147	C
1	1G	1154	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	1183	A
1	1G	1185	G
1	1G	1186	G
1	1G	1188	A
1	1G	1193	G
1	1G	1196	U

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Mol	Chain	Res	Type
1	1G	1197	G
1	1G	1200	C
1	1G	1201	A
1	1G	1202	G
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	1246	C
1	1G	1257	U
1	1G	1258	G
1	1G	1260	C
1	1G	1263	C
1	1G	1268	A
1	1G	1269	A
1	1G	1270	C
1	1G	1275	A
1	1G	1278	U
1	1G	1279	A
1	1G	1280	A
1	1G	1285	A
1	1G	1286	A
1	1G	1287	A
1	1G	1288	A
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	1305	G
1	1G	1306	A
1	1G	1312	G
1	1G	1317	C
1	1G	1318	A
1	1G	1319	A

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Mol	Chain	Res	Type
1	1G	1320	C
1	1G	1322	C
1	1G	1323	G
1	1G	1331	G
1	1G	1335	C
1	1G	1336	C
1	1G	1337	G
1	1G	1340	A
1	1G	1346	A
1	1G	1347	G
1	1G	1353	G
1	1G	1354	C
1	1G	1362(A)	C
1	1G	1364	U
1	1G	1370	G
1	1G	1379	G
1	1G	1386	G
1	1G	1397	C
1	1G	1398	A
1	1G	1402	C
1	1G	1419	G
1	1G	1442	G
1	1G	1443	G
1	1G	1446	A
1	1G	1447	G
1	1G	1449	C
1	1G	1450	U
1	1G	1451	A
1	1G	1452	C
1	1G	1453	G
1	1G	1454	G
1	1G	1482	G
1	1G	1492	A
1	1G	1494	G
1	1G	1497	G
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	1507	A

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Mol	Chain	Res	Type
1	1G	1517	G
1	1G	1519	A
1	1G	1520	G
1	1G	1525	G
1	1G	1528	U
1	1G	1529	G
1	1G	1530	G
1	1G	1533	C
1	1G	1535	C
1	1G	1536	C
1	1G	1537	U
1	1G	1540	U
1	1G	1541	U
22	1L	6	G
22	1L	8	U
22	1L	9	G
22	1L	16	U
22	1L	17	U
22	1L	18	G
22	1L	19	G
22	1L	20	U
22	1L	21	A
22	1L	22	G
22	1L	23	A
22	1L	24	C
22	1L	26	C
22	1L	27	G
22	1L	30	A
22	1L	42	U
22	1L	46	G
22	1L	47	C
22	1L	48	C
22	1L	49	C
22	1L	50	A
22	1L	51	A
22	1L	52	U
22	1L	55	G
22	1L	58	U
22	1L	70	G
22	1L	74	C
22	1L	84	A
22	1L	85	C

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Mol	Chain	Res	Type
22	1L	86	C
22	1L	87	A
23	2L	4	G
23	2L	6	G
23	2L	7	G
23	2L	8	U
23	2L	9	G
23	2L	11	U
23	2L	13	G
23	2L	15	A
23	2L	16	U
23	2L	17	H2U
23	2L	18	OMG
23	2L	19	G
23	2L	20	U
23	2L	21	A
23	2L	24	C
23	2L	27	G
23	2L	33	U
23	2L	34	U
23	2L	37	G
23	2L	44	G
23	2L	45	U
23	2L	46	G
23	2L	47	C
23	2L	48	C
23	2L	57	C
23	2L	63	G
23	2L	64	G
23	2L	65	5MU
23	2L	69	A
23	2L	71	U
23	2L	74	C
23	2L	87	A
24	3L	5	A
24	3L	7	G
24	3L	8	U
24	3L	10	G
24	3L	11	U
24	3L	12	G
24	3L	14	A
24	3L	15	A

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Mol	Chain	Res	Type
24	3L	16	U
24	3L	17	U
24	3L	18	G
24	3L	19	G
24	3L	20	U
24	3L	23	A
24	3L	27	G
24	3L	30	A
24	3L	32	C
24	3L	34	U
24	3L	35	G
24	3L	36	A
24	3L	38	G
24	3L	43	A
24	3L	44	G
24	3L	45	U
24	3L	58	U
24	3L	59	U
24	3L	60	A
24	3L	64	G
24	3L	69	A
24	3L	70	G
24	3L	71	U
24	3L	83	U
24	3L	84	A
24	3L	85	C
25	4L	37	G
25	4L	38	U
25	4L	39	U
25	4L	50	U
25	4L	53	U
26	14	2	G
26	14	3	U
26	14	4	C
26	14	5	A
26	14	9	U
26	14	14	A
26	14	34	C
26	14	35	G
26	14	46	C
26	14	50	U
26	14	51	G

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Mol	Chain	Res	Type
26	14	55	G
26	14	58	G
26	14	71	A
26	14	72	U
26	14	74	A
26	14	75	G
26	14	83	G
26	14	91	A
26	14	92	G
26	14	102	G
26	14	112	U
26	14	118	A
26	14	119	A
26	14	120	U
26	14	121	G
26	14	125	G
26	14	129	C
26	14	136	G
26	14	139	G
26	14	140	A
26	14	153	C
26	14	154	G
26	14	161	U
26	14	162	U
26	14	172	C
26	14	173	G
26	14	175	G
26	14	196	A
26	14	199	A
26	14	205	G
26	14	214	G
26	14	215	G
26	14	216	A
26	14	221	A
26	14	222	A
26	14	223	A
26	14	225	A
26	14	228	A
26	14	229	A
26	14	233	A
26	14	245	G
26	14	248	G

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Mol	Chain	Res	Type
26	14	249	C
26	14	252	G
26	14	266	G
26	14	270(K)	C
26	14	270(L)	U
26	14	270(M)	U
26	14	270(N)	G
26	14	270(O)	U
26	14	270(P)	C
26	14	271(B)	G
26	14	271	G
26	14	273(D)	C
26	14	273(E)	U
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	286	C
26	14	289	A
26	14	299	A
26	14	302	C
26	14	311	A
26	14	324	A
26	14	327	G
26	14	329	G
26	14	330	A
26	14	333	G
26	14	352	G
26	14	356	G
26	14	363	G
26	14	363(E)	U
26	14	363(F)	A
26	14	372	G
26	14	386	G
26	14	395	U
26	14	396	G
26	14	405	U
26	14	406	G
26	14	411	G
26	14	412	A

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Mol	Chain	Res	Type
26	14	428	A
26	14	443	A
26	14	444	C
26	14	448	U
26	14	451	C
26	14	454	A
26	14	455	C
26	14	456	C
26	14	457	A
26	14	459	U
26	14	470	A
26	14	471	A
26	14	481	G
26	14	501	A
26	14	504	U
26	14	505	A
26	14	508	G
26	14	509	C
26	14	528	A
26	14	529	A
26	14	530	G
26	14	531	C
26	14	532	A
26	14	533	G
26	14	537	C
26	14	543	C
26	14	546	C
26	14	547	A
26	14	549	G
26	14	556	G
26	14	563	G
26	14	568	U
26	14	573	G
26	14	575	A
26	14	584	C
26	14	586	A
26	14	595	C
26	14	603	A
26	14	607	U
26	14	609(A)	G
26	14	613	U
26	14	614	U

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Mol	Chain	Res	Type
26	14	615	G
26	14	617	G
26	14	618	G
26	14	621	A
26	14	622	G
26	14	627	A
26	14	637	A
26	14	646	A
26	14	651	G
26	14	654	A
26	14	654(D)	G
26	14	654(H)	G
26	14	654(I)	C
26	14	654(L)	G
26	14	654(N)	G
26	14	654(Q)	C
26	14	654(T)	A
26	14	668	G
26	14	669	G
26	14	677	A
26	14	686	G
26	14	701	G
26	14	711	G
26	14	717	G
26	14	722	A
26	14	730	C
26	14	752	A
26	14	753	C
26	14	762	U
26	14	764	A
26	14	765	G
26	14	775	G
26	14	776	G
26	14	777	A
26	14	782	A
26	14	783	A
26	14	784	A
26	14	785	G
26	14	790	C
26	14	792	G
26	14	805	G
26	14	812	C

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Mol	Chain	Res	Type
26	14	819	A
26	14	827	U
26	14	828	U
26	14	830	G
26	14	832	G
26	14	846	C
26	14	852	G
26	14	855	G
26	14	859	G
26	14	861	A
26	14	869	G
26	14	878	A
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	892	G
26	14	893	C
26	14	894	C
26	14	895	U
26	14	896	A
26	14	897	C
26	14	899	A
26	14	900	A
26	14	901	A
26	14	904	C
26	14	910	A
26	14	911	A
26	14	914	C
26	14	915	C
26	14	917	A
26	14	918	A
26	14	919	G
26	14	924	C
26	14	932	G
26	14	933	A
26	14	938	G

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Mol	Chain	Res	Type
26	14	941	A
26	14	945	A
26	14	946	G
26	14	958	U
26	14	959	A
26	14	961	C
26	14	965	C
26	14	974	G
26	14	978	G
26	14	980	A
26	14	982	C
26	14	983	A
26	14	989	G
26	14	990	A
26	14	991	C
26	14	996	A
26	14	1009	A
26	14	1010	A
26	14	1012	U
26	14	1013	C
26	14	1020	A
26	14	1022	G
26	14	1023	U
26	14	1025	G
26	14	1026	U
26	14	1039	G
26	14	1044	G
26	14	1045	A
26	14	1046	A
26	14	1048	A
26	14	1049	C
26	14	1051	G
26	14	1054	A
26	14	1057	A
26	14	1060	U
26	14	1061	U
26	14	1063	G
26	14	1065	U
26	14	1066	U
26	14	1067	A
26	14	1068	G
26	14	1070	A

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Mol	Chain	Res	Type
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	1089	G
26	14	1090	U
26	14	1091	G
26	14	1093	G
26	14	1095	A
26	14	1096	A
26	14	1099	G
26	14	1105	U
26	14	1111	A
26	14	1112	G
26	14	1122	G
26	14	1126	A
26	14	1127	A
26	14	1128	A
26	14	1129	A
26	14	1130	U
26	14	1135	C
26	14	1136	G
26	14	1139	G
26	14	1143	A
26	14	1151	G
26	14	1170	G
26	14	1171	G
26	14	1173	G
26	14	1174	A
26	14	1175	U
26	14	1177	A
26	14	1178	C
26	14	1186	G
26	14	1204	A
26	14	1205	U
26	14	1210	A
26	14	1212	G

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Mol	Chain	Res	Type
26	14	1220	A
26	14	1236	G
26	14	1244	G
26	14	1253	A
26	14	1256	G
26	14	1265	A
26	14	1271	G
26	14	1272	A
26	14	1273	U
26	14	1278	A
26	14	1287	A
26	14	1298	C
26	14	1300	U
26	14	1301	A
26	14	1306	C
26	14	1307	A
26	14	1319	G
26	14	1321	A
26	14	1329	U
26	14	1332	G
26	14	1345	C
26	14	1349	A
26	14	1359	A
26	14	1365	A
26	14	1368	G
26	14	1370	C
26	14	1380	G
26	14	1383	C
26	14	1384	A
26	14	1385	G
26	14	1386	C
26	14	1395	A
26	14	1396	U
26	14	1397	U
26	14	1407	C
26	14	1408	C
26	14	1416	G
26	14	1417	C
26	14	1419	A
26	14	1420	U
26	14	1421	G
26	14	1428	C

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Mol	Chain	Res	Type
26	14	1437	C
26	14	1441	G
26	14	1444(A)	A
26	14	1445	C
26	14	1449	A
26	14	1449(A)	G
26	14	1455	G
26	14	1458	C
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	1480	G
26	14	1482	U
26	14	1483	G
26	14	1490	A
26	14	1493	C
26	14	1494	A
26	14	1508	A
26	14	1509	C
26	14	1510	A
26	14	1522	G
26	14	1529	A
26	14	1533	C
26	14	1534	G
26	14	1535	U
26	14	1537	C
26	14	1543	A
26	14	1547	C
26	14	1554	A
26	14	1558	A
26	14	1559	G
26	14	1569	A
26	14	1577	C
26	14	1578	U
26	14	1585	C
26	14	1586	A
26	14	1587	A
26	14	1588	C
26	14	1598	C

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Mol	Chain	Res	Type
26	14	1608	A
26	14	1609	A
26	14	1616	A
26	14	1631	A
26	14	1639	U
26	14	1644	C
26	14	1647	G
26	14	1648	C
26	14	1654	A
26	14	1673	U
26	14	1674	G
26	14	1675	C
26	14	1679	U
26	14	1680	U
26	14	1695	G
26	14	1697	G
26	14	1700	A
26	14	1701	A
26	14	1725	G
26	14	1726	G
26	14	1729	A
26	14	1730	U
26	14	1731	G
26	14	1732	A
26	14	1742	C
26	14	1743	G
26	14	1756	G
26	14	1762	A
26	14	1763	G
26	14	1764	G
26	14	1769	G
26	14	1773	A
26	14	1777	U
26	14	1780	A
26	14	1782	C
26	14	1787	A
26	14	1791	A
26	14	1800	C
26	14	1801	G
26	14	1812	A
26	14	1816	G
26	14	1820	U

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Mol	Chain	Res	Type
26	14	1826	G
26	14	1829	A
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	1894	C
26	14	1900	A
26	14	1903	G
26	14	1906	G
26	14	1909	C
26	14	1913	A
26	14	1917	U
26	14	1920	C
26	14	1929	G
26	14	1930	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	1967	C
26	14	1969	A
26	14	1970	A
26	14	1971	A
26	14	1972	A
26	14	1991	U
26	14	1992	G
26	14	1993	U
26	14	2005	A
26	14	2023	G
26	14	2025	C
26	14	2031	A
26	14	2032	G
26	14	2033	A
26	14	2043	C
26	14	2049	G
26	14	2051	A

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Mol	Chain	Res	Type
26	14	2053	G
26	14	2054	A
26	14	2055	C
26	14	2056	G
26	14	2057	A
26	14	2059	A
26	14	2060	A
26	14	2061	G
26	14	2062	A
26	14	2063	C
26	14	2069	G
26	14	2074	U
26	14	2076	U
26	14	2093	G
26	14	2100	G
26	14	2108	C
26	14	2111	C
26	14	2112	G
26	14	2113	U
26	14	2114	A
26	14	2115	G
26	14	2116	G
26	14	2117	A
26	14	2120	G
26	14	2122	U
26	14	2123	G
26	14	2125	G
26	14	2126	A
26	14	2127	G
26	14	2129	C
26	14	2131	G
26	14	2132	U
26	14	2133	G
26	14	2136	C
26	14	2137	C
26	14	2138	C
26	14	2139	C
26	14	2140	C
26	14	2144	U
26	14	2145	C
26	14	2146	C
26	14	2147	G

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Mol	Chain	Res	Type
26	14	2148	G
26	14	2151	G
26	14	2155	G
26	14	2158	A
26	14	2160	G
26	14	2161	C
26	14	2162	G
26	14	2164	C
26	14	2166	G
26	14	2167	U
26	14	2168	G
26	14	2169	A
26	14	2171	A
26	14	2173	A
26	14	2174	C
26	14	2182	G
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	2228	G
26	14	2239	G
26	14	2245	U
26	14	2261	C
26	14	2268	A
26	14	2269	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	2305	A
26	14	2307	G

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Mol	Chain	Res	Type
26	14	2308	G
26	14	2310	A
26	14	2311	A
26	14	2317	C
26	14	2318	G
26	14	2321	G
26	14	2325	G
26	14	2334	G
26	14	2335	A
26	14	2336	A
26	14	2345	G
26	14	2346	A
26	14	2347	C
26	14	2350	C
26	14	2354	G
26	14	2355	C
26	14	2383	G
26	14	2385	C
26	14	2389	G
26	14	2392	A
26	14	2396	G
26	14	2400	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	2424	C
26	14	2425	A
26	14	2428	G
26	14	2429	G
26	14	2430	A
26	14	2431	U
26	14	2434	A
26	14	2435	A
26	14	2439	A
26	14	2441	C
26	14	2448	A

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Mol	Chain	Res	Type
26	14	2464	C
26	14	2469	A
26	14	2470	G
26	14	2475	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	2494	G
26	14	2495	G
26	14	2502	G
26	14	2504	U
26	14	2505	G
26	14	2506	U
26	14	2513	G
26	14	2518	A
26	14	2525	G
26	14	2532	G
26	14	2543	G
26	14	2554	U
26	14	2566	A
26	14	2567	G
26	14	2569	G
26	14	2573	C
26	14	2585	U
26	14	2591	C
26	14	2599	G
26	14	2601	C
26	14	2602	A
26	14	2609	U
26	14	2610	C
26	14	2611	U
26	14	2612	C
26	14	2613	U
26	14	2615	U
26	14	2630	G
26	14	2636	U
26	14	2641	G
26	14	2646	C

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Mol	Chain	Res	Type
26	14	2654	A
26	14	2660	A
26	14	2664	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	2698	U
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	2726	U
26	14	2733	A
26	14	2739	U
26	14	2744	G
26	14	2748	A
26	14	2750	A
26	14	2751	G
26	14	2752	C
26	14	2754	U
26	14	2757	A
26	14	2758	A
26	14	2759	G
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	2780	G
26	14	2790	A
26	14	2791	C
26	14	2793	G
26	14	2797	U
26	14	2798	C
26	14	2799	A

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Mol	Chain	Res	Type
26	14	2805	G
26	14	2810	A
26	14	2818	G
26	14	2820	A
26	14	2821	A
26	14	2833	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	2879	C
26	14	2894	G
26	14	2896	C
26	14	2898	U
26	14	2899	G
27	1J	0	A
27	1J	2	C
27	1J	5	C
27	1J	7	G
27	1J	8	U
27	1J	9	G
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	25	A
27	1J	29	A
27	1J	34	U
27	1J	40	U
27	1J	41	U
27	1J	42	C
27	1J	45	A
27	1J	53	A
27	1J	56	G
27	1J	58	A
27	1J	73	A
27	1J	81	G
27	1J	82	G

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Mol	Chain	Res	Type
27	1J	88	C
27	1J	89	G
27	1J	89(A)	A
27	1J	90	C
27	1J	91	C
27	1J	99	A
27	1J	101	A
27	1J	108	C
27	1J	109	G
27	1J	116	G
27	1J	118	G

All (196) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	13	5	U
1	13	50	A
1	13	115	G
1	13	181	G
1	13	189	U
1	13	244	U
1	13	251	G
1	13	266	G
1	13	412	A
1	13	429	U
1	13	484	G
1	13	560	U
1	13	748	C
1	13	793	U
1	13	992	U
1	13	1025	U
1	13	1027	C
1	13	1053	G
1	13	1064	G
1	13	1065	U
1	13	1129	C
1	13	1145	C
1	13	1177	G
1	13	1285	A
1	13	1302	U
1	13	1336	C
1	13	1397	C

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Mol	Chain	Res	Type
1	13	1452	C
1	13	1498	U
1	13	1503	A
1	13	1504	G
22	1K	18	G
23	2K	8	U
23	2K	18	OMG
23	2K	20	U
23	2K	36	A
23	2K	44	G
23	2K	62	G
23	2K	63	G
23	2K	73	C
24	3K	18	G
24	3K	46	G
24	3K	59	U
24	3K	69	A
26	1H	33	U
26	1H	196	A
26	1H	232	G
26	1H	271(B)	G
26	1H	334	C
26	1H	404	C
26	1H	481	G
26	1H	508	G
26	1H	528	A
26	1H	587	C
26	1H	668	G
26	1H	746	A
26	1H	752	A
26	1H	764	A
26	1H	800	A
26	1H	845	G
26	1H	858	U
26	1H	859	G
26	1H	880	G
26	1H	1022	G
26	1H	1026	U
26	1H	1060	U
26	1H	1085	A
26	1H	1110	G
26	1H	1178	C

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Mol	Chain	Res	Type
26	1H	1273	U
26	1H	1312	U
26	1H	1379	A
26	1H	1396	U
26	1H	1416	G
26	1H	1508	A
26	1H	1558	A
26	1H	1608	A
26	1H	1609	A
26	1H	1647	G
26	1H	1729	A
26	1H	1762	A
26	1H	1799	G
26	1H	1858	G
26	1H	1899	G
26	1H	1900	A
26	1H	2060	A
26	1H	2157	G
26	1H	2242	G
26	1H	2272	U
26	1H	2475	C
26	1H	2481	G
26	1H	2518	A
26	1H	2566	A
26	1H	2611	U
26	1H	2689	U
26	1H	2756	U
27	16	108	C
1	1G	86	U
1	1G	115	G
1	1G	197	A
1	1G	243	A
1	1G	250	A
1	1G	266	G
1	1G	327	A
1	1G	345	C
1	1G	412	A
1	1G	413	G
1	1G	429	U
1	1G	485	G
1	1G	509	A
1	1G	528	C

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Mol	Chain	Res	Type
1	1G	560	U
1	1G	632	A
1	1G	687	A
1	1G	722	A
1	1G	723	U
1	1G	748	C
1	1G	812	C
1	1G	913	A
1	1G	992	U
1	1G	1025	U
1	1G	1053	G
1	1G	1094	G
1	1G	1126	U
1	1G	1128	C
1	1G	1145	C
1	1G	1157	A
1	1G	1285	A
1	1G	1297	C
1	1G	1298	C
1	1G	1300	G
1	1G	1305	G
1	1G	1346	A
1	1G	1453	G
1	1G	1498	U
22	1L	20	U
22	1L	21	A
22	1L	22	G
22	1L	48	C
23	2L	8	U
23	2L	20	U
23	2L	32	C
23	2L	36	A
23	2L	44	G
23	2L	56	G
23	2L	63	G
23	2L	73	C
24	3L	17	U
24	3L	18	G
24	3L	59	U
24	3L	83	U
24	3L	84	A
26	14	4	C

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Mol	Chain	Res	Type
26	14	34	C
26	14	49	A
26	14	101	G
26	14	128	C
26	14	278	A
26	14	456	C
26	14	503	A
26	14	545	G
26	14	669	G
26	14	752	A
26	14	764	A
26	14	774	A
26	14	776	G
26	14	827	U
26	14	1022	G
26	14	1085	A
26	14	1379	A
26	14	1396	U
26	14	1420	U
26	14	1558	A
26	14	1608	A
26	14	2135	A
26	14	2157	G
26	14	2210	G
26	14	2225	A
26	14	2275	C
26	14	2402	C
26	14	2406	U
26	14	2423	U
26	14	2542	A
26	14	2612	C
26	14	2629	A
26	14	2689	U
26	14	2747	G
26	14	2756	U
26	14	2776	A
26	14	2778	A
26	14	2859	G
26	14	2893	G
27	1J	15	A
27	1J	44	G
27	1J	88	C

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Mol	Chain	Res	Type
27	1J	89	G

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

20 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	$\#\|Z\| > 2$
23	OMG	2K	18	23	23,26,27	5.23	11 (47%)	32,38,41	4.71	17 (53%)
23	H2U	2K	17	23	18,21,22	2.25	4 (22%)	19,30,33	1.93	4 (21%)
22	PSU	1L	66	22	18,21,22	1.03	1 (5%)	21,30,33	1.76	3 (14%)
23	1MG	2L	38	23	23,26,27	2.95	6 (26%)	33,39,42	1.82	9 (27%)
23	H2U	2L	17	23	18,21,22	1.98	4 (22%)	19,30,33	1.76	4 (21%)
22	1MG	1L	38	22	23,26,27	2.87	6 (26%)	33,39,42	1.74	9 (27%)
23	5MU	2K	65	23	19,22,23	3.95	5 (26%)	27,32,35	3.30	10 (37%)
22	PSU	1L	39	22	18,21,22	1.40	2 (11%)	21,30,33	1.53	3 (14%)
23	PSU	2K	39	23	18,21,22	1.10	1 (5%)	21,30,33	1.92	3 (14%)
23	PSU	2K	66	23	18,21,22	1.51	1 (5%)	21,30,33	1.94	4 (19%)
22	PSU	1K	39	22	18,21,22	1.31	1 (5%)	21,30,33	1.59	2 (9%)
23	PSU	2L	66	23	18,21,22	1.30	1 (5%)	21,30,33	1.72	3 (14%)
22	5MU	1K	65	22	19,22,23	3.91	5 (26%)	27,32,35	3.20	9 (33%)
23	5MU	2L	65	23	19,22,23	3.97	5 (26%)	27,32,35	3.25	9 (33%)
23	1MG	2K	38	23	23,26,27	2.60	6 (26%)	33,39,42	1.63	7 (21%)
23	PSU	2L	39	23	18,21,22	1.10	1 (5%)	21,30,33	1.88	3 (14%)
23	OMG	2L	18	23	23,26,27	5.22	10 (43%)	32,38,41	4.69	15 (46%)
22	PSU	1K	66	22	18,21,22	1.27	1 (5%)	21,30,33	1.86	4 (19%)
22	5MU	1L	65	22	19,22,23	3.89	5 (26%)	27,32,35	3.22	9 (33%)
22	1MG	1K	38	22	23,26,27	2.83	6 (26%)	33,39,42	1.92	11 (33%)

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
23	OMG	2K	18	23	-	0/9/27/28	0/3/3/3
23	H2U	2K	17	23	-	0/7/38/39	0/2/2/2
22	PSU	1L	66	22	-	2/7/25/26	0/2/2/2
23	1MG	2L	38	23	-	0/7/25/26	0/3/3/3
23	H2U	2L	17	23	-	1/7/38/39	0/2/2/2
22	1MG	1L	38	22	-	0/7/25/26	0/3/3/3
23	5MU	2K	65	23	-	0/7/25/26	0/2/2/2
22	PSU	1L	39	22	-	0/7/25/26	0/2/2/2
23	PSU	2K	39	23	-	0/7/25/26	0/2/2/2
23	PSU	2K	66	23	-	0/7/25/26	0/2/2/2
22	PSU	1K	39	22	-	0/7/25/26	0/2/2/2
23	PSU	2L	66	23	-	0/7/25/26	0/2/2/2
22	5MU	1K	65	22	-	0/7/25/26	0/2/2/2
23	5MU	2L	65	23	-	3/7/25/26	0/2/2/2
23	1MG	2K	38	23	-	0/7/25/26	0/3/3/3
23	PSU	2L	39	23	-	0/7/25/26	0/2/2/2
23	OMG	2L	18	23	-	3/9/27/28	0/3/3/3
22	PSU	1K	66	22	-	0/7/25/26	0/2/2/2
22	5MU	1L	65	22	-	0/7/25/26	0/2/2/2
22	1MG	1K	38	22	-	2/7/25/26	0/3/3/3

All (82) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	65	5MU	C2-N1	13.07	1.58	1.38
22	1K	65	5MU	C2-N1	12.62	1.58	1.38
23	2K	65	5MU	C2-N1	12.60	1.58	1.38
23	2K	18	OMG	C4-N3	12.56	1.63	1.34
22	1L	65	5MU	C2-N1	12.48	1.58	1.38
23	2L	18	OMG	C5-N7	-11.97	1.15	1.39
23	2L	18	OMG	C4-N3	11.93	1.61	1.34
23	2K	18	OMG	C5-N7	-11.51	1.16	1.39
23	2K	18	OMG	C4-N9	9.66	1.62	1.38
23	2L	18	OMG	C4-N9	8.98	1.61	1.38
23	2L	38	1MG	C2-N3	8.85	1.47	1.33
23	2L	18	OMG	C8-N7	-8.66	1.08	1.32
23	2K	18	OMG	C5-C4	8.58	1.62	1.38
22	1K	38	1MG	C2-N3	8.53	1.47	1.33
22	1L	38	1MG	C2-N3	8.52	1.47	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	18	OMG	C5-C4	8.52	1.62	1.38
23	2K	18	OMG	C8-N7	-8.25	1.09	1.32
23	2K	38	1MG	C2-N3	7.93	1.46	1.33
23	2L	18	OMG	C6-N1	-7.38	1.25	1.38
23	2K	18	OMG	C6-N1	-7.17	1.25	1.38
23	2K	17	H2U	C2-N1	7.16	1.45	1.35
23	2L	38	1MG	C4-N3	6.31	1.48	1.34
22	1L	65	5MU	C4-N3	-6.30	1.27	1.38
23	2K	65	5MU	C6-N1	6.15	1.48	1.38
23	2K	65	5MU	C4-N3	-6.10	1.27	1.38
22	1L	38	1MG	C4-N3	6.08	1.48	1.34
23	2L	38	1MG	C2-N2	5.96	1.44	1.34
22	1L	65	5MU	C6-N1	5.86	1.48	1.38
22	1K	65	5MU	C2-N3	5.86	1.48	1.38
23	2L	65	5MU	C4-N3	-5.84	1.27	1.38
22	1K	38	1MG	C2-N2	5.81	1.44	1.34
22	1K	38	1MG	C4-N3	5.76	1.47	1.34
22	1K	65	5MU	C4-N3	-5.74	1.28	1.38
23	2K	38	1MG	C2-N2	5.72	1.44	1.34
22	1L	38	1MG	C2-N2	5.68	1.44	1.34
22	1L	65	5MU	C2-N3	5.68	1.47	1.38
23	2L	65	5MU	C6-N1	5.67	1.47	1.38
23	2K	65	5MU	C2-N3	5.66	1.47	1.38
23	2L	17	H2U	C2-N1	5.56	1.43	1.35
23	2L	65	5MU	C2-N3	5.56	1.47	1.38
22	1K	65	5MU	C4-C5	5.50	1.53	1.44
22	1K	65	5MU	C6-N1	5.47	1.47	1.38
23	2K	66	PSU	C6-C5	5.47	1.41	1.35
23	2K	65	5MU	C4-C5	5.23	1.53	1.44
23	2K	38	1MG	C4-N3	5.21	1.46	1.34
23	2L	65	5MU	C4-C5	5.09	1.53	1.44
22	1L	39	PSU	C6-C5	4.79	1.40	1.35
22	1L	65	5MU	C4-C5	4.73	1.52	1.44
23	2L	66	PSU	C6-C5	4.67	1.40	1.35
22	1K	66	PSU	C6-C5	4.41	1.40	1.35
23	2K	18	OMG	C8-N9	-4.36	1.27	1.37
22	1L	38	1MG	C2-N1	4.35	1.45	1.37
23	2L	38	1MG	C2-N1	4.35	1.45	1.37
23	2L	18	OMG	C8-N9	-4.31	1.27	1.37
22	1K	39	PSU	C6-C5	4.28	1.40	1.35
23	2L	17	H2U	C2-N3	3.81	1.44	1.38
23	2K	17	H2U	C2-N3	3.80	1.44	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	1K	38	1MG	C2-N1	3.78	1.44	1.37
23	2K	39	PSU	C6-C5	3.54	1.39	1.35
22	1L	66	PSU	C6-C5	3.51	1.39	1.35
23	2L	38	1MG	C5-C6	3.48	1.54	1.45
23	2K	17	H2U	C4-N3	3.47	1.43	1.37
23	2L	39	PSU	C6-C5	3.43	1.39	1.35
23	2L	18	OMG	C2-N3	3.36	1.41	1.33
23	2L	17	H2U	C4-N3	3.34	1.43	1.37
23	2L	18	OMG	C2-N2	3.29	1.41	1.34
23	2K	18	OMG	C2-N3	3.22	1.41	1.33
22	1L	38	1MG	C5-C6	3.21	1.53	1.45
23	2K	38	1MG	C2-N1	3.19	1.43	1.37
22	1K	38	1MG	C5-C6	3.18	1.53	1.45
23	2L	17	H2U	C6-N1	-2.95	1.42	1.47
22	1L	38	1MG	C5-N7	-2.88	1.33	1.39
23	2K	18	OMG	C2-N2	2.87	1.40	1.34
23	2K	38	1MG	C5-C6	2.87	1.52	1.45
23	2L	18	OMG	O6-C6	-2.82	1.18	1.23
22	1K	38	1MG	C5-N7	-2.81	1.33	1.39
23	2K	17	H2U	C6-N1	-2.69	1.42	1.47
23	2K	18	OMG	O6-C6	-2.65	1.18	1.23
23	2K	38	1MG	C5-N7	-2.41	1.34	1.39
23	2L	38	1MG	C5-N7	-2.24	1.34	1.39
22	1L	39	PSU	C2-N1	2.04	1.39	1.36
23	2K	18	OMG	C2-N1	-2.04	1.32	1.37

All (138) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2K	65	5MU	C5-C4-N3	11.27	125.12	115.32
23	2K	18	OMG	C6-C5-N7	10.86	150.06	130.29
22	1K	65	5MU	C5-C4-N3	10.42	124.38	115.32
23	2K	18	OMG	C8-N7-C5	10.40	122.79	104.26
23	2L	18	OMG	N9-C4-N3	10.33	146.61	125.95
22	1L	65	5MU	C5-C4-N3	10.31	124.28	115.32
23	2L	65	5MU	C5-C4-N3	10.26	124.24	115.32
23	2K	18	OMG	N9-C4-N3	10.14	146.23	125.95
23	2L	18	OMG	C6-C5-N7	10.04	148.56	130.29
23	2L	18	OMG	C8-N7-C5	9.23	120.70	104.26
23	2L	18	OMG	C1'-N9-C4	8.88	152.73	126.49
23	2K	18	OMG	C1'-N9-C4	7.77	149.45	126.49
23	2L	18	OMG	C6-C5-C4	-7.62	107.37	118.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2K	18	OMG	C6-C5-C4	-7.31	107.84	118.83
23	2L	18	OMG	C5-C4-N9	-6.53	93.97	105.66
23	2L	18	OMG	C5-C6-N1	6.43	129.62	113.25
23	2K	18	OMG	C5-C6-N1	6.29	129.25	113.25
23	2L	18	OMG	C1'-N9-C8	-6.24	109.00	126.73
23	2L	65	5MU	C4-N3-C2	-6.23	119.17	127.34
22	1L	65	5MU	C4-N3-C2	-6.22	119.18	127.34
23	2K	18	OMG	C5-C4-N3	-6.20	118.52	128.39
23	2K	65	5MU	C4-N3-C2	-6.17	119.25	127.34
22	1K	65	5MU	C4-N3-C2	-6.10	119.34	127.34
23	2K	18	OMG	C5-C4-N9	-5.81	95.26	105.66
23	2K	65	5MU	C5-C6-N1	-5.78	117.03	123.31
22	1K	65	5MU	C5-C6-N1	-5.74	117.08	123.31
23	2L	18	OMG	C5-C4-N3	-5.64	119.42	128.39
22	1L	65	5MU	C6-C5-C4	5.60	122.64	118.02
23	2K	17	H2U	C5-C4-N3	5.51	122.54	116.69
23	2K	18	OMG	C4-C5-N7	-5.41	102.10	110.67
22	1L	65	5MU	C5-C6-N1	-5.32	117.53	123.31
23	2L	65	5MU	O4-C4-C5	-5.31	118.85	124.92
23	2L	65	5MU	C6-C5-C4	5.26	122.35	118.02
23	2L	18	OMG	N9-C8-N7	5.17	122.99	113.40
23	2L	18	OMG	O6-C6-C5	-5.16	112.90	126.53
22	1K	65	5MU	C6-C5-C4	5.15	122.27	118.02
23	2L	39	PSU	C4-N3-C2	-5.13	119.31	126.37
23	2K	39	PSU	C4-N3-C2	-5.06	119.41	126.37
23	2K	38	1MG	C5-C4-N3	-4.99	120.45	128.39
23	2L	65	5MU	C5-C6-N1	-4.98	117.90	123.31
22	1L	65	5MU	O4-C4-C5	-4.91	119.31	124.92
23	2K	65	5MU	O4-C4-C5	-4.87	119.35	124.92
23	2K	18	OMG	C1'-N9-C8	-4.86	112.91	126.73
22	1K	65	5MU	O4-C4-C5	-4.85	119.37	124.92
23	2L	38	1MG	C5-C4-N3	-4.82	120.72	128.39
23	2K	18	OMG	N9-C8-N7	4.78	122.28	113.40
22	1L	38	1MG	C5-C4-N3	-4.76	120.82	128.39
22	1K	38	1MG	C5-C4-N3	-4.74	120.85	128.39
23	2K	65	5MU	C6-C5-C4	4.72	121.91	118.02
22	1K	65	5MU	C5M-C5-C6	-4.68	116.52	122.85
23	2K	66	PSU	N1-C2-N3	4.65	120.07	115.17
22	1K	66	PSU	N1-C2-N3	4.59	120.01	115.17
23	2K	18	OMG	O6-C6-C5	-4.56	114.50	126.53
23	2K	66	PSU	C6-N1-C2	-4.55	118.47	122.69
22	1L	66	PSU	C4-N3-C2	-4.54	120.12	126.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2L	66	PSU	N1-C2-N3	4.53	119.94	115.17
23	2L	39	PSU	N1-C2-N3	4.52	119.94	115.17
23	2L	17	H2U	C5-C4-N3	4.52	121.49	116.69
23	2K	18	OMG	C8-N9-C4	-4.51	97.58	106.03
23	2K	65	5MU	C5M-C5-C6	-4.49	116.77	122.85
23	2L	65	5MU	C5M-C5-C6	-4.44	116.85	122.85
23	2K	39	PSU	N1-C2-N3	4.38	119.79	115.17
22	1K	39	PSU	C4-N3-C2	-4.30	120.45	126.37
22	1L	66	PSU	N1-C2-N3	4.30	119.70	115.17
22	1K	66	PSU	C4-N3-C2	-4.28	120.47	126.37
23	2L	18	OMG	C4-C5-N7	-4.16	104.08	110.67
23	2L	18	OMG	C8-N9-C4	-4.14	98.26	106.03
23	2K	17	H2U	N3-C2-N1	4.00	120.67	116.65
23	2L	17	H2U	N3-C2-N1	3.96	120.63	116.65
23	2L	66	PSU	C4-N3-C2	-3.96	120.92	126.37
22	1L	39	PSU	C4-N3-C2	-3.91	120.99	126.37
22	1L	65	5MU	C5M-C5-C6	-3.84	117.65	122.85
23	2L	38	1MG	C1'-N9-C4	-3.69	115.57	126.49
23	2L	65	5MU	C6-N1-C2	-3.69	117.63	121.30
22	1L	65	5MU	C6-N1-C2	-3.64	117.67	121.30
22	1K	39	PSU	N1-C2-N3	3.63	118.99	115.17
23	2K	39	PSU	O2-C2-N1	-3.55	119.13	122.79
22	1K	38	1MG	N9-C8-N7	-3.53	106.85	113.40
23	2L	38	1MG	C2-N3-C4	3.53	119.92	111.98
23	2K	38	1MG	N9-C4-N3	3.52	132.99	125.95
22	1K	38	1MG	C1'-N9-C4	-3.50	116.15	126.49
22	1L	39	PSU	N1-C2-N3	3.40	118.75	115.17
22	1L	38	1MG	C1'-N9-C4	-3.40	116.46	126.49
23	2K	66	PSU	C4-N3-C2	-3.37	121.72	126.37
23	2K	66	PSU	O2-C2-N1	-3.37	119.31	122.79
23	2K	38	1MG	C2-N3-C4	3.37	119.55	111.98
23	2L	18	OMG	C2-N1-C6	3.29	131.09	125.11
22	1K	38	1MG	C2-N3-C4	3.28	119.36	111.98
23	2L	38	1MG	C1'-N9-C8	3.21	135.84	126.73
23	2K	17	H2U	C5-C6-N1	3.19	121.17	111.52
23	2K	18	OMG	C2-N1-C6	3.19	130.90	125.11
22	1K	38	1MG	CM1-N1-C6	3.16	122.54	117.64
23	2L	38	1MG	N9-C4-N3	3.10	132.16	125.95
22	1L	38	1MG	C1'-N9-C8	3.08	135.47	126.73
22	1L	38	1MG	C2-N3-C4	3.04	118.82	111.98
23	2L	17	H2U	C5-C6-N1	2.99	120.56	111.52
22	1L	65	5MU	N3-C2-N1	2.92	118.69	114.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1K	38	1MG	N9-C4-N3	2.92	131.79	125.95
23	2L	65	5MU	N3-C2-N1	2.91	118.68	114.89
23	2L	66	PSU	C6-N1-C2	-2.89	120.01	122.69
22	1L	38	1MG	N9-C4-N3	2.88	131.71	125.95
22	1K	66	PSU	C6-N1-C2	-2.86	120.03	122.69
23	2K	38	1MG	C1'-N9-C4	-2.83	118.13	126.49
23	2L	18	OMG	N1-C2-N3	-2.82	118.16	123.32
22	1K	38	1MG	CM1-N1-C2	-2.81	117.79	120.70
22	1K	38	1MG	C1'-N9-C8	2.81	134.71	126.73
23	2L	38	1MG	N9-C8-N7	-2.81	108.20	113.40
22	1L	38	1MG	N9-C8-N7	-2.77	108.26	113.40
23	2K	38	1MG	N9-C8-N7	-2.70	108.39	113.40
22	1K	66	PSU	O2-C2-N1	-2.65	120.06	122.79
23	2K	18	OMG	N1-C2-N3	-2.61	118.54	123.32
23	2L	17	H2U	O2-C2-N1	-2.59	119.99	123.10
22	1L	66	PSU	O2-C2-N1	-2.58	120.13	122.79
23	2L	38	1MG	C5-C6-N1	2.54	119.72	115.02
22	1L	39	PSU	C6-N1-C2	-2.48	120.39	122.69
23	2K	65	5MU	O4-C4-N3	-2.44	115.53	120.11
23	2L	39	PSU	O2-C2-N1	-2.43	120.28	122.79
23	2K	65	5MU	C5M-C5-C4	2.38	121.32	118.78
22	1K	38	1MG	C8-N7-C5	2.32	108.40	104.26
22	1L	38	1MG	CM1-N1-C6	2.31	121.22	117.64
22	1L	65	5MU	O2-C2-N1	-2.30	119.80	122.80
23	2K	18	OMG	N2-C2-N1	2.30	121.61	116.76
22	1K	65	5MU	C5M-C5-C4	2.28	121.22	118.78
22	1K	38	1MG	O6-C6-C5	-2.24	118.81	124.59
23	2K	38	1MG	C1'-N9-C8	2.24	133.09	126.73
22	1K	38	1MG	C5-C6-N1	2.23	119.14	115.02
23	2K	65	5MU	C6-N1-C2	-2.22	119.09	121.30
23	2L	38	1MG	CM1-N1-C6	2.20	121.06	117.64
23	2L	38	1MG	O6-C6-C5	-2.16	119.03	124.59
23	2L	65	5MU	C1'-N1-C2	2.14	121.43	117.59
23	2K	17	H2U	O2-C2-N3	-2.12	117.57	121.49
22	1L	38	1MG	O6-C6-C5	-2.08	119.24	124.59
22	1K	65	5MU	N3-C2-N1	2.07	117.58	114.89
23	2K	65	5MU	N3-C2-N1	2.06	117.58	114.89
23	2K	18	OMG	O6-C6-N1	-2.06	116.24	120.11
22	1K	65	5MU	O4-C4-N3	-2.06	116.25	120.11
22	1L	38	1MG	C5-C6-N1	2.05	118.80	115.02
23	2K	38	1MG	C5-C6-N1	2.03	118.77	115.02

There are no chirality outliers.

All (11) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
23	2L	18	OMG	C4'-C5'-O5'-P
23	2L	18	OMG	O4'-C4'-C5'-O5'
23	2L	65	5MU	C3'-C4'-C5'-O5'
23	2L	65	5MU	O4'-C4'-C5'-O5'
23	2L	18	OMG	C3'-C4'-C5'-O5'
22	1K	38	1MG	O4'-C4'-C5'-O5'
22	1K	38	1MG	C3'-C4'-C5'-O5'
22	1L	66	PSU	O4'-C1'-C5-C4
23	2L	17	H2U	O4'-C4'-C5'-O5'
23	2L	65	5MU	C4'-C5'-O5'-P
22	1L	66	PSU	O4'-C1'-C5-C6

There are no ring outliers.

9 monomers are involved in 10 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
23	2K	18	OMG	2	0
23	2L	38	1MG	2	0
22	1K	39	PSU	1	0
23	2L	66	PSU	1	0
23	2L	65	5MU	1	0
23	2L	39	PSU	2	0
23	2L	18	OMG	2	0
22	1L	65	5MU	1	0
22	1K	38	1MG	1	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1340 ligands modelled in this entry, 1340 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
25	4K	1
25	4L	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	4K	38:U	O3'	44:U	P	28.59
1	4L	40:U	O3'	44:U	P	16.09

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	1507/1522 (99%)	-0.38	15 (0%) 79 63	70, 113, 194, 267	0
1	1G	1513/1522 (99%)	-0.41	10 (0%) 84 70	79, 120, 189, 288	0
2	12	237/256 (92%)	0.20	7 (2%) 52 35	133, 170, 199, 207	0
2	1E	237/256 (92%)	-0.01	0 100 100	116, 156, 187, 198	0
3	22	206/239 (86%)	0.20	7 (3%) 48 32	128, 150, 185, 189	0
3	2E	205/239 (85%)	-0.27	1 (0%) 87 76	94, 120, 157, 169	0
4	32	208/209 (99%)	0.31	12 (5%) 29 19	100, 121, 146, 158	0
4	3E	208/209 (99%)	0.21	9 (4%) 40 25	91, 113, 135, 145	0
5	42	151/162 (93%)	0.12	1 (0%) 84 70	105, 124, 142, 169	0
5	4E	151/162 (93%)	0.03	4 (2%) 57 38	89, 108, 128, 159	0
6	52	101/101 (100%)	-0.38	0 100 100	87, 107, 126, 138	0
6	5E	101/101 (100%)	-0.17	5 (4%) 34 23	87, 109, 129, 140	0
7	62	147/156 (94%)	-0.19	3 (2%) 65 46	123, 138, 159, 171	0
7	6E	144/156 (92%)	0.02	8 (5%) 30 20	118, 136, 154, 175	0
8	72	138/138 (100%)	0.10	2 (1%) 73 55	100, 125, 141, 147	0
8	7E	138/138 (100%)	-0.09	2 (1%) 73 55	97, 116, 130, 141	0
9	82	124/128 (96%)	0.36	7 (5%) 30 20	112, 154, 172, 181	0
9	8E	127/128 (99%)	0.40	7 (5%) 30 21	105, 145, 167, 173	0
10	1A	99/105 (94%)	0.43	7 (7%) 22 15	126, 158, 184, 196	0
10	1I	99/105 (94%)	0.16	1 (1%) 79 63	96, 144, 175, 179	0
11	2A	116/129 (89%)	-0.06	3 (2%) 57 38	92, 114, 138, 155	0
11	2I	116/129 (89%)	0.07	5 (4%) 40 25	86, 117, 142, 184	0
12	3A	125/132 (94%)	0.14	9 (7%) 21 15	91, 108, 136, 189	0
12	3I	122/132 (92%)	-0.21	1 (0%) 82 68	78, 86, 112, 144	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	4A	116/126 (92%)	0.03	5 (4%) 40 25	128, 165, 190, 202	0
13	4I	116/126 (92%)	0.02	3 (2%) 57 38	106, 146, 164, 175	0
14	5A	58/61 (95%)	0.74	7 (12%) 8 7	131, 143, 165, 167	0
14	5I	60/61 (98%)	0.20	1 (1%) 69 50	98, 110, 131, 142	0
15	6A	88/89 (98%)	-0.09	0 100 100	90, 113, 134, 136	0
15	6I	88/89 (98%)	-0.12	0 100 100	87, 108, 130, 139	0
16	7A	84/88 (95%)	0.02	1 (1%) 76 58	93, 108, 135, 169	0
16	7I	84/88 (95%)	0.55	3 (3%) 46 31	108, 120, 155, 187	0
17	8A	99/105 (94%)	0.12	3 (3%) 52 35	98, 112, 126, 131	0
17	8I	100/105 (95%)	0.20	5 (5%) 34 23	95, 113, 129, 133	0
18	9A	69/88 (78%)	-0.28	1 (1%) 73 55	93, 115, 139, 172	0
18	9I	67/88 (76%)	-0.11	0 100 100	93, 111, 135, 144	0
19	AA	78/93 (83%)	0.02	2 (2%) 57 38	150, 182, 201, 206	0
19	AI	80/93 (86%)	0.07	2 (2%) 58 39	116, 149, 171, 175	0
20	BA	99/106 (93%)	0.00	2 (2%) 65 46	90, 115, 143, 158	0
20	BI	99/106 (93%)	0.54	9 (9%) 15 11	113, 132, 170, 175	0
21	1B	25/27 (92%)	1.85	12 (48%) 0 0	121, 142, 155, 172	0
21	1F	23/27 (85%)	0.87	4 (17%) 4 4	115, 129, 133, 136	0
22	1K	83/87 (95%)	-0.21	5 (6%) 27 19	95, 175, 257, 267	0
22	1L	83/87 (95%)	-0.08	3 (3%) 46 31	111, 193, 298, 318	0
23	2K	73/87 (83%)	0.11	6 (8%) 17 13	90, 130, 190, 235	0
23	2L	74/87 (85%)	-0.15	0 100 100	89, 140, 212, 243	0
24	3K	77/87 (88%)	0.26	1 (1%) 75 56	82, 248, 274, 282	0
24	3L	75/87 (86%)	-0.04	2 (2%) 56 37	82, 207, 221, 226	0
25	4K	16/60 (26%)	0.23	0 100 100	89, 147, 205, 218	0
25	4L	21/60 (35%)	0.16	0 100 100	105, 147, 219, 221	0
26	14	2909/2917 (99%)	-0.64	12 (0%) 88 79	61, 91, 244, 328	0
26	1H	2912/2917 (99%)	-0.68	4 (0%) 92 90	55, 86, 243, 301	0
27	16	122/122 (100%)	-0.61	0 100 100	87, 113, 138, 224	0
27	1J	122/122 (100%)	-0.43	2 (1%) 70 52	92, 126, 154, 207	0
28	11	273/276 (98%)	-0.03	4 (1%) 72 53	55, 76, 93, 103	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	19	273/276 (98%)	-0.12	3 (1%) 78 60	60, 80, 97, 113	0
29	21	205/206 (99%)	0.18	9 (4%) 39 25	63, 98, 141, 156	0
29	29	205/206 (99%)	0.13	6 (2%) 53 35	68, 96, 137, 158	0
30	31	202/210 (96%)	-0.26	0 100 100	59, 88, 127, 140	0
30	39	208/210 (99%)	-0.15	0 100 100	67, 106, 167, 200	0
31	41	181/182 (99%)	0.00	6 (3%) 49 33	113, 144, 175, 183	0
31	49	181/182 (99%)	0.02	1 (0%) 85 73	131, 162, 190, 207	0
32	51	174/180 (96%)	0.00	2 (1%) 78 60	93, 118, 133, 143	0
32	59	170/180 (94%)	0.52	16 (9%) 14 11	154, 211, 241, 256	0
33	61	146/148 (98%)	-0.11	2 (1%) 73 55	86, 134, 157, 167	0
33	69	146/148 (98%)	0.10	3 (2%) 63 44	90, 135, 158, 166	0
34	15	138/140 (98%)	0.17	5 (3%) 46 31	79, 105, 142, 157	0
34	58	138/140 (98%)	0.06	2 (1%) 73 55	78, 100, 136, 154	0
35	25	122/122 (100%)	-0.27	2 (1%) 70 52	77, 93, 110, 116	0
35	68	122/122 (100%)	-0.25	0 100 100	66, 89, 105, 114	0
36	35	150/150 (100%)	0.15	3 (2%) 65 46	68, 107, 146, 170	0
36	78	147/150 (98%)	0.07	3 (2%) 65 46	64, 92, 114, 126	0
37	45	140/141 (99%)	0.13	4 (2%) 53 35	77, 106, 132, 154	0
37	88	141/141 (100%)	-0.02	4 (2%) 55 36	73, 95, 118, 143	0
38	55	117/118 (99%)	-0.19	2 (1%) 69 50	68, 86, 107, 119	0
38	98	118/118 (100%)	0.00	2 (1%) 69 50	76, 94, 113, 126	0
39	65	111/112 (99%)	0.24	5 (4%) 38 25	91, 117, 141, 150	0
39	A8	111/112 (99%)	0.12	3 (2%) 56 37	90, 107, 127, 141	0
40	75	137/146 (93%)	0.01	7 (5%) 33 22	83, 101, 163, 193	0
40	B8	129/146 (88%)	0.15	4 (3%) 51 35	84, 103, 135, 159	0
41	85	117/118 (99%)	-0.00	0 100 100	69, 93, 134, 152	0
41	C8	117/118 (99%)	0.28	2 (1%) 69 50	65, 89, 124, 139	0
42	95	101/101 (100%)	0.11	5 (4%) 34 23	70, 121, 143, 174	0
42	D8	101/101 (100%)	0.19	4 (3%) 42 28	69, 110, 140, 150	0
43	A5	113/113 (100%)	0.01	0 100 100	68, 80, 112, 185	0
43	E8	112/113 (99%)	0.07	1 (0%) 81 65	72, 84, 120, 154	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	B5	92/96 (95%)	-0.14	2 (2%) 62 43	76, 92, 116, 127	0
44	F8	94/96 (97%)	-0.23	0 100 100	67, 81, 107, 132	0
45	C5	104/110 (94%)	0.27	2 (1%) 66 48	96, 121, 156, 170	0
45	G8	103/110 (93%)	0.22	4 (3%) 43 29	83, 103, 144, 153	0
46	D5	135/206 (65%)	-0.17	2 (1%) 72 53	110, 142, 177, 191	0
46	H8	171/206 (83%)	-0.06	2 (1%) 76 58	100, 140, 212, 221	0
47	E5	80/85 (94%)	0.43	3 (3%) 44 30	76, 92, 114, 143	0
47	I8	83/85 (97%)	-0.00	3 (3%) 46 31	75, 88, 104, 115	0
48	F5	94/98 (95%)	0.30	3 (3%) 50 34	70, 88, 127, 146	0
48	J8	95/98 (96%)	0.05	3 (3%) 50 34	67, 85, 135, 140	0
49	G5	67/72 (93%)	-0.05	1 (1%) 72 53	90, 112, 131, 146	0
49	K8	68/72 (94%)	-0.06	1 (1%) 72 53	71, 90, 105, 126	0
50	H5	59/60 (98%)	-0.04	2 (3%) 48 32	85, 101, 151, 166	0
50	L8	57/60 (95%)	-0.32	0 100 100	76, 94, 117, 137	0
51	I5	63/71 (88%)	-0.21	0 100 100	157, 205, 225, 231	0
51	M8	66/71 (92%)	0.00	0 100 100	142, 184, 199, 204	0
52	J5	56/60 (93%)	0.00	3 (5%) 31 21	63, 85, 141, 149	0
52	N8	55/60 (91%)	0.31	3 (5%) 30 21	60, 100, 170, 184	0
53	L5	47/49 (95%)	-0.29	0 100 100	64, 69, 88, 95	0
53	P8	47/49 (95%)	-0.37	0 100 100	57, 64, 82, 108	0
54	M5	53/65 (81%)	0.15	2 (3%) 44 30	68, 83, 101, 111	0
54	Q8	60/65 (92%)	0.60	5 (8%) 17 13	69, 84, 110, 124	0
All	All	20915/21710 (96%)	-0.22	372 (1%) 67 49	55, 108, 195, 328	0

All (372) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
9	82	115	GLY	8.3
40	B8	1	MET	6.6
27	1J	88	C	6.3
9	8E	126	SER	6.2
4	32	73	ARG	5.9
7	6E	33	ASP	5.5
47	I8	2	ALA	5.2

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Mol	Chain	Res	Type	RSRZ
14	5A	6	LEU	5.2
9	8E	110	GLU	5.0
20	BI	18	GLN	5.0
9	8E	106	ALA	4.9
21	1B	2	GLY	4.8
1	1G	966	G	4.8
48	J8	91	LYS	4.5
10	1A	58	ASP	4.5
21	1B	26	LYS	4.4
1	13	1424	C	4.3
32	59	171	LEU	4.3
20	BA	9	ASN	4.3
26	14	1026	U	4.2
17	8I	32	TYR	4.2
1	13	933	G	4.1
23	2K	84	A	4.1
4	3E	31	CYS	4.0
47	I8	3	HIS	4.0
13	4A	102	ARG	4.0
42	95	80	GLN	4.0
8	72	1	MET	4.0
7	6E	5	ARG	4.0
42	D8	70	ILE	3.9
40	B8	104	ASN	3.9
34	15	84	LYS	3.9
4	3E	9	CYS	3.9
47	E5	76	GLY	3.9
38	98	7	GLY	3.8
47	E5	71	ASP	3.8
20	BI	69	GLY	3.8
11	2I	12	ARG	3.8
2	12	163	PHE	3.8
34	15	46	VAL	3.7
4	32	74	GLN	3.7
31	49	178	PHE	3.7
8	72	86	ILE	3.7
32	59	131	VAL	3.6
52	N8	25	LEU	3.6
33	61	118	LYS	3.6
5	4E	81	GLU	3.6
19	AI	78	ARG	3.6
20	BI	22	ARG	3.6

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Mol	Chain	Res	Type	RSRZ
35	25	1	MET	3.6
9	82	75	ASP	3.6
40	75	6	LEU	3.6
32	59	4	ILE	3.6
17	8A	7	THR	3.6
22	1L	87	A	3.5
1	1G	1235	U	3.5
19	AA	84	GLY	3.5
52	N8	53	ALA	3.5
1	13	112	G	3.5
20	BI	70	SER	3.5
20	BI	25	ARG	3.5
13	4I	96	LEU	3.5
21	1B	13	ILE	3.4
12	3A	28	LYS	3.4
1	13	1325	C	3.3
32	59	103	LEU	3.3
32	59	72	ILE	3.3
36	35	30	THR	3.3
7	62	33	ASP	3.3
26	1H	1383	C	3.3
21	1B	3	LYS	3.3
42	95	83	ARG	3.3
1	13	631	G	3.3
32	59	168	PRO	3.2
29	29	116	VAL	3.2
17	8I	36	ILE	3.2
5	4E	21	ALA	3.2
54	Q8	56	GLU	3.2
11	2I	11	LYS	3.2
32	59	105	LEU	3.1
9	82	123	PRO	3.1
13	4A	4	ILE	3.1
3	22	162	GLN	3.1
48	J8	95	LEU	3.1
17	8I	31	LEU	3.1
40	75	106	SER	3.1
54	Q8	61	LEU	3.1
21	1F	15	ARG	3.1
29	21	79	ARG	3.1
39	65	13	ARG	3.1
4	3E	12	CYS	3.1

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Mol	Chain	Res	Type	RSRZ
26	14	352	G	3.0
28	11	27	THR	3.0
52	N8	26	THR	3.0
4	3E	26	CYS	3.0
37	45	2	LEU	3.0
23	2K	87	A	3.0
45	G8	105	ALA	3.0
8	7E	93	VAL	3.0
54	Q8	34	TRP	3.0
13	4A	7	VAL	3.0
22	1L	86	C	3.0
22	1K	84	A	3.0
26	14	1084	A	3.0
4	32	31	CYS	3.0
24	3K	19	G	2.9
22	1K	87	A	2.9
1	13	1425	U	2.9
36	78	36	LYS	2.9
21	1B	11	GLY	2.9
14	5A	53	LEU	2.9
33	69	20	ASP	2.9
4	32	72	GLU	2.9
39	A8	2	ALA	2.9
33	69	3	VAL	2.9
4	3E	209	ARG	2.9
19	AA	49	ILE	2.8
31	41	2	PRO	2.8
21	1F	24	ARG	2.8
32	59	169	VAL	2.8
9	8E	125	TYR	2.8
43	E8	24	ILE	2.8
23	2K	1	G	2.8
1	13	1380	U	2.8
22	1K	83	U	2.8
33	69	18	VAL	2.8
29	21	195	LEU	2.8
32	59	64	LEU	2.8
10	1A	61	GLU	2.8
29	21	151	TYR	2.7
42	D8	81	TYR	2.7
38	55	2	ARG	2.7
39	65	12	PHE	2.7

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Mol	Chain	Res	Type	RSRZ
28	11	236	GLY	2.7
44	B5	86	GLY	2.7
23	2K	82	G	2.7
26	14	101	G	2.7
36	35	47	ASP	2.7
16	7I	32	TYR	2.7
5	4E	83	GLU	2.7
39	65	5	THR	2.7
41	C8	118	GLY	2.7
10	1I	98	ILE	2.7
4	3E	135	LEU	2.7
12	3A	18	VAL	2.7
23	2K	85	C	2.7
26	14	1537	C	2.7
3	22	158	GLY	2.7
21	1F	16	GLY	2.7
38	55	5	LYS	2.7
1	13	1381	U	2.7
37	45	79	LEU	2.7
9	82	124	GLN	2.6
26	1H	2476	A	2.6
22	1L	85	C	2.6
21	1F	14	TRP	2.6
4	32	5	ILE	2.6
40	75	104	ASN	2.6
34	58	68	GLU	2.6
3	2E	91	LEU	2.6
20	BI	23	ARG	2.6
32	59	3	ARG	2.6
39	65	17	ARG	2.6
21	1B	23	PRO	2.6
37	45	140	ALA	2.6
9	82	125	TYR	2.6
40	B8	21	GLU	2.6
11	2A	89	ALA	2.6
29	21	196	VAL	2.6
52	J5	28	PRO	2.6
17	8I	35	VAL	2.5
34	58	74	ARG	2.5
9	82	15	ALA	2.5
31	41	137	GLU	2.5
21	1B	14	TRP	2.5

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Mol	Chain	Res	Type	RSRZ
4	3E	96	LEU	2.5
28	19	147	LEU	2.5
35	25	74	GLY	2.5
9	8E	75	ASP	2.5
7	6E	6	ARG	2.5
11	2A	126	ARG	2.5
48	J8	92	LYS	2.5
20	BI	11	SER	2.5
29	29	7	VAL	2.5
39	A8	12	PHE	2.5
17	8A	32	TYR	2.5
29	29	159	HIS	2.5
42	D8	74	LYS	2.5
1	13	108	G	2.5
24	3L	35	G	2.5
4	32	75	PHE	2.5
29	29	187	ALA	2.4
4	32	26	CYS	2.4
11	2I	124	LYS	2.4
1	1G	1195	C	2.4
20	BI	72	LEU	2.4
22	1K	1	G	2.4
26	14	2145	C	2.4
4	32	9	CYS	2.4
17	8I	28	PRO	2.4
32	59	39	PRO	2.4
50	H5	2	PRO	2.4
2	12	214	ILE	2.4
22	1K	86	C	2.4
26	1H	2690	C	2.4
26	14	2402	C	2.4
37	45	103	MET	2.4
10	1A	64	GLU	2.4
49	K8	69	ARG	2.4
46	D5	157	LEU	2.4
28	19	5	LYS	2.4
16	7I	9	PHE	2.4
2	12	115	LEU	2.4
52	J5	26	THR	2.4
12	3I	14	GLY	2.4
21	1B	5	ASP	2.4
1	13	1286	A	2.4

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Mol	Chain	Res	Type	RSRZ
54	M5	34	TRP	2.4
40	75	5	ALA	2.3
45	C5	90	LEU	2.3
28	11	28	GLU	2.3
37	88	102	VAL	2.3
5	4E	18	ARG	2.3
36	35	33	ARG	2.3
34	15	1	MET	2.3
24	3L	57	C	2.3
18	9A	43	PHE	2.3
31	41	35	GLU	2.3
10	1A	55	LYS	2.3
2	12	203	GLY	2.3
32	59	148	ILE	2.3
4	32	77	ASN	2.3
8	7E	2	LEU	2.3
6	5E	55	ASP	2.3
17	8A	58	GLU	2.3
33	61	122	GLU	2.3
42	D8	84	LYS	2.3
29	21	142	GLY	2.3
48	F5	37	ILE	2.3
6	5E	48	LEU	2.3
26	14	669	G	2.3
1	13	1289	A	2.3
3	22	161	GLU	2.3
16	7A	26	ARG	2.3
29	29	76	ARG	2.3
12	3A	48	PRO	2.3
13	4A	9	ILE	2.3
7	6E	34	GLY	2.3
12	3A	14	GLY	2.3
34	15	116	LEU	2.3
36	78	30	THR	2.3
4	3E	122	ARG	2.3
37	88	141	GLN	2.3
44	B5	68	ARG	2.3
9	8E	109	VAL	2.3
38	98	69	ASP	2.3
5	42	81	GLU	2.2
28	19	181	GLU	2.2
45	G8	91	GLU	2.2

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Mol	Chain	Res	Type	RSRZ
14	5A	7	ILE	2.2
21	1B	16	GLY	2.2
1	1G	968	A	2.2
26	14	1396	U	2.2
47	I8	46	LYS	2.2
1	13	934	C	2.2
10	1A	66	ARG	2.2
50	H5	9	VAL	2.2
3	22	17	ASP	2.2
32	51	9	ILE	2.2
32	59	92	ILE	2.2
6	5E	56	PRO	2.2
1	13	1257	U	2.2
7	62	109	ASN	2.2
2	12	134	GLU	2.2
1	1G	967	C	2.2
4	3E	32	ALA	2.2
14	5I	2	ALA	2.2
31	41	72	ARG	2.2
9	82	71	SER	2.2
1	1G	60	A	2.2
1	1G	1236	A	2.2
3	22	166	GLU	2.2
7	6E	8	GLU	2.2
37	88	80	GLU	2.2
45	G8	92	ASN	2.2
26	14	2602	A	2.2
49	G5	60	LEU	2.2
10	1A	54	PHE	2.2
39	65	20	ARG	2.2
1	1G	1400	C	2.2
46	H8	128	VAL	2.2
46	D5	53	ILE	2.2
20	BI	20	LEU	2.2
40	75	105	LEU	2.2
12	3A	51	ALA	2.2
21	1B	25	LYS	2.2
31	41	75	LYS	2.2
36	78	141	ALA	2.2
48	F5	77	ALA	2.2
26	14	614	U	2.2
29	21	52	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
29	21	78	LEU	2.1
40	75	11	GLU	2.1
40	75	94	ALA	2.1
13	4I	102	ARG	2.1
21	1B	10	ARG	2.1
3	22	10	PHE	2.1
32	59	115	VAL	2.1
45	G8	3	VAL	2.1
21	1B	21	TYR	2.1
42	95	12	TYR	2.1
42	95	70	ILE	2.1
34	15	104	LYS	2.1
2	12	146	GLN	2.1
6	5E	46	ARG	2.1
6	5E	47	ARG	2.1
29	21	187	ALA	2.1
46	H8	79	ARG	2.1
1	13	932	C	2.1
12	3A	5	PRO	2.1
16	7I	66	PRO	2.1
32	59	155	SER	2.1
27	1J	60	C	2.1
19	AI	83	HIS	2.1
9	8E	118	LYS	2.1
41	C8	95	LEU	2.1
54	M5	59	LYS	2.1
4	32	209	ARG	2.1
7	62	41	ARG	2.1
12	3A	31	PRO	2.1
12	3A	32	PHE	2.1
10	1A	85	LEU	2.1
11	2I	120	ARG	2.1
29	29	204	ALA	2.1
47	E5	6	ALA	2.1
13	4I	8	GLU	2.1
13	4A	8	GLU	2.1
32	59	128	PRO	2.1
1	1G	815	A	2.1
20	BA	26	ASN	2.1
4	32	155	LEU	2.1
7	6E	32	ARG	2.1
4	32	12	CYS	2.1

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Mol	Chain	Res	Type	RSRZ
42	95	91	TYR	2.1
26	1H	2145	C	2.1
29	21	186	GLY	2.1
32	51	10	PRO	2.1
3	22	198	VAL	2.0
7	6E	87	VAL	2.0
23	2K	83	U	2.0
31	41	82	LEU	2.0
48	F5	85	LEU	2.0
1	1G	1286	A	2.0
11	2A	25	TYR	2.0
12	3A	64	TYR	2.0
45	C5	105	ALA	2.0
11	2I	125	PHE	2.0
14	5A	52	GLN	2.0
37	88	104	PHE	2.0
40	B8	22	PHE	2.0
14	5A	39	LEU	2.0
39	A8	20	ARG	2.0
54	Q8	32	LEU	2.0
7	6E	120	ILE	2.0
28	11	16	MET	2.0
52	J5	2	ALA	2.0
54	Q8	51	ALA	2.0
14	5A	14	PRO	2.0
1	13	59	A	2.0
14	5A	41	ARG	2.0
2	12	201	ILE	2.0
26	14	1914	C	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	H2U	2K	17	20/21	0.73	0.10	125,135,173,181	0
23	H2U	2L	17	20/21	0.74	0.10	129,137,180,190	0
23	PSU	2K	66	20/21	0.83	0.08	117,125,133,135	0
22	PSU	1K	66	20/21	0.85	0.07	113,134,150,151	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
23	PSU	2L	66	20/21	0.85	0.07	120,131,136,140	0
23	OMG	2K	18	24/25	0.86	0.09	125,139,151,157	0
22	PSU	1L	66	20/21	0.88	0.06	123,141,157,157	0
23	5MU	2K	65	21/22	0.89	0.07	119,125,131,134	0
23	5MU	2L	65	21/22	0.89	0.08	116,128,142,149	0
23	OMG	2L	18	24/25	0.91	0.07	136,144,154,157	0
23	1MG	2L	38	24/25	0.91	0.08	103,110,121,121	0
22	5MU	1K	65	21/22	0.93	0.06	109,126,139,143	0
22	PSU	1K	39	20/21	0.93	0.09	97,105,110,111	0
22	5MU	1L	65	21/22	0.93	0.06	126,135,149,154	0
23	PSU	2L	39	20/21	0.93	0.07	95,108,114,117	0
22	PSU	1L	39	20/21	0.94	0.07	112,122,132,132	0
23	1MG	2K	38	24/25	0.94	0.08	87,96,107,111	0
23	PSU	2K	39	20/21	0.95	0.09	83,96,104,110	0
22	1MG	1L	38	24/25	0.96	0.09	106,120,124,127	0
22	1MG	1K	38	24/25	0.96	0.09	93,100,106,107	0

6.3 Carbohydrates (i)

There are no oligosaccharides in this entry.

6.4 Ligands (i)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1G	1719	1/1	0.43	0.51	118,118,118,118	0
55	MG	14	3276	1/1	0.46	0.28	86,86,86,86	0
55	MG	14	3124	1/1	0.50	0.27	77,77,77,77	0
55	MG	14	3223	1/1	0.51	0.30	118,118,118,118	0
55	MG	13	1676	1/1	0.52	0.36	103,103,103,103	0
55	MG	1H	3193	1/1	0.52	0.30	116,116,116,116	0
55	MG	14	3297	1/1	0.52	0.35	85,85,85,85	0
55	MG	1H	3248	1/1	0.53	0.24	106,106,106,106	0
55	MG	13	1673	1/1	0.53	0.38	145,145,145,145	0
55	MG	1H	3198	1/1	0.54	0.30	113,113,113,113	0
55	MG	1G	1649	1/1	0.54	0.31	109,109,109,109	0
55	MG	14	3130	1/1	0.54	0.32	102,102,102,102	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	14	3304	1/1	0.54	0.37	109,109,109,109	0
55	MG	14	3119	1/1	0.57	0.23	90,90,90,90	0
55	MG	13	1717	1/1	0.58	0.35	100,100,100,100	0
55	MG	1H	3242	1/1	0.58	0.27	97,97,97,97	0
55	MG	1H	3211	1/1	0.59	0.30	104,104,104,104	0
55	MG	1H	3395	1/1	0.60	0.32	100,100,100,100	0
55	MG	1H	3272	1/1	0.61	0.28	85,85,85,85	0
55	MG	1G	1698	1/1	0.61	0.27	112,112,112,112	0
55	MG	14	3370	1/1	0.61	0.33	88,88,88,88	0
55	MG	13	1686	1/1	0.62	0.30	93,93,93,93	0
55	MG	13	1620	1/1	0.62	0.23	92,92,92,92	0
55	MG	14	3179	1/1	0.63	0.27	90,90,90,90	0
55	MG	1H	3203	1/1	0.63	0.22	110,110,110,110	0
55	MG	1H	3179	1/1	0.63	0.28	71,71,71,71	0
55	MG	13	1635	1/1	0.64	0.39	101,101,101,101	0
55	MG	13	1657	1/1	0.64	0.17	90,90,90,90	0
55	MG	1H	3033	1/1	0.64	0.18	92,92,92,92	0
55	MG	14	3139	1/1	0.64	0.22	98,98,98,98	0
55	MG	14	3321	1/1	0.64	0.25	110,110,110,110	0
55	MG	1H	3175	1/1	0.64	0.25	112,112,112,112	0
55	MG	14	3238	1/1	0.65	0.18	98,98,98,98	0
55	MG	3E	301	1/1	0.65	0.28	109,109,109,109	0
55	MG	1H	3354	1/1	0.65	0.23	107,107,107,107	0
55	MG	14	3283	1/1	0.66	0.32	101,101,101,101	0
55	MG	14	3140	1/1	0.66	0.23	108,108,108,108	0
55	MG	14	3159	1/1	0.66	0.34	102,102,102,102	0
55	MG	14	3270	1/1	0.66	0.48	87,87,87,87	0
55	MG	1G	1724	1/1	0.66	0.28	99,99,99,99	0
55	MG	1H	3086	1/1	0.67	0.30	84,84,84,84	0
55	MG	14	3280	1/1	0.67	0.20	87,87,87,87	0
55	MG	1G	1654	1/1	0.67	0.32	97,97,97,97	0
55	MG	1H	3335	1/1	0.67	0.23	101,101,101,101	0
55	MG	1H	3094	1/1	0.67	0.18	73,73,73,73	0
55	MG	1H	3250	1/1	0.67	0.49	97,97,97,97	0
55	MG	14	3272	1/1	0.67	0.20	90,90,90,90	0
55	MG	1G	1625	1/1	0.68	0.36	99,99,99,99	0
55	MG	1H	3314	1/1	0.68	0.19	92,92,92,92	0
55	MG	14	3332	1/1	0.68	0.29	80,80,80,80	0
55	MG	14	3162	1/1	0.68	0.30	94,94,94,94	0
55	MG	14	3231	1/1	0.69	0.23	79,79,79,79	0
55	MG	13	1624	1/1	0.69	0.30	92,92,92,92	0
55	MG	1H	3356	1/1	0.69	0.66	100,100,100,100	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1G	1664	1/1	0.69	0.34	95,95,95,95	0
55	MG	1H	3188	1/1	0.69	0.36	92,92,92,92	0
55	MG	1H	3241	1/1	0.69	0.33	92,92,92,92	0
55	MG	13	1715	1/1	0.70	0.41	88,88,88,88	0
55	MG	1H	3396	1/1	0.70	0.17	98,98,98,98	0
55	MG	14	3308	1/1	0.70	0.29	89,89,89,89	0
55	MG	2K	102	1/1	0.70	0.23	118,118,118,118	0
55	MG	13	1613	1/1	0.70	0.22	92,92,92,92	0
55	MG	14	3349	1/1	0.70	0.32	95,95,95,95	0
55	MG	14	3247	1/1	0.70	0.11	78,78,78,78	0
55	MG	1G	1686	1/1	0.71	0.25	108,108,108,108	0
55	MG	1H	3373	1/1	0.71	0.47	85,85,85,85	0
55	MG	13	1716	1/1	0.71	0.25	103,103,103,103	0
55	MG	1H	3208	1/1	0.71	0.26	96,96,96,96	0
55	MG	14	3145	1/1	0.71	0.30	79,79,79,79	0
55	MG	14	3350	1/1	0.71	0.41	84,84,84,84	0
55	MG	1G	1614	1/1	0.71	0.29	98,98,98,98	0
55	MG	29	303	1/1	0.71	0.20	79,79,79,79	0
55	MG	1G	1725	1/1	0.72	0.34	104,104,104,104	0
55	MG	14	3192	1/1	0.72	0.23	102,102,102,102	0
55	MG	14	3099	1/1	0.72	0.13	57,57,57,57	0
55	MG	13	1679	1/1	0.72	0.34	135,135,135,135	0
55	MG	14	3236	1/1	0.72	0.19	119,119,119,119	0
55	MG	14	3367	1/1	0.72	0.24	102,102,102,102	0
55	MG	1G	1677	1/1	0.72	0.31	105,105,105,105	0
55	MG	14	3395	1/1	0.72	0.20	98,98,98,98	0
55	MG	1G	1611	1/1	0.72	0.14	122,122,122,122	0
55	MG	14	3185	1/1	0.73	0.29	74,74,74,74	0
55	MG	16	203	1/1	0.73	0.26	102,102,102,102	0
55	MG	1G	1670	1/1	0.73	0.25	117,117,117,117	0
55	MG	14	3225	1/1	0.73	0.23	87,87,87,87	0
55	MG	88	302	1/1	0.73	0.25	95,95,95,95	0
55	MG	1H	3291	1/1	0.73	0.21	117,117,117,117	0
55	MG	1G	1690	1/1	0.73	0.19	97,97,97,97	0
55	MG	1H	3226	1/1	0.73	0.19	93,93,93,93	0
55	MG	14	3360	1/1	0.73	0.46	93,93,93,93	0
55	MG	13	1730	1/1	0.73	0.30	95,95,95,95	0
55	MG	13	1729	1/1	0.73	0.18	122,122,122,122	0
55	MG	1H	3398	1/1	0.73	0.18	109,109,109,109	0
55	MG	14	3096	1/1	0.73	0.23	62,62,62,62	0
55	MG	1H	3183	1/1	0.74	0.32	90,90,90,90	0
55	MG	14	3264	1/1	0.74	0.24	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1H	3290	1/1	0.74	0.23	71,71,71,71	0
55	MG	13	1670	1/1	0.74	0.28	99,99,99,99	0
55	MG	14	3002	1/1	0.74	0.31	61,61,61,61	0
55	MG	14	3027	1/1	0.74	0.25	85,85,85,85	0
55	MG	1G	1655	1/1	0.74	0.28	108,108,108,108	0
55	MG	14	3290	1/1	0.74	0.45	76,76,76,76	0
55	MG	14	3098	1/1	0.74	0.28	87,87,87,87	0
55	MG	1H	3294	1/1	0.74	0.19	96,96,96,96	0
55	MG	1G	1618	1/1	0.75	0.35	76,76,76,76	0
55	MG	14	3110	1/1	0.75	0.25	74,74,74,74	0
55	MG	1G	1693	1/1	0.75	0.24	109,109,109,109	0
55	MG	13	1698	1/1	0.75	0.35	89,89,89,89	0
55	MG	1G	1700	1/1	0.75	0.22	99,99,99,99	0
55	MG	13	1669	1/1	0.75	0.32	97,97,97,97	0
55	MG	14	3335	1/1	0.75	0.42	86,86,86,86	0
55	MG	13	1611	1/1	0.75	0.24	115,115,115,115	0
55	MG	13	1634	1/1	0.75	0.31	77,77,77,77	0
55	MG	14	3154	1/1	0.75	0.32	81,81,81,81	0
55	MG	1H	3044	1/1	0.75	0.29	63,63,63,63	0
55	MG	13	1722	1/1	0.75	0.31	106,106,106,106	0
55	MG	13	1696	1/1	0.75	0.27	73,73,73,73	0
55	MG	14	3488	1/1	0.75	0.33	64,64,64,64	0
55	MG	1H	3264	1/1	0.75	0.18	86,86,86,86	0
55	MG	1H	3144	1/1	0.76	0.13	93,93,93,93	0
55	MG	1G	1610	1/1	0.76	0.28	86,86,86,86	0
55	MG	13	1618	1/1	0.76	0.32	124,124,124,124	0
55	MG	1H	3204	1/1	0.76	0.27	83,83,83,83	0
55	MG	13	1643	1/1	0.76	0.22	104,104,104,104	0
55	MG	1H	3358	1/1	0.76	0.22	81,81,81,81	0
55	MG	1G	1629	1/1	0.76	0.26	89,89,89,89	0
55	MG	1H	3362	1/1	0.76	0.28	56,56,56,56	0
55	MG	14	3062	1/1	0.76	0.23	71,71,71,71	0
55	MG	14	3204	1/1	0.76	0.28	89,89,89,89	0
55	MG	13	1680	1/1	0.76	0.17	93,93,93,93	0
55	MG	1H	3276	1/1	0.76	0.23	100,100,100,100	0
55	MG	13	1711	1/1	0.76	0.15	107,107,107,107	0
55	MG	1H	3233	1/1	0.76	0.28	100,100,100,100	0
55	MG	1H	3408	1/1	0.76	0.19	82,82,82,82	0
55	MG	14	3242	1/1	0.76	0.25	98,98,98,98	0
55	MG	14	3369	1/1	0.76	0.28	105,105,105,105	0
55	MG	1H	3126	1/1	0.76	0.48	84,84,84,84	0
55	MG	14	3379	1/1	0.76	0.22	107,107,107,107	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	14	3249	1/1	0.76	0.21	100,100,100,100	0
55	MG	14	3250	1/1	0.76	0.19	87,87,87,87	0
55	MG	16	204	1/1	0.76	0.14	103,103,103,103	0
55	MG	45	202	1/1	0.76	0.25	99,99,99,99	0
55	MG	1H	3145	1/1	0.77	0.31	83,83,83,83	0
55	MG	13	1709	1/1	0.77	0.29	99,99,99,99	0
55	MG	13	1663	1/1	0.77	0.32	93,93,93,93	0
55	MG	1G	1702	1/1	0.77	0.18	95,95,95,95	0
55	MG	1G	1703	1/1	0.77	0.27	106,106,106,106	0
55	MG	1G	1706	1/1	0.77	0.23	91,91,91,91	0
55	MG	14	3246	1/1	0.77	0.30	97,97,97,97	0
55	MG	1H	3313	1/1	0.77	0.34	98,98,98,98	0
55	MG	13	1619	1/1	0.77	0.21	111,111,111,111	0
55	MG	13	1703	1/1	0.77	0.27	85,85,85,85	0
55	MG	1G	1729	1/1	0.77	0.24	89,89,89,89	0
55	MG	14	3161	1/1	0.77	0.35	74,74,74,74	0
55	MG	1H	3337	1/1	0.77	0.24	82,82,82,82	0
55	MG	1G	1683	1/1	0.77	0.17	132,132,132,132	0
55	MG	1H	3344	1/1	0.77	0.22	85,85,85,85	0
55	MG	1G	1687	1/1	0.77	0.35	101,101,101,101	0
55	MG	1H	3407	1/1	0.77	0.33	102,102,102,102	0
56	ZN	C5	201	1/1	0.77	0.17	201,201,201,201	0
55	MG	13	1678	1/1	0.78	0.17	85,85,85,85	0
55	MG	1H	3150	1/1	0.78	0.21	84,84,84,84	0
55	MG	1H	3266	1/1	0.78	0.24	79,79,79,79	0
55	MG	14	3273	1/1	0.78	0.29	87,87,87,87	0
55	MG	1H	3167	1/1	0.78	0.22	75,75,75,75	0
55	MG	14	3237	1/1	0.78	0.14	65,65,65,65	0
55	MG	1H	3388	1/1	0.78	0.29	90,90,90,90	0
55	MG	14	3178	1/1	0.78	0.24	89,89,89,89	0
55	MG	14	3387	1/1	0.78	0.45	92,92,92,92	0
55	MG	1H	3063	1/1	0.78	0.38	90,90,90,90	0
55	MG	1H	3067	1/1	0.78	0.30	68,68,68,68	0
55	MG	1J	202	1/1	0.78	0.17	107,107,107,107	0
55	MG	1G	1665	1/1	0.78	0.23	108,108,108,108	0
55	MG	1H	3073	1/1	0.78	0.30	68,68,68,68	0
55	MG	14	3253	1/1	0.78	0.26	98,98,98,98	0
55	MG	14	3334	1/1	0.79	0.29	76,76,76,76	0
55	MG	1H	3039	1/1	0.79	0.34	66,66,66,66	0
55	MG	1H	3132	1/1	0.79	0.23	63,63,63,63	0
55	MG	13	1704	1/1	0.79	0.29	93,93,93,93	0
55	MG	14	3352	1/1	0.79	0.27	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	14	3275	1/1	0.79	0.30	96,96,96,96	0
55	MG	1H	3056	1/1	0.79	0.27	75,75,75,75	0
55	MG	1H	3087	1/1	0.79	0.22	76,76,76,76	0
55	MG	1G	1673	1/1	0.79	0.09	97,97,97,97	0
55	MG	13	1648	1/1	0.79	0.28	96,96,96,96	0
55	MG	1H	3270	1/1	0.79	0.22	99,99,99,99	0
55	MG	14	3301	1/1	0.79	0.21	90,90,90,90	0
55	MG	14	3188	1/1	0.79	0.32	82,82,82,82	0
55	MG	1G	1638	1/1	0.79	0.27	95,95,95,95	0
55	MG	14	3314	1/1	0.79	0.28	90,90,90,90	0
55	MG	1G	1646	1/1	0.79	0.23	109,109,109,109	0
55	MG	1H	3319	1/1	0.79	0.24	102,102,102,102	0
55	MG	1H	3261	1/1	0.80	0.33	85,85,85,85	0
55	MG	14	3164	1/1	0.80	0.35	101,101,101,101	0
55	MG	1G	1713	1/1	0.80	0.33	100,100,100,100	0
55	MG	13	1695	1/1	0.80	0.37	92,92,92,92	0
55	MG	1H	3360	1/1	0.80	0.25	70,70,70,70	0
55	MG	13	1668	1/1	0.80	0.29	78,78,78,78	0
55	MG	1G	1653	1/1	0.80	0.16	97,97,97,97	0
55	MG	13	1601	1/1	0.80	0.26	63,63,63,63	0
55	MG	14	3317	1/1	0.80	0.15	88,88,88,88	0
55	MG	13	1682	1/1	0.80	0.21	108,108,108,108	0
55	MG	14	3036	1/1	0.80	0.27	71,71,71,71	0
55	MG	1H	3147	1/1	0.80	0.27	81,81,81,81	0
55	MG	14	3077	1/1	0.80	0.27	63,63,63,63	0
55	MG	1H	3031	1/1	0.80	0.25	57,57,57,57	0
55	MG	1H	3153	1/1	0.80	0.20	79,79,79,79	0
55	MG	1H	3154	1/1	0.80	0.24	81,81,81,81	0
55	MG	1H	3303	1/1	0.80	0.36	91,91,91,91	0
55	MG	14	3115	1/1	0.80	0.19	77,77,77,77	0
55	MG	1H	3161	1/1	0.80	0.24	80,80,80,80	0
55	MG	1H	3166	1/1	0.80	0.13	83,83,83,83	0
55	MG	14	3252	1/1	0.80	0.20	97,97,97,97	0
55	MG	13	1667	1/1	0.80	0.31	88,88,88,88	0
55	MG	1G	1602	1/1	0.80	0.28	80,80,80,80	0
55	MG	13	1707	1/1	0.80	0.23	92,92,92,92	0
55	MG	1H	3043	1/1	0.80	0.19	83,83,83,83	0
55	MG	1H	3181	1/1	0.80	0.32	92,92,92,92	0
55	MG	1H	3351	1/1	0.80	0.30	86,86,86,86	0
55	MG	1H	3259	1/1	0.80	0.39	98,98,98,98	0
55	MG	1G	1628	1/1	0.81	0.28	93,93,93,93	0
55	MG	1H	3135	1/1	0.81	0.41	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1G	1636	1/1	0.81	0.22	93,93,93,93	0
55	MG	1H	3369	1/1	0.81	0.24	86,86,86,86	0
55	MG	14	3284	1/1	0.81	0.24	79,79,79,79	0
55	MG	1H	3299	1/1	0.81	0.17	79,79,79,79	0
55	MG	1H	3302	1/1	0.81	0.19	86,86,86,86	0
55	MG	1H	3042	1/1	0.81	0.19	84,84,84,84	0
55	MG	13	1660	1/1	0.81	0.20	99,99,99,99	0
55	MG	14	3306	1/1	0.81	0.25	95,95,95,95	0
55	MG	14	3015	1/1	0.81	0.30	69,69,69,69	0
55	MG	14	3198	1/1	0.81	0.16	95,95,95,95	0
55	MG	14	3025	1/1	0.81	0.27	82,82,82,82	0
55	MG	14	3318	1/1	0.81	0.18	77,77,77,77	0
55	MG	14	3219	1/1	0.81	0.23	86,86,86,86	0
55	MG	13	1609	1/1	0.81	0.22	80,80,80,80	0
55	MG	13	1645	1/1	0.81	0.24	84,84,84,84	0
55	MG	1H	3232	1/1	0.81	0.18	90,90,90,90	0
55	MG	14	3338	1/1	0.81	0.24	66,66,66,66	0
55	MG	14	3235	1/1	0.81	0.29	91,91,91,91	0
55	MG	1G	1669	1/1	0.81	0.14	100,100,100,100	0
55	MG	1H	3152	1/1	0.81	0.34	54,54,54,54	0
55	MG	1H	3338	1/1	0.81	0.22	82,82,82,82	0
55	MG	1G	1674	1/1	0.81	0.17	113,113,113,113	0
55	MG	21	302	1/1	0.81	0.18	77,77,77,77	0
55	MG	1H	3125	1/1	0.81	0.41	73,73,73,73	0
55	MG	14	3374	1/1	0.81	0.23	102,102,102,102	0
55	MG	1H	3279	1/1	0.81	0.27	86,86,86,86	0
55	MG	14	3381	1/1	0.81	0.23	95,95,95,95	0
55	MG	1H	3352	1/1	0.81	0.27	87,87,87,87	0
55	MG	1H	3285	1/1	0.81	0.28	83,83,83,83	0
55	MG	13	1713	1/1	0.81	0.33	99,99,99,99	0
55	MG	13	1672	1/1	0.81	0.32	89,89,89,89	0
55	MG	1G	1624	1/1	0.81	0.18	103,103,103,103	0
55	MG	14	3152	1/1	0.81	0.25	99,99,99,99	0
56	ZN	G8	202	1/1	0.81	0.17	205,205,205,205	0
55	MG	1H	3292	1/1	0.81	0.27	90,90,90,90	0
55	MG	1G	1711	1/1	0.82	0.29	88,88,88,88	0
55	MG	14	3122	1/1	0.82	0.28	84,84,84,84	0
55	MG	1H	3383	1/1	0.82	0.28	90,90,90,90	0
55	MG	14	3309	1/1	0.82	0.09	95,95,95,95	0
55	MG	14	3129	1/1	0.82	0.21	86,86,86,86	0
55	MG	1H	3066	1/1	0.82	0.27	86,86,86,86	0
55	MG	1H	3389	1/1	0.82	0.45	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1H	3128	1/1	0.82	0.34	66,66,66,66	0
55	MG	14	3240	1/1	0.82	0.12	68,68,68,68	0
55	MG	13	1714	1/1	0.82	0.11	103,103,103,103	0
55	MG	14	3148	1/1	0.82	0.35	72,72,72,72	0
55	MG	14	3150	1/1	0.82	0.18	92,92,92,92	0
55	MG	14	3347	1/1	0.82	0.21	84,84,84,84	0
55	MG	13	1674	1/1	0.82	0.18	112,112,112,112	0
55	MG	1H	3400	1/1	0.82	0.35	94,94,94,94	0
55	MG	14	3016	1/1	0.82	0.26	74,74,74,74	0
55	MG	13	1617	1/1	0.82	0.34	83,83,83,83	0
55	MG	13	1684	1/1	0.82	0.27	98,98,98,98	0
55	MG	14	3032	1/1	0.82	0.31	71,71,71,71	0
55	MG	14	3171	1/1	0.82	0.31	103,103,103,103	0
55	MG	1H	3414	1/1	0.82	0.34	97,97,97,97	0
55	MG	1H	3331	1/1	0.82	0.15	68,68,68,68	0
55	MG	1G	1696	1/1	0.82	0.23	94,94,94,94	0
55	MG	14	3384	1/1	0.82	0.17	92,92,92,92	0
55	MG	1H	3092	1/1	0.82	0.31	73,73,73,73	0
55	MG	13	1720	1/1	0.82	0.27	94,94,94,94	0
55	MG	14	3196	1/1	0.82	0.25	65,65,65,65	0
55	MG	1J	201	1/1	0.82	0.20	115,115,115,115	0
55	MG	13	1705	1/1	0.82	0.29	102,102,102,102	0
55	MG	14	3292	1/1	0.82	0.28	79,79,79,79	0
55	MG	14	3296	1/1	0.82	0.27	94,94,94,94	0
55	MG	1G	1601	1/1	0.82	0.27	91,91,91,91	0
55	MG	1H	3380	1/1	0.82	0.19	100,100,100,100	0
55	MG	1H	3317	1/1	0.83	0.23	79,79,79,79	0
55	MG	1H	3035	1/1	0.83	0.28	82,82,82,82	0
55	MG	1H	3394	1/1	0.83	0.18	82,82,82,82	0
55	MG	1H	3324	1/1	0.83	0.23	89,89,89,89	0
55	MG	1H	3269	1/1	0.83	0.22	99,99,99,99	0
55	MG	7A	101	1/1	0.83	0.20	85,85,85,85	0
55	MG	14	3175	1/1	0.83	0.40	95,95,95,95	0
55	MG	14	3177	1/1	0.83	0.23	75,75,75,75	0
55	MG	1H	3332	1/1	0.83	0.25	78,78,78,78	0
55	MG	1H	3399	1/1	0.83	0.25	94,94,94,94	0
55	MG	14	3180	1/1	0.83	0.17	82,82,82,82	0
55	MG	13	1631	1/1	0.83	0.28	80,80,80,80	0
55	MG	14	3024	1/1	0.83	0.33	79,79,79,79	0
55	MG	14	3315	1/1	0.83	0.16	92,92,92,92	0
55	MG	13	1688	1/1	0.83	0.18	92,92,92,92	0
55	MG	1H	3158	1/1	0.83	0.37	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	13	1689	1/1	0.83	0.34	92,92,92,92	0
55	MG	14	3322	1/1	0.83	0.22	93,93,93,93	0
55	MG	14	3035	1/1	0.83	0.28	91,91,91,91	0
55	MG	1H	3510	1/1	0.83	0.38	65,65,65,65	0
55	MG	14	3043	1/1	0.83	0.27	83,83,83,83	0
55	MG	1H	3346	1/1	0.83	0.25	105,105,105,105	0
55	MG	14	3229	1/1	0.83	0.22	77,77,77,77	0
55	MG	13	1694	1/1	0.83	0.25	88,88,88,88	0
55	MG	14	3233	1/1	0.83	0.27	91,91,91,91	0
55	MG	14	3087	1/1	0.83	0.21	84,84,84,84	0
55	MG	1G	1675	1/1	0.83	0.18	102,102,102,102	0
55	MG	16	205	1/1	0.83	0.23	87,87,87,87	0
55	MG	1H	3286	1/1	0.83	0.16	94,94,94,94	0
55	MG	14	3103	1/1	0.83	0.15	73,73,73,73	0
55	MG	1H	3353	1/1	0.83	0.27	75,75,75,75	0
55	MG	13	1662	1/1	0.83	0.06	98,98,98,98	0
55	MG	1H	3130	1/1	0.83	0.24	70,70,70,70	0
55	MG	13	1607	1/1	0.83	0.27	77,77,77,77	0
55	MG	13	1644	1/1	0.83	0.41	91,91,91,91	0
55	MG	1H	3249	1/1	0.83	0.31	80,80,80,80	0
55	MG	1H	3017	1/1	0.83	0.36	56,56,56,56	0
55	MG	1G	1622	1/1	0.83	0.28	95,95,95,95	0
55	MG	13	1702	1/1	0.83	0.20	96,96,96,96	0
55	MG	1H	3079	1/1	0.83	0.20	79,79,79,79	0
55	MG	1G	1709	1/1	0.83	0.31	81,81,81,81	0
55	MG	1G	1710	1/1	0.83	0.23	87,87,87,87	0
55	MG	13	1685	1/1	0.83	0.18	103,103,103,103	0
55	MG	14	3311	1/1	0.84	0.30	103,103,103,103	0
55	MG	13	1622	1/1	0.84	0.12	85,85,85,85	0
55	MG	1G	1708	1/1	0.84	0.25	66,66,66,66	0
55	MG	1G	1667	1/1	0.84	0.16	84,84,84,84	0
55	MG	1H	3184	1/1	0.84	0.29	75,75,75,75	0
55	MG	1G	1623	1/1	0.84	0.22	89,89,89,89	0
55	MG	1H	3304	1/1	0.84	0.20	82,82,82,82	0
55	MG	1G	1717	1/1	0.84	0.29	99,99,99,99	0
55	MG	16	201	1/1	0.84	0.23	97,97,97,97	0
55	MG	1G	1722	1/1	0.84	0.26	84,84,84,84	0
55	MG	14	3182	1/1	0.84	0.18	78,78,78,78	0
55	MG	14	3254	1/1	0.84	0.12	117,117,117,117	0
55	MG	14	3348	1/1	0.84	0.24	86,86,86,86	0
55	MG	1H	3283	1/1	0.84	0.39	85,85,85,85	0
55	MG	14	3265	1/1	0.84	0.22	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	13	1701	1/1	0.84	0.34	83,83,83,83	0
55	MG	14	3189	1/1	0.84	0.17	91,91,91,91	0
55	MG	1G	1678	1/1	0.84	0.21	97,97,97,97	0
55	MG	1G	1630	1/1	0.84	0.28	91,91,91,91	0
55	MG	1H	3189	1/1	0.84	0.24	85,85,85,85	0
55	MG	14	3008	1/1	0.84	0.28	61,61,61,61	0
55	MG	14	3282	1/1	0.84	0.19	89,89,89,89	0
55	MG	14	3205	1/1	0.84	0.25	83,83,83,83	0
55	MG	14	3207	1/1	0.84	0.28	92,92,92,92	0
55	MG	14	3215	1/1	0.84	0.21	77,77,77,77	0
55	MG	1H	3104	1/1	0.84	0.32	77,77,77,77	0
55	MG	1G	1645	1/1	0.84	0.27	80,80,80,80	0
55	MG	1H	3112	1/1	0.84	0.21	69,69,69,69	0
55	MG	13	1649	1/1	0.84	0.29	91,91,91,91	0
55	MG	1H	3244	1/1	0.84	0.17	92,92,92,92	0
55	MG	1H	3295	1/1	0.84	0.25	87,87,87,87	0
55	MG	1H	3405	1/1	0.84	0.21	89,89,89,89	0
55	MG	1H	3038	1/1	0.84	0.13	96,96,96,96	0
55	MG	1H	3172	1/1	0.85	0.33	103,103,103,103	0
55	MG	1H	3230	1/1	0.85	0.27	84,84,84,84	0
55	MG	14	3300	1/1	0.85	0.23	64,64,64,64	0
55	MG	1H	3280	1/1	0.85	0.17	92,92,92,92	0
55	MG	14	3108	1/1	0.85	0.16	61,61,61,61	0
55	MG	1H	3107	1/1	0.85	0.40	76,76,76,76	0
55	MG	13	1665	1/1	0.85	0.11	103,103,103,103	0
55	MG	1H	3404	1/1	0.85	0.35	83,83,83,83	0
55	MG	1H	3342	1/1	0.85	0.10	73,73,73,73	0
55	MG	14	3312	1/1	0.85	0.24	96,96,96,96	0
55	MG	1H	3234	1/1	0.85	0.12	78,78,78,78	0
55	MG	14	3128	1/1	0.85	0.30	89,89,89,89	0
55	MG	1H	3117	1/1	0.85	0.23	74,74,74,74	0
55	MG	1H	3123	1/1	0.85	0.17	64,64,64,64	0
55	MG	1G	1650	1/1	0.85	0.29	92,92,92,92	0
55	MG	1H	3499	1/1	0.85	0.17	103,103,103,103	0
55	MG	14	3328	1/1	0.85	0.33	38,38,38,38	0
55	MG	14	3329	1/1	0.85	0.34	58,58,58,58	0
55	MG	13	1666	1/1	0.85	0.30	78,78,78,78	0
55	MG	14	3146	1/1	0.85	0.16	73,73,73,73	0
55	MG	1H	3245	1/1	0.85	0.32	81,81,81,81	0
55	MG	14	3336	1/1	0.85	0.21	70,70,70,70	0
55	MG	13	1658	1/1	0.85	0.12	82,82,82,82	0
55	MG	14	3243	1/1	0.85	0.24	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	13	1606	1/1	0.85	0.25	89,89,89,89	0
55	MG	14	3153	1/1	0.85	0.36	71,71,71,71	0
55	MG	1H	3300	1/1	0.85	0.34	91,91,91,91	0
55	MG	1G	1668	1/1	0.85	0.32	96,96,96,96	0
55	MG	1H	3155	1/1	0.85	0.15	67,67,67,67	0
55	MG	14	3364	1/1	0.85	0.16	89,89,89,89	0
55	MG	1H	3037	1/1	0.85	0.21	94,94,94,94	0
55	MG	13	1602	1/1	0.85	0.20	85,85,85,85	0
55	MG	14	3263	1/1	0.85	0.25	92,92,92,92	0
55	MG	14	3167	1/1	0.85	0.16	50,50,50,50	0
55	MG	1H	3133	1/1	0.85	0.20	79,79,79,79	0
55	MG	1G	1608	1/1	0.85	0.18	99,99,99,99	0
55	MG	14	3382	1/1	0.85	0.21	91,91,91,91	0
55	MG	1G	1609	1/1	0.85	0.26	101,101,101,101	0
55	MG	1H	3376	1/1	0.85	0.23	71,71,71,71	0
55	MG	1H	3206	1/1	0.85	0.31	69,69,69,69	0
55	MG	13	1608	1/1	0.85	0.35	64,64,64,64	0
55	MG	14	3181	1/1	0.85	0.22	78,78,78,78	0
55	MG	1H	3171	1/1	0.85	0.20	80,80,80,80	0
55	MG	1G	1619	1/1	0.85	0.16	105,105,105,105	0
55	MG	25	201	1/1	0.85	0.28	107,107,107,107	0
55	MG	1G	1692	1/1	0.85	0.15	100,100,100,100	0
55	MG	1H	3225	1/1	0.85	0.22	80,80,80,80	0
55	MG	1H	3325	1/1	0.85	0.25	92,92,92,92	0
55	MG	13	1646	1/1	0.86	0.41	76,76,76,76	0
55	MG	1G	1707	1/1	0.86	0.34	92,92,92,92	0
55	MG	1H	3322	1/1	0.86	0.17	109,109,109,109	0
55	MG	14	3214	1/1	0.86	0.18	78,78,78,78	0
55	MG	1H	3374	1/1	0.86	0.33	89,89,89,89	0
55	MG	1H	3239	1/1	0.86	0.20	93,93,93,93	0
55	MG	13	1650	1/1	0.86	0.38	88,88,88,88	0
55	MG	1G	1659	1/1	0.86	0.17	83,83,83,83	0
55	MG	14	3127	1/1	0.86	0.22	76,76,76,76	0
55	MG	14	3230	1/1	0.86	0.24	85,85,85,85	0
55	MG	14	3319	1/1	0.86	0.22	89,89,89,89	0
55	MG	1H	3080	1/1	0.86	0.23	89,89,89,89	0
55	MG	1H	3384	1/1	0.86	0.11	79,79,79,79	0
55	MG	13	1731	1/1	0.86	0.23	82,82,82,82	0
55	MG	1H	3333	1/1	0.86	0.16	85,85,85,85	0
55	MG	13	1737	1/1	0.86	0.13	114,114,114,114	0
55	MG	1G	1727	1/1	0.86	0.27	98,98,98,98	0
55	MG	13	1652	1/1	0.86	0.22	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	13	1700	1/1	0.86	0.23	87,87,87,87	0
55	MG	14	3149	1/1	0.86	0.21	77,77,77,77	0
55	MG	14	3339	1/1	0.86	0.21	71,71,71,71	0
55	MG	1H	3009	1/1	0.86	0.21	56,56,56,56	0
55	MG	1H	3210	1/1	0.86	0.30	82,82,82,82	0
55	MG	13	1708	1/1	0.86	0.30	81,81,81,81	0
55	MG	1H	3401	1/1	0.86	0.21	80,80,80,80	0
55	MG	14	3155	1/1	0.86	0.23	72,72,72,72	0
55	MG	14	3156	1/1	0.86	0.27	82,82,82,82	0
55	MG	1H	3402	1/1	0.86	0.26	86,86,86,86	0
55	MG	13	1690	1/1	0.86	0.28	90,90,90,90	0
55	MG	14	3368	1/1	0.86	0.27	91,91,91,91	0
55	MG	1H	3180	1/1	0.86	0.17	79,79,79,79	0
55	MG	14	3028	1/1	0.86	0.28	46,46,46,46	0
55	MG	1H	3268	1/1	0.86	0.25	66,66,66,66	0
55	MG	14	3378	1/1	0.86	0.21	83,83,83,83	0
55	MG	1H	3228	1/1	0.86	0.18	68,68,68,68	0
55	MG	1G	1635	1/1	0.86	0.26	82,82,82,82	0
55	MG	1H	3312	1/1	0.86	0.19	88,88,88,88	0
55	MG	14	3044	1/1	0.86	0.24	79,79,79,79	0
55	MG	14	3060	1/1	0.86	0.47	80,80,80,80	0
55	MG	14	3388	1/1	0.86	0.33	94,94,94,94	0
55	MG	14	3393	1/1	0.86	0.12	79,79,79,79	0
55	MG	1H	3032	1/1	0.86	0.21	79,79,79,79	0
55	MG	14	3066	1/1	0.86	0.26	62,62,62,62	0
55	MG	1G	1699	1/1	0.86	0.21	100,100,100,100	0
55	MG	13	1616	1/1	0.86	0.20	102,102,102,102	0
55	MG	1G	1701	1/1	0.86	0.10	119,119,119,119	0
55	MG	14	3097	1/1	0.86	0.37	91,91,91,91	0
55	MG	1H	3124	1/1	0.86	0.22	68,68,68,68	0
55	MG	1G	1647	1/1	0.86	0.19	92,92,92,92	0
55	MG	14	3101	1/1	0.86	0.24	89,89,89,89	0
55	MG	1H	3348	1/1	0.87	0.18	88,88,88,88	0
55	MG	14	3014	1/1	0.87	0.23	77,77,77,77	0
55	MG	1G	1634	1/1	0.87	0.26	77,77,77,77	0
55	MG	1H	3387	1/1	0.87	0.13	73,73,73,73	0
55	MG	14	3022	1/1	0.87	0.16	81,81,81,81	0
55	MG	1H	3174	1/1	0.87	0.25	74,74,74,74	0
55	MG	1G	1637	1/1	0.87	0.31	84,84,84,84	0
55	MG	1H	3224	1/1	0.87	0.12	80,80,80,80	0
55	MG	1G	1644	1/1	0.87	0.23	96,96,96,96	0
55	MG	1H	3391	1/1	0.87	0.15	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	21	301	1/1	0.87	0.28	64,64,64,64	0
55	MG	13	1723	1/1	0.87	0.29	88,88,88,88	0
55	MG	13	1610	1/1	0.87	0.16	90,90,90,90	0
55	MG	1H	3355	1/1	0.87	0.19	62,62,62,62	0
55	MG	14	3049	1/1	0.87	0.18	80,80,80,80	0
55	MG	14	3160	1/1	0.87	0.20	98,98,98,98	0
55	MG	14	3340	1/1	0.87	0.30	66,66,66,66	0
55	MG	1G	1651	1/1	0.87	0.14	93,93,93,93	0
55	MG	14	3061	1/1	0.87	0.15	62,62,62,62	0
55	MG	1H	3200	1/1	0.87	0.23	68,68,68,68	0
55	MG	1H	3274	1/1	0.87	0.40	83,83,83,83	0
55	MG	14	3069	1/1	0.87	0.18	65,65,65,65	0
55	MG	14	3356	1/1	0.87	0.28	77,77,77,77	0
55	MG	14	3173	1/1	0.87	0.27	76,76,76,76	0
55	MG	1H	3275	1/1	0.87	0.16	89,89,89,89	0
55	MG	14	3080	1/1	0.87	0.21	65,65,65,65	0
55	MG	1G	1658	1/1	0.87	0.12	78,78,78,78	0
55	MG	14	3089	1/1	0.87	0.20	89,89,89,89	0
55	MG	13	1659	1/1	0.87	0.21	91,91,91,91	0
55	MG	14	3372	1/1	0.87	0.18	77,77,77,77	0
55	MG	14	3373	1/1	0.87	0.29	74,74,74,74	0
55	MG	1H	3367	1/1	0.87	0.19	77,77,77,77	0
55	MG	13	1687	1/1	0.87	0.39	90,90,90,90	0
55	MG	14	3281	1/1	0.87	0.11	79,79,79,79	0
55	MG	1H	3102	1/1	0.87	0.21	64,64,64,64	0
55	MG	1H	3406	1/1	0.87	0.33	87,87,87,87	0
55	MG	1G	1720	1/1	0.87	0.15	102,102,102,102	0
55	MG	14	3289	1/1	0.87	0.13	98,98,98,98	0
55	MG	1H	3305	1/1	0.87	0.22	96,96,96,96	0
55	MG	1H	3041	1/1	0.87	0.21	72,72,72,72	0
55	MG	1H	3412	1/1	0.87	0.19	103,103,103,103	0
55	MG	1H	3262	1/1	0.87	0.22	93,93,93,93	0
55	MG	1G	1626	1/1	0.87	0.19	80,80,80,80	0
55	MG	1H	3136	1/1	0.87	0.27	72,72,72,72	0
55	MG	14	3126	1/1	0.87	0.18	83,83,83,83	0
55	MG	1H	3508	1/1	0.87	0.26	103,103,103,103	0
55	MG	14	3217	1/1	0.87	0.23	98,98,98,98	0
55	MG	85	201	1/1	0.87	0.27	83,83,83,83	0
55	MG	14	3007	1/1	0.87	0.23	68,68,68,68	0
55	MG	14	3220	1/1	0.87	0.22	80,80,80,80	0
55	MG	1H	3339	1/1	0.88	0.25	88,88,88,88	0
55	MG	1H	3023	1/1	0.88	0.30	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	14	3184	1/1	0.88	0.21	59,59,59,59	0
55	MG	1H	3029	1/1	0.88	0.19	56,56,56,56	0
55	MG	14	3187	1/1	0.88	0.10	81,81,81,81	0
55	MG	1H	3057	1/1	0.88	0.29	73,73,73,73	0
55	MG	13	1647	1/1	0.88	0.18	93,93,93,93	0
55	MG	1H	3192	1/1	0.88	0.27	88,88,88,88	0
55	MG	1H	3064	1/1	0.88	0.17	95,95,95,95	0
55	MG	1G	1640	1/1	0.88	0.19	90,90,90,90	0
55	MG	14	3200	1/1	0.88	0.15	77,77,77,77	0
55	MG	1H	3119	1/1	0.88	0.23	75,75,75,75	0
55	MG	1H	3413	1/1	0.88	0.25	89,89,89,89	0
55	MG	14	3206	1/1	0.88	0.25	92,92,92,92	0
55	MG	1H	3246	1/1	0.88	0.16	90,90,90,90	0
55	MG	14	3212	1/1	0.88	0.20	88,88,88,88	0
55	MG	1H	3297	1/1	0.88	0.18	87,87,87,87	0
55	MG	14	3109	1/1	0.88	0.27	66,66,66,66	0
55	MG	1H	3122	1/1	0.88	0.12	68,68,68,68	0
55	MG	13	1726	1/1	0.88	0.27	93,93,93,93	0
55	MG	14	3116	1/1	0.88	0.15	65,65,65,65	0
55	MG	14	3118	1/1	0.88	0.08	69,69,69,69	0
55	MG	13	1712	1/1	0.88	0.34	86,86,86,86	0
55	MG	14	3228	1/1	0.88	0.06	78,78,78,78	0
55	MG	1H	3361	1/1	0.88	0.28	78,78,78,78	0
55	MG	1H	3254	1/1	0.88	0.20	56,56,56,56	0
55	MG	1H	3366	1/1	0.88	0.10	76,76,76,76	0
55	MG	1H	3165	1/1	0.88	0.25	76,76,76,76	0
55	MG	1G	1728	1/1	0.88	0.15	92,92,92,92	0
55	MG	1H	3260	1/1	0.88	0.32	85,85,85,85	0
55	MG	1G	1662	1/1	0.88	0.17	98,98,98,98	0
55	MG	14	3001	1/1	0.88	0.28	81,81,81,81	0
55	MG	1H	3207	1/1	0.88	0.22	86,86,86,86	0
55	MG	13	1642	1/1	0.88	0.25	85,85,85,85	0
55	MG	13	1623	1/1	0.88	0.22	94,94,94,94	0
55	MG	14	3009	1/1	0.88	0.29	62,62,62,62	0
55	MG	14	3365	1/1	0.88	0.36	89,89,89,89	0
55	MG	1G	1603	1/1	0.88	0.33	65,65,65,65	0
55	MG	13	1661	1/1	0.88	0.23	89,89,89,89	0
55	MG	1H	3267	1/1	0.88	0.22	85,85,85,85	0
55	MG	1H	3320	1/1	0.88	0.24	82,82,82,82	0
55	MG	1H	3213	1/1	0.88	0.15	55,55,55,55	0
55	MG	1G	1613	1/1	0.88	0.32	92,92,92,92	0
55	MG	14	3261	1/1	0.88	0.34	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	14	3375	1/1	0.88	0.30	81,81,81,81	0
55	MG	14	3262	1/1	0.88	0.26	89,89,89,89	0
55	MG	1H	3214	1/1	0.88	0.20	56,56,56,56	0
55	MG	1G	1615	1/1	0.88	0.15	84,84,84,84	0
55	MG	14	3031	1/1	0.88	0.36	66,66,66,66	0
55	MG	1H	3223	1/1	0.88	0.14	68,68,68,68	0
55	MG	14	3271	1/1	0.88	0.31	75,75,75,75	0
55	MG	1H	3330	1/1	0.88	0.25	75,75,75,75	0
55	MG	1H	3084	1/1	0.88	0.20	65,65,65,65	0
55	MG	14	3394	1/1	0.88	0.12	90,90,90,90	0
55	MG	14	3038	1/1	0.88	0.35	57,57,57,57	0
55	MG	14	3465	1/1	0.88	0.14	115,115,115,115	0
55	MG	1G	1689	1/1	0.88	0.26	103,103,103,103	0
55	MG	14	3279	1/1	0.88	0.16	80,80,80,80	0
55	MG	13	1626	1/1	0.88	0.30	68,68,68,68	0
55	MG	29	301	1/1	0.88	0.19	88,88,88,88	0
55	MG	13	1651	1/1	0.88	0.20	91,91,91,91	0
55	MG	13	1628	1/1	0.88	0.24	64,64,64,64	0
55	MG	13	1637	1/1	0.88	0.35	72,72,72,72	0
55	MG	1G	1697	1/1	0.88	0.16	88,88,88,88	0
55	MG	14	3286	1/1	0.88	0.44	91,91,91,91	0
55	MG	1H	3096	1/1	0.88	0.16	62,62,62,62	0
55	MG	14	3307	1/1	0.89	0.26	91,91,91,91	0
55	MG	1H	3347	1/1	0.89	0.16	80,80,80,80	0
55	MG	13	1691	1/1	0.89	0.22	89,89,89,89	0
55	MG	14	3310	1/1	0.89	0.17	84,84,84,84	0
55	MG	1G	1672	1/1	0.89	0.15	95,95,95,95	0
55	MG	1H	3349	1/1	0.89	0.08	66,66,66,66	0
55	MG	14	3313	1/1	0.89	0.24	82,82,82,82	0
55	MG	14	3125	1/1	0.89	0.36	75,75,75,75	0
55	MG	13	1641	1/1	0.89	0.18	75,75,75,75	0
55	MG	1H	3020	1/1	0.89	0.24	68,68,68,68	0
55	MG	14	3226	1/1	0.89	0.27	92,92,92,92	0
55	MG	13	1615	1/1	0.89	0.20	88,88,88,88	0
55	MG	1H	3212	1/1	0.89	0.22	71,71,71,71	0
55	MG	1H	3129	1/1	0.89	0.22	61,61,61,61	0
55	MG	14	3327	1/1	0.89	0.21	98,98,98,98	0
55	MG	14	3138	1/1	0.89	0.46	83,83,83,83	0
55	MG	14	3232	1/1	0.89	0.09	82,82,82,82	0
55	MG	14	3020	1/1	0.89	0.26	80,80,80,80	0
55	MG	13	1603	1/1	0.89	0.15	73,73,73,73	0
55	MG	1H	3053	1/1	0.89	0.14	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1H	3410	1/1	0.89	0.26	85,85,85,85	0
55	MG	14	3026	1/1	0.89	0.15	83,83,83,83	0
55	MG	1H	3177	1/1	0.89	0.24	93,93,93,93	0
55	MG	1H	3030	1/1	0.89	0.21	63,63,63,63	0
55	MG	14	3341	1/1	0.89	0.56	77,77,77,77	0
55	MG	14	3030	1/1	0.89	0.26	70,70,70,70	0
55	MG	1H	3095	1/1	0.89	0.17	58,58,58,58	0
55	MG	1G	1694	1/1	0.89	0.12	80,80,80,80	0
55	MG	14	3033	1/1	0.89	0.17	77,77,77,77	0
55	MG	1H	3447	1/1	0.89	0.15	77,77,77,77	0
55	MG	1H	3460	1/1	0.89	0.11	72,72,72,72	0
55	MG	14	3359	1/1	0.89	0.40	90,90,90,90	0
55	MG	13	1721	1/1	0.89	0.14	84,84,84,84	0
55	MG	1H	3142	1/1	0.89	0.22	68,68,68,68	0
55	MG	1G	1641	1/1	0.89	0.19	91,91,91,91	0
55	MG	14	3163	1/1	0.89	0.23	81,81,81,81	0
55	MG	1G	1642	1/1	0.89	0.15	89,89,89,89	0
55	MG	1H	3231	1/1	0.89	0.13	90,90,90,90	0
55	MG	1H	3370	1/1	0.89	0.27	75,75,75,75	0
55	MG	14	3269	1/1	0.89	0.16	93,93,93,93	0
55	MG	16	202	1/1	0.89	0.17	90,90,90,90	0
55	MG	14	3065	1/1	0.89	0.33	47,47,47,47	0
55	MG	1H	3100	1/1	0.89	0.17	65,65,65,65	0
55	MG	1G	1648	1/1	0.89	0.21	82,82,82,82	0
55	MG	14	3075	1/1	0.89	0.11	70,70,70,70	0
55	MG	1H	3329	1/1	0.89	0.21	62,62,62,62	0
55	MG	1H	3186	1/1	0.89	0.17	76,76,76,76	0
55	MG	1H	3060	1/1	0.89	0.35	59,59,59,59	0
55	MG	14	3385	1/1	0.89	0.23	97,97,97,97	0
55	MG	13	1743	1/1	0.89	0.06	142,142,142,142	0
55	MG	13	1745	1/1	0.89	0.18	88,88,88,88	0
55	MG	14	3391	1/1	0.89	0.17	90,90,90,90	0
55	MG	1H	3065	1/1	0.89	0.21	80,80,80,80	0
55	MG	13	1632	1/1	0.89	0.29	74,74,74,74	0
55	MG	13	1639	1/1	0.89	0.15	85,85,85,85	0
55	MG	14	3396	1/1	0.89	0.16	79,79,79,79	0
55	MG	14	3288	1/1	0.89	0.14	89,89,89,89	0
55	MG	1G	1723	1/1	0.89	0.20	87,87,87,87	0
55	MG	1H	3201	1/1	0.89	0.15	62,62,62,62	0
55	MG	14	3291	1/1	0.89	0.23	91,91,91,91	0
55	MG	14	3106	1/1	0.89	0.31	80,80,80,80	0
55	MG	1H	3392	1/1	0.89	0.19	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1G	1726	1/1	0.89	0.30	90,90,90,90	0
55	MG	1H	3121	1/1	0.89	0.34	54,54,54,54	0
55	MG	14	3113	1/1	0.89	0.27	76,76,76,76	0
55	MG	1H	3071	1/1	0.89	0.26	74,74,74,74	0
55	MG	1H	3005	1/1	0.89	0.26	45,45,45,45	0
55	MG	14	3079	1/1	0.90	0.24	46,46,46,46	0
55	MG	1G	1738	1/1	0.90	0.12	137,137,137,137	0
55	MG	14	3158	1/1	0.90	0.31	68,68,68,68	0
55	MG	14	3081	1/1	0.90	0.26	72,72,72,72	0
55	MG	1G	1739	1/1	0.90	0.16	107,107,107,107	0
55	MG	14	3324	1/1	0.90	0.12	80,80,80,80	0
55	MG	1H	3315	1/1	0.90	0.26	92,92,92,92	0
55	MG	1H	3048	1/1	0.90	0.13	87,87,87,87	0
55	MG	31	400	1/1	0.90	0.11	65,65,65,65	0
55	MG	1H	3019	1/1	0.90	0.32	51,51,51,51	0
55	MG	14	3165	1/1	0.90	0.19	61,61,61,61	0
55	MG	14	3248	1/1	0.90	0.28	74,74,74,74	0
55	MG	1H	3054	1/1	0.90	0.29	51,51,51,51	0
55	MG	14	3170	1/1	0.90	0.19	67,67,67,67	0
55	MG	14	3100	1/1	0.90	0.22	77,77,77,77	0
55	MG	1H	3321	1/1	0.90	0.23	80,80,80,80	0
55	MG	1H	3148	1/1	0.90	0.20	75,75,75,75	0
55	MG	14	3257	1/1	0.90	0.17	78,78,78,78	0
55	MG	14	3104	1/1	0.90	0.20	87,87,87,87	0
55	MG	1G	1606	1/1	0.90	0.20	89,89,89,89	0
55	MG	1H	3323	1/1	0.90	0.20	83,83,83,83	0
55	MG	1H	3251	1/1	0.90	0.15	85,85,85,85	0
55	MG	1H	3253	1/1	0.90	0.27	90,90,90,90	0
55	MG	1G	1652	1/1	0.90	0.28	99,99,99,99	0
55	MG	1H	3227	1/1	0.90	0.11	61,61,61,61	0
55	MG	1H	3256	1/1	0.90	0.22	82,82,82,82	0
55	MG	1G	1705	1/1	0.90	0.14	105,105,105,105	0
55	MG	1H	3258	1/1	0.90	0.14	92,92,92,92	0
55	MG	14	3120	1/1	0.90	0.10	69,69,69,69	0
55	MG	14	3190	1/1	0.90	0.37	75,75,75,75	0
55	MG	14	3191	1/1	0.90	0.10	62,62,62,62	0
55	MG	14	3371	1/1	0.90	0.19	91,91,91,91	0
55	MG	13	1655	1/1	0.90	0.21	77,77,77,77	0
55	MG	1H	3411	1/1	0.90	0.13	87,87,87,87	0
55	MG	1H	3371	1/1	0.90	0.15	84,84,84,84	0
55	MG	1G	1621	1/1	0.90	0.21	80,80,80,80	0
55	MG	14	3201	1/1	0.90	0.12	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	14	3202	1/1	0.90	0.27	85,85,85,85	0
55	MG	14	3380	1/1	0.90	0.29	93,93,93,93	0
55	MG	1H	3151	1/1	0.90	0.25	81,81,81,81	0
55	MG	1H	3178	1/1	0.90	0.20	69,69,69,69	0
55	MG	13	1727	1/1	0.90	0.14	90,90,90,90	0
55	MG	1H	3083	1/1	0.90	0.27	55,55,55,55	0
55	MG	14	3386	1/1	0.90	0.29	79,79,79,79	0
55	MG	14	3131	1/1	0.90	0.31	93,93,93,93	0
55	MG	14	3133	1/1	0.90	0.28	76,76,76,76	0
55	MG	14	3134	1/1	0.90	0.17	76,76,76,76	0
55	MG	14	3392	1/1	0.90	0.14	88,88,88,88	0
55	MG	14	3298	1/1	0.90	0.29	54,54,54,54	0
55	MG	1H	3003	1/1	0.90	0.19	58,58,58,58	0
55	MG	1G	1721	1/1	0.90	0.16	102,102,102,102	0
55	MG	14	3051	1/1	0.90	0.24	55,55,55,55	0
55	MG	14	3305	1/1	0.90	0.32	89,89,89,89	0
55	MG	14	3470	1/1	0.90	0.09	119,119,119,119	0
55	MG	14	3221	1/1	0.90	0.28	92,92,92,92	0
55	MG	1H	3503	1/1	0.90	0.18	76,76,76,76	0
55	MG	14	3224	1/1	0.90	0.34	73,73,73,73	0
55	MG	1H	3236	1/1	0.90	0.12	72,72,72,72	0
55	MG	1H	3114	1/1	0.90	0.32	69,69,69,69	0
55	MG	13	1625	1/1	0.90	0.33	78,78,78,78	0
55	MG	13	1653	1/1	0.90	0.26	79,79,79,79	0
55	MG	1H	3013	1/1	0.90	0.28	54,54,54,54	0
55	MG	E5	202	1/1	0.90	0.24	92,92,92,92	0
55	MG	1H	3273	1/1	0.90	0.12	93,93,93,93	0
55	MG	13	1746	1/1	0.90	0.26	100,100,100,100	0
55	MG	14	3323	1/1	0.91	0.28	79,79,79,79	0
55	MG	14	3074	1/1	0.91	0.24	53,53,53,53	0
55	MG	14	3326	1/1	0.91	0.36	88,88,88,88	0
55	MG	13	1693	1/1	0.91	0.34	62,62,62,62	0
55	MG	1H	3307	1/1	0.91	0.32	83,83,83,83	0
55	MG	1H	3101	1/1	0.91	0.31	60,60,60,60	0
55	MG	14	3331	1/1	0.91	0.28	63,63,63,63	0
55	MG	1H	3194	1/1	0.91	0.08	86,86,86,86	0
55	MG	13	1640	1/1	0.91	0.22	73,73,73,73	0
55	MG	14	3082	1/1	0.91	0.25	76,76,76,76	0
55	MG	1G	1620	1/1	0.91	0.24	88,88,88,88	0
55	MG	14	3166	1/1	0.91	0.16	61,61,61,61	0
55	MG	1H	3357	1/1	0.91	0.21	78,78,78,78	0
55	MG	1H	3074	1/1	0.91	0.15	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1H	3235	1/1	0.91	0.26	88,88,88,88	0
55	MG	14	3344	1/1	0.91	0.23	73,73,73,73	0
55	MG	14	3345	1/1	0.91	0.30	89,89,89,89	0
55	MG	1H	3024	1/1	0.91	0.25	58,58,58,58	0
55	MG	14	3259	1/1	0.91	0.27	88,88,88,88	0
55	MG	1H	3108	1/1	0.91	0.32	58,58,58,58	0
55	MG	1H	3169	1/1	0.91	0.22	90,90,90,90	0
55	MG	2L	101	1/1	0.91	0.16	82,82,82,82	0
55	MG	14	3355	1/1	0.91	0.25	71,71,71,71	0
55	MG	1G	1627	1/1	0.91	0.25	88,88,88,88	0
55	MG	14	3357	1/1	0.91	0.26	93,93,93,93	0
55	MG	1G	1679	1/1	0.91	0.17	88,88,88,88	0
55	MG	1H	3205	1/1	0.91	0.34	75,75,75,75	0
55	MG	1H	3110	1/1	0.91	0.17	54,54,54,54	0
55	MG	14	3183	1/1	0.91	0.23	64,64,64,64	0
55	MG	1H	3025	1/1	0.91	0.17	55,55,55,55	0
55	MG	1G	1631	1/1	0.91	0.30	88,88,88,88	0
55	MG	14	3111	1/1	0.91	0.29	56,56,56,56	0
55	MG	1H	3281	1/1	0.91	0.19	65,65,65,65	0
55	MG	14	3114	1/1	0.91	0.30	81,81,81,81	0
55	MG	1H	3141	1/1	0.91	0.18	50,50,50,50	0
55	MG	14	3018	1/1	0.91	0.27	52,52,52,52	0
55	MG	1H	3509	1/1	0.91	0.35	47,47,47,47	0
55	MG	1H	3059	1/1	0.91	0.21	69,69,69,69	0
55	MG	14	3377	1/1	0.91	0.17	82,82,82,82	0
55	MG	1G	1695	1/1	0.91	0.21	95,95,95,95	0
55	MG	1H	3143	1/1	0.91	0.23	96,96,96,96	0
55	MG	14	3123	1/1	0.91	0.20	63,63,63,63	0
55	MG	1H	3377	1/1	0.91	0.28	87,87,87,87	0
55	MG	14	3203	1/1	0.91	0.20	84,84,84,84	0
55	MG	1H	3116	1/1	0.91	0.22	56,56,56,56	0
55	MG	1H	3006	1/1	0.91	0.20	53,53,53,53	0
55	MG	1G	1643	1/1	0.91	0.27	78,78,78,78	0
55	MG	13	1699	1/1	0.91	0.31	72,72,72,72	0
55	MG	1H	3218	1/1	0.91	0.18	52,52,52,52	0
55	MG	14	3390	1/1	0.91	0.14	70,70,70,70	0
55	MG	1H	3222	1/1	0.91	0.17	91,91,91,91	0
55	MG	1H	3296	1/1	0.91	0.20	84,84,84,84	0
55	MG	1H	3120	1/1	0.91	0.20	53,53,53,53	0
55	MG	88	304	1/1	0.91	0.10	77,77,77,77	0
55	MG	14	3042	1/1	0.91	0.22	47,47,47,47	0
55	MG	1H	3343	1/1	0.91	0.37	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	14	3432	1/1	0.91	0.09	93,93,93,93	0
55	MG	14	3454	1/1	0.91	0.07	111,111,111,111	0
55	MG	1H	3298	1/1	0.91	0.11	68,68,68,68	0
55	MG	14	3141	1/1	0.91	0.33	78,78,78,78	0
55	MG	13	1725	1/1	0.91	0.30	71,71,71,71	0
55	MG	14	3050	1/1	0.91	0.20	72,72,72,72	0
55	MG	14	3147	1/1	0.91	0.26	80,80,80,80	0
55	MG	13	1627	1/1	0.91	0.18	85,85,85,85	0
55	MG	29	302	1/1	0.91	0.24	65,65,65,65	0
55	MG	14	3056	1/1	0.91	0.28	71,71,71,71	0
55	MG	1H	3047	1/1	0.91	0.17	96,96,96,96	0
55	MG	1G	1716	1/1	0.91	0.19	98,98,98,98	0
55	MG	2K	103	1/1	0.91	0.11	143,143,143,143	0
55	MG	1G	1718	1/1	0.91	0.20	76,76,76,76	0
55	MG	1H	3350	1/1	0.91	0.20	79,79,79,79	0
55	MG	1H	3070	1/1	0.91	0.35	73,73,73,73	0
55	MG	14	3241	1/1	0.92	0.15	83,83,83,83	0
55	MG	1H	3512	1/1	0.92	0.22	72,72,72,72	0
55	MG	32	301	1/1	0.92	0.21	86,86,86,86	0
55	MG	14	3245	1/1	0.92	0.28	81,81,81,81	0
55	MG	1G	1681	1/1	0.92	0.08	86,86,86,86	0
55	MG	1G	1632	1/1	0.92	0.21	81,81,81,81	0
55	MG	1G	1684	1/1	0.92	0.13	109,109,109,109	0
55	MG	14	3168	1/1	0.92	0.17	66,66,66,66	0
55	MG	13	1629	1/1	0.92	0.24	65,65,65,65	0
55	MG	14	3006	1/1	0.92	0.21	54,54,54,54	0
55	MG	1H	3240	1/1	0.92	0.26	74,74,74,74	0
55	MG	14	3174	1/1	0.92	0.13	61,61,61,61	0
55	MG	13	1681	1/1	0.92	0.16	91,91,91,91	0
55	MG	1H	3118	1/1	0.92	0.18	74,74,74,74	0
55	MG	14	3010	1/1	0.92	0.18	54,54,54,54	0
55	MG	5E	201	1/1	0.92	0.10	92,92,92,92	0
55	MG	1H	3146	1/1	0.92	0.23	64,64,64,64	0
55	MG	1H	3397	1/1	0.92	0.26	76,76,76,76	0
55	MG	1H	3090	1/1	0.92	0.33	77,77,77,77	0
55	MG	1K	101	1/1	0.92	0.19	90,90,90,90	0
55	MG	14	3354	1/1	0.92	0.23	76,76,76,76	0
55	MG	88	303	1/1	0.92	0.15	71,71,71,71	0
55	MG	1H	3215	1/1	0.92	0.12	45,45,45,45	0
55	MG	1H	3282	1/1	0.92	0.24	89,89,89,89	0
55	MG	2K	101	1/1	0.92	0.17	85,85,85,85	0
55	MG	13	1604	1/1	0.92	0.15	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	13	1683	1/1	0.92	0.18	83,83,83,83	0
55	MG	14	3277	1/1	0.92	0.26	74,74,74,74	0
55	MG	1H	3002	1/1	0.92	0.20	53,53,53,53	0
55	MG	1H	3255	1/1	0.92	0.12	72,72,72,72	0
55	MG	1H	3027	1/1	0.92	0.18	51,51,51,51	0
55	MG	1H	3409	1/1	0.92	0.09	75,75,75,75	0
55	MG	1H	3045	1/1	0.92	0.19	64,64,64,64	0
55	MG	1H	3156	1/1	0.92	0.22	76,76,76,76	0
55	MG	14	3285	1/1	0.92	0.22	72,72,72,72	0
55	MG	14	3037	1/1	0.92	0.19	58,58,58,58	0
55	MG	14	3287	1/1	0.92	0.17	98,98,98,98	0
55	MG	13	1740	1/1	0.92	0.06	106,106,106,106	0
55	MG	14	3040	1/1	0.92	0.37	59,59,59,59	0
55	MG	1G	1617	1/1	0.92	0.25	72,72,72,72	0
55	MG	1G	1712	1/1	0.92	0.13	87,87,87,87	0
55	MG	1G	1660	1/1	0.92	0.16	82,82,82,82	0
55	MG	14	3293	1/1	0.92	0.13	72,72,72,72	0
55	MG	14	3383	1/1	0.92	0.17	95,95,95,95	0
55	MG	14	3294	1/1	0.92	0.27	69,69,69,69	0
55	MG	14	3295	1/1	0.92	0.18	84,84,84,84	0
55	MG	1G	1714	1/1	0.92	0.34	94,94,94,94	0
55	MG	1G	1661	1/1	0.92	0.19	65,65,65,65	0
55	MG	13	1718	1/1	0.92	0.25	78,78,78,78	0
55	MG	14	3299	1/1	0.92	0.25	64,64,64,64	0
55	MG	14	3216	1/1	0.92	0.11	77,77,77,77	0
55	MG	14	3054	1/1	0.92	0.31	72,72,72,72	0
55	MG	1G	1663	1/1	0.92	0.18	75,75,75,75	0
55	MG	14	3142	1/1	0.92	0.21	77,77,77,77	0
55	MG	14	3059	1/1	0.92	0.19	54,54,54,54	0
55	MG	1H	3131	1/1	0.92	0.30	65,65,65,65	0
55	MG	1H	3263	1/1	0.92	0.11	67,67,67,67	0
55	MG	1H	3449	1/1	0.92	0.09	110,110,110,110	0
55	MG	14	3459	1/1	0.92	0.06	122,122,122,122	0
55	MG	14	3464	1/1	0.92	0.14	116,116,116,116	0
55	MG	14	3063	1/1	0.92	0.21	69,69,69,69	0
55	MG	14	3227	1/1	0.92	0.12	90,90,90,90	0
55	MG	1H	3340	1/1	0.92	0.13	75,75,75,75	0
55	MG	1H	3484	1/1	0.92	0.18	104,104,104,104	0
55	MG	1H	3490	1/1	0.92	0.08	128,128,128,128	0
55	MG	14	3070	1/1	0.92	0.15	57,57,57,57	0
55	MG	14	3072	1/1	0.92	0.43	52,52,52,52	0
55	MG	1H	3494	1/1	0.92	0.08	125,125,125,125	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1H	3049	1/1	0.92	0.14	89,89,89,89	0
55	MG	1H	3051	1/1	0.92	0.26	74,74,74,74	0
55	MG	13	1675	1/1	0.92	0.26	87,87,87,87	0
55	MG	E5	201	1/1	0.92	0.12	62,62,62,62	0
55	MG	1H	3113	1/1	0.92	0.15	78,78,78,78	0
55	MG	1H	3008	1/1	0.92	0.17	64,64,64,64	0
55	MG	14	3325	1/1	0.92	0.08	72,72,72,72	0
55	MG	1H	3163	1/1	0.93	0.29	83,83,83,83	0
55	MG	1H	3390	1/1	0.93	0.28	86,86,86,86	0
55	MG	14	3278	1/1	0.93	0.21	69,69,69,69	0
55	MG	1H	3164	1/1	0.93	0.27	66,66,66,66	0
55	MG	1G	1685	1/1	0.93	0.23	92,92,92,92	0
55	MG	1H	3137	1/1	0.93	0.11	72,72,72,72	0
55	MG	1H	3138	1/1	0.93	0.25	74,74,74,74	0
55	MG	1H	3265	1/1	0.93	0.24	65,65,65,65	0
55	MG	14	3211	1/1	0.93	0.14	74,74,74,74	0
55	MG	1H	3078	1/1	0.93	0.31	54,54,54,54	0
55	MG	14	3144	1/1	0.93	0.29	61,61,61,61	0
55	MG	1G	1691	1/1	0.93	0.13	98,98,98,98	0
55	MG	1H	3046	1/1	0.93	0.15	56,56,56,56	0
55	MG	1H	3306	1/1	0.93	0.32	84,84,84,84	0
55	MG	1H	3170	1/1	0.93	0.23	75,75,75,75	0
55	MG	14	3078	1/1	0.93	0.23	68,68,68,68	0
55	MG	J8	101	1/1	0.93	0.30	65,65,65,65	0
55	MG	1H	3308	1/1	0.93	0.14	77,77,77,77	0
55	MG	1H	3309	1/1	0.93	0.27	78,78,78,78	0
55	MG	1H	3238	1/1	0.93	0.36	77,77,77,77	0
55	MG	14	3084	1/1	0.93	0.27	86,86,86,86	0
55	MG	1H	3097	1/1	0.93	0.29	48,48,48,48	0
55	MG	14	3157	1/1	0.93	0.31	83,83,83,83	0
55	MG	14	3088	1/1	0.93	0.16	73,73,73,73	0
55	MG	1H	3099	1/1	0.93	0.25	59,59,59,59	0
55	MG	14	3094	1/1	0.93	0.13	60,60,60,60	0
55	MG	14	3303	1/1	0.93	0.11	71,71,71,71	0
55	MG	1H	3173	1/1	0.93	0.32	70,70,70,70	0
55	MG	13	1728	1/1	0.93	0.15	80,80,80,80	0
55	MG	1H	3081	1/1	0.93	0.29	85,85,85,85	0
55	MG	1G	1704	1/1	0.93	0.23	78,78,78,78	0
55	MG	13	1614	1/1	0.93	0.24	92,92,92,92	0
55	MG	1H	3068	1/1	0.93	0.25	83,83,83,83	0
55	MG	1H	3149	1/1	0.93	0.33	74,74,74,74	0
55	MG	1H	3085	1/1	0.93	0.20	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	14	3169	1/1	0.93	0.11	55,55,55,55	0
55	MG	1H	3069	1/1	0.93	0.13	69,69,69,69	0
55	MG	1H	3219	1/1	0.93	0.08	64,64,64,64	0
55	MG	1H	3284	1/1	0.93	0.13	69,69,69,69	0
55	MG	1H	3372	1/1	0.93	0.25	75,75,75,75	0
55	MG	14	3034	1/1	0.93	0.27	60,60,60,60	0
55	MG	14	3112	1/1	0.93	0.15	77,77,77,77	0
55	MG	1H	3252	1/1	0.93	0.27	79,79,79,79	0
55	MG	13	1612	1/1	0.93	0.20	74,74,74,74	0
55	MG	14	3452	1/1	0.93	0.11	94,94,94,94	0
55	MG	1G	1715	1/1	0.93	0.21	83,83,83,83	0
55	MG	1H	3375	1/1	0.93	0.16	70,70,70,70	0
55	MG	1H	3089	1/1	0.93	0.26	71,71,71,71	0
55	MG	1H	3004	1/1	0.93	0.19	60,60,60,60	0
55	MG	1H	3501	1/1	0.93	0.11	105,105,105,105	0
55	MG	14	3487	1/1	0.93	0.15	103,103,103,103	0
55	MG	14	3121	1/1	0.93	0.20	69,69,69,69	0
55	MG	1H	3091	1/1	0.93	0.24	58,58,58,58	0
55	MG	14	3046	1/1	0.93	0.17	67,67,67,67	0
55	MG	14	3047	1/1	0.93	0.16	67,67,67,67	0
55	MG	14	3333	1/1	0.93	0.25	58,58,58,58	0
55	MG	14	3267	1/1	0.93	0.13	74,74,74,74	0
55	MG	1H	3257	1/1	0.93	0.19	82,82,82,82	0
55	MG	45	201	1/1	0.93	0.27	76,76,76,76	0
55	MG	1H	3115	1/1	0.93	0.18	73,73,73,73	0
55	MG	1H	3385	1/1	0.93	0.12	106,106,106,106	0
55	MG	1H	3052	1/1	0.93	0.30	67,67,67,67	0
55	MG	13	1742	1/1	0.93	0.10	111,111,111,111	0
55	MG	1G	1680	1/1	0.93	0.21	88,88,88,88	0
55	MG	14	3343	1/1	0.93	0.26	75,75,75,75	0
55	MG	1H	3001	1/1	0.94	0.24	51,51,51,51	0
55	MG	14	3172	1/1	0.94	0.28	69,69,69,69	0
55	MG	14	3019	1/1	0.94	0.16	80,80,80,80	0
55	MG	14	3255	1/1	0.94	0.08	90,90,90,90	0
55	MG	13	1638	1/1	0.94	0.19	74,74,74,74	0
55	MG	14	3258	1/1	0.94	0.10	101,101,101,101	0
55	MG	1H	3287	1/1	0.94	0.14	75,75,75,75	0
55	MG	14	3260	1/1	0.94	0.04	95,95,95,95	0
55	MG	1H	3289	1/1	0.94	0.06	80,80,80,80	0
55	MG	1H	3382	1/1	0.94	0.23	73,73,73,73	0
55	MG	1H	3220	1/1	0.94	0.12	55,55,55,55	0
55	MG	13	1741	1/1	0.94	0.09	128,128,128,128	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	13	1633	1/1	0.94	0.26	59,59,59,59	0
55	MG	14	3266	1/1	0.94	0.09	69,69,69,69	0
55	MG	13	1724	1/1	0.94	0.30	63,63,63,63	0
55	MG	1H	3160	1/1	0.94	0.23	88,88,88,88	0
55	MG	1H	3190	1/1	0.94	0.19	71,71,71,71	0
55	MG	1H	3341	1/1	0.94	0.15	83,83,83,83	0
55	MG	13	1636	1/1	0.94	0.14	73,73,73,73	0
55	MG	1H	3162	1/1	0.94	0.27	89,89,89,89	0
55	MG	13	1706	1/1	0.94	0.14	95,95,95,95	0
55	MG	1H	3196	1/1	0.94	0.24	77,77,77,77	0
55	MG	13	1621	1/1	0.94	0.17	75,75,75,75	0
55	MG	14	3362	1/1	0.94	0.21	77,77,77,77	0
55	MG	14	3363	1/1	0.94	0.17	67,67,67,67	0
55	MG	98	201	1/1	0.94	0.41	71,71,71,71	0
55	MG	I8	101	1/1	0.94	0.19	55,55,55,55	0
55	MG	14	3366	1/1	0.94	0.16	89,89,89,89	0
55	MG	14	3197	1/1	0.94	0.13	82,82,82,82	0
55	MG	1H	3055	1/1	0.94	0.15	66,66,66,66	0
55	MG	1H	3034	1/1	0.94	0.13	54,54,54,54	0
55	MG	14	3045	1/1	0.94	0.18	55,55,55,55	0
55	MG	1H	3202	1/1	0.94	0.27	71,71,71,71	0
55	MG	13	1677	1/1	0.94	0.34	77,77,77,77	0
55	MG	1G	1604	1/1	0.94	0.12	79,79,79,79	0
55	MG	1H	3058	1/1	0.94	0.15	67,67,67,67	0
55	MG	1H	3014	1/1	0.94	0.24	40,40,40,40	0
55	MG	14	3376	1/1	0.94	0.15	59,59,59,59	0
55	MG	14	3052	1/1	0.94	0.13	62,62,62,62	0
55	MG	14	3210	1/1	0.94	0.23	86,86,86,86	0
55	MG	1H	3403	1/1	0.94	0.32	79,79,79,79	0
55	MG	14	3136	1/1	0.94	0.24	71,71,71,71	0
55	MG	1H	3015	1/1	0.94	0.22	53,53,53,53	0
55	MG	1H	3310	1/1	0.94	0.27	52,52,52,52	0
55	MG	1H	3061	1/1	0.94	0.17	75,75,75,75	0
55	MG	1H	3016	1/1	0.94	0.16	70,70,70,70	0
55	MG	1H	3209	1/1	0.94	0.21	63,63,63,63	0
55	MG	1H	3040	1/1	0.94	0.11	69,69,69,69	0
55	MG	1H	3316	1/1	0.94	0.15	87,87,87,87	0
55	MG	1H	3277	1/1	0.94	0.24	74,74,74,74	0
55	MG	14	3067	1/1	0.94	0.24	54,54,54,54	0
55	MG	1H	3363	1/1	0.94	0.36	54,54,54,54	0
55	MG	1H	3278	1/1	0.94	0.20	84,84,84,84	0
55	MG	14	3071	1/1	0.94	0.28	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	14	3151	1/1	0.94	0.21	68,68,68,68	0
55	MG	13	1671	1/1	0.94	0.09	106,106,106,106	0
55	MG	1H	3368	1/1	0.94	0.23	88,88,88,88	0
55	MG	14	3400	1/1	0.94	0.08	91,91,91,91	0
55	MG	14	3401	1/1	0.94	0.09	78,78,78,78	0
55	MG	14	3420	1/1	0.94	0.09	91,91,91,91	0
55	MG	1H	3247	1/1	0.94	0.42	77,77,77,77	0
55	MG	14	3438	1/1	0.94	0.18	117,117,117,117	0
55	MG	1G	1682	1/1	0.94	0.11	80,80,80,80	0
55	MG	2L	102	1/1	0.94	0.17	71,71,71,71	0
55	MG	14	3234	1/1	0.94	0.15	76,76,76,76	0
55	MG	1H	3451	1/1	0.94	0.09	105,105,105,105	0
55	MG	1H	3456	1/1	0.94	0.14	88,88,88,88	0
55	MG	14	3468	1/1	0.94	0.22	107,107,107,107	0
55	MG	14	3003	1/1	0.94	0.12	63,63,63,63	0
55	MG	14	3316	1/1	0.94	0.29	78,78,78,78	0
55	MG	14	3005	1/1	0.94	0.18	62,62,62,62	0
55	MG	14	3239	1/1	0.94	0.08	90,90,90,90	0
55	MG	13	1719	1/1	0.94	0.23	89,89,89,89	0
55	MG	14	3320	1/1	0.94	0.15	81,81,81,81	0
55	MG	1H	3468	1/1	0.94	0.07	106,106,106,106	0
55	MG	1H	3476	1/1	0.94	0.06	119,119,119,119	0
55	MG	13	1710	1/1	0.94	0.34	80,80,80,80	0
55	MG	1H	3022	1/1	0.94	0.17	57,57,57,57	0
55	MG	14	3095	1/1	0.94	0.18	54,54,54,54	0
55	MG	14	3011	1/1	0.94	0.20	48,48,48,48	0
55	MG	13	1654	1/1	0.94	0.20	78,78,78,78	0
55	MG	1H	3496	1/1	0.94	0.12	99,99,99,99	0
55	MG	1H	3326	1/1	0.94	0.22	51,51,51,51	0
55	MG	14	3251	1/1	0.94	0.23	74,74,74,74	0
55	MG	1H	3134	1/1	0.95	0.22	67,67,67,67	0
55	MG	14	3023	1/1	0.95	0.18	56,56,56,56	0
55	MG	11	301	1/1	0.95	0.09	53,53,53,53	0
55	MG	14	3083	1/1	0.95	0.25	68,68,68,68	0
55	MG	1H	3082	1/1	0.95	0.14	70,70,70,70	0
55	MG	14	3361	1/1	0.95	0.12	88,88,88,88	0
55	MG	14	3085	1/1	0.95	0.26	58,58,58,58	0
55	MG	14	3086	1/1	0.95	0.17	77,77,77,77	0
55	MG	1H	3010	1/1	0.95	0.30	48,48,48,48	0
55	MG	1G	1671	1/1	0.95	0.29	84,84,84,84	0
55	MG	13	1697	1/1	0.95	0.37	67,67,67,67	0
55	MG	14	3090	1/1	0.95	0.21	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	14	3091	1/1	0.95	0.34	53,53,53,53	0
55	MG	78	201	1/1	0.95	0.10	74,74,74,74	0
55	MG	1H	3021	1/1	0.95	0.23	43,43,43,43	0
55	MG	1H	3195	1/1	0.95	0.23	84,84,84,84	0
55	MG	1G	1676	1/1	0.95	0.29	93,93,93,93	0
55	MG	1H	3140	1/1	0.95	0.35	82,82,82,82	0
55	MG	1H	3075	1/1	0.95	0.15	69,69,69,69	0
55	MG	1H	3157	1/1	0.95	0.31	60,60,60,60	0
55	MG	1H	3221	1/1	0.95	0.26	57,57,57,57	0
55	MG	1G	1639	1/1	0.95	0.25	79,79,79,79	0
55	MG	1H	3465	1/1	0.95	0.07	108,108,108,108	0
55	MG	14	3105	1/1	0.95	0.10	90,90,90,90	0
55	MG	1H	3334	1/1	0.95	0.19	75,75,75,75	0
55	MG	1H	3474	1/1	0.95	0.10	102,102,102,102	0
55	MG	1H	3243	1/1	0.95	0.27	69,69,69,69	0
55	MG	1H	3336	1/1	0.95	0.15	70,70,70,70	0
55	MG	1G	1607	1/1	0.95	0.13	86,86,86,86	0
55	MG	1H	3365	1/1	0.95	0.12	46,46,46,46	0
55	MG	14	3048	1/1	0.95	0.14	66,66,66,66	0
55	MG	1G	1742	1/1	0.95	0.05	131,131,131,131	0
55	MG	1G	1743	1/1	0.95	0.12	98,98,98,98	0
55	MG	1H	3026	1/1	0.95	0.15	53,53,53,53	0
55	MG	14	3117	1/1	0.95	0.07	73,73,73,73	0
55	MG	1H	3495	1/1	0.95	0.05	112,112,112,112	0
55	MG	14	3053	1/1	0.95	0.32	69,69,69,69	0
55	MG	1H	3159	1/1	0.95	0.17	76,76,76,76	0
55	MG	1G	1612	1/1	0.95	0.08	88,88,88,88	0
55	MG	14	3058	1/1	0.95	0.27	53,53,53,53	0
55	MG	1H	3127	1/1	0.95	0.16	58,58,58,58	0
55	MG	1H	3088	1/1	0.95	0.24	44,44,44,44	0
55	MG	14	3404	1/1	0.95	0.13	105,105,105,105	0
55	MG	13	1656	1/1	0.95	0.23	63,63,63,63	0
55	MG	14	3422	1/1	0.95	0.07	68,68,68,68	0
55	MG	14	3423	1/1	0.95	0.06	99,99,99,99	0
55	MG	1G	1616	1/1	0.95	0.31	62,62,62,62	0
55	MG	1H	3062	1/1	0.95	0.21	70,70,70,70	0
55	MG	14	3442	1/1	0.95	0.07	109,109,109,109	0
55	MG	1G	1656	1/1	0.95	0.24	74,74,74,74	0
55	MG	14	3193	1/1	0.95	0.09	83,83,83,83	0
55	MG	14	3457	1/1	0.95	0.06	103,103,103,103	0
55	MG	1G	1657	1/1	0.95	0.28	92,92,92,92	0
55	MG	14	3460	1/1	0.95	0.15	114,114,114,114	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1H	3103	1/1	0.95	0.23	48,48,48,48	0
55	MG	14	3068	1/1	0.95	0.24	57,57,57,57	0
55	MG	14	3467	1/1	0.95	0.12	97,97,97,97	0
55	MG	14	3132	1/1	0.95	0.09	78,78,78,78	0
55	MG	1H	3293	1/1	0.95	0.19	78,78,78,78	0
55	MG	14	3485	1/1	0.95	0.11	101,101,101,101	0
55	MG	14	3337	1/1	0.95	0.21	64,64,64,64	0
55	MG	1H	3511	1/1	0.95	0.05	75,75,75,75	0
55	MG	14	3013	1/1	0.95	0.12	66,66,66,66	0
55	MG	14	3137	1/1	0.95	0.21	77,77,77,77	0
55	MG	14	3274	1/1	0.95	0.24	83,83,83,83	0
55	MG	14	3342	1/1	0.95	0.16	99,99,99,99	0
55	MG	1H	3318	1/1	0.95	0.08	50,50,50,50	0
55	MG	14	3073	1/1	0.95	0.20	70,70,70,70	0
55	MG	1H	3271	1/1	0.95	0.21	77,77,77,77	0
55	MG	14	3208	1/1	0.95	0.24	74,74,74,74	0
55	MG	1H	3050	1/1	0.95	0.17	65,65,65,65	0
55	MG	1H	3105	1/1	0.95	0.24	50,50,50,50	0
55	MG	1H	3378	1/1	0.95	0.12	84,84,84,84	0
55	MG	14	3213	1/1	0.95	0.23	59,59,59,59	0
55	MG	1G	1666	1/1	0.95	0.29	71,71,71,71	0
55	MG	1H	3418	1/1	0.96	0.08	71,71,71,71	0
55	MG	1H	3423	1/1	0.96	0.09	110,110,110,110	0
55	MG	1H	3428	1/1	0.96	0.09	85,85,85,85	0
55	MG	1H	3441	1/1	0.96	0.09	103,103,103,103	0
55	MG	14	3017	1/1	0.96	0.15	70,70,70,70	0
55	MG	1H	3393	1/1	0.96	0.07	58,58,58,58	0
55	MG	1H	3288	1/1	0.96	0.30	68,68,68,68	0
55	MG	1G	1688	1/1	0.96	0.13	103,103,103,103	0
55	MG	14	3194	1/1	0.96	0.07	66,66,66,66	0
55	MG	13	1733	1/1	0.96	0.06	95,95,95,95	0
55	MG	14	3244	1/1	0.96	0.25	75,75,75,75	0
55	MG	14	3064	1/1	0.96	0.23	54,54,54,54	0
55	MG	1H	3185	1/1	0.96	0.23	66,66,66,66	0
55	MG	14	3199	1/1	0.96	0.24	75,75,75,75	0
55	MG	1H	3011	1/1	0.96	0.20	49,49,49,49	0
55	MG	1H	3187	1/1	0.96	0.11	66,66,66,66	0
55	MG	14	3403	1/1	0.96	0.07	96,96,96,96	0
55	MG	13	1630	1/1	0.96	0.09	65,65,65,65	0
55	MG	14	3408	1/1	0.96	0.07	63,63,63,63	0
55	MG	14	3413	1/1	0.96	0.06	100,100,100,100	0
55	MG	1H	3470	1/1	0.96	0.13	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1H	3473	1/1	0.96	0.06	100,100,100,100	0
55	MG	14	3351	1/1	0.96	0.20	104,104,104,104	0
55	MG	14	3029	1/1	0.96	0.15	63,63,63,63	0
55	MG	1H	3139	1/1	0.96	0.12	63,63,63,63	0
55	MG	1G	1732	1/1	0.96	0.05	123,123,123,123	0
55	MG	14	3446	1/1	0.96	0.05	122,122,122,122	0
55	MG	G8	201	1/1	0.96	0.23	65,65,65,65	0
55	MG	14	3209	1/1	0.96	0.13	91,91,91,91	0
55	MG	14	3358	1/1	0.96	0.38	89,89,89,89	0
55	MG	1H	3359	1/1	0.96	0.23	45,45,45,45	0
55	MG	14	3076	1/1	0.96	0.24	45,45,45,45	0
55	MG	14	3461	1/1	0.96	0.04	117,117,117,117	0
55	MG	14	3462	1/1	0.96	0.09	103,103,103,103	0
55	MG	14	3463	1/1	0.96	0.06	119,119,119,119	0
55	MG	3I	201	1/1	0.96	0.12	68,68,68,68	0
55	MG	1H	3485	1/1	0.96	0.08	84,84,84,84	0
55	MG	1H	3381	1/1	0.96	0.38	79,79,79,79	0
55	MG	1H	3491	1/1	0.96	0.04	122,122,122,122	0
55	MG	1H	3311	1/1	0.96	0.05	65,65,65,65	0
55	MG	14	3482	1/1	0.96	0.06	81,81,81,81	0
55	MG	1H	3328	1/1	0.96	0.10	70,70,70,70	0
55	MG	14	3486	1/1	0.96	0.06	138,138,138,138	0
55	MG	14	3041	1/1	0.96	0.17	53,53,53,53	0
55	MG	14	3268	1/1	0.96	0.32	69,69,69,69	0
55	MG	1H	3345	1/1	0.96	0.12	70,70,70,70	0
55	MG	1H	3497	1/1	0.96	0.08	113,113,113,113	0
55	MG	1H	3364	1/1	0.96	0.27	75,75,75,75	0
55	MG	1H	3386	1/1	0.96	0.21	87,87,87,87	0
55	MG	1H	3229	1/1	0.96	0.37	82,82,82,82	0
55	MG	1H	3216	1/1	0.96	0.17	65,65,65,65	0
55	MG	13	1664	1/1	0.96	0.20	76,76,76,76	0
55	MG	14	3135	1/1	0.96	0.14	75,75,75,75	0
55	MG	1H	3109	1/1	0.96	0.27	39,39,39,39	0
55	MG	85	202	1/1	0.96	0.09	79,79,79,79	0
55	MG	14	3093	1/1	0.96	0.18	60,60,60,60	0
55	MG	13	1732	1/1	0.96	0.10	113,113,113,113	0
55	MG	1H	3111	1/1	0.96	0.21	51,51,51,51	0
55	MG	14	3012	1/1	0.96	0.16	48,48,48,48	0
55	MG	1H	3007	1/1	0.97	0.21	50,50,50,50	0
55	MG	14	3330	1/1	0.97	0.21	43,43,43,43	0
55	MG	1H	3427	1/1	0.97	0.04	91,91,91,91	0
55	MG	1H	3498	1/1	0.97	0.13	100,100,100,100	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	14	3389	1/1	0.97	0.10	77,77,77,77	0
55	MG	1H	3301	1/1	0.97	0.21	73,73,73,73	0
55	MG	1H	3500	1/1	0.97	0.06	105,105,105,105	0
55	MG	14	3176	1/1	0.97	0.30	63,63,63,63	0
55	MG	1G	1740	1/1	0.97	0.05	112,112,112,112	0
55	MG	1H	3429	1/1	0.97	0.11	91,91,91,91	0
55	MG	14	3039	1/1	0.97	0.23	63,63,63,63	0
55	MG	1H	3430	1/1	0.97	0.09	87,87,87,87	0
55	MG	1H	3504	1/1	0.97	0.12	95,95,95,95	0
55	MG	1H	3507	1/1	0.97	0.09	100,100,100,100	0
55	MG	1H	3431	1/1	0.97	0.10	74,74,74,74	0
55	MG	1H	3434	1/1	0.97	0.08	72,72,72,72	0
55	MG	13	1605	1/1	0.97	0.10	86,86,86,86	0
55	MG	14	3409	1/1	0.97	0.06	83,83,83,83	0
55	MG	14	3410	1/1	0.97	0.08	68,68,68,68	0
55	MG	14	3186	1/1	0.97	0.13	69,69,69,69	0
55	MG	14	3414	1/1	0.97	0.05	85,85,85,85	0
55	MG	14	3416	1/1	0.97	0.10	96,96,96,96	0
55	MG	14	3346	1/1	0.97	0.04	62,62,62,62	0
55	MG	13	1736	1/1	0.97	0.09	111,111,111,111	0
55	MG	14	3092	1/1	0.97	0.27	64,64,64,64	0
55	MG	14	3427	1/1	0.97	0.06	97,97,97,97	0
55	MG	14	3431	1/1	0.97	0.06	86,86,86,86	0
55	MG	13	1692	1/1	0.97	0.18	52,52,52,52	0
55	MG	14	3433	1/1	0.97	0.06	91,91,91,91	0
55	MG	1H	3197	1/1	0.97	0.27	48,48,48,48	0
55	MG	1H	3454	1/1	0.97	0.06	94,94,94,94	0
55	MG	14	3143	1/1	0.97	0.31	64,64,64,64	0
55	MG	14	3451	1/1	0.97	0.05	91,91,91,91	0
55	MG	14	3353	1/1	0.97	0.34	84,84,84,84	0
55	MG	1H	3182	1/1	0.97	0.23	59,59,59,59	0
55	MG	14	3455	1/1	0.97	0.07	121,121,121,121	0
55	MG	1H	3199	1/1	0.97	0.13	74,74,74,74	0
55	MG	14	3195	1/1	0.97	0.26	69,69,69,69	0
55	MG	1H	3462	1/1	0.97	0.10	91,91,91,91	0
55	MG	14	3302	1/1	0.97	0.12	85,85,85,85	0
55	MG	1H	3168	1/1	0.97	0.17	72,72,72,72	0
55	MG	1H	3018	1/1	0.97	0.28	46,46,46,46	0
55	MG	14	3055	1/1	0.97	0.26	68,68,68,68	0
55	MG	1H	3237	1/1	0.97	0.16	74,74,74,74	0
55	MG	1H	3472	1/1	0.97	0.07	86,86,86,86	0
55	MG	1H	3036	1/1	0.97	0.31	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	88	301	1/1	0.97	0.12	82,82,82,82	0
55	MG	14	3471	1/1	0.97	0.17	113,113,113,113	0
55	MG	14	3475	1/1	0.97	0.12	104,104,104,104	0
55	MG	14	3479	1/1	0.97	0.09	78,78,78,78	0
55	MG	14	3107	1/1	0.97	0.26	50,50,50,50	0
55	MG	14	3483	1/1	0.97	0.09	104,104,104,104	0
55	MG	1G	1633	1/1	0.97	0.26	73,73,73,73	0
55	MG	13	1739	1/1	0.97	0.07	111,111,111,111	0
55	MG	1H	3098	1/1	0.97	0.19	40,40,40,40	0
55	MG	1H	3479	1/1	0.97	0.05	103,103,103,103	0
55	MG	14	3490	1/1	0.97	0.11	81,81,81,81	0
55	MG	1H	3481	1/1	0.97	0.05	116,116,116,116	0
55	MG	14	3021	1/1	0.97	0.13	60,60,60,60	0
55	MG	1H	3482	1/1	0.97	0.06	83,83,83,83	0
55	MG	1H	3012	1/1	0.97	0.11	52,52,52,52	0
55	MG	1H	3076	1/1	0.97	0.12	67,67,67,67	0
55	MG	1H	3486	1/1	0.97	0.06	129,129,129,129	0
55	MG	1H	3077	1/1	0.97	0.10	65,65,65,65	0
55	MG	1H	3191	1/1	0.97	0.10	75,75,75,75	0
55	MG	1H	3493	1/1	0.97	0.06	122,122,122,122	0
55	MG	14	3218	1/1	0.97	0.18	57,57,57,57	0
55	MG	1G	1605	1/1	0.97	0.11	85,85,85,85	0
55	MG	1H	3415	1/1	0.97	0.08	59,59,59,59	0
55	MG	13	1744	1/1	0.97	0.05	117,117,117,117	0
55	MG	14	3222	1/1	0.97	0.11	73,73,73,73	0
55	MG	14	3440	1/1	0.98	0.04	105,105,105,105	0
55	MG	14	3441	1/1	0.98	0.05	102,102,102,102	0
55	MG	1H	3379	1/1	0.98	0.29	69,69,69,69	0
55	MG	14	3445	1/1	0.98	0.04	97,97,97,97	0
55	MG	1H	3464	1/1	0.98	0.05	92,92,92,92	0
55	MG	14	3447	1/1	0.98	0.04	95,95,95,95	0
55	MG	14	3448	1/1	0.98	0.06	109,109,109,109	0
55	MG	1H	3028	1/1	0.98	0.17	52,52,52,52	0
55	MG	1H	3466	1/1	0.98	0.04	77,77,77,77	0
55	MG	14	3453	1/1	0.98	0.15	91,91,91,91	0
55	MG	1H	3093	1/1	0.98	0.09	60,60,60,60	0
55	MG	1H	3469	1/1	0.98	0.04	107,107,107,107	0
55	MG	1H	3217	1/1	0.98	0.04	56,56,56,56	0
55	MG	14	3057	1/1	0.98	0.21	45,45,45,45	0
55	MG	1H	3106	1/1	0.98	0.08	47,47,47,47	0
55	MG	1H	3435	1/1	0.98	0.04	80,80,80,80	0
55	MG	1H	3416	1/1	0.98	0.06	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1H	3445	1/1	0.98	0.05	86,86,86,86	0
55	MG	I8	102	1/1	0.98	0.07	108,108,108,108	0
55	MG	1H	3478	1/1	0.98	0.05	118,118,118,118	0
55	MG	1H	3327	1/1	0.98	0.21	83,83,83,83	0
55	MG	14	3402	1/1	0.98	0.06	63,63,63,63	0
55	MG	14	3469	1/1	0.98	0.05	96,96,96,96	0
55	MG	1H	3419	1/1	0.98	0.04	88,88,88,88	0
55	MG	1H	3420	1/1	0.98	0.04	99,99,99,99	0
55	MG	14	3474	1/1	0.98	0.08	107,107,107,107	0
55	MG	14	3406	1/1	0.98	0.05	62,62,62,62	0
55	MG	14	3476	1/1	0.98	0.06	65,65,65,65	0
55	MG	14	3478	1/1	0.98	0.04	109,109,109,109	0
55	MG	1H	3453	1/1	0.98	0.07	89,89,89,89	0
55	MG	13	1735	1/1	0.98	0.04	111,111,111,111	0
55	MG	1H	3455	1/1	0.98	0.05	62,62,62,62	0
55	MG	14	3411	1/1	0.98	0.04	88,88,88,88	0
55	MG	1H	3487	1/1	0.98	0.04	102,102,102,102	0
55	MG	1H	3489	1/1	0.98	0.04	97,97,97,97	0
55	MG	1H	3425	1/1	0.98	0.05	62,62,62,62	0
55	MG	14	3489	1/1	0.98	0.05	99,99,99,99	0
55	MG	14	3417	1/1	0.98	0.05	72,72,72,72	0
55	MG	14	3418	1/1	0.98	0.04	72,72,72,72	0
55	MG	14	3102	1/1	0.98	0.13	62,62,62,62	0
55	MG	1G	1731	1/1	0.98	0.11	113,113,113,113	0
55	MG	13	1738	1/1	0.98	0.04	100,100,100,100	0
55	MG	14	3424	1/1	0.98	0.04	72,72,72,72	0
55	MG	1G	1733	1/1	0.98	0.04	93,93,93,93	0
55	MG	14	3430	1/1	0.98	0.06	69,69,69,69	0
55	MG	14	3256	1/1	0.98	0.06	95,95,95,95	0
55	MG	1G	1735	1/1	0.98	0.05	97,97,97,97	0
55	MG	1G	1737	1/1	0.98	0.05	93,93,93,93	0
55	MG	14	3434	1/1	0.98	0.11	89,89,89,89	0
55	MG	14	3435	1/1	0.98	0.05	117,117,117,117	0
55	MG	1H	3492	1/1	0.98	0.12	101,101,101,101	0
55	MG	14	3439	1/1	0.98	0.04	105,105,105,105	0
55	MG	14	3437	1/1	0.99	0.04	88,88,88,88	0
55	MG	13	1734	1/1	0.99	0.04	93,93,93,93	0
55	MG	1H	3446	1/1	0.99	0.05	83,83,83,83	0
55	MG	1H	3176	1/1	0.99	0.25	59,59,59,59	0
55	MG	1H	3475	1/1	0.99	0.03	92,92,92,92	0
55	MG	1H	3448	1/1	0.99	0.06	86,86,86,86	0
55	MG	14	3443	1/1	0.99	0.09	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	14	3444	1/1	0.99	0.04	106,106,106,106	0
55	MG	1H	3477	1/1	0.99	0.07	92,92,92,92	0
55	MG	1H	3421	1/1	0.99	0.06	66,66,66,66	0
55	MG	1H	3450	1/1	0.99	0.04	74,74,74,74	0
55	MG	1H	3480	1/1	0.99	0.06	118,118,118,118	0
55	MG	14	3449	1/1	0.99	0.05	82,82,82,82	0
55	MG	14	3450	1/1	0.99	0.04	65,65,65,65	0
55	MG	1H	3422	1/1	0.99	0.03	85,85,85,85	0
55	MG	1H	3452	1/1	0.99	0.04	91,91,91,91	0
55	MG	1G	1730	1/1	0.99	0.04	77,77,77,77	0
55	MG	1H	3483	1/1	0.99	0.04	86,86,86,86	0
55	MG	1H	3417	1/1	0.99	0.05	70,70,70,70	0
55	MG	14	3456	1/1	0.99	0.06	82,82,82,82	0
55	MG	1H	3432	1/1	0.99	0.04	58,58,58,58	0
55	MG	14	3458	1/1	0.99	0.03	91,91,91,91	0
55	MG	14	3397	1/1	0.99	0.03	64,64,64,64	0
55	MG	14	3398	1/1	0.99	0.04	66,66,66,66	0
55	MG	14	3399	1/1	0.99	0.06	75,75,75,75	0
55	MG	1G	1734	1/1	0.99	0.03	108,108,108,108	0
55	MG	1H	3433	1/1	0.99	0.05	67,67,67,67	0
55	MG	1G	1736	1/1	0.99	0.03	114,114,114,114	0
55	MG	1H	3424	1/1	0.99	0.04	72,72,72,72	0
55	MG	14	3466	1/1	0.99	0.10	103,103,103,103	0
55	MG	1H	3488	1/1	0.99	0.04	66,66,66,66	0
55	MG	14	3405	1/1	0.99	0.05	70,70,70,70	0
55	MG	1H	3457	1/1	0.99	0.04	79,79,79,79	0
55	MG	14	3407	1/1	0.99	0.04	66,66,66,66	0
55	MG	1H	3458	1/1	0.99	0.05	67,67,67,67	0
55	MG	14	3472	1/1	0.99	0.05	103,103,103,103	0
55	MG	14	3473	1/1	0.99	0.06	61,61,61,61	0
55	MG	1G	1741	1/1	0.99	0.03	105,105,105,105	0
55	MG	1H	3459	1/1	0.99	0.05	75,75,75,75	0
55	MG	1H	3072	1/1	0.99	0.20	33,33,33,33	0
55	MG	14	3477	1/1	0.99	0.05	63,63,63,63	0
55	MG	14	3412	1/1	0.99	0.04	77,77,77,77	0
55	MG	1H	3461	1/1	0.99	0.03	67,67,67,67	0
55	MG	14	3480	1/1	0.99	0.04	92,92,92,92	0
55	MG	14	3481	1/1	0.99	0.03	78,78,78,78	0
55	MG	1H	3436	1/1	0.99	0.03	77,77,77,77	0
55	MG	14	3415	1/1	0.99	0.03	71,71,71,71	0
55	MG	14	3484	1/1	0.99	0.07	95,95,95,95	0
55	MG	1H	3463	1/1	0.99	0.10	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1H	3438	1/1	0.99	0.03	75,75,75,75	0
55	MG	P8	101	1/1	0.99	0.18	72,72,72,72	0
55	MG	14	3419	1/1	0.99	0.04	56,56,56,56	0
55	MG	1H	3440	1/1	0.99	0.02	66,66,66,66	0
55	MG	14	3421	1/1	0.99	0.07	55,55,55,55	0
55	MG	1H	3426	1/1	0.99	0.04	62,62,62,62	0
55	MG	14	3004	1/1	0.99	0.15	59,59,59,59	0
55	MG	1H	3467	1/1	0.99	0.04	67,67,67,67	0
55	MG	14	3425	1/1	0.99	0.05	66,66,66,66	0
55	MG	1H	3442	1/1	0.99	0.05	77,77,77,77	0
55	MG	14	3428	1/1	0.99	0.06	95,95,95,95	0
55	MG	14	3429	1/1	0.99	0.03	72,72,72,72	0
55	MG	1H	3443	1/1	0.99	0.04	90,90,90,90	0
55	MG	1H	3502	1/1	0.99	0.04	60,60,60,60	0
55	MG	1H	3444	1/1	0.99	0.04	94,94,94,94	0
55	MG	1H	3471	1/1	0.99	0.04	90,90,90,90	0
55	MG	1H	3505	1/1	0.99	0.03	64,64,64,64	0
56	ZN	3E	302	1/1	0.99	0.24	86,86,86,86	0
56	ZN	5I	101	1/1	0.99	0.03	109,109,109,109	0
55	MG	1H	3506	1/1	0.99	0.04	81,81,81,81	0
56	ZN	32	302	1/1	0.99	0.22	100,100,100,100	0
56	ZN	5A	101	1/1	0.99	0.03	125,125,125,125	0
55	MG	14	3436	1/1	0.99	0.04	69,69,69,69	0
55	MG	1H	3437	1/1	1.00	0.03	60,60,60,60	0
55	MG	14	3426	1/1	1.00	0.04	84,84,84,84	0
55	MG	1H	3439	1/1	1.00	0.03	59,59,59,59	0

6.5 Other polymers (i)

There are no such residues in this entry.