



Full wwPDB X-ray Structure Validation Report ⓘ

May 13, 2020 – 05:26 am BST

PDB ID : 5EL7
Title : Structure of T. thermophilus 70S ribosome complex with mRNA and tRNA^{Lys} in the A-site with a U-U mismatch in the second position and antibiotic paromomycin
Authors : Rozov, A.; Demeshkina, N.; Khusainov, I.; Yusupov, M.; Yusupova, G.
Deposited on : 2015-11-04
Resolution : 3.15 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

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

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

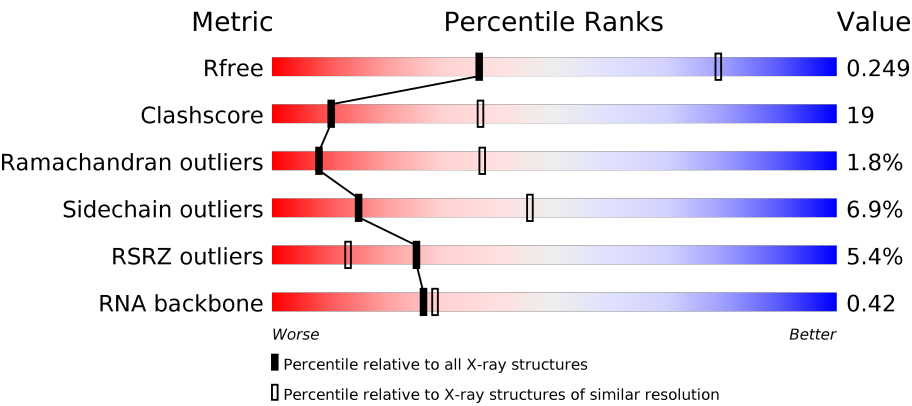
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.15 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R _{free}	130704	1665 (3.20-3.12)
Clashscore	141614	1804 (3.20-3.12)
Ramachandran outliers	138981	1770 (3.20-3.12)
Sidechain outliers	138945	1769 (3.20-3.12)
RSRZ outliers	127900	1616 (3.20-3.12)
RNA backbone	3102	1073 (3.50-2.82)

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

Mol	Chain	Length	Quality of chain
1	13	1522	<div><div></div><div><div>36%</div><div>44%</div><div>16%</div><div>• •</div></div></div>
1	1G	1522	<div><div></div><div><div>37%</div><div>45%</div><div>15%</div><div>• •</div></div></div>
2	12	256	<div><div>6%</div><div><div>34%</div><div>42%</div><div>5%</div><div>•</div><div>18%</div></div></div>
2	1E	256	<div><div>6%</div><div><div>40%</div><div>44%</div><div>6%</div><div>10%</div></div></div>

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Mol	Chain	Length	Quality of chain
3	22	239	
3	2E	239	
4	32	209	
4	3E	209	
5	42	162	
5	4E	162	
6	52	101	
6	5E	101	
7	62	156	
7	6E	156	
8	72	138	
8	7E	138	
9	82	128	
9	8E	128	
10	1A	105	
10	1I	105	
11	2A	129	
11	2I	129	
12	3A	132	
12	3I	132	
13	4A	126	
13	4I	126	
14	5A	61	
14	5I	61	
15	6A	89	

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Mol	Chain	Length	Quality of chain
15	6I	89	
16	7A	88	
16	7I	88	
17	8A	105	
17	8I	105	
18	9A	88	
18	9I	88	
19	AA	93	
19	AI	93	
20	BA	106	
20	BI	106	
21	1B	27	
21	1F	27	
22	1K	76	
22	1L	76	
23	2K	77	
23	2L	77	
24	3K	76	
25	4K	27	
25	4L	27	
26	14	2917	
26	1H	2917	
27	16	122	
27	1J	122	
28	7I	229	

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Mol	Chain	Length	Quality of chain
28	79	229	
29	11	276	
29	19	276	
30	21	206	
30	29	206	
31	31	210	
31	39	210	
32	41	182	
32	49	182	
33	51	180	
33	59	180	
34	61	148	
34	69	148	
35	15	140	
35	58	140	
36	25	122	
36	68	122	
37	35	150	
37	78	150	
38	45	141	
38	88	141	
39	55	118	
39	98	118	
40	65	112	
40	A8	112	

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Mol	Chain	Length	Quality of chain
41	75	146	
41	B8	146	
42	85	118	
42	C8	118	
43	95	101	
43	D8	101	
44	A5	113	
44	E8	113	
45	B5	96	
45	F8	96	
46	C5	110	
46	G8	110	
47	D5	206	
47	H8	206	
48	E5	85	
48	I8	85	
49	F5	98	
49	J8	98	
50	G5	72	
50	K8	72	
51	H5	60	
51	L8	60	
52	M8	71	
53	J5	60	
53	N8	60	

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Mol	Chain	Length	Quality of chain
54	L5	49	
54	P8	49	
55	M5	65	
55	Q8	65	
56	3L	76	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	11	303	-	-	-	X
57	MG	13	1655	-	-	-	X
57	MG	13	1656	-	-	-	X
57	MG	13	1659	-	-	-	X
57	MG	13	1665	-	-	-	X
57	MG	13	1667	-	-	-	X
57	MG	14	3016	-	-	-	X
57	MG	14	3075	-	-	-	X
57	MG	14	3097	-	-	-	X
57	MG	14	3190	-	-	-	X
57	MG	14	3191	-	-	-	X
57	MG	14	3206	-	-	-	X
57	MG	14	3223	-	-	-	X
57	MG	14	3237	-	-	-	X
57	MG	14	3243	-	-	-	X
57	MG	14	3257	-	-	-	X
57	MG	14	3265	-	-	-	X
57	MG	14	3268	-	-	-	X
57	MG	16	206	-	-	-	X
57	MG	1G	1620	-	-	-	X
57	MG	1H	3069	-	-	-	X
57	MG	1H	3103	-	-	-	X
57	MG	1H	3108	-	-	-	X
57	MG	1H	3121	-	-	-	X
57	MG	1H	3136	-	-	-	X
57	MG	1H	3144	-	-	-	X
57	MG	1H	3190	-	-	-	X
57	MG	1H	3220	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	1H	3244	-	-	-	X
57	MG	1H	3280	-	-	-	X
57	MG	1H	3284	-	-	-	X
57	MG	1H	3289	-	-	-	X
57	MG	29	301	-	-	-	X
57	MG	2L	103	-	-	-	X
57	MG	P8	101	-	-	-	X
59	SF4	32	301	-	-	X	-

2 Entry composition

There are 61 unique types of molecules in this entry. The entry contains 296184 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 rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	13	1496	Total	C	N	O	P	0	0	0
			32157	14313	5960	10388	1496			
1	1G	1506	Total	C	N	O	P	0	0	0
			32368	14408	5999	10456	1505			

There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
13	1542	G	-	expression tag	GB 55771382
13	1543	C	-	expression tag	GB 55771382
13	1544	U	-	expression tag	GB 55771382
1G	1542	G	-	expression tag	GB 55771382
1G	1543	C	-	expression tag	GB 55771382
1G	1544	U	-	expression tag	GB 55771382

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	1E	231	Total	C	N	O	S	0	0	0
			1874	1199	334	336	5			
2	12	210	Total	C	N	O	S	0	0	0
			1721	1100	309	308	4			

- 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	196	Total	C	N	O	S	0	0	0
			1541	975	298	267	1			

- Molecule 4 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	3E	207	Total	C	N	O	S	0	0	0
			1690	1058	336	289	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	149	Total	C	N	O	S	0	0	0
			1142	722	216	200	4			
5	42	148	Total	C	N	O	S	0	0	0
			1134	718	215	197	4			

- Molecule 6 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	5E	100	Total	C	N	O	S	0	0	0
			837	528	154	152	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	154	Total	C	N	O	S	0	0	0
			1242	770	250	216	6			
7	62	139	Total	C	N	O	S	0	0	0
			1115	692	222	195	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	137	Total	C	N	O	S	0	0	0
			1107	700	214	191	2			

- Molecule 9 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	8E	126	Total	C	N	O		0	0	0
			1000	634	196	170				

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	82	121	Total	C	N	O	0	0	0
			953	605	186	162			

- Molecule 10 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1I	91	Total	C	N	O	S	0	0	0
			734	459	144	130	1			
10	1A	80	Total	C	N	O		0	0	0
			646	403	129	114				

- Molecule 11 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	2I	111	Total	C	N	O	S	0	0	0
			823	512	154	154	3			
11	2A	113	Total	C	N	O	S	0	0	0
			835	520	156	156	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	122	Total	C	N	O	S	0	0	0
			956	603	193	159	1			

- Molecule 13 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	4I	119	Total	C	N	O	S	0	0	0
			942	582	194	164	2			
13	4A	111	Total	C	N	O	S	0	0	0
			893	552	183	156	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	59	Total	C	N	O	S	0	0	0
			486	309	103	70	4			

- Molecule 15 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	6I	87	Total	C	N	O	S	0	0	0
			729	457	146	124	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	83	Total	C	N	O	S	0	0	0
			700	443	139	117	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	68	Total	C	N	O	0	0	0
			549	352	105	92			
18	9A	67	Total	C	N	O	0	0	0
			544	349	104	91			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AI	81	Total	C	N	O	S	0	0	0
			654	417	122	113	2			
19	AA	62	Total	C	N	O	S	0	0	0
			481	306	85	88	2			

- Molecule 20 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	BI	97	Total	C	N	O	S	0	0	0
			746	461	157	126	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	22	Total	C	N	O		0	0	0
			188	116	44	28				

- Molecule 22 is a RNA chain called tRNA^{Lys}.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
22	1K	69	Total	C	N	O	P	S	0	0	0
			1477	662	257	488	69	1			
22	1L	73	Total	C	N	O	P	S	0	0	0
			1563	700	271	518	73	1			

- Molecule 23 is a RNA chain called E. coli tRNA^{fMet}.

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

- Molecule 24 is a RNA chain called tRNA^{Lys}.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	3K	76	Total	C	N	O	P	0	0	0
			1611	721	281	534	75			

- Molecule 25 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	4K	20	Total	C	N	O	P	0	0	0
			439	197	91	131	20			
25	4L	19	Total	C	N	O	P	0	0	0
			417	187	86	125	19			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	1H	2833	Total	C	N	O	P	0	0	0
			61028	27159	11418	19618	2833			
26	14	2861	Total	C	N	O	P	0	0	0
			61630	27429	11535	19806	2860			

There are 14 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
1H	161	U	UNK	conflict	GB 55771382
1H	654A	A	G	conflict	GB 55771382
1H	654E	C	G	conflict	GB 55771382
1H	654P	G	C	conflict	GB 55771382
1H	654T	A	C	conflict	GB 55771382
1H	1058	U	G	conflict	GB 55771382
1H	1080	A	C	conflict	GB 55771382
14	158	U	UNK	conflict	GB 55771382
14	654A	A	G	conflict	GB 55771382
14	654E	C	G	conflict	GB 55771382
14	654P	G	C	conflict	GB 55771382
14	654T	A	C	conflict	GB 55771382
14	1058	U	G	conflict	GB 55771382
14	1080	A	C	conflict	GB 55771382

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

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 L1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	71	133	Total	C	N	O	S	0	0	0
			1033	651	194	187	1			
28	79	57	Total	C	N	O		0	0	0
			456	283	91	82				

- Molecule 29 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	11	273	Total	C	N	O	S	0	0	0
			2120	1338	421	358	3			
29	19	274	Total	C	N	O	S	0	0	0
			2125	1341	422	359	3			

- Molecule 30 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	21	203	Total	C	N	O	S	0	0	0
			1558	985	298	269	6			
30	29	204	Total	C	N	O	S	0	0	0
			1563	988	299	270	6			

- Molecule 31 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	31	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			
31	39	204	Total	C	N	O	S	0	0	0
			1602	1022	299	279	2			

- Molecule 32 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	41	179	Total	C	N	O	S	0	0	0
			1457	931	265	257	4			
32	49	179	Total	C	N	O	S	0	0	0
			1458	931	266	257	4			

- Molecule 33 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	51	171	Total	C	N	O	S	0	0	0
			1312	832	246	233	1			
33	59	74	Total	C	N	O	S	0	0	0
			573	359	117	97				

- Molecule 34 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	61	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	69	145	Total	C	N	O	S	0	0	0
			1131	723	200	207	1			

- Molecule 35 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	58	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			
35	15	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

- Molecule 36 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	68	122	Total	C	N	O	S	0	0	0
			932	588	171	169	4			
36	25	122	Total	C	N	O	S	0	0	0
			932	588	171	169	4			

- Molecule 37 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	78	147	Total	C	N	O	S	0	0	0
			1122	698	229	192	3			
37	35	147	Total	C	N	O	S	0	0	0
			1122	698	229	192	3			

- Molecule 38 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	88	141	Total	C	N	O	S	0	0	0
			1113	709	210	187	7			
38	45	138	Total	C	N	O	S	0	0	0
			1099	702	208	183	6			

- Molecule 39 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	98	118	Total	C	N	O	S	0	0	0
			967	604	203	159	1			
39	55	118	Total	C	N	O	S	0	0	0
			967	604	203	159	1			

- Molecule 40 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
40	A8	111	Total	C	N	O	0	0	0
			875	550	176	149			
40	65	110	Total	C	N	O	0	0	0
			876	553	175	148			

- Molecule 41 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	B8	133	Total	C	N	O	S	0	0	0
			1109	691	228	189	1			
41	75	133	Total	C	N	O	S	0	0	0
			1109	691	228	189	1			

- Molecule 42 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	C8	115	Total	C	N	O	S	0	0	0
			950	603	199	147	1			
42	85	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			

- Molecule 43 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	D8	100	Total	C	N	O	S	0	0	0
			774	499	141	133	1			
43	95	100	Total	C	N	O	S	0	0	0
			774	499	141	133	1			

- Molecule 44 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	E8	112	Total	C	N	O	S	0	0	0
			890	560	175	153	2			
44	A5	113	Total	C	N	O	S	0	0	0
			899	566	177	154	2			

- Molecule 45 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	F8	95	Total	C	N	O	S	0	0	0
			743	482	134	126	1			
45	B5	94	Total	C	N	O	S	0	0	0
			735	477	133	125				

- Molecule 46 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	G8	105	Total	C	N	O	S	0	0	0
			796	513	150	128	5			
46	C5	104	Total	C	N	O	S	0	0	0
			794	510	152	127	5			

- Molecule 47 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	H8	171	Total	C	N	O	S	0	0	0
			1373	876	247	247	3			
47	D5	132	Total	C	N	O	S	0	0	0
			1074	691	193	188	2			

- Molecule 48 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	I8	76	Total	C	N	O	S	0	0	0
			606	376	128	101	1			
48	E5	77	Total	C	N	O	S	0	0	0
			608	375	129	103	1			

- Molecule 49 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	J8	94	Total	C	N	O	S	0	0	0
			737	463	146	127	1			
49	F5	94	Total	C	N	O	S	0	0	0
			737	463	146	127	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	K8	68	Total	C	N	O	S	0	0	0
			568	352	115	100	1			

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

- Molecule 51 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	L8	58	Total	C	N	O		0	0	0
			459	293	89	77				
51	H5	58	Total	C	N	O		0	0	0
			459	293	89	77				

- Molecule 52 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	M8	47	Total	C	N	O	S	0	0	0
			366	234	61	66	5			

- Molecule 53 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	N8	48	Total	C	N	O	S	0	0	0
			369	229	75	60	5			
53	J5	56	Total	C	N	O	S	0	0	0
			434	272	87	70	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	P8	47	Total	C	N	O	S	0	0	0
			401	246	99	54	2			
54	L5	47	Total	C	N	O	S	0	0	0
			401	246	99	54	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	Q8	64	Total	C	N	O	S	0	0	0
			516	331	102	81	2			
55	M5	64	Total	C	N	O	S	0	0	0
			516	331	102	81	2			

- Molecule 56 is a RNA chain called tRNA^{Lys}.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	3L	75	Total	C	N	O	P	0	0	0
			1601	717	280	530	74			

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

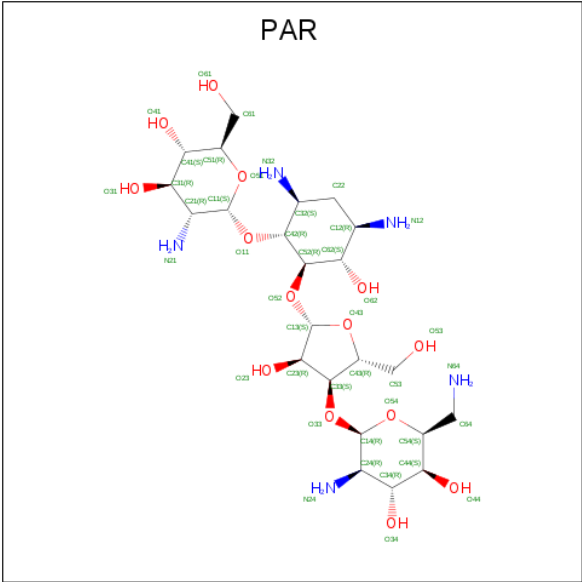
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	45	3	Total	Mg	0	0
			3	3		
57	P8	1	Total	Mg	0	0
			1	1		
57	85	1	Total	Mg	0	0
			1	1		
57	C5	1	Total	Mg	0	0
			1	1		
57	13	150	Total	Mg	0	0
			150	150		
57	1J	6	Total	Mg	0	0
			6	6		
57	5I	1	Total	Mg	0	0
			1	1		
57	35	2	Total	Mg	0	0
			2	2		
57	BI	1	Total	Mg	0	0
			1	1		
57	16	12	Total	Mg	0	0
			12	12		
57	M5	1	Total	Mg	0	0
			1	1		
57	21	3	Total	Mg	0	0
			3	3		
57	31	1	Total	Mg	0	0
			1	1		
57	Q8	1	Total	Mg	0	0
			1	1		
57	L8	1	Total	Mg	0	0
			1	1		
57	3I	1	Total	Mg	0	0
			1	1		
57	I8	1	Total	Mg	0	0
			1	1		
57	5E	1	Total	Mg	0	0
			1	1		
57	29	4	Total	Mg	0	0
			4	4		

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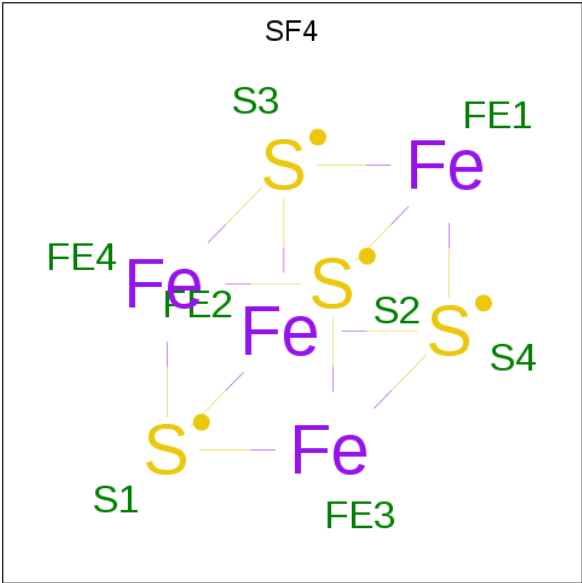
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	7A	1	Total 1	Mg 1	0	0
57	2K	3	Total 3	Mg 3	0	0
57	39	2	Total 2	Mg 2	0	0
57	1G	93	Total 93	Mg 93	0	0
57	11	3	Total 3	Mg 3	0	0
57	1H	502	Total 502	Mg 502	0	0
57	E5	1	Total 1	Mg 1	0	0
57	88	1	Total 1	Mg 1	0	0
57	1I	1	Total 1	Mg 1	0	0
57	14	454	Total 454	Mg 454	0	0
57	78	1	Total 1	Mg 1	0	0
57	55	1	Total 1	Mg 1	0	0
57	41	2	Total 2	Mg 2	0	0
57	2L	4	Total 4	Mg 4	0	0

- Molecule 58 is PAROMOMYCIN (three-letter code: PAR) (formula: C₂₃H₄₅N₅O₁₄).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
58	13	1	Total	C	N	O	0	0
			42	23	5	14		
58	1G	1	Total	C	N	O	0	0
			42	23	5	14		

- Molecule 59 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe₄S₄).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
59	3E	1	Total	Fe	S	0	0
			8	4	4		
59	32	1	Total	Fe	S	0	0
			8	4	4		

- Molecule 60 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	C5	1	Total Zn 1 1	0	0
60	5A	1	Total Zn 1 1	0	0
60	G8	1	Total Zn 1 1	0	0
60	5I	1	Total Zn 1 1	0	0

- Molecule 61 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	13	319	Total O 319 319	0	0
61	3E	3	Total O 3 3	0	0
61	4E	3	Total O 3 3	0	0
61	8E	1	Total O 1 1	0	0
61	1I	1	Total O 1 1	0	0
61	3I	3	Total O 3 3	0	0
61	5I	1	Total O 1 1	0	0
61	6I	2	Total O 2 2	0	0
61	8I	2	Total O 2 2	0	0
61	BI	5	Total O 5 5	0	0
61	1F	1	Total O 1 1	0	0
61	1K	1	Total O 1 1	0	0
61	2K	7	Total O 7 7	0	0
61	3K	1	Total O 1 1	0	0
61	4K	4	Total O 4 4	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	1H	1158	Total 1158	O 1158	0	0
61	16	26	Total 26	O 26	0	0
61	11	12	Total 12	O 12	0	0
61	21	6	Total 6	O 6	0	0
61	31	9	Total 9	O 9	0	0
61	58	1	Total 1	O 1	0	0
61	78	6	Total 6	O 6	0	0
61	88	2	Total 2	O 2	0	0
61	C8	2	Total 2	O 2	0	0
61	E8	3	Total 3	O 3	0	0
61	F8	2	Total 2	O 2	0	0
61	G8	2	Total 2	O 2	0	0
61	I8	5	Total 5	O 5	0	0
61	J8	3	Total 3	O 3	0	0
61	K8	2	Total 2	O 2	0	0
61	L8	2	Total 2	O 2	0	0
61	P8	1	Total 1	O 1	0	0
61	Q8	9	Total 9	O 9	0	0
61	1G	226	Total 226	O 226	0	0
61	32	3	Total 3	O 3	0	0
61	42	1	Total 1	O 1	0	0

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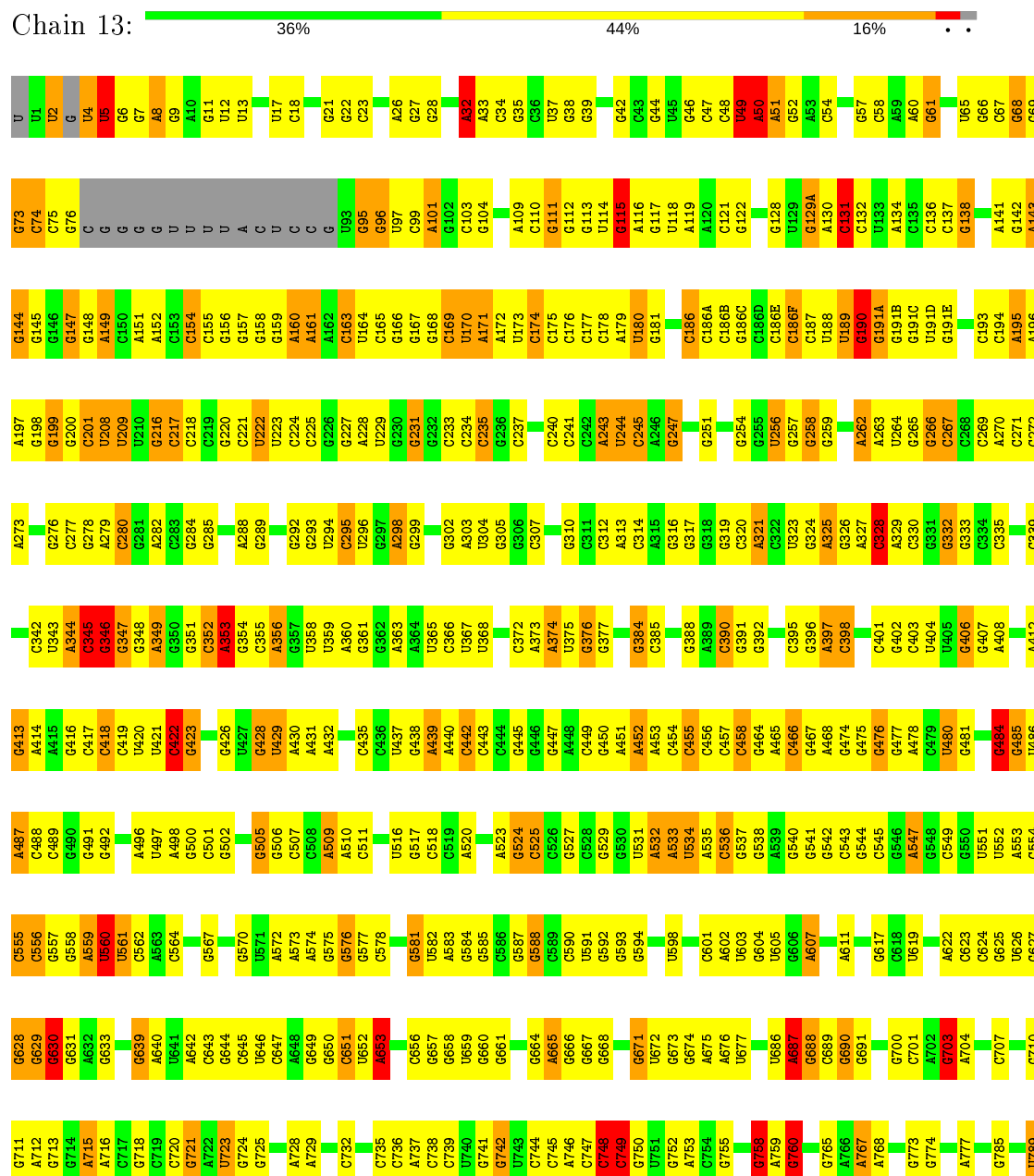
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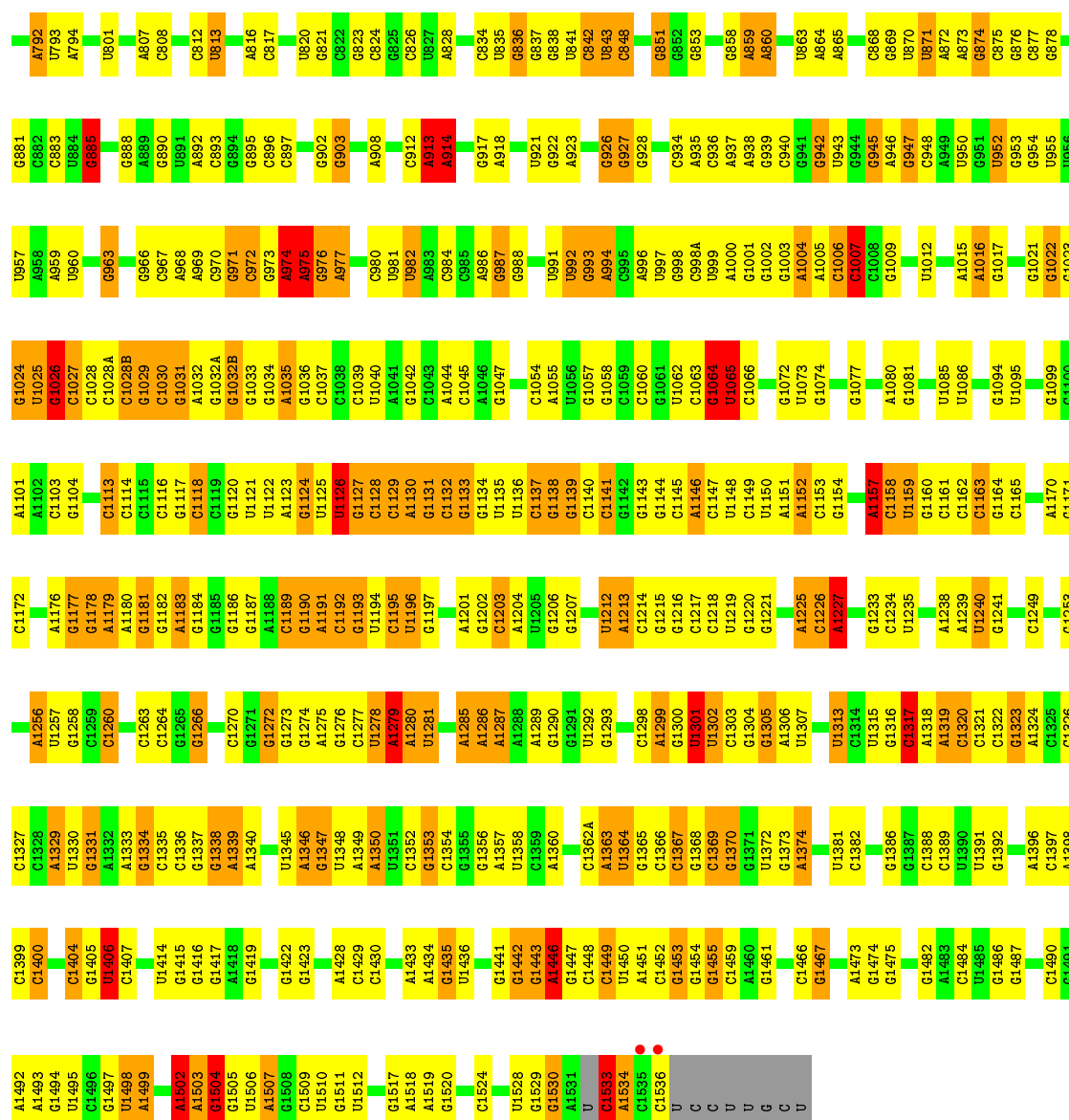
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	3A	1	Total 1	O 1	0	0
61	6A	3	Total 3	O 3	0	0
61	8A	1	Total 1	O 1	0	0
61	BA	3	Total 3	O 3	0	0
61	2L	1	Total 1	O 1	0	0
61	4L	3	Total 3	O 3	0	0
61	14	1015	Total 1015	O 1015	0	0
61	1J	18	Total 18	O 18	0	0
61	19	12	Total 12	O 12	0	0
61	29	6	Total 6	O 6	0	0
61	39	8	Total 8	O 8	0	0
61	35	5	Total 5	O 5	0	0
61	55	1	Total 1	O 1	0	0
61	75	1	Total 1	O 1	0	0
61	85	2	Total 2	O 2	0	0
61	A5	2	Total 2	O 2	0	0
61	B5	1	Total 1	O 1	0	0
61	C5	4	Total 4	O 4	0	0
61	H5	3	Total 3	O 3	0	0
61	L5	2	Total 2	O 2	0	0
61	M5	10	Total 10	O 10	0	0

3 Residue-property plots

These plots are drawn for all protein, RNA and DNA 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.

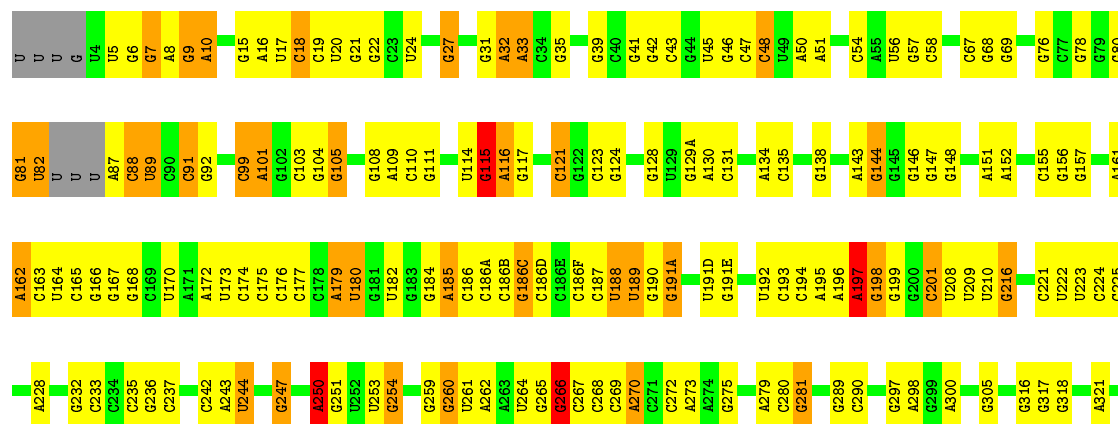
• Molecule 1: 16S rRNA



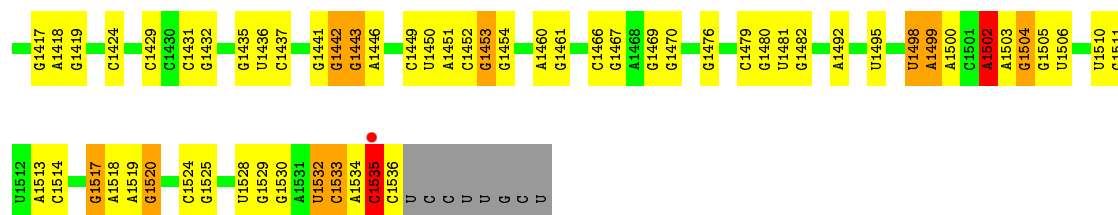


• Molecule 1: 16S rRNA

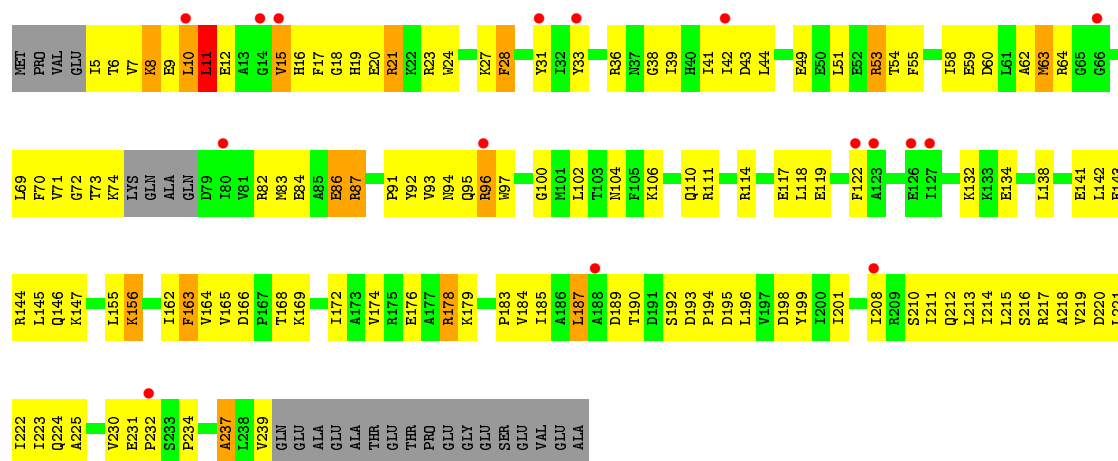
Chain 1G: 37% 45% 15% 2%



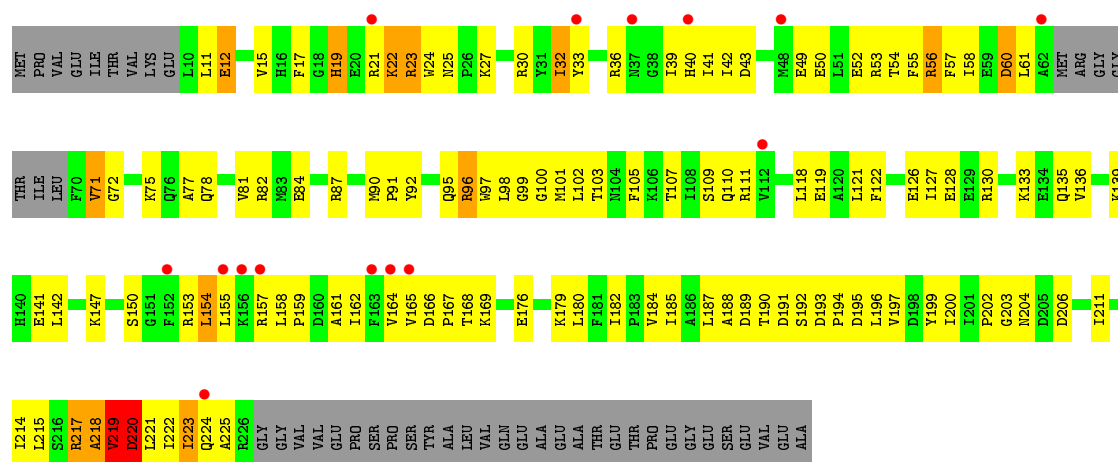
C1342	G1274	G1207	G1139	G1007	G942	C862	A768	C689	A609	G541	C466	G391	A325
G1343	A1275	C1208	C1140	C1008	G942	U863	G769	G690	G610	G542	G467	G392	G326
C1344	C1276	C1209	G1141	G1009	A946	A864	C770	G691	A614	G543	A468	A393	A327
U1345	C1277	G1210	G1142	G1010	A947	A865	G771	C699	G615	G544	G474	G394	C328
G1346	U1278	G1211	G1143	G1011	C948	C866	U772	G700	G616	A547	G481	A397	A329
A1347	U1279	U1078	G1144	A1014	C949	G867	G773	C701	G617	C331	C398	C330	C330
C1348	A1280	A1080	C1145	A1015	A949	C868	G774	A702	U618	G550	A482	G332	G332
U1349	U1281	G1081	A1146	A1016	G953	G869	G775	A706	U619	C401	C403	C335	C335
C1352	C1282	G1215	C1147	A1017	G954	U870	A777	A707	A621	C403	C403	C336	C336
G1353	A1285	G1216	U1148	C1017	G955	U871	A778	C708	U466	G406	G407	C337	C337
C1354	A1286	C1217	U1149	C1018	G956	A872	A779	G709	A487	A338	C339	U340	U340
G1355	A1287	U1218	U1150	C1019	U957	G873	A780	C709	C488	G408	A408	G409	G409
A1356	A1288	U1219	U1151	C1020	U957	G874	A781	G710	C489	G409	G410	G411	G411
C1357	A1289	G1220	A1152	G1021	A958	C875	C784	G711	C556	A559	G488	G412	A344
U1358	A1290	G1221	C1153	G1022	A959	G876	C785	G712	C557	U560	C489	A413	C345
C1359	G1291	C1222	G1154	G1023	U960	U877	U789	G713	C558	U561	G490	G416	G350
G1360	U1292	C1223	G1155	G1024	U961	G878	A790	G714	C559	C562	C490	C419	G351
A1361	G1293	G1224	G1156	U1025	C962	C879	G791	A715	A563	U571	A496	U427	G352
C1362	A1294	A1225	A1157	G1026	C963	C882	A792	C719	C630	C564	A497	U428	A356
G1363	G1295	C1226	C1158	C1027	A964	C883	U793	G720	C631	U565	U498	U429	C361
A1364	C1298	C1227	U1159	C1028	A965	U884	A794	G721	A632	C566	G500	A430	A363
G1365	A1299	U1232	C1161	C1029	C967	G885	C806	G722	C645	C567	G501	U434	A364
C1366	G1300	G1233	C1162	G1030	C970	G886	A807	G723	U646	C568	G502	C435	C366
C1367	U1301	C1234	A1169	G1031	G971	G887	C808	G724	C647	U572	G503	C442	U367
G1368	U1302	U1235	A1170	A1032	C972	C888	A816	G725	A648	C573	C504	G423	C370
C1369	U1303	C1236	G1171	G1032A	G973	G889	C817	G726	C649	A574	C505	U434	G371
G1370	G1304	U1237	G1172	G1032B	A974	G895	G818	G727	G650	C575	C506	C436	C372
A1371	C1305	C1238	G1173	G1033	A975	C896	A819	G728	C651	C576	C507	C443	A373
U1372	A1306	A1239	G1174	G1034	C976	C897	U820	G729	U652	C577	C508	G444	C374
G1373	U1307	U1240	A1175	G1035	A977	C898	C821	C735	A653	C578	C509	C445	U375
C1374	C1313	U1241	G1176	A1036	G978	G899	G822	C736	C664	C579	C510	G446	G380
G1375	U1314	C1242	G1177	G1037	A978	C900	G825	G737	A665	C580	C511	G447	C381
C1376	U1315	U1243	A1178	C1038	C979	A901	C826	G741	C666	C581	C512	A448	A382
A1377	G1316	C1244	G1179	G1039	C980	G906	U827	G742	G667	C582	C513	C449	A383
C1378	C1317	A1245	G1180	U1040	U981	G907	A828	G743	G668	C583	C514	G450	G384
G1379	A1318	C1246	G1181	A1041	U982	C908	C829	G744	U669	C584	C515	C456	C385
U1380	C1319	U1247	A1182	A1042	U983	G909	G830	C745	C670	C585	C516	C457	C386
C1381	U1320	A1248	G1183	C1043	C984	C910	G831	A746	A676	C586	C517	C458	A387
G1382	C1321	A1251	A1184	A1044	C985	U911	U833	C747	U677	C587	C518	C459	A388
A1383	G1322	A1252	C1189	G1047	C986	C912	U834	C748	G673	C588	C519	G449	A389
C1384	A1324	G1253	U1121	U1048	G987	U913	U835	G749	G674	C589	C520	C450	G390
G1385	C1325	C1254	A1122	U1049	U991	A914	C836	G750	U675	C590	C521	C451	A391
A1386	G1326	G1255	G1124	G1050	U992	A915	G837	G751	C671	C591	C522	C452	A392
C1387	C1327	A1256	U1125	G1051	G993	U916	U838	G752	G672	C592	C523	G447	A393
U1388	U1328	U1257	U1126	G1052	C994	A918	C842	G753	G673	C593	C524	A448	A394
C1389	A1329	U1258	G1127	C1053	A996	U919	U843	G754	G674	C594	C525	C449	A395
U1390	U1330	G1259	C1128	A1055	U997	U920	C848	C755	C675	C595	C526	C456	C386
A1391	C1331	C1260	G1129	C1060	G998	U921	G851	C756	A676	C596	C527	C457	C387
C1392	A1332	U1261	A1130	G1061	C999A	G922	U852	C757	U677	C597	C528	C458	A388
G1393	U1333	C1262	G1131	G1062	U999	G926	C853	G758	C681	C598	C529	C459	A389
A1394	C1334	G1263	C1132	G1063	A1000	G927	G854	C759	G682	C599	C530	G450	A390
C1395	A1201	G1264	G1133	G1064	G1001	C922	G855	C760	G683	C600	C531	C451	A391
U1396	C1335	C1265	U1134	G1065	G1002	G923	G856	C761	G684	C601	A532	C452	A392
C1397	C1336	U1270	U1135	C1066	G1003	G933	G857	C762	G685	C602	A533	C453	A393
A1398	A1204	G1273	C1136	C1067	A1004	C934	A859	C763	U686	C603	A534	C454	A394
C1399	U1205	G1274	U1137	C1068	A1005	A935		C764	A687	C604	U535	C455	A395
G1400	C1337	G1275	C1138	C1069	G1006			C765	G688	C605	C536	C456	A396
A1401	G1338	G1276	G1139	C1070	G1007			C766	A688	C606	C537	C457	A397
C1402	C1339	G1277	U1140	C1071	A1008			C767	A689	C607	C538	C458	A398
G1403	C1340	G1278	G1141	C1072	G1009			C768	G689	C608	C539	C459	A399
C1404	C1341	G1279	C1142	C1073	G1010			C769	A690	C609	C540	C460	A400
A1405	A1206	G1279	U1143	C1074	G1011			C770	A691	C610	C541	C461	A401
C1406	C1342	G1280	G1144	C1075	G1012			C771	A692	C611	C542	C462	A402
C1407	C1343	G1281	C1145	C1076	G1013			C772	A693	C612	C543	C463	A403
C1408	A1207	G1282	U1146	C1077	G1014			C773	A694	C613	C544	C464	A404
C1409	C1344	G1283	A1147	C1078	G1015			C774	A695	C614	C545	C465	A405
C1410	A1208	G1284	C1148	C1079	A1016			C775	A696	C615	C546	C466	A406
C1411	C1345	G1285	U1149	C1080	A1017			C776	A697	C616	C547	C467	A407
C1412	A1209	G1286	G1150	A1081	A1018			C777	A698	C617	C548	C468	A408
C1413	A1210	G1287	U1151	G1082	A1019			C778	A699	C618	C549	C469	A409
C1414	C1346	G1288	A1152	G1083	A1020			C779	A700	C619	C550	C470	A410
C1415	A1211	G1289	C1153	G1084	A1021			C780	A701	C620	C551	C471	A411
C1416	U1212	G1290	G1154	U1085	A1022			C781	A702	C621	C552	C472	A412
C1417	C1213	G1291	U1155	C1086	A1023			C782	A703	C622	C553	C473	A413
C1418	G1214	G1292	A1156	G1087	A1024			C783	A704	C623	C554	C474	A414
C1419	A1214	G1293	G1157	U1088	A1025			C784	A705	C624	C555	C475	A415
C1420	C1347	G1294	C1158	G1089	A1026			C785	A706	C625	C556	C476	A416
C1421	A1215	G1295	U1159	U1090	A1027			C786	A707	C626	C557	C477	A417
C1422	U1216	G1296	U1160	C1091	A1028			C787	A708	C627	C558	C478	A418
C1423	C1348	G1297	G1161	C1092	A1029			C788	A709	C628	C559	C479	A419
C1424	A1216	G1298	C1162	U1093	A1030			C789	A710	C629	C560	C480	A420
C1425	C1349	G1299	A1163	G1094	A1031			C790	A711	C630	C561	C481	A421
C1426	U1217	G1300	U1164	U1095	A1032			C791	A712	C631	C562	C482	A422
C1427	C1350	G1301	G1165	C1096	A1033			C792	A713	C632	C563	C483	A423
C1428	A1218	G1302	C1166	C1097	A1034			C793	A714	C633	C564	C484	A424
C1429	U1218	G1303	U1167	U1098	A1035			C794	A715	C634	C565	C485	A425
C1430	C1351	G1304	G1168	C1099	A1036			C795	A716	C635	C566	C486	A426
C1431	A1219	G1305	C1169	G1100	A1037			C796	A717	C636	C567	C487	A427
C1432	U1219	G1306	U1170	C1101	A1038			C797	A718	C637	C568	C488	A428
C1433	C1352	G1307	G1171	U1102	A1039			C798	A719	C638	C569	C489	A429
C1434	A1220	G1308	U1172	G1103	A1040			C799	A720	C639	C570	C490	A430
C1435	U1220	G1309	C1173	U1104	A1041			C800	A721	C640	C571	C491	A431
C1436	C1353	G1310	G1174	C1105	A1042			C801	A722	C641	C572	C492	A432
C1437	A1221	G1311	G1175	G1106	A1043			C802	A723	C642	C573	C493	A433
C1438	U1222	G1312	U1176	U1107	A1044			C803	A724	C643	C574	C494	A434
C1439	C1354	G1313	G1177	C1108	A1045			C804	A725	C644	C575	C495	A435
C1440	A1223	G1314	U1178	G1109	A1046			C805	A726	C645	C576	C496	A436
C1441	U1224	G1315	A1179	U1110	A1047			C806	A727	C646	C577	C497	A437
C1442	C1355	G1316	G1180	C1111	A1048			C807	A728	C647	C578	C498	A438
C1443	A1224	G1317	U1181	C1112	A1049			C808	A729	C648	C579	C499	A439
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• Molecule 2: 30S ribosomal protein S2

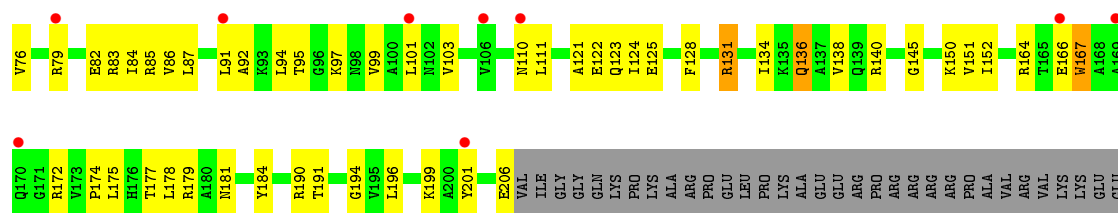


• Molecule 2: 30S ribosomal protein S2

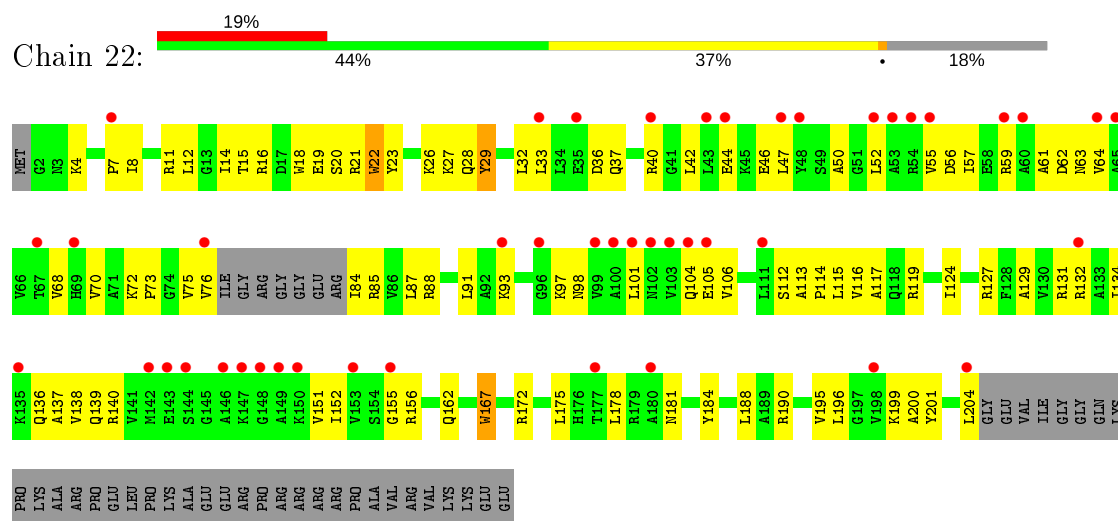


• Molecule 3: 30S ribosomal protein S3

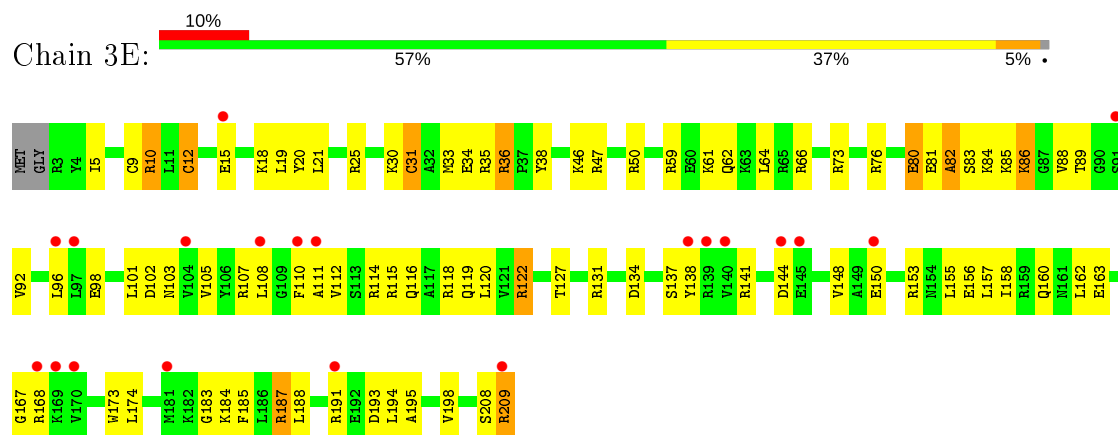




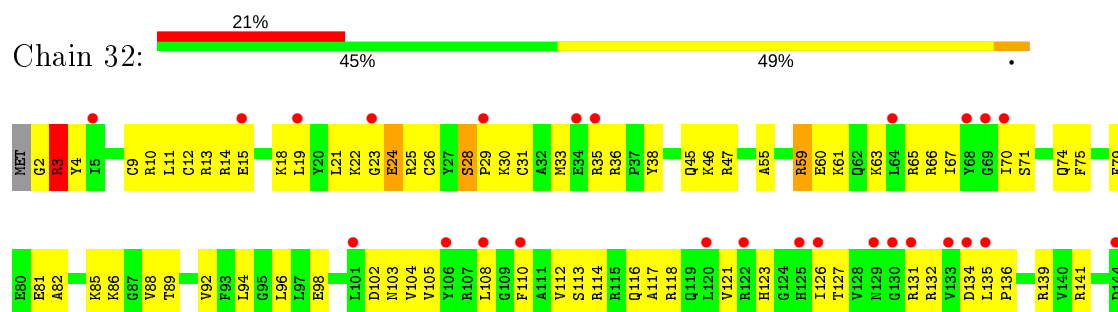
• Molecule 3: 30S ribosomal protein S3

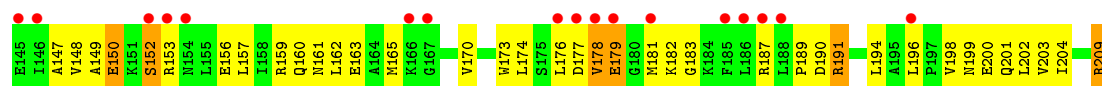


• Molecule 4: 30S ribosomal protein S4

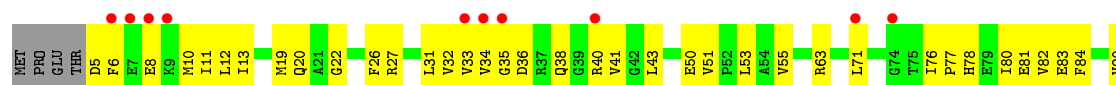


• Molecule 4: 30S ribosomal protein S4

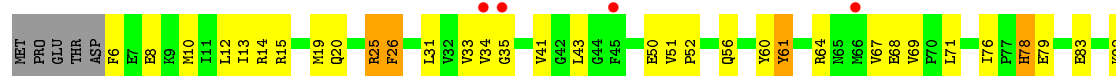




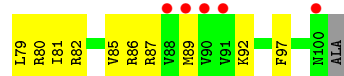
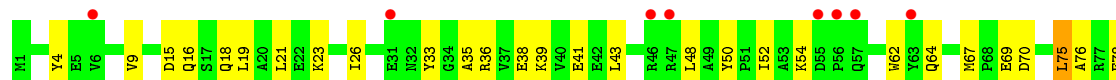
- Molecule 5: 30S ribosomal protein S5



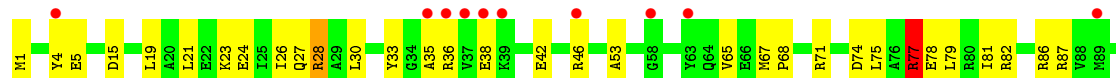
- Molecule 5: 30S ribosomal protein S5



- Molecule 6: 30S ribosomal protein S6

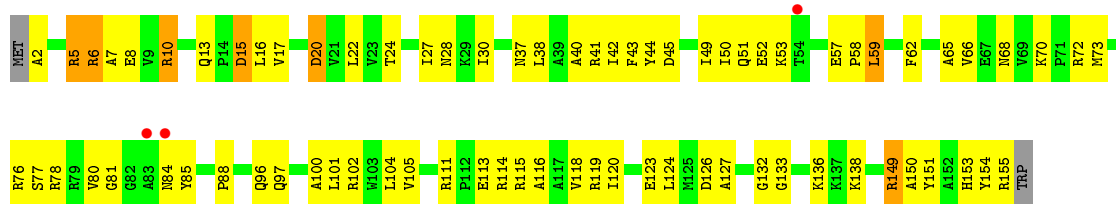


- Molecule 6: 30S ribosomal protein S6

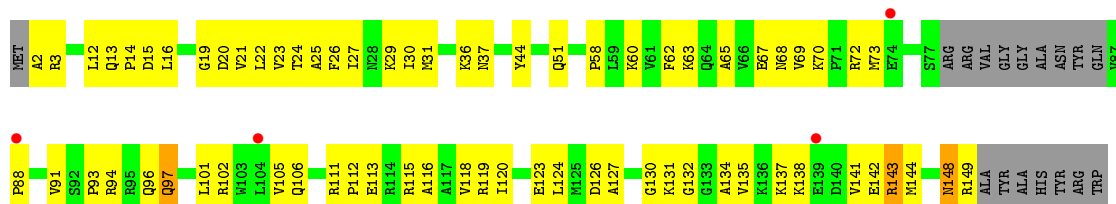


- Molecule 7: 30S ribosomal protein S7

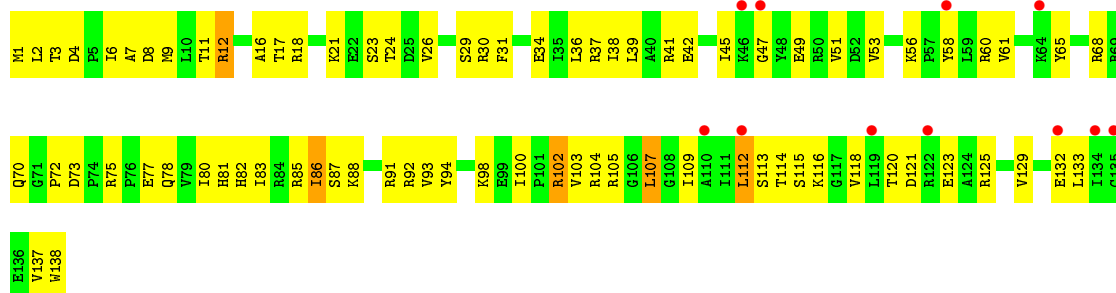
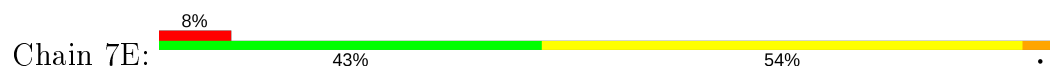




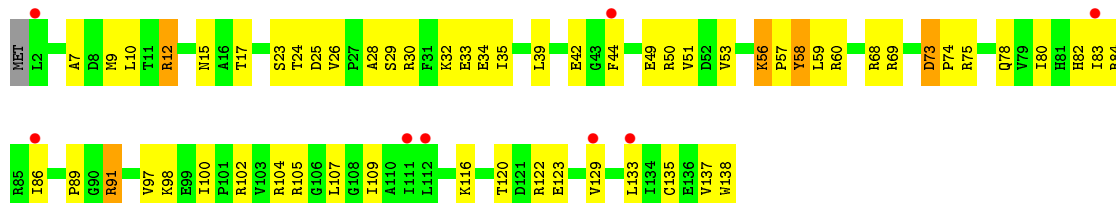
• Molecule 7: 30S ribosomal protein S7



• Molecule 8: 30S ribosomal protein S8

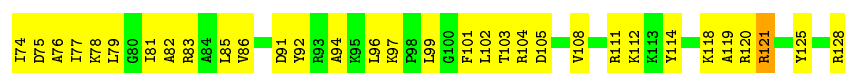


• Molecule 8: 30S ribosomal protein S8



• Molecule 9: 30S ribosomal protein S9





• Molecule 9: 30S ribosomal protein S9



• Molecule 10: 30S ribosomal protein S10



• Molecule 10: 30S ribosomal protein S10

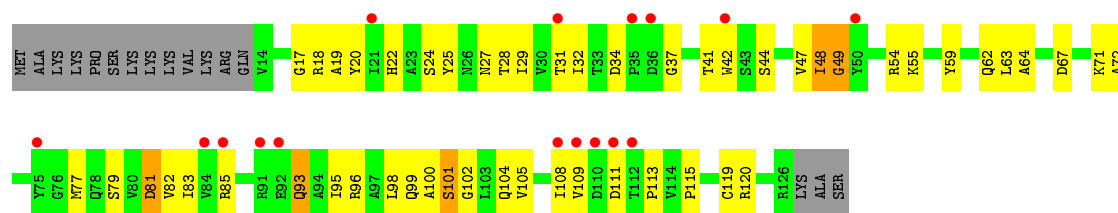


• Molecule 11: 30S ribosomal protein S11

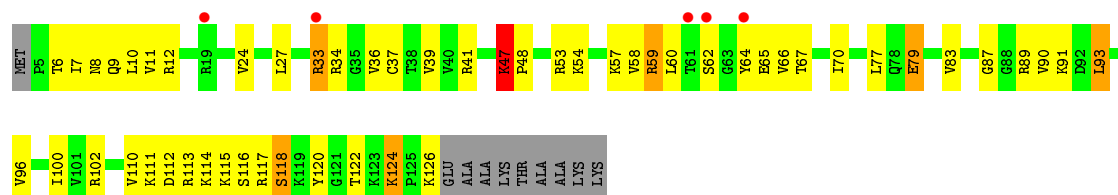


• Molecule 11: 30S ribosomal protein S11

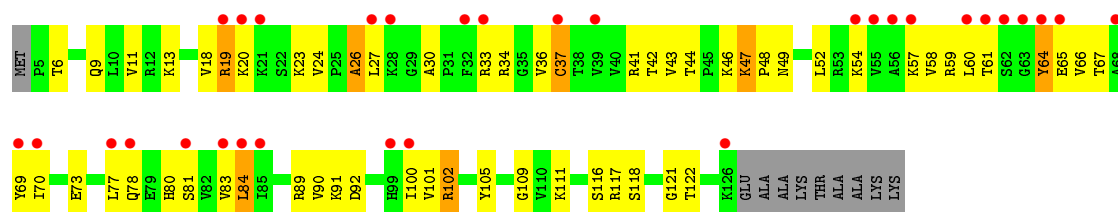




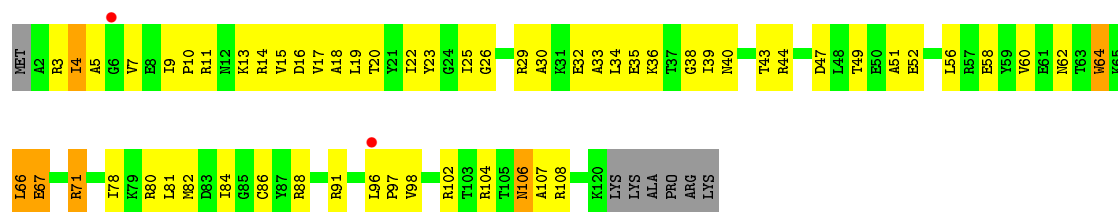
• Molecule 12: 30S ribosomal protein S12



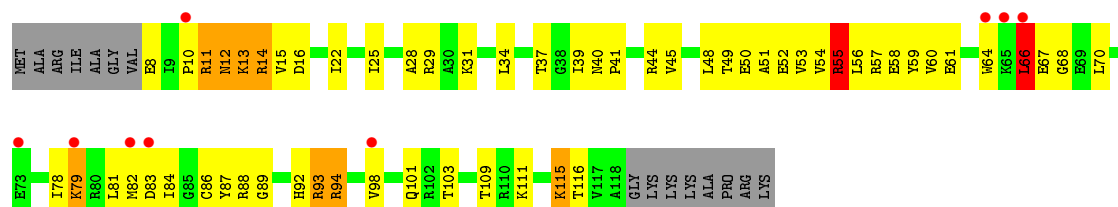
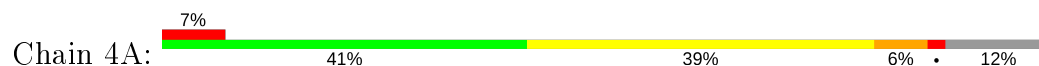
• Molecule 12: 30S ribosomal protein S12



• Molecule 13: 30S ribosomal protein S13



• Molecule 13: 30S ribosomal protein S13



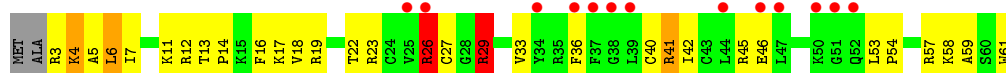
- Molecule 14: 30S ribosomal protein S14 type Z

Chain 5I: 



- Molecule 14: 30S ribosomal protein S14 type Z

Chain 5A: 



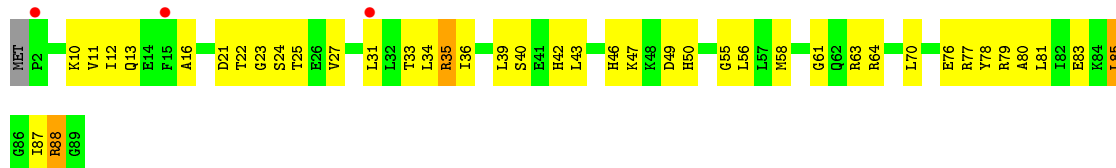
- Molecule 15: 30S ribosomal protein S15

Chain 6I: 



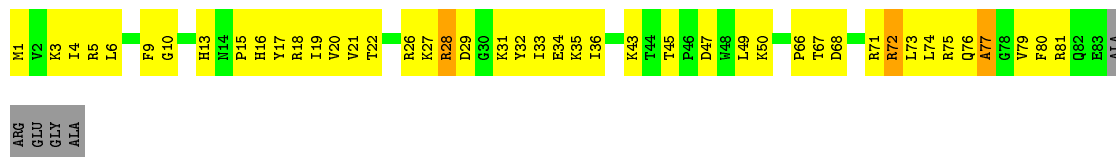
- Molecule 15: 30S ribosomal protein S15

Chain 6A: 



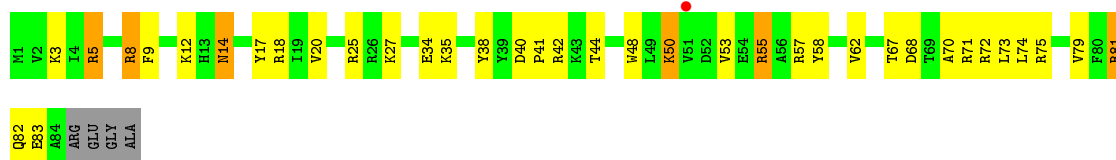
- Molecule 16: 30S ribosomal protein S16

Chain 7I: 

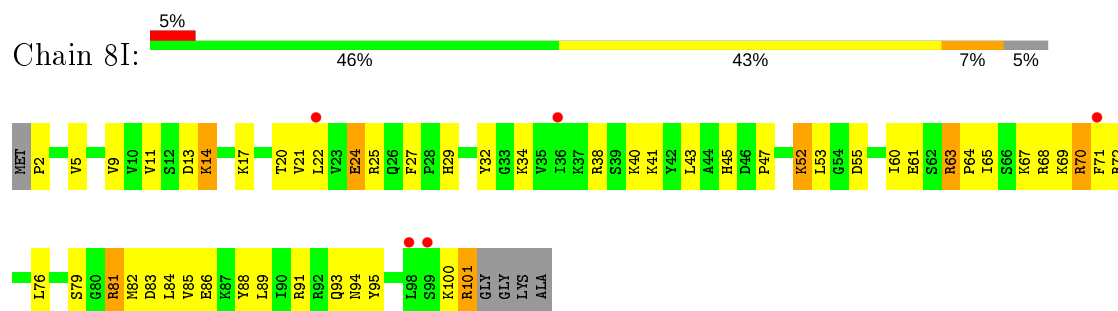


- Molecule 16: 30S ribosomal protein S16

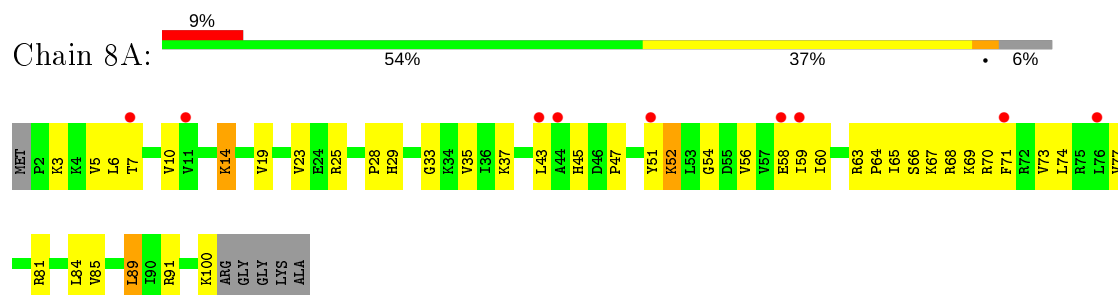
Chain 7A: 



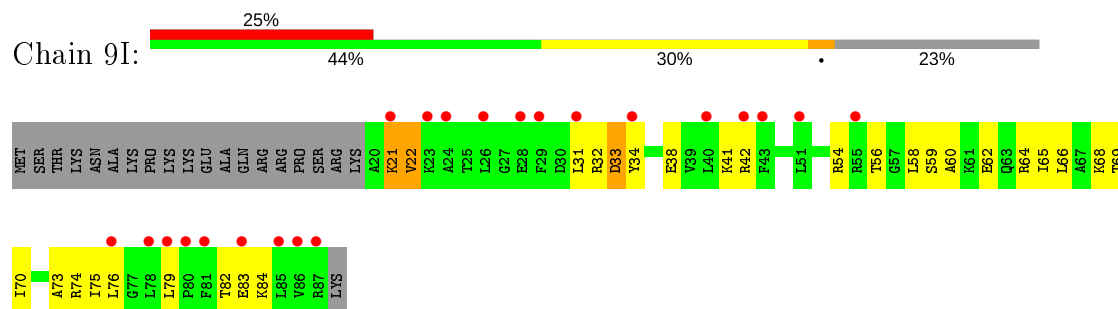
- Molecule 17: 30S ribosomal protein S17



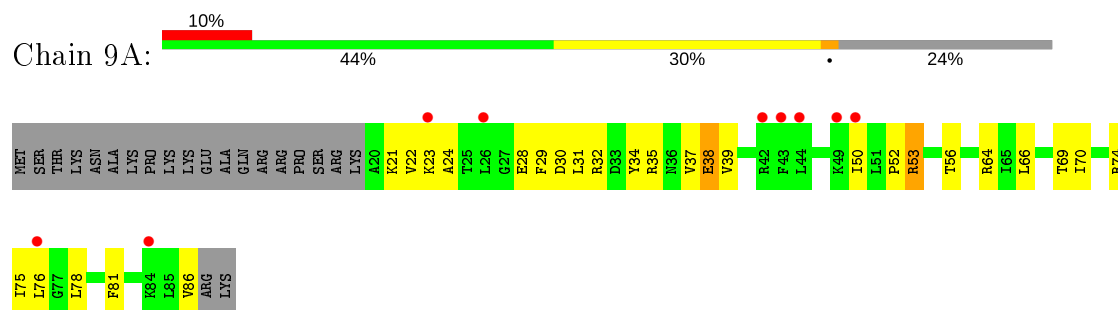
- Molecule 17: 30S ribosomal protein S17



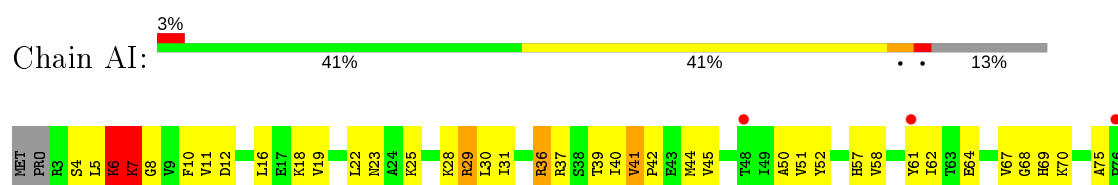
- Molecule 18: 30S ribosomal protein S18

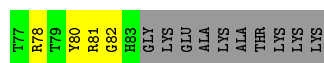


- Molecule 18: 30S ribosomal protein S18

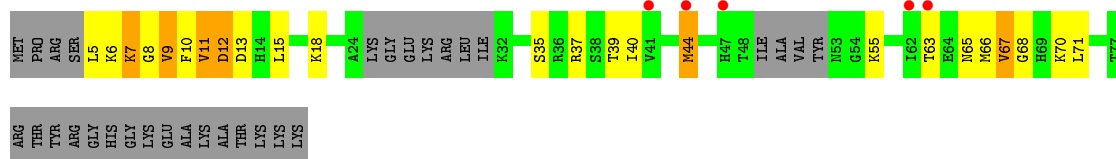
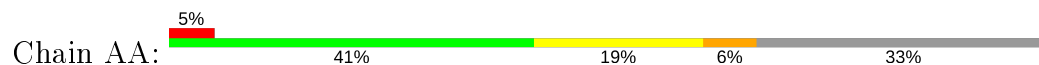


- Molecule 19: 30S ribosomal protein S19

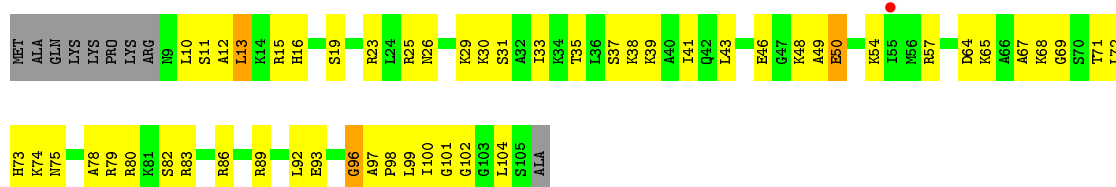
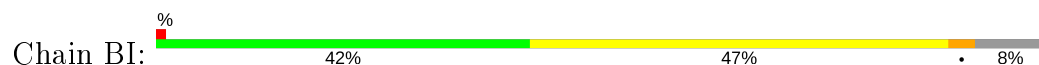




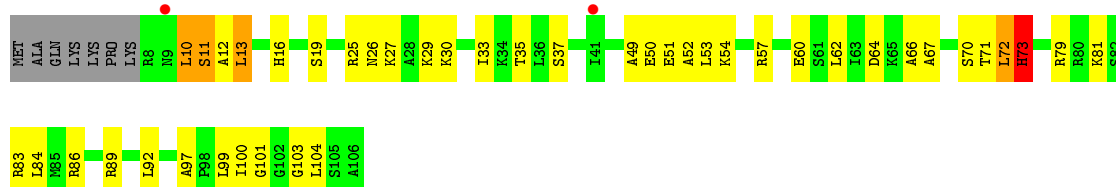
- Molecule 19: 30S ribosomal protein S19



- Molecule 20: 30S ribosomal protein S20



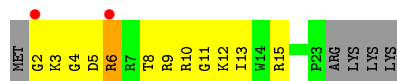
- Molecule 20: 30S ribosomal protein S20



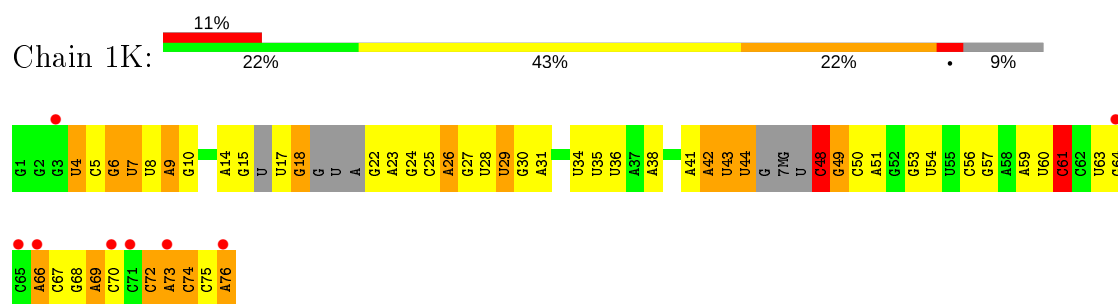
- Molecule 21: 30S ribosomal protein Thx



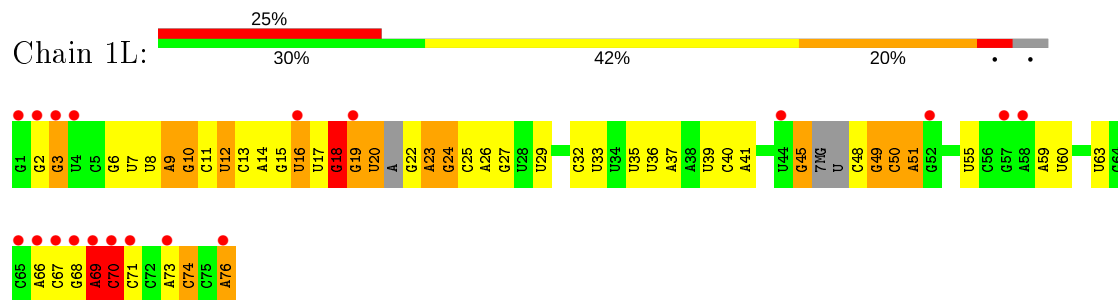
- Molecule 21: 30S ribosomal protein Thx



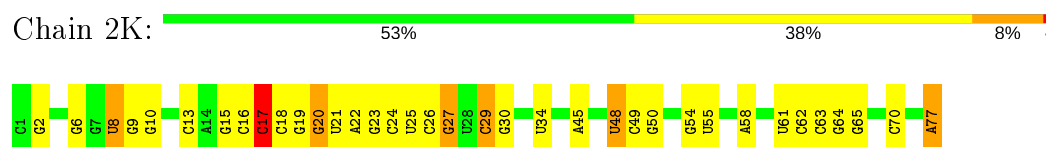
- Molecule 22: tRNA^{Lys}



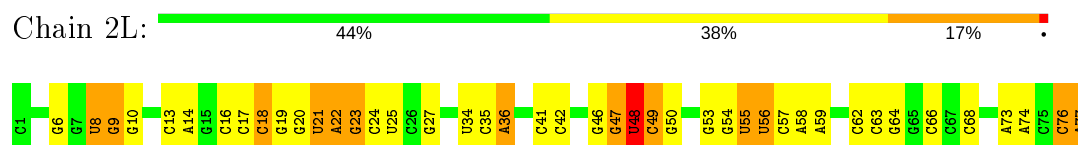
- Molecule 22: tRNA^{Lys}



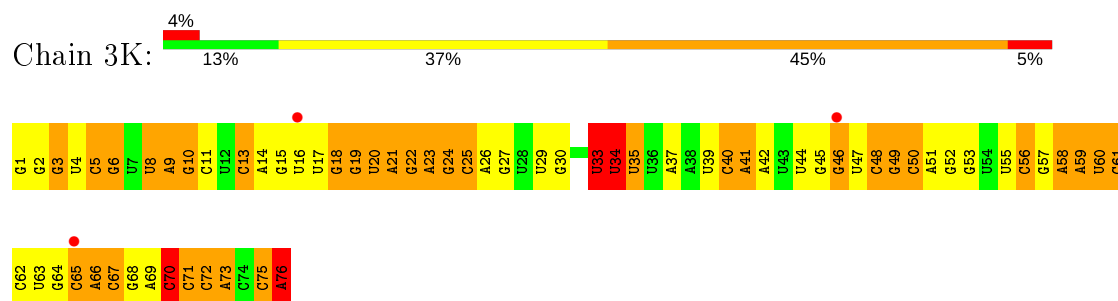
- Molecule 23: E. coli tRNA^{fMet}



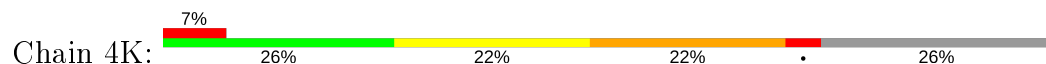
- Molecule 23: E. coli tRNA^{fMet}

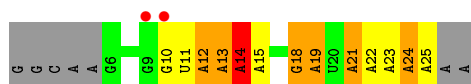


- Molecule 24: tRNA^{Lys}

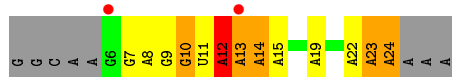


- Molecule 25: mRNA

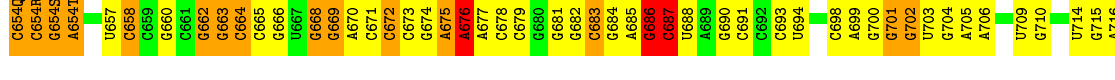
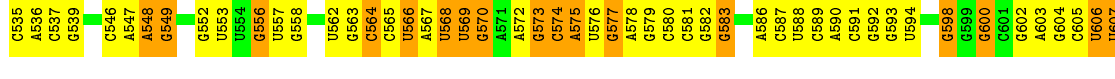
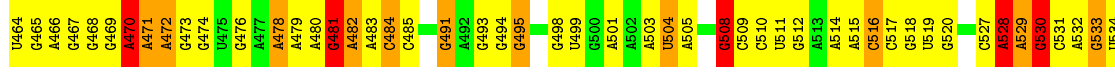
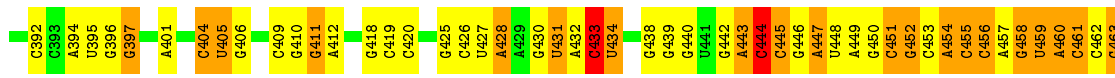
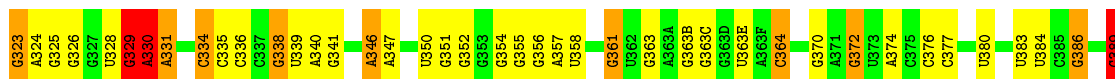
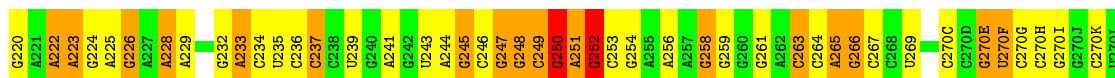
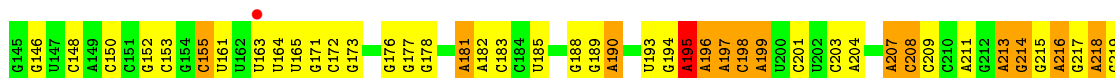
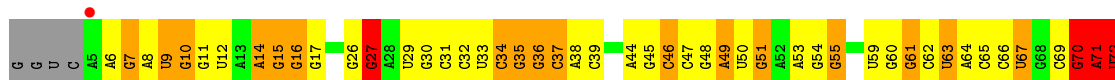




• Molecule 25: mRNA

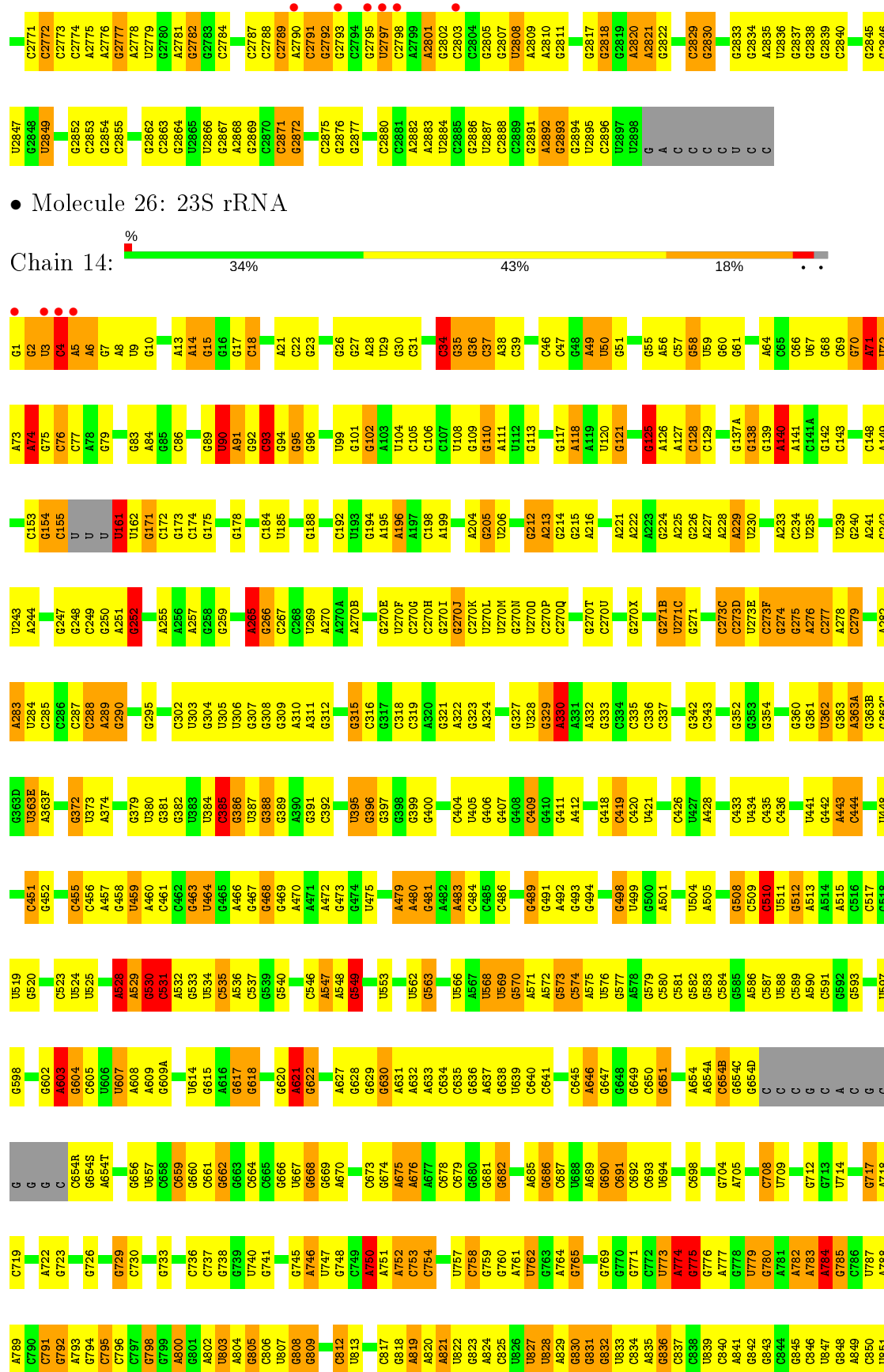


• Molecule 26: 23S rRNA

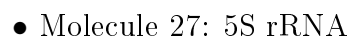


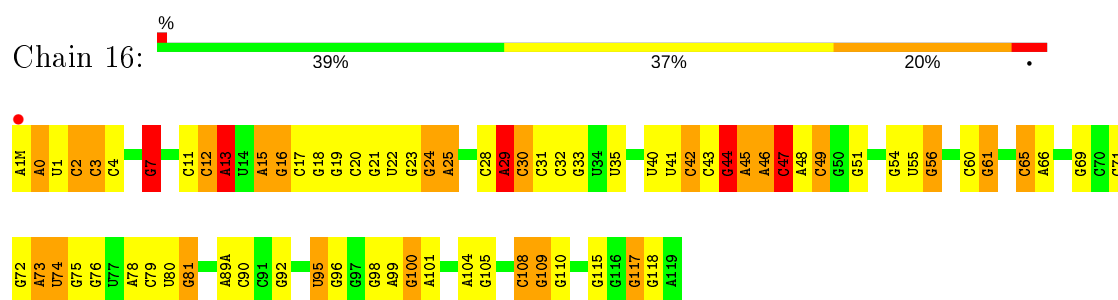
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A1668	C1533	C1533	G1465	C1403	A1336	A1272	U1198	A1128	U	C995	C858	A788	G723
A1669	G1534	G1534	C1466	C1404	G1337	U1273	U1199	A1129	G	A996	U859	A789	U724
A1670	G1535	G1535	C1467	G1405	G1338	A1274	U1199	U1130	G	G997	U860	C790	G725
C1672	U1602	A1535	C1468	A1406	G1339	A1275	U1199	U1130	C	A1001	G934	C791	G726
U1673	A1536	A1536	C1469	C1407	G1340	A1276	C1201	U1131	U	G1002	A861	G792	A727
G1674	G1470	G1408	G1471	G1408	U1341	G1277	G1202	G1136	U	G1003	G862	A793	G728
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A1677	G1413	G1413	C1476	C1345	C1344	G1281	U1205	G1138	A	C1005	C866	C796	C731
G1678	G1414	G1414	A1477	G1346	G1346	G1281	G1206	G1139	A	C1006	A866	C797	C732
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C1684	U1482	U1482	G1483	C1352	U1352	C1291	A1213	C1145	C	C1013	G881	C806	
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C1687	A1543	A1543	U1490	G1426	G1358	C1294	G1218	G1151	A	U1019	C	C812	G743
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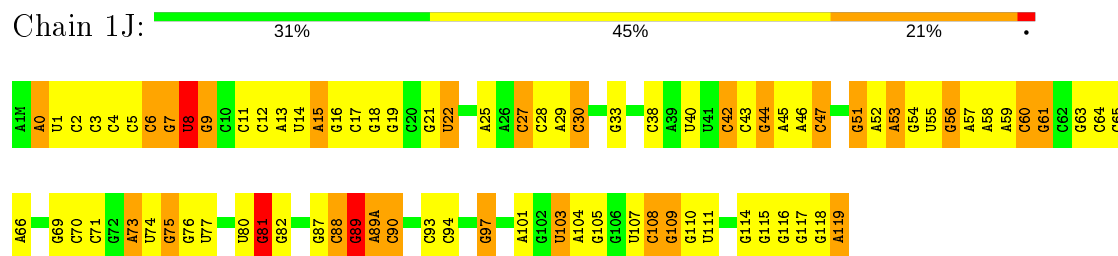


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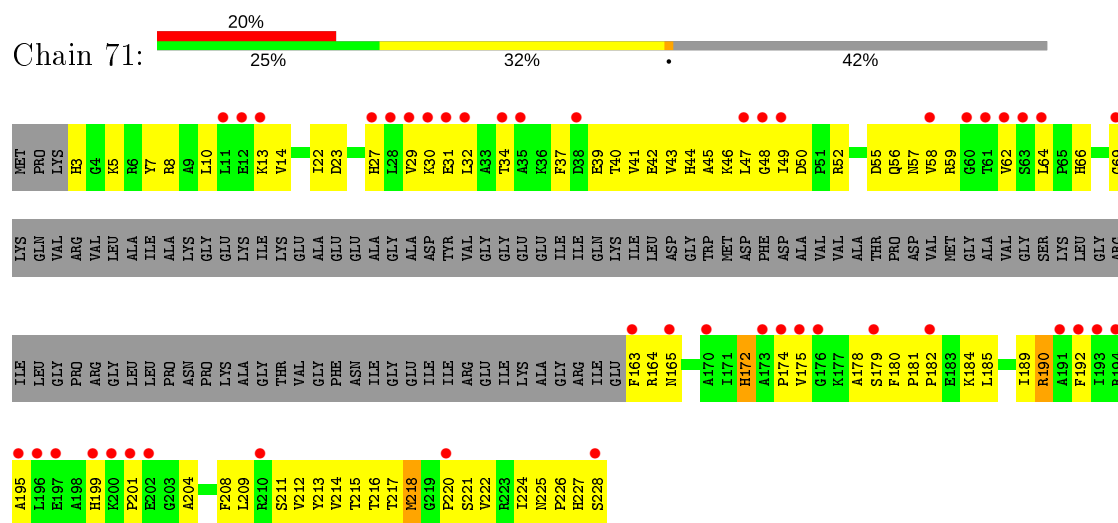




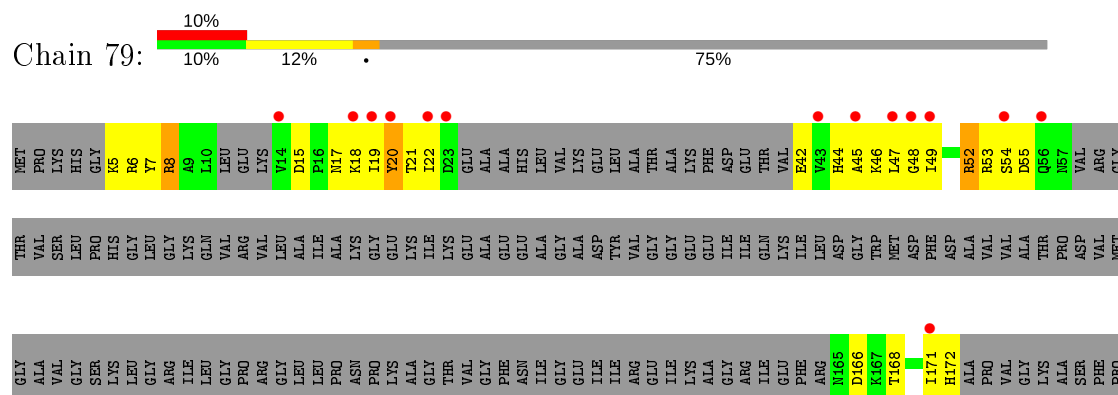
• Molecule 27: 5S rRNA

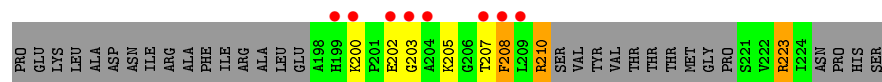


• Molecule 28: 50S ribosomal protein L1

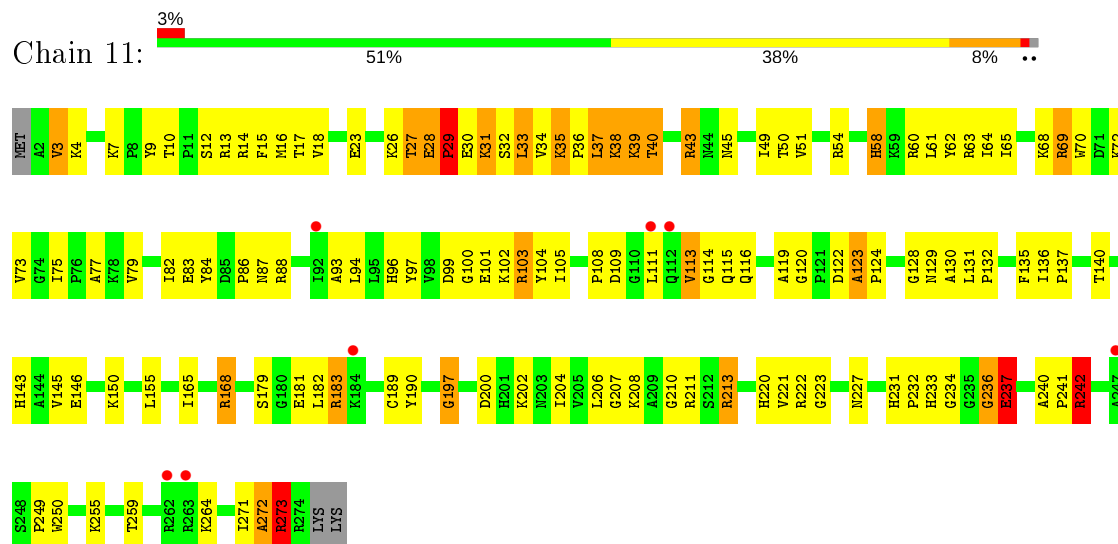


• Molecule 28: 50S ribosomal protein L1

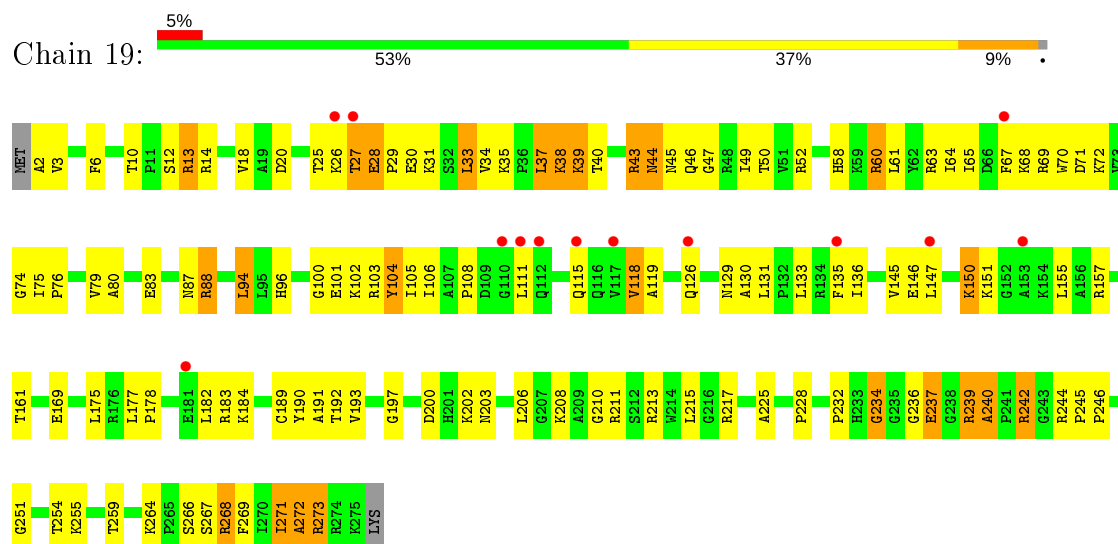




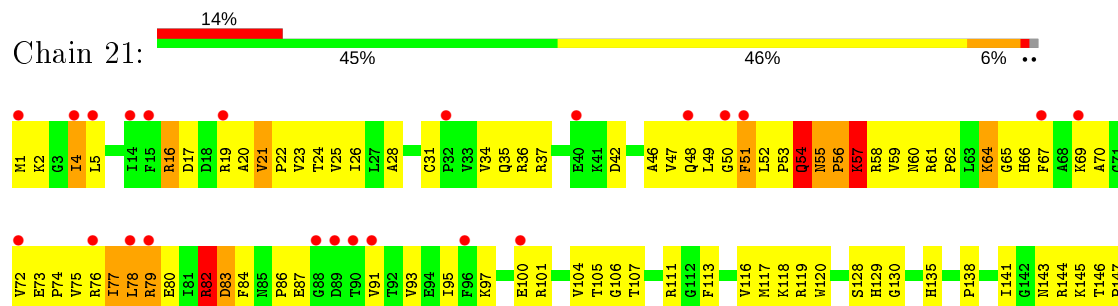
• Molecule 29: 50S ribosomal protein L2

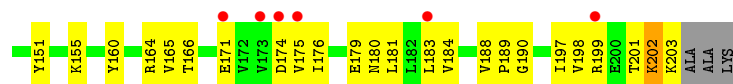


• Molecule 29: 50S ribosomal protein L2

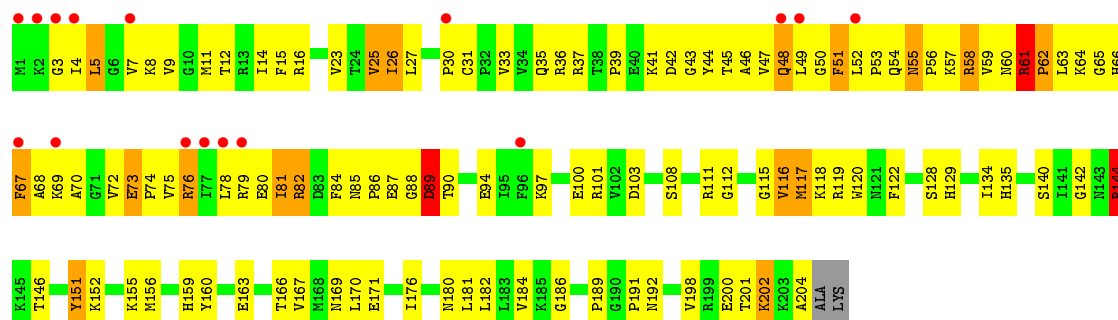
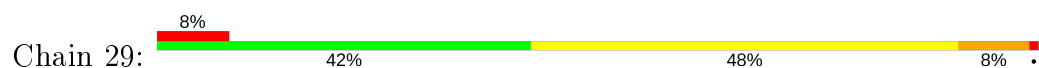


• Molecule 30: 50S ribosomal protein L3

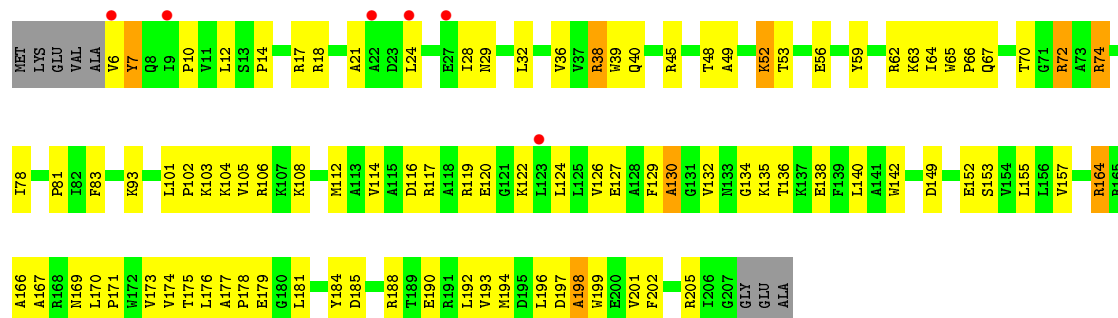




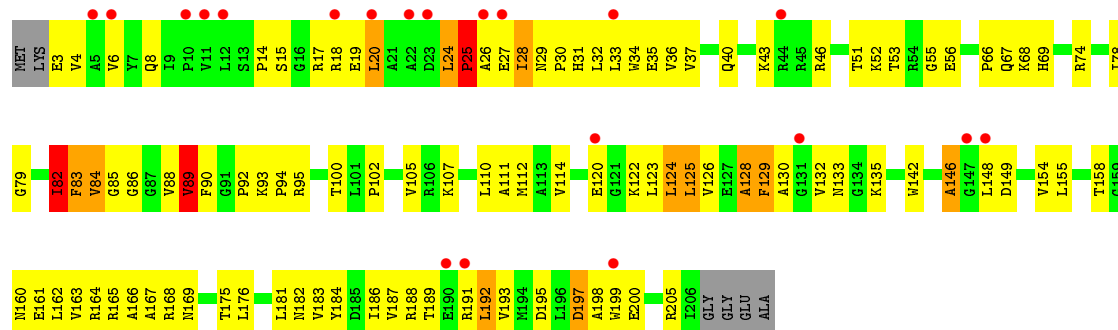
• Molecule 30: 50S ribosomal protein L3



• Molecule 31: 50S ribosomal protein L4

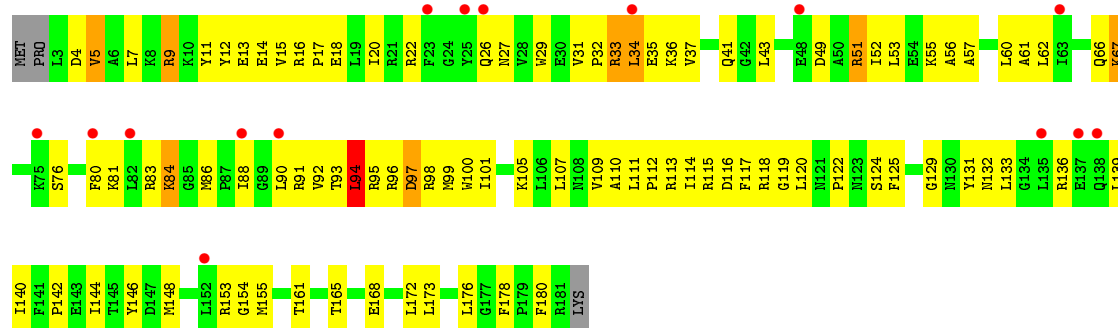


• Molecule 31: 50S ribosomal protein L4

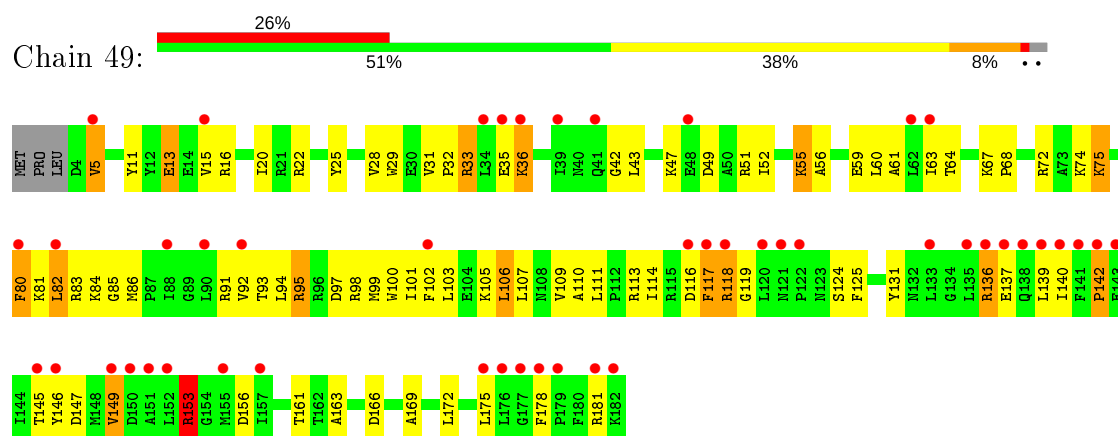


• Molecule 32: 50S ribosomal protein L5

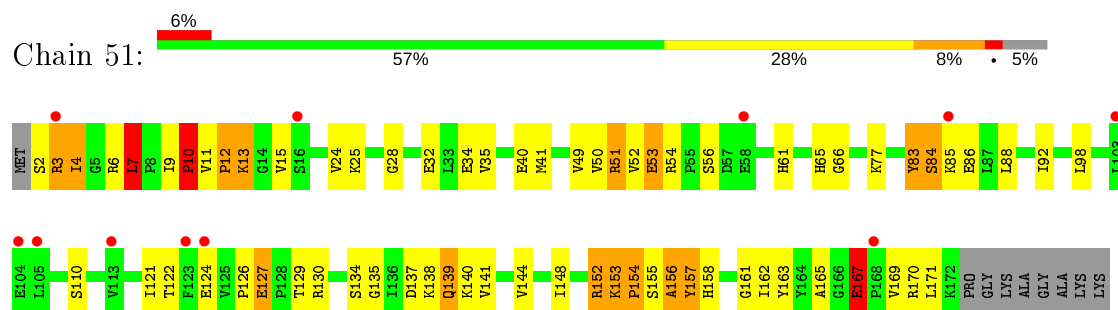




- Molecule 32: 50S ribosomal protein L5



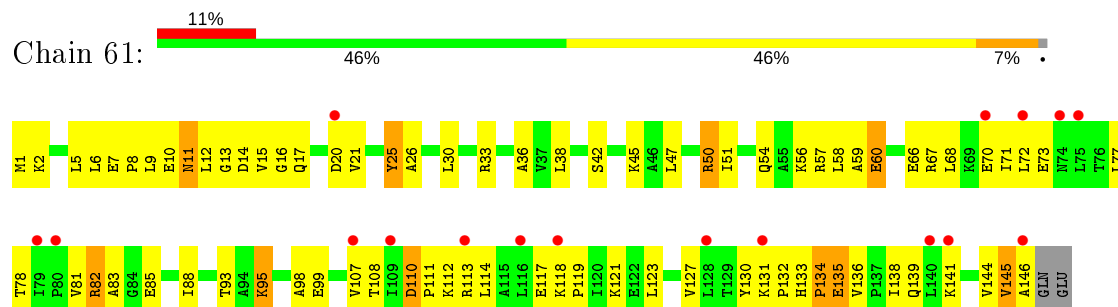
- Molecule 33: 50S ribosomal protein L6



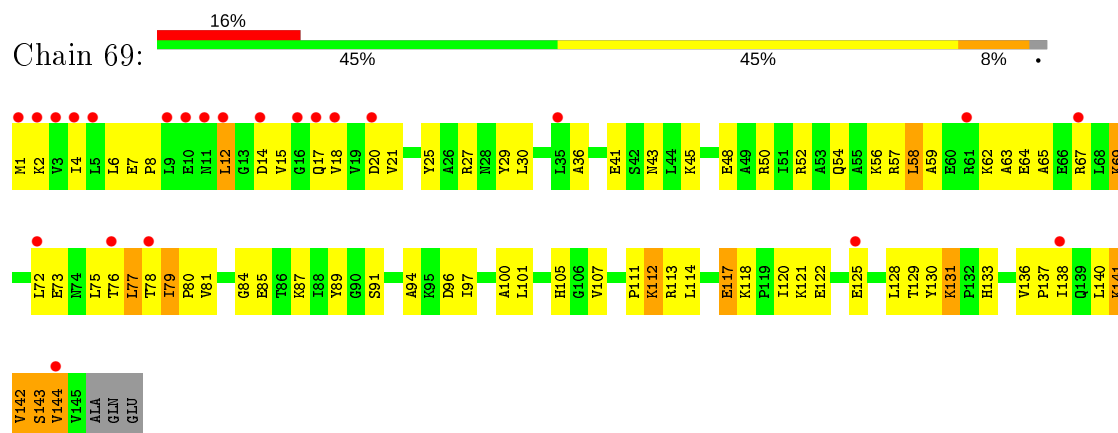
- Molecule 33: 50S ribosomal protein L6



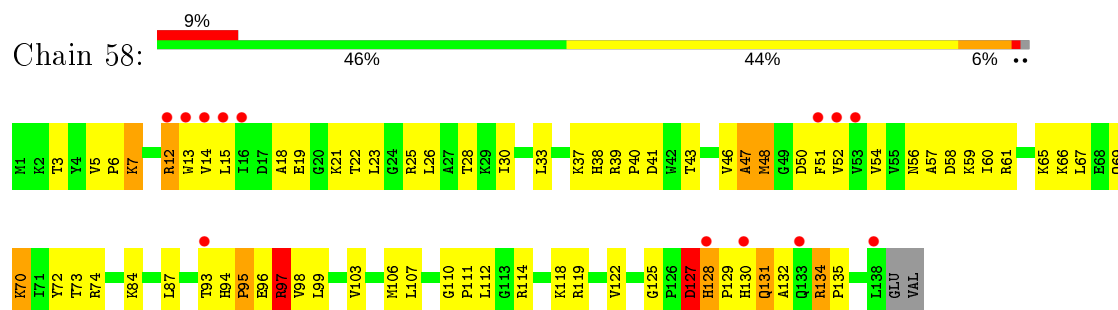
- Molecule 34: 50S ribosomal protein L9



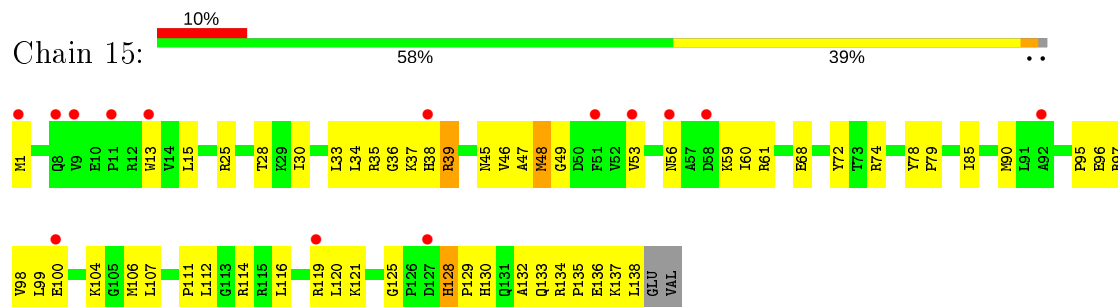
- Molecule 34: 50S ribosomal protein L9

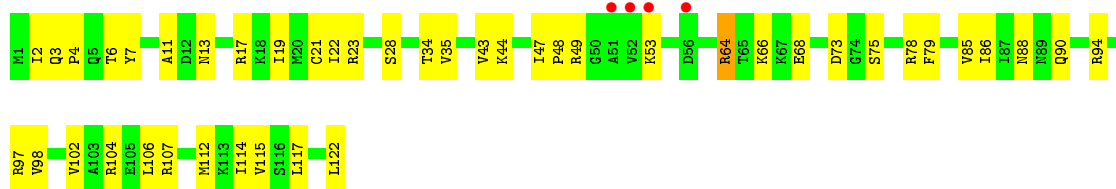


- Molecule 35: 50S ribosomal protein L13

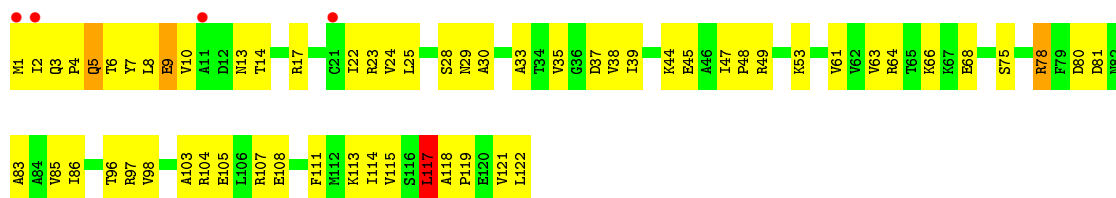


- Molecule 35: 50S ribosomal protein L13

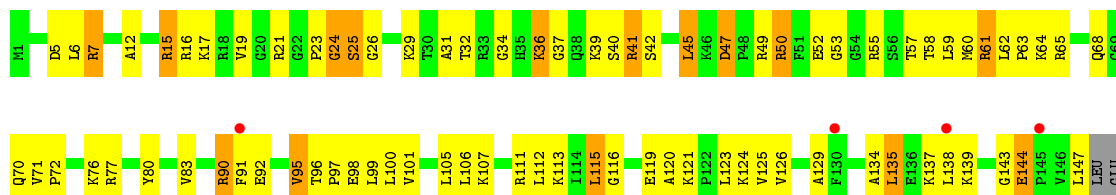
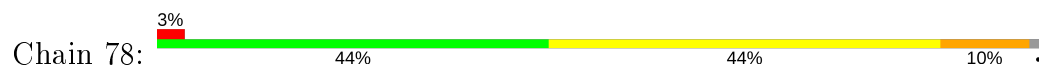




- Molecule 36: 50S ribosomal protein L14

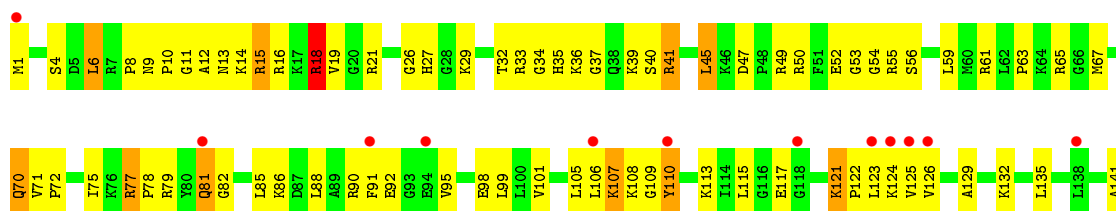
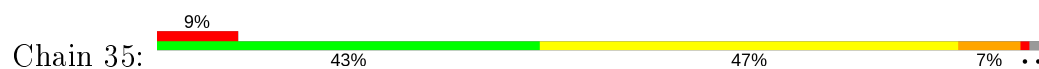


- Molecule 37: 50S ribosomal protein L15



ALA

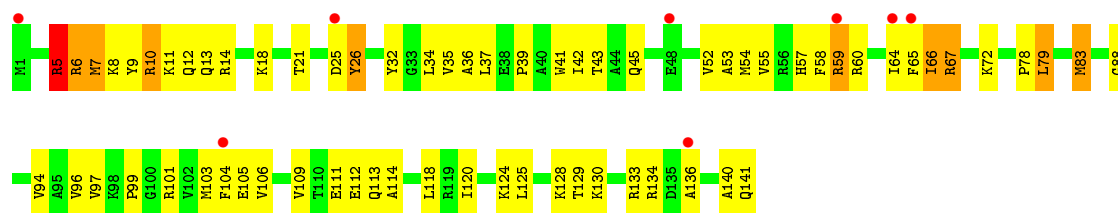
- Molecule 37: 50S ribosomal protein L15



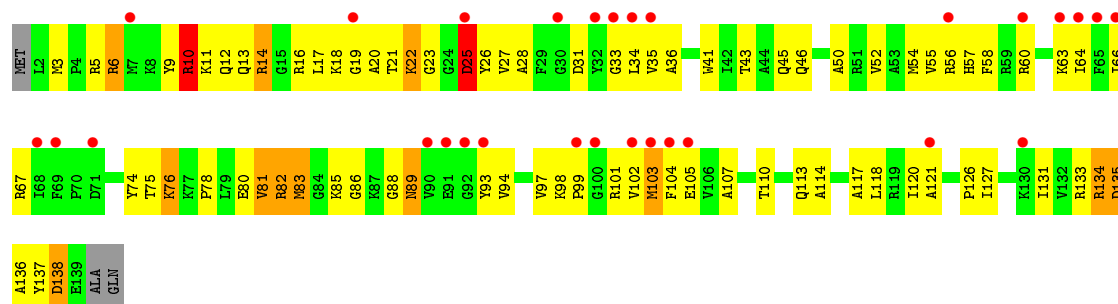
G142
G143
E144
P145
V146
L147
LEU
GLU
ALA

- Molecule 38: 50S ribosomal protein L16

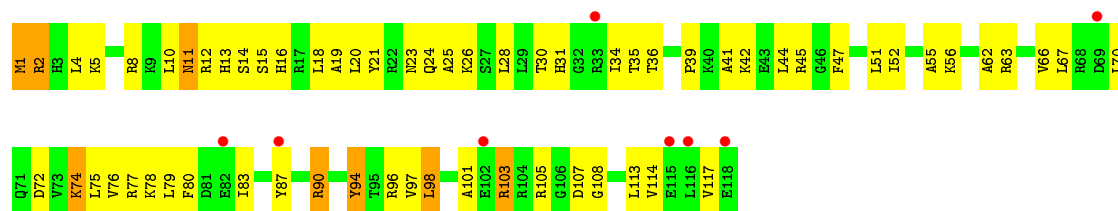




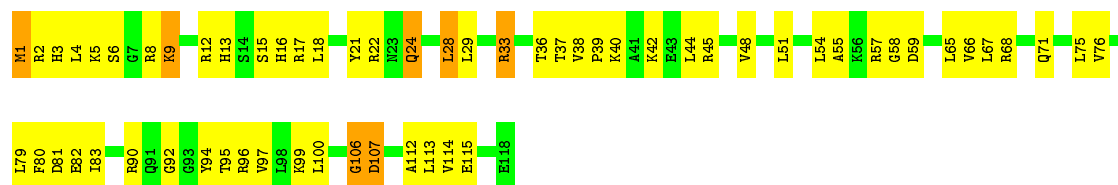
• Molecule 38: 50S ribosomal protein L16



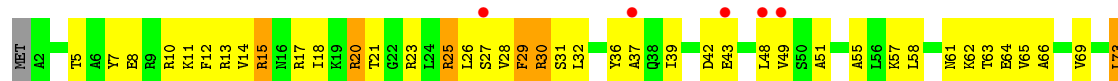
• Molecule 39: 50S ribosomal protein L17

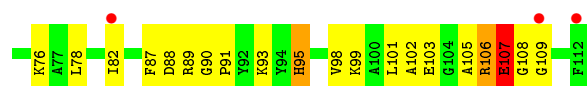


• Molecule 39: 50S ribosomal protein L17

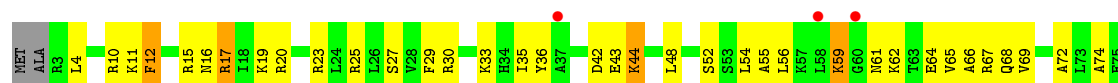


• Molecule 40: 50S ribosomal protein L18

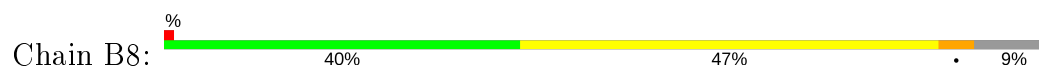




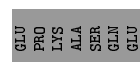
- Molecule 40: 50S ribosomal protein L18



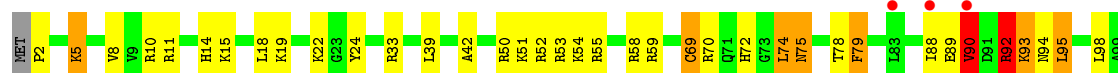
- Molecule 41: 50S ribosomal protein L19



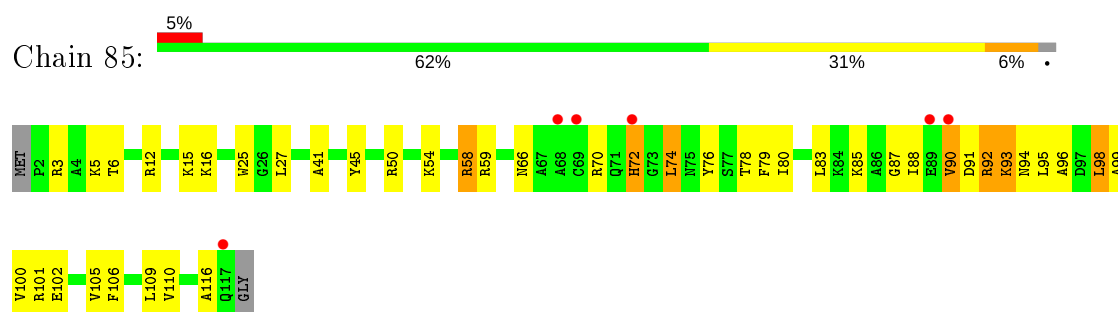
- Molecule 41: 50S ribosomal protein L19



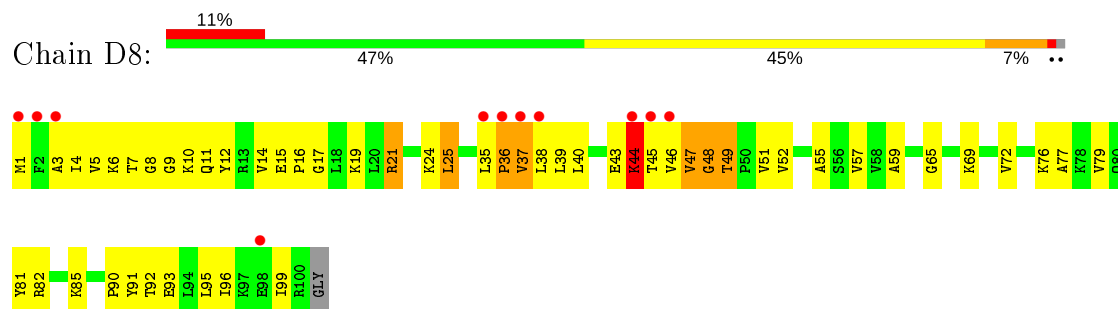
- Molecule 42: 50S ribosomal protein L20



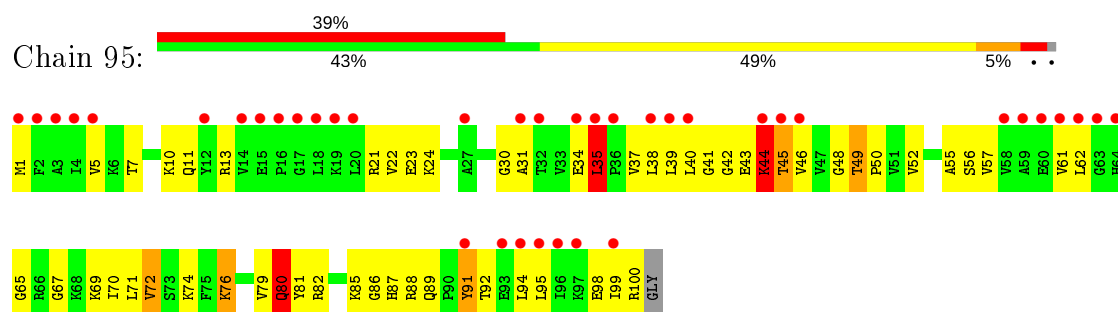
- Molecule 42: 50S ribosomal protein L20



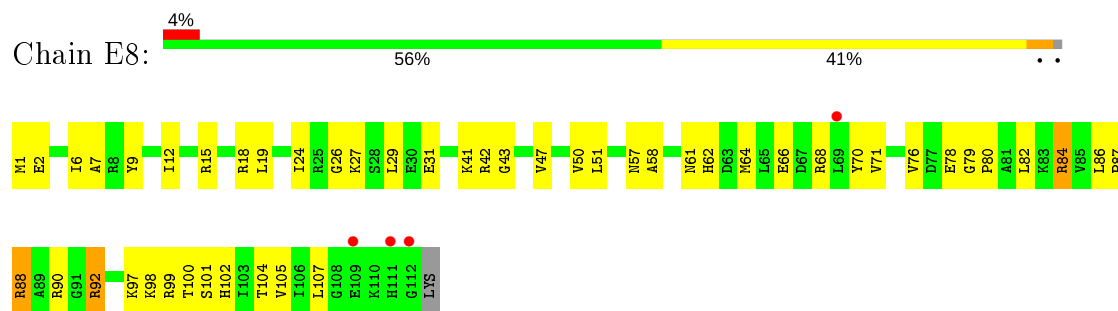
- Molecule 43: 50S ribosomal protein L21



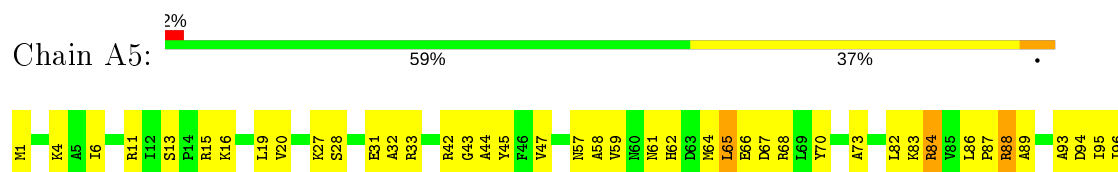
- Molecule 43: 50S ribosomal protein L21



- Molecule 44: 50S ribosomal protein L22

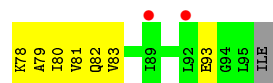


- Molecule 44: 50S ribosomal protein L22

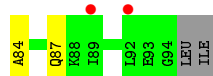
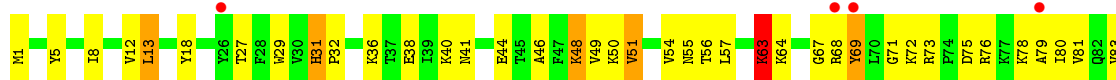




- Molecule 45: 50S ribosomal protein L23



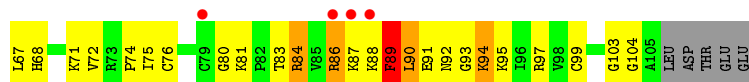
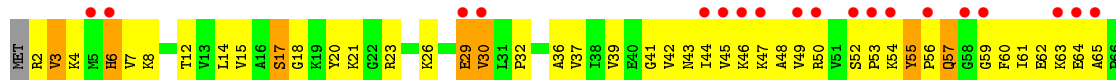
- Molecule 45: 50S ribosomal protein L23



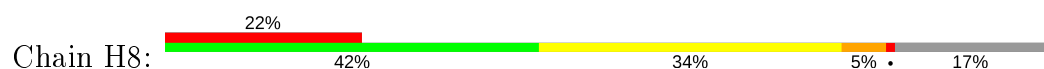
- Molecule 46: 50S ribosomal protein L24

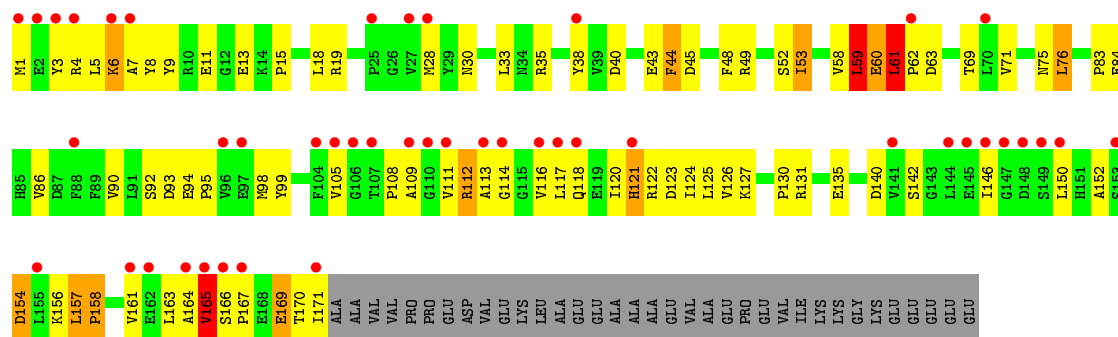


- Molecule 46: 50S ribosomal protein L24

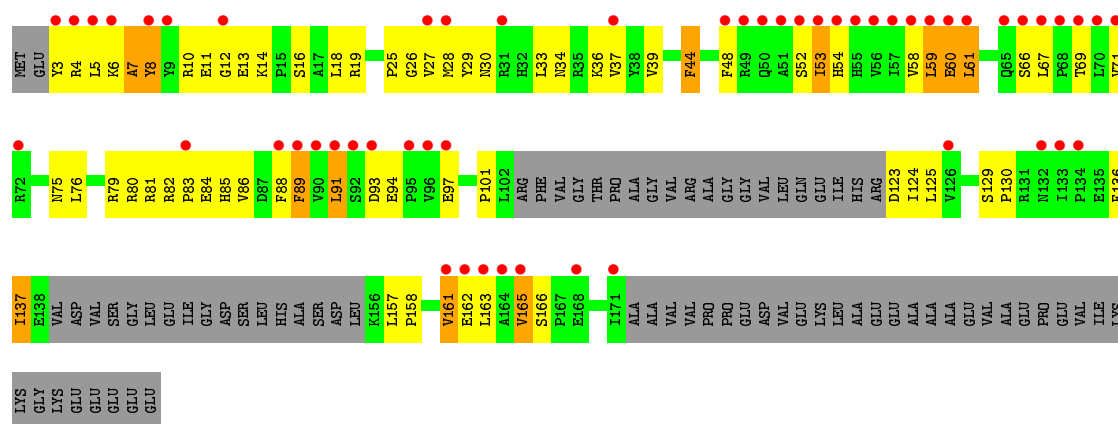
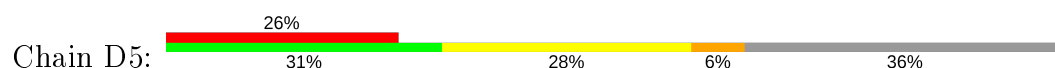


- Molecule 47: 50S ribosomal protein L25

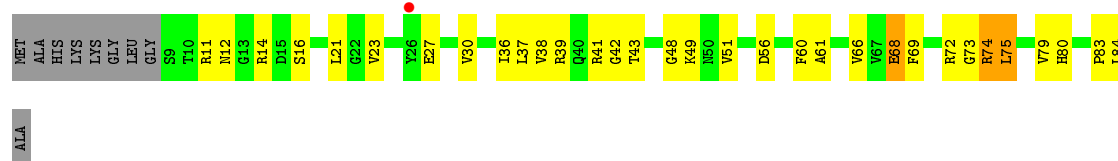




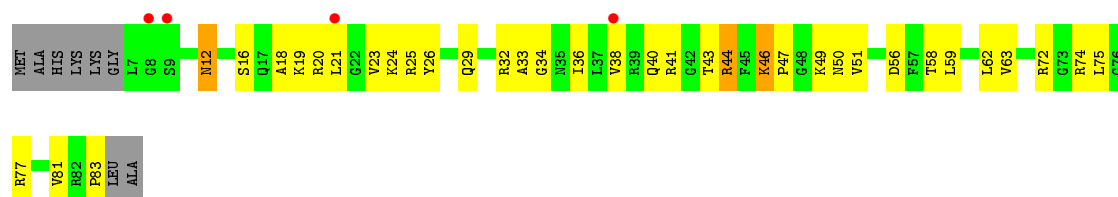
• Molecule 47: 50S ribosomal protein L25



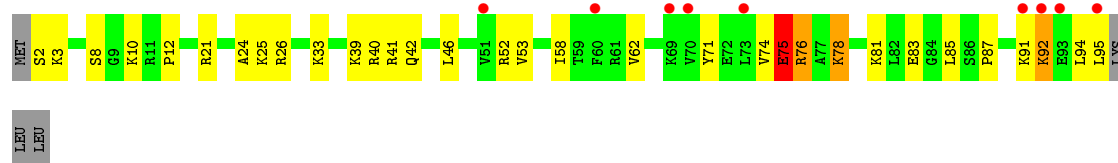
• Molecule 48: 50S ribosomal protein L27



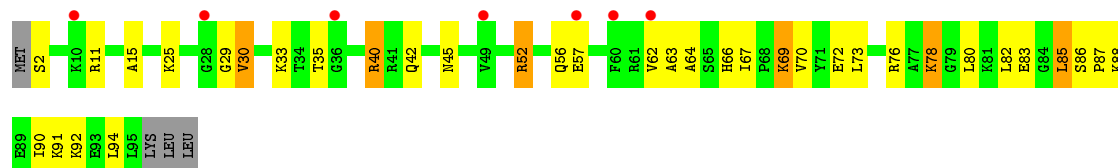
• Molecule 48: 50S ribosomal protein L27



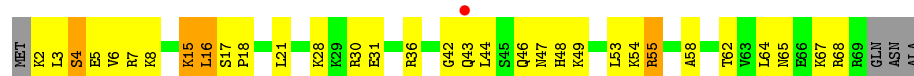
• Molecule 49: 50S ribosomal protein L28



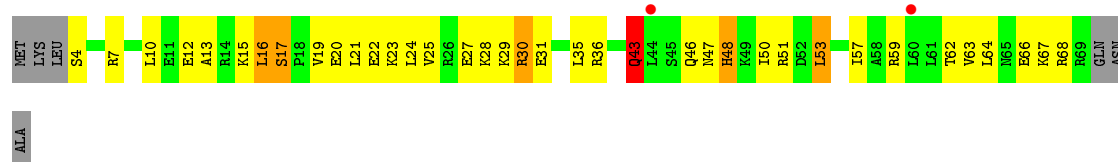
- Molecule 49: 50S ribosomal protein L28



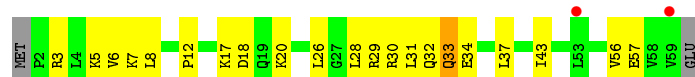
- Molecule 50: 50S ribosomal protein L29



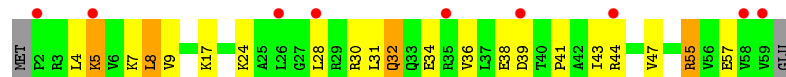
- Molecule 50: 50S ribosomal protein L29



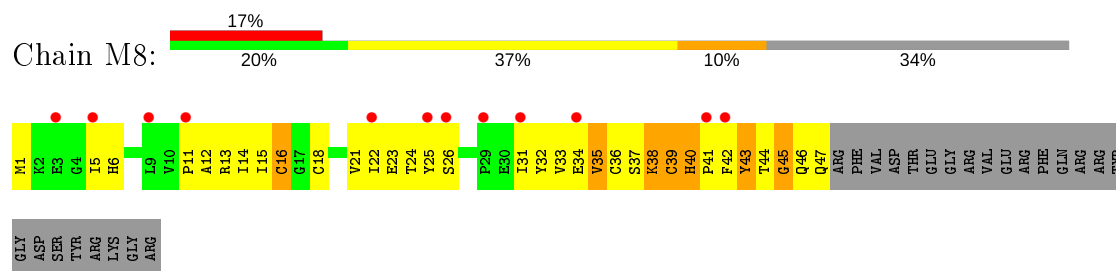
- Molecule 51: 50S ribosomal protein L30



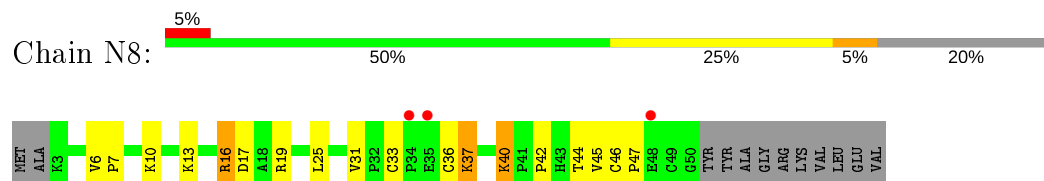
- Molecule 51: 50S ribosomal protein L30



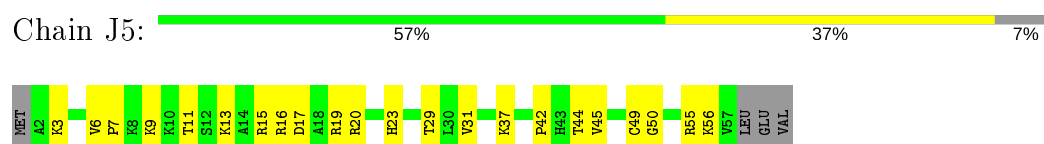
- Molecule 52: 50S ribosomal protein L31



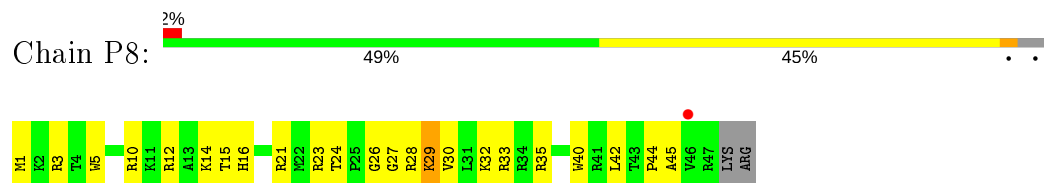
- Molecule 53: 50S ribosomal protein L32



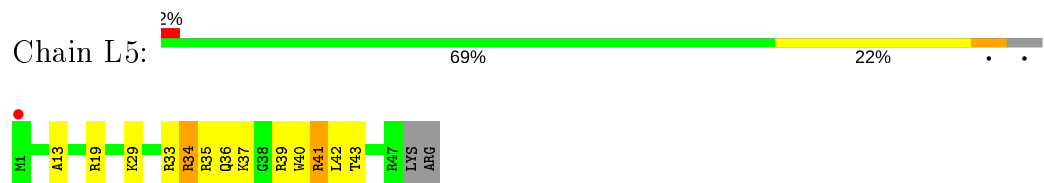
- Molecule 53: 50S ribosomal protein L32



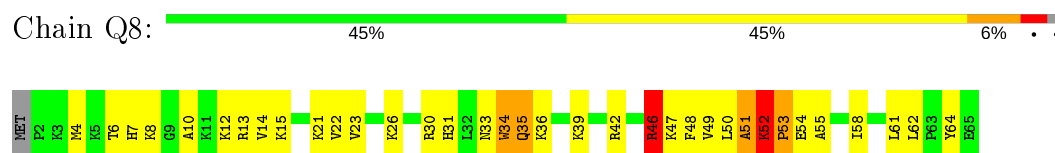
- Molecule 54: 50S ribosomal protein L34



- Molecule 54: 50S ribosomal protein L34

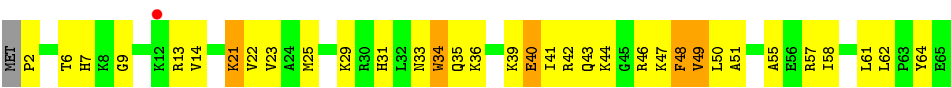


- Molecule 55: 50S ribosomal protein L35



- Molecule 55: 50S ribosomal protein L35





● Molecule 56: tRNA^{Lys}



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	209.70 Å 449.50 Å 620.30 Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	152.17 – 3.15 152.17 – 3.15	Depositor EDS
% Data completeness (in resolution range)	99.9 (152.17-3.15) 91.9 (152.17-3.15)	Depositor EDS
R_{merge}	0.30	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	0.83 (at 3.13 Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.192 , 0.247 0.194 , 0.249	Depositor DCC
R_{free} test set	2000 reflections (0.20%)	wwPDB-VP
Wilson B-factor (Å ²)	80.1	Xtriage
Anisotropy	0.356	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.25 , 63.9	EDS
L-test for twinning ²	$\langle L \rangle = 0.44$, $\langle L^2 \rangle = 0.26$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.94	EDS
Total number of atoms	296184	wwPDB-VP
Average B, all atoms (Å ²)	102.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.43% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: 5MU, OMC, PAR, U8U, 4SU, G7M, SF4, MG, ZN, T6A, PSU

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	0.67	2/35994 (0.0%)	1.31	276/56171 (0.5%)
1	1G	0.58	0/36231	1.17	128/56544 (0.2%)
2	12	0.39	0/1752	0.71	0/2360
2	1E	0.46	1/1908 (0.1%)	0.69	3/2573 (0.1%)
3	22	0.39	0/1564	0.62	0/2109
3	2E	0.51	2/1629 (0.1%)	0.64	1/2195 (0.0%)
4	32	0.50	1/1732 (0.1%)	0.70	3/2318 (0.1%)
4	3E	0.54	2/1720 (0.1%)	0.69	0/2305
5	42	0.44	0/1150	0.66	1/1548 (0.1%)
5	4E	0.47	0/1158	0.68	1/1559 (0.1%)
6	52	0.52	0/855	0.66	1/1154 (0.1%)
6	5E	0.48	0/850	0.68	1/1147 (0.1%)
7	62	0.50	0/1127	0.67	0/1507
7	6E	0.39	0/1259	0.57	0/1686
8	72	0.36	0/1127	0.57	0/1517
8	7E	0.45	0/1135	0.72	2/1527 (0.1%)
9	82	0.37	0/971	0.71	0/1304
9	8E	0.42	0/1019	0.66	0/1367
10	1A	0.66	1/658 (0.2%)	0.63	0/885
10	1I	0.47	0/747	0.68	1/1006 (0.1%)
11	2A	0.38	0/850	0.58	0/1150
11	2I	0.40	0/838	0.62	0/1133
12	3A	0.44	0/972	0.70	0/1301
12	3I	0.55	0/972	0.78	1/1301 (0.1%)
13	4A	0.40	0/903	0.68	1/1211 (0.1%)
13	4I	0.49	0/952	0.67	0/1277
14	5A	0.40	0/495	0.71	1/657 (0.2%)
14	5I	0.45	0/500	0.73	1/664 (0.2%)
15	6A	0.42	0/744	0.58	0/992
15	6I	0.41	0/740	0.60	0/987
16	7A	0.48	1/721 (0.1%)	0.66	0/970
16	7I	0.44	0/716	0.69	0/963

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	8A	0.41	0/836	0.59	0/1117
17	8I	0.48	2/847 (0.2%)	0.68	1/1131 (0.1%)
18	9A	0.44	0/549	0.63	0/732
18	9I	0.42	0/554	0.69	1/739 (0.1%)
19	AA	0.43	0/490	0.69	0/662
19	AI	0.49	0/668	0.73	0/899
20	BA	0.37	0/764	0.69	1/1007 (0.1%)
20	BI	0.40	0/748	0.76	1/986 (0.1%)
21	1B	0.44	0/192	0.63	0/252
21	1F	0.45	0/203	0.66	0/266
22	1K	0.58	0/1516	1.24	17/2350 (0.7%)
22	1L	0.48	0/1613	1.08	10/2504 (0.4%)
23	2K	0.74	0/1721	1.38	13/2682 (0.5%)
23	2L	0.63	0/1721	1.22	8/2682 (0.3%)
24	3K	0.49	0/1777	1.21	15/2767 (0.5%)
25	4K	0.77	0/495	1.38	6/771 (0.8%)
25	4L	0.69	0/470	1.27	2/732 (0.3%)
26	14	0.79	24/69023 (0.0%)	1.44	778/107740 (0.7%)
26	1H	0.88	50/68351 (0.1%)	1.58	1425/106700 (1.3%)
27	16	0.72	0/2928	1.46	42/4568 (0.9%)
27	1J	0.63	0/2928	1.30	18/4568 (0.4%)
28	71	0.34	0/1055	0.63	0/1425
28	79	0.31	0/459	0.57	0/608
29	11	0.75	6/2170 (0.3%)	0.93	4/2926 (0.1%)
29	19	0.58	0/2175	0.84	4/2933 (0.1%)
30	21	0.54	0/1591	0.86	2/2146 (0.1%)
30	29	0.68	5/1596 (0.3%)	1.00	7/2153 (0.3%)
31	31	0.55	0/1620	0.79	0/2194
31	39	0.48	0/1637	0.78	2/2218 (0.1%)
32	41	0.43	0/1481	0.74	1/1994 (0.1%)
32	49	0.53	3/1482 (0.2%)	0.72	1/1994 (0.1%)
33	51	0.56	1/1337 (0.1%)	0.85	4/1809 (0.2%)
33	59	0.50	1/582 (0.2%)	0.77	1/783 (0.1%)
34	61	0.42	0/1151	0.77	2/1558 (0.1%)
34	69	0.49	1/1146 (0.1%)	0.76	3/1551 (0.2%)
35	15	0.40	0/1131	0.65	1/1525 (0.1%)
35	58	0.49	1/1131 (0.1%)	0.73	1/1525 (0.1%)
36	25	0.56	2/942 (0.2%)	0.72	1/1269 (0.1%)
36	68	0.48	0/942	0.72	0/1269
37	35	0.61	1/1139 (0.1%)	0.90	1/1514 (0.1%)
37	78	0.54	0/1139	0.89	4/1514 (0.3%)
38	45	0.72	4/1120 (0.4%)	0.84	1/1498 (0.1%)
38	88	0.72	2/1134 (0.2%)	0.90	0/1519

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
39	55	0.50	0/981	0.80	1/1312 (0.1%)
39	98	0.45	0/981	0.80	1/1312 (0.1%)
40	65	0.49	0/886	0.83	2/1180 (0.2%)
40	A8	0.56	0/884	0.76	0/1178
41	75	0.61	3/1123 (0.3%)	0.72	0/1500
41	B8	0.62	2/1123 (0.2%)	0.76	1/1500 (0.1%)
42	85	0.49	0/977	0.70	0/1301
42	C8	0.55	1/968 (0.1%)	0.76	1/1289 (0.1%)
43	95	0.57	0/785	0.85	2/1052 (0.2%)
43	D8	0.52	0/785	0.81	2/1052 (0.2%)
44	A5	0.56	0/910	0.73	0/1220
44	E8	0.51	0/901	0.77	0/1209
45	B5	0.55	0/749	0.77	1/1007 (0.1%)
45	F8	0.60	0/757	0.81	2/1017 (0.2%)
46	C5	0.51	0/807	0.89	2/1076 (0.2%)
46	G8	0.68	2/809 (0.2%)	1.05	4/1080 (0.4%)
47	D5	0.49	0/1098	0.75	0/1487
47	H8	0.46	0/1403	0.75	2/1901 (0.1%)
48	E5	0.50	0/616	0.77	0/821
48	I8	0.75	2/614 (0.3%)	0.86	1/819 (0.1%)
49	F5	0.52	0/744	0.81	0/989
49	J8	0.59	0/744	0.83	1/989 (0.1%)
50	G5	0.52	0/560	0.75	0/741
50	K8	0.84	4/570 (0.7%)	0.86	0/755
51	H5	0.42	0/464	0.65	1/623 (0.2%)
51	L8	0.53	0/464	0.73	0/623
52	M8	0.41	0/375	0.86	2/507 (0.4%)
53	J5	0.49	0/448	0.70	0/606
53	N8	0.59	0/381	0.77	0/516
54	L5	0.54	0/409	0.84	1/540 (0.2%)
54	P8	0.62	0/409	0.88	0/540
55	M5	0.66	1/524 (0.2%)	0.81	1/691 (0.1%)
55	Q8	0.56	0/524	1.02	2/691 (0.3%)
56	3L	0.54	0/1729	1.28	17/2690 (0.6%)
All	All	0.70	128/317045 (0.0%)	1.28	2847/474982 (0.6%)

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	5

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	1E	0	4
4	32	0	3
4	3E	0	1
8	7E	0	1
9	82	0	1
9	8E	0	2
10	1A	0	1
11	2A	0	1
11	2I	0	1
12	3I	0	4
13	4A	0	3
13	4I	0	2
14	5A	0	3
14	5I	0	1
16	7I	0	2
18	9I	0	1
19	AA	0	1
19	AI	0	3
20	BA	0	3
20	BI	0	1
29	11	0	7
29	19	0	5
30	21	0	8
30	29	0	7
31	31	0	2
31	39	0	8
32	41	0	1
32	49	0	6
33	51	0	5
33	59	0	5
34	61	0	4
34	69	0	3
35	58	0	2
37	35	0	4
37	78	0	4
38	45	0	4
39	55	0	1
40	65	0	1
40	A8	0	1
41	75	0	1
42	85	0	4
42	C8	0	4

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Mol	Chain	#Chirality outliers	#Planarity outliers
43	95	0	3
43	D8	0	3
44	A5	0	1
45	F8	0	1
46	C5	0	3
46	G8	0	4
47	D5	0	1
47	H8	0	4
49	F5	0	1
49	J8	0	1
50	G5	0	4
50	K8	0	3
52	M8	0	4
54	P8	0	1
55	M5	0	2
55	Q8	0	2
All	All	0	169

All (128) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	14	2572	A	N7-C5	24.38	1.53	1.39
26	14	2572	A	N9-C8	-21.02	1.21	1.37
26	14	2572	A	C5-C4	-18.45	1.25	1.38
26	14	2572	A	C5-C6	-15.84	1.26	1.41
26	1H	774	A	N9-C4	-12.29	1.30	1.37
10	1A	76	ASN	C-N	-11.67	1.12	1.34
26	14	2572	A	N3-C4	11.56	1.41	1.34
37	35	121	LYS	C-N	11.11	1.55	1.34
2	1E	232	PRO	C-N	10.61	1.58	1.34
32	49	153	ARG	CZ-NH2	-9.78	1.20	1.33
26	1H	2476	A	N9-C4	9.52	1.43	1.37
34	69	79	ILE	C-N	-9.51	1.16	1.34
26	1H	783	A	C5-C6	-9.42	1.32	1.41
50	K8	55	ARG	NE-CZ	-9.33	1.21	1.33
26	1H	783	A	N7-C5	-9.09	1.33	1.39
4	3E	36	ARG	C-N	-8.81	1.17	1.34
38	88	5	ARG	CZ-NH1	-8.73	1.21	1.33
26	14	2572	A	N9-C4	8.45	1.43	1.37
26	14	783	A	N9-C4	-8.36	1.32	1.37
26	1H	783	A	N9-C4	-8.33	1.32	1.37
26	14	783	A	N3-C4	-8.32	1.29	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
38	88	5	ARG	NE-CZ	-8.20	1.22	1.33
26	1H	783	A	N3-C4	-8.17	1.29	1.34
26	1H	676	A	N9-C4	-8.08	1.33	1.37
30	29	144	ARG	CZ-NH2	-7.97	1.22	1.33
26	1H	71	A	N9-C4	-7.80	1.33	1.37
26	1H	698	C	N1-C6	-7.68	1.32	1.37
50	K8	55	ARG	CZ-NH1	-7.65	1.23	1.33
38	45	10	ARG	CZ-NH2	-7.54	1.23	1.33
41	75	8	LYS	CD-CE	-7.50	1.32	1.51
33	59	53	GLU	C-N	7.30	1.50	1.34
41	B8	11	GLU	CD-OE1	-7.22	1.17	1.25
26	1H	1786	A	C5-C6	-7.20	1.34	1.41
26	14	783	A	N7-C5	-7.20	1.34	1.39
26	14	1612	C	N1-C6	-7.14	1.32	1.37
26	1H	676	A	N9-C8	7.04	1.43	1.37
46	G8	84	ARG	CG-CD	6.99	1.69	1.51
38	45	10	ARG	NE-CZ	-6.96	1.24	1.33
26	14	1616	A	N9-C4	-6.94	1.33	1.37
48	I8	68	GLU	CG-CD	6.92	1.62	1.51
26	1H	1142(A)	A	N9-C4	-6.91	1.33	1.37
26	14	2572	A	C2-N3	6.84	1.39	1.33
41	B8	11	GLU	CD-OE2	-6.79	1.18	1.25
26	1H	676	A	C5-C4	6.79	1.43	1.38
29	11	242	ARG	CZ-NH2	-6.75	1.24	1.33
26	14	74	A	N9-C4	-6.65	1.33	1.37
38	45	76	LYS	C-N	6.61	1.49	1.34
26	1H	1899	G	N9-C4	-6.56	1.32	1.38
30	29	144	ARG	NE-CZ	-6.55	1.24	1.33
26	14	774	A	N9-C4	-6.52	1.33	1.37
50	K8	55	ARG	CZ-NH2	-6.50	1.24	1.33
30	29	144	ARG	CZ-NH1	-6.46	1.24	1.33
26	1H	1614	A	N9-C4	-6.41	1.34	1.37
29	11	43	ARG	CD-NE	-6.41	1.35	1.46
26	14	528	A	N9-C4	-6.39	1.34	1.37
29	11	242	ARG	CD-NE	-6.33	1.35	1.46
26	1H	1698	A	N3-C4	-6.32	1.31	1.34
26	14	783	A	C5-C6	-6.31	1.35	1.41
26	1H	1792	G	C6-N1	-6.22	1.35	1.39
26	1H	2287	A	N9-C4	-6.21	1.34	1.37
30	29	116	VAL	CB-CG1	-6.14	1.40	1.52
26	1H	528	A	N9-C4	-6.13	1.34	1.37
41	75	8	LYS	CE-NZ	-6.10	1.33	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
16	7A	14	ASN	C-N	-6.06	1.22	1.34
3	2E	122	GLU	CD-OE1	-6.06	1.19	1.25
26	14	1899	G	N9-C4	-5.99	1.33	1.38
26	1H	245	G	N7-C5	-5.98	1.35	1.39
32	49	153	ARG	CD-NE	-5.95	1.36	1.46
29	11	242	ARG	NE-CZ	-5.93	1.25	1.33
26	1H	140	A	C5-C6	-5.87	1.35	1.41
26	1H	138	G	N9-C8	5.85	1.42	1.37
41	75	18	ASP	C-N	-5.85	1.20	1.34
36	25	5	GLN	CD-OE1	-5.85	1.11	1.24
26	14	2518	A	N9-C4	-5.82	1.34	1.37
26	1H	621	A	N9-C4	-5.78	1.34	1.37
26	1H	2451	A	C6-N1	-5.78	1.31	1.35
3	2E	122	GLU	CD-OE2	-5.73	1.19	1.25
26	1H	775	G	N9-C8	-5.69	1.33	1.37
38	45	10	ARG	CZ-NH1	-5.69	1.25	1.33
26	1H	197	A	N3-C4	-5.69	1.31	1.34
26	1H	74	A	N3-C4	-5.69	1.31	1.34
26	1H	472	A	N3-C4	-5.68	1.31	1.34
26	14	90	U	N1-C2	5.68	1.43	1.38
26	1H	1931	U	N3-C4	-5.65	1.33	1.38
30	29	144	ARG	CB-CG	5.64	1.67	1.52
26	1H	793	A	N7-C5	-5.64	1.35	1.39
48	I8	68	GLU	CB-CG	5.62	1.62	1.52
4	32	3	ARG	CZ-NH1	-5.62	1.25	1.33
26	1H	1698	A	N9-C4	-5.61	1.34	1.37
26	14	2430	A	N9-C4	-5.58	1.34	1.37
50	K8	55	ARG	CD-NE	-5.58	1.36	1.46
26	1H	1966	A	N9-C4	-5.56	1.34	1.37
32	49	153	ARG	NE-CZ	-5.54	1.25	1.33
26	1H	122	G	N9-C4	-5.54	1.33	1.38
29	11	43	ARG	NE-CZ	-5.53	1.25	1.33
26	1H	1786	A	N7-C5	-5.53	1.35	1.39
26	1H	2346	A	N3-C4	-5.51	1.31	1.34
26	1H	1899	G	N3-C4	-5.50	1.31	1.35
26	1H	2764	A	N9-C4	-5.42	1.34	1.37
1	13	1227	A	N9-C4	-5.42	1.34	1.37
26	1H	677	A	N9-C4	-5.41	1.34	1.37
26	14	2346	A	N3-C4	-5.37	1.31	1.34
42	C8	69	CYS	CB-SG	-5.37	1.73	1.81
26	1H	805	G	N7-C5	-5.36	1.36	1.39
29	11	273	ARG	CB-CG	5.36	1.67	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	14	774	A	C5-C6	-5.36	1.36	1.41
26	1H	2053	G	C5-C4	-5.33	1.34	1.38
36	25	5	GLN	CD-NE2	-5.33	1.19	1.32
26	1H	74	A	N9-C4	-5.32	1.34	1.37
26	1H	2062	A	N7-C5	5.31	1.42	1.39
35	58	97	ARG	CZ-NH2	-5.31	1.26	1.33
26	1H	1021	A	N9-C4	-5.28	1.34	1.37
26	14	821	A	N7-C5	-5.23	1.36	1.39
4	3E	80	GLU	CD-OE2	-5.19	1.20	1.25
26	1H	1899	G	C8-N7	5.19	1.34	1.30
26	14	2572	A	C6-N6	-5.17	1.29	1.33
26	1H	1950	G	C2-N3	5.16	1.36	1.32
26	1H	225	A	N9-C4	-5.14	1.34	1.37
33	51	4	ILE	CB-CG2	-5.12	1.36	1.52
26	1H	946	G	N9-C4	-5.10	1.33	1.38
26	1H	2430	A	N9-C4	-5.09	1.34	1.37
26	1H	828	U	N3-C4	-5.09	1.33	1.38
26	1H	794	G	N9-C8	-5.08	1.34	1.37
17	8I	24	GLU	CB-CG	5.04	1.61	1.52
17	8I	24	GLU	CG-CD	5.03	1.59	1.51
46	G8	84	ARG	CB-CG	5.03	1.66	1.52
55	M5	35	GLN	CG-CD	5.02	1.62	1.51
1	13	50	A	N9-C4	5.01	1.40	1.37

All (2847) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2572	A	N9-C4-C5	28.35	117.14	105.80
26	14	2572	A	C4-C5-C6	24.01	129.00	117.00
26	14	2572	A	C4-C5-N7	-20.90	100.25	110.70
26	1H	1899	G	N3-C4-N9	-19.20	114.48	126.00
26	14	2572	A	N7-C8-N9	18.60	123.10	113.80
26	14	2572	A	C8-N9-C4	-18.01	98.60	105.80
26	14	1899	G	N3-C4-N9	-17.63	115.42	126.00
26	1H	1786	A	C5-N7-C8	-17.18	95.31	103.90
26	1H	1786	A	N7-C8-N9	16.89	122.24	113.80
26	14	2572	A	N1-C6-N6	-15.71	109.18	118.60
26	1H	1786	A	N1-C6-N6	15.57	127.94	118.60
26	1H	774	A	C2-N3-C4	-15.29	102.96	110.60
26	1H	1899	G	N9-C4-C5	14.55	111.22	105.40
26	1H	1786	A	C6-C5-N7	-14.37	122.24	132.30
30	29	144	ARG	NE-CZ-NH1	-14.34	113.13	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1309	G	O5'-P-OP2	-14.34	92.80	105.70
26	1H	1899	G	N3-C2-N2	-13.84	110.22	119.90
26	1H	783	A	C2-N3-C4	-13.36	103.92	110.60
26	1H	774	A	N3-C4-C5	13.34	136.14	126.80
26	1H	140	A	C5-N7-C8	-13.28	97.26	103.90
27	16	81	G	C4-C5-N7	13.18	116.07	110.80
26	1H	676	A	C2-N3-C4	-13.06	104.07	110.60
26	1H	1786	A	C4-C5-N7	12.86	117.13	110.70
26	14	1899	G	C8-N9-C1'	12.86	143.72	127.00
26	1H	783	A	C5-N7-C8	-12.69	97.56	103.90
26	14	1786	A	N7-C8-N9	12.66	120.13	113.80
26	14	1899	G	N3-C4-C5	12.56	134.88	128.60
26	1H	1899	G	C8-N9-C1'	12.53	143.28	127.00
26	1H	687	C	O5'-P-OP1	-12.46	94.48	105.70
26	14	1332	G	C6-C5-N7	-12.46	122.92	130.40
26	1H	71	A	C2-N3-C4	-12.36	104.42	110.60
26	14	2572	A	C6-N1-C2	-12.24	111.25	118.60
26	1H	1204	A	O4'-C1'-N9	12.13	117.90	108.20
26	14	689	A	O5'-P-OP2	-11.90	94.99	105.70
23	2K	17	C	C2-N1-C1'	11.87	131.86	118.80
26	14	783	A	C2-N3-C4	-11.80	104.70	110.60
26	1H	828	U	C5-C4-O4	11.78	132.97	125.90
26	1H	2430	A	C2-N3-C4	-11.77	104.72	110.60
26	14	774	A	C2-N3-C4	-11.71	104.75	110.60
26	1H	1931	U	N3-C2-O2	-11.70	114.01	122.20
26	1H	2287	A	C2-N3-C4	-11.69	104.75	110.60
26	1H	140	A	N7-C8-N9	11.69	119.64	113.80
26	1H	774	A	N3-C4-N9	-11.68	118.06	127.40
26	14	783	A	C5-N7-C8	-11.66	98.07	103.90
26	1H	676	A	C5-N7-C8	-11.61	98.09	103.90
26	14	2430	A	C2-N3-C4	-11.57	104.81	110.60
26	1H	49	A	O5'-P-OP2	-11.51	95.34	105.70
26	1H	2430	A	N1-C6-N6	11.42	125.45	118.60
26	1H	1899	G	N3-C4-C5	11.40	134.30	128.60
26	1H	140	A	C4-C5-N7	11.35	116.37	110.70
26	1H	1332	G	C2-N3-C4	-11.35	106.23	111.90
26	1H	783	A	C6-C5-N7	-11.29	124.39	132.30
26	14	2572	A	C2-N3-C4	-11.28	104.96	110.60
26	14	1899	G	C4-N9-C1'	-11.26	111.86	126.50
26	14	1786	A	C5-N7-C8	-11.18	98.31	103.90
27	16	81	G	C6-C5-N7	-11.18	123.69	130.40
26	14	828	U	C5-C4-O4	11.18	132.61	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	74	A	C2-N3-C4	-11.02	105.09	110.60
26	1H	783	A	N7-C8-N9	11.00	119.30	113.80
26	1H	467	G	O5'-P-OP2	-10.93	95.86	105.70
26	14	783	A	N1-C6-N6	10.93	125.16	118.60
26	1H	774	A	C5-C6-N1	-10.82	112.29	117.70
26	1H	1496	A	N7-C8-N9	10.81	119.20	113.80
26	14	1332	G	C4-C5-N7	10.80	115.12	110.80
26	14	1496	A	N7-C8-N9	10.76	119.18	113.80
26	14	1899	G	N9-C4-C5	10.74	109.70	105.40
26	14	1332	G	C5-N7-C8	-10.73	98.94	104.30
26	1H	1950	G	N7-C8-N9	10.67	118.44	113.10
26	1H	196	A	O5'-P-OP2	-10.65	96.11	105.70
46	G8	81	LYS	C-N-CD	-10.64	97.20	120.60
32	49	153	ARG	NE-CZ-NH1	10.58	125.59	120.30
26	1H	2476	A	C8-N9-C4	-10.57	101.57	105.80
26	14	676	A	C5-N7-C8	-10.54	98.63	103.90
26	1H	74	A	C2-N3-C4	-10.51	105.35	110.60
26	1H	2346	A	N1-C2-N3	10.45	134.52	129.30
26	1H	783	A	N1-C6-N6	10.43	124.86	118.60
26	1H	1899	G	C2-N3-C4	-10.42	106.69	111.90
26	1H	140	A	N1-C6-N6	10.42	124.85	118.60
26	14	528	A	C2-N3-C4	-10.39	105.40	110.60
26	14	1332	G	N7-C8-N9	10.39	118.29	113.10
26	14	1786	A	C2-N3-C4	-10.34	105.43	110.60
1	13	117	G	N1-C6-O6	10.33	126.10	119.90
26	14	2005	A	O5'-P-OP2	-10.18	96.54	105.70
26	1H	621	A	C5-N7-C8	-10.15	98.82	103.90
26	1H	676	A	O4'-C1'-N9	10.15	116.32	108.20
26	1H	1990	C	C6-N1-C2	-10.07	116.27	120.30
26	1H	1786	A	C8-N9-C4	-10.06	101.78	105.80
26	1H	783	A	C4-C5-N7	10.05	115.73	110.70
26	1H	621	A	N1-C6-N6	10.05	124.63	118.60
26	14	783	A	C6-C5-N7	-10.04	125.27	132.30
26	1H	1899	G	C4-N9-C1'	-10.02	113.48	126.50
26	1H	783	A	C8-N9-C4	-9.98	101.81	105.80
27	16	30	C	C6-N1-C2	-9.94	116.32	120.30
26	14	676	A	N7-C8-N9	9.92	118.76	113.80
26	1H	676	A	N7-C8-N9	9.91	118.75	113.80
26	14	2572	A	N1-C2-N3	9.86	134.23	129.30
1	1G	117	G	N1-C6-O6	9.86	125.82	119.90
26	14	1786	A	C8-N9-C4	-9.86	101.86	105.80
26	1H	1694	C	C6-N1-C2	9.84	124.23	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	735	A	C8-N9-C4	9.83	109.73	105.80
26	1H	2331	G	N1-C6-O6	9.80	125.78	119.90
26	1H	2346	A	O4'-C1'-N9	9.80	116.04	108.20
1	13	555	C	C6-N1-C2	-9.77	116.39	120.30
1	13	1504	G	O5'-P-OP1	-9.73	96.94	105.70
26	14	945	A	C4-C5-N7	9.73	115.56	110.70
26	1H	1496	A	C5-N7-C8	-9.71	99.04	103.90
25	4L	12	A	O4'-C1'-N9	9.69	115.95	108.20
26	1H	120	U	C4-C5-C6	9.65	125.49	119.70
26	1H	945	A	C6-C5-N7	-9.65	125.55	132.30
26	14	1332	G	C4-N9-C1'	9.65	139.04	126.50
26	14	1496	A	C8-N9-C4	-9.63	101.95	105.80
26	14	530	G	C6-C5-N7	-9.60	124.64	130.40
26	14	746	A	O5'-P-OP2	9.55	122.17	110.70
26	1H	1786	A	C2-N3-C4	-9.54	105.83	110.60
26	1H	2311	A	N1-C2-N3	9.52	134.06	129.30
26	1H	148	C	C6-N1-C2	9.48	124.09	120.30
26	14	783	A	N7-C8-N9	9.48	118.54	113.80
26	1H	140	A	C6-C5-N7	-9.47	125.67	132.30
26	1H	774	A	O5'-P-OP2	-9.44	97.20	105.70
26	1H	1950	G	C5-N7-C8	-9.43	99.58	104.30
27	16	81	G	C5-N7-C8	-9.43	99.58	104.30
26	14	1899	G	N3-C2-N2	-9.43	113.30	119.90
26	1H	2591	C	O5'-P-OP2	-9.41	97.23	105.70
26	1H	1026	U	O4'-C1'-N1	9.41	115.73	108.20
26	1H	71	A	C5-N7-C8	-9.39	99.21	103.90
26	1H	945	A	N1-C6-N6	9.37	124.22	118.60
30	29	144	ARG	NH1-CZ-NH2	9.37	129.71	119.40
26	1H	105	C	C6-N1-C2	-9.36	116.56	120.30
26	14	2249	U	N1-C2-O2	9.35	129.35	122.80
26	1H	576	U	N3-C2-O2	-9.34	115.66	122.20
26	14	1816	G	O5'-P-OP1	-9.34	97.30	105.70
26	14	736	C	O5'-P-OP1	-9.29	97.34	105.70
26	1H	1332	G	C5-N7-C8	-9.24	99.68	104.30
26	1H	1678	G	N3-C4-C5	9.22	133.21	128.60
26	1H	1786	A	C5-C6-N6	-9.20	116.34	123.70
26	14	945	A	C5-N7-C8	-9.20	99.30	103.90
20	BI	43	LEU	CB-CG-CD1	-9.19	95.38	111.00
26	1H	2509	G	O5'-P-OP1	-9.17	97.44	105.70
26	1H	1678	G	N3-C4-N9	-9.17	120.50	126.00
26	1H	917	A	C2-N3-C4	-9.16	106.02	110.60
26	14	783	A	C4-C5-N7	9.14	115.27	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1279	A	N7-C8-N9	9.12	118.36	113.80
26	1H	1616	A	C5-N7-C8	-9.03	99.39	103.90
26	1H	694	U	O5'-P-OP2	-9.02	97.59	105.70
26	1H	2062	A	C8-N9-C4	9.00	109.40	105.80
26	1H	2430	A	C6-C5-N7	-8.98	126.01	132.30
26	1H	1489	U	C5-C4-O4	8.98	131.29	125.90
26	1H	2506	U	N1-C2-O2	8.98	129.09	122.80
26	1H	2713	A	C2-N3-C4	-8.96	106.12	110.60
26	1H	189	G	N1-C6-O6	8.96	125.28	119.90
26	1H	1496	A	C8-N9-C4	-8.94	102.23	105.80
26	14	2779	U	N3-C2-O2	-8.93	115.95	122.20
27	16	81	G	C5-C6-O6	-8.91	123.26	128.60
26	14	2441	C	O5'-P-OP1	-8.90	97.69	105.70
26	1H	2699	C	C6-N1-C2	8.88	123.85	120.30
26	1H	74	A	N1-C2-N3	8.88	133.74	129.30
26	1H	2346	A	C4-C5-C6	8.87	121.44	117.00
26	1H	2346	A	C6-C5-N7	-8.87	126.09	132.30
26	14	945	A	N1-C6-N6	8.87	123.92	118.60
26	1H	140	A	C8-N9-C4	-8.86	102.25	105.80
26	14	2873	A	N7-C8-N9	8.82	118.21	113.80
26	14	2572	A	C5-C6-N6	8.82	130.75	123.70
26	14	2572	A	N3-C4-C5	-8.81	120.63	126.80
26	1H	2584	U	N3-C2-O2	-8.79	116.05	122.20
26	14	2163	C	N1-C2-O2	8.78	124.17	118.90
26	14	2873	A	C5-N7-C8	-8.77	99.52	103.90
26	1H	1931	U	N3-C4-O4	-8.74	113.28	119.40
26	1H	621	A	C2-N3-C4	-8.72	106.24	110.60
26	1H	2490	G	C5-N7-C8	-8.71	99.95	104.30
26	14	34	C	N1-C2-O2	8.70	124.12	118.90
26	1H	1950	G	C8-N9-C4	-8.69	102.92	106.40
1	13	690	G	O4'-C1'-N9	8.69	115.15	108.20
26	14	1654	A	N1-C6-N6	-8.68	113.39	118.60
24	3K	76	A	N7-C8-N9	8.65	118.12	113.80
1	1G	1322	C	C2-N1-C1'	8.64	128.31	118.80
26	14	71	A	C5-N7-C8	-8.64	99.58	103.90
26	1H	1614	A	C2-N3-C4	-8.63	106.28	110.60
26	1H	793	A	O5'-P-OP2	-8.62	97.94	105.70
26	1H	2053	G	C5-C6-O6	-8.62	123.43	128.60
26	1H	1818	U	O5'-P-OP2	-8.61	97.95	105.70
26	1H	2600	A	N1-C6-N6	-8.57	113.46	118.60
26	1H	2713	A	C5-N7-C8	-8.57	99.62	103.90
46	G8	84	ARG	NE-CZ-NH1	8.56	124.58	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	256	A	N1-C6-N6	8.55	123.73	118.60
26	14	1332	G	N1-C6-O6	8.55	125.03	119.90
26	1H	1313	U	C5-C6-N1	8.55	126.97	122.70
26	1H	1623	G	N1-C6-O6	-8.55	114.77	119.90
26	1H	1931	U	C5-C4-O4	8.52	131.01	125.90
26	1H	1408	C	N1-C2-O2	-8.51	113.79	118.90
26	1H	676	A	N3-C4-C5	8.50	132.75	126.80
26	1H	1769	G	O5'-P-OP2	-8.50	98.05	105.70
1	13	963	G	N1-C2-N2	-8.49	108.56	116.20
26	14	140	A	N7-C8-N9	8.47	118.04	113.80
27	16	81	G	N3-C4-N9	8.46	131.08	126.00
1	13	328	C	C2-N1-C1'	8.46	128.10	118.80
26	1H	767	U	O5'-P-OP2	-8.46	98.09	105.70
26	1H	1781	C	C6-N1-C2	8.45	123.68	120.30
26	1H	789	A	O5'-P-OP1	-8.45	98.10	105.70
26	1H	621	A	C4-C5-N7	8.44	114.92	110.70
26	14	1570	A	N1-C6-N6	8.44	123.66	118.60
26	1H	1698	A	C2-N3-C4	-8.43	106.38	110.60
26	1H	148	C	C5-C6-N1	-8.43	116.78	121.00
23	2K	17	C	C6-N1-C1'	-8.42	110.69	120.80
27	16	81	G	C4-N9-C1'	8.42	137.45	126.50
26	14	1899	G	C6-C5-N7	8.42	135.45	130.40
26	14	2068	U	N1-C2-N3	-8.41	109.85	114.90
26	1H	835	A	C2-N3-C4	8.41	114.80	110.60
1	13	1195	C	C6-N1-C2	-8.39	116.95	120.30
26	1H	1336	A	N1-C6-N6	-8.39	113.57	118.60
1	13	977	A	N1-C6-N6	-8.38	113.57	118.60
26	1H	678	C	C5-C6-N1	-8.38	116.81	121.00
1	1G	117	G	C6-C5-N7	-8.37	125.38	130.40
26	1H	2392	A	C5-N7-C8	-8.37	99.72	103.90
26	14	1367	A	N1-C6-N6	8.36	123.61	118.60
26	1H	845	G	C4-N9-C1'	-8.34	115.65	126.50
24	3K	76	A	C5-N7-C8	-8.34	99.73	103.90
26	14	783	A	C8-N9-C4	-8.33	102.47	105.80
26	14	140	A	N1-C6-N6	8.32	123.59	118.60
26	1H	1626	G	O5'-P-OP2	8.31	120.67	110.70
26	1H	245	G	C6-C5-N7	-8.31	125.41	130.40
26	1H	729	G	C8-N9-C4	-8.29	103.08	106.40
26	14	2430	A	N1-C2-N3	8.29	133.45	129.30
26	14	2518	A	N1-C6-N6	8.29	123.57	118.60
26	1H	1021	A	C2-N3-C4	-8.29	106.46	110.60
26	14	1950	G	N7-C8-N9	8.27	117.23	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1759	A	O5'-P-OP1	-8.27	98.26	105.70
26	1H	2374	C	C6-N1-C2	8.26	123.60	120.30
26	14	1332	G	C8-N9-C1'	-8.25	116.27	127.00
27	16	81	G	N7-C8-N9	8.25	117.22	113.10
26	14	2060	A	O5'-P-OP2	-8.24	98.28	105.70
26	14	74	A	C5-N7-C8	-8.23	99.78	103.90
26	1H	613	U	C5-C4-O4	8.23	130.84	125.90
26	14	1602	U	O5'-P-OP2	8.22	120.56	110.70
26	14	687	C	O5'-P-OP1	-8.21	98.31	105.70
26	1H	698	C	C6-N1-C2	8.21	123.58	120.30
26	14	2307	G	O4'-C1'-N9	8.19	114.75	108.20
26	14	2401	U	C5-C6-N1	8.19	126.79	122.70
40	65	110	LEU	CA-CB-CG	8.18	134.12	115.30
26	14	2307	G	C4-N9-C1'	8.18	137.13	126.50
27	1J	30	C	C6-N1-C2	-8.18	117.03	120.30
26	1H	1013	C	N1-C2-O2	-8.17	114.00	118.90
26	1H	252	G	O5'-P-OP1	8.16	120.49	110.70
1	1G	254	G	O5'-P-OP1	-8.16	98.36	105.70
26	14	1616	A	C5-N7-C8	-8.14	99.83	103.90
26	1H	2392	A	N7-C8-N9	8.13	117.86	113.80
26	14	2446	G	O5'-P-OP2	-8.13	98.39	105.70
26	1H	801	G	O5'-P-OP2	-8.12	98.39	105.70
26	1H	1616	A	N7-C8-N9	8.12	117.86	113.80
26	1H	1829	A	O5'-P-OP1	-8.11	98.40	105.70
26	1H	1678	G	N3-C2-N2	-8.10	114.23	119.90
26	1H	2311	A	O4'-C1'-N9	8.08	114.67	108.20
26	1H	859	G	N3-C4-C5	8.08	132.64	128.60
1	13	1502	A	C5-N7-C8	-8.07	99.86	103.90
26	1H	2346	A	C4-N9-C1'	8.07	140.84	126.30
30	29	144	ARG	NE-CZ-NH2	-8.07	116.26	120.30
26	14	1661	G	C8-N9-C4	8.06	109.62	106.40
26	14	1142	U	C2-N1-C1'	8.05	127.36	117.70
26	14	489	G	C4-C5-N7	8.05	114.02	110.80
26	1H	1695	G	N3-C4-N9	8.03	130.82	126.00
22	1L	74	C	N1-C2-O2	8.03	123.72	118.90
26	14	1496	A	C5-N7-C8	-8.03	99.89	103.90
26	1H	516	C	C6-N1-C2	-8.02	117.09	120.30
26	14	2163	C	C2-N1-C1'	8.02	127.62	118.80
26	1H	658	C	O5'-P-OP2	-8.02	98.48	105.70
1	1G	1449	C	C2-N1-C1'	8.01	127.61	118.80
26	14	388	G	N3-C4-N9	-8.01	121.20	126.00
26	14	1142	U	N1-C2-O2	8.00	128.40	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1332	G	N1-C6-O6	7.99	124.70	119.90
26	14	1506	C	C6-N1-C2	-7.99	117.10	120.30
26	1H	1314	C	N3-C2-O2	-7.99	116.31	121.90
1	13	656	C	C5-C6-N1	7.98	124.99	121.00
1	13	690	G	C6-C5-N7	-7.97	125.61	130.40
26	14	1407	C	C5-C6-N1	7.97	124.99	121.00
26	14	1786	A	C6-C5-N7	-7.97	126.72	132.30
26	14	2003	G	O5'-P-OP1	-7.97	98.53	105.70
26	1H	1021	A	C5-N7-C8	-7.97	99.92	103.90
26	1H	74	A	N7-C8-N9	7.97	117.78	113.80
1	13	974	A	O4'-C1'-N9	7.96	114.57	108.20
1	13	773	G	O5'-P-OP2	-7.96	98.53	105.70
26	1H	860	U	C2-N1-C1'	7.96	127.25	117.70
47	H8	61	LEU	CA-CB-CG	7.95	133.59	115.30
26	14	1304	C	N1-C2-O2	7.95	123.67	118.90
26	1H	1990	C	N3-C2-O2	-7.95	116.33	121.90
26	1H	1989	G	N1-C6-O6	7.95	124.67	119.90
26	1H	1617	C	O5'-P-OP1	-7.94	98.55	105.70
26	1H	2331	G	C2-N3-C4	-7.94	107.93	111.90
26	1H	863	A	O5'-P-OP2	-7.94	98.56	105.70
26	14	396	G	N1-C6-O6	7.94	124.66	119.90
26	1H	2438	U	O5'-P-OP2	-7.93	98.56	105.70
26	1H	1269	A	C2-N3-C4	-7.93	106.64	110.60
26	1H	74	A	C8-N9-C4	-7.93	102.63	105.80
26	1H	788	A	N9-C4-C5	-7.92	102.63	105.80
1	13	974	A	N1-C6-N6	7.92	123.35	118.60
26	1H	1332	G	C4-C5-N7	7.92	113.97	110.80
26	14	2438	U	O5'-P-OP2	-7.92	98.58	105.70
26	1H	676	A	N3-C4-N9	-7.91	121.07	127.40
1	13	1279	A	C8-N9-C4	-7.91	102.64	105.80
26	1H	1899	G	C8-N9-C4	-7.91	103.24	106.40
26	14	988	A	N1-C6-N6	7.90	123.34	118.60
26	1H	1901	A	C8-N9-C4	-7.90	102.64	105.80
26	14	140	A	C5-N7-C8	-7.90	99.95	103.90
26	14	1614	A	C2-N3-C4	-7.90	106.65	110.60
26	1H	409	C	C6-N1-C2	7.89	123.46	120.30
26	1H	586	A	O5'-P-OP1	-7.89	98.60	105.70
26	1H	966	G	N1-C6-O6	-7.89	115.17	119.90
26	1H	1204	A	N1-C2-N3	7.88	133.24	129.30
26	1H	2287	A	N1-C2-N3	7.88	133.24	129.30
26	14	1678	G	C5-N7-C8	-7.88	100.36	104.30
26	1H	973	A	C2-N3-C4	-7.87	106.67	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2335	A	O4'-C1'-N9	7.86	114.49	108.20
26	1H	729	G	C4-C5-N7	7.85	113.94	110.80
25	4K	19	A	N1-C6-N6	7.85	123.31	118.60
23	2K	17	C	C5-C6-N1	7.84	124.92	121.00
1	13	1260	C	C6-N1-C2	-7.84	117.16	120.30
26	1H	1786	A	C4-N9-C1'	7.84	140.41	126.30
26	1H	774	A	N1-C6-N6	7.84	123.30	118.60
26	14	2490	G	C8-N9-C4	-7.84	103.27	106.40
26	1H	845	G	C8-N9-C1'	7.83	137.18	127.00
26	1H	1950	G	C4-C5-N7	7.83	113.93	110.80
26	1H	2585	U	N1-C2-O2	7.82	128.28	122.80
26	1H	913	U	O5'-P-OP2	-7.82	98.66	105.70
26	14	2688	U	N3-C2-O2	-7.82	116.73	122.20
26	1H	2700	C	N3-C4-C5	7.82	125.03	121.90
26	1H	48	G	OP2-P-O3'	7.81	122.39	105.20
26	1H	1691	C	C6-N1-C2	-7.81	117.18	120.30
30	29	61	ARG	C-N-CD	-7.80	103.44	120.60
46	G8	81	LYS	C-N-CA	7.79	154.73	122.00
26	1H	859	G	N3-C4-N9	-7.79	121.33	126.00
26	1H	2618	G	C8-N9-C4	-7.79	103.28	106.40
26	1H	1332	G	N3-C4-C5	7.78	132.49	128.60
26	1H	1528	A	C8-N9-C4	-7.78	102.69	105.80
1	13	1158	C	N1-C2-O2	7.77	123.56	118.90
26	14	2873	A	C2-N3-C4	-7.77	106.71	110.60
34	69	77	LEU	CA-CB-CG	7.77	133.17	115.30
26	1H	729	G	N7-C8-N9	7.77	116.98	113.10
26	14	489	G	C6-C5-N7	-7.76	125.74	130.40
26	14	49	A	P-O3'-C3'	7.75	129.00	119.70
26	14	1614	A	N1-C2-N3	7.75	133.17	129.30
26	1H	793	A	N1-C6-N6	7.75	123.25	118.60
26	1H	774	A	C6-N1-C2	7.74	123.25	118.60
26	1H	1704	G	N1-C6-O6	7.74	124.55	119.90
1	13	963	G	N3-C4-N9	7.73	130.64	126.00
26	14	676	A	O4'-C1'-N9	7.72	114.38	108.20
26	1H	2391	G	O5'-P-OP1	-7.72	98.75	105.70
26	1H	1681	G	N3-C4-C5	7.71	132.46	128.60
26	14	330	A	C2-N3-C4	-7.71	106.75	110.60
26	14	2249	U	N3-C2-O2	-7.70	116.81	122.20
26	1H	845	G	N3-C4-C5	7.69	132.45	128.60
26	1H	945	A	C4-C5-C6	7.69	120.85	117.00
26	1H	842	G	N1-C6-O6	7.69	124.51	119.90
26	1H	383	U	C2-N1-C1'	-7.69	108.47	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2331	G	C6-C5-N7	-7.68	125.79	130.40
26	1H	1203	G	N3-C4-C5	-7.68	124.76	128.60
26	14	775	G	O4'-C1'-N9	7.66	114.33	108.20
26	1H	2265	U	O5'-P-OP1	-7.65	98.81	105.70
26	1H	2490	G	C4-C5-N7	7.65	113.86	110.80
26	14	155	C	N1-C2-O2	7.65	123.49	118.90
1	13	2	U	C2-N1-C1'	7.64	126.87	117.70
26	1H	918	A	O5'-P-OP1	-7.64	98.82	105.70
26	14	2502	G	O5'-P-OP1	-7.64	98.82	105.70
26	1H	134	C	C5-C6-N1	-7.64	117.18	121.00
26	1H	1109	C	N1-C2-O2	7.63	123.48	118.90
26	1H	2331	G	C4-C5-N7	7.63	113.85	110.80
1	1G	890	G	O4'-C1'-N9	7.62	114.30	108.20
26	1H	140	A	C5-C6-N6	-7.62	117.60	123.70
26	14	2700	C	C6-N1-C2	7.62	123.35	120.30
26	14	2779	U	N1-C2-O2	7.61	128.12	122.80
1	13	1214	C	C6-N1-C2	7.60	123.34	120.30
26	1H	2713	A	N1-C6-N6	7.60	123.16	118.60
26	14	1698	A	N1-C6-N6	7.59	123.16	118.60
26	1H	263	C	O5'-P-OP2	-7.59	98.87	105.70
26	1H	835	A	C5-C6-N1	7.58	121.49	117.70
26	14	530	G	C4-C5-N7	7.58	113.83	110.80
26	14	836	G	C4-C5-N7	7.58	113.83	110.80
26	1H	2830	G	C8-N9-C4	-7.58	103.37	106.40
26	1H	1899	G	N1-C2-N3	7.57	128.44	123.90
26	1H	2346	A	N1-C6-N6	7.57	123.14	118.60
26	1H	138	G	N7-C8-N9	7.57	116.88	113.10
26	1H	698	C	C5-C6-N1	-7.57	117.22	121.00
26	1H	729	G	C5-N7-C8	-7.56	100.52	104.30
1	13	1502	A	C6-C5-N7	-7.56	127.01	132.30
26	1H	1464	C	C6-N1-C2	-7.56	117.28	120.30
26	1H	2504	U	N1-C2-O2	7.55	128.09	122.80
26	14	2822	G	O5'-P-OP2	-7.54	98.91	105.70
26	1H	1281	G	N1-C6-O6	7.54	124.42	119.90
26	1H	2394	C	O5'-P-OP2	-7.53	98.92	105.70
26	1H	1332	G	C6-C5-N7	-7.53	125.89	130.40
26	1H	613	U	N3-C2-O2	-7.52	116.93	122.20
26	14	2163	C	C6-N1-C2	-7.52	117.29	120.30
26	14	675	A	N9-C4-C5	-7.51	102.80	105.80
26	1H	62	C	C6-N1-C2	7.51	123.30	120.30
26	14	782	A	O5'-P-OP1	-7.51	98.94	105.70
26	1H	1899	G	C6-C5-N7	7.51	134.90	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2258	C	O5'-P-OP1	-7.50	98.95	105.70
26	14	2490	G	N7-C8-N9	7.50	116.85	113.10
26	1H	1309	G	O5'-P-OP1	7.50	119.70	110.70
26	1H	609	A	N1-C6-N6	7.49	123.10	118.60
1	1G	529	G	N1-C6-O6	7.49	124.39	119.90
6	52	77	ARG	NE-CZ-NH1	7.49	124.05	120.30
26	14	74	A	C5-C6-N1	-7.49	113.96	117.70
1	13	1502	A	C4-C5-N7	7.48	114.44	110.70
26	1H	2346	A	N7-C8-N9	7.48	117.54	113.80
26	1H	664	C	C5-C6-N1	-7.48	117.26	121.00
26	1H	688	U	O5'-P-OP2	-7.48	98.97	105.70
26	1H	134	C	N3-C2-O2	-7.48	116.67	121.90
26	1H	735	A	N7-C8-N9	-7.48	110.06	113.80
26	1H	1602	U	O5'-P-OP2	7.47	119.66	110.70
26	14	2518	A	C5-N7-C8	-7.46	100.17	103.90
26	1H	839	U	O5'-P-OP2	-7.46	98.98	105.70
26	14	1616	A	O4'-C1'-N9	7.46	114.17	108.20
1	13	715	A	O5'-P-OP2	-7.46	98.99	105.70
26	1H	120	U	N3-C2-O2	-7.46	116.98	122.20
26	14	2473	U	C2-N1-C1'	7.45	126.64	117.70
1	13	1128	C	C6-N1-C2	-7.45	117.32	120.30
26	1H	2688	U	N3-C2-O2	-7.45	116.99	122.20
26	14	510	C	O5'-P-OP2	-7.45	99.00	105.70
1	13	758	G	N1-C6-O6	7.44	124.36	119.90
26	1H	2430	A	N1-C2-N3	7.44	133.02	129.30
26	14	1899	G	C2-N3-C4	-7.43	108.18	111.90
26	1H	2403	C	C6-N1-C2	-7.43	117.33	120.30
26	1H	865	C	O5'-P-OP2	7.42	119.60	110.70
26	1H	46	C	C6-N1-C2	-7.41	117.33	120.30
26	1H	845	G	N3-C4-N9	-7.41	121.55	126.00
26	1H	2392	A	C2-N3-C4	-7.41	106.89	110.60
27	16	47	C	C6-N1-C2	7.41	123.26	120.30
26	1H	1022	G	N9-C4-C5	7.40	108.36	105.40
26	1H	330	A	C2-N3-C4	-7.40	106.90	110.60
26	1H	706	A	N1-C6-N6	7.40	123.04	118.60
26	14	468	G	O5'-P-OP2	7.40	119.58	110.70
26	1H	1614	A	C5-N7-C8	-7.39	100.20	103.90
26	1H	2573	C	N1-C2-O2	7.39	123.33	118.90
26	14	2301	C	C6-N1-C2	-7.39	117.34	120.30
26	1H	966	G	C5-C6-O6	7.38	133.03	128.60
26	1H	1528	A	N7-C8-N9	7.38	117.49	113.80
1	13	117	G	C6-C5-N7	-7.38	125.97	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1678	G	C5-N7-C8	-7.37	100.61	104.30
26	14	3	U	C2-N1-C1'	7.37	126.55	117.70
26	14	1304	C	N3-C2-O2	-7.37	116.74	121.90
26	14	2779	U	C2-N1-C1'	7.37	126.55	117.70
26	14	1992	G	P-O3'-C3'	7.37	128.54	119.70
1	13	760	G	N1-C6-O6	7.36	124.32	119.90
26	14	2873	A	C6-C5-N7	-7.36	127.15	132.30
1	13	1446	A	O4'-C1'-N9	7.36	114.09	108.20
56	3L	1	G	C2-N3-C4	7.36	115.58	111.90
26	14	1804	C	C6-N1-C2	-7.35	117.36	120.30
26	1H	138	G	C8-N9-C4	-7.35	103.46	106.40
26	1H	1496	A	N1-C6-N6	7.35	123.01	118.60
26	1H	2573	C	C2-N1-C1'	7.34	126.87	118.80
26	1H	2688	U	N3-C4-O4	-7.33	114.27	119.40
26	1H	1394	U	O5'-P-OP2	7.32	119.49	110.70
56	3L	16	U	C2-N1-C1'	7.32	126.49	117.70
26	1H	120	U	C5-C6-N1	-7.32	119.04	122.70
26	1H	970	C	C6-N1-C2	-7.32	117.37	120.30
1	1G	866	C	C6-N1-C2	-7.32	117.37	120.30
26	14	774	A	N3-C4-C5	7.32	131.92	126.80
26	14	2477	C	C6-N1-C2	-7.32	117.37	120.30
26	1H	116	C	N1-C2-O2	-7.32	114.51	118.90
26	1H	1623	G	C5-C6-O6	7.32	132.99	128.60
26	1H	2712	U	O4'-C1'-N1	7.32	114.05	108.20
1	13	4	U	C2-N1-C1'	7.31	126.47	117.70
1	13	254	G	O5'-P-OP1	-7.31	99.12	105.70
26	1H	2513	G	O5'-P-OP2	-7.31	99.12	105.70
26	14	2065	C	N3-C2-O2	-7.31	116.78	121.90
26	14	4	C	N1-C2-O2	7.30	123.28	118.90
26	14	71	A	N7-C8-N9	7.30	117.45	113.80
26	1H	2392	A	C8-N9-C4	-7.30	102.88	105.80
26	14	489	G	N9-C4-C5	-7.29	102.48	105.40
26	14	2032	G	C4-C5-N7	7.29	113.72	110.80
26	14	2062	A	C8-N9-C4	7.29	108.72	105.80
1	13	2	U	N1-C2-O2	7.29	127.90	122.80
1	13	687	A	P-O3'-C3'	7.28	128.44	119.70
26	1H	866	A	N9-C4-C5	-7.28	102.89	105.80
26	14	676	A	C8-N9-C4	-7.28	102.89	105.80
26	1H	138	G	C5-N7-C8	-7.27	100.66	104.30
26	14	2210	G	C4-N9-C1'	7.27	135.95	126.50
26	1H	788	A	N1-C6-N6	7.26	122.96	118.60
26	1H	198	C	N3-C4-C5	7.26	124.81	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	141	A	C5-N7-C8	-7.26	100.27	103.90
26	14	2001	A	N1-C6-N6	7.26	122.95	118.60
26	1H	1294	U	O5'-P-OP1	-7.25	99.17	105.70
26	1H	859	G	C4-N9-C1'	-7.25	117.07	126.50
26	1H	2275	C	OP1-P-O3'	7.25	121.16	105.20
26	1H	1401	G	C8-N9-C4	-7.25	103.50	106.40
26	1H	530	G	N1-C6-O6	-7.24	115.56	119.90
26	1H	1428	C	C6-N1-C2	7.24	123.19	120.30
26	1H	2573	C	N3-C2-O2	-7.24	116.83	121.90
2	1E	187	LEU	CA-CB-CG	7.23	131.94	115.30
26	14	791	C	N3-C4-C5	7.23	124.79	121.90
26	14	2163	C	N3-C2-O2	-7.23	116.84	121.90
26	1H	2331	G	N9-C4-C5	-7.23	102.51	105.40
26	14	1925	C	N1-C2-O2	-7.23	114.56	118.90
26	1H	1053	C	C6-N1-C2	-7.22	117.41	120.30
26	1H	1786	A	C4-C5-C6	7.22	120.61	117.00
26	1H	2355	C	C2-N1-C1'	7.22	126.74	118.80
26	14	74	A	N7-C8-N9	7.21	117.40	113.80
26	1H	189	G	C8-N9-C4	7.20	109.28	106.40
26	1H	1298	C	N1-C2-O2	7.20	123.22	118.90
26	1H	621	A	N7-C8-N9	7.19	117.39	113.80
26	1H	2036	C	O5'-P-OP2	-7.19	99.23	105.70
26	1H	2053	G	N1-C6-O6	7.19	124.21	119.90
26	1H	657	U	O5'-P-OP2	-7.19	99.23	105.70
26	14	679	C	C6-N1-C2	7.19	123.18	120.30
26	14	570	G	C6-C5-N7	-7.19	126.09	130.40
1	13	1502	A	N1-C6-N6	7.18	122.91	118.60
26	14	2430	A	C5-C6-N1	-7.18	114.11	117.70
26	1H	663	G	N3-C4-C5	-7.17	125.01	128.60
23	2K	17	C	C6-N1-C2	-7.17	117.43	120.30
26	14	1332	G	C2-N3-C4	-7.17	108.32	111.90
26	1H	2598	A	N9-C4-C5	-7.16	102.94	105.80
26	14	1400	G	O5'-P-OP1	7.16	119.30	110.70
26	1H	71	A	C4-C5-N7	7.16	114.28	110.70
30	29	144	ARG	CB-CG-CD	7.16	130.20	111.60
26	1H	245	G	C5-C6-O6	-7.15	124.31	128.60
26	1H	1241	A	C2-N3-C4	-7.15	107.02	110.60
26	1H	1572	A	O5'-P-OP1	7.14	119.27	110.70
26	14	2335	A	N1-C6-N6	-7.14	114.32	118.60
26	14	2755	C	C2-N1-C1'	7.14	126.65	118.80
26	14	2374	C	C6-N1-C2	7.14	123.16	120.30
26	1H	1308	A	N1-C2-N3	7.14	132.87	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	1502	A	N7-C8-N9	7.13	117.37	113.80
1	13	532	A	N1-C6-N6	7.13	122.88	118.60
26	1H	1660	C	N3-C4-N4	-7.13	113.01	118.00
26	1H	2072	G	OP1-P-O3'	7.12	120.87	105.20
26	14	140	A	C4-C5-N7	7.12	114.26	110.70
26	1H	2424	C	OP1-P-OP2	7.12	130.27	119.60
26	1H	1784	A	N1-C6-N6	-7.11	114.33	118.60
26	1H	600	G	C8-N9-C4	7.10	109.24	106.40
26	1H	462	C	O5'-P-OP2	-7.10	99.31	105.70
26	1H	698	C	C4-C5-C6	7.10	120.95	117.40
26	1H	773	U	C5-C6-N1	-7.10	119.15	122.70
26	1H	2598	A	N1-C6-N6	7.09	122.86	118.60
43	D8	40	LEU	CA-CB-CG	7.09	131.62	115.30
26	14	784	A	P-O3'-C3'	7.09	128.21	119.70
33	51	153	LYS	C-N-CD	-7.09	105.00	120.60
26	14	1950	G	C8-N9-C4	-7.09	103.56	106.40
26	14	1141	U	P-O3'-C3'	7.08	128.19	119.70
1	13	723	U	C2-N1-C1'	7.08	126.19	117.70
26	1H	768	G	OP1-P-OP2	7.08	130.21	119.60
26	1H	71	A	N1-C2-N3	7.07	132.84	129.30
26	14	1698	A	C6-C5-N7	-7.07	127.35	132.30
26	1H	1925	C	N1-C2-O2	-7.07	114.66	118.90
26	14	775	G	N3-C4-C5	-7.07	125.07	128.60
26	14	2430	A	N1-C6-N6	7.06	122.84	118.60
1	13	883	C	C6-N1-C2	-7.06	117.48	120.30
26	1H	2443	C	O5'-P-OP1	-7.06	99.35	105.70
26	14	140	A	C6-C5-N7	-7.06	127.36	132.30
26	1H	1332	G	N7-C8-N9	7.06	116.63	113.10
26	14	2873	A	N1-C2-N3	7.06	132.83	129.30
26	1H	2476	A	N3-C4-C5	-7.05	121.86	126.80
26	1H	621	A	C6-C5-N7	-7.05	127.37	132.30
26	1H	2065	C	C6-N1-C2	-7.04	117.48	120.30
26	14	694	U	O5'-P-OP2	-7.04	99.36	105.70
26	1H	1931	U	N1-C2-N3	7.04	119.12	114.90
27	16	81	G	N9-C4-C5	-7.04	102.58	105.40
1	13	562	C	O5'-P-OP2	-7.04	99.37	105.70
26	1H	1376	C	O5'-P-OP1	-7.04	99.37	105.70
26	14	2612	C	N1-C2-O2	7.03	123.12	118.90
1	13	1502	A	C2-N3-C4	-7.03	107.09	110.60
22	1K	36	U	N3-C2-O2	-7.03	117.28	122.20
26	1H	2688	U	C5-C4-O4	7.02	130.11	125.90
26	1H	681	G	C5-N7-C8	7.02	107.81	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1354	C	C6-N1-C2	-7.01	117.49	120.30
26	1H	120	U	N1-C2-N3	7.01	119.11	114.90
26	1H	2490	G	N7-C8-N9	7.01	116.60	113.10
26	14	71	A	N1-C6-N6	7.01	122.80	118.60
27	16	81	G	C8-N9-C1'	-7.00	117.90	127.00
1	13	266	G	C6-C5-N7	-7.00	126.20	130.40
26	14	676	A	C2-N3-C4	-7.00	107.10	110.60
1	13	888	G	N1-C6-O6	7.00	124.10	119.90
26	14	912	C	C6-N1-C2	-6.99	117.50	120.30
26	1H	126	A	O5'-P-OP2	-6.99	99.41	105.70
26	14	2732	G	N3-C4-N9	-6.99	121.81	126.00
26	1H	140	A	O4'-C1'-N9	6.99	113.79	108.20
26	14	2275	C	P-O3'-C3'	6.98	128.08	119.70
1	13	1158	C	C2-N1-C1'	6.98	126.48	118.80
26	1H	2443	C	C6-N1-C2	-6.98	117.51	120.30
2	1E	11	LEU	CB-CG-CD2	-6.98	99.14	111.00
26	1H	768	G	O5'-P-OP2	-6.98	99.42	105.70
24	3K	34	U	C2-N1-C1'	6.97	126.07	117.70
26	1H	1899	G	C4-C5-N7	-6.97	108.01	110.80
26	14	774	A	N1-C6-N6	6.97	122.78	118.60
26	14	2873	A	C8-N9-C4	-6.97	103.01	105.80
26	1H	190	A	C8-N9-C4	6.97	108.59	105.80
26	1H	16	G	O5'-P-OP2	-6.97	99.43	105.70
26	1H	1367	A	N1-C6-N6	6.97	122.78	118.60
26	1H	1399	C	C5-C6-N1	6.97	124.48	121.00
26	1H	247	G	C8-N9-C4	6.97	109.19	106.40
26	1H	2422	A	N1-C6-N6	-6.97	114.42	118.60
26	14	2447	G	O4'-C1'-N9	6.97	113.77	108.20
26	1H	134	C	C2-N3-C4	-6.96	116.42	119.90
26	1H	945	A	N9-C1'-C2'	6.96	123.05	114.00
26	1H	1616	A	O4'-C1'-N9	6.96	113.77	108.20
26	1H	59	U	C6-N1-C2	-6.96	116.82	121.00
26	1H	862	G	N3-C4-C5	-6.95	125.12	128.60
26	1H	2374	C	C5-C6-N1	-6.95	117.52	121.00
26	1H	948	G	N1-C6-O6	6.95	124.07	119.90
26	14	2477	C	C2-N1-C1'	6.95	126.44	118.80
26	14	802	A	O5'-P-OP2	-6.94	99.45	105.70
26	1H	2589	A	C8-N9-C4	6.94	108.58	105.80
26	1H	860	U	C6-N1-C1'	-6.93	111.49	121.20
26	14	1776	G	N3-C4-N9	6.93	130.16	126.00
1	13	843	U	C2-N1-C1'	6.93	126.02	117.70
1	13	1301	U	P-O3'-C3'	6.93	128.02	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1496	A	C4-C5-N7	6.93	114.17	110.70
26	1H	682	G	O5'-P-OP1	6.93	119.01	110.70
26	14	1616	A	C2-N3-C4	-6.93	107.14	110.60
26	1H	141	A	N1-C6-N6	6.92	122.75	118.60
26	1H	2295	C	C6-N1-C2	-6.92	117.53	120.30
26	1H	330	A	N1-C2-N3	6.92	132.76	129.30
26	1H	232	G	N3-C4-N9	6.92	130.15	126.00
26	1H	2581	G	C4-N9-C1'	6.91	135.49	126.50
26	14	675	A	C8-N9-C4	6.91	108.56	105.80
26	1H	1210	A	N7-C8-N9	6.91	117.25	113.80
26	1H	1349	A	O5'-P-OP1	-6.91	99.48	105.70
26	14	2518	A	C4-C5-N7	6.91	114.15	110.70
26	1H	679	C	C6-N1-C2	6.91	123.06	120.30
26	1H	2422	A	C5-C6-N6	6.90	129.22	123.70
26	1H	2751	G	C6-C5-N7	-6.90	126.26	130.40
26	1H	2331	G	C5-C6-O6	-6.90	124.46	128.60
26	1H	2555	U	O5'-P-OP1	-6.90	99.49	105.70
1	1G	690	G	C5-N7-C8	-6.90	100.85	104.30
27	1J	47	C	C6-N1-C2	6.90	123.06	120.30
1	13	913	A	P-O3'-C3'	6.89	127.97	119.70
26	14	802	A	N1-C6-N6	-6.89	114.47	118.60
26	14	917	A	O5'-P-OP1	-6.89	99.50	105.70
26	14	1786	A	C4-C5-N7	6.89	114.14	110.70
26	14	1950	G	C4-N9-C1'	6.89	135.45	126.50
26	14	1786	A	N1-C2-N3	6.88	132.74	129.30
26	14	2447	G	C4-C5-N7	-6.88	108.05	110.80
1	13	760	G	C6-C5-N7	-6.88	126.27	130.40
26	1H	2430	A	C5-C6-N1	-6.88	114.26	117.70
26	14	2392	A	C2-N3-C4	-6.88	107.16	110.60
26	14	2518	A	O4'-C1'-N9	-6.87	102.70	108.20
1	13	266	G	C4-C5-N7	6.87	113.55	110.80
26	1H	828	U	N3-C4-O4	-6.87	114.59	119.40
26	1H	865	C	N3-C4-C5	6.87	124.65	121.90
56	3L	76	A	N7-C8-N9	6.86	117.23	113.80
26	1H	232	G	C6-C5-N7	-6.86	126.28	130.40
26	14	2213	U	C2-N1-C1'	6.86	125.93	117.70
26	1H	945	A	C2-N3-C4	-6.86	107.17	110.60
26	14	2032	G	C6-C5-N7	-6.86	126.28	130.40
26	1H	2254	C	N1-C2-O2	-6.86	114.78	118.90
26	1H	1950	G	C6-C5-N7	-6.86	126.29	130.40
26	1H	1616	A	C8-N9-C4	-6.86	103.06	105.80
30	21	202	LYS	CD-CE-NZ	-6.86	95.93	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1787	A	OP1-P-OP2	-6.86	109.32	119.60
26	1H	783	A	C5-C6-N1	-6.85	114.28	117.70
26	1H	2367	G	C8-N9-C4	-6.84	103.66	106.40
26	14	2873	A	N1-C6-N6	6.84	122.70	118.60
26	14	2029	G	O5'-P-OP1	-6.84	99.55	105.70
1	13	987	G	N1-C6-O6	6.83	124.00	119.90
1	13	1433	A	O5'-P-OP1	-6.83	99.55	105.70
22	1K	61	C	C2-N1-C1'	6.83	126.31	118.80
26	1H	832	G	O5'-P-OP2	6.82	118.88	110.70
26	1H	1528	A	O4'-C1'-N9	6.82	113.66	108.20
26	14	2473	U	N1-C2-O2	6.82	127.57	122.80
1	13	1367	C	C5-C6-N1	6.82	124.41	121.00
1	13	1158	C	C6-N1-C2	-6.82	117.57	120.30
32	41	94	LEU	CA-CB-CG	6.82	130.98	115.30
26	14	252	G	N1-C6-O6	-6.82	115.81	119.90
26	1H	784	A	O4'-C1'-N9	6.81	113.65	108.20
26	14	1633	G	C8-N9-C4	-6.81	103.68	106.40
26	1H	1281	G	C5-C6-O6	-6.81	124.52	128.60
26	1H	2600	A	N9-C4-C5	6.80	108.52	105.80
1	13	1502	A	N7-C8-N9	6.80	117.20	113.80
1	1G	1322	C	C5-C6-N1	6.80	124.40	121.00
26	14	2318	G	N1-C6-O6	6.80	123.98	119.90
46	C5	90	LEU	CA-CB-CG	6.80	130.94	115.30
26	14	121	G	C5-C6-O6	-6.80	124.52	128.60
26	14	1950	G	O4'-C1'-N9	6.80	113.64	108.20
26	14	1322	A	O5'-P-OP2	-6.79	99.59	105.70
1	1G	1139	G	N3-C4-C5	6.79	132.00	128.60
26	1H	197	A	N1-C2-N3	6.79	132.69	129.30
26	1H	37	C	C6-N1-C2	-6.78	117.59	120.30
26	14	2253	G	C4-C5-N7	6.78	113.51	110.80
26	14	729	G	C2-N3-C4	6.78	115.29	111.90
26	1H	1210	A	C8-N9-C4	-6.78	103.09	105.80
1	1G	913	A	P-O3'-C3'	6.78	127.83	119.70
1	13	1158	C	N3-C2-O2	-6.78	117.16	121.90
26	1H	1806	C	O5'-P-OP2	-6.77	99.60	105.70
24	3K	33	U	N1-C2-O2	6.77	127.54	122.80
26	1H	964	C	N3-C4-N4	6.77	122.74	118.00
56	3L	76	A	C5-N7-C8	-6.77	100.52	103.90
1	13	1266	G	N3-C4-N9	-6.77	121.94	126.00
26	1H	245	G	N1-C6-O6	6.77	123.96	119.90
1	13	449	C	N3-C2-O2	-6.76	117.16	121.90
26	1H	1559	G	C8-N9-C4	6.76	109.11	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	388	G	N3-C4-C5	6.76	131.98	128.60
26	1H	2355	C	N3-C2-O2	-6.76	117.17	121.90
26	1H	2502	G	O5'-P-OP1	-6.76	99.61	105.70
26	1H	1642	G	O5'-P-OP1	-6.76	99.61	105.70
23	2L	77	A	C8-N9-C4	6.76	108.50	105.80
26	1H	2229	C	C6-N1-C2	6.75	123.00	120.30
26	14	1655	A	C8-N9-C4	6.75	108.50	105.80
26	14	1342	A	C2-N3-C4	-6.75	107.22	110.60
26	1H	1204	A	C2-N3-C4	-6.75	107.23	110.60
26	1H	2439	A	N1-C6-N6	6.75	122.65	118.60
26	1H	530	G	C5-C6-O6	6.74	132.65	128.60
30	21	54	GLN	C-N-CA	6.74	138.56	121.70
26	1H	528	A	C2-N3-C4	-6.74	107.23	110.60
27	16	7	G	C4-C5-N7	6.74	113.50	110.80
26	1H	1618	A	O5'-P-OP1	-6.74	99.64	105.70
26	14	2607	G	O5'-P-OP1	6.74	118.79	110.70
1	13	317	G	C6-C5-N7	-6.74	126.36	130.40
29	19	44	ASN	C-N-CA	6.73	138.53	121.70
26	1H	862	G	N1-C6-O6	-6.73	115.86	119.90
26	1H	1829	A	N1-C6-N6	-6.73	114.56	118.60
26	1H	633	A	N1-C6-N6	6.72	122.63	118.60
26	1H	690	G	C8-N9-C4	6.72	109.09	106.40
26	1H	2581	G	C6-C5-N7	-6.72	126.37	130.40
26	14	2459	A	C8-N9-C4	-6.71	103.11	105.80
26	14	1678	G	N7-C8-N9	6.71	116.46	113.10
26	1H	49	A	N1-C6-N6	6.71	122.63	118.60
26	1H	1142(A)	A	C2-N3-C4	-6.71	107.24	110.60
1	1G	33	A	C8-N9-C4	-6.71	103.12	105.80
26	1H	1898	U	C5-C4-O4	6.70	129.92	125.90
26	1H	2444	G	C8-N9-C4	-6.70	103.72	106.40
26	14	1435	G	N1-C6-O6	6.70	123.92	119.90
1	13	963	G	N3-C2-N2	6.70	124.59	119.90
27	16	29	A	N7-C8-N9	6.70	117.15	113.80
26	1H	226	G	O4'-C1'-N9	6.70	113.56	108.20
26	14	621	A	C5-N7-C8	-6.70	100.55	103.90
26	1H	743	G	OP1-P-OP2	6.69	129.64	119.60
26	1H	1193	G	C8-N9-C4	6.69	109.08	106.40
26	14	2779	U	C6-N1-C1'	-6.69	111.84	121.20
26	1H	1204	A	N7-C8-N9	6.69	117.14	113.80
26	1H	1778	U	N3-C2-O2	-6.69	117.52	122.20
27	1J	7	G	C8-N9-C4	6.69	109.07	106.40
26	14	828	U	N3-C4-O4	-6.68	114.72	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2063	C	C6-N1-C2	6.68	122.97	120.30
27	16	29	A	C8-N9-C4	-6.68	103.13	105.80
26	14	2273	A	O5'-P-OP2	-6.68	99.69	105.70
26	14	876	C	N1-C2-O2	6.68	122.91	118.90
26	1H	664	C	C6-N1-C2	6.67	122.97	120.30
26	14	2255	G	O5'-P-OP2	-6.67	99.69	105.70
26	14	2287	A	C2-N3-C4	-6.67	107.26	110.60
26	14	2473	U	N3-C2-O2	-6.67	117.53	122.20
26	1H	141	A	N7-C8-N9	6.67	117.14	113.80
26	1H	49	A	C8-N9-C4	6.67	108.47	105.80
26	1H	736	C	O5'-P-OP2	6.67	118.71	110.70
26	14	1496	A	C6-C5-N7	-6.67	127.63	132.30
26	1H	1618	A	N1-C6-N6	6.67	122.60	118.60
1	13	975	A	N1-C6-N6	6.66	122.60	118.60
26	14	746	A	O5'-P-OP1	-6.66	99.70	105.70
26	1H	1340	U	C5-C4-O4	-6.66	121.91	125.90
26	1H	2822	G	C5-C6-O6	-6.66	124.61	128.60
26	14	2068	U	C6-N1-C2	6.65	124.99	121.00
1	13	1193	G	O5'-P-OP1	-6.65	99.72	105.70
27	1J	6	C	C6-N1-C2	6.65	122.96	120.30
26	1H	2063	C	C5-C6-N1	-6.65	117.68	121.00
26	1H	138	G	O4'-C1'-N9	6.64	113.52	108.20
26	1H	835	A	C6-N1-C2	-6.64	114.61	118.60
26	1H	119	A	N1-C6-N6	-6.64	114.61	118.60
1	13	974	A	C6-C5-N7	-6.64	127.65	132.30
26	14	2329	G	N9-C4-C5	-6.64	102.74	105.40
26	14	1655	A	N7-C8-N9	-6.64	110.48	113.80
26	1H	1332	G	C5-C6-N1	-6.63	108.18	111.50
1	13	760	G	C5-C6-O6	-6.63	124.62	128.60
26	1H	2708	G	C8-N9-C4	6.63	109.05	106.40
1	13	690	G	N1-C6-O6	6.63	123.88	119.90
1	13	1203	C	C6-N1-C2	-6.63	117.65	120.30
35	58	97	ARG	NE-CZ-NH1	6.63	123.61	120.30
26	14	71	A	C4-C5-N7	6.63	114.02	110.70
1	13	690	G	N7-C8-N9	6.63	116.41	113.10
26	1H	2440	C	OP1-P-O3'	6.63	119.78	105.20
26	14	1342	A	N1-C2-N3	6.63	132.61	129.30
26	1H	2048	G	C8-N9-C4	-6.62	103.75	106.40
26	1H	678	C	C6-N1-C2	6.62	122.95	120.30
26	14	783	A	N1-C2-N3	6.62	132.61	129.30
1	13	721	G	N3-C4-N9	6.62	129.97	126.00
26	1H	1314	C	N1-C2-O2	6.62	122.87	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1617	C	O5'-P-OP2	6.62	118.64	110.70
26	14	829	A	OP1-P-OP2	6.62	129.52	119.60
26	14	90	U	N1-C2-O2	6.61	127.43	122.80
26	1H	1616	A	C4-C5-N7	6.61	114.01	110.70
26	1H	2713	A	O5'-P-OP2	-6.61	99.75	105.70
26	1H	2751	G	C4-N9-C1'	6.61	135.09	126.50
31	39	125	LEU	CA-CB-CG	6.61	130.49	115.30
1	13	585	G	O5'-P-OP2	-6.60	99.76	105.70
26	1H	2450	A	O5'-P-OP2	-6.60	99.76	105.70
26	1H	2311	A	C2-N3-C4	-6.60	107.30	110.60
26	1H	691	C	N1-C2-O2	-6.60	114.94	118.90
26	14	1257	C	N1-C2-O2	-6.60	114.94	118.90
26	14	2211	G	C4-N9-C1'	6.60	135.08	126.50
26	1H	2048	G	N9-C4-C5	6.60	108.04	105.40
26	1H	2275	C	C6-N1-C2	-6.59	117.66	120.30
26	1H	1800	C	O5'-P-OP2	6.59	118.61	110.70
26	14	1314	C	C2-N1-C1'	6.59	126.05	118.80
26	1H	593	G	C2-N3-C4	-6.59	108.61	111.90
26	1H	1003	G	C8-N9-C1'	-6.59	118.43	127.00
26	1H	1053	C	N1-C2-O2	6.59	122.85	118.90
26	1H	2342	C	C6-N1-C2	-6.59	117.66	120.30
26	1H	1428	C	O5'-P-OP1	-6.59	99.77	105.70
26	1H	2042	A	O5'-P-OP2	-6.59	99.77	105.70
26	1H	2445	G	C8-N9-C4	-6.58	103.77	106.40
26	1H	74	A	C5-N7-C8	-6.58	100.61	103.90
1	13	235	C	C6-N1-C2	6.57	122.93	120.30
26	1H	2048	G	N3-C2-N2	-6.57	115.30	119.90
26	14	1776	G	C6-C5-N7	-6.57	126.46	130.40
26	1H	2368	C	C6-N1-C2	-6.57	117.67	120.30
26	14	1654	A	N9-C4-C5	6.57	108.43	105.80
26	1H	2346	A	C8-N9-C1'	-6.56	115.89	127.70
26	1H	1922	G	O5'-P-OP2	-6.56	99.80	105.70
26	14	1698	A	C2-N3-C4	-6.56	107.32	110.60
26	1H	915	C	N3-C2-O2	-6.56	117.31	121.90
26	1H	576	U	N1-C2-N3	6.56	118.83	114.90
26	1H	1653	G	N3-C4-N9	6.56	129.93	126.00
26	1H	258	G	C8-N9-C4	6.55	109.02	106.40
1	1G	1502	A	C6-C5-N7	-6.55	127.71	132.30
26	1H	2713	A	C4-C5-N7	6.55	113.97	110.70
26	14	2439	A	P-O3'-C3'	6.55	127.56	119.70
40	65	110	LEU	CB-CG-CD2	6.55	122.13	111.00
26	14	2546	U	C5-C4-O4	6.55	129.83	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	2	U	N3-C2-O2	-6.54	117.62	122.20
22	1K	74	C	N1-C2-O2	6.54	122.83	118.90
26	1H	1297	C	OP1-P-O3'	6.54	119.59	105.20
26	14	1786	A	N1-C6-N6	6.54	122.52	118.60
26	1H	141	A	C4-C5-N7	6.54	113.97	110.70
26	1H	1021	A	N7-C8-N9	6.54	117.07	113.80
27	16	100	G	N3-C4-N9	6.54	129.92	126.00
26	14	1336	A	O5'-P-OP2	-6.54	99.82	105.70
1	1G	197	A	P-O3'-C3'	6.53	127.54	119.70
26	1H	681	G	N7-C8-N9	-6.53	109.83	113.10
26	14	2055	C	O5'-P-OP2	6.53	118.54	110.70
26	1H	2555	U	N1-C2-O2	-6.53	118.23	122.80
26	1H	681	G	C8-N9-C4	6.52	109.01	106.40
26	1H	1654	A	O5'-P-OP1	-6.52	99.83	105.70
26	14	1899	G	C5-C6-O6	6.52	132.51	128.60
1	1G	1354	C	C5-C6-N1	6.52	124.26	121.00
26	14	2329	G	C8-N9-C4	6.52	109.01	106.40
26	1H	178	G	O5'-P-OP1	-6.52	99.83	105.70
26	1H	1786	A	N1-C2-N3	6.52	132.56	129.30
26	1H	222	A	P-O3'-C3'	6.51	127.52	119.70
1	13	1279	A	C5-N7-C8	-6.51	100.64	103.90
26	1H	74	A	C5-C6-N1	-6.51	114.45	117.70
26	14	1914	C	C2-N1-C1'	6.51	125.96	118.80
26	1H	2506	U	C2-N1-C1'	6.50	125.50	117.70
26	14	678	C	C6-N1-C2	6.50	122.90	120.30
26	14	1379	A	N1-C6-N6	6.50	122.50	118.60
26	14	2307	G	C8-N9-C1'	-6.50	118.55	127.00
26	1H	2451	A	N1-C6-N6	-6.50	114.70	118.60
26	1H	923	C	C6-N1-C2	-6.50	117.70	120.30
1	1G	963	G	C4-N9-C1'	6.50	134.95	126.50
1	1G	1502	A	C5-N7-C8	-6.50	100.65	103.90
1	13	966	G	C5-C6-O6	-6.50	124.70	128.60
26	1H	917	A	N1-C2-N3	6.49	132.55	129.30
1	13	1498	U	P-O3'-C3'	6.49	127.49	119.70
26	14	2607	G	O5'-P-OP2	-6.49	99.86	105.70
26	1H	1977	A	O5'-P-OP2	-6.49	99.86	105.70
26	1H	2258	C	N3-C4-N4	6.48	122.54	118.00
26	1H	2447	G	C5-C6-N1	6.48	114.74	111.50
26	1H	433	C	OP2-P-O3'	6.48	119.45	105.20
26	1H	1204	A	C4-N9-C1'	6.48	137.96	126.30
45	F8	3	THR	N-CA-C	-6.48	93.51	111.00
26	1H	528	A	C5-N7-C8	-6.47	100.66	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	1322	C	C6-N1-C1'	-6.47	113.03	120.80
26	14	530	G	C4-N9-C1'	6.47	134.91	126.50
26	1H	122	G	C8-N9-C4	6.47	108.99	106.40
25	4K	18	G	P-O3'-C3'	6.47	127.46	119.70
27	16	81	G	O4'-C1'-N9	6.47	113.38	108.20
26	14	829	A	O5'-P-OP1	-6.47	99.88	105.70
26	1H	684	G	C8-N9-C4	-6.47	103.81	106.40
26	1H	694	U	O5'-P-OP1	6.47	118.46	110.70
4	32	3	ARG	NE-CZ-NH2	6.47	123.53	120.30
26	14	2572	A	N3-C4-N9	-6.46	122.23	127.40
26	1H	1192	G	C8-N9-C1'	-6.46	118.60	127.00
26	1H	1210	A	N1-C6-N6	6.46	122.48	118.60
26	1H	2346	A	C8-N9-C4	-6.46	103.22	105.80
26	14	530	G	N7-C8-N9	6.46	116.33	113.10
26	14	845	G	C4-N9-C1'	6.46	134.90	126.50
1	1G	1449	C	C6-N1-C1'	-6.46	113.05	120.80
26	14	1889	A	C8-N9-C4	-6.46	103.22	105.80
26	14	74	A	N1-C2-N3	6.46	132.53	129.30
8	7E	112	LEU	CA-CB-CG	6.45	130.14	115.30
24	3K	76	A	C6-C5-N7	-6.45	127.78	132.30
26	1H	237	C	O5'-P-OP1	-6.45	99.89	105.70
26	14	138	G	N3-C4-C5	-6.45	125.38	128.60
26	1H	2713	A	N7-C8-N9	6.45	117.02	113.80
26	14	856	C	N1-C2-O2	-6.45	115.03	118.90
1	1G	529	G	C5-C6-O6	-6.45	124.73	128.60
26	1H	1506	C	C5-C6-N1	6.45	124.22	121.00
1	13	1382	C	N1-C2-O2	6.44	122.77	118.90
26	14	388	G	N3-C2-N2	-6.44	115.39	119.90
26	14	2417	C	O5'-P-OP2	-6.44	99.90	105.70
26	1H	2585	U	N3-C4-C5	6.44	118.47	114.60
26	14	396	G	C6-C5-N7	-6.44	126.53	130.40
26	1H	1660	C	O5'-P-OP2	-6.44	99.90	105.70
27	16	24	G	N3-C4-C5	-6.44	125.38	128.60
26	14	1489	U	C5-C4-O4	6.44	129.76	125.90
26	1H	1496	A	C6-C5-N7	-6.43	127.80	132.30
26	1H	1695	G	C4-N9-C1'	6.43	134.86	126.50
26	1H	2581	G	N1-C2-N2	-6.43	110.41	116.20
26	1H	1879	C	C6-N1-C2	-6.43	117.73	120.30
26	14	2013	A	C2-N3-C4	-6.43	107.39	110.60
26	1H	1304	C	N3-C4-C5	6.43	124.47	121.90
26	1H	676	A	C8-N9-C4	-6.43	103.23	105.80
26	1H	1327	C	N1-C2-O2	-6.42	115.05	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	90	U	N3-C2-O2	-6.42	117.70	122.20
26	1H	2380	C	C5-C6-N1	-6.42	117.79	121.00
26	1H	1348	G	O5'-P-OP2	6.42	118.40	110.70
22	1K	76	A	N7-C8-N9	6.42	117.01	113.80
26	1H	1639	U	N3-C2-O2	-6.42	117.71	122.20
1	1G	135	C	N1-C2-O2	-6.42	115.05	118.90
26	14	693	C	OP2-P-O3'	6.42	119.32	105.20
26	1H	2260	C	OP2-P-O3'	6.42	119.31	105.20
29	11	39	LYS	C-N-CA	6.42	137.74	121.70
39	55	28	LEU	CA-CB-CG	6.42	130.06	115.30
26	1H	1308	A	N1-C6-N6	-6.42	114.75	118.60
26	14	113	G	C8-N9-C1'	6.41	135.34	127.00
26	1H	2830	G	N7-C8-N9	6.41	116.30	113.10
26	1H	253	C	C6-N1-C2	6.41	122.86	120.30
26	14	773	U	N1-C2-N3	6.40	118.74	114.90
26	1H	2484	G	O5'-P-OP2	-6.40	99.94	105.70
26	1H	606	U	O5'-P-OP2	-6.40	99.94	105.70
26	1H	117	G	N3-C4-N9	6.39	129.84	126.00
26	1H	669	G	C2-N3-C4	6.39	115.09	111.90
26	14	2425	A	O5'-P-OP2	-6.39	99.95	105.70
26	1H	793	A	C5-C6-N6	-6.39	118.59	123.70
26	1H	1328	G	N3-C4-N9	6.39	129.83	126.00
1	13	49	U	P-O3'-C3'	6.39	127.37	119.70
26	1H	1654	A	N1-C6-N6	-6.39	114.77	118.60
26	1H	2476	A	N7-C8-N9	6.39	116.99	113.80
26	14	138	G	C8-N9-C4	-6.39	103.84	106.40
26	1H	2401	U	C5-C6-N1	6.38	125.89	122.70
26	14	698	C	N3-C4-C5	-6.38	119.35	121.90
26	1H	616	A	OP2-P-O3'	6.38	119.23	105.20
26	14	1356	G	O5'-P-OP1	-6.38	99.96	105.70
1	13	888	G	C6-C5-N7	-6.38	126.57	130.40
26	1H	198	C	C4-C5-C6	-6.38	114.21	117.40
5	42	31	LEU	CA-CB-CG	6.37	129.96	115.30
26	1H	1695	G	C8-N9-C1'	-6.37	118.72	127.00
26	1H	2445	G	N7-C8-N9	6.37	116.28	113.10
26	1H	2392	A	C5-C6-N1	-6.37	114.52	117.70
26	14	1408	C	N1-C2-O2	-6.37	115.08	118.90
26	1H	2581	G	N3-C4-N9	6.36	129.82	126.00
26	1H	197	A	C4-C5-C6	6.36	120.18	117.00
26	1H	2710	C	C5-C6-N1	-6.36	117.82	121.00
26	14	1204	A	O4'-C1'-N9	6.36	113.29	108.20
26	1H	2573	C	C6-N1-C2	-6.36	117.76	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	3K	70	C	C2-N1-C1'	6.35	125.79	118.80
26	1H	2447	G	O4'-C1'-N9	6.35	113.28	108.20
26	1H	1888	G	N3-C4-N9	6.35	129.81	126.00
26	14	2776	A	C8-N9-C4	-6.35	103.26	105.80
26	1H	141	A	O4'-C1'-N9	6.35	113.28	108.20
26	1H	775	G	N1-C2-N2	-6.34	110.49	116.20
14	5I	12	ARG	C-N-CA	6.34	137.54	121.70
26	1H	678	C	C2-N3-C4	-6.33	116.73	119.90
26	1H	2430	A	C4-C5-C6	6.33	120.17	117.00
1	1G	1300	G	P-O3'-C3'	6.33	127.30	119.70
26	1H	1698	A	C6-C5-N7	-6.33	127.87	132.30
26	1H	960	A	N1-C6-N6	-6.33	114.80	118.60
26	1H	2689	U	N3-C4-O4	-6.33	114.97	119.40
22	1L	74	C	N3-C2-O2	-6.33	117.47	121.90
1	13	345	C	C6-N1-C2	-6.33	117.77	120.30
26	1H	580	C	C6-N1-C2	-6.33	117.77	120.30
26	1H	859	G	C8-N9-C1'	6.32	135.22	127.00
26	1H	1572	A	N1-C6-N6	6.32	122.39	118.60
1	1G	186(D)	C	C6-N1-C2	6.32	122.83	120.30
26	14	205	G	C8-N9-C4	6.32	108.93	106.40
1	13	567	G	O5'-P-OP1	-6.32	100.01	105.70
2	1E	232	PRO	C-N-CA	6.32	137.51	121.70
26	1H	1302	A	N1-C6-N6	-6.32	114.81	118.60
26	1H	447	A	O5'-P-OP1	-6.32	100.01	105.70
26	1H	1704	G	C5-C6-N1	-6.32	108.34	111.50
26	1H	2507	C	C6-N1-C2	-6.32	117.77	120.30
26	1H	508	G	C4-C5-N7	6.31	113.33	110.80
26	1H	1792	G	N1-C6-O6	-6.31	116.11	119.90
26	14	1489	U	O4'-C1'-N1	6.31	113.25	108.20
6	5E	75	LEU	CA-CB-CG	6.31	129.81	115.30
26	14	1396	U	O5'-P-OP1	-6.31	100.02	105.70
1	13	111	G	C8-N9-C4	6.31	108.92	106.40
26	1H	774	A	C4-N9-C1'	-6.31	114.95	126.30
26	1H	1340	U	N3-C4-O4	6.31	123.81	119.40
1	1G	630	G	O4'-C1'-N9	6.31	113.25	108.20
1	13	1227	A	C5-N7-C8	-6.30	100.75	103.90
26	1H	1950	G	O4'-C1'-N9	6.30	113.24	108.20
1	13	4	U	N1-C2-O2	6.30	127.21	122.80
26	1H	760	G	C6-C5-N7	-6.30	126.62	130.40
26	1H	2277	G	N3-C4-C5	-6.30	125.45	128.60
26	1H	2503	A	N1-C2-N3	-6.30	126.15	129.30
26	1H	1698	A	N1-C2-N3	6.30	132.45	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	866	A	O4'-C1'-N9	-6.29	103.16	108.20
22	1L	18	G	OP1-P-O3'	6.29	119.05	105.20
23	2L	21	U	N3-C2-O2	-6.29	117.79	122.20
26	1H	1678	G	C2-N3-C4	-6.29	108.75	111.90
26	1H	2490	G	N3-C4-C5	6.29	131.75	128.60
26	1H	1776	G	N1-C6-O6	6.29	123.67	119.90
1	13	1404	C	N3-C4-N4	-6.29	113.60	118.00
1	13	653	A	O4'-C1'-N9	6.28	113.23	108.20
26	1H	1158	C	C5-C6-N1	-6.28	117.86	121.00
26	14	1304	C	N3-C4-N4	-6.28	113.60	118.00
27	16	13	A	O5'-P-OP2	-6.28	100.05	105.70
1	13	578	C	C6-N1-C2	-6.28	117.79	120.30
26	1H	2499	C	C6-N1-C2	-6.27	117.79	120.30
26	14	2023	G	O5'-P-OP2	-6.27	100.06	105.70
26	1H	1506	C	C2-N1-C1'	6.27	125.70	118.80
26	14	379	G	N3-C4-N9	6.27	129.76	126.00
1	13	975	A	O4'-C1'-N9	-6.27	103.19	108.20
26	1H	225	A	C8-N9-C4	6.26	108.31	105.80
24	3K	34	U	O4'-C1'-N1	-6.26	103.19	108.20
26	1H	1445	C	C6-N1-C2	-6.26	117.80	120.30
1	13	1279	A	C6-C5-N7	-6.26	127.92	132.30
26	1H	756	C	N1-C2-O2	-6.25	115.15	118.90
26	1H	1950	G	N3-C2-N2	6.25	124.28	119.90
1	13	1266	G	N3-C4-C5	6.25	131.72	128.60
26	1H	198	C	C5-C4-N4	-6.25	115.83	120.20
26	1H	762	U	N1-C2-O2	6.25	127.17	122.80
26	14	1142	U	N3-C2-O2	-6.25	117.83	122.20
26	14	1489	U	C6-N1-C1'	6.25	129.95	121.20
27	16	7	G	C5-N7-C8	-6.25	101.18	104.30
26	14	2346	A	O4'-C1'-N9	6.25	113.20	108.20
1	13	690	G	C4-N9-C1'	6.25	134.62	126.50
26	1H	528	A	N3-C4-C5	6.24	131.17	126.80
26	1H	1053	C	C2-N1-C1'	6.24	125.67	118.80
26	1H	1614	A	N1-C6-N6	6.24	122.35	118.60
26	1H	1698	A	C5-N7-C8	-6.24	100.78	103.90
26	1H	1777	U	O5'-P-OP1	-6.24	100.08	105.70
1	1G	117	G	C8-N9-C1'	-6.24	118.88	127.00
26	14	530	G	N1-C6-O6	6.24	123.65	119.90
1	13	437	U	N3-C2-O2	-6.24	117.83	122.20
26	1H	1992	G	P-O3'-C3'	6.24	127.19	119.70
26	1H	860	U	C4-C5-C6	6.24	123.44	119.70
26	1H	2430	A	C4-C5-N7	6.24	113.82	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2443	C	O5'-P-OP1	-6.24	100.09	105.70
26	14	1342	A	C6-C5-N7	-6.24	127.93	132.30
1	13	576	G	C5-C6-N1	-6.23	108.38	111.50
26	1H	2347	C	OP2-P-O3'	6.23	118.91	105.20
26	1H	2436	G	N3-C2-N2	-6.23	115.54	119.90
26	14	1802	A	C6-N1-C2	-6.23	114.86	118.60
26	1H	85	G	O5'-P-OP1	6.23	118.18	110.70
26	1H	290	G	N3-C4-N9	6.22	129.73	126.00
1	13	966	G	N1-C6-O6	6.22	123.63	119.90
1	13	1493	A	N1-C6-N6	6.22	122.33	118.60
26	1H	1403	C	O5'-P-OP2	-6.22	100.10	105.70
26	14	2334	G	N3-C4-N9	6.22	129.73	126.00
1	1G	690	G	N7-C8-N9	6.22	116.21	113.10
26	14	1616	A	C4-C5-N7	6.22	113.81	110.70
26	14	2477	C	N1-C2-O2	6.22	122.63	118.90
26	1H	736	C	N3-C2-O2	6.21	126.25	121.90
26	14	915	C	C6-N1-C2	-6.21	117.82	120.30
26	1H	918	A	O5'-P-OP2	6.21	118.15	110.70
27	1J	81	G	C4-C5-N7	6.21	113.28	110.80
26	1H	773	U	N1-C2-N3	6.21	118.62	114.90
26	1H	2250	G	C8-N9-C4	-6.21	103.92	106.40
1	13	690	G	C4-C5-N7	6.20	113.28	110.80
26	14	641	C	C6-N1-C2	6.20	122.78	120.30
26	14	754	C	N1-C2-O2	6.20	122.62	118.90
1	1G	1227	A	N1-C6-N6	6.20	122.32	118.60
26	14	793	A	O5'-P-OP2	-6.20	100.12	105.70
26	14	2572	A	C5-N7-C8	-6.20	100.80	103.90
26	1H	121	G	N1-C6-O6	-6.20	116.18	119.90
26	1H	728	G	O5'-P-OP2	-6.20	100.12	105.70
26	1H	2346	A	C2-N3-C4	-6.20	107.50	110.60
26	14	265	A	C2-N3-C4	-6.20	107.50	110.60
1	1G	117	G	C4-N9-C1'	6.19	134.55	126.50
26	14	2377	A	C8-N9-C4	6.19	108.28	105.80
26	1H	1559	G	N3-C4-C5	6.19	131.69	128.60
26	1H	1938	A	O4'-C1'-N9	6.19	113.15	108.20
26	14	1162	G	O5'-P-OP1	-6.19	100.13	105.70
26	14	2526	G	N3-C4-N9	-6.19	122.29	126.00
1	13	353	A	C8-N9-C4	-6.19	103.33	105.80
26	1H	815	C	C6-N1-C2	6.19	122.77	120.30
26	1H	2506	U	N3-C2-O2	-6.19	117.87	122.20
26	1H	2591	C	N1-C2-O2	-6.19	115.19	118.90
26	1H	815	C	N3-C4-C5	6.18	124.37	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	774	A	C4-C5-N7	6.18	113.79	110.70
24	3K	76	A	N1-C6-N6	6.18	122.31	118.60
26	1H	1792	G	C5-C6-O6	6.18	132.31	128.60
26	1H	1430	C	OP1-P-O3'	6.18	118.80	105.20
26	1H	189	G	C5-C6-O6	-6.18	124.89	128.60
26	1H	2430	A	C5-N7-C8	-6.18	100.81	103.90
22	1K	48	C	O4'-C1'-N1	6.17	113.14	108.20
26	1H	350	U	C5-C4-O4	6.17	129.60	125.90
26	1H	1624	G	O5'-P-OP2	-6.17	100.14	105.70
56	3L	1	G	N3-C4-C5	-6.17	125.51	128.60
26	1H	1888	G	C4-N9-C1'	6.17	134.52	126.50
56	3L	76	A	N1-C6-N6	6.17	122.30	118.60
26	14	1326	U	O5'-P-OP1	-6.17	100.14	105.70
26	14	2441	C	C5-C6-N1	-6.17	117.91	121.00
26	14	738	G	C4-N9-C1'	6.17	134.52	126.50
26	1H	2026	C	N3-C4-C5	-6.17	119.43	121.90
26	1H	2618	G	N9-C4-C5	6.17	107.87	105.40
26	14	2507	C	N3-C2-O2	-6.16	117.58	121.90
26	1H	71	A	N3-C4-C5	6.16	131.11	126.80
1	13	963	G	N3-C4-C5	-6.16	125.52	128.60
26	1H	383	U	O4'-C1'-N1	6.16	113.13	108.20
26	1H	2503	A	C2-N3-C4	6.16	113.68	110.60
1	1G	841	U	C2-N1-C1'	6.16	125.09	117.70
26	14	1379	A	C4-C5-N7	6.16	113.78	110.70
26	14	1496	A	O4'-C1'-N9	6.16	113.13	108.20
26	1H	9	U	C2-N1-C1'	6.16	125.09	117.70
26	1H	788	A	C8-N9-C4	6.16	108.26	105.80
26	1H	2593	U	OP2-P-O3'	6.15	118.74	105.20
26	1H	245	G	C4-C5-N7	6.15	113.26	110.80
26	1H	664	C	C2-N3-C4	-6.15	116.82	119.90
26	1H	908	C	O5'-P-OP2	-6.15	100.16	105.70
26	14	2610	C	C6-N1-C2	6.15	122.76	120.30
1	13	345	C	N1-C2-O2	6.15	122.59	118.90
26	14	1376	C	O5'-P-OP1	-6.15	100.17	105.70
26	14	603	A	O4'-C1'-N9	6.14	113.12	108.20
47	H8	157	LEU	CA-CB-CG	6.14	129.43	115.30
1	1G	576	G	C4-N9-C1'	6.14	134.49	126.50
26	14	388	G	N1-C2-N2	6.14	121.73	116.20
26	14	791	C	N1-C2-O2	-6.14	115.21	118.90
26	14	2392	A	C8-N9-C4	-6.14	103.34	105.80
26	1H	1603	A	C8-N9-C4	-6.14	103.34	105.80
26	1H	2552	U	N3-C4-O4	6.14	123.70	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	943	U	O5'-P-OP1	-6.14	100.17	105.70
26	14	2591	C	N1-C2-O2	-6.14	115.22	118.90
26	1H	451	C	N1-C2-O2	-6.13	115.22	118.90
26	1H	2607	G	C6-C5-N7	-6.13	126.72	130.40
1	1G	481	G	N3-C4-N9	6.13	129.68	126.00
26	14	2211	G	C8-N9-C1'	-6.13	119.03	127.00
26	14	2237	G	N1-C2-N2	-6.13	110.68	116.20
26	1H	1379	A	C5-N7-C8	-6.13	100.83	103.90
26	1H	108	U	O5'-P-OP1	-6.13	100.18	105.70
26	14	396	G	C4-C5-C6	6.13	122.48	118.80
26	14	676	A	C4-C5-N7	6.13	113.77	110.70
26	14	1815	A	OP1-P-O3'	6.13	118.69	105.20
26	14	409	C	C6-N1-C2	6.13	122.75	120.30
26	1H	508	G	C6-C5-N7	-6.13	126.72	130.40
26	14	2210	G	C8-N9-C1'	-6.13	119.04	127.00
26	1H	657	U	OP2-P-O3'	6.12	118.68	105.20
26	1H	672	C	OP2-P-O3'	6.12	118.67	105.20
26	1H	2593	U	N1-C2-N3	6.12	118.57	114.90
23	2K	77	A	N1-C6-N6	6.12	122.27	118.60
26	14	1332	G	N9-C4-C5	-6.12	102.95	105.40
26	1H	676	A	C4-C5-N7	6.12	113.76	110.70
26	1H	2272	U	O5'-P-OP1	6.12	118.04	110.70
26	14	2601	C	C6-N1-C2	-6.12	117.85	120.30
29	11	103	ARG	NE-CZ-NH1	-6.11	117.25	120.30
26	14	1821	A	N1-C6-N6	6.11	122.27	118.60
1	13	555	C	C5-C6-N1	6.10	124.05	121.00
26	1H	49	A	N7-C8-N9	-6.10	110.75	113.80
26	1H	2350	C	C6-N1-C2	-6.10	117.86	120.30
43	95	35	LEU	CA-CB-CG	6.10	129.33	115.30
26	1H	1787	A	O4'-C1'-N9	-6.10	103.32	108.20
20	BA	13	LEU	CA-CB-CG	6.10	129.32	115.30
26	1H	201	C	C6-N1-C2	6.09	122.74	120.30
26	1H	1647	G	O5'-P-OP1	-6.09	100.22	105.70
26	14	830	G	C5-C6-O6	-6.09	124.95	128.60
26	1H	2211	G	O5'-P-OP2	-6.09	100.22	105.70
26	14	951	C	OP1-P-O3'	6.09	118.59	105.20
24	3K	33	U	N3-C2-O2	-6.09	117.94	122.20
26	1H	1210	A	C6-C5-N7	-6.09	128.04	132.30
1	1G	117	G	C5-C6-O6	-6.09	124.95	128.60
26	1H	1559	G	N1-C6-O6	6.08	123.55	119.90
26	14	1786	A	N9-C1'-C2'	6.08	121.91	114.00
26	1H	1279	G	N1-C6-O6	-6.08	116.25	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	50	A	N3-C4-C5	-6.08	122.54	126.80
1	13	885	G	N1-C6-O6	6.08	123.55	119.90
26	14	213	A	C8-N9-C4	6.08	108.23	105.80
56	3L	16	U	C5-C6-N1	6.08	125.74	122.70
1	13	581	G	C5-C6-O6	-6.07	124.96	128.60
26	14	827	U	N1-C2-O2	-6.07	118.55	122.80
26	14	773	U	C5-C6-N1	-6.07	119.66	122.70
26	1H	2401	U	C6-N1-C2	-6.07	117.36	121.00
26	1H	2442	C	N3-C4-N4	6.07	122.25	118.00
26	1H	1971	A	C2-N3-C4	6.07	113.63	110.60
26	14	806	C	O5'-P-OP1	-6.07	100.24	105.70
26	14	1992	G	O4'-C1'-N9	-6.07	103.35	108.20
26	1H	99	U	C2-N1-C1'	6.07	124.98	117.70
26	14	2386	C	C6-N1-C2	6.07	122.73	120.30
26	1H	1618	A	C4-C5-N7	6.06	113.73	110.70
1	13	186	C	C6-N1-C2	-6.06	117.88	120.30
26	14	1325	G	O5'-P-OP2	6.06	117.97	110.70
26	14	1836	C	O5'-P-OP2	-6.06	100.25	105.70
1	13	890	G	O4'-C1'-N9	6.06	113.05	108.20
1	13	1305	G	N1-C2-N2	-6.06	110.75	116.20
1	13	1519	A	C5-C6-N6	6.06	128.55	123.70
26	1H	1395	A	O4'-C1'-N9	6.05	113.04	108.20
26	1H	1518	C	C6-N1-C2	-6.05	117.88	120.30
26	14	2477	C	N3-C2-O2	-6.05	117.66	121.90
26	14	2581	G	C4-N9-C1'	6.05	134.37	126.50
26	14	74	A	N1-C6-N6	6.05	122.23	118.60
23	2L	21	U	N1-C2-O2	6.05	127.03	122.80
29	19	271	ILE	N-CA-C	6.05	127.33	111.00
26	1H	2390	U	N3-C4-O4	6.04	123.63	119.40
26	14	830	G	N1-C6-O6	6.04	123.53	119.90
26	1H	837	C	N3-C4-N4	6.04	122.23	118.00
26	14	34	C	O4'-C1'-N1	6.04	113.03	108.20
26	14	2307	G	N7-C8-N9	6.04	116.12	113.10
26	14	148	C	C6-N1-C2	6.04	122.72	120.30
26	14	1914	C	C6-N1-C2	-6.04	117.89	120.30
23	2K	77	A	C5-C6-N6	-6.04	118.87	123.70
26	1H	627	A	C8-N9-C4	6.04	108.21	105.80
26	1H	1901	A	N7-C8-N9	6.04	116.82	113.80
26	1H	2247	A	O5'-P-OP1	-6.04	100.27	105.70
26	1H	2259	G	OP1-P-OP2	-6.04	110.55	119.60
26	1H	2297	C	C6-N1-C2	-6.04	117.89	120.30
1	1G	305	G	C5-C6-O6	6.04	132.22	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	534	U	C5-C4-O4	6.03	129.52	125.90
26	1H	593	G	O5'-P-OP2	-6.03	100.27	105.70
26	14	693	C	C5-C6-N1	-6.03	117.98	121.00
1	13	422	C	N3-C4-N4	6.03	122.22	118.00
1	13	484	G	C4-N9-C1'	6.03	134.34	126.50
26	1H	1955	U	N1-C2-N3	6.03	118.52	114.90
26	1H	1794	U	O5'-P-OP2	-6.03	100.27	105.70
26	1H	865	C	C6-N1-C2	6.03	122.71	120.30
26	1H	1013	C	N3-C2-O2	6.03	126.12	121.90
1	13	690	G	C5-N7-C8	-6.02	101.29	104.30
26	1H	738	G	C6-C5-N7	-6.02	126.79	130.40
26	1H	569	U	C5-C6-N1	-6.02	119.69	122.70
26	1H	1307	A	O5'-P-OP1	-6.02	100.28	105.70
26	1H	2428	G	P-O3'-C3'	6.02	126.92	119.70
26	14	113	G	N3-C4-N9	-6.02	122.39	126.00
26	14	966	G	O5'-P-OP2	-6.01	100.29	105.70
26	1H	2050	C	C6-N1-C2	-6.01	117.89	120.30
26	1H	1835	G	O5'-P-OP1	-6.01	100.29	105.70
26	1H	2355	C	C6-N1-C2	-6.01	117.90	120.30
1	1G	690	G	N3-C4-N9	-6.01	122.39	126.00
1	13	328	C	N1-C2-O2	6.01	122.50	118.90
23	2K	17	C	N1-C2-O2	6.01	122.50	118.90
26	1H	2552	U	N1-C2-O2	-6.01	118.59	122.80
1	13	317	G	C4-N9-C1'	6.00	134.30	126.50
26	1H	1006	C	O5'-P-OP1	-6.00	100.30	105.70
1	13	328	C	C6-N1-C1'	-6.00	113.60	120.80
26	1H	966	G	C4-C5-N7	-6.00	108.40	110.80
26	1H	211	A	C8-N9-C4	6.00	108.20	105.80
26	14	740	U	N1-C2-O2	6.00	127.00	122.80
26	1H	945	A	N1-C2-N3	6.00	132.30	129.30
26	1H	1450	C	O5'-P-OP2	-6.00	100.30	105.70
1	13	748	C	P-O3'-C3'	5.99	126.89	119.70
26	1H	1244	G	N1-C6-O6	5.99	123.50	119.90
26	1H	250	G	OP1-P-O3'	5.99	118.38	105.20
45	F8	3	THR	C-N-CA	5.99	136.68	121.70
1	1G	483	C	C6-N1-C2	5.99	122.70	120.30
23	2L	48	U	P-O3'-C3'	5.99	126.89	119.70
26	1H	1626	G	N3-C2-N2	-5.99	115.71	119.90
26	1H	856	C	C2-N1-C1'	5.99	125.38	118.80
26	14	4	C	C2-N1-C1'	5.99	125.38	118.80
26	14	1822	G	C5-C6-N1	-5.99	108.51	111.50
26	1H	766	C	C5-C4-N4	-5.98	116.01	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1858	G	C4-N9-C1'	5.98	134.28	126.50
26	14	2526	G	N3-C4-C5	5.98	131.59	128.60
26	1H	1299	G	O5'-P-OP1	-5.98	100.32	105.70
26	1H	1312	U	C2-N1-C1'	-5.98	110.53	117.70
26	14	71	A	P-O3'-C3'	5.98	126.87	119.70
26	1H	2581	G	N3-C2-N2	5.97	124.08	119.90
26	14	1966	A	C8-N9-C4	-5.97	103.41	105.80
22	1K	76	A	C8-N9-C4	-5.97	103.41	105.80
1	1G	748	C	P-O3'-C3'	5.97	126.87	119.70
26	14	1555	G	C4-N9-C1'	5.97	134.26	126.50
23	2K	29	C	C6-N1-C2	-5.97	117.91	120.30
24	3K	76	A	C4-C5-N7	5.97	113.69	110.70
26	14	2402	C	N1-C2-O2	5.97	122.48	118.90
26	1H	2392	A	C4-C5-N7	5.97	113.68	110.70
1	13	117	G	C4-N9-C1'	5.96	134.25	126.50
1	13	892	A	C2-N3-C4	-5.96	107.62	110.60
26	1H	676	A	N1-C2-N3	5.96	132.28	129.30
26	1H	2608	G	C8-N9-C4	-5.96	104.01	106.40
26	14	1428	C	C6-N1-C2	5.96	122.69	120.30
26	1H	1696	G	C5-C6-O6	5.96	132.18	128.60
27	1J	89	G	N3-C4-N9	5.96	129.57	126.00
26	1H	1053	C	C5-C6-N1	5.96	123.98	121.00
26	1H	1314	C	C2-N1-C1'	5.96	125.35	118.80
26	1H	2700	C	C6-N1-C2	5.96	122.68	120.30
26	14	2318	G	C6-C5-N7	-5.95	126.83	130.40
26	1H	681	G	N1-C6-O6	-5.95	116.33	119.90
26	1H	203	C	O5'-P-OP2	5.94	117.83	110.70
27	16	24	G	N3-C4-N9	5.94	129.57	126.00
26	1H	1778	U	N1-C2-O2	5.94	126.96	122.80
26	1H	1792	G	O5'-P-OP1	-5.94	100.35	105.70
26	1H	1142(A)	A	N3-C4-N9	-5.94	122.65	127.40
26	1H	2318	G	O4'-C1'-N9	5.94	112.95	108.20
26	1H	1408	C	N3-C4-N4	5.94	122.16	118.00
26	1H	71	A	O4'-C1'-N9	-5.94	103.45	108.20
26	1H	474	G	C8-N9-C4	-5.94	104.03	106.40
26	1H	1695	G	C6-C5-N7	-5.94	126.84	130.40
26	14	466	A	O5'-P-OP1	-5.94	100.36	105.70
26	14	836	G	C6-C5-N7	-5.93	126.84	130.40
26	14	855	G	C8-N9-C4	-5.93	104.03	106.40
26	14	759	G	N1-C6-O6	5.93	123.46	119.90
26	14	791	C	N3-C2-O2	5.93	126.05	121.90
26	1H	251	A	O5'-P-OP1	-5.93	100.36	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	690	G	C8-N9-C4	-5.93	104.03	106.40
26	14	530	G	C5-N7-C8	-5.93	101.34	104.30
26	1H	2018	G	C8-N9-C4	-5.92	104.03	106.40
26	14	621	A	N7-C8-N9	5.92	116.76	113.80
26	14	835	A	N7-C8-N9	-5.92	110.84	113.80
1	13	789	U	N3-C2-O2	-5.92	118.06	122.20
26	1H	2530	A	N1-C6-N6	5.92	122.15	118.60
26	1H	2236	C	O5'-P-OP1	-5.92	100.37	105.70
26	1H	783	A	N1-C2-N3	5.92	132.26	129.30
26	1H	2449	U	OP2-P-O3'	5.92	118.22	105.20
26	14	1319	G	O5'-P-OP2	-5.92	100.37	105.70
26	14	2213	U	C5-C6-N1	5.92	125.66	122.70
1	13	117	G	C5-C6-N1	-5.92	108.54	111.50
26	1H	630	G	C2-N3-C4	-5.91	108.94	111.90
26	14	34	C	C2-N1-C1'	5.91	125.31	118.80
26	1H	842	G	N3-C4-C5	5.91	131.56	128.60
26	1H	308	G	N3-C4-C5	-5.91	125.64	128.60
26	1H	1491	G	N1-C6-O6	5.91	123.45	119.90
26	14	155	C	N3-C2-O2	-5.91	117.76	121.90
26	14	783	A	C5-C6-N1	-5.91	114.74	117.70
26	14	1658	C	N3-C4-C5	-5.91	119.53	121.90
26	14	2355	C	C2-N1-C1'	5.91	125.30	118.80
10	1I	70	ARG	NE-CZ-NH1	5.91	123.25	120.30
26	14	1801	G	C5-C6-O6	-5.91	125.06	128.60
27	1J	7	G	O5'-P-OP2	-5.91	100.39	105.70
26	1H	1003	G	C4-N9-C1'	5.90	134.18	126.50
26	1H	49	A	N9-C4-C5	-5.90	103.44	105.80
26	1H	1215	G	O5'-P-OP2	-5.90	100.39	105.70
26	1H	1681	G	N3-C4-N9	-5.90	122.46	126.00
26	1H	1989	G	C5-C6-O6	-5.90	125.06	128.60
26	1H	2429	G	O5'-P-OP1	5.90	117.78	110.70
26	14	1145	C	C6-N1-C2	-5.90	117.94	120.30
26	1H	397	G	N3-C4-N9	-5.90	122.46	126.00
26	1H	832	G	C8-N9-C4	-5.90	104.04	106.40
26	1H	2751	G	C8-N9-C1'	-5.90	119.33	127.00
34	61	110	ASP	C-N-CD	-5.90	107.62	120.60
26	1H	1204	A	C6-C5-N7	-5.90	128.17	132.30
26	14	1142	U	C6-N1-C1'	-5.90	112.94	121.20
26	14	1786	A	C5-C6-N1	-5.90	114.75	117.70
1	13	1026	G	N3-C4-C5	-5.90	125.65	128.60
26	1H	383	U	C6-N1-C1'	5.90	129.46	121.20
26	1H	2247	A	N1-C2-N3	5.90	132.25	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1329	U	N1-C2-N3	5.90	118.44	114.90
26	14	1663	C	C6-N1-C2	5.90	122.66	120.30
26	14	1968	G	C5-C6-O6	-5.90	125.06	128.60
26	14	2253	G	C5-C6-O6	-5.90	125.06	128.60
26	14	1379	A	C5-N7-C8	-5.90	100.95	103.90
3	2E	122	GLU	OE1-CD-OE2	-5.89	116.22	123.30
26	1H	1899	G	P-O3'-C3'	5.89	126.77	119.70
26	14	759	G	C5-C6-O6	-5.89	125.06	128.60
26	14	2346	A	C2-N3-C4	-5.89	107.65	110.60
1	13	570	G	O5'-P-OP2	-5.89	100.40	105.70
1	1G	345	C	P-O3'-C3'	5.89	126.77	119.70
26	14	113	G	C4-N9-C1'	-5.89	118.84	126.50
26	14	570	G	C4-N9-C1'	5.89	134.16	126.50
26	14	2873	A	C4-C5-N7	5.89	113.65	110.70
26	1H	1948	G	O5'-P-OP1	-5.89	100.40	105.70
26	1H	2079	U	O5'-P-OP1	-5.89	100.40	105.70
26	1H	2465	C	C5-C6-N1	-5.89	118.06	121.00
26	1H	2601	C	N3-C2-O2	-5.89	117.78	121.90
26	14	569	U	C5-C6-N1	-5.89	119.76	122.70
1	13	181	G	N3-C4-C5	-5.89	125.66	128.60
1	13	1435	G	N1-C6-O6	5.89	123.43	119.90
26	1H	1979	C	C6-N1-C2	-5.89	117.95	120.30
26	1H	2698	U	O5'-P-OP2	-5.89	100.40	105.70
26	14	752	A	P-O3'-C3'	5.89	126.76	119.70
26	1H	858	U	O5'-P-OP2	-5.88	100.40	105.70
26	1H	1644	C	C2-N1-C1'	5.88	125.27	118.80
1	13	525	C	C5-C6-N1	5.88	123.94	121.00
1	13	749	C	C2-N1-C1'	5.88	125.27	118.80
26	1H	1786	A	N9-C1'-C2'	5.88	121.64	114.00
26	1H	2584	U	N1-C2-N3	5.88	118.43	114.90
26	1H	2353	G	O5'-P-OP1	-5.88	100.41	105.70
22	1K	76	A	C5-N7-C8	-5.88	100.96	103.90
1	1G	1354	C	C6-N1-C2	-5.88	117.95	120.30
26	14	196	A	O4'-C1'-N9	5.88	112.90	108.20
26	1H	464	U	N1-C2-N3	5.88	118.43	114.90
26	1H	915	C	N1-C2-O2	5.88	122.42	118.90
26	1H	141	A	C6-C5-N7	-5.87	128.19	132.30
56	3L	16	U	N1-C2-O2	5.87	126.91	122.80
26	1H	2367	G	N7-C8-N9	5.87	116.03	113.10
26	14	2032	G	C5-N7-C8	-5.87	101.36	104.30
1	13	476	G	N3-C2-N2	-5.87	115.79	119.90
24	3K	71	C	O4'-C1'-N1	5.87	112.89	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2490	G	C2-N3-C4	-5.87	108.97	111.90
1	1G	898	G	N3-C4-C5	5.87	131.53	128.60
26	1H	784	A	P-O3'-C3'	5.87	126.74	119.70
1	1G	690	G	C8-N9-C4	-5.87	104.05	106.40
26	14	2329	G	N3-C4-N9	5.87	129.52	126.00
26	1H	970	C	N3-C4-C5	-5.86	119.56	121.90
26	1H	1654	A	C8-N9-C4	-5.86	103.45	105.80
26	1H	2264	C	OP1-P-O3'	5.86	118.10	105.20
26	14	385	C	P-O3'-C3'	5.86	126.73	119.70
26	14	2331	G	C8-N9-C4	5.86	108.74	106.40
26	1H	1804	C	O5'-P-OP1	5.86	117.73	110.70
26	1H	842	G	C5-C6-O6	-5.86	125.08	128.60
26	1H	1678	G	N1-C6-O6	5.86	123.41	119.90
26	1H	1882	C	C2-N1-C1'	5.86	125.24	118.80
26	1H	2232	U	C5-C4-O4	5.86	129.41	125.90
26	1H	2532	G	N1-C6-O6	5.86	123.41	119.90
1	13	723	U	C6-N1-C1'	-5.86	113.00	121.20
26	14	528	A	N3-C4-C5	5.86	130.90	126.80
26	1H	444	C	C6-N1-C2	-5.85	117.96	120.30
26	1H	1613	G	N1-C6-O6	-5.85	116.39	119.90
26	14	1348	G	O5'-P-OP2	5.85	117.72	110.70
27	1J	89	G	O5'-P-OP2	-5.85	100.43	105.70
26	14	1011	G	C4-N9-C1'	-5.85	118.89	126.50
26	1H	1728	G	C4-C5-N7	5.85	113.14	110.80
49	J8	21	ARG	NE-CZ-NH1	5.85	123.22	120.30
26	1H	2412	A	C6-N1-C2	-5.85	115.09	118.60
26	14	1021	A	C2-N3-C4	-5.85	107.68	110.60
26	1H	115	C	C5-C4-N4	-5.85	116.11	120.20
26	14	2253	G	N1-C6-O6	5.85	123.41	119.90
26	14	2755	C	C5-C6-N1	5.84	123.92	121.00
51	H5	8	LEU	CA-CB-CG	5.84	128.73	115.30
26	14	2163	C	C5-C6-N1	5.84	123.92	121.00
26	14	467	G	O5'-P-OP2	-5.84	100.44	105.70
1	13	449	C	C6-N1-C2	-5.84	117.97	120.30
1	13	1301	U	OP1-P-O3'	5.84	118.04	105.20
26	14	1210	A	C5-N7-C8	-5.84	100.98	103.90
27	16	41	U	C5-C6-N1	-5.83	119.78	122.70
26	14	126	A	O5'-P-OP1	-5.83	100.45	105.70
26	1H	2439	A	N9-C4-C5	-5.83	103.47	105.80
26	14	333	G	C4-N9-C1'	5.83	134.08	126.50
1	13	1007	C	C2-N1-C1'	5.83	125.21	118.80
26	1H	2018	G	N7-C8-N9	5.83	116.02	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	613	U	N3-C4-O4	-5.83	115.32	119.40
26	14	288	C	C2-N1-C1'	5.83	125.21	118.80
26	1H	641	C	O5'-P-OP1	-5.83	100.46	105.70
26	1H	1203	G	N3-C4-N9	5.83	129.50	126.00
26	1H	790	C	N1-C2-O2	-5.82	115.41	118.90
26	1H	1328	G	N3-C4-C5	-5.82	125.69	128.60
26	14	1601	G	OP1-P-O3'	5.82	118.01	105.20
26	1H	593	G	N1-C2-N3	5.82	127.39	123.90
26	1H	621	A	C5-C6-N6	-5.82	119.04	123.70
26	1H	1607	C	O5'-P-OP2	-5.82	100.46	105.70
26	1H	2441	C	N3-C2-O2	-5.82	117.83	121.90
26	1H	2490	G	O4'-C1'-N9	5.82	112.86	108.20
55	Q8	46	ARG	C-N-CA	5.82	136.25	121.70
1	1G	1200	C	N1-C2-O2	5.82	122.39	118.90
26	14	2712	U	N3-C4-O4	-5.82	115.33	119.40
26	1H	1442	G	C5-C6-N1	-5.82	108.59	111.50
26	14	125	G	N3-C4-C5	5.82	131.51	128.60
27	1J	103	U	C5-C6-N1	-5.82	119.79	122.70
26	1H	767	U	OP1-P-OP2	5.81	128.32	119.60
1	1G	197	A	N7-C8-N9	5.81	116.71	113.80
26	14	1367	A	C5-C6-N6	-5.81	119.05	123.70
26	1H	2601	C	N1-C2-O2	5.81	122.39	118.90
26	14	1409	C	N1-C2-O2	-5.81	115.41	118.90
26	1H	1931	U	N1-C2-O2	5.81	126.87	122.80
26	1H	2048	G	N1-C2-N2	5.81	121.43	116.20
26	14	915	C	N1-C2-O2	5.81	122.38	118.90
26	1H	681	G	C5-C6-N1	5.81	114.40	111.50
26	1H	834	C	C5-C4-N4	-5.81	116.14	120.20
1	1G	769	G	N3-C4-C5	-5.81	125.70	128.60
26	1H	945	A	C4-C5-N7	5.80	113.60	110.70
26	1H	593	G	N1-C2-N2	-5.80	110.98	116.20
26	1H	1598	C	C6-N1-C2	-5.80	117.98	120.30
26	1H	1695	G	N3-C4-C5	-5.80	125.70	128.60
26	1H	1786	A	N9-C4-C5	-5.80	103.48	105.80
26	14	2070	G	N1-C2-N3	5.80	127.38	123.90
26	1H	774	A	OP2-P-O3'	5.80	117.96	105.20
26	1H	774	A	C8-N9-C1'	5.80	138.14	127.70
26	14	1654	A	C5-C6-N6	5.80	128.34	123.70
26	14	1893	C	C6-N1-C2	-5.80	117.98	120.30
26	1H	1021	A	C4-C5-N7	5.80	113.60	110.70
26	14	821	A	N1-C6-N6	5.80	122.08	118.60
1	13	50	A	C8-N9-C4	-5.80	103.48	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	844	C	N1-C2-O2	-5.80	115.42	118.90
26	1H	1284	A	O5'-P-OP2	-5.80	100.48	105.70
26	1H	1968	G	C5-C6-O6	-5.80	125.12	128.60
26	1H	2409	G	C5-C6-O6	-5.80	125.12	128.60
26	14	2392	A	N7-C8-N9	5.80	116.70	113.80
26	1H	458	G	N3-C4-N9	-5.79	122.52	126.00
26	1H	2355	C	N1-C2-O2	5.79	122.38	118.90
26	14	1342	A	N1-C6-N6	5.79	122.08	118.60
26	1H	2053	G	N3-C2-N2	-5.79	115.84	119.90
1	1G	99	C	C6-N1-C2	-5.79	117.98	120.30
26	14	936	C	C6-N1-C2	5.79	122.62	120.30
26	14	2173	A	P-O3'-C3'	5.79	126.65	119.70
26	1H	121	G	C5-C6-N1	5.79	114.39	111.50
29	19	33	LEU	CA-CB-CG	5.79	128.62	115.30
26	1H	1026	U	C2-N1-C1'	-5.79	110.75	117.70
26	14	1588	C	C6-N1-C2	-5.79	117.98	120.30
26	1H	1348	G	OP1-P-O3'	5.79	117.93	105.20
26	14	1656	C	C6-N1-C2	-5.79	117.99	120.30
1	1G	529	G	C6-C5-N7	-5.78	126.93	130.40
26	14	1342	A	O4'-C1'-N9	5.78	112.83	108.20
26	1H	684	G	N3-C4-C5	-5.78	125.71	128.60
26	1H	245	G	C4-N9-C1'	5.78	134.01	126.50
26	14	1678	G	N3-C4-C5	5.78	131.49	128.60
26	14	2388	A	O4'-C1'-N9	5.78	112.82	108.20
26	14	1661	G	N9-C4-C5	-5.77	103.09	105.40
26	1H	190	A	N9-C4-C5	-5.77	103.49	105.80
1	13	1126	U	N3-C2-O2	-5.77	118.16	122.20
26	1H	1600	C	N1-C2-O2	5.77	122.36	118.90
26	14	74	A	C6-C5-N7	-5.77	128.26	132.30
26	14	2070	G	OP2-P-O3'	5.77	117.89	105.20
26	14	775	G	N3-C4-N9	5.77	129.46	126.00
26	1H	774	A	C5-N7-C8	-5.77	101.02	103.90
26	1H	2741	A	C8-N9-C4	5.77	108.11	105.80
26	14	2490	G	C5-N7-C8	-5.77	101.42	104.30
26	1H	74	A	O4'-C1'-N9	-5.76	103.59	108.20
26	1H	1567	A	C8-N9-C4	-5.76	103.49	105.80
1	1G	266	G	P-O3'-C3'	5.76	126.62	119.70
24	3K	76	A	C8-N9-C4	-5.76	103.50	105.80
26	14	2713	A	C5-N7-C8	-5.76	101.02	103.90
26	1H	2566	A	P-O3'-C3'	5.76	126.61	119.70
26	14	140	A	C8-N9-C4	-5.76	103.50	105.80
26	1H	2331	G	C8-N9-C4	5.76	108.70	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2409	G	C4-C5-N7	5.76	113.10	110.80
26	1H	2822	G	C6-C5-N7	-5.76	126.95	130.40
1	1G	1498	U	P-O3'-C3'	5.76	126.61	119.70
26	1H	783	A	C4-C5-C6	5.75	119.88	117.00
26	1H	1790	C	C2-N1-C1'	-5.75	112.47	118.80
26	1H	1992	G	N3-C4-C5	-5.75	125.72	128.60
26	14	467	G	C8-N9-C4	5.75	108.70	106.40
26	1H	440	G	N3-C4-C5	-5.75	125.72	128.60
26	1H	842	G	C4-C5-N7	5.75	113.10	110.80
26	14	2377	A	C2-N3-C4	-5.75	107.72	110.60
22	1K	44	U	C2-N1-C1'	5.75	124.60	117.70
26	1H	835	A	N3-C4-C5	-5.75	122.78	126.80
26	14	693	C	C2-N3-C4	-5.75	117.03	119.90
26	14	2051	A	C8-N9-C4	-5.75	103.50	105.80
26	1H	383	U	C5-C6-N1	-5.74	119.83	122.70
26	1H	1269	A	C5-N7-C8	-5.74	101.03	103.90
26	1H	1271	G	O5'-P-OP2	-5.74	100.53	105.70
26	14	922	U	C6-N1-C2	-5.74	117.56	121.00
1	13	651	C	N3-C2-O2	-5.74	117.88	121.90
26	1H	1600	C	O5'-P-OP2	-5.74	100.54	105.70
27	16	44	G	P-O3'-C3'	5.74	126.58	119.70
26	14	117	G	C5-C6-O6	-5.74	125.16	128.60
1	1G	1519	A	N1-C6-N6	-5.74	115.16	118.60
1	1G	784	C	C6-N1-C2	5.73	122.59	120.30
26	14	1781	C	O4'-C1'-N1	5.73	112.79	108.20
26	1H	1950	G	C4-N9-C1'	5.73	133.95	126.50
26	1H	2350	C	N3-C2-O2	-5.73	117.89	121.90
14	5A	6	LEU	CA-CB-CG	5.73	128.48	115.30
1	1G	1270	C	C6-N1-C2	-5.73	118.01	120.30
26	14	1349	A	C5-N7-C8	-5.73	101.04	103.90
26	14	1678	G	C4-C5-N7	5.73	113.09	110.80
26	1H	1348	G	O5'-P-OP1	-5.73	100.55	105.70
26	1H	142	G	C4-N9-C1'	-5.72	119.06	126.50
26	1H	594	U	C5-C6-N1	-5.72	119.84	122.70
1	13	1305	G	N1-C2-N3	5.72	127.33	123.90
26	1H	144	C	C5-C6-N1	-5.72	118.14	121.00
26	1H	1660	C	N3-C2-O2	-5.72	117.90	121.90
27	16	19	G	N3-C4-C5	5.72	131.46	128.60
26	14	510	C	C6-N1-C2	-5.72	118.01	120.30
26	1H	1757	U	C5-C6-N1	-5.72	119.84	122.70
26	1H	2392	A	O4'-C1'-N9	5.72	112.77	108.20
22	1L	70	C	C2-N1-C1'	5.72	125.09	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	792	A	O4'-C1'-N9	5.71	112.77	108.20
1	1G	197	A	C8-N9-C4	-5.71	103.51	105.80
26	14	1762	A	N1-C2-N3	5.71	132.16	129.30
26	1H	1899	G	N1-C2-N2	5.71	121.34	116.20
1	1G	1260	C	C6-N1-C2	-5.71	118.02	120.30
26	14	668	G	OP1-P-O3'	5.71	117.77	105.20
26	14	945	A	N9-C4-C5	-5.71	103.52	105.80
1	13	767	A	N1-C2-N3	5.71	132.16	129.30
26	1H	71	A	N1-C6-N6	5.71	122.03	118.60
26	1H	812	C	N1-C2-O2	-5.71	115.47	118.90
26	1H	964	C	C6-N1-C2	-5.71	118.02	120.30
26	1H	979	G	N1-C6-O6	5.71	123.33	119.90
26	14	467	G	N7-C8-N9	-5.71	110.25	113.10
22	1K	43	U	C2-N1-C1'	5.71	124.55	117.70
26	1H	760	G	N1-C6-O6	5.71	123.33	119.90
26	1H	2869	G	C8-N9-C4	-5.71	104.12	106.40
26	1H	464	U	N3-C2-O2	-5.71	118.21	122.20
26	1H	1022	G	C4-C5-N7	-5.71	108.52	110.80
26	1H	1353	A	N1-C6-N6	-5.71	115.18	118.60
26	1H	787	U	N3-C4-O4	-5.71	115.41	119.40
26	1H	198	C	C5-C6-N1	5.70	123.85	121.00
26	1H	598	G	OP1-P-OP2	5.70	128.15	119.60
26	1H	1786	A	OP1-P-O3'	5.70	117.75	105.20
26	1H	1906	G	N1-C6-O6	-5.70	116.48	119.90
26	14	659	C	C6-N1-C2	5.70	122.58	120.30
56	3L	53	G	N7-C8-N9	5.70	115.95	113.10
26	14	1570	A	N9-C4-C5	-5.70	103.52	105.80
1	13	208	U	P-O3'-C3'	5.70	126.54	119.70
26	1H	1257	C	OP2-P-O3'	5.70	117.74	105.20
26	1H	1400	G	C8-N9-C4	-5.70	104.12	106.40
26	14	330	A	C5-N7-C8	-5.70	101.05	103.90
1	1G	18	C	C5-C6-N1	5.70	123.85	121.00
26	14	570	G	C4-C5-C6	5.70	122.22	118.80
26	14	1899	G	N1-C2-N2	5.70	121.33	116.20
26	14	2346	A	N1-C2-N3	5.70	132.15	129.30
26	14	912	C	C2-N1-C1'	5.69	125.06	118.80
26	1H	123	G	C6-N1-C2	-5.69	121.69	125.10
26	1H	577	G	OP1-P-OP2	-5.69	111.06	119.60
26	1H	837	C	C5-C4-N4	-5.69	116.22	120.20
26	1H	1394	U	O5'-P-OP1	-5.69	100.58	105.70
26	1H	766	C	N3-C4-N4	5.69	121.98	118.00
26	1H	917	A	N1-C6-N6	5.69	122.02	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2386	C	C5-C6-N1	-5.69	118.16	121.00
26	1H	2374	C	N3-C4-C5	5.69	124.17	121.90
26	14	1018	C	C6-N1-C2	-5.69	118.03	120.30
26	14	1796	U	O5'-P-OP1	-5.69	100.58	105.70
24	3K	76	A	O4'-C1'-N9	5.68	112.75	108.20
26	1H	1338	G	C5-C6-N1	5.68	114.34	111.50
26	1H	2276	G	O5'-P-OP1	-5.68	100.58	105.70
26	1H	802	A	N1-C6-N6	5.68	122.01	118.60
1	1G	1227	A	C5-C6-N6	-5.68	119.15	123.70
26	1H	1198	U	O5'-P-OP2	-5.68	100.59	105.70
26	14	1992	G	N3-C4-C5	-5.68	125.76	128.60
26	1H	945	A	C5-N7-C8	-5.68	101.06	103.90
1	13	974	A	C4-C5-N7	5.67	113.54	110.70
22	1K	61	C	N1-C2-O2	5.67	122.31	118.90
26	14	2710	C	OP2-P-O3'	5.67	117.69	105.20
26	1H	2581	G	C8-N9-C1'	-5.67	119.63	127.00
26	1H	2585	U	N3-C4-O4	-5.67	115.43	119.40
26	1H	383	U	N1-C2-O2	-5.67	118.83	122.80
52	M8	39	CYS	N-CA-C	-5.67	95.70	111.00
1	1G	115	G	P-O3'-C3'	5.67	126.50	119.70
26	14	915	C	N3-C2-O2	-5.67	117.93	121.90
1	13	1524	C	N3-C4-C5	5.67	124.17	121.90
26	14	2032	G	N7-C8-N9	5.67	115.93	113.10
26	1H	250	G	C8-N9-C4	-5.66	104.14	106.40
26	14	1950	G	C5-N7-C8	-5.66	101.47	104.30
26	14	333	G	C8-N9-C4	-5.66	104.14	106.40
26	14	71	A	C2-N3-C4	-5.66	107.77	110.60
26	14	2346	A	N9-C1'-C2'	5.66	121.36	114.00
1	13	1317	C	C6-N1-C2	-5.66	118.04	120.30
1	13	555	C	C2-N1-C1'	5.66	125.02	118.80
26	1H	1614	A	C4-C5-N7	5.66	113.53	110.70
26	14	34	C	N3-C2-O2	-5.66	117.94	121.90
25	4K	19	A	C2-N3-C4	-5.66	107.77	110.60
26	1H	2499	C	OP2-P-O3'	5.66	117.64	105.20
27	16	81	G	N3-C2-N2	5.66	123.86	119.90
1	13	532	A	C4-C5-N7	5.65	113.53	110.70
1	13	574	A	C2-N3-C4	-5.65	107.77	110.60
26	1H	196	A	O4'-C1'-N9	5.65	112.72	108.20
26	1H	2710	C	C6-N1-C2	5.65	122.56	120.30
1	1G	1322	C	N1-C2-O2	5.65	122.29	118.90
26	14	765	G	N7-C8-N9	5.65	115.93	113.10
26	1H	783	A	N9-C1'-C2'	-5.65	105.78	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1210	A	N1-C6-N6	5.65	121.99	118.60
26	1H	822	U	N3-C2-O2	-5.65	118.25	122.20
1	1G	913	A	OP2-P-O3'	5.65	117.63	105.20
1	13	723	U	C5-C6-N1	5.65	125.52	122.70
26	14	204	A	C5-C6-N6	-5.65	119.18	123.70
26	14	754	C	N3-C2-O2	-5.65	117.95	121.90
26	14	2065	C	N1-C2-O2	5.65	122.29	118.90
26	14	2426	A	N7-C8-N9	5.65	116.62	113.80
1	13	328	C	N3-C2-O2	-5.65	117.95	121.90
27	16	81	G	C5-C6-N1	5.65	114.32	111.50
27	1J	114	G	C4-N9-C1'	-5.65	119.16	126.50
22	1K	76	A	C6-C5-N7	-5.64	128.35	132.30
26	1H	1972	A	O5'-P-OP2	-5.64	100.62	105.70
1	1G	437	U	C2-N1-C1'	5.64	124.47	117.70
26	14	71	A	C6-C5-N7	-5.64	128.35	132.30
26	1H	1678	G	C4-C5-N7	5.64	113.06	110.80
26	14	2001	A	C5-C6-N6	-5.64	119.19	123.70
26	1H	1304	C	C6-N1-C2	5.64	122.56	120.30
1	1G	380	G	N3-C4-N9	-5.64	122.62	126.00
26	1H	681	G	C6-N1-C2	-5.64	121.72	125.10
26	1H	256	A	C2-N3-C4	-5.63	107.78	110.60
26	14	242	G	C4-N9-C1'	-5.63	119.17	126.50
26	14	2518	A	N9-C4-C5	-5.63	103.55	105.80
26	1H	1003	G	N3-C4-N9	5.63	129.38	126.00
26	1H	1489	U	C6-N1-C1'	5.63	129.09	121.20
26	1H	2477	C	C6-N1-C2	-5.63	118.05	120.30
33	51	153	LYS	C-N-CA	5.63	145.65	122.00
37	78	45	LEU	CA-CB-CG	5.63	128.25	115.30
26	1H	2516	G	O5'-P-OP2	-5.63	100.63	105.70
26	14	1284	A	N1-C6-N6	5.63	121.98	118.60
26	1H	785	G	N3-C2-N2	-5.63	115.96	119.90
26	1H	1888	G	C8-N9-C1'	-5.63	119.68	127.00
26	1H	2446	G	O5'-P-OP2	-5.63	100.64	105.70
26	14	791	C	C6-N1-C2	5.63	122.55	120.30
1	1G	1322	C	C2-N3-C4	5.63	122.71	119.90
26	1H	2582	G	C8-N9-C4	-5.62	104.15	106.40
26	1H	335	C	C5-C6-N1	5.62	123.81	121.00
1	1G	909	A	C8-N9-C4	5.62	108.05	105.80
26	1H	2822	G	N1-C6-O6	5.62	123.27	119.90
1	13	668	G	N3-C4-C5	-5.62	125.79	128.60
26	1H	130	C	C5-C4-N4	-5.62	116.27	120.20
26	1H	651	G	C8-N9-C4	-5.62	104.15	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1313	U	C6-N1-C2	-5.62	117.63	121.00
26	1H	2561	A	N1-C6-N6	-5.62	115.23	118.60
37	78	23	PRO	C-N-CA	-5.62	110.50	122.30
27	16	16	G	C5-N7-C8	-5.62	101.49	104.30
1	13	117	G	C8-N9-C1'	-5.62	119.70	127.00
26	1H	120	U	C5-C4-O4	5.62	129.27	125.90
26	1H	440	G	N3-C4-N9	5.62	129.37	126.00
26	1H	973	A	N1-C2-N3	5.62	132.11	129.30
26	1H	1990	C	N1-C2-O2	5.61	122.27	118.90
26	14	523	C	C6-N1-C2	-5.61	118.06	120.30
26	14	765	G	C8-N9-C4	-5.61	104.16	106.40
26	14	2518	A	C2-N3-C4	-5.61	107.79	110.60
26	14	34	C	C6-N1-C1'	-5.61	114.07	120.80
1	13	523	A	N1-C6-N6	5.61	121.97	118.60
26	1H	138	G	C4-C5-N7	5.61	113.04	110.80
26	1H	1210	A	C5-N7-C8	-5.61	101.09	103.90
26	1H	1271	G	N1-C6-O6	5.61	123.27	119.90
26	1H	2476	A	C4-C5-C6	5.61	119.80	117.00
26	1H	468	G	C5-C6-O6	-5.61	125.24	128.60
26	1H	1742	C	C6-N1-C2	-5.61	118.06	120.30
26	1H	2847	U	O5'-P-OP1	-5.60	100.66	105.70
26	14	1604	C	N1-C2-O2	-5.60	115.54	118.90
1	13	1484	C	C6-N1-C2	-5.60	118.06	120.30
26	1H	189	G	N3-C4-C5	5.60	131.40	128.60
26	1H	2378	A	C8-N9-C4	5.60	108.04	105.80
1	1G	1270	C	C5-C6-N1	5.60	123.80	121.00
26	14	2272	U	N3-C2-O2	-5.60	118.28	122.20
26	14	2867	G	O4'-C1'-N9	5.60	112.68	108.20
26	1H	1823	G	N1-C2-N3	5.60	127.26	123.90
26	14	2313	C	C6-N1-C2	-5.60	118.06	120.30
26	14	809	G	O5'-P-OP2	-5.60	100.66	105.70
27	1J	89	G	C4-N9-C1'	5.60	133.78	126.50
26	1H	36	G	N1-C6-O6	-5.60	116.54	119.90
26	14	2346	A	C6-C5-N7	-5.60	128.38	132.30
26	1H	491	G	N3-C2-N2	-5.59	115.98	119.90
1	13	1266	G	C4-N9-C1'	-5.59	119.23	126.50
1	13	115	G	P-O3'-C3'	5.59	126.41	119.70
26	1H	2255	G	O5'-P-OP2	-5.59	100.67	105.70
26	1H	258	G	N3-C2-N2	5.59	123.81	119.90
26	1H	1006	C	N1-C2-O2	-5.59	115.55	118.90
26	1H	2506	U	C5-C6-N1	5.59	125.49	122.70
1	1G	490	G	C8-N9-C4	5.59	108.64	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	774	A	C5-N7-C8	-5.59	101.11	103.90
26	14	913	U	O5'-P-OP2	-5.59	100.67	105.70
1	13	656	C	C6-N1-C2	-5.58	118.07	120.30
1	13	1455	G	N3-C4-C5	5.58	131.39	128.60
26	1H	1271	G	C8-N9-C4	5.58	108.63	106.40
52	M8	38	LYS	C-N-CA	5.58	135.66	121.70
26	14	34	C	P-O3'-C3'	5.58	126.40	119.70
26	14	1324	G	O5'-P-OP1	-5.58	100.67	105.70
26	1H	681	G	N3-C4-N9	5.58	129.35	126.00
26	1H	945	A	C4-N9-C1'	5.58	136.35	126.30
26	1H	945	A	C8-N9-C1'	-5.58	117.65	127.70
26	1H	1363	C	C2-N3-C4	-5.58	117.11	119.90
26	1H	1393	A	O5'-P-OP2	-5.58	100.68	105.70
26	1H	2234	G	C8-N9-C4	5.58	108.63	106.40
22	1L	50	C	N1-C2-O2	5.58	122.25	118.90
26	14	2575	C	OP2-P-O3'	5.58	117.48	105.20
1	13	703	G	C4-N9-C1'	5.58	133.75	126.50
26	1H	411	G	N1-C6-O6	-5.58	116.55	119.90
26	1H	693	C	OP2-P-O3'	5.58	117.47	105.20
26	1H	834	C	N3-C4-N4	5.58	121.91	118.00
26	14	2584	U	C2-N1-C1'	5.58	124.39	117.70
1	13	295	C	O5'-P-OP2	-5.57	100.68	105.70
1	1G	963	G	C8-N9-C1'	-5.57	119.75	127.00
26	1H	140	A	OP2-P-O3'	5.57	117.45	105.20
26	1H	775	G	N3-C2-N2	5.57	123.80	119.90
26	1H	781	A	N1-C6-N6	-5.57	115.26	118.60
26	1H	2505	G	C5-C6-N1	-5.57	108.71	111.50
1	13	1279	A	C4-N9-C1'	5.57	136.32	126.30
26	1H	1780	A	N1-C6-N6	-5.57	115.26	118.60
26	14	2594	C	N1-C2-O2	-5.57	115.56	118.90
1	13	1064	G	N3-C4-N9	-5.57	122.66	126.00
22	1K	35	U	N3-C2-O2	-5.57	118.30	122.20
1	1G	1535	C	N1-C2-O2	5.56	122.24	118.90
23	2L	76	C	N3-C4-N4	5.56	121.89	118.00
26	14	1011	G	O4'-C1'-N9	5.56	112.65	108.20
26	14	2387	U	C5-C6-N1	-5.56	119.92	122.70
26	14	2712	U	OP2-P-O3'	5.56	117.44	105.20
26	1H	856	C	O5'-P-OP1	-5.56	100.69	105.70
26	1H	508	G	C5'-C4'-C3'	-5.56	107.11	116.00
26	1H	1974	C	C5-C6-N1	5.56	123.78	121.00
26	14	929	G	C6-C5-N7	-5.56	127.06	130.40
27	1J	56	G	N3-C4-N9	5.56	129.34	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	195	A	C5-N7-C8	-5.56	101.12	103.90
26	1H	1728	G	C5-C6-O6	-5.56	125.27	128.60
26	14	901	A	N7-C8-N9	5.56	116.58	113.80
26	1H	1618	A	C5-C6-N6	-5.55	119.26	123.70
26	14	2003	G	C5-C6-O6	-5.55	125.27	128.60
1	13	50	A	N1-C6-N6	-5.55	115.27	118.60
26	14	2507	C	N1-C2-O2	5.55	122.23	118.90
26	14	1471	A	C8-N9-C4	-5.55	103.58	105.80
1	13	1486	G	N3-C2-N2	-5.55	116.02	119.90
1	13	266	G	C5-N7-C8	-5.54	101.53	104.30
26	1H	404	C	P-O3'-C3'	5.54	126.35	119.70
26	1H	946	G	N3-C4-N9	-5.54	122.67	126.00
1	13	1235	U	C5-C6-N1	5.54	125.47	122.70
1	1G	1417	G	N1-C6-O6	5.54	123.23	119.90
56	3L	16	U	N3-C2-O2	-5.54	118.32	122.20
26	14	549	G	C5-C6-O6	-5.54	125.27	128.60
26	14	1301	A	O4'-C1'-N9	5.54	112.63	108.20
12	3I	93	LEU	CA-CB-CG	5.54	128.04	115.30
26	1H	452	G	N1-C6-O6	-5.54	116.58	119.90
26	1H	1599	C	O5'-P-OP2	-5.54	100.72	105.70
26	1H	2501	C	N3-C4-C5	5.54	124.11	121.90
55	Q8	52	LYS	N-CA-C	-5.54	96.05	111.00
56	3L	53	G	C8-N9-C4	-5.54	104.18	106.40
26	14	1558	A	C5-C6-N1	-5.54	114.93	117.70
26	1H	2064	C	C4-C5-C6	5.54	120.17	117.40
26	14	2228	G	C6-C5-N7	-5.54	127.08	130.40
26	1H	1558	A	P-O3'-C3'	5.54	126.34	119.70
26	1H	1618	A	C5-N7-C8	-5.53	101.13	103.90
1	13	5	U	N3-C2-O2	-5.53	118.33	122.20
26	1H	1345	C	C2-N1-C1'	-5.53	112.72	118.80
26	1H	1981	A	C4-C5-C6	-5.53	114.23	117.00
26	14	866	A	N9-C4-C5	-5.53	103.59	105.80
26	14	2030	A	OP1-P-OP2	5.53	127.89	119.60
26	14	2611	U	P-O3'-C3'	5.53	126.34	119.70
26	1H	1912	A	OP2-P-O3'	5.53	117.36	105.20
26	14	1543	A	O5'-P-OP1	5.53	117.33	110.70
26	14	2265	U	N3-C4-O4	5.53	123.27	119.40
23	2K	27	G	N1-C6-O6	5.53	123.22	119.90
26	14	22	C	N3-C4-N4	-5.53	114.13	118.00
1	13	1493	A	C5-C6-N1	-5.53	114.94	117.70
26	1H	1367	A	C5-C6-N6	-5.53	119.28	123.70
1	1G	576	G	C8-N9-C1'	-5.53	119.82	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	827	U	N1-C2-O2	-5.52	118.93	122.80
1	13	758	G	N3-C4-C5	5.52	131.36	128.60
26	14	2889	C	C6-N1-C2	-5.52	118.09	120.30
26	1H	1437	C	C6-N1-C2	-5.52	118.09	120.30
26	1H	1799	G	P-O3'-C3'	5.52	126.32	119.70
26	14	2037	G	N1-C6-O6	-5.52	116.59	119.90
26	1H	1303	G	N3-C4-C5	-5.52	125.84	128.60
26	14	1241	A	N1-C6-N6	5.52	121.91	118.60
1	1G	305	G	N1-C6-O6	-5.51	116.59	119.90
26	14	845	G	C8-N9-C1'	-5.51	119.83	127.00
26	1H	2429	G	OP2-P-O3'	5.51	117.33	105.20
1	1G	121	C	C2-N1-C1'	5.51	124.86	118.80
26	1H	1475	G	N3-C4-N9	-5.51	122.69	126.00
26	1H	609	A	O5'-P-OP1	5.51	117.31	110.70
26	1H	1909	C	N3-C2-O2	-5.51	118.04	121.90
26	1H	1860	G	N3-C4-C5	5.51	131.35	128.60
1	1G	528	C	C2-N1-C1'	-5.51	112.74	118.80
26	14	380	U	OP1-P-OP2	5.51	127.86	119.60
26	1H	1903	G	N1-C6-O6	-5.50	116.60	119.90
1	13	529	G	C5-C6-O6	-5.50	125.30	128.60
1	13	765	G	N3-C4-C5	-5.50	125.85	128.60
26	1H	146	G	C4-C5-N7	5.50	113.00	110.80
26	1H	232	G	C8-N9-C1'	-5.50	119.85	127.00
26	14	2627	G	C4-N9-C1'	5.50	133.66	126.50
26	1H	1304	C	O5'-P-OP2	-5.50	100.75	105.70
26	1H	209	C	N3-C4-C5	5.50	124.10	121.90
26	1H	1475	G	N3-C2-N2	-5.50	116.05	119.90
26	1H	1600	C	OP1-P-O3'	5.50	117.29	105.20
26	1H	1786	A	C8-N9-C1'	-5.50	117.81	127.70
1	1G	1197	G	O5'-P-OP1	-5.50	100.75	105.70
22	1L	69	A	P-O3'-C3'	5.50	126.30	119.70
26	14	226	G	N1-C6-O6	5.50	123.20	119.90
26	14	871	U	O5'-P-OP2	5.50	117.30	110.70
26	1H	1376	C	C6-N1-C2	-5.50	118.10	120.30
26	1H	2598	A	C5-C6-N6	-5.49	119.31	123.70
29	11	272	ALA	C-N-CA	5.49	135.43	121.70
1	1G	970	C	N1-C2-O2	5.49	122.20	118.90
26	1H	308	G	C4-N9-C1'	5.49	133.64	126.50
1	13	1484	C	N3-C4-C5	-5.49	119.70	121.90
26	14	121	G	C8-N9-C1'	-5.49	119.86	127.00
1	13	117	G	C4-C5-C6	5.49	122.09	118.80
1	13	1533	C	C2-N1-C1'	5.49	124.84	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2377	A	C8-N9-C4	5.49	108.00	105.80
26	1H	468	G	N1-C6-O6	5.49	123.19	119.90
26	1H	2033	A	C8-N9-C4	-5.49	103.61	105.80
1	13	1026	G	C4-N9-C1'	5.49	133.63	126.50
1	1G	610	G	O5'-P-OP2	-5.49	100.76	105.70
26	14	2401	U	C6-N1-C2	-5.49	117.71	121.00
26	1H	37	C	N3-C2-O2	-5.48	118.06	121.90
26	14	2304	G	N3-C4-N9	-5.48	122.71	126.00
1	13	914	A	O5'-P-OP1	-5.48	100.77	105.70
26	1H	514	A	C6-N1-C2	-5.48	115.31	118.60
26	1H	691	C	C5-C6-N1	-5.48	118.26	121.00
26	1H	1767	C	O5'-P-OP1	-5.48	100.77	105.70
26	1H	1992	G	OP2-P-O3'	5.48	117.26	105.20
27	16	7	G	N1-C6-O6	5.48	123.19	119.90
26	1H	773	U	N1-C2-O2	-5.48	118.96	122.80
26	1H	1394	U	C5-C6-N1	5.48	125.44	122.70
26	1H	2797	U	P-O3'-C3'	5.48	126.28	119.70
26	1H	1436	G	C8-N9-C4	-5.48	104.21	106.40
26	1H	842	G	C2-N3-C4	-5.48	109.16	111.90
26	1H	2378	A	N1-C6-N6	5.48	121.89	118.60
26	1H	2593	U	N1-C2-O2	-5.48	118.97	122.80
1	1G	250	A	P-O3'-C3'	5.48	126.27	119.70
26	14	1698	A	C4-C5-N7	5.48	113.44	110.70
1	13	560	U	P-O3'-C3'	5.48	126.27	119.70
26	1H	2390	U	OP1-P-O3'	5.48	117.25	105.20
26	1H	178	G	O5'-P-OP2	5.47	117.27	110.70
26	1H	1122	G	C8-N9-C4	5.47	108.59	106.40
1	13	952	U	N3-C2-O2	-5.47	118.37	122.20
1	1G	687	A	P-O3'-C3'	5.47	126.26	119.70
26	14	1422	G	N3-C4-C5	5.47	131.34	128.60
23	2K	17	C	O4'-C1'-N1	-5.47	103.83	108.20
26	14	945	A	N3-C4-C5	5.47	130.63	126.80
26	1H	2012	G	C5-C6-O6	-5.46	125.32	128.60
26	14	1367	A	C4-C5-N7	5.46	113.43	110.70
26	1H	621	A	O4'-C1'-N9	5.46	112.57	108.20
26	14	2436	G	O5'-P-OP1	-5.46	100.78	105.70
26	1H	2379	G	N3-C4-N9	5.46	129.28	126.00
1	1G	449	C	C6-N1-C2	-5.46	118.12	120.30
26	1H	470	A	O5'-P-OP1	-5.46	100.79	105.70
26	1H	2704	C	C6-N1-C2	5.46	122.48	120.30
26	14	2279	G	N1-C6-O6	-5.46	116.62	119.90
26	1H	223	A	N1-C6-N6	5.46	121.88	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	1J	114	G	C8-N9-C4	5.46	108.58	106.40
26	1H	256	A	C5-C6-N1	-5.46	114.97	117.70
26	1H	1826	G	C8-N9-C4	5.45	108.58	106.40
26	14	2445	G	C8-N9-C4	-5.45	104.22	106.40
26	1H	632	A	C4-C5-N7	5.45	113.42	110.70
26	1H	1489	U	O4'-C1'-N1	5.45	112.56	108.20
1	1G	33	A	N7-C8-N9	5.45	116.53	113.80
26	14	836	G	C5-C6-O6	-5.45	125.33	128.60
1	13	1065	U	P-O3'-C3'	5.45	126.24	119.70
26	1H	207	A	C2-N3-C4	-5.45	107.88	110.60
26	1H	1142(A)	A	N3-C4-C5	5.45	130.61	126.80
26	1H	124	G	N3-C4-C5	5.45	131.32	128.60
1	13	893	C	N1-C2-O2	5.45	122.17	118.90
22	1L	18	G	P-O3'-C3'	5.45	126.23	119.70
26	1H	1550	C	N1-C2-O2	-5.44	115.63	118.90
26	1H	845	G	O4'-C1'-N9	5.44	112.55	108.20
26	1H	2598	A	P-O3'-C3'	5.44	126.23	119.70
55	M5	62	LEU	CA-CB-CG	5.44	127.82	115.30
26	1H	129	C	C6-N1-C2	5.44	122.48	120.30
26	1H	1298	C	C6-N1-C2	-5.44	118.12	120.30
26	1H	1968	G	N1-C6-O6	5.44	123.17	119.90
26	1H	2772	C	O5'-P-OP1	-5.44	100.80	105.70
26	1H	256	A	N9-C4-C5	-5.44	103.62	105.80
26	1H	1296	G	N1-C6-O6	-5.44	116.64	119.90
26	1H	1344	G	N1-C6-O6	5.44	123.16	119.90
26	14	2253	G	C5-N7-C8	-5.44	101.58	104.30
26	14	2429	G	O5'-P-OP1	5.44	117.23	110.70
26	1H	2346	A	N9-C1'-C2'	5.44	121.07	114.00
26	14	530	G	C8-N9-C1'	-5.44	119.93	127.00
26	1H	838	C	C4-C5-C6	5.43	120.12	117.40
1	1G	690	G	N3-C4-C5	5.43	131.32	128.60
29	19	272	ALA	C-N-CA	5.43	135.29	121.70
1	13	325	A	N1-C2-N3	-5.43	126.58	129.30
26	1H	265	A	C5-N7-C8	-5.43	101.18	103.90
26	14	1979	C	C6-N1-C2	-5.43	118.13	120.30
26	14	2210	G	N3-C4-C5	-5.43	125.88	128.60
26	14	2596	U	OP1-P-OP2	5.43	127.75	119.60
26	1H	2689	U	C5-C4-O4	5.43	129.16	125.90
26	1H	1961	C	O5'-P-OP1	-5.43	100.81	105.70
26	1H	2552	U	C4-C5-C6	5.43	122.96	119.70
1	13	897	C	C6-N1-C2	5.43	122.47	120.30
26	14	2256	G	O5'-P-OP2	-5.43	100.81	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	219	G	C8-N9-C4	-5.43	104.23	106.40
26	1H	864	G	C2-N3-C4	5.43	114.61	111.90
26	14	1441	G	C8-N9-C4	5.43	108.57	106.40
1	13	945	G	O5'-P-OP2	-5.42	100.82	105.70
26	1H	1161	C	C6-N1-C2	-5.42	118.13	120.30
26	1H	970	C	N3-C4-N4	5.42	121.80	118.00
26	1H	1244	G	C5-C6-O6	-5.42	125.35	128.60
26	1H	2043	C	C5-C6-N1	5.42	123.71	121.00
1	13	1128	C	N3-C2-O2	-5.42	118.11	121.90
1	13	1467	G	O5'-P-OP2	-5.42	100.82	105.70
26	1H	566	U	C5-C4-O4	-5.42	122.65	125.90
26	1H	663	G	C8-N9-C4	-5.42	104.23	106.40
1	1G	180	U	C5-C6-N1	5.42	125.41	122.70
26	14	1374	G	N3-C4-C5	-5.42	125.89	128.60
27	16	19	G	N3-C4-N9	-5.42	122.75	126.00
26	14	1372	U	N1-C2-O2	-5.42	119.01	122.80
24	3K	34	U	C6-N1-C1'	-5.42	113.61	121.20
26	14	2607	G	C6-C5-N7	-5.42	127.15	130.40
26	1H	59	U	C5-C6-N1	5.42	125.41	122.70
26	1H	2518	A	O4'-C1'-N9	-5.42	103.87	108.20
26	14	330	A	C4-C5-N7	5.42	113.41	110.70
26	1H	495	G	N3-C2-N2	-5.42	116.11	119.90
26	1H	73	A	C2-N3-C4	5.41	113.31	110.60
26	1H	451	C	C2-N1-C1'	-5.41	112.85	118.80
26	1H	2448	A	O5'-P-OP1	-5.41	100.83	105.70
26	1H	862	G	C5-C6-O6	5.41	131.85	128.60
26	1H	2444	G	N9-C4-C5	5.41	107.56	105.40
26	14	988	A	C6-C5-N7	-5.41	128.51	132.30
1	13	971	G	O5'-P-OP2	-5.41	100.83	105.70
26	1H	736	C	O5'-P-OP1	-5.41	100.83	105.70
26	1H	1781	C	N3-C4-C5	5.41	124.06	121.90
26	14	528	A	C5-N7-C8	-5.41	101.19	103.90
26	1H	2311	A	C4-N9-C1'	5.41	136.04	126.30
26	14	1644	C	C2-N1-C1'	5.41	124.75	118.80
26	1H	244	A	C5-C6-N6	-5.41	119.38	123.70
26	1H	377	C	C5-C4-N4	-5.41	116.42	120.20
26	1H	1241	A	N1-C6-N6	5.41	121.84	118.60
26	1H	2346	A	C5-N7-C8	-5.41	101.20	103.90
1	1G	481	G	N3-C4-C5	-5.41	125.90	128.60
26	14	906	G	C8-N9-C4	-5.41	104.24	106.40
26	14	1313	U	C2-N1-C1'	5.41	124.19	117.70
1	13	266	G	C4-N9-C1'	5.40	133.53	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1698	A	O4'-C1'-N9	5.40	112.52	108.20
26	1H	113	G	N1-C6-O6	5.40	123.14	119.90
26	1H	190	A	C5-C6-N6	-5.40	119.38	123.70
26	1H	776	G	O4'-C1'-N9	-5.40	103.88	108.20
26	1H	784	A	N1-C6-N6	-5.40	115.36	118.60
26	1H	1021	A	N1-C6-N6	5.40	121.84	118.60
26	1H	1967	C	OP1-P-OP2	5.40	127.70	119.60
26	14	2211	G	C6-C5-N7	-5.40	127.16	130.40
36	25	117	LEU	CA-CB-CG	-5.40	102.87	115.30
26	1H	2269	A	C8-N9-C4	5.40	107.96	105.80
26	1H	2281	C	N3-C4-C5	5.40	124.06	121.90
26	14	1630(A)	C	O5'-P-OP1	-5.40	100.84	105.70
26	14	1814	G	N1-C6-O6	5.40	123.14	119.90
45	B5	63	LYS	CD-CE-NZ	-5.40	99.28	111.70
1	13	117	G	C5-C6-O6	-5.40	125.36	128.60
26	1H	1981	A	C4-N9-C1'	-5.40	116.58	126.30
27	16	95	U	C2-N1-C1'	-5.40	111.22	117.70
42	C8	74	LEU	CA-CB-CG	5.40	127.72	115.30
26	1H	828	U	C6-N1-C2	-5.39	117.76	121.00
26	1H	833	U	N3-C4-C5	-5.39	111.36	114.60
26	1H	930	U	OP1-P-O3'	5.39	117.07	105.20
26	1H	1312	U	O5'-P-OP1	-5.39	100.84	105.70
26	1H	1814	G	OP1-P-OP2	5.39	127.69	119.60
26	1H	2451	A	C8-N9-C4	-5.39	103.64	105.80
8	7E	107	LEU	CA-CB-CG	5.39	127.70	115.30
26	1H	270(O)	U	C2-N1-C1'	5.39	124.17	117.70
26	1H	1517	G	OP1-P-O3'	5.39	117.06	105.20
26	14	803	U	O5'-P-OP2	-5.39	100.85	105.70
26	14	2191	G	C4-N9-C1'	5.39	133.51	126.50
26	1H	72	U	OP1-P-O3'	5.39	117.06	105.20
26	1H	729	G	C6-C5-N7	-5.39	127.17	130.40
26	14	769	G	OP1-P-O3'	5.39	117.06	105.20
26	1H	1841	U	N3-C4-O4	5.39	123.17	119.40
23	2L	21	U	C2-N1-C1'	5.39	124.17	117.70
26	14	3	U	C6-N1-C1'	-5.39	113.66	121.20
26	14	2501	C	C2-N1-C1'	-5.39	112.87	118.80
26	1H	232	G	C4-N9-C1'	5.39	133.50	126.50
26	1H	600	G	N9-C4-C5	-5.39	103.25	105.40
26	1H	917	A	C5-C6-N1	-5.39	115.01	117.70
26	1H	1324	G	N1-C6-O6	5.39	123.13	119.90
26	1H	1506	C	N1-C2-O2	5.39	122.13	118.90
26	1H	1636	C	N3-C4-C5	-5.39	119.75	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1654	A	N9-C4-C5	5.39	107.95	105.80
26	1H	1811	G	N3-C2-N2	-5.39	116.13	119.90
26	1H	1858	G	C8-N9-C1'	-5.39	120.00	127.00
26	14	2617	C	C6-N1-C2	5.39	122.45	120.30
26	1H	461	C	N1-C2-O2	-5.38	115.67	118.90
26	1H	1109	C	N3-C2-O2	-5.38	118.13	121.90
26	1H	1204	A	C8-N9-C4	-5.38	103.65	105.80
26	1H	2271	G	C5-C6-O6	-5.38	125.37	128.60
26	14	1349	A	N7-C8-N9	5.38	116.49	113.80
26	14	2581	G	N1-C2-N3	5.38	127.13	123.90
26	1H	1300	U	N1-C2-N3	5.38	118.13	114.90
27	1J	114	G	N3-C4-C5	5.38	131.29	128.60
1	13	536	C	N3-C4-C5	-5.38	119.75	121.90
26	1H	1597	A	O4'-C1'-N9	5.38	112.50	108.20
26	1H	1307	A	N1-C6-N6	5.38	121.83	118.60
26	1H	2067	G	C8-N9-C4	-5.38	104.25	106.40
1	1G	117	G	C4-C5-C6	5.38	122.03	118.80
26	14	795	C	N1-C2-O2	5.38	122.13	118.90
1	13	122	G	N1-C6-O6	5.38	123.12	119.90
26	1H	458	G	N9-C4-C5	5.38	107.55	105.40
26	1H	1191	G	N1-C6-O6	-5.38	116.67	119.90
26	1H	1699	G	O5'-P-OP1	-5.38	100.86	105.70
26	1H	764	A	C6-N1-C2	5.37	121.82	118.60
26	1H	2311	A	N7-C8-N9	5.37	116.49	113.80
1	13	1226	C	N1-C2-O2	-5.37	115.68	118.90
26	1H	70	G	P-O3'-C3'	5.37	126.14	119.70
26	1H	693	C	C5-C6-N1	-5.37	118.31	121.00
26	1H	1779	U	C6-N1-C1'	-5.37	113.68	121.20
26	14	603	A	N7-C8-N9	5.37	116.49	113.80
26	1H	2712	U	C2-N1-C1'	5.37	124.14	117.70
26	1H	576	U	C6-N1-C2	-5.37	117.78	121.00
26	1H	1157	G	C4-N9-C1'	5.37	133.48	126.50
26	14	750	A	C8-N9-C4	-5.37	103.65	105.80
26	14	945	A	C5-C6-N6	-5.37	119.40	123.70
26	14	451	C	O4'-C1'-N1	5.37	112.49	108.20
26	14	1435	G	C5-C6-O6	-5.37	125.38	128.60
26	14	1899	G	C4-C5-C6	-5.37	115.58	118.80
26	14	2500	U	C5-C6-N1	-5.37	120.02	122.70
1	13	712	A	N1-C6-N6	-5.36	115.38	118.60
26	1H	411	G	C5-C6-O6	5.36	131.82	128.60
26	1H	1601	G	OP1-P-O3'	5.36	117.00	105.20
26	1H	2375	G	C8-N9-C4	5.36	108.55	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2712	U	C5-C6-N1	-5.36	120.02	122.70
1	13	1509	C	O5'-P-OP1	-5.36	100.88	105.70
26	1H	528	A	N3-C4-N9	-5.36	123.11	127.40
26	1H	683	C	C6-N1-C2	5.36	122.44	120.30
26	1H	791	C	C6-N1-C2	5.36	122.44	120.30
26	1H	1836	C	N3-C2-O2	-5.36	118.15	121.90
26	1H	2358	G	N9-C4-C5	5.36	107.54	105.40
26	1H	2581	G	N3-C4-C5	-5.36	125.92	128.60
26	14	741	G	N3-C2-N2	-5.36	116.15	119.90
26	14	1678	G	C2-N3-C4	-5.36	109.22	111.90
30	29	53	PRO	C-N-CA	5.36	135.09	121.70
26	1H	566	U	C6-N1-C2	5.36	124.21	121.00
26	1H	1914	C	O4'-C1'-N1	5.36	112.48	108.20
26	14	206	U	N3-C2-O2	-5.36	118.45	122.20
26	1H	101	G	N3-C4-N9	5.35	129.21	126.00
26	1H	2317	C	N3-C4-N4	5.35	121.75	118.00
26	14	783	A	N3-C4-C5	5.35	130.55	126.80
26	1H	2490	G	C8-N9-C4	-5.35	104.26	106.40
1	1G	1128	C	N1-C2-O2	5.35	122.11	118.90
26	14	1517	G	C8-N9-C4	-5.35	104.26	106.40
26	1H	115	C	N1-C2-O2	-5.35	115.69	118.90
26	1H	828	U	N3-C2-O2	-5.35	118.46	122.20
26	1H	1779	U	N1-C2-O2	5.35	126.54	122.80
26	1H	2504	U	N3-C4-O4	-5.35	115.66	119.40
26	14	1321	A	N1-C6-N6	5.35	121.81	118.60
26	1H	832	G	O5'-P-OP1	-5.34	100.89	105.70
26	1H	1534	G	C4-N9-C1'	5.34	133.45	126.50
26	1H	2688	U	C5-C6-N1	-5.34	120.03	122.70
56	3L	76	A	C4-C5-N7	5.34	113.37	110.70
1	13	325	A	C4-C5-C6	-5.34	114.33	117.00
26	1H	372	G	N1-C6-O6	-5.34	116.69	119.90
26	1H	2271	G	C4-C5-N7	5.34	112.94	110.80
26	1H	59	U	N3-C4-C5	-5.34	111.39	114.60
26	1H	1544	C	C6-N1-C2	5.34	122.44	120.30
26	1H	1623	G	N1-C2-N2	-5.34	111.39	116.20
26	1H	1661	G	O5'-P-OP2	-5.34	100.89	105.70
1	13	532	A	C6-C5-N7	-5.34	128.56	132.30
26	1H	71	A	N7-C8-N9	5.34	116.47	113.80
26	1H	1780	A	C5-C6-N6	5.34	127.97	123.70
26	1H	2392	A	C6-N1-C2	5.34	121.80	118.60
1	1G	1128	C	C6-N1-C2	-5.34	118.16	120.30
26	14	1772	G	OP1-P-OP2	5.34	127.61	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	345	C	N3-C2-O2	-5.34	118.16	121.90
26	1H	2640	G	N1-C6-O6	5.34	123.10	119.90
26	1H	55	G	N3-C2-N2	-5.34	116.16	119.90
26	1H	681	G	C4-C5-N7	-5.34	108.67	110.80
26	1H	1689	A	N1-C6-N6	-5.34	115.40	118.60
26	14	2409	G	N3-C4-N9	5.34	129.20	126.00
1	1G	963	G	N3-C4-N9	5.33	129.20	126.00
26	14	2546	U	C6-N1-C2	-5.33	117.80	121.00
26	1H	195	A	O5'-P-OP2	-5.33	100.90	105.70
26	1H	1193	G	N7-C8-N9	-5.33	110.44	113.10
26	1H	1304	C	O5'-P-OP1	5.33	117.10	110.70
26	14	396	G	C4-N9-C1'	5.33	133.43	126.50
26	14	1049	C	C2-N1-C1'	5.33	124.66	118.80
26	14	1957	C	C6-N1-C2	5.33	122.43	120.30
26	1H	624	C	N3-C2-O2	5.33	125.63	121.90
26	1H	1614	A	O4'-C1'-N9	5.33	112.46	108.20
26	14	161	U	C5-C6-N1	5.33	125.36	122.70
26	1H	952	G	C4-C5-N7	5.33	112.93	110.80
26	1H	1192	G	N3-C4-N9	5.33	129.19	126.00
26	1H	1693	U	O5'-P-OP1	-5.33	100.91	105.70
26	1H	2611	U	N3-C4-O4	-5.33	115.67	119.40
26	14	2307	G	C6-C5-N7	-5.33	127.20	130.40
26	1H	1206	G	C8-N9-C4	-5.32	104.27	106.40
26	1H	1644	C	N3-C2-O2	-5.32	118.17	121.90
26	1H	1899	G	OP2-P-O3'	5.32	116.91	105.20
26	1H	2822	G	C4-C5-N7	5.32	112.93	110.80
26	14	1193	G	N1-C6-O6	5.32	123.09	119.90
1	13	975	A	C4-C5-N7	5.32	113.36	110.70
26	1H	1614	A	N1-C2-N3	5.32	131.96	129.30
26	14	638	G	C4-N9-C1'	5.32	133.42	126.50
26	14	916	G	C8-N9-C4	-5.32	104.27	106.40
26	14	1762	A	C2-N3-C4	-5.32	107.94	110.60
1	13	1212	U	O4'-C1'-N1	5.32	112.46	108.20
26	1H	410	G	C5-C6-O6	-5.32	125.41	128.60
26	1H	451	C	N3-C2-O2	5.32	125.62	121.90
1	1G	1519	A	C5-C6-N6	5.32	127.95	123.70
26	14	1395	A	O4'-C1'-N9	5.32	112.45	108.20
1	13	208	U	C2-N1-C1'	5.32	124.08	117.70
1	13	792	A	C8-N9-C4	5.32	107.93	105.80
26	1H	148	C	C2-N3-C4	-5.32	117.24	119.90
26	14	2766	G	C4-N9-C1'	5.32	133.41	126.50
54	L5	34	ARG	NE-CZ-NH1	-5.32	117.64	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	475	U	C6-N1-C2	-5.31	117.81	121.00
26	14	670	A	C8-N9-C4	5.31	107.93	105.80
1	13	32	A	N7-C8-N9	5.31	116.46	113.80
26	1H	1343	G	N3-C4-C5	-5.31	125.94	128.60
26	1H	1630	G	N1-C6-O6	-5.31	116.71	119.90
22	1K	76	A	N1-C6-N6	5.31	121.79	118.60
26	1H	463	G	N1-C2-N2	-5.31	111.42	116.20
26	1H	2847	U	N1-C2-O2	-5.31	119.08	122.80
26	14	330	A	N1-C6-N6	5.31	121.79	118.60
26	1H	1316	U	C5-C4-O4	5.31	129.09	125.90
26	1H	2210	G	OP2-P-O3'	5.31	116.88	105.20
1	1G	1395	C	C6-N1-C2	-5.31	118.18	120.30
26	1H	576	U	C5-C4-O4	5.31	129.08	125.90
26	1H	955	C	O5'-P-OP2	-5.31	100.92	105.70
26	1H	1698	A	N7-C8-N9	5.31	116.45	113.80
26	14	798	G	C6-C5-N7	-5.31	127.22	130.40
26	14	912	C	C5-C6-N1	5.31	123.65	121.00
26	1H	247	G	N7-C8-N9	-5.31	110.45	113.10
46	C5	103	GLY	N-CA-C	5.31	126.36	113.10
26	1H	640	C	OP1-P-O3'	5.30	116.87	105.20
26	1H	1992	G	C8-N9-C4	-5.30	104.28	106.40
37	78	61	ARG	NE-CZ-NH1	-5.30	117.65	120.30
1	1G	27	G	N1-C6-O6	5.30	123.08	119.90
1	13	975	A	N9-C4-C5	-5.30	103.68	105.80
1	13	298	A	C8-N9-C4	-5.30	103.68	105.80
1	13	963	G	C8-N9-C1'	-5.30	120.11	127.00
1	13	1214	C	C2-N1-C1'	-5.30	112.97	118.80
26	1H	329	G	C8-N9-C4	5.30	108.52	106.40
27	16	98	G	OP1-P-OP2	5.30	127.55	119.60
1	13	888	G	C5-C6-O6	-5.30	125.42	128.60
1	13	903	G	O5'-P-OP2	-5.30	100.93	105.70
26	1H	197	A	C2-N3-C4	-5.30	107.95	110.60
26	1H	1800	C	C6-N1-C2	-5.30	118.18	120.30
26	1H	1992	G	O4'-C1'-N9	-5.30	103.96	108.20
26	14	4	C	N3-C2-O2	-5.30	118.19	121.90
26	1H	2065	C	C5-C6-N1	5.30	123.65	121.00
13	4A	66	LEU	CB-CG-CD2	-5.30	101.99	111.00
26	14	140	A	C5-C6-N6	-5.30	119.46	123.70
26	1H	2686	G	N3-C4-C5	-5.30	125.95	128.60
4	32	3	ARG	NH1-CZ-NH2	-5.30	113.57	119.40
26	1H	2390	U	C6-N1-C2	-5.29	117.82	121.00
27	16	24	G	C4-N9-C1'	5.29	133.38	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	16	61	G	C8-N9-C4	-5.29	104.28	106.40
1	13	994	A	C2-N3-C4	5.29	113.25	110.60
26	1H	1021	A	C5-C6-N1	-5.29	115.05	117.70
26	1H	1604	C	O5'-P-OP2	5.29	117.05	110.70
26	1H	1794	U	N1-C2-N3	5.29	118.08	114.90
26	1H	2468	G	O4'-C1'-N9	5.29	112.44	108.20
26	14	856	C	O5'-P-OP1	-5.29	100.94	105.70
26	14	2895	U	C5-C6-N1	5.29	125.35	122.70
37	35	45	LEU	CA-CB-CG	5.29	127.47	115.30
38	45	82	ARG	N-CA-C	5.29	125.29	111.00
26	1H	787	U	C2-N1-C1'	-5.29	111.35	117.70
26	1H	1241	A	C5-C6-N1	-5.29	115.05	117.70
26	1H	1347	G	C5-C6-O6	-5.29	125.42	128.60
26	1H	2638	G	C4-C5-N7	5.29	112.92	110.80
26	14	1342	A	C4-N9-C1'	5.29	135.82	126.30
26	14	1349	A	C8-N9-C4	-5.29	103.68	105.80
26	14	1555	G	C6-C5-N7	-5.29	127.22	130.40
26	1H	246	C	O5'-P-OP2	-5.29	100.94	105.70
26	1H	1011	G	C8-N9-C4	-5.29	104.28	106.40
26	14	1241	A	C2-N3-C4	-5.29	107.95	110.60
1	13	723	U	N1-C2-O2	5.29	126.50	122.80
26	1H	193	U	C5-C6-N1	-5.29	120.06	122.70
26	1H	1975	G	C6-C5-N7	-5.29	127.23	130.40
26	1H	2304	G	N3-C4-C5	5.29	131.24	128.60
1	1G	1502	A	C4-C5-N7	5.29	113.34	110.70
26	14	461	C	C6-N1-C2	-5.29	118.19	120.30
26	14	461	C	N1-C2-O2	-5.29	115.73	118.90
26	1H	1625	C	C6-N1-C2	5.29	122.42	120.30
26	1H	1991	U	OP1-P-OP2	-5.29	111.67	119.60
26	1H	48	G	P-O3'-C3'	5.29	126.04	119.70
26	1H	1755	A	O5'-P-OP1	-5.29	100.94	105.70
26	1H	2294	C	C6-N1-C2	-5.29	118.19	120.30
1	1G	1502	A	C8-N9-C4	-5.29	103.69	105.80
26	14	2581	G	N7-C8-N9	5.29	115.74	113.10
26	14	2873	A	C5-C6-N1	-5.29	115.06	117.70
1	13	576	G	C8-N9-C1'	-5.28	120.13	127.00
17	8I	70	ARG	NE-CZ-NH1	-5.28	117.66	120.30
26	1H	2579	C	N1-C2-O2	-5.28	115.73	118.90
26	14	835	A	C8-N9-C4	5.28	107.91	105.80
26	1H	329	G	O5'-P-OP2	-5.28	100.95	105.70
26	1H	804	A	N1-C6-N6	5.28	121.77	118.60
26	1H	1190	G	N1-C6-O6	-5.28	116.73	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1324	G	O4'-C1'-N9	5.28	112.42	108.20
26	14	762	U	O5'-P-OP1	-5.28	100.95	105.70
26	1H	146	G	N1-C6-O6	5.28	123.07	119.90
26	1H	663	G	C4-C5-C6	5.28	121.97	118.80
26	1H	1678	G	N1-C2-N2	5.28	120.95	116.20
26	1H	2601	C	C2-N1-C1'	5.28	124.61	118.80
26	1H	762	U	N1-C2-N3	-5.28	111.73	114.90
26	14	1349	A	N1-C6-N6	5.28	121.77	118.60
37	78	50	ARG	NE-CZ-NH2	5.28	122.94	120.30
26	14	47	C	C6-N1-C2	5.28	122.41	120.30
1	13	1187	G	C8-N9-C1'	-5.27	120.14	127.00
26	1H	27	G	N3-C4-C5	-5.27	125.96	128.60
26	14	2447	G	C4-N9-C1'	-5.27	119.64	126.50
1	1G	528	C	O4'-C1'-N1	5.27	112.42	108.20
22	1K	76	A	C4-C5-N7	5.27	113.33	110.70
26	1H	575	A	C8-N9-C4	5.27	107.91	105.80
26	1H	1829	A	C5-C6-N6	5.27	127.92	123.70
26	1H	2530	A	C5-C6-N6	-5.27	119.48	123.70
1	1G	898	G	C2-N3-C4	-5.27	109.27	111.90
26	14	1332	G	N1-C2-N3	5.27	127.06	123.90
26	14	2510	C	C5-C6-N1	-5.27	118.36	121.00
1	13	4	U	C5-C6-N1	5.27	125.33	122.70
26	1H	681	G	N3-C4-C5	-5.27	125.97	128.60
26	1H	827	U	O5'-P-OP2	-5.27	100.96	105.70
26	1H	2060	A	P-O3'-C3'	5.27	126.02	119.70
26	1H	2437	U	C5-C4-O4	5.27	129.06	125.90
26	14	1332	G	C5-C6-O6	-5.27	125.44	128.60
26	1H	265	A	N7-C8-N9	5.26	116.43	113.80
26	1H	2713	A	C6-C5-N7	-5.26	128.62	132.30
27	16	7	G	C5-C6-O6	-5.26	125.44	128.60
56	3L	39	PSU	P-O3'-C3'	5.26	126.02	119.70
26	14	2447	G	C8-N9-C1'	5.26	133.84	127.00
1	13	484	G	C8-N9-C1'	-5.26	120.16	127.00
26	1H	115	C	N3-C4-N4	5.26	121.68	118.00
26	1H	760	G	O5'-P-OP1	-5.26	100.96	105.70
26	14	140	A	O4'-C1'-N9	5.26	112.41	108.20
26	14	1359	A	C8-N9-C4	5.26	107.90	105.80
1	13	529	G	N1-C6-O6	5.26	123.06	119.90
26	1H	1308	A	C6-N1-C2	-5.26	115.44	118.60
26	14	1332	G	C4-C5-C6	5.26	121.96	118.80
26	14	2598	A	OP2-P-O3'	5.26	116.77	105.20
26	1H	1230	C	C6-N1-C2	5.26	122.40	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1528	A	C5-N7-C8	-5.26	101.27	103.90
26	1H	2261	C	OP2-P-O3'	5.26	116.77	105.20
26	14	828	U	N3-C2-O2	-5.26	118.52	122.20
26	14	1129	A	O4'-C1'-N9	5.26	112.41	108.20
26	14	2346	A	N1-C6-N6	5.26	121.75	118.60
26	1H	2375	G	C5-C6-O6	-5.26	125.45	128.60
26	1H	2452	C	C2-N1-C1'	5.26	124.58	118.80
26	1H	328	U	C6-N1-C2	-5.25	117.85	121.00
26	1H	2373	G	C8-N9-C4	5.25	108.50	106.40
26	1H	1802	A	N1-C6-N6	-5.25	115.45	118.60
26	14	876	C	N3-C2-O2	-5.25	118.22	121.90
1	13	1187	G	C4-N9-C1'	5.25	133.33	126.50
26	1H	508	G	C5-N7-C8	-5.25	101.67	104.30
26	1H	2540	C	C6-N1-C2	5.25	122.40	120.30
27	1J	81	G	C2-N3-C4	-5.25	109.27	111.90
25	4K	19	A	C6-C5-N7	-5.25	128.63	132.30
26	1H	2577	A	N1-C6-N6	-5.25	115.45	118.60
26	14	2237	G	N3-C2-N2	5.25	123.57	119.90
26	14	2393	A	C8-N9-C4	5.25	107.90	105.80
26	1H	914	C	C6-N1-C1'	5.25	127.10	120.80
26	1H	1350	C	C6-N1-C2	5.25	122.40	120.30
26	14	380	U	O5'-P-OP2	-5.25	100.98	105.70
26	14	864	G	C8-N9-C4	-5.25	104.30	106.40
26	1H	141	A	O5'-P-OP2	-5.25	100.98	105.70
26	1H	621	A	N1-C2-N3	5.25	131.92	129.30
26	1H	2046	G	O5'-P-OP2	-5.25	100.98	105.70
26	14	1992	G	C2'-C3'-O3'	5.25	122.09	113.70
1	13	1406	U	C6-N1-C2	-5.24	117.85	121.00
26	1H	2037	G	O5'-P-OP2	-5.24	100.98	105.70
26	1H	2392	A	N3-C4-C5	5.24	130.47	126.80
27	1J	60	C	C6-N1-C2	-5.24	118.20	120.30
27	16	30	C	C5-C6-N1	5.24	123.62	121.00
26	1H	119	A	N9-C4-C5	5.24	107.90	105.80
26	1H	2043	C	C6-N1-C2	-5.24	118.20	120.30
26	1H	2782	G	N1-C6-O6	5.24	123.05	119.90
1	1G	353	A	OP2-P-O3'	5.24	116.73	105.20
1	13	1192	C	C6-N1-C2	-5.24	118.20	120.30
26	1H	452	G	OP1-P-OP2	5.24	127.46	119.60
26	1H	757	U	O5'-P-OP2	-5.24	100.98	105.70
26	1H	1942	C	C5-C6-N1	5.24	123.62	121.00
1	13	345	C	C2-N1-C1'	5.24	124.56	118.80
26	1H	454	A	O5'-P-OP2	-5.24	100.99	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	252	G	O5'-P-OP2	-5.24	100.99	105.70
26	1H	946	G	N3-C4-C5	5.24	131.22	128.60
26	1H	1336	A	N9-C4-C5	5.24	107.89	105.80
26	1H	1446	C	C6-N1-C2	-5.24	118.21	120.30
26	1H	1839	G	C8-N9-C4	5.24	108.50	106.40
26	1H	2019	A	N1-C6-N6	5.24	121.74	118.60
26	14	1698	A	C5-N7-C8	-5.24	101.28	103.90
26	1H	67	U	C6-N1-C2	-5.23	117.86	121.00
26	1H	127	A	C8-N9-C4	5.23	107.89	105.80
26	1H	694	U	N1-C2-N3	5.23	118.04	114.90
26	1H	1321	A	C8-N9-C4	5.23	107.89	105.80
26	1H	1834	U	C6-N1-C2	-5.23	117.86	121.00
1	1G	878	G	N3-C4-C5	-5.23	125.98	128.60
26	14	2307	G	C8-N9-C4	-5.23	104.31	106.40
26	1H	837	C	C6-N1-C2	-5.23	118.21	120.30
26	14	1781	C	C2-N1-C1'	5.23	124.55	118.80
26	14	1801	G	N1-C6-O6	5.23	123.04	119.90
26	14	2409	G	C6-C5-N7	-5.23	127.26	130.40
26	1H	2168	G	N3-C4-N9	5.23	129.14	126.00
26	14	2819	G	N1-C6-O6	5.23	123.04	119.90
26	1H	1758	G	C5-C6-O6	-5.23	125.46	128.60
26	1H	122	G	OP1-P-OP2	5.23	127.44	119.60
26	14	535	C	C6-N1-C2	5.23	122.39	120.30
26	14	1225	C	O5'-P-OP2	-5.23	101.00	105.70
26	14	1613	G	N3-C4-C5	-5.23	125.99	128.60
26	1H	1514	U	O5'-P-OP1	-5.22	101.00	105.70
1	13	50	A	C2-N3-C4	5.22	113.21	110.60
1	13	576	G	C4-N9-C1'	5.22	133.29	126.50
1	13	581	G	N1-C6-O6	5.22	123.03	119.90
26	1H	308	G	N3-C4-N9	5.22	129.13	126.00
26	1H	463	G	N3-C2-N2	5.22	123.56	119.90
26	1H	1251	C	OP1-P-OP2	5.22	127.43	119.60
27	16	98	G	C6-C5-N7	-5.22	127.27	130.40
1	13	651	C	C6-N1-C2	-5.22	118.21	120.30
26	1H	1204	A	C8-N9-C1'	-5.22	118.30	127.70
26	1H	1567	A	OP1-P-O3'	5.22	116.69	105.20
5	4E	91	LEU	CA-CB-CG	5.22	127.31	115.30
26	1H	127	A	N1-C6-N6	5.22	121.73	118.60
26	1H	1376	C	N3-C4-C5	-5.22	119.81	121.90
26	1H	2510	C	O5'-P-OP2	-5.22	101.00	105.70
27	16	100	G	C8-N9-C1'	-5.22	120.21	127.00
26	14	845	G	C6-C5-N7	-5.22	127.27	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1340	U	N3-C2-O2	5.22	125.85	122.20
26	14	1394	U	OP2-P-O3'	5.22	116.68	105.20
1	13	294	U	OP2-P-O3'	5.22	116.67	105.20
26	1H	1438	U	C5-C6-N1	5.22	125.31	122.70
26	1H	1787	A	OP1-P-O3'	5.22	116.68	105.20
22	1L	76	A	C2-N3-C4	5.22	113.21	110.60
26	14	1567	A	N1-C6-N6	5.22	121.73	118.60
26	14	2441	C	N3-C4-C5	5.22	123.99	121.90
26	1H	2390	U	C2-N1-C1'	5.21	123.96	117.70
26	14	2250	G	OP1-P-OP2	5.21	127.42	119.60
26	14	2445	G	N9-C4-C5	5.21	107.49	105.40
1	13	149	A	C8-N9-C4	-5.21	103.72	105.80
1	13	266	G	P-O3'-C3'	5.21	125.95	119.70
26	1H	942	G	N1-C2-N2	5.21	120.89	116.20
26	14	570	G	C8-N9-C4	-5.21	104.31	106.40
26	14	2272	U	O5'-P-OP2	-5.21	101.01	105.70
26	1H	2286	A	C8-N9-C4	-5.21	103.72	105.80
26	1H	2364	C	O5'-P-OP1	5.21	116.95	110.70
1	13	335	C	C2-N1-C1'	-5.21	113.07	118.80
26	1H	2281	C	C6-N1-C2	5.21	122.38	120.30
1	1G	576	G	C4-C5-C6	5.21	121.93	118.80
26	1H	1241	A	C6-C5-N7	-5.21	128.65	132.30
26	1H	1974	C	C4-C5-C6	-5.21	114.80	117.40
26	1H	2317	C	C2-N1-C1'	5.21	124.53	118.80
26	14	1506	C	C5-C6-N1	5.21	123.60	121.00
26	14	2447	G	N9-C4-C5	5.21	107.48	105.40
26	1H	1974	C	C5-C4-N4	-5.21	116.56	120.20
26	14	472	A	O5'-P-OP2	-5.21	101.02	105.70
26	14	945	A	C6-C5-N7	-5.21	128.66	132.30
26	1H	1925	C	N3-C2-O2	5.20	125.54	121.90
56	3L	76	A	O4'-C1'-N9	5.20	112.36	108.20
26	14	117	G	N1-C6-O6	5.20	123.02	119.90
26	1H	299	A	C8-N9-C4	-5.20	103.72	105.80
1	13	317	G	N3-C4-N9	5.20	129.12	126.00
26	1H	299	A	OP2-P-O3'	5.20	116.64	105.20
26	1H	335	C	C2-N3-C4	5.20	122.50	119.90
26	1H	704	G	C6-C5-N7	-5.20	127.28	130.40
26	1H	1699	G	C8-N9-C4	-5.20	104.32	106.40
26	14	2607	G	N3-C4-N9	5.20	129.12	126.00
26	1H	2638	G	C6-C5-N7	-5.20	127.28	130.40
26	14	121	G	N1-C6-O6	5.20	123.02	119.90
26	14	1779	U	C5-C4-O4	-5.20	122.78	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	15	48	MET	CA-CB-CG	5.20	122.14	113.30
26	1H	826	U	OP2-P-O3'	5.20	116.63	105.20
26	1H	1192	G	C4-N9-C1'	5.20	133.26	126.50
26	1H	1805	U	OP2-P-O3'	5.20	116.63	105.20
26	14	1925	C	C2-N1-C1'	-5.20	113.08	118.80
26	1H	609	A	C5-C6-N6	-5.20	119.54	123.70
26	1H	646	A	C8-N9-C4	-5.20	103.72	105.80
26	1H	2452	C	N1-C2-O2	5.20	122.02	118.90
26	1H	2599	G	C5-N7-C8	5.20	106.90	104.30
27	16	47	C	O5'-P-OP2	-5.19	101.03	105.70
1	13	1026	G	C8-N9-C4	-5.19	104.32	106.40
26	1H	1323	U	N3-C4-O4	5.19	123.03	119.40
27	16	30	C	N3-C2-O2	-5.19	118.27	121.90
27	16	100	G	N3-C4-C5	-5.19	126.00	128.60
26	14	1969	A	C8-N9-C4	-5.19	103.72	105.80
26	1H	470	A	C4-C5-N7	5.19	113.30	110.70
26	1H	1297	C	OP2-P-O3'	-5.19	93.78	105.20
26	1H	1298	C	N3-C2-O2	-5.19	118.27	121.90
26	14	955	C	O5'-P-OP2	-5.19	101.03	105.70
26	14	1520	U	C5-C4-O4	5.19	129.01	125.90
26	14	1653	G	O5'-P-OP2	-5.19	101.03	105.70
26	14	2359	C	C5-C4-N4	5.19	123.83	120.20
26	14	2441	C	N3-C4-N4	-5.19	114.37	118.00
1	13	765	G	C4-N9-C1'	5.19	133.25	126.50
26	1H	1357	U	N3-C4-C5	-5.19	111.49	114.60
26	1H	1421	G	N1-C6-O6	5.19	123.01	119.90
26	14	1379	A	C5-C6-N6	-5.19	119.55	123.70
26	1H	2283	C	N1-C2-O2	-5.19	115.79	118.90
1	1G	362	G	N3-C4-N9	-5.19	122.89	126.00
26	14	528	A	C5-C6-N1	-5.19	115.11	117.70
26	14	2030	A	O5'-P-OP2	-5.19	101.03	105.70
1	13	190	G	P-O3'-C3'	5.18	125.92	119.70
26	1H	1026	U	P-O3'-C3'	5.18	125.92	119.70
26	14	76	C	C6-N1-C2	-5.18	118.23	120.30
26	14	2459	A	N7-C8-N9	5.18	116.39	113.80
34	69	131	LYS	C-N-CD	-5.18	109.19	120.60
1	13	721	G	C6-C5-N7	-5.18	127.29	130.40
1	13	1192	C	OP1-P-O3'	5.18	116.60	105.20
1	13	1498	U	C2-N1-C1'	5.18	123.92	117.70
26	1H	150	C	C5-C4-N4	5.18	123.83	120.20
26	1H	683	C	N3-C4-C5	5.18	123.97	121.90
26	1H	686	G	N9-C4-C5	-5.18	103.33	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1436	G	N1-C6-O6	-5.18	116.79	119.90
26	14	2432	A	N1-C6-N6	5.18	121.71	118.60
26	14	2712	U	P-O3'-C3'	5.18	125.92	119.70
26	1H	1919	A	O4'-C1'-N9	-5.18	104.06	108.20
26	1H	1967	C	O5'-P-OP2	-5.18	101.04	105.70
26	1H	2025	C	C6-N1-C2	-5.18	118.23	120.30
26	1H	2247	A	C2-N3-C4	-5.18	108.01	110.60
26	1H	142	G	N3-C4-C5	5.18	131.19	128.60
26	1H	982	C	C6-N1-C2	-5.18	118.23	120.30
26	14	729	G	N1-C2-N2	5.18	120.86	116.20
26	14	2544	G	N1-C6-O6	5.18	123.01	119.90
26	1H	738	G	C4-N9-C1'	5.18	133.23	126.50
26	1H	821	A	OP1-P-OP2	5.18	127.37	119.60
26	1H	1157	G	C8-N9-C1'	-5.18	120.27	127.00
26	1H	2287	A	N3-C4-C5	5.18	130.42	126.80
26	1H	2501	C	C2-N3-C4	-5.18	117.31	119.90
1	1G	497	U	N3-C2-O2	-5.18	118.58	122.20
26	14	879	G	C4-N9-C1'	5.18	133.23	126.50
26	1H	1258	C	OP2-P-O3'	5.17	116.58	105.20
1	1G	266	G	C4-N9-C1'	5.17	133.23	126.50
26	14	1192	G	C8-N9-C4	5.17	108.47	106.40
26	14	1489	U	C2-N1-C1'	-5.17	111.49	117.70
26	1H	1990	C	N3-C4-C5	-5.17	119.83	121.90
1	1G	481	G	C4-N9-C1'	5.17	133.22	126.50
48	I8	75	LEU	CA-CB-CG	-5.17	103.41	115.30
26	14	736	C	N3-C2-O2	5.17	125.52	121.90
1	1G	841	U	N1-C2-O2	5.17	126.42	122.80
26	14	508	G	O5'-P-OP1	-5.17	101.05	105.70
1	13	1113	C	C6-N1-C2	-5.17	118.23	120.30
26	14	2324	C	C6-N1-C2	5.17	122.37	120.30
26	1H	1776	G	C5-C6-O6	-5.17	125.50	128.60
1	1G	1200	C	C2-N1-C1'	5.17	124.48	118.80
26	14	2070	G	O4'-C1'-N9	5.17	112.33	108.20
26	1H	738	G	N9-C4-C5	-5.17	103.33	105.40
26	1H	775	G	N3-C4-N9	5.17	129.10	126.00
1	13	328	C	O5'-P-OP1	-5.16	101.05	105.70
1	13	328	C	C6-N1-C2	-5.16	118.23	120.30
1	13	760	G	C4-C5-N7	5.16	112.86	110.80
1	13	820	U	OP2-P-O3'	5.16	116.56	105.20
26	1H	239	U	C6-N1-C2	5.16	124.10	121.00
26	1H	738	G	N3-C4-N9	5.16	129.10	126.00
26	1H	1339	G	O5'-P-OP2	5.16	116.90	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	G8	84	ARG	CA-CB-CG	5.16	124.76	113.40
1	1G	138	G	N1-C6-O6	5.16	123.00	119.90
26	14	784	A	OP1-P-O3'	5.16	116.56	105.20
33	59	53	GLU	C-N-CA	5.16	134.61	121.70
22	1K	61	C	C6-N1-C2	-5.16	118.23	120.30
26	1H	1445	C	C5-C6-N1	5.16	123.58	121.00
26	14	110	G	C8-N9-C4	5.16	108.47	106.40
43	95	34	GLU	C-N-CA	-5.16	108.80	121.70
1	13	975	A	C5-N7-C8	-5.16	101.32	103.90
26	1H	1368	G	O5'-P-OP1	-5.16	101.06	105.70
26	1H	2062	A	N7-C8-N9	-5.16	111.22	113.80
26	1H	2286	A	N7-C8-N9	5.16	116.38	113.80
1	1G	1157	A	P-O3'-C3'	5.16	125.89	119.70
26	1H	83	G	O5'-P-OP2	-5.16	101.06	105.70
26	1H	662	G	OP1-P-OP2	5.16	127.34	119.60
26	1H	1620	G	N1-C6-O6	5.16	123.00	119.90
26	1H	1970	A	O4'-C1'-N9	-5.16	104.07	108.20
26	14	1570	A	C5-C6-N6	-5.16	119.57	123.70
26	1H	1438	U	C6-N1-C2	-5.16	117.91	121.00
26	1H	2655	G	C8-N9-C1'	5.16	133.71	127.00
1	1G	266	G	OP2-P-O3'	5.16	116.55	105.20
26	14	1320	C	N3-C4-N4	5.16	121.61	118.00
1	13	556	C	C6-N1-C2	-5.16	118.24	120.30
26	1H	1349	A	N1-C6-N6	5.16	121.69	118.60
26	1H	2067	G	N7-C8-N9	5.16	115.68	113.10
26	1H	2518	A	C5-N7-C8	-5.16	101.32	103.90
26	1H	2504	U	N3-C2-O2	-5.15	118.59	122.20
26	1H	2655	G	O4'-C1'-N9	5.15	112.32	108.20
26	1H	783	A	N3-C4-C5	5.15	130.41	126.80
26	1H	1430	C	C6-N1-C2	-5.15	118.24	120.30
26	1H	265	A	O4'-C1'-N9	5.15	112.32	108.20
26	1H	691	C	C6-N1-C2	5.15	122.36	120.30
26	1H	913	U	N3-C2-O2	-5.15	118.60	122.20
33	51	53	GLU	C-N-CA	5.15	134.57	121.70
26	14	1626	G	C8-N9-C4	-5.15	104.34	106.40
26	14	1992	G	N1-C6-O6	-5.15	116.81	119.90
26	14	1342	A	N9-C1'-C2'	5.15	120.69	114.00
18	9I	21	LYS	C-N-CA	5.14	134.56	121.70
26	14	2573	C	C5-C6-N1	5.14	123.57	121.00
26	14	2732	G	N9-C4-C5	5.14	107.46	105.40
26	1H	440	G	C4-N9-C1'	5.14	133.19	126.50
41	B8	11	GLU	OE1-CD-OE2	-5.14	117.13	123.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	1K	76	A	O4'-C1'-N9	5.14	112.31	108.20
26	14	1558	A	P-O3'-C3'	5.14	125.87	119.70
1	13	977	A	C8-N9-C4	-5.14	103.74	105.80
26	1H	36	G	C6-C5-N7	5.14	133.48	130.40
26	1H	478	A	C6-N1-C2	-5.14	115.52	118.60
1	1G	1285	A	P-O3'-C3'	5.14	125.87	119.70
26	14	252	G	C5-C6-N1	5.14	114.07	111.50
26	14	782	A	C6-N1-C2	-5.14	115.52	118.60
1	13	115	G	C8-N9-C4	-5.14	104.34	106.40
26	1H	2086	U	N3-C2-O2	-5.14	118.60	122.20
26	1H	2579	C	N3-C2-O2	5.14	125.50	121.90
1	1G	1301	U	C2-N1-C1'	5.14	123.86	117.70
26	14	1407	C	C4-C5-C6	-5.14	114.83	117.40
26	14	2446	G	N1-C6-O6	-5.14	116.82	119.90
26	1H	141(A)	C	C5-C4-N4	-5.13	116.61	120.20
26	1H	1858	G	P-O3'-C3'	5.13	125.86	119.70
33	51	11	VAL	CA-CB-CG2	5.13	118.60	110.90
26	14	933	A	C5-N7-C8	-5.13	101.33	103.90
26	14	74	A	C4-C5-N7	5.13	113.27	110.70
26	14	2249	U	C2-N1-C1'	5.13	123.86	117.70
26	1H	389	G	N9-C4-C5	-5.13	103.35	105.40
26	1H	446	G	N1-C6-O6	5.13	122.98	119.90
1	1G	105	G	C4-N9-C1'	5.13	133.17	126.50
26	14	1776	G	C4-C5-N7	5.13	112.85	110.80
26	14	2346	A	C4-C5-C6	5.13	119.56	117.00
26	1H	70	G	OP1-P-OP2	-5.13	111.91	119.60
26	1H	1379	A	N7-C8-N9	5.13	116.36	113.80
1	1G	841	U	C5-C6-N1	5.13	125.27	122.70
26	14	705	A	N1-C6-N6	5.13	121.68	118.60
26	1H	47	C	C6-N1-C2	-5.13	118.25	120.30
26	1H	142	G	C8-N9-C1'	5.13	133.67	127.00
26	1H	738	G	C8-N9-C1'	-5.13	120.33	127.00
26	1H	2553	G	C6-N1-C2	-5.13	122.02	125.10
1	1G	888	G	N3-C4-N9	5.13	129.08	126.00
1	1G	1449	C	C5-C6-N1	5.13	123.56	121.00
26	14	603	A	C5-N7-C8	-5.13	101.34	103.90
26	14	836	G	N1-C6-O6	5.13	122.98	119.90
34	69	58	LEU	CA-CB-CG	5.13	127.09	115.30
1	13	180	U	C2-N1-C1'	5.12	123.85	117.70
23	2K	48	U	C5-C4-O4	5.12	128.97	125.90
26	1H	2311	A	C6-C5-N7	-5.12	128.71	132.30
26	14	2296	U	C2-N1-C1'	5.12	123.85	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	836	G	C8-N9-C4	-5.12	104.35	106.40
26	1H	1673	U	C5-C6-N1	-5.12	120.14	122.70
26	1H	1733	G	C8-N9-C4	5.12	108.45	106.40
26	1H	2452	C	C6-N1-C1'	-5.12	114.65	120.80
26	1H	2749	A	O5'-P-OP1	-5.12	101.09	105.70
1	1G	942	G	N3-C4-C5	-5.12	126.04	128.60
1	13	455	C	C5-C6-N1	5.12	123.56	121.00
26	1H	682	G	C5-C6-O6	5.12	131.67	128.60
26	1H	2490	G	N3-C4-N9	-5.12	122.93	126.00
26	1H	2701	C	C2-N3-C4	-5.12	117.34	119.90
26	14	419	C	OP2-P-O3'	5.12	116.47	105.20
26	14	1334	G	N3-C2-N2	-5.12	116.31	119.90
26	1H	528	A	N1-C6-N6	5.12	121.67	118.60
1	13	587	G	C5-C6-O6	-5.12	125.53	128.60
26	1H	383	U	OP1-P-O3'	5.12	116.46	105.20
26	14	2597	G	N3-C2-N2	5.12	123.48	119.90
26	1H	2763	G	C8-N9-C1'	-5.12	120.35	127.00
26	14	1633	G	N7-C8-N9	5.12	115.66	113.10
1	13	50	A	N9-C4-C5	5.12	107.85	105.80
26	1H	431	U	OP1-P-O3'	5.12	116.46	105.20
26	1H	2284	C	N1-C2-O2	-5.12	115.83	118.90
26	14	212	G	C6-C5-N7	-5.12	127.33	130.40
1	13	5	U	N1-C2-O2	5.11	126.38	122.80
1	13	1266	G	C8-N9-C1'	5.11	133.65	127.00
26	1H	945	A	N7-C8-N9	5.11	116.36	113.80
26	1H	2258	C	O5'-P-OP1	-5.11	101.10	105.70
26	1H	2288	A	N1-C6-N6	5.11	121.67	118.60
27	16	49	C	C5-C6-N1	5.11	123.56	121.00
26	14	70	G	N3-C2-N2	5.11	123.48	119.90
26	14	945	A	C2-N3-C4	-5.11	108.04	110.60
26	1H	1905	C	C2-N1-C1'	5.11	124.42	118.80
1	13	376	G	OP1-P-OP2	5.11	127.27	119.60
26	1H	508	G	C4-N9-C1'	5.11	133.14	126.50
26	14	333	G	N7-C8-N9	5.11	115.66	113.10
26	1H	232	G	N1-C6-O6	5.11	122.97	119.90
26	1H	728	G	N1-C6-O6	5.11	122.97	119.90
26	1H	1022	G	N3-C2-N2	-5.11	116.32	119.90
26	1H	2005	A	O5'-P-OP2	-5.11	101.10	105.70
1	13	974	A	C5-N7-C8	-5.11	101.35	103.90
1	13	1519	A	C4-C5-N7	-5.11	108.15	110.70
23	2K	77	A	C4-C5-N7	5.11	113.25	110.70
26	1H	2445	G	N3-C4-C5	-5.11	126.05	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	128	C	C2-N3-C4	-5.11	117.35	119.90
26	1H	508	G	OP1-P-OP2	5.11	127.26	119.60
26	1H	930	U	C5-C6-N1	-5.11	120.15	122.70
26	14	93	C	C2-N1-C1'	5.11	124.42	118.80
26	14	961	C	N3-C4-C5	5.11	123.94	121.90
26	14	1695	G	C6-C5-N7	-5.11	127.34	130.40
26	1H	1437	C	N1-C2-O2	5.10	121.96	118.90
27	1J	8	U	O5'-P-OP2	-5.10	101.11	105.70
1	13	1260	C	C5-C6-N1	5.10	123.55	121.00
26	1H	218	A	C8-N9-C4	-5.10	103.76	105.80
26	1H	484	C	OP1-P-O3'	5.10	116.43	105.20
26	1H	1559	G	O5'-P-OP1	-5.10	101.11	105.70
26	1H	1699	G	O4'-C1'-N9	5.10	112.28	108.20
26	14	2086	U	C5-C4-O4	5.10	128.96	125.90
1	1G	121	C	C6-N1-C1'	-5.10	114.68	120.80
1	13	529	G	C4-C5-N7	5.10	112.84	110.80
1	13	1227	A	N7-C8-N9	5.10	116.35	113.80
26	1H	760	G	C4-C5-C6	5.10	121.86	118.80
1	1G	110	C	C6-N1-C2	5.10	122.34	120.30
26	14	2279	G	C5-C6-O6	5.10	131.66	128.60
26	14	2329	G	C8-N9-C1'	-5.10	120.37	127.00
26	1H	117	G	C6-C5-N7	-5.10	127.34	130.40
26	1H	570	G	C6-C5-N7	-5.10	127.34	130.40
26	1H	1413	G	C8-N9-C4	-5.10	104.36	106.40
26	1H	1626	G	O5'-P-OP1	-5.10	101.11	105.70
29	11	39	LYS	N-CA-C	5.10	124.76	111.00
34	61	110	ASP	C-N-CA	5.10	143.41	122.00
26	14	1655	A	C5-N7-C8	5.10	106.45	103.90
1	13	874	G	N3-C4-C5	-5.10	126.05	128.60
26	1H	225	A	C2-N3-C4	-5.10	108.05	110.60
26	1H	632	A	C5-N7-C8	-5.10	101.35	103.90
56	3L	47	U	O4'-C1'-N1	5.10	112.28	108.20
26	14	747	U	OP1-P-OP2	5.10	127.25	119.60
1	13	534	U	N3-C4-O4	-5.09	115.83	119.40
1	13	1374	A	N1-C6-N6	5.09	121.66	118.60
1	1G	1260	C	C5-C6-N1	5.09	123.55	121.00
26	14	125	G	C2-N3-C4	-5.09	109.35	111.90
26	14	2581	G	C8-N9-C4	-5.09	104.36	106.40
26	1H	2026	C	OP2-P-O3'	5.09	116.40	105.20
26	1H	2583	G	N1-C2-N2	-5.09	111.62	116.20
26	1H	105	C	N3-C2-O2	-5.09	118.34	121.90
26	1H	1192	G	C4-C5-C6	5.09	121.86	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1888	G	C6-C5-N7	-5.09	127.34	130.40
30	29	5	LEU	CB-CG-CD1	-5.09	102.34	111.00
1	13	131	C	N1-C2-O2	5.09	121.95	118.90
26	1H	682	G	O5'-P-OP2	-5.09	101.12	105.70
26	1H	964	C	C5-C4-N4	-5.09	116.64	120.20
26	1H	1778	U	OP2-P-O3'	5.09	116.40	105.20
39	98	75	LEU	CA-CB-CG	5.09	127.01	115.30
26	14	676	A	N3-C4-C5	5.09	130.36	126.80
26	14	2325	G	N3-C2-N2	-5.09	116.34	119.90
26	1H	693	C	C2-N3-C4	-5.09	117.36	119.90
26	1H	842	G	N9-C4-C5	-5.09	103.36	105.40
26	1H	865	C	OP1-P-OP2	-5.09	111.97	119.60
26	1H	1162	G	C8-N9-C4	-5.09	104.37	106.40
26	1H	2561	A	N1-C2-N3	5.09	131.84	129.30
26	14	37	C	O5'-P-OP2	-5.09	101.12	105.70
1	13	1446	A	O5'-P-OP1	5.08	116.80	110.70
24	3K	33	U	C2-N1-C1'	5.08	123.80	117.70
26	1H	2054	A	OP2-P-O3'	5.08	116.39	105.20
26	1H	613	U	N1-C2-N3	5.08	117.95	114.90
26	1H	975	G	N1-C2-N2	5.08	120.78	116.20
1	13	947	G	C8-N9-C4	-5.08	104.37	106.40
26	1H	787	U	N3-C4-C5	5.08	117.65	114.60
26	14	2290	G	O5'-P-OP1	-5.08	101.13	105.70
1	13	575	G	O5'-P-OP2	-5.08	101.13	105.70
1	13	1157	A	C4-N9-C1'	5.08	135.44	126.30
26	1H	608	A	OP2-P-O3'	5.08	116.38	105.20
26	1H	1606	G	N3-C4-C5	-5.08	126.06	128.60
26	1H	2681	C	N1-C2-O2	5.08	121.95	118.90
1	13	532	A	C5-N7-C8	-5.08	101.36	103.90
26	1H	501	A	N1-C2-N3	5.08	131.84	129.30
26	1H	1758	G	O5'-P-OP1	-5.08	101.13	105.70
26	1H	1839	G	N9-C4-C5	-5.08	103.37	105.40
27	16	100	G	N3-C2-N2	5.08	123.45	119.90
22	1L	50	C	N3-C2-O2	-5.08	118.35	121.90
26	14	675	A	C4-C5-N7	5.08	113.24	110.70
1	13	266	G	N7-C8-N9	5.08	115.64	113.10
26	1H	578	A	N1-C2-N3	-5.08	126.76	129.30
26	1H	827	U	O5'-P-OP1	5.08	116.79	110.70
26	1H	1308	A	N9-C4-C5	5.08	107.83	105.80
26	1H	1431	U	OP1-P-OP2	-5.08	111.99	119.60
26	14	1555	G	C8-N9-C1'	-5.08	120.40	127.00
26	14	2713	A	N7-C8-N9	5.08	116.34	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2724	C	OP2-P-O3'	5.08	116.37	105.20
26	1H	782	A	N1-C2-N3	5.07	131.84	129.30
26	1H	1278	A	C8-N9-C4	5.07	107.83	105.80
26	1H	2782	G	C6-C5-N7	-5.07	127.36	130.40
26	14	49	A	OP2-P-O3'	5.07	116.36	105.20
26	14	2082	A	C6-N1-C2	-5.07	115.56	118.60
1	13	1329	A	N1-C6-N6	5.07	121.64	118.60
1	1G	105	G	C8-N9-C1'	-5.07	120.41	127.00
26	14	2518	A	C6-C5-N7	-5.07	128.75	132.30
26	1H	1653	G	C8-N9-C1'	-5.07	120.41	127.00
26	1H	2346	A	C6-N1-C2	-5.07	115.56	118.60
26	1H	2383	G	C4-N9-C1'	5.07	133.09	126.50
26	1H	2495	G	OP2-P-O3'	5.07	116.35	105.20
26	14	836	G	C5-N7-C8	-5.07	101.77	104.30
26	14	1937	A	O4'-C1'-N9	5.07	112.26	108.20
1	13	826	C	C6-N1-C2	-5.07	118.27	120.30
26	14	155	C	C2-N1-C1'	5.07	124.38	118.80
26	1H	2253	G	OP1-P-O3'	5.07	116.35	105.20
25	4L	23	A	O4'-C1'-N9	5.07	112.25	108.20
26	14	2716	U	C6-N1-C2	-5.07	117.96	121.00
26	1H	481	G	N1-C6-O6	5.07	122.94	119.90
26	1H	564	C	C6-N1-C2	-5.07	118.27	120.30
26	1H	1021	A	N3-C4-C5	5.07	130.35	126.80
26	1H	1303	G	N1-C6-O6	-5.07	116.86	119.90
26	1H	1658	C	N3-C4-N4	5.07	121.55	118.00
26	1H	1837	C	N1-C2-O2	5.07	121.94	118.90
26	14	486	C	C5-C4-N4	-5.07	116.65	120.20
26	14	577	G	N3-C4-N9	5.07	129.04	126.00
1	13	742	G	C8-N9-C4	5.06	108.42	106.40
26	1H	197	A	C6-C5-N7	-5.06	128.75	132.30
26	1H	1204	A	C5-N7-C8	-5.06	101.37	103.90
26	14	737	C	N1-C2-O2	-5.06	115.86	118.90
26	1H	445	C	O5'-P-OP1	-5.06	101.14	105.70
26	1H	1625	C	C5-C6-N1	-5.06	118.47	121.00
1	1G	1139	G	C8-N9-C4	5.06	108.42	106.40
26	14	37	C	C6-N1-C2	-5.06	118.28	120.30
26	14	381	G	O5'-P-OP2	-5.06	101.14	105.70
26	14	950	G	N1-C6-O6	-5.06	116.86	119.90
26	14	1811	G	OP2-P-O3'	5.06	116.34	105.20
26	14	2401	U	N3-C4-O4	5.06	122.94	119.40
26	14	2435	A	C8-N9-C4	-5.06	103.78	105.80
26	1H	1660	C	C2-N3-C4	-5.06	117.37	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2829	C	C6-N1-C2	5.06	122.32	120.30
1	1G	525	C	C6-N1-C2	-5.06	118.28	120.30
1	1G	691	G	N1-C6-O6	5.06	122.94	119.90
1	1G	699	C	C6-N1-C2	-5.06	118.28	120.30
26	14	2210	G	N3-C4-N9	5.06	129.04	126.00
26	1H	916	G	C8-N9-C4	-5.06	104.38	106.40
26	1H	2131	G	C4-N9-C1'	5.06	133.07	126.50
1	1G	963	G	C6-C5-N7	-5.06	127.36	130.40
26	14	641	C	O5'-P-OP2	5.06	116.77	110.70
26	1H	668	G	OP1-P-O3'	5.05	116.32	105.20
26	1H	1963	U	C5-C6-N1	5.05	125.23	122.70
1	1G	932	C	N1-C2-O2	5.05	121.93	118.90
26	1H	29	U	OP1-P-O3'	5.05	116.31	105.20
26	1H	470	A	C5-N7-C8	-5.05	101.37	103.90
23	2L	21	U	C6-N1-C2	-5.05	117.97	121.00
26	14	691	C	C6-N1-C2	5.05	122.32	120.30
26	14	2063	C	OP2-P-O3'	5.05	116.31	105.20
26	1H	508	G	N7-C8-N9	5.05	115.62	113.10
26	1H	1021	A	C8-N9-C4	-5.05	103.78	105.80
26	1H	1777	U	OP2-P-O3'	5.05	116.31	105.20
26	1H	404	C	OP2-P-O3'	5.05	116.31	105.20
26	1H	1882	C	C6-N1-C2	-5.05	118.28	120.30
26	14	310	A	O5'-P-OP1	-5.05	101.16	105.70
26	14	2068	U	OP1-P-O3'	5.05	116.31	105.20
1	13	32	A	C8-N9-C4	-5.05	103.78	105.80
1	13	758	G	N3-C2-N2	-5.04	116.37	119.90
26	1H	330	A	C5-N7-C8	-5.04	101.38	103.90
26	1H	2439	A	C5-C6-N6	-5.04	119.66	123.70
26	1H	2577	A	N9-C4-C5	5.04	107.82	105.80
31	39	82	ILE	CG1-CB-CG2	-5.04	100.30	111.40
1	13	578	C	N3-C4-C5	-5.04	119.88	121.90
22	1K	61	C	C5-C6-N1	5.04	123.52	121.00
26	1H	1907	G	N3-C4-N9	-5.04	122.97	126.00
26	14	630	G	C8-N9-C4	5.04	108.42	106.40
26	14	686	G	C2-N3-C4	-5.04	109.38	111.90
26	14	1616	A	N7-C8-N9	5.04	116.32	113.80
26	14	1994	C	C5-C6-N1	-5.04	118.48	121.00
26	14	2511	U	C5-C6-N1	-5.04	120.18	122.70
1	13	42	G	C8-N9-C4	5.04	108.42	106.40
26	1H	1583	A	O4'-C1'-N9	5.04	112.23	108.20
26	1H	1888	G	O4'-C1'-N9	5.04	112.23	108.20
22	1L	70	C	C5-C6-N1	5.04	123.52	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	204	A	N1-C6-N6	5.04	121.62	118.60
26	14	2451	A	C8-N9-C4	-5.04	103.78	105.80
1	13	721	G	N3-C4-C5	-5.04	126.08	128.60
26	1H	1646	C	O5'-P-OP1	-5.04	101.16	105.70
43	D8	37	VAL	C-N-CA	5.04	134.30	121.70
1	13	247	G	C8-N9-C4	-5.04	104.38	106.40
26	1H	773	U	C2-N1-C1'	-5.04	111.65	117.70
26	1H	2349	G	N3-C4-C5	-5.04	126.08	128.60
26	14	717	G	N1-C6-O6	-5.04	116.88	119.90
26	14	808	G	OP1-P-OP2	5.04	127.16	119.60
26	1H	197	A	OP2-P-O3'	5.04	116.28	105.20
26	1H	1319	G	C4-C5-N7	5.04	112.81	110.80
26	1H	2690	C	C4-C5-C6	5.04	119.92	117.40
26	1H	2822	G	N3-C4-N9	5.04	129.02	126.00
26	14	1314	C	N1-C2-O2	5.04	121.92	118.90
26	1H	397	G	N3-C4-C5	5.03	131.12	128.60
26	1H	813	U	OP1-P-OP2	5.03	127.15	119.60
26	1H	2600	A	N1-C2-N3	5.03	131.82	129.30
1	13	422	C	C2-N1-C1'	5.03	124.33	118.80
1	13	520	A	N1-C6-N6	5.03	121.62	118.60
26	1H	1332	G	N1-C2-N3	5.03	126.92	123.90
1	13	938	A	N1-C6-N6	-5.03	115.58	118.60
26	1H	389	G	C8-N9-C1'	-5.03	120.46	127.00
26	1H	1193	G	O5'-P-OP2	-5.03	101.17	105.70
1	13	1435	G	C5-C6-N1	-5.03	108.99	111.50
26	1H	1660	C	N3-C4-C5	5.03	123.91	121.90
26	1H	1975	G	C4-N9-C1'	5.03	133.04	126.50
1	1G	576	G	N3-C4-C5	-5.03	126.08	128.60
26	14	530	G	N9-C4-C5	-5.03	103.39	105.40
26	14	1253	A	N1-C6-N6	5.03	121.62	118.60
26	14	2641	G	N3-C4-N9	5.03	129.02	126.00
26	1H	49	A	C5-N7-C8	5.03	106.41	103.90
26	1H	514	A	C5-C6-N1	5.03	120.21	117.70
26	1H	1700	A	O5'-P-OP2	-5.03	101.18	105.70
26	1H	1766	U	C5-C4-O4	-5.03	122.88	125.90
26	1H	1940	U	O5'-P-OP2	-5.03	101.18	105.70
26	1H	2772	C	C2-N1-C1'	-5.03	113.27	118.80
1	1G	585	G	N3-C4-C5	-5.03	126.09	128.60
4	32	3	ARG	NE-CZ-NH1	5.03	122.81	120.30
26	14	1141	U	OP2-P-O3'	5.03	116.26	105.20
26	14	1372	U	N1-C2-N3	5.03	117.92	114.90
26	1H	298	G	N3-C4-C5	5.03	131.11	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	345	C	C2-N1-C1'	5.03	124.33	118.80
26	14	1337	G	OP1-P-O3'	5.03	116.26	105.20
26	14	1790	C	OP1-P-O3'	5.03	116.26	105.20
26	1H	2393	A	O4'-C1'-N9	5.02	112.22	108.20
26	14	2499	C	C6-N1-C2	-5.02	118.29	120.30
1	13	1158	C	C5-C6-N1	5.02	123.51	121.00
26	1H	723	G	N3-C4-N9	5.02	129.01	126.00
26	1H	1381	G	OP2-P-O3'	5.02	116.25	105.20
26	1H	1462	C	C6-N1-C2	-5.02	118.29	120.30
26	1H	2601	C	C6-N1-C2	-5.02	118.29	120.30
1	1G	560	U	P-O3'-C3'	5.02	125.72	119.70
1	13	346	G	C8-N9-C4	-5.02	104.39	106.40
1	13	630	G	O4'-C1'-N9	5.02	112.22	108.20
23	2K	45	A	N1-C6-N6	5.02	121.61	118.60
26	1H	411	G	OP1-P-OP2	5.02	127.13	119.60
26	1H	1053	C	N3-C2-O2	-5.02	118.39	121.90
26	1H	2583	G	N3-C4-N9	5.02	129.01	126.00
1	1G	365	U	O5'-P-OP2	5.02	116.72	110.70
27	1J	61	G	C8-N9-C4	-5.02	104.39	106.40
1	13	317	G	C8-N9-C1'	-5.02	120.48	127.00
25	4K	14	A	C5-C6-N6	-5.02	119.69	123.70
26	1H	1292	U	C6-N1-C2	5.02	124.01	121.00
56	3L	54	U	O4'-C1'-N1	5.02	112.22	108.20
26	14	531	C	C4-C5-C6	5.02	119.91	117.40
26	14	2251	G	C8-N9-C1'	-5.02	120.48	127.00
26	1H	119	A	C4-C5-N7	-5.02	108.19	110.70
26	1H	213	A	O5'-P-OP2	-5.02	101.19	105.70
1	13	721	G	C4-N9-C1'	5.01	133.02	126.50
25	4K	19	A	C5-N7-C8	-5.01	101.39	103.90
26	1H	624	C	N1-C2-O2	-5.01	115.89	118.90
26	14	74	A	O4'-C1'-N9	-5.01	104.19	108.20
26	14	1570	A	C6-C5-N7	-5.01	128.79	132.30
26	14	1582	C	N1-C2-O2	5.01	121.91	118.90
26	14	2598	A	P-O3'-C3'	5.01	125.72	119.70
26	14	2821	A	C2-N3-C4	-5.01	108.09	110.60
26	1H	1633	G	C8-N9-C4	-5.01	104.39	106.40
26	14	528	A	N1-C2-N3	5.01	131.81	129.30
26	14	750	A	N7-C8-N9	5.01	116.31	113.80
26	1H	1189	A	N1-C6-N6	5.01	121.61	118.60
26	1H	2288	A	N9-C4-C5	-5.01	103.80	105.80
26	14	1011	G	C8-N9-C1'	5.01	133.51	127.00
26	1H	2600	A	C6-N1-C2	-5.01	115.59	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2697	G	N3-C4-C5	-5.01	126.09	128.60
26	14	18	C	C6-N1-C2	-5.01	118.30	120.30
27	16	95	U	C6-N1-C1'	5.01	128.21	121.20
26	14	809	G	OP1-P-O3'	5.01	116.22	105.20
26	14	2265	U	C5-C6-N1	5.01	125.20	122.70
1	13	442	C	C6-N1-C2	-5.01	118.30	120.30
26	1H	117	G	N3-C4-C5	-5.01	126.10	128.60
26	1H	683	C	C5-C4-N4	-5.01	116.69	120.20
26	1H	971	C	N1-C2-N3	5.01	122.70	119.20
26	1H	1618	A	O5'-P-OP2	5.01	116.71	110.70
1	1G	547	A	C8-N9-C4	5.01	107.80	105.80
26	14	693	C	N3-C4-N4	-5.00	114.50	118.00
1	13	1214	C	C5-C6-N1	-5.00	118.50	121.00
26	1H	691	C	N3-C2-O2	5.00	125.40	121.90
23	2L	76	C	N1-C2-O2	-5.00	115.90	118.90
56	3L	76	A	C6-C5-N7	-5.00	128.80	132.30
26	14	1321	A	C8-N9-C4	5.00	107.80	105.80
26	14	2391	G	N1-C6-O6	-5.00	116.90	119.90

There are no chirality outliers.

All (169) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
29	11	113	VAL	Peptide
29	11	114	GLY	Peptide
29	11	197	GLY	Peptide
29	11	233	HIS	Peptide
29	11	236	GLY	Peptide
29	11	237	GLU	Peptide
29	11	29	PRO	Peptide
2	12	12	GLU	Peptide
2	12	19	HIS	Peptide
2	12	219	VAL	Peptide
2	12	22	LYS	Peptide
2	12	43	ASP	Peptide
29	19	197	GLY	Peptide
29	19	234	GLY	Peptide
29	19	237	GLU	Peptide
29	19	27	THR	Peptide
29	19	28	GLU	Peptide
10	1A	55	LYS	Peptide
2	1E	11	LEU	Peptide

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Mol	Chain	Res	Type	Group
2	1E	15	VAL	Peptide
2	1E	169	LYS	Peptide
2	1E	234	PRO	Peptide
30	21	56	PRO	Peptide
30	21	57	LYS	Peptide
30	21	64	LYS	Peptide
30	21	67	PHE	Peptide
30	21	77	ILE	Peptide
30	21	78	LEU	Peptide
30	21	82	ARG	Peptide
30	21	87	GLU	Peptide
30	29	115	GLY	Peptide
30	29	117	MET	Peptide
30	29	61	ARG	Peptide
30	29	76	ARG	Peptide
30	29	88	GLY	Peptide
30	29	89	ASP	Peptide
30	29	94	GLU	Peptide
11	2A	49	GLY	Peptide
11	2I	102	GLY	Peptide
31	31	130	ALA	Peptide
31	31	196	LEU	Peptide
4	32	152	SER	Peptide
4	32	165	MET	Peptide
4	32	179	GLU	Peptide
37	35	107	LYS	Peptide
37	35	110	TYR	Peptide
37	35	18	ARG	Peptide
37	35	70	GLN	Peptide
31	39	146	ALA	Peptide
31	39	166	ALA	Peptide
31	39	20	LEU	Peptide
31	39	24	LEU	Peptide
31	39	25	PRO	Peptide
31	39	26	ALA	Peptide
31	39	82	ILE	Peptide
31	39	89	VAL	Peptide
4	3E	82	ALA	Peptide
12	3I	116	SER	Peptide
12	3I	118	SER	Peptide
12	3I	47	LYS	Peptide
12	3I	87	GLY	Peptide

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Mol	Chain	Res	Type	Group
32	41	43	LEU	Peptide
38	45	134	ARG	Peptide
38	45	135	ASP	Peptide
38	45	25	ASP	Peptide
38	45	80	GLU	Peptide
32	49	117	PHE	Peptide
32	49	13	GLU	Peptide
32	49	142	PRO	Peptide
32	49	36	LYS	Peptide
32	49	5	VAL	Peptide
32	49	82	LEU	Peptide
13	4A	11	ARG	Peptide
13	4A	79	LYS	Peptide
13	4A	94	ARG	Peptide
13	4I	107	ALA	Peptide
13	4I	66	LEU	Peptide
33	51	10	PRO	Peptide
33	51	137	ASP	Peptide
33	51	152	ARG	Peptide
33	51	156	ALA	Peptide
33	51	7	LEU	Peptide
39	55	106	GLY	Peptide
35	58	127	ASP	Peptide
35	58	47	ALA	Peptide
33	59	142	GLY	Peptide
33	59	150	ALA	Peptide
33	59	159	GLU	Peptide
33	59	6	ARG	Peptide
33	59	7	LEU	Peptide
14	5A	26	ARG	Peptide
14	5A	27	CYS	Peptide
14	5A	29	ARG	Peptide
14	5I	3	ARG	Peptide
34	61	11	ASN	Peptide
34	61	114	LEU	Peptide
34	61	134	PRO	Peptide
34	61	82	ARG	Peptide
40	65	59	LYS	Peptide
34	69	112	LYS	Peptide
34	69	142	VAL	Peptide
34	69	143	SER	Peptide
41	75	12	SER	Peptide

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Mol	Chain	Res	Type	Group
37	78	115	LEU	Peptide
37	78	24	GLY	Peptide
37	78	36	LYS	Peptide
37	78	70	GLN	Peptide
8	7E	70	GLN	Peptide
16	7I	47	ASP	Peptide
16	7I	77	ALA	Peptide
9	82	117	HIS	Peptide
42	85	72	HIS	Peptide
42	85	90	VAL	Peptide
42	85	98	LEU	Peptide
42	85	99	ALA	Peptide
9	8E	4	TYR	Peptide
9	8E	59	PHE	Peptide
43	95	44	LYS	Peptide
43	95	49	THR	Peptide
43	95	80	GLN	Peptide
18	9I	33	ASP	Peptide
44	A5	43	GLY	Peptide
40	A8	107	GLU	Peptide
19	AA	44	MET	Peptide
19	AI	6	LYS	Peptide
19	AI	7	LYS	Peptide
19	AI	78	ARG	Peptide
20	BA	101	GLY	Peptide
20	BA	11	SER	Peptide
20	BA	72	LEU	Peptide
20	BI	96	GLY	Peptide
46	C5	57	GLN	Peptide
46	C5	81	LYS	Peptide
46	C5	91	GLU	Peptide
42	C8	75	ASN	Peptide
42	C8	90	VAL	Peptide
42	C8	92	ARG	Peptide
42	C8	95	LEU	Peptide
47	D5	61	LEU	Peptide
43	D8	36	PRO	Peptide
43	D8	44	LYS	Peptide
43	D8	48	GLY	Peptide
49	F5	85	LEU	Peptide
45	F8	2	LYS	Peptide
50	G5	15	LYS	Peptide

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Mol	Chain	Res	Type	Group
50	G5	16	LEU	Peptide
50	G5	17	SER	Peptide
50	G5	43	GLN	Peptide
46	G8	53	PRO	Peptide
46	G8	54	LYS	Peptide
46	G8	84	ARG	Peptide
46	G8	94	LYS	Peptide
47	H8	158	PRO	Peptide
47	H8	165	VAL	Peptide
47	H8	59	LEU	Peptide
47	H8	63	ASP	Peptide
49	J8	75	GLU	Peptide
50	K8	15	LYS	Peptide
50	K8	17	SER	Peptide
50	K8	46	GLN	Peptide
55	M5	40	GLU	Peptide
55	M5	48	PHE	Peptide
52	M8	35	VAL	Peptide
52	M8	40	HIS	Peptide
52	M8	43	TYR	Peptide
52	M8	45	GLY	Peptide
54	P8	45	ALA	Peptide
55	Q8	51	ALA	Peptide
55	Q8	52	LYS	Peptide

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	13	32157	0	16234	754	0
1	1G	32368	0	16343	752	1
2	12	1721	0	1758	119	0
2	1E	1874	0	1926	112	0
3	22	1541	0	1606	76	0
3	2E	1605	0	1668	59	0
4	32	1702	0	1765	101	0
4	3E	1690	0	1738	92	0
5	42	1134	0	1200	69	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	4E	1142	0	1204	51	0
6	52	842	0	857	28	0
6	5E	837	0	852	29	0
7	62	1115	0	1165	57	0
7	6E	1242	0	1286	51	0
8	72	1107	0	1165	54	0
8	7E	1115	0	1177	69	0
9	82	953	0	983	72	0
9	8E	1000	0	1031	69	0
10	1A	646	0	662	48	0
10	1I	734	0	761	53	0
11	2A	835	0	847	47	0
11	2I	823	0	833	37	0
12	3A	956	0	1046	54	0
12	3I	956	0	1046	39	0
13	4A	893	0	946	55	0
13	4I	942	0	997	48	0
14	5A	486	0	524	28	0
14	5I	491	0	530	36	0
15	6A	733	0	771	34	0
15	6I	729	0	768	26	0
16	7A	705	0	725	37	0
16	7I	700	0	720	51	0
17	8A	823	0	891	41	0
17	8I	834	0	904	59	0
18	9A	544	0	605	25	0
18	9I	549	0	607	22	0
19	AA	481	0	468	19	0
19	AI	654	0	675	52	0
20	BA	762	0	861	39	0
20	BI	746	0	843	50	0
21	1B	188	0	195	17	0
21	1F	199	0	208	15	0
22	1K	1477	0	758	30	0
22	1L	1563	0	799	31	0
23	2K	1646	0	844	19	0
23	2L	1646	0	844	33	0
24	3K	1611	0	817	74	0
25	4K	439	0	218	10	0
25	4L	417	0	207	11	0
26	14	61630	0	31072	1406	1
26	1H	61028	0	30762	1443	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
27	16	2617	0	1328	70	0
27	1J	2617	0	1328	79	0
28	71	1033	0	1048	71	0
28	79	456	0	460	31	0
29	11	2120	0	2197	151	0
29	19	2125	0	2199	133	0
30	21	1558	0	1624	96	0
30	29	1563	0	1629	134	0
31	31	1585	0	1632	94	0
31	39	1602	0	1649	96	0
32	41	1457	0	1514	91	0
32	49	1458	0	1516	72	0
33	51	1312	0	1384	64	0
33	59	573	0	597	43	0
34	61	1136	0	1223	60	0
34	69	1131	0	1218	73	0
35	15	1104	0	1180	51	0
35	58	1104	0	1180	58	0
36	25	932	0	996	55	0
36	68	932	0	996	41	0
37	35	1122	0	1206	93	0
37	78	1122	0	1206	109	0
38	45	1099	0	1154	94	0
38	88	1113	0	1157	56	0
39	55	967	0	1033	56	0
39	98	967	0	1033	64	0
40	65	876	0	938	57	0
40	A8	875	0	936	54	0
41	75	1109	0	1169	74	0
41	B8	1109	0	1170	60	0
42	85	959	0	1019	54	0
42	C8	950	0	1011	53	0
43	95	774	0	849	82	0
43	D8	774	0	849	58	0
44	A5	899	0	964	34	0
44	E8	890	0	951	33	0
45	B5	735	0	785	43	0
45	F8	743	0	794	39	0
46	C5	794	0	886	74	0
46	G8	796	0	886	53	0
47	D5	1074	0	1086	63	0
47	H8	1373	0	1402	81	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
48	E5	608	0	622	37	0
48	I8	606	0	625	31	0
49	F5	737	0	813	41	0
49	J8	737	0	813	28	0
50	G5	558	0	610	33	0
50	K8	568	0	614	31	0
51	H5	459	0	512	15	0
51	L8	459	0	512	18	0
52	M8	366	0	370	31	0
53	J5	434	0	454	24	0
53	N8	369	0	388	22	0
54	L5	401	0	436	13	0
54	P8	401	0	436	17	0
55	M5	516	0	582	34	0
55	Q8	516	0	582	49	0
56	3L	1601	0	814	69	0
57	11	3	0	0	0	0
57	13	150	0	0	0	0
57	14	454	0	0	0	0
57	16	12	0	0	0	0
57	1G	93	0	0	0	0
57	1H	502	0	0	0	0
57	1I	1	0	0	0	0
57	1J	6	0	0	0	0
57	21	3	0	0	0	0
57	29	4	0	0	0	0
57	2K	3	0	0	0	0
57	2L	4	0	0	0	0
57	31	1	0	0	0	0
57	35	2	0	0	0	0
57	39	2	0	0	0	0
57	3I	1	0	0	0	0
57	41	2	0	0	0	0
57	45	3	0	0	0	0
57	55	1	0	0	0	0
57	5E	1	0	0	0	0
57	5I	1	0	0	0	0
57	78	1	0	0	0	0
57	7A	1	0	0	0	0
57	85	1	0	0	0	0
57	88	1	0	0	0	0
57	BI	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	C5	1	0	0	0	0
57	E5	1	0	0	0	0
57	I8	1	0	0	0	0
57	L8	1	0	0	0	0
57	M5	1	0	0	0	0
57	P8	1	0	0	0	0
57	Q8	1	0	0	0	0
58	13	42	0	45	3	0
58	1G	42	0	45	2	0
59	32	8	0	0	2	0
59	3E	8	0	0	0	0
60	5A	1	0	0	0	0
60	5I	1	0	0	0	0
60	C5	1	0	0	0	0
60	G8	1	0	0	0	0
61	11	12	0	0	1	0
61	13	319	0	0	23	0
61	14	1015	0	0	117	0
61	16	26	0	0	6	0
61	19	12	0	0	3	0
61	1F	1	0	0	0	0
61	1G	226	0	0	16	0
61	1H	1158	0	0	132	0
61	1I	1	0	0	0	0
61	1J	18	0	0	2	0
61	1K	1	0	0	0	0
61	21	6	0	0	1	0
61	29	6	0	0	0	0
61	2K	7	0	0	0	0
61	2L	1	0	0	0	0
61	31	9	0	0	0	0
61	32	3	0	0	0	0
61	35	5	0	0	1	0
61	39	8	0	0	1	0
61	3A	1	0	0	0	0
61	3E	3	0	0	0	0
61	3I	3	0	0	1	0
61	3K	1	0	0	0	0
61	42	1	0	0	0	0
61	4E	3	0	0	1	0
61	4K	4	0	0	0	0
61	4L	3	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
61	55	1	0	0	0	0
61	58	1	0	0	0	0
61	5I	1	0	0	1	0
61	6A	3	0	0	0	0
61	6I	2	0	0	0	0
61	75	1	0	0	0	0
61	78	6	0	0	1	0
61	85	2	0	0	0	0
61	88	2	0	0	0	0
61	8A	1	0	0	0	0
61	8E	1	0	0	0	0
61	8I	2	0	0	0	0
61	A5	2	0	0	0	0
61	B5	1	0	0	0	0
61	BA	3	0	0	1	0
61	BI	5	0	0	0	0
61	C5	4	0	0	0	0
61	C8	2	0	0	0	0
61	E8	3	0	0	0	0
61	F8	2	0	0	0	0
61	G8	2	0	0	0	0
61	H5	3	0	0	0	0
61	I8	5	0	0	1	0
61	J8	3	0	0	0	0
61	K8	2	0	0	0	0
61	L5	2	0	0	0	0
61	L8	2	0	0	0	0
61	M5	10	0	0	0	0
61	P8	1	0	0	0	0
61	Q8	9	0	0	2	0
All	All	296184	0	196367	8846	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 19.

All (8846) 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)
37:35:81:GLN:NE2	37:35:106:LEU:HA	1.45	1.29
15:6A:27:VAL:O	15:6A:31:LEU:HD13	1.26	1.27
26:14:2572:A:C5	30:29:144:ARG:NH1	2.04	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:35:81:GLN:CD	37:35:106:LEU:HA	1.58	1.24
29:19:69:ARG:NH2	29:19:130:ALA:H	1.33	1.21
29:19:69:ARG:NH2	29:19:130:ALA:N	1.87	1.21
26:14:2572:A:C6	30:29:144:ARG:NH1	2.12	1.17
37:35:81:GLN:NE2	37:35:106:LEU:CA	2.11	1.12
26:14:2572:A:C4	30:29:144:ARG:NH1	2.16	1.12
26:1H:2750:A:H3'	33:51:4:ILE:HD11	1.31	1.12
1:1G:830:G:H4'	2:12:23:ARG:NH1	1.64	1.11
29:11:30:GLU:OE1	29:11:63:ARG:NE	1.85	1.09
26:1H:2711:A:OP2	61:1H:3601:HOH:O	1.68	1.08
37:78:49:ARG:NH1	55:Q8:61:LEU:HD21	1.69	1.07
10:1I:75:ILE:HD12	10:1I:76:ASN:N	1.68	1.07
10:1I:75:ILE:HD12	10:1I:76:ASN:H	0.95	1.07
15:6A:27:VAL:O	15:6A:31:LEU:CD1	2.03	1.06
46:G8:85:VAL:HG23	46:G8:96:ILE:HG13	1.39	1.05
26:14:2572:A:C8	30:29:144:ARG:HD2	1.92	1.04
26:14:2248:C:OP2	61:14:3501:HOH:O	1.74	1.04
37:78:49:ARG:HB2	37:78:49:ARG:HH11	1.22	1.04
29:11:182:LEU:H	29:11:272:ALA:HB3	1.22	1.03
26:14:2469:A:C2'	38:45:56:ARG:NH1	2.22	1.01
32:41:173:LEU:HD12	32:41:178:PHE:CE2	1.96	1.00
26:14:71:A:H4'	26:14:72:U:H5''	1.45	0.98
26:1H:1496:A:H8	26:1H:1577:C:HO2'	1.05	0.98
39:98:24:GLN:HE22	39:98:36:THR:HG21	1.27	0.98
34:69:117:GLU:HG2	34:69:118:LYS:H	1.27	0.98
29:11:29:PRO:HB2	29:11:30:GLU:HA	1.45	0.98
26:1H:2308:G:H1	26:1H:2311:A:H2	1.10	0.98
26:14:676:A:H8	26:14:2069:G:H21	1.00	0.98
5:42:78:HIS:HE1	8:72:104:ARG:HH21	1.06	0.98
26:1H:1359:A:N1	26:1H:1372:U:N3	2.10	0.97
26:14:2572:A:C2	30:29:144:ARG:NH1	2.30	0.97
43:95:85:LYS:HG3	43:95:87:HIS:H	1.31	0.96
29:19:49:ILE:HD11	29:19:52:ARG:HA	1.48	0.95
29:19:69:ARG:HH21	29:19:130:ALA:N	1.57	0.95
29:19:28:GLU:OE1	29:19:28:GLU:O	1.83	0.95
7:62:113:GLU:HB2	7:62:119:ARG:HG2	1.48	0.95
26:14:2791:C:HO2'	26:14:2792:G:H8	1.05	0.95
46:G8:94:LYS:HD2	46:G8:96:ILE:HG23	1.49	0.95
36:68:104:ARG:HD3	41:B8:36:GLU:HG2	1.45	0.95
4:3E:98:GLU:HA	4:3E:103:ASN:HD22	1.31	0.94
26:1H:862:G:OP2	61:1H:3602:HOH:O	1.85	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2012:G:H4'	44:A5:96:ILE:HD11	1.48	0.94
42:85:85:LYS:HB3	42:85:116:ALA:HB1	1.50	0.94
30:29:54:GLN:NE2	30:29:72:VAL:O	2.00	0.94
37:35:79:ARG:HG2	37:35:110:TYR:HB2	1.46	0.94
13:4I:3:ARG:HB3	13:4I:9:ILE:HG12	1.49	0.94
41:75:3:ARG:HG2	41:75:6:LEU:H	1.34	0.93
24:3K:6:G:H1	24:3K:66:A:H61	1.15	0.93
26:14:252:G:OP2	37:35:50:ARG:NH2	2.02	0.93
26:14:67:U:H3	26:14:74:A:H2	1.14	0.93
26:1H:620:G:H4'	26:1H:621:A:H5''	1.51	0.93
26:1H:1899:G:H22	26:1H:1902:C:H41	1.15	0.92
26:1H:2061:G:N7	61:1H:3624:HOH:O	2.01	0.92
26:1H:2164:C:H3'	26:1H:2165:G:H5'	1.49	0.92
13:4A:56:LEU:HA	13:4A:59:TYR:HB3	1.52	0.92
26:14:958:U:OP2	38:45:14:ARG:NH1	2.02	0.92
37:35:81:GLN:HE22	37:35:106:LEU:CA	1.80	0.92
37:78:49:ARG:NH1	55:Q8:61:LEU:CD2	2.31	0.92
26:1H:2504:U:O4	61:1H:3603:HOH:O	1.88	0.92
5:42:78:HIS:CE1	8:72:104:ARG:HE	1.88	0.91
29:11:206:LEU:HD13	29:11:211:ARG:HD3	1.51	0.91
29:11:30:GLU:OE2	29:11:83:GLU:HG3	1.69	0.91
1:13:1448:C:H42	1:13:1455:G:H1	1.14	0.91
26:14:2469:A:H2'	38:45:56:ARG:NH1	1.82	0.91
11:2A:96:ARG:HD3	11:2A:99:GLN:HG3	1.53	0.91
17:8I:67:LYS:HA	17:8I:70:ARG:HH12	1.35	0.91
10:1A:51:ARG:HB2	10:1A:60:ARG:HA	1.50	0.91
3:22:70:VAL:HG12	3:22:72:LYS:H	1.34	0.91
28:71:32:LEU:HB3	28:71:220:PRO:HD2	1.53	0.91
1:1G:474:G:H5''	16:7A:81:ARG:HH12	1.36	0.91
26:1H:943:U:OP2	37:78:36:LYS:NZ	2.03	0.91
26:1H:1186:G:OP2	61:1H:3604:HOH:O	1.89	0.91
40:A8:11:LYS:HD2	40:A8:15:ARG:HH21	1.32	0.91
26:1H:2714:G:OP2	61:1H:3601:HOH:O	1.87	0.90
26:14:1771:C:HO2'	26:14:1786:A:H8	0.98	0.90
26:1H:1771:C:HO2'	26:1H:1786:A:H8	0.94	0.90
36:25:47:ILE:HG13	36:25:48:PRO:HD2	1.53	0.90
33:59:142:GLY:HA3	33:59:143:GLN:HG2	1.49	0.90
27:16:15:A:H5'	27:16:16:G:C8	2.07	0.90
43:95:85:LYS:HD2	43:95:86:GLY:H	1.34	0.90
55:Q8:51:ALA:HA	55:Q8:55:ALA:HB2	1.51	0.90
43:D8:35:LEU:HB2	43:D8:57:VAL:HG13	1.53	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:25:PRO:HB2	31:39:27:GLU:H	1.37	0.89
41:75:112:ARG:HD2	41:75:113:LYS:HD2	1.54	0.89
41:75:29:ARG:NH2	41:75:46:GLU:OE1	2.05	0.89
1:1G:957:U:H1'	1:1G:960:U:H5	1.38	0.89
1:13:1502:A:H2	1:13:1505:G:H1	1.17	0.89
34:61:7:GLU:HA	34:61:15:VAL:HG22	1.52	0.89
36:68:2:ILE:HD12	36:68:6:THR:HG21	1.54	0.89
50:K8:4:SER:HB3	50:K8:7:ARG:H	1.36	0.89
26:14:568:U:O4	61:14:3502:HOH:O	1.90	0.89
56:3L:19:G:N3	56:3L:57:G:N2	2.20	0.89
39:55:33:ARG:NH1	39:55:113:LEU:HD21	1.88	0.88
50:G5:50:ILE:HD12	50:G5:51:ARG:H	1.37	0.88
1:13:456:C:N3	1:13:476:G:N2	2.20	0.88
26:14:784:A:OP2	61:14:3503:HOH:O	1.91	0.88
1:1G:998:G:N2	1:1G:1043:C:N3	2.21	0.88
49:F5:82:LEU:HD23	49:F5:83:GLU:H	1.35	0.88
37:78:49:ARG:HH12	55:Q8:61:LEU:HD21	1.36	0.88
40:65:107:GLU:H	40:65:110:LEU:HD21	1.38	0.88
26:14:2681:C:H5	26:14:2725:A:H62	1.19	0.88
26:14:84:A:N6	26:14:102:G:O2'	2.06	0.88
31:31:29:ASN:H	31:31:112:MET:HE1	1.39	0.88
47:H8:19:ARG:NH1	47:H8:84:GLU:O	2.07	0.88
26:1H:2751:G:N7	33:51:2:SER:N	2.22	0.87
3:2E:58:GLU:HB2	3:2E:65:ALA:HB3	1.54	0.87
5:4E:11:ILE:HD11	5:4E:31:LEU:HD22	1.56	0.87
33:51:127:GLU:OE2	33:51:130:ARG:NH1	2.06	0.87
1:1G:838:G:N2	1:1G:848:C:N3	2.23	0.87
26:1H:676:A:H8	26:1H:2069:G:H21	1.22	0.87
34:61:71:ILE:HG23	34:61:72:LEU:HD22	1.53	0.87
41:B8:3:ARG:HB2	41:B8:6:LEU:HB2	1.53	0.87
33:59:4:ILE:HG22	33:59:5:GLY:H	1.40	0.87
32:49:136:ARG:HG3	32:49:137:GLU:HG3	1.56	0.87
26:14:1496:A:H8	26:14:1577:C:HO2'	1.23	0.86
26:14:2102:U:H3	26:14:2187:G:H1	1.20	0.86
26:1H:1665:A:OP2	61:1H:3605:HOH:O	1.91	0.86
26:1H:1495:A:OP2	61:1H:3606:HOH:O	1.92	0.86
56:3L:51:A:N6	56:3L:63:U:O4	2.09	0.86
39:98:103:ARG:NH1	39:98:108:GLY:O	2.09	0.86
4:32:85:LYS:HD3	4:32:86:LYS:N	1.91	0.86
26:14:2415:G:H4'	37:35:67:MET:H	1.38	0.86
26:1H:452:G:OP2	61:1H:3607:HOH:O	1.93	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:78:HIS:CE1	8:72:104:ARG:HH21	1.93	0.86
41:B8:24:PRO:HD3	41:B8:52:ILE:HD12	1.56	0.86
1:13:1399:C:H4'	1:13:1400:C:H5''	1.55	0.86
10:1A:30:SER:OG	10:1A:84:GLN:NE2	2.08	0.86
26:1H:71:A:H2	45:F8:31:HIS:HE2	1.19	0.86
1:13:1028(A):C:HO2'	1:13:1032(B):G:H1	1.24	0.85
26:14:1250:G:OP2	37:35:21:ARG:NH1	2.09	0.85
26:1H:607:U:H3	26:1H:621:A:H2	1.22	0.85
26:1H:2588:G:OP1	61:1H:3609:HOH:O	1.94	0.85
36:68:17:ARG:HG3	36:68:47:ILE:HD13	1.56	0.85
26:1H:1013:C:OP2	61:1H:3612:HOH:O	1.94	0.85
37:78:49:ARG:NH1	37:78:49:ARG:HB2	1.91	0.85
26:1H:1664:A:OP1	61:1H:3605:HOH:O	1.93	0.85
26:14:2513:G:HO2'	30:29:151:TYR:HH	0.89	0.85
24:3K:34:U:H2'	25:4K:14:A:H61	1.41	0.85
9:82:27:THR:OG1	9:82:31:GLN:O	1.92	0.85
19:AA:11:VAL:HG22	19:AA:12:ASP:H	1.41	0.85
26:14:249:C:OP1	61:14:3505:HOH:O	1.95	0.85
27:16:7:G:H4'	40:A8:29:PHE:CD2	2.11	0.85
1:1G:1305:G:H22	1:1G:1331:G:H2'	1.41	0.85
3:2E:79:ARG:NH2	11:2A:105:VAL:O	2.09	0.85
42:85:98:LEU:HB2	42:85:102:GLU:HB2	1.57	0.85
40:A8:78:LEU:HD12	40:A8:108:GLY:HA2	1.59	0.85
2:12:219:VAL:HG22	2:12:221:LEU:H	1.40	0.85
1:1G:474:G:H5''	16:7A:81:ARG:NH1	1.91	0.84
4:32:150:GLU:HA	4:32:153:ARG:HG2	1.58	0.84
26:1H:1689:A:H62	26:1H:1698:A:H2	1.26	0.84
30:29:81:ILE:HG22	30:29:82:ARG:H	1.42	0.84
5:42:78:HIS:CE1	8:72:104:ARG:NE	2.44	0.84
27:16:7:G:H4'	40:A8:29:PHE:HD2	1.41	0.84
26:1H:1441:G:H2'	26:1H:1442:G:H8	1.42	0.84
11:2I:79:SER:HB2	11:2I:106:LYS:HD2	1.59	0.84
27:1J:80:U:H2'	27:1J:81:G:H21	1.42	0.84
24:3K:34:U:H2'	25:4K:14:A:N6	1.93	0.84
37:78:97:PRO:HB3	37:78:112:LEU:HD12	1.58	0.84
26:14:784:A:OP2	61:14:3504:HOH:O	1.94	0.84
26:1H:2807:G:N1	26:1H:2893:G:O6	2.09	0.84
26:14:259:G:H21	26:14:621:A:H8	1.22	0.84
9:8E:47:LEU:HD12	9:8E:50:LEU:HD12	1.58	0.84
43:95:38:LEU:HD12	43:95:56:SER:CA	2.06	0.84
26:14:1703:G:N7	61:14:3535:HOH:O	2.10	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1614:A:OP1	61:1H:3611:HOH:O	1.94	0.84
1:13:187:C:O2	1:13:191(A):G:N1	2.11	0.84
26:1H:996:A:OP2	42:C8:92:ARG:NH2	2.11	0.84
5:42:78:HIS:HE1	8:72:104:ARG:NH2	1.75	0.84
24:3K:76:A:H8	26:1H:2394:C:H42	1.23	0.83
5:42:50:GLU:OE2	5:42:52:PRO:HD3	1.78	0.83
43:95:38:LEU:HD12	43:95:56:SER:HA	1.60	0.83
5:42:78:HIS:CE1	8:72:104:ARG:NH2	2.46	0.83
26:1H:1332:G:OP1	61:1H:3608:HOH:O	1.94	0.83
38:45:75:THR:HA	38:45:89:ASN:HA	1.61	0.83
13:4I:13:LYS:O	13:4I:44:ARG:NH1	2.11	0.83
20:BI:73:HIS:HB3	20:BI:74:LYS:HG2	1.59	0.83
4:32:157:LEU:O	4:32:161:ASN:ND2	2.11	0.83
37:78:19:VAL:HG13	37:78:21:ARG:H	1.43	0.83
29:11:146:GLU:HB2	29:11:189:CYS:HB3	1.61	0.83
26:1H:1533:C:H3'	26:1H:1534:G:H5''	1.60	0.83
26:1H:973:A:OP2	61:1H:3613:HOH:O	1.96	0.83
1:13:1189:C:H5'	3:2E:5:ILE:HD13	1.60	0.83
26:1H:2867:G:OP2	41:B8:119:LYS:NZ	2.12	0.83
8:7E:102:ARG:HE	8:7E:102:ARG:H	1.22	0.83
1:1G:458:C:H42	1:1G:474:G:H1	1.25	0.82
26:14:1187:G:OP2	61:14:3508:HOH:O	1.97	0.82
12:3A:47:LYS:HG3	12:3A:48:PRO:HD2	1.58	0.82
1:1G:1535:C:H42	25:4L:9:G:H1	1.27	0.82
30:21:50:GLY:HA2	30:21:77:ILE:HA	1.60	0.82
33:59:72:ILE:HA	33:59:75:ALA:HB3	1.62	0.82
26:14:400:G:N7	61:14:3550:HOH:O	2.12	0.82
26:14:275:G:N2	26:14:276:A:N7	2.28	0.82
36:25:13:ASN:HD21	36:25:96:THR:HG23	1.44	0.82
56:3L:9:A:H2'	56:3L:11:C:H41	1.45	0.82
13:4I:23:TYR:HB3	13:4I:67:GLU:HB2	1.60	0.82
20:BI:71:THR:HG22	20:BI:72:LEU:H	1.44	0.82
32:41:112:PRO:HB3	52:M8:37:SER:H	1.45	0.82
26:14:1021:A:H62	26:14:1141:U:H3	1.28	0.82
26:1H:1174:A:H1'	26:1H:1178:C:H42	1.42	0.82
26:1H:1728:G:H8	26:1H:1732:A:H62	1.23	0.82
26:1H:654(C):G:N2	26:1H:654(R):C:O2	2.12	0.82
28:79:207:THR:O	28:79:210:ARG:NH1	2.12	0.82
26:14:1159:U:H2'	26:14:1160:G:H8	1.45	0.82
26:14:1970:A:OP1	61:14:3507:HOH:O	1.97	0.82
30:21:201:THR:HG22	30:21:203:LYS:H	1.44	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3A:111:LYS:HD2	12:3A:111:LYS:H	1.45	0.82
24:3K:9:A:H62	24:3K:11:C:H41	1.28	0.82
47:D5:79:ARG:HB2	47:D5:80:ARG:HD2	1.62	0.82
5:42:144:THR:HG23	5:42:147:ASP:H	1.45	0.81
1:13:8:A:H62	4:3E:208:SER:HB3	1.45	0.81
20:BI:64:ASP:HA	20:BI:67:ALA:HB3	1.62	0.81
47:D5:26:GLY:O	47:D5:37:VAL:HG22	1.78	0.81
1:13:1305:G:N2	1:13:1331:G:H2'	1.94	0.81
37:35:81:GLN:HE22	37:35:106:LEU:N	1.79	0.81
1:13:1027:C:O2	1:13:1035:A:N6	2.14	0.81
1:1G:1348:U:H3	1:1G:1374:A:H2	1.24	0.81
26:1H:1265:A:OP2	61:1H:3614:HOH:O	1.98	0.81
47:H8:116:VAL:HG22	47:H8:146:ILE:HG12	1.62	0.81
26:14:1007:C:OP1	35:15:35:ARG:NH1	2.13	0.81
22:1K:48:C:O2'	22:1K:49:G:OP2	1.99	0.81
35:15:15:LEU:HB2	35:15:134:ARG:HB3	1.63	0.81
30:29:167:VAL:HG12	30:29:170:LEU:HD11	1.60	0.81
1:13:1305:G:H21	1:13:1331:G:H2'	1.45	0.81
26:1H:2580:U:H4'	30:21:130:GLY:HA3	1.62	0.81
11:2A:18:ARG:HD2	11:2A:83:ILE:HD11	1.63	0.81
9:8E:112:LYS:HA	9:8E:119:ALA:HB2	1.61	0.81
26:14:973:A:OP2	61:14:3502:HOH:O	1.98	0.81
26:1H:2305:A:O2'	32:41:136:ARG:NH1	2.14	0.81
30:21:116:VAL:HG23	30:21:120:TRP:HD1	1.46	0.81
40:A8:61:ASN:ND2	40:A8:64:GLU:OE1	2.13	0.81
26:1H:993:G:OP1	42:C8:50:ARG:NH2	2.13	0.81
1:13:1128:C:O2'	1:13:1146:A:N1	2.12	0.80
26:1H:1007:C:OP2	61:1H:3616:HOH:O	1.99	0.80
35:58:96:GLU:O	35:58:98:VAL:N	2.12	0.80
37:35:81:GLN:OE1	37:35:106:LEU:HA	1.80	0.80
55:M5:33:ASN:HA	55:M5:36:LYS:HD2	1.62	0.80
51:H5:8:LEU:HD23	51:H5:28:LEU:HB3	1.64	0.80
26:14:1403:C:OP1	26:14:1522:G:N2	2.11	0.80
26:14:583:G:N7	61:14:3564:HOH:O	2.15	0.80
12:3I:39:VAL:HG12	12:3I:57:LYS:HB2	1.60	0.80
40:65:107:GLU:O	40:65:110:LEU:HD22	1.81	0.80
31:31:179:GLU:OE1	31:31:179:GLU:N	2.14	0.80
37:78:49:ARG:CB	37:78:49:ARG:HH11	1.94	0.80
1:13:838:G:O6	1:13:848:C:N4	2.15	0.80
26:1H:1899:G:H22	26:1H:1902:C:N4	1.78	0.80
26:1H:2062:A:H62	26:1H:2503:A:H62	1.25	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:D8:15:GLU:HG3	43:D8:16:PRO:HD2	1.63	0.80
31:39:123:LEU:O	31:39:125:LEU:N	2.14	0.80
56:3L:49:G:N2	56:3L:65:C:N3	2.29	0.80
1:13:869:G:N7	61:13:1810:HOH:O	2.15	0.80
26:14:1315:C:OP2	61:14:3509:HOH:O	1.99	0.80
12:3A:37:CYS:HA	12:3A:58:VAL:HA	1.62	0.80
26:14:2469:A:H2'	38:45:56:ARG:HH12	1.45	0.80
34:69:7:GLU:HG2	34:69:8:PRO:HD2	1.63	0.80
1:13:1124:G:H5'	10:1I:35:SER:HB2	1.64	0.80
1:13:538:G:H5''	12:3I:114:LYS:HB2	1.64	0.80
29:19:206:LEU:HA	29:19:211:ARG:HE	1.47	0.80
26:1H:2352:A:OP2	61:1H:3621:HOH:O	2.00	0.80
5:4E:100:VAL:O	5:4E:107:ARG:NH2	2.15	0.80
40:65:106:ARG:O	40:65:106:ARG:NH1	2.14	0.80
34:69:4:ILE:HD11	34:69:43:ASN:HB3	1.62	0.80
49:F5:52:ARG:HD2	49:F5:57:GLU:HG3	1.63	0.80
26:14:833:U:O2	37:35:55:ARG:NH1	2.14	0.79
36:25:68:GLU:OE2	36:25:78:ARG:NH1	2.12	0.79
1:1G:955:U:H1'	1:1G:1227:A:H61	1.47	0.79
8:7E:98:LYS:HD2	8:7E:98:LYS:H	1.48	0.79
26:14:1364:G:OP2	49:F5:2:SER:N	2.15	0.79
2:1E:174:VAL:HG13	2:1E:184:VAL:HG11	1.64	0.79
26:1H:1006:C:OP2	61:1H:3622:HOH:O	2.01	0.79
1:1G:632:A:OP1	8:72:98:LYS:NZ	2.15	0.79
26:1H:2061:G:O6	61:1H:3619:HOH:O	2.00	0.79
26:1H:730:C:OP2	61:1H:3615:HOH:O	1.99	0.79
31:39:25:PRO:HB3	31:39:28:ILE:HG23	1.64	0.79
1:13:1128:C:O2	1:13:1147:C:N4	2.16	0.79
26:14:879:G:N2	26:14:880:G:N7	2.30	0.79
29:19:69:ARG:HH22	29:19:129:ASN:HA	1.47	0.79
26:1H:442:G:H1'	31:31:48:THR:HG21	1.64	0.79
43:95:37:VAL:HG21	43:95:57:VAL:HG22	1.64	0.79
1:13:1182:G:H4'	1:13:1183:A:H5'	1.64	0.79
1:1G:830:G:H4'	2:12:23:ARG:HH11	1.44	0.79
26:1H:2502:G:OP2	61:1H:3617:HOH:O	2.00	0.79
31:39:6:VAL:HB	31:39:124:LEU:HA	1.64	0.79
1:1G:1535:C:N4	25:4L:9:G:H1	1.80	0.79
26:1H:1441:G:H2'	26:1H:1442:G:C8	2.18	0.78
26:1H:1664:A:OP1	61:1H:3623:HOH:O	2.01	0.78
26:1H:1678:G:H22	26:1H:1989:G:N2	1.81	0.78
3:22:8:ILE:HG23	3:22:16:ARG:HD2	1.63	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:662:G:H5'	37:35:15:ARG:HA	1.65	0.78
26:14:2880:C:H1'	39:55:92:GLY:HA3	1.64	0.78
33:59:54:ARG:NH2	33:59:57:ASP:OD1	2.16	0.78
40:A8:106:ARG:O	40:A8:106:ARG:NH1	2.16	0.78
1:13:1453:G:H2'	20:BI:39:LYS:HE2	1.65	0.78
49:F5:91:LYS:HD3	49:F5:92:LYS:H	1.45	0.78
26:14:1314:C:OP1	61:14:3506:HOH:O	2.00	0.78
26:14:780:G:H21	26:14:783:A:H62	1.29	0.78
26:1H:2105:C:H2'	26:1H:2106:G:H8	1.48	0.78
27:1J:18:G:N2	27:1J:65:C:N3	2.30	0.78
4:32:60:GLU:OE2	4:32:199:ASN:N	2.13	0.78
24:3K:29:U:O4	24:3K:41:A:N6	2.15	0.78
34:61:113:ARG:HD2	34:61:131:LYS:HB2	1.65	0.78
40:65:62:LYS:HA	40:65:65:VAL:HG12	1.65	0.78
16:7A:74:LEU:HD12	16:7A:79:VAL:HG21	1.62	0.78
26:1H:1279:G:H4'	39:98:31:HIS:CD2	2.17	0.78
1:13:1372:U:H5''	9:8E:71:SER:HB3	1.66	0.78
1:1G:547:A:OP2	4:32:2:GLY:N	2.17	0.78
26:1H:142:G:H1'	45:F8:37:THR:HG21	1.64	0.78
26:1H:1434:A:H61	26:1H:1558:A:N6	1.80	0.78
26:1H:2453:A:OP2	61:1H:3618:HOH:O	2.00	0.78
40:65:106:ARG:NH1	40:65:107:GLU:OE1	2.17	0.78
1:13:143:A:H2	1:13:220:G:H1	1.29	0.78
32:49:161:THR:HG22	32:49:163:ALA:H	1.49	0.78
35:58:73:THR:HG22	35:58:84:LYS:HG2	1.65	0.78
1:13:259:G:OP2	20:BI:83:ARG:NH1	2.17	0.78
26:14:1314:C:OP1	61:14:3513:HOH:O	2.01	0.78
1:1G:411:A:H61	1:1G:430:A:H62	1.30	0.78
26:1H:2068:U:H3	26:1H:2430:A:H2	1.29	0.78
8:7E:7:ALA:HB2	8:7E:85:ARG:HD3	1.65	0.78
26:14:1532:C:H42	26:14:1539:G:H1	1.32	0.78
26:14:843:G:H1	26:14:935:C:H42	1.31	0.78
2:1E:118:LEU:HD23	2:1E:142:LEU:HA	1.65	0.78
1:1G:963:G:N3	10:1A:55:LYS:NZ	2.31	0.78
3:22:199:LYS:HB3	3:22:201:TYR:HE1	1.49	0.78
32:41:172:LEU:HD23	32:41:173:LEU:HD22	1.66	0.78
26:14:451:C:OP2	61:14:3516:HOH:O	2.02	0.77
13:4A:15:VAL:HG12	13:4A:45:VAL:HG12	1.66	0.77
26:14:1614:A:OP1	61:14:3511:HOH:O	2.00	0.77
26:14:1757:U:H3	26:14:1762:A:H2	1.31	0.77
26:14:2615:U:OP1	61:14:3514:HOH:O	2.01	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:87:LYS:HB3	46:C5:94:LYS:HA	1.63	0.77
2:12:53:ARG:HG3	2:12:56:ARG:HH21	1.49	0.77
1:13:1366:C:H2'	1:13:1367:C:H6	1.48	0.77
26:14:34:C:HO2'	26:14:35:G:H8	1.26	0.77
26:1H:2502:G:OP2	61:1H:3628:HOH:O	2.03	0.77
26:14:1418:G:N7	61:14:3574:HOH:O	2.17	0.77
26:14:900:A:H2'	26:14:901:A:H8	1.48	0.77
1:13:975:A:H4'	1:13:976:G:H5''	1.63	0.77
1:1G:1305:G:N2	1:1G:1331:G:H2'	2.00	0.77
1:1G:509:A:OP2	61:1G:1702:HOH:O	2.03	0.77
26:1H:1170:G:N2	26:1H:1180:C:O2	2.17	0.77
35:58:47:ALA:HB2	35:58:112:LEU:HD11	1.66	0.77
26:14:800:A:OP1	61:14:3515:HOH:O	2.02	0.77
23:2L:50:G:H1	23:2L:66:C:H42	1.30	0.77
1:1G:542:G:OP1	4:32:10:ARG:NH2	2.18	0.77
4:3E:107:ARG:HH22	4:3E:194:LEU:HD22	1.50	0.77
26:14:1265:A:OP2	61:14:3512:HOH:O	2.01	0.77
26:14:1997:G:OP2	61:14:3510:HOH:O	2.00	0.77
2:1E:230:VAL:HG12	2:1E:231:GLU:H	1.47	0.77
13:4A:49:THR:HB	13:4A:52:GLU:HB2	1.65	0.77
45:B5:63:LYS:H	45:B5:63:LYS:HD3	1.49	0.77
40:65:48:LEU:HD23	40:65:82:ILE:HD11	1.67	0.77
26:1H:2033:A:OP1	61:1H:3625:HOH:O	2.02	0.77
56:3L:4:U:H2'	56:3L:5:C:O4'	1.84	0.77
32:41:113:ARG:NE	52:M8:34:GLU:OE1	2.14	0.77
26:14:1007:C:OP1	35:15:37:LYS:NZ	2.17	0.77
26:1H:122:G:N7	61:1H:3687:HOH:O	2.17	0.77
29:11:31:LYS:HD3	29:11:94:LEU:HD11	1.66	0.76
26:1H:2589:A:OP1	61:1H:3629:HOH:O	2.03	0.76
26:1H:800:A:OP1	61:1H:3633:HOH:O	2.04	0.76
41:B8:26:ASP:HB3	41:B8:92:GLY:H	1.50	0.76
20:BI:57:ARG:HH11	20:BI:102:GLY:HA2	1.51	0.76
55:M5:14:VAL:HG11	55:M5:58:ILE:HD11	1.66	0.76
26:1H:120:U:OP2	61:1H:3635:HOH:O	2.04	0.76
26:1H:2138:C:H42	26:1H:2153:G:H1	1.33	0.76
28:79:46:LYS:NZ	28:79:168:THR:O	2.17	0.76
3:2E:123:GLN:HE22	3:2E:136:GLN:HE22	1.31	0.76
40:A8:106:ARG:NH1	40:A8:107:GLU:HB2	1.99	0.76
20:BI:69:GLY:O	20:BI:73:HIS:NE2	2.18	0.76
26:14:2794:C:N4	26:14:2803:C:O2	2.18	0.76
1:1G:352:C:OP2	61:1G:1701:HOH:O	2.02	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1143:A:OP2	61:1H:3627:HOH:O	2.02	0.76
26:1H:1279:G:H4'	39:98:31:HIS:HD2	1.50	0.76
3:22:188:LEU:HD22	3:22:190:ARG:HE	1.50	0.76
42:C8:92:ARG:NH1	43:D8:11:GLN:O	2.19	0.76
48:I8:11:ARG:O	48:I8:14:ARG:NH2	2.19	0.76
2:12:187:LEU:HD21	2:12:203:GLY:HA3	1.68	0.76
1:13:619:U:H3	4:3E:134:ASP:HB2	1.48	0.76
26:1H:1634:A:OP2	61:1H:3631:HOH:O	2.03	0.76
26:1H:2096:U:H3	26:1H:2193:G:H1	1.33	0.76
24:3K:5:C:O2'	24:3K:68:G:N2	2.18	0.76
33:51:157:TYR:H	33:51:170:ARG:HA	1.51	0.76
47:D5:97:GLU:HB3	47:D5:125:LEU:HD11	1.66	0.76
1:13:664:G:H22	1:13:741:G:H1	1.32	0.76
1:1G:589:C:H42	1:1G:650:G:H1	1.33	0.76
26:1H:2576:G:OP1	61:1H:3630:HOH:O	2.03	0.76
1:13:1193:G:OP1	3:2E:167:TRP:HZ3	1.68	0.76
46:G8:43:ASN:O	46:G8:64:GLU:HA	1.84	0.76
34:69:75:LEU:HD11	34:69:77:LEU:HD23	1.67	0.76
1:13:1263:C:H2'	1:13:1264:C:H6	1.51	0.76
26:14:1689:A:H62	26:14:1698:A:H2	1.32	0.76
26:14:1782:C:OP1	61:14:3519:HOH:O	2.04	0.76
26:14:2469:A:C2'	38:45:56:ARG:HH12	1.97	0.76
26:1H:259:G:O2'	26:1H:621:A:O2'	2.03	0.76
4:32:18:LYS:NZ	4:32:26:CYS:O	2.19	0.76
33:51:158:HIS:HA	33:51:170:ARG:HH11	1.49	0.76
34:69:14:ASP:OD1	34:69:15:VAL:N	2.19	0.76
26:14:140:A:H8	26:14:1408:C:HO2'	1.34	0.76
26:14:1416:G:H1	26:14:1582:C:H42	1.34	0.76
26:1H:567:A:OP1	61:1H:3626:HOH:O	2.02	0.76
7:62:20:ASP:HB3	7:62:23:VAL:HG23	1.68	0.76
26:1H:2849:U:OP2	41:B8:95:ARG:NH1	2.19	0.76
31:31:6:VAL:HG21	31:31:119:ARG:HB2	1.67	0.76
17:8I:76:LEU:HD11	17:8I:79:SER:HB2	1.66	0.76
1:13:760:G:N2	17:8I:94:ASN:OD1	2.20	0.75
26:14:2068:U:H3	26:14:2430:A:H2	1.33	0.75
36:25:24:VAL:HA	36:25:39:ILE:HG22	1.66	0.75
20:BI:57:ARG:NH1	20:BI:102:GLY:HA2	2.01	0.75
1:13:967:C:HO2'	9:8E:125:TYR:HH	1.24	0.75
13:4A:13:LYS:HD3	13:4A:14:ARG:H	1.51	0.75
26:14:2379:G:O2'	40:65:17:ARG:NH1	2.20	0.75
4:3E:98:GLU:HA	4:3E:103:ASN:ND2	2.00	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:59:ALA:HA	34:69:62:LYS:HB3	1.69	0.75
41:75:91:ARG:NH1	41:75:124:ASP:OD2	2.19	0.75
2:12:223:ILE:HA	2:12:224:GLN:HB2	1.68	0.75
26:14:1022:G:H22	26:14:1142(A):A:H2	1.33	0.75
26:14:1224:G:N2	26:14:1227:A:OP2	2.19	0.75
35:15:56:ASN:H	35:15:125:GLY:HA3	1.50	0.75
1:1G:827:U:H3	1:1G:872:A:H62	1.32	0.75
26:1H:49:A:N7	26:1H:120:U:H5	1.84	0.75
26:1H:906:G:OP1	38:88:26:TYR:OH	2.02	0.75
10:1I:24:VAL:HG13	10:1I:28:ARG:HG3	1.68	0.75
27:1J:2:C:H2'	27:1J:3:C:H6	1.52	0.75
1:13:542:G:OP1	4:3E:10:ARG:NH2	2.11	0.75
26:14:1381:G:OP2	61:14:3518:HOH:O	2.03	0.75
1:1G:371:G:O2'	1:1G:373:A:N7	2.18	0.75
26:1H:2849:U:O4	41:B8:23:ARG:NH2	2.20	0.75
46:G8:38:ILE:HD11	46:G8:64:GLU:HB2	1.67	0.75
1:13:256:U:OP1	17:8I:17:LYS:NZ	2.18	0.75
21:1B:6:ARG:HB3	21:1B:12:LYS:HG2	1.67	0.75
26:1H:1981:A:OP1	61:1H:3636:HOH:O	2.04	0.75
26:1H:733:G:OP2	61:1H:3632:HOH:O	2.03	0.75
5:4E:36:ASP:OD2	5:4E:40:ARG:NH2	2.20	0.75
39:98:51:LEU:HD22	39:98:66:VAL:HG13	1.69	0.75
47:H8:165:VAL:HB	47:H8:166:SER:HA	1.69	0.75
26:14:907:U:O2'	38:45:101:ARG:NH2	2.16	0.75
26:14:943:U:OP2	61:14:3517:HOH:O	2.03	0.75
30:29:60:ASN:HB2	30:29:62:PRO:HD2	1.69	0.75
38:88:37:LEU:HD21	38:88:130:LYS:HB2	1.69	0.75
29:11:182:LEU:N	29:11:272:ALA:HB3	2.01	0.75
2:12:219:VAL:HG13	2:12:220:ASP:H	1.51	0.75
26:14:712:G:H1	26:14:719:C:H42	1.35	0.75
26:1H:2656:U:H3	26:1H:2665:A:H2	1.32	0.75
4:32:24:GLU:HG2	4:32:25:ARG:H	1.51	0.75
26:14:1268:A:OP1	61:14:3520:HOH:O	2.04	0.75
26:1H:2588:G:OP1	61:1H:3642:HOH:O	2.05	0.75
26:1H:2588:G:OP2	61:1H:3638:HOH:O	2.04	0.75
26:1H:71:A:H4'	26:1H:72:U:H5''	1.68	0.75
31:31:153:SER:HB2	31:31:190:GLU:H	1.51	0.75
37:78:92:GLU:OE2	37:78:121:LYS:NZ	2.19	0.75
43:95:46:VAL:HG23	43:95:52:VAL:HG11	1.67	0.75
11:2A:109:VAL:HG12	18:9A:86:VAL:HG22	1.67	0.75
26:1H:991:C:OP2	61:1H:3604:HOH:O	2.04	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1106:G:H5''	3:22:172:ARG:HG3	1.69	0.74
1:13:5:U:H4'	1:13:5:U:OP1	1.86	0.74
24:3K:33:U:N3	24:3K:35:U:OP1	2.21	0.74
5:4E:81:GLU:HG2	5:4E:90:VAL:HG23	1.67	0.74
34:61:113:ARG:HB2	34:61:131:LYS:HD3	1.68	0.74
15:6I:26:GLU:OE2	15:6I:77:ARG:HG2	1.87	0.74
43:D8:24:LYS:HA	43:D8:92:THR:HG23	1.69	0.74
26:1H:2503:A:OP1	61:1H:3640:HOH:O	2.05	0.74
10:1I:61:GLU:OE2	14:5I:45:ARG:NH1	2.20	0.74
1:13:1368:G:OP2	9:8E:112:LYS:HD2	1.88	0.74
4:32:23:GLY:N	4:32:26:CYS:SG	2.60	0.74
8:72:17:THR:O	8:72:78:GLN:NE2	2.19	0.74
26:1H:1797:C:HO2'	29:11:259:THR:HG1	1.28	0.74
26:14:993:G:OP1	42:85:50:ARG:NH2	2.19	0.74
5:42:146:ALA:HB1	5:42:150:ARG:HH21	1.52	0.74
1:13:583:A:OP2	61:13:1801:HOH:O	2.04	0.74
1:1G:1132:C:N4	1:1G:1142:G:O6	2.19	0.74
26:1H:1859:A:N6	26:1H:1883:G:O2'	2.21	0.74
26:1H:2503:A:OP2	61:1H:3641:HOH:O	2.05	0.74
32:41:51:ARG:HH21	32:41:52:ILE:HD13	1.52	0.74
33:51:15:VAL:HG13	33:51:28:GLY:HA3	1.69	0.74
42:85:91:ASP:OD1	42:85:96:ALA:N	2.19	0.74
1:1G:260:G:OP2	20:BA:83:ARG:NH1	2.20	0.74
2:12:218:ALA:O	2:12:219:VAL:HG12	1.88	0.74
26:14:2378:A:H4'	40:65:23:ARG:HH11	1.53	0.74
11:2A:82:VAL:HB	11:2A:108:ILE:HG12	1.68	0.74
32:41:66:GLN:OE1	32:41:98:ARG:NH1	2.20	0.74
34:61:107:VAL:HG12	34:61:108:THR:H	1.52	0.74
8:72:10:LEU:HD22	8:72:83:ILE:HD11	1.67	0.74
42:C8:92:ARG:O	42:C8:94:ASN:N	2.20	0.74
26:1H:2308:G:N1	26:1H:2311:A:H2	1.84	0.74
2:12:118:LEU:HD22	2:12:142:LEU:HB2	1.69	0.74
26:14:2141:G:H1	26:14:2150:U:H3	1.36	0.74
26:14:2371:G:O6	61:14:3522:HOH:O	2.06	0.74
26:1H:751:A:OP1	61:1H:3637:HOH:O	2.04	0.74
31:31:198:ALA:O	31:31:202:PHE:N	2.19	0.74
4:32:108:LEU:HD22	4:32:174:LEU:HD13	1.69	0.74
26:14:483:A:H5'	46:C5:49:VAL:HB	1.67	0.74
1:13:858:G:N7	61:13:1810:HOH:O	2.19	0.73
26:1H:299:A:H5'	26:1H:300:A:OP2	1.88	0.73
38:45:25:ASP:HB3	38:45:102:VAL:H	1.52	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:45:21:THR:HG22	38:45:23:GLY:HA3	1.70	0.73
15:61:39:LEU:HB3	15:61:56:LEU:HD12	1.70	0.73
29:11:96:HIS:HD2	29:11:102:LYS:HG2	1.51	0.73
1:13:1086:U:O4	1:13:1099:G:N2	2.18	0.73
1:13:584:G:OP2	61:13:1802:HOH:O	2.05	0.73
10:1A:48:THR:HA	10:1A:62:HIS:HB3	1.69	0.73
30:29:50:GLY:HA3	30:29:78:LEU:HD23	1.69	0.73
6:52:35:ALA:HB1	6:52:65:VAL:HG11	1.69	0.73
47:D5:59:LEU:HD12	47:D5:69:THR:HG21	1.70	0.73
26:14:676:A:H8	26:14:2069:G:N2	1.83	0.73
26:1H:912:C:OP1	38:88:8:LYS:NZ	2.21	0.73
55:Q8:33:ASN:HA	55:Q8:36:LYS:HD2	1.71	0.73
26:14:270:A:OP2	61:14:3523:HOH:O	2.07	0.73
26:1H:1185:C:OP2	61:1H:3647:HOH:O	2.06	0.73
1:1G:1080:A:OP1	5:42:14:ARG:NH2	2.21	0.73
5:42:15:ARG:NH2	25:4L:24:A:O3'	2.21	0.73
42:85:92:ARG:HD2	43:95:11:GLN:HG3	1.68	0.73
26:14:270(X):G:O6	61:14:3523:HOH:O	2.06	0.73
26:1H:428:A:OP1	61:1H:3645:HOH:O	2.06	0.73
31:31:140:LEU:HD11	31:31:170:LEU:HD11	1.70	0.73
31:39:85:GLY:O	61:39:401:HOH:O	2.05	0.73
33:51:153:LYS:HB2	33:51:155:SER:H	1.52	0.73
26:14:2469:A:C2'	38:45:56:ARG:HH11	1.99	0.73
1:1G:198:G:H2'	1:1G:199:G:H8	1.52	0.73
1:1G:780:A:OP2	61:1G:1703:HOH:O	2.05	0.73
26:1H:1189:A:OP2	61:1H:3643:HOH:O	2.05	0.73
1:1G:1343:G:H4'	9:82:122:ALA:HB3	1.69	0.73
1:13:1118:C:OP1	9:8E:104:ARG:NH1	2.22	0.73
26:14:785:G:OP2	61:14:3524:HOH:O	2.06	0.73
1:1G:1154:G:H2'	1:1G:1155:G:H8	1.53	0.73
26:1H:1352:U:OP1	61:1H:3639:HOH:O	2.05	0.73
26:1H:1778:U:H2'	26:1H:1784:A:N6	2.04	0.73
5:42:105:VAL:HG21	5:42:128:PRO:HB3	1.69	0.73
26:14:2708:G:H5'	39:55:68:ARG:HG2	1.70	0.73
8:72:69:ARG:NH1	8:72:75:ARG:O	2.20	0.73
38:88:66:ILE:HD12	38:88:67:ARG:H	1.53	0.73
42:C8:8:VAL:HG23	42:C8:11:ARG:HH21	1.52	0.73
43:D8:19:LYS:HG2	43:D8:95:LEU:HD23	1.71	0.73
1:13:263:A:OP2	20:BI:79:ARG:NH1	2.22	0.73
26:14:1665:A:OP2	61:14:3526:HOH:O	2.07	0.73
9:8E:10:ARG:HD2	9:8E:75:ASP:HB2	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1996:C:O3'	61:14:3528:HOH:O	2.07	0.73
35:15:47:ALA:HB2	35:15:112:LEU:HD21	1.70	0.73
26:1H:2574:G:OP1	61:1H:3644:HOH:O	2.06	0.73
31:39:20:LEU:HD22	31:39:199:TRP:HH2	1.53	0.73
15:6A:16:ALA:HB1	15:6A:21:ASP:HB3	1.70	0.73
47:D5:53:ILE:HG22	47:D5:71:VAL:HG13	1.69	0.73
46:G8:82:PRO:HG3	46:G8:97:ARG:HB3	1.71	0.73
52:M8:13:ARG:HH12	52:M8:22:ILE:HG23	1.52	0.73
26:14:1417:C:OP2	61:14:3529:HOH:O	2.07	0.73
2:1E:118:LEU:HD21	2:1E:141:GLU:HG2	1.71	0.73
26:1H:834:C:OP2	61:1H:3649:HOH:O	2.07	0.73
31:31:127:GLU:HA	31:31:127:GLU:OE2	1.89	0.73
5:42:102:ALA:HB1	5:42:106:PRO:HG2	1.70	0.73
8:72:109:ILE:HG22	8:72:137:VAL:HB	1.70	0.73
26:14:831:G:OP1	61:14:3525:HOH:O	2.07	0.72
2:1E:8:LYS:HD3	2:1E:8:LYS:H	1.50	0.72
13:4I:49:THR:HB	13:4I:52:GLU:HG2	1.70	0.72
7:62:93:PRO:HD2	7:62:94:ARG:HH21	1.53	0.72
41:75:29:ARG:HD3	41:75:44:ASP:OD2	1.88	0.72
41:75:90:GLN:HE22	41:75:121:ILE:HD11	1.52	0.72
1:1G:1118:C:OP1	9:82:104:ARG:NH1	2.22	0.72
1:13:129(A):G:N2	1:13:188:U:O2'	2.22	0.72
1:13:812:C:N3	61:13:1816:HOH:O	2.21	0.72
26:14:270(J):G:H1	26:14:270(P):C:H42	1.35	0.72
26:14:774:A:H2	26:14:787:U:HO2'	1.36	0.72
10:1A:30:SER:HG	10:1A:84:GLN:HE22	1.37	0.72
26:1H:1525:G:H2'	26:1H:1526:G:H8	1.54	0.72
30:21:82:ARG:O	30:21:84:PHE:N	2.22	0.72
24:3K:64:G:H2'	24:3K:65:C:H5'	1.69	0.72
19:AA:7:LYS:HB2	19:AA:8:GLY:HA2	1.71	0.72
47:D5:76:LEU:HA	47:D5:83:PRO:HA	1.70	0.72
2:12:82:ARG:NH1	2:12:150:SER:OG	2.21	0.72
1:1G:774:G:N7	61:1G:1707:HOH:O	2.21	0.72
26:1H:721:C:H2'	26:1H:722:A:H8	1.54	0.72
37:35:81:GLN:HE22	37:35:106:LEU:H	1.37	0.72
20:BI:89:ARG:HH21	20:BI:104:LEU:HD11	1.54	0.72
2:12:84:GLU:OE1	2:12:87:ARG:NH2	2.22	0.72
1:13:363:A:N7	12:3I:33:ARG:NH1	2.38	0.72
26:14:2495:G:O6	61:14:3521:HOH:O	2.05	0.72
26:1H:476:G:OP2	61:1H:3651:HOH:O	2.08	0.72
40:65:107:GLU:H	40:65:110:LEU:CD2	2.01	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:310:G:OP2	16:7I:27:LYS:NZ	2.22	0.72
26:14:863:A:H2'	26:14:864:G:C8	2.24	0.72
1:1G:1028(A):C:H42	1:1G:1032(B):G:H1	1.38	0.72
1:1G:1256:A:H62	1:1G:1277:C:H3'	1.54	0.72
13:4A:54:VAL:HA	13:4A:57:ARG:HB3	1.70	0.72
15:6A:87:ILE:HG22	15:6A:88:ARG:H	1.55	0.72
46:C5:42:VAL:HG13	46:C5:65:ALA:HB3	1.71	0.72
49:F5:91:LYS:HD3	49:F5:92:LYS:N	2.04	0.72
4:32:191:ARG:HH21	4:32:194:LEU:HB2	1.55	0.72
37:78:96:THR:HA	37:78:126:VAL:HG23	1.71	0.72
44:A5:73:ALA:HB3	44:A5:106:ILE:HD11	1.72	0.72
46:C5:88:LYS:O	46:C5:89:PHE:HB3	1.88	0.72
55:M5:29:LYS:HG3	55:M5:44:LYS:HB3	1.72	0.72
29:11:37:LEU:HD23	29:11:37:LEU:N	2.05	0.72
26:14:34:C:H41	26:14:455:C:H5''	1.54	0.72
26:1H:2294:C:OP1	40:A8:89:ARG:NH2	2.22	0.72
1:13:1122:U:O4	1:13:1123:A:N6	2.23	0.72
5:42:79:GLU:HG3	5:42:93:PRO:HD2	1.70	0.72
26:1H:1278:A:H4'	39:98:34:ILE:HD11	1.70	0.72
50:G5:16:LEU:HD12	50:G5:20:GLU:HB3	1.72	0.72
26:14:1651:G:H5'	39:55:39:PRO:HG2	1.71	0.72
5:42:33:VAL:HG21	5:42:109:ILE:HG12	1.71	0.72
33:59:159:GLU:O	33:59:163:TYR:OH	2.08	0.72
1:1G:235:C:H5'	17:8A:70:ARG:HG2	1.70	0.72
26:14:34:C:O2'	26:14:35:G:H8	1.73	0.72
1:1G:1070:U:OP1	5:42:25:ARG:NH1	2.17	0.72
26:1H:2589:A:OP1	61:1H:3646:HOH:O	2.06	0.72
26:14:583:G:O6	61:14:3531:HOH:O	2.08	0.71
26:14:607:U:H3	26:14:621:A:H2	1.38	0.71
26:1H:2287:A:N6	26:1H:2344:U:H3	1.88	0.71
31:31:29:ASN:N	31:31:112:MET:HE1	2.04	0.71
38:45:81:VAL:O	38:45:82:ARG:NH1	2.22	0.71
55:M5:40:GLU:HA	55:M5:43:GLN:HB3	1.72	0.71
26:14:5:A:N6	26:14:7:G:O6	2.22	0.71
26:1H:1021:A:H62	26:1H:1141:U:H3	1.34	0.71
26:14:2624:G:N7	61:14:3603:HOH:O	2.24	0.71
26:1H:1308:A:OP2	61:1H:3650:HOH:O	2.08	0.71
26:14:1651:G:OP1	39:55:40:LYS:NZ	2.24	0.71
16:7A:81:ARG:HG3	16:7A:81:ARG:HH11	1.54	0.71
49:J8:83:GLU:HG3	49:J8:85:LEU:HB2	1.72	0.71
29:19:225:ALA:O	61:19:301:HOH:O	2.08	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1417:C:OP2	61:1H:3653:HOH:O	2.08	0.71
10:1I:83:GLU:HA	10:1I:86:MET:HB3	1.71	0.71
31:39:53:THR:HG23	31:39:55:GLY:H	1.55	0.71
15:6I:25:THR:HG21	15:6I:70:LEU:HB2	1.72	0.71
16:7A:34:GLU:OE1	16:7A:55:ARG:NH1	2.23	0.71
26:1H:1899:G:N2	26:1H:1902:C:H5	1.89	0.71
26:1H:2712(A):A:H5''	26:1H:2713:A:OP2	1.90	0.71
26:1H:459:U:H2'	26:1H:460:A:H8	1.55	0.71
26:1H:261:G:HO2'	26:1H:609(A):G:HO2'	1.34	0.71
11:2I:22:HIS:HB3	11:2I:29:ILE:HG23	1.72	0.71
17:8A:67:LYS:HA	17:8A:70:ARG:HH12	1.55	0.71
29:11:93:ALA:HB3	29:11:105:ILE:HG22	1.72	0.71
26:14:1187:G:OP2	61:14:3530:HOH:O	2.07	0.71
26:14:1416:G:O2'	26:14:1417:C:O5'	2.06	0.71
26:14:141:A:H8	26:14:1595:G:H21	1.38	0.71
29:19:182:LEU:H	29:19:272:ALA:HB3	1.54	0.71
26:1H:1826:G:H4'	29:11:242:ARG:NH2	2.05	0.71
26:1H:2469:A:H2	26:1H:2481:G:H21	1.38	0.71
26:1H:354:G:N7	61:1H:3710:HOH:O	2.23	0.71
4:3E:191:ARG:NH1	4:3E:194:LEU:O	2.24	0.71
7:62:15:ASP:OD1	7:62:44:TYR:OH	2.08	0.71
42:85:90:VAL:HA	43:95:39:LEU:HD13	1.72	0.71
1:13:1000:A:H2'	1:13:1001:G:H8	1.56	0.71
26:14:958:U:OP1	38:45:74:TYR:OH	2.05	0.71
29:19:69:ARG:HH22	29:19:130:ALA:N	1.88	0.71
26:1H:2447:G:OP2	61:1H:3654:HOH:O	2.09	0.71
30:29:119:ARG:HG3	30:29:160:TYR:HB2	1.71	0.71
42:85:106:PHE:HA	42:85:109:LEU:HD12	1.73	0.71
46:G8:100:ALA:HB1	46:G8:101:LYS:HG3	1.72	0.71
55:M5:14:VAL:HG11	55:M5:22:VAL:HG13	1.72	0.71
1:13:1256:A:OP2	3:2E:26:LYS:NZ	2.23	0.71
1:13:812:C:O2	61:13:1805:HOH:O	2.08	0.71
29:19:72:LYS:HB2	29:19:75:ILE:HD12	1.72	0.71
1:1G:588:G:H1	1:1G:651:C:H42	1.36	0.71
26:1H:1538:G:H2'	26:1H:1539:G:H8	1.56	0.71
26:1H:793:A:OP1	61:1H:3655:HOH:O	2.09	0.71
3:22:129:ALA:HB3	3:22:132:ARG:HB2	1.72	0.71
1:13:1303:C:OP1	61:13:1803:HOH:O	2.07	0.71
21:1F:8:THR:HG23	21:1F:11:GLY:H	1.55	0.71
14:5I:23:ARG:HH11	14:5I:30:ALA:HB2	1.56	0.71
34:69:65:ALA:O	34:69:69:LYS:N	2.21	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:78:HIS:CE1	8:72:104:ARG:CZ	2.74	0.71
29:11:72:LYS:HE2	29:11:103:ARG:HH21	1.56	0.71
1:13:1348:U:H3	1:13:1374:A:H2	1.37	0.71
26:14:2789:C:N3	26:14:2894:G:N2	2.38	0.71
26:14:607:U:OP1	31:39:102:PRO:HA	1.91	0.71
34:69:21:VAL:HG21	34:69:25:TYR:HD2	1.54	0.71
47:H8:4:ARG:NH1	47:H8:60:GLU:OE2	2.21	0.71
2:12:21:ARG:HB3	2:12:39:ILE:HG12	1.73	0.70
1:13:1218:C:H2'	1:13:1219:U:C6	2.26	0.70
26:14:71:A:C8	26:14:71:A:H5'	2.25	0.70
1:1G:673:G:H2'	1:1G:674:G:C8	2.25	0.70
4:32:81:GLU:O	4:32:85:LYS:HB2	1.91	0.70
32:49:72:ARG:HB3	32:49:85:GLY:HA2	1.73	0.70
20:BI:26:ASN:HB2	20:BI:71:THR:HG23	1.73	0.70
29:11:223:GLY:HA3	29:11:231:HIS:ND1	2.06	0.70
26:14:800:A:OP1	61:14:3533:HOH:O	2.08	0.70
21:1B:10:ARG:HA	21:1B:13:ILE:HD12	1.72	0.70
26:1H:1533:C:H3'	26:1H:1534:G:C5'	2.22	0.70
26:1H:2032:G:H21	30:21:146:THR:HG23	1.54	0.70
25:4L:13:A:H2'	25:4L:14:A:H4'	1.72	0.70
35:58:7:LYS:H	35:58:7:LYS:HD2	1.54	0.70
1:13:972:C:OP1	61:13:1804:HOH:O	2.08	0.70
26:14:1048:A:H5'	26:14:1110:G:H22	1.56	0.70
26:14:1138:G:H21	35:15:106:MET:HE3	1.56	0.70
26:14:10:G:O2'	26:14:2801:A:OP1	2.09	0.70
26:14:2031:A:N3	26:14:2455:G:O2'	2.24	0.70
26:14:2232:U:P	49:F5:40:ARG:HH22	2.15	0.70
2:1E:60:ASP:HB3	2:1E:64:ARG:HH21	1.56	0.70
26:1H:2447:G:N7	61:1H:3715:HOH:O	2.24	0.70
22:1K:75:C:O2	26:1H:2507:C:O2'	2.07	0.70
36:25:66:LYS:NZ	36:25:80:ASP:O	2.22	0.70
23:2L:55:5MU:O2'	23:2L:56:PSU:H6	1.75	0.70
36:68:75:SER:OG	41:B8:74:ARG:NH2	2.24	0.70
15:6I:17:ARG:HH11	15:6I:77:ARG:HD2	1.56	0.70
53:N8:40:LYS:HG2	53:N8:46:CYS:HA	1.72	0.70
26:14:1027:A:C2	26:14:2488:A:H5'	2.26	0.70
26:14:270:A:OP1	61:14:3532:HOH:O	2.08	0.70
26:14:273(F):C:H3'	26:14:274:G:H5''	1.72	0.70
1:1G:628:G:H2'	1:1G:629:G:H8	1.56	0.70
26:1H:792:G:OP2	61:1H:3660:HOH:O	2.10	0.70
30:29:169:ASN:HA	30:29:201:THR:HG21	1.71	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:31:101:LEU:HD23	31:31:102:PRO:HD2	1.72	0.70
24:3K:6:G:H22	24:3K:67:C:H42	1.36	0.70
8:7E:17:THR:HG21	8:7E:80:ILE:HD11	1.73	0.70
1:13:453:A:H4'	16:7I:72:ARG:HB2	1.72	0.70
9:8E:43:ALA:HA	9:8E:74:ILE:HD13	1.74	0.70
41:B8:42:ILE:O	41:B8:42:ILE:HD12	1.92	0.70
26:14:1578:U:OP2	61:14:3539:HOH:O	2.10	0.70
26:14:2127:G:H1	26:14:2161:C:H42	1.39	0.70
1:1G:353:A:H8	1:1G:353:A:H5'	1.56	0.70
1:1G:922:G:O5'	5:42:20:GLN:NE2	2.23	0.70
26:1H:1314:C:OP1	61:1H:3656:HOH:O	2.09	0.70
5:4E:41:VAL:HG13	5:4E:113:ALA:HB2	1.74	0.70
13:4I:40:ASN:HB3	13:4I:43:THR:HG23	1.73	0.70
39:55:38:VAL:HG22	39:55:112:ALA:HB2	1.74	0.70
40:65:12:PHE:O	40:65:16:ASN:ND2	2.25	0.70
26:1H:1026:U:H1'	26:1H:1027:A:O5'	1.91	0.70
1:13:963:G:N3	10:1I:55:LYS:NZ	2.40	0.70
4:32:31:CYS:HB2	4:32:33:MET:O	1.92	0.70
26:1H:2176:A:H1'	28:7I:215:THR:HG21	1.73	0.70
26:1H:1277:G:O2'	39:98:24:GLN:OE1	2.09	0.70
45:B5:27:THR:HG22	45:B5:80:ILE:HG22	1.72	0.70
26:14:2734:A:H2'	26:14:2735:G:O4'	1.92	0.70
10:1A:26:ALA:HB1	10:1A:84:GLN:HB3	1.74	0.70
2:1E:10:LEU:HD12	2:1E:217:ARG:HH12	1.56	0.70
1:1G:330:C:O2	61:1G:1704:HOH:O	2.08	0.70
1:1G:920:U:H2'	1:1G:921:U:C6	2.26	0.70
26:1H:1346:G:H2'	26:1H:1347:G:H8	1.57	0.70
26:1H:270(I):G:H1	26:1H:270(Q):C:H42	1.38	0.70
26:1H:453:C:OP1	61:1H:3610:HOH:O	2.08	0.70
10:1I:38:ILE:HG23	10:1I:71:LEU:HB3	1.74	0.70
30:29:14:ILE:HB	41:75:14:TYR:CE2	2.25	0.70
2:12:40:HIS:CD2	2:12:190:THR:HG21	2.26	0.70
1:1G:1120:G:N2	1:1G:1153:C:O2	2.22	0.70
27:1J:44:G:H1'	27:1J:47:C:H42	1.56	0.70
3:22:20:SER:HB2	3:22:40:ARG:HH22	1.57	0.70
26:1H:1257:C:H4'	31:31:83:PHE:CD1	2.27	0.70
32:41:111:LEU:HD23	32:41:114:ILE:HD12	1.73	0.70
6:52:77:ARG:NH2	29:19:126:GLN:OE1	2.24	0.70
1:13:1366:C:H2'	1:13:1367:C:C6	2.26	0.69
26:1H:2343:C:HO2'	26:1H:2373:G:HO2'	1.32	0.69
11:2A:96:ARG:HA	11:2A:99:GLN:HG2	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:38:ARG:HD3	3:2E:94:LEU:HD11	1.74	0.69
12:3A:36:VAL:O	12:3A:59:ARG:N	2.24	0.69
28:71:185:LEU:O	28:71:189:ILE:N	2.23	0.69
47:D5:91:LEU:HD13	47:D5:130:PRO:HG3	1.73	0.69
2:12:58:ILE:HG21	2:12:219:VAL:HG21	1.73	0.69
1:13:1129:C:N3	1:13:1143:G:N2	2.39	0.69
1:1G:975:A:H4'	1:1G:976:G:H5''	1.74	0.69
26:1H:1406:U:H2'	26:1H:1407:C:C6	2.27	0.69
30:29:25:VAL:HG12	30:29:26:ILE:H	1.58	0.69
11:2A:98:LEU:HA	11:2A:101:SER:HB3	1.74	0.69
37:35:81:GLN:NE2	37:35:106:LEU:C	2.45	0.69
12:3A:70:ILE:HD13	12:3A:77:LEU:HD12	1.74	0.69
56:3L:1:G:H22	56:3L:73:A:H2	1.37	0.69
40:65:11:LYS:HG3	40:65:91:PRO:HD3	1.72	0.69
26:14:1567:A:H5'	29:19:58:HIS:CD2	2.26	0.69
1:1G:628:G:H2'	1:1G:629:G:C8	2.26	0.69
26:1H:1016:G:N7	61:1H:3726:HOH:O	2.26	0.69
26:1H:270(K):C:H1'	26:1H:270(N):G:H22	1.57	0.69
27:1J:15:A:H1'	27:1J:109:G:C8	2.26	0.69
26:1H:751:A:H5'	44:E8:90:ARG:HA	1.74	0.69
45:F8:4:ALA:H	45:F8:7:VAL:HG23	1.57	0.69
26:14:1266:G:O5'	44:A5:15:ARG:NH2	2.25	0.69
26:14:307:G:N7	61:14:3602:HOH:O	2.23	0.69
26:14:71:A:H3'	26:14:71:A:OP2	1.90	0.69
26:14:773:U:OP1	61:14:3534:HOH:O	2.09	0.69
26:1H:516:C:OP1	53:N8:13:LYS:NZ	2.23	0.69
22:1K:7:U:O4	22:1K:66:A:N6	2.25	0.69
26:14:1154:G:OP2	42:85:58:ARG:NH1	2.25	0.69
26:1H:1287:A:N7	39:98:107:ASP:HB2	2.06	0.69
26:14:2196:C:OP2	61:14:3540:HOH:O	2.10	0.69
26:14:2830:G:N7	61:14:3626:HOH:O	2.26	0.69
1:13:1104:G:OP1	2:1E:144:ARG:NH2	2.25	0.69
10:1I:75:ILE:CD1	10:1I:76:ASN:H	1.89	0.69
56:3L:67:C:H2'	56:3L:68:G:H8	1.57	0.69
32:49:124:SER:HB2	32:49:131:TYR:CE1	2.27	0.69
8:7E:87:SER:HB2	8:7E:93:VAL:HB	1.74	0.69
38:88:65:PHE:O	38:88:66:ILE:HG13	1.92	0.69
26:14:2144:U:O2'	26:14:2148:G:N2	2.26	0.69
26:14:2867:G:N7	41:75:23:ARG:NH1	2.40	0.69
26:14:783:A:OP2	61:14:3503:HOH:O	2.09	0.69
26:14:850:C:OP1	61:14:3536:HOH:O	2.10	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:751:A:OP1	61:1H:3663:HOH:O	2.10	0.69
42:85:66:ASN:HB2	42:85:76:TYR:HB2	1.75	0.69
39:98:21:TYR:HB3	39:98:47:PHE:CD2	2.28	0.69
39:98:67:LEU:HD22	39:98:76:VAL:HG21	1.73	0.69
26:1H:138:G:N2	45:F8:44:GLU:OE2	2.21	0.69
26:14:631:A:OP2	55:M5:47:LYS:NZ	2.22	0.69
1:1G:1159:U:O4'	1:1G:1181:G:N2	2.25	0.69
1:1G:1047:G:H1	1:1G:1210:C:H42	1.41	0.69
26:1H:662:G:H5''	37:78:17:LYS:HG2	1.75	0.69
37:78:68:GLN:HG2	55:Q8:12:LYS:HD3	1.73	0.69
26:14:1614:A:H62	44:A5:93:ALA:HB2	1.58	0.69
26:1H:1386:C:H2'	26:1H:1387:C:H6	1.57	0.69
26:1H:945:A:OP1	61:1H:3661:HOH:O	2.10	0.69
27:1J:70:C:H2'	27:1J:71:C:H6	1.57	0.69
3:22:28:GLN:HB3	3:22:32:LEU:HD12	1.75	0.69
4:3E:150:GLU:HG3	4:3E:153:ARG:HH21	1.57	0.69
14:5A:4:LYS:O	14:5A:7:ILE:HG12	1.92	0.69
39:98:24:GLN:NE2	39:98:36:THR:HG21	2.04	0.69
44:A5:86:LEU:HD12	44:A5:87:PRO:HD2	1.74	0.69
40:A8:28:VAL:HG11	40:A8:98:VAL:HG12	1.74	0.69
45:B5:51:VAL:HG13	45:B5:81:VAL:HG23	1.74	0.69
46:C5:76:CYS:HB3	46:C5:97:ARG:NE	2.07	0.69
1:13:601:C:H2'	1:13:602:A:H8	1.57	0.69
26:14:910:A:H62	38:45:12:GLN:HA	1.58	0.69
26:1H:942:G:O6	61:1H:3658:HOH:O	2.10	0.69
11:2I:122:LYS:HE2	11:2I:124:LYS:HE3	1.73	0.69
27:1J:51:G:OP2	40:65:59:LYS:NZ	2.25	0.69
41:B8:3:ARG:O	41:B8:7:ILE:N	2.24	0.69
26:14:2277:G:OP2	48:E5:12:ASN:ND2	2.25	0.69
26:14:586:A:OP2	61:14:3542:HOH:O	2.10	0.69
26:1H:784:A:OP2	61:1H:3646:HOH:O	2.11	0.69
26:1H:974(A):C:OP1	61:1H:3665:HOH:O	2.10	0.69
28:71:14:VAL:HG13	28:71:222:VAL:HB	1.75	0.69
26:14:309:G:H4'	46:C5:18:GLY:HA3	1.73	0.69
2:1E:15:VAL:HG11	2:1E:210:SER:HB3	1.74	0.69
1:1G:1356:G:H2'	1:1G:1357:A:C8	2.28	0.69
26:1H:592:G:N3	55:Q8:4:MET:HE3	2.08	0.69
5:42:33:VAL:HG12	5:42:112:LEU:HD12	1.73	0.69
1:13:524:G:H2'	1:13:525:C:C6	2.28	0.68
1:1G:1395:C:HO2'	1:1G:1401:G:HO2'	1.31	0.68
26:1H:1676:A:OP2	61:1H:3659:HOH:O	2.10	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1697:G:OP2	26:1H:1698:A:O2'	2.11	0.68
14:5A:59:ALA:HB1	14:5A:61:TRP:HZ3	1.56	0.68
28:79:21:THR:HG22	28:79:22:ILE:H	1.58	0.68
9:82:71:SER:HA	9:82:74:ILE:HD12	1.74	0.68
26:14:1180:C:H2'	26:14:1181:C:C6	2.28	0.68
26:14:1406:U:H2'	26:14:1407:C:C6	2.28	0.68
26:14:1754:C:OP1	41:75:96:ARG:NH1	2.27	0.68
26:14:2689:U:H4'	26:14:2690:C:H5'	1.75	0.68
1:1G:1266:G:N2	1:1G:1270:C:N3	2.40	0.68
26:1H:1605:C:O3'	61:1H:3664:HOH:O	2.10	0.68
26:1H:50:U:H3'	26:1H:51:G:H5'	1.74	0.68
19:AI:41:VAL:HG21	19:AI:67:VAL:HG22	1.75	0.68
1:1G:1008:C:H42	1:1G:1021:G:H22	1.39	0.68
26:1H:732:C:OP2	61:1H:3669:HOH:O	2.11	0.68
8:72:86:ILE:HG21	8:72:133:LEU:HD22	1.75	0.68
9:8E:9:ARG:HB3	9:8E:14:VAL:HG22	1.76	0.68
26:1H:984:A:H5''	26:1H:985:C:H5	1.59	0.68
31:31:6:VAL:HG11	31:31:119:ARG:HA	1.75	0.68
37:35:95:VAL:HA	37:35:99:LEU:HD22	1.74	0.68
34:69:45:LYS:HA	34:69:48:GLU:HB3	1.76	0.68
40:A8:29:PHE:HD1	40:A8:30:ARG:N	1.91	0.68
45:F8:55:ASN:HB2	45:F8:80:ILE:HG12	1.75	0.68
29:11:30:GLU:HB3	29:11:104:TYR:OH	1.93	0.68
2:12:42:ILE:HD12	2:12:202:PRO:HB2	1.76	0.68
1:13:1015:A:H2'	1:13:1016:A:C8	2.28	0.68
26:14:602:G:O2'	26:14:604:G:O2'	2.12	0.68
28:71:225:ASN:ND2	28:71:228:SER:OG	2.26	0.68
26:1H:598:G:H1'	37:78:12:ALA:HB2	1.75	0.68
26:1H:30:G:OP2	42:C8:5:LYS:NZ	2.25	0.68
47:D5:165:VAL:HG12	47:D5:166:SER:H	1.57	0.68
55:M5:49:VAL:HG23	55:M5:50:LEU:O	1.94	0.68
2:12:27:LYS:HE3	2:12:194:PRO:HD2	1.75	0.68
26:14:2675:A:H4'	36:25:29:ASN:OD1	1.93	0.68
1:1G:458:C:N3	1:1G:474:G:N2	2.34	0.68
26:1H:1607:C:H4'	26:1H:1608:A:O5'	1.94	0.68
26:1H:226:G:H21	26:1H:228:A:H2	1.41	0.68
26:1H:67:U:H3	26:1H:74:A:H2	1.41	0.68
11:2I:73:MET:HE1	11:2I:102:GLY:HA3	1.76	0.68
35:58:94:HIS:HB3	35:58:97:ARG:HG3	1.73	0.68
9:82:53:VAL:HG13	9:82:95:LYS:HD3	1.75	0.68
43:D8:47:VAL:HG13	43:D8:48:GLY:H	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:459:U:H5''	54:L5:40:TRP:CD2	2.28	0.68
26:14:1357:U:OP2	61:14:3537:HOH:O	2.10	0.68
26:14:2638:G:OP2	30:29:82:ARG:NH2	2.26	0.68
26:14:7:G:N2	26:14:2897:U:O2	2.25	0.68
21:1B:4:GLY:O	21:1B:6:ARG:NH1	2.25	0.68
1:1G:371:G:H1	1:1G:390:C:H42	1.40	0.68
23:2L:48:U:O2'	23:2L:49:C:OP2	2.11	0.68
4:32:31:CYS:C	4:32:33:MET:H	1.94	0.68
33:59:67:LEU:O	33:59:70:THR:OG1	2.10	0.68
27:1J:116:G:H5'	40:65:55:ALA:HB2	1.75	0.68
17:8A:6:LEU:HD13	17:8A:23:VAL:HG11	1.75	0.68
17:8I:55:ASP:HA	17:8I:79:SER:HA	1.76	0.68
45:B5:63:LYS:CD	45:B5:63:LYS:H	2.06	0.68
2:12:71:VAL:HG21	2:12:164:VAL:HA	1.76	0.68
26:14:2098:U:H3	26:14:2191:G:H1	1.41	0.68
2:1E:17:PHE:HB3	2:1E:44:LEU:HD11	1.76	0.68
26:1H:252:G:OP2	37:78:50:ARG:NH1	2.27	0.68
26:14:2572:A:N3	30:29:144:ARG:NH1	2.42	0.68
4:32:148:VAL:O	4:32:152:SER:OG	2.11	0.68
13:4I:58:GLU:O	13:4I:62:ASN:ND2	2.27	0.68
33:59:149:ARG:HD2	33:59:164:TYR:HD1	1.58	0.68
7:62:143:ARG:H	7:62:143:ARG:HD3	1.59	0.68
40:A8:106:ARG:H	40:A8:106:ARG:HD3	1.59	0.68
1:13:1533:C:O2'	1:13:1534:A:OP1	2.11	0.68
26:14:1162:G:N7	61:14:3630:HOH:O	2.27	0.68
26:14:900:A:H2'	26:14:901:A:C8	2.29	0.68
26:1H:1022:G:H22	26:1H:1142(A):A:H2	1.40	0.68
30:29:134:ILE:O	30:29:134:ILE:HD12	1.94	0.68
1:1G:1216:G:H5''	14:5A:5:ALA:HB3	1.76	0.68
41:75:77:PRO:HG2	41:75:80:SER:HB3	1.75	0.68
26:14:2027:G:N7	61:14:3628:HOH:O	2.26	0.68
26:14:2815:C:H5'	53:J5:29:THR:HG21	1.76	0.68
1:1G:987:G:H1	1:1G:1218:C:H42	1.42	0.68
26:1H:2502:G:N7	61:1H:3735:HOH:O	2.26	0.68
11:2I:111:ASP:OD2	18:9I:84:LYS:NZ	2.22	0.68
35:58:18:ALA:HA	35:58:21:LYS:HG3	1.76	0.68
41:B8:99:LEU:HD12	41:B8:99:LEU:O	1.93	0.68
1:13:221:C:H2'	1:13:222:U:H6	1.57	0.67
26:14:1664:A:OP1	61:14:3526:HOH:O	2.12	0.67
1:1G:1326:C:H2'	1:1G:1327:C:C6	2.29	0.67
1:1G:1452:C:H4'	1:1G:1453:G:H5'	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:47:VAL:HG21	30:29:86:PRO:HD2	1.76	0.67
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.76	0.67
26:14:1537:C:H2'	26:14:1538:G:C8	2.29	0.67
26:14:1533:C:H42	26:14:1538:G:H1	1.43	0.67
26:14:2287:A:N6	26:14:2344:U:H3	1.91	0.67
26:14:2408:U:OP2	61:14:3544:HOH:O	2.11	0.67
26:14:603:A:H8	26:14:604:G:H1'	1.58	0.67
26:14:870:A:OP1	38:45:6:ARG:HD2	1.95	0.67
46:C5:52:SER:H	46:C5:57:GLN:H	1.42	0.67
47:H8:53:ILE:HG22	47:H8:71:VAL:HG13	1.75	0.67
1:13:165:C:H2'	1:13:166:G:H8	1.58	0.67
26:14:2353:G:N7	61:14:3571:HOH:O	2.25	0.67
26:14:635:C:O2'	26:14:639:U:OP1	2.10	0.67
33:51:25:LYS:HG3	33:51:34:GLU:HG2	1.75	0.67
8:7E:102:ARG:NE	8:7E:102:ARG:H	1.92	0.67
19:AI:8:GLY:HA2	19:AI:10:PHE:CE1	2.29	0.67
1:13:1348:U:H2'	1:13:1349:A:H8	1.59	0.67
26:14:1646:C:OP2	61:14:3545:HOH:O	2.11	0.67
2:1E:7:VAL:HG21	2:1E:217:ARG:HH11	1.59	0.67
26:1H:2747:G:N7	61:1H:3750:HOH:O	2.27	0.67
10:1I:81:THR:HA	10:1I:84:GLN:HB2	1.76	0.67
30:29:60:ASN:OD1	30:29:63:LEU:HD22	1.94	0.67
30:29:87:GLU:O	30:29:89:ASP:HB2	1.95	0.67
4:3E:85:LYS:HG3	4:3E:86:LYS:H	1.58	0.67
45:B5:51:VAL:H	45:B5:83:VAL:HG23	1.60	0.67
1:13:323:U:H5'	20:BI:23:ARG:HB2	1.76	0.67
46:C5:89:PHE:O	46:C5:90:LEU:HG	1.95	0.67
26:1H:517:C:OP1	53:N8:16:ARG:NH2	2.26	0.67
1:13:1149:C:H2'	1:13:1150:U:H6	1.59	0.67
26:1H:1329:U:H5''	26:1H:1330:C:H5	1.58	0.67
26:1H:748:G:OP2	61:1H:3672:HOH:O	2.13	0.67
27:1J:44:G:H1'	27:1J:47:C:N4	2.10	0.67
37:35:98:GLU:HA	37:35:101:VAL:HG12	1.75	0.67
1:1G:503:C:OP2	12:3A:116:SER:HB3	1.94	0.67
42:C8:88:ILE:O	42:C8:90:VAL:N	2.27	0.67
26:1H:1903:G:OP1	29:11:241:PRO:HB2	1.95	0.67
29:11:26:LYS:HD2	29:11:29:PRO:HB3	1.75	0.67
26:14:2651:C:H42	26:14:2669:G:H1	1.42	0.67
26:14:459:U:H2'	26:14:460:A:H8	1.59	0.67
26:14:491:G:H2'	26:14:492:A:C8	2.29	0.67
26:1H:2548:G:N7	61:1H:3741:HOH:O	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:101:A:N7	61:1J:303:HOH:O	2.26	0.67
32:49:60:LEU:HD22	32:49:68:PRO:HB3	1.77	0.67
20:BI:100:ILE:HG22	20:BI:102:GLY:H	1.59	0.67
2:12:23:ARG:HA	2:12:23:ARG:NE	2.09	0.67
26:14:2250:G:C4	38:45:82:ARG:HG3	2.29	0.67
1:1G:1343:G:H2'	1:1G:1344:C:C6	2.30	0.67
22:1K:26:A:H3'	22:1K:27:G:H8	1.60	0.67
30:21:128:SER:OG	30:21:129:HIS:N	2.28	0.67
4:32:190:ASP:OD1	4:32:191:ARG:N	2.27	0.67
7:62:65:ALA:HB1	7:62:127:ALA:HB3	1.77	0.67
1:13:1422:G:H5''	36:68:48:PRO:HB3	1.77	0.67
7:6E:16:LEU:HD13	9:8E:44:VAL:HG22	1.77	0.67
43:95:71:LEU:N	43:95:86:GLY:HA2	2.09	0.67
43:95:85:LYS:CG	43:95:87:HIS:H	2.07	0.67
36:68:122:LEU:HD23	41:B8:43:GLN:HE22	1.57	0.67
26:1H:1516:U:H2'	26:1H:1517:G:H8	1.58	0.67
26:1H:1533:C:H2'	26:1H:1534:G:C8	2.30	0.67
26:1H:2615:U:OP1	61:1H:3670:HOH:O	2.12	0.67
31:39:133:ASN:HA	31:39:162:LEU:HD23	1.77	0.67
38:45:22:LYS:HG2	38:45:23:GLY:HA2	1.77	0.67
32:49:51:ARG:HH12	32:49:55:LYS:HE2	1.60	0.67
34:61:131:LYS:HB3	34:61:132:PRO:HA	1.76	0.67
7:62:70:LYS:HG2	7:62:96:GLN:HB3	1.76	0.67
38:88:32:TYR:HD1	38:88:133:ARG:HA	1.60	0.67
1:13:177:C:OP1	20:BI:65:LYS:NZ	2.27	0.67
1:13:422:C:O2'	1:13:423:G:O5'	2.12	0.67
26:14:1424:G:H2'	26:14:1425:G:C8	2.29	0.67
26:14:2243:U:OP1	61:14:3547:HOH:O	2.12	0.67
26:14:2537:U:H2'	26:14:2538:C:C6	2.30	0.67
26:14:2857:G:N7	61:14:3639:HOH:O	2.27	0.67
26:1H:355:G:H2'	26:1H:356:G:C8	2.30	0.67
33:51:124:GLU:HG2	33:51:126:PRO:HD3	1.76	0.67
15:6A:27:VAL:HG12	15:6A:31:LEU:HD11	1.77	0.67
26:14:2032:G:H21	30:29:146:THR:HG23	1.60	0.67
26:14:2074:U:OP1	61:14:3546:HOH:O	2.12	0.67
26:14:798:G:OP1	61:14:3551:HOH:O	2.13	0.67
2:1E:178:ARG:NH1	2:1E:196:LEU:O	2.24	0.67
1:1G:533:A:OP1	61:1G:1705:HOH:O	2.13	0.67
26:1H:7:G:H1	26:1H:2896:C:H42	1.41	0.67
10:1I:40:LEU:HB2	10:1I:69:ASN:HB2	1.76	0.67
11:2I:124:LYS:HD2	11:2I:125:PHE:HE1	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:142:LEU:O	5:42:143:ARG:NH1	2.28	0.67
15:6I:53:HIS:ND1	15:6I:53:HIS:O	2.27	0.67
43:95:1:MET:HB3	43:95:42:GLY:HA3	1.76	0.67
2:12:91:PRO:HG3	2:12:154:LEU:HB2	1.77	0.66
1:13:859:A:H2'	1:13:860:A:H8	1.59	0.66
26:14:563:G:OP2	61:14:3556:HOH:O	2.13	0.66
26:14:584:C:N4	61:14:3637:HOH:O	2.27	0.66
1:1G:1028:C:O2	1:1G:1033:G:N2	2.27	0.66
1:1G:10:A:OP2	5:42:126:ARG:HG2	1.95	0.66
26:1H:1187:G:OP2	61:1H:3671:HOH:O	2.13	0.66
26:1H:1771:C:O2'	26:1H:1786:A:H8	1.73	0.66
26:1H:2400:G:H2'	26:1H:2401:U:C6	2.29	0.66
5:42:50:GLU:OE2	5:42:51:VAL:N	2.28	0.66
41:75:29:ARG:NH2	41:75:46:GLU:CD	2.48	0.66
1:13:404:U:OP1	4:3E:118:ARG:NH1	2.29	0.66
26:14:2249:U:O4	61:14:3541:HOH:O	2.10	0.66
1:1G:963:G:N2	1:1G:972:C:N3	2.43	0.66
26:1H:195:A:H4'	26:1H:251:A:O2'	1.94	0.66
3:22:18:TRP:HE3	3:22:18:TRP:H	1.43	0.66
36:68:98:VAL:HG11	36:68:114:ILE:HG23	1.76	0.66
26:14:576:U:OP1	61:14:3548:HOH:O	2.12	0.66
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.29	0.66
26:1H:1635:G:OP1	61:1H:3677:HOH:O	2.13	0.66
26:1H:2683:C:OP1	41:B8:53:ARG:NH2	2.24	0.66
37:35:52:GLU:N	37:35:52:GLU:OE2	2.28	0.66
46:G8:29:GLU:HB3	46:G8:38:ILE:CG2	2.24	0.66
26:1H:779:U:OP1	29:11:49:ILE:HG13	1.96	0.66
26:1H:86:C:H4'	26:1H:104:U:H1'	1.77	0.66
26:1H:1401:G:H2'	26:1H:1402:C:H6	1.60	0.66
26:1H:2316:C:H2'	26:1H:2317:C:H6	1.60	0.66
4:3E:83:SER:N	4:3E:89:THR:OG1	2.28	0.66
32:49:110:ALA:HB1	32:49:140:ILE:HD12	1.77	0.66
34:69:81:VAL:H	34:69:143:SER:HB3	1.60	0.66
43:95:35:LEU:HG	43:95:37:VAL:HG11	1.77	0.66
20:BA:51:GLU:HA	20:BA:54:LYS:HE3	1.76	0.66
1:13:1292:U:H2'	1:13:1293:G:C8	2.31	0.66
1:13:950:U:C5	13:4I:102:ARG:NH1	2.63	0.66
26:14:1579:A:H2'	26:14:1580:A:C8	2.30	0.66
26:14:2656:U:H3	26:14:2665:A:H2	1.43	0.66
26:14:571:A:OP2	61:14:3552:HOH:O	2.13	0.66
1:1G:362:G:O2'	12:3A:33:ARG:NH2	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1826:G:H4'	29:11:242:ARG:HH21	1.58	0.66
26:1H:2577:A:H5'	26:1H:2578:G:H5'	1.77	0.66
4:3E:102:ASP:OD1	4:3E:103:ASN:N	2.28	0.66
33:59:6:ARG:HA	33:59:66:GLY:HA2	1.77	0.66
8:7E:114:THR:HB	8:7E:129:VAL:HG11	1.77	0.66
43:95:85:LYS:HG3	43:95:87:HIS:N	2.06	0.66
41:B8:107:ASP:O	41:B8:110:ILE:HG22	1.95	0.66
46:C5:52:SER:HA	46:C5:55:TYR:O	1.95	0.66
47:H8:118:GLN:N	47:H8:118:GLN:OE1	2.29	0.66
47:H8:48:PHE:HE1	47:H8:71:VAL:HG11	1.58	0.66
49:J8:58:ILE:HG12	49:J8:87:PRO:HD3	1.77	0.66
26:1H:2422:A:N7	55:Q8:31:HIS:HE1	1.94	0.66
1:1G:1162:C:H42	1:1G:1174:G:H1	1.42	0.66
1:1G:19:C:OP1	5:42:125:SER:OG	2.14	0.66
1:1G:345:C:O3'	41:75:41:ARG:NH2	2.29	0.66
5:4E:137:GLU:HA	5:4E:140:ARG:HD2	1.77	0.66
26:1H:2562:U:H1'	36:68:23:ARG:HH11	1.59	0.66
16:7I:20:VAL:HG21	16:7I:32:TYR:CD2	2.30	0.66
47:H8:165:VAL:HB	47:H8:167:PRO:HD3	1.76	0.66
2:1E:60:ASP:O	2:1E:64:ARG:NE	2.28	0.66
1:1G:114:U:H2'	1:1G:115:G:C8	2.31	0.66
26:1H:1042:G:H1	26:1H:1113:U:H3	1.43	0.66
26:1H:270(K):C:O2	26:1H:270(N):G:N1	2.26	0.66
26:1H:848:G:H2'	26:1H:849:A:C8	2.31	0.66
33:51:41:MET:HA	33:51:53:GLU:O	1.96	0.66
7:62:12:LEU:HD11	7:62:25:ALA:HB2	1.77	0.66
15:6A:33:THR:HG23	15:6A:63:ARG:HD2	1.76	0.66
28:71:58:VAL:HG11	28:71:199:HIS:HB3	1.78	0.66
16:7I:74:LEU:HA	16:7I:77:ALA:HB2	1.78	0.66
39:98:55:ALA:HA	39:98:80:PHE:CE1	2.30	0.66
19:AI:58:VAL:HG11	19:AI:75:ALA:HB1	1.77	0.66
26:1H:535:C:O3'	42:C8:53:ARG:NH1	2.28	0.66
37:78:59:LEU:HD11	55:Q8:10:ALA:HA	1.78	0.66
27:16:73:A:OP2	61:16:301:HOH:O	2.13	0.66
26:1H:1899:G:N2	26:1H:1902:C:C5	2.62	0.66
26:1H:719:C:H2'	26:1H:720:C:H6	1.59	0.66
27:1J:80:U:H2'	27:1J:81:G:N2	2.11	0.66
32:49:75:LYS:HA	32:49:84:LYS:HG2	1.78	0.66
43:95:67:GLY:O	43:95:88:ARG:HD2	1.96	0.66
26:1H:2820:A:C5	39:98:4:LEU:HD11	2.31	0.66
45:B5:12:VAL:HG22	45:B5:27:THR:OG1	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:K8:4:SER:HA	50:K8:5:GLU:HB2	1.76	0.66
50:K8:4:SER:CB	50:K8:7:ARG:H	2.07	0.66
26:14:2402:C:H41	26:14:2416:C:H1'	1.60	0.66
26:14:452:G:OP2	61:14:3549:HOH:O	2.12	0.66
26:14:848:G:H2'	26:14:849:A:C8	2.29	0.66
26:14:93:C:H5'	26:14:94:G:OP2	1.95	0.66
1:1G:838:G:N2	1:1G:842:C:O2'	2.27	0.66
26:1H:2210:G:H4'	26:1H:2211:G:OP2	1.94	0.66
26:1H:392:C:OP1	61:1H:3679:HOH:O	2.14	0.66
27:1J:18:G:H1	27:1J:65:C:H42	1.44	0.66
3:22:162:GLN:HB3	25:4L:24:A:N6	2.10	0.66
6:52:30:LEU:HB3	6:52:35:ALA:HB3	1.78	0.66
34:61:144:VAL:HG13	34:61:145:VAL:HG23	1.78	0.66
7:6E:6:ARG:O	7:6E:6:ARG:HG3	1.95	0.66
1:13:60:A:H4'	1:13:61:G:H5'	1.78	0.66
26:14:2598:A:OP1	61:14:3559:HOH:O	2.14	0.66
26:14:660:G:H21	37:35:12:ALA:HB2	1.60	0.66
27:16:100:G:OP1	61:16:302:HOH:O	2.14	0.66
26:1H:1515:C:H2'	26:1H:1516:U:H6	1.59	0.66
30:21:135:HIS:NE2	61:21:402:HOH:O	2.28	0.66
34:61:68:LEU:HA	34:61:71:ILE:HG22	1.78	0.66
8:72:42:GLU:HG3	8:72:109:ILE:HD12	1.78	0.66
47:H8:61:LEU:HD12	47:H8:62:PRO:HD2	1.77	0.66
1:13:1279:A:O2'	1:13:1281:U:OP2	2.13	0.65
26:14:1055:G:N1	26:14:1086:A:OP1	2.26	0.65
26:14:1225:C:O3'	43:95:85:LYS:HA	1.96	0.65
26:14:1359:A:H62	26:14:1372:U:H3	1.44	0.65
26:14:528:A:C2	26:14:2042:A:H2'	2.32	0.65
1:1G:1122:U:O4	1:1G:1123:A:N6	2.29	0.65
1:1G:1348:U:N3	1:1G:1374:A:H2	1.93	0.65
26:1H:2801:A:H2'	26:1H:2802:G:O4'	1.96	0.65
26:1H:780:G:H21	26:1H:783:A:H62	1.44	0.65
24:3K:53:G:H1	24:3K:61:C:N4	1.92	0.65
20:BI:50:GLU:HG2	20:BI:100:ILE:CG1	2.26	0.65
29:11:29:PRO:HG2	29:11:30:GLU:HG2	1.78	0.65
1:13:554:C:H2'	1:13:555:C:H6	1.61	0.65
1:13:869:G:OP2	61:13:1807:HOH:O	2.13	0.65
10:1A:81:THR:HA	10:1A:84:GLN:NE2	2.12	0.65
1:1G:584:G:OP1	17:8A:91:ARG:NH1	2.29	0.65
26:1H:1375:C:H2'	26:1H:1376:C:H6	1.61	0.65
26:1H:370:G:OP2	61:1H:3674:HOH:O	2.13	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1I:75:ILE:CD1	10:1I:76:ASN:N	2.52	0.65
3:22:137:ALA:HA	3:22:140:ARG:HG2	1.78	0.65
32:41:172:LEU:CD2	32:41:173:LEU:HD22	2.26	0.65
5:4E:10:MET:HE1	5:4E:13:ILE:HD11	1.78	0.65
41:75:50:ILE:HD11	41:75:102:ILE:HD11	1.77	0.65
16:7I:26:ARG:HH21	16:7I:31:LYS:HD2	1.61	0.65
26:14:1165:U:H2'	26:14:1166:C:C6	2.32	0.65
26:14:1249:U:OP1	61:14:3561:HOH:O	2.14	0.65
26:14:2647:U:H3	26:14:2673:G:H1	1.41	0.65
26:14:929:G:O6	61:14:3538:HOH:O	2.10	0.65
29:19:30:GLU:OE1	29:19:63:ARG:HG2	1.97	0.65
27:1J:3:C:N3	27:1J:117:G:N2	2.40	0.65
22:1K:17:U:O2'	22:1K:57:G:N2	2.30	0.65
3:2E:16:ARG:HE	3:2E:54:ARG:HH21	1.44	0.65
31:31:65:TRP:CZ3	31:31:72:ARG:HB3	2.31	0.65
34:69:73:GLU:HG3	34:69:136:VAL:HG23	1.79	0.65
26:14:2165:G:O6	26:14:2166:G:N2	2.30	0.65
26:14:2611:U:H5'	26:14:2611:U:H6	1.61	0.65
26:14:2885:C:OP2	61:14:3560:HOH:O	2.14	0.65
1:1G:1143:G:H2'	1:1G:1144:G:C8	2.31	0.65
1:1G:243:A:H4'	1:1G:244:U:H5''	1.77	0.65
31:39:20:LEU:HD22	31:39:199:TRP:CH2	2.32	0.65
13:4I:49:THR:HG22	13:4I:51:ALA:H	1.61	0.65
43:95:48:GLY:HA2	43:95:52:VAL:HG13	1.78	0.65
43:D8:37:VAL:O	43:D8:38:LEU:HG	1.97	0.65
26:14:2197:U:H1'	26:14:2198:A:C8	2.31	0.65
26:1H:568:U:O4	61:1H:3613:HOH:O	2.09	0.65
4:3E:108:LEU:HD23	4:3E:110:PHE:HE1	1.61	0.65
24:3K:64:G:N2	24:3K:66:A:OP1	2.29	0.65
39:55:57:ARG:NE	39:55:59:ASP:OD2	2.21	0.65
37:78:50:ARG:HD3	55:Q8:7:HIS:CD2	2.31	0.65
35:15:59:LYS:HZ2	35:15:60:ILE:N	1.95	0.65
1:1G:1224:G:C6	1:1G:1322:C:H1'	2.32	0.65
26:1H:1639:U:C2'	26:1H:1640:C:H5''	2.27	0.65
26:1H:2017:U:OP2	61:1H:3676:HOH:O	2.13	0.65
26:1H:860:U:H5	26:1H:917:A:C2	2.13	0.65
48:E5:56:ASP:OD1	48:E5:58:THR:OG1	2.13	0.65
1:13:536:C:H2'	1:13:537:G:C8	2.32	0.65
29:19:182:LEU:N	29:19:272:ALA:HB3	2.12	0.65
29:19:30:GLU:H	29:19:35:LYS:HZ3	1.45	0.65
26:1H:1113:U:H5'	33:51:2:SER:HB2	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1345:C:OP2	61:1H:3675:HOH:O	2.13	0.65
26:1H:2098:U:H3	26:1H:2191:G:H1	1.44	0.65
26:1H:459:U:H2'	26:1H:460:A:C8	2.31	0.65
31:31:29:ASN:H	31:31:112:MET:CE	2.08	0.65
37:35:55:ARG:HG2	37:35:56:SER:H	1.62	0.65
4:3E:191:ARG:HH12	4:3E:195:ALA:HA	1.62	0.65
13:4A:11:ARG:HG2	13:4A:12:ASN:HB2	1.79	0.65
37:78:101:VAL:HG12	37:78:106:LEU:HD12	1.79	0.65
17:8I:67:LYS:HA	17:8I:70:ARG:NH1	2.11	0.65
46:G8:76:CYS:SG	46:G8:97:ARG:HG3	2.36	0.65
27:16:76:G:O3'	47:H8:19:ARG:NH2	2.29	0.65
52:M8:40:HIS:NE2	52:M8:45:GLY:O	2.30	0.65
1:1G:830:G:C4'	2:12:23:ARG:NH1	2.53	0.65
26:14:1166:C:O2'	61:14:3554:HOH:O	2.13	0.65
1:1G:972:C:OP2	10:1A:57:LYS:HE2	1.97	0.65
22:1L:33:U:H4'	22:1L:37:T6A:H151	1.79	0.65
30:29:5:LEU:HD21	30:29:79:ARG:HB2	1.79	0.65
16:7I:28:ARG:NH1	16:7I:29:ASP:OD1	2.25	0.65
19:AI:5:LEU:HD22	19:AI:10:PHE:CE2	2.32	0.65
26:1H:2334:G:O6	48:I8:74:ARG:NH2	2.30	0.65
26:14:2652:C:H42	26:14:2668:G:H1	1.43	0.65
1:1G:1298:C:H6	1:1G:1298:C:H5'	1.62	0.65
26:1H:1568:G:H5''	29:11:61:LEU:HD23	1.78	0.65
26:1H:141:A:H8	26:1H:1595:G:H21	1.43	0.65
26:1H:1899:G:N2	26:1H:1902:C:H41	1.89	0.65
26:1H:2125:G:N2	26:1H:2172:U:OP1	2.30	0.65
30:21:77:ILE:O	30:21:79:ARG:N	2.29	0.65
12:3A:60:LEU:HD23	12:3A:64:TYR:HB3	1.77	0.65
6:52:97:PHE:HD2	18:9A:31:LEU:HD21	1.60	0.65
26:1H:1218:C:OP2	42:C8:15:LYS:NZ	2.30	0.65
47:H8:150:LEU:HG	47:H8:154:ASP:HB2	1.79	0.65
48:I8:72:ARG:HB3	48:I8:75:LEU:HB2	1.79	0.65
1:13:1286:A:H2'	1:13:1287:A:H4'	1.78	0.65
1:13:22:G:H4'	1:13:885:G:C8	2.32	0.65
26:1H:1590:U:H2'	26:1H:1591:G:C8	2.32	0.65
26:1H:1678:G:H22	26:1H:1989:G:H22	1.45	0.65
26:1H:2380:C:OP1	40:A8:20:ARG:NH2	2.29	0.65
39:55:97:VAL:HA	39:55:113:LEU:O	1.97	0.65
15:6I:17:ARG:HH11	15:6I:77:ARG:HH11	1.42	0.65
49:J8:91:LYS:O	49:J8:94:LEU:N	2.30	0.65
1:13:677:U:H3	1:13:713:G:H22	1.45	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2207:C:O2	29:19:151:LYS:NZ	2.28	0.64
26:14:2267:A:OP2	61:14:3557:HOH:O	2.13	0.64
26:14:851:U:OP2	61:14:3562:HOH:O	2.14	0.64
1:1G:1027:C:O2'	1:1G:1035:A:N6	2.29	0.64
26:1H:1728:G:H3'	26:1H:1729:A:H5'	1.78	0.64
22:1L:3:G:N2	22:1L:70:C:H42	1.95	0.64
24:3K:61:C:O2	28:71:52:ARG:NH1	2.30	0.64
56:3L:55:U:H3	56:3L:57:G:H3'	1.62	0.64
13:4A:53:VAL:HG12	13:4A:57:ARG:HB2	1.78	0.64
6:5E:33:TYR:HB2	6:5E:75:LEU:HD23	1.78	0.64
1:1G:878:G:H5'	8:72:89:PRO:HG2	1.79	0.64
37:78:50:ARG:HH21	37:78:50:ARG:HG3	1.62	0.64
46:C5:15:VAL:HG12	46:C5:21:LYS:HA	1.79	0.64
48:E5:21:LEU:HD11	48:E5:41:ARG:HH11	1.62	0.64
44:E8:12:ILE:HG13	44:E8:42:ARG:HH11	1.59	0.64
50:G5:50:ILE:HD12	50:G5:51:ARG:N	2.09	0.64
1:13:27:G:H4'	4:3E:209:ARG:HD3	1.79	0.64
26:14:1604:C:OP1	61:14:3558:HOH:O	2.14	0.64
26:14:2402:C:N4	26:14:2416:C:H1'	2.11	0.64
26:14:733:G:OP2	61:14:3555:HOH:O	2.13	0.64
26:14:974:G:O2'	26:14:975:G:N7	2.26	0.64
26:14:988:A:OP2	61:14:3563:HOH:O	2.14	0.64
2:1E:16:HIS:CE1	2:1E:214:ILE:HD11	2.32	0.64
26:1H:2139:C:N4	26:1H:2152:G:H1	1.95	0.64
4:32:15:GLU:OE1	4:32:59:ARG:NH2	2.29	0.64
32:49:20:ILE:HG23	32:49:25:TYR:HB2	1.78	0.64
8:72:28:ALA:HB3	8:72:57:PRO:HB2	1.79	0.64
8:7E:4:ASP:OD1	8:7E:85:ARG:NH1	2.30	0.64
45:B5:55:ASN:HB2	45:B5:80:ILE:HG13	1.79	0.64
48:I8:21:LEU:HD11	48:I8:41:ARG:NH2	2.11	0.64
53:J5:49:CYS:SG	53:J5:50:GLY:N	2.70	0.64
26:14:2712(A):A:H5''	26:14:2713:A:OP2	1.97	0.64
26:14:2795:G:HO2'	26:14:2798:C:H5	1.45	0.64
1:1G:1024:G:OP1	1:1G:1024:G:H4'	1.97	0.64
1:1G:1095:U:P	1:1G:1108:G:H1	2.19	0.64
1:1G:1333:A:H3'	1:1G:1334:G:H8	1.62	0.64
26:1H:1257:C:H4'	31:31:83:PHE:CE1	2.33	0.64
26:1H:1683:C:H42	26:1H:1705:G:H1	1.43	0.64
31:31:197:ASP:O	31:31:199:TRP:N	2.30	0.64
5:4E:102:ALA:HB1	5:4E:106:PRO:HG2	1.79	0.64
33:51:4:ILE:HG22	33:51:6:ARG:HG3	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:5I:6:LEU:HD12	14:5I:23:ARG:HH22	1.60	0.64
1:1G:1443:G:N2	41:75:119:LYS:HB2	2.12	0.64
9:82:110:GLU:HG3	9:82:111:ARG:N	2.11	0.64
43:D8:44:LYS:O	43:D8:46:VAL:N	2.30	0.64
45:F8:25:LYS:HA	45:F8:81:VAL:O	1.97	0.64
26:14:1226:G:H5'	43:95:85:LYS:H	1.61	0.64
26:14:125:G:H1'	54:L5:13:ALA:HB1	1.79	0.64
29:19:38:LYS:NZ	29:19:60:ARG:O	2.30	0.64
1:1G:1133:G:N2	1:1G:1141:C:O2	2.30	0.64
26:1H:1049:C:H2'	26:1H:1050:A:H5'	1.80	0.64
26:1H:1827:C:C2'	26:1H:1828:G:H5'	2.28	0.64
30:21:4:ILE:HD13	30:21:28:ALA:HB1	1.78	0.64
23:2L:62:C:H2'	23:2L:63:C:H6	1.62	0.64
4:3E:187:ARG:NH2	4:3E:193:ASP:OD1	2.30	0.64
41:75:55:ASN:N	41:75:59:THR:HG22	2.13	0.64
8:7E:82:HIS:ND1	8:7E:138:TRP:CZ2	2.65	0.64
43:95:79:VAL:O	43:95:80:GLN:HG2	1.97	0.64
47:H8:76:LEU:HA	47:H8:83:PRO:HA	1.78	0.64
26:1H:2025:C:H2'	26:1H:2026:C:C6	2.32	0.64
30:29:81:ILE:HG21	30:29:84:PHE:HD2	1.62	0.64
12:3A:27:LEU:HD23	12:3A:33:ARG:HG2	1.78	0.64
14:5I:6:LEU:HB3	14:5I:23:ARG:NH2	2.12	0.64
41:75:45:PHE:CE2	41:75:74:ARG:HG3	2.33	0.64
8:7E:51:VAL:HG11	8:7E:60:ARG:HH11	1.62	0.64
1:13:996:A:H2'	1:13:997:U:C6	2.33	0.64
29:19:69:ARG:HH22	29:19:129:ASN:CA	2.10	0.64
10:1A:21:GLN:HA	10:1A:24:VAL:HG12	1.79	0.64
26:1H:1430:C:H2'	26:1H:1431:U:C6	2.32	0.64
26:1H:2404:C:OP2	61:1H:3681:HOH:O	2.14	0.64
3:22:70:VAL:O	3:22:106:VAL:N	2.22	0.64
1:1G:523:A:H61	12:3A:92:ASP:HB2	1.62	0.64
12:3I:117:ARG:HB3	12:3I:122:THR:HB	1.80	0.64
24:3K:13:C:N3	24:3K:22:G:N1	2.46	0.64
5:42:101:ILE:HD11	5:42:119:LEU:HA	1.80	0.64
29:11:231:HIS:CD2	29:11:249:PRO:HA	2.33	0.64
1:13:49:U:O2'	1:13:50:A:OP1	2.14	0.64
26:14:2132:U:O4	28:79:6:ARG:NH1	2.29	0.64
26:14:2096:U:H3	26:14:2193:G:H1	1.43	0.64
26:14:479:A:N3	26:14:481:G:H5''	2.13	0.64
2:1E:143:GLU:HA	2:1E:146:GLN:HB2	1.78	0.64
26:1H:459:U:H5''	54:P8:40:TRP:CD2	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:882:G:N7	26:1H:893:C:N4	2.46	0.64
13:4I:7:VAL:HB	32:41:115:ARG:HH22	1.63	0.64
13:4A:81:LEU:HD11	13:4A:86:CYS:SG	2.37	0.64
35:58:54:VAL:HB	35:58:122:VAL:HG22	1.78	0.64
38:88:72:LYS:HB3	38:88:94:VAL:HG23	1.79	0.64
46:C5:46:LYS:HB3	46:C5:60:PHE:HA	1.80	0.64
44:E8:18:ARG:HD3	44:E8:76:VAL:HG13	1.78	0.64
1:13:1137:C:O2	1:13:1138:G:N2	2.31	0.64
26:14:2462:U:H2'	26:14:2463:C:C6	2.33	0.64
2:1E:53:ARG:HH21	2:1E:199:TYR:HA	1.62	0.64
1:1G:198:G:H2'	1:1G:199:G:C8	2.32	0.64
26:14:2443:C:OP1	31:39:68:LYS:HG2	1.97	0.64
56:3L:50:C:H2'	56:3L:51:A:C8	2.33	0.64
6:52:15:ASP:O	6:52:19:LEU:HB2	1.97	0.64
40:65:61:ASN:ND2	40:65:64:GLU:OE2	2.29	0.64
50:K8:3:LEU:HA	50:K8:4:SER:OG	1.97	0.64
26:14:1190:G:H2'	26:14:1191:G:H8	1.63	0.64
26:14:631:A:OP1	37:35:65:ARG:NH1	2.26	0.64
1:1G:1237:C:O2'	1:1G:1300:G:N2	2.29	0.64
1:1G:222:U:H2'	1:1G:223:U:H6	1.62	0.64
26:1H:1050:A:H2'	26:1H:1051:G:H8	1.63	0.64
26:1H:1339:G:H21	26:1H:1603:A:H1'	1.62	0.64
26:1H:620:G:H4'	26:1H:621:A:C5'	2.28	0.64
26:1H:660:G:H21	37:78:12:ALA:HA	1.62	0.64
4:3E:111:ALA:HB2	4:3E:120:LEU:HD12	1.80	0.64
24:3K:76:A:H8	26:1H:2394:C:N4	1.95	0.64
32:41:139:LEU:HA	32:41:144:ILE:HD11	1.78	0.64
38:45:85:LYS:HG2	38:45:86:GLY:H	1.63	0.64
27:16:7:G:O5'	40:A8:29:PHE:HE2	1.80	0.64
46:C5:3:VAL:HG11	46:C5:32:PRO:HB2	1.79	0.64
1:13:5:U:H3	4:3E:85:LYS:HE3	1.63	0.64
26:14:1697:G:OP2	26:14:1698:A:O2'	2.11	0.64
10:1A:44:VAL:HG22	10:1A:66:ARG:HB3	1.80	0.64
1:1G:1369:C:H2'	1:1G:1370:G:C8	2.33	0.64
26:1H:2689:U:H5''	26:1H:2713:A:C2	2.33	0.64
26:1H:357:A:H2'	26:1H:358:U:H6	1.62	0.64
26:1H:380:U:OP1	61:1H:3683:HOH:O	2.15	0.64
26:1H:836:G:H5''	26:1H:837:C:OP2	1.98	0.64
1:1G:620:C:C2	4:32:135:LEU:HG	2.33	0.64
31:39:192:LEU:O	31:39:193:VAL:HG23	1.98	0.64
12:3A:117:ARG:HB3	12:3A:122:THR:HB	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:89:GLY:HA2	13:4A:92:HIS:HB2	1.80	0.64
48:E5:26:TYR:O	48:E5:29:GLN:HB2	1.98	0.64
1:13:1345:U:OP1	61:13:1808:HOH:O	2.14	0.63
1:13:657:G:N2	1:13:749:C:O2	2.26	0.63
26:14:2469:A:C1'	38:45:56:ARG:NH1	2.61	0.63
1:1G:1154:G:H2'	1:1G:1155:G:C8	2.32	0.63
1:1G:176:C:H2'	1:1G:177:C:H6	1.60	0.63
26:1H:2772:C:OP1	30:21:202:LYS:NZ	2.30	0.63
30:29:16:ARG:NH2	30:29:171:GLU:OE1	2.31	0.63
37:35:26:GLY:O	61:35:301:HOH:O	2.14	0.63
32:41:97:ASP:H	32:41:100:TRP:HD1	1.44	0.63
38:45:11:LYS:NZ	38:45:86:GLY:O	2.27	0.63
34:61:95:LYS:NZ	34:61:99:GLU:OE1	2.31	0.63
34:69:94:ALA:HA	34:69:97:ILE:HD12	1.80	0.63
42:85:88:ILE:HG22	42:85:90:VAL:HG23	1.80	0.63
53:N8:36:CYS:SG	53:N8:37:LYS:N	2.71	0.63
26:14:691:C:H4'	29:19:43:ARG:HH21	1.64	0.63
1:1G:973:G:H3'	1:1G:974:A:H5''	1.80	0.63
26:1H:879:G:N1	26:1H:898:C:N3	2.42	0.63
11:2I:58:PRO:HD3	11:2I:89:ALA:HB1	1.81	0.63
4:32:28:SER:HB3	4:32:29:PRO:HA	1.79	0.63
5:4E:8:GLU:HG2	5:4E:34:VAL:HG22	1.78	0.63
39:55:37:THR:OG1	39:55:40:LYS:NZ	2.29	0.63
1:13:1292:U:P	7:6E:41:ARG:HH22	2.20	0.63
42:85:92:ARG:NH2	43:95:10:LYS:HA	2.13	0.63
47:D5:3:TYR:O	47:D5:58:VAL:N	2.24	0.63
2:12:118:LEU:HB3	2:12:142:LEU:HD12	1.80	0.63
26:14:2035:G:OP1	61:14:3565:HOH:O	2.15	0.63
1:1G:1129:C:N4	1:1G:1139:G:H22	1.96	0.63
26:1H:1516:U:H2'	26:1H:1517:G:C8	2.34	0.63
26:1H:1828:G:OP2	61:1H:3682:HOH:O	2.15	0.63
30:21:179:GLU:HB3	30:21:181:LEU:HD23	1.78	0.63
3:22:188:LEU:HB3	3:22:190:ARG:HH21	1.63	0.63
23:2L:10:G:N2	23:2L:27:G:H1'	2.12	0.63
37:35:39:LYS:HD2	37:35:45:LEU:HD21	1.80	0.63
32:41:76:SER:HB2	32:41:84:LYS:HB2	1.80	0.63
5:42:101:ILE:O	5:42:101:ILE:HD12	1.99	0.63
5:42:61:TYR:HA	5:42:64:ARG:HG3	1.80	0.63
35:58:6:PRO:HG3	35:58:41:ASP:HB2	1.79	0.63
36:25:104:ARG:NH2	41:75:43:GLN:OE1	2.32	0.63
47:H8:111:VAL:HG21	47:H8:146:ILE:HG13	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:517:C:OP1	53:J5:16:ARG:NH2	2.31	0.63
1:13:1510:U:H2'	1:13:1511:G:C8	2.34	0.63
1:13:158:G:H2'	1:13:159:G:H8	1.62	0.63
1:13:352:C:OP2	61:13:1809:HOH:O	2.15	0.63
1:13:475:G:H2'	1:13:476:G:O4'	1.97	0.63
1:1G:1191:A:OP1	3:22:4:LYS:NZ	2.32	0.63
26:1H:602:G:HO2'	26:1H:604:G:HO2'	1.46	0.63
22:1L:76:A:H1'	26:14:2583:G:N2	2.14	0.63
26:1H:2636:U:OP1	30:21:79:ARG:HA	1.99	0.63
34:61:72:LEU:HD21	34:61:107:VAL:HG11	1.81	0.63
34:69:125:GLU:OE1	34:69:141:LYS:HG3	1.99	0.63
8:7E:41:ARG:NH2	8:7E:123:GLU:OE1	2.28	0.63
17:8A:59:ILE:CG2	17:8A:71:PHE:HB3	2.28	0.63
1:13:813:U:OP2	1:13:816:A:N6	2.31	0.63
29:19:83:GLU:OE1	29:19:104:TYR:OH	2.17	0.63
2:1E:8:LYS:HG2	2:1E:9:GLU:H	1.62	0.63
26:1H:534:U:H5'	42:C8:42:ALA:HB1	1.79	0.63
3:22:119:ARG:NH2	3:22:140:ARG:HG3	2.13	0.63
30:29:31:CYS:SG	30:29:51:PHE:HB2	2.39	0.63
23:2K:29:C:H2'	23:2K:30:G:H8	1.64	0.63
26:1H:675:A:O2'	31:31:67:GLN:NE2	2.32	0.63
13:4I:15:VAL:O	13:4I:19:LEU:HG	1.98	0.63
39:55:12:ARG:HB3	39:55:16:HIS:HB3	1.80	0.63
9:8E:97:LYS:HB2	9:8E:102:LEU:HD12	1.80	0.63
27:16:12:C:N3	48:I8:74:ARG:NH1	2.46	0.63
55:Q8:49:VAL:O	55:Q8:51:ALA:N	2.32	0.63
1:13:1000:A:H2'	1:13:1001:G:C8	2.32	0.63
1:13:737:A:H2'	1:13:738:C:C6	2.34	0.63
26:14:1771:C:O2'	26:14:1786:A:H8	1.77	0.63
26:14:96:G:H4'	50:G5:48:HIS:CE1	2.33	0.63
26:1H:1515:C:H2'	26:1H:1516:U:C6	2.34	0.63
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.33	0.63
26:1H:2061:G:OP2	26:1H:2502:G:H5'	1.99	0.63
27:1J:2:C:H2'	27:1J:3:C:C6	2.33	0.63
31:31:134:GLY:HA2	31:31:166:ALA:HB2	1.80	0.63
4:3E:150:GLU:HA	4:3E:153:ARG:HG3	1.79	0.63
34:61:110:ASP:OD1	34:61:110:ASP:N	2.31	0.63
7:62:69:VAL:HG22	7:62:135:VAL:HG22	1.79	0.63
8:72:29:SER:HB3	8:72:32:LYS:HG3	1.80	0.63
8:7E:34:GLU:OE1	8:7E:37:ARG:NH1	2.32	0.63
8:7E:9:MET:HG3	8:7E:26:VAL:HG21	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:11:LEU:HB3	2:12:217:ARG:NH2	2.14	0.63
29:19:104:TYR:O	29:19:105:ILE:HD12	1.98	0.63
10:1A:34:VAL:HG12	10:1A:74:ILE:HA	1.80	0.63
26:1H:1035:U:H2'	26:1H:1036:G:C8	2.33	0.63
24:3K:6:G:H1	24:3K:66:A:N6	1.92	0.63
38:45:31:ASP:H	38:45:107:ALA:HB2	1.62	0.63
5:4E:8:GLU:OE2	5:4E:63:ARG:NH2	2.32	0.63
33:51:41:MET:HB3	33:51:52:VAL:HG13	1.81	0.63
45:B5:41:ASN:HA	45:B5:44:GLU:HB2	1.81	0.63
45:B5:63:LYS:N	45:B5:63:LYS:HD3	2.13	0.63
1:13:630:G:H2'	1:13:631:G:C8	2.33	0.63
26:14:2123:G:N2	26:14:2176:A:N1	2.46	0.63
26:14:807:U:OP1	37:35:36:LYS:HE3	1.98	0.63
2:1E:162:ILE:O	2:1E:185:ILE:HG12	1.98	0.63
26:1H:2271:G:N7	61:1H:3767:HOH:O	2.30	0.63
26:1H:2788:C:O2'	26:1H:2809:A:N3	2.29	0.63
26:1H:460:A:H5''	26:1H:461:C:OP2	1.99	0.63
37:78:71:VAL:HG13	37:78:72:PRO:HD3	1.80	0.63
44:E8:29:LEU:HD13	44:E8:51:LEU:HD21	1.80	0.63
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.81	0.63
1:13:1318:A:H1'	19:AI:37:ARG:HH21	1.64	0.63
1:13:312:C:H2'	1:13:313:A:H8	1.64	0.63
1:13:601:C:H2'	1:13:602:A:C8	2.33	0.63
26:14:1676:A:OP2	61:14:3568:HOH:O	2.16	0.63
2:1E:187:LEU:HD23	2:1E:201:ILE:HG22	1.80	0.63
1:1G:530:G:N3	22:1L:35:U:O2'	2.30	0.63
26:1H:2306:C:H2'	26:1H:2307:G:H21	1.64	0.63
1:13:1060:C:O2'	10:1I:56:HIS:ND1	2.30	0.63
27:1J:76:G:H21	47:D5:75:ASN:HD22	1.47	0.63
3:22:162:GLN:HB3	25:4L:24:A:H62	1.64	0.63
4:3E:64:LEU:HD13	4:3E:198:VAL:HG21	1.80	0.63
40:A8:39:ILE:HB	40:A8:49:VAL:HG12	1.81	0.63
20:BI:50:GLU:HG2	20:BI:100:ILE:HG13	1.79	0.63
49:F5:80:LEU:HD23	49:F5:82:LEU:HD13	1.79	0.63
1:13:1316:G:H22	1:13:1319:A:H5''	1.64	0.62
1:13:1455:G:OP1	20:BI:35:THR:OG1	2.13	0.62
26:14:1265:A:OP2	61:14:3567:HOH:O	2.15	0.62
26:14:1899:G:H22	26:14:1902:C:N4	1.97	0.62
29:19:182:LEU:HB3	29:19:271:ILE:HG13	1.80	0.62
2:1E:11:LEU:CD2	2:1E:213:LEU:HD13	2.29	0.62
3:22:44:GLU:HG3	3:22:52:LEU:HD21	1.79	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:36:ARG:NH1	30:29:85:ASN:OD1	2.32	0.62
31:39:181:LEU:HD21	31:39:186:ILE:HD11	1.81	0.62
9:82:28:VAL:HG22	9:82:63:ILE:HB	1.81	0.62
38:88:66:ILE:O	38:88:104:PHE:N	2.32	0.62
1:13:474:G:H5'	16:71:81:ARG:HE	1.64	0.62
1:13:545:C:O2'	1:13:549:C:OP1	2.15	0.62
1:13:591:U:H2'	1:13:592:G:H8	1.65	0.62
1:13:590:C:H2'	1:13:591:U:H6	1.63	0.62
26:14:2148:G:H2'	26:14:2149:G:H8	1.64	0.62
26:14:2415:G:H4'	37:35:67:MET:N	2.12	0.62
26:14:2629:A:H1'	26:14:2895:U:O4	1.99	0.62
1:1G:1152:A:OP1	10:1A:68:HIS:NE2	2.32	0.62
26:1H:10:G:O2'	26:1H:2801:A:N3	2.32	0.62
26:1H:780:G:H21	26:1H:783:A:N6	1.95	0.62
4:3E:155:LEU:HD12	4:3E:158:ILE:HD11	1.81	0.62
15:6I:39:LEU:HD13	15:6I:56:LEU:HB2	1.81	0.62
28:71:22:ILE:HG21	28:71:190:ARG:HD3	1.80	0.62
9:82:43:ALA:HA	9:82:74:ILE:HD13	1.80	0.62
41:B8:45:PHE:CZ	41:B8:65:LYS:HG2	2.35	0.62
46:C5:75:ILE:HA	46:C5:80:GLY:HA2	1.81	0.62
50:K8:47:ASN:O	50:K8:49:LYS:N	2.30	0.62
37:78:63:PRO:CB	55:Q8:30:ARG:HH21	2.11	0.62
1:13:1240:U:OP2	7:6E:116:ALA:N	2.31	0.62
26:14:2567:G:H2'	26:14:2568:C:C6	2.34	0.62
1:1G:1292:U:H2'	1:1G:1293:G:C8	2.32	0.62
26:1H:1496:A:H8	26:1H:1577:C:O2'	1.76	0.62
36:25:13:ASN:ND2	36:25:96:THR:HG23	2.14	0.62
30:29:176:ILE:HD12	30:29:181:LEU:HD23	1.81	0.62
8:72:51:VAL:HG11	8:72:60:ARG:HE	1.63	0.62
37:78:49:ARG:HH12	37:78:50:ARG:HH21	1.47	0.62
2:12:220:ASP:O	2:12:224:GLN:HG2	1.98	0.62
1:13:1449:C:H42	1:13:1454:G:H1	1.47	0.62
1:13:224:C:H2'	1:13:225:C:C6	2.34	0.62
26:14:1534:G:H3'	26:14:1535:U:C5'	2.29	0.62
26:14:1921:G:H2'	26:14:1922:G:H8	1.63	0.62
2:1E:82:ARG:NE	2:1E:92:TYR:OH	2.30	0.62
1:1G:1281:U:OP2	1:1G:1282:C:N4	2.28	0.62
26:1H:2199:A:H3'	26:1H:2205:C:H6	1.64	0.62
30:29:167:VAL:CG1	30:29:170:LEU:HD11	2.27	0.62
31:31:66:PRO:O	31:31:67:GLN:HB3	1.98	0.62
13:4A:78:ILE:HA	13:4A:81:LEU:HB2	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:58:57:ALA:O	35:58:58:ASP:OD2	2.17	0.62
6:5E:82:ARG:HB2	6:5E:85:VAL:HG23	1.80	0.62
15:6I:9:GLN:HA	15:6I:12:ILE:HD12	1.80	0.62
5:42:148:VAL:HG21	8:72:107:LEU:HD23	1.81	0.62
43:95:49:THR:HB	43:95:50:PRO:HD2	1.81	0.62
46:C5:2:ARG:HH11	46:C5:2:ARG:HA	1.64	0.62
37:35:49:ARG:O	55:M5:57:ARG:CZ	2.47	0.62
55:Q8:52:LYS:O	55:Q8:54:GLU:N	2.32	0.62
2:12:121:LEU:HD11	2:12:130:ARG:HH21	1.63	0.62
26:14:1024:G:H3'	26:14:1025:G:H5''	1.80	0.62
1:1G:187:C:H2'	1:1G:188:U:O4'	1.98	0.62
30:21:24:THR:HG21	30:21:188:VAL:HG22	1.80	0.62
30:29:54:GLN:H	30:29:74:PRO:HA	1.65	0.62
1:13:707:C:OP1	11:2I:85:ARG:NH1	2.31	0.62
12:3A:60:LEU:HD21	12:3A:66:VAL:HG22	1.80	0.62
56:3L:19:G:H1'	56:3L:57:G:H21	1.64	0.62
14:5I:29:ARG:HD2	14:5I:40:CYS:HB2	1.82	0.62
46:C5:29:GLU:CG	46:C5:30:VAL:H	2.12	0.62
26:14:2016:U:O2	53:J5:7:PRO:HG2	1.99	0.62
2:12:180:LEU:HB2	2:12:182:ILE:HD13	1.82	0.62
1:13:767:A:H2'	1:13:768:A:O4'	1.99	0.62
26:14:2327:A:H2'	26:14:2328:A:C8	2.35	0.62
26:14:34:C:O2'	26:14:35:G:O5'	2.17	0.62
1:1G:1238:A:H62	1:1G:1301:U:H3	1.45	0.62
26:1H:1568:G:H5''	29:11:61:LEU:CD2	2.29	0.62
3:2E:64:VAL:HG12	3:2E:66:VAL:HG23	1.81	0.62
23:2L:24:C:H2'	23:2L:25:U:H6	1.65	0.62
49:F5:85:LEU:HA	49:F5:87:PRO:HD2	1.82	0.62
1:13:396:G:O2'	1:13:398:C:OP1	2.08	0.62
26:14:2023:G:OP2	26:14:2617:C:H4'	2.00	0.62
26:14:2295:C:OP1	40:65:10:ARG:NH1	2.29	0.62
1:1G:1070:U:H2'	1:1G:1071:C:H6	1.63	0.62
26:1H:760:G:OP2	61:1H:3685:HOH:O	2.16	0.62
3:22:88:ARG:HD3	3:22:101:LEU:HD12	1.80	0.62
36:25:117:LEU:HA	36:25:118:ALA:C	2.20	0.62
39:98:72:ASP:O	39:98:76:VAL:HG23	2.00	0.62
46:C5:76:CYS:HB3	46:C5:97:ARG:HE	1.62	0.62
47:H8:108:PRO:HB2	47:H8:112:ARG:HA	1.81	0.62
55:M5:22:VAL:HB	55:M5:55:ALA:HB1	1.80	0.62
2:12:12:GLU:O	2:12:12:GLU:HG2	1.99	0.62
26:14:1871:A:H2'	26:14:1872:A:C8	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:677:U:H3	1:1G:713:G:H22	1.48	0.62
1:1G:735:C:H2'	1:1G:736:C:H6	1.65	0.62
26:1H:2751:G:H5'	33:51:4:ILE:HD13	1.80	0.62
26:1H:900:A:H3'	26:1H:901:A:H8	1.64	0.62
23:2L:55:5MU:O2'	23:2L:56:PSU:O5'	2.18	0.62
56:3L:10:G:N2	56:3L:25:C:O2	2.30	0.62
40:65:74:ALA:HB1	40:65:107:GLU:HB2	1.82	0.62
42:85:90:VAL:O	43:95:11:GLN:NE2	2.26	0.62
43:95:85:LYS:HE3	43:95:88:ARG:H	1.65	0.62
46:C5:97:ARG:NH1	46:C5:104:GLY:O	2.33	0.62
26:14:1106:G:H3'	26:14:1107:G:H8	1.64	0.62
26:14:1729:A:H2'	26:14:1731:G:N2	2.15	0.62
26:14:2745:C:O2'	33:59:143:GLN:HA	2.00	0.62
2:1E:21:ARG:HB2	2:1E:39:ILE:HA	1.80	0.62
1:1G:446:G:H1	1:1G:488:C:H42	1.46	0.62
26:1H:1047:G:H2'	26:1H:1110:G:C6	2.34	0.62
26:1H:592:G:H21	55:Q8:4:MET:HE1	1.64	0.62
36:25:24:VAL:HG23	36:25:33:ALA:HB2	1.82	0.62
26:14:2820:A:C6	39:55:4:LEU:HD11	2.34	0.62
49:J8:92:LYS:HA	49:J8:95:LEU:HB2	1.82	0.62
1:13:1446:A:OP1	1:13:1446:A:H4'	1.99	0.62
1:13:652:U:O4	1:13:752:G:O2'	2.14	0.62
29:19:30:GLU:OE1	29:19:63:ARG:NE	2.31	0.62
1:1G:1095:U:OP1	1:1G:1108:G:N2	2.32	0.62
1:1G:1392:G:H21	1:1G:1502:A:H8	1.47	0.62
1:1G:201:C:H42	1:1G:216:G:H1	1.47	0.62
26:1H:2025:C:H2'	26:1H:2026:C:H6	1.64	0.62
33:59:9:ILE:HB	33:59:10:PRO:HD2	1.79	0.62
17:8I:82:MET:HA	17:8I:85:VAL:HG12	1.81	0.62
18:9A:22:VAL:HG22	18:9A:23:LYS:H	1.65	0.62
26:14:1329:U:H5''	26:14:1330:C:H5	1.64	0.61
26:14:2357:U:OP1	48:E5:20:ARG:NH1	2.32	0.61
26:14:548:A:C6	26:14:549:G:H1'	2.34	0.61
26:14:646:A:H2'	26:14:647:G:O4'	1.99	0.61
29:19:69:ARG:HH22	29:19:130:ALA:H	1.37	0.61
26:1H:1815:A:OP2	29:11:54:ARG:NH2	2.24	0.61
26:1H:1783:A:H5'	26:1H:2608:G:H4'	1.81	0.61
26:1H:882:G:N2	26:1H:895:U:O4	2.32	0.61
28:71:39:GLU:HG2	28:71:178:ALA:HB3	1.81	0.61
41:75:56:GLY:O	41:75:59:THR:HG23	1.99	0.61
8:7E:77:GLU:HG2	8:7E:78:GLN:H	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8A:51:TYR:CE1	17:8A:73:VAL:HG11	2.35	0.61
18:9I:59:SER:H	18:9I:62:GLU:HB2	1.65	0.61
40:A8:87:PHE:CE2	40:A8:102:ALA:HB2	2.35	0.61
46:C5:43:ASN:HB2	46:C5:62:GLU:O	2.00	0.61
2:12:71:VAL:HG11	2:12:164:VAL:HA	1.81	0.61
1:13:131:C:O2'	1:13:262:A:N3	2.33	0.61
1:13:536:C:OP1	61:13:1811:HOH:O	2.16	0.61
26:14:1203:G:H3'	26:14:1204:A:H5''	1.83	0.61
26:14:691:C:H2'	26:14:692:C:C6	2.35	0.61
26:1H:89:G:N7	61:1H:3770:HOH:O	2.31	0.61
32:41:13:GLU:O	32:41:14:GLU:HG2	2.00	0.61
32:49:125:PHE:HB3	32:49:166:ASP:HB2	1.80	0.61
13:4I:91:ARG:HB2	13:4I:98:VAL:HG12	1.82	0.61
33:59:6:ARG:HH12	33:59:54:ARG:HH22	1.48	0.61
37:78:83:VAL:HG12	37:78:112:LEU:HD21	1.82	0.61
44:E8:27:LYS:HB3	44:E8:31:GLU:HG3	1.81	0.61
1:13:1194:U:H2'	1:13:1195:C:C6	2.35	0.61
1:13:963:G:H21	10:1I:55:LYS:NZ	1.98	0.61
26:14:34:C:H1'	26:14:35:G:OP1	2.00	0.61
26:14:901:A:H5'	26:14:902:C:OP2	2.00	0.61
26:1H:2213:U:O2	49:J8:52:ARG:NH2	2.33	0.61
6:5E:18:GLN:HA	6:5E:21:LEU:HG	1.81	0.61
1:13:607:A:C2	16:7I:31:LYS:HG3	2.35	0.61
16:7I:19:ILE:HG22	16:7I:36:ILE:HG13	1.83	0.61
19:AI:29:ARG:HH12	19:AI:31:ILE:HB	1.66	0.61
26:14:2271:G:OP1	48:E5:18:ALA:HB1	2.00	0.61
29:11:3:VAL:HG13	29:11:17:THR:HG23	1.81	0.61
29:11:68:LYS:HB3	29:11:70:TRP:CZ3	2.34	0.61
1:13:376:G:H5''	16:7I:5:ARG:HB2	1.83	0.61
1:13:630:G:H2'	1:13:631:G:H8	1.65	0.61
1:13:871:U:OP1	61:13:1813:HOH:O	2.16	0.61
1:13:991:U:C4	1:13:1212:U:H1'	2.35	0.61
26:14:270(L):U:O2	34:69:50:ARG:NH1	2.34	0.61
26:14:305:U:H2'	26:14:306:U:C6	2.35	0.61
26:14:548:A:C5	26:14:549:G:H1'	2.36	0.61
1:1G:979:C:OP1	1:1G:1223:C:N4	2.33	0.61
26:1H:1800:C:OP2	29:11:183:ARG:NH2	2.26	0.61
26:1H:270(V):G:H2'	26:1H:270(W):G:H8	1.65	0.61
26:1H:320:A:OP1	31:31:135:LYS:NZ	2.34	0.61
26:14:2875:C:O2'	41:75:3:ARG:HG3	2.00	0.61
9:82:110:GLU:HG3	9:82:111:ARG:H	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1226:G:OP1	43:95:69:LYS:NZ	2.32	0.61
43:D8:21:ARG:HG2	43:D8:91:TYR:HE2	1.65	0.61
26:14:1970:A:OP2	61:14:3570:HOH:O	2.16	0.61
26:14:273(C):C:H42	26:14:363(C):G:H1	1.46	0.61
1:1G:1125:U:H2'	1:1G:1126:U:C5	2.35	0.61
26:1H:1784:A:H5''	61:1H:4065:HOH:O	1.99	0.61
38:45:133:ARG:O	38:45:134:ARG:HB3	2.01	0.61
1:1G:189:U:O2'	17:8A:63:ARG:NH2	2.33	0.61
17:8I:81:ARG:NH1	17:8I:83:ASP:OD2	2.33	0.61
47:D5:14:LYS:HE2	47:D5:16:SER:HB2	1.81	0.61
44:E8:19:LEU:HB3	53:N8:25:LEU:HD12	1.83	0.61
1:13:358:U:H5''	34:69:87:LYS:HD3	1.82	0.61
26:14:1019:U:H2'	26:14:1020:A:H8	1.64	0.61
26:14:1341:U:OP2	26:14:1394:U:O2'	2.11	0.61
26:14:483:A:H3'	26:14:484:C:H6	1.66	0.61
2:1E:114:ARG:HE	2:1E:118:LEU:HD11	1.65	0.61
26:1H:363(B):G:H2'	26:1H:363(C):G:H8	1.66	0.61
27:1J:88:C:H5''	27:1J:89:G:C6	2.35	0.61
3:22:36:ASP:OD1	3:22:57:ILE:HG21	2.01	0.61
30:29:119:ARG:NH1	30:29:120:TRP:CZ2	2.68	0.61
12:3A:78:GLN:HG2	12:3A:81:SER:HB3	1.82	0.61
32:41:56:ALA:HB2	32:41:153:ARG:HE	1.66	0.61
38:45:22:LYS:N	38:45:23:GLY:HA3	2.15	0.61
43:95:57:VAL:HG12	43:95:99:ILE:HA	1.83	0.61
50:G5:19:VAL:HA	50:G5:22:GLU:HG3	1.82	0.61
47:H8:9:TYR:CE2	47:H8:61:LEU:HD11	2.35	0.61
1:13:509:A:OP2	61:13:1814:HOH:O	2.16	0.61
26:14:1786:A:H2	26:14:2606:C:H1'	1.64	0.61
1:1G:1070:U:H2'	1:1G:1071:C:C6	2.36	0.61
1:1G:977:A:H2'	1:1G:978:A:H5'	1.82	0.61
3:22:8:ILE:HD12	3:22:16:ARG:HD2	1.82	0.61
56:3L:55:U:C4	56:3L:57:G:H5''	2.35	0.61
7:6E:51:GLN:HB2	7:6E:58:PRO:HD3	1.82	0.61
39:98:42:LYS:HA	39:98:45:ARG:HD2	1.80	0.61
41:B8:88:ILE:HD13	41:B8:91:ARG:CZ	2.30	0.61
26:14:337:C:O2'	46:C5:4:LYS:NZ	2.33	0.61
47:D5:124:ILE:HD11	47:D5:165:VAL:HG21	1.82	0.61
2:12:82:ARG:NH1	2:12:92:TYR:OH	2.33	0.61
1:1G:474:G:H2'	1:1G:475:G:C8	2.36	0.61
1:1G:501:C:H2'	1:1G:502:G:H8	1.66	0.61
26:1H:2882:A:OP1	39:98:96:ARG:HD3	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3A:83:VAL:HG13	12:3A:100:ILE:HG23	1.83	0.61
8:72:82:HIS:HB3	8:72:138:TRP:CZ3	2.35	0.61
1:1G:1349:A:OP2	9:82:118:LYS:NZ	2.34	0.61
9:8E:13:ALA:HB2	9:8E:68:GLY:HA3	1.82	0.61
18:9I:38:GLU:OE1	18:9I:41:LYS:NZ	2.33	0.61
47:H8:126:VAL:HA	47:H8:164:ALA:H	1.65	0.61
26:14:1169:G:H2'	26:14:1170:G:H4'	1.83	0.61
26:14:1607:C:N4	26:14:1622:G:OP2	2.34	0.61
26:14:1835:G:C8	26:14:1835:G:H5''	2.36	0.61
26:14:2690:C:OP2	26:14:2690:C:H6	1.84	0.61
26:14:289:A:H3'	26:14:290:G:H8	1.66	0.61
26:14:580:C:H2'	26:14:581:C:C6	2.35	0.61
29:19:44:ASN:HB3	29:19:45:ASN:C	2.21	0.61
1:1G:1238:A:N3	1:1G:1241:G:O2'	2.30	0.61
23:2K:64:G:H2'	23:2K:65:G:H8	1.66	0.61
1:13:547:A:OP1	4:3E:73:ARG:NH2	2.34	0.61
33:59:168:PRO:HB2	33:59:170:ARG:HG2	1.83	0.61
34:69:81:VAL:HG12	34:69:143:SER:HB3	1.82	0.61
26:1H:2404:C:O3'	37:78:77:ARG:NH2	2.33	0.61
26:14:2576:G:O2'	26:14:2579:C:OP2	2.16	0.61
26:14:580:C:H2'	26:14:581:C:H6	1.66	0.61
26:14:729:G:OP2	29:19:13:ARG:NH1	2.33	0.61
1:1G:186(B):C:O2'	1:1G:186(C):G:H5'	2.01	0.61
26:1H:1186:G:OP1	61:1H:3684:HOH:O	2.16	0.61
26:1H:1520:U:H2'	26:1H:1521:G:O4'	2.01	0.61
26:1H:1434:A:H61	26:1H:1558:A:H61	1.48	0.61
3:22:155:GLY:HA3	3:22:196:LEU:HD13	1.81	0.61
30:29:30:PRO:HB3	30:29:90:THR:HG23	1.82	0.61
36:68:53:LYS:HE3	36:68:53:LYS:HA	1.82	0.61
29:11:10:THR:OG1	29:11:13:ARG:HB2	2.00	0.60
26:14:1942:C:OP2	26:14:1943:U:O2'	2.10	0.60
26:1H:1405:U:H2'	26:1H:1406:U:C6	2.36	0.60
26:1H:600:G:N2	26:1H:605:C:O3'	2.34	0.60
31:31:62:ARG:HB3	31:31:62:ARG:NH1	2.16	0.60
4:32:13:ARG:HD2	4:32:38:TYR:O	2.00	0.60
37:35:113:LYS:HB2	37:35:129:ALA:HB3	1.81	0.60
34:69:14:ASP:N	34:69:17:GLN:OE1	2.32	0.60
43:95:85:LYS:CD	43:95:86:GLY:H	2.10	0.60
43:D8:59:ALA:HB2	43:D8:96:ILE:HD13	1.82	0.60
29:11:72:LYS:HG2	29:11:103:ARG:NH2	2.16	0.60
26:14:1048:A:H61	26:14:1112:G:H1'	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1569:A:H2'	26:14:1570:A:C8	2.36	0.60
26:14:1676:A:OP2	61:14:3569:HOH:O	2.16	0.60
26:14:2232:U:OP1	49:F5:40:ARG:NH2	2.35	0.60
26:14:2438:U:O3'	26:14:2439:A:H3'	2.01	0.60
10:1A:38:ILE:HB	10:1A:71:LEU:O	2.01	0.60
2:1E:185:ILE:HG22	2:1E:199:TYR:HB2	1.83	0.60
26:1H:1639:U:H2'	26:1H:1640:C:H5''	1.83	0.60
26:1H:957:A:N1	26:1H:2458:G:H4'	2.17	0.60
30:29:103:ASP:OD1	30:29:201:THR:HG22	2.01	0.60
33:51:122:THR:HB	33:51:134:SER:HB2	1.82	0.60
36:68:68:GLU:OE1	36:68:78:ARG:NH1	2.34	0.60
34:69:117:GLU:HG2	34:69:118:LYS:N	2.09	0.60
26:14:270(N):G:OP1	34:69:57:ARG:NH2	2.34	0.60
1:13:642:A:N3	8:7E:113:SER:OG	2.34	0.60
2:1E:179:LYS:HA	8:7E:72:PRO:HD3	1.83	0.60
42:85:92:ARG:CD	43:95:11:GLN:HG3	2.31	0.60
42:C8:92:ARG:CZ	43:D8:11:GLN:H	2.14	0.60
1:13:1124:G:O2'	1:13:1126:U:O4	2.17	0.60
1:1G:297:G:N2	1:1G:300:A:OP2	2.34	0.60
1:1G:406:G:H2'	1:1G:407:G:H8	1.66	0.60
26:1H:1111:A:N3	26:1H:1112:G:H1'	2.16	0.60
26:1H:2199:A:H5'	26:1H:2205:C:OP2	2.01	0.60
11:2A:100:ALA:O	11:2A:102:GLY:N	2.35	0.60
11:2I:85:ARG:HG2	11:2I:111:ASP:HB3	1.82	0.60
33:59:149:ARG:HD2	33:59:164:TYR:CD1	2.36	0.60
1:1G:742:G:OP2	15:6A:35:ARG:NH2	2.33	0.60
26:1H:2124:G:H4'	28:71:174:PRO:HG3	1.83	0.60
20:BI:11:SER:HA	20:BI:13:LEU:HD22	1.84	0.60
50:K8:2:LYS:O	50:K8:5:GLU:HB2	2.01	0.60
1:13:859:A:H2'	1:13:860:A:C8	2.36	0.60
26:14:2115:G:N2	26:14:2116:G:N7	2.49	0.60
29:19:264:LYS:HG2	29:19:266:SER:HB3	1.83	0.60
29:19:44:ASN:OD1	29:19:46:GLN:HG2	2.00	0.60
1:1G:45:U:H2'	1:1G:46:G:C8	2.36	0.60
1:1G:490:G:P	4:32:132:ARG:HH22	2.24	0.60
26:1H:1651:G:O6	61:1H:3673:HOH:O	2.13	0.60
26:1H:2341:G:H2'	26:1H:2342:C:C6	2.35	0.60
26:1H:796:C:H2'	26:1H:797:C:C6	2.36	0.60
26:1H:879:G:H2'	26:1H:880:G:H8	1.66	0.60
27:1J:89(A):A:H5'	27:1J:90:C:OP2	2.01	0.60
3:22:40:ARG:HE	3:22:55:VAL:HG23	1.65	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:85:LYS:HD3	4:32:86:LYS:H	1.64	0.60
31:39:8:GLN:HG2	31:39:124:LEU:HD11	1.84	0.60
5:42:78:HIS:ND1	8:72:104:ARG:NE	2.41	0.60
26:1H:2837:G:H21	39:98:45:ARG:NH2	1.99	0.60
50:G5:43:GLN:CD	50:G5:43:GLN:H	2.03	0.60
26:14:1162:G:N2	43:95:89:GLN:OE1	2.34	0.60
26:1H:1857:G:O6	61:1H:3667:HOH:O	2.11	0.60
26:1H:2331:G:O3'	48:18:43:THR:HG22	2.02	0.60
31:39:120:GLU:HG2	31:39:122:LYS:HE3	1.84	0.60
6:5E:41:GLU:O	6:5E:43:LEU:HG	2.00	0.60
14:5I:3:ARG:O	14:5I:6:LEU:N	2.34	0.60
7:62:115:ARG:O	7:62:118:VAL:HG22	2.01	0.60
44:A5:73:ALA:O	44:A5:106:ILE:HG12	2.02	0.60
26:14:2168:G:N2	26:14:2171:A:OP2	2.34	0.60
26:14:2352:A:OP2	61:14:3571:HOH:O	2.16	0.60
26:14:2494:G:H2'	26:14:2495:G:H8	1.67	0.60
26:14:10:G:N2	26:14:2802:G:OP1	2.35	0.60
26:14:273(E):U:H3	26:14:363(A):A:H61	1.50	0.60
1:1G:1092:A:N3	61:1G:1717:HOH:O	2.30	0.60
26:1H:1797:C:O2'	29:11:259:THR:OG1	2.05	0.60
26:1H:963:U:OP1	61:1H:3686:HOH:O	2.17	0.60
10:1I:80:LYS:HD2	10:1I:83:GLU:OE1	2.01	0.60
22:1K:41:A:H2'	22:1K:42:A:H8	1.66	0.60
4:32:191:ARG:NH2	4:32:194:LEU:HB2	2.17	0.60
32:49:114:ILE:HD11	32:49:140:ILE:HD13	1.83	0.60
40:65:42:ASP:O	40:65:43:GLU:HG2	2.02	0.60
34:69:128:LEU:O	34:69:138:ILE:N	2.29	0.60
8:7E:1:MET:HG2	8:7E:3:THR:HG23	1.83	0.60
49:F5:86:SER:N	49:F5:87:PRO:HD2	2.17	0.60
53:J5:6:VAL:HG22	53:J5:7:PRO:HD2	1.83	0.60
29:11:29:PRO:CB	29:11:30:GLU:HA	2.24	0.60
29:11:32:SER:HA	29:11:35:LYS:NZ	2.16	0.60
2:12:130:ARG:O	2:12:135:GLN:NE2	2.28	0.60
1:13:691:G:O6	11:2I:55:LYS:NZ	2.34	0.60
26:14:876:C:H1'	26:14:901:A:H61	1.67	0.60
1:1G:164:U:H2'	1:1G:165:C:C6	2.36	0.60
26:1H:1538:G:H2'	26:1H:1539:G:C8	2.35	0.60
26:1H:2164:C:OP2	26:1H:2166:G:N2	2.35	0.60
30:21:116:VAL:O	30:21:117:MET:HB3	2.02	0.60
30:29:3:GLY:HA3	30:29:81:ILE:HD12	1.83	0.60
31:31:67:GLN:HG3	31:31:67:GLN:O	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:18:ARG:HE	31:39:19:GLU:N	1.99	0.60
4:3E:31:CYS:SG	4:3E:33:MET:HB2	2.41	0.60
6:5E:75:LEU:HD13	6:5E:79:LEU:HD11	1.83	0.60
7:6E:22:LEU:HD22	7:6E:62:PHE:CE2	2.37	0.60
28:71:29:VAL:HG13	28:71:30:LYS:HD2	1.83	0.60
41:B8:53:ARG:O	41:B8:59:THR:OG1	2.17	0.60
43:D8:65:GLY:HA3	43:D8:91:TYR:CE1	2.36	0.60
2:12:42:ILE:HG13	2:12:42:ILE:O	2.01	0.60
26:14:1672:C:H5''	26:14:1673:U:OP2	2.02	0.60
26:14:1849:G:H2'	26:14:1850:G:H8	1.66	0.60
29:19:27:THR:HG22	29:19:29:PRO:O	2.02	0.60
30:21:111:ARG:HD2	30:21:160:TYR:CD2	2.37	0.60
13:4I:67:GLU:HG2	13:4I:71:ARG:HH21	1.67	0.60
50:G5:17:SER:HB3	50:G5:67:LYS:HE3	1.84	0.60
47:H8:111:VAL:HG11	47:H8:146:ILE:HB	1.84	0.60
26:14:143:C:H4'	45:B5:38:GLU:OE2	2.02	0.60
1:1G:1287:A:H2'	1:1G:1288:A:C8	2.35	0.60
26:1H:577:G:OP1	26:1H:2502:G:O2'	2.19	0.60
32:49:103:LEU:HA	32:49:106:LEU:HD22	1.81	0.60
32:49:93:THR:HG21	32:49:95:ARG:HH21	1.67	0.60
13:4A:66:LEU:HA	13:4A:70:LEU:HB2	1.83	0.60
14:5I:15:LYS:HE2	14:5I:16:PHE:HE1	1.67	0.60
36:68:68:GLU:OE2	36:68:68:GLU:N	2.21	0.60
34:69:77:LEU:HB2	34:69:141:LYS:HB3	1.83	0.60
1:1G:452:A:H4'	16:7A:72:ARG:HH12	1.67	0.60
26:1H:2837:G:H21	39:98:45:ARG:HH21	1.50	0.60
20:BA:29:LYS:HG3	20:BA:71:THR:HG21	1.84	0.60
46:C5:48:ALA:HB3	46:C5:59:GLY:HA2	1.82	0.60
48:I8:14:ARG:NH1	61:I8:201:HOH:O	2.13	0.60
29:11:242:ARG:H	29:11:242:ARG:HD2	1.67	0.60
1:13:343:U:C2	1:13:345:C:H1'	2.37	0.60
26:14:2253:G:OP1	61:14:3541:HOH:O	2.16	0.60
27:16:2:C:O2	27:16:118:G:N2	2.18	0.60
1:1G:998(A):C:H42	1:1G:1042:G:H1	1.50	0.60
3:2E:136:GLN:OE1	3:2E:140:ARG:NH1	2.34	0.60
3:2E:40:ARG:O	3:2E:44:GLU:HG2	2.02	0.60
1:1G:1295:G:O2'	13:4A:14:ARG:NH1	2.35	0.60
33:51:6:ARG:HB3	33:51:65:HIS:CD2	2.37	0.60
14:5A:3:ARG:O	14:5A:6:LEU:HD23	2.01	0.60
41:75:54:ARG:HG3	41:75:59:THR:HG21	1.84	0.60
26:14:2129:C:OP1	28:79:6:ARG:NH1	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:I8:23:VAL:HA	48:I8:38:VAL:HG22	1.83	0.60
26:14:1448:G:H2'	26:14:1449:A:C8	2.37	0.59
10:1A:75:ILE:HG13	10:1A:76:ASN:N	2.17	0.59
23:2L:63:C:H2'	23:2L:64:G:C8	2.37	0.59
4:32:108:LEU:HD21	4:32:174:LEU:HD22	1.84	0.59
15:6A:11:VAL:HG21	15:6A:34:LEU:HD22	1.82	0.59
38:88:55:VAL:HG12	38:88:64:ILE:HD12	1.84	0.59
48:E5:36:ILE:O	48:E5:36:ILE:HD12	2.01	0.59
55:M5:14:VAL:CG1	55:M5:22:VAL:HG13	2.31	0.59
26:14:483:A:H4'	46:C5:49:VAL:HA	1.84	0.59
1:1G:631:G:H4'	1:1G:632:A:H5'	1.84	0.59
1:1G:81:G:H1	1:1G:89:U:H3	1.50	0.59
26:1H:2840:C:H42	26:1H:2877:G:H1	1.50	0.59
27:1J:60:C:H2'	27:1J:61:G:H8	1.67	0.59
11:2A:59:TYR:CZ	11:2A:63:LEU:HD11	2.37	0.59
26:1H:323:G:C8	31:31:171:PRO:HG3	2.38	0.59
24:3K:72:C:H2'	24:3K:73:A:H5''	1.85	0.59
35:58:131:GLN:NE2	35:58:132:ALA:HB2	2.17	0.59
42:85:5:LYS:HG2	42:85:6:THR:N	2.16	0.59
27:1J:12:C:O2'	48:E5:74:ARG:HG2	2.02	0.59
2:12:58:ILE:HG13	2:12:219:VAL:HG21	1.84	0.59
27:16:101:A:OP2	61:16:303:HOH:O	2.16	0.59
1:1G:1095:U:OP1	1:1G:1108:G:N1	2.35	0.59
26:1H:1298:C:H5''	26:1H:1299:G:OP2	2.02	0.59
26:1H:1761:C:H42	26:1H:1762:A:H62	1.50	0.59
7:62:148:ASN:ND2	7:62:148:ASN:O	2.35	0.59
37:78:96:THR:O	37:78:98:GLU:N	2.30	0.59
1:1G:228:A:H4'	16:7A:62:VAL:HG11	1.85	0.59
26:14:996:A:H4'	42:85:92:ARG:NE	2.16	0.59
40:A8:106:ARG:N	40:A8:106:ARG:HD3	2.16	0.59
46:C5:2:ARG:NH1	46:C5:2:ARG:HA	2.16	0.59
50:K8:42:GLY:O	50:K8:44:LEU:N	2.35	0.59
26:14:1716:U:H2'	26:14:1717:G:H8	1.68	0.59
26:14:2249:U:O4	61:14:3501:HOH:O	2.16	0.59
1:1G:1129:C:N4	1:1G:1142:G:N7	2.50	0.59
26:1H:1665:A:N7	61:1H:3776:HOH:O	2.32	0.59
26:14:2414:G:H21	37:35:67:MET:CE	2.15	0.59
4:3E:82:ALA:HB1	4:3E:89:THR:HA	1.85	0.59
1:1G:192:U:O4'	20:BA:103:GLY:HA2	2.02	0.59
46:G8:54:LYS:O	46:G8:55:TYR:CD2	2.55	0.59
2:12:166:ASP:HB3	2:12:169:LYS:HB2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:3:C:H2'	27:16:4:C:C6	2.38	0.59
2:1E:100:GLY:O	2:1E:104:ASN:N	2.31	0.59
1:1G:1252:A:H2	1:1G:1355:G:HO2'	1.48	0.59
26:1H:265:A:C8	26:1H:266:G:H1'	2.37	0.59
26:1H:587:C:OP2	37:78:21:ARG:NH2	2.35	0.59
26:1H:65:C:H2'	26:1H:66:C:H6	1.67	0.59
30:21:34:VAL:HG21	30:21:77:ILE:HD13	1.84	0.59
4:3E:107:ARG:NH2	4:3E:194:LEU:HD22	2.18	0.59
56:3L:9:A:O2'	56:3L:10:G:N7	2.32	0.59
13:4I:39:ILE:HG13	13:4I:56:LEU:HD21	1.84	0.59
15:6I:35:ARG:HA	15:6I:38:ARG:HB2	1.85	0.59
37:78:60:MET:SD	55:Q8:13:ARG:NH1	2.76	0.59
38:88:109:VAL:CG1	38:88:113:GLN:HB3	2.32	0.59
9:8E:26:VAL:HG13	9:8E:61:ALA:HB3	1.83	0.59
20:BA:50:GLU:HA	20:BA:100:ILE:HG21	1.85	0.59
20:BA:10:LEU:HD13	20:BA:12:ALA:H	1.68	0.59
26:14:1310:G:H1	26:14:1604:C:H42	1.49	0.59
26:14:276:A:H2'	26:14:277:C:C5	2.37	0.59
26:14:302:C:N4	61:14:3688:HOH:O	2.35	0.59
26:14:856:C:H2'	26:14:857:C:H6	1.67	0.59
1:1G:630:G:H3'	1:1G:631:G:H5'	1.84	0.59
1:1G:957:U:H1'	1:1G:960:U:C5	2.28	0.59
26:1H:631:A:OP1	37:78:65:ARG:NH2	2.28	0.59
36:25:13:ASN:HD21	36:25:97:ARG:H	1.49	0.59
31:31:178:PRO:HB2	31:31:201:VAL:HG11	1.84	0.59
26:1H:2562:U:H1'	36:68:23:ARG:NH1	2.16	0.59
28:71:27:HIS:HB3	28:71:182:PRO:HB3	1.84	0.59
8:72:120:THR:HG23	8:72:123:GLU:H	1.66	0.59
41:75:26:ASP:O	41:75:49:VAL:HG22	2.03	0.59
41:75:30:VAL:HG12	41:75:86:ILE:HG13	1.84	0.59
37:78:125:VAL:O	37:78:144:GLU:HB2	2.03	0.59
7:62:16:LEU:HD12	9:82:42:ARG:HA	1.83	0.59
42:85:102:GLU:HB3	42:85:105:VAL:HG22	1.85	0.59
38:88:32:TYR:CD1	38:88:133:ARG:HA	2.37	0.59
38:88:43:THR:HA	38:88:94:VAL:HG12	1.83	0.59
19:AI:4:SER:OG	19:AI:5:LEU:N	2.36	0.59
26:14:2364:C:H4'	48:E5:56:ASP:OD2	2.02	0.59
2:12:133:LYS:HA	2:12:136:VAL:HB	1.83	0.59
26:14:329:G:P	46:C5:71:LYS:HE3	2.43	0.59
1:1G:536:C:OP2	61:1G:1706:HOH:O	2.17	0.59
1:1G:666:G:H5'	1:1G:726:C:H1'	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1684:C:H42	26:1H:1704:G:H1	1.50	0.59
12:3I:58:VAL:O	12:3I:65:GLU:HA	2.03	0.59
56:3L:37:T6A:H2'	56:3L:38:A:O4'	2.02	0.59
1:1G:1228:C:OP1	13:4A:115:LYS:NZ	2.35	0.59
34:61:117:GLU:OE1	34:61:117:GLU:N	2.36	0.59
34:69:129:THR:HG22	34:69:137:PRO:HB3	1.85	0.59
37:78:59:LEU:HD21	55:Q8:10:ALA:HB2	1.85	0.59
42:85:91:ASP:O	42:85:92:ARG:HG2	2.02	0.59
43:95:38:LEU:CD1	43:95:56:SER:CA	2.79	0.59
20:BA:50:GLU:N	20:BA:100:ILE:HG12	2.17	0.59
50:G5:53:LEU:O	50:G5:57:ILE:HG13	2.03	0.59
26:14:1778:U:H2'	26:14:1784:A:N6	2.18	0.59
26:14:2082:A:H2'	26:14:2083:G:O4'	2.02	0.59
26:14:2328:A:H2'	26:14:2329:G:C8	2.37	0.59
26:14:2666:C:O5'	26:14:2666:C:H6	1.86	0.59
1:1G:509:A:H5''	4:32:55:ALA:HB2	1.83	0.59
1:1G:584:G:N7	61:1G:1721:HOH:O	2.31	0.59
26:1H:2099:U:H3	26:1H:2190:G:H1	1.51	0.59
26:1H:2789:C:H1'	26:1H:2892:A:H2	1.66	0.59
3:2E:8:ILE:HD13	3:2E:184:TYR:HB3	1.85	0.59
5:4E:33:VAL:HG11	5:4E:109:ILE:HA	1.84	0.59
47:H8:28:MET:O	47:H8:35:ARG:N	2.35	0.59
1:13:1349:A:H5''	9:8E:121:ARG:HB2	1.83	0.59
26:14:1779:U:H5''	26:14:1780:A:H5'	1.84	0.59
26:14:459:U:H2'	26:14:460:A:C8	2.38	0.59
26:14:1567:A:O2'	29:19:63:ARG:NH2	2.36	0.59
1:1G:1412:C:H2'	1:1G:1413:A:C8	2.38	0.59
1:1G:486:U:H2'	1:1G:487:A:C8	2.38	0.59
26:1H:214:G:H4'	26:1H:214:G:OP1	2.03	0.59
26:1H:2315:G:OP1	32:41:36:LYS:NZ	2.30	0.59
26:1H:2492:U:H2'	26:1H:2493:U:H6	1.68	0.59
31:39:66:PRO:O	31:39:67:GLN:HB3	2.02	0.59
4:3E:84:LYS:HA	4:3E:85:LYS:HB2	1.85	0.59
56:3L:1:G:N2	56:3L:73:A:H2	2.01	0.59
40:65:106:ARG:O	40:65:106:ARG:HD2	2.03	0.59
8:72:12:ARG:HD3	8:72:26:VAL:HG12	1.85	0.59
36:25:104:ARG:HD3	41:75:36:GLU:HB2	1.85	0.59
41:75:62:THR:HG22	41:75:75:ILE:HG12	1.84	0.59
6:5E:50:TYR:OH	18:9I:74:ARG:O	2.13	0.59
1:13:1318:A:H5''	19:AI:10:PHE:CD2	2.37	0.59
42:C8:58:ARG:HH11	42:C8:93:LYS:NZ	2.00	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:95:GLN:HG3	2:12:147:LYS:HG2	1.84	0.59
1:13:1118:C:P	9:8E:104:ARG:HH11	2.25	0.59
1:13:953:G:H2'	1:13:954:G:O4'	2.03	0.59
26:14:1108:U:H5''	26:14:1109:C:OP2	2.03	0.59
26:14:1225:C:H4'	43:95:85:LYS:HG2	1.85	0.59
26:14:2006:C:O2'	26:14:2823:A:N3	2.36	0.59
26:14:2414:G:H21	37:35:67:MET:HE1	1.68	0.59
26:14:2439:A:C8	26:14:2439:A:H5'	2.37	0.59
1:1G:1142:G:H3'	1:1G:1143:G:H8	1.68	0.59
1:1G:516:U:O4	61:1G:1705:HOH:O	2.13	0.59
1:1G:955:U:H2'	1:1G:956:U:H6	1.67	0.59
26:1H:243:U:OP1	55:Q8:6:THR:OG1	2.21	0.59
26:1H:270(N):G:N3	34:61:50:ARG:NH2	2.42	0.59
26:1H:547:A:H2	26:1H:548:A:H62	1.49	0.59
26:14:2619:C:OP1	30:29:152:LYS:HE2	2.03	0.59
30:29:51:PHE:CG	30:29:52:LEU:N	2.70	0.59
23:2L:24:C:H2'	23:2L:25:U:C6	2.37	0.59
32:41:49:ASP:OD2	32:41:52:ILE:HG12	2.03	0.59
41:75:55:ASN:H	41:75:59:THR:HG22	1.65	0.59
37:78:80:TYR:CE1	37:78:111:ARG:HD3	2.38	0.59
16:7A:40:ASP:HB3	16:7A:48:TRP:HB2	1.83	0.59
8:7E:42:GLU:HG3	8:7E:109:ILE:HD12	1.85	0.59
43:95:71:LEU:O	43:95:72:VAL:HG12	2.02	0.59
1:13:939:G:H2'	1:13:940:C:C6	2.37	0.58
1:13:992:U:H4'	1:13:993:G:O5'	2.01	0.58
26:14:1112:G:OP2	33:59:3:ARG:NH2	2.36	0.58
1:1G:1008:C:N4	1:1G:1021:G:H22	2.02	0.58
1:1G:1226:C:H2'	13:4A:103:THR:HB	1.85	0.58
1:1G:1294:G:H2'	1:1G:1295:G:C8	2.38	0.58
26:1H:1963:U:O5'	26:1H:1963:U:H6	1.86	0.58
26:1H:2880:C:O2'	39:98:90:ARG:NH1	2.35	0.58
3:2E:7:PRO:O	3:2E:11:ARG:HG2	2.03	0.58
32:41:124:SER:HB2	32:41:131:TYR:CE2	2.37	0.58
5:42:43:LEU:HD11	5:42:132:ALA:HB1	1.85	0.58
33:51:2:SER:OG	33:51:3:ARG:N	2.36	0.58
16:7I:77:ALA:HB3	16:7I:79:VAL:H	1.68	0.58
46:C5:17:SER:O	46:C5:21:LYS:HB2	2.03	0.58
29:11:27:THR:C	29:11:29:PRO:HD3	2.23	0.58
26:14:1375:C:H2'	26:14:1376:C:H6	1.68	0.58
26:14:1817:G:OP1	29:19:88:ARG:NH2	2.36	0.58
26:14:2074:U:H2'	26:14:2075:U:C6	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:566:U:H5''	37:35:29:LYS:HE3	1.85	0.58
26:14:630:G:N2	26:14:633:A:OP2	2.36	0.58
26:14:71:A:H5'	26:14:71:A:H8	1.69	0.58
26:14:863:A:H2'	26:14:864:G:H8	1.68	0.58
1:1G:1235:U:O2'	1:1G:1305:G:O5'	2.21	0.58
1:1G:977:A:O2'	1:1G:981:U:N3	2.37	0.58
26:1H:1525:G:H2'	26:1H:1526:G:C8	2.37	0.58
26:1H:2210:G:H5'	26:1H:2211:G:N7	2.17	0.58
31:31:6:VAL:N	31:31:24:LEU:O	2.36	0.58
6:5E:75:LEU:HD13	6:5E:79:LEU:CD1	2.33	0.58
28:71:57:ASN:HD21	28:71:164:ARG:HH22	1.51	0.58
1:1G:376:G:O3'	16:7A:5:ARG:NH1	2.35	0.58
40:A8:18:ILE:O	40:A8:21:THR:HG22	2.03	0.58
19:AA:7:LYS:HD2	19:AA:7:LYS:C	2.23	0.58
52:M8:12:ALA:HB3	52:M8:24:THR:HB	1.86	0.58
53:N8:37:LYS:C	53:N8:37:LYS:HD2	2.23	0.58
1:13:1003:G:H1	1:13:1037:C:H42	1.50	0.58
1:13:445:G:H1	1:13:489:C:H42	1.50	0.58
26:14:2115:G:N2	26:14:2172:U:H3	2.02	0.58
26:14:287:C:H2'	26:14:288:C:H6	1.67	0.58
26:14:511:U:H3'	26:14:512:G:H5''	1.84	0.58
26:14:923:C:H2'	26:14:924:C:C6	2.38	0.58
29:19:10:THR:OG1	29:19:13:ARG:HB2	2.04	0.58
29:19:12:SER:HB2	29:19:208:LYS:HB3	1.85	0.58
1:1G:1148:U:H2'	1:1G:1149:C:O4'	2.03	0.58
1:1G:1248:A:N6	1:1G:1288:A:OP2	2.36	0.58
26:1H:1346:G:OP2	61:1H:3675:HOH:O	2.16	0.58
26:1H:1543:A:H1'	26:1H:1544:C:H5''	1.85	0.58
26:1H:2062:A:N6	26:1H:2503:A:H62	1.96	0.58
26:1H:606:U:H4'	26:1H:658:C:H4'	1.85	0.58
23:2K:54:G:H2'	23:2K:55:5MU:H6	1.68	0.58
4:3E:127:THR:HG23	4:3E:131:ARG:N	2.18	0.58
24:3K:59:A:H3'	24:3K:60:U:C6	2.39	0.58
38:45:35:VAL:HG12	38:45:36:ALA:H	1.68	0.58
13:4I:3:ARG:HD2	52:M8:34:GLU:OE2	2.03	0.58
47:D5:4:ARG:HB3	47:D5:58:VAL:HB	1.85	0.58
43:D8:72:VAL:HG12	43:D8:85:LYS:HB3	1.83	0.58
48:E5:72:ARG:HB3	48:E5:75:LEU:HB2	1.84	0.58
26:14:1110:G:H2'	26:14:1111:A:O4'	2.03	0.58
26:14:1516:U:H2'	26:14:1517:G:H8	1.67	0.58
26:14:2306:C:H2'	26:14:2307:G:H21	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:271(B):G:N7	26:14:421:U:H2'	2.18	0.58
26:14:1800:C:OP2	29:19:183:ARG:NH2	2.36	0.58
1:1G:78:G:H1	1:1G:91:C:N4	2.01	0.58
26:1H:2102:U:H2'	26:1H:2103:C:C6	2.38	0.58
26:1H:2695:C:H2'	26:1H:2696:U:H6	1.67	0.58
3:2E:95:THR:HB	3:2E:97:LYS:HG3	1.83	0.58
26:14:587:C:O2	37:35:33:ARG:NH1	2.36	0.58
5:42:79:GLU:HG2	5:42:92:LYS:HG3	1.85	0.58
38:45:75:THR:HB	38:45:86:GLY:HA3	1.86	0.58
33:51:51:ARG:HG3	33:51:52:VAL:N	2.18	0.58
1:1G:591:U:OP2	8:72:30:ARG:NH1	2.36	0.58
41:B8:51:ARG:HG3	41:B8:98:LYS:HD2	1.85	0.58
48:I8:27:GLU:HG3	48:I8:69:PHE:HB2	1.84	0.58
54:P8:24:THR:HG23	54:P8:27:GLY:HA3	1.85	0.58
1:13:169:C:H2'	1:13:170:U:H5'	1.84	0.58
26:14:1332:G:H5'	26:14:1332:G:C8	2.39	0.58
26:14:1794:U:H2'	26:14:1795:C:C6	2.39	0.58
26:14:921:G:OP1	61:14:3572:HOH:O	2.17	0.58
10:1A:30:SER:HB3	10:1A:78:ASN:HD21	1.68	0.58
1:1G:108:G:H5'	1:1G:109:A:H5''	1.84	0.58
1:1G:501:C:H2'	1:1G:502:G:C8	2.38	0.58
3:22:136:GLN:O	3:22:139:GLN:N	2.35	0.58
3:22:84:ILE:O	3:22:88:ARG:NH2	2.33	0.58
32:41:11:TYR:HA	32:41:15:VAL:HB	1.86	0.58
32:49:32:PRO:HB2	32:49:172:LEU:HD22	1.85	0.58
26:14:2873:A:H8	39:55:6:SER:H	1.49	0.58
26:1H:528:A:OP2	35:58:114:ARG:NH1	2.35	0.58
26:14:2685:G:OP2	41:75:51:ARG:NH2	2.37	0.58
19:AI:40:ILE:O	19:AI:41:VAL:HG22	2.03	0.58
47:H8:169:GLU:CD	47:H8:170:THR:H	2.07	0.58
1:13:1062:U:H2'	1:13:1063:C:C6	2.38	0.58
1:13:1189:C:OP1	10:1I:51:ARG:NH2	2.36	0.58
1:13:1490:C:OP2	58:13:1749:PAR:N64	2.36	0.58
26:14:71:A:H5''	26:14:73:A:C8	2.38	0.58
26:14:784:A:H5'	26:14:785:G:OP1	2.03	0.58
26:1H:1038:C:H2'	26:1H:1039:G:O4'	2.04	0.58
26:1H:1045:A:H1'	26:1H:1047:G:C5	2.38	0.58
26:1H:1309:G:N7	61:1H:3769:HOH:O	2.31	0.58
10:1I:15:THR:HA	10:1I:18:ALA:HB3	1.86	0.58
10:1I:32:ALA:HB1	10:1I:76:ASN:ND2	2.19	0.58
26:14:321:G:OP1	31:39:135:LYS:NZ	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:45:117:ALA:HA	38:45:120:ILE:HB	1.86	0.58
1:1G:254:G:H5''	17:8A:69:LYS:HD2	1.85	0.58
43:95:71:LEU:H	43:95:86:GLY:HA2	1.67	0.58
1:13:628:G:H2'	1:13:629:G:C8	2.39	0.58
26:14:2:G:N2	26:14:2900:A:N1	2.51	0.58
26:14:1500:G:O2'	29:19:100:GLY:O	2.21	0.58
2:1E:28:PHE:CE2	2:1E:190:THR:HA	2.39	0.58
2:1E:60:ASP:HB3	2:1E:64:ARG:NH2	2.19	0.58
26:1H:2636:U:P	30:21:79:ARG:HA	2.44	0.58
36:25:7:TYR:CZ	36:25:44:LYS:HG3	2.39	0.58
30:29:202:LYS:N	30:29:202:LYS:HD2	2.19	0.58
30:29:33:VAL:O	30:29:69:LYS:HE3	2.03	0.58
4:3E:89:THR:H	4:3E:92:VAL:HG23	1.68	0.58
1:13:881:G:OP2	12:3I:12:ARG:NH2	2.37	0.58
5:42:146:ALA:HB1	5:42:150:ARG:NH2	2.19	0.58
33:59:4:ILE:HG12	33:59:7:LEU:HD12	1.85	0.58
34:69:143:SER:OG	34:69:144:VAL:N	2.36	0.58
26:14:2683:C:OP1	41:75:53:ARG:NH2	2.36	0.58
43:95:69:LYS:HB2	43:95:86:GLY:HA3	1.84	0.58
26:1H:1652:A:N6	39:98:11:ASN:OD1	2.36	0.58
6:52:100:ASN:HD21	18:9A:23:LYS:HG3	1.68	0.58
18:9I:21:LYS:O	18:9I:22:VAL:HG12	2.03	0.58
46:C5:87:LYS:NZ	46:C5:88:LYS:O	2.22	0.58
45:F8:44:GLU:HG2	45:F8:49:VAL:O	2.04	0.58
47:H8:93:ASP:HB3	47:H8:131:ARG:HH12	1.69	0.58
26:1H:2350:C:H5'	55:Q8:46:ARG:HH22	1.69	0.58
1:13:1034:G:N2	1:13:1035:A:N7	2.52	0.58
1:13:1159:U:O4'	1:13:1182:G:N2	2.36	0.58
26:14:1153:C:OP1	42:85:93:LYS:NZ	2.37	0.58
26:14:629:G:H1	26:14:634:C:H42	1.50	0.58
35:15:36:GLY:O	35:15:39:ARG:HG2	2.03	0.58
1:1G:1502:A:H2	1:1G:1505:G:H1	1.50	0.58
26:1H:1050:A:H2'	26:1H:1051:G:C8	2.39	0.58
26:1H:2324:C:O2'	26:1H:2337:G:H5''	2.03	0.58
26:1H:470:A:H2'	26:1H:471:A:C8	2.39	0.58
26:1H:860:U:C5	26:1H:917:A:C2	2.91	0.58
30:21:1:MET:N	30:21:83:ASP:O	2.37	0.58
30:21:2:LYS:HD2	30:21:95:ILE:HG23	1.86	0.58
30:29:50:GLY:HA2	30:29:78:LEU:HA	1.84	0.58
31:31:101:LEU:HD23	31:31:102:PRO:CD	2.34	0.58
1:1G:377:G:OP1	16:7A:3:LYS:NZ	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7A:72:ARG:HD2	16:7A:73:LEU:HD23	1.86	0.58
8:7E:104:ARG:HG3	8:7E:138:TRP:CD1	2.39	0.58
20:BI:100:ILE:HG22	20:BI:102:GLY:N	2.18	0.58
26:14:469:G:O6	54:L5:39:ARG:NH1	2.37	0.58
26:14:1794:U:H2'	26:14:1795:C:H6	1.68	0.58
2:1E:62:ALA:HB2	2:1E:222:ILE:HG22	1.85	0.58
1:1G:362:G:H4'	12:3A:33:ARG:HH21	1.69	0.58
26:1H:1505:C:H2'	26:1H:1506:C:C6	2.38	0.58
26:1H:176:G:O2'	26:1H:177:G:H5'	2.04	0.58
26:1H:2232:U:P	49:J8:40:ARG:HH12	2.27	0.58
26:1H:2306:C:H3'	26:1H:2307:G:H5'	1.86	0.58
26:1H:2553:G:H5''	26:1H:2554:U:OP2	2.04	0.58
26:1H:873:G:H1	26:1H:904:C:H42	1.51	0.58
31:39:78:ILE:HA	31:39:83:PHE:CD2	2.38	0.58
32:49:107:LEU:HD11	32:49:178:PHE:CE1	2.39	0.58
7:62:116:ALA:HA	7:62:119:ARG:HE	1.68	0.58
36:68:68:GLU:HB3	36:68:78:ARG:HB3	1.85	0.58
45:F8:9:LEU:HB2	45:F8:29:TRP:O	2.04	0.58
48:I8:21:LEU:HD11	48:I8:41:ARG:CZ	2.33	0.58
29:11:72:LYS:HG2	29:11:103:ARG:HH21	1.67	0.58
26:1H:1568:G:P	29:11:63:ARG:HH12	2.27	0.58
26:14:1386:C:H2'	26:14:1387:C:H6	1.68	0.58
26:14:2126:A:N1	26:14:2163:C:H1'	2.19	0.58
26:14:275:G:O2'	26:14:276:A:O4'	2.21	0.58
26:14:441:U:H2'	26:14:442:G:C8	2.39	0.58
26:14:897:C:C2	26:14:898:C:H5	2.21	0.58
29:19:267:SER:O	29:19:268:ARG:HG2	2.04	0.58
26:14:691:C:O4'	29:19:43:ARG:NH2	2.36	0.58
10:1A:16:LEU:HD13	10:1A:94:VAL:HG11	1.86	0.58
1:1G:1288:A:H4'	21:1B:13:ILE:HD13	1.86	0.58
1:1G:922:G:H1	1:1G:1395:C:H42	1.52	0.58
26:1H:1140:C:OP1	35:58:23:LEU:HB3	2.03	0.58
26:1H:2062:A:O2'	26:1H:2063:C:OP1	2.21	0.58
26:1H:2068:U:N3	26:1H:2430:A:H2	2.01	0.58
26:1H:2481:G:HO2'	26:1H:2482:G:P	2.27	0.58
22:1K:76:A:H8	26:1H:2583:G:H21	1.50	0.58
22:1K:6:G:H22	22:1K:67:C:H1'	1.69	0.58
30:21:48:GLN:OE1	30:21:77:ILE:HG21	2.02	0.58
30:21:50:GLY:CA	30:21:77:ILE:HA	2.31	0.58
3:22:140:ARG:HA	3:22:140:ARG:CZ	2.34	0.58
36:25:64:ARG:NH1	36:25:81:ASP:OD1	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:108:LEU:HB3	4:32:110:PHE:HE1	1.69	0.58
27:1J:43:C:H4'	32:49:98:ARG:HH12	1.69	0.58
33:59:7:LEU:HD23	33:59:65:HIS:HE1	1.69	0.58
9:82:28:VAL:HG13	9:82:63:ILE:O	2.04	0.58
17:8I:88:TYR:HD1	17:8I:89:LEU:HD22	1.69	0.58
19:AI:51:VAL:HG12	19:AI:52:TYR:H	1.69	0.58
26:14:483:A:H4'	46:C5:49:VAL:CA	2.34	0.58
26:14:2261:C:C5	48:E5:16:SER:HB3	2.39	0.58
50:G5:16:LEU:HD11	50:G5:24:LEU:HD12	1.85	0.58
45:F8:5:TYR:OH	50:K8:30:ARG:NH1	2.37	0.58
1:13:1193:G:P	3:2E:167:TRP:HZ3	2.26	0.57
1:13:138:G:H1	1:13:225:C:H42	1.51	0.57
1:13:312:C:H2'	1:13:313:A:C8	2.39	0.57
26:14:1210:A:H5'	26:14:1212:G:H5'	1.85	0.57
26:14:2093:G:N2	26:14:2196:C:O2	2.30	0.57
26:14:779:U:OP1	29:19:49:ILE:HG22	2.04	0.57
1:1G:1251:A:H2'	1:1G:1252:A:C8	2.39	0.57
26:1H:1173:G:N2	26:1H:1175:U:O4'	2.33	0.57
26:1H:1604:C:H5''	61:1H:4562:HOH:O	2.03	0.57
26:1H:2183:C:H2'	26:1H:2184:G:H8	1.69	0.57
26:1H:273(E):U:H2'	26:1H:273(F):C:H5'	1.86	0.57
27:1J:88:C:H5''	27:1J:89:G:C5	2.39	0.57
3:22:73:PRO:O	3:22:76:VAL:HG22	2.02	0.57
3:2E:150:LYS:HE2	3:2E:152:ILE:HD11	1.86	0.57
4:3E:12:CYS:SG	4:3E:18:LYS:HA	2.44	0.57
32:41:16:ARG:O	32:41:20:ILE:HG13	2.03	0.57
13:4A:79:LYS:NZ	13:4A:82:MET:SD	2.77	0.57
7:62:93:PRO:CD	7:62:94:ARG:HH21	2.16	0.57
34:69:62:LYS:HD3	34:69:133:HIS:NE2	2.18	0.57
15:6A:76:GLU:HA	15:6A:79:ARG:HD2	1.86	0.57
39:98:2:ARG:O	39:98:5:LYS:HB2	2.02	0.57
45:B5:63:LYS:O	45:B5:63:LYS:HD3	2.04	0.57
46:C5:48:ALA:HB1	46:C5:50:ARG:HB2	1.86	0.57
2:12:19:HIS:CE1	2:12:204:ASN:HB3	2.38	0.57
1:13:138:G:N2	1:13:225:C:N3	2.36	0.57
26:14:1709:U:H2'	26:14:1710:C:C6	2.39	0.57
29:19:244:ARG:HB2	29:19:245:PRO:HD2	1.84	0.57
1:1G:532:A:N6	1:1G:1206:G:O2'	2.37	0.57
26:1H:2111:C:O2'	26:1H:2119:A:OP1	2.15	0.57
26:1H:2400:G:H2'	26:1H:2401:U:H6	1.69	0.57
26:14:2785:C:O2'	30:29:64:LYS:NZ	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2K:24:C:H2'	23:2K:25:U:C6	2.40	0.57
31:31:130:ALA:HA	31:31:132:VAL:HG22	1.86	0.57
37:35:79:ARG:HG2	37:35:110:TYR:CB	2.26	0.57
56:3L:14:A:H1'	56:3L:22:G:C2	2.38	0.57
13:4I:10:PRO:HB2	13:4I:18:ALA:HB1	1.87	0.57
43:D8:1:MET:SD	43:D8:43:GLU:HG2	2.45	0.57
26:14:1060:U:C6	26:14:1062:G:H4'	2.39	0.57
26:14:2475:C:H5''	26:14:2476:A:H5''	1.86	0.57
26:14:654(B):C:H2'	26:14:654(C):G:H8	1.69	0.57
26:14:848:G:H2'	26:14:849:A:H8	1.69	0.57
1:1G:403:C:N4	61:1G:1732:HOH:O	2.37	0.57
1:1G:625:G:H2'	1:1G:626:U:H6	1.70	0.57
1:1G:960:U:H4'	1:1G:961:U:H5''	1.86	0.57
26:1H:2306:C:H3'	26:1H:2307:G:C5'	2.33	0.57
30:29:7:VAL:HG12	30:29:8:LYS:H	1.69	0.57
11:2A:41:THR:OG1	11:2A:42:TRP:N	2.36	0.57
11:2I:98:LEU:O	11:2I:101:SER:OG	2.13	0.57
31:39:160:ASN:HB3	31:39:163:VAL:HB	1.86	0.57
38:45:36:ALA:HB2	38:45:103:MET:HE2	1.84	0.57
13:4I:3:ARG:NH2	13:4I:9:ILE:HD11	2.19	0.57
34:61:93:THR:HA	34:61:119:PRO:HB3	1.86	0.57
44:A5:4:LYS:HB3	44:A5:106:ILE:HG22	1.86	0.57
43:D8:35:LEU:HB2	43:D8:57:VAL:CG1	2.32	0.57
48:E5:21:LEU:HD11	48:E5:41:ARG:NH1	2.18	0.57
29:11:231:HIS:HD2	29:11:249:PRO:HA	1.67	0.57
1:13:1289:A:OP1	21:1F:10:ARG:NH2	2.36	0.57
22:1L:76:A:H1'	26:14:2583:G:H22	1.70	0.57
26:14:307:G:H21	26:14:330:A:H62	1.49	0.57
27:16:3:C:H2'	27:16:4:C:H6	1.70	0.57
2:1E:5:ILE:HB	2:1E:221:LEU:HD23	1.86	0.57
26:1H:1332:G:H21	26:1H:1610:A:H8	1.53	0.57
26:1H:259:G:H21	26:1H:621:A:H8	1.51	0.57
10:1I:28:ARG:HG2	10:1I:34:VAL:CG1	2.34	0.57
30:21:101:ARG:CZ	30:21:171:GLU:HB2	2.34	0.57
13:4A:22:ILE:HB	13:4A:25:ILE:HG13	1.85	0.57
39:55:106:GLY:O	39:55:107:ASP:HB3	2.03	0.57
39:55:28:LEU:HD21	39:55:114:VAL:HG12	1.87	0.57
34:61:83:ALA:HB2	34:61:144:VAL:HG23	1.86	0.57
1:13:1368:G:H5''	9:8E:112:LYS:HB3	1.86	0.57
1:13:276:G:O2'	17:8I:68:ARG:NH1	2.37	0.57
44:E8:24:ILE:HD12	44:E8:24:ILE:O	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:I8:30:VAL:HG22	48:I8:66:VAL:HG12	1.86	0.57
1:13:688:G:H2'	1:13:689:C:H6	1.69	0.57
26:14:483:A:H3'	26:14:484:C:C6	2.38	0.57
26:14:666:G:H5''	37:35:47:ASP:O	2.05	0.57
1:1G:1118:C:H1'	1:1G:1179:A:C4	2.39	0.57
1:1G:1305:G:HO2'	1:1G:1306:A:H8	1.52	0.57
1:1G:41:G:H2'	1:1G:42:G:C8	2.40	0.57
26:1H:1575:C:H2'	26:1H:1576:U:H6	1.70	0.57
26:1H:2838:G:N7	61:1H:3780:HOH:O	2.32	0.57
3:2E:59:ARG:HA	3:2E:63:ASN:O	2.05	0.57
37:35:105:LEU:O	37:35:106:LEU:HB3	2.02	0.57
35:58:56:ASN:N	35:58:125:GLY:O	2.28	0.57
26:1H:1191:G:OP1	37:78:32:THR:OG1	2.22	0.57
42:85:74:LEU:HD13	42:85:79:PHE:HB2	1.87	0.57
45:B5:50:LYS:HG2	45:B5:84:ALA:HB2	1.86	0.57
46:G8:94:LYS:HD3	46:G8:95:LYS:N	2.19	0.57
2:12:19:HIS:NE2	2:12:206:ASP:HB2	2.19	0.57
1:13:420:U:C2	1:13:422:C:H5	2.21	0.57
26:14:1973:G:H2'	26:14:1974:C:C6	2.39	0.57
26:14:2287:A:H62	26:14:2344:U:H3	1.52	0.57
26:14:634:C:H2'	26:14:635:C:C6	2.40	0.57
2:1E:96:ARG:N	2:1E:96:ARG:HD2	2.20	0.57
26:1H:1728:G:O6	26:1H:1730:U:H5''	2.05	0.57
36:25:63:VAL:HG23	36:25:64:ARG:HG3	1.86	0.57
30:29:65:GLY:O	30:29:68:ALA:HB2	2.04	0.57
26:1H:444:C:H4'	31:31:49:ALA:HB2	1.85	0.57
7:62:67:GLU:HA	7:62:70:LYS:HD2	1.85	0.57
34:69:6:LEU:HB2	34:69:36:ALA:HA	1.86	0.57
37:78:37:GLY:O	37:78:40:SER:OG	2.23	0.57
16:7A:53:VAL:HG13	16:7A:79:VAL:HG22	1.87	0.57
1:13:624:C:O3'	16:7I:10:GLY:HA2	2.03	0.57
26:14:2359:C:O3'	55:M5:51:ALA:HB2	2.04	0.57
27:16:43:C:H5''	52:M8:1:MET:HG2	1.85	0.57
1:13:1149:C:H2'	1:13:1150:U:C6	2.38	0.57
1:13:1226:C:H4'	19:AI:80:TYR:OH	2.05	0.57
1:13:1239:A:H62	1:13:1299:A:H62	1.50	0.57
1:13:200:G:H1	1:13:217:C:H42	1.51	0.57
1:13:593:G:H2'	1:13:594:G:C8	2.40	0.57
26:14:1100:C:HO2'	26:14:1101:U:H6	1.52	0.57
26:14:1499:C:H2'	26:14:1500:G:C8	2.39	0.57
26:14:1509:C:H5'	26:14:1510:A:O4'	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2064:C:H2'	26:14:2065:C:C6	2.40	0.57
26:14:2273:A:H2'	26:14:2274:A:C8	2.40	0.57
26:14:839:U:H2'	26:14:840:C:C6	2.39	0.57
26:14:568:U:H5'	26:14:945:A:N1	2.20	0.57
21:1B:8:THR:HG23	21:1B:11:GLY:H	1.69	0.57
2:1E:71:VAL:HG23	2:1E:164:VAL:HA	1.87	0.57
1:1G:247:G:OP2	17:8A:100:LYS:N	2.37	0.57
26:1H:1287:A:C8	39:98:107:ASP:HB2	2.39	0.57
26:1H:2062:A:HO2'	26:1H:2063:C:P	2.28	0.57
26:1H:2287:A:H62	26:1H:2344:U:H3	1.52	0.57
26:1H:719:C:H2'	26:1H:720:C:C6	2.38	0.57
26:1H:85:G:OP2	46:G8:9:LYS:HB2	2.04	0.57
26:1H:880:G:O2'	26:1H:881:G:OP1	2.20	0.57
30:21:49:LEU:HD21	30:21:91:VAL:HG11	1.87	0.57
36:25:14:THR:HG21	36:25:86:ILE:HG13	1.86	0.57
30:29:11:MET:HE3	30:29:186:GLY:HA2	1.86	0.57
56:3L:3:G:H1	56:3L:69:A:N6	2.03	0.57
3:22:131:ARG:HD3	5:42:50:GLU:OE1	2.05	0.57
1:1G:1204:A:OP1	14:5A:3:ARG:NH1	2.37	0.57
28:71:62:VAL:HG13	28:71:163:PHE:HE1	1.69	0.57
9:82:77:ILE:O	9:82:81:ILE:HG12	2.05	0.57
39:98:97:VAL:HA	39:98:113:LEU:O	2.05	0.57
18:9I:59:SER:OG	18:9I:60:ALA:N	2.37	0.57
40:A8:27:SER:HA	40:A8:88:ASP:CB	2.34	0.57
41:B8:20:PRO:HD2	41:B8:86:ILE:HG23	1.86	0.57
1:13:593:G:H2'	1:13:594:G:H8	1.69	0.57
26:14:279:C:H42	26:14:361:G:H1	1.53	0.57
26:14:604:G:OP2	37:35:90:ARG:NH1	2.38	0.57
1:1G:345:C:OP2	41:75:39:ARG:NH2	2.29	0.57
1:1G:6:G:O2'	1:1G:7:G:H5''	2.05	0.57
26:1H:2111:C:N4	26:1H:2147:G:O6	2.38	0.57
26:1H:536:A:H2'	26:1H:537:C:C6	2.39	0.57
26:1H:631:A:OP2	55:Q8:47:LYS:NZ	2.38	0.57
30:29:26:ILE:HB	30:29:182:LEU:HB2	1.86	0.57
31:39:24:LEU:HG	31:39:25:PRO:HD3	1.87	0.57
4:3E:12:CYS:SG	4:3E:19:LEU:N	2.71	0.57
25:4K:23:A:H1'	25:4K:24:A:C8	2.39	0.57
41:75:50:ILE:HD11	41:75:102:ILE:CD1	2.34	0.57
43:95:30:GLY:H	43:95:61:VAL:HB	1.68	0.57
46:G8:5:MET:HE1	46:G8:32:PRO:HB3	1.85	0.57
26:14:1292:U:H2'	26:14:1293:C:C6	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1939:U:OP1	26:14:2604:U:O2'	2.21	0.57
26:14:2748:A:H2'	26:14:2749:A:H8	1.70	0.57
26:14:395:U:H2'	26:14:396:G:N7	2.20	0.57
26:14:780:G:H21	26:14:783:A:N6	2.01	0.57
30:29:152:LYS:HB3	35:15:78:TYR:CE2	2.39	0.57
27:16:54:G:H2'	27:16:55:U:H6	1.70	0.57
26:1H:2599:G:C8	29:11:236:GLY:HA2	2.39	0.57
30:21:116:VAL:HG11	30:21:138:PRO:HB3	1.87	0.57
30:29:89:ASP:O	30:29:90:THR:HB	2.05	0.57
11:2A:79:SER:HA	11:2A:104:GLN:O	2.05	0.57
24:3K:19:G:OP2	24:3K:60:U:N3	2.38	0.57
24:3K:3:G:H22	24:3K:70:C:H42	1.50	0.57
35:58:65:LYS:HD2	35:58:69:GLN:HE21	1.70	0.57
7:6E:15:ASP:OD1	7:6E:20:ASP:N	2.24	0.57
26:1H:598:G:C1'	37:78:12:ALA:HB2	2.35	0.57
16:7A:20:VAL:HG12	16:7A:35:LYS:HA	1.86	0.57
26:14:996:A:O4'	42:85:92:ARG:NH2	2.38	0.57
38:88:104:PHE:HE2	38:88:125:LEU:HD11	1.69	0.57
9:8E:114:TYR:HE2	10:1I:59:SER:HA	1.70	0.57
44:A5:59:VAL:HG21	44:A5:66:GLU:HB2	1.87	0.57
51:H5:38:GLU:HG3	51:H5:39:ASP:H	1.70	0.57
53:J5:31:VAL:HG13	53:J5:42:PRO:HG3	1.86	0.57
1:13:148:G:H2'	1:13:149:A:C8	2.40	0.57
29:19:244:ARG:NH2	61:19:302:HOH:O	2.38	0.57
21:1B:2:GLY:O	21:1B:4:GLY:N	2.37	0.57
1:1G:1007:C:H2'	1:1G:1008:C:O4'	2.05	0.57
1:1G:410:G:N1	1:1G:429:U:O2	2.38	0.57
1:1G:984:C:H2'	1:1G:985:C:H6	1.69	0.57
26:1H:1315:C:OP2	61:1H:3656:HOH:O	2.17	0.57
26:1H:1935:G:H1'	26:1H:1964:G:N2	2.19	0.57
26:1H:2301:C:H2'	26:1H:2302:G:H8	1.70	0.57
11:2A:96:ARG:HA	11:2A:99:GLN:CG	2.34	0.57
37:35:27:HIS:HB3	37:35:32:THR:HG23	1.87	0.57
24:3K:8:U:C2	24:3K:13:C:H5	2.23	0.57
26:14:872:A:H4'	38:45:66:ILE:HD11	1.86	0.57
32:49:56:ALA:HB2	32:49:153:ARG:HH22	1.69	0.57
33:51:157:TYR:CE1	33:51:171:LEU:HB3	2.40	0.57
8:72:86:ILE:HG12	8:72:135:CYS:HA	1.87	0.57
9:82:13:ALA:HB2	9:82:68:GLY:HA3	1.86	0.57
43:95:35:LEU:O	43:95:37:VAL:HG22	2.04	0.57
40:A8:66:ALA:HA	40:A8:69:VAL:HG12	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1182:G:C4'	1:13:1183:A:H5'	2.34	0.56
1:13:167:G:H2'	1:13:168:G:H8	1.70	0.56
1:13:628:G:H2'	1:13:629:G:H8	1.70	0.56
26:14:1267:U:O3'	61:14:3573:HOH:O	2.17	0.56
26:14:1434:A:H2'	26:14:1435:G:C8	2.39	0.56
26:14:1007:C:H5''	35:15:35:ARG:NH1	2.20	0.56
29:19:28:GLU:O	29:19:28:GLU:CD	2.44	0.56
29:19:61:LEU:HB3	29:19:63:ARG:NH1	2.20	0.56
26:1H:155:C:H5'	26:1H:161:U:OP2	2.05	0.56
26:1H:721:C:H2'	26:1H:722:A:C8	2.40	0.56
31:31:120:GLU:HB2	31:31:122:LYS:HG2	1.87	0.56
1:1G:438:G:H4'	4:32:123:HIS:CD2	2.39	0.56
32:41:83:ARG:H	32:41:86:MET:HE1	1.70	0.56
5:42:99:GLY:O	5:42:117:ASP:HA	2.05	0.56
38:45:43:THR:HA	38:45:94:VAL:HG12	1.86	0.56
41:75:12:SER:HB3	41:75:15:VAL:HG13	1.87	0.56
16:7I:76:GLN:HG2	16:7I:76:GLN:O	2.05	0.56
12:3I:10:LEU:HD12	17:8I:32:TYR:CZ	2.40	0.56
27:1J:103:U:HO2'	47:D5:29:TYR:HH	1.52	0.56
46:G8:96:ILE:HD12	46:G8:101:LYS:HE2	1.87	0.56
51:L8:30:ARG:CZ	51:L8:33:GLN:HE21	2.18	0.56
1:13:505:G:N7	61:13:1838:HOH:O	2.33	0.56
26:14:675:A:N3	26:14:2443:C:O2'	2.37	0.56
2:1E:215:LEU:O	2:1E:219:VAL:HG23	2.06	0.56
2:1E:12:GLU:HB3	2:1E:44:LEU:HD13	1.87	0.56
1:1G:45:U:H2'	1:1G:46:G:H8	1.69	0.56
26:1H:2052:G:H4'	30:21:143:ASN:O	2.05	0.56
26:1H:326:G:N7	61:1H:3778:HOH:O	2.32	0.56
4:32:98:GLU:OE2	4:32:103:ASN:ND2	2.34	0.56
31:39:28:ILE:HA	31:39:112:MET:HB3	1.87	0.56
38:45:55:VAL:HG23	38:45:64:ILE:HD12	1.86	0.56
39:55:79:LEU:HA	39:55:83:ILE:HD12	1.87	0.56
15:6A:27:VAL:HG12	15:6A:31:LEU:CD1	2.34	0.56
20:BA:66:ALA:HB1	20:BA:71:THR:HB	1.88	0.56
46:C5:14:LEU:HB2	46:C5:75:ILE:HD11	1.87	0.56
52:M8:40:HIS:ND1	52:M8:44:THR:O	2.38	0.56
1:13:1034:G:H2'	1:13:1034:G:N3	2.20	0.56
1:13:501:C:H2'	1:13:502:G:H8	1.70	0.56
26:14:1171:G:O6	26:14:1176:G:H1'	2.05	0.56
26:14:1793:C:H2'	26:14:1794:U:H6	1.70	0.56
26:1H:1221:C:H2'	26:1H:1222:C:C6	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1221:C:H2'	26:1H:1222:C:H6	1.70	0.56
26:1H:1748:G:H2'	26:1H:1749:A:C8	2.40	0.56
26:1H:2145:C:H5	26:1H:2148:G:H21	1.54	0.56
26:1H:2287:A:H2	26:1H:2346:A:H2	1.53	0.56
22:1L:45:G:N2	22:1L:48:C:OP2	2.38	0.56
3:22:42:LEU:O	3:22:46:GLU:HG2	2.05	0.56
1:13:690:G:H22	11:2I:55:LYS:HE2	1.71	0.56
4:32:70:ILE:HD11	4:32:75:PHE:HD1	1.70	0.56
56:3L:44:U:H2'	56:3L:45:G:H8	1.71	0.56
34:69:142:VAL:HG12	34:69:143:SER:H	1.68	0.56
37:78:49:ARG:NH1	55:Q8:61:LEU:HD23	2.17	0.56
42:85:66:ASN:HD21	42:85:70:ARG:HE	1.52	0.56
40:A8:88:ASP:O	40:A8:89:ARG:HG2	2.05	0.56
20:BA:35:THR:HG22	61:BA:203:HOH:O	2.04	0.56
47:D5:158:PRO:O	47:D5:161:VAL:HG13	2.04	0.56
43:D8:76:LYS:HB2	43:D8:81:TYR:HD1	1.70	0.56
1:13:554:C:H2'	1:13:555:C:C6	2.41	0.56
1:13:592:G:H2'	1:13:593:G:H8	1.70	0.56
1:13:646:U:H2'	1:13:647:C:C6	2.41	0.56
26:14:1019:U:H2'	26:14:1020:A:C8	2.40	0.56
26:14:1784:A:H4'	26:14:1785:A:O5'	2.06	0.56
26:14:2305:A:H61	32:49:153:ARG:HG3	1.71	0.56
26:14:774:A:H2	26:14:787:U:O2'	1.88	0.56
1:1G:745:C:H2'	1:1G:746:A:C8	2.40	0.56
26:1H:1009:A:OP2	35:58:37:LYS:NZ	2.33	0.56
26:1H:1165:U:H2'	26:1H:1166:C:C6	2.39	0.56
26:1H:357:A:H2'	26:1H:358:U:C6	2.41	0.56
22:1L:48:C:O2'	22:1L:49:G:OP2	2.22	0.56
31:31:136:THR:HG22	31:31:166:ALA:O	2.05	0.56
31:31:155:LEU:HD11	31:31:176:LEU:HD23	1.88	0.56
4:3E:76:ARG:HH22	4:3E:209:ARG:HD2	1.69	0.56
38:45:25:ASP:CB	38:45:102:VAL:H	2.18	0.56
40:65:35:ILE:HB	40:65:97:ARG:NH2	2.21	0.56
8:7E:23:SER:HA	8:7E:61:VAL:O	2.05	0.56
39:98:10:LEU:O	39:98:12:ARG:N	2.38	0.56
40:A8:8:GLU:HA	40:A8:11:LYS:HB3	1.86	0.56
50:K8:42:GLY:C	50:K8:44:LEU:H	2.08	0.56
26:14:2162:G:H2'	26:14:2163:C:H5'	1.87	0.56
26:1H:1535:U:H3'	26:1H:1537:C:C4	2.40	0.56
26:1H:1564:C:O2'	26:1H:1565:C:H5'	2.04	0.56
26:1H:270(M):U:OP2	34:61:57:ARG:NH2	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2L:8:4SU:H6	23:2L:8:4SU:O5'	2.06	0.56
37:35:132:LYS:NZ	37:35:135:LEU:HD12	2.21	0.56
33:59:9:ILE:O	33:59:69:ARG:NH1	2.38	0.56
14:5I:9:LYS:HA	14:5I:12:ARG:HG2	1.86	0.56
1:13:1423:G:H5'	36:68:49:ARG:HH22	1.70	0.56
8:7E:87:SER:HB2	8:7E:93:VAL:CB	2.35	0.56
17:8I:14:LYS:HD2	17:8I:14:LYS:N	2.21	0.56
45:F8:61:GLY:N	45:F8:75:ASP:OD1	2.17	0.56
1:13:591:U:H2'	1:13:592:G:C8	2.40	0.56
26:14:635:C:H2'	26:14:636:G:O4'	2.06	0.56
2:1E:118:LEU:HB3	2:1E:142:LEU:HD13	1.86	0.56
26:1H:49:A:N7	26:1H:120:U:C5	2.72	0.56
26:1H:1660:C:H42	26:1H:2000:G:H1	1.51	0.56
26:1H:2309:A:H2'	26:1H:2310:A:O4'	2.04	0.56
26:1H:801:G:OP2	61:1H:3690:HOH:O	2.18	0.56
3:22:72:LYS:HZ1	3:22:75:VAL:HG23	1.71	0.56
31:31:181:LEU:O	31:31:205:ARG:NH2	2.35	0.56
37:35:144:GLU:N	37:35:144:GLU:OE2	2.39	0.56
33:51:7:LEU:HD12	33:51:7:LEU:C	2.26	0.56
19:AI:40:ILE:HD11	19:AI:62:ILE:HD12	1.87	0.56
43:D8:72:VAL:CG1	43:D8:85:LYS:HB3	2.35	0.56
47:H8:95:PRO:HB2	47:H8:127:LYS:HE2	1.87	0.56
54:L5:34:ARG:NH2	54:L5:39:ARG:HE	2.03	0.56
26:14:154:G:O6	26:14:172:C:N4	2.39	0.56
26:14:2468:G:H3'	26:14:2476:A:N1	2.20	0.56
2:1E:8:LYS:HD3	2:1E:8:LYS:N	2.20	0.56
1:1G:987:G:H1	1:1G:1218:C:N4	2.03	0.56
26:1H:1230:C:H2'	26:1H:1231:G:C8	2.41	0.56
26:1H:1684:C:N4	26:1H:1704:G:H1	2.04	0.56
26:1H:355:G:H2'	26:1H:356:G:H8	1.70	0.56
30:21:116:VAL:HG23	30:21:120:TRP:CD1	2.34	0.56
13:4A:89:GLY:O	13:4A:93:ARG:N	2.34	0.56
5:4E:35:GLY:HA3	5:4E:112:LEU:HB3	1.88	0.56
35:58:13:TRP:O	35:58:135:PRO:HD2	2.05	0.56
35:58:57:ALA:C	35:58:59:LYS:H	2.08	0.56
6:5E:35:ALA:HA	6:5E:67:MET:HB3	1.87	0.56
15:6I:17:ARG:NH1	15:6I:77:ARG:HH11	2.03	0.56
26:1H:2132:U:N3	28:7I:5:LYS:HD2	2.20	0.56
16:7I:21:VAL:HG23	16:7I:34:GLU:H	1.71	0.56
17:8A:59:ILE:HG22	17:8A:71:PHE:HB3	1.88	0.56
9:8E:104:ARG:HG2	9:8E:105:ASP:N	2.19	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:38:LEU:CD1	43:95:56:SER:N	2.68	0.56
19:AA:63:THR:OG1	19:AA:65:ASN:O	2.24	0.56
1:13:1263:C:H2'	1:13:1264:C:C6	2.37	0.56
1:13:221:C:H2'	1:13:222:U:C6	2.39	0.56
1:13:536:C:H2'	1:13:537:G:H8	1.70	0.56
1:13:658:G:H2'	1:13:659:U:H6	1.71	0.56
1:13:76:G:O4'	1:13:95:G:N1	2.38	0.56
26:14:1106:G:H3'	26:14:1107:G:C8	2.40	0.56
26:14:270(F):U:H2'	26:14:270(G):C:C6	2.40	0.56
26:14:397:G:N7	61:14:3671:HOH:O	2.33	0.56
2:1E:237:ALA:O	2:1E:239:VAL:N	2.38	0.56
2:1E:58:ILE:O	2:1E:62:ALA:N	2.32	0.56
26:1H:1021:A:H2'	26:1H:1023:U:H5'	1.87	0.56
26:1H:1048:A:H5'	26:1H:1049:C:OP2	2.06	0.56
26:1H:286:C:H2'	26:1H:287:C:H6	1.70	0.56
30:29:200:GLU:N	30:29:200:GLU:OE1	2.39	0.56
3:2E:123:GLN:HE22	3:2E:136:GLN:NE2	2.00	0.56
4:32:104:VAL:HG13	4:32:108:LEU:HD23	1.86	0.56
35:58:51:PHE:HE1	35:58:119:ARG:HH21	1.53	0.56
7:62:24:THR:HA	7:62:27:ILE:HD12	1.86	0.56
34:69:101:LEU:H	34:69:101:LEU:HD23	1.69	0.56
34:69:77:LEU:HD13	34:69:141:LYS:HD2	1.88	0.56
7:6E:2:ALA:HB2	7:6E:7:ALA:HB2	1.86	0.56
28:71:43:VAL:HG22	28:71:214:VAL:HG13	1.88	0.56
19:AI:41:VAL:HG11	19:AI:67:VAL:HA	1.88	0.56
41:B8:21:GLU:OE1	41:B8:91:ARG:NH2	2.34	0.56
47:H8:125:LEU:HG	47:H8:164:ALA:HB3	1.88	0.56
29:11:17:THR:HG22	29:11:204:ILE:HA	1.88	0.56
2:12:61:LEU:HD11	2:12:157:ARG:CZ	2.36	0.56
2:12:223:ILE:O	2:12:223:ILE:HG13	2.04	0.56
1:13:1133:G:H2'	1:13:1134:G:H8	1.69	0.56
1:13:1145:C:H4'	1:13:1146:A:H8	1.70	0.56
1:13:403:C:OP1	4:3E:137:SER:OG	2.20	0.56
26:14:1188:U:O2'	26:14:1189:A:H5'	2.05	0.56
26:14:1950:G:C2	26:14:1951:U:C5	2.93	0.56
26:14:2129:C:H3'	26:14:2130:U:C6	2.41	0.56
1:1G:1036:G:H3'	1:1G:1037:C:O4'	2.06	0.56
1:1G:411:A:H62	1:1G:413:G:N2	2.04	0.56
26:1H:1331:A:HO2'	26:1H:1332:G:H8	1.53	0.56
26:1H:2501:C:H5'	61:1H:4365:HOH:O	2.06	0.56
26:1H:307:G:H21	26:1H:330:A:H62	1.52	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:26:ILE:O	30:21:26:ILE:HG13	2.05	0.56
30:29:54:GLN:HG3	30:29:55:ASN:H	1.71	0.56
31:31:52:LYS:HG2	31:31:56:GLU:HB2	1.88	0.56
4:3E:148:VAL:HG21	4:3E:158:ILE:HG21	1.87	0.56
1:13:406:G:H5'	4:3E:5:ILE:HD13	1.86	0.56
39:55:18:LEU:HD11	39:55:22:ARG:CZ	2.35	0.56
7:62:51:GLN:HG2	7:62:58:PRO:HD3	1.87	0.56
41:75:36:GLU:OE1	41:75:41:ARG:HD3	2.05	0.56
37:78:90:ARG:HG2	37:78:91:PHE:CD1	2.41	0.56
17:8A:5:VAL:HG22	17:8A:60:ILE:HD11	1.88	0.56
27:16:12:C:H2'	48:I8:73:GLY:HA3	1.88	0.56
29:11:231:HIS:CD2	29:11:232:PRO:HD2	2.41	0.56
2:12:214:ILE:O	2:12:217:ARG:HB2	2.06	0.56
1:13:243:A:H5''	1:13:244:U:H3'	1.88	0.56
1:13:346:G:H1'	41:B8:41:ARG:NH1	2.20	0.56
1:13:7:G:H5'	1:13:298:A:O4'	2.06	0.56
26:14:108:U:H2'	26:14:109:G:H8	1.71	0.56
26:14:1525:G:H2'	26:14:1526:G:H8	1.71	0.56
26:14:2359:C:H42	26:14:2428:G:H1	1.52	0.56
26:14:662:G:H5'	37:35:15:ARG:CA	2.36	0.56
29:19:131:LEU:HB2	29:19:136:ILE:HD11	1.88	0.56
21:1F:18:TYR:HB3	21:1F:22:ARG:O	2.06	0.56
26:1H:1478:G:H2'	26:1H:1479:G:H8	1.71	0.56
26:1H:1534:G:H21	26:1H:1538:G:N2	2.03	0.56
26:1H:1578:U:OP2	61:1H:3689:HOH:O	2.18	0.56
26:1H:336:C:OP1	46:G8:83:THR:HG23	2.05	0.56
26:1H:518:G:H2'	26:1H:519:U:C6	2.40	0.56
26:1H:69:C:H2'	26:1H:70:G:C8	2.40	0.56
22:1L:50:C:H2'	22:1L:51:A:H5'	1.88	0.56
26:1H:2784:C:O2'	30:21:37:ARG:NH1	2.38	0.56
11:2I:85:ARG:HD3	11:2I:113:PRO:HD3	1.87	0.56
23:2L:62:C:H2'	23:2L:63:C:C6	2.41	0.56
25:4L:12:A:O2'	25:4L:13:A:O5'	2.24	0.56
37:78:121:LYS:O	37:78:123:LEU:N	2.39	0.56
44:A5:83:LYS:HD3	44:A5:95:ILE:HD12	1.88	0.56
49:F5:87:PRO:HA	49:F5:90:ILE:HG22	1.88	0.56
1:13:353:A:H5'	1:13:353:A:H8	1.70	0.56
1:13:476:G:H2'	1:13:477:G:C8	2.39	0.56
26:14:1418:G:H8	26:14:1418:G:O5'	1.89	0.56
26:14:817:C:H2'	26:14:818:G:O4'	2.06	0.56
26:1H:2103:C:O2	26:1H:2186:G:N2	2.32	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2492:U:H2'	26:1H:2493:U:C6	2.40	0.56
26:1H:635:C:O2'	26:1H:639:U:OP1	2.24	0.56
31:39:122:LYS:O	31:39:123:LEU:HG	2.06	0.56
31:39:68:LYS:HG3	31:39:69:HIS:CE1	2.41	0.56
38:45:36:ALA:HB2	38:45:103:MET:CE	2.36	0.56
39:55:100:LEU:HD23	53:J5:56:LYS:HE3	1.88	0.56
10:1I:49:VAL:HG23	14:5I:41:ARG:HB2	1.87	0.56
37:78:37:GLY:HA2	37:78:41:ARG:NH2	2.21	0.56
37:78:95:VAL:HA	37:78:99:LEU:HD23	1.86	0.56
9:8E:50:LEU:HD22	9:8E:55:ALA:HB3	1.88	0.56
9:8E:65:VAL:HG21	9:8E:73:GLN:HB3	1.88	0.56
43:D8:37:VAL:HG12	43:D8:55:ALA:O	2.05	0.56
51:H5:7:LYS:HB2	51:H5:34:GLU:HG2	1.88	0.56
47:H8:19:ARG:NH1	47:H8:84:GLU:HB2	2.21	0.56
47:H8:33:LEU:HD11	47:H8:35:ARG:HB2	1.87	0.56
26:14:1091:G:N1	26:14:1100:C:H1'	2.21	0.55
26:14:1496:A:H1'	26:14:1577:C:O2'	2.06	0.55
26:14:2520:C:H41	26:14:2542:A:H62	1.54	0.55
2:1E:86:GLU:OE1	2:1E:86:GLU:C	2.44	0.55
1:1G:976:G:N2	1:1G:1362(A):C:OP2	2.23	0.55
1:1G:32:A:C2	1:1G:33:A:C4	2.94	0.55
1:1G:620:C:H2'	1:1G:621:A:O4'	2.07	0.55
26:1H:1010:A:OP2	61:1H:3691:HOH:O	2.18	0.55
27:1J:60:C:H2'	27:1J:61:G:C8	2.41	0.55
30:29:112:GLY:O	30:29:159:HIS:HA	2.06	0.55
3:2E:175:LEU:HD21	3:2E:201:TYR:CE2	2.41	0.55
3:2E:179:ARG:HD2	3:2E:206:GLU:HG2	1.88	0.55
4:32:11:LEU:HD22	4:32:66:ARG:HD2	1.88	0.55
33:59:77:LYS:HD2	33:59:77:LYS:N	2.20	0.55
40:65:67:ARG:HB2	40:65:67:ARG:NH1	2.21	0.55
1:13:376:G:H5''	16:7I:5:ARG:HD2	1.88	0.55
20:BI:92:LEU:HD22	20:BI:96:GLY:HA2	1.88	0.55
29:11:75:ILE:HG21	29:11:99:ASP:OD2	2.06	0.55
1:13:486:U:H2'	1:13:487:A:C8	2.41	0.55
26:14:1633:G:OP2	61:14:3576:HOH:O	2.18	0.55
29:19:79:VAL:HG21	29:19:111:LEU:HD11	1.86	0.55
1:1G:420:U:O2'	1:1G:423:G:O6	2.18	0.55
26:1H:1021:A:H3'	26:1H:1022:G:H5''	1.86	0.55
26:1H:1494:A:H2'	26:1H:1495:A:C8	2.41	0.55
26:1H:155:C:H42	26:1H:171:G:H1	1.54	0.55
26:1H:1973:G:H2'	26:1H:1974:C:C6	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2K:10:G:N2	23:2K:27:G:H1'	2.21	0.55
15:6I:82:ILE:O	15:6I:86:GLY:N	2.39	0.55
37:78:97:PRO:HA	37:78:100:LEU:HB2	1.88	0.55
26:14:857:C:H4'	48:E5:23:VAL:HG21	1.88	0.55
49:F5:29:GLY:O	49:F5:30:VAL:HG22	2.06	0.55
52:M8:14:ILE:HG22	52:M8:24:THR:HG22	1.87	0.55
1:13:154:C:N4	1:13:167:G:O6	2.39	0.55
26:14:2749:A:N1	26:14:2750:A:N6	2.54	0.55
2:1E:28:PHE:CD2	2:1E:190:THR:HA	2.42	0.55
1:1G:1014:A:P	1:1G:1014:A:H8	2.29	0.55
26:1H:2439:A:H4'	26:1H:2440:C:H5''	1.89	0.55
26:1H:2792:G:C6	26:1H:2805:G:C2	2.95	0.55
26:1H:330:A:HO2'	26:1H:331:A:H8	1.53	0.55
26:1H:732:C:H3'	61:1H:3632:HOH:O	2.07	0.55
27:1J:21:G:H2'	27:1J:22:U:O4'	2.06	0.55
4:3E:88:VAL:O	4:3E:89:THR:HG22	2.06	0.55
56:3L:35:U:H2'	56:3L:36:U:H6	1.72	0.55
33:51:9:ILE:HG22	33:51:49:VAL:HB	1.86	0.55
35:58:57:ALA:O	35:58:58:ASP:CG	2.44	0.55
41:B8:16:ARG:HE	41:B8:19:LEU:HD11	1.71	0.55
42:C8:69:CYS:SG	42:C8:79:PHE:HD2	2.29	0.55
44:E8:82:LEU:HB3	44:E8:84:ARG:NH1	2.22	0.55
54:P8:12:ARG:NH2	54:P8:44:PRO:HB3	2.21	0.55
1:13:486:U:H2'	1:13:487:A:H8	1.71	0.55
1:13:590:C:H2'	1:13:591:U:C6	2.41	0.55
1:13:837:G:OP2	1:13:842:C:N4	2.40	0.55
1:1G:1080:A:H5'	5:42:14:ARG:NH2	2.21	0.55
1:1G:748:C:H4'	1:1G:749:C:O5'	2.07	0.55
26:1H:1771:C:H1'	26:1H:1786:A:C8	2.42	0.55
26:1H:2001:A:H2'	26:1H:2002:G:C8	2.41	0.55
26:1H:2023:G:H5'	26:1H:2617:C:H4'	1.88	0.55
26:1H:2210:G:H3'	26:1H:2211:G:C8	2.40	0.55
26:1H:858:U:O2	26:1H:2268:A:H2'	2.07	0.55
26:1H:2667:C:O2	33:51:110:SER:OG	2.24	0.55
41:75:80:SER:OG	41:75:83:ILE:HG13	2.06	0.55
37:78:49:ARG:HH12	37:78:50:ARG:NH2	2.03	0.55
8:7E:82:HIS:CE1	8:7E:138:TRP:CE2	2.95	0.55
8:7E:81:HIS:HB2	8:7E:138:TRP:CE3	2.41	0.55
27:16:90:C:H5'	38:88:18:LYS:HA	1.89	0.55
20:BI:65:LYS:O	20:BI:68:LYS:HB2	2.07	0.55
48:E5:18:ALA:HB3	48:E5:20:ARG:HE	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:309:G:H4'	46:G8:18:GLY:HA2	1.88	0.55
55:M5:34:TRP:CE3	55:M5:34:TRP:HA	2.41	0.55
29:11:39:LYS:HG3	29:11:40:THR:H	1.71	0.55
1:13:165:C:H2'	1:13:166:G:C8	2.39	0.55
26:14:1499:C:H2'	26:14:1500:G:H8	1.71	0.55
26:14:1812:A:H2'	26:14:1813:G:C8	2.41	0.55
26:14:2432:A:C8	49:F5:33:LYS:HD2	2.42	0.55
26:14:957:A:OP1	38:45:76:LYS:HG3	2.06	0.55
27:16:95:U:H2'	27:16:96:G:C8	2.42	0.55
29:19:43:ARG:HB3	29:19:49:ILE:HA	1.86	0.55
26:1H:1519:G:H2'	26:1H:1520:U:O4'	2.06	0.55
26:1H:2211:G:O2'	26:1H:2212:A:OP1	2.21	0.55
26:1H:2392:A:H2	26:1H:2424:C:H42	1.54	0.55
26:1H:33:U:H4'	26:1H:34:C:OP1	2.06	0.55
12:3A:46:LYS:HG3	12:3A:47:LYS:HB2	1.89	0.55
24:3K:41:A:H2'	24:3K:42:A:H8	1.72	0.55
56:3L:5:C:H2'	56:3L:6:G:N7	2.20	0.55
32:41:165:THR:OG1	32:41:168:GLU:HG3	2.07	0.55
32:49:147:ASP:C	32:49:149:VAL:HG22	2.27	0.55
33:51:152:ARG:HG3	33:51:161:GLY:HA2	1.87	0.55
33:51:40:GLU:N	33:51:40:GLU:OE2	2.39	0.55
34:61:42:SER:O	34:61:45:LYS:N	2.39	0.55
28:71:10:LEU:HD11	28:71:34:THR:HG23	1.88	0.55
1:13:376:G:O3'	16:7I:5:ARG:NH1	2.40	0.55
17:8A:66:SER:HB3	17:8A:69:LYS:HB2	1.89	0.55
19:AI:51:VAL:O	19:AI:57:HIS:HA	2.07	0.55
20:BI:67:ALA:HA	20:BI:72:LEU:O	2.07	0.55
45:F8:24:GLY:O	45:F8:83:VAL:HG22	2.05	0.55
29:11:182:LEU:HB3	29:11:271:ILE:HG13	1.87	0.55
2:12:220:ASP:HA	2:12:224:GLN:CD	2.26	0.55
26:14:1617:C:N3	61:14:3667:HOH:O	2.32	0.55
26:14:273(C):C:H5'	26:14:273(D):C:OP2	2.07	0.55
35:15:33:LEU:HD12	35:15:38:HIS:HD2	1.72	0.55
1:1G:1085:U:H5'	1:1G:1094:G:N2	2.20	0.55
26:1H:1171:G:N7	26:1H:1174:A:N6	2.55	0.55
26:1H:1337:G:H2'	26:1H:1338:G:H8	1.72	0.55
26:1H:1990:C:H2'	26:1H:1991:U:H6	1.72	0.55
26:1H:2820:A:P	39:98:2:ARG:HH12	2.30	0.55
22:1K:29:U:H2'	22:1K:30:G:H8	1.72	0.55
30:29:55:ASN:O	30:29:57:LYS:NZ	2.40	0.55
31:31:129:PHE:HA	31:31:142:TRP:NE1	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:3L:2:G:OP2	56:3L:2:G:H8	1.90	0.55
32:49:153:ARG:HD3	32:49:153:ARG:N	2.21	0.55
33:51:86:GLU:OE2	33:51:165:ALA:HB2	2.07	0.55
33:59:60:ARG:O	33:59:63:SER:OG	2.25	0.55
7:6E:65:ALA:HB1	7:6E:127:ALA:HB3	1.89	0.55
41:75:5:ALA:O	41:75:8:LYS:N	2.39	0.55
9:82:17:VAL:HG22	9:82:63:ILE:HG12	1.89	0.55
1:1G:130:A:C8	17:8A:63:ARG:HG3	2.42	0.55
17:8I:11:VAL:HG12	17:8I:85:VAL:HG23	1.89	0.55
43:95:35:LEU:C	43:95:37:VAL:HG13	2.26	0.55
40:A8:58:LEU:HG	40:A8:65:VAL:HG13	1.87	0.55
19:AA:66:MET:SD	19:AA:66:MET:N	2.79	0.55
46:C5:15:VAL:HG22	46:C5:72:VAL:HG12	1.87	0.55
53:N8:16:ARG:HG3	53:N8:17:ASP:N	2.22	0.55
1:13:17:U:H2'	1:13:18:C:C6	2.42	0.55
1:13:604:G:H2'	1:13:605:U:O4'	2.06	0.55
26:14:2172:U:OP1	26:14:2173:A:N6	2.33	0.55
26:14:2068:U:N3	26:14:2430:A:H2	2.03	0.55
26:14:2660:A:OP1	26:14:2660:A:H8	1.90	0.55
26:14:2674:G:H4'	36:25:30:ALA:HB2	1.89	0.55
26:14:273(C):C:N4	26:14:363(C):G:H1	2.05	0.55
26:14:67:U:H2'	26:14:68:G:H8	1.72	0.55
1:1G:1142:G:H3'	1:1G:1143:G:C8	2.42	0.55
26:1H:1108:U:H2'	26:1H:1109:C:C5	2.41	0.55
26:1H:1279:G:OP1	39:98:35:THR:HG22	2.07	0.55
26:1H:1340:U:H4'	26:1H:1341:U:OP2	2.07	0.55
26:1H:1433:U:O2	26:1H:1561:G:C2	2.60	0.55
26:1H:2547:U:H2'	26:1H:2548:G:C8	2.42	0.55
10:1I:34:VAL:HB	10:1I:74:ILE:HG12	1.87	0.55
24:3K:48:C:OP2	24:3K:59:A:O2'	2.25	0.55
32:41:16:ARG:HH21	32:41:31:VAL:CG1	2.19	0.55
35:58:60:ILE:O	35:58:60:ILE:HD12	2.07	0.55
8:7E:87:SER:HB2	8:7E:93:VAL:H	1.72	0.55
16:7I:3:LYS:O	16:7I:21:VAL:HA	2.07	0.55
19:AI:41:VAL:HB	19:AI:42:PRO:HA	1.88	0.55
20:BI:26:ASN:O	20:BI:30:LYS:HB2	2.07	0.55
42:C8:92:ARG:HH21	43:D8:10:LYS:HB3	1.70	0.55
1:13:598:U:H4'	8:7E:94:TYR:CD2	2.42	0.55
26:14:1342:A:H2	26:14:1602:U:H3	1.54	0.55
26:14:1678:G:H22	26:14:1989:G:H22	1.51	0.55
2:1E:166:ASP:C	2:1E:168:THR:H	2.10	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:10:LEU:CD1	2:1E:217:ARG:HH12	2.19	0.55
26:1H:1388:G:H2'	26:1H:1389:G:H8	1.71	0.55
26:1H:2150:U:H2'	26:1H:2151:G:C8	2.42	0.55
26:1H:309:G:N3	26:1H:329:G:O2'	2.39	0.55
22:1L:68:G:H2'	22:1L:69:A:C8	2.42	0.55
4:32:19:LEU:HB2	4:32:21:LEU:CD1	2.36	0.55
4:32:94:LEU:HD11	4:32:200:GLU:OE1	2.07	0.55
33:51:92:ILE:H	33:51:92:ILE:HD12	1.71	0.55
15:6A:10:LYS:HA	15:6A:13:GLN:HG2	1.88	0.55
28:71:44:HIS:CD2	28:71:172:HIS:HB3	2.42	0.55
9:82:89:ASN:O	9:82:92:TYR:HB2	2.07	0.55
46:G8:104:GLY:H	46:G8:105:ALA:HB3	1.72	0.55
1:13:994:A:N7	1:13:1216:G:H4'	2.22	0.55
26:14:1112:G:H2'	26:14:1113:U:C6	2.42	0.55
35:15:111:PRO:HA	35:15:114:ARG:NH1	2.22	0.55
1:1G:1028(A):C:N4	1:1G:1032(B):G:H1	2.05	0.55
1:1G:895:G:H2'	1:1G:896:C:C6	2.41	0.55
26:1H:2377:A:OP2	61:1H:3693:HOH:O	2.18	0.55
26:1H:2805:G:H2'	26:1H:2807:G:C8	2.42	0.55
36:25:2:ILE:HD12	36:25:6:THR:HG21	1.88	0.55
32:49:97:ASP:HA	32:49:100:TRP:HB2	1.89	0.55
13:4I:34:LEU:HD23	13:4I:39:ILE:HB	1.88	0.55
34:61:95:LYS:HA	34:61:111:PRO:HG3	1.89	0.55
28:71:48:GLY:N	28:71:208:PHE:O	2.40	0.55
37:78:39:LYS:HD2	37:78:45:LEU:HD21	1.88	0.55
9:8E:50:LEU:HD23	9:8E:85:LEU:HD11	1.89	0.55
9:8E:82:ALA:O	9:8E:86:VAL:HG23	2.07	0.55
36:68:73:ASP:HB2	41:B8:82:LEU:HD22	1.89	0.55
46:C5:62:GLU:OE1	46:C5:64:GLU:HG3	2.06	0.55
55:Q8:6:THR:HG23	55:Q8:64:TYR:HD2	1.71	0.55
2:12:12:GLU:HG3	2:12:15:VAL:HB	1.87	0.55
2:12:189:ASP:HB3	2:12:203:GLY:O	2.06	0.55
1:13:1333:A:H2'	1:13:1334:G:O4'	2.07	0.55
26:14:1171:G:O2'	26:14:1173:G:O4'	2.19	0.55
26:14:2355:C:H5''	26:14:2356:C:OP2	2.07	0.55
26:14:2577:A:H2'	26:14:2614:A:N6	2.22	0.55
1:1G:825:G:H2'	1:1G:826:C:O4'	2.07	0.55
26:1H:1021:A:H8	26:1H:1021:A:H3'	1.72	0.55
26:1H:1510:A:O2'	26:1H:1512:G:N7	2.38	0.55
26:1H:2791:C:H2'	26:1H:2792:G:H5'	1.88	0.55
27:1J:93:C:H2'	27:1J:94:C:H6	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2572:A:N7	30:21:145:LYS:HB2	2.21	0.55
3:2E:82:GLU:HA	3:2E:85:ARG:HB3	1.89	0.55
31:31:64:ILE:HG22	31:31:65:TRP:CD1	2.42	0.55
56:3L:15:G:H2'	56:3L:59:A:N1	2.22	0.55
56:3L:3:G:H1	56:3L:69:A:H61	1.53	0.55
26:14:2312:U:P	32:49:74:LYS:HZ3	2.29	0.55
13:4A:39:ILE:HG22	13:4A:40:ASN:H	1.72	0.55
33:51:12:PRO:HG2	33:51:13:LYS:HG2	1.89	0.55
39:55:67:LEU:HD12	39:55:76:VAL:HG21	1.88	0.55
1:1G:564:C:O2'	8:72:91:ARG:NH2	2.40	0.55
17:8A:58:GLU:HB2	17:8A:74:LEU:HB2	1.89	0.55
42:C8:14:HIS:O	42:C8:18:LEU:HD12	2.07	0.55
44:E8:80:PRO:HD2	44:E8:100:THR:HG21	1.87	0.55
2:12:105:PHE:O	2:12:109:SER:N	2.40	0.54
1:13:1139:G:N2	1:13:1143:G:H1	2.03	0.54
26:14:479:A:H1'	26:14:480:A:H5''	1.89	0.54
21:1B:9:ARG:HG2	21:1B:10:ARG:HD2	1.89	0.54
2:1E:163:PHE:CD1	2:1E:185:ILE:HG13	2.42	0.54
1:1G:157:G:H1	1:1G:164:U:H3	1.56	0.54
1:1G:999:U:H2'	1:1G:1000:A:C8	2.42	0.54
26:1H:1045:A:H1'	26:1H:1047:G:C4	2.42	0.54
26:1H:1338:G:O2'	26:1H:1393:A:N1	2.39	0.54
26:1H:1359:A:H2'	26:1H:1360:A:H5'	1.89	0.54
37:35:18:ARG:O	37:35:19:VAL:HG23	2.07	0.54
12:3A:49:ASN:ND2	12:3A:92:ASP:OD2	2.40	0.54
32:49:105:LYS:O	32:49:109:VAL:HB	2.07	0.54
33:51:156:ALA:HA	33:51:170:ARG:H	1.73	0.54
33:51:24:VAL:HG13	33:51:35:VAL:HB	1.89	0.54
26:14:1614:A:N6	44:A5:87:PRO:HA	2.22	0.54
47:D5:19:ARG:HH11	47:D5:84:GLU:HB2	1.71	0.54
45:F8:63:LYS:HE2	45:F8:70:LEU:HD11	1.89	0.54
50:K8:58:ALA:O	50:K8:62:THR:HG23	2.06	0.54
29:11:124:PRO:HG2	29:11:129:ASN:ND2	2.23	0.54
2:12:23:ARG:HE	2:12:23:ARG:HA	1.69	0.54
1:13:1171:G:H2'	1:13:1172:C:C6	2.42	0.54
1:13:976:G:H5'	1:13:1358:U:O2'	2.07	0.54
1:13:395:C:N4	61:13:1855:HOH:O	2.40	0.54
1:13:457:C:H2'	1:13:458:C:C6	2.42	0.54
26:14:774:A:O2'	26:14:775:G:O5'	2.24	0.54
1:1G:1322:C:O2'	1:1G:1323:G:H5'	2.07	0.54
1:1G:411:A:H62	1:1G:413:G:H21	1.54	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1264:G:OP1	53:N8:19:ARG:NH1	2.31	0.54
26:1H:1790:C:H2'	26:1H:1791:A:C5	2.42	0.54
26:1H:1791:A:H3'	26:1H:1792:G:H8	1.72	0.54
26:1H:2698:U:H2'	26:1H:2699:C:C6	2.42	0.54
30:21:203:LYS:HD2	30:21:203:LYS:O	2.06	0.54
30:29:37:ARG:NE	30:29:42:ASP:OD1	2.40	0.54
23:2L:47:G7M:H3'	23:2L:48:U:C6	2.42	0.54
4:32:30:LYS:HB3	4:32:35:ARG:NH1	2.22	0.54
31:39:158:THR:HA	31:39:195:ASP:HB2	1.88	0.54
15:6A:27:VAL:C	15:6A:31:LEU:HD13	2.19	0.54
15:6A:87:ILE:HG22	15:6A:88:ARG:N	2.21	0.54
37:78:64:LYS:HG2	55:Q8:13:ARG:HG3	1.88	0.54
26:14:1225:C:H4'	43:95:85:LYS:CG	2.38	0.54
48:I8:83:PRO:O	48:I8:84:LEU:HB2	2.07	0.54
2:12:197:VAL:HB	2:12:200:ILE:HG12	1.89	0.54
1:13:954:G:H21	1:13:1227:A:H62	1.53	0.54
1:13:1301:U:O2'	1:13:1302:U:H3'	2.07	0.54
1:13:1363:A:H4'	1:13:1364:U:H2'	1.89	0.54
1:13:155:C:H2'	1:13:156:G:H8	1.71	0.54
26:14:2125:G:N2	26:14:2173:A:H61	2.06	0.54
26:14:271(B):G:O6	26:14:404:C:N4	2.19	0.54
26:14:2836:U:H2'	26:14:2837:G:C8	2.42	0.54
29:19:69:ARG:NH2	29:19:129:ASN:C	2.57	0.54
1:1G:155:C:H42	1:1G:166:G:H1	1.54	0.54
26:1H:1021:A:C8	26:1H:1021:A:H3'	2.42	0.54
26:1H:2528:U:O2'	26:1H:2529:G:H3'	2.08	0.54
26:1H:503:A:H4'	26:1H:504:U:H5''	1.89	0.54
26:1H:863:A:H2'	26:1H:864:G:C8	2.42	0.54
26:1H:994:C:OP2	42:C8:54:LYS:NZ	2.40	0.54
36:25:25:LEU:HB2	36:25:38:VAL:HG23	1.89	0.54
36:25:9:GLU:O	36:25:83:ALA:HA	2.08	0.54
30:29:54:GLN:CG	30:29:55:ASN:H	2.20	0.54
37:35:122:PRO:HB3	37:35:141:ALA:HB1	1.88	0.54
31:39:68:LYS:HG3	31:39:69:HIS:NE2	2.22	0.54
6:5E:81:ILE:HD11	29:11:137:PRO:HG3	1.88	0.54
40:65:61:ASN:OD1	40:65:62:LYS:HG2	2.07	0.54
9:82:85:LEU:HD11	9:82:96:LEU:HD13	1.90	0.54
26:1H:956:G:OP2	38:88:14:ARG:NH2	2.41	0.54
46:C5:89:PHE:O	46:C5:89:PHE:CG	2.60	0.54
1:13:1116:C:O2'	9:8E:108:VAL:HG11	2.07	0.54
1:13:324:G:N1	1:13:327:A:OP2	2.39	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:690:G:H2'	1:13:691:G:O4'	2.08	0.54
1:13:994:A:H2'	1:13:994:A:N3	2.23	0.54
26:14:1316:U:H2'	26:14:1317:A:C8	2.42	0.54
26:14:1486:A:H2'	26:14:1487:G:C8	2.42	0.54
26:14:2134:A:H2'	26:14:2134:A:N3	2.23	0.54
26:14:2124:G:O6	26:14:2174:C:N4	2.39	0.54
26:14:71:A:H2	45:B5:31:HIS:CE1	2.25	0.54
26:14:70:G:H21	26:14:71:A:N6	2.05	0.54
27:16:15:A:H5'	27:16:16:G:H8	1.63	0.54
21:1F:5:ASP:HB3	21:1F:8:THR:HG22	1.89	0.54
1:1G:280:C:H3'	1:1G:281:G:H5'	1.88	0.54
26:1H:1210:A:H8	26:1H:1210:A:H5'	1.70	0.54
26:1H:1509:C:O2'	26:1H:1510:A:OP1	2.24	0.54
26:1H:2233:U:H2'	26:1H:2234:G:C8	2.42	0.54
26:1H:315:G:H2'	26:1H:316:C:C6	2.42	0.54
26:1H:70:G:H21	26:1H:71:A:H62	1.54	0.54
3:22:70:VAL:O	3:22:105:GLU:HG2	2.07	0.54
3:22:63:ASN:HA	3:22:98:ASN:HB2	1.90	0.54
23:2L:56:PSU:N3	23:2L:59:A:OP2	2.39	0.54
32:41:34:LEU:HB3	32:41:99:MET:CE	2.38	0.54
33:59:61:HIS:O	33:59:64:LEU:HG	2.07	0.54
39:98:78:LYS:O	39:98:83:ILE:HG13	2.07	0.54
19:AA:40:ILE:O	19:AA:68:GLY:N	2.40	0.54
45:B5:8:ILE:O	50:G5:36:ARG:NH2	2.41	0.54
42:C8:92:ARG:NH2	43:D8:10:LYS:HB3	2.22	0.54
49:J8:53:VAL:HB	49:J8:58:ILE:HD13	1.90	0.54
1:13:1280:A:H3'	1:13:1281:U:H5'	1.89	0.54
1:13:1304:G:OP2	61:13:1803:HOH:O	2.18	0.54
1:13:603:U:H2'	1:13:604:G:C8	2.43	0.54
27:16:31:C:H2'	27:16:32:C:C6	2.42	0.54
2:1E:134:GLU:O	2:1E:138:LEU:HG	2.08	0.54
1:1G:1134:G:C2	1:1G:1135:U:H1'	2.42	0.54
1:1G:1226:C:O2'	13:4A:111:LYS:NZ	2.36	0.54
26:1H:14:A:H5''	26:1H:15:G:OP2	2.08	0.54
26:1H:1668:A:H4'	26:1H:1669:A:O5'	2.07	0.54
26:1H:1992:G:H5'	26:1H:1994:C:H41	1.72	0.54
26:1H:2593:U:H2'	26:1H:2594:C:C6	2.43	0.54
26:1H:2638:G:OP1	30:21:82:ARG:NH2	2.40	0.54
26:1H:568:U:H5'	26:1H:945:A:N1	2.22	0.54
26:1H:69:C:H2'	26:1H:70:G:H8	1.73	0.54
30:21:57:LYS:HB2	30:21:59:VAL:HG12	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:33:LEU:O	3:22:36:ASP:N	2.41	0.54
30:29:167:VAL:HG12	30:29:170:LEU:CD1	2.33	0.54
11:2A:62:GLN:OE1	11:2A:93:GLN:NE2	2.33	0.54
31:31:78:ILE:HA	31:31:83:PHE:CD2	2.43	0.54
12:3A:58:VAL:O	12:3A:65:GLU:HA	2.08	0.54
24:3K:19:G:H21	24:3K:56:C:H42	1.53	0.54
32:41:97:ASP:O	32:41:100:TRP:N	2.40	0.54
38:45:57:HIS:CG	38:45:117:ALA:HB2	2.42	0.54
32:49:11:TYR:HE1	32:49:172:LEU:HD11	1.73	0.54
40:65:72:ALA:O	40:65:76:LYS:HG3	2.07	0.54
1:1G:581:G:OP1	15:6A:61:GLY:HA3	2.07	0.54
1:13:1367:C:H5'	10:1I:60:ARG:HH11	1.73	0.54
26:14:1257:C:H4'	31:39:83:PHE:CD1	2.43	0.54
26:14:2392:A:H2	26:14:2424:C:H42	1.56	0.54
26:14:90:U:H1'	26:14:91:A:C8	2.43	0.54
1:1G:501:C:OP1	12:3A:117:ARG:NH2	2.34	0.54
26:1H:234:C:H2'	26:1H:235:U:H6	1.73	0.54
26:1H:2849:U:H4'	26:1H:2868:A:C2	2.42	0.54
26:1H:747:U:O2	26:1H:2014:A:H1'	2.08	0.54
22:1L:9:A:H3'	22:1L:10:G:C8	2.43	0.54
26:14:617:G:OP1	31:39:40:GLN:HG3	2.06	0.54
12:3A:100:ILE:HG22	12:3A:101:VAL:N	2.23	0.54
27:1J:42:C:N4	32:49:91:ARG:HH22	2.06	0.54
13:4A:49:THR:N	13:4A:52:GLU:OE1	2.33	0.54
5:4E:76:ILE:HG13	5:4E:93:PRO:HG3	1.89	0.54
7:6E:27:ILE:HA	7:6E:30:ILE:HD12	1.90	0.54
38:88:32:TYR:O	38:88:105:GLU:HA	2.07	0.54
9:8E:92:TYR:O	9:8E:96:LEU:HB2	2.07	0.54
43:95:70:ILE:N	43:95:86:GLY:O	2.32	0.54
20:BI:30:LYS:HE2	20:BI:80:ARG:HH12	1.73	0.54
48:E5:24:LYS:HB2	48:E5:36:ILE:HD13	1.89	0.54
26:1H:72:U:N3	50:K8:62:THR:HG22	2.23	0.54
1:13:1002:G:H2'	1:13:1003:G:O4'	2.07	0.54
26:14:1417:C:H42	26:14:1581:G:H1	1.55	0.54
26:14:1752:C:P	41:75:115:ARG:HH22	2.31	0.54
1:1G:1177:G:OP2	1:1G:1177:G:H8	1.90	0.54
1:1G:540:G:H2'	1:1G:541:G:O4'	2.07	0.54
1:1G:669:U:H2'	1:1G:670:G:H8	1.73	0.54
26:1H:1138:G:H21	35:58:106:MET:HE3	1.73	0.54
26:1H:1155:A:O2'	26:1H:1156:A:H2'	2.07	0.54
26:1H:2688:U:H5	26:1H:2720:U:OP2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:997:G:OP1	42:C8:93:LYS:HD2	2.08	0.54
3:22:19:GLU:O	3:22:56:ASP:HA	2.08	0.54
30:29:119:ARG:HA	30:29:160:TYR:CD2	2.43	0.54
23:2L:8:4SU:C2	23:2L:14:A:H62	2.20	0.54
37:35:126:VAL:HA	37:35:145:PRO:HD2	1.88	0.54
32:41:173:LEU:HD12	32:41:178:PHE:CD2	2.42	0.54
13:4I:23:TYR:CE2	13:4I:71:ARG:HG3	2.43	0.54
35:58:38:HIS:CD2	35:58:39:ARG:HG2	2.43	0.54
37:78:119:GLU:OE2	37:78:119:GLU:HA	2.07	0.54
40:A8:106:ARG:HH12	40:A8:107:GLU:HB2	1.70	0.54
40:A8:51:ALA:HB3	40:A8:73:LEU:HG	1.90	0.54
41:B8:60:THR:HG22	41:B8:77:PRO:HA	1.89	0.54
43:D8:5:VAL:HG11	43:D8:57:VAL:HG11	1.88	0.54
45:F8:39:ILE:O	45:F8:43:VAL:HG23	2.08	0.54
50:K8:31:GLU:HB2	50:K8:53:LEU:HD11	1.89	0.54
61:1H:4011:HOH:O	29:11:237:GLU:HG3	2.08	0.54
2:12:162:ILE:HG12	2:12:184:VAL:HG22	1.90	0.54
2:12:91:PRO:HA	2:12:154:LEU:HD12	1.90	0.54
1:13:1323:G:H2'	1:13:1324:A:C8	2.43	0.54
1:1G:1181:G:C2	1:1G:1182:G:H1'	2.43	0.54
1:1G:316:G:OP2	1:1G:351:G:O2'	2.24	0.54
1:1G:429:U:H3'	4:32:9:CYS:SG	2.47	0.54
1:1G:998:G:H2'	1:1G:998(A):C:C6	2.43	0.54
26:1H:1030:G:OP2	38:88:128:LYS:NZ	2.37	0.54
26:1H:1503:U:H2'	26:1H:1504:C:H6	1.72	0.54
30:21:105:THR:HG22	30:21:106:GLY:H	1.71	0.54
11:2I:73:MET:HG2	11:2I:103:LEU:HD13	1.90	0.54
31:39:40:GLN:HE22	31:39:182:ASN:HB2	1.72	0.54
38:45:18:LYS:H	38:45:98:LYS:NZ	2.06	0.54
41:75:133:GLU:N	41:75:133:GLU:OE2	2.41	0.54
42:85:66:ASN:ND2	42:85:70:ARG:HE	2.05	0.54
26:14:2012:G:OP1	44:A5:11:ARG:NH2	2.41	0.54
19:AI:6:LYS:O	19:AI:7:LYS:HB3	2.06	0.54
2:12:165:VAL:HG23	2:12:166:ASP:H	1.73	0.54
1:13:428:G:O3'	4:3E:36:ARG:NH2	2.41	0.54
29:19:273:ARG:O	29:19:273:ARG:HG2	2.08	0.54
1:1G:999:U:H3	1:1G:1041:A:H61	1.56	0.54
1:1G:413:G:O2'	1:1G:428:G:N2	2.41	0.54
1:1G:591:U:H2'	1:1G:592:G:C8	2.43	0.54
1:1G:728:A:H2'	1:1G:729:A:C8	2.43	0.54
26:1H:1173:G:H5'	26:1H:1174:A:N1	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2679:A:H4'	30:21:165:VAL:HG11	1.89	0.54
26:1H:975:G:H1'	26:1H:990:A:C2	2.43	0.54
26:1H:995:C:O2	35:58:3:THR:OG1	2.24	0.54
30:21:73:GLU:OE1	30:21:74:PRO:HD2	2.08	0.54
30:29:27:LEU:HA	30:29:180:ASN:O	2.08	0.54
4:32:88:VAL:HG13	5:42:97:GLY:HA2	1.88	0.54
38:45:136:ALA:HB1	38:45:138:ASP:OD1	2.08	0.54
34:61:66:GLU:O	34:61:70:GLU:HG2	2.08	0.54
7:62:21:VAL:HG23	7:62:22:LEU:HD12	1.89	0.54
41:75:51:ARG:HG3	41:75:98:LYS:HD2	1.89	0.54
16:7A:67:THR:HG22	16:7A:68:ASP:H	1.73	0.54
16:7I:20:VAL:HG21	16:7I:32:TYR:CG	2.42	0.54
40:A8:25:ARG:NH1	40:A8:42:ASP:OD1	2.41	0.54
45:B5:1:MET:N	50:G5:29:LYS:HE3	2.23	0.54
20:BA:64:ASP:OD2	20:BA:81:LYS:NZ	2.35	0.54
50:K8:15:LYS:HD3	50:K8:67:LYS:NZ	2.22	0.54
1:13:1118:C:H1'	1:13:1179:A:C4	2.43	0.54
1:13:1256:A:N6	1:13:1278:U:OP2	2.36	0.54
1:13:1363:A:H1'	1:13:1365:G:N7	2.23	0.54
26:14:270(P):C:H6	26:14:270(P):C:O5'	1.91	0.54
26:14:30:G:H2'	26:14:31:C:C6	2.43	0.54
26:14:691:C:H2'	26:14:692:C:H6	1.71	0.54
35:15:132:ALA:O	35:15:134:ARG:HG3	2.08	0.54
2:1E:20:GLU:HG2	2:1E:190:THR:OG1	2.07	0.54
1:1G:9:G:H5'	5:42:122:GLU:OE2	2.08	0.54
26:1H:2292:C:H42	26:1H:2340:G:H1	1.55	0.54
22:1L:9:A:H3'	22:1L:10:G:H8	1.73	0.54
30:21:105:THR:HB	30:21:197:ILE:HG23	1.90	0.54
23:2L:63:C:H2'	23:2L:64:G:H8	1.72	0.54
12:3I:83:VAL:HG13	12:3I:100:ILE:HG23	1.90	0.54
56:3L:67:C:H2'	56:3L:68:G:C8	2.41	0.54
33:51:121:ILE:HG12	33:51:140:LYS:HD2	1.89	0.54
6:5E:39:LYS:H	6:5E:64:GLN:HB3	1.73	0.54
34:61:67:ARG:O	34:61:71:ILE:HG22	2.08	0.54
40:65:15:ARG:O	40:65:19:LYS:HG3	2.08	0.54
42:C8:50:ARG:HH12	43:D8:72:VAL:HG23	1.74	0.54
26:1H:996:A:H4'	42:C8:92:ARG:HE	1.71	0.54
47:D5:7:ALA:O	47:D5:8:TYR:CG	2.60	0.54
26:14:2577:A:O4'	53:J5:3:LYS:HB2	2.08	0.54
37:78:63:PRO:HB2	55:Q8:30:ARG:HH21	1.72	0.54
26:14:1198:U:H2'	26:14:1199:U:C6	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:139:G:N2	26:14:141:A:N1	2.55	0.53
26:14:1717:G:H1	26:14:1742:C:H42	1.55	0.53
26:14:959:A:N3	26:14:2457:U:O2'	2.41	0.53
2:1E:21:ARG:HG3	2:1E:38:GLY:O	2.08	0.53
1:1G:373:A:C2	1:1G:374:A:C8	2.95	0.53
26:1H:1388:G:H2'	26:1H:1389:G:C8	2.43	0.53
26:1H:2095:C:H42	26:1H:2194:G:H1	1.57	0.53
26:1H:2756:U:H1'	26:1H:2757:A:H5''	1.89	0.53
10:1I:35:SER:O	10:1I:72:VAL:HG23	2.07	0.53
30:29:25:VAL:HG12	30:29:26:ILE:N	2.23	0.53
1:1G:691:G:O6	11:2A:55:LYS:NZ	2.42	0.53
31:31:152:GLU:HB2	31:31:190:GLU:HB2	1.89	0.53
31:39:129:PHE:HA	31:39:142:TRP:NE1	2.23	0.53
12:3I:113:ARG:NH2	61:3I:301:HOH:O	2.40	0.53
24:3K:52:G:H2'	24:3K:53:G:H8	1.72	0.53
32:41:35:GLU:HG3	32:41:36:LYS:HB3	1.90	0.53
9:8E:111:ARG:HG3	9:8E:112:LYS:H	1.73	0.53
46:C5:46:LYS:HD2	46:C5:61:ILE:HB	1.90	0.53
1:13:1128:C:H5''	1:13:1129:C:OP2	2.08	0.53
1:13:21:G:H2'	1:13:22:G:C8	2.44	0.53
1:13:652:U:O2'	1:13:653:A:O5'	2.22	0.53
35:15:13:TRP:O	35:15:135:PRO:HD2	2.07	0.53
29:19:147:LEU:HD23	29:19:155:LEU:HD11	1.90	0.53
1:1G:1179:A:H2'	1:1G:1180:A:O4'	2.08	0.53
1:1G:1279:A:O2'	1:1G:1281:U:OP2	2.25	0.53
1:1G:531:U:H4'	1:1G:532:A:OP1	2.07	0.53
26:1H:1870:C:H2'	26:1H:1871:A:O4'	2.07	0.53
36:25:107:ARG:HG2	36:25:115:VAL:HG11	1.89	0.53
56:3L:6:G:N1	56:3L:67:C:N3	2.49	0.53
38:45:16:ARG:HB2	38:45:18:LYS:HD3	1.89	0.53
5:4E:100:VAL:HA	5:4E:118:ILE:HG22	1.90	0.53
34:61:145:VAL:HG12	34:61:146:ALA:H	1.73	0.53
7:62:26:PHE:O	7:62:30:ILE:HG12	2.08	0.53
40:65:61:ASN:CG	40:65:62:LYS:H	2.11	0.53
28:71:216:THR:HG23	28:71:218:MET:H	1.73	0.53
8:72:26:VAL:HG22	8:72:59:LEU:HB2	1.89	0.53
37:78:37:GLY:N	37:78:40:SER:OG	2.40	0.53
43:95:69:LYS:HD3	43:95:86:GLY:HA3	1.90	0.53
39:98:52:ILE:O	39:98:55:ALA:N	2.39	0.53
39:98:96:ARG:HD2	39:98:98:LEU:HD11	1.90	0.53
40:A8:27:SER:HA	40:A8:88:ASP:HB2	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AA:66:MET:HA	19:AA:67:VAL:O	2.08	0.53
46:C5:36:ALA:HA	46:C5:67:LEU:O	2.09	0.53
44:E8:26:GLY:H	44:E8:71:VAL:HG23	1.73	0.53
46:G8:83:THR:HG22	46:G8:84:ARG:HG2	1.90	0.53
32:41:5:VAL:H	52:M8:25:TYR:HE2	1.55	0.53
1:13:1023:G:H3'	1:13:1024:G:H5''	1.89	0.53
1:13:265:G:N2	1:13:267:C:H5'	2.24	0.53
1:13:279:A:H4'	1:13:280:C:H5''	1.91	0.53
1:13:484:G:O2'	1:13:485:G:OP2	2.22	0.53
26:14:2659:G:H1'	26:14:2662:A:H62	1.73	0.53
26:14:279:C:N4	26:14:361:G:H1	2.06	0.53
29:19:108:PRO:HG2	29:19:111:LEU:HB2	1.91	0.53
2:1E:192:SER:OG	2:1E:193:ASP:N	2.36	0.53
1:1G:1149:C:OP2	9:82:9:ARG:NH1	2.42	0.53
1:1G:1256:A:N6	1:1G:1277:C:H3'	2.20	0.53
1:1G:146:G:H2'	1:1G:147:G:H8	1.72	0.53
1:1G:667:G:H2'	1:1G:668:G:C8	2.43	0.53
26:1H:2062:A:H2'	26:1H:2062:A:N3	2.22	0.53
26:1H:2137:C:O2	26:1H:2155:G:N1	2.41	0.53
26:1H:654(C):G:H1'	26:1H:654(S):G:H22	1.73	0.53
26:1H:907:U:O2'	38:88:101:ARG:NH2	2.41	0.53
30:21:47:VAL:HG11	30:21:86:PRO:HD2	1.89	0.53
31:31:201:VAL:O	31:31:205:ARG:HB2	2.08	0.53
4:32:13:ARG:C	4:32:15:GLU:H	2.12	0.53
12:3A:27:LEU:HD21	12:3A:61:THR:OG1	2.08	0.53
24:3K:19:G:N3	24:3K:57:G:N2	2.57	0.53
24:3K:75:C:HO2'	24:3K:76:A:H2	1.57	0.53
13:4A:49:THR:HG22	13:4A:51:ALA:H	1.73	0.53
13:4I:82:MET:C	13:4I:84:ILE:H	2.12	0.53
34:69:81:VAL:H	34:69:143:SER:CB	2.20	0.53
15:6A:79:ARG:O	15:6A:83:GLU:HB2	2.09	0.53
41:75:61:PHE:CE1	41:75:76:PHE:HB2	2.43	0.53
8:7E:82:HIS:CE1	8:7E:138:TRP:CZ2	2.96	0.53
42:85:92:ARG:C	42:85:94:ASN:H	2.12	0.53
20:BA:16:HIS:O	20:BA:19:SER:N	2.41	0.53
43:D8:24:LYS:HD3	43:D8:90:PRO:HB2	1.89	0.53
45:F8:67:GLY:O	45:F8:68:ARG:HB3	2.08	0.53
47:H8:117:LEU:N	47:H8:118:GLN:OE1	2.40	0.53
47:H8:124:ILE:HD12	47:H8:125:LEU:H	1.74	0.53
53:J5:16:ARG:NH1	53:J5:17:ASP:OD1	2.41	0.53
26:1H:1827:C:OP2	29:11:222:ARG:NH1	2.40	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:77:ALA:O	2:12:81:VAL:HG23	2.07	0.53
1:13:661:G:H1	1:13:744:C:H42	1.55	0.53
26:14:1198:U:H2'	26:14:1199:U:H6	1.73	0.53
26:14:2748:A:H2'	26:14:2749:A:C8	2.43	0.53
26:14:2816:C:O3'	39:55:99:LYS:NZ	2.36	0.53
26:14:493:G:H2'	26:14:494:G:O4'	2.09	0.53
26:14:691:C:C4'	29:19:43:ARG:HH21	2.21	0.53
26:1H:1575:C:H2'	26:1H:1576:U:C6	2.44	0.53
26:1H:1590:U:H2'	26:1H:1591:G:H8	1.73	0.53
26:1H:2588:G:OP1	61:1H:3694:HOH:O	2.19	0.53
26:1H:2756:U:H4'	26:1H:2757:A:OP1	2.08	0.53
22:1L:11:C:O2	22:1L:24:G:N2	2.30	0.53
3:22:175:LEU:HD21	3:22:201:TYR:HE2	1.73	0.53
3:2E:15:THR:CG2	3:2E:181:ASN:HA	2.39	0.53
31:31:62:ARG:HH11	31:31:62:ARG:HB3	1.74	0.53
4:3E:81:GLU:HG2	4:3E:81:GLU:O	2.09	0.53
32:41:16:ARG:HH21	32:41:31:VAL:HG13	1.73	0.53
26:14:2495:G:O3'	38:45:81:VAL:HG12	2.08	0.53
37:78:126:VAL:HB	37:78:147:LEU:HD21	1.90	0.53
37:78:31:ALA:O	37:78:32:THR:HG22	2.08	0.53
9:82:86:VAL:HG13	9:82:90:PRO:HA	1.91	0.53
9:8E:45:ALA:O	9:8E:78:LYS:NZ	2.40	0.53
17:8I:13:ASP:H	17:8I:14:LYS:HZ2	1.55	0.53
19:AI:42:PRO:O	19:AI:45:VAL:HG22	2.08	0.53
47:H8:7:ALA:HB2	47:H8:59:LEU:HD22	1.91	0.53
1:13:1171:G:H2'	1:13:1172:C:H6	1.72	0.53
1:13:660:G:H2'	1:13:661:G:H8	1.73	0.53
26:14:198:C:H5'	26:14:2244:U:OP1	2.08	0.53
26:14:2158:A:H1'	26:14:2159:G:C8	2.43	0.53
26:14:29:U:H2'	26:14:30:G:C8	2.44	0.53
26:14:536:A:H2'	26:14:537:C:C6	2.44	0.53
26:14:926:A:H2'	26:14:928:G:H8	1.74	0.53
26:14:957:A:N6	26:14:2459:A:C8	2.75	0.53
35:15:104:LYS:HA	35:15:107:LEU:HD12	1.90	0.53
10:1A:39:PRO:HA	10:1A:70:ARG:HH11	1.72	0.53
10:1A:30:SER:HB3	10:1A:78:ASN:OD1	2.07	0.53
2:1E:87:ARG:NH1	2:1E:220:ASP:OD1	2.41	0.53
21:1F:12:LYS:HB3	21:1F:22:ARG:HD2	1.90	0.53
1:1G:151:A:H2'	1:1G:152:A:O4'	2.09	0.53
1:1G:631:G:H1'	1:1G:632:A:N7	2.23	0.53
26:1H:1278:A:OP1	39:98:36:THR:HG22	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1507:A:H2'	26:1H:1509:C:N4	2.23	0.53
26:1H:194:G:H2'	26:1H:195:A:O4'	2.09	0.53
26:1H:2701:C:H2'	26:1H:2702:U:H2'	1.91	0.53
26:1H:607:U:OP1	31:31:102:PRO:HA	2.09	0.53
27:1J:88:C:H4'	27:1J:89:G:OP2	2.07	0.53
22:1K:72:C:H2'	22:1K:73:A:H5''	1.90	0.53
23:2L:41:C:H2'	23:2L:42:C:H6	1.74	0.53
31:31:185:ASP:HA	31:31:188:ARG:HD3	1.90	0.53
31:31:181:LEU:HD11	31:31:194:MET:HE1	1.90	0.53
37:35:101:VAL:HA	37:35:105:LEU:O	2.08	0.53
26:14:39:C:O2	31:39:46:ARG:NH2	2.40	0.53
39:55:51:LEU:HD23	39:55:66:VAL:HG22	1.90	0.53
34:61:38:LEU:H	34:61:38:LEU:HD12	1.74	0.53
1:1G:228:A:C4'	16:7A:62:VAL:HG11	2.39	0.53
8:7E:120:THR:H	8:7E:123:GLU:HB2	1.73	0.53
19:AI:18:LYS:NZ	19:AI:18:LYS:O	2.34	0.53
47:D5:26:GLY:HA3	47:D5:86:VAL:HG12	1.90	0.53
48:E5:32:ARG:O	48:E5:34:GLY:N	2.35	0.53
47:H8:113:ALA:N	47:H8:114:GLY:HA2	2.22	0.53
1:13:464:G:O6	1:13:466:C:H4'	2.08	0.53
26:14:2525:G:N2	26:14:2538:C:O2	2.35	0.53
26:14:2695:C:H2'	26:14:2696:U:C6	2.44	0.53
26:14:2788:C:O2'	26:14:2809:A:N3	2.40	0.53
1:1G:111:G:O5'	1:1G:111:G:H8	1.92	0.53
26:1H:1617:C:N4	61:1H:3611:HOH:O	2.37	0.53
26:1H:1889:A:H2'	26:1H:1890:A:C8	2.44	0.53
26:1H:588:U:H2'	26:1H:589:C:C6	2.44	0.53
26:1H:654(Q):C:O2'	26:1H:654(R):C:OP1	2.22	0.53
22:1K:34:U8U:S2	25:4K:21:A:H2	2.31	0.53
11:2A:22:HIS:HB3	11:2A:29:ILE:HG12	1.91	0.53
3:2E:24:ALA:HB1	3:2E:28:GLN:HB2	1.89	0.53
3:2E:73:PRO:O	3:2E:76:VAL:HG22	2.08	0.53
26:14:805:G:OP2	37:35:41:ARG:HG2	2.08	0.53
32:41:129:GLY:O	32:41:161:THR:OG1	2.26	0.53
41:75:23:ARG:HD2	41:75:94:ALA:HB2	1.90	0.53
49:F5:15:ALA:O	49:F5:40:ARG:HG3	2.09	0.53
1:13:136:C:H42	1:13:227:G:H1	1.56	0.53
26:14:1159:U:H2'	26:14:1160:G:C8	2.34	0.53
26:14:1264:G:OP1	53:J5:19:ARG:NH2	2.34	0.53
26:14:1812:A:H2'	26:14:1813:G:H8	1.73	0.53
26:14:2406:U:H2'	26:14:2406:U:OP2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:38:A:H2'	26:14:39:C:C6	2.44	0.53
26:14:649:G:H2'	26:14:650:C:C6	2.44	0.53
26:14:5:A:H2'	26:14:6:A:H5''	1.90	0.53
29:19:96:HIS:NE2	29:19:102:LYS:HE2	2.22	0.53
1:1G:32:A:H2'	1:1G:33:A:C8	2.44	0.53
26:1H:1332:G:N2	26:1H:1610:A:C8	2.76	0.53
26:1H:2615:U:OP1	61:1H:3614:HOH:O	2.18	0.53
26:1H:37:C:O2'	26:1H:38:A:H5'	2.09	0.53
30:21:53:PRO:HB2	30:21:72:VAL:HG12	1.90	0.53
3:22:61:ALA:C	3:22:63:ASN:H	2.12	0.53
26:14:1993:U:H4'	30:29:128:SER:HB3	1.91	0.53
31:39:34:TRP:HB2	37:35:6:LEU:HG	1.89	0.53
1:1G:521:G:O5'	12:3A:73:GLU:HG2	2.09	0.53
24:3K:3:G:N2	24:3K:70:C:H42	2.06	0.53
14:5I:27:CYS:SG	14:5I:29:ARG:HB3	2.49	0.53
7:62:126:ASP:O	7:62:130:GLY:N	2.40	0.53
41:75:108:ARG:O	41:75:111:ARG:HB2	2.09	0.53
8:7E:21:LYS:O	8:7E:65:TYR:OH	2.18	0.53
42:85:92:ARG:CZ	43:95:11:GLN:H	2.22	0.53
40:A8:26:LEU:HD23	40:A8:26:LEU:O	2.08	0.53
26:14:498:G:H21	46:C5:47:LYS:NZ	2.07	0.53
44:E8:26:GLY:N	44:E8:71:VAL:HG23	2.23	0.53
45:F8:35:THR:O	45:F8:39:ILE:HG12	2.09	0.53
45:F8:26:TYR:O	45:F8:81:VAL:HG12	2.09	0.53
52:M8:16:CYS:SG	52:M8:36:CYS:N	2.78	0.53
26:1H:1500:G:O2'	29:11:100:GLY:O	2.26	0.53
1:13:1289:A:P	21:1F:10:ARG:HH22	2.30	0.53
1:13:233:C:H2'	1:13:234:C:H6	1.73	0.53
1:13:269:C:H2'	1:13:270:A:H8	1.73	0.53
26:14:996:A:N6	26:14:1160:G:C6	2.77	0.53
26:14:1430:C:H2'	26:14:1431:U:C6	2.44	0.53
26:14:1945:G:H2'	26:14:1946:U:H6	1.72	0.53
26:14:588:U:H2'	26:14:589:C:C6	2.43	0.53
26:14:593:G:H1	26:14:664:C:H42	1.57	0.53
1:13:1270:C:OP2	21:1F:24:ARG:NH2	2.41	0.53
1:1G:627:G:H2'	1:1G:628:G:H8	1.74	0.53
26:1H:1637:A:H4'	26:1H:2711:A:O2'	2.09	0.53
26:1H:484:C:H2'	26:1H:485:C:C6	2.43	0.53
12:3I:7:ILE:O	12:3I:11:VAL:HG23	2.09	0.53
24:3K:6:G:N2	24:3K:67:C:N3	2.56	0.53
32:41:37:VAL:O	32:41:94:LEU:HD23	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:45:97:VAL:HG11	38:45:103:MET:HE2	1.91	0.53
5:4E:50:GLU:HB2	5:4E:53:LEU:HD13	1.90	0.53
7:62:62:PHE:HA	7:62:124:LEU:HD22	1.91	0.53
8:7E:87:SER:HB2	8:7E:93:VAL:N	2.24	0.53
9:82:24:GLY:HA2	9:82:59:PHE:C	2.29	0.53
40:A8:93:LYS:HG2	40:A8:95:HIS:HB2	1.91	0.53
49:F5:52:ARG:HH11	49:F5:57:GLU:HG3	1.74	0.53
49:F5:85:LEU:HD12	49:F5:85:LEU:H	1.73	0.53
52:M8:14:ILE:HG23	52:M8:21:VAL:HB	1.91	0.53
26:1H:2017:U:O2	53:N8:10:LYS:HB2	2.08	0.53
26:1H:1567:A:H5'	29:11:58:HIS:ND1	2.24	0.53
1:13:1313:U:H5	19:AI:4:SER:HB3	1.73	0.53
1:13:168:G:N2	1:13:169:C:H41	2.07	0.53
1:13:392:G:OP1	16:7I:13:HIS:N	2.39	0.53
1:13:501:C:H2'	1:13:502:G:C8	2.44	0.53
26:14:1999:C:H4'	26:14:2723:C:O2	2.08	0.53
26:14:2310:A:H5'	26:14:2311:A:OP2	2.08	0.53
26:14:2336:A:H61	48:E5:43:THR:HG21	1.74	0.53
26:14:691:C:C4'	29:19:43:ARG:NH2	2.72	0.53
2:1E:16:HIS:NE2	2:1E:210:SER:O	2.41	0.53
1:1G:1347:G:C8	9:82:107:ARG:HB3	2.44	0.53
1:1G:1372:U:H2'	1:1G:1373:G:O4'	2.08	0.53
26:1H:1346:G:C4	26:1H:1347:G:C8	2.97	0.53
26:1H:1386:C:H2'	26:1H:1387:C:C6	2.42	0.53
26:1H:1400:G:H2'	26:1H:1401:G:C8	2.44	0.53
26:1H:484:C:OP2	46:G8:50:ARG:NH1	2.42	0.53
26:1H:674:G:N3	31:31:74:ARG:NH2	2.56	0.53
4:3E:150:GLU:CG	4:3E:153:ARG:HH21	2.21	0.53
38:45:88:GLY:O	38:45:89:ASN:ND2	2.42	0.53
5:4E:51:VAL:O	5:4E:55:VAL:HG23	2.09	0.53
34:69:77:LEU:HD12	34:69:78:THR:H	1.74	0.53
9:82:34:ASN:O	9:82:38:GLN:N	2.42	0.53
39:98:34:ILE:HG22	39:98:114:VAL:HB	1.89	0.53
40:A8:5:THR:HG23	40:A8:8:GLU:OE2	2.09	0.53
50:G5:22:GLU:HG2	50:G5:64:LEU:HD11	1.90	0.53
46:G8:82:PRO:HB3	46:G8:99:CYS:HB2	1.90	0.53
47:H8:44:PHE:HE2	47:H8:86:VAL:HG11	1.74	0.53
50:K8:47:ASN:C	50:K8:49:LYS:H	2.13	0.53
1:13:292:G:N7	1:13:293:G:H1'	2.24	0.53
1:13:304:U:H2'	1:13:305:G:C8	2.44	0.53
1:13:738:C:H2'	1:13:739:C:H6	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1533:C:H3'	26:14:1534:G:C5'	2.38	0.53
26:14:2132:U:H1'	28:79:5:LYS:N	2.24	0.53
26:14:2320:A:H1'	26:14:2321:G:C6	2.44	0.53
26:14:2848:G:O2'	26:14:2867:G:N1	2.40	0.53
1:1G:983:A:N1	1:1G:1222:G:N2	2.57	0.53
1:1G:631:G:H2'	1:1G:631:G:OP2	2.09	0.53
1:1G:762:C:H2'	1:1G:763:G:C8	2.44	0.53
26:1H:2133:G:H2'	26:1H:2157:G:H21	1.73	0.53
26:1H:2776:A:H4'	26:1H:2777:G:H5''	1.91	0.53
26:1H:934:G:H2'	26:1H:935:C:H6	1.74	0.53
56:3L:40:C:H2'	56:3L:41:A:C8	2.43	0.53
33:51:152:ARG:HB3	33:51:162:ILE:HG13	1.91	0.53
26:14:1652:A:OP1	39:55:8:ARG:NH1	2.42	0.53
34:69:77:LEU:HD12	34:69:78:THR:N	2.24	0.53
1:13:1374:A:O2'	7:6E:28:ASN:HB3	2.10	0.53
8:72:44:PHE:HD2	8:72:80:ILE:HG13	1.74	0.53
37:78:113:LYS:HA	37:78:129:ALA:O	2.08	0.53
28:79:202:GLU:OE2	28:79:202:GLU:N	2.41	0.53
39:98:13:HIS:CE1	39:98:15:SER:HB3	2.44	0.53
44:A5:11:ARG:NH1	44:A5:98:LYS:HG2	2.24	0.53
40:A8:99:LYS:O	40:A8:103:GLU:HG2	2.08	0.53
41:B8:26:ASP:O	41:B8:49:VAL:HG12	2.09	0.53
46:G8:87:LYS:HD2	46:G8:89:PHE:HD2	1.74	0.53
27:16:76:G:H5''	47:H8:15:PRO:HG3	1.89	0.53
2:12:219:VAL:HG11	2:12:222:ILE:HD11	1.90	0.52
1:13:963:G:H5'	61:13:1971:HOH:O	2.09	0.52
26:14:2542:A:C8	26:14:2544:G:O6	2.62	0.52
26:14:2645:G:H3'	26:14:2646:C:H5'	1.89	0.52
26:14:443:A:H1'	26:14:1201:C:O4'	2.08	0.52
1:1G:1326:C:H2'	1:1G:1327:C:H6	1.74	0.52
26:1H:1124:C:H2'	26:1H:1125:G:O4'	2.09	0.52
26:1H:389:G:H1	37:78:71:VAL:HG12	1.74	0.52
1:13:1124:G:C5'	10:1I:35:SER:HB2	2.38	0.52
30:29:54:GLN:N	30:29:74:PRO:HA	2.23	0.52
11:2A:19:ALA:HB3	11:2A:82:VAL:HG22	1.91	0.52
31:39:89:VAL:HG12	31:39:90:PHE:H	1.75	0.52
12:3A:100:ILE:HG22	12:3A:101:VAL:H	1.73	0.52
12:3A:24:VAL:O	12:3A:26:ALA:N	2.42	0.52
12:3I:110:VAL:CG2	12:3I:120:TYR:HB3	2.39	0.52
32:41:51:ARG:HH21	32:41:52:ILE:CD1	2.21	0.52
39:55:81:ASP:O	39:55:82:GLU:HB3	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:58:58:ASP:HB3	35:58:95:PRO:HB2	1.91	0.52
7:6E:111:ARG:HE	7:6E:123:GLU:HB2	1.73	0.52
1:1G:247:G:OP2	17:8A:100:LYS:HG2	2.09	0.52
1:13:1128:C:H5'	9:8E:16:ARG:NH2	2.24	0.52
40:A8:11:LYS:HD3	40:A8:91:PRO:HD3	1.90	0.52
19:AI:18:LYS:NZ	19:AI:22:LEU:HD13	2.25	0.52
20:BI:30:LYS:HA	20:BI:33:ILE:HD12	1.91	0.52
26:14:94:G:OP2	46:C5:54:LYS:NZ	2.42	0.52
1:13:244:U:H4'	1:13:245:C:O5'	2.08	0.52
26:14:1680:U:N3	26:14:1764:G:OP2	2.37	0.52
26:14:1856:G:N2	26:14:1886:C:O2	2.42	0.52
26:14:2135:A:H5''	26:14:2136:C:H5	1.73	0.52
26:14:2738:A:H2	26:14:2766:G:H22	1.56	0.52
26:14:463:G:H5''	26:14:464:U:OP2	2.08	0.52
1:1G:1360:A:H2'	1:1G:1361:G:O4'	2.09	0.52
1:1G:222:U:C2	1:1G:223:U:C5	2.97	0.52
26:1H:1164:G:H2'	26:1H:1165:U:C6	2.45	0.52
26:1H:1683:C:N4	26:1H:1705:G:H1	2.07	0.52
26:1H:573:G:O2'	26:1H:574:C:H3'	2.10	0.52
3:22:7:PRO:O	3:22:11:ARG:NH1	2.41	0.52
36:25:98:VAL:HB	36:25:118:ALA:H	1.75	0.52
37:35:14:LYS:O	37:35:16:ARG:N	2.42	0.52
12:3A:47:LYS:HG3	12:3A:48:PRO:CD	2.35	0.52
32:41:112:PRO:HB3	52:M8:37:SER:N	2.21	0.52
13:4A:13:LYS:HD3	13:4A:14:ARG:N	2.21	0.52
6:52:36:ARG:NH2	6:52:38:GLU:OE1	2.42	0.52
28:71:7:TYR:HA	28:71:10:LEU:HD22	1.92	0.52
26:1H:389:G:N1	37:78:71:VAL:HG12	2.24	0.52
8:7E:8:ASP:OD1	8:7E:12:ARG:NH1	2.43	0.52
26:1H:2710:C:OP1	39:98:15:SER:OG	2.27	0.52
19:AI:8:GLY:HA2	19:AI:10:PHE:HE1	1.72	0.52
44:E8:82:LEU:HD12	44:E8:84:ARG:HH12	1.73	0.52
52:M8:40:HIS:CE1	52:M8:43:TYR:O	2.62	0.52
29:11:223:GLY:HA3	29:11:231:HIS:CE1	2.44	0.52
2:12:215:LEU:O	2:12:218:ALA:HB2	2.10	0.52
26:14:1069:A:H5''	26:14:1070:A:OP1	2.09	0.52
26:14:21:A:H61	26:14:519:U:H3	1.57	0.52
26:14:605:C:O2	26:14:657:U:O2'	2.24	0.52
26:14:1012:U:O4	35:15:28:THR:HG21	2.09	0.52
1:1G:436:C:H2'	1:1G:437:U:H6	1.74	0.52
26:1H:863:A:H2'	26:1H:864:G:H8	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:121:VAL:HG22	4:32:126:ILE:HD12	1.90	0.52
22:1L:37:T6A:HN1	25:4L:19:A:N6	2.08	0.52
26:14:2818:G:OP2	39:55:42:LYS:NZ	2.42	0.52
1:1G:1291:G:O3'	9:82:39:GLY:HA3	2.09	0.52
38:88:106:VAL:HG21	38:88:114:ALA:HB1	1.91	0.52
18:9A:37:VAL:HG11	18:9A:78:LEU:HB3	1.91	0.52
45:B5:46:ALA:O	50:G5:30:ARG:NH1	2.40	0.52
26:1H:2355:C:H1'	48:I8:39:ARG:HH21	1.74	0.52
51:L8:6:VAL:HG12	51:L8:56:VAL:HG22	1.91	0.52
1:13:1164:G:N2	1:13:1172:C:N3	2.57	0.52
1:13:1473:A:H2'	1:13:1474:G:C8	2.45	0.52
1:13:686:U:O4	1:13:703:G:H1'	2.08	0.52
26:14:1914:C:H2'	26:14:1915:U:O4'	2.09	0.52
26:14:2184:G:H2'	26:14:2185:C:C6	2.45	0.52
26:14:273(C):C:N3	26:14:363(C):G:N2	2.53	0.52
26:1H:1438:U:H2'	26:1H:1439:A:C8	2.44	0.52
26:1H:1535:U:OP2	26:1H:1538:G:N2	2.43	0.52
26:1H:2165:G:O2'	26:1H:2166:G:H5'	2.09	0.52
26:1H:249:C:O2'	37:78:64:LYS:NZ	2.19	0.52
26:1H:2837:G:O6	61:1H:3696:HOH:O	2.19	0.52
26:1H:699:A:H2'	26:1H:700:G:O4'	2.09	0.52
30:29:56:PRO:HD2	30:29:58:ARG:CZ	2.40	0.52
31:39:155:LEU:HB2	31:39:189:THR:HG21	1.91	0.52
24:3K:59:A:H5'	24:3K:60:U:H5	1.74	0.52
56:3L:36:U:H3'	56:3L:37:T6A:H5''	1.90	0.52
5:42:118:ILE:HG12	5:42:119:LEU:N	2.24	0.52
33:51:4:ILE:CG2	33:51:6:ARG:HG3	2.39	0.52
42:85:100:VAL:O	42:85:101:ARG:HG2	2.10	0.52
42:85:79:PHE:CE1	42:85:83:LEU:HD11	2.44	0.52
18:9A:22:VAL:C	18:9A:24:ALA:H	2.13	0.52
20:BI:26:ASN:HB2	20:BI:71:THR:CG2	2.38	0.52
52:M8:40:HIS:NE2	52:M8:47:GLN:OE1	2.43	0.52
1:13:1316:G:H22	1:13:1319:A:C5'	2.23	0.52
1:13:1434:A:H2'	1:13:1435:G:O4'	2.09	0.52
1:13:1435:G:H2'	1:13:1436:U:C6	2.45	0.52
1:13:1455:G:H5''	20:BI:31:SER:HB2	1.92	0.52
26:14:1754:C:H2'	26:14:1755:A:C8	2.45	0.52
26:14:195:A:H4'	26:14:251:A:O2'	2.10	0.52
26:14:2837:G:N7	61:14:3678:HOH:O	2.34	0.52
26:14:481:G:OP2	46:C5:47:LYS:HB2	2.10	0.52
26:14:535:C:O2'	26:14:536:A:H5'	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:200:ASP:OD1	29:19:203:ASN:ND2	2.41	0.52
10:1A:49:VAL:O	10:1A:60:ARG:HB2	2.10	0.52
1:1G:1028(B):C:H42	1:1G:1032(A):G:H22	1.58	0.52
1:1G:977:A:HO2'	1:1G:981:U:H3	1.57	0.52
26:1H:1446:C:H2'	26:1H:1447:G:H8	1.74	0.52
26:1H:2022:U:O2'	26:1H:2617:C:H5'	2.10	0.52
26:1H:528:A:O2'	26:1H:529:A:H5''	2.09	0.52
26:14:389:G:H22	37:35:72:PRO:HD3	1.75	0.52
12:3I:60:LEU:HB3	12:3I:62:SER:H	1.74	0.52
56:3L:8:U:O4	56:3L:13:C:H2'	2.10	0.52
1:1G:1202:G:C6	14:5A:42:ILE:HG21	2.43	0.52
41:75:23:ARG:HG2	41:75:120:ARG:NH1	2.25	0.52
36:25:119:PRO:HB2	41:75:68:TYR:CE2	2.45	0.52
16:7A:67:THR:H	16:7A:70:ALA:HB3	1.74	0.52
42:85:98:LEU:HA	42:85:100:VAL:O	2.10	0.52
44:E8:82:LEU:HB3	44:E8:84:ARG:HH11	1.74	0.52
47:H8:60:GLU:O	47:H8:61:LEU:HB2	2.10	0.52
50:K8:15:LYS:HA	50:K8:67:LYS:HZ1	1.75	0.52
1:13:147:G:H1	1:13:175:C:H42	1.58	0.52
1:13:1504:G:OP1	1:13:1507:A:H4'	2.10	0.52
1:13:222:U:H2'	1:13:223:U:H6	1.75	0.52
1:13:224:C:H2'	1:13:225:C:H6	1.74	0.52
1:13:328:C:H4'	1:13:329:A:H5'	1.91	0.52
1:13:452:A:H2'	1:13:453:A:C8	2.45	0.52
1:13:501:C:OP1	12:3I:117:ARG:NH2	2.42	0.52
26:14:1027:A:H2	26:14:2487:G:HO2'	1.57	0.52
26:14:1266:G:O6	44:A5:13:SER:OG	2.14	0.52
26:14:1779:U:H5''	26:14:1780:A:C5'	2.40	0.52
26:14:833:U:O4'	37:35:52:GLU:HA	2.09	0.52
26:14:867:C:N4	26:14:868:U:O4	2.42	0.52
35:15:38:HIS:HD1	35:15:39:ARG:N	2.08	0.52
29:19:30:GLU:HG3	29:19:63:ARG:CZ	2.40	0.52
1:1G:201:C:N4	1:1G:216:G:H1	2.07	0.52
1:1G:554:C:H2'	1:1G:555:C:H6	1.75	0.52
26:1H:1045:A:OP1	26:1H:1045:A:H4'	2.10	0.52
26:1H:1231:G:H2'	26:1H:1232:G:C8	2.45	0.52
26:1H:1292:U:H2'	26:1H:1293:C:C6	2.44	0.52
26:1H:2695:C:H2'	26:1H:2696:U:C6	2.45	0.52
31:39:18:ARG:HG2	31:39:19:GLU:H	1.75	0.52
56:3L:9:A:H8	56:3L:11:C:N4	2.07	0.52
5:42:60:TYR:HB3	5:42:64:ARG:NH2	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:102:ARG:O	7:62:106:GLN:HG2	2.09	0.52
41:75:24:PRO:HA	41:75:49:VAL:HG23	1.91	0.52
19:AI:22:LEU:HG	19:AI:28:LYS:HA	1.91	0.52
45:B5:36:LYS:HG2	45:B5:54:VAL:HB	1.92	0.52
41:B8:97:ALA:HB1	41:B8:98:LYS:HE2	1.90	0.52
44:E8:57:ASN:O	44:E8:61:ASN:HB2	2.10	0.52
26:14:1072:C:C4	26:14:1092:C:H5	2.28	0.52
26:14:1055:G:H22	26:14:1086:A:H5''	1.74	0.52
26:14:1653:G:C6	39:55:9:LYS:HB3	2.45	0.52
26:14:2137:C:H2'	26:14:2138:C:H6	1.74	0.52
26:14:2607:G:H2'	26:14:2608:G:O4'	2.09	0.52
26:14:590:A:H2'	26:14:591:C:C6	2.44	0.52
1:1G:1109:C:H2'	1:1G:1110:A:O4'	2.09	0.52
1:1G:616:G:H2'	1:1G:617:G:H8	1.74	0.52
26:1H:1550:C:H2'	26:1H:1551:C:H6	1.73	0.52
26:1H:1593:G:H2'	26:1H:1594:G:C8	2.45	0.52
26:1H:2294:C:H5''	40:A8:13:ARG:HH12	1.74	0.52
26:1H:2470:G:H8	26:1H:2470:G:O5'	1.93	0.52
30:21:65:GLY:HA2	30:21:70:ALA:HB3	1.91	0.52
31:31:155:LEU:HD13	31:31:174:VAL:HG23	1.92	0.52
24:3K:66:A:H5'	24:3K:67:C:OP2	2.10	0.52
32:41:7:LEU:HD23	32:41:100:TRP:HE3	1.75	0.52
33:51:10:PRO:HD2	33:51:50:VAL:O	2.10	0.52
39:55:29:LEU:HB3	39:55:75:LEU:HD21	1.91	0.52
33:59:4:ILE:HG23	33:59:7:LEU:HB2	1.90	0.52
40:65:95:HIS:N	40:65:99:LYS:HB2	2.25	0.52
26:1H:2483:C:O2	38:88:124:LYS:HE3	2.10	0.52
41:B8:18:ASP:OD1	41:B8:18:ASP:N	2.39	0.52
1:13:346:G:H8	41:B8:41:ARG:HD2	1.75	0.52
51:H5:43:ILE:O	51:H5:47:VAL:HG23	2.09	0.52
1:13:1127:G:H2'	1:13:1128:C:C2	2.44	0.52
1:13:1133:G:H2'	1:13:1134:G:C8	2.45	0.52
26:14:1210:A:H5'	26:14:1212:G:C5'	2.40	0.52
26:14:1291:C:H2'	26:14:1292:U:C6	2.45	0.52
26:14:2062:A:H2'	26:14:2063:C:H5'	1.92	0.52
26:14:2172:U:P	26:14:2173:A:H62	2.33	0.52
26:14:2849:U:H4'	26:14:2868:A:C2	2.45	0.52
26:14:528:A:C2	26:14:2043:C:H4'	2.45	0.52
26:14:714:U:N3	26:14:717:G:OP2	2.27	0.52
2:1E:28:PHE:CE1	2:1E:31:TYR:HD2	2.27	0.52
1:1G:992:U:H2'	1:1G:1043:C:H41	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:17:U:H2'	1:1G:18:C:C6	2.44	0.52
26:1H:1405:U:H2'	26:1H:1406:U:H6	1.75	0.52
26:1H:2721:A:H2'	26:1H:2722:G:O4'	2.10	0.52
26:1H:686:G:H4'	26:1H:687:C:OP2	2.08	0.52
36:25:17:ARG:HB2	36:25:45:GLU:HG2	1.92	0.52
11:2A:27:ASN:OD1	11:2A:28:THR:N	2.43	0.52
1:1G:673:G:H5''	6:52:87:ARG:NH1	2.24	0.52
1:1G:1049:U:OP1	14:5A:3:ARG:HG3	2.09	0.52
40:65:27:SER:HA	40:65:88:ASP:HB2	1.92	0.52
28:71:27:HIS:HB3	28:71:182:PRO:HG3	1.91	0.52
1:1G:1342:C:H4'	9:82:125:TYR:HB3	1.92	0.52
40:A8:21:THR:HG23	40:A8:23:ARG:H	1.74	0.52
20:BA:26:ASN:O	20:BA:30:LYS:HB2	2.09	0.52
20:BA:72:LEU:O	20:BA:73:HIS:HB2	2.10	0.52
46:C5:93:GLY:O	46:C5:94:LYS:HD2	2.10	0.52
42:C8:90:VAL:HG22	43:D8:39:LEU:HB3	1.90	0.52
29:11:69:ARG:NH2	29:11:128:GLY:O	2.22	0.52
2:12:158:LEU:HD21	2:12:182:ILE:HD11	1.90	0.52
2:12:71:VAL:HG11	2:12:164:VAL:HG13	1.92	0.52
35:15:132:ALA:HB1	35:15:133:GLN:HG2	1.92	0.52
10:1A:28:ARG:NH2	10:1A:34:VAL:O	2.42	0.52
1:1G:1252:A:H61	1:1G:1285:A:H61	1.58	0.52
26:1H:1479:G:N7	26:1H:1510:A:N6	2.57	0.52
26:1H:249:C:O2	55:Q8:12:LYS:HE3	2.10	0.52
56:3L:33:U:H1'	56:3L:34:U:H5''	1.92	0.52
32:41:56:ALA:HA	32:41:153:ARG:HH21	1.75	0.52
38:45:19:GLY:O	38:45:99:PRO:HD2	2.10	0.52
7:62:141:VAL:HA	7:62:142:GLU:HB2	1.91	0.52
1:1G:750:G:H1'	15:6A:22:THR:OG1	2.10	0.52
7:6E:70:LYS:HB3	7:6E:96:GLN:HG2	1.92	0.52
42:85:92:ARG:HG3	42:85:94:ASN:HB3	1.92	0.52
38:88:66:ILE:CD1	38:88:67:ARG:H	2.21	0.52
1:13:277:C:OP1	17:8I:41:LYS:HE2	2.10	0.52
45:B5:40:LYS:HA	45:B5:51:VAL:HG11	1.91	0.52
46:C5:3:VAL:CG1	46:C5:32:PRO:HB2	2.40	0.52
48:I8:41:ARG:NE	48:I8:41:ARG:HA	2.23	0.52
1:13:129(A):G:N2	1:13:188:U:HO2'	2.07	0.52
1:13:272:C:H2'	1:13:273:A:C8	2.45	0.52
1:13:32:A:C2	1:13:33:A:C4	2.98	0.52
1:13:649:G:H2'	1:13:650:G:H8	1.74	0.52
26:14:1:G:H5''	26:14:2:G:C8	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:330:A:H2	26:14:1210:A:HO2'	1.57	0.52
26:14:572:A:H2'	26:14:573:G:O4'	2.10	0.52
26:14:729:G:O5'	29:19:208:LYS:NZ	2.38	0.52
27:16:15:A:H1'	27:16:109:G:C4	2.45	0.52
29:19:38:LYS:H	29:19:38:LYS:HD3	1.75	0.52
1:1G:963:G:HO2'	10:1A:54:PHE:HZ	1.56	0.52
2:1E:6:THR:OG1	2:1E:7:VAL:N	2.43	0.52
1:1G:264:U:H4'	17:8A:63:ARG:HD3	1.92	0.52
26:1H:2469:A:H61	26:1H:2481:G:H1'	1.75	0.52
26:1H:805:G:OP2	37:78:41:ARG:HG2	2.10	0.52
3:2E:134:ILE:O	3:2E:138:VAL:HG12	2.10	0.52
31:31:167:ALA:HB1	31:31:173:VAL:HG11	1.92	0.52
4:3E:15:GLU:OE1	4:3E:59:ARG:NH2	2.43	0.52
38:45:19:GLY:O	38:45:98:LYS:HB3	2.10	0.52
13:4A:37:THR:HG22	13:4A:55:ARG:HE	1.74	0.52
34:61:110:ASP:HB2	34:61:112:LYS:HG2	1.91	0.52
7:62:13:GLN:HG2	7:62:14:PRO:HD2	1.92	0.52
15:6A:36:ILE:O	15:6A:40:SER:N	2.42	0.52
28:71:7:TYR:CE1	28:71:220:PRO:HG3	2.45	0.52
7:62:16:LEU:HD11	9:82:45:ALA:HB2	1.91	0.52
43:95:38:LEU:HD13	43:95:56:SER:N	2.25	0.52
44:A5:65:LEU:HD13	44:A5:68:ARG:HD2	1.92	0.52
41:B8:50:ILE:CD1	41:B8:64:ARG:HB3	2.40	0.52
46:G8:55:TYR:HB3	46:G8:58:GLY:HA3	1.92	0.52
47:H8:125:LEU:HG	47:H8:164:ALA:CB	2.39	0.52
2:12:103:THR:HG23	2:12:176:GLU:HB3	1.92	0.51
1:13:452:A:H62	1:13:480:U:H3	1.59	0.51
1:13:947:G:H2'	1:13:948:C:C6	2.45	0.51
26:14:1796:U:H2'	26:14:1797:C:C6	2.46	0.51
26:14:1889:A:O2'	26:14:2087:G:H5'	2.10	0.51
26:14:2230:G:H1'	49:F5:45:ASN:OD1	2.10	0.51
26:14:241:A:H5'	26:14:243:U:O4'	2.10	0.51
26:14:67:U:H2'	26:14:68:G:C8	2.45	0.51
27:16:45:A:H3'	27:16:46:A:H8	1.75	0.51
2:1E:84:GLU:HB3	2:1E:219:VAL:HG21	1.90	0.51
2:1E:69:LEU:HD11	2:1E:93:VAL:HG23	1.92	0.51
26:1H:1534:G:N1	26:1H:1539:G:N3	2.55	0.51
26:1H:1535:U:H5''	26:1H:1537:C:N4	2.24	0.51
26:1H:1956:U:H1'	26:1H:2552:U:OP1	2.11	0.51
26:1H:2443:C:O2'	26:1H:2444:G:H5'	2.10	0.51
26:1H:2590:A:OP2	29:11:237:GLU:HB3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:280:C:N3	26:1H:361:G:C2	2.78	0.51
24:3K:22:G:H8	24:3K:22:G:OP2	1.93	0.51
56:3L:40:C:H2'	56:3L:41:A:H8	1.76	0.51
35:58:12:ARG:HD2	35:58:50:ASP:CG	2.30	0.51
6:5E:81:ILE:CD1	29:11:137:PRO:HG3	2.40	0.51
40:65:64:GLU:O	40:65:68:GLN:HG3	2.09	0.51
7:6E:133:GLY:HA2	7:6E:136:LYS:HG3	1.92	0.51
1:13:376:G:OP2	16:7I:67:THR:HG21	2.11	0.51
38:88:141:GLN:O	38:88:141:GLN:HG3	2.09	0.51
38:88:78:PRO:O	38:88:79:LEU:HB3	2.10	0.51
42:85:92:ARG:HH22	43:95:10:LYS:HG2	1.75	0.51
41:B8:5:ALA:HA	41:B8:8:LYS:HD3	1.92	0.51
1:1G:260:G:P	20:BA:83:ARG:HH12	2.32	0.51
26:14:2354:G:O2'	48:E5:36:ILE:HG13	2.09	0.51
46:G8:76:CYS:HB2	46:G8:82:PRO:HD3	1.91	0.51
29:11:84:TYR:HE1	29:11:86:PRO:HB3	1.75	0.51
1:13:1276:G:H2'	1:13:1277:C:O4'	2.11	0.51
1:13:193:C:H2'	1:13:194:C:C6	2.46	0.51
1:13:972:C:OP2	10:1I:57:LYS:NZ	2.39	0.51
26:14:108:U:H2'	26:14:109:G:C8	2.45	0.51
26:14:2299:G:C2	26:14:2318:G:C8	2.98	0.51
26:14:90:U:O2'	26:14:91:A:H8	1.93	0.51
1:1G:1206:G:C6	1:1G:1207:G:C6	2.98	0.51
1:1G:269:C:H2'	1:1G:270:A:C8	2.44	0.51
1:1G:452:A:O2'	1:1G:453:A:O5'	2.28	0.51
1:1G:688:G:H2'	1:1G:689:C:H6	1.74	0.51
1:1G:992:U:H5''	1:1G:992:U:H6	1.75	0.51
26:1H:1727:U:H2'	26:1H:1728:G:O4'	2.10	0.51
26:1H:2516:G:C6	26:1H:2517:C:N4	2.79	0.51
26:1H:67:U:N3	26:1H:74:A:H2	2.07	0.51
26:1H:754:C:H2'	26:1H:755:C:H6	1.76	0.51
27:1J:42:C:N3	32:49:91:ARG:NH1	2.57	0.51
27:1J:38:C:H42	27:1J:44:G:H1	1.57	0.51
22:1K:29:U:H2'	22:1K:30:G:C8	2.45	0.51
7:6E:150:ALA:HB2	11:2I:50:TYR:OH	2.11	0.51
9:8E:128:ARG:NH1	23:2K:34:U:OP2	2.40	0.51
31:31:7:TYR:HD1	31:31:21:ALA:HB1	1.75	0.51
4:32:150:GLU:C	4:32:152:SER:H	2.12	0.51
39:55:33:ARG:HH11	39:55:113:LEU:HD21	1.71	0.51
34:69:54:GLN:HA	34:69:57:ARG:HB3	1.91	0.51
19:AI:40:ILE:HG22	19:AI:69:HIS:O	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:K8:15:LYS:HZ2	50:K8:15:LYS:N	2.09	0.51
1:13:271:C:H2'	1:13:272:C:H6	1.75	0.51
1:13:442:C:H2'	1:13:443:C:C6	2.46	0.51
1:13:96:G:H8	1:13:96:G:O5'	1.92	0.51
26:14:1435:G:H1	26:14:1557:C:H42	1.56	0.51
26:14:1973:G:H2'	26:14:1974:C:H6	1.74	0.51
26:14:2643:G:O6	61:14:3575:HOH:O	2.18	0.51
26:14:2699:C:H2'	26:14:2700:C:O4'	2.10	0.51
26:14:830:G:H4'	26:14:831:G:OP2	2.10	0.51
29:19:146:GLU:HB2	29:19:189:CYS:HB3	1.91	0.51
29:19:38:LYS:HZ1	29:19:60:ARG:HB2	1.74	0.51
1:1G:1315:U:H2'	1:1G:1316:G:O4'	2.10	0.51
26:1H:106:C:H2'	26:1H:107:C:H6	1.75	0.51
26:1H:2507:C:H5'	26:1H:2573:C:N4	2.25	0.51
26:1H:2663:G:H3'	26:1H:2664:G:H8	1.76	0.51
26:1H:7:G:N2	26:1H:2896:C:N3	2.47	0.51
26:1H:784:A:H5'	26:1H:785:G:OP1	2.10	0.51
26:1H:911:A:H2'	38:88:9:TYR:OH	2.09	0.51
22:1L:3:G:H22	22:1L:70:C:H42	1.56	0.51
3:22:199:LYS:HB3	3:22:201:TYR:CE1	2.39	0.51
30:29:68:ALA:C	30:29:70:ALA:H	2.14	0.51
11:2A:24:SER:OG	11:2A:25:TYR:N	2.44	0.51
31:31:12:LEU:O	31:31:127:GLU:N	2.43	0.51
1:13:403:C:O3'	4:3E:122:ARG:HD2	2.10	0.51
4:3E:19:LEU:HB3	4:3E:21:LEU:HD21	1.92	0.51
5:4E:11:ILE:CD1	5:4E:31:LEU:HD22	2.35	0.51
6:5E:19:LEU:O	6:5E:23:LYS:HB2	2.10	0.51
15:6A:39:LEU:CD1	15:6A:56:LEU:HB2	2.40	0.51
17:8I:52:LYS:HG2	17:8I:55:ASP:OD1	2.10	0.51
39:98:41:ALA:O	39:98:44:LEU:N	2.31	0.51
1:13:581:G:N2	1:13:760:G:N7	2.59	0.51
1:13:785:G:N7	61:13:1841:HOH:O	2.35	0.51
26:14:1654:A:H1'	26:14:2823:A:H5'	1.93	0.51
26:14:2127:G:H1	26:14:2161:C:N4	2.06	0.51
26:14:90:U:O2'	26:14:91:A:O5'	2.29	0.51
2:1E:27:LYS:HB3	2:1E:194:PRO:HD2	1.91	0.51
1:1G:339:C:H2'	1:1G:340:U:C6	2.45	0.51
1:1G:757:U:H2'	1:1G:758:G:O4'	2.10	0.51
26:1H:1742:C:H2'	26:1H:1743:G:O4'	2.09	0.51
26:1H:185:U:H4'	26:1H:218:A:H4'	1.92	0.51
26:1H:1972:A:H2'	26:1H:1973:G:C8	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1972:A:H2'	26:1H:1973:G:H8	1.75	0.51
26:1H:2564:A:OP1	26:1H:2648:C:H4'	2.11	0.51
23:2L:54:G:C5	23:2L:55:5MU:H72	2.46	0.51
4:32:4:TYR:CE2	4:32:11:LEU:HD11	2.45	0.51
37:35:81:GLN:HE22	37:35:106:LEU:HA	1.40	0.51
31:39:4:VAL:HG12	31:39:17:ARG:HG3	1.92	0.51
12:3A:84:LEU:HG	12:3A:105:TYR:CE2	2.46	0.51
13:4I:3:ARG:HH12	32:41:139:LEU:HD13	1.75	0.51
38:45:126:PRO:O	38:45:127:ILE:HG23	2.10	0.51
13:4I:22:ILE:HB	13:4I:25:ILE:HD12	1.91	0.51
35:58:128:HIS:HB2	35:58:129:PRO:HD2	1.93	0.51
34:69:76:THR:HG23	34:69:77:LEU:H	1.75	0.51
37:78:100:LEU:HD12	37:78:105:LEU:CD1	2.41	0.51
20:BA:49:ALA:HA	20:BA:52:ALA:HB3	1.91	0.51
2:12:224:GLN:HG3	2:12:225:ALA:H	1.74	0.51
1:13:1406:U:H2'	1:13:1407:C:H5'	1.93	0.51
1:13:258:G:H2'	1:13:259:G:H8	1.76	0.51
1:13:652:U:C4	1:13:752:G:N3	2.79	0.51
26:14:1542:G:O5'	26:14:1543:A:H5''	2.11	0.51
26:14:2306:C:H3'	26:14:2307:G:H5''	1.90	0.51
1:1G:366:C:O2'	1:1G:394:G:N2	2.43	0.51
1:1G:807:A:H2'	1:1G:808:C:C6	2.45	0.51
26:1H:1401:G:H2'	26:1H:1402:C:C6	2.45	0.51
26:1H:1442:G:C2	26:1H:1550:C:O2	2.63	0.51
1:1G:676:A:H1'	11:2A:115:PRO:HB3	1.93	0.51
3:2E:172:ARG:HH21	3:2E:174:PRO:HG3	1.75	0.51
4:32:102:ASP:OD1	4:32:102:ASP:N	2.44	0.51
4:32:4:TYR:HE2	4:32:11:LEU:HD21	1.76	0.51
56:3L:72:C:H3'	56:3L:73:A:H5''	1.92	0.51
32:41:9:ARG:O	32:41:12:TYR:N	2.43	0.51
5:42:92:LYS:HB3	5:42:119:LEU:HB2	1.91	0.51
32:49:16:ARG:O	32:49:20:ILE:HG13	2.11	0.51
13:4I:3:ARG:HH21	13:4I:9:ILE:HD11	1.75	0.51
17:8A:68:ARG:H	17:8A:70:ARG:NH1	2.07	0.51
26:1H:2818:G:OP2	39:98:42:LYS:NZ	2.43	0.51
45:B5:63:LYS:HA	45:B5:72:LYS:HA	1.92	0.51
26:14:483:A:C5'	46:C5:49:VAL:HB	2.37	0.51
47:D5:157:LEU:HD21	47:D5:163:LEU:HD22	1.92	0.51
47:H8:8:TYR:HB2	47:H8:38:TYR:CE2	2.46	0.51
49:J8:78:LYS:HD3	49:J8:78:LYS:N	2.25	0.51
55:M5:36:LYS:HB3	55:M5:41:ILE:HD11	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:63:PRO:HB3	55:Q8:30:ARG:HH21	1.75	0.51
29:11:70:TRP:CD1	29:11:70:TRP:C	2.83	0.51
1:13:955:U:H1'	1:13:1227:A:H61	1.76	0.51
1:13:119:A:N6	1:13:288:A:H1'	2.25	0.51
26:14:1436:G:O2'	26:14:1477:A:H4'	2.10	0.51
26:14:2349:G:OP2	55:M5:42:ARG:NE	2.39	0.51
26:14:2417:C:H2'	26:14:2418:A:H8	1.75	0.51
26:14:2720:U:H3	26:14:2873:A:H2	1.57	0.51
26:14:639:U:H2'	26:14:640:C:C6	2.46	0.51
29:19:267:SER:C	29:19:269:PHE:H	2.14	0.51
10:1A:36:GLY:O	10:1A:38:ILE:HG13	2.10	0.51
1:1G:1255:G:O2'	1:1G:1258:G:O2'	2.24	0.51
1:1G:103:C:O2'	1:1G:172:A:N1	2.32	0.51
1:1G:963:G:H21	10:1A:55:LYS:HE2	1.75	0.51
26:1H:1372:U:O5'	26:1H:1372:U:H6	1.94	0.51
26:1H:1559:G:O2'	26:1H:1560:G:H5'	2.11	0.51
26:1H:1418:G:OP1	26:1H:1588:C:O2'	2.26	0.51
26:1H:15:G:C2	26:1H:16:G:C8	2.98	0.51
26:1H:274:G:H2'	26:1H:275:G:H1'	1.92	0.51
26:1H:74:A:H8	26:1H:74:A:H5''	1.76	0.51
10:1I:61:GLU:OE1	14:5I:58:LYS:NZ	2.41	0.51
27:1J:63:G:C2	27:1J:64:C:C2	2.98	0.51
23:2K:24:C:H2'	23:2K:25:U:H6	1.76	0.51
26:1H:2313:C:H4'	32:4I:91:ARG:HG3	1.92	0.51
5:42:143:ARG:HG3	5:42:147:ASP:HB3	1.92	0.51
32:49:64:THR:HG22	32:49:94:LEU:HD11	1.92	0.51
6:5E:41:GLU:HB2	6:5E:62:TRP:CE3	2.46	0.51
40:65:95:HIS:HA	40:65:99:LYS:HD2	1.93	0.51
7:6E:22:LEU:HD22	7:6E:62:PHE:HE2	1.76	0.51
26:1H:587:C:P	37:78:21:ARG:HH22	2.34	0.51
1:1G:128:G:H4'	17:8A:3:LYS:HG2	1.93	0.51
17:8I:45:HIS:CE1	17:8I:47:PRO:HG3	2.46	0.51
40:A8:106:ARG:HH11	40:A8:106:ARG:C	2.11	0.51
45:B5:84:ALA:O	45:B5:87:GLN:HG3	2.11	0.51
20:BA:25:ARG:O	20:BA:29:LYS:HG2	2.11	0.51
47:D5:25:PRO:O	47:D5:85:HIS:HA	2.11	0.51
47:D5:39:VAL:HG21	47:D5:44:PHE:HD2	1.76	0.51
49:F5:73:LEU:HB3	49:F5:90:ILE:HG12	1.92	0.51
47:H8:28:MET:HB3	47:H8:35:ARG:HB3	1.93	0.51
1:13:1077:G:N2	1:13:1080:A:OP2	2.43	0.51
1:13:1347:G:N2	1:13:1373:G:H2'	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1399:C:C2	1:13:1502:A:N6	2.79	0.51
1:13:342:C:N3	1:13:348:G:C2	2.79	0.51
1:13:665:A:N3	1:13:732:C:H2'	2.26	0.51
26:14:1021:A:H8	26:14:1021:A:H3'	1.76	0.51
26:14:1495:A:OP2	61:14:3581:HOH:O	2.19	0.51
27:16:99:A:O5'	61:16:304:HOH:O	2.19	0.51
1:1G:1158:C:O2'	2:12:133:LYS:NZ	2.27	0.51
1:1G:446:G:H2'	1:1G:447:G:O4'	2.11	0.51
1:1G:868:C:H2'	1:1G:869:G:O4'	2.11	0.51
26:1H:1466:G:N2	26:1H:1547:C:N3	2.59	0.51
26:1H:2164:C:H3'	26:1H:2165:G:C5'	2.31	0.51
26:1H:311:A:H2	26:1H:331:A:H5''	1.75	0.51
11:2A:32:ILE:HD13	11:2A:72:ALA:HB2	1.92	0.51
4:32:108:LEU:HB3	4:32:110:PHE:CE1	2.44	0.51
37:35:107:LYS:O	37:35:109:GLY:N	2.37	0.51
5:42:41:VAL:O	5:42:67:VAL:HG12	2.10	0.51
38:45:34:LEU:HD13	38:45:131:ILE:HG12	1.91	0.51
13:4A:56:LEU:HB2	13:4A:60:VAL:HG23	1.92	0.51
35:58:110:GLY:O	35:58:114:ARG:HG3	2.10	0.51
7:62:22:LEU:H	7:62:22:LEU:HD12	1.74	0.51
40:65:67:ARG:HB2	40:65:67:ARG:CZ	2.41	0.51
7:6E:57:GLU:HG2	7:6E:59:LEU:HB2	1.91	0.51
28:71:57:ASN:HD21	28:71:164:ARG:NH2	2.08	0.51
28:71:69:GLY:HA3	28:71:180:PHE:CZ	2.45	0.51
8:72:97:VAL:HG22	8:72:129:VAL:O	2.10	0.51
41:75:91:ARG:HD2	41:75:124:ASP:OD2	2.11	0.51
43:95:44:LYS:O	43:95:46:VAL:N	2.33	0.51
43:95:5:VAL:HB	43:95:37:VAL:CG1	2.40	0.51
49:F5:82:LEU:CD2	49:F5:83:GLU:H	2.15	0.51
55:Q8:34:TRP:CE2	55:Q8:35:GLN:HG2	2.45	0.51
29:11:72:LYS:CG	29:11:103:ARG:HH21	2.24	0.51
29:11:28:GLU:HA	29:11:28:GLU:OE1	2.11	0.51
2:12:211:ILE:O	2:12:214:ILE:N	2.43	0.51
1:13:912:C:O2'	1:13:913:A:H5'	2.11	0.51
26:14:2130:U:H2'	26:14:2158:A:C6	2.46	0.51
26:14:2649:U:H3	26:14:2671:A:H61	1.59	0.51
35:15:34:LEU:HD21	35:15:120:LEU:HB2	1.93	0.51
1:1G:1060:C:O2	10:1A:56:HIS:HE1	1.94	0.51
1:1G:18:C:H2'	1:1G:19:C:O4'	2.11	0.51
1:1G:272:C:H2'	1:1G:273:A:C8	2.46	0.51
1:1G:359:U:H2'	1:1G:360:A:C8	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:468:A:H2'	1:1G:474:G:H5'	1.92	0.51
26:1H:1359:A:C2	26:1H:1372:U:O4	2.64	0.51
26:1H:443:A:H1'	26:1H:1201:C:O4'	2.11	0.51
26:1H:729:G:O5'	29:11:208:LYS:NZ	2.44	0.51
23:2K:64:G:H2'	23:2K:65:G:C8	2.46	0.51
38:45:33:GLY:HA2	38:45:105:GLU:HA	1.92	0.51
32:49:63:ILE:HD12	32:49:102:PHE:HE1	1.75	0.51
5:4E:150:ARG:NH1	5:4E:150:ARG:HB3	2.26	0.51
5:4E:53:LEU:HD12	5:4E:53:LEU:H	1.76	0.51
34:61:78:THR:HG22	34:61:141:LYS:HB2	1.92	0.51
7:62:31:MET:HG3	7:62:36:LYS:HA	1.92	0.51
28:79:44:HIS:ND1	28:79:171:ILE:O	2.39	0.51
8:7E:121:ASP:HB2	8:7E:125:ARG:NH2	2.26	0.51
19:AI:40:ILE:HG23	19:AI:41:VAL:HG13	1.93	0.51
20:BA:64:ASP:OD1	20:BA:81:LYS:HD2	2.11	0.51
51:H5:7:LYS:HE2	51:H5:32:GLN:HG3	1.93	0.51
26:14:2577:A:H5'	53:J5:3:LYS:HD3	1.93	0.51
26:1H:1613:G:O2'	54:P8:3:ARG:NE	2.44	0.51
1:13:243:A:H4'	1:13:244:U:H3'	1.93	0.51
1:13:454:C:H3'	1:13:455:C:C6	2.46	0.51
1:13:625:G:H4'	16:7I:16:HIS:CG	2.46	0.51
1:13:917:G:H2'	1:13:918:A:C8	2.46	0.51
26:14:1324:G:H4'	26:14:1616:A:C2	2.46	0.51
26:14:161:U:H5'	26:14:171:G:N2	2.26	0.51
1:1G:1418:A:H2	26:14:1948:G:N3	2.08	0.51
26:14:2402:C:OP1	26:14:2402:C:H4'	2.10	0.51
26:14:839:U:H2'	26:14:840:C:H6	1.74	0.51
1:1G:1176:A:C2'	1:1G:1177:G:H5'	2.41	0.51
26:1H:1194:A:OP2	26:1H:1194:A:H8	1.93	0.51
26:1H:1438:U:H2'	26:1H:1439:A:H8	1.76	0.51
26:1H:426:C:H2'	26:1H:427:U:H6	1.74	0.51
26:1H:548:A:H2'	26:1H:549:G:H5'	1.93	0.51
26:1H:562:U:O4	26:1H:2036:C:H1'	2.11	0.51
26:1H:860:U:C5	26:1H:917:A:H2	2.29	0.51
22:1K:10:G:N2	22:1K:26:A:H1'	2.25	0.51
24:3K:33:U:H2'	24:3K:34:U:H5'	1.91	0.51
26:14:2485:G:H5''	38:45:46:GLN:HE21	1.76	0.51
33:51:6:ARG:HA	33:51:66:GLY:HA2	1.92	0.51
26:1H:2124:G:H4'	28:71:174:PRO:CG	2.40	0.51
42:85:83:LEU:O	42:85:87:GLY:N	2.44	0.51
20:BI:82:SER:O	20:BI:86:ARG:HB2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:87:LYS:HG2	46:C5:88:LYS:N	2.26	0.51
26:1H:1161:C:H1'	43:D8:8:GLY:O	2.10	0.51
49:J8:24:ALA:HB1	49:J8:26:ARG:HG3	1.91	0.51
26:1H:72:U:H3	50:K8:62:THR:HG22	1.76	0.51
55:M5:7:HIS:O	55:M5:7:HIS:ND1	2.44	0.51
2:12:118:LEU:HD11	2:12:141:GLU:HG2	1.93	0.51
2:12:21:ARG:HA	2:12:39:ILE:HA	1.92	0.51
1:13:1189:C:H5''	1:13:1190:G:OP2	2.11	0.51
26:14:1288:U:C2	26:14:1327:C:O2	2.64	0.51
26:14:121:G:H4'	26:14:149:A:H5'	1.93	0.51
26:14:397:G:O2'	26:14:2231:C:H1'	2.11	0.51
26:14:2600:A:H2'	26:14:2601:C:C6	2.46	0.51
26:14:824:A:H1'	26:14:2358:G:N7	2.26	0.51
2:1E:163:PHE:HA	2:1E:185:ILE:O	2.11	0.51
1:1G:1157:A:N3	1:1G:1157:A:H2'	2.26	0.51
1:1G:1347:G:O2'	1:1G:1373:G:O6	2.15	0.51
1:1G:882:C:OP2	12:3A:13:LYS:NZ	2.42	0.51
26:1H:1171:G:C4	26:1H:1174:A:N1	2.79	0.51
26:1H:2316:C:H2'	26:1H:2317:C:C6	2.44	0.51
26:1H:270(R):G:H2'	26:1H:270(S):G:C8	2.46	0.51
26:1H:606:U:OP2	31:31:104:LYS:NZ	2.35	0.51
26:1H:818:G:H5'	26:1H:839:U:OP1	2.11	0.51
26:1H:2572:A:C8	30:21:144:ARG:HD3	2.46	0.51
11:2I:33:THR:HG22	11:2I:39:PRO:HA	1.93	0.51
31:39:195:ASP:HB3	31:39:198:ALA:HB3	1.93	0.51
6:52:96:PRO:HB3	18:9A:30:ASP:CG	2.31	0.51
26:14:1653:G:H3'	39:55:2:ARG:HG2	1.93	0.51
14:5A:29:ARG:NH1	14:5A:40:CYS:SG	2.84	0.51
1:13:1218:C:OP1	14:5I:12:ARG:NH2	2.44	0.51
34:69:41:GLU:O	34:69:45:LYS:HG2	2.11	0.51
30:29:14:ILE:HB	41:75:14:TYR:HE2	1.72	0.51
16:7I:4:ILE:HB	16:7I:66:PRO:HB3	1.92	0.51
42:85:80:ILE:HD11	42:85:93:LYS:HE2	1.91	0.51
9:8E:18:PHE:HD2	9:8E:62:TYR:HD2	1.57	0.51
39:98:12:ARG:HG2	39:98:16:HIS:ND1	2.26	0.51
26:1H:445:C:OP1	42:C8:2:PRO:HA	2.11	0.51
29:11:23:GLU:HG3	29:11:82:ILE:HG21	1.93	0.50
1:13:1285:A:H8	1:13:1285:A:O5'	1.94	0.50
1:13:186:C:H2'	1:13:186(A):C:H6	1.75	0.50
1:13:876:G:H1'	8:7E:11:THR:HG21	1.93	0.50
26:14:1175:U:O2'	26:14:1176:G:N3	2.35	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1257:C:N4	61:14:3612:HOH:O	2.25	0.50
26:14:1793:C:H2'	26:14:1794:U:C6	2.46	0.50
26:14:17:G:H2'	26:14:18:C:C6	2.46	0.50
26:14:529:A:H4'	26:14:530:G:H5'	1.93	0.50
27:16:11:C:H3'	27:16:12:C:H6	1.74	0.50
29:19:38:LYS:HZ1	29:19:60:ARG:H	1.58	0.50
2:1E:185:ILE:CG2	2:1E:199:TYR:HB2	2.41	0.50
1:1G:1127:G:H2'	1:1G:1128:C:H6	1.74	0.50
1:1G:518:C:H5''	1:1G:519:C:C6	2.46	0.50
26:1H:1797:C:HO2'	26:1H:1798:U:H5'	1.76	0.50
26:1H:2132:U:C4	28:71:5:LYS:HB3	2.46	0.50
26:1H:841:A:H2'	26:1H:842:G:C8	2.47	0.50
11:2A:98:LEU:O	11:2A:101:SER:OG	2.24	0.50
12:3I:57:LYS:HE3	12:3I:67:THR:HG22	1.92	0.50
33:51:84:SER:O	33:51:85:LYS:HB2	2.11	0.50
33:59:152:ARG:HG3	33:59:153:LYS:HG3	1.93	0.50
14:5I:2:ALA:HB3	14:5I:6:LEU:HD23	1.93	0.50
26:1H:2561:A:H2	36:68:23:ARG:NH1	2.08	0.50
41:75:13:ARG:HE	41:75:14:TYR:HE1	1.58	0.50
1:1G:1179:A:H4'	9:82:103:THR:HA	1.91	0.50
43:95:21:ARG:NH2	43:95:91:TYR:O	2.44	0.50
18:9A:34:TYR:CE1	18:9A:35:ARG:HG3	2.46	0.50
19:AI:11:VAL:HG11	19:AI:16:LEU:HD22	1.93	0.50
42:C8:69:CYS:HG	42:C8:79:PHE:HD2	1.59	0.50
55:Q8:50:LEU:O	55:Q8:50:LEU:HD13	2.11	0.50
2:12:165:VAL:HG23	2:12:166:ASP:N	2.25	0.50
26:14:1028:A:N6	26:14:1125:G:H2'	2.26	0.50
26:14:1520:U:H2'	26:14:1521:G:O4'	2.11	0.50
26:14:118:A:N3	26:14:178:G:H1'	2.25	0.50
26:14:2692:C:H1'	26:14:2847:U:H1'	1.92	0.50
26:14:2805:G:H2'	26:14:2807:G:C8	2.46	0.50
26:14:55:G:H2'	26:14:56:A:H8	1.77	0.50
1:1G:337:C:H2'	1:1G:338:A:C8	2.46	0.50
1:1G:457:C:H2'	1:1G:458:C:C6	2.46	0.50
1:1G:584:G:H5'	17:8A:91:ARG:NH2	2.25	0.50
1:1G:890:G:O2'	1:1G:906:G:O6	2.20	0.50
26:1H:1188:U:O2'	26:1H:1189:A:H5'	2.11	0.50
26:1H:1344:G:H4'	26:1H:1384:A:C5	2.46	0.50
26:1H:1711:C:H2'	26:1H:1712:C:H6	1.75	0.50
26:1H:182:A:C6	26:1H:183:C:C4	2.99	0.50
26:1H:2154:G:H2'	26:1H:2155:G:H8	1.74	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:69:ALA:HB1	11:2I:73:MET:HE2	1.93	0.50
4:32:127:THR:HG21	4:32:149:ALA:HB2	1.92	0.50
13:4A:88:ARG:O	13:4A:92:HIS:HD2	1.94	0.50
15:6I:27:VAL:HG12	15:6I:31:LEU:HD13	1.92	0.50
28:71:58:VAL:CG1	28:71:199:HIS:HB3	2.40	0.50
41:75:27:THR:O	41:75:89:VAL:HG22	2.11	0.50
42:85:74:LEU:HB2	42:85:78:THR:OG1	2.11	0.50
42:85:92:ARG:NH1	43:95:11:GLN:H	2.10	0.50
1:1G:664:G:P	18:9A:64:ARG:HH21	2.34	0.50
26:14:480:A:H1'	46:C5:44:ILE:HG12	1.92	0.50
46:G8:94:LYS:HD3	46:G8:95:LYS:H	1.76	0.50
51:L8:28:LEU:HA	51:L8:33:GLN:OE1	2.11	0.50
55:Q8:6:THR:HG22	55:Q8:62:LEU:HA	1.93	0.50
29:11:136:ILE:O	29:11:168:ARG:NH2	2.43	0.50
2:12:17:PHE:HE2	2:12:203:GLY:HA2	1.76	0.50
1:13:57:G:H2'	1:13:58:C:C6	2.46	0.50
26:14:1516:U:H2'	26:14:1517:G:C8	2.45	0.50
26:14:1581:G:H8	26:14:1581:G:O5'	1.94	0.50
26:14:1771:C:H1'	26:14:1786:A:C8	2.46	0.50
26:14:2162:G:H5''	26:14:2165:G:H22	1.76	0.50
26:14:2883:A:H5'	26:14:2884:U:H5'	1.94	0.50
2:1E:16:HIS:CE1	2:1E:210:SER:HB2	2.47	0.50
1:1G:1205:U:H2'	1:1G:1206:G:C8	2.46	0.50
1:1G:1285:A:H4'	1:1G:1286:A:O5'	2.12	0.50
26:1H:1337:G:C4	26:1H:1338:G:C8	3.00	0.50
26:1H:2048:G:C2	26:1H:2621:A:C2	2.99	0.50
26:1H:2069:G:H4'	61:1H:4323:HOH:O	2.10	0.50
26:1H:65:C:H2'	26:1H:66:C:C6	2.47	0.50
3:22:11:ARG:HB3	3:22:15:THR:OG1	2.10	0.50
3:22:32:LEU:HD22	3:22:59:ARG:HH22	1.76	0.50
32:41:17:PRO:HA	32:41:20:ILE:HD12	1.94	0.50
38:45:52:VAL:HA	38:45:55:VAL:HB	1.93	0.50
6:52:26:ILE:O	6:52:30:LEU:HG	2.11	0.50
7:62:88:PRO:HD2	7:62:148:ASN:HA	1.93	0.50
8:72:49:GLU:HG2	8:72:50:ARG:O	2.12	0.50
43:95:7:THR:HG23	43:95:22:VAL:HG21	1.93	0.50
18:9I:66:LEU:O	18:9I:70:ILE:HG13	2.11	0.50
19:AI:51:VAL:O	19:AI:58:VAL:HG12	2.11	0.50
52:M8:13:ARG:NH1	52:M8:22:ILE:HG23	2.23	0.50
29:11:140:THR:O	29:11:165:ILE:HD12	2.10	0.50
1:13:407:G:H2'	1:13:408:A:C8	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1226:G:H5'	43:95:85:LYS:N	2.25	0.50
26:14:1358:G:N2	26:14:1372:U:C5	2.79	0.50
26:14:1525:G:H2'	26:14:1526:G:C8	2.45	0.50
26:14:1945:G:H2'	26:14:1946:U:C6	2.46	0.50
26:14:336:C:OP1	46:C5:83:THR:HG23	2.12	0.50
26:14:512:G:OP1	26:14:1234:U:O2'	2.26	0.50
26:14:849:A:H2	51:H5:24:LYS:HB3	1.75	0.50
29:19:31:LYS:NZ	29:19:33:LEU:HB2	2.25	0.50
1:1G:1018:C:H2'	1:1G:1019:C:O4'	2.11	0.50
1:1G:960:U:H4'	1:1G:961:U:C5'	2.42	0.50
26:1H:119:A:O3'	61:1H:3692:HOH:O	2.18	0.50
26:1H:2287:A:H2	26:1H:2346:A:C2	2.30	0.50
26:1H:2324:C:H5''	26:1H:2325:G:H5'	1.94	0.50
26:1H:2394:C:H2'	26:1H:2395:C:H6	1.75	0.50
10:1I:65:LEU:HD13	14:5I:56:VAL:HG22	1.93	0.50
30:21:105:THR:HG22	30:21:106:GLY:N	2.26	0.50
3:22:117:ALA:HB2	3:22:200:ALA:HB2	1.92	0.50
4:3E:31:CYS:C	4:3E:33:MET:H	2.13	0.50
56:3L:52:G:C4	56:3L:53:G:H8	2.30	0.50
32:4I:142:PRO:HB2	52:M8:31:ILE:HG21	1.93	0.50
25:4K:14:A:C5	25:4K:15:A:C2	3.00	0.50
39:55:45:ARG:HA	39:55:95:THR:HG21	1.92	0.50
26:1H:1006:C:H1'	35:58:106:MET:HE3	1.93	0.50
38:88:54:MET:O	38:88:57:HIS:N	2.44	0.50
17:8A:28:PRO:HA	17:8A:35:VAL:HA	1.93	0.50
43:95:31:ALA:O	43:95:61:VAL:HG23	2.11	0.50
47:D5:11:GLU:CD	47:D5:12:GLY:H	2.15	0.50
49:F5:76:ARG:HG3	49:F5:94:LEU:HD13	1.94	0.50
2:12:223:ILE:N	2:12:224:GLN:HE21	2.09	0.50
1:13:292:G:C5	1:13:293:G:H1'	2.46	0.50
1:13:346:G:H1'	41:B8:41:ARG:CZ	2.41	0.50
1:13:390:C:H2'	1:13:391:G:C8	2.47	0.50
1:13:664:G:N2	1:13:741:G:H1	2.03	0.50
26:14:1021:A:H3'	26:14:1021:A:C8	2.47	0.50
26:14:1174:A:H2'	26:14:1176:G:H5'	1.93	0.50
26:14:1406:U:H2'	26:14:1407:C:H6	1.76	0.50
26:14:140:A:C8	26:14:1408:C:O2'	2.58	0.50
26:14:2121:G:O6	26:14:2176:A:N6	2.45	0.50
26:14:247:G:H4'	26:14:386:G:C5	2.46	0.50
26:14:654(B):C:H2'	26:14:654(C):G:C8	2.45	0.50
1:1G:1111:A:H2'	1:1G:1112:C:C6	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:442:C:H2'	1:1G:443:C:H6	1.77	0.50
26:1H:1174:A:H1'	26:1H:1178:C:N4	2.21	0.50
26:1H:1328:G:H2'	26:1H:1330:C:C5	2.47	0.50
26:1H:2689:U:H5'	26:1H:2713:A:H2	1.75	0.50
26:1H:433:C:H2'	26:1H:434:U:C6	2.47	0.50
26:1H:734:A:O2'	26:1H:1635:G:H5'	2.12	0.50
30:21:104:VAL:HG22	30:21:198:VAL:HG22	1.93	0.50
36:25:35:VAL:HG11	36:25:103:ALA:HB3	1.94	0.50
31:31:39:TRP:HB2	31:31:101:LEU:HD12	1.93	0.50
32:49:42:GLY:O	32:49:43:LEU:HD13	2.12	0.50
33:51:7:LEU:CD1	33:51:7:LEU:O	2.60	0.50
35:58:19:GLU:HG3	35:58:59:LYS:HB3	1.93	0.50
35:58:70:LYS:HE3	35:58:72:TYR:CE1	2.46	0.50
33:59:143:GLN:C	33:59:145:ALA:H	2.15	0.50
6:5E:78:GLU:O	6:5E:78:GLU:HG3	2.12	0.50
27:1J:116:G:H4'	40:65:54:LEU:HD21	1.93	0.50
37:78:19:VAL:CG1	37:78:21:ARG:H	2.20	0.50
41:B8:6:LEU:HA	41:B8:9:LEU:HB2	1.93	0.50
20:BA:50:GLU:HA	20:BA:100:ILE:CG2	2.42	0.50
20:BI:10:LEU:HD11	20:BI:12:ALA:HB3	1.92	0.50
26:1H:1188:U:H4'	43:D8:79:VAL:HG22	1.93	0.50
48:E5:23:VAL:HG12	48:E5:25:ARG:O	2.12	0.50
51:L8:12:PRO:HB2	51:L8:20:LYS:HG2	1.94	0.50
53:N8:44:THR:HG22	53:N8:45:VAL:H	1.76	0.50
1:13:1129:C:H1'	1:13:1132:C:H41	1.75	0.50
1:13:114:U:O2'	1:13:115:G:H5'	2.12	0.50
1:13:1396:A:H2	5:4E:19:MET:HG3	1.77	0.50
1:13:953:G:C2	1:13:954:G:H1'	2.47	0.50
26:14:192:C:O2	61:14:3578:HOH:O	2.18	0.50
26:14:328:U:H4'	46:C5:68:HIS:CD2	2.47	0.50
2:1E:212:GLN:NE2	2:1E:213:LEU:HD23	2.26	0.50
2:1E:59:GLU:HB2	2:1E:221:LEU:HD11	1.94	0.50
1:1G:438:G:H4'	4:32:123:HIS:NE2	2.26	0.50
26:1H:2209:C:O2	26:1H:2216:G:C2	2.65	0.50
26:1H:2680:C:H5'	30:21:189:PRO:HA	1.94	0.50
26:1H:2840:C:N4	26:1H:2877:G:H1	2.09	0.50
26:1H:908:C:O2'	26:1H:909:A:H5'	2.12	0.50
3:22:175:LEU:HD21	3:22:201:TYR:CE2	2.47	0.50
3:2E:164:ARG:HD2	3:2E:166:GLU:OE2	2.12	0.50
23:2L:76:C:H2'	23:2L:77:A:C8	2.47	0.50
37:35:92:GLU:HG2	37:35:123:LEU:HD21	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:25:PRO:C	31:39:27:GLU:N	2.64	0.50
24:3K:10:G:H1	24:3K:25:C:H42	1.59	0.50
56:3L:51:A:C6	56:3L:52:G:C8	2.99	0.50
56:3L:52:G:C8	56:3L:53:G:C8	3.00	0.50
6:5E:4:TYR:HD1	6:5E:92:LYS:HA	1.76	0.50
36:68:64:ARG:HB2	36:68:79:PHE:CD1	2.47	0.50
17:8I:100:LYS:HD3	17:8I:101:ARG:HD2	1.93	0.50
44:A5:15:ARG:O	44:A5:19:LEU:HD13	2.11	0.50
50:G5:23:LYS:NZ	50:G5:27:GLU:OE2	2.29	0.50
2:12:22:LYS:HE3	2:12:24:TRP:HZ3	1.76	0.50
1:13:1191:A:H5''	1:13:1192:C:OP2	2.11	0.50
1:13:191(C):G:H2'	1:13:191(D):U:O4'	2.12	0.50
1:13:407:G:OP1	4:3E:115:ARG:NH2	2.44	0.50
1:13:5:U:N3	4:3E:85:LYS:HE3	2.27	0.50
26:14:1317:A:H2'	26:14:1318:C:C6	2.46	0.50
26:14:1882:C:H2'	26:14:1883:G:O4'	2.12	0.50
26:14:2321:G:H2'	26:14:2321:G:N3	2.26	0.50
26:14:524:U:H2'	26:14:525:U:C6	2.47	0.50
1:1G:222:U:H2'	1:1G:223:U:C6	2.45	0.50
1:1G:316:G:H2'	1:1G:317:G:C8	2.47	0.50
26:1H:1319:G:C6	26:1H:1320:C:N4	2.80	0.50
26:1H:1591:G:H2'	26:1H:1592:C:H6	1.76	0.50
26:1H:299:A:OP2	61:1H:3697:HOH:O	2.20	0.50
30:21:174:ASP:HB3	30:21:183:LEU:HD13	1.93	0.50
36:25:49:ARG:HA	36:25:53:LYS:NZ	2.27	0.50
3:2E:92:ALA:HB2	3:2E:99:VAL:HG22	1.94	0.50
23:2K:63:C:H2'	23:2K:64:G:C8	2.47	0.50
4:32:162:LEU:HD22	4:32:178:VAL:HG23	1.93	0.50
31:39:155:LEU:HD23	31:39:186:ILE:HD13	1.94	0.50
4:3E:150:GLU:CD	4:3E:150:GLU:H	2.15	0.50
4:3E:187:ARG:HH22	4:3E:193:ASP:CG	2.15	0.50
13:4A:31:LYS:HA	13:4A:34:LEU:HD12	1.94	0.50
35:58:7:LYS:N	35:58:7:LYS:HD2	2.25	0.50
14:5A:11:LYS:O	14:5A:13:THR:HG22	2.11	0.50
10:1A:63:PHE:HB3	14:5A:57:ARG:O	2.11	0.50
36:68:88:ASN:HD21	36:68:90:GLN:HB2	1.77	0.50
34:69:120:ILE:HG22	34:69:122:GLU:H	1.77	0.50
15:6I:17:ARG:NH1	15:6I:77:ARG:HD2	2.25	0.50
28:71:10:LEU:HG	28:71:32:LEU:HA	1.94	0.50
8:7E:82:HIS:ND1	8:7E:138:TRP:CE2	2.79	0.50
17:8I:68:ARG:HG3	17:8I:68:ARG:O	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:17:SER:HA	46:C5:71:LYS:HD2	1.94	0.50
43:D8:76:LYS:HB2	43:D8:81:TYR:CD1	2.47	0.50
51:H5:8:LEU:CD1	51:H5:31:LEU:HD12	2.41	0.50
47:H8:121:HIS:HB3	47:H8:123:ASP:O	2.11	0.50
29:11:115:GLN:HG2	29:11:116:GLN:N	2.27	0.50
1:13:32:A:H2'	1:13:33:A:C8	2.46	0.50
1:13:657:G:H2'	1:13:658:G:H8	1.77	0.50
26:14:1757:U:N3	26:14:1762:A:H2	2.04	0.50
26:14:2720:U:N3	26:14:2873:A:H2	2.10	0.50
26:14:2:G:N2	26:14:2898:U:O4	2.45	0.50
26:14:372:G:H5'	49:F5:66:HIS:NE2	2.27	0.50
26:14:579:G:H2'	26:14:580:C:C6	2.47	0.50
26:14:745:G:C2'	26:14:746:A:H5'	2.42	0.50
26:14:91:A:H2'	26:14:92:G:H8	1.77	0.50
10:1A:75:ILE:HG13	10:1A:76:ASN:H	1.76	0.50
1:1G:1223:C:P	1:1G:1224:G:H2'	2.52	0.50
1:1G:1149:C:O2'	1:1G:1280:A:N1	2.30	0.50
26:1H:1412:A:H2'	26:1H:1413:G:C8	2.46	0.50
26:1H:1728:G:C3'	26:1H:1729:A:H5'	2.41	0.50
26:1H:1728:G:C6	26:1H:1730:U:H5''	2.46	0.50
26:1H:305:U:H2'	26:1H:306:U:C6	2.47	0.50
26:1H:581:C:H2'	26:1H:582:G:H8	1.77	0.50
3:22:37:GLN:O	3:22:40:ARG:N	2.45	0.50
32:41:67:LYS:HD3	32:41:67:LYS:H	1.76	0.50
5:4E:41:VAL:HG13	5:4E:113:ALA:CB	2.40	0.50
5:4E:6:PHE:CD1	5:4E:36:ASP:HB3	2.46	0.50
1:1G:1316:G:H4'	14:5A:18:VAL:HG21	1.92	0.50
7:6E:88:PRO:HG3	7:6E:149:ARG:HA	1.94	0.50
37:78:6:LEU:O	37:78:7:ARG:HG2	2.11	0.50
9:82:73:GLN:O	9:82:77:ILE:HG13	2.12	0.50
43:95:48:GLY:CA	43:95:52:VAL:HG13	2.42	0.50
44:A5:110:LYS:NZ	44:A5:111:HIS:HB3	2.26	0.50
26:14:2012:G:N7	44:A5:16:LYS:NZ	2.57	0.50
41:B8:78:LEU:HD12	41:B8:79:HIS:NE2	2.26	0.50
46:C5:6:HIS:CD2	46:C5:7:VAL:HG13	2.47	0.50
55:Q8:39:LYS:HA	55:Q8:42:ARG:NH2	2.26	0.50
29:11:123:ALA:HB3	29:11:131:LEU:HG	1.94	0.50
29:11:32:SER:HA	29:11:35:LYS:HZ1	1.75	0.50
2:12:100:GLY:HA2	2:12:103:THR:OG1	2.12	0.50
1:13:1298:C:P	7:6E:114:ARG:HH22	2.35	0.50
1:13:129(A):G:H4'	1:13:130:A:H5''	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:984:C:H42	1:13:1221:G:H1	1.60	0.50
26:14:2126:A:O2'	26:14:2127:G:H5''	2.12	0.50
26:14:2210:G:H5'	26:14:2211:G:C2	2.47	0.50
26:14:2346:A:C2	26:14:2383:G:C2	2.99	0.50
26:14:2533:A:H2'	26:14:2534:A:O4'	2.11	0.50
26:14:2542:A:H5''	26:14:2542:A:N3	2.27	0.50
27:16:56:G:H5'	32:41:27:ASN:HD21	1.77	0.50
26:14:1568:G:P	29:19:63:ARG:HH12	2.35	0.50
10:1A:25:GLU:O	10:1A:29:ARG:N	2.35	0.50
1:1G:1194:U:H2'	1:1G:1195:C:C6	2.47	0.50
1:1G:1344:C:H5'	9:82:120:ARG:O	2.12	0.50
1:1G:1466:C:H2'	1:1G:1467:G:O4'	2.12	0.50
1:1G:87:A:C5	1:1G:88:C:C4	3.00	0.50
26:1H:1364:G:N7	49:J8:2:SER:OG	2.42	0.50
26:1H:1505:C:H2'	26:1H:1506:C:H6	1.75	0.50
26:1H:1657:C:H2'	26:1H:1658:C:C6	2.47	0.50
26:1H:2682:U:O2	30:21:22:PRO:HB3	2.11	0.50
26:1H:300:A:N3	26:1H:319:C:H1'	2.27	0.50
56:3L:35:U:H2'	56:3L:36:U:C6	2.47	0.50
13:4A:34:LEU:HD13	13:4A:41:PRO:HA	1.93	0.50
39:55:24:GLN:OE1	39:55:36:THR:HG21	2.11	0.50
14:5I:6:LEU:HB3	14:5I:23:ARG:HH22	1.75	0.50
15:6A:33:THR:CG2	15:6A:63:ARG:HD2	2.42	0.50
15:6A:77:ARG:HA	15:6A:80:ALA:HB3	1.93	0.50
37:78:71:VAL:CG1	37:78:72:PRO:HD3	2.42	0.50
42:85:74:LEU:HD12	42:85:74:LEU:O	2.11	0.50
17:8A:58:GLU:O	17:8A:74:LEU:N	2.43	0.50
17:8I:81:ARG:HH11	17:8I:84:LEU:HG	1.77	0.50
43:D8:6:LYS:HE2	43:D8:11:GLN:HG2	1.93	0.50
26:1H:1568:G:C5'	29:11:61:LEU:HD23	2.42	0.49
1:13:452:A:H1'	16:7I:72:ARG:HH12	1.76	0.49
26:14:1218:C:H42	26:14:1231:G:H1	1.59	0.49
26:14:1386:C:H2'	26:14:1387:C:C6	2.46	0.49
26:14:1420:U:O2'	26:14:1421:G:OP1	2.29	0.49
26:14:1716:U:H2'	26:14:1717:G:C8	2.47	0.49
26:14:1790:C:H2'	26:14:1791:A:C5	2.48	0.49
26:14:874:G:H2'	26:14:875:G:O4'	2.12	0.49
26:1H:1174:A:C8	26:1H:1176:G:H1'	2.47	0.49
26:1H:1339:G:N2	26:1H:1603:A:H1'	2.26	0.49
26:1H:1601:G:N7	61:1H:3802:HOH:O	2.35	0.49
26:1H:782:A:H5'	26:1H:783:A:C2	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:23:VAL:HA	30:29:184:VAL:O	2.12	0.49
31:31:28:ILE:HG12	31:31:119:ARG:NH2	2.27	0.49
1:1G:24:U:OP1	12:3A:23:LYS:NZ	2.45	0.49
4:3E:85:LYS:HG3	4:3E:86:LYS:N	2.26	0.49
32:41:98:ARG:O	32:41:101:ILE:HG13	2.11	0.49
6:52:1:MET:HA	6:52:68:PRO:HA	1.93	0.49
14:5A:29:ARG:HH12	14:5A:42:ILE:HD12	1.77	0.49
26:1H:825:C:O2	37:78:55:ARG:NH2	2.44	0.49
26:1H:1295:C:O2'	39:98:19:ALA:HB1	2.12	0.49
6:5E:97:PHE:CD1	18:9I:31:LEU:HD11	2.47	0.49
50:G5:13:ALA:HB1	50:G5:21:LEU:HD21	1.94	0.49
47:H8:120:ILE:HG22	47:H8:121:HIS:ND1	2.27	0.49
47:H8:105:VAL:O	47:H8:140:ASP:HA	2.12	0.49
52:M8:39:CYS:HB3	52:M8:41:PRO:HD2	1.93	0.49
1:13:1203:C:H2'	1:13:1204:A:O4'	2.12	0.49
1:13:728:A:H2'	1:13:729:A:C8	2.48	0.49
26:14:1424:G:H2'	26:14:1425:G:H8	1.76	0.49
26:14:919:G:N2	26:14:2269:A:OP2	2.44	0.49
26:14:2355:C:O3'	48:E5:24:LYS:HD2	2.11	0.49
26:14:2512:C:H5''	26:14:2513:G:OP2	2.12	0.49
26:14:2784:C:O2	30:29:37:ARG:NH2	2.45	0.49
26:14:510:C:H2'	26:14:511:U:O4'	2.12	0.49
26:14:581:C:H2'	26:14:582:G:H8	1.77	0.49
35:15:45:ASN:OD1	35:15:46:VAL:HG23	2.11	0.49
27:16:31:C:N4	40:A8:32:LEU:HD13	2.27	0.49
27:16:71:C:C2	27:16:72:G:C8	2.99	0.49
29:19:69:ARG:HE	29:19:130:ALA:HB2	1.76	0.49
4:3E:167:GLY:HA2	29:19:135:PHE:CZ	2.46	0.49
1:1G:176:C:H2'	1:1G:177:C:C6	2.45	0.49
26:1H:1582:C:HO2'	26:1H:1586:A:H8	1.58	0.49
26:1H:274:G:N2	26:1H:276:A:H61	2.10	0.49
26:1H:2772:C:H2'	26:1H:2773:C:C6	2.47	0.49
26:1H:287:C:H2'	26:1H:288:C:H6	1.78	0.49
26:1H:723:G:H2'	26:1H:724:U:O4'	2.12	0.49
10:1I:46:ARG:HG3	10:1I:64:GLU:HB3	1.94	0.49
22:1L:69:A:H1'	22:1L:70:C:O5'	2.10	0.49
30:21:4:ILE:HG12	30:21:5:LEU:H	1.77	0.49
3:22:195:VAL:O	3:22:196:LEU:HD22	2.13	0.49
26:14:2512:C:H1'	30:29:140:SER:O	2.12	0.49
4:32:12:CYS:SG	4:32:18:LYS:HA	2.53	0.49
26:14:660:G:H21	37:35:12:ALA:CB	2.25	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:155:LEU:O	4:3E:157:LEU:N	2.45	0.49
26:14:960:A:H61	38:45:82:ARG:NH2	2.10	0.49
40:65:106:ARG:HA	40:65:110:LEU:HD21	1.93	0.49
36:68:13:ASN:ND2	36:68:97:ARG:HB2	2.27	0.49
9:8E:112:LYS:CA	9:8E:119:ALA:HB2	2.37	0.49
9:8E:9:ARG:HD2	9:8E:9:ARG:N	2.28	0.49
18:9I:32:ARG:HH12	18:9I:65:ILE:HD13	1.77	0.49
35:58:40:PRO:O	42:C8:100:VAL:HG22	2.12	0.49
49:F5:69:LYS:HE2	49:F5:72:GLU:OE1	2.12	0.49
46:G8:30:VAL:O	46:G8:32:PRO:HD3	2.12	0.49
50:K8:55:ARG:O	50:K8:58:ALA:HB3	2.12	0.49
53:N8:31:VAL:CG2	53:N8:42:PRO:HG3	2.43	0.49
1:13:131:C:H2'	1:13:132:C:C6	2.48	0.49
1:13:157:G:H2'	1:13:158:G:C8	2.47	0.49
1:13:429:U:H3'	4:3E:9:CYS:SG	2.51	0.49
26:14:1786:A:C2	26:14:2606:C:H1'	2.45	0.49
26:14:1818:U:H2'	29:19:157:ARG:HG3	1.94	0.49
26:14:2104:G:H2'	26:14:2105:C:C6	2.47	0.49
26:14:2474:C:OP1	61:14:3584:HOH:O	2.20	0.49
26:14:2695:C:H2'	26:14:2696:U:H6	1.77	0.49
27:16:15:A:H1'	27:16:109:G:N9	2.27	0.49
29:19:217:ARG:HH11	29:19:217:ARG:HG3	1.77	0.49
1:1G:1150:U:H4'	10:1A:41:PRO:HG3	1.94	0.49
1:1G:1124:G:O2'	1:1G:1145:C:N4	2.45	0.49
1:1G:147:G:H2'	1:1G:148:G:H8	1.77	0.49
1:1G:475:G:OP1	16:7A:81:ARG:NH2	2.38	0.49
1:1G:681:C:H2'	1:1G:682:G:C8	2.48	0.49
26:1H:1605:C:H2'	26:1H:1606:G:O4'	2.12	0.49
26:1H:1761:C:N4	26:1H:1762:A:H62	2.10	0.49
26:1H:530:G:C5	26:1H:2022:U:H5''	2.48	0.49
26:1H:2199:A:H5''	26:1H:2205:C:H5	1.76	0.49
26:1H:2836:U:H2'	26:1H:2837:G:C8	2.47	0.49
26:1H:340:A:H2'	26:1H:341:G:O4'	2.12	0.49
26:1H:552:G:H2'	26:1H:553:U:O4'	2.12	0.49
26:1H:910:A:N1	26:1H:2277:G:H1'	2.28	0.49
27:1J:73:A:C4	27:1J:104:A:C2	3.01	0.49
30:21:174:ASP:HB3	30:21:183:LEU:CD1	2.41	0.49
30:29:75:VAL:HG11	30:29:76:ARG:HH11	1.76	0.49
4:3E:185:PHE:HE2	4:3E:188:LEU:HD23	1.77	0.49
12:3I:24:VAL:HB	12:3I:27:LEU:HD12	1.94	0.49
24:3K:70:C:H2'	24:3K:71:C:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:19:MET:O	5:42:20:GLN:NE2	2.38	0.49
5:4E:84:PHE:HB3	5:4E:134:ALA:HB2	1.95	0.49
39:55:13:HIS:CE1	39:55:15:SER:HB3	2.48	0.49
7:62:93:PRO:HD2	7:62:94:ARG:NH2	2.25	0.49
28:71:23:ASP:HB2	28:71:190:ARG:HH12	1.77	0.49
9:82:26:VAL:HG22	9:82:61:ALA:H	1.77	0.49
38:88:104:PHE:O	38:88:105:GLU:HB2	2.12	0.49
38:88:136:ALA:HB1	47:H8:52:SER:HB2	1.94	0.49
26:1H:958:U:OP2	38:88:14:ARG:NH1	2.44	0.49
9:8E:47:LEU:HD23	9:8E:47:LEU:H	1.77	0.49
43:95:44:LYS:HB2	43:95:45:THR:OG1	2.12	0.49
18:9A:74:ARG:HB3	18:9A:81:PHE:CE2	2.47	0.49
18:9I:32:ARG:NH1	18:9I:65:ILE:HD13	2.27	0.49
20:BA:79:ARG:HE	20:BA:83:ARG:HH21	1.59	0.49
20:BA:97:ALA:O	20:BA:99:LEU:HD12	2.12	0.49
20:BI:46:GLU:CB	20:BI:48:LYS:HG3	2.43	0.49
49:F5:87:PRO:HA	49:F5:90:ILE:CG2	2.42	0.49
45:F8:29:TRP:CE3	45:F8:78:LYS:HB3	2.47	0.49
46:G8:93:GLY:O	46:G8:94:LYS:HB2	2.11	0.49
48:I8:11:ARG:HH11	48:I8:11:ARG:HB2	1.77	0.49
2:12:40:HIS:NE2	2:12:190:THR:HG21	2.28	0.49
1:13:1533:C:HO2'	1:13:1534:A:P	2.33	0.49
1:13:356:A:N3	1:13:368:U:O2'	2.41	0.49
1:13:37:U:O2'	1:13:500:G:H4'	2.11	0.49
26:14:1003:G:O2'	26:14:1010:A:N1	2.36	0.49
26:14:1038:C:H2'	26:14:1039:G:O4'	2.12	0.49
26:14:110:G:C2	26:14:111:A:C8	3.01	0.49
26:14:1678:G:N2	26:14:1989:G:H22	2.11	0.49
2:1E:219:VAL:O	2:1E:223:ILE:HG12	2.13	0.49
1:1G:1006:C:H2'	1:1G:1007:C:C6	2.48	0.49
1:1G:1136:U:OP2	1:1G:1137:C:N4	2.46	0.49
26:1H:1791:A:H3'	26:1H:1792:G:C8	2.47	0.49
22:1K:76:A:C8	26:1H:2507:C:H1'	2.48	0.49
26:1H:2552:U:H2'	26:1H:2554:U:H5''	1.95	0.49
26:1H:459:U:H4'	54:P8:40:TRP:CZ3	2.48	0.49
26:1H:94:G:H2'	26:1H:95:G:O4'	2.13	0.49
30:21:120:TRP:CD2	30:21:155:LYS:HG2	2.47	0.49
38:45:25:ASP:HA	38:45:67:ARG:NH1	2.27	0.49
32:49:103:LEU:HA	32:49:106:LEU:CD2	2.42	0.49
32:49:28:VAL:O	32:49:31:VAL:HB	2.12	0.49
35:58:130:HIS:C	35:58:134:ARG:HH22	2.16	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6A:55:GLY:HA2	15:6A:58:MET:SD	2.52	0.49
28:79:20:TYR:CE2	28:79:223:ARG:HB3	2.47	0.49
1:13:877:C:H5'	8:7E:88:LYS:HD3	1.94	0.49
1:1G:967:C:H4'	9:82:125:TYR:HE1	1.78	0.49
40:A8:102:ALA:O	40:A8:105:ALA:N	2.38	0.49
49:F5:72:GLU:HG2	49:F5:76:ARG:HE	1.76	0.49
46:G8:87:LYS:H	46:G8:94:LYS:HG2	1.77	0.49
29:11:120:GLY:HA2	29:11:190:TYR:OH	2.13	0.49
1:13:1128:C:C5	1:13:1139:G:C2	3.01	0.49
1:13:114:U:H2'	1:13:115:G:C8	2.48	0.49
1:13:1260:C:H6	1:13:1260:C:H3'	1.78	0.49
26:14:2720:U:N3	26:14:2873:A:C2	2.76	0.49
27:16:0:A:H2'	27:16:1:U:C6	2.48	0.49
1:1G:1256:A:H2'	1:1G:1278:U:C2	2.46	0.49
26:1H:1126:A:H4'	26:1H:1127:A:O5'	2.11	0.49
26:1H:1290:C:H2'	26:1H:1291:C:C6	2.47	0.49
26:1H:1992:G:O2'	26:1H:1993:U:OP2	2.28	0.49
26:1H:2473:U:H2'	26:1H:2474:C:H5'	1.93	0.49
26:1H:483:A:O4'	46:G8:48:ALA:HB1	2.13	0.49
26:1H:701:G:H2'	26:1H:702:G:H5'	1.94	0.49
26:1H:90:U:H1'	26:1H:91:A:C8	2.47	0.49
1:13:963:G:H21	10:1I:55:LYS:CE	2.26	0.49
27:1J:14:U:O3'	27:1J:107:U:O2'	2.31	0.49
26:1H:2051:A:H4'	30:21:141:ILE:HG12	1.95	0.49
1:13:1193:G:P	3:2E:167:TRP:CZ3	3.05	0.49
4:32:31:CYS:C	4:32:33:MET:N	2.65	0.49
4:32:45:GLN:O	4:32:46:LYS:HG3	2.13	0.49
37:35:37:GLY:O	37:35:40:SER:OG	2.30	0.49
32:41:55:LYS:NZ	32:41:148:MET:O	2.45	0.49
7:62:143:ARG:HD3	7:62:143:ARG:N	2.26	0.49
26:1H:566:U:OP1	37:78:29:LYS:HD2	2.12	0.49
9:8E:25:LYS:O	9:8E:60:ASP:HA	2.13	0.49
19:AI:67:VAL:HG12	19:AI:68:GLY:N	2.27	0.49
27:16:12:C:O2'	48:I8:74:ARG:HG2	2.12	0.49
26:1H:2016:U:O2	53:N8:7:PRO:HG2	2.12	0.49
54:P8:26:GLY:O	54:P8:30:VAL:HG23	2.12	0.49
1:13:368:U:OP1	34:69:91:SER:OG	2.30	0.49
1:13:658:G:H2'	1:13:659:U:C6	2.47	0.49
26:14:1412:A:H2'	26:14:1413:G:C8	2.48	0.49
26:14:1820:U:C2	29:19:202:LYS:HD2	2.48	0.49
26:14:2342:C:N4	61:14:3770:HOH:O	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2639:A:H1'	26:14:2778:A:C2	2.48	0.49
26:14:2832:U:H3'	26:14:2833:G:C8	2.48	0.49
26:14:750:A:H5''	26:14:751:A:OP2	2.13	0.49
26:14:817:C:O2'	26:14:839:U:OP1	2.29	0.49
29:19:182:LEU:CB	29:19:271:ILE:HG13	2.43	0.49
29:19:130:ALA:HA	29:19:192:THR:HA	1.95	0.49
2:1E:183:PRO:HA	2:1E:198:ASP:OD2	2.12	0.49
1:1G:1386:G:C2	1:1G:1387:G:C8	3.00	0.49
1:1G:376:G:H1	1:1G:387:U:H3	1.61	0.49
1:1G:607:A:H2'	1:1G:608:A:O4'	2.12	0.49
1:1G:895:G:H2'	1:1G:896:C:H6	1.77	0.49
26:1H:2062:A:O2'	26:1H:2063:C:P	2.70	0.49
26:1H:2810:A:H2'	26:1H:2811:G:O4'	2.13	0.49
26:1H:455:C:N3	26:1H:472:A:H2'	2.28	0.49
26:1H:736:C:O5'	26:1H:736:C:H6	1.96	0.49
26:1H:932:G:H4'	26:1H:933:A:O5'	2.13	0.49
31:39:93:LYS:HB3	31:39:94:PRO:HD2	1.95	0.49
24:3K:19:G:N2	24:3K:56:C:H42	2.10	0.49
56:3L:34:U:H4'	56:3L:35:U:OP1	2.12	0.49
38:45:102:VAL:O	38:45:102:VAL:HG12	2.12	0.49
1:13:710:G:H5''	6:5E:54:LYS:NZ	2.27	0.49
28:79:53:ARG:HE	28:79:54:SER:H	1.59	0.49
16:7I:74:LEU:HD22	16:7I:79:VAL:HG21	1.95	0.49
1:13:235:C:H5'	17:8I:70:ARG:HG2	1.93	0.49
18:9A:32:ARG:HA	18:9A:69:THR:HG21	1.93	0.49
19:AI:39:THR:HG22	19:AI:40:ILE:H	1.77	0.49
26:14:61:G:H5'	50:G5:50:ILE:HG12	1.94	0.49
46:G8:104:GLY:N	46:G8:105:ALA:HB3	2.27	0.49
51:L8:8:LEU:HD22	51:L8:31:LEU:CD2	2.42	0.49
1:13:1031:G:H2'	1:13:1032:A:H5'	1.94	0.49
1:13:319:G:H2'	1:13:320:C:O4'	2.12	0.49
26:14:1022:G:C6	26:14:1140:C:C4	3.00	0.49
26:14:2418:A:H2'	26:14:2419:U:C6	2.48	0.49
26:14:2693:A:H2'	26:14:2694:G:H8	1.78	0.49
26:14:287:C:H2'	26:14:288:C:C6	2.47	0.49
26:14:2882:A:OP1	39:55:96:ARG:NE	2.42	0.49
10:1A:74:ILE:HD12	10:1A:77:PRO:HB3	1.93	0.49
1:1G:1246:C:H41	21:1B:9:ARG:HH12	1.61	0.49
1:1G:1517:G:H3'	1:1G:1518:A:H8	1.78	0.49
1:1G:409:G:H2'	1:1G:410:G:O4'	2.13	0.49
1:1G:669:U:H2'	1:1G:670:G:C8	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1838:C:C2	26:1H:1898:U:C4	3.00	0.49
26:1H:493:G:H2'	26:1H:494:G:O4'	2.13	0.49
26:1H:547:A:O2'	26:1H:548:A:H8	1.96	0.49
30:21:24:THR:HG21	30:21:188:VAL:CG2	2.43	0.49
31:31:108:LYS:O	31:31:112:MET:HG3	2.13	0.49
12:3I:36:VAL:HG12	12:3I:59:ARG:HB3	1.95	0.49
56:3L:31:A:C3'	56:3L:32:C:H5'	2.43	0.49
32:49:119:GLY:N	32:49:181:ARG:HB2	2.28	0.49
27:1J:42:C:O2'	32:49:67:LYS:O	2.20	0.49
9:82:28:VAL:CG2	9:82:63:ILE:HB	2.43	0.49
9:8E:32:ASP:OD1	9:8E:33:PHE:N	2.46	0.49
9:8E:53:VAL:O	9:8E:54:ASP:HB2	2.11	0.49
9:8E:7:THR:O	9:8E:83:ARG:HG3	2.13	0.49
18:9A:21:LYS:NZ	18:9A:22:VAL:O	2.41	0.49
45:B5:13:LEU:HB2	45:B5:18:TYR:OH	2.12	0.49
42:C8:79:PHE:HD1	42:C8:79:PHE:O	1.95	0.49
47:H8:9:TYR:HE1	47:H8:35:ARG:HG3	1.78	0.49
51:L8:8:LEU:HD22	51:L8:31:LEU:HD23	1.93	0.49
1:13:1292:U:H2'	1:13:1293:G:H8	1.75	0.49
1:13:161:A:H61	1:13:347:G:H1'	1.77	0.49
1:13:498:A:H4'	1:13:500:G:OP1	2.12	0.49
26:14:1091:G:N1	26:14:1092:C:N3	2.61	0.49
26:14:1417:C:OP2	61:14:3586:HOH:O	2.20	0.49
26:14:531:C:C5	26:14:2035:G:C2	3.01	0.49
35:15:137:LYS:C	35:15:138:LEU:HG	2.33	0.49
29:19:30:GLU:HB2	29:19:35:LYS:NZ	2.27	0.49
10:1A:30:SER:HB3	10:1A:78:ASN:ND2	2.26	0.49
2:1E:215:LEU:HA	2:1E:218:ALA:HB3	1.94	0.49
1:1G:1305:G:H8	21:1B:5:ASP:HB2	1.77	0.49
1:1G:1324:A:H2'	1:1G:1325:C:C6	2.47	0.49
1:1G:762:C:H2'	1:1G:763:G:H8	1.77	0.49
26:1H:128:C:H2'	26:1H:129:C:H6	1.78	0.49
26:1H:1385:G:O2'	26:1H:1396:U:C6	2.64	0.49
26:1H:1882:C:H5'	26:1H:1883:G:OP2	2.12	0.49
26:1H:2286:A:H4'	26:1H:2287:A:O4'	2.13	0.49
26:1H:299:A:C2	26:1H:322:A:C4	3.01	0.49
26:1H:394:A:C6	26:1H:395:U:N3	2.80	0.49
26:1H:770:G:OP2	61:1H:3698:HOH:O	2.20	0.49
26:1H:952:G:C6	26:1H:953:A:N7	2.80	0.49
22:1K:4:U:H3	22:1K:69:A:N6	2.11	0.49
30:29:58:ARG:H	30:29:58:ARG:HD2	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:124:ILE:HG21	3:2E:196:LEU:HD12	1.93	0.49
4:32:38:TYR:CD2	4:32:45:GLN:HG2	2.48	0.49
26:14:1243:G:H1'	37:35:4:SER:O	2.13	0.49
31:39:67:GLN:HG3	31:39:67:GLN:O	2.13	0.49
12:3A:111:LYS:CD	12:3A:111:LYS:H	2.21	0.49
1:13:553:A:H5''	12:3I:24:VAL:HG21	1.94	0.49
6:52:53:ALA:HB3	6:52:86:ARG:HD3	1.94	0.49
33:59:9:ILE:HG21	33:59:51:ARG:HG3	1.93	0.49
41:75:31:SER:OG	41:75:85:LYS:HE3	2.12	0.49
26:1H:831:G:N2	37:78:53:GLY:O	2.46	0.49
9:82:26:VAL:HG22	9:82:61:ALA:N	2.28	0.49
38:88:35:VAL:HG12	38:88:130:LYS:HB3	1.95	0.49
18:9I:82:THR:O	18:9I:83:GLU:HG2	2.12	0.49
26:1H:2364:C:H4'	48:I8:56:ASP:OD1	2.13	0.49
61:1H:3730:HOH:O	55:Q8:30:ARG:HA	2.11	0.49
1:13:1162:C:H2'	1:13:1163:C:C6	2.47	0.49
26:14:1048:A:N6	26:14:1111:A:O2'	2.40	0.49
26:14:1191:G:OP1	37:35:18:ARG:NH2	2.46	0.49
26:14:1572:A:H2'	26:14:1573:G:O4'	2.12	0.49
26:14:1593:G:H2'	26:14:1594:G:C8	2.47	0.49
26:14:2162:G:H5'	26:14:2165:G:H1	1.78	0.49
26:14:2615:U:C2	53:J5:7:PRO:HA	2.46	0.49
26:14:681:G:H2'	26:14:682:G:O4'	2.13	0.49
26:14:926:A:H2'	26:14:928:G:C8	2.48	0.49
29:19:31:LYS:HZ1	29:19:33:LEU:HB2	1.77	0.49
2:1E:63:MET:CA	2:1E:225:ALA:HB1	2.43	0.49
1:1G:134:A:H61	16:7A:25:ARG:NH1	2.10	0.49
26:1H:1965:C:H3'	26:1H:1966:A:H2'	1.94	0.49
26:1H:2131:G:O2'	26:1H:2133:G:H4'	2.11	0.49
26:1H:2310:A:C2	32:41:80:PHE:CZ	3.01	0.49
26:1H:363(B):G:H2'	26:1H:363(C):G:C8	2.47	0.49
26:1H:443:A:O2'	26:1H:1200:C:O2'	2.15	0.49
26:1H:934:G:H2'	26:1H:935:C:C6	2.48	0.49
10:1I:79:ARG:HH11	10:1I:82:ILE:HD11	1.77	0.49
27:1J:104:A:H2'	27:1J:105:G:O4'	2.13	0.49
27:1J:15:A:H1'	27:1J:109:G:C5	2.48	0.49
26:1H:2773:C:H5''	30:21:164:ARG:HG2	1.93	0.49
30:29:171:GLU:O	30:29:184:VAL:HA	2.13	0.49
3:2E:19:GLU:HB3	3:2E:40:ARG:NH2	2.27	0.49
11:2I:92:GLU:O	11:2I:96:ARG:HB2	2.13	0.49
23:2K:20:G:C2	23:2K:58:A:N3	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:169:ASN:ND2	31:39:169:ASN:O	2.45	0.49
24:3K:8:U:C2	24:3K:13:C:C5	3.01	0.49
32:41:173:LEU:HD12	32:41:178:PHE:HE2	1.71	0.49
32:41:29:TRP:O	32:41:33:ARG:NH1	2.46	0.49
5:42:35:GLY:HA3	5:42:41:VAL:HG12	1.94	0.49
26:14:910:A:C5	38:45:13:GLN:HG3	2.48	0.49
38:45:66:ILE:HD12	38:45:67:ARG:N	2.28	0.49
33:51:83:TYR:O	33:51:84:SER:OG	2.26	0.49
36:68:23:ARG:NH2	36:68:28:SER:O	2.45	0.49
34:69:64:GLU:HG2	34:69:67:ARG:HE	1.77	0.49
34:69:84:GLY:O	34:69:85:GLU:HB3	2.13	0.49
61:1H:4563:HOH:O	37:78:26:GLY:HA2	2.12	0.49
16:7A:40:ASP:N	16:7A:48:TRP:O	2.46	0.49
9:82:77:ILE:HG22	9:82:81:ILE:HD11	1.95	0.49
43:D8:76:LYS:O	43:D8:79:VAL:HG12	2.13	0.49
44:E8:76:VAL:CG2	44:E8:101:SER:HB3	2.43	0.49
1:13:1313:U:OP1	19:AI:6:LYS:HB3	2.13	0.49
26:14:2080:G:H5'	49:F5:35:THR:OG1	2.13	0.49
26:14:2849:U:H1'	26:14:2866:U:O2	2.13	0.49
26:14:667:U:O2	55:M5:2:PRO:HD2	2.12	0.49
26:14:856:C:H2'	26:14:857:C:C6	2.46	0.49
1:1G:179:A:H2'	1:1G:180:U:C6	2.48	0.49
1:1G:266:G:H5''	1:1G:268:C:H41	1.78	0.49
1:1G:984:C:H42	1:1G:1221:G:H1	1.61	0.49
26:1H:51:G:N3	26:1H:119:A:C2	2.81	0.49
26:1H:2518:A:C8	26:1H:2518:A:H5'	2.48	0.49
26:1H:569:U:C4	26:1H:570:G:C6	3.01	0.49
10:1I:83:GLU:O	10:1I:87:THR:OG1	2.26	0.49
30:29:67:PHE:HD1	30:29:67:PHE:O	1.96	0.49
3:2E:15:THR:HG23	3:2E:181:ASN:HA	1.93	0.49
3:2E:55:VAL:HG22	3:2E:68:VAL:HG22	1.94	0.49
4:32:105:VAL:HG13	4:32:110:PHE:HB2	1.95	0.49
4:32:126:ILE:HG22	4:32:127:THR:H	1.77	0.49
56:3L:15:G:C6	56:3L:59:A:H1'	2.48	0.49
5:4E:10:MET:HE1	5:4E:13:ILE:CD1	2.43	0.49
39:55:58:GLY:HA2	39:55:80:PHE:CE2	2.48	0.49
35:58:93:THR:HG22	35:58:94:HIS:ND1	2.27	0.49
33:59:4:ILE:HG22	33:59:5:GLY:N	2.20	0.49
14:5I:23:ARG:NH1	14:5I:30:ALA:HB2	2.26	0.49
34:69:130:TYR:HB3	34:69:136:VAL:HG13	1.95	0.49
28:71:45:ALA:HA	28:71:211:SER:O	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1117:G:H5''	9:8E:104:ARG:NH1	2.28	0.49
19:AA:66:MET:N	19:AA:67:VAL:HB	2.27	0.49
45:B5:51:VAL:HG13	45:B5:81:VAL:CG2	2.41	0.49
44:E8:7:ALA:HB2	44:E8:50:VAL:HG22	1.95	0.49
46:G8:97:ARG:O	46:G8:101:LYS:HA	2.13	0.49
51:H5:8:LEU:CD2	51:H5:28:LEU:HB3	2.41	0.49
51:L8:7:LYS:HB2	51:L8:34:GLU:HG2	1.95	0.49
26:14:1784:A:H5''	61:14:3604:HOH:O	2.13	0.48
26:14:2012:G:P	44:A5:11:ARG:HH22	2.36	0.48
26:14:2129:C:H3'	26:14:2130:U:H6	1.78	0.48
26:14:2773:C:H2'	26:14:2774:C:H6	1.77	0.48
26:14:2776:A:OP1	26:14:2776:A:H3'	2.13	0.48
27:16:42:C:O2	32:41:93:THR:N	2.43	0.48
1:1G:1105:A:H2'	1:1G:1106:G:H8	1.78	0.48
1:1G:328:C:H4'	1:1G:329:A:H5''	1.95	0.48
1:1G:625:G:C4	1:1G:626:U:C5	3.01	0.48
26:1H:1521:G:H5'	26:1H:1522:G:OP1	2.12	0.48
26:1H:1918:A:N3	26:1H:1919:A:N6	2.61	0.48
36:25:3:GLN:HB2	36:25:4:PRO:HD2	1.94	0.48
11:2I:18:ARG:HA	11:2I:81:ASP:H	1.78	0.48
31:39:34:TRP:CZ3	37:35:8:PRO:HB3	2.48	0.48
4:3E:84:LYS:N	4:3E:85:LYS:HD2	2.28	0.48
32:41:139:LEU:CA	32:41:144:ILE:HD11	2.43	0.48
5:42:107:ARG:NH1	5:42:111:GLU:OE2	2.41	0.48
38:45:17:LEU:HD21	38:45:41:TRP:HE1	1.78	0.48
35:58:46:VAL:HG12	35:58:48:MET:N	2.28	0.48
14:5I:24:CYS:HB2	14:5I:40:CYS:HB3	1.94	0.48
16:7A:14:ASN:HA	16:7A:42:ARG:NH2	2.28	0.48
16:7A:57:ARG:NH2	16:7A:79:VAL:O	2.46	0.48
39:98:56:LYS:NZ	39:98:90:ARG:O	2.45	0.48
45:B5:12:VAL:HG12	45:B5:29:TRP:CE2	2.48	0.48
47:H8:156:LYS:O	47:H8:157:LEU:HG	2.12	0.48
47:H8:164:ALA:O	47:H8:165:VAL:HG22	2.13	0.48
55:M5:50:LEU:HB3	55:M5:51:ALA:H	1.51	0.48
2:12:30:ARG:NH2	2:12:194:PRO:HB2	2.27	0.48
1:13:673:G:H5''	6:5E:87:ARG:NH1	2.28	0.48
26:14:2298:A:N6	26:14:2318:G:H2'	2.28	0.48
26:14:2611:U:C4	53:J5:3:LYS:HG3	2.48	0.48
26:14:2781:A:H5''	26:14:2782:G:H5'	1.95	0.48
26:14:621:A:H3'	26:14:622:G:H8	1.79	0.48
26:14:89:G:OP2	26:14:90:U:H3'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:951:C:O2'	26:14:952:G:H5'	2.13	0.48
29:19:131:LEU:O	29:19:190:TYR:HA	2.13	0.48
2:1E:106:LYS:O	2:1E:110:GLN:HG3	2.13	0.48
1:1G:1402:C:H2'	1:1G:1403:C:O4'	2.13	0.48
1:1G:371:G:H1	1:1G:390:C:N4	2.09	0.48
1:1G:555:C:H2'	1:1G:556:C:C6	2.49	0.48
1:1G:630:G:H5'	1:1G:631:G:OP2	2.13	0.48
1:1G:690:G:H2'	1:1G:691:G:O4'	2.13	0.48
26:1H:1331:A:O2'	26:1H:1332:G:H8	1.95	0.48
26:1H:1446:C:H2'	26:1H:1447:G:C8	2.48	0.48
26:1H:1805:U:H5''	29:11:250:TRP:CD2	2.47	0.48
26:1H:1833:U:H2'	26:1H:1834:U:H6	1.79	0.48
26:1H:2506:U:O2	26:1H:2506:U:H2'	2.13	0.48
26:1H:527:C:H4'	26:1H:528:A:O5'	2.13	0.48
27:1J:88:C:H3'	27:1J:89:G:N7	2.28	0.48
30:21:143:ASN:HD22	30:21:147:PRO:CD	2.26	0.48
30:29:5:LEU:HD11	30:29:49:LEU:HD12	1.95	0.48
3:2E:6:HIS:CE1	3:2E:8:ILE:HB	2.48	0.48
24:3K:30:G:N2	24:3K:40:C:O2	2.44	0.48
32:41:101:ILE:O	32:41:105:LYS:HE2	2.13	0.48
5:42:12:LEU:HD22	5:42:13:ILE:N	2.28	0.48
5:4E:137:GLU:OE1	5:4E:141:GLN:NE2	2.41	0.48
13:4I:81:LEU:HD11	13:4I:88:ARG:NH1	2.28	0.48
33:51:157:TYR:O	33:51:158:HIS:ND1	2.46	0.48
33:59:142:GLY:HA3	33:59:143:GLN:CG	2.35	0.48
15:6I:69:TYR:CE1	15:6I:73:GLU:HG3	2.47	0.48
38:88:10:ARG:HH21	38:88:11:LYS:HE3	1.78	0.48
44:A5:20:VAL:HG23	44:A5:47:VAL:HG21	1.95	0.48
26:14:64:A:O3'	45:B5:71:GLY:HA3	2.13	0.48
20:BI:71:THR:HG22	20:BI:72:LEU:N	2.22	0.48
44:E8:58:ALA:HB1	44:E8:64:MET:HE2	1.96	0.48
50:G5:12:GLU:O	50:G5:16:LEU:HD23	2.13	0.48
46:G8:52:SER:OG	46:G8:53:PRO:HD2	2.12	0.48
2:12:193:ASP:OD2	2:12:196:LEU:HD12	2.14	0.48
1:13:1118:C:H1'	1:13:1179:A:C5	2.49	0.48
1:13:429:U:H1'	1:13:430:A:H5''	1.93	0.48
26:14:30:G:H2'	26:14:31:C:H6	1.78	0.48
35:15:49:GLY:H	35:15:119:ARG:NH1	2.11	0.48
1:1G:706:A:H2'	1:1G:707:C:H5'	1.95	0.48
26:1H:1591:G:H2'	26:1H:1592:C:C6	2.48	0.48
26:1H:2154:G:H2'	26:1H:2155:G:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2224:G:H4'	26:1H:2226:C:C2	2.48	0.48
26:1H:2389:G:H5''	26:1H:2390:U:H5'	1.95	0.48
11:2I:27:ASN:OD1	11:2I:28:THR:N	2.46	0.48
31:31:149:ASP:OD1	31:31:149:ASP:N	2.37	0.48
31:39:124:LEU:HG	31:39:126:VAL:HG12	1.95	0.48
13:4I:14:ARG:HB2	13:4I:17:VAL:HG23	1.94	0.48
13:4I:16:ASP:HB3	13:4I:34:LEU:HD11	1.94	0.48
7:6E:27:ILE:HD12	7:6E:40:ALA:HA	1.95	0.48
15:6I:67:LEU:O	15:6I:71:GLN:HB2	2.13	0.48
1:1G:393:A:OP2	16:7A:12:LYS:HD3	2.13	0.48
1:1G:452:A:H4'	16:7A:72:ARG:NH1	2.27	0.48
1:13:130:A:C8	17:8I:63:ARG:HB2	2.48	0.48
39:98:94:TYR:N	39:98:94:TYR:CD1	2.80	0.48
40:A8:7:TYR:HA	40:A8:10:ARG:NH2	2.27	0.48
46:C5:84:ARG:HG3	46:C5:95:LYS:HG3	1.94	0.48
46:C5:86:ARG:HG3	46:C5:87:LYS:N	2.28	0.48
45:F8:49:VAL:HG11	45:F8:83:VAL:HG12	1.96	0.48
47:H8:120:ILE:HB	47:H8:171:ILE:HG23	1.94	0.48
52:M8:15:ILE:O	52:M8:33:VAL:HB	2.12	0.48
54:P8:5:TRP:HA	54:P8:5:TRP:CE3	2.47	0.48
1:13:128:G:H5'	17:8I:2:PRO:O	2.13	0.48
1:13:874:G:C4	1:13:875:C:C5	3.01	0.48
1:13:922:G:C6	1:13:923:A:C6	3.00	0.48
26:14:1372:U:H2'	26:14:1373:A:O4'	2.14	0.48
26:14:1590:U:H2'	26:14:1591:G:C8	2.48	0.48
26:14:2032:G:N1	26:14:2572:A:C8	2.80	0.48
27:16:12:C:H6	27:16:12:C:OP2	1.96	0.48
29:19:38:LYS:HZ2	29:19:60:ARG:C	2.15	0.48
2:1E:21:ARG:O	2:1E:23:ARG:N	2.45	0.48
26:1H:1207:C:H2'	26:1H:1208:C:H6	1.79	0.48
26:1H:198:C:H2'	26:1H:199:A:H5''	1.95	0.48
26:1H:2164:C:H5	26:1H:2165:G:C2	2.31	0.48
26:1H:2199:A:H3'	26:1H:2205:C:C6	2.45	0.48
26:1H:2246:G:H2'	26:1H:2247:A:C8	2.48	0.48
26:1H:2579:C:H2'	26:1H:2580:U:H6	1.78	0.48
26:1H:265:A:H8	26:1H:266:G:H1'	1.77	0.48
26:1H:1050:A:C8	26:1H:2751:G:C8	3.02	0.48
26:1H:2811:G:H8	26:1H:2811:G:OP2	1.96	0.48
26:1H:581:C:H2'	26:1H:582:G:C8	2.48	0.48
26:1H:589:C:H2'	26:1H:590:A:C8	2.49	0.48
26:14:1668:A:OP1	36:25:5:GLN:HG2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:118:ARG:HD2	32:49:118:ARG:H	1.76	0.48
33:59:7:LEU:HA	33:59:65:HIS:CE1	2.48	0.48
34:61:26:ALA:HA	34:61:30:LEU:HB2	1.95	0.48
34:69:101:LEU:HB2	34:69:105:HIS:HB2	1.94	0.48
34:69:114:LEU:HD13	34:69:114:LEU:O	2.14	0.48
2:12:195:ASP:O	8:72:74:PRO:HG3	2.13	0.48
37:78:52:GLU:OE2	37:78:57:THR:HA	2.12	0.48
43:95:76:LYS:HB2	43:95:79:VAL:HG23	1.95	0.48
39:98:26:LYS:HE2	39:98:70:LEU:O	2.13	0.48
45:F8:93:GLU:OE1	45:F8:93:GLU:HA	2.14	0.48
53:N8:40:LYS:HG2	53:N8:47:PRO:HD2	1.95	0.48
29:11:28:GLU:N	29:11:29:PRO:HD3	2.27	0.48
2:12:185:ILE:HG23	2:12:199:TYR:O	2.13	0.48
1:13:1129:C:H4'	1:13:1130:A:H5'	1.96	0.48
1:13:1417:G:C6	1:13:1482:G:C6	3.02	0.48
26:14:1560:G:OP1	61:14:3587:HOH:O	2.20	0.48
26:14:2208:U:H4'	29:19:151:LYS:HG3	1.95	0.48
26:14:2572:A:C4	30:29:144:ARG:CZ	2.90	0.48
26:14:2789:C:H1'	26:14:2892:A:C2	2.48	0.48
29:19:118:VAL:HG22	29:19:119:ALA:H	1.79	0.48
29:19:70:TRP:C	29:19:70:TRP:CD1	2.86	0.48
2:1E:5:ILE:HG22	2:1E:224:GLN:NE2	2.28	0.48
1:1G:1279:A:O2'	1:1G:1282:C:N4	2.46	0.48
1:1G:436:C:H1'	4:32:157:LEU:HD11	1.96	0.48
1:1G:837:G:H2'	1:1G:838:G:C8	2.48	0.48
1:1G:947:G:O3'	13:4A:109:THR:OG1	2.31	0.48
26:1H:1639:U:O2'	26:1H:1640:C:H5''	2.13	0.48
26:1H:1863:G:H2'	26:1H:1864:U:O4'	2.13	0.48
26:1H:1990:C:H2'	26:1H:1991:U:C6	2.48	0.48
26:1H:2132:U:C2	28:71:5:LYS:HD2	2.48	0.48
26:1H:2139:C:H42	26:1H:2152:G:H1	1.60	0.48
26:1H:2308:G:H2'	26:1H:2308:G:N3	2.29	0.48
26:1H:2395:C:H5''	26:1H:2396:G:OP2	2.13	0.48
26:1H:2862:G:H2'	26:1H:2863:C:H6	1.79	0.48
26:1H:298:G:OP2	46:G8:84:ARG:HD2	2.12	0.48
26:1H:547:A:O2'	26:1H:548:A:H5'	2.14	0.48
26:1H:818:G:H4'	26:1H:838:C:O3'	2.13	0.48
22:1K:22:G:H8	22:1K:48:C:H42	1.62	0.48
30:29:81:ILE:HG22	30:29:82:ARG:N	2.20	0.48
1:1G:922:G:P	5:42:20:GLN:HE22	2.36	0.48
5:42:41:VAL:HG13	5:42:113:ALA:HA	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:911:A:H2'	38:45:9:TYR:OH	2.12	0.48
5:4E:5:ASP:N	5:4E:5:ASP:OD1	2.47	0.48
35:58:12:ARG:HD2	35:58:50:ASP:OD1	2.13	0.48
14:5I:15:LYS:HG2	14:5I:16:PHE:CE1	2.49	0.48
7:62:120:ILE:O	7:62:124:LEU:HB2	2.14	0.48
36:68:34:THR:OG1	36:68:35:VAL:N	2.47	0.48
37:78:100:LEU:HD12	37:78:105:LEU:HD11	1.94	0.48
16:7I:49:LEU:HD12	16:7I:50:LYS:N	2.29	0.48
9:8E:18:PHE:CD2	9:8E:62:TYR:HD2	2.31	0.48
17:8I:9:VAL:O	17:8I:21:VAL:HA	2.13	0.48
20:BI:25:ARG:O	20:BI:29:LYS:HG3	2.13	0.48
1:13:955:U:H1'	1:13:1227:A:N6	2.28	0.48
1:13:240:C:H2'	1:13:241:C:H6	1.78	0.48
1:13:344:A:O2'	1:13:346:G:O6	2.21	0.48
1:13:645:C:H2'	1:13:646:U:O4'	2.14	0.48
26:14:1441:G:H2'	26:14:1442:G:H8	1.77	0.48
26:14:1635:G:OP1	61:14:3583:HOH:O	2.20	0.48
26:14:468:G:H5''	26:14:469:G:OP2	2.13	0.48
26:14:959:A:N6	26:14:960:A:N1	2.62	0.48
35:15:59:LYS:NZ	35:15:60:ILE:N	2.61	0.48
26:14:1491:G:O2'	29:19:101:GLU:HB2	2.14	0.48
1:1G:1347:G:N2	1:1G:1374:A:OP2	2.39	0.48
1:1G:78:G:H1	1:1G:91:C:H42	1.62	0.48
1:1G:8:A:C6	4:32:209:ARG:HB3	2.49	0.48
1:1G:953:G:H5'	1:1G:965:A:H61	1.77	0.48
1:1G:986:A:H1'	19:AA:55:LYS:HA	1.95	0.48
26:1H:1491:G:H2'	26:1H:1492:G:H8	1.77	0.48
26:1H:270(G):C:H2'	26:1H:270(H):C:C6	2.48	0.48
26:1H:270(V):G:H2'	26:1H:270(W):G:C8	2.46	0.48
26:1H:618:G:H2'	26:1H:618(A):C:H6	1.79	0.48
26:1H:637:A:O5'	37:78:116:GLY:HA3	2.13	0.48
26:1H:662:G:H5'	37:78:15:ARG:HA	1.95	0.48
27:1J:12:C:H6	27:1J:12:C:OP2	1.97	0.48
27:1J:16:G:H2'	27:1J:17:C:C6	2.49	0.48
37:35:10:PRO:HA	37:35:13:ASN:HD21	1.78	0.48
26:14:825:C:O2'	37:35:55:ARG:HG3	2.13	0.48
1:13:407:G:O4'	4:3E:119:GLN:NE2	2.47	0.48
33:59:6:ARG:HH12	33:59:54:ARG:NH2	2.12	0.48
34:61:81:VAL:HG21	34:61:123:LEU:HD11	1.95	0.48
34:69:29:TYR:HD2	34:69:30:LEU:HD23	1.78	0.48
17:8I:45:HIS:NE2	17:8I:47:PRO:HG3	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:719:C:O2'	18:9A:50:ILE:O	2.23	0.48
19:AI:58:VAL:HG11	19:AI:75:ALA:CB	2.43	0.48
46:C5:87:LYS:HB3	46:C5:94:LYS:CA	2.38	0.48
42:C8:69:CYS:SG	42:C8:79:PHE:CD2	3.05	0.48
42:C8:88:ILE:O	42:C8:88:ILE:HG22	2.12	0.48
27:1J:75:G:H21	47:D5:85:HIS:CE1	2.31	0.48
47:D5:28:MET:HA	47:D5:88:PHE:O	2.12	0.48
45:B5:5:TYR:CE1	50:G5:30:ARG:HD2	2.48	0.48
47:H8:13:GLU:HB3	47:H8:18:LEU:HD21	1.95	0.48
29:11:242:ARG:N	29:11:242:ARG:HD2	2.28	0.48
26:1H:1901:A:OP2	29:11:255:LYS:HE2	2.13	0.48
1:13:359:U:H2'	1:13:360:A:C8	2.48	0.48
1:13:5:U:O2	4:3E:85:LYS:HE3	2.13	0.48
1:13:942:G:C2	1:13:943:U:C6	3.02	0.48
26:14:1542:G:O6	26:14:1543:A:N6	2.47	0.48
26:14:2432:A:H2'	26:14:2433:A:C8	2.48	0.48
26:14:2469:A:C1'	38:45:56:ARG:HH12	2.23	0.48
26:14:251:A:C5	26:14:252:G:H1'	2.49	0.48
26:14:2692:C:O2	26:14:2847:U:O2'	2.27	0.48
26:14:499:U:H4'	46:C5:45:VAL:HG21	1.96	0.48
26:14:511:U:C5	26:14:512:G:C5	3.01	0.48
29:19:44:ASN:HB3	29:19:46:GLN:N	2.29	0.48
1:1G:1002:G:H2'	1:1G:1003:G:H8	1.78	0.48
1:1G:176:C:O2'	1:1G:177:C:H5'	2.14	0.48
1:1G:382:A:O5'	1:1G:382:A:H8	1.96	0.48
1:1G:407:G:H2'	1:1G:408:A:C8	2.49	0.48
26:1H:1375:C:C2	26:1H:1376:C:C5	3.02	0.48
26:1H:1448:G:N2	26:1H:1449:A:N6	2.62	0.48
26:1H:1491:G:O4'	29:11:99:ASP:HB3	2.14	0.48
26:1H:2248:C:H2'	26:1H:2249:U:O4'	2.14	0.48
26:1H:2845:G:H2'	26:1H:2846:G:C8	2.48	0.48
26:1H:302:C:H2'	26:1H:303:U:C6	2.49	0.48
26:1H:412:A:H2'	26:1H:412:A:N3	2.28	0.48
27:1J:118:G:C5	27:1J:119:A:N7	2.82	0.48
22:1L:24:G:H2'	22:1L:25:C:C6	2.48	0.48
30:21:107:THR:O	30:21:190:GLY:HA3	2.14	0.48
31:31:185:ASP:OD1	31:31:188:ARG:NH1	2.45	0.48
12:3I:93:LEU:O	12:3I:96:VAL:HG12	2.13	0.48
56:3L:25:C:H2'	56:3L:26:A:O4'	2.14	0.48
56:3L:5:C:H2'	56:3L:6:G:C8	2.49	0.48
32:41:131:TYR:HE1	32:41:133:LEU:HD23	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:61:TYR:HA	5:42:64:ARG:CG	2.43	0.48
33:51:3:ARG:HH21	33:51:6:ARG:NH2	2.12	0.48
14:5I:15:LYS:HG2	14:5I:16:PHE:CD1	2.48	0.48
34:61:2:LYS:HE3	34:61:20:ASP:OD1	2.14	0.48
7:62:68:ASN:ND2	7:62:127:ALA:O	2.24	0.48
34:69:143:SER:O	34:69:144:VAL:HG22	2.14	0.48
15:6A:25:THR:HG21	15:6A:70:LEU:HB2	1.96	0.48
28:71:69:GLY:HA3	28:71:180:PHE:HZ	1.78	0.48
37:78:113:LYS:HG3	37:78:129:ALA:HB3	1.96	0.48
26:14:2121:G:C2	28:79:172:HIS:HE1	2.32	0.48
1:1G:1187:G:H5'	9:82:113:LYS:HE2	1.96	0.48
9:82:26:VAL:HG13	9:82:61:ALA:O	2.14	0.48
38:88:34:LEU:HD11	38:88:129:THR:OG1	2.13	0.48
17:8A:7:THR:O	17:8A:23:VAL:HG13	2.13	0.48
17:8I:70:ARG:O	17:8I:71:PHE:HD1	1.96	0.48
26:1H:2378:A:O2'	40:A8:21:THR:HG21	2.14	0.48
45:F8:5:TYR:CE1	50:K8:30:ARG:HG3	2.49	0.48
47:H8:60:GLU:O	47:H8:61:LEU:CB	2.61	0.48
53:J5:20:ARG:HA	53:J5:23:HIS:ND1	2.29	0.48
26:14:1427:A:H4'	26:14:1428:C:O4'	2.13	0.48
26:14:2351:G:O2'	26:14:2366:A:N6	2.47	0.48
26:14:2391:G:O6	26:14:2425:A:H8	1.97	0.48
26:14:2712:U:H2'	26:14:2714:G:H5''	1.94	0.48
26:14:2801:A:H5''	26:14:2895:U:H1'	1.95	0.48
29:19:44:ASN:HB3	29:19:45:ASN:CA	2.43	0.48
1:1G:1431:C:H2'	1:1G:1432:G:O4'	2.13	0.48
1:1G:998:G:H22	1:1G:1043:C:H42	1.62	0.48
26:1H:1161:C:O2'	43:D8:8:GLY:HA2	2.14	0.48
26:1H:1511:A:H2'	26:1H:1512:G:C8	2.49	0.48
26:1H:2619:C:H4'	30:21:151:TYR:O	2.14	0.48
26:1H:2772:C:H2'	26:1H:2773:C:H6	1.79	0.48
26:1H:71:A:H2	45:F8:31:HIS:NE2	2.00	0.48
3:22:62:ASP:HA	3:22:97:LYS:HA	1.96	0.48
1:13:501:C:OP2	12:3I:124:LYS:HE3	2.14	0.48
14:5A:23:ARG:NH1	14:5A:29:ARG:O	2.47	0.48
14:5I:21:TYR:HA	61:5I:201:HOH:O	2.13	0.48
7:6E:100:ALA:O	7:6E:104:LEU:HB2	2.13	0.48
28:71:5:LYS:HE3	28:71:8:ARG:NE	2.29	0.48
37:78:34:GLY:O	37:78:36:LYS:HB2	2.13	0.48
37:78:37:GLY:O	37:78:40:SER:N	2.46	0.48
47:D5:44:PHE:HD1	47:D5:44:PHE:O	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D5:4:ARG:CB	47:D5:58:VAL:HB	2.43	0.48
43:D8:38:LEU:O	43:D8:51:VAL:HG23	2.13	0.48
50:G5:31:GLU:HB3	50:G5:53:LEU:HD11	1.95	0.48
54:L5:35:ARG:HG3	54:L5:42:LEU:HD11	1.95	0.48
55:M5:23:VAL:HG22	55:M5:47:LYS:HB3	1.95	0.48
1:13:1356:G:H2'	1:13:1357:A:C8	2.48	0.48
1:13:240:C:H2'	1:13:241:C:C6	2.48	0.48
26:14:1317:A:H2'	26:14:1318:C:H6	1.79	0.48
26:14:1413:G:O6	61:14:3585:HOH:O	2.20	0.48
26:14:1963:U:H5''	26:14:1963:U:O2	2.14	0.48
26:14:2469:A:O2'	38:45:56:ARG:NH1	2.35	0.48
26:14:469:G:C6	54:L5:39:ARG:NH1	2.82	0.48
26:14:66:C:H2'	26:14:67:U:H6	1.79	0.48
26:14:708:C:H42	26:14:723:G:H1	1.62	0.48
1:1G:1043:C:H2'	1:1G:1044:A:H8	1.79	0.48
1:1G:1260:C:H6	1:1G:1260:C:H3'	1.78	0.48
1:1G:976:G:H5'	1:1G:1358:U:O2'	2.14	0.48
1:1G:1442:G:O2'	1:1G:1443:G:OP1	2.30	0.48
26:1H:1142(A):A:C4	26:1H:1144:G:C8	3.01	0.48
26:1H:270(C):C:H42	26:1H:270(W):G:H1	1.62	0.48
26:1H:2787:C:H4'	30:21:61:ARG:NH1	2.29	0.48
26:1H:354:G:H2'	26:1H:355:G:H8	1.78	0.48
26:1H:463:G:N2	26:1H:466:A:OP2	2.39	0.48
26:1H:458:G:O2'	26:1H:469:G:O6	2.24	0.48
1:13:1150:U:O2	10:1I:39:PRO:HG2	2.14	0.48
27:1J:18:G:H2'	27:1J:19:G:C8	2.49	0.48
22:1K:26:A:H5'	22:1K:27:G:OP2	2.14	0.48
36:25:10:VAL:HG12	36:25:17:ARG:O	2.14	0.48
30:29:52:LEU:HA	30:29:52:LEU:HD12	1.51	0.48
31:31:28:ILE:HG12	31:31:119:ARG:HH21	1.79	0.48
4:3E:158:ILE:O	4:3E:162:LEU:N	2.41	0.48
1:13:35:G:O2'	12:3I:118:SER:O	2.22	0.48
24:3K:59:A:H3'	24:3K:60:U:H6	1.79	0.48
13:4A:13:LYS:HA	13:4A:44:ARG:NH1	2.29	0.48
28:7I:50:ASP:OD2	28:7I:52:ARG:HB2	2.13	0.48
16:7I:26:ARG:NH2	16:7I:31:LYS:HD2	2.26	0.48
17:8A:43:LEU:HD23	17:8A:43:LEU:HA	1.60	0.48
9:8E:28:VAL:HG22	9:8E:63:ILE:HB	1.95	0.48
42:C8:92:ARG:HD2	43:D8:11:GLN:HB2	1.96	0.48
44:E8:88:ARG:HB3	44:E8:92:ARG:HB2	1.96	0.48
51:L8:30:ARG:NH2	51:L8:33:GLN:HE21	2.11	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:219:VAL:O	2:12:220:ASP:HB3	2.14	0.48
1:13:269:C:H2'	1:13:270:A:C8	2.48	0.48
1:13:49:U:N3	1:13:361:G:N2	2.61	0.48
26:14:1204:A:O2'	26:14:1205:U:OP2	2.27	0.48
26:14:1899:G:N2	26:14:1902:C:H41	2.11	0.48
26:14:2745:C:H2'	26:14:2746:U:O4'	2.14	0.48
1:1G:108:G:H5'	1:1G:109:A:C5'	2.44	0.48
1:1G:1299:A:C6	1:1G:1301:U:C2	3.02	0.48
10:1I:28:ARG:HG2	10:1I:34:VAL:HG13	1.96	0.48
30:29:128:SER:OG	30:29:129:HIS:N	2.46	0.48
11:2I:17:GLY:O	11:2I:80:VAL:HA	2.14	0.48
31:31:66:PRO:HD2	31:31:70:THR:HG21	1.96	0.48
4:32:191:ARG:HH21	4:32:194:LEU:CB	2.24	0.48
4:32:61:LYS:HA	4:32:203:VAL:HG22	1.95	0.48
31:39:183:VAL:O	31:39:187:VAL:HG23	2.14	0.48
26:14:674:G:O2'	31:39:74:ARG:HD2	2.14	0.48
12:3I:54:LYS:N	12:3I:54:LYS:HD2	2.29	0.48
32:41:41:GLN:HG2	32:41:154:GLY:O	2.13	0.48
26:14:2469:A:C8	38:45:56:ARG:NH1	2.81	0.48
32:49:113:ARG:HD3	32:49:140:ILE:O	2.14	0.48
6:5E:62:TRP:CH2	6:5E:64:GLN:HG2	2.48	0.48
36:68:4:PRO:HA	36:68:21:CYS:O	2.13	0.48
9:82:18:PHE:C	9:82:19:LEU:HD23	2.34	0.48
42:85:50:ARG:HH12	43:95:72:VAL:HG23	1.79	0.48
41:B8:45:PHE:CE1	41:B8:74:ARG:HG3	2.49	0.48
47:D5:30:ASN:HA	47:D5:89:PHE:HE1	1.79	0.48
42:C8:95:LEU:HD11	43:D8:11:GLN:O	2.13	0.48
45:F8:11:PRO:HG2	45:F8:13:LEU:HD21	1.96	0.48
51:H5:5:LYS:HE3	51:H5:57:GLU:HB2	1.95	0.48
47:H8:30:ASN:OD1	47:H8:33:LEU:HB3	2.14	0.48
47:H8:3:TYR:O	47:H8:58:VAL:HG22	2.13	0.48
29:11:18:VAL:HG22	29:11:211:ARG:HH22	1.78	0.47
29:11:38:LYS:NZ	29:11:60:ARG:HB2	2.29	0.47
2:12:91:PRO:CG	2:12:155:LEU:HB2	2.44	0.47
2:12:58:ILE:HG23	2:12:222:ILE:HG12	1.96	0.47
1:13:1126:U:H5	1:13:1127:G:C2	2.32	0.47
1:13:1455:G:H8	1:13:1455:G:O5'	1.96	0.47
1:13:1502:A:H2	1:13:1505:G:N1	1.99	0.47
1:13:339:C:OP2	36:68:97:ARG:NH1	2.47	0.47
1:13:736:C:H2'	1:13:737:A:C8	2.49	0.47
26:14:1126:A:OP1	26:14:1126:A:H8	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1154:G:OP1	42:85:58:ARG:HD3	2.14	0.47
26:14:1210:A:H5''	26:14:1211:U:H3'	1.96	0.47
26:14:1899:G:N2	26:14:1902:C:C5	2.82	0.47
26:14:2143:C:H2'	26:14:2144:U:H4'	1.96	0.47
26:14:2211:G:H4'	26:14:2212:A:OP2	2.14	0.47
26:14:489:G:O6	44:A5:45:TYR:OH	2.27	0.47
27:16:28:C:OP1	40:A8:31:SER:OG	2.28	0.47
2:1E:74:LYS:HD2	2:1E:208:ILE:HD13	1.96	0.47
1:1G:1236:A:H2'	1:1G:1237:C:C6	2.49	0.47
1:1G:1281:U:H3'	1:1G:1282:C:C5	2.49	0.47
1:1G:942:G:C2	1:1G:1342:C:C2	3.01	0.47
1:1G:865:A:H8	1:1G:865:A:O5'	1.97	0.47
1:1G:894:G:C6	1:1G:895:G:C5	3.02	0.47
26:1H:1296:G:O2'	26:1H:1297:C:H5'	2.14	0.47
26:1H:1647:G:P	26:1H:1647:G:H3'	2.53	0.47
26:1H:2031:A:N3	26:1H:2455:G:O2'	2.41	0.47
26:1H:2641:G:OP1	35:58:74:ARG:NE	2.28	0.47
26:1H:444:C:H2'	26:1H:445:C:H6	1.79	0.47
26:1H:55:G:C2	26:1H:116:C:C2	3.01	0.47
26:1H:783:A:C8	26:1H:783:A:H3'	2.49	0.47
3:22:72:LYS:NZ	3:22:75:VAL:HG23	2.28	0.47
36:25:111:PHE:O	36:25:114:ILE:HG22	2.14	0.47
26:14:2052:G:O4'	30:29:142:GLY:HA3	2.14	0.47
26:14:2572:A:N7	30:29:144:ARG:HD2	2.26	0.47
30:29:39:PRO:HA	30:29:43:GLY:CA	2.44	0.47
3:2E:79:ARG:HH11	11:2A:99:GLN:HE22	1.61	0.47
33:51:7:LEU:C	33:51:7:LEU:CD1	2.83	0.47
28:71:192:PHE:HA	28:71:195:ALA:HB3	1.96	0.47
16:7A:72:ARG:O	16:7A:75:ARG:HB3	2.13	0.47
16:7I:20:VAL:HG23	16:7I:35:LYS:HA	1.94	0.47
42:85:91:ASP:OD2	42:85:96:ALA:HB2	2.14	0.47
18:9I:58:LEU:HD23	18:9I:62:GLU:HB3	1.96	0.47
26:14:2010:G:H5''	44:A5:42:ARG:HB2	1.96	0.47
44:A5:65:LEU:HD13	44:A5:68:ARG:CD	2.43	0.47
47:H8:69:THR:HG22	47:H8:90:VAL:HG22	1.95	0.47
1:13:1060:C:C5	3:2E:2:GLY:HA2	2.50	0.47
1:13:201:C:N3	1:13:216:G:N2	2.52	0.47
1:13:22:G:H2'	1:13:23:C:C6	2.49	0.47
1:13:749:C:H2'	1:13:750:G:H8	1.79	0.47
26:14:1375:C:H2'	26:14:1376:C:C6	2.48	0.47
26:14:1341:U:C5	26:14:1395:A:H2	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2339:G:H2'	26:14:2340:G:H8	1.79	0.47
26:14:2892:A:C5	26:14:2893:G:H1'	2.49	0.47
26:14:323:G:O2'	26:14:1205:U:N3	2.36	0.47
26:14:597:U:H2'	26:14:598:G:C8	2.49	0.47
26:14:864:G:H8	26:14:864:G:O5'	1.97	0.47
1:1G:1072:G:C6	1:1G:1073:U:C4	3.02	0.47
1:1G:1321:C:H4'	13:4A:87:TYR:CZ	2.49	0.47
1:1G:713:G:H2'	1:1G:714:G:C8	2.49	0.47
26:1H:1336:A:H2'	26:1H:1337:G:C8	2.49	0.47
26:1H:1636:C:H2'	26:1H:1637:A:C8	2.48	0.47
26:1H:1696:G:C6	26:1H:1697:G:C4	3.02	0.47
26:1H:1796:U:H2'	26:1H:1797:C:C6	2.49	0.47
26:1H:1827:C:H2'	26:1H:1828:G:H5'	1.96	0.47
26:1H:2210:G:H3'	26:1H:2211:G:C5	2.48	0.47
26:1H:248:G:H5'	26:1H:250:G:N7	2.29	0.47
26:1H:2518:A:H8	26:1H:2518:A:H5'	1.79	0.47
26:1H:2713:A:H3'	26:1H:2714:G:H5''	1.95	0.47
26:1H:442:G:C4	26:1H:444:C:C5	3.02	0.47
26:14:1665:A:H1'	36:25:1:MET:HG3	1.95	0.47
3:2E:191:THR:OG1	3:2E:194:GLY:O	2.22	0.47
31:39:146:ALA:HB1	31:39:148:LEU:HG	1.95	0.47
4:3E:107:ARG:HH12	4:3E:194:LEU:HD22	1.78	0.47
24:3K:34:U:O2	25:4K:14:A:N6	2.47	0.47
24:3K:52:G:H2'	24:3K:53:G:C8	2.48	0.47
38:45:134:ARG:HG2	38:45:134:ARG:O	2.14	0.47
35:58:67:LEU:HA	35:58:87:LEU:HD12	1.96	0.47
15:6A:70:LEU:HG	15:6A:78:TYR:HB2	1.95	0.47
37:78:37:GLY:HA2	37:78:41:ARG:HH21	1.79	0.47
19:AI:80:TYR:CZ	19:AI:82:GLY:HA2	2.49	0.47
47:D5:165:VAL:HG12	47:D5:166:SER:N	2.26	0.47
47:H8:116:VAL:H	47:H8:146:ILE:HD11	1.79	0.47
48:I8:75:LEU:HA	48:I8:75:LEU:HD23	1.56	0.47
29:11:69:ARG:HH11	29:11:105:ILE:HG12	1.79	0.47
1:13:1127:G:H2'	1:13:1128:C:N1	2.28	0.47
1:13:112:G:P	16:7I:27:LYS:HD2	2.54	0.47
26:14:1688:U:O2	26:14:1700:A:H5'	2.13	0.47
26:14:2889:C:H2'	26:14:2891:G:O4'	2.14	0.47
27:16:18:G:H1	27:16:65:C:H42	1.62	0.47
2:1E:21:ARG:C	2:1E:23:ARG:H	2.17	0.47
1:1G:1157:A:N6	1:1G:1181:G:C8	2.83	0.47
1:1G:1321:C:C4	1:1G:1322:C:N3	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1470:G:N7	61:1G:1726:HOH:O	2.35	0.47
1:1G:1510:U:H2'	1:1G:1511:G:C8	2.49	0.47
1:1G:68:G:C2	1:1G:69:G:H1'	2.50	0.47
26:1H:1170:G:C5	26:1H:1171:G:C8	3.02	0.47
26:1H:2210:G:H3'	26:1H:2211:G:C4	2.50	0.47
26:1H:2349:G:OP2	55:Q8:42:ARG:HD3	2.15	0.47
26:1H:263:C:H2'	26:1H:264:C:O4'	2.14	0.47
26:1H:2728:U:OP2	61:1H:3699:HOH:O	2.20	0.47
26:1H:273(F):C:H3'	26:1H:274:G:H5''	1.96	0.47
22:1K:22:G:O4'	22:1K:48:C:N4	2.47	0.47
11:2I:54:ARG:HA	11:2I:57:THR:HG23	1.97	0.47
23:2L:34:U:H2'	23:2L:36:A:OP2	2.14	0.47
56:3L:22:G:O6	56:3L:23:A:N6	2.46	0.47
35:58:6:PRO:HD2	35:58:43:THR:HG21	1.96	0.47
40:65:84:GLN:HA	40:65:110:LEU:HA	1.95	0.47
9:82:105:ASP:OD1	9:82:107:ARG:HD3	2.14	0.47
26:1H:907:U:H4'	38:88:101:ARG:HH22	1.79	0.47
1:13:264:U:H4'	17:8I:63:ARG:HD2	1.96	0.47
18:9A:66:LEU:O	18:9A:70:ILE:HG13	2.14	0.47
41:B8:78:LEU:HD12	41:B8:79:HIS:CD2	2.49	0.47
46:C5:50:ARG:HB3	46:C5:53:PRO:HG2	1.97	0.47
45:F8:12:VAL:HG22	45:F8:27:THR:HG23	1.96	0.47
26:1H:1569:A:O5'	29:11:61:LEU:HD21	2.15	0.47
29:11:64:ILE:HD12	29:11:65:ILE:H	1.78	0.47
29:11:79:VAL:O	29:11:113:VAL:HG23	2.14	0.47
1:13:237:C:H5''	17:8I:25:ARG:CZ	2.44	0.47
1:13:974:A:OP2	14:5I:29:ARG:NH1	2.47	0.47
26:14:1319:G:C6	26:14:1320:C:N4	2.82	0.47
26:14:2366:A:H2'	26:14:2367:G:O4'	2.14	0.47
26:14:2688:U:H1'	26:14:2721:A:N6	2.28	0.47
26:14:1654:A:C1'	26:14:2823:A:H5'	2.44	0.47
26:14:433:C:H2'	26:14:434:U:C6	2.49	0.47
29:19:147:LEU:HD23	29:19:155:LEU:CD1	2.44	0.47
10:1A:16:LEU:HD13	10:1A:94:VAL:CG1	2.44	0.47
1:1G:1157:A:H2	1:1G:1180:A:C4	2.32	0.47
1:1G:1207:G:C2	1:1G:1208:C:C2	3.02	0.47
1:1G:1239:A:C2'	1:1G:1298:C:H42	2.28	0.47
1:1G:67:C:H2'	1:1G:68:G:C8	2.49	0.47
26:1H:1034:G:H2'	26:1H:1035:U:O4'	2.13	0.47
26:1H:1503:U:H2'	26:1H:1504:C:C6	2.49	0.47
26:1H:1444:G:C2	26:1H:1548:C:N3	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:220:G:O2'	26:1H:233:A:N3	2.34	0.47
26:1H:298:G:N7	46:G8:84:ARG:NH2	2.62	0.47
22:1K:30:G:H3'	22:1K:31:A:H8	1.79	0.47
30:21:52:LEU:HD12	30:21:75:VAL:HB	1.96	0.47
61:14:3701:HOH:O	30:29:135:HIS:CE1	2.66	0.47
30:29:37:ARG:HD2	30:29:44:TYR:OH	2.14	0.47
37:35:37:GLY:H	37:35:41:ARG:NH2	2.12	0.47
37:35:78:PRO:HA	37:35:110:TYR:CD2	2.49	0.47
32:49:81:LYS:HD3	32:49:81:LYS:HA	1.51	0.47
13:4A:13:LYS:HA	13:4A:44:ARG:HH11	1.79	0.47
26:14:2873:A:H8	39:55:6:SER:N	2.10	0.47
6:5E:36:ARG:NH2	6:5E:38:GLU:OE2	2.47	0.47
15:6A:24:SER:OG	15:6A:27:VAL:HG23	2.14	0.47
7:6E:111:ARG:NH1	7:6E:113:GLU:OE2	2.47	0.47
7:6E:50:ILE:HB	7:6E:58:PRO:HB3	1.96	0.47
37:78:50:ARG:NH2	37:78:50:ARG:HG3	2.29	0.47
1:13:1313:U:C5	19:AI:4:SER:HB3	2.49	0.47
41:B8:62:THR:HG22	41:B8:75:ILE:HG12	1.97	0.47
26:14:84:A:OP2	46:C5:8:LYS:HD3	2.15	0.47
47:D5:94:GLU:O	47:D5:129:SER:HA	2.14	0.47
47:D5:59:LEU:HD12	47:D5:69:THR:CG2	2.41	0.47
47:D5:60:GLU:HA	47:D5:66:SER:HA	1.95	0.47
43:D8:3:ALA:HB1	43:D8:38:LEU:HD22	1.97	0.47
44:E8:97:LYS:HE2	44:E8:99:ARG:NH2	2.29	0.47
46:G8:34:LYS:HD3	46:G8:36:ALA:HB2	1.96	0.47
54:P8:29:LYS:HD2	54:P8:32:LYS:HD3	1.96	0.47
29:11:123:ALA:HA	29:11:124:PRO:HD2	1.76	0.47
1:13:1326:C:H2'	1:13:1327:C:C6	2.49	0.47
1:13:245:C:C2	1:13:284:G:C2	3.02	0.47
1:13:450:G:OP1	16:7I:43:LYS:NZ	2.46	0.47
1:13:640:A:O2'	8:7E:116:LYS:NZ	2.48	0.47
56:3L:71:C:O2'	26:14:1851:U:O2'	2.04	0.47
26:14:2019:A:C6	26:14:2020:A:N7	2.83	0.47
26:14:382:G:H1	26:14:392:C:H42	1.62	0.47
35:15:72:TYR:HB2	35:15:85:ILE:HD12	1.95	0.47
29:19:65:ILE:HD11	29:19:67:PHE:CZ	2.48	0.47
10:1A:48:THR:HA	10:1A:62:HIS:CB	2.41	0.47
2:1E:111:ARG:HD2	2:1E:145:LEU:HD22	1.95	0.47
1:1G:1130:A:N6	1:1G:1144:G:N3	2.63	0.47
1:1G:976:G:N2	1:1G:1362:C:H2'	2.29	0.47
1:1G:1367:C:OP1	9:82:115:GLY:N	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1680:U:O2'	26:1H:1763:G:N7	2.34	0.47
26:1H:2516:G:O2'	26:1H:2517:C:H5'	2.15	0.47
26:1H:2579:C:H2'	26:1H:2580:U:O4'	2.14	0.47
26:1H:270(H):C:H42	26:1H:270(R):G:H1	1.62	0.47
26:1H:482:A:H5''	26:1H:483:A:OP1	2.15	0.47
26:1H:754:C:H2'	26:1H:755:C:C6	2.50	0.47
22:1K:48:C:HO2'	22:1K:49:G:P	2.33	0.47
30:29:54:GLN:O	30:29:75:VAL:HG22	2.13	0.47
11:2I:124:LYS:HB2	11:2I:125:PHE:CD1	2.49	0.47
23:2K:63:C:H2'	23:2K:64:G:H8	1.78	0.47
23:2L:73:A:C6	23:2L:74:A:C6	3.02	0.47
31:31:178:PRO:HB2	31:31:201:VAL:CG1	2.44	0.47
4:32:71:SER:HB3	4:32:74:GLN:HB2	1.96	0.47
31:39:123:LEU:HA	31:39:192:LEU:O	2.14	0.47
31:39:83:PHE:C	31:39:85:GLY:H	2.18	0.47
32:41:117:PHE:HE1	32:41:120:LEU:HD23	1.79	0.47
27:16:42:C:O2'	32:41:67:LYS:O	2.24	0.47
1:1G:1329:A:H5''	13:4A:25:ILE:O	2.14	0.47
13:4A:64:TRP:HD1	13:4A:66:LEU:CD2	2.27	0.47
10:1A:63:PHE:HA	14:5A:59:ALA:H	1.80	0.47
28:79:5:LYS:N	28:79:8:ARG:HG3	2.29	0.47
9:82:118:LYS:HB2	9:82:121:ARG:HB3	1.97	0.47
46:C5:29:GLU:HG3	46:C5:30:VAL:H	1.79	0.47
47:H8:105:VAL:HG13	47:H8:140:ASP:HB3	1.95	0.47
2:12:119:GLU:OE1	2:12:153:ARG:NH1	2.48	0.47
1:13:1128:C:H5'	9:8E:16:ARG:HH22	1.80	0.47
1:13:148:G:H1	1:13:174:C:H42	1.61	0.47
26:14:2062:A:H2'	26:14:2063:C:C5'	2.44	0.47
26:14:2185:C:H2'	26:14:2186:G:C8	2.50	0.47
26:14:2360:A:H2'	26:14:2361:A:O4'	2.14	0.47
26:14:841:A:H2'	26:14:842:G:C8	2.50	0.47
26:14:868:U:C2	26:14:869:G:C8	3.03	0.47
1:1G:1003:G:H2'	1:1G:1004:A:H5'	1.97	0.47
1:1G:1126:U:H1'	1:1G:1127:G:OP1	2.14	0.47
1:1G:580:U:H2'	1:1G:581:G:O4'	2.14	0.47
26:1H:1210:A:H5''	26:1H:1212:G:O4'	2.14	0.47
26:1H:1448:G:H2'	26:1H:1449:A:C8	2.49	0.47
26:1H:1301:A:H2	26:1H:1626:G:H21	1.60	0.47
26:1H:1919:A:H5''	26:1H:1920:C:OP2	2.14	0.47
26:1H:320:A:H2'	31:31:136:THR:HG21	1.96	0.47
26:1H:572:A:H5''	26:1H:573:G:OP2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:960:A:C8	26:1H:962:G:C8	3.02	0.47
10:1I:39:PRO:HB3	10:1I:70:ARG:HH11	1.79	0.47
22:1L:16:U:C5	22:1L:18:G:H3'	2.50	0.47
30:29:55:ASN:HB2	30:29:58:ARG:HH21	1.80	0.47
30:29:52:LEU:HD23	30:29:76:ARG:HD3	1.95	0.47
11:2I:79:SER:OG	11:2I:106:LYS:NZ	2.36	0.47
31:39:154:VAL:HA	31:39:191:ARG:O	2.14	0.47
32:41:61:ALA:HB2	32:41:67:LYS:HA	1.97	0.47
5:42:122:GLU:HB3	5:42:126:ARG:HD2	1.96	0.47
26:14:906:G:O3'	38:45:67:ARG:NH2	2.47	0.47
26:14:911:A:C5	38:45:9:TYR:CD2	3.03	0.47
13:4A:68:GLY:HA3	32:49:116:ASP:OD2	2.13	0.47
5:4E:27:ARG:HE	5:4E:27:ARG:HB2	1.42	0.47
7:62:101:LEU:O	7:62:105:VAL:HG23	2.14	0.47
7:62:73:MET:HA	7:62:91:VAL:HG23	1.97	0.47
34:69:129:THR:HA	34:69:137:PRO:HA	1.96	0.47
37:78:64:LYS:HD2	55:Q8:12:LYS:HB3	1.97	0.47
1:13:280:C:O2	17:8I:38:ARG:HG3	2.15	0.47
19:AI:51:VAL:O	19:AI:58:VAL:N	2.39	0.47
47:D5:27:VAL:N	47:D5:86:VAL:O	2.45	0.47
49:J8:46:LEU:HA	49:J8:46:LEU:HD12	1.79	0.47
50:K8:5:GLU:O	50:K8:8:LYS:N	2.47	0.47
26:14:459:U:H4'	54:L5:40:TRP:CZ3	2.49	0.47
29:11:33:LEU:HD11	29:11:102:LYS:HB2	1.97	0.47
2:12:60:ASP:N	2:12:60:ASP:OD1	2.46	0.47
1:13:1429:C:H2'	1:13:1430:C:C6	2.49	0.47
1:13:209:U:H4'	1:13:216:G:C2	2.50	0.47
1:13:659:U:H2'	1:13:660:G:C8	2.50	0.47
1:13:674:G:H2'	1:13:675:A:C8	2.50	0.47
26:14:17:G:H2'	26:14:18:C:H6	1.78	0.47
26:14:270(F):U:H3	26:14:270(T):G:H1	1.63	0.47
26:14:2768:C:H2'	26:14:2769:C:O4'	2.15	0.47
29:19:72:LYS:HE2	29:19:72:LYS:HB3	1.55	0.47
10:1A:24:VAL:O	10:1A:28:ARG:HG3	2.14	0.47
2:1E:19:HIS:CG	2:1E:20:GLU:OE1	2.68	0.47
2:1E:54:THR:O	2:1E:58:ILE:HG13	2.15	0.47
1:1G:1224:G:C5	1:1G:1322:C:H6	2.32	0.47
1:1G:1424:C:H42	1:1G:1476:G:H1	1.63	0.47
1:1G:374:A:H2'	1:1G:374:A:N3	2.30	0.47
1:1G:528:C:H5'	1:1G:535:A:N6	2.29	0.47
1:1G:583:A:H2'	1:1G:584:G:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:646:U:H2'	1:1G:647:C:C6	2.50	0.47
1:1G:837:G:H2'	1:1G:838:G:H8	1.80	0.47
26:1H:1021:A:C8	26:1H:1022:G:H5''	2.50	0.47
26:1H:1141:U:H4'	26:1H:1142(A):A:O4'	2.15	0.47
26:1H:1179:C:H2'	26:1H:1180:C:C6	2.50	0.47
26:1H:1429:G:H2'	26:1H:1430:C:C6	2.50	0.47
26:1H:2330:G:H2'	26:1H:2331:G:O4'	2.14	0.47
26:1H:2807:G:H3'	26:1H:2808:U:H5''	1.97	0.47
26:1H:780:G:O5'	26:1H:780:G:H8	1.96	0.47
10:1I:8:LEU:HB2	10:1I:70:ARG:HB3	1.97	0.47
30:21:78:LEU:HD12	30:21:79:ARG:HD2	1.96	0.47
3:2E:76:VAL:HG21	3:2E:103:VAL:HG21	1.96	0.47
31:31:129:PHE:HB2	31:31:132:VAL:HG13	1.96	0.47
4:32:148:VAL:HG12	4:32:152:SER:HB2	1.95	0.47
31:39:79:GLY:HA2	31:39:86:GLY:HA2	1.96	0.47
12:3A:57:LYS:HG3	12:3A:67:THR:HG22	1.97	0.47
5:42:79:GLU:HG2	5:42:92:LYS:CG	2.45	0.47
13:4A:34:LEU:HD13	13:4A:41:PRO:HB3	1.96	0.47
5:4E:104:ALA:HA	5:4E:107:ARG:HB3	1.96	0.47
6:52:35:ALA:HA	6:52:67:MET:HB3	1.97	0.47
14:5A:12:ARG:HD2	14:5A:14:PRO:CD	2.44	0.47
40:65:35:ILE:HB	40:65:97:ARG:HH21	1.79	0.47
34:69:140:LEU:HD12	34:69:140:LEU:HA	1.68	0.47
26:1H:625:G:N7	37:78:107:LYS:NZ	2.62	0.47
9:82:10:ARG:HA	9:82:104:ARG:HH21	1.80	0.47
38:88:21:THR:HG22	38:88:99:PRO:O	2.15	0.47
42:85:92:ARG:NE	43:95:11:GLN:HG3	2.30	0.47
43:95:1:MET:SD	43:95:43:GLU:HG2	2.55	0.47
19:AA:39:THR:HA	19:AA:70:LYS:HA	1.96	0.47
45:B5:49:VAL:HB	45:B5:83:VAL:HG21	1.96	0.47
45:B5:50:LYS:HB3	45:B5:84:ALA:H	1.80	0.47
36:68:73:ASP:OD1	41:B8:32:TYR:OH	2.30	0.47
44:E8:82:LEU:HB2	44:E8:98:LYS:HB2	1.97	0.47
26:14:2018:G:P	53:J5:9:LYS:HZ1	2.35	0.47
50:K8:15:LYS:HD3	50:K8:67:LYS:HZ1	1.79	0.47
54:P8:10:ARG:O	54:P8:14:LYS:HG3	2.15	0.47
2:12:223:ILE:H	2:12:224:GLN:HE21	1.62	0.47
1:13:1391:U:H2'	1:13:1392:G:C8	2.50	0.47
1:13:313:A:H2'	1:13:314:C:C6	2.49	0.47
1:13:626:U:C2	1:13:627:G:C8	3.02	0.47
1:13:947:G:H2'	1:13:948:C:O4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1278:A:H2'	26:14:1279:G:C8	2.50	0.47
26:14:1935:G:N2	26:14:1964:G:C8	2.82	0.47
26:14:540:G:H1	26:14:553:U:H3	1.63	0.47
35:15:68:GLU:H	35:15:68:GLU:CD	2.18	0.47
35:15:85:ILE:HD12	35:15:85:ILE:O	2.15	0.47
27:16:60:C:C2	27:16:61:G:C8	3.03	0.47
29:19:70:TRP:CH2	29:19:150:LYS:HA	2.50	0.47
29:19:145:VAL:HG13	29:19:191:ALA:HB2	1.96	0.47
2:1E:49:GLU:N	2:1E:49:GLU:OE1	2.47	0.47
1:1G:1317:C:O2	19:AA:37:ARG:NH2	2.47	0.47
1:1G:450:G:N7	1:1G:481:G:C6	2.83	0.47
1:1G:21:G:O2'	1:1G:914:A:N6	2.47	0.47
26:1H:1352:U:OP1	61:1H:3700:HOH:O	2.20	0.47
26:1H:277:C:H3'	26:1H:278:A:O4'	2.15	0.47
26:1H:518:G:H2'	26:1H:519:U:H6	1.78	0.47
30:29:119:ARG:HA	30:29:160:TYR:CE2	2.50	0.47
3:2E:26:LYS:HG2	10:1I:45:ARG:HH12	1.79	0.47
31:31:59:TYR:CD2	31:31:78:ILE:HD11	2.50	0.47
38:45:114:ALA:O	38:45:118:LEU:HB2	2.14	0.47
38:45:135:ASP:O	38:45:137:TYR:HD1	1.98	0.47
6:52:77:ARG:HD3	6:52:78:GLU:N	2.29	0.47
39:55:97:VAL:HG22	39:55:114:VAL:HG22	1.97	0.47
8:7E:8:ASP:O	8:7E:12:ARG:HB2	2.15	0.47
16:7I:68:ASP:O	16:7I:71:ARG:HG2	2.15	0.47
1:1G:1372:U:OP1	9:82:72:GLY:N	2.48	0.47
1:13:1249:C:O2'	9:8E:73:GLN:OE1	2.28	0.47
43:95:71:LEU:CA	43:95:86:GLY:HA2	2.44	0.47
39:98:28:LEU:HD21	39:98:114:VAL:HG12	1.95	0.47
39:98:74:LYS:HE3	39:98:77:ARG:HH21	1.80	0.47
44:A5:57:ASN:O	44:A5:61:ASN:HB2	2.15	0.47
41:B8:51:ARG:HG3	41:B8:98:LYS:CD	2.44	0.47
48:E5:50:ASN:HB3	48:E5:63:VAL:HG22	1.96	0.47
54:P8:15:THR:HG22	54:P8:16:HIS:CE1	2.50	0.47
29:11:18:VAL:HG22	29:11:211:ARG:NH2	2.30	0.47
1:13:1180:A:OP1	9:8E:103:THR:OG1	2.27	0.47
1:13:256:U:C2	1:13:257:G:C8	3.02	0.47
1:13:664:G:P	18:9I:64:ARG:HH21	2.37	0.47
1:13:963:G:N2	10:1I:55:LYS:NZ	2.62	0.47
1:13:974:A:OP2	14:5I:41:ARG:NH1	2.48	0.47
26:14:1786:A:H1'	26:14:1938:A:N6	2.30	0.47
26:14:1921:G:H2'	26:14:1922:G:C8	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2158:A:HO2'	26:14:2159:G:H8	1.63	0.47
26:14:2851:A:H2'	26:14:2852:G:C8	2.50	0.47
26:14:807:U:H2'	26:14:808:G:H8	1.79	0.47
27:16:31:C:H2'	27:16:32:C:H6	1.76	0.47
1:1G:956:U:C2	1:1G:1225:A:C2	3.03	0.47
1:1G:618:C:H5'	1:1G:619:U:H5''	1.96	0.47
26:1H:1026:U:H1'	26:1H:1027:A:P	2.54	0.47
26:1H:2745:C:O2	33:51:139:GLN:NE2	2.34	0.47
26:1H:498:G:C6	26:1H:499:U:C4	3.02	0.47
26:1H:61:G:H8	26:1H:61:G:O5'	1.98	0.47
27:1J:18:G:N2	27:1J:108:C:C4	2.83	0.47
30:29:117:MET:HB2	30:29:122:PHE:O	2.15	0.47
26:14:322:A:OP1	31:39:168:ARG:HD2	2.14	0.47
12:3A:84:LEU:HG	12:3A:105:TYR:HE2	1.79	0.47
24:3K:18:G:H5''	24:3K:60:U:H2'	1.96	0.47
34:69:62:LYS:HG3	34:69:63:ALA:N	2.30	0.47
8:72:9:MET:HG3	8:72:26:VAL:HG11	1.96	0.47
41:75:3:ARG:HG2	41:75:6:LEU:HB2	1.97	0.47
37:78:123:LEU:HA	37:78:123:LEU:HD23	1.66	0.47
38:88:111:GLU:OE1	38:88:133:ARG:NH2	2.48	0.47
43:95:62:LEU:HD21	43:95:95:LEU:HB2	1.97	0.47
46:G8:29:GLU:HB3	46:G8:38:ILE:HG23	1.94	0.47
48:I8:48:GLY:HA3	48:I8:80:HIS:ND1	2.29	0.47
49:J8:71:TYR:O	49:J8:74:VAL:HG12	2.14	0.47
26:14:1384:A:N3	26:14:1405:U:H1'	2.30	0.47
26:14:2394:C:H1'	61:14:4231:HOH:O	2.14	0.47
26:14:2795:G:H21	26:14:2802:G:H1	1.63	0.47
26:14:315:G:H2'	26:14:316:C:C6	2.50	0.47
26:14:35:G:H2'	26:14:36:G:O4'	2.15	0.47
26:14:631:A:H2'	26:14:632:A:O4'	2.15	0.47
29:19:38:LYS:HD3	29:19:38:LYS:N	2.29	0.47
29:19:30:GLU:OE1	29:19:63:ARG:CG	2.61	0.47
10:1A:44:VAL:HG21	10:1A:66:ARG:HH21	1.80	0.47
1:1G:143:A:H4'	1:1G:144:G:C8	2.49	0.47
1:1G:15:G:H2'	1:1G:16:A:O4'	2.15	0.47
1:1G:401:C:N4	61:1G:1748:HOH:O	2.43	0.47
1:1G:685:G:O2'	1:1G:686:U:H5'	2.15	0.47
1:1G:933:G:O6	7:62:3:ARG:NH2	2.46	0.47
26:1H:1945:G:H2'	26:1H:1946:U:C6	2.50	0.47
26:1H:207:A:H2'	26:1H:208:C:O4'	2.15	0.47
26:1H:265:A:H1'	26:1H:266:G:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2749:A:OP1	33:51:4:ILE:HD12	2.15	0.47
27:1J:70:C:H2'	27:1J:71:C:C6	2.44	0.47
22:1L:20:U:H6	22:1L:22:G:P	2.38	0.47
30:21:75:VAL:HG12	30:21:76:ARG:HD2	1.97	0.47
3:22:47:LEU:CD2	3:22:68:VAL:HG11	2.45	0.47
11:2I:32:ILE:HD12	11:2I:72:ALA:HB2	1.97	0.47
5:4E:77:PRO:HD2	5:4E:142:LEU:HD22	1.95	0.47
33:51:88:LEU:HD12	33:51:129:THR:O	2.14	0.47
39:55:54:LEU:HD21	39:55:65:LEU:HD23	1.96	0.47
35:58:67:LEU:HG	35:58:87:LEU:HD12	1.97	0.47
6:5E:97:PHE:HD1	18:9I:31:LEU:HD11	1.80	0.47
15:6I:11:VAL:HG21	15:6I:34:LEU:HD13	1.96	0.47
28:71:41:VAL:O	28:71:175:VAL:HG22	2.15	0.47
28:71:215:THR:HG22	28:71:216:THR:N	2.30	0.47
16:7I:9:PHE:CE1	16:7I:18:ARG:HG3	2.50	0.47
1:13:377:G:OP1	16:7I:3:LYS:HD2	2.15	0.47
40:A8:58:LEU:HD23	40:A8:58:LEU:H	1.80	0.47
41:B8:91:ARG:HD2	41:B8:120:ARG:CZ	2.44	0.47
20:BI:11:SER:HA	20:BI:13:LEU:CD2	2.44	0.47
43:D8:3:ALA:HB3	43:D8:14:VAL:HG22	1.96	0.47
49:F5:64:ALA:HA	49:F5:67:ILE:HG12	1.97	0.47
26:1H:298:G:N7	46:G8:84:ARG:NH1	2.63	0.47
47:H8:93:ASP:CB	47:H8:131:ARG:HH12	2.26	0.47
1:13:1266:G:N2	1:13:1270:C:N3	2.63	0.47
1:13:789:U:O2'	61:13:1815:HOH:O	2.21	0.47
26:14:2094:G:C2'	26:14:2095:C:H5'	2.45	0.47
26:14:270(H):C:H2'	26:14:270(I):G:C8	2.50	0.47
26:14:389:G:N1	37:35:71:VAL:HG12	2.31	0.47
26:14:704:G:O2'	26:14:726:G:N1	2.40	0.47
26:14:958:U:O2	27:1J:89(A):A:O2'	2.30	0.47
27:16:7:G:H4'	40:A8:29:PHE:CE2	2.50	0.47
1:1G:1327:C:H2'	1:1G:1328:C:C6	2.50	0.47
26:1H:141:A:H8	26:1H:1408:C:H1'	1.79	0.47
26:1H:1443:G:C2	26:1H:1549:C:N3	2.83	0.47
26:1H:2259:G:C2	26:1H:2282:G:N1	2.83	0.47
26:1H:2854:G:H2'	26:1H:2855:C:C6	2.50	0.47
26:1H:447:A:N1	26:1H:454:A:O2'	2.44	0.47
27:1J:5:C:O2'	27:1J:27:C:O2	2.33	0.47
22:1K:54:5MU:OP1	38:88:60:ARG:HD3	2.14	0.47
22:1L:16:U:C4	22:1L:18:G:H3'	2.50	0.47
22:1L:20:U:H3	22:1L:59:A:N6	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:181:LEU:HA	30:21:181:LEU:HD13	1.54	0.47
23:2L:22:A:N6	23:2L:47:G7M:H2'	2.30	0.47
23:2L:47:G7M:H3'	23:2L:48:U:C5	2.50	0.47
31:31:192:LEU:HD23	31:31:193:VAL:N	2.30	0.47
4:32:127:THR:HG23	4:32:147:ALA:HB3	1.97	0.47
4:32:156:GLU:HA	4:32:159:ARG:HB2	1.97	0.47
12:3A:60:LEU:HB2	12:3A:64:TYR:HB2	1.97	0.47
24:3K:3:G:H22	24:3K:70:C:N4	2.13	0.47
5:4E:128:PRO:HA	5:4E:131:ILE:HB	1.96	0.47
35:58:33:LEU:HD12	35:58:38:HIS:CE1	2.50	0.47
16:7I:21:VAL:O	16:7I:33:ILE:N	2.44	0.47
38:88:112:GLU:H	38:88:112:GLU:CD	2.18	0.47
41:B8:6:LEU:HD23	41:B8:9:LEU:HD22	1.96	0.47
47:H8:152:ALA:HB3	47:H8:167:PRO:O	2.15	0.47
2:12:90:MET:HG2	2:12:91:PRO:HD2	1.97	0.46
1:13:1026:G:H5''	1:13:1027:C:C5	2.50	0.46
1:13:110:C:H2'	1:13:111:G:O4'	2.15	0.46
1:13:673:G:H2'	1:13:674:G:C8	2.50	0.46
1:13:738:C:H2'	1:13:739:C:C6	2.50	0.46
1:13:981:U:H5	1:13:982:U:HO2'	1.62	0.46
26:14:1057:A:H2'	26:14:1058:U:O4'	2.15	0.46
26:14:2239:G:H5'	29:19:251:GLY:HA3	1.97	0.46
26:14:363(B):G:H2'	26:14:363(C):G:C8	2.50	0.46
26:14:586:A:N1	26:14:809:G:O2'	2.35	0.46
26:14:598:G:H5'	37:35:11:GLY:HA3	1.98	0.46
35:15:15:LEU:O	35:15:136:GLU:HA	2.15	0.46
27:16:7:G:H5''	27:16:7:G:H8	1.80	0.46
2:1E:237:ALA:O	2:1E:239:VAL:HG23	2.14	0.46
1:1G:1277:C:O2'	1:1G:1279:A:H8	1.98	0.46
1:1G:1320:C:H2'	1:1G:1321:C:C6	2.50	0.46
1:1G:1347:G:N2	1:1G:1373:G:H2'	2.30	0.46
1:1G:1399:C:C4	1:1G:1502:A:N6	2.83	0.46
1:1G:1479:C:H2'	1:1G:1480:G:O4'	2.15	0.46
1:1G:632:A:C2	1:1G:633:G:H1'	2.50	0.46
26:1H:1171:G:H3'	26:1H:1173:G:C5'	2.45	0.46
26:1H:1332:G:N2	26:1H:1609:A:O2'	2.48	0.46
26:1H:2160:G:C6	26:1H:2161:C:H1'	2.49	0.46
26:1H:2882:A:H5'	39:98:96:ARG:HG3	1.98	0.46
30:21:37:ARG:HD3	30:21:42:ASP:CG	2.35	0.46
11:2A:85:ARG:HE	11:2A:111:ASP:HB3	1.80	0.46
1:1G:544:G:OP1	4:32:66:ARG:NH2	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:363:A:N7	12:3A:33:ARG:NH1	2.63	0.46
4:3E:173:TRP:CZ3	4:3E:193:ASP:HB3	2.50	0.46
12:3I:53:ARG:HG3	12:3I:93:LEU:HD21	1.97	0.46
24:3K:22:G:C2	24:3K:23:A:C8	3.03	0.46
56:3L:49:G:C2	56:3L:66:A:N6	2.83	0.46
32:41:109:VAL:O	32:41:113:ARG:HG3	2.16	0.46
27:16:45:A:H1'	32:41:95:ARG:NH2	2.29	0.46
36:68:53:LYS:CE	36:68:53:LYS:HA	2.45	0.46
1:13:940:C:OP1	7:6E:102:ARG:NE	2.49	0.46
28:71:27:HIS:HB3	28:71:182:PRO:CB	2.45	0.46
8:72:53:VAL:O	8:72:56:LYS:HD3	2.15	0.46
41:75:24:PRO:HD3	41:75:52:ILE:HD12	1.96	0.46
16:7I:5:ARG:HE	16:7I:22:THR:HG21	1.80	0.46
16:7I:6:LEU:HB3	16:7I:17:TYR:CD1	2.50	0.46
38:88:41:TRP:CD1	38:88:96:VAL:HG22	2.49	0.46
1:13:1149:C:OP1	9:8E:14:VAL:HG21	2.15	0.46
19:AI:4:SER:O	19:AI:5:LEU:HD23	2.16	0.46
1:13:1315:U:H2'	1:13:1316:G:O4'	2.15	0.46
26:14:1040:C:H2'	26:14:1041:C:O4'	2.15	0.46
26:14:1885:A:H3'	26:14:1886:C:C6	2.50	0.46
26:14:2058:A:C6	26:14:2059:A:N6	2.83	0.46
26:14:2343:C:O2'	26:14:2373:G:O2'	2.30	0.46
26:14:2869:G:H2'	26:14:2870:C:O4'	2.15	0.46
26:14:6:A:N7	26:14:2899:G:N2	2.62	0.46
26:14:55:G:H2'	26:14:56:A:C8	2.50	0.46
2:1E:51:LEU:O	2:1E:55:PHE:HB2	2.15	0.46
1:1G:1068:G:N7	1:1G:1094:G:C8	2.83	0.46
26:1H:1342:A:N1	26:1H:1345:C:C2	2.83	0.46
26:1H:250:G:H2'	26:1H:251:A:C8	2.51	0.46
26:1H:654(A):A:C2	26:1H:654(T):A:N1	2.83	0.46
30:21:105:THR:HG23	30:21:166:THR:OG1	2.15	0.46
3:22:116:VAL:HG23	3:22:119:ARG:HH22	1.80	0.46
30:29:111:ARG:HD2	30:29:160:TYR:CD2	2.50	0.46
30:29:35:GLN:HG2	30:29:37:ARG:HG2	1.96	0.46
23:2K:16:C:O2'	23:2K:62:C:OP1	2.32	0.46
26:14:1247:A:OP1	31:39:95:ARG:NH2	2.46	0.46
32:41:32:PRO:HB2	32:41:172:LEU:CD1	2.45	0.46
39:55:28:LEU:CD2	39:55:114:VAL:HG12	2.44	0.46
35:58:14:VAL:HG12	35:58:15:LEU:H	1.81	0.46
34:69:72:LEU:HD21	34:69:107:VAL:HG21	1.97	0.46
7:6E:113:GLU:HG2	7:6E:119:ARG:HG2	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:71:226:PRO:HG2	28:71:227:HIS:ND1	2.30	0.46
5:42:78:HIS:HB2	8:72:104:ARG:HG3	1.97	0.46
41:75:132:LYS:HE3	41:75:132:LYS:HB3	1.79	0.46
8:7E:103:VAL:HG12	8:7E:138:TRP:HD1	1.79	0.46
39:98:101:ALA:HA	53:N8:44:THR:HG21	1.97	0.46
46:C5:83:THR:HG22	46:C5:84:ARG:H	1.79	0.46
45:F8:12:VAL:HG23	45:F8:17:ALA:HB2	1.97	0.46
46:G8:38:ILE:CD1	46:G8:64:GLU:HB2	2.42	0.46
51:L8:31:LEU:HB3	51:L8:32:GLN:OE1	2.14	0.46
53:N8:40:LYS:CG	53:N8:47:PRO:HD2	2.45	0.46
29:11:37:LEU:CD2	29:11:37:LEU:N	2.72	0.46
2:12:32:ILE:HD11	2:12:40:HIS:HB2	1.97	0.46
1:13:1329:A:H5'	13:4I:29:ARG:HD2	1.97	0.46
1:13:147:G:H2'	1:13:148:G:H8	1.81	0.46
1:13:626:U:N3	1:13:627:G:N7	2.63	0.46
26:14:2092:U:H4'	26:14:2093:G:O5'	2.15	0.46
26:14:2403:C:N3	26:14:2415:G:C2	2.83	0.46
26:14:2536:G:C6	26:14:2537:U:C4	3.03	0.46
26:14:57:C:H2'	26:14:58:G:O4'	2.16	0.46
26:14:618:G:H5'	31:39:205:ARG:HD2	1.98	0.46
26:14:836:G:H2'	26:14:837:C:C6	2.50	0.46
27:16:29:A:H5''	27:16:30:C:OP2	2.15	0.46
1:1G:559:A:H4'	1:1G:560:U:H5''	1.97	0.46
1:1G:854:G:C2	1:1G:855:G:C8	3.03	0.46
26:1H:330:A:O2'	26:1H:331:A:H8	1.97	0.46
26:1H:557:U:H2'	26:1H:558:G:C8	2.51	0.46
26:1H:787:U:H5''	26:1H:788:A:H5'	1.98	0.46
26:1H:861:A:N3	27:16:79:C:O2'	2.45	0.46
1:13:963:G:C2	10:1I:55:LYS:NZ	2.84	0.46
22:1K:22:G:H8	22:1K:48:C:N4	2.13	0.46
3:22:59:ARG:HG2	3:22:64:VAL:HG23	1.96	0.46
3:2E:15:THR:HG22	3:2E:16:ARG:N	2.30	0.46
31:31:135:LYS:HB3	31:31:138:GLU:HG3	1.97	0.46
12:3I:66:VAL:HG22	12:3I:67:THR:H	1.79	0.46
5:42:12:LEU:HD11	5:42:14:ARG:HB3	1.98	0.46
14:5I:8:GLU:O	14:5I:11:LYS:N	2.48	0.46
7:62:132:GLY:H	7:62:135:VAL:HB	1.81	0.46
28:71:180:PHE:HB3	28:71:184:LYS:CB	2.45	0.46
9:82:111:ARG:HB2	9:82:113:LYS:HE3	1.97	0.46
38:88:109:VAL:HG13	38:88:113:GLN:HB3	1.96	0.46
38:88:136:ALA:CB	47:H8:52:SER:HB2	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8A:54:GLY:O	17:8A:81:ARG:HB2	2.15	0.46
1:13:1346:A:H5''	9:8E:120:ARG:NH1	2.31	0.46
17:8I:22:LEU:HD12	17:8I:40:LYS:O	2.16	0.46
44:A5:82:LEU:HD23	44:A5:84:ARG:NH2	2.30	0.46
1:1G:1460:A:OP2	20:BA:27:LYS:NZ	2.49	0.46
20:BI:89:ARG:NH2	20:BI:104:LEU:HD11	2.27	0.46
20:BI:50:GLU:HG2	20:BI:100:ILE:HG12	1.95	0.46
42:C8:98:LEU:HD21	43:D8:4:ILE:HD11	1.98	0.46
47:D5:5:LEU:HD11	47:D5:44:PHE:HA	1.97	0.46
29:11:34:VAL:O	29:11:35:LYS:HB3	2.15	0.46
2:12:98:LEU:O	2:12:101:MET:HG2	2.15	0.46
1:13:1004:A:N1	1:13:1025:U:H4'	2.30	0.46
1:13:1453:G:H1	20:BI:54:LYS:NZ	2.13	0.46
1:13:244:U:H4'	1:13:245:C:C5'	2.44	0.46
26:14:1392:A:N6	26:14:1393:A:N6	2.64	0.46
26:14:1952:A:C2	36:25:22:ILE:HG23	2.50	0.46
26:14:2125:G:OP1	28:79:42:GLU:HB3	2.16	0.46
26:14:2137:C:H42	26:14:2155:G:N2	2.13	0.46
26:14:2250:G:C6	38:45:82:ARG:HD2	2.50	0.46
26:14:2306:C:H2'	26:14:2307:G:N2	2.30	0.46
26:14:387:U:H4'	26:14:388:G:O5'	2.15	0.46
29:19:183:ARG:HG2	29:19:184:LYS:N	2.30	0.46
3:22:23:TYR:CD2	10:1A:95:GLU:HB2	2.50	0.46
1:1G:115:G:H1'	1:1G:116:A:N7	2.31	0.46
1:1G:1499:A:H1'	1:1G:1520:G:H5'	1.96	0.46
26:1H:1337:G:H2'	26:1H:1338:G:C8	2.48	0.46
26:1H:1417:C:H2'	26:1H:1418:G:O4'	2.15	0.46
26:1H:1432:C:H2'	26:1H:1433:U:O4'	2.15	0.46
26:1H:1831:G:H2'	26:1H:1832:C:C6	2.51	0.46
26:1H:2027:G:C5	26:1H:2028:U:C5	3.04	0.46
26:1H:2093:G:C6	26:1H:2225:A:C8	3.03	0.46
26:1H:2275:C:H5'	26:1H:2275:C:H6	1.80	0.46
26:1H:2280:G:C2'	26:1H:2281:C:H5'	2.44	0.46
26:1H:2820:A:OP2	39:98:2:ARG:NH1	2.41	0.46
3:22:50:ALA:HB2	3:22:75:VAL:HB	1.97	0.46
30:29:25:VAL:O	30:29:26:ILE:HG12	2.15	0.46
4:32:160:GLN:HA	4:32:163:GLU:HB3	1.98	0.46
4:32:199:ASN:HB3	4:32:202:LEU:HG	1.96	0.46
4:32:63:LYS:O	4:32:67:ILE:HG13	2.14	0.46
37:35:82:GLY:HA2	37:35:113:LYS:O	2.15	0.46
31:39:51:THR:HG23	31:39:92:PRO:HG2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:58:A:O2'	24:3K:59:A:OP1	2.28	0.46
56:3L:16:U:H6	56:3L:59:A:C2	2.34	0.46
38:45:57:HIS:ND1	38:45:117:ALA:HB2	2.31	0.46
32:49:63:ILE:HG13	32:49:64:THR:N	2.30	0.46
13:4A:57:ARG:HG3	13:4A:61:GLU:OE2	2.16	0.46
6:52:30:LEU:O	6:52:35:ALA:N	2.43	0.46
39:55:33:ARG:HH12	39:55:113:LEU:HD21	1.77	0.46
37:78:96:THR:C	37:78:98:GLU:H	2.17	0.46
38:88:53:ALA:HB1	38:88:120:ILE:HG22	1.98	0.46
9:8E:48:GLU:N	9:8E:49:PRO:HD2	2.31	0.46
43:95:79:VAL:O	43:95:80:GLN:CG	2.64	0.46
45:B5:36:LYS:HG3	45:B5:56:THR:HG23	1.97	0.46
47:H8:92:SER:O	47:H8:130:PRO:HG2	2.14	0.46
29:11:12:SER:O	29:11:16:MET:HB2	2.16	0.46
1:13:1329:A:OP1	13:4I:29:ARG:HB2	2.15	0.46
1:13:272:C:H2'	1:13:273:A:H8	1.80	0.46
26:14:1013:C:N3	26:14:1149:G:N2	2.45	0.46
26:14:1102:C:H2'	26:14:1103:A:H8	1.81	0.46
26:14:1899:G:O2'	26:14:1900:A:H5''	2.14	0.46
26:14:1983:C:H4'	26:14:2606:C:H4'	1.96	0.46
26:14:568:U:H5'	26:14:945:A:C6	2.51	0.46
27:16:44:G:H1'	27:16:47:C:N4	2.31	0.46
27:16:7:G:O5'	40:A8:29:PHE:CE2	2.65	0.46
1:1G:1099:G:C6	1:1G:1100:C:C4	3.04	0.46
1:1G:1134:G:C6	1:1G:1135:U:C2	3.04	0.46
1:1G:535:A:H5''	61:1G:1706:HOH:O	2.15	0.46
26:1H:1049:C:C4	26:1H:1050:A:C2	3.04	0.46
26:1H:1509:C:H2'	26:1H:1511:A:C8	2.50	0.46
26:1H:2439:A:C8	26:1H:2439:A:H5'	2.51	0.46
26:1H:2591:C:H2'	26:1H:2592:G:C8	2.50	0.46
26:1H:2629:A:OP1	26:1H:2629:A:H4'	2.14	0.46
26:1H:765:G:H2'	26:1H:766:C:H6	1.80	0.46
30:21:143:ASN:HB2	30:21:147:PRO:HD2	1.97	0.46
26:1H:2787:C:H1'	30:21:62:PRO:HG3	1.98	0.46
36:25:49:ARG:HA	36:25:53:LYS:HZ3	1.80	0.46
1:1G:690:G:H22	11:2A:55:LYS:HE2	1.81	0.46
11:2A:17:GLY:HA3	11:2A:77:MET:SD	2.56	0.46
31:31:63:LYS:HZ1	31:31:67:GLN:HB2	1.81	0.46
31:39:164:ARG:HG2	31:39:175:THR:OG1	2.15	0.46
12:3A:41:ARG:HG2	12:3A:42:THR:H	1.81	0.46
4:3E:101:LEU:O	4:3E:105:VAL:HG23	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:881:G:P	12:3I:12:ARG:HH22	2.39	0.46
12:3I:89:ARG:NH2	12:3I:91:LYS:HD2	2.31	0.46
24:3K:75:C:O2'	24:3K:76:A:H2	1.97	0.46
56:3L:39:PSU:H4'	56:3L:40:C:OP1	2.14	0.46
32:41:35:GLU:OE1	32:41:36:LYS:N	2.48	0.46
33:51:130:ARG:HB2	33:51:130:ARG:CZ	2.45	0.46
14:5I:3:ARG:O	14:5I:6:LEU:HB2	2.15	0.46
15:6A:16:ALA:HA	15:6A:27:VAL:HG22	1.97	0.46
5:42:78:HIS:HB3	8:72:107:LEU:HD13	1.98	0.46
38:88:35:VAL:CG1	38:88:130:LYS:HB3	2.45	0.46
41:B8:105:LEU:C	41:B8:107:ASP:H	2.18	0.46
20:BA:53:LEU:HD12	20:BA:100:ILE:HG22	1.97	0.46
47:D5:52:SER:O	47:D5:54:HIS:N	2.46	0.46
48:E5:40:GLN:OE1	48:E5:44:ARG:HG2	2.15	0.46
49:F5:78:LYS:NZ	49:F5:94:LEU:HD21	2.30	0.46
47:H8:44:PHE:CD1	47:H8:44:PHE:C	2.88	0.46
54:P8:10:ARG:HD3	54:P8:14:LYS:HD2	1.97	0.46
26:1H:1491:G:O2'	29:11:101:GLU:HG3	2.16	0.46
29:11:72:LYS:HE2	29:11:103:ARG:NH2	2.29	0.46
1:13:1499:A:H1'	1:13:1520:G:O5'	2.15	0.46
1:13:9:G:C6	1:13:26:A:N6	2.84	0.46
1:13:458:C:H2'	1:13:464:G:O4'	2.16	0.46
26:14:1212:G:H1'	26:14:1236:G:N2	2.31	0.46
26:14:1366:A:H2'	26:14:1367:A:O4'	2.15	0.46
26:14:137(A):G:H2'	26:14:139:G:N7	2.31	0.46
26:14:1869:G:N2	26:14:1872:A:C8	2.84	0.46
26:14:574:C:H1'	26:14:2055:C:C6	2.51	0.46
26:14:2122:U:H3	28:79:172:HIS:CE1	2.33	0.46
26:14:2697:G:H2'	26:14:2698:U:O4'	2.16	0.46
26:14:2704:C:H2'	26:14:2705:A:O4'	2.16	0.46
26:14:2747:G:O2'	33:59:67:LEU:HD13	2.16	0.46
26:14:89:G:O5'	26:14:90:U:H5''	2.16	0.46
35:15:128:HIS:CE1	35:15:130:HIS:HA	2.51	0.46
1:1G:1053:G:H4'	1:1G:1054:C:H3'	1.96	0.46
1:1G:411:A:N6	1:1G:413:G:H21	2.13	0.46
1:1G:842:C:H4'	1:1G:842:C:OP1	2.16	0.46
26:1H:1357:U:H2'	26:1H:1358:G:O4'	2.16	0.46
26:1H:1657:C:O2'	26:1H:1658:C:H5'	2.16	0.46
26:1H:2320:A:N3	26:1H:2320:A:H2'	2.29	0.46
26:1H:2575:C:H2'	26:1H:2578:G:O6	2.16	0.46
26:1H:479:A:N3	26:1H:481:G:H5''	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:879:G:H2'	26:1H:880:G:C8	2.48	0.46
30:21:37:ARG:HB2	30:21:46:ALA:HB3	1.97	0.46
36:25:115:VAL:O	36:25:118:ALA:HB3	2.16	0.46
3:2E:111:LEU:HD21	3:2E:145:GLY:O	2.15	0.46
4:32:19:LEU:HB2	4:32:21:LEU:HD11	1.98	0.46
24:3K:6:G:H22	24:3K:67:C:N4	2.09	0.46
32:49:84:LYS:NZ	32:49:84:LYS:HB3	2.31	0.46
26:1H:2749:A:P	33:51:4:ILE:HD12	2.56	0.46
34:69:4:ILE:HG22	34:69:18:VAL:HG22	1.96	0.46
41:75:113:LYS:O	41:75:114:LEU:HD23	2.16	0.46
37:78:116:GLY:H	37:78:134:ALA:HB2	1.80	0.46
7:62:16:LEU:CD1	9:82:42:ARG:HA	2.46	0.46
17:8A:66:SER:O	17:8A:70:ARG:NH1	2.49	0.46
17:8I:89:LEU:O	17:8I:93:GLN:N	2.48	0.46
41:B8:84:GLN:HG2	41:B8:85:LYS:HG2	1.98	0.46
46:G8:88:LYS:HA	46:G8:88:LYS:HD3	1.68	0.46
1:13:1157:A:N6	1:13:1178:G:H21	2.14	0.46
1:13:1164:G:C6	1:13:1165:C:C4	3.04	0.46
1:13:1316:G:N2	1:13:1319:A:H5''	2.30	0.46
1:13:1429:C:H2'	1:13:1430:C:H6	1.81	0.46
1:13:343:U:C2	1:13:347:G:C2	3.03	0.46
1:13:451:A:OP1	1:13:481:G:N2	2.35	0.46
1:13:715:A:H2'	1:13:716:A:C8	2.50	0.46
1:13:928:G:H1	1:13:1389:C:H42	1.64	0.46
1:13:952:U:O4	13:4I:104:ARG:HD3	2.16	0.46
26:14:1071:G:N2	26:14:1090:U:O5'	2.49	0.46
26:14:1496:A:H8	26:14:1577:C:O2'	1.93	0.46
26:14:1788:C:H2'	26:14:1789:A:H8	1.80	0.46
26:14:2611:U:O4	53:J5:3:LYS:HG3	2.15	0.46
26:14:2845:G:N2	26:14:2871:C:O2	2.36	0.46
29:19:68:LYS:HB3	29:19:70:TRP:CH2	2.50	0.46
2:1E:69:LEU:HD13	2:1E:70:PHE:N	2.31	0.46
1:1G:1021:G:H2'	1:1G:1022:G:C8	2.50	0.46
1:1G:1389:C:H2'	1:1G:1390:U:O4'	2.16	0.46
1:1G:275:G:H5'	17:8A:14:LYS:HB3	1.98	0.46
1:1G:983:A:H2	1:1G:984:C:C6	2.34	0.46
26:1H:1359:A:N1	26:1H:1372:U:C4	2.81	0.46
26:1H:141:A:C8	26:1H:1408:C:H1'	2.51	0.46
26:1H:1749:A:C4	26:1H:1750:G:C8	3.04	0.46
26:1H:2125:G:H4'	28:71:40:THR:HG21	1.98	0.46
26:1H:2356:C:C5	26:1H:2357:U:C4	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2564:A:C2	26:1H:2647:U:H4'	2.51	0.46
26:1H:482:A:H1'	26:1H:498:G:N2	2.31	0.46
26:1H:709:U:H2'	26:1H:710:G:C8	2.51	0.46
26:1H:844:C:H2'	26:1H:845:G:O4'	2.15	0.46
22:1L:69:A:H4'	22:1L:70:C:OP1	2.15	0.46
28:71:214:VAL:HG23	28:71:224:ILE:HD13	1.97	0.46
41:75:90:GLN:NE2	41:75:121:ILE:HD11	2.25	0.46
9:82:102:LEU:O	9:82:103:THR:OG1	2.32	0.46
17:8I:82:MET:O	17:8I:86:GLU:N	2.49	0.46
43:95:30:GLY:N	43:95:61:VAL:HB	2.31	0.46
43:95:71:LEU:HA	43:95:71:LEU:HD13	1.54	0.46
1:13:1446:A:O2'	41:B8:125:ARG:NH2	2.48	0.46
42:C8:92:ARG:HD3	42:C8:94:ASN:HB3	1.98	0.46
47:D5:13:GLU:HG3	47:D5:13:GLU:H	1.48	0.46
45:F8:40:LYS:HG3	45:F8:51:VAL:HB	1.98	0.46
47:H8:165:VAL:CB	47:H8:167:PRO:HD3	2.44	0.46
55:M5:33:ASN:O	55:M5:34:TRP:C	2.53	0.46
52:M8:24:THR:OG1	52:M8:25:TYR:N	2.49	0.46
52:M8:15:ILE:HG12	52:M8:32:TYR:HA	1.97	0.46
55:Q8:15:LYS:HB2	61:Q8:206:HOH:O	2.16	0.46
29:11:3:VAL:HG13	29:11:17:THR:CG2	2.46	0.46
2:12:33:TYR:HB3	2:12:41:ILE:HG23	1.98	0.46
1:13:1171:G:O2'	1:13:1172:C:H5'	2.15	0.46
1:13:1273:G:H3'	1:13:1274:G:H8	1.80	0.46
1:13:1448:C:N4	1:13:1455:G:H1	1.95	0.46
1:13:416:G:C6	1:13:417:C:C4	3.04	0.46
1:13:747:C:N3	1:13:749:C:N4	2.64	0.46
1:13:963:G:H1	1:13:972:C:H42	1.64	0.46
26:14:1332:G:H5''	61:14:3513:HOH:O	2.15	0.46
26:14:1519:G:C6	26:14:1520:U:C4	3.04	0.46
26:14:1786:A:OP1	61:14:3592:HOH:O	2.21	0.46
26:14:2124:G:N2	26:14:2175:C:O2	2.49	0.46
26:14:2270:G:OP2	61:14:3589:HOH:O	2.21	0.46
26:14:249:C:OP1	61:14:3582:HOH:O	2.20	0.46
26:14:342:G:H2'	26:14:343:C:H6	1.81	0.46
26:14:498:G:H21	46:C5:47:LYS:HZ2	1.64	0.46
29:19:74:GLY:O	29:19:76:PRO:HD3	2.15	0.46
1:1G:1113:C:H2'	1:1G:1114:C:H6	1.81	0.46
1:1G:1131:G:C8	1:1G:1132:C:C5	3.04	0.46
1:1G:325:A:OP2	20:BA:70:SER:HB3	2.15	0.46
26:1H:1246:A:OP1	31:31:38:ARG:NH1	2.47	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1287:A:C5	26:1H:1288:U:C4	3.04	0.46
26:1H:1316:U:H2'	26:1H:1317:A:C8	2.51	0.46
26:1H:1731:G:H2'	26:1H:1732:A:C8	2.51	0.46
26:1H:182:A:H2'	26:1H:183:C:H6	1.80	0.46
26:1H:628:G:H2'	26:1H:629:G:C8	2.51	0.46
30:21:17:ASP:C	30:21:19:ARG:H	2.19	0.46
3:22:152:ILE:HG23	3:22:167:TRP:HB3	1.98	0.46
11:2A:59:TYR:O	11:2A:62:GLN:HB2	2.15	0.46
11:2I:125:PHE:CD1	11:2I:125:PHE:N	2.84	0.46
31:31:6:VAL:HG11	31:31:119:ARG:CA	2.43	0.46
31:39:31:HIS:HB2	37:35:9:ASN:OD1	2.16	0.46
31:39:36:VAL:HG11	31:39:183:VAL:HG21	1.98	0.46
4:3E:108:LEU:HD21	4:3E:183:GLY:HA3	1.97	0.46
56:3L:6:G:N1	56:3L:67:C:C2	2.74	0.46
32:41:110:ALA:HA	32:41:140:ILE:O	2.16	0.46
5:42:103:GLY:O	5:42:106:PRO:HD2	2.15	0.46
14:5I:16:PHE:O	14:5I:18:VAL:N	2.49	0.46
1:1G:1379:G:O6	7:62:2:ALA:HA	2.14	0.46
15:6A:70:LEU:HD11	15:6A:77:ARG:HG3	1.98	0.46
7:6E:68:ASN:O	7:6E:138:LYS:NZ	2.43	0.46
36:25:78:ARG:HG2	41:75:73:GLU:HB2	1.96	0.46
28:79:15:ASP:OD2	28:79:17:ASN:HB2	2.16	0.46
28:79:202:GLU:HG2	28:79:203:GLY:N	2.31	0.46
16:7A:38:TYR:CE2	16:7A:50:LYS:HE3	2.50	0.46
16:7I:13:HIS:C	16:7I:15:PRO:HD3	2.36	0.46
48:E5:38:VAL:HB	48:E5:59:LEU:HD12	1.98	0.46
53:J5:11:THR:HG23	53:J5:15:ARG:HB3	1.98	0.46
1:13:1120:G:H2'	1:13:1121:U:H6	1.80	0.46
1:13:1157:A:H61	1:13:1178:G:H21	1.64	0.46
1:13:1233:G:H2'	1:13:1234:C:H6	1.81	0.46
1:13:1273:G:C2	1:13:1274:G:H1'	2.51	0.46
1:13:1352:C:OP1	21:1F:3:LYS:NZ	2.28	0.46
1:13:141:A:H2'	1:13:142:G:C8	2.50	0.46
1:13:456:C:H42	1:13:476:G:H1	1.64	0.46
26:14:1009:A:OP1	35:15:37:LYS:NZ	2.38	0.46
26:14:1126:A:H4'	26:14:1127:A:H5''	1.98	0.46
26:14:1149:G:H2'	26:14:1150:C:C6	2.50	0.46
26:14:1226:G:P	43:95:85:LYS:HA	2.55	0.46
26:14:1480:G:C6	26:14:1482:U:C4	3.04	0.46
26:14:1729:A:C6	26:14:1731:G:C6	3.04	0.46
26:14:2579:C:H2'	26:14:2580:U:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2698:U:H2'	26:14:2699:C:C6	2.50	0.46
26:14:2784:C:H2'	26:14:2785:C:C6	2.51	0.46
26:14:284:U:H2'	26:14:285:C:C6	2.51	0.46
26:14:812:C:H5''	26:14:1250:G:O2'	2.16	0.46
2:1E:11:LEU:HD23	2:1E:213:LEU:HB3	1.98	0.46
1:1G:1135:U:O2'	1:1G:1138:G:O6	2.30	0.46
1:1G:1181:G:N2	1:1G:1182:G:O2'	2.49	0.46
1:1G:1387:G:H2'	1:1G:1388:C:C6	2.50	0.46
1:1G:20:U:H2'	1:1G:21:G:O4'	2.16	0.46
1:1G:434:U:H2'	1:1G:435:C:C6	2.51	0.46
1:1G:619:U:O2	4:32:135:LEU:HD22	2.16	0.46
1:1G:658:G:C6	1:1G:659:U:C4	3.04	0.46
26:1H:1027:A:C2	26:1H:2488:A:H5'	2.50	0.46
26:1H:1358:G:N2	26:1H:1372:U:C5	2.84	0.46
26:1H:1826:G:H2'	26:1H:1827:C:C6	2.51	0.46
26:1H:182:A:H2'	26:1H:183:C:C6	2.50	0.46
26:1H:2175:C:OP2	28:71:3:HIS:ND1	2.49	0.46
26:1H:2287:A:C2	26:1H:2289:G:C8	3.03	0.46
26:1H:2328:A:H2'	26:1H:2329:G:O4'	2.16	0.46
26:1H:2475:C:H1'	26:1H:2477:C:H5	1.81	0.46
26:1H:533:G:H5'	42:C8:24:TYR:CD1	2.51	0.46
27:1J:54:G:C2	27:1J:55:U:C6	3.04	0.46
30:21:143:ASN:HD22	30:21:147:PRO:HD2	1.81	0.46
3:22:93:LYS:HD3	3:22:93:LYS:HA	1.82	0.46
23:2K:62:C:H2'	23:2K:63:C:H6	1.81	0.46
4:32:156:GLU:HG3	4:32:157:LEU:N	2.31	0.46
4:3E:47:ARG:HB2	4:3E:47:ARG:NH1	2.31	0.46
32:41:83:ARG:HA	32:41:83:ARG:HD3	1.76	0.46
13:4A:81:LEU:HD12	13:4A:89:GLY:H	1.81	0.46
13:4I:32:GLU:OE2	13:4I:64:TRP:HH2	1.98	0.46
6:52:28:ARG:N	6:52:28:ARG:HD2	2.30	0.46
35:58:66:LYS:O	35:58:70:LYS:HB3	2.16	0.46
6:5E:48:LEU:HD13	6:5E:52:ILE:HG13	1.97	0.46
34:61:56:LYS:O	34:61:60:GLU:HB2	2.16	0.46
37:78:144:GLU:N	37:78:144:GLU:OE2	2.49	0.46
28:79:200:LYS:HB2	28:79:208:PHE:CE2	2.51	0.46
17:8I:76:LEU:HD21	17:8I:79:SER:HB3	1.98	0.46
17:8I:89:LEU:HD13	17:8I:89:LEU:HA	1.77	0.46
43:95:44:LYS:O	43:95:46:VAL:HG12	2.16	0.46
43:D8:9:GLY:O	43:D8:10:LYS:HG3	2.16	0.46
43:D8:46:VAL:HG21	43:D8:52:VAL:HG21	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2010:G:H5''	44:E8:42:ARG:HB2	1.97	0.46
49:F5:92:LYS:O	49:F5:94:LEU:N	2.48	0.46
45:F8:55:ASN:O	45:F8:79:ALA:HA	2.16	0.46
46:G8:4:LYS:HD2	46:G8:4:LYS:HA	1.45	0.46
29:11:72:LYS:O	29:11:73:VAL:C	2.55	0.46
1:13:1348:U:H2'	1:13:1349:A:C8	2.47	0.46
1:13:401:C:H2'	1:13:402:G:C8	2.51	0.46
1:13:874:G:C5	1:13:875:C:C5	3.03	0.46
26:14:1006:C:O2	35:15:106:MET:HE3	2.16	0.46
26:14:2183:C:O2'	26:14:2184:G:H5'	2.15	0.46
26:14:2299:G:N1	26:14:2318:G:C8	2.84	0.46
26:14:2336:A:H61	48:E5:43:THR:CG2	2.29	0.46
26:14:303:U:H2'	26:14:304:G:O4'	2.16	0.46
26:14:360:G:H2'	26:14:361:G:C8	2.50	0.46
26:14:70:G:H21	26:14:71:A:H62	1.64	0.46
1:1G:1055:A:H2'	3:22:156:ARG:HD2	1.98	0.46
1:1G:1286:A:C8	1:1G:1287:A:H4'	2.51	0.46
1:1G:1291:G:H2'	1:1G:1292:U:C6	2.50	0.46
1:1G:147:G:H1	1:1G:175:C:H42	1.64	0.46
26:1H:1035:U:H2'	26:1H:1036:G:H8	1.80	0.46
26:1H:128:C:H2'	26:1H:129:C:C6	2.51	0.46
26:1H:2182:G:H2'	26:1H:2183:C:O4'	2.16	0.46
26:1H:644:A:C2	26:1H:646:A:C4	3.04	0.46
26:1H:675:A:C8	26:1H:804:A:C6	3.03	0.46
27:1J:52:A:N6	40:65:33:LYS:HE2	2.30	0.46
3:22:52:LEU:N	3:22:115:LEU:HD21	2.31	0.46
3:22:22:TRP:HB3	3:22:59:ARG:H	1.81	0.46
31:31:12:LEU:HD12	31:31:12:LEU:HA	1.84	0.46
31:31:175:THR:O	31:31:176:LEU:HD22	2.16	0.46
37:35:11:GLY:C	37:35:13:ASN:H	2.18	0.46
31:39:3:GLU:N	31:39:3:GLU:OE1	2.49	0.46
12:3I:126:LYS:HA	12:3I:126:LYS:HD2	1.61	0.46
24:3K:34:U:H3'	24:3K:35:U:C6	2.51	0.46
32:41:113:ARG:HH12	32:41:142:PRO:HA	1.81	0.46
5:42:76:ILE:HG23	5:42:142:LEU:HD13	1.97	0.46
39:55:99:LYS:O	53:J5:44:THR:HA	2.15	0.46
35:58:30:ILE:HG23	35:58:52:VAL:HG11	1.96	0.46
34:61:9:LEU:O	34:61:10:GLU:HG3	2.16	0.46
40:65:84:GLN:HG3	40:65:110:LEU:H	1.81	0.46
8:72:83:ILE:HG13	8:72:137:VAL:HG22	1.98	0.46
37:78:124:LYS:HA	37:78:143:GLY:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7I:19:ILE:HB	16:7I:36:ILE:O	2.16	0.46
1:13:375:U:O3'	16:7I:6:LEU:HB2	2.15	0.46
26:14:995:C:OP2	42:85:54:LYS:NZ	2.49	0.46
17:8I:101:ARG:N	17:8I:101:ARG:HD3	2.31	0.46
19:AI:5:LEU:HB2	19:AI:8:GLY:HA3	1.98	0.46
20:BA:11:SER:HA	20:BA:13:LEU:H	1.81	0.46
26:1H:581:C:OP1	42:C8:33:ARG:HG3	2.16	0.46
43:D8:36:PRO:C	43:D8:38:LEU:H	2.16	0.46
44:E8:2:GLU:HB2	44:E8:107:LEU:O	2.15	0.46
49:F5:67:ILE:O	49:F5:70:VAL:HB	2.16	0.46
29:11:72:LYS:CE	29:11:103:ARG:HH21	2.27	0.45
1:13:1151:A:O2'	1:13:1152:A:H8	1.99	0.45
1:13:1352:C:H2'	1:13:1353:G:C8	2.51	0.45
1:13:51:A:OP2	1:13:52:G:H8	1.98	0.45
1:13:588:G:OP1	61:13:1817:HOH:O	2.21	0.45
26:14:1109:C:H2'	26:14:1110:G:O4'	2.16	0.45
26:14:1466:G:OP2	61:14:3590:HOH:O	2.21	0.45
26:14:1651:G:P	39:55:40:LYS:HZ1	2.39	0.45
26:14:2183:C:H2'	26:14:2184:G:C8	2.51	0.45
26:14:2262:U:OP2	48:E5:19:LYS:NZ	2.44	0.45
26:14:2688:U:H2'	26:14:2719:G:N2	2.31	0.45
26:14:89:G:N7	26:14:90:U:C5	2.84	0.45
29:19:2:ALA:HB3	29:19:20:ASP:HB2	1.98	0.45
1:1G:1325:C:P	21:1B:15:ARG:HH21	2.38	0.45
1:1G:571:U:O2	1:1G:918:A:H5'	2.16	0.45
1:1G:959:A:H5''	1:1G:960:U:OP2	2.16	0.45
1:1G:977:A:N3	1:1G:977:A:H3'	2.30	0.45
26:1H:1346:G:H2'	26:1H:1347:G:C8	2.43	0.45
26:1H:1582:C:O2'	26:1H:1586:A:H8	1.98	0.45
26:1H:2058:A:H5''	26:1H:2059:A:OP2	2.16	0.45
26:1H:2127:G:O6	26:1H:2161:C:H2'	2.15	0.45
26:1H:2138:C:N3	26:1H:2154:G:N2	2.64	0.45
26:1H:425:G:H2'	26:1H:426:C:H6	1.81	0.45
1:1G:1278:U:O2	3:22:27:LYS:NZ	2.50	0.45
1:1G:706:A:O4'	11:2A:29:ILE:HD11	2.15	0.45
31:39:14:PRO:O	31:39:15:SER:C	2.54	0.45
4:3E:25:ARG:NH2	4:3E:30:LYS:HB3	2.31	0.45
4:3E:84:LYS:H	4:3E:85:LYS:HD2	1.81	0.45
32:41:122:PRO:HB3	32:41:180:PHE:HD1	1.82	0.45
32:49:107:LEU:HA	32:49:107:LEU:HD23	1.63	0.45
13:4A:48:LEU:HD12	13:4A:53:VAL:HG23	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:80:ILE:HG13	8:7E:104:ARG:NH2	2.32	0.45
39:55:100:LEU:N	39:55:100:LEU:HD12	2.30	0.45
40:65:59:LYS:NZ	40:65:61:ASN:HA	2.30	0.45
7:6E:85:TYR:CE2	7:6E:154:TYR:HE2	2.34	0.45
8:7E:60:ARG:HH11	8:7E:60:ARG:HB2	1.80	0.45
45:B5:67:GLY:C	45:B5:69:TYR:H	2.19	0.45
50:G5:29:LYS:HG2	50:G5:57:ILE:HD13	1.99	0.45
50:K8:64:LEU:HD11	50:K8:68:ARG:NH1	2.31	0.45
55:M5:48:PHE:O	55:M5:48:PHE:CG	2.69	0.45
2:12:61:LEU:HD11	2:12:157:ARG:NH1	2.31	0.45
1:13:1346:A:C4	7:6E:10:ARG:NH2	2.84	0.45
1:13:69:G:N1	1:13:73:G:O6	2.49	0.45
26:14:1111:A:H5''	26:14:1112:G:OP2	2.16	0.45
26:14:1507:A:H2'	26:14:1508:A:O4'	2.16	0.45
26:14:2318:G:H5'	26:14:2319:G:OP2	2.16	0.45
26:14:2720:U:C2	26:14:2721:A:C8	3.05	0.45
26:14:868:U:N3	26:14:869:G:N7	2.64	0.45
2:1E:15:VAL:CG1	2:1E:210:SER:HB3	2.43	0.45
1:1G:1218:C:H2'	1:1G:1219:U:C6	2.52	0.45
1:1G:186(B):C:O4'	20:BA:89:ARG:NH2	2.49	0.45
1:1G:353:A:H5'	1:1G:353:A:C8	2.44	0.45
1:1G:709:G:H2'	1:1G:710:G:C8	2.51	0.45
26:1H:1346:G:C5	26:1H:1347:G:N7	2.84	0.45
26:1H:2273:A:H2'	26:1H:2274:A:C8	2.51	0.45
26:1H:2748:A:OP2	61:1H:3701:HOH:O	2.21	0.45
26:1H:972:G:H3'	26:1H:973:A:H2'	1.99	0.45
10:1I:26:ALA:O	10:1I:30:SER:OG	2.20	0.45
30:21:55:ASN:HB3	30:21:58:ARG:HG3	1.98	0.45
3:22:112:SER:HB3	3:22:115:LEU:HB2	1.99	0.45
3:22:124:ILE:O	3:22:127:ARG:N	2.41	0.45
36:25:22:ILE:HD13	36:25:22:ILE:HA	1.66	0.45
26:14:832:G:H5'	37:35:45:LEU:HD12	1.98	0.45
4:3E:92:VAL:O	4:3E:96:LEU:HD22	2.16	0.45
32:41:111:LEU:HD22	32:41:117:PHE:CE1	2.51	0.45
38:45:110:THR:HG23	38:45:113:GLN:H	1.81	0.45
12:3I:47:LYS:NZ	25:4K:21:A:OP1	2.47	0.45
33:59:77:LYS:HA	33:59:80:SER:OG	2.17	0.45
36:68:104:ARG:NH1	41:B8:36:GLU:OE1	2.49	0.45
36:68:19:ILE:HG22	36:68:43:VAL:HA	1.97	0.45
37:78:120:ALA:HB1	37:78:138:LEU:HD22	1.99	0.45
43:95:5:VAL:HB	43:95:37:VAL:HB	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D5:29:TYR:HB3	47:D5:34:ASN:HB2	1.98	0.45
47:D5:26:GLY:HA3	47:D5:86:VAL:CG1	2.47	0.45
51:H5:4:LEU:O	51:H5:36:VAL:HA	2.16	0.45
47:H8:1:MET:CE	47:H8:135:GLU:HG2	2.47	0.45
55:Q8:52:LYS:O	55:Q8:55:ALA:N	2.47	0.45
29:11:182:LEU:CB	29:11:271:ILE:HG13	2.46	0.45
2:12:217:ARG:HD2	2:12:217:ARG:N	2.32	0.45
1:13:1317:C:C2	14:5I:16:PHE:CE2	3.04	0.45
1:13:868:C:H2'	1:13:869:G:O4'	2.17	0.45
26:14:1599:C:H2'	26:14:1600:C:H6	1.81	0.45
26:14:1849:G:H2'	26:14:1850:G:C8	2.49	0.45
26:14:548:A:H8	26:14:548:A:O5'	1.99	0.45
26:14:960:A:C8	26:14:962:G:C8	3.04	0.45
26:14:1012:U:C4	35:15:28:THR:HG21	2.52	0.45
29:19:30:GLU:HB2	29:19:35:LYS:HZ2	1.81	0.45
2:1E:187:LEU:HA	2:1E:201:ILE:O	2.15	0.45
1:1G:514:C:H2'	1:1G:515:G:H8	1.81	0.45
1:1G:522:C:H2'	1:1G:523:A:O4'	2.17	0.45
1:1G:567:G:C2	1:1G:568:G:H1'	2.51	0.45
1:1G:664:G:H22	1:1G:741:G:H1	1.64	0.45
1:1G:582:U:C2	1:1G:760:G:C6	3.04	0.45
26:1H:1478:G:H2'	26:1H:1479:G:C8	2.50	0.45
26:1H:1570:A:H5'	29:11:37:LEU:HD22	1.98	0.45
26:1H:2312:U:H5'	32:41:88:ILE:HD12	1.99	0.45
26:1H:2389:G:H5''	26:1H:2390:U:O4'	2.16	0.45
26:1H:2749:A:OP1	33:51:4:ILE:HG23	2.16	0.45
26:1H:274:G:H2'	26:1H:275:G:C1'	2.46	0.45
26:1H:2781:A:H5''	26:1H:2782:G:H5'	1.97	0.45
26:1H:276:A:C8	26:1H:278:A:N1	2.84	0.45
26:1H:2820:A:C6	39:98:4:LEU:HD11	2.51	0.45
26:1H:319:C:H2'	26:1H:320:A:C8	2.50	0.45
26:1H:30:G:H2'	26:1H:31:C:C6	2.50	0.45
26:1H:466:A:N3	26:1H:683:C:H1'	2.32	0.45
26:1H:562:U:C4	26:1H:2036:C:H1'	2.51	0.45
1:13:973:G:H4'	10:1I:54:PHE:O	2.17	0.45
30:29:46:ALA:HB1	30:29:80:GLU:O	2.17	0.45
11:2A:20:TYR:CE2	11:2A:83:ILE:HD12	2.51	0.45
4:32:112:VAL:HG12	4:32:116:GLN:OE1	2.16	0.45
4:32:126:ILE:HG22	4:32:127:THR:N	2.32	0.45
37:35:59:LEU:HD22	37:35:59:LEU:O	2.16	0.45
12:3A:30:ALA:HB2	12:3A:33:ARG:HH11	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:71:C:O2	26:1H:1851:U:O2'	2.24	0.45
56:3L:53:G:H22	56:3L:54:U:H6	1.63	0.45
38:45:10:ARG:CZ	38:45:10:ARG:HA	2.46	0.45
26:1H:1006:C:H5'	35:58:28:THR:HG23	1.98	0.45
14:5A:41:ARG:O	14:5A:45:ARG:HB2	2.16	0.45
7:6E:77:SER:HB3	7:6E:84:ASN:HD21	1.81	0.45
37:78:47:ASP:OD2	37:78:50:ARG:NH2	2.48	0.45
8:7E:36:LEU:HA	8:7E:39:LEU:HD23	1.98	0.45
9:82:16:ARG:O	9:82:63:ILE:HG23	2.15	0.45
42:85:72:HIS:ND1	42:85:110:VAL:HG21	2.31	0.45
46:C5:74:PRO:HB2	46:C5:97:ARG:NH2	2.30	0.45
26:1H:1188:U:C4'	43:D8:79:VAL:HG22	2.46	0.45
29:11:83:GLU:OE2	29:11:104:TYR:HE1	1.99	0.45
1:13:1028(B):C:H2'	1:13:1030:C:H41	1.81	0.45
1:13:1298:C:H2'	7:6E:114:ARG:HH21	1.81	0.45
1:13:1320:C:H2'	1:13:1321:C:O4'	2.16	0.45
1:13:1367:C:H5''	9:8E:114:TYR:HA	1.98	0.45
1:13:343:U:O2	1:13:345:C:H1'	2.16	0.45
1:13:895:G:H2'	1:13:896:C:C6	2.51	0.45
26:14:1425:G:H2'	26:14:1426:G:C8	2.51	0.45
26:14:2077:A:H2'	26:14:2078:C:H6	1.81	0.45
26:14:2298:A:N6	26:14:2318:G:C8	2.83	0.45
26:14:2388:A:H2'	26:14:2389:G:H5'	1.98	0.45
26:14:2680:C:H5'	30:29:189:PRO:HA	1.98	0.45
26:14:270(I):G:H2'	26:14:270(J):G:C8	2.51	0.45
26:14:2747:G:O6	26:14:2755:C:H5''	2.16	0.45
26:14:7:G:H2'	26:14:8:A:C8	2.52	0.45
29:19:242:ARG:HG2	29:19:246:PRO:HG3	1.96	0.45
1:1G:1002:G:H1	1:1G:1038:C:N4	2.12	0.45
1:1G:1352:C:OP1	21:1B:3:LYS:NZ	2.37	0.45
1:1G:129(A):G:N2	1:1G:191(A):G:C5	2.85	0.45
1:1G:370:C:H42	1:1G:391:G:H1	1.64	0.45
1:1G:422:C:O2'	1:1G:423:G:H5''	2.17	0.45
26:1H:1170:G:C6	26:1H:1171:G:C8	3.04	0.45
26:1H:16:G:C2	26:1H:17:G:C8	3.04	0.45
26:1H:2057:A:H2'	26:1H:2058:A:C8	2.51	0.45
26:1H:2240:C:O2'	26:1H:2241:A:H5'	2.16	0.45
26:1H:2661:G:H8	26:1H:2661:G:OP2	1.99	0.45
26:1H:38:A:H2'	26:1H:39:C:C6	2.52	0.45
26:1H:701:G:C2'	26:1H:702:G:H5'	2.46	0.45
26:1H:765:G:H2'	26:1H:766:C:C6	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1060:C:H4'	10:1I:51:ARG:HB3	1.99	0.45
27:1J:15:A:H1'	27:1J:109:G:N7	2.31	0.45
30:29:37:ARG:HA	30:29:42:ASP:OD2	2.16	0.45
12:3A:117:ARG:HH11	12:3A:117:ARG:HG3	1.82	0.45
4:3E:141:ARG:HB2	4:3E:141:ARG:NH1	2.31	0.45
38:45:66:ILE:HD12	38:45:67:ARG:H	1.81	0.45
5:4E:118:ILE:HG13	5:4E:119:LEU:N	2.30	0.45
1:13:9:G:C8	5:4E:126:ARG:NH2	2.85	0.45
6:52:33:TYR:OH	6:52:78:GLU:HG3	2.17	0.45
28:71:41:VAL:HG23	28:71:178:ALA:HB2	1.98	0.45
9:82:65:VAL:HG21	9:82:73:GLN:HB3	1.96	0.45
44:A5:58:ALA:HB1	44:A5:64:MET:HB2	1.99	0.45
40:A8:62:LYS:HA	40:A8:65:VAL:CG2	2.46	0.45
41:B8:108:ARG:HA	41:B8:111:ARG:NE	2.31	0.45
41:B8:58:ASN:O	41:B8:58:ASN:ND2	2.46	0.45
20:BA:29:LYS:O	20:BA:33:ILE:HG13	2.15	0.45
26:1H:548:A:N3	43:D8:21:ARG:NH2	2.65	0.45
44:E8:86:LEU:HD12	44:E8:87:PRO:HD2	1.98	0.45
46:G8:55:TYR:CZ	46:G8:61:ILE:HD11	2.51	0.45
47:H8:140:ASP:N	47:H8:140:ASP:OD1	2.49	0.45
47:H8:9:TYR:HE1	47:H8:35:ARG:CG	2.29	0.45
26:14:125:G:H5''	54:L5:19:ARG:HD3	1.99	0.45
26:1H:1820:U:O2	29:11:202:LYS:HB3	2.16	0.45
2:12:214:ILE:HG22	2:12:215:LEU:HD23	1.99	0.45
2:12:25:ASN:HD21	2:12:27:LYS:HE2	1.81	0.45
1:13:1032(B):G:H2'	1:13:1033:G:O4'	2.15	0.45
1:13:1176:A:N6	1:13:1177:G:C6	2.84	0.45
1:13:142:G:H2'	1:13:143:A:H8	1.80	0.45
1:13:323:U:H2'	1:13:324:G:O4'	2.16	0.45
1:13:540:G:H2'	1:13:541:G:O4'	2.16	0.45
1:13:69:G:N2	1:13:73:G:N7	2.65	0.45
1:13:996:A:H2'	1:13:997:U:H6	1.81	0.45
26:14:2111:C:O2'	26:14:2114:A:N7	2.50	0.45
26:14:239:U:O2'	26:14:240:G:H5'	2.17	0.45
26:14:2464:C:H2'	26:14:2465:C:O4'	2.16	0.45
26:14:2512:C:H4'	30:29:122:PHE:CE2	2.52	0.45
26:14:270(B):A:N7	26:14:270(X):G:N2	2.59	0.45
26:14:2865:U:C4	26:14:2866:U:C4	3.04	0.45
26:14:562:U:HO2'	26:14:572:A:H8	1.62	0.45
29:19:136:ILE:HD12	29:19:193:VAL:HG12	1.98	0.45
29:19:215:LEU:HD23	29:19:215:LEU:HA	1.79	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1123:A:H4'	10:1A:37:PRO:HD2	1.99	0.45
1:1G:947:G:H2'	1:1G:948:C:C6	2.51	0.45
1:1G:984:C:H2'	1:1G:985:C:C6	2.49	0.45
26:1H:1592:C:H2'	26:1H:1593:G:C8	2.52	0.45
26:1H:1794:U:H2'	26:1H:1795:C:C6	2.52	0.45
26:1H:182:A:C5	26:1H:183:C:C5	3.04	0.45
26:1H:37:C:H4'	26:1H:451:C:OP1	2.17	0.45
26:1H:533:G:H5'	42:C8:24:TYR:CE1	2.51	0.45
27:1J:42:C:N4	32:49:91:ARG:HH12	2.15	0.45
36:25:117:LEU:HA	36:25:118:ALA:O	2.16	0.45
30:29:57:LYS:HD3	30:29:57:LYS:HA	1.84	0.45
30:29:8:LYS:HB3	30:29:192:ASN:HA	1.98	0.45
11:2A:100:ALA:C	11:2A:102:GLY:H	2.19	0.45
31:31:177:ALA:HB1	31:31:178:PRO:HD2	1.99	0.45
4:3E:107:ARG:HH11	4:3E:114:ARG:NH2	2.14	0.45
24:3K:15:G:C6	24:3K:48:C:N4	2.84	0.45
32:49:117:PHE:CG	32:49:117:PHE:O	2.70	0.45
32:49:31:VAL:O	32:49:33:ARG:HD3	2.16	0.45
32:49:72:ARG:HD2	32:49:85:GLY:O	2.16	0.45
13:4A:12:ASN:H	13:4A:45:VAL:HG22	1.81	0.45
1:1G:1505:G:H1'	25:4L:12:A:N6	2.31	0.45
6:5E:76:ALA:HA	6:5E:79:LEU:HD12	1.99	0.45
40:65:86:ALA:O	40:65:87:PHE:HB2	2.16	0.45
16:7I:28:ARG:HG3	16:7I:29:ASP:H	1.81	0.45
9:82:99:LEU:HB3	9:82:101:PHE:CE1	2.51	0.45
17:8A:45:HIS:CD2	17:8A:47:PRO:HD3	2.52	0.45
17:8A:85:VAL:O	17:8A:89:LEU:HB2	2.17	0.45
43:95:70:ILE:O	43:95:70:ILE:HG22	2.17	0.45
18:9A:37:VAL:CG1	18:9A:78:LEU:HB3	2.46	0.45
49:F5:87:PRO:O	49:F5:91:LYS:HB3	2.17	0.45
47:H8:99:TYR:HA	47:H8:124:ILE:O	2.17	0.45
50:K8:18:PRO:O	50:K8:21:LEU:HB2	2.16	0.45
37:35:49:ARG:O	55:M5:57:ARG:NH2	2.49	0.45
53:N8:40:LYS:HE2	53:N8:47:PRO:N	2.30	0.45
1:13:1272:G:C6	1:13:1273:G:C4	3.04	0.45
1:13:1404:C:H2'	1:13:1405:G:C8	2.52	0.45
1:13:256:U:N3	1:13:257:G:N7	2.64	0.45
1:13:271:C:H2'	1:13:272:C:C6	2.51	0.45
1:13:594:G:H1	1:13:645:C:H42	1.65	0.45
26:14:2046:G:H5'	53:J5:19:ARG:HG3	1.98	0.45
26:14:2124:G:H2'	26:14:2124:G:N3	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2518:A:O5'	26:14:2518:A:H8	2.00	0.45
26:14:2712:U:O2'	26:14:2712(A):A:OP2	2.30	0.45
26:14:275:G:H8	26:14:275:G:OP2	1.99	0.45
26:14:870:A:P	38:45:6:ARG:HD2	2.57	0.45
29:19:71:ASP:CG	29:19:103:ARG:HH22	2.20	0.45
1:1G:1229:A:OP1	13:4A:116:THR:HG23	2.16	0.45
1:1G:186(A):C:H2'	1:1G:186(B):C:C6	2.52	0.45
1:1G:42:G:H2'	1:1G:43:C:O4'	2.16	0.45
1:1G:707:C:H2'	1:1G:708:C:C6	2.51	0.45
1:1G:709:G:H2'	1:1G:710:G:H8	1.82	0.45
1:1G:967:C:H4'	9:82:125:TYR:CE1	2.52	0.45
26:1H:1204:A:H2	26:1H:1241:A:N1	2.14	0.45
26:1H:1412:A:H2'	26:1H:1413:G:H8	1.81	0.45
26:1H:1971:A:H8	61:1H:4059:HOH:O	1.99	0.45
26:1H:2133:G:O2'	26:1H:2158:A:N1	2.49	0.45
26:1H:444:C:H2'	26:1H:445:C:C6	2.52	0.45
26:14:2786:U:O2	30:29:62:PRO:HB3	2.17	0.45
11:2A:29:ILE:HG22	11:2A:44:SER:HB2	1.99	0.45
23:2L:48:U:H1'	23:2L:49:C:O5'	2.16	0.45
37:35:71:VAL:HG13	37:35:72:PRO:HD3	1.98	0.45
31:39:197:ASP:O	31:39:200:GLU:HB3	2.17	0.45
31:39:83:PHE:O	31:39:85:GLY:N	2.49	0.45
24:3K:11:C:H42	24:3K:24:G:H1	1.64	0.45
32:49:111:LEU:O	32:49:114:ILE:HG12	2.17	0.45
33:51:154:PRO:HB2	33:51:163:TYR:CZ	2.52	0.45
1:13:1202:G:N2	14:5I:46:GLU:OE1	2.48	0.45
34:61:8:PRO:HD3	34:61:15:VAL:HG22	1.98	0.45
36:68:7:TYR:CZ	36:68:44:LYS:HG3	2.52	0.45
34:69:128:LEU:O	34:69:137:PRO:HA	2.16	0.45
15:6I:8:LYS:HB2	15:6I:8:LYS:HE3	1.65	0.45
28:71:59:ARG:HG3	28:71:164:ARG:HB2	1.99	0.45
28:79:45:ALA:HB1	28:79:210:ARG:C	2.37	0.45
8:7E:30:ARG:O	8:7E:34:GLU:HB2	2.17	0.45
9:82:16:ARG:HB2	9:82:64:THR:HG22	1.99	0.45
43:95:71:LEU:H	43:95:86:GLY:CA	2.30	0.45
39:98:30:THR:HG22	39:98:31:HIS:ND1	2.31	0.45
43:D8:47:VAL:HG13	43:D8:48:GLY:N	2.29	0.45
49:F5:62:VAL:HG21	49:F5:70:VAL:HG21	1.99	0.45
47:H8:154:ASP:N	47:H8:154:ASP:OD1	2.50	0.45
47:H8:8:TYR:HB2	47:H8:38:TYR:CZ	2.52	0.45
50:K8:4:SER:HB3	50:K8:7:ARG:N	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M8:16:CYS:SG	52:M8:36:CYS:HB2	2.57	0.45
29:11:111:LEU:HD22	29:11:115:GLN:OE1	2.16	0.45
1:13:313:A:H2'	1:13:314:C:H6	1.82	0.45
1:13:329:A:C5	1:13:332:G:C6	3.05	0.45
1:13:4:U:O4	8:7E:105:ARG:HG3	2.16	0.45
26:14:86:C:O2'	26:14:104:U:O2'	2.24	0.45
26:14:1429:G:H2'	26:14:1430:C:C6	2.52	0.45
26:14:270(T):G:C6	26:14:270(U):C:C4	3.05	0.45
26:14:2848:G:O6	61:14:3577:HOH:O	2.18	0.45
26:14:392:C:H5''	26:14:409:C:H5''	1.98	0.45
26:14:757:U:H2'	26:14:758:C:O4'	2.17	0.45
26:14:89:G:N7	26:14:90:U:H5	2.14	0.45
27:16:16:G:O6	27:16:66:A:H2	2.00	0.45
2:1E:74:LYS:HB2	2:1E:208:ILE:HG21	1.98	0.45
1:1G:1002:G:H2'	1:1G:1003:G:C8	2.52	0.45
1:1G:1134:G:H2'	1:1G:1135:U:O4'	2.16	0.45
1:1G:1143:G:N2	1:1G:1144:G:C6	2.85	0.45
1:1G:1145:C:H5''	1:1G:1146:A:OP1	2.16	0.45
1:1G:1347:G:C6	9:82:107:ARG:NH2	2.84	0.45
1:1G:27:G:O5'	1:1G:27:G:H8	1.99	0.45
1:1G:452:A:O2'	1:1G:453:A:O4'	2.29	0.45
1:1G:581:G:N2	1:1G:760:G:N7	2.64	0.45
26:1H:1050:A:C8	26:1H:2751:G:C5	3.05	0.45
26:1H:1419:A:C8	26:1H:1421:G:C6	3.05	0.45
26:1H:1689:A:C6	26:1H:1700:A:C2	3.05	0.45
26:1H:2031:A:C6	26:1H:2498:C:H1'	2.50	0.45
26:1H:722:A:H2'	26:1H:723:G:C8	2.51	0.45
26:1H:879:G:O6	26:1H:897:C:N4	2.50	0.45
30:21:35:GLN:HG2	30:21:36:ARG:N	2.31	0.45
30:21:78:LEU:C	30:21:79:ARG:HD2	2.37	0.45
30:29:117:MET:HA	30:29:122:PHE:N	2.32	0.45
26:14:2050:C:H1'	30:29:156:MET:CE	2.47	0.45
30:29:63:LEU:HA	30:29:63:LEU:HD13	1.77	0.45
11:2A:85:ARG:HD3	11:2A:113:PRO:HD3	1.98	0.45
23:2L:48:U:HO2'	23:2L:49:C:P	2.38	0.45
4:32:153:ARG:HD3	4:32:181:MET:SD	2.57	0.45
12:3A:102:ARG:HB3	12:3A:102:ARG:HE	1.62	0.45
4:3E:61:LYS:NZ	4:3E:62:GLN:OE1	2.50	0.45
33:51:98:LEU:HA	33:51:98:LEU:HD12	1.63	0.45
33:51:9:ILE:HD12	33:51:9:ILE:N	2.31	0.45
6:52:24:GLU:OE1	6:52:28:ARG:NH1	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:81:ILE:HG23	6:52:82:ARG:HG3	1.97	0.45
33:59:6:ARG:HB2	33:59:65:HIS:ND1	2.32	0.45
40:65:77:ALA:O	40:65:80:LEU:N	2.49	0.45
7:6E:115:ARG:O	7:6E:118:VAL:HB	2.16	0.45
37:78:15:ARG:O	37:78:16:ARG:C	2.55	0.45
8:7E:51:VAL:HG11	8:7E:60:ARG:NH1	2.30	0.45
38:88:34:LEU:HA	38:88:34:LEU:HD12	1.67	0.45
17:8A:6:LEU:HA	17:8A:6:LEU:HD23	1.74	0.45
9:8E:48:GLU:HB2	9:8E:101:PHE:CE1	2.51	0.45
43:95:24:LYS:HA	43:95:92:THR:OG1	2.16	0.45
39:98:63:ARG:O	39:98:66:VAL:N	2.50	0.45
45:B5:29:TRP:CZ3	45:B5:78:LYS:HD3	2.52	0.45
42:C8:75:ASN:HB2	42:C8:78:THR:H	1.81	0.45
42:C8:92:ARG:HB3	43:D8:11:GLN:OE1	2.17	0.45
49:F5:25:LYS:HE2	49:F5:25:LYS:HB3	1.81	0.45
49:J8:8:SER:OG	49:J8:10:LYS:HG3	2.17	0.45
54:L5:34:ARG:HH21	54:L5:39:ARG:HE	1.64	0.45
52:M8:34:GLU:HG2	52:M8:35:VAL:N	2.31	0.45
53:N8:46:CYS:HA	53:N8:47:PRO:HD2	1.91	0.45
54:P8:35:ARG:HG3	54:P8:42:LEU:HD11	1.98	0.45
2:12:224:GLN:CG	2:12:225:ALA:H	2.30	0.45
1:13:1428:A:H2'	1:13:1429:C:C6	2.52	0.45
1:13:228:A:H2'	1:13:229:U:O4'	2.17	0.45
26:14:1190:G:OP1	37:35:32:THR:HA	2.17	0.45
26:14:127:A:H5''	26:14:128:C:C6	2.52	0.45
26:14:1386:C:C2	26:14:1387:C:C5	3.05	0.45
26:14:1820:U:H4'	26:14:1821:A:OP2	2.17	0.45
26:14:1769:G:C5	26:14:1984:G:C6	3.05	0.45
26:14:2147:G:C5	26:14:2148:G:H1'	2.51	0.45
26:14:270(H):C:H2'	26:14:270(I):G:H8	1.81	0.45
26:14:37:C:H2'	26:14:38:A:C8	2.51	0.45
26:14:673:C:H4'	31:39:82:ILE:HD11	1.98	0.45
26:14:760:G:H2'	26:14:761:A:O4'	2.17	0.45
26:14:792:G:OP2	61:14:3588:HOH:O	2.21	0.45
26:14:900:A:C2'	26:14:901:A:H8	2.22	0.45
35:15:25:ARG:O	35:15:28:THR:HG22	2.16	0.45
1:1G:1262:C:H42	1:1G:1273:G:H1	1.63	0.45
1:1G:1323:G:H2'	1:1G:1324:A:C8	2.52	0.45
1:1G:188:U:O2'	1:1G:189:U:H5'	2.17	0.45
1:1G:789:U:O2'	1:1G:791:G:N7	2.41	0.45
26:1H:1259:G:H2'	26:1H:1260:G:H8	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1711:C:H2'	26:1H:1712:C:C6	2.51	0.45
26:1H:2167:U:H2'	26:1H:2168:G:H5''	1.98	0.45
26:1H:1889:A:N1	26:1H:2234:G:H1'	2.31	0.45
26:1H:2854:G:C2	26:1H:2855:C:C2	3.05	0.45
26:1H:971:C:H2'	26:1H:972:G:O4'	2.17	0.45
11:2A:48:ILE:HG22	11:2A:49:GLY:N	2.30	0.45
11:2A:96:ARG:HD3	11:2A:99:GLN:CG	2.34	0.45
3:2E:52:LEU:HA	3:2E:70:VAL:HG23	1.98	0.45
37:35:125:VAL:HG13	37:35:144:GLU:HB3	1.99	0.45
31:39:89:VAL:O	31:39:90:PHE:C	2.54	0.45
1:13:710:G:H5''	6:5E:54:LYS:HZ1	1.82	0.45
16:7A:58:TYR:O	16:7A:62:VAL:HG23	2.17	0.45
9:8E:99:LEU:HB3	9:8E:101:PHE:CE2	2.51	0.45
43:95:49:THR:HB	43:95:50:PRO:CD	2.47	0.45
18:9A:53:ARG:HA	18:9A:56:THR:OG1	2.17	0.45
19:AI:22:LEU:HD21	19:AI:29:ARG:H	1.81	0.45
42:C8:52:ARG:HA	42:C8:55:ARG:HG3	1.99	0.45
47:H8:158:PRO:O	47:H8:161:VAL:HG22	2.17	0.45
26:1H:651:G:OP2	55:Q8:21:LYS:HE3	2.16	0.45
1:13:134:A:H1'	1:13:325:A:C5	2.51	0.45
1:13:157:G:H2'	1:13:158:G:H8	1.82	0.45
1:13:488:C:H2'	1:13:489:C:C6	2.52	0.45
1:13:864:A:H2'	1:13:865:A:C8	2.52	0.45
26:14:1804:C:O5'	26:14:1804:C:H6	2.00	0.45
26:14:2479:G:C6	26:14:2480:C:C4	3.05	0.45
26:14:265:A:H1'	26:14:266:G:O4'	2.17	0.45
26:14:654(C):G:N2	26:14:654(R):C:O2'	2.39	0.45
27:16:17:C:H2'	27:16:18:G:O4'	2.17	0.45
27:16:1(M):A:H2'	27:16:1(M):A:N3	2.32	0.45
2:1E:18:GLY:H	2:1E:42:ILE:HG13	1.82	0.45
1:1G:1064:G:OP1	1:1G:1386:G:H4'	2.17	0.45
1:1G:1232:U:H2'	1:1G:1233:G:O4'	2.16	0.45
1:1G:598:U:H2'	1:1G:599:C:C6	2.52	0.45
1:1G:617:G:H4'	16:7A:44:THR:HB	1.99	0.45
1:1G:668:G:O2'	15:6A:46:HIS:HB3	2.16	0.45
26:1H:1184:G:H5'	51:L8:29:ARG:HH11	1.82	0.45
26:1H:1265:A:OP1	26:1H:1265:A:H8	2.00	0.45
26:1H:1499:C:H2'	26:1H:1500:G:C8	2.52	0.45
26:1H:1697:G:P	26:1H:1698:A:HO2'	2.37	0.45
26:1H:155:C:N4	26:1H:171:G:H1	2.15	0.45
26:1H:1726:G:H2'	26:1H:1727:U:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1731:G:H2'	26:1H:1732:A:H8	1.82	0.45
26:1H:2011:U:H2'	26:1H:2012:G:O4'	2.17	0.45
26:1H:827:U:O2	26:1H:2246:G:H4'	2.16	0.45
26:1H:2712:U:O2'	26:1H:2712(A):A:OP2	2.30	0.45
26:1H:2839:G:C2	26:1H:2840:C:C2	3.05	0.45
26:1H:449:A:C6	26:1H:450:G:C5	3.05	0.45
26:1H:557:U:H2'	26:1H:558:G:H8	1.80	0.45
26:1H:259:G:N2	26:1H:621:A:H8	2.14	0.45
26:1H:839:U:H2'	26:1H:840:C:C6	2.52	0.45
27:1J:93:C:H2'	27:1J:94:C:C6	2.50	0.45
36:25:85:VAL:HB	36:25:114:ILE:HD11	1.98	0.45
4:32:148:VAL:HG23	4:32:181:MET:O	2.17	0.45
4:3E:120:LEU:HA	4:3E:120:LEU:HD23	1.79	0.45
24:3K:19:G:H3'	24:3K:20:U:H5'	1.99	0.45
13:4I:60:VAL:HG13	13:4I:64:TRP:HE1	1.81	0.45
1:1G:1048:G:OP1	14:5A:4:LYS:HB2	2.17	0.45
36:68:66:LYS:HE3	36:68:66:LYS:HB3	1.69	0.45
7:6E:101:LEU:O	7:6E:105:VAL:HG23	2.16	0.45
41:75:50:ILE:HD13	41:75:50:ILE:HA	1.62	0.45
8:7E:53:VAL:HB	8:7E:58:TYR:CD2	2.52	0.45
9:8E:77:ILE:O	9:8E:81:ILE:HG12	2.17	0.45
20:BA:49:ALA:HB2	20:BA:92:LEU:HD22	1.99	0.45
45:B5:1:MET:H1	50:G5:29:LYS:HE3	1.82	0.45
47:H8:111:VAL:HG11	47:H8:146:ILE:H	1.81	0.45
47:H8:126:VAL:HA	47:H8:164:ALA:N	2.32	0.45
2:12:188:ALA:O	2:12:203:GLY:N	2.50	0.45
2:12:58:ILE:HG13	2:12:219:VAL:CG2	2.47	0.45
1:13:142:G:H2'	1:13:143:A:C8	2.51	0.45
1:13:222:U:H2'	1:13:223:U:C6	2.52	0.45
26:14:1024:G:C3'	26:14:1025:G:H5''	2.44	0.45
26:14:1011:G:N2	26:14:1150:C:O2	2.43	0.45
26:14:2274:A:C5	26:14:2276:G:C8	3.05	0.45
26:14:2335:A:C8	26:14:2337:G:C5	3.05	0.45
26:14:21:A:C2	26:14:520:G:C2	3.05	0.45
26:14:861:A:C2	26:14:862:G:H1'	2.52	0.45
27:16:20:C:H2'	27:16:21:G:O4'	2.17	0.45
29:19:67:PHE:HE1	29:19:106:ILE:HD11	1.82	0.45
1:1G:1211:U:H4'	1:1G:1211:U:OP1	2.17	0.45
1:1G:1224:G:N1	1:1G:1322:C:H1'	2.31	0.45
1:1G:1280:A:H5''	10:1A:40:LEU:HD11	1.99	0.45
1:1G:1359:C:H5''	61:1G:1891:HOH:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:265:G:H5'	17:8A:64:PRO:O	2.16	0.45
1:1G:745:C:H5'	1:1G:851:G:N3	2.32	0.45
1:1G:960:U:H3	1:1G:1225:A:H1'	1.82	0.45
26:1H:1295:C:C1'	39:98:23:ASN:HD21	2.30	0.45
26:1H:1786:A:H1'	26:1H:1938:A:N6	2.32	0.45
26:1H:2243:U:H2'	26:1H:2244:U:C6	2.52	0.45
26:1H:374:A:C2	26:1H:401:A:C4	3.05	0.45
26:1H:535:C:H42	26:1H:558:G:H1	1.65	0.45
10:1I:40:LEU:CB	10:1I:69:ASN:HB2	2.46	0.45
23:2K:54:G:H2'	23:2K:55:5MU:C6	2.50	0.45
4:32:9:CYS:HA	59:32:301:SF4:S4	2.57	0.45
4:3E:25:ARG:CZ	4:3E:30:LYS:HB3	2.47	0.45
32:41:117:PHE:CZ	32:41:119:GLY:HA2	2.52	0.45
32:41:67:LYS:N	32:41:67:LYS:HD3	2.32	0.45
34:69:76:THR:HA	34:69:105:HIS:NE2	2.31	0.45
15:6A:39:LEU:HD11	15:6A:56:LEU:HB2	1.99	0.45
16:7A:82:GLN:HG3	16:7A:83:GLU:H	1.82	0.45
17:8A:10:VAL:HG13	17:8A:19:VAL:HB	1.99	0.45
9:8E:53:VAL:HG13	9:8E:92:TYR:CZ	2.52	0.45
17:8I:68:ARG:H	17:8I:70:ARG:NH1	2.15	0.45
20:BI:49:ALA:CB	20:BI:99:LEU:HB2	2.47	0.45
46:G8:100:ALA:HB1	46:G8:101:LYS:CG	2.46	0.45
26:1H:190:A:OP2	49:J8:39:LYS:HE3	2.17	0.45
53:N8:40:LYS:HE2	53:N8:47:PRO:CD	2.47	0.45
1:13:835:U:H3	1:13:851:G:H1	1.66	0.44
1:13:973:G:H3'	1:13:974:A:H5''	1.99	0.44
26:14:1310:G:H1	26:14:1604:C:N4	2.15	0.44
26:14:1639:U:H2'	26:14:1640:C:H5''	1.99	0.44
26:14:307:G:N2	26:14:309:G:H3'	2.32	0.44
26:14:90:U:HO2'	26:14:91:A:P	2.40	0.44
2:1E:211:ILE:HG22	2:1E:215:LEU:HD23	1.98	0.44
26:1H:107:C:C2	26:1H:108:U:C5	3.05	0.44
26:1H:127:A:H5''	26:1H:128:C:C6	2.51	0.44
26:1H:1565:C:O2'	26:1H:1567:A:N7	2.45	0.44
26:1H:2124:G:O6	26:1H:2125:G:N2	2.50	0.44
26:1H:2153:G:C6	26:1H:2154:G:C6	3.05	0.44
26:1H:2392:A:H2	26:1H:2424:C:N4	2.15	0.44
26:1H:1050:A:H1'	26:1H:2751:G:C8	2.52	0.44
26:1H:34:C:O2'	26:1H:35:G:P	2.74	0.44
26:1H:933:A:H5'	61:1H:4186:HOH:O	2.17	0.44
23:2K:20:G:H5''	23:2K:61:U:O4	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2L:20:G:C2	23:2L:58:A:C2	3.05	0.44
31:31:126:VAL:HG22	31:31:194:MET:O	2.16	0.44
31:39:111:ALA:HA	31:39:114:VAL:HG22	1.98	0.44
26:14:617:G:OP2	31:39:43:LYS:HE2	2.17	0.44
4:3E:107:ARG:HA	4:3E:107:ARG:HD2	1.82	0.44
4:3E:112:VAL:HG12	4:3E:116:GLN:OE1	2.18	0.44
24:3K:4:U:H2'	24:3K:5:C:O4'	2.17	0.44
32:41:172:LEU:O	32:41:176:LEU:HD12	2.17	0.44
32:41:67:LYS:NZ	52:M8:6:HIS:CD2	2.85	0.44
32:49:103:LEU:O	32:49:106:LEU:HD23	2.16	0.44
13:4I:78:ILE:O	13:4I:81:LEU:N	2.49	0.44
40:65:66:ALA:HA	40:65:69:VAL:HG12	1.98	0.44
37:78:98:GLU:O	37:78:101:VAL:HG22	2.16	0.44
9:82:19:LEU:HD21	9:82:84:ALA:HB1	1.99	0.44
42:85:16:LYS:HB2	42:85:16:LYS:HE3	1.89	0.44
42:C8:90:VAL:CG2	43:D8:39:LEU:HB3	2.46	0.44
47:D5:94:GLU:O	47:D5:130:PRO:HD3	2.17	0.44
49:F5:87:PRO:O	49:F5:88:LYS:C	2.55	0.44
55:M5:6:THR:HG23	55:M5:64:TYR:HD2	1.82	0.44
1:13:1047:G:H5''	14:5I:4:LYS:HD2	1.99	0.44
1:13:1072:G:C6	1:13:1073:U:N3	2.86	0.44
1:13:1447:G:N2	1:13:1459:C:O2	2.43	0.44
1:13:355:C:H2'	1:13:356:A:O4'	2.17	0.44
1:13:384:G:H2'	1:13:385:C:C6	2.53	0.44
1:13:650:G:C2	1:13:651:C:C6	3.05	0.44
1:13:658:G:O2'	1:13:659:U:H5'	2.17	0.44
26:14:1011:G:H2'	26:14:1013:C:H5''	1.98	0.44
26:14:1012:U:C5	35:15:28:THR:HG21	2.52	0.44
26:14:1109:C:H2'	26:14:1110:G:C1'	2.47	0.44
26:14:1420:U:HO2'	26:14:1421:G:P	2.40	0.44
26:14:1827:C:C2'	26:14:1828:G:H5'	2.46	0.44
26:14:2123:G:C2	26:14:2124:G:C8	3.05	0.44
26:14:2185:C:H2'	26:14:2186:G:O4'	2.17	0.44
26:14:2304:G:H22	26:14:2312:U:H3	1.65	0.44
26:14:2575:C:H2'	26:14:2578:G:O6	2.17	0.44
26:14:29:U:H2'	26:14:30:G:H8	1.83	0.44
26:14:329:G:OP2	46:C5:71:LYS:HE3	2.16	0.44
26:14:27:G:N2	26:14:512:G:O2'	2.45	0.44
26:14:608:A:H2'	26:14:609:A:O4'	2.17	0.44
26:14:753:C:H2'	26:14:754:C:H6	1.83	0.44
26:14:775:G:C5	26:14:794:G:C8	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:212:GLN:O	2:1E:216:SER:OG	2.25	0.44
1:1G:1023:G:C5	1:1G:1024:G:H1'	2.52	0.44
1:1G:1244:C:H2'	1:1G:1245:A:C8	2.52	0.44
1:1G:584:G:H5'	17:8A:91:ARG:CZ	2.47	0.44
1:1G:660:G:N7	61:1G:1729:HOH:O	2.36	0.44
26:1H:2335:A:C8	26:1H:2337:G:C5	3.05	0.44
26:1H:2402:C:H5	26:1H:2415:G:H22	1.65	0.44
26:1H:607:U:OP1	31:31:103:LYS:HG3	2.17	0.44
27:1J:46:A:H2'	27:1J:47:C:C6	2.52	0.44
22:1L:18:G:O2'	22:1L:19:G:H5'	2.16	0.44
30:21:174:ASP:OD1	30:21:175:VAL:N	2.50	0.44
30:21:23:VAL:HA	30:21:184:VAL:O	2.17	0.44
3:22:76:VAL:O	3:22:84:ILE:HG13	2.18	0.44
30:29:120:TRP:CD1	30:29:155:LYS:HB3	2.52	0.44
30:29:181:LEU:HA	30:29:181:LEU:HD12	1.78	0.44
1:1G:777:A:C2	11:2A:119:CYS:HB3	2.53	0.44
31:31:108:LYS:HE2	31:31:108:LYS:HB3	1.76	0.44
4:3E:160:GLN:HA	4:3E:163:GLU:HG2	1.98	0.44
24:3K:8:U:H5	24:3K:13:C:H5''	1.83	0.44
5:4E:148:VAL:O	5:4E:151:LEU:HB2	2.17	0.44
13:4I:106:ASN:O	13:4I:106:ASN:ND2	2.50	0.44
40:65:62:LYS:HE2	40:65:97:ARG:HD2	1.99	0.44
28:71:57:ASN:OD1	28:71:165:ASN:ND2	2.29	0.44
1:1G:653:A:C8	8:72:56:LYS:HG2	2.52	0.44
17:8I:22:LEU:HD22	17:8I:88:TYR:HD2	1.82	0.44
43:95:38:LEU:HD13	43:95:55:ALA:C	2.38	0.44
44:A5:27:LYS:HB2	44:A5:32:ALA:HB2	1.99	0.44
42:C8:19:LYS:O	42:C8:22:LYS:HG3	2.17	0.44
26:1H:1252:G:N3	42:C8:33:ARG:HD2	2.32	0.44
47:D5:7:ALA:HB3	47:D5:61:LEU:HA	1.99	0.44
43:D8:25:LEU:O	43:D8:25:LEU:HD12	2.17	0.44
46:G8:89:PHE:CD1	46:G8:90:LEU:N	2.85	0.44
49:J8:3:LYS:O	49:J8:12:PRO:HD3	2.17	0.44
49:J8:87:PRO:O	49:J8:91:LYS:HB2	2.16	0.44
1:13:1103:C:H2'	1:13:1104:G:O4'	2.16	0.44
1:13:157:G:N2	1:13:165:C:C2	2.85	0.44
1:13:426:G:OP1	4:3E:38:TYR:OH	2.25	0.44
26:14:1003:G:N2	26:14:1153:C:C2	2.86	0.44
26:14:1414:G:C6	26:14:1415:U:C4	3.06	0.44
26:14:1449(A):G:O2'	26:14:1450:C:H5'	2.17	0.44
26:14:1816:G:OP2	29:19:39:LYS:NZ	2.38	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2134:A:C4	26:14:2158:A:C8	3.05	0.44
26:14:2271:G:C5	26:14:2272:U:C4	3.05	0.44
26:14:2651:C:O2'	26:14:2652:C:H5'	2.17	0.44
26:14:50:U:H4'	26:14:51:G:OP2	2.16	0.44
26:14:622:G:OP2	37:35:108:LYS:NZ	2.34	0.44
26:14:795:C:H2'	26:14:796:C:C6	2.52	0.44
26:14:800:A:H8	61:14:3515:HOH:O	2.00	0.44
26:14:925:C:H2'	26:14:926:A:C8	2.52	0.44
27:16:109:G:H2'	27:16:110:G:O4'	2.17	0.44
1:1G:123:C:H2'	1:1G:124:G:H8	1.82	0.44
1:1G:1288:A:C2	1:1G:1289:A:C5	3.05	0.44
1:1G:316:G:H2'	1:1G:317:G:H8	1.82	0.44
26:1H:1779:U:OP2	61:1H:3704:HOH:O	2.21	0.44
26:1H:2032:G:H21	30:21:146:THR:CG2	2.27	0.44
26:1H:2165:G:N7	26:1H:2166:G:N2	2.66	0.44
26:1H:2313:C:O2'	26:1H:2314:C:H5'	2.17	0.44
26:1H:2436:G:C6	26:1H:2437:U:C4	3.05	0.44
26:1H:270(T):G:H2'	26:1H:270(U):C:H6	1.82	0.44
26:1H:2845:G:H2'	26:1H:2846:G:H8	1.81	0.44
26:1H:286:C:N3	26:1H:356:G:C2	2.86	0.44
26:1H:705:A:C8	26:1H:727:A:C2	3.05	0.44
3:22:14:ILE:HG13	3:22:15:THR:H	1.82	0.44
36:25:75:SER:OG	41:75:74:ARG:NH2	2.50	0.44
3:2E:22:TRP:CH2	3:2E:32:LEU:HB3	2.53	0.44
11:2I:78:GLN:O	11:2I:103:LEU:HA	2.18	0.44
23:2L:24:C:C2	23:2L:25:U:C5	3.05	0.44
4:32:196:LEU:HD13	4:32:198:VAL:HG22	1.98	0.44
37:35:52:GLU:HG2	37:35:55:ARG:HB3	1.97	0.44
31:39:122:LYS:HD2	31:39:191:ARG:NH1	2.33	0.44
32:41:125:PHE:CD1	32:41:131:TYR:HB2	2.51	0.44
32:49:11:TYR:CE1	32:49:172:LEU:HD11	2.53	0.44
7:6E:59:LEU:HA	7:6E:59:LEU:HD23	1.81	0.44
1:13:660:G:OP1	15:6I:5:LYS:HD3	2.17	0.44
8:7E:94:TYR:HE1	8:7E:132:GLU:HB2	1.83	0.44
42:85:25:TRP:CD1	42:85:25:TRP:C	2.90	0.44
38:88:52:VAL:HA	38:88:55:VAL:HG22	1.99	0.44
9:8E:3:GLN:HA	9:8E:20:ARG:HG2	1.99	0.44
19:AI:40:ILE:HD11	19:AI:62:ILE:HG23	1.99	0.44
49:F5:56:GLN:HE22	49:F5:83:GLU:C	2.20	0.44
26:14:76:C:O3'	50:G5:59:ARG:HG3	2.17	0.44
47:H8:93:ASP:HA	47:H8:131:ARG:HH22	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:J5:13:LYS:HG2	53:J5:16:ARG:NH2	2.32	0.44
55:Q8:23:VAL:HA	55:Q8:48:PHE:O	2.16	0.44
1:13:1028(B):C:C2'	1:13:1030:C:H41	2.30	0.44
1:13:1132:C:H2'	1:13:1133:G:H8	1.82	0.44
1:13:1405:G:P	58:13:1749:PAR:H34	2.57	0.44
1:13:278:G:O4'	1:13:282:A:H1'	2.17	0.44
1:13:807:A:H2'	1:13:808:C:C6	2.52	0.44
26:14:1178:C:H2'	26:14:1179:C:C6	2.52	0.44
26:14:1270:C:H5''	26:14:1271:G:H5'	1.98	0.44
26:14:1333:C:H2'	26:14:1334:G:H8	1.83	0.44
26:14:1374:G:H2'	26:14:1375:C:O4'	2.17	0.44
26:14:14:A:H5''	26:14:15:G:OP2	2.16	0.44
26:14:2266:A:H4'	26:14:2267:A:N3	2.33	0.44
26:14:234:C:H2'	26:14:235:U:H6	1.81	0.44
26:14:2563:U:H4'	36:25:28:SER:HA	2.00	0.44
26:14:921:G:C6	26:14:922:U:C4	3.05	0.44
26:14:942:G:O6	61:14:3579:HOH:O	2.19	0.44
29:19:133:LEU:HA	29:19:133:LEU:HD23	1.65	0.44
21:1B:5:ASP:O	21:1B:8:THR:HG22	2.18	0.44
2:1E:94:ASN:OD1	2:1E:95:GLN:N	2.42	0.44
1:1G:764:C:H5''	15:6A:50:HIS:ND1	2.32	0.44
26:1H:1667:G:O2'	26:1H:1991:U:O4	2.29	0.44
26:1H:236:C:H2'	26:1H:237:C:C6	2.53	0.44
26:1H:270(T):G:H2'	26:1H:270(U):C:C6	2.52	0.44
27:1J:6:C:C2	27:1J:115:G:N2	2.86	0.44
27:1J:18:G:N2	27:1J:108:C:N3	2.65	0.44
30:21:50:GLY:O	30:21:74:PRO:HG3	2.17	0.44
3:22:181:ASN:OD1	3:22:204:LEU:HB2	2.16	0.44
3:2E:83:ARG:O	3:2E:86:VAL:HG22	2.17	0.44
24:3K:1:G:N3	24:3K:1:G:H2'	2.33	0.44
32:41:107:LEU:HD21	32:41:178:PHE:CD1	2.53	0.44
32:41:115:ARG:HB3	32:41:115:ARG:NH1	2.32	0.44
33:51:56:SER:HB3	33:51:61:HIS:ND1	2.33	0.44
7:62:111:ARG:HD2	7:62:123:GLU:HB2	1.97	0.44
15:6A:81:LEU:O	15:6A:85:LEU:HB2	2.17	0.44
7:6E:38:LEU:HD13	7:6E:38:LEU:O	2.18	0.44
37:78:5:ASP:HA	37:78:7:ARG:NH2	2.33	0.44
16:7A:9:PHE:CE1	16:7A:18:ARG:HG3	2.52	0.44
8:7E:121:ASP:OD1	8:7E:121:ASP:N	2.47	0.44
8:7E:6:ILE:HB	8:7E:85:ARG:HH12	1.82	0.44
16:7I:49:LEU:HD22	16:7I:73:LEU:HD22	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8A:52:LYS:H	17:8A:52:LYS:HD3	1.83	0.44
17:8I:76:LEU:HD21	17:8I:79:SER:CB	2.48	0.44
39:98:20:LEU:HA	39:98:20:LEU:HD12	1.66	0.44
18:9I:32:ARG:HH11	18:9I:65:ILE:HG21	1.82	0.44
44:A5:28:SER:OG	44:A5:31:GLU:HG2	2.16	0.44
45:B5:67:GLY:O	45:B5:69:TYR:N	2.49	0.44
46:C5:17:SER:HB2	46:C5:71:LYS:NZ	2.32	0.44
26:1H:996:A:O3'	42:C8:92:ARG:HG2	2.18	0.44
47:D5:157:LEU:HD12	47:D5:161:VAL:C	2.38	0.44
47:D5:76:LEU:H	47:D5:76:LEU:HD23	1.82	0.44
45:F8:35:THR:HG23	45:F8:38:GLU:H	1.82	0.44
50:K8:16:LEU:O	50:K8:16:LEU:HD23	2.17	0.44
1:13:1044:A:C5	1:13:1045:C:H1'	2.52	0.44
1:13:1225:A:N3	1:13:1225:A:H2'	2.32	0.44
1:13:1388:C:H2'	1:13:1389:C:C6	2.52	0.44
1:13:643:C:H2'	1:13:644:G:H8	1.82	0.44
26:14:1019:U:H3	26:14:1142(A):A:H62	1.65	0.44
26:14:1432:C:H2'	26:14:1433:U:O4'	2.18	0.44
26:14:194:G:H2'	26:14:195:A:O4'	2.17	0.44
26:14:2210:G:H3'	26:14:2211:G:C4	2.52	0.44
26:14:2283:C:C2	26:14:2389:G:C2	3.05	0.44
26:14:2712:U:H1'	26:14:2712(A):A:C8	2.53	0.44
26:14:857:C:O2'	26:14:858:U:H5'	2.18	0.44
27:16:100:G:OP2	61:16:305:HOH:O	2.21	0.44
2:1E:11:LEU:HD21	2:1E:213:LEU:HD13	1.99	0.44
1:1G:1084:G:C5	1:1G:1085:U:C4	3.05	0.44
1:1G:1273:G:OP2	1:1G:1273:G:H8	1.99	0.44
1:1G:1441:G:H5''	1:1G:1442:G:H5'	2.00	0.44
1:1G:533:A:O2'	1:1G:534:U:H5''	2.17	0.44
1:1G:701:C:OP1	1:1G:702:A:O2'	2.24	0.44
26:1H:1789:A:H5'	29:11:221:VAL:HG12	2.00	0.44
26:1H:245:G:O6	55:Q8:8:LYS:NZ	2.50	0.44
26:1H:2593:U:H2'	26:1H:2594:C:H6	1.81	0.44
26:1H:2600:A:C6	26:1H:2601:C:N4	2.85	0.44
26:1H:281:G:O2'	26:1H:282:A:O4'	2.30	0.44
26:1H:2871:C:H5''	26:1H:2872:G:OP1	2.17	0.44
26:1H:619:G:H5''	26:1H:620:G:OP2	2.17	0.44
3:22:134:ILE:O	3:22:138:VAL:HG23	2.17	0.44
3:22:8:ILE:HD11	3:22:184:TYR:HB3	2.00	0.44
1:1G:777:A:H2	11:2A:119:CYS:HB3	1.83	0.44
11:2A:20:TYR:HB2	11:2A:31:THR:HG23	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:178:LEU:HD13	3:2E:178:LEU:HA	1.70	0.44
1:13:1189:C:C5'	3:2E:5:ILE:HD13	2.42	0.44
26:14:832:G:H5'	37:35:45:LEU:CD1	2.48	0.44
37:35:85:LEU:HA	37:35:88:LEU:HB2	1.97	0.44
12:3I:70:ILE:HD13	12:3I:77:LEU:HD12	2.00	0.44
38:45:3:MET:HG3	38:45:93:TYR:CE1	2.53	0.44
10:1I:49:VAL:CG2	14:5I:41:ARG:HB2	2.47	0.44
40:65:30:ARG:HD2	40:65:97:ARG:HD3	1.99	0.44
8:72:7:ALA:HA	8:72:10:LEU:HB2	1.99	0.44
1:1G:1371:G:OP2	9:82:11:LYS:HG2	2.16	0.44
9:8E:53:VAL:HG11	9:8E:85:LEU:HD22	1.99	0.44
39:98:55:ALA:CB	39:98:79:LEU:HD22	2.47	0.44
6:52:101:ALA:O	18:9A:28:GLU:HB3	2.18	0.44
18:9I:34:TYR:HB3	18:9I:69:THR:HG23	1.98	0.44
20:BA:25:ARG:HG3	20:BA:29:LYS:HE3	1.99	0.44
46:C5:87:LYS:HD3	46:C5:94:LYS:HA	1.99	0.44
42:C8:11:ARG:O	42:C8:15:LYS:HG3	2.17	0.44
47:D5:67:LEU:HA	47:D5:67:LEU:HD23	1.80	0.44
45:F8:52:VAL:HG23	45:F8:82:GLN:HB3	2.00	0.44
47:H8:120:ILE:HG13	47:H8:171:ILE:HA	2.00	0.44
47:H8:44:PHE:CE2	47:H8:86:VAL:HG11	2.52	0.44
1:13:1233:G:H2'	1:13:1234:C:C6	2.53	0.44
1:13:186(E):C:N4	1:13:191(B):G:H1	2.16	0.44
1:13:428:G:C5	1:13:430:A:C6	3.05	0.44
26:14:1106:G:C8	26:14:1107:G:C8	3.05	0.44
26:14:1599:C:H2'	26:14:1600:C:C6	2.52	0.44
26:14:2134:A:C5	26:14:2158:A:C8	3.05	0.44
26:14:2261:C:H1'	26:14:2388:A:N3	2.33	0.44
26:14:2482:G:H2'	26:14:2483:C:H5'	1.99	0.44
26:14:2812:G:N2	26:14:2889:C:C2	2.86	0.44
26:14:536:A:H2'	26:14:537:C:H6	1.83	0.44
26:14:860:U:H2'	26:14:861:A:H8	1.83	0.44
26:14:990:A:H8	26:14:990:A:H5'	1.82	0.44
29:19:242:ARG:N	29:19:242:ARG:HD3	2.32	0.44
1:1G:1127:G:O2'	1:1G:1148:U:O2	2.29	0.44
1:1G:259:G:OP1	20:BA:83:ARG:HD3	2.18	0.44
1:1G:390:C:H2'	1:1G:391:G:C8	2.52	0.44
1:1G:659:U:H2'	1:1G:660:G:H8	1.83	0.44
1:1G:948:C:O2'	1:1G:949:A:H5'	2.18	0.44
26:1H:1476:C:H3'	26:1H:1476:C:H6	1.83	0.44
26:1H:1705:G:C2'	26:1H:1706:U:H5'	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2693:A:H2'	26:1H:2694:G:H8	1.82	0.44
26:1H:2712:U:O2'	26:1H:2713:A:H5'	2.18	0.44
26:1H:7:G:H2'	26:1H:8:A:O4'	2.18	0.44
26:14:919:G:H4'	27:1J:81:G:H4'	1.99	0.44
22:1K:18:G:C5	22:1K:57:G:N2	2.86	0.44
22:1K:9:A:N6	22:1K:22:G:H5''	2.33	0.44
22:1L:33:U:H2'	22:1L:35:U:OP2	2.16	0.44
3:2E:91:LEU:HB3	3:2E:99:VAL:HG11	1.99	0.44
4:32:13:ARG:O	4:32:14:ARG:HB3	2.17	0.44
37:35:13:ASN:C	37:35:15:ARG:H	2.21	0.44
26:14:586:A:H5'	31:39:89:VAL:HG21	2.00	0.44
32:41:105:LYS:HE3	32:41:105:LYS:HB2	1.79	0.44
32:41:49:ASP:OD1	32:41:51:ARG:HG3	2.17	0.44
5:42:147:ASP:O	5:42:151:LEU:HG	2.17	0.44
38:45:35:VAL:HG12	38:45:36:ALA:N	2.31	0.44
5:4E:77:PRO:HG2	5:4E:78:HIS:CD2	2.53	0.44
26:14:2873:A:C8	39:55:5:LYS:HA	2.53	0.44
34:61:98:ALA:HB2	34:61:111:PRO:HB3	2.00	0.44
34:61:88:ILE:O	34:61:121:LYS:NZ	2.50	0.44
7:6E:38:LEU:HD13	7:6E:42:ILE:HG13	2.00	0.44
37:78:58:THR:O	37:78:62:LEU:HG	2.18	0.44
42:85:50:ARG:NH1	43:95:72:VAL:HG23	2.33	0.44
17:8I:101:ARG:HG2	17:8I:101:ARG:HH21	1.82	0.44
40:A8:43:GLU:OE2	48:I8:49:LYS:HE2	2.17	0.44
49:F5:73:LEU:HB3	49:F5:90:ILE:CG1	2.47	0.44
53:N8:33:CYS:SG	53:N8:40:LYS:HD3	2.57	0.44
29:11:165:ILE:H	29:11:165:ILE:HD12	1.82	0.44
29:11:29:PRO:CG	29:11:30:GLU:HG2	2.46	0.44
29:11:72:LYS:HD2	29:11:75:ILE:HD12	1.99	0.44
1:13:1127:G:C5	1:13:1128:C:N4	2.86	0.44
1:13:447:G:C6	1:13:485:G:H1'	2.53	0.44
26:14:1071:G:H1	26:14:1090:U:H5	1.65	0.44
26:14:1885:A:H3'	26:14:1886:C:H6	1.83	0.44
26:14:2570:G:H2'	26:14:2571:C:O4'	2.18	0.44
26:14:717:G:H2'	26:14:718:A:O4'	2.18	0.44
26:14:877:U:O2	26:14:899:A:N6	2.51	0.44
35:15:30:ILE:O	35:15:34:LEU:N	2.46	0.44
35:15:95:PRO:O	35:15:98:VAL:HG22	2.18	0.44
2:1E:73:THR:OG1	2:1E:74:LYS:N	2.50	0.44
1:1G:1239:A:C4	1:1G:1298:C:N4	2.86	0.44
1:1G:452:A:HO2'	1:1G:453:A:C4'	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:498:A:H4'	1:1G:500:G:OP1	2.18	0.44
1:1G:601:C:H2'	1:1G:602:A:C8	2.53	0.44
26:1H:1543:A:H3'	26:1H:1543:A:OP2	2.18	0.44
26:1H:1814:G:H3'	26:1H:1815:A:H2'	1.99	0.44
26:1H:2145:C:H3'	26:1H:2146:C:H5'	1.99	0.44
26:1H:2817:G:H1	26:1H:2829:C:H42	1.65	0.44
26:1H:2887:U:H2'	26:1H:2888:C:C6	2.53	0.44
26:1H:346:A:H5''	26:1H:347:A:OP2	2.17	0.44
26:1H:450:G:OP2	61:1H:3705:HOH:O	2.21	0.44
26:1H:556:G:O5'	26:1H:556:G:H8	2.00	0.44
26:1H:582:G:H2'	26:1H:583:G:C8	2.52	0.44
26:1H:795:C:H2'	26:1H:796:C:C6	2.52	0.44
30:29:52:LEU:O	30:29:74:PRO:HB2	2.18	0.44
3:2E:42:LEU:O	3:2E:46:GLU:HG2	2.18	0.44
11:2I:45:GLY:O	11:2I:50:TYR:HB2	2.17	0.44
11:2I:54:ARG:HA	11:2I:57:THR:CG2	2.47	0.44
37:35:16:ARG:H	37:35:16:ARG:HG2	1.52	0.44
26:14:389:G:H1	37:35:71:VAL:HG12	1.82	0.44
24:3K:50:C:H2'	24:3K:51:A:C4	2.53	0.44
56:3L:5:C:H5''	56:3L:6:G:OP2	2.18	0.44
32:49:146:TYR:O	32:49:149:VAL:HG21	2.16	0.44
13:4A:25:ILE:O	13:4A:29:ARG:HB2	2.18	0.44
5:4E:71:LEU:HD22	5:4E:115:VAL:H	1.83	0.44
35:58:22:THR:OG1	35:58:23:LEU:N	2.50	0.44
33:59:67:LEU:O	33:59:71:LEU:HD22	2.17	0.44
6:5E:23:LYS:HE2	6:5E:23:LYS:HB2	1.65	0.44
34:61:107:VAL:HG12	34:61:108:THR:N	2.26	0.44
1:1G:750:G:N2	15:6A:23:GLY:O	2.41	0.44
1:13:667:G:H4'	15:6I:51:HIS:CE1	2.53	0.44
37:78:97:PRO:HD3	37:78:126:VAL:O	2.18	0.44
28:79:205:LYS:HB3	28:79:205:LYS:HE3	1.83	0.44
17:8I:65:ILE:HG21	17:8I:69:LYS:HE2	1.99	0.44
1:13:278:G:C2	17:8I:95:TYR:HD2	2.36	0.44
42:85:92:ARG:HH22	43:95:10:LYS:HA	1.81	0.44
39:98:12:ARG:HG2	39:98:16:HIS:CG	2.53	0.44
39:98:44:LEU:O	39:98:45:ARG:C	2.56	0.44
20:BI:30:LYS:HD2	20:BI:30:LYS:HA	1.74	0.44
44:E8:76:VAL:HG21	44:E8:101:SER:HB3	1.99	0.44
48:I8:23:VAL:HG13	48:I8:38:VAL:CG2	2.48	0.44
49:J8:81:LYS:HD2	49:J8:81:LYS:HA	1.57	0.44
51:L8:26:LEU:HB2	51:L8:28:LEU:HD12	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:219:VAL:HG22	2:12:220:ASP:N	2.32	0.44
1:13:136:C:N4	1:13:227:G:H1	2.16	0.44
1:13:524:G:O5'	1:13:524:G:H8	2.01	0.44
1:13:823:G:C2	1:13:878:G:C2	3.05	0.44
26:14:1159:U:O2'	26:14:1160:G:H5'	2.18	0.44
26:14:1181:C:H2'	26:14:1182:A:C8	2.53	0.44
26:14:1666:G:OP1	36:25:66:LYS:HD3	2.18	0.44
26:14:2163:C:O2	26:14:2163:C:H2'	2.16	0.44
26:14:2712:U:OP1	26:14:2714:G:H4'	2.17	0.44
26:14:2812:G:N2	26:14:2889:C:O2	2.51	0.44
35:15:61:ARG:NE	35:15:61:ARG:HA	2.33	0.44
1:1G:1112:C:N4	3:22:178:LEU:HD23	2.33	0.44
1:1G:1127:G:O2'	1:1G:1128:C:H5'	2.17	0.44
1:1G:685:G:C2	1:1G:686:U:C4	3.06	0.44
26:1H:176:G:C2'	26:1H:177:G:H5'	2.47	0.44
26:1H:1899:G:O2'	26:1H:1900:A:OP2	2.31	0.44
26:1H:1999:C:H4'	26:1H:2723:C:O2	2.18	0.44
26:1H:270(K):C:O2'	26:1H:270(N):G:N2	2.50	0.44
26:1H:286:C:H2'	26:1H:287:C:C6	2.52	0.44
26:1H:49:A:H4'	26:1H:50:U:H5''	2.00	0.44
27:1J:90:C:OP2	38:45:16:ARG:NH2	2.43	0.44
22:1L:23:A:H2'	22:1L:23:A:N3	2.32	0.44
3:22:26:LYS:HG3	3:22:27:LYS:H	1.83	0.44
11:2A:44:SER:OG	11:2A:47:VAL:HG23	2.18	0.44
3:2E:174:PRO:HB2	3:2E:177:THR:OG1	2.17	0.44
31:39:128:ALA:O	31:39:129:PHE:C	2.57	0.44
31:39:148:LEU:HD11	31:39:193:VAL:HG21	2.00	0.44
1:13:1330:U:H4'	13:4I:23:TYR:HE1	1.83	0.44
14:5A:53:LEU:HA	14:5A:53:LEU:HD23	1.60	0.44
34:61:58:LEU:HD23	34:61:59:ALA:N	2.33	0.44
34:69:75:LEU:HD13	34:69:76:THR:C	2.38	0.44
34:69:78:THR:O	34:69:80:PRO:HD3	2.18	0.44
7:6E:16:LEU:HD21	9:8E:45:ALA:HB2	1.99	0.44
7:6E:49:ILE:O	7:6E:53:LYS:HG3	2.18	0.44
8:72:29:SER:HB3	8:72:32:LYS:CG	2.46	0.44
8:72:56:LYS:HE2	8:72:58:TYR:HE1	1.81	0.44
37:78:15:ARG:NH1	37:78:17:LYS:HD2	2.33	0.44
38:88:6:ARG:O	38:88:7:MET:HB2	2.17	0.44
17:8I:63:ARG:HG3	17:8I:64:PRO:HD2	2.00	0.44
43:95:38:LEU:HD12	43:95:56:SER:C	2.38	0.44
19:AI:28:LYS:HB3	19:AI:28:LYS:HE2	1.63	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:87:LYS:C	46:C5:88:LYS:HD3	2.37	0.44
46:C5:88:LYS:N	46:C5:88:LYS:HD3	2.32	0.44
43:D8:65:GLY:N	43:D8:91:TYR:O	2.36	0.44
44:E8:43:GLY:O	44:E8:47:VAL:HG23	2.18	0.44
44:E8:6:ILE:HG12	44:E8:104:THR:HG23	2.00	0.44
45:F8:52:VAL:HG22	45:F8:82:GLN:O	2.18	0.44
46:G8:39:VAL:O	46:G8:42:VAL:HG22	2.18	0.44
37:78:64:LYS:HD2	55:Q8:12:LYS:HD2	2.00	0.44
2:12:159:PRO:HB2	2:12:161:ALA:O	2.18	0.44
1:13:1022:G:H2'	1:13:1023:G:H8	1.82	0.44
1:13:1494:G:O6	58:13:1749:PAR:H42	2.17	0.44
1:13:223:U:H2'	1:13:224:C:C6	2.52	0.44
1:13:278:G:N2	17:8I:95:TYR:HB3	2.33	0.44
1:13:33:A:H2'	1:13:34:C:C6	2.52	0.44
1:13:418:C:H5''	1:13:419:C:OP2	2.17	0.44
1:13:560:U:H4'	1:13:561:U:H5''	1.98	0.44
26:14:1443:G:H1	26:14:1548:C:H42	1.64	0.44
26:14:1590:U:H2'	26:14:1591:G:H8	1.81	0.44
26:14:2056:G:H1	53:J5:3:LYS:HB3	1.82	0.44
26:14:2185:C:H2'	26:14:2186:G:H8	1.83	0.44
26:14:2257:U:H2'	26:14:2258:C:C6	2.52	0.44
26:14:2557:G:H2'	26:14:2558:C:H6	1.83	0.44
26:14:2572:A:C8	30:29:144:ARG:CD	2.83	0.44
26:14:2647:U:H2'	26:14:2648:C:C6	2.53	0.44
26:14:2762:G:H5''	61:14:3730:HOH:O	2.18	0.44
26:14:361:G:H2'	26:14:362:U:O2	2.18	0.44
26:14:569:U:C4	26:14:570:G:C6	3.06	0.44
26:14:582:G:H2'	26:14:583:G:C8	2.53	0.44
26:14:748:G:OP2	44:A5:88:ARG:HG3	2.18	0.44
35:15:128:HIS:HB2	35:15:129:PRO:HD2	1.99	0.44
35:15:96:GLU:OE1	35:15:96:GLU:N	2.35	0.44
1:1G:1306:A:C6	1:1G:1307:U:C2	3.05	0.44
1:1G:442:C:H2'	1:1G:443:C:C6	2.52	0.44
1:1G:864:A:H2'	1:1G:865:A:C8	2.53	0.44
26:1H:2428:G:H21	37:78:61:ARG:HH21	1.66	0.44
26:1H:270(E):G:H1	26:1H:270(U):C:H42	1.66	0.44
26:1H:636:G:C2	37:78:115:LEU:HD21	2.53	0.44
27:1J:80:U:O2'	27:1J:81:G:H5'	2.18	0.44
1:1G:1112:C:C2	3:22:178:LEU:HB2	2.53	0.44
3:22:47:LEU:HD23	3:22:68:VAL:HG11	2.00	0.44
30:29:33:VAL:HG12	30:29:89:ASP:H	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:170:VAL:HG21	4:32:176:LEU:HD22	2.00	0.44
37:35:47:ASP:OD1	37:35:49:ARG:NE	2.31	0.44
4:3E:144:ASP:O	4:3E:184:LYS:HA	2.18	0.44
4:3E:31:CYS:HB3	4:3E:34:GLU:HG3	1.99	0.44
24:3K:20:U:C2'	24:3K:21:A:H5'	2.47	0.44
24:3K:67:C:C2	24:3K:68:G:C8	3.06	0.44
38:45:17:LEU:HD21	38:45:41:TRP:NE1	2.32	0.44
38:45:26:TYR:O	38:45:28:ALA:N	2.51	0.44
40:65:83:LYS:O	40:65:110:LEU:HB3	2.18	0.44
26:1H:1952:A:C2	36:68:22:ILE:HG23	2.53	0.44
5:42:92:LYS:HE2	8:72:105:ARG:HH21	1.82	0.44
8:72:23:SER:OG	8:72:24:THR:N	2.51	0.44
8:72:30:ARG:O	8:72:34:GLU:HG2	2.17	0.44
41:75:12:SER:CB	41:75:15:VAL:HG13	2.47	0.44
37:78:134:ALA:HA	37:78:137:LYS:HB2	1.99	0.44
1:13:607:A:H2	16:71:31:LYS:HG3	1.81	0.44
18:91:22:VAL:CG2	18:91:42:ARG:HG2	2.47	0.44
26:14:138:G:N2	45:B5:44:GLU:OE2	2.25	0.44
36:68:122:LEU:HD13	41:B8:72:VAL:HG11	2.00	0.44
46:C5:2:ARG:HD2	46:C5:2:ARG:HA	1.68	0.44
50:G5:63:VAL:O	50:G5:66:GLU:HG2	2.18	0.44
49:J8:3:LYS:HG3	49:J8:46:LEU:HD23	1.99	0.44
49:J8:46:LEU:HD12	49:J8:62:VAL:C	2.38	0.44
55:M5:9:GLY:O	55:M5:13:ARG:HD2	2.17	0.44
29:11:12:SER:HB2	29:11:207:GLY:O	2.18	0.43
1:13:198:G:H2'	1:13:199:G:H8	1.83	0.43
26:14:1180:C:H2'	26:14:1181:C:H6	1.81	0.43
26:14:1385:G:O2'	26:14:1396:U:C6	2.71	0.43
26:14:2056:G:C2	26:14:2057:A:C8	3.06	0.43
26:14:2055:C:H4'	26:14:2056:G:H5''	2.00	0.43
26:14:363(B):G:H2'	26:14:363(C):G:H8	1.83	0.43
26:14:753:C:O2'	26:14:754:C:H5'	2.17	0.43
26:14:952:G:C6	26:14:966:G:C6	3.06	0.43
10:1A:79:ARG:HD2	10:1A:80:LYS:N	2.33	0.43
2:1E:8:LYS:HG2	2:1E:9:GLU:N	2.31	0.43
1:1G:1342:C:O2'	9:82:124:GLN:HA	2.18	0.43
1:1G:146:G:H2'	1:1G:147:G:C8	2.53	0.43
1:1G:457:C:H2'	1:1G:458:C:H6	1.81	0.43
26:1H:107:C:H2'	26:1H:108:U:C6	2.53	0.43
26:1H:109:G:H2'	26:1H:110:G:O4'	2.18	0.43
26:1H:1166:C:H2'	26:1H:1167:U:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1270:C:O2'	26:1H:1325:G:H2'	2.18	0.43
26:1H:2061:G:C2	26:1H:2063:C:C4	3.05	0.43
26:1H:2261:C:O2'	26:1H:2262:U:H5'	2.17	0.43
26:1H:2726:U:O2'	26:1H:2727:G:H8	2.01	0.43
26:1H:273:G:H1	26:1H:364:C:H42	1.66	0.43
26:1H:2808:U:H2'	26:1H:2809:A:H8	1.83	0.43
26:1H:338:G:N2	26:1H:339:U:H1'	2.33	0.43
26:1H:419:C:H2'	26:1H:420:C:O4'	2.18	0.43
26:1H:973:A:O4'	26:1H:1188:U:C6	2.71	0.43
22:1L:15:G:H2'	22:1L:59:A:C2	2.53	0.43
31:31:63:LYS:HG2	31:31:65:TRP:O	2.17	0.43
4:32:79:PHE:HE1	4:32:204:ILE:HG22	1.82	0.43
12:3A:43:VAL:HG12	12:3A:44:THR:N	2.33	0.43
32:41:53:LEU:O	32:41:56:ALA:N	2.45	0.43
32:41:60:LEU:HD21	32:41:92:VAL:HG11	2.00	0.43
5:42:8:GLU:HA	5:42:34:VAL:HA	2.00	0.43
32:49:166:ASP:HA	32:49:169:ALA:HB3	2.00	0.43
39:55:18:LEU:HD13	39:55:22:ARG:HD2	2.00	0.43
26:14:2839:G:H21	39:55:92:GLY:HA2	1.83	0.43
34:61:138:ILE:HG12	34:61:139:GLN:N	2.33	0.43
7:62:91:VAL:HG12	7:62:96:GLN:HG3	2.00	0.43
34:69:12:LEU:HD23	34:69:12:LEU:HA	1.82	0.43
43:95:38:LEU:CD1	43:95:56:SER:C	2.86	0.43
19:AA:40:ILE:HA	19:AA:44:MET:SD	2.58	0.43
19:AI:5:LEU:HD13	19:AI:10:PHE:CG	2.53	0.43
41:B8:99:LEU:HB2	41:B8:101:PHE:CE1	2.53	0.43
42:C8:8:VAL:HG23	42:C8:11:ARG:NH2	2.27	0.43
42:C8:88:ILE:C	42:C8:90:VAL:H	2.22	0.43
26:1H:64:A:C5	45:F8:66:LEU:HD22	2.53	0.43
46:G8:54:LYS:HG2	46:G8:55:TYR:H	1.83	0.43
47:H8:45:ASP:OD1	47:H8:49:ARG:NH1	2.25	0.43
37:35:63:PRO:HG2	55:M5:25:MET:HB2	1.99	0.43
1:13:186(E):C:H42	1:13:191(B):G:H1	1.65	0.43
1:13:190:G:H4'	1:13:191(A):G:OP2	2.17	0.43
1:13:834:C:C2	1:13:853:G:C2	3.07	0.43
1:13:946:A:H2'	1:13:947:G:C8	2.53	0.43
26:14:1421:G:C2	26:14:1422:G:C8	3.06	0.43
26:14:1534:G:H3'	26:14:1535:U:H5''	2.01	0.43
26:14:1819:A:OP1	29:19:161:THR:HG21	2.18	0.43
26:14:2851:A:C5	26:14:2852:G:C5	3.06	0.43
26:14:91:A:H2'	26:14:92:G:C8	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1A:35:SER:O	10:1A:72:VAL:HG13	2.18	0.43
21:1B:5:ASP:HA	21:1B:6:ARG:NH1	2.34	0.43
1:1G:1004:A:H3'	1:1G:1004:A:N3	2.34	0.43
1:1G:1071:C:H2'	1:1G:1072:G:H8	1.83	0.43
1:1G:1107:C:OP1	3:22:172:ARG:HG2	2.18	0.43
1:1G:604:G:H2'	1:1G:605:U:O4'	2.18	0.43
1:1G:771:G:H2'	1:1G:772:U:C6	2.53	0.43
26:1H:1316:U:H2'	26:1H:1317:A:H8	1.81	0.43
26:1H:1604:C:H5''	61:1H:4124:HOH:O	2.17	0.43
26:1H:1705:G:O2'	26:1H:1706:U:H5'	2.18	0.43
26:1H:2159:G:H2'	26:1H:2160:G:O4'	2.18	0.43
26:1H:270(R):G:H2'	26:1H:270(S):G:H8	1.83	0.43
26:1H:32:C:O2'	26:1H:33:U:H5'	2.18	0.43
26:1H:646:A:H2'	26:1H:647:G:O4'	2.17	0.43
26:1H:879:G:N2	26:1H:898:C:O2	2.51	0.43
26:1H:937:U:H2'	26:1H:938:G:O4'	2.18	0.43
30:21:105:THR:HG1	30:21:199:ARG:HH21	1.60	0.43
30:21:31:CYS:SG	30:21:51:PHE:HB3	2.57	0.43
3:22:87:LEU:HB2	3:22:88:ARG:HH21	1.83	0.43
36:25:47:ILE:HD12	36:25:47:ILE:HA	1.91	0.43
30:29:55:ASN:HB2	30:29:58:ARG:NH2	2.32	0.43
3:2E:33:LEU:O	3:2E:36:ASP:HB2	2.19	0.43
12:3A:47:LYS:CG	12:3A:48:PRO:HD2	2.39	0.43
12:3A:89:ARG:HE	12:3A:89:ARG:HB3	1.65	0.43
4:3E:111:ALA:HB2	4:3E:120:LEU:CD1	2.46	0.43
24:3K:49:G:H1'	24:3K:66:A:C4	2.53	0.43
38:45:133:ARG:O	38:45:133:ARG:HG2	2.18	0.43
13:4A:64:TRP:CD1	13:4A:66:LEU:HD23	2.53	0.43
5:4E:6:PHE:CE1	5:4E:36:ASP:HB3	2.53	0.43
33:51:41:MET:HG3	33:51:54:ARG:HA	1.99	0.43
39:55:90:ARG:HD2	39:55:94:TYR:HD1	1.84	0.43
34:61:145:VAL:HG12	34:61:146:ALA:N	2.31	0.43
40:65:87:PHE:CE1	40:65:102:ALA:HB2	2.53	0.43
40:65:107:GLU:N	40:65:110:LEU:HD21	2.19	0.43
8:7E:86:ILE:HG21	8:7E:133:LEU:HD22	2.00	0.43
1:1G:1371:G:OP1	9:82:11:LYS:HB3	2.18	0.43
19:AI:45:VAL:HA	19:AI:62:ILE:HB	1.99	0.43
19:AI:50:ALA:HA	19:AI:58:VAL:O	2.18	0.43
20:BI:97:ALA:HA	20:BI:98:PRO:HD3	1.85	0.43
47:D5:101:PRO:HA	47:D5:123:ASP:N	2.33	0.43
47:D5:44:PHE:HE2	47:D5:86:VAL:HG11	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D5:81:ARG:HG3	47:D5:81:ARG:O	2.17	0.43
44:E8:79:GLY:HA3	44:E8:100:THR:HG22	2.00	0.43
49:F5:40:ARG:NH2	49:F5:42:GLN:HE21	2.16	0.43
49:F5:45:ASN:O	49:F5:63:ALA:HA	2.19	0.43
51:L8:37:LEU:HD12	51:L8:43:ILE:HD13	2.00	0.43
29:11:113:VAL:O	29:11:113:VAL:HG13	2.18	0.43
29:11:231:HIS:HD2	29:11:249:PRO:CA	2.31	0.43
26:1H:1805:U:O2	29:11:50:THR:HB	2.18	0.43
2:12:97:TRP:HZ3	2:12:99:GLY:HA2	1.84	0.43
1:13:1036:G:N7	1:13:1037:C:N4	2.65	0.43
1:13:1054:C:H4'	1:13:1055:A:O5'	2.18	0.43
1:13:1306:A:H61	1:13:1331:G:H1'	1.83	0.43
1:13:160:A:C5	1:13:344:A:C8	3.06	0.43
1:13:533:A:C2	1:13:536:C:C5	3.06	0.43
1:13:980:C:HO2'	14:5I:21:TYR:HE1	1.65	0.43
26:14:1234:U:H2'	26:14:1235:G:O4'	2.18	0.43
26:14:1298:C:H5''	26:14:1299:G:OP2	2.18	0.43
26:14:1628:G:H2'	26:14:1629:U:C6	2.53	0.43
26:14:1743:G:C2	26:14:1746:G:C8	3.07	0.43
26:14:1784:A:H4'	26:14:1785:A:C5'	2.49	0.43
26:14:1991:U:H2'	26:14:1992:G:H5''	1.99	0.43
26:14:2547:U:O2	36:25:23:ARG:NH2	2.46	0.43
26:14:547:A:N7	26:14:548:A:N6	2.66	0.43
26:14:774:A:HO2'	26:14:775:G:P	2.40	0.43
26:14:910:A:C6	26:14:911:A:C6	3.06	0.43
35:15:59:LYS:NZ	35:15:61:ARG:HH21	2.16	0.43
29:19:232:PRO:HA	61:19:309:HOH:O	2.17	0.43
1:1G:1069:C:H42	1:1G:1106:G:H1	1.66	0.43
1:1G:1403:C:H1'	1:1G:1500:A:N1	2.33	0.43
1:1G:1504:G:H4'	1:1G:1505:G:O4'	2.18	0.43
1:1G:224:C:H2'	1:1G:225:C:C6	2.54	0.43
1:1G:767:A:H2'	1:1G:768:A:O4'	2.17	0.43
26:1H:1230:C:H2'	26:1H:1231:G:H8	1.81	0.43
26:1H:1359:A:H2	26:1H:1372:U:O4	2.01	0.43
26:1H:1471:A:C2	26:1H:1472:A:C4	3.06	0.43
26:1H:1686:C:C2	26:1H:1703:G:N2	2.86	0.43
26:1H:1728:G:H5'	26:1H:1729:A:OP2	2.18	0.43
26:1H:2547:U:H2'	26:1H:2548:G:H8	1.81	0.43
26:1H:2615:U:H2'	26:1H:2616:C:H6	1.84	0.43
26:1H:289:A:N6	26:1H:351:G:H1'	2.34	0.43
26:1H:430:G:H5''	26:1H:431:U:OP2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:617:G:OP1	31:31:40:GLN:NE2	2.51	0.43
36:25:17:ARG:CZ	36:25:47:ILE:HD13	2.48	0.43
30:29:51:PHE:CZ	30:29:52:LEU:HD13	2.53	0.43
30:29:56:PRO:HD2	30:29:58:ARG:NH2	2.33	0.43
31:31:14:PRO:HD3	31:31:127:GLU:HB3	2.00	0.43
4:32:3:ARG:HD3	4:32:118:ARG:CZ	2.49	0.43
37:35:86:LYS:HB3	37:35:117:GLU:O	2.18	0.43
32:41:12:TYR:HA	32:41:16:ARG:HG3	2.01	0.43
1:1G:922:G:H4'	5:42:20:GLN:HA	2.00	0.43
38:45:118:LEU:HD23	38:45:118:LEU:HA	1.89	0.43
13:4I:35:GLU:O	13:4I:38:GLY:N	2.45	0.43
39:55:1:MET:HE3	39:55:1:MET:HB3	1.84	0.43
34:61:16:GLY:O	34:61:47:LEU:HD11	2.19	0.43
34:61:6:LEU:HD13	34:61:36:ALA:HA	2.00	0.43
34:69:113:ARG:O	34:69:131:LYS:HD3	2.19	0.43
1:13:359:U:P	34:69:87:LYS:HD2	2.58	0.43
7:6E:27:ILE:HD11	7:6E:43:PHE:CD2	2.53	0.43
7:6E:66:VAL:O	7:6E:70:LYS:HG3	2.18	0.43
28:79:202:GLU:CG	28:79:203:GLY:N	2.81	0.43
9:82:97:LYS:HB3	9:82:98:PRO:HD3	2.00	0.43
42:85:66:ASN:CB	42:85:76:TYR:HB2	2.45	0.43
17:8I:101:ARG:NH2	17:8I:101:ARG:HG2	2.33	0.43
26:1H:2723:C:H5''	39:98:1:MET:HE2	1.98	0.43
44:A5:88:ARG:HD3	44:A5:94:ASP:OD2	2.18	0.43
40:A8:95:HIS:O	40:A8:98:VAL:HG23	2.19	0.43
41:B8:19:LEU:HD22	41:B8:86:ILE:HG22	2.01	0.43
20:BI:46:GLU:HB3	20:BI:48:LYS:HG3	2.00	0.43
43:D8:21:ARG:HB3	43:D8:91:TYR:CD2	2.53	0.43
55:M5:23:VAL:HG23	55:M5:49:VAL:N	2.33	0.43
37:78:63:PRO:HB3	55:Q8:30:ARG:HE	1.83	0.43
1:13:1139:G:H4'	1:13:1140:C:H5'	2.00	0.43
1:13:1392:G:N2	1:13:1502:A:H8	2.16	0.43
1:13:748:C:O5'	1:13:748:C:H6	2.02	0.43
26:14:1104:C:H2'	26:14:1105:U:C5	2.53	0.43
26:14:1469:A:C2	26:14:1524:G:C2	3.06	0.43
26:14:455:C:N3	26:14:473:G:H5'	2.33	0.43
26:14:528:A:N1	26:14:2042:A:H2'	2.33	0.43
26:14:563:G:H5'	26:14:572:A:H4'	2.00	0.43
26:14:6:A:N3	26:14:6:A:H2'	2.33	0.43
26:14:842:G:H1	26:14:936:C:H42	1.66	0.43
26:14:953:A:C2	26:14:954:G:C8	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:15:116:LEU:O	35:15:119:ARG:N	2.45	0.43
26:14:1819:A:H2'	29:19:178:PRO:HB2	1.99	0.43
10:1A:26:ALA:HA	10:1A:29:ARG:HB2	1.99	0.43
2:1E:165:VAL:O	2:1E:187:LEU:O	2.36	0.43
2:1E:172:ILE:O	2:1E:176:GLU:HG3	2.19	0.43
2:1E:28:PHE:HE1	2:1E:31:TYR:HD2	1.66	0.43
1:1G:1359:C:O2'	1:1G:1361:G:N7	2.52	0.43
1:1G:298:A:OP1	1:1G:298:A:H8	2.01	0.43
26:1H:1171:G:C5	26:1H:1174:A:C6	3.05	0.43
26:1H:1278:A:H4'	39:98:34:ILE:CD1	2.45	0.43
26:1H:1385:G:N3	26:1H:1386:C:C5	2.86	0.43
26:1H:1728:G:C2	26:1H:1730:U:OP2	2.71	0.43
26:1H:1799:G:H5'	26:1H:1819:A:N6	2.34	0.43
26:1H:2250:G:C6	38:88:83:MET:HB3	2.54	0.43
26:1H:2634:G:H2'	26:1H:2635:C:O4'	2.19	0.43
26:1H:247:G:H4'	26:1H:386:G:C5	2.54	0.43
10:1I:16:LEU:HD11	10:1I:70:ARG:HB2	2.00	0.43
31:31:116:ASP:O	31:31:120:GLU:HG3	2.17	0.43
4:32:132:ARG:HB3	4:32:132:ARG:HE	1.65	0.43
4:3E:47:ARG:CZ	4:3E:47:ARG:HB2	2.48	0.43
12:3I:111:LYS:O	12:3I:112:ASP:HB2	2.18	0.43
32:49:116:ASP:O	32:49:117:PHE:HB3	2.19	0.43
32:49:60:LEU:HD21	32:49:92:VAL:HG11	2.00	0.43
13:4A:64:TRP:HD1	13:4A:66:LEU:HD23	1.84	0.43
1:1G:1536:C:H42	25:4L:8:A:H62	1.67	0.43
14:5A:41:ARG:HG3	14:5A:42:ILE:N	2.33	0.43
34:69:8:PRO:N	34:69:15:VAL:HG22	2.33	0.43
28:71:59:ARG:HD2	28:71:164:ARG:HE	1.84	0.43
8:72:68:ARG:CZ	8:72:74:PRO:HB3	2.49	0.43
9:82:54:ASP:N	9:82:54:ASP:OD1	2.50	0.43
9:8E:28:VAL:HA	9:8E:63:ILE:O	2.18	0.43
18:9A:78:LEU:HA	18:9A:78:LEU:HD23	1.73	0.43
18:9I:22:VAL:CG1	18:9I:56:THR:HA	2.48	0.43
44:A5:4:LYS:NZ	44:A5:6:ILE:HD11	2.33	0.43
40:A8:37:ALA:HB2	40:A8:101:LEU:HD21	2.01	0.43
19:AI:41:VAL:HG21	19:AI:67:VAL:HG13	2.01	0.43
41:B8:100:TYR:HD1	41:B8:103:ARG:NH2	2.16	0.43
41:B8:35:LYS:HE3	41:B8:38:ASN:H	1.83	0.43
42:C8:5:LYS:HG3	42:C8:5:LYS:H	1.64	0.43
47:D5:157:LEU:HA	47:D5:158:PRO:HD3	1.87	0.43
29:11:96:HIS:CD2	29:11:102:LYS:HG2	2.41	0.43

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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	0.43
1:13:758:G:O5'	1:13:758:G:H8	2.01	0.43
26:14:1342:A:H2	26:14:1602:U:N3	2.17	0.43
26:14:1408:C:C2	26:14:1595:G:N2	2.87	0.43
26:14:1753:G:N1	26:14:1756:G:C2	2.86	0.43
26:14:2245:U:H5''	26:14:2246:G:H5'	2.00	0.43
26:14:2290:G:H4'	26:14:2381:C:O2'	2.18	0.43
26:14:363(E):U:H5'	26:14:363(F):A:OP2	2.17	0.43
26:14:573:G:O2'	26:14:574:C:H3'	2.18	0.43
26:14:833:U:H2'	26:14:834:C:C6	2.53	0.43
26:14:869:G:H5'	38:45:6:ARG:NH1	2.33	0.43
26:14:897:C:H2'	26:14:898:C:H6	1.84	0.43
27:16:15:A:H1'	27:16:109:G:C8	2.53	0.43
29:19:69:ARG:NE	29:19:130:ALA:HB2	2.32	0.43
29:19:67:PHE:CE1	29:19:106:ILE:HD11	2.53	0.43
2:1E:114:ARG:NH2	2:1E:141:GLU:OE1	2.51	0.43
2:1E:17:PHE:HD2	2:1E:41:ILE:HG23	1.83	0.43
1:1G:1151:A:O2'	1:1G:1152:A:O5'	2.36	0.43
1:1G:384:G:H2'	1:1G:385:C:C6	2.54	0.43
1:1G:513:C:H42	1:1G:538:G:H1	1.65	0.43
1:1G:827:U:H3	1:1G:872:A:N6	2.07	0.43
26:1H:107:C:H2'	26:1H:108:U:H6	1.83	0.43
26:1H:1027:A:N6	26:1H:1126:A:C4	2.86	0.43
26:1H:1385:G:O2'	26:1H:1396:U:H6	2.02	0.43
26:1H:2037:G:H2'	26:1H:2038:G:C8	2.53	0.43
26:1H:2300:G:C6	26:1H:2301:C:N3	2.86	0.43
26:1H:325:G:O2'	26:1H:326:G:H5'	2.18	0.43
26:1H:495:G:O2'	44:E8:62:HIS:HE1	2.01	0.43
26:1H:613:U:O2	26:1H:613:U:O4'	2.36	0.43
26:1H:817:C:H4'	26:1H:932:G:C5	2.53	0.43
26:1H:878:A:N1	26:1H:879:G:N2	2.66	0.43
27:1J:55:U:HO2'	32:49:29:TRP:HD1	1.66	0.43
30:21:105:THR:HB	30:21:197:ILE:CG2	2.47	0.43
30:29:51:PHE:O	30:29:74:PRO:HB2	2.19	0.43
11:2I:18:ARG:HG3	11:2I:33:THR:OG1	2.18	0.43
31:31:64:ILE:HA	31:31:64:ILE:HD13	1.88	0.43
4:32:22:LYS:O	4:32:113:SER:HB3	2.19	0.43
31:39:110:LEU:HD11	31:39:205:ARG:HE	1.82	0.43
4:3E:18:LYS:HD3	4:3E:31:CYS:SG	2.58	0.43
12:3I:102:ARG:HB3	12:3I:102:ARG:HE	1.60	0.43
56:3L:2:G:N2	56:3L:3:G:C6	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:107:LEU:HD11	32:41:178:PHE:CD1	2.53	0.43
32:41:4:ASP:HB3	52:M8:25:TYR:HE2	1.83	0.43
13:4A:54:VAL:O	13:4A:58:GLU:HG2	2.18	0.43
33:51:135:GLY:HA3	33:51:141:VAL:HG22	2.00	0.43
35:58:26:LEU:O	35:58:30:ILE:HG13	2.18	0.43
40:65:43:GLU:OE1	48:E5:49:LYS:NZ	2.49	0.43
16:7A:62:VAL:O	16:7A:62:VAL:HG12	2.17	0.43
1:13:735:C:H1'	18:9I:75:ILE:CD1	2.47	0.43
47:D5:19:ARG:NH1	47:D5:84:GLU:HB2	2.32	0.43
46:G8:27:VAL:HA	46:G8:39:VAL:HA	2.00	0.43
51:H5:5:LYS:HB3	51:H5:5:LYS:HE3	1.76	0.43
29:11:33:LEU:H	29:11:33:LEU:HD23	1.83	0.43
1:13:1213:A:C8	1:13:1215:G:C5	3.06	0.43
1:13:1306:A:H2'	1:13:1307:U:O4'	2.19	0.43
1:13:1367:C:N3	1:13:1368:G:C8	2.87	0.43
1:13:170:U:O2'	1:13:171:A:H5'	2.19	0.43
1:13:118:U:H3'	1:13:288:A:H61	1.84	0.43
1:13:348:G:C2	1:13:349:A:C8	3.06	0.43
1:13:46:G:H2'	1:13:366:C:H5	1.83	0.43
1:13:543:C:C2'	1:13:544:G:H5'	2.49	0.43
1:13:639:G:C2	1:13:640:A:C8	3.07	0.43
1:13:660:G:H2'	1:13:661:G:C8	2.52	0.43
1:13:74:C:H2'	1:13:96:G:H22	1.84	0.43
1:13:95:G:OP2	1:13:95:G:H8	2.01	0.43
26:14:1000:A:C6	26:14:1001:A:N1	2.86	0.43
26:14:2750:A:H8	26:14:2752:C:N4	2.16	0.43
26:14:27:G:C4	26:14:512:G:N2	2.86	0.43
26:14:675:A:C8	26:14:804:A:C6	3.06	0.43
26:14:77:C:OP1	50:G5:59:ARG:HD3	2.19	0.43
26:14:83:G:N1	26:14:102:G:H2'	2.34	0.43
35:15:120:LEU:O	35:15:121:LYS:HD2	2.19	0.43
27:16:22:U:H2'	27:16:23:G:C8	2.54	0.43
29:19:37:LEU:HD12	29:19:37:LEU:O	2.18	0.43
1:1G:1124:G:HO2'	1:1G:1145:C:N4	2.16	0.43
1:1G:1169:A:C6	1:1G:1170:A:C6	3.07	0.43
1:1G:519:C:H2'	1:1G:520:A:O4'	2.18	0.43
26:1H:1024:G:H1	26:1H:1140:C:H42	1.66	0.43
26:1H:1213:A:N3	26:1H:1238:G:O2'	2.50	0.43
26:1H:125:G:C8	26:1H:125:G:H5'	2.54	0.43
26:1H:1400:G:H2'	26:1H:1401:G:H8	1.83	0.43
26:1H:1812:A:H1'	29:11:45:ASN:OD1	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2820:A:O2'	26:1H:2821:A:OP1	2.35	0.43
26:1H:322:A:H3'	31:31:169:ASN:OD1	2.19	0.43
26:1H:508:G:C5	44:E8:9:TYR:CE1	3.07	0.43
26:1H:900:A:H3'	26:1H:901:A:C8	2.49	0.43
26:14:2787:C:O2'	30:29:61:ARG:O	2.20	0.43
4:32:88:VAL:HG13	5:42:97:GLY:CA	2.48	0.43
31:39:53:THR:HG22	31:39:56:GLU:HG3	2.01	0.43
4:3E:108:LEU:CD1	4:3E:174:LEU:HD13	2.48	0.43
24:3K:10:G:N1	24:3K:26:A:C6	2.86	0.43
24:3K:25:C:C4	24:3K:26:A:N7	2.87	0.43
24:3K:59:A:H5'	24:3K:60:U:C5	2.53	0.43
13:4A:81:LEU:HA	13:4A:81:LEU:HD13	1.79	0.43
39:55:40:LYS:HG3	39:55:40:LYS:HZ2	1.65	0.43
34:61:8:PRO:HD3	34:61:15:VAL:CG2	2.49	0.43
36:68:64:ARG:HB2	36:68:79:PHE:CG	2.53	0.43
36:68:86:ILE:HG22	36:68:94:ARG:HG3	2.00	0.43
7:6E:80:VAL:HG12	7:6E:81:GLY:N	2.33	0.43
26:14:2845:G:H5''	41:75:54:ARG:O	2.18	0.43
9:8E:26:VAL:HG11	9:8E:33:PHE:HD2	1.82	0.43
17:8I:101:ARG:HH21	17:8I:101:ARG:C	2.21	0.43
43:95:98:GLU:OE2	43:95:100:ARG:NH1	2.51	0.43
45:B5:75:ASP:C	45:B5:76:ARG:HG3	2.34	0.43
47:D5:27:VAL:O	47:D5:88:PHE:N	2.43	0.43
43:D8:21:ARG:HG3	43:D8:93:GLU:HG3	2.00	0.43
49:J8:78:LYS:CD	49:J8:78:LYS:N	2.82	0.43
51:L8:8:LEU:HB2	51:L8:28:LEU:HD23	2.00	0.43
2:12:222:ILE:H	2:12:224:GLN:NE2	2.17	0.43
2:12:91:PRO:HG3	2:12:155:LEU:H	1.84	0.43
1:13:101:A:OP2	1:13:101:A:H8	2.02	0.43
1:13:1320:C:O2	19:AI:36:ARG:NH2	2.51	0.43
1:13:346:G:H3'	1:13:346:G:N3	2.34	0.43
1:13:431:A:H2'	1:13:432:A:O4'	2.18	0.43
1:13:5:U:C2	4:3E:85:LYS:HE3	2.54	0.43
1:13:927:G:N2	1:13:1391:U:H1'	2.33	0.43
26:14:243:U:H2'	26:14:244:A:O4'	2.18	0.43
26:14:2557:G:H2'	26:14:2558:C:C6	2.54	0.43
26:14:259:G:N2	26:14:621:A:H8	2.01	0.43
29:19:39:LYS:O	29:19:40:THR:HG23	2.18	0.43
2:1E:114:ARG:O	2:1E:118:LEU:HD13	2.18	0.43
2:1E:156:LYS:HA	2:1E:156:LYS:HD3	1.70	0.43
2:1E:220:ASP:HA	2:1E:223:ILE:HD11	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1003:G:N3	1:1G:1003:G:H2'	2.34	0.43
1:1G:1436:U:H2'	1:1G:1437:C:O4'	2.18	0.43
1:1G:991:U:O2	1:1G:993:G:C8	2.72	0.43
26:1H:1108:U:C2	26:1H:1109:C:H5	2.37	0.43
26:1H:1842:G:H2'	26:1H:1843:C:C6	2.53	0.43
26:1H:2045:C:H2'	26:1H:2046:G:O4'	2.18	0.43
26:1H:2287:A:C2	26:1H:2346:A:C2	3.06	0.43
26:1H:2690:C:H5''	26:1H:2872:G:N2	2.34	0.43
26:1H:478:A:C6	26:1H:480:A:C6	3.06	0.43
26:1H:662:G:H5'	37:78:15:ARG:CA	2.49	0.43
11:2A:62:GLN:HG3	11:2A:93:GLN:OE1	2.19	0.43
3:2E:16:ARG:HE	3:2E:54:ARG:NH2	2.11	0.43
23:2L:23:G:H2'	23:2L:24:C:C6	2.54	0.43
31:31:112:MET:HB3	31:31:112:MET:HE3	1.69	0.43
37:35:81:GLN:HB3	37:35:106:LEU:HD12	2.00	0.43
5:42:71:LEU:HD21	5:42:115:VAL:HG22	2.01	0.43
38:45:10:ARG:HD2	38:45:10:ARG:HH11	1.68	0.43
13:4A:92:HIS:NE2	13:4A:98:VAL:HG21	2.34	0.43
39:55:90:ARG:HD2	39:55:94:TYR:CD1	2.54	0.43
33:59:9:ILE:HD13	33:59:51:ARG:HE	1.84	0.43
34:61:95:LYS:O	34:61:98:ALA:HB3	2.18	0.43
34:69:75:LEU:HD13	34:69:76:THR:N	2.34	0.43
15:6I:33:THR:HG21	15:6I:85:LEU:HD22	2.00	0.43
28:71:59:ARG:HG3	28:71:163:PHE:O	2.18	0.43
28:71:39:GLU:O	28:71:39:GLU:HG2	2.18	0.43
41:75:12:SER:HA	41:75:14:TYR:H	1.84	0.43
1:13:376:G:OP1	16:7I:5:ARG:HB2	2.18	0.43
16:7I:72:ARG:O	16:7I:75:ARG:HB3	2.19	0.43
18:9A:76:LEU:HD23	18:9A:76:LEU:HA	1.85	0.43
41:B8:98:LYS:HA	41:B8:98:LYS:HD3	1.87	0.43
46:C5:52:SER:HB3	46:C5:56:PRO:HA	2.01	0.43
43:D8:17:GLY:N	43:D8:96:ILE:O	2.24	0.43
44:E8:80:PRO:O	44:E8:100:THR:HB	2.18	0.43
51:H5:41:PRO:HG3	51:H5:44:ARG:HH22	1.83	0.43
26:1H:2016:U:H1'	53:N8:6:VAL:HG13	2.00	0.43
29:11:109:ASP:HB2	29:11:197:GLY:HA3	1.99	0.43
29:11:31:LYS:HG3	29:11:33:LEU:HD21	2.00	0.43
29:11:38:LYS:HE2	29:11:87:ASN:ND2	2.34	0.43
2:12:167:PRO:HD2	2:12:192:SER:OG	2.19	0.43
2:12:217:ARG:C	2:12:219:VAL:H	2.15	0.43
1:13:1327:C:OP2	21:1F:12:LYS:NZ	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:143:A:H5''	1:13:144:G:H5'	2.01	0.43
1:13:154:C:H5''	1:13:155:C:OP2	2.18	0.43
26:14:1030:G:H1	26:14:1124:C:H42	1.66	0.43
26:14:1315:C:O2'	26:14:1392:A:N3	2.46	0.43
26:14:1946:U:H2'	26:14:1947:C:C6	2.52	0.43
26:14:229:A:H5'	26:14:230:U:H5'	2.00	0.43
26:14:2327:A:H2'	26:14:2328:A:H8	1.83	0.43
26:14:227:A:C2	26:14:2407:G:H1'	2.54	0.43
26:14:274:G:H8	26:14:274:G:OP1	2.01	0.43
26:14:95:G:H4'	50:G5:46:GLN:HB2	2.01	0.43
35:15:59:LYS:HZ1	35:15:61:ARG:HH21	1.67	0.43
29:19:228:PRO:HD3	29:19:234:GLY:O	2.19	0.43
2:1E:33:TYR:HB2	2:1E:43:ASP:HB2	1.99	0.43
1:13:1286:A:H2	21:1F:18:TYR:CE2	2.36	0.43
1:1G:99:C:H2'	1:1G:101:A:C8	2.54	0.43
1:1G:1075:C:OP1	2:12:179:LYS:NZ	2.32	0.43
1:1G:1401:G:C2	1:1G:1402:C:H1'	2.53	0.43
1:1G:1413:A:H2'	1:1G:1414:U:O4'	2.19	0.43
1:1G:185:A:H2'	1:1G:186:C:C6	2.54	0.43
1:1G:341:C:O5'	1:1G:341:C:H6	2.02	0.43
1:1G:575:G:O2'	1:1G:821:G:H5'	2.18	0.43
26:1H:990:A:H1'	26:1H:1156:A:C2	2.54	0.43
26:1H:1331:A:C6	26:1H:1333:C:C2	3.06	0.43
26:1H:1442:G:H2'	26:1H:1443:G:H8	1.84	0.43
26:1H:216:A:H2'	26:1H:217:G:H8	1.83	0.43
26:1H:2308:G:C6	26:1H:2311:A:H2	2.37	0.43
3:22:29:TYR:HD2	14:5A:36:PHE:CZ	2.37	0.43
30:29:7:VAL:HG12	30:29:8:LYS:N	2.33	0.43
11:2I:31:THR:HG22	11:2I:42:TRP:CB	2.48	0.43
56:3L:25:C:C4	56:3L:26:A:C8	3.06	0.43
32:4I:32:PRO:HB2	32:4I:172:LEU:HD13	2.00	0.43
5:4E:82:VAL:HB	5:4E:138:ALA:HB2	2.01	0.43
13:4I:20:THR:HG23	13:4I:26:GLY:HA3	2.01	0.43
26:14:2723:C:H4'	39:55:1:MET:HE3	2.00	0.43
14:5A:12:ARG:HD2	14:5A:14:PRO:HD3	2.01	0.43
14:5A:59:ALA:HB1	14:5A:61:TRP:CZ3	2.45	0.43
1:13:738:C:H5''	6:5E:69:GLU:HB2	1.99	0.43
34:69:4:ILE:HA	34:69:17:GLN:O	2.19	0.43
28:71:10:LEU:HA	28:71:13:LYS:HZ2	1.83	0.43
28:71:180:PHE:HB3	28:71:184:LYS:HB2	2.00	0.43
26:1H:2178:C:H5'	28:71:46:LYS:HD3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:87:SER:CB	8:7E:93:VAL:H	2.32	0.43
9:82:21:PRO:HA	9:82:59:PHE:HA	2.00	0.43
9:82:24:GLY:O	9:82:60:ASP:HA	2.19	0.43
42:85:41:ALA:O	42:85:45:TYR:HD1	2.02	0.43
38:88:140:ALA:HB3	38:88:141:GLN:HA	2.01	0.43
45:B5:31:HIS:ND1	45:B5:32:PRO:HD2	2.33	0.43
46:C5:20:TYR:CE2	46:C5:42:VAL:HA	2.53	0.43
26:1H:583:G:OP2	42:C8:10:ARG:HD2	2.19	0.43
26:14:2331:G:O3'	48:E5:43:THR:HG22	2.18	0.43
47:H8:11:GLU:OE2	47:H8:11:GLU:C	2.56	0.43
26:1H:1184:G:H5'	51:L8:29:ARG:NH1	2.34	0.43
29:11:16:MET:HG3	29:11:211:ARG:NH1	2.33	0.43
29:11:272:ALA:HB1	29:11:273:ARG:H	1.54	0.43
2:12:58:ILE:CG1	2:12:219:VAL:HG21	2.49	0.43
1:13:179:A:C4	1:13:180:U:H5	2.37	0.43
1:13:302:G:H2'	1:13:303:A:O4'	2.19	0.43
1:13:373:A:O2'	1:13:374:A:H5'	2.19	0.43
1:13:377:G:P	16:7I:5:ARG:HH11	2.42	0.43
26:14:1138:G:H21	35:15:106:MET:CE	2.28	0.43
26:14:1449(A):G:H2'	26:14:1450:C:C6	2.54	0.43
26:14:13:A:O2'	26:14:15:G:O6	2.34	0.43
26:14:2500:U:H5''	26:14:2501:C:OP2	2.19	0.43
26:14:2786:U:O2'	30:29:63:LEU:N	2.52	0.43
26:14:483:A:H5''	26:14:484:C:OP2	2.18	0.43
26:14:903:C:O2'	26:14:904:C:H5'	2.19	0.43
26:14:950:G:H2'	26:14:951:C:C6	2.54	0.43
27:16:89(A):A:N7	27:16:90:C:H1'	2.34	0.43
29:19:37:LEU:H	29:19:37:LEU:HG	1.47	0.43
2:1E:168:THR:OG1	2:1E:192:SER:HB2	2.18	0.43
1:1G:1028(B):C:H42	1:1G:1032(A):G:H1	1.67	0.43
1:1G:184:G:C2'	1:1G:185:A:H5'	2.48	0.43
1:1G:8:A:N6	4:32:209:ARG:HB3	2.34	0.43
26:1H:1052:C:O2'	26:1H:1053:C:OP1	2.29	0.43
26:1H:1658:C:H2'	26:1H:1659:U:C6	2.53	0.43
26:1H:1790:C:H5''	26:1H:1791:A:OP1	2.18	0.43
26:1H:2038:G:H2'	26:1H:2039:C:H6	1.84	0.43
26:1H:577:G:P	26:1H:2502:G:HO2'	2.41	0.43
26:1H:2875:C:H2'	26:1H:2876:G:O4'	2.17	0.43
26:1H:35:G:H2'	26:1H:36:G:O4'	2.19	0.43
26:1H:566:U:P	37:78:29:LYS:HZ2	2.41	0.43
26:1H:741:G:H2'	26:1H:742:G:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:775:G:C4	26:1H:794:G:C8	3.07	0.43
30:21:16:ARG:O	30:21:16:ARG:HG3	2.19	0.43
3:22:113:ALA:HB3	3:22:114:PRO:HD3	2.00	0.43
36:25:105:GLU:HA	36:25:108:GLU:HG3	2.01	0.43
36:25:96:THR:HG23	36:25:97:ARG:H	1.84	0.43
26:14:2733:A:C2	30:29:204:ALA:HB2	2.54	0.43
30:29:54:GLN:NE2	30:29:73:GLU:O	2.52	0.43
31:31:93:LYS:HA	31:31:93:LYS:HD2	1.77	0.43
37:35:52:GLU:HG2	37:35:53:GLY:N	2.33	0.43
31:39:40:GLN:NE2	31:39:182:ASN:HB2	2.33	0.43
4:3E:127:THR:HG23	4:3E:131:ARG:H	1.82	0.43
4:3E:18:LYS:HB3	4:3E:20:TYR:CE1	2.54	0.43
56:3L:55:U:H2'	56:3L:57:G:OP2	2.19	0.43
32:49:106:LEU:HD23	32:49:107:LEU:HG	2.01	0.43
32:49:97:ASP:O	32:49:101:ILE:HG23	2.19	0.43
13:4I:16:ASP:N	13:4I:16:ASP:OD1	2.50	0.43
6:52:68:PRO:HG2	6:52:71:ARG:HG3	2.00	0.43
6:5E:23:LYS:O	6:5E:26:ILE:HB	2.19	0.43
7:62:141:VAL:HA	7:62:142:GLU:CB	2.49	0.43
34:69:48:GLU:O	34:69:52:ARG:HG2	2.17	0.43
41:75:129:ARG:O	41:75:132:LYS:HB2	2.17	0.43
17:8A:5:VAL:HG22	17:8A:60:ILE:CD1	2.49	0.43
17:8A:81:ARG:HD3	17:8A:84:LEU:HD11	2.01	0.43
17:8I:14:LYS:NZ	17:8I:53:LEU:HD11	2.34	0.43
43:95:87:HIS:NE2	43:95:89:GLN:HB2	2.34	0.43
43:D8:36:PRO:HA	43:D8:37:VAL:HA	1.76	0.43
51:H5:9:VAL:HA	51:H5:32:GLN:HE22	1.84	0.43
26:14:2351:G:O6	55:M5:39:LYS:HG3	2.18	0.43
55:Q8:34:TRP:CZ2	55:Q8:35:GLN:HG2	2.53	0.43
55:Q8:8:LYS:HD2	55:Q8:8:LYS:HA	1.83	0.43
26:1H:1491:G:H5'	29:11:99:ASP:OD1	2.19	0.43
1:13:1064:G:OP1	1:13:1386:G:H4'	2.19	0.43
1:13:1219:U:H2'	1:13:1220:G:O4'	2.19	0.43
1:13:516:U:C4	1:13:517:G:C6	3.07	0.43
26:14:1328:G:H2'	26:14:1330:C:C5	2.53	0.43
26:14:1676:A:H8	26:14:1676:A:O5'	2.02	0.43
26:14:2146:C:H4'	26:14:2147:G:C5	2.54	0.43
26:14:2299:G:C2	26:14:2318:G:H8	2.36	0.43
26:14:66:C:H2'	26:14:67:U:C6	2.54	0.43
26:14:962:G:H2'	26:14:963:U:C6	2.54	0.43
1:1G:1324:A:H2'	1:1G:1325:C:H6	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:186:C:O2'	20:BA:81:LYS:HB3	2.18	0.43
26:1H:1021:A:C3'	26:1H:1021:A:C8	3.01	0.43
26:1H:1046:A:H4'	26:1H:1047:G:OP2	2.19	0.43
26:1H:1509:C:C2	26:1H:1511:A:C8	3.07	0.43
26:1H:2070:G:C2	26:1H:2442:C:C2	3.07	0.43
26:1H:2104:G:N1	26:1H:2186:G:C2	2.87	0.43
26:1H:2110:G:C6	26:1H:2120:G:C8	3.07	0.43
26:1H:2377:A:H2'	26:1H:2378:A:C8	2.53	0.43
26:1H:266:G:N2	26:1H:427:U:H1'	2.34	0.43
23:2L:17:C:H3'	23:2L:18:C:H2'	2.01	0.43
4:32:24:GLU:HG2	4:32:25:ARG:N	2.25	0.43
31:39:165:ARG:HB3	31:39:165:ARG:HH11	1.83	0.43
4:3E:150:GLU:HG3	4:3E:153:ARG:NH2	2.29	0.43
24:3K:24:G:C6	24:3K:25:C:N4	2.87	0.43
24:3K:34:U:H3'	24:3K:35:U:H6	1.84	0.43
24:3K:50:C:H2'	24:3K:51:A:C5	2.54	0.43
56:3L:9:A:H8	56:3L:11:C:H41	1.66	0.43
32:41:105:LYS:HD3	52:M8:26:SER:HB2	2.00	0.43
32:41:80:PHE:O	32:41:81:LYS:HB2	2.19	0.43
32:49:61:ALA:HB2	32:49:67:LYS:HA	2.01	0.43
5:4E:36:ASP:OD2	5:4E:38:GLN:HB2	2.19	0.43
13:4I:25:ILE:HD11	13:4I:66:LEU:HD11	2.01	0.43
26:1H:2750:A:C3'	33:51:4:ILE:HD11	2.24	0.43
34:61:54:GLN:O	34:61:58:LEU:N	2.44	0.43
40:65:42:ASP:C	40:65:44:LYS:H	2.22	0.43
40:65:54:LEU:O	40:65:55:ALA:HB3	2.18	0.43
41:75:118:ARG:NH2	41:75:121:ILE:HG21	2.34	0.43
41:75:19:LEU:O	41:75:19:LEU:HD12	2.19	0.43
17:8A:56:VAL:HG23	17:8A:81:ARG:HG3	2.01	0.43
39:98:87:TYR:HE1	39:98:117:VAL:HG12	1.84	0.43
18:9A:38:GLU:OE1	18:9A:39:VAL:HG23	2.18	0.43
19:AA:5:LEU:HA	19:AA:6:LYS:HA	1.78	0.43
47:D5:3:TYR:O	47:D5:58:VAL:HG23	2.18	0.43
46:G8:98:VAL:C	46:G8:100:ALA:HB2	2.39	0.43
47:H8:98:MET:O	47:H8:125:LEU:HA	2.19	0.43
26:1H:2046:G:O5'	53:N8:19:ARG:HA	2.19	0.43
54:P8:12:ARG:HH21	54:P8:44:PRO:HB3	1.84	0.43
29:11:17:THR:CG2	29:11:204:ILE:HA	2.48	0.42
29:11:27:THR:C	29:11:29:PRO:CD	2.87	0.42
2:12:219:VAL:HG13	2:12:220:ASP:N	2.26	0.42
2:12:21:ARG:CB	2:12:39:ILE:HG12	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:49:GLU:HB2	2:12:50:GLU:OE1	2.19	0.42
1:13:109:A:N7	1:13:326:G:H2'	2.34	0.42
1:13:11:G:C6	1:13:12:U:C4	3.07	0.42
1:13:302:G:C6	1:13:303:A:C5	3.07	0.42
1:13:667:G:H8	1:13:667:G:O5'	2.02	0.42
1:13:745:C:H2'	1:13:746:A:C8	2.54	0.42
1:13:917:G:C2	1:13:918:A:C4	3.07	0.42
26:14:1392:A:C6	26:14:1393:A:C6	3.07	0.42
26:14:1511:A:H2'	26:14:1512:G:O4'	2.19	0.42
26:14:184:C:H2'	26:14:185:U:H6	1.84	0.42
26:14:2197:U:H1'	26:14:2198:A:H8	1.81	0.42
26:14:2409:G:C6	26:14:2410:G:C5	3.07	0.42
26:14:244:A:C2	26:14:255:A:C4	3.07	0.42
26:14:270(E):G:C6	26:14:270(F):U:C4	3.07	0.42
26:14:934:G:H2'	26:14:935:C:H6	1.84	0.42
27:16:11:C:H3'	27:16:12:C:C6	2.54	0.42
27:16:76:G:N7	61:16:306:HOH:O	2.36	0.42
29:19:239:ARG:HB2	29:19:240:ALA:H	1.70	0.42
26:14:691:C:C1'	29:19:43:ARG:NH2	2.82	0.42
29:19:44:ASN:CB	29:19:47:GLY:H	2.32	0.42
26:14:1811:G:H21	29:19:45:ASN:HD22	1.67	0.42
29:19:94:LEU:HD23	29:19:94:LEU:HA	1.75	0.42
1:1G:1219:U:OP1	14:5A:19:ARG:NH2	2.48	0.42
1:1G:735:C:H2'	1:1G:736:C:C6	2.50	0.42
1:1G:998:G:H22	1:1G:1043:C:N4	2.16	0.42
26:1H:1614:A:H2	61:1H:3637:HOH:O	2.02	0.42
26:1H:1695:G:H2'	26:1H:1696:G:O4'	2.19	0.42
26:1H:1827:C:O2'	26:1H:1828:G:H5'	2.18	0.42
26:1H:2104:G:C2	26:1H:2186:G:C2	3.07	0.42
26:1H:2638:G:P	30:21:82:ARG:HH21	2.42	0.42
26:1H:34:C:HO2'	26:1H:35:G:P	2.42	0.42
26:1H:376:C:OP2	61:1H:3706:HOH:O	2.22	0.42
26:1H:425:G:H2'	26:1H:426:C:C6	2.55	0.42
30:29:35:GLN:H	30:29:48:GLN:HB3	1.84	0.42
11:2A:81:ASP:OD1	11:2A:81:ASP:N	2.52	0.42
3:2E:131:ARG:HD3	3:2E:166:GLU:OE1	2.18	0.42
4:3E:150:GLU:HG3	4:3E:153:ARG:HE	1.84	0.42
56:3L:76:A:H8	26:14:2394:C:H42	1.65	0.42
5:4E:20:GLN:O	5:4E:22:GLY:N	2.52	0.42
33:51:41:MET:HB3	33:51:52:VAL:CG1	2.48	0.42
33:51:4:ILE:HG23	33:51:4:ILE:HD12	1.59	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:5:GLU:OE2	6:52:93:SER:OG	2.37	0.42
39:55:107:ASP:OD1	39:55:107:ASP:C	2.57	0.42
34:69:112:LYS:HA	34:69:114:LEU:H	1.84	0.42
1:13:750:G:N3	15:61:23:GLY:HA3	2.33	0.42
26:1H:2175:C:O2'	28:71:216:THR:O	2.36	0.42
9:82:117:HIS:HB2	9:82:121:ARG:HG3	2.00	0.42
41:B8:62:THR:HA	41:B8:74:ARG:O	2.19	0.42
46:C5:8:LYS:NZ	46:C5:95:LYS:HD3	2.34	0.42
47:D5:19:ARG:NH1	47:D5:84:GLU:O	2.52	0.42
43:D8:35:LEU:HD23	43:D8:35:LEU:HA	1.83	0.42
51:H5:55:ARG:HG3	51:H5:55:ARG:O	2.18	0.42
26:1H:72:U:H1'	50:K8:58:ALA:CB	2.49	0.42
29:11:108:PRO:HG3	29:11:143:HIS:CE1	2.54	0.42
29:11:77:ALA:HB2	29:11:97:TYR:CD2	2.54	0.42
2:12:55:PHE:HB3	2:12:221:LEU:HD12	2.00	0.42
1:13:1023:G:C3'	1:13:1024:G:H5''	2.48	0.42
1:13:1145:C:H4'	1:13:1146:A:H5'	2.01	0.42
1:13:1217:C:OP1	14:51:9:LYS:NZ	2.49	0.42
1:13:1240:U:OP2	7:6E:115:ARG:HA	2.18	0.42
1:13:1414:U:H2'	1:13:1415:G:H8	1.84	0.42
1:13:295:C:H2'	1:13:296:U:O4'	2.18	0.42
1:13:413:G:O6	4:3E:35:ARG:HD3	2.19	0.42
1:13:945:G:H2'	1:13:945:G:N3	2.34	0.42
26:14:1128:A:N7	26:14:2489:G:O2'	2.51	0.42
26:14:1250:G:H4'	26:14:1251:C:OP2	2.19	0.42
26:14:142:G:H2'	26:14:143:C:O4'	2.19	0.42
26:14:1753:G:N2	26:14:1756:G:OP2	2.47	0.42
26:14:1992:G:C8	26:14:1992:G:O5'	2.72	0.42
26:14:2017:U:OP2	61:14:3595:HOH:O	2.22	0.42
26:14:2134:A:H5''	26:14:2156:G:O6	2.19	0.42
26:14:2689:U:P	26:14:2719:G:H22	2.42	0.42
26:14:273(C):C:H6	26:14:273(C):C:H5''	1.84	0.42
26:14:2883:A:C5'	26:14:2884:U:H5'	2.49	0.42
26:14:396:G:H8	26:14:396:G:O5'	2.02	0.42
26:14:4:C:H2'	26:14:4:C:O2	2.19	0.42
26:14:534:U:H2'	26:14:535:C:C6	2.54	0.42
26:14:589:C:H5''	31:39:95:ARG:NH1	2.34	0.42
26:14:628:G:C6	26:14:629:G:C6	3.07	0.42
26:14:651:G:OP2	55:M5:21:LYS:NZ	2.45	0.42
26:14:864:G:C6	26:14:865:C:N4	2.87	0.42
1:1G:1040:U:H2'	1:1G:1041:A:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1161:C:O2'	1:1G:1162:C:H5'	2.19	0.42
1:1G:1279:A:H5''	1:1G:1280:A:OP2	2.18	0.42
1:1G:1347:G:H22	1:1G:1374:A:P	2.41	0.42
1:1G:862:C:H2'	1:1G:863:U:O4'	2.19	0.42
26:1H:1050:A:H2'	26:1H:1051:G:O4'	2.19	0.42
26:1H:1207:C:H2'	26:1H:1208:C:C6	2.54	0.42
26:1H:1204:A:C2	26:1H:1241:A:C2	3.06	0.42
26:1H:1336:A:H2'	26:1H:1337:G:H8	1.83	0.42
26:1H:1392:A:N6	26:1H:1393:A:N6	2.66	0.42
26:1H:1496:A:H5'	26:1H:1497:U:OP1	2.19	0.42
26:1H:1569:A:O2'	29:11:37:LEU:HD13	2.19	0.42
26:1H:2510:C:H2'	26:1H:2511:U:C6	2.53	0.42
26:1H:2679:A:C2	26:1H:2729:G:C2	3.07	0.42
26:1H:306:U:H2'	26:1H:307:G:O4'	2.19	0.42
26:1H:729:G:C8	29:11:208:LYS:HE3	2.55	0.42
27:1J:76:G:H2'	27:1J:77:U:O4'	2.19	0.42
30:21:28:ALA:HB3	30:21:93:VAL:HG12	2.02	0.42
11:2I:48:ILE:HD13	11:2I:48:ILE:HA	1.84	0.42
23:2K:8:4SU:H6	23:2K:8:4SU:O5'	2.20	0.42
56:3L:2:G:N3	56:3L:72:C:N3	2.67	0.42
56:3L:55:U:N3	56:3L:57:G:H5''	2.34	0.42
32:49:55:LYS:O	32:49:59:GLU:HG3	2.18	0.42
13:4I:4:ILE:HG22	13:4I:5:ALA:H	1.83	0.42
13:4I:67:GLU:CG	13:4I:71:ARG:HH21	2.31	0.42
6:52:75:LEU:O	6:52:79:LEU:HG	2.19	0.42
35:58:30:ILE:HD12	35:58:99:LEU:HD21	2.00	0.42
37:78:101:VAL:HG12	37:78:106:LEU:CD1	2.48	0.42
37:78:49:ARG:CZ	55:Q8:61:LEU:HD23	2.49	0.42
8:7E:83:ILE:HG13	8:7E:137:VAL:HG22	1.99	0.42
8:7E:38:ILE:CD1	8:7E:118:VAL:HG12	2.49	0.42
17:8I:64:PRO:HB3	17:8I:70:ARG:NE	2.34	0.42
39:98:14:SER:OG	39:98:15:SER:N	2.51	0.42
18:9A:52:PRO:O	18:9A:56:THR:HG23	2.17	0.42
19:AA:15:LEU:O	19:AA:18:LYS:N	2.46	0.42
45:B5:57:LEU:N	45:B5:57:LEU:HD23	2.33	0.42
41:B8:91:ARG:O	41:B8:116:ALA:HA	2.19	0.42
48:E5:46:LYS:HA	48:E5:47:PRO:HD3	1.84	0.42
48:E5:50:ASN:O	48:E5:62:LEU:HB2	2.19	0.42
47:H8:40:ASP:OD2	47:H8:43:GLU:HG3	2.18	0.42
55:Q8:14:VAL:N	61:Q8:202:HOH:O	2.52	0.42
1:13:321:A:H62	1:13:328:C:H1'	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:535:A:H4'	61:13:1871:HOH:O	2.19	0.42
26:14:1002:G:H2'	26:14:1003:G:O4'	2.20	0.42
26:14:1629:U:O2	26:14:2698:U:H5''	2.20	0.42
26:14:2173:A:H8	26:14:2173:A:H5''	1.84	0.42
26:14:2758:A:H2'	26:14:2759:G:O4'	2.19	0.42
26:14:822:U:O2'	26:14:823:G:H5'	2.19	0.42
26:14:913:U:H4'	26:14:914:C:OP1	2.18	0.42
27:16:2:C:H2'	27:16:3:C:C6	2.54	0.42
29:19:71:ASP:OD1	29:19:103:ARG:NH2	2.52	0.42
29:19:69:ARG:NH2	29:19:129:ASN:CA	2.82	0.42
26:14:1813:G:H1'	29:19:50:THR:OG1	2.19	0.42
1:1G:1305:G:C8	21:1B:5:ASP:HB2	2.53	0.42
1:1G:1010:G:C2	1:1G:1011:G:C4	3.07	0.42
1:1G:1276:G:H2'	1:1G:1277:C:O4'	2.20	0.42
58:1G:1691:PAR:N24	58:1G:1691:PAR:O44	2.53	0.42
1:1G:236:G:H2'	1:1G:237:C:O4'	2.19	0.42
1:1G:514:C:H2'	1:1G:515:G:C8	2.54	0.42
1:1G:57:G:C6	1:1G:58:C:C4	3.07	0.42
26:1H:1171:G:N2	26:1H:1178:C:O2	2.47	0.42
26:1H:1458:C:H4'	26:1H:1459:G:O4'	2.18	0.42
26:1H:1461:G:C6	26:1H:1462:C:C4	3.07	0.42
26:1H:2051:A:OP2	61:1H:3707:HOH:O	2.22	0.42
26:1H:2481:G:O2'	26:1H:2482:G:O5'	2.33	0.42
26:1H:803:U:C4	26:1H:804:A:N7	2.88	0.42
27:1J:110:G:C5	27:1J:111:U:C5	3.07	0.42
3:2E:150:LYS:CE	3:2E:152:ILE:HD11	2.49	0.42
23:2K:29:C:H2'	23:2K:30:G:C8	2.49	0.42
4:32:148:VAL:HG12	4:32:152:SER:CB	2.49	0.42
4:32:173:TRP:HB2	4:32:187:ARG:HG2	2.00	0.42
31:39:53:THR:HG22	31:39:56:GLU:CG	2.49	0.42
24:3K:70:C:C4	24:3K:71:C:N4	2.87	0.42
38:45:25:ASP:HB3	38:45:102:VAL:CB	2.49	0.42
38:45:50:ALA:HB1	38:45:121:ALA:HB1	2.01	0.42
13:4A:67:GLU:HG3	13:4A:68:GLY:H	1.84	0.42
13:4I:82:MET:O	13:4I:84:ILE:N	2.52	0.42
6:52:21:LEU:HD22	6:52:21:LEU:HA	1.85	0.42
39:55:17:ARG:HG2	39:55:21:TYR:CE2	2.55	0.42
7:62:22:LEU:HD23	7:62:97:GLN:HE22	1.85	0.42
40:65:85:VAL:H	40:65:110:LEU:HA	1.84	0.42
36:68:68:GLU:H	36:68:68:GLU:CD	2.11	0.42
16:7A:17:TYR:HE2	16:7A:41:PRO:HG3	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:100:ILE:HD13	8:7E:112:LEU:HD21	2.01	0.42
8:7E:1:MET:CG	8:7E:3:THR:HG23	2.49	0.42
8:7E:81:HIS:HB2	8:7E:138:TRP:CZ3	2.54	0.42
9:82:32:ASP:OD1	9:82:33:PHE:N	2.52	0.42
38:88:32:TYR:OH	38:88:111:GLU:HB2	2.19	0.42
9:8E:8:GLY:HA2	9:8E:79:LEU:HD12	2.01	0.42
9:8E:96:LEU:HD23	9:8E:102:LEU:HD21	2.01	0.42
19:AA:35:SER:O	19:AA:71:LEU:HD23	2.19	0.42
42:C8:15:LYS:HE2	42:C8:15:LYS:HB3	1.75	0.42
49:F5:87:PRO:O	49:F5:91:LYS:N	2.52	0.42
50:G5:4:SER:HA	50:G5:7:ARG:HH12	1.85	0.42
47:H8:5:LEU:HD13	47:H8:6:LYS:HB2	2.00	0.42
49:J8:75:GLU:O	49:J8:76:ARG:C	2.57	0.42
1:13:321:A:C2	1:13:333:G:C2	3.08	0.42
1:13:50:A:H1'	1:13:52:G:C8	2.54	0.42
26:14:1035:U:H2'	26:14:1036:G:C8	2.55	0.42
26:14:1118:C:H2'	26:14:1119:C:C6	2.54	0.42
26:14:1496:A:C8	26:14:1498:C:N3	2.86	0.42
26:14:1523:U:C2	26:14:1524:G:C8	3.06	0.42
26:14:1872:A:H5''	26:14:1878:G:OP2	2.19	0.42
26:14:2016:U:H1'	53:J5:6:VAL:HG22	2.01	0.42
26:14:2086:U:H2'	26:14:2087:G:C8	2.54	0.42
26:14:2197:U:O2'	26:14:2198:A:H2'	2.19	0.42
26:14:2723:C:OP1	39:55:3:HIS:HD2	2.01	0.42
26:14:775:G:O5'	26:14:777:A:H1'	2.18	0.42
35:15:34:LEU:HA	35:15:34:LEU:HD12	1.71	0.42
27:16:95:U:H2'	27:16:96:G:H8	1.83	0.42
2:1E:119:GLU:H	2:1E:119:GLU:HG2	1.60	0.42
1:1G:1011:G:N2	1:1G:1019:C:O2	2.52	0.42
1:1G:1145:C:H4'	1:1G:1146:A:O5'	2.20	0.42
1:1G:1188:A:O3'	14:5A:58:LYS:NZ	2.51	0.42
1:1G:1385:G:C2	1:1G:1386:G:C8	3.08	0.42
1:1G:1480:G:C6	1:1G:1481:U:C4	3.07	0.42
1:1G:1513:A:H2'	1:1G:1514:C:C6	2.54	0.42
1:1G:250:A:N3	1:1G:250:A:H5'	2.35	0.42
1:1G:56:U:H2'	1:1G:57:G:C8	2.55	0.42
1:1G:572:A:H5'	1:1G:573:A:OP2	2.20	0.42
1:1G:826:C:O2	1:1G:874:G:N2	2.38	0.42
26:1H:1006:C:C2	26:1H:1138:G:N2	2.87	0.42
26:1H:1371:G:H2'	26:1H:1372:U:C5	2.54	0.42
26:1H:2314:C:H2'	26:1H:2315:G:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2418:A:C6	26:1H:2419:U:N3	2.87	0.42
26:1H:2428:G:H8	26:1H:2428:G:O5'	2.03	0.42
26:1H:2488:A:H2'	26:1H:2489:G:O4'	2.18	0.42
26:1H:2863:C:O2'	26:1H:2864:G:H5'	2.20	0.42
26:1H:515:A:H1'	26:1H:581:C:H1'	2.01	0.42
26:1H:665:C:H2'	26:1H:666:G:C8	2.54	0.42
26:1H:828:U:H4'	26:1H:831:G:N1	2.34	0.42
10:1I:81:THR:O	10:1I:85:LEU:HG	2.19	0.42
3:22:151:VAL:HA	3:22:199:LYS:O	2.18	0.42
26:14:2820:A:O2'	30:29:191:PRO:HG3	2.19	0.42
3:2E:84:ILE:HA	3:2E:87:LEU:HD12	2.01	0.42
12:3A:43:VAL:HG12	12:3A:44:THR:H	1.85	0.42
32:41:107:LEU:HA	32:41:107:LEU:HD23	1.64	0.42
32:41:18:GLU:OE1	32:41:22:ARG:HD2	2.19	0.42
38:45:58:PHE:HB3	38:45:113:GLN:NE2	2.34	0.42
13:4I:35:GLU:C	13:4I:38:GLY:H	2.23	0.42
34:61:127:VAL:HA	34:61:138:ILE:O	2.20	0.42
7:62:148:ASN:O	7:62:149:ARG:HD3	2.19	0.42
7:62:15:ASP:O	7:62:19:GLY:HA2	2.19	0.42
36:68:112:MET:HA	36:68:115:VAL:HG22	2.00	0.42
28:79:47:LEU:HB3	28:79:49:ILE:HG13	2.00	0.42
9:82:5:TYR:HA	9:82:17:VAL:O	2.19	0.42
9:82:15:ALA:HB2	9:82:65:VAL:HG23	2.02	0.42
42:85:91:ASP:C	42:85:93:LYS:N	2.73	0.42
42:85:92:ARG:HH22	43:95:10:LYS:CG	2.32	0.42
17:8A:56:VAL:HG12	17:8A:77:VAL:HB	2.01	0.42
20:BI:46:GLU:HB2	20:BI:48:LYS:HG3	2.02	0.42
44:E8:76:VAL:HA	44:E8:102:HIS:O	2.19	0.42
47:H8:99:TYR:CE1	47:H8:125:LEU:HB2	2.54	0.42
26:1H:2331:G:C4'	48:I8:42:GLY:HA3	2.50	0.42
50:K8:42:GLY:C	50:K8:44:LEU:N	2.73	0.42
51:L8:18:ASP:OD1	51:L8:18:ASP:N	2.52	0.42
29:11:70:TRP:O	29:11:73:VAL:HG23	2.19	0.42
1:13:270:A:H3'	1:13:271:C:C6	2.54	0.42
1:13:657:G:H4'	15:6I:28:GLN:HG2	2.01	0.42
1:13:686:U:O2'	1:13:687:A:OP2	2.27	0.42
26:14:987:G:O2'	26:14:1000:A:N3	2.44	0.42
26:14:1727:U:H3	26:14:1733:G:H1	1.68	0.42
26:14:1828:G:H8	26:14:1828:G:OP2	2.03	0.42
26:14:1945:G:C4	26:14:1946:U:C5	3.07	0.42
26:14:2564:A:C2	26:14:2647:U:H4'	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:384:U:H2'	26:14:385:C:C6	2.55	0.42
26:14:528:A:O2'	26:14:529:A:H5''	2.19	0.42
27:16:40:U:H1'	27:16:45:A:N6	2.34	0.42
27:16:44:G:C2	27:16:48:A:C2	3.06	0.42
29:19:6:PHE:HE1	29:19:18:VAL:HG22	1.84	0.42
26:14:1798:U:H5'	29:19:259:THR:OG1	2.20	0.42
1:1G:1095:U:H2'	1:1G:1096:C:O4'	2.20	0.42
1:1G:1344:C:HO2'	1:1G:1348:U:HO2'	1.65	0.42
1:1G:1495:U:O4	58:1G:1691:PAR:N12	2.52	0.42
1:1G:167:G:O2'	1:1G:168:G:H5'	2.19	0.42
26:1H:565:C:H4'	26:1H:1253:A:N6	2.34	0.42
26:1H:1849:G:H1	26:1H:1893:C:H42	1.67	0.42
26:1H:2053:G:OP1	30:21:144:ARG:HG3	2.19	0.42
26:1H:2061:G:H2'	26:1H:2501:C:O2'	2.19	0.42
26:1H:2106:G:H22	26:1H:2184:G:H1'	1.85	0.42
26:1H:241:A:H5'	26:1H:243:U:O4'	2.19	0.42
26:1H:2500:U:H2'	61:1H:4365:HOH:O	2.20	0.42
26:1H:2771:C:H2'	26:1H:2772:C:C6	2.55	0.42
26:1H:2883:A:H5'	26:1H:2884:U:H5'	2.00	0.42
26:1H:354:G:C4	26:1H:355:G:C8	3.07	0.42
26:1H:671:C:O2'	26:1H:672:C:H5'	2.19	0.42
26:1H:714:U:O2'	26:1H:716:A:N7	2.48	0.42
27:1J:0:A:H2'	27:1J:1:U:C6	2.54	0.42
30:29:103:ASP:OD2	30:29:201:THR:HA	2.20	0.42
23:2L:53:G:H2'	23:2L:54:G:C8	2.54	0.42
4:32:105:VAL:HG21	4:32:126:ILE:HD13	2.02	0.42
4:32:173:TRP:CG	4:32:189:PRO:HB3	2.55	0.42
12:3A:60:LEU:HD13	12:3A:60:LEU:HA	1.90	0.42
4:3E:19:LEU:HB3	4:3E:21:LEU:CD2	2.49	0.42
56:3L:52:G:C5	56:3L:53:G:C8	3.08	0.42
5:42:118:ILE:HG12	5:42:119:LEU:H	1.84	0.42
38:45:66:ILE:HG22	38:45:104:PHE:HE1	1.84	0.42
32:49:125:PHE:HB3	32:49:166:ASP:CB	2.45	0.42
32:49:109:VAL:HG12	32:49:142:PRO:HG3	2.01	0.42
32:49:80:PHE:O	32:49:82:LEU:HB2	2.19	0.42
26:1H:2531:A:H5'	33:51:157:TYR:CZ	2.54	0.42
35:58:5:VAL:HA	35:58:6:PRO:HD3	1.88	0.42
28:71:22:ILE:HB	28:71:190:ARG:NH1	2.35	0.42
28:71:45:ALA:HB2	28:71:212:VAL:HG22	2.01	0.42
28:71:27:HIS:HB3	28:71:182:PRO:CG	2.49	0.42
8:7E:16:ALA:HB1	8:7E:24:THR:HG21	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:85:92:ARG:HD3	42:85:94:ASN:HB3	2.02	0.42
17:8A:29:HIS:HB3	17:8A:33:GLY:N	2.34	0.42
9:8E:29:ASN:OD1	9:8E:64:THR:HA	2.19	0.42
9:8E:55:ALA:O	9:8E:56:LEU:HD23	2.20	0.42
9:8E:70:LYS:O	9:8E:74:ILE:HG13	2.20	0.42
40:A8:76:LYS:HE2	40:A8:76:LYS:HB3	1.81	0.42
20:BA:49:ALA:HB3	20:BA:100:ILE:HD13	2.00	0.42
38:45:20:ALA:HB2	47:D5:79:ARG:HG2	2.01	0.42
42:C8:95:LEU:HD22	43:D8:4:ILE:HD13	2.00	0.42
43:D8:57:VAL:HB	43:D8:99:ILE:CD1	2.49	0.42
26:14:2396:G:H4'	49:F5:30:VAL:H	1.83	0.42
47:H8:5:LEU:HD13	47:H8:6:LYS:N	2.34	0.42
48:I8:36:ILE:HA	48:I8:60:PHE:HA	2.02	0.42
29:11:105:ILE:HA	29:11:105:ILE:HD12	1.60	0.42
29:11:231:HIS:CD2	29:11:249:PRO:CA	3.02	0.42
2:12:22:LYS:HB3	2:12:40:HIS:HE1	1.84	0.42
1:13:724:G:H2'	1:13:725:G:H8	1.85	0.42
26:14:1257:C:H2'	26:14:1258:C:C6	2.55	0.42
26:14:55:G:O2'	26:14:127:A:N1	2.42	0.42
26:14:1342:A:C2	26:14:1397:U:C2	3.07	0.42
26:14:2666:C:H2'	26:14:2667:C:O4'	2.19	0.42
26:14:2705:A:H2'	26:14:2706:G:O4'	2.20	0.42
26:14:442:G:C6	26:14:444:C:N4	2.87	0.42
26:14:690:G:H2'	26:14:691:C:O4'	2.20	0.42
26:14:913:U:O5'	26:14:913:U:H6	2.03	0.42
26:14:934:G:H2'	26:14:935:C:C6	2.55	0.42
29:19:182:LEU:HB2	29:19:272:ALA:HB2	2.02	0.42
29:19:34:VAL:HB	29:19:64:ILE:HG23	2.01	0.42
1:1G:1028(B):C:H42	1:1G:1032(A):G:N2	2.16	0.42
1:1G:253:U:H2'	1:1G:254:G:C8	2.55	0.42
1:1G:35:G:C2	1:1G:550:G:N3	2.87	0.42
1:1G:419:C:H42	1:1G:424:G:H1	1.66	0.42
1:1G:647:C:H2'	1:1G:648:A:C8	2.55	0.42
26:1H:1321:A:H2'	26:1H:1322:A:O4'	2.19	0.42
26:1H:1790:C:H2'	26:1H:1791:A:C4	2.55	0.42
26:1H:2353:G:O6	26:1H:2365:G:C2	2.72	0.42
26:1H:2370:G:C6	26:1H:2371:G:C6	3.08	0.42
26:1H:258:G:C4	26:1H:259:G:C8	3.08	0.42
26:1H:2774:C:H2'	26:1H:2775:A:O4'	2.19	0.42
26:1H:287:C:H2'	26:1H:288:C:C6	2.55	0.42
26:1H:356:G:H2'	26:1H:357:A:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:447:A:C4	26:1H:473:G:N7	2.87	0.42
26:1H:534:U:H5'	42:C8:42:ALA:CB	2.45	0.42
10:1I:25:GLU:HB3	10:1I:29:ARG:HH21	1.83	0.42
30:21:31:CYS:HB2	30:21:91:VAL:HG13	2.01	0.42
3:22:8:ILE:HD12	3:22:16:ARG:CD	2.49	0.42
31:31:184:TYR:O	31:31:188:ARG:HG2	2.20	0.42
31:39:89:VAL:HG12	31:39:90:PHE:CD1	2.55	0.42
12:3A:83:VAL:HG11	12:3A:100:ILE:HD13	2.02	0.42
12:3A:6:THR:OG1	12:3A:9:GLN:HG3	2.18	0.42
24:3K:69:A:H5'	24:3K:70:C:OP2	2.19	0.42
56:3L:16:U:H2'	56:3L:16:U:O2	2.19	0.42
13:4A:8:GLU:OE2	13:4A:10:PRO:HD3	2.19	0.42
1:13:1396:A:C2	5:4E:19:MET:HG3	2.54	0.42
1:13:1225:A:OP1	13:4I:102:ARG:HA	2.19	0.42
1:1G:1240:U:OP2	7:62:116:ALA:N	2.52	0.42
7:62:29:LYS:HB2	7:62:105:VAL:HG21	2.01	0.42
40:65:61:ASN:HD22	40:65:64:GLU:HG3	1.84	0.42
34:69:62:LYS:HD3	34:69:133:HIS:CE1	2.55	0.42
9:82:20:ARG:O	9:82:20:ARG:HG3	2.20	0.42
9:8E:17:VAL:HA	9:8E:63:ILE:HG12	2.01	0.42
43:95:72:VAL:HG13	43:95:72:VAL:O	2.19	0.42
44:A5:62:HIS:HB2	44:A5:64:MET:HG3	2.02	0.42
40:A8:63:THR:O	40:A8:66:ALA:HB3	2.19	0.42
46:C5:18:GLY:O	46:C5:20:TYR:N	2.52	0.42
46:C5:39:VAL:HG23	46:C5:41:GLY:N	2.34	0.42
46:C5:37:VAL:HG23	46:C5:67:LEU:HB3	2.01	0.42
45:F8:66:LEU:HA	45:F8:66:LEU:HD12	1.72	0.42
50:G5:31:GLU:O	50:G5:35:LEU:HD23	2.20	0.42
46:G8:30:VAL:HG22	46:G8:37:VAL:HG12	2.00	0.42
48:I8:37:LEU:HD11	48:I8:61:ALA:N	2.34	0.42
55:M5:43:GLN:HG3	55:M5:46:ARG:NH2	2.34	0.42
29:11:96:HIS:NE2	29:11:102:LYS:HE2	2.34	0.42
26:1H:1693:U:O2'	29:11:14:ARG:NH2	2.53	0.42
1:13:1120:G:H2'	1:13:1121:U:C6	2.54	0.42
1:13:1135:U:O4	61:13:1818:HOH:O	2.22	0.42
1:13:1127:G:H1'	1:13:1148:U:H3	1.84	0.42
1:13:131:C:O2	1:13:231:G:N2	2.23	0.42
1:13:1320:C:OP1	19:AI:70:LYS:HE3	2.19	0.42
1:13:328:C:H4'	1:13:329:A:C5'	2.50	0.42
1:13:558:G:C5	1:13:559:A:C2	3.07	0.42
26:14:2131:G:H5''	26:14:2133:G:O2'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2165:G:H3'	26:14:2166:G:H5'	2.01	0.42
26:14:227:A:H5'	26:14:228:A:C2	2.54	0.42
26:14:2532:G:H2'	26:14:2533:A:C8	2.54	0.42
26:14:2652:C:H2'	26:14:2653:U:O4'	2.19	0.42
26:14:2734:A:C8	26:14:2735:G:C8	3.07	0.42
26:14:2853:C:H2'	26:14:2854:G:C8	2.54	0.42
26:14:458:G:O2'	26:14:469:G:O6	2.27	0.42
26:14:308:G:C8	26:14:501:A:H1'	2.54	0.42
26:14:968:G:C6	26:14:969:U:N3	2.87	0.42
2:1E:27:LYS:NZ	2:1E:195:ASP:HB3	2.34	0.42
1:13:1305:G:H5'	21:1F:4:GLY:HA3	2.01	0.42
1:1G:179:A:H2'	1:1G:180:U:H6	1.85	0.42
1:1G:269:C:H2'	1:1G:270:A:H8	1.83	0.42
1:1G:48:C:H5''	1:1G:365:U:O4	2.20	0.42
1:1G:543:C:C2'	1:1G:544:G:H5'	2.50	0.42
26:1H:1171:G:C5	26:1H:1174:A:N1	2.88	0.42
26:1H:1392:A:C6	26:1H:1393:A:C6	3.08	0.42
26:1H:1759:A:H4'	26:1H:2715:C:O4'	2.19	0.42
26:1H:2352:A:C4	26:1H:2366:A:C2	3.08	0.42
26:1H:2475:C:H1'	26:1H:2477:C:C5	2.55	0.42
26:1H:662:G:O2'	26:1H:663:G:H5'	2.19	0.42
26:1H:804:A:H5''	26:1H:805:G:OP1	2.20	0.42
1:13:1279:A:OP1	10:1I:7:LYS:NZ	2.52	0.42
22:1K:4:U:H2'	22:1K:5:C:O4'	2.20	0.42
30:21:37:ARG:HA	30:21:42:ASP:OD2	2.20	0.42
30:21:55:ASN:OD1	30:21:58:ARG:HD2	2.19	0.42
30:29:57:LYS:HG2	30:29:57:LYS:HZ3	1.56	0.42
31:31:101:LEU:HD23	31:31:102:PRO:N	2.34	0.42
31:31:134:GLY:CA	31:31:166:ALA:HB2	2.49	0.42
4:32:59:ARG:HH22	4:32:66:ARG:NH2	2.17	0.42
4:32:82:ALA:HB1	4:32:89:THR:HA	2.01	0.42
31:39:110:LEU:HD21	31:39:181:LEU:HD22	2.02	0.42
12:3I:37:CYS:HB2	12:3I:79:GLU:O	2.19	0.42
56:3L:15:G:H2'	56:3L:59:A:C2	2.54	0.42
32:41:139:LEU:HD22	32:41:146:TYR:HD2	1.83	0.42
32:49:47:LYS:HD3	32:49:81:LYS:HB2	2.01	0.42
6:5E:9:VAL:HB	6:5E:87:ARG:HB2	2.00	0.42
7:62:69:VAL:HG13	7:62:134:ALA:O	2.20	0.42
7:62:137:LYS:HB3	7:62:137:LYS:HE3	1.75	0.42
40:65:33:LYS:HB2	40:65:33:LYS:HE3	1.84	0.42
40:65:80:LEU:HD23	40:65:80:LEU:HA	1.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:70:LEU:HD11	15:6I:77:ARG:HB3	2.01	0.42
28:71:47:LEU:HA	28:71:208:PHE:O	2.19	0.42
37:78:24:GLY:O	37:78:25:SER:HB3	2.18	0.42
28:79:202:GLU:CG	28:79:203:GLY:H	2.33	0.42
8:7E:114:THR:HB	8:7E:129:VAL:CG1	2.46	0.42
9:8E:49:PRO:HD3	9:8E:101:PHE:CE1	2.55	0.42
43:95:22:VAL:HG22	43:95:23:GLU:H	1.84	0.42
19:AI:18:LYS:HZ1	19:AI:22:LEU:HD13	1.84	0.42
1:1G:261:U:OP2	20:BA:79:ARG:NH2	2.53	0.42
48:E5:26:TYR:HB2	48:E5:29:GLN:OE1	2.19	0.42
47:H8:15:PRO:O	47:H8:19:ARG:HG3	2.19	0.42
48:I8:48:GLY:N	48:I8:79:VAL:O	2.49	0.42
49:J8:91:LYS:HG3	49:J8:92:LYS:H	1.85	0.42
26:14:631:A:P	55:M5:47:LYS:HZ1	2.39	0.42
29:11:26:LYS:HD2	29:11:29:PRO:CB	2.45	0.42
2:12:54:THR:HA	2:12:57:PHE:CD2	2.54	0.42
1:13:991:U:C5	1:13:1212:U:H1'	2.55	0.42
1:13:177:C:O2'	1:13:178:C:H5'	2.20	0.42
1:13:625:G:H2'	1:13:626:U:H6	1.85	0.42
1:13:724:G:C2	1:13:725:G:C8	3.07	0.42
1:13:993:G:N3	1:13:993:G:H2'	2.35	0.42
26:14:1190:G:H2'	26:14:1191:G:C8	2.50	0.42
26:14:1340:U:H4'	26:14:1341:U:OP2	2.19	0.42
26:14:1680:U:H2'	26:14:1681:G:O4'	2.20	0.42
1:1G:1429:C:O2'	26:14:1704:G:H5'	2.19	0.42
26:14:1891:G:C6	26:14:1892:C:C4	3.08	0.42
26:14:2275:C:C6	26:14:2275:C:H5'	2.55	0.42
26:14:2320:A:C6	26:14:2333:A:C8	3.07	0.42
26:14:2432:A:H2'	26:14:2433:A:H8	1.83	0.42
26:14:332:A:C2	26:14:335:C:C5	3.07	0.42
26:14:639:U:H2'	26:14:640:C:H6	1.85	0.42
26:14:852:G:H2'	26:14:853:G:H8	1.84	0.42
26:14:901:A:H2'	26:14:901:A:N3	2.34	0.42
27:16:15:A:O2'	27:16:109:G:C8	2.66	0.42
10:1A:28:ARG:NH2	10:1A:34:VAL:HG23	2.34	0.42
1:1G:1243:C:H5''	21:1B:8:THR:OG1	2.20	0.42
1:1G:1124:G:H8	1:1G:1124:G:OP2	2.03	0.42
1:1G:129(A):G:C2	1:1G:188:U:O2'	2.71	0.42
1:1G:1532:U:H5''	1:1G:1533:C:OP2	2.20	0.42
1:1G:416:G:H1	1:1G:427:U:H3	1.68	0.42
1:1G:502:G:OP2	12:3A:116:SER:HA	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:6:G:HO2'	1:1G:7:G:H5''	1.85	0.42
1:1G:826:C:H2'	1:1G:827:U:C6	2.55	0.42
26:1H:1682:G:C2	26:1H:1683:C:C2	3.08	0.42
26:1H:2232:U:OP1	49:J8:40:ARG:NH1	2.51	0.42
26:1H:312:G:H5'	26:1H:331:A:O2'	2.19	0.42
26:1H:438:G:H2'	26:1H:439:G:C8	2.55	0.42
26:1H:456:C:H2'	26:1H:456:C:OP1	2.18	0.42
26:1H:44:A:N1	26:1H:45:G:C6	2.88	0.42
26:1H:60:G:C8	26:1H:63:U:C5	3.07	0.42
26:1H:673:C:H5''	31:31:81:PRO:HD2	2.02	0.42
26:1H:784:A:O4'	29:11:227:ASN:ND2	2.52	0.42
26:1H:877:U:O5'	26:1H:877:U:H6	2.03	0.42
26:1H:880:G:H5''	26:1H:882:G:N2	2.35	0.42
26:1H:881:G:N1	26:1H:897:C:O2	2.53	0.42
27:1J:5:C:H42	27:1J:115:G:H1	1.66	0.42
23:2L:9:G:N3	23:2L:46:G:H2'	2.35	0.42
31:31:152:GLU:HB2	31:31:190:GLU:CB	2.49	0.42
31:31:157:VAL:HB	31:31:194:MET:HG2	2.02	0.42
31:31:178:PRO:HB3	31:31:198:ALA:HA	2.00	0.42
4:32:108:LEU:HD13	4:32:170:VAL:HG11	2.02	0.42
4:32:114:ARG:HA	4:32:117:ALA:HB3	2.01	0.42
4:3E:156:GLU:O	4:3E:160:GLN:HB3	2.20	0.42
12:3I:60:LEU:HD13	12:3I:60:LEU:HA	1.83	0.42
5:42:142:LEU:H	5:42:142:LEU:HG	1.69	0.42
27:1J:57:A:N3	32:49:29:TRP:HB3	2.35	0.42
39:55:96:ARG:HD2	39:55:115:GLU:OE1	2.19	0.42
35:58:65:LYS:HB3	35:58:69:GLN:HG3	2.02	0.42
7:62:70:LYS:O	7:62:138:LYS:HE2	2.20	0.42
8:7E:38:ILE:HD12	8:7E:118:VAL:HG12	2.01	0.42
9:82:16:ARG:NH2	9:82:64:THR:HG21	2.35	0.42
17:8A:59:ILE:HG21	17:8A:71:PHE:HB3	2.02	0.42
50:G5:25:VAL:O	50:G5:28:LYS:N	2.53	0.42
52:M8:11:PRO:HA	52:M8:25:TYR:HA	2.00	0.42
55:Q8:26:LYS:HE2	55:Q8:48:PHE:CD1	2.53	0.42
2:12:96:ARG:H	2:12:96:ARG:HE	1.68	0.42
1:13:1028(A):C:C4	1:13:1029:G:N7	2.88	0.42
1:13:1133:G:H1	1:13:1141:C:H42	1.67	0.42
1:13:1143:G:H8	1:13:1143:G:O5'	2.03	0.42
1:13:1148:U:H2'	1:13:1149:C:O4'	2.19	0.42
1:13:1260:C:H3'	1:13:1260:C:C6	2.55	0.42
1:13:716:A:H8	1:13:716:A:O5'	2.03	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1016:G:H2'	26:14:1017:G:C8	2.55	0.42
26:14:108:U:C2	26:14:109:G:C8	3.08	0.42
26:14:1495:A:C6	26:14:1496:A:C6	3.08	0.42
26:14:2102:U:O2	26:14:2187:G:N2	2.31	0.42
26:14:2115:G:H21	26:14:2172:U:H3	1.67	0.42
26:14:2349:G:OP1	61:14:3593:HOH:O	2.21	0.42
26:14:2529:G:H5''	26:14:2530:A:H5''	2.01	0.42
26:14:373:U:H2'	26:14:374:A:C8	2.55	0.42
26:14:92:G:H2'	26:14:93:C:O4'	2.19	0.42
27:16:73:A:C4	27:16:74:U:C6	3.08	0.42
27:16:80:U:C2	27:16:81:G:N2	2.88	0.42
1:1G:1090:U:H2'	1:1G:1091:U:C6	2.55	0.42
1:1G:1095:U:OP1	1:1G:1108:G:C2	2.72	0.42
1:1G:1207:G:H2'	1:1G:1208:C:C6	2.54	0.42
1:1G:1225:A:H5''	1:1G:1226:C:OP2	2.19	0.42
1:1G:1252:A:H2'	1:1G:1253:G:O4'	2.19	0.42
1:1G:1359:C:H1'	1:1G:1362:C:H41	1.84	0.42
1:1G:502:G:P	12:3A:116:SER:HA	2.60	0.42
1:1G:672:U:H2'	1:1G:673:G:C8	2.54	0.42
26:1H:1324:G:C4	26:1H:1328:G:O6	2.73	0.42
26:1H:1914:C:H2'	26:1H:1915:U:O4'	2.19	0.42
26:1H:1988:C:H2'	26:1H:1989:G:C8	2.55	0.42
26:1H:978:G:C2	26:1H:986:C:C2	3.08	0.42
27:1J:15:A:OP2	27:1J:69:G:N2	2.48	0.42
27:1J:87:G:N2	27:1J:89:G:H3'	2.35	0.42
26:14:918:A:H5''	27:1J:97:G:O2'	2.19	0.42
22:1L:11:C:C2'	22:1L:12:U:H5'	2.50	0.42
22:1L:22:G:H8	22:1L:22:G:P	2.42	0.42
1:1G:530:G:H1'	22:1L:35:U:O2'	2.20	0.42
36:25:37:ASP:O	36:25:61:VAL:HG23	2.20	0.42
30:29:26:ILE:HD13	30:29:26:ILE:HA	1.84	0.42
23:2K:63:C:O2	23:2K:64:G:C8	2.73	0.42
4:32:201:GLN:HA	4:32:204:ILE:HG12	2.01	0.42
37:35:132:LYS:HZ1	37:35:135:LEU:HD12	1.83	0.42
31:39:107:LYS:HD3	31:39:107:LYS:HA	1.74	0.42
31:39:88:VAL:HG23	31:39:89:VAL:O	2.19	0.42
32:41:62:LEU:HD12	32:41:62:LEU:HA	1.78	0.42
13:4A:81:LEU:HD12	13:4A:89:GLY:HA3	2.01	0.42
5:4E:71:LEU:CD1	5:4E:114:GLY:HA3	2.49	0.42
1:13:1196:U:C4	25:4K:23:A:N7	2.87	0.42
33:51:144:VAL:O	33:51:148:ILE:HG12	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:5A:29:ARG:HH12	14:5A:42:ILE:CD1	2.33	0.42
7:62:29:LYS:O	7:62:105:VAL:HG11	2.20	0.42
1:1G:667:G:O2'	15:6A:49:ASP:OD1	2.28	0.42
37:78:135:LEU:HD22	37:78:139:LYS:HE2	2.01	0.42
26:14:2178:C:H4'	28:79:46:LYS:CD	2.50	0.42
38:88:5:ARG:HH22	38:88:6:ARG:HH21	1.66	0.42
18:9I:73:ALA:HB3	18:9I:79:LEU:HD12	2.02	0.42
19:AI:23:ASN:OD1	19:AI:23:ASN:N	2.53	0.42
45:B5:12:VAL:HG12	45:B5:29:TRP:CD2	2.55	0.42
41:B8:29:ARG:HB2	41:B8:46:GLU:HG3	2.02	0.42
1:1G:185:A:H1'	20:BA:81:LYS:NZ	2.35	0.42
20:BI:38:LYS:HA	20:BI:41:ILE:HD11	2.02	0.42
48:E5:51:VAL:N	48:E5:62:LEU:HD12	2.34	0.42
45:F8:29:TRP:CZ3	45:F8:78:LYS:HE3	2.55	0.42
46:G8:97:ARG:NH2	46:G8:103:GLY:O	2.52	0.42
49:J8:83:GLU:HG3	49:J8:85:LEU:H	1.84	0.42
54:L5:37:LYS:HD3	54:L5:39:ARG:HD3	2.02	0.42
29:11:123:ALA:CB	29:11:131:LEU:HG	2.49	0.42
29:11:132:PRO:HG3	29:11:190:TYR:CE1	2.55	0.42
1:13:103:C:C2	1:13:104:G:C8	3.07	0.42
1:13:1074:G:O4'	2:1E:104:ASN:ND2	2.53	0.42
1:13:1126:U:C5	1:13:1127:G:C2	3.08	0.42
1:13:1263:C:O2'	1:13:1264:C:H5'	2.20	0.42
1:13:141:A:C2	1:13:142:G:C5	3.08	0.42
1:13:186(F):C:N3	1:13:191(B):G:C2	2.88	0.42
1:13:195:A:C5	1:13:196:A:N1	2.88	0.42
1:13:223:U:H2'	1:13:224:C:H6	1.85	0.42
1:13:284:G:H2'	1:13:285:G:H8	1.85	0.42
1:13:413:G:N7	4:3E:35:ARG:NH1	2.68	0.42
26:14:140:A:H8	26:14:1408:C:O2'	1.96	0.42
26:14:1482:U:H3	26:14:1512:G:H1	1.68	0.42
26:14:2050:C:H1'	30:29:156:MET:HE2	2.02	0.42
26:14:2295:C:N3	26:14:2296:U:H5	2.17	0.42
26:14:2850:A:C2	26:14:2851:A:C4	3.08	0.42
26:14:433:C:C4	26:14:434:U:O4	2.73	0.42
26:14:831:G:H5''	26:14:832:G:OP2	2.20	0.42
26:14:920:G:H2'	26:14:921:G:C8	2.55	0.42
35:15:85:ILE:HD13	35:15:90:MET:HG2	2.02	0.42
1:1G:972:C:OP2	10:1A:57:LYS:HG3	2.20	0.42
2:1E:97:TRP:HZ2	2:1E:102:LEU:HD13	1.84	0.42
2:1E:95:GLN:NE2	2:1E:147:LYS:HG2	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1F:15:ARG:NH1	21:1F:15:ARG:HB2	2.34	0.42
1:1G:1442:G:H1	1:1G:1461:G:H21	1.68	0.42
1:1G:232:G:H2'	1:1G:233:C:C6	2.54	0.42
1:1G:624:C:H2'	1:1G:625:G:C8	2.55	0.42
26:1H:1270:C:H5''	26:1H:1271:G:O5'	2.20	0.42
26:1H:1320:C:H4'	26:1H:1321:A:OP1	2.19	0.42
26:1H:1482:U:O4	26:1H:1510:A:H8	2.02	0.42
26:1H:1693:U:C4	26:1H:1977:A:C4	3.08	0.42
26:1H:1884:A:H2'	26:1H:1885:A:O4'	2.19	0.42
26:1H:2039:C:H2'	26:1H:2040:C:H6	1.85	0.42
26:1H:2128:C:OP1	28:71:37:PHE:HB3	2.20	0.42
26:1H:2168:G:OP1	26:1H:2168:G:H4'	2.19	0.42
26:1H:2287:A:C2	26:1H:2346:A:H2	2.35	0.42
26:1H:2679:A:H61	26:1H:2728:U:H3	1.68	0.42
26:1H:447:A:C6	26:1H:454:A:C8	3.08	0.42
26:1H:588:U:O4	26:1H:670:A:H1'	2.19	0.42
30:29:12:THR:O	30:29:23:VAL:HG22	2.20	0.42
30:29:39:PRO:HA	30:29:43:GLY:HA2	2.00	0.42
3:2E:11:ARG:HB3	3:2E:14:ILE:O	2.19	0.42
4:32:110:PHE:HZ	4:32:183:GLY:H	1.68	0.42
31:39:161:GLU:HA	31:39:164:ARG:NH1	2.35	0.42
24:3K:25:C:C4	24:3K:26:A:C8	3.08	0.42
24:3K:64:G:C2'	24:3K:65:C:H5'	2.43	0.42
5:42:52:PRO:O	5:42:56:GLN:HB2	2.20	0.42
38:45:34:LEU:HB2	38:45:118:LEU:HD13	2.01	0.42
33:51:3:ARG:NH2	33:51:6:ARG:HH22	2.18	0.42
39:55:55:ALA:HB2	39:55:79:LEU:CD1	2.49	0.42
33:59:4:ILE:CG2	33:59:5:GLY:H	2.20	0.42
14:5I:3:ARG:HG2	14:5I:7:ILE:HD11	2.02	0.42
34:61:110:ASP:OD1	34:61:111:PRO:HA	2.19	0.42
34:61:131:LYS:HB3	34:61:132:PRO:CA	2.48	0.42
7:62:16:LEU:HD21	9:82:45:ALA:HB2	2.02	0.42
7:62:94:ARG:HE	7:62:94:ARG:H	1.67	0.42
28:71:10:LEU:HD11	28:71:34:THR:CG2	2.49	0.42
8:72:35:ILE:O	8:72:39:LEU:HD13	2.20	0.42
41:75:107:ASP:OD1	41:75:107:ASP:N	2.53	0.42
26:14:2875:C:O2'	41:75:5:ALA:HB3	2.20	0.42
37:78:101:VAL:CG1	37:78:106:LEU:HD12	2.48	0.42
37:78:135:LEU:HD23	37:78:135:LEU:HA	1.76	0.42
9:82:112:LYS:HZ3	9:82:118:LYS:H	1.68	0.42
38:88:66:ILE:CG1	38:88:67:ARG:H	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:91:ASP:N	9:8E:91:ASP:OD1	2.52	0.42
39:98:42:LYS:O	39:98:45:ARG:HD3	2.20	0.42
46:C5:48:ALA:HB3	46:C5:59:GLY:CA	2.48	0.42
47:D5:44:PHE:CE1	47:D5:48:PHE:HB2	2.54	0.42
26:14:2355:C:H5'	48:E5:36:ILE:HD11	2.01	0.42
47:H8:109:ALA:HB3	47:H8:142:SER:O	2.20	0.42
50:K8:28:LYS:HA	50:K8:31:GLU:HG3	2.01	0.42
51:L8:5:LYS:HG2	51:L8:57:GLU:OE1	2.20	0.42
52:M8:15:ILE:HD11	52:M8:32:TYR:CZ	2.54	0.42
54:P8:28:ARG:O	54:P8:32:LYS:HG3	2.20	0.42
29:11:39:LYS:HB2	29:11:39:LYS:HE3	1.83	0.41
29:11:26:LYS:HB2	29:11:83:GLU:HB3	2.02	0.41
2:12:11:LEU:HD23	2:12:217:ARG:CZ	2.50	0.41
1:13:1006:C:H2'	1:13:1007:C:O4'	2.19	0.41
1:13:1152:A:H5'	10:1I:13:HIS:CG	2.54	0.41
1:13:1352:C:H2'	1:13:1353:G:H8	1.84	0.41
1:13:158:G:H2'	1:13:159:G:C8	2.49	0.41
1:13:451:A:H61	1:13:481:G:H5'	1.85	0.41
26:14:1333:C:H2'	26:14:1334:G:C8	2.55	0.41
26:14:1570:A:O5'	26:14:1570:A:H8	2.03	0.41
26:14:224:G:N7	26:14:420:C:H4'	2.35	0.41
26:14:2562:U:H4'	36:25:25:LEU:HD21	2.02	0.41
26:14:2789:C:H42	26:14:2894:G:H1	1.67	0.41
26:14:580:C:C2	26:14:581:C:C5	3.08	0.41
26:14:90:U:H1'	26:14:91:A:H8	1.82	0.41
1:1G:1222:G:O2'	1:1G:1223:C:H5'	2.20	0.41
1:1G:1238:A:H2	1:1G:1241:G:N3	2.18	0.41
1:1G:1261:A:H61	1:1G:1274:G:H1'	1.84	0.41
1:1G:1524:C:OP1	11:2A:120:ARG:NH1	2.51	0.41
1:1G:156:G:H2'	1:1G:157:G:C8	2.55	0.41
1:1G:406:G:H1	1:1G:436:C:H42	1.68	0.41
1:1G:652:U:C4	1:1G:752:G:N3	2.88	0.41
1:1G:833:U:H2'	1:1G:834:C:H6	1.85	0.41
1:1G:865:A:H5'	1:1G:1078:U:C5	2.55	0.41
26:1H:1021:A:H8	26:1H:1022:G:H5''	1.84	0.41
26:1H:140:A:C8	26:1H:1408:C:O2'	2.71	0.41
26:1H:1551:C:C2	26:1H:1552:G:C8	3.08	0.41
26:1H:1686:C:H2'	26:1H:1687:G:O4'	2.20	0.41
26:1H:2175:C:H1'	28:71:217:THR:O	2.20	0.41
26:1H:2309:A:H8	26:1H:2309:A:H3'	1.85	0.41
26:1H:2393:A:H2'	26:1H:2394:C:H6	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:397:G:H1'	26:1H:2231:C:O2'	2.20	0.41
26:1H:639:U:O2'	26:1H:640:C:H5'	2.20	0.41
26:1H:82:G:O2'	26:1H:83:G:H5'	2.20	0.41
26:1H:988:A:H8	26:1H:988:A:O5'	2.03	0.41
26:1H:996:A:H4'	42:C8:92:ARG:NE	2.35	0.41
27:1J:52:A:H62	40:65:33:LYS:HG3	1.85	0.41
27:1J:74:U:H2'	27:1J:75:G:O4'	2.20	0.41
30:21:20:ALA:O	30:21:21:VAL:HG22	2.20	0.41
11:2A:100:ALA:C	11:2A:102:GLY:N	2.74	0.41
11:2A:48:ILE:HD11	11:2A:64:ALA:HA	2.02	0.41
11:2A:59:TYR:O	11:2A:63:LEU:HD12	2.20	0.41
31:31:164:ARG:O	31:31:167:ALA:N	2.53	0.41
31:31:32:LEU:HD21	31:31:105:VAL:HG13	2.00	0.41
4:32:22:LYS:HD2	59:32:301:SF4:S3	2.59	0.41
31:39:102:PRO:HB2	31:39:105:VAL:HG22	2.01	0.41
31:39:83:PHE:O	31:39:84:VAL:HB	2.19	0.41
12:3I:90:VAL:HB	12:3I:96:VAL:HG13	2.01	0.41
13:4A:92:HIS:CD2	13:4A:98:VAL:HG21	2.55	0.41
40:65:94:TYR:CE1	40:65:99:LYS:HG3	2.55	0.41
7:6E:151:TYR:HA	7:6E:153:HIS:CE1	2.55	0.41
1:13:653:A:C8	8:7E:56:LYS:HD3	2.55	0.41
38:88:59:ARG:NH1	38:88:113:GLN:HE21	2.18	0.41
38:88:42:ILE:HD12	38:88:97:VAL:HB	2.01	0.41
38:88:39:PRO:HA	38:88:97:VAL:O	2.19	0.41
19:AA:9:VAL:HG22	19:AA:10:PHE:H	1.85	0.41
19:AI:64:GLU:O	19:AI:67:VAL:HG23	2.19	0.41
45:B5:12:VAL:HG12	45:B5:29:TRP:CD1	2.55	0.41
45:B5:64:LYS:HE2	45:B5:73:ARG:NH2	2.35	0.41
46:C5:47:LYS:HA	46:C5:60:PHE:CE2	2.55	0.41
46:C5:87:LYS:NZ	46:C5:89:PHE:HB3	2.35	0.41
48:E5:49:LYS:O	48:E5:50:ASN:HB2	2.20	0.41
26:14:858:U:P	48:E5:77:ARG:HH22	2.43	0.41
50:G5:50:ILE:CD1	50:G5:51:ARG:N	2.81	0.41
47:H8:99:TYR:HE1	47:H8:125:LEU:HB2	1.85	0.41
47:H8:156:LYS:HG2	47:H8:158:PRO:HD3	2.01	0.41
51:L8:31:LEU:O	51:L8:32:GLN:HB2	2.20	0.41
55:M5:34:TRP:HA	55:M5:34:TRP:HE3	1.84	0.41
37:35:49:ARG:CZ	55:M5:61:LEU:HD12	2.51	0.41
29:11:210:GLY:O	29:11:213:ARG:N	2.52	0.41
1:13:1129:C:H4'	1:13:1130:A:C8	2.55	0.41
1:13:1286:A:C2	21:1F:18:TYR:OH	2.72	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:443:C:H42	1:13:491:G:H1	1.67	0.41
1:13:456:C:N4	1:13:476:G:H22	2.16	0.41
1:13:506:G:H2'	1:13:507:C:O4'	2.20	0.41
1:13:5:U:H3	4:3E:85:LYS:CE	2.28	0.41
26:14:1733:G:C5	26:14:1734:C:C4	3.08	0.41
26:14:2175:C:H5'	28:79:7:TYR:CE1	2.55	0.41
26:14:2305:A:H2'	26:14:2306:C:O4'	2.20	0.41
26:14:2776:A:H4'	26:14:2777:G:C5'	2.51	0.41
26:14:96:G:H4'	50:G5:48:HIS:NE2	2.35	0.41
26:14:998:C:H42	26:14:1157:G:H1	1.68	0.41
29:19:25:THR:HB	29:19:26:LYS:H	1.68	0.41
1:1G:123:C:H2'	1:1G:124:G:C8	2.56	0.41
1:1G:401:C:H2'	1:1G:402:G:C8	2.55	0.41
1:1G:406:G:N3	1:1G:407:G:C8	2.88	0.41
26:1H:1170:G:H2'	26:1H:1171:G:H5'	2.02	0.41
26:1H:1260:G:C6	26:1H:1261:C:C4	3.08	0.41
26:1H:1464:C:HO2'	26:1H:1528:A:H8	1.65	0.41
26:1H:181:A:H2'	26:1H:182:A:C8	2.55	0.41
26:1H:1835:G:N3	26:1H:1835:G:H2'	2.35	0.41
26:1H:1660:C:N4	26:1H:2000:G:H1	2.16	0.41
26:1H:254:G:O2'	26:1H:384:U:H5'	2.20	0.41
26:1H:470:A:H2'	26:1H:471:A:H8	1.83	0.41
26:1H:806:C:C2	26:1H:807:U:C5	3.09	0.41
27:1J:73:A:OP2	61:1J:301:HOH:O	2.21	0.41
3:22:88:ARG:O	3:22:91:LEU:HD13	2.20	0.41
36:25:17:ARG:HD3	36:25:17:ARG:HA	1.90	0.41
30:29:108:SER:OG	30:29:163:GLU:HG2	2.20	0.41
11:2A:29:ILE:CG2	11:2A:44:SER:HB2	2.50	0.41
31:31:164:ARG:HG3	31:31:175:THR:HB	2.02	0.41
37:35:113:LYS:HD3	37:35:115:LEU:HD21	2.02	0.41
37:35:52:GLU:O	37:35:54:GLY:N	2.52	0.41
26:14:675:A:H4'	31:39:67:GLN:OE1	2.19	0.41
32:41:97:ASP:N	32:41:100:TRP:HD1	2.15	0.41
38:45:54:MET:O	38:45:57:HIS:N	2.47	0.41
32:49:35:GLU:HG2	32:49:36:LYS:HB2	2.00	0.41
13:4I:56:LEU:HD13	13:4I:56:LEU:HA	1.92	0.41
33:59:143:GLN:C	33:59:145:ALA:N	2.73	0.41
26:14:1036:G:H5''	33:59:58:GLU:HG2	2.02	0.41
41:75:99:LEU:HD23	41:75:99:LEU:HA	1.73	0.41
37:78:95:VAL:HG21	37:78:123:LEU:HD13	2.02	0.41
16:7A:68:ASP:O	16:7A:71:ARG:HB3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:88:36:ALA:HB2	38:88:103:MET:CE	2.50	0.41
17:8I:29:HIS:N	17:8I:34:LYS:O	2.50	0.41
43:95:21:ARG:HH22	43:95:65:GLY:CA	2.33	0.41
39:98:18:LEU:HD23	39:98:18:LEU:HA	1.60	0.41
18:9I:84:LYS:HE2	18:9I:84:LYS:HB3	1.74	0.41
40:A8:105:ALA:O	40:A8:109:GLY:HA3	2.20	0.41
45:B5:44:GLU:O	45:B5:48:LYS:N	2.53	0.41
45:B5:27:THR:HA	45:B5:79:ALA:O	2.20	0.41
20:BA:62:LEU:HD23	20:BA:62:LEU:HA	1.76	0.41
46:C5:29:GLU:CD	46:C5:30:VAL:H	2.23	0.41
26:1H:2615:U:C2	53:N8:7:PRO:HA	2.55	0.41
29:11:103:ARG:HD3	29:11:103:ARG:HH11	1.67	0.41
2:12:121:LEU:O	2:12:121:LEU:HD23	2.21	0.41
2:12:219:VAL:HG22	2:12:221:LEU:N	2.20	0.41
1:13:113:G:H2'	1:13:114:U:H6	1.85	0.41
1:13:176:C:OP1	20:BI:29:LYS:NZ	2.51	0.41
1:13:22:G:C6	1:13:23:C:C4	3.08	0.41
1:13:22:G:C5	1:13:23:C:C4	3.08	0.41
1:13:986:A:H2'	1:13:987:G:O4'	2.21	0.41
26:14:1379:A:H4'	26:14:1380:G:OP2	2.18	0.41
26:14:1445:C:H2'	26:14:1446:C:C6	2.54	0.41
26:14:2152:G:N3	26:14:2152:G:H2'	2.36	0.41
26:14:2166:G:O2'	26:14:2168:G:OP2	2.29	0.41
26:14:2516:G:C5	26:14:2517:C:C4	3.07	0.41
26:14:1782:C:O4'	26:14:2609:U:C2	2.74	0.41
35:15:96:GLU:O	35:15:100:GLU:HG3	2.19	0.41
21:1B:6:ARG:HD3	21:1B:6:ARG:N	2.34	0.41
1:13:1329:A:N7	21:1F:7:ARG:NH2	2.68	0.41
1:1G:129(A):G:C6	1:1G:188:U:H4'	2.55	0.41
1:1G:373:A:N3	1:1G:374:A:C8	2.88	0.41
1:1G:487:A:H2'	1:1G:488:C:O4'	2.20	0.41
1:1G:570:G:H1'	1:1G:820:U:C4	2.55	0.41
1:1G:953:G:H2'	1:1G:954:G:O4'	2.20	0.41
26:1H:1131:G:O6	26:1H:2040:C:H1'	2.20	0.41
26:1H:1570:A:H5'	29:11:37:LEU:CD2	2.51	0.41
26:1H:2127:G:C4	26:1H:2162:G:H1'	2.56	0.41
26:1H:2301:C:H2'	26:1H:2302:G:C8	2.52	0.41
26:1H:2367:G:H2'	26:1H:2368:C:H6	1.85	0.41
26:1H:250:G:C6	26:1H:251:A:C6	3.08	0.41
26:1H:2711:A:H5''	26:1H:2712:U:H5''	2.02	0.41
26:1H:2688:U:C5	26:1H:2720:U:OP2	2.71	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2845:G:OP2	61:1H:3703:HOH:O	2.21	0.41
26:1H:280:C:N3	26:1H:361:G:N2	2.68	0.41
26:1H:724:U:H2'	26:1H:725:G:O4'	2.19	0.41
26:1H:832:G:H5'	37:78:45:LEU:HD11	2.02	0.41
27:1J:52:A:O2'	27:1J:53:A:N7	2.48	0.41
22:1L:18:G:H4'	22:1L:19:G:OP1	2.20	0.41
30:21:179:GLU:O	30:21:180:ASN:HB2	2.20	0.41
30:29:64:LYS:C	30:29:66:HIS:N	2.73	0.41
30:29:67:PHE:CE1	30:29:69:LYS:HD3	2.55	0.41
37:35:50:ARG:NH1	55:M5:61:LEU:HD11	2.34	0.41
31:39:32:LEU:O	31:39:32:LEU:HD23	2.21	0.41
12:3I:8:ASN:O	12:3I:12:ARG:HG3	2.20	0.41
12:3I:41:ARG:HB2	12:3I:41:ARG:HE	1.69	0.41
38:45:110:THR:HG22	38:45:113:GLN:OE1	2.19	0.41
13:4A:83:ASP:N	13:4A:83:ASP:OD1	2.52	0.41
13:4I:66:LEU:HA	13:4I:66:LEU:HD23	1.83	0.41
6:52:33:TYR:CE2	6:52:74:ASP:HB2	2.55	0.41
33:59:152:ARG:H	33:59:162:ILE:HD12	1.86	0.41
36:68:102:VAL:HB	36:68:106:LEU:HD12	2.02	0.41
36:68:117:LEU:HA	36:68:117:LEU:HD23	1.69	0.41
34:69:128:LEU:HA	34:69:128:LEU:HD13	1.92	0.41
34:69:97:ILE:O	34:69:100:ALA:HB3	2.21	0.41
28:71:58:VAL:N	28:71:165:ASN:OD1	2.48	0.41
28:71:13:LYS:NZ	28:71:31:GLU:O	2.47	0.41
8:72:105:ARG:HA	8:72:105:ARG:HD3	1.91	0.41
28:79:53:ARG:HG3	28:79:55:ASP:OD1	2.20	0.41
16:7A:14:ASN:OD1	16:7A:42:ARG:NH2	2.53	0.41
8:7E:75:ARG:HE	8:7E:75:ARG:HB2	1.68	0.41
1:13:280:C:C2	17:8I:38:ARG:HG3	2.54	0.41
17:8I:76:LEU:HD11	17:8I:79:SER:CB	2.45	0.41
43:95:94:LEU:HA	43:95:94:LEU:HD23	1.82	0.41
6:5E:89:MET:SD	18:9I:76:LEU:HD21	2.60	0.41
41:B8:102:ILE:HB	41:B8:110:ILE:HD12	2.02	0.41
41:B8:114:LEU:HD23	41:B8:114:LEU:HA	1.64	0.41
41:B8:88:ILE:HD13	41:B8:91:ARG:NH2	2.34	0.41
20:BI:12:ALA:O	20:BI:15:ARG:HB2	2.20	0.41
43:D8:77:ALA:C	43:D8:79:VAL:H	2.22	0.41
46:G8:34:LYS:HG2	46:G8:34:LYS:O	2.21	0.41
46:G8:81:LYS:HD2	46:G8:99:CYS:SG	2.60	0.41
47:H8:93:ASP:O	47:H8:94:GLU:HG2	2.20	0.41
53:J5:16:ARG:HG2	53:J5:17:ASP:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:J8:85:LEU:HA	49:J8:85:LEU:HD13	1.72	0.41
54:P8:24:THR:HG23	54:P8:27:GLY:CA	2.49	0.41
29:11:181:GLU:HA	29:11:273:ARG:HA	2.01	0.41
1:13:1349:A:H2'	1:13:1350:A:H8	1.85	0.41
1:13:209:U:H4'	1:13:216:G:N2	2.36	0.41
1:13:741:G:H2'	1:13:742:G:O4'	2.20	0.41
26:14:1071:G:C6	26:14:1072:C:N4	2.87	0.41
26:14:1287:A:C5	26:14:1288:U:C4	3.08	0.41
26:14:1416:G:H1	26:14:1582:C:N4	2.10	0.41
26:14:1639:U:C2'	26:14:1640:C:H5''	2.50	0.41
26:14:2092:U:H5	26:14:2226:C:OP2	2.03	0.41
26:14:2197:U:C5	26:14:2224:G:C6	3.08	0.41
26:14:2471:C:H2'	26:14:2472:G:H8	1.85	0.41
26:14:2472:G:C4	26:14:2475:C:N4	2.87	0.41
26:14:2651:C:C2'	26:14:2652:C:H5'	2.50	0.41
26:14:270(P):C:H2'	26:14:270(Q):C:O4'	2.20	0.41
26:14:275:G:N2	26:14:276:A:H62	2.19	0.41
26:14:519:U:H2'	26:14:520:G:C8	2.55	0.41
26:14:866:A:H5''	26:14:867:C:OP2	2.20	0.41
26:14:948:G:C2	26:14:970:C:O2	2.74	0.41
26:14:971:C:H2'	26:14:972:G:O4'	2.20	0.41
26:14:2641:G:P	35:15:74:ARG:HH21	2.43	0.41
29:19:232:PRO:HB3	29:19:244:ARG:NH2	2.36	0.41
1:1G:1015:A:C6	1:1G:1016:A:C6	3.09	0.41
1:1G:1233:G:H2'	1:1G:1234:C:C6	2.56	0.41
1:1G:1252:A:H2	1:1G:1355:G:H1'	1.86	0.41
1:1G:1336:C:H1'	1:1G:1337:G:C6	2.56	0.41
1:1G:318:G:H1	1:1G:335:C:H42	1.69	0.41
1:1G:575:G:H4'	1:1G:575:G:OP1	2.20	0.41
1:1G:667:G:H2'	1:1G:668:G:H8	1.84	0.41
1:1G:688:G:H2'	1:1G:689:C:C6	2.54	0.41
26:1H:1025:G:C4	26:1H:1135:C:H1'	2.54	0.41
26:1H:1411:C:O5'	26:1H:1411:C:H6	2.03	0.41
26:1H:152:G:H2'	26:1H:153:C:C6	2.55	0.41
26:1H:1727:U:C4	26:1H:1728:G:C5	3.08	0.41
26:1H:2039:C:H2'	26:1H:2040:C:C6	2.55	0.41
26:1H:2166:G:H2'	26:1H:2168:G:OP2	2.20	0.41
26:1H:2169:A:OP1	26:1H:2171:A:N6	2.53	0.41
26:1H:2292:C:N4	26:1H:2340:G:H1	2.19	0.41
26:1H:270(Q):C:O2'	34:61:42:SER:HB3	2.20	0.41
26:1H:2747:G:O6	26:1H:2755:C:H5''	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:311:A:C2	26:1H:331:A:H5''	2.53	0.41
26:1H:432:A:C2'	26:1H:433:C:H5'	2.50	0.41
26:1H:729:G:C2	26:1H:1775:U:C2	3.08	0.41
26:1H:777:A:H2'	26:1H:778:G:C8	2.55	0.41
26:1H:901:A:N3	26:1H:901:A:H2'	2.35	0.41
10:1I:57:LYS:HD2	10:1I:60:ARG:NH2	2.35	0.41
27:1J:66:A:C2	27:1J:108:C:C4	3.09	0.41
27:1J:3:C:H2'	27:1J:4:C:C6	2.55	0.41
31:31:32:LEU:O	31:31:36:VAL:HG23	2.21	0.41
26:14:2406:U:C2	37:35:75:ILE:HD13	2.55	0.41
31:39:123:LEU:O	31:39:193:VAL:HA	2.19	0.41
12:3I:83:VAL:HG11	12:3I:100:ILE:HD13	2.02	0.41
24:3K:41:A:H2'	24:3K:42:A:C8	2.54	0.41
56:3L:30:G:C5	56:3L:31:A:N7	2.88	0.41
56:3L:52:G:N9	56:3L:53:G:H8	2.18	0.41
32:49:83:ARG:H	32:49:86:MET:CE	2.32	0.41
13:4A:39:ILE:HG22	13:4A:40:ASN:N	2.35	0.41
5:4E:83:GLU:OE2	61:4E:201:HOH:O	2.22	0.41
33:51:153:LYS:HB2	33:51:155:SER:N	2.28	0.41
33:51:167:GLU:N	33:51:167:GLU:CD	2.73	0.41
6:52:23:LYS:O	6:52:27:GLN:NE2	2.53	0.41
35:58:95:PRO:O	35:58:97:ARG:HB2	2.20	0.41
33:59:54:ARG:HG2	33:59:65:HIS:ND1	2.35	0.41
34:61:112:LYS:O	34:61:113:ARG:HG3	2.21	0.41
7:62:93:PRO:HA	7:62:96:GLN:HB2	2.01	0.41
26:1H:2561:A:C2	36:68:23:ARG:NH1	2.88	0.41
34:69:141:LYS:HZ3	34:69:141:LYS:HB2	1.85	0.41
7:6E:126:ASP:O	7:6E:132:GLY:N	2.52	0.41
28:71:179:SER:O	28:71:181:PRO:HD3	2.20	0.41
41:75:45:PHE:CZ	41:75:65:LYS:HG2	2.55	0.41
41:75:54:ARG:HG3	41:75:59:THR:CG2	2.50	0.41
16:7A:8:ARG:HD3	16:7A:17:TYR:CE1	2.56	0.41
1:13:640:A:O2'	8:7E:115:SER:HB2	2.21	0.41
42:85:92:ARG:CG	42:85:94:ASN:HB3	2.49	0.41
38:88:118:LEU:HD23	38:88:118:LEU:HA	1.79	0.41
17:8I:5:VAL:HG22	17:8I:60:ILE:HG13	2.02	0.41
43:95:46:VAL:CG2	43:95:52:VAL:HG11	2.44	0.41
39:98:8:ARG:HH11	39:98:39:PRO:HB3	1.84	0.41
39:98:87:TYR:HD1	39:98:90:ARG:HD2	1.85	0.41
20:BI:33:ILE:O	20:BI:37:SER:OG	2.32	0.41
20:BI:35:THR:O	20:BI:38:LYS:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D5:52:SER:C	47:D5:54:HIS:H	2.24	0.41
50:G5:24:LEU:O	50:G5:28:LYS:HG2	2.21	0.41
46:G8:96:ILE:HD12	46:G8:101:LYS:CE	2.50	0.41
29:11:206:LEU:HD13	29:11:211:ARG:CD	2.37	0.41
29:11:37:LEU:HD23	29:11:37:LEU:H	1.83	0.41
1:13:455:C:H6	1:13:455:C:O5'	2.03	0.41
1:13:611:A:H61	1:13:629:G:H1	1.69	0.41
1:13:970:C:H42	9:8E:128:ARG:C	2.24	0.41
26:14:2259:G:C2	26:14:2282:G:N1	2.89	0.41
26:14:441:U:H2'	26:14:442:G:H8	1.85	0.41
26:14:28:A:C2	26:14:513:A:C8	3.08	0.41
1:1G:1002:G:H1	1:1G:1038:C:H42	1.67	0.41
1:1G:1104:G:C6	1:1G:1105:A:C5	3.08	0.41
1:1G:594:G:H1	1:1G:645:C:H42	1.68	0.41
26:1H:1019:U:OP1	26:1H:1035:U:O2'	2.32	0.41
26:1H:1347:G:O2'	26:1H:1348:G:H5'	2.21	0.41
26:1H:137(A):G:H2'	26:1H:139:G:N7	2.35	0.41
26:1H:2110:G:O2'	26:1H:2120:G:H5'	2.20	0.41
26:1H:2543:G:H2'	26:1H:2544:G:O4'	2.21	0.41
27:1J:52:A:N6	40:65:33:LYS:HG3	2.36	0.41
22:1K:9:A:H4'	22:1K:10:G:OP2	2.19	0.41
22:1K:49:G:H5'	22:1K:59:A:H5'	2.02	0.41
30:21:54:GLN:HG2	30:21:55:ASN:H	1.85	0.41
11:2A:67:ASP:O	11:2A:71:LYS:HG3	2.20	0.41
11:2I:124:LYS:HD2	11:2I:125:PHE:CE1	2.47	0.41
37:35:124:LYS:HA	37:35:143:GLY:O	2.19	0.41
37:35:78:PRO:HA	37:35:110:TYR:CE2	2.56	0.41
31:39:158:THR:HG23	31:39:164:ARG:HG3	2.01	0.41
31:39:184:TYR:CE2	31:39:188:ARG:HD3	2.56	0.41
12:3A:100:ILE:CG2	12:3A:101:VAL:H	2.34	0.41
12:3A:11:VAL:HG22	17:8A:29:HIS:CD2	2.56	0.41
12:3A:44:THR:HG22	12:3A:52:LEU:HD23	2.02	0.41
12:3A:46:LYS:HE3	12:3A:47:LYS:HD3	2.02	0.41
13:4A:78:ILE:HD13	13:4A:92:HIS:CE1	2.55	0.41
5:4E:10:MET:HB2	5:4E:32:VAL:HG22	2.01	0.41
13:4I:96:LEU:HB3	13:4I:97:PRO:CD	2.50	0.41
39:55:48:VAL:HA	39:55:51:LEU:HB2	2.03	0.41
33:59:54:ARG:HA	33:59:55:PRO:HD3	1.92	0.41
14:5A:22:THR:HB	14:5A:33:VAL:HG21	2.02	0.41
34:61:130:TYR:C	34:61:131:LYS:HD2	2.41	0.41
40:65:99:LYS:O	40:65:103:GLU:HG3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:76:THR:HG23	34:69:77:LEU:N	2.36	0.41
7:6E:72:ARG:O	7:6E:73:MET:HE2	2.20	0.41
7:6E:5:ARG:HG3	7:6E:7:ALA:N	2.35	0.41
15:6I:43:LEU:HD12	15:6I:56:LEU:HD13	2.02	0.41
5:42:93:PRO:HG3	8:72:105:ARG:HG3	2.02	0.41
8:72:97:VAL:HG22	8:72:129:VAL:C	2.41	0.41
28:79:48:GLY:HA2	28:79:210:ARG:NH2	2.35	0.41
28:79:52:ARG:N	28:79:52:ARG:HD2	2.35	0.41
8:7E:104:ARG:HB2	8:7E:107:LEU:HB3	2.01	0.41
16:7I:31:LYS:HG2	16:7I:32:TYR:N	2.35	0.41
16:7I:72:ARG:HA	16:7I:75:ARG:HB2	2.01	0.41
42:85:27:LEU:HA	42:85:27:LEU:HD23	1.74	0.41
38:88:11:LYS:NZ	38:88:88:GLY:O	2.45	0.41
17:8A:45:HIS:CG	17:8A:65:ILE:HD13	2.55	0.41
9:8E:99:LEU:HB3	9:8E:101:PHE:CD2	2.55	0.41
26:1H:2820:A:O5'	39:98:4:LEU:HD23	2.19	0.41
19:AI:22:LEU:HD12	19:AI:22:LEU:HA	1.75	0.41
42:C8:72:HIS:ND1	42:C8:110:VAL:HG21	2.35	0.41
38:45:137:TYR:CE2	47:D5:83:PRO:HG3	2.55	0.41
45:F8:37:THR:O	45:F8:40:LYS:HB3	2.19	0.41
54:L5:33:ARG:HH11	54:L5:33:ARG:HD2	1.68	0.41
55:Q8:52:LYS:HB3	55:Q8:53:PRO:CD	2.51	0.41
26:1H:728:G:H4'	29:11:13:ARG:HD3	2.03	0.41
29:11:16:MET:HG3	29:11:211:ARG:HH12	1.86	0.41
29:11:234:GLY:N	61:11:401:HOH:O	2.52	0.41
29:11:32:SER:CA	29:11:35:LYS:HZ1	2.32	0.41
2:12:127:ILE:HG23	2:12:135:GLN:HE22	1.84	0.41
2:12:189:ASP:N	2:12:189:ASP:OD1	2.53	0.41
1:13:1338:G:C6	1:13:1339:A:C6	3.08	0.41
1:13:1442:G:H1	1:13:1461:G:H21	1.68	0.41
1:13:46:G:O2'	1:13:365:U:H1'	2.20	0.41
1:13:491:G:H2'	1:13:492:G:O4'	2.21	0.41
1:13:556:C:H2'	1:13:557:G:H8	1.86	0.41
1:13:718:G:C8	11:2I:116:HIS:HB3	2.55	0.41
26:14:1142(A):A:N7	26:14:1144:G:C5	2.88	0.41
26:14:1439:A:H2'	26:14:1440:G:O4'	2.21	0.41
26:14:2156:G:C8	26:14:2157:G:N3	2.89	0.41
26:14:2400:G:H2'	26:14:2401:U:C6	2.56	0.41
26:14:957:A:C6	26:14:2459:A:C8	3.08	0.41
26:14:2492:U:H2'	26:14:2493:U:H6	1.85	0.41
26:14:26:G:C6	26:14:27:G:N1	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2767:C:H2'	26:14:2768:C:C6	2.56	0.41
26:14:2822:G:O5'	26:14:2822:G:H8	2.03	0.41
26:14:282:A:C6	26:14:284:U:C2	3.09	0.41
26:14:27:G:O2'	26:14:28:A:OP2	2.32	0.41
26:14:34:C:O2'	26:14:35:G:C8	2.56	0.41
26:14:492:A:H2'	26:14:493:G:O4'	2.20	0.41
26:14:691:C:H4'	29:19:43:ARG:NH2	2.33	0.41
29:19:30:GLU:CD	29:19:63:ARG:HE	2.23	0.41
10:1A:33:GLN:HB3	10:1A:75:ILE:HG12	2.03	0.41
1:1G:1256:A:H4'	1:1G:1257:U:OP1	2.21	0.41
1:1G:1329:A:OP1	13:4A:28:ALA:HB3	2.20	0.41
1:1G:1349:A:P	9:82:118:LYS:NZ	2.94	0.41
1:1G:397:A:N3	1:1G:397:A:H3'	2.35	0.41
1:1G:865:A:H2'	1:1G:866:C:C6	2.56	0.41
1:1G:918:A:H2'	1:1G:919:A:O4'	2.21	0.41
1:1G:980:C:H3'	1:1G:981:U:H6	1.84	0.41
26:1H:1001:A:C8	26:1H:1002:G:C8	3.09	0.41
26:1H:1169:G:N1	26:1H:1170:G:C6	2.89	0.41
26:1H:1764:G:C6	26:1H:1989:G:C2	3.09	0.41
26:1H:2133:G:H2'	26:1H:2157:G:N2	2.34	0.41
26:1H:2184:G:C2	26:1H:2185:C:C2	3.08	0.41
26:1H:2310:A:C2	32:41:80:PHE:HZ	2.38	0.41
26:1H:2339:G:H2'	26:1H:2340:G:C8	2.55	0.41
26:1H:2837:G:C6	26:1H:2838:G:N7	2.89	0.41
26:1H:511:U:C5	26:1H:512:G:C5	3.08	0.41
26:1H:78:A:C2	26:1H:109:G:C2	3.09	0.41
30:21:52:LEU:HD22	30:21:52:LEU:HA	1.81	0.41
36:25:35:VAL:HG11	36:25:103:ALA:CB	2.50	0.41
30:29:41:LYS:HG3	30:29:42:ASP:N	2.36	0.41
1:13:676:A:H1'	11:2I:115:PRO:HB3	2.03	0.41
23:2K:17:C:H5'	23:2K:62:C:OP1	2.21	0.41
37:35:121:LYS:HD3	37:35:121:LYS:HA	1.91	0.41
37:35:39:LYS:HB2	37:35:45:LEU:HD11	2.03	0.41
31:39:123:LEU:HA	31:39:192:LEU:C	2.41	0.41
12:3I:6:THR:OG1	12:3I:9:GLN:HG3	2.20	0.41
56:3L:30:G:H3'	56:3L:31:A:H8	1.85	0.41
5:42:69:VAL:O	5:42:71:LEU:N	2.51	0.41
32:49:145:THR:C	32:49:147:ASP:H	2.23	0.41
32:49:49:ASP:HB3	32:49:52:ILE:HG22	2.01	0.41
14:5A:26:ARG:NH2	14:5A:46:GLU:OE2	2.53	0.41
1:1G:935:A:H61	7:62:3:ARG:HG2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:107:LEU:H	8:72:107:LEU:HD12	1.85	0.41
37:78:76:LYS:HD2	37:78:76:LYS:HA	1.76	0.41
8:7E:85:ARG:HG3	8:7E:86:ILE:O	2.21	0.41
8:7E:86:ILE:HG22	8:7E:87:SER:H	1.85	0.41
16:7I:71:ARG:O	16:7I:75:ARG:N	2.54	0.41
17:8I:67:LYS:O	17:8I:68:ARG:HB3	2.20	0.41
39:98:62:ALA:O	39:98:66:VAL:HG23	2.20	0.41
6:52:97:PHE:CD2	18:9A:31:LEU:HD21	2.49	0.41
40:A8:48:LEU:HD23	40:A8:82:ILE:HD11	2.00	0.41
40:A8:55:ALA:O	40:A8:57:LYS:HG3	2.20	0.41
19:AA:66:MET:HA	19:AA:67:VAL:C	2.40	0.41
20:BI:100:ILE:HG22	20:BI:101:GLY:N	2.36	0.41
42:C8:50:ARG:HG2	42:C8:53:ARG:NH2	2.35	0.41
47:D5:44:PHE:CZ	47:D5:86:VAL:HG21	2.55	0.41
47:H8:111:VAL:CG2	47:H8:146:ILE:HG13	2.47	0.41
52:M8:38:LYS:HG3	52:M8:44:THR:HB	2.03	0.41
29:11:69:ARG:HH21	29:11:130:ALA:N	2.19	0.41
29:11:145:VAL:HB	29:11:155:LEU:HB2	2.03	0.41
2:12:136:VAL:O	2:12:139:LYS:HG2	2.20	0.41
2:12:61:LEU:HD21	2:12:157:ARG:HH22	1.85	0.41
2:12:24:TRP:HD1	2:12:25:ASN:C	2.24	0.41
1:13:1145:C:H4'	1:13:1146:A:C8	2.52	0.41
1:13:1206:G:C6	1:13:1207:G:C5	3.08	0.41
1:13:1240:U:O2'	7:6E:38:LEU:HG	2.20	0.41
1:13:1305:G:H8	1:13:1305:G:OP2	2.04	0.41
1:13:937:A:N6	1:13:1345:U:O4	2.45	0.41
1:13:622:A:C8	1:13:623:C:C6	3.08	0.41
26:14:105:C:H2'	26:14:106:C:C6	2.56	0.41
26:14:818:G:C2	26:14:1190:G:O6	2.74	0.41
26:14:1260:G:C6	26:14:1261:C:C4	3.09	0.41
26:14:1933:G:H8	26:14:1933:G:O5'	2.04	0.41
26:14:1946:U:O2'	26:14:1947:C:H5'	2.21	0.41
26:14:491:G:H2'	26:14:492:A:H8	1.84	0.41
27:16:3:C:H42	27:16:117:G:H1	1.69	0.41
2:1E:54:THR:HG21	2:1E:201:ILE:HD11	2.01	0.41
1:1G:1127:G:N3	1:1G:1127:G:H2'	2.36	0.41
1:1G:630:G:C8	1:1G:631:G:C2	3.09	0.41
1:1G:836:G:C6	1:1G:851:G:C6	3.09	0.41
1:1G:900:A:H2'	1:1G:901:A:O4'	2.20	0.41
26:1H:1001:A:H2'	26:1H:1002:G:O4'	2.19	0.41
26:1H:1183:G:O2'	51:L8:29:ARG:NH1	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:330:A:H2	26:1H:1210:A:O2'	2.03	0.41
26:1H:1328:G:H2'	26:1H:1330:C:C4	2.56	0.41
26:1H:1331:A:O2'	26:1H:1332:G:C8	2.71	0.41
26:1H:1375:C:H2'	26:1H:1376:C:C6	2.48	0.41
26:1H:1378:A:OP1	54:P8:10:ARG:NH2	2.53	0.41
26:1H:1425:G:H2'	26:1H:1426:G:O4'	2.20	0.41
26:1H:1570:A:H2'	26:1H:1571:A:C8	2.55	0.41
26:1H:2231:C:OP1	49:J8:42:GLN:HA	2.21	0.41
26:1H:2472:G:H8	26:1H:2472:G:O5'	2.04	0.41
26:1H:300:A:H2'	26:1H:334:C:H1'	2.03	0.41
26:1H:53:A:H2'	26:1H:54:G:O4'	2.21	0.41
26:1H:71:A:H5"	26:1H:72:U:H3'	2.03	0.41
26:1H:730:C:H3'	61:1H:3615:HOH:O	2.21	0.41
22:1K:61:C:O2	22:1K:61:C:H2'	2.21	0.41
30:29:26:ILE:HG22	30:29:27:LEU:C	2.41	0.41
26:14:2786:U:H4'	30:29:63:LEU:O	2.21	0.41
30:29:68:ALA:C	30:29:70:ALA:N	2.74	0.41
3:2E:91:LEU:HD12	3:2E:101:LEU:HD12	2.02	0.41
3:2E:121:ALA:O	3:2E:125:GLU:HG3	2.21	0.41
31:39:29:ASN:HA	31:39:30:PRO:HD3	1.90	0.41
32:41:67:LYS:CD	32:41:67:LYS:H	2.33	0.41
32:49:15:VAL:HG13	32:49:175:LEU:CB	2.50	0.41
5:4E:139:LEU:HA	5:4E:142:LEU:HD12	2.01	0.41
7:6E:62:PHE:HD1	7:6E:124:LEU:HD21	1.86	0.41
37:78:68:GLN:HG2	55:Q8:12:LYS:CD	2.47	0.41
9:8E:92:TYR:HD1	9:8E:92:TYR:HA	1.77	0.41
44:A5:110:LYS:HZ2	44:A5:111:HIS:HB3	1.85	0.41
19:AA:11:VAL:HG22	19:AA:12:ASP:N	2.22	0.41
45:B5:55:ASN:O	45:B5:79:ALA:HA	2.19	0.41
46:G8:43:ASN:ND2	46:G8:65:ALA:HB3	2.36	0.41
26:1H:2261:C:C6	48:I8:16:SER:HB3	2.56	0.41
48:I8:51:VAL:HG21	48:I8:79:VAL:HG12	2.01	0.41
55:M5:22:VAL:HG12	55:M5:50:LEU:HG	2.02	0.41
52:M8:38:LYS:HG3	52:M8:44:THR:CB	2.50	0.41
1:13:1030:C:H2'	1:13:1031:G:C8	2.56	0.41
1:13:1369:C:H2'	1:13:1370:G:C8	2.56	0.41
1:13:167:G:C4	1:13:168:G:C8	3.09	0.41
1:13:186(C):G:C6	1:13:191(E):G:C2	3.08	0.41
1:13:953:G:C6	1:13:954:G:C4	3.09	0.41
26:14:1346:G:C5	26:14:1347:G:N7	2.89	0.41
26:14:1824:G:N3	29:19:254:THR:OG1	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1878:G:H2'	26:14:1879:C:C6	2.56	0.41
26:14:1859:A:N6	26:14:1883:G:O2'	2.54	0.41
26:14:2131:G:H5'	26:14:2158:A:N6	2.36	0.41
26:14:2187:G:C6	26:14:2188:C:C4	3.09	0.41
26:14:2298:A:H1'	26:14:2321:G:N2	2.35	0.41
26:14:515:A:H1'	26:14:581:C:H1'	2.02	0.41
27:16:13:A:N1	27:16:69:G:O2'	2.38	0.41
27:16:81:G:O6	27:16:95:U:O2	2.39	0.41
26:14:1901:A:OP2	29:19:255:LYS:HE2	2.21	0.41
2:1E:211:ILE:HG13	2:1E:211:ILE:H	1.67	0.41
1:1G:1138:G:O2'	1:1G:1139:G:H5'	2.21	0.41
1:1G:1147:C:O2'	9:82:16:ARG:HD3	2.20	0.41
1:1G:1274:G:H2'	1:1G:1275:A:H8	1.86	0.41
1:1G:1387:G:H2'	1:1G:1388:C:H6	1.86	0.41
1:1G:714:G:H2'	1:1G:715:A:C8	2.56	0.41
1:1G:750:G:C2	1:1G:751:U:C6	3.09	0.41
26:1H:1144:G:C6	26:1H:1145:C:C4	3.08	0.41
26:1H:1259:G:H2'	26:1H:1260:G:C8	2.55	0.41
26:1H:1462:C:H4'	26:1H:2703:C:O4'	2.21	0.41
26:1H:1468:C:H2'	26:1H:1469:A:C8	2.56	0.41
26:1H:2335:A:N7	26:1H:2337:G:C5	2.89	0.41
26:1H:2414:G:OP1	49:J8:25:LYS:NZ	2.35	0.41
26:1H:270(E):G:C5	26:1H:270(F):U:C4	3.09	0.41
26:1H:27:G:C4	26:1H:512:G:N2	2.88	0.41
26:1H:590:A:H2'	26:1H:591:C:O4'	2.20	0.41
26:1H:638:G:H2'	26:1H:639:U:C6	2.55	0.41
26:1H:90:U:O2	61:1H:3702:HOH:O	2.21	0.41
10:1I:39:PRO:HA	10:1I:70:ARG:HD3	2.02	0.41
10:1I:8:LEU:HD12	10:1I:20:ALA:HB2	2.03	0.41
22:1K:42:A:N3	22:1K:42:A:H2'	2.35	0.41
30:21:101:ARG:NH1	30:21:171:GLU:HB2	2.35	0.41
36:25:115:VAL:HG13	36:25:121:VAL:HG21	2.02	0.41
36:25:29:ASN:H	36:25:29:ASN:HD22	1.68	0.41
31:39:128:ALA:O	31:39:130:ALA:N	2.54	0.41
12:3A:109:GLY:HA3	12:3A:121:GLY:O	2.20	0.41
13:4I:30:ALA:O	13:4I:33:ALA:N	2.54	0.41
13:4I:3:ARG:HB2	13:4I:7:VAL:O	2.19	0.41
33:51:25:LYS:HE2	33:51:34:GLU:CD	2.41	0.41
6:52:4:TYR:HD1	6:52:92:LYS:HA	1.86	0.41
35:58:99:LEU:O	35:58:103:VAL:HG23	2.20	0.41
33:59:154:PRO:HB3	33:59:162:ILE:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:5I:3:ARG:HB3	14:5I:3:ARG:HE	1.69	0.41
34:69:62:LYS:HD3	34:69:133:HIS:HE2	1.83	0.41
41:75:14:TYR:HD1	41:75:14:TYR:N	2.19	0.41
41:75:14:TYR:CD1	41:75:14:TYR:N	2.88	0.41
1:13:590:C:OP1	8:7E:29:SER:HA	2.21	0.41
42:85:76:TYR:CZ	42:85:80:ILE:HD12	2.55	0.41
19:AA:9:VAL:HG13	19:AA:10:PHE:N	2.35	0.41
19:AI:19:VAL:HG11	19:AI:44:MET:HG2	2.02	0.41
20:BA:54:LYS:HA	20:BA:57:ARG:NH1	2.36	0.41
47:D5:137:ILE:HD12	47:D5:137:ILE:HA	1.98	0.41
44:E8:29:LEU:O	44:E8:29:LEU:HD12	2.21	0.41
50:G5:10:LEU:HD13	50:G5:59:ARG:HD2	2.02	0.41
26:14:72:U:H3	50:G5:62:THR:HG23	1.86	0.41
47:H8:95:PRO:CB	47:H8:127:LYS:HE2	2.51	0.41
55:Q8:22:VAL:HG21	55:Q8:55:ALA:HA	2.03	0.41
29:11:122:ASP:CG	29:11:123:ALA:H	2.24	0.41
29:11:119:ALA:HA	29:11:130:ALA:O	2.21	0.41
29:11:35:LYS:HE3	29:11:35:LYS:HB3	1.70	0.41
29:11:35:LYS:HB2	29:11:62:TYR:O	2.20	0.41
2:12:101:MET:HB2	2:12:102:LEU:HD12	2.02	0.41
1:13:1131:G:O2'	1:13:1132:C:H5'	2.21	0.41
1:13:1442:G:H2'	1:13:1443:G:H5'	2.02	0.41
1:13:147:G:H2'	1:13:148:G:C8	2.55	0.41
1:13:277:C:H5'	17:8I:68:ARG:NH1	2.36	0.41
1:13:67:C:H2'	1:13:68:G:C8	2.56	0.41
26:14:1016:G:H2'	26:14:1017:G:H8	1.86	0.41
26:14:1359:A:N7	26:14:1372:U:O4	2.54	0.41
26:14:1726:G:H2'	26:14:1727:U:O4'	2.20	0.41
26:14:1785:A:H4'	26:14:1982:C:O2'	2.21	0.41
26:14:1839:G:N3	26:14:1839:G:H2'	2.35	0.41
26:14:2130:U:H2'	26:14:2158:A:N1	2.35	0.41
26:14:2404:C:O3'	37:35:77:ARG:NH2	2.54	0.41
26:14:2516:G:C6	26:14:2517:C:C4	3.08	0.41
26:14:2563:U:O2	26:14:2565:A:H8	2.04	0.41
26:14:2614:A:OP1	61:14:3596:HOH:O	2.22	0.41
26:14:2850:A:H2'	26:14:2851:A:O4'	2.21	0.41
26:14:480:A:H2'	26:14:480:A:N3	2.36	0.41
30:29:151:TYR:HB2	35:15:79:PRO:HG3	2.02	0.41
29:19:210:GLY:O	29:19:213:ARG:N	2.54	0.41
2:1E:172:ILE:HG13	2:1E:172:ILE:H	1.65	0.41
2:1E:97:TRP:HH2	2:1E:176:GLU:CD	2.23	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1327:C:P	21:1F:12:LYS:HZ1	2.43	0.41
1:1G:1004:A:N6	1:1G:1024:G:HO2'	2.18	0.41
1:1G:1087:G:C6	1:1G:1099:G:C2	3.09	0.41
1:1G:162:A:O5'	1:1G:162:A:H8	2.04	0.41
1:1G:806:C:O2'	1:1G:807:A:H5'	2.21	0.41
26:1H:1163:G:C2	26:1H:1164:G:C8	3.09	0.41
26:1H:1324:G:N2	26:1H:1331:A:C4	2.89	0.41
26:1H:1336:A:OP2	45:F8:64:LYS:NZ	2.45	0.41
26:1H:142:G:O3'	45:F8:35:THR:HG21	2.20	0.41
26:1H:172:C:H2'	26:1H:173:G:C8	2.54	0.41
26:1H:1729:A:O2'	26:1H:1730:U:O5'	2.23	0.41
26:1H:529:A:H8	26:1H:530:G:C6	2.39	0.41
26:1H:777:A:H2'	26:1H:778:G:H8	1.84	0.41
26:1H:775:G:C5	26:1H:794:G:C8	3.08	0.41
26:1H:880:G:HO2'	26:1H:881:G:P	2.42	0.41
26:1H:821:A:H2'	26:1H:946:G:H5''	2.03	0.41
26:1H:986:C:C2'	26:1H:987:G:H5'	2.51	0.41
27:1J:8:U:H5'	27:1J:9:G:OP2	2.21	0.41
36:25:29:ASN:ND2	36:25:29:ASN:H	2.19	0.41
30:29:4:ILE:HD11	30:29:198:VAL:HB	2.03	0.41
5:42:26:PHE:N	5:42:26:PHE:CD1	2.89	0.41
38:45:103:MET:O	38:45:104:PHE:HB2	2.20	0.41
5:4E:90:VAL:O	5:4E:120:THR:HA	2.20	0.41
5:4E:26:PHE:CD1	5:4E:26:PHE:N	2.89	0.41
13:4I:84:ILE:HG23	13:4I:86:CYS:H	1.86	0.41
26:1H:558:G:P	35:58:111:PRO:HD2	2.61	0.41
35:58:46:VAL:O	35:58:47:ALA:HB3	2.21	0.41
26:1H:1022:G:N7	35:58:66:LYS:NZ	2.68	0.41
14:5I:4:LYS:HA	14:5I:7:ILE:HD12	2.03	0.41
7:62:97:GLN:OE1	7:62:101:LEU:HD11	2.20	0.41
36:68:107:ARG:HB2	36:68:107:ARG:CZ	2.46	0.41
28:71:56:GLN:O	28:71:201:PRO:HG3	2.21	0.41
41:75:34:VAL:HG21	41:75:43:GLN:HB3	2.03	0.41
26:1H:660:G:N2	37:78:12:ALA:HA	2.32	0.41
37:78:50:ARG:HG2	55:Q8:61:LEU:HD11	2.02	0.41
28:79:19:ILE:HD12	28:79:19:ILE:HA	1.86	0.41
16:7A:18:ARG:HA	16:7A:38:TYR:HA	2.03	0.41
8:7E:87:SER:OG	8:7E:92:ARG:HA	2.21	0.41
1:13:1346:A:H5''	9:8E:120:ARG:HH12	1.86	0.41
19:AI:25:LYS:HD2	19:AI:25:LYS:HA	1.83	0.41
46:C5:12:THR:HA	46:C5:26:LYS:HA	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1129:C:C2	1:13:1143:G:N2	2.88	0.41
1:13:13:U:O2	1:13:914:A:H3'	2.21	0.41
1:13:1466:C:H2'	1:13:1467:G:O4'	2.20	0.41
1:13:189:U:C4	17:8I:72:ARG:NH2	2.88	0.41
1:13:218:C:H4'	1:13:466:C:H41	1.86	0.41
1:13:439:A:H3'	1:13:440:A:H8	1.85	0.41
1:13:477:G:H2'	1:13:478:A:C8	2.56	0.41
1:13:551:U:H2'	1:13:552:U:C6	2.56	0.41
1:13:598:U:H4'	8:7E:94:TYR:CG	2.56	0.41
1:13:688:G:C5	1:13:700:G:C2	3.09	0.41
1:13:921:U:H2'	1:13:922:G:O4'	2.21	0.41
26:14:184:C:H2'	26:14:185:U:C6	2.55	0.41
26:14:2438:U:H5''	26:14:2600:A:OP1	2.21	0.41
26:14:813:U:C2	26:14:1195:G:N2	2.89	0.41
26:14:819:A:H2'	26:14:820:A:H5'	2.02	0.41
35:15:59:LYS:HA	35:15:59:LYS:HD2	1.87	0.41
29:19:177:LEU:HB3	29:19:178:PRO:HD2	2.02	0.41
10:1A:32:ALA:HA	10:1A:76:ASN:HD21	1.84	0.41
10:1A:94:VAL:HG12	10:1A:95:GLU:N	2.36	0.41
1:1G:600:C:H2'	1:1G:601:C:H6	1.86	0.41
1:1G:614:A:C4	1:1G:615:C:C5	3.08	0.41
1:1G:616:G:H2'	1:1G:617:G:C8	2.55	0.41
26:1H:1166:C:O2	26:1H:1184:G:C2	2.73	0.41
26:1H:1477:A:C2	26:1H:1517:G:C2	3.09	0.41
26:1H:1579:A:H2'	26:1H:1580:A:C8	2.56	0.41
26:1H:2208:U:O2'	26:1H:2209:C:H5'	2.21	0.41
26:1H:2302:G:C6	26:1H:2315:G:C6	3.09	0.41
26:1H:449:A:O2'	26:1H:450:G:H5'	2.21	0.41
22:1K:7:U:O2'	22:1K:8:U:H5'	2.21	0.41
30:21:37:ARG:NH1	30:21:42:ASP:OD1	2.46	0.41
36:25:122:LEU:HD13	41:75:72:VAL:HG11	2.03	0.41
30:29:5:LEU:HD13	30:29:51:PHE:HB3	2.03	0.41
3:2E:151:VAL:HA	3:2E:199:LYS:O	2.21	0.41
31:31:39:TRP:CB	31:31:101:LEU:HD12	2.51	0.41
4:32:134:ASP:O	4:32:136:PRO:HD3	2.21	0.41
4:32:190:ASP:O	4:32:194:LEU:HD22	2.21	0.41
31:39:125:LEU:HD12	31:39:125:LEU:O	2.21	0.41
4:3E:173:TRP:CD1	4:3E:174:LEU:HG	2.56	0.41
4:3E:194:LEU:HA	4:3E:194:LEU:HD12	1.83	0.41
24:3K:22:G:N1	24:3K:23:A:N7	2.69	0.41
24:3K:70:C:N3	24:3K:71:C:C4	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:139:LEU:HA	5:42:142:LEU:HD11	2.02	0.41
33:51:3:ARG:NH2	33:51:6:ARG:NH2	2.69	0.41
35:58:107:LEU:HA	35:58:107:LEU:HD23	1.76	0.41
35:58:96:GLU:HB2	35:58:122:VAL:HG12	2.03	0.41
34:61:14:ASP:N	34:61:17:GLN:OE1	2.53	0.41
26:1H:270(N):G:H21	34:61:50:ARG:NH2	2.19	0.41
40:65:52:SER:O	40:65:56:LEU:HD23	2.20	0.41
34:69:89:TYR:O	34:69:121:LYS:NZ	2.53	0.41
15:6A:12:ILE:HG23	15:6A:27:VAL:HG11	2.02	0.41
15:6A:42:HIS:HD2	15:6A:43:LEU:HD23	1.86	0.41
28:71:213:TYR:HB3	28:71:221:SER:OG	2.21	0.41
28:71:42:GLU:OE2	28:71:217:THR:OG1	2.39	0.41
8:72:109:ILE:CG2	8:72:137:VAL:HB	2.47	0.41
8:72:42:GLU:HG3	8:72:109:ILE:CD1	2.50	0.41
41:75:123:GLN:HA	41:75:126:ALA:HB3	2.03	0.41
41:75:82:LEU:HD12	41:75:82:LEU:H	1.85	0.41
8:7E:45:ILE:HD12	8:7E:47:GLY:HA2	2.03	0.41
9:8E:118:LYS:O	9:8E:119:ALA:HB3	2.21	0.41
17:8I:43:LEU:O	17:8I:69:LYS:HG3	2.21	0.41
18:9A:23:LYS:HG3	18:9A:23:LYS:O	2.21	0.41
26:14:748:G:C8	44:A5:89:ALA:HB1	2.56	0.41
44:A5:96:ILE:HG21	44:A5:96:ILE:HD13	1.87	0.41
40:A8:15:ARG:HD2	40:A8:88:ASP:OD2	2.20	0.41
19:AI:6:LYS:HD2	19:AI:6:LYS:HA	1.79	0.41
46:C5:75:ILE:HG22	46:C5:76:CYS:N	2.36	0.41
47:D5:18:LEU:HD12	47:D5:25:PRO:HG3	2.02	0.41
48:E5:46:LYS:HB2	48:E5:77:ARG:O	2.20	0.41
49:F5:83:GLU:HG2	49:F5:83:GLU:O	2.20	0.41
45:F8:41:ASN:OD1	45:F8:41:ASN:N	2.54	0.41
48:I8:11:ARG:NH1	48:I8:11:ARG:HB2	2.36	0.41
50:K8:15:LYS:H	50:K8:67:LYS:HE2	1.85	0.41
55:M5:48:PHE:O	55:M5:50:LEU:N	2.44	0.41
54:P8:33:ARG:HD2	54:P8:33:ARG:HH11	1.72	0.41
1:13:1004:A:C5	1:13:1026:G:H8	2.39	0.41
1:13:1160:G:C6	1:13:1181:G:O6	2.74	0.41
1:13:342:C:C2	1:13:348:G:N2	2.89	0.41
1:13:373:A:C2	1:13:374:A:C8	3.09	0.41
1:13:667:G:H4'	15:6I:51:HIS:ND1	2.36	0.41
26:14:1447:G:H1'	26:14:1545(A):A:H1'	2.03	0.41
26:14:1701:A:H5''	26:14:1702:G:OP2	2.21	0.41
26:14:1684:C:C2	26:14:1705:G:N2	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2291:U:O4	61:14:3591:HOH:O	2.21	0.41
26:14:240:G:H1'	26:14:257:A:H61	1.85	0.41
26:14:283:A:H8	26:14:283:A:H5'	1.86	0.41
26:14:659:C:H4'	31:39:100:THR:O	2.21	0.41
26:14:999:U:O2	26:14:1157:G:N2	2.54	0.41
27:16:24:G:H4'	27:16:25:A:C8	2.56	0.41
27:16:66:A:C2	27:16:108:C:C4	3.09	0.41
27:16:73:A:C4	27:16:104:A:C2	3.09	0.41
10:1A:39:PRO:HA	10:1A:70:ARG:NH1	2.36	0.41
2:1E:28:PHE:HE2	2:1E:189:ASP:O	2.04	0.41
1:1G:1019:C:H2'	1:1G:1020:U:H6	1.86	0.41
1:1G:1287:A:H2'	1:1G:1288:A:H8	1.81	0.41
1:1G:147:G:N2	1:1G:148:G:C4	2.89	0.41
1:1G:193:C:H2'	1:1G:194:C:C6	2.56	0.41
1:1G:373:A:H1'	1:1G:481:G:O4'	2.21	0.41
1:1G:827:U:C4	1:1G:870:U:C4	3.09	0.41
26:1H:1143:A:OP1	35:58:25:ARG:NH1	2.46	0.41
26:1H:1263:U:H2'	26:1H:1264:G:O4'	2.21	0.41
26:1H:1423:G:C4	26:1H:1424:G:C8	3.09	0.41
26:1H:1748:G:H2'	26:1H:1749:A:H8	1.85	0.41
26:1H:2245:U:O2'	26:1H:2436:G:OP2	2.30	0.41
26:1H:405:U:O2'	26:1H:406:G:H5'	2.21	0.41
26:1H:654(B):C:H2'	26:1H:654(C):G:O4'	2.21	0.41
26:1H:774:A:H2	26:1H:787:U:HO2'	1.60	0.41
10:1I:39:PRO:HB3	10:1I:70:ARG:NH1	2.36	0.41
30:29:97:LYS:O	30:29:100:GLU:HG3	2.20	0.41
11:2A:95:ILE:O	11:2A:98:LEU:N	2.54	0.41
4:32:65:ARG:HD3	4:32:75:PHE:CG	2.55	0.41
4:32:92:VAL:O	4:32:96:LEU:HD23	2.21	0.41
56:3L:22:G:C6	56:3L:23:A:N6	2.88	0.41
32:49:60:LEU:O	32:49:64:THR:OG1	2.31	0.41
32:49:99:MET:HE2	32:49:99:MET:HB2	1.89	0.41
26:14:1653:G:C4	39:55:9:LYS:HD2	2.56	0.41
34:61:134:PRO:HA	34:61:135:GLU:HG3	2.03	0.41
1:13:1423:G:OP1	36:68:49:ARG:NH2	2.54	0.41
28:71:215:THR:CG2	28:71:216:THR:N	2.84	0.41
8:72:82:HIS:NE2	8:72:84:ARG:HB2	2.35	0.41
16:7A:48:TRP:N	16:7A:48:TRP:CD1	2.88	0.41
16:7A:81:ARG:HG3	16:7A:81:ARG:NH1	2.30	0.41
9:8E:73:GLN:O	9:8E:76:ALA:HB3	2.21	0.41
20:BA:79:ARG:HE	20:BA:83:ARG:NH2	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BA:89:ARG:HH11	20:BA:104:LEU:HB3	1.85	0.41
20:BI:75:ASN:HA	20:BI:78:ALA:HB3	2.03	0.41
43:D8:81:TYR:C	43:D8:82:ARG:HD2	2.41	0.41
48:E5:24:LYS:CB	48:E5:36:ILE:HD13	2.50	0.41
46:G8:89:PHE:HD1	46:G8:90:LEU:N	2.19	0.41
48:I8:68:GLU:HB3	48:I8:80:HIS:HD2	1.86	0.41
26:1H:764:A:N3	29:11:213:ARG:HD3	2.35	0.40
26:1H:1798:U:H5'	29:11:259:THR:OG1	2.21	0.40
29:11:51:VAL:HG12	29:11:54:ARG:HD2	2.03	0.40
29:11:9:TYR:CZ	29:11:13:ARG:HG2	2.57	0.40
2:12:107:THR:HA	2:12:110:GLN:HG2	2.03	0.40
1:13:1113:C:H2'	1:13:1114:C:H6	1.86	0.40
1:13:1226:C:H4'	19:AI:80:TYR:CZ	2.55	0.40
1:13:926:G:C6	1:13:1505:G:C5	3.08	0.40
1:13:188:U:H2'	1:13:189:U:H5''	2.03	0.40
1:13:468:A:O3'	16:7I:80:PHE:HB3	2.22	0.40
1:13:710:G:H2'	1:13:711:G:O4'	2.21	0.40
1:13:813:U:H5'	1:13:903:G:O3'	2.21	0.40
26:14:1203:G:C3'	26:14:1204:A:H5''	2.49	0.40
26:14:1374:G:H2'	26:14:1375:C:C6	2.56	0.40
26:14:1530:G:H2'	26:14:1531:C:O4'	2.21	0.40
26:14:1889:A:N1	26:14:2234:G:H1'	2.36	0.40
26:14:2250:G:OP1	26:14:2275:C:H2'	2.22	0.40
26:14:2275:C:O2'	38:45:83:MET:HA	2.21	0.40
26:14:2286:A:H4'	26:14:2287:A:O4'	2.20	0.40
26:14:2821:A:H2'	26:14:2822:G:C8	2.57	0.40
26:14:660:G:C6	26:14:661:C:C4	3.09	0.40
26:14:68:G:H2'	26:14:69:C:O4'	2.22	0.40
26:14:952:G:OP1	38:45:16:ARG:NH1	2.54	0.40
26:14:94:G:H2'	26:14:95:G:O4'	2.21	0.40
2:1E:100:GLY:O	2:1E:102:LEU:N	2.53	0.40
1:1G:1237:C:H5''	1:1G:1238:A:C8	2.56	0.40
1:1G:1285:A:OP1	1:1G:1285:A:H8	2.04	0.40
1:1G:1305:G:O2'	1:1G:1306:A:H8	2.04	0.40
1:1G:223:U:H2'	1:1G:224:C:C6	2.56	0.40
1:1G:329:A:C5	1:1G:332:G:C6	3.09	0.40
1:1G:536:C:H2'	1:1G:537:G:C8	2.56	0.40
1:1G:731:G:H5'	1:1G:766:A:H4'	2.03	0.40
1:1G:910:C:H2'	1:1G:911:U:O4'	2.20	0.40
1:1G:977:A:C8	1:1G:1223:C:N3	2.89	0.40
26:1H:1933:G:C6	26:1H:1934:C:C4	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1973:G:H2'	26:1H:1974:C:H6	1.84	0.40
26:1H:2164:C:H41	26:1H:2165:G:N2	2.20	0.40
26:1H:537:C:H2'	26:1H:539:G:C8	2.56	0.40
26:1H:631:A:H2'	26:1H:632:A:O4'	2.21	0.40
26:1H:638:G:C5	26:1H:651:G:C2	3.09	0.40
26:1H:950:G:C5	26:1H:951:C:C4	3.10	0.40
27:1J:81:G:C6	27:1J:82:G:C5	3.09	0.40
30:21:97:LYS:H	30:21:100:GLU:CD	2.25	0.40
30:29:116:VAL:HG11	30:29:122:PHE:CD2	2.56	0.40
11:2A:34:ASP:OD1	11:2A:37:GLY:N	2.53	0.40
11:2I:62:GLN:O	11:2I:66:LEU:HG	2.21	0.40
23:2L:19:G:C2	23:2L:59:A:C5	3.09	0.40
31:31:10:PRO:O	31:31:124:LEU:HD12	2.20	0.40
31:31:45:ARG:HE	31:31:45:ARG:HB3	1.57	0.40
31:39:176:LEU:HD12	31:39:176:LEU:HA	1.70	0.40
31:39:33:LEU:O	31:39:37:VAL:HG23	2.21	0.40
12:3A:69:TYR:CG	12:3A:90:VAL:HG21	2.56	0.40
24:3K:75:C:H6	24:3K:75:C:O5'	2.04	0.40
56:3L:30:G:C4	56:3L:31:A:C8	3.09	0.40
56:3L:41:A:H2'	56:3L:42:A:C8	2.56	0.40
32:41:57:ALA:HB2	32:41:90:LEU:HG	2.03	0.40
38:45:25:ASP:HB3	38:45:102:VAL:HB	2.02	0.40
26:14:960:A:H61	38:45:82:ARG:HH21	1.67	0.40
27:1J:42:C:H42	32:49:91:ARG:HH12	1.69	0.40
13:4A:16:ASP:N	13:4A:16:ASP:OD1	2.53	0.40
5:4E:100:VAL:HG13	5:4E:118:ILE:CG2	2.51	0.40
25:4K:13:A:H2'	25:4K:14:A:H4'	2.03	0.40
34:61:112:LYS:H	34:61:112:LYS:HG2	1.63	0.40
34:61:33:ARG:HG3	34:61:33:ARG:HH11	1.86	0.40
34:69:58:LEU:HD12	34:69:59:ALA:N	2.36	0.40
7:6E:120:ILE:O	7:6E:124:LEU:HB2	2.21	0.40
28:71:49:ILE:HG22	28:71:204:ALA:HB1	2.03	0.40
8:7E:2:LEU:HD23	8:7E:2:LEU:HA	1.84	0.40
42:85:74:LEU:CD1	42:85:79:PHE:HB2	2.50	0.40
20:BA:33:ILE:O	20:BA:37:SER:OG	2.37	0.40
47:D5:59:LEU:HB3	47:D5:60:GLU:H	1.45	0.40
51:H5:39:ASP:O	51:H5:44:ARG:NH1	2.53	0.40
54:L5:34:ARG:HH21	54:L5:39:ARG:HH21	1.68	0.40
52:M8:23:GLU:OE1	52:M8:24:THR:N	2.53	0.40
55:Q8:54:GLU:O	55:Q8:58:ILE:HD13	2.21	0.40
29:11:132:PRO:HG2	29:11:135:PHE:HE2	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:168:THR:HG23	2:12:192:SER:HA	2.03	0.40
2:12:220:ASP:HA	2:12:224:GLN:OE1	2.20	0.40
2:12:27:LYS:HB2	2:12:27:LYS:HE3	1.88	0.40
1:13:1064:G:H4'	1:13:1065:U:OP1	2.21	0.40
1:13:1148:U:C4	1:13:1149:C:C2	3.09	0.40
1:13:1152:A:C5	1:13:1153:C:C5	3.09	0.40
1:13:1503:A:O2'	1:13:1504:G:O5'	2.33	0.40
1:13:558:G:H5''	1:13:559:A:OP2	2.21	0.40
1:13:617:G:H5'	16:71:45:THR:HG22	2.02	0.40
1:13:68:G:HO2'	1:13:152:A:H2	1.68	0.40
1:13:836:G:C6	1:13:851:G:C6	3.09	0.40
26:14:999:U:O2'	26:14:1000:A:H5'	2.22	0.40
26:14:1091:G:N2	26:14:1092:C:O2	2.54	0.40
26:14:1146:C:H2'	26:14:1147:C:C6	2.56	0.40
26:14:1252:G:H4'	26:14:1253:A:OP1	2.20	0.40
26:14:1533:C:H3'	26:14:1534:G:H5''	2.03	0.40
26:14:1817:G:C6	26:14:1818:U:C4	3.10	0.40
26:14:2064:C:H2'	26:14:2065:C:H6	1.86	0.40
26:14:2292:C:H2'	26:14:2293:C:C6	2.56	0.40
26:14:2415:G:C2'	26:14:2416:C:H5'	2.51	0.40
26:14:250:G:C6	26:14:251:A:C6	3.09	0.40
26:14:2872:G:C4	26:14:2873:A:C2	3.09	0.40
26:14:871:U:OP1	38:45:5:ARG:NE	2.54	0.40
10:1A:50:ILE:HD13	10:1A:60:ARG:HD3	2.03	0.40
2:1E:141:GLU:O	2:1E:145:LEU:HG	2.21	0.40
2:1E:72:GLY:HA2	2:1E:165:VAL:CG2	2.50	0.40
2:1E:55:PHE:CD2	2:1E:221:LEU:HG	2.56	0.40
2:1E:70:PHE:HD1	2:1E:91:PRO:O	2.05	0.40
2:1E:91:PRO:HG3	2:1E:155:LEU:HB2	2.02	0.40
1:1G:1243:C:H5''	21:1B:8:THR:CB	2.52	0.40
1:1G:1237:C:C5	1:1G:1336:C:C4	3.08	0.40
1:1G:363:A:OP1	12:3A:33:ARG:HG3	2.21	0.40
26:1H:1190:G:N7	61:1H:3643:HOH:O	2.37	0.40
26:1H:1423:G:H2'	26:1H:1424:G:H8	1.85	0.40
26:1H:1533:C:C6	26:1H:1534:G:H5''	2.57	0.40
26:1H:1799:G:O6	29:11:179:SER:HB3	2.21	0.40
26:1H:1833:U:H2'	26:1H:1834:U:C6	2.56	0.40
26:1H:1949:G:C6	26:1H:1950:G:C5	3.09	0.40
26:1H:2849:U:H1'	26:1H:2866:U:O2	2.21	0.40
26:1H:654(C):G:N3	26:1H:654(C):G:H2'	2.36	0.40
26:1H:851:U:H2'	26:1H:852:G:C8	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:25:107:ARG:CG	36:25:115:VAL:HG11	2.50	0.40
4:32:139:ARG:HG3	4:32:139:ARG:HH11	1.86	0.40
4:32:63:LYS:HB2	4:32:63:LYS:HE3	1.71	0.40
31:39:52:LYS:HA	31:39:56:GLU:OE2	2.21	0.40
24:3K:21:A:N7	24:3K:46:G:N2	2.69	0.40
38:45:21:THR:C	38:45:23:GLY:HA3	2.42	0.40
32:49:22:ARG:HH12	32:49:175:LEU:HD21	1.86	0.40
5:4E:112:LEU:HD23	5:4E:112:LEU:HA	1.80	0.40
33:51:4:ILE:HA	33:51:4:ILE:HD13	1.85	0.40
33:51:6:ARG:HH11	33:51:54:ARG:HH12	1.69	0.40
33:59:56:SER:OG	33:59:57:ASP:N	2.54	0.40
14:5I:29:ARG:HD3	14:5I:31:ARG:O	2.21	0.40
34:61:11:ASN:O	34:61:12:LEU:HB2	2.21	0.40
34:61:1:MET:O	34:61:20:ASP:HA	2.21	0.40
27:1J:7:G:H4'	40:65:29:PHE:CD2	2.56	0.40
34:69:142:VAL:HG12	34:69:143:SER:N	2.36	0.40
34:69:2:LYS:HA	34:69:20:ASP:HA	2.02	0.40
7:6E:51:GLN:HB2	7:6E:58:PRO:CD	2.50	0.40
41:75:58:ASN:HA	41:75:58:ASN:HD22	1.62	0.40
37:78:21:ARG:NH1	61:78:301:HOH:O	2.54	0.40
28:79:18:LYS:HB2	28:79:20:TYR:CE1	2.56	0.40
9:82:14:VAL:O	9:82:65:VAL:HA	2.21	0.40
42:85:95:LEU:HD11	43:95:13:ARG:HB2	2.03	0.40
17:8I:13:ASP:OD2	17:8I:53:LEU:N	2.54	0.40
43:95:40:LEU:HD23	43:95:41:GLY:N	2.37	0.40
18:9A:29:PHE:CD1	18:9A:29:PHE:N	2.89	0.40
41:B8:111:ARG:H	41:B8:111:ARG:HD3	1.86	0.40
42:C8:39:LEU:HA	42:C8:39:LEU:HD23	1.83	0.40
47:D5:10:ARG:HB3	47:D5:36:LYS:HE2	2.02	0.40
47:D5:33:LEU:HA	47:D5:33:LEU:HD23	1.83	0.40
43:D8:7:THR:HG23	43:D8:12:TYR:HE1	1.86	0.40
43:D8:85:LYS:HB2	43:D8:85:LYS:HE2	1.98	0.40
46:G8:5:MET:HE2	46:G8:5:MET:HB2	1.94	0.40
54:L5:41:ARG:HB3	54:L5:43:THR:O	2.21	0.40
26:1H:705:A:O3'	29:11:7:LYS:HD2	2.21	0.40
2:12:72:GLY:O	2:12:78:GLN:HG2	2.21	0.40
1:13:1528:U:C2	1:13:1530:G:C8	3.10	0.40
1:13:158:G:N1	1:13:163:C:N3	2.68	0.40
26:14:1385:G:O2'	26:14:1396:U:H6	2.04	0.40
26:14:1533:C:N4	26:14:1538:G:H1	2.12	0.40
26:14:2280:G:O2'	26:14:2388:A:N1	2.42	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2542:A:H4'	26:14:2542:A:OP1	2.21	0.40
26:14:2032:G:C6	26:14:2572:A:C5	3.09	0.40
26:14:2852:G:C2	26:14:2853:C:C2	3.08	0.40
26:14:330:A:H2	26:14:1210:A:O2'	2.05	0.40
26:14:418:G:H2'	26:14:419:C:H6	1.87	0.40
26:14:878:A:H5''	26:14:900:A:H61	1.86	0.40
26:14:901:A:H3'	26:14:902:C:C6	2.56	0.40
26:14:978:G:H2'	26:14:979:G:O4'	2.21	0.40
26:14:2599:G:OP2	29:19:236:GLY:HA2	2.21	0.40
1:1G:1290:G:C6	1:1G:1291:G:C5	3.09	0.40
1:1G:1355:G:C6	1:1G:1368:G:C6	3.09	0.40
1:1G:690:G:H2'	1:1G:691:G:C8	2.57	0.40
1:1G:791:G:C5	1:1G:792:A:N7	2.89	0.40
1:1G:953:G:C5'	1:1G:965:A:H61	2.34	0.40
26:1H:106:C:H2'	26:1H:107:C:C6	2.54	0.40
26:1H:1399:C:H2'	26:1H:1400:G:H8	1.86	0.40
26:1H:1450:C:H2'	26:1H:1451:C:C6	2.57	0.40
26:1H:1641:A:H2'	26:1H:1642:G:O4'	2.22	0.40
26:1H:2154:G:C2	26:1H:2155:G:C5	3.10	0.40
26:1H:859:G:H5'	26:1H:2268:A:O2'	2.20	0.40
26:1H:2678:C:H2'	26:1H:2679:A:O4'	2.22	0.40
26:1H:2732:G:H3'	26:1H:2733:A:O4'	2.20	0.40
26:1H:2852:G:H2'	26:1H:2853:C:O4'	2.22	0.40
26:1H:36:G:C5	26:1H:37:C:C5	3.09	0.40
26:1H:463:G:N2	26:1H:465:G:H3'	2.36	0.40
26:1H:519:U:O2'	26:1H:520:G:H5'	2.21	0.40
26:1H:717:G:H2'	26:1H:718:A:O4'	2.21	0.40
26:1H:860:U:H5	26:1H:917:A:N1	2.20	0.40
30:21:176:ILE:HB	30:21:181:LEU:HB2	2.02	0.40
30:21:64:LYS:C	30:21:66:HIS:H	2.24	0.40
3:2E:27:LYS:HD3	3:2E:27:LYS:HA	1.87	0.40
31:31:24:LEU:HD21	31:31:114:VAL:HG12	2.02	0.40
4:3E:185:PHE:CE2	4:3E:188:LEU:HD23	2.55	0.40
56:3L:22:G:C6	56:3L:23:A:C6	3.10	0.40
56:3L:25:C:H2'	56:3L:26:A:C4'	2.51	0.40
38:45:82:ARG:HA	38:45:82:ARG:HD3	1.84	0.40
32:49:64:THR:HB	32:49:94:LEU:HD21	2.02	0.40
25:4L:10:G:H2'	25:4L:10:G:N3	2.37	0.40
39:55:67:LEU:O	39:55:71:GLN:N	2.48	0.40
14:5A:53:LEU:HA	14:5A:54:PRO:HD3	1.94	0.40
14:5I:50:LYS:HG3	14:5I:50:LYS:H	1.67	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:61:118:LYS:HA	34:61:118:LYS:HD2	1.80	0.40
34:61:5:LEU:HD13	34:61:13:GLY:O	2.21	0.40
7:62:113:GLU:O	7:62:119:ARG:HD3	2.21	0.40
7:62:23:VAL:O	7:62:27:ILE:HD12	2.21	0.40
34:69:79:ILE:HA	34:69:79:ILE:HD13	1.91	0.40
15:6I:39:LEU:O	15:6I:42:HIS:N	2.54	0.40
1:1G:589:C:H5''	8:72:29:SER:HB2	2.03	0.40
16:7I:22:THR:HA	16:7I:33:ILE:HG13	2.03	0.40
9:82:24:GLY:O	9:82:26:VAL:HG23	2.20	0.40
17:8I:61:GLU:HA	17:8I:71:PHE:CE1	2.56	0.40
41:B8:78:LEU:O	41:B8:78:LEU:HD13	2.22	0.40
20:BA:67:ALA:O	20:BA:73:HIS:CE1	2.74	0.40
43:D8:48:GLY:O	43:D8:49:THR:O	2.39	0.40
44:E8:50:VAL:HG12	44:E8:105:VAL:HG23	2.03	0.40
49:F5:86:SER:N	49:F5:87:PRO:CD	2.83	0.40
26:1H:2277:G:P	48:I8:12:ASN:HD22	2.44	0.40
53:J5:45:VAL:HG12	53:J5:56:LYS:HD2	2.03	0.40
2:12:111:ARG:HA	2:12:111:ARG:HH11	1.86	0.40
1:13:191(D):U:H2'	1:13:191(E):G:C8	2.56	0.40
1:13:199:G:N2	1:13:200:G:H1'	2.36	0.40
1:13:824:C:H4'	8:7E:1:MET:N	2.37	0.40
1:13:957:U:H2'	1:13:959:A:OP2	2.21	0.40
26:14:1021:A:C8	26:14:1021:A:C3'	3.04	0.40
26:14:1051:G:H8	26:14:1051:G:OP2	2.03	0.40
26:14:1338:G:N3	26:14:1393:A:H2	2.19	0.40
26:14:1678:G:N2	26:14:1989:G:N2	2.69	0.40
26:14:1755:A:C2	26:14:1758:G:H8	2.39	0.40
26:14:2459:A:C4	26:14:2460:U:C6	3.09	0.40
26:14:273(E):U:H3	26:14:363(A):A:N6	2.18	0.40
26:14:649:G:C5	26:14:650:C:C4	3.08	0.40
35:15:120:LEU:HD12	35:15:121:LYS:N	2.36	0.40
35:15:15:LEU:HD22	35:15:53:VAL:HB	2.04	0.40
27:16:49:C:O5'	27:16:49:C:H6	2.03	0.40
1:1G:1112:C:C4	3:22:178:LEU:HD23	2.56	0.40
1:1G:1153:C:N4	1:1G:1154:G:O6	2.54	0.40
1:1G:1502:A:H5''	1:1G:1504:G:N7	2.36	0.40
1:1G:509:A:O2'	1:1G:510:A:OP1	2.31	0.40
1:1G:539:A:H2'	1:1G:540:G:C8	2.56	0.40
1:1G:591:U:H2'	1:1G:592:G:H8	1.87	0.40
26:1H:1051:G:H2'	26:1H:1051:G:N3	2.37	0.40
26:1H:1728:G:N2	26:1H:1730:U:OP2	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2027:G:C2'	26:1H:2028:U:H5'	2.52	0.40
26:1H:2334:G:C2	40:A8:12:PHE:CD1	3.09	0.40
26:1H:2636:U:OP1	30:21:80:GLU:HG3	2.21	0.40
26:1H:2712:U:H1'	26:1H:2712(A):A:C8	2.56	0.40
26:1H:639:U:H2'	26:1H:640:C:C6	2.55	0.40
26:1H:671:C:OP1	37:78:42:SER:O	2.40	0.40
22:1L:50:C:C4	22:1L:51:A:C8	3.09	0.40
30:21:105:THR:OG1	30:21:199:ARG:NH2	2.27	0.40
3:22:40:ARG:HG2	3:22:55:VAL:HG21	2.04	0.40
30:29:101:ARG:HD2	30:29:169:ASN:ND2	2.36	0.40
23:2L:17:C:OP1	23:2L:62:C:H5'	2.20	0.40
23:2L:9:G:O4'	23:2L:47:G7M:H1'	2.22	0.40
12:3A:60:LEU:HB2	12:3A:64:TYR:CB	2.52	0.40
1:13:538:G:OP2	12:3I:115:LYS:HD2	2.21	0.40
12:3I:64:TYR:O	12:3I:65:GLU:HB3	2.22	0.40
56:3L:31:A:N6	56:3L:40:C:H42	2.19	0.40
56:3L:49:G:N2	56:3L:66:A:N7	2.70	0.40
27:1J:90:C:P	38:45:16:ARG:HH21	2.42	0.40
33:59:141:VAL:O	33:59:143:GLN:HG3	2.22	0.40
33:59:152:ARG:CG	33:59:153:LYS:HG3	2.49	0.40
34:61:47:LEU:O	34:61:51:ILE:N	2.46	0.40
36:68:11:ALA:HB3	36:68:85:VAL:HG23	2.04	0.40
34:69:79:ILE:O	34:69:143:SER:HA	2.21	0.40
7:6E:17:VAL:HB	7:6E:44:TYR:CE1	2.57	0.40
28:71:64:LEU:C	28:71:66:HIS:H	2.24	0.40
30:29:15:PHE:CD2	41:75:81:PRO:HD3	2.56	0.40
28:79:49:ILE:O	28:79:49:ILE:HD12	2.21	0.40
16:7I:27:LYS:H	16:7I:27:LYS:HG2	1.64	0.40
9:82:16:ARG:CZ	9:82:64:THR:HG21	2.51	0.40
17:8I:11:VAL:HG22	17:8I:20:THR:O	2.21	0.40
17:8I:70:ARG:C	17:8I:71:PHE:HD1	2.25	0.40
39:98:25:ALA:O	39:98:28:LEU:N	2.52	0.40
1:13:177:C:P	20:BI:65:LYS:HZ3	2.43	0.40
46:C5:52:SER:CB	46:C5:56:PRO:HA	2.51	0.40
47:D5:161:VAL:HB	47:D5:162:GLU:H	1.68	0.40
47:D5:59:LEU:HD23	47:D5:59:LEU:HA	1.77	0.40
26:1H:137(A):G:H1'	45:F8:41:ASN:ND2	2.36	0.40
50:K8:4:SER:OG	50:K8:6:VAL:HB	2.21	0.40
2:12:126:GLU:C	2:12:128:GLU:N	2.75	0.40
1:13:1151:A:O2'	1:13:1152:A:O5'	2.39	0.40
1:13:177:C:H2'	1:13:178:C:H6	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:38:G:C2	1:13:397:A:C2	3.09	0.40
1:13:671:G:H2'	1:13:672:U:H6	1.86	0.40
26:14:1005:C:H1'	26:14:1012:U:C4	2.56	0.40
26:14:1429:G:N3	26:14:1568:G:C2	2.90	0.40
26:14:1444(A):A:O2'	26:14:1445:C:OP1	2.33	0.40
26:14:1542:G:N7	26:14:1543:A:C5	2.89	0.40
26:14:1614:A:H2	61:14:3511:HOH:O	2.03	0.40
26:14:1693:U:O2'	29:19:14:ARG:NH2	2.55	0.40
26:14:2748:A:C6	26:14:2749:A:C5	3.09	0.40
26:14:2773:C:OP1	30:29:166:THR:OG1	2.38	0.40
26:14:389:G:O5'	26:14:389:G:H8	2.04	0.40
27:16:78:A:C2	27:16:99:A:C4	3.09	0.40
29:19:80:ALA:HB3	29:19:94:LEU:HB3	2.03	0.40
1:1G:1178:G:H22	1:1G:1181:G:H5''	1.86	0.40
1:1G:15:G:C5	1:1G:1396:A:C2	3.09	0.40
1:1G:197:A:H8	1:1G:198:G:N9	2.20	0.40
1:1G:500:G:H2'	1:1G:501:C:C6	2.56	0.40
1:1G:300:A:H1'	1:1G:565:U:O2	2.22	0.40
1:1G:707:C:H2'	1:1G:708:C:H6	1.86	0.40
1:1G:828:A:C2	1:1G:859:A:O4'	2.75	0.40
1:1G:946:A:N6	1:1G:947:G:O6	2.54	0.40
1:1G:976:G:C8	1:1G:1358:U:O2	2.75	0.40
26:1H:105:C:H2'	26:1H:106:C:H6	1.86	0.40
26:1H:55:G:C2	26:1H:116:C:N3	2.89	0.40
26:1H:1442:G:H2'	26:1H:1443:G:C8	2.56	0.40
26:1H:1470:G:H5''	26:1H:1471:A:OP1	2.22	0.40
26:1H:1514:U:H2'	26:1H:1515:C:C6	2.56	0.40
26:1H:1748:G:C6	26:1H:1749:A:C6	3.10	0.40
26:1H:579:G:O2'	26:1H:2019:A:OP1	2.28	0.40
26:1H:2647:U:H2'	26:1H:2648:C:C6	2.57	0.40
26:1H:2666:C:H5''	26:1H:2667:C:OP2	2.21	0.40
26:1H:2699:C:H2'	26:1H:2700:C:O4'	2.21	0.40
26:1H:354:G:H2'	26:1H:355:G:C8	2.56	0.40
26:1H:569:U:O4	26:1H:570:G:C6	2.75	0.40
26:1H:612:G:H2'	26:1H:613:U:O2	2.22	0.40
26:1H:700:G:H2'	26:1H:701:G:O4'	2.21	0.40
26:1H:843:G:N2	26:1H:936:C:C2	2.89	0.40
26:1H:861:A:C2	26:1H:917:A:C5	3.10	0.40
26:1H:954:G:H5''	38:88:13:GLN:HB3	2.03	0.40
27:1J:11:C:OP2	27:1J:12:C:H5	2.05	0.40
22:1L:48:C:HO2'	22:1L:49:G:P	2.41	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:25:VAL:HG23	30:21:181:LEU:HD12	2.03	0.40
30:29:33:VAL:HG23	30:29:47:VAL:HG13	2.04	0.40
11:2I:31:THR:HG22	11:2I:42:TRP:HB3	2.04	0.40
31:31:53:THR:HG23	31:31:56:GLU:OE2	2.21	0.40
4:32:153:ARG:HA	4:32:153:ARG:HD3	1.93	0.40
4:32:173:TRP:CD2	4:32:189:PRO:HB3	2.57	0.40
4:3E:31:CYS:C	4:3E:33:MET:N	2.75	0.40
32:41:124:SER:HB3	32:41:132:ASN:O	2.20	0.40
5:4E:106:PRO:O	5:4E:110:LEU:HG	2.21	0.40
5:4E:43:LEU:HD21	5:4E:132:ALA:HB1	2.04	0.40
1:13:1507:A:OP2	25:4K:12:A:H2	2.04	0.40
34:61:10:GLU:O	34:61:10:GLU:HG3	2.20	0.40
34:61:21:VAL:HG21	34:61:25:TYR:HD2	1.86	0.40
34:61:73:GLU:HB2	34:61:136:VAL:HG23	2.03	0.40
34:69:118:LYS:HB2	34:69:118:LYS:HE3	1.86	0.40
7:6E:15:ASP:HB3	7:6E:24:THR:HG23	2.04	0.40
28:71:30:LYS:HZ2	28:71:181:PRO:HA	1.86	0.40
5:42:79:GLU:OE1	8:72:104:ARG:HA	2.21	0.40
28:79:15:ASP:O	28:79:20:TYR:OH	2.39	0.40
18:9A:75:ILE:HG21	18:9A:75:ILE:HD13	1.88	0.40
40:A8:14:VAL:HG21	40:A8:90:GLY:O	2.21	0.40
45:B5:31:HIS:ND1	45:B5:32:PRO:CD	2.85	0.40
20:BI:16:HIS:O	20:BI:19:SER:N	2.53	0.40
47:D5:6:LYS:HE3	47:D5:8:TYR:CE2	2.56	0.40
48:E5:81:VAL:O	48:E5:83:PRO:HD3	2.21	0.40
45:F8:77:LYS:HG2	45:F8:78:LYS:N	2.37	0.40
45:F8:8:ILE:O	50:K8:36:ARG:NH2	2.55	0.40
49:J8:83:GLU:HG2	49:J8:83:GLU:H	1.35	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)
1:1G:82:U:O2'	26:14:271(C):U:O4[3_545]	2.17	0.03

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	12	206/256 (80%)	175 (85%)	24 (12%)	7 (3%)	3	21
2	1E	227/256 (89%)	188 (83%)	37 (16%)	2 (1%)	17	53
3	22	192/239 (80%)	169 (88%)	23 (12%)	0	100	100
3	2E	203/239 (85%)	185 (91%)	18 (9%)	0	100	100
4	32	206/209 (99%)	182 (88%)	22 (11%)	2 (1%)	15	51
4	3E	205/209 (98%)	188 (92%)	16 (8%)	1 (0%)	29	65
5	42	146/162 (90%)	136 (93%)	10 (7%)	0	100	100
5	4E	147/162 (91%)	141 (96%)	5 (3%)	1 (1%)	22	59
6	52	99/101 (98%)	96 (97%)	3 (3%)	0	100	100
6	5E	98/101 (97%)	92 (94%)	6 (6%)	0	100	100
7	62	135/156 (86%)	122 (90%)	12 (9%)	1 (1%)	22	59
7	6E	152/156 (97%)	140 (92%)	12 (8%)	0	100	100
8	72	135/138 (98%)	126 (93%)	7 (5%)	2 (2%)	10	41
8	7E	136/138 (99%)	124 (91%)	11 (8%)	1 (1%)	22	59
9	82	119/128 (93%)	108 (91%)	9 (8%)	2 (2%)	9	38
9	8E	124/128 (97%)	105 (85%)	18 (14%)	1 (1%)	19	55
10	1A	76/105 (72%)	71 (93%)	5 (7%)	0	100	100
10	1I	89/105 (85%)	82 (92%)	7 (8%)	0	100	100
11	2A	111/129 (86%)	98 (88%)	11 (10%)	2 (2%)	8	37
11	2I	109/129 (84%)	95 (87%)	12 (11%)	2 (2%)	8	37
12	3A	120/132 (91%)	103 (86%)	13 (11%)	4 (3%)	4	22
12	3I	120/132 (91%)	103 (86%)	16 (13%)	1 (1%)	19	55
13	4A	109/126 (86%)	92 (84%)	15 (14%)	2 (2%)	8	37
13	4I	117/126 (93%)	98 (84%)	18 (15%)	1 (1%)	17	53
14	5A	57/61 (93%)	47 (82%)	9 (16%)	1 (2%)	8	37

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
14	5I	58/61 (95%)	47 (81%)	9 (16%)	2 (3%)	3	21
15	6A	86/89 (97%)	79 (92%)	7 (8%)	0	100	100
15	6I	85/89 (96%)	80 (94%)	5 (6%)	0	100	100
16	7A	82/88 (93%)	75 (92%)	7 (8%)	0	100	100
16	7I	81/88 (92%)	79 (98%)	2 (2%)	0	100	100
17	8A	97/105 (92%)	91 (94%)	6 (6%)	0	100	100
17	8I	98/105 (93%)	94 (96%)	4 (4%)	0	100	100
18	9A	65/88 (74%)	62 (95%)	3 (5%)	0	100	100
18	9I	66/88 (75%)	63 (96%)	2 (3%)	1 (2%)	10	41
19	AA	56/93 (60%)	49 (88%)	4 (7%)	3 (5%)	2	12
19	AI	79/93 (85%)	70 (89%)	7 (9%)	2 (2%)	5	29
20	BA	97/106 (92%)	83 (86%)	12 (12%)	2 (2%)	7	33
20	BI	95/106 (90%)	82 (86%)	13 (14%)	0	100	100
21	1B	20/27 (74%)	18 (90%)	2 (10%)	0	100	100
21	1F	21/27 (78%)	20 (95%)	1 (5%)	0	100	100
28	71	129/229 (56%)	120 (93%)	9 (7%)	0	100	100
28	79	45/229 (20%)	41 (91%)	4 (9%)	0	100	100
29	11	271/276 (98%)	244 (90%)	17 (6%)	10 (4%)	3	19
29	19	272/276 (99%)	245 (90%)	21 (8%)	6 (2%)	6	32
30	21	201/206 (98%)	156 (78%)	36 (18%)	9 (4%)	2	16
30	29	202/206 (98%)	154 (76%)	39 (19%)	9 (4%)	2	16
31	31	200/210 (95%)	179 (90%)	20 (10%)	1 (0%)	29	65
31	39	202/210 (96%)	161 (80%)	31 (15%)	10 (5%)	2	14
32	41	177/182 (97%)	153 (86%)	21 (12%)	3 (2%)	9	38
32	49	177/182 (97%)	153 (86%)	22 (12%)	2 (1%)	14	48
33	51	169/180 (94%)	135 (80%)	24 (14%)	10 (6%)	1	11
33	59	68/180 (38%)	49 (72%)	14 (21%)	5 (7%)	1	6
34	61	144/148 (97%)	116 (81%)	26 (18%)	2 (1%)	11	43
34	69	143/148 (97%)	113 (79%)	27 (19%)	3 (2%)	7	33
35	15	136/140 (97%)	125 (92%)	10 (7%)	1 (1%)	22	59
35	58	136/140 (97%)	116 (85%)	16 (12%)	4 (3%)	4	25

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
36	25	120/122 (98%)	110 (92%)	9 (8%)	1 (1%)	19	55
36	68	120/122 (98%)	116 (97%)	4 (3%)	0	100	100
37	35	145/150 (97%)	116 (80%)	25 (17%)	4 (3%)	5	26
37	78	145/150 (97%)	115 (79%)	26 (18%)	4 (3%)	5	26
38	45	136/141 (96%)	109 (80%)	23 (17%)	4 (3%)	4	25
38	88	139/141 (99%)	119 (86%)	15 (11%)	5 (4%)	3	20
39	55	116/118 (98%)	109 (94%)	6 (5%)	1 (1%)	17	53
39	98	116/118 (98%)	102 (88%)	13 (11%)	1 (1%)	17	53
40	65	108/112 (96%)	88 (82%)	18 (17%)	2 (2%)	8	36
40	A8	109/112 (97%)	90 (83%)	19 (17%)	0	100	100
41	75	131/146 (90%)	116 (88%)	15 (12%)	0	100	100
41	B8	131/146 (90%)	118 (90%)	12 (9%)	1 (1%)	19	55
42	85	114/118 (97%)	101 (89%)	12 (10%)	1 (1%)	17	53
42	C8	113/118 (96%)	100 (88%)	10 (9%)	3 (3%)	5	27
43	95	98/101 (97%)	75 (76%)	19 (19%)	4 (4%)	3	18
43	D8	98/101 (97%)	86 (88%)	8 (8%)	4 (4%)	3	18
44	A5	111/113 (98%)	104 (94%)	6 (5%)	1 (1%)	17	53
44	E8	110/113 (97%)	100 (91%)	10 (9%)	0	100	100
45	B5	92/96 (96%)	83 (90%)	7 (8%)	2 (2%)	6	32
45	F8	93/96 (97%)	84 (90%)	8 (9%)	1 (1%)	14	48
46	C5	102/110 (93%)	74 (72%)	21 (21%)	7 (7%)	1	7
46	G8	103/110 (94%)	85 (82%)	13 (13%)	5 (5%)	2	14
47	D5	126/206 (61%)	99 (79%)	20 (16%)	7 (6%)	2	12
47	H8	169/206 (82%)	132 (78%)	31 (18%)	6 (4%)	3	20
48	E5	75/85 (88%)	64 (85%)	9 (12%)	2 (3%)	5	27
48	I8	74/85 (87%)	68 (92%)	6 (8%)	0	100	100
49	F5	92/98 (94%)	84 (91%)	7 (8%)	1 (1%)	14	48
49	J8	92/98 (94%)	85 (92%)	4 (4%)	3 (3%)	4	22
50	G5	64/72 (89%)	57 (89%)	6 (9%)	1 (2%)	9	40
50	K8	66/72 (92%)	58 (88%)	6 (9%)	2 (3%)	4	24
51	H5	56/60 (93%)	54 (96%)	2 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
51	L8	56/60 (93%)	52 (93%)	4 (7%)	0	100	100
52	M8	45/71 (63%)	30 (67%)	14 (31%)	1 (2%)	6	32
53	J5	54/60 (90%)	49 (91%)	5 (9%)	0	100	100
53	N8	46/60 (77%)	44 (96%)	2 (4%)	0	100	100
54	L5	45/49 (92%)	42 (93%)	3 (7%)	0	100	100
54	P8	45/49 (92%)	41 (91%)	4 (9%)	0	100	100
55	M5	62/65 (95%)	50 (81%)	10 (16%)	2 (3%)	4	22
55	Q8	62/65 (95%)	51 (82%)	8 (13%)	3 (5%)	2	15
All	All	10975/12333 (89%)	9578 (87%)	1200 (11%)	197 (2%)	8	37

All (197) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
18	9I	22	VAL
29	11	28	GLU
29	11	40	THR
29	11	237	GLU
29	11	273	ARG
30	21	83	ASP
37	78	25	SER
42	C8	89	GLU
46	G8	81	LYS
47	H8	165	VAL
55	Q8	52	LYS
2	12	218	ALA
2	12	220	ASP
9	82	118	LYS
12	3A	26	ALA
30	29	25	VAL
31	39	28	ILE
31	39	84	VAL
37	35	35	HIS
38	45	27	VAL
39	55	107	ASP
47	D5	53	ILE
47	D5	165	VAL
48	E5	33	ALA
49	F5	30	VAL
55	M5	49	VAL

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Mol	Chain	Res	Type
8	7E	86	ILE
12	3I	48	PRO
14	5I	13	THR
30	21	21	VAL
33	51	10	PRO
33	51	157	TYR
38	88	6	ARG
38	88	66	ILE
39	98	11	ASN
42	C8	93	LYS
46	G8	85	VAL
50	K8	48	HIS
2	12	219	VAL
12	3A	18	VAL
14	5A	29	ARG
19	AA	9	VAL
20	BA	73	HIS
29	19	273	ARG
30	29	59	VAL
30	29	81	ILE
38	45	60	ARG
43	95	45	THR
46	C5	29	GLU
46	C5	89	PHE
50	G5	47	ASN
30	21	60	ASN
30	21	79	ARG
33	51	84	SER
34	61	145	VAL
38	88	7	MET
38	88	134	ARG
47	H8	6	LYS
47	H8	60	GLU
55	Q8	53	PRO
2	12	71	VAL
11	2A	101	SER
29	19	237	GLU
31	39	25	PRO
31	39	124	LEU
31	39	128	ALA
31	39	132	VAL
31	39	149	ASP

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Mol	Chain	Res	Type
37	35	6	LEU
43	95	44	LYS
43	95	80	GLN
46	C5	92	ASN
47	D5	60	GLU
47	D5	137	ILE
47	D5	161	VAL
48	E5	44	ARG
2	1E	10	LEU
2	1E	237	ALA
4	3E	86	LYS
9	8E	94	ALA
14	5I	14	PRO
19	AI	6	LYS
29	11	27	THR
30	21	118	LYS
32	41	96	ARG
32	41	97	ASP
33	51	12	PRO
33	51	13	LYS
33	51	138	LYS
33	51	169	VAL
35	58	127	ASP
35	58	128	HIS
43	D8	49	THR
46	G8	53	PRO
47	H8	59	LEU
47	H8	61	LEU
55	Q8	35	GLN
13	4A	55	ARG
29	19	239	ARG
30	29	9	VAL
30	29	51	PHE
33	59	73	ALA
34	69	111	PRO
36	25	117	LEU
40	65	87	PHE
42	85	93	LYS
45	B5	68	ARG
46	C5	17	SER
29	11	29	PRO
30	21	4	ILE

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Mol	Chain	Res	Type
30	21	56	PRO
30	21	82	ARG
34	61	133	HIS
35	58	97	ARG
42	C8	90	VAL
43	D8	44	LYS
46	G8	54	LYS
49	J8	92	LYS
50	K8	43	GLN
52	M8	5	ILE
9	82	87	GLN
12	3A	19	ARG
30	29	26	ILE
31	39	129	PHE
31	39	167	ALA
34	69	117	GLU
35	15	128	HIS
37	35	15	ARG
40	65	4	LEU
44	A5	44	ALA
46	C5	99	CYS
47	D5	8	TYR
55	M5	34	TRP
11	2I	82	VAL
19	AI	41	VAL
29	11	3	VAL
29	11	123	ALA
29	11	240	ALA
31	31	198	ALA
32	41	5	VAL
33	51	3	ARG
33	51	154	PRO
38	88	79	LEU
41	B8	106	SER
43	D8	45	THR
45	F8	40	LYS
46	G8	76	CYS
49	J8	75	GLU
49	J8	76	ARG
2	12	154	LEU
4	32	28	SER
8	72	73	ASP

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Mol	Chain	Res	Type
12	3A	47	LYS
20	BA	10	LEU
30	29	45	THR
30	29	62	PRO
32	49	5	VAL
32	49	149	VAL
33	59	167	GLU
33	59	168	PRO
38	45	78	PRO
47	D5	7	ALA
13	4I	4	ILE
29	11	36	PRO
43	D8	47	VAL
19	AA	11	VAL
29	19	3	VAL
30	29	55	ASN
33	59	4	ILE
33	59	144	VAL
45	B5	51	VAL
11	2I	108	ILE
33	51	167	GLU
37	78	47	ASP
11	2A	48	ILE
19	AA	67	VAL
37	35	34	GLY
43	95	72	VAL
5	4E	115	VAL
30	21	55	ASN
37	78	7	ARG
2	12	223	ILE
31	39	89	VAL
38	45	81	VAL
35	58	95	PRO
37	78	95	VAL
2	12	32	ILE
4	32	178	VAL
7	62	112	PRO
13	4A	84	ILE
29	19	118	VAL
29	19	240	ALA
34	69	144	VAL
46	C5	3	VAL

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Mol	Chain	Res	Type
46	C5	30	VAL
47	H8	53	ILE
8	72	100	ILE

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	12	182/220 (83%)	172 (94%)	10 (6%)	21	54
2	1E	200/220 (91%)	183 (92%)	17 (8%)	10	36
3	22	154/188 (82%)	147 (96%)	7 (4%)	27	61
3	2E	159/188 (85%)	151 (95%)	8 (5%)	24	57
4	32	180/181 (99%)	167 (93%)	13 (7%)	14	43
4	3E	178/181 (98%)	166 (93%)	12 (7%)	16	47
5	42	114/123 (93%)	104 (91%)	10 (9%)	10	34
5	4E	115/123 (94%)	112 (97%)	3 (3%)	46	74
6	52	90/90 (100%)	86 (96%)	4 (4%)	28	61
6	5E	90/90 (100%)	85 (94%)	5 (6%)	21	53
7	62	114/127 (90%)	105 (92%)	9 (8%)	12	40
7	6E	125/127 (98%)	109 (87%)	16 (13%)	4	18
8	72	118/119 (99%)	107 (91%)	11 (9%)	9	31
8	7E	119/119 (100%)	111 (93%)	8 (7%)	16	47
9	82	92/99 (93%)	80 (87%)	12 (13%)	4	18
9	8E	97/99 (98%)	91 (94%)	6 (6%)	18	50
10	1A	71/92 (77%)	63 (89%)	8 (11%)	6	23
10	1I	81/92 (88%)	79 (98%)	2 (2%)	47	75
11	2A	85/99 (86%)	82 (96%)	3 (4%)	36	67
11	2I	84/99 (85%)	82 (98%)	2 (2%)	49	76
12	3A	103/109 (94%)	92 (89%)	11 (11%)	6	25

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
12	3I	103/109 (94%)	97 (94%)	6 (6%)	20	52
13	4A	91/101 (90%)	81 (89%)	10 (11%)	6	24
13	4I	94/101 (93%)	85 (90%)	9 (10%)	8	29
14	5A	49/50 (98%)	43 (88%)	6 (12%)	5	20
14	5I	49/50 (98%)	47 (96%)	2 (4%)	30	63
15	6A	79/80 (99%)	74 (94%)	5 (6%)	18	49
15	6I	79/80 (99%)	75 (95%)	4 (5%)	24	56
16	7A	72/74 (97%)	66 (92%)	6 (8%)	11	37
16	7I	72/74 (97%)	69 (96%)	3 (4%)	30	62
17	8A	94/97 (97%)	89 (95%)	5 (5%)	22	55
17	8I	95/97 (98%)	87 (92%)	8 (8%)	11	37
18	9A	58/77 (75%)	56 (97%)	2 (3%)	37	68
18	9I	58/77 (75%)	55 (95%)	3 (5%)	23	55
19	AA	52/80 (65%)	49 (94%)	3 (6%)	20	52
19	AI	71/80 (89%)	64 (90%)	7 (10%)	8	28
20	BA	76/82 (93%)	72 (95%)	4 (5%)	22	55
20	BI	75/82 (92%)	72 (96%)	3 (4%)	31	64
21	1B	17/22 (77%)	16 (94%)	1 (6%)	19	51
21	1F	18/22 (82%)	18 (100%)	0	100	100
28	7I	109/181 (60%)	104 (95%)	5 (5%)	27	60
28	79	48/181 (26%)	41 (85%)	7 (15%)	3	14
29	11	214/218 (98%)	194 (91%)	20 (9%)	9	31
29	19	214/218 (98%)	198 (92%)	16 (8%)	13	42
30	21	165/166 (99%)	158 (96%)	7 (4%)	30	62
30	29	165/166 (99%)	155 (94%)	10 (6%)	18	50
31	31	161/166 (97%)	151 (94%)	10 (6%)	18	50
31	39	163/166 (98%)	159 (98%)	4 (2%)	47	75
32	41	153/156 (98%)	142 (93%)	11 (7%)	14	43
32	49	153/156 (98%)	141 (92%)	12 (8%)	12	40
33	51	142/148 (96%)	134 (94%)	8 (6%)	21	53
33	59	59/148 (40%)	54 (92%)	5 (8%)	10	36

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
34	61	122/124 (98%)	114 (93%)	8 (7%)	16	47
34	69	122/124 (98%)	115 (94%)	7 (6%)	20	53
35	15	117/119 (98%)	112 (96%)	5 (4%)	29	62
35	58	117/119 (98%)	107 (92%)	10 (8%)	10	36
36	25	100/100 (100%)	96 (96%)	4 (4%)	31	64
36	68	100/100 (100%)	98 (98%)	2 (2%)	55	79
37	35	114/116 (98%)	106 (93%)	8 (7%)	15	45
37	78	114/116 (98%)	109 (96%)	5 (4%)	28	61
38	45	109/111 (98%)	98 (90%)	11 (10%)	7	27
38	88	109/111 (98%)	99 (91%)	10 (9%)	9	31
39	55	101/101 (100%)	96 (95%)	5 (5%)	24	57
39	98	101/101 (100%)	93 (92%)	8 (8%)	12	40
40	65	87/88 (99%)	79 (91%)	8 (9%)	9	31
40	A8	86/88 (98%)	75 (87%)	11 (13%)	4	18
41	75	117/127 (92%)	104 (89%)	13 (11%)	6	24
41	B8	117/127 (92%)	105 (90%)	12 (10%)	7	26
42	85	93/94 (99%)	86 (92%)	7 (8%)	13	42
42	C8	92/94 (98%)	83 (90%)	9 (10%)	8	28
43	95	82/82 (100%)	75 (92%)	7 (8%)	10	36
43	D8	82/82 (100%)	79 (96%)	3 (4%)	34	66
44	A5	92/92 (100%)	84 (91%)	8 (9%)	10	34
44	E8	91/92 (99%)	81 (89%)	10 (11%)	6	24
45	B5	74/78 (95%)	69 (93%)	5 (7%)	16	46
45	F8	75/78 (96%)	72 (96%)	3 (4%)	31	64
46	C5	85/91 (93%)	77 (91%)	8 (9%)	8	30
46	G8	85/91 (93%)	77 (91%)	8 (9%)	8	30
47	D5	118/179 (66%)	111 (94%)	7 (6%)	19	51
47	H8	152/179 (85%)	143 (94%)	9 (6%)	19	51
48	E5	61/67 (91%)	59 (97%)	2 (3%)	38	69
48	I8	61/67 (91%)	60 (98%)	1 (2%)	62	83
49	F5	79/83 (95%)	74 (94%)	5 (6%)	18	49

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
49	J8	79/83 (95%)	76 (96%)	3 (4%)	33	65
50	G5	62/67 (92%)	57 (92%)	5 (8%)	11	39
50	K8	62/67 (92%)	58 (94%)	4 (6%)	17	48
51	H5	50/52 (96%)	45 (90%)	5 (10%)	7	28
51	L8	50/52 (96%)	47 (94%)	3 (6%)	19	51
52	M8	42/63 (67%)	38 (90%)	4 (10%)	8	30
53	J5	48/52 (92%)	46 (96%)	2 (4%)	30	62
53	N8	43/52 (83%)	40 (93%)	3 (7%)	15	45
54	L5	38/42 (90%)	35 (92%)	3 (8%)	12	40
54	P8	38/42 (90%)	34 (90%)	4 (10%)	7	26
55	M5	54/55 (98%)	52 (96%)	2 (4%)	34	66
55	Q8	54/55 (98%)	52 (96%)	2 (4%)	34	66
All	All	9274/10193 (91%)	8636 (93%)	638 (7%)	15	46

All (638) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1E	8	LYS
2	1E	21	ARG
2	1E	24	TRP
2	1E	28	PHE
2	1E	36	ARG
2	1E	53	ARG
2	1E	63	MET
2	1E	83	MET
2	1E	86	GLU
2	1E	87	ARG
2	1E	96	ARG
2	1E	117	GLU
2	1E	122	PHE
2	1E	132	LYS
2	1E	156	LYS
2	1E	163	PHE
2	1E	178	ARG
3	2E	27	LYS
3	2E	48	TYR
3	2E	110	ASN
3	2E	128	PHE

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Mol	Chain	Res	Type
3	2E	131	ARG
3	2E	136	GLN
3	2E	167	TRP
3	2E	190	ARG
4	3E	10	ARG
4	3E	12	CYS
4	3E	31	CYS
4	3E	46	LYS
4	3E	50	ARG
4	3E	66	ARG
4	3E	80	GLU
4	3E	122	ARG
4	3E	138	TYR
4	3E	168	ARG
4	3E	187	ARG
4	3E	209	ARG
5	4E	12	LEU
5	4E	140	ARG
5	4E	153	LYS
6	5E	15	ASP
6	5E	16	GLN
6	5E	70	ASP
6	5E	80	ARG
6	5E	86	ARG
7	6E	5	ARG
7	6E	6	ARG
7	6E	8	GLU
7	6E	10	ARG
7	6E	13	GLN
7	6E	15	ASP
7	6E	20	ASP
7	6E	37	ASN
7	6E	45	ASP
7	6E	52	GLU
7	6E	59	LEU
7	6E	76	ARG
7	6E	78	ARG
7	6E	97	GLN
7	6E	149	ARG
7	6E	155	ARG
8	7E	12	ARG
8	7E	18	ARG

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Mol	Chain	Res	Type
8	7E	31	PHE
8	7E	49	GLU
8	7E	68	ARG
8	7E	73	ASP
8	7E	91	ARG
8	7E	102	ARG
9	8E	9	ARG
9	8E	10	ARG
9	8E	31	GLN
9	8E	38	GLN
9	8E	42	ARG
9	8E	121	ARG
10	1I	25	GLU
10	1I	29	ARG
11	2I	54	ARG
11	2I	96	ARG
12	3I	33	ARG
12	3I	34	ARG
12	3I	47	LYS
12	3I	59	ARG
12	3I	79	GLU
12	3I	124	LYS
13	4I	11	ARG
13	4I	36	LYS
13	4I	47	ASP
13	4I	64	TRP
13	4I	67	GLU
13	4I	71	ARG
13	4I	80	ARG
13	4I	106	ASN
13	4I	108	ARG
14	5I	40	CYS
14	5I	41	ARG
15	6I	39	LEU
15	6I	65	ARG
15	6I	79	ARG
15	6I	83	GLU
16	7I	1	MET
16	7I	28	ARG
16	7I	72	ARG
17	8I	14	LYS
17	8I	24	GLU

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Mol	Chain	Res	Type
17	8I	27	PHE
17	8I	52	LYS
17	8I	63	ARG
17	8I	81	ARG
17	8I	91	ARG
17	8I	101	ARG
18	9I	33	ASP
18	9I	54	ARG
18	9I	68	LYS
19	AI	7	LYS
19	AI	12	ASP
19	AI	29	ARG
19	AI	30	LEU
19	AI	36	ARG
19	AI	61	TYR
19	AI	81	ARG
20	BI	13	LEU
20	BI	50	GLU
20	BI	93	GLU
28	7I	55	ASP
28	7I	172	HIS
28	7I	190	ARG
28	7I	209	LEU
28	7I	218	MET
29	1I	4	LYS
29	1I	15	PHE
29	1I	31	LYS
29	1I	33	LEU
29	1I	35	LYS
29	1I	37	LEU
29	1I	38	LYS
29	1I	43	ARG
29	1I	58	HIS
29	1I	69	ARG
29	1I	88	ARG
29	1I	150	LYS
29	1I	168	ARG
29	1I	183	ARG
29	1I	200	ASP
29	1I	213	ARG
29	1I	220	HIS
29	1I	242	ARG

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Mol	Chain	Res	Type
29	11	264	LYS
29	11	273	ARG
30	21	16	ARG
30	21	51	PHE
30	21	54	GLN
30	21	57	LYS
30	21	69	LYS
30	21	113	PHE
30	21	119	ARG
31	31	7	TYR
31	31	17	ARG
31	31	18	ARG
31	31	38	ARG
31	31	52	LYS
31	31	72	ARG
31	31	74	ARG
31	31	106	ARG
31	31	117	ARG
31	31	164	ARG
32	41	9	ARG
32	41	26	GLN
32	41	33	ARG
32	41	34	LEU
32	41	51	ARG
32	41	67	LYS
32	41	84	LYS
32	41	94	LEU
32	41	116	ASP
32	41	118	ARG
32	41	155	MET
33	51	7	LEU
33	51	32	GLU
33	51	51	ARG
33	51	77	LYS
33	51	83	TYR
33	51	127	GLU
33	51	139	GLN
33	51	167	GLU
34	61	25	TYR
34	61	50	ARG
34	61	60	GLU
34	61	77	LEU

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Mol	Chain	Res	Type
34	61	82	ARG
34	61	85	GLU
34	61	95	LYS
34	61	135	GLU
35	58	7	LYS
35	58	12	ARG
35	58	48	MET
35	58	61	ARG
35	58	70	LYS
35	58	97	ARG
35	58	118	LYS
35	58	127	ASP
35	58	131	GLN
35	58	134	ARG
36	68	3	GLN
36	68	64	ARG
37	78	15	ARG
37	78	41	ARG
37	78	90	ARG
37	78	135	LEU
37	78	144	GLU
38	88	5	ARG
38	88	10	ARG
38	88	12	GLN
38	88	25	ASP
38	88	26	TYR
38	88	45	GLN
38	88	58	PHE
38	88	59	ARG
38	88	67	ARG
38	88	83	MET
39	98	1	MET
39	98	2	ARG
39	98	74	LYS
39	98	90	ARG
39	98	94	TYR
39	98	98	LEU
39	98	103	ARG
39	98	105	ARG
40	A8	15	ARG
40	A8	17	ARG
40	A8	20	ARG

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Mol	Chain	Res	Type
40	A8	25	ARG
40	A8	29	PHE
40	A8	30	ARG
40	A8	36	TYR
40	A8	73	LEU
40	A8	95	HIS
40	A8	106	ARG
40	A8	107	GLU
41	B8	1	MET
41	B8	16	ARG
41	B8	21	GLU
41	B8	23	ARG
41	B8	44	ASP
41	B8	58	ASN
41	B8	85	LYS
41	B8	87	ASP
41	B8	96	ARG
41	B8	111	ARG
41	B8	115	ARG
41	B8	129	ARG
42	C8	5	LYS
42	C8	51	LYS
42	C8	59	ARG
42	C8	70	ARG
42	C8	74	LEU
42	C8	79	PHE
42	C8	92	ARG
42	C8	104	GLN
42	C8	108	GLU
43	D8	21	ARG
43	D8	25	LEU
43	D8	69	LYS
44	E8	1	MET
44	E8	15	ARG
44	E8	41	LYS
44	E8	66	GLU
44	E8	68	ARG
44	E8	70	TYR
44	E8	78	GLU
44	E8	84	ARG
44	E8	88	ARG
44	E8	92	ARG

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Mol	Chain	Res	Type
45	F8	28	PHE
45	F8	53	LYS
45	F8	57	LEU
46	G8	4	LYS
46	G8	8	LYS
46	G8	11	ASP
46	G8	26	LYS
46	G8	28	LYS
46	G8	54	LYS
46	G8	55	TYR
46	G8	94	LYS
47	H8	44	PHE
47	H8	75	ASN
47	H8	76	LEU
47	H8	112	ARG
47	H8	121	HIS
47	H8	122	ARG
47	H8	154	ASP
47	H8	163	LEU
47	H8	169	GLU
48	I8	74	ARG
49	J8	33	LYS
49	J8	41	ARG
49	J8	78	LYS
50	K8	4	SER
50	K8	16	LEU
50	K8	54	LYS
50	K8	65	ASN
51	L8	3	ARG
51	L8	17	LYS
51	L8	33	GLN
52	M8	16	CYS
52	M8	18	CYS
52	M8	42	PHE
52	M8	46	GLN
53	N8	16	ARG
53	N8	37	LYS
53	N8	40	LYS
54	P8	1	MET
54	P8	21	ARG
54	P8	23	ARG
54	P8	29	LYS

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Mol	Chain	Res	Type
55	Q8	34	TRP
55	Q8	46	ARG
2	12	23	ARG
2	12	36	ARG
2	12	52	GLU
2	12	56	ARG
2	12	60	ASP
2	12	96	ARG
2	12	122	PHE
2	12	191	ASP
2	12	217	ARG
2	12	220	ASP
3	22	12	LEU
3	22	21	ARG
3	22	22	TRP
3	22	29	TYR
3	22	85	ARG
3	22	104	GLN
3	22	167	TRP
4	32	3	ARG
4	32	24	GLU
4	32	36	ARG
4	32	47	ARG
4	32	59	ARG
4	32	131	ARG
4	32	141	ARG
4	32	150	GLU
4	32	177	ASP
4	32	179	GLU
4	32	182	LYS
4	32	191	ARG
4	32	209	ARG
5	42	6	PHE
5	42	10	MET
5	42	25	ARG
5	42	26	PHE
5	42	61	TYR
5	42	68	GLU
5	42	78	HIS
5	42	83	GLU
5	42	126	ARG
5	42	143	ARG

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Mol	Chain	Res	Type
6	52	28	ARG
6	52	42	GLU
6	52	46	ARG
6	52	77	ARG
7	62	37	ASN
7	62	60	LYS
7	62	63	LYS
7	62	72	ARG
7	62	97	GLN
7	62	131	LYS
7	62	143	ARG
7	62	144	MET
7	62	148	ASN
8	72	12	ARG
8	72	15	ASN
8	72	25	ASP
8	72	33	GLU
8	72	56	LYS
8	72	58	TYR
8	72	73	ASP
8	72	91	ARG
8	72	102	ARG
8	72	116	LYS
8	72	122	ARG
9	82	10	ARG
9	82	20	ARG
9	82	36	TYR
9	82	42	ARG
9	82	54	ASP
9	82	56	LEU
9	82	62	TYR
9	82	91	ASP
9	82	92	TYR
9	82	95	LYS
9	82	104	ARG
9	82	113	LYS
10	1A	11	PHE
10	1A	29	ARG
10	1A	43	ARG
10	1A	51	ARG
10	1A	70	ARG
10	1A	79	ARG

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Mol	Chain	Res	Type
10	1A	80	LYS
10	1A	84	GLN
11	2A	54	ARG
11	2A	81	ASP
11	2A	93	GLN
12	3A	19	ARG
12	3A	20	LYS
12	3A	34	ARG
12	3A	37	CYS
12	3A	54	LYS
12	3A	64	TYR
12	3A	80	HIS
12	3A	84	LEU
12	3A	91	LYS
12	3A	102	ARG
12	3A	118	SER
13	4A	12	ASN
13	4A	13	LYS
13	4A	14	ARG
13	4A	50	GLU
13	4A	55	ARG
13	4A	66	LEU
13	4A	93	ARG
13	4A	94	ARG
13	4A	101	GLN
13	4A	115	LYS
14	5A	4	LYS
14	5A	16	PHE
14	5A	17	LYS
14	5A	26	ARG
14	5A	29	ARG
14	5A	41	ARG
15	6A	35	ARG
15	6A	47	LYS
15	6A	64	ARG
15	6A	85	LEU
15	6A	88	ARG
16	7A	5	ARG
16	7A	8	ARG
16	7A	27	LYS
16	7A	50	LYS
16	7A	55	ARG

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Mol	Chain	Res	Type
16	7A	81	ARG
17	8A	14	LYS
17	8A	25	ARG
17	8A	37	LYS
17	8A	52	LYS
17	8A	89	LEU
18	9A	38	GLU
18	9A	53	ARG
19	AA	7	LYS
19	AA	12	ASP
19	AA	13	ASP
20	BA	60	GLU
20	BA	73	HIS
20	BA	84	LEU
20	BA	86	ARG
21	1B	6	ARG
28	79	8	ARG
28	79	20	TYR
28	79	52	ARG
28	79	166	ASP
28	79	208	PHE
28	79	210	ARG
28	79	223	ARG
29	19	13	ARG
29	19	37	LEU
29	19	38	LYS
29	19	39	LYS
29	19	43	ARG
29	19	60	ARG
29	19	87	ASN
29	19	88	ARG
29	19	94	LEU
29	19	104	TYR
29	19	115	GLN
29	19	150	LYS
29	19	169	GLU
29	19	175	LEU
29	19	242	ARG
29	19	268	ARG
30	29	48	GLN
30	29	58	ARG
30	29	67	PHE

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Mol	Chain	Res	Type
30	29	73	GLU
30	29	82	ARG
30	29	89	ASP
30	29	118	LYS
30	29	144	ARG
30	29	151	TYR
30	29	202	LYS
31	39	35	GLU
31	39	83	PHE
31	39	192	LEU
31	39	197	ASP
32	49	13	GLU
32	49	33	ARG
32	49	55	LYS
32	49	75	LYS
32	49	80	PHE
32	49	95	ARG
32	49	106	LEU
32	49	118	ARG
32	49	136	ARG
32	49	139	LEU
32	49	153	ARG
32	49	156	ASP
33	59	6	ARG
33	59	54	ARG
33	59	159	GLU
33	59	164	TYR
33	59	170	ARG
34	69	1	MET
34	69	12	LEU
34	69	27	ARG
34	69	56	LYS
34	69	69	LYS
34	69	96	ASP
34	69	141	LYS
35	15	1	MET
35	15	39	ARG
35	15	48	MET
35	15	97	ARG
35	15	99	LEU
36	25	8	LEU
36	25	9	GLU

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Mol	Chain	Res	Type
36	25	78	ARG
36	25	113	LYS
37	35	1	MET
37	35	18	ARG
37	35	41	ARG
37	35	61	ARG
37	35	70	GLN
37	35	77	ARG
37	35	81	GLN
37	35	91	PHE
38	45	6	ARG
38	45	10	ARG
38	45	14	ARG
38	45	22	LYS
38	45	25	ASP
38	45	45	GLN
38	45	63	LYS
38	45	83	MET
38	45	89	ASN
38	45	103	MET
38	45	138	ASP
39	55	1	MET
39	55	9	LYS
39	55	24	GLN
39	55	33	ARG
39	55	44	LEU
40	65	12	PHE
40	65	17	ARG
40	65	20	ARG
40	65	25	ARG
40	65	36	TYR
40	65	44	LYS
40	65	80	LEU
40	65	106	ARG
41	75	1	MET
41	75	11	GLU
41	75	13	ARG
41	75	19	LEU
41	75	23	ARG
41	75	36	GLU
41	75	41	ARG
41	75	57	PHE

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Mol	Chain	Res	Type
41	75	78	LEU
41	75	85	LYS
41	75	93	ARG
41	75	118	ARG
41	75	120	ARG
42	85	3	ARG
42	85	12	ARG
42	85	15	LYS
42	85	58	ARG
42	85	59	ARG
42	85	74	LEU
42	85	92	ARG
43	95	35	LEU
43	95	74	LYS
43	95	76	LYS
43	95	80	GLN
43	95	81	TYR
43	95	82	ARG
43	95	91	TYR
44	A5	1	MET
44	A5	33	ARG
44	A5	65	LEU
44	A5	67	ASP
44	A5	70	TYR
44	A5	84	ARG
44	A5	88	ARG
44	A5	111	HIS
45	B5	13	LEU
45	B5	31	HIS
45	B5	48	LYS
45	B5	63	LYS
45	B5	69	TYR
46	C5	6	HIS
46	C5	23	ARG
46	C5	55	TYR
46	C5	63	LYS
46	C5	84	ARG
46	C5	86	ARG
46	C5	89	PHE
46	C5	94	LYS
47	D5	44	PHE
47	D5	59	LEU

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Mol	Chain	Res	Type
47	D5	82	ARG
47	D5	89	PHE
47	D5	91	LEU
47	D5	93	ASP
47	D5	136	PHE
48	E5	12	ASN
48	E5	46	LYS
49	F5	11	ARG
49	F5	40	ARG
49	F5	52	ARG
49	F5	69	LYS
49	F5	78	LYS
50	G5	30	ARG
50	G5	43	GLN
50	G5	48	HIS
50	G5	53	LEU
50	G5	68	ARG
51	H5	5	LYS
51	H5	17	LYS
51	H5	30	ARG
51	H5	32	GLN
51	H5	55	ARG
53	J5	37	LYS
53	J5	55	ARG
54	L5	29	LYS
54	L5	36	GLN
54	L5	41	ARG
55	M5	21	LYS
55	M5	31	HIS

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (24) such sidechains are listed below:

Mol	Chain	Res	Type
2	1E	224	GLN
3	2E	123	GLN
4	3E	43	HIS
7	6E	37	ASN
28	71	188	ASN
28	71	225	ASN
29	11	231	HIS
31	31	67	GLN
34	61	105	HIS

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Mol	Chain	Res	Type
51	L8	33	GLN
2	12	40	HIS
2	12	224	GLN
5	42	78	HIS
5	42	127	ASN
6	52	27	GLN
6	52	100	ASN
10	1A	84	GLN
18	9A	63	GLN
29	19	44	ASN
37	35	81	GLN
38	45	89	ASN
41	75	90	GLN
47	D5	75	ASN
49	F5	56	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	13	1493/1522 (98%)	362 (24%)	32 (2%)
1	1G	1503/1522 (98%)	365 (24%)	35 (2%)
22	1K	65/76 (85%)	32 (49%)	3 (4%)
22	1L	69/76 (90%)	37 (53%)	3 (4%)
23	2K	76/77 (98%)	19 (25%)	2 (2%)
23	2L	76/77 (98%)	18 (23%)	1 (1%)
24	3K	75/76 (98%)	49 (65%)	3 (4%)
25	4K	19/27 (70%)	10 (52%)	1 (5%)
25	4L	18/27 (66%)	10 (55%)	1 (5%)
26	14	2852/2917 (97%)	745 (26%)	45 (1%)
26	1H	2828/2917 (96%)	684 (24%)	52 (1%)
27	16	121/122 (99%)	26 (21%)	3 (2%)
27	1J	121/122 (99%)	31 (25%)	3 (2%)
56	3L	73/76 (96%)	44 (60%)	5 (6%)
All	All	9389/9634 (97%)	2432 (25%)	189 (2%)

All (2432) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	13	2	U
1	13	5	U
1	13	6	G

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Mol	Chain	Res	Type
1	13	8	A
1	13	28	G
1	13	32	A
1	13	39	G
1	13	44	G
1	13	47	C
1	13	48	C
1	13	49	U
1	13	50	A
1	13	51	A
1	13	54	C
1	13	61	G
1	13	65	U
1	13	66	G
1	13	68	G
1	13	73	G
1	13	74	C
1	13	75	C
1	13	95	G
1	13	96	G
1	13	97	U
1	13	99	C
1	13	101	A
1	13	115	G
1	13	116	A
1	13	121	C
1	13	129(A)	G
1	13	131	C
1	13	137	C
1	13	138	G
1	13	143	A
1	13	144	G
1	13	145	G
1	13	147	G
1	13	151	A
1	13	154	C
1	13	160	A
1	13	161	A
1	13	163	C
1	13	164	U
1	13	169	C
1	13	170	U

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Mol	Chain	Res	Type
1	13	171	A
1	13	172	A
1	13	173	U
1	13	174	C
1	13	186(B)	C
1	13	186(F)	C
1	13	189	U
1	13	191(A)	G
1	13	195	A
1	13	197	A
1	13	199	G
1	13	201	C
1	13	208	U
1	13	209	U
1	13	216	G
1	13	217	C
1	13	222	U
1	13	231	G
1	13	243	A
1	13	245	C
1	13	247	G
1	13	251	G
1	13	256	U
1	13	258	G
1	13	262	A
1	13	266	G
1	13	267	C
1	13	280	C
1	13	289	G
1	13	299	G
1	13	307	C
1	13	316	G
1	13	321	A
1	13	328	C
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	349	A
1	13	351	G

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Mol	Chain	Res	Type
1	13	352	C
1	13	353	A
1	13	354	G
1	13	356	A
1	13	367	U
1	13	372	C
1	13	374	A
1	13	384	G
1	13	388	G
1	13	390	C
1	13	397	A
1	13	398	C
1	13	406	G
1	13	412	A
1	13	413	G
1	13	414	A
1	13	418	C
1	13	421	U
1	13	422	C
1	13	423	G
1	13	429	U
1	13	435	C
1	13	438	G
1	13	439	A
1	13	452	A
1	13	458	C
1	13	465	A
1	13	466	C
1	13	467	G
1	13	480	U
1	13	485	G
1	13	487	A
1	13	496	A
1	13	497	U
1	13	505	G
1	13	510	A
1	13	511	C
1	13	518	C
1	13	524	G
1	13	527	G
1	13	531	U
1	13	532	A

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Mol	Chain	Res	Type
1	13	533	A
1	13	534	U
1	13	547	A
1	13	559	A
1	13	561	U
1	13	564	C
1	13	572	A
1	13	573	A
1	13	576	G
1	13	577	G
1	13	582	U
1	13	588	G
1	13	607	A
1	13	629	G
1	13	630	G
1	13	633	G
1	13	639	G
1	13	653	A
1	13	665	A
1	13	666	G
1	13	671	G
1	13	687	A
1	13	688	G
1	13	701	C
1	13	703	G
1	13	704	A
1	13	720	C
1	13	721	G
1	13	723	U
1	13	749	C
1	13	753	A
1	13	755	G
1	13	759	A
1	13	760	G
1	13	774	G
1	13	777	A
1	13	792	A
1	13	793	U
1	13	794	A
1	13	801	U
1	13	813	U
1	13	817	C

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Mol	Chain	Res	Type
1	13	821	G
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	851	G
1	13	859	A
1	13	860	A
1	13	863	U
1	13	870	U
1	13	871	U
1	13	872	A
1	13	873	A
1	13	885	G
1	13	902	G
1	13	908	A
1	13	914	A
1	13	926	G
1	13	927	G
1	13	934	C
1	13	935	A
1	13	936	C
1	13	942	G
1	13	960	U
1	13	968	A
1	13	969	A
1	13	971	G
1	13	972	C
1	13	974	A
1	13	975	A
1	13	976	G
1	13	977	A
1	13	982	U
1	13	988	G
1	13	992	U
1	13	993	G
1	13	998	G
1	13	998(A)	C
1	13	999	U
1	13	1004	A

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Mol	Chain	Res	Type
1	13	1005	A
1	13	1006	C
1	13	1007	C
1	13	1009	G
1	13	1012	U
1	13	1016	A
1	13	1017	G
1	13	1021	G
1	13	1022	G
1	13	1024	G
1	13	1025	U
1	13	1026	G
1	13	1027	C
1	13	1028	C
1	13	1028(B)	C
1	13	1029	G
1	13	1030	C
1	13	1031	G
1	13	1032(A)	G
1	13	1032(B)	G
1	13	1035	A
1	13	1039	C
1	13	1040	U
1	13	1042	G
1	13	1057	G
1	13	1058	G
1	13	1064	G
1	13	1065	U
1	13	1066	C
1	13	1081	G
1	13	1085	U
1	13	1094	G
1	13	1095	U
1	13	1101	A
1	13	1118	C
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

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Mol	Chain	Res	Type
1	13	1132	C
1	13	1133	G
1	13	1136	U
1	13	1137	C
1	13	1138	G
1	13	1139	G
1	13	1141	C
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	1163	C
1	13	1170	A
1	13	1177	G
1	13	1178	G
1	13	1179	A
1	13	1181	G
1	13	1183	A
1	13	1184	G
1	13	1186	G
1	13	1189	C
1	13	1190	G
1	13	1191	A
1	13	1196	U
1	13	1197	G
1	13	1201	A
1	13	1213	A
1	13	1225	A
1	13	1227	A
1	13	1238	A
1	13	1240	U
1	13	1241	G
1	13	1253	G
1	13	1256	A
1	13	1257	U
1	13	1258	G
1	13	1272	G
1	13	1275	A

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Mol	Chain	Res	Type
1	13	1278	U
1	13	1279	A
1	13	1280	A
1	13	1281	U
1	13	1286	A
1	13	1287	A
1	13	1290	G
1	13	1299	A
1	13	1300	G
1	13	1302	U
1	13	1313	U
1	13	1317	C
1	13	1319	A
1	13	1320	C
1	13	1322	C
1	13	1323	G
1	13	1331	G
1	13	1334	G
1	13	1335	C
1	13	1336	C
1	13	1337	G
1	13	1338	G
1	13	1339	A
1	13	1340	A
1	13	1346	A
1	13	1347	G
1	13	1350	A
1	13	1353	G
1	13	1360	A
1	13	1363	A
1	13	1364	U
1	13	1369	C
1	13	1370	G
1	13	1381	U
1	13	1398	A
1	13	1400	C
1	13	1406	U
1	13	1416	G
1	13	1419	G
1	13	1441	G
1	13	1442	G
1	13	1443	G

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Mol	Chain	Res	Type
1	13	1446	A
1	13	1449	C
1	13	1450	U
1	13	1451	A
1	13	1452	C
1	13	1453	G
1	13	1475	G
1	13	1487	G
1	13	1492	A
1	13	1495	U
1	13	1497	G
1	13	1499	A
1	13	1502	A
1	13	1503	A
1	13	1504	G
1	13	1506	U
1	13	1507	A
1	13	1517	G
1	13	1518	A
1	13	1529	G
1	13	1530	G
1	13	1534	A
1	13	1536	C
22	1K	4	U
22	1K	7	U
22	1K	9	A
22	1K	14	A
22	1K	15	G
22	1K	18	G
22	1K	23	A
22	1K	24	G
22	1K	25	C
22	1K	26	A
22	1K	28	U
22	1K	29	U
22	1K	38	A
22	1K	42	A
22	1K	43	U
22	1K	44	U
22	1K	49	G
22	1K	50	C
22	1K	51	A

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Mol	Chain	Res	Type
22	1K	53	G
22	1K	56	C
22	1K	60	U
22	1K	61	C
22	1K	63	U
22	1K	64	G
22	1K	66	A
22	1K	68	G
22	1K	69	A
22	1K	70	C
22	1K	72	C
22	1K	73	A
22	1K	74	C
23	2K	2	G
23	2K	6	G
23	2K	8	4SU
23	2K	9	G
23	2K	13	C
23	2K	15	G
23	2K	17	C
23	2K	18	C
23	2K	19	G
23	2K	20	G
23	2K	21	U
23	2K	22	A
23	2K	23	G
23	2K	26	C
23	2K	48	U
23	2K	49	C
23	2K	50	G
23	2K	70	C
23	2K	77	A
24	3K	2	G
24	3K	3	G
24	3K	5	C
24	3K	6	G
24	3K	8	U
24	3K	9	A
24	3K	10	G
24	3K	13	C
24	3K	14	A
24	3K	16	U

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Mol	Chain	Res	Type
24	3K	17	U
24	3K	18	G
24	3K	19	G
24	3K	20	U
24	3K	21	A
24	3K	22	G
24	3K	23	A
24	3K	24	G
24	3K	25	C
24	3K	27	G
24	3K	33	U
24	3K	34	U
24	3K	35	U
24	3K	37	A
24	3K	39	PSU
24	3K	40	C
24	3K	41	A
24	3K	44	U
24	3K	45	G
24	3K	46	G
24	3K	47	U
24	3K	48	C
24	3K	49	G
24	3K	50	C
24	3K	55	U
24	3K	56	C
24	3K	59	A
24	3K	60	U
24	3K	61	C
24	3K	62	C
24	3K	63	U
24	3K	65	C
24	3K	66	A
24	3K	67	C
24	3K	70	C
24	3K	72	C
24	3K	73	A
24	3K	75	C
24	3K	76	A
25	4K	10	G
25	4K	11	U
25	4K	12	A

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Mol	Chain	Res	Type
25	4K	13	A
25	4K	14	A
25	4K	19	A
25	4K	21	A
25	4K	22	A
25	4K	24	A
25	4K	25	A
26	1H	6	A
26	1H	7	G
26	1H	9	U
26	1H	10	G
26	1H	11	G
26	1H	12	U
26	1H	14	A
26	1H	15	G
26	1H	26	G
26	1H	27	G
26	1H	34	C
26	1H	35	G
26	1H	46	C
26	1H	51	G
26	1H	61	G
26	1H	63	U
26	1H	71	A
26	1H	72	U
26	1H	74	A
26	1H	75	G
26	1H	83	G
26	1H	85	G
26	1H	95	G
26	1H	118	A
26	1H	119	A
26	1H	120	U
26	1H	123	G
26	1H	125	G
26	1H	155	C
26	1H	163	U
26	1H	164	U
26	1H	165	U
26	1H	181	A
26	1H	188	G
26	1H	195	A

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Mol	Chain	Res	Type
26	1H	196	A
26	1H	197	A
26	1H	199	A
26	1H	204	A
26	1H	208	C
26	1H	213	A
26	1H	214	G
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	233	A
26	1H	248	G
26	1H	250	G
26	1H	252	G
26	1H	266	G
26	1H	267	C
26	1H	269	U
26	1H	270(E)	G
26	1H	270(F)	U
26	1H	270(M)	U
26	1H	270(N)	G
26	1H	270(O)	U
26	1H	270(P)	C
26	1H	271(C)	U
26	1H	271	G
26	1H	273(E)	U
26	1H	274	G
26	1H	275	G
26	1H	277	C
26	1H	278	A
26	1H	280	C
26	1H	295	G
26	1H	299	A
26	1H	308	G
26	1H	311	A
26	1H	323	G
26	1H	324	A
26	1H	329	G

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Mol	Chain	Res	Type
26	1H	330	A
26	1H	331	A
26	1H	334	C
26	1H	338	G
26	1H	346	A
26	1H	352	G
26	1H	361	G
26	1H	363	G
26	1H	363(E)	U
26	1H	364	C
26	1H	372	G
26	1H	386	G
26	1H	389	G
26	1H	396	G
26	1H	405	U
26	1H	411	G
26	1H	418	G
26	1H	428	A
26	1H	433	C
26	1H	434	U
26	1H	443	A
26	1H	444	C
26	1H	448	U
26	1H	455	C
26	1H	456	C
26	1H	457	A
26	1H	459	U
26	1H	460	A
26	1H	470	A
26	1H	471	A
26	1H	481	G
26	1H	482	A
26	1H	491	G
26	1H	504	U
26	1H	505	A
26	1H	508	G
26	1H	509	C
26	1H	510	C
26	1H	528	A
26	1H	529	A
26	1H	530	G
26	1H	531	C

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Mol	Chain	Res	Type
26	1H	532	A
26	1H	533	G
26	1H	546	C
26	1H	548	A
26	1H	549	G
26	1H	556	G
26	1H	563	G
26	1H	564	C
26	1H	568	U
26	1H	573	G
26	1H	574	C
26	1H	575	A
26	1H	583	G
26	1H	603	A
26	1H	607	U
26	1H	613	U
26	1H	614	U
26	1H	615	G
26	1H	616	A
26	1H	617	G
26	1H	620	G
26	1H	621	A
26	1H	622	G
26	1H	627	A
26	1H	629	G
26	1H	632	A
26	1H	634	C
26	1H	637	A
26	1H	640	C
26	1H	645	C
26	1H	646	A
26	1H	654	A
26	1H	654(A)	A
26	1H	654(C)	G
26	1H	654(O)	G
26	1H	654(Q)	C
26	1H	654(R)	C
26	1H	654(S)	G
26	1H	654(T)	A
26	1H	664	C
26	1H	669	G
26	1H	675	A

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Mol	Chain	Res	Type
26	1H	676	A
26	1H	686	G
26	1H	687	C
26	1H	701	G
26	1H	702	G
26	1H	703	U
26	1H	715	G
26	1H	717	G
26	1H	730	C
26	1H	738	G
26	1H	753	C
26	1H	762	U
26	1H	771	G
26	1H	775	G
26	1H	776	G
26	1H	782	A
26	1H	783	A
26	1H	784	A
26	1H	785	G
26	1H	788	A
26	1H	790	C
26	1H	792	G
26	1H	801	G
26	1H	805	G
26	1H	812	C
26	1H	827	U
26	1H	828	U
26	1H	832	G
26	1H	836	G
26	1H	845	G
26	1H	853	G
26	1H	856	C
26	1H	859	G
26	1H	860	U
26	1H	864	G
26	1H	866	A
26	1H	877	U
26	1H	879	G
26	1H	880	G
26	1H	881	G
26	1H	882	G
26	1H	894	C

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Mol	Chain	Res	Type
26	1H	895	U
26	1H	898	C
26	1H	899	A
26	1H	900	A
26	1H	901	A
26	1H	902	C
26	1H	907	U
26	1H	910	A
26	1H	917	A
26	1H	918	A
26	1H	926	A
26	1H	932	G
26	1H	941	A
26	1H	945	A
26	1H	946	G
26	1H	953	A
26	1H	958	U
26	1H	959	A
26	1H	961	C
26	1H	962	G
26	1H	974	G
26	1H	974(A)	C
26	1H	983	A
26	1H	996	A
26	1H	1005	C
26	1H	1008	C
26	1H	1011	G
26	1H	1012	U
26	1H	1013	C
26	1H	1020	A
26	1H	1022	G
26	1H	1023	U
26	1H	1025	G
26	1H	1026	U
26	1H	1027	A
26	1H	1032	A
26	1H	1033	U
26	1H	1037	G
26	1H	1040	C
26	1H	1045	A
26	1H	1046	A
26	1H	1047	G

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Mol	Chain	Res	Type
26	1H	1052	C
26	1H	1053	C
26	1H	1107	G
26	1H	1108	U
26	1H	1109	C
26	1H	1110	G
26	1H	1112	G
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	1138	G
26	1H	1139	G
26	1H	1142	U
26	1H	1142(A)	A
26	1H	1149	G
26	1H	1151	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	1187	G
26	1H	1190	G
26	1H	1194	A
26	1H	1195	G
26	1H	1204	A
26	1H	1205	U
26	1H	1210	A
26	1H	1211	U
26	1H	1220	A
26	1H	1221	C
26	1H	1229(A)	G
26	1H	1236	G
26	1H	1244	G
26	1H	1245	G
26	1H	1250	G

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Mol	Chain	Res	Type
26	1H	1253	A
26	1H	1256	G
26	1H	1265	A
26	1H	1271	G
26	1H	1272	A
26	1H	1273	U
26	1H	1274	A
26	1H	1275	A
26	1H	1298	C
26	1H	1300	U
26	1H	1301	A
26	1H	1305	C
26	1H	1320	C
26	1H	1329	U
26	1H	1332	G
26	1H	1344	G
26	1H	1345	C
26	1H	1349	A
26	1H	1358	G
26	1H	1359	A
26	1H	1360	A
26	1H	1365	A
26	1H	1370	C
26	1H	1380	G
26	1H	1381	G
26	1H	1385	G
26	1H	1386	C
26	1H	1388	G
26	1H	1403	C
26	1H	1406	U
26	1H	1416	G
26	1H	1417	C
26	1H	1420	U
26	1H	1421	G
26	1H	1423	G
26	1H	1427	A
26	1H	1428	C
26	1H	1429	G
26	1H	1444(A)	A
26	1H	1453	A
26	1H	1456	G
26	1H	1459	G

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Mol	Chain	Res	Type
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	1486	A
26	1H	1493	C
26	1H	1497	U
26	1H	1501	C
26	1H	1506	C
26	1H	1507	A
26	1H	1508	A
26	1H	1509	C
26	1H	1510	A
26	1H	1511	A
26	1H	1512	G
26	1H	1520	U
26	1H	1522	G
26	1H	1523	U
26	1H	1526	G
26	1H	1533	C
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	1548	C
26	1H	1554	A
26	1H	1558	A
26	1H	1559	G
26	1H	1560	G
26	1H	1566	A
26	1H	1569	A
26	1H	1578	U
26	1H	1580	A
26	1H	1585	C
26	1H	1586	A
26	1H	1595	G

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Mol	Chain	Res	Type
26	1H	1606	G
26	1H	1608	A
26	1H	1609	A
26	1H	1610	A
26	1H	1614	A
26	1H	1617	C
26	1H	1640	C
26	1H	1646	C
26	1H	1647	G
26	1H	1648	C
26	1H	1654	A
26	1H	1658	C
26	1H	1666	G
26	1H	1672	C
26	1H	1674	G
26	1H	1678	G
26	1H	1699	G
26	1H	1728	G
26	1H	1729	A
26	1H	1730	U
26	1H	1731	G
26	1H	1732	A
26	1H	1756	G
26	1H	1758	G
26	1H	1760	A
26	1H	1762	A
26	1H	1763	G
26	1H	1764	G
26	1H	1773	A
26	1H	1782	C
26	1H	1787	A
26	1H	1791	A
26	1H	1799	G
26	1H	1800	C
26	1H	1801	G
26	1H	1805	U
26	1H	1808	U
26	1H	1816	G
26	1H	1819	A
26	1H	1828	G
26	1H	1829	A
26	1H	1830	C

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Mol	Chain	Res	Type
26	1H	1831	G
26	1H	1835	G
26	1H	1837	C
26	1H	1839	G
26	1H	1843	C
26	1H	1847	A
26	1H	1848	A
26	1H	1859	A
26	1H	1869	G
26	1H	1870	C
26	1H	1878	G
26	1H	1881	C
26	1H	1882	C
26	1H	1887	C
26	1H	1889	A
26	1H	1900	A
26	1H	1906	G
26	1H	1913	A
26	1H	1914	C
26	1H	1916	A
26	1H	1919	A
26	1H	1929	G
26	1H	1938	A
26	1H	1945	G
26	1H	1955	U
26	1H	1965	C
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	1992	G
26	1H	1993	U
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	2052	G
26	1H	2054	A

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Mol	Chain	Res	Type
26	1H	2055	C
26	1H	2056	G
26	1H	2060	A
26	1H	2061	G
26	1H	2063	C
26	1H	2069	G
26	1H	2072	G
26	1H	2078	C
26	1H	2093	G
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	2124	G
26	1H	2126	A
26	1H	2127	G
26	1H	2128	C
26	1H	2131	G
26	1H	2132	U
26	1H	2133	G
26	1H	2134	A
26	1H	2135	A
26	1H	2136	C
26	1H	2139	C
26	1H	2141	G
26	1H	2144	U
26	1H	2145	C
26	1H	2147	G
26	1H	2148	G
26	1H	2152	G
26	1H	2156	G
26	1H	2157	G
26	1H	2158	A

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Mol	Chain	Res	Type
26	1H	2159	G
26	1H	2160	G
26	1H	2161	C
26	1H	2164	C
26	1H	2165	G
26	1H	2166	G
26	1H	2168	G
26	1H	2170	A
26	1H	2171	A
26	1H	2172	U
26	1H	2173	A
26	1H	2175	C
26	1H	2176	A
26	1H	2181	G
26	1H	2186	G
26	1H	2189	U
26	1H	2190	G
26	1H	2198	A
26	1H	2205	C
26	1H	2209	C
26	1H	2210	G
26	1H	2211	G
26	1H	2212	A
26	1H	2215	G
26	1H	2217	G
26	1H	2225	A
26	1H	2238	G
26	1H	2239	G
26	1H	2240	C
26	1H	2252	G
26	1H	2267	A
26	1H	2271	G
26	1H	2275	C
26	1H	2279	G
26	1H	2281	C
26	1H	2283	C
26	1H	2286	A
26	1H	2287	A
26	1H	2288	A
26	1H	2297	C
26	1H	2307	G
26	1H	2308	G

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Mol	Chain	Res	Type
26	1H	2310	A
26	1H	2312	U
26	1H	2314	C
26	1H	2320	A
26	1H	2321	G
26	1H	2322	A
26	1H	2324	C
26	1H	2325	G
26	1H	2326	C
26	1H	2327	A
26	1H	2334	G
26	1H	2336	A
26	1H	2337	G
26	1H	2345	G
26	1H	2346	A
26	1H	2347	C
26	1H	2350	C
26	1H	2376	A
26	1H	2377	A
26	1H	2379	G
26	1H	2383	G
26	1H	2385	C
26	1H	2395	C
26	1H	2402	C
26	1H	2403	C
26	1H	2406	U
26	1H	2410	G
26	1H	2414	G
26	1H	2422	A
26	1H	2423	U
26	1H	2424	C
26	1H	2425	A
26	1H	2429	G
26	1H	2430	A
26	1H	2435	A
26	1H	2439	A
26	1H	2440	C
26	1H	2441	C
26	1H	2442	C
26	1H	2448	A
26	1H	2458	G
26	1H	2468	G

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Mol	Chain	Res	Type
26	1H	2474	C
26	1H	2475	C
26	1H	2476	A
26	1H	2477	C
26	1H	2478	A
26	1H	2482	G
26	1H	2484	G
26	1H	2494	G
26	1H	2496	C
26	1H	2497	A
26	1H	2498	C
26	1H	2502	G
26	1H	2505	G
26	1H	2506	U
26	1H	2507	C
26	1H	2518	A
26	1H	2520	C
26	1H	2525	G
26	1H	2529	G
26	1H	2553	G
26	1H	2554	U
26	1H	2566	A
26	1H	2567	G
26	1H	2573	C
26	1H	2585	U
26	1H	2587	A
26	1H	2599	G
26	1H	2602	A
26	1H	2609	U
26	1H	2610	C
26	1H	2611	U
26	1H	2612	C
26	1H	2615	U
26	1H	2629	A
26	1H	2632	A
26	1H	2634	G
26	1H	2636	U
26	1H	2641	G
26	1H	2654	A
26	1H	2660	A
26	1H	2661	G
26	1H	2663	G

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Mol	Chain	Res	Type
26	1H	2665	A
26	1H	2666	C
26	1H	2673	G
26	1H	2676	C
26	1H	2679	A
26	1H	2682	U
26	1H	2684	U
26	1H	2689	U
26	1H	2698	U
26	1H	2700	C
26	1H	2701	C
26	1H	2702	U
26	1H	2703	C
26	1H	2705	A
26	1H	2707	G
26	1H	2712(A)	A
26	1H	2713	A
26	1H	2718	G
26	1H	2719	G
26	1H	2726	U
26	1H	2733	A
26	1H	2744	G
26	1H	2749	A
26	1H	2755	C
26	1H	2756	U
26	1H	2757	A
26	1H	2758	A
26	1H	2759	G
26	1H	2764	A
26	1H	2765	A
26	1H	2766	G
26	1H	2777	G
26	1H	2778	A
26	1H	2779	U
26	1H	2789	C
26	1H	2790	A
26	1H	2791	C
26	1H	2792	G
26	1H	2793	G
26	1H	2795	G
26	1H	2797	U
26	1H	2798	C

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Mol	Chain	Res	Type
26	1H	2801	A
26	1H	2803	C
26	1H	2808	U
26	1H	2818	G
26	1H	2820	A
26	1H	2821	A
26	1H	2830	G
26	1H	2833	G
26	1H	2834	G
26	1H	2835	A
26	1H	2849	U
26	1H	2871	C
26	1H	2872	G
26	1H	2886	G
26	1H	2891	G
26	1H	2892	A
26	1H	2893	G
26	1H	2894	G
26	1H	2895	U
27	16	0	A
27	16	2	C
27	16	3	C
27	16	7	G
27	16	12	C
27	16	13	A
27	16	15	A
27	16	25	A
27	16	29	A
27	16	33	G
27	16	35	U
27	16	42	C
27	16	45	A
27	16	46	A
27	16	47	C
27	16	51	G
27	16	65	C
27	16	73	A
27	16	74	U
27	16	75	G
27	16	92	G
27	16	105	G
27	16	108	C

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Mol	Chain	Res	Type
27	16	109	G
27	16	115	G
27	16	117	G
1	1G	5	U
1	1G	7	G
1	1G	9	G
1	1G	10	A
1	1G	22	G
1	1G	31	G
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	76	G
1	1G	80	G
1	1G	81	G
1	1G	82	U
1	1G	88	C
1	1G	89	U
1	1G	91	C
1	1G	92	G
1	1G	101	A
1	1G	104	G
1	1G	105	G
1	1G	115	G
1	1G	116	A
1	1G	121	C
1	1G	131	C
1	1G	144	G
1	1G	161	A
1	1G	162	A
1	1G	163	C
1	1G	170	U
1	1G	173	U
1	1G	174	C
1	1G	179	A
1	1G	182	U
1	1G	185	A
1	1G	186(C)	G

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Mol	Chain	Res	Type
1	1G	186(F)	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	191(E)	G
1	1G	195	A
1	1G	196	A
1	1G	197	A
1	1G	198	G
1	1G	208	U
1	1G	209	U
1	1G	210	U
1	1G	216	G
1	1G	221	C
1	1G	242	C
1	1G	247	G
1	1G	250	A
1	1G	251	G
1	1G	260	G
1	1G	262	A
1	1G	266	G
1	1G	267	C
1	1G	270	A
1	1G	279	A
1	1G	281	G
1	1G	289	G
1	1G	290	C
1	1G	321	A
1	1G	326	G
1	1G	328	C
1	1G	329	A
1	1G	330	C
1	1G	332	G
1	1G	344	A
1	1G	346	G
1	1G	347	G
1	1G	350	G
1	1G	351	G
1	1G	352	C
1	1G	353	A

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Mol	Chain	Res	Type
1	1G	354	G
1	1G	356	A
1	1G	366	C
1	1G	367	U
1	1G	372	C
1	1G	373	A
1	1G	388	G
1	1G	397	A
1	1G	398	C
1	1G	406	G
1	1G	412	A
1	1G	413	G
1	1G	419	C
1	1G	422	C
1	1G	423	G
1	1G	424	G
1	1G	429	U
1	1G	430	A
1	1G	433	C
1	1G	439	A
1	1G	442	C
1	1G	448	A
1	1G	452	A
1	1G	456	C
1	1G	465	A
1	1G	466	C
1	1G	467	G
1	1G	475	G
1	1G	484	G
1	1G	495	A
1	1G	496	A
1	1G	497	U
1	1G	505	G
1	1G	510	A
1	1G	511	C
1	1G	517	G
1	1G	518	C
1	1G	527	G
1	1G	529	G
1	1G	530	G
1	1G	531	U
1	1G	532	A

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Mol	Chain	Res	Type
1	1G	533	A
1	1G	536	C
1	1G	544	G
1	1G	547	A
1	1G	559	A
1	1G	561	U
1	1G	562	C
1	1G	564	C
1	1G	572	A
1	1G	573	A
1	1G	576	G
1	1G	577	G
1	1G	587	G
1	1G	607	A
1	1G	614	A
1	1G	616	G
1	1G	618	C
1	1G	620	C
1	1G	630	G
1	1G	631	G
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	666	G
1	1G	688	G
1	1G	701	C
1	1G	707	C
1	1G	723	U
1	1G	724	G
1	1G	725	G
1	1G	730	G
1	1G	731	G
1	1G	735	C
1	1G	749	C
1	1G	751	U
1	1G	754	C
1	1G	755	G
1	1G	759	A
1	1G	760	G

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Mol	Chain	Res	Type
1	1G	769	G
1	1G	776	G
1	1G	777	A
1	1G	792	A
1	1G	793	U
1	1G	794	A
1	1G	816	A
1	1G	817	C
1	1G	818	G
1	1G	821	G
1	1G	828	A
1	1G	841	U
1	1G	842	C
1	1G	843	U
1	1G	848	C
1	1G	853	G
1	1G	858	G
1	1G	859	A
1	1G	873	A
1	1G	876	G
1	1G	885	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	942	G
1	1G	960	U
1	1G	961	U
1	1G	968	A
1	1G	969	A
1	1G	971	G
1	1G	974	A
1	1G	975	A
1	1G	976	G
1	1G	977	A
1	1G	978	A
1	1G	980	C
1	1G	981	U
1	1G	982	U
1	1G	983	A

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Mol	Chain	Res	Type
1	1G	991	U
1	1G	992	U
1	1G	993	G
1	1G	996	A
1	1G	998(A)	C
1	1G	1001	G
1	1G	1002	G
1	1G	1003	G
1	1G	1004	A
1	1G	1006	C
1	1G	1008	C
1	1G	1009	G
1	1G	1016	A
1	1G	1024	G
1	1G	1025	U
1	1G	1026	G
1	1G	1027	C
1	1G	1028	C
1	1G	1028(A)	C
1	1G	1029	G
1	1G	1030	C
1	1G	1031	G
1	1G	1032	A
1	1G	1032(A)	G
1	1G	1032(B)	G
1	1G	1033	G
1	1G	1035	A
1	1G	1037	C
1	1G	1038	C
1	1G	1040	U
1	1G	1042	G
1	1G	1050	G
1	1G	1053	G
1	1G	1054	C
1	1G	1055	A
1	1G	1081	G
1	1G	1084	G
1	1G	1085	U
1	1G	1088	G
1	1G	1092	A
1	1G	1094	G
1	1G	1095	U

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Mol	Chain	Res	Type
1	1G	1096	C
1	1G	1099	G
1	1G	1100	C
1	1G	1101	A
1	1G	1118	C
1	1G	1124	G
1	1G	1125	U
1	1G	1126	U
1	1G	1127	G
1	1G	1128	C
1	1G	1129	C
1	1G	1137	C
1	1G	1138	G
1	1G	1139	G
1	1G	1146	A
1	1G	1147	C
1	1G	1157	A
1	1G	1158	C
1	1G	1159	U
1	1G	1171	G
1	1G	1177	G
1	1G	1178	G
1	1G	1181	G
1	1G	1182	G
1	1G	1183	A
1	1G	1188	A
1	1G	1189	C
1	1G	1193	G
1	1G	1196	U
1	1G	1197	G
1	1G	1199	U
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	1223	C
1	1G	1225	A
1	1G	1227	A
1	1G	1238	A

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Mol	Chain	Res	Type
1	1G	1240	U
1	1G	1241	G
1	1G	1256	A
1	1G	1257	U
1	1G	1258	G
1	1G	1270	C
1	1G	1273	G
1	1G	1279	A
1	1G	1280	A
1	1G	1281	U
1	1G	1286	A
1	1G	1287	A
1	1G	1288	A
1	1G	1289	A
1	1G	1293	G
1	1G	1294	G
1	1G	1295	G
1	1G	1298	C
1	1G	1299	A
1	1G	1300	G
1	1G	1301	U
1	1G	1303	C
1	1G	1305	G
1	1G	1313	U
1	1G	1317	C
1	1G	1319	A
1	1G	1320	C
1	1G	1322	C
1	1G	1323	G
1	1G	1331	G
1	1G	1335	C
1	1G	1336	C
1	1G	1338	G
1	1G	1346	A
1	1G	1347	G
1	1G	1353	G
1	1G	1362(A)	C
1	1G	1364	U
1	1G	1366	C
1	1G	1368	G
1	1G	1370	G
1	1G	1379	G

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Mol	Chain	Res	Type
1	1G	1381	U
1	1G	1392	G
1	1G	1397	C
1	1G	1398	A
1	1G	1399	C
1	1G	1400	C
1	1G	1419	G
1	1G	1442	G
1	1G	1443	G
1	1G	1446	A
1	1G	1450	U
1	1G	1451	A
1	1G	1453	G
1	1G	1454	G
1	1G	1469	G
1	1G	1482	G
1	1G	1492	A
1	1G	1499	A
1	1G	1502	A
1	1G	1503	A
1	1G	1504	G
1	1G	1506	U
1	1G	1517	G
1	1G	1520	G
1	1G	1525	G
1	1G	1528	U
1	1G	1529	G
1	1G	1530	G
1	1G	1532	U
1	1G	1533	C
1	1G	1534	A
1	1G	1535	C
22	1L	2	G
22	1L	3	G
22	1L	7	U
22	1L	8	U
22	1L	9	A
22	1L	10	G
22	1L	12	U
22	1L	13	C
22	1L	14	A
22	1L	16	U

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Mol	Chain	Res	Type
22	1L	17	U
22	1L	18	G
22	1L	19	G
22	1L	20	U
22	1L	23	A
22	1L	24	G
22	1L	26	A
22	1L	27	G
22	1L	29	U
22	1L	32	C
22	1L	36	U
22	1L	39	PSU
22	1L	40	C
22	1L	41	A
22	1L	45	G
22	1L	49	G
22	1L	51	A
22	1L	55	PSU
22	1L	60	U
22	1L	63	U
22	1L	66	A
22	1L	67	C
22	1L	69	A
22	1L	70	C
22	1L	71	C
22	1L	73	A
22	1L	74	C
23	2L	6	G
23	2L	8	4SU
23	2L	9	G
23	2L	13	C
23	2L	16	C
23	2L	18	C
23	2L	21	U
23	2L	22	A
23	2L	23	G
23	2L	35	C
23	2L	36	A
23	2L	47	G7M
23	2L	48	U
23	2L	49	C
23	2L	55	5MU

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Mol	Chain	Res	Type
23	2L	56	PSU
23	2L	57	C
23	2L	68	C
56	3L	2	G
56	3L	4	U
56	3L	6	G
56	3L	8	U
56	3L	11	C
56	3L	16	U
56	3L	17	U
56	3L	18	G
56	3L	19	G
56	3L	20	U
56	3L	21	A
56	3L	22	G
56	3L	26	A
56	3L	27	G
56	3L	28	U
56	3L	31	A
56	3L	32	C
56	3L	33	U
56	3L	34	U
56	3L	35	U
56	3L	37	T6A
56	3L	39	PSU
56	3L	40	C
56	3L	42	A
56	3L	43	U
56	3L	44	U
56	3L	45	G
56	3L	46	G
56	3L	47	U
56	3L	48	C
56	3L	49	G
56	3L	53	G
56	3L	54	U
56	3L	55	U
56	3L	57	G
56	3L	58	A
56	3L	59	A
56	3L	60	U
56	3L	61	C

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Mol	Chain	Res	Type
56	3L	63	U
56	3L	72	C
56	3L	73	A
56	3L	74	C
56	3L	76	A
25	4L	7	G
25	4L	10	G
25	4L	11	U
25	4L	12	A
25	4L	13	A
25	4L	14	A
25	4L	15	A
25	4L	22	A
25	4L	23	A
25	4L	24	A
26	14	2	G
26	14	3	U
26	14	4	C
26	14	5	A
26	14	6	A
26	14	9	U
26	14	14	A
26	14	15	G
26	14	23	G
26	14	34	C
26	14	35	G
26	14	36	G
26	14	46	C
26	14	49	A
26	14	50	U
26	14	58	G
26	14	59	U
26	14	60	G
26	14	71	A
26	14	72	U
26	14	74	A
26	14	75	G
26	14	79	G
26	14	90	U
26	14	91	A
26	14	93	C
26	14	95	G

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Mol	Chain	Res	Type
26	14	99	U
26	14	101	G
26	14	102	G
26	14	118	A
26	14	120	U
26	14	125	G
26	14	129	C
26	14	140	A
26	14	153	C
26	14	154	G
26	14	155	C
26	14	161	U
26	14	162	U
26	14	171	G
26	14	173	G
26	14	174	C
26	14	175	G
26	14	188	G
26	14	196	A
26	14	199	A
26	14	205	G
26	14	212	G
26	14	213	A
26	14	214	G
26	14	215	G
26	14	216	A
26	14	221	A
26	14	222	A
26	14	225	A
26	14	229	A
26	14	233	A
26	14	248	G
26	14	252	G
26	14	265	A
26	14	266	G
26	14	267	C
26	14	269	U
26	14	270(J)	G
26	14	270(K)	C
26	14	270(M)	U
26	14	270(O)	U
26	14	271(B)	G

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Mol	Chain	Res	Type
26	14	271(C)	U
26	14	271	G
26	14	273(C)	C
26	14	273(D)	C
26	14	273(F)	C
26	14	274	G
26	14	275	G
26	14	276	A
26	14	277	C
26	14	278	A
26	14	279	C
26	14	283	A
26	14	289	A
26	14	290	G
26	14	295	G
26	14	311	A
26	14	312	G
26	14	315	G
26	14	318	C
26	14	319	C
26	14	324	A
26	14	327	G
26	14	329	G
26	14	330	A
26	14	352	G
26	14	354	G
26	14	362	U
26	14	363	G
26	14	363(A)	A
26	14	363(E)	U
26	14	372	G
26	14	386	G
26	14	391	G
26	14	395	U
26	14	399	G
26	14	405	U
26	14	406	G
26	14	407	G
26	14	411	G
26	14	412	A
26	14	426	C
26	14	428	A

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Mol	Chain	Res	Type
26	14	435	C
26	14	436	C
26	14	443	A
26	14	444	C
26	14	448	U
26	14	455	C
26	14	456	C
26	14	457	A
26	14	459	U
26	14	463	G
26	14	464	U
26	14	470	A
26	14	480	A
26	14	481	G
26	14	483	A
26	14	498	G
26	14	504	U
26	14	505	A
26	14	508	G
26	14	509	C
26	14	510	C
26	14	512	G
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	546	C
26	14	547	A
26	14	549	G
26	14	563	G
26	14	568	U
26	14	573	G
26	14	574	C
26	14	575	A
26	14	603	A
26	14	604	G
26	14	607	U
26	14	609(A)	G
26	14	614	U
26	14	615	G

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Mol	Chain	Res	Type
26	14	617	G
26	14	618	G
26	14	620	G
26	14	621	A
26	14	622	G
26	14	627	A
26	14	637	A
26	14	645	C
26	14	646	A
26	14	651	G
26	14	654	A
26	14	654(A)	A
26	14	654(B)	C
26	14	654(D)	G
26	14	654(S)	G
26	14	654(T)	A
26	14	656	G
26	14	662	G
26	14	668	G
26	14	669	G
26	14	682	G
26	14	685	A
26	14	686	G
26	14	690	G
26	14	708	C
26	14	709	U
26	14	722	A
26	14	730	C
26	14	750	A
26	14	752	A
26	14	753	C
26	14	758	C
26	14	762	U
26	14	765	G
26	14	771	G
26	14	775	G
26	14	776	G
26	14	779	U
26	14	780	G
26	14	782	A
26	14	784	A
26	14	785	G

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Mol	Chain	Res	Type
26	14	788	A
26	14	789	A
26	14	792	G
26	14	800	A
26	14	803	U
26	14	805	G
26	14	812	C
26	14	819	A
26	14	821	A
26	14	827	U
26	14	828	U
26	14	831	G
26	14	832	G
26	14	846	C
26	14	847	U
26	14	852	G
26	14	855	G
26	14	859	G
26	14	863	A
26	14	865	C
26	14	866	A
26	14	875	G
26	14	877	U
26	14	878	A
26	14	879	G
26	14	897	C
26	14	898	C
26	14	899	A
26	14	901	A
26	14	904	C
26	14	910	A
26	14	915	C
26	14	917	A
26	14	919	G
26	14	926	A
26	14	932	G
26	14	938	G
26	14	941	A
26	14	945	A
26	14	946	G
26	14	959	A
26	14	961	C

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Mol	Chain	Res	Type
26	14	962	G
26	14	968	G
26	14	972	G
26	14	973	A
26	14	974	G
26	14	980	A
26	14	983	A
26	14	989	G
26	14	990	A
26	14	996	A
26	14	999	U
26	14	1002	G
26	14	1005	C
26	14	1008	C
26	14	1010	A
26	14	1012	U
26	14	1013	C
26	14	1015	G
26	14	1017	G
26	14	1018	C
26	14	1020	A
26	14	1022	G
26	14	1023	U
26	14	1025	G
26	14	1026	U
26	14	1027	A
26	14	1028	A
26	14	1039	G
26	14	1044	G
26	14	1048	A
26	14	1050	A
26	14	1052	C
26	14	1054	A
26	14	1056	G
26	14	1057	A
26	14	1059	G
26	14	1060	U
26	14	1061	U
26	14	1062	G
26	14	1070	A
26	14	1071	G
26	14	1072	C

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Mol	Chain	Res	Type
26	14	1073	A
26	14	1075	C
26	14	1086	A
26	14	1088	A
26	14	1090	U
26	14	1091	G
26	14	1093	G
26	14	1099	G
26	14	1102	C
26	14	1105	U
26	14	1106	G
26	14	1107	G
26	14	1108	U
26	14	1111	A
26	14	1112	G
26	14	1114	G
26	14	1122	G
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	1142	U
26	14	1143	A
26	14	1149	G
26	14	1151	G
26	14	1155	A
26	14	1164	G
26	14	1170	G
26	14	1171	G
26	14	1173	G
26	14	1174	A
26	14	1175	U
26	14	1176	G
26	14	1177	A
26	14	1178	C
26	14	1182	A
26	14	1187	G
26	14	1195	G
26	14	1204	A
26	14	1205	U

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Mol	Chain	Res	Type
26	14	1212	G
26	14	1218	C
26	14	1220	A
26	14	1236	G
26	14	1237	A
26	14	1253	A
26	14	1256	G
26	14	1262	A
26	14	1269	A
26	14	1271	G
26	14	1272	A
26	14	1275	A
26	14	1278	A
26	14	1289	C
26	14	1298	C
26	14	1300	U
26	14	1301	A
26	14	1304	C
26	14	1312	U
26	14	1320	C
26	14	1321	A
26	14	1325	G
26	14	1329	U
26	14	1345	C
26	14	1348	G
26	14	1349	A
26	14	1352	U
26	14	1359	A
26	14	1360	A
26	14	1365	A
26	14	1368	G
26	14	1369	G
26	14	1379	A
26	14	1380	G
26	14	1383	C
26	14	1384	A
26	14	1385	G
26	14	1386	C
26	14	1400	G
26	14	1403	C
26	14	1408	C
26	14	1416	G

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Mol	Chain	Res	Type
26	14	1417	C
26	14	1419	A
26	14	1420	U
26	14	1421	G
26	14	1425	G
26	14	1428	C
26	14	1429	G
26	14	1437	C
26	14	1444(A)	A
26	14	1445	C
26	14	1449	A
26	14	1449(A)	G
26	14	1455	G
26	14	1459	G
26	14	1460	A
26	14	1467	C
26	14	1471	A
26	14	1472	A
26	14	1475	G
26	14	1483	G
26	14	1490	A
26	14	1493	C
26	14	1494	A
26	14	1509	C
26	14	1510	A
26	14	1515	C
26	14	1516	U
26	14	1522	G
26	14	1533	C
26	14	1534	G
26	14	1535	U
26	14	1537	C
26	14	1540	G
26	14	1543	A
26	14	1544	C
26	14	1547	C
26	14	1558	A
26	14	1559	G
26	14	1560	G
26	14	1566	A
26	14	1569	A
26	14	1573	G

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Mol	Chain	Res	Type
26	14	1578	U
26	14	1582	C
26	14	1583	A
26	14	1585	C
26	14	1586	A
26	14	1588	C
26	14	1598	C
26	14	1608	A
26	14	1609	A
26	14	1610	A
26	14	1614	A
26	14	1625	C
26	14	1628	G
26	14	1633	G
26	14	1635	G
26	14	1640	C
26	14	1647	G
26	14	1648	C
26	14	1651	G
26	14	1669	A
26	14	1670	C
26	14	1671	U
26	14	1672	C
26	14	1674	G
26	14	1682	G
26	14	1696	G
26	14	1700	A
26	14	1701	A
26	14	1703	G
26	14	1718	G
26	14	1725	G
26	14	1726	G
26	14	1728	G
26	14	1729	A
26	14	1730	U
26	14	1731	G
26	14	1735	C
26	14	1742	C
26	14	1743	G
26	14	1756	G
26	14	1762	A
26	14	1763	G

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Mol	Chain	Res	Type
26	14	1764	G
26	14	1773	A
26	14	1777	U
26	14	1780	A
26	14	1781	C
26	14	1791	A
26	14	1800	C
26	14	1801	G
26	14	1806	C
26	14	1816	G
26	14	1820	U
26	14	1828	G
26	14	1829	A
26	14	1835	G
26	14	1836	C
26	14	1847	A
26	14	1858	G
26	14	1859	A
26	14	1860	G
26	14	1878	G
26	14	1886	C
26	14	1888	G
26	14	1889	A
26	14	1894	C
26	14	1900	A
26	14	1905	C
26	14	1906	G
26	14	1909	C
26	14	1913	A
26	14	1915	U
26	14	1929	G
26	14	1930	G
26	14	1931	U
26	14	1934	C
26	14	1936	A
26	14	1938	A
26	14	1944	U
26	14	1947	C
26	14	1951	U
26	14	1952	A
26	14	1955	U
26	14	1961	C

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Mol	Chain	Res	Type
26	14	1963	U
26	14	1964	G
26	14	1967	C
26	14	1970	A
26	14	1971	A
26	14	1972	A
26	14	1993	U
26	14	1995	U
26	14	2020	A
26	14	2023	G
26	14	2031	A
26	14	2033	A
26	14	2039	C
26	14	2043	C
26	14	2054	A
26	14	2055	C
26	14	2056	G
26	14	2060	A
26	14	2061	G
26	14	2062	A
26	14	2063	C
26	14	2069	G
26	14	2074	U
26	14	2095	C
26	14	2099	U
26	14	2100	G
26	14	2108	C
26	14	2109	U
26	14	2110	G
26	14	2111	C
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	2124	G
26	14	2125	G
26	14	2126	A
26	14	2127	G
26	14	2128	C

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Mol	Chain	Res	Type
26	14	2129	C
26	14	2131	G
26	14	2132	U
26	14	2133	G
26	14	2134	A
26	14	2135	A
26	14	2136	C
26	14	2137	C
26	14	2139	C
26	14	2140	C
26	14	2145	C
26	14	2146	C
26	14	2147	G
26	14	2148	G
26	14	2150	U
26	14	2153	G
26	14	2157	G
26	14	2158	A
26	14	2159	G
26	14	2162	G
26	14	2164	C
26	14	2166	G
26	14	2167	U
26	14	2168	G
26	14	2171	A
26	14	2172	U
26	14	2173	A
26	14	2174	C
26	14	2184	G
26	14	2189	U
26	14	2191	G
26	14	2192	G
26	14	2198	A
26	14	2207	C
26	14	2210	G
26	14	2211	G
26	14	2212	A
26	14	2215	G
26	14	2225	A
26	14	2229	C
26	14	2235	G
26	14	2238	G

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Mol	Chain	Res	Type
26	14	2239	G
26	14	2240	C
26	14	2249	U
26	14	2251	G
26	14	2253	G
26	14	2259	G
26	14	2267	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	2298	A
26	14	2305	A
26	14	2307	G
26	14	2308	G
26	14	2310	A
26	14	2311	A
26	14	2318	G
26	14	2319	G
26	14	2321	G
26	14	2325	G
26	14	2326	C
26	14	2327	A
26	14	2334	G
26	14	2336	A
26	14	2343	C
26	14	2346	A
26	14	2347	C
26	14	2350	C
26	14	2354	G
26	14	2355	C
26	14	2371	G
26	14	2372	G
26	14	2383	G
26	14	2385	C
26	14	2388	A
26	14	2389	G
26	14	2392	A
26	14	2393	A

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Mol	Chain	Res	Type
26	14	2395	C
26	14	2400	G
26	14	2401	U
26	14	2402	C
26	14	2406	U
26	14	2410	G
26	14	2413	G
26	14	2414	G
26	14	2422	A
26	14	2423	U
26	14	2425	A
26	14	2429	G
26	14	2430	A
26	14	2432	A
26	14	2434	A
26	14	2435	A
26	14	2439	A
26	14	2440	C
26	14	2441	C
26	14	2448	A
26	14	2449	U
26	14	2450	A
26	14	2468	G
26	14	2469	A
26	14	2470	G
26	14	2474	C
26	14	2476	A
26	14	2487	G
26	14	2496	C
26	14	2497	A
26	14	2501	C
26	14	2502	G
26	14	2505	G
26	14	2506	U
26	14	2507	C
26	14	2513	G
26	14	2518	A
26	14	2525	G
26	14	2529	G
26	14	2532	G
26	14	2542	A
26	14	2543	G

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Mol	Chain	Res	Type
26	14	2554	U
26	14	2564	A
26	14	2566	A
26	14	2567	G
26	14	2569	G
26	14	2572	A
26	14	2573	C
26	14	2578	G
26	14	2585	U
26	14	2596	U
26	14	2599	G
26	14	2602	A
26	14	2608	G
26	14	2609	U
26	14	2611	U
26	14	2612	C
26	14	2615	U
26	14	2630	G
26	14	2634	G
26	14	2646	C
26	14	2647	U
26	14	2652	C
26	14	2662	A
26	14	2663	G
26	14	2665	A
26	14	2667	C
26	14	2673	G
26	14	2689	U
26	14	2690	C
26	14	2691	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	2726	U
26	14	2732	G
26	14	2733	A
26	14	2739	U
26	14	2744	G
26	14	2748	A

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Mol	Chain	Res	Type
26	14	2750	A
26	14	2751	G
26	14	2752	C
26	14	2758	A
26	14	2764	A
26	14	2765	A
26	14	2777	G
26	14	2778	A
26	14	2779	U
26	14	2789	C
26	14	2790	A
26	14	2791	C
26	14	2793	G
26	14	2794	C
26	14	2795	G
26	14	2797	U
26	14	2798	C
26	14	2799	A
26	14	2801	A
26	14	2802	G
26	14	2804	C
26	14	2805	G
26	14	2808	U
26	14	2818	G
26	14	2820	A
26	14	2821	A
26	14	2833	G
26	14	2834	G
26	14	2835	A
26	14	2838	G
26	14	2849	U
26	14	2851	A
26	14	2860	A
26	14	2861	G
26	14	2872	G
26	14	2873	A
26	14	2879	C
26	14	2883	A
26	14	2885	C
26	14	2886	G
26	14	2889	C
26	14	2893	G

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Mol	Chain	Res	Type
26	14	2894	G
26	14	2896	C
26	14	2897	U
26	14	2900	A
27	1J	0	A
27	1J	8	U
27	1J	9	G
27	1J	13	A
27	1J	15	A
27	1J	22	U
27	1J	25	A
27	1J	27	C
27	1J	28	C
27	1J	29	A
27	1J	30	C
27	1J	33	G
27	1J	40	U
27	1J	42	C
27	1J	45	A
27	1J	51	G
27	1J	53	A
27	1J	56	G
27	1J	58	A
27	1J	59	A
27	1J	73	A
27	1J	75	G
27	1J	81	G
27	1J	88	C
27	1J	89	G
27	1J	89(A)	A
27	1J	90	C
27	1J	97	G
27	1J	108	C
27	1J	109	G
27	1J	119	A

All (189) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	13	50	A
1	13	115	G
1	13	173	U

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Mol	Chain	Res	Type
1	13	190	G
1	13	208	U
1	13	244	U
1	13	266	G
1	13	422	C
1	13	428	G
1	13	484	G
1	13	509	A
1	13	560	U
1	13	628	G
1	13	687	A
1	13	703	G
1	13	748	C
1	13	758	G
1	13	793	U
1	13	871	U
1	13	913	A
1	13	992	U
1	13	1065	U
1	13	1126	U
1	13	1285	A
1	13	1300	G
1	13	1301	U
1	13	1336	C
1	13	1362(A)	C
1	13	1397	C
1	13	1498	U
1	13	1529	G
1	13	1533	C
22	1K	6	G
22	1K	48	C
22	1K	69	A
23	2K	21	U
23	2K	48	U
24	3K	2	G
24	3K	18	G
24	3K	58	A
25	4K	18	G
26	1H	34	C
26	1H	70	G
26	1H	125	G
26	1H	196	A

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Mol	Chain	Res	Type
26	1H	222	A
26	1H	249	C
26	1H	404	C
26	1H	528	A
26	1H	620	G
26	1H	645	C
26	1H	654(Q)	C
26	1H	668	G
26	1H	685	A
26	1H	752	A
26	1H	764	A
26	1H	800	A
26	1H	827	U
26	1H	858	U
26	1H	880	G
26	1H	1022	G
26	1H	1026	U
26	1H	1052	C
26	1H	1107	G
26	1H	1178	C
26	1H	1210	A
26	1H	1273	U
26	1H	1378	A
26	1H	1379	A
26	1H	1402	C
26	1H	1508	A
26	1H	1509	C
26	1H	1558	A
26	1H	1608	A
26	1H	1609	A
26	1H	1699	G
26	1H	1730	U
26	1H	1757	U
26	1H	1799	G
26	1H	1858	G
26	1H	1899	G
26	1H	1992	G
26	1H	2060	A
26	1H	2062	A
26	1H	2210	G
26	1H	2225	A
26	1H	2428	G

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Mol	Chain	Res	Type
26	1H	2439	A
26	1H	2476	A
26	1H	2481	G
26	1H	2566	A
26	1H	2611	U
26	1H	2756	U
27	16	44	G
27	16	56	G
27	16	108	C
1	1G	80	G
1	1G	115	G
1	1G	197	A
1	1G	201	C
1	1G	244	U
1	1G	250	A
1	1G	266	G
1	1G	345	C
1	1G	412	A
1	1G	429	U
1	1G	465	A
1	1G	509	A
1	1G	528	C
1	1G	531	U
1	1G	560	U
1	1G	687	A
1	1G	748	C
1	1G	841	U
1	1G	884	U
1	1G	913	A
1	1G	974	A
1	1G	992	U
1	1G	1053	G
1	1G	1126	U
1	1G	1137	C
1	1G	1145	C
1	1G	1157	A
1	1G	1285	A
1	1G	1298	C
1	1G	1300	G
1	1G	1346	A
1	1G	1442	G
1	1G	1453	G

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Mol	Chain	Res	Type
1	1G	1498	U
1	1G	1533	C
22	1L	6	G
22	1L	18	G
22	1L	69	A
23	2L	48	U
56	3L	32	C
56	3L	34	U
56	3L	39	PSU
56	3L	44	U
56	3L	47	U
25	4L	14	A
26	14	34	C
26	14	49	A
26	14	71	A
26	14	90	U
26	14	128	C
26	14	196	A
26	14	275	G
26	14	278	A
26	14	385	C
26	14	479	A
26	14	574	C
26	14	668	G
26	14	685	A
26	14	686	G
26	14	752	A
26	14	764	A
26	14	774	A
26	14	784	A
26	14	791	C
26	14	1022	G
26	14	1141	U
26	14	1275	A
26	14	1379	A
26	14	1396	U
26	14	1416	G
26	14	1420	U
26	14	1444(A)	A
26	14	1534	G
26	14	1558	A
26	14	1608	A

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Mol	Chain	Res	Type
26	14	1609	A
26	14	1762	A
26	14	1819	A
26	14	1992	G
26	14	2107	C
26	14	2173	A
26	14	2238	G
26	14	2275	C
26	14	2406	U
26	14	2439	A
26	14	2611	U
26	14	2629	A
26	14	2689	U
26	14	2776	A
26	14	2859	G
27	1J	44	G
27	1J	88	C
27	1J	89	G

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

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

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
22	U8U	1K	34	25,22	17,24,25	2.52	5 (29%)	19,34,37	1.63	3 (15%)
22	T6A	1K	37	22	24,34,35	2.86	5 (20%)	24,49,52	2.79	7 (29%)
22	PSU	1K	55	22	17,21,22	1.02	1 (5%)	20,30,33	3.38	6 (30%)
22	T6A	1L	37	22	24,34,35	2.66	5 (20%)	24,49,52	2.72	8 (33%)
23	OMC	2K	33	23	15,22,23	2.26	4 (26%)	17,31,34	1.43	3 (17%)
23	4SU	2L	8	23	14,21,22	3.45	2 (14%)	15,30,33	0.86	1 (6%)
24	PSU	3K	39	24	17,21,22	1.15	2 (11%)	20,30,33	3.48	6 (30%)
23	PSU	2K	56	23	17,21,22	1.09	1 (5%)	20,30,33	2.98	5 (25%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
22	5MU	1K	54	22	15,22,23	2.17	3 (20%)	16,32,35	1.81	2 (12%)
23	OMC	2L	33	23	15,22,23	2.61	4 (26%)	17,31,34	1.67	3 (17%)
22	PSU	1L	55	22	17,21,22	1.06	1 (5%)	20,30,33	3.35	6 (30%)
56	PSU	3L	39	56	17,21,22	1.26	3 (17%)	20,30,33	4.91	9 (45%)
23	5MU	2K	55	23	15,22,23	2.11	3 (20%)	16,32,35	1.80	2 (12%)
22	PSU	1L	39	22	17,21,22	1.02	1 (5%)	20,30,33	3.18	6 (30%)
23	PSU	2L	56	23	17,21,22	1.10	1 (5%)	20,30,33	3.51	5 (25%)
22	5MU	1L	54	22	15,22,23	2.17	3 (20%)	16,32,35	1.78	2 (12%)
22	PSU	1K	39	22	17,21,22	1.04	2 (11%)	20,30,33	3.11	6 (30%)
56	T6A	3L	37	56	24,34,35	2.69	4 (16%)	24,49,52	2.37	9 (37%)
23	G7M	2L	47	23	20,26,27	3.44	7 (35%)	20,39,42	2.29	6 (30%)
23	G7M	2K	47	23	20,26,27	3.44	6 (30%)	20,39,42	1.82	4 (20%)
23	4SU	2K	8	23	14,21,22	3.37	2 (14%)	15,30,33	1.21	2 (13%)
23	5MU	2L	55	23	15,22,23	2.23	3 (20%)	16,32,35	1.72	2 (12%)
22	U8U	1L	34	25,22	17,24,25	2.60	5 (29%)	19,34,37	1.51	3 (15%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
22	U8U	1K	34	25,22	-	2/7/28/29	0/2/2/2
22	T6A	1K	37	22	-	2/15/41/42	0/3/3/3
22	PSU	1K	55	22	-	0/7/25/26	0/2/2/2
22	T6A	1L	37	22	-	6/15/41/42	0/3/3/3
23	OMC	2K	33	23	-	0/7/27/28	0/2/2/2
23	4SU	2L	8	23	-	0/5/25/26	0/2/2/2
24	PSU	3K	39	24	-	4/7/25/26	0/2/2/2
23	PSU	2K	56	23	-	0/7/25/26	0/2/2/2
22	5MU	1K	54	22	-	0/5/25/26	0/2/2/2
23	OMC	2L	33	23	-	1/7/27/28	0/2/2/2
22	PSU	1L	55	22	-	2/7/25/26	0/2/2/2
56	PSU	3L	39	56	-	2/7/25/26	0/2/2/2
23	5MU	2K	55	23	-	0/5/25/26	0/2/2/2
22	PSU	1L	39	22	-	2/7/25/26	0/2/2/2
23	PSU	2L	56	23	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
22	5MU	1L	54	22	-	0/5/25/26	0/2/2/2
22	PSU	1K	39	22	-	0/7/25/26	0/2/2/2
56	T6A	3L	37	56	-	8/15/41/42	0/3/3/3
23	G7M	2L	47	23	-	2/3/25/26	0/3/3/3
23	G7M	2K	47	23	-	1/3/25/26	0/3/3/3
23	4SU	2K	8	23	-	0/5/25/26	0/2/2/2
23	5MU	2L	55	23	-	3/5/25/26	0/2/2/2
22	U8U	1L	34	25,22	-	1/7/28/29	0/2/2/2

All (73) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	8	4SU	C5-C4	9.99	1.49	1.38
23	2K	8	4SU	C5-C4	9.93	1.49	1.38
23	2K	47	G7M	C4-N3	8.42	1.48	1.35
56	3L	37	T6A	C6-N6	8.37	1.51	1.36
23	2L	47	G7M	C4-N3	8.23	1.48	1.35
22	1K	37	T6A	C6-N6	7.91	1.50	1.36
22	1L	37	T6A	C6-N6	7.91	1.50	1.36
23	2L	8	4SU	C6-N1	7.88	1.45	1.35
22	1K	37	T6A	C10-N11	7.66	1.52	1.35
23	2K	47	G7M	C6-C5	7.60	1.54	1.41
23	2K	8	4SU	C6-N1	7.42	1.45	1.35
23	2L	47	G7M	C6-C5	7.13	1.53	1.41
23	2L	33	OMC	C6-N1	7.13	1.44	1.35
22	1L	34	U8U	C4-N3	6.66	1.44	1.33
22	1L	37	T6A	C10-N11	6.60	1.49	1.35
22	1K	34	U8U	C4-N3	6.55	1.44	1.33
56	3L	37	T6A	C10-N6	6.31	1.50	1.37
22	1K	37	T6A	C10-N6	6.28	1.50	1.37
56	3L	37	T6A	C10-N11	6.26	1.49	1.35
23	2L	47	G7M	C6-N1	6.13	1.43	1.33
23	2K	47	G7M	C6-N1	5.96	1.43	1.33
22	1L	37	T6A	C10-N6	5.93	1.49	1.37
23	2L	47	G7M	C2-N2	5.76	1.45	1.33
23	2K	47	G7M	C2-N2	5.76	1.45	1.33
23	2L	55	5MU	C4-C5	5.75	1.53	1.41
22	1K	54	5MU	C4-C5	5.53	1.53	1.41
23	2K	33	OMC	C6-N1	5.50	1.42	1.35
22	1K	34	U8U	C6-C5	5.45	1.49	1.37
22	1L	34	U8U	C6-C5	5.43	1.49	1.37
22	1L	54	5MU	C4-C5	5.39	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2K	55	5MU	C2-N3	5.23	1.48	1.38
23	2K	55	5MU	C4-C5	5.17	1.52	1.41
23	2L	47	G7M	C2-N1	5.16	1.44	1.35
23	2L	55	5MU	C2-N3	5.08	1.48	1.38
23	2K	47	G7M	C2-N1	5.01	1.44	1.35
22	1L	54	5MU	C2-N3	4.93	1.47	1.38
22	1K	54	5MU	C2-N3	4.93	1.47	1.38
23	2L	33	OMC	C5-C4	4.73	1.52	1.41
22	1L	34	U8U	C4-C5	4.32	1.50	1.41
23	2K	33	OMC	C5-C4	4.29	1.51	1.41
22	1K	34	U8U	C4-C5	4.02	1.50	1.41
22	1L	34	U8U	C2-S2	-3.92	1.58	1.66
23	2L	56	PSU	C4-N3	3.79	1.39	1.33
23	2K	33	OMC	C2-N3	3.77	1.45	1.38
23	2L	33	OMC	C2-N3	3.70	1.45	1.38
24	3K	39	PSU	C4-N3	3.40	1.39	1.33
22	1K	34	U8U	C2-S2	-3.39	1.59	1.66
22	1L	54	5MU	C4-N3	-3.32	1.27	1.33
23	2L	33	OMC	C4-N4	3.24	1.44	1.35
22	1L	55	PSU	C4-N3	3.23	1.38	1.33
23	2L	55	5MU	C4-N3	-3.21	1.27	1.33
22	1K	54	5MU	C4-N3	-3.20	1.27	1.33
56	3L	39	PSU	C4-N3	3.17	1.38	1.33
22	1K	55	PSU	C4-N3	3.16	1.38	1.33
23	2K	33	OMC	C4-N4	3.16	1.44	1.35
22	1L	39	PSU	C4-N3	3.11	1.38	1.33
23	2K	56	PSU	C4-N3	2.94	1.38	1.33
22	1K	39	PSU	C4-N3	2.73	1.37	1.33
56	3L	39	PSU	C5-C1'	-2.69	1.50	1.52
23	2K	55	5MU	C4-N3	-2.65	1.28	1.33
22	1K	37	T6A	C2-N3	2.62	1.36	1.32
23	2L	47	G7M	C5-C4	-2.52	1.36	1.39
23	2K	47	G7M	C2-N3	2.52	1.46	1.34
22	1L	37	T6A	C5-C4	-2.51	1.34	1.40
22	1K	37	T6A	C5-C4	-2.50	1.34	1.40
56	3L	39	PSU	O4'-C1'	-2.45	1.40	1.44
23	2L	47	G7M	C2-N3	2.31	1.45	1.34
22	1L	37	T6A	C2-N3	2.29	1.35	1.32
56	3L	37	T6A	C2-N3	2.28	1.35	1.32
22	1L	34	U8U	O4-C4	-2.24	1.18	1.24
24	3K	39	PSU	O4'-C1'	-2.23	1.41	1.44
22	1K	34	U8U	O4-C4	-2.19	1.19	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	1K	39	PSU	O4'-C1'	-2.03	1.41	1.44

All (106) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	3L	39	PSU	C5-C1'-C2'	-15.88	86.99	115.32
23	2L	56	PSU	N1-C2-N3	-11.86	119.00	128.43
22	1L	39	PSU	N1-C2-N3	-11.06	119.64	128.43
22	1K	39	PSU	N1-C2-N3	-11.02	119.67	128.43
22	1L	55	PSU	N1-C2-N3	-10.85	119.81	128.43
56	3L	39	PSU	N1-C2-N3	-10.75	119.89	128.43
24	3K	39	PSU	N1-C2-N3	-10.49	120.09	128.43
22	1K	55	PSU	N1-C2-N3	-10.16	120.36	128.43
23	2K	56	PSU	N1-C2-N3	-9.93	120.54	128.43
24	3K	39	PSU	C4-N3-C2	7.42	121.40	115.14
23	2L	56	PSU	C4-N3-C2	7.06	121.10	115.14
22	1K	37	T6A	C12-N11-C10	6.61	129.81	122.75
22	1K	37	T6A	N3-C2-N1	-6.56	118.42	128.68
22	1L	37	T6A	C12-N11-C10	6.47	129.66	122.75
22	1L	37	T6A	N3-C2-N1	-6.27	118.89	128.68
56	3L	37	T6A	N6-C10-N11	6.23	122.47	113.76
22	1L	55	PSU	C4-N3-C2	6.23	120.40	115.14
22	1K	55	PSU	C5-C1'-C2'	-6.20	104.26	115.32
22	1K	55	PSU	C4-N3-C2	6.09	120.28	115.14
23	2L	47	G7M	C1'-N9-C4	-5.87	116.34	126.64
24	3K	39	PSU	C5-C4-N3	-5.48	118.31	125.36
23	2K	56	PSU	C4-N3-C2	5.45	119.75	115.14
23	2L	33	OMC	C2-N3-C4	5.38	121.80	116.34
56	3L	37	T6A	N3-C2-N1	-5.31	120.38	128.68
22	1L	39	PSU	C4-N3-C2	5.27	119.59	115.14
23	2K	55	5MU	C5-C6-N1	-5.26	116.53	122.19
23	2L	47	G7M	N3-C2-N1	-5.25	120.22	127.22
22	1K	37	T6A	C2-N1-C6	5.23	121.07	116.59
22	1K	39	PSU	C4-N3-C2	5.17	119.51	115.14
24	3K	39	PSU	O4'-C1'-C5	-5.11	102.02	109.93
56	3L	37	T6A	C2-N1-C6	5.05	120.92	116.59
22	1L	55	PSU	C5-C4-N3	-5.00	118.92	125.36
22	1L	37	T6A	N6-C10-N11	4.95	120.67	113.76
22	1L	37	T6A	C2-N1-C6	4.93	120.82	116.59
22	1K	54	5MU	C5-C6-N1	-4.91	116.90	122.19
22	1K	54	5MU	C4-N3-C2	4.85	119.24	115.14
23	2L	55	5MU	C5-C6-N1	-4.83	116.98	122.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	1K	55	PSU	C5-C4-N3	-4.82	119.15	125.36
22	1K	37	T6A	N6-C6-N1	4.81	125.16	118.72
56	3L	39	PSU	C4-N3-C2	4.79	119.18	115.14
22	1L	54	5MU	C5-C6-N1	-4.73	117.10	122.19
22	1K	37	T6A	N6-C10-N11	4.71	120.34	113.76
22	1L	54	5MU	C4-N3-C2	4.45	118.90	115.14
23	2K	55	5MU	C4-N3-C2	4.44	118.89	115.14
23	2K	47	G7M	N3-C2-N1	-4.44	121.31	127.22
23	2K	56	PSU	C5-C4-N3	-4.43	119.66	125.36
22	1K	34	U8U	C2-N3-C4	4.39	120.42	115.93
22	1K	34	U8U	C5-C4-N3	-4.38	118.82	125.25
23	2K	47	G7M	C5-C6-N1	-4.26	117.60	123.43
56	3L	39	PSU	O4'-C1'-C5	4.24	116.50	109.93
23	2L	56	PSU	C5-C4-N3	-4.20	119.95	125.36
23	2K	33	OMC	C2-N3-C4	4.16	120.56	116.34
56	3L	39	PSU	C5-C6-N1	-4.15	119.33	124.44
23	2L	55	5MU	C4-N3-C2	3.98	118.51	115.14
22	1L	34	U8U	C5-C4-N3	-3.98	119.42	125.25
23	2L	56	PSU	O4'-C1'-C5	3.94	116.04	109.93
56	3L	39	PSU	C5-C4-N3	-3.93	120.30	125.36
22	1L	34	U8U	C2-N3-C4	3.87	119.89	115.93
22	1L	37	T6A	O10-C10-N6	-3.87	117.08	123.62
56	3L	39	PSU	C6-N1-C2	3.83	121.68	115.36
22	1K	37	T6A	O10-C10-N6	-3.80	117.19	123.62
22	1L	39	PSU	C5-C4-N3	-3.72	120.56	125.36
22	1L	37	T6A	N6-C6-N1	3.69	123.66	118.72
22	1L	55	PSU	C5-C1'-C2'	-3.56	108.98	115.32
22	1L	39	PSU	C6-N1-C2	3.46	121.07	115.36
23	2K	47	G7M	C2-N3-C4	3.34	119.17	115.36
23	2L	47	G7M	C5-C6-N1	-3.31	118.90	123.43
56	3L	39	PSU	C3'-C2'-C1'	3.27	105.70	101.93
22	1K	39	PSU	C6-N1-C2	3.25	120.72	115.36
22	1L	39	PSU	C5-C6-N1	-3.23	120.47	124.44
23	2K	56	PSU	C5-C6-N1	-3.17	120.54	124.44
22	1K	39	PSU	C5-C4-N3	-3.16	121.29	125.36
22	1K	39	PSU	C5-C6-N1	-3.07	120.67	124.44
22	1L	55	PSU	C5-C6-N1	-3.07	120.67	124.44
23	2K	8	4SU	C2-N3-C4	3.05	119.57	115.15
22	1L	55	PSU	C6-N1-C2	3.01	120.32	115.36
23	2L	47	G7M	C2-N3-C4	3.00	118.78	115.36
23	2L	47	G7M	C6-N1-C2	2.89	120.52	115.93
22	1K	34	U8U	C6-C5-C4	2.88	120.17	115.73

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	2K	33	OMC	N4-C4-N3	2.87	121.03	116.49
23	2K	47	G7M	C6-N1-C2	2.84	120.44	115.93
56	3L	37	T6A	O10-C10-N6	-2.81	118.87	123.62
22	1K	55	PSU	C6-N1-C2	2.72	119.85	115.36
22	1L	34	U8U	C6-C5-C4	2.69	119.89	115.73
23	2K	56	PSU	C6-N1-C2	2.68	119.78	115.36
24	3K	39	PSU	C4-C5-C1'	2.66	126.13	121.12
23	2K	8	4SU	C5-C4-N3	-2.60	120.36	123.83
56	3L	37	T6A	C12-N11-C10	2.52	125.44	122.75
56	3L	37	T6A	C14-C12-N11	2.45	117.99	111.72
22	1K	39	PSU	O4'-C1'-C5	-2.43	106.16	109.93
23	2L	56	PSU	C6-N1-C2	2.41	119.34	115.36
23	2L	33	OMC	C5-C4-N3	-2.40	118.95	121.72
22	1K	55	PSU	C5-C6-N1	-2.40	121.49	124.44
23	2L	8	4SU	C2-N3-C4	2.37	118.59	115.15
22	1L	37	T6A	C14-C12-N11	2.33	117.68	111.72
23	2L	47	G7M	N2-C2-N1	2.26	120.77	117.25
23	2L	33	OMC	C6-N1-C2	-2.24	117.64	121.20
56	3L	37	T6A	C4-C5-N7	-2.21	107.09	109.40
56	3L	37	T6A	O10-C10-N11	-2.19	118.62	122.62
56	3L	37	T6A	N6-C6-N1	-2.19	115.79	118.72
23	2K	33	OMC	C5-C4-N3	-2.17	119.22	121.72
22	1L	37	T6A	C15-C14-C12	-2.15	107.95	112.30
56	3L	39	PSU	O4'-C1'-C2'	2.13	108.11	104.66
24	3K	39	PSU	C6-N1-C2	2.09	118.81	115.36
22	1L	39	PSU	C5-C1'-C2'	-2.09	111.59	115.32
22	1K	37	T6A	C14-C12-N11	2.02	116.90	111.72

There are no chirality outliers.

All (36) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
22	1L	37	T6A	C5-C6-N6-C10
22	1L	37	T6A	N1-C6-N6-C10
22	1L	37	T6A	C14-C12-N11-C10
22	1L	37	T6A	C13-C12-C14-O14
24	3K	39	PSU	C3'-C4'-C5'-O5'
23	2L	33	OMC	C2'-C1'-N1-C6
56	3L	39	PSU	O4'-C4'-C5'-O5'
22	1L	39	PSU	C3'-C4'-C5'-O5'
22	1L	39	PSU	O4'-C4'-C5'-O5'
56	3L	37	T6A	C5-C6-N6-C10

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Mol	Chain	Res	Type	Atoms
56	3L	37	T6A	C13-C12-N11-C10
56	3L	37	T6A	N11-C12-C14-O14
56	3L	37	T6A	N11-C12-C14-C15
56	3L	37	T6A	C13-C12-C14-O14
23	2L	47	G7M	O4'-C4'-C5'-O5'
23	2L	55	5MU	C2'-C1'-N1-C6
23	2L	55	5MU	O4'-C1'-N1-C6
56	3L	37	T6A	O4'-C4'-C5'-O5'
56	3L	37	T6A	C3'-C4'-C5'-O5'
23	2L	47	G7M	C3'-C4'-C5'-O5'
22	1L	55	PSU	C3'-C4'-C5'-O5'
22	1L	55	PSU	O4'-C4'-C5'-O5'
22	1L	37	T6A	N11-C12-C14-O14
24	3K	39	PSU	O4'-C4'-C5'-O5'
56	3L	37	T6A	C13-C12-C14-C15
23	2L	55	5MU	C4'-C5'-O5'-P
22	1L	37	T6A	N11-C12-C14-C15
22	1L	34	U8U	N-C-C5-C4
24	3K	39	PSU	C4'-C5'-O5'-P
23	2K	47	G7M	C4'-C5'-O5'-P
22	1K	37	T6A	C13-C12-N11-C10
22	1K	34	U8U	C3'-C4'-C5'-O5'
24	3K	39	PSU	C2'-C1'-C5-C6
22	1K	34	U8U	O4'-C4'-C5'-O5'
56	3L	39	PSU	C4'-C5'-O5'-P
22	1K	37	T6A	N11-C12-C14-C15

There are no ring outliers.

11 monomers are involved in 20 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
22	1K	34	U8U	1	0
22	1L	37	T6A	2	0
23	2L	8	4SU	2	0
22	1K	54	5MU	1	0
56	3L	39	PSU	1	0
23	2K	55	5MU	2	0
23	2L	56	PSU	3	0
56	3L	37	T6A	2	0
23	2L	47	G7M	4	0
23	2K	8	4SU	1	0
23	2L	55	5MU	3	0

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

Of 1269 ligands modelled in this entry, 1265 are monoatomic - leaving 4 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
59	SF4	3E	301	4	0,12,12	0.00	-	-		
59	SF4	32	301	-	0,12,12	0.00	-	-		
58	PAR	13	1749	-	45,45,45	0.85	0	64,67,67	2.01	16 (25%)
58	PAR	1G	1691	-	45,45,45	0.71	0	64,67,67	1.73	17 (26%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
58	PAR	13	1749	-	-	4/18/94/94	0/4/4/4
59	SF4	3E	301	4	-	-	0/6/5/5
58	PAR	1G	1691	-	-	6/18/94/94	0/4/4/4
59	SF4	32	301	-	-	-	0/6/5/5

There are no bond length outliers.

All (33) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	13	1749	PAR	C22-C12-C62	-4.86	102.69	110.04
58	13	1749	PAR	C14-O33-C33	-4.70	106.32	117.96
58	1G	1691	PAR	O11-C11-C21	-4.60	100.30	108.22
58	13	1749	PAR	C11-O51-C51	4.53	122.58	113.69
58	13	1749	PAR	C14-O54-C54	4.32	122.17	113.69

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	13	1749	PAR	O52-C13-O43	-4.25	106.83	111.43
58	1G	1691	PAR	C14-O54-C54	4.16	121.85	113.69
58	13	1749	PAR	C32-C22-C12	-4.10	102.76	111.18
58	13	1749	PAR	O51-C51-C41	4.06	117.06	109.69
58	1G	1691	PAR	O54-C54-C64	3.86	113.19	106.01
58	1G	1691	PAR	O11-C42-C32	-3.72	100.31	109.18
58	1G	1691	PAR	O52-C13-C23	3.66	115.55	107.96
58	1G	1691	PAR	C13-O52-C52	-3.32	109.76	117.96
58	13	1749	PAR	O52-C13-C23	3.30	114.80	107.96
58	13	1749	PAR	O11-C42-C32	-3.22	101.49	109.18
58	1G	1691	PAR	C14-O33-C33	-3.07	110.36	117.96
58	13	1749	PAR	C41-C31-C21	-2.86	106.16	111.07
58	13	1749	PAR	O11-C11-C21	-2.83	103.34	108.22
58	13	1749	PAR	O54-C14-C24	2.71	116.17	110.06
58	1G	1691	PAR	O51-C11-C21	2.70	116.14	110.06
58	13	1749	PAR	O54-C54-C44	2.68	114.56	109.69
58	1G	1691	PAR	O62-C62-C12	-2.68	104.91	109.81
58	1G	1691	PAR	C62-C12-N12	-2.67	105.68	110.97
58	13	1749	PAR	O51-C11-C21	2.52	115.72	110.06
58	1G	1691	PAR	C31-C21-N21	-2.45	106.04	111.05
58	13	1749	PAR	O52-C52-C42	2.38	113.54	107.48
58	13	1749	PAR	O11-C42-C52	2.28	113.28	107.48
58	1G	1691	PAR	O62-C62-C52	2.24	115.87	109.94
58	1G	1691	PAR	O11-C42-C52	2.23	113.14	107.48
58	1G	1691	PAR	C11-C21-N21	-2.18	106.27	110.20
58	1G	1691	PAR	C41-C31-C21	-2.06	107.52	111.07
58	1G	1691	PAR	C11-O51-C51	2.03	117.67	113.69
58	1G	1691	PAR	C32-C22-C12	-2.02	107.04	111.18

There are no chirality outliers.

All (10) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
58	13	1749	PAR	C41-C51-C61-O61
58	1G	1691	PAR	C33-C43-C53-O53
58	1G	1691	PAR	O43-C43-C53-O53
58	13	1749	PAR	O51-C51-C61-O61
58	1G	1691	PAR	O43-C13-O52-C52
58	13	1749	PAR	C23-C13-O52-C52
58	1G	1691	PAR	C23-C13-O52-C52
58	13	1749	PAR	C43-C33-O33-C14
58	1G	1691	PAR	C43-C33-O33-C14

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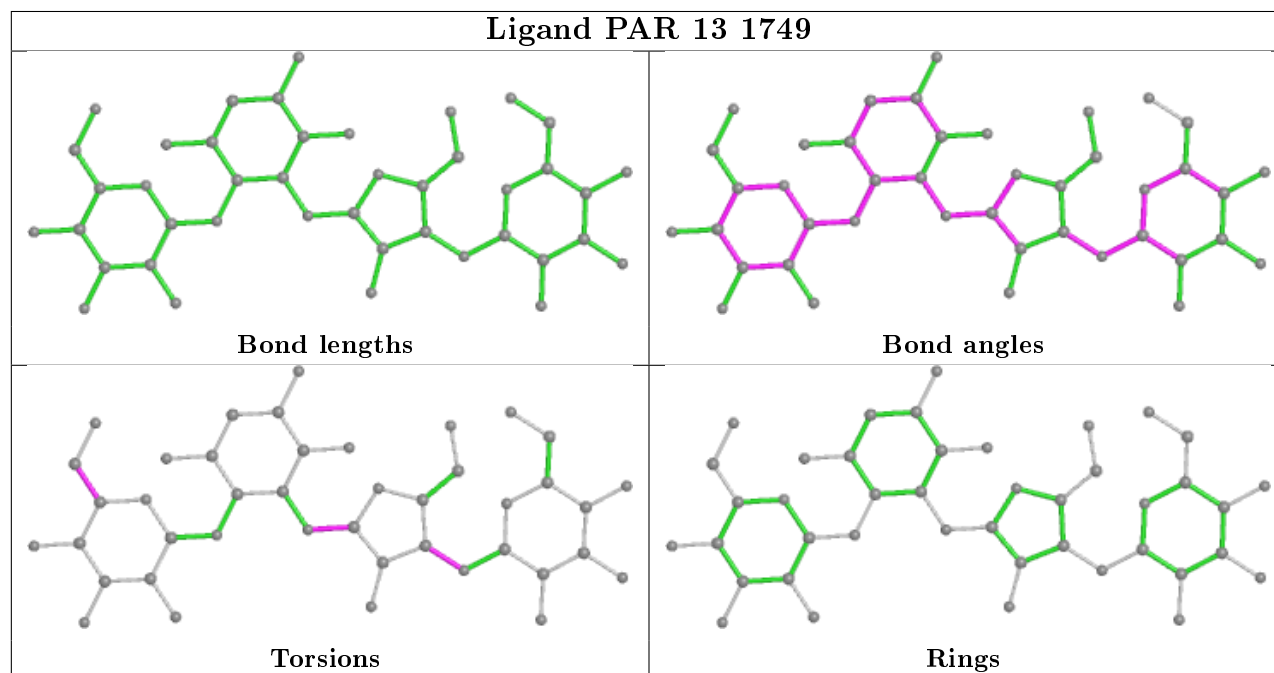
Mol	Chain	Res	Type	Atoms
58	1G	1691	PAR	C52-C42-O11-C11

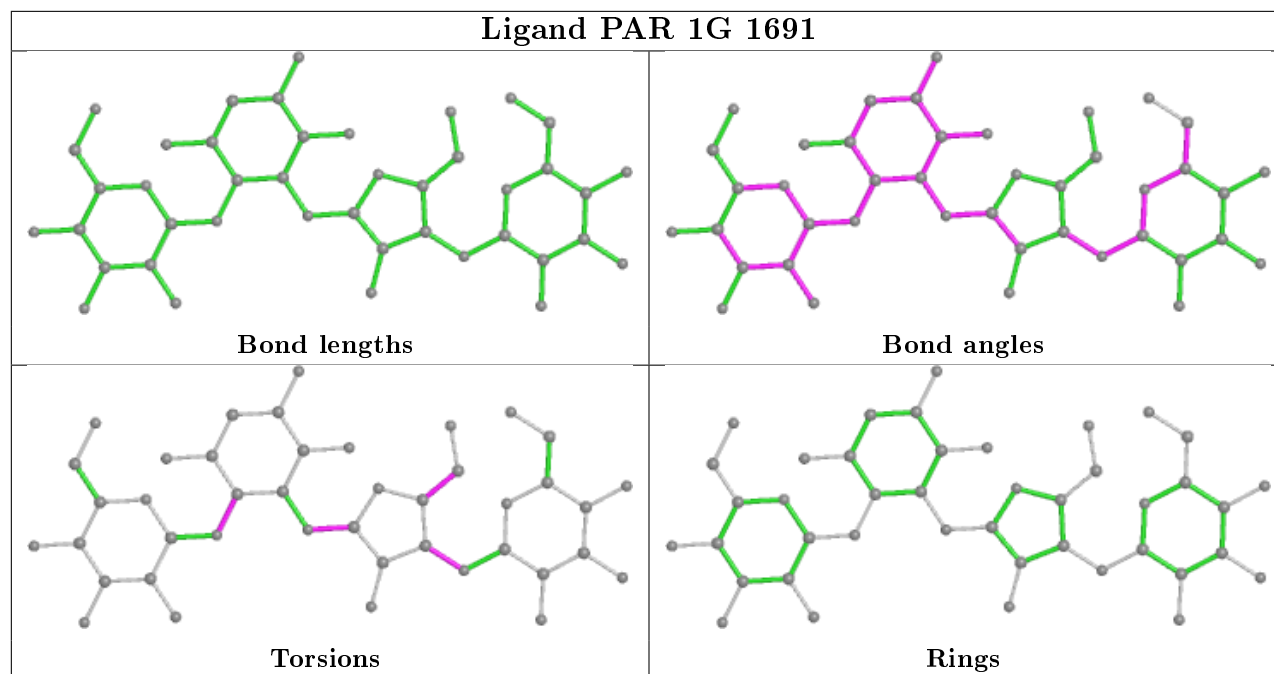
There are no ring outliers.

3 monomers are involved in 7 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
59	32	301	SF4	2	0
58	13	1749	PAR	3	0
58	1G	1691	PAR	2	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.





5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
34	69	1
4	3E	1
10	1A	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	3E	36:ARG	C	37:PRO	N	1.17
1	69	79:ILE	C	80:PRO	N	1.16
1	1A	76:ASN	C	77:PRO	N	1.12

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	13	1496/1522 (98%)	-0.82	2 (0%) 95 95	58, 99, 162, 246	0
1	1G	1506/1522 (98%)	-0.86	1 (0%) 95 95	73, 114, 168, 253	0
2	12	210/256 (82%)	0.45	15 (7%) 16 8	127, 152, 169, 182	0
2	1E	231/256 (90%)	0.44	16 (6%) 16 9	105, 136, 157, 168	0
3	22	196/239 (82%)	1.11	45 (22%) 0 0	122, 138, 165, 170	0
3	2E	205/239 (85%)	0.46	11 (5%) 25 13	81, 103, 128, 138	0
4	32	208/209 (99%)	0.99	43 (20%) 1 0	98, 118, 136, 144	0
4	3E	207/209 (99%)	0.54	20 (9%) 7 4	80, 101, 121, 129	0
5	42	148/162 (91%)	0.40	6 (4%) 37 22	104, 121, 137, 147	0
5	4E	149/162 (91%)	0.55	13 (8%) 10 5	79, 96, 112, 121	0
6	52	101/101 (100%)	0.58	10 (9%) 7 4	83, 101, 118, 131	0
6	5E	100/101 (99%)	0.88	13 (13%) 3 2	83, 100, 115, 121	0
7	62	139/156 (89%)	0.17	4 (2%) 51 35	111, 124, 135, 141	0
7	6E	154/156 (98%)	-0.07	3 (1%) 66 53	101, 115, 132, 141	0
8	72	137/138 (99%)	0.41	8 (5%) 23 12	104, 124, 136, 142	0
8	7E	138/138 (100%)	0.57	11 (7%) 12 6	91, 106, 118, 127	0
9	82	121/128 (94%)	0.20	3 (2%) 57 42	110, 151, 165, 175	0
9	8E	126/128 (98%)	-0.18	0 100 100	89, 128, 147, 153	0
10	1A	80/105 (76%)	-0.01	1 (1%) 77 66	116, 145, 154, 156	0
10	1I	91/105 (86%)	0.24	7 (7%) 13 6	80, 121, 156, 161	0
11	2A	113/129 (87%)	0.82	16 (14%) 2 1	86, 110, 123, 130	0
11	2I	111/129 (86%)	0.91	15 (13%) 3 2	77, 102, 118, 125	0
12	3A	122/132 (92%)	1.17	31 (25%) 0 0	84, 102, 126, 145	0
12	3I	122/132 (92%)	0.40	5 (4%) 37 22	67, 77, 99, 122	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	4A	111/126 (88%)	0.61	9 (8%) 12 6	109, 138, 154, 162	0
13	4I	119/126 (94%)	0.12	2 (1%) 70 57	84, 113, 128, 142	0
14	5A	59/61 (96%)	0.79	13 (22%) 0 0	122, 135, 145, 150	0
14	5I	60/61 (98%)	-0.33	0 100 100	82, 92, 108, 112	0
15	6A	88/89 (98%)	0.07	3 (3%) 45 28	89, 109, 128, 132	0
15	6I	87/89 (97%)	0.29	1 (1%) 80 70	83, 99, 116, 124	0
16	7A	84/88 (95%)	0.07	1 (1%) 79 68	92, 107, 125, 140	0
16	7I	83/88 (94%)	-0.26	0 100 100	97, 106, 136, 155	0
17	8A	99/105 (94%)	0.48	9 (9%) 9 5	95, 114, 127, 134	0
17	8I	100/105 (95%)	0.32	5 (5%) 28 15	88, 104, 115, 121	0
18	9A	67/88 (76%)	0.90	9 (13%) 3 2	93, 111, 130, 132	0
18	9I	68/88 (77%)	1.64	22 (32%) 0 0	87, 102, 124, 127	0
19	AA	62/93 (66%)	0.43	5 (8%) 12 6	123, 142, 153, 156	0
19	AI	81/93 (87%)	0.41	3 (3%) 41 25	91, 110, 132, 138	0
20	BA	99/106 (93%)	-0.06	2 (2%) 65 50	90, 110, 133, 142	0
20	BI	97/106 (91%)	-0.12	1 (1%) 82 73	104, 121, 147, 152	0
21	1B	22/27 (81%)	0.04	2 (9%) 9 5	119, 130, 141, 145	0
21	1F	23/27 (85%)	-0.35	0 100 100	89, 102, 110, 112	0
22	1K	64/76 (84%)	0.37	8 (12%) 3 2	84, 173, 191, 198	0
22	1L	68/76 (89%)	1.45	19 (27%) 0 0	115, 198, 216, 220	0
23	2K	72/77 (93%)	-0.54	0 100 100	74, 96, 123, 139	0
23	2L	72/77 (93%)	-0.48	0 100 100	81, 109, 138, 153	0
24	3K	75/76 (98%)	-0.33	3 (4%) 38 23	76, 207, 224, 234	0
25	4K	20/27 (74%)	0.14	2 (10%) 7 4	73, 133, 219, 222	0
25	4L	19/27 (70%)	0.29	2 (10%) 6 3	92, 146, 215, 217	0
26	14	2861/2917 (98%)	-0.59	18 (0%) 89 84	54, 86, 192, 250	0
26	1H	2833/2917 (97%)	-0.61	12 (0%) 92 89	44, 76, 171, 250	0
27	16	122/122 (100%)	-0.83	1 (0%) 86 78	69, 93, 114, 188	0
27	1J	122/122 (100%)	-0.87	0 100 100	87, 113, 134, 182	0
28	71	133/229 (58%)	1.48	45 (33%) 0 0	135, 198, 223, 231	0
28	79	57/229 (24%)	1.56	22 (38%) 0 0	141, 174, 199, 206	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
29	11	273/276 (98%)	0.32	7 (2%) 56 40	43, 68, 86, 96	0
29	19	274/276 (99%)	0.45	13 (4%) 31 17	52, 75, 91, 115	0
30	21	203/206 (98%)	0.66	29 (14%) 2 1	55, 93, 129, 137	0
30	29	204/206 (99%)	0.40	16 (7%) 13 6	63, 94, 125, 142	0
31	31	202/210 (96%)	0.11	6 (2%) 50 33	49, 80, 114, 128	0
31	39	204/210 (97%)	0.52	20 (9%) 7 4	60, 101, 144, 170	0
32	41	179/182 (98%)	0.45	15 (8%) 11 5	80, 101, 132, 143	0
32	49	179/182 (98%)	1.36	47 (26%) 0 0	107, 123, 144, 167	0
33	51	171/180 (95%)	0.34	11 (6%) 19 10	84, 103, 118, 126	0
33	59	74/180 (41%)	0.50	10 (13%) 3 2	127, 155, 176, 191	0
34	61	146/148 (98%)	0.68	17 (11%) 4 2	80, 125, 142, 155	0
34	69	145/148 (97%)	0.86	23 (15%) 1 1	86, 121, 142, 152	0
35	15	138/140 (98%)	0.74	14 (10%) 7 3	80, 104, 132, 141	0
35	58	138/140 (98%)	0.65	13 (9%) 8 4	67, 94, 126, 137	0
36	25	122/122 (100%)	0.37	4 (3%) 46 29	69, 87, 103, 112	0
36	68	122/122 (100%)	0.25	4 (3%) 46 29	61, 79, 95, 103	0
37	35	147/150 (98%)	0.52	13 (8%) 10 5	60, 102, 129, 139	0
37	78	147/150 (98%)	0.03	4 (2%) 54 38	50, 84, 111, 117	0
38	45	138/141 (97%)	1.28	29 (21%) 1 0	74, 100, 118, 130	0
38	88	141/141 (100%)	0.47	8 (5%) 23 12	61, 80, 100, 123	0
39	55	118/118 (100%)	-0.11	0 100 100	64, 80, 96, 107	0
39	98	118/118 (100%)	0.51	8 (6%) 17 9	66, 89, 106, 118	0
40	65	110/112 (98%)	0.55	6 (5%) 25 13	84, 106, 121, 127	0
40	A8	111/112 (99%)	0.58	8 (7%) 15 8	76, 88, 107, 116	0
41	75	133/146 (91%)	0.03	4 (3%) 50 33	76, 95, 122, 143	0
41	B8	133/146 (91%)	-0.17	1 (0%) 86 78	71, 94, 126, 141	0
42	85	116/118 (98%)	0.27	6 (5%) 27 14	67, 90, 121, 132	0
42	C8	115/118 (97%)	0.19	5 (4%) 35 21	60, 84, 111, 120	0
43	95	100/101 (99%)	1.72	39 (39%) 0 0	68, 117, 131, 142	0
43	D8	100/101 (99%)	0.82	11 (11%) 5 3	62, 103, 123, 129	0
44	A5	113/113 (100%)	0.18	2 (1%) 68 55	61, 75, 104, 155	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	E8	112/113 (99%)	0.44	4 (3%) 42 26	60, 76, 104, 136	0
45	B5	94/96 (97%)	0.35	6 (6%) 19 10	72, 83, 104, 119	0
45	F8	95/96 (98%)	0.21	3 (3%) 47 30	59, 74, 97, 107	0
46	C5	104/110 (94%)	1.12	23 (22%) 0 0	89, 114, 147, 154	0
46	G8	105/110 (95%)	0.11	2 (1%) 66 53	72, 94, 124, 135	0
47	D5	132/206 (64%)	1.65	54 (40%) 0 0	104, 132, 155, 163	0
47	H8	171/206 (83%)	1.27	45 (26%) 0 0	87, 118, 188, 193	0
48	E5	77/85 (90%)	0.66	4 (5%) 27 14	69, 87, 102, 123	0
48	I8	76/85 (89%)	-0.12	1 (1%) 77 66	59, 72, 85, 100	0
49	F5	94/98 (95%)	0.57	7 (7%) 14 8	66, 84, 115, 128	0
49	J8	94/98 (95%)	0.41	9 (9%) 8 4	54, 77, 114, 120	0
50	G5	66/72 (91%)	0.25	2 (3%) 50 33	81, 101, 121, 132	0
50	K8	68/72 (94%)	0.29	1 (1%) 73 61	67, 84, 98, 115	0
51	H5	58/60 (96%)	0.94	9 (15%) 2 1	77, 98, 128, 136	0
51	L8	58/60 (96%)	0.33	2 (3%) 45 28	65, 83, 107, 123	0
52	M8	47/71 (66%)	1.16	12 (25%) 0 0	102, 135, 150, 157	0
53	J5	56/60 (93%)	-0.10	0 100 100	59, 87, 127, 134	0
53	N8	48/60 (80%)	0.21	3 (6%) 20 10	55, 86, 128, 132	0
54	L5	47/49 (95%)	-0.19	1 (2%) 63 49	54, 62, 83, 88	0
54	P8	47/49 (95%)	-0.39	1 (2%) 63 49	49, 55, 72, 81	0
55	M5	64/65 (98%)	0.18	1 (1%) 72 59	68, 78, 93, 111	0
55	Q8	64/65 (98%)	-0.14	0 100 100	62, 70, 84, 97	0
56	3L	73/76 (96%)	0.11	3 (4%) 37 22	84, 205, 228, 235	0
All	All	20602/21967 (93%)	-0.02	1104 (5%) 25 13	43, 99, 165, 253	0

All (1104) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
26	14	2902	C	12.8
26	14	2901	C	9.8
32	49	138	GLN	8.4
44	A5	113	LYS	8.2
22	1L	71	C	8.2
43	95	45	THR	7.8

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Mol	Chain	Res	Type	RSRZ
22	1L	70	C	7.7
12	3A	64	TYR	7.5
22	1L	3	G	7.3
41	75	1	MET	7.2
30	21	88	GLY	7.1
38	45	91	GLU	7.1
26	14	2900	A	7.0
41	B8	1	MET	6.9
26	1H	2476	A	6.8
43	D8	1	MET	6.8
47	D5	68	PRO	6.6
43	95	36	PRO	6.6
26	14	2795	G	6.5
44	E8	111	HIS	6.4
2	12	62	ALA	6.4
43	95	12	TYR	6.3
47	H8	147	GLY	6.3
3	22	101	LEU	6.2
32	49	137	GLU	6.1
46	C5	59	GLY	6.0
37	35	1	MET	5.9
43	95	1	MET	5.9
27	16	1(M)	A	5.9
28	71	175	VAL	5.9
32	49	139	LEU	5.7
47	H8	1	MET	5.7
22	1L	69	A	5.7
44	A5	112	GLY	5.7
26	14	4	C	5.7
12	3A	68	ALA	5.6
43	95	15	GLU	5.5
34	61	146	ALA	5.5
32	49	155	MET	5.5
34	69	1	MET	5.4
28	71	197	GLU	5.4
33	59	169	VAL	5.4
56	3L	7	U	5.4
4	32	23	GLY	5.3
22	1L	65	C	5.3
38	45	103	MET	5.2
4	32	34	GLU	5.2
28	71	49	ILE	5.2

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Mol	Chain	Res	Type	RSRZ
12	3A	28	LYS	5.2
30	21	1	MET	5.2
3	22	103	VAL	5.2
6	5E	55	ASP	5.1
43	95	93	GLU	5.1
28	71	193	ILE	5.1
47	D5	69	THR	5.0
32	49	150	ASP	5.0
18	9I	26	LEU	5.0
14	5A	37	PHE	5.0
32	49	182	LYS	5.0
48	E5	9	SER	5.0
28	71	192	PHE	5.0
26	14	2899	G	5.0
46	C5	50	ARG	4.9
47	D5	91	LEU	4.9
13	4I	6	GLY	4.9
46	C5	53	PRO	4.9
26	14	2799	A	4.9
2	12	21	ARG	4.9
47	D5	55	HIS	4.9
1	13	1536	C	4.8
28	71	63	SER	4.8
31	39	10	PRO	4.8
28	71	176	GLY	4.8
40	A8	48	LEU	4.8
14	5A	39	LEU	4.7
43	95	40	LEU	4.7
32	49	39	ILE	4.7
18	9I	40	LEU	4.7
3	22	102	ASN	4.7
30	21	89	ASP	4.7
34	69	20	ASP	4.6
28	71	179	SER	4.6
12	3A	27	LEU	4.6
26	14	2898	U	4.6
43	D8	37	VAL	4.5
14	5A	52	GLN	4.5
3	22	198	VAL	4.5
12	3A	65	GLU	4.5
43	D8	45	THR	4.5
28	71	228	SER	4.4

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Mol	Chain	Res	Type	RSRZ
4	32	134	ASP	4.4
6	5E	57	GLN	4.4
30	21	90	THR	4.4
28	71	31	GLU	4.4
43	95	96	ILE	4.4
28	79	14	VAL	4.4
47	H8	141	VAL	4.4
4	32	110	PHE	4.4
40	65	37	ALA	4.4
47	H8	107	THR	4.3
34	61	116	LEU	4.3
28	79	209	LEU	4.3
46	C5	46	LYS	4.3
51	H5	2	PRO	4.3
22	1L	1	G	4.2
22	1L	4	U	4.2
32	49	142	PRO	4.2
38	45	104	PHE	4.2
35	15	9	VAL	4.2
6	5E	46	ARG	4.2
12	3I	64	TYR	4.2
3	2E	166	GLU	4.2
22	1L	16	U	4.2
4	32	70	ILE	4.2
32	49	151	ALA	4.1
43	95	18	LEU	4.1
4	32	126	ILE	4.1
47	D5	9	TYR	4.1
47	D5	134	PRO	4.1
47	H8	104	PHE	4.1
34	61	107	VAL	4.1
5	42	35	GLY	4.1
43	95	94	LEU	4.1
46	C5	63	LYS	4.1
14	5A	51	GLY	4.1
32	49	135	LEU	4.1
38	45	102	VAL	4.1
38	45	65	PHE	4.0
4	3E	110	PHE	4.0
34	69	144	VAL	4.0
47	H8	2	GLU	4.0
47	H8	96	VAL	4.0

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Mol	Chain	Res	Type	RSRZ
32	41	137	GLU	4.0
47	D5	51	ALA	4.0
12	3A	69	TYR	4.0
12	3A	60	LEU	4.0
4	32	179	GLU	4.0
33	59	171	LEU	4.0
26	14	2794	C	4.0
22	1L	76	A	4.0
35	58	138	LEU	4.0
49	J8	95	LEU	4.0
26	14	1	G	3.9
47	D5	54	HIS	3.9
3	22	53	ALA	3.9
47	D5	56	VAL	3.9
47	D5	67	LEU	3.9
35	15	8	GLN	3.9
38	45	68	ILE	3.9
12	3A	62	SER	3.9
35	58	15	LEU	3.9
48	E5	8	GLY	3.9
18	9I	23	LYS	3.9
38	45	7	MET	3.9
3	22	204	LEU	3.9
47	H8	148	ASP	3.9
38	45	105	GLU	3.9
26	14	2797	U	3.9
8	72	112	LEU	3.9
18	9I	31	LEU	3.9
37	35	123	LEU	3.9
32	49	179	PRO	3.9
43	95	16	PRO	3.9
32	49	48	GLU	3.8
34	61	70	GLU	3.8
46	C5	5	MET	3.8
43	95	39	LEU	3.8
5	4E	98	THR	3.8
37	35	110	TYR	3.8
43	95	91	TYR	3.8
34	69	2	LYS	3.8
47	H8	167	PRO	3.8
43	95	34	GLU	3.8
28	79	199	HIS	3.8

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Mol	Chain	Res	Type	RSRZ
32	49	140	ILE	3.8
52	M8	5	ILE	3.8
50	G5	44	LEU	3.7
43	95	3	ALA	3.7
46	C5	58	GLY	3.7
30	29	67	PHE	3.7
3	22	143	GLU	3.7
41	75	6	LEU	3.7
28	71	163	PHE	3.7
38	45	92	GLY	3.7
12	3A	56	ALA	3.7
31	39	22	ALA	3.7
47	H8	146	ILE	3.7
32	49	136	ARG	3.7
9	82	56	LEU	3.7
30	29	49	LEU	3.7
12	3A	32	PHE	3.7
29	19	26	LYS	3.7
28	71	196	LEU	3.7
34	69	138	ILE	3.7
49	J8	92	LYS	3.6
32	49	157	ILE	3.6
4	32	154	ASN	3.6
4	3E	144	ASP	3.6
18	9I	28	GLU	3.6
18	9A	84	LYS	3.6
32	49	141	PHE	3.6
47	D5	28	MET	3.6
28	71	62	VAL	3.6
42	85	90	VAL	3.6
3	22	47	LEU	3.6
38	45	60	ARG	3.6
40	A8	49	VAL	3.6
47	D5	50	GLN	3.6
18	9A	26	LEU	3.6
40	65	108	GLY	3.6
47	D5	163	LEU	3.6
3	2E	101	LEU	3.6
30	29	69	LYS	3.5
46	C5	56	PRO	3.5
12	3A	85	ILE	3.5
26	14	5	A	3.5

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Mol	Chain	Res	Type	RSRZ
28	79	47	LEU	3.5
47	H8	166	SER	3.5
8	72	111	ILE	3.5
32	49	175	LEU	3.5
24	3K	65	C	3.5
43	95	14	VAL	3.5
47	H8	7	ALA	3.5
4	32	69	GLY	3.5
5	4E	6	PHE	3.5
22	1K	71	C	3.5
2	1E	96	ARG	3.5
37	35	138	LEU	3.5
52	M8	31	ILE	3.5
1	13	1535	C	3.4
43	95	38	LEU	3.4
28	71	29	VAL	3.4
30	29	4	ILE	3.4
47	D5	133	ILE	3.4
13	4A	73	GLU	3.4
11	2I	107	SER	3.4
21	1B	2	GLY	3.4
42	85	69	CYS	3.4
38	45	69	PHE	3.4
8	7E	112	LEU	3.4
12	3A	84	LEU	3.4
12	3A	37	CYS	3.4
30	21	96	PHE	3.4
47	D5	52	SER	3.4
47	D5	57	ILE	3.4
19	AA	44	MET	3.4
22	1K	73	A	3.4
4	3E	138	TYR	3.4
18	9I	43	PHE	3.4
30	21	91	VAL	3.4
47	D5	66	SER	3.4
32	49	34	LEU	3.4
10	1I	94	VAL	3.3
34	61	72	LEU	3.3
38	88	59	ARG	3.3
5	42	45	PHE	3.3
49	J8	93	GLU	3.3
4	3E	111	ALA	3.3

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Mol	Chain	Res	Type	RSRZ
28	71	35	ALA	3.3
28	71	195	ALA	3.3
25	4L	6	G	3.3
28	71	27	HIS	3.3
47	D5	4	ARG	3.3
4	32	135	LEU	3.3
32	49	41	GLN	3.3
51	H5	26	LEU	3.3
5	4E	118	ILE	3.3
43	95	27	ALA	3.3
17	8I	99	SER	3.3
42	C8	108	GLU	3.3
44	E8	109	GLU	3.3
45	B5	89	ILE	3.3
28	71	201	PRO	3.3
43	95	59	ALA	3.3
4	32	68	TYR	3.3
11	2A	35	PRO	3.3
34	69	3	VAL	3.3
30	21	69	LYS	3.3
43	95	97	LYS	3.3
11	2A	84	VAL	3.3
3	22	149	ALA	3.3
4	32	177	ASP	3.3
5	4E	35	GLY	3.3
47	H8	150	LEU	3.3
12	3A	20	LYS	3.3
37	35	91	PHE	3.3
42	85	72	HIS	3.3
47	H8	118	GLN	3.2
31	39	23	ASP	3.2
34	69	5	LEU	3.2
2	12	157	ARG	3.2
28	71	12	GLU	3.2
42	85	117	GLN	3.2
3	22	147	LYS	3.2
13	4A	65	LYS	3.2
18	9I	80	PRO	3.2
31	39	26	ALA	3.2
11	2A	92	GLU	3.2
38	45	130	LYS	3.2
32	49	62	LEU	3.2

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Mol	Chain	Res	Type	RSRZ
44	E8	112	GLY	3.2
28	79	204	ALA	3.2
46	C5	54	LYS	3.2
34	61	109	ILE	3.2
11	2I	42	TRP	3.2
47	D5	168	GLU	3.2
17	8A	7	THR	3.2
11	2I	83	ILE	3.2
39	98	33	ARG	3.2
18	9I	87	ARG	3.2
28	79	203	GLY	3.2
29	19	27	THR	3.2
35	58	133	GLN	3.2
47	H8	111	VAL	3.2
4	32	133	VAL	3.2
46	C5	29	GLU	3.2
34	69	16	GLY	3.2
43	95	62	LEU	3.2
18	9I	29	PHE	3.2
30	21	67	PHE	3.2
38	45	90	VAL	3.2
14	5A	50	LYS	3.2
35	58	51	PHE	3.2
28	71	170	ALA	3.2
26	1H	5	A	3.2
4	3E	140	VAL	3.1
39	98	118	GLU	3.1
12	3A	21	LYS	3.1
28	71	47	LEU	3.1
34	69	12	LEU	3.1
11	2A	21	ILE	3.1
4	3E	145	GLU	3.1
28	71	58	VAL	3.1
47	H8	149	SER	3.1
22	1K	76	A	3.1
12	3I	61	THR	3.1
26	1H	2793	G	3.1
47	H8	145	GLU	3.1
38	45	32	TYR	3.1
43	95	4	ILE	3.1
2	12	112	VAL	3.1
26	14	2802	G	3.1

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Mol	Chain	Res	Type	RSRZ
43	95	20	LEU	3.1
43	95	95	LEU	3.1
28	79	200	LYS	3.1
38	45	33	GLY	3.1
11	2I	81	ASP	3.1
42	C8	104	GLN	3.1
26	1H	163	U	3.1
38	88	104	PHE	3.1
47	H8	70	LEU	3.1
6	5E	100	ASN	3.1
18	9I	42	ARG	3.1
3	22	55	VAL	3.1
28	79	43	VAL	3.1
4	32	125	HIS	3.1
26	1H	1536	A	3.1
30	21	78	LEU	3.1
47	H8	109	ALA	3.1
12	3A	55	VAL	3.0
17	8A	71	PHE	3.0
35	15	13	TRP	3.0
2	1E	123	ALA	3.0
47	D5	132	ASN	3.0
47	D5	70	LEU	3.0
19	AI	61	TYR	3.0
33	59	168	PRO	3.0
12	3A	77	LEU	3.0
34	61	140	LEU	3.0
47	H8	155	LEU	3.0
34	69	78	THR	3.0
30	29	77	ILE	3.0
52	M8	34	GLU	3.0
32	49	122	PRO	3.0
47	D5	90	VAL	3.0
28	79	56	GLN	3.0
6	5E	56	PRO	3.0
41	75	2	ASN	3.0
47	H8	171	ILE	3.0
3	22	76	VAL	3.0
35	15	51	PHE	3.0
11	2A	75	TYR	3.0
43	95	99	ILE	3.0
12	3A	19	ARG	3.0

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Mol	Chain	Res	Type	RSRZ
43	95	35	LEU	3.0
2	12	152	PHE	3.0
30	29	2	LYS	3.0
5	42	109	ILE	3.0
38	45	64	ILE	3.0
18	9I	86	VAL	3.0
47	D5	126	VAL	3.0
18	9A	49	LYS	3.0
26	14	2793	G	3.0
37	78	130	PHE	3.0
30	29	3	GLY	3.0
13	4A	82	MET	3.0
18	9I	79	LEU	2.9
10	1I	22	LYS	2.9
18	9I	51	LEU	2.9
32	49	5	VAL	2.9
18	9A	50	ILE	2.9
4	32	145	GLU	2.9
22	1L	52	G	2.9
17	8A	76	LEU	2.9
29	11	262	ARG	2.9
49	F5	28	GLY	2.9
18	9I	81	PHE	2.9
22	1L	19	G	2.9
2	12	155	LEU	2.9
45	B5	68	ARG	2.9
30	21	175	VAL	2.9
31	31	6	VAL	2.9
32	41	26	GLN	2.9
51	H5	59	VAL	2.9
12	3A	81	SER	2.9
8	7E	132	GLU	2.9
8	7E	119	LEU	2.9
43	95	5	VAL	2.9
28	79	20	TYR	2.9
4	32	131	ARG	2.9
14	5A	36	PHE	2.9
32	49	178	PHE	2.9
30	21	72	VAL	2.9
2	1E	10	LEU	2.9
15	6A	31	LEU	2.9
28	79	22	ILE	2.9

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Mol	Chain	Res	Type	RSRZ
35	15	1	MET	2.9
46	C5	49	VAL	2.9
30	21	51	PHE	2.9
32	41	75	LYS	2.9
4	3E	97	LEU	2.9
32	49	88	ILE	2.8
28	71	173	ALA	2.8
30	29	96	PHE	2.8
4	3E	150	GLU	2.8
32	49	143	GLU	2.8
56	3L	70	C	2.8
2	1E	208	ILE	2.8
43	95	61	VAL	2.8
6	5E	63	TYR	2.8
42	85	89	GLU	2.8
4	3E	168	ARG	2.8
32	41	23	PHE	2.8
30	29	76	ARG	2.8
2	12	33	TYR	2.8
29	19	112	GLN	2.8
2	1E	66	GLY	2.8
3	22	52	LEU	2.8
3	22	59	ARG	2.8
33	51	16	SER	2.8
43	D8	2	PHE	2.8
11	2I	82	VAL	2.8
11	2A	108	ILE	2.8
37	35	94	GLU	2.8
2	1E	31	TYR	2.8
7	6E	83	ALA	2.8
36	68	53	LYS	2.8
22	1K	65	C	2.8
9	82	54	ASP	2.8
26	14	2897	U	2.8
47	D5	164	ALA	2.8
36	68	52	VAL	2.8
11	2I	96	ARG	2.8
17	8A	58	GLU	2.8
32	49	133	LEU	2.8
45	F8	92	LEU	2.8
47	H8	162	GLU	2.8
18	9I	24	ALA	2.8

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Mol	Chain	Res	Type	RSRZ
47	H8	106	GLY	2.8
16	7A	51	VAL	2.8
38	45	63	LYS	2.8
14	5A	44	LEU	2.8
47	D5	5	LEU	2.8
28	71	60	GLY	2.8
35	15	127	ASP	2.8
43	95	64	HIS	2.8
22	1K	3	G	2.7
3	22	43	LEU	2.7
33	51	3	ARG	2.7
37	35	126	VAL	2.7
43	95	58	VAL	2.7
29	19	126	GLN	2.7
30	21	174	ASP	2.7
3	22	60	ALA	2.7
3	22	146	ALA	2.7
31	39	190	GLU	2.7
29	19	111	LEU	2.7
45	B5	69	TYR	2.7
51	L8	59	VAL	2.7
20	BA	41	ILE	2.7
19	AA	47	HIS	2.7
22	1L	57	G	2.7
3	22	64	VAL	2.7
31	39	27	GLU	2.7
4	32	19	LEU	2.7
52	M8	25	TYR	2.7
33	59	4	ILE	2.7
26	14	2798	C	2.7
8	7E	46	LYS	2.7
29	11	111	LEU	2.7
22	1L	67	C	2.7
17	8A	11	VAL	2.7
35	58	14	VAL	2.7
46	C5	47	LYS	2.7
47	D5	96	VAL	2.7
6	5E	47	ARG	2.7
6	52	36	ARG	2.7
40	65	60	GLY	2.7
47	D5	88	PHE	2.7
14	5A	34	TYR	2.7

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Mol	Chain	Res	Type	RSRZ
32	49	146	TYR	2.7
47	H8	117	LEU	2.7
49	J8	73	LEU	2.7
6	52	39	LYS	2.7
33	51	123	PHE	2.7
49	J8	91	LYS	2.7
2	1E	80	ILE	2.7
8	72	2	LEU	2.7
28	71	64	LEU	2.7
46	C5	52	SER	2.7
49	F5	57	GLU	2.7
30	21	14	ILE	2.7
3	22	54	ARG	2.7
47	H8	110	GLY	2.7
38	45	99	PRO	2.7
28	71	32	LEU	2.6
31	39	148	LEU	2.6
47	H8	144	LEU	2.6
3	22	105	GLU	2.6
3	22	69	HIS	2.6
32	49	63	ILE	2.6
11	2A	31	THR	2.6
31	39	11	VAL	2.6
34	69	4	ILE	2.6
47	H8	113	ALA	2.6
34	61	113	ARG	2.6
26	1H	2797	U	2.6
3	22	100	ALA	2.6
4	32	29	PRO	2.6
18	9I	85	LEU	2.6
32	49	152	LEU	2.6
4	32	185	PHE	2.6
22	1K	70	C	2.6
26	1H	2477	C	2.6
28	71	48	GLY	2.6
46	C5	88	LYS	2.6
32	49	181	ARG	2.6
33	51	104	GLU	2.6
47	H8	114	GLY	2.6
32	41	88	ILE	2.6
32	41	25	TYR	2.6
34	61	131	LYS	2.6

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Mol	Chain	Res	Type	RSRZ
3	22	35	GLU	2.6
43	D8	46	VAL	2.6
32	41	135	LEU	2.6
3	22	65	ALA	2.6
32	49	92	VAL	2.6
32	49	177	GLY	2.6
47	D5	161	VAL	2.6
3	2E	91	LEU	2.6
8	72	133	LEU	2.6
29	11	184	LYS	2.6
38	45	66	ILE	2.6
31	39	18	ARG	2.6
32	49	118	ARG	2.6
34	61	80	PRO	2.6
28	79	202	GLU	2.6
35	58	13	TRP	2.6
36	25	1	MET	2.6
50	K8	43	GLN	2.6
3	2E	201	TYR	2.6
22	1L	2	G	2.6
28	71	61	THR	2.6
3	2E	66	VAL	2.6
30	29	7	VAL	2.6
43	D8	98	GLU	2.6
3	22	48	TYR	2.6
4	32	130	GLY	2.6
28	71	69	GLY	2.6
47	D5	12	GLY	2.6
2	12	40	HIS	2.6
12	3A	70	ILE	2.6
32	49	35	GLU	2.6
32	49	116	ASP	2.6
18	9A	43	PHE	2.6
49	F5	60	PHE	2.6
38	45	121	ALA	2.6
43	D8	3	ALA	2.6
5	4E	8	GLU	2.6
43	95	19	LYS	2.6
28	79	207	THR	2.6
14	5A	38	GLY	2.5
4	32	144	ASP	2.5
26	1H	2803	C	2.5

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Mol	Chain	Res	Type	RSRZ
26	14	3	U	2.5
38	45	19	GLY	2.5
47	D5	72	ARG	2.5
47	D5	83	PRO	2.5
3	22	104	GLN	2.5
45	B5	79	ALA	2.5
40	A8	109	GLY	2.5
31	39	12	LEU	2.5
51	L8	53	LEU	2.5
33	59	165	ALA	2.5
37	35	118	GLY	2.5
4	32	176	LEU	2.5
19	AA	62	ILE	2.5
32	41	80	PHE	2.5
11	2I	19	ALA	2.5
47	D5	60	GLU	2.5
12	3A	126	LYS	2.5
32	49	82	LEU	2.5
48	E5	21	LEU	2.5
13	4A	83	ASP	2.5
12	3A	54	LYS	2.5
28	71	34	THR	2.5
46	G8	106	LEU	2.5
45	F8	1	MET	2.5
36	68	56	ASP	2.5
14	5A	25	VAL	2.5
40	A8	37	ALA	2.5
28	71	28	LEU	2.5
15	6A	15	PHE	2.5
28	71	202	GLU	2.5
32	49	36	LYS	2.5
11	2I	43	SER	2.5
28	79	48	GLY	2.5
34	69	61	ARG	2.5
31	39	199	TRP	2.5
6	52	89	MET	2.5
3	22	148	GLY	2.5
11	2A	36	ASP	2.5
49	J8	70	VAL	2.5
45	B5	92	LEU	2.5
52	M8	41	PRO	2.5
29	11	112	GLN	2.5

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Mol	Chain	Res	Type	RSRZ
46	C5	44	ILE	2.5
31	39	44	ARG	2.5
34	61	75	LEU	2.5
49	F5	10	LYS	2.5
4	3E	209	ARG	2.5
32	49	145	THR	2.5
4	32	186	LEU	2.5
8	7E	47	GLY	2.5
35	15	92	ALA	2.5
3	2E	170	GLN	2.5
28	71	200	LYS	2.5
14	5A	47	LEU	2.5
28	71	11	LEU	2.5
29	19	153	ALA	2.5
32	49	176	LEU	2.5
34	61	128	LEU	2.5
37	35	106	LEU	2.5
43	D8	35	LEU	2.5
43	95	44	LYS	2.5
44	E8	69	LEU	2.5
40	65	112	PHE	2.5
47	D5	93	ASP	2.5
3	22	144	SER	2.5
34	69	10	GLU	2.5
4	3E	170	VAL	2.4
22	1K	66	A	2.4
43	95	63	GLY	2.4
46	C5	87	LYS	2.4
30	21	199	ARG	2.4
34	61	79	ILE	2.4
37	78	145	PRO	2.4
25	4K	10	G	2.4
34	69	9	LEU	2.4
6	5E	31	GLU	2.4
18	9A	23	LYS	2.4
4	32	108	LEU	2.4
2	1E	188	ALA	2.4
5	4E	9	LYS	2.4
38	45	25	ASP	2.4
38	45	71	ASP	2.4
39	98	116	LEU	2.4
46	C5	86	ARG	2.4

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Mol	Chain	Res	Type	RSRZ
47	D5	162	GLU	2.4
2	12	165	VAL	2.4
31	39	20	LEU	2.4
32	49	90	LEU	2.4
40	65	58	LEU	2.4
46	C5	45	VAL	2.4
4	3E	91	SER	2.4
41	75	106	SER	2.4
39	98	102	GLU	2.4
3	22	7	PRO	2.4
4	3E	181	MET	2.4
4	32	120	LEU	2.4
38	45	30	GLY	2.4
47	H8	25	PRO	2.4
8	7E	110	ALA	2.4
4	32	146	ILE	2.4
7	62	74	GLU	2.4
26	14	2792	G	2.4
5	4E	71	LEU	2.4
34	69	11	ASN	2.4
4	32	153	ARG	2.4
4	3E	108	LEU	2.4
4	32	188	LEU	2.4
26	1H	2126	A	2.4
26	1H	2790	A	2.4
2	1E	14	GLY	2.4
12	3A	63	GLY	2.4
35	15	11	PRO	2.4
47	D5	95	PRO	2.4
18	9I	83	GLU	2.4
12	3I	62	SER	2.4
34	69	35	LEU	2.4
31	39	131	GLY	2.4
25	4L	13	A	2.4
40	A8	112	PHE	2.4
38	45	56	ARG	2.4
28	71	199	HIS	2.4
3	22	99	VAL	2.4
5	42	66	MET	2.4
36	25	21	CYS	2.4
12	3A	100	ILE	2.4
52	M8	22	ILE	2.4

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Mol	Chain	Res	Type	RSRZ
13	4A	64	TRP	2.4
29	19	117	VAL	2.4
2	12	163	PHE	2.4
2	12	224	GLN	2.4
3	22	132	ARG	2.4
39	98	82	GLU	2.4
34	69	76	THR	2.4
43	95	32	THR	2.4
22	1L	58	A	2.3
38	88	25	ASP	2.3
49	J8	60	PHE	2.3
2	12	156	LYS	2.3
6	52	4	TYR	2.3
11	2I	25	TYR	2.3
28	79	19	ILE	2.3
32	49	149	VAL	2.3
47	D5	37	VAL	2.3
49	F5	49	VAL	2.3
51	H5	5	LYS	2.3
30	21	4	ILE	2.3
4	32	167	GLY	2.3
6	52	37	VAL	2.3
13	4A	79	LYS	2.3
4	32	181	MET	2.3
17	8I	36	ILE	2.3
30	21	5	LEU	2.3
32	41	82	LEU	2.3
32	49	102	PHE	2.3
32	49	117	PHE	2.3
47	H8	165	VAL	2.3
54	L5	1	MET	2.3
34	69	14	ASP	2.3
18	9I	78	LEU	2.3
29	19	147	LEU	2.3
4	3E	104	VAL	2.3
10	1I	10	GLY	2.3
22	1L	73	A	2.3
29	19	135	PHE	2.3
10	1I	95	GLU	2.3
11	2A	42	TRP	2.3
12	3A	99	HIS	2.3
31	31	27	GLU	2.3

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Mol	Chain	Res	Type	RSRZ
32	41	48	GLU	2.3
47	H8	28	MET	2.3
10	1A	65	LEU	2.3
11	2A	109	VAL	2.3
30	21	32	PRO	2.3
52	M8	42	PHE	2.3
54	P8	46	VAL	2.3
22	1L	66	A	2.3
35	58	130	HIS	2.3
3	22	67	THR	2.3
4	32	129	ASN	2.3
28	71	165	ASN	2.3
5	42	34	VAL	2.3
9	82	59	PHE	2.3
35	58	53	VAL	2.3
48	E5	38	VAL	2.3
18	9A	42	ARG	2.3
37	35	145	PRO	2.3
53	N8	34	PRO	2.3
43	D8	44	LYS	2.3
6	5E	6	VAL	2.3
12	3A	83	VAL	2.3
29	11	263	ARG	2.3
5	4E	7	GLU	2.3
12	3A	57	LYS	2.3
13	4A	10	PRO	2.3
29	19	181	GLU	2.3
47	H8	153	SER	2.3
18	9I	55	ARG	2.3
43	95	31	ALA	2.3
19	AI	48	THR	2.3
19	AA	63	THR	2.3
47	D5	58	VAL	2.3
47	D5	165	VAL	2.3
42	C8	83	LEU	2.3
8	72	86	ILE	2.3
10	1I	96	ILE	2.3
2	1E	33	TYR	2.3
14	5A	26	ARG	2.3
35	58	12	ARG	2.3
45	F8	89	ILE	2.3
17	8I	71	PHE	2.3

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Mol	Chain	Res	Type	RSRZ
1	1G	1535	C	2.3
47	D5	71	VAL	2.3
3	22	155	GLY	2.3
7	62	104	LEU	2.3
18	9I	76	LEU	2.3
22	1K	64	G	2.3
6	5E	88	VAL	2.3
30	21	15	PHE	2.3
43	95	46	VAL	2.3
47	H8	88	PHE	2.3
47	D5	97	GLU	2.3
30	21	76	ARG	2.3
47	D5	59	LEU	2.3
52	M8	9	LEU	2.3
2	1E	42	ILE	2.3
47	H8	164	ALA	2.3
2	1E	126	GLU	2.2
30	21	171	GLU	2.2
21	1B	6	ARG	2.2
32	41	90	LEU	2.2
4	32	5	ILE	2.2
38	88	136	ALA	2.2
47	H8	38	TYR	2.2
47	D5	3	TYR	2.2
4	32	152	SER	2.2
4	3E	191	ARG	2.2
30	29	79	ARG	2.2
25	4K	9	G	2.2
11	2I	29	ILE	2.2
11	2A	112	THR	2.2
19	AI	76	PRO	2.2
38	88	65	PHE	2.2
26	1H	2798	C	2.2
33	59	157	TYR	2.2
36	25	11	ALA	2.2
38	88	48	GLU	2.2
45	B5	26	TYR	2.2
30	21	79	ARG	2.2
30	29	78	LEU	2.2
35	15	58	ASP	2.2
46	G8	89	PHE	2.2
4	32	178	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
33	59	52	VAL	2.2
47	H8	161	VAL	2.2
22	1L	68	G	2.2
33	59	159	GLU	2.2
38	45	93	TYR	2.2
46	C5	64	GLU	2.2
3	22	135	LYS	2.2
30	29	52	LEU	2.2
38	88	1	MET	2.2
31	39	6	VAL	2.2
47	D5	27	VAL	2.2
11	2A	91	ARG	2.2
28	71	194	ARG	2.2
22	1L	44	U	2.2
3	22	33	LEU	2.2
4	32	64	LEU	2.2
2	1E	122	PHE	2.2
2	1E	15	VAL	2.2
11	2A	85	ARG	2.2
38	45	35	VAL	2.2
4	32	166	LYS	2.2
35	15	100	GLU	2.2
11	2I	60	ALA	2.2
20	BA	9	ASN	2.2
8	72	83	ILE	2.2
29	11	92	ILE	2.2
35	58	16	ILE	2.2
38	88	64	ILE	2.2
47	D5	171	ILE	2.2
30	21	40	GLU	2.2
47	H8	97	GLU	2.2
6	52	35	ALA	2.2
11	2A	110	ASP	2.2
28	79	23	ASP	2.2
46	C5	65	ALA	2.2
10	1I	8	LEU	2.2
17	8I	22	LEU	2.2
4	3E	139	ARG	2.2
31	39	191	ARG	2.2
47	H8	121	HIS	2.2
2	12	164	VAL	2.2
3	22	153	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
46	C5	30	VAL	2.2
4	32	101	LEU	2.2
3	22	93	LYS	2.2
33	51	85	LYS	2.2
11	2I	108	ILE	2.2
13	4A	98	VAL	2.2
32	49	15	VAL	2.2
42	C8	90	VAL	2.2
6	52	58	GLY	2.2
24	3K	16	U	2.2
4	3E	96	LEU	2.2
2	1E	232	PRO	2.2
5	42	143	ARG	2.2
31	31	123	LEU	2.2
47	D5	49	ARG	2.2
51	H5	28	LEU	2.2
11	2A	111	ASP	2.2
15	6A	2	PRO	2.2
37	35	124	LYS	2.2
47	H8	6	LYS	2.2
34	61	74	ASN	2.2
8	72	129	VAL	2.2
14	5A	46	GLU	2.2
28	79	49	ILE	2.2
43	95	60	GLU	2.2
49	F5	62	VAL	2.2
3	22	150	LYS	2.2
12	3A	33	ARG	2.2
17	8A	44	ALA	2.2
28	71	38	ASP	2.2
28	71	174	PRO	2.2
5	4E	34	VAL	2.2
30	29	1	MET	2.2
34	69	18	VAL	2.2
3	22	96	GLY	2.2
35	58	128	HIS	2.2
3	22	40	ARG	2.2
17	8A	51	TYR	2.2
47	D5	61	LEU	2.2
47	D5	92	SER	2.2
29	19	115	GLN	2.2
37	35	81	GLN	2.2

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Mol	Chain	Res	Type	RSRZ
7	62	88	PRO	2.2
30	29	30	PRO	2.2
19	AA	41	VAL	2.2
28	79	171	ILE	2.2
30	21	100	GLU	2.2
31	31	9	ILE	2.2
33	51	113	VAL	2.2
34	61	20	ASP	2.2
40	A8	82	ILE	2.2
4	32	122	ARG	2.2
29	19	110	GLY	2.2
4	32	196	LEU	2.1
8	7E	58	TYR	2.1
11	2I	20	TYR	2.1
37	78	138	LEU	2.1
34	69	125	GLU	2.1
47	D5	53	ILE	2.1
52	M8	11	PRO	2.1
8	7E	64	LYS	2.1
49	F5	36	GLY	2.1
17	8I	98	LEU	2.1
18	9A	76	LEU	2.1
31	39	33	LEU	2.1
3	2E	106	VAL	2.1
6	52	38	GLU	2.1
35	58	52	VAL	2.1
47	H8	62	PRO	2.1
31	39	147	GLY	2.1
30	21	183	LEU	2.1
33	51	103	LEU	2.1
3	22	177	THR	2.1
32	49	121	ASN	2.1
32	41	138	GLN	2.1
5	4E	74	GLY	2.1
33	51	105	LEU	2.1
46	C5	6	HIS	2.1
47	D5	8	TYR	2.1
3	2E	110	ASN	2.1
30	21	19	ARG	2.1
34	69	67	ARG	2.1
3	22	142	MET	2.1
13	4A	66	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
50	G5	60	LEU	2.1
5	4E	40	ARG	2.1
28	71	13	LYS	2.1
28	71	30	LYS	2.1
29	11	247	ALA	2.1
43	95	2	PHE	2.1
4	3E	15	GLU	2.1
12	3A	61	THR	2.1
35	15	53	VAL	2.1
8	7E	135	CYS	2.1
46	C5	79	CYS	2.1
37	78	91	PHE	2.1
24	3K	46	G	2.1
10	1I	23	ILE	2.1
32	41	63	ILE	2.1
37	35	125	VAL	2.1
3	2E	47	LEU	2.1
4	3E	169	LYS	2.1
11	2I	77	MET	2.1
18	9A	44	LEU	2.1
32	41	152	LEU	2.1
51	H5	44	ARG	2.1
28	71	182	PRO	2.1
33	51	168	PRO	2.1
6	5E	90	VAL	2.1
6	5E	91	VAL	2.1
20	BI	55	ILE	2.1
4	32	187	ARG	2.1
7	6E	84	ASN	2.1
34	61	141	LYS	2.1
35	58	93	THR	2.1
15	6I	2	PRO	2.1
47	D5	48	PHE	2.1
40	A8	27	SER	2.1
53	N8	48	GLU	2.1
28	79	18	LYS	2.1
30	21	50	GLY	2.1
32	49	120	LEU	2.1
33	59	170	ARG	2.1
47	H8	4	ARG	2.1
47	D5	31	ARG	2.1
6	5E	89	MET	2.1

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Mol	Chain	Res	Type	RSRZ
29	19	67	PHE	2.1
32	49	80	PHE	2.1
36	68	51	ALA	2.1
56	3L	45	G	2.1
35	15	119	ARG	2.1
3	22	111	LEU	2.1
17	8A	43	LEU	2.1
35	15	38	HIS	2.1
38	45	100	GLY	2.1
51	H5	39	ASP	2.1
8	72	44	PHE	2.1
12	3I	19	ARG	2.1
43	D8	36	PRO	2.1
47	H8	105	VAL	2.1
51	H5	58	VAL	2.1
32	41	34	LEU	2.1
52	M8	26	SER	2.1
26	1H	2795	G	2.1
39	98	69	ASP	2.1
2	12	48	MET	2.1
30	29	48	GLN	2.1
43	95	17	GLY	2.1
12	3A	78	GLN	2.0
30	21	48	GLN	2.0
34	61	118	LYS	2.0
55	M5	12	LYS	2.0
6	52	63	TYR	2.0
33	51	124	GLU	2.0
31	39	5	ALA	2.0
47	H8	3	TYR	2.0
13	4I	96	LEU	2.0
36	25	2	ILE	2.0
47	D5	65	GLN	2.0
47	D5	89	PHE	2.0
31	39	120	GLU	2.0
39	98	115	GLU	2.0
40	A8	43	GLU	2.0
53	N8	35	GLU	2.0
3	2E	169	ALA	2.0
4	32	106	TYR	2.0
30	21	173	VAL	2.0
31	31	22	ALA	2.0

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Mol	Chain	Res	Type	RSRZ
28	71	220	PRO	2.0
34	69	72	LEU	2.0
18	9I	21	LYS	2.0
28	71	210	ARG	2.0
11	2I	22	HIS	2.0
28	79	54	SER	2.0
33	51	58	GLU	2.0
33	59	53	GLU	2.0
5	4E	33	VAL	2.0
48	I8	26	TYR	2.0
2	1E	127	ILE	2.0
5	4E	101	ILE	2.0
8	7E	134	ILE	2.0
42	C8	88	ILE	2.0
40	65	109	GLY	2.0
47	D5	6	LYS	2.0
3	2E	79	ARG	2.0
35	15	56	ASN	2.0
7	62	139	GLU	2.0
12	3A	39	VAL	2.0
18	9I	34	TYR	2.0
47	H8	27	VAL	2.0
4	32	35	ARG	2.0
6	52	46	ARG	2.0
8	7E	122	ARG	2.0
17	8A	59	ILE	2.0
28	79	45	ALA	2.0
38	45	34	LEU	2.0
51	H5	35	ARG	2.0
52	M8	29	PRO	2.0
2	12	37	ASN	2.0
7	6E	54	THR	2.0
4	32	15	GLU	2.0
31	31	24	LEU	2.0
39	98	87	TYR	2.0
49	J8	51	VAL	2.0
3	22	180	ALA	2.0
12	3I	33	ARG	2.0
28	71	191	ALA	2.0
42	85	68	ALA	2.0
43	D8	38	LEU	2.0
28	79	208	PHE	2.0

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Mol	Chain	Res	Type	RSRZ
3	22	44	GLU	2.0
52	M8	3	GLU	2.0
34	69	17	GLN	2.0
49	J8	69	LYS	2.0
11	2A	50	TYR	2.0
47	H8	116	VAL	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
56	PSU	3L	39	20/21	0.85	0.17	118,132,140,141	0
22	T6A	1K	37	32/33	0.87	0.28	66,85,127,129	0
22	PSU	1L	55	20/21	0.88	0.21	126,149,158,158	0
22	T6A	1L	37	32/33	0.88	0.23	104,115,143,144	0
56	T6A	3L	37	32/33	0.89	0.19	121,132,147,147	0
22	5MU	1K	54	21/22	0.91	0.18	118,126,140,143	0
22	U8U	1L	34	23/24	0.91	0.17	115,123,131,134	0
22	PSU	1K	55	20/21	0.92	0.14	107,132,143,147	0
23	PSU	2L	56	20/21	0.92	0.10	106,110,116,120	0
22	PSU	1L	39	20/21	0.93	0.13	104,123,128,130	0
23	G7M	2K	47	24/25	0.93	0.12	90,101,110,116	0
23	4SU	2L	8	20/21	0.93	0.14	100,111,114,121	0
23	5MU	2L	55	21/22	0.94	0.10	105,114,119,125	0
23	OMC	2L	33	21/22	0.94	0.15	96,100,104,113	0
23	5MU	2K	55	21/22	0.95	0.09	90,103,110,112	0
22	U8U	1K	34	23/24	0.95	0.14	81,89,100,107	0
23	4SU	2K	8	20/21	0.95	0.13	87,92,97,98	0
24	PSU	3K	39	20/21	0.95	0.09	109,116,128,137	0
22	5MU	1L	54	21/22	0.95	0.20	131,141,157,158	0
23	PSU	2K	56	20/21	0.96	0.08	95,100,104,111	0
22	PSU	1K	39	20/21	0.96	0.11	79,97,103,106	0
23	OMC	2K	33	21/22	0.96	0.14	73,80,83,87	0
23	G7M	2L	47	24/25	0.96	0.12	114,121,128,132	0

6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

6.4 Ligands ⓘ

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	14	3031	1/1	0.32	0.26	105,105,105,105	0
57	MG	13	1646	1/1	0.44	0.17	109,109,109,109	0
57	MG	1H	3282	1/1	0.45	0.25	96,96,96,96	0
57	MG	1H	3183	1/1	0.46	0.35	92,92,92,92	0
57	MG	14	3266	1/1	0.53	0.24	84,84,84,84	0
57	MG	13	1643	1/1	0.57	0.21	89,89,89,89	0
57	MG	13	1689	1/1	0.59	0.40	99,99,99,99	0
57	MG	1H	3277	1/1	0.59	0.18	77,77,77,77	0
57	MG	55	201	1/1	0.59	0.33	83,83,83,83	0
57	MG	13	1635	1/1	0.62	0.07	85,85,85,85	0
57	MG	35	202	1/1	0.62	0.22	75,75,75,75	0
57	MG	13	1661	1/1	0.62	0.11	102,102,102,102	0
57	MG	14	3116	1/1	0.63	0.39	87,87,87,87	0
57	MG	14	3206	1/1	0.64	0.55	95,95,95,95	0
57	MG	1G	1620	1/1	0.64	0.77	79,79,79,79	0
57	MG	14	3162	1/1	0.65	0.30	67,67,67,67	0
57	MG	1G	1621	1/1	0.65	0.18	103,103,103,103	0
57	MG	1H	3210	1/1	0.65	0.32	74,74,74,74	0
57	MG	14	3237	1/1	0.66	0.50	72,72,72,72	0
57	MG	14	3272	1/1	0.66	0.30	77,77,77,77	0
57	MG	14	3267	1/1	0.66	0.15	83,83,83,83	0
57	MG	1H	3496	1/1	0.66	0.06	94,94,94,94	0
57	MG	14	3016	1/1	0.67	0.56	73,73,73,73	0
57	MG	1H	3180	1/1	0.67	0.38	76,76,76,76	0
57	MG	14	3268	1/1	0.67	0.44	60,60,60,60	0
57	MG	14	3120	1/1	0.67	0.35	67,67,67,67	0
57	MG	14	3179	1/1	0.68	0.35	74,74,74,74	0
57	MG	2L	103	1/1	0.68	0.57	80,80,80,80	0
57	MG	16	206	1/1	0.68	0.41	81,81,81,81	0
57	MG	14	3155	1/1	0.68	0.26	66,66,66,66	0
57	MG	14	3157	1/1	0.68	0.32	99,99,99,99	0
57	MG	13	1667	1/1	0.68	0.43	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	14	3243	1/1	0.69	0.41	86,86,86,86	0
57	MG	29	304	1/1	0.69	0.23	71,71,71,71	0
57	MG	1H	3129	1/1	0.69	0.31	76,76,76,76	0
57	MG	14	3224	1/1	0.69	0.38	80,80,80,80	0
57	MG	14	3265	1/1	0.69	0.51	79,79,79,79	0
57	MG	13	1628	1/1	0.69	0.37	96,96,96,96	0
57	MG	1H	3207	1/1	0.70	0.16	56,56,56,56	0
57	MG	13	1665	1/1	0.70	0.46	82,82,82,82	0
57	MG	14	3248	1/1	0.70	0.35	75,75,75,75	0
57	MG	14	3013	1/1	0.70	0.24	74,74,74,74	0
57	MG	13	1650	1/1	0.71	0.38	100,100,100,100	0
57	MG	14	3063	1/1	0.71	0.31	76,76,76,76	0
57	MG	14	3202	1/1	0.72	0.23	90,90,90,90	0
57	MG	16	203	1/1	0.72	0.16	79,79,79,79	0
57	MG	13	1625	1/1	0.72	0.27	96,96,96,96	0
57	MG	13	1655	1/1	0.72	0.46	71,71,71,71	0
57	MG	16	205	1/1	0.72	0.20	81,81,81,81	0
57	MG	1H	3493	1/1	0.72	0.19	94,94,94,94	0
57	MG	1H	3190	1/1	0.73	0.47	74,74,74,74	0
57	MG	14	3171	1/1	0.73	0.22	73,73,73,73	0
57	MG	1H	3205	1/1	0.73	0.17	77,77,77,77	0
57	MG	1H	3284	1/1	0.73	0.62	75,75,75,75	0
57	MG	1H	3020	1/1	0.74	0.19	107,107,107,107	0
57	MG	1H	3278	1/1	0.74	0.20	82,82,82,82	0
57	MG	14	3223	1/1	0.74	0.42	75,75,75,75	0
57	MG	1H	3019	1/1	0.74	0.27	78,78,78,78	0
57	MG	1H	3289	1/1	0.74	0.40	82,82,82,82	0
57	MG	14	3374	1/1	0.74	0.07	96,96,96,96	0
57	MG	29	301	1/1	0.74	0.44	80,80,80,80	0
57	MG	1H	3198	1/1	0.75	0.26	76,76,76,76	0
57	MG	13	1684	1/1	0.75	0.22	85,85,85,85	0
57	MG	14	3190	1/1	0.75	0.88	82,82,82,82	0
57	MG	1H	3121	1/1	0.75	0.42	79,79,79,79	0
57	MG	14	3357	1/1	0.75	0.11	84,84,84,84	0
57	MG	14	3257	1/1	0.75	0.58	87,87,87,87	0
57	MG	7A	101	1/1	0.75	0.23	89,89,89,89	0
57	MG	11	303	1/1	0.75	0.51	65,65,65,65	0
57	MG	1H	3069	1/1	0.75	0.46	65,65,65,65	0
57	MG	5I	101	1/1	0.75	0.08	88,88,88,88	0
57	MG	1J	203	1/1	0.75	0.30	93,93,93,93	0
57	MG	14	3075	1/1	0.75	0.46	70,70,70,70	0
57	MG	14	3236	1/1	0.76	0.21	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1G	1641	1/1	0.76	0.34	78,78,78,78	0
57	MG	1H	3287	1/1	0.76	0.37	80,80,80,80	0
57	MG	1H	3233	1/1	0.76	0.34	70,70,70,70	0
57	MG	1H	3220	1/1	0.76	0.40	73,73,73,73	0
57	MG	1H	3244	1/1	0.77	0.41	84,84,84,84	0
57	MG	16	207	1/1	0.77	0.26	77,77,77,77	0
57	MG	14	3241	1/1	0.77	0.33	84,84,84,84	0
57	MG	14	3037	1/1	0.77	0.21	63,63,63,63	0
57	MG	1H	3128	1/1	0.77	0.22	64,64,64,64	0
57	MG	13	1659	1/1	0.78	0.42	75,75,75,75	0
57	MG	1H	3249	1/1	0.78	0.22	61,61,61,61	0
57	MG	14	3143	1/1	0.78	0.24	73,73,73,73	0
57	MG	2K	101	1/1	0.78	0.29	95,95,95,95	0
57	MG	13	1656	1/1	0.78	0.50	62,62,62,62	0
57	MG	14	3443	1/1	0.78	0.07	108,108,108,108	0
57	MG	14	3005	1/1	0.78	0.37	70,70,70,70	0
57	MG	1H	3125	1/1	0.78	0.34	61,61,61,61	0
57	MG	14	3097	1/1	0.78	0.51	65,65,65,65	0
57	MG	1G	1626	1/1	0.78	0.29	73,73,73,73	0
57	MG	1H	3103	1/1	0.79	0.43	82,82,82,82	0
57	MG	1H	3108	1/1	0.79	0.41	82,82,82,82	0
57	MG	14	3423	1/1	0.79	0.06	144,144,144,144	0
57	MG	1H	3280	1/1	0.79	0.42	80,80,80,80	0
57	MG	1H	3107	1/1	0.79	0.19	64,64,64,64	0
57	MG	1G	1657	1/1	0.79	0.13	105,105,105,105	0
57	MG	1H	3054	1/1	0.79	0.34	59,59,59,59	0
57	MG	1H	3136	1/1	0.79	0.84	73,73,73,73	0
57	MG	14	3226	1/1	0.79	0.27	78,78,78,78	0
57	MG	1I	201	1/1	0.79	0.12	100,100,100,100	0
57	MG	P8	101	1/1	0.80	0.44	66,66,66,66	0
57	MG	1G	1609	1/1	0.80	0.19	108,108,108,108	0
57	MG	1H	3199	1/1	0.80	0.38	75,75,75,75	0
57	MG	35	201	1/1	0.80	0.33	71,71,71,71	0
57	MG	14	3232	1/1	0.80	0.26	130,130,130,130	0
57	MG	1H	3139	1/1	0.80	0.35	71,71,71,71	0
57	MG	1H	3144	1/1	0.80	0.48	75,75,75,75	0
57	MG	14	3191	1/1	0.80	0.44	73,73,73,73	0
57	MG	13	1603	1/1	0.81	0.36	76,76,76,76	0
57	MG	1H	3066	1/1	0.81	0.21	57,57,57,57	0
57	MG	1H	3208	1/1	0.81	0.23	76,76,76,76	0
57	MG	14	3036	1/1	0.81	0.24	76,76,76,76	0
57	MG	29	303	1/1	0.81	0.16	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1G	1692	1/1	0.81	0.36	105,105,105,105	0
57	MG	1H	3242	1/1	0.81	0.27	80,80,80,80	0
57	MG	14	3180	1/1	0.81	0.31	69,69,69,69	0
57	MG	1G	1618	1/1	0.81	0.19	86,86,86,86	0
57	MG	13	1618	1/1	0.82	0.33	64,64,64,64	0
57	MG	14	3144	1/1	0.82	0.52	80,80,80,80	0
57	MG	14	3108	1/1	0.82	0.11	90,90,90,90	0
57	MG	1G	1623	1/1	0.82	0.31	77,77,77,77	0
57	MG	1G	1631	1/1	0.82	0.29	107,107,107,107	0
57	MG	1G	1616	1/1	0.82	0.23	86,86,86,86	0
57	MG	14	3427	1/1	0.82	0.08	102,102,102,102	0
57	MG	13	1648	1/1	0.82	0.30	90,90,90,90	0
57	MG	14	3192	1/1	0.82	0.36	100,100,100,100	0
57	MG	14	3258	1/1	0.82	0.77	83,83,83,83	0
57	MG	1H	3192	1/1	0.82	0.32	82,82,82,82	0
57	MG	1G	1613	1/1	0.82	0.52	73,73,73,73	0
57	MG	14	3154	1/1	0.82	0.69	74,74,74,74	0
57	MG	14	3454	1/1	0.82	0.20	79,79,79,79	0
57	MG	13	1645	1/1	0.82	0.23	93,93,93,93	0
57	MG	1H	3036	1/1	0.82	0.20	78,78,78,78	0
57	MG	1H	3018	1/1	0.82	0.45	80,80,80,80	0
57	MG	1H	3200	1/1	0.82	0.35	73,73,73,73	0
57	MG	21	303	1/1	0.82	0.22	69,69,69,69	0
57	MG	1G	1639	1/1	0.83	0.18	97,97,97,97	0
57	MG	14	3212	1/1	0.83	0.43	80,80,80,80	0
57	MG	1H	3291	1/1	0.83	0.46	88,88,88,88	0
57	MG	13	1663	1/1	0.83	0.35	71,71,71,71	0
57	MG	1H	3188	1/1	0.83	0.38	74,74,74,74	0
57	MG	1H	3246	1/1	0.83	0.38	85,85,85,85	0
57	MG	1H	3093	1/1	0.83	0.63	71,71,71,71	0
57	MG	1H	3471	1/1	0.83	0.12	82,82,82,82	0
57	MG	14	3421	1/1	0.83	0.15	75,75,75,75	0
57	MG	1H	3115	1/1	0.83	0.29	82,82,82,82	0
57	MG	14	3129	1/1	0.83	0.16	69,69,69,69	0
57	MG	1H	3177	1/1	0.83	0.25	81,81,81,81	0
57	MG	14	3213	1/1	0.83	0.46	87,87,87,87	0
57	MG	16	204	1/1	0.83	0.27	90,90,90,90	0
57	MG	14	3204	1/1	0.83	0.19	90,90,90,90	0
57	MG	1H	3023	1/1	0.83	0.39	81,81,81,81	0
57	MG	1H	3120	1/1	0.83	0.16	63,63,63,63	0
57	MG	1H	3241	1/1	0.83	0.55	71,71,71,71	0
57	MG	14	3229	1/1	0.84	0.29	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	14	3135	1/1	0.84	0.37	71,71,71,71	0
57	MG	1H	3083	1/1	0.84	0.21	74,74,74,74	0
57	MG	1H	3275	1/1	0.84	0.21	95,95,95,95	0
57	MG	14	3199	1/1	0.84	0.38	84,84,84,84	0
57	MG	1G	1688	1/1	0.84	0.06	100,100,100,100	0
57	MG	14	3264	1/1	0.84	0.32	90,90,90,90	0
57	MG	1H	3269	1/1	0.84	0.22	73,73,73,73	0
57	MG	13	1682	1/1	0.84	0.68	90,90,90,90	0
57	MG	14	3244	1/1	0.84	0.68	77,77,77,77	0
57	MG	14	3435	1/1	0.84	0.08	103,103,103,103	0
57	MG	14	3185	1/1	0.84	0.28	89,89,89,89	0
57	MG	1H	3087	1/1	0.85	0.16	68,68,68,68	0
57	MG	14	3173	1/1	0.85	0.28	69,69,69,69	0
57	MG	14	3211	1/1	0.85	0.38	78,78,78,78	0
57	MG	14	3259	1/1	0.85	0.19	97,97,97,97	0
57	MG	1H	3092	1/1	0.85	0.34	57,57,57,57	0
57	MG	13	1649	1/1	0.85	0.37	78,78,78,78	0
57	MG	1H	3455	1/1	0.85	0.06	103,103,103,103	0
57	MG	14	3044	1/1	0.85	0.81	76,76,76,76	0
57	MG	1G	1627	1/1	0.85	0.25	86,86,86,86	0
57	MG	1H	3194	1/1	0.85	0.45	66,66,66,66	0
57	MG	1G	1655	1/1	0.85	0.07	120,120,120,120	0
57	MG	13	1670	1/1	0.85	0.33	78,78,78,78	0
57	MG	16	211	1/1	0.85	0.08	84,84,84,84	0
57	MG	41	202	1/1	0.85	0.26	82,82,82,82	0
57	MG	1H	3238	1/1	0.85	0.34	78,78,78,78	0
57	MG	1H	3209	1/1	0.85	0.23	78,78,78,78	0
57	MG	1G	1638	1/1	0.85	0.58	88,88,88,88	0
57	MG	1H	3279	1/1	0.85	0.99	71,71,71,71	0
57	MG	1H	3133	1/1	0.85	0.42	80,80,80,80	0
57	MG	1H	3086	1/1	0.85	0.07	71,71,71,71	0
57	MG	1H	3229	1/1	0.86	0.34	73,73,73,73	0
57	MG	14	3164	1/1	0.86	0.33	65,65,65,65	0
57	MG	1H	3281	1/1	0.86	0.52	69,69,69,69	0
57	MG	1H	3059	1/1	0.86	0.21	66,66,66,66	0
57	MG	14	3242	1/1	0.86	0.11	95,95,95,95	0
57	MG	1H	3077	1/1	0.86	0.55	74,74,74,74	0
57	MG	14	3152	1/1	0.86	0.32	67,67,67,67	0
57	MG	1H	3131	1/1	0.86	0.52	67,67,67,67	0
57	MG	14	3168	1/1	0.86	0.21	89,89,89,89	0
57	MG	1G	1646	1/1	0.86	0.67	84,84,84,84	0
57	MG	1H	3255	1/1	0.86	0.14	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3286	1/1	0.86	0.23	82,82,82,82	0
57	MG	1G	1604	1/1	0.86	0.17	87,87,87,87	0
57	MG	14	3260	1/1	0.86	0.13	117,117,117,117	0
57	MG	1H	3487	1/1	0.86	0.08	91,91,91,91	0
57	MG	14	3238	1/1	0.86	0.55	69,69,69,69	0
57	MG	1H	3138	1/1	0.86	0.41	55,55,55,55	0
57	MG	13	1741	1/1	0.86	0.14	79,79,79,79	0
57	MG	1H	3428	1/1	0.86	0.08	87,87,87,87	0
57	MG	1H	3411	1/1	0.86	0.07	81,81,81,81	0
57	MG	1H	3195	1/1	0.86	0.28	73,73,73,73	0
57	MG	14	3113	1/1	0.86	0.41	73,73,73,73	0
57	MG	1H	3212	1/1	0.86	0.35	77,77,77,77	0
57	MG	14	3188	1/1	0.86	0.40	66,66,66,66	0
57	MG	13	1668	1/1	0.86	0.23	95,95,95,95	0
57	MG	13	1626	1/1	0.86	0.14	87,87,87,87	0
57	MG	14	3107	1/1	0.86	0.42	81,81,81,81	0
57	MG	1H	3119	1/1	0.86	0.20	71,71,71,71	0
57	MG	1H	3226	1/1	0.86	0.15	64,64,64,64	0
57	MG	1H	3259	1/1	0.86	0.36	74,74,74,74	0
57	MG	14	3163	1/1	0.86	0.64	72,72,72,72	0
57	MG	14	3069	1/1	0.87	0.42	67,67,67,67	0
57	MG	1H	3285	1/1	0.87	0.55	87,87,87,87	0
57	MG	1H	3272	1/1	0.87	0.73	95,95,95,95	0
57	MG	14	3053	1/1	0.87	0.30	77,77,77,77	0
57	MG	14	3121	1/1	0.87	0.31	77,77,77,77	0
57	MG	1H	3452	1/1	0.87	0.09	89,89,89,89	0
57	MG	1H	3014	1/1	0.87	0.50	75,75,75,75	0
57	MG	13	1748	1/1	0.87	0.09	115,115,115,115	0
57	MG	14	3444	1/1	0.87	0.12	87,87,87,87	0
57	MG	14	3366	1/1	0.87	0.12	76,76,76,76	0
57	MG	13	1679	1/1	0.87	0.22	86,86,86,86	0
57	MG	1H	3007	1/1	0.87	0.29	68,68,68,68	0
57	MG	1H	3501	1/1	0.87	0.05	72,72,72,72	0
57	MG	1G	1628	1/1	0.87	0.24	124,124,124,124	0
57	MG	1H	3011	1/1	0.87	0.68	72,72,72,72	0
57	MG	14	3010	1/1	0.88	0.31	69,69,69,69	0
57	MG	13	1677	1/1	0.88	0.22	76,76,76,76	0
57	MG	14	3216	1/1	0.88	0.23	74,74,74,74	0
57	MG	39	301	1/1	0.88	0.14	95,95,95,95	0
57	MG	14	3146	1/1	0.88	0.44	76,76,76,76	0
57	MG	13	1620	1/1	0.88	0.35	58,58,58,58	0
57	MG	1G	1636	1/1	0.88	0.22	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	13	1713	1/1	0.88	0.08	89,89,89,89	0
57	MG	13	1622	1/1	0.88	0.21	81,81,81,81	0
57	MG	1H	3466	1/1	0.88	0.05	83,83,83,83	0
57	MG	1H	3271	1/1	0.88	0.20	74,74,74,74	0
57	MG	1H	3193	1/1	0.88	0.61	84,84,84,84	0
57	MG	L8	101	1/1	0.88	0.39	72,72,72,72	0
57	MG	1H	3247	1/1	0.88	0.61	77,77,77,77	0
57	MG	1G	1624	1/1	0.88	0.19	87,87,87,87	0
57	MG	1G	1633	1/1	0.88	0.41	100,100,100,100	0
57	MG	13	1674	1/1	0.88	0.36	78,78,78,78	0
57	MG	13	1636	1/1	0.88	0.21	75,75,75,75	0
57	MG	14	3096	1/1	0.88	0.34	65,65,65,65	0
57	MG	14	3198	1/1	0.88	0.21	81,81,81,81	0
57	MG	1H	3015	1/1	0.88	0.24	72,72,72,72	0
57	MG	14	3324	1/1	0.88	0.09	107,107,107,107	0
57	MG	14	3054	1/1	0.88	0.40	67,67,67,67	0
57	MG	1H	3273	1/1	0.88	0.26	57,57,57,57	0
57	MG	1H	3134	1/1	0.88	0.31	76,76,76,76	0
57	MG	1H	3047	1/1	0.88	0.28	61,61,61,61	0
57	MG	1J	201	1/1	0.88	0.20	85,85,85,85	0
57	MG	1H	3243	1/1	0.88	0.24	62,62,62,62	0
57	MG	1H	3263	1/1	0.88	1.00	93,93,93,93	0
57	MG	1H	3186	1/1	0.88	0.24	57,57,57,57	0
57	MG	1H	3098	1/1	0.88	0.33	63,63,63,63	0
57	MG	13	1666	1/1	0.88	0.41	77,77,77,77	0
57	MG	13	1660	1/1	0.88	0.55	83,83,83,83	0
57	MG	1H	3489	1/1	0.88	0.08	125,125,125,125	0
57	MG	14	3147	1/1	0.88	0.29	72,72,72,72	0
57	MG	13	1642	1/1	0.88	0.26	107,107,107,107	0
57	MG	14	3441	1/1	0.88	0.08	72,72,72,72	0
57	MG	1H	3439	1/1	0.88	0.14	81,81,81,81	0
57	MG	1H	3495	1/1	0.88	0.07	98,98,98,98	0
57	MG	13	1739	1/1	0.88	0.06	104,104,104,104	0
57	MG	1H	3122	1/1	0.88	0.52	73,73,73,73	0
57	MG	14	3165	1/1	0.89	0.11	78,78,78,78	0
57	MG	1H	3148	1/1	0.89	0.23	65,65,65,65	0
57	MG	1H	3006	1/1	0.89	0.14	86,86,86,86	0
57	MG	14	3308	1/1	0.89	0.08	96,96,96,96	0
57	MG	1H	3075	1/1	0.89	0.12	60,60,60,60	0
57	MG	14	3058	1/1	0.89	0.25	66,66,66,66	0
57	MG	1G	1637	1/1	0.89	0.20	77,77,77,77	0
57	MG	14	3416	1/1	0.89	0.07	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	14	3055	1/1	0.89	0.35	57,57,57,57	0
57	MG	1G	1619	1/1	0.89	0.21	92,92,92,92	0
57	MG	1H	3021	1/1	0.89	0.16	90,90,90,90	0
57	MG	1H	3178	1/1	0.89	0.12	93,93,93,93	0
57	MG	1H	3213	1/1	0.89	0.14	92,92,92,92	0
57	MG	14	3310	1/1	0.89	0.09	68,68,68,68	0
57	MG	1H	3171	1/1	0.89	0.43	68,68,68,68	0
57	MG	14	3380	1/1	0.89	0.12	93,93,93,93	0
57	MG	14	3303	1/1	0.89	0.13	63,63,63,63	0
57	MG	14	3123	1/1	0.89	0.49	70,70,70,70	0
57	MG	14	3215	1/1	0.89	0.30	64,64,64,64	0
57	MG	14	3269	1/1	0.89	0.30	102,102,102,102	0
57	MG	1H	3084	1/1	0.89	0.14	82,82,82,82	0
57	MG	14	3227	1/1	0.89	0.34	83,83,83,83	0
57	MG	13	1735	1/1	0.89	0.07	118,118,118,118	0
57	MG	1G	1683	1/1	0.89	0.09	96,96,96,96	0
57	MG	1H	3116	1/1	0.89	0.30	63,63,63,63	0
57	MG	1H	3114	1/1	0.89	0.41	78,78,78,78	0
57	MG	1H	3176	1/1	0.89	0.33	67,67,67,67	0
57	MG	78	201	1/1	0.89	0.24	75,75,75,75	0
57	MG	1G	1686	1/1	0.90	0.07	92,92,92,92	0
57	MG	13	1722	1/1	0.90	0.05	92,92,92,92	0
57	MG	1G	1642	1/1	0.90	0.30	82,82,82,82	0
57	MG	1H	3476	1/1	0.90	0.07	93,93,93,93	0
57	MG	14	3326	1/1	0.90	0.09	74,74,74,74	0
57	MG	1H	3097	1/1	0.90	0.16	51,51,51,51	0
57	MG	14	3194	1/1	0.90	0.21	68,68,68,68	0
57	MG	14	3057	1/1	0.90	0.36	41,41,41,41	0
57	MG	14	3448	1/1	0.90	0.06	92,92,92,92	0
57	MG	14	3233	1/1	0.90	0.26	79,79,79,79	0
57	MG	14	3261	1/1	0.90	0.21	102,102,102,102	0
57	MG	14	3001	1/1	0.90	0.05	103,103,103,103	0
57	MG	1G	1643	1/1	0.90	0.39	67,67,67,67	0
57	MG	14	3225	1/1	0.90	0.36	80,80,80,80	0
57	MG	1G	1617	1/1	0.90	0.22	61,61,61,61	0
57	MG	14	3027	1/1	0.90	0.31	83,83,83,83	0
57	MG	14	3009	1/1	0.90	0.20	68,68,68,68	0
57	MG	1G	1607	1/1	0.90	0.22	91,91,91,91	0
57	MG	1H	3211	1/1	0.90	0.34	80,80,80,80	0
57	MG	1H	3434	1/1	0.90	0.10	73,73,73,73	0
57	MG	41	201	1/1	0.90	0.14	75,75,75,75	0
57	MG	39	302	1/1	0.90	0.10	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	13	1612	1/1	0.90	0.26	85,85,85,85	0
57	MG	14	3149	1/1	0.90	0.29	96,96,96,96	0
57	MG	14	3318	1/1	0.90	0.15	67,67,67,67	0
57	MG	14	3183	1/1	0.90	0.59	74,74,74,74	0
57	MG	13	1658	1/1	0.90	0.12	88,88,88,88	0
57	MG	1H	3488	1/1	0.90	0.05	113,113,113,113	0
57	MG	1H	3484	1/1	0.90	0.07	90,90,90,90	0
57	MG	1H	3091	1/1	0.90	0.26	57,57,57,57	0
57	MG	1H	3376	1/1	0.90	0.06	88,88,88,88	0
57	MG	14	3424	1/1	0.90	0.05	107,107,107,107	0
57	MG	14	3271	1/1	0.90	0.45	80,80,80,80	0
57	MG	14	3330	1/1	0.90	0.06	113,113,113,113	0
57	MG	14	3098	1/1	0.90	0.22	67,67,67,67	0
57	MG	1H	3262	1/1	0.90	0.17	68,68,68,68	0
57	MG	13	1631	1/1	0.90	0.10	73,73,73,73	0
57	MG	1H	3254	1/1	0.90	0.62	82,82,82,82	0
57	MG	1H	3470	1/1	0.90	0.08	100,100,100,100	0
57	MG	1H	3231	1/1	0.90	0.42	65,65,65,65	0
57	MG	1H	3196	1/1	0.90	0.56	88,88,88,88	0
57	MG	1H	3221	1/1	0.90	0.21	60,60,60,60	0
57	MG	14	3139	1/1	0.90	0.22	58,58,58,58	0
57	MG	14	3219	1/1	0.90	0.29	64,64,64,64	0
57	MG	14	3102	1/1	0.90	0.20	86,86,86,86	0
57	MG	1H	3267	1/1	0.90	0.17	67,67,67,67	0
57	MG	16	212	1/1	0.90	0.08	88,88,88,88	0
57	MG	1G	1666	1/1	0.90	0.05	106,106,106,106	0
57	MG	1H	3498	1/1	0.90	0.12	85,85,85,85	0
57	MG	1H	3149	1/1	0.90	0.15	61,61,61,61	0
57	MG	1H	3157	1/1	0.90	0.28	64,64,64,64	0
57	MG	14	3182	1/1	0.90	0.57	67,67,67,67	0
57	MG	13	1738	1/1	0.90	0.09	97,97,97,97	0
57	MG	1H	3105	1/1	0.90	0.24	79,79,79,79	0
57	MG	1H	3159	1/1	0.90	0.37	56,56,56,56	0
57	MG	14	3176	1/1	0.90	0.08	88,88,88,88	0
57	MG	14	3142	1/1	0.90	0.31	82,82,82,82	0
57	MG	1H	3143	1/1	0.90	0.45	89,89,89,89	0
57	MG	1G	1635	1/1	0.90	0.45	97,97,97,97	0
57	MG	14	3221	1/1	0.90	0.51	73,73,73,73	0
57	MG	14	3038	1/1	0.90	0.08	76,76,76,76	0
57	MG	1H	3189	1/1	0.91	0.31	87,87,87,87	0
57	MG	1H	3022	1/1	0.91	0.18	81,81,81,81	0
57	MG	14	3015	1/1	0.91	0.27	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	14	3222	1/1	0.91	0.41	64,64,64,64	0
57	MG	13	1652	1/1	0.91	0.48	89,89,89,89	0
57	MG	13	1664	1/1	0.91	0.30	81,81,81,81	0
57	MG	88	201	1/1	0.91	0.18	82,82,82,82	0
57	MG	14	3024	1/1	0.91	0.26	58,58,58,58	0
57	MG	1H	3265	1/1	0.91	0.12	89,89,89,89	0
57	MG	1H	3053	1/1	0.91	0.47	56,56,56,56	0
57	MG	14	3193	1/1	0.91	0.15	70,70,70,70	0
57	MG	13	1736	1/1	0.91	0.06	95,95,95,95	0
57	MG	13	1672	1/1	0.91	0.11	96,96,96,96	0
57	MG	13	1637	1/1	0.91	0.26	86,86,86,86	0
57	MG	1H	3334	1/1	0.91	0.10	82,82,82,82	0
57	MG	14	3017	1/1	0.91	0.23	97,97,97,97	0
57	MG	1H	3482	1/1	0.91	0.06	72,72,72,72	0
57	MG	1G	1610	1/1	0.91	0.13	114,114,114,114	0
57	MG	14	3208	1/1	0.91	0.31	75,75,75,75	0
57	MG	1H	3126	1/1	0.91	0.45	70,70,70,70	0
57	MG	14	3436	1/1	0.91	0.07	108,108,108,108	0
57	MG	1H	3371	1/1	0.91	0.05	85,85,85,85	0
57	MG	1H	3283	1/1	0.91	0.47	82,82,82,82	0
57	MG	E5	101	1/1	0.91	0.43	72,72,72,72	0
57	MG	45	202	1/1	0.91	0.10	102,102,102,102	0
57	MG	1H	3230	1/1	0.91	0.37	78,78,78,78	0
57	MG	1H	3008	1/1	0.91	0.26	57,57,57,57	0
57	MG	14	3111	1/1	0.91	0.15	79,79,79,79	0
57	MG	1H	3110	1/1	0.91	0.15	84,84,84,84	0
57	MG	1H	3290	1/1	0.91	0.23	62,62,62,62	0
57	MG	14	3425	1/1	0.91	0.06	122,122,122,122	0
57	MG	13	1662	1/1	0.91	0.21	119,119,119,119	0
57	MG	1G	1689	1/1	0.91	0.06	126,126,126,126	0
57	MG	13	1750	1/1	0.91	0.18	76,76,76,76	0
57	MG	14	3178	1/1	0.91	0.09	71,71,71,71	0
57	MG	14	3089	1/1	0.91	0.22	56,56,56,56	0
57	MG	1H	3109	1/1	0.91	0.33	65,65,65,65	0
57	MG	BI	201	1/1	0.91	0.03	103,103,103,103	0
57	MG	14	3442	1/1	0.91	0.07	95,95,95,95	0
57	MG	14	3175	1/1	0.91	0.24	90,90,90,90	0
57	MG	14	3428	1/1	0.91	0.09	104,104,104,104	0
57	MG	M5	101	1/1	0.91	0.17	77,77,77,77	0
57	MG	14	3086	1/1	0.91	0.22	61,61,61,61	0
57	MG	14	3124	1/1	0.91	0.27	64,64,64,64	0
57	MG	1H	3228	1/1	0.91	0.49	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3010	1/1	0.91	0.47	59,59,59,59	0
57	MG	1H	3057	1/1	0.91	0.40	53,53,53,53	0
57	MG	1H	3090	1/1	0.91	0.48	57,57,57,57	0
57	MG	14	3207	1/1	0.91	0.10	71,71,71,71	0
57	MG	14	3234	1/1	0.91	0.16	64,64,64,64	0
57	MG	14	3200	1/1	0.91	0.21	69,69,69,69	0
57	MG	14	3452	1/1	0.91	0.09	113,113,113,113	0
57	MG	14	3239	1/1	0.91	0.36	87,87,87,87	0
57	MG	1H	3112	1/1	0.91	0.39	66,66,66,66	0
57	MG	14	3045	1/1	0.91	0.23	64,64,64,64	0
57	MG	14	3296	1/1	0.91	0.09	59,59,59,59	0
57	MG	14	3181	1/1	0.92	0.20	63,63,63,63	0
57	MG	1H	3174	1/1	0.92	0.28	59,59,59,59	0
57	MG	14	3263	1/1	0.92	0.44	80,80,80,80	0
57	MG	1H	3096	1/1	0.92	0.15	67,67,67,67	0
57	MG	14	3105	1/1	0.92	0.26	55,55,55,55	0
57	MG	14	3033	1/1	0.92	0.14	74,74,74,74	0
57	MG	1H	3222	1/1	0.92	0.11	68,68,68,68	0
57	MG	1G	1674	1/1	0.92	0.06	107,107,107,107	0
57	MG	1H	3481	1/1	0.92	0.06	92,92,92,92	0
57	MG	1H	3181	1/1	0.92	0.53	77,77,77,77	0
57	MG	1H	3101	1/1	0.92	0.18	58,58,58,58	0
57	MG	14	3270	1/1	0.92	0.28	83,83,83,83	0
57	MG	1H	3459	1/1	0.92	0.10	91,91,91,91	0
57	MG	13	1678	1/1	0.92	0.21	83,83,83,83	0
57	MG	14	3315	1/1	0.92	0.05	81,81,81,81	0
57	MG	14	3351	1/1	0.92	0.06	72,72,72,72	0
57	MG	1H	3162	1/1	0.92	0.15	61,61,61,61	0
57	MG	16	201	1/1	0.92	0.17	87,87,87,87	0
57	MG	14	3383	1/1	0.92	0.07	101,101,101,101	0
57	MG	14	3169	1/1	0.92	0.18	65,65,65,65	0
57	MG	1H	3245	1/1	0.92	0.57	69,69,69,69	0
57	MG	13	1704	1/1	0.92	0.13	105,105,105,105	0
57	MG	14	3228	1/1	0.92	0.15	81,81,81,81	0
57	MG	14	3400	1/1	0.92	0.06	86,86,86,86	0
57	MG	1H	3170	1/1	0.92	0.73	72,72,72,72	0
57	MG	1H	3035	1/1	0.92	0.24	57,57,57,57	0
57	MG	1H	3182	1/1	0.92	0.44	72,72,72,72	0
57	MG	1H	3052	1/1	0.92	0.32	57,57,57,57	0
57	MG	14	3422	1/1	0.92	0.09	84,84,84,84	0
57	MG	1H	3206	1/1	0.92	0.21	56,56,56,56	0
57	MG	14	3255	1/1	0.92	0.13	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	13	1686	1/1	0.92	0.21	96,96,96,96	0
57	MG	1G	1668	1/1	0.92	0.07	111,111,111,111	0
57	MG	13	1724	1/1	0.92	0.08	114,114,114,114	0
57	MG	1H	3467	1/1	0.92	0.08	77,77,77,77	0
57	MG	1H	3258	1/1	0.92	0.21	79,79,79,79	0
57	MG	1G	1653	1/1	0.92	0.08	110,110,110,110	0
57	MG	1H	3236	1/1	0.92	0.32	75,75,75,75	0
57	MG	1G	1679	1/1	0.92	0.05	91,91,91,91	0
57	MG	14	3407	1/1	0.92	0.10	74,74,74,74	0
57	MG	14	3158	1/1	0.92	0.12	70,70,70,70	0
57	MG	14	3429	1/1	0.92	0.05	98,98,98,98	0
57	MG	14	3195	1/1	0.92	0.23	105,105,105,105	0
57	MG	1H	3140	1/1	0.92	0.22	62,62,62,62	0
57	MG	1H	3185	1/1	0.93	0.36	90,90,90,90	0
57	MG	1G	1648	1/1	0.93	0.23	86,86,86,86	0
57	MG	14	3074	1/1	0.93	0.27	62,62,62,62	0
57	MG	1H	3203	1/1	0.93	0.28	64,64,64,64	0
57	MG	1H	3385	1/1	0.93	0.08	57,57,57,57	0
57	MG	14	3240	1/1	0.93	0.30	85,85,85,85	0
57	MG	14	3007	1/1	0.93	0.29	50,50,50,50	0
57	MG	1H	3435	1/1	0.93	0.05	94,94,94,94	0
57	MG	14	3004	1/1	0.93	0.88	77,77,77,77	0
57	MG	14	3220	1/1	0.93	0.53	88,88,88,88	0
57	MG	1H	3235	1/1	0.93	0.14	65,65,65,65	0
57	MG	14	3439	1/1	0.93	0.06	96,96,96,96	0
57	MG	1H	3076	1/1	0.93	0.25	76,76,76,76	0
57	MG	1H	3288	1/1	0.93	0.38	80,80,80,80	0
57	MG	1G	1622	1/1	0.93	0.35	76,76,76,76	0
57	MG	1H	3046	1/1	0.93	0.56	73,73,73,73	0
57	MG	1H	3218	1/1	0.93	0.74	70,70,70,70	0
57	MG	14	3112	1/1	0.93	0.37	88,88,88,88	0
57	MG	1H	3380	1/1	0.93	0.14	55,55,55,55	0
57	MG	1H	3130	1/1	0.93	0.23	67,67,67,67	0
57	MG	14	3151	1/1	0.93	0.23	72,72,72,72	0
57	MG	1H	3431	1/1	0.93	0.16	52,52,52,52	0
57	MG	14	3049	1/1	0.93	0.27	63,63,63,63	0
57	MG	14	3082	1/1	0.93	0.40	55,55,55,55	0
57	MG	1H	3451	1/1	0.93	0.04	95,95,95,95	0
57	MG	14	3104	1/1	0.93	0.36	81,81,81,81	0
57	MG	14	3434	1/1	0.93	0.06	82,82,82,82	0
57	MG	1H	3325	1/1	0.93	0.11	69,69,69,69	0
57	MG	1G	1670	1/1	0.93	0.08	108,108,108,108	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3163	1/1	0.93	0.28	59,59,59,59	0
57	MG	14	3387	1/1	0.93	0.05	97,97,97,97	0
57	MG	1H	3123	1/1	0.93	0.21	71,71,71,71	0
57	MG	16	202	1/1	0.93	0.28	73,73,73,73	0
57	MG	14	3235	1/1	0.93	0.50	69,69,69,69	0
57	MG	13	1671	1/1	0.93	0.32	71,71,71,71	0
57	MG	13	1621	1/1	0.93	0.23	67,67,67,67	0
57	MG	13	1630	1/1	0.93	0.28	92,92,92,92	0
57	MG	1H	3274	1/1	0.93	0.29	70,70,70,70	0
57	MG	1H	3215	1/1	0.93	0.27	65,65,65,65	0
57	MG	1H	3073	1/1	0.93	0.20	36,36,36,36	0
57	MG	1H	3099	1/1	0.93	0.13	60,60,60,60	0
57	MG	14	3184	1/1	0.93	0.33	60,60,60,60	0
57	MG	1H	3395	1/1	0.93	0.11	59,59,59,59	0
57	MG	2L	102	1/1	0.93	0.36	96,96,96,96	0
57	MG	1H	3266	1/1	0.93	0.15	75,75,75,75	0
57	MG	1G	1678	1/1	0.93	0.03	115,115,115,115	0
57	MG	14	3166	1/1	0.93	0.24	61,61,61,61	0
57	MG	14	3230	1/1	0.93	0.23	70,70,70,70	0
57	MG	14	3210	1/1	0.93	0.34	80,80,80,80	0
57	MG	14	3110	1/1	0.93	0.18	86,86,86,86	0
57	MG	13	1714	1/1	0.93	0.10	93,93,93,93	0
57	MG	C5	201	1/1	0.93	0.04	110,110,110,110	0
57	MG	1H	3248	1/1	0.93	0.14	79,79,79,79	0
57	MG	14	3067	1/1	0.93	0.34	68,68,68,68	0
57	MG	1H	3168	1/1	0.93	0.27	80,80,80,80	0
57	MG	1H	3187	1/1	0.93	0.08	88,88,88,88	0
57	MG	1H	3438	1/1	0.93	0.05	75,75,75,75	0
57	MG	14	3150	1/1	0.93	0.46	68,68,68,68	0
57	MG	1H	3065	1/1	0.93	0.17	56,56,56,56	0
57	MG	1H	3480	1/1	0.93	0.08	78,78,78,78	0
57	MG	1H	3500	1/1	0.93	0.06	71,71,71,71	0
57	MG	14	3280	1/1	0.93	0.12	54,54,54,54	0
57	MG	14	3370	1/1	0.93	0.08	81,81,81,81	0
57	MG	2K	102	1/1	0.94	0.06	92,92,92,92	0
57	MG	14	3309	1/1	0.94	0.14	73,73,73,73	0
57	MG	1H	3472	1/1	0.94	0.07	93,93,93,93	0
57	MG	14	3131	1/1	0.94	0.22	78,78,78,78	0
57	MG	13	1669	1/1	0.94	0.46	74,74,74,74	0
57	MG	21	302	1/1	0.94	0.32	50,50,50,50	0
57	MG	13	1676	1/1	0.94	0.26	101,101,101,101	0
57	MG	14	3159	1/1	0.94	0.18	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	14	3134	1/1	0.94	0.26	98,98,98,98	0
57	MG	14	3048	1/1	0.94	0.75	75,75,75,75	0
57	MG	1H	3326	1/1	0.94	0.07	49,49,49,49	0
57	MG	1H	3048	1/1	0.94	0.06	80,80,80,80	0
57	MG	1J	205	1/1	0.94	0.05	95,95,95,95	0
57	MG	13	1744	1/1	0.94	0.16	94,94,94,94	0
57	MG	1H	3111	1/1	0.94	0.31	80,80,80,80	0
57	MG	14	3071	1/1	0.94	0.15	73,73,73,73	0
57	MG	1H	3227	1/1	0.94	0.11	70,70,70,70	0
57	MG	1G	1671	1/1	0.94	0.07	117,117,117,117	0
57	MG	1H	3062	1/1	0.94	0.42	66,66,66,66	0
57	MG	14	3319	1/1	0.94	0.11	91,91,91,91	0
57	MG	1G	1601	1/1	0.94	0.46	86,86,86,86	0
57	MG	14	3321	1/1	0.94	0.06	89,89,89,89	0
57	MG	1H	3393	1/1	0.94	0.09	56,56,56,56	0
57	MG	14	3438	1/1	0.94	0.07	93,93,93,93	0
57	MG	1H	3323	1/1	0.94	0.06	61,61,61,61	0
57	MG	1G	1690	1/1	0.94	0.07	118,118,118,118	0
57	MG	13	1708	1/1	0.94	0.07	76,76,76,76	0
57	MG	14	3449	1/1	0.94	0.09	95,95,95,95	0
57	MG	14	3106	1/1	0.94	0.49	82,82,82,82	0
57	MG	1H	3478	1/1	0.94	0.06	85,85,85,85	0
57	MG	1H	3372	1/1	0.94	0.07	89,89,89,89	0
57	MG	1H	3224	1/1	0.94	0.28	63,63,63,63	0
57	MG	1H	3017	1/1	0.94	0.18	55,55,55,55	0
57	MG	1H	3252	1/1	0.94	0.32	80,80,80,80	0
57	MG	1G	1665	1/1	0.94	0.13	97,97,97,97	0
57	MG	2L	104	1/1	0.94	0.40	72,72,72,72	0
57	MG	13	1688	1/1	0.94	0.25	90,90,90,90	0
57	MG	1H	3369	1/1	0.94	0.16	74,74,74,74	0
57	MG	13	1719	1/1	0.94	0.15	72,72,72,72	0
57	MG	14	3076	1/1	0.94	0.20	77,77,77,77	0
57	MG	13	1617	1/1	0.94	0.23	53,53,53,53	0
57	MG	13	1651	1/1	0.94	0.21	68,68,68,68	0
57	MG	14	3056	1/1	0.94	0.67	82,82,82,82	0
57	MG	14	3128	1/1	0.94	0.12	60,60,60,60	0
57	MG	1H	3450	1/1	0.94	0.04	87,87,87,87	0
57	MG	13	1742	1/1	0.94	0.08	100,100,100,100	0
57	MG	13	1616	1/1	0.94	0.31	48,48,48,48	0
57	MG	1H	3104	1/1	0.94	0.20	62,62,62,62	0
57	MG	14	3372	1/1	0.94	0.09	73,73,73,73	0
57	MG	13	1640	1/1	0.94	0.24	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	2I	301	1/1	0.94	0.36	66,66,66,66	0
57	MG	1H	3049	1/1	0.94	0.28	68,68,68,68	0
57	MG	1H	3403	1/1	0.94	0.18	89,89,89,89	0
57	MG	13	1737	1/1	0.94	0.10	147,147,147,147	0
57	MG	1H	3366	1/1	0.94	0.08	65,65,65,65	0
57	MG	1G	1647	1/1	0.94	0.25	115,115,115,115	0
57	MG	1G	1634	1/1	0.94	0.18	93,93,93,93	0
57	MG	1G	1667	1/1	0.94	0.06	100,100,100,100	0
57	MG	14	3174	1/1	0.94	0.16	71,71,71,71	0
57	MG	1H	3436	1/1	0.94	0.10	65,65,65,65	0
57	MG	1H	3068	1/1	0.94	0.61	69,69,69,69	0
57	MG	14	3406	1/1	0.94	0.15	76,76,76,76	0
57	MG	13	1734	1/1	0.94	0.06	86,86,86,86	0
57	MG	14	3132	1/1	0.94	0.17	58,58,58,58	0
57	MG	1H	3191	1/1	0.94	0.13	95,95,95,95	0
57	MG	1H	3135	1/1	0.94	0.34	81,81,81,81	0
57	MG	1H	3142	1/1	0.94	0.52	85,85,85,85	0
57	MG	1H	3058	1/1	0.94	0.28	53,53,53,53	0
57	MG	1H	3165	1/1	0.94	0.32	72,72,72,72	0
57	MG	1G	1687	1/1	0.94	0.06	95,95,95,95	0
57	MG	1G	1614	1/1	0.94	0.27	99,99,99,99	0
57	MG	1H	3386	1/1	0.94	0.06	84,84,84,84	0
57	MG	14	3052	1/1	0.94	0.32	62,62,62,62	0
57	MG	14	3088	1/1	0.94	0.29	65,65,65,65	0
57	MG	14	3254	1/1	0.94	0.21	81,81,81,81	0
57	MG	14	3405	1/1	0.94	0.04	83,83,83,83	0
57	MG	14	3253	1/1	0.94	0.18	63,63,63,63	0
57	MG	13	1733	1/1	0.94	0.06	73,73,73,73	0
57	MG	14	3034	1/1	0.94	0.36	57,57,57,57	0
57	MG	14	3068	1/1	0.94	0.32	67,67,67,67	0
57	MG	14	3043	1/1	0.94	0.27	75,75,75,75	0
57	MG	13	1710	1/1	0.94	0.12	108,108,108,108	0
57	MG	1G	1649	1/1	0.94	0.12	115,115,115,115	0
57	MG	14	3095	1/1	0.94	0.22	85,85,85,85	0
57	MG	14	3030	1/1	0.94	0.22	68,68,68,68	0
57	MG	1H	3270	1/1	0.94	0.10	71,71,71,71	0
57	MG	14	3090	1/1	0.94	0.13	60,60,60,60	0
57	MG	13	1619	1/1	0.94	0.12	90,90,90,90	0
57	MG	1H	3202	1/1	0.94	0.39	58,58,58,58	0
57	MG	14	3446	1/1	0.94	0.04	109,109,109,109	0
57	MG	14	3325	1/1	0.94	0.05	78,78,78,78	0
57	MG	1H	3483	1/1	0.94	0.05	106,106,106,106	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1G	1640	1/1	0.94	0.18	100,100,100,100	0
57	MG	14	3390	1/1	0.94	0.06	82,82,82,82	0
57	MG	14	3136	1/1	0.94	0.37	59,59,59,59	0
57	MG	1H	3055	1/1	0.94	0.33	72,72,72,72	0
57	MG	1H	3360	1/1	0.94	0.09	60,60,60,60	0
57	MG	1H	3225	1/1	0.94	0.40	67,67,67,67	0
57	MG	1G	1606	1/1	0.94	0.27	67,67,67,67	0
57	MG	13	1680	1/1	0.94	0.36	75,75,75,75	0
57	MG	14	3217	1/1	0.94	0.30	76,76,76,76	0
57	MG	1H	3154	1/1	0.94	0.18	75,75,75,75	0
57	MG	1G	1644	1/1	0.94	0.35	67,67,67,67	0
57	MG	1H	3397	1/1	0.94	0.07	85,85,85,85	0
57	MG	14	3245	1/1	0.94	0.36	79,79,79,79	0
57	MG	1H	3337	1/1	0.94	0.07	73,73,73,73	0
57	MG	1H	3454	1/1	0.95	0.08	62,62,62,62	0
57	MG	14	3138	1/1	0.95	0.08	68,68,68,68	0
57	MG	1H	3457	1/1	0.95	0.10	82,82,82,82	0
57	MG	1G	1694	1/1	0.95	0.48	98,98,98,98	0
57	MG	14	3316	1/1	0.95	0.07	102,102,102,102	0
57	MG	1H	3124	1/1	0.95	0.24	74,74,74,74	0
57	MG	1G	1632	1/1	0.95	0.15	132,132,132,132	0
57	MG	14	3378	1/1	0.95	0.04	93,93,93,93	0
57	MG	1H	3433	1/1	0.95	0.11	86,86,86,86	0
57	MG	1H	3173	1/1	0.95	0.15	63,63,63,63	0
57	MG	14	3371	1/1	0.95	0.05	83,83,83,83	0
57	MG	1H	3088	1/1	0.95	0.34	53,53,53,53	0
57	MG	14	3081	1/1	0.95	0.74	74,74,74,74	0
57	MG	1H	3080	1/1	0.95	0.72	82,82,82,82	0
57	MG	1H	3359	1/1	0.95	0.12	52,52,52,52	0
57	MG	13	1698	1/1	0.95	0.04	93,93,93,93	0
57	MG	14	3338	1/1	0.95	0.06	72,72,72,72	0
57	MG	14	3365	1/1	0.95	0.09	88,88,88,88	0
57	MG	14	3041	1/1	0.95	0.20	64,64,64,64	0
57	MG	14	3256	1/1	0.95	0.12	91,91,91,91	0
57	MG	1H	3156	1/1	0.95	0.33	61,61,61,61	0
57	MG	1H	3400	1/1	0.95	0.21	67,67,67,67	0
57	MG	1H	3448	1/1	0.95	0.09	62,62,62,62	0
57	MG	14	3353	1/1	0.95	0.10	67,67,67,67	0
57	MG	1H	3201	1/1	0.95	0.37	65,65,65,65	0
57	MG	1H	3260	1/1	0.95	0.25	65,65,65,65	0
57	MG	13	1699	1/1	0.95	0.06	73,73,73,73	0
57	MG	14	3114	1/1	0.95	0.39	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3038	1/1	0.95	0.23	53,53,53,53	0
57	MG	14	3312	1/1	0.95	0.06	77,77,77,77	0
57	MG	14	3118	1/1	0.95	0.30	66,66,66,66	0
57	MG	14	3115	1/1	0.95	0.39	71,71,71,71	0
57	MG	14	3431	1/1	0.95	0.06	90,90,90,90	0
57	MG	14	3091	1/1	0.95	0.23	85,85,85,85	0
57	MG	1H	3374	1/1	0.95	0.07	55,55,55,55	0
57	MG	14	3156	1/1	0.95	0.41	75,75,75,75	0
57	MG	14	3231	1/1	0.95	0.44	76,76,76,76	0
57	MG	1H	3072	1/1	0.95	0.69	73,73,73,73	0
57	MG	1H	3442	1/1	0.95	0.11	86,86,86,86	0
57	MG	14	3262	1/1	0.95	0.14	72,72,72,72	0
57	MG	1J	206	1/1	0.95	0.05	94,94,94,94	0
57	MG	1G	1675	1/1	0.95	0.07	88,88,88,88	0
57	MG	13	1729	1/1	0.95	0.05	91,91,91,91	0
57	MG	1H	3141	1/1	0.95	0.21	67,67,67,67	0
57	MG	1G	1612	1/1	0.95	0.34	67,67,67,67	0
57	MG	13	1681	1/1	0.95	0.40	86,86,86,86	0
57	MG	16	210	1/1	0.95	0.09	88,88,88,88	0
57	MG	14	3177	1/1	0.95	0.35	79,79,79,79	0
57	MG	1H	3004	1/1	0.95	0.23	54,54,54,54	0
57	MG	1H	3082	1/1	0.95	0.23	49,49,49,49	0
57	MG	1G	1608	1/1	0.95	0.23	91,91,91,91	0
57	MG	1G	1611	1/1	0.95	0.39	74,74,74,74	0
57	MG	14	3336	1/1	0.95	0.05	83,83,83,83	0
57	MG	1H	3106	1/1	0.95	0.43	74,74,74,74	0
57	MG	14	3328	1/1	0.95	0.07	93,93,93,93	0
57	MG	1H	3067	1/1	0.95	0.33	52,52,52,52	0
57	MG	14	3313	1/1	0.95	0.07	72,72,72,72	0
57	MG	1H	3042	1/1	0.95	0.17	79,79,79,79	0
57	MG	13	1712	1/1	0.95	0.08	75,75,75,75	0
57	MG	13	1624	1/1	0.95	0.12	81,81,81,81	0
57	MG	14	3099	1/1	0.95	0.17	57,57,57,57	0
57	MG	14	3412	1/1	0.95	0.04	120,120,120,120	0
57	MG	1H	3197	1/1	0.95	0.34	67,67,67,67	0
57	MG	1G	1615	1/1	0.95	0.20	92,92,92,92	0
57	MG	1H	3427	1/1	0.95	0.04	88,88,88,88	0
57	MG	1H	3232	1/1	0.95	0.31	65,65,65,65	0
57	MG	13	1743	1/1	0.95	0.05	87,87,87,87	0
57	MG	13	1632	1/1	0.95	0.13	77,77,77,77	0
57	MG	14	3170	1/1	0.95	0.31	86,86,86,86	0
57	MG	1H	3251	1/1	0.95	0.22	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3102	1/1	0.95	0.46	70,70,70,70	0
57	MG	1H	3061	1/1	0.95	0.29	68,68,68,68	0
57	MG	1H	3348	1/1	0.95	0.11	65,65,65,65	0
57	MG	1H	3037	1/1	0.95	0.17	55,55,55,55	0
57	MG	14	3209	1/1	0.95	0.79	64,64,64,64	0
57	MG	13	1673	1/1	0.95	0.14	90,90,90,90	0
57	MG	14	3408	1/1	0.95	0.08	78,78,78,78	0
57	MG	1G	1663	1/1	0.95	0.07	87,87,87,87	0
57	MG	1H	3463	1/1	0.95	0.07	82,82,82,82	0
57	MG	1G	1677	1/1	0.95	0.05	105,105,105,105	0
57	MG	13	1692	1/1	0.95	0.07	81,81,81,81	0
57	MG	1H	3095	1/1	0.95	0.36	65,65,65,65	0
57	MG	14	3039	1/1	0.95	0.19	73,73,73,73	0
57	MG	1H	3045	1/1	0.95	0.29	54,54,54,54	0
57	MG	1H	3033	1/1	0.95	0.26	62,62,62,62	0
57	MG	13	1609	1/1	0.95	0.25	58,58,58,58	0
57	MG	13	1721	1/1	0.95	0.07	70,70,70,70	0
57	MG	1G	1684	1/1	0.95	0.08	121,121,121,121	0
57	MG	1H	3179	1/1	0.95	0.25	49,49,49,49	0
57	MG	2L	101	1/1	0.95	0.36	70,70,70,70	0
57	MG	1H	3078	1/1	0.95	0.35	60,60,60,60	0
57	MG	13	1687	1/1	0.95	0.23	70,70,70,70	0
57	MG	1G	1605	1/1	0.95	0.29	92,92,92,92	0
57	MG	13	1657	1/1	0.95	0.43	73,73,73,73	0
57	MG	1H	3409	1/1	0.95	0.08	69,69,69,69	0
57	MG	14	3251	1/1	0.95	0.23	82,82,82,82	0
57	MG	45	201	1/1	0.95	0.15	72,72,72,72	0
57	MG	14	3311	1/1	0.95	0.07	66,66,66,66	0
57	MG	14	3403	1/1	0.95	0.08	76,76,76,76	0
57	MG	14	3092	1/1	0.96	0.27	56,56,56,56	0
57	MG	14	3012	1/1	0.96	0.20	68,68,68,68	0
57	MG	1H	3005	1/1	0.96	0.34	74,74,74,74	0
57	MG	1H	3440	1/1	0.96	0.04	87,87,87,87	0
57	MG	1G	1645	1/1	0.96	0.55	88,88,88,88	0
58	PAR	13	1749	42/42	0.96	0.20	64,70,78,81	0
57	MG	13	1605	1/1	0.96	0.31	68,68,68,68	0
57	MG	1H	3146	1/1	0.96	0.25	51,51,51,51	0
57	MG	13	1711	1/1	0.96	0.05	99,99,99,99	0
57	MG	1H	3315	1/1	0.96	0.10	73,73,73,73	0
57	MG	13	1627	1/1	0.96	0.29	64,64,64,64	0
57	MG	1H	3377	1/1	0.96	0.11	76,76,76,76	0
57	MG	1H	3234	1/1	0.96	0.19	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3458	1/1	0.96	0.11	87,87,87,87	0
57	MG	1H	3422	1/1	0.96	0.07	79,79,79,79	0
57	MG	14	3430	1/1	0.96	0.04	90,90,90,90	0
57	MG	14	3172	1/1	0.96	0.19	63,63,63,63	0
57	MG	1H	3137	1/1	0.96	0.09	72,72,72,72	0
57	MG	1H	3034	1/1	0.96	0.19	54,54,54,54	0
57	MG	14	3205	1/1	0.96	0.17	77,77,77,77	0
57	MG	1H	3485	1/1	0.96	0.05	76,76,76,76	0
57	MG	1H	3164	1/1	0.96	0.22	47,47,47,47	0
57	MG	14	3391	1/1	0.96	0.09	86,86,86,86	0
57	MG	1H	3474	1/1	0.96	0.09	89,89,89,89	0
57	MG	Q8	101	1/1	0.96	0.15	73,73,73,73	0
57	MG	1H	3044	1/1	0.96	0.28	62,62,62,62	0
57	MG	31	301	1/1	0.96	0.06	61,61,61,61	0
57	MG	1H	3127	1/1	0.96	0.34	56,56,56,56	0
57	MG	1H	3316	1/1	0.96	0.14	63,63,63,63	0
57	MG	14	3014	1/1	0.96	0.17	72,72,72,72	0
57	MG	13	1720	1/1	0.96	0.07	86,86,86,86	0
57	MG	13	1685	1/1	0.96	0.12	101,101,101,101	0
57	MG	1H	3147	1/1	0.96	0.16	51,51,51,51	0
57	MG	14	3411	1/1	0.96	0.05	74,74,74,74	0
57	MG	1H	3264	1/1	0.96	0.18	74,74,74,74	0
57	MG	1H	3132	1/1	0.96	0.23	75,75,75,75	0
57	MG	1H	3003	1/1	0.96	0.19	57,57,57,57	0
57	MG	14	3388	1/1	0.96	0.07	82,82,82,82	0
57	MG	16	209	1/1	0.96	0.10	73,73,73,73	0
57	MG	1J	202	1/1	0.96	0.22	94,94,94,94	0
57	MG	1H	3040	1/1	0.96	0.15	60,60,60,60	0
57	MG	14	3426	1/1	0.96	0.04	80,80,80,80	0
57	MG	14	3402	1/1	0.96	0.08	88,88,88,88	0
57	MG	13	1654	1/1	0.96	0.32	75,75,75,75	0
57	MG	1H	3379	1/1	0.96	0.11	86,86,86,86	0
57	MG	13	1641	1/1	0.96	0.43	69,69,69,69	0
57	MG	14	3011	1/1	0.96	0.47	72,72,72,72	0
57	MG	13	1696	1/1	0.96	0.03	86,86,86,86	0
57	MG	14	3003	1/1	0.96	0.19	65,65,65,65	0
57	MG	1G	1669	1/1	0.96	0.08	114,114,114,114	0
57	MG	14	3344	1/1	0.96	0.09	72,72,72,72	0
57	MG	1H	3276	1/1	0.96	0.12	98,98,98,98	0
57	MG	14	3062	1/1	0.96	0.25	85,85,85,85	0
57	MG	1H	3335	1/1	0.96	0.09	61,61,61,61	0
57	MG	1H	3074	1/1	0.96	0.21	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	13	1701	1/1	0.96	0.07	70,70,70,70	0
57	MG	1H	3345	1/1	0.96	0.15	56,56,56,56	0
57	MG	14	3101	1/1	0.96	0.47	64,64,64,64	0
58	PAR	1G	1691	42/42	0.96	0.16	70,82,88,95	0
57	MG	1H	3100	1/1	0.96	0.19	44,44,44,44	0
57	MG	1H	3013	1/1	0.96	0.34	60,60,60,60	0
57	MG	14	3026	1/1	0.96	0.32	72,72,72,72	0
57	MG	13	1629	1/1	0.96	0.29	98,98,98,98	0
57	MG	14	3354	1/1	0.96	0.15	78,78,78,78	0
57	MG	1H	3161	1/1	0.96	0.29	72,72,72,72	0
57	MG	14	3317	1/1	0.96	0.09	59,59,59,59	0
57	MG	1H	3322	1/1	0.96	0.04	82,82,82,82	0
57	MG	1H	3421	1/1	0.96	0.05	78,78,78,78	0
57	MG	1H	3418	1/1	0.96	0.05	69,69,69,69	0
57	MG	13	1613	1/1	0.96	0.28	65,65,65,65	0
57	MG	13	1691	1/1	0.96	0.12	79,79,79,79	0
57	MG	1H	3363	1/1	0.96	0.09	61,61,61,61	0
57	MG	1H	3166	1/1	0.96	0.12	70,70,70,70	0
57	MG	1G	1630	1/1	0.96	0.22	113,113,113,113	0
57	MG	45	203	1/1	0.96	0.48	71,71,71,71	0
57	MG	14	3276	1/1	0.96	0.11	62,62,62,62	0
57	MG	13	1653	1/1	0.96	0.15	66,66,66,66	0
57	MG	1G	1693	1/1	0.96	0.09	92,92,92,92	0
57	MG	14	3130	1/1	0.96	0.32	71,71,71,71	0
57	MG	1H	3184	1/1	0.96	0.41	67,67,67,67	0
57	MG	14	3361	1/1	0.96	0.09	69,69,69,69	0
57	MG	13	1751	1/1	0.96	0.14	87,87,87,87	0
57	MG	13	1730	1/1	0.96	0.15	82,82,82,82	0
57	MG	1G	1682	1/1	0.96	0.10	127,127,127,127	0
57	MG	1H	3479	1/1	0.96	0.04	89,89,89,89	0
57	MG	1H	3378	1/1	0.96	0.06	84,84,84,84	0
57	MG	14	3447	1/1	0.96	0.06	101,101,101,101	0
57	MG	1H	3240	1/1	0.96	0.25	72,72,72,72	0
57	MG	1H	3425	1/1	0.96	0.07	83,83,83,83	0
57	MG	14	3145	1/1	0.96	0.44	74,74,74,74	0
57	MG	1H	3313	1/1	0.96	0.11	72,72,72,72	0
57	MG	14	3094	1/1	0.96	0.28	85,85,85,85	0
57	MG	14	3348	1/1	0.96	0.05	88,88,88,88	0
57	MG	1H	3012	1/1	0.96	0.41	42,42,42,42	0
57	MG	1H	3214	1/1	0.96	0.43	92,92,92,92	0
57	MG	1H	3175	1/1	0.96	0.31	65,65,65,65	0
57	MG	13	1633	1/1	0.96	0.13	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3158	1/1	0.96	0.58	68,68,68,68	0
57	MG	1H	3406	1/1	0.96	0.05	87,87,87,87	0
57	MG	1H	3410	1/1	0.96	0.10	56,56,56,56	0
57	MG	1H	3113	1/1	0.96	0.36	82,82,82,82	0
57	MG	1H	3301	1/1	0.96	0.15	49,49,49,49	0
57	MG	14	3100	1/1	0.96	0.32	43,43,43,43	0
57	MG	1G	1650	1/1	0.96	0.21	87,87,87,87	0
57	MG	14	3117	1/1	0.96	0.36	66,66,66,66	0
57	MG	1H	3444	1/1	0.96	0.07	77,77,77,77	0
57	MG	1H	3447	1/1	0.96	0.12	97,97,97,97	0
60	ZN	C5	202	1/1	0.96	0.15	169,169,169,169	0
57	MG	14	3148	1/1	0.96	0.37	69,69,69,69	0
57	MG	14	3203	1/1	0.96	0.18	89,89,89,89	0
57	MG	14	3186	1/1	0.96	0.24	84,84,84,84	0
57	MG	14	3072	1/1	0.97	0.25	69,69,69,69	0
57	MG	13	1604	1/1	0.97	0.14	112,112,112,112	0
57	MG	14	3035	1/1	0.97	0.39	83,83,83,83	0
57	MG	14	3329	1/1	0.97	0.06	90,90,90,90	0
57	MG	14	3320	1/1	0.97	0.09	83,83,83,83	0
57	MG	14	3141	1/1	0.97	0.36	50,50,50,50	0
57	MG	1H	3432	1/1	0.97	0.09	75,75,75,75	0
57	MG	1H	3387	1/1	0.97	0.10	64,64,64,64	0
57	MG	14	3314	1/1	0.97	0.06	75,75,75,75	0
60	ZN	G8	201	1/1	0.97	0.18	146,146,146,146	0
57	MG	1H	3153	1/1	0.97	0.18	59,59,59,59	0
57	MG	13	1644	1/1	0.97	0.20	80,80,80,80	0
57	MG	13	1723	1/1	0.97	0.06	84,84,84,84	0
57	MG	14	3070	1/1	0.97	0.38	52,52,52,52	0
57	MG	13	1727	1/1	0.97	0.07	110,110,110,110	0
57	MG	13	1638	1/1	0.97	0.46	58,58,58,58	0
57	MG	14	3340	1/1	0.97	0.11	73,73,73,73	0
57	MG	1H	3321	1/1	0.97	0.09	77,77,77,77	0
57	MG	1H	3350	1/1	0.97	0.12	69,69,69,69	0
57	MG	1H	3375	1/1	0.97	0.18	57,57,57,57	0
57	MG	14	3384	1/1	0.97	0.06	95,95,95,95	0
57	MG	1H	3354	1/1	0.97	0.10	62,62,62,62	0
57	MG	1H	3094	1/1	0.97	0.12	52,52,52,52	0
57	MG	1H	3461	1/1	0.97	0.05	85,85,85,85	0
57	MG	13	1740	1/1	0.97	0.04	92,92,92,92	0
57	MG	14	3022	1/1	0.97	0.41	60,60,60,60	0
57	MG	I8	101	1/1	0.97	0.04	65,65,65,65	0
57	MG	14	3342	1/1	0.97	0.09	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3001	1/1	0.97	0.16	53,53,53,53	0
57	MG	14	3394	1/1	0.97	0.05	78,78,78,78	0
57	MG	1H	3204	1/1	0.97	0.22	86,86,86,86	0
57	MG	14	3032	1/1	0.97	0.18	47,47,47,47	0
57	MG	1H	3352	1/1	0.97	0.15	72,72,72,72	0
57	MG	1H	3050	1/1	0.97	0.32	66,66,66,66	0
57	MG	14	3323	1/1	0.97	0.08	72,72,72,72	0
57	MG	1H	3041	1/1	0.97	0.28	72,72,72,72	0
57	MG	1H	3070	1/1	0.97	0.29	45,45,45,45	0
57	MG	13	1639	1/1	0.97	0.10	84,84,84,84	0
57	MG	1H	3056	1/1	0.97	0.28	52,52,52,52	0
57	MG	14	3433	1/1	0.97	0.05	71,71,71,71	0
57	MG	14	3247	1/1	0.97	0.25	67,67,67,67	0
57	MG	13	1747	1/1	0.97	0.13	72,72,72,72	0
57	MG	1H	3362	1/1	0.97	0.07	60,60,60,60	0
57	MG	1H	3253	1/1	0.97	0.69	76,76,76,76	0
57	MG	13	1647	1/1	0.97	0.21	104,104,104,104	0
57	MG	14	3279	1/1	0.97	0.09	62,62,62,62	0
57	MG	14	3006	1/1	0.97	0.24	66,66,66,66	0
57	MG	1H	3441	1/1	0.97	0.10	94,94,94,94	0
57	MG	14	3201	1/1	0.97	0.47	58,58,58,58	0
57	MG	13	1675	1/1	0.97	0.41	79,79,79,79	0
57	MG	1H	3416	1/1	0.97	0.16	48,48,48,48	0
57	MG	14	3047	1/1	0.97	0.33	42,42,42,42	0
57	MG	1H	3145	1/1	0.97	0.24	46,46,46,46	0
57	MG	1H	3437	1/1	0.97	0.04	57,57,57,57	0
57	MG	13	1615	1/1	0.97	0.24	91,91,91,91	0
57	MG	1H	3477	1/1	0.97	0.10	65,65,65,65	0
57	MG	14	3377	1/1	0.97	0.16	67,67,67,67	0
57	MG	1H	3367	1/1	0.97	0.09	54,54,54,54	0
57	MG	14	3018	1/1	0.97	0.26	49,49,49,49	0
57	MG	14	3021	1/1	0.97	0.32	53,53,53,53	0
57	MG	1H	3347	1/1	0.97	0.10	69,69,69,69	0
57	MG	1H	3150	1/1	0.97	0.09	50,50,50,50	0
57	MG	1H	3382	1/1	0.97	0.04	70,70,70,70	0
57	MG	1H	3368	1/1	0.97	0.15	60,60,60,60	0
57	MG	1G	1672	1/1	0.97	0.03	91,91,91,91	0
57	MG	3I	201	1/1	0.97	0.16	57,57,57,57	0
57	MG	14	3025	1/1	0.97	0.19	58,58,58,58	0
57	MG	14	3445	1/1	0.97	0.03	87,87,87,87	0
57	MG	14	3161	1/1	0.97	0.30	73,73,73,73	0
57	MG	1H	3340	1/1	0.97	0.11	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3333	1/1	0.97	0.16	75,75,75,75	0
57	MG	14	3413	1/1	0.97	0.10	97,97,97,97	0
57	MG	14	3363	1/1	0.97	0.11	68,68,68,68	0
57	MG	14	3187	1/1	0.97	0.15	80,80,80,80	0
57	MG	14	3073	1/1	0.97	0.23	57,57,57,57	0
57	MG	14	3410	1/1	0.97	0.05	85,85,85,85	0
57	MG	1H	3217	1/1	0.97	0.16	59,59,59,59	0
57	MG	13	1693	1/1	0.97	0.13	72,72,72,72	0
57	MG	1H	3118	1/1	0.97	0.12	60,60,60,60	0
57	MG	14	3398	1/1	0.97	0.13	83,83,83,83	0
57	MG	14	3087	1/1	0.97	0.09	97,97,97,97	0
57	MG	13	1614	1/1	0.97	0.59	64,64,64,64	0
57	MG	1H	3453	1/1	0.97	0.04	83,83,83,83	0
57	MG	14	3189	1/1	0.97	0.48	69,69,69,69	0
57	MG	1H	3357	1/1	0.97	0.09	68,68,68,68	0
57	MG	13	1601	1/1	0.97	0.21	68,68,68,68	0
57	MG	1H	3494	1/1	0.97	0.03	126,126,126,126	0
57	MG	14	3350	1/1	0.97	0.11	56,56,56,56	0
57	MG	1H	3344	1/1	0.97	0.08	49,49,49,49	0
57	MG	1H	3373	1/1	0.97	0.14	66,66,66,66	0
57	MG	1G	1685	1/1	0.97	0.06	109,109,109,109	0
57	MG	14	3077	1/1	0.97	0.41	80,80,80,80	0
57	MG	14	3109	1/1	0.97	0.32	60,60,60,60	0
57	MG	14	3066	1/1	0.97	0.18	53,53,53,53	0
57	MG	14	3393	1/1	0.97	0.09	79,79,79,79	0
57	MG	1G	1662	1/1	0.97	0.11	76,76,76,76	0
57	MG	1H	3028	1/1	0.97	0.26	51,51,51,51	0
57	MG	1H	3216	1/1	0.97	0.21	57,57,57,57	0
57	MG	1H	3364	1/1	0.97	0.03	106,106,106,106	0
57	MG	1H	3469	1/1	0.97	0.04	100,100,100,100	0
57	MG	13	1707	1/1	0.97	0.04	90,90,90,90	0
57	MG	1H	3430	1/1	0.97	0.06	85,85,85,85	0
57	MG	14	3250	1/1	0.97	0.18	65,65,65,65	0
57	MG	1H	3081	1/1	0.97	0.19	47,47,47,47	0
57	MG	14	3415	1/1	0.97	0.06	77,77,77,77	0
57	MG	13	1745	1/1	0.97	0.05	117,117,117,117	0
57	MG	1H	3237	1/1	0.97	0.18	61,61,61,61	0
57	MG	1H	3330	1/1	0.97	0.12	57,57,57,57	0
57	MG	1H	3413	1/1	0.97	0.08	78,78,78,78	0
57	MG	14	3196	1/1	0.97	0.17	90,90,90,90	0
57	MG	14	3078	1/1	0.97	0.28	86,86,86,86	0
57	MG	1H	3464	1/1	0.97	0.08	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1G	1652	1/1	0.97	0.11	82,82,82,82	0
57	MG	1H	3486	1/1	0.97	0.18	61,61,61,61	0
57	MG	14	3167	1/1	0.97	0.14	65,65,65,65	0
57	MG	14	3376	1/1	0.97	0.11	52,52,52,52	0
57	MG	13	1731	1/1	0.97	0.05	86,86,86,86	0
57	MG	14	3093	1/1	0.97	0.39	51,51,51,51	0
57	MG	13	1606	1/1	0.97	0.28	52,52,52,52	0
57	MG	1H	3465	1/1	0.97	0.26	53,53,53,53	0
57	MG	5E	201	1/1	0.97	0.20	81,81,81,81	0
57	MG	1H	3490	1/1	0.97	0.07	83,83,83,83	0
57	MG	14	3304	1/1	0.97	0.07	59,59,59,59	0
57	MG	14	3083	1/1	0.97	0.21	61,61,61,61	0
57	MG	14	3392	1/1	0.97	0.06	87,87,87,87	0
57	MG	14	3399	1/1	0.97	0.09	78,78,78,78	0
57	MG	14	3197	1/1	0.97	0.14	56,56,56,56	0
57	MG	1H	3475	1/1	0.97	0.13	88,88,88,88	0
57	MG	14	3404	1/1	0.97	0.09	94,94,94,94	0
57	MG	1H	3151	1/1	0.97	0.18	91,91,91,91	0
57	MG	14	3414	1/1	0.97	0.06	85,85,85,85	0
57	MG	14	3343	1/1	0.97	0.09	63,63,63,63	0
57	MG	1H	3250	1/1	0.97	0.19	67,67,67,67	0
57	MG	14	3218	1/1	0.97	0.28	54,54,54,54	0
57	MG	1H	3502	1/1	0.97	0.32	59,59,59,59	0
57	MG	13	1608	1/1	0.97	0.23	75,75,75,75	0
57	MG	14	3008	1/1	0.97	0.11	72,72,72,72	0
57	MG	13	1611	1/1	0.97	0.24	79,79,79,79	0
57	MG	1H	3429	1/1	0.97	0.11	75,75,75,75	0
57	MG	1H	3473	1/1	0.97	0.07	85,85,85,85	0
57	MG	14	3396	1/1	0.97	0.08	62,62,62,62	0
57	MG	1H	3414	1/1	0.97	0.13	53,53,53,53	0
57	MG	1G	1680	1/1	0.97	0.03	103,103,103,103	0
57	MG	1H	3303	1/1	0.97	0.11	63,63,63,63	0
57	MG	14	3440	1/1	0.97	0.04	94,94,94,94	0
57	MG	14	3153	1/1	0.98	0.09	79,79,79,79	0
57	MG	13	1610	1/1	0.98	0.15	79,79,79,79	0
57	MG	14	3285	1/1	0.98	0.05	59,59,59,59	0
57	MG	13	1700	1/1	0.98	0.07	93,93,93,93	0
57	MG	1H	3424	1/1	0.98	0.05	68,68,68,68	0
57	MG	1H	3152	1/1	0.98	0.19	87,87,87,87	0
57	MG	14	3029	1/1	0.98	0.26	59,59,59,59	0
57	MG	14	3290	1/1	0.98	0.09	64,64,64,64	0
57	MG	1H	3328	1/1	0.98	0.08	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3117	1/1	0.98	0.51	72,72,72,72	0
57	MG	1H	3002	1/1	0.98	0.31	39,39,39,39	0
57	MG	1H	3449	1/1	0.98	0.12	69,69,69,69	0
57	MG	11	302	1/1	0.98	0.11	57,57,57,57	0
57	MG	1H	3370	1/1	0.98	0.11	70,70,70,70	0
57	MG	14	3286	1/1	0.98	0.05	63,63,63,63	0
57	MG	14	3084	1/1	0.98	0.34	56,56,56,56	0
57	MG	1G	1661	1/1	0.98	0.05	111,111,111,111	0
57	MG	14	3359	1/1	0.98	0.11	67,67,67,67	0
57	MG	14	3283	1/1	0.98	0.09	74,74,74,74	0
57	MG	1H	3384	1/1	0.98	0.11	73,73,73,73	0
57	MG	1G	1664	1/1	0.98	0.05	91,91,91,91	0
57	MG	1H	3446	1/1	0.98	0.04	93,93,93,93	0
57	MG	1H	3412	1/1	0.98	0.13	66,66,66,66	0
57	MG	1H	3426	1/1	0.98	0.08	57,57,57,57	0
57	MG	14	3368	1/1	0.98	0.07	72,72,72,72	0
57	MG	14	3080	1/1	0.98	0.38	46,46,46,46	0
57	MG	14	3020	1/1	0.98	0.38	51,51,51,51	0
57	MG	1H	3456	1/1	0.98	0.05	72,72,72,72	0
57	MG	13	1634	1/1	0.98	0.70	71,71,71,71	0
57	MG	14	3345	1/1	0.98	0.08	68,68,68,68	0
57	MG	14	3375	1/1	0.98	0.05	91,91,91,91	0
57	MG	1H	3071	1/1	0.98	0.43	54,54,54,54	0
57	MG	1H	3336	1/1	0.98	0.13	61,61,61,61	0
57	MG	14	3451	1/1	0.98	0.14	77,77,77,77	0
57	MG	1G	1654	1/1	0.98	0.09	93,93,93,93	0
57	MG	14	3050	1/1	0.98	0.29	59,59,59,59	0
57	MG	13	1706	1/1	0.98	0.12	71,71,71,71	0
57	MG	13	1607	1/1	0.98	0.27	74,74,74,74	0
57	MG	14	3103	1/1	0.98	0.52	68,68,68,68	0
57	MG	1H	3261	1/1	0.98	0.22	67,67,67,67	0
57	MG	14	3042	1/1	0.98	0.24	58,58,58,58	0
57	MG	14	3246	1/1	0.98	0.23	76,76,76,76	0
57	MG	14	3335	1/1	0.98	0.07	87,87,87,87	0
57	MG	14	3214	1/1	0.98	0.15	73,73,73,73	0
57	MG	14	3119	1/1	0.98	0.50	63,63,63,63	0
57	MG	1H	3293	1/1	0.98	0.06	63,63,63,63	0
57	MG	14	3292	1/1	0.98	0.13	61,61,61,61	0
57	MG	14	3419	1/1	0.98	0.05	70,70,70,70	0
57	MG	14	3385	1/1	0.98	0.07	70,70,70,70	0
57	MG	11	301	1/1	0.98	0.10	46,46,46,46	0
57	MG	1H	3402	1/1	0.98	0.09	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	13	1709	1/1	0.98	0.09	75,75,75,75	0
57	MG	1G	1629	1/1	0.98	0.67	83,83,83,83	0
57	MG	1H	3497	1/1	0.98	0.07	97,97,97,97	0
57	MG	1H	3392	1/1	0.98	0.06	69,69,69,69	0
57	MG	14	3300	1/1	0.98	0.14	57,57,57,57	0
57	MG	14	3349	1/1	0.98	0.08	81,81,81,81	0
57	MG	14	3160	1/1	0.98	0.30	51,51,51,51	0
57	MG	14	3126	1/1	0.98	0.43	64,64,64,64	0
57	MG	1H	3032	1/1	0.98	0.14	61,61,61,61	0
57	MG	14	3079	1/1	0.98	0.30	64,64,64,64	0
57	MG	14	3360	1/1	0.98	0.06	83,83,83,83	0
57	MG	1H	3079	1/1	0.98	0.30	47,47,47,47	0
57	MG	14	3334	1/1	0.98	0.11	61,61,61,61	0
57	MG	1H	3405	1/1	0.98	0.11	69,69,69,69	0
57	MG	13	1746	1/1	0.98	0.08	83,83,83,83	0
57	MG	13	1718	1/1	0.98	0.09	78,78,78,78	0
57	MG	1H	3404	1/1	0.98	0.09	76,76,76,76	0
57	MG	1G	1659	1/1	0.98	0.13	79,79,79,79	0
57	MG	14	3346	1/1	0.98	0.11	75,75,75,75	0
57	MG	14	3051	1/1	0.98	0.39	62,62,62,62	0
57	MG	13	1716	1/1	0.98	0.08	66,66,66,66	0
57	MG	14	3085	1/1	0.98	0.31	65,65,65,65	0
57	MG	1H	3341	1/1	0.98	0.09	57,57,57,57	0
57	MG	14	3347	1/1	0.98	0.13	67,67,67,67	0
57	MG	14	3302	1/1	0.98	0.10	68,68,68,68	0
57	MG	14	3122	1/1	0.98	0.07	104,104,104,104	0
57	MG	1H	3063	1/1	0.98	0.27	52,52,52,52	0
57	MG	1H	3025	1/1	0.98	0.32	56,56,56,56	0
57	MG	1G	1673	1/1	0.98	0.09	84,84,84,84	0
57	MG	14	3040	1/1	0.98	0.33	64,64,64,64	0
57	MG	1H	3332	1/1	0.98	0.07	63,63,63,63	0
57	MG	14	3397	1/1	0.98	0.14	64,64,64,64	0
57	MG	1H	3381	1/1	0.98	0.11	95,95,95,95	0
57	MG	14	3333	1/1	0.98	0.14	59,59,59,59	0
57	MG	13	1703	1/1	0.98	0.07	95,95,95,95	0
57	MG	1H	3268	1/1	0.98	0.25	81,81,81,81	0
57	MG	14	3450	1/1	0.98	0.10	63,63,63,63	0
57	MG	14	3381	1/1	0.98	0.05	52,52,52,52	0
57	MG	1H	3492	1/1	0.98	0.06	105,105,105,105	0
57	MG	1H	3031	1/1	0.98	0.38	53,53,53,53	0
57	MG	1H	3299	1/1	0.98	0.06	50,50,50,50	0
57	MG	14	3389	1/1	0.98	0.07	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1G	1651	1/1	0.98	0.08	81,81,81,81	0
57	MG	13	1728	1/1	0.98	0.08	91,91,91,91	0
57	MG	1H	3085	1/1	0.98	0.29	71,71,71,71	0
57	MG	14	3437	1/1	0.98	0.03	93,93,93,93	0
57	MG	14	3395	1/1	0.98	0.04	78,78,78,78	0
57	MG	14	3379	1/1	0.98	0.10	94,94,94,94	0
57	MG	14	3061	1/1	0.98	0.34	61,61,61,61	0
57	MG	14	3337	1/1	0.98	0.05	76,76,76,76	0
57	MG	14	3386	1/1	0.98	0.07	56,56,56,56	0
57	MG	14	3125	1/1	0.98	0.17	54,54,54,54	0
57	MG	1H	3324	1/1	0.98	0.13	47,47,47,47	0
57	MG	1H	3257	1/1	0.98	0.25	84,84,84,84	0
57	MG	1H	3398	1/1	0.98	0.12	50,50,50,50	0
57	MG	1H	3320	1/1	0.98	0.05	67,67,67,67	0
57	MG	13	1725	1/1	0.98	0.06	71,71,71,71	0
57	MG	14	3332	1/1	0.98	0.07	63,63,63,63	0
57	MG	14	3373	1/1	0.98	0.06	93,93,93,93	0
57	MG	1G	1625	1/1	0.98	0.20	89,89,89,89	0
57	MG	1H	3169	1/1	0.98	0.20	85,85,85,85	0
57	MG	1H	3256	1/1	0.98	0.34	71,71,71,71	0
57	MG	1H	3160	1/1	0.98	0.46	67,67,67,67	0
57	MG	14	3277	1/1	0.98	0.08	67,67,67,67	0
57	MG	1H	3026	1/1	0.98	0.44	40,40,40,40	0
57	MG	1H	3024	1/1	0.98	0.31	45,45,45,45	0
57	MG	1H	3329	1/1	0.98	0.13	55,55,55,55	0
57	MG	14	3364	1/1	0.98	0.05	73,73,73,73	0
57	MG	13	1726	1/1	0.98	0.08	85,85,85,85	0
57	MG	14	3369	1/1	0.98	0.19	56,56,56,56	0
57	MG	14	3278	1/1	0.98	0.05	65,65,65,65	0
57	MG	1H	3407	1/1	0.98	0.06	50,50,50,50	0
57	MG	1J	204	1/1	0.98	0.06	82,82,82,82	0
57	MG	1H	3468	1/1	0.98	0.11	71,71,71,71	0
57	MG	1H	3356	1/1	0.98	0.10	58,58,58,58	0
57	MG	1H	3009	1/1	0.98	0.25	54,54,54,54	0
57	MG	14	3064	1/1	0.98	0.36	58,58,58,58	0
57	MG	14	3282	1/1	0.98	0.09	58,58,58,58	0
57	MG	1H	3342	1/1	0.98	0.06	71,71,71,71	0
57	MG	1H	3298	1/1	0.98	0.10	61,61,61,61	0
57	MG	1G	1676	1/1	0.98	0.04	86,86,86,86	0
57	MG	13	1623	1/1	0.98	0.35	61,61,61,61	0
57	MG	14	3140	1/1	0.98	0.31	81,81,81,81	0
57	MG	1H	3462	1/1	0.98	0.07	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3399	1/1	0.98	0.13	61,61,61,61	0
57	MG	1H	3460	1/1	0.98	0.14	62,62,62,62	0
57	MG	14	3352	1/1	0.98	0.06	65,65,65,65	0
57	MG	1G	1603	1/1	0.98	0.20	81,81,81,81	0
57	MG	14	3273	1/1	0.98	0.19	58,58,58,58	0
57	MG	13	1705	1/1	0.98	0.07	76,76,76,76	0
57	MG	14	3382	1/1	0.98	0.09	91,91,91,91	0
57	MG	1H	3219	1/1	0.98	0.14	62,62,62,62	0
60	ZN	5A	101	1/1	0.98	0.09	128,128,128,128	0
57	MG	14	3358	1/1	0.98	0.12	54,54,54,54	0
57	MG	1H	3292	1/1	0.98	0.10	50,50,50,50	0
57	MG	1H	3155	1/1	0.98	0.18	75,75,75,75	0
57	MG	13	1715	1/1	0.98	0.09	110,110,110,110	0
57	MG	14	3137	1/1	0.98	0.22	72,72,72,72	0
57	MG	13	1702	1/1	0.98	0.12	76,76,76,76	0
57	MG	1G	1658	1/1	0.98	0.05	94,94,94,94	0
57	MG	14	3065	1/1	0.98	0.28	54,54,54,54	0
57	MG	1H	3394	1/1	0.98	0.14	70,70,70,70	0
57	MG	1H	3314	1/1	0.98	0.13	75,75,75,75	0
57	MG	1H	3420	1/1	0.98	0.07	64,64,64,64	0
57	MG	1H	3223	1/1	0.98	0.18	64,64,64,64	0
57	MG	14	3060	1/1	0.98	0.30	74,74,74,74	0
57	MG	1H	3310	1/1	0.98	0.10	58,58,58,58	0
57	MG	14	3356	1/1	0.98	0.13	61,61,61,61	0
57	MG	1G	1602	1/1	0.98	0.28	72,72,72,72	0
57	MG	1H	3445	1/1	0.98	0.03	97,97,97,97	0
57	MG	14	3289	1/1	0.98	0.12	58,58,58,58	0
57	MG	1H	3391	1/1	0.98	0.13	49,49,49,49	0
57	MG	2K	103	1/1	0.98	0.36	61,61,61,61	0
57	MG	14	3046	1/1	0.99	0.41	58,58,58,58	0
57	MG	14	3288	1/1	0.99	0.14	50,50,50,50	0
57	MG	13	1602	1/1	0.99	0.41	88,88,88,88	0
57	MG	14	3127	1/1	0.99	0.34	48,48,48,48	0
60	ZN	5I	102	1/1	0.99	0.13	88,88,88,88	0
57	MG	1H	3443	1/1	0.99	0.08	67,67,67,67	0
57	MG	1H	3408	1/1	0.99	0.11	50,50,50,50	0
57	MG	1H	3349	1/1	0.99	0.17	53,53,53,53	0
57	MG	1H	3016	1/1	0.99	0.40	49,49,49,49	0
57	MG	14	3299	1/1	0.99	0.06	60,60,60,60	0
57	MG	13	1690	1/1	0.99	0.14	68,68,68,68	0
57	MG	14	3409	1/1	0.99	0.14	80,80,80,80	0
57	MG	1H	3419	1/1	0.99	0.06	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1G	1660	1/1	0.99	0.03	96,96,96,96	0
57	MG	14	3322	1/1	0.99	0.14	74,74,74,74	0
57	MG	14	3019	1/1	0.99	0.33	58,58,58,58	0
57	MG	1H	3311	1/1	0.99	0.10	53,53,53,53	0
57	MG	1H	3304	1/1	0.99	0.11	55,55,55,55	0
57	MG	1H	3317	1/1	0.99	0.20	45,45,45,45	0
57	MG	14	3291	1/1	0.99	0.12	66,66,66,66	0
57	MG	14	3297	1/1	0.99	0.08	74,74,74,74	0
57	MG	13	1732	1/1	0.99	0.08	108,108,108,108	0
57	MG	13	1717	1/1	0.99	0.10	66,66,66,66	0
57	MG	14	3059	1/1	0.99	0.41	69,69,69,69	0
57	MG	1H	3499	1/1	0.99	0.26	67,67,67,67	0
57	MG	14	3401	1/1	0.99	0.10	66,66,66,66	0
57	MG	1H	3307	1/1	0.99	0.06	57,57,57,57	0
57	MG	1H	3296	1/1	0.99	0.18	49,49,49,49	0
57	MG	85	201	1/1	0.99	0.20	72,72,72,72	0
57	MG	1H	3365	1/1	0.99	0.10	70,70,70,70	0
57	MG	1H	3300	1/1	0.99	0.11	54,54,54,54	0
57	MG	14	3341	1/1	0.99	0.07	62,62,62,62	0
57	MG	1H	3346	1/1	0.99	0.11	58,58,58,58	0
57	MG	1G	1681	1/1	0.99	0.04	85,85,85,85	0
57	MG	1H	3361	1/1	0.99	0.08	53,53,53,53	0
57	MG	1H	3353	1/1	0.99	0.09	57,57,57,57	0
57	MG	1H	3309	1/1	0.99	0.12	48,48,48,48	0
59	SF4	32	301	8/8	0.99	0.17	100,111,117,118	0
57	MG	1H	3389	1/1	0.99	0.16	59,59,59,59	0
57	MG	1H	3295	1/1	0.99	0.11	52,52,52,52	0
59	SF4	3E	301	8/8	0.99	0.19	71,78,87,91	0
57	MG	1H	3027	1/1	0.99	0.40	63,63,63,63	0
57	MG	1H	3030	1/1	0.99	0.23	45,45,45,45	0
57	MG	14	3133	1/1	0.99	0.33	71,71,71,71	0
57	MG	1H	3338	1/1	0.99	0.18	53,53,53,53	0
57	MG	1H	3305	1/1	0.99	0.09	53,53,53,53	0
57	MG	14	3275	1/1	0.99	0.09	61,61,61,61	0
57	MG	14	3249	1/1	0.99	0.28	60,60,60,60	0
57	MG	14	3432	1/1	0.99	0.10	83,83,83,83	0
57	MG	1H	3396	1/1	0.99	0.08	60,60,60,60	0
57	MG	1H	3051	1/1	0.99	0.16	93,93,93,93	0
57	MG	14	3331	1/1	0.99	0.09	66,66,66,66	0
57	MG	1H	3351	1/1	0.99	0.08	69,69,69,69	0
57	MG	1H	3302	1/1	0.99	0.07	47,47,47,47	0
57	MG	14	3023	1/1	0.99	0.30	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3339	1/1	0.99	0.09	50,50,50,50	0
57	MG	1H	3060	1/1	0.99	0.37	55,55,55,55	0
57	MG	29	302	1/1	0.99	0.29	40,40,40,40	0
57	MG	1H	3172	1/1	0.99	0.14	73,73,73,73	0
57	MG	1G	1656	1/1	0.99	0.19	105,105,105,105	0
57	MG	14	3420	1/1	0.99	0.12	65,65,65,65	0
57	MG	13	1695	1/1	0.99	0.11	76,76,76,76	0
57	MG	1H	3417	1/1	0.99	0.11	56,56,56,56	0
57	MG	14	3367	1/1	0.99	0.05	60,60,60,60	0
57	MG	14	3298	1/1	0.99	0.03	79,79,79,79	0
57	MG	14	3287	1/1	0.99	0.17	56,56,56,56	0
57	MG	14	3339	1/1	0.99	0.07	86,86,86,86	0
57	MG	1H	3327	1/1	0.99	0.05	55,55,55,55	0
57	MG	1H	3239	1/1	0.99	0.09	67,67,67,67	0
57	MG	1H	3089	1/1	0.99	0.44	51,51,51,51	0
57	MG	14	3252	1/1	0.99	0.19	67,67,67,67	0
57	MG	14	3306	1/1	0.99	0.10	55,55,55,55	0
57	MG	1H	3039	1/1	0.99	0.12	90,90,90,90	0
57	MG	1H	3294	1/1	0.99	0.13	56,56,56,56	0
57	MG	14	3295	1/1	0.99	0.11	58,58,58,58	0
57	MG	14	3305	1/1	0.99	0.17	57,57,57,57	0
57	MG	14	3307	1/1	0.99	0.12	79,79,79,79	0
57	MG	1H	3297	1/1	0.99	0.14	49,49,49,49	0
57	MG	13	1683	1/1	0.99	0.21	67,67,67,67	0
57	MG	1H	3401	1/1	0.99	0.10	52,52,52,52	0
57	MG	13	1697	1/1	0.99	0.10	90,90,90,90	0
57	MG	14	3327	1/1	0.99	0.06	67,67,67,67	0
57	MG	1H	3306	1/1	0.99	0.09	60,60,60,60	0
57	MG	1H	3383	1/1	0.99	0.05	78,78,78,78	0
57	MG	1H	3029	1/1	0.99	0.35	49,49,49,49	0
57	MG	14	3274	1/1	0.99	0.13	62,62,62,62	0
57	MG	14	3301	1/1	0.99	0.15	56,56,56,56	0
57	MG	1H	3319	1/1	0.99	0.13	67,67,67,67	0
57	MG	14	3355	1/1	0.99	0.12	59,59,59,59	0
57	MG	14	3281	1/1	0.99	0.16	66,66,66,66	0
57	MG	1H	3043	1/1	0.99	0.28	70,70,70,70	0
57	MG	1H	3167	1/1	0.99	0.16	63,63,63,63	0
57	MG	1H	3491	1/1	0.99	0.13	75,75,75,75	0
57	MG	14	3002	1/1	0.99	0.12	49,49,49,49	0
57	MG	14	3028	1/1	0.99	0.21	60,60,60,60	0
57	MG	14	3453	1/1	0.99	0.04	88,88,88,88	0
57	MG	1H	3318	1/1	0.99	0.15	54,54,54,54	0

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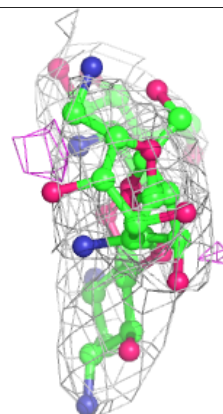
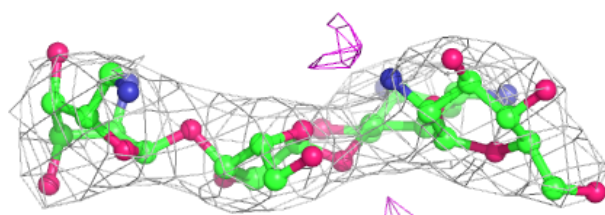
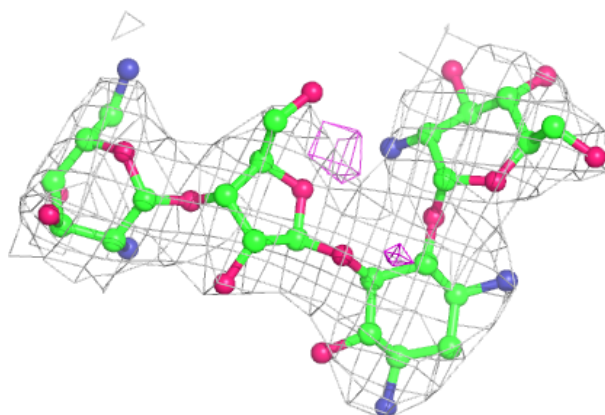
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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	16	208	1/1	0.99	0.05	67,67,67,67	0
57	MG	1H	3331	1/1	0.99	0.07	66,66,66,66	0
57	MG	14	3284	1/1	0.99	0.07	57,57,57,57	0
57	MG	1H	3355	1/1	0.99	0.10	68,68,68,68	0
57	MG	1H	3343	1/1	0.99	0.07	74,74,74,74	0
57	MG	1H	3388	1/1	0.99	0.14	57,57,57,57	0
57	MG	14	3417	1/1	0.99	0.07	87,87,87,87	0
57	MG	14	3362	1/1	0.99	0.05	62,62,62,62	0
57	MG	13	1694	1/1	0.99	0.17	79,79,79,79	0
57	MG	1H	3064	1/1	0.99	0.23	54,54,54,54	0
57	MG	14	3418	1/1	0.99	0.05	75,75,75,75	0
57	MG	1H	3358	1/1	0.99	0.12	67,67,67,67	0
57	MG	1H	3415	1/1	0.99	0.10	52,52,52,52	0
57	MG	1H	3390	1/1	1.00	0.08	57,57,57,57	0
57	MG	1H	3308	1/1	1.00	0.08	61,61,61,61	0
57	MG	1H	3312	1/1	1.00	0.05	76,76,76,76	0
57	MG	14	3294	1/1	1.00	0.11	54,54,54,54	0
57	MG	1H	3423	1/1	1.00	0.10	55,55,55,55	0
57	MG	14	3293	1/1	1.00	0.09	51,51,51,51	0

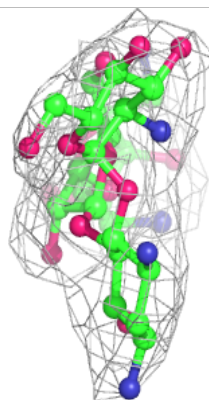
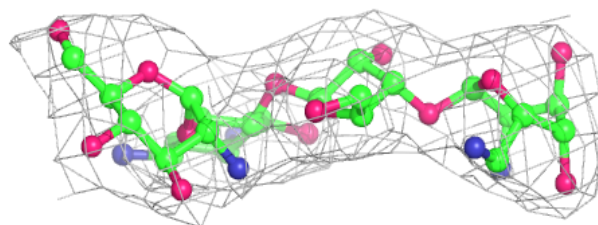
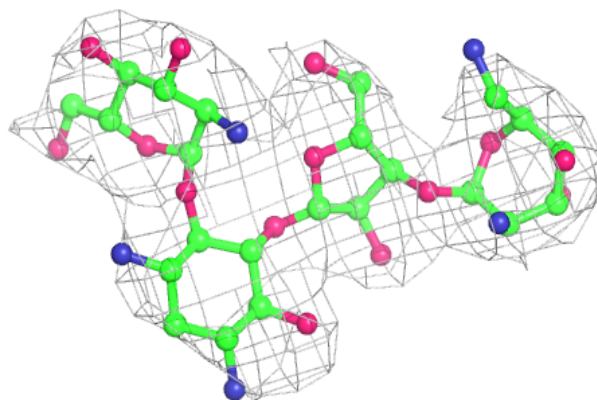
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

Electron density around PAR 13 1749:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

**Electron density around PAR 1G 1691:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



6.5 Other polymers [i](#)

There are no such residues in this entry.