Full wwPDB X-ray Structure Validation Report ⓘ

Sep 16, 2026 – 05:19 am BST

PDB ID	:	5EL7 / pdb_00005el7
Title	:	Structure of T. thermophilus 70S ribosome complex with mRNA and tRNALys 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 types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

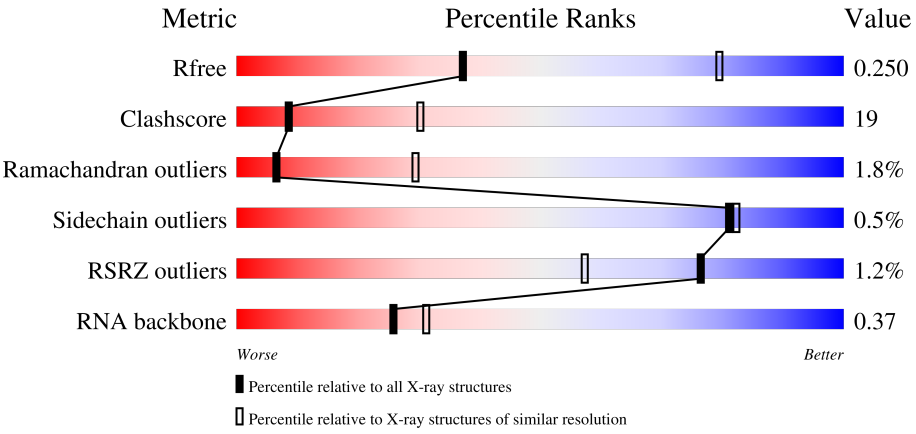
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.50

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.15 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	2361 (3.20-3.12)
Clashscore	190562	2486 (3.20-3.12)
Ramachandran outliers	187476	2405 (3.20-3.12)
Sidechain outliers	187428	2404 (3.20-3.12)
RSRZ outliers	180081	2361 (3.20-3.12)
RNA backbone	3983	1113 (3.42-2.90)

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

Mol	Chain	Length	Quality of chain
1	13	1522	39% 45% 14% .
1	1G	1522	39% 46% 14% .
2	12	256	36% 42% . . 18%

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Mol	Chain	Length	Quality of chain
2	1E	256	2% 41% 47% 10%
3	22	239	45% 37% 18%
3	2E	239	51% 35% 14%
4	32	209	2% 48% 49%
4	3E	209	59% 38%
5	42	162	53% 38% 9%
5	4E	162	49% 43% 8%
6	52	101	64% 34%
6	5E	101	2% 65% 34%
7	62	156	48% 40% 11%
7	6E	156	2% 55% 44%
8	72	138	61% 38%
8	7E	138	3% 46% 53%
9	82	128	9% 37% 55% 5%
9	8E	128	42% 56%
10	1A	105	10% 33% 40% 24%
10	1I	105	39% 48% 13%
11	2A	129	48% 37% 12%
11	2I	129	50% 35% 14%
12	3A	132	3% 52% 39% 8%
12	3I	132	53% 38% 8%
13	4A	126	2% 40% 45% 12%
13	4I	126	3% 51% 41% 6%
14	5A	61	7% 48% 46%
14	5I	61	2% 52% 41% 5%

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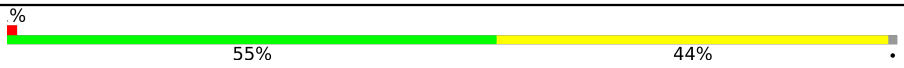
Mol	Chain	Length	Quality of chain
15	6A	89	
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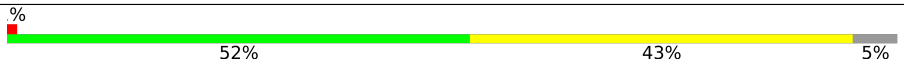
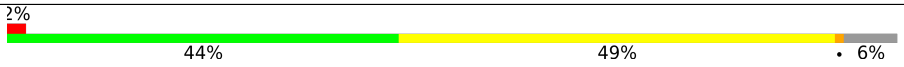
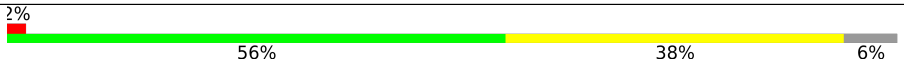
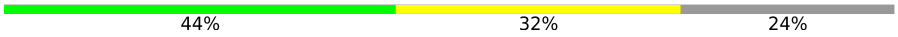
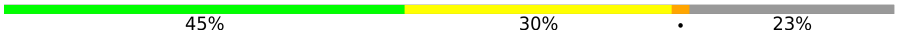
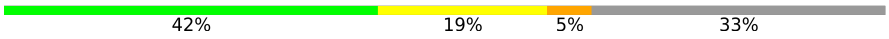
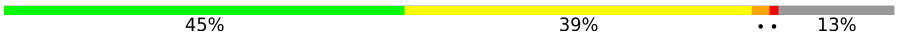
16	7A	88	
16	7I	88	
17	8A	105	
17	8I	105	
18	9A	88	
18	9I	88	
19	AA	93	
19	AI	93	
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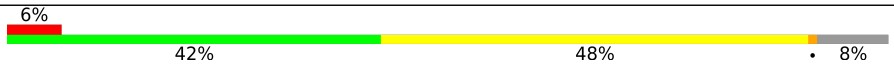
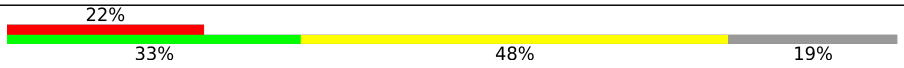
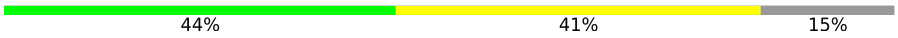
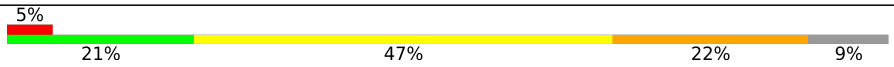
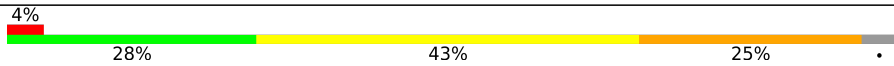
20	BI	106	
21	1B	27	
21	1F	27	
22	1K	76	
22	1L	76	
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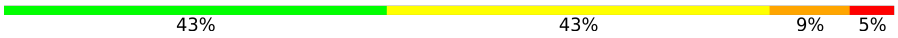
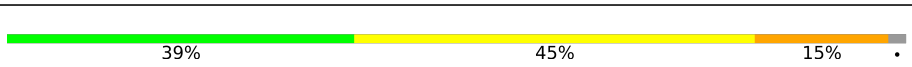
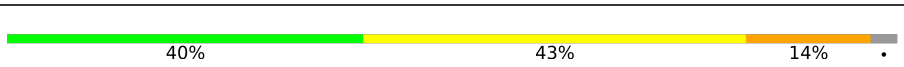
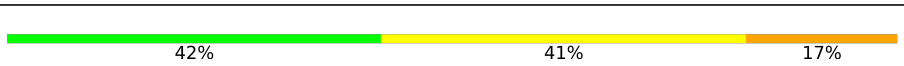
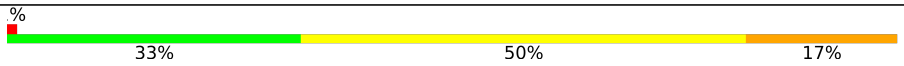
23	2L	77	
24	3K	76	
25	4K	27	
25	4L	27	
26	14	2917	
26	1H	2917	
27	16	122	
27	1J	122	

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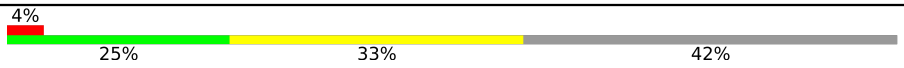
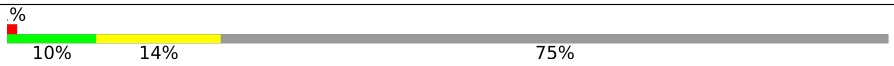
Mol	Chain	Length	Quality of chain
28	71	229	
28	79	229	
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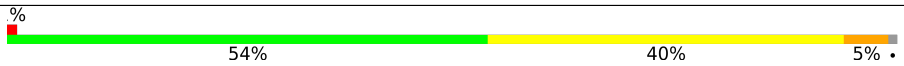
29	19	276	
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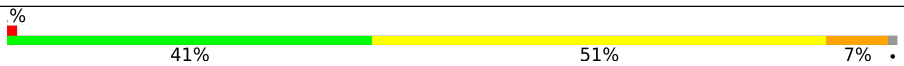
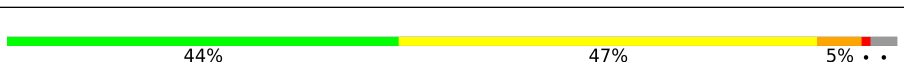
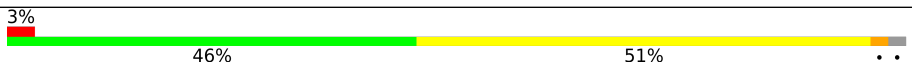
30	29	206	
31	31	210	
31	39	210	
32	41	182	
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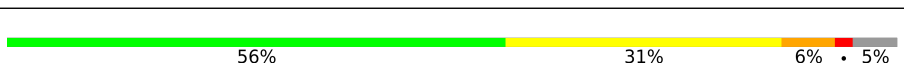
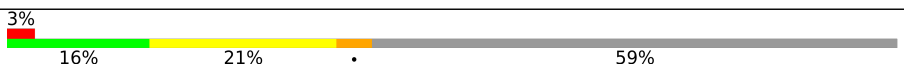
33	51	180	
33	59	180	
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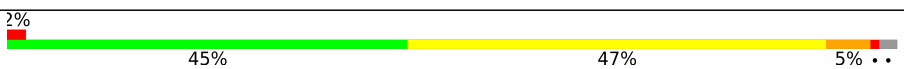
34	69	148	
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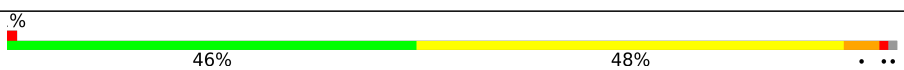
35	58	140	
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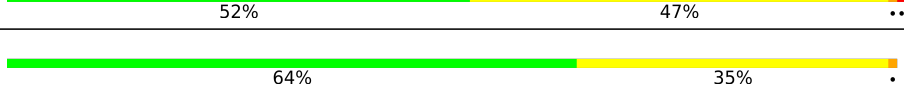
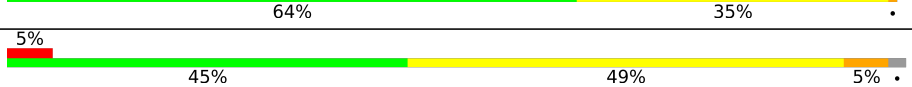
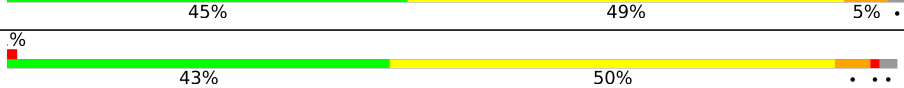
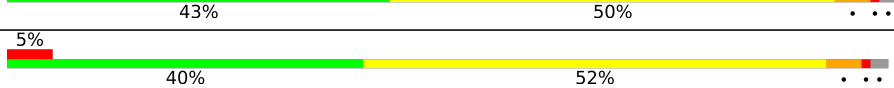
36	68	122	
37	35	150	
37	78	150	
38	45	141	
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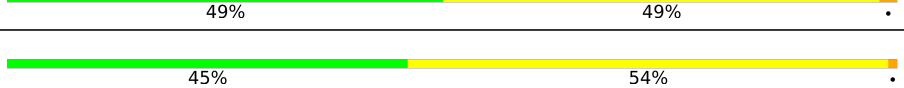
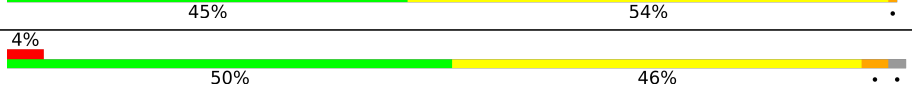
39	55	118	
39	98	118	
40	65	112	

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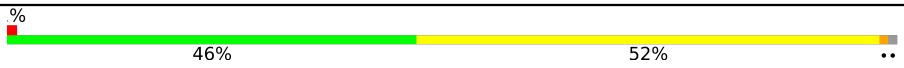
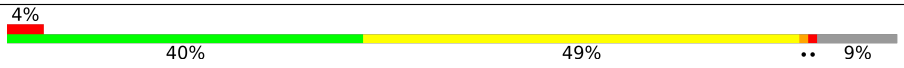
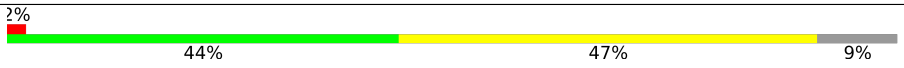
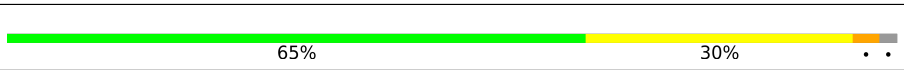
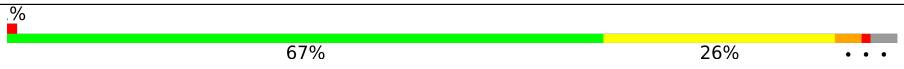
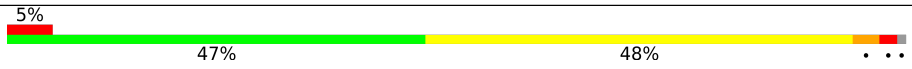
Mol	Chain	Length	Quality of chain
40	A8	112	
41	75	146	
41	B8	146	
42	85	118	
42	C8	118	
43	95	101	
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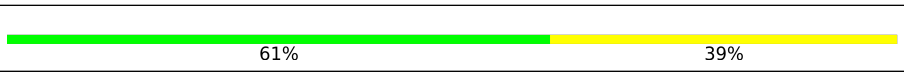
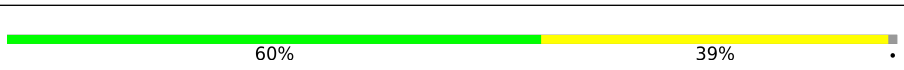
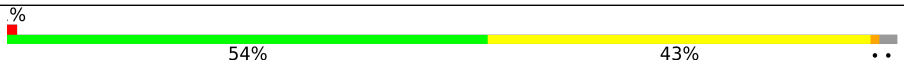
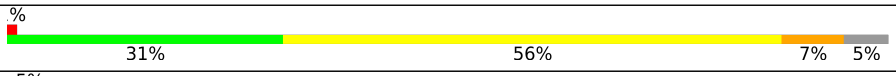
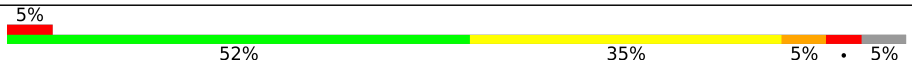
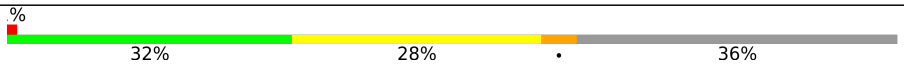
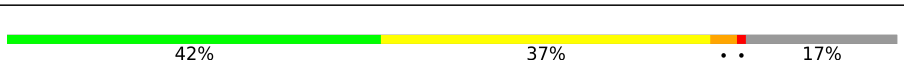
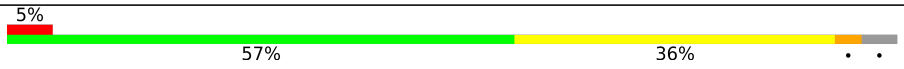
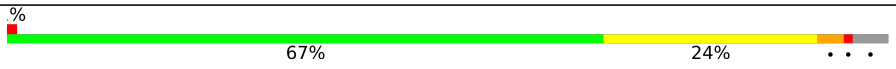
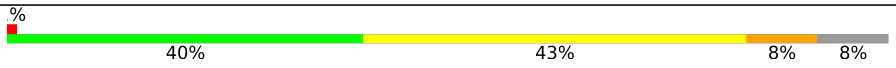
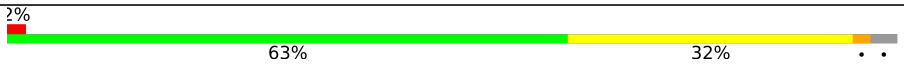
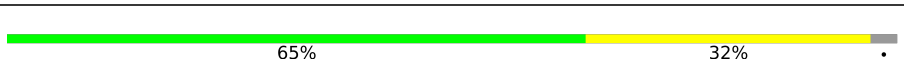
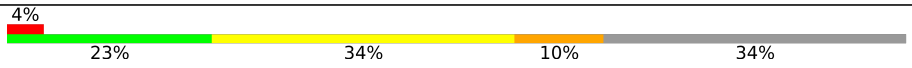
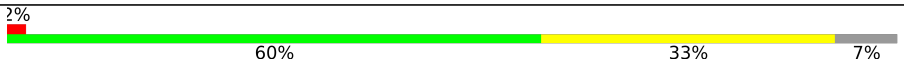
44	A5	113	
44	E8	113	
45	B5	96	
45	F8	96	
46	C5	110	
46	G8	110	
47	D5	206	
47	H8	206	
48	E5	85	
48	I8	85	
49	F5	98	
49	J8	98	
50	G5	72	
50	K8	72	
51	H5	60	
51	L8	60	
52	M8	71	
53	J5	60	

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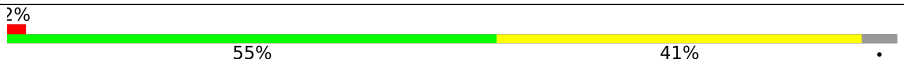
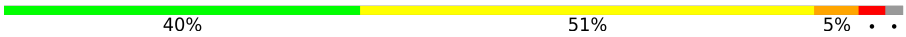
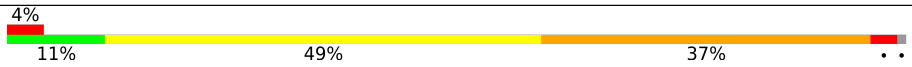
Mol	Chain	Length	Quality of chain
53	N8	60	
54	L5	49	
54	P8	49	
55	M5	65	
55	Q8	65	
56	3L	76	

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	13	1625	-	-	-	X
57	MG	13	1659	-	-	-	X
57	MG	14	3035	-	-	-	X
57	MG	14	3170	-	-	-	X
57	MG	1H	3211	-	-	-	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 tRNALys.

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 tRNAfMet.

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 tRNALys.

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		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		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 558	C 346	N 113	O 98	S 1	0	0	0

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

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

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

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

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

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

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

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

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

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

- Molecule 56 is a RNA chain called tRNALys.

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 (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	13	150	Total	Mg	0	0
			150	150		
57	5E	1	Total	Mg	0	0
			1	1		
57	1I	1	Total	Mg	0	0
			1	1		
57	3I	1	Total	Mg	0	0
			1	1		
57	5I	1	Total	Mg	0	0
			1	1		
57	BI	1	Total	Mg	0	0
			1	1		
57	2K	3	Total	Mg	0	0
			3	3		
57	1H	502	Total	Mg	0	0
			502	502		
57	16	12	Total	Mg	0	0
			12	12		
57	11	3	Total	Mg	0	0
			3	3		
57	21	3	Total	Mg	0	0
			3	3		
57	31	1	Total	Mg	0	0
			1	1		
57	41	2	Total	Mg	0	0
			2	2		
57	78	1	Total	Mg	0	0
			1	1		
57	88	1	Total	Mg	0	0
			1	1		
57	I8	1	Total	Mg	0	0
			1	1		
57	L8	1	Total	Mg	0	0
			1	1		
57	P8	1	Total	Mg	0	0
			1	1		
57	Q8	1	Total	Mg	0	0
			1	1		

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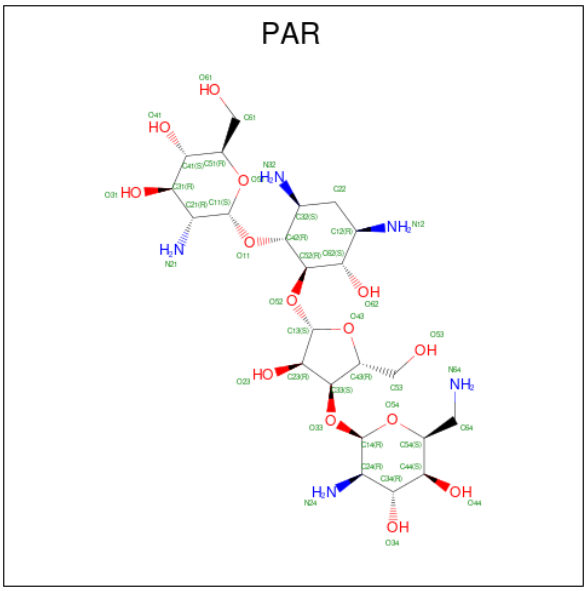
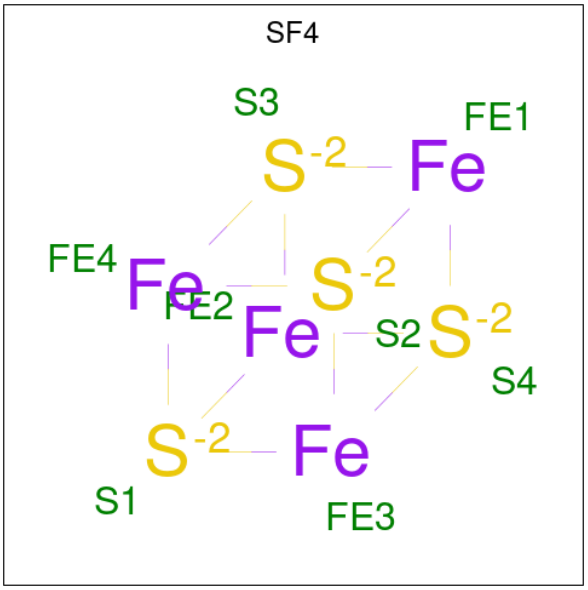
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	1G	93	Total Mg 93 93	0	0
57	7A	1	Total Mg 1 1	0	0
57	2L	4	Total Mg 4 4	0	0
57	14	454	Total Mg 454 454	0	0
57	1J	6	Total Mg 6 6	0	0
57	29	4	Total Mg 4 4	0	0
57	39	2	Total Mg 2 2	0	0
57	35	2	Total Mg 2 2	0	0
57	45	3	Total Mg 3 3	0	0
57	55	1	Total Mg 1 1	0	0
57	85	1	Total Mg 1 1	0	0
57	C5	1	Total Mg 1 1	0	0
57	E5	1	Total Mg 1 1	0	0
57	M5	1	Total Mg 1 1	0	0

- Molecule 58 is PAROMOMYCIN (CCD ID: PAR) (formula: $C_{23}H_{45}N_5O_{14}$).



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

- Molecule 59 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



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

- Molecule 60 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	5I	1	Total Zn 1 1	0	0
60	G8	1	Total Zn 1 1	0	0
60	5A	1	Total Zn 1 1	0	0
60	C5	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 O 1158 1158	0	0
61	16	26	Total O 26 26	0	0
61	11	12	Total O 12 12	0	0
61	21	6	Total O 6 6	0	0
61	31	9	Total O 9 9	0	0
61	58	1	Total O 1 1	0	0
61	78	6	Total O 6 6	0	0
61	88	2	Total O 2 2	0	0
61	C8	2	Total O 2 2	0	0
61	E8	3	Total O 3 3	0	0
61	F8	2	Total O 2 2	0	0
61	G8	2	Total O 2 2	0	0
61	I8	5	Total O 5 5	0	0
61	J8	3	Total O 3 3	0	0
61	K8	2	Total O 2 2	0	0
61	L8	2	Total O 2 2	0	0
61	P8	1	Total O 1 1	0	0
61	Q8	9	Total O 9 9	0	0
61	1G	226	Total O 226 226	0	0
61	32	3	Total O 3 3	0	0
61	42	1	Total O 1 1	0	0

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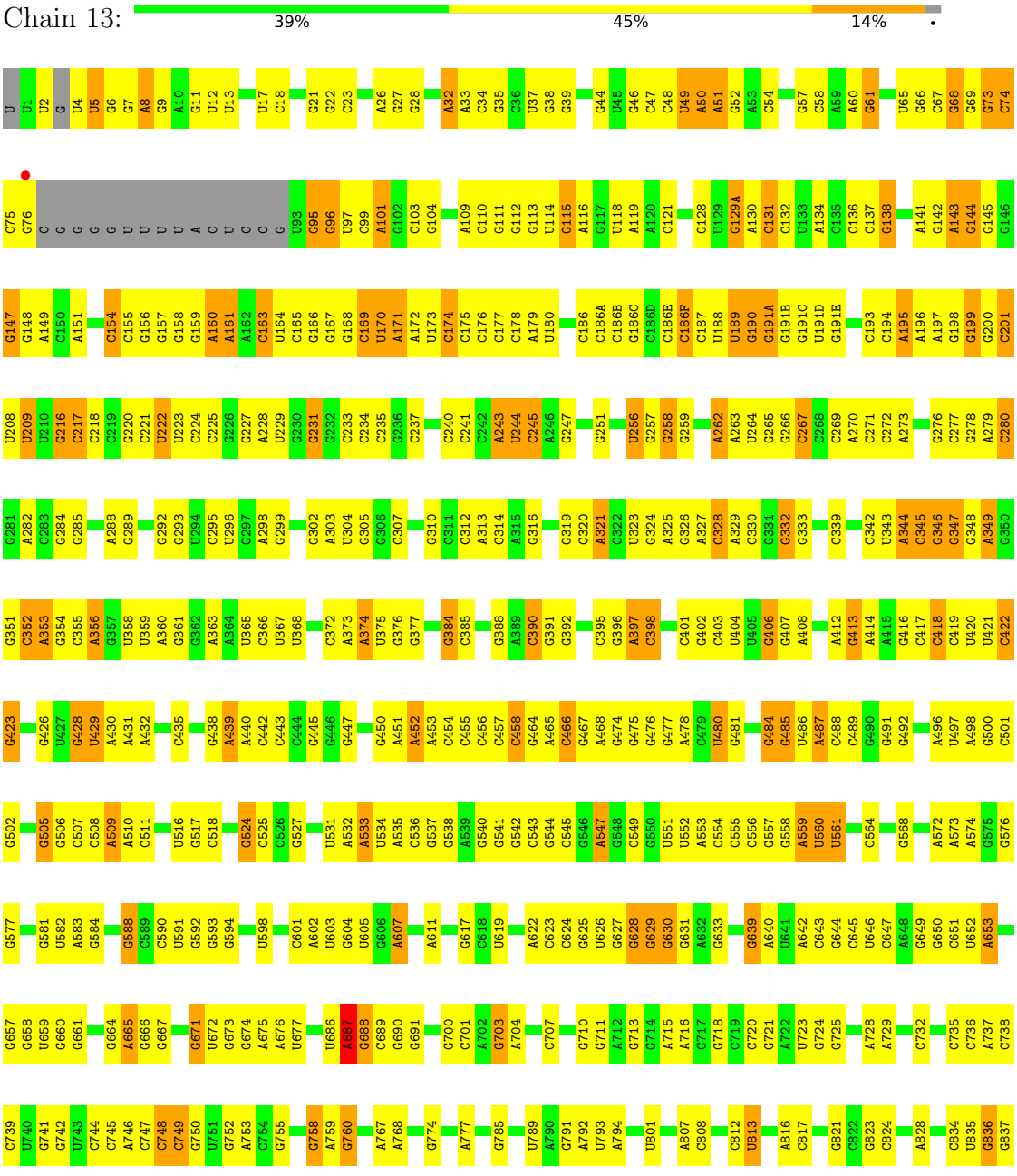
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	3A	1	Total O 1 1	0	0
61	6A	3	Total O 3 3	0	0
61	8A	1	Total O 1 1	0	0
61	BA	3	Total O 3 3	0	0
61	2L	1	Total O 1 1	0	0
61	4L	3	Total O 3 3	0	0
61	14	1015	Total O 1015 1015	0	0
61	1J	18	Total O 18 18	0	0
61	19	12	Total O 12 12	0	0
61	29	6	Total O 6 6	0	0
61	39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

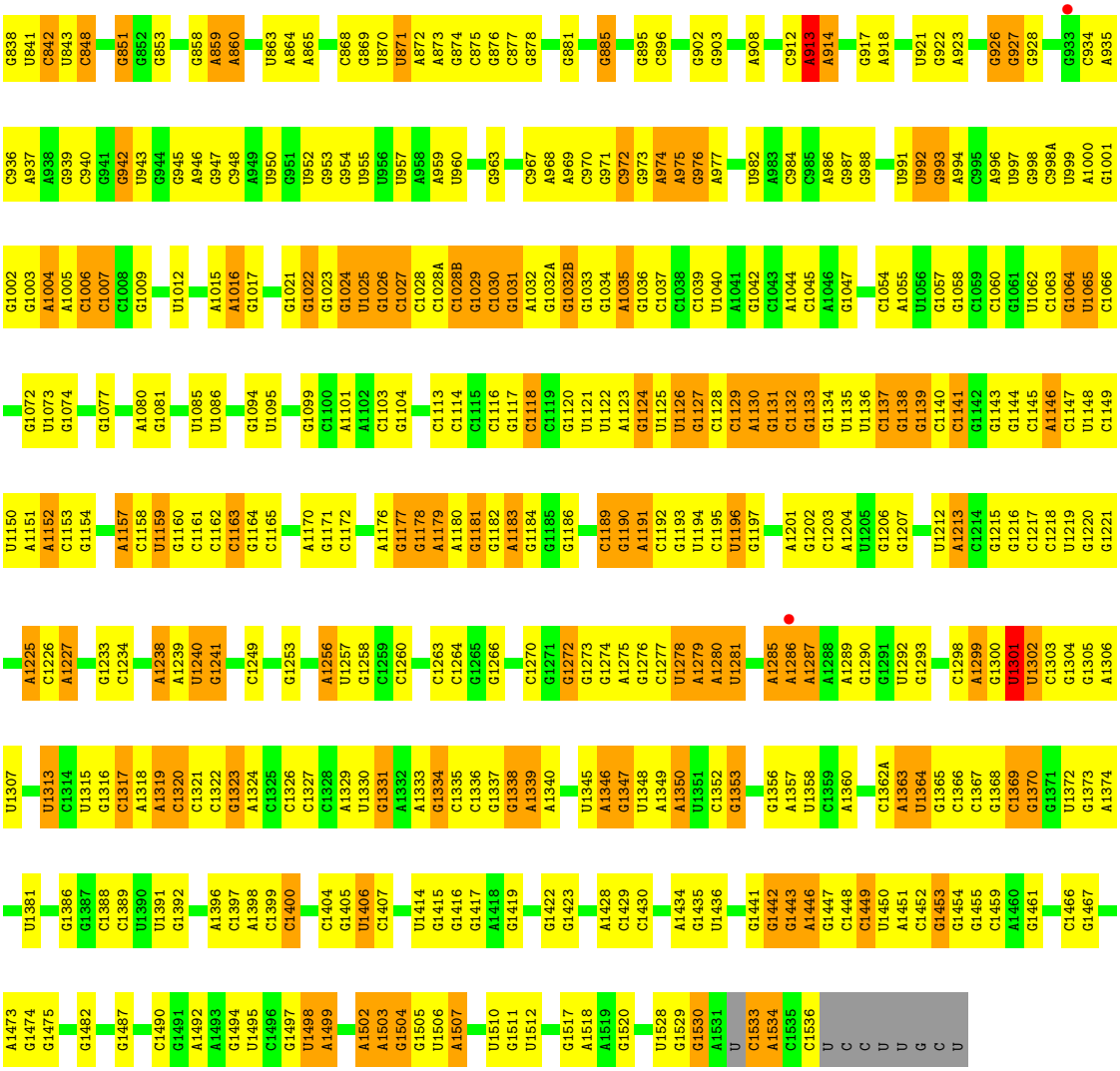
3 Residue-property plots (i)

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

- Molecule 1: 16S rRNA

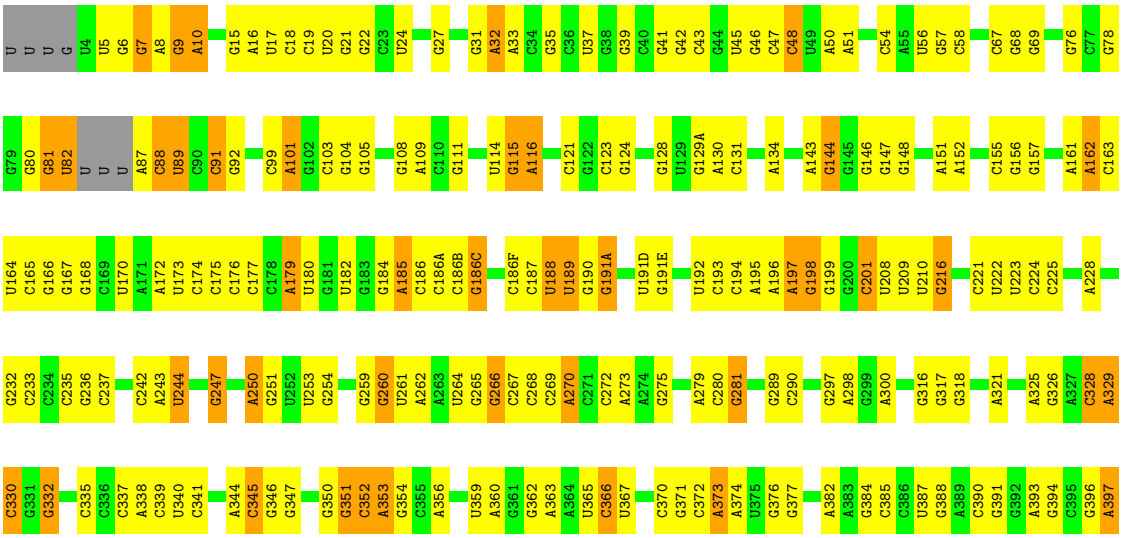
Chain 13:

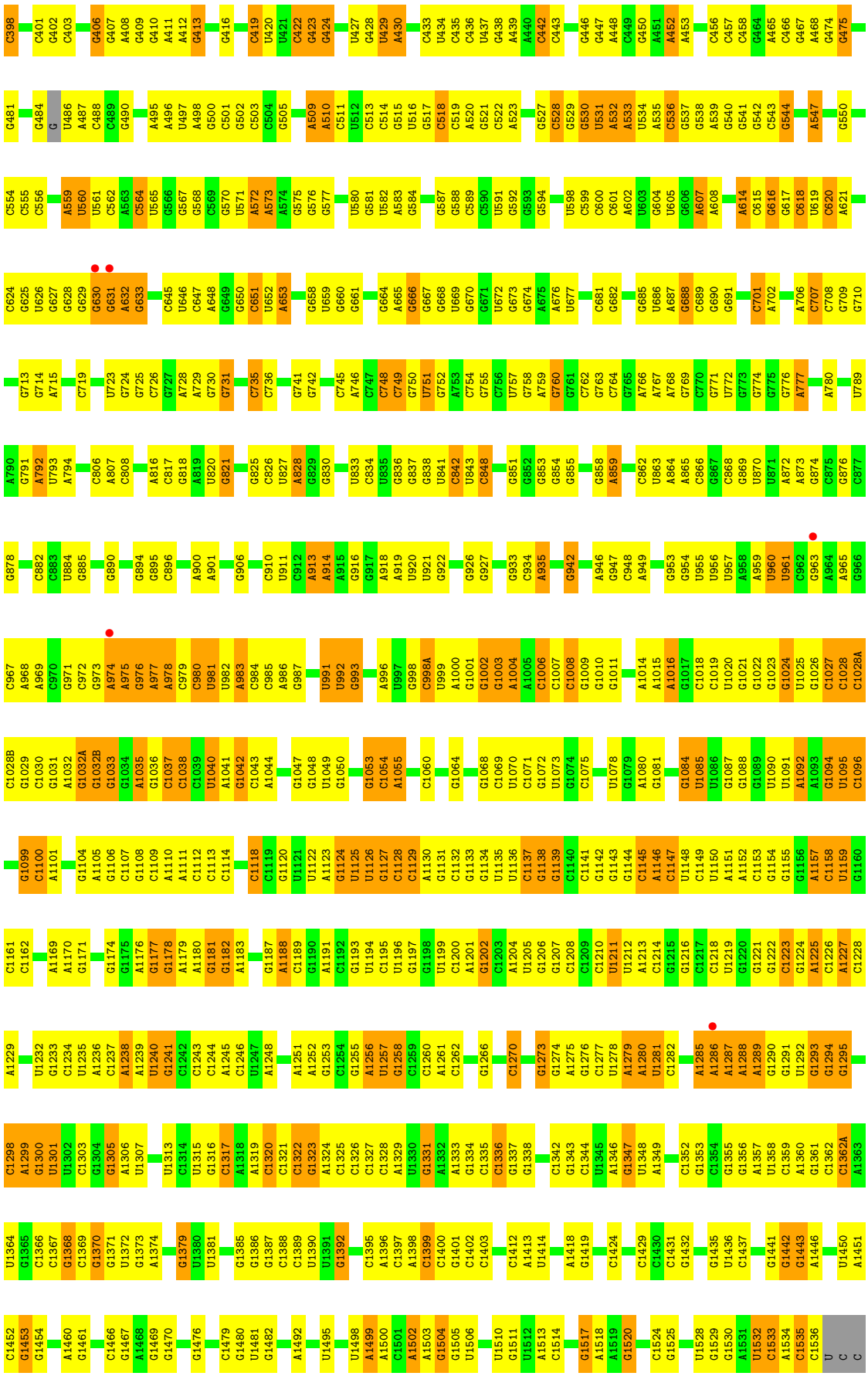




• Molecule 1: 16S rRNA

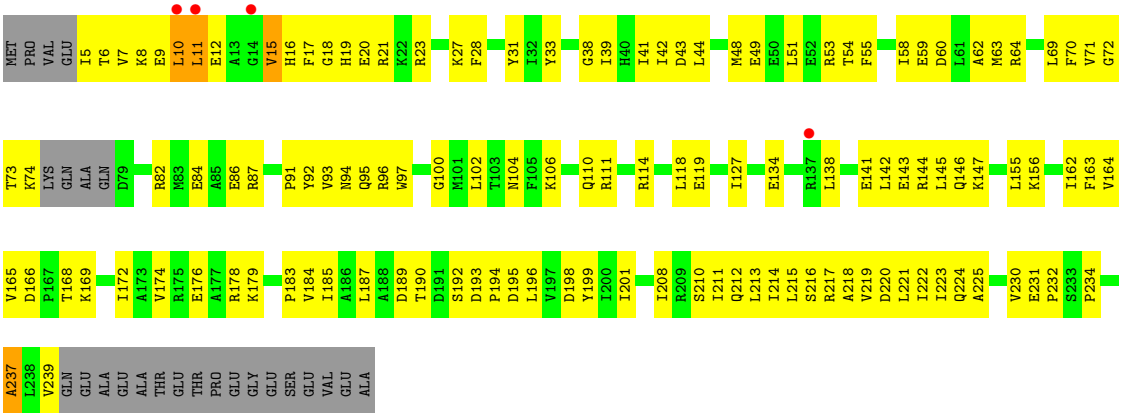
Chain 1G:




C398 C401 G402 C403 G406 G407 A408 G409 G410 A411 A412 G413 G416 C419 U420 U421 C422 G423 G424 U427 G428 U429 A430 C433 U434 C435 C436 U437 G438 A439 A440 C442 C443 G446 G447 A448 C449 G450 A451 A452 A453 C456 C457 C458 G464 A465 C466 G467 A468 G474 G475
G481 G484 G U486 A487 C488 C489 G490 A495 A496 U497 A498 G500 C501 G502 C503 C504 G505 A509 A510 C511 U512 C513 C514 G515 U516 G517 C518 C519 A520 G521 C522 A523 G527 C528 G529 G530 U531 A532 A533 U534 A535 C536 G537 G538 A539 G540 G541 G542 C543 G544 A547 G550
C554 C555 C556 A559 U560 U561 C562 A563 C564 U565 G566 G567 G568 C569 G570 U571 A572 A573 A574 G575 G576 G577 U580 G581 U582 A583 G584 G587 G588 C589 C590 U591 G592 G593 G594 U598 C599 C600 C601 A602 U603 G604 U605 G606 A607 A608 A614 C615 G616 G617 C618 U619 C620 A621
C624 G625 U626 G627 G628 G629 G630 G631 A632 G633 C645 U646 C647 A648 G649 G650 C651 U652 A653 G658 U659 G660 G661 G664 A665 G666 G667 G668 U669 G670 G671 U672 G673 G674 A675 A676 U677 C681 G682 G685 U686 A687 G688 C689 G690 G691 C701 A702 A706 C707 C708 G709 G710
G713 G714 A715 C719 U723 G724 G725 C726 G727 A728 A729 G730 G731 C735 C736 G741 G742 C745 A746 C747 C748 C749 G750 U751 G752 A753 C754 G755 C756 U757 G758 A759 G760 G761 C762 G763 C764 G765 A766 A767 A768 G769 C770 G771 U772 G773 G774 G775 G776 A777 A780 U789
A790 G791 A792 U793 A794 C806 A807 C808 A816 C817 G818 A819 U820 G821 G825 C826 U827 A828 G829 G830 U833 C834 U835 G836 G837 G838 U841 C842 U843 C848 G851 G852 G853 G854 G855 G858 A859 C862 U863 A864 A865 C866 G867 C868 G869 U870 U871 A872 A873 G874 C875 G876 C877
G878 C882 C883 U884 G885 G890 G894 G895 C896 A900 A901 G906 C910 U911 C912 A913 A914 A915 G916 G917 A918 A919 U920 U921 G922 G926 G927 G933 C934 A935 G942 A946 G947 C948 A949 G953 G954 U955 U956 U957 A958 A959 U960 U961 C962 G963 A964 A965 G966
C967 A968 A969 C970 G971 C972 G973 A974 A975 G976 A977 A978 C979 C980 U981 U982 A983 C984 C985 A986 G987 U991 U992 G993 A996 U997 G998 C998A U999 A1000 G1001 G1002 G1003 A1004 A1005 C1006 C1007 C1008 G1009 G1010 G1011 A1014 A1015 A1016 G1017 C1018 C1019 U1020 G1021 G1022 G1023 G1024 U1025 G1026 C1027 C1028 C1028A
C1028B G1029 C1030 G1031 A1032 G1032A G1032B G1033 G1034 A1035 G1036 C1037 C1038 C1039 U1040 A1041 G1042 C1043 A1044 G1047 G1048 U1049 G1050 G1053 C1054 A1055 C1060 G1064 G1068 C1069 U1070 C1071 G1072 U1073 G1074 C1075 U1078 G1079 A1080 G1081 G1084 U1085 U1086 G1087 G1088 G1089 U1090 U1091 A1092 A1093 G1094 U1095 C1096
G1099 C1100 A1101 G1104 A1105 G1106 C1107 G1108 C1109 A1110 A1111 C1112 C1113 C1114 C1118 C1119 G1120 U1121 U1122 A1123 G1124 U1125 U1126 G1127 C1128 C1129 A1130 G1131 C1132 G1133 G1134 U1135 U1136 C1137 G1138 G1139 C1140 C1141 G1142 G1143 G1144 C1145 A1146 C1147 U1148 C1149 U1150 A1151 A1152 C1153 G1154 G1155 G1156 A1157 C1158 U1159 G1160
C1161 C1162 A1169 A1170 G1171 G1174 G1175 A1176 G1177 G1178 A1179 A1180 G1181 G1182 A1183 G1187 A1188 C1189 G1190 A1191 C1192 G1193 U1194 C1195 U1196 G1197 G1198 U1199 C1200 A1201 G1202 C1203 A1204 U1205 G1206 G1207 C1208 C1209 C1210 U1211 U1212 A1213 C1214 G1215 G1216 C1217 C1218 U1219 G1220 G1221 G1222 C1223 G1224 A1225 C1226 A1227 C1228
A1229 U1232 G1233 C1234 U1235 A1236 C1237 A1238 A1239 U1240 G1241 C1242 C1243 C1244 A1245 C1246 U1247 A1248 A1251 A1252 G1253 C1254 G1255 A1256 U1257 G1258 C1259 C1260 A1261 C1262 G1266 C1270 G1273 G1274 A1275 G1276 C1277 U1278 A1279 A1280 U1281 C1282 A1285 A1286 A1287 A1288 A1289 G1290 G1291 U1292 G1293 G1294 G1295
C1298 A1299 G1300 U1301 U1302 C1303 G1304 G1305 A1306 U1307 U1313 C1314 U1315 G1316 C1317 A1318 A1319 C1320 C1321 C1322 G1323 A1324 C1325 C1326 C1327 C1328 A1329 U1330 G1331 A1332 A1333 G1334 C1335 C1336 G1337 G1338 C1342 G1343 C1344 U1345 A1346 G1347 U1348 A1349 C1352 G1353 C1354 G1355 G1356 A1357 U1358 C1359 A1360 G1361 C1362 C1362A A1363
U1364 G1365 C1366 C1367 G1368 C1369 G1370 G1371 U1372 G1373 A1374 G1379 U1380 U1381 G1385 G1386 G1387 C1388 C1389 U1390 U1391 G1392 C1395 A1396 C1397 A1398 C1399 C1400 G1401 C1402 C1403 C1412 A1413 U1414 A1418 G1419 C1424 C1429 C1430 C1431 G1432 G1435 U1436 C1437 G1441 G1442 G1443 A1446 U1450 A1451
C1452 G1453 G1454 A1460 G1461 C1466 G1467 A1468 G1469 G1470 G1476 C1479 G1480 U1481 G1482 A1492 U1495 U1498 A1499 A1500 C1501 A1502 A1503 G1504 G1505 U1506 U1510 G1511 U1512 A1513 C1514 G1517 A1518 A1519 G1520 C1524 G1525 U1528 G1529 G1530 A1531 U1532 C1533 A1534 C1535 C1536 U C C

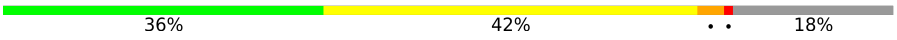
• Molecule 2: 30S ribosomal protein S2

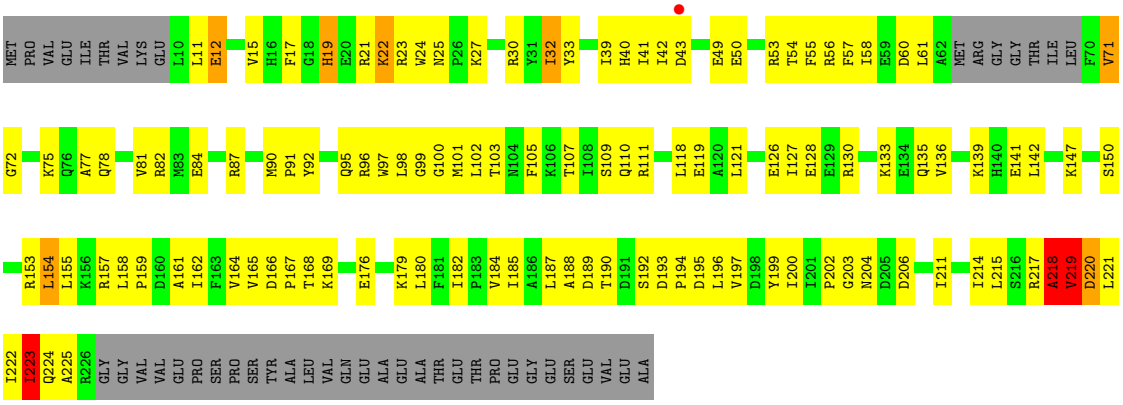
Chain 1E:



• Molecule 2: 30S ribosomal protein S2

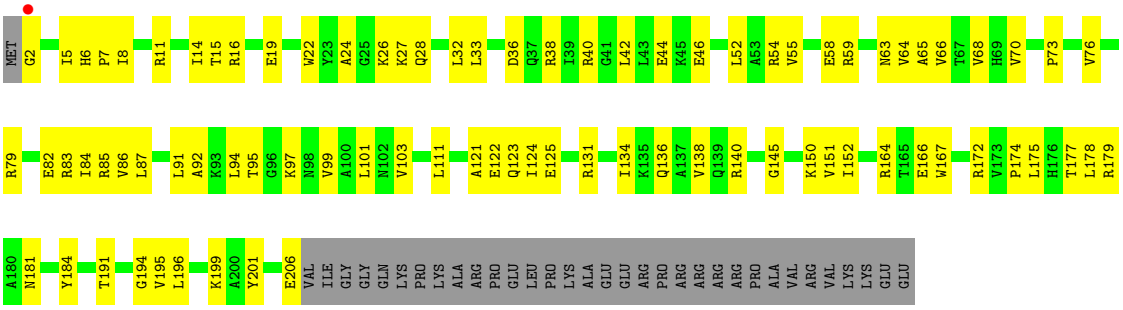
Chain 12:





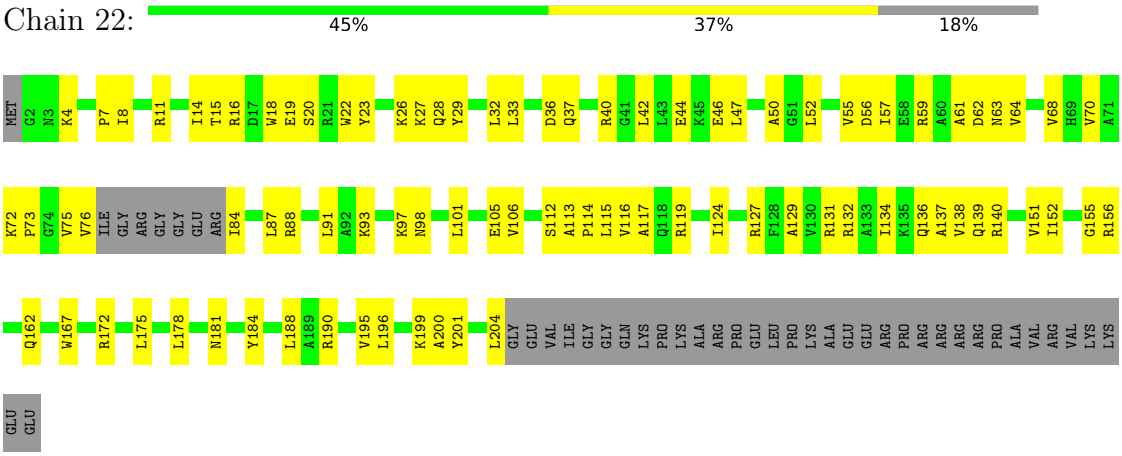
• Molecule 3: 30S ribosomal protein S3

Chain 2E:



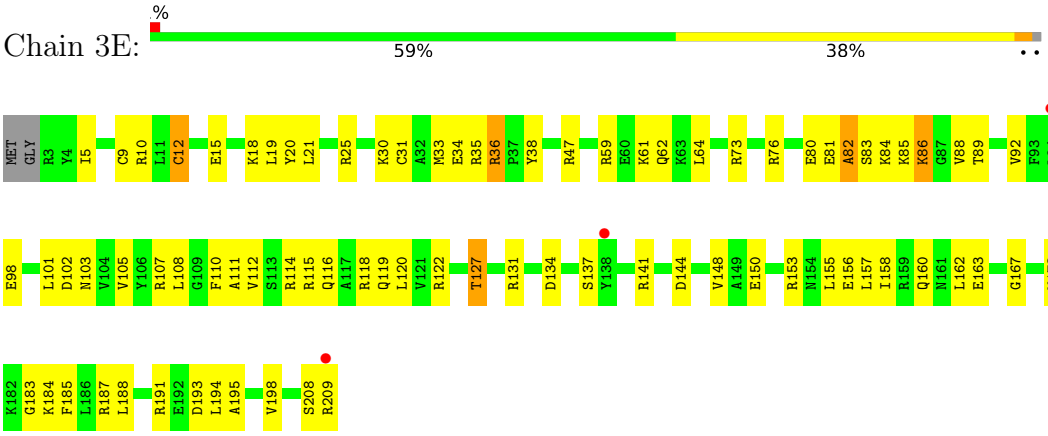
• Molecule 3: 30S ribosomal protein S3

Chain 22:



• Molecule 4: 30S ribosomal protein S4

Chain 3E:

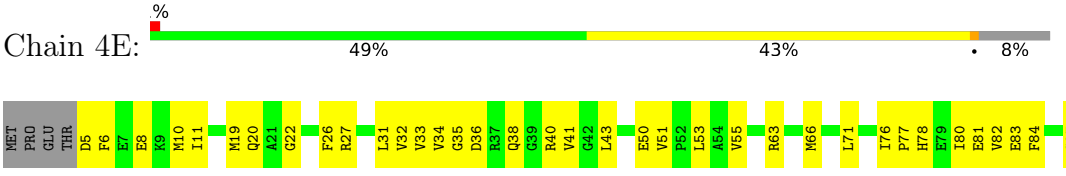


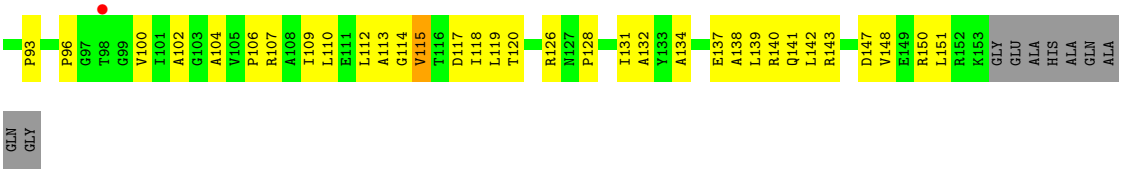
• Molecule 4: 30S ribosomal protein S4

Chain 32:

• Molecule 5: 30S ribosomal protein S5

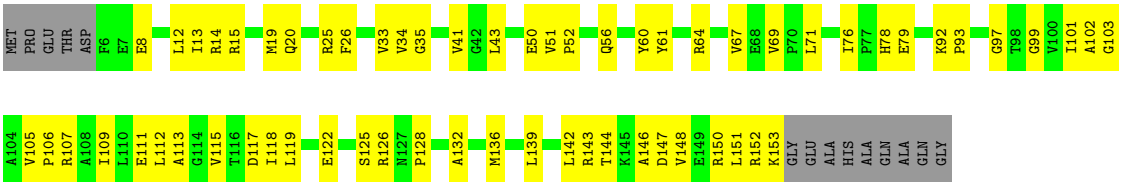
Chain 4E:





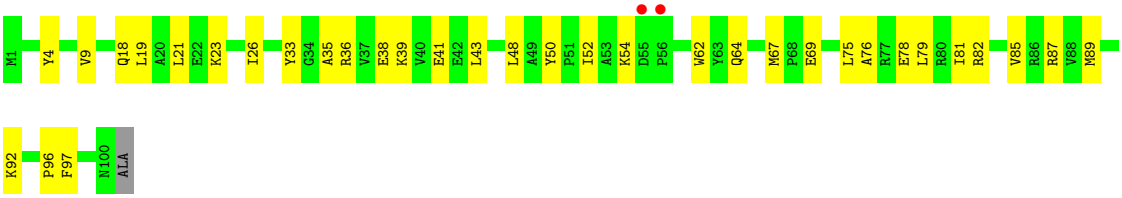
• Molecule 5: 30S ribosomal protein S5

Chain 42:



• Molecule 6: 30S ribosomal protein S6

Chain 5E:

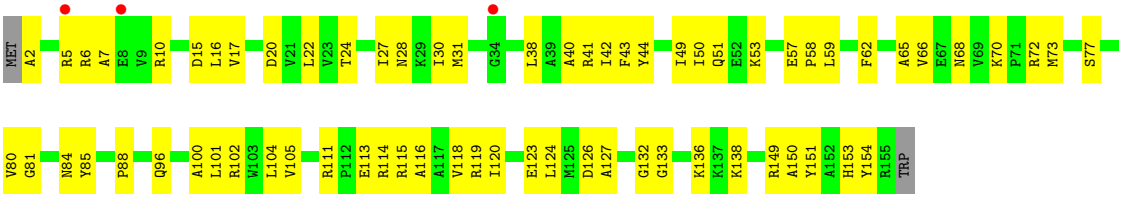


• Molecule 6: 30S ribosomal protein S6

Chain 52:

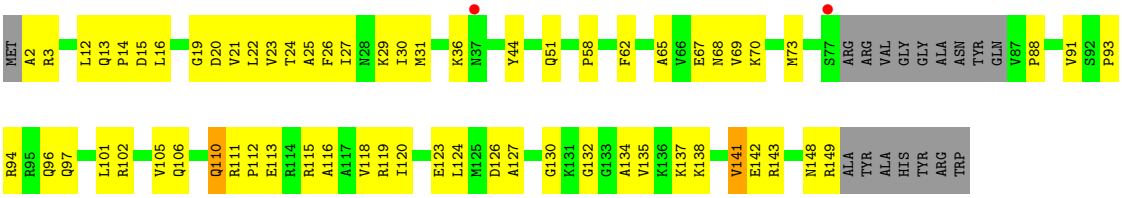
• Molecule 7: 30S ribosomal protein S7

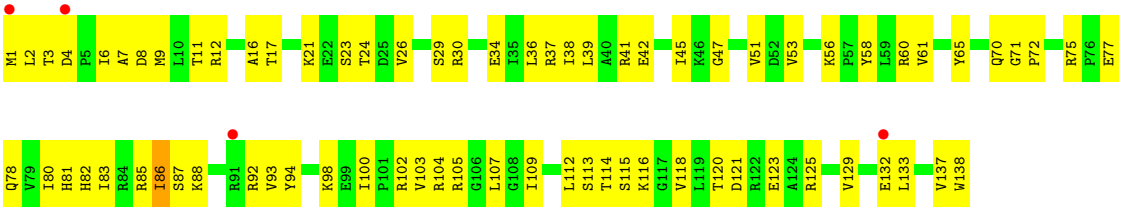
Chain 6E:



• Molecule 7: 30S ribosomal protein S7

Chain 62:



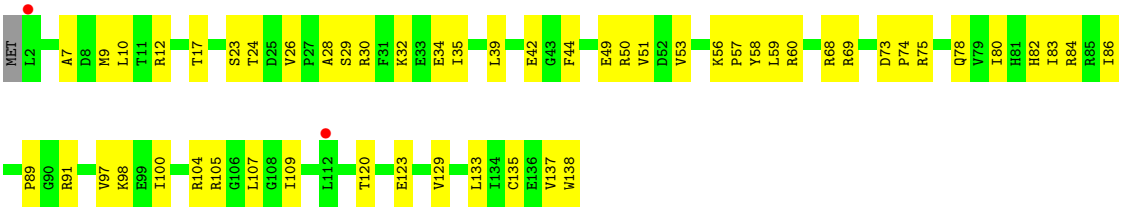


• Molecule 8: 30S ribosomal protein S8

Chain 7E:

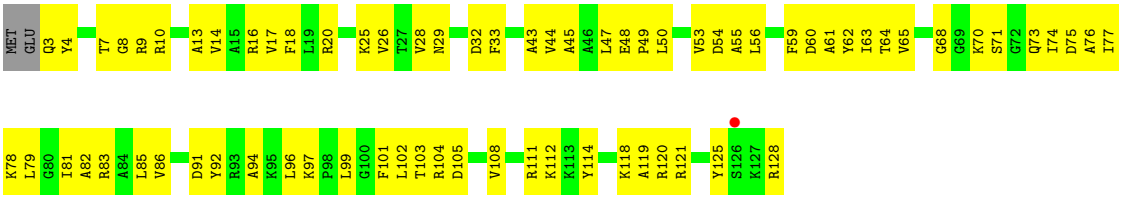
• Molecule 8: 30S ribosomal protein S8

Chain 72:



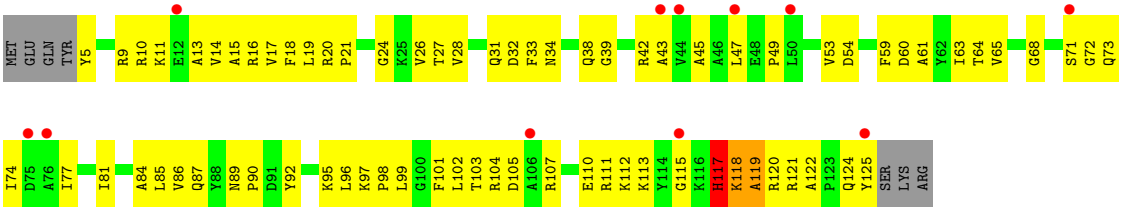
• Molecule 9: 30S ribosomal protein S9

Chain 8E:



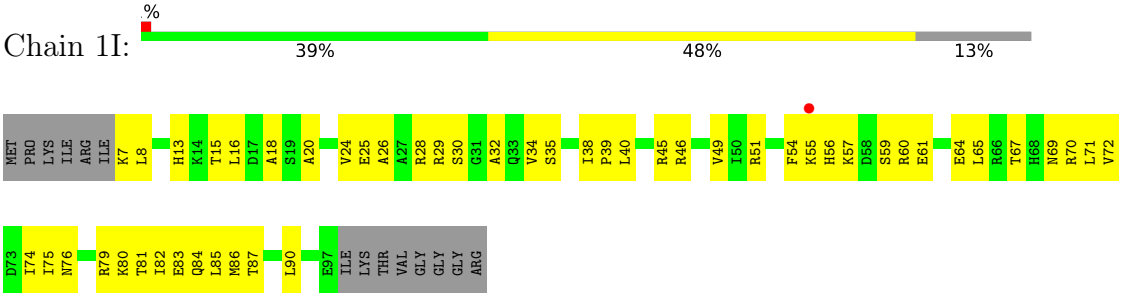
• Molecule 9: 30S ribosomal protein S9

Chain 82:



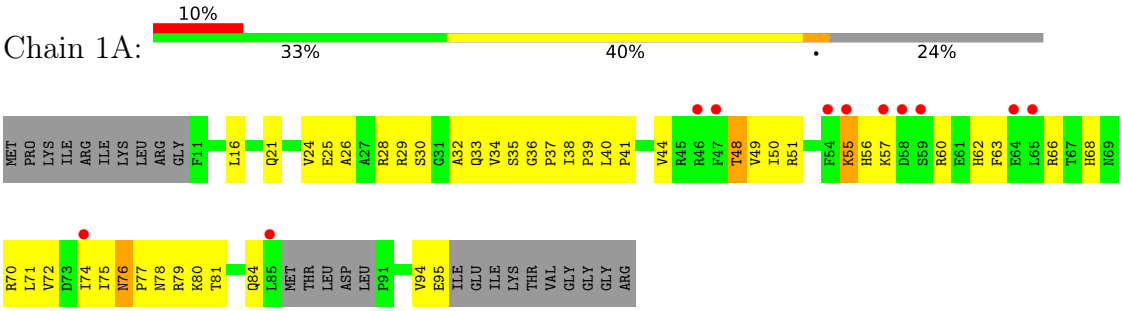
• Molecule 10: 30S ribosomal protein S10

Chain 1I:



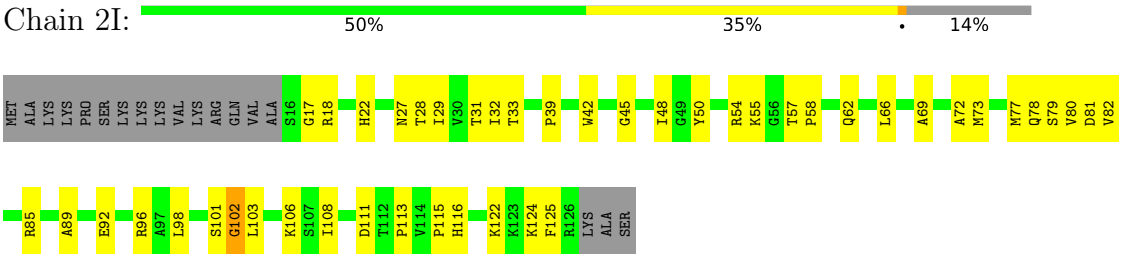
• Molecule 10: 30S ribosomal protein S10

Chain 1A:



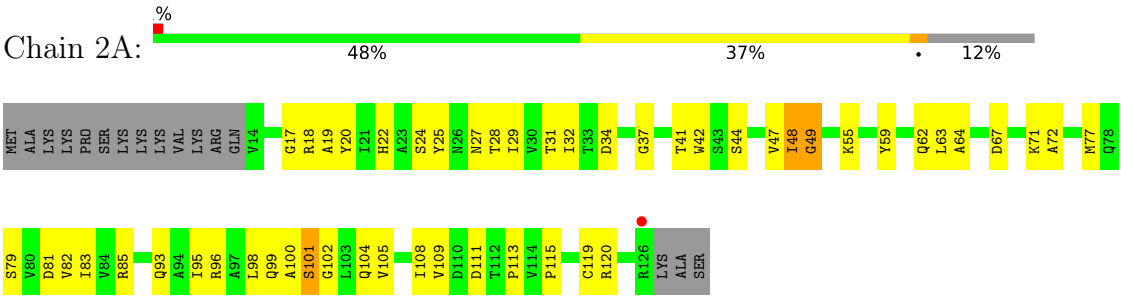
• Molecule 11: 30S ribosomal protein S11

Chain 2I:



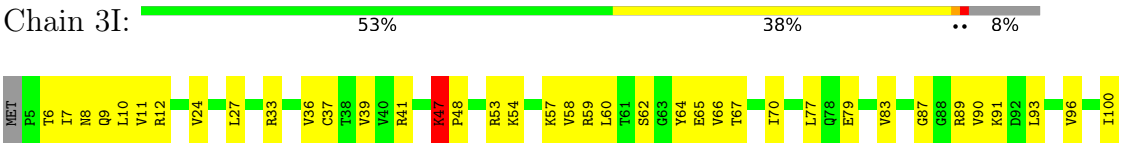
• Molecule 11: 30S ribosomal protein S11

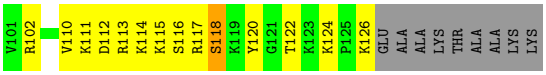
Chain 2A:



• Molecule 12: 30S ribosomal protein S12

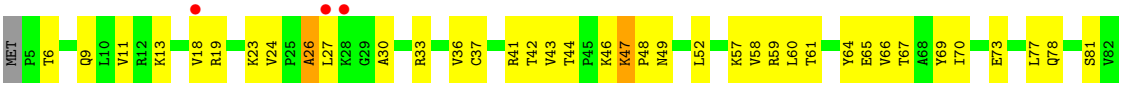
Chain 3I:

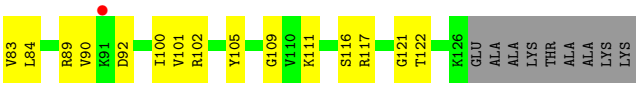




• Molecule 12: 30S ribosomal protein S12

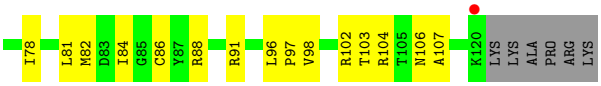
Chain 3A:





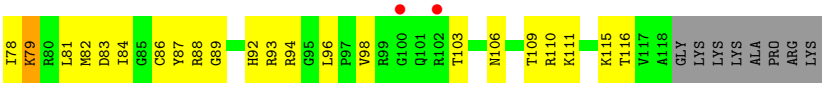
• Molecule 13: 30S ribosomal protein S13

Chain 4I:



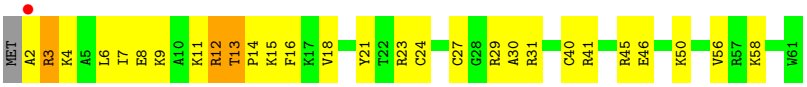
• Molecule 13: 30S ribosomal protein S13

Chain 4A:



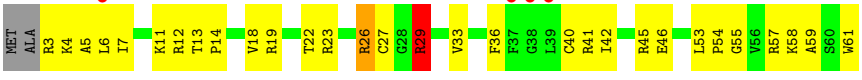
• Molecule 14: 30S ribosomal protein S14 type Z

Chain 5I:



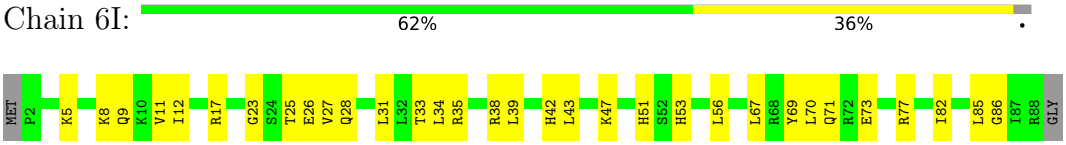
• Molecule 14: 30S ribosomal protein S14 type Z

Chain 5A:



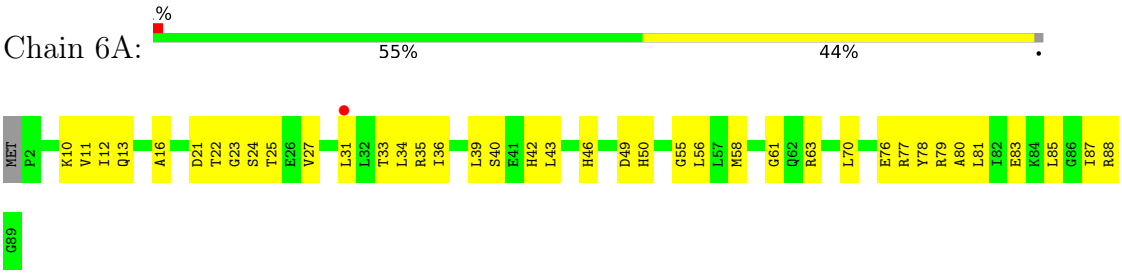
• Molecule 15: 30S ribosomal protein S15

Chain 6I:



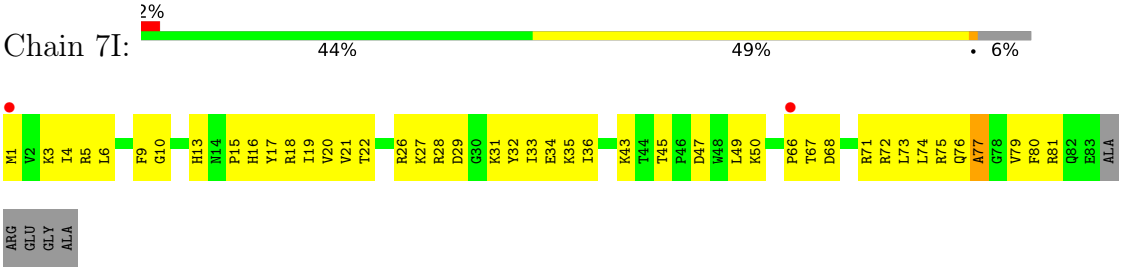
• Molecule 15: 30S ribosomal protein S15

Chain 6A:



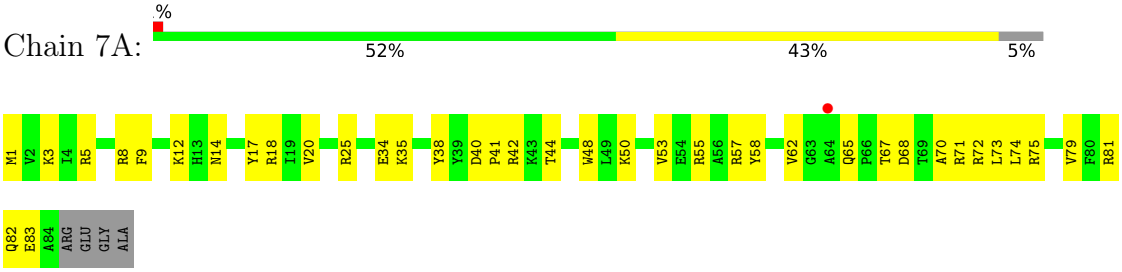
• Molecule 16: 30S ribosomal protein S16

Chain 7I:



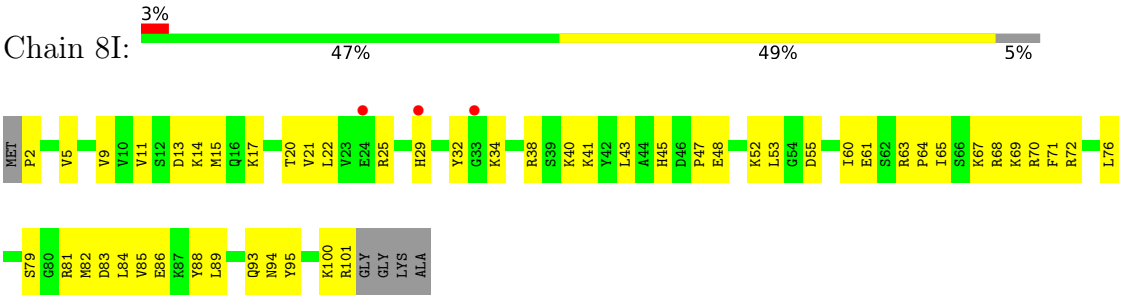
• Molecule 16: 30S ribosomal protein S16

Chain 7A:



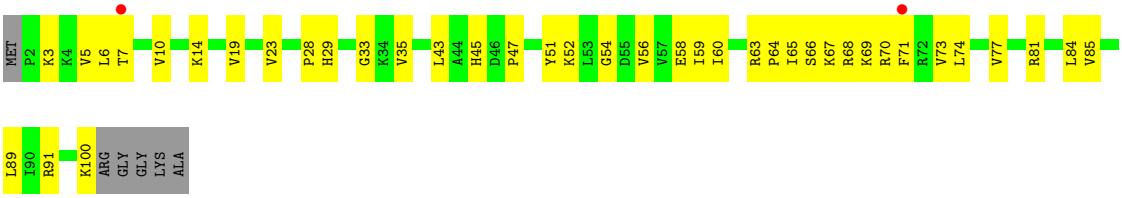
• Molecule 17: 30S ribosomal protein S17

Chain 8I:



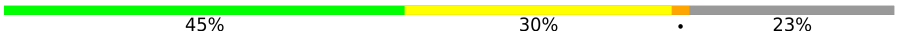
• Molecule 17: 30S ribosomal protein S17

Chain 8A:



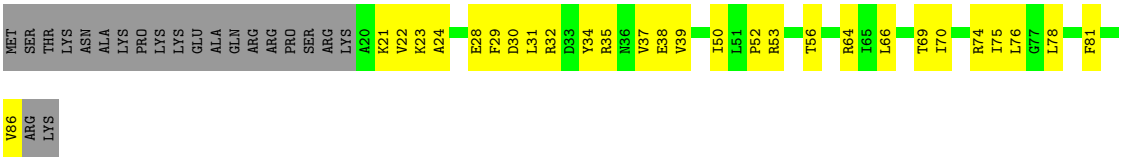
• Molecule 18: 30S ribosomal protein S18

Chain 9I:



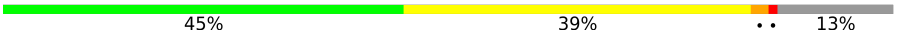
• Molecule 18: 30S ribosomal protein S18

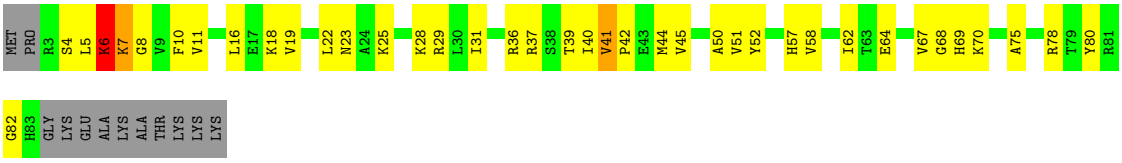
Chain 9A:



• Molecule 19: 30S ribosomal protein S19

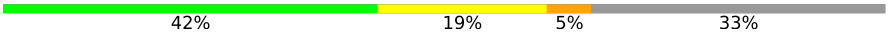
Chain AI:

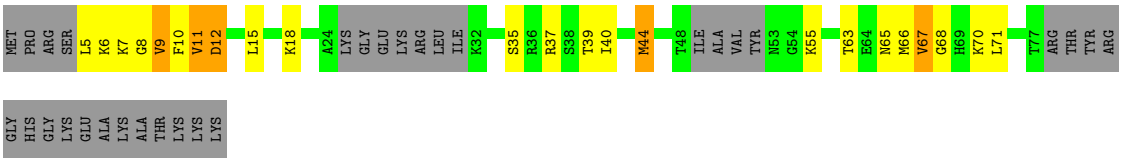




• Molecule 19: 30S ribosomal protein S19

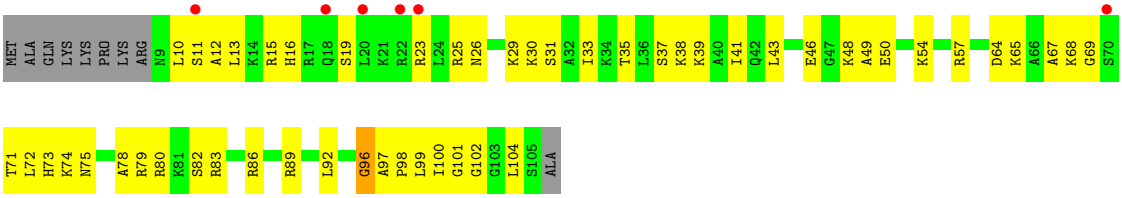
Chain AA:





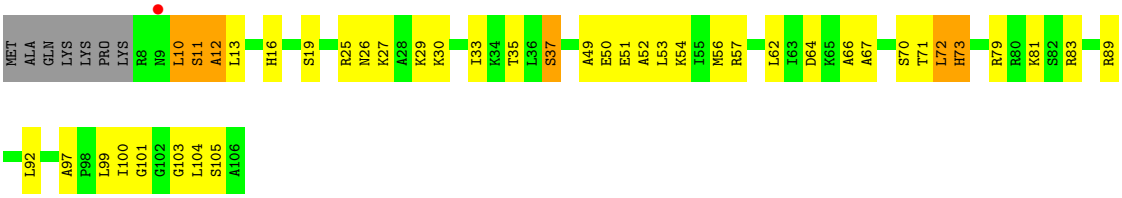
• Molecule 20: 30S ribosomal protein S20

Chain BI:



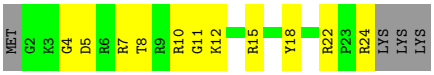
• Molecule 20: 30S ribosomal protein S20

Chain BA:



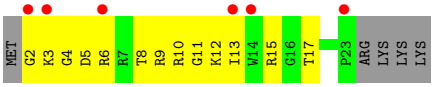
• Molecule 21: 30S ribosomal protein Thx

Chain 1F:



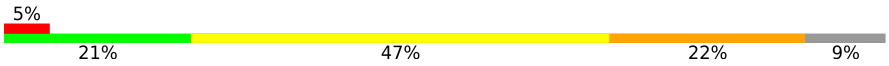
• Molecule 21: 30S ribosomal protein Thx

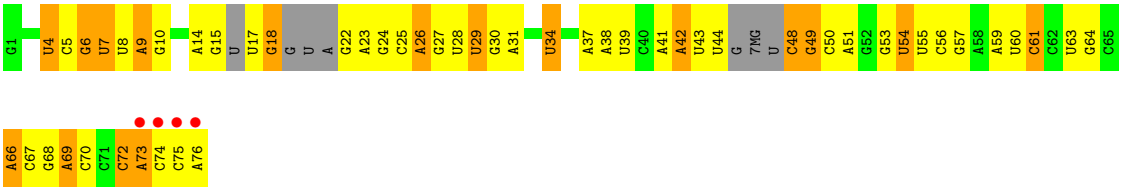
Chain 1B:



• Molecule 22: tRNALys

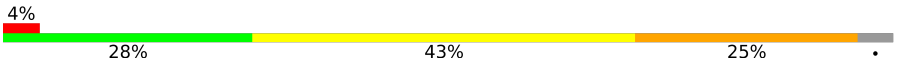
Chain 1K:

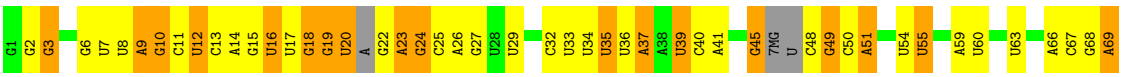


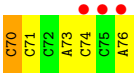


• Molecule 22: tRNALys

Chain 1L:

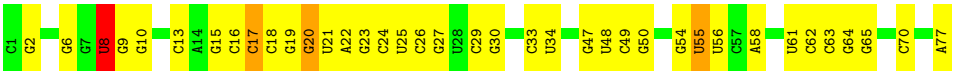






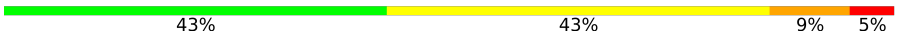
• Molecule 23: E. coli tRNAfMet

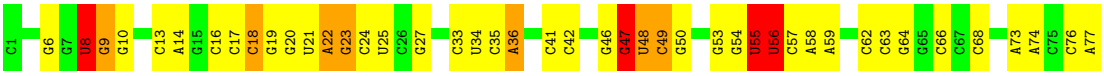
Chain 2K:



• Molecule 23: E. coli tRNAfMet

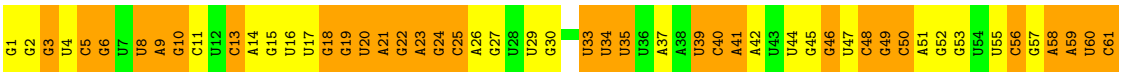
Chain 2L:

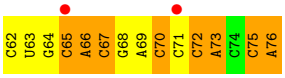




• Molecule 24: tRNALys

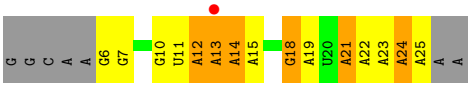
Chain 3K:





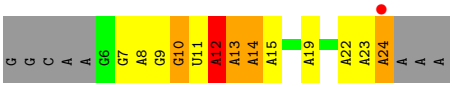
• Molecule 25: mRNA

Chain 4K:



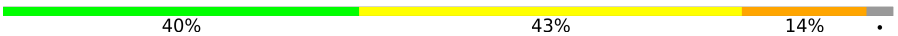
• Molecule 25: mRNA

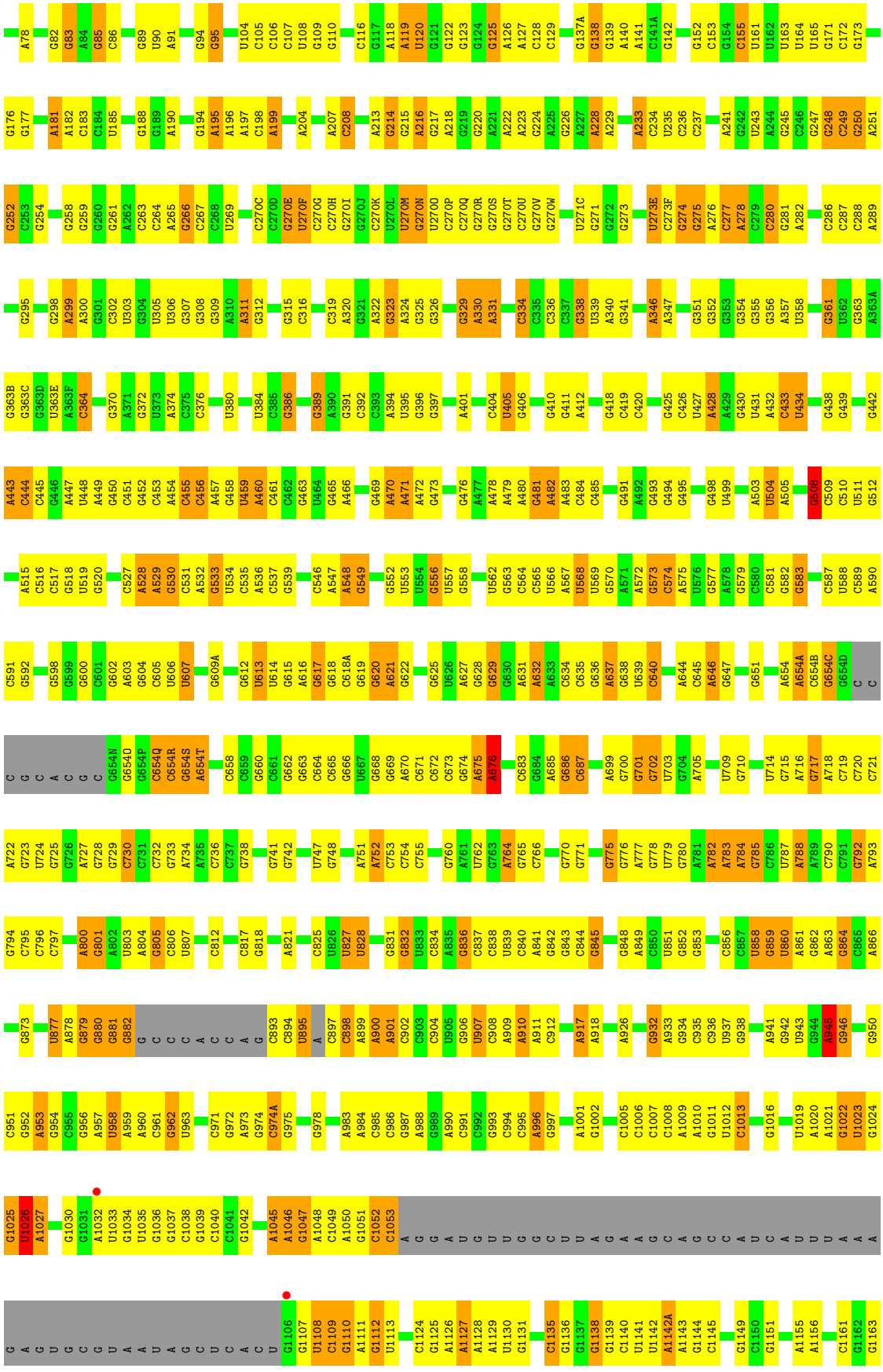
Chain 4L:



• Molecule 26: 23S rRNA

Chain 1H:

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G176 G177 A181 A182 C183 C184 U185 G188 G189 A190 G194 A195 A196 A197 C198 A199 A204 A207 C208 A213 G214 G215 A216 C217 A218 G219 G220 A221 A222 A223 G224 A225 G226 A227 A228 A229 A233 C234 U235 C236 C237 A241 G242 U243 A244 G245 C246 G247 G248 C249 G250 A251
G252 C253 G254 G258 G259 G260 G261 A262 C263 C264 A265 G266 C267 C268 U269 C270C C270D G270E U270F C270G C270H G270I G270J C270K U270L U270M G270N U270O C270P C270Q G270R G270S G270T C270U G270V G270W U271C G271 G272 G273 U273E C273F G274 G275 A276 C277 A278 C279 C280 G281 A282 C286 C287 C288 A289
G295 G298 A299 A300 G301 C302 U303 G304 U305 U306 G307 G308 G309 A310 A311 G312 G315 C316 C319 A320 G321 A322 G323 A324 G325 G326 G329 A330 A331 C334 C335 C336 C337 G338 U339 A340 G341 A346 A347 G351 G352 G353 G354 G355 G356 A357 U358 G361 U362 G363 A363A
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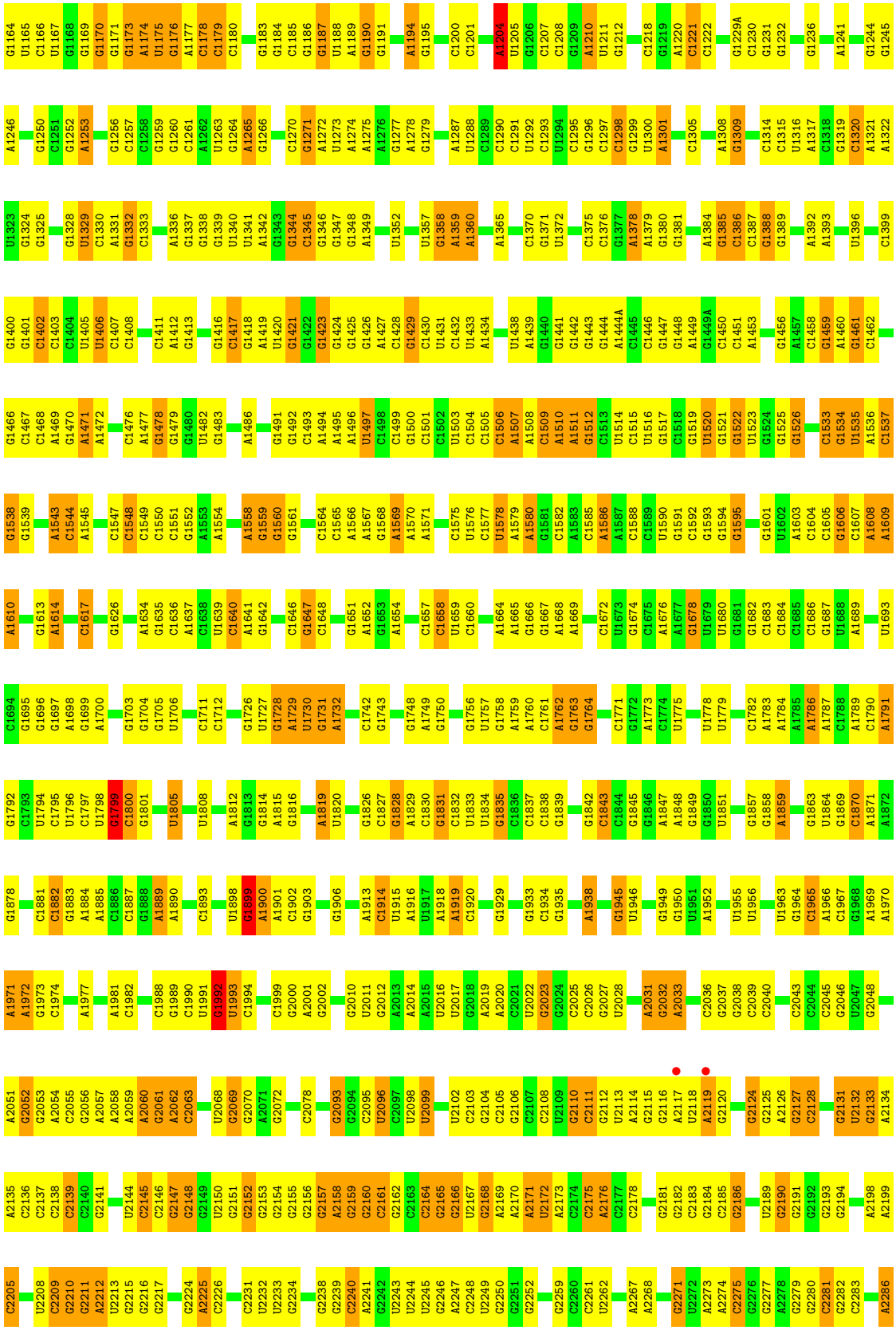
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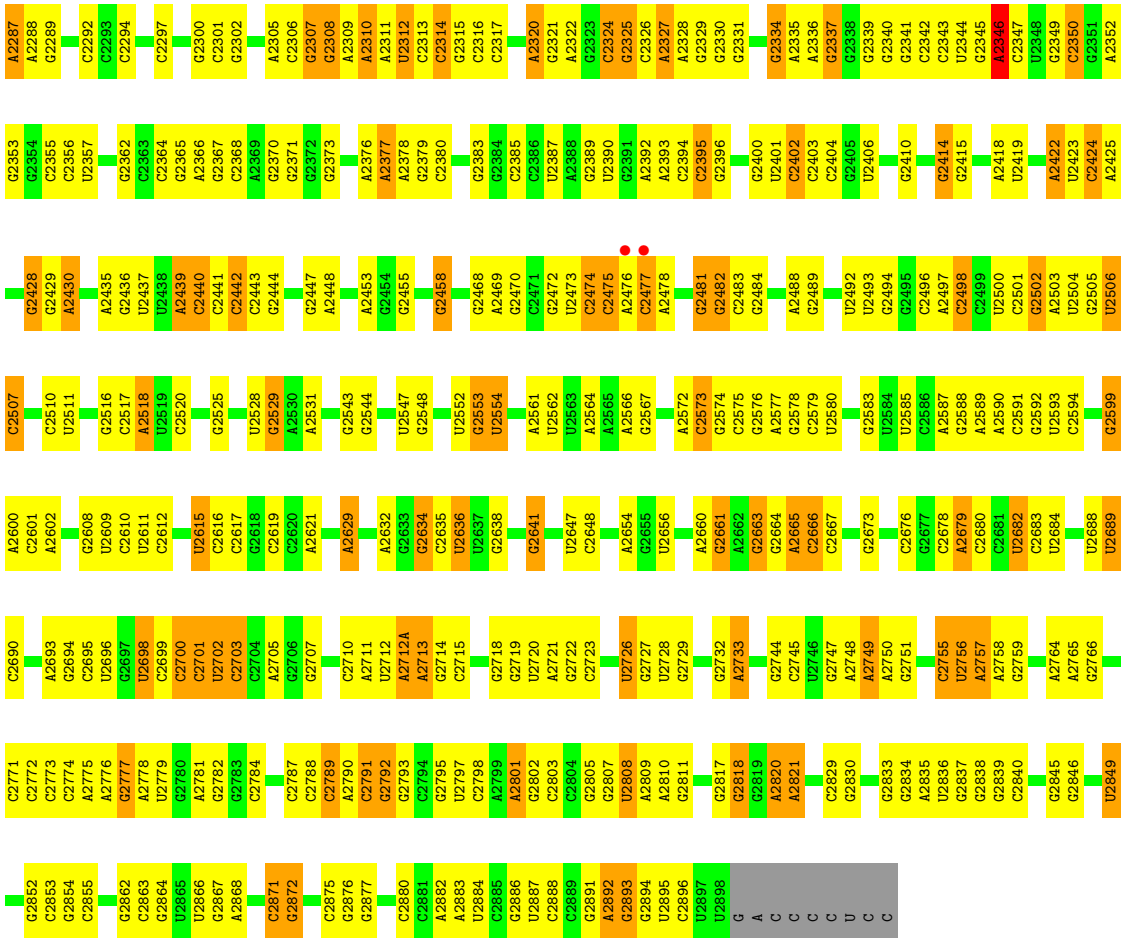
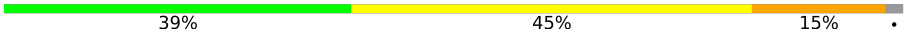
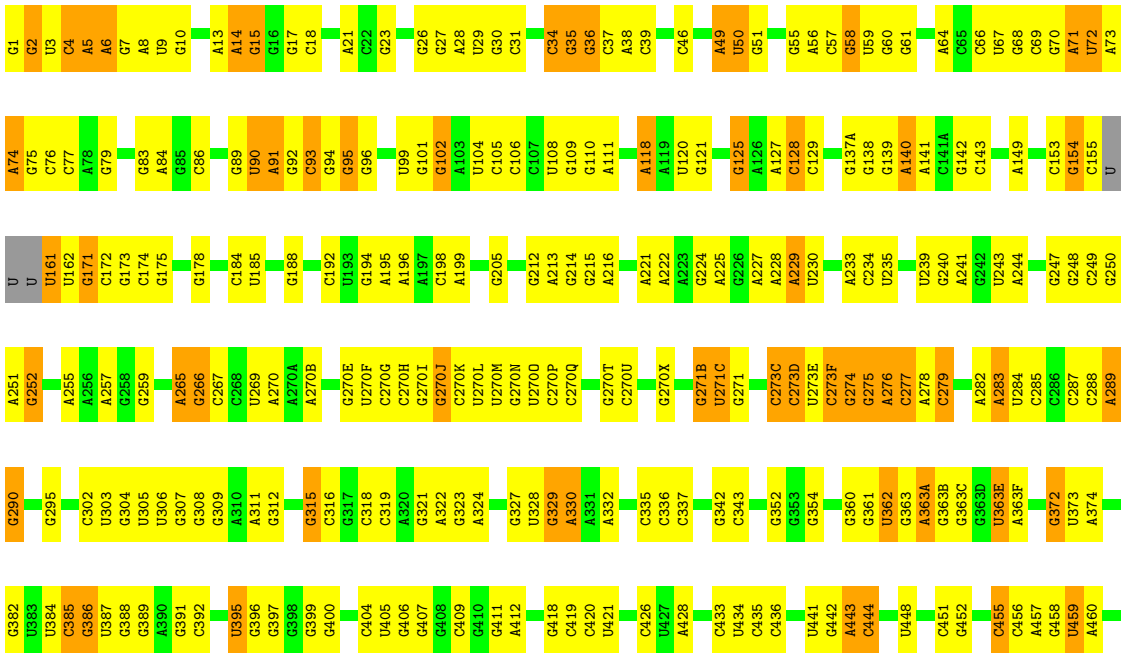
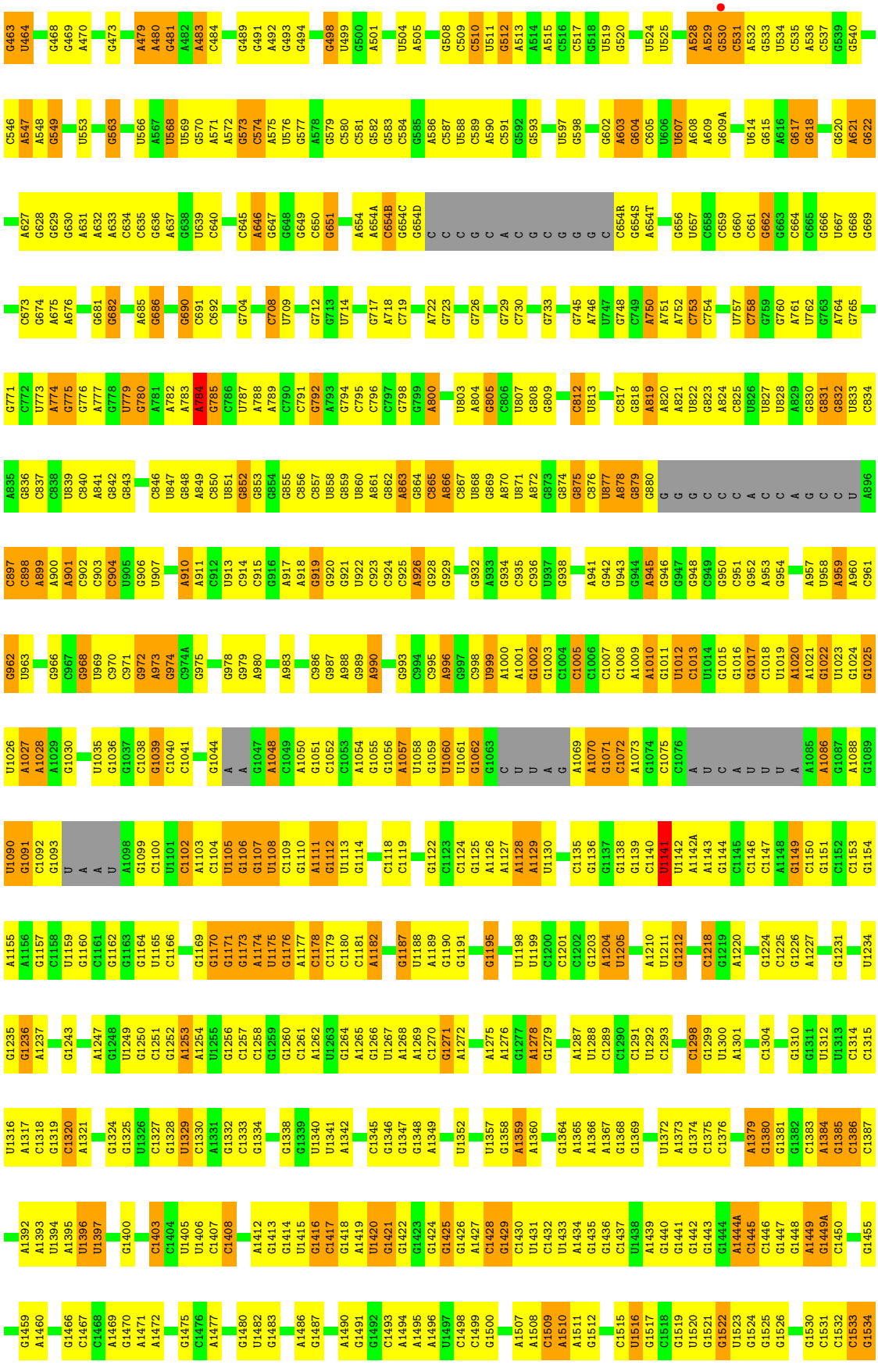


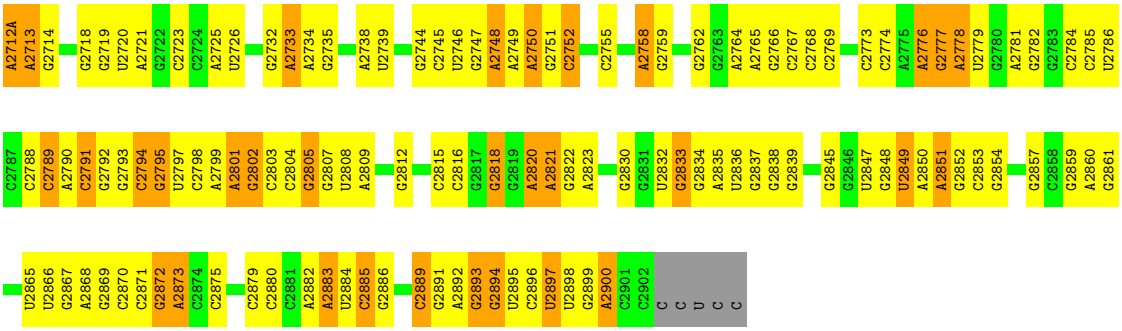
• Molecule 26: 23S rRNA

Chain 14:









• Molecule 27: 5S rRNA

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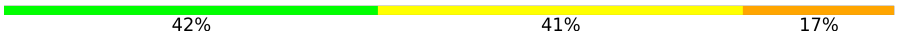

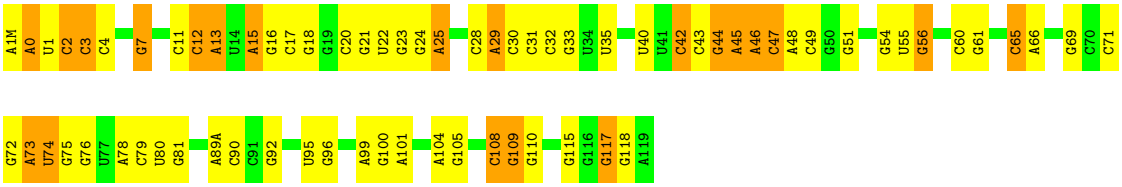

• Molecule 27: 5S rRNA

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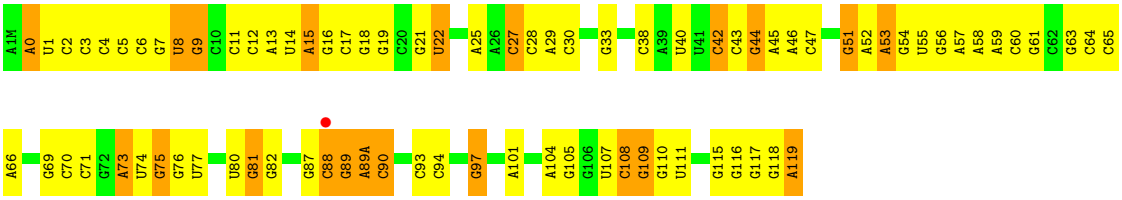
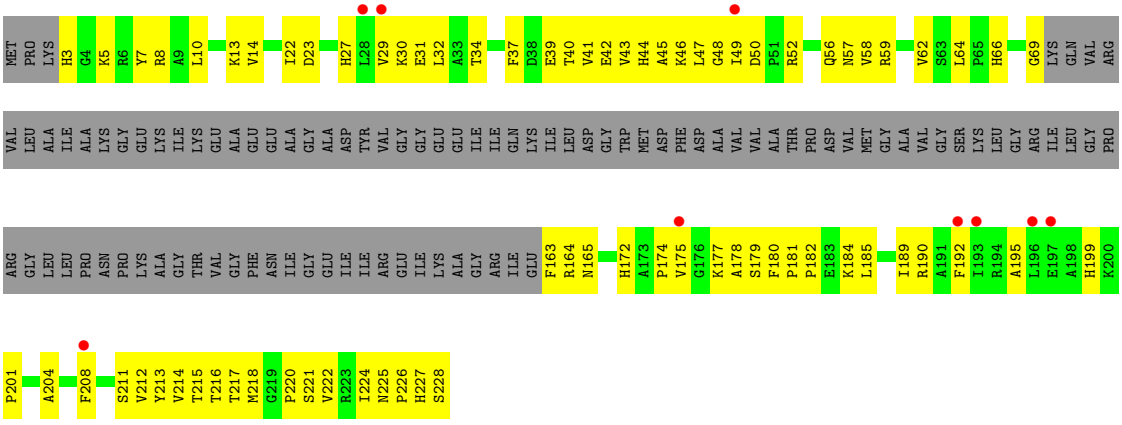


• Molecule 28: 50S ribosomal protein L1

Chain 71:



• Molecule 28: 50S ribosomal protein L1

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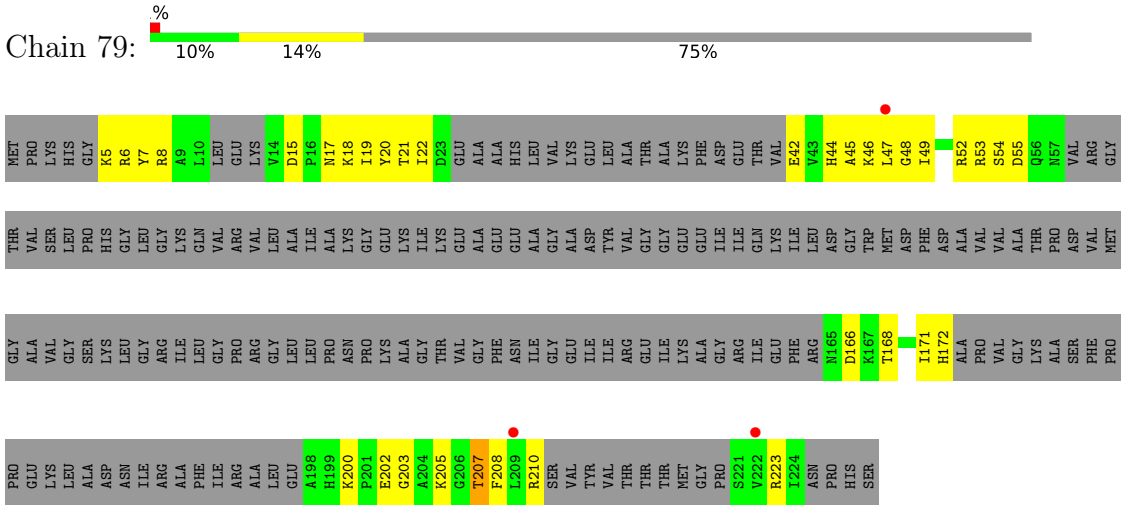

• Molecule 29: 50S ribosomal protein L2

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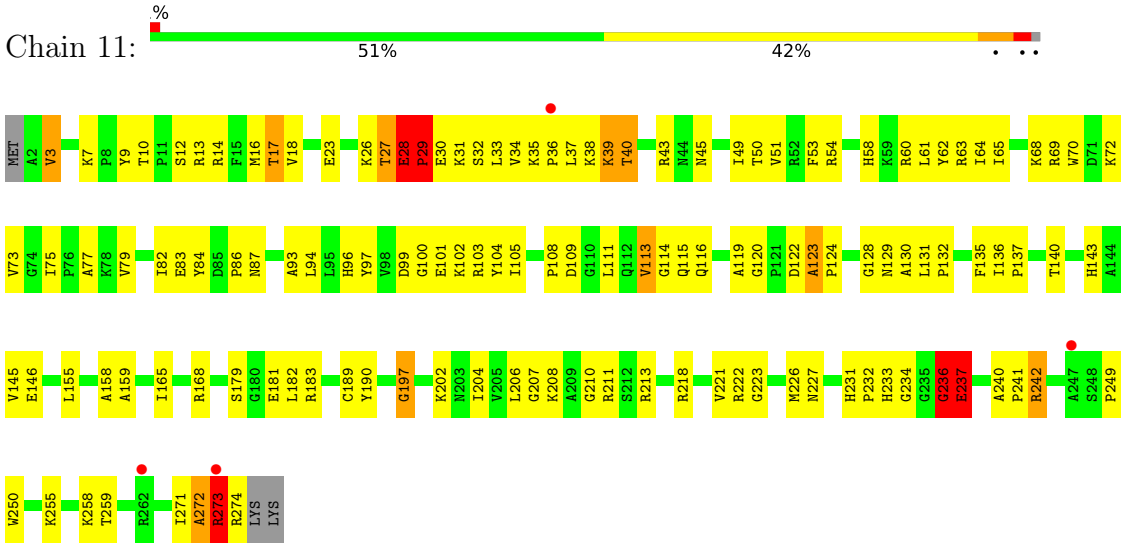

• Molecule 29: 50S ribosomal protein L2

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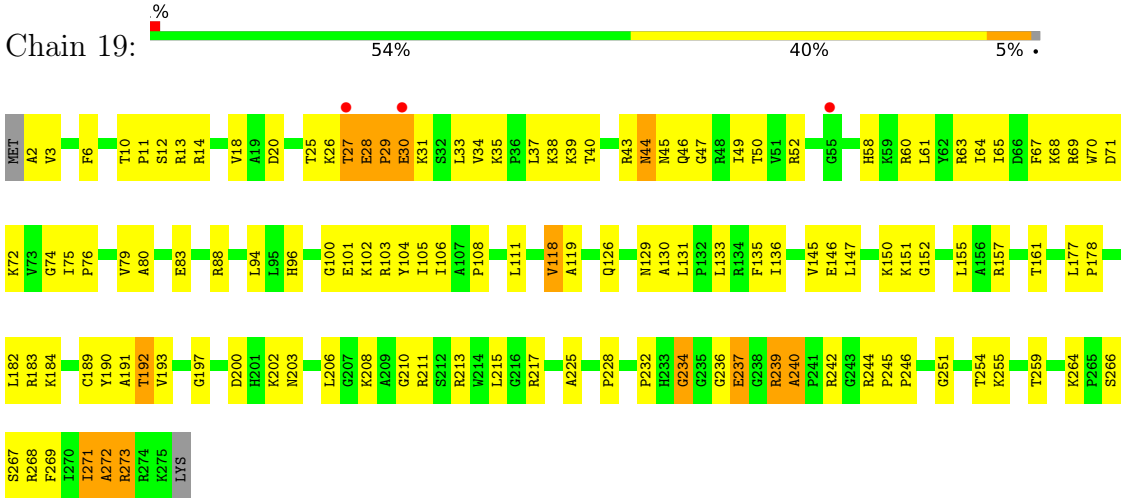

• Molecule 30: 50S ribosomal protein L3

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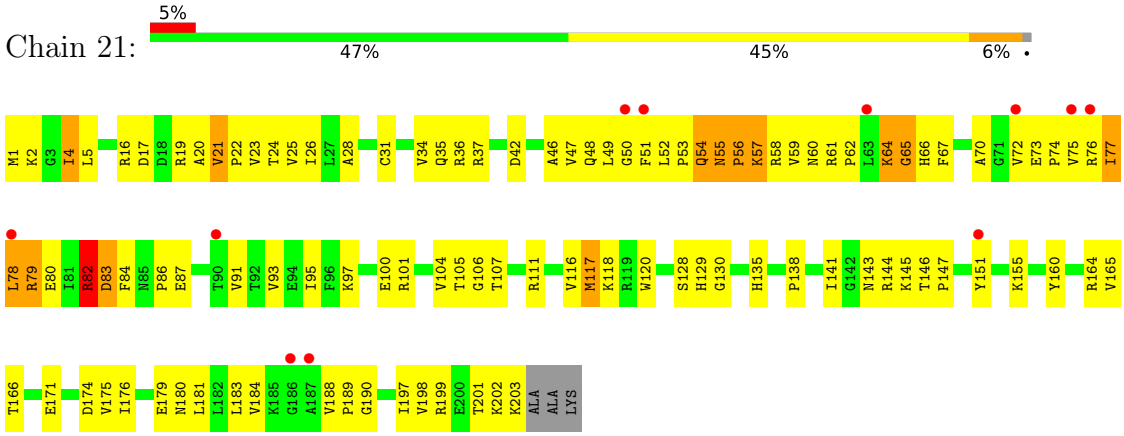

• Molecule 30: 50S ribosomal protein L3

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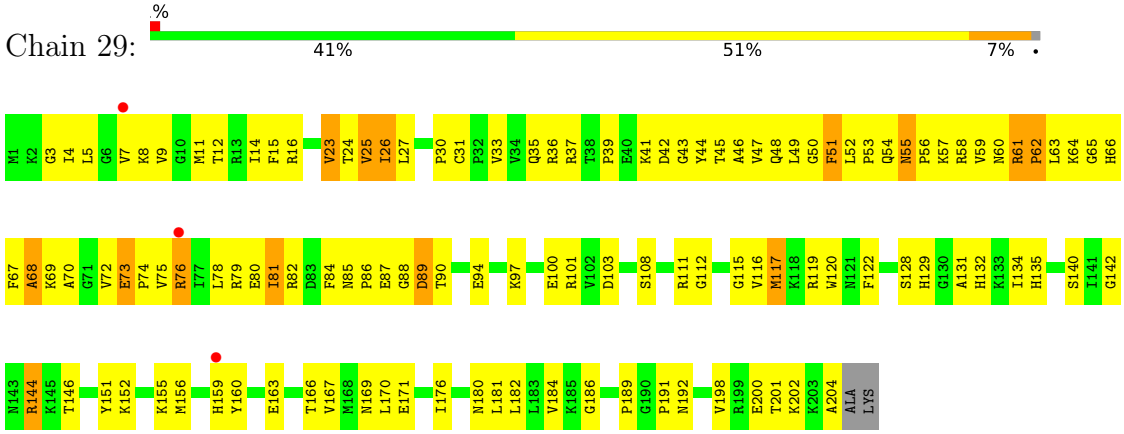
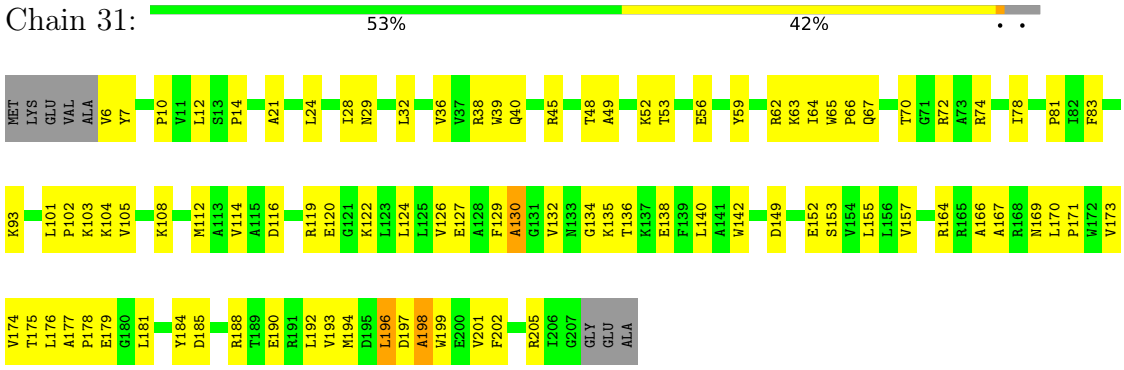


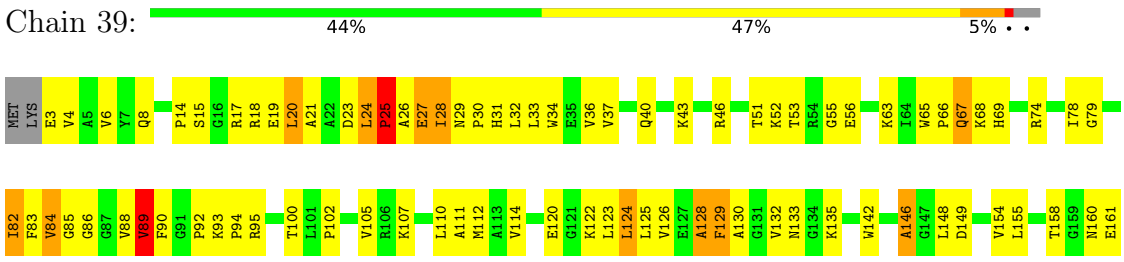
• Molecule 31: 50S ribosomal protein L4

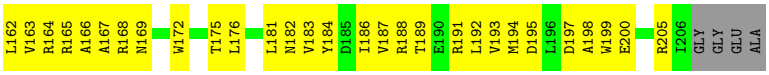
Chain 31:



• Molecule 31: 50S ribosomal protein L4

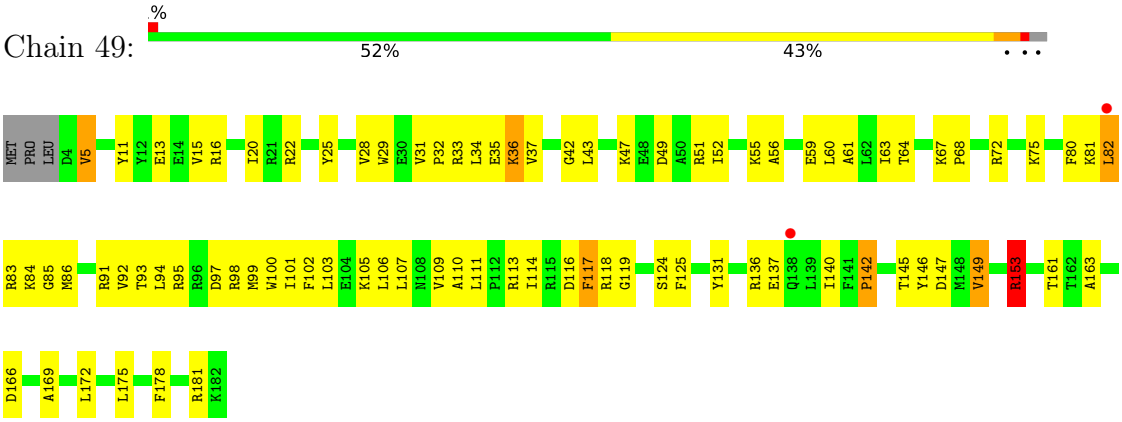
Chain 39:



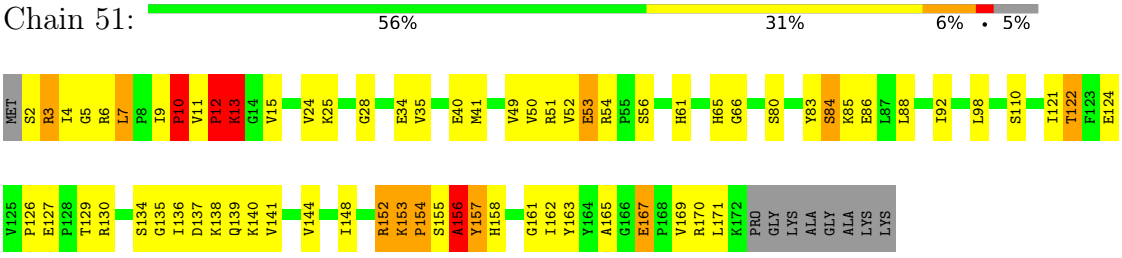


• Molecule 32: 50S ribosomal protein L5

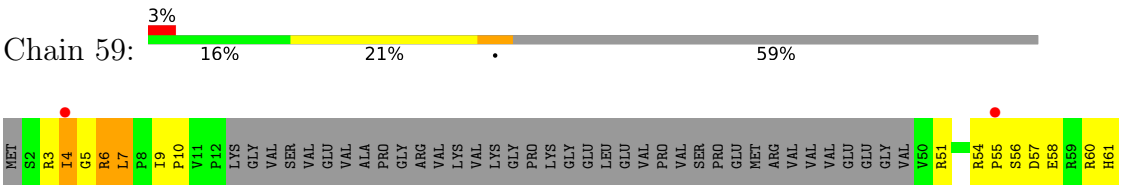
• Molecule 32: 50S ribosomal protein L5

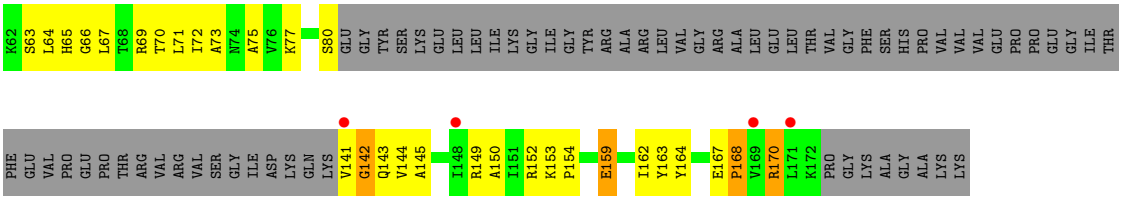


• Molecule 33: 50S ribosomal protein L6

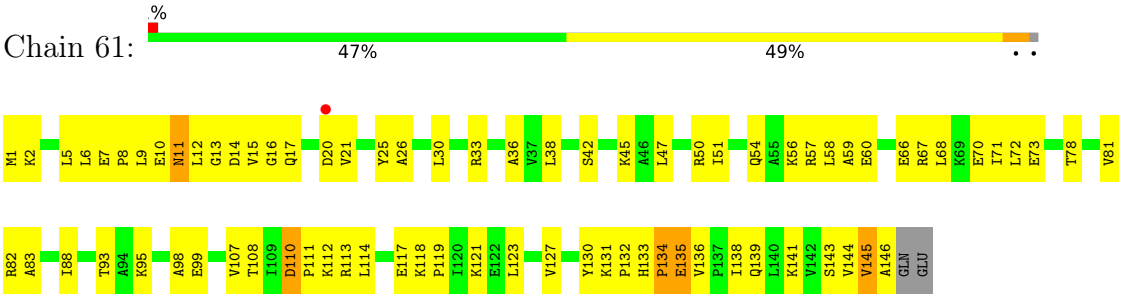


• Molecule 33: 50S ribosomal protein L6

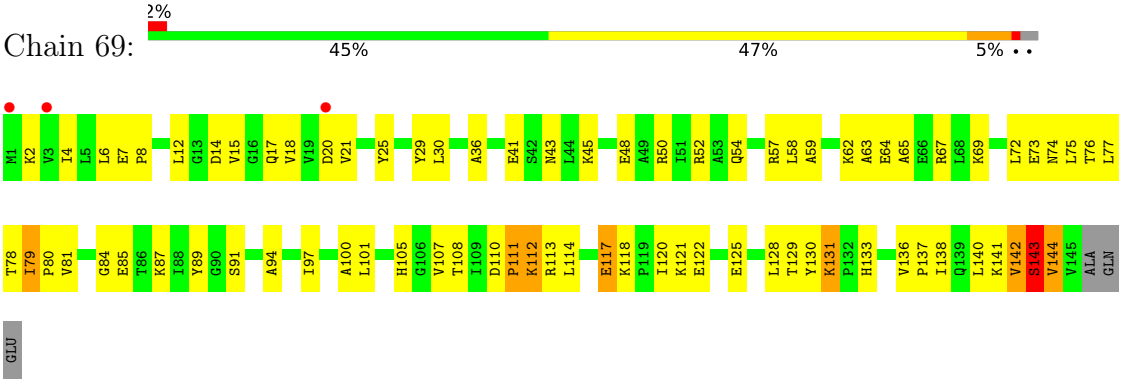




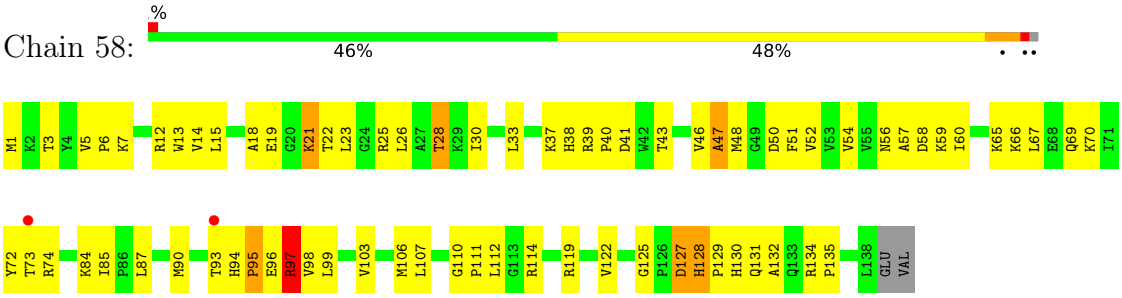
• Molecule 34: 50S ribosomal protein L9



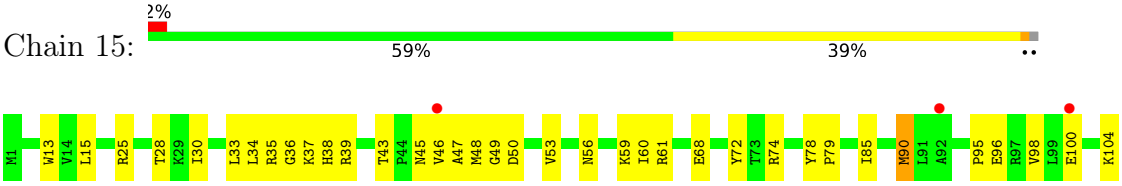
• Molecule 34: 50S ribosomal protein L9

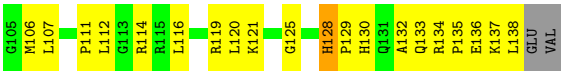


• Molecule 35: 50S ribosomal protein L13



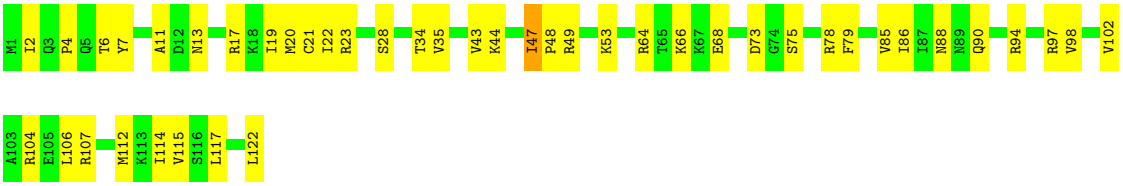
• Molecule 35: 50S ribosomal protein L13





• Molecule 36: 50S ribosomal protein L14

Chain 68:



• Molecule 36: 50S ribosomal protein L14

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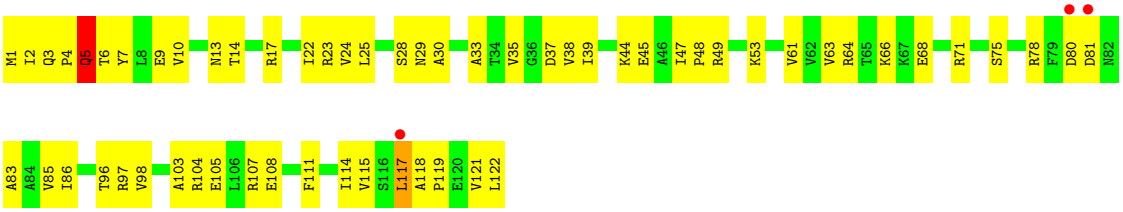
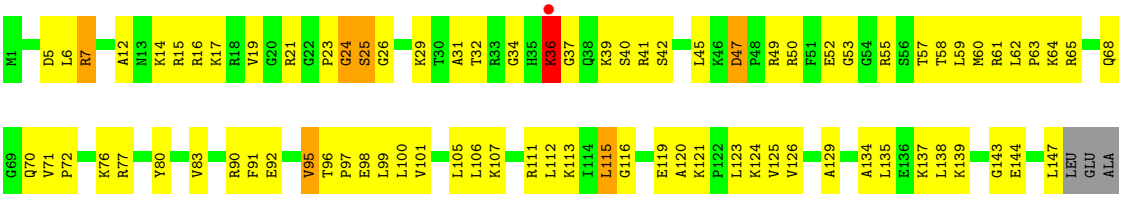


• Molecule 37: 50S ribosomal protein L15

Chain 78:



• Molecule 37: 50S ribosomal protein L15

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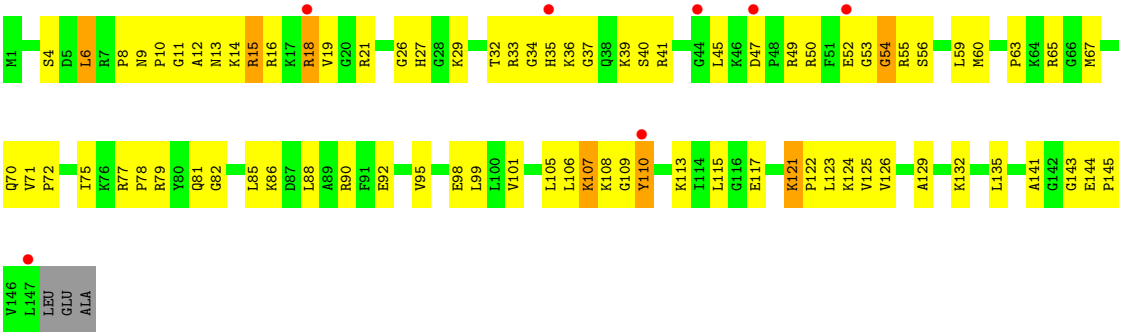
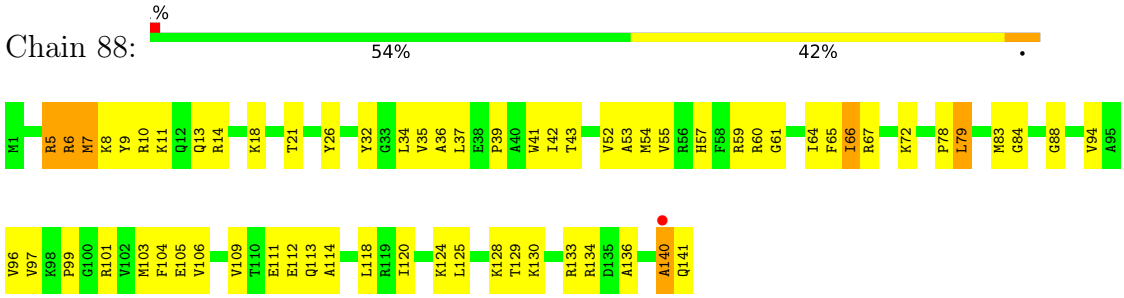


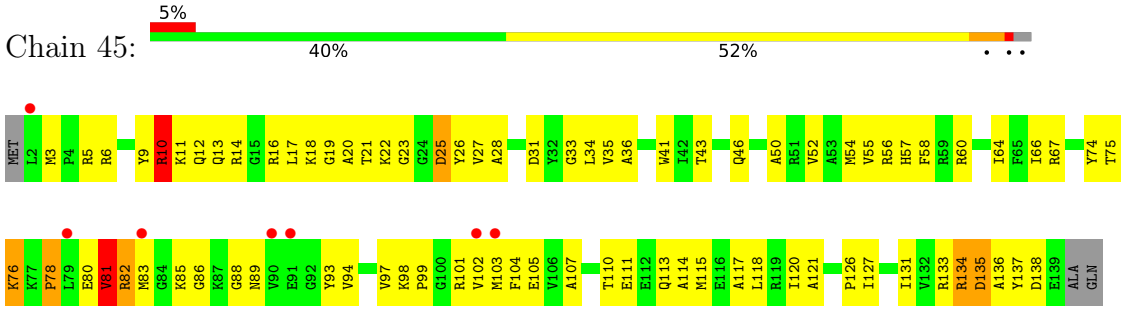
• Molecule 38: 50S ribosomal protein L16

Chain 88:



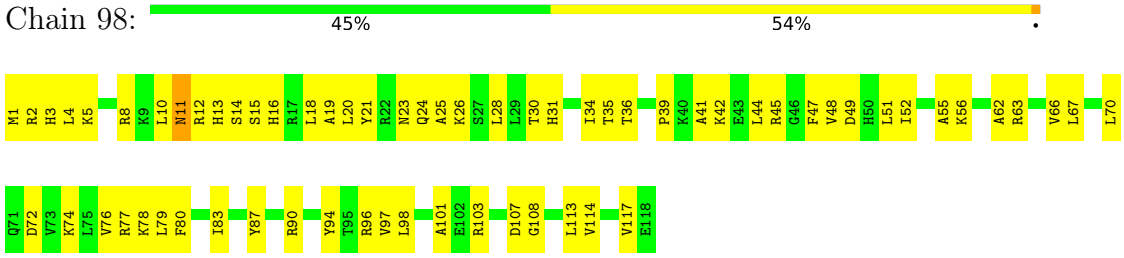
• Molecule 38: 50S ribosomal protein L16

Chain 45:



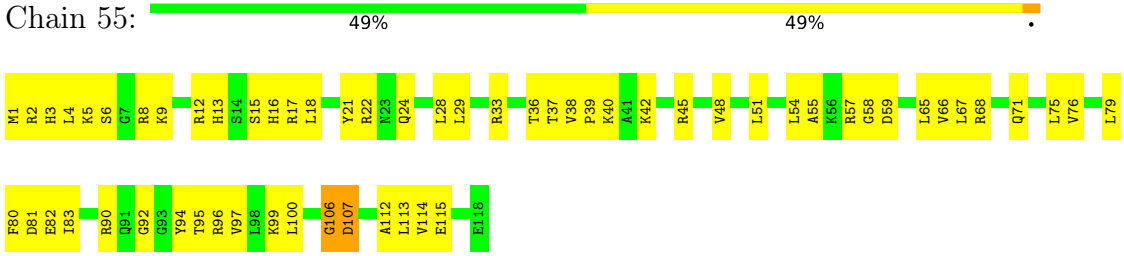
• Molecule 39: 50S ribosomal protein L17

Chain 98:



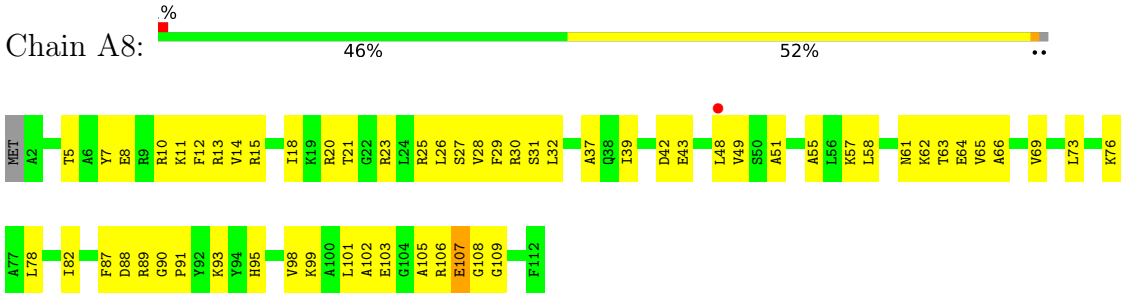
• Molecule 39: 50S ribosomal protein L17

Chain 55:



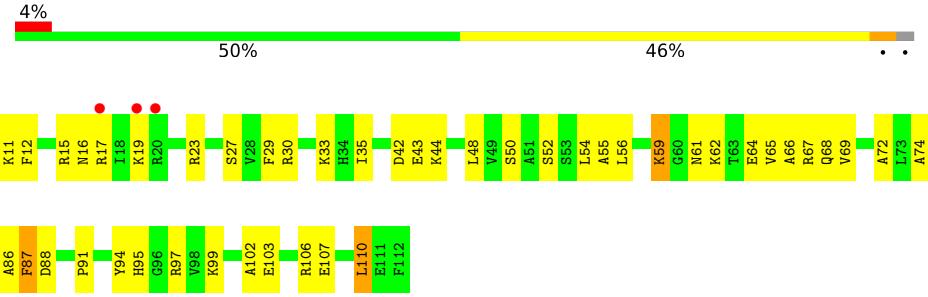
• Molecule 40: 50S ribosomal protein L18

Chain A8:



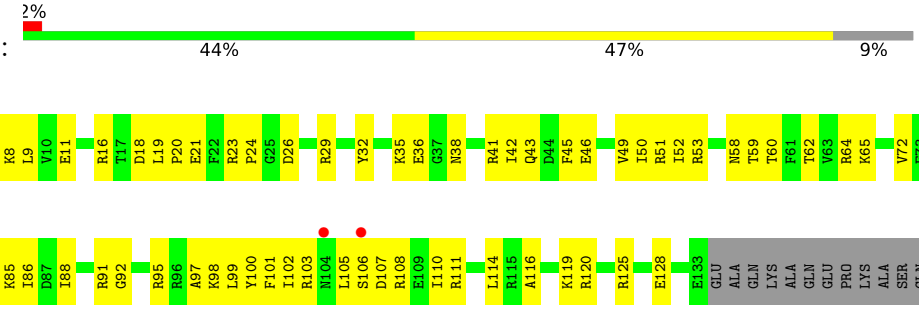
• Molecule 40: 50S ribosomal protein L18

Chain 65:



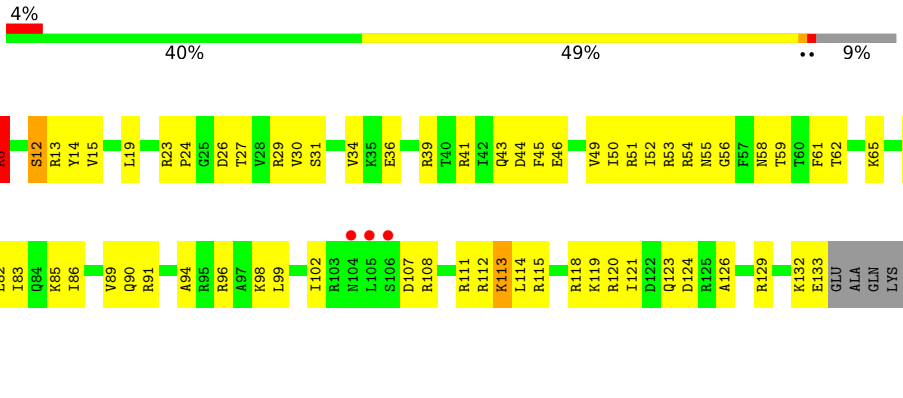
• Molecule 41: 50S ribosomal protein L19

Chain B8:



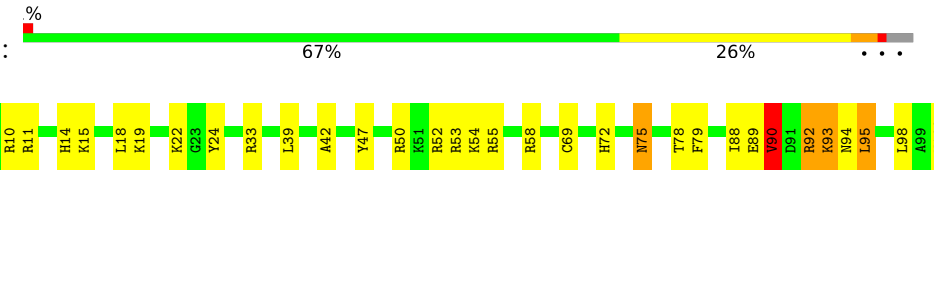
• Molecule 41: 50S ribosomal protein L19

Chain 75:



• Molecule 42: 50S ribosomal protein L20

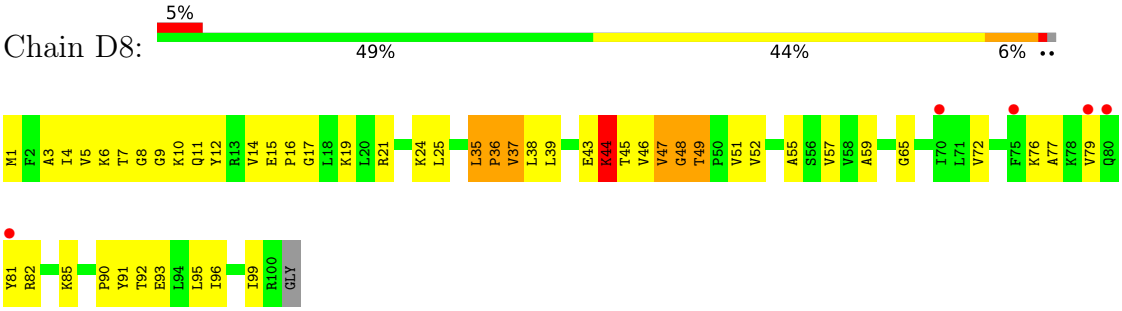
Chain C8:



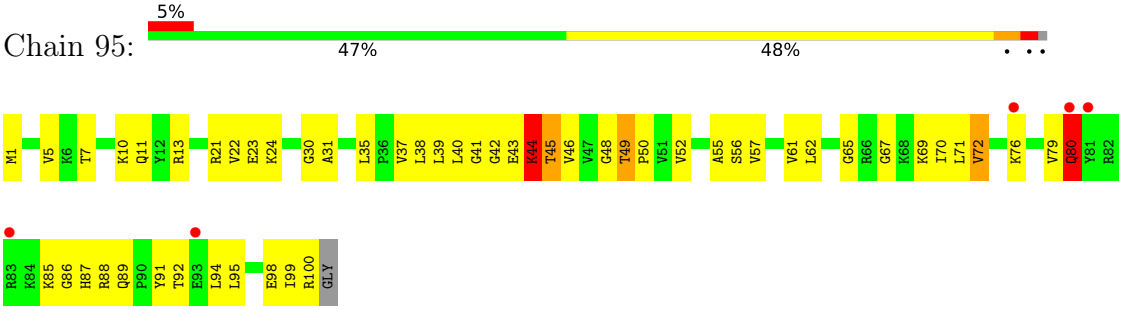
• Molecule 42: 50S ribosomal protein L20

Chain 85:

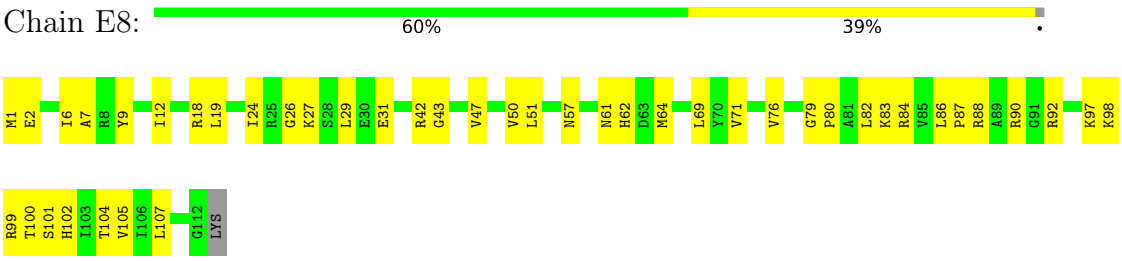
• Molecule 43: 50S ribosomal protein L21



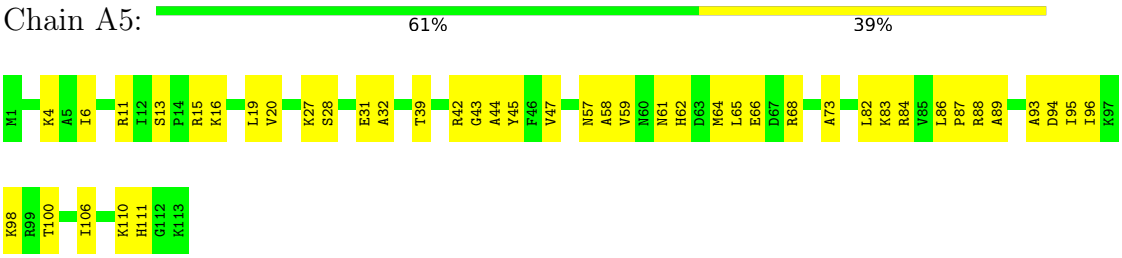
• Molecule 43: 50S ribosomal protein L21



• Molecule 44: 50S ribosomal protein L22



• Molecule 44: 50S ribosomal protein L22

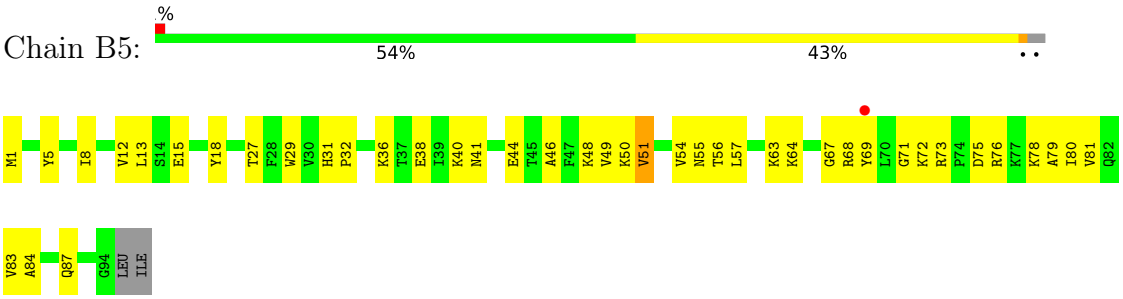


• Molecule 45: 50S ribosomal protein L23

Chain F8:

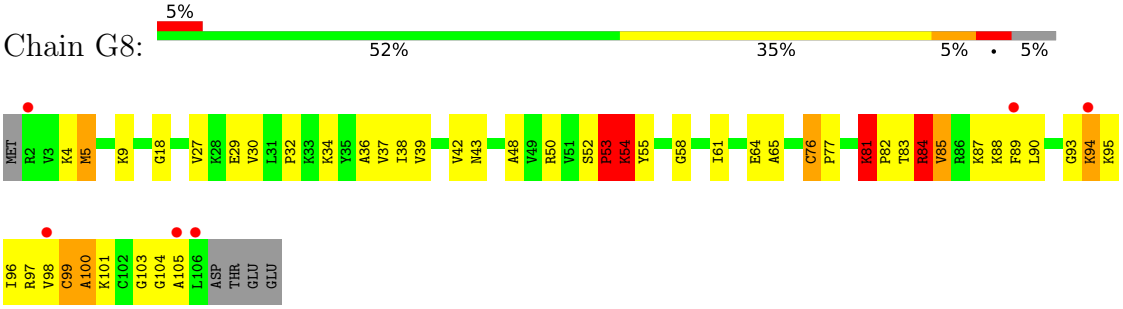
• Molecule 45: 50S ribosomal protein L23

Chain B5:



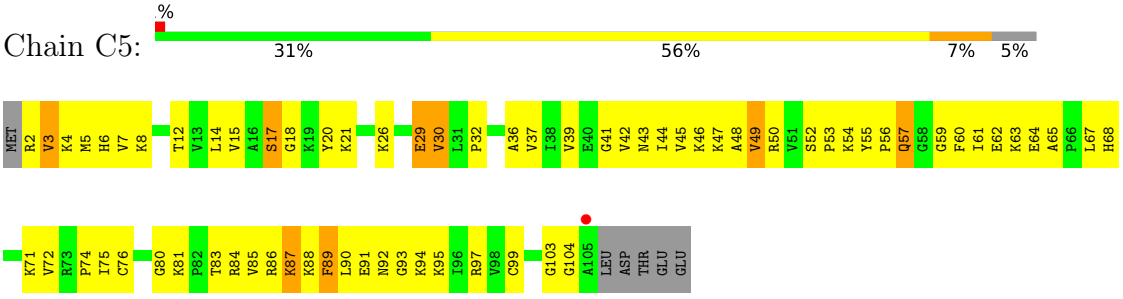
• Molecule 46: 50S ribosomal protein L24

Chain G8:



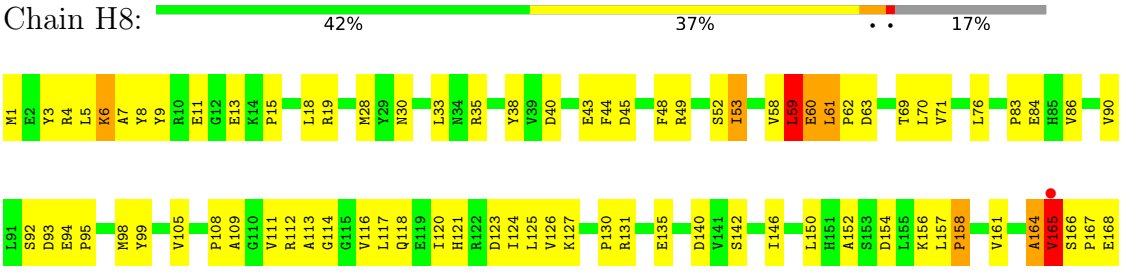
• Molecule 46: 50S ribosomal protein L24

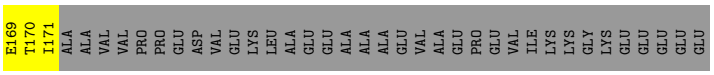
Chain C5:



• Molecule 47: 50S ribosomal protein L25

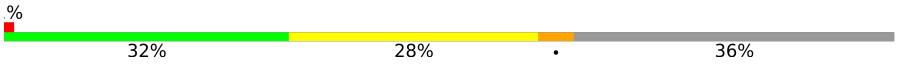
Chain H8:

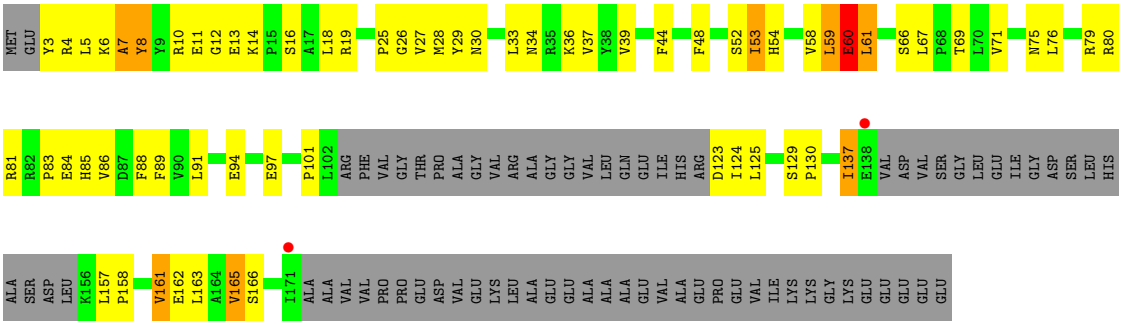




• Molecule 47: 50S ribosomal protein L25

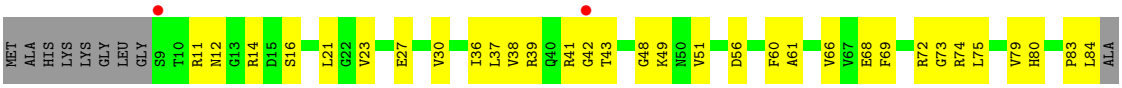
Chain D5:





• Molecule 48: 50S ribosomal protein L27

Chain I8:

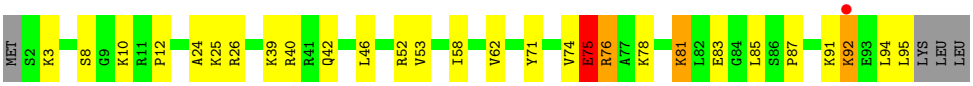


• Molecule 48: 50S ribosomal protein L27

Chain E5:

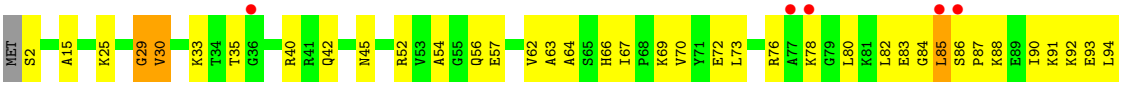
• Molecule 49: 50S ribosomal protein L28

Chain J8:



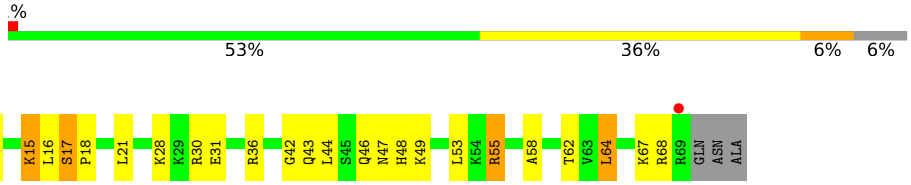
• Molecule 49: 50S ribosomal protein L28

Chain F5:



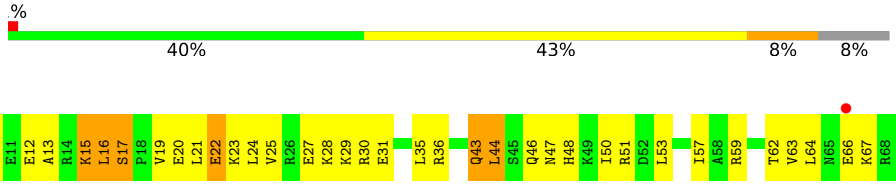
• Molecule 50: 50S ribosomal protein L29

Chain K8:



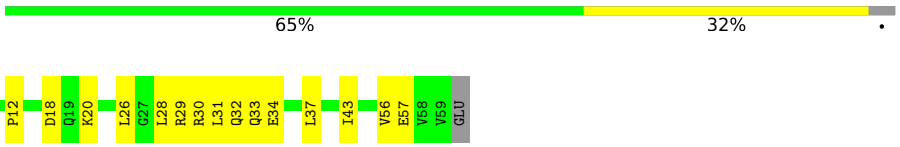
• Molecule 50: 50S ribosomal protein L29

Chain G5:



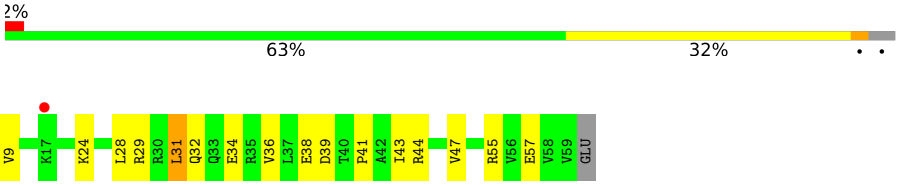
• Molecule 51: 50S ribosomal protein L30

Chain L8:



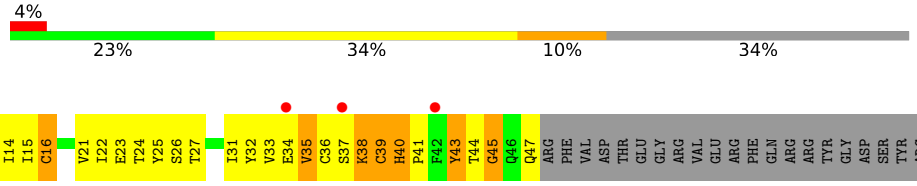
• Molecule 51: 50S ribosomal protein L30

Chain H5:



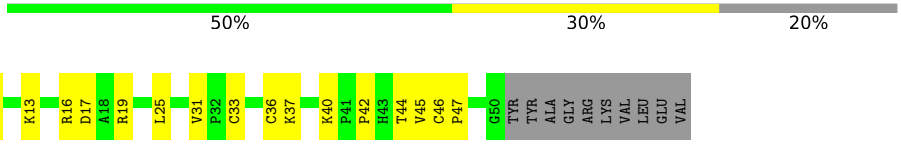
• Molecule 52: 50S ribosomal protein L31

Chain M8:



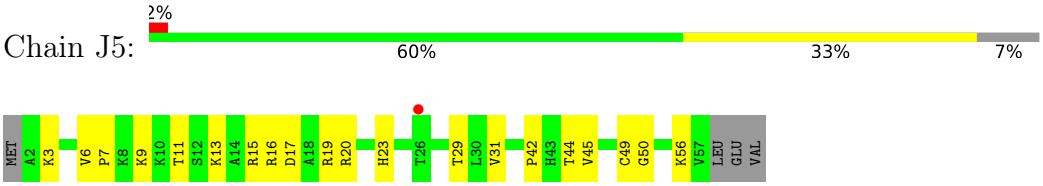
• Molecule 53: 50S ribosomal protein L32

Chain N8:



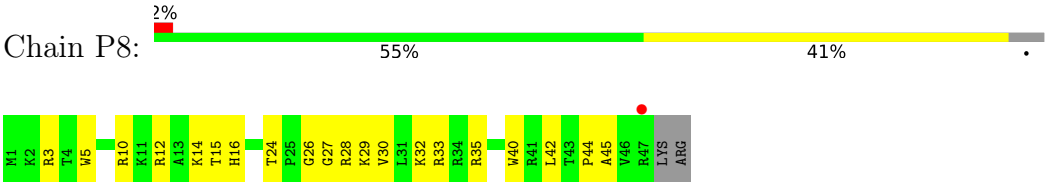
• Molecule 53: 50S ribosomal protein L32

Chain J5:



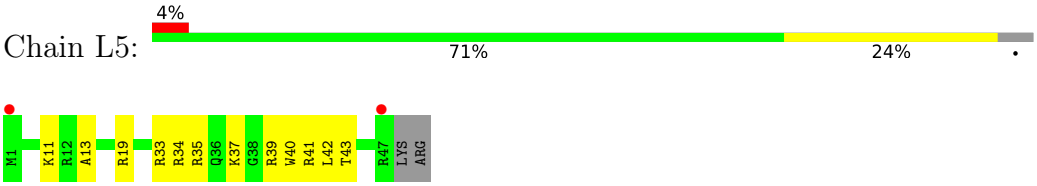
• Molecule 54: 50S ribosomal protein L34

Chain P8:



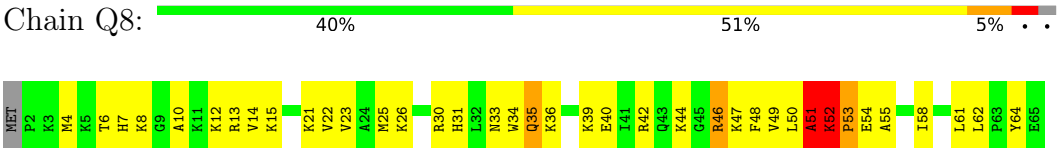
• Molecule 54: 50S ribosomal protein L34

Chain L5:



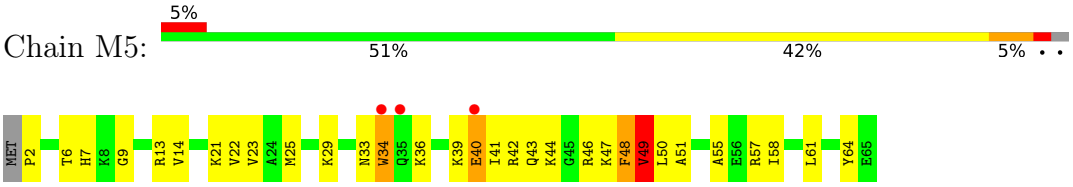
• Molecule 55: 50S ribosomal protein L35

Chain Q8:



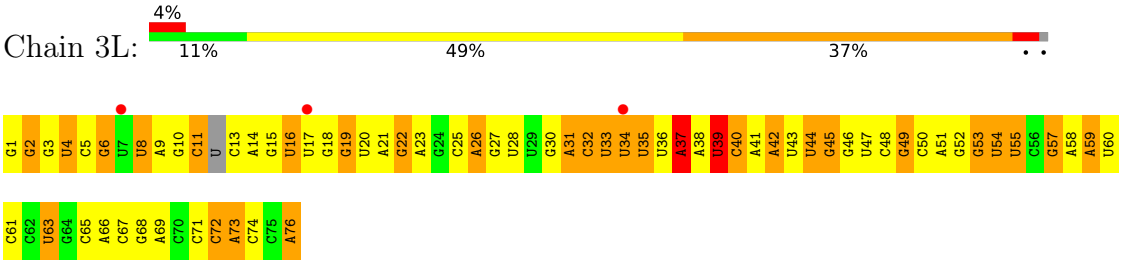
• Molecule 55: 50S ribosomal protein L35

Chain M5:



• Molecule 56: tRNALys

Chain 3L:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	209.70Å 449.50Å 620.30Å 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
$< I/\sigma(I) >$ [1]	0.83 (at 3.13Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.192 , 0.247 0.194 , 0.250	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)	0.26 , 48.2	EDS
L-test for twinning[2]	$< \|L\| > = 0.44$, $< L^2 > = 0.26$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.95	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.*

[1] Intensities estimated from amplitudes.

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

5 Model quality (i)

5.1 Standard geometry (i)

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

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	0.37	0/35994	0.63	5/56171 (0.0%)
1	1G	0.32	0/36231	0.56	1/56544 (0.0%)
2	12	0.40	2/1752 (0.1%)	0.83	5/2360 (0.2%)
2	1E	0.39	1/1908 (0.1%)	0.72	2/2573 (0.1%)
3	22	0.34	0/1564	0.64	0/2109
3	2E	0.42	0/1629	0.64	0/2195
4	32	0.44	1/1732 (0.1%)	0.75	0/2318
4	3E	0.45	1/1720 (0.1%)	0.75	0/2305
5	42	0.38	0/1150	0.66	0/1548
5	4E	0.40	0/1158	0.67	0/1559
6	52	0.46	1/855 (0.1%)	0.62	0/1154
6	5E	0.41	0/850	0.69	0/1147
7	62	0.47	1/1127 (0.1%)	0.75	2/1507 (0.1%)
7	6E	0.33	0/1259	0.57	0/1686
8	72	0.30	0/1127	0.61	0/1517
8	7E	0.39	0/1135	0.73	1/1527 (0.1%)
9	82	0.33	0/971	0.78	3/1304 (0.2%)
9	8E	0.35	0/1019	0.69	0/1367
10	1A	0.60	1/658 (0.2%)	0.67	0/885
10	1I	0.47	0/747	0.74	0/1006
11	2A	0.32	0/850	0.64	0/1150
11	2I	0.37	0/838	0.65	0/1133
12	3A	0.41	0/972	0.75	0/1301
12	3I	0.53	0/972	0.88	1/1301 (0.1%)
13	4A	0.36	0/903	0.73	1/1211 (0.1%)
13	4I	0.42	0/952	0.76	1/1277 (0.1%)
14	5A	0.35	0/495	0.82	0/657
14	5I	0.41	0/500	0.82	2/664 (0.3%)
15	6A	0.34	0/744	0.58	0/992
15	6I	0.37	0/740	0.58	0/987
16	7A	0.41	0/721	0.71	0/970
16	7I	0.39	0/716	0.74	0/963

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	8A	0.35	0/836	0.57	0/1117
17	8I	0.42	0/847	0.75	2/1131 (0.2%)
18	9A	0.39	0/549	0.67	0/732
18	9I	0.39	0/554	0.83	2/739 (0.3%)
19	AA	0.41	0/490	0.76	0/662
19	AI	0.46	0/668	0.85	0/899
20	BA	0.37	0/764	0.81	1/1007 (0.1%)
20	BI	0.37	0/748	0.74	1/986 (0.1%)
21	1B	0.40	0/192	0.67	0/252
21	1F	0.39	0/203	0.71	0/266
22	1K	0.34	0/1516	0.55	0/2350
22	1L	0.30	1/1613 (0.1%)	0.48	0/2504
23	2K	0.45	2/1721 (0.1%)	0.64	0/2682
23	2L	0.38	0/1721	0.59	0/2682
24	3K	0.31	0/1777	0.59	0/2767
25	4K	0.40	0/495	0.70	1/771 (0.1%)
25	4L	0.37	0/470	0.63	1/732 (0.1%)
26	14	0.42	4/69023 (0.0%)	0.67	11/107740 (0.0%)
26	1H	0.47	0/68351	0.73	14/106700 (0.0%)
27	16	0.40	0/2928	0.68	0/4568
27	1J	0.36	0/2928	0.64	0/4568
28	71	0.29	0/1055	0.66	0/1425
28	79	0.29	0/459	0.61	0/608
29	11	0.77	6/2170 (0.3%)	1.06	11/2926 (0.4%)
29	19	0.57	0/2175	1.00	7/2933 (0.2%)
30	21	0.51	0/1591	1.03	5/2146 (0.2%)
30	29	0.66	4/1596 (0.3%)	1.08	12/2153 (0.6%)
31	31	0.50	0/1620	0.84	0/2194
31	39	0.48	1/1637 (0.1%)	0.91	2/2218 (0.1%)
32	41	0.40	0/1481	0.77	2/1994 (0.1%)
32	49	0.52	3/1482 (0.2%)	0.75	0/1994
33	51	0.52	1/1337 (0.1%)	1.01	12/1809 (0.7%)
33	59	0.43	0/582	0.95	2/783 (0.3%)
34	61	0.44	0/1151	0.87	6/1558 (0.4%)
34	69	0.44	1/1146 (0.1%)	0.80	4/1551 (0.3%)
35	15	0.38	0/1131	0.70	0/1525
35	58	0.47	1/1131 (0.1%)	0.80	2/1525 (0.1%)
36	25	0.53	2/942 (0.2%)	0.80	0/1269
36	68	0.44	0/942	0.70	0/1269
37	35	0.56	1/1139 (0.1%)	1.02	2/1514 (0.1%)
37	78	0.54	0/1139	0.98	3/1514 (0.2%)
38	45	0.72	5/1120 (0.4%)	0.93	3/1498 (0.2%)
38	88	0.72	2/1134 (0.2%)	0.99	2/1519 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
39	55	0.47	0/981	0.80	0/1312
39	98	0.45	0/981	0.83	0/1312
40	65	0.46	0/886	0.89	1/1180 (0.1%)
40	A8	0.50	0/884	0.78	0/1178
41	75	0.54	2/1123 (0.2%)	0.77	0/1500
41	B8	0.52	0/1123	0.84	0/1500
42	85	0.42	0/977	0.76	0/1301
42	C8	0.47	0/968	0.78	0/1289
43	95	0.54	0/785	0.93	0/1052
43	D8	0.45	0/785	0.93	4/1052 (0.4%)
44	A5	0.53	0/910	0.77	0/1220
44	E8	0.48	0/901	0.75	0/1209
45	B5	0.50	0/749	0.82	0/1007
45	F8	0.53	0/757	0.95	3/1017 (0.3%)
46	C5	0.49	0/807	1.06	6/1076 (0.6%)
46	G8	0.68	1/809 (0.1%)	1.27	10/1080 (0.9%)
47	D5	0.46	0/1098	0.85	3/1487 (0.2%)
47	H8	0.44	1/1403 (0.1%)	0.81	2/1901 (0.1%)
48	E5	0.46	0/616	0.86	0/821
48	I8	0.65	0/614	0.98	0/819
49	F5	0.48	0/744	0.91	3/989 (0.3%)
49	J8	0.55	0/744	0.88	0/989
50	G5	0.52	0/560	0.93	1/741 (0.1%)
50	K8	0.86	4/570 (0.7%)	0.96	1/755 (0.1%)
51	H5	0.38	0/464	0.68	0/623
51	L8	0.49	0/464	0.76	0/623
52	M8	0.41	0/375	1.05	3/507 (0.6%)
53	J5	0.46	0/448	0.80	0/606
53	N8	0.54	0/381	0.83	0/516
54	L5	0.53	0/409	0.86	0/540
54	P8	0.61	0/409	0.93	0/540
55	M5	0.60	0/524	0.92	1/691 (0.1%)
55	Q8	0.56	0/524	1.20	5/691 (0.7%)
56	3L	0.36	0/1729	0.59	0/2690
All	All	0.43	50/317045 (0.0%)	0.71	175/474982 (0.0%)

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

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

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
50	K8	55	ARG	NE-CZ	-11.03	1.21	1.33
32	49	153	ARG	CZ-NH2	-10.09	1.20	1.33
38	88	5	ARG	NE-CZ	-9.70	1.22	1.33
10	1A	76	ASN	C-N	-9.30	1.12	1.33
37	35	121	LYS	C-N	9.19	1.55	1.33
26	14	2572	A	N9-C8	-8.41	1.21	1.37
30	29	144	ARG	CZ-NH2	-8.27	1.22	1.33
38	45	10	ARG	NE-CZ	-8.22	1.24	1.33
2	1E	232	PRO	C-N	7.98	1.58	1.33
38	88	5	ARG	CZ-NH1	-7.90	1.21	1.32
38	45	10	ARG	CZ-NH2	-7.85	1.23	1.33
30	29	144	ARG	NE-CZ	-7.75	1.24	1.33
29	11	43	ARG	CD-NE	-7.64	1.35	1.46
38	45	76	LYS	C-N	7.59	1.49	1.33
34	69	79	ILE	C-N	-7.55	1.16	1.33
29	11	242	ARG	CD-NE	-7.54	1.35	1.46
26	14	2572	A	N7-C5	7.32	1.53	1.39
26	14	2572	A	C5-C6	-7.13	1.26	1.41
32	49	153	ARG	CD-NE	-7.08	1.36	1.46
29	11	242	ARG	CZ-NH2	-7.05	1.24	1.33
29	11	242	ARG	NE-CZ	-7.00	1.25	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	3E	36	ARG	C-N	-6.98	1.17	1.33
50	K8	55	ARG	CZ-NH1	-6.89	1.23	1.32
50	K8	55	ARG	CZ-NH2	-6.81	1.24	1.33
41	75	8	LYS	CD-CE	-6.65	1.32	1.52
50	K8	55	ARG	CD-NE	-6.63	1.36	1.46
36	25	5	GLN	CD-OE1	-6.56	1.11	1.23
32	49	153	ARG	NE-CZ	-6.55	1.25	1.33
29	11	43	ARG	NE-CZ	-6.54	1.25	1.33
36	25	5	GLN	CD-NE2	-6.53	1.19	1.33
26	14	2572	A	C5-C4	-6.46	1.25	1.38
47	H8	165	VAL	CA-CB	6.18	1.62	1.54
23	2K	8	4SU	O3'-P	5.93	1.62	1.56
31	39	27	GLU	C-O	-5.90	1.16	1.24
23	2K	47	G7M	O3'-P	5.79	1.62	1.56
30	29	144	ARG	CZ-NH1	-5.78	1.24	1.32
46	G8	84	ARG	CG-CD	5.66	1.69	1.52
35	58	97	ARG	CZ-NH2	-5.62	1.26	1.33
6	52	77	ARG	NE-CZ	5.61	1.39	1.33
38	45	10	ARG	CD-NE	-5.46	1.38	1.46
2	12	223	ILE	CA-C	5.46	1.59	1.52
2	12	223	ILE	CA-CB	5.43	1.61	1.54
33	51	53	GLU	C-N	5.28	1.44	1.33
41	75	8	LYS	CE-NZ	-5.18	1.33	1.49
30	29	144	ARG	CB-CG	5.11	1.67	1.52
29	11	43	ARG	CZ-NH2	-5.09	1.26	1.33
38	45	10	ARG	CZ-NH1	-5.07	1.25	1.32
7	62	110	GLN	CD-NE2	-5.06	1.22	1.33
22	1L	37	T6A	O3'-P	5.05	1.61	1.56
4	32	3	ARG	CZ-NH1	-5.00	1.25	1.32

All (175) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	19	271	ILE	N-CA-C	14.58	127.33	111.88
46	G8	81	LYS	CA-C-N	11.56	154.73	127.00
46	G8	81	LYS	C-N-CA	11.56	154.73	127.00
45	F8	3	THR	N-CA-C	-11.47	93.51	110.48
46	G8	81	LYS	C-N-CD	-10.64	97.20	120.60
29	19	44	ASN	CA-C-N	9.35	138.53	121.70
29	19	44	ASN	C-N-CA	9.35	138.53	121.70
20	BA	12	ALA	N-CA-C	-8.86	101.46	112.88
30	29	61	ARG	CA-C-N	8.55	130.53	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	29	61	ARG	C-N-CA	8.55	130.53	119.84
29	11	39	LYS	CA-C-N	8.48	137.74	121.54
29	11	39	LYS	C-N-CA	8.48	137.74	121.54
26	14	1992	G	C2'-C3'-O3'	8.39	122.09	109.50
30	29	144	ARG	NE-CZ-NH1	-8.37	113.13	121.50
45	F8	3	THR	CA-C-N	8.32	136.68	121.70
45	F8	3	THR	C-N-CA	8.32	136.68	121.70
30	29	144	ARG	CB-CG-CD	8.22	130.20	111.30
43	D8	35	LEU	CA-C-N	8.13	127.89	119.76
43	D8	35	LEU	C-N-CA	8.13	127.89	119.76
55	Q8	46	ARG	CA-C-N	8.08	136.25	121.70
55	Q8	46	ARG	C-N-CA	8.08	136.25	121.70
30	29	144	ARG	NH1-CZ-NH2	8.00	129.71	119.30
50	G5	44	LEU	N-CA-C	-7.85	103.52	113.72
33	51	153	LYS	CA-C-N	7.77	145.65	127.00
33	51	153	LYS	C-N-CA	7.77	145.65	127.00
38	45	82	ARG	N-CA-C	7.52	125.29	114.39
52	M8	38	LYS	CA-C-N	7.39	135.66	121.54
52	M8	38	LYS	C-N-CA	7.39	135.66	121.54
29	11	272	ALA	CA-C-N	7.27	135.43	121.54
29	11	272	ALA	C-N-CA	7.27	135.43	121.54
29	19	272	ALA	CA-C-N	7.20	135.29	121.54
29	19	272	ALA	C-N-CA	7.20	135.29	121.54
33	51	153	LYS	C-N-CD	-7.09	105.00	120.60
52	M8	39	CYS	N-CA-C	-7.09	95.70	110.80
29	19	272	ALA	N-CA-C	7.00	116.54	108.49
18	9I	21	LYS	CA-C-N	7.00	134.56	121.97
18	9I	21	LYS	C-N-CA	7.00	134.56	121.97
26	1H	1992	G	C2'-C3'-O3'	6.89	119.84	109.50
30	21	54	GLN	CA-C-N	6.87	138.56	121.80
30	21	54	GLN	C-N-CA	6.87	138.56	121.80
49	F5	54	ALA	CB-CA-C	-6.84	108.67	116.54
34	61	110	ASP	CA-C-N	6.84	143.41	127.00
34	61	110	ASP	C-N-CA	6.84	143.41	127.00
34	61	135	GLU	N-CA-C	6.75	117.54	108.23
38	88	140	ALA	N-CA-C	-6.69	103.68	110.97
43	D8	37	VAL	CA-C-N	6.68	134.30	121.54
43	D8	37	VAL	C-N-CA	6.68	134.30	121.54
29	11	39	LYS	N-CA-C	6.56	124.76	110.80
2	12	218	ALA	CA-C-N	6.53	133.73	121.97
2	12	218	ALA	C-N-CA	6.53	133.73	121.97
46	G8	99	CYS	N-CA-C	6.53	119.39	111.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	1H	1204	A	O4'-C1'-N9	6.47	117.90	108.20
14	5I	12	ARG	CA-C-N	6.45	137.54	121.80
14	5I	12	ARG	C-N-CA	6.45	137.54	121.80
9	82	117	HIS	N-CA-C	6.44	120.14	112.93
47	D5	60	GLU	N-CA-C	6.42	124.48	110.80
46	G8	5	MET	CB-CA-C	-6.25	107.64	115.89
29	19	29	PRO	N-CA-C	-6.19	99.72	112.47
38	45	81	VAL	N-CA-C	6.18	122.19	109.34
30	29	53	PRO	CA-C-N	6.09	135.09	121.76
30	29	53	PRO	C-N-CA	6.09	135.09	121.76
26	1H	945	A	N9-C1'-C2'	6.04	123.05	114.00
50	K8	17	SER	N-CA-C	6.01	123.08	109.81
35	58	21	LYS	CA-C-N	-5.98	110.12	121.54
35	58	21	LYS	C-N-CA	-5.98	110.12	121.54
2	12	223	ILE	N-CA-C	5.96	121.74	109.34
46	G8	99	CYS	CA-C-N	5.93	132.37	121.70
46	G8	99	CYS	C-N-CA	5.93	132.37	121.70
34	61	110	ASP	C-N-CD	-5.90	107.62	120.60
47	H8	164	ALA	CA-C-N	5.89	132.58	121.97
47	H8	164	ALA	C-N-CA	5.89	132.58	121.97
29	11	272	ALA	N-CA-C	5.87	123.31	110.80
26	14	49	A	P-O3'-C3'	5.87	129.00	120.20
55	M5	49	VAL	N-CA-C	5.81	121.43	109.34
9	82	119	ALA	CA-C-N	5.77	132.56	121.54
9	82	119	ALA	C-N-CA	5.77	132.56	121.54
37	78	36	LYS	CB-CA-C	-5.76	108.27	116.34
34	69	131	LYS	CA-C-N	5.74	140.78	127.00
34	69	131	LYS	C-N-CA	5.74	140.78	127.00
2	1E	232	PRO	CA-C-N	5.70	137.51	120.69
2	1E	232	PRO	C-N-CA	5.70	137.51	120.69
33	51	12	PRO	CA-C-N	5.68	132.39	121.54
33	51	12	PRO	C-N-CA	5.68	132.39	121.54
30	21	65	GLY	N-CA-C	-5.67	105.88	115.34
12	3I	47	LYS	N-CA-C	5.66	120.73	109.01
26	1H	138	G	N9-C1'-C2'	5.63	120.44	112.00
26	1H	1799	G	C2'-C3'-O3'	5.63	117.94	109.50
26	14	1899	G	C8-N9-C1'	5.57	143.72	127.00
38	45	78	PRO	N-CA-C	5.57	123.94	112.47
37	78	23	PRO	CA-C-N	-5.57	110.50	121.41
37	78	23	PRO	C-N-CA	-5.57	110.50	121.41
1	13	1498	U	C2'-C3'-O3'	5.56	117.85	109.50
26	14	1992	G	P-O3'-C3'	5.56	128.54	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2712	U	OP2-P-O3'	5.56	117.44	105.20
46	C5	103	GLY	N-CA-C	5.56	126.36	113.18
26	1H	752	A	C4'-C3'-O3'	5.56	117.74	109.40
30	21	117	MET	CA-C-N	5.56	132.16	121.54
30	21	117	MET	C-N-CA	5.56	132.16	121.54
2	12	223	ILE	CA-C-N	5.54	131.67	121.70
2	12	223	ILE	C-N-CA	5.54	131.67	121.70
13	4I	13	LYS	CB-CA-C	-5.52	110.19	116.54
1	13	687	A	C2'-C3'-O3'	5.52	117.78	109.50
37	35	54	GLY	CA-C-N	5.50	132.05	121.54
37	35	54	GLY	C-N-CA	5.50	132.05	121.54
30	29	144	ARG	N-CA-C	-5.50	99.08	110.80
34	61	110	ASP	N-CA-C	5.50	119.72	112.35
1	13	687	A	P-O3'-C3'	5.49	128.44	120.20
33	51	136	ILE	CA-C-N	-5.48	111.07	121.54
33	51	136	ILE	C-N-CA	-5.48	111.07	121.54
26	1H	1899	G	C8-N9-C1'	5.43	143.28	127.00
49	F5	29	GLY	CA-C-N	5.42	131.73	121.97
49	F5	29	GLY	C-N-CA	5.42	131.73	121.97
29	11	236	GLY	CA-C-O	5.41	125.00	119.10
33	51	5	GLY	CA-C-N	5.41	131.87	121.54
33	51	5	GLY	C-N-CA	5.41	131.87	121.54
26	1H	508	G	C5'-C4'-C3'	-5.40	107.11	115.20
7	62	141	VAL	CA-C-N	5.39	131.41	121.70
7	62	141	VAL	C-N-CA	5.39	131.41	121.70
30	29	23	VAL	N-CA-C	5.38	120.54	109.34
33	59	170	ARG	CA-C-N	5.38	133.38	122.04
33	59	170	ARG	C-N-CA	5.38	133.38	122.04
55	Q8	52	LYS	N-CA-C	-5.34	96.05	111.00
26	14	784	A	P-O3'-C3'	5.34	128.21	120.20
33	51	156	ALA	CA-C-N	5.33	131.72	121.54
33	51	156	ALA	C-N-CA	5.33	131.72	121.54
46	G8	84	ARG	CA-CB-CG	5.33	124.76	114.10
26	14	1141	U	P-O3'-C3'	5.33	128.19	120.20
32	41	13	GLU	CA-C-N	5.33	131.72	121.54
32	41	13	GLU	C-N-CA	5.33	131.72	121.54
17	8I	48	GLU	CA-C-N	-5.32	113.83	122.34
17	8I	48	GLU	C-N-CA	-5.32	113.83	122.34
29	11	273	ARG	CB-CG-CD	5.30	123.48	111.30
46	C5	49	VAL	N-CA-C	-5.28	106.13	113.00
26	14	1786	A	N9-C1'-C2'	5.27	121.91	114.00
30	29	61	ARG	C-N-CD	-5.26	103.44	125.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	2275	C	P-O3'-C3'	5.25	128.08	120.20
26	1H	2346	A	O4'-C1'-N9	5.23	116.04	108.20
34	69	143	SER	N-CA-C	5.22	121.92	110.80
26	1H	676	A	O4'-C1'-N9	5.22	116.32	108.50
1	13	1301	U	P-O3'-C3'	5.21	128.02	120.20
25	4K	18	G	C4'-C3'-O3'	5.21	117.22	109.40
46	C5	87	LYS	CA-C-N	5.21	131.49	121.54
46	C5	87	LYS	C-N-CA	5.21	131.49	121.54
55	Q8	51	ALA	CA-C-N	5.19	131.05	121.70
55	Q8	51	ALA	C-N-CA	5.19	131.05	121.70
13	4A	106	ASN	CB-CA-C	-5.19	110.57	116.54
34	69	131	LYS	C-N-CD	-5.18	109.19	120.60
26	14	2712	U	P-O3'-C3'	5.18	125.92	119.70
1	13	913	A	P-O3'-C3'	5.18	127.97	120.20
8	7E	71	GLY	N-CA-C	-5.17	101.79	112.34
30	29	68	ALA	CA-C-N	5.17	131.42	121.54
30	29	68	ALA	C-N-CA	5.17	131.42	121.54
25	4L	12	A	O4'-C1'-N9	5.17	115.95	108.20
34	61	143	SER	N-CA-C	5.14	121.76	110.80
46	C5	85	VAL	CA-C-N	5.12	132.08	121.32
46	C5	85	VAL	C-N-CA	5.12	132.08	121.32
29	11	29	PRO	N-CA-C	-5.12	101.92	112.47
46	G8	100	ALA	CA-C-N	5.11	130.90	121.70
46	G8	100	ALA	C-N-CA	5.11	130.90	121.70
20	BI	43	LEU	CB-CG-CD1	-5.11	95.38	110.70
26	1H	1786	A	N9-C1'-C2'	5.10	121.64	114.00
40	65	110	LEU	CA-CB-CG	5.09	134.12	116.30
1	1G	913	A	P-O3'-C3'	5.09	127.83	120.20
38	88	84	GLY	N-CA-C	-5.08	101.78	112.45
26	1H	1309	G	O5'-P-OP2	-5.07	92.80	108.00
29	11	28	GLU	CA-C-N	5.06	126.16	119.84
29	11	28	GLU	C-N-CA	5.06	126.16	119.84
31	39	67	GLN	CA-C-N	-5.05	114.69	121.71
31	39	67	GLN	C-N-CA	-5.05	114.69	121.71
26	1H	2060	A	C4'-C3'-O3'	5.04	116.96	109.40
26	1H	1026	U	O4'-C1'-N1	5.02	115.73	108.20
33	51	10	PRO	N-CA-C	5.01	122.80	112.47
47	D5	59	LEU	CA-C-N	5.01	131.12	121.54
47	D5	59	LEU	C-N-CA	5.01	131.12	121.54
26	14	49	A	C4'-C3'-O3'	5.00	116.90	109.40

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
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

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Mol	Chain	Res	Type	Group
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
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

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Mol	Chain	Res	Type	Group
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
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

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Mol	Chain	Res	Type	Group
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
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

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Mol	Chain	Res	Type	Group
55	Q8	52	LYS	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	13	32157	0	16234	756	0
1	1G	32368	0	16343	754	1
2	12	1721	0	1758	120	0
2	1E	1874	0	1926	115	0
3	22	1541	0	1606	79	0
3	2E	1605	0	1668	60	0
4	32	1702	0	1765	104	0
4	3E	1690	0	1738	96	0
5	42	1134	0	1200	72	0
5	4E	1142	0	1204	52	0
6	52	842	0	857	29	0
6	5E	837	0	852	31	0
7	62	1115	0	1165	57	0
7	6E	1242	0	1286	52	0
8	72	1107	0	1165	54	0
8	7E	1115	0	1177	70	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	54	0
11	2A	835	0	847	46	0
11	2I	823	0	833	39	0
12	3A	956	0	1046	54	0
12	3I	956	0	1046	39	0
13	4A	893	0	946	56	0
13	4I	942	0	997	50	0
14	5A	486	0	524	29	0
14	5I	491	0	530	37	0
15	6A	733	0	771	35	0
15	6I	729	0	768	28	0
16	7A	705	0	725	41	0
16	7I	700	0	720	52	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
17	8A	823	0	891	41	0
17	8I	834	0	904	61	0
18	9A	544	0	605	25	0
18	9I	549	0	607	23	0
19	AA	481	0	468	19	0
19	AI	654	0	675	52	0
20	BA	762	0	861	41	0
20	BI	746	0	843	51	0
21	1B	188	0	195	20	0
21	1F	199	0	208	13	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	11	0
25	4L	417	0	207	11	0
26	14	61630	0	31072	1413	1
26	1H	61028	0	30762	1441	0
27	16	2617	0	1328	70	0
27	1J	2617	0	1328	77	0
28	71	1033	0	1048	72	0
28	79	456	0	460	32	0
29	11	2120	0	2197	160	0
29	19	2125	0	2199	136	0
30	21	1558	0	1624	97	0
30	29	1563	0	1629	137	0
31	31	1585	0	1632	95	0
31	39	1602	0	1649	104	0
32	41	1457	0	1514	95	0
32	49	1458	0	1516	72	0
33	51	1312	0	1384	66	0
33	59	573	0	597	44	0
34	61	1136	0	1223	60	0
34	69	1131	0	1218	75	0
35	15	1104	0	1180	52	0
35	58	1104	0	1180	65	0
36	25	932	0	996	56	0
36	68	932	0	996	43	0
37	35	1122	0	1206	97	0
37	78	1122	0	1206	109	0
38	45	1099	0	1154	98	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
38	88	1113	0	1157	59	0
39	55	967	0	1033	54	0
39	98	967	0	1033	67	0
40	65	876	0	938	62	0
40	A8	875	0	936	54	0
41	75	1109	0	1170	74	0
41	B8	1109	0	1170	62	0
42	85	959	0	1019	56	0
42	C8	950	0	1011	55	0
43	95	774	0	849	83	0
43	D8	774	0	849	58	0
44	A5	899	0	964	34	0
44	E8	890	0	951	35	0
45	B5	735	0	785	44	0
45	F8	743	0	794	39	0
46	C5	794	0	886	76	0
46	G8	796	0	886	53	0
47	D5	1074	0	1086	63	0
47	H8	1373	0	1402	85	0
48	E5	608	0	622	37	0
48	I8	606	0	625	33	0
49	F5	737	0	813	43	0
49	J8	737	0	813	27	0
50	G5	558	0	610	34	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	33	0
53	J5	434	0	454	24	0
53	N8	369	0	388	23	0
54	L5	401	0	436	14	0
54	P8	401	0	436	17	0
55	M5	516	0	582	35	0
55	Q8	516	0	582	54	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

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
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
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

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
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
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

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
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	196368	8991	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 (8991) 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
37:35:81:GLN:CD	37:35:106:LEU:HA	1.58	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
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
37:78:49:ARG:HB2	37:78:49:ARG:HH11	1.22	1.04
26:14:2248:C:OP2	61:14:3501:HOH:O	1.74	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:1H:2308:G:H1	26:1H:2311:A:H2	1.10	0.98
29:11:29:PRO:HB2	29:11:30:GLU:HA	1.45	0.98
5:42:78:HIS:HE1	8:72:104:ARG:HH21	1.06	0.98
26:14:676:A:H8	26:14:2069:G:H21	1.00	0.98
26:14:2791:C:HO2'	26:14:2792:G:H8	1.06	0.97
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
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
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
26:1H:620:G:H4'	26:1H:621:A:H5"	1.51	0.93
26:14:67:U:H3	26:14:74:A:H2	1.14	0.93
26:14:252:G:OP2	37:35:50:ARG:NH2	2.02	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
1:13:1448:C:H42	1:13:1455:G:H1	1.14	0.91
29:11:30:GLU:OE2	29:11:83:GLU:HG3	1.69	0.91
26:14:2469:A:H2'	38:45:56:ARG:NH1	1.82	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:31:29:ASN:H	31:31:112:MET:HE1	1.36	0.91
17:8I:67:LYS:HA	17:8I:70:ARG:HH12	1.35	0.91
11:2A:96:ARG:HD3	11:2A:99:GLN:HG3	1.53	0.91
28:71:32:LEU:HB3	28:71:220:PRO:HD2	1.53	0.91
3:22:70:VAL:HG12	3:22:72:LYS:H	1.34	0.91
10:1A:51:ARG:HB2	10:1A:60:ARG:HA	1.50	0.91
26:1H:943:U:OP2	37:78:36:LYS:NZ	2.03	0.91
1:1G:474:G:H5"	16:7A:81:ARG:HH12	1.36	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	0.95	0.90
26:1H:1771:C:HO2'	26:1H:1786:A:H8	0.94	0.90
33:59:142:GLY:HA3	33:59:143:GLN:HG2	1.49	0.90
36:25:47:ILE:HG13	36:25:48:PRO:HD2	1.53	0.90
27:16:15:A:H5'	27:16:16:G:C8	2.07	0.90
55:Q8:51:ALA:HA	55:Q8:55:ALA:HB2	1.51	0.90
43:95:85:LYS:HD2	43:95:86:GLY:H	1.34	0.90
43:D8:35:LEU:HB2	43:D8:57:VAL:HG13	1.53	0.90
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
56:3L:19:G:N3	56:3L:57:G:N2	2.20	0.89
26:14:568:U:O4	61:14:3502:HOH:O	1.90	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
47:H8:19:ARG:NH1	47:H8:84:GLU:O	2.07	0.88
26:14:84:A:N6	26:14:102:G:O2'	2.06	0.88
26:1H:2751:G:N7	33:51:2:SER:N	2.22	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:1H:676:A:H8	26:1H:2069:G:H21	1.22	0.87
1:1G:838:G:N2	1:1G:848:C:N3	2.23	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
26:1H:1665:A:OP2	61:1H:3605:HOH:O	1.91	0.86
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:1495:A:OP2	61:1H:3606:HOH:O	1.92	0.86
39:98:103:ARG:NH1	39:98:108:GLY:O	2.09	0.86
56:3L:51:A:N6	56:3L:63:U:O4	2.09	0.86
4:32:85:LYS:HD3	4:32:86:LYS:N	1.91	0.86
26:1H:452:G:OP2	61:1H:3607:HOH:O	1.93	0.86
5:42:78:HIS:CE1	8:72:104:ARG:HH21	1.93	0.86
26:14:2415:G:H4'	37:35:67:MET:H	1.38	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
26:14:1250:G:OP2	37:35:21:ARG:NH1	2.09	0.85
26:14:2414:G:H21	37:35:67:MET:HE1	1.42	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
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
3:2E:79:ARG:NH2	11:2A:105:VAL:O	2.09	0.85
27:16:7:G:H4'	40:A8:29:PHE:CD2	2.11	0.85
40:A8:78:LEU:HD12	40:A8:108:GLY:HA2	1.59	0.85
1:1G:1305:G:H22	1:1G:1331:G:H2'	1.41	0.85
26:14:249:C:OP1	61:14:3505:HOH:O	1.95	0.85
42:85:98:LEU:HB2	42:85:102:GLU:HB2	1.57	0.85
2:12:219:VAL:HG22	2:12:221:LEU:H	1.40	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
5:42:78:HIS:CE1	8:72:104:ARG:NE	2.44	0.84
30:29:81:ILE:HG22	30:29:82:ARG:H	1.42	0.84
27:16:7:G:H4’	40:A8:29:PHE:HD2	1.41	0.84
11:2I:79:SER:HB2	11:2I:106:LYS:HD2	1.59	0.84
26:1H:1441:G:H2’	26:1H:1442:G:H8	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
27:1J:80:U:H2’	27:1J:81:G:H21	1.42	0.84
26:1H:2807:G:N1	26:1H:2893:G:O6	2.09	0.84
26:14:784:A:OP2	61:14:3504:HOH:O	1.94	0.84
9:8E:47:LEU:HD12	9:8E:50:LEU:HD12	1.58	0.84
26:14:259:G:H21	26:14:621:A:H8	1.22	0.84
43:95:38:LEU:HD12	43:95:56:SER:CA	2.06	0.84
1:13:1028(A):C:HO2’	1:13:1032(B):G:H1	1.25	0.84
26:1H:1614:A:OP1	61:1H:3611:HOH:O	1.94	0.84
26:14:1703:G:N7	61:14:3535:HOH:O	2.10	0.84
26:14:2513:G:HO2’	30:29:151:TYR:HH	0.89	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
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
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
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
1:13:1189:C:H5’	3:2E:5:ILE:HD13	1.60	0.83
26:1H:973:A:OP2	61:1H:3613:HOH:O	1.96	0.83
26:1H:1533:C:H3’	26:1H:1534:G:H5”	1.60	0.83
29:11:146:GLU:HB2	29:11:189:CYS:HB3	1.61	0.83
8:7E:102:ARG:HE	8:7E:102:ARG:H	1.22	0.83
26:1H:2867:G:OP2	41:B8:119:LYS:NZ	2.12	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1535:C:H42	25:4L:9:G:H1	1.27	0.82
12:3A:47:LYS:HG3	12:3A:48:PRO:HD2	1.58	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
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
56:3L:9:A:H2'	56:3L:11:C:H41	1.45	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
26:1H:654(C):G:N2	26:1H:654(R):C:O2	2.12	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
26:14:1021:A:H62	26:14:1141:U:H3	1.28	0.82
28:79:207:THR:O	28:79:210:ARG:NH1	2.12	0.82
30:21:201:THR:HG22	30:21:203:LYS:H	1.44	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
24:3K:9:A:H62	24:3K:11:C:H41	1.28	0.82
12:3A:111:LYS:H	12:3A:111:LYS:HD2	1.45	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
1:13:1027:C:O2	1:13:1035:A:N6	2.14	0.81
1:13:1305:G:N2	1:13:1331:G:H2'	1.94	0.81
1:1G:1348:U:H3	1:1G:1374:A:H2	1.24	0.81
37:35:81:GLN:HE22	37:35:106:LEU:N	1.79	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
22:1K:48:C:O2'	22:1K:49:G:OP2	1.99	0.81
26:14:1007:C:OP1	35:15:35:ARG:NH1	2.13	0.81
30:29:167:VAL:HG12	30:29:170:LEU:HD11	1.60	0.81
35:15:15:LEU:HB2	35:15:134:ARG:HB3	1.63	0.81
1:13:1305:G:H21	1:13:1331:G:H2'	1.45	0.81
9:8E:112:LYS:HA	9:8E:119:ALA:HB2	1.61	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
26:14:973:A:OP2	61:14:3502:HOH:O	1.98	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:993:G:OP1	42:C8:50:ARG:NH2	2.13	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
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
26:14:1138:G:H21	35:15:106:MET:HE3	1.47	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
12:3I:39:VAL:HG12	12:3I:57:LYS:HB2	1.60	0.80
26:14:583:G:N7	61:14:3564:HOH:O	2.15	0.80
26:14:1403:C:OP1	26:14:1522:G:N2	2.11	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:HH11	37:78:49:ARG:CB	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
43:D8:15:GLU:HG3	43:D8:16:PRO:HD2	1.63	0.80
56:3L:49:G:N2	56:3L:65:C:N3	2.29	0.80
31:39:123:LEU:O	31:39:125:LEU:N	2.14	0.80
1:13:869:G:N7	61:13:1810:HOH:O	2.15	0.80
12:3A:37:CYS:HA	12:3A:58:VAL:HA	1.62	0.80
26:14:1315:C:OP2	61:14:3509:HOH:O	1.99	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
1:13:538:G:H5"	12:3I:114:LYS:HB2	1.64	0.80
1:13:1124:G:H5'	10:1I:35:SER:HB2	1.64	0.80
5:4E:100:VAL:O	5:4E:107:ARG:NH2	2.15	0.80
26:1H:2352:A:OP2	61:1H:3621:HOH:O	2.00	0.80
29:19:206:LEU:HA	29:19:211:ARG:HE	1.47	0.80
34:69:4:ILE:HD11	34:69:43:ASN:HB3	1.62	0.80
40:65:106:ARG:NH1	40:65:106:ARG:O	2.14	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
8:7E:98:LYS:H	8:7E:98:LYS:HD2	1.48	0.79
1:1G:955:U:H1'	1:1G:1227:A:H61	1.47	0.79
2:1E:174:VAL:HG13	2:1E:184:VAL:HG11	1.64	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1006:C:OP2	61:1H:3622:HOH:O	2.01	0.79
26:14:1364:G:OP2	49:F5:2:SER:N	2.15	0.79
26:1H:2061:G:O6	61:1H:3619:HOH:O	2.00	0.79
1:1G:632:A:OP1	8:72:98:LYS:NZ	2.15	0.79
26:1H:730:C:OP2	61:1H:3615:HOH:O	1.99	0.79
36:68:7:TYR:HE1	36:68:20:MET:HE3	1.46	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
26:1H:442:G:H1'	31:31:48:THR:HG21	1.64	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
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
26:1H:2502:G:OP2	61:1H:3617:HOH:O	2.00	0.79
1:1G:830:G:H4'	2:12:23:ARG:HH11	1.44	0.79
1:1G:1535:C:N4	25:4L:9:G:H1	1.80	0.79
31:39:6:VAL:HB	31:39:124:LEU:HA	1.64	0.79
1:13:1453:G:H2'	20:BI:39:LYS:HE2	1.65	0.78
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
40:A8:106:ARG:NH1	40:A8:106:ARG:O	2.16	0.78
3:22:8:ILE:HG23	3:22:16:ARG:HD2	1.63	0.78
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
49:F5:91:LYS:HD3	49:F5:92:LYS:H	1.45	0.78
26:14:780:G:H21	26:14:783:A:H62	1.29	0.78
26:14:1314:C:OP1	61:14:3506:HOH:O	2.00	0.78
24:3K:29:U:O4	24:3K:41:A:N6	2.15	0.78
26:1H:1279:G:H4'	39:98:31:HIS:CD2	2.17	0.78
26:1H:2105:C:H2'	26:1H:2106:G:H8	1.48	0.78
34:61:113:ARG:HD2	34:61:131:LYS:HB2	1.65	0.78
4:32:60:GLU:OE2	4:32:199:ASN:N	2.13	0.78
16:7A:74:LEU:HD12	16:7A:79:VAL:HG21	1.62	0.78
27:1J:18:G:N2	27:1J:65:C:N3	2.30	0.78
40:65:62:LYS:HA	40:65:65:VAL:HG12	1.65	0.78
1:13:1372:U:H5"	9:8E:71:SER:HB3	1.66	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:547:A:OP2	4:32:2:GLY:N	2.17	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
26:1H:592:G:H21	55:Q8:4:MET:HE1	1.48	0.78
35:58:73:THR:HG22	35:58:84:LYS:HG2	1.65	0.78
32:49:161:THR:HG22	32:49:163:ALA:H	1.49	0.78
1:13:259:G:OP2	20:BI:83:ARG:NH1	2.17	0.78
8:7E:7:ALA:HB2	8:7E:85:ARG:HD3	1.65	0.78
26:1H:2068:U:H3	26:1H:2430:A:H2	1.29	0.78
1:1G:411:A:H61	1:1G:430:A:H62	1.30	0.78
26:14:1314:C:OP1	61:14:3513:HOH:O	2.01	0.78
2:1E:118:LEU:HD23	2:1E:142:LEU:HA	1.65	0.78
32:41:172:LEU:HD23	32:41:173:LEU:HD22	1.66	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
26:14:843:G:H1	26:14:935:C:H42	1.31	0.78
26:14:1532:C:H42	26:14:1539:G:H1	1.32	0.78
13:4A:15:VAL:HG12	13:4A:45:VAL:HG12	1.66	0.77
26:14:451:C:OP2	61:14:3516:HOH:O	2.02	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
46:C5:87:LYS:HB3	46:C5:94:LYS:HA	1.63	0.77
1:13:1366:C:H2'	1:13:1367:C:H6	1.48	0.77
26:1H:2502:G:OP2	61:1H:3628:HOH:O	2.03	0.77
2:12:53:ARG:HG3	2:12:56:ARG:HH21	1.49	0.77
26:14:34:C:HO2'	26:14:35:G:H8	1.26	0.77
26:14:900:A:H2'	26:14:901:A:H8	1.48	0.77
26:14:1418:G:N7	61:14:3574:HOH:O	2.17	0.77
1:13:975:A:H4'	1:13:976:G:H5"	1.63	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
1:1G:509:A:OP2	61:1G:1702:HOH:O	2.03	0.77
1:1G:1305:G:N2	1:1G:1331:G:H2'	2.00	0.77
4:3E:107:ARG:HH22	4:3E:194:LEU:HD22	1.50	0.77
1:1G:542:G:OP1	4:32:10:ARG:NH2	2.18	0.77
23:2L:50:G:H1	23:2L:66:C:H42	1.30	0.77
26:14:800:A:OP1	61:14:3515:HOH:O	2.02	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
26:14:1265:A:OP2	61:14:3512:HOH:O	2.01	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1997:G:OP2	61:14:3510:HOH:O	2.00	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
32:41:113:ARG:NE	52:M8:34:GLU:OE1	2.14	0.77
56:3L:4:U:H2'	56:3L:5:C:O4'	1.84	0.77
26:1H:122:G:N7	61:1H:3687:HOH:O	2.17	0.77
26:14:1007:C:OP1	35:15:37:LYS:NZ	2.17	0.77
20:BI:57:ARG:HH11	20:BI:102:GLY:HA2	1.51	0.76
26:1H:800:A:OP1	61:1H:3633:HOH:O	2.04	0.76
26:1H:2589:A:OP1	61:1H:3629:HOH:O	2.03	0.76
29:11:31:LYS:HD3	29:11:94:LEU:HD11	1.66	0.76
41:B8:26:ASP:HB3	41:B8:92:GLY:H	1.50	0.76
38:45:97:VAL:HG11	38:45:103:MET:HE2	1.67	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
20:BI:69:GLY:O	20:BI:73:HIS:NE2	2.18	0.76
40:A8:106:ARG:NH1	40:A8:107:GLU:HB2	1.99	0.76
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
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
1:1G:352:C:OP2	61:1G:1701:HOH:O	2.02	0.76
3:22:188:LEU:HD22	3:22:190:ARG:HE	1.50	0.76
26:14:2794:C:N4	26:14:2803:C:O2	2.18	0.76
1:13:619:U:H3	4:3E:134:ASP:HB2	1.48	0.76
24:3K:5:C:O2'	24:3K:68:G:N2	2.18	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
33:51:157:TYR:H	33:51:170:ARG:HA	1.51	0.76
2:12:187:LEU:HD21	2:12:203:GLY:HA3	1.68	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
1:13:1193:G:OP1	3:2E:167:TRP:HZ3	1.68	0.76
26:1H:1797:C:HO2'	29:11:259:THR:HG1	1.22	0.76
26:1H:2576:G:OP1	61:1H:3630:HOH:O	2.03	0.76
46:G8:43:ASN:O	46:G8:64:GLU:HA	1.84	0.76
1:1G:589:C:H42	1:1G:650:G:H1	1.33	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:1H:259:G:O2'	26:1H:621:A:O2'	2.03	0.76
33:51:158:HIS:HA	33:51:170:ARG:HH11	1.49	0.76
4:32:18:LYS:NZ	4:32:26:CYS:O	2.19	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
34:69:14:ASP:OD1	34:69:15:VAL:N	2.19	0.76
26:1H:567:A:OP1	61:1H:3626:HOH:O	2.02	0.76
26:1H:2849:U:OP2	41:B8:95:ARG:NH1	2.19	0.76
7:62:20:ASP:HB3	7:62:23:VAL:HG23	1.68	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
17:8I:76:LEU:HD11	17:8I:79:SER:HB2	1.66	0.76
31:31:6:VAL:HG21	31:31:119:ARG:HB2	1.67	0.76
1:13:760:G:N2	17:8I:94:ASN:OD1	2.20	0.75
20:BI:57:ARG:NH1	20:BI:102:GLY:HA2	2.01	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
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
38:45:111:GLU:HG3	38:45:115:MET:HE3	1.68	0.75
4:3E:98:GLU:HA	4:3E:103:ASN:ND2	2.00	0.75
26:14:2379:G:O2'	40:65:17:ARG:NH1	2.20	0.75
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
10:1I:24:VAL:HG13	10:1I:28:ARG:HG3	1.68	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
1:1G:827:U:H3	1:1G:872:A:H62	1.32	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
27:1J:2:C:H2'	27:1J:3:C:H6	1.52	0.75
35:15:56:ASN:H	35:15:125:GLY:HA3	1.50	0.75
1:13:542:G:OP1	4:3E:10:ARG:NH2	2.11	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
1:1G:371:G:O2'	1:1G:373:A:N7	2.18	0.75
26:14:1381:G:OP2	61:14:3518:HOH:O	2.03	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:256:U:OP1	17:8I:17:LYS:NZ	2.18	0.75
5:4E:36:ASP:OD2	5:4E:40:ARG:NH2	2.20	0.75
26:1H:733:G:OP2	61:1H:3632:HOH:O	2.03	0.75
26:1H:1981:A:OP1	61:1H:3636:HOH:O	2.04	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
21:1B:6:ARG:HB3	21:1B:12:LYS:HG2	1.67	0.75
38:88:37:LEU:HD21	38:88:130:LYS:HB2	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
26:1H:2656:U:H3	26:1H:2665:A:H2	1.32	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
4:32:24:GLU:HG2	4:32:25:ARG:H	1.51	0.75
26:14:712:G:H1	26:14:719:C:H42	1.35	0.75
26:1H:71:A:H4'	26:1H:72:U:H5"	1.68	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
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
11:2A:109:VAL:HG12	18:9A:86:VAL:HG22	1.67	0.75
26:14:1268:A:OP1	61:14:3520:HOH:O	2.04	0.75
43:95:46:VAL:HG23	43:95:52:VAL:HG11	1.67	0.75
26:1H:991:C:OP2	61:1H:3604:HOH:O	2.04	0.74
1:1G:1106:G:H5"	3:22:172:ARG:HG3	1.69	0.74
1:13:5:U:OP1	1:13:5:U:H4'	1.86	0.74
5:4E:81:GLU:HG2	5:4E:90:VAL:HG23	1.67	0.74
15:6I:26:GLU:OE2	15:6I:77:ARG:HG2	1.87	0.74
24:3K:33:U:N3	24:3K:35:U:OP1	2.21	0.74
34:61:113:ARG:HB2	34:61:131:LYS:HD3	1.68	0.74
43:D8:24:LYS:HA	43:D8:92:THR:HG23	1.69	0.74
1:13:1368:G:OP2	9:8E:112:LYS:HD2	1.88	0.74
10:1I:61:GLU:OE2	14:5I:45:ARG:NH1	2.20	0.74
26:1H:2503:A:OP1	61:1H:3640:HOH:O	2.05	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
5:42:146:ALA:HB1	5:42:150:ARG:HH21	1.52	0.74
26:14:993:G:OP1	42:85:50:ARG:NH2	2.19	0.74
37:35:81:GLN:NE2	37:35:106:LEU:C	2.45	0.74
1:13:583:A:OP2	61:13:1801:HOH:O	2.04	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:1G:260:G:OP2	20:BA:83:ARG:NH1	2.20	0.74
1:1G:1132:C:N4	1:1G:1142:G:O6	2.19	0.74
42:85:91:ASP:OD1	42:85:96:ALA:N	2.19	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
42:C8:92:ARG:O	42:C8:94:ASN:N	2.20	0.74
2:12:218:ALA:O	2:12:219:VAL:HG12	1.88	0.74
8:72:10:LEU:HD22	8:72:83:ILE:HD11	1.67	0.74
11:2A:82:VAL:HB	11:2A:108:ILE:HG12	1.68	0.74
26:14:2378:A:H4'	40:65:23:ARG:HH11	1.53	0.74
26:1H:2308:G:N1	26:1H:2311:A:H2	1.84	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
2:12:118:LEU:HD22	2:12:142:LEU:HB2	1.69	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
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
1:13:858:G:N7	61:13:1810:HOH:O	2.19	0.73
15:6I:39:LEU:HB3	15:6I:56:LEU:HD12	1.70	0.73
26:1H:299:A:H5'	26:1H:300:A:OP2	1.88	0.73
38:45:21:THR:HG22	38:45:23:GLY:HA3	1.70	0.73
38:45:25:ASP:HB3	38:45:102:VAL:H	1.52	0.73
1:13:584:G:OP2	61:13:1802:HOH:O	2.05	0.73
1:13:1086:U:O4	1:13:1099:G:N2	2.18	0.73
29:11:96:HIS:HD2	29:11:102:LYS:HG2	1.51	0.73
6:52:35:ALA:HB1	6:52:65:VAL:HG11	1.69	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
47:D5:59:LEU:HD12	47:D5:69:THR:HG21	1.70	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
26:14:676:A:H8	26:14:2069:G:N2	1.83	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
26:14:270:A:OP2	61:14:3523:HOH:O	2.07	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:85:92:ARG:HD2	43:95:11:GLN:HG3	1.68	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
33:51:153:LYS:HB2	33:51:155:SER:H	1.52	0.73
26:14:270(X):G:O6	61:14:3523:HOH:O	2.06	0.73
31:39:85:GLY:O	61:39:401:HOH:O	2.05	0.73
26:1H:1189:A:OP2	61:1H:3643:HOH:O	2.05	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
1:1G:1343:G:H4'	9:82:122:ALA:HB3	1.69	0.73
26:14:2469:A:C2'	38:45:56:ARG:HH11	1.99	0.73
1:13:1118:C:OP1	9:8E:104:ARG:NH1	2.22	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
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
1:1G:1154:G:H2'	1:1G:1155:G:H8	1.53	0.73
5:42:105:VAL:HG21	5:42:128:PRO:HB3	1.69	0.73
8:72:69:ARG:NH1	8:72:75:ARG:O	2.20	0.73
26:14:785:G:OP2	61:14:3524:HOH:O	2.06	0.73
26:14:2708:G:H5'	39:55:68:ARG:HG2	1.70	0.73
1:13:263:A:OP2	20:BI:79:ARG:NH1	2.22	0.73
9:8E:10:ARG:HD2	9:8E:75:ASP:HB2	1.71	0.73
26:14:1665:A:OP2	61:14:3526:HOH:O	2.07	0.73
26:1H:2574:G:OP1	61:1H:3644:HOH:O	2.06	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
15:6A:16:ALA:HB1	15:6A:21:ASP:HB3	1.70	0.73
26:14:1996:C:O3'	61:14:3528:HOH:O	2.07	0.73
31:39:20:LEU:HD22	31:39:199:TRP:HH2	1.53	0.73
35:15:47:ALA:HB2	35:15:112:LEU:HD21	1.70	0.73
47:D5:53:ILE:HG22	47:D5:71:VAL:HG13	1.69	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
26:14:1417:C:OP2	61:14:3529:HOH:O	2.07	0.73
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1118:C:OP1	9:82:104:ARG:NH1	2.22	0.72
4:32:31:CYS:C	4:32:33:MET:H	1.94	0.72
7:62:93:PRO:HD2	7:62:94:ARG:HH21	1.53	0.72
10:1A:30:SER:HG	10:1A:84:GLN:HE22	1.36	0.72
26:14:831:G:OP1	61:14:3525:HOH:O	2.07	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
1:13:129(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
24:3K:64:G:H2'	24:3K:65:C:H5'	1.69	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
19:AA:7:LYS:HB2	19:AA:8:GLY:HA2	1.71	0.72
26:14:270(J):G:H1	26:14:270(P):C:H42	1.35	0.72
26:14:631:A:OP2	55:M5:47:LYS:NZ	2.22	0.72
26:14:774:A:H2	26:14:787:U:HO2'	1.36	0.72
47:D5:76:LEU:HA	47:D5:83:PRO:HA	1.70	0.72
20:BI:89:ARG:HH21	20:BI:104:LEU:HD11	1.54	0.72
26:1H:721:C:H2'	26:1H:722:A:H8	1.54	0.72
1:1G:774:G:N7	61:1G:1707:HOH:O	2.21	0.72
2:12:82:ARG:NH1	2:12:150:SER:OG	2.21	0.72
37:35:81:GLN:HE22	37:35:106:LEU:H	1.37	0.72
1:13:310:G:OP2	16:7I:27:LYS:NZ	2.22	0.72
1:13:363:A:N7	12:3I:33:ARG:NH1	2.38	0.72
26:1H:476:G:OP2	61:1H:3651:HOH:O	2.08	0.72
2:12:84:GLU:OE1	2:12:87:ARG:NH2	2.22	0.72
26:14:2495:G:O6	61:14:3521:HOH:O	2.05	0.72
40:65:107:GLU:H	40:65:110:LEU:CD2	2.01	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
26:14:863:A:H2'	26:14:864:G:C8	2.24	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
37:78:96:THR:HA	37:78:126:VAL:HG23	1.71	0.72
4:32:191:ARG:HH21	4:32:194:LEU:HB2	1.55	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
26:1H:2294:C:OP1	40:A8:89:ARG:NH2	2.22	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:37:LEU:N	29:11:37:LEU:HD23	2.05	0.72
26:14:34:C:H41	26:14:455:C:H5"	1.54	0.72
1:13:1122:U:O4	1:13:1123:A:N6	2.23	0.72
26:1H:1278:A:H4'	39:98:34:ILE:HD11	1.70	0.72
5:42:79:GLU:HG3	5:42:93:PRO:HD2	1.70	0.72
50:G5:16:LEU:HD12	50:G5:20:GLU:HB3	1.72	0.72
47:H8:1:MET:HE1	47:H8:135:GLU:HG2	1.70	0.72
1:1G:235:C:H5'	17:8A:70:ARG:HG2	1.70	0.72
5:42:33:VAL:HG21	5:42:109:ILE:HG12	1.71	0.72
26:14:1651:G:H5'	39:55:39:PRO:HG2	1.71	0.72
33:59:159:GLU:O	33:59:163:TYR:OH	2.08	0.72
26:1H:2589:A:OP1	61:1H:3646:HOH:O	2.06	0.72
1:1G:1070:U:OP1	5:42:25:ARG:NH1	2.17	0.72
26:14:34:C:O2'	26:14:35:G:H8	1.73	0.72
26:1H:2287:A:N6	26:1H:2344:U:H3	1.88	0.71
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
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
26:1H:1021:A:H62	26:1H:1141:U:H3	1.34	0.71
26:14:5:A:N6	26:14:7:G:O6	2.22	0.71
26:1H:1308:A:OP2	61:1H:3650:HOH:O	2.08	0.71
49:J8:83:GLU:HG3	49:J8:85:LEU:HB2	1.72	0.71
16:7A:81:ARG:HH11	16:7A:81:ARG:HG3	1.54	0.71
26:14:1651:G:OP1	39:55:40:LYS:NZ	2.24	0.71
26:14:2624:G:N7	61:14:3603:HOH:O	2.24	0.71
10:1I:83:GLU:HA	10:1I:86:MET:HB3	1.71	0.71
15:6I:25:THR:HG21	15:6I:70:LEU:HB2	1.72	0.71
26:1H:1417:C:OP2	61:1H:3653:HOH:O	2.08	0.71
16:7A:34:GLU:OE1	16:7A:55:ARG:NH1	2.23	0.71
29:19:225:ALA:O	61:19:301:HOH:O	2.08	0.71
31:39:53:THR:HG23	31:39:55:GLY:H	1.55	0.71
41:75:29:ARG:NH2	41:75:46:GLU:CD	2.48	0.71
11:2I:22:HIS:HB3	11:2I:29:ILE:HG23	1.72	0.71
26:1H:261:G:HO2'	26:1H:609(A):G:HO2'	1.34	0.71
26:1H:459:U:H2'	26:1H:460:A:H8	1.55	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
17:8A:67:LYS:HA	17:8A:70:ARG:HH12	1.55	0.71
4:3E:191:ARG:NH1	4:3E:194:LEU:O	2.24	0.71
26:1H:354:G:N7	61:1H:3710:HOH:O	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
29:11:93:ALA:HB3	29:11:105:ILE:HG22	1.72	0.71
7:62:15:ASP:OD1	7:62:44:TYR:OH	2.08	0.71
26:14:141:A:H8	26:14:1595:G:H21	1.38	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
29:19:182:LEU:H	29:19:272:ALA:HB3	1.54	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
26:1H:2447:G:OP2	61:1H:3654:HOH:O	2.09	0.71
46:G8:100:ALA:HB1	46:G8:101:LYS:HG3	1.72	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
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
55:M5:14:VAL:HG11	55:M5:22:VAL:HG13	1.72	0.71
1:13:812:C:O2	61:13:1805:HOH:O	2.08	0.71
1:13:1256:A:OP2	3:2E:26:LYS:NZ	2.23	0.71
26:1H:793:A:OP1	61:1H:3655:HOH:O	2.09	0.71
26:1H:1538:G:H2'	26:1H:1539:G:H8	1.56	0.71
1:1G:588:G:H1	1:1G:651:C:H42	1.36	0.71
3:22:129:ALA:HB3	3:22:132:ARG:HB2	1.72	0.71
29:19:72:LYS:HB2	29:19:75:ILE:HD12	1.72	0.71
1:13:1303:C:OP1	61:13:1803:HOH:O	2.07	0.71
14:5I:23:ARG:HH11	14:5I:30:ALA:HB2	1.56	0.71
21:1F:8:THR:HG23	21:1F:11:GLY:H	1.55	0.71
5:42:78:HIS:CE1	8:72:104:ARG:CZ	2.74	0.71
34:69:65:ALA:O	34:69:69:LYS:N	2.21	0.71
1:13:1348:U:H3	1:13:1374:A:H2	1.37	0.71
29:11:72:LYS:HE2	29:11:103:ARG:HH21	1.56	0.71
47:H8:4:ARG:NH1	47:H8:60:GLU:OE2	2.21	0.71
26:14:607:U:OP1	31:39:102:PRO:HA	1.91	0.71
26:14:2789:C:N3	26:14:2894:G:N2	2.38	0.71
34:69:21:VAL:HG21	34:69:25:TYR:HD2	1.54	0.71
1:13:1218:C:H2'	1:13:1219:U:C6	2.26	0.70
20:BI:26:ASN:HB2	20:BI:71:THR:HG23	1.73	0.70
1:1G:673:G:H2'	1:1G:674:G:C8	2.25	0.70
2:12:21:ARG:HB3	2:12:39:ILE:HG12	1.73	0.70
4:32:81:GLU:O	4:32:85:LYS:HB2	1.91	0.70
26:14:71:A:H5'	26:14:71:A:C8	2.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:72:ARG:HB3	32:49:85:GLY:HA2	1.73	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
29:11:223:GLY:HA3	29:11:231:HIS:ND1	2.06	0.70
35:58:7:LYS:HD2	35:58:7:LYS:H	1.54	0.70
21:1B:10:ARG:HA	21:1B:13:ILE:HD12	1.72	0.70
25:4L:13:A:H2'	25:4L:14:A:H4'	1.72	0.70
26:14:800:A:OP1	61:14:3533:HOH:O	2.08	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
2:1E:60:ASP:HB3	2:1E:64:ARG:HH21	1.56	0.70
15:6I:17:ARG:HH11	15:6I:77:ARG:HD2	1.56	0.70
22:1K:75:C:O2	26:1H:2507:C:O2'	2.07	0.70
26:1H:2447:G:N7	61:1H:3715:HOH:O	2.24	0.70
36:68:75:SER:OG	41:B8:74:ARG:NH2	2.24	0.70
53:N8:40:LYS:HG2	53:N8:46:CYS:HA	1.72	0.70
23:2L:55:5MU:O2'	23:2L:56:PSU:H6	1.75	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
36:25:66:LYS:NZ	36:25:80:ASP:O	2.22	0.70
1:13:453:A:H4'	16:7I:72:ARG:HB2	1.72	0.70
8:7E:17:THR:HG21	8:7E:80:ILE:HD11	1.73	0.70
24:3K:6:G:H22	24:3K:67:C:H42	1.36	0.70
26:1H:792:G:OP2	61:1H:3660:HOH:O	2.10	0.70
31:31:101:LEU:HD23	31:31:102:PRO:HD2	1.72	0.70
1:1G:628:G:H2'	1:1G:629:G:H8	1.56	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
26:14:1027:A:C2	26:14:2488:A:H5'	2.26	0.70
30:29:169:ASN:HA	30:29:201:THR:HG21	1.71	0.70
9:8E:43:ALA:HA	9:8E:74:ILE:HD13	1.74	0.70
41:B8:42:ILE:HD12	41:B8:42:ILE:O	1.92	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
26:1H:1314:C:OP1	61:1H:3656:HOH:O	2.09	0.70
1:1G:353:A:H5'	1:1G:353:A:H8	1.56	0.70
1:1G:922:G:O5'	5:42:20:GLN:NE2	2.23	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
39:55:38:VAL:HG22	39:55:112:ALA:HB2	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:65:12:PHE:O	40:65:16:ASN:ND2	2.25	0.70
1:13:963:G:N3	10:1I:55:LYS:NZ	2.40	0.70
26:1H:1026:U:H1'	26:1H:1027:A:O5'	1.91	0.70
26:1H:1277:G:O2'	39:98:24:GLN:OE1	2.09	0.70
26:1H:2176:A:H1'	28:71:215:THR:HG21	1.73	0.70
4:32:31:CYS:HB2	4:32:33:MET:O	1.92	0.70
45:B5:27:THR:HG22	45:B5:80:ILE:HG22	1.72	0.70
2:1E:10:LEU:HD12	2:1E:217:ARG:HH12	1.56	0.70
10:1I:38:ILE:HG23	10:1I:71:LEU:HB3	1.74	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
26:1H:1346:G:H2'	26:1H:1347:G:H8	1.57	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
10:1A:26:ALA:HB1	10:1A:84:GLN:HB3	1.74	0.70
26:14:2734:A:H2'	26:14:2735:G:O4'	1.92	0.70
30:29:14:ILE:HB	41:75:14:TYR:CE2	2.25	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
1:1G:1120:G:N2	1:1G:1153:C:O2	2.22	0.70
2:12:40:HIS:CD2	2:12:190:THR:HG21	2.26	0.70
3:22:20:SER:HB2	3:22:40:ARG:HH22	1.57	0.70
6:52:77:ARG:NH2	29:19:126:GLN:OE1	2.24	0.70
27:1J:44:G:H1'	27:1J:47:C:H42	1.56	0.70
1:13:1366:C:H2'	1:13:1367:C:C6	2.26	0.69
3:2E:38:ARG:HD3	3:2E:94:LEU:HD11	1.74	0.69
26:1H:2343:C:HO2'	26:1H:2373:G:HO2'	1.32	0.69
28:71:185:LEU:O	28:71:189:ILE:N	2.23	0.69
11:2A:96:ARG:HA	11:2A:99:GLN:HG2	1.73	0.69
12:3A:36:VAL:O	12:3A:59:ARG:N	2.24	0.69
47:D5:91:LEU:HD13	47:D5:130:PRO:HG3	1.73	0.69
1:13:1129:C:N3	1:13:1143:G:N2	2.39	0.69
5:4E:63:ARG:HA	5:4E:66:MET:HE2	1.74	0.69
26:1H:1406:U:H2'	26:1H:1407:C:C6	2.27	0.69
1:1G:975:A:H4'	1:1G:976:G:H5"	1.74	0.69
2:12:58:ILE:HG21	2:12:219:VAL:HG21	1.73	0.69
11:2A:98:LEU:HA	11:2A:101:SER:HB3	1.74	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
30:29:25:VAL:HG12	30:29:26:ILE:H	1.58	0.69
40:65:11:LYS:HG3	40:65:91:PRO:HD3	1.72	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:270(K):C:H1'	26:1H:270(N):G:H22	1.57	0.69
26:1H:751:A:H5'	44:E8:90:ARG:HA	1.74	0.69
26:1H:1016:G:N7	61:1H:3726:HOH:O	2.26	0.69
45:F8:4:ALA:H	45:F8:7:VAL:HG23	1.57	0.69
1:1G:628:G:H2'	1:1G:629:G:C8	2.26	0.69
26:14:1567:A:H5'	29:19:58:HIS:CD2	2.26	0.69
27:1J:15:A:H1'	27:1J:109:G:C8	2.26	0.69
22:1K:7:U:O4	22:1K:66:A:N6	2.25	0.69
26:1H:516:C:OP1	53:N8:13:LYS:NZ	2.23	0.69
26:1H:1287:A:N7	39:98:107:ASP:HB2	2.06	0.69
26:14:71:A:OP2	26:14:71:A:H3'	1.90	0.69
26:14:307:G:N7	61:14:3602:HOH:O	2.23	0.69
26:14:773:U:OP1	61:14:3534:HOH:O	2.09	0.69
26:14:1154:G:OP2	42:85:58:ARG:NH1	2.25	0.69
26:14:1266:G:O5'	44:A5:15:ARG:NH2	2.25	0.69
1:13:1104:G:OP1	2:1E:144:ARG:NH2	2.25	0.69
8:7E:87:SER:HB2	8:7E:93:VAL:HB	1.74	0.69
10:1I:75:ILE:CD1	10:1I:76:ASN:H	1.89	0.69
38:88:65:PHE:O	38:88:66:ILE:HG13	1.92	0.69
56:3L:67:C:H2'	56:3L:68:G:H8	1.57	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
29:19:38:LYS:HZ2	29:19:60:ARG:C	2.01	0.69
32:49:124:SER:HB2	32:49:131:TYR:CE1	2.27	0.69
26:1H:138:G:N2	45:F8:44:GLU:OE2	2.21	0.69
26:1H:751:A:OP1	61:1H:3663:HOH:O	2.10	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
26:14:783: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
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
42:85:66:ASN:HB2	42:85:76:TYR:HB2	1.75	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
1:1G:1047:G:H1	1:1G:1210:C:H42	1.41	0.69
1:1G:1159:U:O4'	1:1G:1181:G:N2	2.25	0.69
26:14:1614:A:H62	44:A5:93:ALA:HB2	1.58	0.69
1:13:601:C:H2'	1:13:602:A:H8	1.57	0.69
4:3E:150:GLU:HG3	4:3E:153:ARG:HH21	1.57	0.69
11:2I:122:LYS:HE2	11:2I:124:LYS:HE3	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:942:G:O6	61:1H:3658:HOH:O	2.10	0.69
26:1H:945:A:OP1	61:1H:3661:HOH:O	2.10	0.69
26:1H:956:G:H4'	38:88:83:MET:HE2	1.75	0.69
26:1H:1386:C:H2'	26:1H:1387:C:H6	1.57	0.69
31:31:29:ASN:N	31:31:112:MET:HE1	2.06	0.69
39:98:24:GLN:NE2	39:98:36:THR:HG21	2.04	0.69
40:A8:28:VAL:HG11	40:A8:98:VAL:HG12	1.74	0.69
41:B8:3:ARG:O	41:B8:7:ILE:N	2.24	0.69
3:22:28:GLN:HB3	3:22:32:LEU:HD12	1.75	0.69
14:5A:4:LYS:O	14:5A:7:ILE:HG12	1.92	0.69
26:14:910:A:H62	38:45:12:GLN:HA	1.58	0.69
26:14:974:G:O2'	26:14:975:G:N7	2.26	0.69
26:14:2277:G:OP2	48:E5:12:ASN:ND2	2.25	0.69
27:1J:51:G:OP2	40:65:59:LYS:NZ	2.25	0.69
27:1J:70:C:H2'	27:1J:71:C:H6	1.57	0.69
44:A5:86:LEU:HD12	44:A5:87:PRO:HD2	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
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
26:14:586:A:OP2	61:14:3542:HOH:O	2.10	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
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
19:AI:18:LYS:HZ1	19:AI:22:LEU:HD13	1.57	0.68
26:1H:1676:A:OP2	61:1H:3659:HOH:O	2.10	0.68
26:1H:1697:G:OP2	26:1H:1698:A:O2'	2.11	0.68
1:1G:1395:C:HO2'	1:1G:1401:G:HO2'	1.31	0.68
9:82:71:SER:HA	9:82:74:ILE:HD12	1.74	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
19:AI:41:VAL:HG21	19:AI:67:VAL:HG22	1.75	0.68
26:1H:50:U:H3'	26:1H:51:G:H5'	1.74	0.68
26:1H:1605:C:O3'	61:1H:3664:HOH:O	2.10	0.68
1:1G:1266:G:N2	1:1G:1270:C:N3	2.40	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2689:U:H4'	26:14:2690:C:H5'	1.75	0.68
9:8E:9:ARG:HB3	9:8E:14:VAL:HG22	1.76	0.68
26:1H:732:C:OP2	61:1H:3669:HOH:O	2.11	0.68
1:1G:1008:C:H42	1:1G:1021:G:H22	1.39	0.68
8:72:86:ILE:HG21	8:72:133:LEU:HD22	1.75	0.68
35:15:59:LYS:HZ2	35:15:60:ILE:N	1.90	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
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
34:69:45:LYS:HA	34:69:48:GLU:HB3	1.76	0.68
37:35:95:VAL:HA	37:35:99:LEU:HD22	1.74	0.68
1:13:1015:A:H2'	1:13:1016:A:C8	2.28	0.68
26:1H:30:G:OP2	42:C8:5:LYS:NZ	2.25	0.68
26:1H:598:G:H1'	37:78:12:ALA:HB2	1.75	0.68
28:71:225:ASN:ND2	28:71:228:SER:OG	2.26	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
26:14:602:G:O2'	26:14:604:G:O2'	2.12	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
26:1H:67:U:H3	26:1H:74:A:H2	1.41	0.68
26:1H:226:G:H21	26:1H:228:A:H2	1.41	0.68
26:1H:1607:C:H4'	26:1H:1608:A:O5'	1.94	0.68
35:58:94:HIS:HB3	35:58:97:ARG:HG3	1.73	0.68
43:D8:47:VAL:HG13	43:D8:48:GLY:H	1.58	0.68
1:1G:458:C:N3	1:1G:474:G:N2	2.34	0.68
2:12:27:LYS:HE3	2:12:194:PRO:HD2	1.75	0.68
9:82:53:VAL:HG13	9:82:95:LYS:HD3	1.75	0.68
26:14:459:U:H5"	54:L5:40:TRP:CD2	2.28	0.68
26:14:2675:A:H4'	36:25:29:ASN:OD1	1.93	0.68
17:8I:55:ASP:HA	17:8I:79:SER:HA	1.76	0.68
1:1G:371:G:H1	1:1G:390:C:H42	1.40	0.68
17:8A:6:LEU:HD13	17:8A:23:VAL:HG11	1.75	0.68
21:1B:4:GLY:O	21:1B:6:ARG:NH1	2.25	0.68
23:2L:48:U:O2'	23:2L:49:C:OP2	2.11	0.68
26:14:7:G:N2	26:14:2897:U:O2	2.25	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
27:1J:116:G:H5'	40:65:55:ALA:HB2	1.75	0.68
33:59:67:LEU:O	33:59:70:THR:OG1	2.10	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B5:63:LYS:H	45:B5:63:LYS:CD	2.06	0.68
2:1E:17:PHE:HB3	2:1E:44:LEU:HD11	1.76	0.68
13:4I:58:GLU:O	13:4I:62:ASN:ND2	2.27	0.68
26:1H:252:G:OP2	37:78:50:ARG:NH1	2.27	0.68
40:A8:106:ARG:HD3	40:A8:106:ARG:H	1.59	0.68
2:12:71:VAL:HG21	2:12:164:VAL:HA	1.76	0.68
4:32:148:VAL:O	4:32:152:SER:OG	2.11	0.68
7:62:143:ARG:H	7:62:143:ARG:HD3	1.59	0.68
26:14:2098:U:H3	26:14:2191:G:H1	1.41	0.68
26:14:2572:A:N3	30:29:144:ARG:NH1	2.42	0.68
33:59:149:ARG:HD2	33:59:164:TYR:HD1	1.58	0.68
1:13:1533:C:O2'	1:13:1534:A:OP1	2.11	0.68
26:1H:1022:G:H22	26:1H:1142(A):A:H2	1.40	0.68
36:68:7:TYR:CE1	36:68:20:MET:HE3	2.29	0.68
1:1G:1216:G:H5"	14:5A:5:ALA:HB3	1.76	0.68
26:14:900:A:H2'	26:14:901:A:C8	2.29	0.68
26:14:1162:G:N7	61:14:3630:HOH:O	2.27	0.68
30:29:134:ILE:HD12	30:29:134:ILE:O	1.94	0.68
41:75:77:PRO:HG2	41:75:80:SER:HB3	1.75	0.68
11:2I:111:ASP:OD2	18:9I:84:LYS:NZ	2.22	0.68
26:1H:2502:G:N7	61:1H:3735:HOH:O	2.26	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
1:1G:987:G:H1	1:1G:1218:C:H42	1.42	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
1:13:221:C:H2'	1:13:222:U:H6	1.57	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
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.76	0.67
26:14:1664:A:OP1	61:14:3526:HOH:O	2.12	0.67
29:19:30:GLU:H	29:19:35:LYS:HZ3	1.40	0.67
30:29:47:VAL:HG21	30:29:86:PRO:HD2	1.76	0.67
47:H8:53:ILE:HG22	47:H8:71:VAL:HG13	1.75	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
26:14:1533:C:H42	26:14:1538:G:H1	1.43	0.67
26:14:1537:C:H2'	26:14:1538:G:C8	2.29	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
46:C5:52:SER:H	46:C5:57:GLN:H	1.42	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:165:C:H2'	1:13:166:G:H8	1.58	0.67
8:7E:102:ARG:H	8:7E:102:ARG:NE	1.92	0.67
19:AI:8:GLY:HA2	19:AI:10:PHE:CE1	2.29	0.67
33:51:25:LYS:HG3	33:51:34:GLU:HG2	1.75	0.67
26:14:635:C:O2'	26:14:639:U:OP1	2.10	0.67
26:14:2353:G:N7	61:14:3571:HOH:O	2.25	0.67
1:13:323:U:H5'	20:BI:23:ARG:HB2	1.76	0.67
1:13:1348:U:H2'	1:13:1349:A:H8	1.59	0.67
2:1E:7:VAL:HG21	2:1E:217:ARG:HH11	1.59	0.67
4:3E:85:LYS:HG3	4:3E:86:LYS:H	1.58	0.67
10:1I:81:THR:HA	10:1I:84:GLN:HB2	1.76	0.67
26:1H:517:C:OP1	53:N8:16:ARG:NH2	2.26	0.67
26:1H:2747:G:N7	61:1H:3750:HOH:O	2.27	0.67
26:14:1646:C:OP2	61:14:3545:HOH:O	2.11	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
45:B5:51:VAL:H	45:B5:83:VAL:HG23	1.60	0.67
46:C5:89:PHE:O	46:C5:90:LEU:HG	1.95	0.67
1:13:1149:C:H2'	1:13:1150:U:H6	1.59	0.67
26:1H:748:G:OP2	61:1H:3672:HOH:O	2.13	0.67
26:1H:1329:U:H5"	26:1H:1330:C:H5	1.58	0.67
42:C8:88:ILE:O	42:C8:90:VAL:N	2.27	0.67
1:1G:503:C:OP2	12:3A:116:SER:HB3	1.94	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
20:BI:100:ILE:HG22	20:BI:102:GLY:H	1.59	0.67
26:1H:1903:G:OP1	29:11:241:PRO:HB2	1.95	0.67
26:1H:2548:G:N7	61:1H:3741:HOH:O	2.27	0.67
29:11:26:LYS:HD2	29:11:29:PRO:HB3	1.75	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
26:14:2651:C:H42	26:14:2669:G:H1	1.42	0.67
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
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
22:1K:26:A:H3'	22:1K:27:G:H8	1.60	0.67
36:68:122:LEU:HD23	41:B8:43:GLN:HE22	1.57	0.67
1:1G:1343:G:H2'	1:1G:1344:C:C6	2.30	0.67
2:12:23:ARG:NE	2:12:23:ARG:HA	2.09	0.67
4:32:190:ASP:OD1	4:32:191:ARG:N	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:65:ALA:HB1	7:62:127:ALA:HB3	1.77	0.67
26:14:2250:G:C4	38:45:82:ARG:HG3	2.29	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
1:13:396:G:O2'	1:13:398:C:OP1	2.08	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
34:61:131:LYS:HB3	34:61:132:PRO:HA	1.76	0.67
38:88:32:TYR:HD1	38:88:133:ARG:HA	1.60	0.67
7:62:70:LYS:HG2	7:62:96:GLN:HB3	1.76	0.67
31:39:133:ASN:HA	31:39:162:LEU:HD23	1.77	0.67
32:49:51:ARG:HH12	32:49:55:LYS:HE2	1.60	0.67
38:45:22:LYS:HG2	38:45:23:GLY:HA2	1.77	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
26:1H:355:G:H2'	26:1H:356:G:C8	2.30	0.67
26:1H:1797:C:O2'	29:11:259:THR:OG1	2.05	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
26:14:1424: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
36:25:117:LEU:HA	36:25:118:ALA:C	2.20	0.67
2:1E:178:ARG:NH1	2:1E:196:LEU:O	2.24	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
15:6I:53:HIS:ND1	15:6I:53:HIS:O	2.27	0.67
26:1H:7:G:H1	26:1H:2896:C:H42	1.41	0.67
1:1G:533:A:OP1	61:1G:1705:HOH:O	2.13	0.67
5:42:142:LEU:O	5:42:143:ARG:NH1	2.28	0.67
26:14:798:G:OP1	61:14:3551:HOH:O	2.13	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
43:95:1:MET:HB3	43:95:42:GLY:HA3	1.76	0.67
1:13:859:A:H2'	1:13:860:A:H8	1.59	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
1:1G:10:A:OP2	5:42:126:ARG:HG2	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1028:C:O2	1:1G:1033:G:N2	2.27	0.66
2:12:91:PRO:HG3	2:12:154:LEU:HB2	1.77	0.66
5:42:50:GLU:OE2	5:42:51:VAL:N	2.28	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
1:13:404:U:OP1	4:3E:118:ARG:NH1	2.29	0.66
26:1H:195:A:H4'	26:1H:251:A:O2'	1.94	0.66
36:68:98:VAL:HG11	36:68:114:ILE:HG23	1.76	0.66
1:1G:963:G:N2	1:1G:972:C:N3	2.43	0.66
3:22:18:TRP:H	3:22:18:TRP:HE3	1.43	0.66
26:14:2249:U:O4	61:14:3541:HOH:O	2.10	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
46:G8:29:GLU:HB3	46:G8:38:ILE:CG2	2.24	0.66
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.29	0.66
26:14:576:U:OP1	61:14:3548:HOH:O	2.12	0.66
37:35:52:GLU:N	37:35:52:GLU:OE2	2.28	0.66
4:3E:83:SER:N	4:3E:89:THR:OG1	2.28	0.66
26:1H:86:C:H4'	26:1H:104:U:H1'	1.77	0.66
26:1H:779:U:OP1	29:11:49:ILE:HG13	1.96	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
20:BA:51:GLU:HA	20:BA:54:LYS:HE3	1.76	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
1:13:950:U:C5	13:4I:102:ARG:NH1	2.63	0.66
1:13:1292:U:H2'	1:13:1293:G:C8	2.31	0.66
4:3E:102:ASP:OD1	4:3E:103:ASN:N	2.28	0.66
8:7E:114:THR:HB	8:7E:129:VAL:HG11	1.77	0.66
26:1H:1826:G:H4'	29:11:242:ARG:HH21	1.58	0.66
26:1H:2422:A:N7	55:Q8:31:HIS:HE1	1.94	0.66
26:1H:2577:A:H5"	26:1H:2578:G:H5'	1.77	0.66
41:B8:107:ASP:O	41:B8:110:ILE:HG22	1.95	0.66
47:H8:48:PHE:HE1	47:H8:71:VAL:HG11	1.58	0.66
47:H8:118:GLN:OE1	47:H8:118:GLN:N	2.29	0.66
49:J8:58:ILE:HG12	49:J8:87:PRO:HD3	1.77	0.66
1:1G:362:G:O2'	12:3A:33:ARG:NH2	2.29	0.66
3:22:72:LYS:HZ1	3:22:75:VAL:HG23	1.60	0.66
26:14:571:A:OP2	61:14:3552:HOH:O	2.13	0.66
26:14:1579:A:H2'	26:14:1580:A:C8	2.30	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2656:U:H3	26:14:2665:A:H2	1.43	0.66
33:59:6:ARG:HA	33:59:66:GLY:HA2	1.77	0.66
39:55:37:THR:OG1	39:55:40:LYS:NZ	2.29	0.66
43:95:85:LYS:HG3	43:95:87:HIS:N	2.06	0.66
46:C5:52:SER:HA	46:C5:55:TYR:O	1.95	0.66
5:4E:137:GLU:HA	5:4E:140:ARG:HD2	1.77	0.66
16:7I:20:VAL:HG21	16:7I:32:TYR:CD2	2.30	0.66
26:1H:2562:U:H1'	36:68:23:ARG:HH11	1.59	0.66
47:H8:165:VAL:HB	47:H8:167:PRO:HD3	1.76	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
1:1G:1162:C:H42	1:1G:1174:G:H1	1.42	0.66
2:1E:60:ASP:O	2:1E:64:ARG:NE	2.28	0.66
16:7I:74:LEU:HA	16:7I:77:ALA:HB2	1.78	0.66
19:AI:58:VAL:HG11	19:AI:75:ALA:HB1	1.77	0.66
26:1H:270(K):C:O2	26:1H:270(N):G:N1	2.26	0.66
26:1H:535:C:O3'	42:C8:53:ARG:NH1	2.28	0.66
26:1H:848:G:H2'	26:1H:849:A:C8	2.31	0.66
26:1H:1042:G:H1	26:1H:1113:U:H3	1.43	0.66
28:71:58:VAL:HG11	28:71:199:HIS:HB3	1.78	0.66
33:51:41:MET:HA	33:51:53:GLU:O	1.96	0.66
37:78:59:LEU:HD11	55:Q8:10:ALA:HA	1.78	0.66
39:98:55:ALA:HA	39:98:80:PHE:CE1	2.30	0.66
1:1G:114:U:H2'	1:1G:115:G:C8	2.31	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
26:1H:719:C:H2'	26:1H:720:C:H6	1.59	0.66
26:1H:1899:G:N2	26:1H:1902:C:C5	2.62	0.66
26:1H:2820:A:C5	39:98:4:LEU:HD11	2.31	0.66
27:16:73:A:OP2	61:16:301:HOH:O	2.13	0.66
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
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
45:B5:12:VAL:HG22	45:B5:27:THR:OG1	1.96	0.66
7:6E:6:ARG:HG3	7:6E:6:ARG:O	1.95	0.66
26:1H:392:C:OP1	61:1H:3679:HOH:O	2.14	0.66
26:1H:2210:G:H4'	26:1H:2211:G:OP2	1.94	0.66
34:61:144:VAL:HG13	34:61:145:VAL:HG23	1.78	0.66
1:1G:838:G:N2	1:1G:842:C:O2'	2.27	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:93:C:H5'	26:14:94:G:OP2	1.95	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
26:14:2402:C:H41	26:14:2416:C:H1'	1.60	0.66
27:1J:18:G:H1	27:1J:65:C:H42	1.44	0.66
1:13:60:A:H4'	1:13:61:G:H5'	1.78	0.66
26:1H:1515:C:H2'	26:1H:1516:U:H6	1.59	0.66
27:16:100:G:OP1	61:16:302:HOH:O	2.14	0.66
29:11:221:VAL:HG23	29:11:226:MET:HE2	1.78	0.66
34:61:68:LEU:HA	34:61:71:ILE:HG22	1.78	0.66
47:H8:61:LEU:HD12	47:H8:62:PRO:HD2	1.77	0.66
8:72:42:GLU:HG3	8:72:109:ILE:HD12	1.78	0.66
26:14:660:G:H21	37:35:12:ALA:HB2	1.60	0.66
26:14:2598:A:OP1	61:14:3559:HOH:O	2.14	0.66
1:13:1279:A:O2'	1:13:1281:U:OP2	2.13	0.65
20:BI:50:GLU:HG2	20:BI:100:ILE:CG1	2.26	0.65
24:3K:53:G:H1	24:3K:61:C:N4	1.92	0.65
26:1H:780:G:H21	26:1H:783:A:H62	1.44	0.65
26:1H:2801:A:H2'	26:1H:2802:G:O4'	1.96	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
26:14:528:A:C2	26:14:2042:A:H2'	2.32	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
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
10:1I:75:ILE:CD1	10:1I:76:ASN:N	2.52	0.65
16:7I:26:ARG:HH21	16:7I:31:LYS:HD2	1.61	0.65
26:1H:370:G:OP2	61:1H:3674:HOH:O	2.13	0.65
26:1H:1375:C:H2'	26:1H:1376:C:H6	1.61	0.65
29:11:29:PRO:HG2	29:11:30:GLU:HG2	1.78	0.65
32:41:172:LEU:CD2	32:41:173:LEU:HD22	2.26	0.65
1:1G:584:G:OP1	17:8A:91:ARG:NH1	2.29	0.65
3:22:137:ALA:HA	3:22:140:ARG:HG2	1.78	0.65
10:1A:81:THR:HA	10:1A:84:GLN:NE2	2.12	0.65
41:75:50:ILE:HD11	41:75:102:ILE:HD11	1.77	0.65
3:2E:16:ARG:HE	3:2E:54:ARG:HH21	1.44	0.65
22:1K:17:U:O2'	22:1K:57:G:N2	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:31:65:TRP:CZ3	31:31:72:ARG:HB3	2.31	0.65
26:14:929:G:O6	61:14:3538:HOH:O	2.10	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
27:1J:3:C:N3	27:1J:117:G:N2	2.40	0.65
29:19:30:GLU:OE1	29:19:63:ARG:HG2	1.97	0.65
29:19:44:ASN:HB3	29:19:45:ASN:C	2.21	0.65
34:69:73:GLU:HG3	34:69:136:VAL:HG23	1.79	0.65
11:2I:73:MET:HE1	11:2I:102:GLY:HA3	1.78	0.65
13:4I:49:THR:HG22	13:4I:51:ALA:H	1.61	0.65
43:D8:37:VAL:O	43:D8:38:LEU:HG	1.97	0.65
1:1G:243:A:H4'	1:1G:244:U:H5"	1.77	0.65
1:1G:1143:G:H2'	1:1G:1144:G:C8	2.31	0.65
26:14:2165:G:O6	26:14:2166:G:N2	2.30	0.65
26:14:2611:U:H6	26:14:2611:U:H5'	1.61	0.65
26:14:2885:C:OP2	61:14:3560:HOH:O	2.14	0.65
31:39:20:LEU:HD22	31:39:199:TRP:CH2	2.32	0.65
43:95:48:GLY:HA2	43:95:52:VAL:HG13	1.78	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
26:1H:568:U:O4	61:1H:3613:HOH:O	2.09	0.65
37:78:50:ARG:HD3	55:Q8:7:HIS:CD2	2.31	0.65
26:14:2197:U:H1'	26:14:2198:A:C8	2.31	0.65
39:55:57:ARG:NE	39:55:59:ASP:OD2	2.21	0.65
26:1H:860:U:H5	26:1H:917:A:C2	2.13	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
1:1G:1224:G:C6	1:1G:1322:C:H1'	2.32	0.65
48:E5:56:ASP:OD1	48:E5:58:THR:OG1	2.13	0.65
50:G5:43:GLN:H	50:G5:43:GLN:CD	2.03	0.65
1:13:536:C:H2'	1:13:537:G:C8	2.32	0.65
4:3E:191:ARG:HH12	4:3E:195:ALA:HA	1.62	0.65
17:8I:67:LYS:HA	17:8I:70:ARG:NH1	2.11	0.65
26:1H:459:U:H2'	26:1H:460:A:C8	2.31	0.65
26:1H:1113:U:H5'	33:51:2:SER:HB2	1.79	0.65
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
27:16:76:G:O3'	47:H8:19:ARG:NH2	2.29	0.65
31:31:29:ASN:H	31:31:112:MET:CE	2.08	0.65
37:78:101:VAL:HG12	37:78:106:LEU:HD12	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:G8:76:CYS:SG	46:G8:97:ARG:HG3	2.36	0.65
52:M8:40:HIS:NE2	52:M8:45:GLY:O	2.30	0.65
13:4A:11:ARG:HG2	13:4A:12:ASN:HB2	1.79	0.65
29:19:182:LEU:N	29:19:272:ALA:HB3	2.12	0.65
37:35:55:ARG:HG2	37:35:56:SER:H	1.62	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
1:1G:830:G:C4'	2:12:23:ARG:NH1	2.53	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
26:14:1166:C:O2'	61:14:3554:HOH:O	2.13	0.65
30:29:5:LEU:HD21	30:29:79:ARG:HB2	1.79	0.65
26:1H:141:A:H8	26:1H:1595:G:H21	1.43	0.65
26:1H:1218:C:OP2	42:C8:15:LYS:NZ	2.30	0.65
26:1H:1568:G:H5"	29:11:61:LEU:HD23	1.78	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
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
1:1G:1298:C:H6	1:1G:1298:C:H5'	1.62	0.65
6:52:97:PHE:HD2	18:9A:31:LEU:HD21	1.60	0.65
12:3A:60:LEU:HD23	12:3A:64:TYR:HB3	1.77	0.65
26:14:2652:C:H42	26:14:2668:G:H1	1.43	0.65
1:13:22:G:H4'	1:13:885:G:C8	2.32	0.65
1:13:1286:A:H2'	1:13:1287:A:H4'	1.78	0.65
15:6I:17:ARG:HH11	15:6I:77:ARG:HH11	1.42	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
49:J8:91:LYS:O	49:J8:94:LEU:N	2.30	0.65
31:39:192:LEU:HD13	31:39:194:MET:HE2	1.78	0.65
39:55:97:VAL:HA	39:55:113:LEU:O	1.97	0.65
1:13:677:U:H3	1:13:713:G:H22	1.45	0.64
6:5E:33:TYR:HB2	6:5E:75:LEU:HD23	1.78	0.64
24:3K:61:C:O2	28:71:52:ARG:NH1	2.30	0.64
26:1H:1728:G:H3'	26:1H:1729:A:H5'	1.78	0.64
37:78:50:ARG:HH21	37:78:50:ARG:HG3	1.62	0.64
44:E8:12:ILE:HG13	44:E8:42:ARG:HH11	1.59	0.64
1:1G:878:G:H5'	8:72:89:PRO:HG2	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1027:C:O2'	1:1G:1035:A:N6	2.29	0.64
13:4A:53:VAL:HG12	13:4A:57:ARG:HB2	1.78	0.64
22:1L:3:G:N2	22:1L:70:C:H42	1.95	0.64
56:3L:55:U:H3	56:3L:57:G:H3'	1.62	0.64
26:14:851:U:OP2	61:14:3562:HOH:O	2.14	0.64
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
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
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
2:1E:16:HIS:CE1	2:1E:214:ILE:HD11	2.32	0.64
8:7E:4:ASP:OD1	8:7E:85:ARG:NH1	2.30	0.64
26:1H:2139:C:N4	26:1H:2152:G:H1	1.95	0.64
48:I8:21:LEU:HD11	48:I8:41:ARG:NH2	2.11	0.64
4:32:15:GLU:OE1	4:32:59:ARG:NH2	2.29	0.64
8:72:28:ALA:HB3	8:72:57:PRO:HB2	1.79	0.64
26:14:733:G:OP2	61:14:3555:HOH:O	2.13	0.64
26:14:988:A:OP2	61:14:3563:HOH:O	2.14	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
32:49:20:ILE:HG23	32:49:25:TYR:HB2	1.78	0.64
45:B5:55:ASN:HB2	45:B5:80:ILE:HG13	1.79	0.64
53:J5:49:CYS:SG	53:J5:50:GLY:N	2.70	0.64
5:4E:102:ALA:HB1	5:4E:106:PRO:HG2	1.79	0.64
14:5I:6:LEU:HD12	14:5I:23:ARG:HH22	1.60	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
33:51:4:ILE:HG22	33:51:6:ARG:HG3	1.79	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
1:1G:1024:G:H4'	1:1G:1024:G:OP1	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
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
26:14:2712(A):A:H5"	26:14:2713:A:OP2	1.97	0.64
4:3E:187:ARG:NH2	4:3E:193:ASP:OD1	2.30	0.64
8:7E:82:HIS:ND1	8:7E:138:TRP:CZ2	2.65	0.64
26:1H:1049:C:H2'	26:1H:1050:A:H5'	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
47:H8:76:LEU:HA	47:H8:83:PRO:HA	1.78	0.64
1:1G:1133:G:N2	1:1G:1141:C:O2	2.30	0.64
23:2L:62:C:H2'	23:2L:63:C:H6	1.62	0.64
26:14:125:G:H1'	54:L5:13:ALA:HB1	1.79	0.64
26:14:1226:G:H5'	43:95:85:LYS:H	1.61	0.64
29:19:38:LYS:NZ	29:19:60:ARG:O	2.30	0.64
41:75:55:ASN:N	41:75:59:THR:HG22	2.13	0.64
43:95:79:VAL:O	43:95:80:GLN:HG2	1.97	0.64
8:7E:51:VAL:HG11	8:7E:60:ARG:HH11	1.62	0.64
14:5I:6:LEU:HB3	14:5I:23:ARG:NH2	2.12	0.64
26:1H:2025:C:H2'	26:1H:2026:C:C6	2.32	0.64
12:3A:27:LEU:HD23	12:3A:33:ARG:HG2	1.78	0.64
30:29:81:ILE:HG21	30:29:84:PHE:HD2	1.62	0.64
41:75:45:PHE:CE2	41:75:74:ARG:HG3	2.33	0.64
1:13:996:A:H2'	1:13:997:U:C6	2.33	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
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
1:1G:523:A:H61	12:3A:92:ASP:HB2	1.62	0.64
3:22:70:VAL:O	3:22:106:VAL:N	2.22	0.64
5:42:101:ILE:HD11	5:42:119:LEU:HA	1.80	0.64
10:1A:21:GLN:HA	10:1A:24:VAL:HG12	1.79	0.64
29:19:69:ARG:HH22	29:19:129:ASN:CA	2.10	0.64
1:13:49:U:O2'	1:13:50:A:OP1	2.14	0.64
2:1E:143:GLU:HA	2:1E:146:GLN:HB2	1.78	0.64
13:4I:7:VAL:HB	32:41:115:ARG:HH22	1.63	0.64
26:1H:459:U:H5"	54:P8:40:TRP:CD2	2.32	0.64
26:1H:882:G:N7	26:1H:893:C:N4	2.46	0.64
29:11:231:HIS:CD2	29:11:249:PRO:HA	2.33	0.64
30:21:128:SER:OG	30:21:129:HIS:N	2.28	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
44:E8:18:ARG:HD3	44:E8:76:VAL:HG13	1.78	0.64
13:4A:81:LEU:HD11	13:4A:86:CYS:SG	2.37	0.64
26:14:479:A:N3	26:14:481:G:H5"	2.13	0.64
26:14:2096:U:H3	26:14:2193:G:H1	1.43	0.64
26:14:2132:U:O4	28:79:6:ARG:NH1	2.29	0.64
46:C5:46:LYS:HB3	46:C5:60:PHE:HA	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1137:C:O2	1:13:1138:G:N2	2.31	0.64
2:1E:53:ARG:HH21	2:1E:199:TYR:HA	1.62	0.64
6:5E:67:MET:HE1	6:5E:75:LEU:HG	1.80	0.64
50:K8:3:LEU:HA	50:K8:4:SER:OG	1.97	0.64
1:1G:198:G:H2'	1:1G:199:G:C8	2.32	0.64
6:52:15:ASP:O	6:52:19:LEU:HB2	1.97	0.64
56:3L:50:C:H2'	56:3L:51:A:C8	2.33	0.64
26:14:2443:C:OP1	31:39:68:LYS:HG2	1.97	0.64
26:14:2462:U:H2'	26:14:2463:C:C6	2.33	0.64
40:65:61:ASN:ND2	40:65:64:GLU:OE2	2.29	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
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
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
27:16:7:G:O5'	40:A8:29:PHE:HE2	1.80	0.64
32:41:139:LEU:HA	32:41:144:ILE:HD11	1.78	0.64
1:1G:222:U:H2'	1:1G:223:U:H6	1.62	0.64
1:1G:1237:C:O2'	1:1G:1300:G:N2	2.29	0.64
26:14:631:A:OP1	37:35:65:ARG:NH1	2.26	0.64
26:14:1190:G:H2'	26:14:1191:G:H8	1.63	0.64
38:45:85:LYS:HG2	38:45:86:GLY:H	1.63	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
26:1H: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
26:1H:1138:G:H21	35:58:106:MET:HE3	1.63	0.64
26:1H:2689:U:H5"	26:1H:2713:A:C2	2.33	0.64
1:1G:620:C:C2	4:32:135:LEU:HG	2.33	0.64
1:1G:1369:C:H2'	1:1G:1370:G:C8	2.33	0.64
10:1A:44:VAL:HG22	10:1A:66:ARG:HB3	1.80	0.64
12:3A:117:ARG:HB3	12:3A:122:THR:HB	1.79	0.64
13:4A:89:GLY:HA2	13:4A:92:HIS:HB2	1.80	0.64
26:14:1697:G:OP2	26:14:1698:A:O2'	2.11	0.64
31:39:192:LEU:O	31:39:193:VAL:HG23	1.98	0.64
48:E5:26:TYR:O	48:E5:29:GLN:HB2	1.98	0.64
1:13:657:G:N2	1:13:749:C:O2	2.26	0.63
1:13:1345:U:OP1	61:13:1808:HOH:O	2.14	0.63
26:1H:2772:C:OP1	30:21:202:LYS:NZ	2.30	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:97:ASP:H	32:41:100:TRP:HD1	1.44	0.63
34:61:95:LYS:NZ	34:61:99:GLU:OE1	2.31	0.63
53:N8:36:CYS:SG	53:N8:37:LYS:N	2.71	0.63
1:1G:176:C:H2'	1:1G:177:C:H6	1.60	0.63
1:1G:1154:G:H2'	1:1G:1155:G:C8	2.32	0.63
26:14:2469:A:C1'	38:45:56:ARG:NH1	2.61	0.63
30:29:16:ARG:NH2	30:29:171:GLU:OE1	2.31	0.63
34:69:94:ALA:HA	34:69:97:ILE:HD12	1.80	0.63
37:35:26:GLY:O	61:35:301:HOH:O	2.14	0.63
38:45:11:LYS:NZ	38:45:86:GLY:O	2.27	0.63
42:85:88:ILE:HG22	42:85:90:VAL:HG23	1.80	0.63
1:13:1292:U:P	7:6E:41:ARG:HH22	2.20	0.63
5:4E:8:GLU:HG2	5:4E:34:VAL:HG22	1.78	0.63
11:2I:58:PRO:HD3	11:2I:89:ALA:HB1	1.81	0.63
26:1H:879:G:N1	26:1H:898:C:N3	2.42	0.63
32:41:82:LEU:HA	32:41:86:MET:HE2	1.80	0.63
1:1G:973:G:H3'	1:1G:974:A:H5"	1.80	0.63
4:32:28:SER:HB3	4:32:29:PRO:HA	1.79	0.63
26:14:691:C:H4'	29:19:43:ARG:HH21	1.64	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
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
29:11:27:THR:C	29:11:29:PRO:HD3	2.23	0.63
30:21:179:GLU:HB3	30:21:181:LEU:HD23	1.78	0.63
32:41:76:SER:HB2	32:41:84:LYS:HB2	1.80	0.63
35:58:6:PRO:HG3	35:58:41:ASP:HB2	1.79	0.63
47:H8:111:VAL:HG21	47:H8:146:ILE:HG13	1.79	0.63
1:1G:1129:C:N4	1:1G:1139:G:H22	1.96	0.63
2:12:118:LEU:HB3	2:12:142:LEU:HD12	1.80	0.63
3:22:188:LEU:HB3	3:22:190:ARG:HH21	1.63	0.63
5:42:61:TYR:HA	5:42:64:ARG:HG3	1.80	0.63
5:42:101:ILE:HD12	5:42:101:ILE:O	1.99	0.63
19:AA:7:LYS:HD2	19:AA:7:LYS:C	2.23	0.63
23:2L:10:G:N2	23:2L:27:G:H1'	2.12	0.63
26:14:517:C:OP1	53:J5:16:ARG:NH2	2.31	0.63
26:14:2035:G:OP1	61:14:3565:HOH:O	2.15	0.63
26:14:2848:G:HO2'	26:14:2867:G:H1	1.44	0.63
36:25:104:ARG:NH2	41:75:43:GLN:OE1	2.32	0.63
37:35:39:LYS:HD2	37:35:45:LEU:HD21	1.80	0.63
1:13:158:G:H2'	1:13:159:G:H8	1.62	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:13:1510:U:H2'	1:13:1511:G:C8	2.34	0.63
8:7E:41:ARG:NH2	8:7E:123:GLU:OE1	2.28	0.63
26:1H:602:G:HO2'	26:1H:604:G:HO2'	1.46	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
53:N8:37:LYS:HD2	53:N8:37:LYS:C	2.23	0.63
1:1G:1191:A:OP1	3:22:4:LYS:NZ	2.32	0.63
17:8A:59:ILE:CG2	17:8A:71:PHE:HB3	2.28	0.63
22:1L:76:A:H1'	26:14:2583:G:N2	2.14	0.63
34:69:125:GLU:OE1	34:69:141:LYS:HG3	1.99	0.63
1:13:813:U:OP2	1:13:816:A:N6	2.31	0.63
2:1E:8:LYS:HG2	2:1E:9:GLU:H	1.62	0.63
9:8E:97:LYS:HB2	9:8E:102:LEU:HD12	1.80	0.63
13:4I:15:VAL:O	13:4I:19:LEU:HG	1.98	0.63
23:2K:29:C:H2'	23:2K:30:G:H8	1.64	0.63
26:1H:534:U:H5'	42:C8:42:ALA:HB1	1.79	0.63
26:1H:675:A:O2'	31:31:67:GLN:NE2	2.32	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
3:22:119:ARG:NH2	3:22:140:ARG:HG3	2.13	0.63
29:19:83:GLU:OE1	29:19:104:TYR:OH	2.17	0.63
30:29:31:CYS:SG	30:29:51:PHE:HB2	2.39	0.63
39:55:12:ARG:HB3	39:55:16:HIS:HB3	1.80	0.63
1:13:737:A:H2'	1:13:738:C:C6	2.34	0.63
1:13:1000:A:H2'	1:13:1001:G:C8	2.32	0.63
4:3E:150:GLU:HA	4:3E:153:ARG:HG3	1.79	0.63
8:7E:9:MET:HG3	8:7E:26:VAL:HG21	1.81	0.63
8:7E:34:GLU:OE1	8:7E:37:ARG:NH1	2.32	0.63
26:1H:1515:C:H2'	26:1H:1516:U:C6	2.34	0.63
26:1H:2061:G:OP2	26:1H:2502:G:H5'	1.99	0.63
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.33	0.63
31:31:134:GLY:HA2	31:31:166:ALA:HB2	1.80	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
26:14:96:G:H4'	50:G5:48:HIS:CE1	2.33	0.63
27:1J:2:C:H2'	27:1J:3:C:C6	2.33	0.63
5:4E:8:GLU:OE2	5:4E:63:ARG:NH2	2.32	0.63
24:3K:6:G:H1	24:3K:66:A:N6	1.92	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1035:U:H2'	26:1H:1036:G:C8	2.33	0.63
33:51:41:MET:HB3	33:51:52:VAL:HG13	1.81	0.63
47:H8:169:GLU:CD	47:H8:170:THR:H	2.07	0.63
2:12:11:LEU:HB3	2:12:217:ARG:NH2	2.14	0.63
10:1A:34:VAL:HG12	10:1A:74:ILE:HA	1.80	0.63
29:19:104:TYR:O	29:19:105:ILE:HD12	1.98	0.63
38:45:31:ASP:H	38:45:107:ALA:HB2	1.62	0.63
45:B5:41:ASN:HA	45:B5:44:GLU:HB2	1.81	0.63
45:B5:63:LYS:HD3	45:B5:63:LYS:N	2.13	0.63
1:13:630:G:H2'	1:13:631:G:C8	2.33	0.63
2:1E:162:ILE:O	2:1E:185:ILE:HG12	1.98	0.63
26:1H:460:A:H5"	26:1H:461:C:OP2	1.99	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
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
26:14:807:U:OP1	37:35:36:LYS:HE3	1.98	0.63
26:14:2123:G:N2	26:14:2176:A:N1	2.46	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
1:13:1060:C:O2'	10:1I:56:HIS:ND1	2.30	0.63
1:13:1318:A:H1'	19:AI:37:ARG:HH21	1.64	0.63
2:1E:187:LEU:HD23	2:1E:201:ILE:HG22	1.80	0.63
4:3E:64:LEU:HD13	4:3E:198:VAL:HG21	1.80	0.63
20:BI:50:GLU:HG2	20:BI:100:ILE:HG13	1.79	0.63
26:1H:2306:C:H2'	26:1H:2307:G:H21	1.64	0.63
40:A8:39:ILE:HB	40:A8:49:VAL:HG12	1.81	0.63
1:1G:530:G:N3	22:1L:35:U:O2'	2.30	0.63
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.81	0.63
3:22:162:GLN:HB3	25:4L:24:A:H62	1.64	0.63
26:14:1676:A:OP2	61:14:3568:HOH:O	2.16	0.63
27:1J:76:G:H21	47:D5:75:ASN:HD22	1.47	0.63
29:19:69:ARG:NH2	29:19:129:ASN:C	2.57	0.63
38:45:36:ALA:HB2	38:45:103:MET:HE3	1.81	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
2:1E:11:LEU:CD2	2:1E:213:LEU:HD13	2.29	0.62
38:88:66:ILE:O	38:88:104:PHE:N	2.32	0.62
3:22:44:GLU:HG3	3:22:52:LEU:HD21	1.79	0.62
9:82:28:VAL:HG22	9:82:63:ILE:HB	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:2050:C:H1'	30:29:156:MET:HE2	1.81	0.62
29:19:182:LEU:HB3	29:19:271:ILE:HG13	1.80	0.62
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
1:13:474:G:H5"	16:7I:81:ARG:HE	1.64	0.62
1:13:545:C:O2'	1:13:549:C:OP1	2.15	0.62
1:13:590:C:H2'	1:13:591:U:H6	1.63	0.62
1:13:591:U:H2'	1:13:592:G:H8	1.65	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
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
28:71:22:ILE:HG21	28:71:190:ARG:HD3	1.80	0.62
37:78:63:PRO:CB	55:Q8:30:ARG:HH21	2.11	0.62
41:B8:45:PHE:CZ	41:B8:65:LYS:HG2	2.35	0.62
50:K8:47:ASN:O	50:K8:49:LYS:N	2.30	0.62
1:1G:1152:A:OP1	10:1A:68:HIS:NE2	2.32	0.62
9:82:43:ALA:HA	9:82:74:ILE:HD13	1.80	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
46:C5:75:ILE:HA	46:C5:80:GLY:HA2	1.81	0.62
1:13:1240:U:OP2	7:6E:116:ALA:N	2.31	0.62
26:1H:1496:A:H8	26:1H:1577:C:O2'	1.76	0.62
37:78:49:ARG:HH12	37:78:50:ARG:HH21	1.47	0.62
1:1G:1292:U:H2'	1:1G:1293:G:C8	2.32	0.62
8:72:51:VAL:HG11	8:72:60:ARG:HE	1.63	0.62
26:14:2567:G:H2'	26:14:2568:C:C6	2.34	0.62
30:29:176:ILE:HD12	30:29:181:LEU:HD23	1.81	0.62
36:25:13:ASN:ND2	36:25:96:THR:HG23	2.14	0.62
1:13:224:C:H2'	1:13:225:C:C6	2.34	0.62
1:13:1449:C:H42	1:13:1454:G:H1	1.47	0.62
2:1E:82:ARG:NE	2:1E:92:TYR:OH	2.30	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
26:1H:2199:A:H3'	26:1H:2205:C:H6	1.64	0.62
31:31:66:PRO:O	31:31:67:GLN:HB3	1.98	0.62
35:58:57:ALA:O	35:58:58:ASP:OD2	2.17	0.62
55:Q8:52:LYS:O	55:Q8:54:GLU:N	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1281:U:OP2	1:1G:1282:C:N4	2.28	0.62
2:12:220:ASP:O	2:12:224:GLN:HG2	1.98	0.62
5:42:148:VAL:HG21	8:72:107:LEU:HD23	1.81	0.62
13:4A:78:ILE:HA	13:4A:81:LEU:HB2	1.80	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
30:29:167:VAL:CG1	30:29:170:LEU:HD11	2.27	0.62
37:35:49:ARG:O	55:M5:57:ARG:CZ	2.47	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
1:13:707:C:OP1	11:2I:85:ARG:NH1	2.31	0.62
14:5I:29:ARG:HD2	14:5I:40:CYS:HB2	1.82	0.62
30:21:24:THR:HG21	30:21:188:VAL:HG22	1.80	0.62
1:1G:187:C:H2'	1:1G:188:U:O4'	1.98	0.62
2:12:121:LEU:HD11	2:12:130:ARG:HH21	1.63	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
26:14:1024:G:H3'	26:14:1025:G:H5"	1.80	0.62
26:14:2016:U:O2	53:J5:7:PRO:HG2	1.99	0.62
30:29:54:GLN:H	30:29:74:PRO:HA	1.65	0.62
46:C5:29:GLU:CG	46:C5:30:VAL:H	2.12	0.62
1:13:767:A:H2'	1:13:768:A:O4'	1.99	0.62
3:2E:64:VAL:HG12	3:2E:66:VAL:HG23	1.81	0.62
26:1H:1568:G:H5"	29:11:61:LEU:CD2	2.29	0.62
1:1G:1238:A:H62	1:1G:1301:U:H3	1.45	0.62
2:12:180:LEU:HB2	2:12:182:ILE:HD13	1.82	0.62
23:2L:24:C:H2'	23:2L:25:U:H6	1.65	0.62
26:14:34:C:O2'	26:14:35:G:O5'	2.17	0.62
26:14:2327:A:H2'	26:14:2328:A:C8	2.35	0.62
49:F5:85:LEU:HA	49:F5:87:PRO:HD2	1.82	0.62
26:1H:760:G:OP2	61:1H:3685:HOH:O	2.16	0.62
39:98:72:ASP:O	39:98:76:VAL:HG23	2.00	0.62
47:H8:108:PRO:HB2	47:H8:112:ARG:HA	1.81	0.62
1:1G:1070:U:H2'	1:1G:1071:C:H6	1.63	0.62
3:22:88:ARG:HD3	3:22:101:LEU:HD12	1.80	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
46:C5:76:CYS:HB3	46:C5:97:ARG:HE	1.62	0.62
55:M5:22:VAL:HB	55:M5:55:ALA:HB1	1.80	0.62
26:1H:900:A:H3'	26:1H:901:A:H8	1.64	0.62
26:1H:2751:G:H5'	33:51:4:ILE:HD13	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:58:57:ALA:C	35:58:59:LYS:H	2.08	0.62
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
2:12:12:GLU:O	2:12:12:GLU:HG2	1.99	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
26:14:1871:A:H2'	26:14:1872:A:C8	2.35	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
2:1E:21:ARG:HB2	2:1E:39:ILE:HA	1.80	0.62
26:1H:1047:G:H2'	26:1H:1110:G:C6	2.34	0.62
49:J8:92:LYS:HA	49:J8:95:LEU:HB2	1.82	0.62
1:1G:446:G:H1	1:1G:488:C:H42	1.46	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
26:14:2820:A:C6	39:55:4:LEU:HD11	2.34	0.62
36:25:24:VAL:HG23	36:25:33:ALA:HB2	1.82	0.62
1:13:652:U:O4	1:13:752:G:O2'	2.14	0.62
1:13:1446:A:OP1	1:13:1446:A:H4'	1.99	0.62
17:8I:82:MET:HA	17:8I:85:VAL:HG12	1.81	0.62
26:1H:2025:C:H2'	26:1H:2026:C:H6	1.64	0.62
1:1G:201:C:H42	1:1G:216:G:H1	1.47	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
18:9A:22:VAL:HG22	18:9A:23:LYS:H	1.65	0.62
29:19:30:GLU:OE1	29:19:63:ARG:NE	2.31	0.62
33:59:9:ILE:HB	33:59:10:PRO:HD2	1.79	0.62
8:7E:77:GLU:HG2	8:7E:78:GLN:H	1.64	0.61
18:9I:59:SER:H	18:9I:62:GLU:HB2	1.65	0.61
26:1H:882:G:N2	26:1H:895:U:O4	2.32	0.61
26:1H:1783:A:H5'	26:1H:2608:G:H4'	1.81	0.61
26:1H:1815:A:OP2	29:11:54:ARG:NH2	2.24	0.61
28:71:39:GLU:HG2	28:71:178:ALA:HB3	1.81	0.61
40:A8:87:PHE:CE2	40:A8:102:ALA:HB2	2.35	0.61
47:H8:70:LEU:HD11	47:H8:98:MET:HE3	1.82	0.61
17:8A:51:TYR:CE1	17:8A:73:VAL:HG11	2.35	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
29:19:69:ARG:HH22	29:19:130:ALA:H	1.37	0.61
41:75:56:GLY:O	41:75:59:THR:HG23	1.99	0.61
46:C5:43:ASN:HB2	46:C5:62:GLU:O	2.00	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
13:4I:91:ARG:HB2	13:4I:98:VAL:HG12	1.82	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
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
2:12:71:VAL:HG11	2:12:164:VAL:HA	1.81	0.61
26:14:691:C:H2'	26:14:692:C:C6	2.35	0.61
26:14:1203:G:H3'	26:14:1204:A:H5"	1.83	0.61
32:49:125:PHE:HB3	32:49:166:ASP:HB2	1.80	0.61
33:59:6:ARG:HH12	33:59:54:ARG:HH22	1.48	0.61
1:13:607:A:C2	16:7I:31:LYS:HG3	2.35	0.61
1:13:963:G:H21	10:1I:55:LYS:NZ	1.98	0.61
1:13:1194:U:H2'	1:13:1195:C:C6	2.35	0.61
6:5E:18:GLN:HA	6:5E:21:LEU:HG	1.81	0.61
16:7I:19:ILE:HG22	16:7I:36:ILE:HG13	1.83	0.61
18:9I:38:GLU:OE1	18:9I:41:LYS:NZ	2.33	0.61
19:AI:29:ARG:HH12	19:AI:31:ILE:HB	1.66	0.61
26:1H:2213:U:O2	49:J8:52:ARG:NH2	2.33	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
26:14:2271:G:OP1	48:E5:18:ALA:HB1	2.00	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
26:1H: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
26:1H:1800:C:OP2	29:11:183:ARG:NH2	2.26	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
43:D8:21:ARG:HG2	43:D8:91:TYR:HE2	1.65	0.61
1:1G:979:C:OP1	1:1G:1223:C:N4	2.33	0.61
9:82:110:GLU:HG3	9:82:111:ARG:H	1.65	0.61
26:14:270(L):U:O2	34:69:50:ARG:NH1	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:1226:G:OP1	43:95:69:LYS:NZ	2.32	0.61
26:14:2875:C:O2'	41:75:3:ARG:HG3	2.00	0.61
29:19:28:GLU:O	29:19:28:GLU:CD	2.44	0.61
11:2I:73:MET:HE2	11:2I:103:LEU:HB2	1.80	0.61
17:8I:81:ARG:NH1	17:8I:83:ASP:OD2	2.33	0.61
26:1H:1784:A:H5"	61:1H:4065:HOH:O	1.99	0.61
44:E8:19:LEU:HB3	53:N8:25:LEU:HD12	1.83	0.61
1:1G:189:U:O2'	17:8A:63:ARG:NH2	2.33	0.61
1:1G:1125:U:H2'	1:1G:1126:U:C5	2.35	0.61
26:14:273(C):C:H42	26:14:363(C):G:H1	1.46	0.61
26:14:1970:A:OP2	61:14:3570:HOH:O	2.16	0.61
38:45:133:ARG:O	38:45:134:ARG:HB3	2.01	0.61
47:D5:14:LYS:HE2	47:D5:16:SER:HB2	1.81	0.61
1:13:358:U:H5"	34:69:87:LYS:HD3	1.82	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
32:41:56:ALA:HB2	32:41:153:ARG:HE	1.66	0.61
47:H8:9:TYR:CE2	47:H8:61:LEU:HD11	2.35	0.61
3:22:36:ASP:OD1	3:22:57:ILE:HG21	2.01	0.61
12:3A:78:GLN:HG2	12:3A:81:SER:HB3	1.82	0.61
26:14:483:A:H3'	26:14:484:C:H6	1.66	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
27:1J:88:C:H5"	27:1J:89:G:C6	2.35	0.61
30:29:119:ARG:NH1	30:29:120:TRP:CZ2	2.68	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
1:13:509:A:OP2	61:13:1814:HOH:O	2.16	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
50:K8:42:GLY:C	50:K8:44:LEU:H	2.08	0.61
1:1G:977:A:H2'	1:1G:978:A:H5'	1.82	0.61
1:1G:1070:U:H2'	1:1G:1071:C:C6	2.36	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
26:14:337:C:O2'	46:C5:4:LYS:NZ	2.33	0.61
26:14:1786:A:H2	26:14:2606:C:H1'	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D5:124:ILE:HD11	47:D5:165:VAL:HG21	1.82	0.61
9:8E:13:ALA:HB2	9:8E:68:GLY:HA3	1.82	0.61
26:1H:2882:A:OP1	39:98:96:ARG:HD3	2.01	0.61
47:H8:1:MET:HE1	47:H8:135:GLU:CG	2.31	0.61
47:H8:126:VAL:HA	47:H8:164:ALA:H	1.65	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
1:1G:1349:A:OP2	9:82:118:LYS:NZ	2.34	0.61
2:12:82:ARG:NH1	2:12:92:TYR:OH	2.33	0.61
8:72:82:HIS:HB3	8:72:138:TRP:CZ3	2.35	0.61
12:3A:83:VAL:HG13	12:3A:100:ILE:HG23	1.83	0.61
1:13:547:A:OP1	4:3E:73:ARG:NH2	2.34	0.61
23:2K:64:G:H2'	23:2K:65:G:H8	1.66	0.61
26:1H:2404:C:O3'	37:78:77:ARG:NH2	2.33	0.61
33:51:7:LEU:C	33:51:7:LEU:HD12	2.26	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
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:H5"	26:14:1835:G:C8	2.36	0.61
26:14:2690:C:H6	26:14:2690:C:OP2	1.84	0.61
31:39:172:TRP:CD1	31:39:172:TRP:H	2.18	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:592:G:N2	55:Q8:4:MET:HE1	2.15	0.61
26:1H:1186:G:OP1	61:1H:3684:HOH:O	2.16	0.61
26:1H:1434:A:H61	26:1H:1558:A:H61	1.48	0.61
26:1H:1520:U:H2'	26:1H:1521:G:O4'	2.01	0.61
36:68:53:LYS:HA	36:68:53:LYS:HE3	1.82	0.61
1:1G:186(B):C:O2'	1:1G:186(C):G:H5'	2.01	0.61
3:22:155:GLY:HA3	3:22:196:LEU:HD13	1.81	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
26:14:2576:G:O2'	26:14:2579:C:OP2	2.16	0.61
30:29:30:PRO:HB3	30:29:90:THR:HG23	1.82	0.61
26:1H:600:G:N2	26:1H:605:C:O3'	2.34	0.60
26:1H:1405:U:H2'	26:1H:1406:U:C6	2.36	0.60
29:11:10:THR:OG1	29:11:13:ARG:HB2	2.00	0.60
31:31:62:ARG:HB3	31:31:62:ARG:NH1	2.16	0.60
43:D8:59:ALA:HB2	43:D8:96:ILE:HD13	1.82	0.60
4:32:13:ARG:HD2	4:32:38:TYR:O	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1942:C:OP2	26:14:1943:U:O2'	2.10	0.60
34:69:14:ASP:N	34:69:17:GLN:OE1	2.32	0.60
35:15:38:HIS:HE2	35:15:50:ASP:CG	2.09	0.60
37:35:113:LYS:HB2	37:35:129:ALA:HB3	1.81	0.60
43:95:85:LYS:CD	43:95:86:GLY:H	2.10	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
2:1E:185:ILE:HG22	2:1E:199:TYR:HB2	1.83	0.60
26:1H:957:A:N1	26:1H:2458:G:H4'	2.17	0.60
26:1H:1639:U:H2'	26:1H:1640:C:H5"	1.83	0.60
29:11:72:LYS:HG2	29:11:103:ARG:NH2	2.16	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
42:C8:92:ARG:CZ	43:D8:11:GLN:H	2.14	0.60
10:1A:38:ILE:HB	10:1A:71:LEU:O	2.01	0.60
26:14:270(N):G:OP1	34:69:57:ARG:NH2	2.34	0.60
26:14:1048:A:H61	26:14:1112:G:H1'	1.66	0.60
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
30:29:103:ASP:OD1	30:29:201:THR:HG22	2.01	0.60
42:85:92:ARG:CD	43:95:11:GLN:HG3	2.31	0.60
1:13:1124:G:O2'	1:13:1126:U:O4	2.17	0.60
6:5E:50:TYR:OH	18:9I:74:ARG:O	2.13	0.60
11:2I:85:ARG:HG2	11:2I:111:ASP:HB3	1.82	0.60
20:BI:11:SER:HA	20:BI:13:LEU:HD22	1.84	0.60
26:1H:1111:A:N3	26:1H:1112:G:H1'	2.16	0.60
26:1H:2124:G:H4'	28:71:174:PRO:HG3	1.83	0.60
26:1H:2199:A:H5'	26:1H:2205:C:OP2	2.01	0.60
50:K8:2:LYS:O	50:K8:5:GLU:HB2	2.01	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
1:1G:742:G:OP2	15:6A:35:ARG:NH2	2.33	0.60
11:2A:100:ALA:O	11:2A:102:GLY:N	2.35	0.60
33:59:149:ARG:HD2	33:59:164:TYR:CD1	2.36	0.60
1:13:859:A:H2'	1:13:860:A:C8	2.36	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2837:G:H21	39:98:45:ARG:NH2	1.99	0.60
32:41:97:ASP:H	32:41:100:TRP:CD1	2.19	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
3:22:40:ARG:HE	3:22:55:VAL:HG23	1.65	0.60
4:32:85:LYS:HD3	4:32:86:LYS:H	1.64	0.60
5:42:78:HIS:ND1	8:72:104:ARG:NE	2.41	0.60
26:14:2115:G:N2	26:14:2116:G:N7	2.49	0.60
27:1J:89(A):A:H5'	27:1J:90:C:OP2	2.01	0.60
29:19:44:ASN:OD1	29:19:46:GLN:HG2	2.00	0.60
29:19:264:LYS:HG2	29:19:266:SER:HB3	1.83	0.60
31:39:8:GLN:HG2	31:39:124:LEU:HD11	1.84	0.60
2:1E:86:GLU:C	2:1E:86:GLU:OE1	2.44	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
26:1H:1857:G:O6	61:1H:3667:HOH:O	2.11	0.60
26:1H:2331:G:O3'	48:I8:43:THR:HG22	2.02	0.60
35:58:57:ALA:O	35:58:58:ASP:CG	2.44	0.60
7:62:115:ARG:O	7:62:118:VAL:HG22	2.01	0.60
26:14:1162:G:N2	43:95:89:GLN:OE1	2.34	0.60
31:39:120:GLU:HG2	31:39:122:LYS:HE3	1.84	0.60
44:A5:73:ALA:O	44:A5:106:ILE:HG12	2.02	0.60
8:7E:1:MET:HG2	8:7E:3:THR:HG23	1.83	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
26:1H:963:U:OP1	61:1H:3686:HOH:O	2.17	0.60
1:1G:1092:A:N3	61:1G:1717:HOH:O	2.30	0.60
4:32:191:ARG:NH2	4:32:194:LEU:HB2	2.17	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
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
32:49:114:ILE:HD11	32:49:140:ILE:HD13	1.83	0.60
34:69:128:LEU:O	34:69:138:ILE:N	2.29	0.60
40:65:42:ASP:O	40:65:43:GLU:HG2	2.02	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
1:13:691:G:O6	11:2I:55:LYS:NZ	2.34	0.60
4:3E:31:CYS:SG	4:3E:33:MET:HB2	2.41	0.60
4:3E:162:LEU:HD12	4:3E:181:MET:HE2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
28:71:29:VAL:HG13	28:71:30:LYS: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
30:21:116:VAL:O	30:21:117:MET:HB3	2.02	0.60
31:31:67:GLN:HG3	31:31:67:GLN:O	2.02	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
1:1G:164:U:H2'	1:1G:165:C:C6	2.36	0.60
2:12:130:ARG:O	2:12:135:GLN:NE2	2.28	0.60
26:14:876:C:H1'	26:14:901:A:H61	1.67	0.60
30:29:3:GLY:HA3	30:29:81:ILE:HD12	1.83	0.60
31:39:18:ARG:HE	31:39:19:GLU:N	1.99	0.60
13:4I:67:GLU:HG2	13:4I:71:ARG:HH21	1.67	0.60
30:21:111:ARG:HD2	30:21:160:TYR:CD2	2.37	0.60
47:H8:111:VAL:HG11	47:H8:146:ILE:HB	1.84	0.60
2:12:42:ILE:O	2:12:42:ILE:HG13	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
50:G5:17:SER:HB3	50:G5:67:LYS:HE3	1.84	0.60
14:5I:15:LYS:HE2	14:5I:16:PHE:HE1	1.67	0.60
26:1H:577:G:OP1	26:1H:2502:G:O2'	2.19	0.60
26:1H:2837:G:H21	39:98:45:ARG:HH21	1.50	0.60
36:68:68:GLU:OE2	36:68:68:GLU:N	2.21	0.60
48:I8:14:ARG:NH1	61:I8:201:HOH:O	2.13	0.60
1:1G:452:A:H4'	16:7A:72:ARG:HH12	1.67	0.60
1:1G:1287:A:H2'	1:1G:1288:A:C8	2.35	0.60
2:12:220:ASP:HA	2:12:224:GLN:CD	2.26	0.60
13:4A:66:LEU:HA	13:4A:70:LEU:HB2	1.83	0.60
20:BA:29:LYS:HG3	20:BA:71:THR:HG21	1.84	0.60
26:14:143:C:H4'	45:B5:38:GLU:OE2	2.02	0.60
32:49:93:THR:HG21	32:49:95:ARG:HH21	1.67	0.60
32:49:103:LEU:HA	32:49:106:LEU:HD22	1.81	0.60
34:69:77:LEU:HB2	34:69:141:LYS:HB3	1.83	0.60
46:C5:48:ALA:HB3	46:C5:59:GLY:HA2	1.82	0.60
1:13:343:U:C2	1:13:345:C:H1'	2.37	0.60
3:2E:40:ARG:O	3:2E:44:GLU:HG2	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:136:GLN:OE1	3:2E:140:ARG:NH1	2.34	0.60
27:16:2:C:O2	27:16:118:G:N2	2.18	0.60
29:11:242:ARG:H	29:11:242:ARG:HD2	1.67	0.60
33:51:6:ARG:HB3	33:51:65:HIS:CD2	2.37	0.60
48:I8:23:VAL:HA	48:I8:38:VAL:HG22	1.83	0.60
1:1G:998(A):C:H42	1:1G:1042:G:H1	1.50	0.60
1:1G:1295:G:O2'	13:4A:14:ARG:NH1	2.35	0.60
14:5A:3:ARG:O	14:5A:6:LEU:HD23	2.01	0.60
26:14:2129:C:OP1	28:79:6:ARG:NH1	2.35	0.60
26:14:2253:G:OP1	61:14:3541:HOH:O	2.16	0.60
41:75:54:ARG:HG3	41:75:59:THR:HG21	1.84	0.60
38:88:55:VAL:HG12	38:88:64:ILE:HD12	1.84	0.59
4:32:108:LEU:HD21	4:32:174:LEU:HD22	1.84	0.59
10:1A:75:ILE:HG13	10:1A:76:ASN:N	2.17	0.59
15:6A:11:VAL:HG21	15:6A:34:LEU:HD22	1.82	0.59
23:2L:63:C:H2'	23:2L:64:G:C8	2.37	0.59
26:14:1448:G:H2'	26:14:1449:A:C8	2.37	0.59
32:49:147:ASP:C	32:49:149:VAL:HG22	2.27	0.59
48:E5:36:ILE:HD12	48:E5:36:ILE:O	2.01	0.59
55:M5:14:VAL:CG1	55:M5:22:VAL:HG13	2.31	0.59
24:3K:72:C:H2'	24:3K:73:A:H5"	1.85	0.59
26:1H:323:G:C8	31:31:171:PRO:HG3	2.38	0.59
26:1H:2840:C:H42	26:1H:2877:G:H1	1.50	0.59
35:58:131:GLN:NE2	35:58:132:ALA:HB2	2.17	0.59
1:1G:81:G:H1	1:1G:89:U:H3	1.50	0.59
1:1G:631:G:H4'	1:1G:632:A:H5'	1.84	0.59
11:2A:59:TYR:CZ	11:2A:63:LEU:HD11	2.37	0.59
26:14:483:A:H4'	46:C5:49:VAL:HA	1.84	0.59
27:1J:12:C:O2'	48:E5:74:ARG:HG2	2.02	0.59
27:1J:60:C:H2'	27:1J:61:G:H8	1.67	0.59
42:85:5:LYS:HG2	42:85:6:THR:N	2.16	0.59
43:95:35:LEU:C	43:95:37:VAL:HG13	2.26	0.59
2:1E:166:ASP:C	2:1E:168:THR:H	2.10	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
27:16:101:A:OP2	61:16:303:HOH:O	2.16	0.59
37:78:96:THR:O	37:78:98:GLU:N	2.30	0.59
40:A8:106:ARG:HD3	40:A8:106:ARG:N	2.16	0.59
50:K8:42:GLY:O	50:K8:44:LEU:N	2.35	0.59
1:1G:228:A:H4'	16:7A:62:VAL:HG11	1.85	0.59
1:1G:1095:U:OP1	1:1G:1108:G:N1	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:58:ILE:HG13	2:12:219:VAL:HG21	1.84	0.59
7:62:148:ASN:ND2	7:62:148:ASN:O	2.35	0.59
26:14:996:A:H4'	42:85:92:ARG:NE	2.16	0.59
46:C5:2:ARG:HA	46:C5:2:ARG:NH1	2.16	0.59
1:13:1454:G:OP1	20:BI:39:LYS:NZ	2.29	0.59
4:3E:82:ALA:HB1	4:3E:89:THR:HA	1.85	0.59
26:1H:1665:A:N7	61:1H:3776:HOH:O	2.32	0.59
46:G8:54:LYS:O	46:G8:55:TYR:CD2	2.55	0.59
1:1G:192:U:O4'	20:BA:103:GLY:HA2	2.02	0.59
1:1G:1129:C:N4	1:1G:1142:G:N7	2.50	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
2:1E:100:GLY:O	2:1E:104:ASN:N	2.31	0.59
4:3E:107:ARG:NH2	4:3E:194:LEU:HD22	2.18	0.59
9:8E:26:VAL:HG13	9:8E:61:ALA:HB3	1.83	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
26:1H:65:C:H2'	26:1H:66:C:H6	1.67	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
27:16:3:C:H2'	27:16:4:C:C6	2.38	0.59
30:21:34:VAL:HG21	30:21:77:ILE:HD13	1.84	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
2:12:166:ASP:HB3	2:12:169:LYS:HB2	1.84	0.59
20:BA:10:LEU:HD13	20:BA:12:ALA:H	1.68	0.59
20:BA:50:GLU:HA	20:BA:100:ILE:HG21	1.85	0.59
56:3L:9:A:O2'	56:3L:10:G:N7	2.32	0.59
19:AI:4:SER:OG	19:AI:5:LEU:N	2.36	0.59
26:1H:631:A:OP1	37:78:65:ARG:NH2	2.28	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
31:31:178:PRO:HB2	31:31:201:VAL:HG11	1.84	0.59
37:78:125:VAL:O	37:78:144:GLU:HB2	2.03	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
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
7:62:16:LEU:HD12	9:82:42:ARG:HA	1.83	0.59
8:72:120:THR:HG23	8:72:123:GLU:H	1.66	0.59
15:6A:27:VAL:C	15:6A:31:LEU:HD13	2.19	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:1310:G:H1	26:14:1604:C:H42	1.49	0.59
26:14:2364:C:H4'	48:E5:56:ASP:OD2	2.02	0.59
36:25:13:ASN:HD21	36:25:97:ARG:H	1.49	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
42:85:102:GLU:HB3	42:85:105:VAL:HG22	1.85	0.59
12:3I:58:VAL:O	12:3I:65:GLU:HA	2.03	0.59
26:1H:1684:C:H42	26:1H:1704:G:H1	1.50	0.59
34:61:117:GLU:OE1	34:61:117:GLU:N	2.36	0.59
37:78:59:LEU:HD21	55:Q8:10:ALA:HB2	1.85	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
1:1G:1228:C:OP1	13:4A:115:LYS:NZ	2.35	0.59
2:12:133:LYS:HA	2:12:136:VAL:HB	1.83	0.59
20:BA:50:GLU:N	20:BA:100:ILE:HG12	2.17	0.59
56:3L:37:T6A:H2'	56:3L:38:A:O4'	2.02	0.59
26:14:329:G:P	46:C5:71:LYS:HE3	2.43	0.59
34:69:129:THR:HG22	34:69:137:PRO:HB3	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
50:G5:53:LEU:O	50:G5:57:ILE:HG13	2.03	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
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
47:H8:28:MET:O	47:H8:35:ARG:N	2.35	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
26:14:1778: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
1:13:1318:A:H5"	19:AI:10:PHE:CD2	2.37	0.59
1:13:1349:A:H5"	9:8E:121:ARG:HB2	1.83	0.59
4:3E:84:LYS:HA	4:3E:85:LYS:HB2	1.85	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:C8:58:ARG:HH11	42:C8:93:LYS:NZ	2.00	0.59
1:1G:486:U:H2'	1:1G:487:A:C8	2.38	0.59
1:1G:1412:C:H2'	1:1G:1413:A:C8	2.38	0.59
8:72:12:ARG:HD3	8:72:26:VAL:HG12	1.85	0.59
56:3L:1:G:N2	56:3L:73:A:H2	2.01	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
26:14:1779:U:H5"	26:14:1780:A:H5'	1.84	0.59
31:39:66:PRO:O	31:39:67:GLN:HB3	2.02	0.59
36:25:104:ARG:HD3	41:75:36:GLU:HB2	1.85	0.59
40:65:106:ARG:O	40:65:106:ARG:HD2	2.03	0.59
41:75:62:THR:HG22	41:75:75:ILE:HG12	1.84	0.59
1:13:953:G:H2'	1:13:954:G:O4'	2.03	0.59
1:13:1118:C:P	9:8E:104:ARG:HH11	2.25	0.59
8:7E:42:GLU:HG3	8:7E:109:ILE:HD12	1.85	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
26:1H:606:U:OP2	31:31:104:LYS:NZ	2.35	0.59
32:41:49:ASP:OD2	32:41:52:ILE:HG12	2.03	0.59
37:78:80:TYR:CE1	37:78:111:ARG:HD3	2.38	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
1:1G:1142:G:H3'	1:1G:1143:G:H8	1.68	0.59
2:12:95:GLN:HG3	2:12:147:LYS:HG2	1.84	0.59
16:7A:40:ASP:HB3	16:7A:48:TRP:HB2	1.83	0.59
23:2L:24:C:H2'	23:2L:25:U:C6	2.37	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
26:14:2439:A:H5'	26:14:2439:A:C8	2.37	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
41:75:55:ASN:H	41:75:59:THR:HG22	1.65	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
3:2E:7:PRO:O	3:2E:11:ARG:HG2	2.03	0.58
16:7I:77:ALA:HB3	16:7I:79:VAL:H	1.68	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:124:SER:HB2	32:41:131:TYR:CE2	2.37	0.58
33:51:2:SER:OG	33:51:3:ARG:N	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
5:42:43:LEU:HD11	5:42:132:ALA:HB1	1.85	0.58
26:14:1112:G:OP2	33:59:3:ARG:NH2	2.36	0.58
26:14:2414:G:H21	37:35:67:MET:CE	2.15	0.58
46:C5:17:SER:O	46:C5:21:LYS:HB2	2.03	0.58
6:5E:75:LEU:HD13	6:5E:79:LEU:CD1	2.33	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
28:71:57:ASN:HD21	28:71:164:ARG:HH22	1.51	0.58
31:31:6:VAL:N	31:31:24:LEU:O	2.36	0.58
40:A8:18:ILE:O	40:A8:21:THR:HG22	2.03	0.58
52:M8:12:ALA:HB3	52:M8:24:THR:HB	1.86	0.58
1:1G:376:G:O3'	16:7A:5:ARG:NH1	2.35	0.58
1:1G:977:A:O2'	1:1G:981:U:N3	2.37	0.58
1:1G:1235:U:O2'	1:1G:1305:G:O5'	2.21	0.58
26:14:71:A:H5'	26:14:71:A:H8	1.69	0.58
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
26:14:863:A:H2'	26:14:864:G:H8	1.68	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
1:13:445:G:H1	1:13:489:C:H42	1.50	0.58
1:13:1003:G:H1	1:13:1037:C:H42	1.50	0.58
4:3E:127:THR:HG23	4:3E:131:ARG:N	2.18	0.58
13:4I:3:ARG:HD2	52:M8:34:GLU:OE2	2.03	0.58
23:2K:54:G:H2'	23:2K:55:5MU:H6	1.68	0.58
24:3K:59:A:H3'	24:3K:60:U:C6	2.39	0.58
26:1H:606:U:H4'	26:1H:658:C:H4'	1.85	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
43:D8:72:VAL:HG12	43:D8:85:LYS:HB3	1.83	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
26:14:287: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:923:C:H2'	26:14:924:C:C6	2.38	0.58
26:14:2115:G:N2	26:14:2172:U:H3	2.02	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
38:45:35:VAL:HG12	38:45:36:ALA:H	1.68	0.58
47:D5:4:ARG:HB3	47:D5:58:VAL:HB	1.85	0.58
48:E5:72:ARG:HB3	48:E5:75:LEU:HB2	1.84	0.58
3:2E:95:THR:HB	3:2E:97:LYS:HG3	1.83	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
33:51:51:ARG:HG3	33:51:52:VAL:N	2.18	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
1:1G:78:G:H1	1:1G:91:C:N4	2.01	0.58
1:1G:591:U:OP2	8:72:30:ARG:NH1	2.36	0.58
5:42:79:GLU:HG2	5:42:92:LYS:HG3	1.85	0.58
26:14:271(B):G:N7	26:14:421:U:H2'	2.18	0.58
26:14:587:C:O2	37:35:33:ARG:NH1	2.36	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
26:14:1800:C:OP2	29:19:183:ARG:NH2	2.36	0.58
26:14:2306:C:H2'	26:14:2307:G:H21	1.69	0.58
38:45:75:THR:HB	38:45:86:GLY:HA3	1.86	0.58
1:13:169:C:H2'	1:13:170:U:H5'	1.84	0.58
19:AI:40:ILE:O	19:AI:41:VAL:HG22	2.03	0.58
26:1H:528:A:OP2	35:58:114:ARG:NH1	2.35	0.58
29:11:30:GLU:CD	29:11:63:ARG:HE	2.01	0.58
32:41:11:TYR:HA	32:41:15:VAL:HB	1.86	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
3:22:84:ILE:O	3:22:88:ARG:NH2	2.33	0.58
3:22:136:GLN:O	3:22:139:GLN:N	2.35	0.58
10:1A:30:SER:HB3	10:1A:78:ASN:HD21	1.68	0.58
26:14:921:G:OP1	61:14:3572:HOH:O	2.17	0.58
26:14:1332:G:C8	26:14:1332:G:H5'	2.39	0.58
26:14:1794:U:H2'	26:14:1795:C:C6	2.39	0.58
26:14:2685:G:OP2	41:75:51:ARG:NH2	2.37	0.58
26:14:2873:A:H8	39:55:6:SER:H	1.49	0.58
32:49:32:PRO:HB2	32:49:172:LEU:HD22	1.85	0.58
1:13:1062:U:H2'	1:13:1063:C:C6	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
26:1H: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
1:1G:254:G:H5"	17:8A:69:LYS:HD2	1.85	0.58
26:14:71:A:H5"	26:14:73:A:C8	2.38	0.58
26:14:321:G:OP1	31:39:135:LYS:NZ	2.36	0.58
26:14:784:A:H5'	26:14:785:G:OP1	2.03	0.58
38:45:117:ALA:HA	38:45:120:ILE:HB	1.86	0.58
40:65:61:ASN:CG	40:65:62:LYS:H	2.11	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
1:13:881:G:OP2	12:3I:12:ARG:NH2	2.37	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
4:3E:89:THR:H	4:3E:92:VAL:HG23	1.68	0.58
13:4I:82:MET:C	13:4I:84:ILE:H	2.12	0.58
18:9I:21:LYS:O	18:9I:22:VAL:HG12	2.03	0.58
26:1H:1652:A:N6	39:98:11:ASN:OD1	2.36	0.58
26:1H:2350:C:H5'	55:Q8:46:ARG:HH22	1.69	0.58
26:1H:2636:U:P	30:21:79:ARG:HA	2.44	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
4:32:13:ARG:C	4:32:15:GLU:H	2.12	0.58
5:42:146:ALA:HB1	5:42:150:ARG:NH2	2.19	0.58
6:52:100:ASN:HD21	18:9A:23:LYS:HG3	1.68	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
26:14:2683:C:OP1	41:75:53:ARG:NH2	2.36	0.58
30:29:33:VAL:O	30:29:69:LYS:HE3	2.03	0.58
30:29:202:LYS:HD2	30:29:202:LYS:N	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
36:25:7:TYR:CZ	36:25:44:LYS:HG3	2.39	0.58
42:85:92:ARG:C	42:85:94:ASN:H	2.12	0.58
43:95:69:LYS:HB2	43:95:86:GLY:HA3	1.84	0.58
46:C5:87:LYS:NZ	46:C5:88:LYS:O	2.22	0.58
1:13:1034:G:N2	1:13:1035:A:N7	2.52	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1159:U:O4'	1:13:1182:G:N2	2.36	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
26:1H: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
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
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
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
1:1G:396:G:O2'	1:1G:398:C:OP1	2.18	0.58
1:1G:1502:A:H2	1:1G:1505:G:H1	1.50	0.58
16:7A:72:ARG:HD2	16:7A:73:LEU:HD23	1.86	0.58
26:14:469:G:O6	54:L5:39:ARG:NH1	2.37	0.58
26:14:629:G:H1	26:14:634:C:H42	1.50	0.58
26:14:1153:C:OP1	42:85:93:LYS:NZ	2.37	0.58
30:29:50:GLY:HA2	30:29:78:LEU:HA	1.84	0.58
35:15:36:GLY:O	35:15:39:ARG:HG2	2.03	0.58
2:1E:62:ALA:HB2	2:1E:222:ILE:HG22	1.85	0.58
26:1H:176:G:O2'	26:1H:177:G:H5'	2.04	0.58
26:1H:873:G:H1	26:1H:904:C:H42	1.51	0.58
26:1H:1505:C:H2'	26:1H:1506:C:C6	2.38	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
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
1:1G:362:G:H4'	12:3A:33:ARG:HH21	1.69	0.58
1:1G:1238:A:N3	1:1G:1241:G:O2'	2.30	0.58
7:62:116:ALA:HA	7:62:119:ARG:HE	1.68	0.58
26:14:1794:U:H2'	26:14:1795:C:H6	1.68	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
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
22:1K:6:G:H22	22:1K:67:C:H1'	1.69	0.58
22:1K:76:A:H8	26:1H:2583:G:H21	1.50	0.58
26:1H:1140:C:OP1	35:58:23:LEU:HB3	2.03	0.58
26:1H:1568:G:P	29:11:63:ARG:HH12	2.27	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
29:11:72:LYS:HG2	29:11:103:ARG:HH21	1.67	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
45:F8:5:TYR:OH	50:K8:30:ARG:NH1	2.37	0.58
1:1G:922:G:H1	1:1G:1395:C:H42	1.52	0.58
1:1G:1288:A:H4'	21:1B:13:ILE:HD13	1.86	0.58
3:22:140:ARG:CZ	3:22:140:ARG:HA	2.34	0.58
4:32:108:LEU:HB3	4:32:110:PHE:HE1	1.69	0.58
9:82:28:VAL:HG13	9:82:63:ILE:O	2.04	0.58
10:1A:16:LEU:HD13	10:1A:94:VAL:HG11	1.86	0.58
26:14:441:U:H2'	26:14:442:G:C8	2.39	0.58
26:14:483:A:H4'	46:C5:49:VAL:CA	2.34	0.58
26:14:691:C:O4'	29:19:43:ARG:NH2	2.36	0.58
26:14:897:C:C2	26:14:898:C:H5	2.21	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
26:14:2261:C:C5	48:E5:16:SER:HB3	2.39	0.58
27:1J:43:C:H4'	32:49:98:ARG:HH12	1.69	0.58
29:19:267:SER:O	29:19:268:ARG:HG2	2.04	0.58
33:59:7:LEU:HD23	33:59:65:HIS:HE1	1.69	0.58
36:25:64:ARG:NH1	36:25:81:ASP:OD1	2.36	0.58
50:G5:16:LEU:HD11	50:G5:24:LEU:HD12	1.85	0.58
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
1:13:1193:G:P	3:2E:167:TRP:HZ3	2.26	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
26:1H:273(E):U:H2'	26:1H:273(F):C:H5'	1.86	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
31:31:192:LEU:HD21	31:31:194:MET:HE3	1.85	0.57
32:41:16:ARG:O	32:41:20:ILE:HG13	2.03	0.57
39:98:2:ARG:O	39:98:5:LYS:HB2	2.02	0.57
1:1G:1251:A:H2'	1:1G:1252:A:C8	2.39	0.57
3:22:61:ALA:C	3:22:63:ASN:H	2.12	0.57
3:22:73:PRO:O	3:22:76:VAL:HG22	2.02	0.57
7:62:93:PRO:CD	7:62:94:ARG:HH21	2.16	0.57
13:4A:79:LYS:NZ	13:4A:82:MET:SD	2.77	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6A:76:GLU:HA	15:6A:79:ARG:HD2	1.86	0.57
26:14:779:U:OP1	29:19:49:ILE:HG22	2.04	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
27:1J:88:C:H5"	27:1J:89:G:C5	2.39	0.57
34:69:62:LYS:HD3	34:69:133:HIS:NE2	2.18	0.57
45:B5:63:LYS:HD3	45:B5:63:LYS:O	2.04	0.57
46:C5:48:ALA:HB1	46:C5:50:ARG:HB2	1.86	0.57
1:13:138:G:N2	1:13:225:C:N3	2.36	0.57
13:4I:10:PRO:HB2	13:4I:18:ALA:HB1	1.87	0.57
23:2K:24:C:H2'	23:2K:25:U:C6	2.40	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
31:31:130:ALA:HA	31:31:132:VAL:HG22	1.86	0.57
43:D8:1:MET:SD	43:D8:43:GLU:HG2	2.45	0.57
50:K8:47:ASN:C	50:K8:49:LYS:H	2.13	0.57
1:1G:532:A:N6	1:1G:1206:G:O2'	2.37	0.57
2:12:19:HIS:CE1	2:12:204:ASN:HB3	2.38	0.57
56:3L:14:A:H1'	56:3L:22:G:C2	2.38	0.57
26:14:1709:U:H2'	26:14:1710:C:C6	2.39	0.57
26:14:2785:C:O2'	30:29:64:LYS:NZ	2.37	0.57
29:19:244:ARG:HB2	29:19:245:PRO:HD2	1.84	0.57
37:35:79:ARG:HG2	37:35:110:TYR:CB	2.26	0.57
11:2I:98:LEU:O	11:2I:101:SER:OG	2.13	0.57
13:4I:3:ARG:NH2	13:4I:9:ILE:HD11	2.19	0.57
26:1H:2306:C:H3'	26:1H:2307:G:C5'	2.33	0.57
34:61:93:THR:HA	34:61:119:PRO:HB3	1.86	0.57
43:D8:35:LEU:HB2	43:D8:57:VAL:CG1	2.32	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
26:14:654(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
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
30:29:7:VAL:HG12	30:29:8:LYS:H	1.69	0.57
31:39:160:ASN:HB3	31:39:163:VAL:HB	1.86	0.57
44:A5:4:LYS:HB3	44:A5:106:ILE:HG22	1.86	0.57
48:E5:21:LEU:HD11	48:E5:41:ARG:NH1	2.18	0.57
1:13:276:G:O2'	17:8I:68:ARG:NH1	2.37	0.57
1:13:1289:A:OP1	21:1F:10:ARG:NH2	2.36	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1368:G:H5”	9:8E:112:LYS:HB3	1.86	0.57
2:1E:5:ILE:HB	2:1E:221:LEU:HD23	1.86	0.57
10:1I:28:ARG:HG2	10:1I:34:VAL:CG1	2.34	0.57
26:1H:259:G:H21	26:1H:621:A:H8	1.51	0.57
26:1H:1332:G:H21	26:1H:1610:A:H8	1.53	0.57
27:16:3:C:H2’	27:16:4:C:H6	1.70	0.57
29:11:231:HIS:HD2	29:11:249:PRO:HA	1.67	0.57
30:21:101:ARG:CZ	30:21:171:GLU:HB2	2.34	0.57
34:61:83:ALA:HB2	34:61:144:VAL:HG23	1.86	0.57
44:E8:24:ILE:HD12	44:E8:24:ILE:O	2.05	0.57
48:I8:30:VAL:HG22	48:I8:66:VAL:HG12	1.86	0.57
13:4A:22:ILE:HB	13:4A:25:ILE:HG13	1.85	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
39:55:28:LEU:HD21	39:55:114:VAL:HG12	1.87	0.57
39:55:106:GLY:O	39:55:107:ASP:HB3	2.03	0.57
1:13:688:G:H2’	1:13:689:C:H6	1.69	0.57
3:2E:59:ARG:HA	3:2E:63:ASN:O	2.05	0.57
26:1H:1191:G:OP1	37:78:32:THR:OG1	2.22	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
30:21:135:HIS:NE2	61:21:402:HOH:O	2.28	0.57
35:58:56:ASN:N	35:58:125:GLY:O	2.28	0.57
46:G8:94:LYS:HD3	46:G8:95:LYS:N	2.19	0.57
1:1G:41:G:H2’	1:1G:42:G:C8	2.40	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
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
37:35:105:LEU:O	37:35:106:LEU:HB3	2.02	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
1:13:420:U:C2	1:13:422:C:H5	2.21	0.57
1:13:624:C:O3’	16:7I:10:GLY:HA2	2.03	0.57
2:1E:96:ARG:N	2:1E:96:ARG:HD2	2.20	0.57
26:1H:444:C:H4’	31:31:49:ALA:HB2	1.85	0.57
26:1H:1728:G:O6	26:1H:1730:U:H5”	2.05	0.57
27:16:43:C:H5”	52:M8:1:MET:HG2	1.85	0.57
37:78:37:GLY:O	37:78:40:SER:OG	2.23	0.57
2:12:19:HIS:NE2	2:12:206:ASP:HB2	2.19	0.57
7:62:67:GLU:HA	7:62:70:LYS:HD2	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7A:53:VAL:HG13	16:7A:79:VAL:HG22	1.87	0.57
26:14:634:C:H2'	26:14:635:C:C6	2.40	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
26:14:2359:C:O3'	55:M5:51:ALA:HB2	2.04	0.57
30:29:65:GLY:O	30:29:68:ALA:HB2	2.04	0.57
34:69:6:LEU:HB2	34:69:36:ALA:HA	1.86	0.57
36:25:63:VAL:HG23	36:25:64:ARG:HG3	1.86	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
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
2:1E:71:VAL:HG23	2:1E:164:VAL:HA	1.87	0.57
26:1H:85:G:OP2	46:G8:9:LYS:HB2	2.04	0.57
26:1H:719:C:H2'	26:1H:720:C:C6	2.38	0.57
26:1H:880:G:O2'	26:1H:881:G:OP1	2.20	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
28:71:62:VAL:HG13	28:71:163:PHE:HE1	1.69	0.57
30:21:49:LEU:HD21	30:21:91:VAL:HG11	1.87	0.57
39:98:97:VAL:HA	39:98:113:LEU:O	2.05	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
1:1G:247:G:OP2	17:8A:100:LYS:N	2.37	0.57
1:1G:1204:A:OP1	14:5A:3:ARG:NH1	2.37	0.57
3:22:131:ARG:HD3	5:42:50:GLU:OE1	2.05	0.57
9:82:24:GLY:HA2	9:82:59:PHE:C	2.29	0.57
9:82:77:ILE:O	9:82:81:ILE:HG12	2.05	0.57
21:1B:8:THR:HG23	21:1B:11:GLY:H	1.69	0.57
56:3L:3:G:H1	56:3L:69:A:N6	2.03	0.57
26:14:568:U:H5'	26:14:945:A:N1	2.20	0.57
26:14:839:U:H2'	26:14:840:C:C6	2.39	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
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
36:25:14:THR:HG21	36:25:86:ILE:HG13	1.86	0.57
1:13:593:G:H2'	1:13:594:G:H8	1.69	0.57
4:3E:12:CYS:SG	4:3E:19:LEU:N	2.71	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:4K:23:A:H1'	25:4K:24:A:C8	2.39	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
26:1H:2111:C:N4	26:1H:2147:G:O6	2.38	0.57
1:1G:6:G:O2'	1:1G:7:G:H5"	2.05	0.57
1:1G:345:C:OP2	41:75:39:ARG:NH2	2.29	0.57
18:9A:22:VAL:C	18:9A:24:ALA:H	2.13	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
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
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
7:6E:15:ASP:OD1	7:6E:20:ASP:N	2.24	0.57
9:8E:114:TYR:HE2	10:1I:59:SER:HA	1.70	0.57
24:3K:3:G:H22	24:3K:70:C:H42	1.50	0.57
24:3K:19:G:OP2	24:3K:60:U:N3	2.38	0.57
26:1H:598:G:C1'	37:78:12:ALA:HB2	2.35	0.57
26:1H:2599:G:C8	29:11:236:GLY:HA2	2.39	0.57
27:16:54:G:H2'	27:16:55:U:H6	1.70	0.57
30:21:116:VAL:HG11	30:21:138:PRO:HB3	1.87	0.57
35:58:65:LYS:HD2	35:58:69:GLN:HE21	1.70	0.57
38:88:104:PHE:HE2	38:88:125:LEU:HD11	1.69	0.57
11:2A:79:SER:HA	11:2A:104:GLN:O	2.05	0.57
16:7A:20:VAL:HG12	16:7A:35:LYS:HA	1.86	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
26:14:996:A:O4'	42:85:92:ARG:NH2	2.38	0.57
26:14:1292:U:H2'	26:14:1293:C:C6	2.40	0.57
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
30:29:89:ASP:O	30:29:90:THR:HB	2.05	0.57
30:29:152:LYS:HB3	35:15:78:TYR:CE2	2.39	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
24:3K:8:U:C2	24:3K:13:C:H5	2.23	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:157:TYR:CE1	33:51:171:LEU:HB3	2.40	0.57
40:A8:66:ALA:HA	40:A8:69:VAL:HG12	1.86	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
1:1G:1007:C:H2'	1:1G:1008:C:O4'	2.05	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
11:2A:96:ARG:HA	11:2A:99:GLN:CG	2.34	0.57
21:1B:2:GLY:O	21:1B:4:GLY:N	2.37	0.57
26:14:729:G:O5'	29:19:208:LYS:NZ	2.38	0.57
26:14:872:A:H4'	38:45:66:ILE:HD11	1.86	0.57
29:19:244:ARG:NH2	61:19:302:HOH:O	2.38	0.57
32:49:56:ALA:HB2	32:49:153:ARG:HH22	1.69	0.57
37:35:27:HIS:HB3	37:35:32:THR:HG23	1.87	0.57
43:95:35:LEU:O	43:95:37:VAL:HG22	2.04	0.57
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
1:13:1182:G:C4'	1:13:1183:A:H5'	2.34	0.56
12:3I:10:LEU:HD12	17:8I:32:TYR:CZ	2.40	0.56
16:7I:76:GLN:O	16:7I:76:GLN:HG2	2.05	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
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
1:1G:438:G:H4'	4:32:123:HIS:CD2	2.39	0.56
5:42:99:GLY:O	5:42:117:ASP:HA	2.05	0.56
26:14:1007:C:H5"	35:15:35:ARG:NH1	2.20	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
29:19:61:LEU:HB3	29:19:63:ARG:NH1	2.20	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
1:13:505:G:N7	61:13:1838:HOH:O	2.33	0.56
2:1E:12:GLU:HB3	2:1E:44:LEU:HD13	1.87	0.56
2:1E:215:LEU:O	2:1E:219:VAL:HG23	2.06	0.56
26:1H:326:G:N7	61:1H:3778:HOH:O	2.32	0.56
26:1H:2052:G:H4'	30:21:143:ASN:O	2.05	0.56
52:M8:40:HIS:ND1	52:M8:44:THR:O	2.38	0.56
1:1G:45:U:H2'	1:1G:46:G:H8	1.69	0.56
4:32:98:GLU:OE2	4:32:103:ASN:ND2	2.34	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:675:A:N3	26:14:2443:C:O2'	2.37	0.56
26:14:1003:G:O2'	26:14:1010:A:N1	2.36	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
46:C5:14:LEU:HB2	46:C5:75:ILE:HD11	1.87	0.56
1:13:501:C:H2'	1:13:502:G:H8	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
1:13:690:G:H22	11:2I:55:LYS:HE2	1.71	0.56
1:13:1034:G:H2'	1:13:1034:G:N3	2.20	0.56
4:3E:76:ARG:HH22	4:3E:209:ARG:HD2	1.69	0.56
8:7E:23:SER:HA	8:7E:61:VAL:O	2.05	0.56
26:1H:357:A:H2'	26:1H:358:U:C6	2.41	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:1221:C:H2'	26:1H:1222:C:C6	2.39	0.56
26:1H:1221:C:H2'	26:1H:1222:C:H6	1.70	0.56
26:1H:1534:G:O2'	26:1H:1535:U:O4'	2.21	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
31:31:28:ILE:HA	31:31:112:MET:HE3	1.86	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
37:78:49:ARG:NH1	55:Q8:61:LEU:HD23	2.17	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
40:A8:88:ASP:O	40:A8:89:ARG:HG2	2.05	0.56
43:D8:76:LYS:HB2	43:D8:81:TYR:HD1	1.70	0.56
1:1G:745:C:H2'	1:1G:746:A:C8	2.40	0.56
3:22:42:LEU:O	3:22:46:GLU:HG2	2.05	0.56
4:32:70:ILE:HD11	4:32:75:PHE:HD1	1.70	0.56
20:BA:35:THR:HG22	61:BA:203:HOH:O	2.04	0.56
22:1L:45:G:N2	22:1L:48:C:OP2	2.38	0.56
22:1L:48:C:O2'	22:1L:49:G:OP2	2.22	0.56
56:3L:44:U:H2'	56:3L:45:G:H8	1.71	0.56
26:14:774:A:H2	26:14:787:U:O2'	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1019:U:H2'	26:14:1020:A:C8	2.40	0.56
26:14:1171:G:O6	26:14:1176:G:H1'	2.05	0.56
26:14:1784:A:H4'	26:14:1785:A:O5'	2.06	0.56
26:14:1793:C:H2'	26:14:1794:U:H6	1.70	0.56
26:14:2305:A:H61	32:49:153:ARG:HG3	1.71	0.56
34:69:142:VAL:HG12	34:69:143:SER:H	1.68	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
42:85:66:ASN:HD21	42:85:70:ARG:HE	1.52	0.56
47:D5:158:PRO:O	47:D5:161:VAL:HG13	2.04	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
14:5I:9:LYS:HA	14:5I:12:ARG:HG2	1.86	0.56
17:8I:14:LYS:N	17:8I:14:LYS:HD2	2.21	0.56
26:1H:270(M):U:OP2	34:61:57:ARG:NH2	2.38	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
35:58:12:ARG:HD2	35:58:50:ASP:CG	2.30	0.56
45:F8:61:GLY:N	45:F8:75:ASP:OD1	2.17	0.56
23:2L:8:4SU:O5'	23:2L:8:4SU:H6	2.06	0.56
26:14:2162:G:H2'	26:14:2163:C:H5'	1.87	0.56
33:59:9:ILE:O	33:59:69:ARG:NH1	2.38	0.56
37:35:132:LYS:NZ	37:35:135:LEU:HD12	2.21	0.56
1:13:591:U:H2'	1:13:592:G:C8	2.40	0.56
2:1E:118:LEU:HB3	2:1E:142:LEU:HD13	1.86	0.56
19:AI:40:ILE:HD11	19:AI:62:ILE:HD12	1.87	0.56
26:1H:49:A:N7	26:1H:120:U:C5	2.72	0.56
26:1H:249:C:O2'	37:78:64:LYS:NZ	2.19	0.56
26:1H:801:G:OP2	61:1H:3690:HOH:O	2.18	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
31:31:181:LEU:O	31:31:205:ARG:NH2	2.35	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
26:14:605:C:O2	26:14:657:U:O2'	2.24	0.56
26:14:635:C:H2'	26:14:636:G:O4'	2.06	0.56
37:35:144:GLU:N	37:35:144:GLU:OE2	2.39	0.56
54:L5:34:ARG:NH2	54:L5:39:ARG:HE	2.03	0.56
2:1E:8:LYS:HD3	2:1E:8:LYS:N	2.20	0.56
5:4E:35:GLY:HA3	5:4E:112:LEU:HB3	1.88	0.56
6:5E:35:ALA:HA	6:5E:67:MET:HB3	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:104:ARG:HG2	9:8E:105:ASP:N	2.19	0.56
15:6I:17:ARG:NH1	15:6I:77:ARG:HH11	2.03	0.56
16:7I:21:VAL:HG23	16:7I:34:GLU:H	1.71	0.56
26:1H:355:G:H2'	26:1H:356:G:H8	1.70	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:2132:U:N3	28:71:5:LYS:HD2	2.20	0.56
30:21:116:VAL:HG23	30:21:120:TRP:CD1	2.34	0.56
35:58:13:TRP:O	35:58:135:PRO:HD2	2.05	0.56
1:1G:987:G:H1	1:1G:1218:C:N4	2.03	0.56
13:4A:89:GLY:O	13:4A:93:ARG:N	2.34	0.56
17:8A:59:ILE:HG22	17:8A:71:PHE:HB3	1.88	0.56
19:AA:63:THR:OG1	19:AA:65:ASN:O	2.24	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
30:29:68:ALA:C	30:29:70:ALA:H	2.14	0.56
43:95:38:LEU:CD1	43:95:56:SER:N	2.68	0.56
1:13:76:G:O4'	1:13:95:G:N1	2.38	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
1:13:1263:C:H2'	1:13:1264:C:C6	2.37	0.56
2:1E:58:ILE:O	2:1E:62:ALA:N	2.32	0.56
2:1E:237:ALA:O	2:1E:239:VAL:N	2.38	0.56
3:2E:123:GLN:HE22	3:2E:136:GLN:NE2	2.00	0.56
7:6E:2:ALA:HB2	7:6E:7:ALA:HB2	1.86	0.56
19:AI:41:VAL:HG11	19:AI:67:VAL:HA	1.88	0.56
26:1H:286:C:H2'	26:1H:287:C:H6	1.70	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
28:71:43:VAL:HG22	28:71:214:VAL:HG13	1.88	0.56
35:58:51:PHE:HE1	35:58:119:ARG:HH21	1.53	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
1:1G:186(A):C:N3	20:BA:105:SER:OG	2.38	0.56
4:32:104:VAL:HG13	4:32:108:LEU:HD23	1.86	0.56
7:62:24:THR:HA	7:62:27:ILE:HD12	1.86	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
26:14:1106:G:H3'	26:14:1107:G:C8	2.40	0.56
30:29:200:GLU:OE1	30:29:200:GLU:N	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:77:LEU:HD13	34:69:141:LYS:HD2	1.88	0.56
34:69:101:LEU:HD23	34:69:101:LEU:H	1.69	0.56
1:13:403:C:OP1	4:3E:137:SER:OG	2.20	0.56
1:13:406:G:H5'	4:3E:5:ILE:HD13	1.86	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
1:13:1238:A:N3	1:13:1241:G:O2'	2.36	0.56
4:3E:148:VAL:HG21	4:3E:158:ILE:HG21	1.87	0.56
26:1H:307:G:H21	26:1H:330:A:H62	1.52	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
27:16:12:C:H2'	48:I8:73:GLY:HA3	1.88	0.56
29:11:17:THR:HG22	29:11:204:ILE:HA	1.88	0.56
30:21:26:ILE:HG13	30:21:26:ILE:O	2.05	0.56
31:31:52:LYS:HG2	31:31:56:GLU:HB2	1.88	0.56
37:78:90:ARG:HG2	37:78:91:PHE:CD1	2.41	0.56
1:1G:411:A:H62	1:1G:413:G:N2	2.04	0.56
1:1G:1036:G:H3'	1:1G:1037:C:O4'	2.06	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
4:32:150:GLU:C	4:32:152:SER:H	2.12	0.56
7:62:51:GLN:HG2	7:62:58:PRO:HD3	1.87	0.56
17:8A:5:VAL:HG22	17:8A:60:ILE:HD11	1.88	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
30:29:54:GLN:HG3	30:29:55:ASN:H	1.71	0.56
39:55:18:LEU:HD11	39:55:22:ARG:CZ	2.35	0.56
41:75:36:GLU:OE1	41:75:41:ARG:HD3	2.05	0.56
1:13:7:G:H5'	1:13:298:A:O4'	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
11:2I:85:ARG:HD3	11:2I:113:PRO:HD3	1.87	0.56
21:1F:18:TYR:HB3	21:1F:22:ARG:O	2.06	0.56
26:1H:69:C:H2'	26:1H:70:G:C8	2.40	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: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:2784:C:O2'	30:21:37:ARG:NH1	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:70:TRP:CD1	29:11:70:TRP:C	2.83	0.56
29:11:231:HIS:CD2	29:11:232:PRO:HD2	2.41	0.56
37:78:121:LYS:O	37:78:123:LEU:N	2.39	0.56
40:A8:106:ARG:HH11	40:A8:106:ARG:C	2.11	0.56
2:12:214:ILE:O	2:12:217:ARG:HB2	2.06	0.56
22:1L:50:C:H2'	22:1L:51:A:H5'	1.88	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
26:14:108:U:H2'	26:14:109:G:H8	1.71	0.56
26:14:662:G:H5'	37:35:15:ARG:CA	2.36	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
29:19:131:LEU:HB2	29:19:136:ILE:HD11	1.88	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:H8	1:13:353:A:H5'	1.70	0.56
1:13:476:G:H2'	1:13:477:G:C8	2.39	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
10:1I:49:VAL:HG23	14:5I:41:ARG:HB2	1.87	0.56
26:1H:635:C:O2'	26:1H:639:U:OP1	2.24	0.56
26:1H:2103:C:O2	26:1H:2186:G:N2	2.32	0.56
26:1H:2492:U:H2'	26:1H:2493:U:C6	2.40	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
43:D8:37:VAL:HG12	43:D8:55:ALA:O	2.05	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
26:14:817:C:H2'	26:14:818:G:O4'	2.06	0.56
26:14:1418:G:H8	26:14:1418:G:O5'	1.89	0.56
29:19:267:SER:C	29:19:269:PHE:H	2.14	0.56
31:39:68:LYS:HG3	31:39:69:HIS:CE1	2.41	0.56
31:39:122:LYS:O	31:39:123:LEU:HG	2.06	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
51:H5:7:LYS:HB2	51:H5:34:GLU:HG2	1.88	0.56
1:13:376:G:H5"	16:7I:5:ARG:HD2	1.88	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
20:BI:92:LEU:HD22	20:BI:96:GLY:HA2	1.88	0.55
26:1H:1010:A:OP2	61:1H:3691:HOH:O	2.18	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:1G:976:G:N2	1:1G:1362(A):C:OP2	2.23	0.55
4:32:11:LEU:HD22	4:32:66:ARG:HD2	1.88	0.55
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
27:1J:60:C:H2'	27:1J:61:G:C8	2.41	0.55
30:29:11:MET:HE3	30:29:186:GLY:HA2	1.87	0.55
30:29:112:GLY:O	30:29:159:HIS:HA	2.06	0.55
33:59:77:LYS:HD2	33:59:77:LYS:N	2.20	0.55
40:65:67:ARG:NH1	40:65:67:ARG:HB2	2.21	0.55
1:13:486:U:H2'	1:13:487:A:C8	2.41	0.55
15:6I:82:ILE:O	15:6I:86:GLY:N	2.39	0.55
18:9I:59:SER:OG	18:9I:60:ALA:N	2.37	0.55
23:2K:10:G:N2	23:2K:27:G:H1'	2.21	0.55
26:1H:155:C:H42	26:1H:171:G:H1	1.54	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:1973:G:H2'	26:1H:1974:C:C6	2.41	0.55
29:11:75:ILE:HG21	29:11:99:ASP:OD2	2.06	0.55
37:78:97:PRO:HA	37:78:100:LEU:HB2	1.88	0.55
52:M8:14:ILE:HG22	52:M8:24:THR:HG22	1.87	0.55
1:1G:420:U:O2'	1:1G:423:G:O6	2.18	0.55
26:14:857:C:H4'	48:E5:23:VAL:HG21	1.88	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
49:F5:29:GLY:O	49:F5:30:VAL:HG22	2.06	0.55
1:13:154:C:N4	1:13:167:G:O6	2.39	0.55
2:1E:28:PHE:CD2	2:1E:190:THR:HA	2.42	0.55
4:3E:88:VAL:O	4:3E:89:THR:HG22	2.06	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
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
33:51:9:ILE:HG22	33:51:49:VAL:HB	1.86	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
47:H8:166:SER:OG	47:H8:168:GLU:O	2.18	0.55
54:P8:12:ARG:NH2	54:P8:44:PRO:HB3	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1014:A:P	1:1G:1014:A:H8	2.29	0.55
6:52:96:PRO:HB3	18:9A:30:ASP:CG	2.31	0.55
56:3L:35:U:H2'	56:3L:36:U:H6	1.72	0.55
26:14:2749:A:N1	26:14:2750:A:N6	2.54	0.55
27:1J:21:G:H2'	27:1J:22:U:O4'	2.06	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
8:7E:81:HIS:HB2	8:7E:138:TRP:CE3	2.41	0.55
8:7E:82:HIS:CE1	8:7E:138:TRP:CE2	2.95	0.55
20:BI:65:LYS:O	20:BI:68:LYS:HB2	2.07	0.55
26:1H:309:G:H4'	46:G8:18:GLY:HA2	1.88	0.55
26:1H:858:U:O2	26:1H:2268:A:H2'	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:2667:C:O2	33:51:110:SER:OG	2.24	0.55
27:16:90:C:H5'	38:88:18:LYS:HA	1.89	0.55
37:78:49:ARG:HH12	37:78:50:ARG:NH2	2.03	0.55
1:1G:748:C:H4'	1:1G:749:C:O5'	2.07	0.55
1:1G:1080:A:H5'	5:42:14:ARG:NH2	2.21	0.55
29:19:38:LYS:HZ1	29:19:60:ARG:H	1.55	0.55
41:75:80:SER:OG	41:75:83:ILE:HG13	2.06	0.55
48:E5:18:ALA:HB3	48:E5:20:ARG:HE	1.72	0.55
55:M5:34:TRP:HA	55:M5:34:TRP:CE3	2.41	0.55
1:13:165:C:H2'	1:13:166:G:C8	2.39	0.55
1:13:376:G:O3'	16:7I:5:ARG:NH1	2.40	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
24:3K:41:A:H2'	24:3K:42:A:H8	1.72	0.55
26:1H:33:U:H4'	26:1H:34:C:OP1	2.06	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
27:16:95:U:H2'	27:16:96:G:C8	2.42	0.55
28:71:10:LEU:HD11	28:71:34:THR:HG23	1.88	0.55
29:11:39:LYS:HG3	29:11:40:THR:H	1.71	0.55
32:41:165:THR:OG1	32:41:168:GLU:HG3	2.07	0.55
33:51:40:GLU:N	33:51:40:GLU:OE2	2.39	0.55
33:51:152:ARG:HG3	33:51:161:GLY:HA2	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:61:42:SER:O	34:61:45:LYS:N	2.39	0.55
45:F8:24:GLY:O	45:F8:83:VAL:HG22	2.05	0.55
12:3A:46:LYS:HG3	12:3A:47:LYS:HB2	1.89	0.55
17:8A:66:SER:HB3	17:8A:69:LYS:HB2	1.89	0.55
56:3L:5:C:H2'	56:3L:6:G:N7	2.20	0.55
26:14:957:A:OP1	38:45:76:LYS:HG3	2.06	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
29:19:43:ARG:HB3	29:19:49:ILE:HA	1.86	0.55
7:6E:65:ALA:HB1	7:6E:127:ALA:HB3	1.89	0.55
17:8I:11:VAL:HG12	17:8I:85:VAL:HG23	1.89	0.55
22:1K:29:U:H2'	22:1K:30:G:H8	1.72	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
29:11:182:LEU:HB3	29:11:271:ILE:HG13	1.87	0.55
31:31:129:PHE:HA	31:31:142:TRP:NE1	2.22	0.55
33:51:86:GLU:OE2	33:51:165:ALA:HB2	2.07	0.55
40:A8:58:LEU:HG	40:A8:65:VAL:HG13	1.87	0.55
53:N8:16:ARG:HG3	53:N8:17:ASP:N	2.22	0.55
1:1G:130:A:C8	17:8A:63:ARG:HG3	2.42	0.55
1:1G:1085:U:H5'	1:1G:1094:G:N2	2.20	0.55
4:32:31:CYS:C	4:32:33:MET:N	2.65	0.55
9:82:17:VAL:HG22	9:82:63:ILE:HG12	1.89	0.55
19:AA:66:MET:SD	19:AA:66:MET:N	2.79	0.55
56:3L:2:G:OP2	56:3L:2:G:H8	1.90	0.55
26:14:273(C):C:H5'	26:14:273(D):C:OP2	2.07	0.55
26:14:986:C:HO2'	26:14:1001:A:HO2'	1.54	0.55
26:14:1617:C:N3	61:14:3667:HOH:O	2.32	0.55
30:29:55:ASN:O	30:29:57:LYS:NZ	2.40	0.55
32:49:153:ARG:HD3	32:49:153:ARG:N	2.21	0.55
33:59:60:ARG:O	33:59:63:SER:OG	2.25	0.55
35:15:33:LEU:HD12	35:15:38:HIS:HD2	1.72	0.55
41:75:5:ALA:O	41:75:8:LYS:N	2.39	0.55
46:C5:15:VAL:HG22	46:C5:72:VAL:HG12	1.87	0.55
47:D5:11:GLU:CD	47:D5:12:GLY:H	2.15	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
4:3E:31:CYS:C	4:3E:33:MET:H	2.13	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:87:SER:HB2	8:7E:93:VAL:H	1.72	0.55
10:1I:34:VAL:HB	10:1I:74:ILE:HG12	1.87	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
24:3K:48:C:OP2	24:3K:59:A:O2'	2.25	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
32:41:16:ARG:HH21	32:41:31:VAL:CG1	2.19	0.55
35:58:60:ILE:HD12	35:58:60:ILE:O	2.07	0.55
42:C8:92:ARG:HH21	43:D8:10:LYS:HB3	1.70	0.55
1:1G:1142:G:H3'	1:1G:1143:G:C8	2.42	0.55
26:14:67:U:H2'	26:14:68:G:H8	1.72	0.55
26:14:273(C):C:N4	26:14:363(C):G:H1	2.05	0.55
26:14:2068:U:N3	26:14:2430:A:H2	2.03	0.55
26:14:2172:U:OP1	26:14:2173:A:N6	2.33	0.55
26:14:2660:A:H8	26:14:2660:A:OP1	1.90	0.55
26:14:2674:G:H4'	36:25:30:ALA:HB2	1.89	0.55
1:13:598:U:H4'	8:7E:94:TYR:CD2	2.42	0.55
2:1E:10:LEU:CD1	2:1E:217:ARG:HH12	2.19	0.55
10:1I:26:ALA:O	10:1I:30:SER:OG	2.20	0.55
26:1H:309:G:N3	26:1H:329:G:O2'	2.39	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
28:71:44:HIS:CD2	28:71:172:HIS:HB3	2.42	0.55
33:51:92:ILE:H	33:51:92:ILE:HD12	1.71	0.55
46:G8:104:GLY:H	46:G8:105:ALA:HB3	1.72	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
9:82:89:ASN:O	9:82:92:TYR:HB2	2.07	0.55
15:6A:10:LYS:HA	15:6A:13:GLN:HG2	1.88	0.55
22:1L:68:G:H2'	22:1L:69:A:C8	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
1:13:994:A:N7	1:13:1216:G:H4'	2.22	0.55
4:3E:187:ARG:HH22	4:3E:193:ASP:CG	2.15	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:34:LEU:HD23	13:4I:39:ILE:HB	1.88	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
28:71:48:GLY:N	28:71:208:PHE:O	2.40	0.55
34:61:95:LYS:HA	34:61:111:PRO:HG3	1.89	0.55
36:68:73:ASP:HB2	41:B8:82:LEU:HD22	1.89	0.55
37:78:39:LYS:HD2	37:78:45:LEU:HD21	1.88	0.55
55:Q8:6:THR:HG23	55:Q8:64:TYR:HD2	1.71	0.55
1:1G:895:G:H2'	1:1G:896:C:C6	2.41	0.55
1:1G:1028(A):C:N4	1:1G:1032(B):G:H1	2.05	0.55
26:14:1112:G:H2'	26:14:1113:U:C6	2.42	0.55
32:49:97:ASP:HA	32:49:100:TRP:HB2	1.89	0.55
35:15:111:PRO:HA	35:15:114:ARG:NH1	2.22	0.55
36:25:2:ILE:HD12	36:25:6:THR:HG21	1.88	0.55
46:C5:62:GLU:OE1	46:C5:64:GLU:HG3	2.06	0.55
1:13:1333:A:H2'	1:13:1334:G:O4'	2.07	0.55
3:2E:82:GLU:HA	3:2E:85:ARG:HB3	1.89	0.55
4:3E:150:GLU:H	4:3E:150:GLU:CD	2.15	0.55
26:1H:1021:A:H3'	26:1H:1021:A:H8	1.72	0.55
26:1H:1510:A:O2'	26:1H:1512:G:N7	2.38	0.55
26:1H:2572:A:N7	30:21:145:LYS:HB2	2.21	0.55
26:1H:2791:C:H2'	26:1H:2792:G:H5'	1.88	0.55
31:31:64:ILE:HG22	31:31:65:TRP:CD1	2.42	0.55
33:51:12:PRO:HG2	33:51:13:LYS:HG2	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
1:1G:564:C:O2'	8:72:91:ARG:NH2	2.40	0.55
1:1G:825:G:H2'	1:1G:826:C:O4'	2.07	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
13:4A:39:ILE:HG22	13:4A:40:ASN:H	1.72	0.55
17:8A:58:GLU:HB2	17:8A:74:LEU:HB2	1.89	0.55
56:3L:3:G:H1	56:3L:69:A:H61	1.53	0.55
56:3L:15:G:H2'	56:3L:59:A:N1	2.22	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
27:1J:93:C:H2'	27:1J:94:C:H6	1.71	0.55
31:39:25:PRO:C	31:39:27:GLU:N	2.64	0.55
39:55:67:LEU:HD12	39:55:76:VAL:HG21	1.88	0.55
1:13:1139:G:N2	1:13:1143:G:H1	2.03	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:163:PHE:CD1	2:1E:185:ILE:HG13	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
33:51:24:VAL:HG13	33:51:35:VAL:HB	1.89	0.54
33:51:156:ALA:HA	33:51:170:ARG:H	1.73	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
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
2:12:105:PHE:O	2:12:109:SER:N	2.40	0.54
12:3A:49:ASN:ND2	12:3A:92:ASP:OD2	2.40	0.54
21:1B:9:ARG:HG2	21:1B:10:ARG:HD2	1.89	0.54
26:14:479:A:H1'	26:14:480:A:H5"	1.89	0.54
26:14:1614:A:N6	44:A5:87:PRO:HA	2.22	0.54
32:49:105:LYS:O	32:49:109:VAL:HB	2.07	0.54
37:35:18:ARG:O	37:35:19:VAL:HG23	2.07	0.54
47:D5:19:ARG:HH11	47:D5:84:GLU:HB2	1.71	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
1:13:976:G:H5'	1:13:1358:U:O2'	2.07	0.54
1:13:1171:G:H2'	1:13:1172:C:C6	2.42	0.54
17:8I:13:ASP:H	17:8I:14:LYS:HZ2	1.54	0.54
19:AI:18:LYS:O	19:AI:18:LYS:NZ	2.34	0.54
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
29:11:124:PRO:HG2	29:11:129:ASN:ND2	2.23	0.54
30:21:203:LYS:HD2	30:21:203:LYS:O	2.06	0.54
37:78:64:LYS:HG2	55:Q8:13:ARG:HG3	1.88	0.54
48:I8:83:PRO:O	48:I8:84:LEU:HB2	2.07	0.54
1:1G:411:A:H62	1:1G:413:G:H21	1.54	0.54
1:1G:1322:C:O2'	1:1G:1323:G:H5'	2.07	0.54
2:12:23:ARG:HA	2:12:23:ARG:HE	1.69	0.54
4:32:30:LYS:HB3	4:32:35:ARG:NH1	2.22	0.54
15:6A:87:ILE:HG22	15:6A:88:ARG:N	2.21	0.54
23:2L:47:G7M:H3'	23:2L:48:U:C6	2.42	0.54
26:14:774:A:O2'	26:14:775:G:O5'	2.24	0.54
26:14:1225:C:H4'	43:95:85:LYS:CG	2.38	0.54
30:29:37:ARG:NE	30:29:42:ASP:OD1	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:158:THR:HA	31:39:195:ASP:HB2	1.88	0.54
1:13:155:C:H2'	1:13:156:G:H8	1.71	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
6:5E:81:ILE:HD11	29:11:137:PRO:HG3	1.88	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:956:G:OP2	38:88:14:ARG:NH2	2.41	0.54
26:1H:994:C:OP2	42:C8:54:LYS:NZ	2.40	0.54
26:1H:1021:A:H3'	26:1H:1021:A:C8	2.42	0.54
26:1H:2528:U:O2'	26:1H:2529:G:H3'	2.08	0.54
1:1G:155:C:H42	1:1G:166:G:H1	1.54	0.54
1:1G:719:C:O2'	18:9A:50:ILE:O	2.23	0.54
2:12:197:VAL:HB	2:12:200:ILE:HG12	1.89	0.54
9:82:85:LEU:HD11	9:82:96:LEU:HD13	1.90	0.54
26:14:271(B):G:O6	26:14:404:C:N4	2.19	0.54
26:14:2125:G:N2	26:14:2173:A:H61	2.06	0.54
26:14:2836:U:H2'	26:14:2837:G:C8	2.42	0.54
30:29:54:GLN:CG	30:29:55:ASN:H	2.20	0.54
31:39:68:LYS:HG3	31:39:69:HIS:NE2	2.22	0.54
36:25:9:GLU:O	36:25:83:ALA:HA	2.08	0.54
36:25:25:LEU:HB2	36:25:38:VAL:HG23	1.89	0.54
37:35:122:PRO:HB3	37:35:141:ALA:HB1	1.88	0.54
40:65:61:ASN:OD1	40:65:62:LYS:HG2	2.07	0.54
46:C5:89:PHE:O	46:C5:89:PHE:CG	2.60	0.54
1:13:324:G:N1	1:13:327:A:OP2	2.39	0.54
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
1:13:1116:C:O2'	9:8E:108:VAL:HG11	2.07	0.54
21:1F:5:ASP:HB3	21:1F:8:THR:HG22	1.89	0.54
26:1H:70:G:H21	26:1H:71:A:H62	1.54	0.54
26:1H:315:G:H2'	26:1H:316:C:C6	2.42	0.54
26:1H:1210:A:H5'	26:1H:1210:A:H8	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
27:16:15:A:H5'	27:16:16:G:H8	1.63	0.54
32:41:34:LEU:HB3	32:41:99:MET:CE	2.38	0.54
39:98:78:LYS:O	39:98:83:ILE:HG13	2.07	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:280:C:H3'	1:1G:281:G:H5'	1.88	0.54
3:22:63:ASN:HA	3:22:98:ASN:HB2	1.90	0.54
3:22:70:VAL:O	3:22:105:GLU:HG2	2.07	0.54
19:AA:40:ILE:O	19:AA:68:GLY:N	2.40	0.54
23:2L:56:PSU:N3	23:2L:59:A:OP2	2.39	0.54
26:14:70:G:H21	26:14:71:A:N6	2.05	0.54
26:14:71:A:H2	45:B5:31:HIS:CE1	2.25	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
26:14:2124:G:O6	26:14:2174:C:N4	2.39	0.54
26:14:2134:A:H2'	26:14:2134:A:N3	2.23	0.54
33:59:61:HIS:O	33:59:64:LEU:HG	2.07	0.54
33:59:143:GLN:C	33:59:145:ALA:H	2.15	0.54
45:B5:8:ILE:O	50:G5:36:ARG:NH2	2.41	0.54
1:13:603:U:H2'	1:13:604:G:C8	2.43	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
2:1E:134:GLU:O	2:1E:138:LEU:HG	2.08	0.54
24:3K:19:G:H21	24:3K:56:C:H42	1.53	0.54
26:1H:14:A:H5"	26:1H:15:G:OP2	2.08	0.54
26:1H:69:C:H2'	26:1H:70:G:H8	1.73	0.54
26:1H:568:U:H5'	26:1H:945:A:N1	2.22	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
27:16:31:C:H2'	27:16:32:C:C6	2.42	0.54
30:21:57:LYS:HB2	30:21:59:VAL:HG12	1.89	0.54
31:31:78:ILE:HA	31:31:83:PHE:CD2	2.43	0.54
32:41:97:ASP:O	32:41:100:TRP:N	2.40	0.54
1:1G:581:G:OP1	15:6A:61:GLY:HA3	2.07	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
3:22:33:LEU:O	3:22:36:ASP:N	2.41	0.54
11:2A:62:GLN:OE1	11:2A:93:GLN:NE2	2.33	0.54
12:3A:58:VAL:O	12:3A:65:GLU:HA	2.08	0.54
30:29:167:VAL:HG12	30:29:170:LEU:CD1	2.33	0.54
32:49:11:TYR:HE1	32:49:172:LEU:HD11	1.73	0.54
38:45:57:HIS:CG	38:45:117:ALA:HB2	2.42	0.54
40:65:72:ALA:O	40:65:76:LYS:HG3	2.07	0.54
1:13:1367:C:H5'	10:1I:60:ARG:HH11	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
9:8E:92:TYR:O	9:8E:96:LEU:HB2	2.07	0.54
10:1I:61:GLU:OE1	14:5I:58:LYS:NZ	2.41	0.54
20:BI:30:LYS:HE2	20:BI:80:ARG:HH12	1.73	0.54
26:1H:72:U:N3	50:K8:62:THR:HG22	2.23	0.54
26:1H:234:C:H2'	26:1H:235:U:H6	1.73	0.54
26:1H:747:U:O2	26:1H:2014:A:H1'	2.08	0.54
26:1H:2849:U:H4'	26:1H:2868:A:C2	2.42	0.54
35:58:130:HIS:C	35:58:134:ARG:HH22	2.16	0.54
38:88:32:TYR:O	38:88:105:GLU:HA	2.07	0.54
1:1G:501:C:OP1	12:3A:117:ARG:NH2	2.34	0.54
12:3A:100:ILE:HG22	12:3A:101:VAL:N	2.23	0.54
13:4A:49:THR:N	13:4A:52:GLU:OE1	2.33	0.54
22:1L:9:A:H3'	22:1L:10:G:C8	2.43	0.54
26:14:90:U:H1'	26:14:91:A:C8	2.43	0.54
26:14:617:G:OP1	31:39:40:GLN:HG3	2.06	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
27:1J:42:C:N4	32:49:91:ARG:HH22	2.06	0.54
35:15:137:LYS:C	35:15:138:LEU:HG	2.33	0.54
43:95:70:ILE:N	43:95:86:GLY:O	2.32	0.54
48:E5:24:LYS:HB2	48:E5:36:ILE:HD13	1.89	0.54
1:13:1002:G:H2'	1:13:1003:G:O4'	2.07	0.54
13:4I:23:TYR:CE2	13:4I:71:ARG:HG3	2.43	0.54
26:1H:997:G:OP1	42:C8:93:LYS:HD2	2.08	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
32:41:173:LEU:HD12	32:41:178:PHE:CD2	2.42	0.54
35:58:38:HIS:CD2	35:58:39:ARG:HG2	2.43	0.54
37:78:119:GLU:HA	37:78:119:GLU:OE2	2.07	0.54
40:A8:51:ALA:HB3	40:A8:73:LEU:HG	1.90	0.54
40:A8:106:ARG:HH12	40:A8:107:GLU:HB2	1.70	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
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
1:1G:1177:G:H8	1:1G:1177:G:OP2	1.90	0.54
3:22:19:GLU:O	3:22:56:ASP:HA	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2L:8:4SU:C2	23:2L:14:A:H62	2.20	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
30:29:119:ARG:HA	30:29:160:TYR:CD2	2.43	0.54
37:35:126:VAL:HA	37:35:145:PRO:HD2	1.88	0.54
1:13:1323:G:H2'	1:13:1324:A:C8	2.43	0.54
11:2I:73:MET:HG2	11:2I:103:LEU:HD13	1.90	0.54
19:AI:6:LYS:O	19:AI:7:LYS:HB3	2.06	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
61:1H:4011:HOH:O	29:11:237:GLU:HG3	2.08	0.54
30:21:105:THR:HG22	30:21:106:GLY:H	1.71	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
1:1G:1181:G:C2	1:1G:1182:G:H1'	2.43	0.54
2:12:91:PRO:HA	2:12:154:LEU:HD12	1.90	0.54
2:12:162:ILE:HG12	2:12:184:VAL:HG22	1.90	0.54
26:14:2012:G:OP1	44:A5:11:ARG:NH2	2.41	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
46:C5:5:MET:HE2	46:C5:30:VAL:HG13	1.90	0.54
1:13:428:G:O3'	4:3E:36:ARG:NH2	2.41	0.54
16:7I:20:VAL:HG21	16:7I:32:TYR:CG	2.42	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
26:1H:1173:G:H5'	26:1H:1174:A:N1	2.23	0.54
26:1H:2679:A:H4'	30:21:165:VAL:HG11	1.89	0.54
30:21:73:GLU:OE1	30:21:74:PRO:HD2	2.08	0.54
34:61:66:GLU:O	34:61:70:GLU:HG2	2.08	0.54
40:A8:25:ARG:NH1	40:A8:42:ASP:OD1	2.41	0.54
50:K8:15:LYS:HD3	50:K8:67:LYS:NZ	2.22	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
1:1G:999:U:H3	1:1G:1041:A:H61	1.56	0.54
2:12:165:VAL:HG23	2:12:166:ASP:H	1.73	0.54
4:32:88:VAL:HG13	5:42:97:GLY:HA2	1.88	0.54
7:62:21:VAL:HG23	7:62:22:LEU:HD12	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7A:67:THR:HG22	16:7A:68:ASP:H	1.73	0.54
20:BA:64:ASP:OD2	20:BA:81:LYS:NZ	2.35	0.54
29:19:273:ARG:O	29:19:273:ARG:HG2	2.08	0.54
30:29:27:LEU:HA	30:29:180:ASN:O	2.08	0.54
38:45:136:ALA:HB1	38:45:138:ASP:OD1	2.08	0.54
41:75:51:ARG:HG3	41:75:98:LYS:HD2	1.89	0.54
45:B5:1:MET:N	50:G5:29:LYS:HE3	2.23	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
2:1E:20:GLU:HG2	2:1E:190:THR:OG1	2.07	0.54
6:5E:39:LYS:H	6:5E:64:GLN:HB3	1.73	0.54
12:3I:83:VAL:HG13	12:3I:100:ILE:HG23	1.90	0.54
26:1H:996:A:H4'	42:C8:92:ARG:HE	1.71	0.54
26:1H:2292:C:H42	26:1H:2340:G:H1	1.55	0.54
30:21:105:THR:HB	30:21:197:ILE:HG23	1.90	0.54
33:51:121:ILE:HG12	33:51:140:LYS:HD2	1.89	0.54
34:61:67:ARG:O	34:61:71:ILE:HG22	2.08	0.54
37:78:63:PRO:HB2	55:Q8:30:ARG:HH21	1.72	0.54
42:C8:50:ARG:HH12	43:D8:72:VAL:HG23	1.74	0.54
1:1G:9:G:H5'	5:42:122:GLU:OE2	2.08	0.54
2:12:217:ARG:C	2:12:219:VAL:H	2.15	0.54
22:1L:9:A:H3'	22:1L:10:G:H8	1.73	0.54
23:2L:63:C:H2'	23:2L:64:G:H8	1.72	0.54
56:3L:67:C:H2'	56:3L:68:G:C8	2.41	0.54
26:14:30:G:H2'	26:14:31:C:C6	2.43	0.54
26:14:270(P):C:O5'	26:14:270(P):C:H6	1.91	0.54
26:14:691:C:H2'	26:14:692:C:H6	1.71	0.54
26:14:2577:A:O4'	53:J5:3:LYS:HB2	2.08	0.54
26:14:2723:C:H4'	39:55:1:MET:HE3	1.89	0.54
35:15:132:ALA:O	35:15:134:ARG:HG3	2.08	0.54
40:65:15:ARG:O	40:65:19:LYS:HG3	2.08	0.54
47:D5:7:ALA:O	47:D5:8:TYR:CG	2.60	0.54
2:1E:21:ARG:HG3	2:1E:38:GLY:O	2.08	0.53
9:8E:111:ARG:HG3	9:8E:112:LYS:H	1.73	0.53
10:1I:35:SER:O	10:1I:72:VAL:HG23	2.07	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:31:152:GLU:HB2	31:31:190:GLU:HB2	1.89	0.53
32:41:35:GLU:HG3	32:41:36:LYS:HB3	1.90	0.53
1:1G:373:A:C2	1:1G:374:A:C8	2.95	0.53
1:1G:691:G:O6	11:2A:55:LYS:NZ	2.42	0.53
26:14:139:G:N2	26:14:141:A:N1	2.55	0.53
26:14:622:G:OP2	37:35:108:LYS:NZ	2.34	0.53
26:14:959:A:N3	26:14:2457:U:O2'	2.41	0.53
26:14:1198:U:H2'	26:14:1199:U:C6	2.42	0.53
26:14:1717:G:H1	26:14:1742:C:H42	1.55	0.53
30:29:25:VAL:HG12	30:29:26:ILE:N	2.23	0.53
31:39:129:PHE:HA	31:39:142:TRP:NE1	2.23	0.53
46:C5:46:LYS:HD2	46:C5:61:ILE:HB	1.90	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
1:13:1128:C:H5"	1:13:1129:C:OP2	2.08	0.53
5:4E:100:VAL:HA	5:4E:118:ILE:HG22	1.90	0.53
26:1H:1870:C:H2'	26:1H:1871:A:O4'	2.07	0.53
28:71:216:THR:HG23	28:71:218:MET:H	1.73	0.53
32:41:5:VAL:H	52:M8:25:TYR:HE2	1.55	0.53
34:61:145:VAL:HG12	34:61:146:ALA:H	1.73	0.53
37:78:37:GLY:N	37:78:40:SER:OG	2.40	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
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
1:1G:531:U:H4'	1:1G:532:A:OP1	2.07	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
7:62:26:PHE:O	7:62:30:ILE:HG12	2.08	0.53
8:72:26:VAL:HG22	8:72:59:LEU:HB2	1.89	0.53
19:AA:66:MET:HA	19:AA:67:VAL:O	2.08	0.53
56:3L:6:G:N1	56:3L:67:C:N3	2.49	0.53
29:19:147:LEU:HD23	29:19:155:LEU:HD11	1.90	0.53
35:15:13:TRP:O	35:15:135:PRO:HD2	2.07	0.53
36:25:107:ARG:HG2	36:25:115:VAL:HG11	1.89	0.53
38:45:16:ARG:HB2	38:45:18:LYS:HD3	1.89	0.53
43:95:69:LYS:HD3	43:95:86:GLY:HA3	1.90	0.53
46:C5:36:ALA:HA	46:C5:67:LEU:O	2.09	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:484:G:O2'	1:13:485:G:OP2	2.22	0.53
1:13:1023:G:H3'	1:13:1024:G:H5"	1.89	0.53
2:1E:192:SER:OG	2:1E:193:ASP:N	2.36	0.53
8:7E:82:HIS:CE1	8:7E:138:TRP:CZ2	2.96	0.53
24:3K:19:G:N3	24:3K:57:G:N2	2.57	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
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
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
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
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
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
12:3A:27:LEU:HD21	12:3A:61:THR:OG1	2.08	0.53
13:4A:49:THR:HG22	13:4A:51:ALA:H	1.73	0.53
15:6A:79:ARG:O	15:6A:83:GLU:HB2	2.09	0.53
20:BA:16:HIS:O	20:BA:19:SER:N	2.41	0.53
26:14:279:C:N4	26:14:361:G:H1	2.06	0.53
26:14:2659:G:H1'	26:14:2662:A:H62	1.73	0.53
29:19:108:PRO:HG2	29:19:111:LEU:HB2	1.91	0.53
34:69:81:VAL:H	34:69:143:SER:CB	2.20	0.53
41:75:61:PHE:CE1	41:75:76:PHE:HB2	2.43	0.53
53:J5:16:ARG:NH1	53:J5:17:ASP:OD1	2.41	0.53
1:13:661:G:H1	1:13:744:C:H42	1.55	0.53
3:2E:15:THR:CG2	3:2E:181:ASN:HA	2.39	0.53
4:3E:81:GLU:HG2	4:3E:81:GLU:O	2.09	0.53
9:8E:45:ALA:O	9:8E:78:LYS:NZ	2.40	0.53
19:AI:42:PRO:O	19:AI:45:VAL:HG22	2.08	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:1729:A:O2'	26:1H:1730:U:O5'	2.23	0.53
26:1H:1827:C:OP2	29:11:222:ARG:NH1	2.40	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
31:31:62:ARG:HB3	31:31:62:ARG:HH11	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:16:ARG:HH21	32:41:31:VAL:HG13	1.73	0.53
37:78:31:ALA:O	37:78:32:THR:HG22	2.08	0.53
37:78:126:VAL:HB	37:78:147:LEU:HD21	1.90	0.53
47:H8:7:ALA:HB2	47:H8:59:LEU:HD22	1.91	0.53
2:12:77:ALA:O	2:12:81:VAL:HG23	2.07	0.53
3:22:175:LEU:HD21	3:22:201:TYR:HE2	1.73	0.53
9:82:86:VAL:HG13	9:82:90:PRO:HA	1.91	0.53
11:2A:41:THR:OG1	11:2A:42:TRP:N	2.36	0.53
22:1L:11:C:O2	22:1L:24:G:N2	2.30	0.53
26:14:250:G:P	37:35:60:MET:HE1	2.48	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
26:14:986:C:O2'	26:14:1001:A:O2'	2.26	0.53
26:14:1198:U:H2'	26:14:1199:U:H6	1.73	0.53
26:14:2495:G:O3'	38:45:81:VAL:HG12	2.08	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
1:13:660:G:H2'	1:13:661:G:H8	1.73	0.53
1:13:1171:G:H2'	1:13:1172:C:H6	1.72	0.53
2:1E:87:ARG:NH1	2:1E:220:ASP:OD1	2.41	0.53
8:7E:120:THR:H	8:7E:123:GLU:HB2	1.73	0.53
21:1F:12:LYS:HB3	21:1F:22:ARG:HD2	1.90	0.53
22:1K:72:C:H2'	22:1K:73:A:H5"	1.90	0.53
26:1H:194:G:H2'	26:1H:195:A:O4'	2.09	0.53
26:1H:607:U:OP1	31:31:102:PRO:HA	2.09	0.53
26:1H:1278:A:OP1	39:98:36:THR:HG22	2.07	0.53
26:1H:1507:A:H2'	26:1H:1509:C:N4	2.23	0.53
26:1H:2701:C:H2'	26:1H:2702:U:H2'	1.91	0.53
31:31:185:ASP:HA	31:31:188:ARG:HD3	1.90	0.53
34:61:38:LEU:H	34:61:38:LEU:HD12	1.74	0.53
47:H8:113:ALA:N	47:H8:114:GLY:HA2	2.22	0.53
1:1G:151:A:H2'	1:1G:152:A:O4'	2.09	0.53
1:1G:228:A:C4'	16:7A:62:VAL:HG11	2.39	0.53
1:1G:631:G:H1'	1:1G:632:A:N7	2.23	0.53
10:1A:30:SER:HB3	10:1A:78:ASN:OD1	2.07	0.53
10:1A:39:PRO:HA	10:1A:70:ARG:HH11	1.72	0.53
23:2L:41:C:H2'	23:2L:42:C:H6	1.74	0.53
26:14:29:U:H2'	26:14:30:G:C8	2.44	0.53
26:14:39:C:O2	31:39:46:ARG:NH2	2.40	0.53
26:14:198:C:H5'	26:14:2244:U:OP1	2.08	0.53
26:14:536:A:H2'	26:14:537:C:C6	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:2158:A:H1'	26:14:2159:G:C8	2.43	0.53
27:1J:88:C:H4'	27:1J:89:G:OP2	2.07	0.53
35:15:104:LYS:HA	35:15:107:LEU:HD12	1.90	0.53
37:35:101:VAL:HA	37:35:105:LEU:O	2.08	0.53
39:55:51:LEU:HD23	39:55:66:VAL:HG22	1.90	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
1:13:464:G:O6	1:13:466:C:H4'	2.08	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
22:1K:34:U8U:S2	25:4K:21:A:H2	2.31	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
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
32:41:129:GLY:O	32:41:161:THR:OG1	2.26	0.53
1:1G:111:G:H8	1:1G:111:G:O5'	1.92	0.53
11:2A:22:HIS:HB3	11:2A:29:ILE:HG12	1.91	0.53
26:14:805:G:OP2	37:35:41:ARG:HG2	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
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
8:7E:21:LYS:O	8:7E:65:TYR:OH	2.18	0.53
14:5I:27:CYS:SG	14:5I:29:ARG:HB3	2.49	0.53
24:3K:3:G:N2	24:3K:70:C:H42	2.06	0.53
26:1H:37:C:O2'	26:1H:38:A:H5'	2.09	0.53
26:1H:220:G:O2'	26:1H:233:A:N3	2.34	0.53
26:1H:1332:G:N2	26:1H:1610:A:C8	2.76	0.53
26:1H:2414:G:OP1	49:J8:25:LYS:NZ	2.35	0.53
26:1H:2615:U:OP1	61:1H:3614:HOH:O	2.18	0.53
30:21:53:PRO:HB2	30:21:72:VAL:HG12	1.90	0.53
40:A8:26:LEU:O	40:A8:26:LEU:HD23	2.08	0.53
44:E8:26:GLY:N	44:E8:71:VAL:HG23	2.23	0.53
45:F8:26:TYR:O	45:F8:81:VAL:HG12	2.09	0.53
45:F8:35:THR:O	45:F8:39:ILE:HG12	2.09	0.53
52:M8:16:CYS:SG	52:M8:36:CYS:N	2.78	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:32:A:H2'	1:1G:33:A:C8	2.44	0.53
1:1G:521:G:O5'	12:3A:73:GLU:HG2	2.09	0.53
7:62:126:ASP:O	7:62:130:GLY:N	2.40	0.53
26:14:5:A:H2'	26:14:6:A:H5"	1.90	0.53
26:14:38:A:H2'	26:14:39:C:C6	2.44	0.53
26:14:498:G:H21	46:C5:47:LYS:NZ	2.07	0.53
26:14:649:G:H2'	26:14:650:C:C6	2.44	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
26:14:1993:U:H4'	30:29:128:SER:HB3	1.91	0.53
26:14:2012:G:N7	44:A5:16:LYS:NZ	2.57	0.53
26:14:2406:U:OP2	26:14:2406:U:H2'	2.09	0.53
29:19:70:TRP:CD1	29:19:70:TRP:C	2.86	0.53
29:19:96:HIS:NE2	29:19:102:LYS:HE2	2.22	0.53
31:39:34:TRP:HB2	37:35:6:LEU:HG	1.89	0.53
41:75:108:ARG:O	41:75:111:ARG:HB2	2.09	0.53
42:85:92:ARG:CZ	43:95:11:GLN:H	2.22	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
1:13:1270:C:OP2	21:1F:24:ARG:NH2	2.41	0.53
1:13:1289:A:P	21:1F:10:ARG:HH22	2.30	0.53
5:4E:50:GLU:HB2	5:4E:53:LEU:HD13	1.90	0.53
8:7E:87:SER:HB2	8:7E:93:VAL:N	2.24	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
26:1H:484:C:H2'	26:1H:485:C:C6	2.43	0.53
26:1H:1500:G:O2'	29:11:100:GLY:O	2.26	0.53
26:1H:1637:A:H4'	26:1H:2711:A:O2'	2.09	0.53
26:1H:2017:U:O2	53:N8:10:LYS:HB2	2.08	0.53
32:41:37:VAL:O	32:41:94:LEU:HD23	2.09	0.53
40:A8:93:LYS:HG2	40:A8:95:HIS:HB2	1.91	0.53
52:M8:14:ILE:HG23	52:M8:21:VAL:HB	1.91	0.53
1:1G:627:G:H2'	1:1G:628:G:H8	1.74	0.53
4:32:61:LYS:NZ	4:32:72:GLU:OE2	2.37	0.53
7:62:62:PHE:HA	7:62:124:LEU:HD22	1.91	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:F5:52:ARG:HH11	49:F5:57:GLU:HG3	1.74	0.53
49:F5:85:LEU:H	49:F5:85:LEU:HD12	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
1:13:1313:U:H5	19:AI:4:SER:HB3	1.73	0.53
2:1E:16:HIS:NE2	2:1E:210:SER:O	2.41	0.53
4:3E:150:GLU:CG	4:3E:153:ARG:HH21	2.21	0.53
5:4E:51:VAL:O	5:4E:55:VAL:HG23	2.09	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
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:1567:A:H5'	29:11:58:HIS:ND1	2.24	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
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
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
9:82:34:ASN:O	9:82:38:GLN:N	2.42	0.53
26:14:691:C:C4'	29:19:43:ARG:NH2	2.72	0.53
26:14:1204:A:O2'	26:14:1205:U:OP2	2.27	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
34:69:77:LEU:HD12	34:69:78:THR:H	1.74	0.53
38:45:88:GLY:O	38:45:89:ASN:ND2	2.42	0.53
50:G5:22:GLU:HG2	50:G5:64:LEU:HD11	1.90	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
1:13:1374:A:O2'	7:6E:28:ASN:HB3	2.10	0.53
26:1H:934:G:H2'	26:1H:935:C:H6	1.74	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
27:16:76:G:H5"	47:H8:15:PRO:HG3	1.89	0.53
33:51:152:ARG:HB3	33:51:162:ILE:HG13	1.91	0.53
37:78:113:LYS:HA	37:78:129:ALA:O	2.08	0.53
39:98:13:HIS:CE1	39:98:15:SER:HB3	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
1:1G:983:A:N1	1:1G:1222:G:N2	2.57	0.53
8:72:44:PHE:HD2	8:72:80:ILE:HG13	1.74	0.53
56:3L:40:C:H2'	56:3L:41:A:C8	2.43	0.53
26:14:1533:C:H3'	26:14:1534:G:C5'	2.38	0.53
26:14:1652:A:OP1	39:55:8:ARG:NH1	2.42	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
28:79:202:GLU:N	28:79:202:GLU:OE2	2.41	0.53
34:69:77:LEU:HD12	34:69:78:THR:N	2.24	0.53
44:A5:11:ARG:NH1	44:A5:98:LYS:HG2	2.24	0.53
1:13:963:G:H5'	61:13:1971:HOH:O	2.09	0.52
1:13:1124:G:C5'	10:1I:35:SER:HB2	2.38	0.52
1:13:1128:C:H5'	9:8E:16:ARG:NH2	2.24	0.52
7:6E:111:ARG:HE	7:6E:123:GLU:HB2	1.73	0.52
12:3I:110:VAL:CG2	12:3I:120:TYR:HB3	2.39	0.52
20:BI:30:LYS:HA	20:BI:33:ILE:HD12	1.91	0.52
26:1H:389:G:H1	37:78:71:VAL:HG12	1.74	0.52
26:1H:1124:C:H2'	26:1H:1125:G:O4'	2.09	0.52
32:41:51:ARG:HH21	32:41:52:ILE:CD1	2.21	0.52
35:58:58:ASP:HB3	35:58:95:PRO:HB2	1.91	0.52
40:A8:11:LYS:HD3	40:A8:91:PRO:HD3	1.90	0.52
1:1G:247:G:OP2	17:8A:100:LYS:HG2	2.09	0.52
1:1G:1326:C:H2'	1:1G:1327:C:H6	1.74	0.52
2:12:219:VAL:HG11	2:12:222:ILE:HD11	1.90	0.52
11:2A:19:ALA:HB3	11:2A:82:VAL:HG22	1.91	0.52
12:3A:24:VAL:O	12:3A:26:ALA:N	2.42	0.52
12:3A:100:ILE:HG22	12:3A:101:VAL:H	1.73	0.52
26:14:94:G:OP2	46:C5:54:LYS:NZ	2.42	0.52
26:14:443:A:H1'	26:14:1201:C:O4'	2.08	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
30:29:54:GLN:N	30:29:74:PRO:HA	2.23	0.52
31:39:89:VAL:HG12	31:39:90:PHE:H	1.75	0.52
39:55:81:ASP:O	39:55:82:GLU:HB3	2.09	0.52
1:13:244:U:H4'	1:13:245:C:O5'	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:8:ASP:OD1	8:7E:12:ARG:NH1	2.43	0.52
19:AI:8:GLY:HA2	19:AI:10:PHE:HE1	1.72	0.52
26:1H:389:G:N1	37:78:71:VAL:HG12	2.24	0.52
26:1H:573:G:O2'	26:1H:574:C:H3'	2.10	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:2710:C:OP1	39:98:15:SER:OG	2.27	0.52
28:71:7:TYR:HA	28:71:10:LEU:HD22	1.92	0.52
32:41:112:PRO:HB3	52:M8:37:SER:N	2.21	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
1:1G:222:U:C2	1:1G:223:U:C5	2.97	0.52
1:1G:1360:A:H2'	1:1G:1361:G:O4'	2.09	0.52
3:22:7:PRO:O	3:22:11:ARG:NH1	2.41	0.52
6:52:36:ARG:NH2	6:52:38:GLU:OE1	2.42	0.52
9:82:18:PHE:C	9:82:19:LEU:HD23	2.34	0.52
12:3A:47:LYS:HG3	12:3A:48:PRO:CD	2.35	0.52
13:4A:13:LYS:HD3	13:4A:14:ARG:N	2.21	0.52
26:14:463:G:H5"	26:14:464:U:OP2	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
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
24:3K:75:C:HO2'	24:3K:76:A:H2	1.58	0.52
26:1H:592:G:N3	55:Q8:4:MET:HE1	2.25	0.52
26:1H:863:A:H2'	26:1H:864:G:H8	1.73	0.52
26:1H:2355:C:H1'	48:I8:39:ARG:HH21	1.74	0.52
29:11:223:GLY:HA3	29:11:231:HIS:CE1	2.44	0.52
33:51:7:LEU:C	33:51:7:LEU:CD1	2.83	0.52
38:88:106:VAL:HG21	38:88:114:ALA:HB1	1.91	0.52
51:L8:6:VAL:HG12	51:L8:56:VAL:HG22	1.91	0.52
1:1G:436:C:H2'	1:1G:437:U:H6	1.74	0.52
1:1G:1291:G:O3'	9:82:39:GLY:HA3	2.09	0.52
2:12:215:LEU:O	2:12:218:ALA:HB2	2.10	0.52
4:32:121:VAL:HG22	4:32:126:ILE:HD12	1.90	0.52
18:9A:37:VAL:HG11	18:9A:78:LEU:HB3	1.91	0.52
22:1L:37:T6A:HN1	25:4L:19:A:N6	2.08	0.52
26:14:21:A:H61	26:14:519:U:H3	1.57	0.52
26:14:1012:U:O4	35:15:28:THR:HG21	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1069:A:H5”	26:14:1070:A:OP1	2.09	0.52
26:14:2818:G:OP2	39:55:42:LYS:NZ	2.42	0.52
45:B5:46:ALA:O	50:G5:30:ARG:NH1	2.40	0.52
1:13:686:U:O4	1:13:703:G:H1’	2.08	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
20:BI:26:ASN:HB2	20:BI:71:THR:CG2	2.38	0.52
24:3K:59:A:H5’	24:3K:60:U:H5	1.74	0.52
26:1H:699:A:H2’	26:1H:700:G:O4’	2.09	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:2837:G:O6	61:1H:3696:HOH:O	2.19	0.52
33:51:4:ILE:CG2	33:51:6:ARG:HG3	2.39	0.52
52:M8:40:HIS:NE2	52:M8:47:GLN:OE1	2.43	0.52
5:42:118:ILE:HG12	5:42:119:LEU:N	2.24	0.52
56:3L:36:U:H3’	56:3L:37:T6A:H5”	1.90	0.52
26:14:273(C):C:N3	26:14:363(C):G:N2	2.53	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
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
42:85:79:PHE:CE1	42:85:83:LEU:HD11	2.44	0.52
42:85:100:VAL:O	42:85:101:ARG:HG2	2.10	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
2:1E:21:ARG:C	2:1E:23:ARG:H	2.17	0.52
12:3I:60:LEU:HB3	12:3I:62:SER:H	1.74	0.52
26:1H:528:A:O2’	26:1H:529:A:H5”	2.09	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
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
1:1G:977:A:HO2’	1:1G:981:U:H3	1.57	0.52
1:1G:1028(B):C:H42	1:1G:1032(A):G:H22	1.58	0.52
1:1G:1202:G:C6	14:5A:42:ILE:HG21	2.43	0.52
10:1A:49:VAL:O	10:1A:60:ARG:HB2	2.10	0.52
16:7A:67:THR:H	16:7A:70:ALA:HB3	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:3L:8:U:O4	56:3L:13:C:H2'	2.10	0.52
26:14:195:A:H4'	26:14:251:A:O2'	2.10	0.52
26:14:389:G:H22	37:35:72:PRO:HD3	1.75	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
26:14:1754:C:H2'	26:14:1755:A:C8	2.45	0.52
26:14:2837:G:N7	61:14:3678:HOH:O	2.34	0.52
29:19:200:ASP:OD1	29:19:203:ASN:ND2	2.41	0.52
36:25:119:PRO:HB2	41:75:68:TYR:CE2	2.45	0.52
41:75:23:ARG:HG2	41:75:120:ARG:NH1	2.25	0.52
42:85:98:LEU:HA	42:85:100:VAL:O	2.10	0.52
1:13:147:G:H1	1:13:175:C:H42	1.58	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
1:13:1504:G:OP1	1:13:1507:A:H4'	2.10	0.52
19:AI:22:LEU:HG	19:AI:28:LYS:HA	1.91	0.52
26:1H:1045:A:H4'	26:1H:1045:A:OP1	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
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
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
5:42:60:TYR:HB3	5:42:64:ARG:NH2	2.25	0.52
7:62:102:ARG:O	7:62:106:GLN:HG2	2.09	0.52
56:3L:9:A:H8	56:3L:11:C:N4	2.07	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
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
29:19:30:GLU:HG3	29:19:63:ARG:CZ	2.40	0.52
31:39:18:ARG:HG2	31:39:19:GLU:H	1.75	0.52
41:75:24:PRO:HA	41:75:49:VAL:HG23	1.91	0.52
45:B5:36:LYS:HG2	45:B5:54:VAL:HB	1.92	0.52
1:13:346:G:H8	41:B8:41:ARG:HD2	1.75	0.52
24:3K:66:A:H5'	24:3K:67:C:OP2	2.10	0.52
26:1H:1550:C:H2'	26:1H:1551:C:H6	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:1H:2483:C:O2	38:88:124:LYS:HE3	2.10	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
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
41:B8:18:ASP:OD1	41:B8:18:ASP:N	2.39	0.52
1:1G:616:G:H2'	1:1G:617:G:H8	1.74	0.52
1:1G:1109:C:H2'	1:1G:1110:A:O4'	2.09	0.52
26:14:590:A:H2'	26:14:591:C:C6	2.44	0.52
26:14:1055:G:H22	26:14:1086:A:H5"	1.74	0.52
26:14:1072:C:C4	26:14:1092:C:H5	2.28	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
31:39:83:PHE:C	31:39:85:GLY:H	2.18	0.52
33:59:4:ILE:HG23	33:59:7:LEU:HB2	1.90	0.52
39:55:29:LEU:HB3	39:55:75:LEU:HD21	1.91	0.52
40:65:95:HIS:N	40:65:99:LYS:HB2	2.25	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
2:1E:28:PHE:CE1	2:1E:31:TYR:HD2	2.27	0.52
26:1H:686:G:H4'	26:1H:687:C:OP2	2.08	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
28:71:27:HIS:HB3	28:71:182:PRO:HG3	1.91	0.52
29:11:16:MET:HE1	29:11:208:LYS:HD3	1.91	0.52
40:A8:21:THR:HG23	40:A8:23:ARG:H	1.74	0.52
42:C8:90:VAL:HG22	43:D8:39:LEU:HB3	1.90	0.52
1:1G:17:U:H2'	1:1G:18:C:C6	2.44	0.52
1:1G:673:G:H5"	6:52:87:ARG:NH1	2.24	0.52
1:1G:992:U:H2'	1:1G:1043:C:H41	1.75	0.52
1:1G:1049:U:OP1	14:5A:3:ARG:HG3	2.09	0.52
1:1G:1342:C:H4'	9:82:125:TYR:HB3	1.92	0.52
11:2A:27:ASN:OD1	11:2A:28:THR:N	2.43	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
26:14:489:G:O6	44:A5:45:TYR:OH	2.27	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
36:25:17:ARG:HB2	36:25:45:GLU:HG2	1.92	0.52
40:65:27:SER:HA	40:65:88:ASP:HB2	1.92	0.52
46:C5:93:GLY:O	46:C5:94:LYS:HD2	2.10	0.52
1:13:277:C:OP1	17:8I:41:LYS:HE2	2.10	0.52
7:6E:70:LYS:HB3	7:6E:96:GLN:HG2	1.92	0.52
26:1H:249:C:O2	55:Q8:12:LYS:HE3	2.10	0.52
26:1H:1479:G:N7	26:1H:1510:A:N6	2.57	0.52
29:11:69:ARG:NH2	29:11:128:GLY:O	2.22	0.52
32:41:56:ALA:HA	32:41:153:ARG:HH21	1.75	0.52
38:88:66:ILE:CD1	38:88:67:ARG:H	2.21	0.52
48:I8:41:ARG:NE	48:I8:41:ARG:HA	2.23	0.52
1:1G:750:G:H1'	15:6A:22:THR:OG1	2.10	0.52
1:1G:1252:A:H61	1:1G:1285:A:H61	1.58	0.52
2:12:71:VAL:HG11	2:12:164:VAL:HG13	1.92	0.52
2:12:158:LEU:HD21	2:12:182:ILE:HD11	1.90	0.52
7:62:141:VAL:HA	7:62:142:GLU:HB2	1.91	0.52
10:1A:28:ARG:NH2	10:1A:34:VAL:O	2.42	0.52
56:3L:33:U:H1'	56:3L:34:U:H5"	1.92	0.52
35:15:132:ALA:HB1	35:15:133:GLN:HG2	1.92	0.52
38:45:19:GLY:O	38:45:99:PRO:HD2	2.10	0.52
42:85:92:ARG:HG3	42:85:94:ASN:HB3	1.92	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
1:13:32:A:C2	1:13:33:A:C4	2.98	0.52
1:13:272:C:H2'	1:13:273:A:C8	2.45	0.52
1:13:649:G:H2'	1:13:650:G:H8	1.74	0.52
2:1E:6:THR:OG1	2:1E:7:VAL:N	2.43	0.52
3:2E:134:ILE:O	3:2E:138:VAL:HG12	2.10	0.52
4:3E:15:GLU:OE1	4:3E:59:ARG:NH2	2.43	0.52
26:1H:805:G:OP2	37:78:41:ARG:HG2	2.10	0.52
26:1H:2469:A:H61	26:1H:2481:G:H1'	1.75	0.52
27:16:15:A:H1'	27:16:109:G:C4	2.45	0.52
28:71:7:TYR:CE1	28:71:220:PRO:HG3	2.45	0.52
31:31:167:ALA:HB1	31:31:173:VAL:HG11	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:61:110:ASP:HB2	34:61:112:LYS:HG2	1.91	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
1:1G:264:U:H4'	17:8A:63:ARG:HD3	1.92	0.52
7:62:13:GLN:HG2	7:62:14:PRO:HD2	1.92	0.52
7:62:16:LEU:HD11	9:82:45:ALA:HB2	1.91	0.52
13:4A:37:THR:HG22	13:4A:55:ARG:HE	1.74	0.52
15:6A:36:ILE:O	15:6A:40:SER:N	2.42	0.52
26:14:1:G:H5"	26:14:2:G:C8	2.45	0.52
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
29:19:38:LYS:H	29:19:38:LYS:HD3	1.75	0.52
35:15:68:GLU:CD	35:15:68:GLU:H	2.18	0.52
38:45:19:GLY:O	38:45:98:LYS:HB3	2.10	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
1:13:376:G:OP2	16:7I:67:THR:HG21	2.11	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
2:1E:69:LEU:HD11	2:1E:93:VAL:HG23	1.92	0.51
2:1E:84:GLU:HB3	2:1E:219:VAL:HG21	1.90	0.51
6:5E:81:ILE:CD1	29:11:137:PRO:HG3	2.40	0.51
7:6E:133:GLY:HA2	7:6E:136:LYS:HG3	1.92	0.51
24:3K:22:G:H8	24:3K:22:G:OP2	1.93	0.51
26:1H:280:C:N3	26:1H:361:G:C2	2.78	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
27:16:45:A:H3'	27:16:46:A:H8	1.75	0.51
38:88:78:PRO:O	38:88:79:LEU:HB3	2.10	0.51
38:88:141:GLN:O	38:88:141:GLN:HG3	2.09	0.51
41:B8:5:ALA:HA	41:B8:8:LYS:HD3	1.92	0.51
46:G8:76:CYS:HB2	46:G8:82:PRO:HD3	1.91	0.51
1:1G:260:G:P	20:BA:83:ARG:HH12	2.32	0.51
2:12:103:THR:HG23	2:12:176:GLU:HB3	1.92	0.51
56:3L:40:C:H2'	56:3L:41:A:H8	1.76	0.51
26:14:67:U:H2'	26:14:68:G:C8	2.45	0.51
26:14:241:A:H5'	26:14:243:U:O4'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:2354:G:O2'	48:E5:36:ILE:HG13	2.09	0.51
34:69:117:GLU:HG2	34:69:118:LYS:N	2.09	0.51
40:65:64:GLU:O	40:65:68:GLN:HG3	2.09	0.51
42:85:92:ARG:HH22	43:95:10:LYS:HG2	1.75	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
1:13:1276:G:H2'	1:13:1277:C:O4'	2.11	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
19:AI:40:ILE:HG22	19:AI:69:HIS:O	2.09	0.51
22:1K:29:U:H2'	22:1K:30:G:C8	2.45	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
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
29:11:84:TYR:HE1	29:11:86:PRO:HB3	1.75	0.51
31:31:7:TYR:HD1	31:31:21:ALA:HB1	1.75	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:H6	1:1G:992:U:H5"	1.75	0.51
1:1G:1206:G:C6	1:1G:1207:G:C6	2.98	0.51
26:14:90:U:O2'	26:14:91:A:H8	1.93	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
27:1J:38:C:H42	27:1J:44:G:H1	1.57	0.51
27:1J:42:C:N3	32:49:91:ARG:NH1	2.57	0.51
34:69:54:GLN:HA	34:69:57:ARG:HB3	1.91	0.51
39:55:33:ARG:HH11	39:55:113:LEU:HD21	1.71	0.51
1:13:96:G:H8	1:13:96:G:O5'	1.92	0.51
1:13:271:C:H2'	1:13:272:C:H6	1.75	0.51
1:13:403:C:O3'	4:3E:122:ARG:HD2	2.10	0.51
1:13:442:C:H2'	1:13:443:C:C6	2.46	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
17:8I:52:LYS:HG2	17:8I:55:ASP:OD1	2.10	0.51
26:1H:7:G:N2	26:1H:2896:C:N3	2.47	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:106:C:H2'	26:1H:107:C:H6	1.75	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
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
31:31:12:LEU:O	31:31:127:GLU:N	2.43	0.51
39:98:41:ALA:O	39:98:44:LEU:N	2.31	0.51
1:1G:1315:U:H2'	1:1G:1316:G:O4'	2.10	0.51
3:22:199:LYS:HB3	3:22:201:TYR:CE1	2.39	0.51
11:2A:24:SER:OG	11:2A:25:TYR:N	2.44	0.51
15:6A:39:LEU:CD1	15:6A:56:LEU:HB2	2.40	0.51
22:1L:3:G:H22	22:1L:70:C:H42	1.56	0.51
26:14:830:G:H4'	26:14:831:G:OP2	2.10	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
29:19:146:GLU:HB2	29:19:189:CYS:HB3	1.91	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
2:1E:27:LYS:HB3	2:1E:194:PRO:HD2	1.91	0.51
7:6E:28:ASN:HA	7:6E:31:MET:HE2	1.92	0.51
13:4I:3:ARG:HH12	32:41:139:LEU:HD13	1.75	0.51
13:4I:22:ILE:HB	13:4I:25:ILE:HD12	1.91	0.51
26:1H:185:U:H4'	26:1H:218:A:H4'	1.92	0.51
26:1H:1742:C:H2'	26:1H:1743:G:O4'	2.09	0.51
26:1H:1972:A:H2'	26:1H:1973:G:C8	2.45	0.51
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
30:21:37:ARG:HD3	30:21:42:ASP:CG	2.35	0.51
35:58:128:HIS:HB2	35:58:129:PRO:HD2	1.93	0.51
37:78:100:LEU:HD12	37:78:105:LEU:CD1	2.41	0.51
38:88:112:GLU:H	38:88:112:GLU:CD	2.18	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
4:32:4:TYR:CE2	4:32:11:LEU:HD11	2.45	0.51
12:3A:84:LEU:HG	12:3A:105:TYR:CE2	2.46	0.51
20:BA:49:ALA:HA	20:BA:52:ALA:HB3	1.91	0.51
26:14:90:U:O2'	26:14:91:A:O5'	2.29	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:4:VAL:HG12	31:39:17:ARG:HG3	1.92	0.51
34:69:76:THR:HG23	34:69:77:LEU:H	1.75	0.51
37:35:81:GLN:HE22	37:35:106:LEU:HA	1.40	0.51
38:45:126:PRO:O	38:45:127:ILE:HG23	2.10	0.51
45:B5:1:MET:H1	50:G5:29:LYS:HE3	1.76	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
1:13:1213:A:O2'	1:13:1215:G:N7	2.35	0.51
1:13:1406:U:H2'	1:13:1407:C:H5'	1.93	0.51
3:2E:172:ARG:HH21	3:2E:174:PRO:HG3	1.75	0.51
13:4I:3:ARG:HH21	13:4I:9:ILE:HD11	1.75	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
26:1H:2362:G:OP1	55:Q8:44:LYS:NZ	2.37	0.51
26:1H:2818:G:OP2	39:98:42:LYS:NZ	2.43	0.51
32:41:9:ARG:O	32:41:12:TYR:N	2.43	0.51
37:78:63:PRO:HB3	55:Q8:30:ARG:HH21	1.75	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
1:1G:366:C:O2'	1:1G:394:G:N2	2.43	0.51
1:1G:676:A:H1'	11:2A:115:PRO:HB3	1.93	0.51
1:1G:807:A:H2'	1:1G:808:C:C6	2.45	0.51
2:12:224:GLN:HG3	2:12:225:ALA:H	1.74	0.51
4:32:4:TYR:HE2	4:32:11:LEU:HD21	1.76	0.51
4:32:102:ASP:OD1	4:32:102:ASP:N	2.44	0.51
5:42:92:LYS:HB3	5:42:119:LEU:HB2	1.91	0.51
17:8A:68:ARG:H	17:8A:70:ARG:NH1	2.07	0.51
56:3L:72:C:H3'	56:3L:73:A:H5"	1.92	0.51
26:14:483:A:C5'	46:C5:49:VAL:HB	2.37	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
32:49:16:ARG:O	32:49:20:ILE:HG13	2.11	0.51
45:B5:63:LYS:HA	45:B5:72:LYS:HA	1.92	0.51
47:D5:157:LEU:HD21	47:D5:163:LEU:HD22	1.92	0.51
55:M5:36:LYS:HB3	55:M5:41:ILE:HD11	1.93	0.51
1:13:119:A:N6	1:13:288:A:H1'	2.25	0.51
1:13:955:U:H1'	1:13:1227:A:H61	1.76	0.51
6:5E:41:GLU:HB2	6:5E:62:TRP:CE3	2.46	0.51
7:6E:22:LEU:HD22	7:6E:62:PHE:HE2	1.76	0.51
17:8I:45:HIS:CE1	17:8I:47:PRO:HG3	2.46	0.51
23:2K:24:C:H2'	23:2K:25:U:H6	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:15:G:C2	26:1H:16:G:C8	2.98	0.51
26:1H:74:A:H5"	26:1H:74:A:H8	1.76	0.51
26:1H:274:G:H2'	26:1H:275:G:H1'	1.92	0.51
26:1H:587:C:P	37:78:21:ARG:HH22	2.34	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:2313:C:H4'	32:41:91:ARG:HG3	1.92	0.51
37:78:96:THR:C	37:78:98:GLU:H	2.17	0.51
47:H8:28:MET:HB3	47:H8:35:ARG:HB3	1.93	0.51
1:1G:103:C:O2'	1:1G:172:A:N1	2.32	0.51
1:1G:128:G:H4'	17:8A:3:LYS:HG2	1.93	0.51
1:1G:963:G:H21	10:1A:55:LYS:HE2	1.75	0.51
1:1G:1255:G:O2'	1:1G:1258:G:O2'	2.24	0.51
5:42:143:ARG:HG3	5:42:147:ASP:HB3	1.92	0.51
10:1A:36:GLY:O	10:1A:38:ILE:HG13	2.10	0.51
20:BA:25:ARG:O	20:BA:29:LYS:HG2	2.11	0.51
26:14:639:U:H2'	26:14:640:C:C6	2.46	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
27:1J:63:G:C2	27:1J:64:C:C2	2.98	0.51
32:49:64:THR:HG22	32:49:94:LEU:HD11	1.92	0.51
40:65:95:HIS:HA	40:65:99:LYS:HD2	1.93	0.51
45:B5:84:ALA:O	45:B5:87:GLN:HG3	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
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
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
1:13:1399:C:C2	1:13:1502:A:N6	2.79	0.51
7:6E:57:GLU:HG2	7:6E:59:LEU:HB2	1.91	0.51
26:1H:311:A:H2	26:1H:331:A:H5"	1.75	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
27:16:99:A:O5'	61:16:304:HOH:O	2.19	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
35:58:110:GLY:O	35:58:114:ARG:HG3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:Q8:34:TRP:CE2	55:Q8:35:GLN:HG2	2.45	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
1:1G:1158:C:O2'	2:12:133:LYS:NZ	2.27	0.51
4:32:108:LEU:HB3	4:32:110:PHE:CE1	2.44	0.51
5:42:41:VAL:O	5:42:67:VAL:HG12	2.10	0.51
7:62:22:LEU:HD12	7:62:22:LEU:H	1.74	0.51
8:72:97:VAL:HG22	8:72:129:VAL:O	2.10	0.51
11:2A:32:ILE:HD13	11:2A:72:ALA:HB2	1.92	0.51
13:4A:56:LEU:HB2	13:4A:60:VAL:HG23	1.92	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
37:35:107:LYS:O	37:35:109:GLY:N	2.37	0.51
38:45:34:LEU:HD13	38:45:131:ILE:HG12	1.91	0.51
40:65:67:ARG:HB2	40:65:67:ARG:CZ	2.41	0.51
41:75:91:ARG:HD2	41:75:124:ASP:OD2	2.11	0.51
43:95:5:VAL:HB	43:95:37:VAL:CG1	2.40	0.51
43:95:44:LYS:O	43:95:46:VAL:N	2.33	0.51
49:F5:82:LEU:CD2	49:F5:83:GLU:H	2.15	0.51
1:13:912:C:O2'	1:13:913:A:H5'	2.11	0.51
5:4E:53:LEU:H	5:4E:53:LEU:HD12	1.76	0.51
5:4E:150:ARG:NH1	5:4E:150:ARG:HB3	2.26	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
23:2K:64:G:H2'	23:2K:65:G:C8	2.46	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
26:1H:1359:A:C2	26:1H:1372:U:O4	2.64	0.51
26:1H:1613:G:O2'	54:P8:3:ARG:NE	2.44	0.51
29:11:28:GLU:OE1	29:11:28:GLU:HA	2.11	0.51
29:11:72:LYS:CG	29:11:103:ARG:HH21	2.24	0.51
34:61:78:THR:HG22	34:61:141:LYS:HB2	1.92	0.51
47:H8:44:PHE:CD1	47:H8:44:PHE:C	2.88	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
1:1G:468:A:H2'	1:1G:474:G:H5'	1.92	0.51
1:1G:1060:C:O2	10:1A:56:HIS:HE1	1.94	0.51
2:12:211:ILE:O	2:12:214:ILE:N	2.43	0.51
7:62:31:MET:HG3	7:62:36:LYS:HA	1.92	0.51
20:BA:64:ASP:OD1	20:BA:81:LYS:HD2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2130:U:H2'	26:14:2158:A:C6	2.46	0.51
26:14:2577:A:H5'	53:J5:3:LYS:HD3	1.93	0.51
26:14:2649:U:H3	26:14:2671:A:H61	1.59	0.51
28:79:44:HIS:ND1	28:79:171:ILE:O	2.39	0.51
32:49:63:ILE:HD12	32:49:102:PHE:HE1	1.75	0.51
35:15:34:LEU:HD21	35:15:120:LEU:HB2	1.93	0.51
38:45:33:GLY:HA2	38:45:105:GLU:HA	1.92	0.51
38:45:114:ALA:HB3	38:45:115:MET:HE2	1.93	0.51
51:H5:7:LYS:HE2	51:H5:32:GLN:HG3	1.93	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
20:BI:82:SER:O	20:BI:86:ARG:HB2	2.10	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
26:1H:72:U:H3	50:K8:62:THR:HG22	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
26:1H:1161:C:H1'	43:D8:8:GLY:O	2.10	0.51
26:1H:1194:A:H8	26:1H:1194:A:OP2	1.93	0.51
26:1H:1438:U:H2'	26:1H:1439:A:H8	1.76	0.51
26:1H:2124:G:H4'	28:71:174:PRO:CG	2.40	0.51
33:51:6:ARG:HA	33:51:66:GLY:HA2	1.92	0.51
49:J8:24:ALA:HB1	49:J8:26:ARG:HG3	1.91	0.51
1:1G:1176:A:C2'	1:1G:1177:G:H5'	2.41	0.51
1:1G:1418:A:H2	26:14:1948:G:N3	2.08	0.51
26:14:161:U:H5'	26:14:171:G:N2	2.26	0.51
26:14:839:U:H2'	26:14:840:C:H6	1.74	0.51
26:14:1324:G:H4'	26:14:1616:A:C2	2.46	0.51
26:14:2402:C:H4'	26:14:2402:C:OP1	2.10	0.51
26:14:2485:G:H5"	38:45:46:GLN:HE21	1.76	0.51
42:85:83:LEU:O	42:85:87:GLY:N	2.44	0.51
46:C5:87:LYS:HG2	46:C5:88:LYS:N	2.26	0.51
55:M5:7:HIS:ND1	55:M5:7:HIS:O	2.44	0.51
1:13:1189:C:H5"	1:13:1190:G:OP2	2.11	0.51
1:13:1218:C:OP1	14:5I:12:ARG:NH2	2.44	0.51
2:1E:163:PHE:HA	2:1E:185:ILE:O	2.11	0.51
9:8E:18:PHE:HD2	9:8E:62:TYR:HD2	1.57	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:33:THR:HG22	11:2I:39:PRO:HA	1.93	0.51
16:7I:4:ILE:HB	16:7I:66:PRO:HB3	1.92	0.51
26:1H:270(R):G:H2'	26:1H:270(S):G:C8	2.46	0.51
26:1H:445:C:OP1	42:C8:2:PRO:HA	2.11	0.51
26:1H:818:G:H5'	26:1H:839:U:OP1	2.11	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:2572:A:C8	30:21:144:ARG:HD3	2.46	0.51
30:21:17:ASP:C	30:21:19:ARG:H	2.19	0.51
39:98:12:ARG:HG2	39:98:16:HIS:ND1	2.26	0.51
41:B8:105:LEU:C	41:B8:107:ASP:H	2.18	0.51
1:1G:882:C:OP2	12:3A:13:LYS:NZ	2.42	0.51
1:1G:1157:A:H2'	1:1G:1157:A:N3	2.26	0.51
1:1G:1347:G:O2'	1:1G:1373:G:O6	2.15	0.51
2:12:21:ARG:HA	2:12:39:ILE:HA	1.92	0.51
2:12:118:LEU:HD11	2:12:141:GLU:HG2	1.93	0.51
3:22:18:TRP:CD1	14:5A:55:GLY:H	2.29	0.51
14:5A:29:ARG:NH1	14:5A:40:CYS:SG	2.84	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
26:14:824:A:H1'	26:14:2358:G:N7	2.26	0.51
26:14:1288:U:C2	26:14:1327:C:O2	2.64	0.51
26:14:1653:G:H3'	39:55:2:ARG:HG2	1.93	0.51
26:14:2600:A:H2'	26:14:2601:C:C6	2.46	0.51
30:29:14:ILE:HB	41:75:14:TYR:HE2	1.72	0.51
31:39:195:ASP:HB3	31:39:198:ALA:HB3	1.93	0.51
34:69:41:GLU:O	34:69:45:LYS:HG2	2.11	0.51
42:85:80:ILE:HD11	42:85:93:LYS:HE2	1.91	0.51
55:M5:33:ASN:O	55:M5:34:TRP:C	2.53	0.51
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
1:13:1285:A:O5'	1:13:1285:A:H8	1.94	0.50
2:1E:185:ILE:CG2	2:1E:199:TYR:HB2	2.41	0.50
12:3I:57:LYS:HE3	12:3I:67:THR:HG22	1.92	0.50
14:5I:2:ALA:HB3	14:5I:6:LEU:HD23	1.93	0.50
16:7I:13:HIS:C	16:7I:15:PRO:HD3	2.36	0.50
19:AI:11:VAL:HG11	19:AI:16:LEU:HD22	1.93	0.50
26:1H:841:A:H2'	26:1H:842:G:C8	2.47	0.50
26:1H:2132:U:C4	28:71:5:LYS:HB3	2.46	0.50
26:1H:2561:A:H2	36:68:23:ARG:NH1	2.08	0.50
27:16:11:C:H3'	27:16:12:C:H6	1.74	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:23:GLU:HG3	29:11:82:ILE:HG21	1.93	0.50
33:51:84:SER:O	33:51:85:LYS:HB2	2.11	0.50
42:C8:69:CYS:HG	42:C8:79:PHE:HD2	1.59	0.50
55:Q8:50:LEU:HD13	55:Q8:50:LEU:O	2.11	0.50
1:1G:518:C:H5"	1:1G:519:C:C6	2.46	0.50
1:1G:1127:G:H2'	1:1G:1128:C:H6	1.74	0.50
1:1G:1179:A:H4'	9:82:103:THR:HA	1.91	0.50
18:9A:34:TYR:CE1	18:9A:35:ARG:HG3	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
26:14:1175:U:O2'	26:14:1176:G:N3	2.35	0.50
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
33:59:152:ARG:HG3	33:59:153:LYS:HG3	1.93	0.50
41:75:13:ARG:HE	41:75:14:TYR:HE1	1.58	0.50
43:95:21:ARG:NH2	43:95:91:TYR:O	2.44	0.50
15:6I:27:VAL:HG12	15:6I:31:LEU:HD13	1.92	0.50
26:1H:182:A:C6	26:1H:183:C:C4	2.99	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:2154:G:H2'	26:1H:2155:G:H8	1.74	0.50
28:71:58:VAL:CG1	28:71:199:HIS:HB3	2.40	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
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:664:G:P	18:9A:64:ARG:HH21	2.34	0.50
1:1G:890:G:O2'	1:1G:906:G:O6	2.20	0.50
2:12:165:VAL:HG23	2:12:166:ASP:N	2.25	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
26:14:55:G:H2'	26:14:56:A:H8	1.77	0.50
26:14:118:A:N3	26:14:178:G:H1'	2.25	0.50
26:14:480:A:H1'	46:C5:44:ILE:HG12	1.92	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
26:14:2692: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:13:57:G:H2'	1:13:58:C:C6	2.46	0.50
2:1E:16:HIS:CE1	2:1E:210:SER:HB2	2.47	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
26:1H:65:C:H2'	26:1H:66:C:C6	2.47	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
29:11:72:LYS:O	29:11:73:VAL:C	2.55	0.50
29:11:136:ILE:O	29:11:168:ARG:NH2	2.43	0.50
32:41:17:PRO:HA	32:41:20:ILE:HD12	1.94	0.50
44:E8:1:MET:HE3	44:E8:62:HIS:HB3	1.94	0.50
52:M8:13:ARG:NH1	52:M8:22:ILE:HG23	2.23	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
2:12:17:PHE:HE2	2:12:203:GLY:HA2	1.76	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
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
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
31:39:14:PRO:O	31:39:15:SER:C	2.54	0.50
38:45:52:VAL:HA	38:45:55:VAL:HB	1.93	0.50
43:95:7:THR:HG23	43:95:22:VAL:HG21	1.93	0.50
1:13:407:G:H2'	1:13:408:A:C8	2.46	0.50
10:1I:65:LEU:HD13	14:5I:56:VAL:HG22	1.93	0.50
25:4K:14:A:C5	25:4K:15:A:C2	3.00	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
29:11:140:THR:O	29:11:165:ILE:HD12	2.10	0.50
30:21:105:THR:HG22	30:21:106:GLY:N	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:142:PRO:HB2	52:M8:31:ILE:HG21	1.93	0.50
38:88:54:MET:O	38:88:57:HIS:N	2.44	0.50
1:1G:960:U:H4'	1:1G:961:U:C5'	2.42	0.50
1:1G:1018:C:H2'	1:1G:1019:C:O4'	2.11	0.50
3:22:117:ALA:HB2	3:22:200:ALA:HB2	1.92	0.50
17:8A:28:PRO:HA	17:8A:35:VAL:HA	1.93	0.50
56:3L:52:G:C4	56:3L:53:G:H8	2.30	0.50
26:14:336:C:OP1	46:C5:83:THR:HG23	2.12	0.50
26:14:458:G:O2'	26:14:469:G:O6	2.27	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
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
29:19:31:LYS:NZ	29:19:33:LEU:HB2	2.25	0.50
39:55:45:ARG:HA	39:55:95:THR:HG21	1.92	0.50
43:95:31:ALA:O	43:95:61:VAL:HG23	2.11	0.50
45:B5:67:GLY:C	45:B5:69:TYR:H	2.19	0.50
49:F5:76:ARG:HG3	49:F5:94:LEU:HD13	1.94	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
6:5E:78:GLU:HG3	6:5E:78:GLU:O	2.12	0.50
20:BI:10:LEU:HD11	20:BI:12:ALA:HB3	1.92	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
26:1H:1174:A:H1'	26:1H:1178:C:N4	2.21	0.50
26:1H:1188:U:H4'	43:D8:79:VAL:HG22	1.93	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
30:21:104:VAL:HG22	30:21:198:VAL:HG22	1.93	0.50
31:31:39:TRP:HB2	31:31:101:LEU:HD12	1.93	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
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
44:E8:64:MET:HE3	44:E8:69:LEU:HD21	1.92	0.50
51:L8:12:PRO:HB2	51:L8:20:LYS:HG2	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:N8:44:THR:HG22	53:N8:45:VAL:H	1.76	0.50
1:1G:442:C:H2'	1:1G:443:C:H6	1.77	0.50
1:1G:1111:A:H2'	1:1G:1112:C:C6	2.46	0.50
2:12:223:ILE:N	2:12:224:GLN:HE21	2.09	0.50
20:BA:50:GLU:HA	20:BA:100:ILE:CG2	2.42	0.50
26:14:140:A:C8	26:14:1408:C:O2'	2.58	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
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
26:14:2121:G:O6	26:14:2176:A:N6	2.45	0.50
27:1J:116:G:H4'	40:65:54:LEU:HD21	1.93	0.50
32:49:42:GLY:O	32:49:43:LEU:HD13	2.12	0.50
36:25:35:VAL:HG11	36:25:103:ALA:HB3	1.94	0.50
48:E5:23:VAL:HG12	48:E5:25:ARG:O	2.12	0.50
1:13:114:U:O2'	1:13:115:G:H5'	2.12	0.50
1:13:953:G:C2	1:13:954:G:H1'	2.47	0.50
1:13:1129:C:H1'	1:13:1132:C:H41	1.75	0.50
1:13:1396:A:H2	5:4E:19:MET:HG3	1.77	0.50
2:1E:59:GLU:HB2	2:1E:221:LEU:HD11	1.94	0.50
2:1E:212:GLN:NE2	2:1E:213:LEU:HD23	2.26	0.50
3:2E:164:ARG:HD2	3:2E:166:GLU:OE2	2.12	0.50
6:5E:4:TYR:HD1	6:5E:92:LYS:HA	1.76	0.50
17:8I:100:LYS:HD3	17:8I:101:ARG:HD2	1.93	0.50
24:3K:10:G:H1	24:3K:25:C:H42	1.59	0.50
26:1H:908:C:O2'	26:1H:909:A:H5'	2.12	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
27:16:13:A:N1	27:16:69:G:O2'	2.38	0.50
36:68:64:ARG:HB2	36:68:79:PHE:CD1	2.47	0.50
1:1G:438:G:H4'	4:32:123:HIS:NE2	2.26	0.50
3:22:175:LEU:HD21	3:22:201:TYR:CE2	2.47	0.50
23:2L:76:C:H2'	23:2L:77:A:C8	2.47	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
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
26:14:586:A:N1	26:14:809:G:O2'	2.35	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)
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
1:13:5:U:N3	4:3E:85:LYS:HE3	2.27	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
1:13:1191:A:H5"	1:13:1192:C:OP2	2.11	0.50
3:2E:92:ALA:HB2	3:2E:99:VAL:HG22	1.94	0.50
8:7E:82:HIS:ND1	8:7E:138:TRP:CE2	2.79	0.50
15:6I:17:ARG:NH1	15:6I:77:ARG:HD2	2.25	0.50
17:8I:68:ARG:HG3	17:8I:68:ARG:O	2.12	0.50
23:2K:63:C:H2'	23:2K:64:G:C8	2.47	0.50
26:1H:299:A:OP2	61:1H:3697:HOH:O	2.20	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
28:71:10:LEU:HG	28:71:32:LEU:HA	1.94	0.50
30:21:174:ASP:HB3	30:21:183:LEU:HD13	1.93	0.50
35:58:7:LYS:HD2	35:58:7:LYS:N	2.25	0.50
36:68:88:ASN:HD21	36:68:90:GLN:HB2	1.77	0.50
43:D8:36:PRO:C	43:D8:38:LEU:H	2.16	0.50
43:D8:76:LYS:HB2	43:D8:81:TYR:CD1	2.47	0.50
47:H8:121:HIS:HB3	47:H8:123:ASP:O	2.11	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
2:12:22:LYS:HE3	2:12:24:TRP:HZ3	1.76	0.50
4:32:162:LEU:HD22	4:32:178:VAL:HG23	1.93	0.50
10:1A:63:PHE:HB3	14:5A:57:ARG:O	2.11	0.50
11:2A:100:ALA:C	11:2A:102:GLY:H	2.19	0.50
13:4A:31:LYS:HA	13:4A:34:LEU:HD12	1.94	0.50
14:5A:11:LYS:O	14:5A:13:THR:HG22	2.11	0.50
26:14:524:U:H2'	26:14:525:U:C6	2.47	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:N3	26:14:2321:G:H2'	2.26	0.50
31:39:155:LEU:HD23	31:39:186:ILE:HD13	1.94	0.50
34:69:120:ILE:HG22	34:69:122:GLU:H	1.77	0.50
36:25:49:ARG:HA	36:25:53:LYS:NZ	2.27	0.50
37:35:11:GLY:C	37:35:13:ASN:H	2.18	0.50
46:C5:17:SER:HA	46:C5:71:LYS:HD2	1.94	0.50
51:H5:8:LEU:CD1	51:H5:31:LEU:HD12	2.41	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:6:PHE:CD1	5:4E:36:ASP:HB3	2.46	0.50
5:4E:41:VAL:HG13	5:4E:113:ALA:CB	2.40	0.50
7:6E:88:PRO:HG3	7:6E:149:ARG:HA	1.94	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
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:1845:G:OP1	29:11:258:LYS:NZ	2.36	0.50
29:11:115:GLN:HG2	29:11:116:GLN:N	2.27	0.50
32:41:67:LYS:H	32:41:67:LYS:HD3	1.76	0.50
37:78:6:LEU:O	37:78:7:ARG:HG2	2.11	0.50
41:B8:78:LEU:HD12	41:B8:79:HIS:NE2	2.26	0.50
55:Q8:39:LYS:HA	55:Q8:42:ARG:NH2	2.26	0.50
1:1G:1149:C:O2'	1:1G:1280:A:N1	2.30	0.50
1:1G:1223:C:P	1:1G:1224:G:H2'	2.52	0.50
1:1G:1316:G:H4'	14:5A:18:VAL:HG21	1.92	0.50
3:22:37:GLN:O	3:22:40:ARG:N	2.45	0.50
9:82:73:GLN:O	9:82:77:ILE:HG13	2.12	0.50
10:1A:75:ILE:HG13	10:1A:76:ASN:H	1.76	0.50
26:14:2:G:N2	26:14:2898:U:O4	2.45	0.50
26:14:91:A:H2'	26:14:92:G:H8	1.77	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
26:14:1757: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
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
46:C5:6:HIS:CD2	46:C5:7:VAL:HG13	2.47	0.50
1:13:129(A):G:H4'	1:13:130:A:H5"	1.93	0.50
1:13:984:C:H42	1:13:1221:G:H1	1.60	0.50
1:13:1298:C:P	7:6E:114:ARG:HH22	2.35	0.50
14:5I:6:LEU:HB3	14:5I:23:ARG:HH22	1.75	0.50
17:8I:81:ARG:HH11	17:8I:84:LEU:HG	1.77	0.50
26:1H:300:A:N3	26:1H:319:C:H1'	2.27	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
27:16:56:G:H5'	32:41:27:ASN:HD21	1.77	0.50
29:11:32:SER:HA	29:11:35:LYS:HZ1	1.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:123:ALA:HB3	29:11:131:LEU:HG	1.94	0.50
30:21:78:LEU:C	30:21:79:ARG:HD2	2.37	0.50
37:78:71:VAL:CG1	37:78:72:PRO:HD3	2.42	0.50
43:D8:6:LYS:HE2	43:D8:11:GLN:HG2	1.93	0.50
55:Q8:25:MET:HE3	55:Q8:46:ARG:HA	1.93	0.50
1:1G:87:A:C5	1:1G:88:C:C4	3.00	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
2:12:100:GLY:HA2	2:12:103:THR:OG1	2.12	0.50
10:1A:25:GLU:O	10:1A:29:ARG:N	2.35	0.50
13:4A:34:LEU:HD13	13:4A:41:PRO:HA	1.93	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
17:8A:58:GLU:O	17:8A:74:LEU:N	2.43	0.50
56:3L:35:U:H2'	56:3L:36:U:C6	2.47	0.50
26:14:1568:G:P	29:19:63:ARG:HH12	2.35	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:N3	26:14:2542:A:H5"	2.27	0.50
29:19:71:ASP:CG	29:19:103:ARG:HH22	2.20	0.50
39:55:24:GLN:OE1	39:55:36:THR:HG21	2.11	0.50
42:85:74:LEU:HD12	42:85:74:LEU:O	2.11	0.50
1:13:452:A:H1'	16:7I:72:ARG:HH12	1.76	0.49
4:3E:85:LYS:HG3	4:3E:86:LYS:N	2.26	0.49
6:5E:97:PHE:CD1	18:9I:31:LEU:HD11	2.47	0.49
26:1H:782:A:H5'	26:1H:783:A:C2	2.46	0.49
26:1H:825:C:O2	37:78:55:ARG:NH2	2.44	0.49
26:1H:1174:A:C8	26:1H:1176:G:H1'	2.47	0.49
26:1H:1295:C:O2'	39:98:19:ALA:HB1	2.12	0.49
26:1H:1339:G:N2	26:1H:1603:A:H1'	2.26	0.49
26:1H:1568:G:C5'	29:11:61:LEU:HD23	2.42	0.49
26:1H:1601:G:N7	61:1H:3802:HOH:O	2.35	0.49
31:31:28:ILE:HG12	31:31:119:ARG:NH2	2.27	0.49
32:41:98:ARG:O	32:41:101:ILE:HG13	2.11	0.49
37:78:15:ARG:O	37:78:16:ARG:C	2.55	0.49
47:H8:105:VAL:O	47:H8:140:ASP:HA	2.12	0.49
47:H8:120:ILE:HG22	47:H8:121:HIS:ND1	2.27	0.49
52:M8:39:CYS:HB3	52:M8:41:PRO:HD2	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:24:U:OP1	12:3A:23:LYS:NZ	2.45	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
26:14:874:G:H2'	26:14:875:G:O4'	2.12	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
30:29:23:VAL:HA	30:29:184:VAL:O	2.12	0.49
50:G5:13:ALA:HB1	50:G5:21:LEU:HD21	1.94	0.49
1:13:728:A:H2'	1:13:729:A:C8	2.48	0.49
1:13:1203:C:H2'	1:13:1204:A:O4'	2.12	0.49
2:1E:212:GLN:O	2:1E:216:SER:OG	2.25	0.49
4:3E:155:LEU:O	4:3E:157:LEU:N	2.45	0.49
4:3E:167:GLY:HA2	29:19:135:PHE:CZ	2.46	0.49
9:8E:9:ARG:N	9:8E:9:ARG:HD2	2.28	0.49
9:8E:112:LYS:CA	9:8E:119:ALA:HB2	2.37	0.49
10:1I:46:ARG:HG3	10:1I:64:GLU:HB3	1.94	0.49
18:9I:32:ARG:HH12	18:9I:65:ILE:HD13	1.77	0.49
26:1H:274:G:N2	26:1H:276:A:H61	2.10	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
26:1H:1582:C:HO2'	26:1H:1586:A:H8	1.58	0.49
26:1H:2772:C:H2'	26:1H:2773:C:C6	2.47	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
30:21:4:ILE:HG12	30:21:5:LEU:H	1.77	0.49
35:58:40:PRO:O	42:C8:100:VAL:HG22	2.12	0.49
36:68:13:ASN:ND2	36:68:97:ARG:HB2	2.27	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
1:1G:176:C:H2'	1:1G:177:C:C6	2.45	0.49
3:22:195:VAL:O	3:22:196:LEU:HD22	2.13	0.49
4:32:12:CYS:SG	4:32:18:LYS:HA	2.53	0.49
22:1L:69:A:H1'	22:1L:70:C:O5'	2.10	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
26:14:660:G:H21	37:35:12:ALA:CB	2.25	0.49
26:14:919:G:N2	26:14:2269:A:OP2	2.44	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:960:A:H61	38:45:82:ARG:NH2	2.10	0.49
26:14:1424:G:H2'	26:14:1425:G:H8	1.76	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
26:14:2512:C:H1'	30:29:140:SER:O	2.12	0.49
26:14:2784:C:O2	30:29:37:ARG:NH2	2.45	0.49
29:19:69:ARG:HE	29:19:130:ALA:HB2	1.76	0.49
31:39:89:VAL:O	31:39:90:PHE:C	2.54	0.49
35:15:45:ASN:OD1	35:15:46:VAL:HG23	2.11	0.49
40:65:106:ARG:HA	40:65:110:LEU:HD21	1.93	0.49
49:F5:69:LYS:HE2	49:F5:72:GLU:OE1	2.12	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
4:3E:185:PHE:HE2	4:3E:188:LEU:HD23	1.77	0.49
5:4E:84:PHE:HB3	5:4E:134:ALA:HB2	1.95	0.49
9:8E:47:LEU:HD23	9:8E:47:LEU:H	1.77	0.49
12:3I:24:VAL:HB	12:3I:27:LEU:HD12	1.94	0.49
18:9I:32:ARG:NH1	18:9I:65:ILE:HD13	2.27	0.49
20:BI:46:GLU:CB	20:BI:48:LYS:HG3	2.43	0.49
24:3K:70:C:H2'	24:3K:71:C:C6	2.47	0.49
26:1H:281:G:O2'	26:1H:282:A:O4'	2.30	0.49
26:1H:340:A:H2'	26:1H:341:G:O4'	2.12	0.49
26:1H:530:G:C5	26:1H:2022:U:H5"	2.48	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
26:1H:958:U:OP2	38:88:14:ARG:NH1	2.44	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: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
27:16:15:A:H1'	27:16:109:G:N9	2.27	0.49
28:71:23:ASP:HB2	28:71:190:ARG:HH12	1.77	0.49
30:21:174:ASP:HB3	30:21:183:LEU:CD1	2.41	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
45:F8:29:TRP:CE3	45:F8:78:LYS:HB3	2.47	0.49
48:I8:11:ARG:HB2	48:I8:11:ARG:HH11	1.77	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1124:G:O2'	1:1G:1145:C:N4	2.45	0.49
1:1G:1150:U:H4'	10:1A:41:PRO:HG3	1.94	0.49
5:42:19:MET:O	5:42:20:GLN:NE2	2.38	0.49
7:62:93:PRO:HD2	7:62:94:ARG:NH2	2.25	0.49
9:82:26:VAL:HG22	9:82:61:ALA:H	1.77	0.49
18:9A:74:ARG:HB3	18:9A:81:PHE:CE2	2.47	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
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
27:1J:73:A:C4	27:1J:104:A:C2	3.01	0.49
29:19:217:ARG:HH11	29:19:217:ARG:HG3	1.77	0.49
30:29:75:VAL:HG11	30:29:76:ARG:HH11	1.76	0.49
39:55:13:HIS:CE1	39:55:15:SER:HB3	2.48	0.49
43:95:44:LYS:HB2	43:95:45:THR:OG1	2.12	0.49
49:F5:87:PRO:HA	49:F5:90:ILE:CG2	2.42	0.49
1:13:37:U:O2'	1:13:500:G:H4'	2.11	0.49
1:13:877:C:H5"	8:7E:88:LYS:HD3	1.94	0.49
1:13:1533:C:HO2'	1:13:1534:A:P	2.33	0.49
2:1E:219:VAL:O	2:1E:223:ILE:HG12	2.13	0.49
22:1K:76:A:C8	26:1H:2507:C:H1'	2.48	0.49
26:1H:94:G:H2'	26:1H:95:G:O4'	2.13	0.49
26:1H:459:U:H4'	54:P8:40:TRP:CZ3	2.48	0.49
26:1H:1791:A:H3'	26:1H:1792:G:C8	2.47	0.49
26:1H:2552:U:H2'	26:1H:2554:U:H5"	1.95	0.49
30:21:120:TRP:CD2	30:21:155:LYS:HG2	2.47	0.49
40:A8:102:ALA:O	40:A8:105:ALA:N	2.38	0.49
46:G8:87:LYS:H	46:G8:94:LYS:HG2	1.77	0.49
46:G8:93:GLY:O	46:G8:94:LYS:HB2	2.11	0.49
1:1G:967:C:H4'	9:82:125:TYR:HE1	1.78	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
2:12:40:HIS:NE2	2:12:190:THR:HG21	2.28	0.49
15:6A:55:GLY:HA2	15:6A:58:MET:SD	2.52	0.49
26:14:110:G:C2	26:14:111:A:C8	3.01	0.49
26:14:1038:C:H2'	26:14:1039:G:O4'	2.12	0.49
26:14:1678:G:N2	26:14:1989:G:H22	2.11	0.49
28:79:20:TYR:CE2	28:79:223:ARG:HB3	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:28:VAL:O	32:49:31:VAL:HB	2.12	0.49
32:49:103:LEU:HA	32:49:106:LEU:CD2	2.42	0.49
38:45:25:ASP:HA	38:45:67:ARG:NH1	2.27	0.49
43:95:38:LEU:HD13	43:95:55:ALA:C	2.38	0.49
49:F5:72:GLU:HG2	49:F5:76:ARG:HE	1.76	0.49
49:F5:87:PRO:O	49:F5:88:LYS:C	2.55	0.49
1:13:114:U:H2'	1:13:115:G:C8	2.48	0.49
1:13:963:G:H21	10:1I:55:LYS:CE	2.26	0.49
1:13:1128:C:C5	1:13:1139:G:C2	3.01	0.49
1:13:1193:G:P	3:2E:167:TRP:CZ3	3.05	0.49
1:13:1260:C:H3'	1:13:1260:C:H6	1.78	0.49
9:8E:25:LYS:O	9:8E:60:ASP:HA	2.13	0.49
26:1H:90:U:H1'	26:1H:91:A:C8	2.47	0.49
26:1H:483:A:O4'	46:G8:48:ALA:HB1	2.13	0.49
26:1H:566:U:OP1	37:78:29:LYS:HD2	2.12	0.49
26:1H:701:G:H2'	26:1H:702:G:H5'	1.94	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:2016:U:O2	53:N8:7:PRO:HG2	2.12	0.49
26:1H:2051:A:H4'	30:21:141:ILE:HG12	1.95	0.49
26:1H:2473:U:H2'	26:1H:2474:C:H5'	1.93	0.49
27:16:0:A:H2'	27:16:1:U:C6	2.48	0.49
27:16:12:C:O2'	48:I8:74:ARG:HG2	2.12	0.49
29:11:120:GLY:HA2	29:11:190:TYR:OH	2.13	0.49
32:41:55:LYS:NZ	32:41:148:MET:O	2.45	0.49
54:P8:26:GLY:O	54:P8:30:VAL:HG23	2.12	0.49
1:1G:1256:A:H2'	1:1G:1278:U:C2	2.46	0.49
4:32:45:GLN:O	4:32:46:LYS:HG3	2.13	0.49
7:62:143:ARG:HD3	7:62:143:ARG:N	2.26	0.49
26:14:2720:U:N3	26:14:2873:A:C2	2.76	0.49
27:1J:14:U:O3'	27:1J:107:U:O2'	2.31	0.49
28:79:45:ALA:HB1	28:79:210:ARG:C	2.37	0.49
37:35:37:GLY:O	37:35:40:SER:OG	2.30	0.49
40:65:59:LYS:HZ2	40:65:61:ASN:HA	1.77	0.49
1:13:235:C:H5'	17:8I:70:ARG:HG2	1.93	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
1:13:710:G:H5"	6:5E:54:LYS:NZ	2.27	0.49
2:1E:183:PRO:HA	2:1E:198:ASP:OD2	2.12	0.49
16:7I:74:LEU:HD22	16:7I:79:VAL:HG21	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:39:THR:HG22	19:AI:40:ILE:H	1.77	0.49
24:3K:19:G:N2	24:3K:56:C:H42	2.10	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
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
32:41:8:LYS:NZ	32:41:97:ASP:OD1	2.42	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
1:1G: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
1:1G:1386:G:C2	1:1G:1387:G:C8	3.00	0.49
18:9A:32:ARG:HA	18:9A:69:THR:HG21	1.93	0.49
56:3L:34:U:H4'	56:3L:35:U:OP1	2.12	0.49
26:14:61:G:H5'	50:G5:50:ILE:HG12	1.94	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
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
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
28:79:53:ARG:HE	28:79:54:SER:H	1.59	0.49
29:19:130:ALA:HA	29:19:192:THR:HA	1.95	0.49
29:19:182:LEU:CB	29:19:271:ILE:HG13	2.43	0.49
31:39:93:LYS:HB3	31:39:94:PRO:HD2	1.95	0.49
38:45:102:VAL:O	38:45:102:VAL:HG12	2.12	0.49
49:F5:56:GLN:HE22	49:F5:83:GLU:C	2.20	0.49
1:13:319:G:H2'	1:13:320:C:O4'	2.12	0.49
1:13:1031:G:H2'	1:13:1032:A:H5'	1.94	0.49
9:8E:7:THR:O	9:8E:83:ARG:HG3	2.13	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
12:3I:36:VAL:HG12	12:3I:59:ARG:HB3	1.95	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
26:1H:1838:C:C2	26:1H:1898:U:C4	3.00	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:C8:79:PHE:O	42:C8:79:PHE:HD1	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
1:1G: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
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
9:82:28:VAL:CG2	9:82:63:ILE:HB	2.43	0.49
10:1A:74:ILE:HD12	10:1A:77:PRO:HB3	1.93	0.49
18:9A:21:LYS:NZ	18:9A:22:VAL:O	2.41	0.49
56:3L:31:A:C3'	56:3L:32:C:H5'	2.43	0.49
26:14:287:C:H2'	26:14:288:C:C6	2.47	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
26:14:2882:A:OP1	39:55:96:ARG:NE	2.42	0.49
27:1J:42:C:O2'	32:49:67:LYS:O	2.20	0.49
32:49:119:GLY:N	32:49:181:ARG:HB2	2.28	0.49
42:85:25:TRP:CD1	42:85:25:TRP:C	2.90	0.49
45:B5:13:LEU:HB2	45:B5:18:TYR:OH	2.12	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
1:13:553:A:H5"	12:3I:24:VAL:HG21	1.94	0.49
1:13:1292:U:H2'	1:13:1293:G:H8	1.75	0.49
2:1E:215:LEU:HA	2:1E:218:ALA:HB3	1.94	0.49
3:2E:124:ILE:HG21	3:2E:196:LEU:HD12	1.93	0.49
7:6E:68:ASN:O	7:6E:138:LYS:NZ	2.43	0.49
18:9I:82:THR:O	18:9I:83:GLU:HG2	2.12	0.49
22:1K:4:U:H3	22:1K:69:A:N6	2.11	0.49
26:1H:128:C:H2'	26:1H:129:C:H6	1.78	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:831:G:N2	37:78:53:GLY:O	2.46	0.49
26:1H:952:G:C6	26:1H:953:A:N7	2.80	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: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
38:88:35:VAL:HG12	38:88:130:LYS:HB3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:88:36:ALA:HB2	38:88:103:MET:HE2	1.94	0.49
1:1G:762:C:H2'	1:1G:763:G:H8	1.77	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
4:32:38:TYR:CD2	4:32:45:GLN:HG2	2.48	0.49
6:52:53:ALA:HB3	6:52:86:ARG:HD3	1.94	0.49
9:82:26:VAL:HG22	9:82:61:ALA:N	2.28	0.49
10:1A:30:SER:HB3	10:1A:78:ASN:ND2	2.26	0.49
12:3A:111:LYS:H	12:3A:111:LYS:CD	2.21	0.49
26:14:531:C:C5	26:14:2035:G:C2	3.01	0.49
26:14:1091:G:N1	26:14:1092:C:N3	2.61	0.49
26:14:1243:G:H1'	37:35:4:SER:O	2.13	0.49
26:14:1417:C:OP2	61:14:3586:HOH:O	2.20	0.49
29:19:30:GLU:HB2	29:19:35:LYS:NZ	2.27	0.49
30:29:58:ARG:HD2	30:29:58:ARG:H	1.76	0.49
31:39:67:GLN:HG3	31:39:67:GLN:O	2.13	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
47:D5:157:LEU:HD12	47:D5:161:VAL:C	2.38	0.49
1:13:1162:C:H2'	1:13:1163:C:C6	2.47	0.49
2:1E:63:MET:CA	2:1E:225:ALA:HB1	2.43	0.49
3:2E:19:GLU:HB3	3:2E:40:ARG:NH2	2.27	0.49
10:1I:79:ARG:HH11	10:1I:82:ILE:HD11	1.77	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
24:3K:8:U:C2	24:3K:13:C:C5	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
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:2773:C:H5"	30:21:164:ARG:HG2	1.93	0.49
61:1H:4563:HOH:O	37:78:26:GLY:HA2	2.12	0.49
32:41:29:TRP:O	32:41:33:ARG:NH1	2.46	0.49
32:41:173:LEU:HD12	32:41:178:PHE:HE2	1.71	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
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
1:1G:134:A:H61	16:7A:25:ARG:NH1	2.10	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:35:GLY:HA3	5:42:41:VAL:HG12	1.94	0.49
9:82:77:ILE:HG22	9:82:81:ILE:HD11	1.95	0.49
16:7A:40:ASP:N	16:7A:48:TRP:O	2.46	0.49
26:14:681:G:H2'	26:14:682:G:O4'	2.13	0.49
26:14:910:A:C5	38:45:13:GLN:HG3	2.48	0.49
26:14:926:A:H2'	26:14:928:G:C8	2.48	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
27:1J:15:A:H1'	27:1J:109:G:C5	2.48	0.49
27:1J:104:A:H2'	27:1J:105:G:O4'	2.13	0.49
29:19:31:LYS:HZ1	29:19:33:LEU:HB2	1.77	0.49
30:29:171:GLU:O	30:29:184:VAL:HA	2.13	0.49
31:39:169:ASN:O	31:39:169:ASN:ND2	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
37:35:13:ASN:C	37:35:15:ARG:H	2.21	0.49
38:45:66:ILE:HD12	38:45:67:ARG:N	2.28	0.49
1:13:1117:G:H5"	9:8E:104:ARG:NH1	2.28	0.49
1:13:1313:U:OP1	19:AI:6:LYS:HB3	2.13	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
14:5I:23:ARG:NH1	14:5I:30:ALA:HB2	2.26	0.49
26:1H:51:G:N3	26:1H:119:A:C2	2.81	0.49
26:1H:569:U:C4	26:1H:570:G:C6	3.01	0.49
26:1H:2518:A:H5'	26:1H:2518:A:C8	2.48	0.49
28:71:45:ALA:HA	28:71:211:SER:O	2.13	0.49
35:58:93:THR:HG22	35:58:94:HIS:ND1	2.27	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:L8:7:LYS:HB2	51:L8:34:GLU:HG2	1.95	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
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
19:AA:66:MET:N	19:AA:67:VAL:HB	2.27	0.49
56:3L:15:G:C6	56:3L:59:A:H1'	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:2018:G:OP1	53:J5:9:LYS:NZ	2.41	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
30:29:67:PHE:O	30:29:67:PHE:HD1	1.96	0.49
33:59:4:ILE:HG22	33:59:5:GLY:N	2.20	0.49
34:69:130:TYR:HB3	34:69:136:VAL:HG13	1.95	0.49
39:55:58:GLY:HA2	39:55:80:PHE:CE2	2.48	0.49
45:B5:51:VAL:HG13	45:B5:81:VAL:CG2	2.41	0.49
51:H5:8:LEU:CD2	51:H5:28:LEU:HB3	2.41	0.49
4:3E:84:LYS:N	4:3E:85:LYS:HD2	2.28	0.48
11:2I:18:ARG:HA	11:2I:81:ASP:H	1.78	0.48
14:5I:24:CYS:HB2	14:5I:40:CYS:HB3	1.94	0.48
26:1H:1418:G:OP1	26:1H:1588:C:O2'	2.26	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
27:16:42:C:O2	32:41:93:THR:N	2.43	0.48
32:41:139:LEU:CA	32:41:144:ILE:HD11	2.43	0.48
35:58:46:VAL:HG12	35:58:48:MET:N	2.28	0.48
39:98:44:LEU:O	39:98:45:ARG:C	2.56	0.48
39:98:56:LYS:NZ	39:98:90:ARG:O	2.45	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
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
1:1G:1105:A:H2'	1:1G:1106:G:H8	1.78	0.48
5:42:107:ARG:NH1	5:42:111:GLU:OE2	2.41	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
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
31:39:34:TRP:CZ3	37:35:8:PRO:HB3	2.48	0.48
31:39:130:ALA:H	31:39:142:TRP:CD1	2.31	0.48
36:25:3:GLN:HB2	36:25:4:PRO:HD2	1.94	0.48
38:45:17:LEU:HD21	38:45:41:TRP:HE1	1.78	0.48
45:B5:12:VAL:HG12	45:B5:29:TRP:CE2	2.48	0.48
55:M5:50:LEU:HB3	55:M5:51:ALA:H	1.51	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:673:G:H5”	6:5E:87:ARG:NH1	2.28	0.48
2:1E:106:LYS:O	2:1E:110:GLN:HG3	2.13	0.48
3:2E:6:HIS:CE1	3:2E:8:ILE:HB	2.48	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
15:6I:69:TYR:CE1	15:6I:73:GLU:HG3	2.47	0.48
20:BI:71:THR:HG22	20:BI:72:LEU:N	2.22	0.48
24:3K:30:G:N2	24:3K:40:C:O2	2.44	0.48
26:1H:527:C:H4’	26:1H:528:A:O5’	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
30:21:143:ASN:HD22	30:21:147:PRO:CD	2.26	0.48
32:41:101:ILE:O	32:41:105:LYS:HE2	2.13	0.48
33:51:157:TYR:O	33:51:158:HIS:ND1	2.46	0.48
38:88:10:ARG:HH21	38:88:11:LYS:HE3	1.78	0.48
46:G8:52:SER:OG	46:G8:53:PRO:HD2	2.12	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
1:1G:1402:C:H2’	1:1G:1403:C:O4’	2.13	0.48
2:12:30:ARG:NH2	2:12:194:PRO:HB2	2.27	0.48
5:42:12:LEU:HD22	5:42:13:ILE:N	2.28	0.48
26:14:64:A:O3’	45:B5:71:GLY:HA3	2.13	0.48
26:14:89:G:OP2	26:14:90:U:H3’	2.13	0.48
26:14:621:A:H3’	26:14:622:G:H8	1.79	0.48
26:14:951:C:O2’	26:14:952:G:H5’	2.13	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
27:1J:88:C:H3’	27:1J:89:G:N7	2.28	0.48
29:19:131:LEU:O	29:19:190:TYR:HA	2.13	0.48
30:29:5:LEU:HD11	30:29:49:LEU:HD12	1.95	0.48
31:39:128:ALA:O	31:39:129:PHE:C	2.57	0.48
33:59:142:GLY:HA3	33:59:143:GLN:CG	2.35	0.48
43:95:38:LEU:HD12	43:95:56:SER:C	2.38	0.48
44:A5:20:VAL:HG23	44:A5:47:VAL:HG21	1.95	0.48
46:C5:87:LYS:C	46:C5:88:LYS:HD3	2.37	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:G5:12:GLU:O	50:G5:16:LEU:HD23	2.13	0.48
1:13:130:A:C8	17:8I:63:ARG:HB2	2.48	0.48
1:13:429:U:H1'	1:13:430:A:H5"	1.93	0.48
1:13:1118:C:H1'	1:13:1179:A:C5	2.49	0.48
7:6E:27:ILE:HD12	7:6E:40:ALA:HA	1.95	0.48
11:2I:27:ASN:OD1	11:2I:28:THR:N	2.46	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
15:6I:67:LEU:O	15:6I:71:GLN:HB2	2.13	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
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
28:71:69:GLY:C	28:71:177:LYS:HZ2	2.21	0.48
31:31:149:ASP:OD1	31:31:149:ASP:N	2.37	0.48
39:98:94:TYR:CD1	39:98:94:TYR:N	2.80	0.48
40:A8:7:TYR:HA	40:A8:10:ARG:NH2	2.27	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
49:J8:46:LEU:HD12	49:J8:62:VAL:C	2.38	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
1:1G: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
1:1G:706:A:H2'	1:1G:707:C:H5'	1.95	0.48
2:12:193:ASP:OD2	2:12:196:LEU:HD12	2.14	0.48
26:14:30:G:H2'	26:14:31:C:H6	1.78	0.48
31:39:124:LEU:HG	31:39:126:VAL:HG12	1.95	0.48
35:15:49:GLY:H	35:15:119:ARG:NH1	2.11	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
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
2:1E:21:ARG:O	2:1E:23:ARG:N	2.45	0.48
26:1H:198:C:H2'	26:1H:199:A:H5"	1.95	0.48
26:1H:265:A:H8	26:1H:266:G:H1'	1.77	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
26:1H:1050:A:C8	26:1H:2751:G:C8	3.02	0.48
26:1H:1207:C:H2'	26:1H:1208:C:H6	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:2811:G:H8	26:1H:2811:G:OP2	1.96	0.48
27:16:12:C:H6	27:16:12:C:OP2	1.96	0.48
34:61:26:ALA:HA	34:61:30:LEU:HB2	1.95	0.48
37:78:52:GLU:OE2	37:78:57:THR:HA	2.12	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
2:12:195:ASP:O	8:72:74:PRO:HG3	2.13	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
26:14:1668:A:OP1	36:25:5:GLN:HG2	2.13	0.48
26:14:2032:G:N1	26:14:2572:A:C8	2.80	0.48
32:49:118:ARG:H	32:49:118:ARG:HD2	1.76	0.48
33:59:7:LEU:HA	33:59:65:HIS:CE1	2.48	0.48
34:69:101:LEU:HB2	34:69:105:HIS:HB2	1.94	0.48
34:69:114:LEU:O	34:69:114:LEU:HD13	2.14	0.48
43:95:76:LYS:HB2	43:95:79:VAL:HG23	1.95	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
2:1E:5:ILE:HG22	2:1E:224:GLN:NE2	2.28	0.48
9:8E:18:PHE:CD2	9:8E:62:TYR:HD2	2.31	0.48
14:5I:15:LYS:HG2	14:5I:16:PHE:CE1	2.49	0.48
16:7I:49:LEU:HD12	16:7I:50:LYS:N	2.29	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
22:1K:22:G:H8	22:1K:48:C:H42	1.62	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:28:GLU:N	29:11:29:PRO:HD3	2.27	0.48
35:58:12:ARG:HD2	35:58:50:ASP:OD1	2.13	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
42:C8:88:ILE:C	42:C8:90:VAL:H	2.22	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:922:G:P	5:42:20:GLN:HE22	2.36	0.48
1:1G:947:G:O3'	13:4A:109:THR:OG1	2.31	0.48
1:1G:1279:A:O2'	1:1G:1282:C:N4	2.46	0.48
2:12:185:ILE:HG23	2:12:199:TYR:O	2.13	0.48
5:42:41:VAL:HG13	5:42:113:ALA:HA	1.96	0.48
7:62:120:ILE:O	7:62:124:LEU:HB2	2.14	0.48
26:14:911:A:H2'	38:45:9:TYR:OH	2.12	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
30:29:81:ILE:HG22	30:29:82:ARG:N	2.20	0.48
43:95:38:LEU:CD1	43:95:56:SER:C	2.86	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
1:13:407:G:O4'	4:3E:119:GLN:NE2	2.47	0.48
1:13:645:C:H2'	1:13:646:U:O4'	2.14	0.48
1:13:955:U:H1'	1:13:1227:A:N6	2.28	0.48
17:8I:45:HIS:NE2	17:8I:47:PRO:HG3	2.29	0.48
19:AI:18:LYS:NZ	19:AI:22:LEU:HD13	2.25	0.48
19:AI:58:VAL:HG11	19:AI:75:ALA:CB	2.43	0.48
19:AI:67:VAL:HG12	19:AI:68:GLY:N	2.27	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
26:1H:1491:G:H2'	26:1H:1492:G:H8	1.77	0.48
34:61:81:VAL:HG21	34:61:123:LEU:HD11	1.95	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
47:H8:13:GLU:HB3	47:H8:18:LEU:HD21	1.95	0.48
1:1G:8:A:C6	4:32:209:ARG:HB3	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:78:G:H1	1:1G:91:C:H42	1.62	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
1:1G:1347:G:N2	1:1G:1374:A:OP2	2.39	0.48
20:BA:56:MET:HE2	20:BA:56:MET:HB3	1.71	0.48
26:14:468:G:H5"	26:14:469:G:OP2	2.13	0.48
26:14:825:C:O2'	37:35:55:ARG:HG3	2.13	0.48
26:14:959:A:N6	26:14:960:A:N1	2.62	0.48
26:14:1441:G:H2'	26:14:1442:G:H8	1.77	0.48
26:14:1491:G:O2'	29:19:101:GLU:HB2	2.14	0.48
26:14:1635:G:OP1	61:14:3583:HOH:O	2.20	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
27:1J:75:G:H21	47:D5:85:HIS:CE1	2.31	0.48
33:59:6:ARG:HH12	33:59:54:ARG:NH2	2.12	0.48
34:69:29:TYR:HD2	34:69:30:LEU:HD23	1.78	0.48
37:35:10:PRO:HA	37:35:13:ASN:HD21	1.78	0.48
45:B5:5:TYR:CE1	50:G5:30:ARG:HD2	2.48	0.48
46:C5:87:LYS:HB3	46:C5:94:LYS:CA	2.38	0.48
47:D5:28:MET:HA	47:D5:88:PHE:O	2.12	0.48
1:13:5:U:O2	4:3E:85:LYS:HE3	2.13	0.48
1:13:359:U:H2'	1:13:360:A:C8	2.48	0.48
1:13:942:G:C2	1:13:943:U:C6	3.02	0.48
5:4E:5:ASP:OD1	5:4E:5:ASP:N	2.47	0.48
12:3I:93:LEU:O	12:3I:96:VAL:HG12	2.13	0.48
14:5I:15:LYS:HG2	14:5I:16:PHE:CD1	2.48	0.48
17:8I:70:ARG:O	17:8I:71:PHE:HD1	1.96	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
26:1H:1266:G:O2'	26:1H:2012:G:O6	2.28	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:1901:A:OP2	29:11:255:LYS:HE2	2.13	0.48
26:1H:2248:C:H2'	26:1H:2249:U:O4'	2.14	0.48
26:1H:2378:A:O2'	40:A8:21:THR:HG21	2.14	0.48
26:1H:2845:G:H2'	26:1H:2846:G:C8	2.48	0.48
28:71:69:GLY:HA3	28:71:180:PHE:HZ	1.78	0.48
29:11:242:ARG:HD2	29:11:242:ARG:N	2.28	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:131:TYR:HE1	32:41:133:LEU:HD23	1.79	0.48
33:51:3:ARG:HH21	33:51:6:ARG:NH2	2.12	0.48
34:61:2:LYS:HE3	34:61:20:ASP:OD1	2.14	0.48
37:78:113:LYS:HG3	37:78:129:ALA:HB3	1.96	0.48
38:88:34:LEU:HD11	38:88:129:THR:OG1	2.13	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
1:1G:176:C:O2'	1:1G:177:C:H5'	2.14	0.48
1:1G:382:A:H8	1:1G:382:A:O5'	1.96	0.48
1:1G:407:G:H2'	1:1G:408:A:C8	2.49	0.48
1:1G:1002:G:H2'	1:1G:1003:G:H8	1.78	0.48
1:1G:1187:G:H5'	9:82:113:LYS:HE2	1.96	0.48
5:42:61:TYR:HA	5:42:64:ARG:CG	2.43	0.48
7:62:68:ASN:ND2	7:62:127:ALA:O	2.24	0.48
9:82:26:VAL:HG13	9:82:61:ALA:O	2.14	0.48
15:6A:25:THR:HG21	15:6A:70:LEU:HB2	1.96	0.48
17:8A:7:THR:O	17:8A:23:VAL:HG13	2.13	0.48
22:1L:24:G:H2'	22:1L:25:C:C6	2.48	0.48
56:3L:5:C:H2'	56:3L:6:G:C8	2.49	0.48
56:3L:25:C:H2'	56:3L:26:A:O4'	2.14	0.48
26:14:251:A:C5	26:14:252:G:H1'	2.49	0.48
26:14:275:G:O2'	26:14:276:A:O4'	2.21	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
26:14:1542:G:O6	26:14:1543:A:N6	2.47	0.48
26:14:2121:G:C2	28:79:172:HIS:HE1	2.32	0.48
26:14:2432:A:H2'	26:14:2433:A:C8	2.48	0.48
26:14:2441:C:OP2	26:14:2586:C:O2'	2.31	0.48
26:14:2469:A:C1'	38:45:56:ARG:HH12	2.23	0.48
26:14:2692:C:O2	26:14:2847:U:O2'	2.27	0.48
27:1J:118:G:C5	27:1J:119:A:N7	2.82	0.48
29:19:44:ASN:HB3	29:19:46:GLN:N	2.29	0.48
34:69:143:SER:O	34:69:144:VAL:HG22	2.14	0.48
35:15:59:LYS:NZ	35:15:60:ILE:N	2.61	0.48
53:J5:20:ARG:HA	53:J5:23:HIS:ND1	2.29	0.48
1:13:501:C:OP2	12:3I:124:LYS:HE3	2.14	0.48
7:6E:100:ALA:O	7:6E:104:LEU:HB2	2.13	0.48
14:5I:21:TYR:HA	61:5I:201:HOH:O	2.13	0.48
26:1H:71:A:H2	45:F8:31:HIS:NE2	2.00	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
43:D8:38:LEU:O	43:D8:51:VAL:HG23	2.13	0.48
1:1G:998:G:H22	1:1G:1043:C:H42	1.62	0.48
1:1G:1431:C:H2'	1:1G:1432:G:O4'	2.13	0.48
3:22:62:ASP:HA	3:22:97:LYS:HA	1.96	0.48
14:5A:23:ARG:NH1	14:5A:29:ARG:O	2.47	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
34:69:75:LEU:HD13	34:69:76:THR:C	2.38	0.48
45:B5:75:ASP:C	45:B5:76:ARG:HG3	2.34	0.48
47:D5:4:ARG:CB	47:D5:58:VAL:HB	2.43	0.48
47:D5:44:PHE:O	47:D5:44:PHE:HD1	1.96	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
1:13:35:G:O2'	12:3I:118:SER:O	2.22	0.48
1:13:240:C:H2'	1:13:241:C:C6	2.48	0.48
1:13:1150:U:O2	10:1I:39:PRO:HG2	2.14	0.48
1:13:1356:G:H2'	1:13:1357:A:C8	2.48	0.48
4:3E:158:ILE:O	4:3E:162:LEU:N	2.41	0.48
9:8E:28:VAL:HG22	9:8E:63:ILE:HB	1.95	0.48
16:7I:26:ARG:NH2	16:7I:31:LYS:HD2	2.26	0.48
17:8I:101:ARG:C	17:8I:101:ARG:HH21	2.21	0.48
22:1K:26:A:H5'	22:1K:27:G:OP2	2.14	0.48
24:3K:59:A:H3'	24:3K:60:U:H6	1.79	0.48
26:1H:270(C):C:H42	26:1H:270(W):G:H1	1.62	0.48
26:1H:354:G:H2'	26:1H:355:G:H8	1.78	0.48
26:1H:458:G:O2'	26:1H:469:G:O6	2.24	0.48
26:1H:463:G:N2	26:1H:466:A:OP2	2.39	0.48
26:1H:1142(A):A:C4	26:1H:1144:G:C8	3.01	0.48
26:1H:2787:C:H4'	30:21:61:ARG:NH1	2.29	0.48
28:71:50:ASP:OD2	28:71:52:ARG:HB2	2.13	0.48
31:31:28:ILE:HG12	31:31:119:ARG:HH21	1.79	0.48
42:C8:92:ARG:HD2	43:D8:11:GLN:HB2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:1G:976:G:H5'	1:1G:1358:U:O2'	2.14	0.48
1:1G:1043:C:H2'	1:1G:1044:A:H8	1.79	0.48
1:1G:1260:C:H3'	1:1G:1260:C:H6	1.78	0.48
1:1G:1442:G:O2'	1:1G:1443:G:OP1	2.30	0.48
13:4A:13:LYS:HA	13:4A:44:ARG:NH1	2.29	0.48
17:8A:43:LEU:HD23	17:8A:43:LEU:HA	1.60	0.48
26:14:66:C:H2'	26:14:67:U:H6	1.79	0.48
26:14:469:G:C6	54:L5:39:ARG:NH1	2.82	0.48
26:14:708:C:H42	26:14:723:G:H1	1.62	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
27:1J:18:G:H2'	27:1J:19:G:C8	2.49	0.48
30:29:52:LEU:HD12	30:29:52:LEU:HA	1.51	0.48
36:25:10:VAL:HG12	36:25:17:ARG:O	2.14	0.48
1:13:49:U:N3	1:13:361:G:N2	2.61	0.48
1:13:269:C:H2'	1:13:270:A:C8	2.48	0.48
6:5E:62:TRP:CH2	6:5E:64:GLN:HG2	2.48	0.48
10:1I:28:ARG:HG2	10:1I:34:VAL:HG13	1.96	0.48
11:2I:17:GLY:O	11:2I:80:VAL:HA	2.14	0.48
12:3I:54:LYS:HD2	12:3I:54:LYS:N	2.29	0.48
31:31:66:PRO:HD2	31:31:70:THR:HG21	1.96	0.48
32:41:41:GLN:HG2	32:41:154:GLY:O	2.13	0.48
36:68:4:PRO:HA	36:68:21:CYS:O	2.13	0.48
41:B8:45:PHE:CE1	41:B8:74:ARG:HG3	2.49	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
47:H8:3:TYR:O	47:H8:58:VAL:HG22	2.13	0.48
47:H8:30:ASN:OD1	47:H8:33:LEU:HB3	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
2:12:219:VAL:O	2:12:220:ASP:HB3	2.14	0.48
4:32:61:LYS:HA	4:32:203:VAL:HG22	1.95	0.48
4:32:191:ARG:HH21	4:32:194:LEU:CB	2.24	0.48
26:14:674:G:O2'	31:39:74:ARG:HD2	2.14	0.48
26:14:1899:G:N2	26:14:1902:C:H41	2.11	0.48
26:14:2469:A:C8	38:45:56:ARG:NH1	2.81	0.48
26:14:2745:C:H2'	26:14:2746:U:O4'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:128:SER:OG	30:29:129:HIS:N	2.46	0.48
31:39:183:VAL:O	31:39:187:VAL:HG23	2.14	0.48
32:49:113:ARG:HD3	32:49:140:ILE:O	2.14	0.48
42:85:50:ARG:HH12	43:95:72:VAL:HG23	1.79	0.48
47:D5:30:ASN:HA	47:D5:89:PHE:HE1	1.79	0.48
51:H5:5:LYS:HE3	51:H5:57:GLU:HB2	1.95	0.48
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
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
2:1E:8:LYS:HA	2:1E:48:MET:HE1	1.96	0.47
2:1E:74:LYS:HD2	2:1E:208:ILE:HD13	1.96	0.47
3:2E:79:ARG:HH11	11:2A:99:GLN:HE22	1.61	0.47
16:7I:20:VAL:HG23	16:7I:35:LYS:HA	1.94	0.47
18:9I:58:LEU:HD23	18:9I:62:GLU:HB3	1.96	0.47
26:1H:55:G:C2	26:1H:116:C:C2	3.01	0.47
26:1H:444:C:H2'	26:1H:445:C:H6	1.79	0.47
26:1H:783:A:C8	26:1H:783:A:H3'	2.49	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
28:71:192:PHE:HA	28:71:195:ALA:HB3	1.96	0.47
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
47:H8:69:THR:HG22	47:H8:90:VAL:HG22	1.95	0.47
1:1G:865:A:O5'	1:1G:865:A:H8	1.97	0.47
1:1G:894:G:C6	1:1G:895:G:C5	3.02	0.47
1:1G:942:G:C2	1:1G:1342:C:C2	3.01	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
2:12:58:ILE:HG23	2:12:222:ILE:HG12	1.96	0.47
2:12:91:PRO:CG	2:12:155:LEU:HB2	2.44	0.47
16:7A:72:ARG:O	16:7A:75:ARG:HB3	2.13	0.47
26:14:1126:A:H8	26:14:1126:A:OP1	1.97	0.47
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
26:14:2010:G:H5"	44:A5:42:ARG:HB2	1.96	0.47
26:14:2052:G:O4'	30:29:142:GLY:HA3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:2572: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
36:25:111:PHE:O	36:25:114:ILE:HG22	2.14	0.47
42:85:91:ASP:OD2	42:85:96:ALA:HB2	2.14	0.47
44:A5:65:LEU:HD13	44:A5:68:ARG:CD	2.43	0.47
1:13:22:G:H2'	1:13:23:C:C6	2.49	0.47
1:13:201:C:N3	1:13:216:G:N2	2.52	0.47
1:13:749:C:H2'	1:13:750:G:H8	1.79	0.47
1:13:1060:C:C5	3:2E:2:GLY:HA2	2.50	0.47
3:2E:191:THR:OG1	3:2E:194:GLY:O	2.22	0.47
4:3E:107:ARG:HH12	4:3E:194:LEU:HD22	1.78	0.47
19:AI:80:TYR:CZ	19:AI:82:GLY:HA2	2.49	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
26:1H:248:G:H5'	26:1H:250:G:N7	2.29	0.47
26:1H:442:G:C4	26:1H:444:C:C5	3.02	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:2518:A:H5'	26:1H:2518:A:H8	1.79	0.47
26:1H:2713:A:H3'	26:1H:2714:G:H5"	1.95	0.47
35:58:67:LEU:HA	35:58:87:LEU:HD12	1.96	0.47
37:78:37:GLY:HA2	37:78:41:ARG:HH21	1.79	0.47
47:H8:11:GLU:C	47:H8:11:GLU:OE2	2.56	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
1:1G:713:G:H2'	1:1G:714:G:C8	2.49	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
15:6A:70:LEU:HG	15:6A:78:TYR:HB2	1.95	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
26:14:1341:U:C5	26:14:1395:A:H2	2.32	0.47
26:14:1375:C:H2'	26:14:1376:C:C6	2.48	0.47
26:14:1665:A:H1'	36:25:1:MET:HG3	1.95	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
31:39:146:ALA:HB1	31:39:148:LEU:HG	1.95	0.47
38:45:134:ARG:O	38:45:134:ARG:HG2	2.14	0.47
40:65:42:ASP:C	40:65:44:LYS:H	2.22	0.47
47:D5:165:VAL:HG12	47:D5:166:SER:N	2.26	0.47
1:13:112:G:P	16:7I:27:LYS:HD2	2.54	0.47
1:13:264:U:H4'	17:8I:63:ARG:HD2	1.96	0.47
1:13:1127:G:H2'	1:13:1128:C:N1	2.28	0.47
11:2I:54:ARG:HA	11:2I:57:THR:HG23	1.97	0.47
22:1K:22:G:O4'	22:1K:48:C:N4	2.47	0.47
26:1H:263:C:H2'	26:1H:264:C:O4'	2.14	0.47
26:1H:273(F):C:H3'	26:1H:274:G:H5"	1.96	0.47
26:1H:907:U:H4'	38:88:101:ARG:HH22	1.79	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:2728:U:OP2	61:1H:3699:HOH:O	2.20	0.47
27:16:18:G:H1	27:16:65:C:H42	1.62	0.47
29:11:69:ARG:HH11	29:11:105:ILE:HG12	1.79	0.47
35:58:6:PRO:HD2	35:58:43:THR:HG21	1.96	0.47
41:B8:78:LEU:HD12	41:B8:79:HIS:CD2	2.49	0.47
45:F8:12:VAL:HG22	45:F8:27:THR:HG23	1.96	0.47
46:G8:5:MET:HE1	46:G8:32:PRO:HB3	1.96	0.47
46:G8:98:VAL:C	46:G8:100:ALA:HB2	2.39	0.47
1:1G:68:G:C2	1:1G:69:G:H1'	2.50	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
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
9:82:105:ASP:OD1	9:82:107:ARG:HD3	2.14	0.47
18:9A:66:LEU:O	18:9A:70:ILE:HG13	2.14	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
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
40:65:84:GLN:HA	40:65:110:LEU:HA	1.95	0.47
46:C5:50:ARG:HB3	46:C5:53:PRO:HG2	1.97	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
1:13:1313:U:C5	19:AI:4:SER:HB3	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5E:36:ARG:NH2	6:5E:38:GLU:OE2	2.47	0.47
7:6E:50:ILE:HB	7:6E:58:PRO:HB3	1.96	0.47
7:6E:111:ARG:NH1	7:6E:113:GLU:OE2	2.47	0.47
22:1K:30:G:H3'	22:1K:31:A:H8	1.79	0.47
26:1H:298:G:N7	46:G8:84:ARG:NH2	2.62	0.47
26:1H:1034:G:H2'	26:1H:1035:U:O4'	2.13	0.47
26:1H:1444:G:C2	26:1H:1548:C:N3	2.82	0.47
26:1H:1503:U:H2'	26:1H:1504:C:C6	2.49	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
30:21:52:LEU:HD12	30:21:75:VAL:HB	1.96	0.47
37:78:50:ARG:HG3	37:78:50:ARG:NH2	2.29	0.47
41:B8:62:THR:HG22	41:B8:75:ILE:HG12	1.97	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
1:1G:67:C:H2'	1:1G:68:G:C8	2.49	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
10:1A:16:LEU:HD13	10:1A:94:VAL:CG1	2.44	0.47
13:4A:13:LYS:HA	13:4A:44:ARG:HH11	1.79	0.47
15:6A:24:SER:OG	15:6A:27:VAL:HG23	2.14	0.47
26:14:84:A:OP2	46:C5:8:LYS:HD3	2.15	0.47
26:14:433:C:H2'	26:14:434:U:C6	2.49	0.47
26:14:1319:G:C6	26:14:1320:C:N4	2.82	0.47
26:14:1654:A:C1'	26:14:2823:A:H5'	2.44	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
26:14:2873:A:H8	39:55:6:SER:N	2.10	0.47
61:14:3701:HOH:O	30:29:135:HIS:CE1	2.66	0.47
29:19:147:LEU:HD23	29:19:155:LEU:CD1	2.44	0.47
30:29:37:ARG:HD2	30:29:44:TYR:OH	2.14	0.47
32:49:81:LYS:HD3	32:49:81:LYS:HA	1.51	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
39:55:107:ASP:C	39:55:107:ASP:OD1	2.57	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D5:94:GLU:O	47:D5:129:SER:HA	2.14	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
1:13:789:U:O2'	1:13:791:G:N7	2.47	0.47
1:13:1326:C:H2'	1:13:1327:C:C6	2.49	0.47
2:1E:111:ARG:HD2	2:1E:145:LEU:HD22	1.95	0.47
11:2I:124:LYS:HB2	11:2I:125:PHE:CD1	2.49	0.47
22:1K:48:C:HO2'	22:1K:49:G:P	2.33	0.47
23:2K:63:C:H2'	23:2K:64:G:H8	1.78	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
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
27:16:42:C:O2'	32:41:67:LYS:O	2.24	0.47
29:11:27:THR:C	29:11:29:PRO:CD	2.87	0.47
29:11:123:ALA:HA	29:11:124:PRO:HD2	1.76	0.47
31:31:178:PRO:HB2	31:31:201:VAL:CG1	2.44	0.47
32:41:117:PHE:HE1	32:41:120:LEU:HD23	1.79	0.47
47:H8:105:VAL:HG13	47:H8:140:ASP:HB3	1.95	0.47
1:1G:976:G:N2	1:1G:1362:C:H2'	2.29	0.47
1:1G:1130:A:N6	1:1G:1144:G:N3	2.63	0.47
1:1G:1329:A:H5"	13:4A:25:ILE:O	2.14	0.47
1:1G:1367:C:OP1	9:82:115:GLY:N	2.39	0.47
4:32:71:SER:HB3	4:32:74:GLN:HB2	1.96	0.47
9:82:118:LYS:HB2	9:82:121:ARG:HB3	1.97	0.47
10:1A:48:THR:HA	10:1A:62:HIS:CB	2.41	0.47
10:1A:63:PHE:HA	14:5A:59:ALA:H	1.80	0.47
13:4A:64:TRP:HD1	13:4A:66:LEU:CD2	2.27	0.47
23:2L:73:A:C6	23:2L:74:A:C6	3.02	0.47
56:3L:71:C:O2'	26:14:1851:U:O2'	2.04	0.47
26:14:382:G:H1	26:14:392:C:H42	1.62	0.47
26:14:2019:A:C6	26:14:2020:A:N7	2.83	0.47
28:79:5:LYS:N	28:79:8:ARG:HG3	2.29	0.47
29:19:44:ASN:HB3	29:19:45:ASN:CA	2.43	0.47
29:19:65:ILE:HD11	29:19:67:PHE:CZ	2.48	0.47
30:29:54:GLN:O	30:29:75:VAL:HG22	2.13	0.47
31:39:123:LEU:HA	31:39:192:LEU:O	2.14	0.47
35:15:72:TYR:HB2	35:15:85:ILE:HD12	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:29:GLU:HG3	46:C5:30:VAL:H	1.79	0.47
1:13:148:G:H1	1:13:174:C:H42	1.61	0.47
1:13:280:C:O2	17:8I:38:ARG:HG3	2.15	0.47
1:13:1128:C:H5'	9:8E:16:ARG:HH22	1.80	0.47
5:4E:27:ARG:HE	5:4E:27:ARG:HB2	1.42	0.47
10:1I:39:PRO:HB3	10:1I:70:ARG:HH11	1.79	0.47
11:2I:79:SER:OG	11:2I:106:LYS:NZ	2.36	0.47
19:AI:51:VAL:O	19:AI:58:VAL:N	2.39	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
26:1H:960:A:C8	26:1H:962:G:C8	3.02	0.47
26:1H:1210:A:H5"	26:1H:1212:G:O4'	2.14	0.47
26:1H:1301:A:H2	26:1H:1626:G:H21	1.60	0.47
26:1H:1448:G:H2'	26:1H:1449:A:C8	2.49	0.47
26:1H:1919:A:H5"	26:1H:1920:C:OP2	2.14	0.47
32:41:61:ALA:HB2	32:41:67:LYS:HA	1.97	0.47
36:68:68:GLU:H	36:68:68:GLU:CD	2.11	0.47
37:78:64:LYS:HD2	55:Q8:12:LYS:HB3	1.97	0.47
49:J8:46:LEU:HD12	49:J8:46:LEU:HA	1.79	0.47
49:J8:75:GLU:O	49:J8:76:ARG:C	2.57	0.47
50:K8:5:GLU:O	50:K8:8:LYS:N	2.47	0.47
1:1G:580:U:H2'	1:1G:581:G:O4'	2.14	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
2:12:119:GLU:OE1	2:12:153:ARG:NH1	2.48	0.47
5:42:122:GLU:HB3	5:42:126:ARG:HD2	1.96	0.47
7:62:73:MET:HA	7:62:91:VAL:HG23	1.97	0.47
7:62:101:LEU:O	7:62:105:VAL:HG23	2.14	0.47
13:4A:68:GLY:HA3	32:49:116:ASP:OD2	2.13	0.47
22:1L:16:U:C5	22:1L:18:G:H3'	2.50	0.47
26:14:459:U:H4'	54:L5:40:TRP:CZ3	2.49	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
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
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
27:1J:52:A:O2'	27:1J:53:A:N7	2.48	0.47
30:29:52:LEU:HD23	30:29:76:ARG:HD3	1.95	0.47
30:29:55:ASN:HB2	30:29:58:ARG:HH21	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:154:VAL:HA	31:39:191:ARG:O	2.14	0.47
34:69:129:THR:HA	34:69:137:PRO:HA	1.96	0.47
47:D5:27:VAL:N	47:D5:86:VAL:O	2.45	0.47
1:13:209:U:H4'	1:13:216:G:C2	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
1:13:659: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
1:13:947:G:H2'	1:13:948:C:O4'	2.14	0.47
1:13:1249:C:O2'	9:8E:73:GLN:OE1	2.28	0.47
1:13:1391:U:H2'	1:13:1392:G:C8	2.50	0.47
1:13:1429:C:H2'	1:13:1430:C:C6	2.49	0.47
2:1E:19:HIS:CG	2:1E:20:GLU:OE1	2.68	0.47
2:1E:49:GLU:OE1	2:1E:49:GLU:N	2.47	0.47
2:1E:54:THR:O	2:1E:58:ILE:HG13	2.15	0.47
3:2E:26:LYS:HG2	10:1I:45:ARG:HH12	1.79	0.47
3:2E:76:VAL:HG21	3:2E:103:VAL:HG21	1.96	0.47
5:4E:104:ALA:HA	5:4E:107:ARG:HB3	1.96	0.47
8:7E:8:ASP:O	8:7E:12:ARG:HB2	2.15	0.47
10:1I:8:LEU:HB2	10:1I:70:ARG:HB3	1.97	0.47
11:2I:69:ALA:HB1	11:2I:73:MET:HE3	1.97	0.47
13:4I:35:GLU:C	13:4I:38:GLY:H	2.23	0.47
16:7I:68:ASP:O	16:7I:71:ARG:HG2	2.15	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
26:1H:625:G:N7	37:78:107:LYS:NZ	2.62	0.47
26:1H:780:G:H8	26:1H:780:G:O5'	1.96	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:1352:U:OP1	61:1H:3700:HOH:O	2.20	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
27:16:60:C:C2	27:16:61:G:C8	3.03	0.47
29:11:33:LEU:HD11	29:11:102:LYS:HB2	1.97	0.47
30:21:78:LEU:HD12	30:21:79:ARG:HD2	1.96	0.47
31:31:59:TYR:CD2	31:31:78:ILE:HD11	2.50	0.47
31:31:129:PHE:HB2	31:31:132:VAL:HG13	1.96	0.47
36:68:73:ASP:OD1	41:B8:32:TYR:OH	2.30	0.47
38:88:21:THR:HG22	38:88:99:PRO:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
41:B8:51:ARG:HG3	41:B8:98:LYS:CD	2.44	0.47
44:E8:82:LEU:HB2	44:E8:98:LYS:HB2	1.97	0.47
50:K8:15:LYS:HD3	50:K8:67:LYS:HZ1	1.79	0.47
50:K8:15:LYS:N	50:K8:15:LYS:HZ2	2.12	0.47
50:K8:42:GLY:C	50:K8:44:LEU:N	2.73	0.47
54:P8:10:ARG:O	54:P8:14:LYS:HG3	2.15	0.47
54:P8:15:THR:HG22	54:P8:16:HIS:CE1	2.50	0.47
1:1G:21:G:O2'	1:1G:914:A:N6	2.47	0.47
1:1G:374:A:N3	1:1G:374:A:H2'	2.30	0.47
1:1G:450:G:N7	1:1G:481:G:C6	2.83	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
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
1:1G:1224:G:C5	1:1G:1322:C:H6	2.32	0.47
1:1G:1317:C:O2	19:AA:37:ARG:NH2	2.47	0.47
1:1G:1372:U:OP1	9:82:72:GLY:N	2.48	0.47
1:1G:1424:C:H42	1:1G:1476:G:H1	1.63	0.47
2:12:60:ASP:N	2:12:60:ASP:OD1	2.46	0.47
2:12:223:ILE:H	2:12:224:GLN:HE21	1.62	0.47
4:32:148:VAL:HG12	4:32:152:SER:HB2	1.95	0.47
5:42:79:GLU:HG2	5:42:92:LYS:CG	2.45	0.47
6:52:35:ALA:HA	6:52:67:MET:HB3	1.97	0.47
6:52:77:ARG:HD3	6:52:78:GLU:N	2.29	0.47
9:82:10:ARG:HA	9:82:104:ARG:HH21	1.80	0.47
10:1A:24:VAL:O	10:1A:28:ARG:HG3	2.14	0.47
12:3A:57:LYS:HG3	12:3A:67:THR:HG22	1.97	0.47
13:4A:34:LEU:HD13	13:4A:41:PRO:HB3	1.96	0.47
14:5A:12:ARG:HD2	14:5A:14:PRO:CD	2.44	0.47
19:AA:39:THR:HA	19:AA:70:LYS:HA	1.96	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
26:14:540:G:H1	26:14:553:U:H3	1.63	0.47
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
26:14:2506:U:O2'	26:14:2507:C:O5'	2.27	0.47
26:14:2768:C:H2'	26:14:2769:C:O4'	2.15	0.47
29:19:28:GLU:CD	29:19:28:GLU:C	2.82	0.47
29:19:70:TRP:CH2	29:19:150:LYS:HA	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:72:LYS:HB3	29:19:72:LYS:HE2	1.55	0.47
29:19:145:VAL:HG13	29:19:191:ALA:HB2	1.96	0.47
30:29:119:ARG:HA	30:29:160:TYR:CE2	2.50	0.47
31:39:79:GLY:HA2	31:39:86:GLY:HA2	1.96	0.47
34:69:140:LEU:HD12	34:69:140:LEU:HA	1.68	0.47
35:15:85:ILE:HD12	35:15:85:ILE:O	2.15	0.47
36:25:49:ARG:HA	36:25:53:LYS:HZ3	1.79	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
39:55:97:VAL:HG22	39:55:114:VAL:HG22	1.97	0.47
40:65:35:ILE:HB	40:65:97:ARG:HH21	1.79	0.47
42:85:91:ASP:C	42:85:93:LYS:N	2.73	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
43:95:71:LEU:CA	43:95:86:GLY:HA2	2.44	0.47
44:A5:57:ASN:O	44:A5:61:ASN:HB2	2.15	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
48:E5:50:ASN:HB3	48:E5:63:VAL:HG22	1.96	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
1:13:1180:A:OP1	9:8E:103:THR:OG1	2.27	0.47
24:3K:18:G:H5"	24:3K:60:U:H2'	1.96	0.47
26:1H:61:G:H8	26:1H:61:G:O5'	1.98	0.47
26:1H:498:G:C6	26:1H:499:U:C4	3.02	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
27:16:31:C:H2'	27:16:32:C:H6	1.76	0.47
29:11:18:VAL:HG22	29:11:211:ARG:NH2	2.30	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
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
1:1G:618:C:H5'	1:1G:619:U:H5"	1.96	0.47
1:1G:956:U:C2	1:1G:1225:A:C2	3.03	0.47
8:72:9:MET:HG3	8:72:26:VAL:HG11	1.96	0.47
12:3A:84:LEU:HG	12:3A:105:TYR:HE2	1.79	0.47
26:14:322:A:OP1	31:39:168:ARG:HD2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:807:U:H2'	26:14:808:G:H8	1.79	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
26:14:2851:A:H2'	26:14:2852:G:C8	2.50	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
34:69:62:LYS:HG3	34:69:63:ALA:N	2.30	0.47
41:75:3:ARG:HG2	41:75:6:LEU:HB2	1.97	0.47
43:95:62:LEU:HD21	43:95:95:LEU:HB2	1.97	0.47
46:C5:29:GLU:CD	46:C5:30:VAL:H	2.23	0.47
1:13:377:G:OP1	16:7I:3:LYS:HD2	2.15	0.47
5:4E:77:PRO:HD2	5:4E:142:LEU:HD22	1.95	0.47
6:5E:97:PHE:HD1	18:9I:31:LEU:HD11	1.80	0.47
11:2I:32:ILE:HD12	11:2I:72:ALA:HB2	1.97	0.47
15:6I:11:VAL:HG21	15:6I:34:LEU:HD13	1.96	0.47
16:7I:9:PHE:CE1	16:7I:18:ARG:HG3	2.50	0.47
20:BI:11:SER:HA	20:BI:13:LEU:CD2	2.44	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
26:1H:298:G:N7	46:G8:84:ARG:NH1	2.63	0.47
26:1H:1945:G:H2'	26:1H:1946:U:C6	2.50	0.47
26:1H:2749:A:OP1	33:51:4:ILE:HD12	2.15	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
30:21:75:VAL:HG12	30:21:76:ARG:HD2	1.97	0.47
33:51:88:LEU:HD12	33:51:129:THR:O	2.14	0.47
35:58:67:LEU:HG	35:58:87:LEU:HD12	1.97	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
43:D8:3:ALA:HB3	43:D8:14:VAL:HG22	1.96	0.47
47:H8:93:ASP:CB	47:H8:131:ARG:HH12	2.26	0.47
1:1G:15:G:H2'	1:1G:16:A:O4'	2.15	0.47
1:1G:143:A:H4'	1:1G:144:G:C8	2.49	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
3:22:47:LEU:CD2	3:22:68:VAL:HG11	2.45	0.47
10:1A:44:VAL:HG21	10:1A:66:ARG:HH21	1.80	0.47
22:1L:20:U:H6	22:1L:22:G:P	2.38	0.47
26:14:35:G:H2'	26:14:36:G:O4'	2.15	0.47
26:14:315:G:H2'	26:14:316:C:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:631:A:H2'	26:14:632:A:O4'	2.15	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
27:1J:70:C:H2'	27:1J:71:C:C6	2.44	0.47
29:19:30:GLU:OE1	29:19:63:ARG:CG	2.61	0.47
29:19:38:LYS:HD3	29:19:38:LYS:N	2.29	0.47
39:55:54:LEU:HD21	39:55:65:LEU:HD23	1.96	0.47
49:F5:64:ALA:HA	49:F5:67:ILE:HG12	1.97	0.47
1:13:789:U:O2'	61:13:1815:HOH:O	2.21	0.47
1:13:1266:G:N2	1:13:1270:C:N3	2.63	0.47
5:4E:128:PRO:HA	5:4E:131:ILE:HB	1.96	0.47
16:7I:21:VAL:O	16:7I:33:ILE:N	2.44	0.47
22:1K:54:5MU:OP1	38:88:60:ARG:HD3	2.14	0.47
24:3K:3:G:H22	24:3K:70:C:N4	2.13	0.47
26:1H:141:A:H8	26:1H:1408:C:H1'	1.79	0.47
26:1H:447:A:N1	26:1H:454:A:O2'	2.44	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
27:16:7:G:H4'	40:A8:29:PHE:CE2	2.50	0.47
30:21:181:LEU:HA	30:21:181:LEU:HD13	1.54	0.47
31:31:192:LEU:HD23	31:31:193:VAL:N	2.30	0.47
35:58:33:LEU:HD12	35:58:38:HIS:CE1	2.50	0.47
38:88:11:LYS:NZ	38:88:88:GLY:O	2.45	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
1:1G:1327:C:H2'	1:1G:1328:C:C6	2.50	0.47
3:22:72:LYS:NZ	3:22:75:VAL:HG23	2.28	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
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
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
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
26:14:2094:G:C2'	26:14:2095:C:H5'	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:5:C:O2'	27:1J:27:C:O2	2.33	0.47
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
1:13:940:C:OP1	7:6E:102:ARG:NE	2.49	0.46
1:13:1026:G:H5"	1:13:1027:C:C5	2.50	0.46
1:13:1149:C:OP1	9:8E:14:VAL:HG21	2.15	0.46
2:1E:237:ALA:O	2:1E:239:VAL:HG23	2.14	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
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
19:AI:4:SER:O	19:AI:5:LEU:HD23	2.16	0.46
24:3K:22:G:C2	24:3K:23:A:C8	3.03	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:2262:U:OP1	26:1H:2387:U:O2'	2.29	0.46
26:1H:2882:A:H5'	39:98:96:ARG:HG3	1.98	0.46
27:16:7:G:H5"	27:16:7:G:H8	1.80	0.46
27:16:45:A:H1'	32:41:95:ARG:NH2	2.29	0.46
28:71:13:LYS:NZ	28:71:31:GLU:O	2.47	0.46
28:71:27:HIS:HB3	28:71:182:PRO:CB	2.45	0.46
32:41:109:VAL:O	32:41:113:ARG:HG3	2.16	0.46
36:68:53:LYS:HA	36:68:53:LYS:CE	2.45	0.46
38:88:41:TRP:CD1	38:88:96:VAL:HG22	2.49	0.46
1:1G:363:A:N7	12:3A:33:ARG:NH1	2.63	0.46
1:1G:544:G:OP1	4:32:66:ARG:NH2	2.49	0.46
1:1G:632:A:C2	1:1G:633:G:H1'	2.50	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
2:12:90:MET:HG2	2:12:91:PRO:HD2	1.97	0.46
8:72:53:VAL:O	8:72:56:LYS:HD3	2.15	0.46
11:2A:85:ARG:HE	11:2A:111:ASP:HB3	1.80	0.46
56:3L:49:G:C2	56:3L:66:A:N6	2.83	0.46
26:14:363(B):G:H2'	26:14:363(C):G:C8	2.50	0.46
26:14:598:G:H5'	37:35:11:GLY:HA3	1.98	0.46
26:14:1057:A:H2'	26:14:1058:U:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2239:G:H5'	29:19:251:GLY:HA3	1.97	0.46
32:49:34:LEU:HB3	32:49:99:MET:HE1	1.96	0.46
35:15:15:LEU:O	35:15:136:GLU:HA	2.15	0.46
41:75:24:PRO:HD3	41:75:52:ILE:HD12	1.96	0.46
49:F5:78:LYS:HZ2	49:F5:94:LEU:HD21	1.80	0.46
1:13:1315:U:H2'	1:13:1316:G:O4'	2.15	0.46
2:1E:51:LEU:O	2:1E:55:PHE:HB2	2.15	0.46
7:6E:113:GLU:HG2	7:6E:119:ARG:HG2	1.96	0.46
8:7E:103:VAL:HG12	8:7E:138:TRP:HD1	1.79	0.46
23:2K:16:C:O2'	23:2K:62:C:OP1	2.32	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
26:1H:1342:A:N1	26:1H:1345:C:C2	2.83	0.46
28:71:226:PRO:HG2	28:71:227:HIS:ND1	2.30	0.46
30:21:105:THR:HG23	30:21:166:THR:OG1	2.15	0.46
32:41:32:PRO:HB2	32:41:172:LEU:CD1	2.45	0.46
35:58:14:VAL:HG12	35:58:15:LEU:H	1.81	0.46
39:98:101:ALA:HA	53:N8:44:THR:HG21	1.97	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
1:1G:1068:G:N7	1:1G:1094:G:C8	2.83	0.46
3:22:116:VAL:HG23	3:22:119:ARG:HH22	1.80	0.46
5:42:78:HIS:HB2	8:72:104:ARG:HG3	1.97	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
26:14:1040:C:H2'	26:14:1041:C:O4'	2.15	0.46
26:14:1247:A:OP1	31:39:95:ARG:NH2	2.46	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
30:29:35:GLN:HG2	30:29:37:ARG:HG2	1.96	0.46
30:29:111:ARG:HD2	30:29:160:TYR:CD2	2.50	0.46
34:69:72:LEU:HD21	34:69:107:VAL:HG21	1.97	0.46
39:55:28:LEU:CD2	39:55:114:VAL:HG12	2.44	0.46
41:75:132:LYS:HE3	41:75:132:LYS:HB3	1.79	0.46
46:C5:83:THR:HG22	46:C5:84:ARG:H	1.79	0.46
1:13:147:G:H2'	1:13:148:G:H8	1.81	0.46
1:13:356:A:N3	1:13:368:U:O2'	2.41	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:626:U:N3	1:13:627:G:N7	2.63	0.46
1:13:963:G:C2	10:1I:55:LYS:NZ	2.84	0.46
1:13:1329:A:H5'	13:4I:29:ARG:HD2	1.97	0.46
1:13:1346:A:H5"	9:8E:120:ARG:NH1	2.31	0.46
3:2E:15:THR:HG22	3:2E:16:ARG:N	2.30	0.46
12:3I:66:VAL:HG22	12:3I:67:THR:H	1.79	0.46
14:5I:8:GLU:O	14:5I:11:LYS:N	2.48	0.46
17:8I:22:LEU:HD12	17:8I:40:LYS:O	2.16	0.46
20:BI:50:GLU:HG2	20:BI:100:ILE:HG12	1.95	0.46
20:BI:89:ARG:NH2	20:BI:104:LEU:HD11	2.27	0.46
22:1K:22:G:H8	22:1K:48:C:N4	2.13	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
27:16:29:A:H5"	27:16:30:C:OP2	2.15	0.46
28:71:180:PHE:HB3	28:71:184:LYS:CB	2.45	0.46
29:11:37:LEU:N	29:11:37:LEU:CD2	2.72	0.46
29:11:223:GLY:HA2	29:11:226:MET:HE3	1.97	0.46
31:31:135:LYS:HB3	31:31:138:GLU:HG3	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
42:C8:98:LEU:HD21	43:D8:4:ILE:HD11	1.98	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
1:1G:1460:A:OP2	20:BA:27:LYS:NZ	2.49	0.46
2:12:32:ILE:HD11	2:12:40:HIS:HB2	1.97	0.46
3:22:59:ARG:HG2	3:22:64:VAL:HG23	1.96	0.46
5:42:12:LEU:HD11	5:42:14:ARG:HB3	1.98	0.46
7:62:132:GLY:H	7:62:135:VAL:HB	1.81	0.46
9:82:111:ARG:HB2	9:82:113:LYS:HE3	1.97	0.46
11:2A:100:ALA:C	11:2A:102:GLY:N	2.74	0.46
17:8A:54:GLY:O	17:8A:81:ARG:HB2	2.15	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
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
44:A5:82:LEU:HD23	44:A5:84:ARG:NH2	2.30	0.46
47:D5:5:LEU:HD11	47:D5:44:PHE:HA	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:244:U:H4'	1:13:245:C:C5'	2.44	0.46
1:13:710:G:H5"	6:5E:54:LYS:HZ1	1.81	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
9:8E:48:GLU:N	9:8E:49:PRO:HD2	2.31	0.46
24:3K:58:A:O2'	24:3K:59:A:OP1	2.28	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:2481:G:O2'	26:1H:2482:G:O5'	2.33	0.46
26:1H:2820:A:OP2	39:98:2:ARG:NH1	2.41	0.46
38:88:53:ALA:HB1	38:88:120:ILE:HG22	1.98	0.46
47:H8:92:SER:O	47:H8:130:PRO:HG2	2.14	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
2:12:98:LEU:O	2:12:101:MET:HG2	2.15	0.46
3:22:23:TYR:CD2	10:1A:95:GLU:HB2	2.50	0.46
3:22:50:ALA:HB2	3:22:75:VAL:HB	1.97	0.46
4:32:63:LYS:O	4:32:67:ILE:HG13	2.14	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
6:52:30:LEU:O	6:52:35:ALA:N	2.43	0.46
13:4A:57:ARG:HG3	13:4A:61:GLU:OE2	2.16	0.46
56:3L:16:U:H6	56:3L:59:A:C2	2.34	0.46
26:14:387:U:H4'	26:14:388:G:O5'	2.15	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
29:19:183:ARG:HG2	29:19:184:LYS:N	2.30	0.46
30:29:25:VAL:O	30:29:26:ILE:HG12	2.15	0.46
31:39:51:THR:HG23	31:39:92:PRO:HG2	1.97	0.46
32:49:63:ILE:HG13	32:49:64:THR:N	2.30	0.46
36:25:71:ARG:HE	36:25:105:GLU:CD	2.23	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:35:82:GLY:HA2	37:35:113:LYS:O	2.15	0.46
38:45:57:HIS:ND1	38:45:117:ALA:HB2	2.31	0.46
39:55:33:ARG:HH12	39:55:113:LEU:HD21	1.77	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
1:13:272:C:H2'	1:13:273:A:H8	1.80	0.46
1:13:881:G:P	12:3I:12:ARG:HH22	2.39	0.46
1:13:1329:A:OP1	13:4I:29:ARG:HB2	2.15	0.46
4:3E:101:LEU:O	4:3E:105:VAL:HG23	2.15	0.46
12:3I:89:ARG:NH2	12:3I:91:LYS:HD2	2.31	0.46
14:5I:3:ARG:O	14:5I:6:LEU:HB2	2.15	0.46
24:3K:75:C:O2'	24:3K:76:A:H2	1.97	0.46
26:1H:765:G:H2'	26:1H:766:C:H6	1.80	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:H5'	26:1H:2439:A:C8	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:2787:C:H1'	30:21:62:PRO:HG3	1.98	0.46
27:16:7:G:O5'	40:A8:29:PHE:CE2	2.65	0.46
27:16:44:G:H1'	27:16:47:C:N4	2.31	0.46
29:11:12:SER:O	29:11:16:MET:HB2	2.16	0.46
30:21:143:ASN:HB2	30:21:147:PRO:HD2	1.97	0.46
32:41:35:GLU:OE1	32:41:36:LYS:N	2.48	0.46
33:51:130:ARG:CZ	33:51:130:ARG:HB2	2.45	0.46
38:88:35:VAL:CG1	38:88:130:LYS:HB3	2.45	0.46
54:P8:10:ARG:HD3	54:P8:14:LYS:HD2	1.97	0.46
1:1G:535:A:H5"	61:1G:1706:HOH:O	2.15	0.46
1:1G:690:G:H22	11:2A:55:LYS:HE2	1.81	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
5:42:78:HIS:HB3	8:72:107:LEU:HD13	1.98	0.46
11:2A:17:GLY:HA3	11:2A:77:MET:SD	2.56	0.46
12:3A:41:ARG:HG2	12:3A:42:THR:H	1.81	0.46
15:6A:16:ALA:HA	15:6A:27:VAL:HG22	1.97	0.46
20:BA:53:LEU:HD12	20:BA:100:ILE:HG22	1.97	0.46
56:3L:39:PSU:H4'	56:3L:40:C:OP1	2.14	0.46
26:14:568:U:H5'	26:14:945:A:C6	2.51	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1983:C:H4'	26:14:2606:C:H4'	1.96	0.46
30:29:64:LYS:C	30:29:66:HIS:N	2.73	0.46
31:39:164:ARG:HG2	31:39:175:THR:OG1	2.15	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
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
1:13:1499:A:H1'	1:13:1520:G:O5'	2.15	0.46
3:2E:111:LEU:HD21	3:2E:145:GLY:O	2.15	0.46
17:8I:89:LEU:O	17:8I:93:GLN:N	2.48	0.46
24:3K:6:G:H22	24:3K:67:C:N4	2.09	0.46
26:1H:479:A:N3	26:1H:481:G:H5"	2.31	0.46
26:1H:879:G:H2'	26:1H:880:G:C8	2.48	0.46
26:1H:1357:U:H2'	26:1H:1358:G:O4'	2.16	0.46
26:1H:1491:G:O2'	29:11:101:GLU:HG3	2.16	0.46
26:1H:1657:C:O2'	26:1H:1658:C:H5'	2.16	0.46
26:1H:2320:A:H2'	26:1H:2320:A:N3	2.29	0.46
26:1H:2575:C:H2'	26:1H:2578:G:O6	2.16	0.46
26:1H:2749:A:P	33:51:4:ILE:HD12	2.56	0.46
29:11:72:LYS:HE2	29:11:103:ARG:NH2	2.29	0.46
30:21:37:ARG:HB2	30:21:46:ALA:HB3	1.97	0.46
33:51:167:GLU:CD	33:51:167:GLU:N	2.73	0.46
37:78:116:GLY:H	37:78:134:ALA:HB2	1.80	0.46
41:B8:84:GLN:HG2	41:B8:85:LYS:HG2	1.98	0.46
46:G8:88:LYS:HD3	46:G8:88:LYS:HA	1.68	0.46
1:1G:411:A:N6	1:1G:413:G:H21	2.13	0.46
1:1G:842:C:OP1	1:1G:842:C:H4'	2.16	0.46
1:1G:1053:G:H4'	1:1G:1054:C:H3'	1.96	0.46
4:32:19:LEU:HB2	4:32:21:LEU:HD11	1.98	0.46
6:52:1:MET:HE2	6:52:68:PRO:HD3	1.98	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
26:14:89:G:O5'	26:14:90:U:H5"	2.16	0.46
26:14:137(A):G:H2'	26:14:139:G:N7	2.31	0.46
26:14:574:C:H1'	26:14:2055:C:C6	2.51	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
26:14:1869:G:N2	26:14:1872:A:C8	2.84	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
30:29:68:ALA:C	30:29:70:ALA:N	2.74	0.46
32:49:84:LYS:HB3	32:49:84:LYS:NZ	2.31	0.46
34:69:4:ILE:HG22	34:69:18:VAL:HG22	1.96	0.46
35:15:128:HIS:CE1	35:15:130:HIS:HA	2.51	0.46
36:25:115:VAL:O	36:25:118:ALA:HB3	2.16	0.46
41:75:113:LYS:O	41:75:114:LEU:HD23	2.16	0.46
47:D5:52:SER:C	47:D5:54:HIS:H	2.24	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
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
1:13:1446:A:O2'	41:B8:125:ARG:NH2	2.48	0.46
2:1E:69:LEU:HD13	2:1E:70:PHE:N	2.31	0.46
17:8I:82:MET:O	17:8I:86:GLU:N	2.49	0.46
26:1H:141:A:C8	26:1H:1408:C:H1'	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
26:1H:1359:A:N1	26:1H:1372:U:C4	2.81	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
26:1H:2564:A:C2	26:1H:2647:U:H4'	2.51	0.46
28:71:214:VAL:HG23	28:71:224:ILE:HD13	1.97	0.46
34:61:130:TYR:C	34:61:131:LYS:HD2	2.41	0.46
42:C8:92:ARG:HD3	42:C8:94:ASN:HB3	1.98	0.46
43:D8:77:ALA:C	43:D8:79:VAL:H	2.22	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
52:M8:15:ILE:HG12	52:M8:32:TYR:HA	1.97	0.46
52:M8:24:THR:OG1	52:M8:25:TYR:N	2.49	0.46
55:Q8:15:LYS:HB2	61:Q8:206:HOH:O	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
9:82:102:LEU:O	9:82:103:THR:OG1	2.32	0.46
19:AA:66:MET:HA	19:AA:67:VAL:C	2.40	0.46
22:1L:69:A:H4'	22:1L:70:C:OP1	2.15	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
26:14:2414:G:N2	37:35:67:MET:HE1	2.20	0.46
26:14:2611:U:O4	53:J5:3:LYS:HG3	2.15	0.46
26:14:2745:C:HO2'	33:59:143:GLN:HA	1.80	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
41:75:90:GLN:NE2	41:75:121:ILE:HD11	2.25	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
47:D5:13:GLU:H	47:D5:13:GLU:HG3	1.48	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
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
4:3E:108:LEU:HD21	4:3E:183:GLY:HA3	1.97	0.46
11:2I:125:PHE:CD1	11:2I:125:PHE:N	2.84	0.46
14:5I:16:PHE:O	14:5I:18:VAL:N	2.49	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
26:1H:1246:A:OP1	31:31:38:ARG:NH1	2.47	0.46
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
29:11:3:VAL:HG13	29:11:17:THR:CG2	2.46	0.46
31:31:6:VAL:HG11	31:31:119:ARG:CA	2.43	0.46
32:41:110:ALA:HA	32:41:140:ILE:O	2.16	0.46
1:1G:325:A:OP2	20:BA:70:SER:HB3	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:1379:G:O6	7:62:2:ALA:HA	2.14	0.46
2:12:33:TYR:HB3	2:12:41:ILE:HG23	1.98	0.46
3:22:152:ILE:HG23	3:22:167:TRP:HB3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:103:GLY:O	5:42:106:PRO:HD2	2.15	0.46
11:2A:59:TYR:O	11:2A:62:GLN:HB2	2.15	0.46
15:6A:70:LEU:HD11	15:6A:77:ARG:HG3	1.98	0.46
16:7A:38:TYR:CE2	16:7A:50:LYS:HE3	2.50	0.46
56:3L:6:G:N1	56:3L:67:C:C2	2.74	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
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
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
29:19:30:GLU:CD	29:19:63:ARG:HE	2.23	0.46
29:19:74:GLY:O	29:19:76:PRO:HD3	2.15	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
31:39:123:LEU:HA	31:39:192:LEU:C	2.41	0.46
32:49:145:THR:C	32:49:147:ASP:H	2.23	0.46
36:25:78:ARG:HG2	41:75:73:GLU:HB2	1.96	0.46
40:65:61:ASN:HD22	40:65:64:GLU:CD	2.22	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
1:13:141: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
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
2:1E:11:LEU:HD23	2:1E:213:LEU:HB3	1.98	0.46
4:3E:47:ARG:HB2	4:3E:47:ARG:NH1	2.31	0.46
6:5E:48:LEU:HD13	6:5E:52:ILE:HG13	1.97	0.46
13:4I:32:GLU:OE2	13:4I:64:TRP:HH2	1.98	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
23:2K:62:C:H2'	23:2K:63:C:H6	1.81	0.46
26:1H:182:A:H2'	26:1H:183:C:C6	2.50	0.46
26:1H:533:G:H5'	42:C8:24:TYR:CD1	2.51	0.46
26:1H:1027:A:C2	26:1H:2488:A:H5'	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:2010:G:H5"	44:E8:42:ARG:HB2	1.97	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
30:21:64:LYS:C	30:21:66:HIS:H	2.24	0.46
30:21:143:ASN:HD22	30:21:147:PRO:HD2	1.81	0.46
32:41:83:ARG:HA	32:41:83:ARG:HD3	1.76	0.46
34:61:56:LYS:O	34:61:60:GLU:HB2	2.16	0.46
35:58:66:LYS:O	35:58:70:LYS:HB3	2.16	0.46
37:78:144:GLU:OE2	37:78:144:GLU:N	2.49	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
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
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
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
3:22:93:LYS:HD3	3:22:93:LYS:HA	1.82	0.46
4:32:156:GLU:HG3	4:32:157:LEU:N	2.31	0.46
6:52:28:ARG:N	6:52:28:ARG:HD2	2.30	0.46
13:4A:81:LEU:HD12	13:4A:89:GLY:H	1.81	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
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
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
27:1J:54:G:C2	27:1J:55:U:C6	3.04	0.46
28:79:200:LYS:HB2	28:79:208:PHE:CE2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:44:LYS:O	43:95:46:VAL:HG12	2.16	0.46
49:F5:92:LYS:O	49:F5:94:LEU:N	2.48	0.46
1:13:375:U:O3'	16:7I:6:LEU:HB2	2.15	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
1:13:1348:U:H2'	1:13:1349:A:C8	2.47	0.46
12:3I:126:LYS:HA	12:3I:126:LYS:HD2	1.61	0.46
16:7I:19:ILE:HB	16:7I:36:ILE:O	2.16	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
24:3K:34:U:H3'	24:3K:35:U:C6	2.51	0.46
26:1H:128:C:H2'	26:1H:129:C:C6	2.51	0.46
26:1H:581:C:OP1	42:C8:33:ARG:HG3	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
26:1H:1035:U:H2'	26:1H:1036:G:H8	1.80	0.46
26:1H:2182:G:H2'	26:1H:2183:C:O4'	2.16	0.46
29:11:122:ASP:CG	29:11:123:ALA:H	2.24	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
32:41:113:ARG:HH12	32:41:142:PRO:HA	1.81	0.46
34:61:9:LEU:O	34:61:10:GLU:HG3	2.16	0.46
35:58:30:ILE:HG23	35:58:52:VAL:HG11	1.96	0.46
37:78:124:LYS:HA	37:78:143:GLY:O	2.15	0.46
44:E8:2:GLU:HB2	44:E8:107:LEU:O	2.15	0.46
1:1G:147:G:H1	1:1G:175:C:H42	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
3:22:22:TRP:HB3	3:22:59:ARG:H	1.81	0.46
3:22:52:LEU:N	3:22:115:LEU:HD21	2.31	0.46
5:42:76:ILE:HG23	5:42:142:LEU:HD13	1.97	0.46
8:72:83:ILE:HG13	8:72:137:VAL:HG22	1.98	0.46
20:BA:11:SER:HA	20:BA:13:LEU:H	1.81	0.46
26:14:70:G:H21	26:14:71:A:H62	1.64	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
26:14:995:C:OP2	42:85:54:LYS:NZ	2.49	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:52:A:N6	40:65:33:LYS:HE2	2.30	0.46
31:39:3:GLU:OE1	31:39:3:GLU:N	2.49	0.46
39:55:99:LYS:O	53:J5:44:THR:HA	2.15	0.46
40:65:84:GLN:HG3	40:65:110:LEU:H	1.81	0.46
49:F5:67:ILE:O	49:F5:70:VAL:HB	2.16	0.46
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
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
2:1E:97:TRP:HH2	2:1E:176:GLU:CD	2.23	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
5:4E:80:ILE:HG13	8:7E:104:ARG:NH2	2.32	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
26:1H:425:G:H2'	26:1H:426:C:H6	1.81	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
29:11:72:LYS:CE	29:11:103:ARG:HH21	2.27	0.45
32:41:122:PRO:HB3	32:41:180:PHE:HD1	1.82	0.45
33:51:25:LYS:HE2	33:51:34:GLU:CD	2.41	0.45
50:K8:64:LEU:HD11	50:K8:68:ARG:NH1	2.31	0.45
1:1G:571:U:O2	1:1G:918:A:H5'	2.16	0.45
1:1G:706:A:O4'	11:2A:29:ILE:HD11	2.15	0.45
1:1G:959:A:H5"	1:1G:960:U:OP2	2.16	0.45
1:1G:977:A:H3'	1:1G:977:A:N3	2.30	0.45
1:1G:1278:U:O2	3:22:27:LYS:NZ	2.50	0.45
1:1G:1325:C:P	21:1B:15:ARG:HH21	2.38	0.45
1:1G:1326:C:OP1	21:1B:17:THR:OG1	2.30	0.45
8:72:97:VAL:HG22	8:72:129:VAL:C	2.41	0.45
13:4A:48:LEU:HD12	13:4A:53:VAL:HG23	1.98	0.45
16:7A:48:TRP:CD1	16:7A:48:TRP:H	2.33	0.45
26:14:89:G:N7	26:14:90:U:C5	2.84	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
26:14:2183:C:H2'	26:14:2184:G:C8	2.51	0.45
26:14:2688:U:H2'	26:14:2719:G:N2	2.31	0.45
29:19:2:ALA:HB3	29:19:20:ASP:HB2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:107:LEU:HA	32:49:107:LEU:HD23	1.63	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
50:G5:29:LYS:HG2	50:G5:57:ILE:HD13	1.99	0.45
55:M5:48:PHE:O	55:M5:48:PHE:CG	2.69	0.45
1:13:69:G:N1	1:13:73:G:O6	2.49	0.45
1:13:1346:A:C4	7:6E:10:ARG:NH2	2.84	0.45
2:1E:15:VAL:CG1	2:1E:210:SER:HB3	2.43	0.45
4:3E:92:VAL:O	4:3E:96:LEU:HD22	2.16	0.45
12:3I:47:LYS:NZ	25:4K:21:A:OP1	2.47	0.45
26:1H:972:G:H3'	26:1H:973:A:H2'	1.99	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
29:11:34:VAL:O	29:11:35:LYS:HB3	2.15	0.45
30:21:55:ASN:HB3	30:21:58:ARG:HG3	1.98	0.45
32:41:82:LEU:CA	32:41:86:MET:HE2	2.46	0.45
32:41:111:LEU:HD22	32:41:117:PHE:CE1	2.51	0.45
36:68:19:ILE:HG22	36:68:43:VAL:HA	1.97	0.45
36:68:104:ARG:NH1	41:B8:36:GLU:OE1	2.49	0.45
37:78:120:ALA:HB1	37:78:138:LEU:HD22	1.99	0.45
55:Q8:52:LYS:O	55:Q8:55:ALA:N	2.47	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
1:1G:1218:C:H2'	1:1G:1219:U:C6	2.52	0.45
2:12:61:LEU:HD11	2:12:157:ARG:NH1	2.31	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
26:14:832:G:H5'	37:35:45:LEU:HD12	1.98	0.45
26:14:868:U:N3	26:14:869:G:N7	2.64	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
28:79:166:ASP:OD1	28:79:168:THR:OG1	2.27	0.45
31:39:63:LYS:NZ	31:39:65:TRP:O	2.46	0.45
33:59:77:LYS:HA	33:59:80:SER:OG	2.17	0.45
33:59:143:GLN:C	33:59:145:ALA:N	2.73	0.45
36:25:22:ILE:HA	36:25:22:ILE:HD13	1.66	0.45
38:45:110:THR:HG23	38:45:113:GLN:H	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:5:VAL:HB	43:95:37:VAL:HB	1.98	0.45
47:D5:26:GLY:HA3	47:D5:86:VAL:CG1	2.47	0.45
47:D5:29:TYR:HB3	47:D5:34:ASN:HB2	1.98	0.45
51:H5:4:LEU:O	51:H5:36:VAL:HA	2.16	0.45
1:13:868:C:H2'	1:13:869:G:O4'	2.17	0.45
1:13:970:C:H42	9:8E:128:ARG:C	2.24	0.45
1:13:973:G:H4'	10:1I:54:PHE:O	2.17	0.45
1:13:1317:C:C2	14:5I:16:PHE:CE2	3.04	0.45
2:1E:187:LEU:HA	2:1E:201:ILE:O	2.15	0.45
7:6E:77:SER:HB3	7:6E:84:ASN:HD21	1.81	0.45
8:7E:36:LEU:HA	8:7E:39:LEU:HD23	1.98	0.45
26:1H:30:G:H2'	26:1H:31:C:C6	2.50	0.45
26:1H:274:G:H2'	26:1H:275:G:C1'	2.46	0.45
26:1H:276:A:C8	26:1H:278:A:N1	2.84	0.45
26:1H:319:C:H2'	26:1H:320:A:C8	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
26:1H:1006:C:H5'	35:58:28:THR:HG23	1.98	0.45
26:1H:1188:U:C4'	43:D8:79:VAL:HG22	2.46	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:2781:A:H5"	26:1H:2782:G:H5'	1.97	0.45
26:1H:2820:A:C6	39:98:4:LEU:HD11	2.51	0.45
29:11:182:LEU:CB	29:11:271:ILE:HG13	2.46	0.45
30:21:97:LYS:H	30:21:100:GLU:CD	2.25	0.45
37:78:47:ASP:OD2	37:78:50:ARG:NH2	2.48	0.45
43:D8:81:TYR:C	43:D8:82:ARG:HD2	2.41	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:582:U:C2	1:1G:760:G:C6	3.04	0.45
1:1G:664:G:H22	1:1G:741:G:H1	1.64	0.45
2:12:217:ARG:N	2:12:217:ARG:HD2	2.32	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
9:82:16:ARG:O	9:82:63:ILE:HG23	2.15	0.45
11:2A:20:TYR:CE2	11:2A:83:ILE:HD12	2.51	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)
14:5A:41:ARG:O	14:5A:45:ARG:HB2	2.16	0.45
56:3L:53:G:H22	56:3L:54:U:H6	1.63	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
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
30:29:46:ALA:HB1	30:29:80:GLU:O	2.17	0.45
37:35:59:LEU:O	37:35:59:LEU:HD22	2.16	0.45
38:45:10:ARG:CZ	38:45:10:ARG:HA	2.46	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
1:13:9:G:C8	5:4E:126:ARG:NH2	2.85	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
1:13:1028(B):C:H2'	1:13:1030:C:H41	1.81	0.45
1:13:1060:C:H4'	10:1I:51:ARG:HB3	1.99	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
4:3E:141:ARG:HB2	4:3E:141:ARG:NH1	2.31	0.45
5:4E:118:ILE:HG13	5:4E:119:LEU:N	2.30	0.45
26:1H:16:G:C2	26:1H:17:G:C8	3.04	0.45
26:1H:38:A:H2'	26:1H:39:C:C6	2.52	0.45
26:1H:548:A:N3	43:D8:21:ARG:NH2	2.65	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
26:1H:1170:G:C6	26:1H:1171: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:OP2	26:1H:2661:G:H8	1.99	0.45
28:71:41:VAL:HG23	28:71:178:ALA:HB2	1.98	0.45
29:11:83:GLU:OE2	29:11:104:TYR:HE1	1.99	0.45
40:A8:62:LYS:HA	40:A8:65:VAL:CG2	2.46	0.45
41:B8:58:ASN:O	41:B8:58:ASN:ND2	2.46	0.45
41:B8:108:ARG:HA	41:B8:111:ARG:NE	2.31	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:H8:9:TYR:HE1	47:H8:35:ARG:CG	2.29	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:422:C:O2'	1:1G:423:G:H5"	2.17	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
6:52:33:TYR:OH	6:52:78:GLU:HG3	2.17	0.45
9:82:65:VAL:HG21	9:82:73:GLN:HB3	1.96	0.45
12:3A:117:ARG:HG3	12:3A:117:ARG:HH11	1.82	0.45
20:BA:29:LYS:O	20:BA:33:ILE:HG13	2.15	0.45
26:14:7:G:H2'	26:14:8:A:C8	2.52	0.45
26:14:125:G:H5"	54:L5:19:ARG:HD3	1.99	0.45
26:14:270(I):G:H2'	26:14:270(J):G:C8	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
26:14:2747:G:O6	26:14:2755:C:H5"	2.16	0.45
27:1J:15:A:H1'	27:1J:109:G:N7	2.31	0.45
29:19:242:ARG:HG2	29:19:246:PRO:HG3	1.96	0.45
30:29:37:ARG:HA	30:29:42:ASP:OD2	2.16	0.45
38:45:66:ILE:HD12	38:45:67:ARG:H	1.81	0.45
44:A5:58:ALA:HB1	44:A5:64:MET:HB2	1.99	0.45
1:13:69:G:N2	1:13:73:G:N7	2.65	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
1:13:996:A:H2'	1:13:997:U:H6	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
4:3E:107:ARG:HH11	4:3E:114:ARG:NH2	2.14	0.45
6:5E:76:ALA:HA	6:5E:79:LEU:HD12	1.99	0.45
16:7I:1:MET:HE2	16:7I:3:LYS:HE2	1.97	0.45
16:7I:28:ARG:HG3	16:7I:29:ASP:H	1.81	0.45
24:3K:15:G:C6	24:3K:48:C:N4	2.84	0.45
26:1H:37:C:H4'	26:1H:451:C:OP1	2.17	0.45
26:1H:182:A:C5	26:1H:183:C:C5	3.04	0.45
26:1H:533:G:H5'	42:C8:24:TYR:CE1	2.51	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:1820:U:O2	29:11:202:LYS:HB3	2.16	0.45
31:31:177:ALA:HB1	31:31:178:PRO:HD2	1.99	0.45
47:H8:99:TYR:HA	47:H8:124:ILE:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:K8:18:PRO:O	50:K8:21:LEU:HB2	2.16	0.45
53:N8:40:LYS:HE2	53:N8:47:PRO:N	2.30	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
1:1G:1123:A:H4'	10:1A:37:PRO:HD2	1.99	0.45
1:1G:1505:G:H1'	25:4L:12:A:N6	2.31	0.45
2:12:24:TRP:HD1	2:12:25:ASN:C	2.24	0.45
2:12:25:ASN:HD21	2:12:27:LYS:HE2	1.81	0.45
2:12:214:ILE:HG22	2:12:215:LEU:HD23	1.99	0.45
9:82:99:LEU:HB3	9:82:101:PHE:CE1	2.51	0.45
13:4A:12:ASN:H	13:4A:45:VAL:HG22	1.81	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
18:9A:37:VAL:CG1	18:9A:78:LEU:HB3	2.46	0.45
26:14:239:U:O2'	26:14:240:G:H5'	2.17	0.45
26:14:270(B):A:N7	26:14:270(X):G:N2	2.59	0.45
26:14:2111:C:O2'	26:14:2114:A:N7	2.50	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
26:14:2865:U:C4	26:14:2866:U:C4	3.04	0.45
27:1J:42:C:N4	32:49:91:ARG:HH12	2.15	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
30:29:8:LYS:HB3	30:29:192:ASN:HA	1.98	0.45
30:29:57:LYS:HA	30:29:57:LYS:HD3	1.84	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
32:49:117:PHE:O	32:49:117:PHE:CG	2.70	0.45
36:25:117:LEU:HA	36:25:118:ALA:O	2.16	0.45
37:35:49:ARG:O	55:M5:57:ARG:NH2	2.49	0.45
43:95:70:ILE:O	43:95:70:ILE:HG22	2.17	0.45
49:F5:87:PRO:O	49:F5:91:LYS:HB3	2.17	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
1:13:1202:G:N2	14:5I:46:GLU:OE1	2.48	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
8:7E:30:ARG:O	8:7E:34:GLU:HB2	2.17	0.45
15:6I:8:LYS:HB2	15:6I:8:LYS:HE3	1.65	0.45
24:3K:11:C:H42	24:3K:24:G:H1	1.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:444:C:H2'	26:1H:445:C:C6	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
28:71:59:ARG:HG3	28:71:164:ARG:HB2	1.99	0.45
33:51:154:PRO:HB2	33:51:163:TYR:CZ	2.52	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
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
47:H8:8:TYR:HB2	47:H8:38:TYR:CZ	2.52	0.45
47:H8:140:ASP:OD1	47:H8:140:ASP:N	2.49	0.45
47:H8:154:ASP:OD1	47:H8:154:ASP:N	2.50	0.45
50:K8:4:SER:HB3	50:K8:7:ARG:N	2.16	0.45
52:M8:16:CYS:SG	52:M8:36:CYS:HB2	2.57	0.45
1:1G:42:G:H2'	1:1G:43:C:O4'	2.16	0.45
1:1G:186(A):C:H2'	1:1G:186(B):C:C6	2.52	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
1:1G:1229:A:OP1	13:4A:116:THR:HG23	2.16	0.45
9:82:16:ARG:HB2	9:82:64:THR:HG22	1.99	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
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
26:14:2046:G:H5'	53:J5:19:ARG:HG3	1.98	0.45
26:14:2107:C:O2'	26:14:2108:C:OP1	2.33	0.45
26:14:2124:G:H2'	26:14:2124:G:N3	2.31	0.45
26:14:2518:A:H8	26:14:2518:A:O5'	2.00	0.45
26:14:2712:U:O2'	26:14:2712(A):A:OP2	2.30	0.45
26:14:2786:U:O2	30:29:62:PRO:HB3	2.17	0.45
31:39:83:PHE:O	31:39:85:GLY:N	2.49	0.45
31:39:197:ASP:O	31:39:200:GLU:HB3	2.17	0.45
32:49:111:LEU:O	32:49:114:ILE:HG12	2.17	0.45
34:69:128:LEU:O	34:69:137:PRO:HA	2.16	0.45
37:35:71:VAL:HG13	37:35:72:PRO:HD3	1.98	0.45
38:45:21:THR:C	38:45:23:GLY:HA3	2.42	0.45
43:95:71:LEU:H	43:95:86:GLY:CA	2.30	0.45
49:F5:62:VAL:HG21	49:F5:70:VAL:HG21	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:4:U:O4	8:7E:105:ARG:HG3	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
2:1E:74:LYS:HB2	2:1E:208:ILE:HG21	1.98	0.45
4:3E:61:LYS:NZ	4:3E:62:GLN:OE1	2.50	0.45
7:6E:115:ARG:O	7:6E:118:VAL:HB	2.16	0.45
8:7E:51:VAL:HG11	8:7E:60:ARG:NH1	2.30	0.45
9:8E:48:GLU:HB2	9:8E:101:PHE:CE1	2.51	0.45
17:8I:70:ARG:C	17:8I:71:PHE:HD1	2.25	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
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
27:16:16:G:O6	27:16:66:A:H2	2.00	0.45
28:71:64:LEU:C	28:71:66:HIS:H	2.24	0.45
29:11:111:LEU:HD22	29:11:115:GLN:OE1	2.16	0.45
30:21:35:GLN:HG2	30:21:36:ARG:N	2.31	0.45
33:51:9:ILE:HD12	33:51:9:ILE:N	2.31	0.45
33:51:98:LEU:HD12	33:51:98:LEU:HA	1.63	0.45
35:58:85:ILE:HG21	35:58:90:MET:HE3	1.99	0.45
38:88:34:LEU:HD12	38:88:34:LEU:HA	1.67	0.45
39:98:63:ARG:O	39:98:66:VAL:N	2.50	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:J8:8:SER:OG	49:J8:10:LYS:HG3	2.17	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
1:1G:27:G:H8	1:1G:27:G:O5'	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
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
4:32:153:ARG:HD3	4:32:181:MET:SD	2.57	0.45
6:52:24:GLU:OE1	6:52:28:ARG:NH1	2.50	0.45
6:52:81:ILE:HG23	6:52:82:ARG:HG3	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2A:85:ARG:HD3	11:2A:113:PRO:HD3	1.98	0.45
12:3A:102:ARG:HE	12:3A:102:ARG:HB3	1.62	0.45
17:8A:6:LEU:HD23	17:8A:6:LEU:HA	1.74	0.45
23:2L:48:U:HO2'	23:2L:49:C:P	2.38	0.45
26:14:86:C:O2'	26:14:104:U:O2'	2.24	0.45
26:14:89:G:N7	26:14:90:U:H5	2.14	0.45
26:14:270(T):G:C6	26:14:270(U):C:C4	3.05	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
26:14:1429:G:H2'	26:14:1430:C:C6	2.52	0.45
26:14:2050:C:H1'	30:29:156:MET:CE	2.47	0.45
26:14:2848:G:O6	61:14:3577:HOH:O	2.18	0.45
30:29:63:LEU:HD13	30:29:63:LEU:HA	1.77	0.45
30:29:117:MET:HA	30:29:122:PHE:N	2.32	0.45
33:59:6:ARG:HB2	33:59:65:HIS:ND1	2.32	0.45
35:15:96:GLU:H	35:15:96:GLU:CD	2.16	0.45
40:65:77:ALA:O	40:65:80:LEU:N	2.49	0.45
43:95:24:LYS:HA	43:95:92:THR:OG1	2.16	0.45
45:B5:29:TRP:CZ3	45:B5:78:LYS:HD3	2.52	0.45
49:F5:25:LYS:HE2	49:F5:25:LYS:HB3	1.81	0.45
54:L5:34:ARG:HH21	54:L5:39:ARG:HE	1.64	0.45
1:13:228:A:H2'	1:13:229:U:O4'	2.17	0.45
1:13:1428:A:H2'	1:13:1429:C:C6	2.52	0.45
3:2E:52:LEU:HA	3:2E:70:VAL:HG23	1.98	0.45
4:3E:31:CYS:C	4:3E:33:MET:N	2.75	0.45
9:8E:99:LEU:HB3	9:8E:101:PHE:CE2	2.51	0.45
19:AI:22:LEU:HD21	19:AI:29:ARG:H	1.81	0.45
26:1H:651:G:OP2	55:Q8:21:LYS:HE3	2.16	0.45
26:1H:971:C:H2'	26:1H:972:G:O4'	2.17	0.45
26:1H:1259:G:H2'	26:1H:1260:G:H8	1.82	0.45
26:1H:1711:C:H2'	26:1H:1712:C:C6	2.51	0.45
26:1H:1889:A:N1	26:1H:2234:G:H1'	2.31	0.45
26:1H:2167:U:H2'	26:1H:2168:G:H5"	1.98	0.45
26:1H:2854:G:C2	26:1H:2855:C:C2	3.05	0.45
30:21:105:THR:HG1	30:21:199:ARG:HH21	1.58	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:224:GLN:CG	2:12:225:ALA:H	2.30	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
16:7A:58:TYR:O	16:7A:62:VAL:HG23	2.17	0.45
18:9A:53:ARG:HA	18:9A:56:THR:OG1	2.17	0.45
26:14:37:C:H2'	26:14:38:A:C8	2.51	0.45
26:14:127:A:H5"	26:14:128:C:C6	2.52	0.45
26:14:270(H):C:H2'	26:14:270(I):G:H8	1.81	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
26:14:1190:G:OP1	37:35:32:THR:HA	2.17	0.45
26:14:1386:C:C2	26:14:1387:C:C5	3.05	0.45
26:14:1769:G:C5	26:14:1984:G:C6	3.05	0.45
26:14:1820:U:H4'	26:14:1821:A:OP2	2.17	0.45
26:14:2147:G:C5	26:14:2148:G:H1'	2.51	0.45
29:19:102:LYS:C	29:19:103:ARG:HG2	2.42	0.45
35:15:25:ARG:O	35:15:28:THR:HG22	2.16	0.45
37:35:125:VAL:HG13	37:35:144:GLU:HB3	1.99	0.45
43:95:49:THR:HB	43:95:50:PRO:CD	2.47	0.45
55:M5:23:VAL:HG23	55:M5:48:PHE:C	2.42	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
2:1E:18:GLY:H	2:1E:42:ILE:HG13	1.82	0.45
4:3E:120:LEU:HD23	4:3E:120:LEU:HA	1.79	0.45
7:6E:101:LEU:O	7:6E:105:VAL:HG23	2.16	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
13:4I:60:VAL:HG13	13:4I:64:TRP:HE1	1.81	0.45
24:3K:19:G:H3'	24:3K:20:U:H5'	1.99	0.45
26:1H:155:C:N4	26:1H:171:G:H1	2.15	0.45
26:1H:259:G:N2	26:1H:621:A:H8	2.14	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:827:U:O2	26:1H:2246:G:H4'	2.16	0.45
26:1H:839:U:H2'	26:1H:840:C:C6	2.52	0.45
26:1H:1184:G:H5'	51:L8:29:ARG:HH11	1.82	0.45
26:1H:1265:A:H8	26:1H:1265:A:OP1	2.00	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1499:C:H2'	26:1H:1500:G:C8	2.52	0.45
26:1H:1726:G:H2'	26:1H:1727:U:O4'	2.16	0.45
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: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
27:16:1(M):A:H2'	27:16:1(M):A:N3	2.32	0.45
27:16:17:C:H2'	27:16:18:G:O4'	2.17	0.45
36:68:66:LYS:HE3	36:68:66:LYS:HB3	1.69	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
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
1:1G:1048:G:OP1	14:5A:4:LYS:HB2	2.17	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
4:32:148:VAL:HG23	4:32:181:MET:O	2.17	0.45
20:BA:49:ALA:HB2	20:BA:92:LEU:HD22	1.99	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
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
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
41:75:50:ILE:HD13	41:75:50:ILE:HA	1.62	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
4:3E:25:ARG:CZ	4:3E:30:LYS:HB3	2.47	0.45
6:5E:96:PRO:HB3	18:9I:30:ASP:CG	2.42	0.45
9:8E:53:VAL:HG13	9:8E:92:TYR:CZ	2.52	0.45
10:1I:40:LEU:CB	10:1I:69:ASN:HB2	2.46	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
23:2K:54:G:H2'	23:2K:55:5MU:C6	2.50	0.45
26:1H:190:A:OP2	49:J8:39:LYS:HE3	2.17	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:20:C:H2'	27:16:21:G:O4'	2.17	0.45
32:41:67:LYS:HD3	32:41:67:LYS:N	2.32	0.45
32:41:117:PHE:CZ	32:41:119:GLY:HA2	2.52	0.45
37:78:14:LYS:O	37:78:15:ARG:C	2.60	0.45
46:G8:100:ALA:HB1	46:G8:101:LYS:CG	2.46	0.45
53:N8:40:LYS:HE2	53:N8:47:PRO:CD	2.47	0.45
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
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
2:12:58:ILE:HG13	2:12:219:VAL:CG2	2.47	0.45
2:12:188:ALA:O	2:12:203:GLY:N	2.50	0.45
4:32:9:CYS:HA	59:32:301:SF4:S4	2.57	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
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
26:14:1011:G:N2	26:14:1150:C:O2	2.43	0.45
26:14:1024:G:C3'	26:14:1025:G:H5"	2.44	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
29:19:67:PHE:HE1	29:19:106:ILE:HD11	1.82	0.45
30:29:26:ILE:HG22	30:29:27:LEU:C	2.41	0.45
34:69:76:THR:HA	34:69:105:HIS:NE2	2.31	0.45
45:B5:15:GLU:CD	45:B5:15:GLU:H	2.25	0.45
1:13:129(A):G:C2	1:13:188:U:O2'	2.65	0.44
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
2:1E:211:ILE:HG22	2:1E:215:LEU:HD23	1.98	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
13:4I:78:ILE:O	13:4I:81:LEU:N	2.49	0.44
17:8I:88:TYR:CD1	17:8I:88:TYR:C	2.95	0.44
23:2K:20:G:H5"	23:2K:61:U:O4	2.17	0.44
24:3K:4:U:H2'	24:3K:5:C:O4'	2.17	0.44
26:1H:34:C:O2'	26:1H:35:G:P	2.74	0.44
26:1H:107:C:C2	26:1H:108:U:C5	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:127:A:H5”	26:1H:128:C:C6	2.51	0.44
26:1H:933:A:H5’	61:1H:4186:HOH:O	2.17	0.44
26:1H:1050:A:H1’	26:1H:2751:G:C8	2.52	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
31:31:126:VAL:HG22	31:31:194:MET:O	2.16	0.44
32:41:67:LYS:NZ	52:M8:6:HIS:CD2	2.85	0.44
32:41:172:LEU:O	32:41:176:LEU:HD12	2.17	0.44
37:78:98:GLU:O	37:78:101:VAL:HG22	2.16	0.44
42:C8:90:VAL:CG2	43:D8:39:LEU:HB3	2.46	0.44
9:82:19:LEU:HD21	9:82:84:ALA:HB1	1.99	0.44
23:2L:20:G:C2	23:2L:58:A:C2	3.05	0.44
26:14:90:U:HO2’	26:14:91:A:P	2.40	0.44
26:14:307:G:N2	26:14:309:G:H3’	2.32	0.44
26:14:617:G:OP2	31:39:43:LYS:HE2	2.17	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
31:39:111:ALA:HA	31:39:114:VAL:HG22	1.98	0.44
32:49:103:LEU:O	32:49:106:LEU:HD23	2.16	0.44
40:65:66:ALA:HA	40:65:69:VAL:HG12	1.98	0.44
42:85:16:LYS:HB2	42:85:16:LYS:HE3	1.89	0.44
47:D5:94:GLU:O	47:D5:130:PRO:HD3	2.17	0.44
55:M5:6:THR:HG23	55:M5:64:TYR:HD2	1.82	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
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
4:3E:160:GLN:HA	4:3E:163:GLU:HG2	1.98	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
17:8I:22:LEU:HD22	17:8I:88:TYR:HD2	1.82	0.44
24:3K:8:U:H5	24:3K:13:C:H5”	1.83	0.44
26:1H:607:U:OP1	31:31:103:LYS:HG3	2.17	0.44
26:1H:1252:G:N3	42:C8:33:ARG:HD2	2.32	0.44
26:1H:2245:U:O2’	26:1H:2436:G:OP2	2.30	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:71:57:ASN:OD1	28:71:165:ASN:ND2	2.29	0.44
28:71:179:SER:C	28:71:181:PRO:HD3	2.42	0.44
30:21:23:VAL:HA	30:21:184:VAL:O	2.17	0.44
30:21:174:ASP:OD1	30:21:175:VAL:N	2.50	0.44
31:31:108:LYS:HB3	31:31:108:LYS:HE2	1.76	0.44
42:C8:19:LYS:O	42:C8:22:LYS:HG3	2.17	0.44
43:D8:25:LEU:HD12	43:D8:25:LEU:O	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
1:1G:584:G:H5'	17:8A:91:ARG:CZ	2.47	0.44
1:1G:653:A:C8	8:72:56:LYS:HG2	2.52	0.44
1:1G:660:G:N7	61:1G:1729:HOH:O	2.36	0.44
1:1G:777:A:C2	11:2A:119:CYS:HB3	2.53	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
2:12:126:GLU:C	2:12:128:GLU:N	2.75	0.44
3:22:76:VAL:O	3:22:84:ILE:HG13	2.18	0.44
13:4A:96:LEU:C	13:4A:110:ARG:HG2	2.42	0.44
22:1L:18:G:O2'	22:1L:19:G:H5'	2.16	0.44
26:14:27:G:N2	26:14:512:G:O2'	2.45	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
26:14:608: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
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
27:1J:46:A:H2'	27:1J:47:C:C6	2.52	0.44
30:29:120:TRP:CD1	30:29:155:LYS:HB3	2.52	0.44
30:29:181:LEU:HD12	30:29:181:LEU:HA	1.78	0.44
40:65:62:LYS:HE2	40:65:97:ARG:HD2	1.99	0.44
44:A5:27:LYS:HB2	44:A5:32:ALA:HB2	1.99	0.44
47:D5:7:ALA:HB3	47:D5:61:LEU:HA	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:157:G:N2	1:13:165:C:C2	2.85	0.44
1:13:177:C:P	20:BI:65:LYS:HZ3	2.39	0.44
1:13:426:G:OP1	4:3E:38:TYR:OH	2.25	0.44
1:13:660:G:OP1	15:6I:5:LYS:HD3	2.17	0.44
1:13:1103:C:H2'	1:13:1104:G:O4'	2.16	0.44
3:2E:22:TRP:CH2	3:2E:32:LEU:HB3	2.53	0.44
7:6E:59:LEU:HA	7:6E:59:LEU:HD23	1.81	0.44
8:7E:94:TYR:HE1	8:7E:132:GLU:HB2	1.83	0.44
9:8E:3:GLN:HA	9:8E:20:ARG:HG2	1.99	0.44
11:2I:78:GLN:O	11:2I:103:LEU:HA	2.18	0.44
13:4I:82:MET:C	13:4I:84:ILE:N	2.74	0.44
15:6I:53:HIS:ND1	15:6I:53:HIS:C	2.75	0.44
19:AI:40:ILE:HD11	19:AI:62:ILE:HG23	1.99	0.44
26:1H:270(T):G:H2'	26:1H:270(U):C:H6	1.82	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
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:2845:G:H2'	26:1H:2846:G:H8	1.81	0.44
27:16:109:G:H2'	27:16:110:G:O4'	2.17	0.44
32:41:125:PHE:CD1	32:41:131:TYR:HB2	2.51	0.44
38:88:52:VAL:HA	38:88:55:VAL:HG22	1.99	0.44
47:H8:93:ASP:HA	47:H8:131:ARG:HH22	1.83	0.44
47:H8:125:LEU:C	47:H8:164:ALA:HB3	2.43	0.44
55:Q8:23:VAL:HA	55:Q8:48:PHE:O	2.16	0.44
1:1G:123:C:H2'	1:1G:124:G:H8	1.82	0.44
1:1G:316:G:H2'	1:1G:317:G:H8	1.82	0.44
1:1G:1288:A:C2	1:1G:1289:A:C5	3.05	0.44
3:22:14:ILE:HG13	3:22:15:THR:H	1.82	0.44
4:32:196:LEU:HD13	4:32:198:VAL:HG22	1.98	0.44
23:2L:24:C:C2	23:2L:25:U:C5	3.05	0.44
26:14:50:U:H4'	26:14:51:G:OP2	2.16	0.44
26:14:76:C:O3'	50:G5:59:ARG:HG3	2.17	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
31:39:122:LYS:HD2	31:39:191:ARG:NH1	2.33	0.44
32:49:11:TYR:CE1	32:49:172:LEU:HD11	2.53	0.44
35:15:59:LYS:HZ2	35:15:59:LYS:C	2.25	0.44
36:25:75:SER:OG	41:75:74:ARG:NH2	2.50	0.44
37:35:52:GLU:HG2	37:35:55:ARG:HB3	1.97	0.44
53:J5:13:LYS:HG2	53:J5:16:ARG:NH2	2.32	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
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
2:1E:94:ASN:OD1	2:1E:95:GLN:N	2.42	0.44
3:2E:83:ARG:O	3:2E:86:VAL:HG22	2.17	0.44
7:6E:38:LEU:O	7:6E:38:LEU:HD13	2.18	0.44
8:7E:6:ILE:HB	8:7E:85:ARG:HH12	1.82	0.44
8:7E:121:ASP:OD1	8:7E:121:ASP:N	2.47	0.44
16:7I:49:LEU:HD22	16:7I:73:LEU:HD22	2.00	0.44
17:8I:76:LEU:HD21	17:8I:79:SER:CB	2.48	0.44
18:9I:32:ARG:HH11	18:9I:65:ILE:HG21	1.82	0.44
24:3K:1:G:N3	24:3K:1:G:H2'	2.33	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
26:1H:996:A:O3'	42:C8:92:ARG:HG2	2.18	0.44
26:1H:1667:G:O2'	26:1H:1991:U:O4	2.29	0.44
30:21:50:GLY:O	30:21:74:PRO:HG3	2.17	0.44
32:41:107:LEU:HD21	32:41:178:PHE:CD1	2.53	0.44
32:41:115:ARG:NH1	32:41:115:ARG:HB3	2.32	0.44
33:51:56:SER:HB3	33:51:61:HIS:ND1	2.33	0.44
37:78:5:ASP:HA	37:78:7:ARG:NH2	2.33	0.44
39:98:20:LEU:HA	39:98:20:LEU:HD12	1.66	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
1:1G:764:C:H5"	15:6A:50:HIS:ND1	2.32	0.44
1:1G:921:U:O2'	5:42:19:MET:O	2.27	0.44
3:22:181:ASN:OD1	3:22:204:LEU:HB2	2.16	0.44
7:62:111:ARG:HD2	7:62:123:GLU:HB2	1.97	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6A:81:LEU:O	15:6A:85:LEU:HB2	2.17	0.44
16:7A:9:PHE:CE1	16:7A:18:ARG:HG3	2.52	0.44
17:8A:52:LYS:HD3	17:8A:52:LYS:H	1.83	0.44
21:1B:5:ASP:O	21:1B:8:THR:HG22	2.18	0.44
26:14:14:A:H5"	26:14:15:G:OP2	2.16	0.44
26:14:234:C:H2'	26:14:235:U:H6	1.81	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
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
26:14:2266:A:H4'	26:14:2267:A:N3	2.33	0.44
26:14:2563:U:H4'	36:25:28:SER:HA	2.00	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
29:19:133:LEU:HD23	29:19:133:LEU:HA	1.65	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
47:D5:76:LEU:H	47:D5:76:LEU:HD23	1.82	0.44
1:13:507:C:OP2	1:13:508:C:O2'	2.26	0.44
1:13:643:C:H2'	1:13:644:G:H8	1.82	0.44
1:13:1044:A:C5	1:13:1045:C:H1'	2.52	0.44
1:13:1189:C:C5'	3:2E:5:ILE:HD13	2.42	0.44
1:13:1225:A:H2'	1:13:1225:A:N3	2.32	0.44
1:13:1388:C:H2'	1:13:1389:C:C6	2.52	0.44
2:1E:11:LEU:HD21	2:1E:213:LEU:HD13	1.99	0.44
3:2E:178:LEU:HD13	3:2E:178:LEU:HA	1.70	0.44
9:8E:53:VAL:HG11	9:8E:85:LEU:HD22	1.99	0.44
10:1I:49:VAL:CG2	14:5I:41:ARG:HB2	2.47	0.44
12:3I:70:ILE:HD13	12:3I:77:LEU:HD12	2.00	0.44
18:9I:34:TYR:HB3	18:9I:69:THR:HG23	1.98	0.44
26:1H:245:G:O6	55:Q8:8:LYS:NZ	2.50	0.44
26:1H:619:G:H5"	26:1H:620:G:OP2	2.17	0.44
26:1H:1789:A:H5'	29:11:221:VAL:HG12	2.00	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:2871:C:H5"	26:1H:2872:G:OP1	2.17	0.44
27:16:100:G:OP2	61:16:305:HOH:O	2.21	0.44
39:98:55:ALA:CB	39:98:79:LEU:HD22	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:C8:11:ARG:O	42:C8:15:LYS:HG3	2.17	0.44
45:F8:52:VAL:HG23	45:F8:82:GLN:HB3	2.00	0.44
47:H8:44:PHE:CE2	47:H8:86:VAL:HG11	2.52	0.44
47:H8:120:ILE:HG13	47:H8:171:ILE:HA	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
1:1G:777:A:H2	11:2A:119:CYS:HB3	1.83	0.44
1:1G:1084:G:C5	1:1G:1085:U:C4	3.05	0.44
1:1G:1273:G:H8	1:1G:1273:G:OP2	1.99	0.44
1:1G:1371:G:OP2	9:82:11:LYS:HG2	2.16	0.44
1:1G:1441:G:H5"	1:1G:1442:G:H5'	2.00	0.44
3:22:8:ILE:HD11	3:22:184:TYR:HB3	2.00	0.44
3:22:134:ILE:O	3:22:138:VAL:HG23	2.17	0.44
6:52:101:ALA:O	18:9A:28:GLU:HB3	2.18	0.44
8:72:7:ALA:HA	8:72:10:LEU:HB2	1.99	0.44
11:2A:20:TYR:HB2	11:2A:31:THR:HG23	1.98	0.44
20:BA:25:ARG:HG3	20:BA:29:LYS:HE3	1.99	0.44
26:14:194:G:H2'	26:14:195:A:O4'	2.17	0.44
26:14:832:G:H5'	37:35:45:LEU:CD1	2.48	0.44
26:14:857:C:O2'	26:14:858:U:H5'	2.18	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
26:14:2210: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
37:35:85:LEU:HA	37:35:88:LEU:HB2	1.97	0.44
38:45:3:MET:HG3	38:45:93:TYR:CE1	2.53	0.44
38:45:134:ARG:O	38:45:135:ASP:C	2.60	0.44
40:65:30:ARG:HD2	40:65:97:ARG:HD3	1.99	0.44
46:C5:87:LYS:HD3	46:C5:94:LYS:HA	1.99	0.44
47:D5:67:LEU:HD23	47:D5:67:LEU:HA	1.80	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
1:13:1233:G:H2'	1:13:1234:C:C6	2.53	0.44
3:2E:91:LEU:HB3	3:2E:99:VAL:HG11	1.99	0.44
5:4E:77:PRO:HG2	5:4E:78:HIS:CD2	2.53	0.44
7:6E:38:LEU:HD13	7:6E:42:ILE:HG13	2.00	0.44
17:8I:101:ARG:HH21	17:8I:101:ARG:HG2	1.82	0.44
22:1K:9:A:N6	22:1K:22:G:H5"	2.33	0.44
22:1K:18:G:C5	22:1K:57:G:N2	2.86	0.44
26:1H:7:G:H2'	26:1H:8:A:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
32:41:49:ASP:OD1	32:41:51:ARG:HG3	2.17	0.44
32:41:105:LYS:HE3	32:41:105:LYS:HB2	1.79	0.44
33:51:10:PRO:C	33:51:11:VAL:CG2	2.91	0.44
34:61:88:ILE:O	34:61:121:LYS:NZ	2.50	0.44
34:61:98:ALA:HB2	34:61:111:PRO:HB3	2.00	0.44
37:78:58:THR:O	37:78:62:LEU:HG	2.18	0.44
40:A8:43:GLU:OE2	48:I8:49:LYS:HE2	2.17	0.44
44:E8:83:LYS:C	44:E8:84:ARG:HD2	2.43	0.44
53:N8:33:CYS:SG	53:N8:40:LYS:HD3	2.57	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
4:32:13:ARG:O	4:32:14:ARG:HB3	2.17	0.44
5:42:147:ASP:O	5:42:151:LEU:HG	2.17	0.44
22:1L:33:U:H2'	22:1L:35:U:OP2	2.16	0.44
26:14:536:A:H2'	26:14:537:C:H6	1.83	0.44
26:14:586:A:H5'	31:39:89:VAL:HG21	2.00	0.44
26:14:860:U:H2'	26:14:861:A:H8	1.83	0.44
26:14:919:G:H4'	27:1J:81:G:H4'	1.99	0.44
26:14:990:A:H5'	26:14:990:A:H8	1.82	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
26:14:2873:A:C8	39:55:5:LYS:HA	2.53	0.44
29:19:242:ARG:N	29:19:242:ARG:HD3	2.32	0.44
38:45:35:VAL:HG12	38:45:36:ALA:N	2.31	0.44
42:85:50:ARG:NH1	43:95:72:VAL:HG23	2.33	0.44
42:85:100:VAL:C	42:85:102:GLU:H	2.25	0.44
49:F5:73:LEU:HB3	49:F5:90:ILE:CG1	2.47	0.44
1:13:278:G:C2	17:8I:95:TYR:HD2	2.36	0.44
1:13:447:G:C6	1:13:485:G:H1'	2.53	0.44
1:13:667:G:H4'	15:6I:51:HIS:CE1	2.53	0.44
1:13:1127:G:C5	1:13:1128:C:N4	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1327:C:OP2	21:1F:12:LYS:NZ	2.49	0.44
2:1E:73:THR:OG1	2:1E:74:LYS:N	2.50	0.44
3:2E:42:LEU:O	3:2E:46:GLU:HG2	2.18	0.44
5:4E:71:LEU:HD22	5:4E:115:VAL:H	1.83	0.44
6:5E:23:LYS:HB2	6:5E:23:LYS:HE2	1.65	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
17:8I:65:ILE:HG21	17:8I:69:LYS:HE2	1.99	0.44
20:BI:30:LYS:HA	20:BI:30:LYS:HD2	1.74	0.44
24:3K:50:C:H2'	24:3K:51:A:C4	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
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
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
29:11:165:ILE:HD12	29:11:165:ILE:H	1.82	0.44
34:61:107:VAL:HG12	34:61:108:THR:N	2.26	0.44
35:58:22:THR:OG1	35:58:23:LEU:N	2.50	0.44
37:78:97:PRO:HD3	37:78:126:VAL:O	2.18	0.44
39:98:12:ARG:HG2	39:98:16:HIS:CG	2.53	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
1:1G:452:A:HO2'	1:1G:453:A:C4'	2.31	0.44
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
1:1G:750:G:N2	15:6A:23:GLY:O	2.41	0.44
1:1G:1239:A:C4	1:1G:1298:C:N4	2.86	0.44
13:4A:25:ILE:O	13:4A:29:ARG:HB2	2.18	0.44
56:3L:5:C:H5"	56:3L:6:G:OP2	2.18	0.44
26:14:389:G:H1	37:35:71:VAL:HG12	1.82	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1071:G:H1	26:14:1090:U:H5	1.65	0.44
26:14:1537:C:O2'	26:14:1538:G:O4'	2.32	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
28:79:205:LYS:HB3	28:79:205:LYS:HE3	1.83	0.44
30:29:52:LEU:O	30:29:74:PRO:HB2	2.18	0.44
32:49:146:TYR:O	32:49:149:VAL:HG21	2.16	0.44
33:59:67:LEU:O	33:59:71:LEU:HD22	2.17	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
37:35:16:ARG:H	37:35:16:ARG:HG2	1.52	0.44
42:85:92:ARG:HH22	43:95:10:LYS:HA	1.81	0.44
1:13:136:C:N4	1:13:227:G:H1	2.16	0.44
1:13:524:G:H8	1:13:524:G:O5'	2.01	0.44
1:13:823:G:C2	1:13:878:G:C2	3.05	0.44
1:13:1330:U:H4'	13:4I:23:TYR:HE1	1.83	0.44
3:2E:174:PRO:HB2	3:2E:177:THR:OG1	2.17	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
17:8I:63:ARG:HG3	17:8I:64:PRO:HD2	2.00	0.44
19:AI:28:LYS:HB3	19:AI:28:LYS:HE2	1.63	0.44
26:1H:49:A:H4'	26:1H:50:U:H5"	2.00	0.44
26:1H:176:G:C2'	26:1H:177:G:H5'	2.47	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: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
34:61:58:LEU:HD23	34:61:59:ALA:N	2.33	0.44
37:78:15:ARG:NH1	37:78:17:LYS:HD2	2.33	0.44
37:78:64:LYS:HD2	55:Q8:12:LYS:HD2	2.00	0.44
38:88:6:ARG:O	38:88:7:MET:HB2	2.17	0.44
43:D8:65:GLY:N	43:D8:91:TYR:O	2.36	0.44
44:E8:6:ILE:HG12	44:E8:104:THR:HG23	2.00	0.44
44:E8:43:GLY:O	44:E8:47:VAL:HG23	2.18	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
1:1G:685:G:C2	1:1G:686:U:C4	3.06	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
2:12:219:VAL:HG22	2:12:220:ASP:N	2.32	0.44
3:22:26:LYS:HG3	3:22:27:LYS:H	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
11:2A:44:SER:OG	11:2A:47:VAL:HG23	2.18	0.44
14:5A:53:LEU:HD23	14:5A:53:LEU:HA	1.60	0.44
22:1L:23:A:H2'	22:1L:23:A:N3	2.32	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
27:1J:90:C:OP2	38:45:16:ARG:NH2	2.43	0.44
29:19:69:ARG:HH22	29:19:129:ASN:C	2.25	0.44
31:39:148:LEU:HD11	31:39:193:VAL:HG21	2.00	0.44
34:69:78:THR:O	34:69:80:PRO:HD3	2.18	0.44
35:15:61:ARG:HA	35:15:61:ARG:NE	2.33	0.44
46:C5:88:LYS:N	46:C5:88:LYS:HD3	2.32	0.44
1:13:33:A:H2'	1:13:34:C:C6	2.52	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
1:13:418: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
1:13:607:A:H2	16:7I:31:LYS:HG3	1.81	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
4:3E:31:CYS:HB3	4:3E:34:GLU:HG3	1.99	0.44
4:3E:144:ASP:O	4:3E:184:LYS:HA	2.18	0.44
18:9I:22:VAL:CG2	18:9I:42:ARG:HG2	2.47	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
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
26:1H:1952:A:C2	36:68:22:ILE:HG23	2.53	0.44
26:1H:2428:G:H21	37:78:61:ARG:HH21	1.66	0.44
35:58:96:GLU:C	35:58:98:VAL:H	2.17	0.44
36:68:122:LEU:HD13	41:B8:72:VAL:HG11	2.00	0.44
37:78:134:ALA:HA	37:78:137:LYS:HB2	1.99	0.44
49:J8:3:LYS:HG3	49:J8:46:LEU:HD23	1.99	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
1:1G:1112:C:C2	3:22:178:LEU:HB2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1306:A:C6	1:1G:1307:U:C2	3.05	0.44
2:12:159:PRO:HB2	2:12:161:ALA:O	2.18	0.44
3:22:47:LEU:HD23	3:22:68:VAL:HG11	2.00	0.44
4:32:170:VAL:HG21	4:32:176:LEU:HD22	2.00	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
26:14:138:G:N2	45:B5:44:GLU:OE2	2.25	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
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
27:1J:80:U:O2'	27:1J:81:G:H5'	2.18	0.44
30:29:33:VAL:HG12	30:29:89:ASP:H	1.83	0.44
35:15:96:GLU:OE1	35:15:96:GLU:N	2.35	0.44
35:15:128:HIS:HB2	35:15:129:PRO:HD2	1.99	0.44
37:35:47:ASP:OD1	37:35:49:ARG:NE	2.31	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
41:75:12:SER:CB	41:75:15:VAL:HG13	2.47	0.44
46:C5:2:ARG:HA	46:C5:2:ARG:HD2	1.68	0.44
50:G5:63:VAL:O	50:G5:66:GLU:HG2	2.18	0.44
55:M5:9:GLY:O	55:M5:13:ARG:HD2	2.17	0.44
1:13:198:G:H2'	1:13:199:G:H8	1.83	0.43
2:1E:8:LYS:HG2	2:1E:9:GLU:N	2.31	0.43
4:3E:155:LEU:O	4:3E:156:GLU:C	2.61	0.43
19:AI:5:LEU:HD13	19:AI:10:PHE:CG	2.53	0.43
26:1H:64:A:C5	45:F8:66:LEU:HD22	2.53	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:273:G:H1	26:1H:364:C:H42	1.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:1H:1019:U:OP1	26:1H:1035:U:O2'	2.32	0.43
26:1H:1166:C:H2'	26:1H:1167:U:C6	2.53	0.43
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:2808:U:H2'	26:1H:2809:A:H8	1.83	0.43
29:11:12:SER:HB2	29:11:207:GLY:O	2.18	0.43
31:31:63:LYS:HG2	31:31:65:TRP:O	2.17	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
34:61:138:ILE:HG12	34:61:139:GLN:N	2.33	0.43
35:58:90:MET:HE3	35:58:90:MET:HB2	1.83	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:N	2.76	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
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
1:1G:1342:C:O2'	9:82:124:GLN:HA	2.18	0.43
3:22:124:ILE:C	3:22:127:ARG:H	2.23	0.43
4:32:79:PHE:HE1	4:32:204:ILE:HG22	1.82	0.43
5:42:8:GLU:HA	5:42:34:VAL:HA	2.00	0.43
7:62:91:VAL:HG12	7:62:96:GLN:HG3	2.00	0.43
10:1A:79:ARG:HD2	10:1A:80:LYS:N	2.33	0.43
12:3A:43:VAL:HG12	12:3A:44:THR:N	2.33	0.43
19:AA:40:ILE:HA	19:AA:44:MET:SD	2.58	0.43
22:1L:15:G:H2'	22:1L:59:A:C2	2.53	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
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
26:14:2055:C:H4'	26:14:2056:G:H5"	2.00	0.43
26:14:2056:G:C2	26:14:2057:A:C8	3.06	0.43
26:14:2839:G:H21	39:55:92:GLY:HA2	1.83	0.43
32:49:166:ASP:HA	32:49:169:ALA:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:12:LEU:HD23	34:69:12:LEU:HA	1.82	0.43
37:35:63:PRO:HG2	55:M5:25:MET:HB2	1.99	0.43
39:55:18:LEU:HD13	39:55:22:ARG:HD2	2.00	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
3:2E:33:LEU:O	3:2E:36:ASP:HB2	2.19	0.43
4:3E:111:ALA:HB2	4:3E:120:LEU:CD1	2.46	0.43
5:4E:6:PHE:CE1	5:4E:36:ASP:HB3	2.53	0.43
8:7E:86:ILE:HG21	8:7E:133:LEU:HD22	2.00	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
24:3K:49:G:H1'	24:3K:66:A:C4	2.53	0.43
26:1H:32:C:O2'	26:1H:33:U:H5'	2.18	0.43
26:1H:270(R):G:H2'	26:1H:270(S):G:H8	1.83	0.43
26:1H:592:G:C2	55:Q8:4:MET:HE1	2.53	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
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
30:21:31:CYS:SG	30:21:51:PHE:HB3	2.57	0.43
33:51:41:MET:HG3	33:51:54:ARG:HA	1.99	0.43
34:61:145:VAL:HG12	34:61:146:ALA:N	2.31	0.43
44:E8:79:GLY:HA3	44:E8:100:THR:HG22	2.00	0.43
51:L8:37:LEU:HD12	51:L8:43:ILE:HD13	2.00	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
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:1371:G:OP1	9:82:11:LYS:HB3	2.18	0.43
3:22:87:LEU:HB2	3:22:88:ARG:HH21	1.83	0.43
10:1A:35:SER:O	10:1A:72:VAL:HG13	2.18	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
13:4A:64:TRP:CD1	13:4A:66:LEU:HD23	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1B:5:ASP:HA	21:1B:6:ARG:NH1	2.34	0.43
26:14:91:A:H2'	26:14:92:G:C8	2.51	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
26:14:2718:G:O2'	26:14:2847:U:OP1	2.35	0.43
26:14:2851:A:C5	26:14:2852:G:C5	3.06	0.43
30:29:55:ASN:HB2	30:29:58:ARG:NH2	2.32	0.43
36:25:47:ILE:HD12	36:25:47:ILE:HA	1.91	0.43
37:35:18:ARG:C	37:35:19:VAL:HG23	2.43	0.43
38:45:133:ARG:O	38:45:133:ARG:HG2	2.18	0.43
39:55:90:ARG:HD2	39:55:94:TYR:HD1	1.84	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
47:D5:44:PHE:HE2	47:D5:86:VAL:HG11	1.84	0.43
47:D5:81:ARG:HG3	47:D5:81:ARG:O	2.17	0.43
47:D5:101:PRO:HA	47:D5:123:ASP:N	2.33	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
1:13:160:A:C5	1:13:344:A:C8	3.06	0.43
1:13:359:U:P	34:69:87:LYS:HD2	2.58	0.43
1:13:533:A:C2	1:13:536:C:C5	3.06	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
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
13:4I:35:GLU:O	13:4I:38:GLY:N	2.45	0.43
17:8I:101:ARG:HG2	17:8I:101:ARG:NH2	2.33	0.43
20:BI:46:GLU:HB3	20:BI:48:LYS:HG3	2.00	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
26:1H:617:G:OP1	31:31:40:GLN:NE2	2.51	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:1805:U:O2	29:11:50:THR:HB	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:113:VAL:HG13	29:11:113:VAL:O	2.18	0.43
29:11:231:HIS:HD2	29:11:249:PRO:CA	2.31	0.43
29:11:273:ARG:O	29:11:274:ARG:C	2.61	0.43
31:31:14:PRO:HD3	31:31:127:GLU:HB3	2.00	0.43
32:41:12:TYR:HA	32:41:16:ARG:HG3	2.01	0.43
34:61:6:LEU:HD13	34:61:36:ALA:HA	2.00	0.43
34:61:16:GLY:O	34:61:47:LEU:HD11	2.19	0.43
37:78:63:PRO:HB3	55:Q8:30:ARG:HE	1.83	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
43:D8:21:ARG:HB3	43:D8:91:TYR:CD2	2.53	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
1:1G:922:G:H4'	5:42:20:GLN:HA	2.00	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
2:12:97:TRP:HZ3	2:12:99:GLY:HA2	1.84	0.43
4:32:3:ARG:HD3	4:32:118:ARG:CZ	2.49	0.43
9:82:97:LYS:HB3	9:82:98:PRO:HD3	2.00	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
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
28:79:202:GLU:CG	28:79:203:GLY:N	2.81	0.43
29:19:232:PRO:HA	61:19:309:HOH:O	2.17	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
34:69:113:ARG:O	34:69:131:LYS:HD3	2.19	0.43
35:15:59:LYS:NZ	35:15:61:ARG:HH21	2.16	0.43
36:25:17:ARG:CZ	36:25:47:ILE:HD13	2.48	0.43
37:35:86:LYS:HB3	37:35:117:GLU:O	2.18	0.43
38:45:118:LEU:HD23	38:45:118:LEU:HA	1.89	0.43
42:85:66:ASN:CB	42:85:76:TYR:HB2	2.45	0.43
42:85:92:ARG:C	42:85:94:ASN:N	2.77	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:A5:88:ARG:HD3	44:A5:94:ASP:OD2	2.18	0.43
55:M5:23:VAL:HG23	55:M5:49:VAL:N	2.33	0.43
1:13:748:C:H6	1:13:748:C:O5'	2.02	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
2:1E:28:PHE:HE2	2:1E:189:ASP:C	2.27	0.43
2:1E:28:PHE:HE1	2:1E:31:TYR:HD2	1.66	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
4:3E:47:ARG:HB2	4:3E:47:ARG:CZ	2.48	0.43
9:8E:28:VAL:HA	9:8E:63:ILE:O	2.18	0.43
10:1I:16:LEU:HD11	10:1I:70:ARG:HB2	2.00	0.43
12:3I:111:LYS:O	12:3I:112:ASP:HB2	2.18	0.43
18:9I:22:VAL:CG1	18:9I:56:THR:HA	2.48	0.43
19:AI:41:VAL:HG21	19:AI:67:VAL:HG13	2.01	0.43
26:1H:247:G:H4'	26:1H:386:G:C5	2.54	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
28:71:59:ARG:HD2	28:71:164:ARG:HE	1.84	0.43
31:31:116:ASP:O	31:31:120:GLU:HG3	2.17	0.43
40:A8:37:ALA:HB2	40:A8:101:LEU:HD21	2.01	0.43
41:B8:35:LYS:HE3	41:B8:38:ASN:H	1.83	0.43
41:B8:100:TYR:HD1	41:B8:103:ARG:NH2	2.16	0.43
42:C8:5:LYS:H	42:C8:5:LYS:HG3	1.64	0.43
53:N8:40:LYS:HZ3	53:N8:46:CYS:HB2	1.82	0.43
1:1G:298:A:H8	1:1G:298:A:OP1	2.01	0.43
1:1G:1359:C:O2'	1:1G:1361:G:N7	2.52	0.43
1:1G:1536:C:H42	25:4L:8:A:H62	1.67	0.43
4:32:132:ARG:HE	4:32:132:ARG:HB3	1.65	0.43
8:72:68:ARG:CZ	8:72:74:PRO:HB3	2.49	0.43
9:82:54:ASP:OD1	9:82:54:ASP:N	2.50	0.43
10:1A:26:ALA:HA	10:1A:29:ARG:HB2	1.99	0.43
13:4A:64:TRP:HD1	13:4A:66:LEU:HD23	1.84	0.43
14:5A:41:ARG:HG3	14:5A:42:ILE:N	2.33	0.43
18:9A:78:LEU:HA	18:9A:78:LEU:HD23	1.73	0.43
26:14:6:A:H2'	26:14:6:A:N3	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:842: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
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
26:14:1819:A:H2'	29:19:178:PRO:HB2	1.99	0.43
32:49:60:LEU:HD21	32:49:92:VAL:HG11	2.00	0.43
32:49:116:ASP:O	32:49:117:PHE:HB3	2.19	0.43
34:69:8:PRO:N	34:69:15:VAL:HG22	2.33	0.43
35:15:116:LEU:O	35:15:119:ARG:N	2.45	0.43
40:65:50:SER:O	40:65:76:LYS:NZ	2.35	0.43
40:65:86:ALA:O	40:65:87:PHE:HB2	2.16	0.43
44:A5:4:LYS:NZ	44:A5:6:ILE:HD11	2.33	0.43
47:D5:157:LEU:HA	47:D5:158:PRO:HD3	1.87	0.43
1:13:735:C:H1'	18:9I:75:ILE:CD1	2.47	0.43
1:13:758:G:H8	1:13:758:G:O5'	2.01	0.43
1:13:1511:G:H2'	1:13:1512:U:O4'	2.18	0.43
2:1E:17:PHE:HD2	2:1E:41:ILE:HG23	1.83	0.43
2:1E:114:ARG:NH2	2:1E:141:GLU:OE1	2.51	0.43
4:3E:18:LYS:HD3	4:3E:31:CYS:SG	2.58	0.43
11:2I:18:ARG:HG3	11:2I:33:THR:OG1	2.18	0.43
12:3I:102:ARG:HE	12:3I:102:ARG:HB3	1.60	0.43
14:5I:3:ARG:O	14:5I:4:LYS:C	2.62	0.43
26:1H:107:C:H2'	26:1H:108:U:H6	1.83	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
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
27:16:15:A:H1'	27:16:109:G:C8	2.53	0.43
29:11:96:HIS:CD2	29:11:102:LYS:HG2	2.41	0.43
30:21:105:THR:HB	30:21:197:ILE:CG2	2.47	0.43
31:31:64:ILE:HD13	31:31:64:ILE:HA	1.88	0.43
32:41:4:ASP:HB3	52:M8:25:TYR:HE2	1.83	0.43
32:41:107:LEU:HD11	32:41:178:PHE:CD1	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
46:G8:27:VAL:HA	46:G8:39:VAL:HA	2.00	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
1:1G:1151:A:O2'	1:1G:1152:A:O5'	2.36	0.43
4:32:22:LYS:O	4:32:113:SER:HB3	2.19	0.43
13:4A:54:VAL:O	13:4A:58:GLU:HG2	2.18	0.43
16:7A:62:VAL:O	16:7A:62:VAL:HG12	2.17	0.43
56:3L:2:G:N2	56:3L:3:G:C6	2.86	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
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
29:19:67:PHE:CE1	29:19:106:ILE:HD11	2.53	0.43
29:19:69:ARG:NE	29:19:130:ALA:HB2	2.32	0.43
30:29:51:PHE:O	30:29:74:PRO:HB2	2.19	0.43
31:39:110:LEU:HD11	31:39:205:ARG:HE	1.82	0.43
40:65:43:GLU:OE1	48:E5:49:LYS:NZ	2.49	0.43
47:D5:19:ARG:NH1	47:D5:84:GLU:HB2	2.32	0.43
51:H5:5:LYS:HE3	51:H5:5:LYS:HB3	1.76	0.43
1:13:46:G:H2'	1:13:366:C:H5	1.83	0.43
1:13:74:C:H2'	1:13:96:G:H22	1.84	0.43
1:13:95:G:H8	1:13:95:G:OP2	2.01	0.43
1:13:118:U:H3'	1:13:288:A:H61	1.84	0.43
1:13:170:U:O2'	1:13:171:A:H5'	2.19	0.43
1:13:348:G:C2	1:13:349:A:C8	3.06	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
1:13:1213: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
4:3E:108:LEU:CD1	4:3E:174:LEU:HD13	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6E:80:VAL:HG12	7:6E:81:GLY:N	2.33	0.43
9:8E:26:VAL:HG11	9:8E:33:PHE:HD2	1.82	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
26:1H:125:G:H5'	26:1H:125:G:C8	2.54	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
26:1H:1024:G:H1	26:1H:1140:C:H42	1.66	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
26:1H:2820:A:O2'	26:1H:2821:A:OP1	2.35	0.43
27:16:22:U:H2'	27:16:23:G:C8	2.54	0.43
29:11:33:LEU:HD23	29:11:33:LEU:H	1.83	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
43:D8:21:ARG:HG3	43:D8:93:GLU:HG3	2.00	0.43
49:J8:78:LYS:N	49:J8:78:LYS:CD	2.82	0.43
51:L8:8:LEU:HB2	51:L8:28:LEU:HD23	2.00	0.43
1:1G:519:C:H2'	1:1G:520:A:O4'	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
4:32:88:VAL:HG13	5:42:97:GLY:CA	2.48	0.43
13:4A:81:LEU:HA	13:4A:81:LEU:HD13	1.79	0.43
26:14:27:G:C4	26:14:512:G:N2	2.86	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
26:14:675:A:C8	26:14:804:A:C6	3.06	0.43
26:14:1000:A:C6	26:14:1001:A:N1	2.86	0.43
26:14:2262:U:OP2	48:E5:19:LYS:NZ	2.44	0.43
26:14:2750:A:H8	26:14:2752:C:N4	2.16	0.43
26:14:2845:G:H5"	41:75:54:ARG:O	2.18	0.43
29:19:37:LEU:O	29:19:37:LEU:HD12	2.18	0.43
31:39:53:THR:HG22	31:39:56:GLU:HG3	2.01	0.43
35:15:120:LEU:O	35:15:121:LYS:HD2	2.19	0.43
43:95:98:GLU:OE2	43:95:100:ARG:NH1	2.51	0.43
47:D5:27:VAL:O	47:D5:88:PHE:N	2.43	0.43
50:G5:15:LYS:HA	50:G5:67:LYS:HZ1	1.83	0.43
1:13:5:U:C2	4:3E:85:LYS:HE3	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:101:A:H8	1:13:101:A:OP2	2.02	0.43
1:13:346:G:H3'	1:13:346:G:N3	2.34	0.43
1:13:376:G:OP1	16:7I:5:ARG:HB2	2.18	0.43
1:13:431:A:H2'	1:13:432:A:O4'	2.18	0.43
1:13:927:G:N2	1:13:1391:U:H1'	2.33	0.43
1:13:1320:C:O2	19:AI:36:ARG:NH2	2.51	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
3:2E:16:ARG:HE	3:2E:54:ARG:NH2	2.11	0.43
15:6I:33:THR:HG21	15:6I:85:LEU:HD22	2.00	0.43
16:7I:72:ARG:O	16:7I:75:ARG:HB3	2.19	0.43
26:1H:391:G:O2'	26:1H:410:G:OP1	2.28	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
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:2016:U:H1'	53:N8:6:VAL:HG13	2.00	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
28:71:39:GLU:HG2	28:71:39:GLU:O	2.18	0.43
28:71:59:ARG:HG3	28:71:163:PHE:O	2.18	0.43
33:51:10:PRO:C	33:51:11:VAL:HG23	2.43	0.43
34:61:95:LYS:O	34:61:98:ALA:HB3	2.18	0.43
35:58:94:HIS:C	35:58:95:PRO:O	2.60	0.43
41:B8:97:ALA:C	41:B8:98:LYS:HE2	2.43	0.43
41:B8:98:LYS:HA	41:B8:98:LYS:HD3	1.87	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
1:1G:991:U:O2	1:1G:993:G:C8	2.72	0.43
1:1G:1003:G:H2'	1:1G:1003:G:N3	2.34	0.43
1:1G:1436:U:H2'	1:1G:1437:C:O4'	2.18	0.43
2:12:91:PRO:HG3	2:12:155:LEU:H	1.84	0.43
2:12:222:ILE:H	2:12:224:GLN:NE2	2.17	0.43
5:42:71:LEU:HD21	5:42:115:VAL:HG22	2.01	0.43
11:2A:62:GLN:HG3	11:2A:93:GLN:OE1	2.19	0.43
13:4A:92:HIS:NE2	13:4A:98:VAL:HG21	2.34	0.43
18:9A:76:LEU:HD23	18:9A:76:LEU:HA	1.85	0.43
21:1B:2:GLY:C	21:1B:4:GLY:N	2.77	0.43
23:2L:23:G:H2'	23:2L:24:C:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:243:U:H2'	26:14:244:A:O4'	2.18	0.43
26:14:259:G:N2	26:14:621:A:H8	2.01	0.43
26:14:2557:G:H2'	26:14:2558:C:C6	2.54	0.43
29:19:39:LYS:O	29:19:40:THR:HG23	2.18	0.43
31:39:21:ALA:C	31:39:23:ASP:H	2.26	0.43
33:59:9:ILE:HD13	33:59:51:ARG:HE	1.84	0.43
34:69:75:LEU:HD13	34:69:76:THR:N	2.34	0.43
37:35:81:GLN:HB3	37:35:106:LEU:HD12	2.00	0.43
38:45:10:ARG:HH11	38:45:10:ARG:HD2	1.68	0.43
39:55:90:ARG:HD2	39:55:94:TYR:CD1	2.54	0.43
41:75:12:SER:HA	41:75:14:TYR:H	1.84	0.43
46:C5:52:SER:HB3	46:C5:56:PRO:HA	2.01	0.43
51:H5:41:PRO:HG3	51:H5:44:ARG:HH22	1.83	0.43
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
1:13:738:C:H5"	6:5E:69:GLU:HB2	1.99	0.43
1:13:1286:A:H2	21:1F:18:TYR:CE2	2.36	0.43
2:1E:33:TYR:HB2	2:1E:43:ASP:HB2	1.99	0.43
3:2E:195:VAL:C	3:2E:196:LEU:HD23	2.43	0.43
5:4E:82:VAL:HB	5:4E:138:ALA:HB2	2.01	0.43
8:7E:87:SER:CB	8:7E:93:VAL:H	2.32	0.43
11:2I:31:THR:HG22	11:2I:42:TRP:CB	2.48	0.43
13:4I:20:THR:HG23	13:4I:26:GLY:HA3	2.01	0.43
26:1H:216:A:H2'	26:1H:217:G:H8	1.83	0.43
26:1H:583:G:OP2	42:C8:10:ARG:HD2	2.19	0.43
26:1H:990:A:H1'	26:1H:1156:A:C2	2.54	0.43
26:1H:1184:G:H5'	51:L8:29:ARG:NH1	2.34	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:2178:C:H5'	28:71:46:LYS:HD3	2.00	0.43
26:1H:2308:G:C6	26:1H:2311:A:H2	2.37	0.43
28:71:180:PHE:HB3	28:71:184:LYS:HB2	2.00	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
29:11:109:ASP:HB2	29:11:197:GLY:HA3	1.99	0.43
32:41:32:PRO:HB2	32:41:172:LEU:HD13	2.00	0.43
32:41:145:THR:C	32:41:147:ASP:H	2.27	0.43
38:88:140:ALA:HB3	38:88:141:GLN:HA	2.01	0.43
52:M8:36:CYS:C	52:M8:38:LYS:N	2.77	0.43
1:1G:99:C:H2'	1:1G:101:A:C8	2.54	0.43
1:1G:185:A:H2'	1:1G:186:C:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
2:12:167:PRO:HD2	2:12:192:SER:OG	2.19	0.43
3:22:29:TYR:HD2	14:5A:36:PHE:CZ	2.37	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
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
56:3L:25:C:C4	56:3L:26:A:C8	3.06	0.43
26:14:95:G:H4'	50:G5:46:GLN:HB2	2.01	0.43
26:14:227:A:C2	26:14:2407:G:H1'	2.54	0.43
26:14:229:A:H5'	26:14:230:U:H5'	2.00	0.43
26:14:274:G:H8	26:14:274:G:OP1	2.01	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
26:14:2327:A:H2'	26:14:2328:A:H8	1.83	0.43
26:14:2331:G:O3'	48:E5:43:THR:HG22	2.18	0.43
29:19:228:PRO:HD3	29:19:234:GLY:O	2.19	0.43
30:29:7:VAL:HG12	30:29:8:LYS:N	2.33	0.43
32:49:37:VAL:HG23	32:49:99:MET:HE3	2.01	0.43
34:69:4:ILE:HA	34:69:17:GLN:O	2.19	0.43
35:15:120:LEU:C	35:15:121:LYS:HD2	2.44	0.43
42:85:41:ALA:O	42:85:45:TYR:HD1	2.02	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
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
1:13:1226:C:OP2	13:4I:103:THR:OG1	2.29	0.43
2:1E:168:THR:OG1	2:1E:192:SER:HB2	2.18	0.43
4:3E:18:LYS:HB3	4:3E:20:TYR:CE1	2.54	0.43
4:3E:127:THR:HG23	4:3E:131:ARG:H	1.82	0.43
6:5E:23:LYS:O	6:5E:26:ILE:HB	2.19	0.43
13:4I:16:ASP:OD1	13:4I:16:ASP:N	2.50	0.43
17:8I:14:LYS:NZ	17:8I:53:LEU:HD11	2.34	0.43
26:1H:35:G:H2'	26:1H:36:G:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:577:G:P	26:1H:2502:G:HO2'	2.41	0.43
26:1H:741:G:H2'	26:1H:742:G:O4'	2.18	0.43
26:1H:775:G:C4	26:1H:794:G:C8	3.07	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:2875:C:H2'	26:1H:2876:G:O4'	2.17	0.43
27:16:89(A):A:N7	27:16:90:C:H1'	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
30:21:16:ARG:O	30:21:16:ARG:HG3	2.19	0.43
31:31:93:LYS:HA	31:31:93:LYS:HD2	1.77	0.43
43:D8:36:PRO:HA	43:D8:37:VAL:HA	1.76	0.43
55:Q8:8:LYS:HA	55:Q8:8:LYS:HD2	1.83	0.43
55:Q8:34:TRP:CZ2	55:Q8:35:GLN:HG2	2.53	0.43
1:1G:8:A:N6	4:32:209:ARG:HB3	2.34	0.43
1:1G:37:U:O2'	1:1G:547:A:N1	2.50	0.43
1:1G:184:G:C2'	1:1G:185:A:H5'	2.48	0.43
1:1G:1028(B):C:H42	1:1G:1032(A):G:H1	1.67	0.43
2:12:58:ILE:CG1	2:12:219:VAL:HG21	2.49	0.43
3:22:113:ALA:HB3	3:22:114:PRO:HD3	2.00	0.43
6:52:68:PRO:HG2	6:52:71:ARG:HG3	2.00	0.43
7:62:141:VAL:HA	7:62:142:GLU:CB	2.49	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
56:3L:55:U:H2'	56:3L:57:G:OP2	2.19	0.43
26:14:13:A:O2'	26:14:15:G:O6	2.34	0.43
26:14:483:A:H5"	26:14:484:C:OP2	2.18	0.43
26:14:686:G:OP1	54:L5:11:LYS:NZ	2.34	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
26:14:1449(A):G:H2'	26:14:1450:C:C6	2.54	0.43
26:14:2351:G:O6	55:M5:39:LYS:HG3	2.18	0.43
26:14:2500:U:H5"	26:14:2501:C:OP2	2.19	0.43
26:14:2733:A:C2	30:29:204:ALA:HB2	2.54	0.43
26:14:2786:U:O2'	30:29:63:LEU:N	2.52	0.43
29:19:37:LEU:H	29:19:37:LEU:HG	1.47	0.43
30:29:54:GLN:NE2	30:29:73:GLU:O	2.52	0.43
31:39:40:GLN:NE2	31:39:182:ASN:HB2	2.33	0.43
32:49:97:ASP:O	32:49:101:ILE:HG23	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:106:LEU:HD23	32:49:107:LEU:HG	2.01	0.43
34:69:48:GLU:O	34:69:52:ARG:HG2	2.17	0.43
36:25:96:THR:HG23	36:25:97:ARG:H	1.84	0.43
36:25:105:GLU:HA	36:25:108:GLU:HG3	2.01	0.43
37:35:52:GLU:HG2	37:35:53:GLY:N	2.33	0.43
38:45:16:ARG:C	38:45:17:LEU:HD23	2.44	0.43
41:75:129:ARG:O	41:75:132:LYS:HB2	2.17	0.43
43:95:87:HIS:NE2	43:95:89:GLN:HB2	2.34	0.43
51:H5:9:VAL:HA	51:H5:32:GLN:HE22	1.84	0.43
1:13:516:U:C4	1:13:517:G:C6	3.07	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
4:3E:150:GLU:HG3	4:3E:153:ARG:NH2	2.29	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
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
26:1H:266:G:N2	26:1H:427:U:H1'	2.34	0.43
26:1H:1021:A:C8	26:1H:1021:A:C3'	3.01	0.43
26:1H:1046:A:H4'	26:1H:1047:G:OP2	2.19	0.43
26:1H:1491:G:H5'	29:11:99:ASP:OD1	2.19	0.43
26:1H:1509:C:C2	26:1H:1511:A:C8	3.07	0.43
26:1H:2046:G:O5'	53:N8:19:ARG:HA	2.19	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:2750:A:C3'	33:51:4:ILE:HD11	2.24	0.43
32:41:80:PHE:O	32:41:81:LYS:HB2	2.19	0.43
32:41:105:LYS:HD3	52:M8:26:SER:HB2	2.00	0.43
34:61:54:GLN:O	34:61:58:LEU:N	2.44	0.43
38:88:59:ARG:C	38:88:61:GLY:H	2.25	0.43
39:98:87:TYR:HE1	39:98:117:VAL:HG12	1.84	0.43
47:H8:98:MET:O	47:H8:125:LEU:HA	2.19	0.43
54:P8:12:ARG:HH21	54:P8:44:PRO:HB3	1.84	0.43
1:1G:186:C:O2'	20:BA:81:LYS:HB3	2.18	0.43
1:1G:1324:A:H2'	1:1G:1325:C:H6	1.84	0.43
4:32:24:GLU:HG2	4:32:25:ARG:N	2.25	0.43
17:8A:56:VAL:HG23	17:8A:81:ARG:HG3	2.01	0.43
18:9A:38:GLU:OE1	18:9A:39:VAL:HG23	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AA:5:LEU:HA	19:AA:6:LYS:HA	1.78	0.43
23:2L:17:C:H3'	23:2L:18:C:H2'	2.01	0.43
56:3L:9:A:H8	56:3L:11:C:H41	1.66	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
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
30:29:131:ALA:O	30:29:132:HIS:C	2.62	0.43
31:39:165:ARG:HB3	31:39:165:ARG:HH11	1.83	0.43
32:49:61:ALA:HB2	32:49:67:LYS:HA	2.01	0.43
40:65:54:LEU:O	40:65:55:ALA:HB3	2.18	0.43
41:75:19:LEU:HD12	41:75:19:LEU:O	2.19	0.43
41:75:118:ARG:NH2	41:75:121:ILE:HG21	2.34	0.43
47:D5:3:TYR:O	47:D5:58:VAL:HG23	2.18	0.43
1:13:11:G:C6	1:13:12:U:C4	3.07	0.42
1:13:109:A:N7	1:13:326:G:H2'	2.34	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
1:13:750:G:N3	15:6I:23:GLY:HA3	2.33	0.42
1:13:917:G:C2	1:13:918:A:C4	3.07	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
5:4E:20:GLN:O	5:4E:22:GLY:N	2.52	0.42
26:1H:34:C:HO2'	26:1H:35:G:P	2.42	0.42
26:1H:72:U:H1'	50:K8:58:ALA:CB	2.49	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
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:2175:C:O2'	28:71:216:THR:O	2.36	0.42
26:1H:2638:G:P	30:21:82:ARG:HH21	2.42	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
29:11:17:THR:CG2	29:11:204:ILE:HA	2.48	0.42
33:51:4:ILE:HD12	33:51:4:ILE:HG23	1.59	0.42
33:51:41:MET:HB3	33:51:52:VAL:CG1	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:B8:62:THR:HA	41:B8:74:ARG:O	2.19	0.42
43:D8:35:LEU:HD23	43:D8:35:LEU:HA	1.83	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
1:1G:1219:U:OP1	14:5A:19:ARG:NH2	2.48	0.42
2:12:21:ARG:CB	2:12:39:ILE:HG12	2.47	0.42
2:12:49:GLU:HB2	2:12:50:GLU:OE1	2.19	0.42
2:12:219:VAL:HG13	2:12:220:ASP:N	2.26	0.42
6:52:5:GLU:OE2	6:52:93:SER:OG	2.37	0.42
9:82:117:HIS:HB2	9:82:121:ARG:HG3	2.00	0.42
11:2A:81:ASP:N	11:2A:81:ASP:OD1	2.52	0.42
56:3L:76:A:H8	26:14:2394:C:H42	1.65	0.42
26:14:184:C:H2'	26:14:185:U:H6	1.84	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
26:14:691:C:C1'	29:19:43:ARG:NH2	2.82	0.42
26:14:934:G:H2'	26:14:935:C:H6	1.84	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
26:14:1811:G:H21	29:19:45:ASN:HD22	1.67	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
29:19:44:ASN:CB	29:19:47:GLY:H	2.32	0.42
29:19:94:LEU:HD23	29:19:94:LEU:HA	1.75	0.42
29:19:239:ARG:HB2	29:19:240:ALA:H	1.70	0.42
30:29:35:GLN:H	30:29:48:GLN:HB3	1.84	0.42
34:69:112:LYS:HA	34:69:114:LEU:H	1.84	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
51:H5:55:ARG:O	51:H5:55:ARG:HG3	2.18	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
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	14:5I:9:LYS:NZ	2.49	0.42
1:13:1240:U:OP2	7:6E:115:ARG:HA	2.18	0.42
1:13:1286:A:C2	21:1F:18:TYR:OH	2.72	0.42
1:13:1414:U:H2'	1:13:1415:G:H8	1.84	0.42
8:7E:38:ILE:CD1	8:7E:118:VAL:HG12	2.49	0.42
8:7E:83:ILE:HG13	8:7E:137:VAL:HG22	1.99	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:48:ILE:HD13	11:2I:48:ILE:HA	1.84	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
17:8I:64:PRO:HB3	17:8I:70:ARG:NE	2.34	0.42
23:2K:8:4SU:O5'	23:2K:8:4SU:H6	2.20	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
26:1H:1050:A:H2'	26:1H:1051:G:O4'	2.19	0.42
26:1H:1204:A:C2	26:1H:1241:A:C2	3.06	0.42
26:1H:1207:C:H2'	26:1H:1208:C:C6	2.54	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
29:11:77:ALA:HB2	29:11:97:TYR:CD2	2.54	0.42
29:11:108:PRO:HG3	29:11:143:HIS:CE1	2.54	0.42
30:21:28:ALA:HB3	30:21:93:VAL:HG12	2.02	0.42
35:58:30:ILE:HD12	35:58:99:LEU:HD21	2.00	0.42
37:78:49:ARG:CZ	55:Q8:61:LEU:HD23	2.49	0.42
37:78:101:VAL:HG12	37:78:106:LEU:CD1	2.48	0.42
39:98:1:MET:HE2	39:98:3:HIS:CE1	2.54	0.42
39:98:14:SER:OG	39:98:15:SER:N	2.51	0.42
41:B8:91:ARG:O	41:B8:116:ALA:HA	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
1:1G:862:C:H2'	1:1G:863:U:O4'	2.19	0.42
1:1G:1040:U:H2'	1:1G:1041:A:O4'	2.19	0.42
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
2:12:55:PHE:HB3	2:12:221:LEU:HD12	2.00	0.42
6:52:75:LEU:O	6:52:79:LEU:HG	2.19	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
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
26:14:4:C:O2	26:14:4:C:H2'	2.19	0.42
26:14:142:G:H2'	26:14:143:C:O4'	2.19	0.42
26:14:273(C):C:H6	26:14:273(C):C:H5"	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:396:G:H8	26:14:396:G:O5'	2.02	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
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
26:14:1753: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
26:14:2883:A:C5'	26:14:2884:U:H5'	2.49	0.42
27:1J:76:G:H2'	27:1J:77:U:O4'	2.19	0.42
32:49:55:LYS:O	32:49:59:GLU:HG3	2.18	0.42
45:B5:57:LEU:N	45:B5:57:LEU:HD23	2.33	0.42
46:C5:62:GLU:CD	46:C5:63:LYS:H	2.28	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
1:13:321:A:H62	1:13:328:C:H1'	1.83	0.42
1:13:535:A:H4'	61:13:1871:HOH:O	2.19	0.42
3:2E:150:LYS:CE	3:2E:152:ILE:HD11	2.49	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
8:7E:100:ILE:HD13	8:7E:112:LEU:HD21	2.01	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
13:4I:82:MET:O	13:4I:84:ILE:N	2.52	0.42
23:2K:29:C:H2'	23:2K:30:G:C8	2.49	0.42
24:3K:70:C:C4	24:3K:71:C:N4	2.87	0.42
26:1H:803:U:C4	26:1H:804:A:N7	2.88	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
27:16:2:C:H2'	27:16:3:C:C6	2.54	0.42
29:11:53:PHE:C	29:11:218:ARG:HB2	2.44	0.42
38:88:32:TYR:OH	38:88:111:GLU:HB2	2.19	0.42
42:C8:15:LYS:HE2	42:C8:15:LYS:HB3	1.75	0.42
47:H8:5:LEU:HD13	47:H8:6:LYS:HB2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:57:G:C6	1:1G:58:C:C4	3.07	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: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
1:1G:1305:G:C8	21:1B:5:ASP:HB2	2.53	0.42
58:1G:1691:PAR:O44	58:1G:1691:PAR:N24	2.53	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
6:52:21:LEU:HD22	6:52:21:LEU:HA	1.85	0.42
7:62:22:LEU:HD23	7:62:97:GLN:HE22	1.85	0.42
9:82:32:ASP:OD1	9:82:33:PHE:N	2.52	0.42
13:4A:67:GLU:HG3	13:4A:68:GLY:H	1.84	0.42
16:7A:17:TYR:HE2	16:7A:41:PRO:HG3	1.83	0.42
19:AA:35:SER:O	19:AA:71:LEU:HD23	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
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
26:14:1813:G:H1'	29:19:50:THR:OG1	2.19	0.42
26:14:2173:A:H5"	26:14:2173:A:H8	1.84	0.42
26:14:2758:A:H2'	26:14:2759:G:O4'	2.19	0.42
27:1J:110:G:C5	27:1J:111:U:C5	3.07	0.42
29:19:69:ARG:NH2	29:19:129:ASN:CA	2.82	0.42
29:19:71:ASP:OD1	29:19:103:ARG:NH2	2.52	0.42
31:39:53:THR:HG22	31:39:56:GLU:CG	2.49	0.42
37:35:52:GLU:CD	37:35:52:GLU:C	2.86	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
39:55:17:ARG:HG2	39:55:21:TYR:CE2	2.55	0.42
40:65:85:VAL:H	40:65:110:LEU:HA	1.84	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
1:13:50:A:H1'	1:13:52:G:C8	2.54	0.42
1:13:321:A:C2	1:13:333:G:C2	3.08	0.42
2:1E:119:GLU:H	2:1E:119:GLU:HG2	1.60	0.42
3:2E:84:ILE:HA	3:2E:87:LEU:HD12	2.01	0.42
10:1I:81:THR:O	10:1I:85:LEU:HG	2.19	0.42
20:BI:46:GLU:HB2	20:BI:48:LYS:HG3	2.02	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:828:U:H4'	26:1H:831:G:N1	2.34	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
26:1H:2331:G:C4'	48:I8:42:GLY:HA3	2.50	0.42
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
27:16:95:U:H2'	27:16:96:G:H8	1.83	0.42
32:41:18:GLU:OE1	32:41:22:ARG:HD2	2.19	0.42
32:41:107:LEU:HD23	32:41:107:LEU:HA	1.64	0.42
34:61:127:VAL:HA	34:61:138:ILE:O	2.20	0.42
36:68:112:MET:HA	36:68:115:VAL:HG22	2.00	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
1:1G:56:U:H2'	1:1G:57:G:C8	2.55	0.42
1:1G:250:A:H5'	1:1G:250:A:N3	2.35	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
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
3:22:151:VAL:HA	3:22:199:LYS:O	2.18	0.42
7:62:15:ASP:O	7:62:19:GLY:HA2	2.19	0.42
7:62:148:ASN:O	7:62:149:ARG:HD3	2.19	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
12:3A:43:VAL:HG12	12:3A:44:THR:H	1.85	0.42
17:8A:56:VAL:HG12	17:8A:77:VAL:HB	2.01	0.42
26:14:775:G:O5'	26:14:777:A:H1'	2.18	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:2820:A:O2'	30:29:191:PRO:HG3	2.19	0.42
28:79:47:LEU:HB3	28:79:49:ILE:HG13	2.00	0.42
30:29:64:LYS:C	30:29:66:HIS:H	2.27	0.42
35:15:34:LEU:HD12	35:15:34:LEU:HA	1.71	0.42
38:45:58:PHE:HB3	38:45:113:GLN:NE2	2.34	0.42
40:65:106:ARG:HD2	40:65:106:ARG:C	2.44	0.42
42:85:92:ARG:HH22	43:95:10:LYS:CG	2.32	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
4:3E:19:LEU:HB3	4:3E:21:LEU:CD2	2.49	0.42
8:7E:16:ALA:HB1	8:7E:24:THR:HG21	2.00	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
11:2I:77:MET:HE2	11:2I:77:MET:HB2	1.93	0.42
26:1H:241:A:H5'	26:1H:243:U:O4'	2.19	0.42
26:1H:354:G:C4	26:1H:355:G:C8	3.07	0.42
26:1H:565:C:H4'	26:1H:1253:A:N6	2.34	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
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:2500:U:H2'	61:1H:4365:HOH:O	2.20	0.42
26:1H:2531:A:H5'	33:51:157:TYR:CZ	2.54	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
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
28:71:22:ILE:HB	28:71:190:ARG:NH1	2.35	0.42
28:71:27:HIS:HB3	28:71:182:PRO:CG	2.49	0.42
28:71:45:ALA:HB2	28:71:212:VAL:HG22	2.01	0.42
29:11:70:TRP:O	29:11:73:VAL:HG23	2.19	0.42
35:58:5:VAL:HA	35:58:6:PRO:HD3	1.88	0.42
40:A8:76:LYS:HE2	40:A8:76:LYS:HB3	1.81	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:1G:167:G:O2'	1:1G:168:G:H5'	2.19	0.42
1:1G:750:G:H21	15:6A:23:GLY:C	2.24	0.42
1:1G:1095:U:H2'	1:1G:1096:C:O4'	2.20	0.42
1:1G:1495:U:O4	58:1G:1691:PAR:N12	2.52	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
5:42:118:ILE:HG12	5:42:119:LEU:H	1.84	0.42
12:3A:60:LEU:HD13	12:3A:60:LEU:HA	1.90	0.42
17:8A:29:HIS:HB3	17:8A:33:GLY:N	2.34	0.42
20:BA:49:ALA:HB3	20:BA:100:ILE:HD13	2.00	0.42
23:2L:53:G:H2'	23:2L:54:G:C8	2.54	0.42
56:3L:52:G:C5	56:3L:53:G:C8	3.08	0.42
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
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
26:14:1798:U:H5'	29:19:259:THR:OG1	2.20	0.42
26:14:1828:G:OP2	26:14:1828:G:H8	2.03	0.42
26:14:1945:G:C4	26:14:1946:U:C5	3.07	0.42
26:14:2396:G:H4'	49:F5:30:VAL:H	1.83	0.42
26:14:2564:A:C2	26:14:2647:U:H4'	2.55	0.42
27:1J:0:A:H2'	27:1J:1:U:C6	2.54	0.42
29:19:6:PHE:HE1	29:19:18:VAL:HG22	1.84	0.42
30:29:103:ASP:OD2	30:29:201:THR:HA	2.20	0.42
32:49:80:PHE:O	32:49:82:LEU:HB2	2.19	0.42
32:49:109:VAL:HG12	32:49:142:PRO:HG3	2.01	0.42
32:49:125:PHE:HB3	32:49:166:ASP:CB	2.45	0.42
38:45:20:ALA:HB2	47:D5:79:ARG:HG2	2.01	0.42
38:45:66:ILE:HG22	38:45:104:PHE:HE1	1.84	0.42
42:85:92:ARG:HD3	42:85:94:ASN:HB3	2.02	0.42
1:13:724:G:H2'	1:13:725:G:H8	1.85	0.42
1:13:1225:A:OP1	13:4I:102:ARG:HA	2.19	0.42
1:13:1396:A:C2	5:4E:19:MET:HG3	2.54	0.42
9:8E:17:VAL:HA	9:8E:63:ILE:HG12	2.01	0.42
10:1I:25:GLU:HB3	10:1I:29:ARG:HH21	1.83	0.42
24:3K:69:A:H5'	24:3K:70:C:OP2	2.19	0.42
26:1H:258:G:C4	26:1H:259:G:C8	3.08	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
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:2774:C:H2'	26:1H:2775:A:O4'	2.19	0.42
27:16:28:C:OP1	40:A8:31:SER:OG	2.28	0.42
29:11:105:ILE:HD12	29:11:105:ILE:HA	1.60	0.42
29:11:231:HIS:CD2	29:11:249:PRO:CA	3.02	0.42
30:21:31:CYS:HB2	30:21:91:VAL:HG13	2.01	0.42
31:31:184:TYR:O	31:31:188:ARG:HG2	2.20	0.42
40:A8:63:THR:O	40:A8:66:ALA:HB3	2.19	0.42
45:F8:66:LEU:HD12	45:F8:66:LEU:HA	1.72	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
1:1G:35:G:C2	1:1G:550:G:N3	2.87	0.42
1:1G:253:U:H2'	1:1G:254:G:C8	2.55	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
1:1G:1028(B):C:H42	1:1G:1032(A):G:N2	2.16	0.42
1:1G:1240:U:OP2	7:62:116:ALA:N	2.52	0.42
2:12:22:LYS:HB3	2:12:40:HIS:HE1	1.84	0.42
3:22:8:ILE:HD12	3:22:16:ARG:CD	2.49	0.42
7:62:29:LYS:HB2	7:62:105:VAL:HG21	2.01	0.42
9:82:20:ARG:HG3	9:82:20:ARG:O	2.20	0.42
12:3A:6:THR:OG1	12:3A:9:GLN:HG3	2.18	0.42
12:3A:83:VAL:HG11	12:3A:100:ILE:HD13	2.02	0.42
13:4A:8:GLU:OE2	13:4A:10:PRO:HD3	2.19	0.42
56:3L:16:U:O2	56:3L:16:U:H2'	2.19	0.42
26:14:55:G:O2'	26:14:127:A:N1	2.42	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
26:14:1257:C:H2'	26:14:1258:C:C6	2.55	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
29:19:34:VAL:HB	29:19:64:ILE:HG23	2.01	0.42
29:19:182:LEU:HB2	29:19:272:ALA:HB2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:37:ARG:HE	30:29:42:ASP:CG	2.28	0.42
31:39:89:VAL:HG12	31:39:90:PHE:CD1	2.55	0.42
34:69:62:LYS:HD3	34:69:133:HIS:CE1	2.55	0.42
35:15:43:THR:H	35:15:48:MET:HE1	1.83	0.42
40:65:61:ASN:HD22	40:65:64:GLU:HG3	1.84	0.42
43:95:72:VAL:O	43:95:72:VAL:HG13	2.19	0.42
44:A5:62:HIS:HB2	44:A5:64:MET:HG3	2.02	0.42
46:C5:18:GLY:O	46:C5:20:TYR:N	2.52	0.42
46:C5:37:VAL:HG23	46:C5:67:LEU:HB3	2.01	0.42
46:C5:39:VAL:HG23	46:C5:41:GLY:N	2.34	0.42
50:G5:31:GLU:O	50:G5:35:LEU:HD23	2.20	0.42
55:M5:43:GLN:HG3	55:M5:46:ARG:NH2	2.34	0.42
1:13:131:C:O2	1:13:231:G:N2	2.23	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
1:13:1120:G:H2'	1:13:1121:U:C6	2.54	0.42
1:13:1127:G:H1'	1:13:1148:U:H3	1.84	0.42
1:13:1135:U:O4	61:13:1818:HOH:O	2.22	0.42
1:13:1279:A:OP1	10:1I:7:LYS:NZ	2.52	0.42
1:13:1305:G:H5'	21:1F:4:GLY:HA3	2.01	0.42
1:13:1320:C:OP1	19:AI:70:LYS:HE3	2.19	0.42
2:1E:27:LYS:NZ	2:1E:195:ASP:HB3	2.34	0.42
4:3E:98:GLU:CD	4:3E:103:ASN:HD21	2.22	0.42
6:5E:9:VAL:HB	6:5E:87:ARG:HB2	2.00	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
12:3I:37:CYS:HB2	12:3I:79:GLU:O	2.19	0.42
15:6I:70:LEU:HD11	15:6I:77:ARG:HB3	2.01	0.42
22:1K:4:U:H2'	22:1K:5:C:O4'	2.20	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
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:1693:U:O2'	29:11:14:ARG:NH2	2.53	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
28:71:47:LEU:HA	28:71:208:PHE:O	2.19	0.42
29:11:96:HIS:NE2	29:11:102:LYS:HE2	2.34	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
32:41:139:LEU:HD22	32:41:146:TYR:HD2	1.83	0.42
37:78:24:GLY:O	37:78:25:SER:HB3	2.18	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
1:1G:48:C:H5"	1:1G:365:U:O4	2.20	0.42
1:1G:179:A:H2'	1:1G:180:U:H6	1.85	0.42
1:1G:261:U:OP2	20:BA:79:ARG:NH2	2.53	0.42
1:1G:269:C:H2'	1:1G:270:A:H8	1.83	0.42
1:1G:543:C:C2'	1:1G:544:G:H5'	2.50	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
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
56:3L:15:G:H2'	56:3L:59:A:C2	2.54	0.42
26:14:227:A:H5'	26:14:228:A:C2	2.54	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
26:14:1470:G:O2'	26:14:1522:G:O6	2.31	0.42
26:14:2131:G:H5"	26:14:2133:G:O2'	2.20	0.42
26:14:2165:G:H3'	26:14:2166:G:H5'	2.01	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
28:79:202:GLU:CG	28:79:203:GLY:H	2.33	0.42
31:39:110:LEU:HD21	31:39:181:LEU:HD22	2.02	0.42
32:49:47:LYS:HD3	32:49:81:LYS:HB2	2.01	0.42
40:65:33:LYS:HE3	40:65:33:LYS:HB2	1.84	0.42
40:65:80:LEU:HD23	40:65:80:LEU:HA	1.87	0.42
43:95:22:VAL:HG22	43:95:23:GLU:H	1.84	0.42
48:E5:26:TYR:HB2	48:E5:29:GLN:OE1	2.19	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
1:13:991:U:C5	1:13:1212:U:H1'	2.55	0.42
1:13:993:G:H2'	1:13:993:G:N3	2.35	0.42
4:3E:156:GLU:O	4:3E:160:GLN:HB3	2.20	0.42
8:7E:38:ILE:HD12	8:7E:118:VAL:HG12	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3I:60:LEU:HA	12:3I:60:LEU:HD13	1.83	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: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:OP1	26:1H:456:C:H2'	2.18	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
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
27:16:15:A:O2'	27:16:109:G:C8	2.66	0.42
29:11:26:LYS:HD2	29:11:29:PRO:CB	2.45	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
35:58:65:LYS:HB3	35:58:69:GLN:HG3	2.02	0.42
51:L8:18:ASP:OD1	51:L8:18:ASP:N	2.52	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
1:1G:129(A):G:C2	1:1G:188:U:O2'	2.71	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
1:1G:826:C:H2'	1:1G:827:U:C6	2.55	0.42
1:1G:1124:G:OP2	1:1G:1124:G:H8	2.03	0.42
1:1G:1243:C:H5"	21:1B:8:THR:OG1	2.20	0.42
1:1G:1429:C:O2'	26:14:1704:G:H5'	2.19	0.42
1:1G:1532:U:H5"	1:1G:1533:C:OP2	2.20	0.42
2:12:54:THR:HA	2:12:57:PHE:CD2	2.54	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
4:32:150:GLU:C	4:32:152:SER:N	2.77	0.42
5:42:142:LEU:H	5:42:142:LEU:HG	1.69	0.42
7:62:70:LYS:O	7:62:138:LYS:HE2	2.20	0.42
9:82:16:ARG:NH2	9:82:64:THR:HG21	2.35	0.42
10:1A:28:ARG:NH2	10:1A:34:VAL:HG23	2.34	0.42
17:8A:59:ILE:HG21	17:8A:71:PHE:HB3	2.02	0.42
23:2L:9:G:N3	23:2L:46:G:H2'	2.35	0.42
26:14:332:A:C2	26:14:335:C:C5	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
27:1J:5:C:H42	27:1J:115:G:H1	1.66	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
50:G5:25:VAL:O	50:G5:28:LYS:N	2.53	0.42
1:13:716:A:H8	1:13:716:A:O5'	2.03	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
1:13:1196:U:C4	25:4K:23:A:N7	2.87	0.42
1:13:1260:C:H3'	1:13:1260:C:C6	2.55	0.42
5:4E:71:LEU:CD1	5:4E:114:GLY:HA3	2.49	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
20:BI:38:LYS:HA	20:BI:41:ILE:HD11	2.02	0.42
23:2K:63:C:O2	23:2K:64:G:C8	2.73	0.42
26:1H:978:G:C2	26:1H:986:C:C2	3.08	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
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
32:41:62:LEU:HD12	32:41:62:LEU:HA	1.78	0.42
33:51:144:VAL:O	33:51:148:ILE:HG12	2.19	0.42
37:78:135:LEU:HD22	37:78:139:LYS:HE2	2.01	0.42
38:88:5:ARG:HH22	38:88:6:ARG:HH21	1.66	0.42
41:B8:29:ARG:HB2	41:B8:46:GLU:HG3	2.02	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
1:1G:185:A:H1'	20:BA:81:LYS:NZ	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:502:G:P	12:3A:116:SER:HA	2.60	0.42
1:1G:530:G:H1'	22:1L:35:U:O2'	2.20	0.42
1:1G:667:G:O2'	15:6A:49:ASP:OD1	2.28	0.42
1:1G:672:U:H2'	1:1G:673:G:C8	2.54	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
2:12:96:ARG:HE	2:12:96:ARG:H	1.68	0.42
4:32:201:GLN:HA	4:32:204:ILE:HG12	2.01	0.42
5:42:152:ARG:C	5:42:153:LYS:HD2	2.45	0.42
7:62:29:LYS:O	7:62:105:VAL:HG11	2.20	0.42
13:4A:81:LEU:HD12	13:4A:89:GLY:HA3	2.01	0.42
14:5A:29:ARG:HH12	14:5A:42:ILE:CD1	2.33	0.42
21:1B:2:GLY:C	21:1B:4:GLY:H	2.28	0.42
22:1L:11:C:C2'	22:1L:12:U:H5'	2.50	0.42
22:1L:22:G:P	22:1L:22:G:H8	2.42	0.42
26:14:92:G:H2'	26:14:93:C:O4'	2.19	0.42
26:14:108:U:C2	26:14:109:G:C8	3.08	0.42
26:14:373:U:H2'	26:14:374:A:C8	2.55	0.42
26:14:918:A:H5"	27:1J:97:G:O2'	2.19	0.42
26:14:1016:G:H2'	26:14:1017:G:C8	2.55	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
26:14:2178:C:H4'	28:79:46:LYS:CD	2.50	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
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
29:19:11:PRO:O	29:19:12:SER:OG	2.30	0.42
30:29:26:ILE:HD13	30:29:26:ILE:HA	1.84	0.42
30:29:57:LYS:HZ3	30:29:57:LYS:HG2	1.56	0.42
31:39:53:THR:HG22	31:39:56:GLU:CD	2.45	0.42
31:39:88:VAL:HG23	31:39:89:VAL:O	2.19	0.42
31:39:107:LYS:HA	31:39:107:LYS:HD3	1.74	0.42
36:25:37:ASP:O	36:25:61:VAL:HG23	2.20	0.42
37:35:132:LYS:HZ1	37:35:135:LEU:HD12	1.83	0.42
45:B5:12:VAL:HG12	45:B5:29:TRP:CD2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:E5:51:VAL:N	48:E5:62:LEU:HD12	2.34	0.42
54:L5:37:LYS:HD3	54:L5:39:ARG:HD3	2.02	0.42
1:13:103:C:C2	1:13:104:G:C8	3.07	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
1:13:568:G:O2'	1:13:574:A:N1	2.53	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
2:1E:95:GLN:NE2	2:1E:147:LYS:HG2	2.35	0.42
2:1E:97:TRP:HZ2	2:1E:102:LEU:HD13	1.84	0.42
3:2E:11:ARG:HB3	3:2E:14:ILE:O	2.19	0.42
9:8E:91:ASP:OD1	9:8E:91:ASP:N	2.52	0.42
14:5I:3:ARG:HG2	14:5I:7:ILE:HD11	2.02	0.42
21:1F:15:ARG:NH1	21:1F:15:ARG:HB2	2.34	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
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
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
28:71:10:LEU:HD11	28:71:34:THR:CG2	2.49	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
33:51:3:ARG:NH2	33:51:6:ARG:HH22	2.18	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
37:78:101:VAL:CG1	37:78:106:LEU:HD12	2.48	0.42
37:78:135:LEU:HA	37:78:135:LEU:HD23	1.76	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:88:66:ILE:CG1	38:88:67:ARG:H	2.33	0.42
39:98:42:LYS:O	39:98:45:ARG:HD3	2.20	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
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
1:1G:972:C:OP2	10:1A:57:LYS:HG3	2.20	0.42
1:1G:1442:G:H1	1:1G:1461:G:H21	1.68	0.42
3:22:61:ALA:C	3:22:63:ASN:N	2.78	0.42
4:32:110:PHE:HZ	4:32:183:GLY:H	1.68	0.42
5:42:52:PRO:O	5:42:56:GLN:HB2	2.20	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
8:72:35:ILE:O	8:72:39:LEU:HD13	2.20	0.42
26:14:140:A:H8	26:14:1408:C:O2'	1.96	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
26:14:1482:U:H3	26:14:1512:G:H1	1.68	0.42
26:14:2295:C:N3	26:14:2296:U:H5	2.17	0.42
26:14:2355:C:H5'	48:E5:36:ILE:HD11	2.01	0.42
26:14:2850:A:C2	26:14:2851:A:C4	3.08	0.42
26:14:2875:C:O2'	41:75:5:ALA:HB3	2.20	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
31:39:161:GLU:HA	31:39:164:ARG:NH1	2.35	0.42
33:59:4:ILE:CG2	33:59:5:GLY:H	2.20	0.42
35:15:85:ILE:HD13	35:15:90:MET:HG2	2.02	0.42
38:45:34:LEU:HB2	38:45:118:LEU:HD13	2.01	0.42
39:55:55:ALA:HB2	39:55:79:LEU:CD1	2.49	0.42
41:75:107:ASP:N	41:75:107:ASP:OD1	2.53	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
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
1:13:653:A:C8	8:7E:56:LYS:HD3	2.55	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1352:C:H2'	1:13:1353:G:H8	1.84	0.41
7:6E:151:TYR:HA	7:6E:153:HIS:CE1	2.55	0.41
12:3I:90:VAL:HB	12:3I:96:VAL:HG13	2.01	0.41
19:AI:64:GLU:O	19:AI:67:VAL:HG23	2.19	0.41
26:1H:82:G:O2'	26:1H:83:G:H5'	2.20	0.41
26:1H:140:A:C8	26:1H:1408:C:O2'	2.71	0.41
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: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
26:1H:1021:A:H8	26:1H:1022:G:H5"	1.84	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
28:71:178:ALA:C	28:71:180:PHE:N	2.78	0.41
29:11:26:LYS:HB2	29:11:83:GLU:HB3	2.02	0.41
29:11:39:LYS:HE3	29:11:39:LYS:HB2	1.83	0.41
30:21:20:ALA:O	30:21:21:VAL:HG22	2.20	0.41
31:31:32:LEU:HD21	31:31:105:VAL:HG13	2.00	0.41
31:31:164:ARG:O	31:31:167:ALA:N	2.53	0.41
38:88:39:PRO:HA	38:88:97:VAL:O	2.19	0.41
38:88:42:ILE:HD12	38:88:97:VAL:HB	2.01	0.41
38:88:59:ARG:NH1	38:88:113:GLN:HE21	2.18	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
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
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:1344:C:HO2'	1:1G:1348:U:HO2'	1.65	0.41
1:1G:1524:C:OP1	11:2A:120:ARG:NH1	2.51	0.41
2:12:11:LEU:HD23	2:12:217:ARG:CZ	2.50	0.41
4:32:22:LYS:HD2	59:32:301:SF4:S3	2.59	0.41
11:2A:48:ILE:HD11	11:2A:64:ALA:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2A:59:TYR:O	11:2A:63:LEU:HD12	2.20	0.41
13:4A:92:HIS:CD2	13:4A:98:VAL:HG21	2.55	0.41
19:AA:9:VAL:HG22	19:AA:10:PHE:H	1.85	0.41
23:2L:34:U:O2'	23:2L:36:A:N7	2.48	0.41
26:14:90:U:H1'	26:14:91:A:H8	1.82	0.41
26:14:224:G:N7	26:14:420:C:H4'	2.35	0.41
26:14:580:C:C2	26:14:581:C:C5	3.08	0.41
26:14:858:U:P	48:E5:77:ARG:HH22	2.43	0.41
26:14:1333:C:H2'	26:14:1334:G:C8	2.55	0.41
26:14:1570:A:H8	26:14:1570:A:O5'	2.03	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
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
31:39:83:PHE:O	31:39:84:VAL:HB	2.19	0.41
31:39:102:PRO:HB2	31:39:105:VAL:HG22	2.01	0.41
37:35:49:ARG:CZ	55:M5:61:LEU:HD12	2.51	0.41
40:65:94:TYR:CE1	40:65:99:LYS:HG3	2.55	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
50:G5:50:ILE:CD1	50:G5:51:ARG:N	2.81	0.41
55:M5:34:TRP:HA	55:M5:34:TRP:HE3	1.84	0.41
1:13:5:U:H3	4:3E:85:LYS:CE	2.28	0.41
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
1:13:1129:C:H4'	1:13:1130:A:C8	2.55	0.41
13:4I:56:LEU:HD13	13:4I:56:LEU:HA	1.92	0.41
17:8I:29:HIS:N	17:8I:34:LYS:O	2.50	0.41
18:9I:84:LYS:HE2	18:9I:84:LYS:HB3	1.74	0.41
26:1H:181:A:H2'	26:1H:182:A:C8	2.55	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
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:1660:C:N4	26:1H:2000:G:H1	2.16	0.41
26:1H:1835:G:N3	26:1H:1835:G:H2'	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2615:U:C2	53:N8:7:PRO:HA	2.55	0.41
29:11:210:GLY:O	29:11:213:ARG:N	2.52	0.41
31:31:164:ARG:HG3	31:31:175:THR:HB	2.02	0.41
31:31:197:ASP:O	31:31:198:ALA:C	2.63	0.41
32:41:97:ASP:N	32:41:100:TRP:HD1	2.15	0.41
35:58:96:GLU:C	35:58:98:VAL:N	2.77	0.41
37:78:95:VAL:HG21	37:78:123:LEU:HD13	2.02	0.41
39:98:18:LEU:HA	39:98:18:LEU:HD23	1.60	0.41
40:A8:105:ALA:O	40:A8:109:GLY:HA3	2.20	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
3:22:88:ARG:O	3:22:91:LEU:HD13	2.20	0.41
11:2A:29:ILE:CG2	11:2A:44:SER:HB2	2.50	0.41
16:7A:68:ASP:O	16:7A:71:ARG:HB3	2.20	0.41
20:BA:62:LEU:HA	20:BA:62:LEU:HD23	1.76	0.41
26:14:96:G:H4'	50:G5:48:HIS:NE2	2.35	0.41
26:14:675:A:H4'	31:39:67:GLN:OE1	2.19	0.41
26:14:998:C:H42	26:14:1157:G:H1	1.68	0.41
26:14:1036:G:H5"	33:59:58:GLU:HG2	2.02	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
27:1J:73:A:OP2	61:1J:301:HOH:O	2.21	0.41
29:19:25:THR:HB	29:19:26:LYS:H	1.68	0.41
30:29:108:SER:OG	30:29:163:GLU:HG2	2.20	0.41
32:49:35:GLU:HG2	32:49:36:LYS:HB2	2.00	0.41
34:69:111:PRO:O	34:69:112:LYS:C	2.62	0.41
36:25:17:ARG:HD3	36:25:17:ARG:HA	1.90	0.41
37:35:52:GLU:O	37:35:54:GLY:N	2.52	0.41
37:35:113:LYS:HD3	37:35:115:LEU:HD21	2.02	0.41
38:45:54:MET:O	38:45:57:HIS:N	2.47	0.41
41:75:99:LEU:HD23	41:75:99:LEU:HA	1.73	0.41
43:95:21:ARG:HH22	43:95:65:GLY:CA	2.33	0.41
45:B5:27:THR:HA	45:B5:79:ALA:O	2.20	0.41
45:B5:44:GLU:O	45:B5:48:LYS:N	2.53	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
1:13:113: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:280:C:C2	17:8I:38:ARG:HG3	2.54	0.41
1:13:986:A:H2'	1:13:987:G:O4'	2.21	0.41
1:13:1329:A:N7	21:1F:7:ARG:NH2	2.68	0.41
6:5E:89:MET:SD	18:9I:76:LEU:HD21	2.60	0.41
8:7E:75:ARG:HE	8:7E:75:ARG:HB2	1.68	0.41
12:3I:8:ASN:O	12:3I:12:ARG:HG3	2.20	0.41
12:3I:41:ARG:HE	12:3I:41:ARG:HB2	1.69	0.41
13:4I:66:LEU:HD23	13:4I:66:LEU:HA	1.83	0.41
15:6I:53:HIS:C	15:6I:53:HIS:HD1	2.27	0.41
17:8I:76:LEU:HD11	17:8I:79:SER:CB	2.45	0.41
20:BI:12:ALA:O	20:BI:15:ARG:HB2	2.20	0.41
26:1H:250:G:C6	26:1H:251:A:C6	3.08	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
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:2688:U:C5	26:1H:2720:U:OP2	2.71	0.41
26:1H:2711:A:H5"	26:1H:2712:U:H5"	2.02	0.41
26:1H:2845:G:OP2	61:1H:3703:HOH:O	2.21	0.41
28:71:58:VAL:N	28:71:165:ASN:OD1	2.48	0.41
29:11:103:ARG:HH11	29:11:103:ARG:HD3	1.67	0.41
30:21:20:ALA:C	30:21:21:VAL:HG13	2.45	0.41
30:21:179:GLU:O	30:21:180:ASN:HB2	2.20	0.41
36:68:102:VAL:HB	36:68:106:LEU:HD12	2.02	0.41
36:68:117:LEU:HD23	36:68:117:LEU:HA	1.69	0.41
41:B8:88:ILE:HD13	41:B8:91:ARG:NH2	2.34	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
46:G8:34:LYS:O	46:G8:34:LYS:HG2	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
49:J8:85:LEU:HD13	49:J8:85:LEU:HA	1.72	0.41
54:P8:24:THR:HG23	54:P8:27:GLY:CA	2.49	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:953:G:H2'	1:1G:954:G:O4'	2.20	0.41
2:12:61:LEU:HD21	2:12:90:MET:HE3	2.03	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
6:52:33:TYR:CE2	6:52:74:ASP:HB2	2.55	0.41
8:72:105:ARG:HD3	8:72:105:ARG:HA	1.91	0.41
13:4A:83:ASP:OD1	13:4A:83:ASP:N	2.52	0.41
16:7A:1:MET:HB2	16:7A:1:MET:HE3	1.81	0.41
16:7A:14:ASN:OD1	16:7A:42:ARG:NH2	2.53	0.41
21:1B:6:ARG:HD3	21:1B:6:ARG:N	2.34	0.41
22:1L:18:G:H4'	22:1L:19:G:OP1	2.20	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
26:14:1782:C:O4'	26:14:2609:U:C2	2.74	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
28:79:53:ARG:HG3	28:79:55:ASP:OD1	2.20	0.41
30:29:67:PHE:CE1	30:29:69:LYS:HD3	2.55	0.41
31:39:32:LEU:O	31:39:32:LEU:HD23	2.21	0.41
33:59:152:ARG:H	33:59:162:ILE:HD12	1.86	0.41
34:69:97:ILE:O	34:69:100:ALA:HB3	2.21	0.41
34:69:128:LEU:HD13	34:69:128:LEU:HA	1.92	0.41
35:15:96:GLU:O	35:15:100:GLU:HG3	2.19	0.41
37:35:50:ARG:NH1	55:M5:61:LEU:HD11	2.34	0.41
38:45:110:THR:HG22	38:45:113:GLN:OE1	2.19	0.41
43:95:94:LEU:HD23	43:95:94:LEU:HA	1.82	0.41
47:D5:44:PHE:C	47:D5:44:PHE:CD1	2.98	0.41
53:J5:16:ARG:HG2	53:J5:17:ASP:N	2.35	0.41
1:13:209:U:H4'	1:13:216:G:N2	2.36	0.41
1:13:640:A:O2'	8:7E:115:SER:HB2	2.21	0.41
1:13:741:G:H2'	1:13:742:G:O4'	2.20	0.41
1:13:1349:A:H2'	1:13:1350:A:H8	1.85	0.41
5:4E:83:GLU:OE2	61:4E:201:HOH:O	2.22	0.41
7:6E:126:ASP:O	7:6E:132:GLY:N	2.52	0.41
10:1I:57:LYS:HD2	10:1I:60:ARG:NH2	2.35	0.41
12:3I:83:VAL:HG11	12:3I:100:ILE:HD13	2.02	0.41
17:8I:5:VAL:HG22	17:8I:60:ILE:HG13	2.02	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
24:3K:41:A:H2'	24:3K:42:A:C8	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:152:G:H2'	26:1H:153:C:C6	2.55	0.41
26:1H:270(Q):C:O2'	34:61:42:SER:HB3	2.20	0.41
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
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: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:2561:A:C2	36:68:23:ARG:NH1	2.88	0.41
26:1H:2747:G:O6	26:1H:2755:C:H5"	2.20	0.41
28:71:179:SER:O	28:71:181:PRO:HD3	2.20	0.41
29:11:181:GLU:HA	29:11:273:ARG:HA	2.01	0.41
31:31:32:LEU:O	31:31:36:VAL:HG23	2.21	0.41
33:51:153:LYS:HB2	33:51:155:SER:N	2.28	0.41
34:61:112:LYS:O	34:61:113:ARG:HG3	2.21	0.41
35:58:95:PRO:O	35:58:97:ARG:HB2	2.20	0.41
38:88:118:LEU:HD23	38:88:118:LEU:HA	1.79	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
46:G8:96:ILE:HD12	46:G8:101:LYS:CE	2.50	0.41
48:I8:36:ILE:C	48:I8:36:ILE:HD12	2.45	0.41
1:1G:318:G:H1	1:1G:335:C:H42	1.69	0.41
1:1G:575:G:OP1	1:1G:575:G:H4'	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
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
4:32:33:MET:HE3	4:32:33:MET:HB3	1.91	0.41
6:52:23:LYS:O	6:52:27:GLN:NE2	2.53	0.41
7:62:93:PRO:HA	7:62:96:GLN:HB2	2.01	0.41
13:4A:39:ILE:HG22	13:4A:40:ASN:N	2.35	0.41
16:7A:8:ARG:HD3	16:7A:17:TYR:CE1	2.56	0.41
56:3L:30:G:C5	56:3L:31:A:N7	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:3L:52:G:N9	56:3L:53:G:H8	2.18	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
26:14:1071: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
26:14:2406:U:C2	37:35:75:ILE:HD13	2.55	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
26:14:2641:G:P	35:15:74:ARG:HH21	2.43	0.41
26:14:2651:C:C2'	26:14:2652:C:H5'	2.50	0.41
27:1J:3:C:H2'	27:1J:4:C:C6	2.55	0.41
27:1J:66:A:C2	27:1J:108:C:C4	3.09	0.41
29:19:232:PRO:HB3	29:19:244:ARG:NH2	2.36	0.41
31:39:123:LEU:O	31:39:193:VAL:HA	2.19	0.41
32:49:83:ARG:H	32:49:86:MET:CE	2.32	0.41
33:59:54:ARG:HG2	33:59:65:HIS:ND1	2.35	0.41
34:69:110:ASP:H	34:69:130:TYR:HH	1.66	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
42:85:92:ARG:CG	42:85:94:ASN:HB3	2.49	0.41
43:95:46:VAL:CG2	43:95:52:VAL:HG11	2.44	0.41
50:G5:24:LEU:O	50:G5:28:LYS:HG2	2.21	0.41
1:13:455:C:O5'	1:13:455:C:H6	2.03	0.41
1:13:611:A:H61	1:13:629:G:H1	1.69	0.41
5:4E:10:MET:HB2	5:4E:32:VAL:HG22	2.01	0.41
7:6E:5:ARG:HG3	7:6E:7:ALA:N	2.35	0.41
8:7E:104:ARG:HB2	8:7E:107:LEU:HB3	2.01	0.41
9:8E:99:LEU:HB3	9:8E:101:PHE:CD2	2.55	0.41
11:2I:124:LYS:HD2	11:2I:125:PHE:CE1	2.47	0.41
13:4I:96:LEU:HB3	13:4I:97:PRO:CD	2.50	0.41
15:6I:43:LEU:HD12	15:6I:56:LEU:HD13	2.02	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:22:LEU:HD12	19:AI:22:LEU:HA	1.75	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
26:1H:137(A):G:H2'	26:1H:139:G:N7	2.35	0.41
26:1H:1347:G:O2'	26:1H:1348:G:H5'	2.21	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
26:1H:2820:A:O5'	39:98:4:LEU:HD23	2.19	0.41
29:11:37:LEU:HD23	29:11:37:LEU:H	1.83	0.41
29:11:206:LEU:HD13	29:11:211:ARG:CD	2.37	0.41
30:21:54:GLN:HG2	30:21:55:ASN:H	1.85	0.41
42:C8:72:HIS:ND1	42:C8:110:VAL:HG21	2.35	0.41
45:F8:37:THR:O	45:F8:40:LYS:HB3	2.19	0.41
55:Q8:52:LYS:HB3	55:Q8:53:PRO:CD	2.51	0.41
1:1G:594:G:H1	1:1G:645:C:H42	1.68	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
5:42:93:PRO:HG3	8:72:105:ARG:HG3	2.02	0.41
9:82:47:LEU:C	9:82:49:PRO:HD2	2.45	0.41
11:2A:67:ASP:O	11:2A:71:LYS:HG3	2.20	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
12:3A:100:ILE:CG2	12:3A:101:VAL:H	2.34	0.41
13:4A:78:ILE:HD13	13:4A:92:HIS:CE1	2.55	0.41
14:5A:22:THR:HB	14:5A:33:VAL:HG21	2.02	0.41
17:8A:45:HIS:CG	17:8A:65:ILE:HD13	2.55	0.41
26:14:28:A:C2	26:14:513:A:C8	3.08	0.41
26:14:441:U:H2'	26:14:442:G:H8	1.85	0.41
26:14:2259:G:C2	26:14:2282:G:N1	2.89	0.41
27:1J:52:A:N6	40:65:33:LYS:HG3	2.36	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
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
33:59:54:ARG:HA	33:59:55:PRO:HD3	1.92	0.41
34:69:76:THR:HG23	34:69:77:LEU:N	2.36	0.41
37:35:78:PRO:HA	37:35:110:TYR:CE2	2.56	0.41
37:35:124:LYS:HA	37:35:143:GLY:O	2.19	0.41
38:45:137:TYR:CE2	47:D5:83:PRO:HG3	2.55	0.41
39:55:37:THR:HG1	39:55:40:LYS:NZ	2.17	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:55:48:VAL:HA	39:55:51:LEU:HB2	2.03	0.41
40:65:99:LYS:O	40:65:103:GLU:HG3	2.20	0.41
42:85:27:LEU:HA	42:85:27:LEU:HD23	1.74	0.41
54:L5:33:ARG:HH11	54:L5:33:ARG:HD2	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
1:13:676:A:H1'	11:2I:115:PRO:HB3	2.03	0.41
1:13:718:G:C8	11:2I:116:HIS:HB3	2.55	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
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
10:1I:83:GLU:O	10:1I:87:THR:OG1	2.26	0.41
12:3I:6:THR:OG1	12:3I:9:GLN:HG3	2.20	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
20:BI:100:ILE:HG22	20:BI:101:GLY:N	2.36	0.41
23:2K:17:C:H5'	23:2K:62:C:OP1	2.21	0.41
24:3K:71:C:O2	26:1H:1851:U:O2'	2.24	0.41
26:1H:78:A:C2	26:1H:109:G:C2	3.09	0.41
26:1H:511:U:C5	26:1H:512:G:C5	3.08	0.41
26:1H:728:G:H4'	29:11:13:ARG:HD3	2.03	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
29:11:16:MET:HG3	29:11:211:ARG:HH12	1.86	0.41
29:11:32:SER:CA	29:11:35:LYS:HZ1	2.32	0.41
29:11:234:GLY:N	61:11:401:HOH:O	2.52	0.41
30:21:52:LEU:HD22	30:21:52:LEU:HA	1.81	0.41
37:78:76:LYS:HA	37:78:76:LYS:HD2	1.76	0.41
39:98:62:ALA:O	39:98:66:VAL:HG23	2.20	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
42:C8:50:ARG:HG2	42:C8:53:ARG:NH2	2.35	0.41
47:H8:111:VAL:CG2	47:H8:146:ILE:HG13	2.47	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M8:38:LYS:HG3	52:M8:44:THR:HB	2.03	0.41
1:1G:397:A:H3'	1:1G:397:A:N3	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:935:A:H61	7:62:3:ARG:HG2	1.85	0.41
1:1G:980:C:H3'	1:1G:981:U:H6	1.84	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
2:12:127:ILE:HG23	2:12:135:GLN:HE22	1.84	0.41
2:12:189:ASP:OD1	2:12:189:ASP:N	2.53	0.41
5:42:69:VAL:O	5:42:71:LEU:N	2.51	0.41
6:52:97:PHE:CD2	18:9A:31:LEU:HD21	2.49	0.41
8:72:107:LEU:H	8:72:107:LEU:HD12	1.85	0.41
10:1A:33:GLN:HB3	10:1A:75:ILE:HG12	2.03	0.41
14:5A:26:ARG:NH2	14:5A:46:GLU:OE2	2.53	0.41
56:3L:30:G:H3'	56:3L:31:A:H8	1.85	0.41
26:14:26:G:C6	26:14:27:G:N1	2.88	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
26:14:282:A:C6	26:14:284:U:C2	3.09	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
26:14:957:A:C6	26:14:2459:A:C8	3.08	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
26:14:2492:U:H2'	26:14:2493:U:H6	1.85	0.41
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
30:29:41:LYS:HG3	30:29:42:ASP:N	2.36	0.41
32:49:49:ASP:HB3	32:49:52:ILE:HG22	2.01	0.41
36:25:35:VAL:HG11	36:25:103:ALA:CB	2.50	0.41
37:35:39:LYS:HB2	37:35:45:LEU:HD11	2.03	0.41
37:35:121:LYS:HD3	37:35:121:LYS:HA	1.91	0.41
47:D5:44:PHE:CZ	47:D5:86:VAL:HG21	2.55	0.41
1:13:622:A:C8	1:13:623:C:C6	3.08	0.41
1:13:937:A:N6	1:13:1345:U:O4	2.45	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
2:1E:54:THR:HG21	2:1E:201:ILE:HD11	2.01	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
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
9:8E:92:TYR:HD1	9:8E:92:TYR:HA	1.77	0.41
22:1K:61:C:O2	22:1K:61:C:H2'	2.21	0.41
25:4K:6:G:O2'	25:4K:7:G:N7	2.52	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:300:A:H2'	26:1H:334:C:H1'	2.03	0.41
26:1H:330:A:H2	26:1H:1210:A:O2'	2.03	0.41
26:1H:730:C:H3'	61:1H:3615:HOH:O	2.21	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
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:2261:C:C6	48:I8:16:SER:HB3	2.56	0.41
26:1H:2472:G:H8	26:1H:2472:G:O5'	2.04	0.41
27:16:3:C:H42	27:16:117:G:H1	1.69	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
32:41:67:LYS:H	32:41:67:LYS:CD	2.33	0.41
35:58:57:ALA:C	35:58:59:LYS:N	2.76	0.41
37:78:68:GLN:HG2	55:Q8:12:LYS:CD	2.47	0.41
46:G8:43:ASN:ND2	46:G8:65:ALA:HB3	2.36	0.41
48:I8:51:VAL:HG21	48:I8:79:VAL:HG12	2.01	0.41
52:M8:38:LYS:HG3	52:M8:44:THR:CB	2.50	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
1:1G:1127:G:H2'	1:1G:1127:G:N3	2.36	0.41
2:12:61:LEU:HD21	2:12:157:ARG:HH22	1.85	0.41
2:12:136:VAL:O	2:12:139:LYS:HG2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:136:MET:HB3	5:42:136:MET:HE3	1.75	0.41
19:AA:11:VAL:HG22	19:AA:12:ASP:N	2.22	0.41
26:14:105:C:H2'	26:14:106:C:C6	2.56	0.41
26:14:491:G:H2'	26:14:492:A:H8	1.84	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
26:14:2786:U:H4'	30:29:63:LEU:O	2.21	0.41
31:39:28:ILE:O	31:39:29:ASN:C	2.64	0.41
31:39:29:ASN:HA	31:39:30:PRO:HD3	1.90	0.41
32:49:15:VAL:HG13	32:49:175:LEU:CB	2.50	0.41
32:49:83:ARG:H	32:49:86:MET:HE2	1.85	0.41
43:95:21:ARG:HH22	43:95:65:GLY:C	2.29	0.41
44:A5:110:LYS:HZ2	44:A5:111:HIS:HB3	1.85	0.41
45:B5:55:ASN:O	45:B5:79:ALA:HA	2.19	0.41
55:M5:22:VAL:HG12	55:M5:50:LEU:HG	2.02	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
1:13:590:C:OP1	8:7E:29:SER:HA	2.21	0.41
1:13:953:G:C6	1:13:954:G:C4	3.09	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
2:1E:211:ILE:H	2:1E:211:ILE:HG13	1.67	0.41
10:1I:8:LEU:HD12	10:1I:20:ALA:HB2	2.03	0.41
10:1I:39:PRO:HA	10:1I:70:ARG:HD3	2.02	0.41
13:4I:3:ARG:HB2	13:4I:7:VAL:O	2.19	0.41
13:4I:30:ALA:O	13:4I:33:ALA:N	2.54	0.41
14:5I:3:ARG:HE	14:5I:3:ARG:HB3	1.69	0.41
19:AI:19:VAL:HG11	19:AI:44:MET:HG2	2.02	0.41
22:1K:42:A:H2'	22:1K:42:A:N3	2.35	0.41
26:1H:27:G:C4	26:1H:512:G:N2	2.88	0.41
26:1H:90:U:O2	61:1H:3702:HOH:O	2.21	0.41
26:1H:270(E):G:C5	26:1H:270(F):U:C4	3.09	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:81:G:O6	27:16:95:U:O2	2.39	0.41
30:21:101:ARG:NH1	30:21:171:GLU:HB2	2.35	0.41
35:58:99:LEU:O	35:58:103:VAL:HG23	2.20	0.41
38:88:36:ALA:HB2	38:88:103:MET:CE	2.50	0.41
44:E8:29:LEU:HD12	44:E8:29:LEU:O	2.21	0.41
47:H8:95:PRO:CB	47:H8:127:LYS:HE2	2.51	0.41
48:I8:12:ASN:C	48:I8:14:ARG:HH21	2.28	0.41
55:Q8:22:VAL:HG21	55:Q8:55:ALA:HA	2.03	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
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
6:52:4:TYR:HD1	6:52:92:LYS:HA	1.86	0.41
12:3A:109:GLY:HA3	12:3A:121:GLY:O	2.20	0.41
19:AA:9:VAL:HG13	19:AA:10:PHE:N	2.35	0.41
20:BA:54:LYS:HA	20:BA:57:ARG:NH1	2.36	0.41
26:14:72:U:H3	50:G5:62:THR:HG23	1.86	0.41
26:14:515:A:H1'	26:14:581:C:H1'	2.02	0.41
26:14:631:A:N3	26:14:2415:G:O2'	2.46	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
26:14:1859:A:N6	26:14:1883:G:O2'	2.54	0.41
26:14:1878:G:H2'	26:14:1879:C:C6	2.56	0.41
26:14:1901:A:OP2	29:19:255:LYS:HE2	2.21	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
31:39:128:ALA:O	31:39:130:ALA:N	2.54	0.41
33:59:154:PRO:HB3	33:59:162:ILE:O	2.21	0.41
34:69:62:LYS:HD3	34:69:133:HIS:HE2	1.83	0.41
36:25:29:ASN:H	36:25:29:ASN:HD22	1.68	0.41
36:25:115:VAL:HG13	36:25:121:VAL:HG21	2.02	0.41
41:75:14:TYR:HD1	41:75:14:TYR:N	2.19	0.41
41:75:14:TYR:N	41:75:14:TYR:CD1	2.88	0.41
42:85:76:TYR:CZ	42:85:80:ILE:HD12	2.55	0.41
47:D5:137:ILE:HD12	47:D5:137:ILE:HA	1.98	0.41
50:G5:10:LEU:HD13	50:G5:59:ARG:HD2	2.02	0.41
1:13:13:U:O2	1:13:914:A:H3'	2.21	0.41
1:13:67:C:H2'	1:13:68:G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:147:G:H2'	1:13:148:G:C8	2.55	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
1:13:277:C:H5'	17:8I:68:ARG:NH1	2.36	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
1:13:1129:C:C2	1:13:1143:G:N2	2.88	0.41
1:13:1131:G:O2'	1:13:1132:C:H5'	2.21	0.41
1:13:1346:A:H5"	9:8E:120:ARG:HH12	1.86	0.41
1:13:1442:G:H2'	1:13:1443:G:H5'	2.02	0.41
1:13:1466:C:H2'	1:13:1467:G:O4'	2.20	0.41
2:1E:172:ILE:H	2:1E:172:ILE:HG13	1.65	0.41
3:2E:151:VAL:HA	3:2E:199:LYS: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
5:4E:26:PHE:CD1	5:4E:26:PHE:N	2.89	0.41
5:4E:90:VAL:O	5:4E:120:THR:HA	2.20	0.41
5:4E:96:PRO:HA	5:4E:117:ASP:CG	2.46	0.41
7:6E:72:ARG:O	7:6E:73:MET:HE2	2.20	0.41
8:7E:45:ILE:HD12	8:7E:47:GLY:HA2	2.03	0.41
8:7E:87:SER:OG	8:7E:92:ARG:HA	2.21	0.41
9:8E:118:LYS:O	9:8E:119:ALA:HB3	2.21	0.41
13:4I:84:ILE:HG23	13:4I:86:CYS:H	1.86	0.41
14:5I:4:LYS:HA	14:5I:7:ILE:HD12	2.03	0.41
17:8I:15:MET:HE3	17:8I:15:MET:HB2	1.94	0.41
17:8I:43:LEU:O	17:8I:69:LYS:HG3	2.21	0.41
19:AI:6:LYS:HD2	19:AI:6:LYS:HA	1.79	0.41
19:AI:25:LYS:HD2	19:AI:25:LYS:HA	1.83	0.41
22:1K:7:U:O2'	22:1K:8:U:H5'	2.21	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
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:270(N):G:H21	34:61:50:ARG:NH2	2.19	0.41
26:1H:449:A:O2'	26:1H:450:G:H5'	2.21	0.41
26:1H:529:A:H8	26:1H:530:G:C6	2.39	0.41
26:1H:558:G:P	35:58:111:PRO:HD2	2.61	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:660:G:N2	37:78:12:ALA:HA	2.32	0.41
26:1H:775:G:C5	26:1H:794:G:C8	3.08	0.41
26:1H:777:A:H2'	26:1H:778:G:H8	1.84	0.41
26:1H:821:A:H2'	26:1H:946:G:H5"	2.03	0.41
26:1H:880:G:HO2'	26:1H:881:G:P	2.42	0.41
26:1H:986:C:C2'	26:1H:987:G:H5'	2.51	0.41
26:1H:1022:G:N7	35:58:66:LYS:NZ	2.68	0.41
26:1H:1163:G:C2	26:1H:1164:G:C8	3.09	0.41
26:1H:1166:C:O2	26:1H:1184:G:C2	2.73	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: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
28:71:42:GLU:OE2	28:71:217:THR:OG1	2.39	0.41
28:71:56:GLN:O	28:71:201:PRO:HG3	2.21	0.41
28:71:213:TYR:HB3	28:71:221:SER:OG	2.21	0.41
29:11:35:LYS:HB3	29:11:35:LYS:HE3	1.70	0.41
29:11:35:LYS:HB2	29:11:62:TYR:O	2.20	0.41
29:11:119:ALA:HA	29:11:130:ALA:O	2.21	0.41
30:21:37:ARG:NH1	30:21:42:ASP:OD1	2.46	0.41
31:31:39:TRP:CB	31:31:101:LEU:HD12	2.51	0.41
33:51:3:ARG:NH2	33:51:6:ARG:NH2	2.69	0.41
34:61:14:ASP:N	34:61:17:GLN:OE1	2.53	0.41
35:58:46:VAL:O	35:58:47:ALA:HB3	2.21	0.41
35:58:96:GLU:HB2	35:58:122:VAL:HG12	2.03	0.41
35:58:107:LEU:HD23	35:58:107:LEU:HA	1.76	0.41
36:68:107:ARG:CZ	36:68:107:ARG:HB2	2.46	0.41
37:78:50:ARG:HG2	55:Q8:61:LEU:HD11	2.02	0.41
39:98:48:VAL:O	39:98:49:ASP:C	2.64	0.41
40:A8:15:ARG:HD2	40:A8:88:ASP:OD2	2.20	0.41
42:C8:47:TYR:CD1	42:C8:47:TYR:C	2.99	0.41
45:F8:41:ASN:OD1	45:F8:41:ASN:N	2.54	0.41
48:I8:11:ARG:HB2	48:I8:11:ARG:NH1	2.36	0.41
50:K8:15:LYS:H	50:K8:67:LYS:HE2	1.85	0.41
54:P8:33:ARG:HH11	54:P8:33:ARG:HD2	1.72	0.41
1:1G:162:A:O5'	1:1G:162:A:H8	2.04	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:806:C:O2'	1:1G:807:A:H5'	2.21	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
2:12:101:MET:HB2	2:12:102:LEU:HD12	2.02	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
5:42:26:PHE:CD1	5:42:26:PHE:N	2.89	0.41
5:42:139:LEU:HA	5:42:142:LEU:HD11	2.02	0.41
7:62:97:GLN:OE1	7:62:101:LEU:HD11	2.20	0.41
8:72:42:GLU:HG3	8:72:109:ILE:CD1	2.50	0.41
8:72:109:ILE:CG2	8:72:137:VAL:HB	2.47	0.41
10:1A:30:SER:HB3	10:1A:78:ASN:CG	2.45	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
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
16:7A:1:MET:HE1	16:7A:65:GLN:HG2	2.03	0.41
16:7A:18:ARG:HA	16:7A:38:TYR:HA	2.03	0.41
18:9A:23:LYS:HG3	18:9A:23:LYS:O	2.21	0.41
26:14:184:C:H2'	26:14:185:U:C6	2.55	0.41
26:14:388:G:O2'	26:14:389:G:N7	2.47	0.41
26:14:480:A:H2'	26:14:480:A:N3	2.36	0.41
26:14:577:G:O2'	26:14:1254:A:OP1	2.38	0.41
26:14:748:G:C8	44:A5:89:ALA:HB1	2.56	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
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:H2'	26:14:1839:G:N3	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
26:14:2418:A:OP2	55:M5:29:LYS:NZ	2.40	0.41
26:14:2438:U:H5"	26:14:2600:A:OP1	2.21	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
27:1J:8:U:H5'	27:1J:9:G:OP2	2.21	0.41
28:79:19:ILE:HD12	28:79:19:ILE:HA	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:146:GLU:HG2	29:19:152:GLY:C	2.46	0.41
29:19:177:LEU:HB3	29:19:178:PRO:HD2	2.02	0.41
29:19:210:GLY:O	29:19:213:ARG:N	2.54	0.41
30:29:4:ILE:HD11	30:29:198:VAL:HB	2.03	0.41
30:29:5:LEU:HD13	30:29:51:PHE:HB3	2.03	0.41
30:29:23:VAL:O	30:29:24:THR:OG1	2.35	0.41
30:29:151:TYR:HB2	35:15:79:PRO:HG3	2.02	0.41
31:39:83:PHE:C	31:39:85:GLY:N	2.79	0.41
31:39:125:LEU:O	31:39:125:LEU:HD12	2.21	0.41
32:49:99:MET:HE3	32:49:99:MET:HB2	1.90	0.41
34:69:89:TYR:O	34:69:121:LYS:NZ	2.53	0.41
35:15:59:LYS:HD2	35:15:59:LYS:HA	1.87	0.41
36:25:29:ASN:H	36:25:29:ASN:ND2	2.19	0.41
36:25:122:LEU:HD13	41:75:72:VAL:HG11	2.03	0.41
40:65:52:SER:O	40:65:56:LEU:HD23	2.20	0.41
41:75:34:VAL:HG21	41:75:43:GLN:HB3	2.03	0.41
41:75:82:LEU:HD12	41:75:82:LEU:H	1.85	0.41
41:75:123:GLN:HA	41:75:126:ALA:HB3	2.03	0.41
44:A5:96:ILE:HD13	44:A5:96:ILE:HG21	1.87	0.41
46:C5:12:THR:HA	46:C5:26:LYS:HA	2.03	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
55:M5:48:PHE:O	55:M5:50:LEU:N	2.44	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
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
1:13:1423:G:OP1	36:68:49:ARG:NH2	2.54	0.41
2:1E:28:PHE:HE2	2:1E:189:ASP:O	2.04	0.41
5:4E:143:ARG:HE	8:7E:77:GLU:CD	2.28	0.41
9:8E:73:GLN:O	9:8E:76:ALA:HB3	2.21	0.41
10:1I:39:PRO:HB3	10:1I:70:ARG:NH1	2.36	0.41
20:BI:75:ASN:HA	20:BI:78:ALA:HB3	2.03	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
28:71:215:THR:CG2	28:71:216:THR:N	2.84	0.41
31:31:196:LEU:C	31:31:197:ASP:O	2.64	0.41
34:61:134:PRO:HA	34:61:135:GLU:HG3	2.03	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
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
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
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
8:72:82:HIS:NE2	8:72:84:ARG:HB2	2.35	0.41
10:1A:39:PRO:HA	10:1A:70:ARG:NH1	2.36	0.41
11:2A:95:ILE:O	11:2A:98:LEU:N	2.54	0.41
16:7A:48:TRP:CD1	16:7A:48:TRP:N	2.88	0.41
16:7A:81:ARG:NH1	16:7A:81:ARG:HG3	2.30	0.41
20:BA:79:ARG:HE	20:BA:83:ARG:NH2	2.19	0.41
20:BA:89:ARG:HH11	20:BA:104:LEU:HB3	1.85	0.41
56:3L:22:G:C6	56:3L:23:A:N6	2.88	0.41
26:14:240:G:H1'	26:14:257:A:H61	1.85	0.41
26:14:283:A:H5'	26:14:283:A:H8	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
26:14:1447:G:H1'	26:14:1545(A):A:H1'	2.03	0.41
26:14:1653:G:C4	39:55:9:LYS:HD2	2.56	0.41
26:14:1684:C:C2	26:14:1705:G:N2	2.89	0.41
26:14:1701:A:H5"	26:14:1702:G:OP2	2.21	0.41
26:14:2291:U:O4	61:14:3591:HOH:O	2.21	0.41
30:29:97:LYS:O	30:29:100:GLU:HG3	2.20	0.41
40:65:61:ASN:CG	40:65:62:LYS:N	2.78	0.41
48:E5:24:LYS:CB	48:E5:36:ILE:HD13	2.50	0.41
49:F5:92:LYS:O	49:F5:93:GLU:C	2.63	0.41
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:926:G:C6	1:13:1505:G:C5	3.08	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
2:1E:100:GLY:O	2:1E:102:LEU:N	2.53	0.40
4:3E:15:GLU:CD	4:3E:59:ARG:HH21	2.29	0.40
5:4E:100:VAL:HG13	5:4E:118:ILE:CG2	2.51	0.40
7:6E:120:ILE:O	7:6E:124:LEU:HB2	2.21	0.40
8:7E:2:LEU:HD23	8:7E:2:LEU:HA	1.84	0.40
11:2I:62:GLN:O	11:2I:66:LEU:HG	2.21	0.40
24:3K:75:C:O5'	24:3K:75:C:H6	2.04	0.40
25:4K:13:A:H2'	25:4K:14:A:H4'	2.03	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:764:A:N3	29:11:213:ARG:HD3	2.35	0.40
26:1H:950:G:C5	26:1H:951:C:C4	3.10	0.40
26:1H:1798:U:H5'	29:11:259:THR:OG1	2.21	0.40
26:1H:1933:G:C6	26:1H:1934:C:C4	3.09	0.40
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
28:71:49:ILE:HG22	28:71:204:ALA:HB1	2.03	0.40
29:11:9:TYR:CZ	29:11:13:ARG:HG2	2.57	0.40
29:11:31:LYS:C	29:11:35:LYS:HZ1	2.29	0.40
29:11:51:VAL:HG12	29:11:54:ARG:HD2	2.03	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
32:41:57:ALA:HB2	32:41:90:LEU:HG	2.03	0.40
34:61:33:ARG:HH11	34:61:33:ARG:HG3	1.86	0.40
34:61:112:LYS:HG2	34:61:112:LYS:H	1.63	0.40
41:B8:125:ARG:HA	41:B8:128:GLU:CD	2.46	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
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
1:1G:1237:C:H5"	1:1G:1238:A:C8	2.56	0.40
1:1G:1285:A:H8	1:1G:1285:A:OP1	2.04	0.40
1:1G:1305:G:O2'	1:1G:1306:A:H8	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:107:THR:HA	2:12:110:GLN:HG2	2.03	0.40
11:2A:34:ASP:OD1	11:2A:37:GLY:N	2.53	0.40
12:3A:69:TYR:CG	12:3A:90:VAL:HG21	2.56	0.40
13:4A:16:ASP:OD1	13:4A:16:ASP:N	2.53	0.40
20:BA:33:ILE:O	20:BA:37:SER:OG	2.37	0.40
23:2L:19:G:C2	23:2L:59:A:C5	3.09	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
26:14:68:G:H2'	26:14:69:C:O4'	2.22	0.40
26:14:94:G:H2'	26:14:95:G:O4'	2.21	0.40
26:14:660:G:C6	26:14:661:C:C4	3.09	0.40
26:14:952:G:OP1	38:45:16:ARG:NH1	2.54	0.40
26:14:960:A:H61	38:45:82:ARG:HH21	1.67	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
27:1J:42:C:H42	32:49:91:ARG:HH12	1.69	0.40
27:1J:81:G:C6	27:1J:82:G:C5	3.09	0.40
30:29:116:VAL:HG11	30:29:122:PHE:CD2	2.56	0.40
31:39:33:LEU:O	31:39:37:VAL:HG23	2.21	0.40
31:39:176:LEU:HD12	31:39:176:LEU:HA	1.70	0.40
34:69:58:LEU:HD12	34:69:59:ALA:N	2.36	0.40
38:45:25:ASP:HB3	38:45:102:VAL:HB	2.02	0.40
42:85:74:LEU:CD1	42:85:79:PHE:HB2	2.50	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
1:13:558:G:H5"	1:13:559:A:OP2	2.21	0.40
1:13:617:G:H5'	16:7I:45:THR:HG22	2.02	0.40
1:13:836:G:C6	1:13:851:G:C6	3.09	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:72:GLY:HA2	2:1E:165:VAL:CG2	2.50	0.40
2:1E:91:PRO:HG3	2:1E:155:LEU:HB2	2.02	0.40
2:1E:141:GLU:O	2:1E:145:LEU:HG	2.21	0.40
5:4E:112:LEU:HD23	5:4E:112:LEU:HA	1.80	0.40
7:6E:51:GLN:HB2	7:6E:58:PRO:CD	2.50	0.40
14:5I:29:ARG:HD3	14:5I:31:ARG:O	2.21	0.40
17:8I:13:ASP:OD2	17:8I:53:LEU:N	2.54	0.40
24:3K:21:A:N7	24:3K:46:G:N2	2.69	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
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
29:11:132:PRO:HG2	29:11:135:PHE:HE2	1.86	0.40
33:51:4:ILE:HD13	33:51:4:ILE:HA	1.85	0.40
33:51:6:ARG:HH11	33:51:54:ARG:HH12	1.69	0.40
34:61:1:MET:O	34:61:20:ASP:HA	2.21	0.40
34:61:11:ASN:O	34:61:12:LEU:HB2	2.21	0.40
37:78:21:ARG:NH1	61:78:301:HOH:O	2.54	0.40
41:B8:111:ARG:HD3	41:B8:111:ARG:H	1.86	0.40
42:C8:39:LEU:HA	42:C8:39:LEU:HD23	1.83	0.40
43:D8:7:THR:HG23	43:D8:12:TYR:HE1	1.86	0.40
43:D8:85:LYS:HE2	43:D8:85:LYS:HB2	1.98	0.40
52:M8:40:HIS:CE1	52:M8:45:GLY:C	2.99	0.40
55:Q8:36:LYS:HG2	55:Q8:40:GLU:CD	2.46	0.40
1:1G:363:A:OP1	12:3A:33:ARG:HG3	2.21	0.40
1:1G:1237:C:C5	1:1G:1336:C:C4	3.08	0.40
1:1G:1243:C:H5"	21:1B:8:THR:CB	2.52	0.40
2:12:27:LYS:HE3	2:12:27:LYS:HB2	1.88	0.40
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
4:32:63:LYS:HB2	4:32:63:LYS:HE3	1.71	0.40
4:32:139:ARG:HH11	4:32:139:ARG:HG3	1.86	0.40
9:82:14:VAL:O	9:82:65:VAL:HA	2.21	0.40
10:1A:50:ILE:HD13	10:1A:60:ARG:HD3	2.03	0.40
18:9A:29:PHE:N	18:9A:29:PHE:CD1	2.89	0.40
26:14:250:G:C6	26:14:251:A:C6	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:871:U:OP1	38:45:5:ARG:NE	2.54	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
26:14:2773:C:OP1	30:29:166:THR:OG1	2.38	0.40
26:14:2872:G:C4	26:14:2873:A:C2	3.09	0.40
27:1J:7:G:H4'	40:65:29:PHE:CD2	2.56	0.40
28:79:18:LYS:HB2	28:79:20:TYR:CE1	2.56	0.40
31:39:52:LYS:HA	31:39:56:GLU:OE2	2.21	0.40
32:49:22:ARG:HH12	32:49:175:LEU:HD21	1.86	0.40
33:59:56:SER:OG	33:59:57:ASP:N	2.54	0.40
34:69:2:LYS:HA	34:69:20:ASP:HA	2.02	0.40
34:69:142:VAL:HG12	34:69:143:SER:N	2.36	0.40
36:25:107:ARG:CG	36:25:115:VAL:HG11	2.50	0.40
38:45:103:MET:O	38:45:104:PHE:HB2	2.20	0.40
41:75:58:ASN:HD22	41:75:58:ASN:HA	1.62	0.40
42:85:95:LEU:HD11	43:95:13:ARG:HB2	2.03	0.40
43:95:40:LEU:HD23	43:95:41:GLY:N	2.37	0.40
47:D5:10:ARG:HB3	47:D5:36:LYS:HE2	2.02	0.40
47:D5:33:LEU:HD23	47:D5:33:LEU:HA	1.83	0.40
54:L5:41:ARG:HB3	54:L5:43:THR:O	2.21	0.40
1:13:158:G:N1	1:13:163:C:N3	2.68	0.40
1:13:1528:U:C2	1:13:1530:G:C8	3.10	0.40
3:2E:27:LYS:HD3	3:2E:27:LYS:HA	1.87	0.40
4:3E:185:PHE:CE2	4:3E:188:LEU:HD23	2.55	0.40
14:5I:50:LYS:H	14:5I:50:LYS:HG3	1.67	0.40
15:6I:39:LEU:O	15:6I:42:HIS:N	2.54	0.40
16:7I:22:THR:HA	16:7I:33:ILE:HG13	2.03	0.40
17:8I:61:GLU:HA	17:8I:71:PHE:CE1	2.56	0.40
26:1H:36:G:C5	26:1H:37:C:C5	3.09	0.40
26:1H:106:C:H2'	26:1H:107:C:C6	2.54	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:705:A:O3'	29:11:7:LYS:HD2	2.21	0.40
26:1H:717:G:H2'	26:1H:718:A:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:859:G:H5'	26:1H:2268:A:O2'	2.20	0.40
26:1H:860:U:H5	26:1H:917:A:N1	2.20	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:2277:G:P	48:I8:12:ASN:HD22	2.44	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
30:21:176:ILE:HB	30:21:181:LEU:HB2	2.02	0.40
31:31:24:LEU:HD21	31:31:114:VAL:HG12	2.02	0.40
34:61:5:LEU:HD13	34:61:13:GLY:O	2.21	0.40
34:61:118:LYS:HD2	34:61:118:LYS:HA	1.80	0.40
35:58:1:MET:HE2	35:58:1:MET:HB3	1.85	0.40
41:B8:78:LEU:O	41:B8:78:LEU:HD13	2.22	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
1:1G:589:C:H5"	8:72:29:SER:HB2	2.03	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
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
2:12:72:GLY:O	2:12:78:GLN:HG2	2.21	0.40
7:62:23:VAL:O	7:62:27:ILE:HD12	2.21	0.40
7:62:113:GLU:O	7:62:119:ARG:HD3	2.21	0.40
9:82:24:GLY:O	9:82:26:VAL:HG23	2.20	0.40
14:5A:53:LEU:HA	14:5A:54:PRO:HD3	1.94	0.40
20:BA:67:ALA:O	20:BA:73:HIS:CE1	2.74	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
25:4L:10:G:N3	25:4L:10:G:H2'	2.37	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
26:14:1129:A:N1	26:14:2569:G:O2'	2.53	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2032:G:C6	26:14:2572:A:C5	3.09	0.40
26:14:2280:G:O2'	26:14:2388:A:N1	2.42	0.40
26:14:2542:A:OP1	26:14:2542:A:H4'	2.21	0.40
26:14:2599:G:OP2	29:19:236:GLY:HA2	2.21	0.40
26:14:2789:C:HO2'	26:14:2893:G:H21	1.63	0.40
26:14:2852:G:C2	26:14:2853:C:C2	3.08	0.40
32:49:64:THR:HB	32:49:94:LEU:HD21	2.02	0.40
34:69:79:ILE:HD13	34:69:79:ILE:HA	1.91	0.40
38:45:82:ARG:HA	38:45:82:ARG:HD3	1.84	0.40
39:55:67:LEU:O	39:55:71:GLN:N	2.48	0.40
49:F5:83:GLU:O	49:F5:84:GLY:C	2.64	0.40
49:F5:86:SER:N	49:F5:87:PRO:CD	2.83	0.40
53:J5:45:VAL:HG12	53:J5:56:LYS:HD2	2.03	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
1:13:538:G:OP2	12:3I:115:LYS:HD2	2.21	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
7:6E:17:VAL:HB	7:6E:44:TYR:CE1	2.57	0.40
10:1I:7:LYS:C	10:1I:8:LEU:HD23	2.46	0.40
12:3I:64:TYR:O	12:3I:65:GLU:HB3	2.22	0.40
14:5I:11:LYS:C	14:5I:13:THR:H	2.30	0.40
16:7I:27:LYS:H	16:7I:27:LYS:HG2	1.64	0.40
17:8I:11:VAL:HG22	17:8I:20:THR:O	2.21	0.40
26:1H:137(A):G:H1'	45:F8:41:ASN:ND2	2.36	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
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
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
27:16:49:C:H6	27:16:49:C:O5'	2.03	0.40
30:21:105:THR:OG1	30:21:199:ARG:NH2	2.27	0.40
34:61:47:LEU:O	34:61:51:ILE:N	2.46	0.40
35:58:95:PRO:O	35:58:96:GLU:CD	2.64	0.40
36:68:11:ALA:HB3	36:68:85:VAL:HG23	2.04	0.40
39:98:10:LEU:O	39:98:11:ASN:C	2.65	0.40
39:98:25:ALA:O	39:98:26:LYS:C	2.65	0.40
39:98:25:ALA:O	39:98:28:LEU:N	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:K8:4:SER:OG	50:K8:6:VAL:HB	2.21	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
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
2:12:111:ARG:HH11	2:12:111:ARG:HA	1.86	0.40
3:22:40:ARG:HG2	3:22:55:VAL:HG21	2.04	0.40
9:82:16:ARG:CZ	9:82:64:THR:HG21	2.51	0.40
12:3A:60:LEU:HB2	12:3A:64:TYR:CB	2.52	0.40
16:7A:57:ARG:HH21	16:7A:79:VAL:C	2.28	0.40
22:1L:50:C:C4	22:1L:51:A:C8	3.09	0.40
23:2L:9:G:O4'	23:2L:47:G7M:H1'	2.22	0.40
23:2L:17:C:OP1	23:2L:62:C:H5'	2.20	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
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
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
27:1J:90:C:P	38:45:16:ARG:HH21	2.42	0.40
28:79:49:ILE:HD12	28:79:49:ILE:O	2.21	0.40
30:29:15:PHE:CD2	41:75:81:PRO:HD3	2.56	0.40
30:29:101:ARG:HD2	30:29:169:ASN:ND2	2.36	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
34:69:72:LEU:C	34:69:74:ASN:N	2.78	0.40
34:69:79:ILE:O	34:69:143:SER:HA	2.21	0.40
35:15:15:LEU:HD22	35:15:53:VAL:HB	2.04	0.40
35:15:120:LEU:HD12	35:15:121:LYS:N	2.36	0.40
46:C5:52:SER:CB	46:C5:56:PRO:HA	2.51	0.40
47:D5:59:LEU:HD23	47:D5:59:LEU:HA	1.77	0.40
47:D5:161:VAL:HB	47:D5:162:GLU:H	1.68	0.40
1:13:38:G:C2	1:13:397:A:C2	3.09	0.40
1:13:177:C:H2'	1:13:178:C:H6	1.86	0.40
1:13:671:G:H2'	1:13:672:U:H6	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1151:A:O2'	1:13:1152:A:O5'	2.39	0.40
1:13:1507:A:OP2	25:4K:12:A:H2	2.04	0.40
2:1E:178:ARG:HH12	2:1E:196:LEU:C	2.24	0.40
5:4E:43:LEU:HD21	5:4E:132:ALA:HB1	2.04	0.40
5:4E:106:PRO:O	5:4E:110:LEU:HG	2.21	0.40
7:6E:15:ASP:HB3	7:6E:24:THR:HG23	2.04	0.40
11:2I:31:THR:HG22	11:2I:42:TRP:HB3	2.04	0.40
20:BI:16:HIS:O	20:BI:19:SER:N	2.53	0.40
26:1H:55:G:C2	26:1H:116:C:N3	2.89	0.40
26:1H:105:C:H2'	26:1H:106:C:H6	1.86	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:579:G:O2'	26:1H:2019:A:OP1	2.28	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
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: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
27:16:78:A:C2	27:16:99:A:C4	3.09	0.40
29:11:158:ALA:O	29:11:159:ALA:C	2.65	0.40
30:21:25:VAL:HG23	30:21:181:LEU:HD12	2.03	0.40
31:31:53:THR:HG23	31:31:56:GLU:OE2	2.21	0.40
32:41:124:SER:HB3	32:41:132:ASN:O	2.20	0.40
34:61:10:GLU:HG3	34:61:10:GLU:O	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
40:A8:14:VAL:HG21	40:A8:90:GLY:O	2.21	0.40
45:F8:8:ILE:O	50:K8:36:ARG:NH2	2.55	0.40
45:F8:77:LYS:HG2	45:F8:78:LYS:N	2.37	0.40
46:G8:76:CYS:O	46:G8:77:PRO:C	2.65	0.40
49:J8:83:GLU:H	49:J8:83:GLU:HG2	1.35	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:300:A:H1'	1:1G:565:U:O2	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:500:G:H2'	1:1G:501:C:C6	2.56	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
1:1G:1178:G:H22	1:1G:1181:G:H5"	1.86	0.40
4:32:153:ARG:HD3	4:32:153:ARG:HA	1.93	0.40
4:32:173:TRP:CD2	4:32:189:PRO:HB3	2.57	0.40
5:42:79:GLU:OE1	8:72:104:ARG:HA	2.21	0.40
18:9A:75:ILE:HD13	18:9A:75:ILE:HG21	1.88	0.40
22:1L:48:C:HO2'	22:1L:49:G:P	2.41	0.40
26:14:389:G:O5'	26:14:389:G:H8	2.04	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
27:1J:11:C:OP2	27:1J:12:C:H5	2.05	0.40
28:79:15:ASP:O	28:79:20:TYR:OH	2.39	0.40
29:19:80:ALA:HB3	29:19:94:LEU:HB3	2.03	0.40
30:29:33:VAL:HG23	30:29:47:VAL:HG13	2.04	0.40
34:69:118:LYS:HB2	34:69:118:LYS:HE3	1.86	0.40
45:B5:31:HIS:ND1	45:B5:32:PRO:CD	2.85	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

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 (i)

5.3.1 Protein backbone (i)

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

of similar resolution.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
2	12	206/256 (80%)	175 (85%)	24 (12%)	7 (3%)	3 16
2	1E	227/256 (89%)	188 (83%)	37 (16%)	2 (1%)	14 43
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%)	12 41
4	3E	205/209 (98%)	188 (92%)	16 (8%)	1 (0%)	24 55
5	42	146/162 (90%)	136 (93%)	10 (7%)	0	100 100
5	4E	147/162 (91%)	141 (96%)	5 (3%)	1 (1%)	18 49
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%)	18 49
7	6E	152/156 (97%)	140 (92%)	12 (8%)	0	100 100
8	72	135/138 (98%)	126 (93%)	7 (5%)	2 (2%)	8 33
8	7E	136/138 (99%)	124 (91%)	11 (8%)	1 (1%)	18 49
9	82	119/128 (93%)	108 (91%)	9 (8%)	2 (2%)	7 30
9	8E	124/128 (97%)	105 (85%)	18 (14%)	1 (1%)	16 46
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%)	6 29
11	2I	109/129 (84%)	95 (87%)	12 (11%)	2 (2%)	6 29
12	3A	120/132 (91%)	103 (86%)	13 (11%)	4 (3%)	3 17
12	3I	120/132 (91%)	103 (86%)	16 (13%)	1 (1%)	16 46
13	4A	109/126 (86%)	92 (84%)	15 (14%)	2 (2%)	6 29
13	4I	117/126 (93%)	98 (84%)	18 (15%)	1 (1%)	14 43
14	5A	57/61 (93%)	47 (82%)	9 (16%)	1 (2%)	6 29
14	5I	58/61 (95%)	47 (81%)	9 (16%)	2 (3%)	3 16
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

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
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%)	8	33
19	AA	56/93 (60%)	49 (88%)	4 (7%)	3 (5%)	1	9
19	AI	79/93 (85%)	70 (89%)	7 (9%)	2 (2%)	4	22
20	BA	97/106 (92%)	83 (86%)	12 (12%)	2 (2%)	5	26
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%)	2	15
29	19	272/276 (99%)	245 (90%)	21 (8%)	6 (2%)	5	25
30	21	201/206 (98%)	156 (78%)	36 (18%)	9 (4%)	2	12
30	29	202/206 (98%)	154 (76%)	39 (19%)	9 (4%)	2	12
31	31	200/210 (95%)	179 (90%)	20 (10%)	1 (0%)	24	55
31	39	202/210 (96%)	161 (80%)	31 (15%)	10 (5%)	1	10
32	41	177/182 (97%)	153 (86%)	21 (12%)	3 (2%)	7	30
32	49	177/182 (97%)	153 (86%)	22 (12%)	2 (1%)	11	39
33	51	169/180 (94%)	135 (80%)	24 (14%)	10 (6%)	1	8
33	59	68/180 (38%)	49 (72%)	14 (21%)	5 (7%)	1	4
34	61	144/148 (97%)	116 (81%)	26 (18%)	2 (1%)	9	34
34	69	143/148 (97%)	113 (79%)	27 (19%)	3 (2%)	5	26
35	15	136/140 (97%)	125 (92%)	10 (7%)	1 (1%)	18	49
35	58	136/140 (97%)	116 (85%)	16 (12%)	4 (3%)	3	20
36	25	120/122 (98%)	110 (92%)	9 (8%)	1 (1%)	16	46
36	68	120/122 (98%)	116 (97%)	4 (3%)	0	100	100
37	35	145/150 (97%)	116 (80%)	25 (17%)	4 (3%)	4	20
37	78	145/150 (97%)	115 (79%)	26 (18%)	4 (3%)	4	20

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
38	45	136/141 (96%)	109 (80%)	23 (17%)	4 (3%)	3 20
38	88	139/141 (99%)	119 (86%)	15 (11%)	5 (4%)	2 16
39	55	116/118 (98%)	109 (94%)	6 (5%)	1 (1%)	14 43
39	98	116/118 (98%)	102 (88%)	13 (11%)	1 (1%)	14 43
40	65	108/112 (96%)	88 (82%)	18 (17%)	2 (2%)	6 28
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%)	16 46
42	85	114/118 (97%)	101 (89%)	12 (10%)	1 (1%)	14 43
42	C8	113/118 (96%)	100 (88%)	10 (9%)	3 (3%)	4 21
43	95	98/101 (97%)	75 (76%)	19 (19%)	4 (4%)	2 14
43	D8	98/101 (97%)	86 (88%)	8 (8%)	4 (4%)	2 14
44	A5	111/113 (98%)	104 (94%)	6 (5%)	1 (1%)	14 43
44	E8	110/113 (97%)	100 (91%)	10 (9%)	0	100 100
45	B5	92/96 (96%)	83 (90%)	7 (8%)	2 (2%)	5 25
45	F8	93/96 (97%)	84 (90%)	8 (9%)	1 (1%)	11 39
46	C5	102/110 (93%)	74 (72%)	21 (21%)	7 (7%)	1 5
46	G8	103/110 (94%)	85 (82%)	13 (13%)	5 (5%)	1 11
47	D5	126/206 (61%)	99 (79%)	20 (16%)	7 (6%)	1 9
47	H8	169/206 (82%)	132 (78%)	31 (18%)	6 (4%)	2 16
48	E5	75/85 (88%)	64 (85%)	9 (12%)	2 (3%)	4 21
48	I8	74/85 (87%)	68 (92%)	6 (8%)	0	100 100
49	F5	92/98 (94%)	84 (91%)	7 (8%)	1 (1%)	11 39
49	J8	92/98 (94%)	85 (92%)	4 (4%)	3 (3%)	3 17
50	G5	64/72 (89%)	57 (89%)	6 (9%)	1 (2%)	7 32
50	K8	66/72 (92%)	58 (88%)	6 (9%)	2 (3%)	3 19
51	H5	56/60 (93%)	54 (96%)	2 (4%)	0	100 100
51	L8	56/60 (93%)	52 (93%)	4 (7%)	0	100 100
52	M8	45/71 (63%)	30 (67%)	14 (31%)	1 (2%)	5 25
53	J5	54/60 (90%)	49 (91%)	5 (9%)	0	100 100
53	N8	46/60 (77%)	44 (96%)	2 (4%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
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%)	3 17
55	Q8	62/65 (95%)	51 (82%)	8 (13%)	3 (5%)	2 11
All	All	10975/12333 (89%)	9578 (87%)	1200 (11%)	197 (2%)	6 29

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
8	7E	86	ILE
12	3I	48	PRO
14	5I	13	THR
30	21	21	VAL
33	51	10	PRO
33	51	157	TYR

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Mol	Chain	Res	Type
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
37	35	6	LEU
43	95	44	LYS
43	95	80	GLN
46	C5	92	ASN
47	D5	60	GLU
47	D5	137	ILE

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Mol	Chain	Res	Type
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
30	21	56	PRO
30	21	82	ARG
34	61	133	HIS
35	58	97	ARG
42	C8	90	VAL
43	D8	44	LYS

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Mol	Chain	Res	Type
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
12	3A	47	LYS
20	BA	10	LEU
30	29	45	THR
30	29	62	PRO
32	49	5	VAL
32	49	149	VAL

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

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	12	182/220 (83%)	182 (100%)	0	100	100
2	1E	200/220 (91%)	199 (100%)	1 (0%)	81	82
3	22	154/188 (82%)	154 (100%)	0	100	100
3	2E	159/188 (85%)	158 (99%)	1 (1%)	78	81
4	32	180/181 (99%)	178 (99%)	2 (1%)	65	75
4	3E	178/181 (98%)	175 (98%)	3 (2%)	53	70
5	42	114/123 (93%)	114 (100%)	0	100	100
5	4E	115/123 (94%)	113 (98%)	2 (2%)	53	70
6	52	90/90 (100%)	89 (99%)	1 (1%)	65	75
6	5E	90/90 (100%)	90 (100%)	0	100	100
7	62	114/127 (90%)	113 (99%)	1 (1%)	70	77
7	6E	125/127 (98%)	125 (100%)	0	100	100
8	72	118/119 (99%)	118 (100%)	0	100	100
8	7E	119/119 (100%)	119 (100%)	0	100	100
9	82	92/99 (93%)	92 (100%)	0	100	100
9	8E	97/99 (98%)	97 (100%)	0	100	100
10	1A	71/92 (77%)	70 (99%)	1 (1%)	59	73
10	1I	81/92 (88%)	79 (98%)	2 (2%)	42	65
11	2A	85/99 (86%)	85 (100%)	0	100	100
11	2I	84/99 (85%)	84 (100%)	0	100	100
12	3A	103/109 (94%)	103 (100%)	0	100	100
12	3I	103/109 (94%)	103 (100%)	0	100	100
13	4A	91/101 (90%)	91 (100%)	0	100	100
13	4I	94/101 (93%)	94 (100%)	0	100	100
14	5A	49/50 (98%)	49 (100%)	0	100	100
14	5I	49/50 (98%)	49 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
15	6A	79/80 (99%)	79 (100%)	0	100	100
15	6I	79/80 (99%)	78 (99%)	1 (1%)	61	73
16	7A	72/74 (97%)	72 (100%)	0	100	100
16	7I	72/74 (97%)	72 (100%)	0	100	100
17	8A	94/97 (97%)	94 (100%)	0	100	100
17	8I	95/97 (98%)	95 (100%)	0	100	100
18	9A	58/77 (75%)	58 (100%)	0	100	100
18	9I	58/77 (75%)	58 (100%)	0	100	100
19	AA	52/80 (65%)	51 (98%)	1 (2%)	50	69
19	AI	71/80 (89%)	71 (100%)	0	100	100
20	BA	76/82 (93%)	75 (99%)	1 (1%)	61	73
20	BI	75/82 (92%)	75 (100%)	0	100	100
21	1B	17/22 (77%)	17 (100%)	0	100	100
21	1F	18/22 (82%)	18 (100%)	0	100	100
28	71	109/181 (60%)	109 (100%)	0	100	100
28	79	48/181 (26%)	47 (98%)	1 (2%)	47	67
29	11	214/218 (98%)	213 (100%)	1 (0%)	81	82
29	19	214/218 (98%)	212 (99%)	2 (1%)	70	77
30	21	165/166 (99%)	165 (100%)	0	100	100
30	29	165/166 (99%)	164 (99%)	1 (1%)	78	81
31	31	161/166 (97%)	161 (100%)	0	100	100
31	39	163/166 (98%)	163 (100%)	0	100	100
32	41	153/156 (98%)	153 (100%)	0	100	100
32	49	153/156 (98%)	152 (99%)	1 (1%)	76	80
33	51	142/148 (96%)	139 (98%)	3 (2%)	47	67
33	59	59/148 (40%)	59 (100%)	0	100	100
34	61	122/124 (98%)	122 (100%)	0	100	100
34	69	122/124 (98%)	121 (99%)	1 (1%)	73	78
35	15	117/119 (98%)	116 (99%)	1 (1%)	70	77
35	58	117/119 (98%)	115 (98%)	2 (2%)	53	70
36	25	100/100 (100%)	99 (99%)	1 (1%)	68	76

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
36	68	100/100 (100%)	99 (99%)	1 (1%)	68 76
37	35	114/116 (98%)	114 (100%)	0	100 100
37	78	114/116 (98%)	114 (100%)	0	100 100
38	45	109/111 (98%)	108 (99%)	1 (1%)	70 77
38	88	109/111 (98%)	109 (100%)	0	100 100
39	55	101/101 (100%)	101 (100%)	0	100 100
39	98	101/101 (100%)	101 (100%)	0	100 100
40	65	87/88 (99%)	87 (100%)	0	100 100
40	A8	86/88 (98%)	86 (100%)	0	100 100
41	75	117/127 (92%)	115 (98%)	2 (2%)	53 70
41	B8	117/127 (92%)	116 (99%)	1 (1%)	70 77
42	85	93/94 (99%)	93 (100%)	0	100 100
42	C8	92/94 (98%)	92 (100%)	0	100 100
43	95	82/82 (100%)	82 (100%)	0	100 100
43	D8	82/82 (100%)	82 (100%)	0	100 100
44	A5	92/92 (100%)	90 (98%)	2 (2%)	45 67
44	E8	91/92 (99%)	91 (100%)	0	100 100
45	B5	74/78 (95%)	74 (100%)	0	100 100
45	F8	75/78 (96%)	75 (100%)	0	100 100
46	C5	85/91 (93%)	85 (100%)	0	100 100
46	G8	85/91 (93%)	85 (100%)	0	100 100
47	D5	118/179 (66%)	118 (100%)	0	100 100
47	H8	152/179 (85%)	152 (100%)	0	100 100
48	E5	61/67 (91%)	61 (100%)	0	100 100
48	I8	61/67 (91%)	61 (100%)	0	100 100
49	F5	79/83 (95%)	79 (100%)	0	100 100
49	J8	79/83 (95%)	78 (99%)	1 (1%)	61 73
50	G5	62/67 (92%)	60 (97%)	2 (3%)	34 61
50	K8	62/67 (92%)	61 (98%)	1 (2%)	55 71
51	H5	50/52 (96%)	48 (96%)	2 (4%)	28 56
51	L8	50/52 (96%)	50 (100%)	0	100 100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
52	M8	42/63 (67%)	40 (95%)	2 (5%)	23 52
53	J5	48/52 (92%)	48 (100%)	0	100 100
53	N8	43/52 (83%)	43 (100%)	0	100 100
54	L5	38/42 (90%)	38 (100%)	0	100 100
54	P8	38/42 (90%)	38 (100%)	0	100 100
55	M5	54/55 (98%)	54 (100%)	0	100 100
55	Q8	54/55 (98%)	54 (100%)	0	100 100
All	All	9274/10193 (91%)	9228 (100%)	46 (0%)	81 82

All (46) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1E	127	ILE
3	2E	122	GLU
4	3E	12	CYS
4	3E	80	GLU
4	3E	127	THR
5	4E	87	SER
5	4E	147	ASP
10	1I	67	THR
10	1I	90	LEU
15	6I	47	LYS
29	11	17	THR
33	51	13	LYS
33	51	80	SER
33	51	122	THR
35	58	28	THR
35	58	97	ARG
36	68	47	ILE
41	B8	11	GLU
49	J8	81	LYS
50	K8	64	LEU
52	M8	16	CYS
52	M8	27	THR
4	32	3	ARG
4	32	157	LEU
6	52	74	ASP
7	62	110	GLN
10	1A	48	THR
19	AA	12	ASP

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Mol	Chain	Res	Type
20	BA	37	SER
28	79	207	THR
29	19	30	GLU
29	19	192	THR
30	29	73	GLU
32	49	153	ARG
34	69	108	THR
35	15	90	MET
36	25	5	GLN
38	45	10	ARG
41	75	8	LYS
41	75	113	LYS
44	A5	39	THR
44	A5	100	THR
50	G5	22	GLU
50	G5	44	LEU
51	H5	29	ARG
51	H5	31	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (77) such sidechains are listed below:

Mol	Chain	Res	Type
2	1E	19	HIS
2	1E	224	GLN
3	2E	63	ASN
3	2E	110	ASN
3	2E	123	GLN
3	2E	139	GLN
3	2E	162	GLN
3	2E	170	GLN
4	3E	43	HIS
4	3E	119	GLN
6	5E	7	ASN
6	5E	94	GLN
7	6E	28	ASN
7	6E	51	GLN
7	6E	97	GLN
13	4I	77	ASN
19	AI	83	HIS
20	BI	90	GLN
28	71	66	HIS
28	71	172	HIS

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Mol	Chain	Res	Type
28	71	188	ASN
28	71	199	HIS
28	71	225	ASN
29	11	129	ASN
29	11	143	HIS
29	11	201	HIS
29	11	231	HIS
31	31	204	ASN
32	41	26	GLN
34	61	28	ASN
34	61	104	GLN
35	58	69	GLN
36	68	89	ASN
39	98	13	HIS
41	B8	55	ASN
42	C8	81	HIS
42	C8	104	GLN
49	J8	16	ASN
50	K8	56	GLN
51	L8	33	GLN
55	Q8	31	HIS
55	Q8	35	GLN
2	12	224	GLN
3	22	69	HIS
3	22	104	GLN
3	22	107	GLN
4	32	43	HIS
4	32	199	ASN
5	42	65	ASN
5	42	78	HIS
5	42	127	ASN
6	52	16	GLN
6	52	27	GLN
9	82	23	ASN
9	82	73	GLN
10	1A	84	GLN
11	2A	116	HIS
13	4A	62	ASN
18	9A	36	ASN
19	AA	57	HIS
20	BA	16	HIS
29	19	44	ASN

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Mol	Chain	Res	Type
31	39	40	GLN
32	49	79	ASN
33	59	65	HIS
33	59	147	ASN
37	35	13	ASN
37	35	81	GLN
38	45	89	ASN
41	75	55	ASN
41	75	123	GLN
45	B5	41	ASN
45	B5	82	GLN
45	B5	87	GLN
48	E5	70	GLN
49	F5	56	GLN
53	J5	4	HIS

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	13	1493/1522 (98%)	365 (24%)	32 (2%)
1	1G	1503/1522 (98%)	366 (24%)	35 (2%)
22	1K	66/76 (86%)	32 (48%)	3 (4%)
22	1L	70/76 (92%)	38 (54%)	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%)	11 (57%)	1 (5%)
25	4L	18/27 (66%)	10 (55%)	1 (5%)
26	14	2852/2917 (97%)	752 (26%)	45 (1%)
26	1H	2828/2917 (96%)	685 (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	9391/9634 (97%)	2446 (26%)	189 (2%)

All (2446) 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	244	U
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

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Mol	Chain	Res	Type
1	13	351	G
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	484	G
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

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Mol	Chain	Res	Type
1	13	531	U
1	13	532	A
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

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Mol	Chain	Res	Type
1	13	813	U
1	13	817	C
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

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Mol	Chain	Res	Type
1	13	999	U
1	13	1004	A
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

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Mol	Chain	Res	Type
1	13	1130	A
1	13	1131	G
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

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Mol	Chain	Res	Type
1	13	1272	G
1	13	1275	A
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

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Mol	Chain	Res	Type
1	13	1442	G
1	13	1443	G
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	1498	U
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

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Mol	Chain	Res	Type
22	1K	49	G
22	1K	50	C
22	1K	51	A
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

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Mol	Chain	Res	Type
24	3K	13	C
24	3K	14	A
24	3K	16	U
24	3K	17	U
24	3K	18	G
24	3K	19	G
24	3K	20	U
24	3K	21	A
24	3K	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

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Mol	Chain	Res	Type
25	4K	10	G
25	4K	11	U
25	4K	12	A
25	4K	13	A
25	4K	14	A
25	4K	18	G
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	126	A
26	1H	155	C
26	1H	163	U

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Mol	Chain	Res	Type
26	1H	164	U
26	1H	165	U
26	1H	181	A
26	1H	188	G
26	1H	195	A
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

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Mol	Chain	Res	Type
26	1H	308	G
26	1H	311	A
26	1H	323	G
26	1H	324	A
26	1H	329	G
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

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Mol	Chain	Res	Type
26	1H	510	C
26	1H	528	A
26	1H	529	A
26	1H	530	G
26	1H	531	C
26	1H	532	A
26	1H	533	G
26	1H	546	C
26	1H	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

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Mol	Chain	Res	Type
26	1H	654(S)	G
26	1H	654(T)	A
26	1H	664	C
26	1H	669	G
26	1H	675	A
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

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Mol	Chain	Res	Type
26	1H	879	G
26	1H	880	G
26	1H	881	G
26	1H	882	G
26	1H	894	C
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

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Mol	Chain	Res	Type
26	1H	1037	G
26	1H	1040	C
26	1H	1045	A
26	1H	1046	A
26	1H	1047	G
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

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Mol	Chain	Res	Type
26	1H	1229(A)	G
26	1H	1236	G
26	1H	1244	G
26	1H	1245	G
26	1H	1250	G
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

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Mol	Chain	Res	Type
26	1H	1429	G
26	1H	1444(A)	A
26	1H	1453	A
26	1H	1456	G
26	1H	1459	G
26	1H	1460	A
26	1H	1461	G
26	1H	1467	C
26	1H	1471	A
26	1H	1478	G
26	1H	1483	G
26	1H	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

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Mol	Chain	Res	Type
26	1H	1578	U
26	1H	1580	A
26	1H	1585	C
26	1H	1586	A
26	1H	1595	G
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

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Mol	Chain	Res	Type
26	1H	1816	G
26	1H	1819	A
26	1H	1828	G
26	1H	1829	A
26	1H	1830	C
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

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Mol	Chain	Res	Type
26	1H	2032	G
26	1H	2033	A
26	1H	2043	C
26	1H	2052	G
26	1H	2054	A
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

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Mol	Chain	Res	Type
26	1H	2148	G
26	1H	2152	G
26	1H	2156	G
26	1H	2157	G
26	1H	2158	A
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

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Mol	Chain	Res	Type
26	1H	2287	A
26	1H	2288	A
26	1H	2297	C
26	1H	2307	G
26	1H	2308	G
26	1H	2310	A
26	1H	2312	U
26	1H	2314	C
26	1H	2320	A
26	1H	2321	G
26	1H	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

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Mol	Chain	Res	Type
26	1H	2441	C
26	1H	2442	C
26	1H	2448	A
26	1H	2458	G
26	1H	2468	G
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

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Mol	Chain	Res	Type
26	1H	2641	G
26	1H	2654	A
26	1H	2660	A
26	1H	2661	G
26	1H	2663	G
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

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Mol	Chain	Res	Type
26	1H	2792	G
26	1H	2793	G
26	1H	2795	G
26	1H	2797	U
26	1H	2798	C
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

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Mol	Chain	Res	Type
27	16	74	U
27	16	75	G
27	16	92	G
27	16	105	G
27	16	108	C
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

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Mol	Chain	Res	Type
1	1G	174	C
1	1G	179	A
1	1G	182	U
1	1G	185	A
1	1G	186(C)	G
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	345	C

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Mol	Chain	Res	Type
1	1G	346	G
1	1G	347	G
1	1G	350	G
1	1G	351	G
1	1G	352	C
1	1G	353	A
1	1G	354	G
1	1G	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

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Mol	Chain	Res	Type
1	1G	518	C
1	1G	527	G
1	1G	529	G
1	1G	530	G
1	1G	531	U
1	1G	532	A
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

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Mol	Chain	Res	Type
1	1G	749	C
1	1G	751	U
1	1G	754	C
1	1G	755	G
1	1G	759	A
1	1G	760	G
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

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Mol	Chain	Res	Type
1	1G	977	A
1	1G	978	A
1	1G	980	C
1	1G	981	U
1	1G	982	U
1	1G	983	A
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

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Mol	Chain	Res	Type
1	1G	1084	G
1	1G	1085	U
1	1G	1088	G
1	1G	1092	A
1	1G	1094	G
1	1G	1095	U
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

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Mol	Chain	Res	Type
1	1G	1213	A
1	1G	1214	C
1	1G	1223	C
1	1G	1225	A
1	1G	1227	A
1	1G	1238	A
1	1G	1240	U
1	1G	1241	G
1	1G	1256	A
1	1G	1257	U
1	1G	1258	G
1	1G	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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
22	1L	9	A
22	1L	10	G
22	1L	12	U
22	1L	13	C
22	1L	14	A
22	1L	16	U
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	35	U
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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	764	A
26	14	765	G

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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	1141	U
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

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Mol	Chain	Res	Type
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
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	1276	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

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Mol	Chain	Res	Type
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	1396	U
26	14	1397	U
26	14	1400	G
26	14	1403	C
26	14	1408	C
26	14	1416	G
26	14	1417	C
26	14	1419	A
26	14	1420	U
26	14	1421	G
26	14	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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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	1819	A
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
26	14	2395	C
26	14	2400	G
26	14	2401	U
26	14	2402	C
26	14	2406	U
26	14	2407	G
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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 (i)

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	PSU	1K	55	22	18,21,22	1.15	1 (5%)	22,30,33	1.83	4 (18%)
23	OMC	2K	33	23	19,22,23	1.81	3 (15%)	26,31,34	0.80	0
22	PSU	1K	39	22	18,21,22	1.10	1 (5%)	22,30,33	1.73	4 (18%)
22	PSU	1L	55	22	18,21,22	1.09	1 (5%)	22,30,33	1.70	5 (22%)
23	G7M	2K	47	23	23,26,27	2.61	7 (30%)	35,39,42	1.64	8 (22%)
22	5MU	1L	54	22	19,22,23	3.90	5 (26%)	28,32,35	3.27	8 (28%)
23	4SU	2K	8	23	18,21,22	1.89	5 (27%)	26,30,33	2.54	5 (19%)
22	U8U	1K	34	22,25	19,24,25	2.52	7 (36%)	23,34,37	1.09	2 (8%)
23	PSU	2L	56	23	18,21,22	1.06	1 (5%)	22,30,33	1.80	5 (22%)
23	OMC	2L	33	23	19,22,23	1.97	4 (21%)	26,31,34	1.07	1 (3%)
23	5MU	2K	55	23	19,22,23	3.81	5 (26%)	28,32,35	3.40	6 (21%)
22	T6A	1K	37	22	31,34,35	2.39	6 (19%)	44,49,52	2.61	15 (34%)
23	4SU	2L	8	23	18,21,22	1.83	3 (16%)	26,30,33	2.71	6 (23%)
23	5MU	2L	55	23	19,22,23	3.93	5 (26%)	28,32,35	3.41	10 (35%)
22	PSU	1L	39	22	18,21,22	1.01	1 (5%)	22,30,33	1.73	3 (13%)
23	PSU	2K	56	23	18,21,22	1.15	1 (5%)	22,30,33	1.89	5 (22%)
22	5MU	1K	54	22	19,22,23	3.80	5 (26%)	28,32,35	3.18	9 (32%)
56	PSU	3L	39	56	18,21,22	1.14	2 (11%)	22,30,33	1.99	5 (22%)
22	U8U	1L	34	22,25	19,24,25	2.59	7 (36%)	23,34,37	1.27	3 (13%)
24	PSU	3K	39	24	18,21,22	1.28	1 (5%)	22,30,33	1.72	4 (18%)
22	T6A	1L	37	22	31,34,35	2.18	6 (19%)	44,49,52	2.40	14 (31%)
23	G7M	2L	47	23	23,26,27	2.55	9 (39%)	35,39,42	1.72	10 (28%)
56	T6A	3L	37	56	31,34,35	2.17	4 (12%)	44,49,52	2.32	16 (36%)

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	PSU	1K	55	22	-	0/7/25/26	0/2/2/2
23	OMC	2K	33	23	-	0/9/27/28	0/2/2/2
22	PSU	1K	39	22	-	2/7/25/26	0/2/2/2
22	PSU	1L	55	22	-	3/7/25/26	0/2/2/2
23	G7M	2K	47	23	-	1/7/25/26	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
22	5MU	1L	54	22	-	0/7/25/26	0/2/2/2
23	4SU	2K	8	23	-	0/7/25/26	0/2/2/2
22	U8U	1K	34	22,25	-	2/9/28/29	0/2/2/2
23	PSU	2L	56	23	-	0/7/25/26	0/2/2/2
23	OMC	2L	33	23	-	1/9/27/28	0/2/2/2
23	5MU	2K	55	23	-	0/7/25/26	0/2/2/2
22	T6A	1K	37	22	-	4/23/41/42	0/3/3/3
23	4SU	2L	8	23	-	0/7/25/26	0/2/2/2
23	5MU	2L	55	23	-	3/7/25/26	0/2/2/2
22	PSU	1L	39	22	-	2/7/25/26	0/2/2/2
23	PSU	2K	56	23	-	0/7/25/26	0/2/2/2
22	5MU	1K	54	22	-	0/7/25/26	0/2/2/2
56	PSU	3L	39	56	-	2/7/25/26	0/2/2/2
22	U8U	1L	34	22,25	-	2/9/28/29	0/2/2/2
24	PSU	3K	39	24	-	3/7/25/26	0/2/2/2
22	T6A	1L	37	22	-	7/23/41/42	0/3/3/3
23	G7M	2L	47	23	-	2/7/25/26	0/3/3/3
56	T6A	3L	37	56	-	9/23/41/42	0/3/3/3

All (90) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	1L	54	5MU	C2-N1	12.57	1.58	1.38
23	2L	55	5MU	C2-N1	12.55	1.58	1.38
23	2K	55	5MU	C2-N1	12.48	1.58	1.38
22	1K	54	5MU	C2-N1	12.00	1.57	1.38
22	1K	37	T6A	C10-N11	7.66	1.52	1.35
22	1L	37	T6A	C10-N11	6.60	1.49	1.35
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
22	1L	54	5MU	C4-N3	-6.25	1.27	1.38
23	2K	47	G7M	C4-N3	6.14	1.48	1.34
23	2L	55	5MU	C4-N3	-6.14	1.27	1.38
22	1K	54	5MU	C4-N3	-6.13	1.27	1.38
23	2L	47	G7M	C4-N3	6.02	1.48	1.34
22	1L	37	T6A	C10-N6	5.93	1.49	1.37
23	2K	55	5MU	C2-N3	5.93	1.48	1.38
22	1L	34	U8U	C2-S2	-5.88	1.58	1.67
56	3L	37	T6A	C6-N6	5.82	1.51	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	55	5MU	C2-N3	5.76	1.48	1.38
23	2K	55	5MU	C4-N3	-5.62	1.28	1.38
22	1L	54	5MU	C2-N3	5.60	1.47	1.38
22	1K	54	5MU	C2-N3	5.59	1.47	1.38
22	1L	54	5MU	C6-N1	5.58	1.47	1.38
23	2L	55	5MU	C6-N1	5.56	1.47	1.38
23	2L	8	4SU	C5-C4	5.56	1.49	1.42
23	2K	47	G7M	C2-N3	5.52	1.46	1.33
23	2K	8	4SU	C5-C4	5.51	1.49	1.42
23	2K	47	G7M	C5-N7	-5.48	1.32	1.39
22	1K	54	5MU	C6-N1	5.44	1.47	1.38
23	2L	55	5MU	C4-C5	5.42	1.53	1.44
22	1K	37	T6A	C6-N6	5.42	1.50	1.39
22	1L	37	T6A	C6-N6	5.41	1.50	1.39
23	2K	55	5MU	C6-N1	5.29	1.47	1.38
22	1K	34	U8U	C6-C5	5.24	1.49	1.34
22	1L	34	U8U	C6-C5	5.22	1.49	1.34
22	1K	34	U8U	C2-S2	-5.19	1.59	1.67
22	1K	54	5MU	C4-C5	5.13	1.53	1.44
23	2L	47	G7M	C2-N3	5.11	1.45	1.33
22	1K	34	U8U	C2-N3	5.07	1.49	1.37
22	1L	54	5MU	C4-C5	4.95	1.53	1.44
22	1L	34	U8U	C2-N3	4.85	1.48	1.37
23	2L	47	G7M	C2-N2	4.73	1.45	1.34
23	2K	47	G7M	C2-N2	4.72	1.45	1.34
23	2L	47	G7M	C5-N7	-4.68	1.33	1.39
23	2K	55	5MU	C4-C5	4.67	1.52	1.44
23	2L	33	OMC	C4-N4	4.59	1.44	1.33
23	2K	33	OMC	C2-N3	4.58	1.45	1.36
23	2L	33	OMC	C2-N3	4.51	1.45	1.36
23	2K	33	OMC	C4-N4	4.48	1.44	1.33
22	1L	34	U8U	C6-N1	4.28	1.45	1.38
24	3K	39	PSU	C6-C5	4.24	1.40	1.35
23	2L	33	OMC	C5-C4	4.22	1.52	1.42
22	1K	34	U8U	C6-N1	4.20	1.45	1.38
22	1K	55	PSU	C6-C5	4.11	1.40	1.35
23	2K	47	G7M	C5-C6	3.96	1.54	1.43
23	2K	8	4SU	C2-N1	3.79	1.44	1.38
23	2K	33	OMC	C5-C4	3.77	1.51	1.42
23	2K	56	PSU	C6-C5	3.68	1.39	1.35
23	2L	47	G7M	C5-C6	3.68	1.53	1.43
22	1L	55	PSU	C6-C5	3.58	1.39	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	56	PSU	C6-C5	3.48	1.39	1.35
56	3L	39	PSU	C6-C5	3.41	1.39	1.35
23	2L	8	4SU	C2-N1	3.39	1.43	1.38
22	1K	39	PSU	C6-C5	3.37	1.39	1.35
22	1L	39	PSU	C6-C5	3.26	1.39	1.35
23	2L	8	4SU	C6-N1	3.14	1.45	1.38
22	1L	34	U8U	C4-N3	3.12	1.44	1.38
22	1K	34	U8U	C4-N3	3.02	1.44	1.38
22	1K	37	T6A	C5-N7	-2.90	1.33	1.39
23	2K	8	4SU	C6-N1	2.90	1.45	1.38
23	2L	47	G7M	C2-N1	2.79	1.44	1.37
23	2L	33	OMC	C6-N1	2.75	1.44	1.38
23	2K	47	G7M	C2-N1	2.68	1.44	1.37
23	2L	47	G7M	C6-N1	2.63	1.43	1.38
22	1L	34	U8U	C4-C5	2.56	1.50	1.45
22	1L	37	T6A	C5-C4	-2.53	1.34	1.39
22	1K	37	T6A	C5-C4	-2.52	1.34	1.39
56	3L	37	T6A	ODB-C13	-2.48	1.22	1.30
23	2K	47	G7M	C6-N1	2.46	1.43	1.38
22	1L	34	U8U	O4-C4	-2.46	1.18	1.23
23	2L	47	G7M	C4-N9	-2.39	1.31	1.38
22	1K	34	U8U	O4-C4	-2.38	1.19	1.23
22	1L	37	T6A	ODB-C13	-2.38	1.22	1.30
22	1K	34	U8U	C4-C5	2.25	1.50	1.45
23	2K	8	4SU	C4-N3	2.18	1.40	1.37
22	1L	37	T6A	C5-N7	-2.16	1.34	1.39
22	1K	37	T6A	ODB-C13	-2.16	1.23	1.30
23	2L	47	G7M	O6-C6	-2.11	1.19	1.23
56	3L	39	PSU	O4'-C1'	-2.08	1.40	1.43
23	2K	8	4SU	C2-N3	2.08	1.41	1.38

All (148) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2K	55	5MU	C5-C4-N3	11.43	125.06	115.31
23	2L	55	5MU	C5-C4-N3	11.29	124.95	115.31
22	1L	54	5MU	C5-C4-N3	10.66	124.41	115.31
22	1K	54	5MU	C5-C4-N3	10.55	124.32	115.31
23	2L	8	4SU	C4-N3-C2	-9.01	118.59	127.34
23	2K	8	4SU	C4-N3-C2	-8.00	119.57	127.34
23	2L	8	4SU	C5-C4-N3	7.75	121.88	114.69
23	2L	55	5MU	C4-N3-C2	-6.83	118.51	127.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2K	55	5MU	C5-C6-N1	-6.62	116.53	123.34
23	2K	55	5MU	C4-N3-C2	-6.53	118.89	127.35
22	1L	54	5MU	C4-N3-C2	-6.53	118.90	127.35
22	1K	37	T6A	N3-C2-N1	-6.51	118.42	128.60
23	2K	55	5MU	O4-C4-C5	-6.36	117.53	124.90
22	1K	37	T6A	C5-C4-N3	-6.35	118.47	126.75
22	1K	54	5MU	C4-N3-C2	-6.26	119.24	127.35
22	1K	54	5MU	C5-C6-N1	-6.26	116.90	123.34
56	3L	37	T6A	N6-C10-N11	6.23	122.47	113.76
22	1L	37	T6A	N3-C2-N1	-6.21	118.89	128.60
23	2L	55	5MU	C5-C6-N1	-6.18	116.98	123.34
23	2K	8	4SU	C5-C4-N3	6.11	120.36	114.69
22	1K	37	T6A	C4-C5-C6	6.10	121.53	116.81
22	1L	54	5MU	C5-C6-N1	-6.06	117.10	123.34
22	1L	54	5MU	C6-C5-C4	5.70	122.80	118.03
22	1L	37	T6A	C5-C4-N3	-5.59	119.46	126.75
56	3L	37	T6A	C5-C4-N3	-5.59	119.46	126.75
23	2K	55	5MU	C6-C5-C4	5.39	122.54	118.03
22	1K	54	5MU	C6-C5-C4	5.32	122.48	118.03
23	2L	55	5MU	C6-C5-C4	5.26	122.43	118.03
56	3L	37	T6A	N3-C2-N1	-5.26	120.38	128.60
23	2K	8	4SU	C5-C4-S4	-5.18	117.79	124.47
23	2L	55	5MU	O4-C4-C5	-4.97	119.14	124.90
56	3L	39	PSU	C4-N3-C2	-4.97	119.18	126.34
22	1L	37	T6A	N6-C10-N11	4.95	120.67	113.76
22	1L	54	5MU	O4-C4-C5	-4.88	119.25	124.90
22	1K	37	T6A	N3-C4-N9	4.81	135.01	127.08
23	2K	56	PSU	N1-C2-N3	4.77	120.54	115.13
22	1K	54	5MU	O4-C4-C5	-4.76	119.39	124.90
22	1K	39	PSU	C4-N3-C2	-4.74	119.51	126.34
22	1K	37	T6A	C12-N11-C10	4.72	129.81	121.94
22	1K	37	T6A	N6-C10-N11	4.71	120.34	113.76
22	1L	39	PSU	C4-N3-C2	-4.69	119.59	126.34
23	2L	55	5MU	C5M-C5-C6	-4.67	116.62	122.85
22	1L	37	T6A	C12-N11-C10	4.63	129.66	121.94
22	1K	55	PSU	N1-C2-N3	4.61	120.36	115.13
22	1L	37	T6A	C4-C5-C6	4.59	120.36	116.81
23	2K	56	PSU	C4-N3-C2	-4.57	119.75	126.34
23	2K	47	G7M	C5-C4-N3	-4.50	119.52	128.15
23	2L	8	4SU	N3-C2-N1	4.49	120.84	114.89
24	3K	39	PSU	N1-C2-N3	4.38	120.09	115.13
23	2K	55	5MU	C5M-C5-C6	-4.36	117.03	122.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
56	3L	37	T6A	C4-C5-C6	4.31	120.15	116.81
22	1L	37	T6A	N3-C4-N9	4.29	134.16	127.08
22	1K	55	PSU	C4-N3-C2	-4.20	120.28	126.34
56	3L	39	PSU	N1-C2-N3	4.20	119.89	115.13
22	1L	55	PSU	N1-C2-N3	4.13	119.81	115.13
22	1L	55	PSU	C4-N3-C2	-4.12	120.40	126.34
23	2K	8	4SU	N3-C2-N1	4.07	120.29	114.89
22	1K	37	T6A	N9-C8-N7	-4.07	108.35	113.91
22	1K	54	5MU	C5M-C5-C6	-4.06	117.43	122.85
22	1K	37	T6A	C2-N3-C4	4.04	121.28	111.75
22	1L	54	5MU	C5M-C5-C6	-4.02	117.48	122.85
22	1K	39	PSU	N1-C2-N3	4.01	119.67	115.13
22	1L	39	PSU	N1-C2-N3	3.98	119.64	115.13
56	3L	37	T6A	N9-C8-N7	-3.96	108.50	113.91
22	1L	37	T6A	N9-C8-N7	-3.94	108.53	113.91
22	1L	37	T6A	O10-C10-N6	-3.87	117.08	123.62
22	1L	37	T6A	C2-N3-C4	3.87	120.88	111.75
23	2K	47	G7M	C2-N3-C4	3.86	119.17	112.30
22	1K	37	T6A	O10-C10-N6	-3.80	117.19	123.62
24	3K	39	PSU	C6-N1-C2	-3.78	118.81	122.68
56	3L	37	T6A	C5-N7-C8	3.67	108.72	103.51
23	2L	47	G7M	C2-N3-C4	3.64	118.78	112.30
23	2L	56	PSU	C4-N3-C2	-3.64	121.10	126.34
56	3L	37	T6A	C2-N3-C4	3.60	120.26	111.75
23	2L	8	4SU	C5-C4-S4	-3.51	119.95	124.47
56	3L	39	PSU	C3'-C2'-C1'	3.49	105.70	101.64
24	3K	39	PSU	C4-N3-C2	-3.43	121.40	126.34
23	2L	47	G7M	C1'-N9-C4	-3.42	116.34	126.50
23	2L	56	PSU	N1-C2-N3	3.42	119.00	115.13
23	2L	47	G7M	C5-C6-N1	3.40	118.90	111.79
23	2L	47	G7M	O6-C6-C5	-3.40	120.39	128.06
22	1K	55	PSU	O2-C2-N1	-3.37	119.08	122.79
22	1K	37	T6A	C5-N7-C8	3.37	108.30	103.51
24	3K	39	PSU	O2-C2-N1	-3.32	119.13	122.79
23	2K	47	G7M	N9-C4-N3	3.28	132.52	125.94
23	2L	56	PSU	C6-N1-C2	-3.27	119.34	122.68
56	3L	37	T6A	N3-C4-N9	3.27	132.46	127.08
22	1L	34	U8U	C5-C4-N3	3.17	119.42	114.97
22	1L	54	5MU	C6-N1-C2	-3.17	118.09	121.30
22	1L	34	U8U	S2-C2-N3	-3.09	114.02	119.96
23	2L	47	G7M	C5-C4-N3	-3.07	122.27	128.15
22	1K	37	T6A	N6-C6-N1	3.00	125.16	117.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1L	39	PSU	O2-C2-N1	-2.99	119.49	122.79
23	2L	56	PSU	O2-C2-N1	-2.98	119.51	122.79
23	2L	33	OMC	O2-C2-N3	-2.96	117.51	122.33
56	3L	37	T6A	C4-C5-N7	-2.89	107.09	110.62
22	1K	37	T6A	C6-C5-N7	-2.87	129.28	132.39
22	1L	54	5MU	N3-C2-N1	2.87	118.70	114.89
23	2K	56	PSU	C6-N1-C2	-2.84	119.78	122.68
23	2K	8	4SU	C1'-N1-C2	2.83	122.70	117.57
56	3L	37	T6A	O10-C10-N6	-2.81	118.87	123.62
22	1L	37	T6A	C5-N7-C8	2.80	107.49	103.51
22	1K	34	U8U	S2-C2-N3	-2.79	114.58	119.96
23	2K	47	G7M	O6-C6-C5	-2.79	121.76	128.06
23	2K	47	G7M	C5-C6-N1	2.78	117.60	111.79
23	2L	47	G7M	CN7-N7-C5	2.78	130.22	126.77
22	1K	55	PSU	C6-N1-C2	-2.77	119.85	122.68
23	2K	47	G7M	CN7-N7-C5	2.77	130.21	126.77
22	1K	34	U8U	C5-C4-N3	2.74	118.82	114.97
56	3L	37	T6A	C13-C12-N11	-2.63	104.54	110.28
23	2L	56	PSU	C6-C5-C4	-2.61	116.37	118.20
22	1K	39	PSU	O2-C2-N1	-2.57	119.96	122.79
23	2L	55	5MU	N3-C2-N1	2.56	118.28	114.89
23	2K	47	G7M	C2-N1-C6	-2.56	120.44	125.10
56	3L	37	T6A	C5-C6-N6	2.51	125.35	118.71
23	2L	47	G7M	C2-N1-C6	-2.51	120.52	125.10
23	2L	55	5MU	C6-N1-C2	-2.51	118.76	121.30
56	3L	37	T6A	C14-C12-N11	2.45	117.99	111.72
22	1L	37	T6A	N6-C6-N1	2.42	123.66	117.45
22	1K	54	5MU	N3-C2-N1	2.40	118.07	114.89
22	1L	55	PSU	C6-C5-C4	2.40	119.87	118.20
22	1L	37	T6A	C14-C12-N11	2.33	117.68	111.72
23	2L	47	G7M	CN7-N7-C8	-2.32	121.26	124.84
22	1L	55	PSU	C6-N1-C2	-2.31	120.32	122.68
22	1K	37	T6A	ODB-C13-ODA	-2.29	118.89	124.09
22	1L	55	PSU	O2-C2-N1	-2.28	120.28	122.79
22	1L	37	T6A	C4-N9-C8	2.28	108.20	105.73
22	1K	54	5MU	C6-N1-C2	-2.28	118.99	121.30
22	1L	34	U8U	C1'-N1-C6	-2.27	117.35	121.12
23	2L	47	G7M	N9-C8-N7	-2.26	106.62	112.21
23	2L	47	G7M	C1'-N9-C8	2.25	134.32	126.74
23	2K	56	PSU	O2-C2-N1	-2.25	120.32	122.79
23	2L	55	5MU	O4-C4-N3	-2.20	115.91	120.12
56	3L	37	T6A	O10-C10-N11	-2.19	118.62	122.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2K	56	PSU	C6-C5-C4	2.19	119.73	118.20
23	2L	55	5MU	C1'-N1-C2	2.16	121.47	117.57
22	1L	37	T6A	C15-C14-C12	-2.15	107.95	112.29
22	1K	54	5MU	O2-C2-N1	-2.14	119.94	122.79
23	2L	8	4SU	O2-C2-N1	-2.13	119.95	122.79
56	3L	39	PSU	O4'-C1'-C2'	2.11	108.11	105.14
56	3L	37	T6A	C12-N11-C10	2.10	125.44	121.94
23	2K	47	G7M	CN7-N7-C8	-2.09	121.61	124.84
22	1K	39	PSU	C5-C4-N3	2.08	121.29	116.58
23	2L	8	4SU	S4-C4-N3	-2.07	118.17	120.21
56	3L	37	T6A	ODB-C13-ODA	-2.04	119.45	124.09
56	3L	39	PSU	O2-C2-N1	-2.04	120.54	122.79
22	1K	37	T6A	C14-C12-N11	2.02	116.90	111.72
22	1K	37	T6A	ODB-C13-C12	2.02	121.33	114.21

There are no chirality outliers.

All (43) torsion outliers are listed below:

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

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Mol	Chain	Res	Type	Atoms
22	1K	37	T6A	C14-C12-C13-ODB
56	3L	37	T6A	C14-C12-C13-ODA
24	3K	39	PSU	O4'-C4'-C5'-O5'
22	1K	37	T6A	C13-C12-C14-C15
22	1K	37	T6A	C14-C12-C13-ODA
23	2L	55	5MU	C4'-C5'-O5'-P
22	1L	37	T6A	N11-C12-C14-C15
56	3L	37	T6A	C14-C12-C13-ODB
24	3K	39	PSU	C4'-C5'-O5'-P
23	2K	47	G7M	C4'-C5'-O5'-P
22	1K	34	U8U	C3'-C4'-C5'-O5'
22	1K	39	PSU	O4'-C1'-C5-C4
22	1L	55	PSU	O4'-C1'-C5-C4
23	2L	33	OMC	C2'-C1'-N1-C2
22	1K	34	U8U	O4'-C4'-C5'-O5'
23	2L	55	5MU	C2'-C1'-N1-C6
22	1K	39	PSU	O4'-C1'-C5-C6
56	3L	39	PSU	C4'-C5'-O5'-P
22	1K	37	T6A	N11-C12-C14-C15
23	2L	55	5MU	O4'-C1'-N1-C6

There are no ring outliers.

11 monomers are involved in 19 short contacts:

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

5.5 Carbohydrates (i)

There are no oligosaccharides 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	$\#\|Z\| > 2$
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%)
59	SF4	32	301	-	0,12,12	-	-	-		
59	SF4	3E	301	4	0,12,12	-	-	-		

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
58	PAR	1G	1691	-	-	6/18/94/94	0/4/4/4
59	SF4	32	301	-	-	-	0/6/5/5
59	SF4	3E	301	4	-	-	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(^{o})	Ideal(^{o})
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
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

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
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
58	1G	1691	PAR	C52-C42-O11-C11

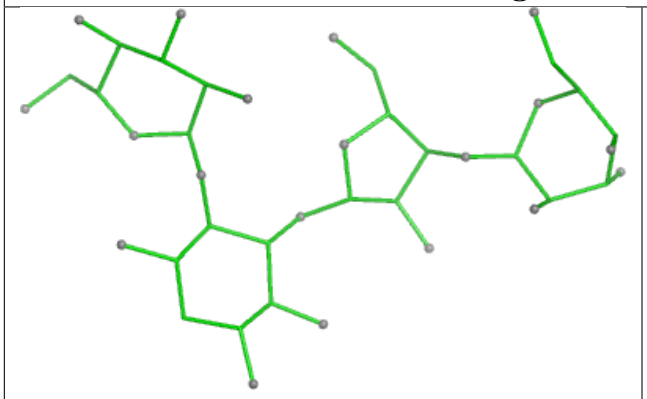
There are no ring outliers.

3 monomers are involved in 7 short contacts:

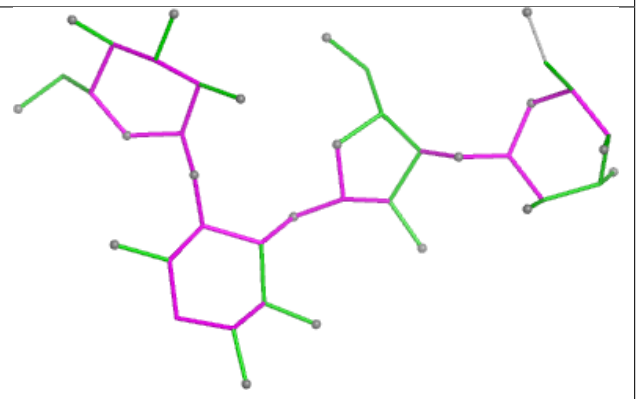
Mol	Chain	Res	Type	Clashes	Symm-Clashes
58	13	1749	PAR	3	0
58	1G	1691	PAR	2	0
59	32	301	SF4	2	0

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 then 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.

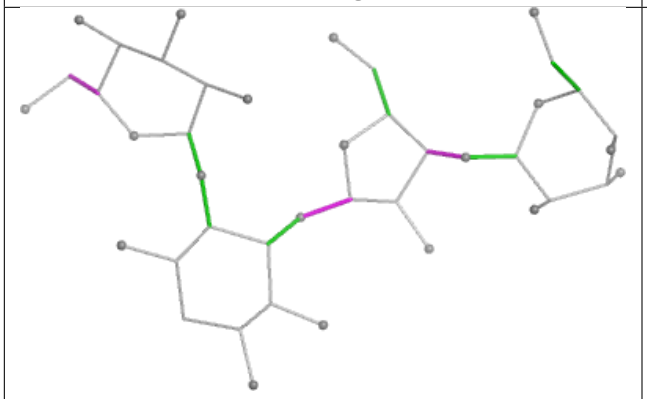
Ligand PAR 13 1749



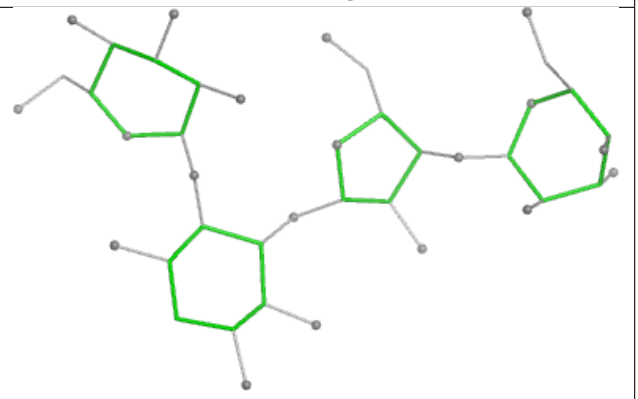
Bond lengths



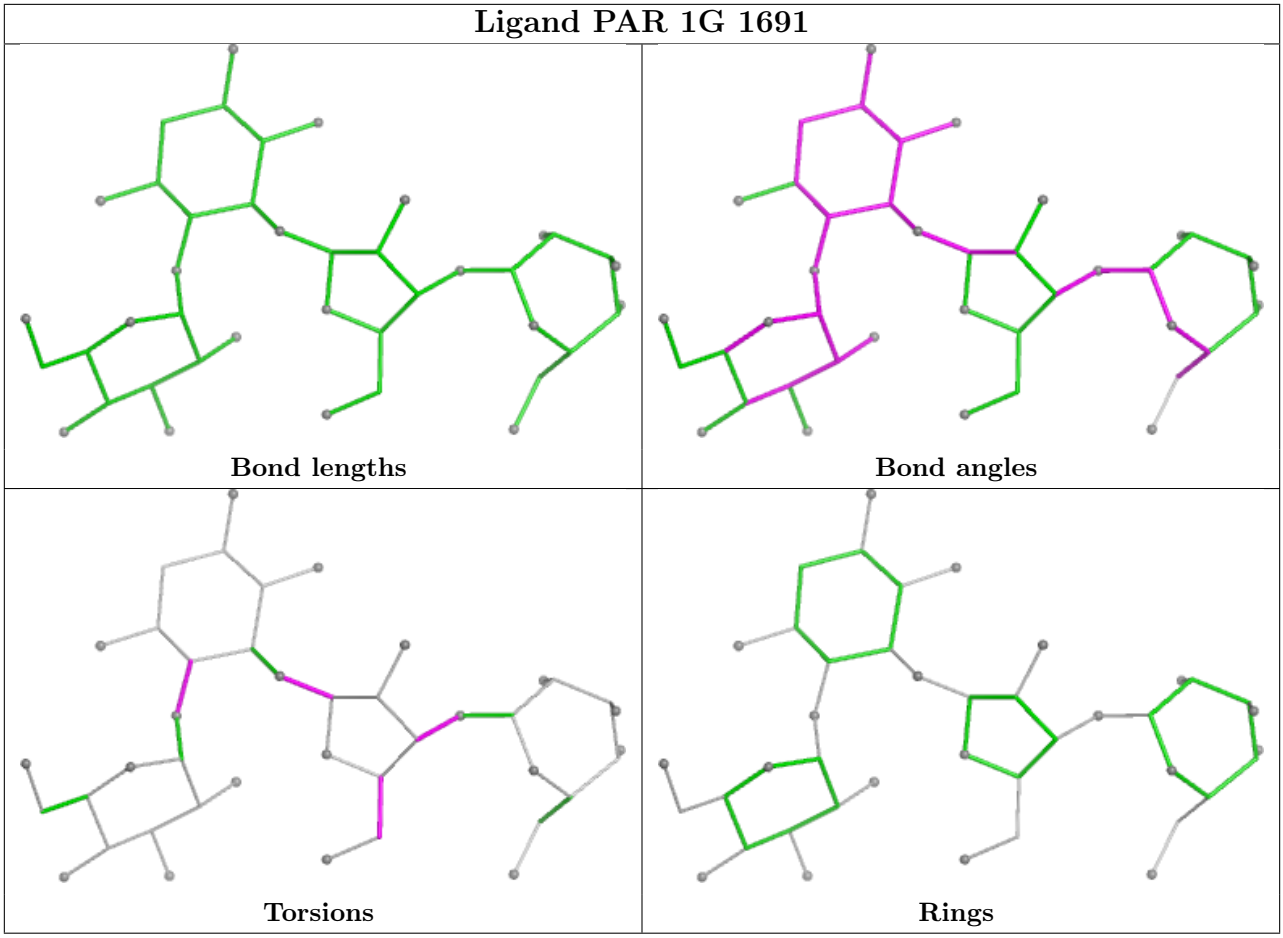
Bond angles



Torsions



Rings



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
4	3E	1
34	69	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, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	13	1496/1522 (98%)	-0.59	3 (0%) 91 84	58, 99, 162, 246	0
1	1G	1506/1522 (98%)	-0.52	5 (0%) 90 81	73, 114, 168, 253	0
2	12	210/256 (82%)	0.15	1 (0%) 87 75	127, 152, 169, 182	0
2	1E	231/256 (90%)	-0.01	4 (1%) 69 48	105, 136, 157, 168	0
3	22	196/239 (82%)	0.00	0 100 100	122, 138, 165, 170	0
3	2E	205/239 (85%)	-0.34	1 (0%) 87 75	81, 103, 128, 138	0
4	32	208/209 (99%)	0.25	5 (2%) 59 39	98, 118, 136, 144	0
4	3E	207/209 (99%)	-0.03	3 (1%) 73 53	80, 101, 121, 129	0
5	42	148/162 (91%)	0.06	0 100 100	104, 121, 137, 147	0
5	4E	149/162 (91%)	-0.19	1 (0%) 84 69	79, 96, 112, 121	0
6	52	101/101 (100%)	-0.50	0 100 100	83, 101, 118, 131	0
6	5E	100/101 (99%)	-0.13	2 (2%) 65 44	83, 100, 115, 121	0
7	62	139/156 (89%)	-0.23	2 (1%) 73 53	111, 124, 135, 141	0
7	6E	154/156 (98%)	-0.15	3 (1%) 66 45	101, 115, 132, 141	0
8	72	137/138 (99%)	0.01	2 (1%) 72 52	104, 124, 136, 142	0
8	7E	138/138 (100%)	-0.15	4 (2%) 53 34	91, 106, 118, 127	0
9	82	121/128 (94%)	0.69	11 (9%) 15 8	110, 151, 165, 175	0
9	8E	126/128 (98%)	0.18	1 (0%) 82 66	89, 128, 147, 153	0
10	1A	80/105 (76%)	0.80	11 (13%) 6 4	116, 145, 154, 156	0
10	1I	91/105 (86%)	0.08	1 (1%) 78 60	80, 121, 156, 161	0
11	2A	113/129 (87%)	-0.20	1 (0%) 81 64	86, 110, 123, 130	0
11	2I	111/129 (86%)	-0.27	0 100 100	77, 102, 118, 125	0
12	3A	122/132 (92%)	0.08	4 (3%) 49 29	84, 102, 126, 145	0
12	3I	122/132 (92%)	-0.41	0 100 100	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%)	0.12	3 (2%) 56 35	109, 138, 154, 162	0
13	4I	119/126 (94%)	0.15	4 (3%) 48 28	84, 113, 128, 142	0
14	5A	59/61 (96%)	0.84	4 (6%) 23 13	122, 135, 145, 150	0
14	5I	60/61 (98%)	-0.03	1 (1%) 69 48	82, 92, 108, 112	0
15	6A	88/89 (98%)	-0.17	1 (1%) 78 60	89, 109, 128, 132	0
15	6I	87/89 (97%)	-0.20	0 100 100	83, 99, 116, 124	0
16	7A	84/88 (95%)	0.07	1 (1%) 76 57	92, 107, 125, 140	0
16	7I	83/88 (94%)	0.42	2 (2%) 59 39	97, 106, 136, 155	0
17	8A	99/105 (94%)	-0.01	2 (2%) 65 44	95, 114, 127, 134	0
17	8I	100/105 (95%)	0.07	3 (3%) 52 32	88, 104, 115, 121	0
18	9A	67/88 (76%)	-0.43	0 100 100	93, 111, 130, 132	0
18	9I	68/88 (77%)	-0.32	0 100 100	87, 102, 124, 127	0
19	AA	62/93 (66%)	0.15	0 100 100	123, 142, 153, 156	0
19	AI	81/93 (87%)	-0.14	0 100 100	91, 110, 132, 138	0
20	BA	99/106 (93%)	-0.08	1 (1%) 79 62	90, 110, 133, 142	0
20	BI	97/106 (91%)	0.28	6 (6%) 26 15	104, 121, 147, 152	0
21	1B	22/27 (81%)	1.62	6 (27%) 1 1	119, 130, 141, 145	0
21	1F	23/27 (85%)	0.20	0 100 100	89, 102, 110, 112	0
22	1K	64/76 (84%)	-0.05	4 (6%) 26 15	84, 173, 191, 198	0
22	1L	68/76 (89%)	0.11	3 (4%) 39 22	115, 198, 216, 220	0
23	2K	72/77 (93%)	-0.57	0 100 100	74, 96, 123, 139	0
23	2L	72/77 (93%)	-0.45	0 100 100	81, 109, 138, 153	0
24	3K	75/76 (98%)	-0.14	2 (2%) 56 35	76, 207, 224, 234	0
25	4K	20/27 (74%)	0.21	1 (5%) 34 20	73, 133, 219, 222	0
25	4L	19/27 (70%)	0.38	1 (5%) 32 18	92, 146, 215, 217	0
26	14	2861/2917 (98%)	-0.75	2 (0%) 92 88	54, 86, 192, 250	0
26	1H	2833/2917 (97%)	-0.82	6 (0%) 91 84	44, 76, 171, 250	0
27	16	122/122 (100%)	-0.82	0 100 100	69, 93, 114, 188	0
27	1J	122/122 (100%)	-0.43	1 (0%) 82 66	87, 113, 134, 182	0
28	71	133/229 (58%)	0.54	9 (6%) 23 13	135, 198, 223, 231	0
28	79	57/229 (24%)	0.38	3 (5%) 32 18	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%)	-0.21	4 (1%) 72 52	43, 68, 86, 96	0
29	19	274/276 (99%)	-0.13	3 (1%) 78 60	52, 75, 91, 115	0
30	21	203/206 (98%)	0.20	11 (5%) 31 18	55, 93, 129, 137	0
30	29	204/206 (99%)	0.06	3 (1%) 72 52	63, 94, 125, 142	0
31	31	202/210 (96%)	-0.29	0 100 100	49, 80, 114, 128	0
31	39	204/210 (97%)	-0.19	0 100 100	60, 101, 144, 170	0
32	41	179/182 (98%)	-0.06	5 (2%) 55 34	80, 101, 132, 143	0
32	49	179/182 (98%)	-0.09	2 (1%) 78 60	107, 123, 144, 167	0
33	51	171/180 (95%)	-0.09	0 100 100	84, 103, 118, 126	0
33	59	74/180 (41%)	0.67	6 (8%) 18 10	127, 155, 176, 191	0
34	61	146/148 (98%)	-0.15	1 (0%) 84 69	80, 125, 142, 155	0
34	69	145/148 (97%)	-0.03	3 (2%) 63 42	86, 121, 142, 152	0
35	15	138/140 (98%)	0.07	3 (2%) 62 41	80, 104, 132, 141	0
35	58	138/140 (98%)	-0.02	2 (1%) 73 53	67, 94, 126, 137	0
36	25	122/122 (100%)	-0.18	3 (2%) 58 37	69, 87, 103, 112	0
36	68	122/122 (100%)	-0.13	0 100 100	61, 79, 95, 103	0
37	35	147/150 (98%)	0.20	7 (4%) 35 20	60, 102, 129, 139	0
37	78	147/150 (98%)	-0.04	1 (0%) 84 69	50, 84, 111, 117	0
38	45	138/141 (97%)	0.38	7 (5%) 33 19	74, 100, 118, 130	0
38	88	141/141 (100%)	-0.24	1 (0%) 84 69	61, 80, 100, 123	0
39	55	118/118 (100%)	-0.34	0 100 100	64, 80, 96, 107	0
39	98	118/118 (100%)	-0.15	0 100 100	66, 89, 106, 118	0
40	65	110/112 (98%)	0.14	5 (4%) 38 22	84, 106, 121, 127	0
40	A8	111/112 (99%)	-0.23	1 (0%) 81 64	76, 88, 107, 116	0
41	75	133/146 (91%)	0.15	6 (4%) 38 22	76, 95, 122, 143	0
41	B8	133/146 (91%)	0.07	3 (2%) 61 40	71, 94, 126, 141	0
42	85	116/118 (98%)	-0.08	0 100 100	67, 90, 121, 132	0
42	C8	115/118 (97%)	0.15	1 (0%) 81 64	60, 84, 111, 120	0
43	95	100/101 (99%)	0.14	5 (5%) 34 20	68, 117, 131, 142	0
43	D8	100/101 (99%)	0.16	5 (5%) 34 20	62, 103, 123, 129	0
44	A5	113/113 (100%)	-0.21	0 100 100	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%)	-0.32	0 100 100	60, 76, 104, 136	0
45	B5	94/96 (97%)	-0.23	1 (1%) 78 60	72, 83, 104, 119	0
45	F8	95/96 (98%)	-0.44	0 100 100	59, 74, 97, 107	0
46	C5	104/110 (94%)	0.33	1 (0%) 79 62	89, 114, 147, 154	0
46	G8	105/110 (95%)	0.25	6 (5%) 29 17	72, 94, 124, 135	0
47	D5	132/206 (64%)	-0.04	2 (1%) 72 52	104, 132, 155, 163	0
47	H8	171/206 (83%)	-0.16	1 (0%) 85 72	87, 118, 188, 193	0
48	E5	77/85 (90%)	0.23	1 (1%) 75 55	69, 87, 102, 123	0
48	I8	76/85 (89%)	-0.04	2 (2%) 57 36	59, 72, 85, 100	0
49	F5	94/98 (95%)	0.23	5 (5%) 32 18	66, 84, 115, 128	0
49	J8	94/98 (95%)	-0.10	1 (1%) 78 60	54, 77, 114, 120	0
50	G5	66/72 (91%)	-0.06	1 (1%) 72 52	81, 101, 121, 132	0
50	K8	68/72 (94%)	-0.01	1 (1%) 72 52	67, 84, 98, 115	0
51	H5	58/60 (96%)	-0.13	1 (1%) 69 48	77, 98, 128, 136	0
51	L8	58/60 (96%)	-0.43	0 100 100	65, 83, 107, 123	0
52	M8	47/71 (66%)	0.13	3 (6%) 25 14	102, 135, 150, 157	0
53	J5	56/60 (93%)	-0.09	1 (1%) 67 47	59, 87, 127, 134	0
53	N8	48/60 (80%)	-0.08	0 100 100	55, 86, 128, 132	0
54	L5	47/49 (95%)	-0.24	2 (4%) 40 23	54, 62, 83, 88	0
54	P8	47/49 (95%)	-0.28	1 (2%) 63 42	49, 55, 72, 81	0
55	M5	64/65 (98%)	0.20	3 (4%) 36 21	68, 78, 93, 111	0
55	Q8	64/65 (98%)	-0.13	0 100 100	62, 70, 84, 97	0
56	3L	73/76 (96%)	0.16	3 (4%) 41 24	84, 205, 228, 235	0
All	All	20602/21967 (93%)	-0.32	255 (1%) 76 57	43, 99, 165, 253	0

All (255) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
41	B8	1	MET	8.1
41	75	1	MET	7.1
41	B8	104	ASN	6.0
22	1L	76	A	5.5
21	1B	2	GLY	5.2
20	BI	70	SER	4.7

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Mol	Chain	Res	Type	RSRZ
14	5I	2	ALA	4.7
26	1H	2476	A	4.6
40	65	20	ARG	4.6
9	82	125	TYR	4.5
22	1K	76	A	4.3
41	75	6	LEU	4.3
41	75	2	ASN	4.1
34	69	20	ASP	4.0
33	59	171	LEU	4.0
41	75	104	ASN	4.0
41	75	106	SER	4.0
27	1J	88	C	3.9
9	82	75	ASP	3.8
33	59	169	VAL	3.7
21	1B	23	PRO	3.7
21	1B	3	LYS	3.6
36	25	80	ASP	3.6
20	BI	18	GLN	3.6
28	71	196	LEU	3.5
49	F5	85	LEU	3.5
7	6E	5	ARG	3.5
30	21	78	LEU	3.4
34	69	1	MET	3.4
26	1H	2477	C	3.4
7	6E	8	GLU	3.4
43	95	83	ARG	3.4
29	19	27	THR	3.4
13	4I	120	LYS	3.4
38	45	2	LEU	3.4
54	L5	1	MET	3.4
33	59	4	ILE	3.4
32	41	26	GLN	3.4
10	1A	58	ASP	3.3
8	7E	91	ARG	3.3
29	11	247	ALA	3.3
48	I8	9	SER	3.3
16	7I	66	PRO	3.3
13	4I	2	ALA	3.3
28	71	197	GLU	3.3
38	45	91	GLU	3.3
46	C5	105	ALA	3.3
4	3E	209	ARG	3.2

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Mol	Chain	Res	Type	RSRZ
10	1A	74	ILE	3.2
45	B5	69	TYR	3.2
9	8E	126	SER	3.2
14	5A	6	LEU	3.2
6	5E	56	PRO	3.2
38	45	90	VAL	3.2
40	65	5	THR	3.2
42	C8	116	ALA	3.2
10	1A	85	LEU	3.1
21	1B	6	ARG	3.1
21	1B	14	TRP	3.1
43	95	81	TYR	3.1
53	J5	26	THR	3.0
55	M5	34	TRP	3.0
40	65	3	ARG	3.0
29	19	55	GLY	3.0
47	D5	138	GLU	3.0
32	49	82	LEU	3.0
6	5E	55	ASP	2.9
37	35	35	HIS	2.9
26	1H	1106	G	2.9
37	35	52	GLU	2.9
43	95	93	GLU	2.9
55	M5	40	GLU	2.9
30	29	76	ARG	2.9
32	41	3	LEU	2.9
43	95	80	GLN	2.9
28	71	192	PHE	2.9
30	21	63	LEU	2.9
29	11	273	ARG	2.9
8	7E	1	MET	2.9
9	82	44	VAL	2.8
4	32	5	ILE	2.8
49	F5	77	ALA	2.8
26	14	530	G	2.8
40	A8	48	LEU	2.8
29	11	262	ARG	2.8
9	82	12	GLU	2.8
48	E5	7	LEU	2.8
38	88	140	ALA	2.8
38	45	102	VAL	2.8
49	J8	92	LYS	2.8

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Mol	Chain	Res	Type	RSRZ
14	5A	39	LEU	2.8
35	58	73	THR	2.8
38	45	103	MET	2.8
28	79	209	LEU	2.8
13	4I	6	GLY	2.7
50	K8	69	ARG	2.7
2	1E	11	LEU	2.7
34	61	20	ASP	2.7
13	4A	102	ARG	2.7
40	65	17	ARG	2.7
46	G8	2	ARG	2.7
9	82	50	LEU	2.7
30	21	75	VAL	2.7
22	1L	75	C	2.7
9	82	115	GLY	2.7
30	21	90	THR	2.7
9	82	71	SER	2.7
32	41	82	LEU	2.7
25	4L	24	A	2.6
26	1H	2117	A	2.6
30	21	50	GLY	2.6
49	F5	36	GLY	2.6
46	G8	98	VAL	2.6
20	BI	23	ARG	2.6
20	BA	9	ASN	2.6
13	4A	100	GLY	2.6
28	71	175	VAL	2.6
28	71	49	ILE	2.6
33	59	148	ILE	2.6
30	29	7	VAL	2.6
37	78	36	LYS	2.6
30	21	76	ARG	2.6
51	H5	17	LYS	2.6
1	1G	963	G	2.6
10	1A	59	SER	2.6
1	1G	1286	A	2.5
33	59	55	PRO	2.5
2	1E	14	GLY	2.5
10	1A	46	ARG	2.5
2	12	43	ASP	2.5
8	7E	132	GLU	2.5
30	21	51	PHE	2.5

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Mol	Chain	Res	Type	RSRZ
11	2A	126	ARG	2.5
13	4A	10	PRO	2.5
3	2E	2	GLY	2.5
34	69	3	VAL	2.5
35	15	46	VAL	2.5
9	82	43	ALA	2.4
35	58	93	THR	2.4
36	25	81	ASP	2.4
29	19	30	GLU	2.4
46	G8	89	PHE	2.4
8	72	112	LEU	2.4
47	H8	165	VAL	2.4
35	15	92	ALA	2.4
46	G8	106	LEU	2.4
17	8I	33	GLY	2.4
22	1K	73	A	2.4
26	1H	1032	A	2.4
26	1H	2119	A	2.4
43	D8	80	GLN	2.4
22	1L	74	C	2.4
28	79	47	LEU	2.4
46	G8	105	ALA	2.4
49	F5	86	SER	2.4
14	5A	38	GLY	2.3
13	4I	7	VAL	2.3
28	71	29	VAL	2.3
1	1G	974	A	2.3
32	41	75	LYS	2.3
48	I8	42	GLY	2.3
56	3L	34	U	2.3
50	G5	66	GLU	2.3
1	13	76	G	2.3
12	3A	28	LYS	2.3
16	7A	64	ALA	2.3
30	29	159	HIS	2.3
43	D8	81	TYR	2.3
10	1A	65	LEU	2.3
20	BI	20	LEU	2.3
43	95	76	LYS	2.3
54	L5	47	ARG	2.3
4	32	135	LEU	2.3
4	32	134	ASP	2.3

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Mol	Chain	Res	Type	RSRZ
33	59	141	VAL	2.3
22	1K	74	C	2.3
38	45	83	MET	2.3
15	6A	31	LEU	2.3
17	8I	29	HIS	2.3
14	5A	37	PHE	2.3
30	21	151	TYR	2.3
52	M8	34	GLU	2.2
30	21	186	GLY	2.2
56	3L	17	U	2.2
28	71	208	PHE	2.2
10	1A	57	LYS	2.2
41	B8	106	SER	2.2
12	3A	18	VAL	2.2
37	35	47	ASP	2.2
2	1E	10	LEU	2.2
36	25	117	LEU	2.2
46	G8	94	LYS	2.2
7	62	37	ASN	2.2
22	1K	75	C	2.2
9	82	76	ALA	2.2
41	75	105	LEU	2.2
12	3A	91	LYS	2.2
54	P8	47	ARG	2.2
1	1G	630	G	2.2
12	3A	27	LEU	2.2
28	79	222	VAL	2.2
32	49	138	GLN	2.2
28	71	28	LEU	2.2
17	8I	24	GLU	2.2
56	3L	7	U	2.2
2	1E	137	ARG	2.2
1	13	933	G	2.2
5	4E	98	THR	2.1
17	8A	7	THR	2.1
21	1B	13	ILE	2.1
8	72	2	LEU	2.1
16	7I	1	MET	2.1
49	F5	78	LYS	2.1
4	32	122	ARG	2.1
4	3E	138	TYR	2.1
10	1I	55	LYS	2.1

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Mol	Chain	Res	Type	RSRZ
55	M5	35	GLN	2.1
10	1A	64	GLU	2.1
20	BI	11	SER	2.1
24	3K	65	C	2.1
26	14	2145	C	2.1
10	1A	54	PHE	2.1
17	8A	71	PHE	2.1
8	7E	4	ASP	2.1
4	3E	94	LEU	2.1
32	41	88	ILE	2.1
38	45	79	LEU	2.1
9	82	106	ALA	2.1
30	21	187	ALA	2.1
25	4K	13	A	2.1
52	M8	42	PHE	2.1
43	D8	79	VAL	2.1
10	1A	55	LYS	2.1
4	32	29	PRO	2.1
10	1A	47	PHE	2.1
29	11	36	PRO	2.1
35	15	100	GLU	2.1
37	35	18	ARG	2.1
43	D8	70	ILE	2.1
1	1G	631	G	2.1
40	65	19	LYS	2.0
52	M8	37	SER	2.0
47	D5	171	ILE	2.0
37	35	110	TYR	2.0
7	6E	34	GLY	2.0
37	35	44	GLY	2.0
24	3K	71	C	2.0
20	BI	22	ARG	2.0
7	62	77	SER	2.0
43	D8	75	PHE	2.0
1	13	1286	A	2.0
30	21	72	VAL	2.0
9	82	47	LEU	2.0
37	35	147	LEU	2.0
28	71	193	ILE	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	PSU	3L	39	20/21	0.77	0.11	118,132,140,141	0
22	PSU	1L	55	20/21	0.82	0.08	126,149,158,158	0
23	5MU	2L	55	21/22	0.85	0.09	105,114,119,125	0
24	PSU	3K	39	20/21	0.86	0.07	109,116,128,137	0
23	PSU	2L	56	20/21	0.87	0.06	106,110,116,120	0
22	5MU	1K	54	21/22	0.88	0.07	118,126,140,143	0
22	PSU	1K	55	20/21	0.88	0.07	107,132,143,147	0
56	T6A	3L	37	32/33	0.88	0.10	121,132,147,147	0
23	G7M	2L	47	24/25	0.89	0.08	114,121,128,132	0
22	5MU	1L	54	21/22	0.90	0.07	131,141,157,158	0
23	5MU	2K	55	21/22	0.91	0.07	90,103,110,112	0
23	4SU	2L	8	20/21	0.91	0.07	100,111,114,121	0
23	PSU	2K	56	20/21	0.91	0.07	95,100,104,111	0
22	T6A	1L	37	32/33	0.91	0.15	104,115,143,144	0
23	G7M	2K	47	24/25	0.92	0.06	90,101,110,116	0
22	T6A	1K	37	32/33	0.93	0.18	66,85,127,129	0
22	U8U	1L	34	23/24	0.93	0.13	115,123,131,134	0
23	4SU	2K	8	20/21	0.94	0.07	87,92,97,98	0
22	U8U	1K	34	23/24	0.94	0.09	81,89,100,107	0
22	PSU	1K	39	20/21	0.95	0.07	79,97,103,106	0
22	PSU	1L	39	20/21	0.95	0.07	104,123,128,130	0
23	OMC	2L	33	21/22	0.95	0.09	96,100,104,113	0
23	OMC	2K	33	21/22	0.96	0.08	73,80,83,87	0

6.3 Carbohydrates (i)

There are no oligosaccharides in this entry.

6.4 Ligands (i)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3232	1/1	0.30	0.25	130,130,130,130	0
57	MG	13	1646	1/1	0.32	0.26	109,109,109,109	0
57	MG	1G	1628	1/1	0.44	0.22	124,124,124,124	0
57	MG	1H	3282	1/1	0.47	0.30	96,96,96,96	0
57	MG	13	1650	1/1	0.49	0.35	100,100,100,100	0
57	MG	13	1642	1/1	0.49	0.36	107,107,107,107	0
57	MG	14	3031	1/1	0.53	0.30	105,105,105,105	0
57	MG	1H	3183	1/1	0.54	0.35	92,92,92,92	0
57	MG	1H	3018	1/1	0.56	0.28	80,80,80,80	0
57	MG	45	202	1/1	0.59	0.28	102,102,102,102	0
57	MG	1G	1621	1/1	0.60	0.31	103,103,103,103	0
57	MG	1H	3178	1/1	0.61	0.25	93,93,93,93	0
57	MG	1G	1692	1/1	0.62	0.31	105,105,105,105	0
57	MG	14	3162	1/1	0.62	0.23	67,67,67,67	0
57	MG	14	3248	1/1	0.63	0.24	75,75,75,75	0
57	MG	14	3241	1/1	0.63	0.35	84,84,84,84	0
57	MG	14	3265	1/1	0.64	0.23	79,79,79,79	0
57	MG	14	3266	1/1	0.64	0.29	84,84,84,84	0
57	MG	1G	1631	1/1	0.64	0.29	107,107,107,107	0
57	MG	14	3157	1/1	0.65	0.28	99,99,99,99	0
57	MG	13	1668	1/1	0.65	0.23	95,95,95,95	0
57	MG	1G	1645	1/1	0.65	0.31	88,88,88,88	0
57	MG	14	3120	1/1	0.65	0.24	67,67,67,67	0
57	MG	1G	1647	1/1	0.66	0.26	115,115,115,115	0
57	MG	1H	3272	1/1	0.66	0.37	95,95,95,95	0
57	MG	14	3170	1/1	0.66	0.45	86,86,86,86	0
57	MG	1H	3277	1/1	0.67	0.25	77,77,77,77	0
57	MG	14	3116	1/1	0.67	0.31	87,87,87,87	0
57	MG	16	207	1/1	0.67	0.26	77,77,77,77	0
57	MG	1H	3080	1/1	0.68	0.27	82,82,82,82	0
57	MG	1G	1694	1/1	0.68	0.27	98,98,98,98	0
57	MG	14	3260	1/1	0.68	0.15	117,117,117,117	0
57	MG	14	3016	1/1	0.68	0.27	73,73,73,73	0
57	MG	13	1625	1/1	0.68	0.57	96,96,96,96	0
57	MG	16	205	1/1	0.68	0.20	81,81,81,81	0
57	MG	2L	104	1/1	0.69	0.20	72,72,72,72	0
57	MG	14	3142	1/1	0.69	0.26	82,82,82,82	0
57	MG	1J	203	1/1	0.69	0.32	93,93,93,93	0
57	MG	1H	3210	1/1	0.69	0.21	74,74,74,74	0
57	MG	13	1662	1/1	0.70	0.18	119,119,119,119	0
57	MG	13	1661	1/1	0.70	0.30	102,102,102,102	0
57	MG	14	3257	1/1	0.70	0.36	87,87,87,87	0
57	MG	1H	3015	1/1	0.70	0.17	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3237	1/1	0.71	0.28	72,72,72,72	0
57	MG	13	1667	1/1	0.71	0.24	97,97,97,97	0
57	MG	14	3242	1/1	0.71	0.16	95,95,95,95	0
57	MG	14	3186	1/1	0.71	0.29	84,84,84,84	0
57	MG	2L	103	1/1	0.71	0.31	80,80,80,80	0
57	MG	1J	202	1/1	0.72	0.25	94,94,94,94	0
57	MG	14	3183	1/1	0.73	0.26	74,74,74,74	0
57	MG	1H	3177	1/1	0.73	0.27	81,81,81,81	0
57	MG	13	1636	1/1	0.73	0.28	75,75,75,75	0
57	MG	14	3144	1/1	0.73	0.31	80,80,80,80	0
57	MG	14	3035	1/1	0.73	0.41	83,83,83,83	0
57	MG	14	3102	1/1	0.73	0.21	86,86,86,86	0
57	MG	13	1648	1/1	0.73	0.39	90,90,90,90	0
57	MG	1H	3140	1/1	0.74	0.21	62,62,62,62	0
57	MG	14	3269	1/1	0.74	0.26	102,102,102,102	0
57	MG	1H	3014	1/1	0.74	0.26	75,75,75,75	0
57	MG	2K	101	1/1	0.74	0.23	95,95,95,95	0
57	MG	1H	3110	1/1	0.74	0.25	84,84,84,84	0
57	MG	14	3224	1/1	0.75	0.16	80,80,80,80	0
57	MG	14	3075	1/1	0.75	0.34	70,70,70,70	0
57	MG	1H	3115	1/1	0.75	0.23	82,82,82,82	0
57	MG	1H	3275	1/1	0.75	0.26	95,95,95,95	0
57	MG	13	1643	1/1	0.75	0.23	89,89,89,89	0
57	MG	13	1669	1/1	0.75	0.23	74,74,74,74	0
57	MG	14	3254	1/1	0.75	0.26	81,81,81,81	0
57	MG	14	3004	1/1	0.75	0.37	77,77,77,77	0
57	MG	1G	1640	1/1	0.75	0.22	100,100,100,100	0
57	MG	16	203	1/1	0.75	0.16	79,79,79,79	0
57	MG	1H	3247	1/1	0.75	0.36	77,77,77,77	0
57	MG	14	3036	1/1	0.75	0.32	76,76,76,76	0
57	MG	14	3063	1/1	0.75	0.24	76,76,76,76	0
57	MG	14	3206	1/1	0.75	0.26	95,95,95,95	0
57	MG	14	3211	1/1	0.75	0.25	78,78,78,78	0
57	MG	14	3104	1/1	0.76	0.29	81,81,81,81	0
57	MG	14	3259	1/1	0.76	0.19	97,97,97,97	0
57	MG	1I	201	1/1	0.76	0.21	100,100,100,100	0
57	MG	41	202	1/1	0.76	0.23	82,82,82,82	0
57	MG	14	3239	1/1	0.76	0.36	87,87,87,87	0
57	MG	1H	3493	1/1	0.76	0.20	94,94,94,94	0
57	MG	14	3198	1/1	0.76	0.18	81,81,81,81	0
57	MG	1H	3245	1/1	0.76	0.35	69,69,69,69	0
57	MG	13	1659	1/1	0.76	0.40	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3108	1/1	0.77	0.36	82,82,82,82	0
57	MG	1H	3218	1/1	0.77	0.33	70,70,70,70	0
57	MG	1H	3139	1/1	0.77	0.32	71,71,71,71	0
57	MG	2L	102	1/1	0.77	0.26	96,96,96,96	0
57	MG	14	3267	1/1	0.77	0.26	83,83,83,83	0
57	MG	1G	1637	1/1	0.77	0.19	77,77,77,77	0
57	MG	1H	3279	1/1	0.77	0.32	71,71,71,71	0
57	MG	14	3215	1/1	0.77	0.31	64,64,64,64	0
57	MG	35	202	1/1	0.77	0.20	75,75,75,75	0
57	MG	13	1666	1/1	0.77	0.29	77,77,77,77	0
57	MG	14	3175	1/1	0.78	0.20	90,90,90,90	0
57	MG	1G	1623	1/1	0.78	0.32	77,77,77,77	0
57	MG	14	3106	1/1	0.78	0.38	82,82,82,82	0
57	MG	14	3108	1/1	0.78	0.16	90,90,90,90	0
57	MG	14	3199	1/1	0.78	0.30	84,84,84,84	0
57	MG	14	3202	1/1	0.78	0.21	90,90,90,90	0
57	MG	14	3017	1/1	0.78	0.22	97,97,97,97	0
57	MG	1H	3185	1/1	0.78	0.32	90,90,90,90	0
57	MG	1H	3199	1/1	0.78	0.37	75,75,75,75	0
57	MG	1H	3288	1/1	0.78	0.23	80,80,80,80	0
57	MG	1G	1638	1/1	0.78	0.30	88,88,88,88	0
57	MG	1H	3126	1/1	0.78	0.22	70,70,70,70	0
57	MG	14	3168	1/1	0.78	0.23	89,89,89,89	0
57	MG	16	201	1/1	0.78	0.22	87,87,87,87	0
57	MG	1H	3122	1/1	0.79	0.20	73,73,73,73	0
57	MG	1H	3027	1/1	0.79	0.31	63,63,63,63	0
57	MG	1H	3197	1/1	0.79	0.18	67,67,67,67	0
57	MG	1H	3128	1/1	0.79	0.21	64,64,64,64	0
57	MG	1H	3208	1/1	0.79	0.21	76,76,76,76	0
57	MG	14	3110	1/1	0.79	0.23	86,86,86,86	0
57	MG	13	1629	1/1	0.79	0.19	98,98,98,98	0
57	MG	1H	3211	1/1	0.79	0.53	80,80,80,80	0
57	MG	1H	3213	1/1	0.79	0.20	92,92,92,92	0
57	MG	1H	3214	1/1	0.79	0.30	92,92,92,92	0
57	MG	13	1673	1/1	0.79	0.28	90,90,90,90	0
57	MG	1H	3230	1/1	0.79	0.26	78,78,78,78	0
57	MG	14	3163	1/1	0.79	0.31	72,72,72,72	0
57	MG	1H	3236	1/1	0.79	0.37	75,75,75,75	0
57	MG	14	3264	1/1	0.79	0.36	90,90,90,90	0
57	MG	13	1676	1/1	0.79	0.30	101,101,101,101	0
57	MG	1G	1626	1/1	0.79	0.32	73,73,73,73	0
57	MG	14	3033	1/1	0.79	0.23	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3185	1/1	0.79	0.22	89,89,89,89	0
57	MG	13	1652	1/1	0.79	0.40	89,89,89,89	0
57	MG	1H	3180	1/1	0.79	0.27	76,76,76,76	0
57	MG	29	301	1/1	0.79	0.24	80,80,80,80	0
57	MG	14	3039	1/1	0.79	0.24	73,73,73,73	0
57	MG	1G	1633	1/1	0.79	0.27	100,100,100,100	0
57	MG	1H	3091	1/1	0.80	0.18	57,57,57,57	0
57	MG	14	3048	1/1	0.80	0.35	75,75,75,75	0
57	MG	1H	3276	1/1	0.80	0.22	98,98,98,98	0
57	MG	11	303	1/1	0.80	0.27	65,65,65,65	0
57	MG	1H	3196	1/1	0.80	0.34	88,88,88,88	0
57	MG	1G	1609	1/1	0.80	0.23	108,108,108,108	0
57	MG	1G	1611	1/1	0.80	0.25	74,74,74,74	0
57	MG	1H	3154	1/1	0.80	0.18	75,75,75,75	0
57	MG	13	1633	1/1	0.80	0.16	85,85,85,85	0
57	MG	1H	3287	1/1	0.80	0.26	80,80,80,80	0
57	MG	14	3210	1/1	0.80	0.27	80,80,80,80	0
57	MG	1G	1627	1/1	0.80	0.21	86,86,86,86	0
57	MG	13	1647	1/1	0.80	0.23	104,104,104,104	0
57	MG	1H	3291	1/1	0.80	0.40	88,88,88,88	0
57	MG	1H	3135	1/1	0.80	0.18	81,81,81,81	0
57	MG	29	304	1/1	0.80	0.11	71,71,71,71	0
57	MG	13	1603	1/1	0.80	0.21	76,76,76,76	0
57	MG	1H	3212	1/1	0.80	0.30	77,77,77,77	0
57	MG	14	3044	1/1	0.81	0.27	76,76,76,76	0
57	MG	13	1604	1/1	0.81	0.31	112,112,112,112	0
57	MG	1G	1622	1/1	0.81	0.30	76,76,76,76	0
57	MG	1H	3010	1/1	0.81	0.26	59,59,59,59	0
57	MG	14	3180	1/1	0.81	0.14	69,69,69,69	0
57	MG	13	1679	1/1	0.81	0.25	86,86,86,86	0
57	MG	1H	3168	1/1	0.81	0.34	80,80,80,80	0
57	MG	14	3105	1/1	0.81	0.27	55,55,55,55	0
57	MG	13	1682	1/1	0.81	0.32	90,90,90,90	0
57	MG	1H	3284	1/1	0.81	0.22	75,75,75,75	0
57	MG	1G	1632	1/1	0.81	0.20	132,132,132,132	0
57	MG	14	3203	1/1	0.81	0.16	89,89,89,89	0
57	MG	1H	3251	1/1	0.81	0.21	78,78,78,78	0
57	MG	1G	1636	1/1	0.81	0.29	89,89,89,89	0
57	MG	14	3129	1/1	0.81	0.20	69,69,69,69	0
57	MG	1G	1604	1/1	0.81	0.28	87,87,87,87	0
57	MG	1H	3258	1/1	0.81	0.13	79,79,79,79	0
57	MG	13	1635	1/1	0.81	0.09	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1G	1618	1/1	0.81	0.20	86,86,86,86	0
57	MG	1H	3193	1/1	0.82	0.50	84,84,84,84	0
57	MG	14	3213	1/1	0.82	0.26	87,87,87,87	0
57	MG	13	1688	1/1	0.82	0.30	90,90,90,90	0
57	MG	14	3220	1/1	0.82	0.31	88,88,88,88	0
57	MG	13	1656	1/1	0.82	0.33	62,62,62,62	0
57	MG	14	3190	1/1	0.82	0.42	82,82,82,82	0
57	MG	14	3192	1/1	0.82	0.27	100,100,100,100	0
57	MG	14	3270	1/1	0.82	0.25	83,83,83,83	0
57	MG	14	3107	1/1	0.82	0.31	81,81,81,81	0
57	MG	13	1641	1/1	0.82	0.25	69,69,69,69	0
57	MG	88	201	1/1	0.82	0.44	82,82,82,82	0
57	MG	1H	3156	1/1	0.82	0.22	61,61,61,61	0
57	MG	35	201	1/1	0.82	0.26	71,71,71,71	0
57	MG	14	3094	1/1	0.82	0.30	85,85,85,85	0
57	MG	1H	3087	1/1	0.82	0.25	68,68,68,68	0
57	MG	1G	1619	1/1	0.83	0.24	92,92,92,92	0
57	MG	1H	3252	1/1	0.83	0.32	80,80,80,80	0
57	MG	1H	3191	1/1	0.83	0.12	95,95,95,95	0
57	MG	13	1644	1/1	0.83	0.17	80,80,80,80	0
57	MG	5I	101	1/1	0.83	0.19	88,88,88,88	0
57	MG	14	3226	1/1	0.83	0.24	78,78,78,78	0
57	MG	14	3143	1/1	0.83	0.20	73,73,73,73	0
57	MG	13	1618	1/1	0.83	0.28	64,64,64,64	0
57	MG	14	3155	1/1	0.83	0.17	66,66,66,66	0
57	MG	14	3021	1/1	0.83	0.27	53,53,53,53	0
57	MG	16	206	1/1	0.83	0.27	81,81,81,81	0
57	MG	1G	1629	1/1	0.83	0.29	83,83,83,83	0
57	MG	1G	1630	1/1	0.83	0.23	113,113,113,113	0
57	MG	1H	3066	1/1	0.83	0.20	57,57,57,57	0
57	MG	13	1665	1/1	0.83	0.32	82,82,82,82	0
57	MG	14	3179	1/1	0.83	0.28	74,74,74,74	0
57	MG	21	303	1/1	0.83	0.25	69,69,69,69	0
57	MG	1G	1635	1/1	0.83	0.28	97,97,97,97	0
57	MG	14	3058	1/1	0.83	0.19	66,66,66,66	0
57	MG	1H	3280	1/1	0.83	0.19	80,80,80,80	0
57	MG	14	3188	1/1	0.83	0.24	66,66,66,66	0
57	MG	1H	3242	1/1	0.83	0.31	80,80,80,80	0
57	MG	1H	3209	1/1	0.83	0.20	78,78,78,78	0
57	MG	1G	1639	1/1	0.83	0.22	97,97,97,97	0
57	MG	13	1689	1/1	0.83	0.27	99,99,99,99	0
57	MG	1H	3186	1/1	0.83	0.10	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1G	1614	1/1	0.83	0.19	99,99,99,99	0
57	MG	1G	1616	1/1	0.83	0.26	86,86,86,86	0
57	MG	1H	3289	1/1	0.83	0.29	82,82,82,82	0
57	MG	1H	3233	1/1	0.84	0.26	70,70,70,70	0
57	MG	13	1674	1/1	0.84	0.23	78,78,78,78	0
57	MG	1H	3278	1/1	0.84	0.30	82,82,82,82	0
57	MG	13	1621	1/1	0.84	0.17	67,67,67,67	0
57	MG	1H	3036	1/1	0.84	0.15	78,78,78,78	0
57	MG	1G	1601	1/1	0.84	0.19	86,86,86,86	0
57	MG	14	3189	1/1	0.84	0.22	69,69,69,69	0
57	MG	1H	3246	1/1	0.84	0.28	85,85,85,85	0
57	MG	1H	3047	1/1	0.84	0.19	61,61,61,61	0
57	MG	1H	3120	1/1	0.84	0.14	63,63,63,63	0
57	MG	14	3261	1/1	0.84	0.21	102,102,102,102	0
57	MG	1G	1613	1/1	0.84	0.29	73,73,73,73	0
57	MG	1H	3159	1/1	0.84	0.17	56,56,56,56	0
57	MG	1H	3254	1/1	0.84	0.26	82,82,82,82	0
57	MG	1H	3255	1/1	0.84	0.12	88,88,88,88	0
57	MG	1H	3257	1/1	0.84	0.28	84,84,84,84	0
57	MG	1H	3011	1/1	0.84	0.35	72,72,72,72	0
57	MG	1J	201	1/1	0.84	0.20	85,85,85,85	0
57	MG	1H	3263	1/1	0.84	0.46	93,93,93,93	0
57	MG	14	3077	1/1	0.84	0.34	80,80,80,80	0
57	MG	14	3219	1/1	0.84	0.27	64,64,64,64	0
57	MG	13	1637	1/1	0.84	0.26	86,86,86,86	0
57	MG	14	3221	1/1	0.84	0.22	73,73,73,73	0
57	MG	13	1645	1/1	0.84	0.23	93,93,93,93	0
57	MG	14	3176	1/1	0.84	0.10	88,88,88,88	0
57	MG	55	201	1/1	0.84	0.35	83,83,83,83	0
57	MG	14	3233	1/1	0.85	0.31	79,79,79,79	0
57	MG	1H	3117	1/1	0.85	0.31	72,72,72,72	0
57	MG	1H	3283	1/1	0.85	0.34	82,82,82,82	0
57	MG	1H	3059	1/1	0.85	0.23	66,66,66,66	0
57	MG	13	1622	1/1	0.85	0.24	81,81,81,81	0
57	MG	1G	1608	1/1	0.85	0.21	91,91,91,91	0
57	MG	13	1602	1/1	0.85	0.28	88,88,88,88	0
57	MG	14	3109	1/1	0.85	0.20	60,60,60,60	0
57	MG	14	3026	1/1	0.85	0.27	72,72,72,72	0
57	MG	14	3113	1/1	0.85	0.27	73,73,73,73	0
57	MG	1H	3082	1/1	0.85	0.17	49,49,49,49	0
57	MG	14	3263	1/1	0.85	0.30	80,80,80,80	0
57	MG	13	1672	1/1	0.85	0.26	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3034	1/1	0.85	0.25	57,57,57,57	0
57	MG	14	3131	1/1	0.85	0.19	78,78,78,78	0
57	MG	1H	3090	1/1	0.85	0.24	57,57,57,57	0
57	MG	1H	3007	1/1	0.85	0.19	68,68,68,68	0
57	MG	1H	3151	1/1	0.85	0.20	91,91,91,91	0
57	MG	14	3357	1/1	0.85	0.08	84,84,84,84	0
57	MG	14	3212	1/1	0.85	0.34	80,80,80,80	0
57	MG	16	204	1/1	0.85	0.23	90,90,90,90	0
57	MG	14	3046	1/1	0.85	0.19	58,58,58,58	0
57	MG	1G	1642	1/1	0.85	0.42	82,82,82,82	0
57	MG	1H	3240	1/1	0.85	0.17	72,72,72,72	0
57	MG	1H	3033	1/1	0.85	0.18	62,62,62,62	0
57	MG	13	1640	1/1	0.85	0.16	71,71,71,71	0
57	MG	1H	3111	1/1	0.85	0.20	80,80,80,80	0
57	MG	13	1628	1/1	0.85	0.44	96,96,96,96	0
57	MG	1H	3051	1/1	0.86	0.16	93,93,93,93	0
57	MG	1H	3025	1/1	0.86	0.20	56,56,56,56	0
57	MG	1H	3187	1/1	0.86	0.11	88,88,88,88	0
57	MG	14	3243	1/1	0.86	0.21	86,86,86,86	0
57	MG	1H	3114	1/1	0.86	0.21	78,78,78,78	0
57	MG	14	3191	1/1	0.86	0.30	73,73,73,73	0
57	MG	14	3255	1/1	0.86	0.18	87,87,87,87	0
57	MG	14	3062	1/1	0.86	0.18	85,85,85,85	0
57	MG	14	3134	1/1	0.86	0.17	98,98,98,98	0
57	MG	1H	3152	1/1	0.86	0.15	87,87,87,87	0
57	MG	14	3013	1/1	0.86	0.21	74,74,74,74	0
57	MG	1H	3008	1/1	0.86	0.20	57,57,57,57	0
57	MG	14	3205	1/1	0.86	0.39	77,77,77,77	0
57	MG	14	3146	1/1	0.86	0.30	76,76,76,76	0
57	MG	14	3147	1/1	0.86	0.16	72,72,72,72	0
57	MG	14	3088	1/1	0.86	0.23	65,65,65,65	0
57	MG	13	1660	1/1	0.86	0.28	83,83,83,83	0
57	MG	14	3097	1/1	0.86	0.27	65,65,65,65	0
57	MG	1H	3034	1/1	0.86	0.16	54,54,54,54	0
57	MG	14	3443	1/1	0.86	0.10	108,108,108,108	0
57	MG	1H	3035	1/1	0.86	0.24	57,57,57,57	0
57	MG	13	1678	1/1	0.86	0.25	83,83,83,83	0
57	MG	1H	3041	1/1	0.86	0.23	72,72,72,72	0
57	MG	1H	3129	1/1	0.86	0.26	76,76,76,76	0
57	MG	14	3225	1/1	0.86	0.35	80,80,80,80	0
57	MG	1H	3181	1/1	0.86	0.35	77,77,77,77	0
57	MG	1H	3285	1/1	0.86	0.28	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3021	1/1	0.86	0.17	90,90,90,90	0
57	MG	14	3111	1/1	0.86	0.20	79,79,79,79	0
57	MG	14	3240	1/1	0.87	0.21	85,85,85,85	0
57	MG	14	3043	1/1	0.87	0.17	75,75,75,75	0
57	MG	1H	3044	1/1	0.87	0.21	62,62,62,62	0
57	MG	1H	3205	1/1	0.87	0.20	77,77,77,77	0
57	MG	14	3244	1/1	0.87	0.25	77,77,77,77	0
57	MG	13	1605	1/1	0.87	0.20	68,68,68,68	0
57	MG	14	3053	1/1	0.87	0.30	77,77,77,77	0
57	MG	14	3195	1/1	0.87	0.13	105,105,105,105	0
57	MG	1G	1625	1/1	0.87	0.21	89,89,89,89	0
57	MG	14	3140	1/1	0.87	0.19	81,81,81,81	0
57	MG	1H	3105	1/1	0.87	0.27	79,79,79,79	0
57	MG	1H	3106	1/1	0.87	0.31	74,74,74,74	0
57	MG	1H	3248	1/1	0.87	0.19	79,79,79,79	0
57	MG	13	1653	1/1	0.87	0.18	66,66,66,66	0
57	MG	14	3078	1/1	0.87	0.16	86,86,86,86	0
57	MG	14	3150	1/1	0.87	0.19	68,68,68,68	0
57	MG	14	3082	1/1	0.87	0.24	55,55,55,55	0
57	MG	14	3268	1/1	0.87	0.19	60,60,60,60	0
57	MG	13	1655	1/1	0.87	0.31	71,71,71,71	0
57	MG	13	1681	1/1	0.87	0.33	86,86,86,86	0
57	MG	14	3271	1/1	0.87	0.24	80,80,80,80	0
57	MG	14	3272	1/1	0.87	0.31	77,77,77,77	0
57	MG	1G	1605	1/1	0.87	0.17	92,92,92,92	0
57	MG	1H	3076	1/1	0.87	0.18	76,76,76,76	0
57	MG	14	3022	1/1	0.87	0.29	60,60,60,60	0
57	MG	13	1611	1/1	0.87	0.29	79,79,79,79	0
57	MG	13	1675	1/1	0.87	0.23	79,79,79,79	0
57	MG	1H	3259	1/1	0.87	0.37	74,74,74,74	0
57	MG	14	3229	1/1	0.87	0.24	74,74,74,74	0
57	MG	1H	3083	1/1	0.87	0.17	74,74,74,74	0
57	MG	1H	3265	1/1	0.87	0.12	89,89,89,89	0
57	MG	1H	3023	1/1	0.87	0.29	81,81,81,81	0
57	MG	1H	3238	1/1	0.87	0.12	78,78,78,78	0
57	MG	14	3059	1/1	0.88	0.23	69,69,69,69	0
57	MG	14	3061	1/1	0.88	0.20	61,61,61,61	0
57	MG	1H	3157	1/1	0.88	0.23	64,64,64,64	0
57	MG	13	1626	1/1	0.88	0.15	87,87,87,87	0
57	MG	1H	3162	1/1	0.88	0.18	61,61,61,61	0
57	MG	14	3238	1/1	0.88	0.29	69,69,69,69	0
57	MG	14	3167	1/1	0.88	0.17	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3164	1/1	0.88	0.13	47,47,47,47	0
57	MG	1H	3286	1/1	0.88	0.18	82,82,82,82	0
57	MG	14	3171	1/1	0.88	0.25	73,73,73,73	0
57	MG	14	3081	1/1	0.88	0.41	74,74,74,74	0
57	MG	13	1684	1/1	0.88	0.18	85,85,85,85	0
57	MG	14	3245	1/1	0.88	0.19	79,79,79,79	0
57	MG	14	3085	1/1	0.88	0.23	65,65,65,65	0
57	MG	1H	3200	1/1	0.88	0.22	73,73,73,73	0
57	MG	1H	3202	1/1	0.88	0.22	58,58,58,58	0
57	MG	1H	3204	1/1	0.88	0.23	86,86,86,86	0
57	MG	1H	3169	1/1	0.88	0.13	85,85,85,85	0
57	MG	1H	3498	1/1	0.88	0.06	85,85,85,85	0
57	MG	1H	3171	1/1	0.88	0.23	68,68,68,68	0
57	MG	1H	3174	1/1	0.88	0.26	59,59,59,59	0
57	MG	1H	3112	1/1	0.88	0.26	66,66,66,66	0
57	MG	13	1631	1/1	0.88	0.14	73,73,73,73	0
57	MG	14	3027	1/1	0.88	0.21	83,83,83,83	0
57	MG	1H	3061	1/1	0.88	0.25	68,68,68,68	0
57	MG	1H	3142	1/1	0.88	0.26	85,85,85,85	0
57	MG	14	3200	1/1	0.88	0.15	69,69,69,69	0
57	MG	1H	3062	1/1	0.88	0.26	66,66,66,66	0
57	MG	13	1658	1/1	0.88	0.21	88,88,88,88	0
57	MG	13	1624	1/1	0.88	0.13	81,81,81,81	0
57	MG	1G	1634	1/1	0.88	0.19	93,93,93,93	0
57	MG	14	3040	1/1	0.88	0.18	64,64,64,64	0
57	MG	78	201	1/1	0.88	0.23	75,75,75,75	0
57	MG	1H	3232	1/1	0.88	0.24	65,65,65,65	0
57	MG	13	1654	1/1	0.88	0.31	75,75,75,75	0
57	MG	1G	1602	1/1	0.88	0.16	72,72,72,72	0
57	MG	14	3050	1/1	0.88	0.22	59,59,59,59	0
57	MG	14	3145	1/1	0.88	0.30	74,74,74,74	0
57	MG	1H	3188	1/1	0.88	0.34	74,74,74,74	0
57	MG	1H	3190	1/1	0.88	0.31	74,74,74,74	0
57	MG	14	3149	1/1	0.88	0.14	96,96,96,96	0
57	MG	1H	3144	1/1	0.89	0.30	75,75,75,75	0
57	MG	1H	3182	1/1	0.89	0.26	72,72,72,72	0
57	MG	1H	3147	1/1	0.89	0.14	51,51,51,51	0
57	MG	1H	3060	1/1	0.89	0.21	55,55,55,55	0
57	MG	14	3055	1/1	0.89	0.27	57,57,57,57	0
57	MG	13	1634	1/1	0.89	0.29	71,71,71,71	0
57	MG	1H	3267	1/1	0.89	0.09	67,67,67,67	0
57	MG	1H	3013	1/1	0.89	0.23	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3063	1/1	0.89	0.17	52,52,52,52	0
57	MG	14	3156	1/1	0.89	0.24	75,75,75,75	0
57	MG	1H	3220	1/1	0.89	0.26	73,73,73,73	0
57	MG	14	3069	1/1	0.89	0.32	67,67,67,67	0
57	MG	14	3072	1/1	0.89	0.23	69,69,69,69	0
57	MG	1G	1657	1/1	0.89	0.10	105,105,105,105	0
57	MG	14	3076	1/1	0.89	0.20	77,77,77,77	0
57	MG	1H	3221	1/1	0.89	0.12	60,60,60,60	0
57	MG	1H	3229	1/1	0.89	0.21	73,73,73,73	0
57	MG	1G	1610	1/1	0.89	0.15	114,114,114,114	0
57	MG	1H	3092	1/1	0.89	0.21	57,57,57,57	0
57	MG	14	3178	1/1	0.89	0.11	71,71,71,71	0
57	MG	1H	3231	1/1	0.89	0.26	65,65,65,65	0
57	MG	1H	3121	1/1	0.89	0.24	79,79,79,79	0
57	MG	14	3182	1/1	0.89	0.31	67,67,67,67	0
57	MG	1H	3099	1/1	0.89	0.13	60,60,60,60	0
57	MG	1H	3234	1/1	0.89	0.10	72,72,72,72	0
57	MG	1H	3235	1/1	0.89	0.10	65,65,65,65	0
57	MG	1H	3194	1/1	0.89	0.30	66,66,66,66	0
57	MG	1H	3101	1/1	0.89	0.15	58,58,58,58	0
57	MG	1H	3065	1/1	0.89	0.13	56,56,56,56	0
57	MG	1H	3241	1/1	0.89	0.34	71,71,71,71	0
57	MG	1H	3198	1/1	0.89	0.23	76,76,76,76	0
57	MG	1H	3006	1/1	0.89	0.15	86,86,86,86	0
57	MG	1H	3132	1/1	0.89	0.23	75,75,75,75	0
57	MG	1H	3201	1/1	0.89	0.20	65,65,65,65	0
57	MG	1H	3107	1/1	0.89	0.15	64,64,64,64	0
57	MG	14	3037	1/1	0.89	0.25	63,63,63,63	0
57	MG	14	3118	1/1	0.89	0.18	66,66,66,66	0
57	MG	13	1615	1/1	0.89	0.18	91,91,91,91	0
57	MG	14	3127	1/1	0.89	0.18	48,48,48,48	0
57	MG	13	1630	1/1	0.89	0.18	92,92,92,92	0
57	MG	14	3130	1/1	0.89	0.21	71,71,71,71	0
57	MG	14	3042	1/1	0.89	0.27	58,58,58,58	0
57	MG	1H	3206	1/1	0.89	0.24	56,56,56,56	0
57	MG	13	1687	1/1	0.89	0.18	70,70,70,70	0
57	MG	14	3216	1/1	0.89	0.30	74,74,74,74	0
57	MG	14	3217	1/1	0.89	0.23	76,76,76,76	0
57	MG	1G	1615	1/1	0.90	0.18	92,92,92,92	0
57	MG	13	1750	1/1	0.90	0.18	76,76,76,76	0
57	MG	1H	3476	1/1	0.90	0.07	93,93,93,93	0
57	MG	14	3064	1/1	0.90	0.18	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3222	1/1	0.90	0.23	64,64,64,64	0
57	MG	14	3223	1/1	0.90	0.32	75,75,75,75	0
57	MG	1H	3134	1/1	0.90	0.28	76,76,76,76	0
57	MG	14	3071	1/1	0.90	0.12	73,73,73,73	0
57	MG	1H	3005	1/1	0.90	0.34	74,74,74,74	0
57	MG	14	3006	1/1	0.90	0.21	66,66,66,66	0
57	MG	14	3230	1/1	0.90	0.21	70,70,70,70	0
57	MG	14	3009	1/1	0.90	0.22	68,68,68,68	0
57	MG	1H	3499	1/1	0.90	0.21	67,67,67,67	0
57	MG	14	3236	1/1	0.90	0.19	88,88,88,88	0
57	MG	1H	3138	1/1	0.90	0.22	55,55,55,55	0
57	MG	16	202	1/1	0.90	0.15	73,73,73,73	0
57	MG	1H	3176	1/1	0.90	0.34	67,67,67,67	0
57	MG	1H	3054	1/1	0.90	0.19	59,59,59,59	0
57	MG	14	3023	1/1	0.90	0.15	54,54,54,54	0
57	MG	14	3091	1/1	0.90	0.18	85,85,85,85	0
57	MG	14	3024	1/1	0.90	0.13	58,58,58,58	0
57	MG	1H	3113	1/1	0.90	0.39	82,82,82,82	0
57	MG	14	3099	1/1	0.90	0.16	57,57,57,57	0
57	MG	1H	3269	1/1	0.90	0.23	73,73,73,73	0
57	MG	1H	3067	1/1	0.90	0.18	52,52,52,52	0
57	MG	1H	3070	1/1	0.90	0.14	45,45,45,45	0
57	MG	1H	3100	1/1	0.90	0.15	44,44,44,44	0
57	MG	1H	3207	1/1	0.90	0.09	56,56,56,56	0
57	MG	1H	3119	1/1	0.90	0.14	71,71,71,71	0
57	MG	13	1670	1/1	0.90	0.30	78,78,78,78	0
57	MG	1H	3243	1/1	0.90	0.30	62,62,62,62	0
57	MG	1H	3281	1/1	0.90	0.38	69,69,69,69	0
57	MG	14	3112	1/1	0.90	0.31	88,88,88,88	0
57	MG	1H	3103	1/1	0.90	0.31	82,82,82,82	0
57	MG	14	3194	1/1	0.90	0.17	68,68,68,68	0
57	MG	1H	3077	1/1	0.90	0.25	74,74,74,74	0
57	MG	1H	3125	1/1	0.90	0.31	61,61,61,61	0
57	MG	1H	3158	1/1	0.90	0.38	68,68,68,68	0
57	MG	14	3123	1/1	0.90	0.37	70,70,70,70	0
57	MG	1H	3250	1/1	0.90	0.15	67,67,67,67	0
57	MG	14	3128	1/1	0.90	0.13	60,60,60,60	0
57	MG	14	3421	1/1	0.90	0.09	75,75,75,75	0
57	MG	1G	1646	1/1	0.90	0.30	84,84,84,84	0
57	MG	14	3052	1/1	0.90	0.18	62,62,62,62	0
57	MG	14	3207	1/1	0.90	0.09	71,71,71,71	0
57	MG	14	3208	1/1	0.90	0.22	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3031	1/1	0.90	0.16	53,53,53,53	0
57	MG	14	3133	1/1	0.90	0.19	71,71,71,71	0
57	MG	1G	1648	1/1	0.90	0.16	86,86,86,86	0
57	MG	14	3136	1/1	0.90	0.26	59,59,59,59	0
57	MG	45	201	1/1	0.90	0.21	72,72,72,72	0
57	MG	13	1614	1/1	0.90	0.27	64,64,64,64	0
57	MG	1H	3045	1/1	0.90	0.16	54,54,54,54	0
57	MG	14	3067	1/1	0.91	0.10	68,68,68,68	0
57	MG	1H	3086	1/1	0.91	0.19	71,71,71,71	0
57	MG	1H	3244	1/1	0.91	0.36	84,84,84,84	0
57	MG	41	201	1/1	0.91	0.18	75,75,75,75	0
57	MG	1H	3160	1/1	0.91	0.29	67,67,67,67	0
57	MG	1H	3189	1/1	0.91	0.23	87,87,87,87	0
57	MG	14	3148	1/1	0.91	0.20	69,69,69,69	0
57	MG	1H	3161	1/1	0.91	0.20	72,72,72,72	0
57	MG	13	1609	1/1	0.91	0.24	58,58,58,58	0
57	MG	14	3153	1/1	0.91	0.10	79,79,79,79	0
57	MG	14	3154	1/1	0.91	0.39	74,74,74,74	0
57	MG	14	3025	1/1	0.91	0.13	58,58,58,58	0
57	MG	14	3231	1/1	0.91	0.48	76,76,76,76	0
57	MG	1H	3215	1/1	0.91	0.22	65,65,65,65	0
57	MG	14	3083	1/1	0.91	0.17	61,61,61,61	0
57	MG	14	3084	1/1	0.91	0.20	56,56,56,56	0
57	MG	13	1651	1/1	0.91	0.19	68,68,68,68	0
57	MG	14	3165	1/1	0.91	0.11	78,78,78,78	0
57	MG	14	3166	1/1	0.91	0.15	61,61,61,61	0
57	MG	14	3030	1/1	0.91	0.15	68,68,68,68	0
57	MG	1H	3037	1/1	0.91	0.24	55,55,55,55	0
57	MG	14	3093	1/1	0.91	0.18	51,51,51,51	0
57	MG	1H	3004	1/1	0.91	0.19	54,54,54,54	0
57	MG	14	3173	1/1	0.91	0.20	69,69,69,69	0
57	MG	14	3095	1/1	0.91	0.12	85,85,85,85	0
57	MG	13	1607	1/1	0.91	0.18	74,74,74,74	0
57	MG	14	3098	1/1	0.91	0.12	67,67,67,67	0
57	MG	13	1686	1/1	0.91	0.17	96,96,96,96	0
57	MG	1H	3175	1/1	0.91	0.32	65,65,65,65	0
57	MG	14	3258	1/1	0.91	0.45	83,83,83,83	0
57	MG	1H	3471	1/1	0.91	0.06	82,82,82,82	0
57	MG	13	1639	1/1	0.91	0.12	84,84,84,84	0
57	MG	13	1612	1/1	0.91	0.29	85,85,85,85	0
57	MG	14	3041	1/1	0.91	0.20	64,64,64,64	0
57	MG	1H	3148	1/1	0.91	0.20	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3266	1/1	0.91	0.13	75,75,75,75	0
57	MG	13	1677	1/1	0.91	0.26	76,76,76,76	0
57	MG	1H	3055	1/1	0.91	0.20	72,72,72,72	0
57	MG	7A	101	1/1	0.91	0.42	89,89,89,89	0
57	MG	2L	101	1/1	0.91	0.20	70,70,70,70	0
57	MG	14	3051	1/1	0.91	0.17	62,62,62,62	0
57	MG	1H	3271	1/1	0.91	0.22	74,74,74,74	0
57	MG	13	1649	1/1	0.91	0.34	78,78,78,78	0
57	MG	14	3121	1/1	0.91	0.33	77,77,77,77	0
57	MG	14	3054	1/1	0.91	0.34	67,67,67,67	0
57	MG	1G	1624	1/1	0.91	0.16	87,87,87,87	0
57	MG	14	3003	1/1	0.91	0.20	65,65,65,65	0
57	MG	13	1671	1/1	0.91	0.18	71,71,71,71	0
57	MG	14	3060	1/1	0.91	0.20	74,74,74,74	0
57	MG	1H	3085	1/1	0.91	0.28	71,71,71,71	0
57	MG	14	3209	1/1	0.91	0.31	64,64,64,64	0
57	MG	14	3007	1/1	0.91	0.14	50,50,50,50	0
57	MG	1H	3131	1/1	0.91	0.24	67,67,67,67	0
57	MG	14	3010	1/1	0.91	0.23	69,69,69,69	0
57	MG	14	3139	1/1	0.91	0.22	58,58,58,58	0
57	MG	14	3066	1/1	0.91	0.10	53,53,53,53	0
57	MG	1H	3150	1/1	0.92	0.05	50,50,50,50	0
57	MG	14	3045	1/1	0.92	0.14	64,64,64,64	0
57	MG	14	3164	1/1	0.92	0.24	65,65,65,65	0
57	MG	1G	1612	1/1	0.92	0.21	67,67,67,67	0
57	MG	14	3227	1/1	0.92	0.35	83,83,83,83	0
57	MG	14	3228	1/1	0.92	0.22	81,81,81,81	0
57	MG	14	3103	1/1	0.92	0.32	68,68,68,68	0
57	MG	1H	3050	1/1	0.92	0.21	66,66,66,66	0
57	MG	13	1657	1/1	0.92	0.34	73,73,73,73	0
57	MG	14	3169	1/1	0.92	0.10	65,65,65,65	0
57	MG	1H	3411	1/1	0.92	0.07	81,81,81,81	0
57	MG	1H	3093	1/1	0.92	0.32	71,71,71,71	0
57	MG	1H	3069	1/1	0.92	0.36	65,65,65,65	0
57	MG	1H	3124	1/1	0.92	0.15	74,74,74,74	0
57	MG	1G	1620	1/1	0.92	0.21	79,79,79,79	0
57	MG	1H	3019	1/1	0.92	0.25	78,78,78,78	0
57	MG	1H	3261	1/1	0.92	0.16	67,67,67,67	0
57	MG	1H	3228	1/1	0.92	0.34	69,69,69,69	0
57	MG	1H	3071	1/1	0.92	0.24	54,54,54,54	0
57	MG	1H	3192	1/1	0.92	0.36	82,82,82,82	0
57	MG	1H	3074	1/1	0.92	0.16	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3246	1/1	0.92	0.14	76,76,76,76	0
57	MG	14	3247	1/1	0.92	0.13	67,67,67,67	0
57	MG	1H	3075	1/1	0.92	0.12	60,60,60,60	0
57	MG	1H	3020	1/1	0.92	0.17	107,107,107,107	0
57	MG	14	3126	1/1	0.92	0.30	64,64,64,64	0
57	MG	14	3256	1/1	0.92	0.12	91,91,91,91	0
57	MG	1H	3056	1/1	0.92	0.14	52,52,52,52	0
57	MG	14	3068	1/1	0.92	0.15	67,67,67,67	0
57	MG	1H	3166	1/1	0.92	0.12	70,70,70,70	0
57	MG	1H	3078	1/1	0.92	0.18	60,60,60,60	0
57	MG	1H	3109	1/1	0.92	0.27	65,65,65,65	0
57	MG	1H	3058	1/1	0.92	0.13	53,53,53,53	0
57	MG	1H	3172	1/1	0.92	0.13	73,73,73,73	0
57	MG	13	1616	1/1	0.92	0.15	48,48,48,48	0
57	MG	L8	101	1/1	0.92	0.25	72,72,72,72	0
57	MG	1H	3022	1/1	0.92	0.16	81,81,81,81	0
57	MG	14	3204	1/1	0.92	0.18	90,90,90,90	0
57	MG	13	1601	1/1	0.92	0.12	68,68,68,68	0
57	MG	1H	3143	1/1	0.92	0.33	89,89,89,89	0
57	MG	13	1685	1/1	0.92	0.15	101,101,101,101	0
57	MG	1G	1641	1/1	0.92	0.45	78,78,78,78	0
57	MG	14	3087	1/1	0.92	0.15	97,97,97,97	0
57	MG	1G	1606	1/1	0.92	0.21	67,67,67,67	0
57	MG	14	3089	1/1	0.92	0.17	56,56,56,56	0
57	MG	14	3090	1/1	0.92	0.08	60,60,60,60	0
57	MG	1G	1643	1/1	0.92	0.39	67,67,67,67	0
57	MG	14	3214	1/1	0.92	0.36	73,73,73,73	0
57	MG	14	3151	1/1	0.92	0.08	72,72,72,72	0
57	MG	1G	1607	1/1	0.92	0.12	91,91,91,91	0
57	MG	39	301	1/1	0.92	0.05	95,95,95,95	0
57	MG	13	1751	1/1	0.92	0.17	87,87,87,87	0
57	MG	13	1680	1/1	0.92	0.21	75,75,75,75	0
57	MG	14	3096	1/1	0.92	0.17	65,65,65,65	0
57	MG	1H	3149	1/1	0.92	0.10	61,61,61,61	0
57	MG	14	3158	1/1	0.92	0.09	70,70,70,70	0
57	MG	1H	3167	1/1	0.93	0.14	63,63,63,63	0
57	MG	1H	3095	1/1	0.93	0.29	65,65,65,65	0
57	MG	1H	3096	1/1	0.93	0.18	67,67,67,67	0
57	MG	1H	3097	1/1	0.93	0.12	51,51,51,51	0
57	MG	14	3172	1/1	0.93	0.18	63,63,63,63	0
57	MG	1H	3274	1/1	0.93	0.09	70,70,70,70	0
57	MG	14	3174	1/1	0.93	0.20	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3234	1/1	0.93	0.08	64,64,64,64	0
57	MG	14	3119	1/1	0.93	0.34	63,63,63,63	0
57	MG	21	301	1/1	0.93	0.24	66,66,66,66	0
57	MG	1H	3118	1/1	0.93	0.07	60,60,60,60	0
57	MG	14	3122	1/1	0.93	0.08	104,104,104,104	0
57	MG	1H	3016	1/1	0.93	0.21	49,49,49,49	0
57	MG	14	3181	1/1	0.93	0.18	63,63,63,63	0
57	MG	14	3125	1/1	0.93	0.13	54,54,54,54	0
57	MG	1H	3146	1/1	0.93	0.33	51,51,51,51	0
57	MG	1H	3203	1/1	0.93	0.15	64,64,64,64	0
57	MG	1H	3038	1/1	0.93	0.18	53,53,53,53	0
57	MG	14	3187	1/1	0.93	0.13	80,80,80,80	0
57	MG	13	1663	1/1	0.93	0.42	71,71,71,71	0
57	MG	P8	101	1/1	0.93	0.27	66,66,66,66	0
57	MG	14	3251	1/1	0.93	0.20	82,82,82,82	0
57	MG	1H	3068	1/1	0.93	0.28	69,69,69,69	0
57	MG	1H	3123	1/1	0.93	0.18	71,71,71,71	0
57	MG	1H	3104	1/1	0.93	0.20	62,62,62,62	0
57	MG	14	3135	1/1	0.93	0.30	71,71,71,71	0
57	MG	1H	3084	1/1	0.93	0.13	82,82,82,82	0
57	MG	14	3138	1/1	0.93	0.13	68,68,68,68	0
57	MG	1H	3057	1/1	0.93	0.27	53,53,53,53	0
57	MG	1H	3249	1/1	0.93	0.23	61,61,61,61	0
57	MG	14	3141	1/1	0.93	0.17	50,50,50,50	0
57	MG	14	3038	1/1	0.93	0.12	76,76,76,76	0
57	MG	1H	3184	1/1	0.93	0.22	67,67,67,67	0
57	MG	1H	3043	1/1	0.93	0.17	70,70,70,70	0
57	MG	13	1613	1/1	0.93	0.14	65,65,65,65	0
57	MG	1H	3130	1/1	0.93	0.26	67,67,67,67	0
57	MG	1G	1649	1/1	0.93	0.09	115,115,115,115	0
57	MG	1H	3088	1/1	0.93	0.18	53,53,53,53	0
57	MG	1H	3452	1/1	0.93	0.07	89,89,89,89	0
57	MG	1H	3465	1/1	0.93	0.15	53,53,53,53	0
57	MG	14	3047	1/1	0.93	0.17	42,42,42,42	0
57	MG	1H	3012	1/1	0.93	0.24	42,42,42,42	0
57	MG	1H	3133	1/1	0.93	0.41	80,80,80,80	0
57	MG	14	3100	1/1	0.93	0.12	43,43,43,43	0
57	MG	13	1619	1/1	0.93	0.18	90,90,90,90	0
57	MG	1H	3496	1/1	0.93	0.07	94,94,94,94	0
57	MG	1H	3260	1/1	0.93	0.19	65,65,65,65	0
57	MG	29	303	1/1	0.93	0.20	67,67,67,67	0
57	MG	14	3159	1/1	0.93	0.12	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	13	1627	1/1	0.93	0.20	64,64,64,64	0
57	MG	39	302	1/1	0.93	0.07	63,63,63,63	0
57	MG	1H	3165	1/1	0.93	0.31	72,72,72,72	0
57	MG	14	3056	1/1	0.93	0.45	82,82,82,82	0
57	MG	14	3005	1/1	0.93	0.14	70,70,70,70	0
57	MG	13	1620	1/1	0.93	0.20	58,58,58,58	0
57	MG	1H	3195	1/1	0.93	0.21	73,73,73,73	0
60	ZN	G8	201	1/1	0.93	0.16	146,146,146,146	0
60	ZN	C5	202	1/1	0.93	0.08	169,169,169,169	0
57	MG	14	3193	1/1	0.94	0.10	70,70,70,70	0
57	MG	1H	3145	1/1	0.94	0.17	46,46,46,46	0
57	MG	1H	3049	1/1	0.94	0.15	68,68,68,68	0
57	MG	14	3101	1/1	0.94	0.27	64,64,64,64	0
57	MG	21	302	1/1	0.94	0.26	50,50,50,50	0
57	MG	1H	3028	1/1	0.94	0.13	51,51,51,51	0
57	MG	1H	3072	1/1	0.94	0.32	73,73,73,73	0
57	MG	14	3250	1/1	0.94	0.12	65,65,65,65	0
57	MG	14	3057	1/1	0.94	0.23	41,41,41,41	0
57	MG	1H	3029	1/1	0.94	0.17	49,49,49,49	0
57	MG	14	3015	1/1	0.94	0.18	77,77,77,77	0
57	MG	1H	3098	1/1	0.94	0.37	63,63,63,63	0
57	MG	13	1742	1/1	0.94	0.06	100,100,100,100	0
57	MG	14	3019	1/1	0.94	0.23	58,58,58,58	0
57	MG	13	1744	1/1	0.94	0.10	94,94,94,94	0
57	MG	14	3161	1/1	0.94	0.13	73,73,73,73	0
57	MG	13	1748	1/1	0.94	0.12	115,115,115,115	0
57	MG	13	1623	1/1	0.94	0.20	61,61,61,61	0
57	MG	14	3115	1/1	0.94	0.28	71,71,71,71	0
57	MG	1H	3127	1/1	0.94	0.15	56,56,56,56	0
57	MG	1H	3079	1/1	0.94	0.15	47,47,47,47	0
57	MG	13	1617	1/1	0.94	0.11	53,53,53,53	0
57	MG	13	1608	1/1	0.94	0.12	75,75,75,75	0
57	MG	1H	3403	1/1	0.94	0.09	89,89,89,89	0
57	MG	14	3073	1/1	0.94	0.11	57,57,57,57	0
57	MG	3I	201	1/1	0.94	0.11	57,57,57,57	0
57	MG	1H	3428	1/1	0.94	0.06	87,87,87,87	0
57	MG	1G	1644	1/1	0.94	0.22	67,67,67,67	0
57	MG	1H	3039	1/1	0.94	0.10	90,90,90,90	0
57	MG	1H	3226	1/1	0.94	0.07	64,64,64,64	0
57	MG	14	3448	1/1	0.94	0.06	92,92,92,92	0
57	MG	14	3452	1/1	0.94	0.11	113,113,113,113	0
57	MG	1H	3040	1/1	0.94	0.15	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	13	1664	1/1	0.94	0.46	81,81,81,81	0
57	MG	1H	3024	1/1	0.94	0.24	45,45,45,45	0
57	MG	13	1729	1/1	0.94	0.06	91,91,91,91	0
57	MG	29	302	1/1	0.94	0.17	40,40,40,40	0
57	MG	1G	1684	1/1	0.94	0.10	121,121,121,121	0
57	MG	1H	3089	1/1	0.94	0.19	51,51,51,51	0
57	MG	1H	3026	1/1	0.94	0.23	40,40,40,40	0
57	MG	1H	3170	1/1	0.94	0.38	72,72,72,72	0
57	MG	1H	3046	1/1	0.94	0.35	73,73,73,73	0
57	MG	1H	3116	1/1	0.94	0.19	63,63,63,63	0
57	MG	1H	3273	1/1	0.94	0.09	57,57,57,57	0
57	MG	1H	3237	1/1	0.94	0.12	61,61,61,61	0
57	MG	45	203	1/1	0.94	0.25	71,71,71,71	0
57	MG	14	3049	1/1	0.94	0.19	63,63,63,63	0
57	MG	1H	3173	1/1	0.94	0.15	63,63,63,63	0
57	MG	2K	102	1/1	0.94	0.07	92,92,92,92	0
57	MG	1H	3290	1/1	0.95	0.24	62,62,62,62	0
57	MG	1H	3225	1/1	0.95	0.22	67,67,67,67	0
57	MG	5E	201	1/1	0.95	0.12	81,81,81,81	0
57	MG	1H	3081	1/1	0.95	0.10	47,47,47,47	0
57	MG	13	1610	1/1	0.95	0.11	79,79,79,79	0
57	MG	1H	3433	1/1	0.95	0.06	86,86,86,86	0
57	MG	1H	3136	1/1	0.95	0.51	73,73,73,73	0
57	MG	14	3029	1/1	0.95	0.15	59,59,59,59	0
57	MG	1H	3137	1/1	0.95	0.14	72,72,72,72	0
57	MG	1H	3163	1/1	0.95	0.19	59,59,59,59	0
57	MG	14	3032	1/1	0.95	0.08	47,47,47,47	0
57	MG	14	3086	1/1	0.95	0.14	61,61,61,61	0
57	MG	14	3423	1/1	0.95	0.07	144,144,144,144	0
57	MG	14	3428	1/1	0.95	0.08	104,104,104,104	0
57	MG	14	3431	1/1	0.95	0.06	90,90,90,90	0
57	MG	1H	3009	1/1	0.95	0.14	54,54,54,54	0
57	MG	14	3446	1/1	0.95	0.05	109,109,109,109	0
57	MG	1H	3487	1/1	0.95	0.06	91,91,91,91	0
57	MG	1H	3264	1/1	0.95	0.19	74,74,74,74	0
57	MG	14	3117	1/1	0.95	0.19	66,66,66,66	0
57	MG	1H	3053	1/1	0.95	0.30	56,56,56,56	0
57	MG	1H	3102	1/1	0.95	0.28	70,70,70,70	0
57	MG	14	3092	1/1	0.95	0.14	56,56,56,56	0
57	MG	2K	103	1/1	0.95	0.20	61,61,61,61	0
57	MG	14	3152	1/1	0.95	0.19	67,67,67,67	0
57	MG	14	3012	1/1	0.95	0.12	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3252	1/1	0.95	0.12	67,67,67,67	0
57	MG	14	3253	1/1	0.95	0.10	63,63,63,63	0
57	MG	1H	3268	1/1	0.95	0.15	81,81,81,81	0
57	MG	14	3124	1/1	0.95	0.30	64,64,64,64	0
57	MG	1H	3042	1/1	0.95	0.13	79,79,79,79	0
57	MG	1H	3270	1/1	0.95	0.11	71,71,71,71	0
57	MG	1H	3048	1/1	0.95	0.07	80,80,80,80	0
57	MG	1H	3253	1/1	0.95	0.25	76,76,76,76	0
57	MG	E5	101	1/1	0.95	0.28	72,72,72,72	0
58	PAR	13	1749	42/42	0.95	0.09	64,70,78,81	0
57	MG	14	3160	1/1	0.95	0.17	51,51,51,51	0
57	MG	14	3020	1/1	0.95	0.19	51,51,51,51	0
57	MG	16	212	1/1	0.96	0.05	88,88,88,88	0
57	MG	14	3070	1/1	0.96	0.27	52,52,52,52	0
57	MG	14	3114	1/1	0.96	0.29	63,63,63,63	0
57	MG	1G	1674	1/1	0.96	0.04	107,107,107,107	0
57	MG	1G	1679	1/1	0.96	0.07	91,91,91,91	0
57	MG	1G	1683	1/1	0.96	0.05	96,96,96,96	0
57	MG	14	3074	1/1	0.96	0.15	62,62,62,62	0
57	MG	13	1727	1/1	0.96	0.09	110,110,110,110	0
57	MG	14	3262	1/1	0.96	0.05	72,72,72,72	0
57	MG	1H	3153	1/1	0.96	0.13	59,59,59,59	0
57	MG	1G	1693	1/1	0.96	0.09	92,92,92,92	0
57	MG	1H	3224	1/1	0.96	0.18	63,63,63,63	0
57	MG	14	3080	1/1	0.96	0.27	46,46,46,46	0
57	MG	1H	3435	1/1	0.96	0.05	94,94,94,94	0
57	MG	13	1606	1/1	0.96	0.19	52,52,52,52	0
57	MG	1H	3455	1/1	0.96	0.05	103,103,103,103	0
57	MG	13	1739	1/1	0.96	0.06	104,104,104,104	0
57	MG	1H	3470	1/1	0.96	0.05	100,100,100,100	0
57	MG	1H	3003	1/1	0.96	0.18	57,57,57,57	0
57	MG	14	3308	1/1	0.96	0.06	96,96,96,96	0
57	MG	14	3324	1/1	0.96	0.05	107,107,107,107	0
57	MG	14	3340	1/1	0.96	0.09	73,73,73,73	0
57	MG	1H	3256	1/1	0.96	0.26	71,71,71,71	0
57	MG	14	3365	1/1	0.96	0.04	88,88,88,88	0
57	MG	14	3406	1/1	0.96	0.10	76,76,76,76	0
57	MG	14	3417	1/1	0.96	0.04	87,87,87,87	0
57	MG	Q8	101	1/1	0.96	0.09	73,73,73,73	0
57	MG	1H	3478	1/1	0.96	0.04	85,85,85,85	0
57	MG	14	3427	1/1	0.96	0.09	102,102,102,102	0
57	MG	1H	3480	1/1	0.96	0.06	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3008	1/1	0.96	0.05	72,72,72,72	0
57	MG	1H	3481	1/1	0.96	0.04	92,92,92,92	0
57	MG	14	3444	1/1	0.96	0.06	87,87,87,87	0
57	MG	14	3137	1/1	0.96	0.15	72,72,72,72	0
57	MG	1H	3064	1/1	0.96	0.10	54,54,54,54	0
57	MG	14	3011	1/1	0.96	0.34	72,72,72,72	0
57	MG	1H	3491	1/1	0.96	0.12	75,75,75,75	0
57	MG	14	3235	1/1	0.96	0.25	69,69,69,69	0
57	MG	1H	3179	1/1	0.96	0.10	49,49,49,49	0
57	MG	1J	206	1/1	0.96	0.06	94,94,94,94	0
57	MG	13	1638	1/1	0.96	0.26	58,58,58,58	0
57	MG	13	1710	1/1	0.96	0.09	108,108,108,108	0
57	MG	1H	3141	1/1	0.96	0.08	67,67,67,67	0
57	MG	1H	3501	1/1	0.96	0.11	72,72,72,72	0
57	MG	1H	3216	1/1	0.96	0.08	57,57,57,57	0
57	MG	1H	3369	1/1	0.96	0.09	74,74,74,74	0
57	MG	1H	3381	1/1	0.96	0.10	95,95,95,95	0
57	MG	1H	3387	1/1	0.96	0.05	64,64,64,64	0
57	MG	14	3197	1/1	0.96	0.06	56,56,56,56	0
57	MG	13	1724	1/1	0.96	0.06	114,114,114,114	0
57	MG	1G	1617	1/1	0.96	0.24	61,61,61,61	0
57	MG	1H	3406	1/1	0.96	0.07	87,87,87,87	0
57	MG	14	3065	1/1	0.96	0.12	54,54,54,54	0
57	MG	M5	101	1/1	0.96	0.12	77,77,77,77	0
57	MG	1H	3409	1/1	0.96	0.04	69,69,69,69	0
58	PAR	1G	1691	42/42	0.96	0.08	70,82,88,95	0
57	MG	14	3028	1/1	0.96	0.15	60,60,60,60	0
57	MG	1G	1655	1/1	0.96	0.04	120,120,120,120	0
57	MG	1H	3017	1/1	0.97	0.06	55,55,55,55	0
57	MG	1H	3458	1/1	0.97	0.06	87,87,87,87	0
57	MG	13	1734	1/1	0.97	0.04	86,86,86,86	0
57	MG	1H	3467	1/1	0.97	0.07	77,77,77,77	0
57	MG	14	3079	1/1	0.97	0.11	64,64,64,64	0
57	MG	1H	3468	1/1	0.97	0.04	71,71,71,71	0
57	MG	1H	3227	1/1	0.97	0.07	70,70,70,70	0
57	MG	1H	3094	1/1	0.97	0.04	52,52,52,52	0
57	MG	1H	3473	1/1	0.97	0.06	85,85,85,85	0
57	MG	1H	3475	1/1	0.97	0.04	88,88,88,88	0
57	MG	14	3201	1/1	0.97	0.17	58,58,58,58	0
57	MG	13	1737	1/1	0.97	0.09	147,147,147,147	0
57	MG	13	1738	1/1	0.97	0.04	97,97,97,97	0
57	MG	13	1708	1/1	0.97	0.04	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1G	1653	1/1	0.97	0.04	110,110,110,110	0
57	MG	13	1741	1/1	0.97	0.05	79,79,79,79	0
57	MG	1H	3482	1/1	0.97	0.05	72,72,72,72	0
57	MG	1G	1665	1/1	0.97	0.09	97,97,97,97	0
57	MG	1G	1666	1/1	0.97	0.04	106,106,106,106	0
57	MG	1G	1667	1/1	0.97	0.08	100,100,100,100	0
57	MG	1G	1669	1/1	0.97	0.05	114,114,114,114	0
57	MG	14	3280	1/1	0.97	0.05	54,54,54,54	0
57	MG	14	3303	1/1	0.97	0.05	63,63,63,63	0
57	MG	1G	1672	1/1	0.97	0.04	91,91,91,91	0
57	MG	14	3318	1/1	0.97	0.07	67,67,67,67	0
57	MG	1H	3485	1/1	0.97	0.04	76,76,76,76	0
57	MG	14	3329	1/1	0.97	0.06	90,90,90,90	0
57	MG	14	3330	1/1	0.97	0.06	113,113,113,113	0
57	MG	1G	1676	1/1	0.97	0.08	86,86,86,86	0
57	MG	14	3342	1/1	0.97	0.05	58,58,58,58	0
57	MG	14	3351	1/1	0.97	0.05	72,72,72,72	0
57	MG	1H	3334	1/1	0.97	0.06	82,82,82,82	0
57	MG	1G	1682	1/1	0.97	0.13	127,127,127,127	0
57	MG	14	3366	1/1	0.97	0.06	76,76,76,76	0
57	MG	14	3372	1/1	0.97	0.04	73,73,73,73	0
57	MG	14	3374	1/1	0.97	0.05	96,96,96,96	0
57	MG	14	3377	1/1	0.97	0.10	67,67,67,67	0
57	MG	14	3383	1/1	0.97	0.04	101,101,101,101	0
57	MG	14	3384	1/1	0.97	0.05	95,95,95,95	0
57	MG	14	3388	1/1	0.97	0.09	82,82,82,82	0
57	MG	1H	3488	1/1	0.97	0.09	113,113,113,113	0
57	MG	14	3410	1/1	0.97	0.04	85,85,85,85	0
57	MG	14	3414	1/1	0.97	0.05	85,85,85,85	0
57	MG	1H	3489	1/1	0.97	0.07	125,125,125,125	0
57	MG	1G	1685	1/1	0.97	0.05	109,109,109,109	0
57	MG	14	3422	1/1	0.97	0.05	84,84,84,84	0
57	MG	1G	1686	1/1	0.97	0.05	92,92,92,92	0
57	MG	14	3425	1/1	0.97	0.07	122,122,122,122	0
57	MG	1G	1687	1/1	0.97	0.04	95,95,95,95	0
57	MG	1G	1690	1/1	0.97	0.04	118,118,118,118	0
57	MG	14	3430	1/1	0.97	0.04	90,90,90,90	0
57	MG	1H	3364	1/1	0.97	0.04	106,106,106,106	0
57	MG	14	3435	1/1	0.97	0.04	103,103,103,103	0
57	MG	14	3438	1/1	0.97	0.05	93,93,93,93	0
57	MG	14	3442	1/1	0.97	0.04	95,95,95,95	0
57	MG	1H	3492	1/1	0.97	0.08	105,105,105,105	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3052	1/1	0.97	0.19	57,57,57,57	0
57	MG	1H	3495	1/1	0.97	0.03	98,98,98,98	0
57	MG	1H	3376	1/1	0.97	0.04	88,88,88,88	0
57	MG	14	3449	1/1	0.97	0.10	95,95,95,95	0
57	MG	1H	3378	1/1	0.97	0.08	84,84,84,84	0
57	MG	14	3453	1/1	0.97	0.07	88,88,88,88	0
57	MG	14	3454	1/1	0.97	0.06	79,79,79,79	0
57	MG	13	1726	1/1	0.97	0.09	85,85,85,85	0
57	MG	1H	3383	1/1	0.97	0.05	78,78,78,78	0
57	MG	1H	3386	1/1	0.97	0.04	84,84,84,84	0
57	MG	13	1632	1/1	0.97	0.10	77,77,77,77	0
57	MG	13	1745	1/1	0.97	0.04	117,117,117,117	0
57	MG	1H	3001	1/1	0.97	0.06	53,53,53,53	0
57	MG	1H	3002	1/1	0.97	0.13	39,39,39,39	0
57	MG	1H	3219	1/1	0.97	0.09	62,62,62,62	0
57	MG	14	3177	1/1	0.97	0.28	79,79,79,79	0
57	MG	1H	3420	1/1	0.97	0.04	64,64,64,64	0
57	MG	13	1715	1/1	0.97	0.07	110,110,110,110	0
57	MG	1H	3431	1/1	0.97	0.04	52,52,52,52	0
57	MG	13	1730	1/1	0.97	0.06	82,82,82,82	0
57	MG	1H	3222	1/1	0.97	0.05	68,68,68,68	0
57	MG	14	3014	1/1	0.97	0.10	72,72,72,72	0
57	MG	14	3184	1/1	0.97	0.10	60,60,60,60	0
57	MG	85	201	1/1	0.97	0.18	72,72,72,72	0
57	MG	1H	3442	1/1	0.97	0.06	86,86,86,86	0
57	MG	31	301	1/1	0.97	0.08	61,61,61,61	0
57	MG	1H	3451	1/1	0.97	0.04	95,95,95,95	0
57	MG	14	3249	1/1	0.97	0.16	60,60,60,60	0
57	MG	14	3018	1/1	0.97	0.12	49,49,49,49	0
57	MG	1H	3030	1/1	0.97	0.15	45,45,45,45	0
57	MG	13	1720	1/1	0.98	0.04	86,86,86,86	0
57	MG	1H	3262	1/1	0.98	0.07	68,68,68,68	0
57	MG	1H	3413	1/1	0.98	0.03	78,78,78,78	0
57	MG	1H	3032	1/1	0.98	0.08	61,61,61,61	0
57	MG	16	209	1/1	0.98	0.07	73,73,73,73	0
57	MG	16	210	1/1	0.98	0.11	88,88,88,88	0
57	MG	1G	1654	1/1	0.98	0.04	93,93,93,93	0
57	MG	16	211	1/1	0.98	0.04	84,84,84,84	0
57	MG	1G	1656	1/1	0.98	0.11	105,105,105,105	0
57	MG	1H	3422	1/1	0.98	0.05	79,79,79,79	0
57	MG	1H	3424	1/1	0.98	0.04	68,68,68,68	0
57	MG	14	3196	1/1	0.98	0.07	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3282	1/1	0.98	0.06	58,58,58,58	0
57	MG	1H	3425	1/1	0.98	0.05	83,83,83,83	0
57	MG	14	3306	1/1	0.98	0.07	55,55,55,55	0
57	MG	1H	3426	1/1	0.98	0.03	57,57,57,57	0
57	MG	14	3312	1/1	0.98	0.04	77,77,77,77	0
57	MG	14	3315	1/1	0.98	0.08	81,81,81,81	0
57	MG	14	3316	1/1	0.98	0.06	102,102,102,102	0
57	MG	14	3317	1/1	0.98	0.04	59,59,59,59	0
57	MG	1G	1668	1/1	0.98	0.06	111,111,111,111	0
57	MG	14	3319	1/1	0.98	0.07	91,91,91,91	0
57	MG	14	3320	1/1	0.98	0.08	83,83,83,83	0
57	MG	14	3323	1/1	0.98	0.05	72,72,72,72	0
57	MG	1H	3223	1/1	0.98	0.14	64,64,64,64	0
57	MG	14	3325	1/1	0.98	0.04	78,78,78,78	0
57	MG	14	3326	1/1	0.98	0.04	74,74,74,74	0
57	MG	14	3328	1/1	0.98	0.06	93,93,93,93	0
57	MG	1G	1670	1/1	0.98	0.05	108,108,108,108	0
57	MG	13	1705	1/1	0.98	0.07	76,76,76,76	0
57	MG	14	3336	1/1	0.98	0.04	83,83,83,83	0
57	MG	14	3338	1/1	0.98	0.03	72,72,72,72	0
57	MG	1H	3432	1/1	0.98	0.05	75,75,75,75	0
57	MG	1G	1675	1/1	0.98	0.04	88,88,88,88	0
57	MG	14	3345	1/1	0.98	0.05	68,68,68,68	0
57	MG	13	1707	1/1	0.98	0.09	90,90,90,90	0
57	MG	14	3354	1/1	0.98	0.06	78,78,78,78	0
57	MG	1G	1678	1/1	0.98	0.03	115,115,115,115	0
57	MG	14	3364	1/1	0.98	0.07	73,73,73,73	0
57	MG	1H	3434	1/1	0.98	0.08	73,73,73,73	0
57	MG	14	3132	1/1	0.98	0.08	58,58,58,58	0
57	MG	14	3369	1/1	0.98	0.08	56,56,56,56	0
57	MG	14	3370	1/1	0.98	0.04	81,81,81,81	0
57	MG	1G	1680	1/1	0.98	0.04	103,103,103,103	0
57	MG	14	3373	1/1	0.98	0.04	93,93,93,93	0
57	MG	13	1683	1/1	0.98	0.10	67,67,67,67	0
57	MG	1H	3439	1/1	0.98	0.06	81,81,81,81	0
57	MG	14	3378	1/1	0.98	0.04	93,93,93,93	0
57	MG	14	3380	1/1	0.98	0.03	93,93,93,93	0
57	MG	1H	3441	1/1	0.98	0.07	94,94,94,94	0
57	MG	13	1709	1/1	0.98	0.04	75,75,75,75	0
57	MG	1H	3444	1/1	0.98	0.03	77,77,77,77	0
57	MG	14	3389	1/1	0.98	0.05	81,81,81,81	0
57	MG	14	3399	1/1	0.98	0.07	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3400	1/1	0.98	0.04	86,86,86,86	0
57	MG	14	3405	1/1	0.98	0.03	83,83,83,83	0
57	MG	1H	3449	1/1	0.98	0.05	69,69,69,69	0
57	MG	14	3407	1/1	0.98	0.05	74,74,74,74	0
57	MG	1G	1688	1/1	0.98	0.06	100,100,100,100	0
57	MG	14	3412	1/1	0.98	0.04	120,120,120,120	0
57	MG	1G	1689	1/1	0.98	0.04	126,126,126,126	0
57	MG	14	3415	1/1	0.98	0.03	77,77,77,77	0
57	MG	14	3416	1/1	0.98	0.07	66,66,66,66	0
57	MG	1G	1603	1/1	0.98	0.09	81,81,81,81	0
57	MG	1H	3450	1/1	0.98	0.03	87,87,87,87	0
57	MG	13	1702	1/1	0.98	0.06	76,76,76,76	0
57	MG	1H	3155	1/1	0.98	0.05	75,75,75,75	0
57	MG	1H	3292	1/1	0.98	0.04	50,50,50,50	0
57	MG	14	3426	1/1	0.98	0.04	80,80,80,80	0
57	MG	1H	3457	1/1	0.98	0.04	82,82,82,82	0
57	MG	1H	3299	1/1	0.98	0.09	50,50,50,50	0
57	MG	14	3429	1/1	0.98	0.06	98,98,98,98	0
57	MG	1H	3463	1/1	0.98	0.05	82,82,82,82	0
57	MG	1H	3303	1/1	0.98	0.04	63,63,63,63	0
57	MG	14	3432	1/1	0.98	0.07	83,83,83,83	0
57	MG	14	3434	1/1	0.98	0.04	82,82,82,82	0
57	MG	14	3001	1/1	0.98	0.05	103,103,103,103	0
57	MG	1H	3466	1/1	0.98	0.04	83,83,83,83	0
57	MG	14	3439	1/1	0.98	0.04	96,96,96,96	0
57	MG	14	3440	1/1	0.98	0.04	94,94,94,94	0
57	MG	1H	3311	1/1	0.98	0.05	53,53,53,53	0
57	MG	1H	3316	1/1	0.98	0.04	63,63,63,63	0
57	MG	1H	3469	1/1	0.98	0.04	100,100,100,100	0
57	MG	1H	3319	1/1	0.98	0.08	67,67,67,67	0
57	MG	14	3447	1/1	0.98	0.04	101,101,101,101	0
57	MG	1H	3325	1/1	0.98	0.06	69,69,69,69	0
57	MG	1H	3472	1/1	0.98	0.10	93,93,93,93	0
57	MG	14	3451	1/1	0.98	0.12	77,77,77,77	0
57	MG	1H	3326	1/1	0.98	0.10	49,49,49,49	0
57	MG	1H	3327	1/1	0.98	0.10	55,55,55,55	0
57	MG	13	1731	1/1	0.98	0.04	86,86,86,86	0
57	MG	1H	3337	1/1	0.98	0.06	73,73,73,73	0
57	MG	1H	3359	1/1	0.98	0.04	52,52,52,52	0
57	MG	1H	3363	1/1	0.98	0.04	61,61,61,61	0
57	MG	1J	205	1/1	0.98	0.06	95,95,95,95	0
57	MG	13	1732	1/1	0.98	0.10	108,108,108,108	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1H	3483	1/1	0.98	0.04	106,106,106,106	0
57	MG	1H	3366	1/1	0.98	0.04	65,65,65,65	0
57	MG	1H	3486	1/1	0.98	0.06	61,61,61,61	0
57	MG	13	1711	1/1	0.98	0.05	99,99,99,99	0
57	MG	1H	3372	1/1	0.98	0.04	89,89,89,89	0
57	MG	1H	3073	1/1	0.98	0.10	36,36,36,36	0
57	MG	13	1735	1/1	0.98	0.06	118,118,118,118	0
57	MG	1H	3380	1/1	0.98	0.07	55,55,55,55	0
57	MG	13	1736	1/1	0.98	0.07	95,95,95,95	0
57	MG	1H	3494	1/1	0.98	0.05	126,126,126,126	0
57	MG	BI	201	1/1	0.98	0.04	103,103,103,103	0
57	MG	1H	3384	1/1	0.98	0.06	73,73,73,73	0
57	MG	13	1712	1/1	0.98	0.04	75,75,75,75	0
57	MG	13	1713	1/1	0.98	0.05	89,89,89,89	0
57	MG	1H	3399	1/1	0.98	0.04	61,61,61,61	0
57	MG	1H	3502	1/1	0.98	0.06	59,59,59,59	0
57	MG	1H	3402	1/1	0.98	0.04	73,73,73,73	0
59	SF4	3E	301	8/8	0.98	0.06	71,78,87,91	0
57	MG	1H	3239	1/1	0.98	0.07	67,67,67,67	0
57	MG	13	1704	1/1	0.98	0.04	105,105,105,105	0
57	MG	1H	3298	1/1	0.99	0.05	61,61,61,61	0
57	MG	1H	3423	1/1	0.99	0.03	55,55,55,55	0
57	MG	13	1703	1/1	0.99	0.06	95,95,95,95	0
57	MG	1H	3300	1/1	0.99	0.04	54,54,54,54	0
57	MG	1H	3301	1/1	0.99	0.07	49,49,49,49	0
57	MG	1H	3427	1/1	0.99	0.03	88,88,88,88	0
57	MG	1H	3302	1/1	0.99	0.09	47,47,47,47	0
57	MG	1H	3429	1/1	0.99	0.04	75,75,75,75	0
57	MG	1H	3430	1/1	0.99	0.03	85,85,85,85	0
57	MG	13	1725	1/1	0.99	0.10	71,71,71,71	0
57	MG	1H	3305	1/1	0.99	0.05	53,53,53,53	0
57	MG	1H	3306	1/1	0.99	0.03	60,60,60,60	0
57	MG	1H	3307	1/1	0.99	0.05	57,57,57,57	0
57	MG	1H	3308	1/1	0.99	0.05	61,61,61,61	0
57	MG	1H	3436	1/1	0.99	0.03	65,65,65,65	0
57	MG	1H	3437	1/1	0.99	0.03	57,57,57,57	0
57	MG	1H	3438	1/1	0.99	0.04	75,75,75,75	0
57	MG	1H	3310	1/1	0.99	0.03	58,58,58,58	0
57	MG	1H	3440	1/1	0.99	0.03	87,87,87,87	0
57	MG	13	1691	1/1	0.99	0.02	79,79,79,79	0
57	MG	1H	3313	1/1	0.99	0.05	72,72,72,72	0
57	MG	1G	1650	1/1	0.99	0.09	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	1G	1651	1/1	0.99	0.04	81,81,81,81	0
57	MG	1G	1652	1/1	0.99	0.03	82,82,82,82	0
57	MG	1H	3314	1/1	0.99	0.04	75,75,75,75	0
57	MG	1H	3445	1/1	0.99	0.03	97,97,97,97	0
57	MG	1H	3446	1/1	0.99	0.02	93,93,93,93	0
57	MG	1H	3447	1/1	0.99	0.07	97,97,97,97	0
57	MG	1H	3448	1/1	0.99	0.05	62,62,62,62	0
57	MG	1G	1658	1/1	0.99	0.04	94,94,94,94	0
57	MG	1G	1659	1/1	0.99	0.06	79,79,79,79	0
57	MG	1G	1660	1/1	0.99	0.03	96,96,96,96	0
57	MG	1G	1661	1/1	0.99	0.07	111,111,111,111	0
57	MG	1G	1662	1/1	0.99	0.04	76,76,76,76	0
57	MG	1G	1663	1/1	0.99	0.03	87,87,87,87	0
57	MG	1G	1664	1/1	0.99	0.07	91,91,91,91	0
57	MG	1H	3315	1/1	0.99	0.03	73,73,73,73	0
57	MG	13	1692	1/1	0.99	0.05	81,81,81,81	0
57	MG	1H	3318	1/1	0.99	0.05	54,54,54,54	0
57	MG	13	1728	1/1	0.99	0.04	91,91,91,91	0
57	MG	1H	3453	1/1	0.99	0.04	83,83,83,83	0
57	MG	1H	3454	1/1	0.99	0.03	62,62,62,62	0
57	MG	1G	1671	1/1	0.99	0.04	117,117,117,117	0
57	MG	1H	3320	1/1	0.99	0.03	67,67,67,67	0
57	MG	14	3273	1/1	0.99	0.04	58,58,58,58	0
57	MG	14	3275	1/1	0.99	0.03	61,61,61,61	0
57	MG	14	3276	1/1	0.99	0.03	62,62,62,62	0
57	MG	14	3278	1/1	0.99	0.04	65,65,65,65	0
57	MG	1G	1673	1/1	0.99	0.06	84,84,84,84	0
57	MG	14	3281	1/1	0.99	0.03	66,66,66,66	0
57	MG	1H	3456	1/1	0.99	0.02	72,72,72,72	0
57	MG	14	3283	1/1	0.99	0.04	74,74,74,74	0
57	MG	14	3285	1/1	0.99	0.07	59,59,59,59	0
57	MG	14	3290	1/1	0.99	0.03	64,64,64,64	0
57	MG	14	3291	1/1	0.99	0.03	66,66,66,66	0
57	MG	14	3295	1/1	0.99	0.02	58,58,58,58	0
57	MG	14	3296	1/1	0.99	0.05	59,59,59,59	0
57	MG	14	3298	1/1	0.99	0.03	79,79,79,79	0
57	MG	14	3299	1/1	0.99	0.05	60,60,60,60	0
57	MG	14	3300	1/1	0.99	0.03	57,57,57,57	0
57	MG	14	3302	1/1	0.99	0.03	68,68,68,68	0
57	MG	1H	3321	1/1	0.99	0.04	77,77,77,77	0
57	MG	14	3304	1/1	0.99	0.11	59,59,59,59	0
57	MG	1H	3322	1/1	0.99	0.03	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3307	1/1	0.99	0.05	79,79,79,79	0
57	MG	1G	1677	1/1	0.99	0.03	105,105,105,105	0
57	MG	14	3309	1/1	0.99	0.09	73,73,73,73	0
57	MG	14	3310	1/1	0.99	0.04	68,68,68,68	0
57	MG	14	3311	1/1	0.99	0.04	66,66,66,66	0
57	MG	1H	3459	1/1	0.99	0.05	91,91,91,91	0
57	MG	14	3313	1/1	0.99	0.03	72,72,72,72	0
57	MG	14	3314	1/1	0.99	0.06	75,75,75,75	0
57	MG	1H	3460	1/1	0.99	0.06	62,62,62,62	0
57	MG	1H	3461	1/1	0.99	0.02	85,85,85,85	0
57	MG	1G	1681	1/1	0.99	0.03	85,85,85,85	0
57	MG	1H	3462	1/1	0.99	0.10	54,54,54,54	0
57	MG	1H	3323	1/1	0.99	0.03	61,61,61,61	0
57	MG	1H	3464	1/1	0.99	0.06	62,62,62,62	0
57	MG	14	3321	1/1	0.99	0.03	89,89,89,89	0
57	MG	14	3322	1/1	0.99	0.06	74,74,74,74	0
57	MG	1H	3324	1/1	0.99	0.03	47,47,47,47	0
57	MG	13	1693	1/1	0.99	0.06	72,72,72,72	0
57	MG	13	1694	1/1	0.99	0.05	79,79,79,79	0
57	MG	13	1695	1/1	0.99	0.05	76,76,76,76	0
57	MG	14	3327	1/1	0.99	0.06	67,67,67,67	0
57	MG	1H	3328	1/1	0.99	0.07	52,52,52,52	0
57	MG	1H	3329	1/1	0.99	0.04	55,55,55,55	0
57	MG	1H	3331	1/1	0.99	0.03	66,66,66,66	0
57	MG	14	3333	1/1	0.99	0.04	59,59,59,59	0
57	MG	1H	3333	1/1	0.99	0.07	75,75,75,75	0
57	MG	14	3337	1/1	0.99	0.11	76,76,76,76	0
57	MG	1H	3217	1/1	0.99	0.06	59,59,59,59	0
57	MG	14	3339	1/1	0.99	0.03	86,86,86,86	0
57	MG	1H	3474	1/1	0.99	0.08	89,89,89,89	0
57	MG	14	3341	1/1	0.99	0.06	62,62,62,62	0
57	MG	1H	3335	1/1	0.99	0.03	61,61,61,61	0
57	MG	14	3343	1/1	0.99	0.03	63,63,63,63	0
57	MG	14	3344	1/1	0.99	0.03	72,72,72,72	0
57	MG	13	1696	1/1	0.99	0.06	86,86,86,86	0
57	MG	14	3346	1/1	0.99	0.07	75,75,75,75	0
57	MG	14	3348	1/1	0.99	0.04	88,88,88,88	0
57	MG	14	3349	1/1	0.99	0.04	81,81,81,81	0
57	MG	14	3350	1/1	0.99	0.03	56,56,56,56	0
57	MG	1H	3477	1/1	0.99	0.03	65,65,65,65	0
57	MG	14	3352	1/1	0.99	0.06	65,65,65,65	0
57	MG	1H	3339	1/1	0.99	0.03	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3356	1/1	0.99	0.02	61,61,61,61	0
57	MG	1H	3479	1/1	0.99	0.02	89,89,89,89	0
57	MG	14	3358	1/1	0.99	0.03	54,54,54,54	0
57	MG	14	3360	1/1	0.99	0.04	83,83,83,83	0
57	MG	14	3361	1/1	0.99	0.04	69,69,69,69	0
57	MG	14	3363	1/1	0.99	0.03	68,68,68,68	0
57	MG	1H	3341	1/1	0.99	0.03	57,57,57,57	0
57	MG	1H	3342	1/1	0.99	0.03	71,71,71,71	0
57	MG	1H	3344	1/1	0.99	0.05	49,49,49,49	0
57	MG	14	3367	1/1	0.99	0.12	60,60,60,60	0
57	MG	14	3368	1/1	0.99	0.05	72,72,72,72	0
57	MG	1H	3346	1/1	0.99	0.03	58,58,58,58	0
57	MG	1H	3484	1/1	0.99	0.03	90,90,90,90	0
57	MG	14	3371	1/1	0.99	0.03	83,83,83,83	0
57	MG	1H	3347	1/1	0.99	0.03	69,69,69,69	0
57	MG	1H	3349	1/1	0.99	0.04	53,53,53,53	0
57	MG	1H	3350	1/1	0.99	0.05	69,69,69,69	0
57	MG	14	3375	1/1	0.99	0.03	91,91,91,91	0
57	MG	1H	3352	1/1	0.99	0.06	72,72,72,72	0
57	MG	1H	3353	1/1	0.99	0.03	57,57,57,57	0
57	MG	14	3379	1/1	0.99	0.05	94,94,94,94	0
57	MG	1H	3490	1/1	0.99	0.04	83,83,83,83	0
57	MG	14	3381	1/1	0.99	0.06	52,52,52,52	0
57	MG	14	3382	1/1	0.99	0.04	91,91,91,91	0
57	MG	1H	3354	1/1	0.99	0.06	62,62,62,62	0
57	MG	1H	3356	1/1	0.99	0.02	58,58,58,58	0
57	MG	14	3385	1/1	0.99	0.07	70,70,70,70	0
57	MG	14	3387	1/1	0.99	0.02	97,97,97,97	0
57	MG	1H	3357	1/1	0.99	0.03	68,68,68,68	0
57	MG	13	1733	1/1	0.99	0.05	73,73,73,73	0
57	MG	14	3390	1/1	0.99	0.04	82,82,82,82	0
57	MG	14	3391	1/1	0.99	0.03	86,86,86,86	0
57	MG	14	3392	1/1	0.99	0.03	87,87,87,87	0
57	MG	14	3393	1/1	0.99	0.06	79,79,79,79	0
57	MG	14	3395	1/1	0.99	0.06	78,78,78,78	0
57	MG	14	3396	1/1	0.99	0.03	62,62,62,62	0
57	MG	14	3397	1/1	0.99	0.05	64,64,64,64	0
57	MG	14	3398	1/1	0.99	0.06	83,83,83,83	0
57	MG	1H	3360	1/1	0.99	0.03	60,60,60,60	0
57	MG	1H	3361	1/1	0.99	0.04	53,53,53,53	0
57	MG	14	3402	1/1	0.99	0.04	88,88,88,88	0
57	MG	14	3403	1/1	0.99	0.03	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3404	1/1	0.99	0.08	94,94,94,94	0
57	MG	1H	3497	1/1	0.99	0.03	97,97,97,97	0
57	MG	1H	3362	1/1	0.99	0.03	60,60,60,60	0
57	MG	13	1698	1/1	0.99	0.04	93,93,93,93	0
57	MG	14	3408	1/1	0.99	0.03	78,78,78,78	0
57	MG	14	3409	1/1	0.99	0.03	80,80,80,80	0
57	MG	1H	3500	1/1	0.99	0.03	71,71,71,71	0
57	MG	14	3411	1/1	0.99	0.03	74,74,74,74	0
57	MG	13	1699	1/1	0.99	0.05	73,73,73,73	0
57	MG	14	3413	1/1	0.99	0.02	97,97,97,97	0
57	MG	1H	3365	1/1	0.99	0.04	70,70,70,70	0
57	MG	13	1700	1/1	0.99	0.04	93,93,93,93	0
57	MG	1H	3367	1/1	0.99	0.03	54,54,54,54	0
57	MG	1H	3368	1/1	0.99	0.05	60,60,60,60	0
57	MG	14	3419	1/1	0.99	0.06	70,70,70,70	0
57	MG	14	3420	1/1	0.99	0.05	65,65,65,65	0
57	MG	13	1714	1/1	0.99	0.03	93,93,93,93	0
57	MG	1H	3370	1/1	0.99	0.06	70,70,70,70	0
57	MG	1H	3371	1/1	0.99	0.04	85,85,85,85	0
57	MG	14	3424	1/1	0.99	0.03	107,107,107,107	0
57	MG	13	1701	1/1	0.99	0.02	70,70,70,70	0
57	MG	16	208	1/1	0.99	0.04	67,67,67,67	0
57	MG	1H	3373	1/1	0.99	0.08	66,66,66,66	0
57	MG	1H	3374	1/1	0.99	0.04	55,55,55,55	0
57	MG	1H	3375	1/1	0.99	0.07	57,57,57,57	0
57	MG	13	1716	1/1	0.99	0.03	66,66,66,66	0
57	MG	11	302	1/1	0.99	0.03	57,57,57,57	0
57	MG	1H	3377	1/1	0.99	0.06	76,76,76,76	0
57	MG	14	3433	1/1	0.99	0.05	71,71,71,71	0
57	MG	13	1740	1/1	0.99	0.03	92,92,92,92	0
57	MG	1H	3379	1/1	0.99	0.07	86,86,86,86	0
57	MG	14	3436	1/1	0.99	0.02	108,108,108,108	0
57	MG	13	1717	1/1	0.99	0.05	66,66,66,66	0
57	MG	13	1718	1/1	0.99	0.04	78,78,78,78	0
57	MG	1H	3382	1/1	0.99	0.04	70,70,70,70	0
57	MG	14	3441	1/1	0.99	0.07	72,72,72,72	0
57	MG	13	1743	1/1	0.99	0.04	87,87,87,87	0
57	MG	13	1719	1/1	0.99	0.06	72,72,72,72	0
57	MG	1H	3385	1/1	0.99	0.03	57,57,57,57	0
57	MG	14	3445	1/1	0.99	0.03	87,87,87,87	0
57	MG	I8	101	1/1	0.99	0.05	65,65,65,65	0
57	MG	13	1690	1/1	0.99	0.05	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	13	1746	1/1	0.99	0.04	83,83,83,83	0
57	MG	1H	3389	1/1	0.99	0.05	59,59,59,59	0
57	MG	14	3450	1/1	0.99	0.04	63,63,63,63	0
57	MG	1H	3390	1/1	0.99	0.07	57,57,57,57	0
57	MG	1H	3391	1/1	0.99	0.03	49,49,49,49	0
57	MG	1H	3392	1/1	0.99	0.03	69,69,69,69	0
57	MG	1H	3393	1/1	0.99	0.04	56,56,56,56	0
57	MG	1H	3394	1/1	0.99	0.06	70,70,70,70	0
57	MG	1H	3395	1/1	0.99	0.05	59,59,59,59	0
57	MG	1H	3397	1/1	0.99	0.04	85,85,85,85	0
57	MG	1J	204	1/1	0.99	0.03	82,82,82,82	0
57	MG	1H	3398	1/1	0.99	0.03	50,50,50,50	0
57	MG	13	1747	1/1	0.99	0.03	72,72,72,72	0
57	MG	1H	3400	1/1	0.99	0.07	67,67,67,67	0
57	MG	13	1721	1/1	0.99	0.03	70,70,70,70	0
57	MG	13	1722	1/1	0.99	0.03	92,92,92,92	0
57	MG	1H	3404	1/1	0.99	0.04	76,76,76,76	0
57	MG	13	1723	1/1	0.99	0.06	84,84,84,84	0
57	MG	1H	3407	1/1	0.99	0.04	50,50,50,50	0
57	MG	1H	3408	1/1	0.99	0.07	50,50,50,50	0
57	MG	1H	3293	1/1	0.99	0.08	63,63,63,63	0
57	MG	1H	3410	1/1	0.99	0.02	56,56,56,56	0
57	MG	14	3218	1/1	0.99	0.13	54,54,54,54	0
57	MG	1H	3295	1/1	0.99	0.03	52,52,52,52	0
57	MG	1H	3412	1/1	0.99	0.05	66,66,66,66	0
57	MG	1H	3296	1/1	0.99	0.06	49,49,49,49	0
57	MG	C5	201	1/1	0.99	0.03	110,110,110,110	0
57	MG	1H	3414	1/1	0.99	0.03	53,53,53,53	0
57	MG	1H	3415	1/1	0.99	0.07	52,52,52,52	0
57	MG	1H	3416	1/1	0.99	0.06	48,48,48,48	0
57	MG	1H	3417	1/1	0.99	0.02	56,56,56,56	0
57	MG	1H	3418	1/1	0.99	0.03	69,69,69,69	0
59	SF4	32	301	8/8	0.99	0.03	100,111,117,118	0
57	MG	1H	3297	1/1	0.99	0.04	49,49,49,49	0
60	ZN	5A	101	1/1	0.99	0.03	128,128,128,128	0
57	MG	1H	3421	1/1	0.99	0.03	78,78,78,78	0
57	MG	14	3286	1/1	1.00	0.02	63,63,63,63	0
57	MG	14	3376	1/1	1.00	0.03	52,52,52,52	0
57	MG	14	3287	1/1	1.00	0.04	56,56,56,56	0
57	MG	14	3288	1/1	1.00	0.04	50,50,50,50	0
57	MG	14	3289	1/1	1.00	0.03	58,58,58,58	0
57	MG	1H	3332	1/1	1.00	0.04	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3331	1/1	1.00	0.02	66,66,66,66	0
57	MG	14	3332	1/1	1.00	0.06	63,63,63,63	0
57	MG	14	3437	1/1	1.00	0.02	93,93,93,93	0
57	MG	1H	3317	1/1	1.00	0.07	45,45,45,45	0
57	MG	14	3334	1/1	1.00	0.03	61,61,61,61	0
57	MG	14	3335	1/1	1.00	0.04	87,87,87,87	0
57	MG	14	3386	1/1	1.00	0.04	56,56,56,56	0
57	MG	14	3292	1/1	1.00	0.02	61,61,61,61	0
57	MG	14	3293	1/1	1.00	0.02	51,51,51,51	0
57	MG	14	3294	1/1	1.00	0.02	54,54,54,54	0
57	MG	1H	3405	1/1	1.00	0.02	69,69,69,69	0
57	MG	1H	3348	1/1	1.00	0.02	65,65,65,65	0
57	MG	14	3297	1/1	1.00	0.03	74,74,74,74	0
57	MG	13	1697	1/1	1.00	0.04	90,90,90,90	0
57	MG	14	3394	1/1	1.00	0.02	78,78,78,78	0
57	MG	1H	3312	1/1	1.00	0.03	76,76,76,76	0
57	MG	14	3002	1/1	1.00	0.02	49,49,49,49	0
57	MG	14	3301	1/1	1.00	0.02	56,56,56,56	0
57	MG	1H	3351	1/1	1.00	0.01	69,69,69,69	0
57	MG	14	3347	1/1	1.00	0.04	67,67,67,67	0
57	MG	1H	3388	1/1	1.00	0.03	57,57,57,57	0
57	MG	14	3401	1/1	1.00	0.02	66,66,66,66	0
57	MG	1H	3336	1/1	1.00	0.03	61,61,61,61	0
57	MG	14	3305	1/1	1.00	0.04	57,57,57,57	0
57	MG	1H	3294	1/1	1.00	0.02	56,56,56,56	0
57	MG	1H	3338	1/1	1.00	0.06	53,53,53,53	0
57	MG	14	3353	1/1	1.00	0.03	67,67,67,67	0
57	MG	1H	3355	1/1	1.00	0.01	68,68,68,68	0
57	MG	14	3355	1/1	1.00	0.02	59,59,59,59	0
57	MG	1H	3304	1/1	1.00	0.02	55,55,55,55	0
57	MG	1H	3340	1/1	1.00	0.02	54,54,54,54	0
57	MG	1H	3358	1/1	1.00	0.02	67,67,67,67	0
57	MG	14	3359	1/1	1.00	0.02	67,67,67,67	0
57	MG	1H	3396	1/1	1.00	0.02	60,60,60,60	0
57	MG	1H	3419	1/1	1.00	0.06	63,63,63,63	0
57	MG	14	3362	1/1	1.00	0.06	62,62,62,62	0
57	MG	14	3274	1/1	1.00	0.02	62,62,62,62	0
57	MG	11	301	1/1	1.00	0.02	46,46,46,46	0
57	MG	14	3418	1/1	1.00	0.05	75,75,75,75	0
57	MG	1H	3443	1/1	1.00	0.02	67,67,67,67	0
57	MG	14	3277	1/1	1.00	0.01	67,67,67,67	0
57	MG	1H	3309	1/1	1.00	0.03	48,48,48,48	0

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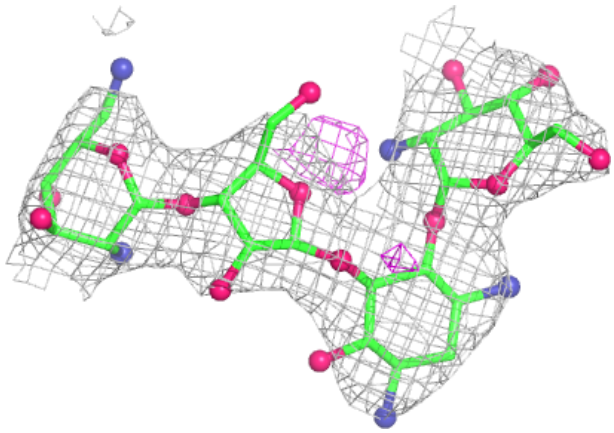
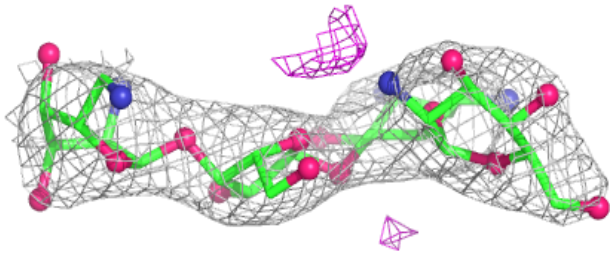
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MG	14	3279	1/1	1.00	0.04	62,62,62,62	0
57	MG	1H	3330	1/1	1.00	0.03	57,57,57,57	0
57	MG	1H	3343	1/1	1.00	0.04	74,74,74,74	0
57	MG	13	1706	1/1	1.00	0.02	71,71,71,71	0
60	ZN	5I	102	1/1	1.00	0.01	88,88,88,88	0
57	MG	1H	3401	1/1	1.00	0.01	52,52,52,52	0
57	MG	14	3284	1/1	1.00	0.02	57,57,57,57	0
57	MG	1H	3345	1/1	1.00	0.02	56,56,56,56	0

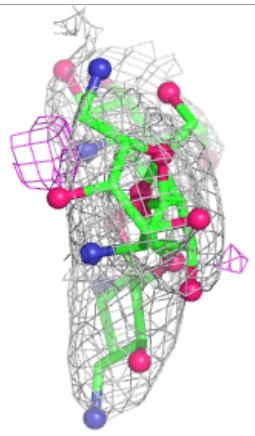
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

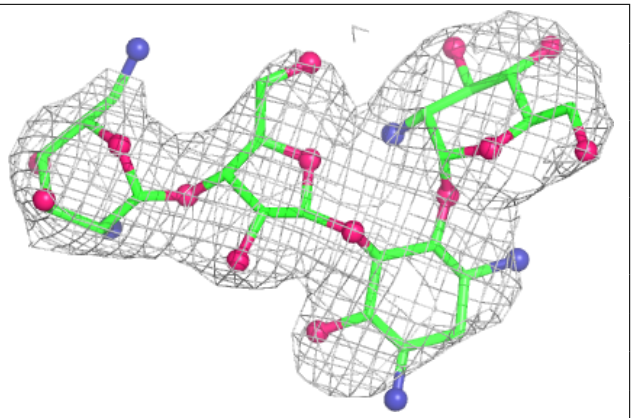


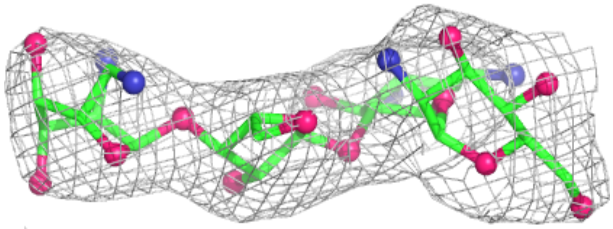


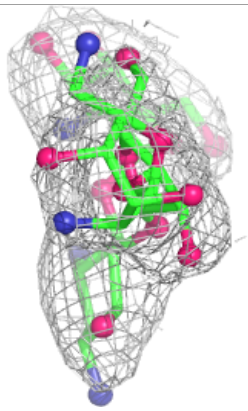


Electron density around PAR 1G 1691:

$2mF_o$-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

There are no such residues in this entry.