



Full wwPDB X-ray Structure Validation Report ⓘ

Jan 2, 2024 – 02:28 pm GMT

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

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The 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 : 4.02b-467
Mogul : 1.8.4, CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.36
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36

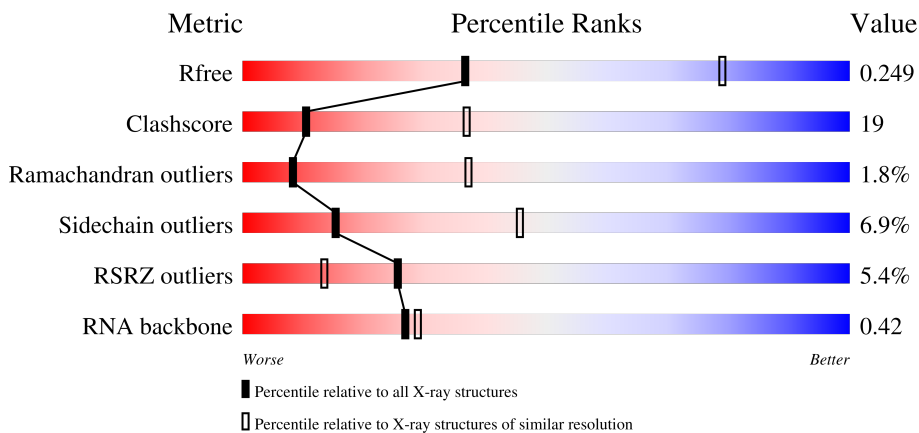
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.15 Å.

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



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

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments 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 $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	13	1522	 36% 44% 16% . .
1	1G	1522	 37% 45% 15% . .
2	12	256	 6% 34% 42% 5% . 18%

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Mol	Chain	Length	Quality of chain
2	1E	256	6% 40% 44% 6% 10%
3	22	239	19% 44% 37% 18%
3	2E	239	5% 49% 35% 14%
4	32	209	21% 45% 49%
4	3E	209	10% 57% 37% 5%
5	42	162	4% 52% 36% 9%
5	4E	162	8% 50% 41% 8%
6	52	101	10% 62% 36%
6	5E	101	13% 61% 37%
7	62	156	3% 45% 42% 11%
7	6E	156	2% 50% 44%
8	72	138	6% 57% 39%
8	7E	138	8% 43% 54%
9	82	128	2% 35% 52% 8% 5%
9	8E	128	40% 56%
10	1A	105	% 30% 38% 8% 24%
10	1I	105	7% 41% 43% 13%
11	2A	129	12% 47% 36% 12%
11	2I	129	12% 51% 33% 14%
12	3A	132	23% 48% 39% 5% 8%
12	3I	132	4% 52% 35% 5% 8%
13	4A	126	7% 41% 39% 6% 12%
13	4I	126	2% 48% 42% 5% 6%
14	5A	61	21% 46% 43% 5%
14	5I	61	52% 39% 7%

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Mol	Chain	Length	Quality of chain
15	6A	89	3% 53% 43% ..
15	6I	89	% 60% 37% ..
16	7A	88	% 53% 35% 7% 5%
16	7I	88	44% 47% 6%
17	8A	105	9% 54% 37% 6%
17	8I	105	5% 46% 43% 7% 5%
18	9A	88	10% 44% 30% 24%
18	9I	88	25% 44% 30% 23%
19	AA	93	5% 41% 19% 6% 33%
19	AI	93	3% 41% 41% 13%
20	BA	106	2% 53% 36% 7%
20	BI	106	% 42% 47% 8%
21	1B	27	7% 37% 41% 19%
21	1F	27	41% 44% 15%
22	1K	76	11% 18% 45% 25% 9%
22	1L	76	25% 28% 41% 24% ..
23	2K	77	49% 40% 8% .
23	2L	77	43% 39% 12% 6%
24	3K	76	4% 13% 36% 46% 5%
25	4K	27	7% 26% 22% 22% 26%
25	4L	27	7% 22% 26% 19% 30%
26	14	2917	% 34% 43% 18% ..
26	1H	2917	30% 42% 21% ..
27	16	122	% 39% 37% 20% .
27	1J	122	31% 45% 21% .

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Mol	Chain	Length	Quality of chain
28	71	229	
28	79	229	
29	11	276	
29	19	276	
30	21	206	
30	29	206	
31	31	210	
31	39	210	
32	41	182	
32	49	182	
33	51	180	
33	59	180	
34	61	148	
34	69	148	
35	15	140	
35	58	140	
36	25	122	
36	68	122	
37	35	150	
37	78	150	
38	45	141	
38	88	141	
39	55	118	
39	98	118	
40	65	112	





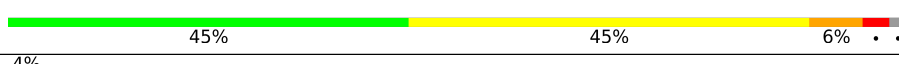
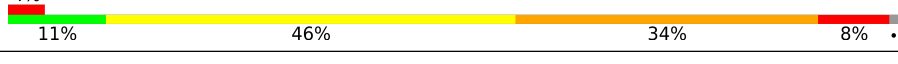
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Mol	Chain	Length	Quality of chain
40	A8	112	
41	75	146	
41	B8	146	
42	85	118	
42	C8	118	
43	95	101	
43	D8	101	
44	A5	113	
44	E8	113	
45	B5	96	
45	F8	96	
46	C5	110	
46	G8	110	
47	D5	206	
47	H8	206	
48	E5	85	
48	I8	85	
49	F5	98	
49	J8	98	
50	G5	72	
50	K8	72	
51	H5	60	
51	L8	60	
52	M8	71	
53	J5	60	

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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	11	303	-	-	-	X
57	MG	13	1655	-	-	-	X
57	MG	13	1656	-	-	-	X
57	MG	13	1659	-	-	-	X
57	MG	13	1665	-	-	-	X
57	MG	13	1667	-	-	-	X
57	MG	14	3016	-	-	-	X
57	MG	14	3075	-	-	-	X
57	MG	14	3097	-	-	-	X
57	MG	14	3190	-	-	-	X
57	MG	14	3191	-	-	-	X
57	MG	14	3206	-	-	-	X
57	MG	14	3223	-	-	-	X
57	MG	14	3237	-	-	-	X
57	MG	14	3243	-	-	-	X
57	MG	14	3257	-	-	-	X
57	MG	14	3265	-	-	-	X
57	MG	14	3268	-	-	-	X
57	MG	16	206	-	-	-	X
57	MG	1G	1620	-	-	-	X
57	MG	1H	3069	-	-	-	X
57	MG	1H	3103	-	-	-	X
57	MG	1H	3108	-	-	-	X
57	MG	1H	3121	-	-	-	X
57	MG	1H	3136	-	-	-	X
57	MG	1H	3144	-	-	-	X
57	MG	1H	3190	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	1H	3220	-	-	-	X
57	MG	1H	3244	-	-	-	X
57	MG	1H	3280	-	-	-	X
57	MG	1H	3284	-	-	-	X
57	MG	1H	3289	-	-	-	X
57	MG	29	301	-	-	-	X
57	MG	2L	103	-	-	-	X
57	MG	P8	101	-	-	-	X
59	SF4	32	301	-	-	X	-

2 Entry composition i

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
			Total	C	N	O	P			
1	13	1496	Total 32157	C 14313	N 5960	O 10388	P 1496	0	0	0
1	1G	1506	Total 32368	C 14408	N 5999	O 10456	P 1505	0	0	0

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
			Total	C	N	O	S			
2	1E	231	Total 1874	C 1199	N 334	O 336	S 5	0	0	0
2	12	210	Total 1721	C 1100	N 309	O 308	S 4	0	0	0

- Molecule 3 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	2E	205	Total 1605	C 1011	N 313	O 280	S 1	0	0	0
3	22	196	Total 1541	C 975	N 298	O 267	S 1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	3E	207	Total	C	N	O	S	0	0	0
			1690	1058	336	289	7			
4	32	208	Total	C	N	O	S	0	0	0
			1702	1066	339	290	7			

- Molecule 5 is a protein called 30S ribosomal protein S5.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	5E	100	Total	C	N	O	S	0	0	0
			837	528	154	152	3			
6	52	101	Total	C	N	O	S	0	0	0
			842	531	155	153	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	6E	154	Total	C	N	O	S	0	0	0
			1242	770	250	216	6			
7	62	139	Total	C	N	O	S	0	0	0
			1115	692	222	195	6			

- Molecule 8 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	7E	138	Total	C	N	O	S	0	0	0
			1115	705	215	192	3			
8	72	137	Total	C	N	O	S	0	0	0
			1107	700	214	191	2			

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	3I	122	Total	C	N	O	S	0	0	0
			956	603	193	159	1			
12	3A	122	Total	C	N	O	S	0	0	0
			956	603	193	159	1			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	5I	60	Total	C	N	O	S	0	0	0
			491	312	104	71	4			
14	5A	59	Total	C	N	O	S	0	0	0
			486	309	103	70	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	6I	87	Total	C	N	O	S	0	0	0
			729	457	146	124	2			
15	6A	88	Total	C	N	O	S	0	0	0
			733	459	147	125	2			

- Molecule 16 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	7I	83	Total	C	N	O	S	0	0	0
			700	443	139	117	1			
16	7A	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			

- Molecule 17 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	8I	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			
17	8A	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	9I	68	Total	C	N	O	0	0	0
			549	352	105	92			
18	9A	67	Total	C	N	O	0	0	0
			544	349	104	91			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	BI	97	Total	C	N	O	S	0	0	0
			746	461	157	126	2			
20	BA	99	Total	C	N	O	S	0	0	0
			762	470	162	128	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	1F	23	Total	C	N	O	0	0	0
			199	122	48	29			
21	1B	22	Total	C	N	O	0	0	0
			188	116	44	28			

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

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

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

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

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

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

- Molecule 25 is a RNA chain called mRNA.

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

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

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

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
			Total	C	N	O	P			
27	16	122	2617	1166	486	844	121	0	0	0
27	1J	122	2617	1166	486	844	121	0	0	0

- Molecule 28 is a protein called 50S ribosomal protein L1.

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

- 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
			Total	C	N	O	S			
34	69	145	1131	723	200	207	1	0	0	0

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

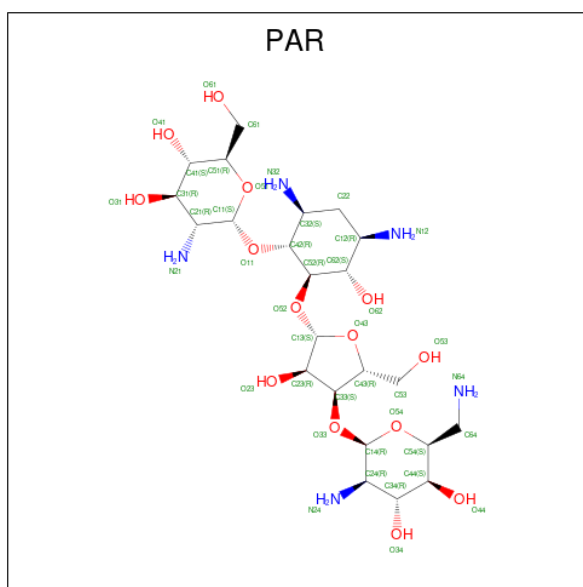
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	13	150	Total 150	Mg 150	0	0
57	5E	1	Total 1	Mg 1	0	0
57	1I	1	Total 1	Mg 1	0	0
57	3I	1	Total 1	Mg 1	0	0
57	5I	1	Total 1	Mg 1	0	0
57	BI	1	Total 1	Mg 1	0	0
57	2K	3	Total 3	Mg 3	0	0
57	1H	502	Total 502	Mg 502	0	0
57	16	12	Total 12	Mg 12	0	0
57	11	3	Total 3	Mg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

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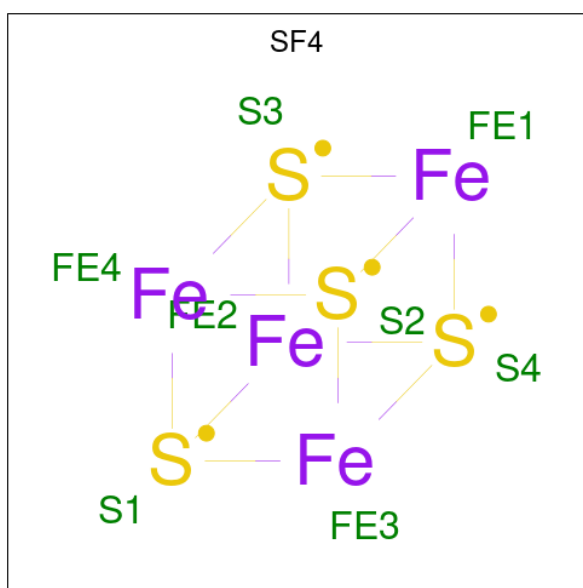
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	1G	93	Total 93	Mg 93	0	0
57	7A	1	Total 1	Mg 1	0	0
57	2L	4	Total 4	Mg 4	0	0
57	14	454	Total 454	Mg 454	0	0
57	1J	6	Total 6	Mg 6	0	0
57	29	4	Total 4	Mg 4	0	0
57	39	2	Total 2	Mg 2	0	0
57	35	2	Total 2	Mg 2	0	0
57	45	3	Total 3	Mg 3	0	0
57	55	1	Total 1	Mg 1	0	0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

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



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

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



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

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

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

- Molecule 61 is water.

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

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

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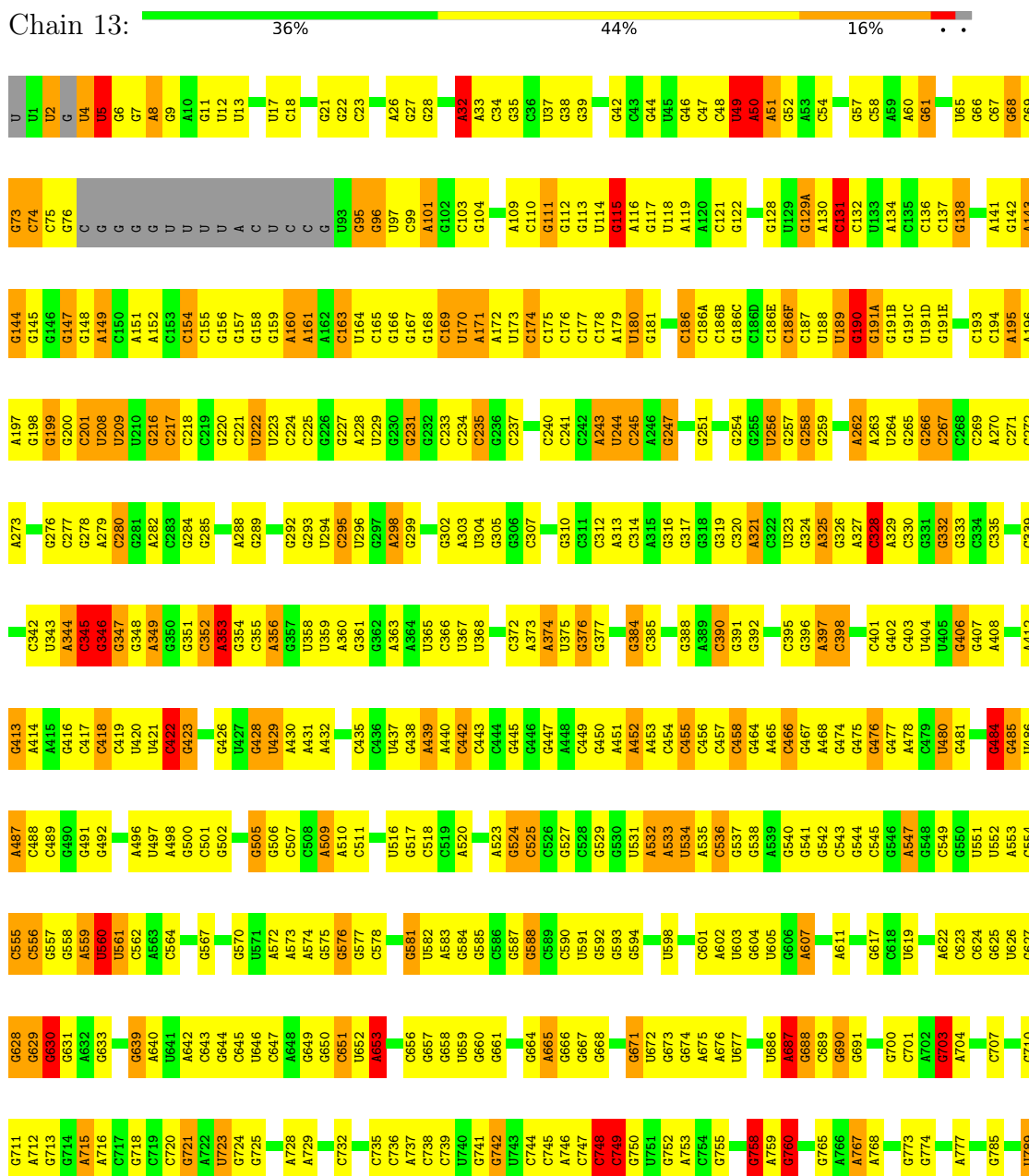
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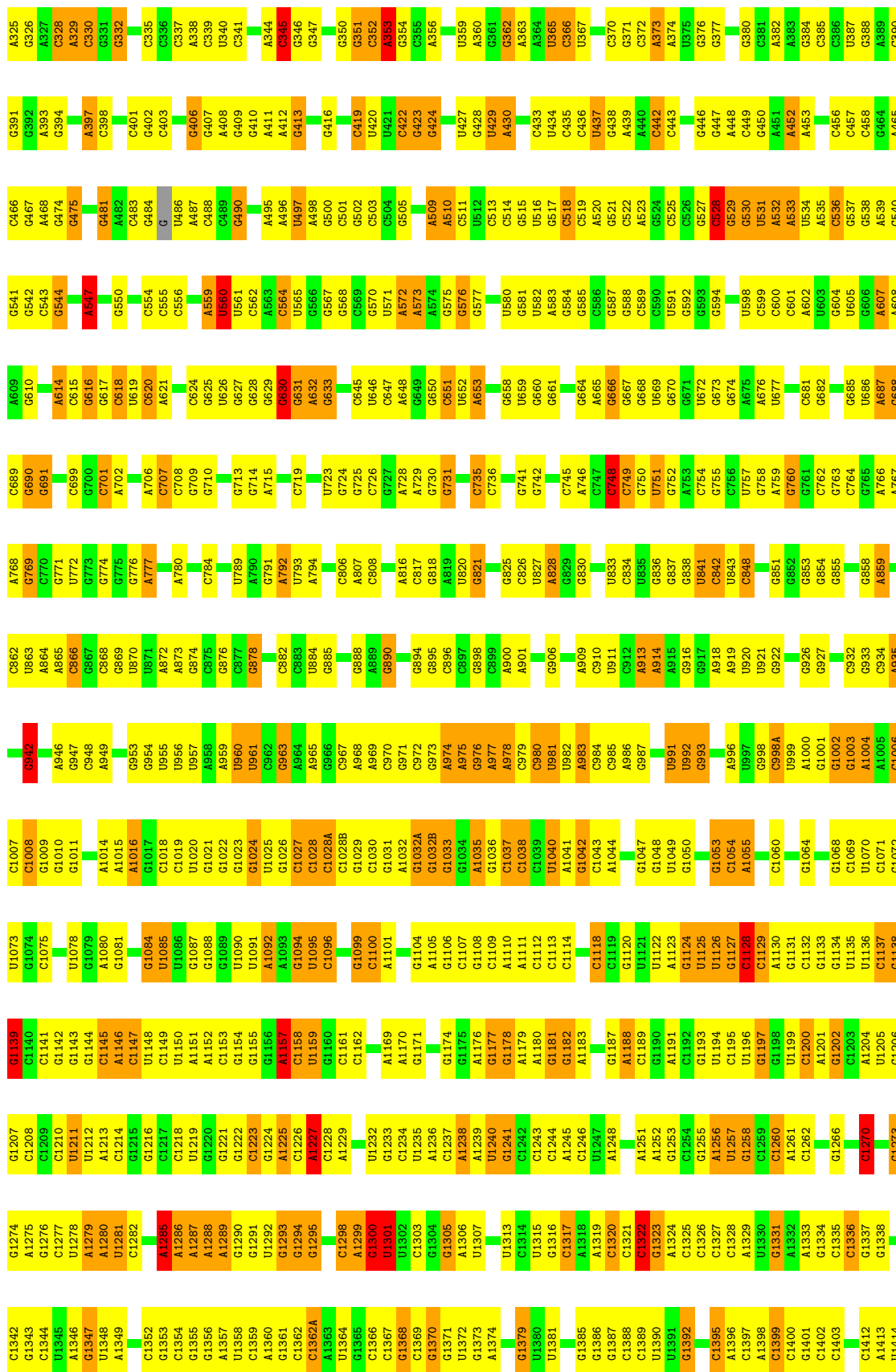
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61	6A	3	Total O 3 3	0	0
61	8A	1	Total O 1 1	0	0
61	BA	3	Total O 3 3	0	0
61	2L	1	Total O 1 1	0	0
61	4L	3	Total O 3 3	0	0
61	14	1015	Total O 1015 1015	0	0
61	1J	18	Total O 18 18	0	0
61	19	12	Total O 12 12	0	0
61	29	6	Total O 6 6	0	0
61	39	8	Total O 8 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

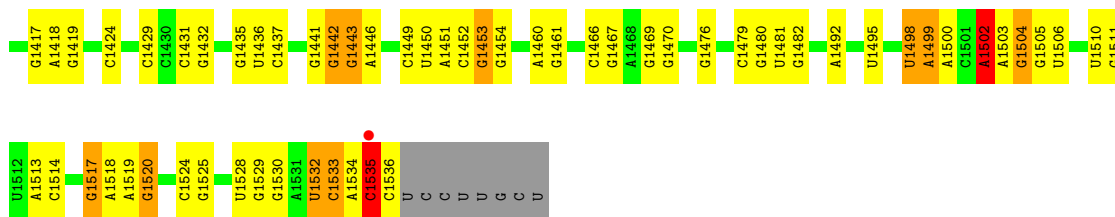
3 Residue-property plots

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.

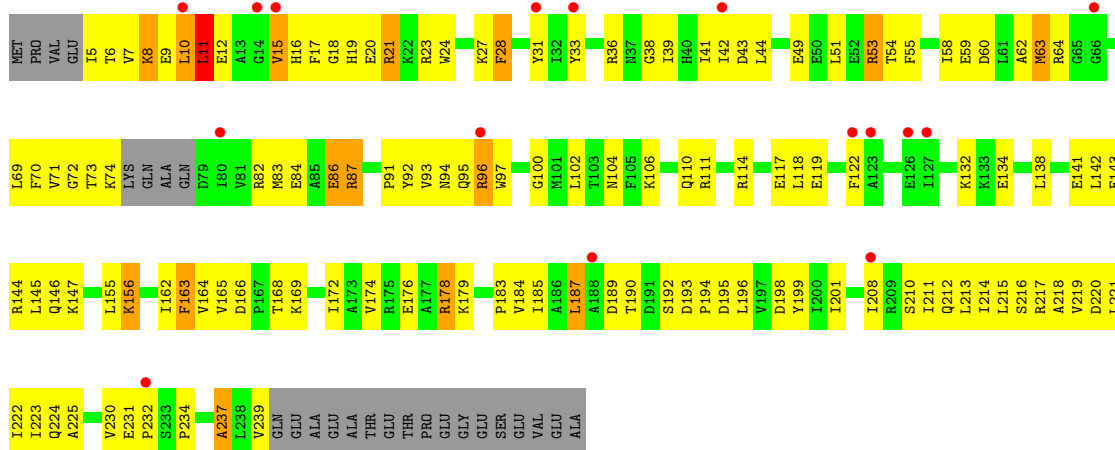
• Molecule 1: 16S rRNA



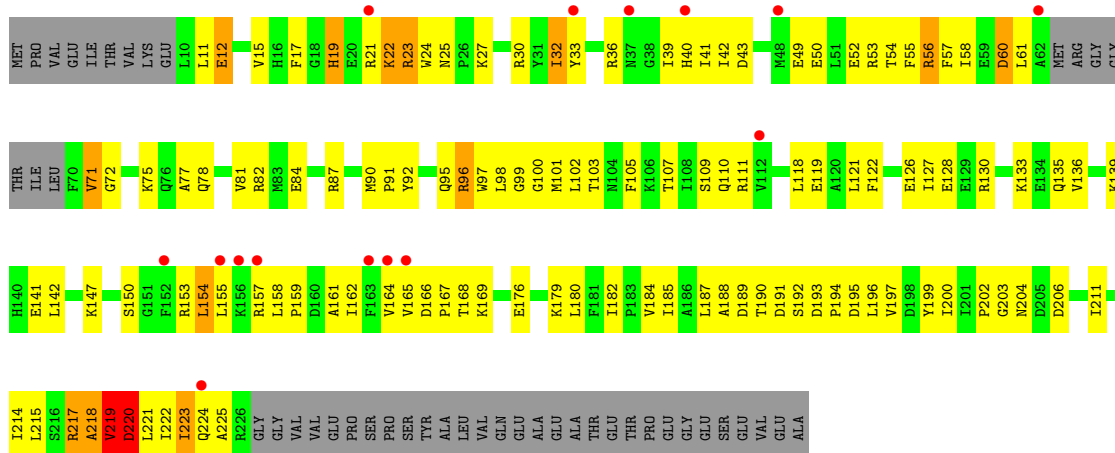




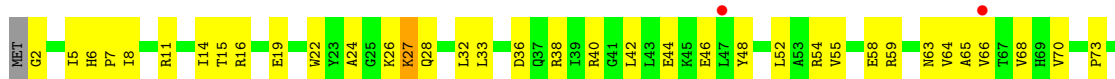
• Molecule 2: 30S ribosomal protein S2

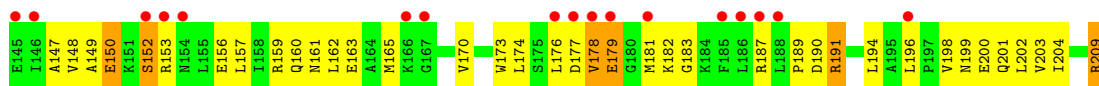


• Molecule 2: 30S ribosomal protein S2

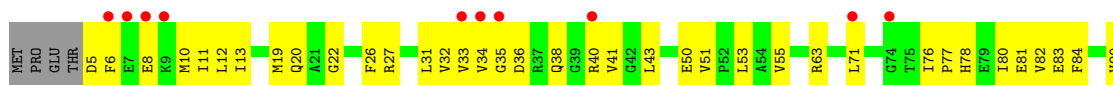


• Molecule 3: 30S ribosomal protein S3

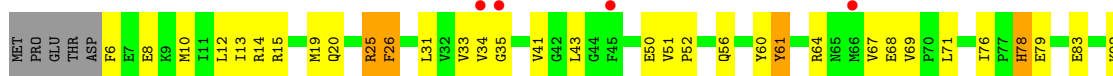




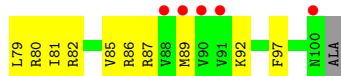
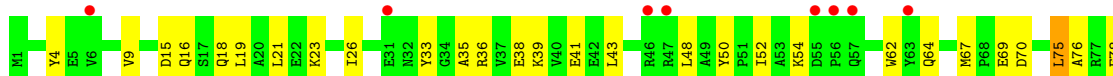
• Molecule 5: 30S ribosomal protein S5



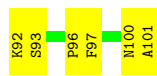
• Molecule 5: 30S ribosomal protein S5



• Molecule 6: 30S ribosomal protein S6

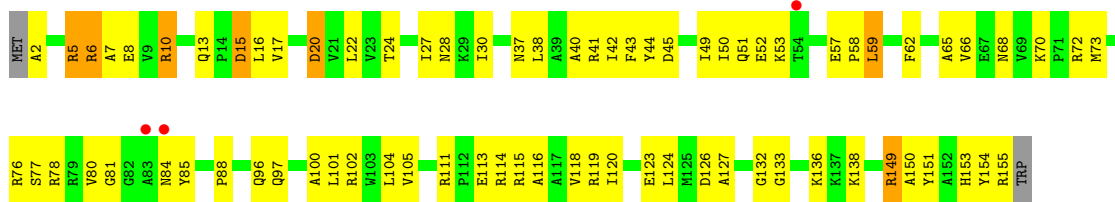


• Molecule 6: 30S ribosomal protein S6

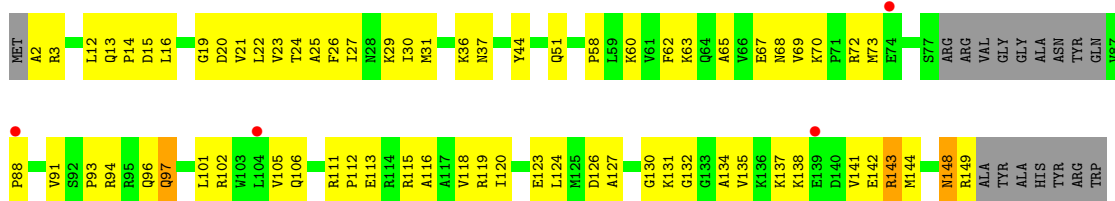


• Molecule 7: 30S ribosomal protein S7

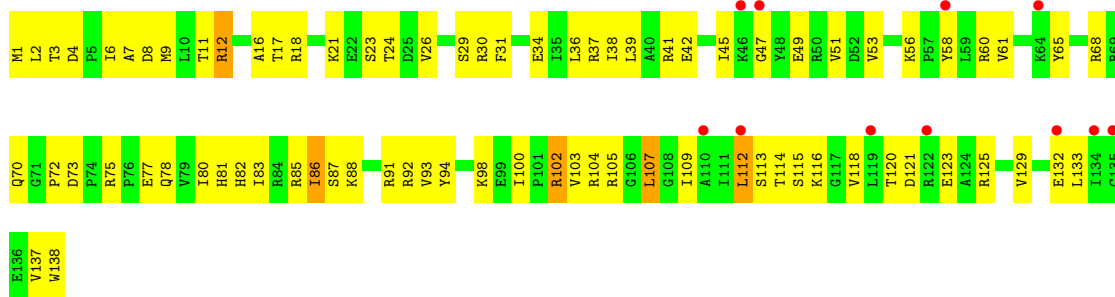




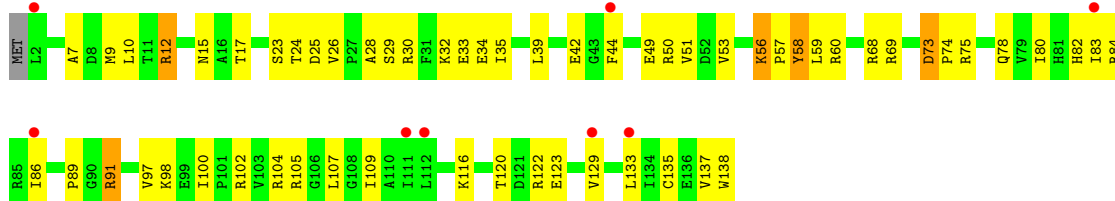
• Molecule 7: 30S ribosomal protein S7



• Molecule 8: 30S ribosomal protein S8

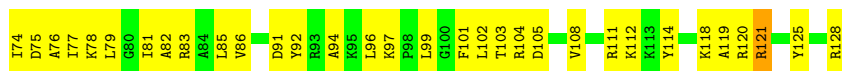


• Molecule 8: 30S ribosomal protein S8



• Molecule 9: 30S ribosomal protein S9

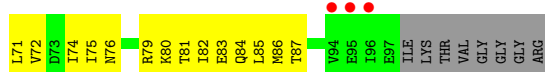
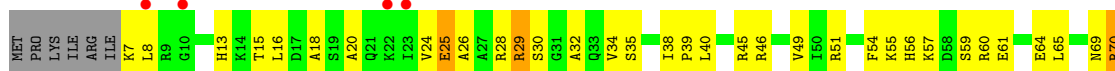
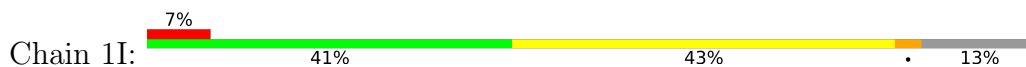




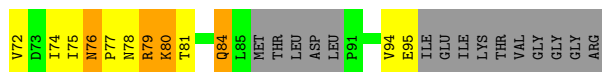
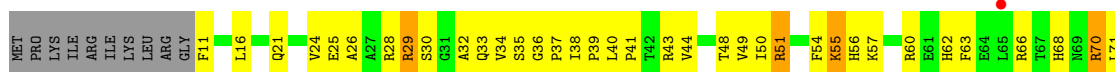
- Molecule 9: 30S ribosomal protein S9



- Molecule 10: 30S ribosomal protein S10



- Molecule 10: 30S ribosomal protein S10

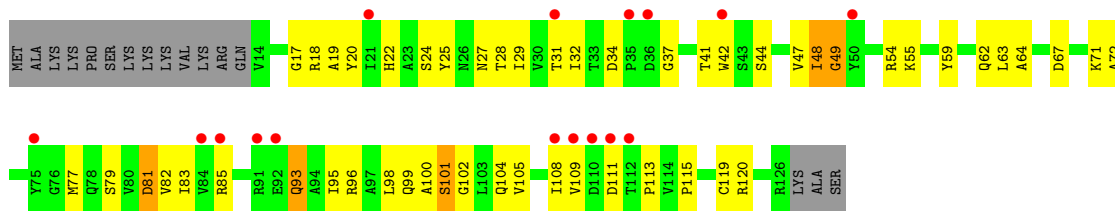


- Molecule 11: 30S ribosomal protein S11

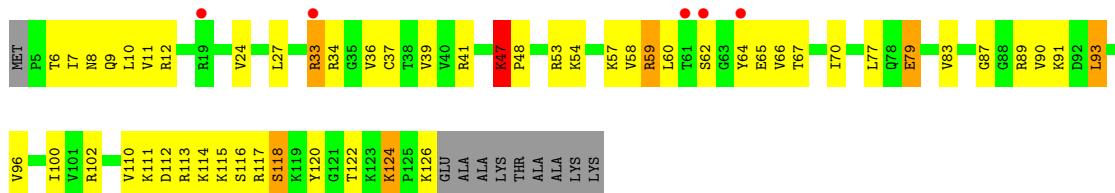


- Molecule 11: 30S ribosomal protein S11

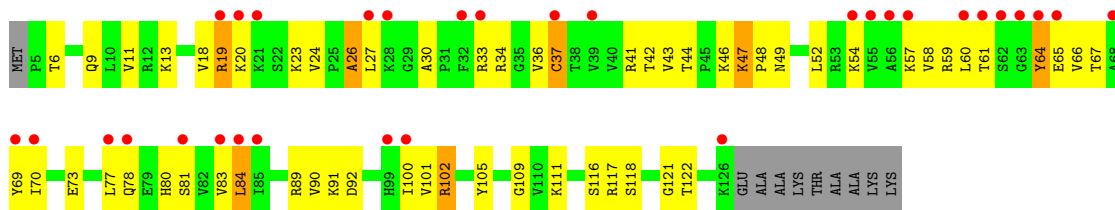




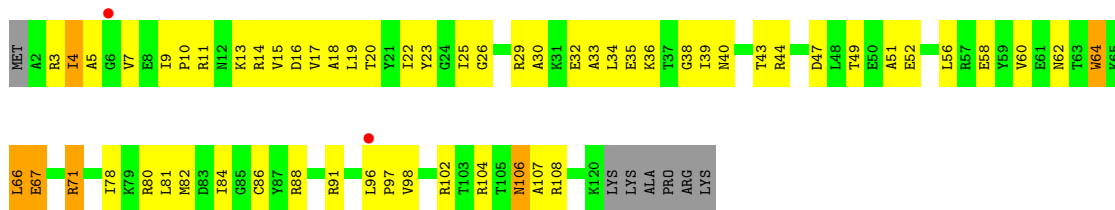
• Molecule 12: 30S ribosomal protein S12



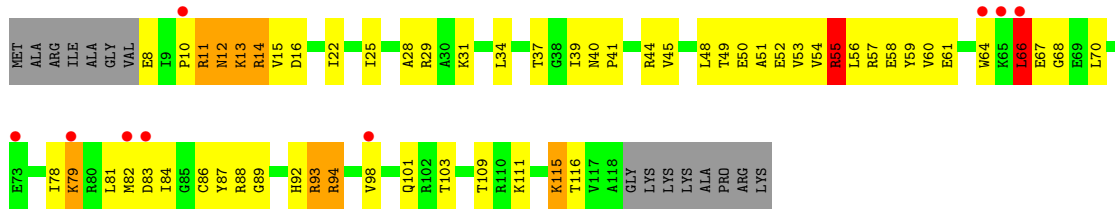
• Molecule 12: 30S ribosomal protein S12



• Molecule 13: 30S ribosomal protein S13



• Molecule 13: 30S ribosomal protein S13



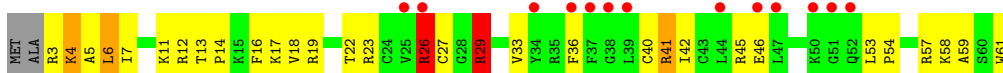
- Molecule 14: 30S ribosomal protein S14 type Z

Chain 5I:  52% 39% 7%



- Molecule 14: 30S ribosomal protein S14 type Z

Chain 5A:  21% 46% 43% 5%



- Molecule 15: 30S ribosomal protein S15

Chain 6I:  60% 37%



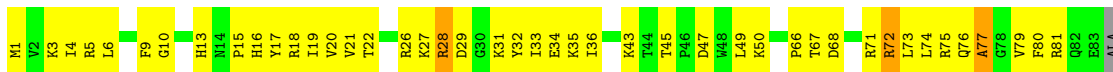
- Molecule 15: 30S ribosomal protein S15

Chain 6A:  3% 53% 43%



- Molecule 16: 30S ribosomal protein S16

Chain 7I:  44% 47% 6%



ARG
GLU
GLY
ALA

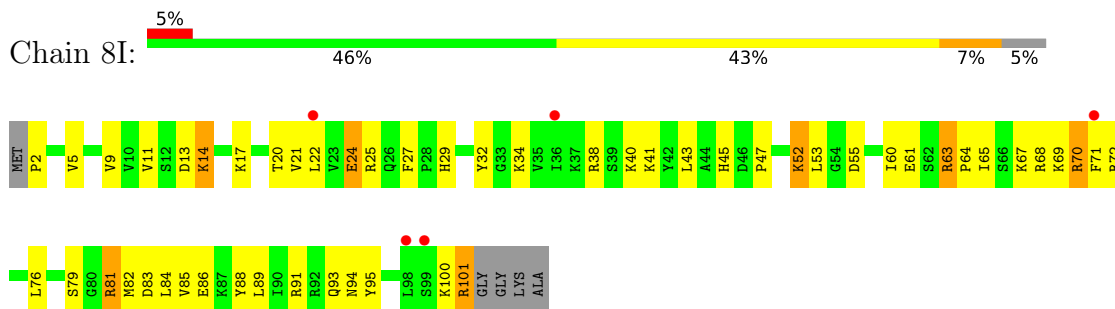
- Molecule 16: 30S ribosomal protein S16

Chain 7A:  53% 35% 7% 5%

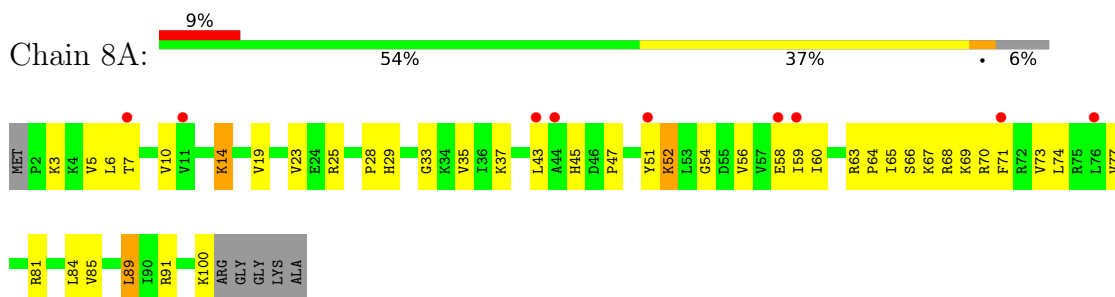


Q82
E83
A84
ARG
GLU
GLY
ALA

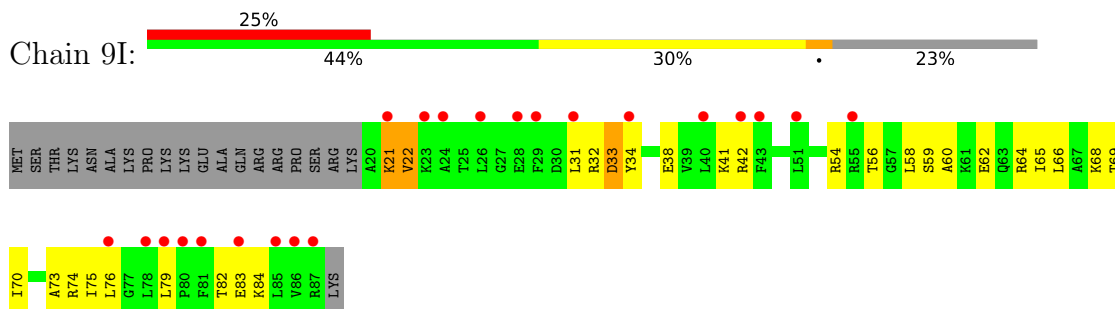
- Molecule 17: 30S ribosomal protein S17



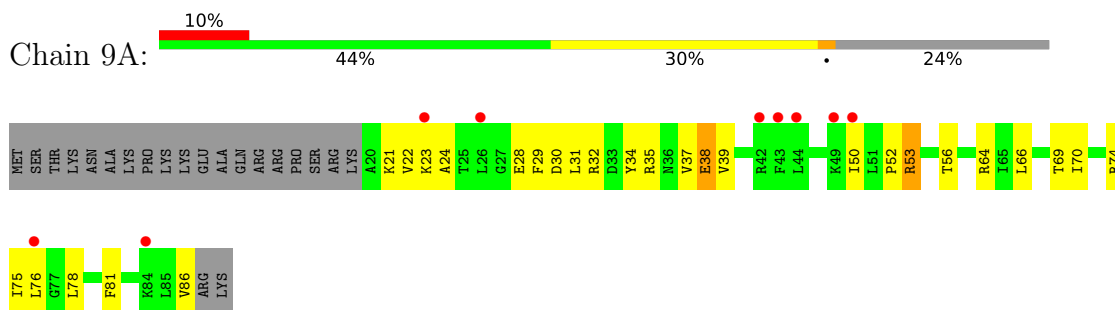
- Molecule 17: 30S ribosomal protein S17



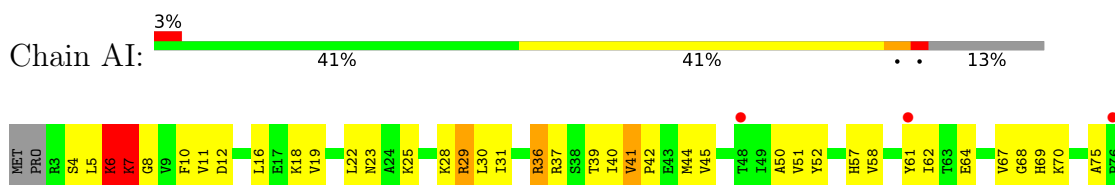
- Molecule 18: 30S ribosomal protein S18

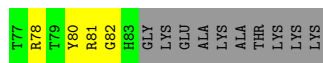


- Molecule 18: 30S ribosomal protein S18

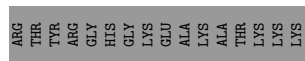


- Molecule 19: 30S ribosomal protein S19





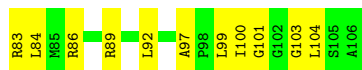
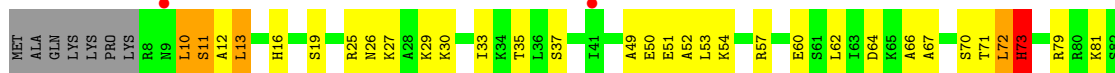
• Molecule 19: 30S ribosomal protein S19



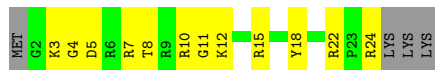
• Molecule 20: 30S ribosomal protein S20



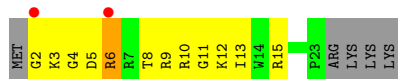
• Molecule 20: 30S ribosomal protein S20



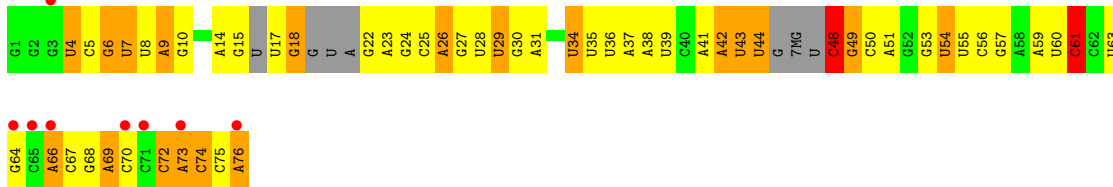
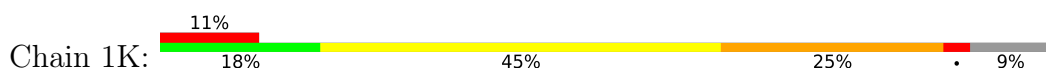
• Molecule 21: 30S ribosomal protein Thx



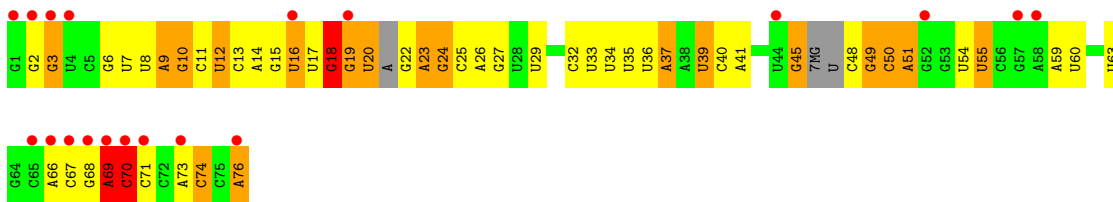
• Molecule 21: 30S ribosomal protein Thx



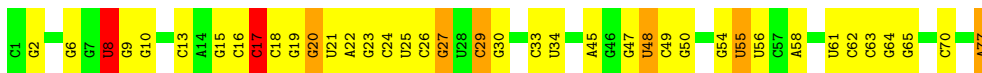
• Molecule 22: tRNA^{Lys}



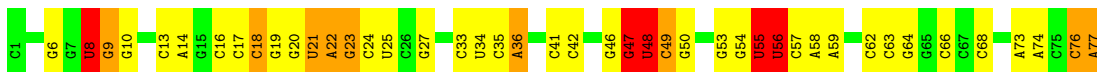
- Molecule 22: tRNA^{Lys}



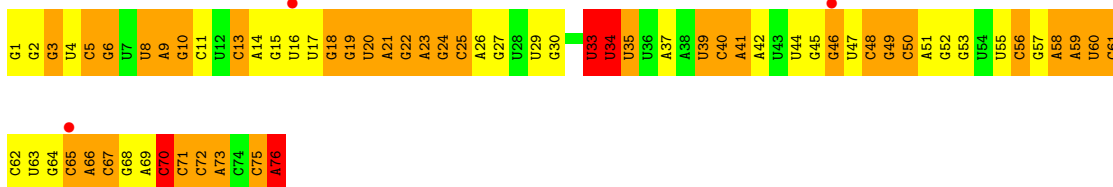
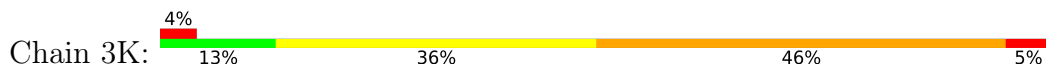
- Molecule 23: E. coli tRNA^{Met}



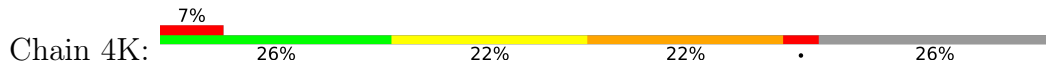
- Molecule 23: E. coli tRNA^{Met}



- Molecule 24: tRNA^{Lys}

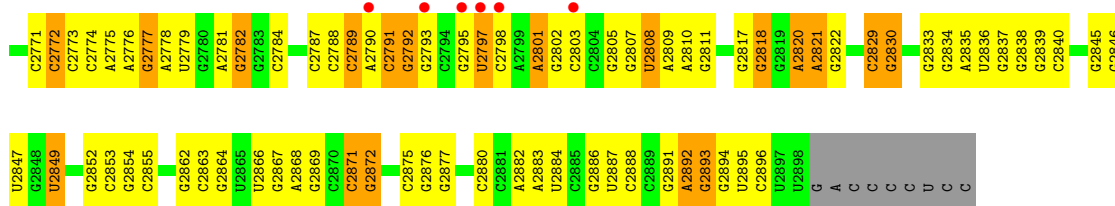


- Molecule 25: mRNA

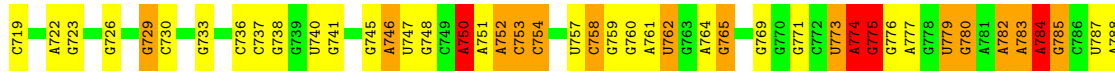
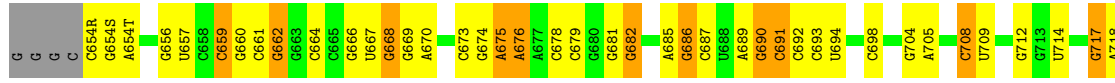
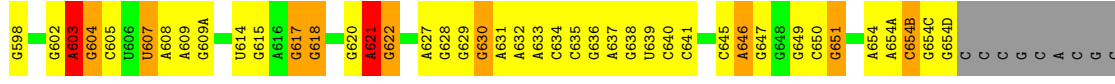
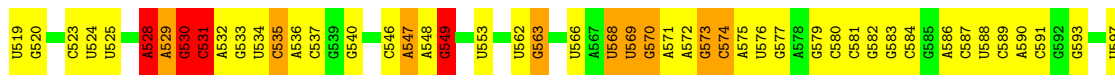
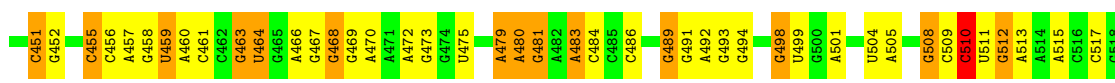
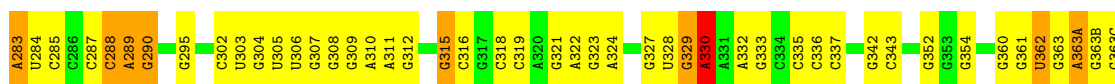
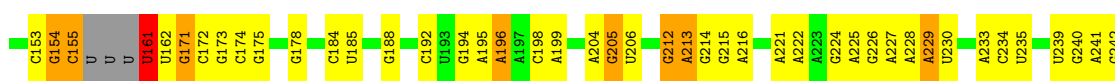


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G1666	G1667	G1597	G1598	G1527	G1463	G1401	G1333	A1269	G1192	C1123	A990	U851	A764	A765	C719	C720	G719
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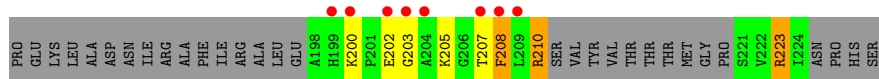
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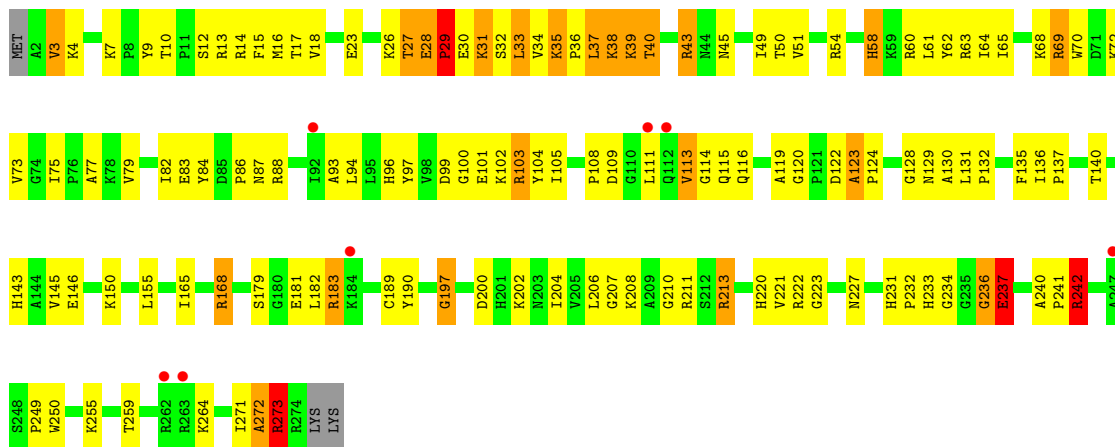
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C1996	U2065	G2133	U2196	A2274	G2340	G2407	C2472	C2538	U2613	G2685	C2755	G2824	G2890
G1997	U2068	A2134	A2198	C2275	C2342	U2408	U2473	A2542	A2614	U2688	A2758	G2825	G2891
C1998	G2069	C2136	C2207	G2276	G2343	G2409	C2474	A2543	C2615	U2689	G2759	U2832	G2892
C1999	G2070	C2137	U2208	G2277	U2344	G2410	C2475	G2544	C2616	C2690	C2762	G2833	G2893
G2000	U2074	C2138	C2209	A2278	G2345	A2446	A2476	G2545	G2618	C2692	G2763	G2834	G2894
A2001	U2075	C2139	G2210	G2279	G2346	G2447	A2477	U2546	C2619	A2693	A2764	U2835	G2895
G2002	U2076	C2140	G2211	G2280	U2347	G2448	A2478	U2547	G2620	G2694	A2765	G2837	G2896
G2003	U2077	C2141	A2212	C2281	U2348	G2415	G2479	U2548	G2624	C2695	G2766	G2838	G2897
G2004	U2078	C2142	A2213	C2282	U2349	G2416	C2480	U2549	G2625	U2696	C2767	G2839	G2898
A2005	C2077	C2143	U2213	C2283	C2350	C2417	C2481	G2557	G2627	G2697	C2768	G2840	G2899
C2006	U2079	C2144	G2215	C2284	A2352	A2418	G2482	C2558	A2628	C2699	C2769	U2841	G2900
G2010	G2080	C2145	G2224	A2286	A2353	U2419	G2483	U2562	G2630	C2700	C2773	U2842	G2901
U2011	A2081	C2146	A2225	A2287	G2354	G2422	G2485	U2563	G2631	C2701	C2774	G2843	G2902
G2012	G2082	G2147	A2226	U2290	C2355	U2423	G2486	U2564	G2632	U2702	A2775	U2844	C
A2013	G2083	G2148	A2227	U2291	C2356	C2424	G2487	U2565	G2633	C2704	A2776	U2845	U
		G2149	G2228	C2292	U2357	A2425	A2488	A2565	G2638		G2777	U2846	C
												U2847	C
												G2848	C
												U2849	C
												A2850	C
												C2703	C
												A2851	C

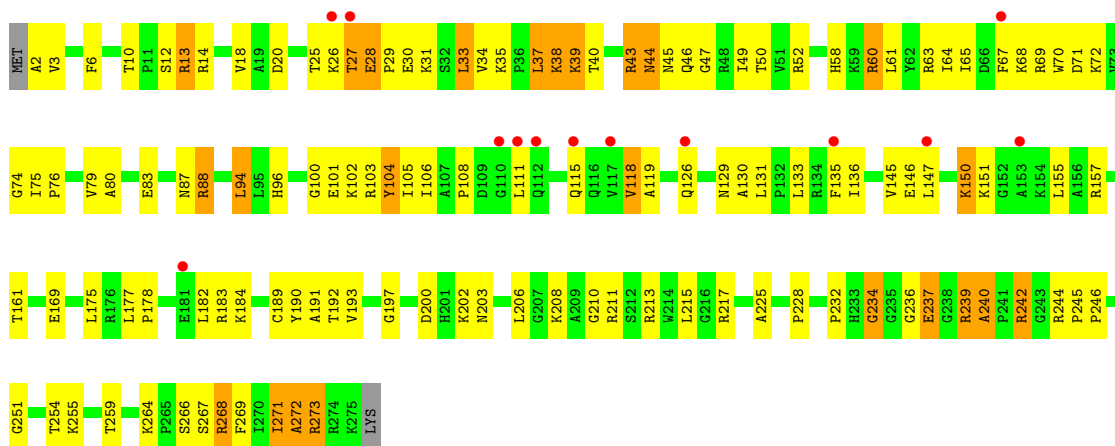
● Molecule 27: 5S rRNA



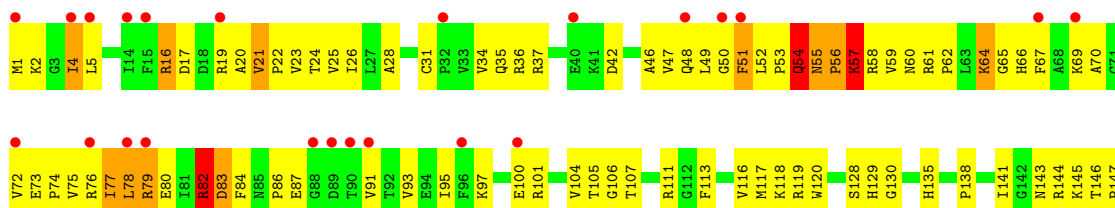
• Molecule 29: 50S ribosomal protein L2



• Molecule 29: 50S ribosomal protein L2

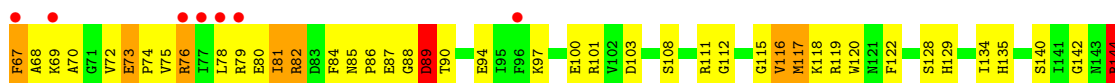


• Molecule 30: 50S ribosomal protein L3

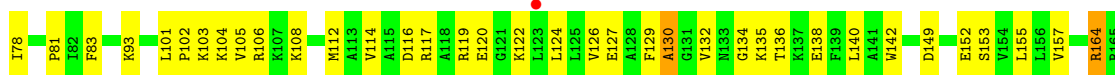




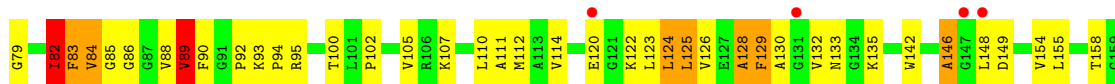
- Molecule 30: 50S ribosomal protein L3



- Molecule 31: 50S ribosomal protein L4

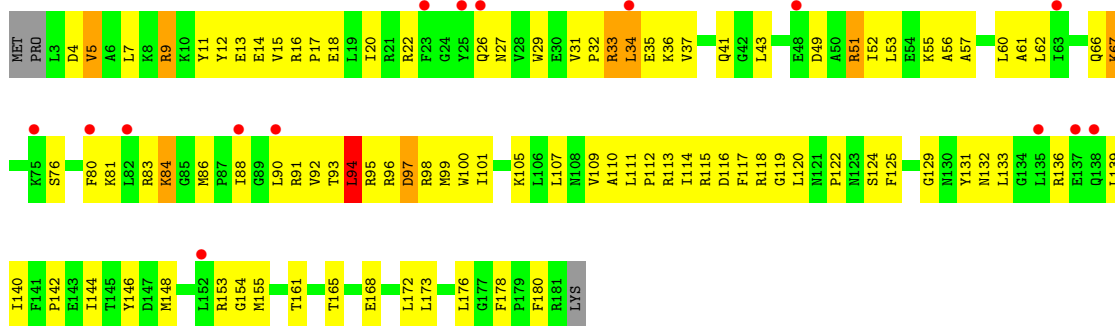


- Molecule 31: 50S ribosomal protein L4

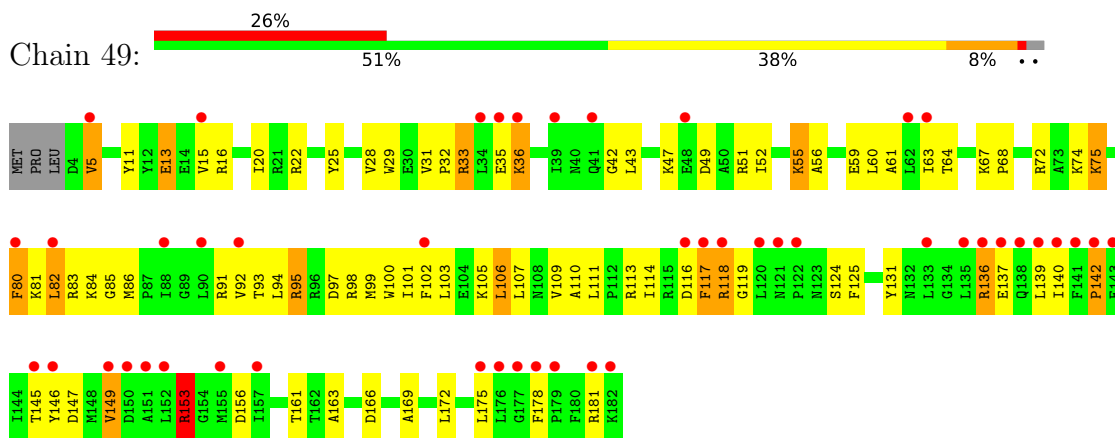


- Molecule 32: 50S ribosomal protein L5

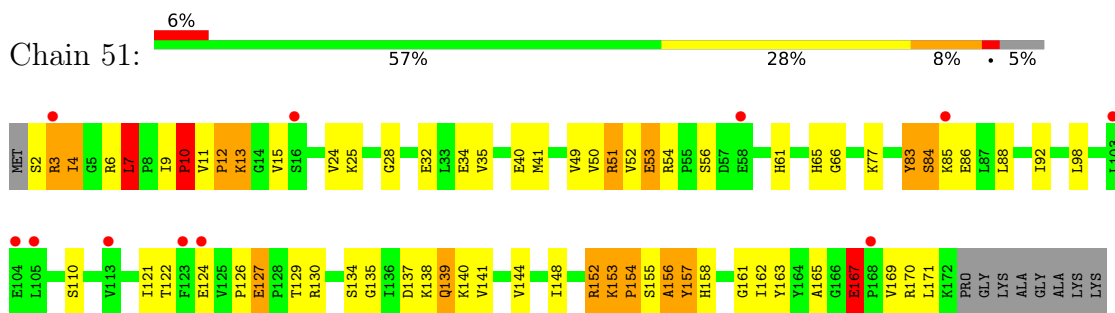




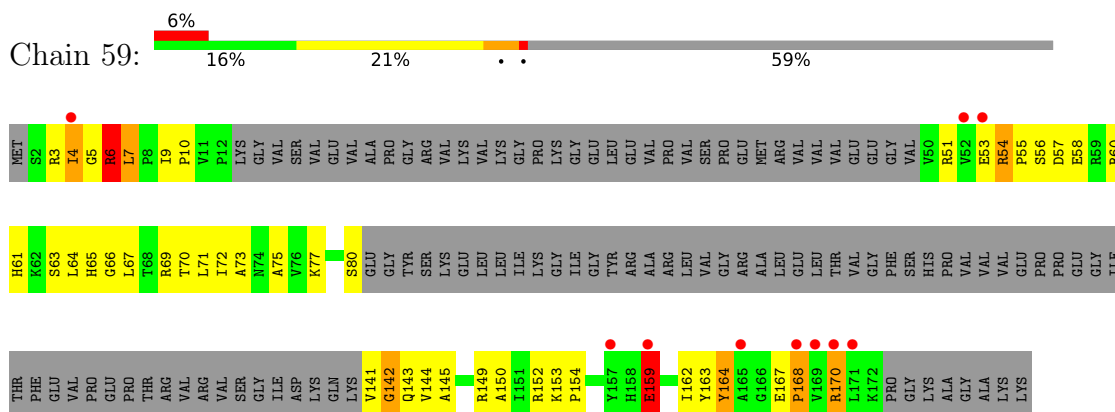
• Molecule 32: 50S ribosomal protein L5

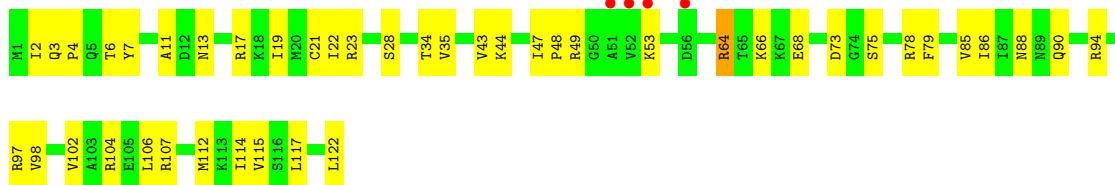


• Molecule 33: 50S ribosomal protein L6

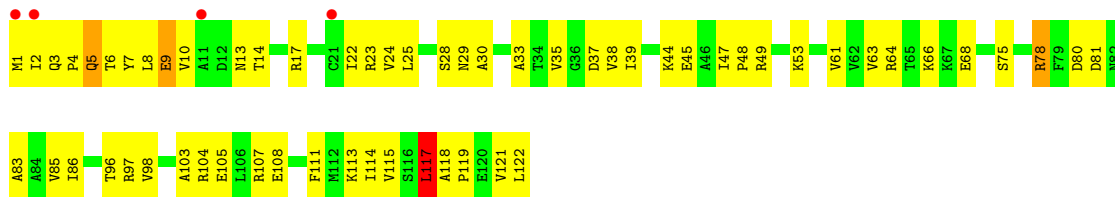


• Molecule 33: 50S ribosomal protein L6

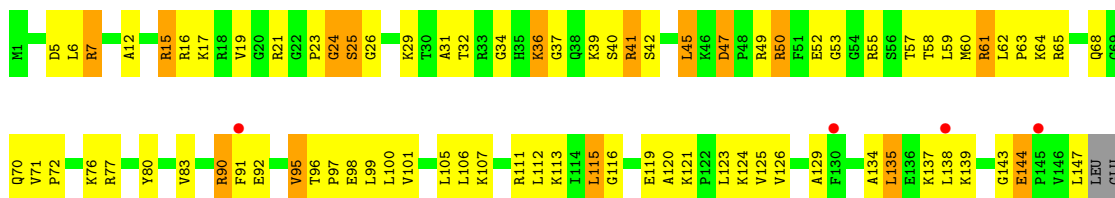




• Molecule 36: 50S ribosomal protein L14

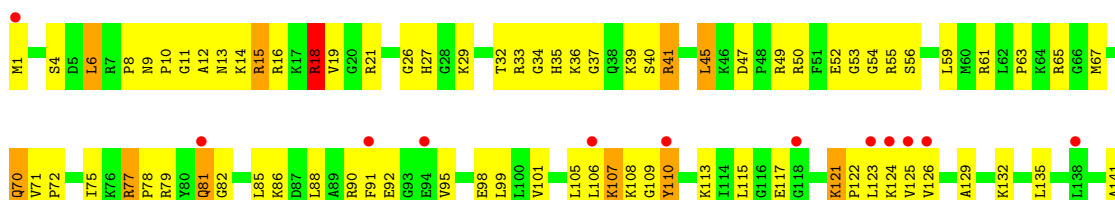
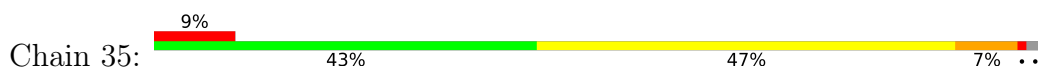


• Molecule 37: 50S ribosomal protein L15



ALA

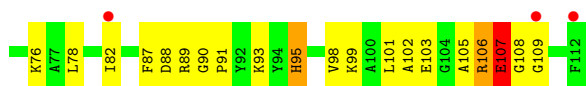
• Molecule 37: 50S ribosomal protein L15



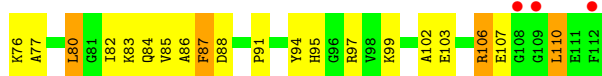
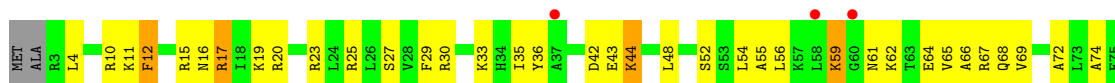
G142
G143
E144
P145
V146
L147
LEU
GLU
ALA

• Molecule 38: 50S ribosomal protein L16

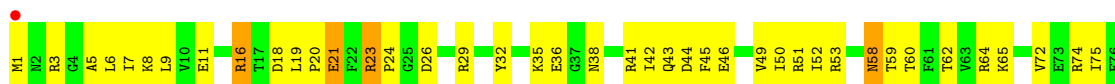




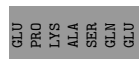
- Molecule 40: 50S ribosomal protein L18



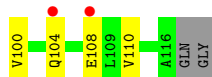
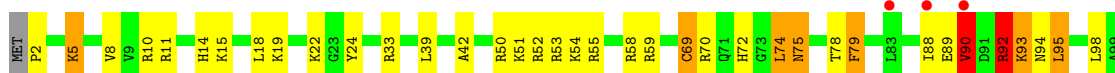
- Molecule 41: 50S ribosomal protein L19



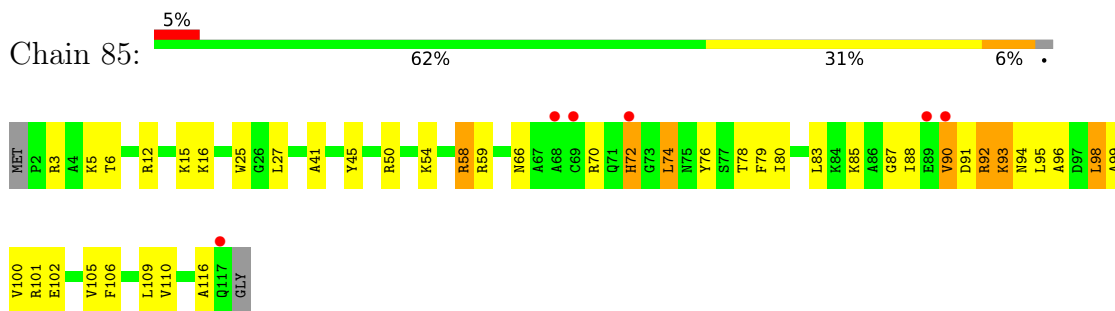
- Molecule 41: 50S ribosomal protein L19



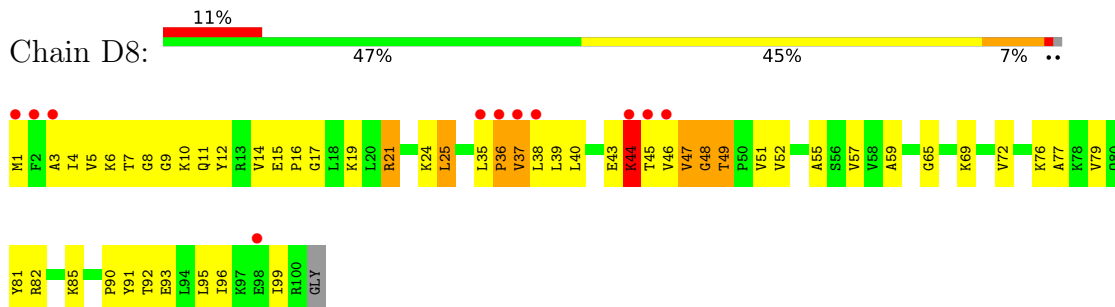
- Molecule 42: 50S ribosomal protein L20



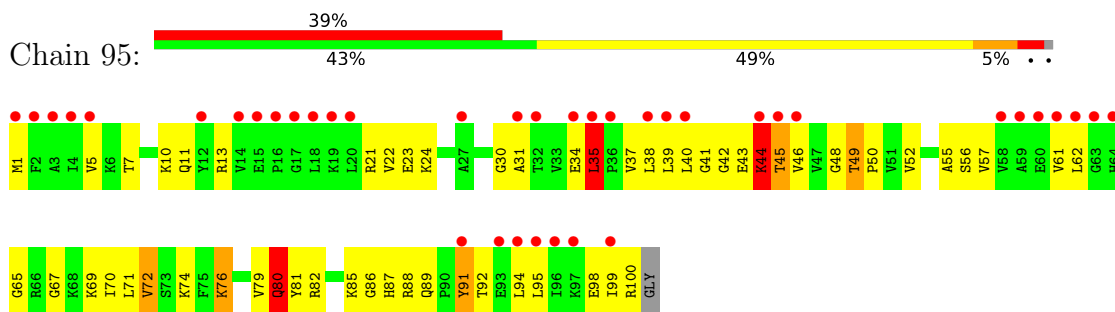
- Molecule 42: 50S ribosomal protein L20



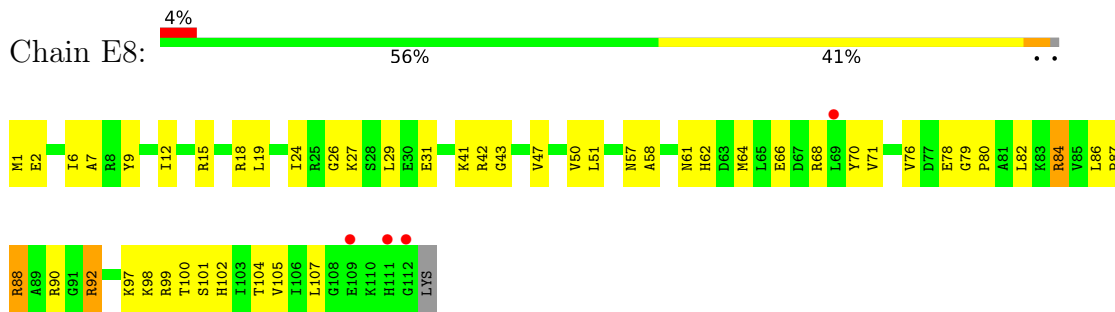
• Molecule 43: 50S ribosomal protein L21



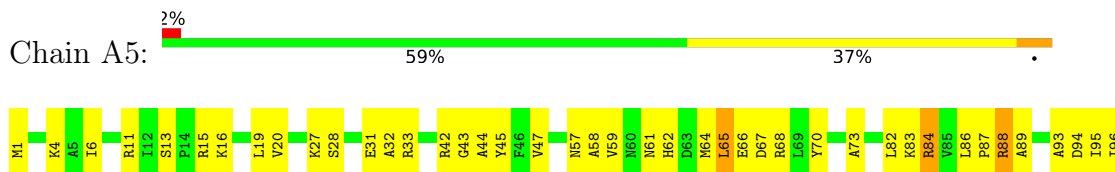
• Molecule 43: 50S ribosomal protein L21

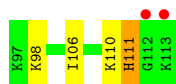


• Molecule 44: 50S ribosomal protein L22

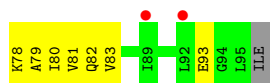


• Molecule 44: 50S ribosomal protein L22

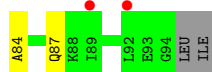
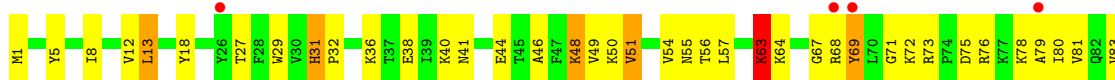




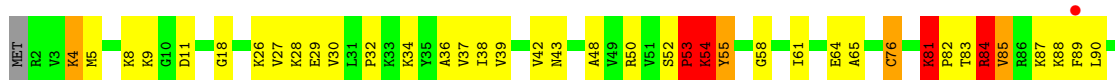
• Molecule 45: 50S ribosomal protein L23



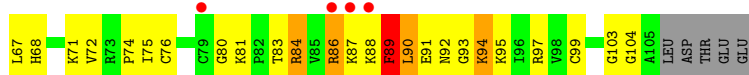
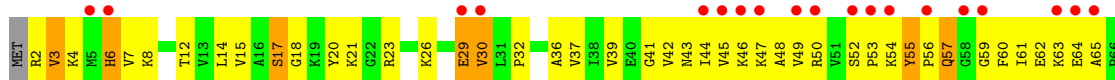
• Molecule 45: 50S ribosomal protein L23



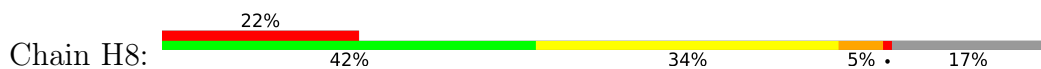
• Molecule 46: 50S ribosomal protein L24

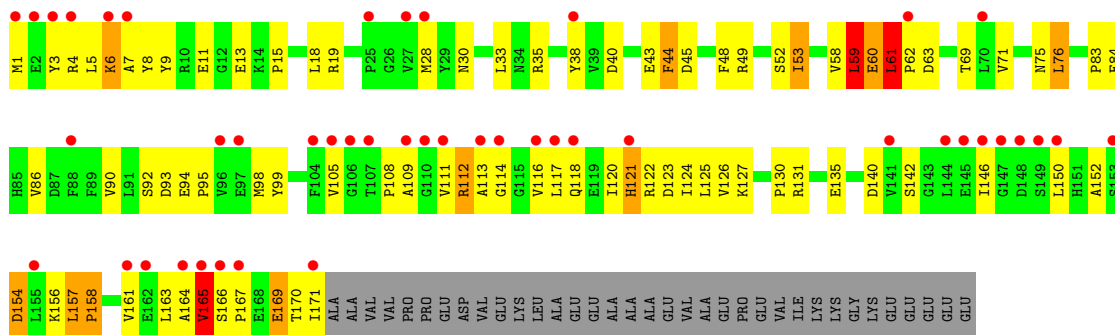


• Molecule 46: 50S ribosomal protein L24

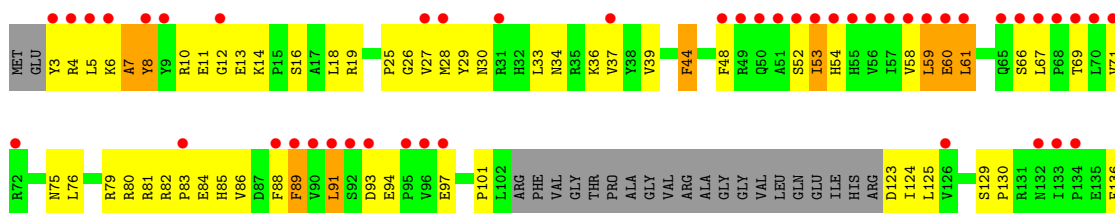
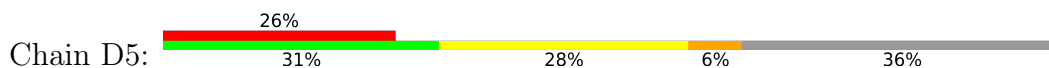


• Molecule 47: 50S ribosomal protein L25

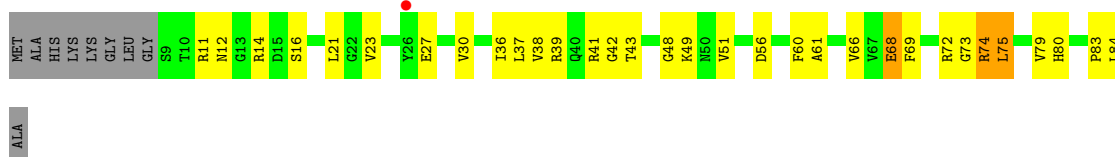




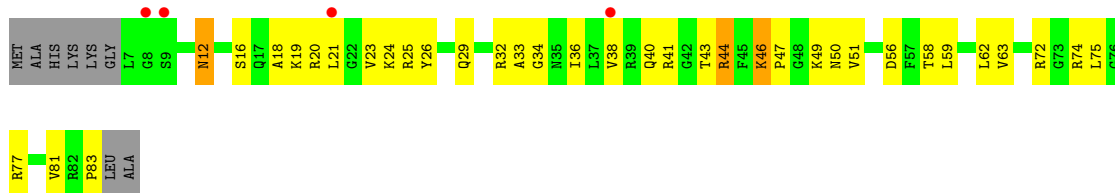
- Molecule 47: 50S ribosomal protein L25



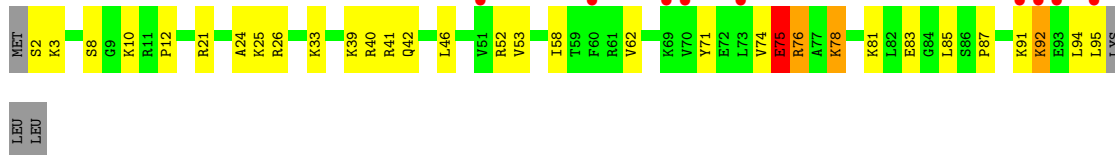
- Molecule 48: 50S ribosomal protein L27



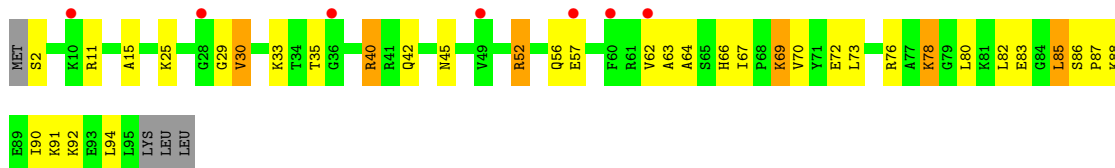
- Molecule 48: 50S ribosomal protein L27



- Molecule 49: 50S ribosomal protein L28



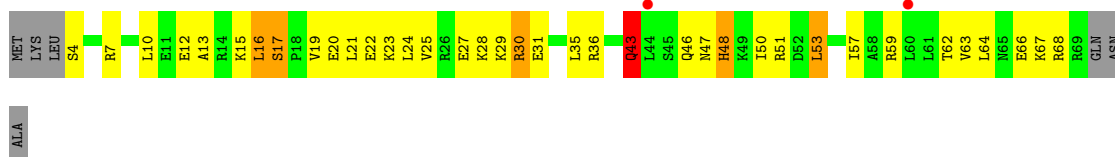
- Molecule 49: 50S ribosomal protein L28



- Molecule 50: 50S ribosomal protein L29



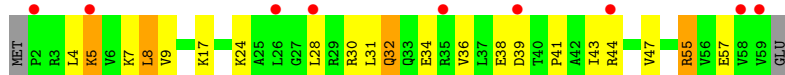
- Molecule 50: 50S ribosomal protein L29



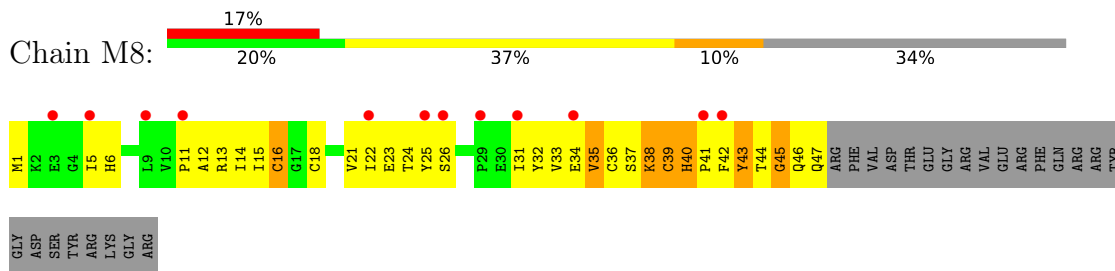
- Molecule 51: 50S ribosomal protein L30



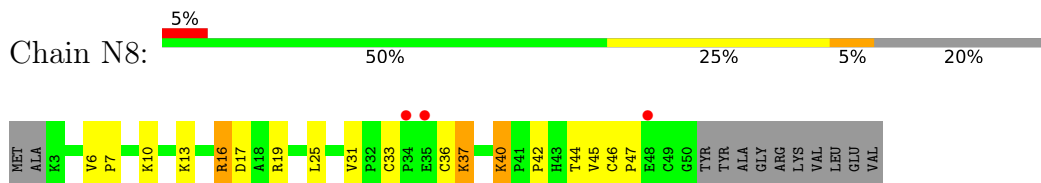
- Molecule 51: 50S ribosomal protein L30



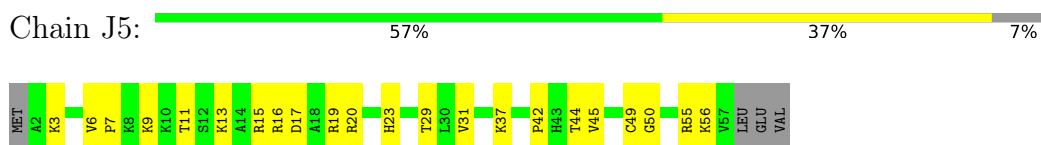
- Molecule 52: 50S ribosomal protein L31



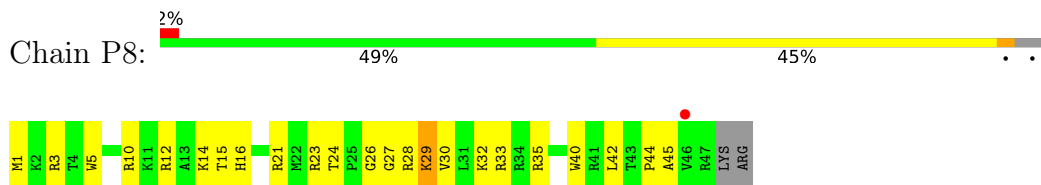
- Molecule 53: 50S ribosomal protein L32



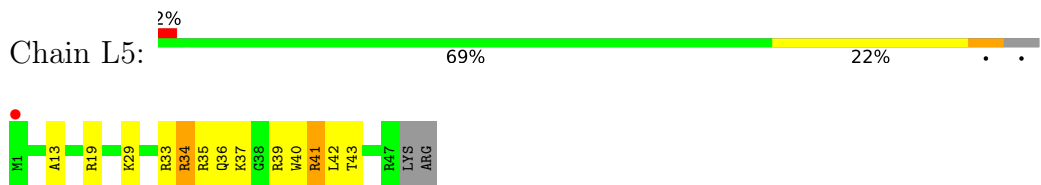
- Molecule 53: 50S ribosomal protein L32



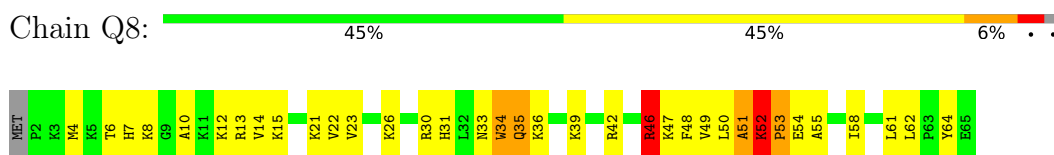
- Molecule 54: 50S ribosomal protein L34



- Molecule 54: 50S ribosomal protein L34

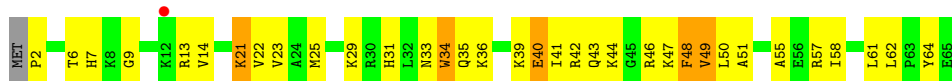


- Molecule 55: 50S ribosomal protein L35



- Molecule 55: 50S ribosomal protein L35





● Molecule 56: tRNA^{Lys}



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	209.70Å 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
$\langle I/\sigma(I) \rangle$ ¹	0.83 (at 3.13Å)	Xtrriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.192 , 0.247 0.194 , 0.249	Depositor DCC
R_{free} test set	2000 reflections (0.20%)	wwPDB-VP
Wilson B-factor (Å ²)	80.1	Xtrriage
Anisotropy	0.356	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.25 , 63.9	EDS
L-test for twinning ²	$\langle L \rangle = 0.44$, $\langle L^2 \rangle = 0.26$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.94	EDS
Total number of atoms	296184	wwPDB-VP
Average B, all atoms (Å ²)	102.0	wwPDB-VP

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

¹Intensities estimated from amplitudes.

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

5 Model quality i

5.1 Standard geometry i

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

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

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

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

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

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

Mol	Chain	#Chirality outliers	#Planarity outliers
2	12	0	5

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

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

All (128) bond length outliers are listed below:

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

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

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

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

All (2847) bond angle outliers are listed below:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

There are no chirality outliers.

All (169) planarity outliers are listed below:

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

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

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

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

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

5.2 Too-close contacts [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	754	0
1	1G	32368	0	16343	752	1
2	12	1721	0	1758	119	0
2	1E	1874	0	1926	112	0
3	22	1541	0	1606	76	0
3	2E	1605	0	1668	59	0
4	32	1702	0	1765	101	0
4	3E	1690	0	1738	92	0
5	42	1134	0	1200	69	0

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

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

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

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

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

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 19.

All (8846) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:35:81:GLN:NE2	37:35:106:LEU:HA	1.45	1.29
15:6A:27:VAL:O	15:6A:31:LEU:HD13	1.26	1.27
26:14:2572:A:C5	30:29:144:ARG:NH1	2.04	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:35:81:GLN:CD	37:35:106:LEU:HA	1.58	1.24
29:19:69:ARG:NH2	29:19:130:ALA:H	1.33	1.21
29:19:69:ARG:NH2	29:19:130:ALA:N	1.87	1.21
26:14:2572:A:C6	30:29:144:ARG:NH1	2.12	1.17
37:35:81:GLN:NE2	37:35:106:LEU:CA	2.11	1.12
26:14:2572:A:C4	30:29:144:ARG:NH1	2.16	1.12
26:1H:2750:A:H3'	33:51:4:ILE:HD11	1.31	1.12
1:1G:830:G:H4'	2:12:23:ARG:NH1	1.64	1.11
29:11:30:GLU:OE1	29:11:63:ARG:NE	1.85	1.09
26:1H:2711:A:OP2	61:1H:3601:HOH:O	1.68	1.08
37:78:49:ARG:NH1	55:Q8:61:LEU:HD21	1.69	1.07
10:1I:75:ILE:HD12	10:1I:76:ASN:N	1.68	1.07
10:1I:75:ILE:HD12	10:1I:76:ASN:H	0.95	1.07
15:6A:27:VAL:O	15:6A:31:LEU:CD1	2.03	1.06
46:G8:85:VAL:HG23	46:G8:96:ILE:HG13	1.39	1.05
26:14:2572:A:C8	30:29:144:ARG:HD2	1.92	1.04
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
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
26:1H: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
26:14:2791:C:HO2'	26:14:2792:G:H8	1.05	0.95
36:68:104:ARG:HD3	41:B8:36:GLU:HG2	1.45	0.95
4:3E:98:GLU:HA	4:3E:103:ASN:HD22	1.31	0.94
26:1H:862:G:OP2	61:1H:3602:HOH:O	1.85	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2012:G:H4'	44:A5:96:ILE:HD11	1.48	0.94
42:85:85:LYS:HB3	42:85:116:ALA:HB1	1.50	0.94
30:29:54:GLN:NE2	30:29:72:VAL:O	2.00	0.94
37:35:79:ARG:HG2	37:35:110:TYR:HB2	1.46	0.94
13:4I:3:ARG:HB3	13:4I:9:ILE:HG12	1.49	0.94
41:75:3:ARG:HG2	41:75:6:LEU:H	1.34	0.93
24:3K:6:G:H1	24:3K:66:A:H61	1.15	0.93
26:1H: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
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
26:1H:1771:C:HO2'	26:1H:1786:A:H8	0.94	0.90
26:14:1771:C:HO2'	26:14:1786:A:H8	0.98	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:25:PRO:HB2	31:39:27:GLU:H	1.37	0.89
41:75:112:ARG:HD2	41:75:113:LYS:HD2	1.54	0.89
41:75:29:ARG:NH2	41:75:46:GLU:OE1	2.05	0.89
1:1G:957:U:H1'	1:1G:960:U:H5	1.38	0.89
1:13:1502:A:H2	1:13:1505:G:H1	1.17	0.89
34:61:7:GLU:HA	34:61:15:VAL:HG22	1.52	0.89
36:68:2:ILE:HD12	36:68:6:THR:HG21	1.54	0.89
50:K8:4:SER:HB3	50:K8:7:ARG:H	1.36	0.89
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
31:31:29:ASN:H	31:31:112:MET:HE1	1.39	0.88
47:H8:19:ARG:NH1	47:H8:84:GLU:O	2.07	0.88
26:14:84: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:13:1028(A):C:HO2'	1:13:1032(B):G:H1	1.24	0.85
26:14:1250:G:OP2	37:35:21:ARG:NH1	2.09	0.85
26:1H:607:U:H3	26:1H:621:A:H2	1.22	0.85
26:1H:2588:G:OP1	61:1H:3609:HOH:O	1.94	0.85
36:68:17:ARG:HG3	36:68:47:ILE:HD13	1.56	0.85
26:1H:1013:C:OP2	61:1H:3612:HOH:O	1.94	0.85
37:78:49:ARG:NH1	37:78:49:ARG:HB2	1.91	0.85
26:1H:1664:A:OP1	61:1H:3605:HOH:O	1.93	0.85
26:14:2513:G:HO2'	30:29:151:TYR:HH	0.89	0.85
24:3K:34:U:H2'	25:4K:14:A:H61	1.41	0.85
9:82:27:THR:OG1	9:82:31:GLN:O	1.92	0.85
19:AA:11:VAL:HG22	19:AA:12:ASP:H	1.41	0.85
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
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
26:1H:1614:A:OP1	61:1H:3611:HOH:O	1.94	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1703:G:N7	61:14:3535:HOH:O	2.10	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:D8:15:GLU:HG3	43:D8:16:PRO:HD2	1.63	0.80
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:87:LYS:HB3	46:C5:94:LYS:HA	1.63	0.77
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
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
32:4I: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:59:ALA:HA	34:69:62:LYS:HB3	1.69	0.75
41:75:91:ARG:NH1	41:75:124:ASP:OD2	2.19	0.75
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1106:G:H5''	3:22:172:ARG:HG3	1.69	0.74
1:13:5:U: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
26:1H:1797:C:HO2'	29:11:259:THR:HG1	1.28	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
1:13:583:A:OP2	61:13:1801:HOH:O	2.04	0.74
26:1H:1859:A:N6	26:1H:1883:G:O2'	2.21	0.74
26:1H:2503:A:OP2	61:1H:3641:HOH:O	2.05	0.74
32:41:51:ARG:HH21	32:41:52:ILE:HD13	1.52	0.74
33:51:15:VAL:HG13	33:51:28:GLY:HA3	1.69	0.74
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:45:21:THR:HG22	38:45:23:GLY:HA3	1.70	0.73
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:1G:1118:C:OP1	9:82:104:ARG:NH1	2.22	0.72
7:62:93:PRO:HD2	7:62:94:ARG:HH21	1.53	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
10:1A:30:SER:HG	10:1A:84:GLN:HE22	1.37	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
26:14:774: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
31:31:29:ASN:N	31:31:112:MET:HE1	2.04	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
26:14:1138:G:H21	35:15:106:MET:HE3	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
37:35:81:GLN:NE2	37:35:106:LEU:C	2.45	0.69
40:65:11:LYS:HG3	40:65:91:PRO:HD3	1.72	0.69
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:631:A:OP2	55:M5:47:LYS:NZ	2.22	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
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:1386:C:H2'	26:1H:1387:C:H6	1.57	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
26:14:2277: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
26:1H:592:G:N3	55:Q8:4:MET:HE3	2.08	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
11:2I:73:MET:HE1	11:2I:102:GLY:HA3	1.76	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
4:32:31:CYS:C	4:32:33:MET:H	1.94	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1664:A:OP1	61:14:3526:HOH:O	2.12	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
30:21:128:SER:OG	30:21:129:HIS:N	2.28	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
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
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
41:75:29:ARG:NH2	41:75:46:GLU:CD	2.48	0.66
1:13:404:U:OP1	4:3E:118:ARG:NH1	2.29	0.66
26:1H: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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
28:7I:58:VAL:HG11	28:7I: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
30:21:135:HIS:NE2	61:21:402:HOH:O	2.28	0.66
34:61:68:LEU:HA	34:61:71:ILE:HG22	1.78	0.66
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
5:4E:10:MET:HE1	5:4E:13:ILE:HD11	1.78	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
34:69:73:GLU:HG3	34:69:136:VAL:HG23	1.79	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
35:15:59:LYS:HZ2	35:15:60:ILE:N	1.95	0.65
48:E5:56:ASP:OD1	48:E5:58:THR:OG1	2.13	0.65
1:13:536:C:H2'	1:13:537:G:C8	2.32	0.65
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
29:19:30:GLU:H	29:19:35:LYS:HZ3	1.45	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
26:14:974:G:O2'	26:14:975:G:N7	2.26	0.64
26:14:988:A:OP2	61:14:3563:HOH:O	2.14	0.64
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:2795:G:HO2'	26:14:2798:C:H5	1.45	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
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
35:58:54:VAL:HB	35:58:122:VAL:HG22	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
39:55:37:THR:OG1	39:55:40:LYS:NZ	2.29	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
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
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
36:25:104:ARG:NH2	41:75:43:GLN:OE1	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
26:14:1771:C:O2'	26:14:1786:A:H8	1.77	0.63
27:1J:2:C:H2'	27:1J:3:C:C6	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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
26:14:1265:A:OP2	61:14:3567:HOH:O	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1899:G:H22	26:14:1902:C:N4	1.97	0.62
29:19:182:LEU:HB3	29:19:271:ILE:HG13	1.80	0.62
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:13:396:G:O2'	1:13:398:C:OP1	2.08	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
36:25:117:LEU:HA	36:25:118:ALA:C	2.20	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)
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:592:G:H21	55:Q8:4:MET:HE1	1.64	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
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
26:14:1329:U:H5''	26:14:1330:C:H5	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1226:G:OP1	43:95:69:LYS:NZ	2.32	0.61
26:14:2875:C:O2'	41:75:3:ARG:HG3	2.00	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
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
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
18:9I:38:GLU:OE1	18:9I:41:LYS:NZ	2.33	0.61
26:1H:2882:A:OP1	39:98:96:ARG:HD3	2.01	0.61
47:H8:126:VAL:HA	47:H8:164:ALA:H	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:1G:1238:A:N3	1:1G:1241:G:O2'	2.30	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
29:19:44:ASN:HB3	29:19:45:ASN:C	2.21	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: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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
34:69:117:GLU:HG2	34:69:118:LYS:N	2.09	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
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
26:1H:2837:G:H21	39:98:45:ARG:NH2	1.99	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
50:G5:43:GLN:H	50:G5:43:GLN:CD	2.03	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'	48:18:43:THR:HG22	2.02	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
26:1H:1797:C:O2'	29:11:259:THR:OG1	2.05	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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
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
26:14:2414:G:H21	37:35:67:MET:CE	2.15	0.59
2:1E:100:GLY:O	2:1E:104:ASN:N	2.31	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:1G:1252:A:H2	1:1G:1355:G:HO2'	1.48	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
6:5E:50:TYR:OH	18:9I:74:ARG:O	2.13	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
26:14:2414:G:H21	37:35:67:MET:HE1	1.68	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:27:THR:C	29:11:29:PRO:HD3	2.23	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
53:N8:37:LYS:HD2	53:N8:37:LYS:C	2.23	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
19:AA:7:LYS:HD2	19:AA:7:LYS:C	2.23	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
32:41:11:TYR:HA	32:41:15:VAL:HB	1.86	0.58
47:H8:169:GLU:CD	47:H8:170:THR:H	2.07	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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
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
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
26:1H:2062:A:O2'	26:1H:2063:C:OP1	2.21	0.58
26:1H:2068:U:N3	26:1H:2430:A:H2	2.01	0.58
26:1H:2481:G:HO2'	26:1H:2482:G:P	2.27	0.58
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
26:14:275:G:O2'	26:14:276:A:O4'	2.21	0.58
26:14:441:U:H2'	26:14:442:G:C8	2.39	0.58
26:14:483:A:H4'	46:C5:49:VAL:CA	2.34	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
3:22:73: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
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
1:1G:532:A:N6	1:1G:1206:G:O2'	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
11:2A:41:THR:OG1	11:2A:42:TRP:N	2.36	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
38:45:36:ALA:HB2	38:45:103:MET:HE2	1.84	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
18:9I:59:SER:OG	18:9I:60:ALA:N	2.37	0.57
26:1H:85:G:OP2	46:G8:9:LYS:HB2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
9:82:77: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
26:14:1100:C:HO2'	26:14:1101:U:H6	1.52	0.57
26:14:1499:C:H2'	26:14:1500:G:C8	2.39	0.57
26:14:1509:C:H5'	26:14:1510:A:O4'	2.05	0.57
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
30:29:11:MET:HE3	30:29:186:GLY:HA2	1.86	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
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
46:G8:5:MET:HE1	46:G8:32:PRO:HB3	1.85	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
26:14:872: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
32:41:83:ARG:H	32:41:86:MET:HE1	1.70	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
27:1J:103:U:HO2'	47:D5:29:TYR:HH	1.52	0.56
29:19:28:GLU:O	29:19:28:GLU:CD	2.44	0.56
29:19:61:LEU:HB3	29:19:63:ARG:NH1	2.20	0.56
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
31:31:136: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
50:K8:42:GLY:C	50:K8:44:LEU:H	2.08	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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: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
33:51:7:LEU:C	33:51:7:LEU:HD12	2.26	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
3:22:72:LYS:HZ1	3:22:75:VAL:HG23	1.71	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
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	28:7I: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
35:58:57:ALA:C	35:58:59:LYS:H	2.08	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2468:G:H3'	26:14:2476:A:N1	2.20	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
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
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
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'	48:18:73: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
2:1E:86:GLU:C	2:1E:86:GLU:OE1	2.44	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
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
30:29:112: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:58:57:ALA:O	35:58:58:ASP:CG	2.44	0.55
41:B8:16:ARG:HE	41:B8:19:LEU:HD11	1.71	0.55
42:C8:69:CYS:SG	42:C8:79:PHE:HD2	2.29	0.55
44:E8:82:LEU:HB3	44:E8:84:ARG:NH1	2.22	0.55
54:P8:12:ARG:NH2	54:P8:44:PRO:HB3	2.21	0.55
1:1G:1014:A:P	1:1G:1014:A:H8	2.29	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
41:75:80:SER:OG	41:75:83:ILE:HG13	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
28:7I:10:LEU:HD11	28:7I: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
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
32:49:147:ASP:C	32:49:149:VAL:HG22	2.27	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1085:U:H5'	1:1G:1094:G:N2	2.20	0.55
2:12:220:ASP:HA	2:12:224:GLN:CD	2.26	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
26:14:1617: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
43:95:35:LEU:C	43:95:37:VAL:HG13	2.26	0.55
46:C5:15:VAL:HG22	46:C5:72:VAL:HG12	1.87	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
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
2:1E:166:ASP:C	2:1E:168:THR:H	2.10	0.55
26:1H:309:G:N3	26:1H:329:G:O2'	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1388:G:H2'	26:1H:1389:G:H8	1.71	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
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:2312:U:P	32:49:74:LYS:HZ3	2.29	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
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:27:VAL:C	15:6A:31:LEU:HD13	2.19	0.54
15:6A:87:ILE:HG22	15:6A:88:ARG:N	2.21	0.54
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
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
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
29:19:69:ARG:NH2	29:19:129:ASN:C	2.57	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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
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:1138:G:H21	35:58:106:MET:HE3	1.73	0.54
26:1H:1155:A:O2'	26:1H:1156:A:H2'	2.07	0.54
26:1H:2688:U:H5	26:1H:2720:U:OP2	1.90	0.54
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
31:31:152:GLU:HB2	31:31:190:GLU:HB2	1.89	0.53
32:4I:35:GLU:HG3	32:4I: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
26:14:959: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
32:4I:5:VAL:H	52:M8:25:TYR:HE2	1.55	0.53
34:6I:145:VAL:HG12	34:6I: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
40:65:61:ASN:CG	40:65:62:LYS:H	2.11	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
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
13:4I:82:MET:C	13:4I:84:ILE:H	2.12	0.53
24:3K:19:G:N3	24:3K:57:G:N2	2.57	0.53
24:3K:75:C:HO2'	24:3K:76:A:H2	1.57	0.53
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
4:32:13:ARG:C	4:32:15:GLU:H	2.12	0.53
12:3A:27:LEU:HD21	12:3A:61:THR:OG1	2.08	0.53
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
42:85:92:ARG:C	42:85:94:ASN:H	2.12	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
17:8I:13:ASP:H	17:8I:14:LYS:HZ2	1.55	0.53
19:AI:42:PRO:O	19:AI:45:VAL:HG22	2.08	0.53
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: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
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
22:1L:11:C:O2	22:1L:24:G:N2	2.30	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
26:14:1198: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
19:AI:18:LYS:O	19:AI:18:LYS:NZ	2.34	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
31:31:181:LEU:HD11	31:31:194:MET:HE1	1.90	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1332:G:N2	26:1H:1610:A:C8	2.76	0.53
26:1H:2615:U:OP1	61:1H:3614:HOH:O	2.18	0.53
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
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
3:22:61:ALA:C	3:22:63:ASN:H	2.12	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
26:14:2406:U:OP2	26:14:2406:U:H2'	2.09	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:62:PHE:HA	7:62:124:LEU:HD22	1.91	0.53
9:82:24:GLY:HA2	9:82:59:PHE:C	2.29	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
38:45:97:VAL:HG11	38:45:103:MET:HE2	1.91	0.53
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
50:K8:47:ASN:C	50:K8:49:LYS:H	2.13	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
26:14:1999: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
19:AI:18:LYS:NZ	19:AI:22:LEU:HD13	2.25	0.52
20:BI:30:LYS:HA	20:BI:33:ILE:HD12	1.91	0.52
26:1H: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:121:VAL:HG22	4:32:126:ILE:HD12	1.90	0.52
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
26:14:605:C:O2	26:14:657:U:O2'	2.24	0.52
26:14:1012:U:O4	35:15:28:THR:HG21	2.09	0.52
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:249:C:O2'	37:78:64:LYS:NZ	2.19	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
18:9A:22:VAL:C	18:9A:24:ALA:H	2.13	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
26:14:1027:A:H2	26:14:2487:G:HO2'	1.57	0.52
26:14:1266:G:O6	44:A5:13:SER:OG	2.14	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:15:38:HIS:HD1	35:15:39:ARG:N	2.08	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
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:528: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
1:13:129(A):G:N2	1:13:188:U:HO2'	2.07	0.52
1:13:272:C:H2'	1:13:273:A:C8	2.45	0.52
1:13:649: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
1:1G:963:G:HO2'	10:1A:54:PHE:HZ	1.56	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
26:14:729:G:O5'	29:19:208:LYS:NZ	2.38	0.52
29:19:38:LYS:H	29:19:38:LYS:HD3	1.75	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
35:58:12:ARG:HD2	35:58:50:ASP:CG	2.30	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
50:K8:15:LYS:N	50:K8:15:LYS:HZ2	2.09	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
4:32:150:GLU:C	4:32:152:SER:H	2.12	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
29:19:38:LYS:HZ1	29:19:60:ARG:HB2	1.74	0.51
29:19:146:GLU:HB2	29:19:189:CYS:HB3	1.91	0.51
30:29:68:ALA:C	30:29:70:ALA:H	2.14	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
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
35:58:128:HIS:HB2	35:58:129:PRO:HD2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:100:LEU:HD12	37:78:105:LEU:CD1	2.41	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
23:2L:54:G:C5	23:2L:55:5MU:H72	2.46	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
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
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
1:13:1406: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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
10:1I:61:GLU:OE1	14:5I:58:LYS:NZ	2.41	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
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:1418:G:OP1	26:1H:1588:C:O2'	2.26	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
29:11:70:TRP:CD1	29:11:70:TRP:C	2.83	0.51
40:A8:106:ARG:HH11	40:A8:106:ARG:C	2.11	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
29:19:267:SER:C	29:19:269:PHE:H	2.14	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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'	28:7I: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:606:U:OP2	31:31:104:LYS:NZ	2.35	0.51
26:1H:818:G:H5'	26:1H:839:U:OP1	2.11	0.51
26:1H: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
39:98:12:ARG:HG2	39:98:16:HIS:ND1	2.26	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
6:52:96:PRO:HB3	18:9A:30:ASP:CG	2.31	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:5I:2:ALA:HB3	14:5I:6:LEU:HD23	1.93	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:1797:C:HO2'	26:1H:1798:U:H5'	1.76	0.50
26:1H:2132:U:C4	28:71:5:LYS:HB3	2.46	0.50
26:1H: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
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
11:2A:98:LEU:O	11:2A:101:SER:OG	2.24	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
29:19:38:LYS:HZ1	29:19:60:ARG:H	1.58	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
11:2I:69:ALA:HB1	11:2I:73:MET:HE2	1.93	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
29:11:136: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
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
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
4:3E:31:CYS:C	4:3E:33:MET:H	2.13	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1006:C:H1'	35:58:106:MET:HE3	1.93	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
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
26:14:512: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
47:D5:11:GLU:CD	47:D5:12:GLY:H	2.15	0.50
49:F5:76:ARG:HG3	49:F5:94:LEU:HD13	1.94	0.50
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
51:L8:12:PRO:HB2	51:L8:20:LYS:HG2	1.94	0.50
53:N8:44:THR:HG22	53:N8:45:VAL:H	1.76	0.50
1:1G: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
33:59:143:GLN:C	33:59:145:ALA:H	2.15	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
31:39:25:PRO:C	31:39:27:GLU:N	2.64	0.50
37:35:92:GLU:HG2	37:35:123:LEU:HD21	1.93	0.50
44:A5:15:ARG:O	44:A5:19:LEU:HD13	2.11	0.50
50:G5:23:LYS:NZ	50:G5:27:GLU:OE2	2.29	0.50
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
4:3E:150:GLU:H	4:3E:150:GLU:CD	2.15	0.50
4:3E:187:ARG:HH22	4:3E:193:ASP:CG	2.15	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
28:7I:10:LEU:HG	28:7I: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:D8:76: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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
26:14:2012:G:N7	44:A5:16:LYS:NZ	2.57	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:300:A:N3	26:1H:319:C:H1'	2.27	0.50
26:1H:1364:G:N7	49:J8:2:SER:OG	2.42	0.50
26:1H:1505:C:H2'	26:1H:1506:C:H6	1.75	0.50
26:1H:1657:C:H2'	26:1H:1658:C:C6	2.47	0.50
26:1H:2682:U:O2	30:21:22:PRO:HB3	2.11	0.50
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
29:11:123:ALA:HB3	29:11:131:LEU:HG	1.94	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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: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
46:G8:93:GLY:O	46:G8:94:LYS:HB2	2.11	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:681:C:H2'	1:1G:682:G:C8	2.48	0.49
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
1:13:356:A:N3	1:13:368:U:O2'	2.41	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
35:58:130:HIS:C	35:58:134:ARG:HH22	2.16	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
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
26:14:1003:G:O2'	26:14:1010:A:N1	2.36	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
49:F5:72:GLU:HG2	49:F5:76:ARG:HE	1.76	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
19:AI:67:VAL:HG12	19:AI:68:GLY:N	2.27	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
4:32:31:CYS:C	4:32:33:MET:N	2.65	0.49
4:32:45:GLN:O	4:32:46:LYS:HG3	2.13	0.49
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
37:35:37:GLY:O	37:35:40:SER:OG	2.30	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7I:74:LEU:HD22	16:7I:79:VAL:HG21	1.95	0.49
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
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
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
42:C8:79:PHE:O	42:C8:79:PHE:HD1	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:15:137:LYS:C	35:15:138:LEU:HG	2.33	0.49
41:75:31:SER:OG	41:75:85:LYS:HE3	2.12	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
5:4E:10:MET:HE1	5:4E:13:ILE:CD1	2.43	0.49
10:1I:83:GLU:O	10:1I:87:THR:OG1	2.26	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
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
26:14:2080:G:H5'	49:F5:35:THR:OG1	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2849:U:H1'	26:14:2866:U:O2	2.13	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: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
39:98:56: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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
44:E8:58:ALA:HB1	44:E8:64:MET:HE2	1.96	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
33:59:142:GLY:HA3	33:59:143:GLN:CG	2.35	0.48
44:A5:20:VAL:HG23	44:A5:47:VAL:HG21	1.95	0.48
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1591:G:H2'	26:1H:1592:C:C6	2.48	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
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
29:19:38:LYS:HZ2	29:19:60:ARG:C	2.15	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
5:4E:5:ASP:OD1	5:4E:5:ASP:N	2.47	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
29:19:70:TRP:CD1	29:19:70:TRP:C	2.86	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
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:58:VAL:HG11	19:AI:75:ALA:CB	2.43	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
1:1G:78:G:H1	1:1G:91:C:H42	1.62	0.48
1:1G:719:C:O2'	18:9A:50:ILE:O	2.23	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:15:59:LYS:NZ	35:15:60:ILE:N	2.61	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
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: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:499: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
26:14:2469: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
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
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
29:19:44:ASN:HB3	29:19:45:ASN:CA	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D5:4:ARG:CB	47:D5:58:VAL:HB	2.43	0.48
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
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'	30:2I:61:ARG:NH1	2.29	0.48
28:7I:50:ASP:OD2	28:7I:52:ARG:HB2	2.13	0.48
31:3I:28:ILE:HG12	31:3I:119:ARG:HH21	1.79	0.48
42:C8:92:ARG:HD2	43:D8:11:GLN:HB2	1.96	0.48
44:E8:88:ARG:HB3	44:E8:92:ARG:HB2	1.96	0.48
51:L8:30:ARG:NH2	51:L8:33:GLN:HE21	2.11	0.48
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
9:82:18:PHE:C	9:82:19:LEU:HD23	2.34	0.48
26:14:674:G:O2'	31:39:74:ARG:HD2	2.14	0.48
26:14:1204:A:O2'	26:14:1205:U:OP2	2.27	0.48
26:14:1899:G:N2	26:14:1902:C:H41	2.11	0.48
26:14:2469: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
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
27:16:28:C:OP1	40:A8:31:SER:OG	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
33:51:7:LEU:C	33:51:7:LEU:CD1	2.83	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
3:22:72:LYS:NZ	3:22:75:VAL:HG23	2.28	0.47
16:7A:72:ARG:O	16:7A:75:ARG:HB3	2.13	0.47
26:14:489:G:O6	44:A5:45:TYR:OH	2.27	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:H8:116: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
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
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
2:1E:21:ARG:C	2:1E:23:ARG:H	2.17	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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:220:G:O2'	26:1H:233:A:N3	2.34	0.47
26:1H:298:G:N7	46:G8:84:ARG:NH2	2.62	0.47
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
1:13:1326: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
29:19:65: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
31:39:83:PHE:C	31:39:85:GLY:H	2.18	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
16:7I:68:ASP:O	16:7I:71:ARG:HG2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:2018:G:P	53:J5:9:LYS:HZ1	2.35	0.47
26:14:2768:C:H2'	26:14:2769:C:O4'	2.15	0.47
29:19:70:TRP:CH2	29:19:150:LYS:HA	2.50	0.47
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
35:15:68:GLU:CD	35:15:68:GLU:H	2.18	0.47
35:15:85:ILE:HD12	35:15:85:ILE:O	2.15	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
42:85:92: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
26:14:2158:A:HO2'	26:14:2159:G:H8	1.63	0.47
26:14:2851:A:H2'	26:14:2852:G:C8	2.50	0.47
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
38:88:112:GLU:H	38:88:112:GLU:CD	2.18	0.47
41:B8:6:LEU:HD23	41:B8:9:LEU:HD22	1.96	0.47
47:H8:152:ALA:HB3	47:H8:167:PRO:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1327:C:H2'	1:1G:1328:C:C6	2.50	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
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
1:13:981:U:H5	1:13:982:U:HO2'	1.62	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: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
28:71:27:HIS:HB3	28:71:182:PRO:CB	2.45	0.46
30:21:37:ARG:HD3	30:21:42:ASP:CG	2.35	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:586:A:N1	26:14:809:G:O2'	2.35	0.46
26:14:598:G:H5'	37:35:11:GLY:HA3	1.98	0.46
26:14:1057:A:H2'	26:14:1058:U:O4'	2.15	0.46
26:14:2239:G:H5'	29:19:251:GLY:HA3	1.97	0.46
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:13:626: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
28:7I:180:PHE:HB3	28:7I:184:LYS:CB	2.45	0.46
29:11:37:LEU:N	29:11:37:LEU:CD2	2.72	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8A:54:GLY:O	17:8A:81:ARG:HB2	2.15	0.46
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
1:13:244:U:H4'	1:13:245:C:C5'	2.44	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:2820:A:OP2	39:98:2:ARG:NH1	2.41	0.46
29:11:34:VAL:O	29:11:35:LYS:HB3	2.15	0.46
37:78:96:THR:C	37:78:98:GLU:H	2.17	0.46
38:88:53:ALA:HB1	38:88:120:ILE:HG22	1.98	0.46
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
31:31:63:LYS:HZ1	31:31:67:GLN:HB2	1.81	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
41:B8:105:LEU:C	41:B8:107:ASP:H	2.18	0.46
47:H8:44:PHE:CD1	47:H8:44:PHE:C	2.88	0.46
54:P8:10:ARG:HD3	54:P8:14:LYS:HD2	1.97	0.46
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:1983:C:H4'	26:14:2606:C:H4'	1.96	0.46
31:39:164:ARG:HG2	31:39:175:THR:OG1	2.15	0.46
36:25:49:ARG:HA	36:25:53:LYS:HZ3	1.80	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
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
7:62:16:LEU:CD1	9:82:42:ARG:HA	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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
42:C8:92:ARG:HD3	42:C8:94:ASN:HB3	1.98	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
26:14:2611:U:O4	53:J5:3:LYS:HG3	2.15	0.46
26:14:2845:G:N2	26:14:2871:C:O2	2.36	0.46
29:19:68:LYS:HB3	29:19:70:TRP:CH2	2.50	0.46
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
55:M5:33:ASN:O	55:M5:34:TRP:C	2.53	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
7:6E:68:ASN:O	7:6E:138:LYS:NZ	2.43	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
16:7I:13:HIS:C	16:7I:15:PRO:HD3	2.36	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
30:21:17:ASP:C	30:21:19:ARG:H	2.19	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
29:19:74: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
36:25:78:ARG:HG2	41:75:73:GLU:HB2	1.96	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
1:13:1352:C:OP1	21:1F:3:LYS:NZ	2.28	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
30:21:143: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
29:11:72:LYS:O	29:11:73:VAL:C	2.55	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
43:D8:36:PRO:C	43:D8:38:LEU:H	2.16	0.46
44:E8:2:GLU:HB2	44:E8:107:LEU:O	2.15	0.46
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1006:C:O2	35:15:106:MET:HE3	2.16	0.46
26:14:2183:C:O2'	26:14:2184:G:H5'	2.15	0.46
26:14:2299:G:N1	26:14:2318:G:C8	2.84	0.46
26:14:2336:A:H61	48:E5:43:THR:CG2	2.29	0.46
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
37:35:11:GLY:C	37:35:13:ASN:H	2.18	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
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
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
13:4A:48:LEU:HD12	13:4A:53:VAL:HG23	1.98	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
26:14:1651:G:P	39:55:40:LYS:HZ1	2.39	0.45
26:14:2183:C:H2'	26:14:2184:G:C8	2.51	0.45
26:14:2262:U:OP2	48:E5:19:LYS:NZ	2.44	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
31:39:14:PRO:O	31:39:15:SER:C	2.54	0.45
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
45:B5:67:GLY:C	45:B5:69:TYR:H	2.19	0.45
50:G5:29:LYS:HG2	50:G5:57:ILE:HD13	1.99	0.45
55:M5:48:PHE:CG	55:M5:48:PHE:O	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
10:1I:26:ALA:O	10:1I:30:SER:OG	2.20	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
30:21:55:ASN:HB3	30:21:58:ARG:HG3	1.98	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
47:H8:1:MET:CE	47:H8:135:GLU:HG2	2.47	0.45
55:Q8:52:LYS:O	55:Q8:55:ALA:N	2.47	0.45
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
33:59:77:LYS:HA	33:59:80:SER:OG	2.17	0.45
36:25:22:ILE:HA	36:25:22:ILE:HD13	1.66	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:45:110:THR:HG23	38:45:113:GLN:H	1.81	0.45
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
1:13:973: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
24:3K:71:C:O2	26:1H:1851:U:O2'	2.24	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
37:78:47:ASP:OD2	37:78:50:ARG:NH2	2.48	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
14:5A:41:ARG:O	14:5A:45:ARG:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
29:19:30:GLU:HB2	29:19:35:LYS:HZ2	1.81	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
47:H8:140:ASP:N	47:H8:140:ASP:OD1	2.49	0.45
1:1G:129(A):G:N2	1:1G:191(A):G:C5	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:370:C:H42	1:1G:391:G:H1	1.64	0.45
1:1G:422:C:O2'	1:1G:423:G:H5''	2.17	0.45
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: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
2:12:25: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
11:2A:100:ALA:C	11:2A:102:GLY:H	2.19	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
26:14:562:U:HO2'	26:14:572:A:H8	1.62	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
40:65:86:ALA:O	40:65:87:PHE:HB2	2.16	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:H8:154: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
26:14:2124: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
28:79:45:ALA:HB1	28:79:210:ARG:C	2.37	0.45
29:19:71:ASP:CG	29:19:103:ARG:HH22	2.20	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
43:95:71:LEU:H	43:95:86:GLY:CA	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:F5:62:VAL:HG21	49:F5:70:VAL:HG21	1.99	0.45
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
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
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
30:21:78:LEU:C	30:21:79:ARG:HD2	2.37	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
37:78:15:ARG:O	37:78:16:ARG:C	2.55	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
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
1:13:710:G:H5''	6:5E:54:LYS:HZ1	1.82	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
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
31:39:89:VAL:O	31:39:90:PHE:C	2.54	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
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
26:1H:1499:C:H2'	26:1H:1500:G:C8	2.52	0.45
26:1H:1697:G:P	26:1H:1698:A:HO2'	2.37	0.45
26:1H:1726:G:H2'	26:1H:1727:U:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1731:G:H2'	26:1H:1732:A:H8	1.82	0.45
26:1H:2011:U:H2'	26:1H:2012:G:O4'	2.17	0.45
26:1H: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
45:B5:1:MET:H1	50:G5:29:LYS:HE3	1.82	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:117:PHE:CZ	32:41:119:GLY:HA2	2.52	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
34:69:76:THR:HA	34:69:105:HIS:NE2	2.31	0.45
1:13:835:U:H3	1:13:851:G:H1	1.66	0.44
1:13:973:G:H3'	1:13:974:A:H5''	1.99	0.44
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
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
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:1565:C:O2'	26:1H:1567:A:N7	2.45	0.44
26:1H:2124:G:O6	26:1H:2125:G:N2	2.50	0.44
26:1H:2153:G:C6	26:1H:2154:G:C6	3.05	0.44
26:1H:2392:A:H2	26:1H:2424:C:N4	2.15	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
49:F5:87:PRO:O	49:F5:88:LYS:C	2.55	0.44
55:M5:6:THR:HG23	55:M5:64:TYR:HD2	1.82	0.44
1:13:355: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
2:1E:212:GLN:O	2:1E:216:SER:OG	2.25	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: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
28:7I:57:ASN:OD1	28:7I:165:ASN:ND2	2.29	0.44
30:2I:23:VAL:HA	30:2I:184:VAL:O	2.17	0.44
30:2I:174:ASP:OD1	30:2I: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
3:22:76:VAL:O	3:22:84:ILE:HG13	2.18	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
43:95:38:LEU:HD13	43:95:55:ALA:C	2.38	0.44
44:A5:27:LYS:HB2	44:A5:32:ALA:HB2	1.99	0.44
47:D5:7:ALA:HB3	47:D5:61:LEU:HA	1.99	0.44
1:13:157:G:N2	1:13:165:C:C2	2.85	0.44
1:13:426:G:OP1	4:3E:38:TYR:OH	2.25	0.44
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
26:14:622:G:OP2	37:35:108:LYS:NZ	2.34	0.44
26:14:795:C:H2'	26:14:796:C:C6	2.52	0.44
26:14:800:A:H8	61:14:3515:HOH:O	2.00	0.44
26:14:925:C:H2'	26:14:926:A:C8	2.52	0.44
26:14:1003:G:N2	26:14:1153:C:C2	2.86	0.44
26:14:1414:G:C6	26:14:1415:U:C4	3.06	0.44
26:14:1449(A):G:O2'	26:14:1450:C:H5'	2.17	0.44
26:14:1816:G:OP2	29:19:39:LYS:NZ	2.38	0.44
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
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
42:85:25:TRP:CD1	42:85:25:TRP:C	2.90	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:F5:56:GLN:HE22	49:F5:83:GLU:C	2.20	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
47:D5:157:LEU:HD12	47:D5:161:VAL:C	2.38	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:281:G:O2'	26:1H:282:A:O4'	2.30	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:HG2	17:8I:101:ARG:HH21	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:1G:1127:G:O2'	1:1G:1148:U:O2	2.29	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
37:35:13:ASN:C	37:35:15:ARG:H	2.21	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
39:98:44:LEU:O	39:98:45:ARG:C	2.56	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
26:14:1071:G:H1	26:14:1090:U:H5	1.65	0.44
26:14:1885:A:H3'	26:14:1886:C:H6	1.83	0.44
26:14:2570:G:H2'	26:14:2571:C:O4'	2.18	0.44
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
34:6I:58:LEU:HD23	34:6I: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:128:ALA:O	31:39:129:PHE:C	2.57	0.44
31:39:148:LEU:HD11	31:39:193:VAL:HG21	2.00	0.44
34:69:75:LEU:HD13	34:69:76:THR:C	2.38	0.44
34:69:78:THR:O	34:69:80:PRO:HD3	2.18	0.44
35:15:61:ARG:HA	35:15:61:ARG:NE	2.33	0.44
43:95:38:LEU:HD12	43:95:56:SER:C	2.38	0.44
46:C5:87:LYS:C	46:C5:88:LYS:HD3	2.37	0.44
46:C5:88:LYS:N	46:C5:88:LYS:HD3	2.32	0.44
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
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
49:J8:46:LEU:HD12	49:J8:62:VAL:C	2.38	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
41:B8:99:LEU:HB2	41:B8:101:PHE:CE1	2.53	0.43
42:C8:8:VAL:HG23	42:C8:11:ARG:NH2	2.27	0.43
42:C8:88:ILE:C	42:C8:90:VAL:H	2.22	0.43
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
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
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
43:95:38:LEU:CD1	43:95:56:SER:C	2.86	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
30:21:105:THR:HG1	30:21:199:ARG:HH21	1.60	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
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
26:14:2851: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:13:980:C:HO2'	14:5I:21:TYR:HE1	1.65	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
26:1H:2723:C:H5''	39:98:1:MET:HE2	1.98	0.43
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
39:55:1:MET:HE3	39:55:1:MET:HB3	1.84	0.43
42:85:66:ASN:CB	42:85:76:TYR:HB2	2.45	0.43
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
27:1J:55:U:HO2'	32:49:29:TRP:HD1	1.66	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
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
17:8I:101:ARG:HH21	17:8I:101:ARG:C	2.21	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:1213:A:N3	26:1H:1238:G:O2'	2.50	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:2750:A:H8	26:14:2752:C:N4	2.16	0.43
26:14:2787:C:O2'	30:29:61:ARG:O	2.20	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
39:55:40:LYS:HZ2	39:55:40:LYS:HG3	1.65	0.43
43:95:98:GLU:OE2	43:95:100:ARG:NH1	2.51	0.43
45:B5:75:ASP:C	45:B5:76:ARG:HG3	2.34	0.43
47:D5:27:VAL:O	47:D5:88:PHE:N	2.43	0.43
1:13:5:U:C2	4:3E:85:LYS:HE3	2.54	0.43
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
31:31:112:MET:HE3	31:31:112:MET:HB3	1.69	0.43
34:61:95:LYS:O	34:61:98:ALA:HB3	2.18	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
23:2L:23:G:H2'	23:2L:24:C:C6	2.54	0.43
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
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
1:13:1327:C:OP2	21:1F:12:LYS:NZ	2.49	0.43
2:1E:33:TYR:HB2	2:1E:43:ASP:HB2	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
28:71:10:LEU:HA	28:71:13:LYS:HZ2	1.83	0.43
28:71:180:PHE:HB3	28:71:184:LYS:HB2	2.00	0.43
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
38:88:140:ALA:HB3	38:88:141:GLN:HA	2.01	0.43
47:H8:11:GLU:C	47:H8:11:GLU:OE2	2.56	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
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
2:12:217:ARG:C	2:12:219:VAL:H	2.15	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:2723:C:H4'	39:55:1:MET:HE3	2.00	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
34:69:4:ILE:HA	34:69:17:GLN:O	2.19	0.43
35:15:59:LYS:HZ1	35:15:61:ARG:HH21	1.67	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
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
26:1H:566:U:P	37:78:29:LYS:HZ2	2.41	0.43
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:184:G:C2'	1:1G:185:A:H5'	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:903: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
26:14:1138:G:H21	35:15:106:MET:CE	2.28	0.43
26:14:1449(A):G:H2'	26:14:1450:C:C6	2.54	0.43
26:14:2351: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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
39:98:87:TYR:HE1	39:98:117:VAL:HG12	1.84	0.43
46:G8:98:VAL:C	46:G8:100:ALA:HB2	2.39	0.43
47:H8:98:MET:O	47:H8:125:LEU:HA	2.19	0.43
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
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
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
40:65:42:ASP:C	40:65:44:LYS:H	2.22	0.43
40:65:54:LEU:O	40:65:55:ALA:HB3	2.18	0.43
41:75:19: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
29:11:27:THR:C	29:11:29:PRO:CD	2.87	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
39:55:107:ASP:OD1	39:55:107:ASP:C	2.57	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
1:13:1414: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
39:98:14: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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:535:A:H4'	61:13:1871:HOH:O	2.19	0.42
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
26:1H:2481:G:O2'	26:1H:2482:G:O5'	2.33	0.42
27:16:2:C:H2'	27:16:3:C:C6	2.54	0.42
36:68:68:GLU:H	36:68:68:GLU:CD	2.11	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
49:J8:75:GLU:O	49:J8:76:ARG:C	2.57	0.42
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
13:4I:35:GLU:C	13:4I:38:GLY:H	2.23	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
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
50:K8:42:GLY:C	50:K8:44:LEU:N	2.73	0.42
51:L8:18:ASP:N	51:L8:18:ASP:OD1	2.52	0.42
1:1G:56:U:H2'	1:1G:57:G:C8	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
42:85:91:ASP:C	42:85:93:LYS:N	2.73	0.42
42:85:92:ARG:HH22	43:95:10:LYS:CG	2.32	0.42
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
26:1H:241:A:H5'	26:1H:243:U:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:1095:U:H2'	1:1G:1096:C:O4'	2.20	0.42
1:1G:1344:C:HO2'	1:1G:1348:U:HO2'	1.65	0.42
1:1G:1495:U:O4	58:1G:1691:PAR:N12	2.52	0.42
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
19:AI:18:LYS:HZ1	19:AI:22:LEU:HD13	1.84	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
28:7I:47:LEU:HA	28:7I: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
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
26:14:458:G:O2'	26:14:469:G:O6	2.27	0.42
26:14:631:A:P	55:M5:47:LYS:HZ1	2.39	0.42
26:14:968:G:C6	26:14:969:U:N3	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
30:29:57:LYS:HZ3	30:29:57:LYS:HG2	1.56	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
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
52:M8:11:PRO:HA	52:M8:25:TYR:HA	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:Q8:26:LYS:HE2	55:Q8:48:PHE:CD1	2.53	0.42
1:1G:6:G:HO2'	1:1G:7:G:H5''	1.85	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1016:G:H2'	26:14:1017:G:C8	2.55	0.42
26:14:1495: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
30:29:26:ILE:HD13	30:29:26:ILE:HA	1.84	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
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
1:13:1074: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
9:82:112:LYS:HZ3	9:82:118:LYS:H	1.68	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
26:14:2050:C:H1'	30:29:156:MET:HE2	2.02	0.42
26:14:2295:C:N3	26:14:2296:U:H5	2.17	0.42
26:14:2355: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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'	28:7I: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
11:2A:59:TYR:O	11:2A:63:LEU:HD12	2.20	0.41
11:2A:100:ALA:C	11:2A:102:GLY:N	2.74	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:13:1286:A:C2	21:1F:18:TYR:OH	2.72	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:1464:C:HO2'	26:1H:1528:A:H8	1.65	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
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
32:41:97:ASP:N	32:41:100:TRP:HD1	2.15	0.41
37:78:95:VAL:HG21	37:78:123:LEU:HD13	2.02	0.41
38:88:36:ALA:HB2	38:88:103:MET:CE	2.50	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:35:GLU:HG2	32:49:36:LYS:HB2	2.00	0.41
33:59:143:GLN:C	33:59:145:ALA:N	2.73	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
46:C5:29:GLU:CD	46:C5:30:VAL:H	2.23	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
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
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
28:71:13:LYS:NZ	28:71:31:GLU:O	2.47	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
30:21:179:GLU:O	30:21:180:ASN:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
43:D8:77:ALA:C	43:D8:79:VAL:H	2.22	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
1:1G:953:G:H2'	1:1G:954:G:O4'	2.20	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: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
27:1J:52:A:O2'	27:1J:53:A:N7	2.48	0.41
28:79:53:ARG:HG3	28:79:55:ASP:OD1	2.20	0.41
30:29:64:LYS:C	30:29:66:HIS:N	2.73	0.41
30:29:67:PHE:CE1	30:29:69:LYS:HD3	2.55	0.41
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:94:LEU:HD23	43:95:94:LEU:HA	1.82	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
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
33:51:167:GLU:CD	33:51:167:GLU:N	2.73	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
34:69:141:LYS:HZ3	34:69:141:LYS:HB2	1.85	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:46:VAL:CG2	43:95:52:VAL:HG11	2.44	0.41
47:D5:52:SER:C	47:D5:54:HIS:H	2.24	0.41
50:G5:24:LEU:O	50:G5:28:LYS:HG2	2.21	0.41
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
1:13:970:C:H42	9:8E:128:ARG:C	2.24	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
7:6E:72:ARG:O	7:6E:73:MET:HE2	2.20	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
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:1019:U:OP1	26:1H:1035:U:O2'	2.32	0.41
26:1H:1347:G:O2'	26:1H:1348:G:H5'	2.21	0.41
26:1H: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
34:61:130:TYR:C	34:61:131:LYS:HD2	2.41	0.41
38:88:11:LYS:NZ	38:88:88:GLY:O	2.45	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
8:72:97:VAL:HG22	8:72:129:VAL:C	2.41	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
39:55:48: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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
19:AA:66:MET:HA	19:AA:67:VAL:C	2.40	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
29:19:30:GLU:CD	29:19:63:ARG:HE	2.23	0.41
30:29:41:LYS:HG3	30:29:42:ASP:N	2.36	0.41
31:39:123:LEU:HA	31:39:192:LEU:C	2.41	0.41
32:49:49:ASP:HB3	32:49:52:ILE:HG22	2.01	0.41
32:49:145:THR:C	32:49:147:ASP:H	2.23	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
2:12:24:TRP:HD1	2:12:25:ASN:C	2.24	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
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
30:29:26:ILE:HG22	30:29:27:LEU:C	2.41	0.41
30:29:68:ALA:C	30:29:70:ALA:N	2.74	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:1H:2414:G:OP1	49:J8:25:LYS:NZ	2.35	0.41
27:16:13:A:N1	27:16:69:G:O2'	2.38	0.41
27:16:81:G:O6	27:16:95:U:O2	2.39	0.41
30:21:101:ARG:NH1	30:21:171:GLU:HB2	2.35	0.41
33:51:25:LYS:HE2	33:51:34:GLU:CD	2.41	0.41
35:58:99:LEU:O	35:58:103:VAL:HG23	2.20	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
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
26:14:1346: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1878:G:H2'	26:14:1879:C:C6	2.56	0.41
26:14:1901: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
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
1:13:1327:C:P	21:1F:12:LYS:HZ1	2.43	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:97:TRP:HH2	2:1E:176:GLU:CD	2.23	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
8:7E:45:ILE:HD12	8:7E:47:GLY:HA2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
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:1729:A:O2'	26:1H:1730:U:O5'	2.23	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
29:11:122:ASP:CG	29:11:123:ALA:H	2.24	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
40:A8:15:ARG:HD2	40:A8:88:ASP:OD2	2.20	0.41
45:F8:41:ASN:N	45:F8:41:ASN:OD1	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
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: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: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
26:14:480:A:H2'	26:14:480:A:N3	2.36	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:2438: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
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
30:29:151:TYR:HB2	35:15:79:PRO:HG3	2.02	0.41
31:39:125:LEU:O	31:39:125:LEU:HD12	2.21	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
38:45:103:MET:O	38:45:104:PHE:HB2	2.20	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
49:F5:83:GLU:HG2	49:F5:83:GLU: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
9:8E:73:GLN:O	9:8E:76:ALA:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:774:A:H2	26:1H:787:U:HO2'	1.60	0.41
26:1H:1143:A:OP1	35:58:25:ARG:NH1	2.46	0.41
26:1H:1263:U:H2'	26:1H:1264:G:O4'	2.21	0.41
26:1H:1423:G:C4	26:1H:1424:G:C8	3.09	0.41
26:1H:1748:G:H2'	26:1H:1749:A:H8	1.85	0.41
26:1H:2245:U:O2'	26:1H:2436:G:OP2	2.30	0.41
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
34:61:134:PRO:HA	34:61:135:GLU:HG3	2.03	0.41
43:D8:81:TYR:C	43:D8:82:ARG:HD2	2.41	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
32:49:60:LEU:O	32:49:64:THR:OG1	2.31	0.41
32:49:99:MET:HE2	32:49:99:MET:HB2	1.89	0.41
48:E5:24:LYS:CB	48:E5:36:ILE:HD13	2.50	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
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
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
28:7I:49:ILE:HG22	28:7I:204:ALA:HB1	2.03	0.40
29:11:9:TYR:CZ	29:11:13:ARG:HG2	2.57	0.40
29:11:51:VAL:HG12	29:11:54:ARG:HD2	2.03	0.40
30:21:97:LYS:H	30:21:100:GLU:CD	2.25	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
1:13:68:G:HO2'	1:13:152:A:H2	1.68	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
46:G8:5:MET:HE2	46:G8:5:MET:HB2	1.94	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:168:THR:HG23	2:12:192:SER:HA	2.03	0.40
2:12:220:ASP:HA	2:12:224:GLN:OE1	2.20	0.40
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
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
26:14:2872: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
38:45:21:THR:C	38:45:23:GLY:HA3	2.42	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
30:21:64:LYS:C	30:21:66:HIS:H	2.24	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
26:14:1385:G:O2'	26:14:1396:U:H6	2.04	0.40
26:14:1533:C:N4	26:14:1538:G:H1	2.12	0.40
26:14:2032: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
26:14:2852: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:F5:86: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
1:13:177:C:P	20:BI:65:LYS:HZ3	2.43	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
12:3I:64:TYR:O	12:3I:65:GLU:HB3	2.22	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
17:8I:70:ARG:C	17:8I:71:PHE:HD1	2.25	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
28:71:64:LEU:C	28:71:66:HIS:H	2.24	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:68:11:ALA:HB3	36:68:85:VAL:HG23	2.04	0.40
39:98:25:ALA:O	39:98:28:LEU:N	2.52	0.40
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
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
34:69:79: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
4:3E:31:CYS:C	4:3E:33:MET:N	2.75	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
28:71:30:LYS:HZ2	28:71:181:PRO:HA	1.86	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
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
1:1G:500:G:H2'	1:1G:501:C:C6	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
2:12:126:GLU:C	2:12:128:GLU:N	2.75	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
26:14:2773:C:OP1	30:29:166:THR:OG1	2.38	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

5.3.1 Protein backbone

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

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

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

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

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

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

All (197) Ramachandran outliers are listed below:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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Mol	Chain	Res	Type
17	8I	27	PHE
17	8I	52	LYS
17	8I	63	ARG
17	8I	81	ARG
17	8I	91	ARG
17	8I	101	ARG
18	9I	33	ASP
18	9I	54	ARG
18	9I	68	LYS
19	AI	7	LYS
19	AI	12	ASP
19	AI	29	ARG
19	AI	30	LEU
19	AI	36	ARG
19	AI	61	TYR
19	AI	81	ARG
20	BI	13	LEU
20	BI	50	GLU
20	BI	93	GLU
28	7I	55	ASP
28	7I	172	HIS
28	7I	190	ARG
28	7I	209	LEU
28	7I	218	MET
29	11	4	LYS
29	11	15	PHE
29	11	31	LYS
29	11	33	LEU
29	11	35	LYS
29	11	37	LEU
29	11	38	LYS
29	11	43	ARG
29	11	58	HIS
29	11	69	ARG
29	11	88	ARG
29	11	150	LYS
29	11	168	ARG
29	11	183	ARG
29	11	200	ASP
29	11	213	ARG
29	11	220	HIS
29	11	242	ARG

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

5.3.3 RNA [i](#)

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

All (2432) RNA backbone outliers are listed below:

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

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

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Mol	Chain	Res	Type
1	13	171	A
1	13	172	A
1	13	173	U
1	13	174	C
1	13	186(B)	C
1	13	186(F)	C
1	13	189	U
1	13	191(A)	G
1	13	195	A
1	13	197	A
1	13	199	G
1	13	201	C
1	13	208	U
1	13	209	U
1	13	216	G
1	13	217	C
1	13	222	U
1	13	231	G
1	13	243	A
1	13	245	C
1	13	247	G
1	13	251	G
1	13	256	U
1	13	258	G
1	13	262	A
1	13	266	G
1	13	267	C
1	13	280	C
1	13	289	G
1	13	299	G
1	13	307	C
1	13	316	G
1	13	321	A
1	13	328	C
1	13	330	C
1	13	332	G
1	13	344	A
1	13	345	C
1	13	346	G
1	13	347	G
1	13	349	A
1	13	351	G

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

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

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Mol	Chain	Res	Type
1	13	821	G
1	13	828	A
1	13	836	G
1	13	841	U
1	13	842	C
1	13	843	U
1	13	848	C
1	13	851	G
1	13	859	A
1	13	860	A
1	13	863	U
1	13	870	U
1	13	871	U
1	13	872	A
1	13	873	A
1	13	885	G
1	13	902	G
1	13	908	A
1	13	914	A
1	13	926	G
1	13	927	G
1	13	934	C
1	13	935	A
1	13	936	C
1	13	942	G
1	13	960	U
1	13	968	A
1	13	969	A
1	13	971	G
1	13	972	C
1	13	974	A
1	13	975	A
1	13	976	G
1	13	977	A
1	13	982	U
1	13	988	G
1	13	992	U
1	13	993	G
1	13	998	G
1	13	998(A)	C
1	13	999	U
1	13	1004	A

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Mol	Chain	Res	Type
1	13	1005	A
1	13	1006	C
1	13	1007	C
1	13	1009	G
1	13	1012	U
1	13	1016	A
1	13	1017	G
1	13	1021	G
1	13	1022	G
1	13	1024	G
1	13	1025	U
1	13	1026	G
1	13	1027	C
1	13	1028	C
1	13	1028(B)	C
1	13	1029	G
1	13	1030	C
1	13	1031	G
1	13	1032(A)	G
1	13	1032(B)	G
1	13	1035	A
1	13	1039	C
1	13	1040	U
1	13	1042	G
1	13	1057	G
1	13	1058	G
1	13	1064	G
1	13	1065	U
1	13	1066	C
1	13	1081	G
1	13	1085	U
1	13	1094	G
1	13	1095	U
1	13	1101	A
1	13	1118	C
1	13	1124	G
1	13	1125	U
1	13	1126	U
1	13	1127	G
1	13	1129	C
1	13	1130	A
1	13	1131	G

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Mol	Chain	Res	Type
1	13	1132	C
1	13	1133	G
1	13	1136	U
1	13	1137	C
1	13	1138	G
1	13	1139	G
1	13	1141	C
1	13	1144	G
1	13	1146	A
1	13	1152	A
1	13	1154	G
1	13	1157	A
1	13	1158	C
1	13	1159	U
1	13	1161	C
1	13	1163	C
1	13	1170	A
1	13	1177	G
1	13	1178	G
1	13	1179	A
1	13	1181	G
1	13	1183	A
1	13	1184	G
1	13	1186	G
1	13	1189	C
1	13	1190	G
1	13	1191	A
1	13	1196	U
1	13	1197	G
1	13	1201	A
1	13	1213	A
1	13	1225	A
1	13	1227	A
1	13	1238	A
1	13	1240	U
1	13	1241	G
1	13	1253	G
1	13	1256	A
1	13	1257	U
1	13	1258	G
1	13	1272	G
1	13	1275	A

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

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

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

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

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

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Mol	Chain	Res	Type
26	1H	196	A
26	1H	197	A
26	1H	199	A
26	1H	204	A
26	1H	208	C
26	1H	213	A
26	1H	214	G
26	1H	215	G
26	1H	216	A
26	1H	222	A
26	1H	223	A
26	1H	224	G
26	1H	228	A
26	1H	229	A
26	1H	233	A
26	1H	248	G
26	1H	250	G
26	1H	252	G
26	1H	266	G
26	1H	267	C
26	1H	269	U
26	1H	270(E)	G
26	1H	270(F)	U
26	1H	270(M)	U
26	1H	270(N)	G
26	1H	270(O)	U
26	1H	270(P)	C
26	1H	271(C)	U
26	1H	271	G
26	1H	273(E)	U
26	1H	274	G
26	1H	275	G
26	1H	277	C
26	1H	278	A
26	1H	280	C
26	1H	295	G
26	1H	299	A
26	1H	308	G
26	1H	311	A
26	1H	323	G
26	1H	324	A
26	1H	329	G

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

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

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

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

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Mol	Chain	Res	Type
26	1H	1052	C
26	1H	1053	C
26	1H	1107	G
26	1H	1108	U
26	1H	1109	C
26	1H	1110	G
26	1H	1112	G
26	1H	1127	A
26	1H	1128	A
26	1H	1129	A
26	1H	1130	U
26	1H	1135	C
26	1H	1136	G
26	1H	1138	G
26	1H	1139	G
26	1H	1142	U
26	1H	1142(A)	A
26	1H	1149	G
26	1H	1151	G
26	1H	1170	G
26	1H	1173	G
26	1H	1174	A
26	1H	1175	U
26	1H	1176	G
26	1H	1177	A
26	1H	1178	C
26	1H	1179	C
26	1H	1187	G
26	1H	1190	G
26	1H	1194	A
26	1H	1195	G
26	1H	1204	A
26	1H	1205	U
26	1H	1210	A
26	1H	1211	U
26	1H	1220	A
26	1H	1221	C
26	1H	1229(A)	G
26	1H	1236	G
26	1H	1244	G
26	1H	1245	G
26	1H	1250	G

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

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Mol	Chain	Res	Type
26	1H	1460	A
26	1H	1461	G
26	1H	1467	C
26	1H	1471	A
26	1H	1478	G
26	1H	1483	G
26	1H	1486	A
26	1H	1493	C
26	1H	1497	U
26	1H	1501	C
26	1H	1506	C
26	1H	1507	A
26	1H	1508	A
26	1H	1509	C
26	1H	1510	A
26	1H	1511	A
26	1H	1512	G
26	1H	1520	U
26	1H	1522	G
26	1H	1523	U
26	1H	1526	G
26	1H	1533	C
26	1H	1534	G
26	1H	1535	U
26	1H	1536	A
26	1H	1537	C
26	1H	1538	G
26	1H	1543	A
26	1H	1544	C
26	1H	1545	A
26	1H	1548	C
26	1H	1554	A
26	1H	1558	A
26	1H	1559	G
26	1H	1560	G
26	1H	1566	A
26	1H	1569	A
26	1H	1578	U
26	1H	1580	A
26	1H	1585	C
26	1H	1586	A
26	1H	1595	G

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

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Mol	Chain	Res	Type
26	1H	1831	G
26	1H	1835	G
26	1H	1837	C
26	1H	1839	G
26	1H	1843	C
26	1H	1847	A
26	1H	1848	A
26	1H	1859	A
26	1H	1869	G
26	1H	1870	C
26	1H	1878	G
26	1H	1881	C
26	1H	1882	C
26	1H	1887	C
26	1H	1889	A
26	1H	1900	A
26	1H	1906	G
26	1H	1913	A
26	1H	1914	C
26	1H	1916	A
26	1H	1919	A
26	1H	1929	G
26	1H	1938	A
26	1H	1945	G
26	1H	1955	U
26	1H	1965	C
26	1H	1967	C
26	1H	1969	A
26	1H	1970	A
26	1H	1971	A
26	1H	1972	A
26	1H	1982	C
26	1H	1992	G
26	1H	1993	U
26	1H	2020	A
26	1H	2023	G
26	1H	2031	A
26	1H	2032	G
26	1H	2033	A
26	1H	2043	C
26	1H	2052	G
26	1H	2054	A

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Mol	Chain	Res	Type
26	1H	2055	C
26	1H	2056	G
26	1H	2060	A
26	1H	2061	G
26	1H	2063	C
26	1H	2069	G
26	1H	2072	G
26	1H	2078	C
26	1H	2093	G
26	1H	2096	U
26	1H	2099	U
26	1H	2108	C
26	1H	2110	G
26	1H	2111	C
26	1H	2112	G
26	1H	2113	U
26	1H	2114	A
26	1H	2115	G
26	1H	2116	G
26	1H	2117	A
26	1H	2118	U
26	1H	2119	A
26	1H	2124	G
26	1H	2126	A
26	1H	2127	G
26	1H	2128	C
26	1H	2131	G
26	1H	2132	U
26	1H	2133	G
26	1H	2134	A
26	1H	2135	A
26	1H	2136	C
26	1H	2139	C
26	1H	2141	G
26	1H	2144	U
26	1H	2145	C
26	1H	2147	G
26	1H	2148	G
26	1H	2152	G
26	1H	2156	G
26	1H	2157	G
26	1H	2158	A

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

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

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

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

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

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Mol	Chain	Res	Type
27	16	109	G
27	16	115	G
27	16	117	G
1	1G	5	U
1	1G	7	G
1	1G	9	G
1	1G	10	A
1	1G	22	G
1	1G	31	G
1	1G	32	A
1	1G	39	G
1	1G	47	C
1	1G	48	C
1	1G	50	A
1	1G	51	A
1	1G	54	C
1	1G	76	G
1	1G	80	G
1	1G	81	G
1	1G	82	U
1	1G	88	C
1	1G	89	U
1	1G	91	C
1	1G	92	G
1	1G	101	A
1	1G	104	G
1	1G	105	G
1	1G	115	G
1	1G	116	A
1	1G	121	C
1	1G	131	C
1	1G	144	G
1	1G	161	A
1	1G	162	A
1	1G	163	C
1	1G	170	U
1	1G	173	U
1	1G	174	C
1	1G	179	A
1	1G	182	U
1	1G	185	A
1	1G	186(C)	G

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Mol	Chain	Res	Type
1	1G	186(F)	C
1	1G	188	U
1	1G	189	U
1	1G	190	G
1	1G	191(A)	G
1	1G	191(D)	U
1	1G	191(E)	G
1	1G	195	A
1	1G	196	A
1	1G	197	A
1	1G	198	G
1	1G	208	U
1	1G	209	U
1	1G	210	U
1	1G	216	G
1	1G	221	C
1	1G	242	C
1	1G	247	G
1	1G	250	A
1	1G	251	G
1	1G	260	G
1	1G	262	A
1	1G	266	G
1	1G	267	C
1	1G	270	A
1	1G	279	A
1	1G	281	G
1	1G	289	G
1	1G	290	C
1	1G	321	A
1	1G	326	G
1	1G	328	C
1	1G	329	A
1	1G	330	C
1	1G	332	G
1	1G	344	A
1	1G	346	G
1	1G	347	G
1	1G	350	G
1	1G	351	G
1	1G	352	C
1	1G	353	A

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

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Mol	Chain	Res	Type
1	1G	533	A
1	1G	536	C
1	1G	544	G
1	1G	547	A
1	1G	559	A
1	1G	561	U
1	1G	562	C
1	1G	564	C
1	1G	572	A
1	1G	573	A
1	1G	576	G
1	1G	577	G
1	1G	587	G
1	1G	607	A
1	1G	614	A
1	1G	616	G
1	1G	618	C
1	1G	620	C
1	1G	630	G
1	1G	631	G
1	1G	632	A
1	1G	633	G
1	1G	651	C
1	1G	653	A
1	1G	661	G
1	1G	665	A
1	1G	666	G
1	1G	688	G
1	1G	701	C
1	1G	707	C
1	1G	723	U
1	1G	724	G
1	1G	725	G
1	1G	730	G
1	1G	731	G
1	1G	735	C
1	1G	749	C
1	1G	751	U
1	1G	754	C
1	1G	755	G
1	1G	759	A
1	1G	760	G

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Mol	Chain	Res	Type
1	1G	769	G
1	1G	776	G
1	1G	777	A
1	1G	792	A
1	1G	793	U
1	1G	794	A
1	1G	816	A
1	1G	817	C
1	1G	818	G
1	1G	821	G
1	1G	828	A
1	1G	841	U
1	1G	842	C
1	1G	843	U
1	1G	848	C
1	1G	853	G
1	1G	858	G
1	1G	859	A
1	1G	873	A
1	1G	876	G
1	1G	885	G
1	1G	914	A
1	1G	916	G
1	1G	926	G
1	1G	927	G
1	1G	934	C
1	1G	935	A
1	1G	942	G
1	1G	960	U
1	1G	961	U
1	1G	968	A
1	1G	969	A
1	1G	971	G
1	1G	974	A
1	1G	975	A
1	1G	976	G
1	1G	977	A
1	1G	978	A
1	1G	980	C
1	1G	981	U
1	1G	982	U
1	1G	983	A

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

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Mol	Chain	Res	Type
1	1G	1096	C
1	1G	1099	G
1	1G	1100	C
1	1G	1101	A
1	1G	1118	C
1	1G	1124	G
1	1G	1125	U
1	1G	1126	U
1	1G	1127	G
1	1G	1128	C
1	1G	1129	C
1	1G	1137	C
1	1G	1138	G
1	1G	1139	G
1	1G	1146	A
1	1G	1147	C
1	1G	1157	A
1	1G	1158	C
1	1G	1159	U
1	1G	1171	G
1	1G	1177	G
1	1G	1178	G
1	1G	1181	G
1	1G	1182	G
1	1G	1183	A
1	1G	1188	A
1	1G	1189	C
1	1G	1193	G
1	1G	1196	U
1	1G	1197	G
1	1G	1199	U
1	1G	1200	C
1	1G	1201	A
1	1G	1202	G
1	1G	1211	U
1	1G	1212	U
1	1G	1213	A
1	1G	1214	C
1	1G	1223	C
1	1G	1225	A
1	1G	1227	A
1	1G	1238	A

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

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

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

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

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

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

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

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Mol	Chain	Res	Type
26	14	435	C
26	14	436	C
26	14	443	A
26	14	444	C
26	14	448	U
26	14	455	C
26	14	456	C
26	14	457	A
26	14	459	U
26	14	463	G
26	14	464	U
26	14	470	A
26	14	480	A
26	14	481	G
26	14	483	A
26	14	498	G
26	14	504	U
26	14	505	A
26	14	508	G
26	14	509	C
26	14	510	C
26	14	512	G
26	14	528	A
26	14	529	A
26	14	530	G
26	14	531	C
26	14	532	A
26	14	533	G
26	14	546	C
26	14	547	A
26	14	549	G
26	14	563	G
26	14	568	U
26	14	573	G
26	14	574	C
26	14	575	A
26	14	603	A
26	14	604	G
26	14	607	U
26	14	609(A)	G
26	14	614	U
26	14	615	G

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

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

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

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Mol	Chain	Res	Type
26	14	1073	A
26	14	1075	C
26	14	1086	A
26	14	1088	A
26	14	1090	U
26	14	1091	G
26	14	1093	G
26	14	1099	G
26	14	1102	C
26	14	1105	U
26	14	1106	G
26	14	1107	G
26	14	1108	U
26	14	1111	A
26	14	1112	G
26	14	1114	G
26	14	1122	G
26	14	1128	A
26	14	1129	A
26	14	1130	U
26	14	1135	C
26	14	1136	G
26	14	1139	G
26	14	1142	U
26	14	1143	A
26	14	1149	G
26	14	1151	G
26	14	1155	A
26	14	1164	G
26	14	1170	G
26	14	1171	G
26	14	1173	G
26	14	1174	A
26	14	1175	U
26	14	1176	G
26	14	1177	A
26	14	1178	C
26	14	1182	A
26	14	1187	G
26	14	1195	G
26	14	1204	A
26	14	1205	U

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

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

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

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

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Mol	Chain	Res	Type
26	14	1963	U
26	14	1964	G
26	14	1967	C
26	14	1970	A
26	14	1971	A
26	14	1972	A
26	14	1993	U
26	14	1995	U
26	14	2020	A
26	14	2023	G
26	14	2031	A
26	14	2033	A
26	14	2039	C
26	14	2043	C
26	14	2054	A
26	14	2055	C
26	14	2056	G
26	14	2060	A
26	14	2061	G
26	14	2062	A
26	14	2063	C
26	14	2069	G
26	14	2074	U
26	14	2095	C
26	14	2099	U
26	14	2100	G
26	14	2108	C
26	14	2109	U
26	14	2110	G
26	14	2111	C
26	14	2114	A
26	14	2115	G
26	14	2116	G
26	14	2117	A
26	14	2120	G
26	14	2122	U
26	14	2123	G
26	14	2124	G
26	14	2125	G
26	14	2126	A
26	14	2127	G
26	14	2128	C

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

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Mol	Chain	Res	Type
26	14	2239	G
26	14	2240	C
26	14	2249	U
26	14	2251	G
26	14	2253	G
26	14	2259	G
26	14	2267	A
26	14	2269	A
26	14	2275	C
26	14	2276	G
26	14	2278	A
26	14	2280	G
26	14	2283	C
26	14	2287	A
26	14	2298	A
26	14	2305	A
26	14	2307	G
26	14	2308	G
26	14	2310	A
26	14	2311	A
26	14	2318	G
26	14	2319	G
26	14	2321	G
26	14	2325	G
26	14	2326	C
26	14	2327	A
26	14	2334	G
26	14	2336	A
26	14	2343	C
26	14	2346	A
26	14	2347	C
26	14	2350	C
26	14	2354	G
26	14	2355	C
26	14	2371	G
26	14	2372	G
26	14	2383	G
26	14	2385	C
26	14	2388	A
26	14	2389	G
26	14	2392	A
26	14	2393	A

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

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Mol	Chain	Res	Type
26	14	2554	U
26	14	2564	A
26	14	2566	A
26	14	2567	G
26	14	2569	G
26	14	2572	A
26	14	2573	C
26	14	2578	G
26	14	2585	U
26	14	2596	U
26	14	2599	G
26	14	2602	A
26	14	2608	G
26	14	2609	U
26	14	2611	U
26	14	2612	C
26	14	2615	U
26	14	2630	G
26	14	2634	G
26	14	2646	C
26	14	2647	U
26	14	2652	C
26	14	2662	A
26	14	2663	G
26	14	2665	A
26	14	2667	C
26	14	2673	G
26	14	2689	U
26	14	2690	C
26	14	2691	C
26	14	2698	U
26	14	2702	U
26	14	2703	C
26	14	2707	G
26	14	2712(A)	A
26	14	2713	A
26	14	2726	U
26	14	2732	G
26	14	2733	A
26	14	2739	U
26	14	2744	G
26	14	2748	A

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

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

All (189) RNA pucker outliers are listed below:

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

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

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

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

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

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

5.4 Non-standard residues in protein, DNA, RNA chains [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
23	PSU	2K	56	23	18,21,22	1.15	1 (5%)	22,30,33	1.89	5 (22%)
22	T6A	1K	37	22	27,34,35	2.77	6 (22%)	29,49,52	2.48	9 (31%)
22	U8U	1K	34	22,25	19,24,25	2.52	7 (36%)	23,34,37	1.09	2 (8%)
22	U8U	1L	34	22,25	19,24,25	2.59	7 (36%)	23,34,37	1.27	3 (13%)
23	OMC	2K	33	23	19,22,23	1.81	3 (15%)	26,31,34	0.80	0
23	4SU	2L	8	23	18,21,22	1.83	3 (16%)	26,30,33	2.71	6 (23%)
22	PSU	1K	55	22	18,21,22	1.15	1 (5%)	22,30,33	1.83	4 (18%)
56	PSU	3L	39	56	18,21,22	1.14	2 (11%)	22,30,33	1.99	5 (22%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
22	PSU	1K	39	22	18,21,22	1.10	1 (5%)	22,30,33	1.73	4 (18%)
23	PSU	2L	56	23	18,21,22	1.06	1 (5%)	22,30,33	1.80	5 (22%)
23	5MU	2L	55	23	19,22,23	3.93	5 (26%)	28,32,35	3.41	10 (35%)
23	G7M	2K	47	23	20,26,27	2.39	6 (30%)	17,39,42	0.85	1 (5%)
22	PSU	1L	55	22	18,21,22	1.09	1 (5%)	22,30,33	1.70	5 (22%)
22	PSU	1L	39	22	18,21,22	1.01	1 (5%)	22,30,33	1.73	3 (13%)
22	5MU	1K	54	22	19,22,23	3.80	5 (26%)	28,32,35	3.18	9 (32%)
23	G7M	2L	47	23	20,26,27	2.38	6 (30%)	17,39,42	1.05	1 (5%)
23	4SU	2K	8	23	18,21,22	1.89	5 (27%)	26,30,33	2.54	5 (19%)
24	PSU	3K	39	24	18,21,22	1.28	1 (5%)	22,30,33	1.72	4 (18%)
23	5MU	2K	55	23	19,22,23	3.81	5 (26%)	28,32,35	3.40	6 (21%)
23	OMC	2L	33	23	19,22,23	1.97	4 (21%)	26,31,34	1.07	1 (3%)
56	T6A	3L	37	56	27,34,35	2.60	5 (18%)	29,49,52	2.24	11 (37%)
22	5MU	1L	54	22	19,22,23	3.90	5 (26%)	28,32,35	3.27	8 (28%)
22	T6A	1L	37	22	27,34,35	2.57	6 (22%)	29,49,52	2.37	8 (27%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
23	PSU	2K	56	23	-	0/7/25/26	0/2/2/2
22	T6A	1K	37	22	-	4/19/41/42	0/3/3/3
22	U8U	1K	34	22,25	-	2/9/28/29	0/2/2/2
22	U8U	1L	34	22,25	-	2/9/28/29	0/2/2/2
23	OMC	2K	33	23	-	0/9/27/28	0/2/2/2
23	4SU	2L	8	23	-	0/7/25/26	0/2/2/2
22	PSU	1K	55	22	-	0/7/25/26	0/2/2/2
56	PSU	3L	39	56	-	2/7/25/26	0/2/2/2
22	PSU	1K	39	22	-	2/7/25/26	0/2/2/2
23	PSU	2L	56	23	-	0/7/25/26	0/2/2/2
23	5MU	2L	55	23	-	3/7/25/26	0/2/2/2
23	G7M	2K	47	23	-	1/3/25/26	0/3/3/3
22	PSU	1L	55	22	-	3/7/25/26	0/2/2/2
22	PSU	1L	39	22	-	2/7/25/26	0/2/2/2
22	5MU	1K	54	22	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
23	G7M	2L	47	23	-	2/3/25/26	0/3/3/3
23	4SU	2K	8	23	-	0/7/25/26	0/2/2/2
24	PSU	3K	39	24	-	3/7/25/26	0/2/2/2
23	5MU	2K	55	23	-	0/7/25/26	0/2/2/2
23	OMC	2L	33	23	-	1/9/27/28	0/2/2/2
56	T6A	3L	37	56	-	10/19/41/42	0/3/3/3
22	5MU	1L	54	22	-	0/7/25/26	0/2/2/2
22	T6A	1L	37	22	-	7/19/41/42	0/3/3/3

All (87) 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
56	3L	37	T6A	C6-N6	8.37	1.51	1.36
22	1K	37	T6A	C6-N6	7.91	1.50	1.36
22	1L	37	T6A	C6-N6	7.91	1.50	1.36
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	2L	55	5MU	C4-N3	-6.14	1.27	1.38
22	1K	54	5MU	C4-N3	-6.13	1.27	1.38
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
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	8	4SU	C5-C4	5.51	1.49	1.42
23	2K	47	G7M	C2-N3	5.47	1.46	1.33
22	1K	54	5MU	C6-N1	5.44	1.47	1.38
23	2L	55	5MU	C4-C5	5.42	1.53	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
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
22	1K	34	U8U	C2-N3	5.07	1.49	1.37
23	2L	47	G7M	C2-N3	5.07	1.45	1.33
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	2K	47	G7M	C4-N3	4.74	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	2K	55	5MU	C4-C5	4.67	1.52	1.44
23	2L	47	G7M	C4-N3	4.62	1.48	1.37
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	2L	47	G7M	C6-N1	3.93	1.43	1.37
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	47	G7M	C6-N1	3.72	1.43	1.37
23	2K	56	PSU	C6-C5	3.68	1.39	1.35
22	1L	55	PSU	C6-C5	3.58	1.39	1.35
23	2K	47	G7M	C5-C6	3.50	1.54	1.45
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	47	G7M	C5-C6	3.18	1.53	1.45
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
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

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2K	47	G7M	C2-N1	2.68	1.44	1.37
22	1K	37	T6A	C2-N3	2.62	1.36	1.32
22	1L	34	U8U	C4-C5	2.56	1.50	1.45
22	1L	37	T6A	C5-C4	-2.51	1.34	1.40
22	1K	37	T6A	C5-C4	-2.50	1.34	1.40
56	3L	37	T6A	ODB-C13	-2.48	1.22	1.30
22	1L	34	U8U	O4-C4	-2.46	1.18	1.23
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	1L	37	T6A	C2-N3	2.29	1.35	1.32
56	3L	37	T6A	C2-N3	2.28	1.35	1.32
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	1K	37	T6A	ODB-C13	-2.16	1.23	1.30
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 (115) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
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
23	2K	55	5MU	C5-C6-N1	-6.62	116.53	123.34
22	1K	37	T6A	N3-C2-N1	-6.56	118.42	128.68
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
23	2K	55	5MU	O4-C4-C5	-6.36	117.53	124.90
22	1L	37	T6A	N3-C2-N1	-6.27	118.89	128.68
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
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	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
23	2K	55	5MU	C6-C5-C4	5.39	122.54	118.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	1K	54	5MU	C6-C5-C4	5.32	122.48	118.03
56	3L	37	T6A	N3-C2-N1	-5.31	120.38	128.68
23	2L	55	5MU	C6-C5-C4	5.26	122.43	118.03
22	1K	37	T6A	C2-N1-C6	5.23	121.07	116.59
23	2K	8	4SU	C5-C4-S4	-5.18	117.79	124.47
56	3L	37	T6A	C2-N1-C6	5.05	120.92	116.59
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	37	T6A	C2-N1-C6	4.93	120.82	116.59
22	1L	54	5MU	O4-C4-C5	-4.88	119.25	124.90
22	1K	37	T6A	N6-C6-N1	4.81	125.16	118.72
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
23	2K	56	PSU	C4-N3-C2	-4.57	119.75	126.34
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
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	54	5MU	C5M-C5-C6	-4.06	117.43	122.85
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
22	1L	37	T6A	O10-C10-N6	-3.87	117.08	123.62
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
22	1L	37	T6A	N6-C6-N1	3.69	123.66	118.72
23	2L	56	PSU	C4-N3-C2	-3.64	121.10	126.34
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

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	2L	56	PSU	N1-C2-N3	3.42	119.00	115.13
22	1K	55	PSU	O2-C2-N1	-3.37	119.08	122.79
24	3K	39	PSU	O2-C2-N1	-3.32	119.13	122.79
23	2L	56	PSU	C6-N1-C2	-3.27	119.34	122.68
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
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
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	1K	34	U8U	S2-C2-N3	-2.79	114.58	119.96
22	1K	55	PSU	C6-N1-C2	-2.77	119.85	122.68
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	-2.53	120.44	125.10
23	2L	55	5MU	C6-N1-C2	-2.51	118.76	121.30
23	2L	47	G7M	C2-N1-C6	-2.48	120.52	125.10
56	3L	37	T6A	C14-C12-N11	2.45	117.99	111.72
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
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	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	2K	56	PSU	O2-C2-N1	-2.25	120.32	122.79
56	3L	37	T6A	C4-C5-N7	-2.21	107.09	109.40
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
56	3L	37	T6A	N6-C6-N1	-2.19	115.79	118.72
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

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
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
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 (44) 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	C5-C6-N6-C10
56	3L	37	T6A	N11-C12-C14-O14
56	3L	37	T6A	N11-C12-C14-C15
56	3L	37	T6A	C13-C12-C14-O14
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
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

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Mol	Chain	Res	Type	Atoms
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 20 short contacts:

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

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

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

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

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

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

There are no bond length outliers.

All (33) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	13	1749	PAR	C22-C12-C62	-4.86	102.69	110.04
58	13	1749	PAR	C14-O33-C33	-4.70	106.32	117.96
58	1G	1691	PAR	O11-C11-C21	-4.60	100.30	108.22
58	13	1749	PAR	C11-O51-C51	4.53	122.58	113.69
58	13	1749	PAR	C14-O54-C54	4.32	122.17	113.69
58	13	1749	PAR	O52-C13-O43	-4.25	106.83	111.43
58	1G	1691	PAR	C14-O54-C54	4.16	121.85	113.69
58	13	1749	PAR	C32-C22-C12	-4.10	102.76	111.18
58	13	1749	PAR	O51-C51-C41	4.06	117.06	109.69
58	1G	1691	PAR	O54-C54-C64	3.86	113.19	106.01
58	1G	1691	PAR	O11-C42-C32	-3.72	100.31	109.18
58	1G	1691	PAR	O52-C13-C23	3.66	115.55	107.96
58	1G	1691	PAR	C13-O52-C52	-3.32	109.76	117.96

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
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:

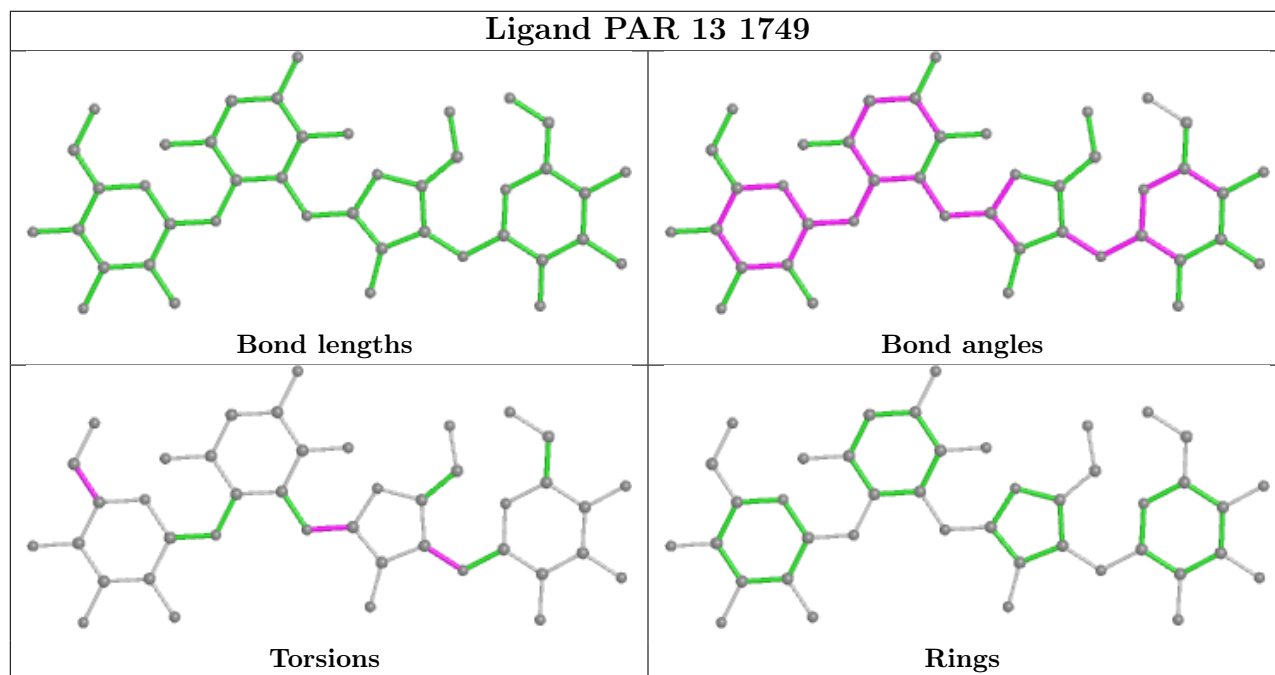
Mol	Chain	Res	Type	Clashes	Symm-Clashes
58	13	1749	PAR	3	0

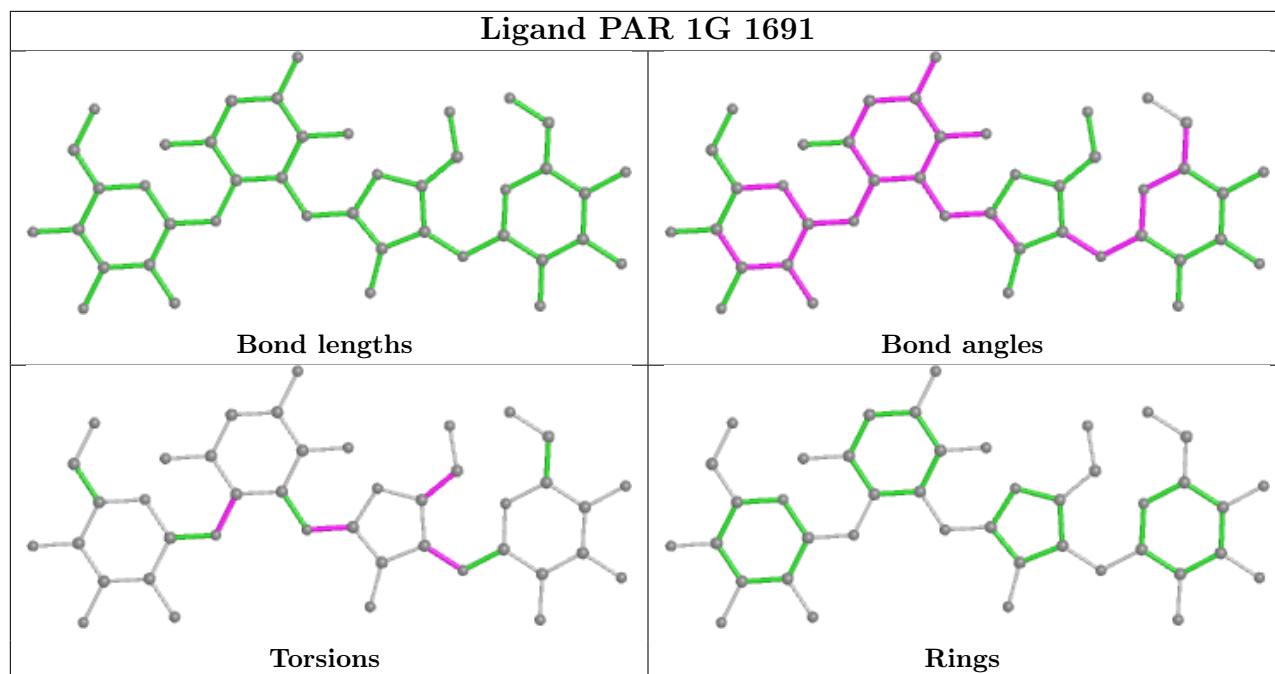
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Mol	Chain	Res	Type	Clashes	Symm-Clashes
59	32	301	SF4	2	0
58	1G	1691	PAR	2	0

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





5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
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 i

6.1 Protein, DNA and RNA chains i

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

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

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

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

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

All (1104) RSRZ outliers are listed below:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

6.4 Ligands [i](#)

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

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

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
57	MG	14	3224	1/1	0.69	0.38	80,80,80,80	0
57	MG	1H	3129	1/1	0.69	0.31	76,76,76,76	0
57	MG	14	3243	1/1	0.69	0.41	86,86,86,86	0
57	MG	29	304	1/1	0.69	0.23	71,71,71,71	0
57	MG	14	3265	1/1	0.69	0.51	79,79,79,79	0
57	MG	13	1628	1/1	0.69	0.37	96,96,96,96	0
57	MG	13	1665	1/1	0.70	0.46	82,82,82,82	0
57	MG	1H	3207	1/1	0.70	0.16	56,56,56,56	0
57	MG	14	3013	1/1	0.70	0.24	74,74,74,74	0
57	MG	14	3248	1/1	0.70	0.35	75,75,75,75	0
57	MG	14	3063	1/1	0.71	0.31	76,76,76,76	0
57	MG	13	1650	1/1	0.71	0.38	100,100,100,100	0
57	MG	13	1625	1/1	0.72	0.27	96,96,96,96	0
57	MG	1H	3493	1/1	0.72	0.19	94,94,94,94	0
57	MG	13	1655	1/1	0.72	0.46	71,71,71,71	0
57	MG	16	203	1/1	0.72	0.16	79,79,79,79	0
57	MG	14	3202	1/1	0.72	0.23	90,90,90,90	0
57	MG	16	205	1/1	0.72	0.20	81,81,81,81	0
57	MG	14	3171	1/1	0.73	0.22	73,73,73,73	0
57	MG	1H	3284	1/1	0.73	0.62	75,75,75,75	0
57	MG	1H	3190	1/1	0.73	0.47	74,74,74,74	0
57	MG	1H	3205	1/1	0.73	0.17	77,77,77,77	0
57	MG	1H	3289	1/1	0.74	0.40	82,82,82,82	0
57	MG	1H	3278	1/1	0.74	0.20	82,82,82,82	0
57	MG	14	3374	1/1	0.74	0.07	96,96,96,96	0
57	MG	29	301	1/1	0.74	0.44	80,80,80,80	0
57	MG	14	3223	1/1	0.74	0.42	75,75,75,75	0
57	MG	1H	3019	1/1	0.74	0.27	78,78,78,78	0
57	MG	1H	3020	1/1	0.74	0.19	107,107,107,107	0
57	MG	1H	3121	1/1	0.75	0.42	79,79,79,79	0
57	MG	14	3190	1/1	0.75	0.88	82,82,82,82	0
57	MG	14	3075	1/1	0.75	0.46	70,70,70,70	0
57	MG	1H	3198	1/1	0.75	0.26	76,76,76,76	0
57	MG	7A	101	1/1	0.75	0.23	89,89,89,89	0
57	MG	14	3357	1/1	0.75	0.11	84,84,84,84	0
57	MG	13	1684	1/1	0.75	0.22	85,85,85,85	0
57	MG	1J	203	1/1	0.75	0.30	93,93,93,93	0
57	MG	5I	101	1/1	0.75	0.08	88,88,88,88	0
57	MG	1H	3069	1/1	0.75	0.46	65,65,65,65	0
57	MG	11	303	1/1	0.75	0.51	65,65,65,65	0
57	MG	14	3257	1/1	0.75	0.58	87,87,87,87	0
57	MG	1H	3220	1/1	0.76	0.40	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3233	1/1	0.76	0.34	70,70,70,70	0
57	MG	1H	3287	1/1	0.76	0.37	80,80,80,80	0
57	MG	14	3236	1/1	0.76	0.21	88,88,88,88	0
57	MG	1G	1641	1/1	0.76	0.34	78,78,78,78	0
57	MG	1H	3244	1/1	0.77	0.41	84,84,84,84	0
57	MG	1H	3128	1/1	0.77	0.22	64,64,64,64	0
57	MG	16	207	1/1	0.77	0.26	77,77,77,77	0
57	MG	14	3037	1/1	0.77	0.21	63,63,63,63	0
57	MG	14	3241	1/1	0.77	0.33	84,84,84,84	0
57	MG	1G	1626	1/1	0.78	0.29	73,73,73,73	0
57	MG	13	1659	1/1	0.78	0.42	75,75,75,75	0
57	MG	2K	101	1/1	0.78	0.29	95,95,95,95	0
57	MG	13	1656	1/1	0.78	0.50	62,62,62,62	0
57	MG	14	3443	1/1	0.78	0.07	108,108,108,108	0
57	MG	14	3097	1/1	0.78	0.51	65,65,65,65	0
57	MG	14	3005	1/1	0.78	0.37	70,70,70,70	0
57	MG	1H	3125	1/1	0.78	0.34	61,61,61,61	0
57	MG	14	3143	1/1	0.78	0.24	73,73,73,73	0
57	MG	1H	3249	1/1	0.78	0.22	61,61,61,61	0
57	MG	1I	201	1/1	0.79	0.12	100,100,100,100	0
57	MG	1H	3103	1/1	0.79	0.43	82,82,82,82	0
57	MG	1H	3107	1/1	0.79	0.19	64,64,64,64	0
57	MG	14	3423	1/1	0.79	0.06	144,144,144,144	0
57	MG	1H	3136	1/1	0.79	0.84	73,73,73,73	0
57	MG	1H	3108	1/1	0.79	0.41	82,82,82,82	0
57	MG	1H	3280	1/1	0.79	0.42	80,80,80,80	0
57	MG	1H	3054	1/1	0.79	0.34	59,59,59,59	0
57	MG	14	3226	1/1	0.79	0.27	78,78,78,78	0
57	MG	1G	1657	1/1	0.79	0.13	105,105,105,105	0
57	MG	14	3232	1/1	0.80	0.26	130,130,130,130	0
57	MG	14	3191	1/1	0.80	0.44	73,73,73,73	0
57	MG	1G	1609	1/1	0.80	0.19	108,108,108,108	0
57	MG	1H	3139	1/1	0.80	0.35	71,71,71,71	0
57	MG	1H	3144	1/1	0.80	0.48	75,75,75,75	0
57	MG	35	201	1/1	0.80	0.33	71,71,71,71	0
57	MG	1H	3199	1/1	0.80	0.38	75,75,75,75	0
57	MG	P8	101	1/1	0.80	0.44	66,66,66,66	0
57	MG	1H	3066	1/1	0.81	0.21	57,57,57,57	0
57	MG	1G	1618	1/1	0.81	0.19	86,86,86,86	0
57	MG	14	3180	1/1	0.81	0.31	69,69,69,69	0
57	MG	1G	1692	1/1	0.81	0.36	105,105,105,105	0
57	MG	29	303	1/1	0.81	0.16	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	14	3036	1/1	0.81	0.24	76,76,76,76	0
57	MG	1H	3208	1/1	0.81	0.23	76,76,76,76	0
57	MG	1H	3242	1/1	0.81	0.27	80,80,80,80	0
57	MG	13	1603	1/1	0.81	0.36	76,76,76,76	0
57	MG	14	3258	1/1	0.82	0.77	83,83,83,83	0
57	MG	13	1618	1/1	0.82	0.33	64,64,64,64	0
57	MG	1G	1631	1/1	0.82	0.29	107,107,107,107	0
57	MG	1H	3036	1/1	0.82	0.20	78,78,78,78	0
57	MG	14	3192	1/1	0.82	0.36	100,100,100,100	0
57	MG	21	303	1/1	0.82	0.22	69,69,69,69	0
57	MG	14	3108	1/1	0.82	0.11	90,90,90,90	0
57	MG	13	1648	1/1	0.82	0.30	90,90,90,90	0
57	MG	1H	3192	1/1	0.82	0.32	82,82,82,82	0
57	MG	14	3427	1/1	0.82	0.08	102,102,102,102	0
57	MG	1G	1613	1/1	0.82	0.52	73,73,73,73	0
57	MG	14	3454	1/1	0.82	0.20	79,79,79,79	0
57	MG	14	3144	1/1	0.82	0.52	80,80,80,80	0
57	MG	14	3154	1/1	0.82	0.69	74,74,74,74	0
57	MG	1G	1616	1/1	0.82	0.23	86,86,86,86	0
57	MG	1H	3018	1/1	0.82	0.45	80,80,80,80	0
57	MG	13	1645	1/1	0.82	0.23	93,93,93,93	0
57	MG	1H	3200	1/1	0.82	0.35	73,73,73,73	0
57	MG	1G	1623	1/1	0.82	0.31	77,77,77,77	0
57	MG	1H	3291	1/1	0.83	0.46	88,88,88,88	0
57	MG	14	3204	1/1	0.83	0.19	90,90,90,90	0
57	MG	14	3129	1/1	0.83	0.16	69,69,69,69	0
57	MG	14	3212	1/1	0.83	0.43	80,80,80,80	0
57	MG	14	3213	1/1	0.83	0.46	87,87,87,87	0
57	MG	1H	3471	1/1	0.83	0.12	82,82,82,82	0
57	MG	14	3421	1/1	0.83	0.15	75,75,75,75	0
57	MG	1H	3246	1/1	0.83	0.38	85,85,85,85	0
57	MG	1H	3188	1/1	0.83	0.38	74,74,74,74	0
57	MG	1H	3120	1/1	0.83	0.16	63,63,63,63	0
57	MG	16	204	1/1	0.83	0.27	90,90,90,90	0
57	MG	13	1663	1/1	0.83	0.35	71,71,71,71	0
57	MG	1H	3023	1/1	0.83	0.39	81,81,81,81	0
57	MG	1H	3177	1/1	0.83	0.25	81,81,81,81	0
57	MG	1G	1639	1/1	0.83	0.18	97,97,97,97	0
57	MG	1H	3241	1/1	0.83	0.55	71,71,71,71	0
57	MG	1H	3093	1/1	0.83	0.63	71,71,71,71	0
57	MG	1H	3115	1/1	0.83	0.29	82,82,82,82	0
57	MG	14	3135	1/1	0.84	0.37	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	14	3199	1/1	0.84	0.38	84,84,84,84	0
57	MG	14	3435	1/1	0.84	0.08	103,103,103,103	0
57	MG	14	3264	1/1	0.84	0.32	90,90,90,90	0
57	MG	14	3229	1/1	0.84	0.29	74,74,74,74	0
57	MG	1H	3083	1/1	0.84	0.21	74,74,74,74	0
57	MG	13	1682	1/1	0.84	0.68	90,90,90,90	0
57	MG	1H	3269	1/1	0.84	0.22	73,73,73,73	0
57	MG	14	3185	1/1	0.84	0.28	89,89,89,89	0
57	MG	1G	1688	1/1	0.84	0.06	100,100,100,100	0
57	MG	14	3244	1/1	0.84	0.68	77,77,77,77	0
57	MG	1H	3275	1/1	0.84	0.21	95,95,95,95	0
57	MG	1H	3455	1/1	0.85	0.06	103,103,103,103	0
57	MG	1H	3087	1/1	0.85	0.16	68,68,68,68	0
57	MG	14	3211	1/1	0.85	0.38	78,78,78,78	0
57	MG	1H	3092	1/1	0.85	0.34	57,57,57,57	0
57	MG	1H	3238	1/1	0.85	0.34	78,78,78,78	0
57	MG	1H	3279	1/1	0.85	0.99	71,71,71,71	0
57	MG	1H	3133	1/1	0.85	0.42	80,80,80,80	0
57	MG	13	1670	1/1	0.85	0.33	78,78,78,78	0
57	MG	13	1649	1/1	0.85	0.37	78,78,78,78	0
57	MG	1H	3086	1/1	0.85	0.07	71,71,71,71	0
57	MG	14	3173	1/1	0.85	0.28	69,69,69,69	0
57	MG	1G	1627	1/1	0.85	0.25	86,86,86,86	0
57	MG	14	3044	1/1	0.85	0.81	76,76,76,76	0
57	MG	16	211	1/1	0.85	0.08	84,84,84,84	0
57	MG	1G	1638	1/1	0.85	0.58	88,88,88,88	0
57	MG	1H	3209	1/1	0.85	0.23	78,78,78,78	0
57	MG	1H	3194	1/1	0.85	0.45	66,66,66,66	0
57	MG	1G	1655	1/1	0.85	0.07	120,120,120,120	0
57	MG	14	3259	1/1	0.85	0.19	97,97,97,97	0
57	MG	41	202	1/1	0.85	0.26	82,82,82,82	0
57	MG	14	3238	1/1	0.86	0.55	69,69,69,69	0
57	MG	1H	3286	1/1	0.86	0.23	82,82,82,82	0
57	MG	14	3242	1/1	0.86	0.11	95,95,95,95	0
57	MG	1H	3131	1/1	0.86	0.52	67,67,67,67	0
57	MG	14	3163	1/1	0.86	0.64	72,72,72,72	0
57	MG	14	3164	1/1	0.86	0.33	65,65,65,65	0
57	MG	14	3168	1/1	0.86	0.21	89,89,89,89	0
57	MG	1G	1604	1/1	0.86	0.17	87,87,87,87	0
57	MG	1H	3119	1/1	0.86	0.20	71,71,71,71	0
57	MG	14	3260	1/1	0.86	0.13	117,117,117,117	0
57	MG	1H	3077	1/1	0.86	0.55	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3411	1/1	0.86	0.07	81,81,81,81	0
57	MG	1H	3428	1/1	0.86	0.08	87,87,87,87	0
57	MG	14	3188	1/1	0.86	0.40	66,66,66,66	0
57	MG	1H	3138	1/1	0.86	0.41	55,55,55,55	0
57	MG	1H	3255	1/1	0.86	0.14	88,88,88,88	0
57	MG	1H	3487	1/1	0.86	0.08	91,91,91,91	0
57	MG	1H	3259	1/1	0.86	0.36	74,74,74,74	0
57	MG	13	1741	1/1	0.86	0.14	79,79,79,79	0
57	MG	14	3107	1/1	0.86	0.42	81,81,81,81	0
57	MG	1H	3212	1/1	0.86	0.35	77,77,77,77	0
57	MG	14	3113	1/1	0.86	0.41	73,73,73,73	0
57	MG	1H	3195	1/1	0.86	0.28	73,73,73,73	0
57	MG	1H	3226	1/1	0.86	0.15	64,64,64,64	0
57	MG	1H	3229	1/1	0.86	0.34	73,73,73,73	0
57	MG	1G	1646	1/1	0.86	0.67	84,84,84,84	0
57	MG	1H	3059	1/1	0.86	0.21	66,66,66,66	0
57	MG	1H	3281	1/1	0.86	0.52	69,69,69,69	0
57	MG	14	3152	1/1	0.86	0.32	67,67,67,67	0
57	MG	13	1626	1/1	0.86	0.14	87,87,87,87	0
57	MG	13	1668	1/1	0.86	0.23	95,95,95,95	0
57	MG	1H	3501	1/1	0.87	0.05	72,72,72,72	0
57	MG	13	1679	1/1	0.87	0.22	86,86,86,86	0
57	MG	14	3053	1/1	0.87	0.30	77,77,77,77	0
57	MG	1H	3007	1/1	0.87	0.29	68,68,68,68	0
57	MG	14	3069	1/1	0.87	0.42	67,67,67,67	0
57	MG	1G	1628	1/1	0.87	0.24	124,124,124,124	0
57	MG	14	3444	1/1	0.87	0.12	87,87,87,87	0
57	MG	1H	3452	1/1	0.87	0.09	89,89,89,89	0
57	MG	1H	3285	1/1	0.87	0.55	87,87,87,87	0
57	MG	1H	3011	1/1	0.87	0.68	72,72,72,72	0
57	MG	1H	3014	1/1	0.87	0.50	75,75,75,75	0
57	MG	13	1748	1/1	0.87	0.09	115,115,115,115	0
57	MG	1H	3272	1/1	0.87	0.73	95,95,95,95	0
57	MG	14	3121	1/1	0.87	0.31	77,77,77,77	0
57	MG	14	3366	1/1	0.87	0.12	76,76,76,76	0
57	MG	13	1674	1/1	0.88	0.36	78,78,78,78	0
57	MG	1H	3489	1/1	0.88	0.08	125,125,125,125	0
57	MG	1G	1633	1/1	0.88	0.41	100,100,100,100	0
57	MG	1G	1636	1/1	0.88	0.22	89,89,89,89	0
57	MG	1H	3271	1/1	0.88	0.20	74,74,74,74	0
57	MG	1H	3495	1/1	0.88	0.07	98,98,98,98	0
57	MG	14	3146	1/1	0.88	0.44	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	3147	1/1	0.88	0.29	72,72,72,72	0
57	MG	1H	3047	1/1	0.88	0.28	61,61,61,61	0
57	MG	1H	3273	1/1	0.88	0.26	57,57,57,57	0
57	MG	13	1677	1/1	0.88	0.22	76,76,76,76	0
57	MG	13	1636	1/1	0.88	0.21	75,75,75,75	0
57	MG	13	1642	1/1	0.88	0.26	107,107,107,107	0
57	MG	13	1666	1/1	0.88	0.41	77,77,77,77	0
57	MG	1H	3186	1/1	0.88	0.24	57,57,57,57	0
57	MG	13	1620	1/1	0.88	0.35	58,58,58,58	0
57	MG	1H	3122	1/1	0.88	0.52	73,73,73,73	0
57	MG	14	3010	1/1	0.88	0.31	69,69,69,69	0
57	MG	1H	3015	1/1	0.88	0.24	72,72,72,72	0
57	MG	1H	3193	1/1	0.88	0.61	84,84,84,84	0
57	MG	14	3324	1/1	0.88	0.09	107,107,107,107	0
57	MG	L8	101	1/1	0.88	0.39	72,72,72,72	0
57	MG	13	1713	1/1	0.88	0.08	89,89,89,89	0
57	MG	1H	3243	1/1	0.88	0.24	62,62,62,62	0
57	MG	13	1739	1/1	0.88	0.06	104,104,104,104	0
57	MG	13	1660	1/1	0.88	0.55	83,83,83,83	0
57	MG	14	3198	1/1	0.88	0.21	81,81,81,81	0
57	MG	14	3054	1/1	0.88	0.40	67,67,67,67	0
57	MG	14	3441	1/1	0.88	0.08	72,72,72,72	0
57	MG	1H	3247	1/1	0.88	0.61	77,77,77,77	0
57	MG	13	1622	1/1	0.88	0.21	81,81,81,81	0
57	MG	1H	3439	1/1	0.88	0.14	81,81,81,81	0
57	MG	1J	201	1/1	0.88	0.20	85,85,85,85	0
57	MG	14	3096	1/1	0.88	0.34	65,65,65,65	0
57	MG	1H	3134	1/1	0.88	0.31	76,76,76,76	0
57	MG	1H	3098	1/1	0.88	0.33	63,63,63,63	0
57	MG	14	3216	1/1	0.88	0.23	74,74,74,74	0
57	MG	39	301	1/1	0.88	0.14	95,95,95,95	0
57	MG	1G	1624	1/1	0.88	0.19	87,87,87,87	0
57	MG	1H	3466	1/1	0.88	0.05	83,83,83,83	0
57	MG	1H	3263	1/1	0.88	1.00	93,93,93,93	0
57	MG	14	3269	1/1	0.89	0.30	102,102,102,102	0
57	MG	13	1735	1/1	0.89	0.07	118,118,118,118	0
57	MG	14	3303	1/1	0.89	0.13	63,63,63,63	0
57	MG	14	3308	1/1	0.89	0.08	96,96,96,96	0
57	MG	14	3310	1/1	0.89	0.09	68,68,68,68	0
57	MG	1H	3114	1/1	0.89	0.41	78,78,78,78	0
57	MG	14	3227	1/1	0.89	0.34	83,83,83,83	0
57	MG	1H	3021	1/1	0.89	0.16	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3116	1/1	0.89	0.30	63,63,63,63	0
57	MG	14	3380	1/1	0.89	0.12	93,93,93,93	0
57	MG	14	3416	1/1	0.89	0.07	66,66,66,66	0
57	MG	1G	1637	1/1	0.89	0.20	77,77,77,77	0
57	MG	14	3123	1/1	0.89	0.49	70,70,70,70	0
57	MG	1H	3148	1/1	0.89	0.23	65,65,65,65	0
57	MG	1H	3213	1/1	0.89	0.14	92,92,92,92	0
57	MG	1H	3171	1/1	0.89	0.43	68,68,68,68	0
57	MG	1G	1619	1/1	0.89	0.21	92,92,92,92	0
57	MG	1H	3176	1/1	0.89	0.33	67,67,67,67	0
57	MG	14	3055	1/1	0.89	0.35	57,57,57,57	0
57	MG	14	3058	1/1	0.89	0.25	66,66,66,66	0
57	MG	1H	3084	1/1	0.89	0.14	82,82,82,82	0
57	MG	1G	1683	1/1	0.89	0.09	96,96,96,96	0
57	MG	1H	3178	1/1	0.89	0.12	93,93,93,93	0
57	MG	1H	3006	1/1	0.89	0.14	86,86,86,86	0
57	MG	1H	3075	1/1	0.89	0.12	60,60,60,60	0
57	MG	14	3215	1/1	0.89	0.30	64,64,64,64	0
57	MG	78	201	1/1	0.89	0.24	75,75,75,75	0
57	MG	14	3165	1/1	0.89	0.11	78,78,78,78	0
57	MG	14	3102	1/1	0.90	0.20	86,86,86,86	0
57	MG	1G	1635	1/1	0.90	0.45	97,97,97,97	0
57	MG	14	3225	1/1	0.90	0.36	80,80,80,80	0
57	MG	1H	3211	1/1	0.90	0.34	80,80,80,80	0
57	MG	1H	3254	1/1	0.90	0.62	82,82,82,82	0
57	MG	1H	3149	1/1	0.90	0.15	61,61,61,61	0
57	MG	1H	3157	1/1	0.90	0.28	64,64,64,64	0
57	MG	14	3233	1/1	0.90	0.26	79,79,79,79	0
57	MG	1H	3262	1/1	0.90	0.17	68,68,68,68	0
57	MG	1G	1642	1/1	0.90	0.30	82,82,82,82	0
57	MG	1G	1643	1/1	0.90	0.39	67,67,67,67	0
57	MG	16	212	1/1	0.90	0.08	88,88,88,88	0
57	MG	14	3139	1/1	0.90	0.22	58,58,58,58	0
57	MG	14	3142	1/1	0.90	0.31	82,82,82,82	0
57	MG	1H	3376	1/1	0.90	0.06	88,88,88,88	0
57	MG	1H	3159	1/1	0.90	0.37	56,56,56,56	0
57	MG	1G	1666	1/1	0.90	0.05	106,106,106,106	0
57	MG	41	201	1/1	0.90	0.14	75,75,75,75	0
57	MG	14	3149	1/1	0.90	0.29	96,96,96,96	0
57	MG	1G	1686	1/1	0.90	0.07	92,92,92,92	0
57	MG	14	3261	1/1	0.90	0.21	102,102,102,102	0
57	MG	1H	3267	1/1	0.90	0.17	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3434	1/1	0.90	0.10	73,73,73,73	0
57	MG	1H	3221	1/1	0.90	0.21	60,60,60,60	0
57	MG	1H	3097	1/1	0.90	0.16	51,51,51,51	0
57	MG	14	3001	1/1	0.90	0.05	103,103,103,103	0
57	MG	1H	3196	1/1	0.90	0.56	88,88,88,88	0
57	MG	14	3271	1/1	0.90	0.45	80,80,80,80	0
57	MG	14	3009	1/1	0.90	0.20	68,68,68,68	0
57	MG	1G	1607	1/1	0.90	0.22	91,91,91,91	0
57	MG	1H	3231	1/1	0.90	0.42	65,65,65,65	0
57	MG	1H	3470	1/1	0.90	0.08	100,100,100,100	0
57	MG	14	3318	1/1	0.90	0.15	67,67,67,67	0
57	MG	14	3176	1/1	0.90	0.08	88,88,88,88	0
57	MG	14	3326	1/1	0.90	0.09	74,74,74,74	0
57	MG	14	3330	1/1	0.90	0.06	113,113,113,113	0
57	MG	14	3027	1/1	0.90	0.31	83,83,83,83	0
57	MG	13	1658	1/1	0.90	0.12	88,88,88,88	0
57	MG	14	3182	1/1	0.90	0.57	67,67,67,67	0
57	MG	14	3183	1/1	0.90	0.59	74,74,74,74	0
57	MG	1G	1617	1/1	0.90	0.22	61,61,61,61	0
57	MG	1H	3476	1/1	0.90	0.07	93,93,93,93	0
57	MG	14	3038	1/1	0.90	0.08	76,76,76,76	0
57	MG	14	3424	1/1	0.90	0.05	107,107,107,107	0
57	MG	1H	3484	1/1	0.90	0.07	90,90,90,90	0
57	MG	13	1631	1/1	0.90	0.10	73,73,73,73	0
57	MG	14	3194	1/1	0.90	0.21	68,68,68,68	0
57	MG	1H	3488	1/1	0.90	0.05	113,113,113,113	0
57	MG	1H	3105	1/1	0.90	0.24	79,79,79,79	0
57	MG	14	3448	1/1	0.90	0.06	92,92,92,92	0
57	MG	14	3057	1/1	0.90	0.36	41,41,41,41	0
57	MG	13	1722	1/1	0.90	0.05	92,92,92,92	0
57	MG	1H	3091	1/1	0.90	0.26	57,57,57,57	0
57	MG	1H	3143	1/1	0.90	0.45	89,89,89,89	0
57	MG	1H	3498	1/1	0.90	0.12	85,85,85,85	0
57	MG	13	1612	1/1	0.90	0.26	85,85,85,85	0
57	MG	13	1738	1/1	0.90	0.09	97,97,97,97	0
57	MG	39	302	1/1	0.90	0.10	63,63,63,63	0
57	MG	14	3098	1/1	0.90	0.22	67,67,67,67	0
57	MG	14	3219	1/1	0.90	0.29	64,64,64,64	0
57	MG	14	3221	1/1	0.90	0.51	73,73,73,73	0
57	MG	1H	3265	1/1	0.91	0.12	89,89,89,89	0
57	MG	14	3175	1/1	0.91	0.24	90,90,90,90	0
57	MG	13	1736	1/1	0.91	0.06	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	14	3178	1/1	0.91	0.09	71,71,71,71	0
57	MG	1H	3189	1/1	0.91	0.31	87,87,87,87	0
57	MG	88	201	1/1	0.91	0.18	82,82,82,82	0
57	MG	14	3086	1/1	0.91	0.22	61,61,61,61	0
57	MG	14	3089	1/1	0.91	0.22	56,56,56,56	0
57	MG	BI	201	1/1	0.91	0.03	103,103,103,103	0
57	MG	1H	3228	1/1	0.91	0.49	69,69,69,69	0
57	MG	13	1672	1/1	0.91	0.11	96,96,96,96	0
57	MG	1H	3230	1/1	0.91	0.37	78,78,78,78	0
57	MG	1H	3109	1/1	0.91	0.33	65,65,65,65	0
57	MG	14	3193	1/1	0.91	0.15	70,70,70,70	0
57	MG	1G	1610	1/1	0.91	0.13	114,114,114,114	0
57	MG	14	3296	1/1	0.91	0.09	59,59,59,59	0
57	MG	14	3111	1/1	0.91	0.15	79,79,79,79	0
57	MG	1G	1689	1/1	0.91	0.06	126,126,126,126	0
57	MG	14	3200	1/1	0.91	0.21	69,69,69,69	0
57	MG	1H	3482	1/1	0.91	0.06	72,72,72,72	0
57	MG	1H	3110	1/1	0.91	0.15	84,84,84,84	0
57	MG	1H	3112	1/1	0.91	0.39	66,66,66,66	0
57	MG	14	3207	1/1	0.91	0.10	71,71,71,71	0
57	MG	14	3208	1/1	0.91	0.31	75,75,75,75	0
57	MG	13	1662	1/1	0.91	0.21	119,119,119,119	0
57	MG	14	3124	1/1	0.91	0.27	64,64,64,64	0
57	MG	1H	3022	1/1	0.91	0.18	81,81,81,81	0
57	MG	13	1637	1/1	0.91	0.26	86,86,86,86	0
57	MG	1H	3283	1/1	0.91	0.47	82,82,82,82	0
57	MG	1H	3008	1/1	0.91	0.26	57,57,57,57	0
57	MG	14	3015	1/1	0.91	0.27	77,77,77,77	0
57	MG	14	3425	1/1	0.91	0.06	122,122,122,122	0
57	MG	14	3222	1/1	0.91	0.41	64,64,64,64	0
57	MG	14	3428	1/1	0.91	0.09	104,104,104,104	0
57	MG	1H	3090	1/1	0.91	0.48	57,57,57,57	0
57	MG	14	3436	1/1	0.91	0.07	108,108,108,108	0
57	MG	14	3017	1/1	0.91	0.23	97,97,97,97	0
57	MG	14	3442	1/1	0.91	0.07	95,95,95,95	0
57	MG	14	3024	1/1	0.91	0.26	58,58,58,58	0
57	MG	1H	3010	1/1	0.91	0.47	59,59,59,59	0
57	MG	1H	3053	1/1	0.91	0.47	56,56,56,56	0
57	MG	14	3452	1/1	0.91	0.09	113,113,113,113	0
57	MG	13	1664	1/1	0.91	0.30	81,81,81,81	0
57	MG	1H	3290	1/1	0.91	0.23	62,62,62,62	0
57	MG	1H	3126	1/1	0.91	0.45	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	14	3234	1/1	0.91	0.16	64,64,64,64	0
57	MG	1H	3334	1/1	0.91	0.10	82,82,82,82	0
57	MG	14	3045	1/1	0.91	0.23	64,64,64,64	0
57	MG	1H	3371	1/1	0.91	0.05	85,85,85,85	0
57	MG	14	3239	1/1	0.91	0.36	87,87,87,87	0
57	MG	1H	3057	1/1	0.91	0.40	53,53,53,53	0
57	MG	13	1750	1/1	0.91	0.18	76,76,76,76	0
57	MG	45	202	1/1	0.91	0.10	102,102,102,102	0
57	MG	13	1652	1/1	0.91	0.48	89,89,89,89	0
57	MG	E5	101	1/1	0.91	0.43	72,72,72,72	0
57	MG	M5	101	1/1	0.91	0.17	77,77,77,77	0
57	MG	14	3315	1/1	0.92	0.05	81,81,81,81	0
57	MG	1H	3222	1/1	0.92	0.11	68,68,68,68	0
57	MG	1H	3481	1/1	0.92	0.06	92,92,92,92	0
57	MG	1H	3258	1/1	0.92	0.21	79,79,79,79	0
57	MG	14	3228	1/1	0.92	0.15	81,81,81,81	0
57	MG	14	3351	1/1	0.92	0.06	72,72,72,72	0
57	MG	1H	3140	1/1	0.92	0.22	62,62,62,62	0
57	MG	14	3181	1/1	0.92	0.20	63,63,63,63	0
57	MG	13	1678	1/1	0.92	0.21	83,83,83,83	0
57	MG	13	1724	1/1	0.92	0.08	114,114,114,114	0
57	MG	14	3383	1/1	0.92	0.07	101,101,101,101	0
57	MG	14	3400	1/1	0.92	0.06	86,86,86,86	0
57	MG	14	3407	1/1	0.92	0.10	74,74,74,74	0
57	MG	1H	3181	1/1	0.92	0.53	77,77,77,77	0
57	MG	14	3033	1/1	0.92	0.14	74,74,74,74	0
57	MG	14	3422	1/1	0.92	0.09	84,84,84,84	0
57	MG	1H	3182	1/1	0.92	0.44	72,72,72,72	0
57	MG	1H	3206	1/1	0.92	0.21	56,56,56,56	0
57	MG	1G	1653	1/1	0.92	0.08	110,110,110,110	0
57	MG	1H	3236	1/1	0.92	0.32	75,75,75,75	0
57	MG	1H	3035	1/1	0.92	0.24	57,57,57,57	0
57	MG	14	3429	1/1	0.92	0.05	98,98,98,98	0
57	MG	14	3195	1/1	0.92	0.23	105,105,105,105	0
57	MG	13	1704	1/1	0.92	0.13	105,105,105,105	0
57	MG	14	3255	1/1	0.92	0.13	87,87,87,87	0
57	MG	1G	1668	1/1	0.92	0.07	111,111,111,111	0
57	MG	1G	1674	1/1	0.92	0.06	107,107,107,107	0
57	MG	1G	1679	1/1	0.92	0.05	91,91,91,91	0
57	MG	16	201	1/1	0.92	0.17	87,87,87,87	0
57	MG	1H	3096	1/1	0.92	0.15	67,67,67,67	0
57	MG	14	3263	1/1	0.92	0.44	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	13	1686	1/1	0.92	0.21	96,96,96,96	0
57	MG	1H	3162	1/1	0.92	0.15	61,61,61,61	0
57	MG	14	3158	1/1	0.92	0.12	70,70,70,70	0
57	MG	1H	3245	1/1	0.92	0.57	69,69,69,69	0
57	MG	1H	3170	1/1	0.92	0.73	72,72,72,72	0
57	MG	1H	3459	1/1	0.92	0.10	91,91,91,91	0
57	MG	14	3270	1/1	0.92	0.28	83,83,83,83	0
57	MG	1H	3052	1/1	0.92	0.32	57,57,57,57	0
57	MG	1H	3467	1/1	0.92	0.08	77,77,77,77	0
57	MG	14	3169	1/1	0.92	0.18	65,65,65,65	0
57	MG	1H	3174	1/1	0.92	0.28	59,59,59,59	0
57	MG	14	3105	1/1	0.92	0.26	55,55,55,55	0
57	MG	1H	3101	1/1	0.92	0.18	58,58,58,58	0
57	MG	1H	3168	1/1	0.93	0.27	80,80,80,80	0
57	MG	14	3184	1/1	0.93	0.33	60,60,60,60	0
57	MG	1H	3046	1/1	0.93	0.56	73,73,73,73	0
57	MG	1G	1670	1/1	0.93	0.08	108,108,108,108	0
57	MG	13	1671	1/1	0.93	0.32	71,71,71,71	0
57	MG	1G	1678	1/1	0.93	0.03	115,115,115,115	0
57	MG	1H	3123	1/1	0.93	0.21	71,71,71,71	0
57	MG	14	3104	1/1	0.93	0.36	81,81,81,81	0
57	MG	1H	3215	1/1	0.93	0.27	65,65,65,65	0
57	MG	14	3280	1/1	0.93	0.12	54,54,54,54	0
57	MG	1H	3218	1/1	0.93	0.74	70,70,70,70	0
57	MG	1H	3248	1/1	0.93	0.14	79,79,79,79	0
57	MG	14	3110	1/1	0.93	0.18	86,86,86,86	0
57	MG	1H	3065	1/1	0.93	0.17	56,56,56,56	0
57	MG	14	3112	1/1	0.93	0.37	88,88,88,88	0
57	MG	1H	3480	1/1	0.93	0.08	78,78,78,78	0
57	MG	13	1621	1/1	0.93	0.23	67,67,67,67	0
57	MG	2L	102	1/1	0.93	0.36	96,96,96,96	0
57	MG	1H	3099	1/1	0.93	0.13	60,60,60,60	0
57	MG	14	3210	1/1	0.93	0.34	80,80,80,80	0
57	MG	13	1630	1/1	0.93	0.28	92,92,92,92	0
57	MG	14	3004	1/1	0.93	0.88	77,77,77,77	0
57	MG	14	3370	1/1	0.93	0.08	81,81,81,81	0
57	MG	1H	3130	1/1	0.93	0.23	67,67,67,67	0
57	MG	14	3007	1/1	0.93	0.29	50,50,50,50	0
57	MG	1H	3288	1/1	0.93	0.38	80,80,80,80	0
57	MG	14	3387	1/1	0.93	0.05	97,97,97,97	0
57	MG	1H	3073	1/1	0.93	0.20	36,36,36,36	0
57	MG	14	3220	1/1	0.93	0.53	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1G	1622	1/1	0.93	0.35	76,76,76,76	0
57	MG	1H	3203	1/1	0.93	0.28	64,64,64,64	0
57	MG	13	1714	1/1	0.93	0.10	93,93,93,93	0
57	MG	1H	3325	1/1	0.93	0.11	69,69,69,69	0
57	MG	1H	3266	1/1	0.93	0.15	75,75,75,75	0
57	MG	14	3150	1/1	0.93	0.46	68,68,68,68	0
57	MG	14	3151	1/1	0.93	0.23	72,72,72,72	0
57	MG	1H	3500	1/1	0.93	0.06	71,71,71,71	0
57	MG	1H	3185	1/1	0.93	0.36	90,90,90,90	0
57	MG	14	3434	1/1	0.93	0.06	82,82,82,82	0
57	MG	14	3230	1/1	0.93	0.23	70,70,70,70	0
57	MG	1H	3235	1/1	0.93	0.14	65,65,65,65	0
57	MG	14	3439	1/1	0.93	0.06	96,96,96,96	0
57	MG	16	202	1/1	0.93	0.28	73,73,73,73	0
57	MG	1H	3380	1/1	0.93	0.14	55,55,55,55	0
57	MG	14	3235	1/1	0.93	0.50	69,69,69,69	0
57	MG	1H	3385	1/1	0.93	0.08	57,57,57,57	0
57	MG	1H	3395	1/1	0.93	0.11	59,59,59,59	0
57	MG	1H	3076	1/1	0.93	0.25	76,76,76,76	0
57	MG	14	3049	1/1	0.93	0.27	63,63,63,63	0
57	MG	14	3240	1/1	0.93	0.30	85,85,85,85	0
57	MG	14	3166	1/1	0.93	0.24	61,61,61,61	0
57	MG	1H	3187	1/1	0.93	0.08	88,88,88,88	0
57	MG	1H	3431	1/1	0.93	0.16	52,52,52,52	0
57	MG	1H	3163	1/1	0.93	0.28	59,59,59,59	0
57	MG	1H	3435	1/1	0.93	0.05	94,94,94,94	0
57	MG	1G	1648	1/1	0.93	0.23	86,86,86,86	0
57	MG	1H	3438	1/1	0.93	0.05	75,75,75,75	0
57	MG	14	3067	1/1	0.93	0.34	68,68,68,68	0
57	MG	1H	3274	1/1	0.93	0.29	70,70,70,70	0
57	MG	14	3074	1/1	0.93	0.27	62,62,62,62	0
57	MG	C5	201	1/1	0.93	0.04	110,110,110,110	0
57	MG	1H	3451	1/1	0.93	0.04	95,95,95,95	0
57	MG	14	3082	1/1	0.93	0.40	55,55,55,55	0
57	MG	14	3088	1/1	0.94	0.29	65,65,65,65	0
57	MG	1G	1634	1/1	0.94	0.18	93,93,93,93	0
57	MG	14	3090	1/1	0.94	0.13	60,60,60,60	0
57	MG	14	3095	1/1	0.94	0.22	85,85,85,85	0
57	MG	13	1669	1/1	0.94	0.46	74,74,74,74	0
57	MG	1H	3472	1/1	0.94	0.07	93,93,93,93	0
57	MG	13	1651	1/1	0.94	0.21	68,68,68,68	0
57	MG	1H	3478	1/1	0.94	0.06	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3224	1/1	0.94	0.28	63,63,63,63	0
57	MG	1G	1640	1/1	0.94	0.18	100,100,100,100	0
57	MG	14	3106	1/1	0.94	0.49	82,82,82,82	0
57	MG	1H	3225	1/1	0.94	0.40	67,67,67,67	0
57	MG	13	1719	1/1	0.94	0.15	72,72,72,72	0
57	MG	1H	3483	1/1	0.94	0.05	106,106,106,106	0
57	MG	1G	1644	1/1	0.94	0.35	67,67,67,67	0
57	MG	1H	3227	1/1	0.94	0.11	70,70,70,70	0
57	MG	1G	1647	1/1	0.94	0.25	115,115,115,115	0
57	MG	13	1680	1/1	0.94	0.36	75,75,75,75	0
57	MG	1G	1649	1/1	0.94	0.12	115,115,115,115	0
57	MG	1H	3048	1/1	0.94	0.06	80,80,80,80	0
57	MG	14	3245	1/1	0.94	0.36	79,79,79,79	0
57	MG	1H	3049	1/1	0.94	0.28	68,68,68,68	0
57	MG	14	3253	1/1	0.94	0.18	63,63,63,63	0
57	MG	14	3254	1/1	0.94	0.21	81,81,81,81	0
57	MG	2K	102	1/1	0.94	0.06	92,92,92,92	0
57	MG	14	3128	1/1	0.94	0.12	60,60,60,60	0
57	MG	1G	1665	1/1	0.94	0.13	97,97,97,97	0
57	MG	14	3131	1/1	0.94	0.22	78,78,78,78	0
57	MG	14	3132	1/1	0.94	0.17	58,58,58,58	0
57	MG	14	3134	1/1	0.94	0.26	98,98,98,98	0
57	MG	13	1640	1/1	0.94	0.24	71,71,71,71	0
57	MG	14	3136	1/1	0.94	0.37	59,59,59,59	0
57	MG	1G	1667	1/1	0.94	0.06	100,100,100,100	0
57	MG	1H	3135	1/1	0.94	0.34	81,81,81,81	0
57	MG	13	1733	1/1	0.94	0.06	73,73,73,73	0
57	MG	1G	1671	1/1	0.94	0.07	117,117,117,117	0
57	MG	1H	3191	1/1	0.94	0.13	95,95,95,95	0
57	MG	1H	3055	1/1	0.94	0.33	72,72,72,72	0
57	MG	13	1734	1/1	0.94	0.06	86,86,86,86	0
57	MG	1H	3104	1/1	0.94	0.20	62,62,62,62	0
57	MG	1H	3323	1/1	0.94	0.06	61,61,61,61	0
57	MG	1G	1687	1/1	0.94	0.06	95,95,95,95	0
57	MG	1H	3142	1/1	0.94	0.52	85,85,85,85	0
57	MG	1H	3326	1/1	0.94	0.07	49,49,49,49	0
57	MG	14	3309	1/1	0.94	0.14	73,73,73,73	0
57	MG	1G	1690	1/1	0.94	0.07	118,118,118,118	0
57	MG	1H	3058	1/1	0.94	0.28	53,53,53,53	0
57	MG	14	3159	1/1	0.94	0.18	71,71,71,71	0
57	MG	14	3319	1/1	0.94	0.11	91,91,91,91	0
57	MG	14	3321	1/1	0.94	0.06	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3337	1/1	0.94	0.07	73,73,73,73	0
57	MG	14	3325	1/1	0.94	0.05	78,78,78,78	0
57	MG	1H	3360	1/1	0.94	0.09	60,60,60,60	0
57	MG	1H	3366	1/1	0.94	0.08	65,65,65,65	0
57	MG	2L	104	1/1	0.94	0.40	72,72,72,72	0
57	MG	1H	3369	1/1	0.94	0.16	74,74,74,74	0
57	MG	2I	301	1/1	0.94	0.36	66,66,66,66	0
57	MG	2I	302	1/1	0.94	0.32	50,50,50,50	0
57	MG	14	3372	1/1	0.94	0.09	73,73,73,73	0
57	MG	13	1619	1/1	0.94	0.12	90,90,90,90	0
57	MG	1H	3372	1/1	0.94	0.07	89,89,89,89	0
57	MG	14	3174	1/1	0.94	0.16	71,71,71,71	0
57	MG	1H	3062	1/1	0.94	0.42	66,66,66,66	0
57	MG	14	3390	1/1	0.94	0.06	82,82,82,82	0
57	MG	13	1617	1/1	0.94	0.23	53,53,53,53	0
57	MG	14	3405	1/1	0.94	0.04	83,83,83,83	0
57	MG	14	3406	1/1	0.94	0.15	76,76,76,76	0
57	MG	1H	3202	1/1	0.94	0.39	58,58,58,58	0
57	MG	1H	3386	1/1	0.94	0.06	84,84,84,84	0
57	MG	1H	3393	1/1	0.94	0.09	56,56,56,56	0
57	MG	1G	1601	1/1	0.94	0.46	86,86,86,86	0
57	MG	1H	3252	1/1	0.94	0.32	80,80,80,80	0
57	MG	14	3030	1/1	0.94	0.22	68,68,68,68	0
57	MG	1G	1606	1/1	0.94	0.27	67,67,67,67	0
57	MG	1H	3397	1/1	0.94	0.07	85,85,85,85	0
57	MG	14	3034	1/1	0.94	0.36	57,57,57,57	0
57	MG	1H	3403	1/1	0.94	0.18	89,89,89,89	0
57	MG	1H	3154	1/1	0.94	0.18	75,75,75,75	0
57	MG	13	1737	1/1	0.94	0.10	147,147,147,147	0
57	MG	14	3043	1/1	0.94	0.27	75,75,75,75	0
57	MG	14	3438	1/1	0.94	0.07	93,93,93,93	0
57	MG	1G	1614	1/1	0.94	0.27	99,99,99,99	0
57	MG	1H	3111	1/1	0.94	0.31	80,80,80,80	0
57	MG	14	3048	1/1	0.94	0.75	75,75,75,75	0
57	MG	1H	3068	1/1	0.94	0.61	69,69,69,69	0
57	MG	14	3052	1/1	0.94	0.32	62,62,62,62	0
57	MG	14	3446	1/1	0.94	0.04	109,109,109,109	0
57	MG	13	1688	1/1	0.94	0.25	90,90,90,90	0
57	MG	14	3449	1/1	0.94	0.09	95,95,95,95	0
57	MG	1H	3436	1/1	0.94	0.10	65,65,65,65	0
57	MG	1H	3165	1/1	0.94	0.32	72,72,72,72	0
57	MG	14	3056	1/1	0.94	0.67	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3017	1/1	0.94	0.18	55,55,55,55	0
57	MG	1J	205	1/1	0.94	0.05	95,95,95,95	0
57	MG	1H	3450	1/1	0.94	0.04	87,87,87,87	0
57	MG	13	1676	1/1	0.94	0.26	101,101,101,101	0
57	MG	13	1616	1/1	0.94	0.31	48,48,48,48	0
57	MG	14	3068	1/1	0.94	0.32	67,67,67,67	0
57	MG	13	1742	1/1	0.94	0.08	100,100,100,100	0
57	MG	14	3071	1/1	0.94	0.15	73,73,73,73	0
57	MG	14	3217	1/1	0.94	0.30	76,76,76,76	0
57	MG	1H	3270	1/1	0.94	0.10	71,71,71,71	0
57	MG	13	1744	1/1	0.94	0.16	94,94,94,94	0
57	MG	14	3076	1/1	0.94	0.20	77,77,77,77	0
57	MG	13	1708	1/1	0.94	0.07	76,76,76,76	0
57	MG	13	1710	1/1	0.94	0.12	108,108,108,108	0
57	MG	1H	3141	1/1	0.95	0.21	67,67,67,67	0
57	MG	1H	3033	1/1	0.95	0.26	62,62,62,62	0
57	MG	14	3039	1/1	0.95	0.19	73,73,73,73	0
57	MG	14	3041	1/1	0.95	0.20	64,64,64,64	0
57	MG	1G	1632	1/1	0.95	0.15	132,132,132,132	0
57	MG	14	3262	1/1	0.95	0.14	72,72,72,72	0
57	MG	1H	3067	1/1	0.95	0.33	52,52,52,52	0
57	MG	1H	3197	1/1	0.95	0.34	67,67,67,67	0
57	MG	1H	3106	1/1	0.95	0.43	74,74,74,74	0
57	MG	1H	3004	1/1	0.95	0.23	54,54,54,54	0
57	MG	13	1609	1/1	0.95	0.25	58,58,58,58	0
57	MG	14	3170	1/1	0.95	0.31	86,86,86,86	0
57	MG	1H	3348	1/1	0.95	0.11	65,65,65,65	0
57	MG	1H	3359	1/1	0.95	0.12	52,52,52,52	0
57	MG	1H	3201	1/1	0.95	0.37	65,65,65,65	0
57	MG	1H	3251	1/1	0.95	0.22	78,78,78,78	0
57	MG	1H	3072	1/1	0.95	0.69	73,73,73,73	0
57	MG	14	3177	1/1	0.95	0.35	79,79,79,79	0
57	MG	1H	3156	1/1	0.95	0.33	61,61,61,61	0
57	MG	1H	3037	1/1	0.95	0.17	55,55,55,55	0
57	MG	1H	3374	1/1	0.95	0.07	55,55,55,55	0
57	MG	1H	3038	1/1	0.95	0.23	53,53,53,53	0
57	MG	14	3311	1/1	0.95	0.07	66,66,66,66	0
57	MG	14	3312	1/1	0.95	0.06	77,77,77,77	0
57	MG	14	3313	1/1	0.95	0.07	72,72,72,72	0
57	MG	1H	3042	1/1	0.95	0.17	79,79,79,79	0
57	MG	14	3316	1/1	0.95	0.07	102,102,102,102	0
57	MG	1H	3260	1/1	0.95	0.25	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	3045	1/1	0.95	0.29	54,54,54,54	0
57	MG	1H	3078	1/1	0.95	0.35	60,60,60,60	0
57	MG	1H	3080	1/1	0.95	0.72	82,82,82,82	0
57	MG	14	3081	1/1	0.95	0.74	74,74,74,74	0
57	MG	1G	1663	1/1	0.95	0.07	87,87,87,87	0
57	MG	14	3328	1/1	0.95	0.07	93,93,93,93	0
57	MG	16	210	1/1	0.95	0.09	88,88,88,88	0
57	MG	14	3336	1/1	0.95	0.05	83,83,83,83	0
57	MG	14	3338	1/1	0.95	0.06	72,72,72,72	0
57	MG	1H	3082	1/1	0.95	0.23	49,49,49,49	0
57	MG	14	3353	1/1	0.95	0.10	67,67,67,67	0
57	MG	1H	3400	1/1	0.95	0.21	67,67,67,67	0
57	MG	14	3365	1/1	0.95	0.09	88,88,88,88	0
57	MG	13	1712	1/1	0.95	0.08	75,75,75,75	0
57	MG	14	3091	1/1	0.95	0.23	85,85,85,85	0
57	MG	14	3371	1/1	0.95	0.05	83,83,83,83	0
57	MG	1H	3409	1/1	0.95	0.08	69,69,69,69	0
57	MG	1H	3173	1/1	0.95	0.15	63,63,63,63	0
57	MG	14	3378	1/1	0.95	0.04	93,93,93,93	0
57	MG	1H	3427	1/1	0.95	0.04	88,88,88,88	0
57	MG	1G	1675	1/1	0.95	0.07	88,88,88,88	0
57	MG	14	3099	1/1	0.95	0.17	57,57,57,57	0
57	MG	1G	1677	1/1	0.95	0.05	105,105,105,105	0
57	MG	13	1632	1/1	0.95	0.13	77,77,77,77	0
57	MG	14	3403	1/1	0.95	0.08	76,76,76,76	0
57	MG	14	3209	1/1	0.95	0.79	64,64,64,64	0
57	MG	13	1687	1/1	0.95	0.23	70,70,70,70	0
57	MG	1H	3433	1/1	0.95	0.11	86,86,86,86	0
57	MG	14	3408	1/1	0.95	0.08	78,78,78,78	0
57	MG	14	3412	1/1	0.95	0.04	120,120,120,120	0
57	MG	1G	1684	1/1	0.95	0.08	121,121,121,121	0
57	MG	13	1673	1/1	0.95	0.14	90,90,90,90	0
57	MG	1H	3124	1/1	0.95	0.24	74,74,74,74	0
57	MG	1H	3179	1/1	0.95	0.25	49,49,49,49	0
57	MG	1H	3088	1/1	0.95	0.34	53,53,53,53	0
57	MG	13	1743	1/1	0.95	0.05	87,87,87,87	0
57	MG	14	3114	1/1	0.95	0.39	63,63,63,63	0
57	MG	14	3115	1/1	0.95	0.39	71,71,71,71	0
57	MG	1G	1605	1/1	0.95	0.29	92,92,92,92	0
57	MG	14	3431	1/1	0.95	0.06	90,90,90,90	0
57	MG	14	3118	1/1	0.95	0.30	66,66,66,66	0
57	MG	1G	1694	1/1	0.95	0.48	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3442	1/1	0.95	0.11	86,86,86,86	0
57	MG	2L	101	1/1	0.95	0.36	70,70,70,70	0
57	MG	1H	3448	1/1	0.95	0.09	62,62,62,62	0
57	MG	1G	1608	1/1	0.95	0.23	91,91,91,91	0
57	MG	13	1721	1/1	0.95	0.07	70,70,70,70	0
57	MG	13	1657	1/1	0.95	0.43	73,73,73,73	0
57	MG	14	3231	1/1	0.95	0.44	76,76,76,76	0
57	MG	1G	1611	1/1	0.95	0.39	74,74,74,74	0
57	MG	1G	1612	1/1	0.95	0.34	67,67,67,67	0
57	MG	13	1692	1/1	0.95	0.07	81,81,81,81	0
57	MG	1H	3454	1/1	0.95	0.08	62,62,62,62	0
57	MG	14	3138	1/1	0.95	0.08	68,68,68,68	0
57	MG	1G	1615	1/1	0.95	0.20	92,92,92,92	0
57	MG	1H	3095	1/1	0.95	0.36	65,65,65,65	0
57	MG	1H	3457	1/1	0.95	0.10	82,82,82,82	0
57	MG	1J	206	1/1	0.95	0.05	94,94,94,94	0
57	MG	13	1729	1/1	0.95	0.05	91,91,91,91	0
57	MG	1H	3463	1/1	0.95	0.07	82,82,82,82	0
57	MG	13	1698	1/1	0.95	0.04	93,93,93,93	0
57	MG	1H	3232	1/1	0.95	0.31	65,65,65,65	0
57	MG	13	1699	1/1	0.95	0.06	73,73,73,73	0
57	MG	1H	3061	1/1	0.95	0.29	68,68,68,68	0
57	MG	13	1681	1/1	0.95	0.40	86,86,86,86	0
57	MG	45	201	1/1	0.95	0.15	72,72,72,72	0
57	MG	14	3251	1/1	0.95	0.23	82,82,82,82	0
57	MG	1H	3102	1/1	0.95	0.46	70,70,70,70	0
57	MG	13	1624	1/1	0.95	0.12	81,81,81,81	0
57	MG	14	3156	1/1	0.95	0.41	75,75,75,75	0
57	MG	14	3256	1/1	0.95	0.12	91,91,91,91	0
57	MG	14	3026	1/1	0.96	0.32	72,72,72,72	0
57	MG	1H	3146	1/1	0.96	0.25	51,51,51,51	0
57	MG	1H	3147	1/1	0.96	0.16	51,51,51,51	0
57	MG	1H	3240	1/1	0.96	0.25	72,72,72,72	0
57	MG	13	1627	1/1	0.96	0.29	64,64,64,64	0
57	MG	13	1696	1/1	0.96	0.03	86,86,86,86	0
57	MG	1H	3458	1/1	0.96	0.11	87,87,87,87	0
57	MG	13	1605	1/1	0.96	0.31	68,68,68,68	0
57	MG	1H	3301	1/1	0.96	0.15	49,49,49,49	0
57	MG	1H	3313	1/1	0.96	0.11	72,72,72,72	0
57	MG	14	3276	1/1	0.96	0.11	62,62,62,62	0
57	MG	1H	3315	1/1	0.96	0.10	73,73,73,73	0
57	MG	1H	3316	1/1	0.96	0.14	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1G	1630	1/1	0.96	0.22	113,113,113,113	0
57	MG	1H	3322	1/1	0.96	0.04	82,82,82,82	0
57	MG	14	3172	1/1	0.96	0.19	63,63,63,63	0
57	MG	13	1751	1/1	0.96	0.14	87,87,87,87	0
57	MG	1H	3474	1/1	0.96	0.09	89,89,89,89	0
57	MG	13	1641	1/1	0.96	0.43	69,69,69,69	0
57	MG	1H	3158	1/1	0.96	0.58	68,68,68,68	0
57	MG	1H	3479	1/1	0.96	0.04	89,89,89,89	0
57	MG	13	1730	1/1	0.96	0.15	82,82,82,82	0
57	MG	14	3317	1/1	0.96	0.09	59,59,59,59	0
57	MG	1H	3335	1/1	0.96	0.09	61,61,61,61	0
57	MG	1H	3161	1/1	0.96	0.29	72,72,72,72	0
57	MG	1H	3345	1/1	0.96	0.15	56,56,56,56	0
57	MG	14	3062	1/1	0.96	0.25	85,85,85,85	0
57	MG	13	1701	1/1	0.96	0.07	70,70,70,70	0
57	MG	1H	3485	1/1	0.96	0.05	76,76,76,76	0
57	MG	13	1633	1/1	0.96	0.13	85,85,85,85	0
57	MG	14	3186	1/1	0.96	0.24	84,84,84,84	0
57	MG	1H	3164	1/1	0.96	0.22	47,47,47,47	0
57	MG	1G	1645	1/1	0.96	0.55	88,88,88,88	0
57	MG	14	3344	1/1	0.96	0.09	72,72,72,72	0
57	MG	14	3348	1/1	0.96	0.05	88,88,88,88	0
57	MG	1H	3363	1/1	0.96	0.09	61,61,61,61	0
57	MG	13	1685	1/1	0.96	0.12	101,101,101,101	0
57	MG	14	3354	1/1	0.96	0.15	78,78,78,78	0
57	MG	1H	3166	1/1	0.96	0.12	70,70,70,70	0
57	MG	14	3361	1/1	0.96	0.09	69,69,69,69	0
57	MG	1H	3034	1/1	0.96	0.19	54,54,54,54	0
57	MG	1G	1650	1/1	0.96	0.21	87,87,87,87	0
57	MG	1H	3003	1/1	0.96	0.19	57,57,57,57	0
57	MG	1H	3127	1/1	0.96	0.34	56,56,56,56	0
57	MG	13	1629	1/1	0.96	0.29	98,98,98,98	0
57	MG	1H	3377	1/1	0.96	0.11	76,76,76,76	0
57	MG	14	3203	1/1	0.96	0.18	89,89,89,89	0
57	MG	1H	3378	1/1	0.96	0.06	84,84,84,84	0
57	MG	14	3205	1/1	0.96	0.17	77,77,77,77	0
57	MG	14	3092	1/1	0.96	0.27	56,56,56,56	0
57	MG	14	3388	1/1	0.96	0.07	82,82,82,82	0
57	MG	14	3094	1/1	0.96	0.28	85,85,85,85	0
57	MG	14	3391	1/1	0.96	0.09	86,86,86,86	0
57	MG	1H	3379	1/1	0.96	0.11	86,86,86,86	0
57	MG	14	3402	1/1	0.96	0.08	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3100	1/1	0.96	0.19	44,44,44,44	0
57	MG	1H	3264	1/1	0.96	0.18	74,74,74,74	0
57	MG	1G	1669	1/1	0.96	0.08	114,114,114,114	0
57	MG	1H	3175	1/1	0.96	0.31	65,65,65,65	0
57	MG	14	3100	1/1	0.96	0.32	43,43,43,43	0
57	MG	14	3411	1/1	0.96	0.05	74,74,74,74	0
57	MG	14	3101	1/1	0.96	0.47	64,64,64,64	0
57	MG	1H	3214	1/1	0.96	0.43	92,92,92,92	0
57	MG	16	209	1/1	0.96	0.10	73,73,73,73	0
57	MG	1H	3005	1/1	0.96	0.34	74,74,74,74	0
57	MG	13	1711	1/1	0.96	0.05	99,99,99,99	0
57	MG	1H	3132	1/1	0.96	0.23	75,75,75,75	0
57	MG	1H	3040	1/1	0.96	0.15	60,60,60,60	0
57	MG	14	3426	1/1	0.96	0.04	80,80,80,80	0
57	MG	1G	1682	1/1	0.96	0.10	127,127,127,127	0
57	MG	1H	3406	1/1	0.96	0.05	87,87,87,87	0
57	MG	1H	3074	1/1	0.96	0.21	48,48,48,48	0
57	MG	14	3430	1/1	0.96	0.04	90,90,90,90	0
57	MG	1H	3410	1/1	0.96	0.10	56,56,56,56	0
57	MG	31	301	1/1	0.96	0.06	61,61,61,61	0
57	MG	13	1613	1/1	0.96	0.28	65,65,65,65	0
57	MG	1H	3418	1/1	0.96	0.05	69,69,69,69	0
57	MG	14	3117	1/1	0.96	0.36	66,66,66,66	0
57	MG	1H	3421	1/1	0.96	0.05	78,78,78,78	0
57	MG	1H	3422	1/1	0.96	0.07	79,79,79,79	0
57	MG	1G	1693	1/1	0.96	0.09	92,92,92,92	0
57	MG	1H	3425	1/1	0.96	0.07	83,83,83,83	0
57	MG	1H	3044	1/1	0.96	0.28	62,62,62,62	0
57	MG	Q8	101	1/1	0.96	0.15	73,73,73,73	0
57	MG	14	3447	1/1	0.96	0.06	101,101,101,101	0
57	MG	1H	3137	1/1	0.96	0.09	72,72,72,72	0
57	MG	14	3130	1/1	0.96	0.32	71,71,71,71	0
57	MG	1H	3276	1/1	0.96	0.12	98,98,98,98	0
57	MG	1H	3184	1/1	0.96	0.41	67,67,67,67	0
57	MG	13	1653	1/1	0.96	0.15	66,66,66,66	0
57	MG	1J	202	1/1	0.96	0.22	94,94,94,94	0
57	MG	14	3003	1/1	0.96	0.19	65,65,65,65	0
57	MG	13	1654	1/1	0.96	0.32	75,75,75,75	0
57	MG	13	1691	1/1	0.96	0.12	79,79,79,79	0
57	MG	1H	3012	1/1	0.96	0.41	42,42,42,42	0
57	MG	1H	3013	1/1	0.96	0.34	60,60,60,60	0
57	MG	1H	3440	1/1	0.96	0.04	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	14	3011	1/1	0.96	0.47	72,72,72,72	0
57	MG	14	3145	1/1	0.96	0.44	74,74,74,74	0
57	MG	14	3012	1/1	0.96	0.20	68,68,68,68	0
57	MG	13	1720	1/1	0.96	0.07	86,86,86,86	0
57	MG	14	3148	1/1	0.96	0.37	69,69,69,69	0
57	MG	14	3014	1/1	0.96	0.17	72,72,72,72	0
57	MG	45	203	1/1	0.96	0.48	71,71,71,71	0
57	MG	1H	3444	1/1	0.96	0.07	77,77,77,77	0
57	MG	1H	3447	1/1	0.96	0.12	97,97,97,97	0
57	MG	1H	3234	1/1	0.96	0.19	72,72,72,72	0
57	MG	1H	3113	1/1	0.96	0.36	82,82,82,82	0
58	PAR	13	1749	42/42	0.96	0.20	64,70,78,81	0
58	PAR	1G	1691	42/42	0.96	0.16	70,82,88,95	0
60	ZN	C5	202	1/1	0.96	0.15	169,169,169,169	0
57	MG	1H	3432	1/1	0.97	0.09	75,75,75,75	0
57	MG	13	1638	1/1	0.97	0.46	58,58,58,58	0
57	MG	1H	3250	1/1	0.97	0.19	67,67,67,67	0
57	MG	14	3006	1/1	0.97	0.24	66,66,66,66	0
57	MG	1H	3321	1/1	0.97	0.09	77,77,77,77	0
57	MG	14	3141	1/1	0.97	0.36	50,50,50,50	0
57	MG	14	3008	1/1	0.97	0.11	72,72,72,72	0
57	MG	1H	3028	1/1	0.97	0.26	51,51,51,51	0
57	MG	1H	3437	1/1	0.97	0.04	57,57,57,57	0
57	MG	13	1731	1/1	0.97	0.05	86,86,86,86	0
57	MG	1H	3253	1/1	0.97	0.69	76,76,76,76	0
57	MG	13	1707	1/1	0.97	0.04	90,90,90,90	0
57	MG	1H	3441	1/1	0.97	0.10	94,94,94,94	0
57	MG	1H	3330	1/1	0.97	0.12	57,57,57,57	0
57	MG	1H	3333	1/1	0.97	0.16	75,75,75,75	0
57	MG	13	1639	1/1	0.97	0.10	84,84,84,84	0
57	MG	14	3279	1/1	0.97	0.09	62,62,62,62	0
57	MG	14	3018	1/1	0.97	0.26	49,49,49,49	0
57	MG	14	3021	1/1	0.97	0.32	53,53,53,53	0
57	MG	14	3022	1/1	0.97	0.41	60,60,60,60	0
57	MG	14	3304	1/1	0.97	0.07	59,59,59,59	0
57	MG	1H	3001	1/1	0.97	0.16	53,53,53,53	0
57	MG	14	3025	1/1	0.97	0.19	58,58,58,58	0
57	MG	1H	3070	1/1	0.97	0.29	45,45,45,45	0
57	MG	1H	3340	1/1	0.97	0.11	54,54,54,54	0
57	MG	14	3161	1/1	0.97	0.30	73,73,73,73	0
57	MG	1H	3344	1/1	0.97	0.08	49,49,49,49	0
57	MG	14	3314	1/1	0.97	0.06	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3453	1/1	0.97	0.04	83,83,83,83	0
57	MG	14	3032	1/1	0.97	0.18	47,47,47,47	0
57	MG	13	1615	1/1	0.97	0.24	91,91,91,91	0
57	MG	1H	3347	1/1	0.97	0.10	69,69,69,69	0
57	MG	14	3167	1/1	0.97	0.14	65,65,65,65	0
57	MG	14	3320	1/1	0.97	0.09	83,83,83,83	0
57	MG	14	3035	1/1	0.97	0.39	83,83,83,83	0
57	MG	14	3323	1/1	0.97	0.08	72,72,72,72	0
57	MG	13	1608	1/1	0.97	0.23	75,75,75,75	0
57	MG	1H	3350	1/1	0.97	0.12	69,69,69,69	0
57	MG	1H	3352	1/1	0.97	0.15	72,72,72,72	0
57	MG	1H	3461	1/1	0.97	0.05	85,85,85,85	0
57	MG	14	3329	1/1	0.97	0.06	90,90,90,90	0
57	MG	1H	3354	1/1	0.97	0.10	62,62,62,62	0
57	MG	1H	3464	1/1	0.97	0.08	62,62,62,62	0
57	MG	1H	3465	1/1	0.97	0.26	53,53,53,53	0
57	MG	14	3340	1/1	0.97	0.11	73,73,73,73	0
57	MG	14	3342	1/1	0.97	0.09	58,58,58,58	0
57	MG	14	3343	1/1	0.97	0.09	63,63,63,63	0
57	MG	1H	3357	1/1	0.97	0.09	68,68,68,68	0
57	MG	14	3047	1/1	0.97	0.33	42,42,42,42	0
57	MG	14	3350	1/1	0.97	0.11	56,56,56,56	0
57	MG	1H	3216	1/1	0.97	0.21	57,57,57,57	0
57	MG	1H	3469	1/1	0.97	0.04	100,100,100,100	0
57	MG	1H	3217	1/1	0.97	0.16	59,59,59,59	0
57	MG	1H	3362	1/1	0.97	0.07	60,60,60,60	0
57	MG	13	1675	1/1	0.97	0.41	79,79,79,79	0
57	MG	14	3363	1/1	0.97	0.11	68,68,68,68	0
57	MG	1H	3473	1/1	0.97	0.07	85,85,85,85	0
57	MG	1H	3364	1/1	0.97	0.03	106,106,106,106	0
57	MG	1H	3475	1/1	0.97	0.13	88,88,88,88	0
57	MG	1H	3041	1/1	0.97	0.28	72,72,72,72	0
57	MG	14	3187	1/1	0.97	0.15	80,80,80,80	0
57	MG	1H	3477	1/1	0.97	0.10	65,65,65,65	0
57	MG	14	3376	1/1	0.97	0.11	52,52,52,52	0
57	MG	14	3377	1/1	0.97	0.16	67,67,67,67	0
57	MG	14	3189	1/1	0.97	0.48	69,69,69,69	0
57	MG	1H	3367	1/1	0.97	0.09	54,54,54,54	0
57	MG	14	3066	1/1	0.97	0.18	53,53,53,53	0
57	MG	14	3384	1/1	0.97	0.06	95,95,95,95	0
57	MG	1H	3368	1/1	0.97	0.15	60,60,60,60	0
57	MG	13	1604	1/1	0.97	0.14	112,112,112,112	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
57	MG	13	1611	1/1	0.97	0.24	79,79,79,79	0
57	MG	14	3070	1/1	0.97	0.38	52,52,52,52	0
57	MG	14	3392	1/1	0.97	0.06	87,87,87,87	0
57	MG	14	3393	1/1	0.97	0.09	79,79,79,79	0
57	MG	14	3394	1/1	0.97	0.05	78,78,78,78	0
57	MG	14	3396	1/1	0.97	0.08	62,62,62,62	0
57	MG	14	3398	1/1	0.97	0.13	83,83,83,83	0
57	MG	14	3399	1/1	0.97	0.09	78,78,78,78	0
57	MG	14	3196	1/1	0.97	0.17	90,90,90,90	0
57	MG	14	3197	1/1	0.97	0.14	56,56,56,56	0
57	MG	13	1740	1/1	0.97	0.04	92,92,92,92	0
57	MG	14	3404	1/1	0.97	0.09	94,94,94,94	0
57	MG	14	3072	1/1	0.97	0.25	69,69,69,69	0
57	MG	14	3073	1/1	0.97	0.23	57,57,57,57	0
57	MG	14	3201	1/1	0.97	0.47	58,58,58,58	0
57	MG	1H	3373	1/1	0.97	0.14	66,66,66,66	0
57	MG	14	3410	1/1	0.97	0.05	85,85,85,85	0
57	MG	13	1644	1/1	0.97	0.20	80,80,80,80	0
57	MG	1H	3375	1/1	0.97	0.18	57,57,57,57	0
57	MG	14	3413	1/1	0.97	0.10	97,97,97,97	0
57	MG	14	3414	1/1	0.97	0.06	85,85,85,85	0
57	MG	14	3415	1/1	0.97	0.06	77,77,77,77	0
57	MG	14	3077	1/1	0.97	0.41	80,80,80,80	0
57	MG	14	3078	1/1	0.97	0.28	86,86,86,86	0
57	MG	1H	3486	1/1	0.97	0.18	61,61,61,61	0
57	MG	1H	3145	1/1	0.97	0.24	46,46,46,46	0
57	MG	14	3083	1/1	0.97	0.21	61,61,61,61	0
57	MG	1G	1652	1/1	0.97	0.11	82,82,82,82	0
57	MG	14	3087	1/1	0.97	0.09	97,97,97,97	0
57	MG	1H	3081	1/1	0.97	0.19	47,47,47,47	0
57	MG	13	1693	1/1	0.97	0.13	72,72,72,72	0
57	MG	1H	3490	1/1	0.97	0.07	83,83,83,83	0
57	MG	1G	1662	1/1	0.97	0.11	76,76,76,76	0
57	MG	13	1601	1/1	0.97	0.21	68,68,68,68	0
57	MG	14	3433	1/1	0.97	0.05	71,71,71,71	0
57	MG	14	3218	1/1	0.97	0.28	54,54,54,54	0
57	MG	14	3093	1/1	0.97	0.39	51,51,51,51	0
57	MG	1H	3494	1/1	0.97	0.03	126,126,126,126	0
57	MG	13	1606	1/1	0.97	0.28	52,52,52,52	0
57	MG	1H	3382	1/1	0.97	0.04	70,70,70,70	0
57	MG	14	3440	1/1	0.97	0.04	94,94,94,94	0
57	MG	1H	3150	1/1	0.97	0.09	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	1H	3151	1/1	0.97	0.18	91,91,91,91	0
57	MG	1H	3387	1/1	0.97	0.10	64,64,64,64	0
57	MG	1H	3502	1/1	0.97	0.32	59,59,59,59	0
57	MG	14	3445	1/1	0.97	0.03	87,87,87,87	0
57	MG	1G	1672	1/1	0.97	0.03	91,91,91,91	0
57	MG	1H	3153	1/1	0.97	0.18	59,59,59,59	0
57	MG	1H	3118	1/1	0.97	0.12	60,60,60,60	0
57	MG	1H	3050	1/1	0.97	0.32	66,66,66,66	0
57	MG	13	1745	1/1	0.97	0.05	117,117,117,117	0
57	MG	1H	3237	1/1	0.97	0.18	61,61,61,61	0
57	MG	1G	1680	1/1	0.97	0.03	103,103,103,103	0
57	MG	14	3109	1/1	0.97	0.32	60,60,60,60	0
57	MG	13	1747	1/1	0.97	0.13	72,72,72,72	0
57	MG	13	1723	1/1	0.97	0.06	84,84,84,84	0
57	MG	13	1647	1/1	0.97	0.21	104,104,104,104	0
57	MG	1G	1685	1/1	0.97	0.06	109,109,109,109	0
57	MG	1H	3056	1/1	0.97	0.28	52,52,52,52	0
57	MG	1H	3413	1/1	0.97	0.08	78,78,78,78	0
57	MG	1H	3414	1/1	0.97	0.13	53,53,53,53	0
57	MG	1H	3416	1/1	0.97	0.16	48,48,48,48	0
57	MG	13	1727	1/1	0.97	0.07	110,110,110,110	0
57	MG	1H	3094	1/1	0.97	0.12	52,52,52,52	0
57	MG	5E	201	1/1	0.97	0.20	81,81,81,81	0
57	MG	14	3247	1/1	0.97	0.25	67,67,67,67	0
57	MG	1H	3204	1/1	0.97	0.22	86,86,86,86	0
57	MG	14	3250	1/1	0.97	0.18	65,65,65,65	0
57	MG	13	1614	1/1	0.97	0.59	64,64,64,64	0
57	MG	1H	3303	1/1	0.97	0.11	63,63,63,63	0
57	MG	1H	3429	1/1	0.97	0.11	75,75,75,75	0
57	MG	1H	3430	1/1	0.97	0.06	85,85,85,85	0
57	MG	I8	101	1/1	0.97	0.04	65,65,65,65	0
60	ZN	G8	201	1/1	0.97	0.18	146,146,146,146	0
57	MG	3I	201	1/1	0.97	0.16	57,57,57,57	0
57	MG	14	3290	1/1	0.98	0.09	64,64,64,64	0
57	MG	14	3292	1/1	0.98	0.13	61,61,61,61	0
57	MG	1H	3298	1/1	0.98	0.10	61,61,61,61	0
57	MG	14	3300	1/1	0.98	0.14	57,57,57,57	0
57	MG	14	3302	1/1	0.98	0.10	68,68,68,68	0
57	MG	1H	3381	1/1	0.98	0.11	95,95,95,95	0
57	MG	1H	3299	1/1	0.98	0.06	50,50,50,50	0
57	MG	1H	3384	1/1	0.98	0.11	73,73,73,73	0
57	MG	1H	3085	1/1	0.98	0.29	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	14	3160	1/1	0.98	0.30	51,51,51,51	0
57	MG	14	3040	1/1	0.98	0.33	64,64,64,64	0
57	MG	1H	3024	1/1	0.98	0.31	45,45,45,45	0
57	MG	14	3042	1/1	0.98	0.24	58,58,58,58	0
57	MG	1H	3310	1/1	0.98	0.10	58,58,58,58	0
57	MG	1H	3391	1/1	0.98	0.13	49,49,49,49	0
57	MG	1H	3392	1/1	0.98	0.06	69,69,69,69	0
57	MG	1H	3117	1/1	0.98	0.51	72,72,72,72	0
57	MG	1H	3394	1/1	0.98	0.14	70,70,70,70	0
57	MG	1H	3314	1/1	0.98	0.13	75,75,75,75	0
57	MG	14	3050	1/1	0.98	0.29	59,59,59,59	0
57	MG	14	3051	1/1	0.98	0.39	62,62,62,62	0
57	MG	1H	3025	1/1	0.98	0.32	56,56,56,56	0
57	MG	1H	3398	1/1	0.98	0.12	50,50,50,50	0
57	MG	1H	3399	1/1	0.98	0.13	61,61,61,61	0
57	MG	1H	3256	1/1	0.98	0.34	71,71,71,71	0
57	MG	1H	3402	1/1	0.98	0.09	73,73,73,73	0
57	MG	1H	3320	1/1	0.98	0.05	67,67,67,67	0
57	MG	1H	3404	1/1	0.98	0.09	76,76,76,76	0
57	MG	14	3332	1/1	0.98	0.07	63,63,63,63	0
57	MG	14	3333	1/1	0.98	0.14	59,59,59,59	0
57	MG	14	3334	1/1	0.98	0.11	61,61,61,61	0
57	MG	14	3335	1/1	0.98	0.07	87,87,87,87	0
57	MG	14	3060	1/1	0.98	0.30	74,74,74,74	0
57	MG	14	3337	1/1	0.98	0.05	76,76,76,76	0
57	MG	14	3061	1/1	0.98	0.34	61,61,61,61	0
57	MG	1H	3405	1/1	0.98	0.11	69,69,69,69	0
57	MG	1H	3257	1/1	0.98	0.25	84,84,84,84	0
57	MG	14	3064	1/1	0.98	0.36	58,58,58,58	0
57	MG	14	3065	1/1	0.98	0.28	54,54,54,54	0
57	MG	14	3345	1/1	0.98	0.08	68,68,68,68	0
57	MG	14	3346	1/1	0.98	0.11	75,75,75,75	0
57	MG	14	3347	1/1	0.98	0.13	67,67,67,67	0
57	MG	1G	1651	1/1	0.98	0.08	81,81,81,81	0
57	MG	14	3349	1/1	0.98	0.08	81,81,81,81	0
57	MG	1H	3492	1/1	0.98	0.06	105,105,105,105	0
57	MG	1H	3407	1/1	0.98	0.06	50,50,50,50	0
57	MG	14	3352	1/1	0.98	0.06	65,65,65,65	0
57	MG	1G	1654	1/1	0.98	0.09	93,93,93,93	0
57	MG	1H	3219	1/1	0.98	0.14	62,62,62,62	0
57	MG	14	3356	1/1	0.98	0.13	61,61,61,61	0
57	MG	1H	3026	1/1	0.98	0.44	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	14	3358	1/1	0.98	0.12	54,54,54,54	0
57	MG	14	3359	1/1	0.98	0.11	67,67,67,67	0
57	MG	14	3360	1/1	0.98	0.06	83,83,83,83	0
57	MG	1G	1658	1/1	0.98	0.05	94,94,94,94	0
57	MG	1G	1659	1/1	0.98	0.13	79,79,79,79	0
57	MG	14	3364	1/1	0.98	0.05	73,73,73,73	0
57	MG	1G	1661	1/1	0.98	0.05	111,111,111,111	0
57	MG	1H	3324	1/1	0.98	0.13	47,47,47,47	0
57	MG	14	3368	1/1	0.98	0.07	72,72,72,72	0
57	MG	14	3369	1/1	0.98	0.19	56,56,56,56	0
57	MG	1H	3497	1/1	0.98	0.07	97,97,97,97	0
57	MG	1G	1664	1/1	0.98	0.05	91,91,91,91	0
57	MG	1H	3412	1/1	0.98	0.13	66,66,66,66	0
57	MG	14	3373	1/1	0.98	0.06	93,93,93,93	0
57	MG	14	3079	1/1	0.98	0.30	64,64,64,64	0
57	MG	14	3375	1/1	0.98	0.05	91,91,91,91	0
57	MG	14	3080	1/1	0.98	0.38	46,46,46,46	0
57	MG	13	1725	1/1	0.98	0.06	71,71,71,71	0
57	MG	1H	3261	1/1	0.98	0.22	67,67,67,67	0
57	MG	14	3379	1/1	0.98	0.10	94,94,94,94	0
57	MG	1H	3328	1/1	0.98	0.08	52,52,52,52	0
57	MG	14	3381	1/1	0.98	0.05	52,52,52,52	0
57	MG	14	3382	1/1	0.98	0.09	91,91,91,91	0
57	MG	14	3084	1/1	0.98	0.34	56,56,56,56	0
57	MG	14	3085	1/1	0.98	0.31	65,65,65,65	0
57	MG	14	3385	1/1	0.98	0.07	70,70,70,70	0
57	MG	14	3386	1/1	0.98	0.07	56,56,56,56	0
57	MG	1H	3329	1/1	0.98	0.13	55,55,55,55	0
57	MG	1H	3420	1/1	0.98	0.07	64,64,64,64	0
57	MG	14	3389	1/1	0.98	0.07	81,81,81,81	0
57	MG	1H	3031	1/1	0.98	0.38	53,53,53,53	0
57	MG	1H	3332	1/1	0.98	0.07	63,63,63,63	0
57	MG	1G	1673	1/1	0.98	0.09	84,84,84,84	0
57	MG	1H	3424	1/1	0.98	0.05	68,68,68,68	0
57	MG	1H	3223	1/1	0.98	0.18	64,64,64,64	0
57	MG	14	3395	1/1	0.98	0.04	78,78,78,78	0
57	MG	1G	1676	1/1	0.98	0.04	86,86,86,86	0
57	MG	14	3397	1/1	0.98	0.14	64,64,64,64	0
57	MG	1H	3426	1/1	0.98	0.08	57,57,57,57	0
57	MG	14	3214	1/1	0.98	0.15	73,73,73,73	0
57	MG	1H	3152	1/1	0.98	0.19	87,87,87,87	0
57	MG	1H	3032	1/1	0.98	0.14	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
57	MG	1H	3336	1/1	0.98	0.13	61,61,61,61	0
57	MG	13	1726	1/1	0.98	0.08	85,85,85,85	0
57	MG	11	301	1/1	0.98	0.10	46,46,46,46	0
57	MG	11	302	1/1	0.98	0.11	57,57,57,57	0
57	MG	1H	3155	1/1	0.98	0.18	75,75,75,75	0
57	MG	1H	3341	1/1	0.98	0.09	57,57,57,57	0
57	MG	14	3103	1/1	0.98	0.52	68,68,68,68	0
57	MG	1H	3342	1/1	0.98	0.06	71,71,71,71	0
57	MG	1H	3268	1/1	0.98	0.25	81,81,81,81	0
57	MG	1H	3063	1/1	0.98	0.27	52,52,52,52	0
57	MG	13	1610	1/1	0.98	0.15	79,79,79,79	0
57	MG	13	1728	1/1	0.98	0.08	91,91,91,91	0
57	MG	13	1746	1/1	0.98	0.08	83,83,83,83	0
57	MG	14	3419	1/1	0.98	0.05	70,70,70,70	0
57	MG	1H	3160	1/1	0.98	0.46	67,67,67,67	0
57	MG	13	1702	1/1	0.98	0.12	76,76,76,76	0
57	MG	1H	3356	1/1	0.98	0.10	58,58,58,58	0
57	MG	1H	3009	1/1	0.98	0.25	54,54,54,54	0
57	MG	13	1703	1/1	0.98	0.07	95,95,95,95	0
57	MG	1H	3445	1/1	0.98	0.03	97,97,97,97	0
57	MG	1G	1602	1/1	0.98	0.28	72,72,72,72	0
57	MG	1G	1603	1/1	0.98	0.20	81,81,81,81	0
57	MG	1H	3446	1/1	0.98	0.04	93,93,93,93	0
57	MG	14	3119	1/1	0.98	0.50	63,63,63,63	0
57	MG	1H	3071	1/1	0.98	0.43	54,54,54,54	0
57	MG	13	1623	1/1	0.98	0.35	61,61,61,61	0
57	MG	14	3122	1/1	0.98	0.07	104,104,104,104	0
57	MG	1H	3449	1/1	0.98	0.12	69,69,69,69	0
57	MG	13	1715	1/1	0.98	0.09	110,110,110,110	0
57	MG	14	3437	1/1	0.98	0.03	93,93,93,93	0
57	MG	14	3125	1/1	0.98	0.17	54,54,54,54	0
57	MG	14	3246	1/1	0.98	0.23	76,76,76,76	0
57	MG	14	3126	1/1	0.98	0.43	64,64,64,64	0
57	MG	13	1716	1/1	0.98	0.08	66,66,66,66	0
57	MG	1H	3169	1/1	0.98	0.20	85,85,85,85	0
57	MG	13	1718	1/1	0.98	0.09	78,78,78,78	0
57	MG	13	1705	1/1	0.98	0.07	76,76,76,76	0
57	MG	13	1706	1/1	0.98	0.12	71,71,71,71	0
57	MG	1H	3456	1/1	0.98	0.05	72,72,72,72	0
57	MG	1H	3370	1/1	0.98	0.11	70,70,70,70	0
57	MG	13	1607	1/1	0.98	0.27	74,74,74,74	0
57	MG	14	3137	1/1	0.98	0.22	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	3450	1/1	0.98	0.10	63,63,63,63	0
57	MG	14	3451	1/1	0.98	0.14	77,77,77,77	0
57	MG	1H	3079	1/1	0.98	0.30	47,47,47,47	0
57	MG	1H	3460	1/1	0.98	0.14	62,62,62,62	0
57	MG	14	3140	1/1	0.98	0.31	81,81,81,81	0
57	MG	14	3020	1/1	0.98	0.38	51,51,51,51	0
57	MG	13	1634	1/1	0.98	0.70	71,71,71,71	0
57	MG	1J	204	1/1	0.98	0.06	82,82,82,82	0
57	MG	1H	3462	1/1	0.98	0.07	54,54,54,54	0
57	MG	13	1709	1/1	0.98	0.09	75,75,75,75	0
57	MG	2K	103	1/1	0.98	0.36	61,61,61,61	0
57	MG	13	1700	1/1	0.98	0.07	93,93,93,93	0
57	MG	1H	3002	1/1	0.98	0.31	39,39,39,39	0
57	MG	14	3029	1/1	0.98	0.26	59,59,59,59	0
57	MG	1G	1625	1/1	0.98	0.20	89,89,89,89	0
57	MG	1H	3292	1/1	0.98	0.10	50,50,50,50	0
57	MG	1H	3468	1/1	0.98	0.11	71,71,71,71	0
57	MG	14	3273	1/1	0.98	0.19	58,58,58,58	0
57	MG	1H	3293	1/1	0.98	0.06	63,63,63,63	0
57	MG	14	3277	1/1	0.98	0.08	67,67,67,67	0
57	MG	14	3278	1/1	0.98	0.05	65,65,65,65	0
57	MG	14	3153	1/1	0.98	0.09	79,79,79,79	0
57	MG	1G	1629	1/1	0.98	0.67	83,83,83,83	0
57	MG	14	3282	1/1	0.98	0.09	58,58,58,58	0
57	MG	14	3283	1/1	0.98	0.09	74,74,74,74	0
57	MG	14	3285	1/1	0.98	0.05	59,59,59,59	0
57	MG	14	3286	1/1	0.98	0.05	63,63,63,63	0
60	ZN	5A	101	1/1	0.98	0.09	128,128,128,128	0
57	MG	14	3289	1/1	0.98	0.12	58,58,58,58	0
57	MG	14	3275	1/1	0.99	0.09	61,61,61,61	0
57	MG	1H	3317	1/1	0.99	0.20	45,45,45,45	0
57	MG	14	3127	1/1	0.99	0.34	48,48,48,48	0
57	MG	1H	3318	1/1	0.99	0.15	54,54,54,54	0
57	MG	1H	3319	1/1	0.99	0.13	67,67,67,67	0
57	MG	13	1694	1/1	0.99	0.17	79,79,79,79	0
57	MG	14	3281	1/1	0.99	0.16	66,66,66,66	0
57	MG	14	3059	1/1	0.99	0.41	69,69,69,69	0
57	MG	1H	3039	1/1	0.99	0.12	90,90,90,90	0
57	MG	14	3284	1/1	0.99	0.07	57,57,57,57	0
57	MG	14	3133	1/1	0.99	0.33	71,71,71,71	0
57	MG	1H	3089	1/1	0.99	0.44	51,51,51,51	0
57	MG	14	3287	1/1	0.99	0.17	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	14	3288	1/1	0.99	0.14	50,50,50,50	0
57	MG	1H	3491	1/1	0.99	0.13	75,75,75,75	0
57	MG	1H	3027	1/1	0.99	0.40	63,63,63,63	0
57	MG	14	3291	1/1	0.99	0.12	66,66,66,66	0
57	MG	13	1695	1/1	0.99	0.11	76,76,76,76	0
57	MG	14	3295	1/1	0.99	0.11	58,58,58,58	0
57	MG	1H	3029	1/1	0.99	0.35	49,49,49,49	0
57	MG	14	3297	1/1	0.99	0.08	74,74,74,74	0
57	MG	14	3298	1/1	0.99	0.03	79,79,79,79	0
57	MG	14	3299	1/1	0.99	0.06	60,60,60,60	0
57	MG	1H	3043	1/1	0.99	0.28	70,70,70,70	0
57	MG	14	3301	1/1	0.99	0.15	56,56,56,56	0
57	MG	1H	3327	1/1	0.99	0.05	55,55,55,55	0
57	MG	14	3401	1/1	0.99	0.10	66,66,66,66	0
57	MG	1H	3030	1/1	0.99	0.23	45,45,45,45	0
57	MG	1H	3167	1/1	0.99	0.16	63,63,63,63	0
57	MG	14	3305	1/1	0.99	0.17	57,57,57,57	0
57	MG	14	3306	1/1	0.99	0.10	55,55,55,55	0
57	MG	14	3307	1/1	0.99	0.12	79,79,79,79	0
57	MG	1H	3499	1/1	0.99	0.26	67,67,67,67	0
57	MG	1H	3060	1/1	0.99	0.37	55,55,55,55	0
57	MG	14	3409	1/1	0.99	0.14	80,80,80,80	0
57	MG	1H	3331	1/1	0.99	0.07	66,66,66,66	0
57	MG	14	3002	1/1	0.99	0.12	49,49,49,49	0
57	MG	13	1602	1/1	0.99	0.41	88,88,88,88	0
57	MG	13	1697	1/1	0.99	0.10	90,90,90,90	0
57	MG	1H	3443	1/1	0.99	0.08	67,67,67,67	0
57	MG	1H	3383	1/1	0.99	0.05	78,78,78,78	0
57	MG	1H	3294	1/1	0.99	0.13	56,56,56,56	0
57	MG	14	3417	1/1	0.99	0.07	87,87,87,87	0
57	MG	14	3418	1/1	0.99	0.05	75,75,75,75	0
57	MG	1H	3295	1/1	0.99	0.11	52,52,52,52	0
57	MG	14	3420	1/1	0.99	0.12	65,65,65,65	0
57	MG	1H	3296	1/1	0.99	0.18	49,49,49,49	0
57	MG	1H	3297	1/1	0.99	0.14	49,49,49,49	0
57	MG	16	208	1/1	0.99	0.05	67,67,67,67	0
57	MG	1H	3388	1/1	0.99	0.14	57,57,57,57	0
57	MG	14	3322	1/1	0.99	0.14	74,74,74,74	0
57	MG	1H	3389	1/1	0.99	0.16	59,59,59,59	0
57	MG	1H	3338	1/1	0.99	0.18	53,53,53,53	0
57	MG	1H	3339	1/1	0.99	0.09	50,50,50,50	0
57	MG	13	1683	1/1	0.99	0.21	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	14	3327	1/1	0.99	0.06	67,67,67,67	0
57	MG	1H	3172	1/1	0.99	0.14	73,73,73,73	0
57	MG	14	3432	1/1	0.99	0.10	83,83,83,83	0
57	MG	1H	3300	1/1	0.99	0.11	54,54,54,54	0
57	MG	14	3019	1/1	0.99	0.33	58,58,58,58	0
57	MG	14	3331	1/1	0.99	0.09	66,66,66,66	0
57	MG	1H	3396	1/1	0.99	0.08	60,60,60,60	0
57	MG	1H	3343	1/1	0.99	0.07	74,74,74,74	0
57	MG	1H	3064	1/1	0.99	0.23	54,54,54,54	0
57	MG	14	3023	1/1	0.99	0.30	54,54,54,54	0
57	MG	1H	3302	1/1	0.99	0.07	47,47,47,47	0
57	MG	1H	3346	1/1	0.99	0.11	58,58,58,58	0
57	MG	1G	1656	1/1	0.99	0.19	105,105,105,105	0
57	MG	14	3339	1/1	0.99	0.07	86,86,86,86	0
57	MG	1H	3401	1/1	0.99	0.10	52,52,52,52	0
57	MG	14	3341	1/1	0.99	0.07	62,62,62,62	0
57	MG	14	3028	1/1	0.99	0.21	60,60,60,60	0
57	MG	13	1717	1/1	0.99	0.10	66,66,66,66	0
57	MG	1H	3304	1/1	0.99	0.11	55,55,55,55	0
57	MG	1G	1660	1/1	0.99	0.03	96,96,96,96	0
57	MG	14	3249	1/1	0.99	0.28	60,60,60,60	0
57	MG	1H	3349	1/1	0.99	0.17	53,53,53,53	0
57	MG	1H	3305	1/1	0.99	0.09	53,53,53,53	0
57	MG	14	3453	1/1	0.99	0.04	88,88,88,88	0
57	MG	14	3252	1/1	0.99	0.19	67,67,67,67	0
57	MG	1H	3351	1/1	0.99	0.08	69,69,69,69	0
57	MG	1H	3306	1/1	0.99	0.09	60,60,60,60	0
57	MG	1H	3408	1/1	0.99	0.11	50,50,50,50	0
57	MG	1H	3353	1/1	0.99	0.09	57,57,57,57	0
57	MG	1H	3307	1/1	0.99	0.06	57,57,57,57	0
57	MG	14	3355	1/1	0.99	0.12	59,59,59,59	0
57	MG	1H	3355	1/1	0.99	0.10	68,68,68,68	0
57	MG	29	302	1/1	0.99	0.29	40,40,40,40	0
57	MG	1H	3309	1/1	0.99	0.12	48,48,48,48	0
57	MG	13	1732	1/1	0.99	0.08	108,108,108,108	0
57	MG	1H	3358	1/1	0.99	0.12	67,67,67,67	0
57	MG	1H	3415	1/1	0.99	0.10	52,52,52,52	0
57	MG	1H	3311	1/1	0.99	0.10	53,53,53,53	0
57	MG	14	3362	1/1	0.99	0.05	62,62,62,62	0
57	MG	1H	3417	1/1	0.99	0.11	56,56,56,56	0
57	MG	14	3046	1/1	0.99	0.41	58,58,58,58	0
57	MG	13	1690	1/1	0.99	0.14	68,68,68,68	0

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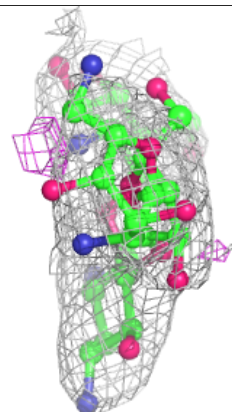
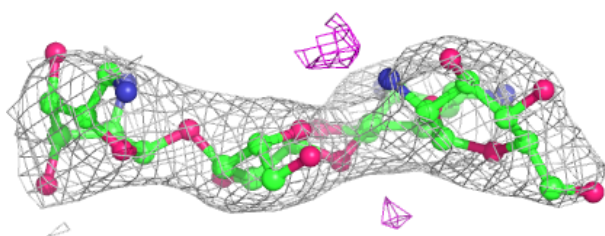
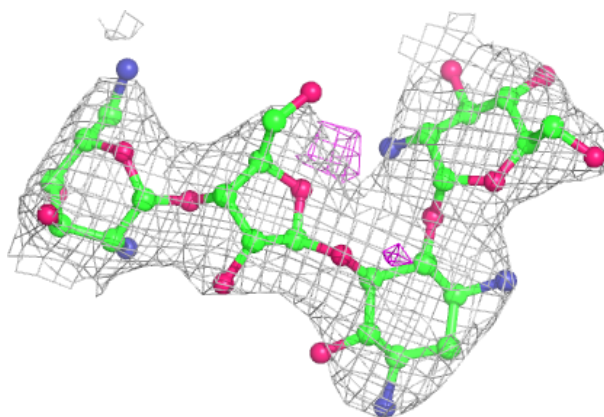
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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	1H	3419	1/1	0.99	0.06	63,63,63,63	0
57	MG	85	201	1/1	0.99	0.20	72,72,72,72	0
57	MG	14	3367	1/1	0.99	0.05	60,60,60,60	0
57	MG	1H	3361	1/1	0.99	0.08	53,53,53,53	0
57	MG	1H	3051	1/1	0.99	0.16	93,93,93,93	0
57	MG	1H	3016	1/1	0.99	0.40	49,49,49,49	0
57	MG	1H	3239	1/1	0.99	0.09	67,67,67,67	0
59	SF4	3E	301	8/8	0.99	0.19	71,78,87,91	0
59	SF4	32	301	8/8	0.99	0.17	100,111,117,118	0
60	ZN	5I	102	1/1	0.99	0.13	88,88,88,88	0
57	MG	1G	1681	1/1	0.99	0.04	85,85,85,85	0
57	MG	1H	3365	1/1	0.99	0.10	70,70,70,70	0
57	MG	14	3274	1/1	0.99	0.13	62,62,62,62	0
57	MG	14	3293	1/1	1.00	0.09	51,51,51,51	0
57	MG	14	3294	1/1	1.00	0.11	54,54,54,54	0
57	MG	1H	3390	1/1	1.00	0.08	57,57,57,57	0
57	MG	1H	3312	1/1	1.00	0.05	76,76,76,76	0
57	MG	1H	3308	1/1	1.00	0.08	61,61,61,61	0
57	MG	1H	3423	1/1	1.00	0.10	55,55,55,55	0

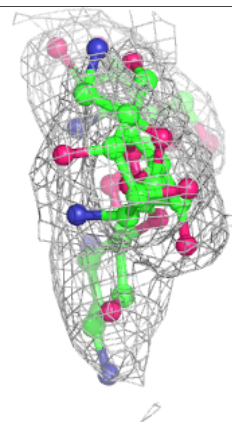
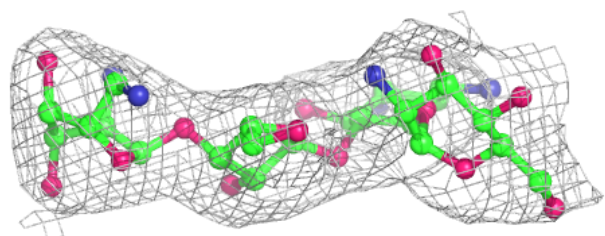
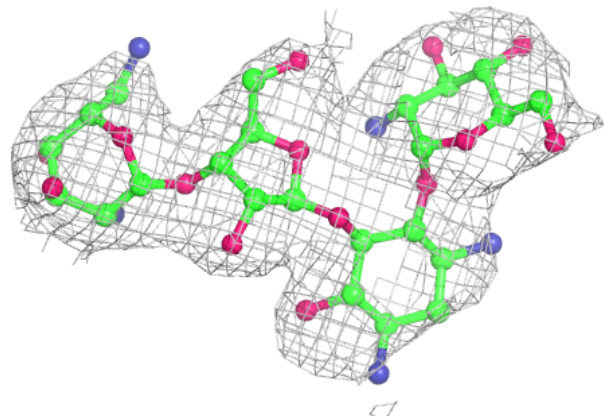
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

Electron density around PAR 13 1749:

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

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

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



6.5 Other polymers [i](#)

There are no such residues in this entry.