Full wwPDB X-ray Structure Validation Report (i)

Sep 10, 2026 – 12:51 am BST

PDB ID	:	5E7K / pdb_00005e7k
Title	:	Structure of T. thermophilus 70S ribosome complex with mRNA and cognate tRNALys in the A-site
Authors	:	Rozov, A.; Demeshkina, N.; Khusainov, I.; Yusupov, M.; Yusupova, G.
Deposited on	:	2015-10-12
Resolution	:	3.20 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 (i) 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 (i)) were used in the production of this report:

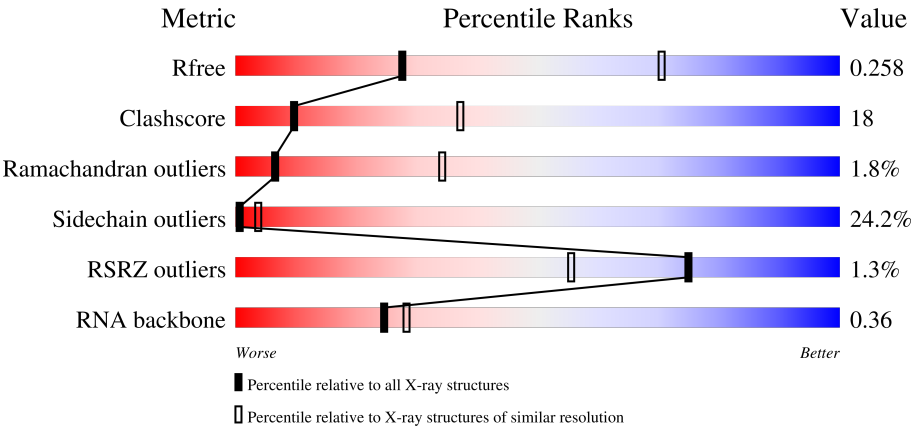
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry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

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.20 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1466 (3.20-3.20)
Clashscore	190562	1573 (3.20-3.20)
Ramachandran outliers	187476	1548 (3.20-3.20)
Sidechain outliers	187428	1547 (3.20-3.20)
RSRZ outliers	180081	1466 (3.20-3.20)
RNA backbone	3983	1222 (3.50-2.90)

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

Mol	Chain	Length	Quality of chain
1	13	1522	39% 45% 15% ·
1	1G	1522	38% 46% 15% ·
2	12	256	% 34% 34% 12% · 18%
2	1E	256	30% 41% 18% · 10%

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Mol	Chain	Length	Quality of chain
3	22	239	38% 37% 7% 18%
3	2E	239	44% 34% 8% 14%
4	32	209	31% 56% 12%
4	3E	209	44% 41% 12%
5	42	162	46% 38% 7% 9%
5	4E	162	45% 39% 8% 8%
6	52	101	54% 37% 9%
6	5E	101	47% 43% 9%
7	62	156	5% 40% 42% 7% 12%
7	6E	156	56% 32% 10%
8	72	138	53% 35% 12%
8	7E	138	38% 43% 18%
9	82	128	35% 44% 14% 5%
9	8E	128	43% 47% 8%
10	1A	105	34% 30% 12% 24%
10	1I	105	43% 31% 11% 13%
11	2A	129	4% 47% 31% 10% 12%
11	2I	129	31% 37% 16% 14%
12	3A	132	9% 39% 40% 13% 8%
12	3I	132	54% 27% 10% 8%
13	4A	126	32% 41% 13% 12%
13	4I	126	44% 37% 12% 6%
14	5A	61	3% 43% 41% 13%
14	5I	61	44% 34% 16%
15	6A	89	45% 47% 7%

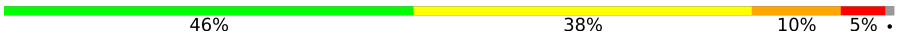
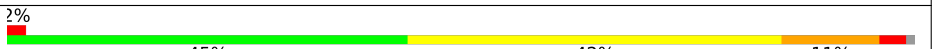
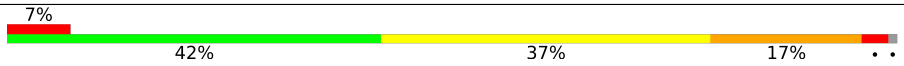
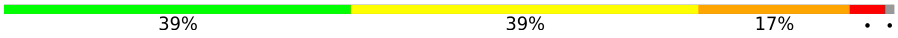
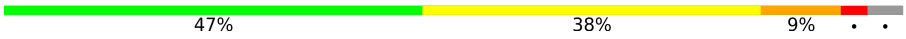
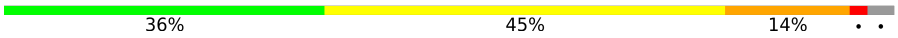
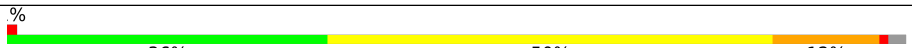
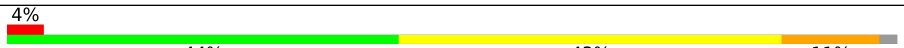
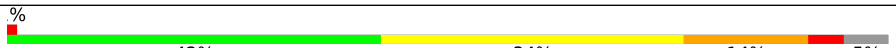
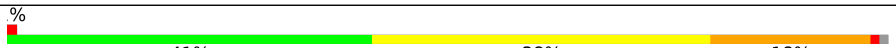
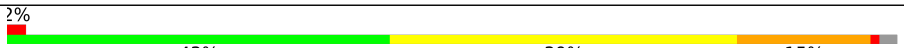
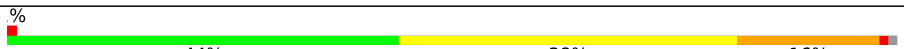
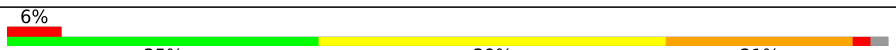
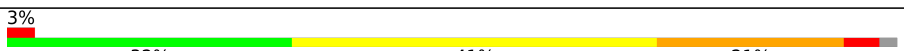
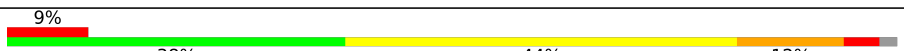
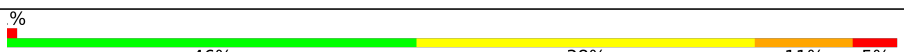
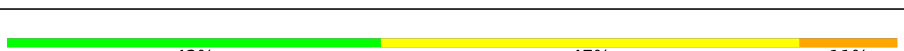
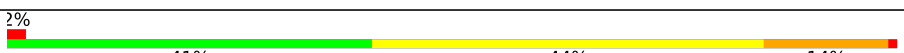
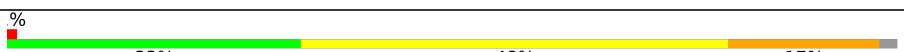
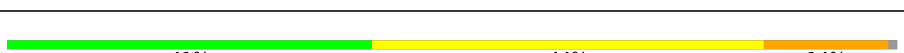
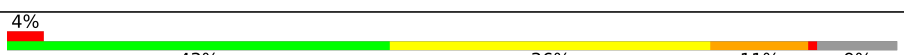
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Mol	Chain	Length	Quality of chain
15	6I	89	45% 42% 10%
16	7A	88	45% 35% 14% 5%
16	7I	88	26% 56% 13% 6%
17	8A	105	52% 32% 10% 6%
17	8I	105	2% 45% 39% 11% 5%
18	9A	88	2% 36% 30% 10% 24%
18	9I	88	2% 33% 31% 13% 23%
19	AA	93	2% 25% 31% 11% 33%
19	AI	93	38% 34% 13% 13%
20	BA	106	50% 35% 7% 7%
20	BI	106	34% 45% 12% 8%
21	1B	27	37% 44% 19%
21	1F	27	52% 33% 15%
22	1K	75	% 23% 51% 21% 5%
23	2K	77	% 44% 32% 22%
23	2L	77	35% 43% 19%
24	3K	76	5% 17% 50% 33%
25	4K	27	4% 22% 22% 26% 30%
25	4L	27	26% 15% 26% 33%
26	14	2917	40% 44% 13%
26	1H	2917	41% 41% 14%
27	16	122	52% 34% 14%
27	1J	122	% 36% 43% 20%
28	71	229	2% 22% 24% 10% 42%
28	79	229	15% 7% 75%

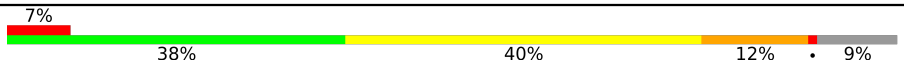
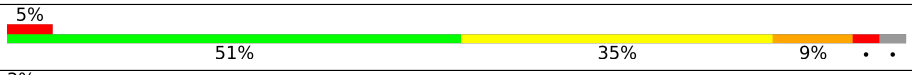
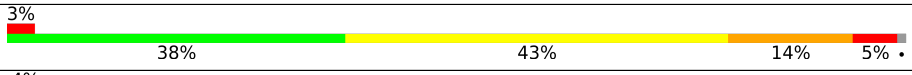
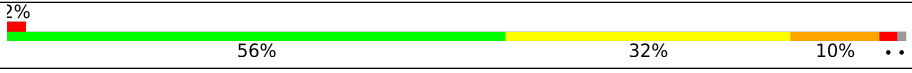
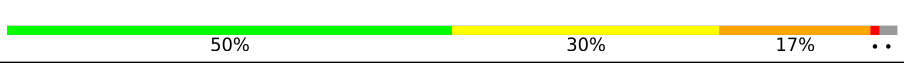
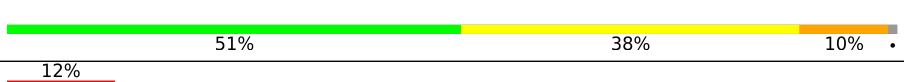
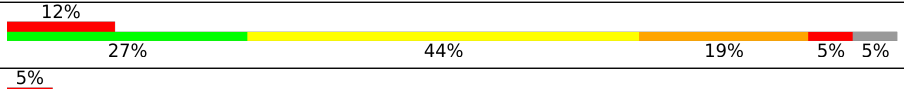
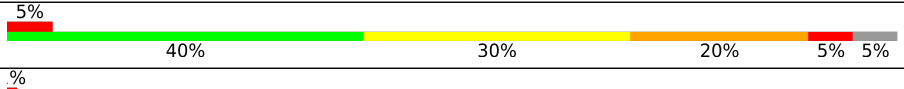
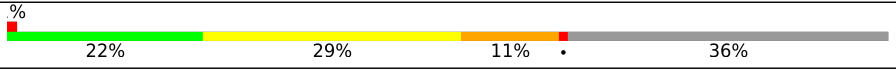
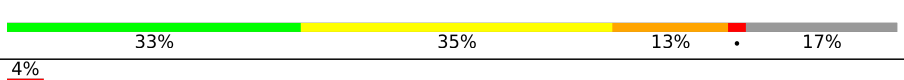
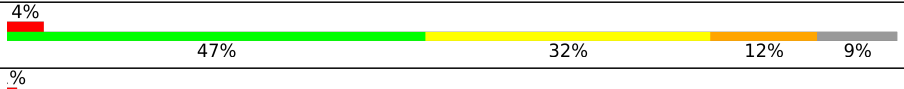
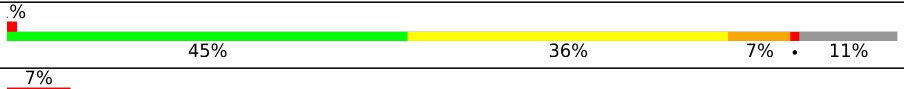
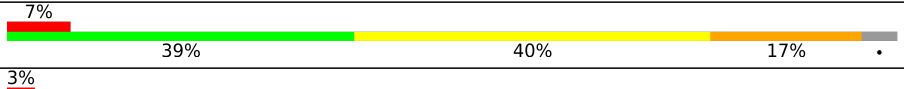
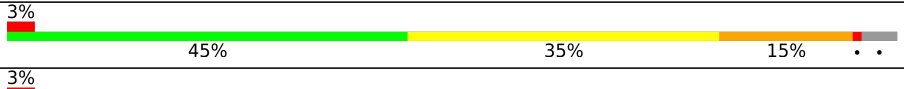
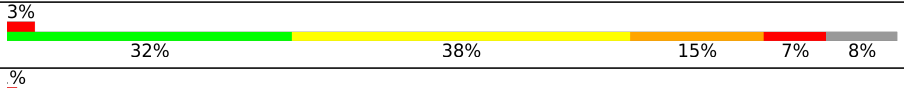
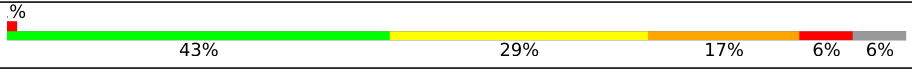
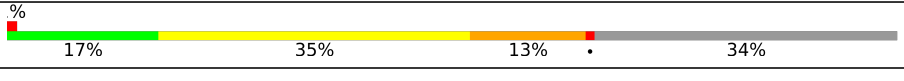
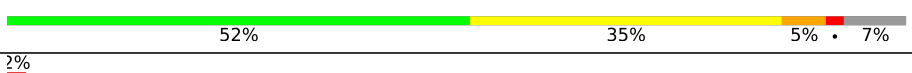
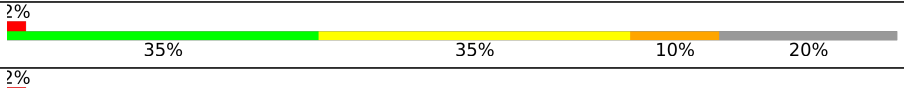
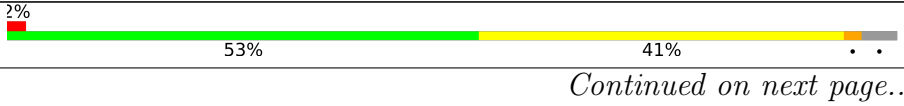
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Mol	Chain	Length	Quality of chain
29	11	276	
29	19	276	
30	21	206	
30	29	206	
31	31	210	
31	39	210	
32	41	182	
32	49	182	
33	51	180	
33	59	180	
34	61	148	
34	69	148	
35	15	140	
35	58	140	
36	25	122	
36	68	122	
37	35	150	
37	78	150	
38	45	141	
38	88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

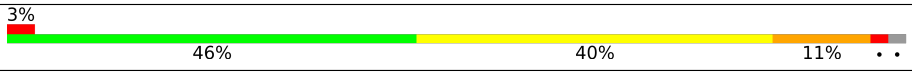
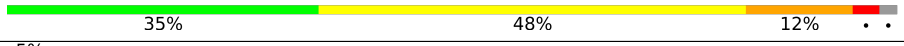
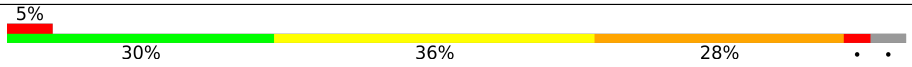
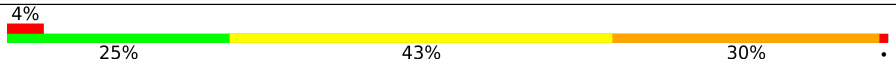
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Mol	Chain	Length	Quality of chain
41	B8	146	
42	85	118	
42	C8	118	
43	95	101	
43	D8	101	
44	A5	113	
44	E8	113	
45	B5	96	
45	F8	96	
46	C5	110	
46	G8	110	
47	D5	206	
47	H8	206	
48	E5	85	
48	I8	85	
49	F5	98	
49	J8	98	
50	G5	72	
50	K8	72	
51	H5	60	
51	L8	60	
52	M8	71	
53	J5	60	
53	N8	60	
54	L5	49	

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Mol	Chain	Length	Quality of chain
54	P8	49	
55	M5	65	
55	Q8	65	
56	1L	76	
57	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
58	MG	14	3089	-	-	-	X
58	MG	1G	1603	-	-	-	X
58	MG	1G	1644	-	-	-	X
59	SF4	32	301	-	-	X	-

2 Entry composition (i)

There are 61 unique types of molecules in this entry. The entry contains 294444 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a RNA chain called 16S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	13	1496	Total	C	N	O	P	0	0	0
			32157	14313	5960	10388	1496			
1	1G	1507	Total	C	N	O	P	0	0	0
			32391	14418	6004	10463	1506			

There are 6 discrepancies between the modelled and reference sequences:

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	3E	207	Total	C	N	O	S	0	0	0
			1698	1064	338	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	138	Total	C	N	O	S	0	0	0
			1110	689	221	194	6			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- Molecule 22 is a RNA chain called tRNALys.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
22	1K	71	Total	C	N	O	P	S	0	0	0
			1520	681	264	503	71	1			

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
1K	?	-	G	deletion	GB 836716955

- Molecule 23 is a RNA chain called tRNAfMet.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
23	2K	77	Total	C	N	O	P	S	0	0	0
			1646	735	297	536	77	1			
23	2L	77	Total	C	N	O	P	S	0	0	0
			1646	735	297	536	77	1			

- Molecule 24 is a RNA chain called tRNALys.

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

- Molecule 25 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	4K	19	Total	C	N	O	P	0	0	0
			419	188	89	123	19			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	4L	18	Total	C	N	O	P	0	0	0
			397	178	84	117	18			

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

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

There are 14 discrepancies between the modelled and reference sequences:

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	71	133	Total	C	N	O	S	0	0	0
			1033	651	194	187	1			

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
28	79	57	Total C N O 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 2120 1338 421 358 3	0	0	0
29	19	274	Total C N O S 2125 1341 422 359 3	0	0	0

- 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 1558 985 298 269 6	0	0	0
30	29	204	Total C N O S 1563 988 299 270 6	0	0	0

- 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 1585 1011 297 275 2	0	0	0
31	39	204	Total C N O S 1602 1022 299 279 2	0	0	0

- 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 1457 931 265 257 4	0	0	0
32	49	179	Total C N O S 1458 931 266 257 4	0	0	0

- 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 1312 832 246 233 1	0	0	0
33	59	73	Total C N O 568 356 116 96	0	0	0

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
40	A8	111	Total	C	N	O	0	0	0
			881	556	176	149			
40	65	110	Total	C	N	O	0	0	0
			876	553	175	148			

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	E8	112	Total	C	N	O	S	0	0	0
			890	560	175	153	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	A5	113	Total	C	N	O	S	0	0	0
			899	566	177	154	2			

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

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

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

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

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

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

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

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

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

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

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

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

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

- Molecule 56 is a RNA chain called tRNALys.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
56	1L	73	Total	C	N	O	P	S	0	0	0
			1563	700	271	518	73	1			

- Molecule 57 is a RNA chain called tRNALys.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
57	3L	76	Total	C	N	O	P	0	0	0
			1612	722	281	534	75			

- Molecule 58 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

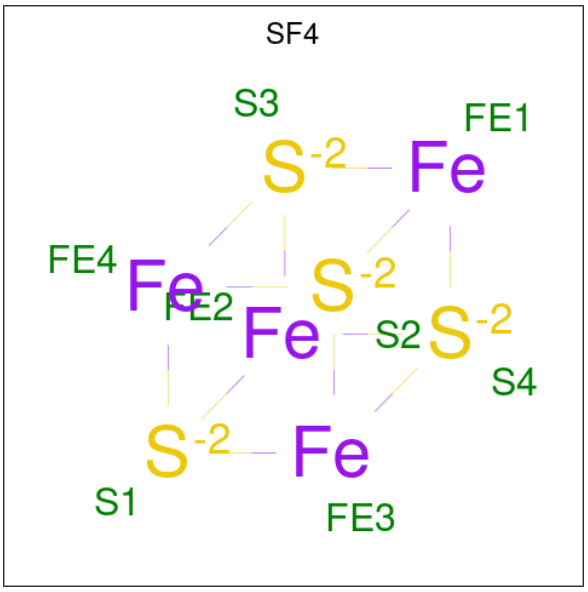
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	13	132	Total	Mg	0	0
			132	132		
58	1E	1	Total	Mg	0	0
			1	1		
58	5E	1	Total	Mg	0	0
			1	1		
58	1K	1	Total	Mg	0	0
			1	1		
58	2K	3	Total	Mg	0	0
			3	3		
58	3K	1	Total	Mg	0	0
			1	1		
58	1H	467	Total	Mg	0	0
			467	467		
58	16	9	Total	Mg	0	0
			9	9		
58	21	2	Total	Mg	0	0
			2	2		
58	41	1	Total	Mg	0	0
			1	1		
58	78	1	Total	Mg	0	0
			1	1		
58	88	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	98	1	Total Mg 1 1	0	0
58	I8	3	Total Mg 3 3	0	0
58	J8	1	Total Mg 1 1	0	0
58	L8	1	Total Mg 1 1	0	0
58	P8	1	Total Mg 1 1	0	0
58	Q8	1	Total Mg 1 1	0	0
58	1G	90	Total Mg 90 90	0	0
58	6A	1	Total Mg 1 1	0	0
58	2L	2	Total Mg 2 2	0	0
58	14	399	Total Mg 399 399	0	0
58	1J	5	Total Mg 5 5	0	0
58	29	4	Total Mg 4 4	0	0
58	39	1	Total Mg 1 1	0	0
58	25	1	Total Mg 1 1	0	0
58	35	3	Total Mg 3 3	0	0
58	45	2	Total Mg 2 2	0	0
58	55	1	Total Mg 1 1	0	0
58	E5	1	Total Mg 1 1	0	0

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



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

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

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

- Molecule 61 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	13	126	Total O 126 126	0	0
61	3I	2	Total O 2 2	0	0
61	5I	2	Total O 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	1K	8	Total O 8 8	0	0
61	3K	1	Total O 1 1	0	0
61	4K	2	Total O 2 2	0	0
61	1H	629	Total O 629 629	0	0
61	16	29	Total O 29 29	0	0
61	11	7	Total O 7 7	0	0
61	21	4	Total O 4 4	0	0
61	31	9	Total O 9 9	0	0
61	58	2	Total O 2 2	0	0
61	78	7	Total O 7 7	0	0
61	88	1	Total O 1 1	0	0
61	B8	1	Total O 1 1	0	0
61	E8	2	Total O 2 2	0	0
61	F8	1	Total O 1 1	0	0
61	G8	1	Total O 1 1	0	0
61	I8	3	Total O 3 3	0	0
61	L8	2	Total O 2 2	0	0
61	1G	78	Total O 78 78	0	0
61	32	1	Total O 1 1	0	0
61	5A	2	Total O 2 2	0	0
61	14	417	Total O 417 417	0	0

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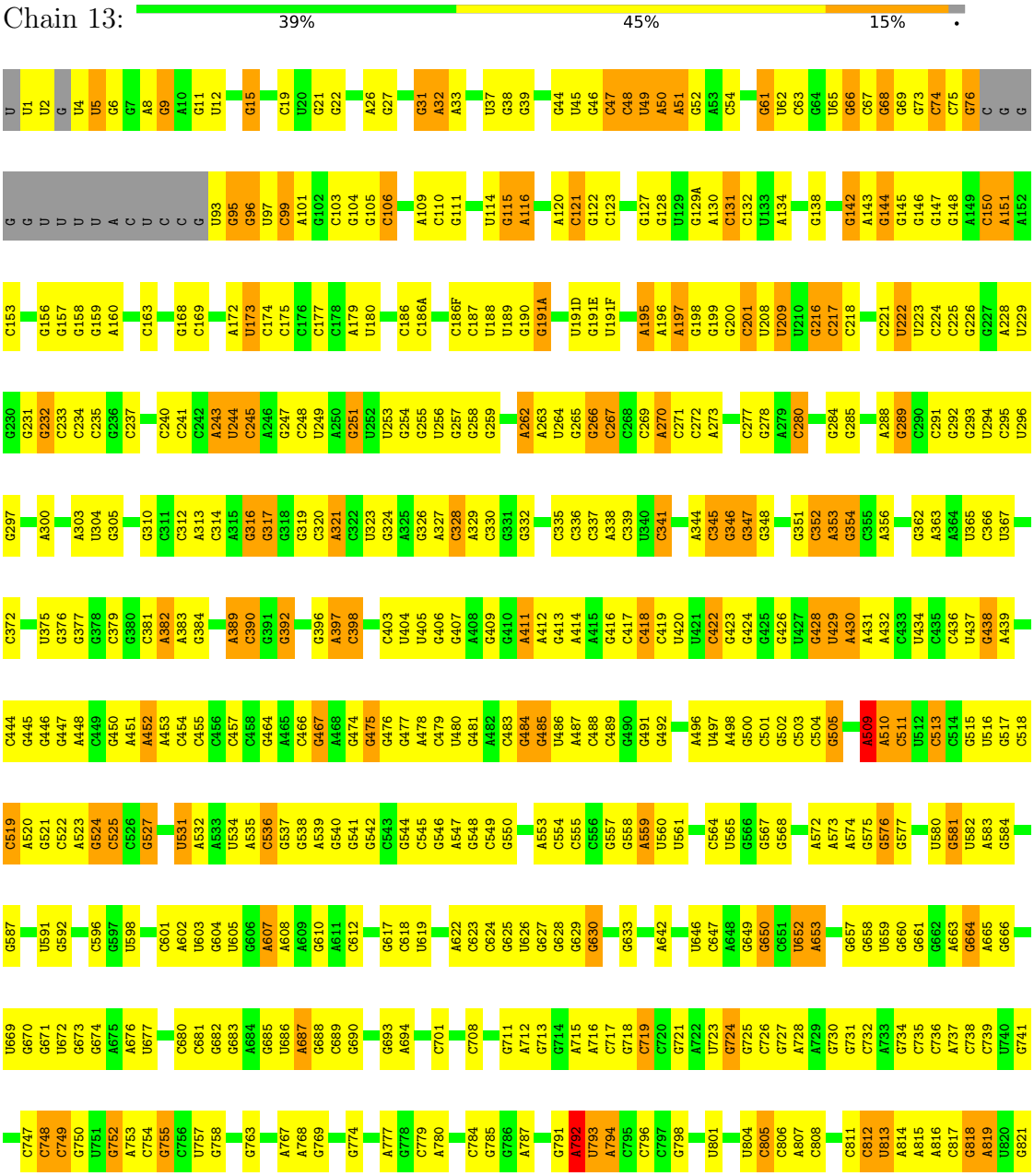
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	1J	6	Total O 6 6	0	0
61	19	8	Total O 8 8	0	0
61	29	2	Total O 2 2	0	0
61	39	5	Total O 5 5	0	0
61	35	1	Total O 1 1	0	0
61	55	1	Total O 1 1	0	0
61	A5	1	Total O 1 1	0	0
61	H5	2	Total O 2 2	0	0

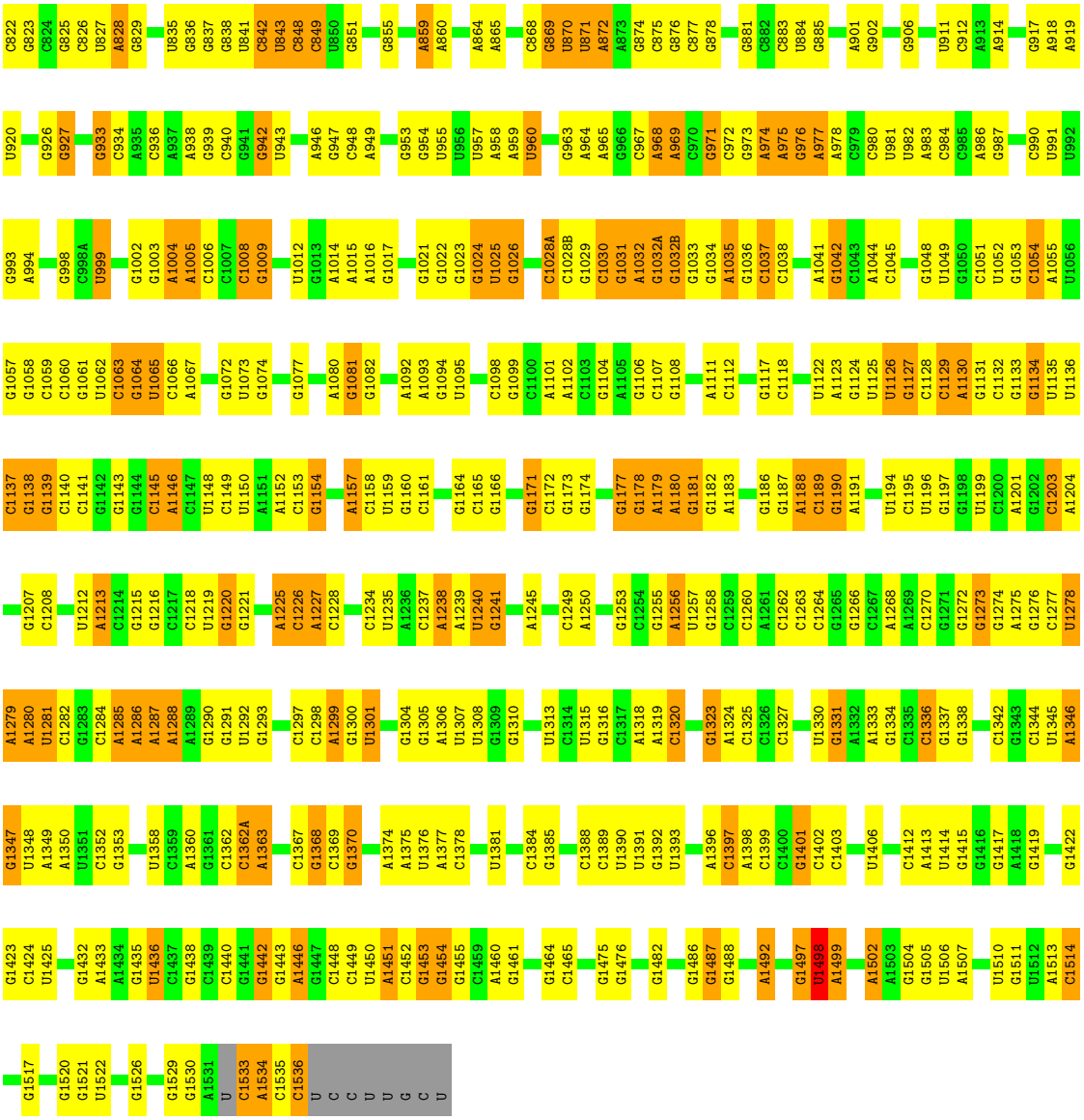
3 Residue-property plots (i)

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

- Molecule 1: 16S rRNA

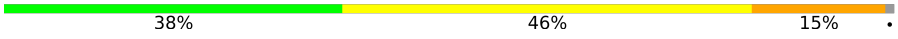
Chain 13:

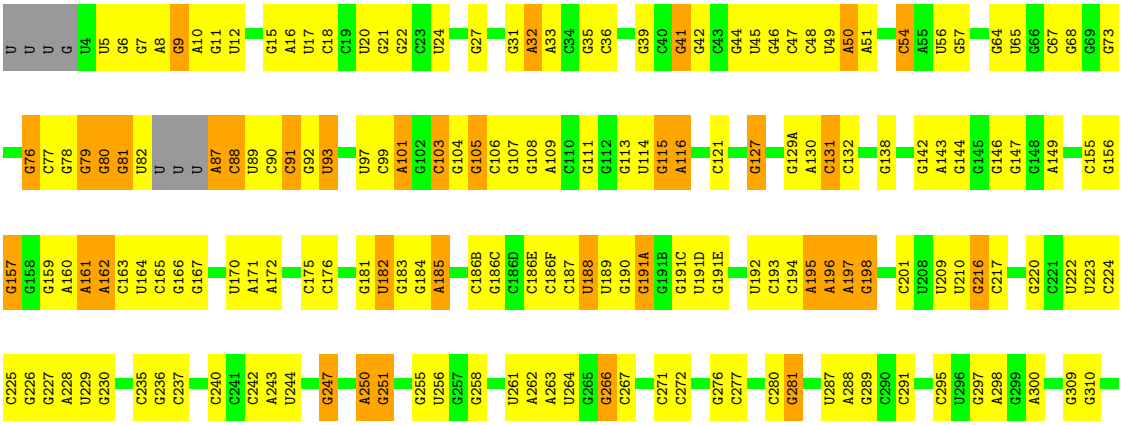


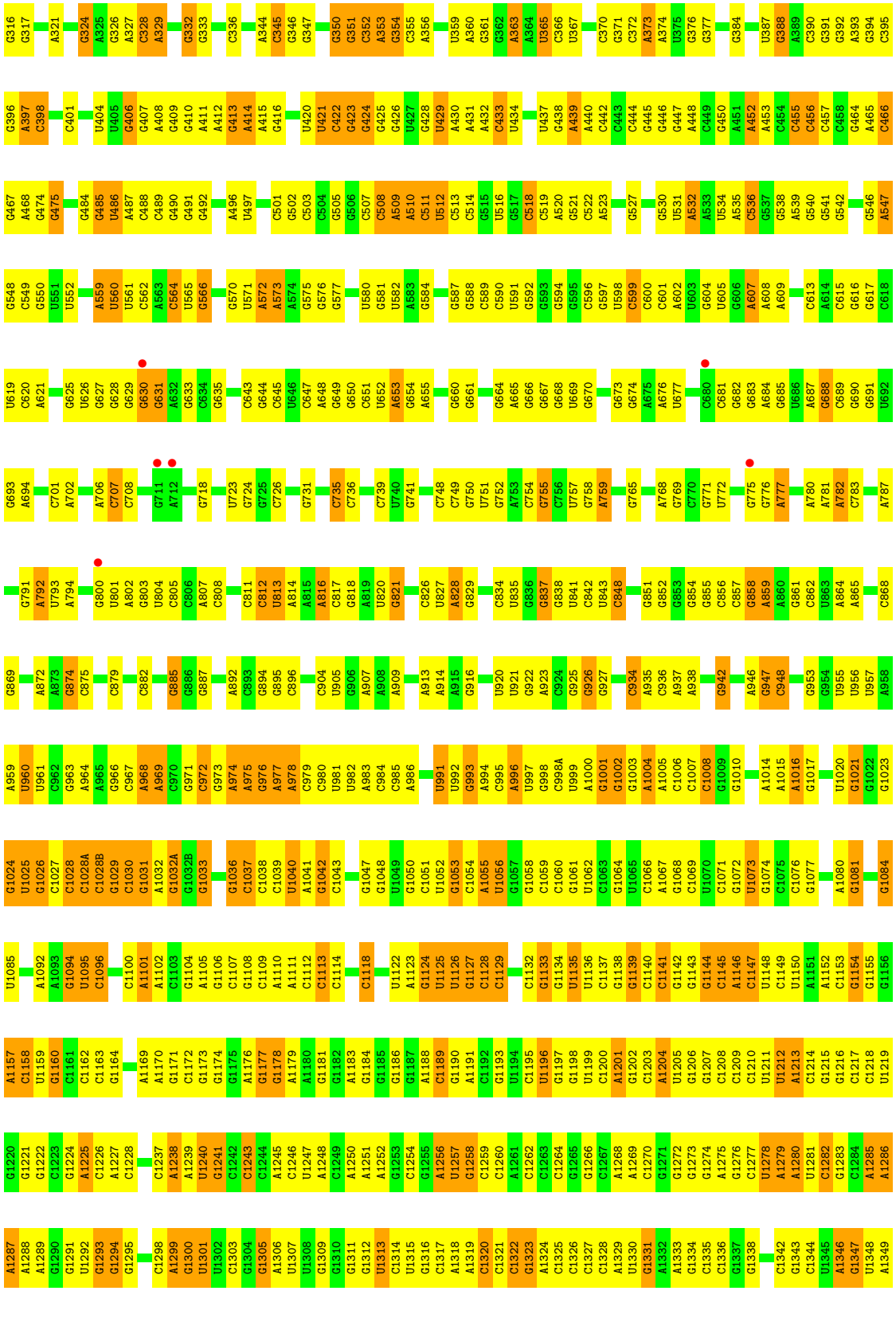


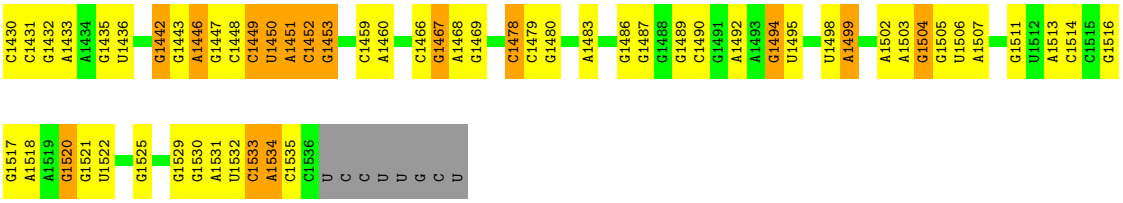
• Molecule 1: 16S rRNA

Chain 1G:



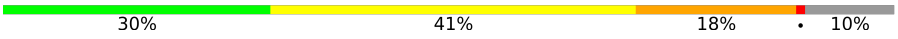


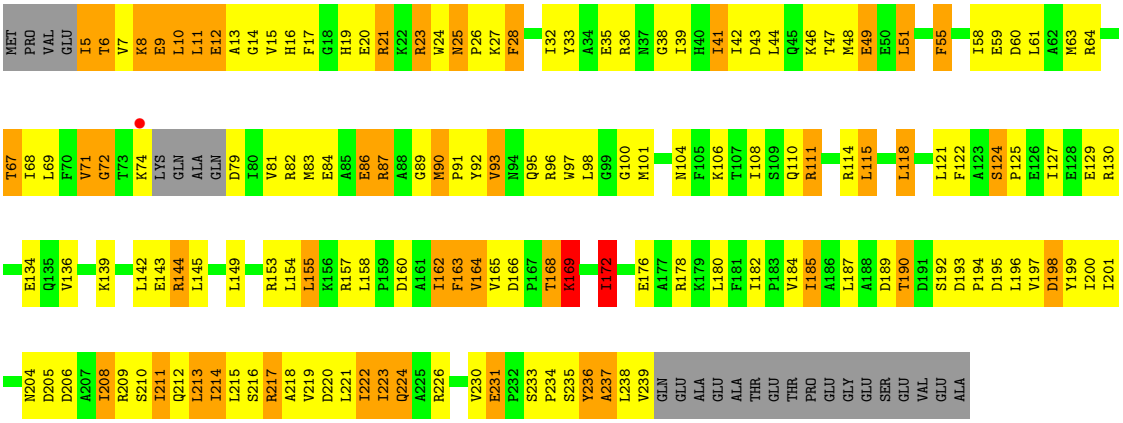




• Molecule 2: 30S ribosomal protein S2

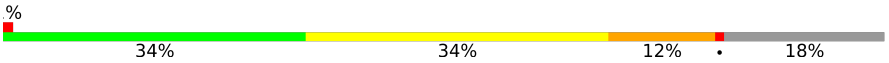
Chain 1E:

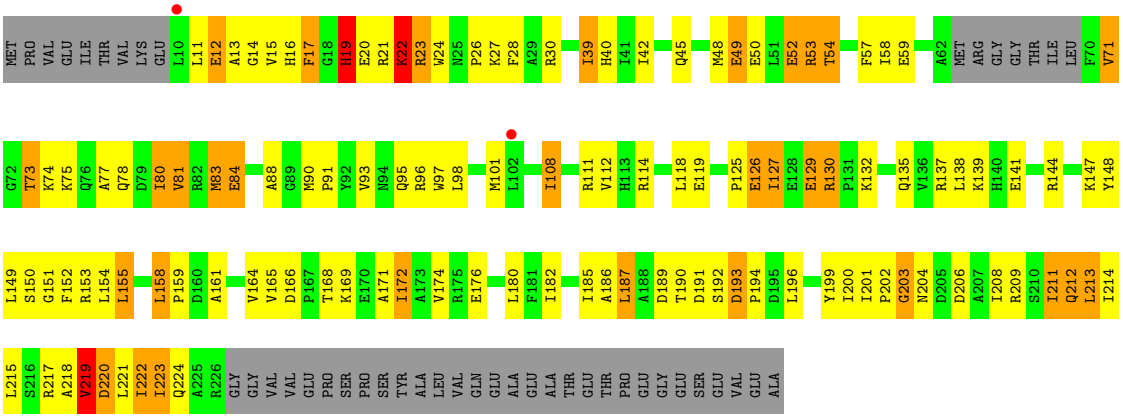




• Molecule 2: 30S ribosomal protein S2

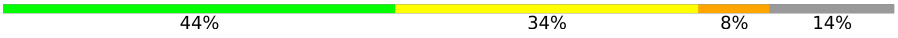
Chain 12:

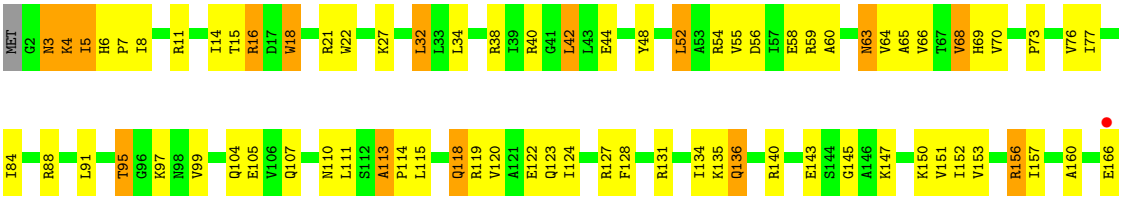


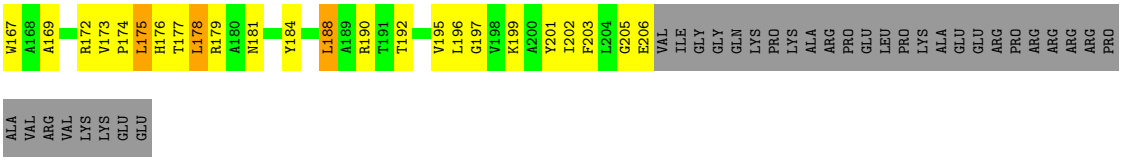


• Molecule 3: 30S ribosomal protein S3

Chain 2E:



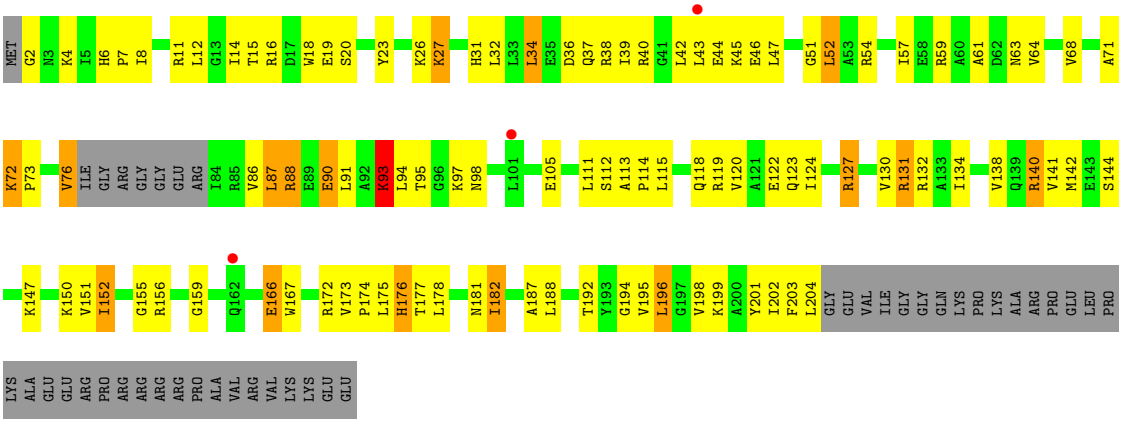




• Molecule 3: 30S ribosomal protein S3

Chain 22:

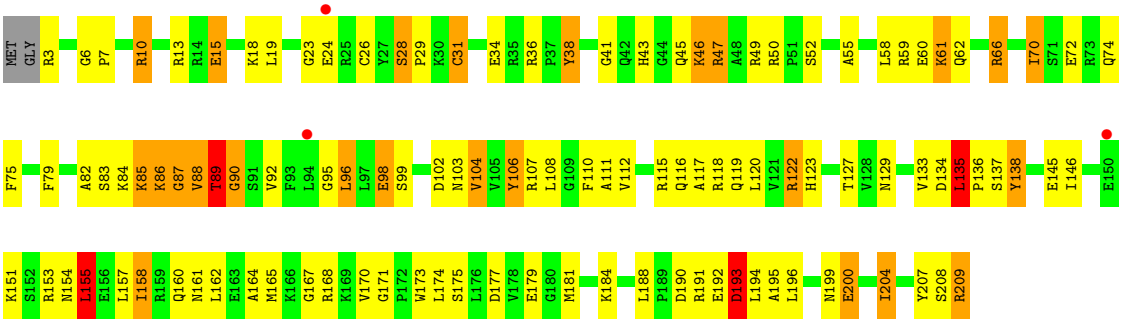




• Molecule 4: 30S ribosomal protein S4

Chain 3E:

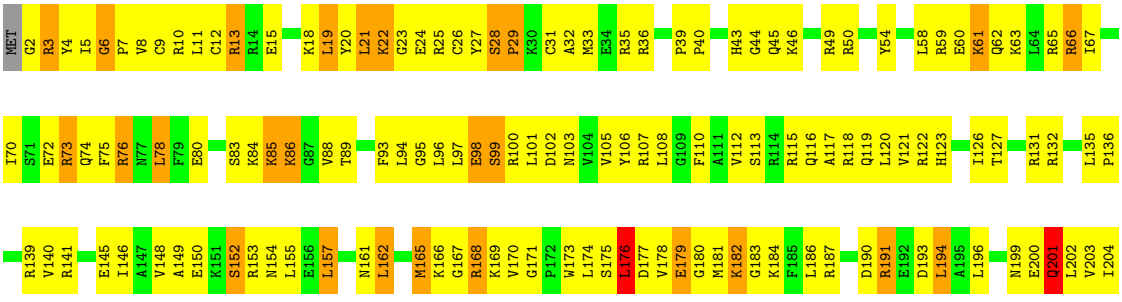




• Molecule 4: 30S ribosomal protein S4

Chain 32:



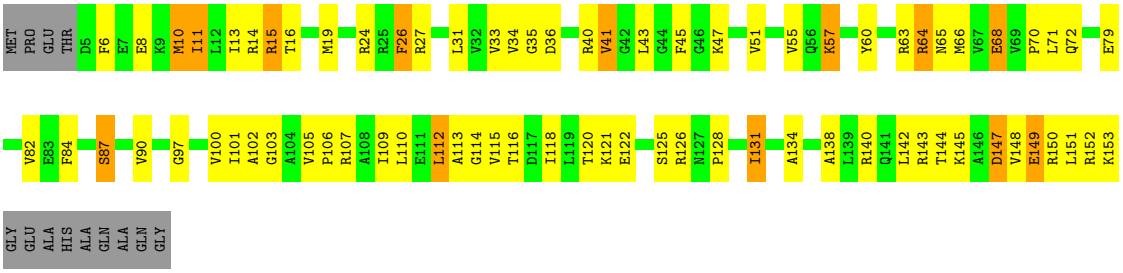




• Molecule 5: 30S ribosomal protein S5

Chain 4E:





• Molecule 5: 30S ribosomal protein S5

Chain 42:

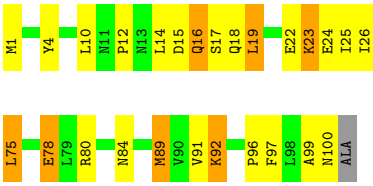




• Molecule 6: 30S ribosomal protein S6

Chain 5E:

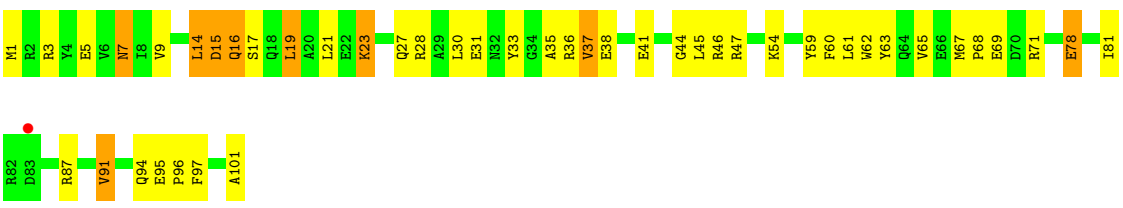




• Molecule 6: 30S ribosomal protein S6

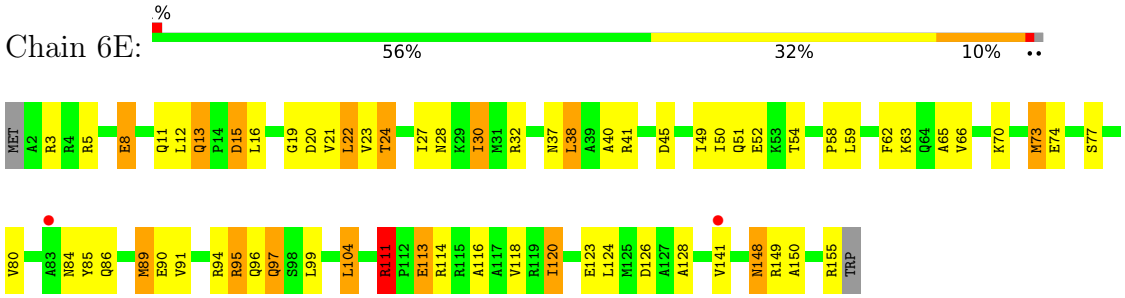
Chain 52:





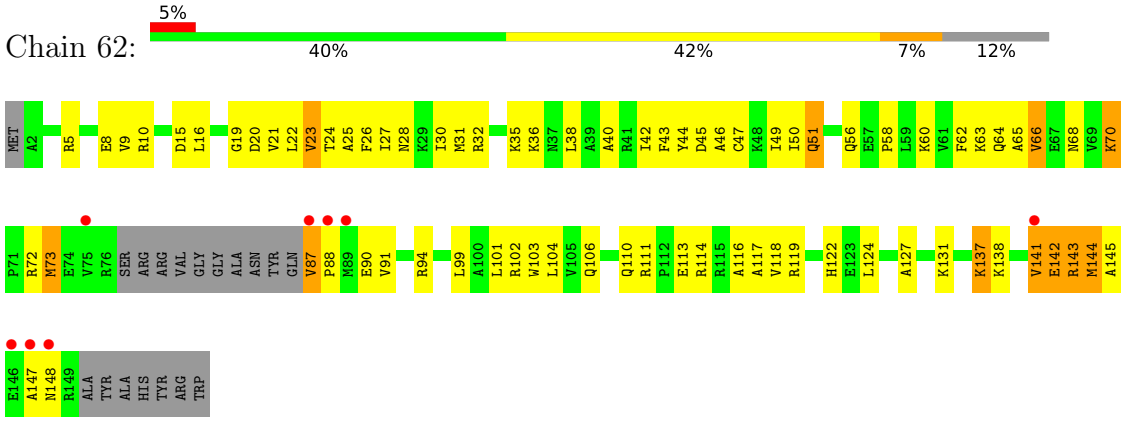
• Molecule 7: 30S ribosomal protein S7

Chain 6E:



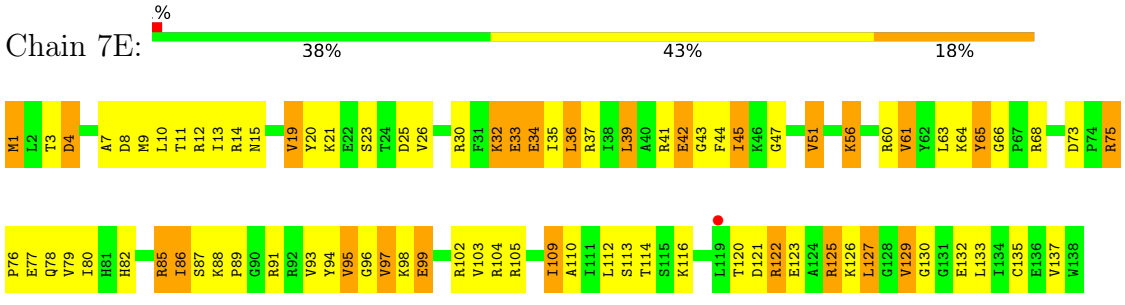
• Molecule 7: 30S ribosomal protein S7

Chain 62:



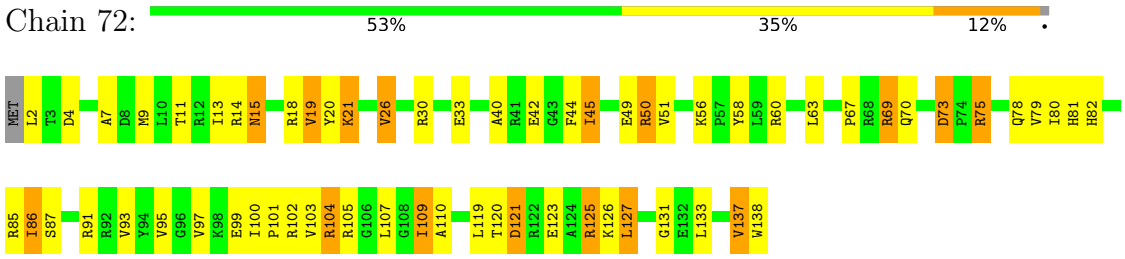
• Molecule 8: 30S ribosomal protein S8

Chain 7E:



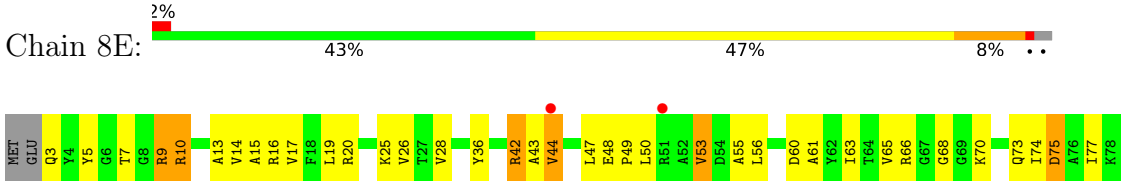
• Molecule 8: 30S ribosomal protein S8

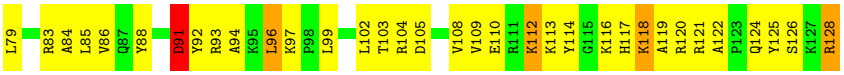
Chain 72:



• Molecule 9: 30S ribosomal protein S9

Chain 8E:

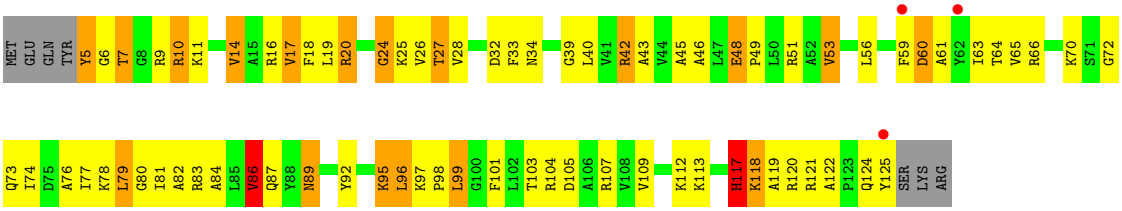




• Molecule 9: 30S ribosomal protein S9

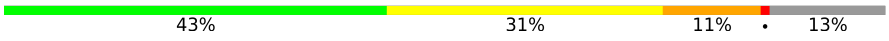
Chain 82:





• Molecule 10: 30S ribosomal protein S10

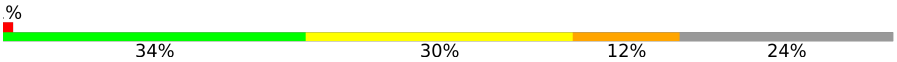
Chain 1I:

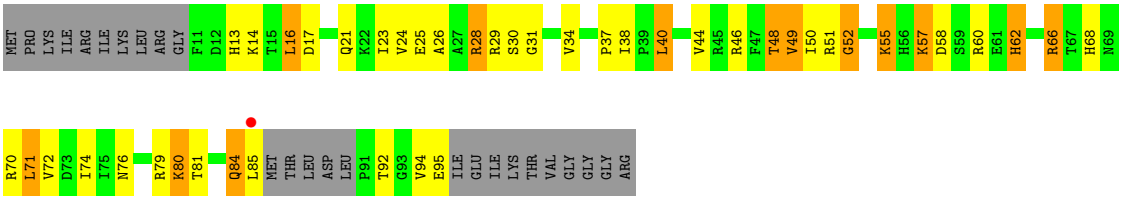




• Molecule 10: 30S ribosomal protein S10

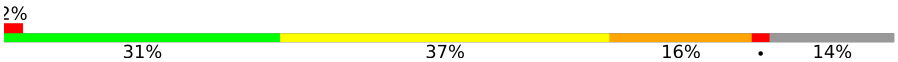
Chain 1A:

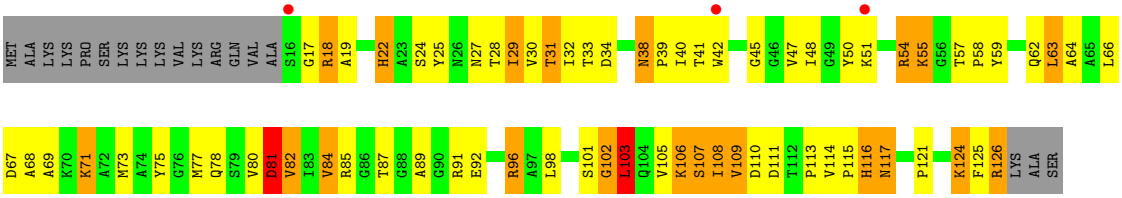




• Molecule 11: 30S ribosomal protein S11

Chain 2I:

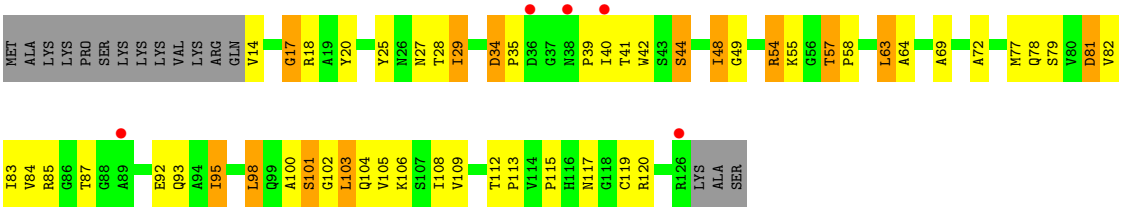




• Molecule 11: 30S ribosomal protein S11

Chain 2A:

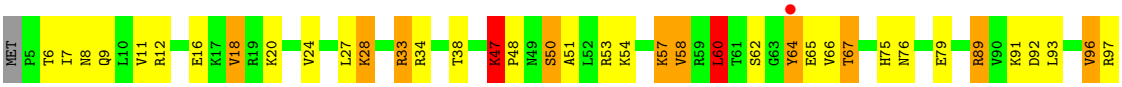




• Molecule 12: 30S ribosomal protein S12

Chain 3I:



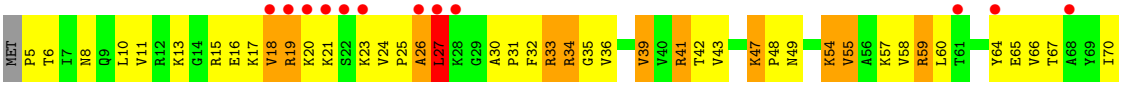


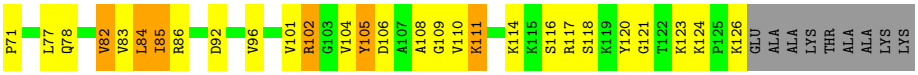


• Molecule 12: 30S ribosomal protein S12

Chain 3A:



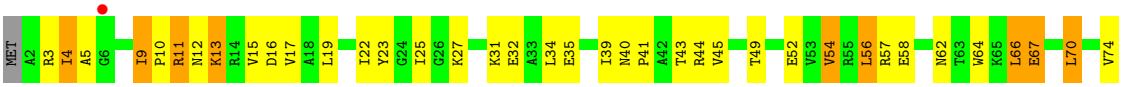


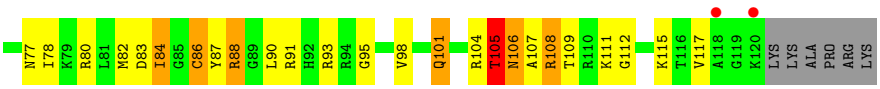


• Molecule 13: 30S ribosomal protein S13

Chain 4I:

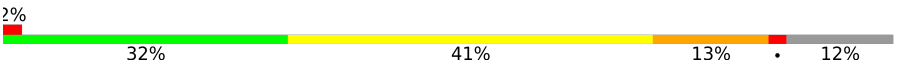


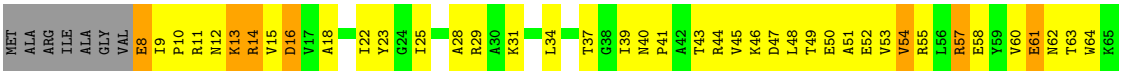


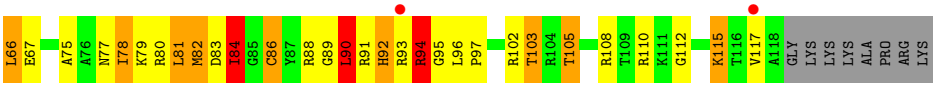


• Molecule 13: 30S ribosomal protein S13

Chain 4A:

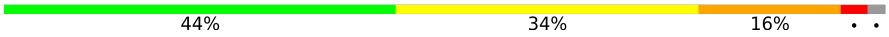






• Molecule 14: 30S ribosomal protein S14 type Z

Chain 5I:

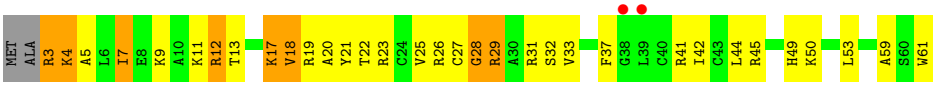




• Molecule 14: 30S ribosomal protein S14 type Z

Chain 5A:

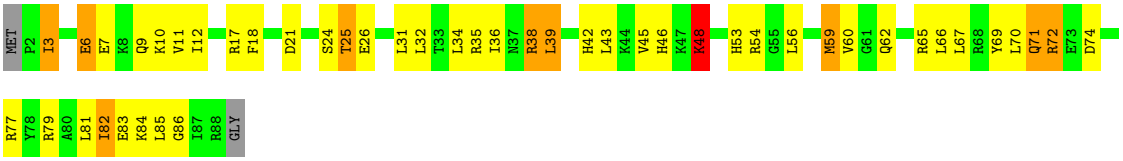




• Molecule 15: 30S ribosomal protein S15

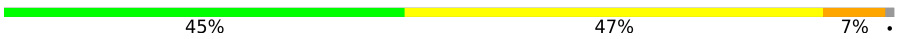
Chain 6I:

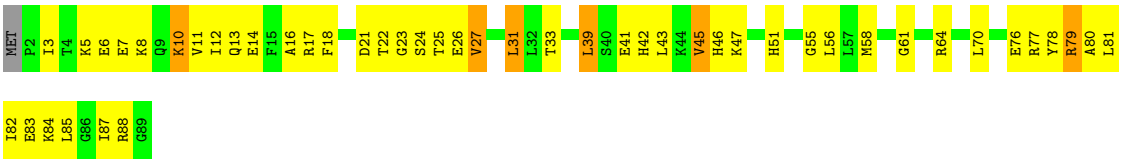




• Molecule 15: 30S ribosomal protein S15

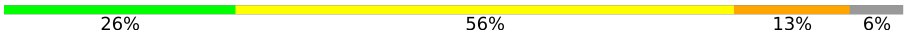
Chain 6A:

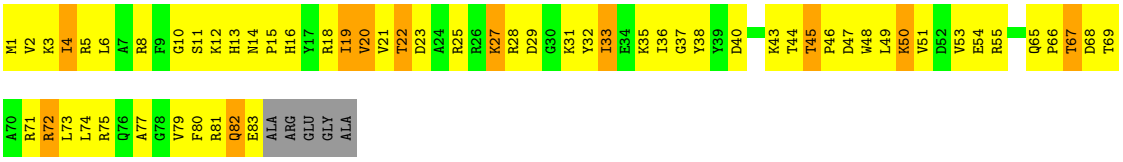




• Molecule 16: 30S ribosomal protein S16

Chain 7I:

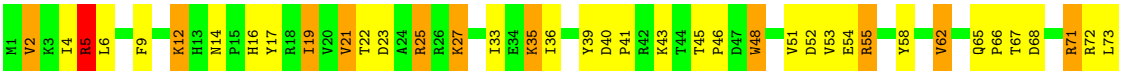


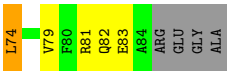


• Molecule 16: 30S ribosomal protein S16

Chain 7A:



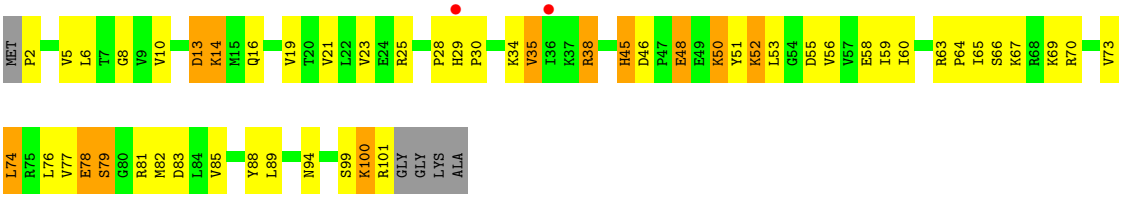




• Molecule 17: 30S ribosomal protein S17

Chain 8I:

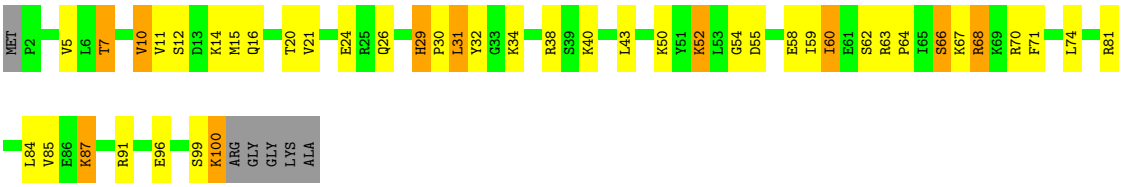




• Molecule 17: 30S ribosomal protein S17

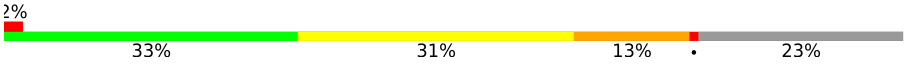
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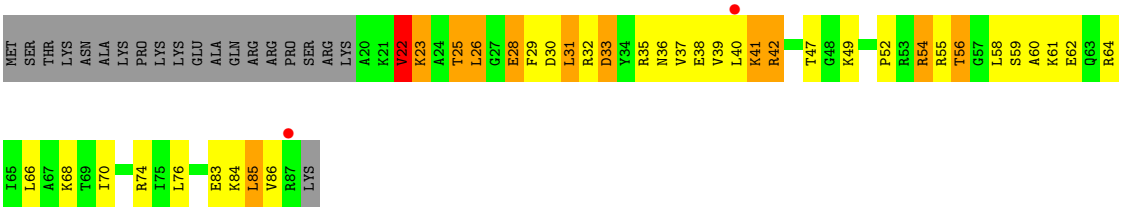




• Molecule 18: 30S ribosomal protein S18

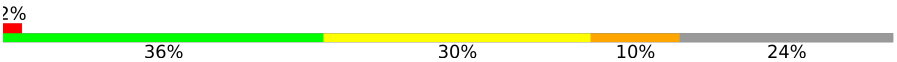
Chain 9I:

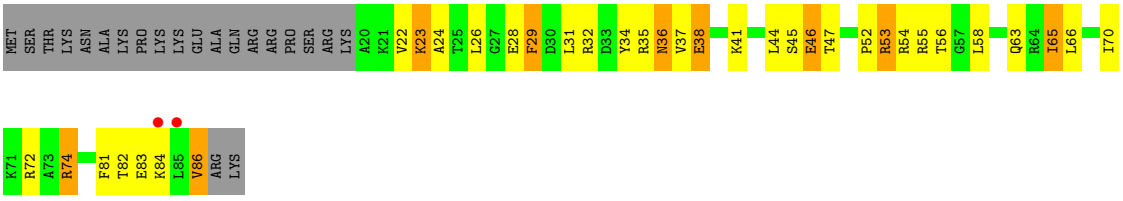




• Molecule 18: 30S ribosomal protein S18

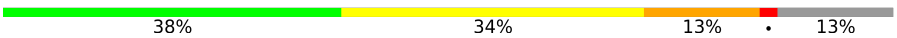
Chain 9A:

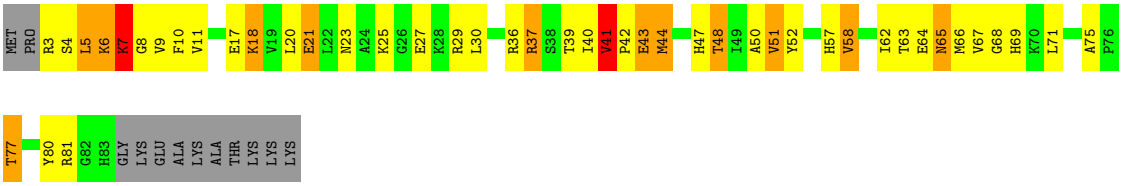




• Molecule 19: 30S ribosomal protein S19

Chain AI:

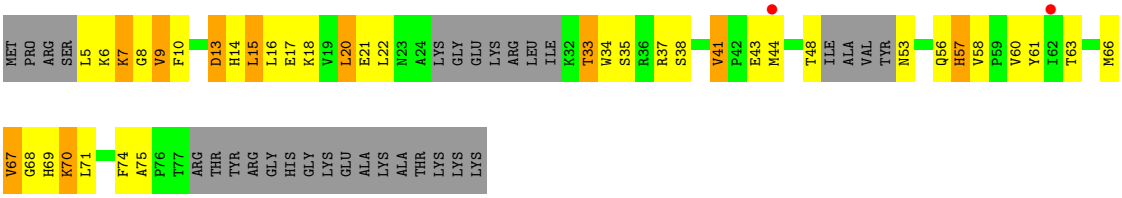




• Molecule 19: 30S ribosomal protein S19

Chain AA:

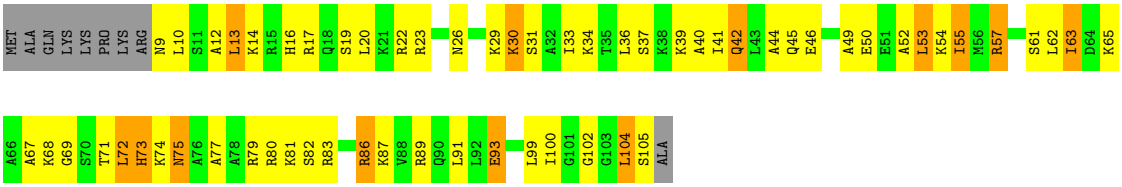




• Molecule 20: 30S ribosomal protein S20

Chain BI:

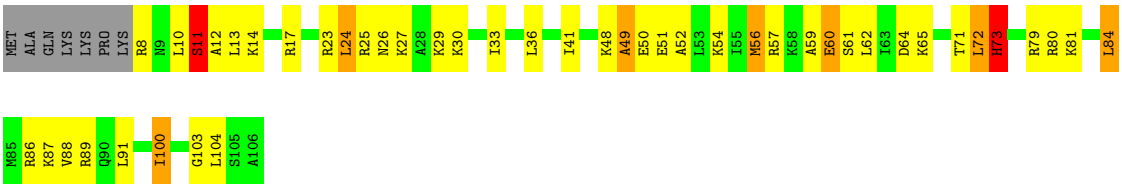




• Molecule 20: 30S ribosomal protein S20

Chain BA:

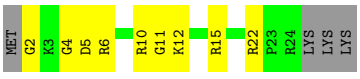




• Molecule 21: 30S ribosomal protein Thx

Chain 1F:





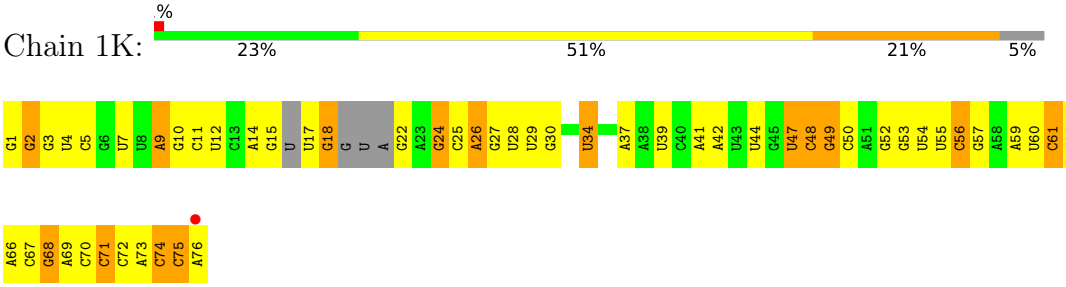
• Molecule 21: 30S ribosomal protein Thx

Chain 1B:

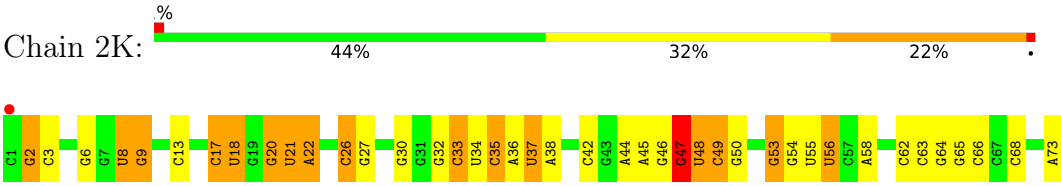




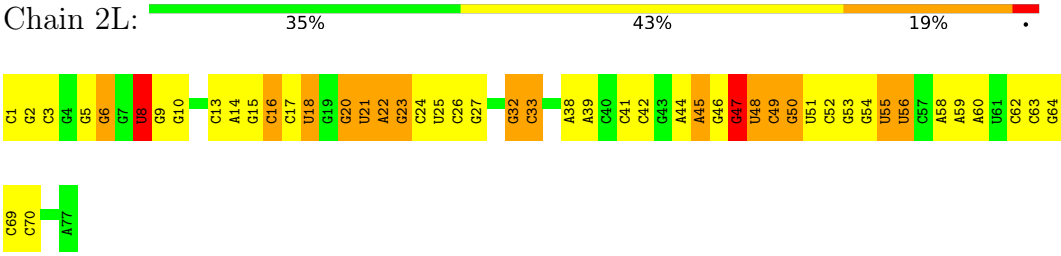
• Molecule 22: tRNALys



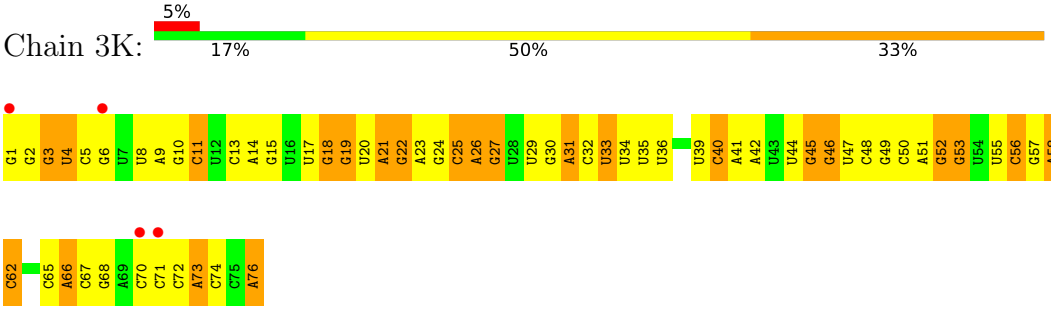
• Molecule 23: tRNAfMet



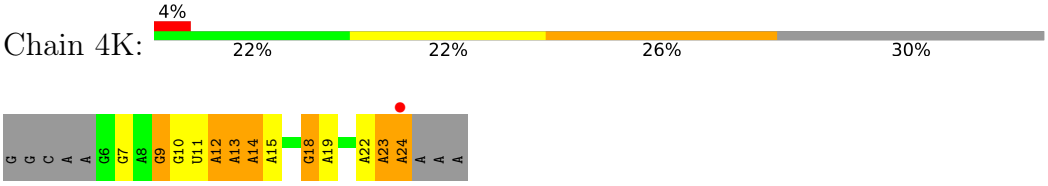
• Molecule 23: tRNAfMet



• Molecule 24: tRNALys

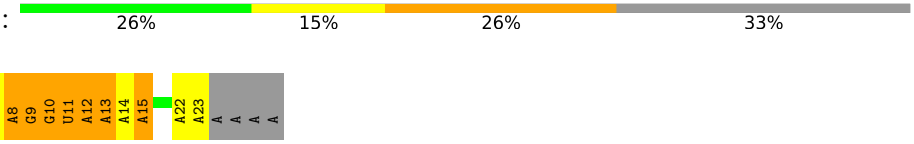


• Molecule 25: mRNA



• Molecule 25: mRNA

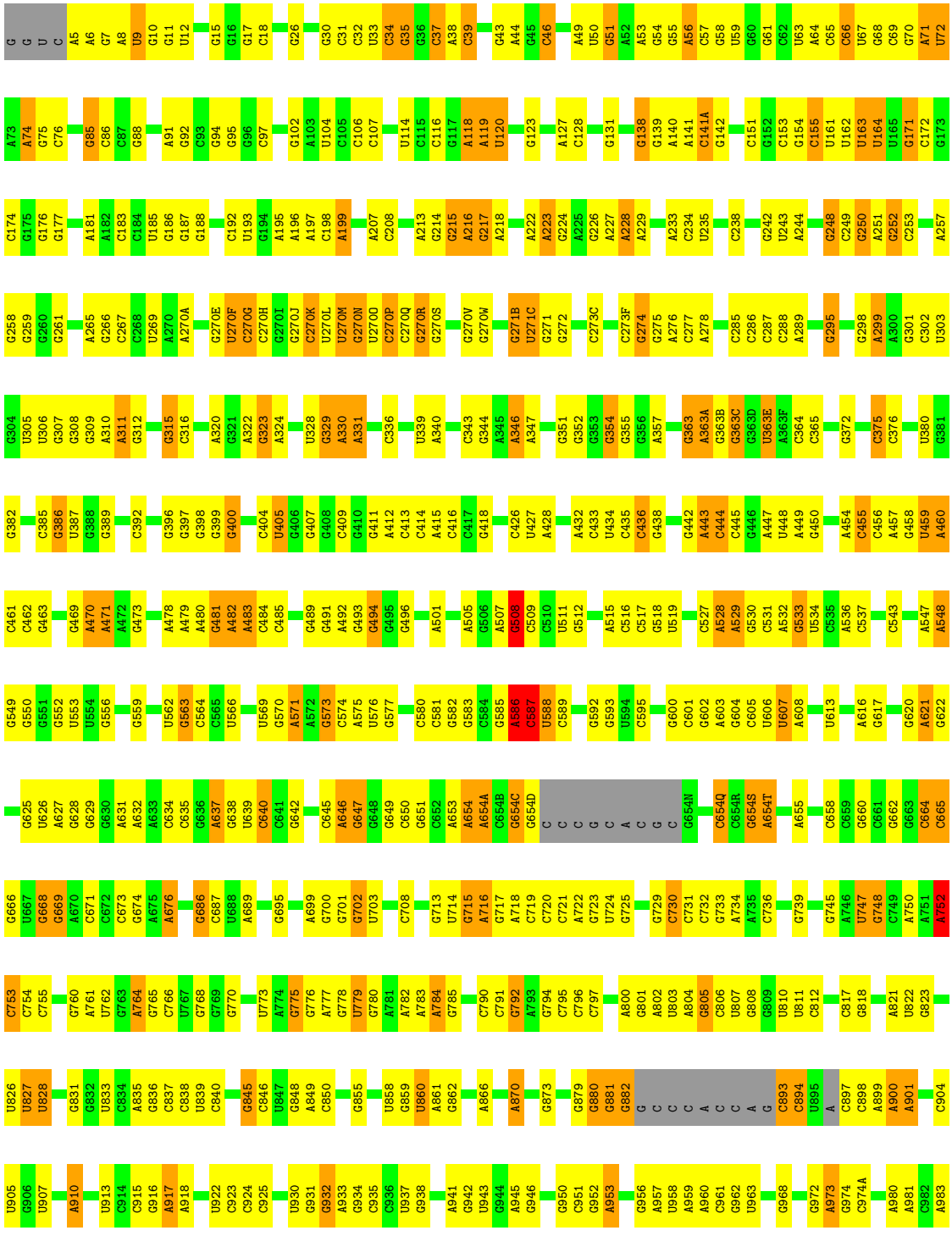
Chain 4L:

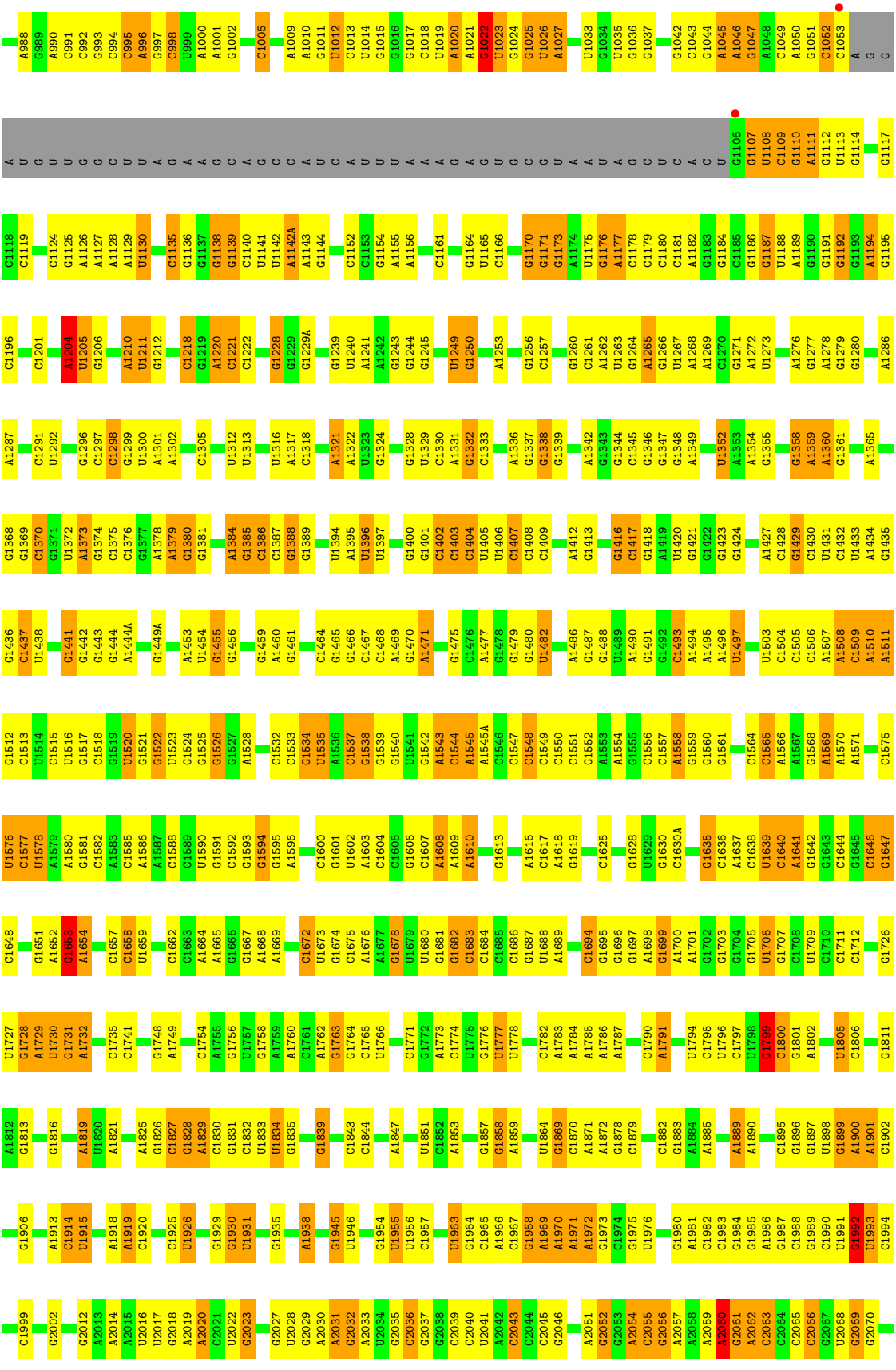


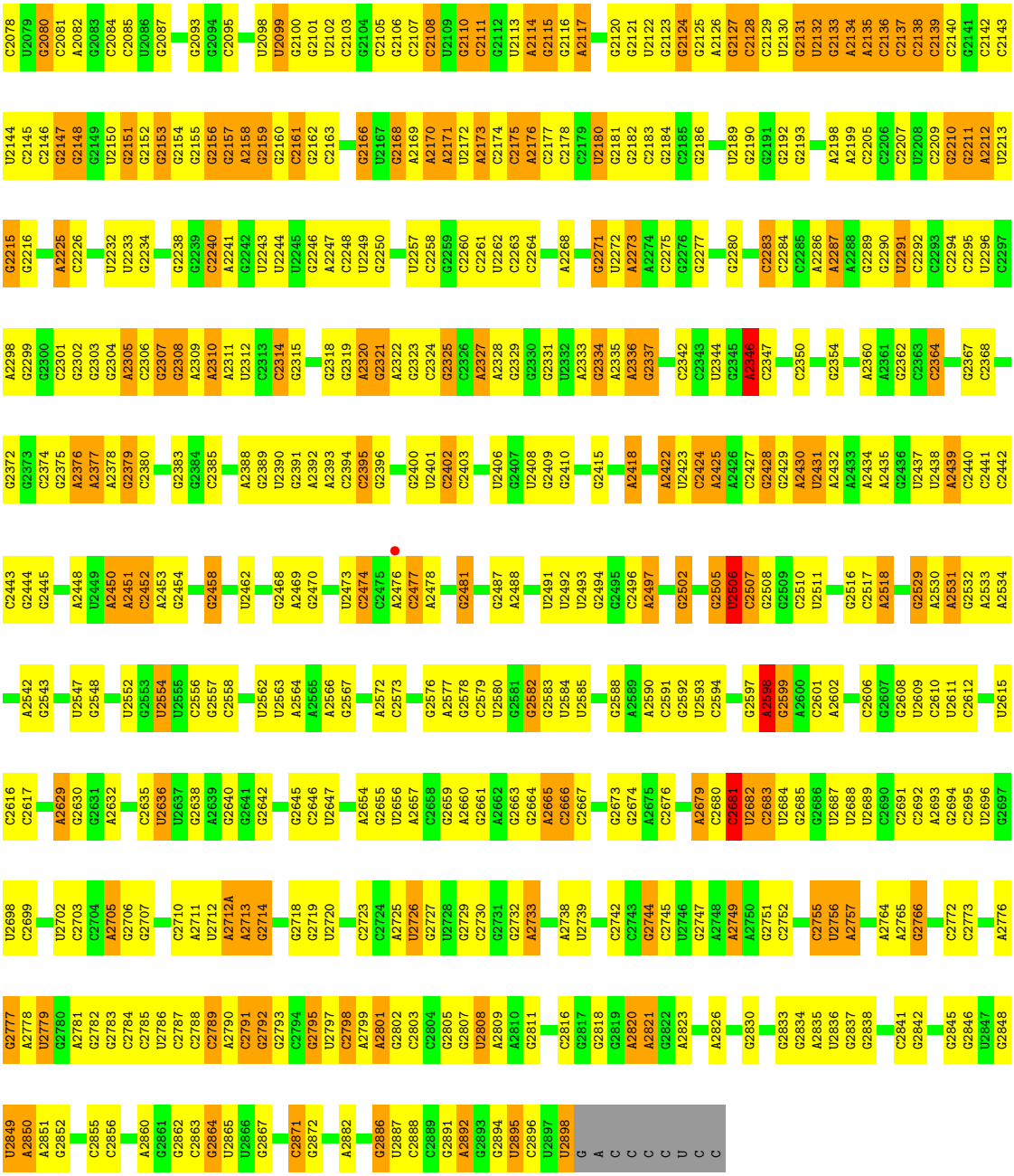
• Molecule 26: 23S rRNA

Chain 1H:





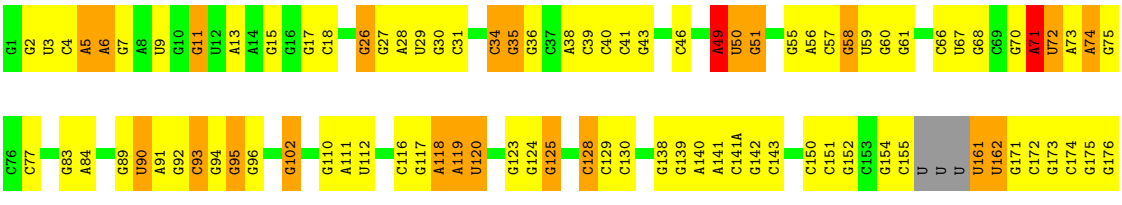


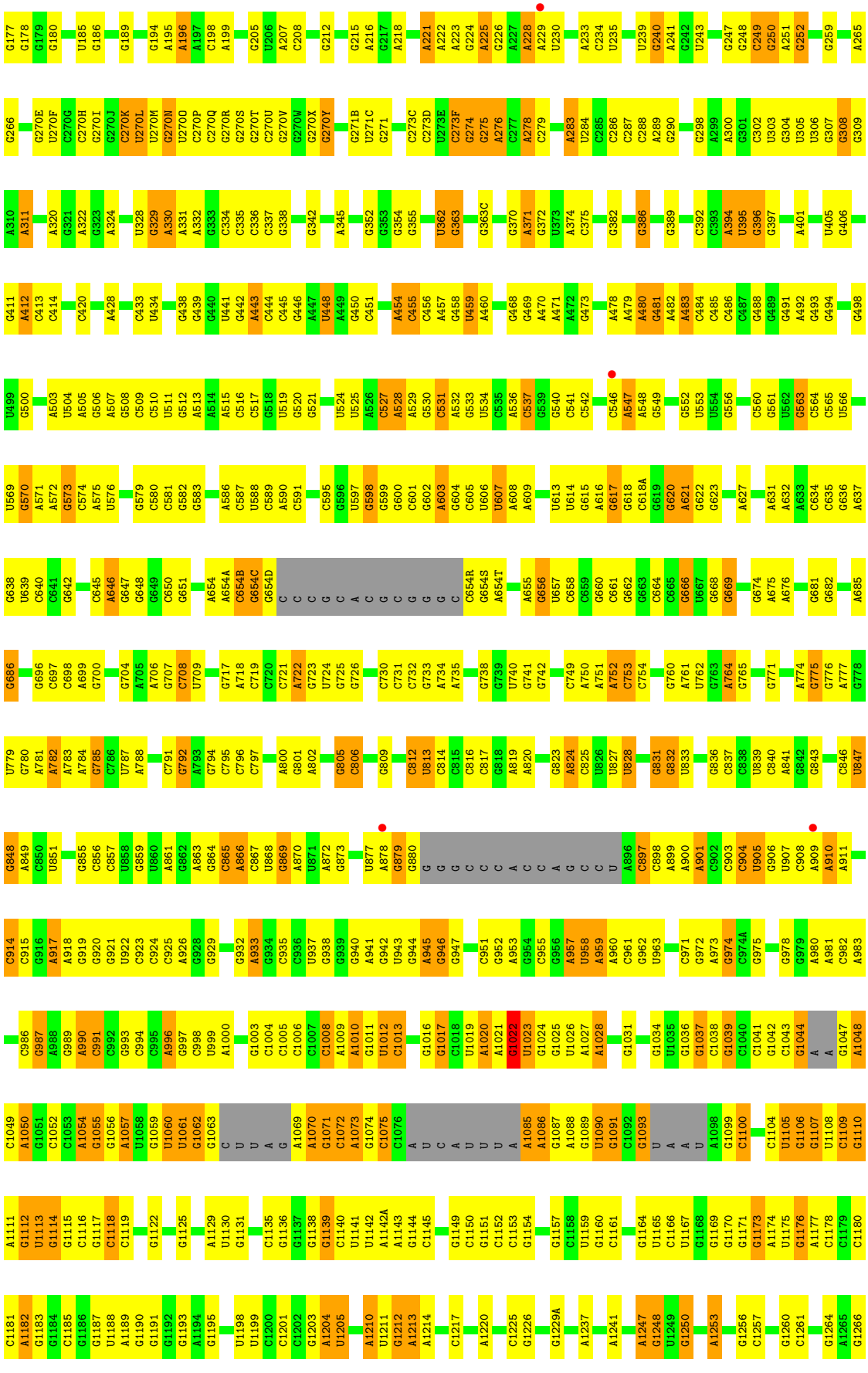


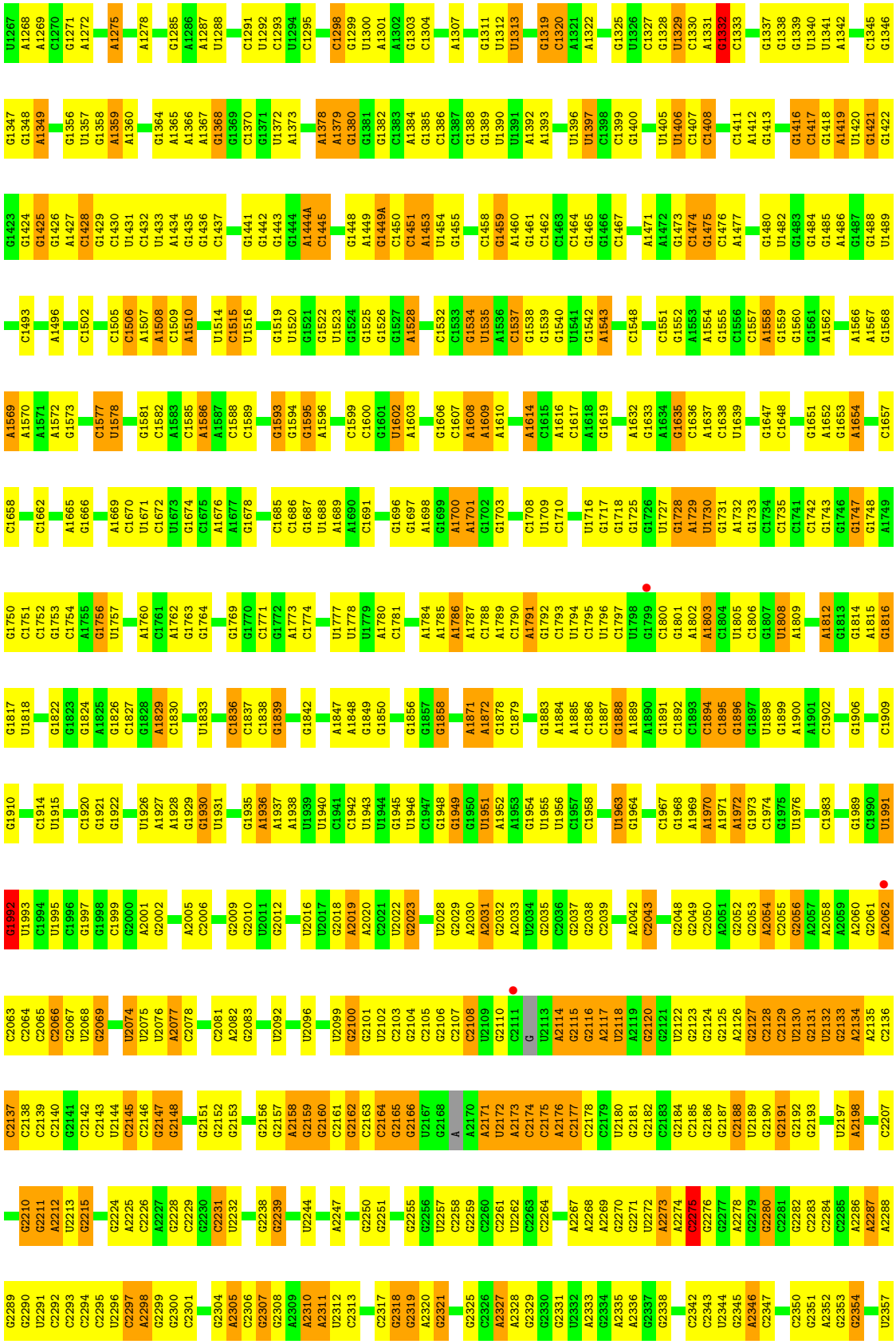
• Molecule 26: 23S rRNA

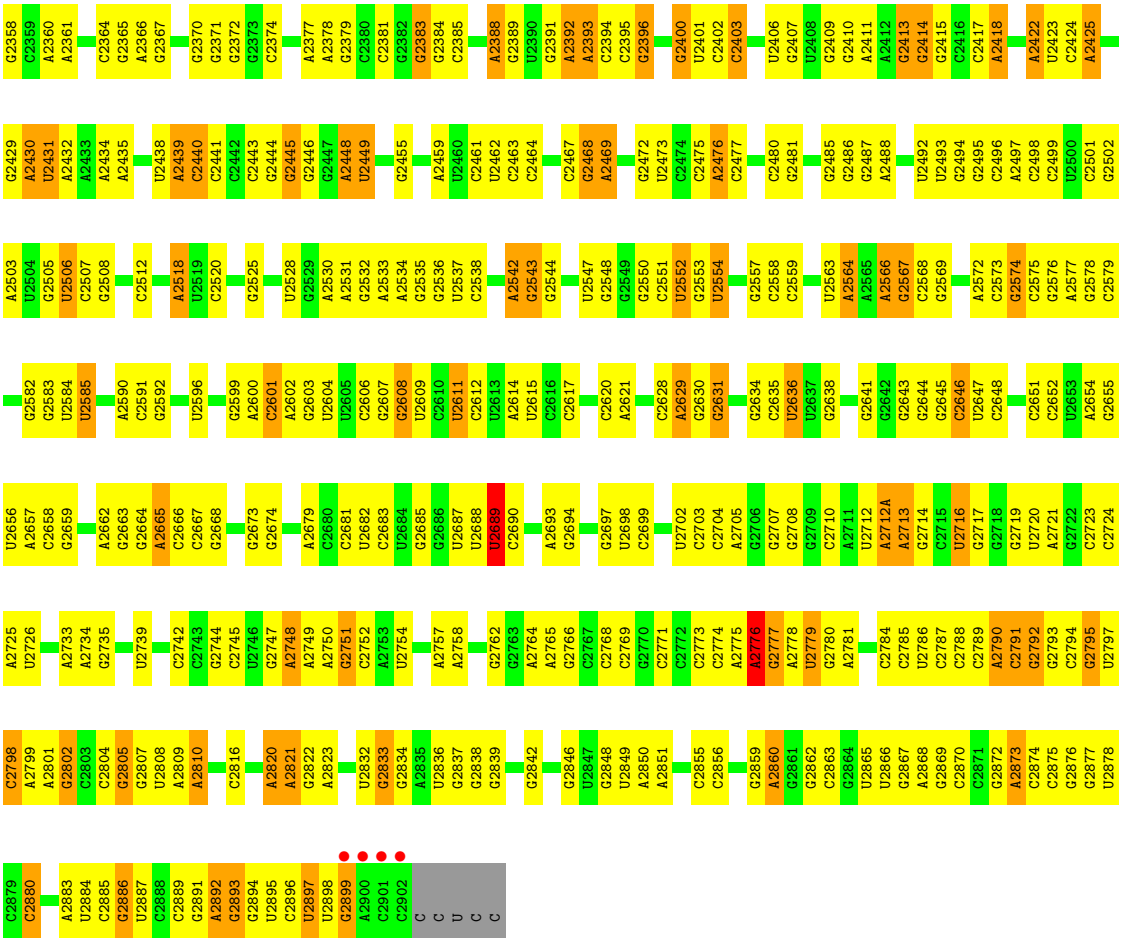
Chain 14:







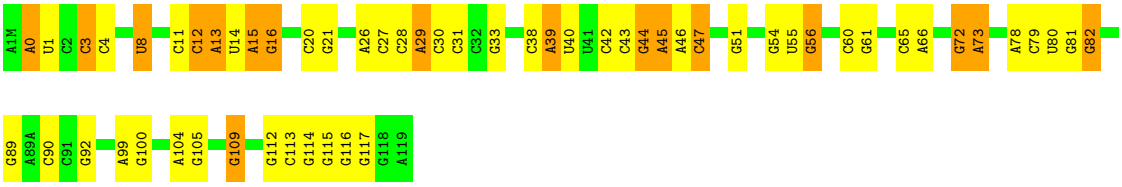

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• Molecule 27: 5S rRNA

Chain 16:

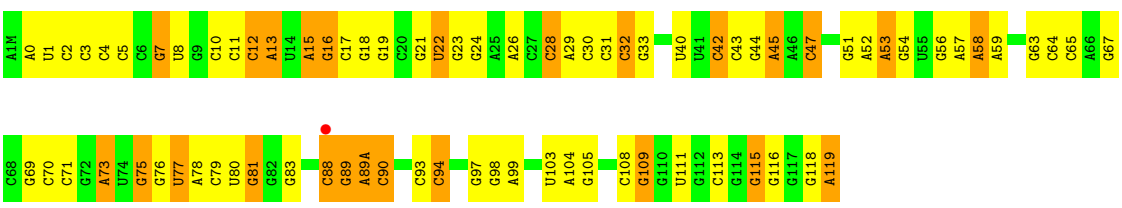




• Molecule 27: 5S rRNA

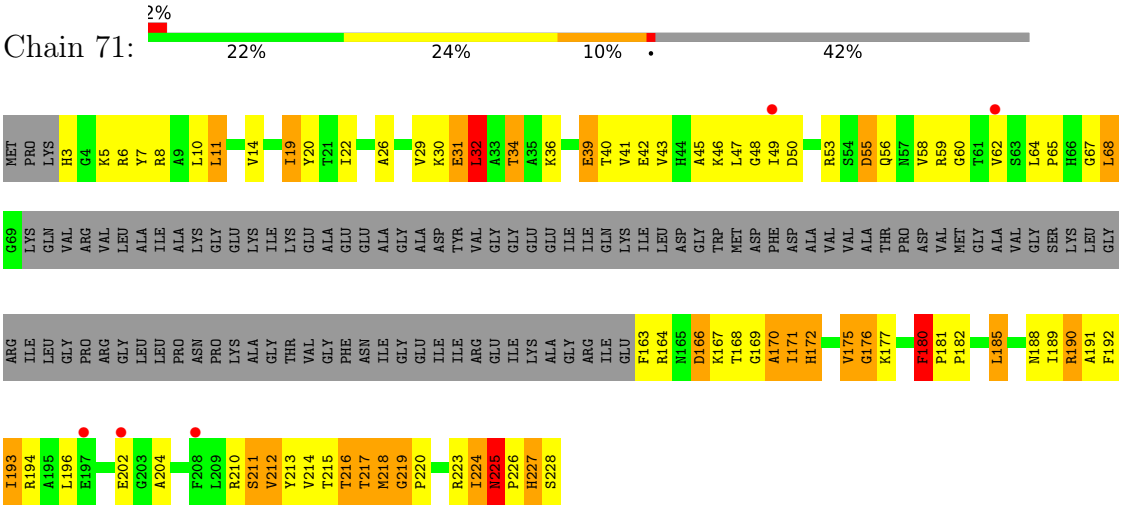
Chain 1J:





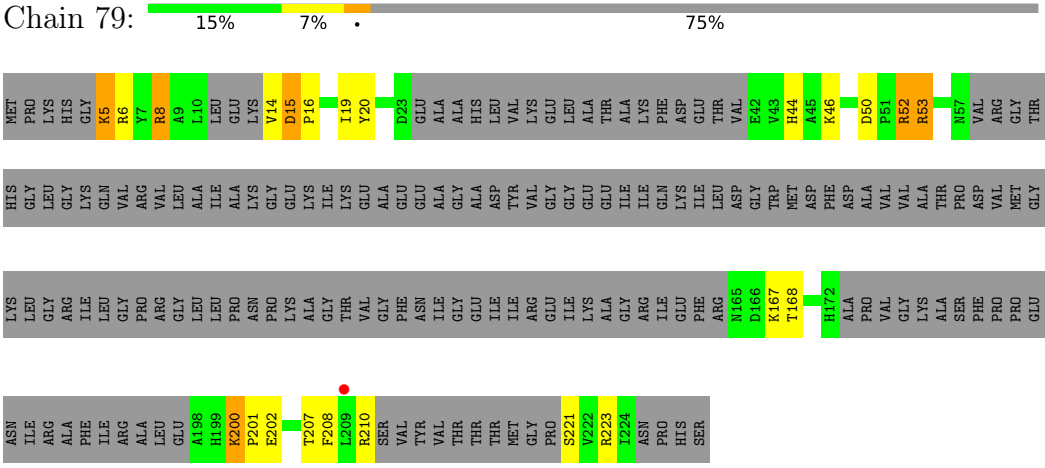
• Molecule 28: 50S ribosomal protein L1

Chain 71:



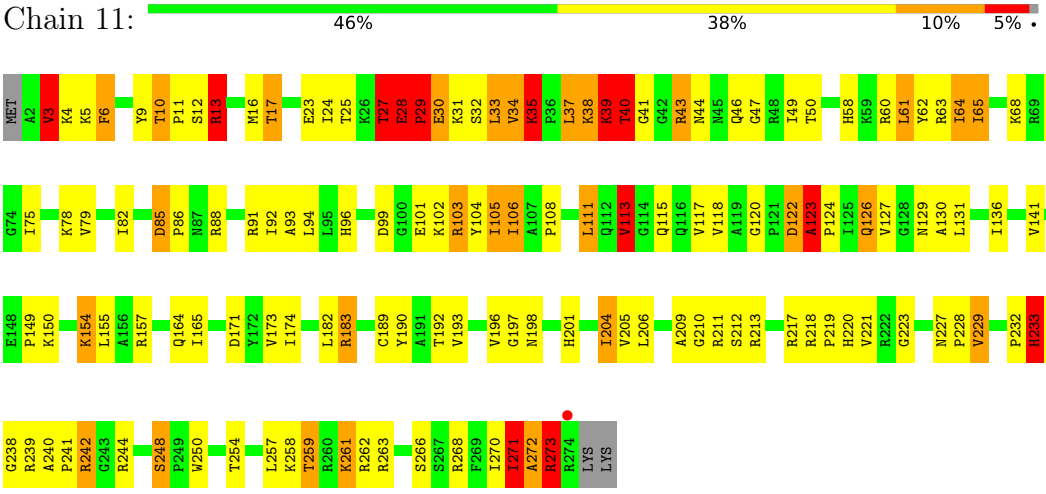
• Molecule 28: 50S ribosomal protein L1

Chain 79:



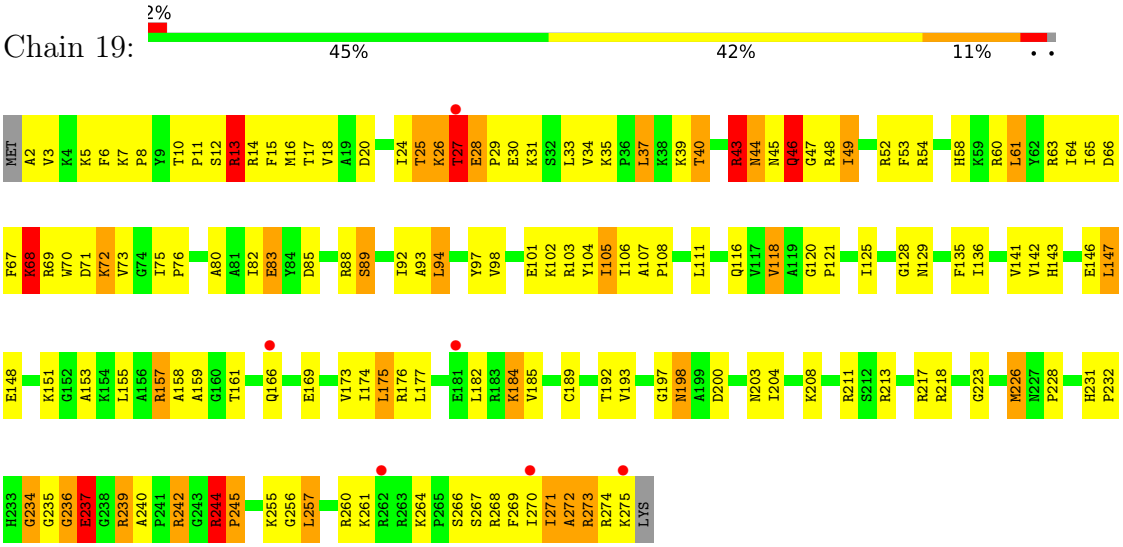
• Molecule 29: 50S ribosomal protein L2

Chain 11:



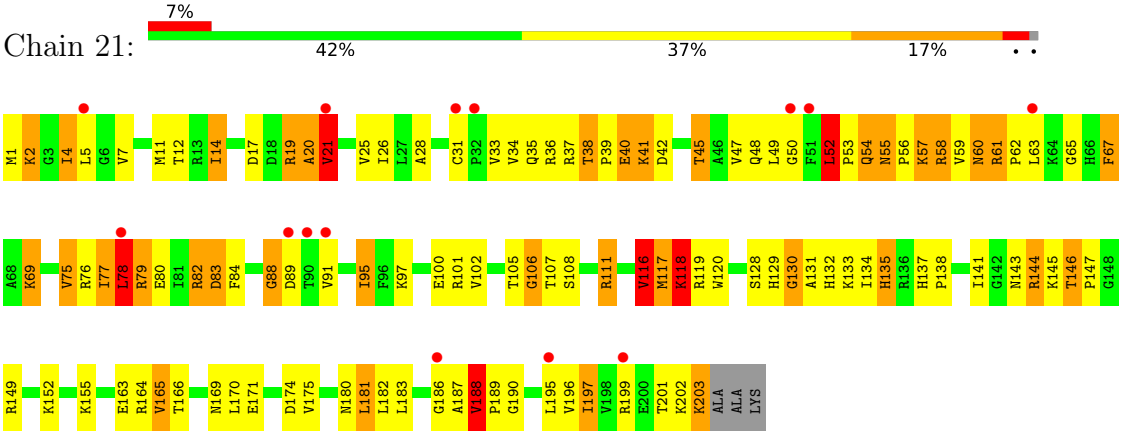
• Molecule 29: 50S ribosomal protein L2

Chain 19:



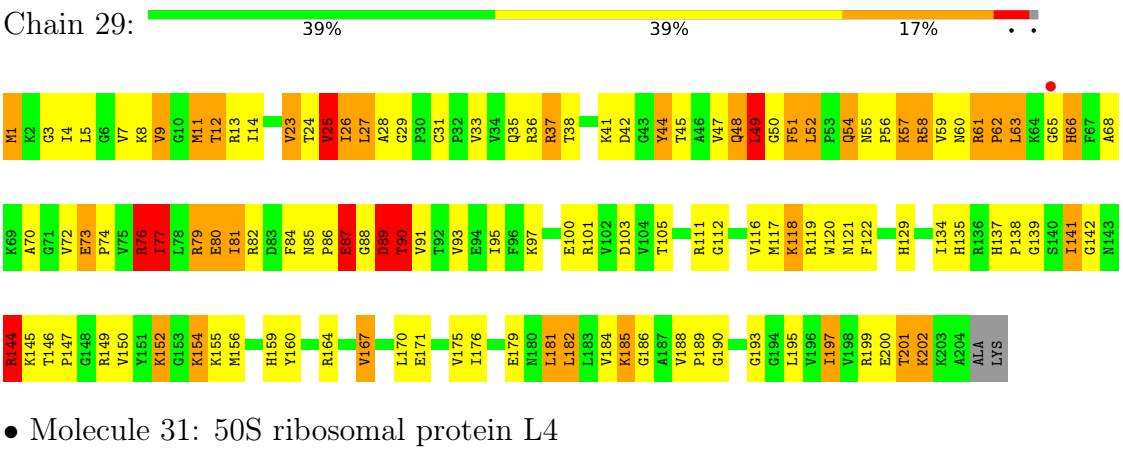
• Molecule 30: 50S ribosomal protein L3

Chain 21:



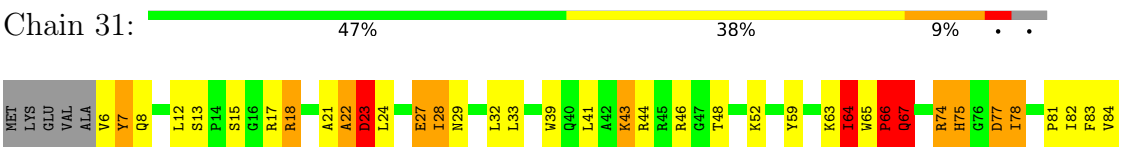
• Molecule 30: 50S ribosomal protein L3

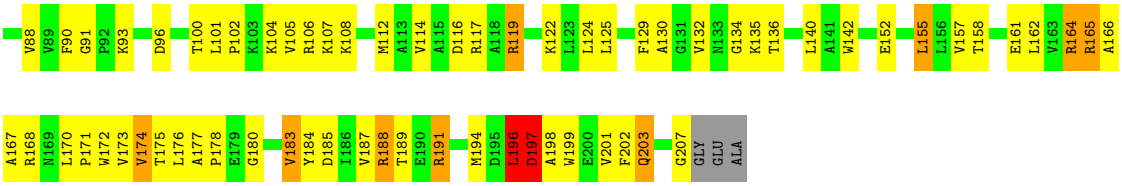
Chain 29:



• Molecule 31: 50S ribosomal protein L4

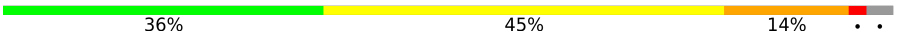
Chain 31:

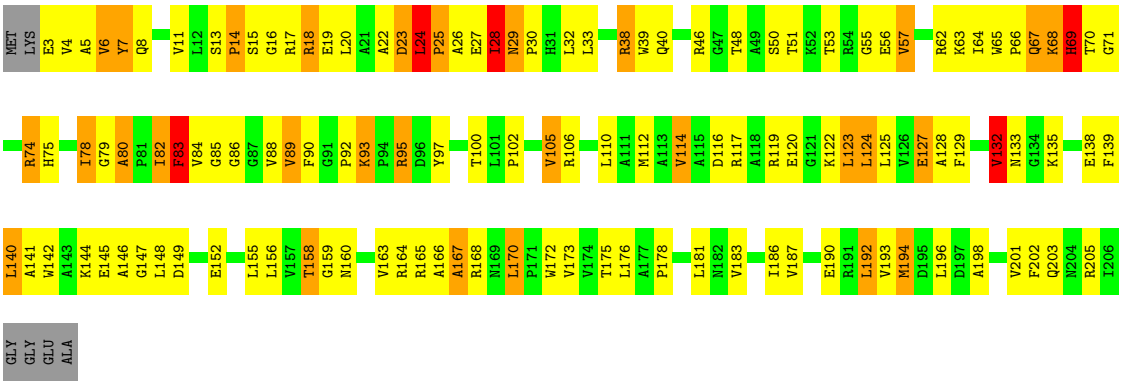




• Molecule 31: 50S ribosomal protein L4

Chain 39:

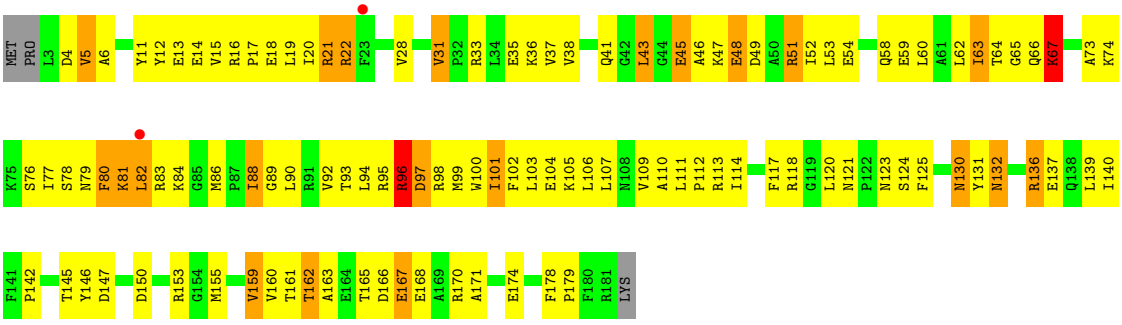




• Molecule 32: 50S ribosomal protein L5

Chain 41:

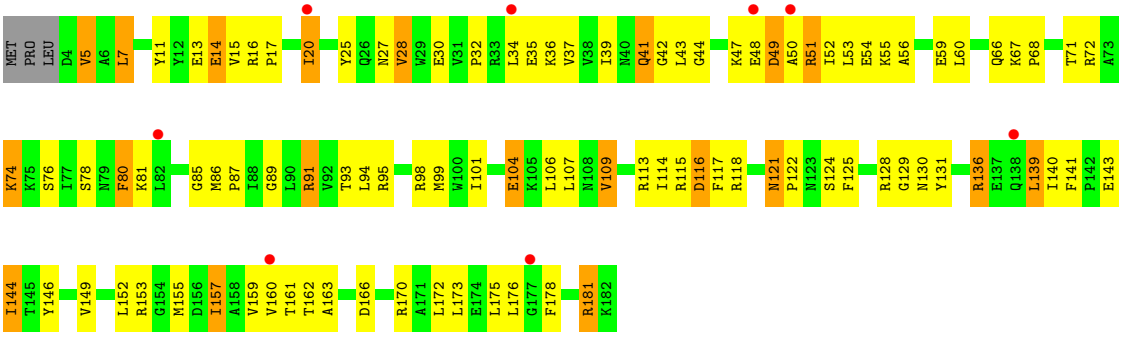




• Molecule 32: 50S ribosomal protein L5

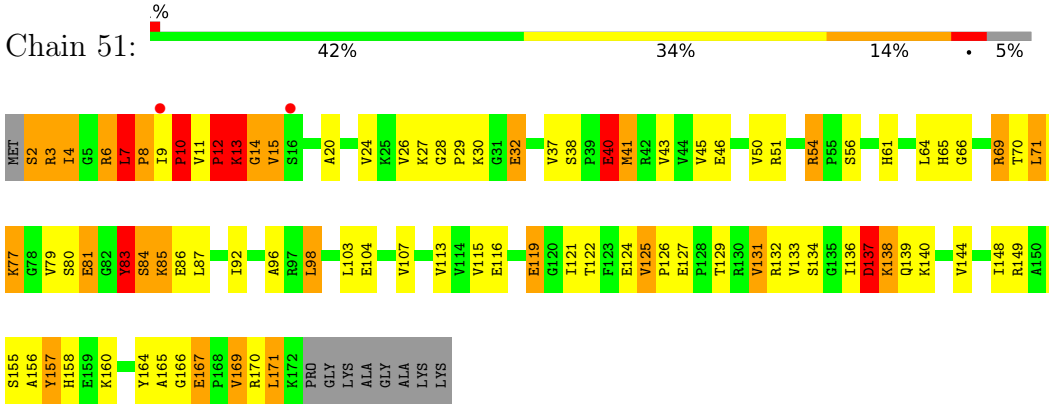
Chain 49:





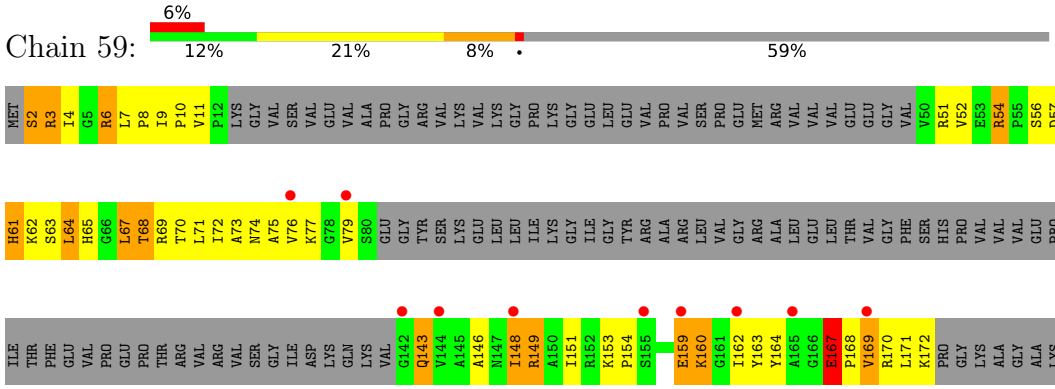
• Molecule 33: 50S ribosomal protein L6

Chain 51:



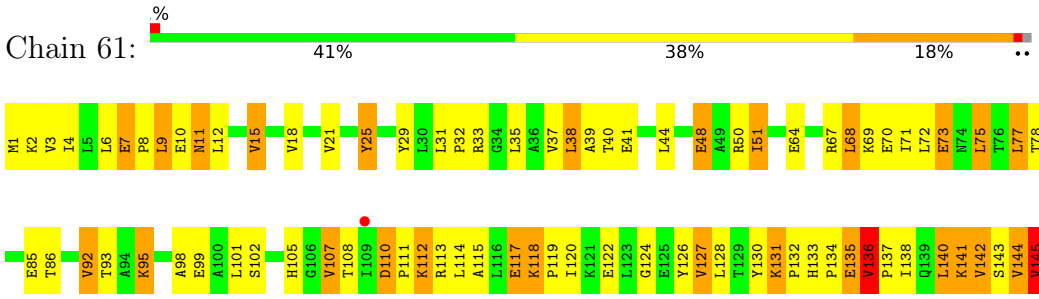
• Molecule 33: 50S ribosomal protein L6

Chain 59:



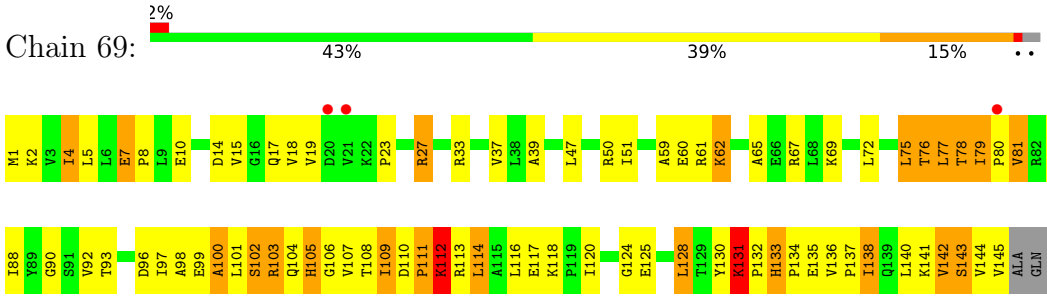
• Molecule 34: 50S ribosomal protein L9

Chain 61:



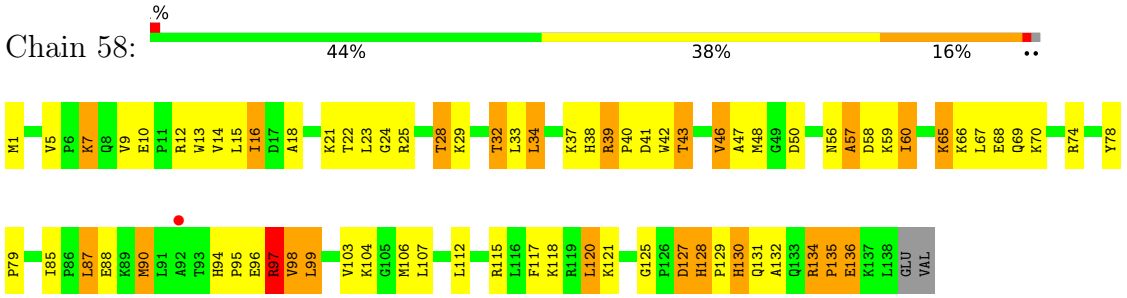
• Molecule 34: 50S ribosomal protein L9

Chain 69:



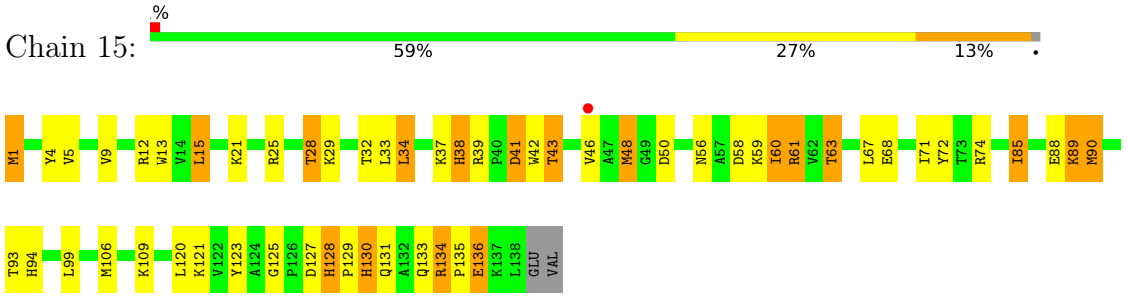
• Molecule 35: 50S ribosomal protein L13

Chain 58:



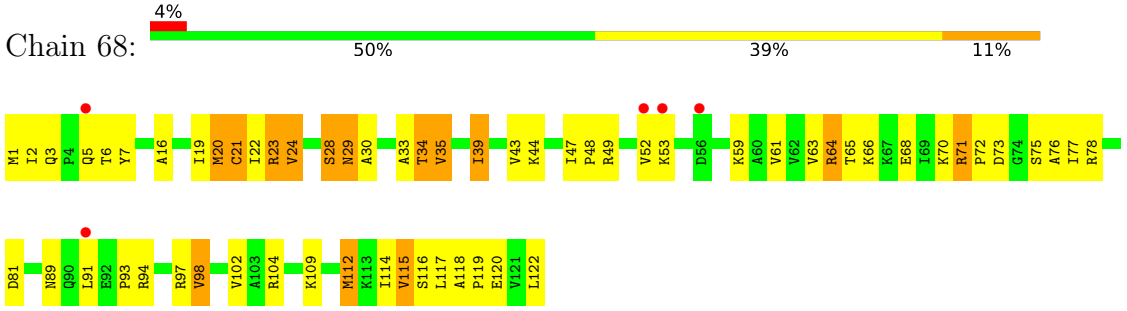
• Molecule 35: 50S ribosomal protein L13

Chain 15:



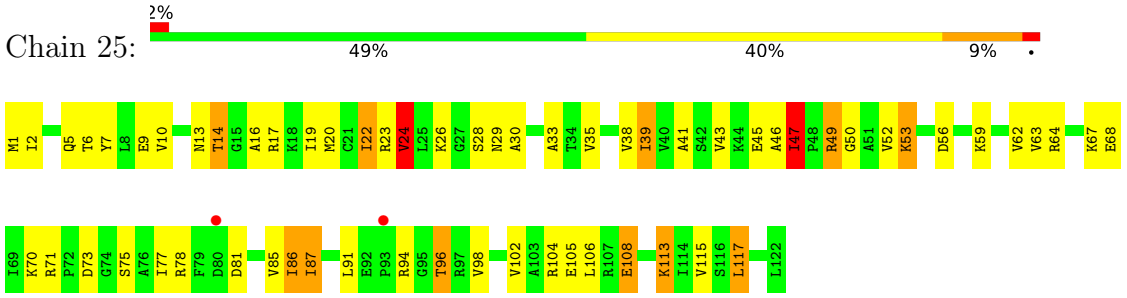
• Molecule 36: 50S ribosomal protein L14

Chain 68:



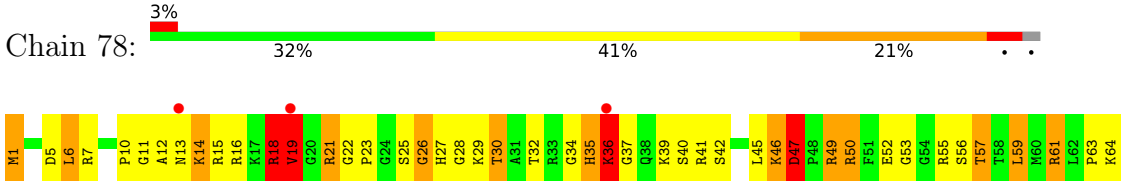
• Molecule 36: 50S ribosomal protein L14

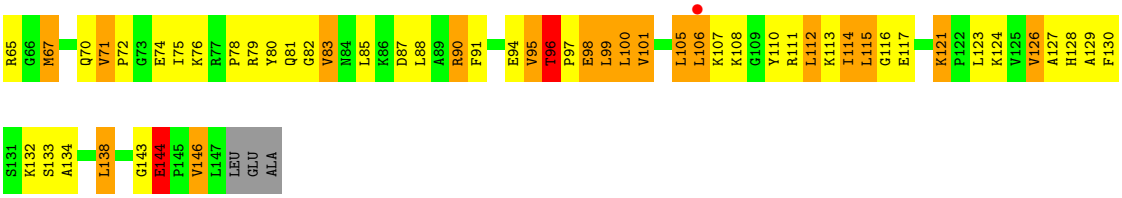
Chain 25:



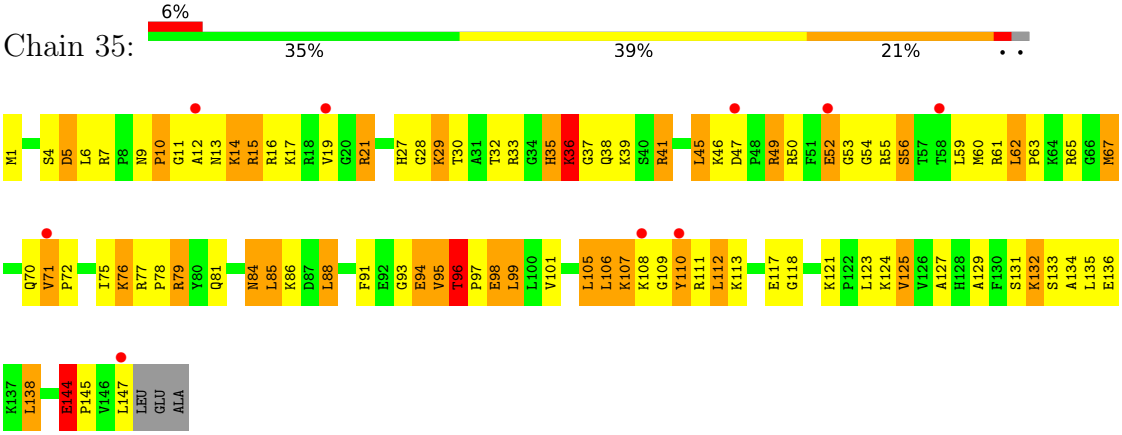
• Molecule 37: 50S ribosomal protein L15

Chain 78:

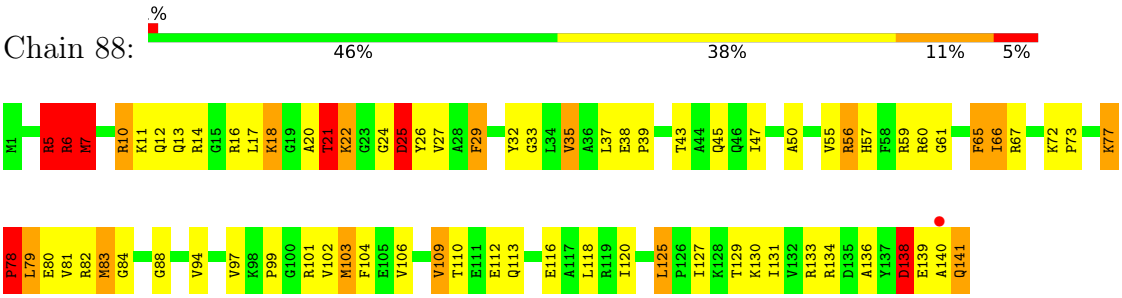




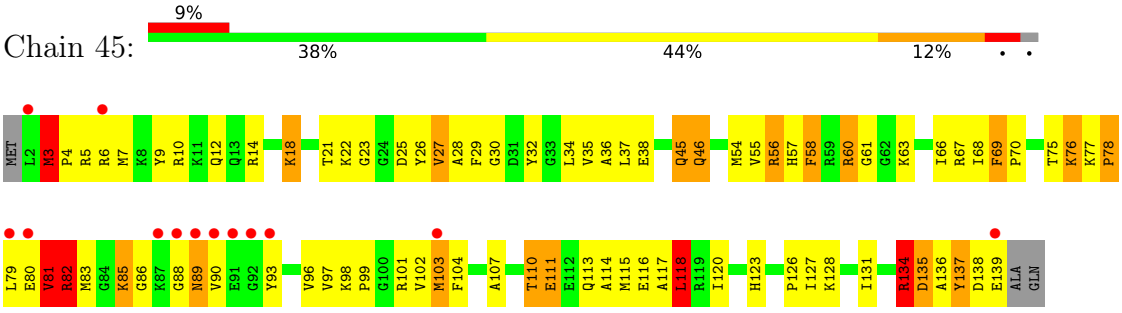
• Molecule 37: 50S ribosomal protein L15



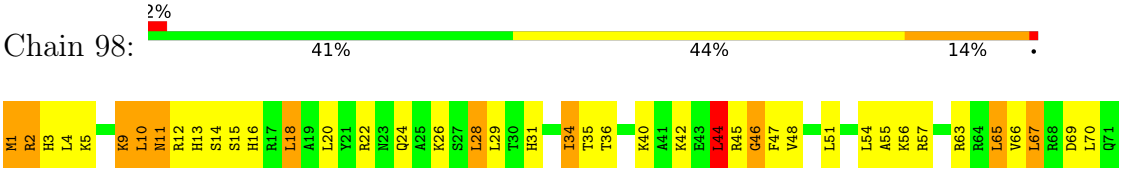
• Molecule 38: 50S ribosomal protein L16

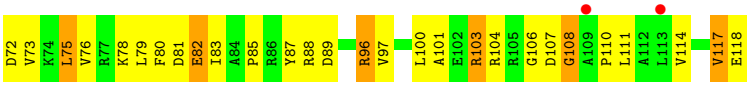


• Molecule 38: 50S ribosomal protein L16



• Molecule 39: 50S ribosomal protein L17

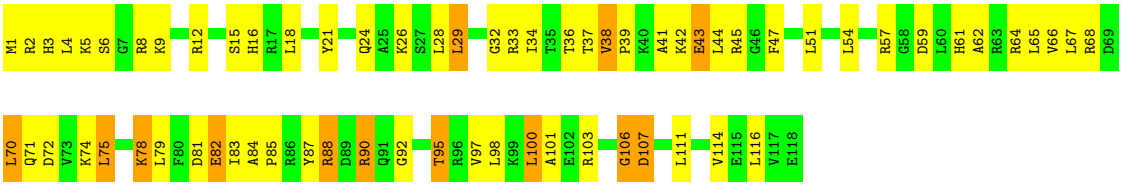




• Molecule 39: 50S ribosomal protein L17

Chain 55:

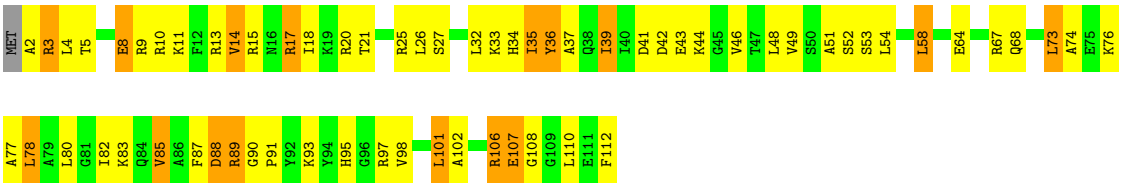




• Molecule 40: 50S ribosomal protein L18

Chain A8:

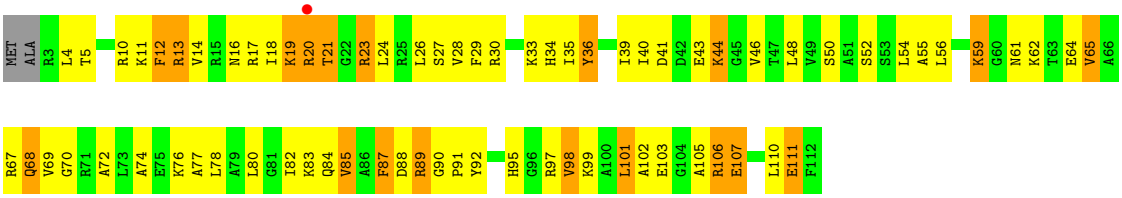




• Molecule 40: 50S ribosomal protein L18

Chain 65:

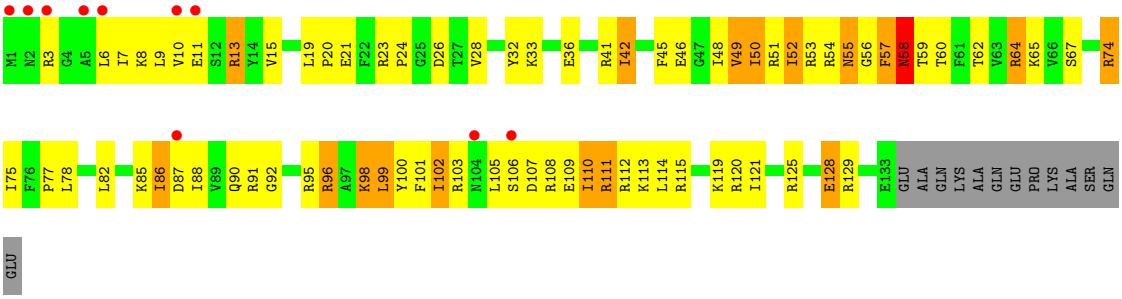




• Molecule 41: 50S ribosomal protein L19

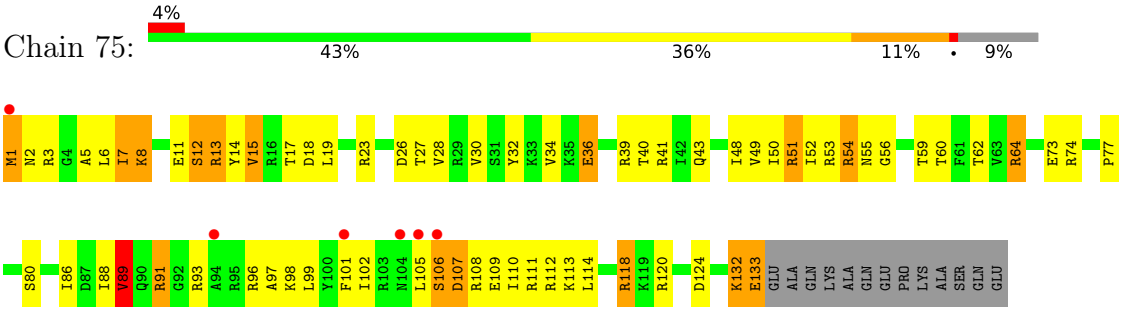
Chain B8:





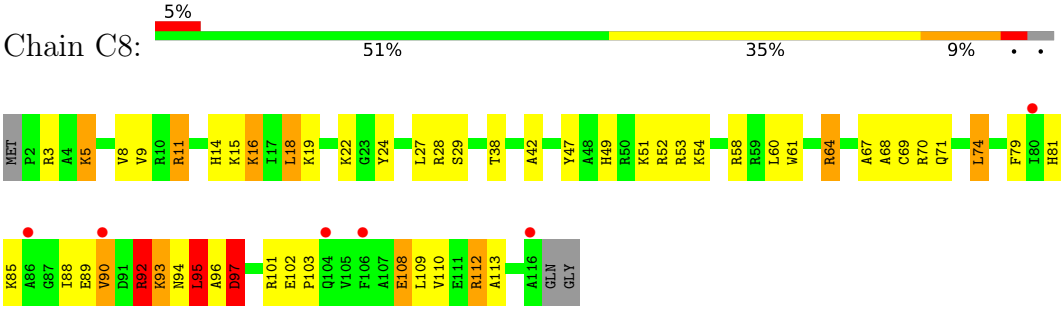
• Molecule 41: 50S ribosomal protein L19

Chain 75:



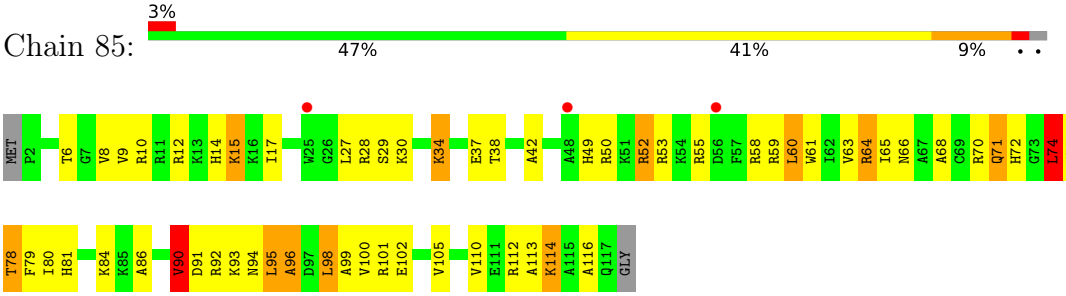
• Molecule 42: 50S ribosomal protein L20

Chain C8:



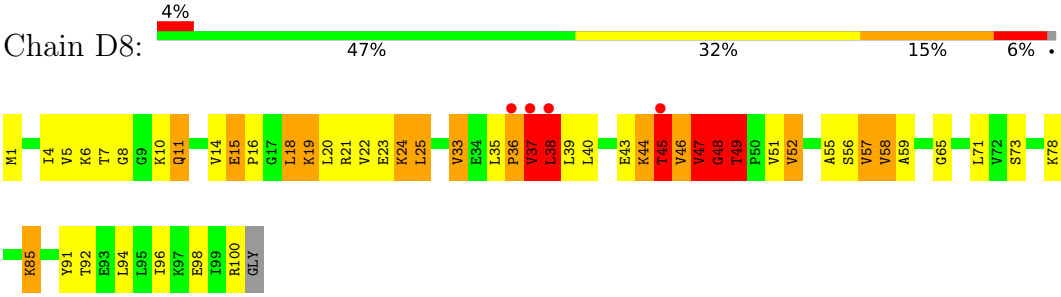
• Molecule 42: 50S ribosomal protein L20

Chain 85:



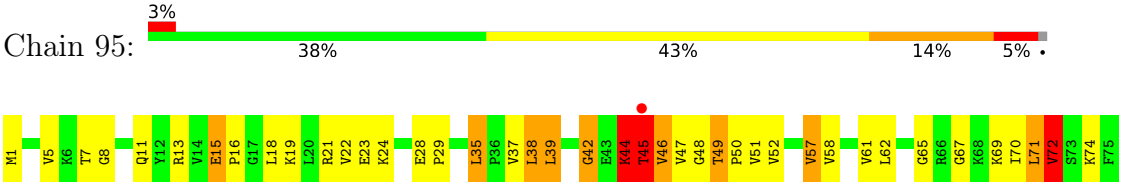
• Molecule 43: 50S ribosomal protein L21

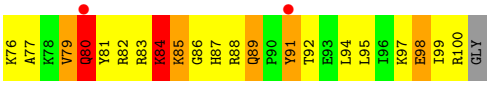
Chain D8:



• Molecule 43: 50S ribosomal protein L21

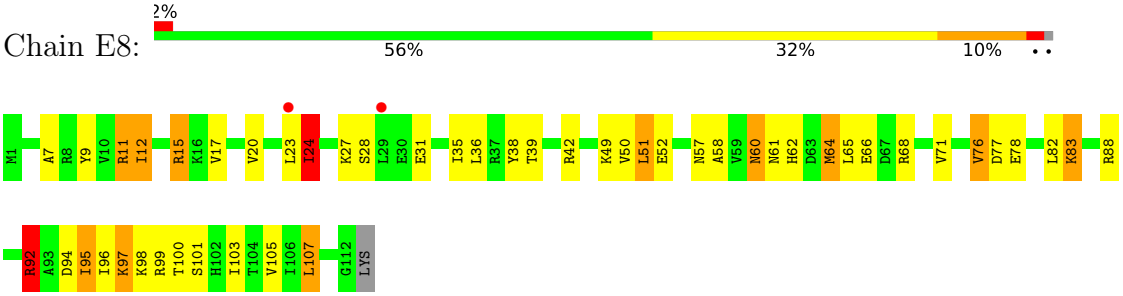
Chain 95:





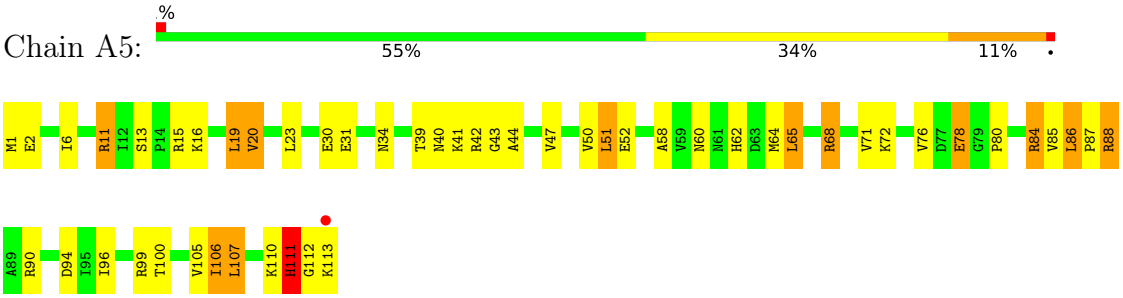
• Molecule 44: 50S ribosomal protein L22

Chain E8:



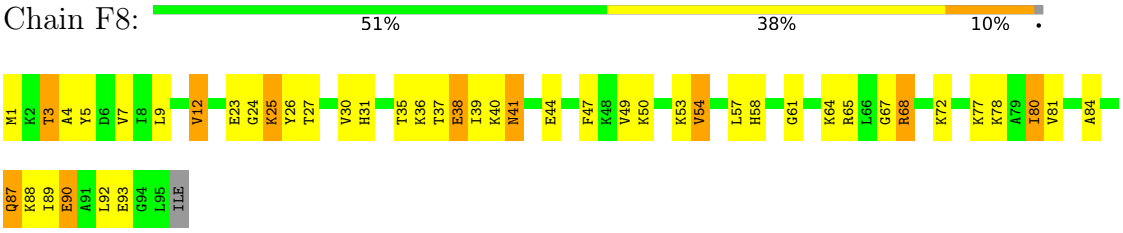
• Molecule 44: 50S ribosomal protein L22

Chain A5:



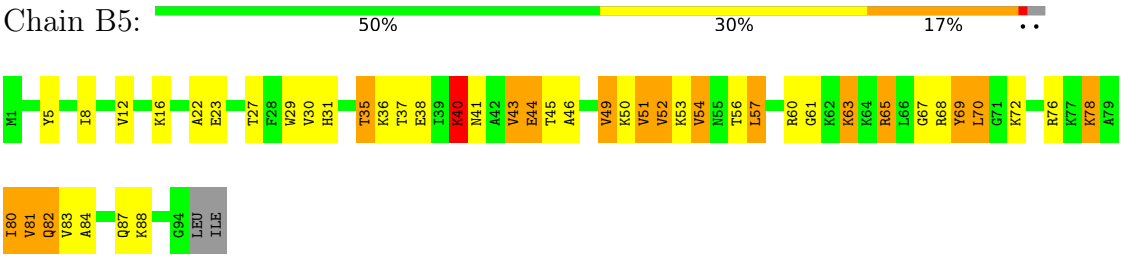
• Molecule 45: 50S ribosomal protein L23

Chain F8:



• Molecule 45: 50S ribosomal protein L23

Chain B5:



• Molecule 46: 50S ribosomal protein L24

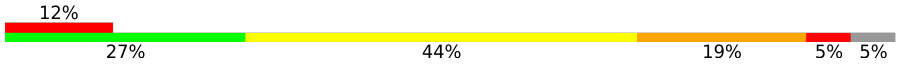
Chain G8:

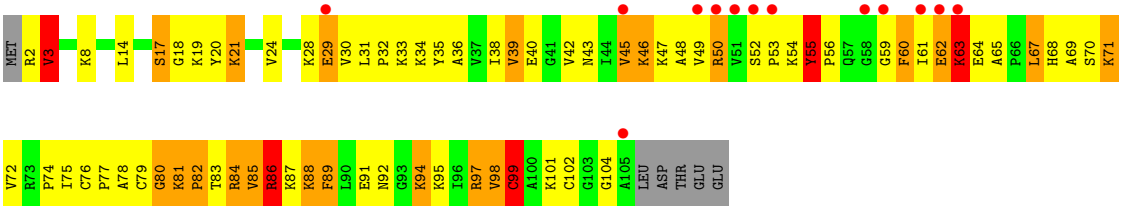




• Molecule 46: 50S ribosomal protein L24

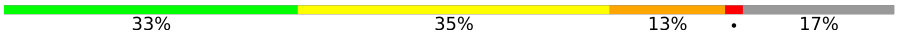
Chain C5:

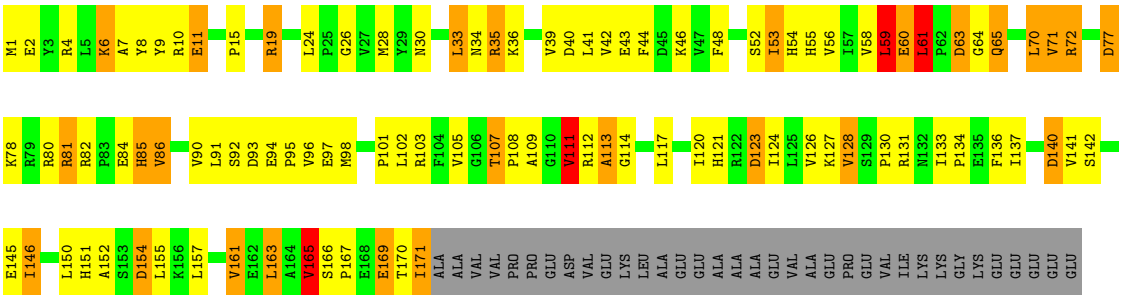




• Molecule 47: 50S ribosomal protein L25

Chain H8:

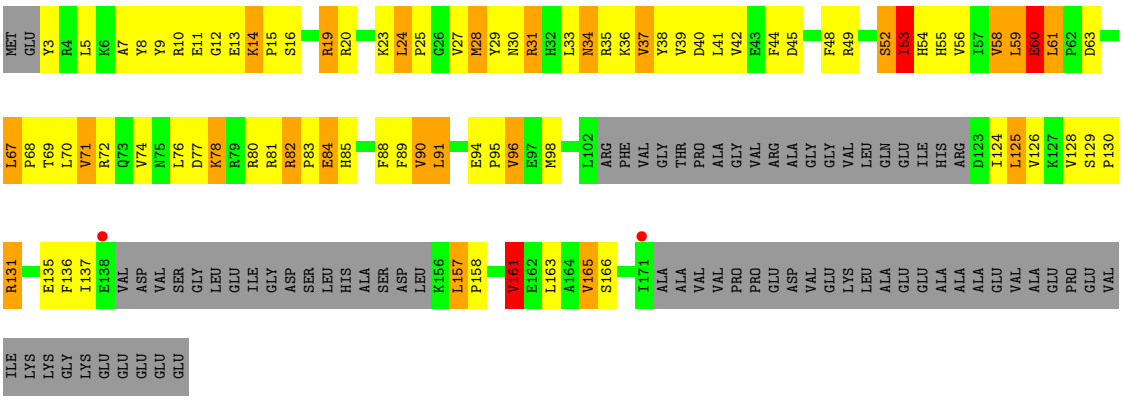




• Molecule 47: 50S ribosomal protein L25

Chain D5:

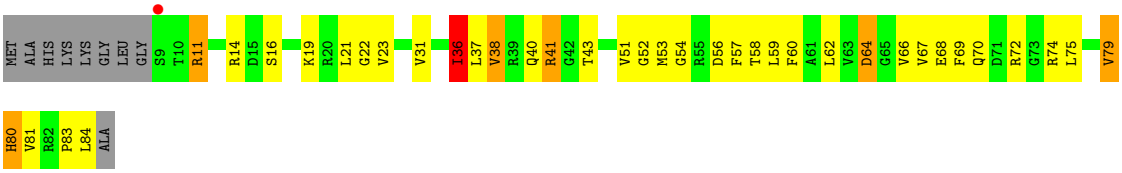




• Molecule 48: 50S ribosomal protein L27

Chain I8:

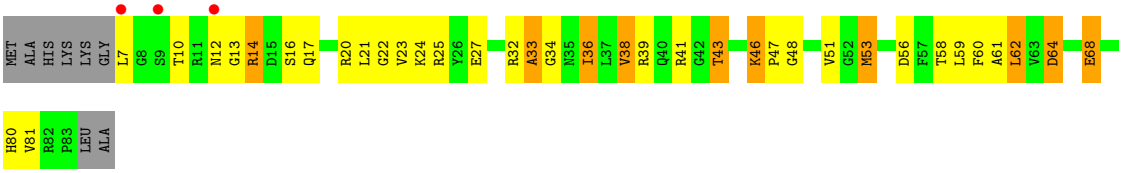




• Molecule 48: 50S ribosomal protein L27

Chain E5:

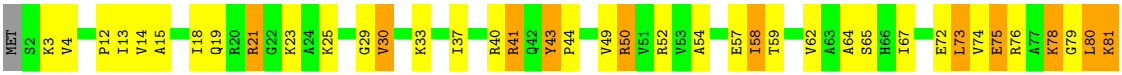


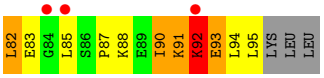


• Molecule 49: 50S ribosomal protein L28

Chain J8:







• Molecule 49: 50S ribosomal protein L28

Chain F5:



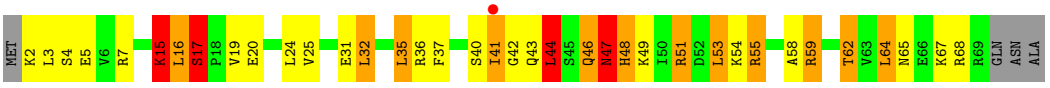




• Molecule 50: 50S ribosomal protein L29

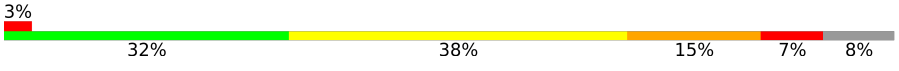
Chain K8:

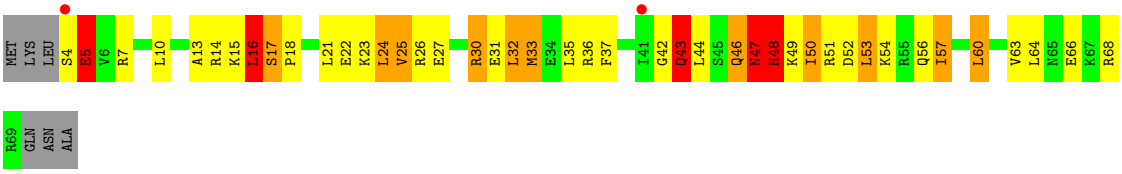




• Molecule 50: 50S ribosomal protein L29

Chain G5:

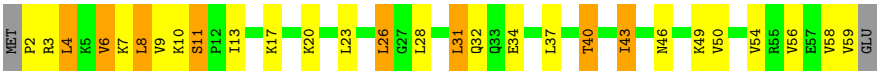




• Molecule 51: 50S ribosomal protein L30

Chain L8:

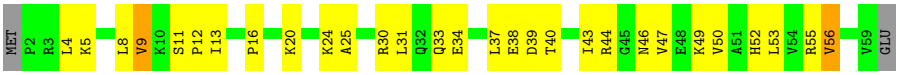




• Molecule 51: 50S ribosomal protein L30

Chain H5:

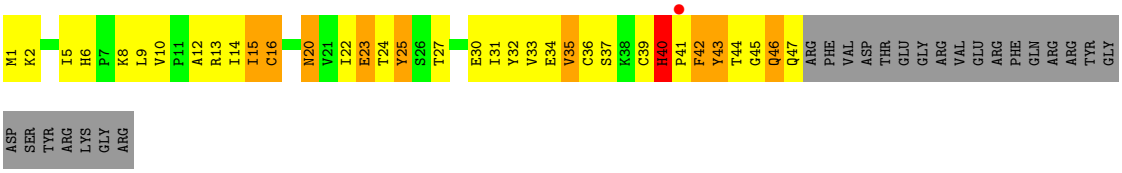




• Molecule 52: 50S ribosomal protein L31

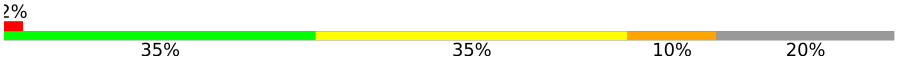
Chain M8:

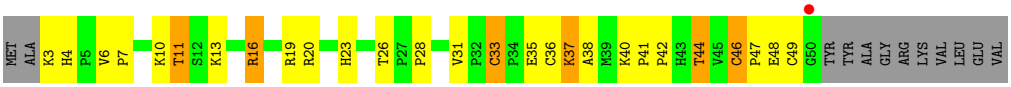




• Molecule 53: 50S ribosomal protein L32

Chain N8:

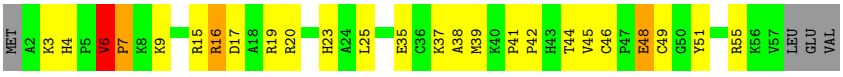




• Molecule 53: 50S ribosomal protein L32

Chain J5:

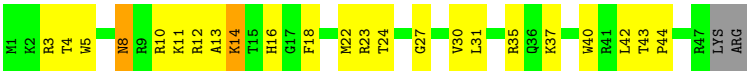




• Molecule 54: 50S ribosomal protein L34

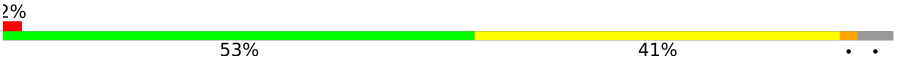
Chain P8:

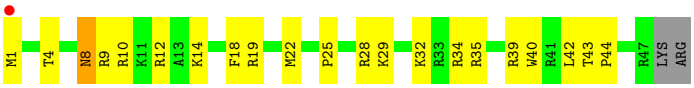




• Molecule 54: 50S ribosomal protein L34

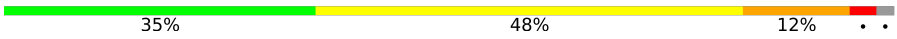
Chain L5:





• Molecule 55: 50S ribosomal protein L35

Chain Q8:

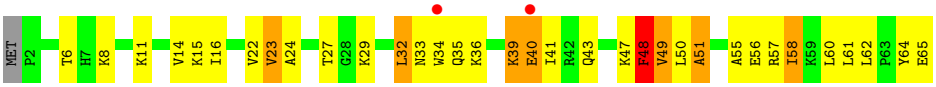




• Molecule 55: 50S ribosomal protein L35

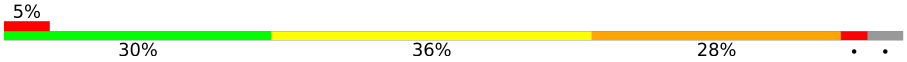
Chain M5:

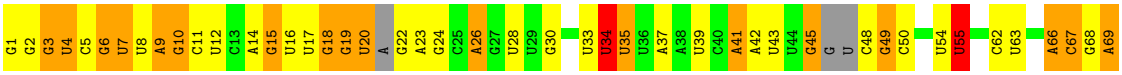


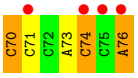


• Molecule 56: tRNALys

Chain 1L:

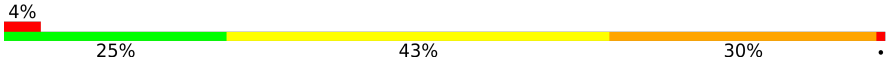


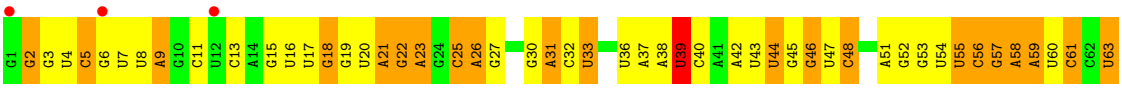


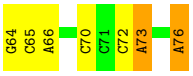


• Molecule 57: tRNALys

Chain 3L:







4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	209.50Å 450.10Å 621.60Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	173.72 – 3.20 173.72 – 3.20	Depositor EDS
% Data completeness (in resolution range)	100.0 (173.72-3.20) 93.8 (173.72-3.20)	Depositor EDS
R_{merge}	0.38	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.81 (at 3.19Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.191 , 0.258 0.195 , 0.258	Depositor DCC
R_{free} test set	2000 reflections (0.21%)	wwPDB-VP
Wilson B-factor (Å^2)	92.5	Xtriage
Anisotropy	0.339	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.26 , 42.3	EDS
L-test for twinning[2]	$< \|L\| > = 0.44$, $< L^2 > = 0.27$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	294444	wwPDB-VP
Average B, all atoms (Å^2)	107.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.48% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality (i)

5.1 Standard geometry (i)

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	13	0.41	0/35994	0.66	8/56171 (0.0%)
1	1G	0.35	0/36258	0.59	2/56589 (0.0%)
2	12	0.57	0/1752	1.18	17/2360 (0.7%)
2	1E	0.61	0/1908	1.17	19/2573 (0.7%)
3	22	0.53	0/1564	1.03	4/2109 (0.2%)
3	2E	0.62	0/1629	0.98	5/2195 (0.2%)
4	32	0.60	0/1732	1.12	12/2318 (0.5%)
4	3E	0.64	0/1728	1.11	12/2313 (0.5%)
5	42	0.59	0/1150	1.04	4/1548 (0.3%)
5	4E	0.69	0/1158	1.04	1/1559 (0.1%)
6	52	0.63	0/855	1.01	0/1154
6	5E	0.67	0/850	1.02	2/1147 (0.2%)
7	62	0.55	0/1122	1.10	6/1500 (0.4%)
7	6E	0.56	0/1259	0.97	4/1686 (0.2%)
8	72	0.53	0/1127	1.08	8/1517 (0.5%)
8	7E	0.61	0/1135	1.17	8/1527 (0.5%)
9	82	0.54	0/971	1.10	6/1304 (0.5%)
9	8E	0.56	0/1019	1.02	3/1367 (0.2%)
10	1A	0.57	0/658	1.03	4/885 (0.5%)
10	1I	0.74	1/747 (0.1%)	1.10	6/1006 (0.6%)
11	2A	0.60	0/850	1.09	5/1150 (0.4%)
11	2I	0.69	0/838	1.11	7/1133 (0.6%)
12	3A	0.72	0/972	1.10	3/1301 (0.2%)
12	3I	0.93	1/972 (0.1%)	1.30	6/1301 (0.5%)
13	4A	0.58	0/903	1.12	8/1211 (0.7%)
13	4I	0.67	0/952	1.07	2/1277 (0.2%)
14	5A	0.58	0/495	1.11	3/657 (0.5%)
14	5I	0.75	1/500 (0.2%)	0.99	2/664 (0.3%)
15	6A	0.57	0/744	0.89	0/992
15	6I	0.65	0/740	1.06	1/987 (0.1%)
16	7A	0.62	0/721	1.15	5/970 (0.5%)
16	7I	0.63	0/716	1.14	3/963 (0.3%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	8A	0.56	0/836	1.01	2/1117 (0.2%)
17	8I	0.64	0/847	1.09	4/1131 (0.4%)
18	9A	0.57	0/549	0.99	0/732
18	9I	0.68	0/554	1.10	2/739 (0.3%)
19	AA	0.63	0/490	1.14	6/662 (0.9%)
19	AI	0.69	0/668	1.14	0/899
20	BA	0.62	0/764	1.09	1/1007 (0.1%)
20	BI	0.56	0/748	1.02	1/986 (0.1%)
21	1B	0.61	0/192	1.04	0/252
21	1F	0.58	0/203	0.88	0/266
22	1K	0.37	0/1565	0.57	0/2429
23	2K	0.49	1/1721 (0.1%)	0.69	0/2682
23	2L	0.40	1/1721 (0.1%)	0.60	0/2682
24	3K	0.38	0/1799	0.58	0/2801
25	4K	0.48	0/473	0.73	1/737 (0.1%)
25	4L	0.35	0/448	0.50	0/698
26	14	0.48	0/69023	0.73	14/107740 (0.0%)
26	1H	0.56	0/68351	0.82	30/106700 (0.0%)
27	16	0.46	0/2928	0.74	0/4568
27	1J	0.39	0/2928	0.66	0/4568
28	71	0.66	0/1055	1.23	15/1425 (1.1%)
28	79	0.58	0/459	1.19	6/608 (1.0%)
29	11	1.03	5/2170 (0.2%)	1.50	37/2926 (1.3%)
29	19	0.91	3/2175 (0.1%)	1.45	27/2933 (0.9%)
30	21	0.86	1/1591 (0.1%)	1.57	25/2146 (1.2%)
30	29	0.84	0/1596	1.34	18/2153 (0.8%)
31	31	0.86	0/1620	1.29	11/2194 (0.5%)
31	39	0.81	1/1637 (0.1%)	1.40	20/2218 (0.9%)
32	41	0.67	0/1481	1.11	7/1994 (0.4%)
32	49	0.55	0/1482	1.07	8/1994 (0.4%)
33	51	0.90	3/1337 (0.2%)	1.46	24/1809 (1.3%)
33	59	0.63	0/577	1.45	13/776 (1.7%)
34	61	0.70	0/1151	1.23	12/1558 (0.8%)
34	69	0.66	0/1146	1.18	13/1551 (0.8%)
35	15	0.59	0/1131	1.11	5/1525 (0.3%)
35	58	0.78	0/1131	1.25	11/1525 (0.7%)
36	25	0.75	1/942 (0.1%)	1.13	4/1269 (0.3%)
36	68	0.86	0/942	1.18	4/1269 (0.3%)
37	35	0.79	0/1139	1.51	23/1514 (1.5%)
37	78	0.94	4/1139 (0.4%)	1.46	18/1514 (1.2%)
38	45	0.95	4/1120 (0.4%)	1.39	13/1498 (0.9%)
38	88	0.98	1/1134 (0.1%)	1.43	22/1519 (1.4%)
39	55	0.87	1/981 (0.1%)	1.15	2/1312 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
39	98	0.76	0/981	1.19	5/1312 (0.4%)
40	65	0.65	0/886	1.17	1/1180 (0.1%)
40	A8	0.76	0/891	1.15	1/1187 (0.1%)
41	75	0.70	0/1123	1.06	3/1500 (0.2%)
41	B8	0.83	0/1123	1.25	6/1500 (0.4%)
42	85	0.75	0/977	1.08	3/1301 (0.2%)
42	C8	0.83	1/968 (0.1%)	1.16	7/1289 (0.5%)
43	95	0.93	2/785 (0.3%)	1.26	6/1052 (0.6%)
43	D8	0.71	0/785	1.29	6/1052 (0.6%)
44	A5	0.83	0/910	1.17	3/1220 (0.2%)
44	E8	0.84	0/901	1.17	3/1209 (0.2%)
45	B5	0.84	0/749	1.16	3/1007 (0.3%)
45	F8	0.99	0/757	1.21	4/1017 (0.4%)
46	C5	0.85	1/807 (0.1%)	1.33	5/1076 (0.5%)
46	G8	1.06	2/809 (0.2%)	1.56	21/1080 (1.9%)
47	D5	0.69	0/1098	1.23	13/1487 (0.9%)
47	H8	0.69	2/1403 (0.1%)	1.16	8/1901 (0.4%)
48	E5	0.71	0/616	1.21	5/821 (0.6%)
48	I8	0.92	1/614 (0.2%)	1.30	2/819 (0.2%)
49	F5	0.81	0/744	1.25	7/989 (0.7%)
49	J8	0.91	0/744	1.29	4/989 (0.4%)
50	G5	0.65	0/560	1.27	5/741 (0.7%)
50	K8	0.82	0/570	1.29	4/755 (0.5%)
51	H5	0.66	0/464	1.12	3/623 (0.5%)
51	L8	0.78	0/464	1.21	3/623 (0.5%)
52	M8	0.75	0/375	1.37	9/507 (1.8%)
53	J5	0.81	1/448 (0.2%)	1.32	5/606 (0.8%)
53	N8	0.87	0/381	1.39	9/516 (1.7%)
54	L5	0.88	0/409	1.32	1/540 (0.2%)
54	P8	1.06	1/409 (0.2%)	1.26	0/540
55	M5	0.93	0/524	1.45	7/691 (1.0%)
55	Q8	1.02	0/524	1.61	7/691 (1.0%)
56	1L	0.35	0/1613	0.53	0/2504
57	3L	0.37	0/1733	0.57	0/2699
All	All	0.57	40/317108 (0.0%)	0.87	744/475084 (0.2%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	13	1	0

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	12	0	4
2	1E	0	4
3	22	0	2
4	32	0	1
4	3E	0	1
9	82	0	1
9	8E	0	1
10	1I	0	1
11	2A	0	1
11	2I	0	1
12	3I	0	1
13	4A	0	2
13	4I	0	3
14	5A	0	1
18	9I	0	1
19	AI	0	2
20	BA	0	2
28	71	0	3
29	11	0	4
29	19	0	4
30	21	0	5
30	29	0	5
31	31	0	4
31	39	0	7
32	41	0	1
32	49	0	1
33	51	0	6
34	61	0	4
34	69	0	2
37	35	0	3
37	78	0	5
38	45	0	6
38	88	0	1
39	55	0	1
39	98	0	1
40	65	0	1
41	75	0	1
41	B8	0	1
42	85	0	4
42	C8	0	2
43	95	0	2
43	D8	0	3

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Mol	Chain	#Chirality outliers	#Planarity outliers
44	A5	0	2
45	B5	0	1
45	F8	0	2
46	C5	0	3
46	G8	0	7
47	D5	0	2
47	H8	0	4
49	J8	0	2
50	G5	0	4
50	K8	0	3
52	M8	0	2
55	M5	0	2
55	Q8	0	1
All	All	1	141

All (40) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
39	55	38	VAL	CA-CB	-9.58	1.49	1.54
38	45	82	ARG	CA-C	8.19	1.63	1.52
46	G8	83	THR	CA-C	7.96	1.57	1.52
43	95	80	GLN	CA-C	7.29	1.62	1.52
29	19	40	THR	CA-C	7.04	1.61	1.52
38	45	78	PRO	CA-C	7.03	1.62	1.52
29	11	123	ALA	CA-CB	-7.02	1.42	1.53
30	21	21	VAL	CA-CB	6.98	1.63	1.54
12	3I	64	TYR	CA-C	6.88	1.59	1.52
29	19	271	ILE	CA-C	6.69	1.61	1.52
47	H8	165	VAL	CA-CB	6.60	1.63	1.54
29	11	271	ILE	CA-C	6.59	1.61	1.52
43	95	72	VAL	CA-CB	6.59	1.63	1.54
42	C8	9	VAL	CA-CB	-6.46	1.47	1.54
29	11	272	ALA	CA-C	6.42	1.61	1.52
37	78	19	VAL	CA-C	6.16	1.59	1.52
23	2K	8	4SU	O3'-P	5.97	1.62	1.56
37	78	14	LYS	CA-C	-5.84	1.44	1.52
37	78	18	ARG	CA-C	5.82	1.60	1.53
10	1I	55	LYS	CA-C	-5.70	1.46	1.53
38	45	27	VAL	CA-CB	5.70	1.62	1.54
29	11	40	THR	N-CA	5.63	1.53	1.46
36	25	24	VAL	CA-CB	5.61	1.61	1.54
33	51	11	VAL	CA-CB	5.59	1.61	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
29	11	39	LYS	CA-C	5.43	1.60	1.52
46	G8	83	THR	CA-CB	5.37	1.60	1.54
31	39	28	ILE	CA-CB	5.34	1.61	1.54
54	P8	13	ALA	CA-CB	-5.26	1.44	1.53
29	19	272	ALA	CA-C	5.25	1.58	1.53
33	51	3	ARG	CA-C	-5.23	1.45	1.52
14	5I	13	THR	CA-CB	5.21	1.61	1.53
37	78	19	VAL	CA-CB	5.21	1.60	1.55
23	2L	47	G7M	O3'-P	5.16	1.61	1.56
47	H8	111	VAL	CA-CB	5.15	1.61	1.54
33	51	4	ILE	CA-CB	5.14	1.59	1.53
48	I8	79	VAL	CA-CB	5.12	1.60	1.54
46	C5	98	VAL	CA-CB	5.12	1.60	1.54
38	88	138	ASP	CA-C	5.05	1.58	1.52
38	45	82	ARG	N-CA	5.03	1.52	1.45
53	J5	7	PRO	CA-C	5.02	1.58	1.52

All (744) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	21	52	LEU	CA-C-N	19.38	139.13	119.56
30	21	52	LEU	C-N-CA	19.38	139.13	119.56
29	19	271	ILE	N-CA-C	16.79	127.87	112.43
29	19	235	GLY	N-CA-C	14.63	126.96	112.04
38	45	82	ARG	N-CA-C	13.21	133.43	113.61
33	51	166	GLY	N-CA-C	13.09	126.54	110.96
29	19	272	ALA	N-CA-C	12.15	122.46	108.49
46	C5	39	VAL	N-CA-C	12.07	123.64	112.29
46	C5	80	GLY	N-CA-C	12.03	131.09	114.85
37	35	144	GLU	CA-C-N	11.71	132.11	120.52
37	35	144	GLU	C-N-CA	11.71	132.11	120.52
29	11	271	ILE	N-CA-C	11.59	123.18	112.17
55	M5	48	PHE	CA-C-N	11.49	142.38	121.70
55	M5	48	PHE	C-N-CA	11.49	142.38	121.70
33	59	153	LYS	CA-C-N	-11.45	105.53	119.84
33	59	153	LYS	C-N-CA	-11.45	105.53	119.84
43	D8	49	THR	CA-C-N	-11.15	107.37	118.97
43	D8	49	THR	C-N-CA	-11.15	107.37	118.97
38	45	3	MET	N-CA-C	11.07	118.09	108.13
31	39	80	ALA	CA-C-N	-11.02	106.07	119.84
31	39	80	ALA	C-N-CA	-11.02	106.07	119.84
46	G8	81	LYS	CA-C-N	10.90	153.17	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
46	G8	81	LYS	C-N-CA	10.90	153.17	127.00
38	88	125	LEU	CA-C-N	10.69	130.99	119.87
38	88	125	LEU	C-N-CA	10.69	130.99	119.87
53	J5	4	HIS	CA-C-N	10.45	130.54	119.78
53	J5	4	HIS	C-N-CA	10.45	130.54	119.78
37	78	71	VAL	CA-C-N	-10.43	109.02	119.56
37	78	71	VAL	C-N-CA	-10.43	109.02	119.56
8	72	73	ASP	CA-C-N	10.42	130.17	119.64
8	72	73	ASP	C-N-CA	10.42	130.17	119.64
33	51	7	LEU	CA-C-N	-10.42	109.60	120.85
33	51	7	LEU	C-N-CA	-10.42	109.60	120.85
31	39	68	LYS	CA-C-N	-10.00	106.97	123.37
31	39	68	LYS	C-N-CA	-10.00	106.97	123.37
26	1H	2681	C	C2'-C3'-O3'	9.96	124.45	109.50
29	19	244	ARG	CA-C-N	-9.88	110.20	120.38
29	19	244	ARG	C-N-CA	-9.88	110.20	120.38
16	7I	40	ASP	CA-C-N	9.72	129.35	119.82
16	7I	40	ASP	C-N-CA	9.72	129.35	119.82
29	11	85	ASP	CA-C-N	-9.63	107.80	119.84
29	11	85	ASP	C-N-CA	-9.63	107.80	119.84
51	L8	11	SER	CA-C-N	9.61	129.87	119.87
51	L8	11	SER	C-N-CA	9.61	129.87	119.87
7	62	87	VAL	CA-C-N	9.54	129.66	120.31
7	62	87	VAL	C-N-CA	9.54	129.66	120.31
47	D5	14	LYS	CA-C-N	9.40	129.15	119.56
47	D5	14	LYS	C-N-CA	9.40	129.15	119.56
55	Q8	62	LEU	CA-C-N	-9.36	108.14	119.84
55	Q8	62	LEU	C-N-CA	-9.36	108.14	119.84
46	G8	81	LYS	C-N-CD	-9.36	100.01	120.60
55	Q8	52	LYS	N-CA-C	-9.35	84.81	111.00
31	39	24	LEU	CA-C-N	-9.25	108.28	119.84
31	39	24	LEU	C-N-CA	-9.25	108.28	119.84
30	21	31	CYS	CA-C-N	9.22	131.37	119.84
30	21	31	CYS	C-N-CA	9.22	131.37	119.84
13	4A	95	GLY	N-CA-C	9.21	135.00	113.18
50	G5	44	LEU	N-CA-C	-9.19	101.78	113.72
2	12	20	GLU	N-CA-C	9.17	122.44	110.43
14	5A	28	GLY	N-CA-C	9.16	127.25	111.78
3	22	87	LEU	N-CA-C	9.15	120.95	110.97
29	19	44	ASN	CA-C-N	9.13	138.13	121.70
29	19	44	ASN	C-N-CA	9.13	138.13	121.70
30	29	190	GLY	CA-C-N	-9.12	111.49	120.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	29	190	GLY	C-N-CA	-9.12	111.49	120.52
28	71	180	PHE	CA-C-N	9.03	129.68	120.38
28	71	180	PHE	C-N-CA	9.03	129.68	120.38
34	61	136	VAL	CA-C-N	8.92	129.59	120.14
34	61	136	VAL	C-N-CA	8.92	129.59	120.14
38	45	78	PRO	N-CA-C	8.90	130.80	112.47
26	14	1992	G	C2'-C3'-O3'	8.85	122.77	109.50
28	71	32	LEU	N-CA-C	-8.81	102.07	113.17
55	Q8	48	PHE	N-CA-C	8.77	120.84	108.74
34	61	144	VAL	N-CA-C	8.72	119.86	108.35
20	BA	12	ALA	N-CA-C	-8.64	102.29	112.92
33	59	167	GLU	CA-C-N	8.60	128.22	118.85
33	59	167	GLU	C-N-CA	8.60	128.22	118.85
31	31	91	GLY	CA-C-N	8.47	128.54	119.90
31	31	91	GLY	C-N-CA	8.47	128.54	119.90
55	M5	48	PHE	CA-C-O	-8.45	112.19	121.23
29	11	39	LYS	N-CA-C	8.43	128.75	110.80
33	51	11	VAL	CA-C-N	8.43	130.37	119.84
33	51	11	VAL	C-N-CA	8.43	130.37	119.84
46	G8	84	ARG	N-CA-C	-8.41	95.46	108.76
37	35	36	LYS	N-CA-C	8.33	120.33	108.00
31	39	83	PHE	N-CA-C	8.27	123.59	113.17
50	G5	42	GLY	N-CA-C	-8.24	102.52	112.48
51	H5	11	SER	CA-C-N	8.22	128.41	119.87
51	H5	11	SER	C-N-CA	8.22	128.41	119.87
4	32	171	GLY	CA-C-N	8.19	130.07	119.84
4	32	171	GLY	C-N-CA	8.19	130.07	119.84
3	22	72	LYS	CA-C-N	8.15	127.79	119.56
3	22	72	LYS	C-N-CA	8.15	127.79	119.56
38	45	81	VAL	N-CA-C	8.14	126.26	109.34
34	69	124	GLY	N-CA-C	8.12	120.77	110.38
44	E8	92	ARG	N-CA-C	8.08	121.62	111.69
34	61	118	LYS	CA-C-N	8.07	128.13	119.90
34	61	118	LYS	C-N-CA	8.07	128.13	119.90
33	51	153	LYS	CA-C-N	8.03	146.28	127.00
33	51	153	LYS	C-N-CA	8.03	146.28	127.00
30	29	80	GLU	N-CA-C	8.00	124.12	113.72
37	78	23	PRO	CA-C-O	-7.99	111.85	122.08
8	7E	56	LYS	CA-C-N	7.99	129.82	119.84
8	7E	56	LYS	C-N-CA	7.99	129.82	119.84
30	21	106	GLY	N-CA-C	7.95	122.14	111.72
33	51	10	PRO	N-CA-C	7.95	128.84	112.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	J8	43	TYR	CA-C-N	-7.91	112.20	120.03
49	J8	43	TYR	C-N-CA	-7.91	112.20	120.03
35	58	136	GLU	N-CA-C	7.90	122.44	109.96
33	51	6	ARG	N-CA-C	-7.88	94.01	110.80
29	19	245	PRO	CA-C-N	7.87	128.35	119.93
29	19	245	PRO	C-N-CA	7.87	128.35	119.93
29	19	234	GLY	N-CA-C	7.84	122.01	111.03
46	G8	99	CYS	N-CA-C	7.84	121.34	111.69
30	21	77	ILE	N-CA-C	-7.84	104.11	111.48
2	12	15	VAL	N-CA-C	7.83	118.42	110.82
38	88	21	THR	N-CA-C	7.77	118.84	107.88
32	41	31	VAL	CA-C-N	7.74	128.21	119.93
32	41	31	VAL	C-N-CA	7.74	128.21	119.93
34	69	79	ILE	CA-C-N	7.73	129.50	119.84
34	69	79	ILE	C-N-CA	7.73	129.50	119.84
29	11	262	ARG	N-CA-C	7.71	119.47	111.14
4	32	154	ASN	N-CA-C	7.67	121.57	111.75
55	Q8	46	ARG	CA-C-N	7.67	135.50	121.70
55	Q8	46	ARG	C-N-CA	7.67	135.50	121.70
38	88	57	HIS	CA-C-N	-7.63	111.25	123.23
38	88	57	HIS	C-N-CA	-7.63	111.25	123.23
38	88	65	PHE	N-CA-C	7.62	123.62	113.72
37	35	49	ARG	N-CA-C	-7.60	102.69	110.97
2	12	126	GLU	N-CA-C	-7.58	104.13	113.15
29	11	39	LYS	CA-C-N	7.57	135.99	121.54
29	11	39	LYS	C-N-CA	7.57	135.99	121.54
33	59	3	ARG	CB-CA-C	-7.55	106.95	117.23
26	1H	1992	G	C2'-C3'-O3'	7.55	120.82	109.50
55	Q8	49	VAL	N-CA-C	7.54	120.29	112.83
32	49	44	GLY	N-CA-C	-7.50	105.35	114.66
32	49	121	ASN	CA-C-N	7.48	126.75	118.97
32	49	121	ASN	C-N-CA	7.48	126.75	118.97
33	51	153	LYS	C-N-CD	-7.47	104.16	120.60
5	4E	103	GLY	N-CA-C	-7.46	100.84	112.85
1	13	49	U	C2'-C3'-O3'	7.44	120.66	109.50
30	21	69	LYS	N-CA-C	-7.43	103.94	113.16
31	39	29	ASN	CA-C-N	7.43	127.29	119.05
31	39	29	ASN	C-N-CA	7.43	127.29	119.05
30	21	2	LYS	N-CA-C	7.42	119.88	110.24
36	25	29	ASN	N-CA-C	7.41	121.16	112.72
48	E5	22	GLY	N-CA-C	7.40	122.35	111.76
30	21	61	ARG	CA-C-N	-7.40	111.13	120.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	21	61	ARG	C-N-CA	-7.40	111.13	120.23
42	C8	9	VAL	N-CA-C	7.39	117.36	110.42
33	51	4	ILE	N-CA-C	-7.38	95.84	106.55
31	31	93	LYS	CA-C-N	-7.38	112.16	119.76
31	31	93	LYS	C-N-CA	-7.38	112.16	119.76
2	1E	72	GLY	N-CA-C	7.35	124.77	111.03
47	D5	157	LEU	CA-C-N	7.35	127.95	120.38
47	D5	157	LEU	C-N-CA	7.35	127.95	120.38
41	75	13	ARG	N-CA-C	-7.33	103.93	113.17
41	B8	19	LEU	CA-C-N	7.32	127.32	119.78
41	B8	19	LEU	C-N-CA	7.32	127.32	119.78
19	AA	58	VAL	CA-C-N	-7.31	111.50	119.98
19	AA	58	VAL	C-N-CA	-7.31	111.50	119.98
38	45	126	PRO	CA-C-O	-7.31	115.75	121.38
11	2I	81	ASP	N-CA-C	7.31	122.38	113.17
2	1E	231	GLU	CA-C-N	7.30	128.97	119.84
2	1E	231	GLU	C-N-CA	7.30	128.97	119.84
29	11	238	GLY	N-CA-C	-7.29	104.08	115.67
29	19	236	GLY	CA-C-O	7.28	127.67	119.59
10	1I	84	GLN	CA-CB-CG	7.28	128.65	114.10
31	31	66	PRO	N-CA-C	7.28	123.10	113.57
30	21	190	GLY	CA-C-N	7.26	127.43	120.31
30	21	190	GLY	C-N-CA	7.26	127.43	120.31
2	1E	231	GLU	N-CA-C	7.26	119.34	109.24
36	68	71	ARG	CA-C-N	7.24	126.91	119.82
36	68	71	ARG	C-N-CA	7.24	126.91	119.82
39	55	70	LEU	N-CA-C	7.23	120.58	111.69
8	7E	75	ARG	CA-C-N	7.22	127.64	119.92
8	7E	75	ARG	C-N-CA	7.22	127.64	119.92
29	11	272	ALA	N-CA-C	7.21	126.16	110.80
43	95	82	ARG	N-CA-C	7.20	121.43	108.48
29	11	223	GLY	N-CA-C	-7.19	104.16	112.50
3	22	194	GLY	N-CA-C	7.18	122.36	112.52
29	11	13	ARG	N-CA-C	-7.18	103.98	112.89
37	35	99	LEU	N-CA-C	-7.18	103.19	112.23
29	11	28	GLU	CA-C-N	7.17	128.80	119.84
29	11	28	GLU	C-N-CA	7.17	128.80	119.84
2	12	193	ASP	CA-C-N	7.16	126.80	119.56
2	12	193	ASP	C-N-CA	7.16	126.80	119.56
39	98	106	GLY	N-CA-C	-7.15	105.85	115.36
29	11	35	LYS	CA-C-N	7.14	128.76	119.84
29	11	35	LYS	C-N-CA	7.14	128.76	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	41	67	LYS	CA-C-N	7.13	127.70	120.14
32	41	67	LYS	C-N-CA	7.13	127.70	120.14
4	32	6	GLY	CA-C-N	7.12	127.54	119.93
4	32	6	GLY	C-N-CA	7.12	127.54	119.93
37	35	14	LYS	N-CA-C	-7.08	104.73	113.15
8	7E	73	ASP	CA-C-N	7.06	126.69	119.56
8	7E	73	ASP	C-N-CA	7.06	126.69	119.56
31	31	75	HIS	N-CA-C	7.01	119.72	109.07
2	12	17	PHE	N-CA-C	7.00	120.52	109.81
37	78	116	GLY	N-CA-C	7.00	124.28	110.77
30	29	49	LEU	N-CA-C	6.97	120.07	110.24
16	7A	48	TRP	N-CA-C	6.97	121.23	112.87
26	1H	271(B)	G	P-O3'-C3'	6.96	128.05	119.70
34	69	110	ASP	CA-C-N	6.96	128.54	119.84
34	69	110	ASP	C-N-CA	6.96	128.54	119.84
31	39	95	ARG	N-CA-C	6.94	118.32	108.74
52	M8	39	CYS	N-CA-C	-6.93	96.05	110.80
46	G8	5	MET	CB-CA-C	-6.92	106.75	115.89
1	13	49	U	P-O3'-C3'	6.88	130.53	120.20
9	82	117	HIS	N-CA-C	6.88	121.38	112.92
38	45	69	PHE	CA-C-N	6.88	128.44	119.84
38	45	69	PHE	C-N-CA	6.88	128.44	119.84
46	G8	85	VAL	N-CA-C	-6.87	98.41	108.23
37	78	18	ARG	N-CA-C	6.86	119.04	109.31
17	8I	79	SER	N-CA-C	6.85	119.93	110.35
50	G5	5	GLU	N-CA-C	-6.84	104.93	113.28
45	B5	40	LYS	CA-C-N	-6.81	111.94	122.16
45	B5	40	LYS	C-N-CA	-6.81	111.94	122.16
52	M8	44	THR	N-CA-C	6.81	119.89	110.35
16	7A	14	ASN	CA-C-N	6.81	128.35	119.84
16	7A	14	ASN	C-N-CA	6.81	128.35	119.84
50	K8	51	ARG	N-CA-C	-6.78	103.89	111.28
29	11	259	THR	N-CA-C	6.77	121.70	113.17
50	G5	16	LEU	N-CA-C	-6.75	97.27	108.34
42	C8	102	GLU	CA-C-N	6.75	125.99	118.97
42	C8	102	GLU	C-N-CA	6.75	125.99	118.97
2	12	203	GLY	N-CA-C	6.74	121.60	111.42
35	15	85	ILE	CA-C-N	6.74	127.19	120.52
35	15	85	ILE	C-N-CA	6.74	127.19	120.52
33	51	125	VAL	CA-C-N	6.73	128.25	119.84
33	51	125	VAL	C-N-CA	6.73	128.25	119.84
30	29	58	ARG	N-CA-C	-6.71	104.04	111.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	39	80	ALA	N-CA-C	-6.69	101.15	109.64
47	D5	67	LEU	CA-C-N	6.69	128.20	119.84
47	D5	67	LEU	C-N-CA	6.69	128.20	119.84
29	11	123	ALA	CA-C-N	-6.68	113.08	119.89
29	11	123	ALA	C-N-CA	-6.68	113.08	119.89
2	12	45	GLN	N-CA-C	6.68	119.41	111.33
37	35	36	LYS	CB-CA-C	-6.67	107.00	116.34
8	72	100	ILE	CA-C-N	-6.66	113.08	120.14
8	72	100	ILE	C-N-CA	-6.66	113.08	120.14
33	51	13	LYS	N-CA-C	6.66	124.98	110.80
49	F5	29	GLY	N-CA-C	6.65	119.98	110.46
13	4I	95	GLY	N-CA-C	6.63	125.33	115.64
4	3E	28	SER	CA-C-N	-6.63	114.95	121.65
4	3E	28	SER	C-N-CA	-6.63	114.95	121.65
39	98	9	LYS	N-CA-C	-6.62	98.90	109.76
35	58	46	VAL	N-CA-C	6.60	120.62	113.43
26	14	1786	A	N9-C1'-C2'	6.59	123.89	114.00
37	78	115	LEU	N-CA-C	6.59	118.56	108.42
52	M8	20	ASN	N-CA-C	6.58	119.43	108.96
2	1E	14	GLY	N-CA-C	6.57	128.75	113.18
26	1H	587	C	C4'-C3'-O3'	6.56	119.23	109.40
9	82	89	ASN	CA-C-N	6.55	126.18	119.56
9	82	89	ASN	C-N-CA	6.55	126.18	119.56
43	95	98	GLU	N-CA-C	6.54	121.08	111.34
37	35	28	GLY	N-CA-C	-6.54	103.79	112.81
55	M5	51	ALA	N-CA-C	-6.52	99.70	109.94
37	35	56	SER	N-CA-C	6.51	121.38	113.17
17	8I	48	GLU	CA-C-N	-6.51	112.84	122.41
17	8I	48	GLU	C-N-CA	-6.51	112.84	122.41
31	31	64	ILE	N-CA-C	6.51	117.19	110.36
12	3I	18	VAL	N-CA-C	6.50	120.15	111.44
30	21	188	VAL	N-CA-C	6.50	115.06	109.02
30	21	135	HIS	N-CA-C	6.49	118.94	111.02
2	1E	235	SER	N-CA-C	-6.47	105.02	113.17
26	1H	2681	C	P-O3'-C3'	6.45	129.88	120.20
4	3E	6	GLY	CA-C-N	6.42	126.45	119.90
4	3E	6	GLY	C-N-CA	6.42	126.45	119.90
33	51	12	PRO	CA-C-N	6.42	133.79	121.54
33	51	12	PRO	C-N-CA	6.42	133.79	121.54
37	78	28	GLY	N-CA-C	-6.41	101.74	111.10
30	21	130	GLY	N-CA-C	6.41	120.97	112.77
33	59	160	LYS	N-CA-C	6.41	119.27	110.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	M5	48	PHE	N-CA-C	-6.41	98.99	108.79
11	2A	120	ARG	CA-C-N	6.39	126.57	120.31
11	2A	120	ARG	C-N-CA	6.39	126.57	120.31
47	H8	133	ILE	CA-C-N	6.39	127.82	119.84
47	H8	133	ILE	C-N-CA	6.39	127.82	119.84
26	1H	1899	G	O3'-P-O5'	-6.38	94.43	104.00
30	29	73	GLU	CA-C-N	-6.38	113.97	120.85
30	29	73	GLU	C-N-CA	-6.38	113.97	120.85
18	9I	22	VAL	N-CA-C	6.37	122.60	109.34
46	G8	102	CYS	N-CA-C	6.37	117.02	108.23
47	D5	52	SER	N-CA-C	6.37	118.99	111.02
46	C5	86	ARG	N-CA-C	6.36	119.89	110.48
29	19	27	THR	N-CA-C	-6.36	99.52	109.25
4	32	201	GLN	N-CA-C	-6.36	105.53	113.28
41	B8	8	LYS	N-CA-C	-6.35	105.64	113.19
37	35	71	VAL	CA-C-N	-6.35	113.27	119.87
37	35	71	VAL	C-N-CA	-6.35	113.27	119.87
10	1A	52	GLY	CA-C-N	6.34	125.91	119.19
10	1A	52	GLY	C-N-CA	6.34	125.91	119.19
37	78	22	GLY	N-CA-C	6.34	125.27	112.34
31	39	69	HIS	N-CA-C	6.33	119.74	107.71
35	58	98	VAL	N-CA-C	-6.33	104.87	111.58
3	2E	205	GLY	N-CA-C	6.33	119.41	110.74
26	1H	1204	A	O4'-C1'-N9	6.33	117.69	108.20
29	19	107	ALA	CA-C-N	6.33	126.51	120.31
29	19	107	ALA	C-N-CA	6.33	126.51	120.31
47	D5	60	GLU	N-CA-C	6.32	124.27	110.80
37	78	96	THR	CA-C-N	-6.32	111.94	119.84
37	78	96	THR	C-N-CA	-6.32	111.94	119.84
31	39	8	GLN	N-CA-C	6.32	118.78	109.24
42	85	74	LEU	N-CA-C	6.31	118.44	110.24
30	21	132	HIS	N-CA-C	6.30	118.28	110.91
11	2A	34	ASP	CA-C-N	-6.30	113.20	119.56
11	2A	34	ASP	C-N-CA	-6.30	113.20	119.56
28	79	200	LYS	N-CA-C	6.30	118.65	109.71
16	7I	82	GLN	N-CA-C	6.29	121.24	113.50
37	35	111	ARG	N-CA-C	6.29	119.89	110.14
29	11	238	GLY	CA-C-O	6.28	125.64	118.98
37	35	7	ARG	CA-C-N	-6.28	114.07	120.85
37	35	7	ARG	C-N-CA	-6.28	114.07	120.85
18	9I	23	LYS	N-CA-C	-6.27	105.59	113.18
47	D5	82	ARG	CA-C-N	6.27	126.48	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
47	D5	82	ARG	C-N-CA	6.27	126.48	119.90
43	95	81	TYR	N-CA-C	6.26	119.73	109.72
44	E8	24	ILE	N-CA-C	6.26	115.35	106.53
38	45	118	LEU	N-CA-C	-6.26	105.81	113.50
42	C8	97	ASP	N-CA-C	-6.25	104.91	112.54
38	88	26	TYR	N-CA-C	6.25	120.21	112.59
9	82	24	GLY	N-CA-C	6.25	122.24	114.37
26	1H	845	G	P-O3'-C3'	6.23	129.54	120.20
34	61	7	GLU	CA-C-N	-6.21	113.38	119.90
34	61	7	GLU	C-N-CA	-6.21	113.38	119.90
53	N8	6	VAL	CA-C-N	-6.21	113.28	119.99
53	N8	6	VAL	C-N-CA	-6.21	113.28	119.99
48	I8	22	GLY	N-CA-C	6.21	118.81	110.43
46	G8	4	LYS	N-CA-C	6.20	120.92	113.23
48	E5	46	LYS	CA-C-N	6.20	127.58	119.84
48	E5	46	LYS	C-N-CA	6.20	127.58	119.84
26	1H	1694	C	C4'-C3'-O3'	6.19	118.69	109.40
42	C8	95	LEU	CA-C-N	6.19	132.09	122.49
42	C8	95	LEU	C-N-CA	6.19	132.09	122.49
1	13	509	A	C2'-C3'-O3'	6.17	122.95	113.70
37	78	26	GLY	N-CA-C	-6.17	99.55	111.02
10	1I	76	ASN	CA-C-N	-6.16	113.17	119.83
10	1I	76	ASN	C-N-CA	-6.16	113.17	119.83
2	1E	172	ILE	N-CA-C	-6.16	104.74	110.53
41	B8	57	PHE	N-CA-C	-6.15	101.57	110.24
7	62	8	GLU	N-CA-C	6.15	118.71	110.35
44	A5	111	HIS	N-CA-C	6.14	119.26	108.75
33	51	133	VAL	N-CA-C	6.14	116.66	107.51
46	G8	100	ALA	CA-C-N	6.14	132.75	121.70
46	G8	100	ALA	C-N-CA	6.14	132.75	121.70
13	4A	83	ASP	N-CA-C	-6.14	102.86	110.41
30	29	90	THR	N-CA-C	-6.13	103.73	110.91
38	88	24	GLY	N-CA-C	-6.13	100.93	111.47
50	K8	17	SER	N-CA-C	6.12	123.33	109.81
1	13	1498	U	C2'-C3'-O3'	6.11	118.67	109.50
29	11	198	ASN	N-CA-C	-6.11	102.96	111.39
32	41	89	GLY	N-CA-C	6.11	119.06	110.38
47	H8	65	GLN	N-CA-C	-6.10	100.90	110.36
2	1E	236	TYR	N-CA-C	-6.09	105.83	113.20
4	3E	171	GLY	CA-C-N	6.09	126.53	119.47
4	3E	171	GLY	C-N-CA	6.09	126.53	119.47
30	29	23	VAL	N-CA-C	6.09	122.00	109.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	11	248	SER	CA-C-N	-6.07	113.43	119.56
29	11	248	SER	C-N-CA	-6.07	113.43	119.56
26	14	71	A	C4'-C3'-O3'	6.05	118.47	109.40
33	51	14	GLY	N-CA-C	-6.04	106.69	114.85
30	21	107	THR	N-CA-C	6.04	119.11	110.24
35	58	7	LYS	N-CA-C	-6.03	101.06	110.17
28	79	53	ARG	NE-CZ-NH1	-6.03	115.47	121.50
2	12	23	ARG	N-CA-C	-6.02	98.27	108.26
12	3I	124	LYS	CA-C-N	6.00	127.34	119.84
12	3I	124	LYS	C-N-CA	6.00	127.34	119.84
31	39	71	GLY	N-CA-C	-5.99	106.25	114.64
49	F5	22	GLY	N-CA-C	5.99	118.15	112.04
30	21	88	GLY	N-CA-C	5.98	123.10	114.67
29	11	196	VAL	CA-C-N	-5.98	113.00	122.92
29	11	196	VAL	C-N-CA	-5.98	113.00	122.92
38	45	46	GLN	N-CA-C	-5.97	104.11	111.40
4	32	3	ARG	CB-CA-C	-5.97	109.71	116.63
26	1H	1653	G	P-O3'-C3'	5.96	129.14	120.20
29	19	40	THR	N-CA-C	5.96	118.13	109.07
29	11	197	GLY	N-CA-C	-5.95	104.78	111.63
39	98	46	GLY	N-CA-C	5.95	121.19	113.27
1	1G	812	C	C2'-C3'-O3'	5.95	118.43	109.50
4	3E	85	LYS	N-CA-C	-5.94	98.15	110.80
26	1H	1799	G	C2'-C3'-O3'	5.93	118.40	109.50
5	42	48	ALA	CA-C-N	5.93	126.35	119.47
5	42	48	ALA	C-N-CA	5.93	126.35	119.47
35	58	57	ALA	N-CA-C	-5.93	100.53	109.60
41	75	89	VAL	N-CA-C	-5.93	106.46	111.56
47	H8	157	LEU	CA-C-N	5.93	126.49	120.38
47	H8	157	LEU	C-N-CA	5.93	126.49	120.38
46	G8	79	CYS	N-CA-C	5.92	123.42	110.80
11	2I	38	ASN	CA-C-N	5.92	126.26	119.93
11	2I	38	ASN	C-N-CA	5.92	126.26	119.93
52	M8	46	GLN	N-CA-C	5.91	118.57	110.24
33	51	3	ARG	CG-CD-NE	5.91	124.99	112.00
33	51	54	ARG	CA-C-N	5.89	125.10	118.97
33	51	54	ARG	C-N-CA	5.89	125.10	118.97
28	79	53	ARG	NE-CZ-NH2	5.89	124.50	119.20
34	61	143	SER	N-CA-C	5.88	123.34	110.80
49	F5	36	GLY	N-CA-C	5.88	127.10	113.18
9	8E	5	TYR	N-CA-C	5.87	118.78	109.50
28	71	219	GLY	CA-C-N	5.87	127.18	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	71	219	GLY	C-N-CA	5.87	127.18	119.84
43	D8	11	GLN	N-CA-C	5.86	117.99	108.26
46	G8	99	CYS	CA-C-N	5.86	132.25	121.70
46	G8	99	CYS	C-N-CA	5.86	132.25	121.70
32	41	14	GLU	N-CA-C	5.85	123.26	110.80
32	49	155	MET	N-CA-C	5.85	116.12	107.88
29	19	43	ARG	N-CA-C	5.83	118.40	108.02
8	72	13	ILE	N-CA-C	5.83	116.05	110.74
51	H5	56	VAL	N-CA-C	5.83	116.68	108.17
7	6E	13	GLN	CA-C-N	5.83	125.84	119.90
7	6E	13	GLN	C-N-CA	5.83	125.84	119.90
11	2I	107	SER	CB-CA-C	-5.82	108.86	115.79
2	1E	11	LEU	N-CA-C	-5.82	105.77	112.92
29	19	68	LYS	CA-C-N	-5.81	112.20	122.26
29	19	68	LYS	C-N-CA	-5.81	112.20	122.26
39	98	82	GLU	N-CA-C	5.80	120.52	113.38
26	1H	1694	C	P-O3'-C3'	5.80	128.90	120.20
2	12	90	MET	CA-C-N	5.80	125.99	119.90
2	12	90	MET	C-N-CA	5.80	125.99	119.90
26	14	49	A	P-O3'-C3'	5.80	128.89	120.20
1	13	687	A	P-O3'-C3'	5.79	128.89	120.20
38	88	77	LYS	CA-C-N	5.79	127.08	119.84
38	88	77	LYS	C-N-CA	5.79	127.08	119.84
42	C8	96	ALA	N-CA-C	-5.79	105.54	113.30
19	AA	68	GLY	N-CA-C	-5.78	107.08	114.37
29	11	273	ARG	N-CA-C	5.78	123.11	110.80
2	1E	233	SER	CA-C-N	5.77	126.65	120.13
2	1E	233	SER	C-N-CA	5.77	126.65	120.13
37	78	47	ASP	CA-C-N	5.77	125.89	119.32
37	78	47	ASP	C-N-CA	5.77	125.89	119.32
2	12	222	ILE	N-CA-C	-5.74	105.27	113.07
55	M5	48	PHE	O-C-N	-5.74	117.28	123.42
38	88	35	VAL	N-CA-C	5.73	116.13	108.11
53	N8	33	CYS	N-CA-C	5.73	117.03	109.93
25	4K	18	G	C4'-C3'-O3'	5.73	117.99	109.40
30	29	142	GLY	N-CA-C	5.73	118.88	110.80
26	1H	1829	A	O5'-P-OP1	-5.72	90.85	108.00
29	11	10	THR	CA-C-N	-5.72	114.37	120.03
29	11	10	THR	C-N-CA	-5.72	114.37	120.03
34	69	143	SER	N-CA-C	5.71	122.97	110.80
37	35	9	ASN	CA-C-N	5.71	125.42	119.82
37	35	9	ASN	C-N-CA	5.71	125.42	119.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	21	65	GLY	N-CA-C	-5.71	99.65	113.18
45	F8	25	LYS	N-CA-C	5.71	117.96	108.20
12	3A	105	TYR	CB-CA-C	-5.71	109.47	117.23
17	8I	99	SER	N-CA-C	5.70	119.19	110.36
39	98	108	GLY	N-CA-C	-5.70	107.81	115.21
31	31	18	ARG	N-CA-C	5.69	117.89	110.43
26	14	2776	A	C4'-C3'-O3'	5.68	117.92	109.40
6	5E	92	LYS	N-CA-C	-5.68	102.49	110.50
26	1H	752	A	C2'-C3'-O3'	5.68	118.02	109.50
35	58	39	ARG	CA-C-N	-5.68	112.74	119.84
35	58	39	ARG	C-N-CA	-5.68	112.74	119.84
38	45	61	GLY	N-CA-C	5.67	126.62	113.18
32	49	143	GLU	N-CA-C	-5.67	106.41	113.38
38	88	72	LYS	CA-C-N	5.66	125.85	119.90
38	88	72	LYS	C-N-CA	5.66	125.85	119.90
46	G8	83	THR	CA-C-O	5.66	123.70	119.68
7	62	88	PRO	N-CA-C	5.66	120.17	111.57
38	45	104	PHE	N-CA-C	5.66	122.86	110.80
34	69	131	LYS	CA-C-N	5.66	140.57	127.00
34	69	131	LYS	C-N-CA	5.66	140.57	127.00
38	88	29	PHE	N-CA-C	5.65	120.87	113.30
48	E5	14	ARG	N-CA-C	5.65	119.12	110.36
2	1E	90	MET	CA-C-N	5.65	126.13	120.14
2	1E	90	MET	C-N-CA	5.65	126.13	120.14
9	82	86	VAL	N-CA-C	-5.65	105.33	113.07
2	1E	25	ASN	CA-C-N	5.64	126.89	119.84
2	1E	25	ASN	C-N-CA	5.64	126.89	119.84
26	14	2275	C	C4'-C3'-O3'	5.64	117.86	109.40
36	25	47	ILE	CA-C-N	5.63	125.74	119.32
36	25	47	ILE	C-N-CA	5.63	125.74	119.32
29	11	29	PRO	N-CA-C	-5.63	100.88	112.47
16	7A	55	ARG	N-CA-C	-5.62	105.92	112.89
33	59	7	LEU	N-CA-C	5.62	119.88	112.35
29	11	244	ARG	CA-C-N	-5.62	114.60	120.38
29	11	244	ARG	C-N-CA	-5.62	114.60	120.38
31	39	132	VAL	N-CA-C	-5.61	97.66	109.34
2	12	186	ALA	N-CA-C	5.60	116.75	107.73
13	4A	112	GLY	CA-C-N	5.60	125.58	120.03
13	4A	112	GLY	C-N-CA	5.60	125.58	120.03
7	6E	111	ARG	CA-C-N	5.60	125.27	119.56
7	6E	111	ARG	C-N-CA	5.60	125.27	119.56
29	11	236	GLY	CA-C-O	5.60	125.33	119.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	35	21	ARG	N-CA-C	5.60	122.72	110.80
35	58	24	GLY	N-CA-C	-5.59	106.02	112.73
47	H8	169	GLU	N-CA-C	-5.59	101.02	108.34
28	71	176	GLY	N-CA-C	5.58	117.97	110.43
49	J8	79	GLY	N-CA-C	5.58	126.41	113.18
19	AA	75	ALA	CA-C-N	5.58	125.51	119.76
19	AA	75	ALA	C-N-CA	5.58	125.51	119.76
26	14	752	A	C2'-C3'-O3'	5.58	117.87	109.50
37	78	23	PRO	CA-C-N	-5.57	110.49	121.41
37	78	23	PRO	C-N-CA	-5.57	110.49	121.41
29	19	256	GLY	N-CA-C	5.57	121.71	115.08
29	11	272	ALA	CA-C-N	5.57	132.17	121.54
29	11	272	ALA	C-N-CA	5.57	132.17	121.54
31	39	147	GLY	N-CA-C	-5.56	107.34	115.63
44	A5	86	LEU	CA-C-N	-5.56	113.99	119.99
44	A5	86	LEU	C-N-CA	-5.56	113.99	119.99
31	31	22	ALA	N-CA-C	5.56	118.48	108.48
16	7A	5	ARG	N-CA-C	5.55	115.45	108.45
11	2A	17	GLY	N-CA-C	5.55	119.45	112.79
31	31	197	ASP	N-CA-C	-5.55	98.98	110.80
53	N8	33	CYS	CA-C-N	5.55	125.01	119.24
53	N8	33	CYS	C-N-CA	5.55	125.01	119.24
47	D5	61	LEU	CA-C-N	5.54	126.77	119.84
47	D5	61	LEU	C-N-CA	5.54	126.77	119.84
2	12	219	VAL	CA-C-N	5.53	131.65	121.70
2	12	219	VAL	C-N-CA	5.53	131.65	121.70
2	1E	234	PRO	N-CA-C	5.52	119.54	110.55
34	61	115	ALA	N-CA-C	-5.52	98.26	107.80
28	71	217	THR	N-CA-C	-5.51	106.51	113.18
28	71	225	ASN	CA-C-N	5.51	125.13	119.56
28	71	225	ASN	C-N-CA	5.51	125.13	119.56
52	M8	39	CYS	CA-C-N	5.51	135.24	121.80
52	M8	39	CYS	C-N-CA	5.51	135.24	121.80
30	21	58	ARG	N-CA-C	-5.50	105.78	112.88
36	68	64	ARG	N-CA-C	5.50	117.43	109.07
47	H8	54	HIS	N-CA-C	-5.50	105.68	112.72
30	29	50	GLY	N-CA-C	5.50	126.22	113.18
52	M8	40	HIS	CA-C-N	-5.50	112.97	119.84
52	M8	40	HIS	C-N-CA	-5.50	112.97	119.84
14	5I	13	THR	N-CA-C	5.50	121.96	109.81
45	F8	61	GLY	N-CA-C	5.49	118.37	112.33
12	3I	60	LEU	N-CA-C	5.49	119.04	110.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	3I	116	SER	N-CA-C	5.49	119.08	112.93
38	88	25	ASP	N-CA-C	5.49	122.48	110.80
46	G8	78	ALA	N-CA-C	5.49	121.85	113.51
1	1G	812	C	P-O3'-C3'	5.49	128.43	120.20
11	2I	115	PRO	CA-C-N	-5.48	114.62	123.23
11	2I	115	PRO	C-N-CA	-5.48	114.62	123.23
34	61	135	GLU	N-CA-C	5.48	115.80	108.23
1	13	509	A	P-O3'-C3'	5.48	128.42	120.20
13	4A	94	ARG	N-CA-C	5.48	118.02	107.44
37	35	19	VAL	N-CA-C	5.48	120.73	109.34
13	4I	101	GLN	CB-CA-C	-5.47	108.66	115.89
43	D8	37	VAL	CA-C-N	5.47	131.99	121.54
43	D8	37	VAL	C-N-CA	5.47	131.99	121.54
52	M8	40	HIS	N-CA-C	5.47	121.90	109.81
31	39	93	LYS	CA-C-N	-5.47	113.92	119.83
31	39	93	LYS	C-N-CA	-5.47	113.92	119.83
26	1H	845	G	OP1-P-O3'	5.46	124.38	108.00
2	1E	6	THR	N-CA-C	5.46	117.81	109.95
28	71	56	GLN	N-CA-C	5.46	119.63	112.92
53	N8	6	VAL	N-CA-CB	-5.45	105.81	111.64
10	1I	54	PHE	CA-C-N	-5.44	114.31	122.47
10	1I	54	PHE	C-N-CA	-5.44	114.31	122.47
26	1H	2060	A	P-O3'-C3'	5.44	128.36	120.20
28	71	170	ALA	N-CA-C	5.43	116.89	109.18
28	71	58	VAL	N-CA-C	5.43	116.18	108.42
43	95	42	GLY	N-CA-C	5.43	120.49	113.27
30	29	144	ARG	N-CA-CB	5.42	115.04	109.51
12	3I	105	TYR	CB-CA-C	-5.42	108.76	116.34
34	69	83	ALA	N-CA-C	5.41	117.41	109.24
53	N8	4	HIS	CA-C-N	5.41	125.33	119.76
53	N8	4	HIS	C-N-CA	5.41	125.33	119.76
20	BI	93	GLU	N-CA-C	-5.41	105.46	111.36
33	59	153	LYS	N-CA-C	5.41	121.77	109.81
19	AA	33	THR	N-CA-C	5.41	116.48	108.86
26	1H	2346	A	O4'-C1'-N9	5.41	116.31	108.20
29	19	98	VAL	N-CA-C	-5.40	104.99	112.50
49	F5	29	GLY	CA-C-N	5.40	131.69	121.97
49	F5	29	GLY	C-N-CA	5.40	131.69	121.97
46	G8	5	MET	N-CA-C	5.40	118.09	109.02
4	3E	135	LEU	CA-C-N	5.39	125.11	119.82
4	3E	135	LEU	C-N-CA	5.39	125.11	119.82
28	79	15	ASP	CA-C-N	5.39	125.10	119.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	79	15	ASP	C-N-CA	5.39	125.10	119.82
26	14	128	C	C2'-C3'-O3'	5.39	121.78	113.70
34	69	131	LYS	C-N-CD	-5.39	108.75	120.60
26	1H	1653	G	C2'-C3'-O3'	5.38	117.56	109.50
35	15	134	ARG	CA-C-N	5.37	126.55	119.84
35	15	134	ARG	C-N-CA	5.37	126.55	119.84
35	58	134	ARG	N-CA-C	5.37	121.67	109.81
38	45	93	TYR	N-CA-C	5.37	118.31	109.72
42	85	9	VAL	N-CA-C	5.37	116.00	110.36
12	3A	11	VAL	N-CA-C	-5.37	105.27	110.42
48	I8	36	ILE	CB-CA-C	5.37	117.45	110.96
47	D5	33	LEU	N-CA-C	5.37	117.55	109.23
4	32	153	ARG	CA-C-N	5.36	128.21	120.38
4	32	153	ARG	C-N-CA	5.36	128.21	120.38
2	12	22	LYS	N-CA-C	5.36	117.42	107.99
4	32	27	TYR	N-CA-C	-5.36	106.59	113.02
41	B8	113	LYS	N-CA-C	-5.35	105.01	112.45
2	1E	38	GLY	N-CA-C	-5.35	108.72	115.08
38	88	106	VAL	N-CA-C	5.35	116.25	110.21
29	19	198	ASN	N-CA-C	-5.34	104.02	111.39
26	1H	1992	G	P-O3'-C3'	5.34	128.21	120.20
55	M5	39	LYS	N-CA-C	-5.34	102.38	110.28
26	1H	508	G	N9-C1'-C2'	5.34	122.01	114.00
29	19	83	GLU	N-CA-C	5.34	118.41	110.14
30	29	137	HIS	CA-C-N	-5.33	113.18	119.84
30	29	137	HIS	C-N-CA	-5.33	113.18	119.84
40	A8	107	GLU	N-CA-C	-5.32	104.36	111.02
29	19	13	ARG	N-CA-C	-5.32	106.79	113.28
43	95	84	LYS	N-CA-C	5.32	122.13	110.80
46	C5	82	PRO	N-CA-C	5.32	119.06	111.13
7	62	141	VAL	CA-C-N	5.31	131.26	121.70
7	62	141	VAL	C-N-CA	5.31	131.26	121.70
36	25	46	ALA	N-CA-C	5.31	116.07	108.74
41	75	97	ALA	N-CA-C	5.31	117.88	111.40
41	B8	46	GLU	N-CA-C	5.30	116.97	107.80
28	79	53	ARG	CG-CD-NE	-5.30	100.35	112.00
3	2E	6	HIS	CA-C-N	5.29	124.96	119.56
3	2E	6	HIS	C-N-CA	5.29	124.96	119.56
37	35	10	PRO	N-CA-C	5.29	120.81	113.98
45	F8	23	GLU	N-CA-C	-5.29	101.64	109.94
31	39	82	ILE	N-CA-C	-5.28	106.38	112.98
37	35	144	GLU	N-CA-C	5.28	116.78	108.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	71	11	LEU	N-CA-C	-5.28	106.81	113.20
37	78	57	THR	N-CA-C	5.27	117.67	110.24
47	H8	113	ALA	N-CA-C	5.27	118.60	111.17
26	14	1602	U	O5'-P-OP2	5.27	123.81	108.00
38	45	134	ARG	N-CA-C	5.27	121.52	113.51
5	42	23	GLY	N-CA-C	5.27	117.12	110.38
36	68	29	ASN	N-CA-C	5.26	119.67	112.88
1	13	792	A	N9-C1'-C2'	5.26	119.89	112.00
4	3E	87	GLY	N-CA-C	5.25	128.54	113.30
26	14	1022	G	C2'-C3'-O3'	5.25	117.38	109.50
30	29	141	ILE	N-CA-C	5.25	117.23	112.29
30	21	116	VAL	CA-C-O	-5.25	116.33	121.58
53	N8	19	ARG	N-CA-C	-5.25	105.73	111.82
38	88	26	TYR	CA-CB-CG	5.25	123.34	113.90
26	1H	752	A	P-O3'-C3'	5.24	128.07	120.20
4	32	167	GLY	N-CA-C	5.24	122.84	115.30
50	G5	33	MET	CB-CG-SD	-5.23	97.00	112.70
50	K8	16	LEU	N-CA-C	-5.22	99.45	108.69
26	14	1332	G	N9-C1'-C2'	-5.22	106.17	114.00
37	35	107	LYS	N-CA-C	5.21	119.22	112.86
54	L5	18	PHE	N-CA-C	5.21	116.96	111.28
13	4A	66	LEU	N-CA-C	5.21	115.17	108.34
38	88	33	GLY	N-CA-C	5.20	121.56	112.10
1	13	687	A	C2'-C3'-O3'	5.20	117.30	109.50
12	3A	27	LEU	CA-CB-CG	5.20	134.49	116.30
26	14	1992	G	P-O3'-C3'	5.19	127.99	120.20
30	21	117	MET	CA-C-N	5.19	131.46	121.54
30	21	117	MET	C-N-CA	5.19	131.46	121.54
9	82	17	VAL	N-CA-C	5.19	115.45	107.77
32	49	14	GLU	CA-C-N	5.19	127.79	120.42
32	49	14	GLU	C-N-CA	5.19	127.79	120.42
46	C5	81	LYS	N-CA-C	5.18	121.27	109.81
26	14	2275	C	P-O3'-C3'	5.18	127.97	120.20
33	59	3	ARG	N-CA-C	5.18	117.32	108.67
26	1H	750	A	OP1-P-O3'	-5.17	92.48	108.00
26	1H	2598	A	C2'-C3'-O3'	5.17	121.46	113.70
38	88	106	VAL	CB-CA-C	-5.17	105.66	111.45
30	21	141	ILE	N-CA-C	5.17	117.86	112.90
4	3E	38	TYR	CA-C-N	5.17	123.38	119.66
4	3E	38	TYR	C-N-CA	5.17	123.38	119.66
42	85	99	ALA	N-CA-C	-5.16	105.87	113.72
33	59	170	ARG	N-CA-C	5.16	118.35	110.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	11	233	HIS	CB-CA-C	-5.15	102.66	111.31
46	G8	93	GLY	CA-C-O	-5.15	118.12	122.29
30	29	121	ASN	N-CA-C	5.15	119.14	112.86
9	8E	91	ASP	N-CA-C	-5.14	106.60	112.92
8	7E	4	ASP	CA-C-N	5.14	124.76	119.05
8	7E	4	ASP	C-N-CA	5.14	124.76	119.05
43	D8	38	LEU	N-CA-C	5.14	121.75	110.80
30	29	139	GLY	CA-C-N	5.13	128.76	121.42
30	29	139	GLY	C-N-CA	5.13	128.76	121.42
13	4A	90	LEU	N-CA-C	-5.13	105.77	111.36
29	11	220	HIS	CA-C-N	-5.13	116.46	122.93
29	11	220	HIS	C-N-CA	-5.13	116.46	122.93
46	G8	92	ASN	N-CA-C	5.13	115.82	108.74
26	1H	2506	U	P-O3'-C3'	5.13	127.89	120.20
10	1A	76	ASN	CA-C-N	5.12	126.25	119.84
10	1A	76	ASN	C-N-CA	5.12	126.25	119.84
33	59	54	ARG	CA-C-N	5.12	124.84	119.82
33	59	54	ARG	C-N-CA	5.12	124.84	119.82
2	1E	124	SER	N-CA-C	5.12	116.02	110.13
28	71	39	GLU	N-CA-C	5.12	117.70	107.62
5	42	120	THR	N-CA-C	5.12	117.16	109.23
6	5E	70	ASP	N-CA-C	5.11	117.59	111.71
11	2I	103	LEU	N-CA-C	5.11	116.89	110.91
50	K8	44	LEU	N-CA-C	-5.11	106.55	112.89
49	F5	81	LYS	N-CA-C	-5.11	106.82	113.16
14	5I	4	LYS	N-CA-C	5.11	119.80	111.37
8	72	97	VAL	N-CA-C	5.11	116.44	110.62
31	31	100	THR	N-CA-C	5.11	117.25	107.75
37	78	144	GLU	CA-C-N	5.11	125.31	120.31
37	78	144	GLU	C-N-CA	5.11	125.31	120.31
14	5A	28	GLY	CA-C-N	5.11	131.29	121.54
14	5A	28	GLY	C-N-CA	5.11	131.29	121.54
13	4A	78	ILE	N-CA-C	5.10	116.56	111.00
33	51	8	PRO	CA-C-N	-5.10	118.35	123.04
33	51	8	PRO	C-N-CA	-5.10	118.35	123.04
49	J8	54	ALA	CB-CA-C	-5.10	110.68	116.54
53	J5	46	CYS	CA-C-N	5.10	124.71	119.56
53	J5	46	CYS	C-N-CA	5.10	124.71	119.56
3	2E	113	ALA	CA-C-N	-5.10	114.36	119.56
3	2E	113	ALA	C-N-CA	-5.10	114.36	119.56
26	1H	586	A	O5'-P-OP2	-5.10	92.71	108.00
29	19	272	ALA	CA-C-N	5.09	131.25	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	19	272	ALA	C-N-CA	5.09	131.25	121.54
43	95	49	THR	N-CA-C	-5.08	105.26	112.17
45	F8	68	ARG	N-CA-C	-5.08	105.79	113.51
34	69	100	ALA	CA-C-N	-5.08	115.25	122.77
34	69	100	ALA	C-N-CA	-5.08	115.25	122.77
35	15	41	ASP	N-CA-C	-5.08	106.77	113.17
32	49	89	GLY	N-CA-C	5.08	118.48	110.91
48	E5	13	GLY	N-CA-C	5.08	125.21	113.18
10	1I	62	HIS	N-CA-C	5.08	117.87	109.85
39	55	90	ARG	N-CA-C	5.08	116.88	108.20
26	1H	2060	A	OP1-P-O3'	-5.07	92.79	108.00
28	71	67	GLY	N-CA-C	-5.06	106.35	112.48
37	35	96	THR	CA-C-N	-5.06	114.54	119.76
37	35	96	THR	C-N-CA	-5.06	114.54	119.76
51	L8	11	SER	N-CA-C	5.06	116.90	109.71
53	J5	6	VAL	CB-CA-C	5.06	115.36	109.89
35	58	43	THR	CA-C-N	5.06	124.85	119.28
35	58	43	THR	C-N-CA	5.06	124.85	119.28
26	1H	1022	G	P-O3'-C3'	5.05	127.78	120.20
33	59	168	PRO	N-CA-C	5.05	120.17	113.40
31	39	146	ALA	N-CA-C	-5.05	100.05	110.80
38	88	38	GLU	CA-C-N	-5.05	114.79	120.14
38	88	38	GLU	C-N-CA	-5.05	114.79	120.14
26	14	2689	U	C2'-C3'-O3'	5.04	117.07	109.50
9	8E	112	LYS	N-CA-C	-5.04	100.07	110.80
15	6I	48	LYS	CG-CD-CE	-5.04	99.71	111.30
26	1H	141(A)	C	OP1-P-O3'	-5.04	92.89	108.00
33	51	81	GLU	N-CA-C	5.04	117.32	111.02
45	B5	44	GLU	N-CA-C	-5.04	105.48	110.97
49	F5	38	SER	N-CA-C	5.04	116.72	108.76
46	G8	42	VAL	CA-C-N	-5.04	115.85	122.85
46	G8	42	VAL	C-N-CA	-5.04	115.85	122.85
30	21	19	ARG	N-CA-C	-5.03	101.94	109.79
32	41	65	GLY	N-CA-C	-5.03	108.29	115.64
29	19	129	ASN	N-CA-C	5.03	116.90	107.99
40	65	5	THR	N-CA-C	5.03	117.02	110.43
4	32	176	LEU	N-CA-C	5.03	117.10	108.90
38	88	5	ARG	N-CA-C	-5.03	103.76	110.55
34	61	131	LYS	CA-C-N	5.02	139.06	127.00
34	61	131	LYS	C-N-CA	5.02	139.06	127.00
8	72	75	ARG	CA-C-N	5.02	124.92	119.85
8	72	75	ARG	C-N-CA	5.02	124.92	119.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	69	102	SER	N-CA-C	-5.02	100.11	110.80
44	E8	60	ASN	N-CA-C	5.01	119.03	113.01
26	1H	2346	A	C4-N9-C1'	5.01	141.33	126.30
17	8A	29	HIS	CA-C-N	5.01	124.45	119.24
17	8A	29	HIS	C-N-CA	5.01	124.45	119.24
26	1H	752	A	C4'-C3'-O3'	5.01	116.91	109.40
2	12	14	GLY	N-CA-C	5.00	120.65	114.69
29	19	54	ARG	N-CA-C	5.00	117.22	108.76

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	13	792	A	C1'

All (141) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
29	11	113	VAL	Peptide
29	11	233	HIS	Peptide
29	11	236	GLY	Peptide
29	11	237	GLU	Peptide
2	12	12	GLU	Peptide
2	12	19	HIS	Peptide
2	12	219	VAL	Peptide
2	12	22	LYS	Peptide
29	19	197	GLY	Peptide
29	19	237	GLU	Peptide
29	19	27	THR	Peptide
29	19	28	GLU	Peptide
2	1E	12	GLU	Peptide
2	1E	15	VAL	Peptide
2	1E	169	LYS	Peptide
2	1E	9	GLU	Peptide
10	1I	75	ILE	Peptide
30	21	20	ALA	Peptide
30	21	21	VAL	Peptide
30	21	67	PHE	Peptide
30	21	78	LEU	Peptide
30	21	82	ARG	Peptide
3	22	86	VAL	Peptide
3	22	93	LYS	Peptide
30	29	44	TYR	Peptide

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Mol	Chain	Res	Type	Group
30	29	61	ARG	Peptide
30	29	76	ARG	Peptide
30	29	87	GLU	Peptide
30	29	89	ASP	Peptide
11	2A	49	GLY	Peptide
11	2I	102	GLY	Peptide
31	31	196	LEU	Peptide
31	31	22	ALA	Peptide
31	31	23	ASP	Peptide
31	31	67	GLN	Peptide
4	32	29	PRO	Peptide
37	35	110	TYR	Peptide
37	35	36	LYS	Peptide
37	35	5	ASP	Peptide
31	39	127	GLU	Peptide
31	39	14	PRO	Peptide
31	39	166	ALA	Peptide
31	39	20	LEU	Peptide
31	39	24	LEU	Peptide
31	39	69	HIS	Mainchain
31	39	89	VAL	Peptide
4	3E	193	ASP	Peptide
12	3I	47	LYS	Peptide
32	41	95	ARG	Peptide
38	45	134	ARG	Peptide
38	45	135	ASP	Peptide
38	45	137	TYR	Peptide
38	45	58	PHE	Peptide
38	45	80	GLU	Peptide
38	45	82	ARG	Peptide
32	49	13	GLU	Peptide
13	4A	92	HIS	Peptide
13	4A	94	ARG	Peptide
13	4I	105	THR	Peptide
13	4I	107	ALA	Peptide
13	4I	66	LEU	Peptide
33	51	137	ASP	Peptide
33	51	152	ARG	Peptide
33	51	156	ALA	Peptide
33	51	2	SER	Peptide
33	51	20	ALA	Peptide
33	51	40	GLU	Peptide

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Mol	Chain	Res	Type	Group
39	55	106	GLY	Peptide
14	5A	27	CYS	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
28	71	211	SER	Peptide
28	71	31	GLU	Peptide
28	71	39	GLU	Peptide
41	75	12	SER	Peptide
37	78	13	ASN	Peptide
37	78	18	ARG	Peptide
37	78	19	VAL	Peptide
37	78	36	LYS	Peptide
37	78	70	GLN	Peptide
9	82	117	HIS	Peptide
42	85	72	HIS	Peptide
42	85	90	VAL	Peptide
42	85	95	LEU	Peptide
42	85	98	LEU	Peptide
38	88	21	THR	Peptide
9	8E	110	GLU	Peptide
43	95	44	LYS	Peptide
43	95	49	THR	Peptide
39	98	44	LEU	Peptide
18	9I	33	ASP	Peptide
44	A5	111	HIS	Peptide
44	A5	43	GLY	Peptide
19	AI	6	LYS	Peptide
19	AI	7	LYS	Peptide
45	B5	61	GLY	Peptide
41	B8	58	ASN	Peptide
20	BA	11	SER	Peptide
20	BA	72	LEU	Peptide
46	C5	50	ARG	Peptide
46	C5	91	GLU	Peptide
46	C5	99	CYS	Peptide
42	C8	92	ARG	Peptide
42	C8	95	LEU	Peptide

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Mol	Chain	Res	Type	Group
47	D5	136	PHE	Peptide
47	D5	61	LEU	Peptide
43	D8	36	PRO	Peptide
43	D8	44	LYS	Peptide
43	D8	48	GLY	Peptide
45	F8	24	GLY	Peptide
45	F8	3	THR	Peptide
50	G5	15	LYS	Peptide
50	G5	16	LEU	Peptide
50	G5	17	SER	Peptide
50	G5	43	GLN	Peptide
46	G8	104	GLY	Peptide
46	G8	5	MET	Peptide
46	G8	53	PRO	Peptide
46	G8	54	LYS	Peptide
46	G8	84	ARG	Peptide
46	G8	94	LYS	Peptide
46	G8	99	CYS	Peptide
47	H8	117	LEU	Peptide
47	H8	165	VAL	Peptide
47	H8	59	LEU	Peptide
47	H8	63	ASP	Peptide
49	J8	75	GLU	Peptide
49	J8	92	LYS	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	40	HIS	Peptide
52	M8	43	TYR	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	16233	764	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1G	32391	0	16353	746	0
2	12	1721	0	1758	106	0
2	1E	1874	0	1926	108	0
3	22	1541	0	1606	70	0
3	2E	1605	0	1668	61	0
4	32	1702	0	1765	118	0
4	3E	1698	0	1761	85	0
5	42	1134	0	1200	45	0
5	4E	1142	0	1204	63	0
6	52	842	0	857	31	0
6	5E	837	0	852	38	0
7	62	1110	0	1163	52	0
7	6E	1242	0	1286	45	0
8	72	1107	0	1165	39	0
8	7E	1115	0	1177	61	0
9	82	953	0	983	70	0
9	8E	1000	0	1031	59	0
10	1A	646	0	662	33	0
10	1I	734	0	761	44	0
11	2A	835	0	847	33	0
11	2I	823	0	833	51	0
12	3A	956	0	1046	57	0
12	3I	956	0	1046	33	0
13	4A	893	0	946	63	0
13	4I	942	0	997	54	0
14	5A	486	0	525	27	0
14	5I	491	0	529	30	0
15	6A	733	0	771	33	0
15	6I	729	0	768	29	0
16	7A	705	0	725	29	0
16	7I	700	0	720	49	0
17	8A	823	0	891	35	0
17	8I	834	0	904	44	0
18	9A	544	0	605	26	0
18	9I	549	0	607	36	0
19	AA	481	0	468	33	0
19	AI	654	0	675	45	0
20	BA	762	0	861	33	0
20	BI	746	0	843	50	0
21	1B	188	0	195	13	0
21	1F	199	0	208	6	0
22	1K	1520	0	778	39	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
23	2K	1646	0	843	30	0
23	2L	1646	0	843	39	0
24	3K	1611	0	817	48	0
25	4K	419	0	208	6	0
25	4L	397	0	197	12	0
26	14	61630	0	31073	1329	0
26	1H	61028	0	30763	1358	0
27	16	2617	0	1328	55	0
27	1J	2617	0	1328	66	0
28	71	1033	0	1048	77	0
28	79	456	0	460	20	0
29	11	2120	0	2197	135	0
29	19	2125	0	2199	106	0
30	21	1558	0	1624	88	0
30	29	1563	0	1629	122	0
31	31	1585	0	1632	97	0
31	39	1602	0	1649	91	0
32	41	1457	0	1514	94	0
32	49	1458	0	1516	63	0
33	51	1312	0	1384	70	0
33	59	568	0	595	49	0
34	61	1136	0	1223	59	0
34	69	1131	0	1218	50	0
35	15	1104	0	1180	37	0
35	58	1104	0	1180	56	0
36	25	932	0	996	38	0
36	68	932	0	996	44	0
37	35	1122	0	1206	85	0
37	78	1122	0	1206	97	0
38	45	1099	0	1154	84	0
38	88	1113	0	1157	53	0
39	55	967	0	1033	50	0
39	98	967	0	1033	49	0
40	65	876	0	938	64	0
40	A8	881	0	943	53	0
41	75	1109	0	1170	56	0
41	B8	1109	0	1170	65	0
42	85	959	0	1019	55	0
42	C8	950	0	1011	55	0
43	95	774	0	849	65	0
43	D8	774	0	849	45	0
44	A5	899	0	964	30	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
44	E8	890	0	951	24	0
45	B5	735	0	785	35	0
45	F8	743	0	794	35	0
46	C5	794	0	886	72	0
46	G8	796	0	886	48	0
47	D5	1074	0	1086	55	0
47	H8	1373	0	1402	57	0
48	E5	608	0	622	26	0
48	I8	606	0	625	30	0
49	F5	737	0	813	33	0
49	J8	737	0	813	39	0
50	G5	558	0	610	33	0
50	K8	568	0	614	34	0
51	H5	459	0	512	10	0
51	L8	459	0	512	18	0
52	M8	366	0	370	37	0
53	J5	434	0	454	22	0
53	N8	369	0	388	22	0
54	L5	401	0	436	16	0
54	P8	401	0	436	16	0
55	M5	516	0	582	26	0
55	Q8	516	0	582	37	0
56	1L	1563	0	799	42	0
57	3L	1612	0	819	41	0
58	13	132	0	0	0	0
58	14	399	0	0	0	0
58	16	9	0	0	0	0
58	1E	1	0	0	0	0
58	1G	90	0	0	0	0
58	1H	467	0	0	0	0
58	1J	5	0	0	0	0
58	1K	1	0	0	0	0
58	21	2	0	0	0	0
58	25	1	0	0	0	0
58	29	4	0	0	0	0
58	2K	3	0	0	0	0
58	2L	2	0	0	0	0
58	35	3	0	0	0	0
58	39	1	0	0	0	0
58	3K	1	0	0	0	0
58	41	1	0	0	0	0
58	45	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	55	1	0	0	0	0
58	5E	1	0	0	0	0
58	6A	1	0	0	0	0
58	78	1	0	0	0	0
58	88	1	0	0	0	0
58	98	1	0	0	0	0
58	E5	1	0	0	0	0
58	I8	3	0	0	0	0
58	J8	1	0	0	0	0
58	L8	1	0	0	0	0
58	P8	1	0	0	0	0
58	Q8	1	0	0	0	0
59	32	8	0	0	2	0
59	3E	8	0	0	1	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	7	0	0	5	0
61	13	126	0	0	21	0
61	14	417	0	0	73	0
61	16	29	0	0	6	0
61	19	8	0	0	1	0
61	1G	78	0	0	9	0
61	1H	629	0	0	102	0
61	1J	6	0	0	1	0
61	1K	8	0	0	0	0
61	21	4	0	0	2	0
61	29	2	0	0	0	0
61	31	9	0	0	0	0
61	32	1	0	0	0	0
61	35	1	0	0	0	0
61	39	5	0	0	0	0
61	3I	2	0	0	0	0
61	3K	1	0	0	0	0
61	4K	2	0	0	0	0
61	55	1	0	0	0	0
61	58	2	0	0	0	0
61	5A	2	0	0	0	0
61	5I	2	0	0	0	0
61	78	7	0	0	2	0
61	88	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
61	A5	1	0	0	0	0
61	B8	1	0	0	0	0
61	E8	2	0	0	0	0
61	F8	1	0	0	0	0
61	G8	1	0	0	0	0
61	H5	2	0	0	1	0
61	I8	3	0	0	1	0
61	L8	2	0	0	1	0
All	All	294444	0	196318	8390	0

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 18.

All (8390) 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)
46:G8:100:ALA:HB1	46:G8:101:LYS:HG2	1.34	1.09
55:M5:48:PHE:HB2	55:M5:49:VAL:HG22	1.31	1.07
26:14:161:U:H5'	26:14:171:G:H21	1.18	1.06
26:1H:2711:A:OP2	61:1H:3501:HOH:O	1.73	1.05
26:14:2002:G:N7	61:14:3505:HOH:O	1.91	1.03
26:1H:2714:G:OP2	61:1H:3501:HOH:O	1.77	1.01
26:1H:913:U:O4	61:1H:3503:HOH:O	1.78	1.01
9:82:5:TYR:HA	9:82:87:GLN:HE21	1.23	1.01
43:95:85:LYS:HD2	43:95:86:GLY:H	1.25	1.00
26:1H:450:G:OP2	61:1H:3502:HOH:O	1.78	1.00
26:14:2415:G:H4'	37:35:67:MET:H	1.26	0.99
26:1H:748:G:OP2	61:1H:3504:HOH:O	1.82	0.96
1:13:510:A:OP2	4:3E:49:ARG:NH2	1.98	0.96
26:14:676:A:H8	26:14:2069:G:H21	1.08	0.94
7:62:113:GLU:HB2	7:62:119:ARG:HG2	1.47	0.94
46:C5:97:ARG:NH1	46:C5:104:GLY:O	2.00	0.94
30:21:135:HIS:NE2	61:21:401:HOH:O	1.99	0.94
26:14:450:G:OP2	61:14:3502:HOH:O	1.85	0.94
26:1H:1771:C:HO2'	26:1H:1786:A:H8	1.01	0.93
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.50	0.93
26:14:2448:A:OP2	61:14:3501:HOH:O	1.84	0.93
26:14:1418:G:N7	61:14:3513:HOH:O	2.01	0.93
26:14:733:G:OP2	61:14:3503:HOH:O	1.86	0.93
45:F8:3:THR:O	45:F8:5:TYR:N	2.02	0.93
10:1I:48:THR:HA	10:1I:62:HIS:HB3	1.50	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:900:A:H2'	26:14:901:A:H8	1.34	0.93
61:14:3506:HOH:O	39:55:3:HIS:NE2	2.01	0.93
26:14:67:U:H3	26:14:74:A:H2	1.15	0.91
1:13:1003:G:H1	1:13:1037:C:H42	1.19	0.91
26:1H:2308:G:H1	26:1H:2311:A:H2	1.18	0.91
26:14:2685:G:O6	61:14:3504:HOH:O	1.87	0.91
1:1G:1347:G:N7	9:82:10:ARG:NH2	2.19	0.91
26:14:660:G:H21	37:35:12:ALA:HB2	1.34	0.91
26:1H:2502:G:OP2	61:1H:3505:HOH:O	1.87	0.91
1:13:455:C:N3	1:13:477:G:N2	2.18	0.91
10:1A:51:ARG:HB2	10:1A:60:ARG:HA	1.50	0.90
26:14:2499:C:OP2	61:14:3501:HOH:O	1.90	0.90
26:14:2392:A:H2	26:14:2424:C:H42	1.16	0.90
19:AI:40:ILE:HG23	19:AI:41:VAL:HG13	1.54	0.89
26:1H:1050:A:H2'	26:1H:1051:G:H8	1.34	0.89
26:1H:1602:U:O4	61:1H:3506:HOH:O	1.88	0.89
26:14:2357:U:OP1	48:E5:20:ARG:NH1	2.06	0.89
43:D8:10:LYS:NZ	43:D8:23:GLU:OE1	2.05	0.89
24:3K:30:G:H1	24:3K:40:C:H42	1.20	0.89
29:11:146:GLU:HB2	29:11:189:CYS:HB3	1.55	0.89
29:11:242:ARG:O	61:11:401:HOH:O	1.91	0.89
26:1H:1479:G:N7	26:1H:1510:A:N6	2.21	0.89
5:4E:10:MET:HE1	5:4E:13:ILE:HD13	1.55	0.89
26:14:833:U:O2	37:35:55:ARG:NH1	2.05	0.88
14:5A:7:ILE:HD11	14:5A:28:GLY:HA2	1.54	0.88
26:14:1225:C:H4'	43:95:85:LYS:HG2	1.54	0.88
4:32:157:LEU:O	4:32:161:ASN:ND2	2.07	0.88
26:14:2873:A:H8	39:55:6:SER:H	1.21	0.88
27:16:82:G:N7	61:16:301:HOH:O	2.06	0.88
1:1G:975:A:H4'	1:1G:976:G:H5"	1.56	0.88
26:1H:2392:A:H2	26:1H:2424:C:H42	1.22	0.88
28:71:40:THR:OG1	28:71:218:MET:SD	2.32	0.88
26:14:1632:A:N7	61:14:3518:HOH:O	2.06	0.88
26:1H:2139:C:H42	26:1H:2152:G:H22	1.20	0.88
16:7A:35:LYS:HD3	16:7A:35:LYS:H	1.39	0.88
1:1G:1502:A:H2	1:1G:1505:G:H1	1.17	0.87
1:13:362:G:O2'	12:3I:33:ARG:NH2	2.06	0.87
26:1H:2271:G:N7	61:1H:3531:HOH:O	2.07	0.87
1:13:1346:A:H5"	9:8E:120:ARG:HH12	1.37	0.87
31:31:6:VAL:HG21	31:31:119:ARG:HB3	1.57	0.87
26:14:2592:G:N7	61:14:3520:HOH:O	2.07	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:153:LYS:HB2	33:51:155:SER:H	1.39	0.86
26:14:761:A:N7	61:14:3521:HOH:O	2.07	0.86
13:4A:81:LEU:HB3	13:4A:89:GLY:HA3	1.57	0.86
36:25:14:THR:HG21	36:25:86:ILE:HG13	1.58	0.86
30:29:54:GLN:NE2	30:29:73:GLU:O	2.08	0.85
1:1G:258:G:N7	61:1G:1703:HOH:O	2.09	0.85
13:4I:23:TYR:HB3	13:4I:67:GLU:HB2	1.58	0.85
29:11:182:LEU:H	29:11:272:ALA:HB3	1.40	0.85
1:1G:1162:C:H42	1:1G:1174:G:H1	1.24	0.85
26:14:943:U:OP2	37:35:36:LYS:NZ	2.10	0.85
36:25:2:ILE:HD12	36:25:6:THR:HG21	1.57	0.85
50:K8:15:LYS:N	50:K8:15:LYS:HZ2	1.74	0.85
26:1H:1021:A:H62	26:1H:1141:U:H3	1.21	0.85
26:1H:2597:G:O3'	61:1H:3508:HOH:O	1.95	0.85
47:H8:111:VAL:HG12	47:H8:146:ILE:HD13	1.58	0.85
50:K8:3:LEU:HA	50:K8:5:GLU:HB2	1.59	0.85
30:29:14:ILE:HB	41:75:14:TYR:HE2	1.41	0.85
11:2A:29:ILE:HG22	11:2A:44:SER:HB2	1.59	0.85
41:B8:3:ARG:HB2	41:B8:6:LEU:HB2	1.58	0.84
1:1G:1348:U:H3	1:1G:1374:A:H2	1.22	0.84
32:49:161:THR:HG22	32:49:163:ALA:H	1.40	0.84
26:1H:270(J):G:H1	26:1H:270(P):C:H42	1.24	0.84
26:1H:585:G:OP1	61:1H:3507:HOH:O	1.94	0.84
26:1H:761:A:N7	61:1H:3536:HOH:O	2.09	0.84
33:59:171:LEU:HD13	33:59:172:LYS:H	1.41	0.84
38:45:25:ASP:HB3	38:45:102:VAL:H	1.41	0.84
29:11:16:MET:HE3	29:11:211:ARG:HD2	1.60	0.84
26:1H:563:G:OP2	61:1H:3510:HOH:O	1.95	0.84
1:13:1239:A:H62	1:13:1299:A:H62	1.24	0.84
16:7A:40:ASP:HB3	16:7A:48:TRP:HB2	1.60	0.84
26:14:84:A:N6	26:14:102:G:O2'	2.11	0.84
50:G5:50:ILE:HD12	50:G5:51:ARG:H	1.39	0.84
1:1G:1248:A:N3	9:82:70:LYS:NZ	2.24	0.84
26:1H:49:A:N7	26:1H:120:U:H5	1.76	0.83
41:B8:57:PHE:O	41:B8:58:ASN:ND2	2.09	0.83
26:1H:586:A:OP2	61:1H:3513:HOH:O	1.96	0.83
52:M8:40:HIS:HE1	52:M8:46:GLN:HA	1.41	0.83
26:1H:730:C:OP2	61:1H:3511:HOH:O	1.95	0.83
26:14:841:A:H61	26:14:937:U:H3	1.26	0.83
31:39:181:LEU:HD11	31:39:186:ILE:HD11	1.61	0.83
34:69:99:GLU:O	34:69:103:ARG:NH1	2.11	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1502:A:H2	1:13:1505:G:H1	1.27	0.83
26:14:974:G:O2'	26:14:975:G:N7	2.11	0.83
4:3E:86:LYS:HA	4:3E:87:GLY:C	2.03	0.83
26:1H:2789:C:H1'	26:1H:2892:A:H2	1.43	0.83
46:C5:14:LEU:HB2	46:C5:75:ILE:HD11	1.60	0.83
26:1H:1970:A:OP2	61:1H:3509:HOH:O	1.95	0.83
32:41:112:PRO:HB3	52:M8:37:SER:H	1.44	0.83
1:13:963:G:N2	1:13:972:C:N3	2.26	0.83
12:3I:117:ARG:HB3	12:3I:122:THR:HB	1.60	0.83
29:19:43:ARG:HB3	29:19:49:ILE:HA	1.59	0.82
37:35:39:LYS:HD2	37:35:45:LEU:HD21	1.58	0.82
41:B8:3:ARG:O	41:B8:7:ILE:N	2.11	0.82
26:1H:1265:A:OP2	61:1H:3514:HOH:O	1.97	0.82
45:B5:41:ASN:HA	45:B5:44:GLU:HB2	1.61	0.82
26:1H:586:A:OP2	61:1H:3512:HOH:O	1.96	0.82
30:29:60:ASN:HB2	30:29:62:PRO:HD2	1.61	0.82
1:1G:452:A:H4'	16:7A:72:ARG:HH12	1.43	0.82
57:3L:18:G:H2'	57:3L:57:G:H21	1.42	0.82
26:1H:1728:G:H3'	26:1H:1729:A:H5'	1.61	0.82
35:58:96:GLU:O	35:58:98:VAL:N	2.13	0.82
1:13:1423:G:OP1	36:68:49:ARG:NH2	2.13	0.82
4:32:162:LEU:HA	4:32:165:MET:HB2	1.59	0.82
26:1H:2137:C:O2	26:1H:2155:G:N1	2.13	0.82
31:31:157:VAL:HB	31:31:194:MET:HG2	1.60	0.82
1:1G:862:C:H1'	1:1G:874:G:H5"	1.62	0.82
5:42:102:ALA:HB1	5:42:106:PRO:HG2	1.62	0.82
3:2E:16:ARG:HD2	3:2E:54:ARG:HH21	1.44	0.81
26:1H:620:G:H4'	26:1H:621:A:H5"	1.60	0.81
26:1H:862:G:OP2	61:1H:3516:HOH:O	1.98	0.81
26:1H:1138:G:H21	35:58:106:MET:HE3	1.44	0.81
1:13:1292:U:OP1	7:6E:41:ARG:NH2	2.13	0.81
26:1H:142:G:H1'	45:F8:37:THR:HG21	1.60	0.81
27:16:15:A:H5'	27:16:16:G:C8	2.15	0.81
26:1H:1249:U:OP1	61:1H:3515:HOH:O	1.97	0.81
1:1G:838:G:N2	1:1G:848:C:N3	2.29	0.81
26:14:958:U:OP2	38:45:14:ARG:NH1	2.14	0.81
43:D8:56:SER:H	43:D8:100:ARG:HB2	1.44	0.81
26:1H:187:G:N7	61:1H:3545:HOH:O	2.12	0.81
26:1H:1130:U:O2	30:21:149:ARG:NH2	2.14	0.81
30:21:174:ASP:HB3	30:21:183:LEU:HD13	1.61	0.81
26:1H:71:A:H2	45:F8:31:HIS:HE2	1.23	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2117:A:O2'	26:1H:2147:G:N2	2.14	0.81
26:14:259:G:H21	26:14:621:A:H8	1.25	0.81
27:1J:80:U:H2'	27:1J:81:G:H21	1.43	0.81
41:75:77:PRO:HG2	41:75:80:SER:HB2	1.63	0.81
17:8I:67:LYS:HA	17:8I:70:ARG:HH12	1.46	0.81
7:62:20:ASP:HB3	7:62:23:VAL:HB	1.61	0.81
1:13:1305:G:H21	1:13:1331:G:H2'	1.46	0.81
1:13:413:G:O2'	1:13:428:G:N2	2.13	0.80
33:51:98:LEU:HD21	33:51:125:VAL:H	1.46	0.80
26:14:252:G:OP2	37:35:50:ARG:NH2	2.15	0.80
27:1J:18:G:H1	27:1J:65:C:H42	1.28	0.80
1:1G:780:A:OP2	61:1G:1701:HOH:O	1.98	0.80
26:1H:2431:U:OP2	61:1H:3518:HOH:O	1.99	0.80
28:71:68:LEU:HB2	28:71:176:GLY:HA2	1.64	0.80
1:1G:1534:A:N6	25:4L:10:G:O6	2.14	0.80
26:1H:733:G:OP2	61:1H:3517:HOH:O	1.99	0.80
31:39:123:LEU:O	31:39:125:LEU:N	2.15	0.80
10:1A:48:THR:HA	10:1A:62:HIS:HB3	1.62	0.80
16:7I:74:LEU:HA	16:7I:77:ALA:HB2	1.64	0.80
18:9I:38:GLU:HA	18:9I:41:LYS:HZ2	1.46	0.80
1:1G:54:C:N4	1:1G:353:A:OP2	2.14	0.80
26:14:2497:A:O3'	61:14:3507:HOH:O	1.98	0.80
32:49:129:GLY:O	32:49:130:ASN:ND2	2.14	0.80
47:H8:70:LEU:HD11	47:H8:98:MET:HE3	1.63	0.80
50:K8:32:LEU:HD11	50:K8:54:LYS:HG2	1.62	0.80
1:1G:1413:A:H61	1:1G:1487:G:H1	1.28	0.80
1:1G:1321:C:H41	1:1G:1322:C:H41	1.30	0.79
26:14:1434:A:H61	26:14:1558:A:H62	1.29	0.79
26:14:1639:U:OP1	61:14:3511:HOH:O	2.00	0.79
1:13:975:A:H4'	1:13:976:G:H5"	1.63	0.79
28:71:166:ASP:N	28:71:166:ASP:OD1	2.15	0.79
26:14:249:C:OP1	61:14:3508:HOH:O	1.99	0.79
26:14:2821:A:OP2	61:14:3506:HOH:O	1.98	0.79
26:14:1013:C:O2	26:14:1149:G:N2	2.15	0.79
31:31:185:ASP:OD1	31:31:188:ARG:NH1	2.15	0.79
26:14:1792:G:N2	26:14:1827:C:O2	2.13	0.79
14:5I:23:ARG:HH11	14:5I:30:ALA:HB2	1.48	0.79
26:1H:2305:A:O2'	32:41:136:ARG:NH1	2.16	0.79
1:1G:1305:G:H22	1:1G:1331:G:H2'	1.46	0.79
26:14:785:G:OP2	61:14:3512:HOH:O	2.01	0.79
26:14:486:C:O2'	44:A5:60:ASN:ND2	2.16	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:61:73:GLU:HG3	34:61:136:VAL:HG23	1.63	0.79
1:1G:1256:A:H62	1:1G:1277:C:H3'	1.47	0.79
2:12:11:LEU:HG	2:12:217:ARG:HH22	1.48	0.79
9:8E:15:ALA:HB2	9:8E:65:VAL:HG23	1.64	0.79
26:14:1633:G:O6	61:14:3510:HOH:O	2.00	0.79
40:65:41:ASP:OD2	40:65:44:LYS:NZ	2.13	0.79
24:3K:3:G:N2	24:3K:71:C:N3	2.31	0.79
26:1H:2032:G:H21	30:21:146:THR:HG23	1.46	0.79
1:1G:1535:C:H42	25:4L:9:G:H1	1.30	0.79
22:1K:5:C:O2	22:1K:68:G:N2	2.15	0.78
26:1H:141:A:OP2	26:1H:141(A):C:N4	2.16	0.78
1:1G:630:G:H3'	1:1G:631:G:H5'	1.64	0.78
1:1G:1262:C:H42	1:1G:1273:G:H1	1.28	0.78
26:14:2379:G:O2'	40:65:17:ARG:NH1	2.16	0.78
30:29:52:LEU:HD23	30:29:76:ARG:HD3	1.65	0.78
1:13:452:A:H62	1:13:480:U:H3	1.29	0.78
28:71:212:VAL:HB	28:71:226:PRO:HD3	1.64	0.78
45:F8:36:LYS:HA	45:F8:39:ILE:HD12	1.65	0.78
8:72:69:ARG:NH1	8:72:75:ARG:O	2.16	0.78
42:85:34:LYS:NZ	42:85:37:GLU:OE1	2.14	0.78
1:1G:1028:C:N3	1:1G:1033:G:N2	2.29	0.78
4:32:23:GLY:N	4:32:26:CYS:SG	2.57	0.78
31:31:29:ASN:H	31:31:112:MET:HE1	1.48	0.78
32:41:96:ARG:H	32:41:99:MET:HE2	1.47	0.78
49:F5:82:LEU:HD23	49:F5:83:GLU:HG2	1.65	0.78
26:14:1382:G:O6	61:14:3509:HOH:O	1.99	0.78
26:1H:676:A:H8	26:1H:2069:G:H21	1.32	0.78
26:1H:1050:A:H2'	26:1H:1051:G:C8	2.18	0.78
8:72:121:ASP:OD1	8:72:125:ARG:NH2	2.16	0.78
43:95:69:LYS:HB2	43:95:86:GLY:HA3	1.65	0.78
53:J5:16:ARG:NH1	53:J5:17:ASP:OD1	2.17	0.78
26:14:273(F):C:H3'	26:14:274:G:H5"	1.65	0.78
32:49:125:PHE:HB3	32:49:166:ASP:HB2	1.65	0.78
48:E5:47:PRO:HG3	48:E5:53:MET:HG3	1.65	0.78
23:2K:6:G:H1	23:2K:68:C:H42	1.30	0.78
26:1H:943:U:OP2	37:78:36:LYS:NZ	2.17	0.78
26:1H:2572:A:C8	30:21:144:ARG:HD2	2.19	0.78
26:1H:259:G:O2'	26:1H:621:A:O2'	2.02	0.78
50:K8:4:SER:CB	50:K8:7:ARG:H	1.97	0.78
26:14:2163:C:OP2	26:14:2165:G:N2	2.16	0.78
26:14:2270:G:OP2	61:14:3515:HOH:O	2.02	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:228:PRO:O	61:19:301:HOH:O	2.01	0.78
19:AI:50:ALA:HB1	19:AI:57:HIS:HB3	1.67	0.77
34:61:72:LEU:HD11	34:61:107:VAL:HG21	1.66	0.77
26:1H:571:A:H5'	26:1H:2030:A:H62	1.48	0.77
26:1H:2312:U:H5'	32:41:88:ILE:HD13	1.65	0.77
1:1G:1256:A:N6	1:1G:1278:U:OP2	2.18	0.77
7:62:23:VAL:HG13	7:62:43:PHE:HE2	1.49	0.77
26:14:161:U:H5'	26:14:171:G:N2	1.98	0.77
50:G5:23:LYS:NZ	50:G5:27:GLU:OE2	2.16	0.77
9:8E:50:LEU:HD23	9:8E:85:LEU:HD11	1.66	0.77
14:5I:9:LYS:HA	14:5I:12:ARG:HG2	1.66	0.77
26:14:1327:C:OP2	61:14:3514:HOH:O	2.01	0.77
1:13:1256:A:N6	1:13:1278:U:OP2	2.17	0.77
32:41:83:ARG:H	32:41:86:MET:HE2	1.49	0.77
1:1G:1127:G:O2'	1:1G:1128:C:H5'	1.84	0.77
3:22:44:GLU:HA	3:22:52:LEU:HD11	1.66	0.77
26:14:1022:G:H22	26:14:1142(A):A:H2	1.33	0.77
1:13:974:A:OP2	14:5I:41:ARG:NH1	2.17	0.77
14:5I:26:ARG:NH1	14:5I:43:CYS:SG	2.58	0.77
28:71:45:ALA:HB2	28:71:212:VAL:HG23	1.65	0.77
30:21:105:THR:OG1	30:21:199:ARG:NH2	2.13	0.77
26:14:77:C:O3'	50:G5:14:ARG:NH2	2.17	0.77
26:14:1689:A:H62	26:14:1698:A:H2	1.32	0.77
40:65:62:LYS:HA	40:65:65:VAL:HG12	1.66	0.77
26:1H:1355:G:O6	61:1H:3519:HOH:O	2.01	0.77
26:1H:2111:C:N4	26:1H:2147:G:O6	2.18	0.77
8:72:7:ALA:HB2	8:72:85:ARG:HD3	1.66	0.77
1:13:486:U:H2'	1:13:487:A:H8	1.50	0.77
32:41:46:ALA:HB2	32:41:52:ILE:HB	1.67	0.77
1:1G:826:C:O2	1:1G:874:G:N2	2.16	0.77
26:14:1678:G:H22	26:14:1989:G:H22	1.30	0.77
34:69:81:VAL:H	34:69:143:SER:HB2	1.49	0.77
36:25:104:ARG:HD2	41:75:36:GLU:HB2	1.66	0.77
2:1E:19:HIS:CE1	2:1E:206:ASP:HB2	2.20	0.76
26:1H:563:G:OP2	61:1H:3520:HOH:O	2.02	0.76
1:13:1305:G:N2	1:13:1331:G:H2'	2.00	0.76
26:1H:1352:U:OP1	61:1H:3521:HOH:O	2.02	0.76
26:1H:2315:G:OP1	32:41:36:LYS:NZ	2.18	0.76
26:14:2065:C:O2	26:14:2445:G:N2	2.16	0.76
5:4E:8:GLU:HG2	5:4E:34:VAL:HG22	1.65	0.76
8:7E:87:SER:HB2	8:7E:93:VAL:HB	1.66	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1455:G:OP2	61:1H:3523:HOH:O	2.03	0.76
1:1G:235:C:H5'	17:8A:70:ARG:HG2	1.68	0.76
26:14:1044:G:O2'	26:14:1047:G:O2'	2.02	0.76
40:65:12:PHE:O	40:65:16:ASN:ND2	2.17	0.76
1:13:664:G:H22	1:13:741:G:H1	1.33	0.76
26:1H:1664:A:OP2	61:1H:3526:HOH:O	2.03	0.76
26:1H:2712(A):A:OP2	61:1H:3501:HOH:O	2.02	0.76
29:11:29:PRO:HB2	29:11:30:GLU:HA	1.66	0.76
40:65:106:ARG:NH1	40:65:107:GLU:OE2	2.18	0.76
26:1H:1342:A:OP2	61:1H:3525:HOH:O	2.04	0.76
33:51:6:ARG:HD2	33:51:54:ARG:HH12	1.50	0.76
3:22:20:SER:HB2	3:22:40:ARG:HH22	1.49	0.76
26:14:1434:A:H61	26:14:1558:A:N6	1.84	0.76
26:14:1970:A:OP2	61:14:3517:HOH:O	2.04	0.76
1:13:1291:G:OP1	7:6E:37:ASN:ND2	2.18	0.76
26:1H:1678:G:H22	26:1H:1989:G:H22	1.33	0.76
26:1H:2452:C:OP1	61:1H:3527:HOH:O	2.04	0.76
26:14:2293:C:H5"	40:65:89:ARG:HH21	1.51	0.76
37:35:98:GLU:HA	37:35:101:VAL:HG12	1.68	0.76
26:1H:450:G:O6	61:1H:3524:HOH:O	2.03	0.76
26:1H:1416:G:O2'	26:1H:1417:C:O5'	2.04	0.76
28:71:48:GLY:HA2	28:71:210:ARG:HD2	1.66	0.76
42:C8:92:ARG:O	42:C8:94:ASN:N	2.19	0.76
48:I8:72:ARG:HB3	48:I8:75:LEU:HB2	1.68	0.76
26:14:2287:A:N6	26:14:2344:U:H3	1.83	0.76
8:7E:95:VAL:HG23	8:7E:99:GLU:HB2	1.67	0.76
22:1K:7:U:H3	22:1K:66:A:H61	1.32	0.76
29:19:31:LYS:HE3	29:19:33:LEU:HB3	1.68	0.76
13:4I:13:LYS:O	13:4I:44:ARG:NH1	2.19	0.76
26:1H:2169:A:N7	26:1H:2170:A:N6	2.34	0.76
1:1G:413:G:H2'	1:1G:428:G:H22	1.50	0.76
1:1G:1104:G:H4'	2:12:111:ARG:HE	1.51	0.76
26:14:2331:G:H4'	48:E5:43:THR:H	1.49	0.76
26:1H:963:U:OP1	61:1H:3522:HOH:O	2.02	0.76
33:51:6:ARG:HH21	33:51:7:LEU:HD11	1.51	0.76
1:1G:998:G:N2	1:1G:1043:C:N3	2.32	0.76
26:14:1593:G:H2'	26:14:1594:G:C8	2.21	0.76
26:14:1942:C:OP2	26:14:1943:U:O2'	2.03	0.76
50:G5:47:ASN:O	50:G5:49:LYS:N	2.17	0.76
24:3K:71:C:O2	26:1H:1851:U:O2'	2.04	0.75
41:B8:54:ARG:HA	41:B8:59:THR:HB	1.66	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1356:G:H2'	1:1G:1357:A:C8	2.21	0.75
26:14:1430:C:H2'	26:14:1431:U:H6	1.51	0.75
26:1H:1778:U:H2'	26:1H:1784:A:N6	2.01	0.75
26:1H:2635:C:O2	26:1H:2783:G:N2	2.18	0.75
37:78:47:ASP:OD2	37:78:50:ARG:NH2	2.19	0.75
26:14:1812:A:O2'	29:19:45:ASN:HB2	1.85	0.75
29:19:83:GLU:OE1	29:19:104:TYR:OH	2.03	0.75
1:13:396:G:O2'	1:13:398:C:OP1	2.03	0.75
4:3E:60:GLU:OE2	4:3E:199:ASN:N	2.15	0.75
26:1H:2636:U:OP1	30:21:79:ARG:HA	1.87	0.75
30:21:50:GLY:HA2	30:21:77:ILE:HA	1.68	0.75
46:G8:85:VAL:O	46:G8:86:ARG:HD3	1.87	0.75
5:4E:102:ALA:HB1	5:4E:106:PRO:HG2	1.69	0.75
5:4E:144:THR:OG1	5:4E:147:ASP:OD1	2.04	0.75
26:1H:86:C:H4'	26:1H:104:U:H1'	1.67	0.75
26:1H:583:G:N7	61:1H:3564:HOH:O	2.18	0.75
26:14:1774:C:N4	26:14:1790:C:O2	2.19	0.75
1:13:1127:G:H2'	1:13:1128:C:C2	2.21	0.75
26:1H:442:G:H1'	31:31:48:THR:HG21	1.66	0.75
20:BI:71:THR:HG22	20:BI:72:LEU:H	1.50	0.75
55:Q8:52:LYS:O	55:Q8:54:GLU:N	2.20	0.75
2:12:49:GLU:N	2:12:49:GLU:OE1	2.20	0.75
26:1H:1466:G:N2	26:1H:1547:C:N3	2.35	0.75
1:1G:976:G:N2	1:1G:1362(A):C:OP2	2.15	0.75
29:19:44:ASN:HB3	29:19:45:ASN:C	2.12	0.75
41:75:108:ARG:HA	41:75:111:ARG:HG3	1.66	0.75
1:13:980:C:O2	61:13:1801:HOH:O	2.01	0.75
26:1H:1416:G:HO2'	26:1H:1417:C:H6	1.34	0.75
34:61:92:VAL:HG13	34:61:120:ILE:HG23	1.68	0.75
26:14:141:A:H8	26:14:1595:G:H21	1.32	0.75
26:14:2292:C:OP1	40:65:17:ARG:NH2	2.20	0.75
1:13:601:C:H2'	1:13:602:A:H8	1.50	0.75
20:BI:73:HIS:HB3	20:BI:74:LYS:HG2	1.69	0.75
26:1H:1228:G:OP2	42:C8:16:LYS:NZ	2.16	0.75
26:14:1041:C:O2	26:14:1114:G:N2	2.17	0.75
1:13:1145:C:H4'	1:13:1146:A:H5'	1.68	0.74
24:3K:33:U:H2'	24:3K:35:U:H5	1.50	0.74
26:1H:1257:C:H4'	31:31:83:PHE:CD1	2.22	0.74
26:1H:1590:U:H2'	26:1H:1591:G:H8	1.50	0.74
34:61:39:ALA:HB1	34:61:44:LEU:HD13	1.66	0.74
36:68:63:VAL:HG23	36:68:64:ARG:HG2	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:B8:50:ILE:HD13	41:B8:64:ARG:HB3	1.68	0.74
47:H8:165:VAL:HG22	47:H8:167:PRO:HD3	1.68	0.74
34:69:102:SER:O	34:69:106:GLY:N	2.20	0.74
7:6E:111:ARG:NH1	7:6E:113:GLU:OE2	2.20	0.74
31:31:6:VAL:N	31:31:24:LEU:O	2.20	0.74
50:K8:47:ASN:O	50:K8:49:LYS:N	2.19	0.74
1:1G:857:C:H3'	1:1G:858:G:H8	1.52	0.74
12:3A:47:LYS:HG3	12:3A:48:PRO:HD2	1.67	0.74
23:2L:9:G:O2'	23:2L:10:G:N7	2.18	0.74
31:39:24:LEU:HD21	31:39:119:ARG:HB3	1.68	0.74
38:45:75:THR:HB	38:45:86:GLY:HA3	1.67	0.74
26:1H:1406:U:H2'	26:1H:1407:C:C6	2.21	0.74
26:1H:1658:C:OP1	61:1H:3528:HOH:O	2.04	0.74
1:1G:1305:G:N2	1:1G:1331:G:H2'	2.02	0.74
12:3I:113:ARG:HH21	12:3I:116:SER:HB2	1.52	0.74
24:3K:65:C:H2'	24:3K:66:A:C8	2.23	0.74
26:1H:1602:U:O4	61:1H:3525:HOH:O	2.03	0.74
27:16:42:C:O2'	32:41:67:LYS:O	2.05	0.74
1:13:253:U:OP2	17:8I:67:LYS:NZ	2.19	0.74
1:13:448:A:OP2	1:13:485:G:N2	2.15	0.74
19:AI:40:ILE:HD11	19:AI:62:ILE:HD12	1.69	0.74
26:1H:2130:U:OP2	28:71:6:ARG:NH1	2.20	0.74
46:G8:76:CYS:SG	46:G8:97:ARG:HG3	2.27	0.74
1:1G:1173:G:OP1	7:62:5:ARG:NH2	2.20	0.74
2:1E:60:ASP:HB3	2:1E:64:ARG:HH21	1.50	0.74
26:1H:2154:G:H2'	26:1H:2155:G:H8	1.51	0.74
26:1H:2502:G:OP2	61:1H:3529:HOH:O	2.05	0.74
31:31:185:ASP:HA	31:31:188:ARG:HD3	1.68	0.74
33:51:30:LYS:HD2	33:51:81:GLU:H	1.52	0.74
1:1G:411:A:H62	1:1G:413:G:H21	1.33	0.74
1:1G:800:G:O6	61:1G:1702:HOH:O	2.05	0.74
26:14:1364:G:OP2	49:F5:2:SER:N	2.21	0.74
26:14:2010:G:H5"	44:A5:42:ARG:HB2	1.68	0.74
19:AI:18:LYS:O	19:AI:18:LYS:NZ	2.20	0.74
41:B8:50:ILE:HD11	41:B8:102:ILE:HD12	1.69	0.74
1:1G:542:G:OP1	4:32:10:ARG:NH2	2.18	0.74
26:14:2162:G:O2'	26:14:2173:A:OP1	2.05	0.74
1:13:454:C:N4	1:13:479:C:O2	2.20	0.74
26:1H:155:C:H42	26:1H:171:G:H1	1.35	0.74
26:14:2499:C:OP2	61:14:3516:HOH:O	2.03	0.74
31:39:116:ASP:OD2	37:35:1:MET:N	2.21	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:153:C:H42	1:13:168:G:H22	1.34	0.74
28:71:225:ASN:HD22	28:71:225:ASN:N	1.86	0.74
5:42:70:PRO:HB3	5:42:144:THR:HG22	1.69	0.74
30:29:81:ILE:HG22	30:29:82:ARG:H	1.53	0.74
6:5E:97:PHE:HB2	18:9I:32:ARG:HH11	1.53	0.74
28:71:193:ILE:HD12	28:71:226:PRO:HB2	1.69	0.74
30:21:82:ARG:O	30:21:84:PHE:N	2.20	0.74
1:1G:1104:G:O2'	2:12:111:ARG:NH2	2.21	0.74
5:42:6:PHE:HB2	5:42:63:ARG:HH21	1.53	0.74
1:13:963:G:N3	10:1I:55:LYS:NZ	2.35	0.73
40:A8:11:LYS:HD3	40:A8:91:PRO:HD3	1.68	0.73
26:14:2415:G:H4'	37:35:67:MET:N	2.02	0.73
31:39:5:ALA:HB1	31:39:125:LEU:HD21	1.70	0.73
55:M5:22:VAL:HB	55:M5:55:ALA:HB1	1.70	0.73
26:1H:602:G:HO2'	26:1H:604:G:HO2'	1.32	0.73
26:1H:2213:U:O2	49:J8:52:ARG:NH2	2.21	0.73
1:1G:673:G:H2'	1:1G:674:G:C8	2.23	0.73
4:32:168:ARG:HA	4:32:168:ARG:HH11	1.52	0.73
56:1L:2:G:N2	56:1L:71:C:N3	2.36	0.73
26:14:848:G:H2'	26:14:849:A:C8	2.23	0.73
26:14:1063:G:O6	26:14:1075:C:O2'	2.05	0.73
26:14:2547:U:O2	36:25:23:ARG:NH2	2.21	0.73
29:19:44:ASN:ND2	29:19:46:GLN:HG3	2.03	0.73
1:13:963:G:H1	1:13:972:C:H42	1.35	0.73
26:1H:1009:A:OP2	35:58:37:LYS:NZ	2.20	0.73
26:1H:1026:U:H1'	26:1H:1027:A:O5'	1.88	0.73
33:51:158:HIS:HA	33:51:170:ARG:CZ	2.18	0.73
38:45:75:THR:HA	38:45:89:ASN:HA	1.70	0.73
1:13:737:A:H2'	1:13:738:C:C6	2.24	0.73
2:1E:82:ARG:NE	2:1E:92:TYR:OH	2.20	0.73
43:D8:1:MET:SD	43:D8:43:GLU:HG2	2.29	0.73
51:L8:13:ILE:O	61:L8:201:HOH:O	2.05	0.73
26:14:1027:A:H2	26:14:2487:G:HO2'	1.34	0.73
27:1J:73:A:OP2	61:1J:301:HOH:O	2.06	0.73
42:85:28:ARG:NH1	42:85:38:THR:OG1	2.20	0.73
46:C5:87:LYS:HG2	46:C5:88:LYS:H	1.53	0.73
26:1H:270(V):G:N7	61:1H:3572:HOH:O	2.21	0.73
29:11:182:LEU:N	29:11:272:ALA:HB3	2.02	0.73
2:12:223:ILE:HA	2:12:224:GLN:HG2	1.71	0.73
1:13:407:G:OP1	4:3E:115:ARG:NH2	2.21	0.73
15:6I:39:LEU:HB3	15:6I:56:LEU:HD12	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:822:U:O2'	26:1H:823:G:H5'	1.88	0.73
27:1J:104:A:OP1	47:D5:72:ARG:NH2	2.22	0.73
1:13:262:A:H2'	1:13:263:A:C8	2.23	0.73
2:1E:48:MET:HA	2:1E:51:LEU:HB2	1.70	0.73
34:69:7:GLU:HG3	34:69:8:PRO:HD2	1.69	0.73
37:78:19:VAL:HG13	37:78:21:ARG:H	1.53	0.73
26:14:329:G:H1	46:C5:19:LYS:NZ	1.86	0.73
26:14:1899:G:N2	26:14:1902:C:H41	1.86	0.73
26:1H:1189:A:OP2	61:1H:3530:HOH:O	2.07	0.73
27:16:80:U:H2'	27:16:81:G:H21	1.52	0.73
9:82:28:VAL:HG22	9:82:63:ILE:HB	1.69	0.73
9:82:121:ARG:NH1	9:82:122:ALA:O	2.22	0.73
56:1L:8:U:O2'	56:1L:45:G:N2	2.22	0.73
26:14:792:G:OP2	61:14:3519:HOH:O	2.06	0.73
26:14:1430:C:H2'	26:14:1431:U:C6	2.24	0.73
47:D5:30:ASN:HA	47:D5:89:PHE:HE1	1.53	0.73
1:13:509:A:OP2	61:13:1802:HOH:O	2.07	0.72
2:1E:7:VAL:HB	2:1E:217:ARG:HD2	1.69	0.72
5:4E:64:ARG:N	5:4E:64:ARG:HH11	1.86	0.72
13:4I:91:ARG:HB2	13:4I:98:VAL:HG12	1.71	0.72
26:1H:2379:G:O2'	40:A8:17:ARG:NH1	2.22	0.72
2:12:80:ILE:HD12	2:12:84:GLU:HG3	1.71	0.72
26:14:873:G:H1'	38:45:29:PHE:HE2	1.54	0.72
30:29:54:GLN:H	30:29:74:PRO:HA	1.54	0.72
36:25:104:ARG:NH2	41:75:43:GLN:OE1	2.23	0.72
51:H5:13:ILE:O	61:H5:101:HOH:O	2.07	0.72
24:3K:13:C:H2'	24:3K:14:A:H8	1.55	0.72
26:1H:1352:U:OP1	61:1H:3534:HOH:O	2.08	0.72
9:82:16:ARG:HH21	9:82:64:THR:HG21	1.54	0.72
26:14:1138:G:H21	35:15:106:MET:HE3	1.54	0.72
1:13:1023:G:H3'	1:13:1024:G:H5"	1.70	0.72
1:13:1391:U:H2'	1:13:1392:G:C8	2.25	0.72
2:1E:115:LEU:HD21	2:1E:153:ARG:HD3	1.69	0.72
8:7E:41:ARG:NH2	8:7E:123:GLU:OE1	2.21	0.72
26:1H:780:G:H21	26:1H:783:A:N6	1.86	0.72
26:1H:2210:G:H5'	26:1H:2211:G:N7	2.04	0.72
1:1G:589:C:H42	1:1G:650:G:H1	1.34	0.72
1:1G:1359:C:O2'	1:1G:1361:G:N7	2.22	0.72
26:1H:548:A:N3	43:D8:21:ARG:NH2	2.38	0.72
50:K8:15:LYS:HZ2	50:K8:15:LYS:H	1.34	0.72
1:1G:991:U:O4	1:1G:1212:U:O2'	2.05	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:116:VAL:HG11	30:29:138:PRO:HB3	1.72	0.72
1:13:812:C:N3	61:13:1812:HOH:O	2.23	0.72
26:14:1226:G:OP1	43:95:69:LYS:NZ	2.21	0.72
26:14:1443:G:H1	26:14:1548:C:H42	1.37	0.72
41:75:132:LYS:HG2	41:75:133:GLU:HG3	1.72	0.72
7:6E:16:LEU:HD21	9:8E:42:ARG:HA	1.71	0.72
15:6I:25:THR:HG21	15:6I:70:LEU:HB2	1.70	0.72
26:1H:2140:C:H42	26:1H:2151:G:H1	1.38	0.72
26:1H:2154:G:H2'	26:1H:2155:G:C8	2.24	0.72
13:4A:77:ASN:HA	13:4A:80:ARG:HD3	1.71	0.72
56:1L:9:A:H3'	56:1L:10:G:C8	2.23	0.72
26:14:1676:A:OP2	61:14:3522:HOH:O	2.07	0.72
27:1J:4:C:H42	27:1J:116:G:H1	1.36	0.72
1:13:1238:A:N3	1:13:1241:G:O2'	2.22	0.72
26:1H:138:G:N2	45:F8:44:GLU:OE2	2.18	0.72
26:1H:2287:A:C2	26:1H:2346:A:H2	2.06	0.72
26:1H:2309:A:H2'	26:1H:2310:A:O4'	1.88	0.72
11:2A:54:ARG:O	11:2A:57:THR:OG1	2.06	0.72
26:1H:2303:G:O2'	32:41:132:ASN:OD1	2.07	0.72
26:1H:2432:A:OP2	61:1H:3533:HOH:O	2.07	0.72
35:58:57:ALA:C	35:58:59:LYS:H	1.98	0.72
4:32:168:ARG:NH1	4:32:169:LYS:H	1.87	0.72
26:14:597:U:H2'	26:14:598:G:C8	2.25	0.72
26:14:2823:A:OP1	30:29:159:HIS:NE2	2.23	0.72
29:11:93:ALA:HB3	29:11:105:ILE:HG22	1.70	0.71
26:14:459:U:H5"	54:L5:40:TRP:CD2	2.25	0.71
26:14:602:G:O2'	26:14:604:G:O2'	2.03	0.71
26:14:990:A:H5'	26:14:990:A:H8	1.55	0.71
39:55:51:LEU:HD22	39:55:66:VAL:HG23	1.70	0.71
4:3E:18:LYS:NZ	4:3E:26:CYS:O	2.23	0.71
24:3K:19:G:H1'	24:3K:57:G:H21	1.54	0.71
26:1H:2795:G:N2	26:1H:2799:A:OP2	2.23	0.71
42:C8:19:LYS:HG3	42:C8:22:LYS:HE3	1.71	0.71
26:14:2439:A:H5'	26:14:2439:A:C8	2.25	0.71
40:65:50:SER:O	40:65:76:LYS:NZ	2.15	0.71
49:F5:80:LEU:HD12	49:F5:82:LEU:HB2	1.72	0.71
1:13:1306:A:H61	1:13:1331:G:H1'	1.54	0.71
8:7E:21:LYS:O	8:7E:65:TYR:OH	2.05	0.71
29:11:10:THR:OG1	29:11:13:ARG:HB2	1.90	0.71
50:G5:25:VAL:HG13	50:G5:60:LEU:HD23	1.71	0.71
6:5E:50:TYR:OH	18:9I:74:ARG:O	2.04	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2287:A:H62	26:1H:2344:U:H3	1.37	0.71
56:1L:28:U:H3	56:1L:42:A:H2	1.39	0.71
1:13:1263:C:H2'	1:13:1264:C:H6	1.56	0.71
26:1H:1590:U:H2'	26:1H:1591:G:C8	2.24	0.71
44:E8:24:ILE:HG12	44:E8:36:LEU:HD21	1.73	0.71
1:1G:800:G:N7	61:1G:1706:HOH:O	2.23	0.71
26:14:138:G:N2	45:B5:44:GLU:OE2	2.14	0.71
26:14:635:C:O2'	26:14:639:U:OP1	2.07	0.71
26:14:1141:U:OP2	35:15:63:THR:OG1	2.04	0.71
22:1K:52:G:N2	22:1K:62:C:N3	2.34	0.71
26:1H:2656:U:H3	26:1H:2665:A:H2	1.38	0.71
33:59:54:ARG:NH2	33:59:57:ASP:OD1	2.23	0.71
36:25:63:VAL:HG12	36:25:106:LEU:HD11	1.71	0.71
17:8I:13:ASP:HA	17:8I:19:VAL:HG12	1.71	0.71
26:1H:226:G:H21	26:1H:228:A:H2	1.37	0.71
26:1H:1535:U:H5"	26:1H:1537:C:N4	2.06	0.71
26:14:2115:G:H1'	26:14:2171:A:H61	1.55	0.71
46:C5:60:PHE:HD1	46:C5:60:PHE:H	1.37	0.71
9:8E:10:ARG:NE	9:8E:105:ASP:OD2	2.22	0.71
26:1H:2062:A:OP1	61:1H:3532:HOH:O	2.07	0.71
1:1G:1228:C:OP1	13:4A:115:LYS:NZ	2.23	0.71
17:8A:81:ARG:HB3	17:8A:84:LEU:HD12	1.73	0.71
26:14:2498:C:OP2	61:14:3501:HOH:O	2.08	0.71
38:45:97:VAL:HG21	38:45:103:MET:HE3	1.71	0.71
42:85:92:ARG:NH2	43:95:11:GLN:H	1.88	0.71
50:G5:13:ALA:HA	50:G5:16:LEU:HD23	1.73	0.71
1:13:1159:U:O4'	1:13:1182:G:N2	2.24	0.71
2:1E:43:ASP:HB3	2:1E:46:LYS:HD2	1.72	0.71
28:71:5:LYS:HA	28:71:8:ARG:HB2	1.73	0.71
1:1G:684:A:N6	61:1G:1707:HOH:O	2.23	0.71
32:49:5:VAL:HG11	32:49:101:ILE:HG22	1.71	0.71
43:95:44:LYS:O	43:95:46:VAL:N	2.21	0.71
1:13:1171:G:H2'	1:13:1172:C:H6	1.56	0.70
26:1H:747:U:O2	26:1H:2014:A:H1'	1.90	0.70
26:1H:2061:G:OP1	61:1H:3535:HOH:O	2.08	0.70
29:11:68:LYS:HB3	29:11:70:TRP:CZ3	2.26	0.70
26:14:2128:C:H42	26:14:2160:G:H1	1.39	0.70
26:14:2392:A:H2	26:14:2424:C:N4	1.88	0.70
45:B5:63:LYS:H	45:B5:63:LYS:HE3	1.54	0.70
1:13:1128:C:O2'	1:13:1146:A:N1	2.24	0.70
1:1G:560:U:H5'	1:1G:566:G:N2	2.06	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:34:C:O2'	26:14:35:G:O5'	2.09	0.70
37:35:55:ARG:HG2	37:35:56:SER:H	1.56	0.70
26:1H:298:G:N7	46:G8:84:ARG:NH2	2.39	0.70
26:1H:2105:C:H2'	26:1H:2106:G:H8	1.56	0.70
42:C8:92:ARG:CZ	43:D8:11:GLN:H	2.04	0.70
11:2A:27:ASN:OD1	11:2A:28:THR:N	2.25	0.70
26:14:1225:C:O3'	43:95:85:LYS:HA	1.91	0.70
32:49:60:LEU:HD22	32:49:68:PRO:HB3	1.71	0.70
38:45:21:THR:HG22	38:45:23:GLY:HA3	1.73	0.70
26:1H:55:G:H2'	26:1H:56:A:H8	1.56	0.70
26:1H:625:G:N7	37:78:107:LYS:NZ	2.39	0.70
26:1H:1218:C:OP2	42:C8:15:LYS:NZ	2.24	0.70
26:14:389:G:H22	37:35:72:PRO:HD3	1.56	0.70
1:13:235:C:H5'	17:8I:70:ARG:HG2	1.73	0.70
4:3E:157:LEU:O	4:3E:161:ASN:ND2	2.24	0.70
49:J8:41:ARG:HH11	49:J8:41:ARG:HG3	1.56	0.70
13:4A:8:GLU:OE1	32:49:115:ARG:NH2	2.24	0.70
57:3L:58:A:O2'	57:3L:59:A:O5'	2.09	0.70
26:14:1954:G:O2'	26:14:1956:U:O4	2.06	0.70
43:95:1:MET:HB3	43:95:42:GLY:HA3	1.73	0.70
26:1H:307:G:N7	61:1H:3581:HOH:O	2.24	0.70
26:1H:2051:A:OP2	61:1H:3538:HOH:O	2.09	0.70
29:11:35:LYS:N	29:11:35:LYS:HZ2	1.89	0.70
1:1G:1349:A:OP2	9:82:118:LYS:NZ	2.24	0.70
7:62:27:ILE:HD12	7:62:40:ALA:HA	1.73	0.70
27:1J:18:G:N2	27:1J:65:C:N3	2.38	0.70
1:13:608:A:OP2	61:13:1804:HOH:O	2.08	0.70
2:1E:208:ILE:HG22	2:1E:211:ILE:HD11	1.74	0.70
6:5E:38:GLU:OE1	6:5E:64:GLN:NE2	2.25	0.70
26:1H:2135:A:N6	26:1H:2156:G:O2'	2.24	0.70
39:98:24:GLN:HE22	39:98:36:THR:HG21	1.57	0.70
46:G8:94:LYS:HA	46:G8:94:LYS:HZ2	1.55	0.70
1:1G:490:G:P	4:32:132:ARG:HH22	2.15	0.70
4:32:95:GLY:O	4:32:99:SER:OG	2.10	0.70
26:14:1856:G:N2	26:14:1886:C:O2	2.25	0.70
26:14:2197:U:H1'	26:14:2198:A:C8	2.27	0.70
37:35:52:GLU:OE1	37:35:54:GLY:N	2.23	0.70
1:13:8:A:H62	4:3E:208:SER:HB3	1.56	0.70
3:2E:131:ARG:HH21	3:2E:135:LYS:HE3	1.57	0.70
11:2I:27:ASN:OD1	11:2I:28:THR:N	2.24	0.70
26:1H:31:C:OP1	61:1H:3537:HOH:O	2.09	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:H8:19:ARG:NH1	47:H8:84:GLU:O	2.25	0.70
4:32:19:LEU:HD12	4:32:21:LEU:HD11	1.74	0.70
2:1E:8:LYS:HG2	2:1E:9:GLU:H	1.56	0.70
9:8E:86:VAL:HG21	9:8E:96:LEU:HD22	1.74	0.70
26:1H:1298:C:H5"	26:1H:1299:G:OP2	1.90	0.70
27:16:100:G:OP2	61:16:302:HOH:O	2.10	0.70
31:31:66:PRO:O	31:31:67:GLN:HB3	1.90	0.70
5:4E:101:ILE:O	5:4E:120:THR:OG1	2.10	0.69
13:4I:78:ILE:HG22	13:4I:82:MET:HE2	1.73	0.69
26:1H:1728:G:H8	26:1H:1732:A:H62	1.38	0.69
19:AA:7:LYS:HB2	19:AA:8:GLY:HA2	1.74	0.69
19:AA:37:ARG:O	19:AA:70:LYS:NZ	2.25	0.69
30:29:14:ILE:HB	41:75:14:TYR:CE2	2.27	0.69
35:15:42:TRP:HA	35:15:48:MET:HE1	1.73	0.69
6:5E:89:MET:HG3	18:9I:76:LEU:HD21	1.74	0.69
11:2I:124:LYS:HD2	11:2I:125:PHE:HE1	1.57	0.69
26:1H:1243:G:N7	61:1H:3589:HOH:O	2.25	0.69
41:B8:56:GLY:O	41:B8:59:THR:HG23	1.91	0.69
1:1G:1342:C:H4'	9:82:125:TYR:HB2	1.74	0.69
26:14:397:G:N7	61:14:3554:HOH:O	2.24	0.69
26:14:831:G:N7	61:14:3558:HOH:O	2.26	0.69
26:14:1453:A:OP2	61:14:3523:HOH:O	2.08	0.69
26:14:2280:G:O2'	26:14:2388:A:N1	2.22	0.69
26:14:2720:U:H3	26:14:2873:A:H2	1.39	0.69
30:29:27:LEU:HG	41:75:1:MET:HG3	1.74	0.69
30:29:47:VAL:HG21	30:29:86:PRO:HD2	1.74	0.69
34:69:75:LEU:HD13	34:69:77:LEU:HD22	1.74	0.69
26:1H:1434:A:H61	26:1H:1558:A:N6	1.89	0.69
26:1H:1593:G:H2'	26:1H:1594:G:C8	2.27	0.69
26:1H:2849:U:OP2	41:B8:95:ARG:NH1	2.25	0.69
31:31:167:ALA:HB1	31:31:173:VAL:HG11	1.73	0.69
38:88:104:PHE:HE2	38:88:125:LEU:HD11	1.57	0.69
40:A8:48:LEU:HD22	40:A8:82:ILE:HD11	1.74	0.69
1:1G:957:U:H1'	1:1G:960:U:H5	1.57	0.69
3:22:47:LEU:O	3:22:51:GLY:N	2.25	0.69
1:13:1368:G:H5"	9:8E:112:LYS:HB3	1.74	0.69
26:1H:1021:A:H8	26:1H:1022:G:H5"	1.57	0.69
13:4A:78:ILE:HG23	13:4A:92:HIS:HB3	1.74	0.69
56:1L:76:A:O2'	26:14:2583:G:N2	2.25	0.69
2:1E:192:SER:OG	2:1E:193:ASP:N	2.25	0.69
26:1H:1570:A:H5'	29:11:37:LEU:HD21	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1833:U:H2'	26:1H:1834:U:H6	1.56	0.69
50:K8:42:GLY:C	50:K8:44:LEU:H	2.00	0.69
47:D5:76:LEU:HA	47:D5:83:PRO:HA	1.75	0.69
7:62:148:ASN:ND2	7:62:148:ASN:O	2.26	0.69
26:14:71:A:H2	45:B5:31:HIS:CE1	2.10	0.69
26:14:270(L):U:O2'	26:14:270(N):G:N2	2.25	0.69
26:14:2062:A:OP1	61:14:3526:HOH:O	2.11	0.69
9:8E:128:ARG:NH2	23:2K:36:A:OP2	2.19	0.69
26:1H:270(K):C:H2'	26:1H:270(N):G:H22	1.57	0.69
37:78:18:ARG:O	61:78:301:HOH:O	2.09	0.69
1:1G:420:U:O2'	1:1G:423:G:O6	2.10	0.69
1:1G:1124:G:O2'	1:1G:1145:C:N4	2.26	0.69
4:32:100:ARG:NH1	4:32:102:ASP:OD2	2.26	0.69
26:14:2050:C:H1'	30:29:156:MET:HE2	1.74	0.69
45:B5:57:LEU:HD11	45:B5:78:LYS:HE2	1.75	0.69
1:13:446:G:H1	1:13:488:C:H42	1.41	0.69
1:13:501:C:H2'	1:13:502:G:H8	1.58	0.69
1:13:811:C:N3	61:13:1814:HOH:O	2.26	0.69
1:13:1455:G:H5"	20:BI:31:SER:HB2	1.74	0.69
11:2I:85:ARG:HE	11:2I:111:ASP:HB3	1.57	0.69
26:1H:459:U:H5"	54:P8:40:TRP:CD2	2.28	0.69
26:1H:731:C:OP2	61:1H:3511:HOH:O	2.09	0.69
26:1H:1036:G:N2	26:1H:1119:C:O2	2.20	0.69
26:1H:1678:G:N2	26:1H:1989:G:H22	1.91	0.69
30:21:38:THR:HG22	30:21:41:LYS:HB2	1.75	0.69
9:82:65:VAL:HG21	9:82:73:GLN:HB3	1.74	0.69
13:4A:79:LYS:HA	13:4A:82:MET:HB2	1.73	0.69
26:14:760:G:OP1	61:14:3524:HOH:O	2.10	0.69
26:14:1210:A:H5'	26:14:1212:G:H5'	1.74	0.69
26:14:1997:G:OP2	61:14:3525:HOH:O	2.10	0.69
26:14:2287:A:H62	26:14:2344:U:H3	1.38	0.69
1:13:1130:A:O2'	9:8E:3:GLN:NE2	2.26	0.69
22:1K:74:C:H42	26:1H:2508:G:H5'	1.58	0.69
22:1K:76:A:H8	26:1H:2583:G:H21	1.40	0.69
26:1H:2592:G:N7	61:1H:3584:HOH:O	2.24	0.69
50:K8:31:GLU:HB2	50:K8:53:LEU:HD11	1.74	0.69
2:12:21:ARG:HA	2:12:39:ILE:H	1.57	0.69
3:22:26:LYS:HG3	3:22:27:LYS:HG2	1.75	0.69
8:72:44:PHE:HD2	8:72:80:ILE:HG12	1.58	0.69
11:2A:98:LEU:O	11:2A:101:SER:OG	2.08	0.69
13:4A:13:LYS:HD3	13:4A:14:ARG:H	1.58	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2409:G:N7	61:14:3555:HOH:O	2.25	0.69
30:29:200:GLU:OE1	30:29:200:GLU:N	2.20	0.69
1:13:1286:A:C8	1:13:1287:A:H4'	2.27	0.68
54:P8:27:GLY:HA2	54:P8:30:VAL:HG23	1.75	0.68
1:13:259:G:OP2	20:BI:83:ARG:NH1	2.27	0.68
1:13:524:G:H2'	1:13:525:C:C6	2.29	0.68
4:3E:61:LYS:NZ	4:3E:72:GLU:OE2	2.26	0.68
20:BI:69:GLY:O	20:BI:73:HIS:NE2	2.26	0.68
49:J8:87:PRO:HA	49:J8:90:ILE:HG13	1.74	0.68
50:K8:42:GLY:O	50:K8:44:LEU:N	2.26	0.68
26:14:945:A:N3	61:14:3559:HOH:O	2.26	0.68
29:19:93:ALA:HB3	29:19:105:ILE:HG22	1.75	0.68
33:59:9:ILE:O	33:59:69:ARG:NH1	2.26	0.68
36:25:13:ASN:ND2	36:25:96:THR:OG1	2.26	0.68
26:1H:943:U:OP2	37:78:36:LYS:HG3	1.93	0.68
61:1H:3934:HOH:O	37:78:26:GLY:HA2	1.93	0.68
52:M8:40:HIS:CE1	52:M8:46:GLN:HA	2.26	0.68
4:32:12:CYS:SG	4:32:18:LYS:HA	2.33	0.68
9:82:10:ARG:NH1	9:82:105:ASP:OD2	2.26	0.68
30:29:3:GLY:HA3	30:29:81:ILE:HD12	1.76	0.68
42:85:91:ASP:OD1	42:85:96:ALA:N	2.25	0.68
1:13:310:G:OP2	16:7I:27:LYS:NZ	2.25	0.68
1:13:542:G:OP1	4:3E:10:ARG:NH2	2.26	0.68
1:13:798:G:N7	61:13:1815:HOH:O	2.26	0.68
1:13:1422:G:H5"	36:68:48:PRO:HB3	1.75	0.68
26:1H:818:G:OP2	61:1H:3540:HOH:O	2.10	0.68
26:1H:1441:G:H2'	26:1H:1442:G:C8	2.29	0.68
26:1H:1701:A:OP2	61:1H:3544:HOH:O	2.12	0.68
26:1H:2292:C:OP1	40:A8:17:ARG:NH2	2.25	0.68
43:D8:44:LYS:O	43:D8:46:VAL:N	2.25	0.68
10:1A:40:LEU:HD22	10:1A:71:LEU:HD13	1.76	0.68
18:9A:36:ASN:ND2	18:9A:36:ASN:O	2.27	0.68
33:59:9:ILE:HG22	33:59:52:VAL:H	1.58	0.68
2:1E:19:HIS:HE1	2:1E:206:ASP:HB2	1.57	0.68
2:1E:33:TYR:HB2	2:1E:43:ASP:HB2	1.75	0.68
18:9I:38:GLU:HA	18:9I:41:LYS:NZ	2.08	0.68
26:1H:120:U:OP2	61:1H:3541:HOH:O	2.11	0.68
26:1H:2580:U:H4'	30:21:130:GLY:HA3	1.75	0.68
27:16:15:A:H5'	27:16:16:G:H8	1.57	0.68
37:78:21:ARG:HD2	61:78:306:HOH:O	1.93	0.68
51:L8:26:LEU:HD21	51:L8:46:ASN:HB3	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2689:U:OP2	26:14:2719:G:N2	2.25	0.68
26:1H:287:C:H2'	26:1H:288:C:H6	1.58	0.68
26:1H:528:A:O2'	26:1H:529:A:H5"	1.93	0.68
26:1H:1652:A:H2'	26:1H:1653:G:H5'	1.74	0.68
39:98:56:LYS:HE3	39:98:88:ARG:HA	1.75	0.68
1:1G:1321:C:N4	1:1G:1322:C:H41	1.92	0.68
2:12:118:LEU:HD11	2:12:141:GLU:HG2	1.75	0.68
5:42:101:ILE:O	5:42:120:THR:OG1	2.12	0.68
26:14:2689:U:P	26:14:2719:G:H22	2.16	0.68
38:45:38:GLU:HG3	38:45:127:ILE:HG22	1.76	0.68
43:95:70:ILE:N	43:95:86:GLY:O	2.24	0.68
1:13:1497:G:H2'	1:13:1498:U:H5'	1.76	0.68
26:1H:760:G:OP1	61:1H:3546:HOH:O	2.12	0.68
26:1H:2789:C:H1'	26:1H:2892:A:C2	2.28	0.68
38:88:79:LEU:HD12	38:88:80:GLU:HG3	1.75	0.68
6:52:7:ASN:N	6:52:7:ASN:OD1	2.24	0.68
3:2E:136:GLN:OE1	3:2E:140:ARG:NH1	2.26	0.68
26:1H:2176:A:OP1	28:71:7:TYR:OH	2.08	0.68
32:41:97:ASP:O	32:41:100:TRP:N	2.27	0.68
47:H8:95:PRO:HB2	47:H8:127:LYS:HE2	1.74	0.68
1:1G:1266:G:N2	1:1G:1270:C:N3	2.42	0.68
5:42:42:GLY:HA3	5:42:65:ASN:O	1.93	0.68
26:14:1174:A:H2'	26:14:1176:G:H5'	1.74	0.68
26:14:2681:C:H5	26:14:2725:A:H62	1.42	0.68
38:45:88:GLY:O	38:45:89:ASN:ND2	2.27	0.68
1:13:737:A:H2'	1:13:738:C:H6	1.58	0.68
26:1H:336:C:OP1	46:G8:83:THR:HG23	1.93	0.68
31:31:130:ALA:H	31:31:132:VAL:HG13	1.59	0.68
1:1G:532:A:N6	1:1G:1206:G:O2'	2.27	0.68
12:3A:70:ILE:HD13	12:3A:77:LEU:HD12	1.73	0.68
1:13:27:G:H4'	4:3E:209:ARG:HD3	1.76	0.68
13:4I:39:ILE:HD12	13:4I:56:LEU:HD22	1.75	0.68
26:1H:780:G:H21	26:1H:783:A:H62	1.41	0.68
2:12:11:LEU:HG	2:12:217:ARG:NH2	2.09	0.68
12:3A:47:LYS:HG3	12:3A:48:PRO:CD	2.24	0.68
46:C5:50:ARG:HG3	46:C5:53:PRO:HG2	1.75	0.68
1:13:353:A:H8	1:13:353:A:H5'	1.59	0.67
1:13:612:C:O2	1:13:629:G:N2	2.26	0.67
1:13:1122:U:O4	1:13:1123:A:N6	2.26	0.67
26:1H:1456:G:OP2	61:1H:3542:HOH:O	2.11	0.67
26:1H:1899:G:N2	26:1H:1902:C:C5	2.62	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2127:G:H1	26:1H:2161:C:H2'	1.58	0.67
38:88:65:PHE:O	38:88:66:ILE:HG13	1.94	0.67
48:I8:11:ARG:O	48:I8:14:ARG:NH2	2.27	0.67
1:1G:571:U:H3	1:1G:864:A:H61	1.40	0.67
1:1G:1124:G:HO2'	1:1G:1145:C:N4	1.92	0.67
1:1G:1221:G:OP1	1:1G:1321:C:N4	2.26	0.67
20:BA:51:GLU:HA	20:BA:54:LYS:HE3	1.75	0.67
29:19:69:ARG:NH2	29:19:128:GLY:O	2.25	0.67
36:25:17:ARG:HB2	36:25:45:GLU:HG2	1.75	0.67
28:71:59:ARG:HB2	28:71:164:ARG:HD2	1.75	0.67
1:1G:777:A:H2	11:2A:119:CYS:HB3	1.60	0.67
26:14:733:G:N7	61:14:3521:HOH:O	2.27	0.67
44:A5:65:LEU:HD13	44:A5:68:ARG:HD3	1.76	0.67
1:13:505:G:OP1	61:13:1807:HOH:O	2.12	0.67
1:13:1266:G:N2	1:13:1270:C:N3	2.42	0.67
26:1H:934:G:H2'	26:1H:935:C:H6	1.59	0.67
26:1H:1045:A:H1'	26:1H:1047:G:C5	2.28	0.67
26:1H:1386:C:H2'	26:1H:1387:C:H6	1.59	0.67
26:1H:1534:G:N1	26:1H:1539:G:N3	2.41	0.67
26:1H:1664:A:OP2	61:1H:3543:HOH:O	2.12	0.67
26:1H:2308:G:N1	26:1H:2311:A:H2	1.89	0.67
32:41:96:ARG:HB2	32:41:96:ARG:HH11	1.59	0.67
40:A8:106:ARG:C	40:A8:106:ARG:HE	2.01	0.67
41:B8:26:ASP:HB3	41:B8:92:GLY:H	1.60	0.67
44:E8:97:LYS:HE2	44:E8:99:ARG:NH2	2.10	0.67
46:G8:94:LYS:HZ1	46:G8:95:LYS:H	1.40	0.67
50:K8:4:SER:OG	50:K8:7:ARG:N	2.27	0.67
1:1G:875:C:H1'	8:72:15:ASN:HD21	1.59	0.67
12:3A:41:ARG:HB3	12:3A:41:ARG:NH1	2.09	0.67
26:14:2469:A:H8	38:45:56:ARG:HH21	1.42	0.67
48:E5:36:ILE:HD11	48:E5:39:ARG:HG2	1.75	0.67
2:1E:100:GLY:O	2:1E:104:ASN:N	2.21	0.67
26:1H:686:G:O5'	54:P8:11:LYS:NZ	2.28	0.67
33:51:8:PRO:HG2	33:51:69:ARG:HH21	1.60	0.67
1:1G:613:C:O3'	4:32:86:LYS:NZ	2.27	0.67
44:A5:88:ARG:NH1	44:A5:94:ASP:OD2	2.23	0.67
1:13:601:C:H2'	1:13:602:A:C8	2.29	0.67
9:8E:43:ALA:HA	9:8E:74:ILE:HD13	1.76	0.67
12:3I:24:VAL:HB	12:3I:27:LEU:HD12	1.77	0.67
14:5I:6:LEU:HB3	14:5I:23:ARG:HH22	1.60	0.67
26:1H:516:C:OP1	53:N8:13:LYS:NZ	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1441:G:H2'	26:1H:1442:G:H8	1.59	0.67
26:14:305:U:H2'	26:14:306:U:C6	2.30	0.67
26:14:1159:U:H2'	26:14:1160:G:H8	1.59	0.67
1:1G:768:A:OP2	61:1G:1704:HOH:O	2.13	0.67
1:1G:957:U:H1'	1:1G:960:U:C5	2.29	0.67
1:1G:1025:U:H5'	1:1G:1026:G:H5'	1.75	0.67
2:1E:28:PHE:HD2	2:1E:190:THR:HG23	1.59	0.67
14:5I:27:CYS:SG	14:5I:29:ARG:HB2	2.35	0.67
26:1H:2131:G:H1'	26:1H:2158:A:C6	2.30	0.67
30:21:101:ARG:HG2	30:21:169:ASN:OD1	1.95	0.67
40:A8:85:VAL:HG23	40:A8:112:PHE:HZ	1.58	0.67
11:2A:34:ASP:HB3	11:2A:40:ILE:HD11	1.77	0.67
26:14:1534:G:H3'	26:14:1535:U:H5"	1.77	0.67
26:14:2306:C:H3'	26:14:2307:G:H5"	1.75	0.67
1:1G:983:A:H61	1:1G:1222:G:H22	1.41	0.67
4:32:173:TRP:CD1	4:32:174:LEU:HG	2.30	0.67
29:19:108:PRO:HB3	29:19:143:HIS:HE1	1.60	0.67
50:G5:43:GLN:H	50:G5:43:GLN:CD	2.02	0.67
26:1H:252:G:OP2	37:78:50:ARG:NH1	2.28	0.67
27:16:8:U:N3	27:16:112:G:O6	2.17	0.67
32:41:113:ARG:HE	52:M8:34:GLU:HG2	1.60	0.67
41:B8:108:ARG:HG3	41:B8:109:GLU:N	2.10	0.67
46:G8:82:PRO:HG3	46:G8:97:ARG:HD2	1.77	0.67
1:1G:1003:G:N2	1:1G:1005:A:OP1	2.28	0.67
26:14:140:A:H8	26:14:1408:C:HO2'	1.43	0.67
26:14:2378:A:H4'	40:65:23:ARG:HH11	1.60	0.67
38:45:25:ASP:CB	38:45:102:VAL:H	2.07	0.67
49:F5:29:GLY:O	49:F5:30:VAL:HG22	1.94	0.67
1:13:618:C:H5"	1:13:619:U:H5"	1.75	0.67
26:14:1729:A:H2'	26:14:1731:G:N2	2.10	0.67
46:C5:28:LYS:NZ	46:C5:64:GLU:OE2	2.28	0.67
1:13:610:G:O6	61:13:1803:HOH:O	2.08	0.66
1:13:671:G:H2'	1:13:672:U:H6	1.61	0.66
26:1H:1689:A:H62	26:1H:1698:A:H2	1.43	0.66
26:1H:1972:A:H2'	26:1H:1973:G:H8	1.57	0.66
30:21:128:SER:OG	30:21:129:HIS:N	2.26	0.66
37:78:115:LEU:HA	37:78:134:ALA:HB2	1.77	0.66
2:12:144:ARG:HA	2:12:147:LYS:HE3	1.77	0.66
11:2A:48:ILE:HD11	11:2A:64:ALA:HA	1.76	0.66
11:2A:82:VAL:HB	11:2A:108:ILE:HG12	1.77	0.66
57:3L:9:A:H5'	57:3L:11:C:H41	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1578:U:OP2	61:14:3527:HOH:O	2.13	0.66
34:69:65:ALA:O	34:69:69:LYS:N	2.28	0.66
48:E5:32:ARG:O	48:E5:34:GLY:N	2.28	0.66
1:13:438:G:H4'	4:3E:123:HIS:CD2	2.30	0.66
1:13:576:G:O5'	61:13:1810:HOH:O	2.14	0.66
7:6E:73:MET:HE2	7:6E:90:GLU:HA	1.75	0.66
26:1H:607:U:H3	26:1H:621:A:H2	1.43	0.66
3:22:119:ARG:HH12	3:22:140:ARG:HG2	1.59	0.66
9:82:5:TYR:HA	9:82:87:GLN:NE2	2.06	0.66
9:82:96:LEU:HG	9:82:101:PHE:HB2	1.77	0.66
29:19:49:ILE:HD11	29:19:52:ARG:HA	1.75	0.66
29:19:148:GLU:HB2	29:19:151:LYS:HD2	1.76	0.66
42:85:100:VAL:HG12	42:85:101:ARG:HG3	1.77	0.66
26:1H:1210:A:H5'	26:1H:1210:A:H8	1.59	0.66
26:1H:1607:C:O2	61:1H:3539:HOH:O	2.10	0.66
26:1H:2232:U:P	49:J8:40:ARG:HH12	2.18	0.66
26:1H:2362:G:OP1	55:Q8:44:LYS:NZ	2.24	0.66
30:21:97:LYS:N	30:21:100:GLU:OE1	2.26	0.66
33:51:6:ARG:HA	33:51:66:GLY:HA2	1.78	0.66
34:61:110:ASP:HB2	34:61:112:LYS:HG2	1.77	0.66
37:78:61:ARG:HH11	37:78:61:ARG:HG3	1.60	0.66
43:D8:65:GLY:HA3	43:D8:91:TYR:CE1	2.31	0.66
52:M8:40:HIS:ND1	52:M8:45:GLY:O	2.28	0.66
1:1G:926:G:N2	25:4L:15:A:OP2	2.28	0.66
1:1G:1095:U:OP1	1:1G:1108:G:N2	2.24	0.66
26:14:1169:G:H1	26:14:1180:C:H42	1.41	0.66
33:59:72:ILE:HA	33:59:75:ALA:HB3	1.77	0.66
26:1H:860:U:H5	26:1H:917:A:C2	2.14	0.66
30:21:38:THR:HG23	30:21:40:GLU:H	1.60	0.66
1:1G:130:A:C8	17:8A:63:ARG:HG3	2.30	0.66
1:1G:1287:A:H2'	1:1G:1288:A:C8	2.30	0.66
26:14:1378:A:O2'	26:14:1380:G:N7	2.24	0.66
49:F5:64:ALA:HA	49:F5:67:ILE:HD13	1.77	0.66
55:M5:24:ALA:N	55:M5:48:PHE:O	2.28	0.66
1:13:21:G:OP1	61:13:1808:HOH:O	2.13	0.66
1:13:504:C:OP1	61:13:1807:HOH:O	2.13	0.66
1:13:1315:U:O2'	1:13:1360:A:O2'	2.13	0.66
34:61:110:ASP:N	34:61:110:ASP:OD1	2.26	0.66
1:1G:934:C:O2'	1:1G:1344:C:OP2	2.11	0.66
26:14:2638:G:OP2	30:29:82:ARG:NH2	2.29	0.66
1:13:1060:C:O2'	10:1I:56:HIS:ND1	2.27	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1K:48:C:O2'	22:1K:59:A:O4'	2.12	0.66
26:1H:392:C:OP1	61:1H:3548:HOH:O	2.13	0.66
26:1H:1021:A:C8	26:1H:1022:G:H5"	2.30	0.66
26:1H:2287:A:H2	26:1H:2346:A:H2	1.42	0.66
27:16:72:G:OP2	61:16:303:HOH:O	2.12	0.66
34:61:31:LEU:HD21	34:61:38:LEU:HD12	1.76	0.66
35:58:130:HIS:C	35:58:134:ARG:HH22	2.03	0.66
1:1G:1300:G:O2'	1:1G:1301:U:O5'	2.13	0.66
4:32:31:CYS:C	4:32:33:MET:H	2.03	0.66
36:25:24:VAL:HA	36:25:39:ILE:HG22	1.76	0.66
1:13:871:U:OP1	61:13:1809:HOH:O	2.13	0.66
1:1G:1126:U:H4'	1:1G:1127:G:C8	2.30	0.66
1:1G:1318:A:H1'	19:AA:37:ARG:HD2	1.76	0.66
26:14:71:A:OP2	26:14:71:A:H3'	1.94	0.66
32:49:93:THR:HG21	32:49:95:ARG:HH21	1.61	0.66
35:15:67:LEU:HG	35:15:88:GLU:HG2	1.78	0.66
1:1G:45:U:H2'	1:1G:46:G:C8	2.30	0.66
32:49:124:SER:HB2	32:49:131:TYR:CE1	2.31	0.66
47:D5:77:ASP:OD2	47:D5:80:ARG:NH1	2.29	0.66
1:13:628:G:H2'	1:13:629:G:C8	2.29	0.66
24:3K:29:U:H2'	24:3K:30:G:H8	1.61	0.66
26:1H:1525:G:H2'	26:1H:1526:G:H8	1.61	0.66
26:1H:1641:A:H5"	26:1H:1642:G:OP2	1.95	0.66
26:1H:2057:A:OP2	61:1H:3550:HOH:O	2.14	0.66
27:16:81:G:N2	61:16:307:HOH:O	2.28	0.66
38:88:78:PRO:O	38:88:79:LEU:HB3	1.96	0.66
50:K8:41:ILE:HD13	50:K8:44:LEU:HG	1.77	0.66
1:1G:1023:G:H5"	1:1G:1024:G:H21	1.60	0.66
55:M5:14:VAL:HG11	55:M5:22:VAL:HG13	1.77	0.66
2:1E:67:THR:HG21	2:1E:155:LEU:HD13	1.77	0.66
43:D8:59:ALA:HB2	43:D8:96:ILE:HD13	1.78	0.66
46:G8:54:LYS:HA	46:G8:56:PRO:HD3	1.78	0.66
1:1G:243:A:H4'	1:1G:244:U:H5"	1.78	0.66
26:14:676:A:H8	26:14:2069:G:N2	1.89	0.66
26:14:731:C:OP1	61:14:3532:HOH:O	2.15	0.66
26:14:774:A:H2	26:14:787:U:HO2'	1.42	0.66
26:14:1614:A:OP2	61:14:3528:HOH:O	2.13	0.66
26:14:2787:C:O2'	30:29:61:ARG:O	2.10	0.66
26:14:2836:U:H2'	26:14:2837:G:C8	2.29	0.66
26:1H:140:A:H8	26:1H:1408:C:HO2'	1.43	0.65
26:1H:176:G:O2'	26:1H:177:G:H5'	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:900:A:H3'	26:1H:901:A:H8	1.60	0.65
26:1H:1990:C:OP2	61:1H:3549:HOH:O	2.14	0.65
1:1G:1016:A:HO2'	1:1G:1217:C:HO2'	1.42	0.65
3:22:16:ARG:HH22	3:22:181:ASN:HD22	1.43	0.65
26:14:94:G:N3	50:G5:47:ASN:ND2	2.44	0.65
26:14:780:G:OP1	29:19:218:ARG:NH2	2.29	0.65
26:14:879:G:O2'	26:14:898:C:N4	2.29	0.65
1:13:1323:G:H2'	1:13:1324:A:C8	2.31	0.65
5:4E:84:PHE:HB3	5:4E:134:ALA:HB2	1.77	0.65
26:1H:2287:A:N6	26:1H:2344:U:H3	1.94	0.65
31:31:136:THR:HG22	31:31:166:ALA:O	1.96	0.65
41:B8:107:ASP:O	41:B8:110:ILE:HG23	1.96	0.65
1:1G:376:G:O3'	16:7A:5:ARG:NH1	2.27	0.65
12:3A:71:PRO:O	12:3A:102:ARG:NH1	2.29	0.65
26:14:117:G:OP1	26:14:124:G:N1	2.26	0.65
26:14:1055:G:N2	26:14:1086:A:O4'	2.29	0.65
26:14:1165:U:H2'	26:14:1166:C:C6	2.30	0.65
27:1J:15:A:H1'	27:1J:109:G:C8	2.31	0.65
51:H5:39:ASP:O	51:H5:44:ARG:NH1	2.29	0.65
1:13:403:C:OP1	4:3E:137:SER:OG	2.12	0.65
1:13:404:U:OP1	4:3E:118:ARG:NH1	2.28	0.65
26:1H:1515:C:H2'	26:1H:1516:U:H6	1.60	0.65
28:71:59:ARG:HG3	28:71:164:ARG:HG2	1.77	0.65
30:21:201:THR:HG22	30:21:203:LYS:H	1.60	0.65
26:14:93:C:H5'	26:14:94:G:OP2	1.96	0.65
26:14:1164:G:H1	26:14:1185:C:H42	1.43	0.65
26:14:1416:G:O2'	26:14:1417:C:O5'	2.14	0.65
26:14:2064:C:H2'	26:14:2065:C:C6	2.31	0.65
27:1J:42:C:H2'	32:49:66:GLN:HE21	1.60	0.65
30:29:87:GLU:N	30:29:87:GLU:OE2	2.29	0.65
26:1H:1165:U:H2'	26:1H:1166:C:C6	2.32	0.65
29:19:25:THR:OG1	29:19:26:LYS:N	2.21	0.65
54:L5:12:ARG:HH21	54:L5:44:PRO:HB3	1.59	0.65
1:13:316:G:OP2	1:13:351:G:O2'	2.13	0.65
1:13:1003:G:N2	1:13:1037:C:N3	2.36	0.65
24:3K:53:G:N2	24:3K:62:C:O2	2.29	0.65
26:1H:1405:U:H2'	26:1H:1406:U:C6	2.31	0.65
26:1H:1417:C:OP2	61:1H:3552:HOH:O	2.14	0.65
26:1H:2159:G:H2'	26:1H:2160:G:O4'	1.96	0.65
30:21:77:ILE:O	30:21:79:ARG:N	2.29	0.65
7:62:21:VAL:HG23	7:62:22:LEU:HD12	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2A:48:ILE:HG21	11:2A:63:LEU:HG	1.78	0.65
26:14:603:A:H8	26:14:604:G:H1'	1.61	0.65
26:14:796:C:H2'	26:14:797:C:C6	2.32	0.65
26:14:2462:U:H2'	26:14:2463:C:C6	2.31	0.65
26:14:2846:G:N7	61:14:3567:HOH:O	2.30	0.65
31:39:129:PHE:HA	31:39:142:TRP:CD1	2.31	0.65
31:39:140:LEU:HD21	31:39:170:LEU:HD21	1.78	0.65
36:25:64:ARG:NH1	36:25:81:ASP:OD1	2.29	0.65
43:95:71:LEU:N	43:95:86:GLY:HA2	2.12	0.65
26:1H:1971:A:C4	29:11:241:PRO:HD3	2.31	0.65
26:1H:2061:G:P	61:1H:3535:HOH:O	2.55	0.65
26:1H:2394:C:H2'	26:1H:2395:C:H6	1.61	0.65
13:4A:102:ARG:HD3	13:4A:105:THR:HG23	1.79	0.65
26:14:26:G:OP1	44:A5:80:PRO:HB3	1.97	0.65
26:14:1278:A:OP1	39:55:36:THR:HG22	1.96	0.65
26:14:1534:G:H3'	26:14:1535:U:C5'	2.26	0.65
46:C5:75:ILE:HG23	46:C5:80:GLY:HA2	1.78	0.65
26:1H:1359:A:H2	26:1H:1372:U:O4	1.80	0.65
26:1H:1899:G:N2	26:1H:1902:C:H5	1.93	0.65
1:1G:407:G:H2'	1:1G:408:A:C8	2.32	0.65
1:1G:1028(B):C:O2	1:1G:1030:C:N4	2.29	0.65
4:32:31:CYS:HB2	4:32:33:MET:O	1.96	0.65
14:5A:59:ALA:HB1	14:5A:61:TRP:HZ3	1.62	0.65
17:8A:63:ARG:HG2	17:8A:64:PRO:HD2	1.79	0.65
26:14:907:U:O2'	38:45:101:ARG:NH2	2.27	0.65
26:14:1106:G:H3'	26:14:1107:G:H8	1.62	0.65
26:14:2444:G:OP2	31:39:68:LYS:NZ	2.26	0.65
29:19:45:ASN:O	29:19:47:GLY:N	2.30	0.65
1:13:642:A:N3	8:7E:113:SER:OG	2.29	0.65
1:13:1139:G:H4'	1:13:1140:C:H5'	1.79	0.65
17:8I:76:LEU:HD11	17:8I:79:SER:HB2	1.78	0.65
32:41:17:PRO:HA	32:41:20:ILE:HD12	1.79	0.65
36:68:34:THR:OG1	36:68:35:VAL:N	2.30	0.65
57:3L:63:U:H2'	57:3L:64:G:H8	1.62	0.65
26:14:89:G:H3'	26:14:90:U:H5"	1.78	0.65
36:25:24:VAL:HB	36:25:33:ALA:HB2	1.79	0.65
49:F5:52:ARG:NH2	49:F5:57:GLU:OE1	2.30	0.65
1:13:346:G:OP1	41:B8:41:ARG:NH2	2.27	0.65
26:1H:1899:G:H22	26:1H:1902:C:N4	1.95	0.65
26:1H:2334:G:O6	48:I8:74:ARG:NH2	2.29	0.65
5:42:60:TYR:HB3	5:42:64:ARG:CZ	2.27	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:65:78:LEU:HD11	40:65:107:GLU:HB3	1.78	0.65
45:B5:51:VAL:H	45:B5:83:VAL:HG23	1.62	0.65
26:1H:2232:U:OP1	49:J8:40:ARG:NH1	2.24	0.65
40:A8:34:HIS:CE1	40:A8:54:LEU:HD23	2.31	0.65
1:1G:352:C:O2'	1:1G:354:G:OP1	2.13	0.65
26:14:49:A:H4'	26:14:50:U:H5"	1.78	0.65
26:14:2880:C:H1'	39:55:92:GLY:HA3	1.78	0.65
55:M5:22:VAL:HG12	55:M5:50:LEU:HD23	1.79	0.65
1:13:812:C:O2	61:13:1805:HOH:O	2.11	0.64
12:3I:53:ARG:HG3	12:3I:53:ARG:HH11	1.61	0.64
19:AI:41:VAL:HG11	19:AI:67:VAL:HA	1.79	0.64
20:BI:89:ARG:HD2	20:BI:104:LEU:HD11	1.79	0.64
35:58:56:ASN:N	35:58:125:GLY:O	2.22	0.64
46:G8:55:TYR:CE1	46:G8:61:ILE:HD11	2.32	0.64
1:1G:448:A:P	1:1G:485:G:H22	2.20	0.64
13:4A:31:LYS:HA	13:4A:34:LEU:HD12	1.78	0.64
13:4A:53:VAL:O	13:4A:57:ARG:N	2.23	0.64
18:9A:22:VAL:HG22	18:9A:23:LYS:H	1.62	0.64
26:14:972:G:O2'	61:14:3531:HOH:O	2.14	0.64
26:14:1963:U:H5"	26:14:1963:U:O2	1.97	0.64
2:1E:121:LEU:HA	2:1E:124:SER:HB2	1.79	0.64
2:1E:198:ASP:OD1	2:1E:198:ASP:N	2.30	0.64
6:5E:1:MET:HE2	6:5E:68:PRO:HD3	1.79	0.64
19:AI:41:VAL:HG21	19:AI:67:VAL:HG22	1.79	0.64
32:41:21:ARG:HH11	32:41:21:ARG:HB2	1.61	0.64
33:51:6:ARG:NH2	33:51:7:LEU:HD11	2.11	0.64
49:J8:78:LYS:O	49:J8:78:LYS:NZ	2.25	0.64
1:1G:108:G:H5'	1:1G:109:A:H5"	1.77	0.64
1:1G:1080:A:H5'	5:42:14:ARG:NH2	2.12	0.64
1:1G:1162:C:N3	1:1G:1174:G:N2	2.42	0.64
5:42:148:VAL:HG21	8:72:107:LEU:HD22	1.78	0.64
1:13:143:A:H5"	1:13:144:G:H5'	1.79	0.64
8:7E:64:LYS:HG2	8:7E:79:VAL:HG21	1.78	0.64
18:9I:22:VAL:O	18:9I:42:ARG:NH2	2.30	0.64
38:88:66:ILE:O	38:88:104:PHE:N	2.31	0.64
4:32:168:ARG:HD3	4:32:169:LYS:N	2.13	0.64
9:82:84:ALA:HA	9:82:87:GLN:HB2	1.80	0.64
26:14:1174:A:C2	26:14:1176:G:H4'	2.31	0.64
26:14:1653:G:H3'	39:55:2:ARG:HG2	1.79	0.64
26:14:2689:U:H5"	26:14:2713:A:C2	2.32	0.64
30:29:120:TRP:CD1	30:29:155:LYS:HB3	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.31	0.64
34:61:144:VAL:HG22	34:61:145:VAL:HG23	1.78	0.64
37:78:138:LEU:HD12	37:78:144:GLU:HG3	1.78	0.64
4:32:23:GLY:H	4:32:26:CYS:HG	1.43	0.64
13:4A:78:ILE:HD12	13:4A:92:HIS:ND1	2.12	0.64
17:8A:67:LYS:HA	17:8A:70:ARG:HH12	1.61	0.64
26:14:1757:U:H3	26:14:1762:A:H2	1.42	0.64
30:29:51:PHE:O	30:29:74:PRO:HB2	1.97	0.64
37:35:14:LYS:O	37:35:16:ARG:N	2.31	0.64
42:85:66:ASN:HB2	42:85:76:TYR:HB2	1.78	0.64
50:G5:25:VAL:HG12	50:G5:57:ILE:HG23	1.80	0.64
1:13:153:C:N4	1:13:168:G:H22	1.95	0.64
1:13:963:G:H21	10:1I:55:LYS:NZ	1.96	0.64
5:4E:27:ARG:HH21	5:4E:47:LYS:HB3	1.61	0.64
15:6I:39:LEU:HD13	15:6I:56:LEU:HB2	1.80	0.64
19:AI:5:LEU:HD12	19:AI:9:VAL:H	1.62	0.64
26:1H:2492:U:H2'	26:1H:2493:U:C6	2.33	0.64
1:1G:10:A:H2'	1:1G:11:G:H8	1.63	0.64
1:1G:837:G:H2'	1:1G:838:G:O4'	1.97	0.64
26:14:2317:C:H2'	26:14:2318:G:O4'	1.98	0.64
28:79:52:ARG:HB3	28:79:52:ARG:HH11	1.62	0.64
39:55:78:LYS:O	39:55:83:ILE:HG13	1.96	0.64
42:85:98:LEU:C	42:85:100:VAL:H	2.05	0.64
1:13:179:A:H2'	1:13:180:U:H6	1.63	0.64
9:8E:13:ALA:HB2	9:8E:68:GLY:HA3	1.80	0.64
19:AI:8:GLY:HA2	19:AI:10:PHE:CE1	2.32	0.64
1:1G:973:G:H3'	1:1G:974:A:H5"	1.79	0.64
1:1G:1143:G:H2'	1:1G:1144:G:C8	2.32	0.64
17:8A:99:SER:OG	17:8A:100:LYS:N	2.31	0.64
26:14:576:U:OP1	61:14:3533:HOH:O	2.15	0.64
26:14:1778:U:H2'	26:14:1784:A:N6	2.13	0.64
26:14:2776:A:OP1	26:14:2776:A:H3'	1.98	0.64
26:14:2877:G:P	41:75:2:ASN:HD21	2.20	0.64
30:29:31:CYS:SG	30:29:51:PHE:HB2	2.38	0.64
31:39:66:PRO:O	31:39:67:GLN:HB3	1.97	0.64
3:2E:15:THR:HG21	3:2E:181:ASN:HA	1.79	0.64
22:1K:53:G:H1	22:1K:61:C:H42	1.46	0.64
26:1H:1186:G:OP1	61:1H:3551:HOH:O	2.14	0.64
26:1H:1194:A:H8	26:1H:1194:A:OP2	1.81	0.64
26:1H:2788:C:H5'	30:21:61:ARG:HH12	1.63	0.64
28:71:26:ALA:HB1	28:71:185:LEU:HB3	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:887:G:H21	1:1G:1489:G:H4'	1.63	0.64
1:1G:1069:C:H42	1:1G:1106:G:H1	1.44	0.64
8:72:51:VAL:HG11	8:72:60:ARG:HE	1.61	0.64
30:29:54:GLN:HA	30:29:54:GLN:HE21	1.63	0.64
31:39:51:THR:HG23	31:39:92:PRO:HG2	1.80	0.64
47:D5:94:GLU:O	47:D5:130:PRO:HD3	1.97	0.64
2:1E:219:VAL:HA	2:1E:222:ILE:HD11	1.79	0.64
5:4E:57:LYS:HA	5:4E:60:TYR:HB3	1.80	0.64
18:9I:59:SER:OG	18:9I:60:ALA:N	2.26	0.64
1:1G:1028(A):C:H41	1:1G:1029:G:H1'	1.63	0.64
3:22:32:LEU:HD22	3:22:59:ARG:HH12	1.63	0.64
10:1A:44:VAL:HG22	10:1A:66:ARG:HB3	1.80	0.64
26:14:925:C:H2'	26:14:926:A:H8	1.62	0.64
26:14:1678:G:H22	26:14:1989:G:N2	1.95	0.64
26:14:2056:G:H1	53:J5:3:LYS:HB3	1.63	0.64
26:14:2065:C:H1'	26:14:2449:U:H3	1.63	0.64
26:14:2377:A:H4'	40:65:111:GLU:HG2	1.80	0.64
1:13:559:A:OP1	5:4E:126:ARG:NH2	2.31	0.64
11:2I:73:MET:HE1	11:2I:102:GLY:HA3	1.80	0.64
26:1H:2110:G:N2	26:1H:2180:U:O2	2.31	0.64
28:71:224:ILE:C	28:71:225:ASN:HD22	2.06	0.64
1:1G:448:A:OP2	1:1G:485:G:N2	2.28	0.64
26:14:2134:A:N6	26:14:2156:G:H2'	2.13	0.64
40:65:85:VAL:HG22	40:65:110:LEU:HB2	1.79	0.64
47:D5:53:ILE:HG22	47:D5:71:VAL:HG13	1.80	0.64
48:E5:38:VAL:HB	48:E5:59:LEU:HD12	1.80	0.64
1:13:1128:C:H5'	9:8E:16:ARG:HH22	1.63	0.64
20:BI:30:LYS:HE2	20:BI:80:ARG:HH22	1.62	0.64
23:2K:33:OMC:HM22	23:2K:34:U:H5'	1.79	0.64
26:1H:880:G:H2'	26:1H:881:G:C8	2.32	0.64
26:1H:1328:G:H2'	26:1H:1330:C:C5	2.33	0.64
26:1H:1899:G:H22	26:1H:1902:C:H41	1.46	0.64
43:D8:37:VAL:O	43:D8:38:LEU:HG	1.98	0.64
7:62:116:ALA:HA	7:62:119:ARG:HE	1.63	0.64
26:14:1416:G:H1	26:14:1582:C:H42	1.45	0.64
29:19:30:GLU:HG3	29:19:63:ARG:CZ	2.28	0.64
1:13:339:C:OP2	36:68:97:ARG:NH1	2.30	0.63
1:13:848:C:H2'	1:13:849:C:O4'	1.98	0.63
1:13:1062:U:H2'	1:13:1063:C:C6	2.33	0.63
3:2E:147:LYS:HB3	3:2E:203:PHE:CD2	2.33	0.63
26:1H:958:U:OP2	38:88:14:ARG:NH1	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:28:C:OP1	40:A8:36:TYR:OH	2.11	0.63
35:58:129:PRO:O	35:58:134:ARG:NH1	2.31	0.63
1:1G:371:G:O2'	1:1G:373:A:N7	2.30	0.63
1:1G:963:G:N3	10:1A:55:LYS:NZ	2.46	0.63
1:1G:1256:A:N6	1:1G:1277:C:H3'	2.13	0.63
4:32:18:LYS:NZ	4:32:26:CYS:O	2.27	0.63
26:14:1899:G:N2	26:14:1902:C:N4	2.45	0.63
33:59:159:GLU:O	33:59:163:TYR:OH	2.16	0.63
54:L5:25:PRO:HA	54:L5:28:ARG:HG3	1.80	0.63
1:13:501:C:H2'	1:13:502:G:C8	2.34	0.63
1:13:1157:A:N6	1:13:1178:G:H21	1.95	0.63
13:4I:16:ASP:HB2	13:4I:31:LYS:HE3	1.81	0.63
47:D5:45:ASP:OD1	47:D5:49:ARG:NH1	2.31	0.63
1:13:8:A:N7	4:3E:208:SER:OG	2.25	0.63
26:1H:65:C:H2'	26:1H:66:C:H6	1.63	0.63
26:1H:97:C:OP1	50:K8:2:LYS:N	2.32	0.63
26:1H:1156:A:C8	42:C8:51:LYS:HG2	2.33	0.63
28:71:55:ASP:OD1	28:71:55:ASP:N	2.29	0.63
37:78:95:VAL:HG21	37:78:123:LEU:HD13	1.79	0.63
1:1G:1095:U:P	1:1G:1108:G:H1	2.21	0.63
26:14:34:C:HO2'	26:14:35:G:H8	1.44	0.63
26:14:198:C:H5'	26:14:2244:U:OP1	1.99	0.63
26:14:674:G:O2'	31:39:74:ARG:HG3	1.98	0.63
27:1J:89(A):A:H5'	27:1J:90:C:OP2	1.99	0.63
1:13:626:U:H2'	1:13:627:G:C8	2.33	0.63
1:13:649:G:H2'	1:13:650:G:H8	1.62	0.63
1:13:1165:C:O2	1:13:1171:G:N2	2.24	0.63
1:13:1446:A:OP1	1:13:1446:A:H4'	1.99	0.63
26:1H:330:A:HO2'	26:1H:331:A:H8	1.45	0.63
26:1H:1533:C:H3'	26:1H:1534:G:H5"	1.80	0.63
43:D8:37:VAL:HG12	43:D8:55:ALA:O	1.98	0.63
1:1G:1266:G:N2	1:1G:1269:A:OP2	2.32	0.63
7:62:42:ILE:HG23	7:62:117:ALA:HB2	1.81	0.63
57:3L:21:A:N1	57:3L:46:G:N1	2.47	0.63
43:95:35:LEU:O	43:95:37:VAL:HG22	1.98	0.63
46:C5:8:LYS:NZ	46:C5:95:LYS:HD3	2.13	0.63
55:M5:48:PHE:CB	55:M5:49:VAL:HG22	2.18	0.63
1:13:251:G:O6	1:13:271:C:N4	2.32	0.63
1:13:407:G:O4'	4:3E:119:GLN:NE2	2.31	0.63
1:13:1260:C:H4'	1:13:1284:C:H5'	1.81	0.63
26:1H:778:G:O6	61:1H:3547:HOH:O	2.12	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1339:G:H21	26:1H:1603:A:H1'	1.64	0.63
26:1H:1550:C:H2'	26:1H:1551:C:H6	1.64	0.63
26:1H:1578:U:OP2	61:1H:3554:HOH:O	2.15	0.63
33:51:113:VAL:HG11	33:51:151:ILE:HD13	1.81	0.63
44:E8:27:LYS:HB3	44:E8:31:GLU:HG3	1.80	0.63
1:1G:1133:G:N2	1:1G:1141:C:O2	2.32	0.63
8:72:11:THR:O	8:72:15:ASN:HB2	1.98	0.63
12:3A:59:ARG:NH1	12:3A:65:GLU:OE1	2.31	0.63
13:4A:11:ARG:HA	13:4A:45:VAL:HB	1.81	0.63
38:45:32:TYR:HD2	38:45:114:ALA:HB3	1.64	0.63
1:13:875:C:O2'	8:7E:14:ARG:NH1	2.31	0.63
11:2I:58:PRO:HD3	11:2I:89:ALA:HB1	1.80	0.63
26:1H:805:G:OP1	61:1H:3555:HOH:O	2.15	0.63
37:78:49:ARG:HG3	37:78:49:ARG:HH11	1.63	0.63
42:C8:97:ASP:OD1	42:C8:101:ARG:NH1	2.28	0.63
1:1G:1239:A:O2'	1:1G:1298:C:N4	2.30	0.63
2:12:127:ILE:O	2:12:130:ARG:NE	2.29	0.63
26:14:780:G:H21	26:14:783:A:H62	1.45	0.63
26:14:1633:G:O6	61:14:3530:HOH:O	2.14	0.63
42:85:75:ASN:OD1	42:85:78:THR:OG1	2.15	0.63
55:M5:23:VAL:HA	55:M5:49:VAL:H	1.63	0.63
6:5E:100:ASN:HB2	18:9I:28:GLU:HA	1.81	0.63
9:8E:125:TYR:HD1	9:8E:126:SER:N	1.97	0.63
26:1H:1047:G:N2	26:1H:1110:G:H2'	2.13	0.63
26:1H:1475:G:H1	26:1H:1518:C:H42	1.45	0.63
26:1H:2400:G:H2'	26:1H:2401:U:H6	1.63	0.63
31:31:78:ILE:HA	31:31:83:PHE:CD2	2.34	0.63
2:12:22:LYS:HB3	2:12:40:HIS:NE2	2.13	0.63
26:14:287:C:H2'	26:14:288:C:H6	1.63	0.63
46:C5:62:GLU:CD	46:C5:63:LYS:H	2.05	0.63
4:3E:82:ALA:O	4:3E:86:LYS:HB3	1.98	0.63
23:2K:62:C:H2'	23:2K:63:C:H6	1.63	0.63
26:1H:588:U:H2'	26:1H:589:C:C6	2.33	0.63
1:1G:1142:G:H3'	1:1G:1143:G:C8	2.34	0.63
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.33	0.63
11:2A:81:ASP:N	11:2A:81:ASP:OD1	2.31	0.63
13:4A:13:LYS:HD3	13:4A:14:ARG:N	2.14	0.63
16:7A:74:LEU:HD12	16:7A:79:VAL:HG21	1.79	0.63
42:85:91:ASP:O	42:85:92:ARG:HG2	1.98	0.63
1:13:1081:G:H2'	1:13:1082:G:H8	1.62	0.63
1:13:1297:C:OP1	13:4I:13:LYS:NZ	2.30	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1533:C:H4'	1:13:1534:A:C8	2.34	0.63
3:2E:150:LYS:HE3	3:2E:152:ILE:HD11	1.81	0.63
26:1H:1416:G:O2'	26:1H:1417:C:H6	1.82	0.63
55:Q8:49:VAL:O	55:Q8:51:ALA:N	2.32	0.63
1:1G:192:U:O4'	20:BA:103:GLY:HA2	1.98	0.63
4:32:148:VAL:HG12	4:32:152:SER:HB2	1.80	0.63
26:14:2378:A:O2'	40:65:21:THR:HG21	1.99	0.63
2:1E:118:LEU:HB3	2:1E:142:LEU:HD13	1.81	0.62
2:1E:136:VAL:HA	2:1E:139:LYS:HB2	1.81	0.62
47:H8:9:TYR:HE2	47:H8:35:ARG:HH11	1.45	0.62
47:H8:102:LEU:HD21	47:H8:124:ILE:HG22	1.81	0.62
1:1G:538:G:H5"	12:3A:114:LYS:HB2	1.80	0.62
1:1G:589:C:N3	1:1G:650:G:N2	2.37	0.62
1:1G:1259:C:N4	1:1G:1260:C:O2	2.32	0.62
3:22:6:HIS:CE1	3:22:8:ILE:HB	2.34	0.62
7:62:60:LYS:HA	7:62:63:LYS:HG2	1.81	0.62
12:3A:24:VAL:O	12:3A:26:ALA:N	2.31	0.62
26:14:903:C:H2'	26:14:904:C:C6	2.34	0.62
26:14:1754:C:OP1	41:75:96:ARG:NH1	2.32	0.62
28:79:19:ILE:HG12	28:79:223:ARG:HG3	1.81	0.62
37:35:101:VAL:HG21	37:35:108:LYS:HB2	1.80	0.62
1:13:186:C:O4'	20:BI:81:LYS:NZ	2.31	0.62
22:1K:56:C:H5"	38:88:60:ARG:HH22	1.64	0.62
26:1H:50:U:H3'	26:1H:51:G:H5'	1.82	0.62
26:1H:1667:G:O2'	26:1H:1991:U:O4	2.14	0.62
28:71:19:ILE:HG23	28:71:223:ARG:HG2	1.81	0.62
40:A8:89:ARG:HG2	40:A8:89:ARG:O	1.98	0.62
2:12:52:GLU:OE1	2:12:53:ARG:N	2.32	0.62
13:4A:16:ASP:HB3	13:4A:34:LEU:HD11	1.80	0.62
19:AA:41:VAL:HG23	19:AA:44:MET:HG3	1.80	0.62
26:14:30:G:O6	61:14:3529:HOH:O	2.13	0.62
26:14:646:A:H2'	26:14:647:G:O4'	1.99	0.62
26:14:2228:G:OP1	29:19:261:LYS:NZ	2.31	0.62
40:65:106:ARG:HA	40:65:110:LEU:HD11	1.80	0.62
26:1H:1496:A:H8	26:1H:1577:C:O2'	1.82	0.62
26:1H:2032:G:H21	30:21:146:THR:CG2	2.11	0.62
27:16:43:C:OP1	32:41:67:LYS:NZ	2.31	0.62
34:61:78:THR:HG22	34:61:141:LYS:HB2	1.80	0.62
1:1G:437:U:H5"	4:32:155:LEU:HD11	1.81	0.62
2:12:219:VAL:CG2	2:12:221:LEU:H	2.12	0.62
26:14:265:A:C8	26:14:266:G:H1'	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:B5:8:ILE:O	50:G5:36:ARG:NH2	2.32	0.62
46:C5:83:THR:HG22	46:C5:84:ARG:H	1.63	0.62
1:13:736:C:H2'	1:13:737:A:C8	2.33	0.62
14:5I:6:LEU:HB3	14:5I:23:ARG:NH2	2.14	0.62
20:BI:23:ARG:HA	20:BI:26:ASN:HD22	1.63	0.62
26:1H:1434:A:H61	26:1H:1558:A:H61	1.45	0.62
26:1H:2680:C:H5'	30:21:189:PRO:HA	1.81	0.62
29:11:201:HIS:O	29:11:204:ILE:HG13	2.00	0.62
32:41:161:THR:HG22	32:41:163:ALA:H	1.64	0.62
34:61:77:LEU:HD13	34:61:140:LEU:HB3	1.82	0.62
1:1G:407:G:H2'	1:1G:408:A:H8	1.63	0.62
2:12:24:TRP:HE1	2:12:26:PRO:HG3	1.63	0.62
4:32:94:LEU:HA	4:32:97:LEU:HD12	1.81	0.62
13:4A:16:ASP:OD1	13:4A:16:ASP:N	2.31	0.62
32:49:39:ILE:HG12	32:49:157:ILE:HG23	1.81	0.62
32:49:56:ALA:HA	32:49:59:GLU:HB2	1.80	0.62
1:13:881:G:OP2	12:3I:12:ARG:NH2	2.33	0.62
1:13:1238:A:H62	1:13:1301:U:H3	1.46	0.62
11:2I:48:ILE:HG21	11:2I:63:LEU:HD13	1.80	0.62
23:2K:2:G:H2'	23:2K:3:C:C6	2.35	0.62
26:1H:1900:A:H5'	26:1H:1900:A:C8	2.33	0.62
26:1H:1972:A:H2'	26:1H:1973:G:C8	2.33	0.62
32:41:38:VAL:HG22	32:41:93:THR:HG23	1.81	0.62
35:58:38:HIS:O	42:C8:67:ALA:HB1	1.99	0.62
46:G8:30:VAL:HG22	46:G8:37:VAL:HG12	1.82	0.62
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.80	0.62
8:72:44:PHE:HA	8:72:79:VAL:HG11	1.81	0.62
26:14:1639:U:H4'	26:14:2699:C:H4'	1.81	0.62
26:14:2346:A:C2	26:14:2383:G:C2	2.88	0.62
29:19:33:LEU:HD23	29:19:34:VAL:HG13	1.80	0.62
4:3E:98:GLU:O	4:3E:103:ASN:ND2	2.31	0.62
26:1H:882:G:H1	26:1H:894:C:H42	1.47	0.62
1:1G:1147:C:O2	9:82:16:ARG:NH1	2.25	0.62
26:14:528:A:C2	26:14:2043:C:H4'	2.34	0.62
26:14:1027:A:C2	26:14:2488:A:H5'	2.35	0.62
26:14:1169:G:N2	26:14:1180:C:N3	2.44	0.62
35:15:56:ASN:H	35:15:125:GLY:HA3	1.63	0.62
1:13:51:A:OP2	1:13:52:G:H8	1.83	0.62
1:13:1492:A:H5"	12:3I:47:LYS:HB3	1.82	0.62
17:8I:53:LEU:HB3	17:8I:82:MET:HE1	1.82	0.62
18:9I:22:VAL:HG13	18:9I:42:ARG:HH22	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1433:U:O2	26:1H:1561:G:C2	2.53	0.62
26:1H:2577:A:H5"	26:1H:2578:G:H5'	1.82	0.62
28:71:53:ARG:NH1	28:71:55:ASP:OD2	2.33	0.62
1:13:1305:G:O2'	1:13:1331:G:N2	2.32	0.62
2:1E:28:PHE:CE2	2:1E:190:THR:HA	2.34	0.62
26:1H:2331:G:O3'	48:I8:43:THR:HG22	2.00	0.62
30:21:4:ILE:HD13	30:21:28:ALA:HB1	1.81	0.62
47:H8:101:PRO:HA	47:H8:123:ASP:HB3	1.82	0.62
27:1J:3:C:H2'	27:1J:4:C:C6	2.34	0.62
27:1J:44:G:H1'	27:1J:47:C:H42	1.64	0.62
18:9I:39:VAL:O	18:9I:42:ARG:HB2	2.00	0.62
26:1H:2142:C:H2'	26:1H:2143:C:C6	2.35	0.62
30:21:116:VAL:O	30:21:117:MET:HB3	1.98	0.62
33:51:46:GLU:OE1	33:51:51:ARG:NH2	2.33	0.62
7:62:111:ARG:NH2	7:62:122:HIS:HB3	2.13	0.62
9:82:17:VAL:HG22	9:82:63:ILE:HG12	1.82	0.62
26:14:900:A:H2'	26:14:901:A:C8	2.25	0.62
26:14:2438:U:O3'	26:14:2439:A:H3'	1.99	0.62
31:39:64:ILE:HD11	31:39:75:HIS:HB2	1.82	0.62
1:13:222:U:H2'	1:13:223:U:H6	1.64	0.62
1:13:345:C:H4'	1:13:346:G:C5	2.35	0.62
3:2E:119:ARG:O	3:2E:123:GLN:HG3	2.00	0.62
26:1H:719:C:H2'	26:1H:720:C:C6	2.35	0.62
26:1H:1900:A:H5'	26:1H:1900:A:H8	1.65	0.62
41:B8:60:THR:HG22	41:B8:77:PRO:HA	1.81	0.62
1:1G:1204:A:OP1	14:5A:3:ARG:NH1	2.31	0.62
4:32:70:ILE:HD11	4:32:75:PHE:HD2	1.65	0.62
26:14:139:G:N2	26:14:141:A:N1	2.46	0.62
26:14:1921:G:H2'	26:14:1922:G:H8	1.65	0.62
26:14:2016:U:O2	53:J5:7:PRO:HG2	1.99	0.62
26:14:2688:U:H5	26:14:2720:U:OP2	1.83	0.62
27:1J:44:G:H5"	27:1J:45:A:OP1	1.99	0.62
30:29:25:VAL:HG12	30:29:26:ILE:H	1.64	0.62
45:B5:51:VAL:HG13	45:B5:81:VAL:HG23	1.82	0.62
1:13:474:G:H5"	16:7I:81:ARG:HE	1.64	0.61
1:13:1015:A:H2'	1:13:1016:A:H8	1.65	0.61
17:8I:76:LEU:HD12	17:8I:77:VAL:H	1.63	0.61
26:1H:1188:U:H4'	43:D8:79:VAL:HG22	1.82	0.61
39:98:51:LEU:HD22	39:98:66:VAL:HG13	1.82	0.61
26:14:6:A:N7	26:14:2899:G:N2	2.47	0.61
31:39:78:ILE:HA	31:39:83:PHE:CD2	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:185:ILE:CG2	2:1E:199:TYR:HB2	2.30	0.61
19:AI:21:GLU:O	19:AI:25:LYS:HB2	1.99	0.61
26:1H:1196:C:H41	37:78:16:ARG:HH12	1.46	0.61
32:41:35:GLU:OE1	32:41:36:LYS:N	2.33	0.61
1:1G:324:G:N1	1:1G:327:A:OP2	2.33	0.61
1:1G:1316:G:H4'	14:5A:18:VAL:HG11	1.81	0.61
26:14:1435:G:H1	26:14:1557:C:H42	1.47	0.61
43:95:85:LYS:CD	43:95:86:GLY:H	2.07	0.61
53:J5:41:PRO:O	53:J5:44:THR:OG1	2.18	0.61
1:13:323:U:H2'	1:13:324:G:O4'	1.98	0.61
12:3I:38:THR:HB	12:3I:57:LYS:HB3	1.83	0.61
17:8I:13:ASP:H	17:8I:14:LYS:NZ	1.98	0.61
31:31:199:TRP:NE1	31:31:203:GLN:HE22	1.98	0.61
1:1G:857:C:H3'	1:1G:858:G:C8	2.35	0.61
4:32:22:LYS:HD3	4:32:25:ARG:HD2	1.83	0.61
21:1B:8:THR:HG23	21:1B:11:GLY:H	1.63	0.61
26:14:2822:G:OP2	61:14:3506:HOH:O	2.16	0.61
27:1J:104:A:H2'	27:1J:105:G:O4'	2.00	0.61
37:35:13:ASN:C	37:35:15:ARG:H	2.06	0.61
40:65:30:ARG:HG3	40:65:35:ILE:HD12	1.80	0.61
41:75:50:ILE:HD11	41:75:102:ILE:HD11	1.81	0.61
41:75:55:ASN:N	41:75:59:THR:HG22	2.15	0.61
42:85:49:HIS:HA	42:85:52:ARG:HB3	1.81	0.61
50:G5:63:VAL:O	50:G5:66:GLU:HG2	2.00	0.61
1:13:67:C:H2'	1:13:68:G:C8	2.36	0.61
1:13:200:G:N2	1:13:218:C:O2	2.33	0.61
1:13:346:G:H21	1:13:347:G:H1'	1.64	0.61
1:13:804:U:H5"	1:13:805:C:OP2	2.00	0.61
4:3E:95:GLY:O	4:3E:99:SER:OG	2.17	0.61
26:1H:870:A:OP1	38:88:5:ARG:NH2	2.34	0.61
26:1H:2150:U:H2'	26:1H:2151:G:C8	2.36	0.61
1:1G:1149:C:OP2	9:82:9:ARG:NH1	2.33	0.61
1:1G:1311:G:N2	1:1G:1326:C:O2	2.29	0.61
1:1G:1449:C:H3'	1:1G:1450:U:H4'	1.81	0.61
4:32:60:GLU:HG2	4:32:202:LEU:HB2	1.82	0.61
10:1A:49:VAL:O	10:1A:60:ARG:HB2	2.00	0.61
26:14:1070:A:H8	26:14:1093:G:C2	2.19	0.61
26:14:1210:A:H5'	26:14:1212:G:C5'	2.30	0.61
26:14:1935:G:H1'	26:14:1964:G:N2	2.15	0.61
1:13:1178:G:OP2	9:8E:93:ARG:NH2	2.34	0.61
26:1H:34:C:O2'	26:1H:35:G:OP2	2.18	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:458:G:O2'	26:1H:469:G:O6	2.12	0.61
33:51:81:GLU:O	33:51:81:GLU:HG2	2.00	0.61
36:68:2:ILE:HD12	36:68:6:THR:HG21	1.81	0.61
55:Q8:33:ASN:HA	55:Q8:36:LYS:HD2	1.82	0.61
13:4A:23:TYR:HB3	13:4A:67:GLU:HA	1.82	0.61
26:14:2674:G:H4'	36:25:30:ALA:HB2	1.81	0.61
43:95:67:GLY:O	43:95:88:ARG:HD2	2.01	0.61
1:13:110:C:O2'	16:7I:25:ARG:O	2.17	0.61
2:1E:74:LYS:HB2	2:1E:208:ILE:HG21	1.81	0.61
4:3E:167:GLY:HA2	29:19:135:PHE:CZ	2.35	0.61
11:2I:62:GLN:O	11:2I:66:LEU:HG	1.99	0.61
16:7I:45:THR:HB	16:7I:47:ASP:H	1.66	0.61
22:1K:17:U:HO2'	22:1K:57:G:H1	1.47	0.61
26:1H:305:U:H2'	26:1H:306:U:C6	2.36	0.61
26:1H:654(A):A:H2	26:1H:654(T):A:N1	1.98	0.61
26:1H:861:A:N3	27:16:79:C:O2'	2.32	0.61
26:1H:1266:G:O2'	26:1H:2012:G:O6	2.14	0.61
33:51:10:PRO:HD2	33:51:50:VAL:O	2.00	0.61
46:G8:87:LYS:O	46:G8:94:LYS:HB2	2.00	0.61
1:1G:355:C:O2'	1:1G:388:G:N3	2.31	0.61
2:12:91:PRO:HG2	2:12:155:LEU:HD23	1.80	0.61
3:22:93:LYS:H	3:22:93:LYS:HD3	1.63	0.61
8:72:86:ILE:HG21	8:72:133:LEU:HD22	1.81	0.61
26:14:958:U:O2	27:1J:89(A):A:O2'	2.15	0.61
29:19:158:ALA:HB3	29:19:161:THR:HG21	1.82	0.61
30:29:51:PHE:CG	30:29:52:LEU:N	2.68	0.61
31:39:25:PRO:C	31:39:27:GLU:H	2.07	0.61
34:69:98:ALA:HA	34:69:109:ILE:HD11	1.82	0.61
43:95:85:LYS:CG	43:95:87:HIS:H	2.13	0.61
47:D5:67:LEU:HD22	47:D5:90:VAL:HG11	1.81	0.61
22:1K:57:G:OP2	38:88:60:ARG:NH2	2.33	0.61
26:1H:1930:G:HO2'	26:1H:1931:U:P	2.23	0.61
26:1H:2726:U:H4'	36:68:1:MET:HE1	1.81	0.61
27:16:81:G:OP2	61:16:304:HOH:O	2.16	0.61
31:31:155:LEU:HD12	31:31:174:VAL:HG22	1.82	0.61
31:31:199:TRP:HE1	31:31:203:GLN:HE22	1.48	0.61
34:61:93:THR:HA	34:61:119:PRO:HB3	1.83	0.61
55:Q8:14:VAL:HG23	55:Q8:24:ALA:HB2	1.83	0.61
18:9A:37:VAL:O	18:9A:41:LYS:N	2.28	0.61
19:AA:15:LEU:HD13	19:AA:18:LYS:HD2	1.82	0.61
56:1L:76:A:H2'	26:14:2584:U:H1'	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1670:C:O2	30:29:129:HIS:NE2	2.33	0.61
30:29:12:THR:C	30:29:23:VAL:HG22	2.26	0.61
41:75:99:LEU:HD22	41:75:101:PHE:HE1	1.65	0.61
5:4E:36:ASP:OD2	5:4E:40:ARG:NH2	2.32	0.61
7:6E:15:ASP:OD2	7:6E:19:GLY:N	2.34	0.61
15:6I:7:GLU:OE1	15:6I:38:ARG:NH2	2.33	0.61
26:1H:2144:U:H1'	26:1H:2148:G:N2	2.16	0.61
31:31:29:ASN:H	31:31:112:MET:CE	2.12	0.61
40:A8:37:ALA:HB2	40:A8:101:LEU:HD21	1.83	0.61
3:22:18:TRP:H	3:22:18:TRP:HE3	1.49	0.61
26:14:382:G:H1	26:14:392:C:H42	1.48	0.61
26:14:1226:G:H5'	43:95:85:LYS:H	1.66	0.61
40:65:74:ALA:O	40:65:78:LEU:HD12	2.01	0.61
2:1E:130:ARG:HB3	2:1E:134:GLU:HG2	1.83	0.61
3:2E:58:GLU:HB2	3:2E:65:ALA:HB3	1.82	0.61
4:3E:102:ASP:OD1	4:3E:103:ASN:N	2.34	0.61
20:BI:45:GLN:HB2	20:BI:91:LEU:HD13	1.83	0.61
26:1H:662:G:OP1	37:78:15:ARG:NH1	2.34	0.61
26:1H:2135:A:O2'	26:1H:2159:G:O2'	2.11	0.61
26:1H:2422:A:N7	55:Q8:31:HIS:HE1	1.99	0.61
29:11:17:THR:HG22	29:11:204:ILE:HA	1.82	0.61
30:21:105:THR:HG1	30:21:199:ARG:HH21	1.44	0.61
52:M8:40:HIS:HD1	52:M8:45:GLY:C	2.09	0.61
1:1G:413:G:H2'	1:1G:428:G:N2	2.16	0.61
12:3A:60:LEU:HD21	12:3A:66:VAL:HG22	1.83	0.61
26:14:580:C:H2'	26:14:581:C:H6	1.65	0.61
26:14:2584:U:H2'	26:14:2585:U:H2'	1.83	0.61
30:29:54:GLN:NE2	30:29:54:GLN:HA	2.15	0.61
37:35:85:LEU:HA	37:35:88:LEU:HD22	1.83	0.61
1:13:1030:C:H2'	1:13:1031:G:C8	2.36	0.61
15:6I:82:ILE:O	15:6I:86:GLY:N	2.34	0.61
26:1H:409:C:OP1	61:1H:3556:HOH:O	2.16	0.61
26:1H:910:A:H62	38:88:12:GLN:HA	1.65	0.61
26:1H:1409:C:H42	26:1H:1593:G:H1	1.47	0.61
26:1H:2246:G:H2'	26:1H:2247:A:H8	1.66	0.61
26:1H:2867:G:OP2	41:B8:119:LYS:NZ	2.18	0.61
43:D8:24:LYS:HA	43:D8:92:THR:HG23	1.83	0.61
15:6A:25:THR:HG21	15:6A:70:LEU:HB2	1.82	0.61
26:14:2275:C:H6	26:14:2275:C:H5'	1.64	0.61
26:14:2572:A:C8	30:29:144:ARG:HD2	2.36	0.61
39:55:87:TYR:HD1	39:55:90:ARG:HE	1.47	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:21:ARG:NH2	43:95:65:GLY:O	2.33	0.61
9:8E:112:LYS:HA	9:8E:119:ALA:HB2	1.83	0.60
26:1H:2301:C:H2'	26:1H:2302:G:H8	1.66	0.60
26:1H:2563:U:H4'	36:68:28:SER:HA	1.83	0.60
26:1H:2845:G:H2'	26:1H:2846:G:H8	1.65	0.60
33:51:86:GLU:HG3	33:51:87:LEU:H	1.64	0.60
1:1G:523:A:H61	12:3A:92:ASP:HB2	1.66	0.60
2:12:112:VAL:HG22	2:12:149:LEU:HD13	1.82	0.60
7:62:31:MET:HG3	7:62:36:LYS:HA	1.82	0.60
13:4A:8:GLU:HB3	32:49:115:ARG:HH21	1.66	0.60
26:14:848:G:C4	26:14:933:A:H8	2.19	0.60
26:1H:801:G:OP2	61:1H:3557:HOH:O	2.16	0.60
38:88:103:MET:HE1	38:88:127:ILE:HD11	1.83	0.60
1:1G:99:C:H2'	1:1G:101:A:C8	2.37	0.60
1:1G:411:A:H61	1:1G:430:A:H62	1.47	0.60
1:1G:547:A:OP2	4:32:2:GLY:N	2.33	0.60
1:1G:1499:A:H1'	1:1G:1520:G:H5'	1.84	0.60
3:22:172:ARG:HH12	3:22:174:PRO:HG3	1.66	0.60
17:8A:59:ILE:HG22	17:8A:71:PHE:HD2	1.65	0.60
26:14:71:A:H5'	26:14:71:A:C8	2.36	0.60
26:14:1019:U:H2'	26:14:1020:A:C8	2.36	0.60
31:39:25:PRO:C	31:39:27:GLU:N	2.59	0.60
1:13:1226:C:H4'	19:AI:80:TYR:OH	2.01	0.60
26:1H:910:A:C5	38:88:13:GLN:HG3	2.36	0.60
26:1H:1503:U:H2'	26:1H:1504:C:H6	1.65	0.60
26:1H:1534:G:H21	26:1H:1538:G:N2	1.99	0.60
26:1H:1805:U:O2	29:11:50:THR:HB	2.01	0.60
26:1H:2680:C:O2'	26:1H:2681:C:H5'	2.00	0.60
29:11:17:THR:HG22	29:11:205:VAL:H	1.65	0.60
42:C8:69:CYS:HB3	42:C8:74:LEU:HD13	1.83	0.60
12:3A:82:VAL:O	12:3A:106:ASP:HB2	2.00	0.60
20:BA:25:ARG:O	20:BA:29:LYS:HG2	2.01	0.60
20:BA:41:ILE:HG21	20:BA:87:LYS:HD2	1.83	0.60
23:2L:9:G:N3	23:2L:46:G:H2'	2.17	0.60
26:14:1167:U:O2	26:14:1183:G:N2	2.35	0.60
26:14:2875:C:O2	41:75:3:ARG:NH1	2.34	0.60
29:19:30:GLU:OE1	29:19:63:ARG:NE	2.27	0.60
30:29:12:THR:O	30:29:23:VAL:HG22	2.00	0.60
1:13:1104:G:OP1	2:1E:144:ARG:NH1	2.33	0.60
24:3K:6:G:N2	24:3K:67:C:O2	2.34	0.60
24:3K:25:C:H2'	24:3K:26:A:O4'	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:592:G:N3	55:Q8:4:MET:HE1	2.15	0.60
26:1H:1022:G:H4'	26:1H:1023:U:O5'	2.01	0.60
26:1H:1412:A:H2'	26:1H:1413:G:H8	1.66	0.60
26:1H:2443:C:H2'	26:1H:2444:G:H8	1.65	0.60
29:11:27:THR:OG1	29:11:28:GLU:N	2.31	0.60
31:31:67:GLN:HG3	31:31:67:GLN:O	2.02	0.60
32:41:112:PRO:HB3	52:M8:37:SER:N	2.15	0.60
34:61:110:ASP:HB2	34:61:112:LYS:H	1.66	0.60
41:B8:26:ASP:HB2	41:B8:91:ARG:HA	1.83	0.60
1:1G:827:U:H3	1:1G:872:A:H62	1.47	0.60
1:1G:957:U:O2'	1:1G:959:A:N7	2.34	0.60
12:3A:60:LEU:HD23	12:3A:64:TYR:HB3	1.82	0.60
19:AA:14:HIS:CE1	19:AA:15:LEU:HD23	2.36	0.60
26:14:2134:A:H62	26:14:2156:G:H2'	1.66	0.60
26:14:2657:A:H62	26:14:2664:G:H21	1.49	0.60
42:85:90:VAL:HA	43:95:39:LEU:HD13	1.83	0.60
43:95:58:VAL:HG13	43:95:97:LYS:HB2	1.84	0.60
1:13:918:A:H2'	1:13:919:A:C8	2.37	0.60
20:BI:20:LEU:O	20:BI:23:ARG:HG2	2.01	0.60
20:BI:89:ARG:CZ	20:BI:104:LEU:HD21	2.31	0.60
26:1H:322:A:H5'	26:1H:340:A:H1'	1.83	0.60
26:1H:1800:C:OP2	29:11:183:ARG:NH2	2.33	0.60
26:1H:1871:A:H2'	26:1H:1872:A:C8	2.35	0.60
29:11:68:LYS:HB3	29:11:70:TRP:CE3	2.36	0.60
23:2L:41:C:H2'	23:2L:42:C:H6	1.67	0.60
33:59:171:LEU:CD1	33:59:172:LYS:H	2.14	0.60
37:35:95:VAL:HA	37:35:99:LEU:HD23	1.83	0.60
41:75:56:GLY:O	41:75:59:THR:HG23	2.01	0.60
1:13:505:G:N7	61:13:1821:HOH:O	2.32	0.60
1:13:584:G:O6	61:13:1806:HOH:O	2.12	0.60
1:13:954:G:H2'	1:13:955:U:C6	2.37	0.60
16:7I:49:LEU:HD12	16:7I:50:LYS:H	1.65	0.60
29:11:228:PRO:O	61:11:402:HOH:O	2.16	0.60
31:31:197:ASP:OD1	31:31:197:ASP:N	2.35	0.60
1:1G:1343:G:H2'	1:1G:1344:C:C6	2.37	0.60
10:1A:13:HIS:HB3	10:1A:68:HIS:CE1	2.36	0.60
26:14:1786:A:C2	26:14:2606:C:H1'	2.37	0.60
29:19:242:ARG:HH11	29:19:242:ARG:H	1.47	0.60
37:35:47:ASP:OD2	37:35:50:ARG:NH1	2.35	0.60
47:D5:19:ARG:NH1	47:D5:84:GLU:O	2.35	0.60
1:13:1008:C:H2'	1:13:1009:G:O4'	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:108:VAL:HG22	9:8E:109:VAL:H	1.67	0.60
26:1H:934:G:H2'	26:1H:935:C:C6	2.35	0.60
26:1H:2845:G:H2'	26:1H:2846:G:C8	2.37	0.60
33:51:15:VAL:HG13	33:51:28:GLY:HA3	1.84	0.60
34:61:68:LEU:HA	34:61:71:ILE:HG22	1.84	0.60
46:G8:38:ILE:HD11	46:G8:64:GLU:HG3	1.83	0.60
10:1A:80:LYS:O	10:1A:84:GLN:NE2	2.34	0.60
13:4A:82:MET:HE2	13:4A:93:ARG:HA	1.82	0.60
26:14:1109:C:H2'	26:14:1110:G:H1'	1.84	0.60
30:29:12:THR:HG22	30:29:13:ARG:H	1.66	0.60
49:F5:85:LEU:HA	49:F5:87:PRO:HD2	1.84	0.60
1:13:486:U:H2'	1:13:487:A:C8	2.36	0.60
1:13:626:U:H2'	1:13:627:G:H8	1.65	0.60
1:13:837:G:OP2	1:13:842:C:N4	2.25	0.60
26:1H:620:G:H4'	26:1H:621:A:C5'	2.32	0.60
26:1H:754:C:H2'	26:1H:755:C:H6	1.66	0.60
26:1H:2712(A):A:H5"	26:1H:2713:A:OP2	2.02	0.60
30:21:170:LEU:HD21	30:21:187:ALA:HB3	1.83	0.60
1:1G:438:G:H4'	4:32:123:HIS:ND1	2.16	0.60
17:8A:24:GLU:OE2	17:8A:26:GLN:NE2	2.31	0.60
26:14:498:G:H21	46:C5:47:LYS:HZ2	1.50	0.60
26:14:910:A:H62	38:45:12:GLN:HA	1.65	0.60
26:14:1171:G:N2	26:14:1174:A:N1	2.48	0.60
26:14:1786:A:H2	26:14:2606:C:H1'	1.67	0.60
32:49:53:LEU:HD21	32:49:87:PRO:HB2	1.83	0.60
34:69:59:ALA:HA	34:69:62:LYS:HG2	1.84	0.60
43:95:84:LYS:HE2	43:95:85:LYS:HB2	1.83	0.60
45:B5:5:TYR:HD1	50:G5:33:MET:SD	2.24	0.60
1:13:1423:G:P	36:68:49:ARG:HH22	2.24	0.60
2:1E:93:VAL:HG21	2:1E:97:TRP:HD1	1.66	0.60
2:1E:166:ASP:C	2:1E:168:THR:H	2.10	0.60
5:4E:110:LEU:HD13	5:4E:118:ILE:HD13	1.84	0.60
18:9I:22:VAL:HG13	18:9I:42:ARG:NH2	2.16	0.60
25:4K:23:A:O2'	25:4K:24:A:N7	2.28	0.60
26:1H:1113:U:OP1	33:51:2:SER:N	2.35	0.60
1:1G:404:U:P	4:32:118:ARG:HH11	2.25	0.60
7:62:113:GLU:O	7:62:119:ARG:HD3	2.02	0.60
26:14:620:G:N3	26:14:620:G:H5"	2.16	0.60
32:49:91:ARG:C	32:49:91:ARG:HE	2.09	0.60
36:25:73:ASP:OD2	41:75:32:TYR:OH	2.16	0.60
37:35:105:LEU:O	37:35:106:LEU:HB3	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:189:ASP:CG	2:1E:205:ASP:HB3	2.27	0.60
26:1H:2593:U:H2'	26:1H:2594:C:H6	1.67	0.60
35:58:39:ARG:NH2	35:58:41:ASP:OD2	2.35	0.60
1:1G:964:A:N3	1:1G:969:A:O2'	2.28	0.60
4:32:107:ARG:HH12	4:32:194:LEU:HD12	1.65	0.60
6:52:3:ARG:NH2	6:52:38:GLU:OE1	2.33	0.60
16:7A:21:VAL:HG22	16:7A:33:ILE:HD12	1.84	0.60
26:14:120:U:OP2	61:14:3535:HOH:O	2.16	0.60
26:14:1507:A:C4	26:14:1508:A:H1'	2.36	0.60
1:13:541:G:N7	61:13:1820:HOH:O	2.32	0.59
2:1E:36:ARG:HB3	2:1E:41:ILE:HD11	1.84	0.59
3:2E:174:PRO:HB2	3:2E:177:THR:HB	1.84	0.59
11:2I:98:LEU:O	11:2I:101:SER:OG	2.20	0.59
26:1H:646:A:H2'	26:1H:647:G:O4'	2.01	0.59
26:1H:802:A:OP1	61:1H:3559:HOH:O	2.17	0.59
26:1H:858:U:O2	26:1H:2268:A:H2'	2.02	0.59
26:1H:2855:C:H2'	26:1H:2856:C:H6	1.66	0.59
7:62:62:PHE:HA	7:62:124:LEU:HD22	1.84	0.59
26:14:34:C:O2'	26:14:35:G:H8	1.85	0.59
26:14:479:A:N3	26:14:481:G:H5"	2.17	0.59
26:14:2394:C:H1'	61:14:3826:HOH:O	2.01	0.59
41:75:3:ARG:HG2	41:75:6:LEU:H	1.67	0.59
46:C5:52:SER:HB2	46:C5:56:PRO:HA	1.83	0.59
1:13:437:U:H5'	4:3E:155:LEU:HD21	1.84	0.59
1:13:1015:A:H2'	1:13:1016:A:C8	2.37	0.59
4:3E:153:ARG:HB3	4:3E:181:MET:SD	2.41	0.59
26:1H:651:G:OP1	55:Q8:19:SER:OG	2.18	0.59
26:1H:719:C:H2'	26:1H:720:C:H6	1.67	0.59
26:1H:2132:U:C2	28:71:5:LYS:HD3	2.37	0.59
26:1H:2469:A:H2	26:1H:2481:G:H21	1.47	0.59
26:1H:2529:G:H5"	26:1H:2530:A:H5"	1.84	0.59
26:1H:2845:G:OP2	61:1H:3558:HOH:O	2.17	0.59
40:A8:11:LYS:HD2	40:A8:15:ARG:NH2	2.17	0.59
1:1G:401:C:O2'	1:1G:621:A:N3	2.34	0.59
1:1G:501:C:H2'	1:1G:502:G:H8	1.67	0.59
2:12:73:THR:HG21	2:12:97:TRP:H	1.67	0.59
2:12:165:VAL:HG23	2:12:166:ASP:H	1.67	0.59
9:82:6:GLY:HA3	9:82:84:ALA:HB2	1.84	0.59
56:1L:33:U:O2'	56:1L:34:U8U:N	2.28	0.59
26:14:517:C:OP1	53:J5:16:ARG:NH2	2.35	0.59
29:19:223:GLY:HA2	29:19:226:MET:HG3	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:45:PHE:CE2	5:4E:47:LYS:HD2	2.38	0.59
46:G8:87:LYS:HD3	46:G8:88:LYS:H	1.65	0.59
46:G8:87:LYS:HD3	46:G8:88:LYS:N	2.17	0.59
7:62:102:ARG:O	7:62:106:GLN:HG2	2.02	0.59
26:14:566:U:OP1	37:35:29:LYS:NZ	2.32	0.59
26:14:863:A:H2'	26:14:864:G:C8	2.37	0.59
26:14:1678:G:N2	26:14:1989:G:H22	2.00	0.59
26:14:2476:A:H2	26:14:2481:G:H22	1.48	0.59
1:13:1239:A:H62	1:13:1299:A:N6	1.97	0.59
1:13:1345:U:O2	1:13:1375:A:N6	2.34	0.59
13:4I:49:THR:HB	13:4I:52:GLU:HG2	1.85	0.59
23:2K:17:C:H3'	23:2K:18:U:H2'	1.84	0.59
26:1H:1577:C:H5"	61:1H:3554:HOH:O	2.01	0.59
38:88:37:LEU:HD21	38:88:130:LYS:HB2	1.84	0.59
38:88:139:GLU:OE1	38:88:141:GLN:HB3	2.02	0.59
4:32:22:LYS:HG3	59:32:301:SF4:S3	2.42	0.59
7:62:15:ASP:OD1	7:62:44:TYR:OH	2.21	0.59
26:14:94:G:H21	50:G5:47:ASN:HD22	1.48	0.59
26:14:302:C:H2'	26:14:303:U:C6	2.37	0.59
1:13:835:U:H3	1:13:851:G:H1	1.49	0.59
2:1E:46:LYS:HA	2:1E:49:GLU:CD	2.28	0.59
3:2E:40:ARG:O	3:2E:44:GLU:HG2	2.01	0.59
9:8E:114:TYR:HE2	10:1I:59:SER:HA	1.68	0.59
10:1I:57:LYS:O	10:1I:60:ARG:NH2	2.35	0.59
26:1H:1221:C:H2'	26:1H:1222:C:H6	1.67	0.59
26:1H:1418:G:OP1	26:1H:1588:C:O2'	2.19	0.59
26:1H:2319:G:N7	40:A8:2:ALA:HB1	2.18	0.59
39:98:12:ARG:HD3	39:98:16:HIS:CD2	2.37	0.59
1:1G:377:G:H5'	16:7A:5:ARG:HH12	1.68	0.59
1:1G:587:G:N2	1:1G:754:C:OP2	2.36	0.59
26:14:1337:G:H2'	26:14:1338:G:H8	1.67	0.59
31:39:123:LEU:O	31:39:193:VAL:HA	2.03	0.59
1:13:130:A:N3	1:13:263:A:O2'	2.34	0.59
1:13:624:C:O3'	16:7I:10:GLY:HA2	2.02	0.59
1:13:1273:G:H3'	1:13:1274:G:H8	1.67	0.59
11:2I:69:ALA:HB1	11:2I:73:MET:HE3	1.83	0.59
21:1F:5:ASP:O	21:1F:11:GLY:HA3	2.02	0.59
26:1H:1509:C:H2'	26:1H:1511:A:C8	2.38	0.59
26:1H:1709:U:H1'	26:1H:2860:A:N3	2.17	0.59
39:98:101:ALA:HA	53:N8:44:THR:HG21	1.85	0.59
51:L8:7:LYS:HE2	51:L8:32:GLN:HG3	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1134:G:C2	1:1G:1135:U:H1'	2.38	0.59
1:1G:1286:A:C8	1:1G:1287:A:H4'	2.38	0.59
4:32:13:ARG:C	4:32:15:GLU:H	2.11	0.59
26:14:2211:G:O2'	26:14:2212:A:OP1	2.20	0.59
26:14:2306:C:H2'	26:14:2307:G:H21	1.68	0.59
29:19:6:PHE:HE1	29:19:18:VAL:HG23	1.68	0.59
30:29:55:ASN:HB2	30:29:58:ARG:NH2	2.18	0.59
37:35:15:ARG:HB2	37:35:15:ARG:CZ	2.32	0.59
38:45:25:ASP:HB3	38:45:102:VAL:HB	1.84	0.59
40:65:44:LYS:HB3	40:65:46:VAL:HG12	1.84	0.59
29:11:70:TRP:CD1	29:11:70:TRP:C	2.81	0.59
43:D8:47:VAL:HG22	43:D8:48:GLY:H	1.67	0.59
1:1G:598:U:H2'	1:1G:599:C:C6	2.37	0.59
7:62:68:ASN:ND2	7:62:127:ALA:O	2.30	0.59
9:82:77:ILE:O	9:82:81:ILE:HG12	2.02	0.59
16:7A:23:ASP:OD1	16:7A:25:ARG:NH1	2.35	0.59
23:2L:10:G:N2	23:2L:27:G:H1'	2.18	0.59
26:14:847:U:OP2	61:14:3534:HOH:O	2.17	0.59
26:14:1188:U:O2'	26:14:1189:A:H5'	2.02	0.59
26:14:2031:A:N3	26:14:2455:G:O2'	2.28	0.59
26:14:2250:G:C2	38:45:82:ARG:HB3	2.37	0.59
26:14:2468:G:H5"	26:14:2476:A:N6	2.17	0.59
1:13:417:C:H2'	1:13:418:C:H6	1.68	0.59
2:1E:87:ARG:NH1	2:1E:220:ASP:OD1	2.35	0.59
2:1E:237:ALA:O	2:1E:239:VAL:N	2.36	0.59
9:8E:3:GLN:OE1	9:8E:20:ARG:NH1	2.36	0.59
26:1H:70:G:H21	26:1H:71:A:H62	1.50	0.59
26:1H:1705:G:C2'	26:1H:1706:U:H5'	2.32	0.59
46:G8:42:VAL:HG23	46:G8:43:ASN:N	2.18	0.59
1:1G:222:U:H2'	1:1G:223:U:C6	2.37	0.59
1:1G:1125:U:H2'	1:1G:1126:U:C5	2.37	0.59
1:1G:1258:G:H2'	1:1G:1259:C:H6	1.68	0.59
1:1G:1291:G:H4'	9:82:39:GLY:HA3	1.85	0.59
8:72:120:THR:HG23	8:72:123:GLU:H	1.68	0.59
26:14:89:G:H3'	26:14:90:U:C5'	2.33	0.59
26:14:531:C:OP1	26:14:561:G:N2	2.35	0.59
26:14:1110:G:H2'	26:14:1111:A:O4'	2.02	0.59
31:39:68:LYS:HG3	31:39:69:HIS:NE2	2.17	0.59
37:35:63:PRO:HD3	55:M5:27:THR:HG22	1.84	0.59
47:D5:15:PRO:HB2	47:D5:19:ARG:NH2	2.17	0.59
1:13:1031:G:H2'	1:13:1032:A:H5'	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1396:A:H4'	1:13:1397:C:H5"	1.85	0.59
7:6E:111:ARG:NH2	7:6E:126:ASP:OD2	2.36	0.59
26:1H:234:C:H2'	26:1H:235:U:H6	1.66	0.59
26:1H:574:C:O2	30:21:145:LYS:NZ	2.35	0.59
26:1H:2102:U:H2'	26:1H:2103:C:C6	2.37	0.59
44:E8:51:LEU:HD23	44:E8:105:VAL:HG11	1.84	0.59
1:1G:501:C:H2'	1:1G:502:G:C8	2.38	0.59
2:12:19:HIS:CD2	2:12:204:ASN:HB3	2.38	0.59
56:1L:33:U:HO2'	56:1L:34:U8U:HN1	1.48	0.59
26:14:273(C):C:N3	26:14:363(C):G:N2	2.47	0.59
26:14:273(C):C:H42	26:14:363(C):G:H1	1.50	0.59
42:85:65:ILE:HD11	42:85:93:LYS:HA	1.85	0.59
49:F5:92:LYS:O	49:F5:94:LEU:N	2.35	0.59
2:1E:185:ILE:HG22	2:1E:199:TYR:HB2	1.85	0.59
4:3E:107:ARG:HH22	4:3E:194:LEU:HD23	1.66	0.59
24:3K:30:G:N2	24:3K:40:C:N3	2.41	0.59
26:1H:443:A:H1'	26:1H:1201:C:O4'	2.03	0.59
26:1H:2492:U:H2'	26:1H:2493:U:H6	1.67	0.59
43:D8:85:LYS:HB2	43:D8:85:LYS:NZ	2.18	0.59
44:E8:35:ILE:HG23	53:N8:28:PRO:HD2	1.85	0.59
1:1G:277:C:P	17:8A:68:ARG:HH12	2.26	0.59
2:12:95:GLN:HB3	2:12:148:TYR:HD1	1.68	0.59
9:82:7:THR:H	9:82:83:ARG:HD3	1.67	0.59
26:14:841:A:N6	26:14:937:U:H3	2.00	0.59
26:14:2567:G:H2'	26:14:2568:C:C6	2.38	0.59
29:19:5:LYS:HG2	29:19:17:THR:HG22	1.85	0.59
32:49:114:ILE:HD13	32:49:140:ILE:HG21	1.83	0.59
32:49:144:ILE:HD12	32:49:149:VAL:HG12	1.85	0.59
1:13:411:A:C4	1:13:413:G:H1'	2.37	0.58
1:13:813:U:OP2	1:13:816:A:N6	2.36	0.58
1:13:838:G:H1	1:13:848:C:H42	1.49	0.58
1:13:1064:G:H4'	1:13:1065:U:OP1	2.03	0.58
9:8E:10:ARG:HE	9:8E:105:ASP:CG	2.10	0.58
26:1H:1443:G:H1	26:1H:1548:C:H42	1.50	0.58
26:1H:2299:G:O6	61:1H:3553:HOH:O	2.14	0.58
26:1H:2572:A:N7	30:21:144:ARG:HD2	2.18	0.58
27:16:15:A:H3'	27:16:16:G:H5'	1.85	0.58
27:16:43:C:P	32:41:67:LYS:HZ1	2.25	0.58
43:D8:47:VAL:HG22	43:D8:48:GLY:N	2.18	0.58
1:1G:572:A:H5'	1:1G:573:A:OP2	2.03	0.58
1:1G:1316:G:H22	1:1G:1319:A:P	2.25	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3A:8:ASN:OD1	17:8A:34:LYS:NZ	2.27	0.58
26:14:270(F):U:H3	26:14:270(T):G:H1	1.51	0.58
26:14:1113:U:H5'	33:59:2:SER:HA	1.85	0.58
26:14:1899:G:H22	26:14:1902:C:N4	2.01	0.58
26:14:2547:U:H2'	26:14:2548:G:H8	1.68	0.58
28:79:5:LYS:HA	28:79:8:ARG:HG2	1.84	0.58
1:13:258:G:H2'	1:13:259:G:H8	1.68	0.58
26:1H:1593:G:H2'	26:1H:1594:G:H8	1.64	0.58
28:71:49:ILE:HD12	28:71:50:ASP:H	1.68	0.58
30:21:57:LYS:HG2	30:21:59:VAL:HG12	1.85	0.58
34:61:69:LYS:O	34:61:73:GLU:HB2	2.03	0.58
1:1G:1243:C:OP1	21:1B:10:ARG:NE	2.36	0.58
3:22:11:ARG:NH2	3:22:177:THR:O	2.36	0.58
26:14:251:A:C5	26:14:252:G:H1'	2.38	0.58
26:14:2156:G:N7	26:14:2157:G:N2	2.51	0.58
26:14:2184:G:H2'	26:14:2185:C:C6	2.38	0.58
26:14:2611:U:H6	26:14:2611:U:H5'	1.67	0.58
27:1J:28:C:H2'	27:1J:29:A:H8	1.68	0.58
30:29:119:ARG:HA	30:29:160:TYR:CD2	2.38	0.58
38:45:10:ARG:HE	38:45:10:ARG:C	2.11	0.58
1:13:177:C:OP1	20:BI:65:LYS:NZ	2.32	0.58
7:6E:50:ILE:HB	7:6E:58:PRO:HB3	1.83	0.58
32:41:35:GLU:HG3	32:41:36:LYS:HB3	1.85	0.58
48:I8:11:ARG:HB2	48:I8:11:ARG:HH11	1.69	0.58
49:J8:92:LYS:HA	49:J8:95:LEU:HD12	1.85	0.58
1:1G:276:G:O3'	17:8A:68:ARG:NH1	2.36	0.58
1:1G:594:G:H1	1:1G:645:C:H42	1.50	0.58
26:14:802:A:H4'	61:14:3765:HOH:O	2.03	0.58
28:79:201:PRO:HD2	28:79:208:PHE:CE1	2.39	0.58
47:D5:23:LYS:HD3	47:D5:40:ASP:HA	1.85	0.58
47:D5:55:HIS:HE2	47:D5:135:GLU:HG2	1.67	0.58
6:5E:23:LYS:HA	6:5E:26:ILE:HD12	1.86	0.58
7:6E:111:ARG:HD2	7:6E:123:GLU:HB2	1.83	0.58
11:2I:17:GLY:O	11:2I:80:VAL:HA	2.03	0.58
26:1H:70:G:H21	26:1H:71:A:N6	2.01	0.58
29:11:11:PRO:O	29:11:12:SER:OG	2.16	0.58
31:31:27:GLU:CD	31:31:27:GLU:H	2.10	0.58
31:31:183:VAL:O	31:31:187:VAL:HG23	2.03	0.58
1:1G:518:C:H5"	1:1G:519:C:C6	2.38	0.58
1:1G:1037:C:H2'	1:1G:1038:C:H6	1.66	0.58
1:1G:1162:C:N4	1:1G:1174:G:H1	1.97	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:602:G:OP2	26:14:602:G:H8	1.86	0.58
26:14:957:A:H5'	38:45:76:LYS:HD3	1.84	0.58
26:14:2533:A:OP1	26:14:2665:A:O2'	2.15	0.58
30:29:103:ASP:OD1	30:29:201:THR:HG23	2.03	0.58
35:15:42:TRP:O	42:85:64:ARG:NH2	2.35	0.58
44:A5:2:GLU:OE2	44:A5:72:LYS:HE3	2.03	0.58
10:1I:38:ILE:HG23	10:1I:71:LEU:O	2.03	0.58
18:9I:59:SER:H	18:9I:62:GLU:HB2	1.67	0.58
26:1H:1257:C:OP1	31:31:75:HIS:HE1	1.86	0.58
26:1H:1935:G:H1'	26:1H:1964:G:N2	2.17	0.58
26:1H:2022:U:O2'	26:1H:2617:C:H5'	2.04	0.58
26:1H:2784:C:O2'	30:21:37:ARG:NH1	2.37	0.58
1:1G:396:G:O2'	1:1G:398:C:OP1	2.15	0.58
4:32:119:GLN:HG2	4:32:123:HIS:HD2	1.68	0.58
13:4A:61:GLU:CD	13:4A:61:GLU:H	2.04	0.58
26:14:141:A:H8	26:14:1595:G:N2	2.02	0.58
26:14:273(F):C:H3'	26:14:274:G:C5'	2.33	0.58
26:14:1599:C:H2'	26:14:1600:C:H6	1.69	0.58
26:14:2104:G:H2'	26:14:2105:C:C6	2.38	0.58
26:14:2659:G:N2	26:14:2662:A:OP2	2.37	0.58
2:1E:111:ARG:HD2	2:1E:145:LEU:HD21	1.84	0.58
26:1H:330:A:O2'	26:1H:331:A:H8	1.86	0.58
34:61:113:ARG:HB3	34:61:131:LYS:HD3	1.84	0.58
52:M8:13:ARG:HH12	52:M8:22:ILE:HG23	1.68	0.58
1:1G:584:G:H5'	17:8A:91:ARG:NH1	2.18	0.58
1:1G:920:U:H2'	1:1G:921:U:C6	2.37	0.58
2:12:30:ARG:NH2	2:12:194:PRO:HB2	2.18	0.58
2:12:54:THR:HA	2:12:57:PHE:HB2	1.85	0.58
9:82:117:HIS:O	9:82:118:LYS:HB2	2.04	0.58
13:4A:8:GLU:OE2	13:4A:10:PRO:HD3	2.03	0.58
26:14:250:G:OP1	37:35:60:MET:HE1	2.04	0.58
26:14:731:C:H5"	61:14:3532:HOH:O	2.03	0.58
26:14:1364:G:N7	49:F5:2:SER:HB2	2.18	0.58
26:14:1826:G:H4'	29:19:242:ARG:HE	1.69	0.58
27:1J:28:C:H2'	27:1J:29:A:C8	2.38	0.58
27:1J:51:G:OP2	40:65:59:LYS:NZ	2.36	0.58
32:49:7:LEU:HG	32:49:104:GLU:HB2	1.85	0.58
26:1H:1412:A:H2'	26:1H:1413:G:C8	2.39	0.58
26:1H:1430:C:H2'	26:1H:1431:U:C6	2.37	0.58
36:68:120:GLU:OE1	41:B8:67:SER:OG	2.15	0.58
1:1G:317:G:H1	1:1G:336:C:H42	1.49	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:15:ASP:O	6:52:19:LEU:HB2	2.02	0.58
56:1L:3:G:H4'	56:1L:4:U:OP1	2.02	0.58
56:1L:55:PSU:OP1	38:45:55:VAL:HG11	2.04	0.58
26:14:868:U:H2'	26:14:869:G:C8	2.39	0.58
26:14:1022:G:O2'	26:14:1023:U:OP2	2.18	0.58
32:49:114:ILE:HD11	32:49:140:ILE:HD13	1.86	0.58
1:13:718:G:H5'	11:2I:117:ASN:HB2	1.85	0.58
1:13:1028(A):C:N3	1:13:1032(A):G:N2	2.51	0.58
2:1E:158:LEU:HD13	2:1E:182:ILE:HD11	1.86	0.58
26:1H:2177:C:H5"	28:71:213:TYR:CD1	2.38	0.58
32:41:18:GLU:O	32:41:22:ARG:HB2	2.03	0.58
34:61:33:ARG:HB3	34:61:35:LEU:HD13	1.85	0.58
26:14:1292:U:H2'	26:14:1293:C:C6	2.39	0.58
26:14:2557:G:H2'	26:14:2558:C:C6	2.39	0.58
30:29:54:GLN:NE2	30:29:73:GLU:HG2	2.19	0.58
39:55:106:GLY:O	39:55:107:ASP:HB3	2.03	0.58
49:F5:40:ARG:NH2	49:F5:42:GLN:HG2	2.19	0.58
1:13:1003:G:H2'	1:13:1004:A:H4'	1.85	0.58
2:1E:212:GLN:O	2:1E:216:SER:OG	2.21	0.58
22:1K:17:U:HO2'	22:1K:57:G:N2	2.02	0.58
26:1H:1400:G:H2'	26:1H:1401:G:C8	2.39	0.58
35:58:96:GLU:C	35:58:98:VAL:H	2.09	0.58
40:A8:10:ARG:O	40:A8:14:VAL:HG13	2.03	0.58
1:1G:1292:U:H2'	1:1G:1293:G:C8	2.39	0.58
3:22:63:ASN:HA	3:22:98:ASN:HB2	1.85	0.58
13:4A:78:ILE:HD12	13:4A:92:HIS:HD1	1.69	0.58
26:14:721:C:H2'	26:14:722:A:C8	2.39	0.58
55:M5:14:VAL:HG11	55:M5:58:ILE:HD11	1.86	0.58
1:13:836:G:OP1	18:9I:61:LYS:NZ	2.32	0.58
7:6E:20:ASP:HB3	7:6E:23:VAL:HG23	1.85	0.58
26:1H:1021:A:H8	26:1H:1021:A:H3'	1.69	0.58
37:78:19:VAL:HG12	37:78:27:HIS:HB3	1.86	0.58
45:F8:3:THR:C	45:F8:5:TYR:H	2.07	0.58
1:1G:955:U:H2'	1:1G:956:U:H6	1.68	0.58
1:1G:963:G:N2	10:1A:55:LYS:HZ2	2.02	0.58
1:1G:1483:A:H1'	26:14:1948:G:H1'	1.84	0.58
2:12:71:VAL:HG11	2:12:164:VAL:HA	1.86	0.58
2:12:189:ASP:H	2:12:192:SER:HB2	1.69	0.58
13:4A:46:LYS:NZ	13:4A:47:ASP:OD2	2.36	0.58
26:14:1412:A:H2'	26:14:1413:G:C8	2.38	0.58
26:14:2018:G:OP1	53:J5:9:LYS:NZ	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:15:34:LEU:HD21	35:15:120:LEU:HB2	1.85	0.58
49:F5:86:SER:N	49:F5:87:PRO:HD2	2.17	0.58
1:13:1316:G:H22	1:13:1319:A:H5'	1.68	0.57
10:1I:40:LEU:HB2	10:1I:69:ASN:HB2	1.84	0.57
24:3K:29:U:H2'	24:3K:30:G:C8	2.39	0.57
26:1H:270(J):G:H2'	26:1H:270(K):C:H4'	1.86	0.57
26:1H:1257:C:H4'	31:31:83:PHE:CE1	2.39	0.57
28:71:188:ASN:HA	28:71:191:ALA:HB3	1.87	0.57
29:11:30:GLU:CD	29:11:63:ARG:HE	2.12	0.57
49:J8:93:GLU:CD	49:J8:94:LEU:H	2.12	0.57
1:1G:649:G:H2'	1:1G:650:G:H8	1.69	0.57
57:3L:3:G:H1	57:3L:70:C:H42	1.52	0.57
57:3L:18:G:H21	57:3L:57:G:H2'	1.69	0.57
26:14:993:G:OP1	42:85:50:ARG:NH2	2.37	0.57
26:14:1169:G:H1	26:14:1180:C:N4	2.02	0.57
26:14:1342:A:H2	26:14:1602:U:H3	1.52	0.57
26:14:2052:G:H2'	26:14:2053:G:H8	1.69	0.57
30:29:68:ALA:C	30:29:70:ALA:H	2.11	0.57
30:29:105:THR:HG21	30:29:164:ARG:HE	1.68	0.57
41:75:5:ALA:O	41:75:8:LYS:N	2.37	0.57
3:2E:7:PRO:O	3:2E:11:ARG:HG2	2.03	0.57
5:4E:15:ARG:NE	5:4E:26:PHE:HE2	2.02	0.57
8:7E:45:ILE:HB	8:7E:47:GLY:H	1.67	0.57
16:7I:4:ILE:HD12	16:7I:66:PRO:HB3	1.86	0.57
19:AI:36:ARG:HD2	19:AI:52:TYR:O	2.04	0.57
26:1H:796:C:H2'	26:1H:797:C:C6	2.39	0.57
26:1H:1657:C:H2'	26:1H:1658:C:C6	2.39	0.57
26:1H:2210:G:H3'	26:1H:2211:G:C8	2.38	0.57
26:1H:2246:G:H2'	26:1H:2247:A:C8	2.39	0.57
26:1H:2887:U:H2'	26:1H:2888:C:C6	2.39	0.57
28:71:185:LEU:O	28:71:189:ILE:HG13	2.04	0.57
32:41:111:LEU:HD23	32:41:114:ILE:HD12	1.87	0.57
15:6A:39:LEU:HD12	15:6A:56:LEU:HD13	1.86	0.57
26:14:1187:G:H8	26:14:1187:G:O5'	1.87	0.57
26:14:1432:C:H2'	26:14:1433:U:O4'	2.03	0.57
26:14:1816:G:OP2	29:19:39:LYS:NZ	2.30	0.57
26:14:2023:G:OP2	26:14:2617:C:H4'	2.04	0.57
36:25:49:ARG:HA	36:25:53:LYS:HE3	1.84	0.57
44:A5:51:LEU:HD23	44:A5:105:VAL:HG11	1.86	0.57
4:3E:162:LEU:HA	4:3E:165:MET:HB3	1.86	0.57
10:1I:77:PRO:HB2	10:1I:79:ARG:HH12	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:41:VAL:HB	19:AI:42:PRO:HA	1.85	0.57
24:3K:76:A:H8	26:1H:2394:C:H42	1.52	0.57
26:1H:309:G:N3	26:1H:329:G:O2'	2.37	0.57
26:1H:784:A:O4'	29:11:227:ASN:ND2	2.36	0.57
42:C8:88:ILE:O	42:C8:90:VAL:N	2.37	0.57
47:H8:134:PRO:HG3	47:H8:161:VAL:HG11	1.86	0.57
52:M8:16:CYS:HB3	52:M8:36:CYS:H	1.68	0.57
52:M8:40:HIS:HA	52:M8:41:PRO:O	2.03	0.57
1:1G:186(B):C:O4'	20:BA:89:ARG:NH2	2.36	0.57
1:1G:1008:C:H42	1:1G:1021:G:H1	1.52	0.57
1:1G:1285:A:H4'	1:1G:1286:A:O5'	2.04	0.57
26:14:1817:G:OP1	29:19:88:ARG:NH2	2.35	0.57
26:14:2293:C:H5"	40:65:89:ARG:NH2	2.19	0.57
26:14:2537:U:H2'	26:14:2538:C:C6	2.38	0.57
27:1J:103:U:HO2'	47:D5:29:TYR:HH	1.52	0.57
29:19:25:THR:HG23	29:19:82:ILE:H	1.68	0.57
47:D5:69:THR:HG22	47:D5:90:VAL:HG22	1.84	0.57
1:13:114:U:H2'	1:13:115:G:C8	2.39	0.57
2:1E:162:ILE:HD11	2:1E:182:ILE:HG21	1.86	0.57
26:1H:600:G:N2	26:1H:605:C:O3'	2.36	0.57
26:1H:1525:G:H2'	26:1H:1526:G:C8	2.39	0.57
26:1H:1533:C:C6	26:1H:1534:G:H5"	2.39	0.57
26:1H:1682:G:OP1	26:1H:1699:G:N1	2.34	0.57
26:1H:1794:U:H2'	26:1H:1795:C:C6	2.39	0.57
26:1H:2272:U:H5"	26:1H:2273:A:OP1	2.04	0.57
31:31:165:ARG:HA	31:31:168:ARG:HD3	1.86	0.57
39:98:13:HIS:CD2	39:98:15:SER:HB3	2.40	0.57
43:D8:98:GLU:OE1	43:D8:100:ARG:NH1	2.37	0.57
1:1G:407:G:OP1	4:32:115:ARG:NE	2.34	0.57
1:1G:963:G:H21	10:1A:55:LYS:HZ2	1.52	0.57
2:12:27:LYS:HE3	2:12:194:PRO:HD2	1.87	0.57
23:2L:24:C:H2'	23:2L:25:U:C6	2.38	0.57
57:3L:32:C:H2'	57:3L:33:U:C4	2.38	0.57
26:14:2547:U:H2'	26:14:2548:G:C8	2.39	0.57
30:29:41:LYS:HG3	30:29:42:ASP:H	1.70	0.57
34:69:72:LEU:HD21	34:69:107:VAL:HG11	1.85	0.57
26:1H:65:C:H2'	26:1H:66:C:C6	2.39	0.57
26:1H:1022:G:N2	26:1H:1142(A):A:N1	2.51	0.57
26:1H:1361:G:O6	26:1H:1370:C:N4	2.19	0.57
26:1H:2593:U:H2'	26:1H:2594:C:C6	2.40	0.57
26:1H:2598:A:P	61:1H:3508:HOH:O	2.61	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2655:G:O2'	26:1H:2664:G:O6	2.18	0.57
30:21:182:LEU:HD12	30:21:183:LEU:H	1.69	0.57
32:41:132:ASN:OD1	32:41:132:ASN:N	2.36	0.57
40:A8:34:HIS:HB2	40:A8:36:TYR:CE1	2.40	0.57
1:1G:261:U:OP2	20:BA:79:ARG:NH2	2.38	0.57
1:1G:1347:G:N2	1:1G:1373:G:H2'	2.20	0.57
6:52:9:VAL:HB	6:52:87:ARG:HB2	1.86	0.57
7:62:144:MET:HE3	7:62:145:ALA:N	2.20	0.57
12:3A:60:LEU:HB2	12:3A:64:TYR:HB2	1.86	0.57
26:14:34:C:H1'	26:14:35:G:OP1	2.04	0.57
26:14:607:U:H3	26:14:621:A:H2	1.51	0.57
26:14:870:A:P	38:45:6:ARG:HE	2.28	0.57
26:14:987:G:O2'	26:14:1000:A:N3	2.34	0.57
26:14:2432:A:C8	49:F5:33:LYS:HD2	2.38	0.57
47:D5:11:GLU:CD	47:D5:12:GLY:H	2.13	0.57
1:13:258:G:H2'	1:13:259:G:C8	2.39	0.57
1:13:452:A:OP2	16:7I:43:LYS:NZ	2.26	0.57
1:13:680:C:H2'	1:13:681:C:H6	1.69	0.57
1:13:1129:C:O2	1:13:1143:G:N2	2.38	0.57
5:4E:15:ARG:HE	5:4E:26:PHE:HE2	1.52	0.57
33:51:83:TYR:HB2	33:51:134:SER:HA	1.86	0.57
37:78:90:ARG:HG3	37:78:91:PHE:CE1	2.39	0.57
39:98:34:ILE:HG22	39:98:114:VAL:HB	1.86	0.57
2:12:180:LEU:HB2	2:12:182:ILE:HD13	1.86	0.57
4:32:15:GLU:OE1	4:32:66:ARG:NH1	2.37	0.57
9:82:9:ARG:HG2	9:82:14:VAL:HG23	1.86	0.57
28:79:5:LYS:HA	28:79:8:ARG:HB2	1.85	0.57
1:13:976:G:N2	1:13:1362(A):C:OP2	2.32	0.57
4:3E:87:GLY:HA2	4:3E:88:VAL:HG22	1.87	0.57
5:4E:51:VAL:O	5:4E:55:VAL:HG23	2.04	0.57
11:2I:50:TYR:HD2	11:2I:54:ARG:HB2	1.69	0.57
26:1H:140:A:H8	26:1H:1408:C:O2'	1.87	0.57
26:1H:1646:C:O3'	61:1H:3562:HOH:O	2.17	0.57
26:1H:2807:G:H3'	26:1H:2808:U:H5"	1.86	0.57
36:68:59:LYS:NZ	36:68:89:ASN:OD1	2.38	0.57
5:42:31:LEU:HA	5:42:45:PHE:HB2	1.86	0.57
13:4A:84:ILE:HG23	19:AA:74:PHE:CE1	2.40	0.57
20:BA:49:ALA:HA	20:BA:52:ALA:HB3	1.86	0.57
56:1L:74:C:H41	26:14:2508:G:H5'	1.70	0.57
57:3L:5:C:H2'	57:3L:6:G:C8	2.38	0.57
26:14:929:G:O6	61:14:3534:HOH:O	2.16	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1406:U:H6	26:14:1406:U:H5"	1.69	0.57
26:14:1654:A:OP2	39:55:1:MET:N	2.37	0.57
26:14:2345:G:N3	26:14:2381:C:H2'	2.20	0.57
34:69:77:LEU:HB2	34:69:141:LYS:HE2	1.86	0.57
41:75:107:ASP:N	41:75:107:ASP:OD1	2.38	0.57
1:13:838:G:O6	1:13:848:C:N4	2.37	0.57
1:13:1510:U:H2'	1:13:1511:G:C8	2.39	0.57
2:1E:187:LEU:HA	2:1E:201:ILE:O	2.05	0.57
10:1I:26:ALA:C	10:1I:84:GLN:HE21	2.13	0.57
26:1H:507:A:H5"	26:1H:508:G:H3'	1.86	0.57
26:1H:2301:C:H2'	26:1H:2302:G:C8	2.40	0.57
47:H8:107:THR:HG22	47:H8:108:PRO:HD3	1.87	0.57
1:1G:584:G:H5'	17:8A:91:ARG:HH12	1.68	0.57
1:1G:1324:A:H2'	1:1G:1325:C:C6	2.40	0.57
26:14:1927:A:H2'	26:14:1928:A:C8	2.40	0.57
26:14:2531:A:N3	26:14:2658:C:O2'	2.34	0.57
1:13:1165:C:N4	1:13:1166:G:O6	2.38	0.57
16:7I:20:VAL:HG21	16:7I:32:TYR:CD2	2.40	0.57
26:1H:764:A:O4'	29:11:213:ARG:HG3	2.05	0.57
31:31:6:VAL:HG12	31:31:7:TYR:H	1.69	0.57
39:98:78:LYS:O	39:98:83:ILE:HG13	2.03	0.57
40:A8:27:SER:HA	40:A8:88:ASP:HB2	1.87	0.57
47:H8:11:GLU:O	47:H8:36:LYS:NZ	2.30	0.57
1:1G:187:C:H2'	1:1G:188:U:O4'	2.05	0.57
1:1G:1061:G:N2	1:1G:1195:C:O2	2.32	0.57
12:3A:39:VAL:HG12	12:3A:57:LYS:HD3	1.86	0.57
56:1L:7:U:N3	56:1L:49:G:N7	2.53	0.57
57:3L:4:U:H2'	57:3L:5:C:O4'	2.05	0.57
26:14:2151:G:H2'	26:14:2152:G:O4'	2.05	0.57
49:F5:87:PRO:HA	49:F5:90:ILE:HG23	1.86	0.57
50:G5:24:LEU:HD22	50:G5:60:LEU:HD21	1.87	0.57
1:13:911:U:OP2	12:3I:97:ARG:NH1	2.37	0.57
1:13:917:G:H2'	1:13:918:A:C8	2.40	0.57
16:7I:49:LEU:HD12	16:7I:50:LYS:N	2.20	0.57
19:AI:40:ILE:HA	19:AI:44:MET:HE3	1.87	0.57
24:3K:3:G:H1	24:3K:70:C:H42	1.52	0.57
24:3K:11:C:N4	24:3K:24:G:H1	2.03	0.57
26:1H:1164:G:H2'	26:1H:1165:U:C6	2.40	0.57
26:1H:1889:A:N1	26:1H:2234:G:H1'	2.19	0.57
26:1H:2123:G:H1'	28:71:172:HIS:HB2	1.86	0.57
26:1H:2308:G:H2'	26:1H:2308:G:N3	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:61:124:GLY:H	34:61:142:VAL:HG23	1.69	0.57
37:78:83:VAL:HG12	37:78:112:LEU:HD21	1.85	0.57
38:88:66:ILE:HD12	38:88:67:ARG:H	1.70	0.57
39:98:103:ARG:NH1	39:98:108:GLY:O	2.38	0.57
9:82:99:LEU:HB3	9:82:101:PHE:CD2	2.39	0.57
12:3A:57:LYS:HG3	12:3A:67:THR:HG22	1.87	0.57
12:3A:84:LEU:HG	12:3A:105:TYR:CE2	2.39	0.57
26:14:1449(A):G:N2	26:14:1450:C:O2	2.37	0.57
26:14:1455:G:OP2	61:14:3536:HOH:O	2.17	0.57
29:19:39:LYS:O	29:19:40:THR:HG23	2.04	0.57
30:29:91:VAL:HB	30:29:95:ILE:HD11	1.86	0.57
30:29:197:ILE:HD11	30:29:199:ARG:HE	1.69	0.57
34:69:143:SER:OG	34:69:145:VAL:N	2.37	0.57
1:13:142:G:H2'	1:13:143:A:H8	1.69	0.56
1:13:221:C:H2'	1:13:222:U:H6	1.69	0.56
1:13:757:U:OP1	1:13:822:C:O2'	2.22	0.56
1:13:877:C:H5"	8:7E:88:LYS:HD3	1.86	0.56
1:13:976:G:OP1	14:5I:32:SER:N	2.35	0.56
1:13:1014:A:C2	1:13:1219:U:H1'	2.39	0.56
2:1E:20:GLU:HB2	2:1E:190:THR:HB	1.87	0.56
20:BI:10:LEU:HD11	20:BI:12:ALA:HB3	1.85	0.56
20:BI:57:ARG:CZ	20:BI:102:GLY:HA2	2.36	0.56
26:1H:1509:C:H2'	26:1H:1511:A:H8	1.70	0.56
26:1H:1785:A:H2'	26:1H:1787:A:N7	2.20	0.56
40:A8:88:ASP:O	40:A8:89:ARG:HB3	2.04	0.56
41:B8:26:ASP:O	41:B8:49:VAL:HG12	2.05	0.56
50:K8:17:SER:HB3	50:K8:67:LYS:HE3	1.87	0.56
52:M8:12:ALA:HB3	52:M8:24:THR:HB	1.86	0.56
4:32:166:LYS:HA	4:32:178:VAL:HG11	1.86	0.56
25:4L:13:A:H2'	25:4L:14:A:O4'	2.04	0.56
26:14:1442:G:H2'	26:14:1443:G:C8	2.40	0.56
26:14:1496:A:H8	26:14:1577:C:HO2'	1.50	0.56
26:14:2019:A:N7	53:J5:9:LYS:HE3	2.19	0.56
34:69:93:THR:HB	34:69:96:ASP:H	1.70	0.56
1:13:244:U:H4'	1:13:245:C:O5'	2.05	0.56
1:13:1077:G:N2	1:13:1080:A:OP2	2.31	0.56
26:1H:517:C:OP1	53:N8:16:ARG:NH2	2.37	0.56
26:1H:1046:A:H4'	26:1H:1047:G:OP2	2.05	0.56
26:1H:1221:C:H2'	26:1H:1222:C:C6	2.40	0.56
26:1H:1794:U:H2'	26:1H:1795:C:H6	1.70	0.56
28:71:185:LEU:HD12	28:71:189:ILE:HD11	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:61:4:ILE:HG13	34:61:39:ALA:HB2	1.85	0.56
52:M8:13:ARG:HA	52:M8:24:THR:HG21	1.87	0.56
1:1G:22:G:H4'	1:1G:885:G:C8	2.40	0.56
6:52:68:PRO:HG2	6:52:71:ARG:HB2	1.86	0.56
23:2L:48:U:O2'	23:2L:49:C:OP2	2.18	0.56
26:14:5:A:N6	26:14:7:G:O6	2.38	0.56
26:14:579:G:H2'	26:14:580:C:C6	2.40	0.56
26:14:1582:C:HO2'	26:14:1586:A:H8	1.53	0.56
26:14:2468:G:H5"	26:14:2476:A:H61	1.68	0.56
1:13:256:U:H2'	1:13:257:G:C8	2.40	0.56
1:13:321:A:H62	1:13:328:C:H1'	1.69	0.56
1:13:1057:G:H4'	3:2E:197:GLY:H	1.69	0.56
1:13:1245:A:N6	1:13:1291:G:O6	2.38	0.56
2:1E:61:LEU:HA	2:1E:64:ARG:HG2	1.86	0.56
3:2E:16:ARG:HH11	3:2E:16:ARG:HB2	1.69	0.56
4:3E:15:GLU:OE1	4:3E:66:ARG:NH1	2.38	0.56
9:8E:91:ASP:OD1	9:8E:91:ASP:N	2.35	0.56
14:5I:23:ARG:NH1	14:5I:30:ALA:HB2	2.18	0.56
24:3K:26:A:H2'	24:3K:27:G:H5'	1.86	0.56
26:1H:1187:G:H5"	43:D8:81:TYR:CE2	2.40	0.56
26:1H:1385:G:O6	26:1H:1403:C:N4	2.38	0.56
33:51:153:LYS:HB2	33:51:155:SER:N	2.16	0.56
36:68:24:VAL:HB	36:68:33:ALA:HB2	1.85	0.56
39:98:72:ASP:O	39:98:76:VAL:HG23	2.05	0.56
47:H8:60:GLU:O	47:H8:61:LEU:HB3	2.04	0.56
1:1G:519:C:H2'	1:1G:520:A:O4'	2.05	0.56
1:1G:591:U:H2'	1:1G:592:G:C8	2.40	0.56
1:1G:653:A:H8	8:72:56:LYS:HE3	1.71	0.56
1:1G:973:G:O4'	10:1A:55:LYS:HG3	2.05	0.56
1:1G:1392:G:H21	1:1G:1502:A:H8	1.53	0.56
4:32:21:LEU:HD12	4:32:21:LEU:H	1.70	0.56
5:42:95:ALA:O	5:42:98:THR:OG1	2.22	0.56
7:62:23:VAL:HG13	7:62:43:PHE:CE2	2.36	0.56
17:8A:66:SER:O	17:8A:70:ARG:NH1	2.38	0.56
21:1B:12:LYS:HB3	21:1B:17:THR:O	2.06	0.56
57:3L:8:U:O2'	57:3L:48:C:O2	2.19	0.56
26:14:1028:A:N6	26:14:1125:G:H2'	2.21	0.56
26:14:1312:U:H4'	26:14:1313:U:O5'	2.06	0.56
26:14:2439:A:H5'	26:14:2439:A:H8	1.68	0.56
26:14:2880:C:O2'	39:55:90:ARG:HD3	2.05	0.56
30:29:54:GLN:NE2	30:29:55:ASN:OD1	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:135:GLU:N	34:69:135:GLU:OE1	2.34	0.56
41:75:133:GLU:N	41:75:133:GLU:OE2	2.38	0.56
42:85:92:ARG:HD2	43:95:11:GLN:OE1	2.05	0.56
1:13:74:C:H2'	1:13:96:G:H22	1.71	0.56
1:13:158:G:H2'	1:13:159:G:H8	1.71	0.56
4:3E:83:SER:HA	4:3E:86:LYS:HD2	1.86	0.56
19:AI:5:LEU:HD13	19:AI:10:PHE:CD2	2.40	0.56
20:BI:50:GLU:HG2	20:BI:100:ILE:HB	1.87	0.56
22:1K:26:A:H3'	22:1K:27:G:H8	1.71	0.56
26:1H:118:A:H5'	26:1H:119:A:H8	1.71	0.56
26:1H:2562:U:H1'	36:68:23:ARG:HH11	1.69	0.56
32:41:83:ARG:N	32:41:86:MET:HE2	2.19	0.56
1:1G:87:A:H4'	1:1G:88:C:OP1	2.04	0.56
1:1G:998(A):C:H42	1:1G:1042:G:H1	1.53	0.56
1:1G:1010:G:N2	1:1G:1020:U:H1'	2.21	0.56
1:1G:1502:A:H2	1:1G:1505:G:N1	1.96	0.56
26:14:2391:G:O6	26:14:2425:A:H8	1.89	0.56
33:59:149:ARG:HB2	33:59:149:ARG:HH11	1.71	0.56
40:65:26:LEU:O	40:65:88:ASP:HB2	2.05	0.56
42:85:90:VAL:HG22	43:95:39:LEU:HB3	1.87	0.56
1:13:1128:C:H4'	9:8E:16:ARG:HH12	1.71	0.56
24:3K:45:G:H4'	24:3K:46:G:OP1	2.05	0.56
26:1H:811:U:O2'	37:78:21:ARG:HG3	2.06	0.56
26:1H:1568:G:OP2	29:11:63:ARG:NH2	2.38	0.56
29:11:17:THR:CG2	29:11:204:ILE:HA	2.35	0.56
1:1G:628:G:H2'	1:1G:629:G:C8	2.41	0.56
2:12:71:VAL:HG11	2:12:164:VAL:HG13	1.85	0.56
13:4A:60:VAL:HA	13:4A:63:THR:HG22	1.88	0.56
15:6A:87:ILE:HG22	15:6A:88:ARG:H	1.69	0.56
26:14:536:A:H2'	26:14:537:C:C6	2.40	0.56
26:14:2327:A:H2'	26:14:2328:A:C8	2.40	0.56
30:29:119:ARG:HA	30:29:160:TYR:CE2	2.40	0.56
44:A5:1:MET:HE2	44:A5:1:MET:HA	1.87	0.56
1:13:201:C:H42	1:13:216:G:H22	1.54	0.56
4:3E:7:PRO:HB2	4:3E:10:ARG:HD2	1.87	0.56
26:1H:2232:U:OP2	49:J8:40:ARG:NH2	2.37	0.56
30:21:143:ASN:HD22	30:21:147:PRO:HD2	1.70	0.56
36:68:21:CYS:HB2	36:68:39:ILE:HD12	1.87	0.56
37:78:98:GLU:O	37:78:101:VAL:HG13	2.05	0.56
49:J8:81:LYS:HD2	49:J8:81:LYS:N	2.20	0.56
6:52:15:ASP:OD1	6:52:17:SER:N	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:49:THR:HB	13:4A:52:GLU:HG3	1.86	0.56
26:14:1105:U:H2'	26:14:1106:G:H4'	1.87	0.56
26:14:1914:C:H2'	26:14:1915:U:O4'	2.06	0.56
26:14:2318:G:H5'	26:14:2319:G:OP2	2.05	0.56
30:29:55:ASN:HD22	30:29:58:ARG:HD3	1.71	0.56
30:29:58:ARG:N	30:29:58:ARG:HD2	2.20	0.56
30:29:81:ILE:HG21	30:29:84:PHE:HD2	1.71	0.56
1:13:971:G:N2	1:13:1363:A:OP2	2.25	0.56
26:1H:930:U:H4'	26:1H:931:G:O5'	2.06	0.56
26:1H:1021:A:C8	26:1H:1021:A:H3'	2.41	0.56
26:1H:1532:C:N3	26:1H:1539:G:N2	2.47	0.56
26:1H:1543:A:H8	26:1H:1545:A:OP2	1.88	0.56
26:1H:2801:A:H5'	26:1H:2895:U:O2'	2.06	0.56
27:16:3:C:H2'	27:16:4:C:C6	2.41	0.56
29:11:60:ARG:HG2	29:11:86:PRO:HG2	1.87	0.56
33:51:157:TYR:H	33:51:170:ARG:HA	1.69	0.56
34:61:3:VAL:HG12	34:61:38:LEU:HA	1.87	0.56
42:C8:112:ARG:NH2	43:D8:45:THR:O	2.39	0.56
2:12:30:ARG:HH22	2:12:194:PRO:HB2	1.71	0.56
12:3A:34:ARG:HG3	12:3A:35:GLY:N	2.21	0.56
20:BA:72:LEU:O	20:BA:73:HIS:HB2	2.05	0.56
26:14:580:C:H2'	26:14:581:C:C6	2.40	0.56
26:14:1836:C:H2'	26:14:1837:C:H6	1.70	0.56
45:B5:36:LYS:HG3	45:B5:56:THR:HG23	1.88	0.56
48:E5:21:LEU:HD11	48:E5:41:ARG:NH1	2.21	0.56
1:13:554:C:H2'	1:13:555:C:H6	1.71	0.56
7:6E:62:PHE:HA	7:6E:124:LEU:HD22	1.87	0.56
26:1H:566:U:OP1	37:78:29:LYS:HD2	2.04	0.56
26:1H:602:G:N2	26:1H:655:A:C8	2.71	0.56
26:1H:2451:A:H5"	26:1H:2452:C:OP2	2.05	0.56
27:16:43:C:H5"	52:M8:1:MET:HG2	1.88	0.56
29:11:31:LYS:HB3	29:11:34:VAL:HG23	1.88	0.56
33:51:74:ASN:HA	33:51:77:LYS:HG2	1.86	0.56
36:68:68:GLU:HB3	36:68:78:ARG:HB3	1.87	0.56
42:C8:95:LEU:HD22	43:D8:4:ILE:HD13	1.88	0.56
50:K8:4:SER:HB3	50:K8:7:ARG:H	1.70	0.56
1:1G:186(F):C:H2'	1:1G:187:C:O4'	2.04	0.56
1:1G:429:U:H3'	4:32:9:CYS:SG	2.46	0.56
1:1G:507:C:H3'	1:1G:508:C:H2'	1.87	0.56
1:1G:626:U:H2'	1:1G:627:G:H8	1.70	0.56
4:32:98:GLU:OE2	4:32:103:ASN:ND2	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2L:50:G:H1	23:2L:66:C:H42	1.53	0.56
26:14:1921:G:H2'	26:14:1922:G:C8	2.41	0.56
31:39:67:GLN:HG3	31:39:67:GLN:O	2.04	0.56
31:39:79:GLY:HA2	31:39:86:GLY:HA2	1.88	0.56
5:4E:63:ARG:HB2	5:4E:64:ARG:NH1	2.20	0.56
15:6I:74:ASP:HB3	15:6I:77:ARG:HB3	1.87	0.56
19:AI:40:ILE:O	19:AI:41:VAL:HG22	2.05	0.56
24:3K:52:G:H2'	24:3K:53:G:C8	2.41	0.56
26:1H:580:C:H2'	26:1H:581:C:H6	1.71	0.56
26:1H:2298:A:H62	26:1H:2318:G:H8	1.54	0.56
26:1H:2683:C:OP1	41:B8:53:ARG:NH2	2.35	0.56
27:16:73:A:C4	27:16:104:A:C2	2.94	0.56
28:71:216:THR:HB	28:71:218:MET:H	1.71	0.56
29:11:31:LYS:O	29:11:35:LYS:NZ	2.34	0.56
31:31:170:LEU:HD12	31:31:172:TRP:NE1	2.21	0.56
48:I8:23:VAL:HA	48:I8:38:VAL:HG22	1.86	0.56
1:1G:81:G:N2	1:1G:88:C:N3	2.54	0.56
1:1G:1003:G:H2'	1:1G:1004:A:H5'	1.88	0.56
1:1G:1053:G:H5"	1:1G:1054:C:H3'	1.88	0.56
1:1G:1369:C:H2'	1:1G:1370:G:C8	2.41	0.56
2:12:58:ILE:HG21	2:12:219:VAL:HG21	1.87	0.56
20:BA:50:GLU:HA	20:BA:100:ILE:HG21	1.87	0.56
35:15:42:TRP:HA	35:15:48:MET:CE	2.36	0.56
26:1H:654(A):A:C2	26:1H:654(T):A:N1	2.73	0.56
29:11:182:LEU:O	29:11:271:ILE:HG13	2.06	0.56
35:58:67:LEU:HD23	35:58:87:LEU:HD12	1.87	0.56
50:K8:47:ASN:C	50:K8:49:LYS:H	2.12	0.56
52:M8:34:GLU:HG3	52:M8:35:VAL:H	1.70	0.56
1:1G:841:U:H3'	1:1G:841:U:H6	1.71	0.56
1:1G:1288:A:N3	1:1G:1352:C:O2'	2.35	0.56
3:22:16:ARG:HH22	3:22:181:ASN:ND2	2.03	0.56
3:22:150:LYS:HD2	3:22:152:ILE:HD11	1.87	0.56
15:6A:24:SER:HB3	15:6A:27:VAL:HG23	1.87	0.56
18:9A:22:VAL:C	18:9A:24:ALA:H	2.13	0.56
26:14:1425:G:H2'	26:14:1426:G:C8	2.41	0.56
26:14:2131:G:H5"	26:14:2133:G:H4'	1.88	0.56
26:14:2475:C:H5"	26:14:2476:A:H5"	1.88	0.56
33:59:67:LEU:O	33:59:70:THR:OG1	2.19	0.56
34:69:112:LYS:HA	34:69:114:LEU:H	1.69	0.56
35:15:21:LYS:O	35:15:60:ILE:HG13	2.05	0.56
48:E5:36:ILE:HG13	48:E5:58:THR:HG23	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:G5:53:LEU:O	50:G5:57:ILE:HG13	2.05	0.56
1:13:828:A:H2'	1:13:829:G:O4'	2.05	0.55
1:13:1041:A:H2'	1:13:1042:G:O4'	2.06	0.55
1:13:1117:G:H5"	9:8E:104:ARG:NH1	2.21	0.55
5:4E:35:GLY:HA3	5:4E:112:LEU:HB3	1.88	0.55
23:2K:9:G:N2	23:2K:47:G7M:OP2	2.30	0.55
26:1H:957:A:N1	26:1H:2458:G:H4'	2.21	0.55
26:1H:1568:G:H5"	29:11:61:LEU:HD22	1.88	0.55
26:1H:1635:G:OP1	61:1H:3563:HOH:O	2.18	0.55
26:1H:2115:G:H4'	26:1H:2166:G:H1'	1.87	0.55
50:K8:3:LEU:CA	50:K8:5:GLU:HB2	2.32	0.55
1:1G:129(A):G:C2	1:1G:191(A):G:C8	2.94	0.55
1:1G:420:U:H1'	1:1G:424:G:N2	2.21	0.55
2:12:125:PRO:C	2:12:127:ILE:H	2.14	0.55
4:32:108:LEU:HD13	4:32:174:LEU:HD13	1.87	0.55
15:6A:33:THR:HG21	15:6A:85:LEU:HD22	1.88	0.55
18:9A:66:LEU:O	18:9A:70:ILE:HG13	2.06	0.55
26:14:764:A:O4'	29:19:213:ARG:HG3	2.05	0.55
26:14:831:G:H5"	26:14:832:G:OP2	2.06	0.55
26:14:1594:G:H2'	26:14:1595:G:H8	1.71	0.55
26:14:1785:A:H2'	26:14:1787:A:N7	2.21	0.55
26:14:2629:A:H2'	26:14:2629:A:N3	2.20	0.55
26:14:2682:U:C5	30:29:11:MET:HE2	2.41	0.55
27:1J:42:C:O2'	32:49:67:LYS:O	2.16	0.55
2:1E:17:PHE:HA	2:1E:42:ILE:HB	1.87	0.55
3:2E:18:TRP:HE3	3:2E:18:TRP:H	1.53	0.55
26:1H:67:U:H3	26:1H:74:A:H2	1.55	0.55
26:1H:1277:G:H5"	39:98:40:LYS:NZ	2.21	0.55
26:1H:2400:G:H2'	26:1H:2401:U:C6	2.40	0.55
26:1H:2636:U:OP2	30:21:79:ARG:NH1	2.38	0.55
31:31:155:LEU:HB2	31:31:189:THR:HG21	1.87	0.55
33:51:121:ILE:HG12	33:51:140:LYS:HE3	1.88	0.55
34:61:120:ILE:HG12	34:61:126:TYR:CE2	2.40	0.55
1:1G:1179:A:H4'	9:82:103:THR:HA	1.87	0.55
26:14:617:G:OP1	31:39:40:GLN:HG3	2.06	0.55
26:14:831:G:N2	37:35:53:GLY:O	2.39	0.55
26:14:1106:G:H3'	26:14:1107:G:C8	2.41	0.55
26:14:1288:U:C2	26:14:1327:C:O2	2.60	0.55
26:14:2461:C:H2'	26:14:2462:U:C6	2.41	0.55
26:14:2520:C:H41	26:14:2542:A:H62	1.53	0.55
37:35:127:ALA:O	37:35:147:LEU:N	2.38	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:5:VAL:HB	43:95:37:VAL:HB	1.87	0.55
1:13:150:C:H2'	1:13:151:A:C8	2.41	0.55
1:13:277:C:H2'	1:13:278:G:H8	1.72	0.55
1:13:1149:C:H2'	1:13:1150:U:H6	1.71	0.55
2:1E:47:THR:HG22	2:1E:51:LEU:HD12	1.87	0.55
26:1H:30:G:OP2	42:C8:5:LYS:NZ	2.39	0.55
26:1H:1914:C:H2'	26:1H:1915:U:O4'	2.07	0.55
26:1H:2139:C:H42	26:1H:2152:G:N2	1.97	0.55
26:1H:2287:A:C2	26:1H:2346:A:C2	2.93	0.55
26:1H:2836:U:H2'	26:1H:2837:G:C8	2.41	0.55
30:21:116:VAL:HG22	30:21:120:TRP:HD1	1.72	0.55
46:G8:11:ASP:O	46:G8:26:LYS:HG3	2.06	0.55
47:H8:61:LEU:O	47:H8:64:GLY:HA2	2.06	0.55
1:1G:446:G:H1	1:1G:488:C:H42	1.53	0.55
3:22:59:ARG:HG2	3:22:64:VAL:HG23	1.86	0.55
23:2L:6:G:N2	23:2L:69:C:H1'	2.20	0.55
26:14:1022:G:N2	26:14:1142(A):A:H2	2.01	0.55
26:14:1379:A:H1'	26:14:1380:G:OP1	2.06	0.55
40:65:23:ARG:NH2	40:65:84:GLN:HB3	2.20	0.55
48:E5:27:GLU:HG3	48:E5:68:GLU:HA	1.88	0.55
48:E5:64:ASP:OD1	48:E5:64:ASP:N	2.36	0.55
49:F5:91:LYS:HG3	49:F5:92:LYS:N	2.20	0.55
26:1H:6:A:O2'	35:58:129:PRO:HB3	2.06	0.55
26:1H:270(R):G:H2'	26:1H:270(S):G:C8	2.42	0.55
26:1H:2787:C:H1'	30:21:62:PRO:HG3	1.88	0.55
26:1H:2788:C:O2'	26:1H:2809:A:N3	2.39	0.55
35:58:47:ALA:HB2	35:58:112:LEU:CD1	2.35	0.55
50:K8:47:ASN:ND2	50:K8:47:ASN:H	2.04	0.55
1:1G:108:G:H5'	1:1G:109:A:C5'	2.37	0.55
1:1G:681:C:H2'	1:1G:682:G:H8	1.71	0.55
1:1G:1298:C:H4'	1:1G:1299:A:C4	2.42	0.55
3:22:88:ARG:HA	3:22:91:LEU:HD13	1.87	0.55
11:2A:100:ALA:O	11:2A:102:GLY:N	2.39	0.55
26:14:2275:C:H5'	26:14:2275:C:C6	2.41	0.55
40:65:26:LEU:HD22	40:65:87:PHE:CD1	2.41	0.55
45:B5:65:ARG:HB3	45:B5:70:LEU:HB3	1.87	0.55
49:F5:92:LYS:HA	49:F5:95:LEU:HB2	1.89	0.55
1:13:376:G:H5"	16:7I:5:ARG:HB2	1.89	0.55
2:1E:106:LYS:O	2:1E:110:GLN:HG3	2.07	0.55
16:7I:13:HIS:C	16:7I:15:PRO:HD3	2.31	0.55
19:AI:51:VAL:O	19:AI:57:HIS:HA	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BI:67:ALA:HA	20:BI:72:LEU:O	2.07	0.55
26:1H:708:C:H42	26:1H:723:G:H1	1.53	0.55
26:1H:1316:U:H2'	26:1H:1317:A:C8	2.42	0.55
26:1H:1316:U:H2'	26:1H:1317:A:H8	1.71	0.55
26:1H:1535:U:H3'	26:1H:1537:C:C4	2.42	0.55
26:1H:2168:G:O2'	26:1H:2169:A:N3	2.38	0.55
26:1H:2392:A:C8	37:78:61:ARG:HD2	2.41	0.55
26:1H:2855:C:H2'	26:1H:2856:C:C6	2.41	0.55
31:31:39:TRP:CH2	31:31:106:ARG:HD3	2.40	0.55
33:51:83:TYR:O	33:51:84:SER:OG	2.18	0.55
42:C8:92:ARG:HD3	42:C8:94:ASN:HB3	1.88	0.55
47:H8:151:HIS:O	47:H8:171:ILE:HG13	2.07	0.55
2:12:16:HIS:CD2	2:12:213:LEU:HD22	2.41	0.55
2:12:71:VAL:HG21	2:12:164:VAL:HA	1.88	0.55
23:2L:63:C:H2'	23:2L:64:G:H8	1.71	0.55
57:3L:3:G:N2	57:3L:70:C:N3	2.44	0.55
26:14:923:C:H2'	26:14:924:C:C6	2.42	0.55
26:14:2250:G:OP1	26:14:2275:C:H2'	2.06	0.55
44:A5:13:SER:HB3	44:A5:16:LYS:HD2	1.88	0.55
1:13:1171:G:H2'	1:13:1172:C:C6	2.39	0.55
1:13:1228:C:OP1	13:4I:115:LYS:HD2	2.07	0.55
18:9I:37:VAL:O	18:9I:41:LYS:HB3	2.05	0.55
18:9I:47:THR:O	18:9I:83:GLU:N	2.26	0.55
26:1H:1401:G:H2'	26:1H:1402:C:C6	2.42	0.55
26:1H:1404:C:O2'	26:1H:1405:U:H5'	2.07	0.55
33:51:8:PRO:HG2	33:51:69:ARG:NH2	2.21	0.55
33:51:125:VAL:HG22	33:51:131:VAL:HB	1.88	0.55
41:B8:51:ARG:HB2	41:B8:98:LYS:CD	2.36	0.55
52:M8:23:GLU:OE1	52:M8:24:THR:N	2.39	0.55
1:1G:138:G:H1	1:1G:225:C:H42	1.53	0.55
1:1G:406:G:H2'	1:1G:407:G:H8	1.70	0.55
2:12:80:ILE:HD13	2:12:212:GLN:HA	1.89	0.55
6:52:35:ALA:HB1	6:52:65:VAL:HG11	1.87	0.55
26:14:70:G:H21	26:14:71:A:H62	1.52	0.55
26:14:2062:A:H2	26:14:2503:A:H62	1.54	0.55
26:14:2250:G:H2'	38:45:82:ARG:HG3	1.88	0.55
32:49:15:VAL:HG22	32:49:175:LEU:HB3	1.88	0.55
1:13:452:A:H2'	1:13:453:A:C8	2.41	0.55
9:8E:10:ARG:HG3	9:8E:75:ASP:HB3	1.88	0.55
26:1H:2679:A:H4'	30:21:165:VAL:HG11	1.88	0.55
31:31:28:ILE:HG22	31:31:112:MET:HE3	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:68:93:PRO:HG3	36:68:114:ILE:HG12	1.89	0.55
41:B8:55:ASN:N	41:B8:59:THR:HG22	2.20	0.55
46:G8:55:TYR:CZ	46:G8:61:ILE:HD11	2.42	0.55
1:1G:1142:G:H3'	1:1G:1143:G:H8	1.72	0.55
26:14:395:U:H2'	26:14:396:G:N7	2.21	0.55
26:14:1887:C:H3'	26:14:1888:G:H5"	1.88	0.55
29:19:31:LYS:HE3	29:19:33:LEU:CB	2.36	0.55
42:85:10:ARG:HG2	42:85:14:HIS:CD2	2.41	0.55
49:F5:19:GLN:HB3	49:F5:35:THR:O	2.06	0.55
1:13:345:C:O2'	1:13:346:G:N3	2.38	0.55
1:13:1118:C:H1'	1:13:1179:A:C4	2.42	0.55
24:3K:59:A:H3'	24:3K:60:U:C6	2.42	0.55
26:1H:779:U:OP1	29:11:49:ILE:HG13	2.06	0.55
26:1H:860:U:C5	26:1H:917:A:C2	2.94	0.55
26:1H:1510:A:O2'	26:1H:1511:A:N7	2.38	0.55
26:1H:2533:A:H2'	26:1H:2534:A:O4'	2.06	0.55
31:31:116:ASP:OD2	37:78:1:MET:HB2	2.06	0.55
32:41:11:TYR:HA	32:41:15:VAL:HB	1.89	0.55
36:68:104:ARG:NH1	41:B8:36:GLU:OE1	2.40	0.55
41:B8:107:ASP:OD2	41:B8:109:GLU:HG3	2.07	0.55
1:1G:363:A:C5	12:3A:31:PRO:HD2	2.42	0.55
17:8A:87:LYS:O	17:8A:91:ARG:HG3	2.07	0.55
26:14:30:G:H2'	26:14:31:C:C6	2.41	0.55
26:14:511:U:C5	26:14:512:G:C5	2.94	0.55
26:14:1729:A:H2'	26:14:1731:G:H22	1.72	0.55
30:29:29:GLY:H	30:29:51:PHE:HE1	1.54	0.55
35:15:128:HIS:CE1	35:15:130:HIS:HA	2.42	0.55
53:J5:20:ARG:HG2	53:J5:23:HIS:CD2	2.42	0.55
55:M5:14:VAL:CG1	55:M5:22:VAL:HG13	2.35	0.55
1:13:352:C:O2'	1:13:354:G:OP1	2.15	0.55
1:13:1030:C:H2'	1:13:1031:G:H8	1.72	0.55
18:9I:22:VAL:HG12	18:9I:56:THR:HA	1.88	0.55
26:1H:1332:G:H21	26:1H:1610:A:H8	1.54	0.55
26:1H:2392:A:H8	37:78:61:ARG:HD2	1.72	0.55
26:1H:2882:A:OP1	39:98:96:ARG:NH1	2.39	0.55
29:11:32:SER:HA	29:11:35:LYS:HZ3	1.71	0.55
37:78:87:ASP:O	37:78:90:ARG:HD3	2.06	0.55
47:H8:1:MET:HE3	47:H8:55:HIS:HB3	1.89	0.55
1:1G:1014:A:H4'	19:AA:14:HIS:CE1	2.42	0.55
1:1G:1368:G:H4'	10:1A:46:ARG:HH22	1.72	0.55
3:22:8:ILE:HG21	14:5A:50:LYS:HD2	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6A:55:GLY:HA2	15:6A:58:MET:HG3	1.88	0.55
26:14:806:C:OP2	37:35:41:ARG:NH2	2.39	0.55
26:14:2364:C:H4'	48:E5:56:ASP:OD2	2.07	0.55
30:29:147:PRO:HB2	30:29:149:ARG:HG2	1.87	0.55
1:13:4:U:O2'	1:13:5:U:OP1	2.21	0.55
1:13:345:C:H4'	1:13:346:G:N7	2.22	0.55
1:13:345:C:N4	36:68:116:SER:O	2.21	0.55
1:13:1298:C:H2'	7:6E:114:ARG:HH21	1.72	0.55
4:3E:18:LYS:HD3	4:3E:31:CYS:SG	2.46	0.55
13:4I:27:LYS:HD3	13:4I:31:LYS:HZ3	1.72	0.55
26:1H:69:C:H2'	26:1H:70:G:H8	1.72	0.55
26:1H:784:A:C5	29:11:229:VAL:HG21	2.42	0.55
26:1H:1479:G:O2'	26:1H:1558:A:H5'	2.07	0.55
26:1H:1783:A:H5'	26:1H:2608:G:H4'	1.89	0.55
26:1H:2849:U:H5'	26:1H:2867:G:N2	2.22	0.55
27:16:11:C:H3'	27:16:12:C:C6	2.41	0.55
33:51:6:ARG:HD2	33:51:54:ARG:NH1	2.18	0.55
37:78:71:VAL:HG13	37:78:72:PRO:HD3	1.89	0.55
1:1G:162:A:O5'	1:1G:162:A:H8	1.90	0.55
3:22:6:HIS:ND1	14:5A:49:HIS:HB3	2.22	0.55
3:22:31:HIS:HA	3:22:34:LEU:HD22	1.88	0.55
26:14:660:G:H21	37:35:12:ALA:CB	2.15	0.55
31:39:155:LEU:HD23	31:39:186:ILE:HD13	1.89	0.55
31:39:192:LEU:HD22	31:39:194:MET:HE2	1.89	0.55
36:25:98:VAL:HG12	36:25:117:LEU:HB3	1.89	0.55
37:35:125:VAL:HG13	37:35:144:GLU:HB3	1.89	0.55
38:45:79:LEU:HD23	38:45:79:LEU:O	2.05	0.55
41:75:18:ASP:OD1	41:75:18:ASP:N	2.40	0.55
46:C5:48:ALA:HB1	46:C5:50:ARG:HD3	1.87	0.55
1:13:475:G:H3'	1:13:476:G:H8	1.71	0.54
24:3K:56:C:H2'	24:3K:57:G:O4'	2.07	0.54
26:1H:11:G:H21	26:1H:2802:G:H4'	1.72	0.54
26:1H:76:C:O2'	50:K8:62:THR:HG21	2.06	0.54
26:1H:764:A:H5'	29:11:210:GLY:HA2	1.89	0.54
41:B8:90:GLN:OE1	41:B8:91:ARG:N	2.39	0.54
41:B8:100:TYR:HB3	41:B8:103:ARG:NH1	2.21	0.54
3:22:156:ARG:NH2	3:22:159:GLY:O	2.39	0.54
26:14:1027:A:H2	26:14:2487:G:O2'	1.90	0.54
26:14:1190:G:H2'	26:14:1191:G:H8	1.71	0.54
26:14:1945:G:H2'	26:14:1946:U:C6	2.43	0.54
26:14:2096:U:H3	26:14:2193:G:H1	1.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2342:C:O2'	26:14:2374:C:H5"	2.07	0.54
27:1J:116:G:H5'	40:65:55:ALA:HB1	1.89	0.54
29:19:6:PHE:CE1	29:19:18:VAL:HG23	2.41	0.54
29:19:16:MET:HE1	29:19:208:LYS:HE3	1.88	0.54
32:49:41:GLN:HG2	32:49:43:LEU:HD21	1.88	0.54
37:35:29:LYS:HD3	37:35:30:THR:HG23	1.88	0.54
46:C5:48:ALA:HB3	46:C5:59:GLY:HA2	1.88	0.54
47:D5:94:GLU:O	47:D5:129:SER:HA	2.07	0.54
1:13:542:G:H5'	4:3E:41:GLY:HA3	1.89	0.54
2:1E:28:PHE:CD2	2:1E:190:THR:HA	2.42	0.54
8:7E:88:LYS:N	8:7E:91:ARG:O	2.36	0.54
26:1H:141:A:H8	26:1H:1595:G:H21	1.54	0.54
26:1H:265:A:C8	26:1H:266:G:H1'	2.41	0.54
26:1H:1608:A:O2'	26:1H:1610:A:OP2	2.13	0.54
26:1H:2590:A:OP2	29:11:237:GLU:HB3	2.06	0.54
29:11:145:VAL:HG12	29:11:146:GLU:O	2.07	0.54
34:61:33:ARG:HB3	34:61:35:LEU:CD1	2.38	0.54
35:58:57:ALA:O	35:58:59:LYS:N	2.40	0.54
37:78:52:GLU:OE1	37:78:57:THR:HA	2.07	0.54
39:98:81:ASP:O	39:98:85:PRO:HG2	2.07	0.54
1:1G:739:C:O2'	15:6A:42:HIS:ND1	2.38	0.54
1:1G:1294:G:H2'	1:1G:1295:G:C8	2.42	0.54
1:1G:1433:A:OP2	1:1G:1467:G:N1	2.38	0.54
7:62:106:GLN:O	7:62:110:GLN:HG2	2.07	0.54
26:14:1003:G:O2'	26:14:1010:A:N1	2.35	0.54
26:14:1260:G:H2'	26:14:1261:C:H6	1.72	0.54
26:14:1534:G:O2'	26:14:1537:C:N4	2.39	0.54
26:14:2294:C:P	40:65:89:ARG:HH22	2.29	0.54
31:39:68:LYS:HG3	31:39:69:HIS:CD2	2.42	0.54
33:59:9:ILE:HB	33:59:51:ARG:HA	1.89	0.54
43:95:7:THR:HG23	43:95:22:VAL:HG21	1.88	0.54
1:13:138:G:H1	1:13:225:C:H42	1.56	0.54
1:13:1221:G:O3'	19:AI:77:THR:HG21	2.06	0.54
2:1E:211:ILE:HA	2:1E:214:ILE:HD11	1.89	0.54
3:2E:95:THR:HB	3:2E:97:LYS:H	1.71	0.54
22:1K:52:G:H1	22:1K:62:C:H42	1.54	0.54
26:1H:1512:G:H2'	26:1H:1513:C:C6	2.43	0.54
32:41:47:LYS:HG3	32:41:48:GLU:H	1.71	0.54
35:58:96:GLU:O	35:58:98:VAL:HG12	2.06	0.54
46:G8:97:ARG:NH2	46:G8:103:GLY:O	2.40	0.54
47:H8:28:MET:O	47:H8:35:ARG:N	2.33	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:972:C:OP2	10:1A:57:LYS:NZ	2.34	0.54
4:32:201:GLN:O	4:32:205:GLU:HB2	2.07	0.54
9:82:48:GLU:HA	9:82:51:ARG:HD3	1.89	0.54
12:3A:84:LEU:HG	12:3A:105:TYR:HE2	1.71	0.54
26:14:459:U:H4'	54:L5:40:TRP:CZ3	2.43	0.54
26:14:751:A:H5'	44:A5:90:ARG:HA	1.89	0.54
26:14:1910:G:H1	26:14:1920:C:H42	1.56	0.54
33:59:54:ARG:HB2	33:59:65:HIS:CD2	2.43	0.54
49:F5:62:VAL:HG21	49:F5:70:VAL:HG21	1.88	0.54
1:13:1044:A:C5	1:13:1045:C:H1'	2.43	0.54
1:13:1126:U:H2'	1:13:1127:G:C8	2.42	0.54
3:2E:16:ARG:HD2	3:2E:54:ARG:NH2	2.19	0.54
20:BI:71:THR:HG22	20:BI:72:LEU:N	2.22	0.54
26:1H:32:C:O2'	26:1H:33:U:H5'	2.08	0.54
26:1H:2023:G:H5'	26:1H:2617:C:H4'	1.88	0.54
26:1H:2392:A:H2	26:1H:2424:C:N4	1.98	0.54
26:1H:2552:U:H2'	26:1H:2554:U:OP2	2.07	0.54
26:1H:2635:C:H5"	30:21:78:LEU:HA	1.90	0.54
29:11:12:SER:O	29:11:16:MET:HB2	2.06	0.54
29:11:33:LEU:HG	29:11:34:VAL:HG22	1.88	0.54
29:11:70:TRP:O	29:11:73:VAL:HG23	2.08	0.54
52:M8:14:ILE:HG22	52:M8:24:THR:HG22	1.89	0.54
1:1G:750:G:N3	15:6A:23:GLY:HA3	2.22	0.54
9:82:24:GLY:HA2	9:82:59:PHE:C	2.32	0.54
12:3A:27:LEU:HB2	12:3A:33:ARG:HG2	1.88	0.54
26:14:228:A:H2'	26:14:230:U:O4'	2.07	0.54
26:14:897:C:C2	26:14:898:C:H5	2.26	0.54
26:14:993:G:N3	43:95:89:GLN:NE2	2.51	0.54
31:39:129:PHE:HA	31:39:142:TRP:NE1	2.21	0.54
1:13:999:U:O2'	26:14:2137:C:H5'	2.07	0.54
1:13:1157:A:H61	1:13:1178:G:H21	1.56	0.54
12:3I:93:LEU:O	12:3I:96:VAL:HG13	2.08	0.54
21:1F:12:LYS:HB3	21:1F:22:ARG:HD2	1.88	0.54
26:1H:270(W):G:O6	61:1H:3561:HOH:O	2.17	0.54
26:1H:489:G:N7	44:E8:49:LYS:NZ	2.55	0.54
1:1G:1239:A:H4'	1:1G:1240:U:H5'	1.88	0.54
17:8A:7:THR:HG23	17:8A:58:GLU:HG2	1.90	0.54
57:3L:63:U:H2'	57:3L:64:G:C8	2.41	0.54
26:14:849:A:N1	51:H5:25:ALA:HB2	2.23	0.54
26:14:1057:A:H8	26:14:1086:A:HO2'	1.56	0.54
26:14:1826:G:H2'	26:14:1827:C:C6	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2469:A:H8	38:45:56:ARG:NH2	2.04	0.54
29:19:10:THR:OG1	29:19:13:ARG:HB2	2.06	0.54
29:19:70:TRP:O	29:19:73:VAL:HG23	2.06	0.54
31:39:53:THR:HG22	31:39:56:GLU:CD	2.32	0.54
41:75:55:ASN:H	41:75:59:THR:HG22	1.73	0.54
48:E5:53:MET:HG2	48:E5:59:LEU:HD23	1.89	0.54
1:13:110:C:H2'	1:13:111:G:O4'	2.06	0.54
1:13:451:A:OP1	1:13:481:G:N1	2.38	0.54
1:13:1315:U:HO2'	1:13:1360:A:HO2'	1.49	0.54
4:3E:112:VAL:HG12	4:3E:116:GLN:OE1	2.08	0.54
6:5E:39:LYS:HB2	6:5E:64:GLN:HB2	1.90	0.54
22:1K:7:U:H3	22:1K:66:A:N6	2.02	0.54
26:1H:1018:C:H2'	26:1H:1019:U:H6	1.73	0.54
26:1H:2127:G:H1	26:1H:2161:C:C2'	2.21	0.54
27:16:11:C:H3'	27:16:12:C:H6	1.72	0.54
32:41:76:SER:HB2	32:41:84:LYS:HB2	1.89	0.54
34:61:110:ASP:OD1	34:61:111:PRO:HA	2.07	0.54
34:61:131:LYS:HB3	34:61:132:PRO:HA	1.89	0.54
44:E8:17:VAL:HG13	44:E8:76:VAL:HG11	1.90	0.54
47:H8:4:ARG:HB3	47:H8:58:VAL:CG2	2.37	0.54
1:1G:433:C:H2'	1:1G:434:U:H6	1.71	0.54
1:1G:1219:U:OP1	14:5A:19:ARG:NH1	2.32	0.54
14:5A:45:ARG:O	14:5A:49:HIS:HD2	1.90	0.54
56:1L:68:G:H2'	56:1L:69:A:C8	2.43	0.54
26:14:302:C:H2'	26:14:303:U:H6	1.72	0.54
26:14:994:C:OP1	42:85:53:ARG:NH2	2.41	0.54
26:14:1442:G:H2'	26:14:1443:G:H8	1.71	0.54
26:14:1444(A):A:H2'	26:14:1444(A):A:N3	2.23	0.54
26:14:1581:G:H2'	26:14:1582:C:O4'	2.08	0.54
26:14:2542:A:N3	26:14:2542:A:H5"	2.23	0.54
26:14:2720:U:N3	26:14:2873:A:H2	2.05	0.54
26:14:2816:C:O2	26:14:2883:A:O2'	2.25	0.54
27:1J:42:C:N3	32:49:91:ARG:NH2	2.54	0.54
33:59:8:PRO:HG2	33:59:69:ARG:HE	1.72	0.54
34:69:7:GLU:C	34:69:15:VAL:HG22	2.32	0.54
38:45:32:TYR:HE2	38:45:111:GLU:HA	1.71	0.54
39:55:21:TYR:OH	39:55:43:GLU:HG2	2.07	0.54
40:65:54:LEU:HD23	40:65:55:ALA:HB2	1.89	0.54
44:A5:20:VAL:HG22	44:A5:47:VAL:HG21	1.90	0.54
20:BI:49:ALA:O	20:BI:52:ALA:N	2.41	0.54
26:1H:426:C:H2'	26:1H:427:U:H6	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:455:C:N3	26:1H:473:G:H5'	2.22	0.54
26:1H:671:C:OP1	37:78:42:SER:O	2.26	0.54
26:1H:761:A:OP1	61:1H:3565:HOH:O	2.19	0.54
26:1H:1386:C:H2'	26:1H:1387:C:C6	2.42	0.54
26:1H:2863:C:O2'	26:1H:2864:G:H5'	2.08	0.54
29:11:41:GLY:C	29:11:43:ARG:H	2.15	0.54
39:98:44:LEU:O	39:98:47:PHE:N	2.38	0.54
46:G8:29:GLU:HB3	46:G8:38:ILE:HG23	1.89	0.54
47:H8:72:ARG:NH2	47:H8:97:GLU:O	2.40	0.54
49:J8:18:ILE:HG12	49:J8:37:ILE:HG12	1.89	0.54
1:1G:1113:C:H2'	1:1G:1114:C:H6	1.72	0.54
7:62:46:ALA:HA	7:62:49:ILE:HD12	1.89	0.54
26:14:1021:A:H62	26:14:1141:U:H3	1.55	0.54
26:14:1111:A:H4'	33:59:3:ARG:NH1	2.22	0.54
26:14:1728:G:H8	26:14:1732:A:H62	1.56	0.54
26:14:2074:U:H2'	26:14:2075:U:C6	2.42	0.54
27:1J:15:A:H3'	27:1J:16:G:H5'	1.89	0.54
1:13:93:U:O2'	1:13:95:G:N7	2.41	0.54
1:13:128:G:H5'	17:8I:2:PRO:O	2.08	0.54
1:13:1307:U:OP1	13:4I:101:GLN:NE2	2.37	0.54
13:4I:25:ILE:HD11	13:4I:66:LEU:HD11	1.88	0.54
13:4I:54:VAL:O	13:4I:58:GLU:HG2	2.08	0.54
13:4I:58:GLU:O	13:4I:62:ASN:ND2	2.35	0.54
17:8I:8:GLY:O	17:8I:21:VAL:HG13	2.08	0.54
19:AI:6:LYS:O	19:AI:7:LYS:HB3	2.06	0.54
26:1H:238:C:HO2'	26:1H:608:A:HO2'	1.54	0.54
26:1H:1279:G:H4'	39:98:31:HIS:CD2	2.42	0.54
26:1H:1510:A:H2'	26:1H:1510:A:N3	2.21	0.54
26:1H:1799:G:O2'	26:1H:1800:C:OP2	2.17	0.54
26:1H:2656:U:N3	26:1H:2665:A:H2	2.04	0.54
28:71:22:ILE:HG13	28:71:190:ARG:HG3	1.89	0.54
29:11:124:PRO:HG2	29:11:129:ASN:ND2	2.23	0.54
46:G8:101:LYS:C	46:G8:102:CYS:SG	2.91	0.54
1:1G:1023:G:C5	1:1G:1024:G:H1'	2.43	0.54
14:5A:17:LYS:HD2	14:5A:18:VAL:N	2.23	0.54
26:14:866:A:H5"	26:14:867:C:OP2	2.07	0.54
26:14:1071:G:N2	26:14:1090:U:O5'	2.40	0.54
26:14:1109:C:H2'	26:14:1110:G:C1'	2.37	0.54
39:55:72:ASP:HB3	39:55:75:LEU:HB3	1.90	0.54
1:13:69:G:N2	1:13:99:C:O2	2.39	0.54
1:13:313:A:H2'	1:13:314:C:H6	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:963:G:H21	10:1I:55:LYS:CE	2.20	0.54
1:13:1111:A:N1	3:2E:177:THR:OG1	2.34	0.54
26:1H:2019:A:C6	26:1H:2020:A:N7	2.76	0.54
26:1H:2128:C:H5'	28:71:36:LYS:HG3	1.89	0.54
28:71:59:ARG:HG2	28:71:60:GLY:H	1.72	0.54
33:51:40:GLU:O	33:51:41:MET:HB2	2.07	0.54
37:78:130:PHE:HE1	37:78:146:VAL:HG23	1.73	0.54
47:H8:165:VAL:HG22	47:H8:166:SER:HA	1.89	0.54
52:M8:24:THR:OG1	52:M8:25:TYR:N	2.40	0.54
1:1G:247:G:OP2	17:8A:100:LYS:N	2.39	0.54
1:1G:280:C:H3'	1:1G:281:G:H5'	1.90	0.54
1:1G:909:A:OP2	12:3A:21:LYS:NZ	2.41	0.54
2:12:219:VAL:HG23	2:12:222:ILE:HD12	1.90	0.54
3:22:90:GLU:O	3:22:93:LYS:NZ	2.41	0.54
56:1L:49:G:H2'	56:1L:50:C:C6	2.43	0.54
26:14:96:G:H4'	50:G5:48:HIS:CD2	2.43	0.54
26:14:732:C:H3'	61:14:3503:HOH:O	2.08	0.54
26:14:1568:G:OP1	29:19:63:ARG:NH1	2.38	0.54
26:14:2784:C:H2'	26:14:2785:C:C6	2.42	0.54
27:1J:116:G:H5'	40:65:55:ALA:CB	2.38	0.54
30:29:89:ASP:HB3	30:29:91:VAL:N	2.23	0.54
35:15:133:GLN:O	35:15:134:ARG:HG3	2.08	0.54
38:45:35:VAL:HG12	38:45:36:ALA:H	1.72	0.54
38:45:45:GLN:OE1	38:45:45:GLN:N	2.41	0.54
45:B5:67:GLY:C	45:B5:69:TYR:H	2.15	0.54
1:13:1299:A:H2'	1:13:1301:U:H1'	1.90	0.54
8:7E:120:THR:H	8:7E:123:GLU:HG3	1.72	0.54
20:BI:10:LEU:HG	20:BI:12:ALA:H	1.73	0.54
26:1H:363:G:H2'	26:1H:363(A):A:H8	1.72	0.54
26:1H:518:G:H2'	26:1H:519:U:C6	2.44	0.54
26:1H:1630:G:H2'	26:1H:1630(A):C:H6	1.72	0.54
29:11:234:GLY:N	61:11:403:HOH:O	2.41	0.54
32:41:41:GLN:HG2	32:41:155:MET:HB3	1.90	0.54
35:58:96:GLU:HG2	35:58:97:ARG:N	2.23	0.54
39:98:12:ARG:HG2	39:98:16:HIS:ND1	2.23	0.54
50:K8:35:LEU:HD23	50:K8:53:LEU:HD12	1.90	0.54
1:1G:690:G:H2'	1:1G:691:G:O4'	2.08	0.54
1:1G:834:C:H42	1:1G:852:G:H1	1.56	0.54
4:32:175:SER:HB2	4:32:186:LEU:HD11	1.89	0.54
6:52:45:LEU:HD12	6:52:59:TYR:HD2	1.73	0.54
8:72:56:LYS:HE2	8:72:58:TYR:HE1	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3A:41:ARG:HB3	12:3A:41:ARG:HH11	1.73	0.54
56:1L:2:G:H1	56:1L:71:C:H42	1.56	0.54
26:14:55:G:H2'	26:14:56:A:H8	1.73	0.54
26:14:1329:U:H5"	26:14:1330:C:H5	1.74	0.54
26:14:2656:U:H3	26:14:2665:A:H2	1.56	0.54
26:14:2745:C:H1'	33:59:143:GLN:HG2	1.88	0.54
29:19:182:LEU:H	29:19:272:ALA:HB3	1.73	0.54
36:25:113:LYS:H	36:25:113:LYS:HE2	1.73	0.54
38:45:26:TYR:OH	47:D5:78:LYS:HD3	2.08	0.54
1:13:232:G:H2'	1:13:233:C:H6	1.73	0.53
1:13:390:C:O3'	16:7I:28:ARG:NH2	2.40	0.53
6:5E:91:VAL:HG12	6:5E:92:LYS:O	2.07	0.53
12:3I:58:VAL:O	12:3I:65:GLU:HA	2.08	0.53
15:6I:36:ILE:HA	15:6I:59:MET:HE3	1.90	0.53
16:7I:50:LYS:HE3	16:7I:51:VAL:H	1.72	0.53
26:1H:942:G:OP2	37:78:39:LYS:HE2	2.09	0.53
26:1H:2257:U:O2'	26:1H:2258:C:H5'	2.07	0.53
26:1H:2263:C:H2'	26:1H:2264:C:H6	1.73	0.53
42:C8:58:ARG:HA	42:C8:61:TRP:CE3	2.43	0.53
1:1G:201:C:H42	1:1G:216:G:H1	1.57	0.53
1:1G:1126:U:N3	1:1G:1281:U:O4'	2.41	0.53
1:1G:1274:G:H2'	1:1G:1275:A:H8	1.73	0.53
1:1G:1281:U:H3'	1:1G:1282:C:C5	2.43	0.53
2:12:218:ALA:O	2:12:219:VAL:HG22	2.07	0.53
26:14:634:C:H2'	26:14:635:C:C6	2.43	0.53
26:14:828:U:H3	26:14:2247:A:H4'	1.72	0.53
26:14:2107:C:N3	26:14:2182:G:N1	2.56	0.53
30:29:97:LYS:HG2	30:29:100:GLU:OE1	2.07	0.53
47:D5:124:ILE:HD11	47:D5:165:VAL:HG21	1.89	0.53
50:G5:43:GLN:OE1	50:G5:43:GLN:N	2.41	0.53
1:13:1127:G:H2'	1:13:1128:C:N1	2.21	0.53
1:13:1188:A:N6	61:13:1813:HOH:O	2.40	0.53
11:2I:48:ILE:HD11	11:2I:64:ALA:HA	1.90	0.53
22:1K:76:A:H8	26:1H:2583:G:N2	2.06	0.53
26:1H:745:G:OP2	30:21:133:LYS:HE2	2.08	0.53
26:1H:1291:C:H2'	26:1H:1292:U:C6	2.42	0.53
26:1H:1386:C:OP2	26:1H:1396:U:H5	1.92	0.53
26:1H:2107:C:O2	26:1H:2182:G:N2	2.39	0.53
44:E8:57:ASN:O	44:E8:61:ASN:HB2	2.07	0.53
47:H8:19:ARG:NH1	47:H8:84:GLU:HB2	2.23	0.53
47:H8:44:PHE:CD1	47:H8:44:PHE:C	2.87	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:J8:80:LEU:C	49:J8:81:LYS:HD2	2.33	0.53
1:1G:421:U:O4	3:22:127:ARG:NH1	2.41	0.53
1:1G:1277:C:O2'	1:1G:1279:A:H1'	2.08	0.53
26:14:1298:C:H5"	26:14:1299:G:OP2	2.08	0.53
38:45:32:TYR:CD2	38:45:114:ALA:HB3	2.42	0.53
38:45:81:VAL:HG23	38:45:82:ARG:H	1.73	0.53
3:2E:152:ILE:HG12	3:2E:167:TRP:HD1	1.74	0.53
11:2I:50:TYR:CD2	11:2I:54:ARG:HB2	2.43	0.53
17:8I:45:HIS:O	17:8I:73:VAL:HG23	2.08	0.53
17:8I:66:SER:OG	17:8I:69:LYS:HB2	2.09	0.53
26:1H:155:C:N4	26:1H:171:G:H1	2.03	0.53
26:1H:270(K):C:C4	26:1H:270(M):U:H5"	2.43	0.53
26:1H:1508:A:OP2	26:1H:1508:A:H8	1.91	0.53
26:1H:1899:G:H1	26:1H:1902:C:H41	1.57	0.53
26:1H:2712:U:H1'	26:1H:2712(A):A:C8	2.44	0.53
26:1H:2846:G:N7	61:1H:3613:HOH:O	2.32	0.53
43:D8:37:VAL:HG23	43:D8:51:VAL:HG21	1.90	0.53
49:J8:83:GLU:HG3	49:J8:85:LEU:HB2	1.90	0.53
1:1G:666:G:H5'	1:1G:726:C:H1'	1.91	0.53
1:1G:1001:G:H2'	1:1G:1002:G:C8	2.43	0.53
1:1G:1326:C:H2'	1:1G:1327:C:C6	2.43	0.53
26:14:1198:U:H2'	26:14:1199:U:C6	2.44	0.53
26:14:2611:U:C4	53:J5:3:LYS:HG3	2.43	0.53
40:65:107:GLU:H	40:65:110:LEU:HD11	1.72	0.53
46:C5:87:LYS:NZ	46:C5:88:LYS:O	2.34	0.53
9:8E:25:LYS:O	9:8E:60:ASP:HA	2.08	0.53
26:1H:301:G:C4	26:1H:302:C:C5	2.96	0.53
26:1H:1639:U:O2'	26:1H:1640:C:H5"	2.08	0.53
26:1H:2321:G:H5"	26:1H:2322:A:OP2	2.09	0.53
27:16:44:G:H1'	27:16:47:C:H42	1.74	0.53
30:21:134:ILE:O	30:21:137:HIS:HB2	2.09	0.53
37:78:124:LYS:HA	37:78:143:GLY:O	2.08	0.53
38:88:116:GLU:O	38:88:120:ILE:HG12	2.07	0.53
48:I8:14:ARG:NH1	61:I8:201:HOH:O	2.40	0.53
1:1G:546:G:OP1	4:32:73:ARG:NH1	2.41	0.53
6:52:15:ASP:OD1	6:52:16:GLN:N	2.42	0.53
26:14:250:G:P	37:35:60:MET:HE1	2.49	0.53
26:14:2164:C:H5	26:14:2165:G:H21	1.56	0.53
26:14:2306:C:H2'	26:14:2307:G:N2	2.23	0.53
26:14:2873:A:C8	39:55:5:LYS:HA	2.44	0.53
29:19:228:PRO:HD3	29:19:234:GLY:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:9:VAL:HG23	30:29:26:ILE:O	2.09	0.53
45:B5:29:TRP:CE3	45:B5:78:LYS:HB3	2.43	0.53
47:D5:40:ASP:OD1	47:D5:42:VAL:N	2.39	0.53
1:13:312:C:H2'	1:13:313:A:H8	1.74	0.53
1:13:445:G:H1	1:13:489:C:H42	1.57	0.53
1:13:538:G:H5"	12:3I:114:LYS:HB2	1.90	0.53
1:13:1417:G:N2	1:13:1482:G:H2'	2.23	0.53
3:2E:18:TRP:NE1	14:5I:55:GLY:H	2.07	0.53
4:3E:153:ARG:O	4:3E:181:MET:HE1	2.08	0.53
7:6E:45:ASP:O	7:6E:49:ILE:HG13	2.09	0.53
8:7E:20:TYR:HE2	8:7E:75:ARG:HD2	1.73	0.53
22:1K:3:G:N2	22:1K:71:C:H1'	2.24	0.53
26:1H:389:G:N1	37:78:71:VAL:HG12	2.24	0.53
26:1H:2450:A:C2	26:1H:2451:A:C4	2.96	0.53
30:21:105:THR:HG23	30:21:166:THR:OG1	2.08	0.53
37:78:121:LYS:HB3	37:78:121:LYS:NZ	2.23	0.53
44:E8:12:ILE:HG13	44:E8:42:ARG:HH11	1.73	0.53
45:F8:57:LEU:HD21	45:F8:78:LYS:HG3	1.89	0.53
1:1G:10:A:H2'	1:1G:11:G:C8	2.44	0.53
1:1G:977:A:H2'	1:1G:978:A:H5'	1.90	0.53
4:32:94:LEU:HD11	4:32:200:GLU:OE1	2.08	0.53
26:14:582:G:H2'	26:14:583:G:C8	2.44	0.53
26:14:1061:U:H4'	26:14:1071:G:H5'	1.91	0.53
26:14:1532:C:H42	26:14:1539:G:H1	1.56	0.53
26:14:2275:C:O2'	38:45:83:MET:HA	2.09	0.53
26:14:2716:U:H2'	26:14:2717:G:C8	2.44	0.53
32:49:14:GLU:O	32:49:17:PRO:HG2	2.09	0.53
38:45:57:HIS:CE1	38:45:116:GLU:HG2	2.44	0.53
38:45:85:LYS:HG2	38:45:86:GLY:H	1.74	0.53
39:55:59:ASP:OD1	39:55:62:ALA:N	2.40	0.53
41:75:3:ARG:HG2	41:75:6:LEU:HB2	1.89	0.53
41:75:27:THR:HB	41:75:89:VAL:HG22	1.90	0.53
47:D5:91:LEU:HD12	47:D5:91:LEU:H	1.73	0.53
1:13:271:C:H2'	1:13:272:C:H6	1.72	0.53
1:13:346:G:N2	1:13:347:G:N3	2.57	0.53
1:13:868:C:H2'	1:13:869:G:O4'	2.08	0.53
1:13:1318:A:H2'	1:13:1319:A:H5"	1.90	0.53
2:1E:215:LEU:HD12	2:1E:218:ALA:HB3	1.89	0.53
4:3E:108:LEU:HD11	4:3E:174:LEU:HD22	1.89	0.53
5:4E:15:ARG:NH1	25:4K:24:A:O3'	2.41	0.53
26:1H:1373:A:OP2	26:1H:1373:A:H8	1.92	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1678:G:H8	26:1H:1678:G:O5'	1.92	0.53
26:1H:2098:U:H2'	26:1H:2099:U:O4'	2.09	0.53
26:1H:2286:A:H4'	26:1H:2287:A:O5'	2.09	0.53
26:1H:2393:A:O2'	26:1H:2394:C:H5'	2.09	0.53
26:1H:2751:G:C1'	33:51:3:ARG:HD3	2.38	0.53
1:1G:1322:C:O2	1:1G:1322:C:H2'	2.08	0.53
1:1G:1418:A:H2	26:14:1948:G:N3	2.06	0.53
3:22:147:LYS:HB2	3:22:203:PHE:CD2	2.44	0.53
4:32:31:CYS:HB3	4:32:33:MET:HB2	1.89	0.53
4:32:177:ASP:HB2	4:32:182:LYS:HG3	1.91	0.53
7:62:26:PHE:O	7:62:30:ILE:HG13	2.09	0.53
20:BA:50:GLU:HA	20:BA:100:ILE:HG12	1.90	0.53
21:1B:2:GLY:HA2	21:1B:10:ARG:NH1	2.24	0.53
26:14:70:G:H21	26:14:71:A:N6	2.06	0.53
26:14:597:U:H2'	26:14:598:G:H8	1.72	0.53
26:14:1450:C:H2'	26:14:1451:C:C6	2.44	0.53
27:1J:80:U:H2'	27:1J:81:G:N2	2.19	0.53
31:39:63:LYS:HE3	31:39:67:GLN:HB2	1.91	0.53
54:L5:29:LYS:HA	54:L5:32:LYS:HB3	1.91	0.53
1:13:626:U:H5"	16:7I:38:TYR:CD2	2.42	0.53
1:13:680:C:H2'	1:13:681:C:C6	2.43	0.53
1:13:967:C:O5'	1:13:967:C:H6	1.92	0.53
1:13:1292:U:H2'	1:13:1293:G:H8	1.73	0.53
2:1E:192:SER:HG	2:1E:193:ASP:H	1.56	0.53
3:2E:3:ASN:N	3:2E:3:ASN:OD1	2.41	0.53
7:6E:27:ILE:HD12	7:6E:40:ALA:HA	1.91	0.53
8:7E:4:ASP:OD2	8:7E:85:ARG:NH1	2.42	0.53
8:7E:87:SER:CB	8:7E:93:VAL:H	2.21	0.53
12:3I:53:ARG:NH1	12:3I:92:ASP:OD1	2.38	0.53
23:2K:6:G:H1	23:2K:68:C:N4	2.04	0.53
26:1H:323:G:C8	31:31:171:PRO:HG3	2.44	0.53
26:1H:660:G:H21	37:78:12:ALA:CB	2.22	0.53
26:1H:1211:U:H4'	26:1H:1212:G:OP2	2.07	0.53
26:1H:2320:A:H2'	26:1H:2320:A:N3	2.24	0.53
26:1H:2437:U:H2'	26:1H:2438:U:H6	1.73	0.53
26:1H:2712:U:H2'	26:1H:2714:G:H5"	1.90	0.53
32:41:67:LYS:H	32:41:67:LYS:HE2	1.74	0.53
34:61:25:TYR:O	34:61:29:TYR:N	2.38	0.53
2:12:16:HIS:C	2:12:17:PHE:HD1	2.17	0.53
2:12:189:ASP:HB3	2:12:203:GLY:O	2.09	0.53
2:12:219:VAL:HG23	2:12:221:LEU:H	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:126:ILE:HG22	4:32:127:THR:H	1.73	0.53
13:4A:49:THR:HG22	13:4A:51:ALA:H	1.73	0.53
16:7A:40:ASP:HB3	16:7A:48:TRP:CB	2.37	0.53
26:14:997:G:H2'	26:14:998:C:H6	1.74	0.53
26:14:1285:G:N2	26:14:1329:U:OP1	2.37	0.53
49:F5:45:ASN:O	49:F5:63:ALA:HA	2.08	0.53
1:13:130:A:O2'	1:13:131:C:O5'	2.26	0.53
26:1H:460:A:H5"	26:1H:461:C:OP2	2.09	0.53
26:1H:1278:A:OP1	39:98:36:THR:HG22	2.09	0.53
26:1H:2062:A:O2'	26:1H:2063:C:O5'	2.26	0.53
28:71:10:LEU:HD23	28:71:32:LEU:O	2.09	0.53
28:71:68:LEU:O	28:71:177:LYS:N	2.41	0.53
32:41:16:ARG:O	32:41:20:ILE:HG13	2.09	0.53
32:41:165:THR:OG1	32:41:168:GLU:HG3	2.09	0.53
40:A8:49:VAL:HG21	40:A8:77:ALA:HA	1.91	0.53
52:M8:37:SER:OG	52:M8:42:PHE:HB3	2.09	0.53
1:1G:198:G:OP2	1:1G:198:G:H8	1.91	0.53
1:1G:1067:A:H4'	1:1G:1068:G:O5'	2.09	0.53
2:12:40:HIS:HD2	2:12:190:THR:HG21	1.74	0.53
56:1L:11:C:H2'	56:1L:12:U:H6	1.73	0.53
26:14:1784:A:OP1	61:14:3539:HOH:O	2.19	0.53
26:14:1794:U:H2'	26:14:1795:C:H6	1.74	0.53
26:14:2016:U:H1'	53:J5:6:VAL:HG13	1.90	0.53
26:14:2494:G:H2'	26:14:2495:G:H8	1.72	0.53
26:14:2553:G:H2'	26:14:2554:U:O4'	2.08	0.53
34:69:132:PRO:HG2	34:69:134:PRO:HD2	1.89	0.53
35:15:58:ASP:OD1	35:15:58:ASP:N	2.35	0.53
41:75:64:ARG:HB2	41:75:73:GLU:HG2	1.91	0.53
50:G5:50:ILE:HD12	50:G5:51:ARG:N	2.16	0.53
1:13:652:U:O4	1:13:752:G:O2'	2.17	0.53
1:13:748:C:H6	1:13:748:C:O5'	1.92	0.53
24:3K:5:C:O2	24:3K:68:G:N2	2.41	0.53
26:1H:637:A:H2'	37:78:117:GLU:OE1	2.09	0.53
26:1H:639:U:O2'	26:1H:640:C:H5'	2.08	0.53
26:1H:2105:C:H2'	26:1H:2106:G:C8	2.41	0.53
31:31:29:ASN:N	31:31:112:MET:HE1	2.19	0.53
31:31:197:ASP:O	31:31:199:TRP:N	2.41	0.53
37:78:11:GLY:O	37:78:12:ALA:HB3	2.09	0.53
1:1G:446:G:H2'	1:1G:447:G:O4'	2.09	0.53
1:1G:1129:C:C4	1:1G:1139:G:N1	2.77	0.53
26:14:234:C:H2'	26:14:235:U:H6	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:320:A:H4'	26:14:322:A:C8	2.44	0.53
26:14:872:A:OP1	38:45:5:ARG:NH2	2.40	0.53
26:14:2064:C:H2'	26:14:2065:C:H6	1.74	0.53
29:19:80:ALA:HB3	29:19:94:LEU:HB3	1.91	0.53
29:19:121:PRO:HB3	29:19:135:PHE:CE2	2.44	0.53
30:29:11:MET:HA	30:29:24:THR:HA	1.91	0.53
32:49:72:ARG:HB3	32:49:85:GLY:HA2	1.91	0.53
39:55:32:GLY:HA2	39:55:116:LEU:HD12	1.91	0.53
5:4E:65:ASN:OD1	5:4E:140:ARG:NH2	2.27	0.53
17:8I:66:SER:O	17:8I:70:ARG:NH1	2.42	0.53
26:1H:118:A:OP2	26:1H:119:A:H2'	2.09	0.53
26:1H:543:C:H42	26:1H:550:G:H1	1.56	0.53
26:1H:587:C:OP2	37:78:21:ARG:NH2	2.41	0.53
32:41:107:LEU:HD11	32:41:178:PHE:CE1	2.44	0.53
54:P8:10:ARG:HG2	54:P8:14:LYS:HD3	1.90	0.53
1:1G:946:A:O2'	1:1G:1333:A:N3	2.35	0.53
1:1G:1442:G:C6	1:1G:1446:A:N6	2.77	0.53
2:12:98:LEU:HB2	2:12:101:MET:HE3	1.90	0.53
10:1A:26:ALA:HB1	10:1A:84:GLN:HB3	1.91	0.53
56:1L:68:G:H2'	56:1L:69:A:N7	2.24	0.53
26:14:1019:U:H2'	26:14:1020:A:H8	1.74	0.53
26:14:1666:G:O6	61:14:3537:HOH:O	2.17	0.53
26:14:2867:G:N7	41:75:23:ARG:NH1	2.57	0.53
39:55:29:LEU:HB3	39:55:75:LEU:HD21	1.91	0.53
1:13:664:G:N2	1:13:741:G:H1	2.04	0.52
1:13:1164:G:C6	1:13:1165:C:C4	2.96	0.52
1:13:1374:A:O2'	7:6E:28:ASN:HB3	2.09	0.52
2:1E:215:LEU:O	2:1E:219:VAL:HG23	2.09	0.52
7:6E:16:LEU:HD22	9:8E:44:VAL:HG22	1.90	0.52
19:AI:20:LEU:HD23	19:AI:23:ASN:HD22	1.74	0.52
26:1H:49:A:N7	26:1H:120:U:C5	2.67	0.52
26:1H:674:G:H1'	31:31:74:ARG:HD3	1.89	0.52
26:1H:1339:G:N2	26:1H:1603:A:H1'	2.24	0.52
26:1H:1653:G:H8	26:1H:1653:G:O5'	1.92	0.52
26:1H:2065:C:H2'	26:1H:2066:C:C6	2.44	0.52
26:1H:2233:U:H2'	26:1H:2234:G:C8	2.44	0.52
26:1H:2473:U:H2'	26:1H:2474:C:H5'	1.90	0.52
31:31:129:PHE:HA	31:31:142:TRP:NE1	2.24	0.52
40:A8:36:TYR:N	40:A8:36:TYR:CD1	2.77	0.52
55:Q8:54:GLU:O	55:Q8:58:ILE:HG13	2.08	0.52
1:1G:309:G:O2'	1:1G:607:A:N1	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:445:G:H1	1:1G:489:C:H42	1.56	0.52
2:12:93:VAL:HG22	2:12:152:PHE:HB2	1.90	0.52
6:52:7:ASN:HD21	18:9A:34:TYR:HE1	1.57	0.52
26:14:631:A:OP2	55:M5:47:LYS:NZ	2.34	0.52
26:14:996:A:N6	26:14:1160:G:C6	2.77	0.52
26:14:1181:C:H2'	26:14:1182:A:C8	2.45	0.52
26:14:2652:C:H42	26:14:2668:G:H1	1.57	0.52
26:14:2820:A:C6	39:55:4:LEU:HD11	2.43	0.52
27:1J:93:C:H2'	27:1J:94:C:H6	1.72	0.52
29:19:166:GLN:HB3	29:19:174:ILE:HG22	1.90	0.52
5:4E:147:ASP:OD1	5:4E:147:ASP:N	2.31	0.52
26:1H:248:G:H5'	26:1H:250:G:N7	2.23	0.52
26:1H:298:G:H5"	26:1H:299:A:OP1	2.09	0.52
26:1H:1486:A:H2'	26:1H:1487:G:H8	1.74	0.52
26:1H:2749:A:OP1	33:51:4:ILE:HG22	2.10	0.52
28:71:49:ILE:HD13	28:71:204:ALA:HB2	1.90	0.52
29:11:35:LYS:HA	29:11:64:ILE:HG22	1.91	0.52
34:61:98:ALA:HB2	34:61:111:PRO:HB3	1.91	0.52
46:G8:94:LYS:NZ	46:G8:95:LYS:H	2.07	0.52
48:I8:83:PRO:O	48:I8:84:LEU:HB2	2.10	0.52
49:J8:3:LYS:O	49:J8:12:PRO:HD3	2.09	0.52
1:1G:78:G:H1	1:1G:91:C:H42	1.57	0.52
1:1G:193:C:H2'	1:1G:194:C:H6	1.75	0.52
2:12:50:GLU:HB2	2:12:199:TYR:HB3	1.91	0.52
3:22:112:SER:HB3	3:22:115:LEU:HB2	1.90	0.52
4:32:24:GLU:HG2	4:32:25:ARG:H	1.74	0.52
11:2A:57:THR:HG22	11:2A:58:PRO:HD2	1.90	0.52
14:5A:9:LYS:HA	14:5A:12:ARG:HD3	1.92	0.52
26:14:320:A:OP1	31:39:135:LYS:NZ	2.43	0.52
26:14:662:G:H5"	37:35:17:LYS:HG2	1.91	0.52
26:14:2147:G:H2'	26:14:2148:G:O4'	2.10	0.52
29:19:146:GLU:HB2	29:19:189:CYS:HB3	1.90	0.52
33:59:146:ALA:O	33:59:149:ARG:HG2	2.09	0.52
34:69:14:ASP:O	34:69:17:GLN:HB2	2.10	0.52
39:55:26:LYS:HE2	39:55:70:LEU:O	2.09	0.52
46:C5:52:SER:HA	46:C5:55:TYR:O	2.08	0.52
3:2E:16:ARG:HB2	3:2E:16:ARG:NH1	2.23	0.52
9:8E:53:VAL:HG13	9:8E:92:TYR:CZ	2.45	0.52
24:3K:72:C:C3'	24:3K:73:A:H5"	2.39	0.52
26:1H:141(A):C:H2'	26:1H:142:G:O4'	2.10	0.52
26:1H:527:C:OP2	26:1H:2779:U:H5	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:592:G:H21	55:Q8:4:MET:HE1	1.74	0.52
26:1H:1140:C:OP1	35:58:23:LEU:HB3	2.09	0.52
26:1H:1535:U:OP2	26:1H:1538:G:N2	2.42	0.52
26:1H:1683:C:H42	26:1H:1705:G:H1	1.58	0.52
26:1H:2862:G:H2'	26:1H:2863:C:H6	1.74	0.52
28:71:192:PHE:CE2	28:71:196:LEU:HD13	2.45	0.52
35:58:128:HIS:ND1	35:58:129:PRO:O	2.34	0.52
36:68:68:GLU:CD	36:68:68:GLU:H	2.17	0.52
40:A8:106:ARG:HH21	40:A8:107:GLU:HB2	1.73	0.52
1:1G:963:G:H21	10:1A:55:LYS:HE3	1.74	0.52
2:12:155:LEU:HD22	2:12:159:PRO:HD3	1.91	0.52
4:32:108:LEU:HD21	4:32:183:GLY:HA3	1.92	0.52
6:52:33:TYR:OH	6:52:78:GLU:HG3	2.08	0.52
20:BA:64:ASP:OD1	20:BA:64:ASP:N	2.42	0.52
26:14:1936:A:C8	26:14:1940:U:O2	2.62	0.52
26:14:2577:A:O4'	53:J5:3:LYS:HB2	2.08	0.52
27:1J:31:C:C2'	27:1J:32:C:H5'	2.40	0.52
29:19:267:SER:C	29:19:269:PHE:H	2.16	0.52
31:39:57:VAL:HG11	31:39:79:GLY:HA3	1.91	0.52
42:85:8:VAL:O	42:85:12:ARG:HG2	2.09	0.52
43:95:85:LYS:HE3	43:95:88:ARG:H	1.73	0.52
48:E5:47:PRO:HA	48:E5:51:VAL:HG12	1.91	0.52
1:13:266:G:H5"	1:13:267:C:C5	2.44	0.52
1:13:963:G:H21	10:1I:55:LYS:HE2	1.74	0.52
1:13:1014:A:H2	1:13:1219:U:H1'	1.73	0.52
5:4E:19:MET:HE1	5:4E:24:ARG:HH21	1.74	0.52
11:2I:34:ASP:HB3	11:2I:40:ILE:HD11	1.91	0.52
13:4I:80:ARG:NH1	19:AI:65:ASN:O	2.43	0.52
17:8I:29:HIS:CD2	17:8I:30:PRO:HD2	2.43	0.52
19:AI:58:VAL:HG11	19:AI:75:ALA:HB1	1.90	0.52
26:1H:363(B):G:H2'	26:1H:363(C):G:H8	1.74	0.52
26:1H:1778:U:H2'	26:1H:1784:A:H62	1.72	0.52
33:51:86:GLU:HG3	33:51:87:LEU:N	2.25	0.52
36:68:73:ASP:OD1	41:B8:32:TYR:OH	2.22	0.52
53:N8:40:LYS:HG2	53:N8:46:CYS:HA	1.91	0.52
6:52:27:GLN:O	6:52:31:GLU:HG3	2.10	0.52
18:9A:70:ILE:O	18:9A:74:ARG:HD2	2.10	0.52
26:14:1264:G:OP1	53:J5:19:ARG:NH2	2.41	0.52
26:14:2849:U:H4'	26:14:2868:A:C2	2.44	0.52
30:29:73:GLU:O	30:29:73:GLU:HG2	2.09	0.52
38:45:25:ASP:HA	38:45:67:ARG:NH1	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:682:G:H2'	1:13:683:G:H8	1.75	0.52
1:13:1145:C:H5"	1:13:1146:A:OP1	2.08	0.52
7:6E:120:ILE:O	7:6E:124:LEU:HB2	2.10	0.52
13:4I:23:TYR:HD2	13:4I:67:GLU:HA	1.74	0.52
17:8I:83:ASP:OD1	17:8I:83:ASP:N	2.41	0.52
22:1K:41:A:H2'	22:1K:42:A:H8	1.75	0.52
24:3K:39:U:H2'	24:3K:40:C:H5"	1.92	0.52
26:1H:376:C:OP2	61:1H:3566:HOH:O	2.19	0.52
26:1H:536:A:H2'	26:1H:537:C:C6	2.45	0.52
26:1H:1607:C:H1'	61:1H:3539:HOH:O	2.07	0.52
26:1H:1727:U:H2'	26:1H:1728:G:O4'	2.10	0.52
26:1H:2756:U:H4'	26:1H:2757:A:OP1	2.10	0.52
34:61:48:GLU:HA	34:61:51:ILE:HB	1.91	0.52
47:H8:6:LYS:HE3	47:H8:8:TYR:HE1	1.74	0.52
1:1G:503:C:OP2	12:3A:116:SER:HB3	2.10	0.52
1:1G:1112:C:C4	3:22:178:LEU:HD12	2.44	0.52
1:1G:1200:C:H5'	1:1G:1201:A:H5'	1.92	0.52
4:32:63:LYS:O	4:32:67:ILE:HG13	2.10	0.52
16:7A:72:ARG:HD2	16:7A:73:LEU:HD23	1.91	0.52
26:14:2210:G:H3'	26:14:2211:G:C5	2.43	0.52
27:1J:40:U:O2	27:1J:43:C:H5"	2.08	0.52
38:45:25:ASP:HB3	38:45:102:VAL:N	2.17	0.52
40:65:88:ASP:O	40:65:89:ARG:HB3	2.09	0.52
41:75:8:LYS:HA	41:75:8:LYS:HZ2	1.73	0.52
43:95:22:VAL:O	43:95:92:THR:N	2.34	0.52
54:L5:35:ARG:HG3	54:L5:42:LEU:HD11	1.91	0.52
1:13:1034:G:H2'	1:13:1034:G:N3	2.25	0.52
4:3E:62:GLN:O	4:3E:66:ARG:HB2	2.10	0.52
5:4E:63:ARG:HA	5:4E:66:MET:HE2	1.92	0.52
26:1H:773:U:H5'	29:11:47:GLY:HA3	1.91	0.52
26:1H:2314:C:H2'	26:1H:2315:G:H8	1.74	0.52
29:11:35:LYS:HB2	29:11:63:ARG:HA	1.91	0.52
30:21:55:ASN:OD1	30:21:58:ARG:HD2	2.09	0.52
31:31:23:ASP:N	31:31:23:ASP:OD1	2.43	0.52
32:41:145:THR:C	32:41:147:ASP:H	2.17	0.52
1:1G:546:G:P	4:32:72:GLU:HB3	2.49	0.52
1:1G:1213:A:N6	1:1G:1215:G:N3	2.57	0.52
5:42:81:GLU:HB3	5:42:90:VAL:HG22	1.92	0.52
19:AA:66:MET:N	19:AA:67:VAL:HB	2.24	0.52
57:3L:27:G:H1	57:3L:44:U:H3	1.56	0.52
26:14:832:G:H5'	37:35:45:LEU:CD1	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1594:G:H2'	26:14:1595:G:C8	2.44	0.52
26:14:2068:U:N3	26:14:2430:A:C2	2.72	0.52
26:14:2082:A:H2'	26:14:2083:G:O4'	2.09	0.52
26:14:2485:G:H5"	38:45:46:GLN:HE21	1.74	0.52
44:A5:58:ALA:HB1	44:A5:64:MET:HB2	1.89	0.52
1:13:150:C:H2'	1:13:151:A:H8	1.75	0.52
5:4E:71:LEU:HD13	5:4E:114:GLY:HA3	1.92	0.52
8:7E:85:ARG:HD3	8:7E:86:ILE:O	2.10	0.52
11:2I:124:LYS:HD2	11:2I:125:PHE:CE1	2.42	0.52
26:1H:848:G:H2'	26:1H:849:A:C8	2.45	0.52
26:1H:1021:A:H2'	26:1H:1023:U:H5'	1.90	0.52
26:1H:1108:U:C2	26:1H:1109:C:H5	2.28	0.52
26:1H:1945:G:H2'	26:1H:1946:U:C6	2.45	0.52
26:1H:2171:A:H2'	26:1H:2172:U:H6	1.75	0.52
26:1H:2437:U:H2'	26:1H:2438:U:C6	2.44	0.52
26:1H:2729:G:H2'	26:1H:2730:C:C6	2.45	0.52
27:16:90:C:H5'	38:88:18:LYS:HA	1.92	0.52
28:71:10:LEU:HD21	28:71:34:THR:OG1	2.08	0.52
39:98:2:ARG:O	39:98:5:LYS:HB2	2.09	0.52
45:F8:88:LYS:HD2	45:F8:90:GLU:HG2	1.92	0.52
47:H8:77:ASP:OD2	47:H8:80:ARG:HD2	2.10	0.52
50:K8:59:ARG:O	50:K8:62:THR:HG23	2.09	0.52
1:1G:690:G:H22	11:2A:55:LYS:HE2	1.75	0.52
1:1G:922:G:N3	1:1G:1398:A:H2	2.08	0.52
1:1G:1325:C:H2'	1:1G:1326:C:C6	2.45	0.52
2:12:77:ALA:O	2:12:81:VAL:HG23	2.10	0.52
2:12:222:ILE:HD12	2:12:222:ILE:H	1.75	0.52
3:22:11:ARG:CZ	3:22:182:ILE:HD11	2.40	0.52
25:4L:13:A:C2	25:4L:14:A:H1'	2.44	0.52
26:14:270(E):G:H2'	26:14:270(F):U:C6	2.45	0.52
26:14:394:A:H5"	26:14:395:U:OP2	2.09	0.52
26:14:1384:A:N3	26:14:1405:U:H1'	2.24	0.52
26:14:1568:G:P	29:19:63:ARG:HH12	2.32	0.52
37:35:27:HIS:HB3	37:35:32:THR:HG23	1.91	0.52
42:85:92:ARG:C	42:85:94:ASN:H	2.17	0.52
45:B5:63:LYS:HE3	45:B5:63:LYS:N	2.24	0.52
48:E5:32:ARG:HG2	48:E5:33:ALA:H	1.74	0.52
1:13:127:G:H4'	17:8I:2:PRO:HD2	1.91	0.52
7:6E:65:ALA:HB2	7:6E:128:ALA:HB2	1.92	0.52
12:3I:54:LYS:HD2	12:3I:54:LYS:N	2.24	0.52
23:2K:17:C:OP2	23:2K:18:U:O2'	2.26	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:18:G:N3	24:3K:58:A:N6	2.58	0.52
26:1H:1047:G:H21	26:1H:1110:G:H2'	1.73	0.52
26:1H:2336:A:H61	48:I8:43:THR:CG2	2.23	0.52
29:11:145:VAL:HB	29:11:155:LEU:HB2	1.92	0.52
30:21:38:THR:HG23	30:21:40:GLU:HG2	1.91	0.52
34:61:117:GLU:OE1	34:61:117:GLU:N	2.41	0.52
42:C8:14:HIS:O	42:C8:18:LEU:HD12	2.09	0.52
45:F8:25:LYS:HA	45:F8:81:VAL:O	2.10	0.52
47:H8:108:PRO:HB3	47:H8:111:VAL:HG22	1.90	0.52
1:1G:509:A:H5'	4:32:54:TYR:HD2	1.74	0.52
1:1G:777:A:C2	11:2A:119:CYS:HB3	2.44	0.52
1:1G:938:A:N3	1:1G:1376:U:O2'	2.33	0.52
2:12:171:ALA:HA	2:12:174:VAL:HG23	1.90	0.52
5:42:99:GLY:O	5:42:117:ASP:HA	2.10	0.52
7:62:73:MET:HE3	7:62:90:GLU:HG2	1.90	0.52
17:8A:66:SER:OG	17:8A:67:LYS:O	2.28	0.52
23:2L:17:C:H3'	23:2L:18:U:H2'	1.92	0.52
26:14:330:A:H2	26:14:1210:A:O2'	1.93	0.52
26:14:662:G:H5'	37:35:15:ARG:HA	1.90	0.52
26:14:848:G:H2'	26:14:849:A:H8	1.71	0.52
26:14:1449(A):G:C2	26:14:1450:C:C2	2.97	0.52
26:14:2110:G:O2'	26:14:2120:G:H5'	2.10	0.52
26:14:2159:G:N2	26:14:2160:G:H1'	2.24	0.52
26:14:2417:C:H2'	26:14:2418:A:H8	1.75	0.52
26:14:2600:A:H2'	26:14:2601:C:C6	2.45	0.52
26:14:2877:G:OP1	41:75:2:ASN:ND2	2.42	0.52
27:1J:15:A:OP2	27:1J:69:G:N2	2.36	0.52
27:1J:15:A:H5'	27:1J:16:G:H8	1.75	0.52
31:39:83:PHE:C	31:39:85:GLY:H	2.18	0.52
32:49:36:LYS:HD3	32:49:160:VAL:HG21	1.92	0.52
53:J5:45:VAL:HG22	53:J5:51:TYR:CD1	2.45	0.52
2:1E:8:LYS:HG2	2:1E:9:GLU:N	2.24	0.52
5:4E:142:LEU:O	5:4E:143:ARG:NH1	2.36	0.52
7:6E:86:GLN:HE22	24:3K:31:A:H2	1.57	0.52
19:AI:51:VAL:HG12	19:AI:52:TYR:H	1.75	0.52
26:1H:860:U:H5	26:1H:917:A:N1	2.07	0.52
26:1H:2209:C:O2	26:1H:2216:G:C2	2.63	0.52
26:1H:2444:G:OP1	31:31:67:GLN:NE2	2.43	0.52
26:1H:2688:U:H5	26:1H:2720:U:OP2	1.92	0.52
45:F8:89:ILE:HG22	45:F8:92:LEU:H	1.74	0.52
1:1G:73:G:H1	1:1G:97:U:H3	1.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:376:G:H1	1:1G:387:U:H3	1.58	0.52
1:1G:1246:C:H2'	1:1G:1247:U:O4'	2.10	0.52
9:82:60:ASP:N	9:82:60:ASP:OD1	2.42	0.52
19:AA:53:ASN:ND2	19:AA:56:GLN:O	2.43	0.52
26:14:38:A:H1'	31:39:48:THR:HB	1.90	0.52
26:14:1368:G:OP1	54:L5:28:ARG:NH2	2.38	0.52
43:95:71:LEU:H	43:95:86:GLY:HA2	1.72	0.52
43:95:85:LYS:HG3	43:95:87:HIS:H	1.73	0.52
45:B5:36:LYS:HG2	45:B5:54:VAL:HB	1.92	0.52
48:E5:56:ASP:OD1	48:E5:58:THR:OG1	2.26	0.52
1:13:266:G:N2	1:13:269:C:C5	2.79	0.52
1:13:417:C:H2'	1:13:418:C:C6	2.45	0.52
1:13:619:U:H3	4:3E:134:ASP:HB2	1.75	0.52
1:13:1002:G:O6	1:13:1038:C:N4	2.35	0.52
2:1E:55:PHE:HD1	2:1E:58:ILE:HD12	1.75	0.52
3:2E:150:LYS:HG3	3:2E:169:ALA:HB2	1.92	0.52
6:5E:97:PHE:HD2	18:9I:31:LEU:HD11	1.74	0.52
13:4I:3:ARG:HB3	13:4I:9:ILE:HG12	1.91	0.52
14:5I:11:LYS:C	14:5I:13:THR:H	2.17	0.52
26:1H:1127:A:O2'	26:1H:2518:A:OP1	2.17	0.52
26:1H:1468:C:H2'	26:1H:1469:A:C8	2.45	0.52
27:16:100:G:OP2	61:16:305:HOH:O	2.19	0.52
29:11:34:VAL:C	29:11:35:LYS:HZ2	2.18	0.52
29:11:126:GLN:HG2	29:11:127:VAL:N	2.24	0.52
31:31:134:GLY:HA2	31:31:166:ALA:HB2	1.91	0.52
47:H8:15:PRO:HB2	47:H8:19:ARG:HH21	1.73	0.52
49:J8:14:VAL:HG22	49:J8:41:ARG:HD2	1.90	0.52
53:N8:46:CYS:HB2	53:N8:48:GLU:O	2.10	0.52
1:1G:1262:C:N4	1:1G:1273:G:H1	2.05	0.52
11:2A:87:THR:O	11:2A:87:THR:OG1	2.23	0.52
26:14:278:A:OP2	26:14:278:A:H2'	2.10	0.52
26:14:863:A:H2'	26:14:864:G:H8	1.75	0.52
26:14:1247:A:O2'	26:14:1248:G:H5"	2.10	0.52
26:14:2250:G:N2	38:45:82:ARG:HB3	2.25	0.52
33:59:6:ARG:HB2	33:59:65:HIS:ND1	2.25	0.52
1:13:474:G:H5"	16:7I:81:ARG:NE	2.25	0.51
4:3E:90:GLY:HA3	4:3E:204:ILE:HD11	1.91	0.51
13:4I:15:VAL:O	13:4I:19:LEU:HD23	2.09	0.51
26:1H:2588:G:P	61:1H:3596:HOH:O	2.68	0.51
29:11:3:VAL:HG12	29:11:17:THR:HG23	1.92	0.51
33:51:38:SER:OG	33:51:40:GLU:OE2	2.27	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:A8:87:PHE:CE2	40:A8:102:ALA:HB2	2.45	0.51
47:H8:15:PRO:O	47:H8:19:ARG:HB2	2.09	0.51
48:I8:31:VAL:HG11	48:I8:37:LEU:HD21	1.91	0.51
1:1G:176:C:OP1	20:BA:29:LYS:NZ	2.42	0.51
1:1G:660:G:N7	61:1G:1712:HOH:O	2.34	0.51
1:1G:1238:A:N3	1:1G:1241:G:O2'	2.32	0.51
1:1G:1452:C:H4'	1:1G:1453:G:H5'	1.92	0.51
26:14:654(C):G:N2	26:14:654(R):C:O2'	2.37	0.51
26:14:813:U:H2'	26:14:814:C:C6	2.44	0.51
26:14:1050:A:C2	26:14:2751:G:H2'	2.45	0.51
26:14:2076:U:H5	26:14:2596:U:O2	1.93	0.51
26:14:2126:A:N6	26:14:2163:C:O2	2.42	0.51
26:14:2210:G:OP1	29:19:68:LYS:NZ	2.43	0.51
26:14:2392:A:C8	37:35:61:ARG:HD2	2.45	0.51
26:14:2439:A:O2'	26:14:2440:C:OP2	2.26	0.51
26:14:2657:A:O3'	33:59:160:LYS:NZ	2.43	0.51
34:69:79:ILE:HG13	34:69:140:LEU:HD11	1.91	0.51
44:A5:86:LEU:HD12	44:A5:87:PRO:HD2	1.91	0.51
46:C5:43:ASN:HB2	46:C5:62:GLU:O	2.10	0.51
1:13:234:C:H2'	1:13:235:C:H6	1.75	0.51
1:13:491:G:H2'	1:13:492:G:H8	1.74	0.51
1:13:1028(B):C:H1'	1:13:1032:A:H62	1.75	0.51
1:13:1194:U:H2'	1:13:1195:C:C6	2.45	0.51
5:4E:41:VAL:HG22	5:4E:113:ALA:HB2	1.92	0.51
5:4E:63:ARG:HB2	5:4E:64:ARG:HH12	1.75	0.51
7:6E:23:VAL:O	7:6E:27:ILE:HG12	2.10	0.51
9:8E:112:LYS:CA	9:8E:119:ALA:HB2	2.39	0.51
14:5I:4:LYS:HA	14:5I:7:ILE:HD11	1.92	0.51
26:1H:530:G:C5	26:1H:2022:U:H5"	2.45	0.51
26:1H:547:A:HO2'	26:1H:548:A:H8	1.56	0.51
31:31:164:ARG:HG2	31:31:164:ARG:HH11	1.74	0.51
34:61:128:LEU:HB2	34:61:138:ILE:HG22	1.93	0.51
40:A8:74:ALA:HB1	40:A8:108:GLY:HA3	1.92	0.51
43:D8:15:GLU:HG3	43:D8:16:PRO:HD2	1.92	0.51
45:F8:36:LYS:HG2	45:F8:54:VAL:HB	1.91	0.51
48:I8:38:VAL:HG12	48:I8:40:GLN:HG2	1.91	0.51
48:I8:68:GLU:HG3	48:I8:80:HIS:HB2	1.90	0.51
52:M8:40:HIS:ND1	52:M8:43:TYR:O	2.43	0.51
1:1G:50:A:N1	1:1G:360:A:O2'	2.34	0.51
1:1G:474:G:H2'	1:1G:475:G:C8	2.45	0.51
1:1G:600:C:H2'	1:1G:601:C:H6	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:828:A:H2'	1:1G:829:G:O4'	2.09	0.51
1:1G:980:C:H5"	1:1G:981:U:C5	2.45	0.51
5:42:103:GLY:C	5:42:106:PRO:HD2	2.36	0.51
17:8A:10:VAL:HG21	17:8A:52:LYS:O	2.09	0.51
26:14:960:A:C8	26:14:962:G:C8	2.99	0.51
26:14:1204:A:O2'	26:14:1205:U:OP2	2.28	0.51
26:14:1266:G:O5'	44:A5:15:ARG:NH2	2.43	0.51
26:14:2156:G:H2'	26:14:2157:G:H5'	1.91	0.51
26:14:2413:G:H21	37:35:70:GLN:HE22	1.57	0.51
29:19:7:LYS:HG2	29:19:8:PRO:HD2	1.91	0.51
32:49:48:GLU:HG3	32:49:86:MET:HE2	1.93	0.51
37:35:79:ARG:O	37:35:110:TYR:HB3	2.09	0.51
51:H5:9:VAL:HG22	51:H5:53:LEU:O	2.10	0.51
55:M5:33:ASN:HA	55:M5:36:LYS:HD2	1.91	0.51
1:13:147:G:H1	1:13:175:C:H42	1.58	0.51
1:13:580:U:OP1	15:6I:54:ARG:NH2	2.43	0.51
1:13:859:A:H2'	1:13:860:A:C8	2.45	0.51
1:13:994:A:H2'	1:13:994:A:N3	2.26	0.51
1:13:1179:A:H2'	1:13:1180:A:O4'	2.09	0.51
17:8I:100:LYS:HG2	17:8I:101:ARG:HD3	1.91	0.51
26:1H:1639:U:C2'	26:1H:1640:C:H5"	2.39	0.51
26:1H:1777:U:O2'	26:1H:1778:U:H5'	2.11	0.51
26:1H:2061:G:OP2	26:1H:2502:G:H5'	2.11	0.51
30:21:182:LEU:HD12	30:21:183:LEU:N	2.25	0.51
47:H8:109:ALA:HB3	47:H8:142:SER:O	2.11	0.51
1:1G:433:C:H2'	1:1G:434:U:C6	2.45	0.51
1:1G:512:U:H3	1:1G:539:A:H61	1.58	0.51
1:1G:985:C:H2'	1:1G:986:A:C8	2.45	0.51
2:12:58:ILE:HD13	2:12:219:VAL:CG2	2.40	0.51
12:3A:110:VAL:HG23	12:3A:120:TYR:HB3	1.92	0.51
26:14:125:G:H5"	54:L5:19:ARG:HD3	1.92	0.51
26:14:945:A:OP1	61:14:3541:HOH:O	2.19	0.51
26:14:1444(A):A:O2'	26:14:1445:C:OP1	2.29	0.51
33:59:56:SER:HB3	33:59:61:HIS:CD2	2.45	0.51
1:13:61:G:H1	1:13:106:C:H42	1.57	0.51
1:13:224:C:H2'	1:13:225:C:C6	2.45	0.51
1:13:814:A:N7	1:13:816:A:C4	2.78	0.51
1:13:1016:A:H2'	1:13:1017:G:O4'	2.10	0.51
1:13:1313:U:O4	19:AI:3:ARG:HA	2.11	0.51
5:4E:145:LYS:O	5:4E:149:GLU:HG2	2.10	0.51
10:1I:27:ALA:HB2	10:1I:85:LEU:HD21	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:43:LEU:HD12	15:6I:56:LEU:HD13	1.92	0.51
22:1K:18:G:N7	26:1H:881:G:N2	2.59	0.51
26:1H:833:U:O2	37:78:55:ARG:NH2	2.42	0.51
26:1H:1607:C:H4'	26:1H:1608:A:O5'	2.09	0.51
26:1H:2162:G:H2'	26:1H:2163:C:O4'	2.10	0.51
26:1H:2199:A:H3'	26:1H:2205:C:H6	1.75	0.51
28:71:225:ASN:HB2	28:71:228:SER:H	1.76	0.51
40:A8:42:ASP:O	40:A8:43:GLU:HB3	2.11	0.51
45:F8:50:LYS:HB3	45:F8:84:ALA:HB2	1.92	0.51
20:BA:72:LEU:HD11	20:BA:80:ARG:HH21	1.76	0.51
26:14:28:A:C5	26:14:29:U:C5	2.98	0.51
26:14:302:C:P	46:C5:81:LYS:HZ2	2.33	0.51
26:14:1444(A):A:HO2'	26:14:1445:C:P	2.33	0.51
26:14:2103:C:H2'	26:14:2104:G:C8	2.45	0.51
27:1J:88:C:H5"	27:1J:89:G:C6	2.46	0.51
34:69:78:THR:O	34:69:80:PRO:HD3	2.11	0.51
1:13:1137:C:H1'	1:13:1138:G:C2	2.46	0.51
1:13:1330:U:H4'	13:4I:23:TYR:HE1	1.76	0.51
2:1E:21:ARG:HB2	2:1E:39:ILE:HD13	1.93	0.51
18:9I:58:LEU:HD23	18:9I:62:GLU:HB3	1.91	0.51
22:1K:49:G:H8	22:1K:49:G:OP1	1.94	0.51
23:2K:48:U:O2'	23:2K:49:C:OP2	2.21	0.51
26:1H:882:G:O6	26:1H:893:C:N4	2.44	0.51
26:1H:907:U:O2'	38:88:101:ARG:NH2	2.41	0.51
26:1H:992:C:H2'	26:1H:993:G:H8	1.76	0.51
26:1H:1604:C:OP1	61:1H:3567:HOH:O	2.19	0.51
26:1H:1790:C:H5"	26:1H:1791:A:OP1	2.11	0.51
26:1H:2510:C:H2'	26:1H:2511:U:C6	2.46	0.51
29:11:79:VAL:HG21	29:11:111:LEU:HD13	1.91	0.51
32:41:59:GLU:O	32:41:63:ILE:HG23	2.11	0.51
32:41:96:ARG:N	32:41:99:MET:HE2	2.22	0.51
37:78:37:GLY:N	37:78:40:SER:OG	2.44	0.51
41:B8:13:ARG:HB3	41:B8:13:ARG:HH11	1.75	0.51
46:G8:89:PHE:HD1	46:G8:90:LEU:N	2.07	0.51
49:J8:50:ARG:HB3	49:J8:59:THR:HG23	1.92	0.51
55:Q8:6:THR:HG23	55:Q8:64:TYR:HD2	1.75	0.51
1:1G:229:U:H2'	1:1G:230:G:C8	2.46	0.51
1:1G:1132:C:H2'	1:1G:1133:G:C8	2.46	0.51
1:1G:1468:A:H5"	1:1G:1469:G:OP2	2.10	0.51
2:12:19:HIS:NE2	2:12:204:ASN:HB3	2.26	0.51
4:32:59:ARG:HH21	4:32:66:ARG:NH1	2.07	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:61:TYR:HA	5:42:64:ARG:HB2	1.93	0.51
26:14:71:A:C2	45:B5:31:HIS:CE1	2.94	0.51
26:14:587:C:O2	37:35:33:ARG:NH1	2.44	0.51
26:14:749:C:OP2	61:14:3538:HOH:O	2.19	0.51
26:14:1104:C:H2'	26:14:1105:U:C6	2.46	0.51
42:85:66:ASN:CB	42:85:76:TYR:HB2	2.40	0.51
54:L5:12:ARG:NH2	54:L5:44:PRO:HB3	2.24	0.51
1:13:1025:U:H5'	1:13:1026:G:H5'	1.93	0.51
7:6E:22:LEU:HD13	7:6E:62:PHE:CE2	2.46	0.51
22:1K:76:A:C8	26:1H:2507:C:H1'	2.46	0.51
26:1H:192:C:P	61:1H:3615:HOH:O	2.67	0.51
26:1H:1000:A:N6	26:1H:1154:G:O2'	2.43	0.51
26:1H:1052:C:H2'	26:1H:1108:U:H3	1.75	0.51
31:31:198:ALA:O	31:31:201:VAL:HG12	2.10	0.51
32:41:33:ARG:O	32:41:162:THR:HG23	2.11	0.51
36:68:7:TYR:CZ	36:68:44:LYS:HG3	2.46	0.51
1:1G:370:C:C2	1:1G:392:G:N2	2.79	0.51
1:1G:371:G:H1	1:1G:390:C:H42	1.59	0.51
4:32:108:LEU:HD13	4:32:174:LEU:HB3	1.92	0.51
15:6A:70:LEU:HG	15:6A:78:TYR:HB2	1.93	0.51
26:14:636:G:O2'	26:14:638:G:O2'	2.22	0.51
26:14:1021:A:H8	26:14:1021:A:H3'	1.76	0.51
26:14:1069:A:H3'	26:14:1073:A:H5"	1.93	0.51
26:14:1416:G:H2'	26:14:1417:C:C6	2.45	0.51
26:14:1678:G:N2	26:14:1989:G:N2	2.56	0.51
26:14:1826:G:H2'	26:14:1827:C:H6	1.75	0.51
26:14:2734:A:H2'	26:14:2735:G:O4'	2.10	0.51
30:29:23:VAL:HA	30:29:184:VAL:O	2.10	0.51
46:C5:42:VAL:HG13	46:C5:65:ALA:HB3	1.93	0.51
1:13:454:C:H41	1:13:478:A:H2	1.57	0.51
1:13:1149:C:H2'	1:13:1150:U:C6	2.46	0.51
26:1H:732:C:H3'	61:1H:3517:HOH:O	2.11	0.51
26:1H:1444:G:C2	26:1H:1548:C:N3	2.79	0.51
26:1H:2291:U:H5"	26:1H:2380:C:O2	2.11	0.51
26:1H:2306:C:H3'	26:1H:2307:G:C5'	2.41	0.51
30:21:2:LYS:HD2	30:21:95:ILE:HG13	1.93	0.51
36:68:98:VAL:HG11	36:68:114:ILE:HG23	1.93	0.51
47:H8:44:PHE:HE2	47:H8:86:VAL:HG11	1.75	0.51
26:14:141:A:OP2	26:14:141(A):C:N4	2.43	0.51
26:14:1593:G:H2'	26:14:1594:G:H8	1.72	0.51
26:14:1636:C:H2'	26:14:1637:A:C8	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2006:C:O2'	26:14:2823:A:N3	2.44	0.51
26:14:2022:U:O2'	26:14:2617:C:H5'	2.10	0.51
31:39:114:VAL:HG11	31:39:202:PHE:CZ	2.44	0.51
38:45:102:VAL:O	38:45:102:VAL:HG12	2.11	0.51
41:75:91:ARG:HD2	41:75:124:ASP:OD2	2.11	0.51
47:D5:48:PHE:O	47:D5:52:SER:HB3	2.09	0.51
47:D5:77:ASP:CG	47:D5:80:ARG:HH11	2.19	0.51
1:13:1226:C:H4'	19:AI:80:TYR:CZ	2.45	0.51
6:5E:70:ASP:OD1	6:5E:70:ASP:N	2.42	0.51
8:7E:94:TYR:HE1	8:7E:132:GLU:HB2	1.76	0.51
26:1H:988:A:P	51:L8:11:SER:HB2	2.50	0.51
26:1H:996:A:H4'	42:C8:92:ARG:NE	2.26	0.51
26:1H:1359:A:C2	26:1H:1372:U:N3	2.77	0.51
30:21:52:LEU:O	30:21:75:VAL:HG23	2.10	0.51
34:61:1:MET:HB3	34:61:21:VAL:O	2.11	0.51
34:61:11:ASN:O	34:61:12:LEU:HB2	2.10	0.51
41:B8:51:ARG:HB2	41:B8:98:LYS:HD3	1.92	0.51
52:M8:15:ILE:HD11	52:M8:32:TYR:CE1	2.46	0.51
1:1G:1152:A:OP1	10:1A:68:HIS:NE2	2.44	0.51
1:1G:1446:A:N3	41:75:118:ARG:HD2	2.26	0.51
1:1G:1446:A:C2	41:75:118:ARG:HD2	2.46	0.51
4:32:117:ALA:O	4:32:121:VAL:HG23	2.10	0.51
4:32:168:ARG:HH11	4:32:169:LYS:H	1.56	0.51
15:6A:16:ALA:HB1	15:6A:21:ASP:HB3	1.92	0.51
23:2L:24:C:H2'	23:2L:25:U:H6	1.76	0.51
57:3L:15:G:H2'	57:3L:59:A:N1	2.26	0.51
26:14:528:A:C2	26:14:2042:A:H2'	2.45	0.51
26:14:1190:G:OP1	37:35:32:THR:HA	2.10	0.51
26:14:2232:U:P	49:F5:40:ARG:HH22	2.33	0.51
26:14:2480:C:H2'	26:14:2481:G:H5'	1.93	0.51
31:39:7:TYR:CD1	31:39:18:ARG:HB3	2.46	0.51
37:35:132:LYS:HE3	37:35:135:LEU:HD11	1.92	0.51
1:13:339:C:OP2	36:68:97:ARG:HD3	2.11	0.51
5:4E:100:VAL:HG22	5:4E:118:ILE:HG22	1.92	0.51
8:7E:51:VAL:HG11	8:7E:60:ARG:HD2	1.93	0.51
22:1K:53:G:H1	22:1K:61:C:N4	2.07	0.51
25:4K:13:A:H2'	25:4K:14:A:O4'	2.11	0.51
26:1H:616:A:C4	31:31:180:GLY:HA2	2.46	0.51
26:1H:1680:U:O2'	26:1H:1763:G:N7	2.31	0.51
26:1H:1859:A:N6	26:1H:1883:G:O2'	2.44	0.51
26:1H:2068:U:N3	26:1H:2430:A:C2	2.72	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2683:C:O2	36:68:70:LYS:HE3	2.10	0.51
26:1H:2795:G:H2'	26:1H:2798:C:H5"	1.93	0.51
31:31:184:TYR:O	31:31:188:ARG:HG3	2.10	0.51
41:B8:50:ILE:O	41:B8:99:LEU:HD12	2.10	0.51
48:I8:41:ARG:NE	48:I8:41:ARG:HA	2.26	0.51
1:1G:486:U:H2'	1:1G:487:A:C8	2.45	0.51
1:1G:801:U:H2'	1:1G:802:A:H8	1.74	0.51
2:12:71:VAL:HB	2:12:165:VAL:HG22	1.93	0.51
15:6A:8:LYS:O	15:6A:12:ILE:HG13	2.10	0.51
56:1L:5:C:H42	56:1L:68:G:H1	1.59	0.51
25:4L:13:A:N3	25:4L:14:A:H1'	2.25	0.51
26:14:259:G:O2'	26:14:621:A:O2'	2.04	0.51
26:14:1665:A:H4'	36:25:67:LYS:HB2	1.93	0.51
26:14:1796:U:H2'	26:14:1797:C:C6	2.46	0.51
26:14:2393:A:H4'	37:35:62:LEU:O	2.10	0.51
26:14:2791:C:N4	26:14:2802:G:O6	2.44	0.51
26:14:2791:C:O2'	26:14:2792:G:O5'	2.27	0.51
26:14:2791:C:HO2'	26:14:2792:G:P	2.34	0.51
32:49:116:ASP:HB3	32:49:118:ARG:HH12	1.76	0.51
34:69:92:VAL:HB	34:69:120:ILE:HB	1.92	0.51
37:35:11:GLY:C	37:35:13:ASN:H	2.19	0.51
1:13:200:G:N2	1:13:218:C:C2	2.79	0.51
1:13:264:U:O2	17:8I:64:PRO:HG2	2.12	0.51
7:6E:91:VAL:O	7:6E:96:GLN:NE2	2.40	0.51
8:7E:7:ALA:HB2	8:7E:85:ARG:HH11	1.76	0.51
11:2I:107:SER:O	11:2I:108:ILE:HG13	2.11	0.51
16:7I:72:ARG:O	16:7I:75:ARG:HB3	2.11	0.51
26:1H:660:G:H21	37:78:12:ALA:HB2	1.76	0.51
26:1H:2378:A:O2'	40:A8:21:THR:HG21	2.10	0.51
32:41:73:ALA:HA	32:41:88:ILE:HD11	1.93	0.51
35:58:57:ALA:C	35:58:59:LYS:N	2.68	0.51
46:G8:20:TYR:CE2	46:G8:43:ASN:HA	2.46	0.51
48:I8:36:ILE:O	48:I8:36:ILE:HD13	2.11	0.51
1:1G:688:G:H2'	1:1G:689:C:H6	1.76	0.51
1:1G:1478:C:H2'	1:1G:1479:C:C6	2.46	0.51
4:32:4:TYR:HE2	4:32:11:LEU:HD21	1.75	0.51
8:72:9:MET:HG3	8:72:26:VAL:HG21	1.93	0.51
11:2A:85:ARG:HA	11:2A:112:THR:OG1	2.11	0.51
13:4A:96:LEU:HD22	13:4A:97:PRO:HD2	1.93	0.51
26:14:918:A:H5"	27:1J:97:G:O2'	2.11	0.51
26:14:1204:A:C2	26:14:1241:A:N1	2.78	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:115:G:H8	27:1J:115:G:OP2	1.94	0.51
43:95:15:GLU:HG3	43:95:16:PRO:HD2	1.93	0.51
1:13:46:G:H2'	1:13:366:C:C5	2.46	0.50
1:13:381:C:H2'	1:13:382:A:O4'	2.11	0.50
9:8E:50:LEU:HD22	9:8E:55:ALA:HB3	1.93	0.50
10:1I:27:ALA:HB2	10:1I:85:LEU:HD11	1.92	0.50
12:3I:66:VAL:HG21	12:3I:98:TYR:HE1	1.76	0.50
15:6I:53:HIS:ND1	15:6I:53:HIS:O	2.43	0.50
26:1H:37:C:O2'	26:1H:38:A:H5'	2.12	0.50
26:1H:569:U:H5"	26:1H:821:A:C2	2.46	0.50
26:1H:585:G:H3'	61:1H:3512:HOH:O	2.11	0.50
26:1H:736:C:O5'	26:1H:736:C:H6	1.94	0.50
26:1H:2054:A:H5"	26:1H:2055:C:O5'	2.11	0.50
26:1H:2212:A:H1'	26:1H:2215:G:C5	2.46	0.50
26:1H:2470:G:H5'	38:88:56:ARG:NH2	2.26	0.50
29:11:40:THR:HG23	29:11:41:GLY:N	2.26	0.50
35:58:12:ARG:HG2	35:58:13:TRP:N	2.26	0.50
36:68:28:SER:OG	36:68:29:ASN:N	2.43	0.50
37:78:83:VAL:CG1	37:78:112:LEU:HD21	2.41	0.50
44:E8:58:ALA:HB1	44:E8:64:MET:HE2	1.93	0.50
1:1G:17:U:H2'	1:1G:18:C:C6	2.46	0.50
1:1G:104:G:H2'	1:1G:105:G:H5"	1.91	0.50
1:1G:1163:C:H2'	1:1G:1164:G:C8	2.46	0.50
23:2L:56:PSU:N3	23:2L:59:A:OP2	2.30	0.50
26:14:123:G:O6	61:14:3542:HOH:O	2.19	0.50
26:14:247:G:H4'	26:14:386:G:C5	2.46	0.50
26:14:520:G:H2'	26:14:521:G:C8	2.46	0.50
26:14:909:A:O2'	26:14:910:A:H5"	2.11	0.50
26:14:942:G:H4'	26:14:1190:G:H5'	1.93	0.50
26:14:2712:U:H1'	26:14:2712(A):A:C8	2.46	0.50
29:19:242:ARG:HH11	29:19:242:ARG:HG2	1.76	0.50
30:29:11:MET:SD	30:29:24:THR:HG22	2.51	0.50
30:29:167:VAL:HG11	30:29:189:PRO:HD3	1.92	0.50
42:85:91:ASP:C	42:85:93:LYS:N	2.68	0.50
51:H5:5:LYS:HD3	51:H5:34:GLU:OE2	2.11	0.50
4:3E:173:TRP:CE3	4:3E:193:ASP:HB3	2.47	0.50
5:4E:33:VAL:HG22	5:4E:43:LEU:HD12	1.93	0.50
8:7E:87:SER:HB2	8:7E:93:VAL:CB	2.38	0.50
17:8I:65:ILE:HG21	17:8I:69:LYS:HE2	1.94	0.50
26:1H:674:G:C1'	31:31:74:ARG:HD3	2.42	0.50
26:1H:937:U:H2'	26:1H:938:G:O4'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1337:G:H2'	26:1H:1338:G:H8	1.76	0.50
26:1H:1636:C:H2'	26:1H:1637:A:C8	2.46	0.50
26:1H:2864:G:H2'	26:1H:2865:U:C6	2.47	0.50
26:1H:2887:U:H2'	26:1H:2888:C:H6	1.75	0.50
40:A8:33:LYS:HB3	40:A8:34:HIS:CD2	2.47	0.50
1:1G:980:C:H3'	1:1G:981:U:C6	2.46	0.50
1:1G:1157:A:C8	1:1G:1158:C:H5	2.28	0.50
1:1G:1346:A:N1	1:1G:1374:A:H5"	2.26	0.50
3:22:6:HIS:CD2	3:22:7:PRO:HD2	2.46	0.50
5:42:76:ILE:HG23	5:42:142:LEU:HD13	1.92	0.50
13:4A:11:ARG:HG2	13:4A:12:ASN:H	1.76	0.50
26:14:118:A:N3	26:14:178:G:H1'	2.27	0.50
26:14:140:A:C8	26:14:1408:C:O2'	2.63	0.50
26:14:616:A:C8	31:39:176:LEU:HD11	2.46	0.50
26:14:920:G:H2'	26:14:921:G:C8	2.45	0.50
26:14:1180:C:H2'	26:14:1181:C:C6	2.47	0.50
32:49:173:LEU:HD22	32:49:178:PHE:CE2	2.46	0.50
34:69:4:ILE:HD11	34:69:39:ALA:HA	1.94	0.50
45:B5:51:VAL:HG13	45:B5:81:VAL:CG2	2.41	0.50
46:C5:86:ARG:HG3	46:C5:87:LYS:N	2.26	0.50
1:13:191(D):U:H2'	1:13:191(E):G:C8	2.46	0.50
1:13:1145:C:H4'	1:13:1146:A:H8	1.75	0.50
1:13:1240:U:OP2	7:6E:116:ALA:N	2.38	0.50
6:5E:10:LEU:HD13	6:5E:61:LEU:HD13	1.94	0.50
8:7E:95:VAL:HG22	8:7E:96:GLY:O	2.10	0.50
15:6I:3:ILE:HD12	15:6I:34:LEU:HD23	1.93	0.50
26:1H:259:G:H21	26:1H:621:A:H8	1.59	0.50
26:1H:722:A:H2'	26:1H:723:G:C8	2.45	0.50
26:1H:1638:C:O2	26:1H:2698:U:O2'	2.23	0.50
26:1H:1899:G:N2	26:1H:1902:C:H41	2.09	0.50
26:1H:2367:G:H2'	26:1H:2368:C:H6	1.76	0.50
31:31:198:ALA:O	31:31:201:VAL:N	2.45	0.50
41:B8:20:PRO:HG2	41:B8:86:ILE:O	2.12	0.50
1:1G:350:G:H5'	1:1G:351:G:OP2	2.11	0.50
1:1G:1084:G:H5'	1:1G:1102:A:OP2	2.11	0.50
1:1G:1325:C:H2'	1:1G:1326:C:H6	1.76	0.50
3:22:61:ALA:C	3:22:63:ASN:H	2.18	0.50
13:4A:14:ARG:HA	13:4A:43:THR:O	2.12	0.50
26:14:448:U:C4	26:14:583:G:H1'	2.46	0.50
26:14:654(B):C:H2'	26:14:654(C):G:C8	2.47	0.50
26:14:831:G:OP1	61:14:3544:HOH:O	2.20	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:839:U:H2'	26:14:840:C:C6	2.46	0.50
26:14:1010:A:N3	26:14:1153:C:H1'	2.26	0.50
26:14:2124:G:N2	26:14:2175:C:O2	2.44	0.50
26:14:2171:A:H8	26:14:2172:U:H5"	1.76	0.50
26:14:2360:A:H2'	26:14:2361:A:O4'	2.12	0.50
40:65:14:VAL:HG11	40:65:89:ARG:NH1	2.26	0.50
1:13:1497:G:C2'	1:13:1498:U:H5'	2.40	0.50
3:2E:48:TYR:OH	3:2E:122:GLU:OE2	2.28	0.50
22:1K:41:A:H2'	22:1K:42:A:C8	2.46	0.50
26:1H:138:G:H5"	26:1H:139:G:OP2	2.11	0.50
26:1H:1520:U:H2'	26:1H:1521:G:O4'	2.11	0.50
26:1H:1652:A:C2'	26:1H:1653:G:H5'	2.41	0.50
26:1H:2287:A:H2	26:1H:2346:A:C2	2.27	0.50
40:A8:58:LEU:HD12	40:A8:68:GLN:OE1	2.11	0.50
42:C8:90:VAL:HB	43:D8:39:LEU:HB3	1.94	0.50
1:1G:166:G:H2'	1:1G:167:G:C8	2.46	0.50
1:1G:229:U:H2'	1:1G:230:G:H8	1.76	0.50
1:1G:464:G:H1'	1:1G:468:A:H61	1.76	0.50
1:1G:513:C:H2'	1:1G:514:C:H6	1.76	0.50
1:1G:564:C:O2'	8:72:91:ARG:NH1	2.36	0.50
1:1G:757:U:O2'	1:1G:879:C:O2	2.24	0.50
2:12:166:ASP:OD2	2:12:169:LYS:HB2	2.12	0.50
3:22:11:ARG:HB3	3:22:15:THR:HB	1.93	0.50
3:22:155:GLY:HA3	3:22:196:LEU:HD13	1.92	0.50
6:52:1:MET:HE2	6:52:68:PRO:HD3	1.93	0.50
23:2L:54:G:H2'	23:2L:55:5MU:H6	1.76	0.50
26:14:856:C:H2'	26:14:857:C:H6	1.77	0.50
26:14:1657:C:H2'	26:14:1658:C:C6	2.46	0.50
26:14:2862:G:H2'	26:14:2863:C:C6	2.46	0.50
30:29:105:THR:HG21	30:29:164:ARG:HH21	1.76	0.50
1:13:324:G:N1	1:13:327:A:OP2	2.41	0.50
1:13:1128:C:H2'	1:13:1139:G:O6	2.12	0.50
3:2E:64:VAL:HG12	3:2E:66:VAL:HG23	1.93	0.50
3:2E:147:LYS:HB3	3:2E:203:PHE:HD2	1.76	0.50
6:5E:22:GLU:O	6:5E:26:ILE:HG13	2.11	0.50
7:6E:80:VAL:HG22	7:6E:85:TYR:HE1	1.76	0.50
8:7E:45:ILE:HD12	8:7E:47:GLY:HA2	1.93	0.50
9:8E:114:TYR:CE2	10:1I:59:SER:HA	2.47	0.50
11:2I:124:LYS:HB2	11:2I:125:PHE:CD1	2.47	0.50
15:6I:18:PHE:CZ	15:6I:21:ASP:HB2	2.47	0.50
18:9I:37:VAL:HG12	18:9I:41:LYS:HE3	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:71:A:OP1	26:1H:72:U:H2'	2.12	0.50
26:1H:270(J):G:H1	26:1H:270(P):C:N4	2.00	0.50
26:1H:607:U:OP1	31:31:102:PRO:HA	2.12	0.50
26:1H:768:G:N2	26:1H:1379:A:O2'	2.45	0.50
26:1H:1465:G:O2'	26:1H:1545(A):A:N1	2.42	0.50
26:1H:1799:G:H5'	26:1H:1819:A:H61	1.77	0.50
26:1H:2017:U:O2	53:N8:10:LYS:HB2	2.12	0.50
26:1H:2199:A:H3'	26:1H:2205:C:C6	2.46	0.50
26:1H:2698:U:H2'	26:1H:2699:C:C6	2.47	0.50
26:1H:2751:G:N3	33:51:3:ARG:HD3	2.26	0.50
29:11:30:GLU:OE1	29:11:63:ARG:NE	2.29	0.50
29:11:96:HIS:NE2	29:11:102:LYS:HE2	2.27	0.50
38:88:109:VAL:HG13	38:88:113:GLN:HB3	1.93	0.50
42:C8:58:ARG:HH11	42:C8:93:LYS:NZ	2.09	0.50
46:G8:54:LYS:HE2	46:G8:55:TYR:CZ	2.46	0.50
52:M8:15:ILE:HD11	52:M8:32:TYR:CD1	2.46	0.50
1:1G:8:A:N6	4:32:209:ARG:HB2	2.26	0.50
1:1G:49:U:C2	1:1G:361:G:N2	2.80	0.50
1:1G:297:G:N2	1:1G:300:A:OP2	2.39	0.50
1:1G:359:U:H2'	1:1G:360:A:C8	2.46	0.50
1:1G:630:G:H5'	1:1G:631:G:OP2	2.11	0.50
26:14:308:G:H5"	26:14:309:G:OP2	2.11	0.50
26:14:2261:C:C5	48:E5:16:SER:HB3	2.46	0.50
26:14:2383:G:O2'	26:14:2384:G:H5'	2.11	0.50
26:14:2400:G:H2'	26:14:2401:U:H6	1.77	0.50
26:14:2576:G:O2'	26:14:2579:C:OP2	2.23	0.50
29:19:85:ASP:HB2	29:19:92:ILE:HD13	1.93	0.50
36:25:73:ASP:OD1	36:25:73:ASP:N	2.39	0.50
39:55:101:ALA:HA	53:J5:44:THR:HG21	1.94	0.50
1:13:791:G:C6	1:13:792:A:C2	3.00	0.50
8:7E:82:HIS:O	8:7E:137:VAL:HA	2.11	0.50
11:2I:19:ALA:O	11:2I:82:VAL:HA	2.11	0.50
13:4I:82:MET:C	13:4I:84:ILE:H	2.19	0.50
16:7I:35:LYS:HE2	16:7I:37:GLY:O	2.11	0.50
16:7I:45:THR:HG22	16:7I:46:PRO:HD2	1.94	0.50
17:8I:59:ILE:HG22	17:8I:73:VAL:HA	1.94	0.50
22:1K:75:C:O2	26:1H:2507:C:O2'	2.27	0.50
26:1H:302:C:H2'	26:1H:303:U:C6	2.46	0.50
26:1H:311:A:C6	26:1H:328:U:C4	2.99	0.50
26:1H:994:C:OP2	42:C8:54:LYS:NZ	2.44	0.50
26:1H:1170:G:H2'	26:1H:1171:G:H5'	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1210:A:H5"	26:1H:1212:G:O4'	2.11	0.50
26:1H:1346:G:H2'	26:1H:1347:G:H8	1.76	0.50
26:1H:1570:A:H5'	29:11:37:LEU:CD2	2.41	0.50
26:1H:1857:G:O2'	26:1H:1885:A:N6	2.37	0.50
26:1H:2693:A:H2'	26:1H:2694:G:H8	1.77	0.50
27:16:44:G:H1'	27:16:47:C:N4	2.26	0.50
32:41:46:ALA:HB1	32:41:49:ASP:O	2.12	0.50
35:58:15:LEU:C	35:58:16:ILE:HG12	2.35	0.50
37:78:82:GLY:HA2	37:78:113:LYS:O	2.10	0.50
37:78:115:LEU:HA	37:78:134:ALA:CB	2.41	0.50
39:98:87:TYR:HE1	39:98:117:VAL:HG12	1.75	0.50
40:A8:27:SER:HA	40:A8:88:ASP:CB	2.42	0.50
42:C8:28:ARG:NH1	42:C8:38:THR:OG1	2.43	0.50
49:J8:15:ALA:O	49:J8:40:ARG:HG2	2.11	0.50
1:1G:601:C:H2'	1:1G:602:A:C8	2.47	0.50
1:1G:651:C:H2'	1:1G:652:U:C6	2.47	0.50
1:1G:977:A:O2'	1:1G:981:U:N3	2.44	0.50
1:1G:1113:C:H2'	1:1G:1114:C:C6	2.47	0.50
1:1G:1132:C:H2'	1:1G:1133:G:H8	1.75	0.50
4:32:108:LEU:HA	4:32:170:VAL:HG11	1.93	0.50
18:9A:74:ARG:NH1	18:9A:81:PHE:HA	2.26	0.50
26:14:110:G:C2	26:14:111:A:C8	2.99	0.50
26:14:329:G:O6	46:C5:19:LYS:HE2	2.11	0.50
29:19:71:ASP:N	29:19:71:ASP:OD1	2.43	0.50
29:19:273:ARG:O	29:19:273:ARG:HG2	2.11	0.50
33:59:149:ARG:NH1	33:59:162:ILE:O	2.45	0.50
34:69:101:LEU:HD23	34:69:101:LEU:H	1.77	0.50
37:35:121:LYS:HG2	37:35:123:LEU:HG	1.94	0.50
38:45:98:LYS:HB3	38:45:99:PRO:HD2	1.93	0.50
41:75:106:SER:C	41:75:107:ASP:OD1	2.55	0.50
1:13:351:G:H4'	1:13:352:C:OP1	2.10	0.50
1:13:477:G:H2'	1:13:478:A:C8	2.46	0.50
1:13:1273:G:H3'	1:13:1274:G:C8	2.46	0.50
1:13:1449:C:O2'	1:13:1451:A:N6	2.45	0.50
2:1E:17:PHE:HB2	2:1E:41:ILE:HG22	1.94	0.50
8:7E:8:ASP:OD2	8:7E:12:ARG:HD2	2.11	0.50
13:4I:3:ARG:NH2	13:4I:9:ILE:HD11	2.26	0.50
26:1H:265:A:H8	26:1H:266:G:H1'	1.76	0.50
26:1H:764:A:N3	29:11:213:ARG:HD3	2.26	0.50
26:1H:1889:A:H2'	26:1H:1890:A:C8	2.47	0.50
26:1H:2564:A:C2	26:1H:2647:U:H4'	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:150:ASP:OD1	32:41:153:ARG:NH2	2.40	0.50
35:58:47:ALA:HB2	35:58:112:LEU:HD11	1.94	0.50
38:88:35:VAL:HG13	38:88:130:LYS:HB3	1.94	0.50
39:98:14:SER:OG	39:98:15:SER:N	2.44	0.50
40:A8:101:LEU:HD12	40:A8:101:LEU:O	2.12	0.50
47:H8:30:ASN:OD1	47:H8:33:LEU:HD23	2.12	0.50
1:1G:895:G:H2'	1:1G:896:C:C6	2.47	0.50
2:12:114:ARG:HG3	2:12:118:LEU:HD12	1.93	0.50
13:4A:84:ILE:HG23	19:AA:74:PHE:HE1	1.77	0.50
15:6A:87:ILE:HG22	15:6A:88:ARG:N	2.27	0.50
26:14:29:U:H2'	26:14:30:G:C8	2.47	0.50
26:14:1771:C:O2'	26:14:1786:A:H8	1.94	0.50
32:49:20:ILE:HA	32:49:25:TYR:HD2	1.77	0.50
40:65:13:ARG:HG2	40:65:14:VAL:N	2.24	0.50
1:13:405:U:OP2	4:3E:3:ARG:NH2	2.45	0.50
1:13:491:G:H2'	1:13:492:G:C8	2.47	0.50
1:13:1412:C:H2'	1:13:1413:A:C8	2.46	0.50
3:2E:91:LEU:HB2	3:2E:99:VAL:HG21	1.93	0.50
14:5I:6:LEU:HD12	14:5I:23:ARG:HH22	1.76	0.50
15:6I:82:ILE:HG22	15:6I:83:GLU:N	2.26	0.50
16:7I:68:ASP:O	16:7I:71:ARG:HG2	2.11	0.50
19:AI:67:VAL:HG12	19:AI:68:GLY:N	2.26	0.50
22:1K:1:G:H2'	22:1K:2:G:O4'	2.12	0.50
26:1H:770:G:OP2	61:1H:3560:HOH:O	2.17	0.50
26:1H:953:A:OP2	38:88:16:ARG:NH1	2.45	0.50
26:1H:1188:U:C4'	43:D8:79:VAL:HG22	2.42	0.50
26:1H:1729:A:O2'	26:1H:1730:U:O5'	2.21	0.50
26:1H:2402:C:H5	26:1H:2415:G:H22	1.59	0.50
30:21:11:MET:HE3	30:21:186:GLY:HA2	1.92	0.50
39:98:103:ARG:HH12	39:98:110:PRO:HD3	1.76	0.50
50:K8:37:PHE:O	50:K8:41:ILE:HG22	2.11	0.50
1:1G:998(A):C:H2'	1:1G:999:U:C6	2.47	0.50
1:1G:1053:G:N7	1:1G:1199:U:H3'	2.26	0.50
4:32:31:CYS:C	4:32:33:MET:N	2.69	0.50
18:9A:29:PHE:N	18:9A:29:PHE:CD1	2.80	0.50
20:BA:11:SER:HA	20:BA:13:LEU:H	1.75	0.50
26:14:55:G:H2'	26:14:56:A:C8	2.47	0.50
26:14:1059:G:H2'	26:14:1060:U:C5	2.46	0.50
26:14:2107:C:H2'	26:14:2108:C:O4'	2.11	0.50
26:14:2165:G:H3'	26:14:2166:G:H5'	1.93	0.50
26:14:2190:G:H2'	26:14:2191:G:O4'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2468:G:H3'	26:14:2476:A:N1	2.27	0.50
30:29:116:VAL:HG23	30:29:120:TRP:HB2	1.94	0.50
46:C5:39:VAL:O	46:C5:40:GLU:HB2	2.12	0.50
1:13:677:U:H3	1:13:713:G:H22	1.59	0.50
1:13:736:C:H2'	1:13:737:A:H8	1.75	0.50
1:13:1464:G:H2'	1:13:1465:C:H6	1.77	0.50
6:5E:14:LEU:HD22	6:5E:18:GLN:HB3	1.93	0.50
17:8I:28:PRO:HA	17:8I:35:VAL:HA	1.94	0.50
23:2K:20:G:C2	23:2K:58:A:N3	2.80	0.50
26:1H:127:A:H5"	26:1H:128:C:C6	2.46	0.50
26:1H:713:G:H2'	26:1H:714:U:C6	2.46	0.50
26:1H:1268:A:H2'	26:1H:1269:A:O4'	2.11	0.50
26:1H:1442:G:C2	26:1H:1550:C:O2	2.65	0.50
26:1H:1532:C:H42	26:1H:1539:G:H1	1.60	0.50
34:61:77:LEU:HD22	34:61:79:ILE:HD11	1.93	0.50
47:H8:44:PHE:CE2	47:H8:86:VAL:HG11	2.47	0.50
1:1G:828:A:C8	1:1G:859:A:C4	3.00	0.50
1:1G:1041:A:H5"	1:1G:1042:G:OP2	2.12	0.50
4:32:108:LEU:HD22	4:32:174:LEU:HD22	1.94	0.50
20:BA:87:LYS:O	20:BA:91:LEU:HG	2.11	0.50
57:3L:59:A:H2'	57:3L:60:U:H5'	1.93	0.50
26:14:590:A:H2'	26:14:591:C:C6	2.47	0.50
26:14:864:G:C6	26:14:865:C:N4	2.79	0.50
26:14:1054:A:N6	26:14:1104:C:H42	2.10	0.50
26:14:1260:G:H2'	26:14:1261:C:C6	2.47	0.50
26:14:1421:G:C2	26:14:1422:G:C8	2.99	0.50
26:14:1448:G:H1'	26:14:1528:A:H62	1.77	0.50
26:14:2262:U:H4'	26:14:2328:A:C2	2.47	0.50
26:14:2271:G:N7	61:14:3576:HOH:O	2.35	0.50
26:14:2306:C:C3'	26:14:2307:G:H5"	2.42	0.50
26:14:2430:A:H8	26:14:2431:U:C5	2.28	0.50
26:14:2552:U:O5'	26:14:2552:U:H6	1.95	0.50
26:14:2698:U:H2'	26:14:2699:C:C6	2.47	0.50
30:29:54:GLN:CG	30:29:55:ASN:H	2.24	0.50
37:35:97:PRO:HG3	37:35:112:LEU:HD12	1.92	0.50
38:45:4:PRO:HD3	38:45:70:PRO:O	2.11	0.50
46:C5:82:PRO:HG3	46:C5:97:ARG:HE	1.77	0.50
46:C5:87:LYS:HB3	46:C5:94:LYS:HA	1.93	0.50
49:F5:18:ILE:HG12	49:F5:37:ILE:HG13	1.94	0.50
1:13:622:A:C8	1:13:623:C:C6	3.00	0.49
7:6E:8:GLU:N	7:6E:8:GLU:OE2	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:63:LEU:HD12	11:2I:63:LEU:H	1.77	0.49
19:AI:23:ASN:HD21	19:AI:43:GLU:HB2	1.77	0.49
26:1H:631:A:OP1	37:78:65:ARG:NH2	2.33	0.49
26:1H:1026:U:H4'	26:1H:1027:A:OP1	2.12	0.49
26:1H:1050:A:O2'	26:1H:2752:C:H1'	2.11	0.49
26:1H:1322:A:N1	26:1H:1333:C:O2'	2.36	0.49
26:1H:1359:A:H2'	26:1H:1360:A:H5'	1.93	0.49
26:1H:1538:G:H2'	26:1H:1539:G:H8	1.77	0.49
26:1H:2002:G:N7	61:1H:3623:HOH:O	2.33	0.49
26:1H:2175:C:O2'	28:71:219:GLY:N	2.44	0.49
26:1H:2335:A:C8	26:1H:2337:G:C5	3.00	0.49
26:1H:2629:A:OP1	26:1H:2629:A:H4'	2.12	0.49
29:11:122:ASP:CG	29:11:123:ALA:H	2.20	0.49
30:21:54:GLN:C	30:21:55:ASN:HD22	2.19	0.49
32:41:81:LYS:NZ	32:41:81:LYS:H	2.10	0.49
32:41:112:PRO:CB	52:M8:37:SER:H	2.22	0.49
42:C8:88:ILE:O	42:C8:88:ILE:HG22	2.11	0.49
43:D8:16:PRO:HA	43:D8:96:ILE:HG22	1.93	0.49
1:1G:407:G:P	4:32:115:ARG:HH21	2.36	0.49
1:1G:1067:A:H1'	1:1G:1068:G:C8	2.47	0.49
13:4A:80:ARG:O	13:4A:84:ILE:HB	2.12	0.49
14:5A:59:ALA:HB1	14:5A:61:TRP:CZ3	2.46	0.49
16:7A:4:ILE:HB	16:7A:66:PRO:HB3	1.92	0.49
26:14:71:A:H4'	26:14:72:U:H5"	1.92	0.49
26:14:661:C:H1'	37:35:12:ALA:HA	1.93	0.49
26:14:698:C:O2'	26:14:734:A:N6	2.45	0.49
26:14:2117:A:H2'	26:14:2118:U:C6	2.47	0.49
26:14:2250:G:C5	38:45:82:ARG:HD2	2.47	0.49
26:14:2395:C:H2'	26:14:2396:G:O4'	2.12	0.49
26:14:2400:G:H2'	26:14:2401:U:C6	2.47	0.49
26:14:2745:C:O2'	33:59:143:GLN:HA	2.12	0.49
26:14:2850:A:N7	26:14:2868:A:O2'	2.32	0.49
29:19:53:PHE:C	29:19:218:ARG:HB2	2.37	0.49
30:29:171:GLU:O	30:29:184:VAL:HA	2.11	0.49
35:15:61:ARG:HA	35:15:61:ARG:NH1	2.26	0.49
38:45:35:VAL:HG22	38:45:102:VAL:HG22	1.92	0.49
41:75:54:ARG:HG3	41:75:59:THR:HG21	1.93	0.49
49:F5:87:PRO:O	49:F5:88:LYS:C	2.53	0.49
1:13:292:G:C5	1:13:293:G:H1'	2.47	0.49
1:13:419:C:H5'	1:13:513:C:H1'	1.94	0.49
1:13:429:U:H1'	1:13:430:A:H5"	1.92	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:806:C:H2'	1:13:807:A:H8	1.77	0.49
1:13:872:A:C4	1:13:874:G:N7	2.80	0.49
1:13:1034:G:N2	1:13:1035:A:N7	2.50	0.49
23:2K:2:G:H2'	23:2K:3:C:H6	1.75	0.49
24:3K:76:A:H8	26:1H:2394:C:N4	2.09	0.49
26:1H:363(B):G:H2'	26:1H:363(C):G:C8	2.47	0.49
26:1H:606:U:H4'	26:1H:658:C:H4'	1.95	0.49
26:1H:800:A:H8	26:1H:800:A:OP1	1.94	0.49
26:1H:2841:C:H2'	26:1H:2842:G:H8	1.77	0.49
27:16:116:G:H2'	27:16:117:G:O4'	2.12	0.49
28:71:6:ARG:HG2	28:71:34:THR:OG1	2.12	0.49
30:21:75:VAL:C	30:21:76:ARG:HD2	2.38	0.49
30:21:88:GLY:O	30:21:89:ASP:HB2	2.12	0.49
32:41:102:PHE:HA	32:41:105:LYS:HE2	1.94	0.49
33:51:144:VAL:O	33:51:148:ILE:HG12	2.11	0.49
38:88:78:PRO:HB2	38:88:81:VAL:HG11	1.94	0.49
43:D8:38:LEU:O	43:D8:51:VAL:HG23	2.12	0.49
55:Q8:39:LYS:HA	55:Q8:42:ARG:NH2	2.27	0.49
1:1G:114:U:H2'	1:1G:115:G:C8	2.47	0.49
1:1G:600:C:H2'	1:1G:601:C:C6	2.47	0.49
1:1G:1004:A:H3'	1:1G:1004:A:N3	2.26	0.49
1:1G:1316:G:N2	1:1G:1318:A:H3'	2.28	0.49
1:1G:1448:C:H2'	1:1G:1449:C:O4'	2.12	0.49
5:42:144:THR:O	5:42:148:VAL:HG23	2.12	0.49
7:62:26:PHE:CD2	7:62:30:ILE:HD11	2.48	0.49
15:6A:77:ARG:HA	15:6A:80:ALA:HB3	1.94	0.49
57:3L:51:A:H62	57:3L:63:U:H3	1.60	0.49
26:14:1686:C:H2'	26:14:1687:G:O4'	2.12	0.49
26:14:1794:U:H2'	26:14:1795:C:C6	2.47	0.49
32:49:181:ARG:NH1	32:49:181:ARG:HB3	2.27	0.49
40:65:87:PHE:CZ	40:65:102:ALA:HB2	2.47	0.49
45:B5:40:LYS:HA	45:B5:51:VAL:HG11	1.93	0.49
47:D5:157:LEU:HD21	47:D5:163:LEU:HD22	1.94	0.49
1:13:816:A:OP1	1:13:1526:G:O2'	2.26	0.49
1:13:1177:G:H5'	9:8E:97:LYS:HZ1	1.77	0.49
1:13:1240:U:O2'	7:6E:38:LEU:HG	2.11	0.49
1:13:1318:A:H5"	19:AI:10:PHE:CD2	2.48	0.49
8:7E:43:GLY:O	8:7E:64:LYS:NZ	2.43	0.49
17:8I:13:ASP:H	17:8I:14:LYS:HZ2	1.58	0.49
26:1H:339:U:O5'	26:1H:339:U:H6	1.95	0.49
26:1H:695:G:OP1	26:1H:1380:G:O2'	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1139:G:O2'	26:1H:1143:A:N1	2.35	0.49
26:1H:1181:C:O2'	26:1H:1182:A:H5'	2.12	0.49
40:A8:34:HIS:O	40:A8:97:ARG:NH2	2.46	0.49
46:G8:39:VAL:O	46:G8:42:VAL:HG22	2.11	0.49
47:H8:24:LEU:HB3	47:H8:39:VAL:HG23	1.93	0.49
1:1G:80:G:O2'	1:1G:81:G:OP1	2.28	0.49
1:1G:271:C:H2'	1:1G:272:C:H6	1.77	0.49
1:1G:807:A:H2'	1:1G:808:C:C6	2.47	0.49
7:62:141:VAL:HA	7:62:142:GLU:HG2	1.94	0.49
18:9A:53:ARG:HA	18:9A:56:THR:OG1	2.13	0.49
26:14:494:G:H4'	44:A5:6:ILE:HB	1.93	0.49
26:14:588:U:H2'	26:14:589:C:C6	2.47	0.49
26:14:833:U:O4'	37:35:52:GLU:HA	2.13	0.49
26:14:879:G:N2	26:14:880:G:O6	2.45	0.49
26:14:1434:A:H2'	26:14:1435:G:C8	2.47	0.49
26:14:2378:A:H4'	40:65:23:ARG:HD2	1.94	0.49
26:14:2647:U:H2'	26:14:2648:C:C6	2.47	0.49
27:1J:18:G:H2'	27:1J:19:G:C8	2.46	0.49
30:29:36:ARG:HH21	30:29:88:GLY:HA2	1.77	0.49
31:39:23:ASP:N	31:39:23:ASP:OD1	2.45	0.49
31:39:139:PHE:HE2	31:39:173:VAL:HG21	1.77	0.49
32:49:59:GLU:CD	32:49:153:ARG:HH21	2.20	0.49
46:C5:88:LYS:O	46:C5:89:PHE:HB3	2.10	0.49
1:13:919:A:O2'	1:13:920:U:H5'	2.13	0.49
1:13:939:G:H2'	1:13:940:C:C6	2.46	0.49
1:13:1234:C:H2'	1:13:1235:U:C6	2.48	0.49
1:13:1453:G:OP2	1:13:1453:G:H4'	2.11	0.49
1:13:1460:A:H2'	1:13:1461:G:O4'	2.12	0.49
2:1E:71:VAL:HB	2:1E:164:VAL:HG13	1.94	0.49
8:7E:116:LYS:HG3	8:7E:129:VAL:HG11	1.94	0.49
9:8E:26:VAL:HG22	9:8E:61:ALA:HB3	1.92	0.49
12:3I:8:ASN:O	12:3I:11:VAL:N	2.44	0.49
15:6I:18:PHE:CE1	15:6I:21:ASP:HB2	2.47	0.49
21:1F:6:ARG:HH11	21:1F:15:ARG:NE	2.11	0.49
26:1H:994:C:H5"	26:1H:995:C:P	2.52	0.49
26:1H:1453:A:O2'	26:1H:1454:U:H2'	2.12	0.49
26:1H:1728:G:H2'	26:1H:1731:G:O6	2.12	0.49
26:1H:2262:U:O2'	26:1H:2263:C:H5'	2.12	0.49
29:11:28:GLU:N	29:11:29:PRO:HD3	2.27	0.49
29:11:101:GLU:OE1	29:11:103:ARG:NH1	2.45	0.49
33:51:96:ALA:HB1	33:51:103:LEU:HD11	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:D8:25:LEU:HD12	43:D8:92:THR:HG21	1.94	0.49
46:G8:34:LYS:O	46:G8:34:LYS:HG2	2.11	0.49
53:N8:37:LYS:HZ3	53:N8:38:ALA:N	2.09	0.49
1:1G:991:U:O2	1:1G:993:G:H8	1.95	0.49
1:1G:1076:C:H42	1:1G:1081:G:H1	1.61	0.49
1:1G:1260:C:H3'	1:1G:1260:C:H6	1.77	0.49
1:1G:1291:G:H2'	1:1G:1292:U:C6	2.48	0.49
1:1G:1521:G:H2'	1:1G:1522:U:H6	1.78	0.49
5:42:33:VAL:HG13	5:42:112:LEU:HD12	1.94	0.49
9:82:5:TYR:CE2	9:82:16:ARG:HG2	2.48	0.49
15:6A:79:ARG:O	15:6A:83:GLU:HB2	2.12	0.49
17:8A:11:VAL:HG12	17:8A:85:VAL:HG23	1.95	0.49
57:3L:65:C:H2'	57:3L:66:A:H8	1.77	0.49
26:14:275:G:N2	26:14:276:A:N7	2.60	0.49
26:14:686:G:N2	26:14:788:A:H61	2.10	0.49
26:14:861:A:N3	27:1J:79:C:O2'	2.46	0.49
26:14:943:U:OP2	37:35:36:LYS:HG3	2.12	0.49
26:14:1542:G:O5'	26:14:1543:A:H5"	2.12	0.49
26:14:1797:C:H4'	29:19:257:LEU:O	2.12	0.49
26:14:2297:C:H2'	26:14:2298:A:H8	1.77	0.49
41:75:99:LEU:HD22	41:75:101:PHE:CE1	2.45	0.49
46:C5:29:GLU:HG3	46:C5:30:VAL:H	1.78	0.49
46:C5:36:ALA:HA	46:C5:67:LEU:O	2.12	0.49
1:13:46:G:H2'	1:13:366:C:H5	1.76	0.49
1:13:544:G:OP1	4:3E:59:ARG:NH1	2.41	0.49
2:1E:11:LEU:HG	2:1E:11:LEU:O	2.13	0.49
3:2E:113:ALA:HB3	3:2E:114:PRO:HD3	1.93	0.49
4:3E:92:VAL:HG12	4:3E:96:LEU:HD21	1.95	0.49
8:7E:66:GLY:O	8:7E:76:PRO:HB3	2.12	0.49
9:8E:118:LYS:O	9:8E:119:ALA:HB3	2.13	0.49
16:7I:79:VAL:HG12	16:7I:80:PHE:CD1	2.48	0.49
26:1H:46:C:H5"	26:1H:215:G:H8	1.77	0.49
26:1H:1001:A:C8	26:1H:1002:G:C8	3.00	0.49
26:1H:2243:U:H2'	26:1H:2244:U:C6	2.48	0.49
28:71:43:VAL:HG13	28:71:214:VAL:HA	1.94	0.49
28:71:225:ASN:N	28:71:225:ASN:ND2	2.50	0.49
31:31:77:ASP:OD1	31:31:77:ASP:N	2.33	0.49
37:78:64:LYS:HA	55:Q8:13:ARG:HB3	1.94	0.49
38:88:140:ALA:HB3	38:88:141:GLN:HA	1.94	0.49
41:B8:108:ARG:HG3	41:B8:109:GLU:H	1.76	0.49
1:1G:328:C:H4'	1:1G:329:A:H5"	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:425:G:O3'	4:32:45:GLN:NE2	2.45	0.49
13:4A:13:LYS:HA	13:4A:44:ARG:NH1	2.28	0.49
18:9A:29:PHE:N	18:9A:29:PHE:HD1	2.09	0.49
19:AA:17:GLU:HA	19:AA:20:LEU:HD22	1.94	0.49
26:14:1436:G:O2'	26:14:1477:A:H4'	2.12	0.49
26:14:1507:A:O2'	26:14:1510:A:N1	2.40	0.49
26:14:2461:C:H2'	26:14:2462:U:H6	1.75	0.49
27:1J:88:C:H1'	27:1J:89:G:OP1	2.12	0.49
29:19:89:SER:HB2	29:19:159:ALA:HB2	1.94	0.49
30:29:112:GLY:O	30:29:159:HIS:HA	2.13	0.49
36:25:102:VAL:HB	36:25:106:LEU:HD12	1.94	0.49
46:C5:52:SER:O	46:C5:52:SER:OG	2.21	0.49
1:13:15:G:H1'	5:4E:19:MET:HE2	1.95	0.49
1:13:255:G:H1'	17:8I:16:GLN:OE1	2.12	0.49
1:13:652:U:HO2'	1:13:653:A:P	2.36	0.49
3:2E:60:ALA:N	3:2E:63:ASN:OD1	2.44	0.49
4:3E:29:PRO:HA	4:3E:34:GLU:HG3	1.95	0.49
7:6E:111:ARG:HB3	7:6E:111:ARG:HH11	1.77	0.49
26:1H:270(L):U:H3'	26:1H:270(L):U:H6	1.78	0.49
26:1H:445:C:H5"	42:C8:3:ARG:HB3	1.93	0.49
26:1H:818:G:H4'	26:1H:838:C:O3'	2.11	0.49
26:1H:1535:U:OP2	26:1H:1535:U:H6	1.95	0.49
26:1H:2173:A:H8	26:1H:2173:A:OP1	1.95	0.49
26:1H:2182:G:H2'	26:1H:2183:C:C6	2.48	0.49
26:1H:2243:U:O2'	26:1H:2244:U:H5'	2.12	0.49
30:21:131:ALA:HB1	61:21:401:HOH:O	2.12	0.49
30:21:201:THR:HG22	30:21:202:LYS:N	2.27	0.49
34:61:127:VAL:HA	34:61:138:ILE:O	2.12	0.49
53:N8:33:CYS:SG	53:N8:40:LYS:HD3	2.52	0.49
1:1G:45:U:H2'	1:1G:46:G:H8	1.76	0.49
1:1G:590:C:H2'	1:1G:591:U:H6	1.77	0.49
1:1G:868:C:H2'	1:1G:869:G:O4'	2.13	0.49
1:1G:1106:G:H2'	1:1G:1107:C:H6	1.78	0.49
8:72:20:TYR:OH	8:72:75:ARG:HB3	2.13	0.49
8:72:110:ALA:O	8:72:121:ASP:N	2.45	0.49
9:82:9:ARG:O	9:82:104:ARG:HD2	2.13	0.49
11:2A:79:SER:OG	11:2A:106:LYS:HG3	2.13	0.49
16:7A:22:THR:HA	16:7A:33:ILE:HG13	1.94	0.49
26:14:990:A:H5'	26:14:990:A:C8	2.42	0.49
26:14:1543:A:H4'	26:14:1543:A:OP1	2.13	0.49
26:14:1697:G:OP2	26:14:1698:A:O2'	2.29	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1753:G:N1	26:14:1756:G:C2	2.81	0.49
26:14:1871:A:H2'	26:14:1872:A:C8	2.47	0.49
27:1J:93:C:H2'	27:1J:94:C:C6	2.48	0.49
30:29:25:VAL:O	30:29:26:ILE:HG12	2.12	0.49
38:45:58:PHE:HB3	38:45:113:GLN:NE2	2.27	0.49
1:13:61:G:H2'	1:13:62:U:O4'	2.11	0.49
4:3E:194:LEU:HD12	4:3E:195:ALA:N	2.28	0.49
26:1H:273(C):C:H42	26:1H:363(C):G:H1	1.59	0.49
26:1H:492:A:H2'	26:1H:493:G:O4'	2.13	0.49
26:1H:511:U:C5	26:1H:512:G:C5	3.00	0.49
26:1H:511:U:H5"	26:1H:512:G:OP2	2.13	0.49
26:1H:775:G:C4	26:1H:794:G:C8	3.00	0.49
26:1H:1142(A):A:H4'	35:58:25:ARG:HH22	1.78	0.49
26:1H:1955:U:OP2	61:1H:3568:HOH:O	2.19	0.49
26:1H:2323:G:H2'	26:1H:2324:C:O4'	2.12	0.49
32:41:66:GLN:HA	52:M8:6:HIS:HE1	1.78	0.49
34:61:4:ILE:HG12	34:61:18:VAL:HG22	1.94	0.49
37:78:80:TYR:CE2	37:78:111:ARG:HD3	2.48	0.49
52:M8:37:SER:OG	52:M8:42:PHE:O	2.20	0.49
1:1G:565:U:H3'	1:1G:566:G:H2'	1.94	0.49
1:1G:963:G:H21	10:1A:55:LYS:CE	2.25	0.49
1:1G:998(A):C:N3	1:1G:1042:G:N2	2.46	0.49
1:1G:1053:G:O2'	1:1G:1199:U:OP2	2.28	0.49
1:1G:1347:G:O2'	1:1G:1373:G:O6	2.27	0.49
11:2A:109:VAL:HG12	18:9A:86:VAL:HG13	1.93	0.49
26:14:483:A:H4'	46:C5:49:VAL:HA	1.95	0.49
26:14:520:G:H2'	26:14:521:G:H8	1.78	0.49
26:14:1022:G:N2	26:14:1142(A):A:C2	2.80	0.49
26:14:1042:G:H2'	26:14:1043:C:O4'	2.11	0.49
26:14:1107:G:H2'	26:14:1108:U:H5'	1.94	0.49
26:14:2418:A:OP1	55:M5:29:LYS:NZ	2.46	0.49
27:1J:7:G:H4'	40:65:29:PHE:CD2	2.47	0.49
27:1J:17:C:H2'	27:1J:18:G:O4'	2.12	0.49
29:19:175:LEU:HD11	29:19:185:VAL:HG21	1.94	0.49
32:49:117:PHE:CG	32:49:117:PHE:O	2.65	0.49
33:59:64:LEU:O	33:59:68:THR:OG1	2.30	0.49
38:45:22:LYS:N	38:45:23:GLY:HA3	2.28	0.49
48:E5:48:GLY:HA3	48:E5:80:HIS:ND1	2.27	0.49
1:13:375:U:C4	1:13:376:G:N7	2.81	0.49
1:13:481:G:O2'	1:13:483:C:N4	2.41	0.49
1:13:1106:G:C4	1:13:1107:C:C5	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:155:LEU:O	4:3E:157:LEU:N	2.46	0.49
4:3E:167:GLY:HA2	29:19:135:PHE:HZ	1.76	0.49
26:1H:142:G:O3'	45:F8:35:THR:HG21	2.13	0.49
26:1H:242:G:H5"	55:Q8:64:TYR:CE2	2.48	0.49
26:1H:860:U:C5	26:1H:917:A:H2	2.30	0.49
26:1H:996:A:OP2	42:C8:92:ARG:NH2	2.46	0.49
26:1H:1385:G:H4'	26:1H:1386:C:OP1	2.13	0.49
26:1H:2210:G:H3'	26:1H:2211:G:C5	2.48	0.49
26:1H:2364:C:H4'	48:I8:56:ASP:OD1	2.13	0.49
46:G8:34:LYS:HD3	46:G8:36:ALA:HB2	1.95	0.49
1:1G:540:G:H2'	1:1G:541:G:O4'	2.12	0.49
1:1G:1149:C:H2'	1:1G:1150:U:H6	1.78	0.49
26:14:527:C:OP2	26:14:2779:U:H5	1.96	0.49
26:14:1021:A:H3'	26:14:1021:A:C8	2.48	0.49
26:14:1115:G:C6	26:14:1116:C:C4	3.01	0.49
26:14:1161:C:H1'	43:95:8:GLY:O	2.12	0.49
26:14:2177:C:H4'	28:79:44:HIS:HB2	1.95	0.49
26:14:2212:A:H1'	26:14:2215:G:C6	2.48	0.49
26:14:2272:U:H5"	26:14:2273:A:OP1	2.13	0.49
31:39:78:ILE:C	31:39:80:ALA:H	2.21	0.49
42:85:68:ALA:O	42:85:71:GLN:HB2	2.13	0.49
42:85:110:VAL:O	42:85:113:ALA:HB3	2.13	0.49
43:95:21:ARG:HH22	43:95:65:GLY:C	2.21	0.49
1:13:245:C:C2	1:13:284:G:C2	3.01	0.49
1:13:265:G:N2	1:13:267:C:H5'	2.28	0.49
1:13:537:G:N7	61:13:1823:HOH:O	2.35	0.49
1:13:757:U:H2'	1:13:758:G:O4'	2.13	0.49
1:13:1127:G:N7	1:13:1128:C:N4	2.61	0.49
10:1I:22:LYS:NZ	10:1I:90:LEU:HB2	2.27	0.49
12:3I:76:ASN:ND2	12:3I:108:ALA:HB2	2.28	0.49
26:1H:1249:U:P	61:1H:3515:HOH:O	2.67	0.49
26:1H:2162:G:H3'	26:1H:2163:C:C6	2.48	0.49
33:51:137:ASP:OD1	33:51:138:LYS:N	2.37	0.49
38:88:20:ALA:HB1	38:88:99:PRO:HB2	1.94	0.49
47:H8:113:ALA:N	47:H8:114:GLY:HA2	2.28	0.49
55:Q8:49:VAL:O	55:Q8:50:LEU:C	2.56	0.49
1:1G:681:C:H2'	1:1G:682:G:C8	2.47	0.49
1:1G:980:C:H3'	1:1G:981:U:H6	1.76	0.49
1:1G:1104:G:H4'	2:12:111:ARG:NE	2.25	0.49
1:1G:1177:G:H8	1:1G:1177:G:OP2	1.96	0.49
5:42:94:ALA:HB2	5:42:119:LEU:HG	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3A:32:PHE:HE1	12:3A:86:ARG:HG3	1.78	0.49
12:3A:49:ASN:ND2	12:3A:92:ASP:OD2	2.46	0.49
13:4A:29:ARG:HD3	13:4A:64:TRP:CZ2	2.48	0.49
14:5A:37:PHE:CE1	14:5A:53:LEU:HD13	2.48	0.49
15:6A:26:GLU:OE2	15:6A:77:ARG:NH1	2.37	0.49
26:14:534:U:O2'	42:85:49:HIS:ND1	2.45	0.49
26:14:864:G:H8	26:14:864:G:O5'	1.96	0.49
26:14:1112:G:H2'	26:14:1113:U:C6	2.48	0.49
26:14:1607:C:H4'	26:14:1608:A:O5'	2.13	0.49
26:14:1750:G:N3	26:14:2860:A:H2	2.11	0.49
26:14:2654:A:H8	26:14:2654:A:OP1	1.96	0.49
30:29:41:LYS:HG3	30:29:42:ASP:N	2.28	0.49
30:29:47:VAL:HG12	30:29:49:LEU:HG	1.95	0.49
33:59:54:ARG:NE	33:59:56:SER:O	2.44	0.49
34:69:104:GLN:O	34:69:105:HIS:ND1	2.46	0.49
43:95:21:ARG:HH21	43:95:91:TYR:C	2.21	0.49
46:C5:43:ASN:HB3	46:C5:64:GLU:HA	1.94	0.49
46:C5:82:PRO:CB	46:C5:97:ARG:HB3	2.42	0.49
1:13:452:A:N6	1:13:480:U:H3	2.05	0.49
5:4E:106:PRO:O	5:4E:110:LEU:HG	2.12	0.49
8:7E:86:ILE:HG12	8:7E:135:CYS:HA	1.95	0.49
26:1H:1662:C:O2'	26:1H:2687:U:OP1	2.28	0.49
32:41:139:LEU:HD13	32:41:146:TYR:HD1	1.77	0.49
34:61:69:LYS:HG3	34:61:136:VAL:HB	1.95	0.49
34:61:99:GLU:O	34:61:102:SER:N	2.44	0.49
35:58:41:ASP:OD1	35:58:41:ASP:N	2.46	0.49
36:68:16:ALA:HB2	36:68:52:VAL:HG21	1.93	0.49
1:1G:373:A:H2'	1:1G:374:A:H8	1.78	0.49
1:1G:1048:G:O4'	1:1G:1215:G:H4'	2.12	0.49
1:1G:1052:U:O2'	1:1G:1055:A:OP2	2.26	0.49
1:1G:1124:G:OP2	1:1G:1124:G:H8	1.96	0.49
1:1G:1277:C:H1'	1:1G:1282:C:O2	2.13	0.49
2:12:19:HIS:CE1	2:12:204:ASN:HB3	2.48	0.49
3:22:147:LYS:HB2	3:22:203:PHE:HD2	1.78	0.49
4:32:162:LEU:HD21	4:32:181:MET:HG2	1.94	0.49
13:4A:75:ALA:HA	13:4A:78:ILE:HG12	1.95	0.49
15:6A:81:LEU:O	15:6A:85:LEU:HB2	2.13	0.49
26:14:1808:U:H5"	26:14:1809:A:OP2	2.13	0.49
26:14:2001:A:H2'	26:14:2002:G:C8	2.48	0.49
26:14:2016:U:OP1	61:14:3546:HOH:O	2.20	0.49
26:14:2312:U:OP2	32:49:74:LYS:NZ	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2469:A:H2	26:14:2481:G:H21	1.61	0.49
32:49:42:GLY:O	32:49:43:LEU:HD13	2.12	0.49
36:25:63:VAL:HG11	36:25:85:VAL:HG23	1.95	0.49
39:55:38:VAL:HG12	39:55:42:LYS:HD2	1.94	0.49
40:65:27:SER:HA	40:65:88:ASP:HB2	1.94	0.49
46:C5:8:LYS:HZ3	46:C5:95:LYS:HD3	1.77	0.49
1:13:1435:G:H2'	1:13:1436:U:C6	2.48	0.48
6:5E:23:LYS:O	6:5E:27:GLN:HG3	2.13	0.48
26:1H:528:A:C2	26:1H:2043:C:H4'	2.48	0.48
26:1H:1124:C:H2'	26:1H:1125:G:O4'	2.13	0.48
26:1H:1417:C:N3	26:1H:1581:G:N2	2.53	0.48
26:1H:1442:G:H2'	26:1H:1443:G:C8	2.48	0.48
26:1H:1688:U:H2'	26:1H:1698:A:N6	2.28	0.48
26:1H:2788:C:H5'	30:21:61:ARG:NH1	2.28	0.48
28:71:59:ARG:HA	28:71:163:PHE:O	2.11	0.48
29:11:29:PRO:HG2	29:11:30:GLU:OE2	2.13	0.48
36:68:7:TYR:CD1	36:68:20:MET:HE3	2.48	0.48
48:I8:51:VAL:N	48:I8:62:LEU:HD12	2.28	0.48
1:1G:669:U:H2'	1:1G:670:G:C8	2.48	0.48
1:1G:1023:G:C4	1:1G:1024:G:H1'	2.48	0.48
1:1G:1031:G:N7	1:1G:1032(A):G:N2	2.61	0.48
1:1G:1127:G:H1'	1:1G:1148:U:H3	1.78	0.48
1:1G:1237:C:O2'	1:1G:1300:G:N2	2.31	0.48
1:1G:1321:C:H41	1:1G:1322:C:N4	2.04	0.48
3:22:131:ARG:HH21	3:22:166:GLU:HG2	1.78	0.48
13:4A:37:THR:HG22	13:4A:55:ARG:HE	1.78	0.48
16:7A:2:VAL:HA	16:7A:23:ASP:HA	1.95	0.48
56:1L:42:A:H2'	56:1L:43:U:C6	2.48	0.48
23:2L:8:4SU:O5'	23:2L:8:4SU:H6	2.13	0.48
57:3L:21:A:H2'	57:3L:21:A:N3	2.27	0.48
26:14:94:G:N2	50:G5:47:ASN:HD22	2.11	0.48
26:14:329:G:H1	46:C5:19:LYS:HZ3	1.58	0.48
26:14:433:C:C4	26:14:434:U:O4	2.66	0.48
26:14:482:A:H5"	26:14:483:A:OP1	2.13	0.48
26:14:2126:A:N1	26:14:2163:C:H1'	2.28	0.48
26:14:2820:A:C5	39:55:4:LEU:HD11	2.48	0.48
27:1J:118:G:C5	27:1J:119:A:N7	2.80	0.48
34:69:81:VAL:HG12	34:69:143:SER:HB2	1.94	0.48
38:45:25:ASP:HA	38:45:67:ARG:HH12	1.76	0.48
46:C5:17:SER:HB2	46:C5:71:LYS:CE	2.43	0.48
46:C5:60:PHE:CD1	46:C5:60:PHE:N	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D5:24:LEU:HD12	47:D5:25:PRO:O	2.13	0.48
1:13:173:U:H5"	1:13:197:A:O4'	2.13	0.48
1:13:963:G:N2	10:1I:55:LYS:NZ	2.60	0.48
1:13:1072:G:C5	1:13:1073:U:C4	3.01	0.48
19:AI:5:LEU:HD12	19:AI:9:VAL:N	2.27	0.48
23:2K:32:G:H2'	23:2K:33:OMC:H6	1.78	0.48
26:1H:287:C:H2'	26:1H:288:C:C6	2.45	0.48
26:1H:1022:G:O6	35:58:66:LYS:NZ	2.45	0.48
26:1H:1331:A:HO2'	26:1H:1332:G:H8	1.61	0.48
26:1H:1528:A:C6	26:1H:1545:A:N1	2.82	0.48
27:16:78:A:C2	27:16:99:A:C4	3.01	0.48
31:31:107:LYS:HD2	31:31:207:GLY:H	1.77	0.48
37:78:91:PHE:O	37:78:123:LEU:HD11	2.13	0.48
45:F8:26:TYR:O	45:F8:81:VAL:HG12	2.14	0.48
1:1G:166:G:H2'	1:1G:167:G:H8	1.78	0.48
1:1G:588:G:H1	1:1G:651:C:H42	1.61	0.48
1:1G:801:U:H2'	1:1G:802:A:C8	2.48	0.48
1:1G:1145:C:H5"	1:1G:1146:A:OP1	2.12	0.48
1:1G:1254:C:H42	1:1G:1283:G:H1	1.61	0.48
1:1G:1344:C:H5"	9:82:120:ARG:O	2.12	0.48
6:52:97:PHE:HD1	18:9A:31:LEU:HD21	1.78	0.48
19:AA:17:GLU:O	19:AA:20:LEU:HB2	2.13	0.48
57:3L:37:A:H2'	57:3L:38:A:C8	2.48	0.48
26:14:139:G:N2	26:14:1596:A:H4'	2.28	0.48
26:14:362:U:H5'	26:14:363:G:OP2	2.12	0.48
26:14:586:A:N1	26:14:809:G:O2'	2.40	0.48
26:14:823:G:H2'	26:14:824:A:C8	2.48	0.48
26:14:1106:G:C8	26:14:1107:G:C8	3.01	0.48
26:14:1665:A:H2'	26:14:1666:G:O4'	2.13	0.48
26:14:1788:C:H2'	26:14:1789:A:H8	1.78	0.48
26:14:1945:G:H2'	26:14:1946:U:H6	1.78	0.48
26:14:2210:G:H5'	26:14:2211:G:C6	2.48	0.48
29:19:67:PHE:HB3	29:19:153:ALA:H	1.77	0.48
30:29:11:MET:HE3	30:29:186:GLY:HA2	1.94	0.48
32:49:125:PHE:HB3	32:49:166:ASP:CB	2.41	0.48
34:69:133:HIS:ND1	34:69:134:PRO:HD3	2.28	0.48
43:95:28:GLU:CD	43:95:29:PRO:HD2	2.38	0.48
55:M5:33:ASN:O	55:M5:34:TRP:C	2.56	0.48
1:13:147:G:N2	1:13:175:C:N3	2.49	0.48
1:13:946:A:HO2'	1:13:1333:A:HO2'	1.58	0.48
4:3E:13:ARG:HD2	4:3E:38:TYR:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:70:ILE:HG23	4:3E:75:PHE:HB2	1.95	0.48
5:4E:148:VAL:O	5:4E:151:LEU:HB2	2.12	0.48
7:6E:77:SER:OG	7:6E:84:ASN:OD1	2.31	0.48
8:7E:122:ARG:O	8:7E:126:LYS:HG2	2.13	0.48
11:2I:22:HIS:HB3	11:2I:29:ILE:HG23	1.96	0.48
26:1H:433:C:H2'	26:1H:434:U:C6	2.48	0.48
26:1H:493:G:H2'	26:1H:494:G:O4'	2.13	0.48
26:1H:870:A:OP1	38:88:6:ARG:NH2	2.46	0.48
26:1H:1176:G:C8	26:1H:1177:A:N6	2.81	0.48
26:1H:1533:C:H3'	26:1H:1534:G:C5'	2.43	0.48
26:1H:1665:A:N7	61:1H:3632:HOH:O	2.35	0.48
26:1H:1991:U:H2'	26:1H:1992:G:H5"	1.95	0.48
26:1H:2152:G:N2	26:1H:2153:G:O6	2.47	0.48
27:16:29:A:H5"	27:16:30:C:OP2	2.14	0.48
28:71:47:LEU:HD11	28:71:171:ILE:HB	1.95	0.48
31:31:12:LEU:HD13	31:31:124:LEU:HD11	1.95	0.48
1:1G:664:G:H22	1:1G:741:G:H1	1.61	0.48
1:1G:1015:A:H2'	1:1G:1016:A:C8	2.48	0.48
1:1G:1342:C:H1'	9:82:124:GLN:OE1	2.13	0.48
1:1G:1478:C:H2'	1:1G:1479:C:H6	1.78	0.48
2:12:159:PRO:HB2	2:12:161:ALA:O	2.13	0.48
26:14:824:A:H1'	26:14:2358:G:N7	2.28	0.48
26:14:2877:G:H2'	26:14:2878:U:O4'	2.13	0.48
29:19:184:LYS:HG3	29:19:269:PHE:O	2.13	0.48
30:29:4:ILE:HD12	30:29:28:ALA:HB1	1.95	0.48
33:59:58:GLU:HB2	33:59:61:HIS:CD2	2.48	0.48
40:65:34:HIS:CG	40:65:54:LEU:HB2	2.48	0.48
44:A5:112:GLY:C	44:A5:113:LYS:HD3	2.38	0.48
1:13:32:A:C2	1:13:33:A:C4	3.02	0.48
1:13:191(E):G:H2'	1:13:191(F):U:C6	2.48	0.48
6:5E:44:GLY:HA2	6:5E:59:TYR:CE2	2.48	0.48
7:6E:66:VAL:O	7:6E:70:LYS:HG3	2.13	0.48
7:6E:77:SER:HB2	24:3K:33:U:OP1	2.13	0.48
10:1I:26:ALA:O	10:1I:84:GLN:NE2	2.41	0.48
11:2I:109:VAL:HG11	18:9I:84:LYS:HD3	1.95	0.48
16:7I:71:ARG:HA	16:7I:74:LEU:HD12	1.95	0.48
23:2K:53:G:C6	23:2K:54:G:N7	2.81	0.48
26:1H:721:C:H2'	26:1H:722:A:H8	1.78	0.48
26:1H:754:C:H2'	26:1H:755:C:C6	2.46	0.48
26:1H:1797:C:O2'	29:11:259:THR:OG1	2.28	0.48
26:1H:1800:C:H5"	29:11:147:LEU:HD21	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2210:G:H4'	26:1H:2211:G:OP2	2.12	0.48
26:1H:2505:G:O2'	26:1H:2506:U:H5'	2.13	0.48
26:1H:2785:C:H2'	26:1H:2786:U:O4'	2.13	0.48
28:71:6:ARG:O	28:71:10:LEU:HD22	2.14	0.48
28:71:22:ILE:HG23	28:71:189:ILE:HB	1.94	0.48
35:58:60:ILE:H	35:58:60:ILE:HG12	1.43	0.48
38:88:7:MET:HE2	38:88:10:ARG:HA	1.94	0.48
1:1G:598:U:H2'	1:1G:599:C:H6	1.77	0.48
1:1G:1085:U:H5'	1:1G:1094:G:N2	2.28	0.48
1:1G:1521:G:H2'	1:1G:1522:U:C6	2.48	0.48
2:12:21:ARG:HG2	2:12:22:LYS:H	1.79	0.48
2:12:97:TRP:HH2	2:12:176:GLU:CD	2.21	0.48
2:12:223:ILE:HA	2:12:224:GLN:CG	2.42	0.48
3:22:175:LEU:H	3:22:175:LEU:HD12	1.79	0.48
6:52:19:LEU:O	6:52:23:LYS:HG2	2.14	0.48
26:14:634:C:H2'	26:14:635:C:H6	1.78	0.48
26:14:1159:U:H2'	26:14:1160:G:C8	2.46	0.48
26:14:1567:A:O2'	29:19:63:ARG:NH2	2.45	0.48
26:14:2129:C:H3'	26:14:2130:U:C6	2.47	0.48
26:14:2319:G:C2	26:14:2320:A:N6	2.82	0.48
30:29:54:GLN:N	30:29:74:PRO:HA	2.26	0.48
31:39:32:LEU:HD23	31:39:32:LEU:O	2.13	0.48
31:39:63:LYS:NZ	31:39:65:TRP:O	2.46	0.48
32:49:139:LEU:HA	32:49:144:ILE:HG21	1.96	0.48
1:13:234:C:H2'	1:13:235:C:C6	2.48	0.48
1:13:726:C:C2	1:13:727:G:C8	3.02	0.48
3:2E:150:LYS:HD2	3:2E:167:TRP:HE1	1.79	0.48
5:4E:87:SER:HB3	5:4E:125:SER:O	2.14	0.48
13:4I:87:TYR:O	13:4I:90:LEU:N	2.40	0.48
26:1H:1045:A:OP1	26:1H:1046:A:H3'	2.14	0.48
26:1H:1443:G:C2	26:1H:1549:C:N3	2.82	0.48
26:1H:1551:C:C2	26:1H:1552:G:C8	3.02	0.48
26:1H:1800:C:OP1	29:11:266:SER:OG	2.31	0.48
26:1H:2134:A:C8	26:1H:2158:A:H2	2.32	0.48
26:1H:2820:A:C5	39:98:4:LEU:HD11	2.48	0.48
30:21:20:ALA:O	30:21:21:VAL:HG22	2.13	0.48
41:B8:105:LEU:HB3	41:B8:110:ILE:HG22	1.95	0.48
41:B8:108:ARG:HA	41:B8:111:ARG:CZ	2.43	0.48
46:G8:30:VAL:O	46:G8:32:PRO:HD3	2.12	0.48
1:1G:455:C:O5'	1:1G:455:C:H6	1.95	0.48
1:1G:1327:C:H2'	1:1G:1328:C:C6	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:150:SER:OG	2:12:151:GLY:N	2.46	0.48
4:32:85:LYS:HD3	4:32:86:LYS:H	1.79	0.48
6:52:44:GLY:HA2	6:52:59:TYR:CZ	2.48	0.48
9:82:46:ALA:HA	9:82:78:LYS:HB2	1.96	0.48
11:2A:85:ARG:HD3	11:2A:113:PRO:HD3	1.95	0.48
12:3A:84:LEU:HD12	12:3A:104:VAL:HB	1.96	0.48
20:BA:54:LYS:HA	20:BA:57:ARG:HH21	1.79	0.48
56:1L:9:A:H1'	56:1L:45:G:H1'	1.96	0.48
26:14:338:G:O6	61:14:3543:HOH:O	2.20	0.48
26:14:524:U:H2'	26:14:525:U:C6	2.48	0.48
26:14:1008:C:H4'	42:85:59:ARG:HH12	1.79	0.48
26:14:2495:G:O3'	38:45:81:VAL:HG12	2.13	0.48
27:1J:44:G:OP1	32:49:98:ARG:NH2	2.47	0.48
46:C5:82:PRO:HA	46:C5:99:CYS:HB2	1.96	0.48
1:13:341:C:H42	1:13:348:G:H1	1.61	0.48
1:13:498:A:H4'	1:13:500:G:OP1	2.14	0.48
1:13:738:C:H2'	1:13:739:C:H6	1.78	0.48
1:13:942:G:C2	1:13:943:U:C6	3.02	0.48
1:13:1190:G:OP1	3:2E:5:ILE:HG23	2.14	0.48
1:13:1323:G:H2'	1:13:1324:A:H8	1.77	0.48
1:13:1502:A:H2	1:13:1505:G:N1	2.05	0.48
7:6E:150:ALA:HB2	11:2I:50:TYR:OH	2.12	0.48
8:7E:32:LYS:O	8:7E:36:LEU:HD12	2.13	0.48
22:1K:9:A:H5"	22:1K:47:U:C6	2.49	0.48
26:1H:880:G:O2'	26:1H:881:G:OP1	2.29	0.48
26:1H:1678:G:N2	26:1H:1989:G:N2	2.60	0.48
26:1H:2745:C:O2'	33:51:139:GLN:O	2.31	0.48
26:1H:2791:C:N4	26:1H:2792:G:O6	2.46	0.48
27:16:11:C:O5'	27:16:12:C:H5	1.97	0.48
29:11:75:ILE:HG21	29:11:99:ASP:OD2	2.13	0.48
31:31:39:TRP:O	31:31:43:LYS:HG2	2.13	0.48
37:78:121:LYS:O	37:78:123:LEU:N	2.46	0.48
38:88:12:GLN:HG2	38:88:73:PRO:HG2	1.96	0.48
39:98:10:LEU:O	39:98:12:ARG:N	2.45	0.48
51:L8:50:VAL:HG23	51:L8:54:VAL:HB	1.95	0.48
1:1G:1240:U:OP2	7:62:116:ALA:N	2.45	0.48
1:1G:1320:C:H2'	1:1G:1321:C:H6	1.79	0.48
1:1G:1354:C:O5'	1:1G:1354:C:H6	1.96	0.48
1:1G:1466:C:H2'	1:1G:1467:G:O4'	2.12	0.48
2:12:127:ILE:HG12	2:12:130:ARG:NE	2.29	0.48
4:32:28:SER:HB2	4:32:29:PRO:HA	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:44:PHE:HA	8:72:79:VAL:CG1	2.43	0.48
13:4A:15:VAL:HG12	13:4A:45:VAL:HG22	1.95	0.48
15:6A:6:GLU:OE1	15:6A:6:GLU:N	2.45	0.48
26:14:151:C:O2'	26:14:152:G:H5'	2.14	0.48
26:14:270(M):U:H5"	26:14:270(N):G:OP1	2.13	0.48
26:14:492:A:H8	26:14:492:A:O5'	1.97	0.48
26:14:546:C:H2'	26:14:547:A:C8	2.48	0.48
26:14:856:C:N4	26:14:857:C:H41	2.12	0.48
26:14:972:G:OP2	26:14:973:A:O2'	2.29	0.48
26:14:1839:G:C8	26:14:1927:A:H1'	2.48	0.48
26:14:2257:U:O2'	26:14:2258:C:H5'	2.13	0.48
26:14:2275:C:O2	38:45:83:MET:HG3	2.14	0.48
26:14:2535:G:H2'	26:14:2536:G:H8	1.78	0.48
26:14:2779:U:H4'	26:14:2780:G:H5"	1.95	0.48
26:14:2832:U:H3'	26:14:2833:G:H8	1.78	0.48
31:39:164:ARG:O	31:39:167:ALA:HB3	2.13	0.48
37:35:94:GLU:HB2	37:35:124:LYS:HB3	1.95	0.48
1:13:976:G:H5'	1:13:1358:U:O2'	2.13	0.48
2:1E:11:LEU:C	2:1E:13:ALA:N	2.72	0.48
4:3E:164:ALA:O	4:3E:168:ARG:NE	2.46	0.48
13:4I:11:ARG:HG3	13:4I:12:ASN:N	2.29	0.48
20:BI:75:ASN:O	20:BI:79:ARG:HB2	2.14	0.48
26:1H:250:G:H2'	26:1H:251:A:C8	2.49	0.48
26:1H:1260:G:C6	26:1H:1261:C:C4	3.02	0.48
26:1H:1354:A:H2'	26:1H:1355:G:O4'	2.14	0.48
33:51:27:LYS:HA	33:51:32:GLU:HA	1.95	0.48
34:61:68:LEU:HA	34:61:71:ILE:CG2	2.43	0.48
35:58:127:ASP:OD1	35:58:127:ASP:N	2.45	0.48
38:88:77:LYS:HE3	38:88:84:GLY:O	2.13	0.48
40:A8:78:LEU:HD12	40:A8:108:GLY:HA2	1.96	0.48
1:1G:452:A:O2'	1:1G:453:A:O4'	2.29	0.48
1:1G:1068:G:N7	1:1G:1094:G:C8	2.82	0.48
1:1G:1258:G:H2'	1:1G:1259:C:C6	2.48	0.48
1:1G:1322:C:O2'	1:1G:1323:G:H5'	2.13	0.48
4:32:31:CYS:CB	4:32:33:MET:H	2.26	0.48
4:32:173:TRP:HA	4:32:187:ARG:HG3	1.96	0.48
23:2L:52:C:H2'	23:2L:53:G:H8	1.79	0.48
57:3L:55:PSU:N3	57:3L:57:G:H3'	2.29	0.48
26:14:565:C:H4'	26:14:1253:A:C6	2.49	0.48
26:14:656:G:H2'	26:14:657:U:O4'	2.14	0.48
26:14:1358:G:O2'	26:14:1359:A:H5"	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1366:A:H2'	26:14:1367:A:O4'	2.12	0.48
26:14:1538:G:H2'	26:14:1539:G:H8	1.78	0.48
26:14:1771:C:H1'	26:14:1786:A:C8	2.48	0.48
26:14:2101:G:H2'	26:14:2102:U:O4'	2.14	0.48
30:29:36:ARG:NH1	30:29:85:ASN:OD1	2.47	0.48
31:39:183:VAL:O	31:39:187:VAL:HG23	2.13	0.48
37:35:47:ASP:HB3	37:35:49:ARG:N	2.29	0.48
49:F5:87:PRO:HA	49:F5:90:ILE:CG2	2.43	0.48
50:G5:21:LEU:O	50:G5:25:VAL:HG22	2.13	0.48
51:H5:12:PRO:HB2	51:H5:20:LYS:HD3	1.95	0.48
1:13:738:C:H5"	6:5E:69:GLU:HB2	1.96	0.48
1:13:963:G:C2	10:1I:55:LYS:NZ	2.81	0.48
1:13:1128:C:H2'	1:13:1139:G:C6	2.49	0.48
1:13:1207:G:H2'	1:13:1208:C:H6	1.79	0.48
2:1E:21:ARG:C	2:1E:23:ARG:H	2.22	0.48
2:1E:97:TRP:HH2	2:1E:176:GLU:CD	2.21	0.48
3:2E:18:TRP:CD1	14:5I:55:GLY:H	2.31	0.48
20:BI:63:ILE:HG23	20:BI:77:ALA:HB1	1.96	0.48
26:1H:626:U:O4	37:78:107:LYS:HD3	2.13	0.48
26:1H:900:A:N3	26:1H:901:A:C8	2.81	0.48
26:1H:924:C:H2'	26:1H:925:C:C6	2.48	0.48
26:1H:2145:C:C3'	26:1H:2146:C:H5'	2.44	0.48
33:51:77:LYS:HE2	33:51:138:LYS:HD2	1.95	0.48
39:98:67:LEU:HD22	39:98:76:VAL:HG21	1.95	0.48
47:H8:128:VAL:HB	47:H8:161:VAL:HG12	1.96	0.48
49:J8:12:PRO:HG3	49:J8:43:TYR:HD1	1.79	0.48
50:K8:64:LEU:HD22	50:K8:68:ARG:HD2	1.96	0.48
1:1G:41:G:H2'	1:1G:42:G:C8	2.48	0.48
1:1G:491:G:H2'	1:1G:492:G:O4'	2.14	0.48
1:1G:562:C:H1'	12:3A:15:ARG:HD2	1.95	0.48
1:1G:1198:G:H2'	1:1G:1199:U:O4'	2.13	0.48
1:1G:1349:A:H2'	1:1G:1350:A:O4'	2.13	0.48
4:32:112:VAL:HG12	4:32:116:GLN:OE1	2.13	0.48
4:32:168:ARG:HH11	4:32:168:ARG:CA	2.24	0.48
7:62:65:ALA:HB3	7:62:124:LEU:HD23	1.94	0.48
26:14:1657:C:H2'	26:14:1658:C:H6	1.78	0.48
26:14:1789:A:H2'	26:14:1790:C:O4'	2.13	0.48
26:14:2786:U:O2	30:29:62:PRO:HB3	2.14	0.48
29:19:11:PRO:O	29:19:12:SER:OG	2.29	0.48
1:13:403:C:H4'	4:3E:122:ARG:NH1	2.29	0.48
1:13:690:G:H22	11:2I:55:LYS:HE2	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:70:LYS:O	9:8E:74:ILE:HG13	2.14	0.48
11:2I:91:ARG:NH2	11:2I:110:ASP:OD2	2.46	0.48
14:5I:12:ARG:HG3	14:5I:12:ARG:O	2.14	0.48
19:AI:41:VAL:HG21	19:AI:67:VAL:HG13	1.96	0.48
26:1H:330:A:O2'	26:1H:331:A:C8	2.63	0.48
26:1H:1250:G:OP2	37:78:21:ARG:HD3	2.13	0.48
26:1H:2093:G:C6	26:1H:2225:A:C8	3.01	0.48
26:1H:2510:C:H2'	26:1H:2511:U:H6	1.78	0.48
46:G8:89:PHE:CD1	46:G8:90:LEU:N	2.82	0.48
1:1G:1095:U:H2'	1:1G:1096:C:O4'	2.13	0.48
1:1G:1216:G:H5"	14:5A:5:ALA:HB3	1.96	0.48
2:12:21:ARG:HG2	2:12:22:LYS:N	2.29	0.48
3:22:87:LEU:HD12	3:22:88:ARG:NH2	2.29	0.48
4:32:112:VAL:HG12	4:32:116:GLN:CD	2.39	0.48
19:AA:66:MET:HA	19:AA:67:VAL:O	2.14	0.48
56:1L:15:G:N2	56:1L:48:C:N3	2.62	0.48
23:2L:24:C:C2	23:2L:25:U:C5	3.02	0.48
26:14:259:G:N2	26:14:621:A:H8	2.03	0.48
26:14:270(L):U:HO2'	26:14:270(N):G:N2	2.11	0.48
26:14:1016:G:H2'	26:14:1017:G:C8	2.47	0.48
26:14:1751:C:O2'	26:14:1752:C:H5'	2.13	0.48
26:14:2137:C:H2'	26:14:2138:C:H6	1.79	0.48
26:14:2693:A:H2'	26:14:2694:G:H8	1.79	0.48
26:14:2878:U:O4	61:14:3545:HOH:O	2.20	0.48
41:75:8:LYS:O	41:75:11:GLU:HB2	2.13	0.48
49:F5:73:LEU:HB3	49:F5:90:ILE:HD11	1.96	0.48
50:G5:22:GLU:HG2	50:G5:64:LEU:HD11	1.96	0.48
1:13:123:C:OP1	1:13:312:C:H5'	2.13	0.48
1:13:666:G:H5'	1:13:726:C:H1'	1.95	0.48
1:13:676:A:H5"	11:2I:113:PRO:HB3	1.95	0.48
24:3K:58:A:N3	24:3K:58:A:H2'	2.29	0.48
26:1H:818:G:H5'	26:1H:839:U:OP1	2.13	0.48
26:1H:1443:G:N2	26:1H:1548:C:N3	2.48	0.48
26:1H:1550:C:H2'	26:1H:1551:C:C6	2.47	0.48
26:1H:2334:G:H5'	40:A8:9:ARG:HG2	1.95	0.48
26:1H:2599:G:C8	29:11:236:GLY:HA2	2.49	0.48
26:1H:2685:G:OP2	41:B8:51:ARG:NH2	2.46	0.48
28:71:45:ALA:H	28:71:171:ILE:HG21	1.79	0.48
28:71:211:SER:HB2	28:71:223:ARG:HH12	1.79	0.48
34:61:128:LEU:O	34:61:137:PRO:HA	2.14	0.48
39:98:65:LEU:HD12	39:98:65:LEU:HA	1.72	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:98:78:LYS:HE2	39:98:83:ILE:HD11	1.95	0.48
45:F8:49:VAL:HG12	45:F8:50:LYS:N	2.29	0.48
1:1G:1051:C:C4	1:1G:1052:U:C4	3.02	0.48
1:1G:1060:C:H5	3:22:2:GLY:HA3	1.79	0.48
1:1G:1126:U:H1'	1:1G:1127:G:OP1	2.13	0.48
1:1G:1136:U:H5"	1:1G:1137:C:C4	2.49	0.48
2:12:50:GLU:H	2:12:50:GLU:CD	2.22	0.48
2:12:221:LEU:HD23	2:12:221:LEU:HA	1.61	0.48
4:32:88:VAL:HG13	5:42:97:GLY:HA2	1.95	0.48
5:42:51:VAL:HG23	5:42:52:PRO:HD3	1.96	0.48
5:42:106:PRO:O	5:42:110:LEU:HG	2.14	0.48
11:2A:79:SER:OG	11:2A:104:GLN:O	2.26	0.48
16:7A:17:TYR:HE2	16:7A:41:PRO:HG3	1.79	0.48
56:1L:69:A:H4'	56:1L:70:C:OP1	2.13	0.48
26:14:13:A:N1	26:14:525:U:H2'	2.29	0.48
26:14:607:U:OP1	31:39:102:PRO:HA	2.14	0.48
27:1J:88:C:H4'	27:1J:89:G:OP2	2.12	0.48
29:19:25:THR:CG2	29:19:82:ILE:H	2.27	0.48
31:39:14:PRO:O	31:39:15:SER:C	2.56	0.48
31:39:158:THR:OG1	31:39:159:GLY:N	2.45	0.48
40:65:10:ARG:O	40:65:14:VAL:HG22	2.13	0.48
44:A5:78:GLU:OE1	44:A5:99:ARG:HD2	2.13	0.48
45:B5:67:GLY:O	45:B5:69:TYR:N	2.45	0.48
1:13:11:G:C5	1:13:12:U:C5	3.02	0.47
1:13:553:A:H5"	12:3I:24:VAL:HG21	1.96	0.47
1:13:666:G:H5"	1:13:732:C:O2	2.14	0.47
1:13:1002:G:C6	1:13:1003:G:C4	3.02	0.47
1:13:1178:G:N2	1:13:1181:G:H8	2.12	0.47
1:13:1240:U:C5	7:6E:32:ARG:HD2	2.48	0.47
1:13:1320:C:O2	19:AI:36:ARG:NH2	2.47	0.47
5:4E:35:GLY:H	5:4E:112:LEU:HD13	1.78	0.47
18:9I:66:LEU:O	18:9I:70:ILE:HG13	2.13	0.47
20:BI:63:ILE:HG21	20:BI:81:LYS:HG3	1.96	0.47
20:BI:75:ASN:N	20:BI:75:ASN:OD1	2.46	0.47
26:1H:527:C:N4	26:1H:2777:G:O2'	2.47	0.47
26:1H:765:G:H2'	26:1H:766:C:C6	2.49	0.47
26:1H:1155:A:O2'	26:1H:1156:A:H2'	2.13	0.47
26:1H:1408:C:C2	26:1H:1595:G:N2	2.82	0.47
26:1H:1508:A:H4'	26:1H:1509:C:C1'	2.44	0.47
26:1H:2138:C:N4	26:1H:2139:C:H41	2.12	0.47
30:21:78:LEU:O	30:21:78:LEU:HD13	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:124:SER:HB2	32:41:131:TYR:CE2	2.48	0.47
34:61:9:LEU:O	34:61:10:GLU:HG3	2.14	0.47
35:58:66:LYS:O	35:58:70:LYS:HB3	2.13	0.47
37:78:59:LEU:HD11	55:Q8:10:ALA:HA	1.96	0.47
42:C8:83:LEU:HD12	42:C8:113:ALA:HB2	1.96	0.47
49:J8:41:ARG:HH11	49:J8:41:ARG:CG	2.25	0.47
1:1G:559:A:H5"	1:1G:560:U:H3'	1.95	0.47
1:1G:625:G:H2'	1:1G:626:U:C6	2.48	0.47
1:1G:1037:C:H2'	1:1G:1038:C:C6	2.47	0.47
2:12:53:ARG:HG2	2:12:199:TYR:CE1	2.49	0.47
2:12:80:ILE:HD11	2:12:215:LEU:HD12	1.95	0.47
3:22:93:LYS:HB2	3:22:93:LYS:HE2	1.69	0.47
10:1A:44:VAL:HG22	10:1A:66:ARG:HE	1.79	0.47
26:14:223:A:O2'	26:14:420:C:O2	2.27	0.47
26:14:996:A:H4'	42:85:92:ARG:CZ	2.44	0.47
26:14:1116:C:H2'	26:14:1117:G:C8	2.49	0.47
26:14:2115:G:N2	26:14:2116:G:N7	2.62	0.47
26:14:2747:G:O6	26:14:2754:U:H3'	2.14	0.47
26:14:2776:A:H4'	26:14:2777:G:H5"	1.95	0.47
31:39:18:ARG:HG2	31:39:19:GLU:H	1.78	0.47
36:25:68:GLU:HA	36:25:78:ARG:HB3	1.96	0.47
40:65:35:ILE:HB	40:65:97:ARG:NH2	2.29	0.47
50:G5:17:SER:HB3	50:G5:18:PRO:CD	2.44	0.47
1:13:37:U:H2'	1:13:38:G:H8	1.77	0.47
1:13:1203:C:H2'	1:13:1204:A:O4'	2.14	0.47
5:4E:11:ILE:HG12	5:4E:31:LEU:HB3	1.95	0.47
9:8E:28:VAL:HA	9:8E:63:ILE:O	2.14	0.47
17:8I:65:ILE:HB	17:8I:69:LYS:HB3	1.95	0.47
26:1H:635:C:O2'	26:1H:639:U:OP1	2.28	0.47
26:1H:1025:G:C4	26:1H:1135:C:H1'	2.48	0.47
26:1H:1468:C:H2'	26:1H:1469:A:H8	1.79	0.47
26:1H:2470:G:H5'	38:88:56:ARG:HH22	1.79	0.47
26:1H:2591:C:H2'	26:1H:2592:G:C8	2.49	0.47
34:61:1:MET:HE3	34:61:1:MET:HA	1.96	0.47
34:61:9:LEU:HD21	34:61:35:LEU:HD23	1.95	0.47
47:H8:6:LYS:HE3	47:H8:8:TYR:CE1	2.49	0.47
51:L8:8:LEU:HD22	51:L8:31:LEU:HD22	1.96	0.47
52:M8:15:ILE:HD12	52:M8:16:CYS:O	2.14	0.47
1:1G:107:G:H2'	1:1G:108:G:O4'	2.13	0.47
1:1G:1324:A:H2'	1:1G:1325:C:H6	1.79	0.47
1:1G:1459:C:H2'	1:1G:1460:A:O4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:69:ARG:HB2	8:72:69:ARG:HH11	1.79	0.47
16:7A:9:PHE:HB2	16:7A:16:HIS:O	2.15	0.47
23:2L:44:A:H2'	23:2L:45:A:C8	2.48	0.47
26:14:17:G:H2'	26:14:18:C:H6	1.79	0.47
26:14:67:U:H2'	26:14:68:G:H8	1.79	0.47
26:14:120:U:OP2	61:14:3540:HOH:O	2.19	0.47
26:14:196:A:OP2	37:35:46:LYS:NZ	2.47	0.47
26:14:234:C:H2'	26:14:235:U:C6	2.49	0.47
26:14:265:A:H8	26:14:266:G:H1'	1.80	0.47
26:14:443:A:H1'	26:14:1201:C:O4'	2.13	0.47
26:14:925:C:H2'	26:14:926:A:C8	2.48	0.47
26:14:1226:G:H5'	43:95:85:LYS:N	2.29	0.47
26:14:1570:A:H5'	29:19:37:LEU:HG	1.95	0.47
26:14:1729:A:C2	26:14:1730:U:H5	2.32	0.47
26:14:2305:A:H2'	26:14:2306:C:O4'	2.14	0.47
26:14:2611:U:O4	53:J5:3:LYS:HG3	2.14	0.47
30:29:65:GLY:O	30:29:68:ALA:HB2	2.14	0.47
37:35:93:GLY:H	37:35:123:LEU:HD22	1.78	0.47
38:45:81:VAL:O	38:45:82:ARG:NE	2.47	0.47
1:13:221:C:H2'	1:13:222:U:C6	2.48	0.47
4:3E:85:LYS:HB2	4:3E:85:LYS:HE3	1.59	0.47
6:5E:96:PRO:HB3	18:9I:30:ASP:CG	2.40	0.47
14:5I:3:ARG:O	14:5I:6:LEU:N	2.47	0.47
16:7I:72:ARG:HD3	16:7I:73:LEU:HG	1.96	0.47
24:3K:19:G:H1'	24:3K:57:G:N2	2.27	0.47
26:1H:56:A:C2	26:1H:57:C:C2	3.03	0.47
26:1H:68:G:H2'	26:1H:69:C:C6	2.49	0.47
26:1H:552:G:H2'	26:1H:553:U:O4'	2.14	0.47
26:1H:628:G:H2'	26:1H:629:G:C8	2.50	0.47
26:1H:1324:G:N2	26:1H:1331:A:C4	2.81	0.47
26:1H:1417:C:H2'	26:1H:1418:G:O4'	2.14	0.47
26:1H:2040:C:H2'	26:1H:2041:U:O4'	2.15	0.47
26:1H:2375:G:N7	61:1H:3633:HOH:O	2.35	0.47
27:16:0:A:H8	27:16:0:A:OP2	1.97	0.47
32:41:83:ARG:HA	32:41:83:ARG:HD3	1.54	0.47
35:58:128:HIS:HB2	35:58:129:PRO:HD2	1.96	0.47
37:78:94:GLU:OE2	37:78:124:LYS:HD3	2.14	0.47
44:E8:28:SER:OG	44:E8:31:GLU:HG2	2.14	0.47
1:1G:353:A:H5'	1:1G:353:A:H8	1.79	0.47
3:22:119:ARG:NH1	3:22:140:ARG:HG2	2.28	0.47
5:42:67:VAL:HG21	5:42:140:ARG:HA	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3A:117:ARG:NH2	12:3A:124:LYS:HD2	2.29	0.47
13:4A:60:VAL:O	13:4A:63:THR:HG22	2.13	0.47
26:14:700:G:O2'	26:14:1632:A:N3	2.45	0.47
26:14:732:C:OP2	61:14:3548:HOH:O	2.20	0.47
27:1J:13:A:H2'	27:1J:70:C:O2'	2.14	0.47
32:49:51:ARG:HG2	32:49:54:GLU:OE2	2.15	0.47
33:59:68:THR:O	33:59:71:LEU:HB2	2.14	0.47
37:35:55:ARG:HG2	37:35:56:SER:N	2.27	0.47
1:13:103:C:C2	1:13:104:G:C8	3.02	0.47
1:13:1177:G:H5'	9:8E:97:LYS:NZ	2.30	0.47
5:4E:15:ARG:NE	5:4E:26:PHE:CE2	2.80	0.47
10:1I:77:PRO:HB2	10:1I:79:ARG:NH1	2.29	0.47
22:1K:56:C:N4	26:1H:897:C:O2'	2.48	0.47
26:1H:50:U:H3'	26:1H:51:G:C5'	2.45	0.47
26:1H:686:G:H4'	26:1H:687:C:OP2	2.14	0.47
26:1H:1496:A:C8	26:1H:1577:C:O2'	2.66	0.47
29:11:39:LYS:HG3	29:11:40:THR:H	1.79	0.47
29:11:272:ALA:HB1	29:11:273:ARG:H	1.49	0.47
30:21:1:MET:N	30:21:83:ASP:O	2.36	0.47
50:K8:55:ARG:O	50:K8:58:ALA:HB3	2.14	0.47
1:1G:175:C:H4'	20:BA:25:ARG:NH1	2.29	0.47
1:1G:1154:G:H2'	1:1G:1155:G:H8	1.78	0.47
12:3A:59:ARG:HH11	12:3A:59:ARG:CG	2.26	0.47
26:14:51:G:N3	26:14:119:A:C2	2.82	0.47
26:14:1060:U:O4'	26:14:1062:G:H5'	2.15	0.47
26:14:1257:C:H4'	31:39:83:PHE:CE1	2.48	0.47
26:14:1488:G:C6	26:14:1489:U:N3	2.82	0.47
26:14:2142:C:H2'	26:14:2143:C:C6	2.50	0.47
26:14:2414:G:H1'	37:35:70:GLN:NE2	2.29	0.47
38:45:26:TYR:O	38:45:28:ALA:N	2.48	0.47
47:D5:28:MET:HG2	47:D5:35:ARG:O	2.13	0.47
1:13:280:C:O2	17:8I:38:ARG:HG3	2.14	0.47
1:13:319:G:H2'	1:13:320:C:O4'	2.14	0.47
6:5E:67:MET:HB2	6:5E:68:PRO:HD2	1.96	0.47
8:7E:34:GLU:OE2	8:7E:37:ARG:HD3	2.14	0.47
8:7E:42:GLU:HG3	8:7E:109:ILE:HD12	1.96	0.47
15:6I:56:LEU:O	15:6I:60:VAL:HG23	2.13	0.47
24:3K:1:G:N3	24:3K:1:G:H2'	2.28	0.47
26:1H:950:G:C5	26:1H:951:C:C4	3.02	0.47
26:1H:1918:A:O2'	26:1H:1920:C:N4	2.47	0.47
34:61:38:LEU:HD22	34:61:40:THR:HG23	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:96:THR:C	37:78:98:GLU:H	2.22	0.47
47:H8:72:ARG:HD3	47:H8:72:ARG:HA	1.66	0.47
1:1G:518:C:H5"	1:1G:519:C:H6	1.78	0.47
1:1G:581:G:OP1	15:6A:61:GLY:HA3	2.15	0.47
1:1G:649:G:H2'	1:1G:650:G:C8	2.48	0.47
2:12:71:VAL:HG23	2:12:165:VAL:HG13	1.95	0.47
8:72:95:VAL:O	8:72:131:GLY:N	2.46	0.47
14:5A:13:THR:HB	14:5A:20:ALA:HB2	1.96	0.47
17:8A:31:LEU:HB3	17:8A:32:TYR:CD1	2.48	0.47
57:3L:31:A:H61	57:3L:39:PSU:HN3	1.63	0.47
26:14:336:C:OP1	46:C5:83:THR:HG23	2.15	0.47
26:14:2716:U:H2'	26:14:2717:G:H8	1.79	0.47
36:25:22:ILE:HB	36:25:41:ALA:HA	1.96	0.47
37:35:84:ASN:H	37:35:84:ASN:ND2	2.12	0.47
42:85:66:ASN:O	42:85:70:ARG:HB2	2.14	0.47
1:13:345:C:H4'	1:13:346:G:C8	2.48	0.47
1:13:604:G:H2'	1:13:605:U:O4'	2.14	0.47
1:13:884:U:H4'	1:13:885:G:H5"	1.97	0.47
1:13:1227:A:OP2	13:4I:111:LYS:HE3	2.15	0.47
2:1E:90:MET:HE2	2:1E:90:MET:HA	1.96	0.47
3:2E:44:GLU:HA	3:2E:52:LEU:HD11	1.97	0.47
8:7E:23:SER:HA	8:7E:61:VAL:O	2.14	0.47
20:BI:82:SER:O	20:BI:86:ARG:HB2	2.14	0.47
24:3K:72:C:H3'	24:3K:73:A:H5"	1.95	0.47
26:1H:185:U:H4'	26:1H:218:A:H4'	1.97	0.47
26:1H:270(G):C:H2'	26:1H:270(H):C:C6	2.50	0.47
26:1H:960:A:C8	26:1H:962:G:C8	3.02	0.47
26:1H:1355:G:P	29:11:39:LYS:HE3	2.55	0.47
26:1H:2120:G:H2'	26:1H:2121:G:C8	2.50	0.47
30:21:39:PRO:HD3	30:21:45:THR:HG23	1.97	0.47
32:41:125:PHE:CD1	32:41:131:TYR:HB2	2.50	0.47
33:51:115:VAL:HG11	33:51:148:ILE:HD11	1.96	0.47
45:F8:57:LEU:N	45:F8:57:LEU:HD23	2.30	0.47
54:P8:31:LEU:HD22	54:P8:42:LEU:HD13	1.96	0.47
55:Q8:16:ILE:HD13	55:Q8:59:LYS:HG2	1.96	0.47
1:1G:262:A:C6	1:1G:263:A:C6	3.03	0.47
1:1G:447:G:O6	1:1G:485:G:H2'	2.14	0.47
1:1G:693:G:H2'	1:1G:694:A:C8	2.50	0.47
1:1G:1513:A:H2'	1:1G:1514:C:C6	2.48	0.47
2:12:50:GLU:HA	2:12:53:ARG:HE	1.80	0.47
15:6A:42:HIS:O	15:6A:45:VAL:HG23	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8A:67:LYS:O	17:8A:68:ARG:HB3	2.13	0.47
26:14:606:U:H4'	26:14:658:C:H4'	1.96	0.47
26:14:1047:G:N2	26:14:1110:G:N7	2.63	0.47
26:14:1473:G:H1	26:14:1520:U:H3	1.62	0.47
26:14:1488:G:N2	26:14:1502:C:C2	2.83	0.47
26:14:2065:C:H2'	26:14:2066:C:C6	2.49	0.47
26:14:2162:G:C8	26:14:2164:C:N4	2.83	0.47
26:14:2869:G:H2'	26:14:2870:C:O4'	2.14	0.47
31:39:15:SER:OG	31:39:16:GLY:N	2.48	0.47
32:49:32:PRO:HB2	32:49:172:LEU:HD22	1.96	0.47
32:49:107:LEU:HD11	32:49:178:PHE:HE1	1.80	0.47
35:15:1:MET:SD	42:85:95:LEU:HD21	2.54	0.47
38:45:57:HIS:CD2	38:45:117:ALA:HB2	2.49	0.47
46:C5:87:LYS:CG	46:C5:88:LYS:H	2.25	0.47
47:D5:44:PHE:HE2	47:D5:88:PHE:HZ	1.63	0.47
49:F5:92:LYS:O	49:F5:93:GLU:C	2.56	0.47
1:13:157:G:H2'	1:13:158:G:C8	2.50	0.47
1:13:265:G:O2'	17:8I:67:LYS:N	2.48	0.47
1:13:685:G:O2'	1:13:686:U:H5'	2.15	0.47
1:13:986:A:H2'	1:13:987:G:O4'	2.15	0.47
1:13:1028(A):C:H2'	1:13:1028(B):C:C5	2.50	0.47
1:13:1179:A:H4'	9:8E:103:THR:HA	1.95	0.47
7:6E:12:LEU:HD12	7:6E:13:GLN:H	1.78	0.47
10:1I:49:VAL:HG23	14:5I:41:ARG:HB2	1.97	0.47
12:3I:57:LYS:NZ	12:3I:67:THR:HG22	2.30	0.47
18:9I:26:LEU:HD23	18:9I:26:LEU:H	1.80	0.47
24:3K:59:A:H3'	24:3K:60:U:H6	1.79	0.47
26:1H:552:G:C6	26:1H:553:U:C4	3.02	0.47
26:1H:654(C):G:O6	26:1H:654(Q):C:N4	2.48	0.47
26:1H:673:C:H5"	31:31:81:PRO:HD2	1.97	0.47
26:1H:951:C:H2'	26:1H:952:G:H8	1.80	0.47
26:1H:1050:A:C8	26:1H:2751:G:C4	3.02	0.47
26:1H:1332:G:N2	26:1H:1610:A:N7	2.62	0.47
26:1H:1466:G:N3	26:1H:1547:C:N4	2.62	0.47
26:1H:1657:C:O2'	26:1H:1658:C:H5'	2.15	0.47
26:1H:1825:A:O2'	26:1H:1826:G:H5'	2.14	0.47
26:1H:2377:A:H2'	26:1H:2378:A:C8	2.50	0.47
26:1H:2505:G:H2'	26:1H:2576:G:O6	2.14	0.47
26:1H:2542:A:H4'	26:1H:2543:G:C8	2.50	0.47
26:1H:2781:A:H5"	26:1H:2782:G:H5'	1.97	0.47
26:1H:2791:C:H42	26:1H:2805:G:H1	1.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:8:U:O3'	40:A8:25:ARG:NH2	2.48	0.47
27:16:26:A:H2'	27:16:27:C:O4'	2.15	0.47
29:11:78:LYS:HB2	29:11:78:LYS:HE3	1.51	0.47
29:11:261:LYS:NZ	29:11:263:ARG:H	2.12	0.47
30:21:111:ARG:HA	39:98:1:MET:HE3	1.96	0.47
31:31:172:TRP:CD1	31:31:172:TRP:H	2.30	0.47
32:41:166:ASP:O	32:41:170:ARG:N	2.42	0.47
36:68:71:ARG:NH2	36:68:77:ILE:HG21	2.29	0.47
36:68:76:ALA:HB3	41:B8:75:ILE:HD12	1.96	0.47
37:78:59:LEU:O	55:Q8:13:ARG:HD2	2.14	0.47
39:98:70:LEU:HD13	39:98:75:LEU:HD13	1.97	0.47
40:A8:110:LEU:HA	40:A8:110:LEU:HD23	1.59	0.47
47:H8:10:ARG:HH21	47:H8:26:GLY:H	1.61	0.47
47:H8:128:VAL:HG12	47:H8:161:VAL:HB	1.96	0.47
49:J8:49:VAL:HG21	49:J8:67:ILE:HG23	1.97	0.47
1:1G:222:U:H2'	1:1G:223:U:H6	1.79	0.47
1:1G:718:G:H5'	11:2A:117:ASN:CG	2.40	0.47
1:1G:882:C:N4	12:3A:5:PRO:HB3	2.30	0.47
1:1G:1226:C:H2'	13:4A:103:THR:HB	1.96	0.47
1:1G:1256:A:H4'	1:1G:1257:U:OP1	2.14	0.47
1:1G:1288:A:H4'	21:1B:13:ILE:HD13	1.97	0.47
3:22:23:TYR:CE2	10:1A:95:GLU:HB2	2.49	0.47
4:32:26:CYS:HA	4:32:31:CYS:HG	1.80	0.47
4:32:43:HIS:HA	4:32:46:LYS:HE3	1.96	0.47
7:62:51:GLN:HG2	7:62:56:GLN:O	2.14	0.47
9:82:16:ARG:O	9:82:63:ILE:HG23	2.14	0.47
9:82:19:LEU:HB3	9:82:59:PHE:HD2	1.80	0.47
13:4A:37:THR:O	13:4A:55:ARG:NH2	2.43	0.47
16:7A:52:ASP:HB3	16:7A:55:ARG:HB2	1.97	0.47
16:7A:58:TYR:O	16:7A:62:VAL:HG23	2.14	0.47
17:8A:63:ARG:HG2	17:8A:64:PRO:CD	2.45	0.47
56:1L:23:A:H2'	56:1L:24:G:C8	2.49	0.47
26:14:57:C:H2'	26:14:58:G:O4'	2.15	0.47
26:14:96:G:H4'	50:G5:48:HIS:NE2	2.30	0.47
26:14:140:A:H8	26:14:1408:C:O2'	1.95	0.47
26:14:185:U:H4'	26:14:218:A:H4'	1.97	0.47
26:14:492:A:H2'	26:14:493:G:O4'	2.14	0.47
26:14:760:G:OP1	61:14:3547:HOH:O	2.20	0.47
26:14:1019:U:HO2'	26:14:1021:A:H2	1.63	0.47
26:14:1062:G:N2	26:14:1089:G:OP2	2.47	0.47
26:14:1154:G:OP2	42:85:58:ARG:NH1	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1427:A:H4'	26:14:1428:C:O4'	2.15	0.47
26:14:1729:A:C6	26:14:1731:G:C6	3.02	0.47
26:14:1926:U:H2'	26:14:1928:A:OP2	2.15	0.47
26:14:2018:G:H2'	26:14:2019:A:O4'	2.14	0.47
26:14:2239:G:OP2	61:14:3549:HOH:O	2.20	0.47
26:14:2304:G:H22	26:14:2312:U:H3	1.63	0.47
26:14:2473:U:O2	26:14:2473:U:H2'	2.13	0.47
29:19:61:LEU:HB3	29:19:63:ARG:NH1	2.29	0.47
38:45:60:ARG:HE	38:45:60:ARG:HB3	1.49	0.47
39:55:47:PHE:O	39:55:51:LEU:HG	2.14	0.47
42:85:95:LEU:HD23	42:85:95:LEU:HA	1.56	0.47
43:95:35:LEU:C	43:95:37:VAL:HG13	2.39	0.47
45:B5:70:LEU:H	45:B5:70:LEU:HD22	1.79	0.47
46:C5:17:SER:OG	46:C5:18:GLY:O	2.32	0.47
46:C5:35:TYR:CE2	46:C5:69:ALA:HB3	2.50	0.47
47:D5:16:SER:O	47:D5:20:ARG:HG3	2.14	0.47
50:G5:4:SER:OG	50:G5:5:GLU:N	2.46	0.47
1:13:4:U:H3	8:7E:105:ARG:CZ	2.28	0.47
1:13:313:A:H2'	1:13:314:C:C6	2.49	0.47
1:13:491:G:H2'	1:13:492:G:O4'	2.14	0.47
1:13:734:G:C2	1:13:735:C:C2	3.03	0.47
2:1E:16:HIS:HE2	2:1E:214:ILE:HG12	1.80	0.47
3:2E:77:ILE:HA	3:2E:84:ILE:HB	1.96	0.47
13:4I:40:ASN:HB3	13:4I:43:THR:OG1	2.15	0.47
18:9I:22:VAL:HA	18:9I:25:THR:OG1	2.15	0.47
26:1H:459:U:H2'	26:1H:460:A:C8	2.50	0.47
26:1H:668:G:O2'	26:1H:669:G:OP1	2.22	0.47
26:1H:1505:C:H2'	26:1H:1506:C:C6	2.50	0.47
33:51:84:SER:O	33:51:85:LYS:HB2	2.14	0.47
37:78:106:LEU:O	37:78:106:LEU:HD22	2.15	0.47
41:B8:102:ILE:HG21	41:B8:110:ILE:HD13	1.97	0.47
1:1G:511:C:O2'	1:1G:534:U:H1'	2.15	0.47
1:1G:683:G:C6	1:1G:684:A:C6	3.03	0.47
7:62:36:LYS:O	7:62:40:ALA:N	2.48	0.47
7:62:99:LEU:HD22	7:62:103:TRP:CE2	2.50	0.47
56:1L:9:A:H3'	56:1L:10:G:H8	1.77	0.47
26:14:481:G:O5'	46:C5:46:LYS:NZ	2.48	0.47
26:14:777:A:O2'	29:19:48:ARG:NH2	2.48	0.47
26:14:982:C:O5'	26:14:982:C:H6	1.97	0.47
26:14:1588:C:H2'	26:14:1589:C:C6	2.50	0.47
26:14:2275:C:C2	38:45:83:MET:HE3	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:79:52:ARG:C	28:79:53:ARG:HG2	2.39	0.47
34:69:75:LEU:HD23	34:69:76:THR:H	1.80	0.47
36:25:98:VAL:HG12	36:25:117:LEU:CB	2.44	0.47
37:35:86:LYS:HB3	37:35:118:GLY:HA3	1.97	0.47
40:65:102:ALA:O	40:65:105:ALA:N	2.48	0.47
44:A5:50:VAL:HG22	44:A5:105:VAL:HG23	1.97	0.47
1:13:233:C:H2'	1:13:234:C:H6	1.79	0.47
1:13:392:G:H5'	16:7I:12:LYS:HD2	1.96	0.47
1:13:673:G:H2'	1:13:674:G:C8	2.50	0.47
1:13:749:C:H2'	1:13:750:G:H8	1.79	0.47
1:13:1285:A:H4'	1:13:1286:A:O5'	2.14	0.47
1:13:1292:U:C2	1:13:1293:G:C8	3.03	0.47
1:13:1346:A:C5'	9:8E:120:ARG:HH12	2.17	0.47
2:1E:67:THR:OG1	2:1E:157:ARG:NH2	2.48	0.47
2:1E:84:GLU:HB3	2:1E:219:VAL:HG21	1.95	0.47
4:3E:89:THR:O	4:3E:92:VAL:HG23	2.14	0.47
4:3E:106:TYR:HE1	4:3E:107:ARG:HH11	1.63	0.47
4:3E:167:GLY:HA2	29:19:135:PHE:CE1	2.49	0.47
9:8E:53:VAL:HG22	9:8E:92:TYR:CD1	2.50	0.47
13:4I:84:ILE:CG2	13:4I:86:CYS:HB3	2.45	0.47
13:4I:105:THR:OG1	13:4I:106:ASN:N	2.43	0.47
22:1K:76:A:C8	26:1H:2583:G:N2	2.73	0.47
23:2K:64:G:H2'	23:2K:65:G:H8	1.80	0.47
26:1H:1900:A:O2'	26:1H:1901:A:OP1	2.22	0.47
26:1H:2751:G:C4	33:51:3:ARG:HB3	2.49	0.47
26:1H:2783:G:H2'	26:1H:2784:C:C6	2.50	0.47
29:11:31:LYS:HG3	29:11:33:LEU:HD23	1.97	0.47
37:78:34:GLY:O	37:78:36:LYS:HB2	2.14	0.47
45:F8:5:TYR:O	50:K8:36:ARG:NH2	2.47	0.47
54:P8:27:GLY:HA2	54:P8:30:VAL:CG2	2.43	0.47
1:1G:410:G:H21	1:1G:432:A:H62	1.63	0.47
1:1G:522:C:H2'	1:1G:523:A:O4'	2.15	0.47
1:1G:626:U:H2'	1:1G:627:G:C8	2.50	0.47
2:12:88:ALA:HB2	2:12:218:ALA:HB1	1.97	0.47
2:12:127:ILE:HG12	2:12:130:ARG:HD3	1.97	0.47
3:22:11:ARG:NH2	3:22:182:ILE:HD11	2.30	0.47
4:32:190:ASP:OD1	4:32:191:ARG:N	2.48	0.47
10:1A:34:VAL:HG12	10:1A:74:ILE:HG23	1.97	0.47
21:1B:6:ARG:HD3	21:1B:15:ARG:CZ	2.44	0.47
23:2L:21:U:H2'	23:2L:21:U:OP2	2.15	0.47
23:2L:25:U:H2'	23:2L:26:C:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:71:A:H5'	26:14:71:A:H8	1.78	0.47
26:14:130:C:O3'	26:14:1349:A:O2'	2.33	0.47
26:14:801:G:OP2	31:39:55:GLY:HA2	2.15	0.47
26:14:1399:C:H2'	26:14:1400:G:C8	2.50	0.47
26:14:1891:G:C6	26:14:1892:C:C4	3.02	0.47
26:14:2443:C:H2'	26:14:2444:G:H8	1.79	0.47
27:1J:15:A:H5'	27:1J:16:G:C8	2.50	0.47
28:79:50:ASP:OD1	28:79:52:ARG:HG3	2.15	0.47
43:95:21:ARG:NH2	43:95:91:TYR:O	2.48	0.47
1:13:1438:G:OP1	20:BI:34:LYS:HE2	2.15	0.47
2:1E:180:LEU:HB2	2:1E:182:ILE:HG13	1.97	0.47
9:8E:3:GLN:HA	9:8E:20:ARG:HB3	1.97	0.47
10:1I:57:LYS:HE2	10:1I:60:ARG:HH22	1.79	0.47
26:1H:724:U:H2'	26:1H:725:G:O4'	2.15	0.47
26:1H:1971:A:C5	29:11:241:PRO:HD3	2.49	0.47
26:1H:2129:C:H5"	28:71:6:ARG:NH2	2.30	0.47
26:1H:2261:C:O2'	26:1H:2262:U:H5'	2.14	0.47
45:F8:35:THR:N	45:F8:38:GLU:OE1	2.46	0.47
47:H8:70:LEU:HB2	47:H8:91:LEU:HD11	1.96	0.47
1:1G:464:G:O6	1:1G:466:C:H4'	2.15	0.47
1:1G:509:A:O2'	1:1G:510:A:OP1	2.28	0.47
1:1G:1280:A:H5"	10:1A:40:LEU:HG	1.96	0.47
1:1G:1330:U:H4'	13:4A:23:TYR:CE1	2.49	0.47
1:1G:1451:A:OP2	1:1G:1452:C:N4	2.48	0.47
3:22:173:VAL:HG13	3:22:182:ILE:HG21	1.96	0.47
5:42:143:ARG:HD3	5:42:143:ARG:HA	1.74	0.47
8:72:19:VAL:HG21	8:72:21:LYS:NZ	2.30	0.47
8:72:109:ILE:HG22	8:72:137:VAL:HB	1.97	0.47
19:AA:61:TYR:CE2	19:AA:63:THR:HA	2.50	0.47
57:3L:60:U:H5"	57:3L:61:C:OP2	2.14	0.47
26:14:11:G:H1'	26:14:2802:G:P	2.55	0.47
26:14:654(C):G:H22	26:14:654(R):C:HO2'	1.58	0.47
29:19:231:HIS:ND1	29:19:232:PRO:HD2	2.30	0.47
32:49:49:ASP:O	32:49:52:ILE:HG22	2.15	0.47
34:69:128:LEU:O	34:69:137:PRO:HA	2.15	0.47
42:85:29:SER:OG	42:85:30:LYS:NZ	2.37	0.47
1:13:453:A:H4'	16:7I:72:ARG:HB2	1.97	0.46
1:13:501:C:H1'	1:13:549:C:H1'	1.96	0.46
1:13:939:G:C6	1:13:940:C:N4	2.83	0.46
5:4E:6:PHE:CE1	5:4E:36:ASP:HB3	2.50	0.46
11:2I:85:ARG:NE	11:2I:111:ASP:HB3	2.28	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:21:ASP:OD2	15:6I:24:SER:HB2	2.15	0.46
26:1H:449:A:O2'	26:1H:450:G:H5'	2.16	0.46
26:1H:462:C:C4	26:1H:463:G:N7	2.83	0.46
26:1H:784:A:C8	26:1H:792:G:C5	3.03	0.46
26:1H:817:C:H4'	26:1H:932:G:C5	2.50	0.46
26:1H:990:A:H1'	26:1H:1156:A:N3	2.30	0.46
26:1H:1550:C:O2'	26:1H:1551:C:H5'	2.16	0.46
26:1H:1930:G:N2	26:1H:1968:G:H2'	2.29	0.46
26:1H:2130:U:P	28:71:6:ARG:HH22	2.38	0.46
26:1H:2210:G:H3'	26:1H:2211:G:N7	2.30	0.46
26:1H:2682:U:H5"	30:21:11:MET:HB2	1.97	0.46
28:71:214:VAL:HG23	28:71:224:ILE:HG12	1.98	0.46
29:11:85:ASP:OD2	29:11:88:ARG:NH1	2.44	0.46
31:31:32:LEU:HD21	31:31:105:VAL:HG13	1.97	0.46
31:31:152:GLU:OE1	31:31:191:ARG:NE	2.46	0.46
35:58:34:LEU:HD21	35:58:120:LEU:HB2	1.97	0.46
39:98:28:LEU:HD11	39:98:114:VAL:HG12	1.97	0.46
44:E8:9:TYR:HA	44:E8:100:THR:HG23	1.97	0.46
55:Q8:7:HIS:CD2	55:Q8:61:LEU:HD13	2.49	0.46
1:1G:236:G:OP1	17:8A:40:LYS:NZ	2.48	0.46
1:1G:615:C:C2	1:1G:616:G:C8	3.03	0.46
1:1G:841:U:H3'	1:1G:841:U:C6	2.48	0.46
1:1G:1002:G:C6	1:1G:1003:G:N7	2.83	0.46
1:1G:1347:G:H22	1:1G:1374:A:P	2.37	0.46
25:4L:8:A:H3'	25:4L:9:G:H8	1.80	0.46
26:14:307:G:O2'	26:14:309:G:N7	2.45	0.46
26:14:602:G:N2	26:14:655:A:C8	2.83	0.46
26:14:1257:C:OP1	31:39:75:HIS:HE1	1.98	0.46
26:14:2212:A:H1'	26:14:2215:G:C5	2.49	0.46
26:14:2469:A:H2	26:14:2481:G:N2	2.12	0.46
26:14:2647:U:H2'	26:14:2648:C:H6	1.79	0.46
31:39:3:GLU:O	31:39:19:GLU:HB2	2.14	0.46
32:49:78:SER:HA	32:49:81:LYS:O	2.15	0.46
39:55:8:ARG:NE	39:55:43:GLU:OE2	2.48	0.46
48:E5:12:ASN:HA	48:E5:14:ARG:HH21	1.80	0.46
1:13:21:G:H2'	1:13:22:G:C8	2.50	0.46
1:13:376:G:OP2	16:7I:67:THR:HG21	2.14	0.46
1:13:828:A:N7	1:13:859:A:C8	2.84	0.46
1:13:1171:G:O2'	1:13:1172:C:H5'	2.14	0.46
2:1E:86:GLU:C	2:1E:89:GLY:H	2.24	0.46
2:1E:114:ARG:HE	2:1E:118:LEU:HD23	1.78	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:156:ARG:HB3	3:2E:160:ALA:O	2.14	0.46
5:4E:33:VAL:HG11	5:4E:109:ILE:HA	1.97	0.46
11:2I:67:ASP:O	11:2I:71:LYS:HG2	2.15	0.46
13:4I:108:ARG:NH1	13:4I:112:GLY:O	2.49	0.46
26:1H:207:A:H2'	26:1H:208:C:O4'	2.15	0.46
26:1H:363:G:H2'	26:1H:363(A):A:C8	2.49	0.46
26:1H:752:A:OP1	54:P8:3:ARG:NH2	2.49	0.46
26:1H:2016:U:O2	53:N8:7:PRO:HG2	2.15	0.46
26:1H:2584:U:H2'	26:1H:2585:U:H2'	1.97	0.46
26:1H:2640:G:OP1	35:58:74:ARG:NH1	2.46	0.46
29:11:37:LEU:CD1	29:11:37:LEU:H	2.21	0.46
29:11:218:ARG:HB3	29:11:219:PRO:HD2	1.97	0.46
38:88:43:THR:HA	38:88:94:VAL:HG12	1.97	0.46
42:C8:88:ILE:O	42:C8:90:VAL:HG13	2.16	0.46
42:C8:92:ARG:HD2	43:D8:11:GLN:HB2	1.97	0.46
48:I8:84:LEU:HD12	48:I8:84:LEU:HA	1.74	0.46
4:32:19:LEU:HB2	4:32:21:LEU:HD11	1.97	0.46
9:82:14:VAL:HG12	9:82:66:ARG:H	1.81	0.46
18:9A:47:THR:O	18:9A:83:GLU:N	2.45	0.46
20:BA:48:LYS:O	20:BA:50:GLU:N	2.48	0.46
26:14:601:C:O2	26:14:605:C:H4'	2.15	0.46
26:14:1204:A:H2	26:14:1241:A:N1	2.13	0.46
26:14:2052:G:H2'	26:14:2053:G:C8	2.50	0.46
26:14:2056:G:OP2	61:14:3550:HOH:O	2.21	0.46
26:14:2688:U:H2'	26:14:2719:G:N2	2.30	0.46
26:14:2749:A:O4'	33:59:63:SER:HA	2.16	0.46
27:1J:76:G:H2'	27:1J:77:U:O4'	2.15	0.46
28:79:19:ILE:HA	28:79:223:ARG:HB3	1.97	0.46
30:29:54:GLN:HG2	30:29:73:GLU:OE2	2.14	0.46
33:59:61:HIS:CD2	33:59:61:HIS:H	2.33	0.46
34:69:128:LEU:HD13	34:69:128:LEU:HA	1.68	0.46
38:45:57:HIS:NE2	38:45:116:GLU:HB3	2.31	0.46
39:55:75:LEU:O	39:55:75:LEU:HD22	2.16	0.46
42:85:98:LEU:HA	42:85:100:VAL:O	2.15	0.46
50:G5:31:GLU:O	50:G5:35:LEU:HD23	2.15	0.46
55:M5:48:PHE:HA	55:M5:49:VAL:HG13	1.98	0.46
1:13:1399:C:C2	1:13:1502:A:N6	2.84	0.46
2:1E:149:LEU:O	2:1E:153:ARG:N	2.48	0.46
2:1E:169:LYS:HE3	2:1E:169:LYS:HB2	1.54	0.46
4:3E:88:VAL:HG12	5:4E:97:GLY:HA3	1.97	0.46
5:4E:82:VAL:HG21	5:4E:138:ALA:HA	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:86:ILE:HG22	8:7E:87:SER:H	1.81	0.46
8:7E:87:SER:HB2	8:7E:93:VAL:H	1.78	0.46
15:6I:6:GLU:H	15:6I:6:GLU:HG2	1.45	0.46
19:AI:39:THR:HG22	19:AI:40:ILE:H	1.80	0.46
19:AI:65:ASN:OD1	19:AI:65:ASN:N	2.40	0.46
20:BI:22:ARG:O	20:BI:26:ASN:ND2	2.48	0.46
26:1H:654:A:N3	26:1H:654(A):A:H5"	2.30	0.46
26:1H:1576:U:C2	26:1H:1577:C:C5	3.03	0.46
26:1H:1637:A:H4'	26:1H:2711:A:O2'	2.16	0.46
26:1H:2516:G:C6	26:1H:2517:C:C4	3.03	0.46
26:1H:2516:G:C6	26:1H:2517:C:N4	2.84	0.46
26:1H:2666:C:H5"	26:1H:2667:C:OP2	2.15	0.46
26:1H:2693:A:H2'	26:1H:2694:G:C8	2.51	0.46
32:41:137:GLU:HG3	32:41:140:ILE:HG23	1.96	0.46
37:78:59:LEU:O	37:78:59:LEU:HD12	2.15	0.46
39:98:104:ARG:NH1	39:98:107:ASP:OD2	2.49	0.46
42:C8:19:LYS:O	42:C8:22:LYS:HG3	2.15	0.46
43:D8:49:THR:HG23	43:D8:51:VAL:N	2.31	0.46
52:M8:22:ILE:O	52:M8:24:THR:HG23	2.15	0.46
1:1G:155:C:H2'	1:1G:156:G:C8	2.50	0.46
1:1G:197:A:H8	1:1G:198:G:N9	2.13	0.46
1:1G:430:A:H2'	1:1G:431:A:H8	1.80	0.46
1:1G:1054:C:H6	1:1G:1196:U:O2'	1.98	0.46
1:1G:1122:U:C4	1:1G:1123:A:N7	2.84	0.46
2:12:24:TRP:C	2:12:24:TRP:CD1	2.93	0.46
7:62:137:LYS:O	7:62:137:LYS:HD3	2.16	0.46
56:1L:42:A:O5'	56:1L:42:A:H8	1.98	0.46
23:2L:2:G:N3	23:2L:2:G:H2'	2.30	0.46
57:3L:3:G:H8	57:3L:3:G:O5'	1.98	0.46
26:14:1268:A:H2'	26:14:1269:A:O4'	2.15	0.46
26:14:1751:C:H2'	26:14:1752:C:C6	2.50	0.46
26:14:2572:A:OP1	26:14:2574:G:O2'	2.33	0.46
26:14:2734:A:C8	26:14:2735:G:C8	3.03	0.46
41:75:91:ARG:NH1	41:75:124:ASP:OD2	2.46	0.46
41:75:132:LYS:HB3	41:75:132:LYS:NZ	2.31	0.46
1:13:972:C:O3'	10:1I:57:LYS:HD3	2.15	0.46
1:13:1005:A:H1'	1:13:1036:G:N2	2.30	0.46
1:13:1153:C:H2'	1:13:1154:G:O4'	2.16	0.46
18:9I:59:SER:HB3	18:9I:62:GLU:HB2	1.97	0.46
26:1H:533:G:H5'	42:C8:24:TYR:CD1	2.50	0.46
26:1H:998:C:OP2	42:C8:58:ARG:NH1	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1277:G:H5”	39:98:40:LYS:HZ3	1.81	0.46
26:1H:1696:G:C6	26:1H:1697:G:C4	3.03	0.46
26:1H:2052:G:H4’	30:21:143:ASN:O	2.14	0.46
26:1H:2065:C:H2’	26:1H:2066:C:H6	1.81	0.46
26:1H:2174:C:O2	28:71:218:MET:HG3	2.15	0.46
26:1H:2213:U:H1’	49:J8:52:ARG:CZ	2.46	0.46
26:1H:2642:G:N2	26:1H:2773:C:C2	2.84	0.46
27:16:60:C:C2	27:16:61:G:C8	3.04	0.46
28:71:46:LYS:HB3	28:71:210:ARG:HB2	1.96	0.46
29:11:44:ASN:O	29:11:46:GLN:N	2.49	0.46
38:88:118:LEU:HA	38:88:118:LEU:HD23	1.73	0.46
41:B8:26:ASP:HB3	41:B8:120:ARG:HH22	1.81	0.46
42:C8:81:HIS:CE1	42:C8:85:LYS:HE2	2.51	0.46
44:E8:71:VAL:HA	44:E8:107:LEU:HD12	1.97	0.46
47:H8:152:ALA:HB3	47:H8:167:PRO:O	2.15	0.46
50:K8:42:GLY:C	50:K8:44:LEU:N	2.67	0.46
1:1G:345:C:O3’	41:75:41:ARG:NH2	2.49	0.46
1:1G:736:C:OP1	18:9A:72:ARG:NH2	2.41	0.46
1:1G:942:G:N2	9:82:124:GLN:OE1	2.47	0.46
1:1G:1004:A:H1’	1:1G:1026:G:N7	2.29	0.46
1:1G:1061:G:H2’	1:1G:1062:U:C6	2.51	0.46
1:1G:1080:A:H5”	1:1G:1081:G:OP2	2.15	0.46
4:32:78:LEU:HD22	4:32:96:LEU:HB3	1.98	0.46
7:62:65:ALA:HB1	7:62:127:ALA:HB3	1.97	0.46
9:82:24:GLY:HA2	9:82:59:PHE:O	2.16	0.46
26:14:1005:C:H2’	26:14:1006:C:C6	2.51	0.46
26:14:2582:G:C2	26:14:2583:G:C8	3.04	0.46
29:19:182:LEU:N	29:19:272:ALA:HB3	2.30	0.46
35:15:4:TYR:HB2	42:85:101:ARG:HH12	1.80	0.46
35:15:128:HIS:HB2	35:15:129:PRO:HD2	1.97	0.46
37:35:71:VAL:HG12	37:35:72:PRO:HD3	1.97	0.46
42:85:112:ARG:HE	43:95:47:VAL:HG21	1.80	0.46
47:D5:52:SER:C	47:D5:54:HIS:H	2.24	0.46
50:G5:52:ASP:O	50:G5:56:GLN:HG3	2.16	0.46
1:13:116:A:H61	1:13:313:A:H1’	1.80	0.46
1:13:1134:G:C2	1:13:1135:U:H1’	2.50	0.46
1:13:1280:A:H3’	1:13:1281:U:H5’	1.97	0.46
1:13:1391:U:H2’	1:13:1392:G:H8	1.71	0.46
8:7E:114:THR:HG22	8:7E:130:GLY:O	2.15	0.46
9:8E:36:TYR:OH	9:8E:73:GLN:NE2	2.39	0.46
9:8E:108:VAL:HG22	9:8E:109:VAL:N	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7I:19:ILE:HB	16:7I:36:ILE:O	2.16	0.46
18:9I:54:ARG:HG3	18:9I:55:ARG:HD2	1.97	0.46
24:3K:56:C:H3'	24:3K:57:G:C8	2.50	0.46
26:1H:64:A:C2'	26:1H:65:C:H5'	2.46	0.46
26:1H:529:A:H8	26:1H:530:G:C6	2.34	0.46
26:1H:1515:C:H2'	26:1H:1516:U:C6	2.46	0.46
26:1H:1900:A:N1	26:1H:1970:A:C6	2.83	0.46
26:1H:2864:G:H2'	26:1H:2865:U:H6	1.79	0.46
29:11:70:TRP:CE2	29:11:150:LYS:HD3	2.51	0.46
29:11:79:VAL:O	29:11:113:VAL:HG23	2.15	0.46
31:31:155:LEU:HD12	31:31:174:VAL:CG2	2.44	0.46
32:41:113:ARG:HD3	32:41:140:ILE:O	2.16	0.46
34:61:29:TYR:O	34:61:32:PRO:HD2	2.15	0.46
46:G8:40:GLU:HA	46:G8:41:GLY:HA2	1.71	0.46
55:Q8:31:HIS:O	55:Q8:36:LYS:NZ	2.48	0.46
1:1G:411:A:C5	1:1G:413:G:H1'	2.50	0.46
1:1G:438:G:H4'	4:32:123:HIS:CE1	2.51	0.46
1:1G:439:A:C8	1:1G:440:A:C8	3.04	0.46
1:1G:668:G:O2'	15:6A:46:HIS:HB3	2.14	0.46
1:1G:1148:U:H2'	1:1G:1149:C:O4'	2.15	0.46
1:1G:1163:C:H2'	1:1G:1164:G:H8	1.79	0.46
1:1G:1291:G:O3'	9:82:39:GLY:HA3	2.15	0.46
1:1G:1329:A:OP1	13:4A:28:ALA:HB3	2.15	0.46
3:22:26:LYS:HG3	3:22:27:LYS:H	1.79	0.46
8:72:40:ALA:HA	8:72:45:ILE:HG13	1.97	0.46
20:BA:30:LYS:HE2	20:BA:30:LYS:HB3	1.76	0.46
26:14:836:G:H2'	26:14:837:C:C6	2.51	0.46
26:14:897:C:H2'	26:14:898:C:H6	1.81	0.46
26:14:1167:U:C2	26:14:1183:G:N2	2.84	0.46
26:14:1525:G:H2'	26:14:1526:G:H8	1.79	0.46
26:14:2012:G:OP1	44:A5:11:ARG:NH2	2.49	0.46
26:14:2533:A:H2'	26:14:2534:A:O4'	2.14	0.46
26:14:2807:G:H22	26:14:2892:A:H62	1.62	0.46
29:19:200:ASP:OD1	29:19:203:ASN:ND2	2.48	0.46
36:25:67:LYS:HD2	36:25:68:GLU:OE1	2.15	0.46
40:65:11:LYS:HG3	40:65:91:PRO:HD3	1.98	0.46
43:95:29:PRO:HA	43:95:61:VAL:CG1	2.45	0.46
47:D5:157:LEU:HD12	47:D5:161:VAL:C	2.40	0.46
50:G5:22:GLU:OE2	50:G5:68:ARG:NH2	2.49	0.46
1:13:68:G:C2	1:13:69:G:C8	3.03	0.46
1:13:232:G:C5	1:13:233:C:C5	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:927:G:N2	1:13:1391:U:H1'	2.30	0.46
1:13:1098:C:C2	1:13:1099:G:C8	3.03	0.46
9:8E:125:TYR:HD1	9:8E:126:SER:H	1.63	0.46
16:7I:3:LYS:O	16:7I:21:VAL:HA	2.16	0.46
26:1H:412:A:H5"	26:1H:413:C:OP2	2.16	0.46
26:1H:435:C:C2'	26:1H:436:C:H5'	2.45	0.46
26:1H:573:G:O2'	26:1H:574:C:H3'	2.16	0.46
26:1H:1403:C:O2	26:1H:1403:C:H2'	2.15	0.46
26:1H:2629:A:O2'	26:1H:2630:G:H5"	2.16	0.46
26:1H:2811:G:OP1	30:21:60:ASN:HB2	2.15	0.46
29:11:261:LYS:HZ2	29:11:263:ARG:H	1.62	0.46
37:78:49:ARG:HD2	55:Q8:60:LEU:HB3	1.96	0.46
37:78:49:ARG:HB2	55:Q8:61:LEU:HD21	1.98	0.46
44:E8:83:LYS:HB3	44:E8:95:ILE:HD13	1.97	0.46
1:1G:107:G:C2	1:1G:108:G:H1'	2.50	0.46
1:1G:149:A:H8	1:1G:149:A:O5'	1.99	0.46
1:1G:625:G:H2'	1:1G:626:U:H6	1.81	0.46
1:1G:735:C:H2'	1:1G:736:C:H6	1.80	0.46
1:1G:1039:C:H2'	1:1G:1040:U:C6	2.50	0.46
2:12:19:HIS:NE2	2:12:206:ASP:HB2	2.31	0.46
8:72:87:SER:HA	8:72:93:VAL:HG23	1.97	0.46
11:2A:25:TYR:HE1	11:2A:87:THR:O	1.99	0.46
15:6A:10:LYS:HA	15:6A:13:GLN:HG3	1.97	0.46
23:2L:9:G:O4'	23:2L:47:G7M:H1'	2.14	0.46
26:14:270(H):C:H2'	26:14:270(I):G:C8	2.51	0.46
26:14:1071:G:O6	26:14:1072:C:N4	2.49	0.46
26:14:1480:G:C6	26:14:1482:U:C4	3.03	0.46
26:14:2320:A:C6	26:14:2333:A:C8	3.03	0.46
26:14:2518:A:H8	26:14:2518:A:O5'	1.99	0.46
29:19:244:ARG:HB2	29:19:245:PRO:HD2	1.98	0.46
30:29:49:LEU:HD11	30:29:81:ILE:HG12	1.98	0.46
30:29:55:ASN:HB2	30:29:58:ARG:HH21	1.79	0.46
38:45:97:VAL:HG11	38:45:103:MET:HE3	1.97	0.46
40:65:67:ARG:NH1	40:65:67:ARG:HB2	2.30	0.46
42:85:98:LEU:C	42:85:100:VAL:N	2.72	0.46
42:85:98:LEU:CB	42:85:102:GLU:HB2	2.46	0.46
1:13:779:C:H2'	1:13:780:A:O4'	2.16	0.46
2:1E:6:THR:OG1	2:1E:7:VAL:N	2.49	0.46
7:6E:73:MET:HG3	7:6E:89:MET:O	2.16	0.46
13:4I:9:ILE:HG22	13:4I:10:PRO:O	2.16	0.46
13:4I:32:GLU:O	13:4I:35:GLU:HG2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8I:76:LEU:HD12	17:8I:77:VAL:N	2.30	0.46
24:3K:58:A:O2'	24:3K:59:A:OP1	2.29	0.46
26:1H:270(E):G:C6	26:1H:270(F):U:C4	3.04	0.46
26:1H:534:U:H5'	42:C8:42:ALA:HB1	1.98	0.46
26:1H:593:G:H1	26:1H:664:C:H42	1.63	0.46
26:1H:880:G:N1	26:1H:881:G:O6	2.49	0.46
26:1H:1161:C:H1'	43:D8:8:GLY:O	2.16	0.46
26:1H:1170:G:C2'	26:1H:1171:G:H5'	2.46	0.46
26:1H:1401:G:H2'	26:1H:1402:C:H6	1.80	0.46
26:1H:1491:G:O4'	29:11:99:ASP:HB3	2.16	0.46
26:1H:1729:A:H2'	26:1H:1731:G:N7	2.31	0.46
26:1H:1831:G:H2'	26:1H:1832:C:C6	2.50	0.46
26:1H:2261:C:C6	48:I8:16:SER:HB3	2.51	0.46
26:1H:2312:U:P	32:41:74:LYS:HD2	2.56	0.46
26:1H:2660:A:H2'	26:1H:2661:G:O4'	2.16	0.46
26:1H:2695:C:H2'	26:1H:2696:U:C6	2.51	0.46
28:71:20:TYR:H	28:71:224:ILE:HA	1.80	0.46
28:71:166:ASP:CG	28:71:170:ALA:H	2.23	0.46
29:11:130:ALA:C	29:11:131:LEU:HD12	2.41	0.46
29:11:232:PRO:HG2	29:11:248:SER:O	2.15	0.46
31:31:104:LYS:O	31:31:108:LYS:HG3	2.16	0.46
33:51:7:LEU:HD23	33:51:65:HIS:HE1	1.80	0.46
34:61:77:LEU:HG	34:61:101:LEU:HD13	1.97	0.46
37:78:112:LEU:HB3	37:78:127:ALA:HB1	1.97	0.46
42:C8:88:ILE:C	42:C8:90:VAL:H	2.24	0.46
1:1G:363:A:C6	12:3A:31:PRO:HD2	2.50	0.46
1:1G:535:A:OP1	61:1G:1705:HOH:O	2.21	0.46
2:12:172:ILE:H	2:12:172:ILE:HD12	1.80	0.46
3:22:118:GLN:HA	3:22:187:ALA:CB	2.45	0.46
6:52:67:MET:HB2	6:52:68:PRO:HD2	1.97	0.46
8:72:101:PRO:HB2	8:72:103:VAL:HG23	1.98	0.46
9:82:45:ALA:O	9:82:48:GLU:HB2	2.15	0.46
12:3A:111:LYS:H	12:3A:111:LYS:HD2	1.81	0.46
14:5A:29:ARG:HG3	14:5A:31:ARG:O	2.14	0.46
15:6A:76:GLU:OE1	15:6A:80:ALA:HB2	2.15	0.46
18:9A:32:ARG:HD3	18:9A:65:ILE:HD13	1.98	0.46
19:AA:13:ASP:O	19:AA:16:LEU:N	2.45	0.46
23:2L:47:G7M:H3'	23:2L:48:U:C2	2.51	0.46
57:3L:56:C:H2'	57:3L:57:G:N7	2.30	0.46
26:14:412:A:H5"	26:14:413:C:OP2	2.15	0.46
26:14:547:A:H2'	26:14:548:A:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:924:C:H2'	26:14:925:C:C6	2.51	0.46
26:14:981:A:H8	26:14:982:C:C5	2.33	0.46
26:14:1358:G:N2	26:14:1372:U:C5	2.84	0.46
26:14:1418:G:H8	26:14:1418:G:O5'	1.99	0.46
26:14:1419:A:N6	26:14:1421:G:N3	2.64	0.46
26:14:1662:C:O2'	26:14:2687:U:OP1	2.31	0.46
26:14:1858:G:O2'	26:14:1884:A:N6	2.48	0.46
26:14:1926:U:O2'	26:14:1928:A:N7	2.39	0.46
26:14:2115:G:H2'	26:14:2115:G:N3	2.30	0.46
33:59:74:ASN:HA	33:59:77:LYS:HB2	1.96	0.46
33:59:143:GLN:HE21	33:59:143:GLN:C	2.22	0.46
40:65:106:ARG:H	40:65:106:ARG:HG3	1.48	0.46
45:B5:35:THR:HG23	45:B5:38:GLU:HB3	1.98	0.46
48:E5:34:GLY:HA2	48:E5:61:ALA:O	2.16	0.46
54:L5:8:ASN:C	54:L5:8:ASN:OD1	2.58	0.46
1:13:953:G:N7	13:4I:104:ARG:NH2	2.61	0.46
1:13:1106:G:C5	1:13:1107:C:C5	3.04	0.46
1:13:1180:A:OP1	9:8E:103:THR:OG1	2.30	0.46
1:13:1263:C:H2'	1:13:1264:C:C6	2.45	0.46
1:13:1305:G:H8	1:13:1305:G:OP2	1.99	0.46
2:1E:74:LYS:HB2	2:1E:208:ILE:HD13	1.96	0.46
3:2E:127:ARG:HA	3:2E:127:ARG:HD2	1.76	0.46
4:3E:47:ARG:NH1	4:3E:47:ARG:O	2.49	0.46
20:BI:55:ILE:HD13	20:BI:55:ILE:HA	1.76	0.46
26:1H:8:A:H2'	26:1H:9:U:C6	2.51	0.46
26:1H:806:C:C2	26:1H:807:U:C5	3.04	0.46
26:1H:1280:G:N2	26:1H:1291:C:C2	2.83	0.46
27:16:42:C:O2'	32:41:67:LYS:HE3	2.16	0.46
28:71:29:VAL:HG21	28:71:214:VAL:HG12	1.97	0.46
28:71:218:MET:SD	28:71:218:MET:N	2.88	0.46
29:11:233:HIS:HA	61:11:403:HOH:O	2.15	0.46
32:41:110:ALA:HA	32:41:140:ILE:O	2.16	0.46
42:C8:68:ALA:O	42:C8:71:GLN:HB2	2.15	0.46
1:1G:181:G:H4'	1:1G:182:U:H5'	1.98	0.46
1:1G:186(E):C:C2	1:1G:191(C):G:N2	2.83	0.46
1:1G:422:C:O2'	1:1G:423:G:N2	2.49	0.46
3:22:131:ARG:NH2	3:22:166:GLU:HG2	2.31	0.46
6:52:60:PHE:O	6:52:61:LEU:HD12	2.16	0.46
7:62:47:CYS:HA	7:62:50:ILE:HD12	1.98	0.46
9:82:17:VAL:HG11	9:82:81:ILE:HA	1.98	0.46
10:1A:28:ARG:NH1	10:1A:34:VAL:HG22	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1B:2:GLY:HA2	21:1B:10:ARG:HH12	1.80	0.46
57:3L:51:A:N6	57:3L:63:U:H3	2.14	0.46
26:14:531:C:C5	26:14:2035:G:C2	3.04	0.46
26:14:563:G:C6	26:14:564:C:C4	3.03	0.46
26:14:1372:U:H2'	26:14:1373:A:O4'	2.15	0.46
26:14:1999:C:H4'	26:14:2723:C:O2	2.16	0.46
26:14:2118:U:O2'	26:14:2145:C:O2	2.19	0.46
29:19:72:LYS:HB3	29:19:75:ILE:HD12	1.98	0.46
31:39:102:PRO:HB2	31:39:105:VAL:HG23	1.98	0.46
32:49:56:ALA:HB2	32:49:153:ARG:CZ	2.45	0.46
35:15:4:TYR:O	42:85:64:ARG:NH1	2.45	0.46
39:55:78:LYS:O	39:55:82:GLU:HG2	2.16	0.46
44:A5:34:ASN:ND2	53:J5:39:MET:HG3	2.31	0.46
1:13:142:G:H2'	1:13:143:A:C8	2.50	0.46
1:13:1533:C:O2'	1:13:1534:A:OP1	2.31	0.46
4:3E:117:ALA:O	4:3E:120:LEU:HB2	2.15	0.46
4:3E:138:TYR:CD1	4:3E:138:TYR:C	2.93	0.46
5:4E:68:GLU:O	5:4E:70:PRO:HD3	2.16	0.46
7:6E:148:ASN:N	7:6E:148:ASN:ND2	2.64	0.46
13:4I:88:ARG:H	13:4I:88:ARG:HG3	1.53	0.46
17:8I:88:TYR:CD1	17:8I:88:TYR:C	2.94	0.46
22:1K:26:A:H62	22:1K:44:U:H3	1.64	0.46
24:3K:3:G:H2'	24:3K:4:U:O4'	2.15	0.46
26:1H:216:A:H2'	26:1H:217:G:H8	1.79	0.46
26:1H:827:U:H5'	26:1H:828:U:O5'	2.15	0.46
26:1H:1512:G:C5	26:1H:1513:C:C4	3.04	0.46
26:1H:1647:G:P	26:1H:1647:G:H3'	2.56	0.46
26:1H:2018:G:H2'	26:1H:2019:A:C8	2.51	0.46
26:1H:2688:U:O2	26:1H:2688:U:H3'	2.16	0.46
26:1H:2692:C:OP1	26:1H:2871:C:H5'	2.15	0.46
27:16:40:U:H2'	52:M8:2:LYS:HE3	1.98	0.46
32:41:5:VAL:H	52:M8:25:TYR:HE2	1.63	0.46
33:51:12:PRO:HG2	33:51:13:LYS:HG2	1.96	0.46
35:58:13:TRP:O	35:58:135:PRO:HD2	2.15	0.46
39:98:44:LEU:O	39:98:45:ARG:C	2.59	0.46
42:C8:108:GLU:HG3	43:D8:44:LYS:NZ	2.31	0.46
49:J8:83:GLU:C	49:J8:85:LEU:H	2.24	0.46
50:K8:4:SER:CB	50:K8:7:ARG:HG2	2.45	0.46
52:M8:9:LEU:HD12	52:M8:27:THR:N	2.31	0.46
1:1G:111:G:H8	1:1G:111:G:O5'	1.98	0.46
7:62:15:ASP:O	7:62:19:GLY:HA2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:27:THR:OG1	9:82:32:ASP:HA	2.16	0.46
12:3A:6:THR:O	12:3A:10:LEU:HD12	2.16	0.46
26:14:311:A:C6	26:14:328:U:C4	3.04	0.46
26:14:2351:G:O6	55:M5:39:LYS:HG3	2.16	0.46
26:14:2550:G:C5	26:14:2551:C:C5	3.03	0.46
29:19:58:HIS:O	29:19:60:ARG:HD2	2.16	0.46
30:29:150:VAL:HG13	30:29:154:LYS:HD2	1.98	0.46
31:39:3:GLU:HA	31:39:24:LEU:HD12	1.98	0.46
34:69:101:LEU:HB2	34:69:105:HIS:HB2	1.97	0.46
38:45:86:GLY:O	38:45:88:GLY:N	2.49	0.46
39:55:45:ARG:HA	39:55:95:THR:HG21	1.97	0.46
40:65:80:LEU:HA	40:65:80:LEU:HD23	1.69	0.46
46:C5:87:LYS:HG2	46:C5:88:LYS:N	2.28	0.46
47:D5:59:LEU:HB3	47:D5:60:GLU:H	1.46	0.46
1:13:45:U:H2'	1:13:46:G:C8	2.51	0.46
1:13:187:C:H2'	1:13:188:U:O4'	2.16	0.46
1:13:752:G:H4'	15:6I:69:TYR:OH	2.16	0.46
1:13:1367:C:H5'	10:1I:60:ARG:NH1	2.31	0.46
2:1E:98:LEU:HB2	2:1E:101:MET:HE3	1.98	0.46
2:1E:220:ASP:O	2:1E:224:GLN:HB2	2.16	0.46
15:6I:9:GLN:HA	15:6I:12:ILE:HD12	1.98	0.46
18:9I:52:PRO:O	18:9I:56:THR:HG23	2.15	0.46
26:1H:270(V):G:H2'	26:1H:270(W):G:C8	2.50	0.46
26:1H:459:U:H2'	26:1H:460:A:H8	1.80	0.46
26:1H:1239:G:H2'	26:1H:1240:U:O4'	2.16	0.46
26:1H:1689:A:C6	26:1H:1700:A:C2	3.04	0.46
26:1H:1689:A:N6	26:1H:1698:A:H2	2.10	0.46
26:1H:2248:C:H2'	26:1H:2249:U:O4'	2.16	0.46
26:1H:2776:A:H4'	26:1H:2777:G:H5"	1.97	0.46
28:71:47:LEU:HB2	28:71:169:GLY:O	2.16	0.46
29:11:75:ILE:HD13	29:11:99:ASP:OD2	2.16	0.46
29:11:105:ILE:HA	29:11:105:ILE:HD13	1.65	0.46
31:31:41:LEU:HA	31:31:44:ARG:HD3	1.98	0.46
35:58:68:GLU:HG3	35:58:69:GLN:N	2.31	0.46
37:78:130:PHE:CE1	37:78:146:VAL:HG23	2.51	0.46
1:1G:1489:G:H2'	1:1G:1490:C:O4'	2.16	0.46
2:12:144:ARG:O	2:12:147:LYS:HB3	2.16	0.46
7:62:111:ARG:CZ	7:62:122:HIS:HB3	2.46	0.46
17:8A:21:VAL:HG11	17:8A:59:ILE:HG13	1.98	0.46
20:BA:87:LYS:HE3	20:BA:87:LYS:HB2	1.75	0.46
26:14:1153:C:OP1	42:85:93:LYS:NZ	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1716:U:H2'	26:14:1717:G:H8	1.80	0.46
26:14:2197:U:H1'	26:14:2198:A:H8	1.78	0.46
26:14:2461:C:C2	26:14:2462:U:C5	3.04	0.46
26:14:2528:U:O2'	26:14:2530:A:OP1	2.28	0.46
29:19:70:TRP:CD1	29:19:70:TRP:C	2.94	0.46
30:29:81:ILE:HG22	30:29:82:ARG:N	2.27	0.46
33:59:60:ARG:O	33:59:63:SER:OG	2.33	0.46
34:69:88:ILE:HG22	34:69:90:GLY:N	2.30	0.46
35:15:121:LYS:HB3	35:15:123:TYR:HE1	1.80	0.46
36:25:71:ARG:NH2	36:25:77:ILE:HG21	2.31	0.46
37:35:138:LEU:HD12	37:35:144:GLU:HG3	1.97	0.46
46:C5:54:LYS:C	46:C5:55:TYR:CG	2.93	0.46
47:D5:39:VAL:HG21	47:D5:44:PHE:CD2	2.51	0.46
1:13:724:G:H2'	1:13:725:G:H8	1.81	0.45
1:13:808:C:P	15:6I:48:LYS:HZ1	2.40	0.45
1:13:1028(A):C:H2'	1:13:1028(B):C:H5	1.80	0.45
5:4E:26:PHE:CD1	5:4E:26:PHE:N	2.84	0.45
5:4E:110:LEU:HD13	5:4E:118:ILE:HG21	1.98	0.45
14:5I:3:ARG:O	14:5I:6:LEU:HB2	2.15	0.45
16:7I:80:PHE:O	16:7I:82:GLN:HG3	2.16	0.45
22:1K:66:A:N7	22:1K:67:C:C2	2.85	0.45
26:1H:163:U:P	26:1H:164:U:H5"	2.56	0.45
26:1H:634:C:H2'	26:1H:635:C:C6	2.51	0.45
26:1H:1638:C:H4'	26:1H:2710:C:O2	2.16	0.45
26:1H:1676:A:C2	26:1H:1993:U:H5'	2.51	0.45
26:1H:1728:G:O6	26:1H:1730:U:H5"	2.15	0.45
26:1H:2130:U:OP2	28:71:6:ARG:CZ	2.64	0.45
26:1H:2427:C:H5"	26:1H:2428:G:OP1	2.16	0.45
27:16:11:C:OP2	27:16:12:C:N4	2.33	0.45
28:71:180:PHE:N	28:71:180:PHE:CD1	2.84	0.45
29:11:146:GLU:HB2	29:11:189:CYS:CB	2.34	0.45
31:31:6:VAL:HG12	31:31:7:TYR:N	2.30	0.45
31:31:64:ILE:HG23	31:31:64:ILE:HD12	1.67	0.45
33:51:14:GLY:O	33:51:29:PRO:HD3	2.16	0.45
45:F8:49:VAL:HG13	45:F8:87:GLN:HG2	1.98	0.45
47:H8:28:MET:HB2	47:H8:35:ARG:HB3	1.97	0.45
1:1G:580:U:H2'	1:1G:581:G:O4'	2.16	0.45
1:1G:652:U:H2'	1:1G:653:A:H5"	1.97	0.45
1:1G:654:G:H3'	1:1G:655:A:H8	1.81	0.45
1:1G:855:G:N2	1:1G:856:C:O2	2.48	0.45
1:1G:1129:C:N4	1:1G:1139:G:H22	2.14	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1331:G:OP1	1:1G:1331:G:H4'	2.17	0.45
4:32:23:GLY:HA3	4:32:113:SER:HB3	1.99	0.45
56:1L:9:A:H3'	56:1L:10:G:N7	2.30	0.45
26:14:681:G:H2'	26:14:682:G:O4'	2.16	0.45
26:14:1388:G:O2'	26:14:1389:G:H5'	2.15	0.45
26:14:1818:U:H2'	29:19:157:ARG:HG3	1.97	0.45
26:14:1997:G:P	61:14:3525:HOH:O	2.72	0.45
31:39:28:ILE:C	31:39:112:MET:HE3	2.41	0.45
31:39:39:TRP:CH2	31:39:106:ARG:HD3	2.51	0.45
37:35:78:PRO:HA	37:35:110:TYR:CE1	2.51	0.45
41:75:91:ARG:HD3	41:75:120:ARG:HB3	1.97	0.45
46:C5:59:GLY:O	46:C5:61:ILE:HG13	2.16	0.45
51:H5:46:ASN:O	51:H5:50:VAL:HG22	2.17	0.45
1:13:454:C:H3'	1:13:455:C:C6	2.51	0.45
1:13:625:G:H2'	1:13:626:U:H6	1.80	0.45
1:13:728:A:C5	15:6I:54:ARG:HD2	2.51	0.45
1:13:1187:G:O5'	9:8E:113:LYS:NZ	2.49	0.45
1:13:1207:G:H2'	1:13:1208:C:C6	2.51	0.45
1:13:1376:U:H2'	1:13:1377:A:C8	2.51	0.45
1:13:1388:C:H2'	1:13:1389:C:H6	1.80	0.45
3:2E:55:VAL:HG22	3:2E:68:VAL:HG22	1.98	0.45
3:2E:123:GLN:O	3:2E:128:PHE:HB2	2.16	0.45
13:4I:16:ASP:OD1	13:4I:16:ASP:N	2.48	0.45
26:1H:69:C:H2'	26:1H:70:G:C8	2.51	0.45
26:1H:1027:A:C2	26:1H:2488:A:H5'	2.52	0.45
26:1H:1045:A:H1'	26:1H:1047:G:C4	2.51	0.45
26:1H:1267:U:O2'	26:1H:1268:A:H5'	2.16	0.45
26:1H:2394:C:H2'	26:1H:2395:C:C6	2.48	0.45
26:1H:2547:U:H2'	26:1H:2548:G:C8	2.51	0.45
26:1H:2725:A:C4	26:1H:2727:G:C8	3.04	0.45
28:71:45:ALA:HA	28:71:212:VAL:HA	1.98	0.45
29:11:85:ASP:HB2	29:11:92:ILE:HG12	1.98	0.45
32:41:80:PHE:O	32:41:82:LEU:HB2	2.16	0.45
47:H8:7:ALA:C	47:H8:8:TYR:CD1	2.94	0.45
48:I8:69:PHE:CE1	48:I8:79:VAL:HG22	2.52	0.45
53:N8:40:LYS:HG3	53:N8:47:PRO:HD2	1.98	0.45
1:1G:46:G:O2'	1:1G:365:U:H1'	2.16	0.45
1:1G:160:A:H1'	1:1G:344:A:C5	2.51	0.45
1:1G:181:G:O2'	1:1G:183:G:O6	2.32	0.45
1:1G:1029:G:N2	1:1G:1032:A:OP2	2.49	0.45
1:1G:1309:G:O3'	13:4A:77:ASN:ND2	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:14:LEU:HD21	6:52:19:LEU:HG	1.98	0.45
12:3A:32:PHE:HD1	12:3A:86:ARG:HA	1.81	0.45
12:3A:60:LEU:HB2	12:3A:64:TYR:CB	2.46	0.45
13:4A:97:PRO:N	13:4A:110:ARG:HG2	2.31	0.45
16:7A:19:ILE:HB	16:7A:36:ILE:O	2.17	0.45
16:7A:74:LEU:HD13	16:7A:74:LEU:HA	1.68	0.45
19:AA:33:THR:OG1	19:AA:34:TRP:N	2.49	0.45
20:BA:86:ARG:CZ	20:BA:86:ARG:HB2	2.46	0.45
26:14:270(R):G:H2'	26:14:270(S):G:C8	2.51	0.45
26:14:642:G:H21	26:14:646:A:H2	1.63	0.45
26:14:706:A:H2'	26:14:707:G:O4'	2.16	0.45
26:14:735:A:N7	26:14:761:A:H2	2.14	0.45
26:14:1188:U:C2'	26:14:1189:A:H5'	2.46	0.45
26:14:1885:A:H3'	26:14:1886:C:C6	2.51	0.45
26:14:2776:A:H4'	26:14:2777:G:C5'	2.46	0.45
29:19:108:PRO:HB3	29:19:143:HIS:CE1	2.45	0.45
30:29:52:LEU:HD13	30:29:52:LEU:HA	1.81	0.45
31:39:132:VAL:HG22	31:39:133:ASN:H	1.79	0.45
35:15:72:TYR:CD2	35:15:90:MET:HG3	2.51	0.45
38:45:38:GLU:HG3	38:45:127:ILE:CG2	2.46	0.45
45:B5:80:ILE:HD13	45:B5:80:ILE:O	2.15	0.45
46:C5:74:PRO:O	46:C5:82:PRO:HD2	2.14	0.45
46:C5:82:PRO:HB2	46:C5:83:THR:O	2.15	0.45
47:D5:31:ARG:HE	47:D5:31:ARG:HB2	1.60	0.45
1:13:859:A:H2'	1:13:860:A:H8	1.81	0.45
1:13:1048:G:OP1	14:5I:4:LYS:HB2	2.17	0.45
1:13:1277:C:O2'	1:13:1279:A:H1'	2.16	0.45
1:13:1454:G:OP1	20:BI:39:LYS:NZ	2.48	0.45
2:1E:72:GLY:HA2	2:1E:165:VAL:CG2	2.47	0.45
2:1E:111:ARG:HA	2:1E:111:ARG:HD3	1.75	0.45
10:1I:28:ARG:HB3	10:1I:28:ARG:CZ	2.46	0.45
17:8I:56:VAL:HB	17:8I:78:GLU:H	1.81	0.45
22:1K:14:A:C5	22:1K:22:G:C2	3.04	0.45
26:1H:7:G:H2'	26:1H:8:A:O4'	2.16	0.45
26:1H:140:A:C8	26:1H:1408:C:O2'	2.65	0.45
26:1H:198:C:C2'	26:1H:199:A:H5"	2.46	0.45
26:1H:234:C:H2'	26:1H:235:U:C6	2.49	0.45
26:1H:270(L):U:H2'	34:61:50:ARG:HD2	1.97	0.45
26:1H:396:G:O3'	49:J8:44:PRO:HA	2.17	0.45
26:1H:613:U:H5'	26:1H:616:A:N6	2.31	0.45
26:1H:1296:G:O2'	26:1H:1297:C:H5'	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1344:G:H5'	26:1H:1384:A:N1	2.31	0.45
26:1H:1487:G:H2'	26:1H:1488:G:H8	1.81	0.45
26:1H:1726:G:H2'	26:1H:1727:U:O4'	2.15	0.45
26:1H:1765:C:H2'	26:1H:1766:U:H6	1.81	0.45
26:1H:2324:C:H5"	26:1H:2325:G:H5'	1.98	0.45
26:1H:2772:C:H2'	26:1H:2773:C:C6	2.52	0.45
27:16:44:G:O2'	27:16:45:A:O5'	2.33	0.45
27:16:54:G:H2'	27:16:55:U:H6	1.81	0.45
29:11:108:PRO:HD2	29:11:111:LEU:HG	1.99	0.45
32:41:51:ARG:H	32:41:51:ARG:HG3	1.41	0.45
33:51:157:TYR:CE1	33:51:171:LEU:HB3	2.51	0.45
34:61:40:THR:O	34:61:44:LEU:HB2	2.16	0.45
37:78:108:LYS:C	37:78:110:TYR:H	2.25	0.45
45:F8:35:THR:HG22	45:F8:38:GLU:OE1	2.16	0.45
1:1G:56:U:H2'	1:1G:57:G:C8	2.51	0.45
1:1G:604:G:H2'	1:1G:605:U:O4'	2.16	0.45
1:1G:1108:G:H5'	3:22:176:HIS:ND1	2.31	0.45
1:1G:1258:G:O2'	1:1G:1259:C:H5'	2.16	0.45
1:1G:1413:A:H2'	1:1G:1414:U:O4'	2.17	0.45
3:22:6:HIS:HB3	14:5A:49:HIS:ND1	2.31	0.45
9:82:46:ALA:HB2	9:82:74:ILE:HG23	1.99	0.45
56:1L:6:G:O2'	56:1L:7:U:OP1	2.32	0.45
26:14:17:G:H2'	26:14:18:C:C6	2.51	0.45
26:14:675:A:OP1	31:39:63:LYS:HE2	2.16	0.45
26:14:794:G:H2'	26:14:795:C:C6	2.50	0.45
26:14:872:A:P	38:45:5:ARG:HH22	2.39	0.45
26:14:1525:G:H2'	26:14:1526:G:C8	2.51	0.45
26:14:1991:U:H2'	26:14:1992:G:H5"	1.97	0.45
26:14:2127:G:H2'	26:14:2128:C:O4'	2.15	0.45
29:19:26:LYS:HE2	29:19:26:LYS:HA	1.98	0.45
31:39:4:VAL:HG13	31:39:19:GLU:OE2	2.16	0.45
35:15:38:HIS:HE2	35:15:50:ASP:CG	2.23	0.45
37:35:131:SER:HB3	37:35:134:ALA:HB2	1.98	0.45
43:95:22:VAL:HG22	43:95:23:GLU:H	1.82	0.45
43:95:77:ALA:O	43:95:79:VAL:HG22	2.16	0.45
47:D5:59:LEU:HD12	47:D5:69:THR:HG21	1.97	0.45
49:F5:80:LEU:HD13	49:F5:80:LEU:HA	1.66	0.45
1:13:689:C:OP1	11:2I:27:ASN:ND2	2.47	0.45
1:13:918:A:H2'	1:13:919:A:H8	1.78	0.45
1:13:1053:G:N7	1:13:1199:U:H3'	2.32	0.45
1:13:1137:C:H1'	1:13:1138:G:N1	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1218:C:H2'	1:13:1219:U:C6	2.51	0.45
2:1E:72:GLY:HA2	2:1E:165:VAL:HG22	1.98	0.45
3:2E:58:GLU:HB2	3:2E:65:ALA:CB	2.45	0.45
3:2E:73:PRO:HA	3:2E:76:VAL:HG22	1.97	0.45
5:4E:145:LYS:O	5:4E:148:VAL:HB	2.15	0.45
9:8E:70:LYS:O	9:8E:73:GLN:HB2	2.16	0.45
18:9I:40:LEU:HD23	18:9I:40:LEU:HA	1.74	0.45
19:AI:40:ILE:HG22	19:AI:69:HIS:O	2.17	0.45
26:1H:397:G:H2'	26:1H:398:G:H8	1.80	0.45
26:1H:577:G:OP1	26:1H:2502:G:O2'	2.33	0.45
26:1H:1375:C:H2'	26:1H:1376:C:H6	1.81	0.45
26:1H:1464:C:O2'	26:1H:1528:A:H8	2.00	0.45
26:1H:1470:G:H5"	26:1H:1471:A:OP1	2.16	0.45
26:1H:2027:G:C5	26:1H:2028:U:C5	3.04	0.45
26:1H:2061:G:H3'	61:1H:3535:HOH:O	2.16	0.45
26:1H:2145:C:H3'	26:1H:2146:C:H5'	1.98	0.45
29:11:149:PRO:O	29:11:150:LYS:HB2	2.17	0.45
30:21:35:GLN:HG2	30:21:36:ARG:N	2.31	0.45
32:41:46:ALA:HB2	32:41:52:ILE:CB	2.41	0.45
32:41:171:ALA:O	32:41:174:GLU:HB2	2.17	0.45
34:61:64:GLU:O	34:61:67:ARG:N	2.50	0.45
35:58:68:GLU:HG3	35:58:69:GLN:H	1.81	0.45
37:78:114:ILE:HG12	37:78:130:PHE:CD2	2.52	0.45
46:G8:88:LYS:HD3	46:G8:88:LYS:HA	1.60	0.45
1:1G:332:G:C2	1:1G:333:G:C8	3.05	0.45
1:1G:1055:A:C2	1:1G:1056:U:H1'	2.51	0.45
1:1G:1516:G:H2'	1:1G:1518:A:OP2	2.16	0.45
3:22:111:LEU:HD11	3:22:144:SER:O	2.16	0.45
4:32:32:ALA:HA	4:32:35:ARG:HB3	1.99	0.45
9:82:20:ARG:HG3	9:82:60:ASP:HB2	1.98	0.45
13:4A:8:GLU:HB3	32:49:115:ARG:NH2	2.32	0.45
14:5A:17:LYS:HZ2	14:5A:18:VAL:HG13	1.82	0.45
20:BA:56:MET:HE2	20:BA:56:MET:HB3	1.61	0.45
26:14:90:U:HO2'	26:14:91:A:H8	1.60	0.45
26:14:111:A:C2	26:14:112:U:C2	3.04	0.45
26:14:265:A:H1'	26:14:266:G:O4'	2.16	0.45
26:14:456:C:C2	45:B5:69:TYR:HE2	2.35	0.45
26:14:478:A:N1	26:14:500:G:H4'	2.31	0.45
26:14:813:U:C2	26:14:1195:G:N2	2.85	0.45
26:14:951:C:H2'	26:14:952:G:H8	1.82	0.45
26:14:957:A:N6	26:14:2459:A:C8	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1019:U:H3	26:14:1142(A):A:H62	1.64	0.45
26:14:1278:A:O2'	39:55:34:ILE:HD11	2.17	0.45
26:14:1331:A:H2'	26:14:1333:C:C5	2.51	0.45
26:14:1408:C:O2	26:14:1595:G:N2	2.49	0.45
26:14:1708:C:O2'	26:14:1709:U:H5'	2.16	0.45
40:65:23:ARG:NH2	40:65:84:GLN:OE1	2.49	0.45
43:95:37:VAL:HG21	43:95:57:VAL:HG13	1.98	0.45
43:95:71:LEU:H	43:95:86:GLY:CA	2.29	0.45
43:95:71:LEU:O	43:95:72:VAL:HG12	2.16	0.45
1:13:591:U:H2'	1:13:592:G:C8	2.52	0.45
1:13:657:G:N2	1:13:749:C:O2	2.25	0.45
1:13:963:G:H1	1:13:972:C:N4	2.11	0.45
1:13:1299:A:C2'	1:13:1301:U:H1'	2.45	0.45
1:13:1333:A:H2'	1:13:1334:G:O4'	2.16	0.45
9:8E:48:GLU:N	9:8E:49:PRO:HD2	2.31	0.45
14:5I:21:TYR:HE1	14:5I:23:ARG:NE	2.15	0.45
14:5I:43:CYS:HA	14:5I:46:GLU:HB2	1.99	0.45
24:3K:21:A:H2'	24:3K:22:G:H8	1.81	0.45
26:1H:602:G:O2'	26:1H:604:G:O2'	2.10	0.45
26:1H:1296:G:H2'	26:1H:1297:C:H6	1.82	0.45
26:1H:1336:A:OP2	45:F8:64:LYS:NZ	2.39	0.45
26:1H:1578:U:H5	61:1H:3999:HOH:O	1.98	0.45
26:1H:1635:G:C2	26:1H:1636:C:C2	3.05	0.45
26:1H:1897:G:H2'	26:1H:1898:U:O4'	2.16	0.45
26:1H:2311:A:O2'	32:41:88:ILE:HG21	2.17	0.45
26:1H:2680:C:OP2	30:21:111:ARG:NH2	2.47	0.45
27:16:0:A:H2'	27:16:1:U:C6	2.51	0.45
32:41:96:ARG:O	32:41:97:ASP:HB2	2.16	0.45
37:78:37:GLY:O	37:78:40:SER:N	2.48	0.45
37:78:100:LEU:HA	37:78:100:LEU:HD13	1.62	0.45
39:98:5:LYS:HB2	39:98:5:LYS:HE3	1.68	0.45
43:D8:36:PRO:C	43:D8:38:LEU:H	2.23	0.45
45:F8:12:VAL:HG13	45:F8:27:THR:O	2.16	0.45
49:J8:58:ILE:HG12	49:J8:87:PRO:HD3	1.98	0.45
51:L8:31:LEU:HB3	51:L8:32:GLN:OE1	2.16	0.45
1:1G:552:U:H1'	12:3A:32:PHE:CE1	2.51	0.45
1:1G:653:A:C8	8:72:56:LYS:HE3	2.52	0.45
1:1G:1053:G:C6	1:1G:1199:U:H2'	2.52	0.45
1:1G:1109:C:H2'	1:1G:1110:A:O4'	2.16	0.45
4:32:20:TYR:HD1	4:32:26:CYS:HB3	1.82	0.45
7:62:60:LYS:HG2	7:62:63:LYS:HE3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8A:10:VAL:HG22	17:8A:55:ASP:O	2.15	0.45
20:BA:57:ARG:HA	20:BA:60:GLU:HB2	1.99	0.45
56:1L:18:G:O2'	56:1L:19:G:H5'	2.16	0.45
56:1L:68:G:H2'	56:1L:69:A:C5	2.51	0.45
26:14:66:C:H2'	26:14:67:U:H6	1.80	0.45
26:14:221:A:N1	26:14:265:A:O2'	2.44	0.45
26:14:445:C:O2'	26:14:446:G:H5'	2.16	0.45
26:14:955:C:OP1	38:45:85:LYS:NZ	2.48	0.45
26:14:1338:G:N3	26:14:1393:A:H2	2.15	0.45
26:14:2467:C:H4'	38:45:123:HIS:CD2	2.51	0.45
26:14:2591:C:OP1	29:19:239:ARG:HG3	2.17	0.45
26:14:2884:U:H2'	26:14:2885:C:O4'	2.17	0.45
26:14:2892:A:C5	26:14:2893:G:H1'	2.52	0.45
27:1J:21:G:H2'	27:1J:22:U:O4'	2.16	0.45
30:29:26:ILE:HD12	30:29:26:ILE:HG23	1.70	0.45
31:39:123:LEU:C	31:39:125:LEU:H	2.18	0.45
41:75:8:LYS:HA	41:75:8:LYS:NZ	2.31	0.45
41:75:26:ASP:O	41:75:49:VAL:HG22	2.17	0.45
1:13:383:A:C5	1:13:384:G:H1'	2.52	0.45
1:13:509:A:H5"	4:3E:55:ALA:HB2	1.98	0.45
1:13:843:U:H5"	1:13:848:C:C5	2.52	0.45
1:13:1412:C:H42	1:13:1488:G:H1	1.64	0.45
2:1E:127:ILE:HD11	2:1E:139:LYS:NZ	2.32	0.45
3:2E:131:ARG:HA	3:2E:134:ILE:HD12	1.99	0.45
5:4E:126:ARG:HG3	5:4E:126:ARG:HH11	1.81	0.45
8:7E:10:LEU:HD23	8:7E:10:LEU:N	2.32	0.45
11:2I:38:ASN:HA	11:2I:39:PRO:HD3	1.82	0.45
13:4I:13:LYS:HA	13:4I:13:LYS:HZ2	1.81	0.45
23:2K:17:C:H5'	23:2K:62:C:OP1	2.16	0.45
26:1H:734:A:O2'	26:1H:1635:G:H5'	2.16	0.45
26:1H:775:G:C5	26:1H:794:G:C8	3.04	0.45
26:1H:839:U:H2'	26:1H:840:C:C6	2.51	0.45
26:1H:996:A:H4'	42:C8:92:ARG:HE	1.80	0.45
26:1H:1171:G:H3'	26:1H:1173:G:C5'	2.47	0.45
26:1H:1358:G:N2	26:1H:1372:U:C5	2.85	0.45
26:1H:2336:A:H61	48:I8:43:THR:HG21	1.81	0.45
26:1H:2663:G:C2	26:1H:2664:G:H1'	2.51	0.45
28:71:22:ILE:HD13	28:71:189:ILE:HG22	1.97	0.45
30:21:105:THR:HB	30:21:197:ILE:HG23	1.99	0.45
31:31:108:LYS:O	31:31:112:MET:HG3	2.17	0.45
31:31:129:PHE:HB2	31:31:132:VAL:HG13	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:106:LEU:HD12	32:41:110:ALA:HB3	1.97	0.45
34:61:10:GLU:O	34:61:11:ASN:HB2	2.17	0.45
37:78:50:ARG:HD3	55:Q8:7:HIS:CD2	2.52	0.45
45:F8:41:ASN:OD1	45:F8:41:ASN:N	2.49	0.45
49:J8:21:ARG:HE	49:J8:21:ARG:HB3	1.40	0.45
51:L8:6:VAL:HG12	51:L8:56:VAL:HG22	1.97	0.45
1:1G:113:G:O4'	1:1G:354:G:H4'	2.16	0.45
1:1G:397:A:H3'	1:1G:397:A:N3	2.32	0.45
1:1G:582:U:H5"	15:6A:64:ARG:NH1	2.31	0.45
1:1G:1316:G:N2	1:1G:1319:A:OP2	2.42	0.45
2:12:98:LEU:O	2:12:101:MET:HG2	2.17	0.45
8:72:81:HIS:HB2	8:72:138:TRP:HE3	1.82	0.45
10:1A:28:ARG:HH12	10:1A:34:VAL:HG22	1.81	0.45
13:4A:96:LEU:CD2	13:4A:97:PRO:HD2	2.47	0.45
25:4L:11:U:H2'	25:4L:12:A:H5"	1.98	0.45
26:14:59:U:O2'	26:14:73:A:H2'	2.16	0.45
26:14:718:A:H3'	26:14:719:C:H6	1.82	0.45
26:14:1149:G:H2'	26:14:1150:C:C6	2.52	0.45
26:14:1328:G:H2'	26:14:1330:C:C4	2.52	0.45
31:39:141:ALA:HA	31:39:144:LYS:HB2	1.99	0.45
40:65:68:GLN:O	40:65:72:ALA:N	2.42	0.45
43:95:76:LYS:HD2	43:95:80:GLN:O	2.16	0.45
47:D5:98:MET:O	47:D5:125:LEU:HA	2.17	0.45
55:M5:40:GLU:H	55:M5:43:GLN:HB2	1.82	0.45
1:13:134:A:H61	16:7I:25:ARG:NH1	2.14	0.45
1:13:718:G:C4	11:2I:116:HIS:CD2	3.05	0.45
4:3E:157:LEU:HD12	4:3E:161:ASN:ND2	2.32	0.45
5:4E:128:PRO:HA	5:4E:131:ILE:HB	1.98	0.45
5:4E:143:ARG:HB3	5:4E:147:ASP:HB2	1.98	0.45
6:5E:23:LYS:HB2	6:5E:23:LYS:NZ	2.32	0.45
8:7E:11:THR:HG23	8:7E:14:ARG:HH12	1.81	0.45
19:AI:41:VAL:CG1	19:AI:67:VAL:HA	2.47	0.45
24:3K:57:G:O5'	24:3K:57:G:H8	1.99	0.45
26:1H:91:A:H2'	26:1H:92:G:O4'	2.16	0.45
26:1H:389:G:H1	37:78:71:VAL:HG12	1.81	0.45
26:1H:1113:U:H2'	26:1H:1114:G:C8	2.52	0.45
26:1H:1380:G:N2	26:1H:1570:A:C2	2.85	0.45
26:1H:1409:C:N4	26:1H:1593:G:H1	2.14	0.45
26:1H:1437:C:H2'	26:1H:1438:U:H6	1.82	0.45
26:1H:2199:A:C4	26:1H:2205:C:C6	3.05	0.45
26:1H:2496:C:C2'	26:1H:2497:A:H5'	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2845:G:H5"	41:B8:55:ASN:HA	1.98	0.45
30:21:78:LEU:O	30:21:79:ARG:HB2	2.16	0.45
32:41:6:ALA:HB3	32:41:104:GLU:OE2	2.17	0.45
33:51:124:GLU:HG2	33:51:126:PRO:HD3	1.98	0.45
37:78:46:LYS:O	37:78:47:ASP:HB3	2.16	0.45
43:D8:85:LYS:HB2	43:D8:85:LYS:HZ3	1.82	0.45
48:I8:36:ILE:HD13	48:I8:36:ILE:C	2.42	0.45
51:L8:26:LEU:HB2	51:L8:28:LEU:HD12	1.98	0.45
1:1G:263:A:H2'	1:1G:264:U:C6	2.52	0.45
1:1G:411:A:H61	1:1G:430:A:N6	2.15	0.45
1:1G:791:G:O6	1:1G:792:A:N6	2.48	0.45
1:1G:1298:C:H4'	1:1G:1299:A:C5	2.50	0.45
1:1G:1401:G:C2	1:1G:1402:C:H1'	2.51	0.45
2:12:83:MET:HE3	2:12:83:MET:HB3	1.68	0.45
9:82:43:ALA:HA	9:82:74:ILE:HD13	1.99	0.45
13:4A:15:VAL:HA	13:4A:18:ALA:HB3	1.99	0.45
14:5A:11:LYS:O	14:5A:13:THR:HG23	2.17	0.45
57:3L:30:G:C4	57:3L:31:A:C8	3.05	0.45
26:14:41:C:H2'	26:14:43:G:H8	1.82	0.45
26:14:910:A:N3	26:14:2264:C:O2'	2.42	0.45
26:14:1356:G:H2'	26:14:1357:U:O4'	2.16	0.45
26:14:2173:A:O2'	26:14:2174:C:OP1	2.32	0.45
30:29:51:PHE:CE2	30:29:52:LEU:HD22	2.52	0.45
31:39:168:ARG:HG3	31:39:175:THR:HG21	1.98	0.45
31:39:178:PRO:HB3	31:39:198:ALA:HB1	1.99	0.45
32:49:140:ILE:HG13	32:49:141:PHE:N	2.32	0.45
36:25:7:TYR:CE1	36:25:20:MET:HG3	2.51	0.45
38:45:34:LEU:HB2	38:45:118:LEU:HD13	1.98	0.45
44:A5:72:LYS:HG2	44:A5:106:ILE:HD11	1.98	0.45
47:D5:44:PHE:HE2	47:D5:88:PHE:CZ	2.34	0.45
1:13:38:G:C2	1:13:397:A:C2	3.05	0.45
1:13:186(A):C:N3	20:BI:105:SER:HB3	2.31	0.45
1:13:965:A:C2	1:13:969:A:C2	3.05	0.45
1:13:1058:G:C6	1:13:1059:C:N3	2.85	0.45
1:13:1148:U:H2'	1:13:1149:C:O4'	2.17	0.45
2:1E:91:PRO:HG3	2:1E:154:LEU:HB2	1.98	0.45
6:5E:4:TYR:HA	6:5E:91:VAL:O	2.17	0.45
6:5E:89:MET:HG3	18:9I:76:LEU:CD2	2.43	0.45
8:7E:77:GLU:HG2	8:7E:78:GLN:H	1.81	0.45
20:BI:53:LEU:O	20:BI:57:ARG:HB2	2.16	0.45
26:1H:576:U:O2	26:1H:576:U:O5'	2.35	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1018:C:O2'	26:1H:1019:U:H5'	2.16	0.45
26:1H:1210:A:H5'	26:1H:1210:A:C8	2.46	0.45
26:1H:1264:G:H5'	53:N8:11:THR:CG2	2.47	0.45
26:1H:1568:G:P	29:11:63:ARG:HH12	2.40	0.45
26:1H:2732:G:H3'	26:1H:2733:A:O4'	2.17	0.45
26:1H:2744:G:C8	26:1H:2755:C:C6	3.05	0.45
28:71:46:LYS:C	28:71:47:LEU:HD23	2.42	0.45
28:71:180:PHE:HA	28:71:181:PRO:HD3	1.67	0.45
32:41:77:ILE:HG22	32:41:82:LEU:HD12	1.99	0.45
34:61:33:ARG:O	34:61:35:LEU:HD12	2.17	0.45
36:68:64:ARG:NH1	36:68:81:ASP:OD1	2.50	0.45
38:88:39:PRO:HA	38:88:97:VAL:O	2.17	0.45
41:B8:7:ILE:C	41:B8:9:LEU:N	2.75	0.45
45:F8:47:PHE:O	45:F8:49:VAL:HG23	2.17	0.45
1:1G:771:G:H2'	1:1G:772:U:C6	2.52	0.45
1:1G:1141:C:H2'	1:1G:1142:G:C8	2.52	0.45
2:12:185:ILE:HG23	2:12:199:TYR:O	2.17	0.45
3:22:42:LEU:O	3:22:46:GLU:HG2	2.17	0.45
4:32:60:GLU:CD	4:32:199:ASN:H	2.25	0.45
9:82:95:LYS:HB3	9:82:95:LYS:NZ	2.32	0.45
12:3A:109:GLY:HA3	12:3A:121:GLY:O	2.17	0.45
13:4A:84:ILE:C	13:4A:86:CYS:H	2.25	0.45
18:9A:38:GLU:CD	18:9A:38:GLU:H	2.25	0.45
26:14:300:A:H2'	26:14:334:C:H1'	1.99	0.45
26:14:389:G:H1	37:35:71:VAL:HG12	1.82	0.45
26:14:608:A:H2'	26:14:609:A:O4'	2.17	0.45
26:14:669:G:N3	26:14:669:G:H2'	2.31	0.45
26:14:873:G:H1'	38:45:29:PHE:CE2	2.44	0.45
26:14:1011:G:OP2	42:85:66:ASN:ND2	2.48	0.45
26:14:1138:G:C4	26:14:1139:G:H1'	2.51	0.45
26:14:1217:C:OP1	42:85:15:LYS:HE3	2.17	0.45
26:14:1838:C:N4	26:14:1898:U:H2'	2.32	0.45
26:14:2029:G:H2'	26:14:2031:A:OP1	2.17	0.45
26:14:2092:U:H5	26:14:2226:C:OP2	2.00	0.45
26:14:2850:A:C2	26:14:2851:A:C4	3.04	0.45
36:25:50:GLY:H	36:25:53:LYS:HE3	1.82	0.45
37:35:52:GLU:CD	37:35:52:GLU:H	2.25	0.45
37:35:96:THR:OG1	37:35:97:PRO:O	2.34	0.45
37:35:144:GLU:HA	37:35:145:PRO:HD3	1.72	0.45
46:C5:40:GLU:N	46:C5:40:GLU:OE2	2.50	0.45
48:E5:24:LYS:O	48:E5:25:ARG:HD3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:F5:12:PRO:HB2	49:F5:41:ARG:HH21	1.82	0.45
1:13:33:A:H8	1:13:33:A:O5'	1.99	0.45
1:13:426:G:OP1	4:3E:38:TYR:OH	2.35	0.45
1:13:603:U:H2'	1:13:604:G:C8	2.51	0.45
1:13:625:G:H2'	1:13:626:U:C6	2.52	0.45
1:13:877:C:OP1	8:7E:88:LYS:NZ	2.37	0.45
1:13:990:C:N4	1:13:991:U:O4	2.49	0.45
2:1E:59:GLU:HB2	2:1E:221:LEU:HD21	1.99	0.45
4:3E:79:PHE:O	4:3E:83:SER:OG	2.32	0.45
20:BI:13:LEU:C	20:BI:13:LEU:HD12	2.42	0.45
22:1K:28:U:C4	22:1K:29:U:C4	3.05	0.45
24:3K:72:C:H2'	24:3K:73:A:H5"	1.98	0.45
26:1H:580:C:H2'	26:1H:581:C:C6	2.50	0.45
26:1H:1264:G:H5'	53:N8:11:THR:HG23	1.99	0.45
26:1H:1591:G:H2'	26:1H:1592:C:C6	2.51	0.45
26:1H:1668:A:OP1	36:68:5:GLN:HG3	2.16	0.45
26:1H:2661:G:OP2	26:1H:2661:G:H8	2.00	0.45
30:21:47:VAL:O	30:21:80:GLU:HA	2.16	0.45
31:31:27:GLU:OE1	31:31:27:GLU:N	2.47	0.45
31:31:46:ARG:HA	31:31:46:ARG:HD2	1.77	0.45
35:58:104:LYS:HB2	35:58:117:PHE:CE1	2.52	0.45
40:A8:18:ILE:O	40:A8:21:THR:HG22	2.17	0.45
50:K8:64:LEU:HD21	50:K8:68:ARG:NH1	2.32	0.45
52:M8:40:HIS:CE1	52:M8:43:TYR:O	2.69	0.45
54:P8:18:PHE:C	54:P8:18:PHE:CD1	2.95	0.45
1:1G:1346:A:C6	7:62:10:ARG:NH1	2.84	0.45
13:4A:31:LYS:O	13:4A:34:LEU:HB2	2.16	0.45
18:9A:53:ARG:HD2	18:9A:63:GLN:HB2	1.99	0.45
21:1B:8:THR:HG21	21:1B:10:ARG:NH2	2.32	0.45
26:14:519:U:H2'	26:14:520:G:C8	2.52	0.45
26:14:843:G:H1	26:14:935:C:H42	1.65	0.45
26:14:851:U:OP1	51:H5:49:LYS:HE2	2.17	0.45
26:14:1087:G:N3	26:14:1087:G:H2'	2.32	0.45
26:14:1849:G:H2'	26:14:1850:G:H8	1.82	0.45
26:14:2577:A:H2'	26:14:2614:A:N6	2.32	0.45
26:14:2655:G:N2	26:14:2665:A:OP2	2.50	0.45
26:14:2873:A:H8	39:55:6:SER:N	2.02	0.45
26:14:2897:U:H3'	26:14:2898:U:C6	2.52	0.45
30:29:55:ASN:O	30:29:57:LYS:NZ	2.49	0.45
33:59:154:PRO:HB3	33:59:162:ILE:O	2.17	0.45
38:45:35:VAL:HG12	38:45:36:ALA:N	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:45:117:ALA:HA	38:45:120:ILE:HB	1.99	0.45
43:95:98:GLU:HG2	43:95:100:ARG:HG2	1.98	0.45
46:C5:82:PRO:HB3	46:C5:97:ARG:HB3	1.98	0.45
50:G5:32:LEU:HD12	50:G5:32:LEU:O	2.17	0.45
1:13:232:G:H2'	1:13:233:C:C6	2.51	0.45
1:13:243:A:H4'	1:13:244:U:H5"	1.99	0.45
1:13:1212:U:H4'	1:13:1213:A:C8	2.51	0.45
1:13:1276:G:N3	1:13:1282:C:O2'	2.48	0.45
4:3E:192:GLU:N	4:3E:192:GLU:OE1	2.50	0.45
16:7I:19:ILE:HD12	16:7I:37:GLY:C	2.42	0.45
26:1H:7:G:H1	26:1H:2896:C:H42	1.65	0.45
26:1H:642:G:H21	26:1H:646:A:H2	1.64	0.45
26:1H:686:G:N7	54:P8:5:TRP:CH2	2.85	0.45
26:1H:731:C:C2	26:1H:732:C:C5	3.05	0.45
26:1H:991:C:H2'	26:1H:992:C:H6	1.82	0.45
26:1H:2127:G:N1	26:1H:2161:C:H2'	2.29	0.45
26:1H:2674:G:H4'	36:68:30:ALA:HB2	1.99	0.45
29:11:9:TYR:CZ	29:11:13:ARG:HG2	2.52	0.45
38:88:11:LYS:NZ	38:88:88:GLY:O	2.49	0.45
39:98:42:LYS:HA	39:98:45:ARG:HD2	1.98	0.45
41:B8:6:LEU:HA	41:B8:9:LEU:HB2	1.98	0.45
49:J8:75:GLU:O	49:J8:76:ARG:C	2.60	0.45
1:1G:78:G:H1	1:1G:91:C:N4	2.15	0.45
1:1G:452:A:C4'	16:7A:72:ARG:HH12	2.23	0.45
1:1G:922:G:H1'	5:42:19:MET:HB3	1.98	0.45
2:12:59:GLU:OE2	2:12:221:LEU:HD13	2.16	0.45
12:3A:86:ARG:HB2	12:3A:101:VAL:CG2	2.46	0.45
13:4A:22:ILE:HB	13:4A:25:ILE:HG13	1.98	0.45
20:BA:8:ARG:HG2	20:BA:8:ARG:O	2.17	0.45
57:3L:76:A:C8	26:14:2394:C:N4	2.85	0.45
26:14:259:G:HO2'	26:14:621:A:HO2'	1.50	0.45
26:14:337:C:H2'	26:14:338:G:O4'	2.18	0.45
26:14:648:G:O2'	26:14:2351:G:OP1	2.22	0.45
26:14:666:G:H5"	37:35:47:ASP:O	2.16	0.45
26:14:741:G:H2'	26:14:742:G:C8	2.52	0.45
26:14:774:A:H2	26:14:787:U:O2'	1.99	0.45
26:14:1557:C:H5"	26:14:1558:A:OP2	2.17	0.45
26:14:1833:U:O2	26:14:1969:A:H2	1.99	0.45
26:14:2134:A:C5	26:14:2158:A:H8	2.35	0.45
26:14:2273:A:H2'	26:14:2274:A:C8	2.52	0.45
26:14:2417:C:H2'	26:14:2418:A:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2498:C:P	61:14:3507:HOH:O	2.72	0.45
26:14:2771:C:H4'	30:29:202:LYS:HD3	1.98	0.45
29:19:73:VAL:HG13	29:19:120:GLY:HA3	1.98	0.45
29:19:159:ALA:HB1	29:19:198:ASN:O	2.16	0.45
33:59:3:ARG:HB3	33:59:4:ILE:H	1.29	0.45
34:69:77:LEU:HG	34:69:78:THR:OG1	2.17	0.45
41:75:5:ALA:O	41:75:8:LYS:HB2	2.17	0.45
47:D5:7:ALA:O	47:D5:8:TYR:CG	2.69	0.45
1:13:114:U:O2'	1:13:115:G:H5'	2.17	0.44
1:13:156:G:H2'	1:13:157:G:C8	2.53	0.44
1:13:363:A:N7	12:3I:33:ARG:NH2	2.65	0.44
1:13:739:C:O2'	15:6I:42:HIS:ND1	2.40	0.44
1:13:859:A:H2'	1:13:860:A:O4'	2.16	0.44
1:13:947:G:C6	1:13:948:C:C4	3.05	0.44
1:13:1053:G:O5'	1:13:1054:C:H3'	2.18	0.44
1:13:1367:C:H5'	10:1I:60:ARG:HH11	1.82	0.44
2:1E:145:LEU:HD23	2:1E:145:LEU:HA	1.79	0.44
4:3E:108:LEU:HB3	4:3E:110:PHE:CE1	2.52	0.44
8:7E:15:ASN:O	8:7E:19:VAL:HG23	2.17	0.44
16:7I:21:VAL:O	16:7I:33:ILE:N	2.45	0.44
24:3K:35:U:H2'	24:3K:36:U:H6	1.82	0.44
26:1H:43:G:H1'	26:1H:438:G:N2	2.32	0.44
26:1H:729:G:OP2	29:11:13:ARG:NH1	2.47	0.44
26:1H:764:A:H5'	29:11:210:GLY:CA	2.47	0.44
26:1H:783:A:C8	26:1H:783:A:H3'	2.52	0.44
26:1H:1044:G:O2'	26:1H:1111:A:N6	2.33	0.44
26:1H:1331:A:O2'	26:1H:1332:G:H8	1.99	0.44
26:1H:1686:C:H2'	26:1H:1687:G:O4'	2.18	0.44
26:1H:1819:A:O4'	26:1H:1821:A:C4	2.69	0.44
26:1H:2084:C:H2'	26:1H:2085:C:H6	1.82	0.44
26:1H:2314:C:H2'	26:1H:2315:G:C8	2.52	0.44
26:1H:2705:A:H2'	26:1H:2706:G:O4'	2.17	0.44
26:1H:2851:A:H2'	26:1H:2852:G:O4'	2.17	0.44
38:88:66:ILE:CD1	38:88:67:ARG:H	2.30	0.44
41:B8:6:LEU:HD23	41:B8:9:LEU:HD12	1.98	0.44
41:B8:26:ASP:CB	41:B8:92:GLY:H	2.26	0.44
46:G8:93:GLY:O	46:G8:94:LYS:HB2	2.17	0.44
1:1G:15:G:H2'	1:1G:16:A:O4'	2.17	0.44
1:1G:78:G:H2'	1:1G:79:G:O4'	2.17	0.44
1:1G:165:C:H2'	1:1G:166:G:C8	2.52	0.44
1:1G:570:G:H1'	1:1G:820:U:C4	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:601:C:H2'	1:1G:602:A:H8	1.82	0.44
1:1G:975:A:C4'	1:1G:976:G:H5"	2.38	0.44
1:1G:995:C:O2'	1:1G:996:A:H5'	2.17	0.44
1:1G:1294:G:H2'	1:1G:1295:G:H8	1.81	0.44
1:1G:1299:A:C6	1:1G:1301:U:C2	3.05	0.44
1:1G:1321:C:H3'	1:1G:1322:C:H5"	1.99	0.44
2:12:16:HIS:HD2	2:12:213:LEU:HD22	1.80	0.44
3:22:47:LEU:HB2	3:22:52:LEU:HD13	1.99	0.44
5:42:41:VAL:O	5:42:67:VAL:HG12	2.18	0.44
12:3A:59:ARG:HH11	12:3A:59:ARG:HG3	1.82	0.44
19:AA:15:LEU:HD11	19:AA:33:THR:HB	1.99	0.44
23:2L:1:C:O2	48:E5:7:LEU:N	2.50	0.44
26:14:303:U:H2'	26:14:304:G:C8	2.52	0.44
26:14:753:C:H2'	26:14:754:C:H6	1.82	0.44
26:14:839:U:H2'	26:14:840:C:H6	1.82	0.44
26:14:1106:G:H5'	26:14:1107:G:OP2	2.17	0.44
26:14:1225:C:H4'	43:95:85:LYS:CG	2.36	0.44
26:14:1257:C:H4'	31:39:83:PHE:CD1	2.52	0.44
26:14:1542:G:O6	26:14:1543:A:N6	2.49	0.44
26:14:1688:U:H1'	26:14:1701:A:C6	2.52	0.44
26:14:1824:G:OP1	29:19:52:ARG:NH1	2.50	0.44
26:14:2299:G:C6	26:14:2318:G:H8	2.35	0.44
26:14:2757:A:N1	33:59:67:LEU:HD22	2.32	0.44
26:14:2774:C:H2'	26:14:2775:A:O4'	2.17	0.44
26:14:2788:C:O2'	26:14:2809:A:N3	2.43	0.44
26:14:2886:G:H2'	26:14:2887:U:H6	1.81	0.44
32:49:124:SER:HB2	32:49:131:TYR:HE1	1.81	0.44
40:65:36:TYR:HA	40:65:52:SER:HB3	1.98	0.44
46:C5:87:LYS:CB	46:C5:94:LYS:HA	2.47	0.44
47:D5:25:PRO:O	47:D5:85:HIS:HA	2.17	0.44
1:13:263:A:OP2	20:BI:79:ARG:NH1	2.50	0.44
1:13:376:G:O3'	16:7I:5:ARG:NH1	2.50	0.44
1:13:646:U:H2'	1:13:647:C:C6	2.51	0.44
1:13:725:G:O2'	1:13:726:C:H5'	2.17	0.44
1:13:837:G:P	1:13:842:C:H42	2.35	0.44
1:13:994:A:N7	1:13:1216:G:H4'	2.32	0.44
1:13:1002:G:C2	1:13:1003:G:H1'	2.52	0.44
5:4E:10:MET:HE2	5:4E:10:MET:HB2	1.66	0.44
11:2I:84:VAL:HG13	11:2I:110:ASP:HA	1.98	0.44
17:8I:46:ASP:CG	17:8I:51:TYR:HD2	2.25	0.44
19:AI:5:LEU:HB2	19:AI:8:GLY:HA3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1F:6:ARG:HH11	21:1F:15:ARG:CZ	2.30	0.44
23:2K:37:U:H2'	23:2K:38:A:O4'	2.17	0.44
26:1H:270(A):A:N3	26:1H:365:C:O2'	2.42	0.44
26:1H:768:G:O2'	26:1H:1379:A:N6	2.47	0.44
26:1H:1278:A:H4'	39:98:34:ILE:HD11	1.98	0.44
26:1H:1416:G:O2'	26:1H:1417:C:P	2.75	0.44
26:1H:1475:G:H1	26:1H:1518:C:N4	2.12	0.44
26:1H:1796:U:H2'	26:1H:1797:C:C6	2.51	0.44
26:1H:2329:G:H21	48:I8:41:ARG:HG3	1.82	0.44
26:1H:2659:G:N2	26:1H:2661:G:H5"	2.32	0.44
26:1H:2886:G:H2'	26:1H:2887:U:C6	2.53	0.44
31:31:17:ARG:O	31:31:17:ARG:HD3	2.17	0.44
32:41:109:VAL:HG11	32:41:142:PRO:HD3	1.98	0.44
40:A8:35:ILE:HD11	40:A8:101:LEU:HD23	1.98	0.44
1:1G:6:G:P	4:32:84:LYS:HD3	2.57	0.44
1:1G:105:G:C5	1:1G:106:C:C4	3.05	0.44
1:1G:236:G:H2'	1:1G:237:C:O4'	2.16	0.44
1:1G:255:G:H1'	17:8A:16:GLN:OE1	2.17	0.44
1:1G:587:G:N2	1:1G:755:G:C5	2.85	0.44
1:1G:999:U:H2'	1:1G:1000:A:H8	1.81	0.44
1:1G:1136:U:H5"	1:1G:1137:C:C5	2.53	0.44
2:12:96:ARG:O	2:12:98:LEU:HD12	2.16	0.44
13:4A:81:LEU:HD21	13:4A:88:ARG:HE	1.82	0.44
14:5A:21:TYR:HE1	14:5A:23:ARG:HE	1.65	0.44
23:2L:62:C:H2'	23:2L:63:C:H6	1.82	0.44
57:3L:61:C:O2'	28:79:52:ARG:NH2	2.49	0.44
26:14:389:G:N1	37:35:71:VAL:HG12	2.31	0.44
26:14:573:G:O2'	26:14:574:C:H3'	2.17	0.44
26:14:600:G:H5'	31:39:32:LEU:HD12	1.98	0.44
26:14:699:A:H2'	26:14:700:G:O4'	2.16	0.44
26:14:1012:U:C5	35:15:28:THR:HG21	2.52	0.44
26:14:1037:G:H2'	26:14:1037:G:N3	2.32	0.44
26:14:1275:A:N1	26:14:1295:C:O2'	2.36	0.44
26:14:1291:C:H2'	26:14:1292:U:C6	2.52	0.44
26:14:2038:G:H2'	26:14:2039:C:O4'	2.17	0.44
26:14:2469:A:OP1	26:14:2469:A:H4'	2.17	0.44
26:14:2635:C:OP1	30:29:77:ILE:HB	2.16	0.44
26:14:2886:G:H2'	26:14:2887:U:C6	2.52	0.44
32:49:50:ALA:O	32:49:54:GLU:HG3	2.17	0.44
32:49:146:TYR:O	32:49:149:VAL:HG22	2.16	0.44
36:25:68:GLU:H	36:25:68:GLU:CD	2.25	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:55:34:ILE:HG22	39:55:114:VAL:HB	1.98	0.44
40:65:61:ASN:O	40:65:65:VAL:HB	2.16	0.44
41:75:12:SER:HB3	41:75:15:VAL:HG13	1.99	0.44
42:85:50:ARG:HH22	43:95:72:VAL:HG23	1.82	0.44
43:95:35:LEU:HG	43:95:37:VAL:HG11	1.99	0.44
1:13:31:G:H2'	1:13:48:C:N4	2.32	0.44
1:13:297:G:H4'	1:13:557:G:H4'	1.99	0.44
1:13:540:G:H2'	1:13:541:G:O4'	2.17	0.44
1:13:792:A:H4'	1:13:793:U:O5'	2.17	0.44
1:13:977:A:H1'	1:13:982:U:O4	2.18	0.44
1:13:1499:A:H1'	1:13:1520:G:O5'	2.18	0.44
3:2E:120:VAL:O	3:2E:124:ILE:HG13	2.17	0.44
4:3E:36:ARG:HB3	4:3E:38:TYR:CZ	2.53	0.44
11:2I:85:ARG:HE	11:2I:111:ASP:CB	2.27	0.44
13:4I:27:LYS:O	13:4I:31:LYS:HD2	2.17	0.44
14:5I:15:LYS:HG2	14:5I:16:PHE:CD2	2.52	0.44
26:1H:312:G:H5'	26:1H:331:A:O2'	2.18	0.44
26:1H:320:A:OP1	31:31:135:LYS:NZ	2.48	0.44
26:1H:836:G:H2'	26:1H:837:C:C6	2.52	0.44
26:1H:1170:G:N2	26:1H:1180:C:C2	2.85	0.44
26:1H:1442:G:H2'	26:1H:1443:G:H8	1.81	0.44
26:1H:2020:A:C2	26:1H:2022:U:O4'	2.70	0.44
26:1H:2367:G:H2'	26:1H:2368:C:C6	2.53	0.44
26:1H:2430:A:H8	26:1H:2431:U:C5	2.35	0.44
26:1H:2462:U:H1'	26:1H:2491:U:O4	2.18	0.44
33:51:119:GLU:OE2	33:51:119:GLU:HA	2.16	0.44
35:58:22:THR:OG1	35:58:23:LEU:N	2.49	0.44
36:68:19:ILE:HG22	36:68:43:VAL:HG22	2.00	0.44
43:D8:35:LEU:HD23	43:D8:35:LEU:HA	1.78	0.44
45:F8:58:HIS:HA	45:F8:77:LYS:HA	1.99	0.44
47:H8:63:ASP:OD1	47:H8:65:GLN:NE2	2.47	0.44
1:1G:147:G:H1	1:1G:175:C:H42	1.65	0.44
1:1G:195:A:N7	1:1G:196:A:C6	2.85	0.44
1:1G:414:A:H2'	1:1G:415:A:H8	1.82	0.44
1:1G:416:G:O5'	1:1G:416:G:H8	2.00	0.44
1:1G:596:C:H2'	1:1G:597:G:C8	2.52	0.44
1:1G:707:C:H2'	1:1G:708:C:C6	2.53	0.44
1:1G:979:C:O2	14:5A:19:ARG:HG2	2.18	0.44
1:1G:1051:C:H2'	1:1G:1052:U:C6	2.53	0.44
1:1G:1191:A:OP1	3:22:4:LYS:HG3	2.18	0.44
1:1G:1207:G:H2'	1:1G:1208:C:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1431:C:H2'	1:1G:1432:G:O4'	2.17	0.44
2:12:12:GLU:O	2:12:13:ALA:C	2.61	0.44
3:22:140:ARG:O	3:22:144:SER:HB2	2.17	0.44
11:2A:95:ILE:H	11:2A:95:ILE:HG12	1.62	0.44
26:14:270(E):G:C6	26:14:270(F):U:C4	3.05	0.44
26:14:480:A:OP2	46:C5:46:LYS:HE2	2.17	0.44
26:14:631:A:H2'	26:14:632:A:O4'	2.17	0.44
26:14:708:C:H42	26:14:723:G:H1	1.65	0.44
26:14:761:A:C8	61:14:3590:HOH:O	2.57	0.44
26:14:1055:G:N3	26:14:1055:G:H2'	2.30	0.44
26:14:1519:G:C6	26:14:1520:U:C4	3.06	0.44
26:14:1537:C:O2'	26:14:1538:G:O4'	2.29	0.44
26:14:2647:U:H3	26:14:2673:G:H1	1.64	0.44
26:14:2795:G:H2'	26:14:2795:G:N3	2.32	0.44
27:1J:23:G:C2	27:1J:24:G:O6	2.71	0.44
30:29:7:VAL:HG12	30:29:8:LYS:H	1.82	0.44
40:65:103:GLU:O	40:65:106:ARG:NE	2.44	0.44
43:95:19:LYS:HG2	43:95:95:LEU:HD23	1.98	0.44
54:L5:22:MET:HE3	54:L5:22:MET:HB3	1.85	0.44
1:13:50:A:H1'	1:13:52:G:C8	2.53	0.44
1:13:129(A):G:H4'	1:13:130:A:H5"	1.98	0.44
1:13:291:C:O2	1:13:310:G:C2	2.71	0.44
1:13:300:A:H1'	1:13:565:U:O2	2.18	0.44
1:13:511:C:OP2	4:3E:49:ARG:NH1	2.50	0.44
1:13:519:C:H2'	1:13:520:A:C8	2.52	0.44
1:13:625:G:H4'	16:7I:16:HIS:ND1	2.32	0.44
2:1E:11:LEU:HA	2:1E:13:ALA:HB3	1.99	0.44
2:1E:16:HIS:NE2	2:1E:214:ILE:HG12	2.31	0.44
5:4E:131:ILE:HD13	5:4E:131:ILE:HA	1.80	0.44
9:8E:19:LEU:HD12	9:8E:84:ALA:HB3	1.99	0.44
15:6I:60:VAL:HG11	26:1H:715:G:H5'	1.98	0.44
23:2K:48:U:OP2	23:2K:48:U:H6	2.01	0.44
24:3K:41:A:H2'	24:3K:42:A:H8	1.82	0.44
26:1H:37:C:H2'	26:1H:38:A:C8	2.53	0.44
26:1H:287:C:H42	26:1H:354:G:H1	1.65	0.44
26:1H:386:G:H4'	26:1H:387:U:OP2	2.17	0.44
26:1H:527:C:H4'	26:1H:528:A:O5'	2.17	0.44
26:1H:729:G:O6	29:11:209:ALA:N	2.47	0.44
26:1H:1191:G:C2'	26:1H:1192:G:H5'	2.48	0.44
26:1H:1568:G:OP1	29:11:61:LEU:N	2.45	0.44
26:1H:1805:U:H5"	29:11:250:TRP:CD2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1831:G:H2'	26:1H:1832:C:H6	1.82	0.44
26:1H:1919:A:H5"	26:1H:1920:C:OP2	2.17	0.44
26:1H:1957:C:O2'	26:1H:1984:G:N2	2.49	0.44
26:1H:2180:U:H2'	26:1H:2181:G:C8	2.52	0.44
26:1H:2294:C:C4	26:1H:2295:C:C5	3.06	0.44
26:1H:2808:U:H5'	26:1H:2891:G:O6	2.17	0.44
26:1H:2841:C:H2'	26:1H:2842:G:C8	2.52	0.44
27:16:13:A:O2'	27:16:14:U:H3'	2.18	0.44
31:31:74:ARG:O	31:31:75:HIS:CD2	2.71	0.44
31:31:114:VAL:HG21	31:31:202:PHE:CZ	2.52	0.44
32:41:117:PHE:HE1	32:41:120:LEU:HD23	1.82	0.44
40:A8:26:LEU:HD12	40:A8:39:ILE:HD11	2.00	0.44
47:H8:103:ARG:HG3	47:H8:136:PHE:CD1	2.53	0.44
49:J8:50:ARG:HA	49:J8:59:THR:HA	1.98	0.44
1:1G:411:A:N6	1:1G:430:A:H62	2.14	0.44
1:1G:1238:A:N7	1:1G:1303:C:H1'	2.32	0.44
1:1G:1533:C:H4'	1:1G:1534:A:OP2	2.16	0.44
2:12:137:ARG:HG3	2:12:138:LEU:HD23	1.99	0.44
11:2A:18:ARG:NH2	11:2A:35:PRO:O	2.50	0.44
20:BA:29:LYS:O	20:BA:33:ILE:HG13	2.17	0.44
26:14:28:A:O2'	26:14:583:G:H5'	2.18	0.44
26:14:724:U:H2'	26:14:725:G:O4'	2.17	0.44
26:14:997:G:H2'	26:14:998:C:C6	2.52	0.44
26:14:2165:G:H5"	26:14:2166:G:OP2	2.17	0.44
26:14:2298:A:C2	26:14:2299:G:H1'	2.53	0.44
26:14:2762:G:OP2	61:14:3551:HOH:O	2.21	0.44
26:14:2789:C:H2'	26:14:2790:A:C1'	2.47	0.44
30:29:181:LEU:HD12	30:29:181:LEU:HA	1.80	0.44
31:39:28:ILE:CA	31:39:112:MET:HE3	2.47	0.44
32:49:27:ASN:HB3	32:49:30:GLU:HG3	2.00	0.44
32:49:122:PRO:HB3	32:49:170:ARG:HH12	1.82	0.44
43:95:87:HIS:NE2	43:95:89:GLN:HB2	2.33	0.44
47:D5:3:TYR:O	47:D5:58:VAL:HG23	2.18	0.44
48:E5:51:VAL:N	48:E5:62:LEU:HD12	2.32	0.44
1:13:222:U:C2	1:13:223:U:C5	3.05	0.44
1:13:296:U:H2'	1:13:297:G:C8	2.52	0.44
1:13:437:U:C5'	4:3E:155:LEU:HD21	2.48	0.44
1:13:515:G:C5	1:13:516:U:C5	3.05	0.44
1:13:545:C:H2'	1:13:546:G:O4'	2.17	0.44
1:13:1098:C:H2'	1:13:1099:G:H8	1.82	0.44
1:13:1448:C:H42	1:13:1455:G:H1	1.64	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2E:22:TRP:CH2	3:2E:32:LEU:HB3	2.52	0.44
16:7I:22:THR:HG23	16:7I:23:ASP:O	2.17	0.44
22:1K:9:A:N1	22:1K:22:G:C5	2.85	0.44
26:1H:57:C:H2'	26:1H:58:G:O4'	2.18	0.44
26:1H:85:G:OP2	46:G8:9:LYS:HB2	2.18	0.44
26:1H:183:C:N4	26:1H:213:A:H61	2.16	0.44
26:1H:1022:G:N2	26:1H:1023:U:O4	2.45	0.44
26:1H:1337:G:C4	26:1H:1338:G:C8	3.05	0.44
26:1H:1352:U:O2	26:1H:1570:A:H2	2.01	0.44
26:1H:1591:G:O2'	26:1H:1592:C:H5'	2.17	0.44
26:1H:1711:C:H2'	26:1H:1712:C:H6	1.82	0.44
26:1H:1827:C:C2'	26:1H:1828:G:H5'	2.47	0.44
26:1H:2470:G:H8	26:1H:2470:G:O5'	2.01	0.44
27:16:15:A:H1'	27:16:109:G:C4	2.53	0.44
29:11:29:PRO:HB2	29:11:30:GLU:CA	2.42	0.44
31:31:122:LYS:HB3	31:31:191:ARG:HB3	1.99	0.44
33:51:86:GLU:OE2	33:51:165:ALA:HB2	2.18	0.44
33:51:167:GLU:CD	33:51:167:GLU:N	2.76	0.44
41:B8:33:LYS:HG3	41:B8:82:LEU:O	2.17	0.44
49:J8:23:LYS:HG2	49:J8:29:GLY:HA3	1.98	0.44
53:N8:20:ARG:HG2	53:N8:23:HIS:ND1	2.31	0.44
55:Q8:4:MET:HE3	55:Q8:4:MET:HB2	1.71	0.44
1:1G:408:A:H2'	1:1G:409:G:O4'	2.17	0.44
1:1G:963:G:H21	10:1A:55:LYS:NZ	2.15	0.44
1:1G:1153:C:N3	1:1G:1154:G:C5	2.85	0.44
1:1G:1479:C:H2'	1:1G:1480:G:C8	2.52	0.44
3:22:12:LEU:HD23	3:22:12:LEU:HA	1.83	0.44
13:4A:40:ASN:HA	13:4A:41:PRO:HD2	1.83	0.44
13:4A:90:LEU:HD22	13:4A:90:LEU:HA	1.77	0.44
16:7A:45:THR:OG1	16:7A:46:PRO:HD2	2.18	0.44
26:14:1019:U:O2'	26:14:1021:A:C2	2.71	0.44
26:14:1790:C:H2'	26:14:1791:A:C5	2.53	0.44
26:14:2187:G:H2'	26:14:2188:C:O4'	2.17	0.44
26:14:2261:C:H1'	26:14:2388:A:N3	2.33	0.44
26:14:2855:C:H2'	26:14:2856:C:H6	1.82	0.44
29:19:85:ASP:OD2	29:19:88:ARG:NH1	2.43	0.44
31:39:124:LEU:HB3	31:39:193:VAL:HG23	1.99	0.44
33:59:159:GLU:HB3	33:59:160:LYS:H	1.52	0.44
1:13:397:A:H5"	1:13:397:A:N3	2.33	0.44
1:13:1118:C:P	9:8E:104:ARG:HH11	2.40	0.44
2:1E:61:LEU:HD23	2:1E:68:ILE:HD11	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6E:12:LEU:HD21	7:6E:24:THR:HB	1.99	0.44
8:7E:51:VAL:HG21	8:7E:60:ARG:NH1	2.33	0.44
11:2I:31:THR:HA	11:2I:42:TRP:HA	2.00	0.44
11:2I:92:GLU:O	11:2I:96:ARG:HB2	2.17	0.44
12:3I:28:LYS:HE3	12:3I:64:TYR:CZ	2.53	0.44
17:8I:10:VAL:HG13	17:8I:19:VAL:HB	1.99	0.44
19:AI:30:LEU:HD13	19:AI:48:THR:HB	2.00	0.44
20:BI:16:HIS:O	20:BI:19:SER:HB2	2.18	0.44
20:BI:40:ALA:O	20:BI:44:ALA:N	2.51	0.44
23:2K:26:C:H2'	23:2K:27:G:O4'	2.17	0.44
26:1H:721:C:H2'	26:1H:722:A:C8	2.53	0.44
26:1H:801:G:OP2	61:1H:3570:HOH:O	2.21	0.44
26:1H:1188:U:O2'	26:1H:1189:A:H5'	2.17	0.44
26:1H:1337:G:H2'	26:1H:1338:G:C8	2.51	0.44
26:1H:1542:G:OP2	26:1H:1543:A:O2'	2.35	0.44
26:1H:1654:A:H1'	26:1H:2823:A:H5'	2.00	0.44
26:1H:2122:U:H2'	26:1H:2123:G:C8	2.52	0.44
26:1H:2418:A:OP2	55:Q8:29:LYS:NZ	2.47	0.44
26:1H:2557:G:H2'	26:1H:2558:C:C6	2.52	0.44
26:1H:2598:A:H8	26:1H:2598:A:H3'	1.82	0.44
32:41:79:ASN:N	32:41:79:ASN:HD22	2.16	0.44
36:68:116:SER:OG	36:68:117:LEU:N	2.49	0.44
40:A8:36:TYR:HB3	40:A8:52:SER:HB3	2.00	0.44
42:C8:108:GLU:O	42:C8:112:ARG:HG2	2.17	0.44
49:J8:73:LEU:HD23	49:J8:73:LEU:HA	1.89	0.44
51:L8:7:LYS:HB2	51:L8:34:GLU:HG2	2.00	0.44
1:1G:828:A:C2	1:1G:829:G:H1'	2.53	0.44
1:1G:1118:C:H5"	9:82:104:ARG:HB2	1.99	0.44
4:32:22:LYS:HB2	4:32:26:CYS:SG	2.58	0.44
56:1L:1:G:H2'	56:1L:1:G:N3	2.32	0.44
56:1L:19:G:H4'	56:1L:20:U:OP2	2.17	0.44
23:2L:63:C:H2'	23:2L:64:G:C8	2.51	0.44
26:14:1171:G:O2'	26:14:1173:G:OP2	2.36	0.44
26:14:1266:G:O4'	44:A5:15:ARG:NH2	2.50	0.44
26:14:1357:U:H2'	26:14:1358:G:O4'	2.18	0.44
26:14:1551:C:N4	26:14:1552:G:C6	2.86	0.44
26:14:1814:G:H2'	26:14:1815:A:C8	2.53	0.44
26:14:2180:U:H2'	26:14:2181:G:O4'	2.17	0.44
26:14:2290:G:H2'	26:14:2291:U:O4'	2.17	0.44
26:14:2298:A:H1'	26:14:2321:G:N2	2.32	0.44
26:14:2364:C:H2'	26:14:2365:G:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2557:G:H2'	26:14:2558:C:H6	1.81	0.44
26:14:2851:A:O2'	39:55:64:ARG:NH2	2.51	0.44
27:1J:3:C:H1'	27:1J:118:G:N2	2.32	0.44
30:29:63:LEU:HD13	30:29:63:LEU:HA	1.64	0.44
31:39:194:MET:HB2	31:39:194:MET:HE3	1.77	0.44
35:15:29:LYS:O	35:15:33:LEU:HB2	2.17	0.44
37:35:79:ARG:HD3	37:35:110:TYR:HD2	1.82	0.44
43:95:48:GLY:HA2	43:95:51:VAL:C	2.43	0.44
55:M5:11:LYS:HE3	55:M5:65:GLU:OE2	2.18	0.44
1:13:4:U:O2'	1:13:4:U:O2	2.35	0.44
1:13:416:G:C5	1:13:417:C:C4	3.05	0.44
1:13:825:G:C2	1:13:826:C:C2	3.06	0.44
1:13:1182:G:H4'	1:13:1183:A:H5"	2.00	0.44
13:4I:3:ARG:HD2	52:M8:34:GLU:OE1	2.17	0.44
24:3K:11:C:H42	24:3K:24:G:H1	1.63	0.44
26:1H:97:C:H5"	50:K8:2:LYS:N	2.32	0.44
26:1H:515:A:H1'	26:1H:581:C:H1'	2.00	0.44
26:1H:1346:G:C4	26:1H:1347:G:C8	3.06	0.44
26:1H:1400:G:H2'	26:1H:1401:G:H8	1.82	0.44
26:1H:1510:A:OP1	26:1H:1511:A:H5'	2.18	0.44
26:1H:1668:A:H4'	26:1H:1669:A:O5'	2.18	0.44
26:1H:1776:G:H2'	26:1H:1776:G:N3	2.32	0.44
26:1H:1954:G:O2'	26:1H:1956:U:O4	2.30	0.44
26:1H:2250:G:C5	38:88:83:MET:HB3	2.52	0.44
26:1H:2261:C:H1'	26:1H:2388:A:N3	2.33	0.44
26:1H:2562:U:H1'	36:68:23:ARG:NH1	2.33	0.44
29:11:24:ILE:HD11	29:11:91:ARG:HD2	2.00	0.44
30:21:60:ASN:OD1	30:21:62:PRO:HD2	2.17	0.44
32:41:165:THR:OG1	32:41:167:GLU:HG2	2.18	0.44
34:61:8:PRO:HD3	34:61:15:VAL:HG22	2.00	0.44
37:78:76:LYS:HA	37:78:76:LYS:HD2	1.83	0.44
37:78:101:VAL:HG12	37:78:106:LEU:HD12	2.00	0.44
39:98:20:LEU:HD12	39:98:20:LEU:HA	1.68	0.44
41:B8:26:ASP:CB	41:B8:91:ARG:HA	2.47	0.44
42:C8:92:ARG:NH1	43:D8:11:GLN:O	2.50	0.44
44:E8:64:MET:HE3	44:E8:64:MET:HB3	1.77	0.44
46:G8:44:ILE:H	46:G8:44:ILE:HG13	1.70	0.44
1:1G:138:G:C2	1:1G:226:G:C2	3.05	0.44
1:1G:456:C:N4	1:1G:457:C:H41	2.16	0.44
1:1G:892:A:C2	1:1G:907:A:C4	3.06	0.44
1:1G:1039:C:H2'	1:1G:1040:U:C5	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:78:LEU:HD21	4:32:139:ARG:HH12	1.82	0.44
5:42:34:VAL:O	5:42:41:VAL:HG12	2.17	0.44
5:42:104:ALA:HA	5:42:107:ARG:HH21	1.83	0.44
7:62:10:ARG:HD3	7:62:10:ARG:HA	1.64	0.44
8:72:67:PRO:HG2	8:72:69:ARG:HD2	1.99	0.44
9:82:7:THR:OG1	9:82:83:ARG:NH1	2.50	0.44
19:AA:66:MET:HB3	19:AA:69:HIS:CE1	2.53	0.44
20:BA:100:ILE:HD12	20:BA:100:ILE:HA	1.86	0.44
25:4L:13:A:C4	25:4L:14:A:H1'	2.53	0.44
26:14:49:A:H5"	26:14:51:G:O4'	2.18	0.44
26:14:540:G:C6	26:14:541:C:C4	3.06	0.44
26:14:1109:C:H2'	26:14:1110:G:O4'	2.18	0.44
26:14:1359:A:H62	26:14:1372:U:H3	1.65	0.44
26:14:1461:G:H2'	26:14:1462:C:C6	2.52	0.44
26:14:1572:A:H2'	26:14:1573:G:O4'	2.18	0.44
26:14:1599:C:C5	26:14:1600:C:H5	2.36	0.44
26:14:2031:A:C6	26:14:2498:C:H1'	2.53	0.44
26:14:2157:G:O2'	26:14:2158:A:N7	2.49	0.44
26:14:2620:C:H2'	26:14:2621:A:O4'	2.18	0.44
26:14:2708:G:H5'	39:55:68:ARG:HG3	2.00	0.44
26:14:2768:C:O2'	35:15:89:LYS:HE2	2.17	0.44
40:65:95:HIS:N	40:65:99:LYS:HB2	2.33	0.44
42:85:91:ASP:C	42:85:93:LYS:H	2.24	0.44
47:D5:23:LYS:HB3	47:D5:38:TYR:CD1	2.52	0.44
55:M5:58:ILE:O	55:M5:62:LEU:HD12	2.17	0.44
1:13:9:G:OP2	5:4E:121:LYS:HE3	2.18	0.44
1:13:223:U:H2'	1:13:224:C:C6	2.53	0.44
1:13:397:A:N7	1:13:548:G:C8	2.86	0.44
1:13:444:C:H2'	1:13:445:G:O4'	2.17	0.44
1:13:818:G:O2'	1:13:819:A:H5'	2.18	0.44
1:13:964:A:N3	1:13:969:A:O2'	2.42	0.44
1:13:1064:G:H1'	1:13:1190:G:H21	1.83	0.44
1:13:1399:C:C2	1:13:1401:G:C5	3.06	0.44
1:13:1442:G:O6	1:13:1446:A:C5	2.71	0.44
2:1E:24:TRP:CZ3	2:1E:26:PRO:HA	2.53	0.44
2:1E:67:THR:CG2	2:1E:155:LEU:HD13	2.47	0.44
2:1E:118:LEU:HD12	2:1E:142:LEU:HB2	1.99	0.44
6:5E:19:LEU:O	6:5E:23:LYS:NZ	2.49	0.44
9:8E:9:ARG:HG3	9:8E:104:ARG:NH1	2.32	0.44
9:8E:28:VAL:HG22	9:8E:63:ILE:HB	2.00	0.44
20:BI:36:LEU:HD13	20:BI:39:LYS:HD3	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BI:40:ALA:HB2	20:BI:55:ILE:HG22	2.00	0.44
26:1H:71:A:H4'	26:1H:72:U:H5"	1.99	0.44
26:1H:195:A:H61	26:1H:198:C:H3'	1.83	0.44
26:1H:489:G:H2'	26:1H:491:G:O4'	2.18	0.44
26:1H:731:C:H2'	26:1H:732:C:H6	1.83	0.44
26:1H:733:G:N7	61:1H:3638:HOH:O	2.37	0.44
26:1H:794:G:H2'	26:1H:795:C:C6	2.53	0.44
26:1H:1436:G:H1	26:1H:1556:C:H42	1.66	0.44
26:1H:1479:G:H5"	26:1H:1560:G:H4'	2.00	0.44
26:1H:1672:C:H5"	26:1H:1673:U:OP2	2.18	0.44
26:1H:1680:U:O2	26:1H:1763:G:H3'	2.17	0.44
26:1H:1786:A:H1'	26:1H:1938:A:N6	2.33	0.44
26:1H:2212:A:H1'	26:1H:2215:G:C4	2.52	0.44
26:1H:2469:A:N6	26:1H:2481:G:O2'	2.49	0.44
30:21:55:ASN:ND2	30:21:75:VAL:HG22	2.33	0.44
30:21:117:MET:O	30:21:118:LYS:HB3	2.18	0.44
36:68:118:ALA:HA	36:68:119:PRO:HD2	1.92	0.44
38:88:59:ARG:C	38:88:61:GLY:H	2.26	0.44
40:A8:83:LYS:HE3	40:A8:83:LYS:HB3	1.80	0.44
45:F8:57:LEU:CD2	45:F8:78:LYS:HG3	2.47	0.44
47:H8:40:ASP:HB3	47:H8:43:GLU:HB2	1.99	0.44
49:J8:91:LYS:HG2	49:J8:92:LYS:HE2	2.00	0.44
55:Q8:16:ILE:HD13	55:Q8:59:LYS:CG	2.48	0.44
1:1G:363:A:N7	12:3A:30:ALA:HB1	2.33	0.44
1:1G:690:G:C6	1:1G:691:G:C6	3.06	0.44
1:1G:985:C:H2'	1:1G:986:A:H8	1.83	0.44
1:1G:1417:G:H8	1:1G:1417:G:O5'	2.00	0.44
2:12:59:GLU:CG	2:12:221:LEU:HB3	2.47	0.44
15:6A:70:LEU:HD11	15:6A:77:ARG:HG3	1.98	0.44
18:9A:56:THR:HB	18:9A:58:LEU:CD1	2.48	0.44
20:BA:14:LYS:HA	20:BA:17:ARG:NE	2.33	0.44
56:1L:14:A:C5	56:1L:22:G:C2	3.05	0.44
23:2L:15:G:H21	23:2L:22:A:H1'	1.83	0.44
26:14:456:C:C2	45:B5:69:TYR:CE2	3.06	0.44
26:14:459:U:H2'	26:14:460:A:H8	1.83	0.44
26:14:484:C:H2'	26:14:485:C:H6	1.82	0.44
26:14:519:U:H2'	26:14:520:G:H8	1.83	0.44
26:14:563:G:H5'	26:14:572:A:H4'	1.99	0.44
26:14:571:A:H5'	26:14:2030:A:N7	2.32	0.44
26:14:1340:U:H4'	26:14:1341:U:OP2	2.17	0.44
26:14:1408:C:C2	26:14:1595:G:N2	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1614:A:H2	61:14:3763:HOH:O	2.00	0.44
26:14:1727:U:H3	26:14:1733:G:H1	1.66	0.44
26:14:2300:G:H2'	26:14:2301:C:O4'	2.18	0.44
26:14:2403:C:N3	26:14:2415:G:C2	2.86	0.44
30:29:33:VAL:HG21	30:29:88:GLY:HA2	1.99	0.44
30:29:57:LYS:HA	30:29:57:LYS:HD3	1.65	0.44
44:A5:15:ARG:O	44:A5:19:LEU:HD13	2.18	0.44
46:C5:62:GLU:H	46:C5:62:GLU:HG3	1.53	0.44
47:D5:3:TYR:C	47:D5:58:VAL:HG23	2.43	0.44
55:M5:32:LEU:HD12	55:M5:32:LEU:HA	1.61	0.44
1:13:248:C:H2'	1:13:249:U:H6	1.82	0.44
1:13:767:A:H2'	1:13:768:A:O4'	2.18	0.44
1:13:838:G:H1	1:13:848:C:N4	2.15	0.44
1:13:968:A:H4'	1:13:969:A:OP2	2.18	0.44
1:13:1190:G:H5"	3:2E:176:HIS:NE2	2.32	0.44
1:13:1298:C:H2'	7:6E:114:ARG:NH2	2.33	0.44
6:5E:97:PHE:HB2	18:9I:32:ARG:NH1	2.26	0.44
7:6E:94:ARG:O	7:6E:97:GLN:HB3	2.18	0.44
10:1I:34:VAL:HG12	10:1I:74:ILE:HD11	2.00	0.44
20:BI:30:LYS:NZ	20:BI:80:ARG:HH12	2.16	0.44
26:1H:185:U:H2'	26:1H:186:G:C8	2.53	0.44
26:1H:479:A:H4'	26:1H:480:A:OP1	2.18	0.44
26:1H:699:A:H2'	26:1H:700:G:O4'	2.18	0.44
26:1H:924:C:H2'	26:1H:925:C:H6	1.83	0.44
26:1H:1493:C:N3	26:1H:2210:G:H1'	2.33	0.44
26:1H:1616:A:O2'	61:1H:3571:HOH:O	2.21	0.44
26:1H:1638:C:H5"	26:1H:2710:C:O2'	2.18	0.44
26:1H:1786:A:H2	26:1H:2606:C:H1'	1.82	0.44
26:1H:1833:U:C4	26:1H:1834:U:C5	3.06	0.44
26:1H:2296:U:P	40:A8:9:ARG:HH22	2.38	0.44
26:1H:2773:C:H5"	30:21:164:ARG:HG2	1.99	0.44
26:1H:2801:A:H2'	26:1H:2802:G:O4'	2.18	0.44
29:11:37:LEU:HD12	29:11:37:LEU:O	2.17	0.44
29:11:39:LYS:CG	29:11:40:THR:H	2.31	0.44
33:51:6:ARG:HB3	33:51:65:HIS:CG	2.53	0.44
33:51:107:VAL:HB	33:51:152:ARG:HG2	2.00	0.44
35:58:65:LYS:HB3	35:58:69:GLN:HG3	2.00	0.44
35:58:107:LEU:HA	35:58:107:LEU:HD23	1.70	0.44
44:E8:11:ARG:CZ	44:E8:98:LYS:HB3	2.48	0.44
44:E8:92:ARG:NH2	44:E8:94:ASP:OD1	2.49	0.44
51:L8:4:LEU:H	51:L8:4:LEU:HD12	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M8:40:HIS:CG	52:M8:43:TYR:O	2.71	0.44
54:P8:35:ARG:NH1	54:P8:42:LEU:HD11	2.33	0.44
1:1G:250:A:H4'	1:1G:251:G:O5'	2.18	0.44
1:1G:1145:C:H4'	1:1G:1146:A:O5'	2.18	0.44
4:32:177:ASP:O	4:32:178:VAL:C	2.60	0.44
11:2A:20:TYR:CE1	11:2A:83:ILE:HD12	2.52	0.44
17:8A:5:VAL:HG22	17:8A:60:ILE:HG12	1.99	0.44
19:AA:56:GLN:HG2	19:AA:57:HIS:H	1.83	0.44
26:14:71:A:H2	45:B5:31:HIS:HE1	1.62	0.44
26:14:569:U:C4	26:14:570:G:C6	3.06	0.44
26:14:717:G:H2'	26:14:718:A:O4'	2.17	0.44
26:14:2820:A:O2'	26:14:2821:A:OP1	2.35	0.44
27:1J:52:A:H62	40:65:33:LYS:HG3	1.83	0.44
30:29:120:TRP:CG	30:29:155:LYS:HB3	2.53	0.44
33:59:59:ARG:HD3	33:59:62:LYS:HD2	2.00	0.44
33:59:148:ILE:O	33:59:151:ILE:HG12	2.18	0.44
37:35:132:LYS:HA	37:35:132:LYS:HD2	1.81	0.44
38:45:114:ALA:O	38:45:118:LEU:HB2	2.18	0.44
42:85:61:TRP:HB3	42:85:93:LYS:O	2.17	0.44
1:13:784:C:H2'	1:13:785:G:C8	2.52	0.43
1:13:1171:G:H8	1:13:1171:G:O5'	2.01	0.43
1:13:1191:A:H5"	3:2E:4:LYS:HE2	1.99	0.43
19:AI:63:THR:OG1	19:AI:66:MET:HG3	2.17	0.43
20:BI:29:LYS:O	20:BI:33:ILE:HG12	2.18	0.43
26:1H:601:C:O2	26:1H:605:C:H4'	2.17	0.43
26:1H:1388:G:H2'	26:1H:1389:G:H8	1.82	0.43
26:1H:1405:U:H2'	26:1H:1406:U:H6	1.78	0.43
26:1H:1516:U:H2'	26:1H:1517:G:C8	2.53	0.43
26:1H:2056:G:C2	26:1H:2057:A:C8	3.07	0.43
28:71:41:VAL:HB	28:71:175:VAL:HG21	2.00	0.43
29:11:34:VAL:O	29:11:35:LYS:HB3	2.18	0.43
29:11:236:GLY:O	29:11:237:GLU:O	2.36	0.43
31:31:63:LYS:NZ	31:31:75:HIS:O	2.43	0.43
32:41:117:PHE:HZ	32:41:179:PRO:HG2	1.83	0.43
33:51:6:ARG:HB2	33:51:7:LEU:HG	1.99	0.43
36:68:22:ILE:HD13	36:68:22:ILE:HG21	1.69	0.43
40:A8:76:LYS:HB3	40:A8:76:LYS:HE2	1.55	0.43
41:B8:45:PHE:CZ	41:B8:65:LYS:HG2	2.53	0.43
44:E8:12:ILE:HD13	44:E8:17:VAL:HB	2.00	0.43
44:E8:88:ARG:NH1	44:E8:94:ASP:OD2	2.51	0.43
46:G8:104:GLY:H	46:G8:105:ALA:HB3	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:H8:150:LEU:HG	47:H8:154:ASP:HB2	1.98	0.43
1:1G:414:A:H2'	1:1G:415:A:C8	2.53	0.43
1:1G:552:U:H4'	12:3A:86:ARG:HG2	2.00	0.43
1:1G:1061:G:H2'	1:1G:1062:U:H6	1.83	0.43
1:1G:1207:G:H2'	1:1G:1208:C:H6	1.82	0.43
1:1G:1494:G:C2	1:1G:1495:U:C5	3.05	0.43
5:42:146:ALA:HB1	5:42:150:ARG:NH2	2.33	0.43
6:52:1:MET:HA	6:52:68:PRO:HA	1.99	0.43
8:72:123:GLU:O	8:72:127:LEU:HB2	2.18	0.43
57:3L:3:G:H2'	57:3L:4:U:O4'	2.18	0.43
26:14:686:G:H21	26:14:788:A:H61	1.64	0.43
26:14:848:G:C4	26:14:933:A:C8	3.04	0.43
26:14:908:C:OP2	38:45:22:LYS:HD3	2.18	0.43
26:14:1484:G:H2'	26:14:1485:G:H8	1.82	0.43
26:14:2536:G:C6	26:14:2537:U:C4	3.06	0.43
26:14:2724:C:OP1	30:29:118:LYS:HE3	2.18	0.43
26:14:2748:A:C4	26:14:2749:A:C8	3.06	0.43
26:14:2768:C:H4'	35:15:89:LYS:NZ	2.32	0.43
26:14:2789:C:H2'	26:14:2790:A:O4'	2.17	0.43
29:19:94:LEU:HD23	29:19:94:LEU:HA	1.85	0.43
32:49:107:LEU:HD11	32:49:178:PHE:CE1	2.53	0.43
33:59:77:LYS:N	33:59:77:LYS:HD2	2.33	0.43
35:15:28:THR:HG22	35:15:29:LYS:N	2.32	0.43
37:35:52:GLU:CD	37:35:52:GLU:N	2.76	0.43
38:45:135:ASP:O	38:45:137:TYR:HD1	2.01	0.43
46:C5:42:VAL:O	46:C5:64:GLU:HA	2.18	0.43
47:D5:165:VAL:HG12	47:D5:166:SER:N	2.33	0.43
55:M5:50:LEU:HB3	55:M5:51:ALA:H	1.65	0.43
1:13:303:A:C5	1:13:304:U:C5	3.06	0.43
1:13:738:C:H2'	1:13:739:C:C6	2.53	0.43
1:13:958:A:C6	1:13:959:A:N1	2.86	0.43
1:13:1051:C:H2'	1:13:1052:U:C6	2.53	0.43
1:13:1272:G:C6	1:13:1273:G:C5	3.06	0.43
1:13:1507:A:OP2	25:4K:12:A:H2	2.01	0.43
4:3E:92:VAL:O	4:3E:96:LEU:HD22	2.19	0.43
4:3E:207:TYR:O	4:3E:209:ARG:HG2	2.18	0.43
8:7E:30:ARG:O	8:7E:34:GLU:HB2	2.18	0.43
9:8E:42:ARG:HE	9:8E:42:ARG:HB2	1.31	0.43
20:BI:49:ALA:HB3	20:BI:99:LEU:HD22	2.00	0.43
26:1H:375:C:H2'	26:1H:376:C:C6	2.52	0.43
26:1H:783:A:C8	26:1H:783:A:C3'	3.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:916:G:C2'	26:1H:917:A:H5"	2.48	0.43
26:1H:931:G:C4	26:1H:933:A:C8	3.07	0.43
26:1H:1049:C:N3	26:1H:2751:G:O6	2.51	0.43
26:1H:1262:A:C6	26:1H:1263:U:C4	3.07	0.43
26:1H:1372:U:O2'	26:1H:1373:A:H5'	2.18	0.43
26:1H:1435:G:H2'	26:1H:1436:G:C8	2.53	0.43
26:1H:1543:A:H1'	26:1H:1544:C:H5"	2.00	0.43
26:1H:2045:C:H2'	26:1H:2046:G:O4'	2.18	0.43
26:1H:2081:C:O2'	26:1H:2082:A:H5'	2.17	0.43
26:1H:2342:C:O2	26:1H:2374:C:H4'	2.18	0.43
29:11:31:LYS:HB3	29:11:34:VAL:CG2	2.48	0.43
30:21:2:LYS:HA	30:21:84:PHE:CD1	2.53	0.43
31:31:129:PHE:O	31:31:130:ALA:HB3	2.18	0.43
31:31:136:THR:HA	31:31:166:ALA:O	2.18	0.43
33:51:155:SER:OG	33:51:158:HIS:HB2	2.18	0.43
34:61:75:LEU:HD23	34:61:105:HIS:HB3	2.00	0.43
37:78:35:HIS:HB3	37:78:36:LYS:H	1.49	0.43
37:78:47:ASP:OD1	37:78:49:ARG:HG3	2.18	0.43
40:A8:51:ALA:HB3	40:A8:73:LEU:HG	2.00	0.43
41:B8:7:ILE:O	41:B8:10:VAL:N	2.50	0.43
41:B8:90:GLN:OE1	41:B8:121:ILE:HD11	2.18	0.43
47:H8:163:LEU:HD13	47:H8:167:PRO:HA	2.00	0.43
1:1G:626:U:C2	1:1G:627:G:C8	3.06	0.43
1:1G:834:C:C4	1:1G:835:U:C4	3.06	0.43
1:1G:1100:C:H2'	1:1G:1102:A:O5'	2.18	0.43
1:1G:1154:G:H2'	1:1G:1155:G:C8	2.53	0.43
1:1G:1216:G:H2'	1:1G:1217:C:C6	2.52	0.43
2:12:58:ILE:HD13	2:12:219:VAL:HG21	2.00	0.43
4:32:19:LEU:HB2	4:32:21:LEU:CD1	2.48	0.43
6:52:7:ASN:ND2	18:9A:34:TYR:HE1	2.16	0.43
10:1A:50:ILE:HG22	10:1A:52:GLY:H	1.83	0.43
12:3A:110:VAL:CG2	12:3A:120:TYR:HB3	2.48	0.43
26:14:6:A:N3	26:14:6:A:H2'	2.34	0.43
26:14:225:A:N6	26:14:226:G:C2	2.87	0.43
26:14:780:G:C2	26:14:782:A:C2	3.05	0.43
26:14:997:G:O2'	26:14:998:C:H5'	2.19	0.43
26:14:1287:A:C5	26:14:1288:U:C4	3.06	0.43
26:14:1441:G:H2'	26:14:1442:G:C8	2.53	0.43
26:14:1475:G:C2	26:14:1519:G:C2	3.06	0.43
26:14:1484:G:H2'	26:14:1485:G:C8	2.54	0.43
26:14:1885:A:H5'	26:14:1886:C:OP2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2009:G:N3	39:55:107:ASP:HA	2.33	0.43
26:14:2414:G:H21	37:35:67:MET:HE1	1.84	0.43
26:14:2533:A:O5'	26:14:2533:A:H8	2.01	0.43
31:39:160:ASN:HB3	31:39:163:VAL:HB	1.99	0.43
32:49:109:VAL:O	32:49:113:ARG:HG3	2.18	0.43
34:69:72:LEU:HD21	34:69:107:VAL:HG21	2.00	0.43
50:G5:47:ASN:N	50:G5:47:ASN:OD1	2.49	0.43
1:13:224:C:H2'	1:13:225:C:H6	1.82	0.43
1:13:1129:C:C2	1:13:1139:G:C6	3.06	0.43
1:13:1308:U:H5"	13:4I:98:VAL:HG22	2.01	0.43
1:13:1308:U:OP1	13:4I:98:VAL:HG22	2.18	0.43
1:13:1396:A:H2	5:4E:19:MET:HG3	1.83	0.43
1:13:1442:G:O6	1:13:1446:A:C6	2.71	0.43
14:5I:11:LYS:H	14:5I:11:LYS:HG2	1.52	0.43
26:1H:10:G:N2	26:1H:11:G:C4	2.86	0.43
26:1H:265:A:H1'	26:1H:266:G:O4'	2.19	0.43
26:1H:628:G:H2'	26:1H:629:G:H8	1.81	0.43
26:1H:807:U:C2	26:1H:808:G:C8	3.06	0.43
26:1H:1019:U:N3	26:1H:1020:A:N7	2.67	0.43
26:1H:1465:G:H2'	26:1H:1466:G:H8	1.84	0.43
26:1H:1600:C:H2'	26:1H:1601:G:C8	2.53	0.43
26:1H:1931:U:H5	26:1H:1969:A:N7	2.16	0.43
26:1H:2291:U:H2'	26:1H:2292:C:C6	2.53	0.43
26:1H:2772:C:H2'	26:1H:2773:C:H6	1.83	0.43
29:11:171:ASP:OD1	29:11:171:ASP:N	2.51	0.43
30:21:52:LEU:HA	30:21:53:PRO:HD3	1.72	0.43
31:31:63:LYS:HG2	31:31:65:TRP:O	2.18	0.43
33:51:152:ARG:HA	33:51:152:ARG:HD3	1.67	0.43
35:58:18:ALA:HA	35:58:21:LYS:HG3	2.00	0.43
39:98:88:ARG:NH2	39:98:89:ASP:OD1	2.50	0.43
43:D8:46:VAL:HG21	43:D8:52:VAL:HG21	2.00	0.43
1:1G:775:G:H2'	1:1G:776:G:O4'	2.17	0.43
4:32:59:ARG:HH21	4:32:66:ARG:HH12	1.65	0.43
4:32:127:THR:HG21	4:32:149:ALA:HB2	2.00	0.43
5:42:78:HIS:ND1	8:72:107:LEU:HD12	2.33	0.43
19:AA:5:LEU:HA	19:AA:6:LYS:HA	1.67	0.43
26:14:370:G:H4'	26:14:371:A:OP2	2.18	0.43
26:14:696:G:H2'	26:14:697:C:H6	1.83	0.43
26:14:1507:A:N3	26:14:1508:A:H1'	2.34	0.43
26:14:1769:G:O2'	26:14:1958:C:OP1	2.30	0.43
26:14:1849:G:H2'	26:14:1850:G:C8	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2177:C:OP1	28:79:221:SER:OG	2.31	0.43
26:14:2590:A:OP2	29:19:237:GLU:HB3	2.17	0.43
26:14:2601:C:H2'	26:14:2603:G:C8	2.53	0.43
26:14:2607:G:H2'	26:14:2608:G:O4'	2.18	0.43
26:14:2643:G:H2'	26:14:2644:G:O4'	2.18	0.43
28:79:15:ASP:N	28:79:20:TYR:OH	2.45	0.43
33:59:148:ILE:H	33:59:148:ILE:HG12	1.53	0.43
38:45:69:PHE:HA	38:45:70:PRO:HD2	1.73	0.43
39:55:57:ARG:HB3	39:55:59:ASP:OD2	2.17	0.43
47:D5:91:LEU:HB3	47:D5:96:VAL:HG21	2.01	0.43
1:13:335:C:O2'	1:13:1433:A:N3	2.48	0.43
1:13:1004:A:C2	1:13:1024:G:H2'	2.53	0.43
1:13:1234:C:O2'	1:13:1235:U:H5'	2.19	0.43
1:13:1249:C:O2'	9:8E:73:GLN:OE1	2.23	0.43
1:13:1255:G:OP1	10:1I:45:ARG:NH2	2.51	0.43
2:1E:189:ASP:OD1	2:1E:189:ASP:N	2.51	0.43
6:5E:35:ALA:HA	6:5E:67:MET:HB3	2.00	0.43
8:7E:97:VAL:HG12	8:7E:98:LYS:NZ	2.33	0.43
8:7E:103:VAL:HG21	8:7E:110:ALA:HB2	2.00	0.43
9:8E:9:ARG:HB3	9:8E:14:VAL:HG13	2.00	0.43
13:4I:11:ARG:HG3	13:4I:12:ASN:H	1.84	0.43
13:4I:23:TYR:CD2	13:4I:67:GLU:HA	2.52	0.43
15:6I:67:LEU:O	15:6I:71:GLN:HB2	2.18	0.43
17:8I:81:ARG:NH1	17:8I:83:ASP:OD2	2.51	0.43
23:2K:26:C:H5"	23:2K:27:G:OP2	2.19	0.43
26:1H:5:A:N6	26:1H:2898:U:C4	2.87	0.43
26:1H:581:C:H2'	26:1H:582:G:C8	2.53	0.43
26:1H:826:U:H2'	26:1H:828:U:O4'	2.19	0.43
26:1H:873:G:H1'	38:88:29:PHE:HE2	1.84	0.43
26:1H:1051:G:C6	26:1H:1052:C:H1'	2.54	0.43
26:1H:1436:G:H1'	26:1H:1477:A:O2'	2.18	0.43
26:1H:2059:A:H5"	26:1H:2060:A:OP2	2.18	0.43
26:1H:2121:G:O2'	28:71:167:LYS:HG2	2.18	0.43
26:1H:2290:G:H2'	26:1H:2291:U:O4'	2.18	0.43
26:1H:2306:C:H3'	26:1H:2307:G:H5'	1.99	0.43
27:16:15:A:H1'	27:16:109:G:N9	2.33	0.43
30:21:134:ILE:C	30:21:134:ILE:HD12	2.44	0.43
30:21:169:ASN:OD1	30:21:201:THR:HG21	2.18	0.43
33:51:56:SER:HB3	33:51:61:HIS:ND1	2.33	0.43
35:58:32:THR:HG22	35:58:37:LYS:HD3	1.98	0.43
37:78:113:LYS:HA	37:78:129:ALA:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:88:56:ARG:HD2	38:88:56:ARG:HA	1.77	0.43
38:88:138:ASP:OD1	38:88:138:ASP:N	2.51	0.43
39:98:55:ALA:HA	39:98:80:PHE:CE1	2.54	0.43
40:A8:85:VAL:HG23	40:A8:112:PHE:CZ	2.47	0.43
42:C8:15:LYS:HE2	42:C8:15:LYS:HB3	1.85	0.43
43:D8:58:VAL:HG23	43:D8:98:GLU:HG3	2.00	0.43
46:G8:96:ILE:HD12	46:G8:101:LYS:NZ	2.33	0.43
47:H8:60:GLU:HA	47:H8:65:GLN:O	2.18	0.43
1:1G:673:G:H5"	6:52:87:ARG:CZ	2.48	0.43
1:1G:983:A:N6	1:1G:1222:G:H22	2.13	0.43
1:1G:1205:U:H2'	1:1G:1206:G:C8	2.53	0.43
1:1G:1307:U:O5'	1:1G:1307:U:H6	2.01	0.43
1:1G:1352:C:H2'	1:1G:1353:G:C8	2.52	0.43
1:1G:1430:C:H2'	1:1G:1431:C:H6	1.83	0.43
6:52:91:VAL:HG11	18:9A:72:ARG:NH1	2.34	0.43
11:2A:17:GLY:HA3	11:2A:77:MET:SD	2.58	0.43
26:14:438:G:H2'	26:14:439:G:H8	1.84	0.43
26:14:455:C:N3	26:14:473:G:H5'	2.33	0.43
26:14:528:A:H2	26:14:2043:C:H4'	1.81	0.43
26:14:832:G:H5'	37:35:45:LEU:HD11	1.99	0.43
26:14:867:C:C5	26:14:868:U:C4	3.06	0.43
26:14:868:U:C4	26:14:869:G:N7	2.86	0.43
26:14:1152:C:H5"	42:85:80:ILE:CG2	2.49	0.43
26:14:1747:G:H5"	26:14:1748:G:OP2	2.17	0.43
26:14:2493:U:C4	26:14:2494:G:C8	3.07	0.43
26:14:2558:C:H2'	26:14:2559:C:O4'	2.18	0.43
26:14:2773:C:H5"	30:29:164:ARG:HG2	2.00	0.43
27:1J:70:C:H2'	27:1J:71:C:H6	1.84	0.43
29:19:31:LYS:HE2	29:19:102:LYS:HD2	2.00	0.43
29:19:76:PRO:HA	29:19:118:VAL:HG23	2.00	0.43
30:29:81:ILE:HG21	30:29:84:PHE:CD2	2.52	0.43
31:39:128:ALA:O	31:39:129:PHE:C	2.61	0.43
38:45:30:GLY:CA	38:45:107:ALA:HB2	2.48	0.43
39:55:21:TYR:HB3	39:55:47:PHE:CD2	2.53	0.43
39:55:24:GLN:HE22	39:55:36:THR:HG21	1.83	0.43
39:55:85:PRO:O	39:55:88:ARG:HB3	2.19	0.43
40:65:87:PHE:CE1	40:65:102:ALA:HB2	2.54	0.43
40:65:106:ARG:NH1	40:65:106:ARG:O	2.50	0.43
43:95:24:LYS:HA	43:95:92:THR:OG1	2.18	0.43
47:D5:29:TYR:HB3	47:D5:34:ASN:HB2	1.99	0.43
1:13:191(E):G:H2'	1:13:191(F):U:H6	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:200:G:H1	1:13:217:C:H42	1.66	0.43
1:13:452:A:H1'	16:7I:72:ARG:NH1	2.34	0.43
1:13:517:G:N3	1:13:531:U:H5'	2.33	0.43
1:13:670:G:C6	1:13:671:G:C5	3.07	0.43
1:13:963:G:N2	10:1I:55:LYS:HZ1	2.16	0.43
1:13:1118:C:H1'	1:13:1179:A:C5	2.53	0.43
1:13:1137:C:O2'	1:13:1138:G:O5'	2.34	0.43
1:13:1349:A:OP1	9:8E:121:ARG:HB2	2.19	0.43
1:13:1384:C:H2'	1:13:1385:G:H8	1.82	0.43
1:13:1432:G:OP1	41:B8:107:ASP:HB2	2.19	0.43
2:1E:219:VAL:O	2:1E:223:ILE:HG13	2.18	0.43
4:3E:135:LEU:HA	4:3E:136:PRO:HD2	1.80	0.43
6:5E:12:PRO:HB2	6:5E:57:GLN:CD	2.43	0.43
6:5E:14:LEU:HD11	6:5E:84:ASN:ND2	2.33	0.43
11:2I:96:ARG:HE	11:2I:96:ARG:HB3	1.66	0.43
12:3I:89:ARG:HD2	12:3I:91:LYS:HA	2.01	0.43
24:3K:49:G:H1'	24:3K:66:A:C2	2.53	0.43
26:1H:53:A:H2'	26:1H:54:G:O4'	2.19	0.43
26:1H:295:G:C6	26:1H:344:G:N1	2.86	0.43
26:1H:1705:G:H2'	26:1H:1706:U:H5'	2.00	0.43
26:1H:2260:C:O2'	26:1H:2261:C:H5'	2.18	0.43
27:16:15:A:H1'	27:16:109:G:C8	2.53	0.43
28:71:225:ASN:HB3	28:71:227:HIS:CD2	2.54	0.43
30:21:77:ILE:C	30:21:79:ARG:H	2.24	0.43
33:51:164:TYR:HB2	33:51:165:ALA:H	1.65	0.43
35:58:132:ALA:O	35:58:134:ARG:NH2	2.51	0.43
36:68:66:LYS:HE3	36:68:66:LYS:HB3	1.80	0.43
39:98:1:MET:HE2	39:98:3:HIS:CE1	2.54	0.43
44:E8:7:ALA:HB2	44:E8:50:VAL:HG22	2.00	0.43
55:Q8:50:LEU:HD11	55:Q8:58:ILE:HD12	1.99	0.43
1:1G:127:G:OP1	1:1G:635:G:H1'	2.18	0.43
1:1G:157:G:H1	1:1G:164:U:H3	1.65	0.43
1:1G:287:U:H2'	1:1G:288:A:C8	2.53	0.43
1:1G:616:G:C2	1:1G:617:G:N7	2.87	0.43
1:1G:1072:G:C6	1:1G:1073:U:N3	2.86	0.43
1:1G:1153:C:P	10:1A:13:HIS:HE1	2.41	0.43
1:1G:1224:G:N2	1:1G:1322:C:H4'	2.33	0.43
3:22:93:LYS:H	3:22:93:LYS:CD	2.31	0.43
7:62:15:ASP:HB3	7:62:20:ASP:H	1.82	0.43
7:62:38:LEU:O	7:62:42:ILE:HG13	2.18	0.43
9:82:26:VAL:HG13	9:82:61:ALA:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:39:C:O2	31:39:46:ARG:NH2	2.49	0.43
26:14:141:A:C8	26:14:1595:G:N2	2.72	0.43
26:14:207:A:H2'	26:14:208:C:O4'	2.18	0.43
26:14:534:U:H5'	42:85:42:ALA:HB1	2.00	0.43
26:14:540:G:H2'	26:14:541:C:C6	2.53	0.43
26:14:1118:C:H2'	26:14:1119:C:C6	2.54	0.43
26:14:1203:G:OP2	26:14:1204:A:H2'	2.18	0.43
26:14:1213:A:H2'	26:14:1214:A:C8	2.53	0.43
26:14:1260:G:C5	26:14:1261:C:C5	3.07	0.43
26:14:1793:C:H2'	26:14:1794:U:C6	2.53	0.43
26:14:1951:U:O2	26:14:1954:G:H8	2.01	0.43
26:14:2176:A:O2'	26:14:2177:C:H5'	2.19	0.43
26:14:2346:A:H5'	26:14:2383:G:H1'	2.01	0.43
26:14:2370:G:H2'	26:14:2371:G:O4'	2.19	0.43
26:14:2563:U:H1'	26:14:2566:A:N6	2.33	0.43
27:1J:53:A:H2'	27:1J:54:G:O4'	2.17	0.43
29:19:267:SER:C	29:19:269:PHE:N	2.77	0.43
30:29:26:ILE:HB	30:29:182:LEU:HB3	2.01	0.43
32:49:11:TYR:HE2	32:49:16:ARG:HH21	1.66	0.43
34:69:111:PRO:O	34:69:112:LYS:C	2.62	0.43
40:65:70:GLY:O	40:65:105:ALA:HA	2.19	0.43
48:E5:60:PHE:N	48:E5:60:PHE:CD1	2.86	0.43
50:G5:63:VAL:HA	50:G5:66:GLU:OE1	2.19	0.43
53:J5:41:PRO:HA	53:J5:42:PRO:HD3	1.92	0.43
55:M5:23:VAL:HA	55:M5:49:VAL:N	2.32	0.43
1:13:66:G:O4'	1:13:173:U:C4	2.71	0.43
1:13:228:A:H2'	1:13:229:U:O4'	2.19	0.43
1:13:474:G:H2'	1:13:475:G:O4'	2.18	0.43
1:13:582:U:O2'	17:8I:94:ASN:ND2	2.31	0.43
1:13:663:A:H5'	1:13:836:G:OP1	2.18	0.43
2:1E:28:PHE:HD1	2:1E:194:PRO:HD3	1.83	0.43
3:2E:151:VAL:HA	3:2E:199:LYS:O	2.19	0.43
4:3E:108:LEU:HB3	4:3E:110:PHE:HE1	1.84	0.43
4:3E:111:ALA:HB2	4:3E:120:LEU:CD1	2.48	0.43
5:4E:143:ARG:NE	8:7E:77:GLU:OE1	2.49	0.43
11:2I:59:TYR:O	11:2I:62:GLN:HB3	2.18	0.43
12:3I:111:LYS:O	12:3I:112:ASP:HB2	2.18	0.43
22:1K:9:A:H5"	22:1K:47:U:H6	1.82	0.43
26:1H:270(N):G:N3	34:61:50:ARG:NH2	2.66	0.43
26:1H:496:G:O5'	44:E8:62:HIS:HE1	2.02	0.43
26:1H:713:G:H2'	26:1H:714:U:H6	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:717:G:H2'	26:1H:718:A:O4'	2.18	0.43
26:1H:956:G:OP2	38:88:14:ARG:NH2	2.51	0.43
26:1H:1049:C:H1'	26:1H:1113:U:O2'	2.17	0.43
26:1H:2136:C:N4	26:1H:2156:G:N3	2.66	0.43
26:1H:2138:C:H2'	26:1H:2139:C:H6	1.83	0.43
27:16:12:C:H6	27:16:12:C:OP2	2.01	0.43
28:71:182:PRO:HA	28:71:185:LEU:HB2	2.00	0.43
31:31:101:LEU:HA	31:31:101:LEU:HD23	1.59	0.43
31:31:108:LYS:HE2	31:31:108:LYS:HB3	1.87	0.43
35:58:85:ILE:HG21	35:58:90:MET:HE3	2.01	0.43
37:78:15:ARG:O	37:78:16:ARG:C	2.61	0.43
37:78:95:VAL:HA	37:78:99:LEU:HD23	2.00	0.43
37:78:97:PRO:HD3	37:78:126:VAL:O	2.17	0.43
37:78:112:LEU:HA	37:78:112:LEU:HD23	1.55	0.43
38:88:25:ASP:HA	38:88:102:VAL:HG23	2.00	0.43
55:Q8:50:LEU:HD13	55:Q8:50:LEU:O	2.18	0.43
1:1G:317:G:H1	1:1G:336:C:N4	2.15	0.43
1:1G:1001:G:H2'	1:1G:1002:G:H8	1.84	0.43
1:1G:1206:G:H2'	1:1G:1207:G:H8	1.84	0.43
1:1G:1317:C:O2	19:AA:37:ARG:NH1	2.51	0.43
5:42:26:PHE:N	5:42:26:PHE:CD1	2.87	0.43
18:9A:45:SER:OG	18:9A:46:GLU:N	2.52	0.43
21:1B:5:ASP:O	21:1B:8:THR:HG22	2.18	0.43
23:2L:32:G:C5	23:2L:33:OMC:C5	3.06	0.43
26:14:194:G:H2'	26:14:195:A:O4'	2.18	0.43
26:14:642:G:H3'	26:14:642:G:C8	2.54	0.43
26:14:2132:U:H1'	28:79:5:LYS:N	2.32	0.43
26:14:2464:C:H42	26:14:2486:G:H1	1.67	0.43
29:19:2:ALA:HB3	29:19:20:ASP:HB2	2.00	0.43
30:29:31:CYS:HB3	30:29:49:LEU:HB2	2.00	0.43
31:39:22:ALA:O	31:39:24:LEU:N	2.52	0.43
32:49:136:ARG:H	32:49:136:ARG:HG3	1.58	0.43
35:15:15:LEU:HD23	35:15:134:ARG:HB2	2.01	0.43
40:65:92:TYR:HB2	40:65:98:VAL:HG11	2.01	0.43
46:C5:68:HIS:HB3	46:C5:71:LYS:HG2	2.00	0.43
50:G5:33:MET:O	50:G5:37:PHE:HD1	2.01	0.43
1:13:222:U:H2'	1:13:223:U:C6	2.49	0.43
1:13:323:U:H4'	20:BI:22:ARG:HB3	2.01	0.43
1:13:345:C:H5'	41:B8:41:ARG:CZ	2.48	0.43
1:13:411:A:C5	1:13:413:G:H1'	2.54	0.43
1:13:522:C:H2'	1:13:523:A:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:693:G:H2'	1:13:694:A:C8	2.53	0.43
1:13:1189:C:OP1	10:1I:51:ARG:NH2	2.51	0.43
1:13:1266:G:N2	1:13:1270:C:C4	2.87	0.43
12:3I:111:LYS:HD3	12:3I:111:LYS:HA	1.71	0.43
26:1H:689:A:N3	26:1H:779:U:O2'	2.47	0.43
26:1H:722:A:C2	26:1H:723:G:C4	3.07	0.43
26:1H:1381:G:H1'	26:1H:1571:A:N1	2.33	0.43
26:1H:2850:A:H3'	26:1H:2851:A:C8	2.53	0.43
34:61:144:VAL:HG22	34:61:145:VAL:CG2	2.46	0.43
39:98:63:ARG:HA	39:98:80:PHE:CZ	2.54	0.43
45:F8:37:THR:O	45:F8:40:LYS:HB3	2.18	0.43
47:H8:6:LYS:NZ	47:H8:43:GLU:OE1	2.34	0.43
49:J8:64:ALA:HA	49:J8:67:ILE:HG13	2.01	0.43
54:P8:12:ARG:NH2	54:P8:44:PRO:HB3	2.34	0.43
1:1G:67:C:H2'	1:1G:68:G:C8	2.53	0.43
1:1G:757:U:H2'	1:1G:758:G:O4'	2.18	0.43
1:1G:1047:G:H1	1:1G:1210:C:H42	1.66	0.43
1:1G:1329:A:H5"	13:4A:25:ILE:O	2.19	0.43
2:12:187:LEU:HD21	2:12:204:ASN:N	2.33	0.43
4:32:177:ASP:O	4:32:180:GLY:N	2.37	0.43
6:52:37:VAL:HG21	6:52:63:TYR:HD2	1.83	0.43
7:62:51:GLN:O	7:62:51:GLN:NE2	2.52	0.43
9:82:97:LYS:HB3	9:82:98:PRO:HD3	2.01	0.43
14:5A:22:THR:HB	14:5A:33:VAL:HG21	2.01	0.43
19:AA:57:HIS:CD2	19:AA:57:HIS:N	2.86	0.43
56:1L:33:U:C2	56:1L:35:U:OP2	2.72	0.43
23:2L:23:G:H2'	23:2L:24:C:H6	1.83	0.43
57:3L:15:G:C2	57:3L:59:A:C4	3.07	0.43
26:14:374:A:C2	26:14:401:A:C4	3.06	0.43
26:14:639:U:H2'	26:14:640:C:C6	2.53	0.43
26:14:971:C:H2'	26:14:972:G:H5'	2.01	0.43
26:14:1115:G:C5	26:14:1116:C:C4	3.07	0.43
26:14:1778:U:H2'	26:14:1784:A:H62	1.82	0.43
26:14:1972:A:H2'	26:14:1973:G:H8	1.82	0.43
26:14:2171:A:C8	26:14:2172:U:H5"	2.54	0.43
26:14:2720:U:C2	26:14:2721:A:C8	3.07	0.43
26:14:2832:U:H3'	26:14:2833:G:C8	2.54	0.43
27:1J:57:A:H2'	27:1J:58:A:O4'	2.19	0.43
29:19:66:ASP:HB3	29:19:105:ILE:HD12	1.99	0.43
30:29:56:PRO:HD2	30:29:58:ARG:CZ	2.48	0.43
33:59:11:VAL:HG22	33:59:69:ARG:HH12	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:59:163:TYR:CE1	33:59:169:VAL:HG22	2.54	0.43
34:69:100:ALA:O	34:69:104:GLN:HB2	2.19	0.43
40:65:78:LEU:HD11	40:65:107:GLU:CB	2.45	0.43
41:75:3:ARG:HE	41:75:6:LEU:HB2	1.84	0.43
43:95:35:LEU:HD23	43:95:35:LEU:H	1.84	0.43
44:A5:30:GLU:HG3	44:A5:31:GLU:N	2.33	0.43
53:J5:38:ALA:HB3	53:J5:48:GLU:HG3	1.99	0.43
1:13:62:U:O2'	1:13:379:C:O2	2.37	0.43
1:13:957:U:N3	1:13:960:U:OP2	2.49	0.43
2:1E:12:GLU:HB3	2:1E:44:LEU:HD13	1.99	0.43
8:7E:121:ASP:HB2	8:7E:125:ARG:NH2	2.34	0.43
10:1I:80:LYS:NZ	10:1I:84:GLN:HB2	2.34	0.43
11:2I:24:SER:OG	11:2I:27:ASN:O	2.31	0.43
26:1H:185:U:H2'	26:1H:186:G:H8	1.83	0.43
26:1H:470:A:H2'	26:1H:471:A:O4'	2.18	0.43
26:1H:550:G:O2'	26:1H:1220:A:N3	2.45	0.43
26:1H:1205:U:H4'	26:1H:1206:G:OP2	2.19	0.43
26:1H:1299:G:H3'	26:1H:1639:U:O4	2.19	0.43
26:1H:1429:G:H2'	26:1H:1430:C:C6	2.54	0.43
26:1H:1432:C:H2'	26:1H:1433:U:O4'	2.19	0.43
26:1H:2156:G:H2'	26:1H:2157:G:H21	1.84	0.43
30:21:120:TRP:CD2	30:21:155:LYS:HG2	2.53	0.43
33:51:4:ILE:O	33:51:6:ARG:HG3	2.18	0.43
47:H8:140:ASP:N	47:H8:140:ASP:OD1	2.51	0.43
52:M8:40:HIS:ND1	52:M8:45:GLY:C	2.74	0.43
1:1G:32:A:H2'	1:1G:33:A:C8	2.54	0.43
1:1G:76:G:H1	1:1G:93:U:H3	1.67	0.43
1:1G:103:C:OP2	20:BA:14:LYS:HD3	2.19	0.43
1:1G:300:A:H8	1:1G:300:A:O5'	2.02	0.43
1:1G:406:G:H5'	4:32:5:ILE:HD12	2.01	0.43
1:1G:1129:C:H5	1:1G:1141:C:N4	2.17	0.43
1:1G:1301:U:O2	1:1G:1301:U:H2'	2.18	0.43
2:12:208:ILE:HA	2:12:211:ILE:HD12	2.01	0.43
2:12:215:LEU:C	2:12:217:ARG:H	2.25	0.43
7:62:21:VAL:O	7:62:24:THR:HB	2.17	0.43
9:82:14:VAL:O	9:82:65:VAL:HG23	2.18	0.43
9:82:27:THR:HG1	9:82:32:ASP:HA	1.84	0.43
9:82:51:ARG:HA	9:82:56:LEU:HB3	2.01	0.43
9:82:70:LYS:O	9:82:74:ILE:HG13	2.19	0.43
10:1A:16:LEU:HD13	10:1A:94:VAL:HG11	2.00	0.43
13:4A:54:VAL:HA	13:4A:57:ARG:HG2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:5A:41:ARG:HG3	14:5A:42:ILE:N	2.32	0.43
19:AA:15:LEU:HD22	19:AA:18:LYS:HE3	1.99	0.43
23:2L:38:A:H2'	23:2L:39:A:O4'	2.18	0.43
26:14:27:G:C4	26:14:512:G:N2	2.87	0.43
26:14:34:C:O2	26:14:34:C:H2'	2.19	0.43
26:14:90:U:O2'	26:14:91:A:H8	2.01	0.43
26:14:480:A:H2'	26:14:480:A:N3	2.32	0.43
26:14:590:A:OP1	31:39:95:ARG:NH1	2.52	0.43
26:14:635:C:H2'	26:14:636:G:O4'	2.18	0.43
26:14:944:G:H5"	26:14:945:A:O5'	2.18	0.43
26:14:997:G:OP1	42:85:93:LYS:HD2	2.19	0.43
26:14:2446:G:C2	26:14:2501:C:C5	3.07	0.43
26:14:2688:U:C5	26:14:2720:U:OP2	2.68	0.43
26:14:2704:C:H2'	26:14:2705:A:O4'	2.19	0.43
27:1J:63:G:H2'	27:1J:64:C:C6	2.54	0.43
29:19:11:PRO:C	29:19:13:ARG:H	2.26	0.43
30:29:176:ILE:HB	30:29:181:LEU:HB2	2.00	0.43
30:29:195:LEU:HD12	30:29:195:LEU:HA	1.84	0.43
34:69:102:SER:HA	34:69:107:VAL:O	2.19	0.43
36:25:47:ILE:O	36:25:53:LYS:HD2	2.18	0.43
42:85:98:LEU:HB2	42:85:102:GLU:HB2	1.99	0.43
1:13:450:G:C8	1:13:481:G:O6	2.71	0.43
1:13:475:G:C4	1:13:476:G:C8	3.07	0.43
1:13:658:G:H2'	1:13:659:U:C6	2.53	0.43
1:13:730:G:C5	1:13:731:G:H1'	2.54	0.43
1:13:906:G:O5'	1:13:906:G:H8	2.01	0.43
1:13:1074:G:N3	1:13:1102:A:C2	2.87	0.43
4:3E:191:ARG:NE	4:3E:200:GLU:OE1	2.52	0.43
7:6E:95:ARG:NH1	7:6E:99:LEU:HD11	2.34	0.43
26:1H:592:G:N2	55:Q8:4:MET:HE1	2.34	0.43
26:1H:647:G:H8	26:1H:647:G:OP2	2.01	0.43
26:1H:701:G:C2'	26:1H:702:G:H5'	2.49	0.43
26:1H:1317:A:H2'	26:1H:1318:C:C6	2.54	0.43
26:1H:1417:C:H42	26:1H:1581:G:H1	1.67	0.43
26:1H:1658:C:H2'	26:1H:1659:U:C6	2.53	0.43
26:1H:2080:G:H5"	26:1H:2080:G:H8	1.84	0.43
26:1H:2516:G:O2'	26:1H:2517:C:H5'	2.19	0.43
28:71:42:GLU:H	28:71:216:THR:HA	1.84	0.43
35:58:40:PRO:O	42:C8:64:ARG:HG2	2.19	0.43
37:78:123:LEU:HD23	37:78:123:LEU:HA	1.75	0.43
40:A8:36:TYR:N	40:A8:36:TYR:HD1	2.16	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:C8:108:GLU:HG3	43:D8:44:LYS:HZ2	1.84	0.43
1:1G:373:A:N3	1:1G:374:A:C8	2.86	0.43
1:1G:428:G:C5	1:1G:430:A:C6	3.07	0.43
1:1G:450:G:O5'	1:1G:450:G:H8	2.01	0.43
1:1G:513:C:H2'	1:1G:514:C:C6	2.54	0.43
1:1G:707:C:H2'	1:1G:708:C:H6	1.82	0.43
1:1G:1058:G:H2'	1:1G:1059:C:C6	2.53	0.43
1:1G:1245:A:H2'	1:1G:1246:C:C6	2.54	0.43
2:12:213:LEU:HG	2:12:214:ILE:N	2.33	0.43
3:22:113:ALA:HB3	3:22:114:PRO:HD3	2.01	0.43
6:52:16:GLN:H	6:52:16:GLN:HG2	1.57	0.43
6:52:101:ALA:O	18:9A:28:GLU:HB2	2.19	0.43
8:72:81:HIS:HB2	8:72:138:TRP:CE3	2.54	0.43
9:82:112:LYS:NZ	9:82:113:LYS:O	2.48	0.43
11:2A:103:LEU:HD12	11:2A:103:LEU:HA	1.70	0.43
12:3A:58:VAL:O	12:3A:65:GLU:HA	2.19	0.43
26:14:329:G:H1	46:C5:19:LYS:HZ1	1.60	0.43
26:14:972:G:H3'	26:14:973:A:H2'	2.00	0.43
26:14:1023:U:OP2	26:14:1024:G:N7	2.52	0.43
26:14:2292:C:H2'	26:14:2293:C:C6	2.53	0.43
26:14:2697:G:H2'	26:14:2698:U:O4'	2.19	0.43
27:1J:98:G:H8	27:1J:98:G:O5'	2.02	0.43
29:19:31:LYS:HG3	29:19:33:LEU:HB3	2.00	0.43
29:19:147:LEU:HD22	29:19:147:LEU:HA	1.92	0.43
30:29:181:LEU:HD11	41:75:7:ILE:HD13	2.00	0.43
32:49:129:GLY:C	32:49:130:ASN:ND2	2.77	0.43
33:59:9:ILE:HB	33:59:10:PRO:HD2	2.01	0.43
37:35:112:LEU:HD23	37:35:112:LEU:HA	1.77	0.43
46:C5:48:ALA:C	46:C5:50:ARG:N	2.76	0.43
47:D5:37:VAL:HG23	47:D5:38:TYR:N	2.34	0.43
1:13:147:G:C2	1:13:148:G:C5	3.06	0.43
1:13:671:G:C4	1:13:672:U:C6	3.07	0.43
1:13:827:U:C5	1:13:870:U:C4	3.06	0.43
1:13:1032(A):G:H2'	1:13:1032(B):G:N7	2.34	0.43
1:13:1112:C:N3	3:2E:178:LEU:HB2	2.33	0.43
1:13:1397:C:OP2	5:4E:24:ARG:NH2	2.52	0.43
3:2E:42:LEU:HA	3:2E:42:LEU:HD13	1.73	0.43
4:3E:31:CYS:HB2	59:3E:301:SF4:S3	2.58	0.43
5:4E:6:PHE:HD2	5:4E:63:ARG:NH1	2.17	0.43
5:4E:11:ILE:HD11	5:4E:31:LEU:HD13	2.01	0.43
7:6E:95:ARG:HH12	7:6E:99:LEU:HD21	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:32:LEU:HD23	15:6I:32:LEU:HA	1.87	0.43
16:7I:33:ILE:H	16:7I:33:ILE:HG13	1.70	0.43
17:8I:58:GLU:HB2	17:8I:74:LEU:HB3	2.00	0.43
22:1K:62:C:H2'	22:1K:63:U:O4'	2.19	0.43
26:1H:1480:G:N1	26:1H:1482:U:O2	2.52	0.43
26:1H:2107:C:H5"	26:1H:2108:C:P	2.59	0.43
26:1H:2135:A:C5'	26:1H:2159:G:H21	2.32	0.43
26:1H:2695:C:H2'	26:1H:2696:U:H6	1.84	0.43
28:71:64:LEU:HD22	28:71:65:PRO:HD2	2.01	0.43
30:21:52:LEU:HA	30:21:52:LEU:HD12	1.55	0.43
31:31:78:ILE:H	31:31:78:ILE:HG23	1.60	0.43
32:41:130:ASN:HB3	32:41:160:VAL:HA	2.01	0.43
32:41:137:GLU:HB2	32:41:139:LEU:HD23	2.01	0.43
37:78:101:VAL:HA	37:78:105:LEU:O	2.19	0.43
38:88:5:ARG:H	38:88:5:ARG:HG3	1.62	0.43
44:E8:9:TYR:HA	44:E8:100:THR:CG2	2.49	0.43
46:G8:82:PRO:HB3	46:G8:99:CYS:HB2	2.01	0.43
49:J8:91:LYS:HZ3	49:J8:91:LYS:HA	1.83	0.43
1:1G:184:G:C2'	1:1G:185:A:H5'	2.49	0.43
1:1G:228:A:H4'	16:7A:62:VAL:HG11	2.01	0.43
1:1G:426:G:OP1	4:32:36:ARG:NH2	2.52	0.43
1:1G:892:A:O2'	1:1G:1415:G:H4'	2.19	0.43
1:1G:1032:A:H3'	1:1G:1032(A):G:C5'	2.48	0.43
1:1G:1141:C:H2'	1:1G:1142:G:H8	1.84	0.43
1:1G:1225:A:H5"	1:1G:1226:C:OP2	2.19	0.43
2:12:28:PHE:CZ	2:12:189:ASP:HA	2.54	0.43
2:12:101:MET:HA	2:12:101:MET:HE2	2.01	0.43
2:12:127:ILE:HG12	2:12:130:ARG:CD	2.49	0.43
3:22:19:GLU:O	3:22:57:ILE:N	2.50	0.43
5:42:68:GLU:OE2	5:42:70:PRO:HG3	2.19	0.43
7:62:141:VAL:CA	7:62:142:GLU:HG2	2.49	0.43
18:9A:38:GLU:CD	18:9A:38:GLU:N	2.77	0.43
23:2L:15:G:N2	23:2L:22:A:H1'	2.34	0.43
26:14:1003:G:N2	26:14:1153:C:C2	2.87	0.43
26:14:1551:C:C4	26:14:1552:G:C5	3.07	0.43
26:14:1830:C:O5'	26:14:1830:C:H6	2.02	0.43
26:14:2443:C:H2'	26:14:2444:G:C8	2.54	0.43
26:14:2628:C:H1'	26:14:2781:A:H2'	2.00	0.43
26:14:2842:G:C4	26:14:2876:G:N2	2.87	0.43
31:39:95:ARG:HG3	31:39:97:TYR:CE1	2.54	0.43
34:69:128:LEU:O	34:69:138:ILE:N	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:35:144:GLU:CD	37:35:144:GLU:N	2.77	0.43
39:55:38:VAL:O	39:55:41:ALA:HB3	2.19	0.43
39:55:54:LEU:HD12	39:55:54:LEU:HA	1.87	0.43
42:85:86:ALA:HB2	42:85:116:ALA:HB2	2.00	0.43
1:13:105:G:H2'	1:13:106:C:C6	2.54	0.42
1:13:292:G:N7	1:13:293:G:H1'	2.34	0.42
1:13:502:G:C6	1:13:503:C:C4	3.07	0.42
1:13:671:G:H2'	1:13:672:U:C6	2.48	0.42
1:13:948:C:O2'	1:13:949:A:H5'	2.19	0.42
1:13:1346:A:O3'	1:13:1347:G:H4'	2.19	0.42
1:13:1414:U:H2'	1:13:1415:G:H8	1.84	0.42
3:2E:175:LEU:HD21	3:2E:201:TYR:CE1	2.54	0.42
3:2E:188:LEU:HD11	3:2E:195:VAL:HG13	2.01	0.42
4:3E:104:VAL:O	4:3E:107:ARG:N	2.52	0.42
4:3E:173:TRP:CZ3	4:3E:193:ASP:HB3	2.54	0.42
11:2I:106:LYS:HE3	11:2I:106:LYS:HB2	1.76	0.42
23:2K:45:A:H2'	23:2K:46:G:O4'	2.19	0.42
26:1H:142:G:H1'	45:F8:37:THR:CG2	2.40	0.42
26:1H:270(R):G:H2'	26:1H:270(S):G:H8	1.81	0.42
26:1H:639:U:H2'	26:1H:640:C:C6	2.54	0.42
26:1H:1266:G:O5'	44:E8:15:ARG:NH2	2.52	0.42
26:1H:1372:U:C2'	26:1H:1373:A:H5'	2.49	0.42
26:1H:1387:C:C2	26:1H:1388:G:C8	3.07	0.42
26:1H:1538:G:H2'	26:1H:1539:G:C8	2.54	0.42
26:1H:2133:G:H2'	26:1H:2157:G:N2	2.34	0.42
26:1H:2262:U:H4'	26:1H:2328:A:C2	2.54	0.42
26:1H:2598:A:H3'	26:1H:2598:A:C8	2.53	0.42
27:16:31:C:N4	40:A8:32:LEU:HD23	2.34	0.42
29:11:72:LYS:HG2	29:11:103:ARG:NH2	2.33	0.42
32:41:63:ILE:HG13	32:41:64:THR:N	2.34	0.42
32:41:125:PHE:CE1	32:41:131:TYR:HB2	2.53	0.42
33:51:71:LEU:HD12	33:51:71:LEU:HA	1.83	0.42
46:G8:4:LYS:HD3	46:G8:4:LYS:HA	1.75	0.42
53:N8:36:CYS:HB2	53:N8:49:CYS:SG	2.59	0.42
55:Q8:7:HIS:HB3	55:Q8:61:LEU:HB3	2.01	0.42
1:1G:115:G:H1'	1:1G:116:A:N7	2.34	0.42
1:1G:192:U:C1'	20:BA:103:GLY:HA2	2.49	0.42
1:1G:224:C:H2'	1:1G:225:C:C6	2.54	0.42
1:1G:393:A:OP2	16:7A:12:LYS:HD3	2.18	0.42
1:1G:516:U:O2'	1:1G:519:C:N3	2.52	0.42
1:1G:803:G:C5	1:1G:804:U:C4	3.06	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1084:G:C6	1:1G:1085:U:C4	3.07	0.42
1:1G:1320:C:OP1	19:AA:70:LYS:HE3	2.19	0.42
1:1G:1371:G:OP2	9:82:11:LYS:HG2	2.19	0.42
3:22:6:HIS:HD2	3:22:7:PRO:HD2	1.84	0.42
12:3A:85:ILE:HD12	12:3A:85:ILE:HA	1.65	0.42
13:4A:78:ILE:CG2	13:4A:92:HIS:HB3	2.46	0.42
20:BA:26:ASN:HA	20:BA:71:THR:HG23	2.01	0.42
26:14:185:U:H2'	26:14:186:G:O4'	2.19	0.42
26:14:483:A:C4	46:C5:60:PHE:HZ	2.36	0.42
26:14:515:A:H2'	26:14:516:C:H5'	2.01	0.42
26:14:1709:U:H2'	26:14:1710:C:C6	2.54	0.42
26:14:2178:C:H5'	28:79:46:LYS:HE2	2.01	0.42
27:1J:1:U:H2'	27:1J:2:C:C6	2.54	0.42
30:29:37:ARG:HD2	30:29:80:GLU:OE2	2.19	0.42
32:49:27:ASN:OD1	32:49:28:VAL:N	2.50	0.42
34:69:23:PRO:O	34:69:27:ARG:HG2	2.19	0.42
39:55:29:LEU:HD12	39:55:29:LEU:HA	1.78	0.42
1:13:464:G:H2'	1:13:467:G:O6	2.19	0.42
1:13:946:A:H2'	1:13:947:G:C8	2.54	0.42
1:13:983:A:H1'	1:13:1049:U:O2	2.19	0.42
4:3E:155:LEU:HB3	4:3E:158:ILE:HG13	2.01	0.42
8:7E:88:LYS:HB3	8:7E:89:PRO:HD2	2.00	0.42
10:1I:33:GLN:O	10:1I:74:ILE:HG12	2.19	0.42
13:4I:3:ARG:CZ	13:4I:9:ILE:HD11	2.49	0.42
15:6I:45:VAL:HG12	15:6I:46:HIS:HD2	1.83	0.42
17:8I:101:ARG:CZ	17:8I:101:ARG:HB2	2.49	0.42
23:2K:65:G:C2	23:2K:66:C:C2	3.07	0.42
26:1H:38:A:H2'	26:1H:39:C:C6	2.54	0.42
26:1H:192:C:OP1	61:1H:3573:HOH:O	2.21	0.42
26:1H:363(E):U:OP2	26:1H:363(E):U:H6	2.02	0.42
26:1H:1166:C:O2	26:1H:1184:G:C2	2.72	0.42
26:1H:1711:C:H2'	26:1H:1712:C:O4'	2.19	0.42
26:1H:1965:C:H3'	26:1H:1966:A:H2'	2.00	0.42
26:1H:2029:G:H2'	26:1H:2031:A:OP1	2.19	0.42
26:1H:2439:A:H5'	26:1H:2439:A:C8	2.54	0.42
26:1H:2820:A:O2'	26:1H:2821:A:OP1	2.31	0.42
28:71:193:ILE:HD13	28:71:194:ARG:CZ	2.49	0.42
31:31:59:TYR:CD1	31:31:78:ILE:HD11	2.54	0.42
31:31:170:LEU:HB2	31:31:173:VAL:HB	2.00	0.42
32:41:12:TYR:HA	32:41:16:ARG:HD3	2.01	0.42
37:78:71:VAL:CG1	37:78:72:PRO:HD3	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:G8:42:VAL:HG23	46:G8:43:ASN:H	1.84	0.42
50:K8:47:ASN:O	50:K8:49:LYS:HG3	2.19	0.42
53:N8:20:ARG:HG2	53:N8:23:HIS:CE1	2.54	0.42
1:1G:520:A:N1	1:1G:536:C:H1'	2.33	0.42
1:1G:980:C:H5'	1:1G:981:U:OP2	2.19	0.42
1:1G:983:A:H2	1:1G:984:C:C6	2.38	0.42
1:1G:1157:A:N9	1:1G:1158:C:H5	2.17	0.42
1:1G:1423:G:OP1	36:25:49:ARG:NH2	2.52	0.42
2:12:132:LYS:HD2	2:12:135:GLN:NE2	2.34	0.42
5:42:70:PRO:O	5:42:77:PRO:HD3	2.19	0.42
7:62:45:ASP:O	7:62:49:ILE:HG13	2.19	0.42
8:72:4:ASP:OD2	8:72:85:ARG:NE	2.49	0.42
8:72:103:VAL:HG21	8:72:110:ALA:HB2	2.00	0.42
13:4A:34:LEU:HD13	13:4A:41:PRO:HB3	2.01	0.42
16:7A:17:TYR:CE2	16:7A:41:PRO:HG3	2.54	0.42
56:1L:3:G:H2'	56:1L:3:G:OP2	2.19	0.42
26:14:270(P):C:H2'	26:14:270(Q):C:C6	2.54	0.42
26:14:441:U:H2'	26:14:442:G:C8	2.54	0.42
26:14:1346:G:H2'	26:14:1347:G:H8	1.84	0.42
26:14:1399:C:H2'	26:14:1400:G:H8	1.85	0.42
26:14:1424:G:H2'	26:14:1425:G:C8	2.54	0.42
26:14:1569:A:H2'	26:14:1570:A:C8	2.54	0.42
26:14:1638:C:H5"	26:14:2710:C:O2'	2.19	0.42
26:14:1774:C:O5'	26:14:1774:C:H6	2.01	0.42
26:14:2295:C:OP1	40:65:10:ARG:HD3	2.18	0.42
26:14:2310:A:H5'	26:14:2311:A:OP2	2.18	0.42
26:14:2331:G:O2'	48:E5:43:THR:HB	2.18	0.42
26:14:2572:A:N7	30:29:145:LYS:HB2	2.34	0.42
26:14:2636:U:H4'	30:29:80:GLU:OE2	2.19	0.42
26:14:2641:G:P	35:15:74:ARG:HH21	2.42	0.42
26:14:2645:G:H3'	26:14:2646:C:H5'	2.01	0.42
26:14:2687:U:C4	26:14:2688:U:C5	3.07	0.42
26:14:2805:G:H2'	26:14:2807:G:O4'	2.19	0.42
31:39:29:ASN:HA	31:39:30:PRO:HD3	1.63	0.42
39:55:12:ARG:HB3	39:55:16:HIS:HB3	2.01	0.42
43:95:24:LYS:HE2	43:95:24:LYS:HB3	1.92	0.42
1:13:255:G:C6	1:13:256:U:C4	3.06	0.42
1:13:575:G:H4'	1:13:576:G:H5"	2.01	0.42
1:13:659:U:H2'	1:13:660:G:C8	2.53	0.42
1:13:664:G:P	18:9I:64:ARG:HH21	2.43	0.42
1:13:711:G:H2'	1:13:712:A:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1080:A:H5'	5:4E:14:ARG:NH2	2.35	0.42
1:13:1330:U:H4'	13:4I:23:TYR:CE1	2.52	0.42
1:13:1536:C:H42	25:4K:9:G:H22	1.67	0.42
2:1E:16:HIS:HE1	2:1E:213:LEU:HD12	1.84	0.42
8:7E:51:VAL:HG21	8:7E:60:ARG:HH11	1.83	0.42
10:1I:83:GLU:HG2	10:1I:84:GLN:H	1.84	0.42
12:3I:28:LYS:HE3	12:3I:64:TYR:CE1	2.54	0.42
22:1K:18:G:C5	22:1K:57:G:N2	2.87	0.42
26:1H:315:G:C6	26:1H:316:C:C4	3.07	0.42
26:1H:354:G:H2'	26:1H:355:G:C8	2.54	0.42
26:1H:805:G:H4'	26:1H:806:C:OP2	2.20	0.42
26:1H:1042:G:C6	26:1H:1043:C:C4	3.07	0.42
26:1H:1423:G:C6	26:1H:1424:G:N7	2.87	0.42
26:1H:1435:G:H2'	26:1H:1436:G:H8	1.84	0.42
26:1H:1581:G:H2'	26:1H:1582:C:O4'	2.19	0.42
26:1H:2391:G:O6	26:1H:2425:A:H8	2.02	0.42
26:1H:2408:U:O5'	26:1H:2408:U:H6	2.03	0.42
26:1H:2531:A:H5'	33:51:157:TYR:CZ	2.53	0.42
29:11:118:VAL:HG11	29:11:124:PRO:HD2	2.01	0.42
30:21:164:ARG:HH11	30:21:164:ARG:HD3	1.71	0.42
31:31:8:GLN:OE1	31:31:21:ALA:HB2	2.18	0.42
31:31:161:GLU:O	31:31:165:ARG:HG2	2.20	0.42
41:B8:105:LEU:C	41:B8:107:ASP:H	2.27	0.42
42:C8:47:TYR:CD1	42:C8:47:TYR:C	2.97	0.42
46:G8:29:GLU:HB3	46:G8:38:ILE:CG2	2.48	0.42
51:L8:7:LYS:HD2	51:L8:34:GLU:OE2	2.19	0.42
53:N8:46:CYS:HA	53:N8:47:PRO:HD2	1.81	0.42
1:1G:171:A:H2'	1:1G:172:A:C8	2.54	0.42
1:1G:590:C:OP1	8:72:30:ARG:N	2.44	0.42
1:1G:751:U:H2'	1:1G:752:G:O4'	2.19	0.42
1:1G:967:C:H2'	1:1G:968:A:N7	2.34	0.42
1:1G:1127:G:H2'	1:1G:1127:G:N3	2.34	0.42
1:1G:1293:G:H2'	1:1G:1294:G:C8	2.55	0.42
1:1G:1402:C:H2'	1:1G:1403:C:O4'	2.19	0.42
4:32:93:PHE:O	4:32:96:LEU:HB2	2.20	0.42
4:32:119:GLN:HG2	4:32:123:HIS:CD2	2.50	0.42
13:4A:78:ILE:O	13:4A:82:MET:N	2.52	0.42
57:3L:58:A:N7	57:3L:61:C:C4	2.87	0.42
26:14:150:C:H2'	26:14:151:C:C6	2.55	0.42
26:14:856:C:C6	26:14:857:C:H5	2.37	0.42
26:14:1059:G:H2'	26:14:1060:U:C4	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1226:G:P	43:95:85:LYS:HA	2.59	0.42
26:14:1803:A:H2	26:14:1822:G:N3	2.18	0.42
26:14:2132:U:H3	28:79:6:ARG:HE	1.66	0.42
26:14:2512:C:H4'	30:29:122:PHE:CE2	2.54	0.42
26:14:2848:G:H1'	26:14:2867:G:N2	2.35	0.42
29:19:67:PHE:HE1	29:19:106:ILE:HD11	1.83	0.42
35:15:5:VAL:HG23	35:15:43:THR:HG21	2.01	0.42
38:45:54:MET:O	38:45:57:HIS:N	2.47	0.42
39:55:70:LEU:HA	39:55:70:LEU:HD23	1.86	0.42
55:M5:8:LYS:HA	55:M5:8:LYS:HD3	1.71	0.42
1:13:404:U:H5'	4:3E:122:ARG:HD2	2.00	0.42
1:13:567:G:H2'	1:13:568:G:O4'	2.19	0.42
1:13:754:C:OP1	15:6I:72:ARG:NH2	2.51	0.42
1:13:1128:C:C5	1:13:1139:G:C2	3.06	0.42
8:7E:20:TYR:HE1	8:7E:78:GLN:NE2	2.17	0.42
10:1I:33:GLN:OE1	10:1I:74:ILE:HG23	2.20	0.42
11:2I:124:LYS:HB2	11:2I:125:PHE:HD1	1.83	0.42
13:4I:34:LEU:HD13	13:4I:41:PRO:HB3	2.01	0.42
22:1K:26:A:H5'	22:1K:27:G:OP2	2.20	0.42
26:1H:94:G:H2'	26:1H:95:G:O4'	2.19	0.42
26:1H:1021:A:C8	26:1H:1021:A:C3'	3.02	0.42
26:1H:1047:G:C2	26:1H:1110:G:C8	3.07	0.42
26:1H:1336:A:H2'	26:1H:1337:G:C8	2.55	0.42
26:1H:1359:A:N3	26:1H:1359:A:O4'	2.52	0.42
26:1H:1388:G:H2'	26:1H:1389:G:C8	2.55	0.42
26:1H:2159:G:C5	26:1H:2160:G:C8	3.08	0.42
26:1H:2415:G:O4'	37:78:67:MET:HG3	2.19	0.42
26:1H:2477:C:H6	26:1H:2529:G:O6	2.02	0.42
30:21:181:LEU:HA	30:21:181:LEU:HD13	1.71	0.42
35:58:12:ARG:HB3	35:58:50:ASP:OD1	2.20	0.42
39:98:18:LEU:HD23	39:98:18:LEU:HA	1.79	0.42
41:B8:51:ARG:HB2	41:B8:98:LYS:HD2	2.00	0.42
42:C8:92:ARG:HH21	43:D8:10:LYS:HG2	1.84	0.42
52:M8:15:ILE:O	52:M8:33:VAL:HB	2.19	0.42
54:P8:8:ASN:OD1	54:P8:8:ASN:C	2.62	0.42
55:Q8:9:GLY:O	55:Q8:13:ARG:HG2	2.17	0.42
55:Q8:37:SER:C	55:Q8:39:LYS:N	2.77	0.42
1:1G:20:U:H2'	1:1G:21:G:O4'	2.19	0.42
1:1G:129(A):G:C6	1:1G:188:U:H4'	2.54	0.42
1:1G:142:G:H2'	1:1G:143:A:H8	1.84	0.42
1:1G:161:A:N6	1:1G:162:A:N1	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:685:G:H5'	11:2A:39:PRO:O	2.18	0.42
1:1G:894:G:C6	1:1G:895:G:C5	3.08	0.42
1:1G:1105:A:H2'	1:1G:1106:G:H8	1.85	0.42
2:12:158:LEU:HA	2:12:159:PRO:HD2	1.83	0.42
4:32:120:LEU:HD23	4:32:120:LEU:HA	1.81	0.42
4:32:126:ILE:HG22	4:32:127:THR:N	2.35	0.42
9:82:5:TYR:CG	9:82:6:GLY:N	2.87	0.42
9:82:79:LEU:HD23	9:82:101:PHE:O	2.20	0.42
12:3A:54:LYS:N	12:3A:54:LYS:HE3	2.34	0.42
15:6A:10:LYS:H	15:6A:10:LYS:HG2	1.56	0.42
56:1L:66:A:H2'	56:1L:66:A:N3	2.33	0.42
26:14:26:G:C6	26:14:27:G:N1	2.87	0.42
26:14:162:U:H4'	26:14:171:G:O4'	2.19	0.42
26:14:527:C:N4	26:14:2779:U:OP2	2.52	0.42
26:14:775:G:C5	26:14:794:G:C8	3.07	0.42
26:14:814:C:OP1	43:95:83:ARG:N	2.34	0.42
26:14:911:A:C5	38:45:9:TYR:CD2	3.08	0.42
26:14:1022:G:C6	26:14:1140:C:C4	3.08	0.42
26:14:1154:G:O5'	26:14:1154:G:H8	2.02	0.42
26:14:1464:C:C2	26:14:1465:G:C8	3.08	0.42
26:14:1784:A:H4'	26:14:1785:A:O5'	2.19	0.42
26:14:2081:C:O2'	26:14:2082:A:H5'	2.20	0.42
26:14:2295:C:N3	26:14:2296:U:H5	2.17	0.42
26:14:2603:G:C6	26:14:2604:U:C4	3.07	0.42
32:49:37:VAL:O	32:49:94:LEU:HB2	2.19	0.42
34:69:75:LEU:O	34:69:105:HIS:NE2	2.47	0.42
36:25:59:LYS:HB3	36:25:87:ILE:HG22	2.02	0.42
37:35:50:ARG:HD3	55:M5:61:LEU:HD11	2.00	0.42
41:75:54:ARG:HG3	41:75:59:THR:CG2	2.49	0.42
41:75:107:ASP:CG	41:75:109:GLU:HB2	2.44	0.42
43:95:44:LYS:HG3	43:95:45:THR:OG1	2.19	0.42
1:13:51:A:OP2	1:13:52:G:C8	2.69	0.42
1:13:715:A:H2'	1:13:716:A:C8	2.54	0.42
1:13:963:G:H21	10:1I:55:LYS:HZ1	1.68	0.42
1:13:1225:A:H2'	1:13:1225:A:N3	2.34	0.42
1:13:1536:C:N4	25:4K:9:G:H22	2.17	0.42
2:1E:8:LYS:H	2:1E:8:LYS:HZ3	1.67	0.42
6:5E:97:PHE:N	18:9I:30:ASP:OD1	2.49	0.42
7:6E:104:LEU:HD13	7:6E:104:LEU:HA	1.90	0.42
11:2I:32:ILE:HD12	11:2I:68:ALA:O	2.20	0.42
13:4I:82:MET:O	13:4I:83:ASP:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8I:29:HIS:N	17:8I:34:LYS:O	2.49	0.42
26:1H:346:A:H5"	26:1H:347:A:OP2	2.19	0.42
26:1H:442:G:C4	26:1H:444:C:C5	3.07	0.42
26:1H:581:C:H2'	26:1H:582:G:H8	1.84	0.42
26:1H:665:C:H2'	26:1H:666:G:C8	2.55	0.42
26:1H:1156:A:N7	42:C8:51:LYS:HG2	2.35	0.42
26:1H:1204:A:C2	26:1H:1241:A:N1	2.87	0.42
26:1H:1575:C:H2'	26:1H:1576:U:O4'	2.20	0.42
26:1H:1711:C:H2'	26:1H:1712:C:C6	2.55	0.42
26:1H:2849:U:O4	41:B8:23:ARG:NH2	2.52	0.42
26:1H:2895:U:H2'	26:1H:2896:C:H6	1.84	0.42
29:11:120:GLY:HA2	29:11:190:TYR:OH	2.20	0.42
31:31:164:ARG:HG3	31:31:175:THR:HB	2.01	0.42
32:41:37:VAL:HG22	32:41:159:VAL:HG13	2.02	0.42
36:68:23:ARG:HG3	36:68:24:VAL:N	2.33	0.42
40:A8:5:THR:OG1	40:A8:8:GLU:HG2	2.19	0.42
46:G8:57:GLN:H	46:G8:57:GLN:HG3	1.56	0.42
46:G8:88:LYS:HZ2	46:G8:88:LYS:HG2	1.69	0.42
47:H8:4:ARG:HB3	47:H8:58:VAL:HG22	2.01	0.42
51:L8:2:PRO:HB2	51:L8:3:ARG:H	1.56	0.42
1:1G:27:G:H8	1:1G:27:G:O5'	2.01	0.42
1:1G:834:C:N4	1:1G:852:G:H1	2.16	0.42
1:1G:1372:U:OP1	9:82:72:GLY:N	2.51	0.42
3:22:120:VAL:HA	3:22:123:GLN:HB3	2.01	0.42
12:3A:27:LEU:HD23	12:3A:33:ARG:HG2	2.00	0.42
57:3L:2:G:H2'	57:3L:3:G:C8	2.55	0.42
57:3L:76:A:H8	26:14:2394:C:N4	2.18	0.42
26:14:581:C:H2'	26:14:582:G:H8	1.85	0.42
26:14:921:G:C6	26:14:922:U:C4	3.07	0.42
26:14:1012:U:O4	35:15:25:ARG:HA	2.20	0.42
26:14:1475:G:H5'	26:14:1476:C:OP2	2.19	0.42
26:14:1728:G:H5"	26:14:1728:G:N3	2.34	0.42
31:39:16:GLY:O	31:39:18:ARG:N	2.52	0.42
31:39:62:ARG:HH11	31:39:62:ARG:CG	2.32	0.42
31:39:120:GLU:HG3	31:39:122:LYS:HG2	2.01	0.42
35:15:15:LEU:HB3	35:15:136:GLU:HA	2.00	0.42
37:35:14:LYS:C	37:35:16:ARG:H	2.26	0.42
38:45:136:ALA:HB1	38:45:138:ASP:OD2	2.18	0.42
39:55:57:ARG:NE	39:55:59:ASP:OD2	2.24	0.42
55:M5:23:VAL:HA	55:M5:48:PHE:O	2.20	0.42
1:13:76:G:O4'	1:13:95:G:N1	2.36	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:158:G:C2	1:13:159:G:C8	3.08	0.42
1:13:284:G:H2'	1:13:285:G:C8	2.54	0.42
1:13:294:U:O4	1:13:295:C:N4	2.52	0.42
1:13:554:C:H2'	1:13:555:C:C6	2.52	0.42
1:13:811:C:O2'	1:13:901:A:N1	2.52	0.42
1:13:1061:G:OP1	10:1I:59:SER:OG	2.33	0.42
2:1E:196:LEU:HD23	2:1E:196:LEU:HA	1.83	0.42
9:8E:116:LYS:HE3	9:8E:122:ALA:HB2	2.02	0.42
13:4I:4:ILE:HG22	13:4I:5:ALA:H	1.83	0.42
19:AI:23:ASN:ND2	19:AI:43:GLU:HB2	2.34	0.42
20:BI:42:GLN:O	20:BI:46:GLU:N	2.53	0.42
23:2K:21:U:C2'	23:2K:22:A:H5'	2.50	0.42
24:3K:71:C:H1'	26:1H:1851:U:H1'	2.02	0.42
26:1H:289:A:H61	26:1H:351:G:H1'	1.85	0.42
26:1H:482:A:H5"	26:1H:483:A:OP1	2.19	0.42
26:1H:562:U:O4	26:1H:2036:C:H1'	2.19	0.42
26:1H:730:C:H3'	61:1H:3511:HOH:O	2.19	0.42
26:1H:870:A:H5"	38:88:6:ARG:HB3	2.01	0.42
26:1H:1042:G:H1	26:1H:1113:U:H3	1.67	0.42
26:1H:1239:G:H8	26:1H:1239:G:O5'	2.02	0.42
26:1H:1265:A:H8	26:1H:1265:A:OP1	2.02	0.42
26:1H:1521:G:H8	26:1H:1521:G:H5"	1.84	0.42
26:1H:1930:G:O2'	26:1H:1931:U:OP2	2.32	0.42
26:1H:2070:G:C2	26:1H:2442:C:C2	3.08	0.42
26:1H:2261:C:C5	48:I8:16:SER:HB3	2.54	0.42
30:21:20:ALA:C	30:21:21:VAL:HG13	2.44	0.42
31:31:112:MET:HE3	31:31:112:MET:HB3	1.89	0.42
33:51:13:LYS:HE2	33:51:13:LYS:HB3	1.64	0.42
33:51:87:LEU:HD23	33:51:87:LEU:HA	1.66	0.42
40:A8:93:LYS:HG2	40:A8:95:HIS:HB2	2.01	0.42
41:B8:78:LEU:O	41:B8:78:LEU:HD13	2.19	0.42
41:B8:111:ARG:O	41:B8:112:ARG:HB3	2.19	0.42
45:F8:92:LEU:HD23	45:F8:92:LEU:HA	1.82	0.42
48:I8:60:PHE:CD1	48:I8:60:PHE:N	2.87	0.42
53:N8:41:PRO:HA	53:N8:42:PRO:HD3	1.90	0.42
1:1G:485:G:HO2'	1:1G:486:U:H6	1.67	0.42
1:1G:669:U:H2'	1:1G:670:G:H8	1.84	0.42
1:1G:826:C:H2'	1:1G:827:U:C6	2.54	0.42
1:1G:1072:G:H2'	1:1G:1073:U:O4'	2.20	0.42
4:32:148:VAL:HG12	4:32:152:SER:CB	2.48	0.42
4:32:170:VAL:HB	4:32:176:LEU:HD11	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:51:VAL:HG23	5:42:52:PRO:CD	2.50	0.42
6:52:41:GLU:HG3	6:52:62:TRP:CE3	2.55	0.42
12:3A:41:ARG:O	12:3A:55:VAL:HG12	2.19	0.42
18:9A:56:THR:HB	18:9A:58:LEU:HD13	2.02	0.42
23:2L:8:4SU:C2	23:2L:14:A:H62	2.27	0.42
57:3L:48:C:H5"	57:3L:59:A:H4'	2.00	0.42
26:14:397:G:O2'	26:14:2231:C:H1'	2.19	0.42
26:14:510:C:H2'	26:14:511:U:O4'	2.19	0.42
26:14:552:G:H2'	26:14:553:U:O4'	2.19	0.42
26:14:873:G:N2	26:14:905:U:O2	2.52	0.42
26:14:940:G:N3	26:14:1191:G:H4'	2.34	0.42
26:14:959:A:C6	26:14:960:A:C2	3.08	0.42
26:14:1142(A):A:C5	26:14:1144:G:C5	3.07	0.42
26:14:2127:G:C6	26:14:2128:C:C4	3.07	0.42
26:14:2353:G:H2'	26:14:2354:G:O4'	2.19	0.42
29:19:69:ARG:HD3	29:19:105:ILE:HD11	2.00	0.42
30:29:101:ARG:CZ	30:29:171:GLU:HB2	2.50	0.42
31:39:38:ARG:HE	31:39:38:ARG:HB3	1.74	0.42
36:25:113:LYS:H	36:25:113:LYS:CE	2.32	0.42
38:45:37:LEU:HB2	38:45:128:LYS:O	2.20	0.42
44:A5:71:VAL:HA	44:A5:107:LEU:HD12	2.02	0.42
1:13:11:G:C6	1:13:12:U:C4	3.07	0.42
1:13:109:A:H5'	1:13:110:C:H5	1.85	0.42
1:13:437:U:O2	1:13:437:U:H2'	2.19	0.42
1:13:488:C:O2'	1:13:489:C:H5'	2.20	0.42
1:13:1127:G:C5	1:13:1128:C:N4	2.88	0.42
3:2E:34:LEU:HD22	3:2E:38:ARG:NH1	2.35	0.42
3:2E:118:GLN:H	3:2E:118:GLN:HG2	1.63	0.42
4:3E:31:CYS:SG	4:3E:34:GLU:HG2	2.59	0.42
11:2I:121:PRO:HG2	11:2I:126:ARG:HG2	2.02	0.42
12:3I:6:THR:N	12:3I:9:GLN:OE1	2.52	0.42
16:7I:27:LYS:H	16:7I:27:LYS:HG2	1.64	0.42
20:BI:14:LYS:HG3	20:BI:17:ARG:HE	1.85	0.42
26:1H:271(C):U:C4	26:1H:272:G:OP1	2.73	0.42
26:1H:479:A:N3	26:1H:481:G:H5"	2.34	0.42
26:1H:592:G:N3	55:Q8:4:MET:CE	2.83	0.42
26:1H:674:G:O2'	31:31:74:ARG:HG3	2.20	0.42
26:1H:1012:U:O4	35:58:25:ARG:HA	2.20	0.42
26:1H:1843:C:O5'	26:1H:1843:C:H6	2.01	0.42
26:1H:2212:A:O2'	26:1H:2215:G:C8	2.64	0.42
26:1H:2376:A:C2	26:1H:2377:A:H1'	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2408:U:H2'	26:1H:2409:G:C8	2.54	0.42
26:1H:2638:G:P	30:21:82:ARG:NH2	2.93	0.42
26:1H:2863:C:H2'	26:1H:2864:G:C8	2.55	0.42
27:16:44:G:HO2'	27:16:45:A:P	2.41	0.42
30:21:108:SER:OG	30:21:163:GLU:HG2	2.19	0.42
37:78:14:LYS:O	37:78:15:ARG:C	2.63	0.42
37:78:63:PRO:CB	55:Q8:30:ARG:HH21	2.32	0.42
38:88:17:LEU:HD23	38:88:17:LEU:HA	1.44	0.42
41:B8:13:ARG:HB3	41:B8:13:ARG:NH1	2.34	0.42
51:L8:40:THR:HG23	51:L8:43:ILE:HG13	2.02	0.42
1:1G:105:G:C6	1:1G:106:C:C4	3.07	0.42
1:1G:464:G:H8	1:1G:464:G:O5'	2.03	0.42
1:1G:485:G:O2'	1:1G:486:U:H6	2.03	0.42
3:22:130:VAL:O	3:22:134:ILE:HG12	2.20	0.42
4:32:61:LYS:HA	4:32:203:VAL:HG22	2.01	0.42
4:32:63:LYS:HE3	4:32:63:LYS:HB2	1.63	0.42
4:32:76:ARG:NH2	4:32:80:GLU:OE1	2.44	0.42
5:42:28:PHE:O	5:42:47:LYS:HA	2.20	0.42
5:42:93:PRO:O	8:72:105:ARG:NH1	2.53	0.42
26:14:95:G:H4'	50:G5:46:GLN:HB2	2.02	0.42
26:14:595:C:H6	26:14:595:C:H5"	1.84	0.42
26:14:734:A:O2'	26:14:1635:G:H5'	2.20	0.42
26:14:1044:G:HO2'	26:14:1047:G:HO2'	1.48	0.42
26:14:1685:C:H2'	26:14:1686:C:C6	2.54	0.42
26:14:1858:G:H2'	26:14:1883:G:H22	1.84	0.42
26:14:2366:A:H2'	26:14:2367:G:O4'	2.20	0.42
26:14:2494:G:O2'	26:14:2495:G:H5'	2.20	0.42
26:14:2577:A:OP2	53:J5:3:LYS:NZ	2.43	0.42
26:14:2662:A:H8	26:14:2662:A:O5'	2.02	0.42
29:19:72:LYS:HE3	29:19:101:GLU:OE2	2.20	0.42
32:49:98:ARG:O	32:49:101:ILE:HG13	2.19	0.42
35:15:13:TRP:O	35:15:135:PRO:HD2	2.19	0.42
36:25:105:GLU:HA	36:25:108:GLU:CD	2.45	0.42
43:95:79:VAL:HG23	43:95:80:GLN:H	1.85	0.42
46:C5:46:LYS:HA	46:C5:46:LYS:HD2	1.85	0.42
46:C5:87:LYS:NZ	46:C5:89:PHE:HB3	2.35	0.42
1:13:120:A:H2'	1:13:121:C:H4'	2.00	0.42
1:13:232:G:C4	1:13:233:C:C5	3.08	0.42
1:13:266:G:O2'	17:8I:67:LYS:HB3	2.20	0.42
1:13:317:G:H1	1:13:336:C:N4	2.18	0.42
1:13:323:U:H5'	20:BI:23:ARG:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:807:A:H2'	1:13:808:C:C6	2.54	0.42
1:13:1033:G:OP2	1:13:1033:G:H8	2.03	0.42
1:13:1402:C:H2'	1:13:1403:C:O4'	2.20	0.42
2:1E:91:PRO:HA	2:1E:154:LEU:HD12	2.01	0.42
2:1E:176:GLU:O	2:1E:180:LEU:HG	2.20	0.42
3:2E:32:LEU:HD13	3:2E:59:ARG:HD3	2.01	0.42
3:2E:173:VAL:HG12	3:2E:175:LEU:HD12	2.01	0.42
4:3E:194:LEU:HG	4:3E:196:LEU:HD23	2.01	0.42
11:2I:45:GLY:O	11:2I:50:TYR:HB2	2.20	0.42
11:2I:125:PHE:CD1	11:2I:125:PHE:N	2.87	0.42
13:4I:70:LEU:O	13:4I:74:VAL:HG23	2.19	0.42
19:AI:4:SER:O	19:AI:5:LEU:HD23	2.20	0.42
22:1K:14:A:N6	22:1K:22:G:C5	2.88	0.42
26:1H:307:G:N2	26:1H:310:A:O5'	2.50	0.42
26:1H:994:C:OP1	42:C8:53:ARG:NH2	2.50	0.42
26:1H:1613:G:C6	26:1H:1619:G:O6	2.72	0.42
26:1H:1813:G:H1'	29:11:50:THR:OG1	2.19	0.42
26:1H:1925:C:C2'	26:1H:1926:U:H5'	2.50	0.42
26:1H:2645:G:H3'	26:1H:2646:C:H5'	2.01	0.42
26:1H:2657:A:O2'	33:51:160:LYS:NZ	2.40	0.42
26:1H:2684:U:C4	26:1H:2685:G:N7	2.87	0.42
27:16:42:C:O2	32:41:92:VAL:HA	2.20	0.42
31:31:64:ILE:HG22	31:31:65:TRP:CD1	2.54	0.42
32:41:51:ARG:O	32:41:54:GLU:HG2	2.20	0.42
35:58:28:THR:HG22	35:58:29:LYS:N	2.34	0.42
37:78:111:ARG:HG2	37:78:128:HIS:CD2	2.54	0.42
38:88:47:ILE:O	38:88:50:ALA:N	2.53	0.42
41:B8:3:ARG:O	41:B8:6:LEU:N	2.52	0.42
42:C8:88:ILE:C	42:C8:90:VAL:N	2.78	0.42
1:1G:628:G:N2	1:1G:629:G:C2	2.87	0.42
1:1G:652:U:C4	1:1G:752:G:N3	2.88	0.42
1:1G:654:G:H2'	1:1G:655:A:O4'	2.19	0.42
1:1G:1260:C:H3'	1:1G:1260:C:C6	2.55	0.42
2:12:119:GLU:OE2	2:12:153:ARG:NH1	2.52	0.42
4:32:100:ARG:HG2	4:32:136:PRO:O	2.19	0.42
5:42:41:VAL:O	5:42:67:VAL:N	2.53	0.42
5:42:76:ILE:HG23	5:42:77:PRO:HD2	2.02	0.42
7:62:28:ASN:OD1	7:62:36:LYS:NZ	2.53	0.42
7:62:141:VAL:C	7:62:143:ARG:H	2.24	0.42
9:82:73:GLN:O	9:82:76:ALA:N	2.51	0.42
11:2A:100:ALA:C	11:2A:102:GLY:H	2.27	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:5A:3:ARG:HA	14:5A:4:LYS:HA	1.84	0.42
16:7A:39:TYR:CD2	16:7A:41:PRO:HD3	2.55	0.42
23:2L:20:G:C2	23:2L:58:A:N3	2.88	0.42
23:2L:69:C:H2'	23:2L:70:C:C6	2.54	0.42
57:3L:25:C:C4	57:3L:26:A:C8	3.07	0.42
26:14:224:G:N7	26:14:420:C:H4'	2.35	0.42
26:14:458:G:O2'	54:L5:39:ARG:HD3	2.19	0.42
26:14:1152:C:H4'	42:85:77:SER:HA	2.02	0.42
26:14:1392:A:N6	26:14:1393:A:N6	2.68	0.42
26:14:1728:G:C2	26:14:1730:U:OP2	2.72	0.42
26:14:1757:U:O2	26:14:1762:A:N1	2.53	0.42
26:14:2631:G:O2'	26:14:2810:A:N1	2.45	0.42
26:14:2839:G:H21	39:55:92:GLY:HA2	1.85	0.42
29:19:72:LYS:HD3	29:19:97:TYR:CE2	2.55	0.42
34:69:79:ILE:O	34:69:143:SER:HA	2.20	0.42
35:15:39:ARG:NH1	35:15:41:ASP:HB3	2.35	0.42
37:35:36:LYS:HB3	37:35:37:GLY:H	1.55	0.42
37:35:52:GLU:CD	37:35:52:GLU:C	2.87	0.42
39:55:100:LEU:HD12	39:55:111:LEU:HB2	2.02	0.42
41:75:51:ARG:HG3	41:75:98:LYS:HD2	2.01	0.42
1:13:1:U:C2	1:13:630:G:H1'	2.55	0.42
1:13:195:A:C5	1:13:196:A:N1	2.87	0.42
1:13:254:G:N2	1:13:272:C:O2	2.41	0.42
1:13:445:G:H1	1:13:489:C:N4	2.17	0.42
1:13:627:G:H2'	1:13:628:G:C8	2.55	0.42
1:13:711:G:O2'	1:13:712:A:H5'	2.20	0.42
1:13:724:G:O2'	1:13:725:G:H5'	2.20	0.42
17:8I:5:VAL:HA	17:8I:59:ILE:O	2.19	0.42
20:BI:61:SER:O	20:BI:65:LYS:HB2	2.20	0.42
23:2K:65:G:H2'	23:2K:66:C:O4'	2.19	0.42
26:1H:153:C:H2'	26:1H:154:G:C8	2.55	0.42
26:1H:719:C:C2	26:1H:720:C:C5	3.08	0.42
26:1H:981:A:H1'	26:1H:2037:G:O4'	2.19	0.42
26:1H:1107:G:N2	26:1H:1108:U:C2	2.88	0.42
26:1H:1443:G:H1	26:1H:1548:C:N4	2.16	0.42
26:1H:1528:A:C2	26:1H:1543:A:N1	2.88	0.42
26:1H:1569:A:H5'	29:11:61:LEU:HD21	2.02	0.42
26:1H:1853:A:O2'	26:1H:2234:G:H5'	2.19	0.42
26:1H:1930:G:O2'	26:1H:1931:U:P	2.78	0.42
26:1H:2262:U:H4'	26:1H:2328:A:H2	1.85	0.42
26:1H:2543:G:C1'	26:1H:2766:G:H5'	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:113:C:H2'	27:16:114:G:O4'	2.19	0.42
29:11:30:GLU:HG3	29:11:63:ARG:CZ	2.49	0.42
29:11:32:SER:CA	29:11:35:LYS:HZ3	2.33	0.42
29:11:38:LYS:HZ2	29:11:38:LYS:H	1.67	0.42
30:21:105:THR:HG22	30:21:106:GLY:H	1.83	0.42
32:41:112:PRO:HA	52:M8:37:SER:HB2	2.00	0.42
40:A8:41:ASP:OD2	40:A8:44:LYS:HB2	2.20	0.42
41:B8:42:ILE:HD12	41:B8:42:ILE:H	1.84	0.42
42:C8:8:VAL:HG23	42:C8:11:ARG:HH21	1.84	0.42
43:D8:36:PRO:HA	43:D8:37:VAL:HA	1.74	0.42
48:I8:19:LYS:HD3	48:I8:19:LYS:HA	1.50	0.42
1:1G:547:A:H4'	1:1G:548:G:O5'	2.19	0.42
1:1G:864:A:H2'	1:1G:865:A:C8	2.54	0.42
1:1G:1157:A:H1'	1:1G:1158:C:OP2	2.20	0.42
12:3A:18:VAL:O	12:3A:19:ARG:HB2	2.20	0.42
12:3A:82:VAL:HG23	12:3A:106:ASP:OD2	2.20	0.42
14:5A:53:LEU:HD23	14:5A:53:LEU:HA	1.75	0.42
57:3L:22:G:C2	57:3L:23:A:N7	2.88	0.42
26:14:1198:U:H2'	26:14:1199:U:H6	1.84	0.42
26:14:1514:U:C2'	26:14:1515:C:H5'	2.49	0.42
26:14:1858:G:H2'	26:14:1883:G:N2	2.35	0.42
26:14:2037:G:H2'	26:14:2038:G:C8	2.55	0.42
26:14:2145:C:C2	26:14:2147:G:N2	2.88	0.42
26:14:2262:U:H4'	26:14:2328:A:H2	1.82	0.42
26:14:2897:U:H5'	26:14:2898:U:OP2	2.19	0.42
30:29:171:GLU:HB3	30:29:185:LYS:HG3	2.02	0.42
31:39:25:PRO:HB2	31:39:27:GLU:O	2.20	0.42
33:59:58:GLU:HB2	33:59:61:HIS:HD2	1.83	0.42
37:35:11:GLY:O	37:35:12:ALA:HB3	2.19	0.42
37:35:14:LYS:C	37:35:16:ARG:N	2.78	0.42
44:A5:62:HIS:HB2	44:A5:64:MET:HG3	2.02	0.42
44:A5:110:LYS:NZ	44:A5:111:HIS:HB3	2.35	0.42
49:F5:90:ILE:HD13	49:F5:90:ILE:HG21	1.76	0.42
1:13:132:C:H6	1:13:132:C:O5'	2.03	0.42
1:13:243:A:H5"	1:13:244:U:H3'	2.02	0.42
1:13:416:G:C6	1:13:417:C:C4	3.08	0.42
1:13:653:A:C8	8:7E:56:LYS:HG2	2.55	0.42
1:13:719:C:H1'	18:9I:49:LYS:HG2	2.01	0.42
1:13:736:C:C2	1:13:737:A:N7	2.88	0.42
1:13:974:A:OP1	14:5I:31:ARG:HD3	2.20	0.42
1:13:1401:G:H5"	1:13:1402:C:OP2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:63:ARG:HA	5:4E:66:MET:CE	2.50	0.42
5:4E:149:GLU:HG2	5:4E:149:GLU:H	1.68	0.42
6:5E:44:GLY:HA2	6:5E:59:TYR:CZ	2.54	0.42
8:7E:33:GLU:HA	8:7E:36:LEU:HD12	2.01	0.42
10:1I:16:LEU:HD23	10:1I:94:VAL:HG13	2.02	0.42
12:3I:60:LEU:HA	12:3I:60:LEU:HD13	1.85	0.42
14:5I:37:PHE:CE2	14:5I:53:LEU:HD13	2.55	0.42
20:BI:49:ALA:HB3	20:BI:99:LEU:HB2	2.02	0.42
21:1F:2:GLY:O	21:1F:4:GLY:N	2.53	0.42
26:1H:216:A:H2'	26:1H:217:G:C8	2.54	0.42
26:1H:248:G:C2	26:1H:2431:U:H4'	2.54	0.42
26:1H:459:U:H5"	54:P8:40:TRP:CE2	2.55	0.42
26:1H:588:U:H1'	31:31:90:PHE:CD1	2.55	0.42
26:1H:1477:A:C2	26:1H:1517:G:C2	3.08	0.42
26:1H:1680:U:H2'	26:1H:1681:G:O4'	2.19	0.42
26:1H:1864:U:H2'	26:1H:1869:G:H5"	2.01	0.42
26:1H:2106:G:C6	26:1H:2184:G:C2	3.08	0.42
26:1H:2124:G:N2	28:71:217:THR:HG23	2.35	0.42
26:1H:2556:C:H2'	26:1H:2557:G:O4'	2.19	0.42
26:1H:2747:G:C2	26:1H:2756:U:C5	3.08	0.42
29:11:30:GLU:HB3	29:11:104:TYR:OH	2.20	0.42
29:11:38:LYS:H	29:11:38:LYS:NZ	2.17	0.42
32:41:109:VAL:O	32:41:113:ARG:HG3	2.19	0.42
40:A8:88:ASP:O	40:A8:89:ARG:CB	2.68	0.42
43:D8:14:VAL:HB	43:D8:96:ILE:HG13	2.02	0.42
46:G8:85:VAL:C	46:G8:86:ARG:HD3	2.43	0.42
50:K8:32:LEU:HD23	50:K8:32:LEU:HA	1.83	0.42
1:1G:222:U:C2	1:1G:223:U:C5	3.08	0.42
1:1G:587:G:H8	1:1G:587:G:O5'	2.03	0.42
1:1G:667:G:H4'	15:6A:51:HIS:ND1	2.35	0.42
1:1G:858:G:H8	1:1G:858:G:OP2	2.03	0.42
1:1G:1080:A:OP1	5:42:14:ARG:NH2	2.53	0.42
1:1G:1169:A:H2'	1:1G:1170:A:C8	2.55	0.42
1:1G:1511:G:H8	1:1G:1511:G:O5'	2.03	0.42
2:12:201:ILE:HA	2:12:202:PRO:HD2	1.89	0.42
3:22:38:ARG:HB2	3:22:42:LEU:HD23	2.02	0.42
3:22:43:LEU:HD11	3:22:68:VAL:HG21	2.02	0.42
4:32:26:CYS:HA	59:32:301:SF4:S2	2.60	0.42
5:42:60:TYR:HB3	5:42:64:ARG:NH2	2.35	0.42
8:72:14:ARG:O	8:72:18:ARG:HG2	2.19	0.42
15:6A:5:LYS:HE3	15:6A:5:LYS:HB2	1.63	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1B:8:THR:OG1	21:1B:9:ARG:N	2.52	0.42
56:1L:26:A:H4'	56:1L:26:A:OP1	2.19	0.42
57:3L:52:G:H3'	57:3L:53:G:H8	1.84	0.42
26:14:270(U):C:C2	26:14:270(V):G:C8	3.08	0.42
26:14:270(X):G:C6	26:14:270(Y):G:N1	2.88	0.42
26:14:991:C:O2	26:14:1164:G:C2	2.73	0.42
26:14:1091:G:H1	26:14:1100:C:H1'	1.84	0.42
26:14:1311:G:N2	45:B5:60:ARG:HH21	2.18	0.42
26:14:1459:G:H2'	26:14:1461:G:OP2	2.19	0.42
26:14:1895:C:C2	26:14:1896:G:C8	3.08	0.42
26:14:2053:G:N2	26:14:2054:A:C4	2.88	0.42
26:14:2716:U:O2'	26:14:2717:G:H5'	2.19	0.42
26:14:2875:C:O2'	41:75:5:ALA:HB3	2.20	0.42
28:79:200:LYS:HE3	28:79:208:PHE:HB2	2.02	0.42
30:29:9:VAL:HG12	41:75:8:LYS:HE2	2.01	0.42
30:29:179:GLU:HB2	30:29:181:LEU:HD22	2.02	0.42
31:39:83:PHE:O	31:39:85:GLY:N	2.48	0.42
35:15:21:LYS:O	35:15:61:ARG:N	2.53	0.42
36:25:22:ILE:HD13	36:25:22:ILE:HA	1.46	0.42
39:55:37:THR:HB	39:55:39:PRO:HD2	2.02	0.42
42:85:74:LEU:HD13	42:85:79:PHE:HB2	2.01	0.42
43:95:38:LEU:HD12	43:95:57:VAL:HG12	2.01	0.42
45:B5:5:TYR:CE2	50:G5:30:ARG:HB2	2.55	0.42
47:D5:95:PRO:HA	47:D5:128:VAL:O	2.20	0.42
49:F5:5:CYS:SG	49:F5:8:SER:OG	2.61	0.42
1:13:37:U:O2'	1:13:500:G:H4'	2.20	0.41
1:13:270:A:C5	1:13:271:C:C4	3.07	0.41
1:13:420:U:H2'	1:13:422:C:H5	1.85	0.41
1:13:509:A:H3'	61:13:1825:HOH:O	2.20	0.41
1:13:539:A:OP1	12:3I:114:LYS:HE2	2.20	0.41
1:13:576:G:P	61:13:1810:HOH:O	2.76	0.41
1:13:954:G:H2'	1:13:955:U:H6	1.84	0.41
1:13:1310:G:H5'	13:4I:77:ASN:ND2	2.35	0.41
1:13:1327:C:OP2	21:1F:12:LYS:NZ	2.50	0.41
1:13:1453:G:H2'	20:BI:39:LYS:NZ	2.35	0.41
1:13:1513:A:H2'	1:13:1514:C:C6	2.55	0.41
2:1E:25:ASN:CG	2:1E:193:ASP:HB3	2.45	0.41
2:1E:187:LEU:HD11	2:1E:204:ASN:O	2.20	0.41
3:2E:143:GLU:C	3:2E:145:GLY:H	2.28	0.41
8:7E:39:LEU:O	8:7E:44:PHE:N	2.47	0.41
12:3I:50:SER:O	12:3I:51:ALA:HB2	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3I:75:HIS:ND1	12:3I:75:HIS:O	2.52	0.41
12:3I:122:THR:HG22	12:3I:123:LYS:O	2.19	0.41
17:8I:52:LYS:O	17:8I:55:ASP:HB2	2.20	0.41
19:AI:41:VAL:H	19:AI:44:MET:HG3	1.84	0.41
26:1H:55:G:C2	26:1H:116:C:C2	3.08	0.41
26:1H:155:C:H5'	26:1H:161:U:OP2	2.19	0.41
26:1H:176:G:C2'	26:1H:177:G:H5'	2.49	0.41
26:1H:973:A:O4'	26:1H:1188:U:C6	2.72	0.41
26:1H:1005:C:O2'	35:58:28:THR:HG21	2.19	0.41
26:1H:1045:A:C8	26:1H:1047:G:C2	3.07	0.41
26:1H:1503:U:H2'	26:1H:1504:C:C6	2.49	0.41
26:1H:1522:G:C8	26:1H:1523:U:C6	3.08	0.41
26:1H:1857:G:C6	26:1H:1858:G:N1	2.88	0.41
26:1H:2615:U:H2'	26:1H:2616:C:H6	1.85	0.41
26:1H:2712:U:O2'	26:1H:2713:A:H5'	2.20	0.41
26:1H:2886:G:N2	26:1H:2887:U:C2	2.88	0.41
34:61:18:VAL:HG21	34:61:44:LEU:HD11	2.02	0.41
34:61:112:LYS:HG2	34:61:112:LYS:H	1.65	0.41
39:98:51:LEU:HD23	39:98:51:LEU:HA	1.94	0.41
41:B8:105:LEU:O	41:B8:107:ASP:OD1	2.38	0.41
42:C8:49:HIS:HA	42:C8:52:ARG:HG2	2.02	0.41
43:D8:38:LEU:HD23	43:D8:57:VAL:HG12	2.02	0.41
47:H8:151:HIS:HA	47:H8:170:THR:HA	2.02	0.41
48:I8:54:GLY:O	48:I8:57:PHE:N	2.48	0.41
49:J8:82:LEU:H	49:J8:82:LEU:HD22	1.85	0.41
54:P8:24:THR:O	54:P8:27:GLY:N	2.50	0.41
1:1G:186(B):C:O2'	1:1G:186(C):G:H5'	2.20	0.41
1:1G:652:U:C5	1:1G:752:G:C2	3.08	0.41
1:1G:1007:C:H2'	1:1G:1008:C:O4'	2.19	0.41
1:1G:1071:C:H5"	5:42:49:PRO:HG3	2.02	0.41
2:12:129:GLU:HB3	2:12:130:ARG:H	1.54	0.41
4:32:65:ARG:HD2	4:32:72:GLU:HA	2.02	0.41
7:62:46:ALA:O	7:62:50:ILE:HG13	2.20	0.41
9:82:7:THR:O	9:82:80:GLY:HA2	2.20	0.41
10:1A:26:ALA:HB1	10:1A:84:GLN:HG2	2.02	0.41
12:3A:20:LYS:HE3	12:3A:20:LYS:HB3	1.93	0.41
13:4A:80:ARG:HH21	19:AA:66:MET:HG3	1.85	0.41
17:8A:59:ILE:HG22	17:8A:71:PHE:CD2	2.49	0.41
23:2L:5:G:H2'	23:2L:6:G:O4'	2.20	0.41
25:4L:10:G:H8	25:4L:10:G:OP2	2.03	0.41
26:14:1043:C:O2	26:14:1112:G:N2	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1406:U:H6	26:14:1406:U:C5'	2.32	0.41
26:14:1429:G:N3	26:14:1568:G:C2	2.88	0.41
26:14:2472:G:C4	26:14:2475:C:N4	2.88	0.41
26:14:2475:C:H3'	26:14:2476:A:H5"	2.02	0.41
27:1J:15:A:H1'	27:1J:109:G:N9	2.34	0.41
29:19:177:LEU:HD23	29:19:177:LEU:HA	1.80	0.41
30:29:58:ARG:HD2	30:29:58:ARG:H	1.85	0.41
31:39:28:ILE:C	31:39:28:ILE:HD13	2.44	0.41
33:59:149:ARG:HH22	33:59:154:PRO:HB2	1.84	0.41
36:25:14:THR:HG22	36:25:16:ALA:H	1.85	0.41
38:45:3:MET:HE2	38:45:3:MET:HB3	1.89	0.41
42:85:81:HIS:O	42:85:84:LYS:HB3	2.20	0.41
43:95:29:PRO:HA	43:95:61:VAL:HG11	2.00	0.41
1:13:31:G:N2	1:13:47:C:O5'	2.53	0.41
1:13:197:A:H4'	1:13:198:G:O5'	2.19	0.41
1:13:346:G:N3	1:13:346:G:H2'	2.36	0.41
1:13:911:U:H2'	1:13:912:C:C6	2.55	0.41
1:13:1348:U:H3	1:13:1374:A:H2	1.64	0.41
1:13:1392:G:C5	1:13:1393:U:C5	3.08	0.41
8:7E:8:ASP:O	8:7E:12:ARG:HG3	2.19	0.41
10:1I:83:GLU:O	10:1I:86:MET:N	2.49	0.41
13:4I:106:ASN:O	13:4I:106:ASN:ND2	2.51	0.41
20:BI:89:ARG:NH2	20:BI:104:LEU:HD21	2.35	0.41
26:1H:139:G:N3	26:1H:141:A:N1	2.68	0.41
26:1H:343:C:O2'	26:1H:344:G:H5'	2.20	0.41
26:1H:435:C:H2'	26:1H:436:C:H5'	2.01	0.41
26:1H:484:C:H2'	26:1H:485:C:C6	2.55	0.41
26:1H:674:G:P	61:1H:3654:HOH:O	2.78	0.41
26:1H:753:C:O2'	26:1H:754:C:H5'	2.20	0.41
26:1H:1176:G:H3'	26:1H:1177:A:C5	2.55	0.41
26:1H:2159:G:C2	26:1H:2160:G:H1'	2.54	0.41
32:41:51:ARG:NH1	32:41:51:ARG:HB2	2.35	0.41
33:51:41:MET:N	33:51:41:MET:HE3	2.35	0.41
35:58:94:HIS:HB3	35:58:97:ARG:HG3	2.01	0.41
37:78:15:ARG:HB3	37:78:16:ARG:H	1.56	0.41
37:78:36:LYS:HB3	37:78:37:GLY:H	1.54	0.41
39:98:28:LEU:HD23	39:98:28:LEU:HA	1.76	0.41
39:98:48:VAL:O	39:98:51:LEU:N	2.53	0.41
40:A8:67:ARG:NH1	40:A8:67:ARG:HB2	2.35	0.41
42:C8:81:HIS:NE2	42:C8:85:LYS:HE2	2.34	0.41
42:C8:101:ARG:O	42:C8:103:PRO:HD3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:D8:18:LEU:HD22	43:D8:19:LYS:N	2.35	0.41
43:D8:49:THR:HG23	43:D8:51:VAL:H	1.85	0.41
45:F8:67:GLY:O	45:F8:68:ARG:HB3	2.21	0.41
50:K8:31:GLU:O	50:K8:35:LEU:HB2	2.20	0.41
1:1G:266:G:H2'	1:1G:266:G:N3	2.35	0.41
1:1G:643:C:H2'	1:1G:644:G:C8	2.54	0.41
1:1G:1036:G:N7	1:1G:1037:C:C2	2.88	0.41
1:1G:1447:G:C6	1:1G:1460:A:C2	3.08	0.41
2:12:48:MET:H	2:12:48:MET:HG2	1.71	0.41
3:22:37:GLN:O	3:22:40:ARG:N	2.53	0.41
3:22:72:LYS:HA	3:22:73:PRO:HD3	1.79	0.41
4:32:13:ARG:C	4:32:15:GLU:N	2.77	0.41
12:3A:102:ARG:HE	12:3A:102:ARG:HB3	1.49	0.41
16:7A:68:ASP:HA	16:7A:71:ARG:HB3	2.02	0.41
26:14:142:G:H2'	26:14:143:C:H6	1.84	0.41
26:14:946:G:H2'	26:14:947:G:C8	2.54	0.41
26:14:962:G:C2	26:14:963:U:C2	3.08	0.41
26:14:1331:A:O2'	26:14:1332:G:C8	2.73	0.41
26:14:2197:U:C5	26:14:2224:G:C6	3.09	0.41
26:14:2629:A:H3'	26:14:2629:A:OP2	2.20	0.41
26:14:2865:U:C4	26:14:2866:U:C4	3.08	0.41
30:29:25:VAL:HG21	41:75:8:LYS:NZ	2.35	0.41
30:29:68:ALA:C	30:29:70:ALA:N	2.78	0.41
33:59:146:ALA:O	33:59:149:ARG:N	2.46	0.41
35:15:109:LYS:HD3	35:15:109:LYS:HA	1.56	0.41
37:35:107:LYS:O	37:35:109:GLY:N	2.50	0.41
40:65:18:ILE:O	40:65:20:ARG:N	2.53	0.41
43:95:71:LEU:CA	43:95:86:GLY:HA2	2.49	0.41
1:13:158:G:N3	1:13:159:G:C8	2.89	0.41
1:13:436:C:C4	1:13:437:U:C5	3.08	0.41
1:13:607:A:C2	16:7I:31:LYS:HE2	2.55	0.41
1:13:792:A:O2'	1:13:794:A:N7	2.49	0.41
1:13:872:A:C8	1:13:874:G:C8	3.08	0.41
1:13:1189:C:H5"	1:13:1190:G:OP2	2.20	0.41
1:13:1237:C:H3'	1:13:1336:C:H41	1.85	0.41
1:13:1263:C:O2'	1:13:1264:C:H5'	2.20	0.41
1:13:1324:A:O4'	1:13:1362:C:H4'	2.20	0.41
6:5E:61:LEU:HD23	6:5E:63:TYR:CE2	2.55	0.41
16:7I:43:LYS:HA	16:7I:48:TRP:CB	2.49	0.41
26:1H:55:G:N2	26:1H:116:C:C2	2.88	0.41
26:1H:426:C:H2'	26:1H:427:U:C6	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:638:G:C5	26:1H:651:G:C2	3.08	0.41
26:1H:1705:G:C6	26:1H:1706:U:C4	3.08	0.41
26:1H:1754:C:OP1	41:B8:96:ARG:NH1	2.52	0.41
26:1H:2453:A:H2'	26:1H:2454:G:O4'	2.20	0.41
26:1H:2582:G:C2	26:1H:2583:G:C8	3.08	0.41
26:1H:2886:G:O2'	53:N8:31:VAL:HG23	2.19	0.41
27:16:20:C:H2'	27:16:21:G:O4'	2.21	0.41
29:11:10:THR:HG1	29:11:13:ARG:HB2	1.83	0.41
29:11:35:LYS:HB2	29:11:62:TYR:O	2.19	0.41
29:11:268:ARG:O	29:11:268:ARG:HG3	2.19	0.41
32:41:43:LEU:HD23	32:41:53:LEU:HD12	2.01	0.41
35:58:37:LYS:HE2	35:58:37:LYS:HB3	1.87	0.41
38:88:32:TYR:HD1	38:88:133:ARG:HA	1.86	0.41
38:88:136:ALA:HB1	47:H8:52:SER:HB2	2.01	0.41
42:C8:109:LEU:HD21	43:D8:47:VAL:HG21	2.02	0.41
45:F8:80:ILE:O	45:F8:80:ILE:HG13	2.20	0.41
47:H8:48:PHE:HE1	47:H8:71:VAL:HG11	1.85	0.41
47:H8:111:VAL:O	47:H8:111:VAL:HG23	2.19	0.41
49:J8:85:LEU:HA	49:J8:85:LEU:HD13	1.58	0.41
50:K8:4:SER:HA	50:K8:5:GLU:HB2	2.02	0.41
1:1G:6:G:OP2	4:32:84:LYS:HD3	2.20	0.41
1:1G:36:C:OP1	12:3A:123:LYS:NZ	2.52	0.41
1:1G:115:G:H4'	1:1G:116:A:O5'	2.19	0.41
1:1G:146:G:H2'	1:1G:147:G:H8	1.85	0.41
1:1G:229:U:O2'	16:7A:23:ASP:HB2	2.20	0.41
1:1G:781:A:C3'	1:1G:782:A:H5'	2.51	0.41
1:1G:807:A:C5	1:1G:808:C:C4	3.08	0.41
1:1G:854:G:C2	1:1G:855:G:C8	3.08	0.41
1:1G:861:G:H2'	1:1G:862:C:C6	2.55	0.41
1:1G:999:U:H2'	1:1G:1000:A:C8	2.55	0.41
1:1G:1111:A:H2'	1:1G:1112:C:O4'	2.20	0.41
1:1G:1189:C:H5"	1:1G:1190:G:OP2	2.20	0.41
1:1G:1314:C:H2'	1:1G:1315:U:C6	2.56	0.41
1:1G:1325:C:P	21:1B:15:ARG:HH21	2.42	0.41
2:12:149:LEU:HD23	2:12:149:LEU:HA	1.71	0.41
9:82:49:PRO:HG3	9:82:82:ALA:HB2	2.01	0.41
11:2A:69:ALA:O	11:2A:72:ALA:N	2.54	0.41
13:4A:50:GLU:O	13:4A:54:VAL:HG23	2.20	0.41
19:AA:66:MET:HA	19:AA:67:VAL:C	2.45	0.41
56:1L:33:U:H2'	56:1L:35:U:OP2	2.21	0.41
56:1L:41:A:H2'	56:1L:42:A:C8	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:180:G:OP1	54:L5:32:LYS:NZ	2.49	0.41
26:14:761:A:C5	61:14:3521:HOH:O	2.64	0.41
26:14:918:A:N3	27:1J:80:U:H4'	2.35	0.41
26:14:1038:C:H2'	26:14:1039:G:O4'	2.20	0.41
26:14:1210:A:H5"	26:14:1211:U:H3'	2.02	0.41
26:14:1473:G:C6	26:14:1474:C:C4	3.08	0.41
26:14:1829:A:N3	29:19:15:PHE:HE2	2.19	0.41
26:14:2100:G:C5	26:14:2190:G:C6	3.08	0.41
26:14:2542:A:C8	26:14:2544:G:O6	2.74	0.41
26:14:2821:A:H2'	26:14:2822:G:O4'	2.20	0.41
27:1J:11:C:OP2	27:1J:12:C:N4	2.43	0.41
27:1J:42:C:N4	27:1J:43:C:C4	2.88	0.41
29:19:27:THR:HG22	29:19:29:PRO:O	2.21	0.41
30:29:26:ILE:HG22	30:29:27:LEU:C	2.46	0.41
32:49:34:LEU:HD13	32:49:99:MET:HE1	2.01	0.41
33:59:72:ILE:HB	33:59:76:VAL:HG23	2.02	0.41
34:69:97:ILE:O	34:69:101:LEU:HD23	2.20	0.41
36:25:43:VAL:HG23	36:25:56:ASP:O	2.21	0.41
49:F5:29:GLY:C	49:F5:31:GLY:H	2.28	0.41
1:13:240:C:H2'	1:13:241:C:C6	2.55	0.41
1:13:272:C:C2	1:13:273:A:C8	3.08	0.41
1:13:558:G:H5"	1:13:559:A:OP2	2.20	0.41
1:13:748:C:O5'	1:13:748:C:C6	2.72	0.41
1:13:865:A:O5'	1:13:865:A:H8	2.04	0.41
1:13:973:G:OP1	10:1I:57:LYS:HD3	2.20	0.41
1:13:1092:A:C6	1:13:1093:A:C6	3.08	0.41
1:13:1292:U:C4	1:13:1293:G:N7	2.88	0.41
2:1E:130:ARG:HB3	2:1E:134:GLU:CG	2.49	0.41
10:1I:26:ALA:HA	10:1I:29:ARG:NE	2.36	0.41
10:1I:50:ILE:HD11	10:1I:57:LYS:HD2	2.03	0.41
15:6I:85:LEU:HD23	15:6I:85:LEU:HA	1.87	0.41
16:7I:28:ARG:HG3	16:7I:29:ASP:N	2.35	0.41
19:AI:5:LEU:HD13	19:AI:10:PHE:CE2	2.55	0.41
26:1H:34:C:O2'	26:1H:35:G:P	2.78	0.41
26:1H:638:G:H2'	26:1H:639:U:C6	2.55	0.41
26:1H:836:G:C5	26:1H:837:C:C4	3.09	0.41
26:1H:873:G:C2	26:1H:905:U:O2	2.73	0.41
26:1H:880:G:C2	26:1H:881:G:O6	2.73	0.41
26:1H:1142(A):A:C4	26:1H:1144:G:C8	3.07	0.41
26:1H:1368:G:C2	26:1H:1369:G:C8	3.08	0.41
26:1H:1819:A:O4'	26:1H:1821:A:C5	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2263:C:H2'	26:1H:2264:C:C6	2.54	0.41
26:1H:2579:C:H2'	26:1H:2580:U:O4'	2.20	0.41
27:16:12:C:O2	48:I8:74:ARG:NH1	2.40	0.41
28:71:7:TYR:CE2	28:71:220:PRO:HG3	2.56	0.41
28:71:212:VAL:CB	28:71:226:PRO:HD3	2.44	0.41
28:71:215:THR:HG23	28:71:220:PRO:O	2.20	0.41
30:21:152:LYS:HG2	35:58:78:TYR:CE1	2.55	0.41
32:41:33:ARG:HB2	32:41:162:THR:HG21	2.01	0.41
37:78:85:LEU:HA	37:78:85:LEU:HD23	1.81	0.41
37:78:113:LYS:HD2	37:78:129:ALA:HB1	2.02	0.41
46:G8:55:TYR:N	46:G8:56:PRO:HD3	2.35	0.41
46:G8:97:ARG:HG2	46:G8:102:CYS:HB2	2.03	0.41
48:I8:64:ASP:OD1	48:I8:64:ASP:N	2.53	0.41
51:L8:31:LEU:O	51:L8:32:GLN:HB2	2.21	0.41
1:1G:198:G:C6	1:1G:220:G:C2	3.08	0.41
1:1G:765:G:N2	1:1G:813:U:OP2	2.53	0.41
1:1G:875:C:H1'	8:72:15:ASN:ND2	2.32	0.41
2:12:193:ASP:OD1	2:12:193:ASP:N	2.50	0.41
3:22:71:ALA:HB2	3:22:115:LEU:CD1	2.51	0.41
5:42:102:ALA:HB3	5:42:107:ARG:HB2	2.02	0.41
6:52:61:LEU:HD23	6:52:63:TYR:OH	2.19	0.41
6:52:95:GLU:HA	6:52:96:PRO:HD3	1.92	0.41
8:72:49:GLU:HG2	8:72:50:ARG:O	2.19	0.41
9:82:16:ARG:HH22	9:82:66:ARG:HH21	1.68	0.41
15:6A:18:PHE:O	15:6A:21:ASP:HB2	2.19	0.41
56:1L:66:A:N6	56:1L:67:C:N3	2.68	0.41
57:3L:76:A:H61	26:14:2422:A:H5"	1.85	0.41
26:14:451:C:H41	26:14:454:A:H5'	1.85	0.41
26:14:471:A:H8	26:14:471:A:O5'	2.03	0.41
26:14:817:C:O2'	26:14:839:U:OP1	2.19	0.41
26:14:1048:A:N6	26:14:1112:G:O2'	2.37	0.41
26:14:1337:G:H2'	26:14:1338:G:C8	2.50	0.41
26:14:2114:A:H5'	26:14:2115:G:OP2	2.20	0.41
26:14:2439:A:H8	26:14:2439:A:C5'	2.33	0.41
26:14:2599:G:OP2	29:19:236:GLY:N	2.54	0.41
26:14:2615:U:C2	53:J5:7:PRO:HA	2.56	0.41
26:14:2682:U:O2'	30:29:13:ARG:HG2	2.20	0.41
30:29:141:ILE:HD12	30:29:150:VAL:HG21	2.02	0.41
30:29:147:PRO:HB2	30:29:149:ARG:CG	2.49	0.41
38:45:18:LYS:HA	38:45:18:LYS:HD2	1.61	0.41
53:J5:45:VAL:HG22	53:J5:51:TYR:HD1	1.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:109:A:H5'	1:13:110:C:C5	2.56	0.41
1:13:187:C:O2	1:13:191(A):G:C6	2.74	0.41
1:13:353:A:H5'	1:13:353:A:C8	2.46	0.41
1:13:546:G:P	4:3E:72:GLU:HB3	2.61	0.41
1:13:582:U:H2'	1:13:583:A:C8	2.56	0.41
1:13:1190:G:H5"	3:2E:176:HIS:CE1	2.55	0.41
2:1E:5:ILE:HB	2:1E:221:LEU:HD23	2.01	0.41
2:1E:189:ASP:HB3	2:1E:205:ASP:H	1.86	0.41
3:2E:21:ARG:NH2	3:2E:56:ASP:HB3	2.36	0.41
3:2E:119:ARG:HD3	3:2E:140:ARG:NH2	2.34	0.41
26:1H:273(F):C:H3'	26:1H:274:G:H5"	2.02	0.41
26:1H:910:A:N1	26:1H:2277:G:H1'	2.36	0.41
26:1H:915:C:O2'	61:1H:3577:HOH:O	2.22	0.41
26:1H:1853:A:N1	26:1H:2087:G:H1'	2.35	0.41
26:1H:2114:A:H2'	26:1H:2114:A:N3	2.34	0.41
26:1H:2124:G:O2'	28:71:42:GLU:OE1	2.22	0.41
30:21:14:ILE:HD12	30:21:14:ILE:HA	1.66	0.41
32:41:120:LEU:HB3	32:41:131:TYR:OH	2.19	0.41
32:41:121:ASN:OD1	32:41:123:ASN:N	2.49	0.41
32:41:130:ASN:HB3	32:41:159:VAL:O	2.20	0.41
32:41:139:LEU:HD13	32:41:146:TYR:CD1	2.55	0.41
39:98:11:ASN:OD1	39:98:11:ASN:N	2.53	0.41
40:A8:11:LYS:O	40:A8:15:ARG:HB2	2.21	0.41
46:G8:6:HIS:ND1	46:G8:6:HIS:N	2.69	0.41
52:M8:9:LEU:HD12	52:M8:27:THR:H	1.85	0.41
1:1G:164:U:H2'	1:1G:165:C:C6	2.55	0.41
1:1G:904:C:C4	1:1G:905:U:C5	3.09	0.41
1:1G:1126:U:C4	1:1G:1281:U:O4'	2.73	0.41
1:1G:1425:U:H2'	1:1G:1426:C:C6	2.55	0.41
3:22:95:THR:C	3:22:97:LYS:H	2.29	0.41
4:32:39:PRO:O	4:32:44:GLY:HA3	2.21	0.41
5:42:79:GLU:OE1	8:72:104:ARG:HA	2.20	0.41
5:42:103:GLY:O	5:42:106:PRO:HD2	2.21	0.41
9:82:86:VAL:HA	9:82:89:ASN:O	2.20	0.41
10:1A:28:ARG:C	10:1A:31:GLY:H	2.29	0.41
15:6A:7:GLU:O	15:6A:11:VAL:HG23	2.19	0.41
17:8A:10:VAL:HG23	17:8A:54:GLY:N	2.35	0.41
19:AA:41:VAL:HB	19:AA:43:GLU:OE2	2.19	0.41
23:2L:26:C:H2'	23:2L:27:G:C8	2.56	0.41
26:14:30:G:C5	26:14:31:C:C4	3.08	0.41
26:14:239:U:H2'	26:14:240:G:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:618:G:H2'	26:14:618(A):C:O4'	2.20	0.41
26:14:1319:G:C6	26:14:1320:C:N4	2.88	0.41
26:14:1485:G:H2'	26:14:1486:A:C8	2.55	0.41
26:14:2663:G:H3'	26:14:2664:G:H8	1.85	0.41
26:14:2786:U:H5"	30:29:66:HIS:CG	2.56	0.41
27:1J:98:G:O2'	27:1J:99:A:O4'	2.29	0.41
27:1J:111:U:O2	27:1J:111:U:H2'	2.20	0.41
29:19:184:LYS:HD3	29:19:269:PHE:HD1	1.85	0.41
30:29:35:GLN:O	30:29:48:GLN:HB2	2.21	0.41
31:39:148:LEU:HA	31:39:148:LEU:HD23	1.65	0.41
34:69:5:LEU:HD11	34:69:19:VAL:HG11	2.01	0.41
35:15:39:ARG:H	35:15:39:ARG:HG2	1.66	0.41
37:35:113:LYS:HA	37:35:129:ALA:O	2.20	0.41
38:45:68:ILE:CG2	38:45:103:MET:HB3	2.50	0.41
39:55:2:ARG:HG3	39:55:2:ARG:O	2.19	0.41
41:75:50:ILE:HD11	41:75:102:ILE:CD1	2.49	0.41
41:75:114:LEU:HD23	41:75:114:LEU:HA	1.81	0.41
44:A5:88:ARG:HA	44:A5:88:ARG:HD2	1.80	0.41
45:B5:43:VAL:HA	45:B5:46:ALA:HB3	2.03	0.41
46:C5:21:LYS:NZ	46:C5:21:LYS:HB3	2.35	0.41
54:L5:19:ARG:HG2	54:L5:19:ARG:HH11	1.85	0.41
1:13:253:U:P	17:8I:67:LYS:HZ3	2.40	0.41
1:13:277:C:H2'	1:13:278:G:C8	2.54	0.41
1:13:345:C:O2'	1:13:346:G:C4	2.71	0.41
1:13:376:G:O3'	16:7I:5:ARG:HD2	2.21	0.41
1:13:1424:C:H2'	1:13:1425:U:O4'	2.21	0.41
2:1E:51:LEU:O	2:1E:55:PHE:HB2	2.20	0.41
2:1E:114:ARG:O	2:1E:118:LEU:N	2.50	0.41
3:2E:178:LEU:HD12	3:2E:178:LEU:HA	1.76	0.41
6:5E:55:ASP:HA	6:5E:56:PRO:HD2	1.87	0.41
7:6E:27:ILE:HA	7:6E:30:ILE:HD12	2.01	0.41
8:7E:11:THR:HG23	8:7E:14:ARG:NH1	2.35	0.41
9:8E:93:ARG:HG2	9:8E:102:LEU:HD11	2.02	0.41
24:3K:22:G:N3	24:3K:22:G:H2'	2.35	0.41
24:3K:65:C:H2'	24:3K:66:A:H8	1.83	0.41
24:3K:76:A:H5"	49:J8:30:VAL:HG11	2.03	0.41
26:1H:285:C:H2'	26:1H:286:C:C6	2.55	0.41
26:1H:533:G:H5'	42:C8:24:TYR:CE1	2.56	0.41
26:1H:1312:U:H4'	26:1H:1313:U:O5'	2.20	0.41
26:1H:1790:C:O5'	26:1H:1790:C:H6	2.03	0.41
26:1H:1985:G:C2	26:1H:1986:A:C8	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2100:G:H2'	26:1H:2101:G:C8	2.56	0.41
26:1H:2389:G:H5"	26:1H:2390:U:H5'	2.01	0.41
26:1H:2496:C:OP2	38:88:82:ARG:HG2	2.20	0.41
26:1H:2729:G:H1'	30:21:187:ALA:HB2	2.02	0.41
26:1H:2830:G:C8	26:1H:2830:G:H5"	2.55	0.41
27:16:29:A:C2	27:16:56:G:C2	3.09	0.41
29:11:35:LYS:HB3	29:11:35:LYS:HE3	1.46	0.41
31:31:29:ASN:HB3	31:31:112:MET:HE1	2.02	0.41
31:31:101:LEU:O	31:31:102:PRO:C	2.63	0.41
35:58:56:ASN:C	35:58:57:ALA:O	2.59	0.41
35:58:99:LEU:HD23	35:58:99:LEU:HA	1.84	0.41
37:78:15:ARG:HD3	37:78:15:ARG:HA	1.73	0.41
41:B8:24:PRO:HD3	41:B8:52:ILE:HD13	2.03	0.41
46:G8:9:LYS:HA	46:G8:27:VAL:CG2	2.51	0.41
1:1G:160:A:H2'	1:1G:161:A:O4'	2.20	0.41
1:1G:512:U:H2'	1:1G:513:C:C6	2.55	0.41
1:1G:855:G:C2	1:1G:856:C:C2	3.08	0.41
1:1G:1026:G:H2'	1:1G:1027:C:H5'	2.01	0.41
1:1G:1176:A:C2'	1:1G:1177:G:H5'	2.50	0.41
1:1G:1276:G:H2'	1:1G:1277:C:C6	2.56	0.41
1:1G:1320:C:H2'	1:1G:1321:C:C6	2.55	0.41
1:1G:1326:C:H2'	1:1G:1327:C:H6	1.84	0.41
2:12:127:ILE:O	2:12:130:ARG:HB3	2.20	0.41
6:52:30:LEU:HD23	6:52:30:LEU:HA	1.88	0.41
7:62:27:ILE:HA	7:62:30:ILE:HD12	2.03	0.41
26:14:35:G:H2'	26:14:36:G:O4'	2.20	0.41
26:14:91:A:H2'	26:14:92:G:H8	1.85	0.41
26:14:141:A:C8	26:14:1408:C:H1'	2.55	0.41
26:14:488:G:O2'	26:14:491:G:N7	2.50	0.41
26:14:820:A:N3	26:14:943:U:H4'	2.35	0.41
26:14:1788:C:C2	26:14:1789:A:C8	3.08	0.41
26:14:2065:C:H1'	26:14:2449:U:N3	2.31	0.41
26:14:2117:A:C4	26:14:2118:U:H5	2.38	0.41
26:14:2286:A:H8	26:14:2287:A:N6	2.19	0.41
26:14:2543:G:H2'	26:14:2544:G:C8	2.56	0.41
26:14:2666:C:O5'	26:14:2666:C:H6	2.03	0.41
30:29:152:LYS:HE2	30:29:152:LYS:HB3	1.69	0.41
38:45:110:THR:HG23	38:45:113:GLN:OE1	2.21	0.41
40:65:54:LEU:HD23	40:65:55:ALA:N	2.35	0.41
44:A5:64:MET:HE2	44:A5:64:MET:HB3	1.79	0.41
47:D5:67:LEU:HA	47:D5:68:PRO:HD3	1.95	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M5:15:LYS:HG2	55:M5:16:ILE:N	2.36	0.41
1:13:209:U:H4'	1:13:216:G:N2	2.36	0.41
1:13:345:C:H41	36:68:116:SER:C	2.20	0.41
1:13:527:G:O2'	1:13:535:A:N1	2.42	0.41
1:13:536:C:H2'	1:13:537:G:C8	2.55	0.41
1:13:823:G:C2	1:13:878:G:C2	3.09	0.41
1:13:939:G:H1	1:13:1344:C:H42	1.68	0.41
1:13:1173:G:H2'	1:13:1174:G:O4'	2.20	0.41
1:13:1186:G:H21	14:5I:61:TRP:C	2.28	0.41
1:13:1369:C:H2'	1:13:1370:G:C8	2.56	0.41
1:13:1486:G:C6	1:13:1487:G:C6	3.08	0.41
2:1E:11:LEU:HA	2:1E:11:LEU:HD12	1.87	0.41
3:2E:56:ASP:OD1	3:2E:69:HIS:NE2	2.53	0.41
4:3E:86:LYS:HA	4:3E:88:VAL:N	2.36	0.41
6:5E:33:TYR:CD2	6:5E:75:LEU:HD23	2.56	0.41
6:5E:78:GLU:O	6:5E:78:GLU:HG3	2.20	0.41
8:7E:9:MET:O	8:7E:12:ARG:N	2.53	0.41
11:2I:77:MET:HE2	11:2I:77:MET:HB2	1.85	0.41
19:AI:81:ARG:HE	19:AI:81:ARG:HB2	1.74	0.41
22:1K:24:G:OP2	22:1K:24:G:H8	2.03	0.41
26:1H:396:G:C8	49:J8:13:ILE:HD11	2.56	0.41
26:1H:654:A:C4	26:1H:654(A):A:C8	3.08	0.41
26:1H:831:G:N2	37:78:53:GLY:O	2.54	0.41
26:1H:1988:C:H2'	26:1H:1989:G:O4'	2.21	0.41
26:1H:2032:G:N2	30:21:146:THR:HG23	2.24	0.41
26:1H:2240:C:O2'	26:1H:2241:A:H5'	2.20	0.41
26:1H:2283:C:H2'	26:1H:2284:C:O4'	2.20	0.41
30:21:17:ASP:C	30:21:19:ARG:H	2.27	0.41
31:31:176:LEU:HD21	31:31:180:GLY:O	2.21	0.41
32:41:88:ILE:O	32:41:88:ILE:HG22	2.19	0.41
32:41:101:ILE:HD13	32:41:102:PHE:N	2.36	0.41
33:51:139:GLN:HG3	33:51:140:LYS:N	2.36	0.41
36:68:112:MET:HA	36:68:115:VAL:HG13	2.03	0.41
37:78:59:LEU:HD21	55:Q8:10:ALA:HB2	2.02	0.41
38:88:140:ALA:HB3	38:88:141:GLN:CA	2.51	0.41
50:K8:3:LEU:CB	50:K8:5:GLU:HB2	2.50	0.41
1:1G:109:A:C6	1:1G:326:G:C6	3.09	0.41
1:1G:216:G:O2'	1:1G:217:C:O4'	2.30	0.41
1:1G:228:A:C4'	16:7A:62:VAL:HG11	2.50	0.41
1:1G:509:A:C8	1:1G:509:A:H3'	2.56	0.41
1:1G:994:A:C4	14:5A:5:ALA:HB2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:996:A:H2'	1:1G:997:U:O4'	2.20	0.41
1:1G:1095:U:OP1	1:1G:1108:G:N1	2.53	0.41
1:1G:1321:C:C5	1:1G:1322:C:C5	3.07	0.41
1:1G:1415:G:C6	1:1G:1486:G:C6	3.08	0.41
5:42:72:GLN:O	5:42:75:THR:HG22	2.20	0.41
7:62:66:VAL:O	7:62:70:LYS:HD2	2.21	0.41
10:1A:46:ARG:NH2	14:5A:61:TRP:CZ2	2.89	0.41
26:14:141:A:H1'	26:14:1408:C:O4'	2.20	0.41
26:14:283:A:H4'	26:14:284:U:OP2	2.21	0.41
26:14:286:C:H2'	26:14:287:C:C6	2.56	0.41
26:14:311:A:C8	26:14:332:A:N7	2.89	0.41
26:14:565:C:H2'	26:14:566:U:O4'	2.20	0.41
26:14:599:G:C2	26:14:600:G:C5	3.08	0.41
26:14:1047:G:H2'	26:14:1047:G:N3	2.36	0.41
26:14:2657:A:H62	26:14:2664:G:N2	2.17	0.41
27:1J:5:C:H42	27:1J:115:G:H1	1.69	0.41
27:1J:10:C:C4	27:1J:11:C:C5	3.08	0.41
29:19:273:ARG:O	29:19:275:LYS:N	2.53	0.41
30:29:57:LYS:HZ3	30:29:57:LYS:HG2	1.45	0.41
31:39:172:TRP:CD1	31:39:172:TRP:H	2.37	0.41
40:65:48:LEU:HD23	40:65:82:ILE:HD11	2.02	0.41
45:B5:52:VAL:HG12	45:B5:82:GLN:HG3	2.01	0.41
46:C5:67:LEU:HA	46:C5:67:LEU:HD12	1.68	0.41
47:D5:82:ARG:HA	47:D5:83:PRO:HD3	1.78	0.41
51:H5:43:ILE:O	51:H5:47:VAL:HG23	2.21	0.41
53:J5:37:LYS:HA	53:J5:37:LYS:HD2	1.86	0.41
1:13:237:C:O3'	17:8I:25:ARG:NH2	2.53	0.41
1:13:484:G:O2'	1:13:485:G:OP2	2.33	0.41
1:13:574:A:N3	1:13:883:C:H1'	2.36	0.41
1:13:591:U:H2'	1:13:592:G:H8	1.86	0.41
1:13:767:A:H8	1:13:767:A:O5'	2.03	0.41
2:1E:8:LYS:HZ3	2:1E:9:GLU:N	2.19	0.41
2:1E:125:PRO:C	2:1E:127:ILE:H	2.27	0.41
2:1E:163:PHE:CE2	2:1E:215:LEU:HD13	2.55	0.41
11:2I:18:ARG:HA	11:2I:81:ASP:H	1.85	0.41
13:4I:15:VAL:HG23	13:4I:43:THR:O	2.21	0.41
14:5I:12:ARG:C	14:5I:14:PRO:HD2	2.46	0.41
16:7I:28:ARG:HG3	16:7I:29:ASP:OD1	2.21	0.41
19:AI:47:HIS:O	19:AI:62:ILE:HG12	2.20	0.41
23:2K:3:C:O2	23:2K:3:C:H2'	2.21	0.41
26:1H:151:C:C2	26:1H:176:G:N2	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:193:U:H5	61:1H:3615:HOH:O	2.02	0.41
26:1H:649:G:C6	26:1H:650:C:C4	3.08	0.41
26:1H:1963:U:H6	26:1H:1963:U:OP1	2.04	0.41
26:1H:2138:C:H2'	26:1H:2139:C:C6	2.55	0.41
26:1H:2303:G:O2'	26:1H:2304:G:H5'	2.21	0.41
26:1H:2532:G:O2'	26:1H:2657:A:N1	2.53	0.41
26:1H:2837:G:C6	26:1H:2838:G:N7	2.89	0.41
28:71:19:ILE:HG22	28:71:225:ASN:ND2	2.35	0.41
29:11:5:LYS:C	29:11:6:PHE:CD1	2.99	0.41
30:21:55:ASN:HB3	30:21:58:ARG:HG3	2.03	0.41
30:21:67:PHE:O	30:21:69:LYS:N	2.51	0.41
31:31:125:LEU:HD21	31:31:199:TRP:CE3	2.56	0.41
31:31:196:LEU:C	31:31:197:ASP:O	2.62	0.41
32:41:45:GLU:H	32:41:45:GLU:HG2	1.60	0.41
32:41:98:ARG:HE	52:M8:1:MET:CE	2.33	0.41
37:78:29:LYS:HG2	37:78:30:THR:N	2.36	0.41
39:98:22:ARG:HG2	39:98:69:ASP:HB3	2.03	0.41
40:A8:83:LYS:NZ	40:A8:110:LEU:HD21	2.36	0.41
40:A8:89:ARG:O	40:A8:90:GLY:C	2.64	0.41
44:E8:38:TYR:OH	53:N8:47:PRO:HG3	2.21	0.41
1:1G:9:G:H5'	5:42:122:GLU:OE2	2.21	0.41
1:1G:104:G:C2	1:1G:105:G:C8	3.08	0.41
1:1G:310:G:OP2	16:7A:27:LYS:HD3	2.20	0.41
1:1G:758:G:O2'	1:1G:759:A:H5'	2.21	0.41
1:1G:1076:C:N4	1:1G:1081:G:H1	2.19	0.41
1:1G:1504:G:OP1	1:1G:1507:A:H4'	2.21	0.41
2:12:91:PRO:HG3	2:12:154:LEU:HB2	2.03	0.41
2:12:108:ILE:HA	2:12:108:ILE:HD13	1.87	0.41
2:12:211:ILE:O	2:12:214:ILE:N	2.54	0.41
4:32:4:TYR:C	4:32:4:TYR:CD1	2.98	0.41
12:3A:30:ALA:HB2	12:3A:33:ARG:NH1	2.35	0.41
17:8A:63:ARG:HA	17:8A:64:PRO:HD3	1.95	0.41
19:AA:66:MET:H	19:AA:67:VAL:HB	1.85	0.41
21:1B:2:GLY:O	21:1B:4:GLY:N	2.54	0.41
26:14:302:C:C5'	46:C5:81:LYS:HZ2	2.33	0.41
26:14:362:U:H6	26:14:362:U:H2'	1.73	0.41
26:14:723:G:H2'	26:14:724:U:O4'	2.21	0.41
26:14:1322:A:O3'	44:A5:84:ARG:NH1	2.53	0.41
26:14:1606:G:H5"	26:14:1607:C:OP1	2.21	0.41
26:14:2028:U:H2'	26:14:2029:G:O4'	2.20	0.41
26:14:2115:G:N2	26:14:2172:U:O4	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2313:C:H4'	32:49:91:ARG:HG3	2.02	0.41
26:14:2328:A:H2'	26:14:2329:G:O4'	2.21	0.41
26:14:2651:C:H2'	26:14:2652:C:H6	1.85	0.41
27:1J:78:A:C2	27:1J:99:A:C4	3.08	0.41
27:1J:83:G:H4'	51:H5:52:HIS:CG	2.56	0.41
29:19:30:GLU:HG3	29:19:63:ARG:NH2	2.35	0.41
29:19:34:VAL:O	29:19:35:LYS:HB3	2.21	0.41
30:29:31:CYS:O	30:29:90:THR:HA	2.21	0.41
30:29:81:ILE:HD12	30:29:81:ILE:HG23	1.86	0.41
30:29:97:LYS:O	30:29:100:GLU:HG3	2.21	0.41
31:39:16:GLY:O	31:39:17:ARG:C	2.64	0.41
31:39:28:ILE:HA	31:39:112:MET:HE3	2.01	0.41
33:59:146:ALA:HB2	33:59:164:TYR:OH	2.20	0.41
34:69:143:SER:O	34:69:144:VAL:HG22	2.21	0.41
37:35:84:ASN:HB2	37:35:86:LYS:HG2	2.02	0.41
39:55:59:ASP:OD1	39:55:61:HIS:HB3	2.20	0.41
42:85:60:LEU:O	42:85:63:VAL:HG12	2.21	0.41
1:13:9:G:C2	1:13:26:A:C6	3.09	0.41
1:13:51:A:N3	1:13:116:A:H1'	2.36	0.41
1:13:109:A:C6	1:13:326:G:C6	3.09	0.41
1:13:146:G:C2	1:13:177:C:N3	2.89	0.41
1:13:288:A:H2'	1:13:289:G:H4'	2.03	0.41
1:13:409:G:N2	1:13:434:U:C2	2.89	0.41
1:13:431:A:H2'	1:13:432:A:O4'	2.21	0.41
1:13:447:G:H8	1:13:447:G:O5'	2.03	0.41
1:13:575:G:C4	1:13:881:G:C2	3.09	0.41
1:13:682:G:H1	1:13:708:C:N4	2.19	0.41
1:13:827:U:H5	1:13:870:U:C5	2.38	0.41
1:13:933:G:OP2	7:6E:3:ARG:HB2	2.20	0.41
1:13:1164:G:C5	1:13:1165:C:C5	3.08	0.41
1:13:1304:G:C5	1:13:1305:G:C6	3.09	0.41
1:13:1324:A:C5	1:13:1325:C:C5	3.08	0.41
1:13:1384:C:H2'	1:13:1385:G:C8	2.56	0.41
2:1E:97:TRP:CZ3	2:1E:172:ILE:HB	2.56	0.41
4:3E:138:TYR:C	4:3E:138:TYR:HD1	2.29	0.41
6:5E:24:GLU:O	6:5E:27:GLN:N	2.54	0.41
7:6E:51:GLN:HB2	7:6E:58:PRO:HD3	2.02	0.41
9:8E:65:VAL:HG21	9:8E:73:GLN:HB3	2.01	0.41
10:1I:28:ARG:HD3	10:1I:34:VAL:HG22	2.03	0.41
13:4I:34:LEU:HD13	13:4I:41:PRO:HA	2.02	0.41
16:7I:55:ARG:HE	16:7I:55:ARG:HB3	1.58	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8I:48:GLU:O	17:8I:50:LYS:HD3	2.21	0.41
20:BI:71:THR:CG2	20:BI:72:LEU:H	2.27	0.41
23:2K:48:U:H1'	23:2K:49:C:O5'	2.20	0.41
26:1H:274:G:N2	26:1H:276:A:H61	2.19	0.41
26:1H:322:A:C5	26:1H:340:A:C2	3.09	0.41
26:1H:389:G:H22	37:78:72:PRO:HD3	1.85	0.41
26:1H:405:U:O2	26:1H:405:U:H2'	2.21	0.41
26:1H:414:C:H4'	26:1H:1879:C:O2	2.20	0.41
26:1H:686:G:H22	54:P8:16:HIS:CE1	2.39	0.41
26:1H:803:U:C4	26:1H:804:A:N7	2.89	0.41
26:1H:922:U:H2'	26:1H:923:C:C6	2.55	0.41
26:1H:1176:G:OP1	26:1H:1176:G:H4'	2.19	0.41
26:1H:1386:C:OP2	26:1H:1396:U:C5	2.72	0.41
26:1H:1394:U:H3'	26:1H:1394:U:H6	1.86	0.41
26:1H:1557:C:OP2	26:1H:1558:A:O2'	2.35	0.41
26:1H:1592:C:H2'	26:1H:1593:G:C8	2.56	0.41
26:1H:1705:G:O2'	26:1H:1706:U:H5'	2.21	0.41
26:1H:1748:G:C2	26:1H:1749:A:C4	3.09	0.41
26:1H:1839:G:C8	26:1H:1839:G:H5"	2.56	0.41
26:1H:1986:A:C2	26:1H:1987:G:C4	3.09	0.41
26:1H:2178:C:OP1	28:71:46:LYS:HB2	2.21	0.41
26:1H:2298:A:H2'	26:1H:2299:G:O4'	2.21	0.41
26:1H:2302:G:O2'	26:1H:2303:G:H5'	2.20	0.41
26:1H:2640:G:H5"	35:58:74:ARG:NH1	2.35	0.41
26:1H:2821:A:HO2'	26:1H:2826:A:H2	1.66	0.41
27:16:38:C:H2'	27:16:39:A:O4'	2.21	0.41
27:16:44:G:O2'	27:16:45:A:P	2.79	0.41
27:16:46:A:H2'	27:16:47:C:C6	2.55	0.41
29:11:17:THR:HG22	29:11:205:VAL:N	2.34	0.41
29:11:273:ARG:HD2	29:11:273:ARG:O	2.21	0.41
31:31:27:GLU:CD	31:31:27:GLU:N	2.75	0.41
31:31:172:TRP:CE3	31:31:173:VAL:HG23	2.56	0.41
32:41:125:PHE:HB3	32:41:166:ASP:OD2	2.21	0.41
33:51:32:GLU:H	33:51:32:GLU:HG3	1.70	0.41
34:61:128:LEU:O	34:61:138:ILE:N	2.43	0.41
34:61:130:TYR:C	34:61:131:LYS:HD2	2.46	0.41
35:58:1:MET:HE2	35:58:1:MET:HB3	1.91	0.41
37:78:114:ILE:O	37:78:114:ILE:HG13	2.21	0.41
38:88:20:ALA:HB2	38:88:99:PRO:HD2	2.03	0.41
39:98:12:ARG:HG2	39:98:16:HIS:CG	2.56	0.41
40:A8:53:SER:HA	40:A8:58:LEU:HD21	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:B8:99:LEU:HB3	41:B8:101:PHE:CE1	2.56	0.41
41:B8:125:ARG:HA	41:B8:128:GLU:CD	2.46	0.41
42:C8:92:ARG:NH1	42:C8:94:ASN:OD1	2.54	0.41
45:F8:9:LEU:O	50:K8:36:ARG:NE	2.47	0.41
55:Q8:23:VAL:HA	55:Q8:48:PHE:O	2.21	0.41
1:1G:11:G:H2'	1:1G:12:U:H6	1.86	0.41
1:1G:131:C:H2'	1:1G:132:C:C6	2.56	0.41
1:1G:394:G:H2'	1:1G:395:C:H6	1.86	0.41
1:1G:501:C:H1'	1:1G:549:C:H1'	2.03	0.41
1:1G:608:A:H2'	1:1G:609:A:O4'	2.21	0.41
1:1G:647:C:H2'	1:1G:648:A:O4'	2.21	0.41
1:1G:1074:G:O2'	1:1G:1101:A:N1	2.44	0.41
1:1G:1160:G:H1	1:1G:1176:A:H61	1.69	0.41
1:1G:1238:A:H62	1:1G:1301:U:H3	1.68	0.41
1:1G:1306:A:C6	1:1G:1307:U:C2	3.08	0.41
1:1G:1389:C:H2'	1:1G:1390:U:O4'	2.21	0.41
4:32:4:TYR:CE2	4:32:11:LEU:HD21	2.55	0.41
9:82:99:LEU:HB3	9:82:101:PHE:HD2	1.84	0.41
10:1A:34:VAL:HG12	10:1A:74:ILE:HA	2.03	0.41
12:3A:27:LEU:HB2	12:3A:33:ARG:CG	2.51	0.41
13:4A:78:ILE:HD12	13:4A:92:HIS:CE1	2.56	0.41
15:6A:27:VAL:O	15:6A:31:LEU:HB2	2.21	0.41
15:6A:31:LEU:HD12	15:6A:31:LEU:HA	1.89	0.41
15:6A:43:LEU:HD23	15:6A:43:LEU:HA	1.84	0.41
19:AA:9:VAL:HG13	19:AA:10:PHE:N	2.36	0.41
19:AA:14:HIS:ND1	19:AA:15:LEU:HD23	2.35	0.41
20:BA:64:ASP:OD1	20:BA:81:LYS:HE3	2.20	0.41
23:2L:16:C:H5"	23:2L:17:C:C5	2.55	0.41
26:14:139:G:N3	26:14:141:A:N1	2.69	0.41
26:14:189:G:H8	26:14:189:G:O5'	2.04	0.41
26:14:336:C:H1'	46:C5:70:SER:HB2	2.01	0.41
26:14:506:G:O3'	26:14:507:A:H8	2.04	0.41
26:14:812:C:H5"	26:14:1250:G:O2'	2.20	0.41
26:14:1004:C:H1'	26:14:1010:A:C4	2.56	0.41
26:14:1019:U:O2'	26:14:1021:A:H2	2.03	0.41
26:14:1043:C:O5'	26:14:1043:C:H6	2.04	0.41
26:14:1057:A:H8	26:14:1086:A:O2'	2.04	0.41
26:14:1331:A:HO2'	26:14:1332:G:H8	1.65	0.41
26:14:1505:C:H2'	26:14:1506:C:C6	2.56	0.41
26:14:1894:C:N4	26:14:1895:C:H41	2.18	0.41
26:14:1930:G:N2	26:14:1968:G:H2'	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2115:G:O2'	26:14:2165:G:O6	2.36	0.41
26:14:2178:C:H4'	28:79:46:LYS:HG3	2.03	0.41
26:14:2345:G:O2'	26:14:2381:C:O2'	2.31	0.41
26:14:2394:C:H2'	26:14:2395:C:H6	1.85	0.41
26:14:2563:U:H4'	36:25:28:SER:HA	2.03	0.41
26:14:2564:A:C2	26:14:2647:U:H4'	2.56	0.41
26:14:2564:A:OP1	26:14:2648:C:O2'	2.38	0.41
26:14:2683:C:OP1	41:75:53:ARG:NH2	2.54	0.41
26:14:2723:C:O5'	26:14:2723:C:H6	2.04	0.41
26:14:2748:A:H2'	26:14:2749:A:H8	1.85	0.41
27:1J:22:U:H5'	27:1J:23:G:OP2	2.20	0.41
29:19:83:GLU:HB2	29:19:92:ILE:HG13	2.01	0.41
29:19:264:LYS:HE2	29:19:266:SER:HB3	2.02	0.41
30:29:1:MET:SD	30:29:200:GLU:HG3	2.61	0.41
31:39:117:ARG:HA	31:39:117:ARG:HD3	1.92	0.41
32:49:80:PHE:O	32:49:81:LYS:C	2.63	0.41
32:49:121:ASN:HA	32:49:122:PRO:HD2	1.73	0.41
34:69:109:ILE:HB	34:69:130:TYR:CZ	2.56	0.41
34:69:112:LYS:H	34:69:112:LYS:HG2	1.74	0.41
34:69:118:LYS:HE3	34:69:118:LYS:HB2	1.67	0.41
38:45:18:LYS:H	38:45:98:LYS:NZ	2.19	0.41
39:55:84:ALA:HB3	39:55:85:PRO:HD3	2.03	0.41
40:65:14:VAL:HG21	40:65:90:GLY:O	2.19	0.41
40:65:29:PHE:CD1	40:65:30:ARG:N	2.89	0.41
40:65:67:ARG:HB2	40:65:67:ARG:CZ	2.50	0.41
42:85:110:VAL:O	42:85:114:LYS:HG2	2.21	0.41
47:D5:137:ILE:HD12	47:D5:137:ILE:HA	1.89	0.41
54:L5:34:ARG:NH1	54:L5:39:ARG:HG3	2.36	0.41
1:13:179:A:H2'	1:13:180:U:C6	2.49	0.41
1:13:272:C:H2'	1:13:273:A:C8	2.56	0.41
1:13:535:A:H5"	61:13:1836:HOH:O	2.21	0.41
1:13:717:C:H5"	1:13:717:C:H6	1.86	0.41
1:13:1389:C:H2'	1:13:1390:U:O4'	2.21	0.41
2:1E:27:LYS:HB3	2:1E:27:LYS:HE2	1.80	0.41
2:1E:149:LEU:HA	2:1E:149:LEU:HD23	1.85	0.41
2:1E:166:ASP:C	2:1E:168:THR:N	2.78	0.41
4:3E:23:GLY:HA2	4:3E:112:VAL:HG22	2.03	0.41
4:3E:165:MET:SD	4:3E:168:ARG:NH1	2.94	0.41
5:4E:105:VAL:HB	5:4E:106:PRO:HD3	2.03	0.41
6:5E:67:MET:HE1	6:5E:75:LEU:HG	2.03	0.41
9:8E:9:ARG:HB3	9:8E:14:VAL:HG22	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:78:GLN:O	11:2I:103:LEU:HA	2.21	0.41
12:3I:53:ARG:HG3	12:3I:53:ARG:NH1	2.30	0.41
17:8I:6:LEU:HD22	17:8I:23:VAL:HG11	2.02	0.41
22:1K:12:U:O2	22:1K:24:G:N2	2.54	0.41
23:2K:56:PSU:O4	23:2K:58:A:C8	2.74	0.41
26:1H:106:C:H2'	26:1H:107:C:H6	1.85	0.41
26:1H:120:U:P	61:1H:3541:HOH:O	2.77	0.41
26:1H:257:A:H2'	26:1H:258:G:H5'	2.03	0.41
26:1H:289:A:N6	26:1H:351:G:H1'	2.35	0.41
26:1H:469:G:O6	54:P8:37:LYS:HE2	2.21	0.41
26:1H:1263:U:H1'	53:N8:10:LYS:HG3	2.03	0.41
26:1H:1368:G:N2	26:1H:1369:G:C4	2.89	0.41
26:1H:1407:C:C2	26:1H:1596:A:C2	3.09	0.41
26:1H:1675:C:H2'	26:1H:1676:A:O4'	2.20	0.41
26:1H:1844:C:H5"	29:11:258:LYS:HG3	2.03	0.41
26:1H:1975:G:C6	26:1H:1976:U:N3	2.89	0.41
27:16:99:A:C6	27:16:100:G:C5	3.09	0.41
28:71:11:LEU:O	28:71:14:VAL:HG22	2.21	0.41
29:11:106:ILE:O	29:11:108:PRO:HD3	2.21	0.41
29:11:154:LYS:HB3	29:11:154:LYS:HE3	1.84	0.41
30:21:188:VAL:HA	30:21:189:PRO:HD3	1.85	0.41
31:31:24:LEU:HD21	31:31:114:VAL:HG12	2.03	0.41
31:31:116:ASP:O	31:31:119:ARG:HD3	2.21	0.41
33:51:12:PRO:C	33:51:13:LYS:HG2	2.46	0.41
34:61:77:LEU:H	34:61:77:LEU:HD12	1.85	0.41
36:68:71:ARG:HA	36:68:72:PRO:HD3	1.84	0.41
39:98:26:LYS:HE2	39:98:70:LEU:O	2.21	0.41
41:B8:23:ARG:O	41:B8:24:PRO:C	2.64	0.41
41:B8:102:ILE:O	41:B8:105:LEU:N	2.41	0.41
42:C8:79:PHE:CE1	42:C8:83:LEU:HD13	2.56	0.41
47:H8:108:PRO:HB2	47:H8:112:ARG:HA	2.03	0.41
48:I8:52:GLY:O	48:I8:59:LEU:HA	2.21	0.41
1:1G:159:G:H21	1:1G:162:A:H62	1.69	0.41
1:1G:968:A:H8	1:1G:968:A:O5'	2.03	0.41
1:1G:1306:A:H2'	1:1G:1307:U:C6	2.55	0.41
1:1G:1312:G:C2'	1:1G:1313:U:H5'	2.51	0.41
3:22:73:PRO:O	3:22:76:VAL:HG22	2.21	0.41
4:32:166:LYS:HE2	4:32:179:GLU:HB2	2.02	0.41
4:32:175:SER:C	4:32:176:LEU:HD13	2.46	0.41
6:52:44:GLY:HA2	6:52:59:TYR:CE2	2.56	0.41
10:1A:30:SER:HB3	10:1A:81:THR:HG22	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2A:98:LEU:HA	11:2A:101:SER:HB3	2.03	0.41
13:4A:54:VAL:HA	13:4A:57:ARG:CG	2.51	0.41
19:AA:6:LYS:HA	19:AA:7:LYS:HA	1.84	0.41
19:AA:16:LEU:O	19:AA:20:LEU:HD13	2.21	0.41
20:BA:24:LEU:HD13	20:BA:24:LEU:HA	1.70	0.41
20:BA:59:ALA:HB3	20:BA:84:LEU:HD11	2.02	0.41
26:14:28:A:C2	26:14:513:A:C8	3.09	0.41
26:14:117:G:C6	26:14:119:A:C6	3.09	0.41
26:14:372:G:H5'	49:F5:66:HIS:NE2	2.36	0.41
26:14:541:C:H2'	26:14:542:C:C6	2.56	0.41
26:14:864:G:C2'	26:14:865:C:H5'	2.51	0.41
26:14:910:A:H2	26:14:2264:C:O2	2.04	0.41
26:14:1011:G:H1	26:14:1150:C:H42	1.69	0.41
26:14:1441:G:H2'	26:14:1442:G:H8	1.86	0.41
26:14:1973:G:H2'	26:14:1974:C:C6	2.55	0.41
26:14:2176:A:O2'	28:79:44:HIS:ND1	2.45	0.41
26:14:2271:G:H5"	48:E5:20:ARG:NE	2.36	0.41
30:29:105:THR:CG2	30:29:164:ARG:HE	2.31	0.41
31:39:89:VAL:HG12	31:39:90:PHE:H	1.85	0.41
31:39:156:LEU:HD21	31:39:163:VAL:HG12	2.03	0.41
34:69:81:VAL:HG12	34:69:143:SER:CB	2.51	0.41
38:45:57:HIS:CG	38:45:117:ALA:HB2	2.56	0.41
38:45:86:GLY:C	38:45:88:GLY:H	2.26	0.41
39:55:107:ASP:OD1	39:55:107:ASP:C	2.62	0.41
45:B5:63:LYS:H	45:B5:63:LYS:CE	2.28	0.41
46:C5:17:SER:O	46:C5:21:LYS:HB2	2.21	0.41
46:C5:45:VAL:HG12	46:C5:60:PHE:HD2	1.86	0.41
1:13:377:G:H5'	16:7I:5:ARG:HH12	1.85	0.40
1:13:451:A:N6	1:13:481:G:H5'	2.36	0.40
1:13:657:G:C2	1:13:658:G:C8	3.09	0.40
1:13:1521:G:H2'	1:13:1522:U:C6	2.56	0.40
3:2E:7:PRO:HG2	3:2E:184:TYR:CD2	2.56	0.40
3:2E:91:LEU:O	3:2E:95:THR:OG1	2.36	0.40
5:4E:147:ASP:HA	5:4E:150:ARG:NH1	2.35	0.40
6:5E:45:LEU:HD21	6:5E:57:GLN:OE1	2.21	0.40
8:7E:12:ARG:HD2	8:7E:12:ARG:HH11	1.76	0.40
8:7E:127:LEU:HD23	8:7E:127:LEU:N	2.36	0.40
10:1I:45:ARG:HH11	14:5I:36:PHE:HE2	1.68	0.40
13:4I:3:ARG:CB	13:4I:9:ILE:HG12	2.51	0.40
13:4I:34:LEU:HD23	13:4I:39:ILE:HB	2.02	0.40
19:AI:37:ARG:H	19:AI:37:ARG:HG3	1.42	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:72:C:C2'	24:3K:73:A:H5"	2.51	0.40
26:1H:55:G:N3	26:1H:56:A:C8	2.89	0.40
26:1H:270(V):G:H2'	26:1H:270(W):G:H8	1.86	0.40
26:1H:274:G:N3	26:1H:276:A:N1	2.68	0.40
26:1H:714:U:O2	26:1H:716:A:C8	2.73	0.40
26:1H:988:A:H3'	51:L8:11:SER:OG	2.21	0.40
26:1H:1332:G:H8	26:1H:1332:G:H2'	1.78	0.40
26:1H:1516:U:H2'	26:1H:1517:G:H8	1.85	0.40
26:1H:1523:U:C2	26:1H:1524:G:C8	3.08	0.40
26:1H:1786:A:C2	26:1H:2606:C:H1'	2.56	0.40
26:1H:2248:C:C5	26:1H:2249:U:C4	3.09	0.40
26:1H:2287:A:N3	26:1H:2289:G:C8	2.88	0.40
29:11:61:LEU:HD13	29:11:61:LEU:HA	1.83	0.40
29:11:123:ALA:HA	29:11:124:PRO:HD2	1.83	0.40
29:11:263:ARG:HH11	29:11:263:ARG:HG3	1.84	0.40
31:31:177:ALA:HB1	31:31:178:PRO:HD2	2.02	0.40
33:51:6:ARG:HH11	33:51:54:ARG:HH22	1.67	0.40
34:61:95:LYS:HB3	34:61:95:LYS:HE3	1.46	0.40
35:58:94:HIS:C	35:58:95:PRO:O	2.60	0.40
38:88:21:THR:HB	38:88:22:LYS:HB2	2.02	0.40
39:98:45:ARG:HB3	39:98:46:GLY:H	1.66	0.40
45:F8:89:ILE:O	45:F8:93:GLU:HG2	2.21	0.40
48:I8:21:LEU:HD23	48:I8:21:LEU:HA	1.72	0.40
55:Q8:7:HIS:CG	55:Q8:61:LEU:HD13	2.56	0.40
1:1G:227:G:H2'	1:1G:228:A:O4'	2.20	0.40
1:1G:291:C:H42	1:1G:309:G:H1	1.69	0.40
1:1G:575:G:O2'	1:1G:821:G:H5'	2.20	0.40
1:1G:872:A:C4	1:1G:874:G:N7	2.89	0.40
1:1G:1038:C:C5	1:1G:1039:C:C4	3.09	0.40
17:8A:50:LYS:HA	17:8A:50:LYS:HD2	1.90	0.40
56:1L:23:A:H2'	56:1L:24:G:H8	1.85	0.40
23:2L:3:C:H5'	26:14:2255:G:O2'	2.21	0.40
26:14:221:A:C4	26:14:266:G:N7	2.89	0.40
26:14:516:C:H6	26:14:516:C:O5'	2.04	0.40
26:14:780:G:H21	26:14:783:A:N6	2.17	0.40
26:14:866:A:C6	26:14:914:C:C5	3.09	0.40
26:14:1085:A:H4'	26:14:1086:A:OP1	2.21	0.40
26:14:1141:U:P	35:15:25:ARG:HH21	2.44	0.40
26:14:1651:G:H2'	26:14:1652:A:O4'	2.21	0.40
26:14:1805:U:H2'	26:14:1806:C:H6	1.86	0.40
26:14:1948:G:C2'	26:14:1949:G:H5'	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2058:A:N7	61:14:3583:HOH:O	2.37	0.40
26:14:2106:G:C2	26:14:2184:G:C2	3.10	0.40
27:1J:75:G:O3'	47:D5:10:ARG:NH1	2.46	0.40
28:79:5:LYS:CA	28:79:8:ARG:HG2	2.51	0.40
33:59:3:ARG:O	33:59:6:ARG:NE	2.54	0.40
33:59:11:VAL:HG13	33:59:69:ARG:HH12	1.85	0.40
35:15:127:ASP:OD1	35:15:127:ASP:N	2.53	0.40
37:35:27:HIS:HB3	37:35:32:THR:CG2	2.51	0.40
40:65:19:LYS:HE2	40:65:19:LYS:HB2	1.92	0.40
43:95:58:VAL:HG12	43:95:98:GLU:HB2	2.03	0.40
43:95:94:LEU:HA	43:95:94:LEU:HD23	1.73	0.40
45:B5:50:LYS:HA	45:B5:50:LYS:HD2	1.85	0.40
45:B5:84:ALA:O	45:B5:87:GLN:HB2	2.22	0.40
46:C5:8:LYS:HZ1	46:C5:95:LYS:HD3	1.85	0.40
47:D5:19:ARG:HH11	47:D5:84:GLU:HB2	1.86	0.40
54:L5:10:ARG:O	54:L5:14:LYS:HG3	2.21	0.40
1:13:389:A:H2'	1:13:390:C:C5'	2.50	0.40
1:13:581:G:C2	1:13:582:U:C5	3.10	0.40
1:13:627:G:H2'	1:13:628:G:H8	1.87	0.40
1:13:1081:G:H2'	1:13:1082:G:C8	2.48	0.40
2:1E:21:ARG:O	2:1E:23:ARG:N	2.54	0.40
5:4E:26:PHE:N	5:4E:26:PHE:HD1	2.18	0.40
5:4E:64:ARG:HD2	5:4E:64:ARG:H	1.86	0.40
6:5E:99:ALA:HB3	18:9I:29:PHE:CE1	2.55	0.40
8:7E:86:ILE:O	8:7E:87:SER:C	2.65	0.40
11:2I:54:ARG:HA	11:2I:57:THR:HG23	2.03	0.40
13:4I:31:LYS:HD2	13:4I:31:LYS:H	1.86	0.40
13:4I:84:ILE:HG23	13:4I:86:CYS:HB3	2.03	0.40
16:7I:12:LYS:C	16:7I:14:ASN:H	2.30	0.40
26:1H:223:A:N1	26:1H:407:G:O2'	2.49	0.40
26:1H:270(M):U:OP1	26:1H:270(N):G:N2	2.54	0.40
26:1H:285:C:H2'	26:1H:286:C:H6	1.85	0.40
26:1H:389:G:H8	26:1H:389:G:O5'	2.04	0.40
26:1H:432:A:C5	26:1H:433:C:C5	3.10	0.40
26:1H:760:G:H5"	61:1H:3776:HOH:O	2.20	0.40
26:1H:1047:G:H2'	26:1H:1110:G:C6	2.56	0.40
26:1H:1276:A:C2	26:1H:1277:G:C5	3.10	0.40
29:11:65:ILE:HG21	29:11:65:ILE:HD13	1.69	0.40
29:11:174:ILE:HD12	29:11:174:ILE:N	2.35	0.40
29:11:206:LEU:HA	29:11:211:ARG:HD3	2.03	0.40
31:31:32:LEU:HD22	31:31:32:LEU:HA	1.81	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:31:185:ASP:HA	31:31:188:ARG:CD	2.45	0.40
32:41:103:LEU:CD2	32:41:178:PHE:HZ	2.34	0.40
34:61:77:LEU:CD1	34:61:140:LEU:HB3	2.49	0.40
36:68:75:SER:OG	41:B8:74:ARG:NH2	2.54	0.40
40:A8:18:ILE:CD1	40:A8:88:ASP:HA	2.50	0.40
42:C8:110:VAL:O	42:C8:113:ALA:HB3	2.22	0.40
1:1G:444:C:H2'	1:1G:445:G:C8	2.56	0.40
1:1G:676:A:H1'	11:2A:115:PRO:HB3	2.03	0.40
1:1G:814:A:N7	1:1G:816:A:C4	2.89	0.40
1:1G:976:G:H5'	1:1G:1358:U:O2'	2.21	0.40
1:1G:1207:G:C6	1:1G:1208:C:C4	3.10	0.40
1:1G:1264:C:O5'	1:1G:1264:C:H6	2.04	0.40
3:22:14:ILE:HG12	3:22:15:THR:H	1.86	0.40
4:32:39:PRO:HA	4:32:40:PRO:HD3	1.90	0.40
4:32:58:LEU:HD13	4:32:62:GLN:HG3	2.03	0.40
9:82:16:ARG:NH2	9:82:66:ARG:HH21	2.19	0.40
9:82:42:ARG:HE	9:82:42:ARG:HB2	1.32	0.40
9:82:105:ASP:OD1	9:82:107:ARG:HD3	2.20	0.40
13:4A:84:ILE:O	13:4A:84:ILE:HG22	2.21	0.40
18:9A:29:PHE:HD1	18:9A:29:PHE:H	1.69	0.40
23:2L:51:U:O5'	23:2L:51:U:H6	2.04	0.40
25:4L:7:G:H2'	25:4L:8:A:O4'	2.22	0.40
26:14:1144:G:C6	26:14:1145:C:N4	2.89	0.40
26:14:1153:C:N4	26:14:1154:G:N1	2.68	0.40
26:14:1332:G:N2	26:14:1609:A:H2'	2.35	0.40
26:14:2077:A:H2'	26:14:2078:C:H6	1.86	0.40
26:14:2228:G:C6	26:14:2229:C:C4	3.09	0.40
26:14:2352:A:C2	48:E5:33:ALA:HB1	2.56	0.40
26:14:2795:G:O2'	26:14:2798:C:N4	2.46	0.40
29:19:8:PRO:HB3	29:19:14:ARG:HB3	2.03	0.40
31:39:93:LYS:HA	31:39:93:LYS:HD2	1.85	0.40
33:59:8:PRO:O	33:59:52:VAL:HB	2.21	0.40
34:69:81:VAL:H	34:69:143:SER:CB	2.25	0.40
34:69:144:VAL:O	34:69:144:VAL:HG23	2.21	0.40
43:95:46:VAL:HG23	43:95:52:VAL:HG11	2.02	0.40
47:D5:52:SER:O	47:D5:53:ILE:HG12	2.20	0.40
1:13:201:C:N4	1:13:216:G:H22	2.19	0.40
1:13:271:C:H2'	1:13:272:C:C6	2.54	0.40
1:13:457:C:C2	1:13:476:G:N2	2.89	0.40
1:13:755:G:H21	8:7E:1:MET:HE1	1.87	0.40
1:13:980:C:H2'	1:13:981:U:O4'	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1219:U:H2'	1:13:1220:G:O4'	2.22	0.40
10:1I:54:PHE:HB3	10:1I:55:LYS:H	1.68	0.40
16:7I:36:ILE:O	16:7I:36:ILE:HG13	2.20	0.40
26:1H:106:C:H2'	26:1H:107:C:C6	2.57	0.40
26:1H:252:G:O2'	26:1H:253:C:H5'	2.21	0.40
26:1H:270(M):U:C2'	26:1H:270(N):G:H5"	2.52	0.40
26:1H:456:C:H3'	45:F8:68:ARG:NH2	2.35	0.40
26:1H:654(S):G:H2'	26:1H:654(S):G:OP2	2.21	0.40
26:1H:1321:A:H2'	26:1H:1322:A:O4'	2.21	0.40
26:1H:1496:A:O3'	26:1H:1497:U:H6	2.04	0.40
26:1H:1564:C:O2'	26:1H:1565:C:H5'	2.21	0.40
26:1H:1797:C:H4'	29:11:257:LEU:O	2.21	0.40
32:41:11:TYR:CE2	32:41:16:ARG:HD2	2.56	0.40
33:51:40:GLU:C	33:51:41:MET:HE3	2.45	0.40
36:68:122:LEU:HD23	36:68:122:LEU:HA	1.86	0.40
43:D8:33:VAL:O	43:D8:58:VAL:HA	2.21	0.40
47:H8:93:ASP:HA	47:H8:130:PRO:HG2	2.03	0.40
49:J8:73:LEU:HD13	49:J8:90:ILE:HB	2.04	0.40
1:1G:625:G:C6	1:1G:626:U:C4	3.09	0.40
1:1G:802:A:H3'	1:1G:803:G:H8	1.87	0.40
1:1G:947:G:C6	1:1G:948:C:C4	3.10	0.40
1:1G:1123:A:H4'	10:1A:37:PRO:HD2	2.03	0.40
1:1G:1186:G:H21	14:5A:61:TRP:C	2.29	0.40
1:1G:1251:A:H2'	1:1G:1252:A:C8	2.57	0.40
3:22:36:ASP:HA	3:22:39:ILE:CD1	2.51	0.40
3:22:150:LYS:HE3	3:22:201:TYR:CD1	2.56	0.40
3:22:151:VAL:HA	3:22:199:LYS:O	2.22	0.40
4:32:4:TYR:C	4:32:4:TYR:HD1	2.30	0.40
4:32:15:GLU:OE1	4:32:59:ARG:NE	2.49	0.40
4:32:49:ARG:O	4:32:50:ARG:C	2.65	0.40
4:32:105:VAL:HG13	4:32:110:PHE:HB2	2.03	0.40
21:1B:9:ARG:O	21:1B:13:ILE:HG13	2.21	0.40
56:1L:7:U:O2'	56:1L:8:U:H5'	2.21	0.40
57:3L:72:C:H3'	57:3L:73:A:H5"	2.03	0.40
25:4L:9:G:H2'	25:4L:10:G:C8	2.56	0.40
26:14:241:A:H5'	26:14:243:U:O4'	2.22	0.40
26:14:414:C:H4'	26:14:1879:C:O2	2.21	0.40
26:14:481:G:OP1	46:C5:47:LYS:NZ	2.54	0.40
26:14:669:G:N3	26:14:669:G:C2'	2.84	0.40
26:14:800:A:H8	26:14:800:A:OP1	2.04	0.40
26:14:805:G:H4'	37:35:38:GLN:HB2	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:901:A:H2'	26:14:901:A:N3	2.37	0.40
26:14:986:C:C2'	26:14:987:G:H5'	2.51	0.40
26:14:1419:A:N7	26:14:1421:G:C6	2.90	0.40
26:14:2506:U:H4'	26:14:2507:C:OP1	2.21	0.40
29:19:147:LEU:HD23	29:19:155:LEU:HD13	2.04	0.40
30:29:7:VAL:HG12	30:29:193:GLY:HA2	2.04	0.40
30:29:79:ARG:N	30:29:79:ARG:HD2	2.36	0.40
37:35:30:THR:HG21	37:35:35:HIS:H	1.87	0.40
37:35:76:LYS:NZ	37:35:76:LYS:HB3	2.36	0.40
38:45:81:VAL:C	38:45:82:ARG:HG2	2.45	0.40
38:45:135:ASP:HB2	47:D5:81:ARG:HH22	1.85	0.40
40:65:35:ILE:HG12	40:65:101:LEU:HD23	2.02	0.40
41:75:50:ILE:HD13	41:75:50:ILE:HA	1.75	0.40
42:85:76:TYR:CE2	42:85:80:ILE:HG13	2.56	0.40
43:95:37:VAL:CG2	43:95:57:VAL:HG13	2.51	0.40
47:D5:44:PHE:CD1	47:D5:44:PHE:C	3.00	0.40
47:D5:55:HIS:ND1	47:D5:56:VAL:HG12	2.37	0.40
1:13:316:G:C2'	1:13:317:G:H5'	2.51	0.40
1:13:403:C:OP2	4:3E:74:GLN:NE2	2.52	0.40
1:13:454:C:H3'	1:13:455:C:H6	1.87	0.40
1:13:598:U:H4'	8:7E:94:TYR:CD2	2.56	0.40
1:13:1127:G:H1'	1:13:1148:U:H3	1.86	0.40
1:13:1358:U:OP1	14:5I:35:ARG:HB2	2.22	0.40
6:5E:16:GLN:HG2	6:5E:17:SER:H	1.87	0.40
11:2I:33:THR:HG22	11:2I:39:PRO:HA	2.04	0.40
15:6I:81:LEU:O	15:6I:85:LEU:HB2	2.21	0.40
17:8I:13:ASP:OD2	17:8I:53:LEU:HD13	2.21	0.40
19:AI:6:LYS:HE2	19:AI:6:LYS:HB3	1.59	0.40
20:BI:53:LEU:HG	20:BI:102:GLY:HA3	2.03	0.40
26:1H:71:A:H2	45:F8:31:HIS:NE2	2.05	0.40
26:1H:270(L):U:H3'	26:1H:270(L):U:C6	2.57	0.40
26:1H:399:G:H2'	26:1H:400:G:O4'	2.21	0.40
26:1H:613:U:O2	26:1H:613:U:O4'	2.38	0.40
26:1H:850:C:O3'	51:L8:49:LYS:HE2	2.21	0.40
26:1H:2296:U:O2	26:1H:2333:A:N3	2.55	0.40
28:71:22:ILE:CD1	28:71:189:ILE:HG22	2.52	0.40
29:11:35:LYS:NZ	29:11:35:LYS:HB3	2.27	0.40
29:11:233:HIS:HB3	61:11:406:HOH:O	2.20	0.40
33:51:69:ARG:HG3	33:51:70:THR:N	2.36	0.40
33:51:83:TYR:C	33:51:84:SER:HG	2.22	0.40
37:78:78:PRO:HB3	37:78:111:ARG:NH2	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:88:66:ILE:CG1	38:88:67:ARG:H	2.35	0.40
41:B8:55:ASN:C	41:B8:59:THR:HG22	2.46	0.40
47:H8:26:GLY:HA2	47:H8:85:HIS:CD2	2.57	0.40
49:J8:78:LYS:HD3	49:J8:78:LYS:N	2.37	0.40
53:N8:36:CYS:SG	53:N8:37:LYS:N	2.94	0.40
1:1G:998:G:N2	1:1G:1043:C:C2	2.90	0.40
1:1G:1208:C:H2'	1:1G:1209:C:C6	2.55	0.40
1:1G:1298:C:H41	7:62:114:ARG:HB3	1.86	0.40
2:12:130:ARG:HB3	2:12:130:ARG:HE	1.53	0.40
2:12:189:ASP:OD1	2:12:189:ASP:N	2.54	0.40
2:12:217:ARG:C	2:12:219:VAL:H	2.29	0.40
12:3A:102:ARG:HB3	12:3A:108:ALA:O	2.21	0.40
13:4A:79:LYS:C	13:4A:82:MET:H	2.30	0.40
15:6A:79:ARG:HA	15:6A:82:ILE:HG12	2.03	0.40
23:2L:59:A:H4'	23:2L:60:A:OP1	2.22	0.40
26:14:176:G:O2'	26:14:177:G:H5'	2.21	0.40
26:14:270(K):C:H2'	26:14:270(L):U:H2'	2.02	0.40
26:14:273(C):C:N4	26:14:363(C):G:H1	2.17	0.40
26:14:329:G:P	46:C5:71:LYS:HE3	2.61	0.40
26:14:870:A:OP1	38:45:6:ARG:NE	2.36	0.40
26:14:993:G:C6	26:14:994:C:N4	2.90	0.40
26:14:1342:A:C2	26:14:1397:U:C2	3.09	0.40
26:14:1411:C:H2'	26:14:1412:A:C8	2.56	0.40
26:14:1636:C:O2	26:14:1760:A:H2	2.04	0.40
26:14:1654:A:H1'	26:14:2823:A:H5'	2.04	0.40
26:14:1688:U:O2	26:14:1700:A:H5'	2.21	0.40
26:14:2321:G:N3	26:14:2321:G:H2'	2.36	0.40
26:14:2532:G:O2'	26:14:2657:A:N1	2.54	0.40
30:29:37:ARG:HA	30:29:41:LYS:HE3	2.03	0.40
31:39:6:VAL:HB	31:39:124:LEU:HA	2.03	0.40
31:39:135:LYS:HB3	31:39:138:GLU:HG3	2.03	0.40
45:B5:49:VAL:HG12	45:B5:87:GLN:HG2	2.03	0.40
49:F5:4:VAL:HG11	49:F5:11:ARG:NH2	2.35	0.40
49:F5:85:LEU:CA	49:F5:87:PRO:HD2	2.49	0.40
49:F5:87:PRO:O	49:F5:91:LYS:N	2.50	0.40
1:13:197:A:N3	1:13:198:G:H1'	2.36	0.40
1:13:337:C:H2'	1:13:338:A:C8	2.56	0.40
1:13:377:G:H5'	16:7I:5:ARG:NH1	2.36	0.40
1:13:575:G:C5	1:13:881:G:C2	3.09	0.40
1:13:669:U:H2'	1:13:670:G:C8	2.57	0.40
1:13:1250:A:C2	1:13:1370:G:H1'	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1287:A:H2'	1:13:1288:A:C8	2.57	0.40
1:13:1342:C:O2'	9:8E:124:GLN:HG3	2.22	0.40
1:13:1440:C:O2'	1:13:1442:G:N2	2.55	0.40
4:3E:43:HIS:ND1	4:3E:46:LYS:HE3	2.36	0.40
7:6E:22:LEU:HD23	7:6E:22:LEU:HA	1.90	0.40
11:2I:109:VAL:HA	18:9I:85:LEU:O	2.21	0.40
11:2I:109:VAL:HG12	18:9I:84:LYS:HB2	2.03	0.40
12:3I:6:THR:OG1	12:3I:9:GLN:HG3	2.21	0.40
14:5I:24:CYS:HB2	14:5I:40:CYS:HB3	2.04	0.40
23:2K:17:C:H4'	23:2K:18:U:OP2	2.21	0.40
23:2K:35:C:H5"	23:2K:36:A:OP2	2.21	0.40
23:2K:76:C:H3'	23:2K:77:A:H3'	2.04	0.40
26:1H:17:G:H2'	26:1H:18:C:C6	2.57	0.40
26:1H:67:U:H1'	26:1H:88:G:N2	2.37	0.40
26:1H:588:U:C2	31:31:90:PHE:CE1	3.10	0.40
26:1H:1014:U:O2'	26:1H:1015:G:H5'	2.22	0.40
26:1H:1035:U:H2'	26:1H:1036:G:C8	2.56	0.40
26:1H:1465:G:C5	26:1H:1466:G:N7	2.90	0.40
26:1H:1534:G:O2'	26:1H:1535:U:O4'	2.34	0.40
26:1H:2135:A:N6	26:1H:2136:C:C2	2.89	0.40
26:1H:2378:A:C5	26:1H:2379:G:H1'	2.56	0.40
27:16:3:C:H2'	27:16:4:C:H6	1.86	0.40
29:11:30:GLU:HG3	29:11:63:ARG:NH2	2.37	0.40
31:31:64:ILE:HD13	31:31:64:ILE:HA	1.66	0.40
32:41:41:GLN:HB3	32:41:43:LEU:HD13	2.04	0.40
33:51:74:ASN:O	33:51:77:LYS:HG3	2.22	0.40
35:58:103:VAL:O	35:58:106:MET:N	2.47	0.40
37:78:79:ARG:HD2	37:78:110:TYR:CE1	2.57	0.40
49:J8:85:LEU:HD12	49:J8:88:LYS:HB2	2.02	0.40
51:L8:17:LYS:O	51:L8:20:LYS:N	2.54	0.40
1:1G:35:G:C2	1:1G:550:G:N3	2.90	0.40
1:1G:76:G:C6	1:1G:77:C:C4	3.09	0.40
1:1G:391:G:C6	1:1G:392:G:C5	3.09	0.40
1:1G:535:A:H5"	61:1G:1705:HOH:O	2.22	0.40
1:1G:620:C:H2'	1:1G:621:A:O4'	2.21	0.40
1:1G:1077:G:N1	1:1G:1081:G:C6	2.89	0.40
1:1G:1177:G:O2'	1:1G:1178:G:C8	2.73	0.40
1:1G:1272:G:H2'	1:1G:1273:G:O4'	2.20	0.40
1:1G:1300:G:C6	1:1G:1334:G:C5	3.09	0.40
1:1G:1411:C:H2'	1:1G:1412:C:C6	2.56	0.40
3:22:172:ARG:HB3	3:22:172:ARG:NH1	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:4:TYR:HD1	4:32:6:GLY:H	1.68	0.40
4:32:8:VAL:HG22	4:32:115:ARG:HH12	1.87	0.40
4:32:200:GLU:O	4:32:204:ILE:HG23	2.22	0.40
7:62:25:ALA:O	7:62:28:ASN:N	2.54	0.40
7:62:51:GLN:CG	7:62:58:PRO:HD3	2.52	0.40
9:82:10:ARG:HA	9:82:104:ARG:NH1	2.37	0.40
9:82:53:VAL:HG11	9:82:92:TYR:CE1	2.57	0.40
11:2A:41:THR:OG1	11:2A:42:TRP:N	2.53	0.40
17:8A:11:VAL:HG23	17:8A:20:THR:HB	2.04	0.40
17:8A:29:HIS:HA	17:8A:30:PRO:HD2	1.83	0.40
17:8A:43:LEU:HD12	17:8A:68:ARG:HG2	2.03	0.40
56:1L:73:A:N3	56:1L:73:A:H5"	2.37	0.40
57:3L:18:G:H2'	57:3L:57:G:N2	2.23	0.40
26:14:39:C:H2'	26:14:40:C:C6	2.56	0.40
26:14:116:C:H2'	26:14:117:G:O4'	2.21	0.40
26:14:438:G:H2'	26:14:439:G:C8	2.56	0.40
26:14:468:G:C2	26:14:469:G:H1'	2.56	0.40
26:14:704:G:O2'	26:14:726:G:N1	2.46	0.40
26:14:861:A:H1'	26:14:917:A:N6	2.37	0.40
26:14:1339:G:H21	26:14:1603:A:H1'	1.87	0.40
26:14:1341:U:O4	45:B5:16:LYS:NZ	2.34	0.40
26:14:1488:G:C2	26:14:1502:C:C2	3.09	0.40
26:14:2019:A:C5	26:14:2020:A:C8	3.09	0.40
26:14:2115:G:N2	26:14:2172:U:H3	2.20	0.40
26:14:2185:C:H2'	26:14:2186:G:H8	1.86	0.40
26:14:2439:A:HO2'	26:14:2440:C:P	2.44	0.40
28:79:15:ASP:HA	28:79:16:PRO:HD2	1.88	0.40
31:39:7:TYR:HA	31:39:124:LEU:O	2.20	0.40
31:39:24:LEU:HD22	31:39:25:PRO:HD3	2.03	0.40
32:49:52:ILE:HA	32:49:55:LYS:HE3	2.03	0.40
34:69:97:ILE:O	34:69:100:ALA:HB3	2.22	0.40
34:69:113:ARG:O	34:69:131:LYS:NZ	2.48	0.40
36:25:75:SER:OG	41:75:74:ARG:NH2	2.54	0.40
38:45:25:ASP:HB3	38:45:102:VAL:CB	2.50	0.40
38:45:68:ILE:HD13	38:45:103:MET:HE2	2.03	0.40
40:65:77:ALA:O	40:65:80:LEU:N	2.50	0.40
45:B5:36:LYS:HG3	45:B5:56:THR:CG2	2.52	0.40
46:C5:3:VAL:HG11	46:C5:32:PRO:O	2.21	0.40
46:C5:17:SER:HB2	46:C5:71:LYS:HE2	2.03	0.40
46:C5:43:ASN:HB2	46:C5:62:GLU:C	2.46	0.40
46:C5:77:PRO:O	46:C5:78:ALA:HB3	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D5:131:ARG:H	47:D5:131:ARG:HG2	1.60	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
2	12	206/256 (80%)	168 (82%)	31 (15%)	7 (3%)	3 20
2	1E	227/256 (89%)	185 (82%)	39 (17%)	3 (1%)	9 40
3	22	192/239 (80%)	169 (88%)	22 (12%)	1 (0%)	24 59
3	2E	203/239 (85%)	185 (91%)	18 (9%)	0	100 100
4	32	206/209 (99%)	183 (89%)	22 (11%)	1 (0%)	24 59
4	3E	205/209 (98%)	188 (92%)	14 (7%)	3 (2%)	8 37
5	42	146/162 (90%)	136 (93%)	9 (6%)	1 (1%)	18 52
5	4E	147/162 (91%)	139 (95%)	7 (5%)	1 (1%)	18 52
6	52	99/101 (98%)	95 (96%)	4 (4%)	0	100 100
6	5E	98/101 (97%)	91 (93%)	7 (7%)	0	100 100
7	62	134/156 (86%)	123 (92%)	10 (8%)	1 (1%)	18 52
7	6E	152/156 (97%)	144 (95%)	8 (5%)	0	100 100
8	72	135/138 (98%)	125 (93%)	9 (7%)	1 (1%)	18 52
8	7E	136/138 (99%)	126 (93%)	9 (7%)	1 (1%)	18 52
9	82	119/128 (93%)	107 (90%)	11 (9%)	1 (1%)	16 50
9	8E	124/128 (97%)	104 (84%)	19 (15%)	1 (1%)	16 50
10	1A	76/105 (72%)	70 (92%)	6 (8%)	0	100 100
10	1I	89/105 (85%)	83 (93%)	6 (7%)	0	100 100
11	2A	111/129 (86%)	102 (92%)	7 (6%)	2 (2%)	6 34

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
11	2I	109/129 (84%)	98 (90%)	10 (9%)	1 (1%)	14 47
12	3A	120/132 (91%)	102 (85%)	13 (11%)	5 (4%)	2 16
12	3I	120/132 (91%)	106 (88%)	13 (11%)	1 (1%)	16 50
13	4A	109/126 (86%)	95 (87%)	13 (12%)	1 (1%)	14 47
13	4I	117/126 (93%)	97 (83%)	19 (16%)	1 (1%)	14 47
14	5A	57/61 (93%)	48 (84%)	8 (14%)	1 (2%)	6 34
14	5I	58/61 (95%)	48 (83%)	8 (14%)	2 (3%)	3 20
15	6A	86/89 (97%)	76 (88%)	10 (12%)	0	100 100
15	6I	85/89 (96%)	80 (94%)	5 (6%)	0	100 100
16	7A	82/88 (93%)	74 (90%)	8 (10%)	0	100 100
16	7I	81/88 (92%)	78 (96%)	3 (4%)	0	100 100
17	8A	97/105 (92%)	90 (93%)	7 (7%)	0	100 100
17	8I	98/105 (93%)	91 (93%)	7 (7%)	0	100 100
18	9A	65/88 (74%)	62 (95%)	2 (3%)	1 (2%)	8 37
18	9I	66/88 (75%)	62 (94%)	3 (4%)	1 (2%)	8 37
19	AA	56/93 (60%)	49 (88%)	5 (9%)	2 (4%)	2 19
19	AI	79/93 (85%)	67 (85%)	10 (13%)	2 (2%)	4 27
20	BA	97/106 (92%)	80 (82%)	15 (16%)	2 (2%)	5 31
20	BI	95/106 (90%)	80 (84%)	15 (16%)	0	100 100
21	1B	20/27 (74%)	19 (95%)	1 (5%)	0	100 100
21	1F	21/27 (78%)	20 (95%)	1 (5%)	0	100 100
28	71	129/229 (56%)	119 (92%)	10 (8%)	0	100 100
28	79	45/229 (20%)	41 (91%)	4 (9%)	0	100 100
29	11	271/276 (98%)	243 (90%)	17 (6%)	11 (4%)	2 17
29	19	272/276 (99%)	241 (89%)	25 (9%)	6 (2%)	5 29
30	21	201/206 (98%)	157 (78%)	36 (18%)	8 (4%)	2 17
30	29	202/206 (98%)	157 (78%)	37 (18%)	8 (4%)	2 17
31	31	200/210 (95%)	175 (88%)	25 (12%)	0	100 100
31	39	202/210 (96%)	157 (78%)	36 (18%)	9 (4%)	2 15
32	41	177/182 (97%)	155 (88%)	19 (11%)	3 (2%)	7 35
32	49	177/182 (97%)	153 (86%)	22 (12%)	2 (1%)	11 43

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
33	51	169/180 (94%)	135 (80%)	24 (14%)	10 (6%)	1 10
33	59	67/180 (37%)	50 (75%)	14 (21%)	3 (4%)	2 15
34	61	144/148 (97%)	122 (85%)	20 (14%)	2 (1%)	9 39
34	69	143/148 (97%)	116 (81%)	26 (18%)	1 (1%)	18 52
35	15	136/140 (97%)	119 (88%)	16 (12%)	1 (1%)	18 52
35	58	136/140 (97%)	114 (84%)	19 (14%)	3 (2%)	5 29
36	25	120/122 (98%)	111 (92%)	9 (8%)	0	100 100
36	68	120/122 (98%)	113 (94%)	7 (6%)	0	100 100
37	35	145/150 (97%)	114 (79%)	29 (20%)	2 (1%)	9 39
37	78	145/150 (97%)	115 (79%)	25 (17%)	5 (3%)	3 20
38	45	136/141 (96%)	112 (82%)	21 (15%)	3 (2%)	5 29
38	88	139/141 (99%)	114 (82%)	20 (14%)	5 (4%)	2 19
39	55	116/118 (98%)	109 (94%)	6 (5%)	1 (1%)	14 47
39	98	116/118 (98%)	101 (87%)	14 (12%)	1 (1%)	14 47
40	65	108/112 (96%)	86 (80%)	20 (18%)	2 (2%)	6 33
40	A8	109/112 (97%)	92 (84%)	14 (13%)	3 (3%)	4 25
41	75	131/146 (90%)	119 (91%)	12 (9%)	0	100 100
41	B8	131/146 (90%)	119 (91%)	12 (9%)	0	100 100
42	85	114/118 (97%)	101 (89%)	11 (10%)	2 (2%)	6 34
42	C8	113/118 (96%)	104 (92%)	6 (5%)	3 (3%)	4 25
43	95	98/101 (97%)	77 (79%)	14 (14%)	7 (7%)	1 6
43	D8	98/101 (97%)	87 (89%)	6 (6%)	5 (5%)	1 13
44	A5	111/113 (98%)	106 (96%)	4 (4%)	1 (1%)	14 47
44	E8	110/113 (97%)	101 (92%)	9 (8%)	0	100 100
45	B5	92/96 (96%)	85 (92%)	4 (4%)	3 (3%)	3 21
45	F8	93/96 (97%)	85 (91%)	7 (8%)	1 (1%)	11 43
46	C5	102/110 (93%)	75 (74%)	17 (17%)	10 (10%)	0 2
46	G8	103/110 (94%)	86 (84%)	13 (13%)	4 (4%)	2 18
47	D5	126/206 (61%)	100 (79%)	21 (17%)	5 (4%)	2 17
47	H8	169/206 (82%)	136 (80%)	25 (15%)	8 (5%)	2 14
48	E5	75/85 (88%)	66 (88%)	8 (11%)	1 (1%)	9 40

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
48	I8	74/85 (87%)	68 (92%)	6 (8%)	0	100 100
49	F5	92/98 (94%)	85 (92%)	6 (6%)	1 (1%)	11 43
49	J8	92/98 (94%)	83 (90%)	8 (9%)	1 (1%)	11 43
50	G5	64/72 (89%)	59 (92%)	3 (5%)	2 (3%)	3 22
50	K8	66/72 (92%)	58 (88%)	5 (8%)	3 (4%)	2 15
51	H5	56/60 (93%)	53 (95%)	3 (5%)	0	100 100
51	L8	56/60 (93%)	51 (91%)	5 (9%)	0	100 100
52	M8	45/71 (63%)	29 (64%)	15 (33%)	1 (2%)	5 29
53	J5	54/60 (90%)	50 (93%)	4 (7%)	0	100 100
53	N8	46/60 (77%)	43 (94%)	3 (6%)	0	100 100
54	L5	45/49 (92%)	43 (96%)	2 (4%)	0	100 100
54	P8	45/49 (92%)	39 (87%)	6 (13%)	0	100 100
55	M5	62/65 (95%)	52 (84%)	8 (13%)	2 (3%)	3 21
55	Q8	62/65 (95%)	50 (81%)	9 (14%)	3 (5%)	2 14
All	All	10973/12333 (89%)	9576 (87%)	1201 (11%)	196 (2%)	6 34

All (196) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
14	5I	13	THR
18	9I	22	VAL
29	11	28	GLU
29	11	40	THR
29	11	237	GLU
30	21	83	ASP
45	F8	4	ALA
46	G8	81	LYS
47	H8	165	VAL
50	K8	48	HIS
55	Q8	52	LYS
55	Q8	53	PRO
2	12	219	VAL
9	82	118	LYS
20	BA	73	HIS
29	19	273	ARG
30	29	25	VAL
31	39	28	ILE

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Mol	Chain	Res	Type
31	39	84	VAL
38	45	27	VAL
39	55	107	ASP
43	95	44	LYS
43	95	45	THR
47	D5	53	ILE
48	E5	33	ALA
49	F5	30	VAL
50	G5	48	HIS
55	M5	49	VAL
2	1E	10	LEU
4	3E	90	GLY
8	7E	86	ILE
12	3I	48	PRO
29	11	273	ARG
30	21	78	LEU
33	51	10	PRO
33	51	157	TYR
37	78	25	SER
38	88	6	ARG
38	88	66	ILE
38	88	134	ARG
42	C8	89	GLU
46	G8	54	LYS
47	H8	60	GLU
11	2A	48	ILE
11	2A	101	SER
12	3A	18	VAL
12	3A	26	ALA
14	5A	29	ARG
19	AA	9	VAL
20	BA	49	ALA
29	19	46	GLN
29	19	237	GLU
30	29	59	VAL
30	29	81	ILE
31	39	124	LEU
31	39	132	VAL
37	35	15	ARG
42	85	96	ALA
43	95	80	GLN
46	C5	29	GLU

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Mol	Chain	Res	Type
2	1E	238	LEU
14	5I	14	PRO
30	21	118	LYS
33	51	84	SER
38	88	7	MET
39	98	11	ASN
42	C8	93	LYS
43	D8	45	THR
43	D8	48	GLY
30	29	51	PHE
31	39	26	ALA
31	39	149	ASP
31	39	167	ALA
38	45	78	PRO
46	C5	17	SER
46	C5	99	CYS
47	D5	161	VAL
4	3E	89	THR
29	11	3	VAL
29	11	122	ASP
30	21	56	PRO
30	21	60	ASN
32	41	97	ASP
33	51	137	ASP
33	51	138	LYS
33	51	154	PRO
33	51	169	VAL
34	61	145	VAL
35	58	128	HIS
35	58	135	PRO
37	78	6	LEU
40	A8	3	ARG
43	D8	38	LEU
47	H8	6	LYS
47	H8	81	ARG
49	J8	93	GLU
52	M8	5	ILE
55	Q8	35	GLN
2	12	220	ASP
12	3A	19	ARG
29	19	274	ARG
30	29	9	VAL

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Mol	Chain	Res	Type
31	39	25	PRO
32	49	47	LYS
33	59	73	ALA
34	69	111	PRO
37	35	35	HIS
40	65	87	PHE
40	65	111	GLU
44	A5	44	ALA
45	B5	22	ALA
46	C5	63	LYS
50	G5	47	ASN
55	M5	35	GLN
2	1E	237	ALA
4	3E	155	LEU
19	AI	7	LYS
19	AI	41	VAL
29	11	27	THR
30	21	55	ASN
32	41	5	VAL
32	41	96	ARG
33	51	83	TYR
33	51	85	LYS
34	61	133	HIS
35	58	97	ARG
40	A8	13	ARG
40	A8	88	ASP
42	C8	92	ARG
43	D8	49	THR
46	G8	76	CYS
47	H8	59	LEU
50	K8	43	GLN
50	K8	47	ASN
3	22	93	LYS
5	42	60	TYR
7	62	147	ALA
30	29	26	ILE
35	15	128	HIS
45	B5	68	ARG
46	C5	20	TYR
46	C5	92	ASN
46	C5	94	LYS
9	8E	94	ALA

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Mol	Chain	Res	Type
29	11	123	ALA
47	H8	61	LEU
2	12	49	GLU
8	72	73	ASP
12	3A	47	LYS
13	4A	84	ILE
30	29	77	ILE
43	95	71	LEU
47	D5	60	GLU
29	11	29	PRO
2	12	39	ILE
2	12	71	VAL
2	12	223	ILE
29	19	3	VAL
31	39	24	LEU
38	45	81	VAL
42	85	90	VAL
43	95	72	VAL
46	C5	85	VAL
11	2I	82	VAL
30	21	21	VAL
33	51	12	PRO
37	78	95	VAL
43	D8	47	VAL
47	H8	53	ILE
19	AA	67	VAL
32	49	5	VAL
45	B5	51	VAL
47	D5	165	VAL
29	11	35	LYS
29	11	240	ALA
37	78	7	ARG
38	88	78	PRO
46	G8	53	PRO
47	H8	141	VAL
4	32	28	SER
18	9A	52	PRO
33	59	169	VAL
5	4E	115	VAL
37	78	47	ASP
2	12	81	VAL
12	3A	25	PRO

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Mol	Chain	Res	Type
30	29	62	PRO
33	59	167	GLU
43	95	50	PRO
43	95	99	ILE
46	C5	3	VAL
46	C5	55	TYR
47	D5	158	PRO
13	4I	4	ILE
30	21	52	LEU
29	19	240	ALA

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%)	151 (83%)	31 (17%)	2 11
2	1E	200/220 (91%)	138 (69%)	62 (31%)	0 1
3	22	154/188 (82%)	122 (79%)	32 (21%)	1 7
3	2E	159/188 (85%)	121 (76%)	38 (24%)	1 4
4	32	180/181 (99%)	138 (77%)	42 (23%)	1 5
4	3E	180/181 (99%)	133 (74%)	47 (26%)	0 3
5	42	114/123 (93%)	89 (78%)	25 (22%)	1 5
5	4E	115/123 (94%)	93 (81%)	22 (19%)	1 9
6	52	90/90 (100%)	71 (79%)	19 (21%)	1 6
6	5E	90/90 (100%)	70 (78%)	20 (22%)	1 5
7	62	114/127 (90%)	91 (80%)	23 (20%)	1 7
7	6E	125/127 (98%)	98 (78%)	27 (22%)	1 6
8	72	118/119 (99%)	93 (79%)	25 (21%)	1 6
8	7E	119/119 (100%)	86 (72%)	33 (28%)	0 2
9	82	92/99 (93%)	70 (76%)	22 (24%)	1 4
9	8E	97/99 (98%)	76 (78%)	21 (22%)	1 6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
10	1A	71/92 (77%)	45 (63%)	26 (37%)	0 0
10	1I	81/92 (88%)	61 (75%)	20 (25%)	1 3
11	2A	85/99 (86%)	70 (82%)	15 (18%)	2 10
11	2I	84/99 (85%)	56 (67%)	28 (33%)	0 1
12	3A	103/109 (94%)	78 (76%)	25 (24%)	1 4
12	3I	103/109 (94%)	83 (81%)	20 (19%)	1 8
13	4A	91/101 (90%)	66 (72%)	25 (28%)	0 2
13	4I	94/101 (93%)	73 (78%)	21 (22%)	1 5
14	5A	49/50 (98%)	39 (80%)	10 (20%)	1 7
14	5I	49/50 (98%)	36 (74%)	13 (26%)	0 3
15	6A	79/80 (99%)	66 (84%)	13 (16%)	2 12
15	6I	79/80 (99%)	58 (73%)	21 (27%)	0 3
16	7A	72/74 (97%)	51 (71%)	21 (29%)	0 1
16	7I	72/74 (97%)	50 (69%)	22 (31%)	0 1
17	8A	94/97 (97%)	78 (83%)	16 (17%)	2 11
17	8I	95/97 (98%)	81 (85%)	14 (15%)	3 16
18	9A	58/77 (75%)	42 (72%)	16 (28%)	0 2
18	9I	58/77 (75%)	42 (72%)	16 (28%)	0 2
19	AA	52/80 (65%)	38 (73%)	14 (27%)	0 2
19	AI	71/80 (89%)	52 (73%)	19 (27%)	0 2
20	BA	76/82 (93%)	60 (79%)	16 (21%)	1 6
20	BI	75/82 (92%)	55 (73%)	20 (27%)	0 3
21	1B	17/22 (77%)	17 (100%)	0	100 100
21	1F	18/22 (82%)	17 (94%)	1 (6%)	19 52
28	71	109/181 (60%)	84 (77%)	25 (23%)	1 5
28	79	48/181 (26%)	39 (81%)	9 (19%)	1 9
29	11	214/218 (98%)	160 (75%)	54 (25%)	0 3
29	19	214/218 (98%)	166 (78%)	48 (22%)	1 5
30	21	165/166 (99%)	121 (73%)	44 (27%)	0 3
30	29	165/166 (99%)	121 (73%)	44 (27%)	0 3
31	31	161/166 (97%)	126 (78%)	35 (22%)	1 6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
31	39	163/166 (98%)	125 (77%)	38 (23%)	1 5
32	41	153/156 (98%)	121 (79%)	32 (21%)	1 6
32	49	153/156 (98%)	127 (83%)	26 (17%)	2 11
33	51	142/148 (96%)	106 (75%)	36 (25%)	0 3
33	59	59/148 (40%)	47 (80%)	12 (20%)	1 7
34	61	122/124 (98%)	86 (70%)	36 (30%)	0 1
34	69	122/124 (98%)	85 (70%)	37 (30%)	0 1
35	15	117/119 (98%)	90 (77%)	27 (23%)	1 5
35	58	117/119 (98%)	86 (74%)	31 (26%)	0 3
36	25	100/100 (100%)	73 (73%)	27 (27%)	0 2
36	68	100/100 (100%)	80 (80%)	20 (20%)	1 7
37	35	114/116 (98%)	77 (68%)	37 (32%)	0 1
37	78	114/116 (98%)	74 (65%)	40 (35%)	0 0
38	45	109/111 (98%)	87 (80%)	22 (20%)	1 7
38	88	109/111 (98%)	86 (79%)	23 (21%)	1 6
39	55	101/101 (100%)	78 (77%)	23 (23%)	1 5
39	98	101/101 (100%)	76 (75%)	25 (25%)	1 3
40	65	87/88 (99%)	61 (70%)	26 (30%)	0 1
40	A8	87/88 (99%)	67 (77%)	20 (23%)	1 5
41	75	117/127 (92%)	83 (71%)	34 (29%)	0 1
41	B8	117/127 (92%)	87 (74%)	30 (26%)	0 3
42	85	93/94 (99%)	79 (85%)	14 (15%)	3 14
42	C8	92/94 (98%)	76 (83%)	16 (17%)	2 10
43	95	82/82 (100%)	64 (78%)	18 (22%)	1 6
43	D8	82/82 (100%)	56 (68%)	26 (32%)	0 1
44	A5	92/92 (100%)	71 (77%)	21 (23%)	1 5
44	E8	91/92 (99%)	65 (71%)	26 (29%)	0 2
45	B5	74/78 (95%)	49 (66%)	25 (34%)	0 1
45	F8	75/78 (96%)	62 (83%)	13 (17%)	2 10
46	C5	85/91 (93%)	57 (67%)	28 (33%)	0 1
46	G8	85/91 (93%)	62 (73%)	23 (27%)	0 2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
47	D5	118/179 (66%)	89 (75%)	29 (25%)	1 3
47	H8	152/179 (85%)	106 (70%)	46 (30%)	0 1
48	E5	61/67 (91%)	49 (80%)	12 (20%)	1 8
48	I8	61/67 (91%)	49 (80%)	12 (20%)	1 8
49	F5	79/83 (95%)	52 (66%)	27 (34%)	0 0
49	J8	79/83 (95%)	57 (72%)	22 (28%)	0 2
50	G5	62/67 (92%)	44 (71%)	18 (29%)	0 1
50	K8	62/67 (92%)	40 (64%)	22 (36%)	0 0
51	H5	50/52 (96%)	37 (74%)	13 (26%)	0 3
51	L8	50/52 (96%)	37 (74%)	13 (26%)	0 3
52	M8	42/63 (67%)	30 (71%)	12 (29%)	0 2
53	J5	48/52 (92%)	40 (83%)	8 (17%)	2 11
53	N8	43/52 (83%)	35 (81%)	8 (19%)	1 9
54	L5	38/42 (90%)	33 (87%)	5 (13%)	4 19
54	P8	38/42 (90%)	32 (84%)	6 (16%)	2 13
55	M5	54/55 (98%)	45 (83%)	9 (17%)	2 11
55	Q8	54/55 (98%)	40 (74%)	14 (26%)	0 3
All	All	9277/10193 (91%)	7029 (76%)	2248 (24%)	1 4

All (2248) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1E	5	ILE
2	1E	8	LYS
2	1E	10	LEU
2	1E	21	ARG
2	1E	23	ARG
2	1E	28	PHE
2	1E	32	ILE
2	1E	35	GLU
2	1E	41	ILE
2	1E	49	GLU
2	1E	51	LEU
2	1E	55	PHE
2	1E	63	MET
2	1E	67	THR

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Mol	Chain	Res	Type
2	1E	69	LEU
2	1E	71	VAL
2	1E	79	ASP
2	1E	81	VAL
2	1E	83	MET
2	1E	86	GLU
2	1E	87	ARG
2	1E	93	VAL
2	1E	95	GLN
2	1E	96	ARG
2	1E	108	ILE
2	1E	111	ARG
2	1E	115	LEU
2	1E	118	LEU
2	1E	122	PHE
2	1E	129	GLU
2	1E	143	GLU
2	1E	144	ARG
2	1E	155	LEU
2	1E	160	ASP
2	1E	162	ILE
2	1E	163	PHE
2	1E	164	VAL
2	1E	168	THR
2	1E	169	LYS
2	1E	172	ILE
2	1E	178	ARG
2	1E	184	VAL
2	1E	185	ILE
2	1E	190	THR
2	1E	195	ASP
2	1E	197	VAL
2	1E	198	ASP
2	1E	200	ILE
2	1E	208	ILE
2	1E	209	ARG
2	1E	210	SER
2	1E	211	ILE
2	1E	213	LEU
2	1E	214	ILE
2	1E	217	ARG
2	1E	222	ILE

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Mol	Chain	Res	Type
2	1E	223	ILE
2	1E	224	GLN
2	1E	226	ARG
2	1E	230	VAL
2	1E	231	GLU
2	1E	236	TYR
3	2E	3	ASN
3	2E	4	LYS
3	2E	5	ILE
3	2E	8	ILE
3	2E	14	ILE
3	2E	16	ARG
3	2E	18	TRP
3	2E	27	LYS
3	2E	32	LEU
3	2E	42	LEU
3	2E	52	LEU
3	2E	63	ASN
3	2E	68	VAL
3	2E	70	VAL
3	2E	88	ARG
3	2E	95	THR
3	2E	104	GLN
3	2E	105	GLU
3	2E	107	GLN
3	2E	110	ASN
3	2E	111	LEU
3	2E	115	LEU
3	2E	118	GLN
3	2E	136	GLN
3	2E	153	VAL
3	2E	156	ARG
3	2E	157	ILE
3	2E	166	GLU
3	2E	172	ARG
3	2E	175	LEU
3	2E	178	LEU
3	2E	179	ARG
3	2E	188	LEU
3	2E	190	ARG
3	2E	192	THR
3	2E	196	LEU

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Mol	Chain	Res	Type
3	2E	202	ILE
3	2E	206	GLU
4	3E	10	ARG
4	3E	15	GLU
4	3E	19	LEU
4	3E	24	GLU
4	3E	28	SER
4	3E	31	CYS
4	3E	45	GLN
4	3E	46	LYS
4	3E	47	ARG
4	3E	50	ARG
4	3E	52	SER
4	3E	58	LEU
4	3E	61	LYS
4	3E	66	ARG
4	3E	70	ILE
4	3E	84	LYS
4	3E	86	LYS
4	3E	88	VAL
4	3E	89	THR
4	3E	96	LEU
4	3E	98	GLU
4	3E	104	VAL
4	3E	106	TYR
4	3E	122	ARG
4	3E	127	THR
4	3E	129	ASN
4	3E	133	VAL
4	3E	135	LEU
4	3E	138	TYR
4	3E	145	GLU
4	3E	146	ILE
4	3E	151	LYS
4	3E	154	ASN
4	3E	155	LEU
4	3E	158	ILE
4	3E	160	GLN
4	3E	170	VAL
4	3E	175	SER
4	3E	177	ASP
4	3E	179	GLU

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Mol	Chain	Res	Type
4	3E	184	LYS
4	3E	188	LEU
4	3E	190	ASP
4	3E	193	ASP
4	3E	200	GLU
4	3E	204	ILE
4	3E	209	ARG
5	4E	10	MET
5	4E	11	ILE
5	4E	15	ARG
5	4E	16	THR
5	4E	26	PHE
5	4E	41	VAL
5	4E	57	LYS
5	4E	64	ARG
5	4E	68	GLU
5	4E	72	GLN
5	4E	79	GLU
5	4E	87	SER
5	4E	90	VAL
5	4E	107	ARG
5	4E	112	LEU
5	4E	116	THR
5	4E	122	GLU
5	4E	131	ILE
5	4E	147	ASP
5	4E	149	GLU
5	4E	152	ARG
5	4E	153	LYS
6	5E	15	ASP
6	5E	16	GLN
6	5E	19	LEU
6	5E	23	LYS
6	5E	25	ILE
6	5E	31	GLU
6	5E	32	ASN
6	5E	36	ARG
6	5E	40	VAL
6	5E	43	LEU
6	5E	47	ARG
6	5E	55	ASP
6	5E	64	GLN

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Mol	Chain	Res	Type
6	5E	65	VAL
6	5E	70	ASP
6	5E	73	ASN
6	5E	75	LEU
6	5E	78	GLU
6	5E	80	ARG
6	5E	89	MET
7	6E	5	ARG
7	6E	8	GLU
7	6E	11	GLN
7	6E	15	ASP
7	6E	21	VAL
7	6E	22	LEU
7	6E	24	THR
7	6E	30	ILE
7	6E	38	LEU
7	6E	52	GLU
7	6E	54	THR
7	6E	59	LEU
7	6E	63	LYS
7	6E	73	MET
7	6E	74	GLU
7	6E	89	MET
7	6E	95	ARG
7	6E	97	GLN
7	6E	104	LEU
7	6E	111	ARG
7	6E	113	GLU
7	6E	118	VAL
7	6E	120	ILE
7	6E	141	VAL
7	6E	148	ASN
7	6E	149	ARG
7	6E	155	ARG
8	7E	1	MET
8	7E	3	THR
8	7E	13	ILE
8	7E	19	VAL
8	7E	25	ASP
8	7E	26	VAL
8	7E	32	LYS
8	7E	33	GLU

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Mol	Chain	Res	Type
8	7E	34	GLU
8	7E	35	ILE
8	7E	36	LEU
8	7E	39	LEU
8	7E	42	GLU
8	7E	45	ILE
8	7E	51	VAL
8	7E	61	VAL
8	7E	63	LEU
8	7E	65	TYR
8	7E	68	ARG
8	7E	80	ILE
8	7E	85	ARG
8	7E	95	VAL
8	7E	97	VAL
8	7E	99	GLU
8	7E	102	ARG
8	7E	104	ARG
8	7E	109	ILE
8	7E	112	LEU
8	7E	122	ARG
8	7E	125	ARG
8	7E	127	LEU
8	7E	129	VAL
8	7E	133	LEU
9	8E	7	THR
9	8E	9	ARG
9	8E	10	ARG
9	8E	17	VAL
9	8E	42	ARG
9	8E	44	VAL
9	8E	47	LEU
9	8E	53	VAL
9	8E	56	LEU
9	8E	66	ARG
9	8E	75	ASP
9	8E	77	ILE
9	8E	79	LEU
9	8E	83	ARG
9	8E	88	TYR
9	8E	91	ASP
9	8E	96	LEU

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Mol	Chain	Res	Type
9	8E	99	LEU
9	8E	117	HIS
9	8E	118	LYS
9	8E	128	ARG
10	1I	16	LEU
10	1I	29	ARG
10	1I	33	GLN
10	1I	34	VAL
10	1I	38	ILE
10	1I	43	ARG
10	1I	44	VAL
10	1I	49	VAL
10	1I	58	ASP
10	1I	61	GLU
10	1I	62	HIS
10	1I	67	THR
10	1I	70	ARG
10	1I	75	ILE
10	1I	83	GLU
10	1I	88	LEU
10	1I	89	ASP
10	1I	90	LEU
10	1I	95	GLU
10	1I	96	ILE
11	2I	18	ARG
11	2I	22	HIS
11	2I	25	TYR
11	2I	29	ILE
11	2I	30	VAL
11	2I	31	THR
11	2I	41	THR
11	2I	47	VAL
11	2I	51	LYS
11	2I	54	ARG
11	2I	55	LYS
11	2I	63	LEU
11	2I	71	LYS
11	2I	75	TYR
11	2I	81	ASP
11	2I	84	VAL
11	2I	87	THR
11	2I	96	ARG

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Mol	Chain	Res	Type
11	2I	103	LEU
11	2I	105	VAL
11	2I	106	LYS
11	2I	108	ILE
11	2I	109	VAL
11	2I	114	VAL
11	2I	116	HIS
11	2I	117	ASN
11	2I	124	LYS
11	2I	126	ARG
12	3I	7	ILE
12	3I	16	GLU
12	3I	18	VAL
12	3I	20	LYS
12	3I	28	LYS
12	3I	33	ARG
12	3I	34	ARG
12	3I	47	LYS
12	3I	50	SER
12	3I	57	LYS
12	3I	58	VAL
12	3I	60	LEU
12	3I	62	SER
12	3I	67	THR
12	3I	79	GLU
12	3I	89	ARG
12	3I	96	VAL
12	3I	111	LYS
12	3I	114	LYS
12	3I	115	LYS
13	4I	9	ILE
13	4I	11	ARG
13	4I	13	LYS
13	4I	17	VAL
13	4I	22	ILE
13	4I	45	VAL
13	4I	54	VAL
13	4I	56	LEU
13	4I	57	ARG
13	4I	64	TRP
13	4I	67	GLU
13	4I	70	LEU

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Mol	Chain	Res	Type
13	4I	84	ILE
13	4I	86	CYS
13	4I	88	ARG
13	4I	93	ARG
13	4I	105	THR
13	4I	106	ASN
13	4I	108	ARG
13	4I	109	THR
13	4I	117	VAL
14	5I	4	LYS
14	5I	6	LEU
14	5I	7	ILE
14	5I	8	GLU
14	5I	22	THR
14	5I	23	ARG
14	5I	26	ARG
14	5I	29	ARG
14	5I	31	ARG
14	5I	33	VAL
14	5I	35	ARG
14	5I	41	ARG
14	5I	46	GLU
15	6I	3	ILE
15	6I	6	GLU
15	6I	10	LYS
15	6I	11	VAL
15	6I	17	ARG
15	6I	25	THR
15	6I	26	GLU
15	6I	31	LEU
15	6I	35	ARG
15	6I	38	ARG
15	6I	39	LEU
15	6I	48	LYS
15	6I	59	MET
15	6I	62	GLN
15	6I	65	ARG
15	6I	66	LEU
15	6I	71	GLN
15	6I	72	ARG
15	6I	79	ARG
15	6I	82	ILE

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Mol	Chain	Res	Type
15	6I	84	LYS
16	7I	1	MET
16	7I	2	VAL
16	7I	4	ILE
16	7I	6	LEU
16	7I	8	ARG
16	7I	11	SER
16	7I	18	ARG
16	7I	19	ILE
16	7I	20	VAL
16	7I	22	THR
16	7I	27	LYS
16	7I	33	ILE
16	7I	44	THR
16	7I	45	THR
16	7I	50	LYS
16	7I	53	VAL
16	7I	54	GLU
16	7I	65	GLN
16	7I	67	THR
16	7I	69	THR
16	7I	72	ARG
16	7I	83	GLU
17	8I	13	ASP
17	8I	14	LYS
17	8I	35	VAL
17	8I	38	ARG
17	8I	45	HIS
17	8I	50	LYS
17	8I	52	LYS
17	8I	60	ILE
17	8I	63	ARG
17	8I	74	LEU
17	8I	78	GLU
17	8I	85	VAL
17	8I	89	LEU
17	8I	100	LYS
18	9I	22	VAL
18	9I	23	LYS
18	9I	25	THR
18	9I	26	LEU
18	9I	28	GLU

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Mol	Chain	Res	Type
18	9I	31	LEU
18	9I	33	ASP
18	9I	35	ARG
18	9I	36	ASN
18	9I	41	LYS
18	9I	42	ARG
18	9I	54	ARG
18	9I	56	THR
18	9I	68	LYS
18	9I	85	LEU
18	9I	86	VAL
19	AI	5	LEU
19	AI	7	LYS
19	AI	11	VAL
19	AI	17	GLU
19	AI	18	LYS
19	AI	21	GLU
19	AI	27	GLU
19	AI	29	ARG
19	AI	37	ARG
19	AI	41	VAL
19	AI	43	GLU
19	AI	44	MET
19	AI	48	THR
19	AI	51	VAL
19	AI	58	VAL
19	AI	64	GLU
19	AI	65	ASN
19	AI	71	LEU
19	AI	77	THR
20	BI	9	ASN
20	BI	13	LEU
20	BI	30	LYS
20	BI	37	SER
20	BI	41	ILE
20	BI	42	GLN
20	BI	53	LEU
20	BI	54	LYS
20	BI	55	ILE
20	BI	57	ARG
20	BI	62	LEU
20	BI	63	ILE

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Mol	Chain	Res	Type
20	BI	68	LYS
20	BI	72	LEU
20	BI	73	HIS
20	BI	75	ASN
20	BI	86	ARG
20	BI	87	LYS
20	BI	93	GLU
20	BI	104	LEU
21	1F	10	ARG
28	71	3	HIS
28	71	19	ILE
28	71	30	LYS
28	71	31	GLU
28	71	32	LEU
28	71	34	THR
28	71	55	ASP
28	71	62	VAL
28	71	68	LEU
28	71	166	ASP
28	71	168	THR
28	71	171	ILE
28	71	172	HIS
28	71	175	VAL
28	71	180	PHE
28	71	185	LEU
28	71	190	ARG
28	71	193	ILE
28	71	202	GLU
28	71	212	VAL
28	71	216	THR
28	71	218	MET
28	71	224	ILE
28	71	225	ASN
28	71	227	HIS
29	11	3	VAL
29	11	4	LYS
29	11	6	PHE
29	11	13	ARG
29	11	17	THR
29	11	23	GLU
29	11	25	THR
29	11	27	THR

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Mol	Chain	Res	Type
29	11	28	GLU
29	11	30	GLU
29	11	33	LEU
29	11	34	VAL
29	11	35	LYS
29	11	37	LEU
29	11	38	LYS
29	11	39	LYS
29	11	40	THR
29	11	43	ARG
29	11	58	HIS
29	11	61	LEU
29	11	64	ILE
29	11	65	ILE
29	11	82	ILE
29	11	94	LEU
29	11	103	ARG
29	11	105	ILE
29	11	106	ILE
29	11	111	LEU
29	11	113	VAL
29	11	115	GLN
29	11	117	VAL
29	11	126	GLN
29	11	136	ILE
29	11	141	VAL
29	11	154	LYS
29	11	157	ARG
29	11	164	GLN
29	11	165	ILE
29	11	173	VAL
29	11	183	ARG
29	11	192	THR
29	11	193	VAL
29	11	204	ILE
29	11	212	SER
29	11	217	ARG
29	11	221	VAL
29	11	229	VAL
29	11	233	HIS
29	11	239	ARG
29	11	242	ARG

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Mol	Chain	Res	Type
29	11	254	THR
29	11	261	LYS
29	11	270	ILE
29	11	271	ILE
30	21	4	ILE
30	21	5	LEU
30	21	7	VAL
30	21	12	THR
30	21	14	ILE
30	21	21	VAL
30	21	25	VAL
30	21	26	ILE
30	21	33	VAL
30	21	34	VAL
30	21	38	THR
30	21	40	GLU
30	21	41	LYS
30	21	42	ASP
30	21	45	THR
30	21	48	GLN
30	21	49	LEU
30	21	52	LEU
30	21	54	GLN
30	21	57	LYS
30	21	63	LEU
30	21	75	VAL
30	21	78	LEU
30	21	79	ARG
30	21	91	VAL
30	21	95	ILE
30	21	102	VAL
30	21	111	ARG
30	21	116	VAL
30	21	118	LYS
30	21	119	ARG
30	21	138	PRO
30	21	144	ARG
30	21	146	THR
30	21	165	VAL
30	21	171	GLU
30	21	175	VAL
30	21	180	ASN

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Mol	Chain	Res	Type
30	21	181	LEU
30	21	188	VAL
30	21	195	LEU
30	21	196	VAL
30	21	197	ILE
30	21	203	LYS
31	31	7	TYR
31	31	13	SER
31	31	15	SER
31	31	18	ARG
31	31	23	ASP
31	31	27	GLU
31	31	28	ILE
31	31	33	LEU
31	31	43	LYS
31	31	52	LYS
31	31	64	ILE
31	31	66	PRO
31	31	67	GLN
31	31	74	ARG
31	31	77	ASP
31	31	78	ILE
31	31	82	ILE
31	31	84	VAL
31	31	88	VAL
31	31	96	ASP
31	31	117	ARG
31	31	119	ARG
31	31	140	LEU
31	31	155	LEU
31	31	158	THR
31	31	162	LEU
31	31	164	ARG
31	31	165	ARG
31	31	174	VAL
31	31	183	VAL
31	31	188	ARG
31	31	191	ARG
31	31	196	LEU
31	31	197	ASP
31	31	203	GLN
32	41	4	ASP

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Mol	Chain	Res	Type
32	41	13	GLU
32	41	19	LEU
32	41	21	ARG
32	41	22	ARG
32	41	28	VAL
32	41	31	VAL
32	41	43	LEU
32	41	45	GLU
32	41	48	GLU
32	41	51	ARG
32	41	58	GLN
32	41	60	LEU
32	41	62	LEU
32	41	63	ILE
32	41	67	LYS
32	41	78	SER
32	41	80	PHE
32	41	81	LYS
32	41	82	LEU
32	41	88	ILE
32	41	90	LEU
32	41	94	LEU
32	41	96	ARG
32	41	101	ILE
32	41	118	ARG
32	41	130	ASN
32	41	132	ASN
32	41	136	ARG
32	41	159	VAL
32	41	162	THR
32	41	167	GLU
33	51	7	LEU
33	51	9	ILE
33	51	13	LYS
33	51	15	VAL
33	51	24	VAL
33	51	26	VAL
33	51	32	GLU
33	51	37	VAL
33	51	40	GLU
33	51	41	MET
33	51	43	VAL

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Mol	Chain	Res	Type
33	51	45	VAL
33	51	64	LEU
33	51	69	ARG
33	51	71	LEU
33	51	72	ILE
33	51	77	LYS
33	51	79	VAL
33	51	80	SER
33	51	83	TYR
33	51	92	ILE
33	51	98	LEU
33	51	104	GLU
33	51	116	GLU
33	51	119	GLU
33	51	122	THR
33	51	127	GLU
33	51	129	THR
33	51	131	VAL
33	51	132	ARG
33	51	136	ILE
33	51	149	ARG
33	51	152	ARG
33	51	167	GLU
33	51	169	VAL
33	51	171	LEU
34	61	2	LYS
34	61	6	LEU
34	61	7	GLU
34	61	9	LEU
34	61	15	VAL
34	61	25	TYR
34	61	37	VAL
34	61	38	LEU
34	61	41	GLU
34	61	48	GLU
34	61	51	ILE
34	61	68	LEU
34	61	70	GLU
34	61	73	GLU
34	61	75	LEU
34	61	77	LEU
34	61	81	VAL

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Mol	Chain	Res	Type
34	61	82	ARG
34	61	85	GLU
34	61	86	THR
34	61	92	VAL
34	61	95	LYS
34	61	107	VAL
34	61	108	THR
34	61	110	ASP
34	61	112	LYS
34	61	117	GLU
34	61	118	LYS
34	61	122	GLU
34	61	127	VAL
34	61	135	GLU
34	61	136	VAL
34	61	140	LEU
34	61	141	LYS
34	61	142	VAL
34	61	145	VAL
35	58	5	VAL
35	58	7	LYS
35	58	9	VAL
35	58	10	GLU
35	58	14	VAL
35	58	16	ILE
35	58	28	THR
35	58	32	THR
35	58	33	LEU
35	58	34	LEU
35	58	42	TRP
35	58	43	THR
35	58	46	VAL
35	58	48	MET
35	58	58	ASP
35	58	60	ILE
35	58	65	LYS
35	58	79	PRO
35	58	87	LEU
35	58	88	GLU
35	58	90	MET
35	58	97	ARG
35	58	99	LEU

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Mol	Chain	Res	Type
35	58	115	ARG
35	58	118	LYS
35	58	120	LEU
35	58	121	LYS
35	58	127	ASP
35	58	130	HIS
35	58	131	GLN
35	58	136	GLU
36	68	3	GLN
36	68	20	MET
36	68	21	CYS
36	68	23	ARG
36	68	24	VAL
36	68	28	SER
36	68	34	THR
36	68	35	VAL
36	68	39	ILE
36	68	47	ILE
36	68	53	LYS
36	68	61	VAL
36	68	65	THR
36	68	91	LEU
36	68	94	ARG
36	68	98	VAL
36	68	102	VAL
36	68	109	LYS
36	68	112	MET
36	68	115	VAL
37	78	1	MET
37	78	5	ASP
37	78	6	LEU
37	78	10	PRO
37	78	21	ARG
37	78	30	THR
37	78	32	THR
37	78	35	HIS
37	78	36	LYS
37	78	41	ARG
37	78	45	LEU
37	78	46	LYS
37	78	49	ARG
37	78	50	ARG

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Mol	Chain	Res	Type
37	78	56	SER
37	78	59	LEU
37	78	61	ARG
37	78	67	MET
37	78	74	GLU
37	78	75	ILE
37	78	81	GLN
37	78	83	VAL
37	78	88	LEU
37	78	90	ARG
37	78	96	THR
37	78	98	GLU
37	78	99	LEU
37	78	100	LEU
37	78	101	VAL
37	78	105	LEU
37	78	106	LEU
37	78	112	LEU
37	78	114	ILE
37	78	121	LYS
37	78	126	VAL
37	78	132	LYS
37	78	133	SER
37	78	138	LEU
37	78	144	GLU
37	78	146	VAL
38	88	5	ARG
38	88	6	ARG
38	88	7	MET
38	88	10	ARG
38	88	18	LYS
38	88	21	THR
38	88	22	LYS
38	88	25	ASP
38	88	27	VAL
38	88	45	GLN
38	88	55	VAL
38	88	56	ARG
38	88	78	PRO
38	88	79	LEU
38	88	83	MET
38	88	103	MET

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Mol	Chain	Res	Type
38	88	109	VAL
38	88	110	THR
38	88	112	GLU
38	88	129	THR
38	88	131	ILE
38	88	138	ASP
38	88	141	GLN
39	98	1	MET
39	98	2	ARG
39	98	9	LYS
39	98	10	LEU
39	98	18	LEU
39	98	28	LEU
39	98	29	LEU
39	98	34	ILE
39	98	35	THR
39	98	44	LEU
39	98	54	LEU
39	98	57	ARG
39	98	65	LEU
39	98	67	LEU
39	98	73	VAL
39	98	75	LEU
39	98	79	LEU
39	98	82	GLU
39	98	96	ARG
39	98	97	VAL
39	98	100	LEU
39	98	103	ARG
39	98	111	LEU
39	98	117	VAL
39	98	118	GLU
40	A8	3	ARG
40	A8	4	LEU
40	A8	8	GLU
40	A8	14	VAL
40	A8	17	ARG
40	A8	20	ARG
40	A8	35	ILE
40	A8	36	TYR
40	A8	39	ILE
40	A8	46	VAL

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Mol	Chain	Res	Type
40	A8	58	LEU
40	A8	64	GLU
40	A8	73	LEU
40	A8	78	LEU
40	A8	80	LEU
40	A8	85	VAL
40	A8	89	ARG
40	A8	98	VAL
40	A8	101	LEU
40	A8	106	ARG
41	B8	11	GLU
41	B8	13	ARG
41	B8	15	VAL
41	B8	21	GLU
41	B8	28	VAL
41	B8	42	ILE
41	B8	48	ILE
41	B8	49	VAL
41	B8	50	ILE
41	B8	52	ILE
41	B8	55	ASN
41	B8	58	ASN
41	B8	62	THR
41	B8	64	ARG
41	B8	74	ARG
41	B8	85	LYS
41	B8	86	ILE
41	B8	87	ASP
41	B8	88	ILE
41	B8	96	ARG
41	B8	98	LYS
41	B8	99	LEU
41	B8	102	ILE
41	B8	106	SER
41	B8	110	ILE
41	B8	111	ARG
41	B8	114	LEU
41	B8	115	ARG
41	B8	128	GLU
41	B8	129	ARG
42	C8	5	LYS
42	C8	11	ARG

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Mol	Chain	Res	Type
42	C8	16	LYS
42	C8	18	LEU
42	C8	27	LEU
42	C8	29	SER
42	C8	60	LEU
42	C8	64	ARG
42	C8	70	ARG
42	C8	74	LEU
42	C8	83	LEU
42	C8	84	LYS
42	C8	90	VAL
42	C8	97	ASP
42	C8	108	GLU
42	C8	112	ARG
43	D8	5	VAL
43	D8	6	LYS
43	D8	7	THR
43	D8	15	GLU
43	D8	18	LEU
43	D8	19	LYS
43	D8	20	LEU
43	D8	22	VAL
43	D8	24	LYS
43	D8	25	LEU
43	D8	33	VAL
43	D8	37	VAL
43	D8	40	LEU
43	D8	45	THR
43	D8	46	VAL
43	D8	47	VAL
43	D8	49	THR
43	D8	52	VAL
43	D8	57	VAL
43	D8	58	VAL
43	D8	71	LEU
43	D8	73	SER
43	D8	78	LYS
43	D8	79	VAL
43	D8	85	LYS
43	D8	94	LEU
44	E8	11	ARG
44	E8	12	ILE

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Mol	Chain	Res	Type
44	E8	15	ARG
44	E8	20	VAL
44	E8	23	LEU
44	E8	24	ILE
44	E8	39	THR
44	E8	51	LEU
44	E8	52	GLU
44	E8	60	ASN
44	E8	64	MET
44	E8	65	LEU
44	E8	66	GLU
44	E8	68	ARG
44	E8	76	VAL
44	E8	77	ASP
44	E8	78	GLU
44	E8	82	LEU
44	E8	83	LYS
44	E8	92	ARG
44	E8	95	ILE
44	E8	96	ILE
44	E8	97	LYS
44	E8	101	SER
44	E8	103	ILE
44	E8	107	LEU
45	F8	1	MET
45	F8	7	VAL
45	F8	12	VAL
45	F8	30	VAL
45	F8	38	GLU
45	F8	41	ASN
45	F8	53	LYS
45	F8	54	VAL
45	F8	65	ARG
45	F8	72	LYS
45	F8	80	ILE
45	F8	87	GLN
45	F8	90	GLU
46	G8	3	VAL
46	G8	4	LYS
46	G8	6	HIS
46	G8	7	VAL
46	G8	21	LYS

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Mol	Chain	Res	Type
46	G8	27	VAL
46	G8	30	VAL
46	G8	31	LEU
46	G8	38	ILE
46	G8	40	GLU
46	G8	44	ILE
46	G8	45	VAL
46	G8	54	LYS
46	G8	55	TYR
46	G8	57	GLN
46	G8	61	ILE
46	G8	67	LEU
46	G8	75	ILE
46	G8	82	PRO
46	G8	85	VAL
46	G8	86	ARG
46	G8	94	LYS
46	G8	96	ILE
47	H8	2	GLU
47	H8	11	GLU
47	H8	19	ARG
47	H8	33	LEU
47	H8	34	ASN
47	H8	35	ARG
47	H8	41	LEU
47	H8	42	VAL
47	H8	46	LYS
47	H8	53	ILE
47	H8	56	VAL
47	H8	59	LEU
47	H8	61	LEU
47	H8	70	LEU
47	H8	71	VAL
47	H8	72	ARG
47	H8	77	ASP
47	H8	78	LYS
47	H8	81	ARG
47	H8	82	ARG
47	H8	85	HIS
47	H8	86	VAL
47	H8	90	VAL
47	H8	92	SER

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Mol	Chain	Res	Type
47	H8	94	GLU
47	H8	96	VAL
47	H8	105	VAL
47	H8	107	THR
47	H8	111	VAL
47	H8	120	ILE
47	H8	121	HIS
47	H8	123	ASP
47	H8	126	VAL
47	H8	128	VAL
47	H8	131	ARG
47	H8	137	ILE
47	H8	140	ASP
47	H8	145	GLU
47	H8	146	ILE
47	H8	154	ASP
47	H8	155	LEU
47	H8	161	VAL
47	H8	163	LEU
47	H8	165	VAL
47	H8	169	GLU
47	H8	171	ILE
48	I8	11	ARG
48	I8	36	ILE
48	I8	38	VAL
48	I8	41	ARG
48	I8	53	MET
48	I8	58	THR
48	I8	64	ASP
48	I8	66	VAL
48	I8	67	VAL
48	I8	70	GLN
48	I8	80	HIS
48	I8	81	VAL
49	J8	4	VAL
49	J8	19	GLN
49	J8	21	ARG
49	J8	25	LYS
49	J8	30	VAL
49	J8	33	LYS
49	J8	41	ARG
49	J8	50	ARG

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Mol	Chain	Res	Type
49	J8	57	GLU
49	J8	58	ILE
49	J8	62	VAL
49	J8	65	SER
49	J8	72	GLU
49	J8	73	LEU
49	J8	74	VAL
49	J8	78	LYS
49	J8	80	LEU
49	J8	81	LYS
49	J8	82	LEU
49	J8	90	ILE
49	J8	91	LYS
49	J8	92	LYS
50	K8	15	LYS
50	K8	16	LEU
50	K8	17	SER
50	K8	19	VAL
50	K8	20	GLU
50	K8	24	LEU
50	K8	25	VAL
50	K8	32	LEU
50	K8	35	LEU
50	K8	40	SER
50	K8	41	ILE
50	K8	44	LEU
50	K8	46	GLN
50	K8	47	ASN
50	K8	48	HIS
50	K8	51	ARG
50	K8	53	LEU
50	K8	55	ARG
50	K8	59	ARG
50	K8	62	THR
50	K8	64	LEU
50	K8	65	ASN
51	L8	4	LEU
51	L8	6	VAL
51	L8	8	LEU
51	L8	9	VAL
51	L8	10	LYS
51	L8	23	LEU

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Mol	Chain	Res	Type
51	L8	26	LEU
51	L8	31	LEU
51	L8	37	LEU
51	L8	40	THR
51	L8	43	ILE
51	L8	58	VAL
51	L8	59	VAL
52	M8	8	LYS
52	M8	10	VAL
52	M8	15	ILE
52	M8	16	CYS
52	M8	20	ASN
52	M8	23	GLU
52	M8	25	TYR
52	M8	30	GLU
52	M8	31	ILE
52	M8	35	VAL
52	M8	42	PHE
52	M8	47	GLN
53	N8	3	LYS
53	N8	11	THR
53	N8	16	ARG
53	N8	26	THR
53	N8	35	GLU
53	N8	37	LYS
53	N8	44	THR
53	N8	46	CYS
54	P8	4	THR
54	P8	8	ASN
54	P8	14	LYS
54	P8	22	MET
54	P8	23	ARG
54	P8	43	THR
55	Q8	4	MET
55	Q8	14	VAL
55	Q8	16	ILE
55	Q8	17	THR
55	Q8	32	LEU
55	Q8	34	TRP
55	Q8	35	GLN
55	Q8	41	ILE
55	Q8	43	GLN

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Mol	Chain	Res	Type
55	Q8	47	LYS
55	Q8	49	VAL
55	Q8	50	LEU
55	Q8	59	LYS
55	Q8	62	LEU
2	12	19	HIS
2	12	22	LYS
2	12	23	ARG
2	12	42	ILE
2	12	52	GLU
2	12	53	ARG
2	12	54	THR
2	12	73	THR
2	12	74	LYS
2	12	80	ILE
2	12	83	MET
2	12	84	GLU
2	12	108	ILE
2	12	126	GLU
2	12	127	ILE
2	12	129	GLU
2	12	130	ARG
2	12	139	LYS
2	12	155	LEU
2	12	158	LEU
2	12	168	THR
2	12	172	ILE
2	12	187	LEU
2	12	191	ASP
2	12	196	LEU
2	12	200	ILE
2	12	209	ARG
2	12	211	ILE
2	12	212	GLN
2	12	213	LEU
2	12	220	ASP
3	22	27	LYS
3	22	34	LEU
3	22	45	LYS
3	22	52	LEU
3	22	54	ARG
3	22	76	VAL

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Mol	Chain	Res	Type
3	22	88	ARG
3	22	90	GLU
3	22	93	LYS
3	22	94	LEU
3	22	105	GLU
3	22	122	GLU
3	22	124	ILE
3	22	127	ARG
3	22	131	ARG
3	22	132	ARG
3	22	138	VAL
3	22	140	ARG
3	22	141	VAL
3	22	142	MET
3	22	152	ILE
3	22	166	GLU
3	22	167	TRP
3	22	176	HIS
3	22	182	ILE
3	22	188	LEU
3	22	192	THR
3	22	195	VAL
3	22	196	LEU
3	22	198	VAL
3	22	202	ILE
3	22	204	LEU
4	32	3	ARG
4	32	7	PRO
4	32	13	ARG
4	32	19	LEU
4	32	21	LEU
4	32	22	LYS
4	32	61	LYS
4	32	66	ARG
4	32	73	ARG
4	32	74	GLN
4	32	76	ARG
4	32	78	LEU
4	32	83	SER
4	32	85	LYS
4	32	86	LYS
4	32	89	THR

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Mol	Chain	Res	Type
4	32	98	GLU
4	32	99	SER
4	32	101	LEU
4	32	106	TYR
4	32	122	ARG
4	32	131	ARG
4	32	135	LEU
4	32	140	VAL
4	32	141	ARG
4	32	145	GLU
4	32	146	ILE
4	32	150	GLU
4	32	152	SER
4	32	157	LEU
4	32	162	LEU
4	32	165	MET
4	32	168	ARG
4	32	176	LEU
4	32	179	GLU
4	32	182	LYS
4	32	184	LYS
4	32	191	ARG
4	32	193	ASP
4	32	194	LEU
4	32	196	LEU
4	32	201	GLN
5	42	7	GLU
5	42	13	ILE
5	42	15	ARG
5	42	31	LEU
5	42	41	VAL
5	42	45	PHE
5	42	47	LYS
5	42	50	GLU
5	42	53	LEU
5	42	56	GLN
5	42	61	TYR
5	42	64	ARG
5	42	66	MET
5	42	68	GLU
5	42	73	ASN
5	42	79	GLU

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Mol	Chain	Res	Type
5	42	83	GLU
5	42	98	THR
5	42	115	VAL
5	42	118	ILE
5	42	126	ARG
5	42	127	ASN
5	42	131	ILE
5	42	143	ARG
5	42	153	LYS
6	52	5	GLU
6	52	7	ASN
6	52	14	LEU
6	52	15	ASP
6	52	16	GLN
6	52	19	LEU
6	52	21	LEU
6	52	23	LYS
6	52	28	ARG
6	52	36	ARG
6	52	37	VAL
6	52	46	ARG
6	52	47	ARG
6	52	54	LYS
6	52	69	GLU
6	52	78	GLU
6	52	81	ILE
6	52	91	VAL
6	52	94	GLN
7	62	9	VAL
7	62	16	LEU
7	62	23	VAL
7	62	32	ARG
7	62	35	LYS
7	62	51	GLN
7	62	64	GLN
7	62	66	VAL
7	62	70	LYS
7	62	72	ARG
7	62	73	MET
7	62	87	VAL
7	62	91	VAL
7	62	94	ARG

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Mol	Chain	Res	Type
7	62	101	LEU
7	62	104	LEU
7	62	118	VAL
7	62	131	LYS
7	62	137	LYS
7	62	138	LYS
7	62	142	GLU
7	62	143	ARG
7	62	144	MET
8	72	2	LEU
8	72	15	ASN
8	72	19	VAL
8	72	21	LYS
8	72	26	VAL
8	72	33	GLU
8	72	42	GLU
8	72	45	ILE
8	72	50	ARG
8	72	63	LEU
8	72	69	ARG
8	72	70	GLN
8	72	78	GLN
8	72	82	HIS
8	72	86	ILE
8	72	99	GLU
8	72	102	ARG
8	72	104	ARG
8	72	109	ILE
8	72	119	LEU
8	72	121	ASP
8	72	125	ARG
8	72	126	LYS
8	72	127	LEU
8	72	137	VAL
9	82	5	TYR
9	82	7	THR
9	82	10	ARG
9	82	14	VAL
9	82	18	PHE
9	82	20	ARG
9	82	25	LYS
9	82	27	THR

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Mol	Chain	Res	Type
9	82	33	PHE
9	82	34	ASN
9	82	40	LEU
9	82	42	ARG
9	82	48	GLU
9	82	53	VAL
9	82	60	ASP
9	82	79	LEU
9	82	86	VAL
9	82	95	LYS
9	82	96	LEU
9	82	99	LEU
9	82	109	VAL
9	82	117	HIS
10	1A	14	LYS
10	1A	16	LEU
10	1A	17	ASP
10	1A	21	GLN
10	1A	23	ILE
10	1A	24	VAL
10	1A	25	GLU
10	1A	28	ARG
10	1A	29	ARG
10	1A	38	ILE
10	1A	40	LEU
10	1A	48	THR
10	1A	49	VAL
10	1A	55	LYS
10	1A	57	LYS
10	1A	58	ASP
10	1A	62	HIS
10	1A	66	ARG
10	1A	70	ARG
10	1A	71	LEU
10	1A	72	VAL
10	1A	79	ARG
10	1A	80	LYS
10	1A	84	GLN
10	1A	85	LEU
10	1A	92	THR
11	2A	14	VAL
11	2A	29	ILE

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Mol	Chain	Res	Type
11	2A	44	SER
11	2A	54	ARG
11	2A	57	THR
11	2A	63	LEU
11	2A	78	GLN
11	2A	81	ASP
11	2A	84	VAL
11	2A	92	GLU
11	2A	93	GLN
11	2A	95	ILE
11	2A	98	LEU
11	2A	103	LEU
11	2A	105	VAL
12	3A	13	LYS
12	3A	16	GLU
12	3A	17	LYS
12	3A	23	LYS
12	3A	27	LEU
12	3A	33	ARG
12	3A	34	ARG
12	3A	36	VAL
12	3A	39	VAL
12	3A	41	ARG
12	3A	42	THR
12	3A	43	VAL
12	3A	54	LYS
12	3A	55	VAL
12	3A	59	ARG
12	3A	78	GLN
12	3A	82	VAL
12	3A	83	VAL
12	3A	84	LEU
12	3A	85	ILE
12	3A	96	VAL
12	3A	102	ARG
12	3A	111	LYS
12	3A	118	SER
12	3A	126	LYS
13	4A	8	GLU
13	4A	9	ILE
13	4A	13	LYS
13	4A	14	ARG

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Mol	Chain	Res	Type
13	4A	16	ASP
13	4A	39	ILE
13	4A	48	LEU
13	4A	54	VAL
13	4A	57	ARG
13	4A	58	GLU
13	4A	61	GLU
13	4A	62	ASN
13	4A	66	LEU
13	4A	81	LEU
13	4A	82	MET
13	4A	84	ILE
13	4A	86	CYS
13	4A	90	LEU
13	4A	91	ARG
13	4A	94	ARG
13	4A	103	THR
13	4A	105	THR
13	4A	108	ARG
13	4A	115	LYS
13	4A	117	VAL
14	5A	3	ARG
14	5A	4	LYS
14	5A	7	ILE
14	5A	12	ARG
14	5A	17	LYS
14	5A	18	VAL
14	5A	25	VAL
14	5A	26	ARG
14	5A	32	SER
14	5A	44	LEU
15	6A	3	ILE
15	6A	10	LYS
15	6A	14	GLU
15	6A	17	ARG
15	6A	22	THR
15	6A	27	VAL
15	6A	31	LEU
15	6A	39	LEU
15	6A	41	GLU
15	6A	45	VAL
15	6A	47	LYS

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Mol	Chain	Res	Type
15	6A	79	ARG
15	6A	84	LYS
16	7A	2	VAL
16	7A	5	ARG
16	7A	6	LEU
16	7A	12	LYS
16	7A	19	ILE
16	7A	21	VAL
16	7A	25	ARG
16	7A	27	LYS
16	7A	35	LYS
16	7A	43	LYS
16	7A	51	VAL
16	7A	53	VAL
16	7A	54	GLU
16	7A	62	VAL
16	7A	65	GLN
16	7A	67	THR
16	7A	71	ARG
16	7A	74	LEU
16	7A	81	ARG
16	7A	82	GLN
16	7A	83	GLU
17	8A	7	THR
17	8A	10	VAL
17	8A	12	SER
17	8A	14	LYS
17	8A	15	MET
17	8A	31	LEU
17	8A	38	ARG
17	8A	52	LYS
17	8A	60	ILE
17	8A	62	SER
17	8A	66	SER
17	8A	68	ARG
17	8A	74	LEU
17	8A	87	LYS
17	8A	96	GLU
17	8A	100	LYS
18	9A	23	LYS
18	9A	26	LEU
18	9A	29	PHE

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Mol	Chain	Res	Type
18	9A	35	ARG
18	9A	36	ASN
18	9A	38	GLU
18	9A	44	LEU
18	9A	46	GLU
18	9A	53	ARG
18	9A	54	ARG
18	9A	55	ARG
18	9A	65	ILE
18	9A	74	ARG
18	9A	82	THR
18	9A	84	LYS
18	9A	86	VAL
19	AA	7	LYS
19	AA	13	ASP
19	AA	15	LEU
19	AA	20	LEU
19	AA	21	GLU
19	AA	22	LEU
19	AA	35	SER
19	AA	38	SER
19	AA	41	VAL
19	AA	48	THR
19	AA	57	HIS
19	AA	60	VAL
19	AA	70	LYS
19	AA	71	LEU
20	BA	10	LEU
20	BA	11	SER
20	BA	23	ARG
20	BA	24	LEU
20	BA	27	LYS
20	BA	36	LEU
20	BA	56	MET
20	BA	60	GLU
20	BA	61	SER
20	BA	62	LEU
20	BA	65	LYS
20	BA	73	HIS
20	BA	84	LEU
20	BA	88	VAL
20	BA	100	ILE

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Mol	Chain	Res	Type
20	BA	104	LEU
28	79	5	LYS
28	79	8	ARG
28	79	14	VAL
28	79	52	ARG
28	79	167	LYS
28	79	168	THR
28	79	202	GLU
28	79	207	THR
28	79	210	ARG
29	19	13	ARG
29	19	24	ILE
29	19	25	THR
29	19	26	LYS
29	19	27	THR
29	19	28	GLU
29	19	37	LEU
29	19	43	ARG
29	19	46	GLN
29	19	49	ILE
29	19	61	LEU
29	19	64	ILE
29	19	65	ILE
29	19	68	LYS
29	19	72	LYS
29	19	89	SER
29	19	94	LEU
29	19	103	ARG
29	19	105	ILE
29	19	111	LEU
29	19	116	GLN
29	19	118	VAL
29	19	125	ILE
29	19	136	ILE
29	19	141	VAL
29	19	142	VAL
29	19	147	LEU
29	19	157	ARG
29	19	169	GLU
29	19	173	VAL
29	19	175	LEU
29	19	176	ARG

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Mol	Chain	Res	Type
29	19	184	LYS
29	19	192	THR
29	19	193	VAL
29	19	204	ILE
29	19	211	ARG
29	19	217	ARG
29	19	226	MET
29	19	239	ARG
29	19	242	ARG
29	19	244	ARG
29	19	255	LYS
29	19	257	LEU
29	19	260	ARG
29	19	268	ARG
29	19	270	ILE
29	19	271	ILE
30	29	1	MET
30	29	5	LEU
30	29	11	MET
30	29	12	THR
30	29	25	VAL
30	29	27	LEU
30	29	37	ARG
30	29	38	THR
30	29	44	TYR
30	29	45	THR
30	29	48	GLN
30	29	49	LEU
30	29	52	LEU
30	29	54	GLN
30	29	57	LYS
30	29	63	LEU
30	29	66	HIS
30	29	72	VAL
30	29	76	ARG
30	29	77	ILE
30	29	79	ARG
30	29	87	GLU
30	29	89	ASP
30	29	90	THR
30	29	93	VAL
30	29	111	ARG

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Mol	Chain	Res	Type
30	29	117	MET
30	29	118	LYS
30	29	134	ILE
30	29	135	HIS
30	29	144	ARG
30	29	146	THR
30	29	152	LYS
30	29	154	LYS
30	29	167	VAL
30	29	170	LEU
30	29	175	VAL
30	29	181	LEU
30	29	182	LEU
30	29	185	LYS
30	29	188	VAL
30	29	197	ILE
30	29	201	THR
30	29	202	LYS
31	39	6	VAL
31	39	7	TYR
31	39	11	VAL
31	39	13	SER
31	39	18	ARG
31	39	23	ASP
31	39	24	LEU
31	39	28	ILE
31	39	33	LEU
31	39	38	ARG
31	39	50	SER
31	39	57	VAL
31	39	67	GLN
31	39	70	THR
31	39	74	ARG
31	39	78	ILE
31	39	82	ILE
31	39	83	PHE
31	39	88	VAL
31	39	100	THR
31	39	105	VAL
31	39	110	LEU
31	39	114	VAL
31	39	123	LEU

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Mol	Chain	Res	Type
31	39	127	GLU
31	39	140	LEU
31	39	145	GLU
31	39	152	GLU
31	39	158	THR
31	39	165	ARG
31	39	170	LEU
31	39	190	GLU
31	39	192	LEU
31	39	194	MET
31	39	196	LEU
31	39	201	VAL
31	39	203	GLN
31	39	205	ARG
32	49	7	LEU
32	49	20	ILE
32	49	28	VAL
32	49	35	GLU
32	49	41	GLN
32	49	49	ASP
32	49	51	ARG
32	49	71	THR
32	49	74	LYS
32	49	76	SER
32	49	80	PHE
32	49	91	ARG
32	49	104	GLU
32	49	106	LEU
32	49	109	VAL
32	49	116	ASP
32	49	128	ARG
32	49	136	ARG
32	49	139	LEU
32	49	144	ILE
32	49	152	LEU
32	49	157	ILE
32	49	159	VAL
32	49	162	THR
32	49	176	LEU
32	49	181	ARG
33	59	2	SER
33	59	6	ARG

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Mol	Chain	Res	Type
33	59	61	HIS
33	59	64	LEU
33	59	67	LEU
33	59	68	THR
33	59	79	VAL
33	59	143	GLN
33	59	148	ILE
33	59	149	ARG
33	59	159	GLU
33	59	167	GLU
34	69	1	MET
34	69	2	LYS
34	69	4	ILE
34	69	7	GLU
34	69	10	GLU
34	69	18	VAL
34	69	27	ARG
34	69	33	ARG
34	69	37	VAL
34	69	47	LEU
34	69	50	ARG
34	69	51	ILE
34	69	60	GLU
34	69	61	ARG
34	69	62	LYS
34	69	67	ARG
34	69	75	LEU
34	69	76	THR
34	69	77	LEU
34	69	78	THR
34	69	81	VAL
34	69	86	THR
34	69	103	ARG
34	69	105	HIS
34	69	108	THR
34	69	109	ILE
34	69	112	LYS
34	69	114	LEU
34	69	116	LEU
34	69	117	GLU
34	69	125	GLU
34	69	128	LEU

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Mol	Chain	Res	Type
34	69	131	LYS
34	69	133	HIS
34	69	136	VAL
34	69	138	ILE
34	69	142	VAL
35	15	1	MET
35	15	9	VAL
35	15	12	ARG
35	15	15	LEU
35	15	28	THR
35	15	32	THR
35	15	34	LEU
35	15	37	LYS
35	15	38	HIS
35	15	43	THR
35	15	46	VAL
35	15	48	MET
35	15	59	LYS
35	15	60	ILE
35	15	61	ARG
35	15	63	THR
35	15	68	GLU
35	15	71	ILE
35	15	85	ILE
35	15	89	LYS
35	15	90	MET
35	15	93	THR
35	15	94	HIS
35	15	99	LEU
35	15	130	HIS
35	15	131	GLN
35	15	136	GLU
36	25	1	MET
36	25	5	GLN
36	25	9	GLU
36	25	10	VAL
36	25	14	THR
36	25	19	ILE
36	25	22	ILE
36	25	24	VAL
36	25	26	LYS
36	25	35	VAL

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Mol	Chain	Res	Type
36	25	38	VAL
36	25	39	ILE
36	25	47	ILE
36	25	49	ARG
36	25	52	VAL
36	25	53	LYS
36	25	62	VAL
36	25	70	LYS
36	25	86	ILE
36	25	87	ILE
36	25	91	LEU
36	25	94	ARG
36	25	96	THR
36	25	108	GLU
36	25	113	LYS
36	25	115	VAL
36	25	117	LEU
37	35	4	SER
37	35	5	ASP
37	35	6	LEU
37	35	10	PRO
37	35	21	ARG
37	35	29	LYS
37	35	36	LYS
37	35	41	ARG
37	35	45	LEU
37	35	52	GLU
37	35	59	LEU
37	35	62	LEU
37	35	65	ARG
37	35	67	MET
37	35	75	ILE
37	35	76	LYS
37	35	77	ARG
37	35	79	ARG
37	35	81	GLN
37	35	84	ASN
37	35	85	LEU
37	35	88	LEU
37	35	91	PHE
37	35	94	GLU
37	35	95	VAL

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Mol	Chain	Res	Type
37	35	96	THR
37	35	98	GLU
37	35	105	LEU
37	35	106	LEU
37	35	112	LEU
37	35	117	GLU
37	35	125	VAL
37	35	132	LYS
37	35	133	SER
37	35	136	GLU
37	35	138	LEU
37	35	144	GLU
38	45	3	MET
38	45	7	MET
38	45	18	LYS
38	45	45	GLN
38	45	56	ARG
38	45	60	ARG
38	45	63	LYS
38	45	66	ILE
38	45	76	LYS
38	45	77	LYS
38	45	85	LYS
38	45	89	ASN
38	45	90	VAL
38	45	96	VAL
38	45	103	MET
38	45	110	THR
38	45	111	GLU
38	45	115	MET
38	45	118	LEU
38	45	131	ILE
38	45	134	ARG
38	45	139	GLU
39	55	9	LYS
39	55	15	SER
39	55	18	LEU
39	55	28	LEU
39	55	29	LEU
39	55	33	ARG
39	55	43	GLU
39	55	44	LEU

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Mol	Chain	Res	Type
39	55	65	LEU
39	55	67	LEU
39	55	71	GLN
39	55	74	LYS
39	55	75	LEU
39	55	78	LYS
39	55	79	LEU
39	55	81	ASP
39	55	82	GLU
39	55	88	ARG
39	55	95	THR
39	55	97	VAL
39	55	98	LEU
39	55	100	LEU
39	55	103	ARG
40	65	4	LEU
40	65	12	PHE
40	65	13	ARG
40	65	19	LYS
40	65	20	ARG
40	65	21	THR
40	65	23	ARG
40	65	24	LEU
40	65	28	VAL
40	65	36	TYR
40	65	39	ILE
40	65	40	ILE
40	65	43	GLU
40	65	44	LYS
40	65	56	LEU
40	65	64	GLU
40	65	65	VAL
40	65	68	GLN
40	65	69	VAL
40	65	83	LYS
40	65	85	VAL
40	65	89	ARG
40	65	98	VAL
40	65	101	LEU
40	65	106	ARG
40	65	107	GLU
41	75	1	MET

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Mol	Chain	Res	Type
41	75	7	ILE
41	75	8	LYS
41	75	13	ARG
41	75	15	VAL
41	75	17	THR
41	75	19	LEU
41	75	28	VAL
41	75	30	VAL
41	75	34	VAL
41	75	36	GLU
41	75	39	ARG
41	75	40	THR
41	75	48	ILE
41	75	51	ARG
41	75	52	ILE
41	75	54	ARG
41	75	60	THR
41	75	62	THR
41	75	64	ARG
41	75	86	ILE
41	75	88	ILE
41	75	89	VAL
41	75	91	ARG
41	75	93	ARG
41	75	105	LEU
41	75	106	SER
41	75	107	ASP
41	75	110	ILE
41	75	112	ARG
41	75	113	LYS
41	75	118	ARG
41	75	132	LYS
41	75	133	GLU
42	85	6	THR
42	85	15	LYS
42	85	17	ILE
42	85	27	LEU
42	85	34	LYS
42	85	52	ARG
42	85	55	ARG
42	85	60	LEU
42	85	64	ARG

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Mol	Chain	Res	Type
42	85	71	GLN
42	85	74	LEU
42	85	78	THR
42	85	105	VAL
42	85	114	LYS
43	95	13	ARG
43	95	15	GLU
43	95	18	LEU
43	95	35	LEU
43	95	38	LEU
43	95	39	LEU
43	95	45	THR
43	95	46	VAL
43	95	57	VAL
43	95	62	LEU
43	95	72	VAL
43	95	74	LYS
43	95	79	VAL
43	95	80	GLN
43	95	84	LYS
43	95	85	LYS
43	95	89	GLN
43	95	91	TYR
44	A5	11	ARG
44	A5	19	LEU
44	A5	20	VAL
44	A5	23	LEU
44	A5	39	THR
44	A5	40	ASN
44	A5	41	LYS
44	A5	51	LEU
44	A5	52	GLU
44	A5	65	LEU
44	A5	68	ARG
44	A5	76	VAL
44	A5	78	GLU
44	A5	84	ARG
44	A5	85	VAL
44	A5	88	ARG
44	A5	96	ILE
44	A5	100	THR
44	A5	106	ILE

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Mol	Chain	Res	Type
44	A5	107	LEU
44	A5	111	HIS
45	B5	12	VAL
45	B5	23	GLU
45	B5	27	THR
45	B5	30	VAL
45	B5	35	THR
45	B5	37	THR
45	B5	40	LYS
45	B5	43	VAL
45	B5	45	THR
45	B5	49	VAL
45	B5	52	VAL
45	B5	53	LYS
45	B5	54	VAL
45	B5	57	LEU
45	B5	63	LYS
45	B5	65	ARG
45	B5	69	TYR
45	B5	70	LEU
45	B5	72	LYS
45	B5	76	ARG
45	B5	78	LYS
45	B5	80	ILE
45	B5	81	VAL
45	B5	82	GLN
45	B5	88	LYS
46	C5	2	ARG
46	C5	3	VAL
46	C5	21	LYS
46	C5	24	VAL
46	C5	31	LEU
46	C5	33	LYS
46	C5	34	LYS
46	C5	38	ILE
46	C5	45	VAL
46	C5	46	LYS
46	C5	55	TYR
46	C5	60	PHE
46	C5	62	GLU
46	C5	63	LYS
46	C5	67	LEU

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Mol	Chain	Res	Type
46	C5	71	LYS
46	C5	72	VAL
46	C5	76	CYS
46	C5	79	CYS
46	C5	84	ARG
46	C5	85	VAL
46	C5	86	ARG
46	C5	88	LYS
46	C5	89	PHE
46	C5	97	ARG
46	C5	98	VAL
46	C5	101	LYS
46	C5	102	CYS
47	D5	5	LEU
47	D5	9	TYR
47	D5	13	GLU
47	D5	14	LYS
47	D5	19	ARG
47	D5	24	LEU
47	D5	27	VAL
47	D5	28	MET
47	D5	31	ARG
47	D5	34	ASN
47	D5	36	LYS
47	D5	37	VAL
47	D5	41	LEU
47	D5	53	ILE
47	D5	58	VAL
47	D5	59	LEU
47	D5	63	ASP
47	D5	70	LEU
47	D5	71	VAL
47	D5	74	VAL
47	D5	78	LYS
47	D5	84	GLU
47	D5	90	VAL
47	D5	91	LEU
47	D5	96	VAL
47	D5	125	LEU
47	D5	126	VAL
47	D5	131	ARG
47	D5	161	VAL

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Mol	Chain	Res	Type
48	E5	10	THR
48	E5	17	GLN
48	E5	23	VAL
48	E5	36	ILE
48	E5	38	VAL
48	E5	43	THR
48	E5	46	LYS
48	E5	53	MET
48	E5	62	LEU
48	E5	64	ASP
48	E5	68	GLU
48	E5	81	VAL
49	F5	4	VAL
49	F5	11	ARG
49	F5	17	SER
49	F5	21	ARG
49	F5	23	LYS
49	F5	25	LYS
49	F5	27	GLU
49	F5	34	THR
49	F5	35	THR
49	F5	38	SER
49	F5	40	ARG
49	F5	46	LEU
49	F5	51	VAL
49	F5	57	GLU
49	F5	67	ILE
49	F5	72	GLU
49	F5	73	LEU
49	F5	74	VAL
49	F5	76	ARG
49	F5	78	LYS
49	F5	80	LEU
49	F5	82	LEU
49	F5	83	GLU
49	F5	85	LEU
49	F5	90	ILE
49	F5	91	LYS
49	F5	95	LEU
50	G5	5	GLU
50	G5	7	ARG
50	G5	10	LEU

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Mol	Chain	Res	Type
50	G5	16	LEU
50	G5	24	LEU
50	G5	25	VAL
50	G5	26	ARG
50	G5	30	ARG
50	G5	32	LEU
50	G5	43	GLN
50	G5	46	GLN
50	G5	47	ASN
50	G5	48	HIS
50	G5	50	ILE
50	G5	53	LEU
50	G5	54	LYS
50	G5	57	ILE
50	G5	60	LEU
51	H5	4	LEU
51	H5	8	LEU
51	H5	9	VAL
51	H5	16	PRO
51	H5	24	LYS
51	H5	30	ARG
51	H5	31	LEU
51	H5	33	GLN
51	H5	37	LEU
51	H5	38	GLU
51	H5	40	THR
51	H5	55	ARG
51	H5	56	VAL
53	J5	6	VAL
53	J5	15	ARG
53	J5	16	ARG
53	J5	25	LEU
53	J5	35	GLU
53	J5	48	GLU
53	J5	49	CYS
53	J5	55	ARG
54	L5	1	MET
54	L5	4	THR
54	L5	8	ASN
54	L5	9	ARG
54	L5	43	THR
55	M5	6	THR

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Mol	Chain	Res	Type
55	M5	23	VAL
55	M5	32	LEU
55	M5	41	ILE
55	M5	56	GLU
55	M5	57	ARG
55	M5	58	ILE
55	M5	60	LEU
55	M5	64	TYR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (66) such sidechains are listed below:

Mol	Chain	Res	Type
3	2E	110	ASN
4	3E	74	GLN
5	4E	141	GLN
6	5E	13	ASN
7	6E	86	GLN
9	8E	38	GLN
9	8E	58	HIS
9	8E	117	HIS
11	2I	93	GLN
17	8I	45	HIS
19	AI	23	ASN
20	BI	9	ASN
28	71	56	GLN
28	71	225	ASN
29	11	112	GLN
29	11	201	HIS
29	11	227	ASN
30	21	137	HIS
31	31	75	HIS
31	31	160	ASN
31	31	203	GLN
32	41	58	GLN
32	41	123	ASN
39	98	24	GLN
43	D8	80	GLN
47	H8	85	HIS
50	K8	48	HIS
52	M8	40	HIS
2	12	40	HIS
3	22	37	GLN

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Mol	Chain	Res	Type
3	22	162	GLN
4	32	123	HIS
4	32	125	HIS
7	62	51	GLN
7	62	97	GLN
8	72	15	ASN
9	82	29	ASN
9	82	34	ASN
9	82	38	GLN
9	82	87	GLN
10	1A	13	HIS
10	1A	84	GLN
11	2A	99	GLN
12	3A	9	GLN
12	3A	80	HIS
14	5A	49	HIS
15	6A	71	GLN
17	8A	45	HIS
19	AA	23	ASN
19	AA	57	HIS
28	79	57	ASN
33	59	61	HIS
33	59	65	HIS
34	69	104	GLN
35	15	131	GLN
37	35	35	HIS
37	35	70	GLN
37	35	128	HIS
38	45	89	ASN
39	55	3	HIS
39	55	71	GLN
41	75	2	ASN
44	A5	60	ASN
47	D5	75	ASN
50	G5	65	ASN
53	J5	4	HIS

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	13	1493/1522 (98%)	364 (24%)	29 (1%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1G	1506/1522 (98%)	367 (24%)	27 (1%)
22	1K	68/75 (90%)	28 (41%)	2 (2%)
23	2K	76/77 (98%)	22 (28%)	1 (1%)
23	2L	76/77 (98%)	14 (18%)	2 (2%)
24	3K	75/76 (98%)	42 (56%)	4 (5%)
25	4K	18/27 (66%)	13 (72%)	2 (11%)
25	4L	17/27 (62%)	9 (52%)	0
26	14	2853/2917 (97%)	734 (25%)	38 (1%)
26	1H	2829/2917 (96%)	723 (25%)	50 (1%)
27	16	121/122 (99%)	24 (19%)	1 (0%)
27	1J	121/122 (99%)	35 (28%)	1 (0%)
56	1L	70/76 (92%)	28 (40%)	4 (5%)
57	3L	75/76 (98%)	35 (46%)	1 (1%)
All	All	9398/9633 (97%)	2438 (25%)	162 (1%)

All (2438) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	13	2	U
1	13	5	U
1	13	6	G
1	13	9	G
1	13	15	G
1	13	19	C
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	63	C
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	76	G

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Mol	Chain	Res	Type
1	13	95	G
1	13	96	G
1	13	97	U
1	13	99	C
1	13	101	A
1	13	106	C
1	13	115	G
1	13	116	A
1	13	121	C
1	13	122	G
1	13	131	C
1	13	142	G
1	13	144	G
1	13	145	G
1	13	150	C
1	13	151	A
1	13	160	A
1	13	163	C
1	13	169	C
1	13	172	A
1	13	173	U
1	13	174	C
1	13	186(F)	C
1	13	189	U
1	13	190	G
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	226	G
1	13	231	G
1	13	232	G
1	13	243	A
1	13	244	U
1	13	245	C
1	13	247	G

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Mol	Chain	Res	Type
1	13	251	G
1	13	262	A
1	13	266	G
1	13	267	C
1	13	270	A
1	13	280	C
1	13	289	G
1	13	305	G
1	13	316	G
1	13	317	G
1	13	321	A
1	13	328	C
1	13	329	A
1	13	330	C
1	13	332	G
1	13	341	C
1	13	344	A
1	13	345	C
1	13	346	G
1	13	347	G
1	13	352	C
1	13	353	A
1	13	354	G
1	13	356	A
1	13	365	U
1	13	367	U
1	13	372	C
1	13	382	A
1	13	390	C
1	13	392	G
1	13	397	A
1	13	398	C
1	13	406	G
1	13	411	A
1	13	412	A
1	13	414	A
1	13	418	C
1	13	422	C
1	13	423	G
1	13	424	G
1	13	429	U
1	13	430	A

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Mol	Chain	Res	Type
1	13	438	G
1	13	439	A
1	13	452	A
1	13	466	C
1	13	467	G
1	13	475	G
1	13	484	G
1	13	485	G
1	13	496	A
1	13	497	U
1	13	505	G
1	13	509	A
1	13	510	A
1	13	511	C
1	13	513	C
1	13	518	C
1	13	519	C
1	13	521	G
1	13	524	G
1	13	525	C
1	13	527	G
1	13	531	U
1	13	532	A
1	13	534	U
1	13	536	C
1	13	547	A
1	13	550	G
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	581	G
1	13	587	G
1	13	596	C
1	13	607	A
1	13	617	G
1	13	630	G
1	13	633	G
1	13	650	G

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Mol	Chain	Res	Type
1	13	652	U
1	13	653	A
1	13	661	G
1	13	664	G
1	13	665	A
1	13	687	A
1	13	688	G
1	13	701	C
1	13	719	C
1	13	721	G
1	13	723	U
1	13	724	G
1	13	747	C
1	13	749	C
1	13	752	G
1	13	753	A
1	13	755	G
1	13	763	G
1	13	769	G
1	13	774	G
1	13	777	A
1	13	787	A
1	13	793	U
1	13	794	A
1	13	796	C
1	13	801	U
1	13	805	C
1	13	812	C
1	13	813	U
1	13	815	A
1	13	817	C
1	13	818	G
1	13	819	A
1	13	821	G
1	13	828	A
1	13	841	U
1	13	842	C
1	13	843	U
1	13	848	C
1	13	849	C
1	13	855	G
1	13	859	A

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Mol	Chain	Res	Type
1	13	864	A
1	13	869	G
1	13	870	U
1	13	871	U
1	13	872	A
1	13	876	G
1	13	902	G
1	13	914	A
1	13	926	G
1	13	927	G
1	13	933	G
1	13	934	C
1	13	936	C
1	13	938	A
1	13	942	G
1	13	960	U
1	13	968	A
1	13	969	A
1	13	971	G
1	13	974	A
1	13	975	A
1	13	976	G
1	13	977	A
1	13	978	A
1	13	984	C
1	13	993	G
1	13	998	G
1	13	999	U
1	13	1004	A
1	13	1005	A
1	13	1006	C
1	13	1008	C
1	13	1009	G
1	13	1012	U
1	13	1021	G
1	13	1022	G
1	13	1024	G
1	13	1025	U
1	13	1026	G
1	13	1028(A)	C
1	13	1029	G
1	13	1030	C

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Mol	Chain	Res	Type
1	13	1031	G
1	13	1032	A
1	13	1032(A)	G
1	13	1032(B)	G
1	13	1035	A
1	13	1037	C
1	13	1042	G
1	13	1054	C
1	13	1055	A
1	13	1063	C
1	13	1064	G
1	13	1065	U
1	13	1066	C
1	13	1067	A
1	13	1081	G
1	13	1094	G
1	13	1095	U
1	13	1101	A
1	13	1108	G
1	13	1124	G
1	13	1125	U
1	13	1126	U
1	13	1127	G
1	13	1129	C
1	13	1130	A
1	13	1131	G
1	13	1132	C
1	13	1133	G
1	13	1134	G
1	13	1136	U
1	13	1137	C
1	13	1138	G
1	13	1139	G
1	13	1141	C
1	13	1145	C
1	13	1146	A
1	13	1152	A
1	13	1154	G
1	13	1157	A
1	13	1158	C
1	13	1160	G
1	13	1161	C

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Mol	Chain	Res	Type
1	13	1171	G
1	13	1177	G
1	13	1178	G
1	13	1179	A
1	13	1180	A
1	13	1181	G
1	13	1188	A
1	13	1189	C
1	13	1190	G
1	13	1196	U
1	13	1197	G
1	13	1201	A
1	13	1203	C
1	13	1213	A
1	13	1215	G
1	13	1220	G
1	13	1225	A
1	13	1226	C
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	1262	C
1	13	1268	A
1	13	1273	G
1	13	1275	A
1	13	1278	U
1	13	1279	A
1	13	1280	A
1	13	1281	U
1	13	1286	A
1	13	1287	A
1	13	1288	A
1	13	1290	G
1	13	1299	A
1	13	1300	G
1	13	1301	U
1	13	1320	C

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Mol	Chain	Res	Type
1	13	1323	G
1	13	1331	G
1	13	1336	C
1	13	1337	G
1	13	1338	G
1	13	1346	A
1	13	1347	G
1	13	1350	A
1	13	1352	C
1	13	1353	G
1	13	1362(A)	C
1	13	1363	A
1	13	1368	G
1	13	1370	G
1	13	1378	C
1	13	1381	U
1	13	1398	A
1	13	1401	G
1	13	1406	U
1	13	1419	G
1	13	1436	U
1	13	1442	G
1	13	1443	G
1	13	1446	A
1	13	1450	U
1	13	1451	A
1	13	1452	C
1	13	1453	G
1	13	1454	G
1	13	1475	G
1	13	1476	G
1	13	1487	G
1	13	1492	A
1	13	1497	G
1	13	1498	U
1	13	1499	A
1	13	1502	A
1	13	1504	G
1	13	1506	U
1	13	1514	C
1	13	1517	G
1	13	1529	G

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Mol	Chain	Res	Type
1	13	1530	G
1	13	1534	A
1	13	1535	C
1	13	1536	C
22	1K	2	G
22	1K	4	U
22	1K	9	A
22	1K	10	G
22	1K	11	C
22	1K	15	G
22	1K	18	G
22	1K	24	G
22	1K	25	C
22	1K	26	A
22	1K	30	G
22	1K	34	U8U
22	1K	47	U
22	1K	48	C
22	1K	49	G
22	1K	50	C
22	1K	56	C
22	1K	60	U
22	1K	61	C
22	1K	63	U
22	1K	68	G
22	1K	69	A
22	1K	70	C
22	1K	71	C
22	1K	72	C
22	1K	73	A
22	1K	74	C
22	1K	75	C
23	2K	2	G
23	2K	8	4SU
23	2K	9	G
23	2K	13	C
23	2K	17	C
23	2K	18	U
23	2K	20	G
23	2K	21	U
23	2K	22	A
23	2K	26	C

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Mol	Chain	Res	Type
23	2K	30	G
23	2K	35	C
23	2K	37	U
23	2K	42	C
23	2K	44	A
23	2K	47	G7M
23	2K	48	U
23	2K	49	C
23	2K	50	G
23	2K	53	G
23	2K	73	A
23	2K	77	A
24	3K	2	G
24	3K	3	G
24	3K	4	U
24	3K	8	U
24	3K	9	A
24	3K	10	G
24	3K	11	C
24	3K	15	G
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	25	C
24	3K	26	A
24	3K	27	G
24	3K	31	A
24	3K	32	C
24	3K	33	U
24	3K	34	U
24	3K	40	C
24	3K	44	U
24	3K	45	G
24	3K	46	G
24	3K	47	U
24	3K	48	C
24	3K	50	C
24	3K	51	A

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Mol	Chain	Res	Type
24	3K	52	G
24	3K	53	G
24	3K	55	U
24	3K	56	C
24	3K	58	A
24	3K	59	A
24	3K	60	U
24	3K	62	C
24	3K	66	A
24	3K	73	A
24	3K	74	C
24	3K	76	A
25	4K	7	G
25	4K	9	G
25	4K	10	G
25	4K	11	U
25	4K	12	A
25	4K	13	A
25	4K	14	A
25	4K	15	A
25	4K	18	G
25	4K	19	A
25	4K	22	A
25	4K	23	A
25	4K	24	A
26	1H	9	U
26	1H	12	U
26	1H	15	G
26	1H	26	G
26	1H	34	C
26	1H	35	G
26	1H	37	C
26	1H	39	C
26	1H	44	A
26	1H	46	C
26	1H	51	G
26	1H	56	A
26	1H	59	U
26	1H	61	G
26	1H	63	U
26	1H	66	C
26	1H	71	A

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Mol	Chain	Res	Type
26	1H	72	U
26	1H	74	A
26	1H	75	G
26	1H	85	G
26	1H	102	G
26	1H	114	U
26	1H	118	A
26	1H	119	A
26	1H	120	U
26	1H	123	G
26	1H	131	G
26	1H	138	G
26	1H	155	C
26	1H	162	U
26	1H	163	U
26	1H	164	U
26	1H	171	G
26	1H	172	C
26	1H	174	C
26	1H	181	A
26	1H	188	G
26	1H	196	A
26	1H	197	A
26	1H	199	A
26	1H	214	G
26	1H	215	G
26	1H	216	A
26	1H	217	G
26	1H	222	A
26	1H	223	A
26	1H	224	G
26	1H	227	A
26	1H	228	A
26	1H	229	A
26	1H	233	A
26	1H	243	U
26	1H	244	A
26	1H	248	G
26	1H	250	G
26	1H	252	G
26	1H	261	G
26	1H	267	C

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Mol	Chain	Res	Type
26	1H	269	U
26	1H	270(F)	U
26	1H	270(G)	C
26	1H	270(K)	C
26	1H	270(M)	U
26	1H	270(N)	G
26	1H	270(O)	U
26	1H	270(P)	C
26	1H	270(Q)	C
26	1H	270(R)	G
26	1H	271(C)	U
26	1H	271	G
26	1H	274	G
26	1H	275	G
26	1H	277	C
26	1H	278	A
26	1H	295	G
26	1H	299	A
26	1H	308	G
26	1H	311	A
26	1H	315	G
26	1H	323	G
26	1H	324	A
26	1H	329	G
26	1H	330	A
26	1H	331	A
26	1H	346	A
26	1H	352	G
26	1H	354	G
26	1H	357	A
26	1H	363	G
26	1H	363(A)	A
26	1H	363(C)	G
26	1H	363(E)	U
26	1H	364	C
26	1H	372	G
26	1H	375	C
26	1H	380	U
26	1H	382	G
26	1H	385	C
26	1H	386	G
26	1H	400	G

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Mol	Chain	Res	Type
26	1H	404	C
26	1H	405	U
26	1H	411	G
26	1H	415	A
26	1H	416	C
26	1H	418	G
26	1H	428	A
26	1H	436	C
26	1H	443	A
26	1H	444	C
26	1H	447	A
26	1H	448	U
26	1H	454	A
26	1H	455	C
26	1H	457	A
26	1H	459	U
26	1H	460	A
26	1H	470	A
26	1H	471	A
26	1H	478	A
26	1H	481	G
26	1H	482	A
26	1H	483	A
26	1H	494	G
26	1H	501	A
26	1H	505	A
26	1H	508	G
26	1H	509	C
26	1H	528	A
26	1H	529	A
26	1H	531	C
26	1H	532	A
26	1H	533	G
26	1H	548	A
26	1H	549	G
26	1H	556	G
26	1H	559	G
26	1H	563	G
26	1H	564	C
26	1H	570	G
26	1H	571	A
26	1H	573	G

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Mol	Chain	Res	Type
26	1H	575	A
26	1H	586	A
26	1H	588	U
26	1H	595	C
26	1H	603	A
26	1H	607	U
26	1H	617	G
26	1H	621	A
26	1H	622	G
26	1H	627	A
26	1H	632	A
26	1H	637	A
26	1H	640	C
26	1H	645	C
26	1H	646	A
26	1H	647	G
26	1H	654	A
26	1H	654(A)	A
26	1H	654(C)	G
26	1H	654(D)	G
26	1H	654(Q)	C
26	1H	654(S)	G
26	1H	654(T)	A
26	1H	664	C
26	1H	665	C
26	1H	669	G
26	1H	676	A
26	1H	686	G
26	1H	702	G
26	1H	703	U
26	1H	715	G
26	1H	716	A
26	1H	730	C
26	1H	739	G
26	1H	747	U
26	1H	748	G
26	1H	752	A
26	1H	753	C
26	1H	762	U
26	1H	764	A
26	1H	775	G
26	1H	776	G

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Mol	Chain	Res	Type
26	1H	777	A
26	1H	779	U
26	1H	782	A
26	1H	784	A
26	1H	785	G
26	1H	790	C
26	1H	791	C
26	1H	792	G
26	1H	805	G
26	1H	810	U
26	1H	812	C
26	1H	827	U
26	1H	828	U
26	1H	835	A
26	1H	845	G
26	1H	846	C
26	1H	855	G
26	1H	859	G
26	1H	860	U
26	1H	866	A
26	1H	870	A
26	1H	879	G
26	1H	880	G
26	1H	881	G
26	1H	882	G
26	1H	894	C
26	1H	898	C
26	1H	899	A
26	1H	900	A
26	1H	901	A
26	1H	904	C
26	1H	910	A
26	1H	917	A
26	1H	918	A
26	1H	932	G
26	1H	941	A
26	1H	945	A
26	1H	946	G
26	1H	953	A
26	1H	959	A
26	1H	961	C
26	1H	968	G

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Mol	Chain	Res	Type
26	1H	972	G
26	1H	973	A
26	1H	974	G
26	1H	974(A)	C
26	1H	980	A
26	1H	983	A
26	1H	995	C
26	1H	996	A
26	1H	997	G
26	1H	998	C
26	1H	1005	C
26	1H	1010	A
26	1H	1011	G
26	1H	1012	U
26	1H	1013	C
26	1H	1017	G
26	1H	1020	A
26	1H	1022	G
26	1H	1023	U
26	1H	1024	G
26	1H	1025	G
26	1H	1026	U
26	1H	1027	A
26	1H	1033	U
26	1H	1037	G
26	1H	1045	A
26	1H	1046	A
26	1H	1047	G
26	1H	1052	C
26	1H	1053	C
26	1H	1107	G
26	1H	1108	U
26	1H	1109	C
26	1H	1110	G
26	1H	1111	A
26	1H	1112	G
26	1H	1117	G
26	1H	1126	A
26	1H	1128	A
26	1H	1129	A
26	1H	1130	U
26	1H	1135	C

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Mol	Chain	Res	Type
26	1H	1136	G
26	1H	1138	G
26	1H	1139	G
26	1H	1142	U
26	1H	1142(A)	A
26	1H	1152	C
26	1H	1170	G
26	1H	1171	G
26	1H	1173	G
26	1H	1175	U
26	1H	1176	G
26	1H	1177	A
26	1H	1178	C
26	1H	1179	C
26	1H	1187	G
26	1H	1192	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	1218	C
26	1H	1220	A
26	1H	1221	C
26	1H	1228	G
26	1H	1229(A)	G
26	1H	1244	G
26	1H	1245	G
26	1H	1249	U
26	1H	1250	G
26	1H	1253	A
26	1H	1256	G
26	1H	1265	A
26	1H	1271	G
26	1H	1272	A
26	1H	1273	U
26	1H	1287	A
26	1H	1298	C
26	1H	1300	U
26	1H	1301	A
26	1H	1302	A

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Mol	Chain	Res	Type
26	1H	1305	C
26	1H	1321	A
26	1H	1329	U
26	1H	1332	G
26	1H	1338	G
26	1H	1345	C
26	1H	1348	G
26	1H	1349	A
26	1H	1352	U
26	1H	1358	G
26	1H	1359	A
26	1H	1360	A
26	1H	1365	A
26	1H	1370	C
26	1H	1373	A
26	1H	1374	G
26	1H	1378	A
26	1H	1379	A
26	1H	1380	G
26	1H	1384	A
26	1H	1385	G
26	1H	1386	C
26	1H	1388	G
26	1H	1395	A
26	1H	1396	U
26	1H	1397	U
26	1H	1403	C
26	1H	1404	C
26	1H	1407	C
26	1H	1416	G
26	1H	1417	C
26	1H	1420	U
26	1H	1421	G
26	1H	1427	A
26	1H	1428	C
26	1H	1429	G
26	1H	1437	C
26	1H	1441	G
26	1H	1444(A)	A
26	1H	1449(A)	G
26	1H	1455	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	1482	U
26	1H	1490	A
26	1H	1493	C
26	1H	1494	A
26	1H	1495	A
26	1H	1497	U
26	1H	1507	A
26	1H	1508	A
26	1H	1509	C
26	1H	1510	A
26	1H	1511	A
26	1H	1520	U
26	1H	1522	G
26	1H	1526	G
26	1H	1534	G
26	1H	1535	U
26	1H	1537	C
26	1H	1538	G
26	1H	1540	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	1565	C
26	1H	1566	A
26	1H	1569	A
26	1H	1576	U
26	1H	1577	C
26	1H	1578	U
26	1H	1580	A
26	1H	1585	C
26	1H	1586	A
26	1H	1594	G
26	1H	1606	G
26	1H	1608	A

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Mol	Chain	Res	Type
26	1H	1609	A
26	1H	1610	A
26	1H	1617	C
26	1H	1618	A
26	1H	1625	C
26	1H	1628	G
26	1H	1635	G
26	1H	1639	U
26	1H	1640	C
26	1H	1641	A
26	1H	1644	C
26	1H	1646	C
26	1H	1647	G
26	1H	1648	C
26	1H	1651	G
26	1H	1654	A
26	1H	1658	C
26	1H	1672	C
26	1H	1674	G
26	1H	1678	G
26	1H	1682	G
26	1H	1683	C
26	1H	1684	C
26	1H	1695	G
26	1H	1699	G
26	1H	1703	G
26	1H	1706	U
26	1H	1707	G
26	1H	1728	G
26	1H	1729	A
26	1H	1730	U
26	1H	1731	G
26	1H	1732	A
26	1H	1735	C
26	1H	1741	C
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

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Mol	Chain	Res	Type
26	1H	1774	C
26	1H	1777	U
26	1H	1782	C
26	1H	1791	A
26	1H	1799	G
26	1H	1800	C
26	1H	1801	G
26	1H	1802	A
26	1H	1805	U
26	1H	1806	C
26	1H	1811	G
26	1H	1816	G
26	1H	1819	A
26	1H	1827	C
26	1H	1828	G
26	1H	1829	A
26	1H	1830	C
26	1H	1834	U
26	1H	1835	G
26	1H	1839	G
26	1H	1847	A
26	1H	1858	G
26	1H	1869	G
26	1H	1870	C
26	1H	1878	G
26	1H	1882	C
26	1H	1889	A
26	1H	1895	C
26	1H	1896	G
26	1H	1900	A
26	1H	1901	A
26	1H	1906	G
26	1H	1913	A
26	1H	1914	C
26	1H	1915	U
26	1H	1919	A
26	1H	1926	U
26	1H	1929	G
26	1H	1930	G
26	1H	1931	U
26	1H	1938	A
26	1H	1945	G

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Mol	Chain	Res	Type
26	1H	1955	U
26	1H	1963	U
26	1H	1967	C
26	1H	1968	G
26	1H	1969	A
26	1H	1970	A
26	1H	1971	A
26	1H	1972	A
26	1H	1981	A
26	1H	1982	C
26	1H	1983	C
26	1H	1993	U
26	1H	1994	C
26	1H	1999	C
26	1H	2020	A
26	1H	2023	G
26	1H	2031	A
26	1H	2032	G
26	1H	2033	A
26	1H	2036	C
26	1H	2039	C
26	1H	2043	C
26	1H	2052	G
26	1H	2054	A
26	1H	2055	C
26	1H	2056	G
26	1H	2060	A
26	1H	2061	G
26	1H	2062	A
26	1H	2063	C
26	1H	2066	C
26	1H	2069	G
26	1H	2078	C
26	1H	2080	G
26	1H	2095	C
26	1H	2099	U
26	1H	2108	C
26	1H	2110	G
26	1H	2111	C
26	1H	2113	U
26	1H	2114	A
26	1H	2115	G

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Mol	Chain	Res	Type
26	1H	2116	G
26	1H	2117	A
26	1H	2124	G
26	1H	2125	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	2137	C
26	1H	2138	C
26	1H	2139	C
26	1H	2147	G
26	1H	2148	G
26	1H	2151	G
26	1H	2153	G
26	1H	2156	G
26	1H	2157	G
26	1H	2158	A
26	1H	2159	G
26	1H	2161	C
26	1H	2166	G
26	1H	2168	G
26	1H	2170	A
26	1H	2171	A
26	1H	2173	A
26	1H	2175	C
26	1H	2176	A
26	1H	2180	U
26	1H	2186	G
26	1H	2189	U
26	1H	2190	G
26	1H	2192	G
26	1H	2193	G
26	1H	2198	A
26	1H	2207	C
26	1H	2210	G
26	1H	2211	G

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Mol	Chain	Res	Type
26	1H	2212	A
26	1H	2215	G
26	1H	2225	A
26	1H	2226	C
26	1H	2238	G
26	1H	2240	C
26	1H	2271	G
26	1H	2273	A
26	1H	2275	C
26	1H	2280	G
26	1H	2283	C
26	1H	2287	A
26	1H	2291	U
26	1H	2305	A
26	1H	2307	G
26	1H	2308	G
26	1H	2310	A
26	1H	2314	C
26	1H	2320	A
26	1H	2321	G
26	1H	2325	G
26	1H	2327	A
26	1H	2334	G
26	1H	2336	A
26	1H	2337	G
26	1H	2346	A
26	1H	2347	C
26	1H	2350	C
26	1H	2354	G
26	1H	2360	A
26	1H	2364	C
26	1H	2372	G
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	2396	G
26	1H	2402	C
26	1H	2403	C
26	1H	2406	U

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Mol	Chain	Res	Type
26	1H	2410	G
26	1H	2418	A
26	1H	2422	A
26	1H	2423	U
26	1H	2424	C
26	1H	2425	A
26	1H	2428	G
26	1H	2429	G
26	1H	2430	A
26	1H	2431	U
26	1H	2434	A
26	1H	2435	A
26	1H	2439	A
26	1H	2440	C
26	1H	2441	C
26	1H	2445	G
26	1H	2448	A
26	1H	2450	A
26	1H	2451	A
26	1H	2452	C
26	1H	2458	G
26	1H	2468	G
26	1H	2474	C
26	1H	2476	A
26	1H	2477	C
26	1H	2478	A
26	1H	2481	G
26	1H	2487	G
26	1H	2494	G
26	1H	2497	A
26	1H	2502	G
26	1H	2505	G
26	1H	2506	U
26	1H	2507	C
26	1H	2518	A
26	1H	2529	G
26	1H	2531	A
26	1H	2554	U
26	1H	2566	A
26	1H	2567	G
26	1H	2573	C
26	1H	2582	G

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Mol	Chain	Res	Type
26	1H	2599	G
26	1H	2601	C
26	1H	2602	A
26	1H	2609	U
26	1H	2610	C
26	1H	2611	U
26	1H	2612	C
26	1H	2629	A
26	1H	2632	A
26	1H	2636	U
26	1H	2654	A
26	1H	2665	A
26	1H	2666	C
26	1H	2673	G
26	1H	2676	C
26	1H	2679	A
26	1H	2681	C
26	1H	2682	U
26	1H	2683	C
26	1H	2689	U
26	1H	2691	C
26	1H	2702	U
26	1H	2703	C
26	1H	2705	A
26	1H	2707	G
26	1H	2712(A)	A
26	1H	2713	A
26	1H	2714	G
26	1H	2718	G
26	1H	2719	G
26	1H	2723	C
26	1H	2726	U
26	1H	2733	A
26	1H	2738	A
26	1H	2739	U
26	1H	2742	C
26	1H	2744	G
26	1H	2749	A
26	1H	2755	C
26	1H	2756	U
26	1H	2757	A
26	1H	2764	A

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Mol	Chain	Res	Type
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
26	1H	2801	A
26	1H	2803	C
26	1H	2808	U
26	1H	2816	C
26	1H	2818	G
26	1H	2820	A
26	1H	2821	A
26	1H	2833	G
26	1H	2834	G
26	1H	2835	A
26	1H	2848	G
26	1H	2849	U
26	1H	2850	A
26	1H	2864	G
26	1H	2871	C
26	1H	2872	G
26	1H	2886	G
26	1H	2892	A
26	1H	2894	G
26	1H	2895	U
26	1H	2898	U
27	16	0	A
27	16	3	C
27	16	8	U
27	16	12	C
27	16	13	A
27	16	15	A
27	16	16	G
27	16	29	A

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Mol	Chain	Res	Type
27	16	33	G
27	16	39	A
27	16	45	A
27	16	47	C
27	16	51	G
27	16	56	G
27	16	65	C
27	16	66	A
27	16	72	G
27	16	73	A
27	16	82	G
27	16	89	G
27	16	92	G
27	16	105	G
27	16	109	G
27	16	115	G
1	1G	5	U
1	1G	7	G
1	1G	9	G
1	1G	24	U
1	1G	31	G
1	1G	32	A
1	1G	39	G
1	1G	41	G
1	1G	44	G
1	1G	47	C
1	1G	48	C
1	1G	50	A
1	1G	51	A
1	1G	54	C
1	1G	65	U
1	1G	76	G
1	1G	79	G
1	1G	81	G
1	1G	82	U
1	1G	88	C
1	1G	90	C
1	1G	91	C
1	1G	92	G
1	1G	93	U
1	1G	101	A
1	1G	103	C

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Mol	Chain	Res	Type
1	1G	105	G
1	1G	115	G
1	1G	116	A
1	1G	121	C
1	1G	127	G
1	1G	131	C
1	1G	144	G
1	1G	157	G
1	1G	161	A
1	1G	162	A
1	1G	163	C
1	1G	170	U
1	1G	182	U
1	1G	185	A
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	209	U
1	1G	210	U
1	1G	216	G
1	1G	240	C
1	1G	242	C
1	1G	247	G
1	1G	251	G
1	1G	256	U
1	1G	266	G
1	1G	267	C
1	1G	281	G
1	1G	289	G
1	1G	295	C
1	1G	298	A
1	1G	316	G
1	1G	321	A
1	1G	324	G
1	1G	328	C

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Mol	Chain	Res	Type
1	1G	329	A
1	1G	332	G
1	1G	346	G
1	1G	347	G
1	1G	350	G
1	1G	351	G
1	1G	352	C
1	1G	353	A
1	1G	354	G
1	1G	356	A
1	1G	363	A
1	1G	365	U
1	1G	366	C
1	1G	367	U
1	1G	372	C
1	1G	373	A
1	1G	384	G
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	414	A
1	1G	421	U
1	1G	422	C
1	1G	423	G
1	1G	424	G
1	1G	429	U
1	1G	433	C
1	1G	439	A
1	1G	442	C
1	1G	452	A
1	1G	455	C
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	485	G
1	1G	486	U

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Mol	Chain	Res	Type
1	1G	496	A
1	1G	497	U
1	1G	505	G
1	1G	508	C
1	1G	510	A
1	1G	511	C
1	1G	512	U
1	1G	518	C
1	1G	521	G
1	1G	527	G
1	1G	530	G
1	1G	531	U
1	1G	532	A
1	1G	536	C
1	1G	547	A
1	1G	559	A
1	1G	560	U
1	1G	561	U
1	1G	564	C
1	1G	566	G
1	1G	572	A
1	1G	573	A
1	1G	576	G
1	1G	577	G
1	1G	599	C
1	1G	607	A
1	1G	619	U
1	1G	630	G
1	1G	631	G
1	1G	633	G
1	1G	653	A
1	1G	661	G
1	1G	665	A
1	1G	677	U
1	1G	687	A
1	1G	688	G
1	1G	701	C
1	1G	702	A
1	1G	706	A
1	1G	707	C
1	1G	723	U
1	1G	724	G

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Mol	Chain	Res	Type
1	1G	731	G
1	1G	735	C
1	1G	749	C
1	1G	755	G
1	1G	759	A
1	1G	769	G
1	1G	777	A
1	1G	782	A
1	1G	783	C
1	1G	787	A
1	1G	792	A
1	1G	793	U
1	1G	794	A
1	1G	805	C
1	1G	811	C
1	1G	813	U
1	1G	816	A
1	1G	817	C
1	1G	818	G
1	1G	821	G
1	1G	828	A
1	1G	837	G
1	1G	842	C
1	1G	843	U
1	1G	848	C
1	1G	851	G
1	1G	858	G
1	1G	859	A
1	1G	874	G
1	1G	885	G
1	1G	914	A
1	1G	916	G
1	1G	923	A
1	1G	925	G
1	1G	926	G
1	1G	927	G
1	1G	934	C
1	1G	935	A
1	1G	936	C
1	1G	937	A
1	1G	942	G
1	1G	947	G

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Mol	Chain	Res	Type
1	1G	948	C
1	1G	953	G
1	1G	960	U
1	1G	961	U
1	1G	966	G
1	1G	968	A
1	1G	969	A
1	1G	971	G
1	1G	972	C
1	1G	974	A
1	1G	975	A
1	1G	976	G
1	1G	977	A
1	1G	978	A
1	1G	982	U
1	1G	991	U
1	1G	992	U
1	1G	993	G
1	1G	996	A
1	1G	1001	G
1	1G	1002	G
1	1G	1004	A
1	1G	1006	C
1	1G	1008	C
1	1G	1016	A
1	1G	1017	G
1	1G	1021	G
1	1G	1024	G
1	1G	1025	U
1	1G	1026	G
1	1G	1028	C
1	1G	1028(A)	C
1	1G	1028(B)	C
1	1G	1029	G
1	1G	1030	C
1	1G	1031	G
1	1G	1032(A)	G
1	1G	1033	G
1	1G	1036	G
1	1G	1037	C
1	1G	1040	U
1	1G	1042	G

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Mol	Chain	Res	Type
1	1G	1050	G
1	1G	1053	G
1	1G	1055	A
1	1G	1056	U
1	1G	1064	G
1	1G	1066	C
1	1G	1073	U
1	1G	1081	G
1	1G	1084	G
1	1G	1092	A
1	1G	1094	G
1	1G	1095	U
1	1G	1096	C
1	1G	1101	A
1	1G	1113	C
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	1133	G
1	1G	1135	U
1	1G	1138	G
1	1G	1139	G
1	1G	1140	C
1	1G	1141	C
1	1G	1144	G
1	1G	1146	A
1	1G	1147	C
1	1G	1154	G
1	1G	1157	A
1	1G	1158	C
1	1G	1159	U
1	1G	1160	G
1	1G	1171	G
1	1G	1172	C
1	1G	1177	G
1	1G	1178	G
1	1G	1181	G
1	1G	1183	A

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Mol	Chain	Res	Type
1	1G	1184	G
1	1G	1188	A
1	1G	1189	C
1	1G	1193	G
1	1G	1196	U
1	1G	1197	G
1	1G	1201	A
1	1G	1202	G
1	1G	1203	C
1	1G	1204	A
1	1G	1211	U
1	1G	1212	U
1	1G	1213	A
1	1G	1214	C
1	1G	1218	C
1	1G	1225	A
1	1G	1227	A
1	1G	1238	A
1	1G	1240	U
1	1G	1241	G
1	1G	1243	C
1	1G	1250	A
1	1G	1256	A
1	1G	1257	U
1	1G	1258	G
1	1G	1268	A
1	1G	1278	U
1	1G	1279	A
1	1G	1280	A
1	1G	1282	C
1	1G	1286	A
1	1G	1287	A
1	1G	1289	A
1	1G	1293	G
1	1G	1294	G
1	1G	1299	A
1	1G	1300	G
1	1G	1301	U
1	1G	1305	G
1	1G	1313	U
1	1G	1320	C
1	1G	1322	C

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Mol	Chain	Res	Type
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	1358	U
1	1G	1362(A)	C
1	1G	1363	A
1	1G	1370	G
1	1G	1379	G
1	1G	1381	U
1	1G	1391	U
1	1G	1392	G
1	1G	1397	C
1	1G	1398	A
1	1G	1399	C
1	1G	1400	C
1	1G	1406	U
1	1G	1419	G
1	1G	1442	G
1	1G	1443	G
1	1G	1446	A
1	1G	1449	C
1	1G	1450	U
1	1G	1451	A
1	1G	1452	C
1	1G	1453	G
1	1G	1467	G
1	1G	1478	C
1	1G	1492	A
1	1G	1494	G
1	1G	1499	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	1529	G

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Mol	Chain	Res	Type
1	1G	1530	G
1	1G	1531	A
1	1G	1532	U
1	1G	1533	C
1	1G	1534	A
56	1L	3	G
56	1L	4	U
56	1L	6	G
56	1L	7	U
56	1L	9	A
56	1L	10	G
56	1L	15	G
56	1L	16	U
56	1L	17	U
56	1L	18	G
56	1L	19	G
56	1L	20	U
56	1L	26	A
56	1L	30	G
56	1L	34	U8U
56	1L	35	U
56	1L	41	A
56	1L	45	G
56	1L	49	G
56	1L	55	PSU
56	1L	62	C
56	1L	63	U
56	1L	66	A
56	1L	67	C
56	1L	69	A
56	1L	70	C
56	1L	74	C
56	1L	76	A
23	2L	6	G
23	2L	8	4SU
23	2L	13	C
23	2L	16	C
23	2L	18	U
23	2L	21	U
23	2L	22	A
23	2L	23	G
23	2L	32	G

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Mol	Chain	Res	Type
23	2L	45	A
23	2L	47	G7M
23	2L	48	U
23	2L	49	C
23	2L	50	G
57	3L	2	G
57	3L	5	C
57	3L	7	U
57	3L	9	A
57	3L	13	C
57	3L	16	U
57	3L	17	U
57	3L	18	G
57	3L	19	G
57	3L	20	U
57	3L	21	A
57	3L	22	G
57	3L	23	A
57	3L	25	C
57	3L	26	A
57	3L	31	A
57	3L	33	U
57	3L	36	U
57	3L	39	PSU
57	3L	40	C
57	3L	42	A
57	3L	43	U
57	3L	44	U
57	3L	45	G
57	3L	46	G
57	3L	47	U
57	3L	48	C
57	3L	56	C
57	3L	57	G
57	3L	58	A
57	3L	59	A
57	3L	61	C
57	3L	63	U
57	3L	73	A
57	3L	76	A
25	4L	8	A
25	4L	9	G

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Mol	Chain	Res	Type
25	4L	10	G
25	4L	11	U
25	4L	12	A
25	4L	13	A
25	4L	15	A
25	4L	22	A
25	4L	23	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	11	G
26	14	15	G
26	14	26	G
26	14	35	G
26	14	46	C
26	14	49	A
26	14	50	U
26	14	51	G
26	14	58	G
26	14	60	G
26	14	61	G
26	14	71	A
26	14	72	U
26	14	74	A
26	14	75	G
26	14	83	G
26	14	90	U
26	14	93	C
26	14	95	G
26	14	102	G
26	14	118	A
26	14	119	A
26	14	120	U
26	14	125	G
26	14	129	C
26	14	154	G
26	14	155	C
26	14	161	U
26	14	162	U

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Mol	Chain	Res	Type
26	14	172	C
26	14	173	G
26	14	174	C
26	14	175	G
26	14	196	A
26	14	199	A
26	14	205	G
26	14	212	G
26	14	215	G
26	14	216	A
26	14	221	A
26	14	222	A
26	14	225	A
26	14	228	A
26	14	229	A
26	14	233	A
26	14	240	G
26	14	248	G
26	14	249	C
26	14	250	G
26	14	252	G
26	14	270(K)	C
26	14	270(L)	U
26	14	270(N)	G
26	14	270(O)	U
26	14	270(Y)	G
26	14	271(B)	G
26	14	271(C)	U
26	14	271	G
26	14	273(D)	C
26	14	273(F)	C
26	14	274	G
26	14	275	G
26	14	276	A
26	14	278	A
26	14	279	C
26	14	283	A
26	14	289	A
26	14	290	G
26	14	298	G
26	14	308	G
26	14	311	A

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Mol	Chain	Res	Type
26	14	324	A
26	14	329	G
26	14	330	A
26	14	331	A
26	14	335	C
26	14	342	G
26	14	345	A
26	14	352	G
26	14	354	G
26	14	355	G
26	14	362	U
26	14	363	G
26	14	371	A
26	14	375	C
26	14	386	G
26	14	394	A
26	14	395	U
26	14	396	G
26	14	405	U
26	14	406	G
26	14	411	G
26	14	412	A
26	14	428	A
26	14	443	A
26	14	444	C
26	14	448	U
26	14	454	A
26	14	455	C
26	14	457	A
26	14	459	U
26	14	470	A
26	14	480	A
26	14	481	G
26	14	483	A
26	14	504	U
26	14	505	A
26	14	508	G
26	14	509	C
26	14	527	C
26	14	528	A
26	14	529	A
26	14	530	G

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Mol	Chain	Res	Type
26	14	531	C
26	14	532	A
26	14	533	G
26	14	537	C
26	14	547	A
26	14	549	G
26	14	556	G
26	14	560	C
26	14	563	G
26	14	570	G
26	14	573	G
26	14	575	A
26	14	598	G
26	14	603	A
26	14	607	U
26	14	613	U
26	14	614	U
26	14	615	G
26	14	617	G
26	14	620	G
26	14	621	A
26	14	622	G
26	14	623	G
26	14	627	A
26	14	637	A
26	14	645	C
26	14	646	A
26	14	650	C
26	14	651	G
26	14	654	A
26	14	654(A)	A
26	14	654(B)	C
26	14	654(C)	G
26	14	654(D)	G
26	14	654(S)	G
26	14	654(T)	A
26	14	656	G
26	14	664	C
26	14	666	G
26	14	668	G
26	14	669	G
26	14	685	A

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Mol	Chain	Res	Type
26	14	686	G
26	14	708	C
26	14	709	U
26	14	722	A
26	14	730	C
26	14	738	G
26	14	740	U
26	14	750	A
26	14	752	A
26	14	753	C
26	14	762	U
26	14	764	A
26	14	765	G
26	14	771	G
26	14	775	G
26	14	776	G
26	14	779	U
26	14	781	A
26	14	782	A
26	14	784	A
26	14	785	G
26	14	792	G
26	14	805	G
26	14	806	C
26	14	812	C
26	14	813	U
26	14	816	C
26	14	819	A
26	14	824	A
26	14	825	C
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	848	G
26	14	855	G
26	14	859	G
26	14	865	C
26	14	866	A
26	14	869	G

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Mol	Chain	Res	Type
26	14	877	U
26	14	878	A
26	14	879	G
26	14	897	C
26	14	899	A
26	14	901	A
26	14	904	C
26	14	905	U
26	14	906	G
26	14	910	A
26	14	914	C
26	14	915	C
26	14	917	A
26	14	919	G
26	14	932	G
26	14	933	A
26	14	938	G
26	14	941	A
26	14	945	A
26	14	946	G
26	14	953	A
26	14	957	A
26	14	958	U
26	14	959	A
26	14	961	C
26	14	974	G
26	14	978	G
26	14	980	A
26	14	983	A
26	14	987	G
26	14	989	G
26	14	990	A
26	14	991	C
26	14	996	A
26	14	999	U
26	14	1008	C
26	14	1009	A
26	14	1010	A
26	14	1012	U
26	14	1013	C
26	14	1017	G
26	14	1020	A

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Mol	Chain	Res	Type
26	14	1022	G
26	14	1023	U
26	14	1025	G
26	14	1026	U
26	14	1028	A
26	14	1031	G
26	14	1034	G
26	14	1036	G
26	14	1037	G
26	14	1039	G
26	14	1044	G
26	14	1048	A
26	14	1049	C
26	14	1050	A
26	14	1052	C
26	14	1054	A
26	14	1055	G
26	14	1056	G
26	14	1057	A
26	14	1060	U
26	14	1061	U
26	14	1062	G
26	14	1070	A
26	14	1071	G
26	14	1072	C
26	14	1073	A
26	14	1074	G
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	1100	C
26	14	1105	U
26	14	1106	G
26	14	1107	G
26	14	1109	C
26	14	1110	G
26	14	1112	G
26	14	1113	U

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Mol	Chain	Res	Type
26	14	1114	G
26	14	1118	C
26	14	1122	G
26	14	1129	A
26	14	1130	U
26	14	1131	G
26	14	1135	C
26	14	1136	G
26	14	1139	G
26	14	1142	U
26	14	1143	A
26	14	1151	G
26	14	1157	G
26	14	1170	G
26	14	1173	G
26	14	1175	U
26	14	1176	G
26	14	1177	A
26	14	1178	C
26	14	1182	A
26	14	1193	G
26	14	1204	A
26	14	1205	U
26	14	1212	G
26	14	1213	A
26	14	1220	A
26	14	1229(A)	G
26	14	1237	A
26	14	1247	A
26	14	1248	G
26	14	1250	G
26	14	1253	A
26	14	1256	G
26	14	1271	G
26	14	1272	A
26	14	1275	A
26	14	1298	C
26	14	1300	U
26	14	1301	A
26	14	1303	G
26	14	1304	C
26	14	1307	A

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Mol	Chain	Res	Type
26	14	1313	U
26	14	1319	G
26	14	1320	C
26	14	1325	G
26	14	1329	U
26	14	1332	G
26	14	1345	C
26	14	1348	G
26	14	1349	A
26	14	1359	A
26	14	1360	A
26	14	1365	A
26	14	1368	G
26	14	1370	C
26	14	1378	A
26	14	1379	A
26	14	1380	G
26	14	1385	G
26	14	1386	C
26	14	1390	U
26	14	1396	U
26	14	1397	U
26	14	1406	U
26	14	1407	C
26	14	1408	C
26	14	1416	G
26	14	1417	C
26	14	1419	A
26	14	1421	G
26	14	1425	G
26	14	1428	C
26	14	1437	C
26	14	1444(A)	A
26	14	1445	C
26	14	1449	A
26	14	1449(A)	G
26	14	1451	C
26	14	1453	A
26	14	1454	U
26	14	1458	C
26	14	1459	G
26	14	1460	A

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Mol	Chain	Res	Type
26	14	1467	C
26	14	1471	A
26	14	1474	C
26	14	1475	G
26	14	1493	C
26	14	1506	C
26	14	1508	A
26	14	1509	C
26	14	1510	A
26	14	1515	C
26	14	1516	U
26	14	1522	G
26	14	1523	U
26	14	1528	A
26	14	1534	G
26	14	1535	U
26	14	1537	C
26	14	1540	G
26	14	1543	A
26	14	1554	A
26	14	1555	G
26	14	1558	A
26	14	1559	G
26	14	1560	G
26	14	1562	A
26	14	1566	A
26	14	1569	A
26	14	1577	C
26	14	1578	U
26	14	1585	C
26	14	1586	A
26	14	1593	G
26	14	1595	G
26	14	1608	A
26	14	1609	A
26	14	1610	A
26	14	1614	A
26	14	1616	A
26	14	1617	C
26	14	1619	G
26	14	1635	G
26	14	1647	G

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Mol	Chain	Res	Type
26	14	1648	C
26	14	1654	A
26	14	1669	A
26	14	1671	U
26	14	1672	C
26	14	1674	G
26	14	1691	C
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	1728	G
26	14	1729	A
26	14	1730	U
26	14	1735	C
26	14	1742	C
26	14	1743	G
26	14	1747	G
26	14	1756	G
26	14	1763	G
26	14	1764	G
26	14	1773	A
26	14	1777	U
26	14	1780	A
26	14	1781	C
26	14	1791	A
26	14	1800	C
26	14	1801	G
26	14	1802	A
26	14	1803	A
26	14	1808	U
26	14	1812	A
26	14	1816	G
26	14	1829	A
26	14	1836	C
26	14	1839	G
26	14	1842	G
26	14	1847	A
26	14	1848	A
26	14	1858	G

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Mol	Chain	Res	Type
26	14	1871	A
26	14	1872	A
26	14	1878	G
26	14	1888	G
26	14	1889	A
26	14	1894	C
26	14	1895	C
26	14	1896	G
26	14	1900	A
26	14	1906	G
26	14	1909	C
26	14	1929	G
26	14	1930	G
26	14	1931	U
26	14	1936	A
26	14	1937	A
26	14	1938	A
26	14	1949	G
26	14	1951	U
26	14	1952	A
26	14	1955	U
26	14	1963	U
26	14	1967	C
26	14	1970	A
26	14	1971	A
26	14	1972	A
26	14	1976	U
26	14	1983	C
26	14	1991	U
26	14	1992	G
26	14	1993	U
26	14	1995	U
26	14	2005	A
26	14	2019	A
26	14	2023	G
26	14	2031	A
26	14	2032	G
26	14	2033	A
26	14	2043	C
26	14	2049	G
26	14	2054	A
26	14	2055	C

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Mol	Chain	Res	Type
26	14	2056	G
26	14	2060	A
26	14	2061	G
26	14	2062	A
26	14	2063	C
26	14	2066	C
26	14	2067	G
26	14	2069	G
26	14	2074	U
26	14	2077	A
26	14	2099	U
26	14	2100	G
26	14	2108	C
26	14	2114	A
26	14	2115	G
26	14	2116	G
26	14	2117	A
26	14	2118	U
26	14	2120	G
26	14	2122	U
26	14	2123	G
26	14	2125	G
26	14	2127	G
26	14	2128	C
26	14	2129	C
26	14	2130	U
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	2144	U
26	14	2145	C
26	14	2146	C
26	14	2147	G
26	14	2148	G
26	14	2153	G
26	14	2158	A

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Mol	Chain	Res	Type
26	14	2159	G
26	14	2160	G
26	14	2161	C
26	14	2162	G
26	14	2164	C
26	14	2165	G
26	14	2166	G
26	14	2171	A
26	14	2172	U
26	14	2173	A
26	14	2174	C
26	14	2175	C
26	14	2176	A
26	14	2177	C
26	14	2188	C
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	2213	U
26	14	2215	G
26	14	2225	A
26	14	2231	C
26	14	2238	G
26	14	2239	G
26	14	2251	G
26	14	2259	G
26	14	2267	A
26	14	2268	A
26	14	2269	A
26	14	2273	A
26	14	2275	C
26	14	2276	G
26	14	2278	A
26	14	2280	G
26	14	2282	G
26	14	2283	C
26	14	2284	C

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Mol	Chain	Res	Type
26	14	2287	A
26	14	2288	A
26	14	2289	G
26	14	2297	C
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	2327	A
26	14	2336	A
26	14	2338	G
26	14	2343	C
26	14	2346	A
26	14	2347	C
26	14	2350	C
26	14	2354	G
26	14	2372	G
26	14	2383	G
26	14	2385	C
26	14	2388	A
26	14	2389	G
26	14	2392	A
26	14	2393	A
26	14	2396	G
26	14	2400	G
26	14	2402	C
26	14	2403	C
26	14	2406	U
26	14	2407	G
26	14	2410	G
26	14	2411	A
26	14	2413	G
26	14	2414	G
26	14	2418	A
26	14	2422	A
26	14	2423	U

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Mol	Chain	Res	Type
26	14	2425	A
26	14	2429	G
26	14	2430	A
26	14	2431	U
26	14	2434	A
26	14	2435	A
26	14	2439	A
26	14	2440	C
26	14	2441	C
26	14	2445	G
26	14	2448	A
26	14	2449	U
26	14	2468	G
26	14	2469	A
26	14	2476	A
26	14	2477	C
26	14	2492	U
26	14	2496	C
26	14	2502	G
26	14	2505	G
26	14	2506	U
26	14	2518	A
26	14	2525	G
26	14	2542	A
26	14	2543	G
26	14	2552	U
26	14	2554	U
26	14	2564	A
26	14	2566	A
26	14	2567	G
26	14	2569	G
26	14	2573	C
26	14	2574	G
26	14	2575	C
26	14	2578	G
26	14	2585	U
26	14	2601	C
26	14	2602	A
26	14	2608	G
26	14	2609	U
26	14	2611	U
26	14	2612	C

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Mol	Chain	Res	Type
26	14	2630	G
26	14	2631	G
26	14	2634	G
26	14	2636	U
26	14	2646	C
26	14	2665	A
26	14	2667	C
26	14	2679	A
26	14	2689	U
26	14	2690	C
26	14	2702	U
26	14	2703	C
26	14	2707	G
26	14	2712(A)	A
26	14	2713	A
26	14	2714	G
26	14	2716	U
26	14	2726	U
26	14	2733	A
26	14	2739	U
26	14	2742	C
26	14	2744	G
26	14	2748	A
26	14	2750	A
26	14	2751	G
26	14	2752	C
26	14	2758	A
26	14	2764	A
26	14	2765	A
26	14	2766	G
26	14	2769	C
26	14	2777	G
26	14	2778	A
26	14	2779	U
26	14	2790	A
26	14	2791	C
26	14	2792	G
26	14	2793	G
26	14	2794	C
26	14	2795	G
26	14	2797	U
26	14	2798	C

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Mol	Chain	Res	Type
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	2810	A
26	14	2820	A
26	14	2821	A
26	14	2833	G
26	14	2834	G
26	14	2838	G
26	14	2860	A
26	14	2872	G
26	14	2873	A
26	14	2874	C
26	14	2880	C
26	14	2886	G
26	14	2889	C
26	14	2891	G
26	14	2892	A
26	14	2893	G
26	14	2894	G
26	14	2895	U
26	14	2896	C
26	14	2897	U
26	14	2899	G
27	1J	0	A
27	1J	7	G
27	1J	8	U
27	1J	12	C
27	1J	13	A
27	1J	15	A
27	1J	16	G
27	1J	22	U
27	1J	26	A
27	1J	28	C
27	1J	30	C
27	1J	32	C
27	1J	33	G
27	1J	42	C
27	1J	45	A

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Mol	Chain	Res	Type
27	1J	47	C
27	1J	53	A
27	1J	56	G
27	1J	58	A
27	1J	59	A
27	1J	67	G
27	1J	73	A
27	1J	75	G
27	1J	77	U
27	1J	81	G
27	1J	88	C
27	1J	89	G
27	1J	89(A)	A
27	1J	90	C
27	1J	94	C
27	1J	108	C
27	1J	109	G
27	1J	113	C
27	1J	115	G
27	1J	119	A

All (162) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	13	5	U
1	13	31	G
1	13	49	U
1	13	50	A
1	13	115	G
1	13	244	U
1	13	266	G
1	13	389	A
1	13	422	C
1	13	428	G
1	13	429	U
1	13	484	G
1	13	509	A
1	13	560	U
1	13	687	A
1	13	748	C
1	13	792	A
1	13	793	U

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Mol	Chain	Res	Type
1	13	871	U
1	13	1054	C
1	13	1064	G
1	13	1065	U
1	13	1129	C
1	13	1137	C
1	13	1285	A
1	13	1397	C
1	13	1452	C
1	13	1498	U
1	13	1533	C
22	1K	48	C
22	1K	69	A
23	2K	48	U
24	3K	2	G
24	3K	18	G
24	3K	45	G
24	3K	58	A
25	4K	14	A
25	4K	18	G
26	1H	162	U
26	1H	196	A
26	1H	222	A
26	1H	249	C
26	1H	271(B)	G
26	1H	404	C
26	1H	508	G
26	1H	528	A
26	1H	587	C
26	1H	653	A
26	1H	668	G
26	1H	752	A
26	1H	845	G
26	1H	880	G
26	1H	893	C
26	1H	974	G
26	1H	1022	G
26	1H	1026	U
26	1H	1107	G
26	1H	1210	A
26	1H	1286	A
26	1H	1378	A

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Mol	Chain	Res	Type
26	1H	1396	U
26	1H	1402	C
26	1H	1416	G
26	1H	1508	A
26	1H	1509	C
26	1H	1558	A
26	1H	1608	A
26	1H	1609	A
26	1H	1653	G
26	1H	1694	C
26	1H	1699	G
26	1H	1799	G
26	1H	1900	A
26	1H	1980	G
26	1H	1992	G
26	1H	2035	G
26	1H	2060	A
26	1H	2210	G
26	1H	2225	A
26	1H	2275	C
26	1H	2428	G
26	1H	2439	A
26	1H	2448	A
26	1H	2476	A
26	1H	2598	A
26	1H	2611	U
26	1H	2681	C
26	1H	2756	U
27	16	44	G
1	1G	64	G
1	1G	80	G
1	1G	87	A
1	1G	89	U
1	1G	115	G
1	1G	197	A
1	1G	250	A
1	1G	266	G
1	1G	345	C
1	1G	412	A
1	1G	413	G
1	1G	485	G
1	1G	509	A

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Mol	Chain	Res	Type
1	1G	560	U
1	1G	687	A
1	1G	748	C
1	1G	812	C
1	1G	816	A
1	1G	913	A
1	1G	992	U
1	1G	1126	U
1	1G	1145	C
1	1G	1157	A
1	1G	1285	A
1	1G	1300	G
1	1G	1498	U
1	1G	1533	C
56	1L	3	G
56	1L	6	G
56	1L	18	G
56	1L	69	A
23	2L	20	G
23	2L	48	U
57	3L	58	A
26	14	34	C
26	14	49	A
26	14	71	A
26	14	128	C
26	14	155	C
26	14	278	A
26	14	503	A
26	14	528	A
26	14	685	A
26	14	752	A
26	14	764	A
26	14	791	C
26	14	1022	G
26	14	1085	A
26	14	1210	A
26	14	1379	A
26	14	1396	U
26	14	1416	G
26	14	1420	U
26	14	1444(A)	A
26	14	1558	A

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Mol	Chain	Res	Type
26	14	1608	A
26	14	1609	A
26	14	1992	G
26	14	2048	G
26	14	2173	A
26	14	2238	G
26	14	2275	C
26	14	2335	A
26	14	2406	U
26	14	2425	A
26	14	2439	A
26	14	2611	U
26	14	2629	A
26	14	2689	U
26	14	2776	A
26	14	2791	C
26	14	2859	G
27	1J	88	C

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	$\#\|Z\| > 2$
57	PSU	3L	39	57	18,21,22	1.24	1 (5%)	22,30,33	1.46	4 (18%)
23	OMC	2L	33	23	19,22,23	1.71	3 (15%)	26,31,34	1.06	3 (11%)
23	4SU	2K	8	23	18,21,22	1.82	4 (22%)	26,30,33	2.30	5 (19%)
23	G7M	2L	47	23	23,26,27	4.52	7 (30%)	35,39,42	3.24	13 (37%)
22	PSU	1K	39	22	18,21,22	1.05	1 (5%)	22,30,33	1.63	4 (18%)
57	5MU	3L	54	57	19,22,23	4.05	6 (31%)	28,32,35	2.95	10 (35%)
57	PSU	3L	55	57	18,21,22	1.20	1 (5%)	22,30,33	1.73	5 (22%)
23	5MU	2L	55	23	19,22,23	3.80	5 (26%)	28,32,35	3.40	8 (28%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
56	T6A	1L	37	56	31,34,35	2.15	7 (22%)	44,49,52	2.29	14 (31%)
56	PSU	1L	39	56	18,21,22	1.14	1 (5%)	22,30,33	1.57	3 (13%)
56	U8U	1L	34	56,25	19,24,25	2.68	7 (36%)	23,34,37	0.94	1 (4%)
22	PSU	1K	55	22	18,21,22	1.08	1 (5%)	22,30,33	1.56	4 (18%)
23	G7M	2K	47	23	23,26,27	4.43	8 (34%)	35,39,42	3.33	13 (37%)
22	5MU	1K	54	22	19,22,23	3.69	5 (26%)	28,32,35	3.13	6 (21%)
22	T6A	1K	37	22	31,34,35	2.11	10 (32%)	44,49,52	2.06	10 (22%)
23	4SU	2L	8	23	18,21,22	1.76	3 (16%)	26,30,33	2.66	4 (15%)
22	U8U	1K	34	22,25	19,24,25	2.42	6 (31%)	23,34,37	0.91	1 (4%)
23	PSU	2K	56	23	18,21,22	1.21	2 (11%)	22,30,33	1.91	3 (13%)
23	PSU	2L	56	23	18,21,22	1.28	1 (5%)	22,30,33	1.73	4 (18%)
56	5MU	1L	54	56	19,22,23	3.84	5 (26%)	28,32,35	3.25	8 (28%)
23	5MU	2K	55	23	19,22,23	3.79	5 (26%)	28,32,35	3.53	9 (32%)
23	OMC	2K	33	23	19,22,23	1.72	4 (21%)	26,31,34	0.95	2 (7%)
56	PSU	1L	55	56	18,21,22	1.09	1 (5%)	22,30,33	1.60	4 (18%)

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
57	PSU	3L	39	57	-	2/7/25/26	0/2/2/2
23	OMC	2L	33	23	-	0/9/27/28	0/2/2/2
23	4SU	2K	8	23	-	0/7/25/26	0/2/2/2
23	G7M	2L	47	23	-	2/7/25/26	0/3/3/3
22	PSU	1K	39	22	-	1/7/25/26	0/2/2/2
57	5MU	3L	54	57	-	0/7/25/26	0/2/2/2
57	PSU	3L	55	57	-	4/7/25/26	0/2/2/2
23	5MU	2L	55	23	-	0/7/25/26	0/2/2/2
56	T6A	1L	37	56	-	5/23/41/42	0/3/3/3
56	PSU	1L	39	56	-	0/7/25/26	0/2/2/2
56	U8U	1L	34	56,25	-	2/9/28/29	0/2/2/2
22	PSU	1K	55	22	-	0/7/25/26	0/2/2/2
23	G7M	2K	47	23	-	3/7/25/26	0/3/3/3
22	5MU	1K	54	22	-	0/7/25/26	0/2/2/2
22	T6A	1K	37	22	-	4/23/41/42	0/3/3/3

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

All (94) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	47	G7M	C8-N7	18.01	1.65	1.33
23	2K	47	G7M	C8-N7	17.79	1.65	1.33
57	3L	54	5MU	C2-N1	12.59	1.58	1.38
56	1L	54	5MU	C2-N1	12.47	1.58	1.38
23	2L	55	5MU	C2-N1	12.19	1.58	1.38
23	2K	55	5MU	C2-N1	11.90	1.57	1.38
22	1K	54	5MU	C2-N1	11.63	1.57	1.38
56	1L	37	T6A	C10-N11	6.53	1.49	1.35
23	2L	55	5MU	C4-N3	-6.40	1.27	1.38
23	2K	55	5MU	C4-N3	-6.37	1.27	1.38
57	3L	54	5MU	C2-N3	6.35	1.49	1.38
56	1L	54	5MU	C4-N3	-6.21	1.27	1.38
57	3L	54	5MU	C6-N1	6.14	1.48	1.38
22	1K	37	T6A	C10-N11	5.99	1.48	1.35
23	2L	47	G7M	C4-N3	5.96	1.48	1.34
22	1K	54	5MU	C4-N3	-5.90	1.27	1.38
57	3L	54	5MU	C4-N3	-5.87	1.27	1.38
57	3L	54	5MU	C4-C5	5.73	1.54	1.44
56	1L	37	T6A	C10-N6	5.73	1.49	1.37
23	2L	47	G7M	C5-N7	5.66	1.45	1.39
22	1K	54	5MU	C2-N3	5.62	1.48	1.38
23	2K	47	G7M	C4-N3	5.59	1.47	1.34
23	2K	55	5MU	C2-N3	5.58	1.47	1.38
23	2L	47	G7M	C5-C4	-5.57	1.24	1.38
56	1L	54	5MU	C2-N3	5.57	1.47	1.38
56	1L	34	U8U	C2-S2	-5.52	1.59	1.67
22	1K	37	T6A	C10-N6	5.52	1.49	1.37
23	2L	55	5MU	C2-N3	5.48	1.47	1.38
22	1K	54	5MU	C6-N1	5.41	1.47	1.38
56	1L	34	U8U	C6-C5	5.41	1.50	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2K	47	G7M	C5-C4	-5.38	1.24	1.38
22	1K	34	U8U	C2-S2	-5.37	1.59	1.67
23	2K	8	4SU	C5-C4	5.36	1.49	1.42
23	2K	55	5MU	C6-N1	5.35	1.47	1.38
56	1L	34	U8U	C2-N3	5.29	1.49	1.37
56	1L	54	5MU	C6-N1	5.27	1.47	1.38
23	2L	8	4SU	C5-C4	5.21	1.49	1.42
23	2K	55	5MU	C4-C5	5.19	1.53	1.44
23	2K	47	G7M	C5-N7	5.14	1.45	1.39
23	2L	55	5MU	C4-C5	5.03	1.53	1.44
56	1L	37	T6A	C6-N6	4.99	1.49	1.39
23	2L	55	5MU	C6-N1	4.99	1.46	1.38
22	1K	34	U8U	C6-C5	4.97	1.48	1.34
56	1L	54	5MU	C4-C5	4.79	1.52	1.44
22	1K	54	5MU	C4-C5	4.78	1.52	1.44
22	1K	34	U8U	C2-N3	4.73	1.48	1.37
23	2L	33	OMC	C2-N3	4.70	1.45	1.36
56	1L	34	U8U	C6-N1	4.65	1.46	1.38
23	2K	33	OMC	C2-N3	4.34	1.45	1.36
23	2L	56	PSU	C6-C5	4.22	1.40	1.35
23	2L	47	G7M	C8-N9	4.19	1.47	1.35
57	3L	39	PSU	C6-C5	4.17	1.40	1.35
23	2K	47	G7M	C8-N9	4.17	1.47	1.35
23	2L	33	OMC	C4-N4	4.13	1.43	1.33
23	2K	33	OMC	C4-N4	4.11	1.43	1.33
57	3L	55	PSU	C6-C5	4.03	1.40	1.35
22	1K	37	T6A	C6-N6	3.95	1.47	1.39
56	1L	39	PSU	C6-C5	3.85	1.39	1.35
23	2K	8	4SU	C2-N1	3.78	1.44	1.38
22	1K	34	U8U	C6-N1	3.74	1.44	1.38
23	2L	8	4SU	C2-N1	3.64	1.44	1.38
56	1L	34	U8U	C4-N3	3.62	1.45	1.38
22	1K	55	PSU	C6-C5	3.51	1.39	1.35
23	2K	56	PSU	C6-C5	3.48	1.39	1.35
22	1K	37	T6A	C6-N1	-3.39	1.29	1.35
23	2K	33	OMC	C5-C4	3.39	1.50	1.42
23	2L	47	G7M	C4-N9	-3.38	1.29	1.38
56	1L	55	PSU	C6-C5	3.36	1.39	1.35
23	2K	47	G7M	C4-N9	-3.26	1.29	1.38
22	1K	34	U8U	C4-N3	3.25	1.44	1.38
22	1K	39	PSU	C6-C5	3.20	1.39	1.35
23	2K	47	G7M	C2-N2	3.13	1.41	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	33	OMC	C5-C4	3.13	1.50	1.42
23	2L	47	G7M	C2-N2	2.95	1.41	1.34
22	1K	37	T6A	C5-C4	-2.79	1.33	1.39
23	2L	8	4SU	C6-N1	2.76	1.44	1.38
56	1L	34	U8U	C4-C5	2.71	1.51	1.45
56	1L	37	T6A	C4-N9	-2.57	1.32	1.37
23	2K	8	4SU	C6-N1	2.56	1.44	1.38
22	1K	37	T6A	C5-N7	-2.42	1.34	1.39
22	1K	37	T6A	C4-N9	-2.39	1.32	1.37
56	1L	37	T6A	C5-C4	-2.35	1.34	1.39
22	1K	37	T6A	C5-C6	-2.34	1.35	1.41
22	1K	37	T6A	ODB-C13	-2.27	1.23	1.30
56	1L	37	T6A	ODB-C13	-2.25	1.23	1.30
57	3L	54	5MU	C6-C5	2.20	1.38	1.34
23	2K	47	G7M	C6-N1	-2.18	1.34	1.38
23	2K	56	PSU	C4-C5	-2.17	1.38	1.44
23	2K	8	4SU	C4-N3	2.16	1.39	1.37
56	1L	37	T6A	C5-N7	-2.10	1.35	1.39
22	1K	34	U8U	C4-C5	2.09	1.49	1.45
23	2K	33	OMC	C6-N1	2.06	1.42	1.38
56	1L	34	U8U	O4-C4	-2.04	1.19	1.23
22	1K	37	T6A	ODA-C13	2.01	1.28	1.22

All (138) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2K	47	G7M	CN7-N7-C5	11.56	141.13	126.77
23	2L	47	G7M	CN7-N7-C5	11.34	140.86	126.77
23	2K	55	5MU	C5-C4-N3	11.30	124.95	115.31
22	1K	54	5MU	C5-C4-N3	10.92	124.63	115.31
23	2L	55	5MU	C5-C4-N3	10.89	124.61	115.31
56	1L	54	5MU	C5-C4-N3	10.30	124.10	115.31
57	3L	54	5MU	C5-C4-N3	8.97	122.97	115.31
23	2L	8	4SU	C4-N3-C2	-8.87	118.72	127.34
23	2L	8	4SU	C5-C4-N3	7.90	122.01	114.69
23	2K	55	5MU	C5-C6-N1	-7.69	115.43	123.34
23	2K	47	G7M	C6-C5-N7	-7.47	123.21	132.25
23	2L	55	5MU	C5-C6-N1	-7.34	115.79	123.34
23	2K	8	4SU	C4-N3-C2	-7.25	120.30	127.34
23	2K	55	5MU	C4-N3-C2	-7.09	118.18	127.35
23	2K	47	G7M	C8-N7-C5	-6.83	99.24	107.78
23	2L	55	5MU	C4-N3-C2	-6.76	118.60	127.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2L	47	G7M	C8-N7-C5	-6.57	99.57	107.78
56	1L	54	5MU	C4-N3-C2	-6.46	118.99	127.35
23	2L	55	5MU	C6-C5-C4	6.31	123.31	118.03
23	2K	55	5MU	C6-C5-C4	6.26	123.26	118.03
22	1K	54	5MU	C5-C6-N1	-5.95	117.21	123.34
22	1K	54	5MU	C4-N3-C2	-5.86	119.77	127.35
56	1L	54	5MU	C6-C5-C4	5.84	122.91	118.03
23	2L	47	G7M	C6-C5-N7	-5.79	125.25	132.25
56	1L	54	5MU	C5-C6-N1	-5.65	117.52	123.34
56	1L	37	T6A	N6-C10-N11	5.53	121.49	113.76
23	2L	47	G7M	N9-C8-N7	-5.46	98.70	112.21
57	3L	54	5MU	C4-N3-C2	-5.46	120.28	127.35
56	1L	37	T6A	N3-C2-N1	-5.36	120.22	128.60
22	1K	54	5MU	O4-C4-C5	-5.31	118.74	124.90
57	3L	54	5MU	C6-C5-C4	5.29	122.45	118.03
22	1K	37	T6A	N6-C10-N11	5.28	121.14	113.76
22	1K	37	T6A	N3-C2-N1	-5.27	120.36	128.60
23	2K	47	G7M	N9-C8-N7	-5.19	99.38	112.21
23	2K	56	PSU	C4-N3-C2	-5.06	119.05	126.34
23	2L	55	5MU	C5M-C5-C6	-4.93	116.27	122.85
56	1L	54	5MU	C5M-C5-C6	-4.85	116.37	122.85
57	3L	54	5MU	C5-C6-N1	-4.78	118.42	123.34
56	1L	54	5MU	O4-C4-C5	-4.75	119.39	124.90
23	2K	8	4SU	C5-C4-N3	4.75	119.09	114.69
23	2K	55	5MU	O4-C4-C5	-4.74	119.41	124.90
23	2K	56	PSU	N1-C2-N3	4.74	120.50	115.13
23	2K	47	G7M	C4-C5-N7	4.69	115.34	107.67
57	3L	54	5MU	C5M-C5-C6	-4.67	116.61	122.85
23	2K	55	5MU	C5M-C5-C6	-4.65	116.64	122.85
22	1K	37	T6A	C4-C5-C6	4.59	120.37	116.81
22	1K	37	T6A	N9-C8-N7	-4.55	107.69	113.91
56	1L	37	T6A	C5-C4-N3	-4.47	120.92	126.75
23	2L	56	PSU	C4-N3-C2	-4.45	119.92	126.34
22	1K	37	T6A	C5-C4-N3	-4.45	120.94	126.75
23	2L	55	5MU	O4-C4-C5	-4.44	119.75	124.90
57	3L	55	PSU	C4-N3-C2	-4.44	119.94	126.34
23	2K	8	4SU	C5-C4-S4	-4.44	118.75	124.47
22	1K	54	5MU	C6-C5-C4	4.43	121.74	118.03
23	2L	47	G7M	C4-C5-N7	4.42	114.89	107.67
56	1L	37	T6A	N9-C8-N7	-4.33	107.98	113.91
22	1K	39	PSU	C4-N3-C2	-4.31	120.13	126.34
57	3L	55	PSU	N1-C2-N3	4.30	120.00	115.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
56	1L	55	PSU	C4-N3-C2	-4.29	120.16	126.34
23	2L	56	PSU	N1-C2-N3	4.26	119.96	115.13
57	3L	54	5MU	C6-N1-C2	-4.19	117.05	121.30
23	2K	47	G7M	C5-C4-N3	-4.18	120.14	128.15
56	1L	37	T6A	C13-C12-N11	-4.17	101.18	110.28
56	1L	39	PSU	C4-N3-C2	-4.12	120.41	126.34
23	2L	47	G7M	C2-N3-C4	4.08	119.56	112.30
22	1K	54	5MU	C5M-C5-C6	-4.04	117.45	122.85
23	2L	8	4SU	C5-C4-S4	-3.96	119.37	124.47
23	2K	8	4SU	N3-C2-N1	3.91	120.08	114.89
56	1L	37	T6A	C4-C5-C6	3.87	119.81	116.81
22	1K	39	PSU	N1-C2-N3	3.86	119.50	115.13
56	1L	39	PSU	N1-C2-N3	3.84	119.49	115.13
23	2L	47	G7M	C5-C4-N3	-3.84	120.78	128.15
56	1L	37	T6A	C12-N11-C10	3.84	128.33	121.94
56	1L	37	T6A	O10-C10-N6	-3.83	117.15	123.62
23	2L	47	G7M	C5-C6-N1	3.79	119.71	111.79
23	2K	47	G7M	C2-N3-C4	3.78	119.03	112.30
23	2L	47	G7M	O6-C6-C5	-3.74	119.62	128.06
57	3L	39	PSU	C4-N3-C2	-3.72	120.98	126.34
23	2L	8	4SU	N3-C2-N1	3.63	119.70	114.89
23	2L	47	G7M	C5-C4-N9	3.56	113.69	105.89
57	3L	39	PSU	N1-C2-N3	3.55	119.16	115.13
56	1L	55	PSU	N1-C2-N3	3.55	119.15	115.13
57	3L	54	5MU	O4-C4-C5	-3.47	120.88	124.90
22	1K	55	PSU	O2-C2-N1	-3.46	118.98	122.79
23	2K	47	G7M	C5-C4-N9	3.45	113.45	105.89
23	2K	47	G7M	O6-C6-C5	-3.44	120.30	128.06
22	1K	55	PSU	C4-N3-C2	-3.43	121.39	126.34
23	2L	47	G7M	CN7-N7-C8	-3.42	119.57	124.84
56	1L	54	5MU	C6-N1-C2	-3.38	117.87	121.30
23	2K	47	G7M	CN7-N7-C8	-3.38	119.63	124.84
23	2K	8	4SU	C1'-N1-C2	3.22	123.39	117.57
22	1K	55	PSU	N1-C2-N3	3.18	118.73	115.13
56	1L	37	T6A	C2-N3-C4	3.15	119.19	111.75
23	2K	47	G7M	C5-C6-N1	3.14	118.34	111.79
22	1K	37	T6A	O10-C10-N6	-3.04	118.47	123.62
22	1K	37	T6A	N3-C4-N9	2.99	132.00	127.08
56	1L	37	T6A	C14-C12-N11	2.97	119.34	111.72
57	3L	54	5MU	N3-C2-N1	2.96	118.82	114.89
56	1L	37	T6A	C5-N7-C8	2.91	107.65	103.51
23	2L	47	G7M	C2-N1-C6	-2.91	119.80	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
56	1L	54	5MU	N3-C2-N1	2.79	118.60	114.89
22	1K	37	T6A	C2-N3-C4	2.74	118.22	111.75
22	1K	37	T6A	C5-N7-C8	2.71	107.36	103.51
23	2K	55	5MU	O2-C2-N1	-2.71	119.18	122.79
22	1K	37	T6A	C4-N9-C8	2.69	108.64	105.73
23	2K	56	PSU	C6-N1-C2	-2.63	120.00	122.68
56	1L	34	U8U	C5-C4-N3	2.62	118.65	114.97
23	2K	47	G7M	C2-N1-C6	-2.62	120.33	125.10
56	1L	39	PSU	O2-C2-N1	-2.59	119.94	122.79
22	1K	34	U8U	C5-C4-N3	2.52	118.51	114.97
22	1K	39	PSU	O2-C2-N1	-2.50	120.03	122.79
23	2L	33	OMC	N4-C4-N3	2.50	122.36	117.97
56	1L	37	T6A	N3-C4-N9	2.48	131.18	127.08
23	2K	55	5MU	N3-C2-N1	2.48	118.18	114.89
56	1L	37	T6A	C4-N9-C8	2.42	108.35	105.73
57	3L	39	PSU	O2-C2-N1	-2.40	120.15	122.79
57	3L	54	5MU	O2-C2-N1	-2.37	119.64	122.79
23	2L	47	G7M	C8-N9-C4	2.37	113.16	107.16
23	2L	56	PSU	O2-C2-N1	-2.36	120.19	122.79
23	2L	55	5MU	O4-C4-N3	-2.34	115.64	120.12
23	2K	55	5MU	O4-C4-N3	-2.33	115.64	120.12
22	1K	55	PSU	C6-N1-C2	-2.31	120.32	122.68
57	3L	39	PSU	C6-N1-C2	-2.29	120.34	122.68
23	2L	55	5MU	N3-C2-N1	2.26	117.90	114.89
23	2L	33	OMC	C1'-N1-C2	2.21	123.36	118.42
56	1L	55	PSU	C6-C5-C4	2.18	119.72	118.20
57	3L	55	PSU	C6-N1-C2	-2.16	120.47	122.68
23	2L	56	PSU	C6-N1-C2	-2.16	120.48	122.68
23	2K	33	OMC	C1'-N1-C2	2.15	123.23	118.42
23	2K	47	G7M	C8-N9-C4	2.15	112.59	107.16
23	2L	33	OMC	C5-C4-N4	-2.14	117.21	120.57
23	2K	33	OMC	N4-C4-N3	2.13	121.70	117.97
57	3L	55	PSU	O2-C2-N1	-2.12	120.46	122.79
56	1L	55	PSU	O4'-C1'-C2'	2.12	108.13	105.14
57	3L	54	5MU	O4-C4-N3	-2.07	116.15	120.12
57	3L	55	PSU	O4'-C1'-C2'	2.06	108.05	105.14
56	1L	37	T6A	C4-C5-N7	-2.06	108.11	110.62
22	1K	39	PSU	C6-N1-C2	-2.02	120.61	122.68

There are no chirality outliers.

All (30) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
22	1K	37	T6A	C13-C12-C14-O14
22	1K	37	T6A	C13-C12-C14-C15
56	1L	37	T6A	C13-C12-C14-C15
57	3L	55	PSU	C2'-C1'-C5-C4
56	1L	34	U8U	O4'-C4'-C5'-O5'
57	3L	39	PSU	C3'-C4'-C5'-O5'
23	2K	56	PSU	O4'-C4'-C5'-O5'
57	3L	39	PSU	O4'-C4'-C5'-O5'
22	1K	34	U8U	C3'-C4'-C5'-O5'
22	1K	37	T6A	N11-C12-C14-O14
56	1L	37	T6A	C14-C12-N11-C10
56	1L	34	U8U	C3'-C4'-C5'-O5'
22	1K	34	U8U	O4'-C4'-C5'-O5'
23	2K	47	G7M	O4'-C4'-C5'-O5'
23	2K	47	G7M	C3'-C4'-C5'-O5'
56	1L	37	T6A	C13-C12-C14-O14
22	1K	37	T6A	N11-C12-C14-C15
23	2L	47	G7M	O4'-C4'-C5'-O5'
23	2K	47	G7M	C4'-C5'-O5'-P
23	2K	56	PSU	C3'-C4'-C5'-O5'
22	1K	39	PSU	O4'-C1'-C5-C4
56	1L	55	PSU	O4'-C1'-C5-C4
57	3L	55	PSU	O4'-C1'-C5-C4
56	1L	37	T6A	N11-C12-C14-O14
23	2L	47	G7M	C4'-C5'-O5'-P
56	1L	55	PSU	O4'-C1'-C5-C6
57	3L	55	PSU	O4'-C1'-C5-C6
56	1L	37	T6A	N11-C12-C14-C15
23	2K	33	OMC	C3'-C2'-O2'-CM2
57	3L	55	PSU	C4'-C5'-O5'-P

There are no ring outliers.

12 monomers are involved in 16 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
57	3L	39	PSU	1	0
23	2L	33	OMC	1	0
23	2L	47	G7M	2	0
57	3L	55	PSU	1	0
23	2L	55	5MU	1	0
56	1L	34	U8U	2	0
23	2K	47	G7M	1	0
23	2L	8	4SU	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
23	2K	56	PSU	1	0
23	2L	56	PSU	1	0
23	2K	33	OMC	2	0
56	1L	55	PSU	1	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1144 ligands modelled in this entry, 1142 are monoatomic - leaving 2 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	32	301	-	0,12,12	-	-	-		
59	SF4	3E	301	4	0,12,12	-	-	-		

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
59	SF4	32	301	-	-	-	0/6/5/5
59	SF4	3E	301	4	-	-	0/6/5/5

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

2 monomers are involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
59	32	301	SF4	2	0
59	3E	301	SF4	1	0

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	13	1496/1522 (98%)	-0.80	0 100 100	62, 109, 164, 193	0
1	1G	1507/1522 (99%)	-0.77	6 (0%) 88 79	80, 127, 170, 197	0
2	12	210/256 (82%)	-0.11	2 (0%) 79 63	127, 152, 162, 177	0
2	1E	231/256 (90%)	-0.18	1 (0%) 88 79	117, 141, 159, 166	0
3	22	196/239 (82%)	-0.16	3 (1%) 72 52	129, 143, 156, 164	0
3	2E	205/239 (85%)	-0.28	1 (0%) 87 76	94, 114, 136, 145	0
4	32	208/209 (99%)	0.12	0 100 100	108, 128, 145, 152	0
4	3E	207/209 (99%)	0.04	3 (1%) 73 54	92, 114, 134, 139	0
5	42	148/162 (91%)	0.04	0 100 100	114, 129, 143, 152	0
5	4E	149/162 (91%)	-0.05	0 100 100	89, 108, 124, 140	0
6	52	101/101 (100%)	-0.14	1 (0%) 79 63	95, 111, 129, 137	0
6	5E	100/101 (99%)	-0.22	1 (1%) 79 63	87, 107, 126, 136	0
7	62	138/156 (88%)	0.21	8 (5%) 29 18	121, 134, 144, 148	0
7	6E	154/156 (98%)	0.25	2 (1%) 75 55	109, 125, 148, 166	0
8	72	137/138 (99%)	-0.27	0 100 100	111, 133, 142, 145	0
8	7E	138/138 (100%)	0.15	1 (0%) 84 69	97, 117, 128, 138	0
9	82	121/128 (94%)	-0.08	3 (2%) 58 39	117, 149, 158, 163	0
9	8E	126/128 (98%)	0.10	2 (1%) 70 51	96, 135, 152, 157	0
10	1A	80/105 (76%)	-0.12	1 (1%) 75 55	129, 146, 156, 161	0
10	1I	91/105 (86%)	-0.18	0 100 100	87, 128, 159, 165	0
11	2A	113/129 (87%)	0.42	5 (4%) 39 24	94, 117, 130, 138	0
11	2I	111/129 (86%)	0.26	3 (2%) 56 36	85, 113, 127, 142	0
12	3A	122/132 (92%)	0.45	12 (9%) 13 9	89, 107, 130, 146	0
12	3I	122/132 (92%)	-0.18	1 (0%) 82 67	73, 82, 106, 137	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	4A	111/126 (88%)	-0.22	2 (1%) 67 48	125, 145, 156, 160	0
13	4I	119/126 (94%)	-0.20	3 (2%) 58 39	93, 123, 136, 147	0
14	5A	59/61 (96%)	-0.07	2 (3%) 48 30	134, 143, 153, 154	0
14	5I	60/61 (98%)	-0.46	0 100 100	92, 103, 118, 131	0
15	6A	88/89 (98%)	-0.53	0 100 100	96, 119, 135, 139	0
15	6I	87/89 (97%)	-0.36	0 100 100	88, 104, 122, 127	0
16	7A	84/88 (95%)	-0.18	0 100 100	102, 117, 135, 152	0
16	7I	83/88 (94%)	-0.10	0 100 100	110, 119, 143, 150	0
17	8A	99/105 (94%)	-0.40	0 100 100	105, 120, 132, 133	0
17	8I	100/105 (95%)	-0.18	2 (2%) 65 45	98, 114, 124, 126	0
18	9A	67/88 (76%)	-0.18	2 (2%) 52 33	106, 121, 135, 142	0
18	9I	68/88 (77%)	-0.09	2 (2%) 53 35	94, 109, 133, 136	0
19	AA	62/93 (66%)	-0.03	2 (3%) 50 31	134, 149, 156, 158	0
19	AI	81/93 (87%)	-0.18	0 100 100	102, 122, 138, 151	0
20	BA	99/106 (93%)	-0.30	0 100 100	100, 118, 141, 152	0
20	BI	97/106 (91%)	-0.02	0 100 100	112, 125, 148, 157	0
21	1B	22/27 (81%)	-0.15	0 100 100	129, 137, 145, 148	0
21	1F	23/27 (85%)	-0.62	0 100 100	94, 112, 118, 122	0
22	1K	66/75 (88%)	-0.00	1 (1%) 72 52	85, 153, 177, 183	0
23	2K	72/77 (93%)	-0.52	1 (1%) 73 54	77, 104, 132, 146	0
23	2L	72/77 (93%)	-0.40	0 100 100	85, 122, 151, 162	0
24	3K	76/76 (100%)	0.50	4 (5%) 32 20	79, 178, 191, 196	0
25	4K	19/27 (70%)	0.41	1 (5%) 32 20	79, 152, 184, 184	0
25	4L	18/27 (66%)	0.05	0 100 100	101, 161, 187, 187	0
26	14	2861/2917 (98%)	-0.79	11 (0%) 88 79	55, 92, 180, 204	0
26	1H	2833/2917 (97%)	-0.94	3 (0%) 92 89	49, 79, 168, 203	0
27	16	122/122 (100%)	-1.10	0 100 100	74, 98, 119, 179	0
27	1J	122/122 (100%)	-0.74	1 (0%) 82 67	93, 125, 145, 177	0
28	71	133/229 (58%)	0.30	5 (3%) 44 27	143, 174, 185, 189	0
28	79	57/229 (24%)	0.16	1 (1%) 67 48	140, 165, 176, 179	0
29	11	273/276 (98%)	-0.14	1 (0%) 88 79	48, 71, 89, 113	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
29	19	274/276 (99%)	0.14	6 (2%) 62 42	58, 82, 101, 117	0
30	21	203/206 (98%)	0.38	14 (6%) 23 14	55, 93, 139, 153	0
30	29	204/206 (99%)	-0.15	1 (0%) 87 76	60, 99, 134, 144	0
31	31	202/210 (96%)	-0.40	0 100 100	54, 84, 118, 142	0
31	39	204/210 (97%)	-0.10	0 100 100	62, 111, 151, 168	0
32	41	179/182 (98%)	-0.43	2 (1%) 78 61	85, 107, 140, 156	0
32	49	179/182 (98%)	0.32	8 (4%) 38 24	122, 139, 155, 171	0
33	51	171/180 (95%)	-0.04	2 (1%) 76 58	89, 110, 127, 139	0
33	59	73/180 (40%)	0.83	10 (13%) 6 5	136, 154, 165, 177	0
34	61	146/148 (98%)	-0.39	1 (0%) 84 69	83, 130, 143, 150	0
34	69	145/148 (97%)	-0.06	3 (2%) 63 43	93, 129, 147, 152	0
35	15	138/140 (98%)	0.25	1 (0%) 84 69	86, 114, 139, 155	0
35	58	138/140 (98%)	0.19	1 (0%) 84 69	68, 97, 130, 145	0
36	25	122/122 (100%)	0.16	2 (1%) 70 51	77, 94, 114, 120	0
36	68	122/122 (100%)	0.18	5 (4%) 41 25	64, 81, 99, 104	0
37	35	147/150 (98%)	0.15	9 (6%) 27 17	65, 111, 138, 144	0
37	78	147/150 (98%)	-0.09	4 (2%) 56 36	53, 88, 113, 120	0
38	45	138/141 (97%)	0.24	13 (9%) 14 9	78, 108, 128, 142	0
38	88	141/141 (100%)	-0.41	1 (0%) 84 69	63, 83, 108, 129	0
39	55	118/118 (100%)	-0.48	0 100 100	69, 86, 108, 127	0
39	98	118/118 (100%)	-0.07	2 (1%) 69 49	67, 90, 109, 122	0
40	65	110/112 (98%)	-0.38	1 (0%) 81 64	92, 117, 135, 142	0
40	A8	111/112 (99%)	-0.51	0 100 100	71, 93, 115, 123	0
41	75	133/146 (91%)	-0.01	6 (4%) 38 24	87, 101, 129, 141	0
41	B8	133/146 (91%)	0.27	10 (7%) 20 13	78, 98, 133, 149	0
42	85	116/118 (98%)	0.12	3 (2%) 57 37	73, 100, 132, 138	0
42	C8	115/118 (97%)	0.12	6 (5%) 33 21	59, 86, 114, 118	0
43	95	100/101 (99%)	0.33	3 (3%) 52 33	69, 121, 139, 153	0
43	D8	100/101 (99%)	0.35	4 (4%) 42 26	62, 106, 126, 144	0
44	A5	113/113 (100%)	-0.07	1 (0%) 81 64	68, 82, 112, 158	0
44	E8	112/113 (99%)	-0.22	2 (1%) 67 48	63, 79, 106, 147	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
45	B5	94/96 (97%)	-0.27	0 100 100	77, 91, 118, 128	0
45	F8	95/96 (98%)	-0.23	0 100 100	60, 76, 104, 118	0
46	C5	104/110 (94%)	0.79	13 (12%) 8 6	91, 122, 149, 154	0
46	G8	105/110 (95%)	0.19	5 (4%) 35 22	75, 101, 131, 139	0
47	D5	132/206 (64%)	-0.27	2 (1%) 72 52	115, 135, 150, 158	0
47	H8	171/206 (83%)	-0.39	0 100 100	90, 122, 167, 172	0
48	E5	77/85 (90%)	0.02	3 (3%) 43 27	72, 94, 111, 131	0
48	I8	76/85 (89%)	-0.36	1 (1%) 75 55	61, 75, 90, 102	0
49	F5	94/98 (95%)	0.40	7 (7%) 20 13	67, 88, 121, 136	0
49	J8	94/98 (95%)	-0.06	3 (3%) 50 31	62, 77, 120, 122	0
50	G5	66/72 (91%)	-0.17	2 (3%) 52 33	87, 108, 126, 145	0
50	K8	68/72 (94%)	-0.14	1 (1%) 72 52	68, 84, 102, 124	0
51	H5	58/60 (96%)	-0.22	0 100 100	81, 106, 128, 135	0
51	L8	58/60 (96%)	-0.12	0 100 100	63, 85, 115, 127	0
52	M8	47/71 (66%)	-0.10	1 (2%) 63 43	109, 143, 158, 163	0
53	J5	56/60 (93%)	-0.19	0 100 100	66, 86, 141, 148	0
53	N8	48/60 (80%)	0.16	1 (2%) 63 43	56, 84, 140, 142	0
54	L5	47/49 (95%)	-0.38	1 (2%) 63 43	58, 66, 85, 91	0
54	P8	47/49 (95%)	-0.54	0 100 100	52, 57, 77, 88	0
55	M5	64/65 (98%)	0.11	2 (3%) 51 32	76, 85, 101, 117	0
55	Q8	64/65 (98%)	-0.29	0 100 100	61, 71, 88, 99	0
56	1L	68/76 (89%)	-0.16	4 (5%) 28 18	118, 173, 181, 188	0
57	3L	73/76 (96%)	0.21	3 (4%) 41 25	87, 172, 185, 190	0
All	All	20602/21966 (93%)	-0.39	270 (1%) 75 55	48, 107, 162, 204	0

All (270) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
41	B8	1	MET	8.5
12	3A	19	ARG	7.5
43	D8	37	VAL	7.0
41	75	104	ASN	6.5
41	75	106	SER	6.5
12	3A	20	LYS	6.2

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Mol	Chain	Res	Type	RSRZ
38	45	91	GLU	6.2
46	C5	105	ALA	5.4
12	3A	21	LYS	5.4
46	C5	53	PRO	5.3
12	3A	64	TYR	5.2
46	G8	106	LEU	5.2
28	71	208	PHE	5.1
33	59	162	ILE	4.8
38	45	90	VAL	4.8
26	14	229	A	4.7
30	21	90	THR	4.7
33	59	169	VAL	4.7
7	62	87	VAL	4.7
38	45	93	TYR	4.5
32	49	177	GLY	4.4
41	75	105	LEU	4.4
12	3A	28	LYS	4.3
33	59	142	GLY	4.3
30	21	32	PRO	4.3
12	3A	26	ALA	4.3
30	21	89	ASP	4.2
38	45	79	LEU	4.2
46	C5	49	VAL	4.2
37	78	13	ASN	4.1
26	14	2902	C	4.1
26	14	2901	C	4.0
1	1G	711	G	3.9
46	G8	98	VAL	3.9
12	3A	27	LEU	3.9
46	C5	52	SER	3.8
41	75	1	MET	3.8
49	F5	85	LEU	3.7
41	75	101	PHE	3.7
2	12	102	LEU	3.7
22	1K	76	A	3.7
49	F5	28	GLY	3.7
41	B8	10	VAL	3.6
32	49	82	LEU	3.6
46	C5	29	GLU	3.6
36	68	52	VAL	3.5
54	L5	1	MET	3.5
43	95	80	GLN	3.5

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Mol	Chain	Res	Type	RSRZ
8	7E	119	LEU	3.4
11	2A	89	ALA	3.4
38	45	2	LEU	3.4
49	J8	85	LEU	3.4
3	22	162	GLN	3.4
7	62	146	GLU	3.3
29	19	181	GLU	3.3
46	G8	105	ALA	3.3
7	62	148	ASN	3.3
7	6E	83	ALA	3.3
26	1H	1106	G	3.3
48	I8	9	SER	3.3
29	19	27	THR	3.3
35	15	46	VAL	3.2
29	19	270	ILE	3.2
1	1G	712	A	3.2
41	B8	104	ASN	3.2
13	4I	118	ALA	3.2
41	B8	3	ARG	3.1
50	G5	41	ILE	3.1
42	85	25	TRP	3.1
48	E5	7	LEU	3.1
56	1L	76	A	3.1
6	52	83	ASP	3.1
26	14	2900	A	3.1
24	3K	70	C	3.0
12	3A	68	ALA	3.0
37	35	19	VAL	3.0
38	45	103	MET	3.0
26	14	2899	G	3.0
40	65	20	ARG	3.0
25	4K	24	A	3.0
57	3L	12	U	3.0
46	G8	89	PHE	3.0
19	AA	44	MET	3.0
28	79	209	LEU	2.9
11	2A	36	ASP	2.9
17	8I	36	ILE	2.9
41	B8	5	ALA	2.9
33	59	79	VAL	2.9
41	B8	106	SER	2.9
49	J8	92	LYS	2.9

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Mol	Chain	Res	Type	RSRZ
42	C8	90	VAL	2.9
38	45	88	GLY	2.9
42	C8	106	PHE	2.9
43	95	91	TYR	2.9
18	9A	85	LEU	2.9
38	45	92	GLY	2.8
41	B8	6	LEU	2.8
33	59	159	GLU	2.8
32	41	23	PHE	2.8
7	62	147	ALA	2.8
49	F5	77	ALA	2.8
30	21	21	VAL	2.8
26	14	909	A	2.8
38	45	89	ASN	2.8
33	59	76	VAL	2.8
47	D5	171	ILE	2.8
33	51	16	SER	2.8
29	19	275	LYS	2.7
13	4A	117	VAL	2.7
3	2E	166	GLU	2.7
33	59	155	SER	2.7
18	9A	84	LYS	2.7
33	51	9	ILE	2.7
7	6E	141	VAL	2.7
57	3L	6	G	2.7
30	21	199	ARG	2.6
1	1G	680	C	2.6
43	95	45	THR	2.6
11	2I	42	TRP	2.6
14	5A	39	LEU	2.6
29	11	274	ARG	2.6
46	C5	61	ILE	2.6
35	58	92	ALA	2.6
38	88	140	ALA	2.6
37	78	36	LYS	2.6
34	69	20	ASP	2.6
41	B8	87	ASP	2.6
30	21	195	LEU	2.6
46	C5	51	VAL	2.6
7	62	89	MET	2.6
37	78	19	VAL	2.6
46	C5	59	GLY	2.5

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Mol	Chain	Res	Type	RSRZ
3	22	43	LEU	2.5
11	2A	38	ASN	2.5
42	85	56	ASP	2.5
42	C8	116	ALA	2.5
1	1G	800	G	2.5
37	35	110	TYR	2.5
13	4A	93	ARG	2.5
38	45	6	ARG	2.5
30	21	91	VAL	2.5
33	59	144	VAL	2.5
39	98	109	ALA	2.5
1	1G	630	G	2.5
44	A5	113	LYS	2.4
24	3K	6	G	2.4
29	19	166	GLN	2.4
32	49	50	ALA	2.4
36	68	5	GLN	2.4
19	AA	62	ILE	2.4
50	K8	41	ILE	2.4
56	1L	71	C	2.4
14	5A	38	GLY	2.4
4	3E	24	GLU	2.4
23	2K	1	C	2.4
30	21	63	LEU	2.4
42	C8	86	ALA	2.4
11	2A	126	ARG	2.4
4	3E	150	GLU	2.4
41	B8	11	GLU	2.4
43	D8	36	PRO	2.4
12	3I	64	TYR	2.3
37	35	12	ALA	2.3
41	75	94	ALA	2.3
42	C8	80	ILE	2.3
36	68	91	LEU	2.3
6	5E	46	ARG	2.3
37	35	147	LEU	2.3
46	C5	62	GLU	2.3
18	9I	87	ARG	2.3
43	D8	45	THR	2.3
32	49	34	LEU	2.3
38	45	139	GLU	2.3
47	D5	138	GLU	2.3

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Mol	Chain	Res	Type	RSRZ
11	2I	51	LYS	2.3
34	69	21	VAL	2.3
36	25	93	PRO	2.3
9	82	62	TYR	2.3
57	3L	1	G	2.3
46	C5	63	LYS	2.3
12	3A	18	VAL	2.3
46	C5	45	VAL	2.3
46	G8	104	GLY	2.3
24	3K	71	C	2.3
55	M5	34	TRP	2.3
11	2I	16	SER	2.3
48	E5	9	SER	2.3
42	C8	104	GLN	2.3
11	2A	40	ILE	2.2
32	49	20	ILE	2.2
33	59	165	ALA	2.2
42	85	48	ALA	2.2
26	14	2062	A	2.2
29	19	262	ARG	2.2
48	E5	12	ASN	2.2
32	49	48	GLU	2.2
3	22	101	LEU	2.2
43	D8	38	LEU	2.2
30	21	51	PHE	2.2
1	1G	775	G	2.2
36	68	53	LYS	2.2
26	1H	2476	A	2.2
27	1J	88	C	2.2
56	1L	74	C	2.2
18	9I	40	LEU	2.2
49	F5	60	PHE	2.2
17	8I	29	HIS	2.2
7	62	75	VAL	2.2
37	35	71	VAL	2.2
28	71	202	GLU	2.2
53	N8	50	GLY	2.2
2	1E	74	LYS	2.2
36	68	56	ASP	2.2
46	C5	50	ARG	2.2
26	14	2111	C	2.2
37	35	52	GLU	2.2

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Mol	Chain	Res	Type	RSRZ
13	4I	6	GLY	2.2
34	69	80	PRO	2.2
37	35	108	LYS	2.2
26	14	1799	G	2.2
28	71	49	ILE	2.1
56	1L	75	C	2.1
32	49	138	GLN	2.1
38	45	87	LYS	2.1
50	G5	4	SER	2.1
9	8E	51	ARG	2.1
30	21	50	GLY	2.1
30	21	186	GLY	2.1
7	62	141	VAL	2.1
2	12	10	LEU	2.1
26	14	546	C	2.1
32	41	82	LEU	2.1
44	E8	23	LEU	2.1
44	E8	29	LEU	2.1
38	45	80	GLU	2.1
52	M8	41	PRO	2.1
12	3A	22	SER	2.1
41	B8	2	ASN	2.1
28	71	62	VAL	2.1
32	49	160	VAL	2.1
26	1H	1053	C	2.1
12	3A	23	LYS	2.1
30	21	78	LEU	2.1
36	25	80	ASP	2.1
12	3A	61	THR	2.1
49	J8	84	GLY	2.1
7	62	88	PRO	2.1
49	F5	86	SER	2.1
33	59	148	ILE	2.1
9	82	125	TYR	2.1
46	C5	58	GLY	2.1
9	82	59	PHE	2.1
55	M5	40	GLU	2.1
13	4I	120	LYS	2.0
4	3E	94	LEU	2.0
34	61	109	ILE	2.0
26	14	878	A	2.0
37	35	47	ASP	2.0

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Mol	Chain	Res	Type	RSRZ
49	F5	22	GLY	2.0
10	1A	85	LEU	2.0
24	3K	1	G	2.0
30	21	5	LEU	2.0
37	78	106	LEU	2.0
39	98	113	LEU	2.0
37	35	58	THR	2.0
30	21	31	CYS	2.0
30	29	65	GLY	2.0
49	F5	84	GLY	2.0
9	8E	44	VAL	2.0
28	71	197	GLU	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	PSU	3L	55	20/21	0.66	0.08	166,169,175,175	0
57	5MU	3L	54	21/22	0.68	0.09	162,169,172,173	0
56	T6A	1L	37	32/33	0.82	0.09	102,120,127,130	0
22	PSU	1K	55	20/21	0.84	0.08	109,120,133,134	0
56	PSU	1L	55	20/21	0.85	0.07	134,150,156,159	0
23	5MU	2L	55	21/22	0.87	0.10	128,133,141,143	0
56	U8U	1L	34	23/24	0.87	0.10	110,126,134,138	0
23	G7M	2L	47	24/25	0.87	0.10	129,137,150,151	0
57	PSU	3L	39	20/21	0.89	0.08	153,162,166,168	0
23	PSU	2K	56	20/21	0.89	0.07	104,113,121,127	0
23	5MU	2K	55	21/22	0.89	0.08	112,118,125,127	0
23	PSU	2L	56	20/21	0.90	0.08	116,129,133,137	0
56	5MU	1L	54	21/22	0.90	0.06	138,147,154,155	0
23	4SU	2K	8	20/21	0.91	0.08	93,98,102,106	0
23	4SU	2L	8	20/21	0.91	0.08	112,125,130,135	0
56	PSU	1L	39	20/21	0.92	0.07	105,127,133,134	0
22	5MU	1K	54	21/22	0.92	0.06	114,122,134,142	0
23	OMC	2L	33	21/22	0.94	0.09	109,114,117,125	0
23	G7M	2K	47	24/25	0.95	0.07	104,115,129,135	0
22	PSU	1K	39	20/21	0.95	0.06	79,98,105,108	0
22	U8U	1K	34	23/24	0.96	0.06	78,88,93,105	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
22	T6A	1K	37	32/33	0.96	0.07	76,86,103,106	0
23	OMC	2K	33	21/22	0.97	0.07	82,87,92,96	0

6.3 Carbohydrates (i)

There are no oligosaccharides in this entry.

6.4 Ligands (i)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	3K	101	1/1	0.14	0.24	162,162,162,162	0
58	MG	1G	1668	1/1	0.41	0.33	116,116,116,116	0
58	MG	1G	1665	1/1	0.42	0.25	113,113,113,113	0
58	MG	14	3129	1/1	0.47	0.36	73,73,73,73	0
58	MG	14	3052	1/1	0.50	0.34	113,113,113,113	0
58	MG	14	3034	1/1	0.51	0.27	88,88,88,88	0
58	MG	1H	3287	1/1	0.52	0.28	104,104,104,104	0
58	MG	14	3316	1/1	0.53	0.28	122,122,122,122	0
58	MG	2K	103	1/1	0.55	0.26	114,114,114,114	0
58	MG	14	3293	1/1	0.56	0.37	91,91,91,91	0
58	MG	14	3310	1/1	0.56	0.23	114,114,114,114	0
58	MG	1H	3336	1/1	0.56	0.30	104,104,104,104	0
58	MG	14	3282	1/1	0.57	0.26	109,109,109,109	0
58	MG	14	3300	1/1	0.58	0.27	117,117,117,117	0
58	MG	14	3174	1/1	0.58	0.29	101,101,101,101	0
58	MG	14	3252	1/1	0.58	0.32	84,84,84,84	0
58	MG	1J	203	1/1	0.58	0.27	103,103,103,103	0
58	MG	14	3012	1/1	0.60	0.34	80,80,80,80	0
58	MG	13	1685	1/1	0.60	0.18	121,121,121,121	0
58	MG	1G	1664	1/1	0.61	0.26	100,100,100,100	0
58	MG	1H	3037	1/1	0.61	0.29	121,121,121,121	0
58	MG	1H	3342	1/1	0.61	0.37	92,92,92,92	0
58	MG	1G	1641	1/1	0.61	0.26	113,113,113,113	0
58	MG	14	3317	1/1	0.61	0.35	89,89,89,89	0
58	MG	1G	1644	1/1	0.61	0.41	92,92,92,92	0
58	MG	13	1657	1/1	0.62	0.24	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3184	1/1	0.62	0.24	98,98,98,98	0
58	MG	14	3288	1/1	0.62	0.31	86,86,86,86	0
58	MG	14	3238	1/1	0.63	0.22	99,99,99,99	0
58	MG	14	3108	1/1	0.63	0.30	92,92,92,92	0
58	MG	1H	3251	1/1	0.63	0.20	71,71,71,71	0
58	MG	1G	1634	1/1	0.63	0.24	112,112,112,112	0
58	MG	1G	1659	1/1	0.63	0.16	142,142,142,142	0
58	MG	14	3221	1/1	0.64	0.16	69,69,69,69	0
58	MG	14	3222	1/1	0.64	0.22	97,97,97,97	0
58	MG	1G	1635	1/1	0.64	0.26	107,107,107,107	0
58	MG	1H	3249	1/1	0.64	0.22	80,80,80,80	0
58	MG	1G	1661	1/1	0.64	0.26	123,123,123,123	0
58	MG	14	3057	1/1	0.64	0.28	101,101,101,101	0
58	MG	14	3303	1/1	0.65	0.22	106,106,106,106	0
58	MG	14	3308	1/1	0.65	0.28	106,106,106,106	0
58	MG	14	3017	1/1	0.65	0.28	90,90,90,90	0
58	MG	13	1688	1/1	0.65	0.28	101,101,101,101	0
58	MG	1G	1602	1/1	0.65	0.32	79,79,79,79	0
58	MG	1H	3194	1/1	0.65	0.26	84,84,84,84	0
58	MG	14	3171	1/1	0.66	0.23	99,99,99,99	0
58	MG	1H	3308	1/1	0.66	0.32	90,90,90,90	0
58	MG	1H	3122	1/1	0.66	0.27	79,79,79,79	0
58	MG	1H	3255	1/1	0.66	0.34	73,73,73,73	0
58	MG	14	3290	1/1	0.66	0.22	92,92,92,92	0
58	MG	1H	3139	1/1	0.66	0.25	71,71,71,71	0
58	MG	14	3294	1/1	0.66	0.26	87,87,87,87	0
58	MG	1G	1611	1/1	0.67	0.27	104,104,104,104	0
58	MG	1H	3309	1/1	0.67	0.29	90,90,90,90	0
58	MG	14	3399	1/1	0.67	0.24	107,107,107,107	0
58	MG	13	1659	1/1	0.67	0.33	97,97,97,97	0
58	MG	13	1607	1/1	0.68	0.39	116,116,116,116	0
58	MG	14	3309	1/1	0.68	0.30	110,110,110,110	0
58	MG	1H	3222	1/1	0.68	0.25	98,98,98,98	0
58	MG	2K	102	1/1	0.68	0.39	94,94,94,94	0
58	MG	1G	1604	1/1	0.68	0.25	87,87,87,87	0
58	MG	1H	3016	1/1	0.68	0.36	75,75,75,75	0
58	MG	1G	1628	1/1	0.68	0.25	95,95,95,95	0
58	MG	13	1698	1/1	0.69	0.21	138,138,138,138	0
58	MG	14	3243	1/1	0.69	0.24	81,81,81,81	0
58	MG	1H	3279	1/1	0.69	0.20	67,67,67,67	0
58	MG	14	3255	1/1	0.69	0.22	78,78,78,78	0
58	MG	13	1623	1/1	0.69	0.28	108,108,108,108	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	13	1672	1/1	0.69	0.20	109,109,109,109	0
58	MG	13	1699	1/1	0.70	0.30	94,94,94,94	0
58	MG	1H	3132	1/1	0.70	0.32	85,85,85,85	0
58	MG	14	3053	1/1	0.70	0.17	61,61,61,61	0
58	MG	14	3193	1/1	0.70	0.29	77,77,77,77	0
58	MG	13	1692	1/1	0.70	0.18	122,122,122,122	0
58	MG	1H	3171	1/1	0.70	0.30	83,83,83,83	0
58	MG	14	3292	1/1	0.70	0.11	113,113,113,113	0
58	MG	14	3231	1/1	0.70	0.28	86,86,86,86	0
58	MG	13	1678	1/1	0.70	0.26	93,93,93,93	0
58	MG	1H	3118	1/1	0.71	0.37	77,77,77,77	0
58	MG	1G	1674	1/1	0.71	0.22	102,102,102,102	0
58	MG	14	3242	1/1	0.71	0.27	67,67,67,67	0
58	MG	14	3168	1/1	0.71	0.32	106,106,106,106	0
58	MG	13	1615	1/1	0.71	0.32	77,77,77,77	0
58	MG	1H	3313	1/1	0.71	0.24	98,98,98,98	0
58	MG	14	3258	1/1	0.71	0.36	92,92,92,92	0
58	MG	1H	3330	1/1	0.71	0.20	102,102,102,102	0
58	MG	1G	1614	1/1	0.71	0.27	107,107,107,107	0
58	MG	1H	3201	1/1	0.71	0.31	92,92,92,92	0
58	MG	1H	3341	1/1	0.71	0.20	79,79,79,79	0
58	MG	1G	1675	1/1	0.72	0.30	91,91,91,91	0
58	MG	14	3185	1/1	0.72	0.33	82,82,82,82	0
58	MG	2L	102	1/1	0.72	0.27	83,83,83,83	0
58	MG	14	3089	1/1	0.72	0.41	79,79,79,79	0
58	MG	1H	3236	1/1	0.72	0.19	99,99,99,99	0
58	MG	1G	1654	1/1	0.72	0.36	83,83,83,83	0
58	MG	14	3023	1/1	0.72	0.24	83,83,83,83	0
58	MG	13	1689	1/1	0.72	0.28	107,107,107,107	0
58	MG	1H	3292	1/1	0.72	0.21	77,77,77,77	0
58	MG	45	201	1/1	0.72	0.22	108,108,108,108	0
58	MG	13	1704	1/1	0.73	0.26	82,82,82,82	0
58	MG	14	3068	1/1	0.73	0.34	100,100,100,100	0
58	MG	1H	3286	1/1	0.73	0.26	94,94,94,94	0
58	MG	13	1604	1/1	0.73	0.28	87,87,87,87	0
58	MG	1H	3021	1/1	0.73	0.19	83,83,83,83	0
58	MG	14	3223	1/1	0.73	0.19	86,86,86,86	0
58	MG	14	3227	1/1	0.73	0.27	76,76,76,76	0
58	MG	13	1695	1/1	0.73	0.30	83,83,83,83	0
58	MG	1H	3265	1/1	0.73	0.26	78,78,78,78	0
58	MG	1H	3278	1/1	0.73	0.31	95,95,95,95	0
58	MG	14	3133	1/1	0.74	0.22	107,107,107,107	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3143	1/1	0.74	0.23	102,102,102,102	0
58	MG	13	1631	1/1	0.74	0.28	93,93,93,93	0
58	MG	1G	1638	1/1	0.74	0.28	93,93,93,93	0
58	MG	13	1632	1/1	0.74	0.28	107,107,107,107	0
58	MG	1G	1673	1/1	0.74	0.25	93,93,93,93	0
58	MG	13	1624	1/1	0.74	0.27	103,103,103,103	0
58	MG	1G	1629	1/1	0.74	0.35	104,104,104,104	0
58	MG	14	3211	1/1	0.74	0.26	91,91,91,91	0
58	MG	1G	1633	1/1	0.74	0.23	98,98,98,98	0
58	MG	1H	3217	1/1	0.74	0.28	71,71,71,71	0
58	MG	1J	204	1/1	0.74	0.26	101,101,101,101	0
58	MG	1G	1663	1/1	0.74	0.26	94,94,94,94	0
58	MG	1G	1660	1/1	0.75	0.23	85,85,85,85	0
58	MG	1H	3160	1/1	0.75	0.12	72,72,72,72	0
58	MG	1H	3167	1/1	0.75	0.31	93,93,93,93	0
58	MG	14	3217	1/1	0.75	0.19	83,83,83,83	0
58	MG	1H	3319	1/1	0.75	0.32	110,110,110,110	0
58	MG	13	1681	1/1	0.75	0.18	116,116,116,116	0
58	MG	14	3301	1/1	0.75	0.20	109,109,109,109	0
58	MG	1H	3334	1/1	0.75	0.23	76,76,76,76	0
58	MG	13	1653	1/1	0.75	0.28	72,72,72,72	0
58	MG	1H	3044	1/1	0.75	0.20	82,82,82,82	0
58	MG	13	1696	1/1	0.75	0.29	92,92,92,92	0
58	MG	14	3135	1/1	0.75	0.23	95,95,95,95	0
58	MG	1G	1642	1/1	0.75	0.23	91,91,91,91	0
58	MG	13	1670	1/1	0.75	0.19	97,97,97,97	0
58	MG	1H	3013	1/1	0.75	0.27	82,82,82,82	0
58	MG	14	3020	1/1	0.75	0.29	75,75,75,75	0
58	MG	13	1680	1/1	0.75	0.23	96,96,96,96	0
58	MG	1H	3033	1/1	0.76	0.28	88,88,88,88	0
58	MG	1G	1605	1/1	0.76	0.27	101,101,101,101	0
58	MG	14	3283	1/1	0.76	0.11	69,69,69,69	0
58	MG	1H	3185	1/1	0.76	0.27	95,95,95,95	0
58	MG	13	1679	1/1	0.76	0.24	100,100,100,100	0
58	MG	14	3191	1/1	0.76	0.28	96,96,96,96	0
58	MG	1H	3316	1/1	0.76	0.38	92,92,92,92	0
58	MG	1H	3043	1/1	0.76	0.35	81,81,81,81	0
58	MG	14	3059	1/1	0.76	0.35	86,86,86,86	0
58	MG	1H	3321	1/1	0.76	0.19	67,67,67,67	0
58	MG	14	3302	1/1	0.76	0.29	66,66,66,66	0
58	MG	14	3080	1/1	0.76	0.33	82,82,82,82	0
58	MG	1H	3154	1/1	0.76	0.27	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3096	1/1	0.76	0.27	73,73,73,73	0
58	MG	13	1701	1/1	0.76	0.18	114,114,114,114	0
58	MG	14	3311	1/1	0.76	0.33	100,100,100,100	0
58	MG	14	3235	1/1	0.76	0.35	72,72,72,72	0
58	MG	13	1662	1/1	0.76	0.21	118,118,118,118	0
58	MG	1H	3170	1/1	0.76	0.18	65,65,65,65	0
58	MG	1H	3300	1/1	0.76	0.26	87,87,87,87	0
58	MG	1H	3306	1/1	0.76	0.20	91,91,91,91	0
58	MG	35	201	1/1	0.76	0.21	74,74,74,74	0
58	MG	1G	1653	1/1	0.76	0.26	97,97,97,97	0
58	MG	1H	3331	1/1	0.77	0.28	73,73,73,73	0
58	MG	14	3058	1/1	0.77	0.19	84,84,84,84	0
58	MG	13	1687	1/1	0.77	0.29	99,99,99,99	0
58	MG	1E	301	1/1	0.77	0.26	106,106,106,106	0
58	MG	1G	1655	1/1	0.77	0.20	100,100,100,100	0
58	MG	1G	1630	1/1	0.77	0.25	103,103,103,103	0
58	MG	14	3197	1/1	0.77	0.21	116,116,116,116	0
58	MG	14	3265	1/1	0.77	0.27	98,98,98,98	0
58	MG	14	3313	1/1	0.77	0.19	92,92,92,92	0
58	MG	14	3315	1/1	0.77	0.28	93,93,93,93	0
58	MG	1H	3196	1/1	0.77	0.30	83,83,83,83	0
58	MG	1H	3027	1/1	0.77	0.20	81,81,81,81	0
58	MG	14	3022	1/1	0.77	0.20	64,64,64,64	0
58	MG	13	1702	1/1	0.77	0.34	98,98,98,98	0
58	MG	1H	3293	1/1	0.77	0.20	84,84,84,84	0
58	MG	1H	3220	1/1	0.77	0.15	82,82,82,82	0
58	MG	1H	3305	1/1	0.77	0.19	67,67,67,67	0
58	MG	1G	1603	1/1	0.78	0.41	102,102,102,102	0
58	MG	1H	3328	1/1	0.78	0.25	80,80,80,80	0
58	MG	1H	3152	1/1	0.78	0.30	100,100,100,100	0
58	MG	14	3099	1/1	0.78	0.27	87,87,87,87	0
58	MG	14	3295	1/1	0.78	0.20	85,85,85,85	0
58	MG	14	3299	1/1	0.78	0.22	98,98,98,98	0
58	MG	1G	1650	1/1	0.78	0.24	114,114,114,114	0
58	MG	1H	3219	1/1	0.78	0.17	103,103,103,103	0
58	MG	1H	3333	1/1	0.78	0.29	100,100,100,100	0
58	MG	1G	1615	1/1	0.78	0.26	125,125,125,125	0
58	MG	1H	3314	1/1	0.78	0.25	85,85,85,85	0
58	MG	14	3146	1/1	0.78	0.29	57,57,57,57	0
58	MG	14	3152	1/1	0.78	0.24	92,92,92,92	0
58	MG	14	3155	1/1	0.78	0.28	64,64,64,64	0
58	MG	14	3250	1/1	0.78	0.30	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3314	1/1	0.78	0.20	94,94,94,94	0
58	MG	1H	3335	1/1	0.78	0.31	74,74,74,74	0
58	MG	14	3254	1/1	0.78	0.18	111,111,111,111	0
58	MG	1H	3199	1/1	0.78	0.21	69,69,69,69	0
58	MG	13	1660	1/1	0.78	0.20	103,103,103,103	0
58	MG	1H	3224	1/1	0.78	0.32	73,73,73,73	0
58	MG	16	203	1/1	0.78	0.12	90,90,90,90	0
58	MG	1H	3324	1/1	0.78	0.34	89,89,89,89	0
58	MG	1G	1640	1/1	0.78	0.30	87,87,87,87	0
58	MG	14	3204	1/1	0.79	0.16	77,77,77,77	0
58	MG	14	3150	1/1	0.79	0.20	87,87,87,87	0
58	MG	14	3304	1/1	0.79	0.36	92,92,92,92	0
58	MG	1G	1617	1/1	0.79	0.15	135,135,135,135	0
58	MG	1H	3073	1/1	0.79	0.26	81,81,81,81	0
58	MG	14	3267	1/1	0.79	0.18	92,92,92,92	0
58	MG	1G	1646	1/1	0.79	0.23	100,100,100,100	0
58	MG	1G	1637	1/1	0.79	0.29	87,87,87,87	0
58	MG	14	3224	1/1	0.79	0.26	90,90,90,90	0
58	MG	1H	3237	1/1	0.79	0.19	84,84,84,84	0
58	MG	1H	3327	1/1	0.79	0.35	82,82,82,82	0
58	MG	1H	3144	1/1	0.79	0.30	77,77,77,77	0
58	MG	14	3190	1/1	0.79	0.25	86,86,86,86	0
58	MG	14	3079	1/1	0.79	0.28	70,70,70,70	0
58	MG	1G	1657	1/1	0.79	0.29	92,92,92,92	0
58	MG	14	3147	1/1	0.79	0.20	95,95,95,95	0
58	MG	14	3203	1/1	0.79	0.22	56,56,56,56	0
58	MG	1H	3268	1/1	0.80	0.31	85,85,85,85	0
58	MG	1H	3107	1/1	0.80	0.22	71,71,71,71	0
58	MG	14	3251	1/1	0.80	0.29	69,69,69,69	0
58	MG	1H	3232	1/1	0.80	0.15	52,52,52,52	0
58	MG	1G	1662	1/1	0.80	0.24	72,72,72,72	0
58	MG	1H	3233	1/1	0.80	0.37	62,62,62,62	0
58	MG	1H	3028	1/1	0.80	0.19	68,68,68,68	0
58	MG	14	3262	1/1	0.80	0.29	96,96,96,96	0
58	MG	1G	1618	1/1	0.80	0.26	109,109,109,109	0
58	MG	14	3312	1/1	0.80	0.23	80,80,80,80	0
58	MG	13	1697	1/1	0.80	0.19	92,92,92,92	0
58	MG	1H	3071	1/1	0.80	0.33	61,61,61,61	0
58	MG	14	3067	1/1	0.80	0.19	87,87,87,87	0
58	MG	1H	3298	1/1	0.80	0.21	74,74,74,74	0
58	MG	1H	3072	1/1	0.80	0.24	77,77,77,77	0
58	MG	13	1706	1/1	0.80	0.26	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3090	1/1	0.80	0.21	71,71,71,71	0
58	MG	14	3236	1/1	0.80	0.23	89,89,89,89	0
58	MG	39	301	1/1	0.80	0.17	96,96,96,96	0
58	MG	1G	1658	1/1	0.80	0.24	92,92,92,92	0
58	MG	14	3019	1/1	0.80	0.32	90,90,90,90	0
58	MG	14	3276	1/1	0.81	0.26	92,92,92,92	0
58	MG	1H	3239	1/1	0.81	0.19	75,75,75,75	0
58	MG	13	1605	1/1	0.81	0.24	76,76,76,76	0
58	MG	1H	3020	1/1	0.81	0.19	66,66,66,66	0
58	MG	1H	3254	1/1	0.81	0.29	99,99,99,99	0
58	MG	14	3291	1/1	0.81	0.27	87,87,87,87	0
58	MG	1H	3045	1/1	0.81	0.25	82,82,82,82	0
58	MG	13	1656	1/1	0.81	0.14	103,103,103,103	0
58	MG	1H	3204	1/1	0.81	0.28	69,69,69,69	0
58	MG	1H	3269	1/1	0.81	0.16	65,65,65,65	0
58	MG	1H	3211	1/1	0.81	0.18	83,83,83,83	0
58	MG	1H	3216	1/1	0.81	0.22	67,67,67,67	0
58	MG	1H	3283	1/1	0.81	0.24	92,92,92,92	0
58	MG	1H	3024	1/1	0.81	0.44	82,82,82,82	0
58	MG	13	1700	1/1	0.81	0.18	94,94,94,94	0
58	MG	1H	3089	1/1	0.81	0.22	59,59,59,59	0
58	MG	13	1677	1/1	0.81	0.21	104,104,104,104	0
58	MG	14	3144	1/1	0.81	0.36	71,71,71,71	0
58	MG	14	3009	1/1	0.81	0.26	52,52,52,52	0
58	MG	1H	3337	1/1	0.81	0.19	89,89,89,89	0
58	MG	14	3247	1/1	0.81	0.20	67,67,67,67	0
58	MG	1H	3340	1/1	0.81	0.32	78,78,78,78	0
58	MG	13	1661	1/1	0.81	0.27	103,103,103,103	0
58	MG	1H	3116	1/1	0.81	0.26	55,55,55,55	0
58	MG	1H	3176	1/1	0.81	0.30	76,76,76,76	0
58	MG	1G	1647	1/1	0.81	0.27	83,83,83,83	0
58	MG	78	201	1/1	0.81	0.29	70,70,70,70	0
58	MG	14	3260	1/1	0.81	0.24	72,72,72,72	0
58	MG	14	3035	1/1	0.81	0.16	93,93,93,93	0
58	MG	13	1625	1/1	0.81	0.29	86,86,86,86	0
58	MG	1H	3187	1/1	0.81	0.20	69,69,69,69	0
58	MG	35	202	1/1	0.81	0.15	87,87,87,87	0
58	MG	35	203	1/1	0.81	0.38	75,75,75,75	0
58	MG	14	3271	1/1	0.81	0.16	81,81,81,81	0
58	MG	14	3192	1/1	0.82	0.30	63,63,63,63	0
58	MG	14	3279	1/1	0.82	0.17	104,104,104,104	0
58	MG	14	3280	1/1	0.82	0.25	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1G	1672	1/1	0.82	0.30	99,99,99,99	0
58	MG	1G	1607	1/1	0.82	0.19	73,73,73,73	0
58	MG	13	1629	1/1	0.82	0.21	96,96,96,96	0
58	MG	13	1705	1/1	0.82	0.28	90,90,90,90	0
58	MG	1H	3172	1/1	0.82	0.23	87,87,87,87	0
58	MG	14	3214	1/1	0.82	0.24	88,88,88,88	0
58	MG	14	3100	1/1	0.82	0.25	76,76,76,76	0
58	MG	14	3106	1/1	0.82	0.23	61,61,61,61	0
58	MG	14	3004	1/1	0.82	0.18	67,67,67,67	0
58	MG	14	3111	1/1	0.82	0.15	81,81,81,81	0
58	MG	14	3117	1/1	0.82	0.30	81,81,81,81	0
58	MG	1G	1616	1/1	0.82	0.28	87,87,87,87	0
58	MG	14	3229	1/1	0.82	0.51	88,88,88,88	0
58	MG	1G	1652	1/1	0.82	0.28	71,71,71,71	0
58	MG	1H	3079	1/1	0.82	0.20	79,79,79,79	0
58	MG	1H	3262	1/1	0.82	0.26	94,94,94,94	0
58	MG	1H	3184	1/1	0.82	0.28	82,82,82,82	0
58	MG	1G	1656	1/1	0.82	0.31	78,78,78,78	0
58	MG	13	1648	1/1	0.82	0.21	95,95,95,95	0
58	MG	1H	3050	1/1	0.82	0.28	60,60,60,60	0
58	MG	1H	3190	1/1	0.82	0.20	73,73,73,73	0
58	MG	14	3153	1/1	0.82	0.29	89,89,89,89	0
58	MG	1H	3191	1/1	0.82	0.26	90,90,90,90	0
58	MG	14	3253	1/1	0.82	0.18	94,94,94,94	0
58	MG	1H	3101	1/1	0.82	0.18	59,59,59,59	0
58	MG	1G	1636	1/1	0.82	0.23	101,101,101,101	0
58	MG	1J	202	1/1	0.82	0.22	95,95,95,95	0
58	MG	1H	3056	1/1	0.82	0.27	56,56,56,56	0
58	MG	14	3179	1/1	0.82	0.21	60,60,60,60	0
58	MG	1H	3108	1/1	0.82	0.24	74,74,74,74	0
58	MG	13	1652	1/1	0.82	0.19	99,99,99,99	0
58	MG	1H	3247	1/1	0.82	0.20	81,81,81,81	0
58	MG	14	3269	1/1	0.82	0.41	88,88,88,88	0
58	MG	14	3074	1/1	0.82	0.41	79,79,79,79	0
58	MG	14	3029	1/1	0.83	0.24	78,78,78,78	0
58	MG	14	3139	1/1	0.83	0.14	99,99,99,99	0
58	MG	13	1676	1/1	0.83	0.23	76,76,76,76	0
58	MG	13	1646	1/1	0.83	0.24	75,75,75,75	0
58	MG	14	3044	1/1	0.83	0.28	64,64,64,64	0
58	MG	14	3048	1/1	0.83	0.19	90,90,90,90	0
58	MG	14	3050	1/1	0.83	0.37	59,59,59,59	0
58	MG	13	1658	1/1	0.83	0.17	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3036	1/1	0.83	0.46	100,100,100,100	0
58	MG	1H	3297	1/1	0.83	0.14	99,99,99,99	0
58	MG	14	3165	1/1	0.83	0.27	77,77,77,77	0
58	MG	1H	3230	1/1	0.83	0.28	43,43,43,43	0
58	MG	14	3305	1/1	0.83	0.18	75,75,75,75	0
58	MG	1H	3264	1/1	0.83	0.16	76,76,76,76	0
58	MG	1H	3304	1/1	0.83	0.20	86,86,86,86	0
58	MG	1H	3019	1/1	0.83	0.39	92,92,92,92	0
58	MG	14	3181	1/1	0.83	0.25	89,89,89,89	0
58	MG	5E	201	1/1	0.83	0.17	89,89,89,89	0
58	MG	2L	101	1/1	0.83	0.30	73,73,73,73	0
58	MG	14	3259	1/1	0.83	0.66	98,98,98,98	0
58	MG	1H	3182	1/1	0.83	0.13	78,78,78,78	0
58	MG	1G	1625	1/1	0.83	0.20	93,93,93,93	0
58	MG	13	1647	1/1	0.83	0.21	89,89,89,89	0
58	MG	13	1602	1/1	0.83	0.16	86,86,86,86	0
58	MG	1J	201	1/1	0.83	0.22	94,94,94,94	0
58	MG	14	3013	1/1	0.83	0.25	78,78,78,78	0
58	MG	14	3015	1/1	0.83	0.43	49,49,49,49	0
58	MG	1H	3282	1/1	0.83	0.39	88,88,88,88	0
58	MG	1G	1631	1/1	0.83	0.17	96,96,96,96	0
58	MG	14	3113	1/1	0.83	0.27	73,73,73,73	0
58	MG	16	202	1/1	0.83	0.11	64,64,64,64	0
58	MG	1H	3025	1/1	0.83	0.28	64,64,64,64	0
58	MG	1H	3284	1/1	0.83	0.29	81,81,81,81	0
58	MG	1H	3010	1/1	0.84	0.30	63,63,63,63	0
58	MG	1G	1606	1/1	0.84	0.24	88,88,88,88	0
58	MG	1H	3242	1/1	0.84	0.25	52,52,52,52	0
58	MG	14	3296	1/1	0.84	0.17	84,84,84,84	0
58	MG	14	3297	1/1	0.84	0.36	70,70,70,70	0
58	MG	14	3244	1/1	0.84	0.28	70,70,70,70	0
58	MG	14	3245	1/1	0.84	0.28	77,77,77,77	0
58	MG	14	3175	1/1	0.84	0.16	92,92,92,92	0
58	MG	1H	3011	1/1	0.84	0.28	51,51,51,51	0
58	MG	1G	1612	1/1	0.84	0.25	81,81,81,81	0
58	MG	13	1640	1/1	0.84	0.29	74,74,74,74	0
58	MG	1G	1667	1/1	0.84	0.23	109,109,109,109	0
58	MG	13	1671	1/1	0.84	0.18	87,87,87,87	0
58	MG	14	3038	1/1	0.84	0.19	71,71,71,71	0
58	MG	14	3121	1/1	0.84	0.28	78,78,78,78	0
58	MG	1G	1670	1/1	0.84	0.33	86,86,86,86	0
58	MG	14	3131	1/1	0.84	0.23	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3132	1/1	0.84	0.23	68,68,68,68	0
58	MG	1H	3205	1/1	0.84	0.13	81,81,81,81	0
58	MG	1H	3209	1/1	0.84	0.30	90,90,90,90	0
58	MG	1H	3258	1/1	0.84	0.19	59,59,59,59	0
58	MG	1H	3259	1/1	0.84	0.28	79,79,79,79	0
58	MG	14	3397	1/1	0.84	0.41	73,73,73,73	0
58	MG	14	3275	1/1	0.84	0.23	91,91,91,91	0
58	MG	1H	3376	1/1	0.84	0.14	76,76,76,76	0
58	MG	1H	3290	1/1	0.84	0.15	70,70,70,70	0
58	MG	1H	3291	1/1	0.84	0.10	73,73,73,73	0
58	MG	14	3007	1/1	0.84	0.20	54,54,54,54	0
58	MG	13	1669	1/1	0.84	0.27	68,68,68,68	0
58	MG	1H	3263	1/1	0.84	0.12	76,76,76,76	0
58	MG	1H	3007	1/1	0.84	0.20	54,54,54,54	0
58	MG	14	3163	1/1	0.84	0.21	90,90,90,90	0
58	MG	1H	3009	1/1	0.84	0.17	62,62,62,62	0
58	MG	14	3126	1/1	0.85	0.20	67,67,67,67	0
58	MG	1H	3031	1/1	0.85	0.28	76,76,76,76	0
58	MG	14	3249	1/1	0.85	0.24	80,80,80,80	0
58	MG	14	3187	1/1	0.85	0.28	80,80,80,80	0
58	MG	14	3189	1/1	0.85	0.13	82,82,82,82	0
58	MG	14	3130	1/1	0.85	0.23	86,86,86,86	0
58	MG	98	201	1/1	0.85	0.23	72,72,72,72	0
58	MG	14	3065	1/1	0.85	0.26	67,67,67,67	0
58	MG	I8	101	1/1	0.85	0.34	73,73,73,73	0
58	MG	Q8	101	1/1	0.85	0.26	70,70,70,70	0
58	MG	1G	1601	1/1	0.85	0.21	91,91,91,91	0
58	MG	1H	3081	1/1	0.85	0.20	87,87,87,87	0
58	MG	13	1606	1/1	0.85	0.29	94,94,94,94	0
58	MG	14	3081	1/1	0.85	0.23	76,76,76,76	0
58	MG	14	3266	1/1	0.85	0.28	85,85,85,85	0
58	MG	13	1618	1/1	0.85	0.26	80,80,80,80	0
58	MG	14	3148	1/1	0.85	0.29	77,77,77,77	0
58	MG	14	3095	1/1	0.85	0.24	71,71,71,71	0
58	MG	1H	3174	1/1	0.85	0.24	88,88,88,88	0
58	MG	1H	3197	1/1	0.85	0.29	80,80,80,80	0
58	MG	1H	3065	1/1	0.85	0.24	61,61,61,61	0
58	MG	1H	3271	1/1	0.85	0.22	76,76,76,76	0
58	MG	14	3281	1/1	0.85	0.20	86,86,86,86	0
58	MG	13	1603	1/1	0.85	0.21	92,92,92,92	0
58	MG	1H	3226	1/1	0.85	0.26	85,85,85,85	0
58	MG	14	3112	1/1	0.85	0.26	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	13	1608	1/1	0.85	0.31	90,90,90,90	0
58	MG	14	3239	1/1	0.85	0.14	80,80,80,80	0
58	MG	14	3054	1/1	0.85	0.24	70,70,70,70	0
58	MG	14	3120	1/1	0.85	0.23	82,82,82,82	0
58	MG	13	1609	1/1	0.85	0.18	75,75,75,75	0
58	MG	1H	3223	1/1	0.86	0.26	78,78,78,78	0
58	MG	14	3180	1/1	0.86	0.26	88,88,88,88	0
58	MG	13	1691	1/1	0.86	0.20	90,90,90,90	0
58	MG	1H	3307	1/1	0.86	0.28	94,94,94,94	0
58	MG	1H	3252	1/1	0.86	0.31	66,66,66,66	0
58	MG	1H	3225	1/1	0.86	0.22	78,78,78,78	0
58	MG	1H	3207	1/1	0.86	0.28	84,84,84,84	0
58	MG	1H	3227	1/1	0.86	0.40	85,85,85,85	0
58	MG	13	1654	1/1	0.86	0.19	74,74,74,74	0
58	MG	14	3060	1/1	0.86	0.16	73,73,73,73	0
58	MG	14	3008	1/1	0.86	0.23	65,65,65,65	0
58	MG	14	3194	1/1	0.86	0.21	81,81,81,81	0
58	MG	1H	3260	1/1	0.86	0.26	72,72,72,72	0
58	MG	14	3201	1/1	0.86	0.14	59,59,59,59	0
58	MG	1G	1626	1/1	0.86	0.24	82,82,82,82	0
58	MG	14	3142	1/1	0.86	0.25	76,76,76,76	0
58	MG	16	204	1/1	0.86	0.15	73,73,73,73	0
58	MG	1H	3130	1/1	0.86	0.24	74,74,74,74	0
58	MG	1H	3323	1/1	0.86	0.28	80,80,80,80	0
58	MG	14	3018	1/1	0.86	0.25	72,72,72,72	0
58	MG	1H	3213	1/1	0.86	0.18	74,74,74,74	0
58	MG	14	3094	1/1	0.86	0.30	60,60,60,60	0
58	MG	I8	102	1/1	0.86	0.15	70,70,70,70	0
58	MG	1H	3162	1/1	0.86	0.23	88,88,88,88	0
58	MG	14	3098	1/1	0.86	0.13	93,93,93,93	0
58	MG	14	3230	1/1	0.86	0.16	64,64,64,64	0
58	MG	1H	3294	1/1	0.86	0.15	57,57,57,57	0
58	MG	1H	3060	1/1	0.86	0.21	61,61,61,61	0
58	MG	13	1667	1/1	0.86	0.22	71,71,71,71	0
58	MG	1H	3332	1/1	0.86	0.20	74,74,74,74	0
58	MG	1H	3003	1/1	0.86	0.19	64,64,64,64	0
58	MG	1H	3188	1/1	0.86	0.25	73,73,73,73	0
58	MG	14	3037	1/1	0.87	0.26	106,106,106,106	0
58	MG	1G	1666	1/1	0.87	0.32	84,84,84,84	0
58	MG	1H	3322	1/1	0.87	0.27	81,81,81,81	0
58	MG	1H	3093	1/1	0.87	0.24	72,72,72,72	0
58	MG	14	3049	1/1	0.87	0.16	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3278	1/1	0.87	0.28	75,75,75,75	0
58	MG	14	3196	1/1	0.87	0.31	75,75,75,75	0
58	MG	1H	3100	1/1	0.87	0.14	61,61,61,61	0
58	MG	1G	1639	1/1	0.87	0.17	74,74,74,74	0
58	MG	14	3122	1/1	0.87	0.18	88,88,88,88	0
58	MG	1H	3069	1/1	0.87	0.19	90,90,90,90	0
58	MG	14	3205	1/1	0.87	0.27	96,96,96,96	0
58	MG	14	3289	1/1	0.87	0.30	83,83,83,83	0
58	MG	1H	3256	1/1	0.87	0.11	61,61,61,61	0
58	MG	13	1668	1/1	0.87	0.14	90,90,90,90	0
58	MG	1H	3164	1/1	0.87	0.19	64,64,64,64	0
58	MG	1H	3004	1/1	0.87	0.20	57,57,57,57	0
58	MG	1H	3296	1/1	0.87	0.14	57,57,57,57	0
58	MG	14	3134	1/1	0.87	0.20	74,74,74,74	0
58	MG	13	1621	1/1	0.87	0.19	90,90,90,90	0
58	MG	1H	3075	1/1	0.87	0.18	43,43,43,43	0
58	MG	14	3140	1/1	0.87	0.23	82,82,82,82	0
58	MG	1H	3203	1/1	0.87	0.29	79,79,79,79	0
58	MG	14	3070	1/1	0.87	0.23	60,60,60,60	0
58	MG	14	3232	1/1	0.87	0.17	81,81,81,81	0
58	MG	14	3234	1/1	0.87	0.27	70,70,70,70	0
58	MG	14	3071	1/1	0.87	0.21	68,68,68,68	0
58	MG	14	3073	1/1	0.87	0.44	83,83,83,83	0
58	MG	1H	3303	1/1	0.87	0.36	78,78,78,78	0
58	MG	14	3076	1/1	0.87	0.20	62,62,62,62	0
58	MG	14	3077	1/1	0.87	0.23	68,68,68,68	0
58	MG	1H	3058	1/1	0.87	0.24	46,46,46,46	0
58	MG	1H	3125	1/1	0.87	0.29	69,69,69,69	0
58	MG	1H	3206	1/1	0.87	0.31	77,77,77,77	0
58	MG	14	3082	1/1	0.87	0.30	61,61,61,61	0
58	MG	14	3248	1/1	0.87	0.15	79,79,79,79	0
58	MG	14	3083	1/1	0.87	0.28	72,72,72,72	0
58	MG	14	3084	1/1	0.87	0.28	80,80,80,80	0
58	MG	1H	3080	1/1	0.87	0.17	65,65,65,65	0
58	MG	14	3091	1/1	0.87	0.24	86,86,86,86	0
58	MG	1H	3275	1/1	0.87	0.24	75,75,75,75	0
58	MG	14	3177	1/1	0.87	0.26	72,72,72,72	0
58	MG	1H	3179	1/1	0.87	0.18	83,83,83,83	0
58	MG	1H	3059	1/1	0.87	0.19	49,49,49,49	0
58	MG	29	301	1/1	0.87	0.23	77,77,77,77	0
58	MG	13	1686	1/1	0.87	0.20	76,76,76,76	0
58	MG	1H	3032	1/1	0.87	0.28	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3149	1/1	0.87	0.33	60,60,60,60	0
58	MG	1H	3285	1/1	0.87	0.28	68,68,68,68	0
58	MG	14	3107	1/1	0.87	0.30	77,77,77,77	0
58	MG	14	3285	1/1	0.88	0.10	68,68,68,68	0
58	MG	14	3287	1/1	0.88	0.13	82,82,82,82	0
58	MG	14	3055	1/1	0.88	0.16	81,81,81,81	0
58	MG	1H	3165	1/1	0.88	0.32	78,78,78,78	0
58	MG	1G	1627	1/1	0.88	0.16	94,94,94,94	0
58	MG	14	3233	1/1	0.88	0.13	86,86,86,86	0
58	MG	1H	3318	1/1	0.88	0.26	79,79,79,79	0
58	MG	13	1635	1/1	0.88	0.33	74,74,74,74	0
58	MG	1H	3168	1/1	0.88	0.21	69,69,69,69	0
58	MG	14	3118	1/1	0.88	0.27	69,69,69,69	0
58	MG	13	1703	1/1	0.88	0.34	77,77,77,77	0
58	MG	1H	3137	1/1	0.88	0.24	88,88,88,88	0
58	MG	14	3069	1/1	0.88	0.17	70,70,70,70	0
58	MG	14	3186	1/1	0.88	0.28	82,82,82,82	0
58	MG	1H	3218	1/1	0.88	0.19	56,56,56,56	0
58	MG	14	3188	1/1	0.88	0.27	88,88,88,88	0
58	MG	1H	3295	1/1	0.88	0.27	93,93,93,93	0
58	MG	1H	3266	1/1	0.88	0.13	81,81,81,81	0
58	MG	13	1639	1/1	0.88	0.32	82,82,82,82	0
58	MG	14	3026	1/1	0.88	0.23	89,89,89,89	0
58	MG	14	3027	1/1	0.88	0.28	96,96,96,96	0
58	MG	1H	3243	1/1	0.88	0.24	65,65,65,65	0
58	MG	14	3030	1/1	0.88	0.23	86,86,86,86	0
58	MG	1H	3049	1/1	0.88	0.29	52,52,52,52	0
58	MG	1H	3302	1/1	0.88	0.19	92,92,92,92	0
58	MG	13	1627	1/1	0.88	0.30	69,69,69,69	0
58	MG	1H	3277	1/1	0.88	0.15	68,68,68,68	0
58	MG	14	3085	1/1	0.88	0.12	67,67,67,67	0
58	MG	14	3210	1/1	0.88	0.15	80,80,80,80	0
58	MG	14	3042	1/1	0.88	0.32	70,70,70,70	0
58	MG	13	1651	1/1	0.88	0.31	88,88,88,88	0
58	MG	14	3215	1/1	0.88	0.22	72,72,72,72	0
58	MG	14	3045	1/1	0.88	0.15	58,58,58,58	0
58	MG	1H	3038	1/1	0.88	0.18	92,92,92,92	0
58	MG	1H	3253	1/1	0.88	0.11	66,66,66,66	0
58	MG	1H	3094	1/1	0.88	0.21	64,64,64,64	0
58	MG	1H	3128	1/1	0.88	0.08	62,62,62,62	0
58	MG	14	3226	1/1	0.88	0.19	73,73,73,73	0
58	MG	1H	3129	1/1	0.88	0.30	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3228	1/1	0.88	0.12	101,101,101,101	0
58	MG	1H	3228	1/1	0.88	0.32	83,83,83,83	0
58	MG	13	1690	1/1	0.89	0.10	74,74,74,74	0
58	MG	1H	3023	1/1	0.89	0.28	56,56,56,56	0
58	MG	1H	3082	1/1	0.89	0.18	78,78,78,78	0
58	MG	1G	1609	1/1	0.89	0.20	94,94,94,94	0
58	MG	1G	1610	1/1	0.89	0.17	98,98,98,98	0
58	MG	1H	3133	1/1	0.89	0.22	71,71,71,71	0
58	MG	1H	3135	1/1	0.89	0.15	65,65,65,65	0
58	MG	1G	1613	1/1	0.89	0.11	98,98,98,98	0
58	MG	14	3125	1/1	0.89	0.27	72,72,72,72	0
58	MG	13	1675	1/1	0.89	0.22	73,73,73,73	0
58	MG	1H	3005	1/1	0.89	0.24	54,54,54,54	0
58	MG	1H	3141	1/1	0.89	0.24	61,61,61,61	0
58	MG	14	3286	1/1	0.89	0.27	80,80,80,80	0
58	MG	1H	3091	1/1	0.89	0.32	65,65,65,65	0
58	MG	1H	3146	1/1	0.89	0.25	72,72,72,72	0
58	MG	1G	1619	1/1	0.89	0.21	101,101,101,101	0
58	MG	1G	1671	1/1	0.89	0.32	88,88,88,88	0
58	MG	1H	3198	1/1	0.89	0.20	69,69,69,69	0
58	MG	1H	3026	1/1	0.89	0.26	56,56,56,56	0
58	MG	1H	3200	1/1	0.89	0.36	81,81,81,81	0
58	MG	1H	3150	1/1	0.89	0.16	72,72,72,72	0
58	MG	1H	3248	1/1	0.89	0.26	74,74,74,74	0
58	MG	13	1682	1/1	0.89	0.35	88,88,88,88	0
58	MG	1H	3338	1/1	0.89	0.20	65,65,65,65	0
58	MG	1H	3096	1/1	0.89	0.19	60,60,60,60	0
58	MG	1H	3158	1/1	0.89	0.24	74,74,74,74	0
58	MG	1H	3008	1/1	0.89	0.23	81,81,81,81	0
58	MG	14	3011	1/1	0.89	0.28	48,48,48,48	0
58	MG	13	1683	1/1	0.89	0.17	94,94,94,94	0
58	MG	1H	3467	1/1	0.89	0.15	84,84,84,84	0
58	MG	14	3156	1/1	0.89	0.25	63,63,63,63	0
58	MG	14	3014	1/1	0.89	0.26	57,57,57,57	0
58	MG	13	1684	1/1	0.89	0.12	128,128,128,128	0
58	MG	14	3166	1/1	0.89	0.15	60,60,60,60	0
58	MG	13	1641	1/1	0.89	0.24	93,93,93,93	0
58	MG	1H	3111	1/1	0.89	0.31	74,74,74,74	0
58	MG	14	3173	1/1	0.89	0.16	66,66,66,66	0
58	MG	14	3086	1/1	0.89	0.28	83,83,83,83	0
58	MG	14	3088	1/1	0.89	0.20	52,52,52,52	0
58	MG	21	302	1/1	0.89	0.25	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3090	1/1	0.89	0.14	74,74,74,74	0
58	MG	1H	3215	1/1	0.89	0.24	63,63,63,63	0
58	MG	1H	3035	1/1	0.89	0.32	83,83,83,83	0
58	MG	1G	1645	1/1	0.89	0.25	74,74,74,74	0
58	MG	13	1636	1/1	0.89	0.11	64,64,64,64	0
58	MG	14	3257	1/1	0.89	0.45	86,86,86,86	0
58	MG	13	1634	1/1	0.89	0.37	93,93,93,93	0
58	MG	13	1663	1/1	0.89	0.20	82,82,82,82	0
58	MG	1H	3126	1/1	0.89	0.13	58,58,58,58	0
58	MG	1H	3221	1/1	0.89	0.24	89,89,89,89	0
58	MG	14	3264	1/1	0.89	0.33	85,85,85,85	0
58	MG	1H	3127	1/1	0.89	0.09	59,59,59,59	0
58	MG	13	1633	1/1	0.89	0.28	62,62,62,62	0
58	MG	1H	3241	1/1	0.90	0.23	66,66,66,66	0
58	MG	13	1628	1/1	0.90	0.28	65,65,65,65	0
58	MG	1H	3267	1/1	0.90	0.28	73,73,73,73	0
58	MG	1H	3051	1/1	0.90	0.19	45,45,45,45	0
58	MG	2K	101	1/1	0.90	0.27	68,68,68,68	0
58	MG	13	1611	1/1	0.90	0.14	72,72,72,72	0
58	MG	1H	3273	1/1	0.90	0.18	68,68,68,68	0
58	MG	1H	3166	1/1	0.90	0.20	71,71,71,71	0
58	MG	1H	3276	1/1	0.90	0.23	75,75,75,75	0
58	MG	14	3195	1/1	0.90	0.29	68,68,68,68	0
58	MG	13	1664	1/1	0.90	0.13	89,89,89,89	0
58	MG	13	1630	1/1	0.90	0.24	80,80,80,80	0
58	MG	1H	3210	1/1	0.90	0.26	71,71,71,71	0
58	MG	1H	3192	1/1	0.90	0.16	80,80,80,80	0
58	MG	13	1730	1/1	0.90	0.16	86,86,86,86	0
58	MG	1H	3310	1/1	0.90	0.06	75,75,75,75	0
58	MG	14	3154	1/1	0.90	0.17	69,69,69,69	0
58	MG	1H	3311	1/1	0.90	0.20	75,75,75,75	0
58	MG	1G	1620	1/1	0.90	0.13	82,82,82,82	0
58	MG	14	3159	1/1	0.90	0.26	63,63,63,63	0
58	MG	14	3216	1/1	0.90	0.25	77,77,77,77	0
58	MG	14	3064	1/1	0.90	0.15	78,78,78,78	0
58	MG	14	3016	1/1	0.90	0.26	61,61,61,61	0
58	MG	1H	3231	1/1	0.90	0.24	58,58,58,58	0
58	MG	14	3167	1/1	0.90	0.26	87,87,87,87	0
58	MG	1H	3257	1/1	0.90	0.20	70,70,70,70	0
58	MG	14	3273	1/1	0.90	0.30	101,101,101,101	0
58	MG	14	3274	1/1	0.90	0.08	76,76,76,76	0
58	MG	1H	3066	1/1	0.90	0.22	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3131	1/1	0.90	0.33	73,73,73,73	0
58	MG	1H	3288	1/1	0.90	0.37	93,93,93,93	0
58	MG	1H	3153	1/1	0.90	0.12	62,62,62,62	0
58	MG	14	3176	1/1	0.90	0.33	79,79,79,79	0
58	MG	1H	3068	1/1	0.90	0.20	86,86,86,86	0
58	MG	13	1637	1/1	0.90	0.17	56,56,56,56	0
58	MG	1H	3240	1/1	0.90	0.14	74,74,74,74	0
58	MG	1H	3325	1/1	0.90	0.24	71,71,71,71	0
58	MG	14	3033	1/1	0.90	0.16	77,77,77,77	0
58	MG	1H	3326	1/1	0.90	0.28	83,83,83,83	0
60	ZN	G8	201	1/1	0.90	0.14	149,149,149,149	0
58	MG	14	3002	1/1	0.91	0.20	57,57,57,57	0
58	MG	14	3092	1/1	0.91	0.15	76,76,76,76	0
58	MG	14	3003	1/1	0.91	0.16	62,62,62,62	0
58	MG	1G	1648	1/1	0.91	0.23	117,117,117,117	0
58	MG	14	3158	1/1	0.91	0.23	75,75,75,75	0
58	MG	14	3051	1/1	0.91	0.08	81,81,81,81	0
58	MG	1H	3120	1/1	0.91	0.18	74,74,74,74	0
58	MG	1G	1651	1/1	0.91	0.15	104,104,104,104	0
58	MG	13	1666	1/1	0.91	0.10	78,78,78,78	0
58	MG	14	3101	1/1	0.91	0.20	64,64,64,64	0
58	MG	14	3104	1/1	0.91	0.19	86,86,86,86	0
58	MG	1H	3053	1/1	0.91	0.18	50,50,50,50	0
58	MG	14	3056	1/1	0.91	0.20	55,55,55,55	0
58	MG	1H	3173	1/1	0.91	0.33	84,84,84,84	0
58	MG	1H	3054	1/1	0.91	0.17	52,52,52,52	0
58	MG	1H	3202	1/1	0.91	0.28	70,70,70,70	0
58	MG	1H	3029	1/1	0.91	0.24	42,42,42,42	0
58	MG	14	3062	1/1	0.91	0.18	68,68,68,68	0
58	MG	1H	3074	1/1	0.91	0.16	64,64,64,64	0
58	MG	1H	3042	1/1	0.91	0.43	90,90,90,90	0
58	MG	14	3183	1/1	0.91	0.35	79,79,79,79	0
58	MG	1H	3183	1/1	0.91	0.24	67,67,67,67	0
58	MG	1H	3155	1/1	0.91	0.22	74,74,74,74	0
58	MG	1H	3208	1/1	0.91	0.31	88,88,88,88	0
58	MG	14	3021	1/1	0.91	0.22	52,52,52,52	0
58	MG	14	3306	1/1	0.91	0.22	88,88,88,88	0
58	MG	1H	3076	1/1	0.91	0.21	65,65,65,65	0
58	MG	1H	3186	1/1	0.91	0.22	75,75,75,75	0
58	MG	14	3024	1/1	0.91	0.28	77,77,77,77	0
58	MG	1H	3103	1/1	0.91	0.14	54,54,54,54	0
58	MG	1H	3015	1/1	0.91	0.27	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3078	1/1	0.91	0.21	64,64,64,64	0
58	MG	14	3028	1/1	0.91	0.24	69,69,69,69	0
58	MG	1H	3299	1/1	0.91	0.12	74,74,74,74	0
58	MG	1H	3214	1/1	0.91	0.45	76,76,76,76	0
58	MG	14	3141	1/1	0.91	0.14	93,93,93,93	0
58	MG	14	3261	1/1	0.91	0.17	77,77,77,77	0
58	MG	14	3198	1/1	0.91	0.09	107,107,107,107	0
58	MG	1H	3189	1/1	0.91	0.34	67,67,67,67	0
58	MG	14	3202	1/1	0.91	0.20	63,63,63,63	0
58	MG	13	1622	1/1	0.91	0.28	74,74,74,74	0
58	MG	1H	3246	1/1	0.91	0.13	54,54,54,54	0
58	MG	1H	3017	1/1	0.91	0.24	71,71,71,71	0
58	MG	29	303	1/1	0.91	0.25	52,52,52,52	0
58	MG	13	1650	1/1	0.91	0.27	94,94,94,94	0
58	MG	25	201	1/1	0.91	0.32	102,102,102,102	0
58	MG	1H	3117	1/1	0.91	0.18	48,48,48,48	0
58	MG	14	3213	1/1	0.91	0.24	64,64,64,64	0
58	MG	14	3149	1/1	0.91	0.31	73,73,73,73	0
58	MG	13	1620	1/1	0.91	0.19	73,73,73,73	0
58	MG	E5	101	1/1	0.91	0.32	89,89,89,89	0
58	MG	1H	3280	1/1	0.91	0.20	77,77,77,77	0
58	MG	14	3043	1/1	0.92	0.20	57,57,57,57	0
58	MG	1H	3178	1/1	0.92	0.16	71,71,71,71	0
58	MG	1H	3061	1/1	0.92	0.22	48,48,48,48	0
58	MG	14	3047	1/1	0.92	0.10	74,74,74,74	0
58	MG	1H	3317	1/1	0.92	0.26	68,68,68,68	0
58	MG	14	3241	1/1	0.92	0.12	56,56,56,56	0
58	MG	1H	3180	1/1	0.92	0.29	75,75,75,75	0
58	MG	1H	3422	1/1	0.92	0.06	112,112,112,112	0
58	MG	1H	3438	1/1	0.92	0.08	83,83,83,83	0
58	MG	1H	3136	1/1	0.92	0.23	49,49,49,49	0
58	MG	16	201	1/1	0.92	0.11	85,85,85,85	0
58	MG	1H	3320	1/1	0.92	0.27	77,77,77,77	0
58	MG	13	1601	1/1	0.92	0.17	68,68,68,68	0
58	MG	1H	3250	1/1	0.92	0.23	74,74,74,74	0
58	MG	13	1612	1/1	0.92	0.18	63,63,63,63	0
58	MG	41	201	1/1	0.92	0.14	78,78,78,78	0
58	MG	14	3200	1/1	0.92	0.52	74,74,74,74	0
58	MG	1H	3163	1/1	0.92	0.30	50,50,50,50	0
58	MG	1H	3140	1/1	0.92	0.13	58,58,58,58	0
58	MG	1H	3018	1/1	0.92	0.30	71,71,71,71	0
58	MG	14	3307	1/1	0.92	0.28	101,101,101,101	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3105	1/1	0.92	0.16	67,67,67,67	0
58	MG	13	1732	1/1	0.92	0.16	65,65,65,65	0
58	MG	14	3209	1/1	0.92	0.14	66,66,66,66	0
58	MG	J8	101	1/1	0.92	0.19	66,66,66,66	0
58	MG	1H	3145	1/1	0.92	0.16	73,73,73,73	0
58	MG	14	3025	1/1	0.92	0.28	84,84,84,84	0
58	MG	1H	3329	1/1	0.92	0.32	81,81,81,81	0
58	MG	1H	3281	1/1	0.92	0.14	88,88,88,88	0
58	MG	14	3114	1/1	0.92	0.18	58,58,58,58	0
58	MG	14	3268	1/1	0.92	0.27	94,94,94,94	0
58	MG	1H	3039	1/1	0.92	0.15	68,68,68,68	0
58	MG	14	3169	1/1	0.92	0.18	58,58,58,58	0
58	MG	14	3272	1/1	0.92	0.25	76,76,76,76	0
58	MG	1H	3147	1/1	0.92	0.19	64,64,64,64	0
58	MG	14	3119	1/1	0.92	0.22	62,62,62,62	0
58	MG	13	1610	1/1	0.92	0.18	80,80,80,80	0
58	MG	14	3075	1/1	0.92	0.18	68,68,68,68	0
58	MG	14	3277	1/1	0.92	0.21	85,85,85,85	0
58	MG	13	1694	1/1	0.92	0.30	64,64,64,64	0
58	MG	13	1617	1/1	0.92	0.12	83,83,83,83	0
58	MG	14	3178	1/1	0.92	0.20	84,84,84,84	0
58	MG	1G	1643	1/1	0.92	0.18	132,132,132,132	0
58	MG	1H	3006	1/1	0.92	0.21	46,46,46,46	0
58	MG	1H	3175	1/1	0.92	0.26	65,65,65,65	0
58	MG	14	3284	1/1	0.92	0.32	78,78,78,78	0
58	MG	1H	3119	1/1	0.92	0.13	69,69,69,69	0
58	MG	14	3207	1/1	0.93	0.16	80,80,80,80	0
58	MG	1H	3085	1/1	0.93	0.17	63,63,63,63	0
58	MG	1H	3159	1/1	0.93	0.24	67,67,67,67	0
58	MG	1H	3086	1/1	0.93	0.18	70,70,70,70	0
58	MG	14	3036	1/1	0.93	0.33	96,96,96,96	0
58	MG	1H	3161	1/1	0.93	0.21	84,84,84,84	0
58	MG	1H	3088	1/1	0.93	0.24	68,68,68,68	0
58	MG	1G	1669	1/1	0.93	0.19	107,107,107,107	0
58	MG	13	1642	1/1	0.93	0.17	74,74,74,74	0
58	MG	14	3219	1/1	0.93	0.12	48,48,48,48	0
58	MG	14	3220	1/1	0.93	0.39	76,76,76,76	0
58	MG	1H	3063	1/1	0.93	0.06	78,78,78,78	0
58	MG	1G	1632	1/1	0.93	0.23	75,75,75,75	0
58	MG	14	3046	1/1	0.93	0.12	66,66,66,66	0
58	MG	14	3097	1/1	0.93	0.14	65,65,65,65	0
58	MG	14	3161	1/1	0.93	0.21	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3162	1/1	0.93	0.31	70,70,70,70	0
58	MG	1H	3064	1/1	0.93	0.11	65,65,65,65	0
58	MG	21	301	1/1	0.93	0.33	54,54,54,54	0
58	MG	13	1731	1/1	0.93	0.18	84,84,84,84	0
58	MG	1G	1690	1/1	0.93	0.12	93,93,93,93	0
58	MG	1H	3030	1/1	0.93	0.11	67,67,67,67	0
58	MG	1H	3095	1/1	0.93	0.20	65,65,65,65	0
58	MG	1H	3169	1/1	0.93	0.18	85,85,85,85	0
58	MG	13	1645	1/1	0.93	0.30	64,64,64,64	0
58	MG	1H	3097	1/1	0.93	0.27	71,71,71,71	0
58	MG	14	3237	1/1	0.93	0.15	83,83,83,83	0
58	MG	1H	3048	1/1	0.93	0.17	56,56,56,56	0
58	MG	1H	3138	1/1	0.93	0.22	58,58,58,58	0
58	MG	14	3240	1/1	0.93	0.10	83,83,83,83	0
58	MG	1H	3001	1/1	0.93	0.16	43,43,43,43	0
58	MG	1H	3022	1/1	0.93	0.21	62,62,62,62	0
58	MG	14	3115	1/1	0.93	0.26	80,80,80,80	0
58	MG	1H	3105	1/1	0.93	0.22	66,66,66,66	0
58	MG	14	3061	1/1	0.93	0.14	81,81,81,81	0
58	MG	14	3246	1/1	0.93	0.07	69,69,69,69	0
58	MG	1H	3177	1/1	0.93	0.17	74,74,74,74	0
58	MG	1H	3142	1/1	0.93	0.27	68,68,68,68	0
58	MG	1H	3106	1/1	0.93	0.21	63,63,63,63	0
58	MG	1G	1649	1/1	0.93	0.29	83,83,83,83	0
58	MG	14	3124	1/1	0.93	0.26	54,54,54,54	0
58	MG	1H	3002	1/1	0.93	0.13	38,38,38,38	0
58	MG	13	1655	1/1	0.93	0.29	87,87,87,87	0
58	MG	14	3127	1/1	0.93	0.19	69,69,69,69	0
58	MG	13	1616	1/1	0.93	0.04	88,88,88,88	0
58	MG	14	3398	1/1	0.93	0.06	108,108,108,108	0
58	MG	1H	3148	1/1	0.93	0.16	50,50,50,50	0
58	MG	1H	3055	1/1	0.93	0.21	49,49,49,49	0
58	MG	1K	101	1/1	0.93	0.06	145,145,145,145	0
58	MG	1H	3151	1/1	0.93	0.12	55,55,55,55	0
58	MG	1H	3301	1/1	0.93	0.35	84,84,84,84	0
58	MG	13	1619	1/1	0.93	0.14	91,91,91,91	0
58	MG	29	302	1/1	0.93	0.22	65,65,65,65	0
58	MG	1H	3040	1/1	0.93	0.28	70,70,70,70	0
58	MG	1H	3041	1/1	0.93	0.16	76,76,76,76	0
58	MG	1H	3083	1/1	0.93	0.23	67,67,67,67	0
58	MG	1H	3357	1/1	0.93	0.11	71,71,71,71	0
58	MG	1G	1621	1/1	0.93	0.10	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	14	3031	1/1	0.93	0.27	68,68,68,68	0
58	MG	14	3270	1/1	0.93	0.19	63,63,63,63	0
58	MG	55	201	1/1	0.93	0.27	74,74,74,74	0
58	MG	14	3145	1/1	0.93	0.16	65,65,65,65	0
58	MG	14	3206	1/1	0.93	0.12	80,80,80,80	0
58	MG	1H	3375	1/1	0.94	0.15	60,60,60,60	0
58	MG	14	3006	1/1	0.94	0.32	56,56,56,56	0
58	MG	14	3109	1/1	0.94	0.24	73,73,73,73	0
58	MG	1H	3181	1/1	0.94	0.10	61,61,61,61	0
58	MG	14	3208	1/1	0.94	0.10	91,91,91,91	0
58	MG	1H	3312	1/1	0.94	0.15	67,67,67,67	0
58	MG	14	3032	1/1	0.94	0.29	75,75,75,75	0
58	MG	1H	3193	1/1	0.94	0.38	73,73,73,73	0
58	MG	1H	3441	1/1	0.94	0.06	89,89,89,89	0
58	MG	14	3087	1/1	0.94	0.18	40,40,40,40	0
58	MG	1H	3067	1/1	0.94	0.20	55,55,55,55	0
58	MG	1H	3315	1/1	0.94	0.24	76,76,76,76	0
58	MG	1H	3052	1/1	0.94	0.12	53,53,53,53	0
58	MG	14	3358	1/1	0.94	0.13	91,91,91,91	0
58	MG	14	3396	1/1	0.94	0.08	108,108,108,108	0
58	MG	13	1614	1/1	0.94	0.16	78,78,78,78	0
58	MG	13	1644	1/1	0.94	0.25	96,96,96,96	0
58	MG	14	3093	1/1	0.94	0.18	42,42,42,42	0
58	MG	13	1719	1/1	0.94	0.06	71,71,71,71	0
58	MG	14	3157	1/1	0.94	0.10	57,57,57,57	0
58	MG	1H	3212	1/1	0.94	0.19	76,76,76,76	0
58	MG	14	3225	1/1	0.94	0.27	82,82,82,82	0
58	MG	13	1649	1/1	0.94	0.18	72,72,72,72	0
58	MG	14	3128	1/1	0.94	0.22	58,58,58,58	0
58	MG	1H	3244	1/1	0.94	0.17	62,62,62,62	0
58	MG	1G	1689	1/1	0.94	0.07	121,121,121,121	0
58	MG	1H	3057	1/1	0.94	0.22	66,66,66,66	0
58	MG	6A	101	1/1	0.94	0.24	93,93,93,93	0
58	MG	1H	3124	1/1	0.94	0.16	46,46,46,46	0
58	MG	14	3199	1/1	0.94	0.23	69,69,69,69	0
58	MG	1H	3012	1/1	0.94	0.37	83,83,83,83	0
58	MG	1H	3110	1/1	0.94	0.30	55,55,55,55	0
58	MG	1H	3364	1/1	0.94	0.06	98,98,98,98	0
58	MG	14	3172	1/1	0.94	0.37	70,70,70,70	0
58	MG	1H	3235	1/1	0.95	0.08	53,53,53,53	0
58	MG	13	1708	1/1	0.95	0.07	89,89,89,89	0
58	MG	14	3039	1/1	0.95	0.10	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	L8	101	1/1	0.95	0.31	84,84,84,84	0
58	MG	1H	3134	1/1	0.95	0.08	69,69,69,69	0
58	MG	14	3110	1/1	0.95	0.19	57,57,57,57	0
58	MG	1H	3238	1/1	0.95	0.12	65,65,65,65	0
58	MG	1H	3034	1/1	0.95	0.28	80,80,80,80	0
58	MG	1H	3368	1/1	0.95	0.10	74,74,74,74	0
58	MG	1H	3014	1/1	0.95	0.23	70,70,70,70	0
58	MG	1H	3047	1/1	0.95	0.17	47,47,47,47	0
58	MG	1H	3084	1/1	0.95	0.14	94,94,94,94	0
58	MG	1H	3426	1/1	0.95	0.09	58,58,58,58	0
58	MG	1H	3261	1/1	0.95	0.15	69,69,69,69	0
58	MG	1H	3109	1/1	0.95	0.12	47,47,47,47	0
58	MG	1H	3446	1/1	0.95	0.10	84,84,84,84	0
58	MG	1H	3457	1/1	0.95	0.07	141,141,141,141	0
58	MG	14	3324	1/1	0.95	0.06	99,99,99,99	0
58	MG	14	3123	1/1	0.95	0.16	64,64,64,64	0
58	MG	14	3380	1/1	0.95	0.06	96,96,96,96	0
58	MG	14	3391	1/1	0.95	0.13	104,104,104,104	0
58	MG	14	3392	1/1	0.95	0.05	128,128,128,128	0
58	MG	1H	3466	1/1	0.95	0.17	56,56,56,56	0
58	MG	14	3164	1/1	0.95	0.28	74,74,74,74	0
58	MG	13	1693	1/1	0.95	0.15	55,55,55,55	0
58	MG	1H	3245	1/1	0.95	0.34	62,62,62,62	0
58	MG	13	1613	1/1	0.95	0.08	81,81,81,81	0
58	MG	1G	1680	1/1	0.95	0.05	140,140,140,140	0
58	MG	1H	3156	1/1	0.95	0.25	67,67,67,67	0
58	MG	14	3170	1/1	0.95	0.14	83,83,83,83	0
58	MG	1H	3229	1/1	0.95	0.17	48,48,48,48	0
58	MG	16	205	1/1	0.95	0.08	81,81,81,81	0
58	MG	1H	3112	1/1	0.95	0.20	56,56,56,56	0
58	MG	14	3212	1/1	0.95	0.34	70,70,70,70	0
58	MG	1H	3098	1/1	0.95	0.14	53,53,53,53	0
58	MG	14	3066	1/1	0.95	0.28	62,62,62,62	0
58	MG	1H	3077	1/1	0.95	0.12	60,60,60,60	0
58	MG	14	3137	1/1	0.95	0.05	57,57,57,57	0
58	MG	1H	3272	1/1	0.95	0.13	64,64,64,64	0
58	MG	1H	3062	1/1	0.95	0.17	64,64,64,64	0
58	MG	14	3103	1/1	0.95	0.13	51,51,51,51	0
58	MG	1H	3274	1/1	0.95	0.17	59,59,59,59	0
58	MG	1H	3465	1/1	0.96	0.09	71,71,71,71	0
58	MG	1H	3121	1/1	0.96	0.20	62,62,62,62	0
58	MG	14	3063	1/1	0.96	0.12	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	13	1720	1/1	0.96	0.06	90,90,90,90	0
58	MG	1H	3123	1/1	0.96	0.10	69,69,69,69	0
58	MG	13	1727	1/1	0.96	0.05	112,112,112,112	0
58	MG	1G	1608	1/1	0.96	0.09	89,89,89,89	0
58	MG	13	1729	1/1	0.96	0.05	113,113,113,113	0
58	MG	13	1707	1/1	0.96	0.07	76,76,76,76	0
58	MG	1H	3370	1/1	0.96	0.11	71,71,71,71	0
58	MG	14	3136	1/1	0.96	0.09	62,62,62,62	0
58	MG	14	3040	1/1	0.96	0.19	59,59,59,59	0
58	MG	14	3041	1/1	0.96	0.15	54,54,54,54	0
58	MG	14	3353	1/1	0.96	0.04	118,118,118,118	0
58	MG	14	3357	1/1	0.96	0.11	76,76,76,76	0
58	MG	16	209	1/1	0.96	0.08	100,100,100,100	0
58	MG	14	3363	1/1	0.96	0.06	72,72,72,72	0
58	MG	1H	3114	1/1	0.96	0.30	74,74,74,74	0
58	MG	14	3389	1/1	0.96	0.07	102,102,102,102	0
58	MG	1H	3104	1/1	0.96	0.22	69,69,69,69	0
58	MG	1H	3381	1/1	0.96	0.06	63,63,63,63	0
58	MG	14	3393	1/1	0.96	0.06	127,127,127,127	0
58	MG	14	3395	1/1	0.96	0.05	103,103,103,103	0
58	MG	1H	3413	1/1	0.96	0.05	102,102,102,102	0
58	MG	1H	3078	1/1	0.96	0.24	67,67,67,67	0
58	MG	1H	3234	1/1	0.96	0.05	66,66,66,66	0
58	MG	13	1626	1/1	0.96	0.17	69,69,69,69	0
58	MG	1H	3087	1/1	0.96	0.31	70,70,70,70	0
58	MG	14	3218	1/1	0.96	0.28	62,62,62,62	0
58	MG	1H	3445	1/1	0.96	0.05	110,110,110,110	0
58	MG	1G	1622	1/1	0.96	0.38	92,92,92,92	0
58	MG	14	3256	1/1	0.96	0.28	83,83,83,83	0
58	MG	14	3151	1/1	0.96	0.27	79,79,79,79	0
58	MG	1G	1623	1/1	0.96	0.21	62,62,62,62	0
58	MG	1G	1678	1/1	0.96	0.06	128,128,128,128	0
58	MG	1G	1624	1/1	0.96	0.23	65,65,65,65	0
58	MG	1G	1681	1/1	0.96	0.06	78,78,78,78	0
58	MG	P8	101	1/1	0.96	0.31	77,77,77,77	0
58	MG	14	3263	1/1	0.96	0.17	75,75,75,75	0
58	MG	1H	3157	1/1	0.96	0.28	73,73,73,73	0
58	MG	13	1673	1/1	0.96	0.33	70,70,70,70	0
58	MG	1H	3463	1/1	0.96	0.05	112,112,112,112	0
58	MG	14	3160	1/1	0.96	0.17	72,72,72,72	0
58	MG	14	3182	1/1	0.97	0.30	75,75,75,75	0
58	MG	1G	1682	1/1	0.97	0.05	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1G	1686	1/1	0.97	0.07	125,125,125,125	0
58	MG	1G	1687	1/1	0.97	0.07	139,139,139,139	0
58	MG	1H	3339	1/1	0.97	0.17	48,48,48,48	0
58	MG	1H	3383	1/1	0.97	0.07	60,60,60,60	0
58	MG	1H	3399	1/1	0.97	0.07	62,62,62,62	0
58	MG	13	1665	1/1	0.97	0.04	82,82,82,82	0
58	MG	14	3364	1/1	0.97	0.08	85,85,85,85	0
58	MG	14	3376	1/1	0.97	0.04	94,94,94,94	0
58	MG	1H	3417	1/1	0.97	0.08	94,94,94,94	0
58	MG	14	3385	1/1	0.97	0.04	116,116,116,116	0
58	MG	1H	3113	1/1	0.97	0.23	51,51,51,51	0
58	MG	1H	3425	1/1	0.97	0.05	63,63,63,63	0
58	MG	1H	3195	1/1	0.97	0.27	62,62,62,62	0
58	MG	14	3005	1/1	0.97	0.24	48,48,48,48	0
58	MG	1H	3433	1/1	0.97	0.12	87,87,87,87	0
58	MG	1H	3343	1/1	0.97	0.06	54,54,54,54	0
58	MG	88	201	1/1	0.97	0.17	81,81,81,81	0
58	MG	13	1674	1/1	0.97	0.06	91,91,91,91	0
58	MG	14	3298	1/1	0.97	0.37	64,64,64,64	0
58	MG	14	3010	1/1	0.97	0.23	41,41,41,41	0
58	MG	14	3102	1/1	0.97	0.07	61,61,61,61	0
58	MG	1H	3443	1/1	0.97	0.11	76,76,76,76	0
58	MG	1H	3115	1/1	0.97	0.13	43,43,43,43	0
58	MG	1H	3367	1/1	0.97	0.05	71,71,71,71	0
58	MG	1H	3447	1/1	0.97	0.07	86,86,86,86	0
58	MG	1H	3452	1/1	0.97	0.06	104,104,104,104	0
58	MG	29	304	1/1	0.97	0.26	81,81,81,81	0
58	MG	13	1725	1/1	0.97	0.05	94,94,94,94	0
58	MG	1H	3459	1/1	0.97	0.05	106,106,106,106	0
58	MG	1H	3070	1/1	0.97	0.21	58,58,58,58	0
58	MG	1H	3464	1/1	0.97	0.04	107,107,107,107	0
58	MG	13	1710	1/1	0.97	0.04	97,97,97,97	0
58	MG	1G	1679	1/1	0.97	0.08	119,119,119,119	0
58	MG	45	202	1/1	0.97	0.19	72,72,72,72	0
58	MG	1H	3046	1/1	0.97	0.17	47,47,47,47	0
58	MG	1H	3379	1/1	0.97	0.07	73,73,73,73	0
58	MG	14	3116	1/1	0.97	0.11	64,64,64,64	0
60	ZN	C5	201	1/1	0.97	0.07	165,165,165,165	0
58	MG	1H	3361	1/1	0.98	0.05	63,63,63,63	0
58	MG	1H	3442	1/1	0.98	0.05	69,69,69,69	0
58	MG	13	1715	1/1	0.98	0.07	109,109,109,109	0
58	MG	1H	3365	1/1	0.98	0.09	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1G	1676	1/1	0.98	0.05	90,90,90,90	0
58	MG	14	3319	1/1	0.98	0.09	59,59,59,59	0
58	MG	14	3321	1/1	0.98	0.04	78,78,78,78	0
58	MG	14	3322	1/1	0.98	0.05	65,65,65,65	0
58	MG	13	1638	1/1	0.98	0.08	59,59,59,59	0
58	MG	14	3325	1/1	0.98	0.04	63,63,63,63	0
58	MG	14	3326	1/1	0.98	0.05	90,90,90,90	0
58	MG	14	3327	1/1	0.98	0.04	59,59,59,59	0
58	MG	14	3333	1/1	0.98	0.06	74,74,74,74	0
58	MG	14	3335	1/1	0.98	0.04	61,61,61,61	0
58	MG	14	3336	1/1	0.98	0.04	62,62,62,62	0
58	MG	14	3345	1/1	0.98	0.04	90,90,90,90	0
58	MG	14	3347	1/1	0.98	0.03	108,108,108,108	0
58	MG	14	3349	1/1	0.98	0.04	83,83,83,83	0
58	MG	14	3352	1/1	0.98	0.08	97,97,97,97	0
58	MG	1H	3270	1/1	0.98	0.54	80,80,80,80	0
58	MG	14	3355	1/1	0.98	0.04	102,102,102,102	0
58	MG	1H	3451	1/1	0.98	0.04	114,114,114,114	0
58	MG	13	1643	1/1	0.98	0.09	99,99,99,99	0
58	MG	14	3362	1/1	0.98	0.03	77,77,77,77	0
58	MG	1H	3454	1/1	0.98	0.04	96,96,96,96	0
58	MG	14	3072	1/1	0.98	0.10	45,45,45,45	0
58	MG	14	3365	1/1	0.98	0.06	94,94,94,94	0
58	MG	14	3369	1/1	0.98	0.06	59,59,59,59	0
58	MG	14	3372	1/1	0.98	0.04	70,70,70,70	0
58	MG	14	3374	1/1	0.98	0.09	76,76,76,76	0
58	MG	14	3375	1/1	0.98	0.05	97,97,97,97	0
58	MG	1G	1683	1/1	0.98	0.04	89,89,89,89	0
58	MG	14	3378	1/1	0.98	0.06	100,100,100,100	0
58	MG	1G	1685	1/1	0.98	0.05	87,87,87,87	0
58	MG	14	3381	1/1	0.98	0.04	81,81,81,81	0
58	MG	14	3382	1/1	0.98	0.06	87,87,87,87	0
58	MG	14	3383	1/1	0.98	0.05	86,86,86,86	0
58	MG	14	3384	1/1	0.98	0.06	83,83,83,83	0
58	MG	1H	3456	1/1	0.98	0.06	97,97,97,97	0
58	MG	14	3386	1/1	0.98	0.04	90,90,90,90	0
58	MG	14	3387	1/1	0.98	0.04	96,96,96,96	0
58	MG	1H	3099	1/1	0.98	0.06	55,55,55,55	0
58	MG	1G	1688	1/1	0.98	0.03	138,138,138,138	0
58	MG	13	1722	1/1	0.98	0.05	103,103,103,103	0
58	MG	1H	3461	1/1	0.98	0.11	92,92,92,92	0
58	MG	14	3394	1/1	0.98	0.07	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3462	1/1	0.98	0.04	97,97,97,97	0
58	MG	1H	3092	1/1	0.98	0.07	49,49,49,49	0
58	MG	1H	3102	1/1	0.98	0.19	35,35,35,35	0
58	MG	1H	3143	1/1	0.98	0.06	56,56,56,56	0
58	MG	1H	3387	1/1	0.98	0.04	80,80,80,80	0
58	MG	1H	3393	1/1	0.98	0.10	54,54,54,54	0
58	MG	1H	3289	1/1	0.98	0.07	49,49,49,49	0
58	MG	1H	3403	1/1	0.98	0.04	76,76,76,76	0
58	MG	1H	3406	1/1	0.98	0.07	76,76,76,76	0
58	MG	1J	205	1/1	0.98	0.04	101,101,101,101	0
58	MG	1H	3412	1/1	0.98	0.05	78,78,78,78	0
58	MG	13	1711	1/1	0.98	0.04	97,97,97,97	0
58	MG	13	1712	1/1	0.98	0.05	83,83,83,83	0
58	MG	1H	3418	1/1	0.98	0.05	92,92,92,92	0
58	MG	1H	3345	1/1	0.98	0.06	61,61,61,61	0
58	MG	1H	3347	1/1	0.98	0.13	51,51,51,51	0
58	MG	1H	3354	1/1	0.98	0.04	49,49,49,49	0
58	MG	1H	3429	1/1	0.98	0.04	71,71,71,71	0
58	MG	14	3138	1/1	0.98	0.16	45,45,45,45	0
58	MG	13	1728	1/1	0.98	0.03	118,118,118,118	0
58	MG	1H	3435	1/1	0.98	0.04	56,56,56,56	0
58	MG	1H	3436	1/1	0.98	0.10	73,73,73,73	0
58	MG	1H	3437	1/1	0.98	0.07	58,58,58,58	0
59	SF4	3E	301	8/8	0.98	0.03	86,99,103,105	0
58	MG	1H	3360	1/1	0.98	0.04	61,61,61,61	0
60	ZN	5A	101	1/1	0.98	0.04	142,142,142,142	0
58	MG	1H	3439	1/1	0.98	0.05	99,99,99,99	0
58	MG	1H	3371	1/1	0.99	0.04	59,59,59,59	0
58	MG	14	3320	1/1	0.99	0.06	64,64,64,64	0
58	MG	1G	1677	1/1	0.99	0.09	96,96,96,96	0
58	MG	1H	3372	1/1	0.99	0.03	62,62,62,62	0
58	MG	14	3323	1/1	0.99	0.04	64,64,64,64	0
58	MG	1H	3373	1/1	0.99	0.04	51,51,51,51	0
58	MG	13	1724	1/1	0.99	0.06	102,102,102,102	0
58	MG	1H	3348	1/1	0.99	0.05	50,50,50,50	0
58	MG	1H	3377	1/1	0.99	0.06	70,70,70,70	0
58	MG	14	3328	1/1	0.99	0.03	74,74,74,74	0
58	MG	14	3329	1/1	0.99	0.03	56,56,56,56	0
58	MG	14	3330	1/1	0.99	0.03	77,77,77,77	0
58	MG	14	3332	1/1	0.99	0.03	53,53,53,53	0
58	MG	1H	3349	1/1	0.99	0.05	64,64,64,64	0
58	MG	1G	1684	1/1	0.99	0.03	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3380	1/1	0.99	0.03	59,59,59,59	0
58	MG	14	3337	1/1	0.99	0.03	66,66,66,66	0
58	MG	14	3338	1/1	0.99	0.10	60,60,60,60	0
58	MG	14	3340	1/1	0.99	0.03	79,79,79,79	0
58	MG	14	3341	1/1	0.99	0.08	68,68,68,68	0
58	MG	14	3342	1/1	0.99	0.05	80,80,80,80	0
58	MG	14	3343	1/1	0.99	0.07	82,82,82,82	0
58	MG	14	3344	1/1	0.99	0.08	81,81,81,81	0
58	MG	1H	3444	1/1	0.99	0.04	69,69,69,69	0
58	MG	14	3346	1/1	0.99	0.07	85,85,85,85	0
58	MG	1H	3350	1/1	0.99	0.03	48,48,48,48	0
58	MG	14	3348	1/1	0.99	0.06	70,70,70,70	0
58	MG	1H	3353	1/1	0.99	0.06	57,57,57,57	0
58	MG	14	3350	1/1	0.99	0.03	85,85,85,85	0
58	MG	14	3351	1/1	0.99	0.04	85,85,85,85	0
58	MG	1H	3384	1/1	0.99	0.04	58,58,58,58	0
58	MG	1H	3448	1/1	0.99	0.03	82,82,82,82	0
58	MG	1H	3449	1/1	0.99	0.07	106,106,106,106	0
58	MG	14	3356	1/1	0.99	0.04	58,58,58,58	0
58	MG	1H	3450	1/1	0.99	0.02	54,54,54,54	0
58	MG	1H	3385	1/1	0.99	0.07	47,47,47,47	0
58	MG	14	3359	1/1	0.99	0.03	79,79,79,79	0
58	MG	14	3360	1/1	0.99	0.04	83,83,83,83	0
58	MG	14	3361	1/1	0.99	0.03	64,64,64,64	0
58	MG	14	3001	1/1	0.99	0.04	46,46,46,46	0
58	MG	13	1717	1/1	0.99	0.05	92,92,92,92	0
58	MG	1H	3453	1/1	0.99	0.03	84,84,84,84	0
58	MG	1H	3388	1/1	0.99	0.03	77,77,77,77	0
58	MG	14	3366	1/1	0.99	0.02	86,86,86,86	0
58	MG	14	3367	1/1	0.99	0.05	65,65,65,65	0
58	MG	14	3368	1/1	0.99	0.06	62,62,62,62	0
58	MG	1H	3455	1/1	0.99	0.05	59,59,59,59	0
58	MG	14	3370	1/1	0.99	0.04	64,64,64,64	0
58	MG	14	3371	1/1	0.99	0.04	53,53,53,53	0
58	MG	1H	3389	1/1	0.99	0.03	38,38,38,38	0
58	MG	14	3373	1/1	0.99	0.05	61,61,61,61	0
58	MG	1H	3391	1/1	0.99	0.03	61,61,61,61	0
58	MG	1H	3458	1/1	0.99	0.09	73,73,73,73	0
58	MG	1H	3392	1/1	0.99	0.03	68,68,68,68	0
58	MG	1H	3460	1/1	0.99	0.03	104,104,104,104	0
58	MG	1H	3355	1/1	0.99	0.06	48,48,48,48	0
58	MG	1H	3394	1/1	0.99	0.08	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3395	1/1	0.99	0.03	77,77,77,77	0
58	MG	1H	3397	1/1	0.99	0.04	71,71,71,71	0
58	MG	13	1726	1/1	0.99	0.03	126,126,126,126	0
58	MG	1H	3400	1/1	0.99	0.03	72,72,72,72	0
58	MG	1H	3402	1/1	0.99	0.03	51,51,51,51	0
58	MG	1H	3358	1/1	0.99	0.04	45,45,45,45	0
58	MG	14	3388	1/1	0.99	0.10	68,68,68,68	0
58	MG	1H	3405	1/1	0.99	0.03	63,63,63,63	0
58	MG	14	3390	1/1	0.99	0.03	89,89,89,89	0
58	MG	1H	3359	1/1	0.99	0.06	59,59,59,59	0
58	MG	1H	3407	1/1	0.99	0.07	116,116,116,116	0
58	MG	1H	3408	1/1	0.99	0.07	82,82,82,82	0
58	MG	16	207	1/1	0.99	0.03	80,80,80,80	0
58	MG	16	208	1/1	0.99	0.04	86,86,86,86	0
58	MG	1H	3409	1/1	0.99	0.02	85,85,85,85	0
58	MG	1H	3410	1/1	0.99	0.03	58,58,58,58	0
58	MG	1H	3411	1/1	0.99	0.04	69,69,69,69	0
58	MG	13	1718	1/1	0.99	0.07	83,83,83,83	0
58	MG	13	1714	1/1	0.99	0.03	73,73,73,73	0
58	MG	1H	3414	1/1	0.99	0.04	80,80,80,80	0
58	MG	1H	3415	1/1	0.99	0.05	73,73,73,73	0
58	MG	1H	3362	1/1	0.99	0.04	53,53,53,53	0
58	MG	13	1709	1/1	0.99	0.08	92,92,92,92	0
58	MG	I8	103	1/1	0.99	0.07	73,73,73,73	0
58	MG	1H	3419	1/1	0.99	0.04	101,101,101,101	0
58	MG	1H	3420	1/1	0.99	0.04	92,92,92,92	0
58	MG	1H	3421	1/1	0.99	0.03	64,64,64,64	0
58	MG	13	1716	1/1	0.99	0.03	76,76,76,76	0
58	MG	1H	3423	1/1	0.99	0.03	66,66,66,66	0
58	MG	1H	3424	1/1	0.99	0.04	48,48,48,48	0
58	MG	1H	3344	1/1	0.99	0.02	58,58,58,58	0
58	MG	13	1723	1/1	0.99	0.03	87,87,87,87	0
58	MG	1H	3428	1/1	0.99	0.06	51,51,51,51	0
58	MG	1H	3369	1/1	0.99	0.06	49,49,49,49	0
58	MG	1H	3430	1/1	0.99	0.08	49,49,49,49	0
58	MG	1H	3431	1/1	0.99	0.04	70,70,70,70	0
58	MG	1H	3432	1/1	0.99	0.03	50,50,50,50	0
59	SF4	32	301	8/8	0.99	0.03	115,123,133,136	0
58	MG	1H	3346	1/1	0.99	0.03	45,45,45,45	0
58	MG	1H	3434	1/1	0.99	0.05	51,51,51,51	0
58	MG	14	3318	1/1	0.99	0.10	64,64,64,64	0
58	MG	1H	3382	1/1	1.00	0.03	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
58	MG	1H	3366	1/1	1.00	0.04	76,76,76,76	0
58	MG	1H	3396	1/1	1.00	0.02	78,78,78,78	0
58	MG	1H	3374	1/1	1.00	0.04	53,53,53,53	0
58	MG	1H	3398	1/1	1.00	0.08	66,66,66,66	0
58	MG	1H	3351	1/1	1.00	0.03	46,46,46,46	0
58	MG	14	3377	1/1	1.00	0.03	52,52,52,52	0
58	MG	1H	3416	1/1	1.00	0.03	69,69,69,69	0
58	MG	14	3379	1/1	1.00	0.02	60,60,60,60	0
58	MG	14	3354	1/1	1.00	0.03	70,70,70,70	0
58	MG	14	3331	1/1	1.00	0.02	63,63,63,63	0
58	MG	16	206	1/1	1.00	0.01	73,73,73,73	0
58	MG	1H	3386	1/1	1.00	0.02	57,57,57,57	0
58	MG	14	3334	1/1	1.00	0.06	64,64,64,64	0
58	MG	1H	3401	1/1	1.00	0.03	69,69,69,69	0
58	MG	1H	3356	1/1	1.00	0.05	42,42,42,42	0
58	MG	1H	3352	1/1	1.00	0.02	61,61,61,61	0
58	MG	1H	3404	1/1	1.00	0.03	48,48,48,48	0
58	MG	14	3339	1/1	1.00	0.03	82,82,82,82	0
58	MG	1H	3440	1/1	1.00	0.04	58,58,58,58	0
58	MG	1H	3378	1/1	1.00	0.04	53,53,53,53	0
58	MG	1H	3390	1/1	1.00	0.06	50,50,50,50	0
58	MG	1H	3363	1/1	1.00	0.02	68,68,68,68	0
60	ZN	5I	101	1/1	1.00	0.03	102,102,102,102	0
58	MG	13	1713	1/1	1.00	0.03	101,101,101,101	0
58	MG	13	1721	1/1	1.00	0.02	66,66,66,66	0
58	MG	1H	3427	1/1	1.00	0.02	72,72,72,72	0

6.5 Other polymers (i)

There are no such residues in this entry.