Full wwPDB X-ray Structure Validation Report (i)

Sep 10, 2026 – 09:47 pm BST

PDB ID	:	5EL6 / pdb_00005el6
Title	:	Structure of T. thermophilus 70S ribosome complex with mRNA and tRNALys in the A-site with a U-U mismatch in the first position and antibiotic paromomycin
Authors	:	Rozov, A.; Demeshkina, N.; Khusainov, I.; Yusupov, M.; Yusupova, G.
Deposited on	:	2015-11-04
Resolution	:	3.10 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:

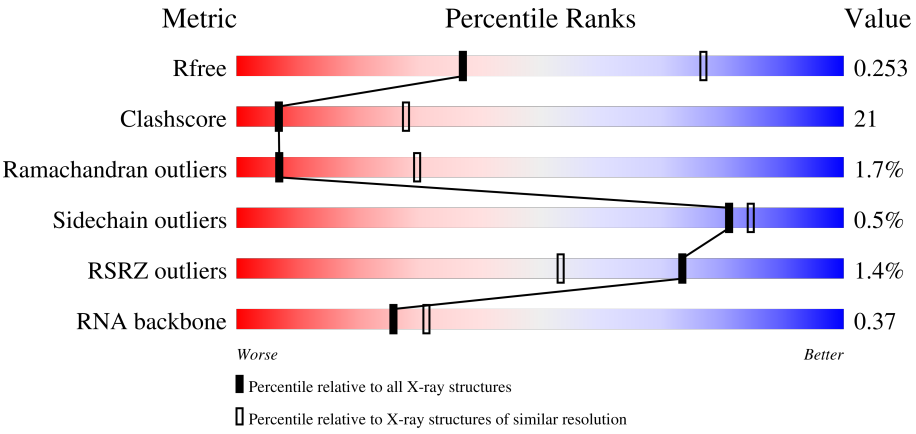
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal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

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.10 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	1456 (3.10-3.10)
Clashscore	190562	1539 (3.10-3.10)
Ramachandran outliers	187476	1467 (3.10-3.10)
Sidechain outliers	187428	1467 (3.10-3.10)
RSRZ outliers	180081	1456 (3.10-3.10)
RNA backbone	3983	1022 (3.32-2.88)

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	35% 47% 16%
1	1G	1522	32% 50% 17%
2	12	256	% 35% 43% 18%

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Mol	Chain	Length	Quality of chain
2	1E	256	38% 48% 5% 10%
3	22	239	39% 43% 18%
3	2E	239	49% 36% 14%
4	32	209	39% 57%
4	3E	209	46% 50%
5	42	162	40% 51% 9%
5	4E	162	46% 44% 8%
6	52	101	64% 36%
6	5E	101	56% 43%
7	62	156	48% 40% 12%
7	6E	156	58% 40%
8	72	138	49% 50%
8	7E	138	49% 50%
9	82	128	34% 59% 5%
9	8E	128	43% 55%
10	1A	105	34% 42% 24%
10	1I	105	48% 38% 13%
11	2A	129	53% 33% 12%
11	2I	129	48% 37% 14%
12	3A	132	10% 48% 42% 8%
12	3I	132	50% 41% 8%
13	4A	126	32% 54% 12%
13	4I	126	42% 52% 6%
14	5A	61	38% 54% 5%
14	5I	61	57% 34% 7%

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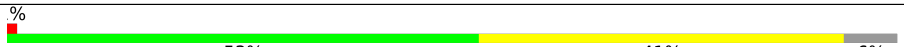
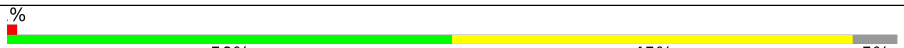
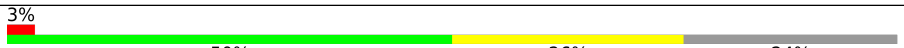
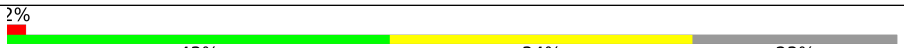
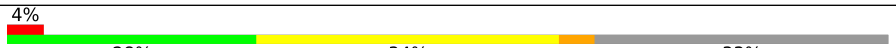
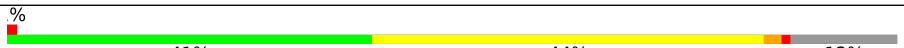
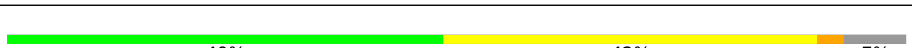
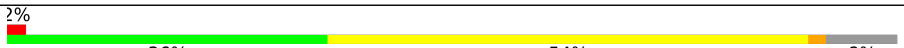
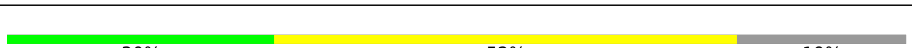
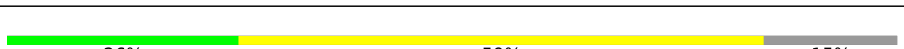
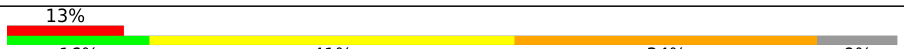
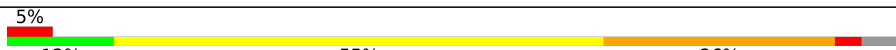
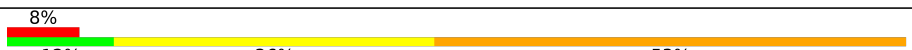
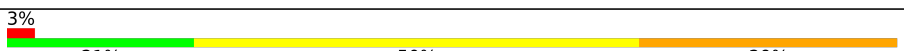
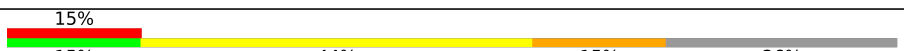
Mol	Chain	Length	Quality of chain
15	6A	89	
15	6I	89	
16	7A	88	
16	7I	88	
17	8A	105	
17	8I	105	
18	9A	88	
18	9I	88	
19	AA	93	
19	AI	93	
20	BA	106	
20	BI	106	
21	1B	27	
21	1F	27	
22	1K	76	
22	1L	76	
23	2K	77	
23	2L	77	
24	3K	76	
24	3L	76	
25	4K	27	
25	4L	27	
26	14	2912	
26	1H	2912	
27	16	122	

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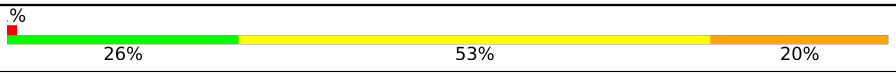
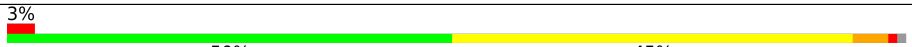
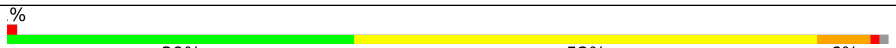
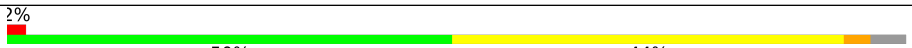
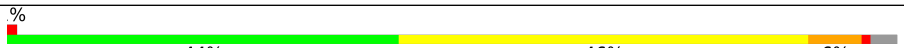
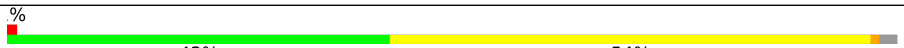
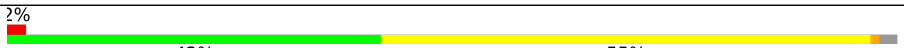
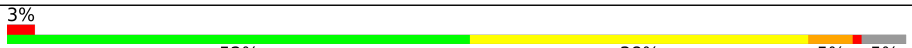
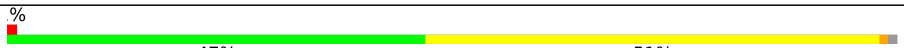
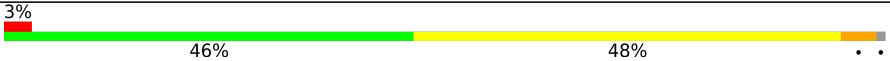
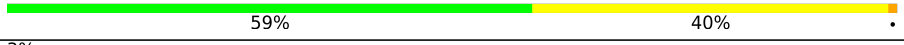
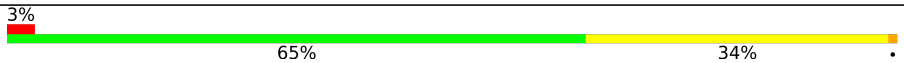
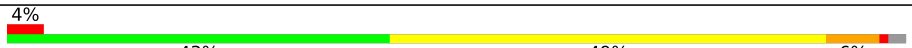
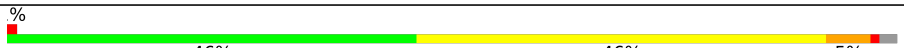
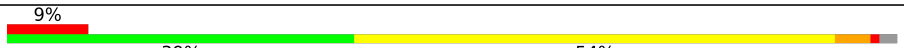
Mol	Chain	Length	Quality of chain
27	1J	122	
28	71	229	
28	79	229	
29	11	276	
29	19	276	
30	21	206	
30	29	206	
31	31	210	
31	39	210	
32	41	182	
32	49	182	
33	51	180	
33	59	180	
34	61	148	
34	69	148	
35	15	140	
35	58	140	
36	25	122	
36	68	122	
37	35	150	
37	78	150	
38	45	141	
38	88	141	
39	55	118	
39	98	118	

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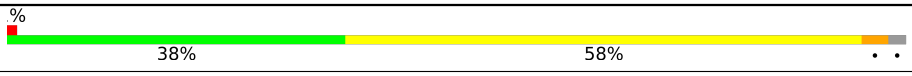
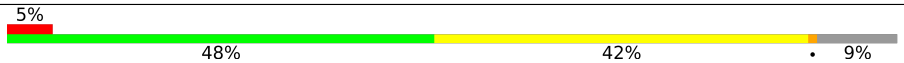
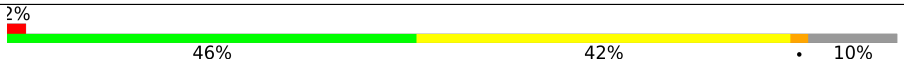
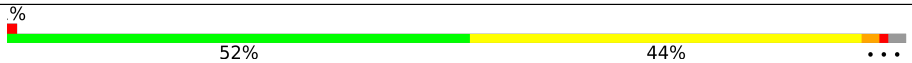
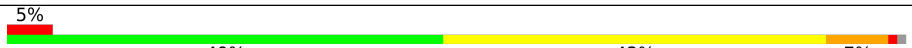
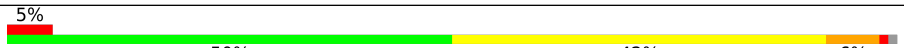
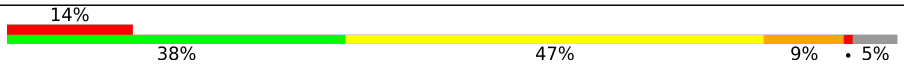
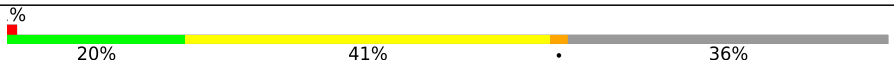
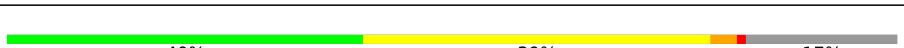
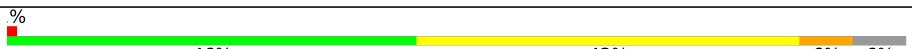
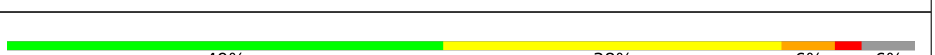
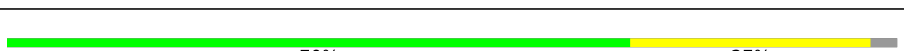
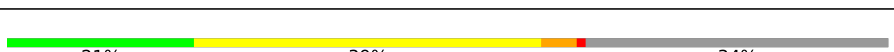
Mol	Chain	Length	Quality of chain
40	65	112	
40	A8	112	
41	75	146	
41	B8	146	
42	85	118	
42	C8	118	
43	95	101	
43	D8	101	
44	A5	113	
44	E8	113	
45	B5	96	
45	F8	96	
46	C5	110	
46	G8	110	
47	D5	206	
47	H8	206	
48	E5	85	
48	I8	85	
49	F5	98	
49	J8	98	
50	G5	72	
50	K8	72	
51	H5	60	
51	L8	60	
52	M8	71	

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Mol	Chain	Length	Quality of chain
53	J5	60	53% 38% 7%
53	N8	60	43% 35% 20%
54	L5	49	4% 55% 41%
54	P8	49	47% 47%
55	M5	65	2% 51% 40% 8%
55	Q8	65	45% 40% 12%

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
56	MG	13	1702	-	-	-	X
56	MG	14	3039	-	-	-	X
56	MG	14	3287	-	-	-	X
56	MG	1H	3052	-	-	-	X
56	MG	1H	3291	-	-	-	X
58	SF4	32	301	-	-	X	-
58	SF4	3E	302	-	-	X	-

2 Entry composition

There are 60 unique types of molecules in this entry. The entry contains 294257 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			

- 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			
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			

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
10	1A	80	Total C N O 646 403 129 114	0	0	0

- 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 823 512 154 154 3	0	0	0
11	2A	113	Total C N O S 835 520 156 156 3	0	0	0

- 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 956 603 193 159 1	0	0	0
12	3A	122	Total C N O S 956 603 193 159 1	0	0	0

- 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 942 582 194 164 2	0	0	0
13	4A	111	Total C N O S 893 552 183 156 2	0	0	0

- 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 491 312 104 71 4	0	0	0
14	5A	59	Total C N O S 486 309 103 70 4	0	0	0

- 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 729 457 146 124 2	0	0	0
15	6A	87	Total C N O S 729 457 146 124 2	0	0	0

- 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	82	Total	C	N	O	S	0	0	0
			658	419	123	114	2			
19	AA	62	Total	C	N	O	S	0	0	0
			481	306	85	88	2			

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

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

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

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

- Molecule 22 is a RNA chain called tRNALys.

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

- Molecule 23 is a RNA chain called E. coli tRNAfMet.

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

- Molecule 24 is a RNA chain called tRNALys.

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

- Molecule 25 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	4K	20	Total	C	N	O	P	0	0	0
			439	197	91	131	20			
25	4L	18	Total	C	N	O	P	0	0	0
			395	177	81	119	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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	14	2861	Total	C	N	O	P	0	0	0
			61630	27429	11535	19806	2860			

There are 14 discrepancies between the modelled and reference sequences:

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	11	273	Total	C	N	O	S	0	0	0
			2120	1338	421	358	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	19	274	Total	C	N	O	S	0	0	0
			2125	1341	422	359	3			

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	51	171	Total	C	N	O	S	0	0	0
			1312	832	246	233	1			
33	59	69	Total	C	N	O		0	0	0
			539	339	109	91				

- 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 881	C 556	N 176	O 149	0	0	0
40	65	110	Total 876	C 553	N 175	O 148	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	B8	132	Total 1101	C 686	N 227	O 188		0	0	0
41	75	133	Total 1109	C 691	N 228	O 189	S 1	0	0	0

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	E8	112	Total 890	C 560	N 175	O 153	S 2	0	0	0
44	A5	111	Total 886	C 558	N 174	O 152	S 2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	F8	95	Total 743	C 482	N 134	O 126	S 1	0	0	0

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
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	105	Total	C	N	O	S	0	0	0
			799	513	153	128	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	68	Total	C	N	O	S	0	0	0
			568	352	115	100	1			

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

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

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

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

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

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

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

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

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

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

- Molecule 56 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	13	131	Total	Mg	0	0
			131	131		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	3E	1	Total Mg 1 1	0	0
56	5E	1	Total Mg 1 1	0	0
56	3I	1	Total Mg 1 1	0	0
56	5I	1	Total Mg 1 1	0	0
56	1K	1	Total Mg 1 1	0	0
56	2K	3	Total Mg 3 3	0	0
56	3K	1	Total Mg 1 1	0	0
56	4K	1	Total Mg 1 1	0	0
56	1H	429	Total Mg 429 429	0	0
56	16	11	Total Mg 11 11	0	0
56	21	2	Total Mg 2 2	0	0
56	41	1	Total Mg 1 1	0	0
56	78	1	Total Mg 1 1	0	0
56	88	2	Total Mg 2 2	0	0
56	I8	3	Total Mg 3 3	0	0
56	L8	1	Total Mg 1 1	0	0
56	P8	1	Total Mg 1 1	0	0
56	Q8	1	Total Mg 1 1	0	0
56	1G	81	Total Mg 81 81	0	0
56	2L	3	Total Mg 3 3	0	0
56	14	382	Total Mg 382 382	0	0

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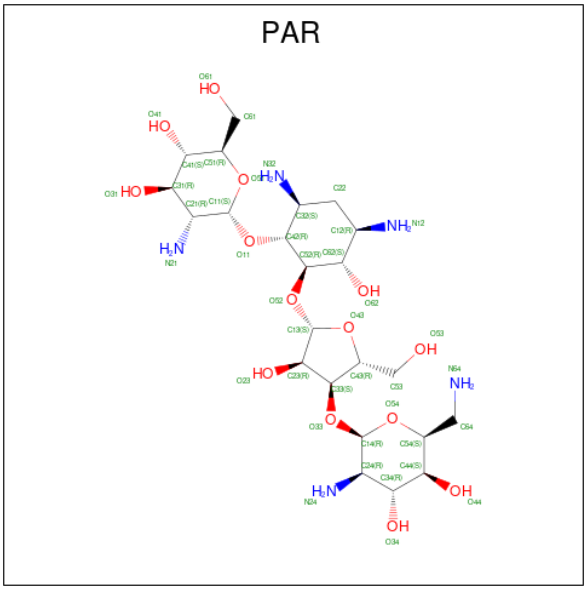
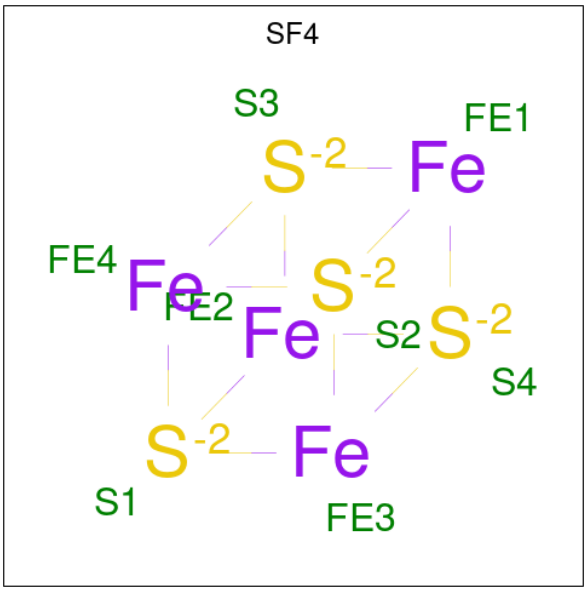
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	1J	5	Total Mg 5 5	0	0
56	29	1	Total Mg 1 1	0	0
56	39	1	Total Mg 1 1	0	0
56	35	1	Total Mg 1 1	0	0
56	45	3	Total Mg 3 3	0	0
56	85	1	Total Mg 1 1	0	0
56	C5	1	Total Mg 1 1	0	0
56	E5	1	Total Mg 1 1	0	0

- Molecule 57 is PAROMOMYCIN (CCD ID: PAR) (formula: $C_{23}H_{45}N_5O_{14}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	13	1	Total C N O 42 23 5 14	0	0
57	1G	1	Total C N O 42 23 5 14	0	0

- Molecule 58 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	3E	1	Total Fe S 8 4 4	0	0
58	32	1	Total Fe S 8 4 4	0	0

- Molecule 59 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	5I	1	Total Zn 1 1	0	0
59	G8	1	Total Zn 1 1	0	0
59	5A	1	Total Zn 1 1	0	0
59	C5	1	Total Zn 1 1	0	0

- Molecule 60 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	13	144	Total O 144 144	0	0
60	3E	2	Total O 2 2	0	0
60	1I	2	Total O 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	5I	2	Total O 2 2	0	0
60	6I	1	Total O 1 1	0	0
60	7I	1	Total O 1 1	0	0
60	BI	1	Total O 1 1	0	0
60	3K	1	Total O 1 1	0	0
60	4K	3	Total O 3 3	0	0
60	1H	540	Total O 540 540	0	0
60	16	22	Total O 22 22	0	0
60	11	10	Total O 10 10	0	0
60	31	7	Total O 7 7	0	0
60	58	2	Total O 2 2	0	0
60	78	4	Total O 4 4	0	0
60	98	1	Total O 1 1	0	0
60	G8	1	Total O 1 1	0	0
60	I8	2	Total O 2 2	0	0
60	L8	3	Total O 3 3	0	0
60	P8	1	Total O 1 1	0	0
60	1G	68	Total O 68 68	0	0
60	32	2	Total O 2 2	0	0
60	14	367	Total O 367 367	0	0
60	1J	12	Total O 12 12	0	0

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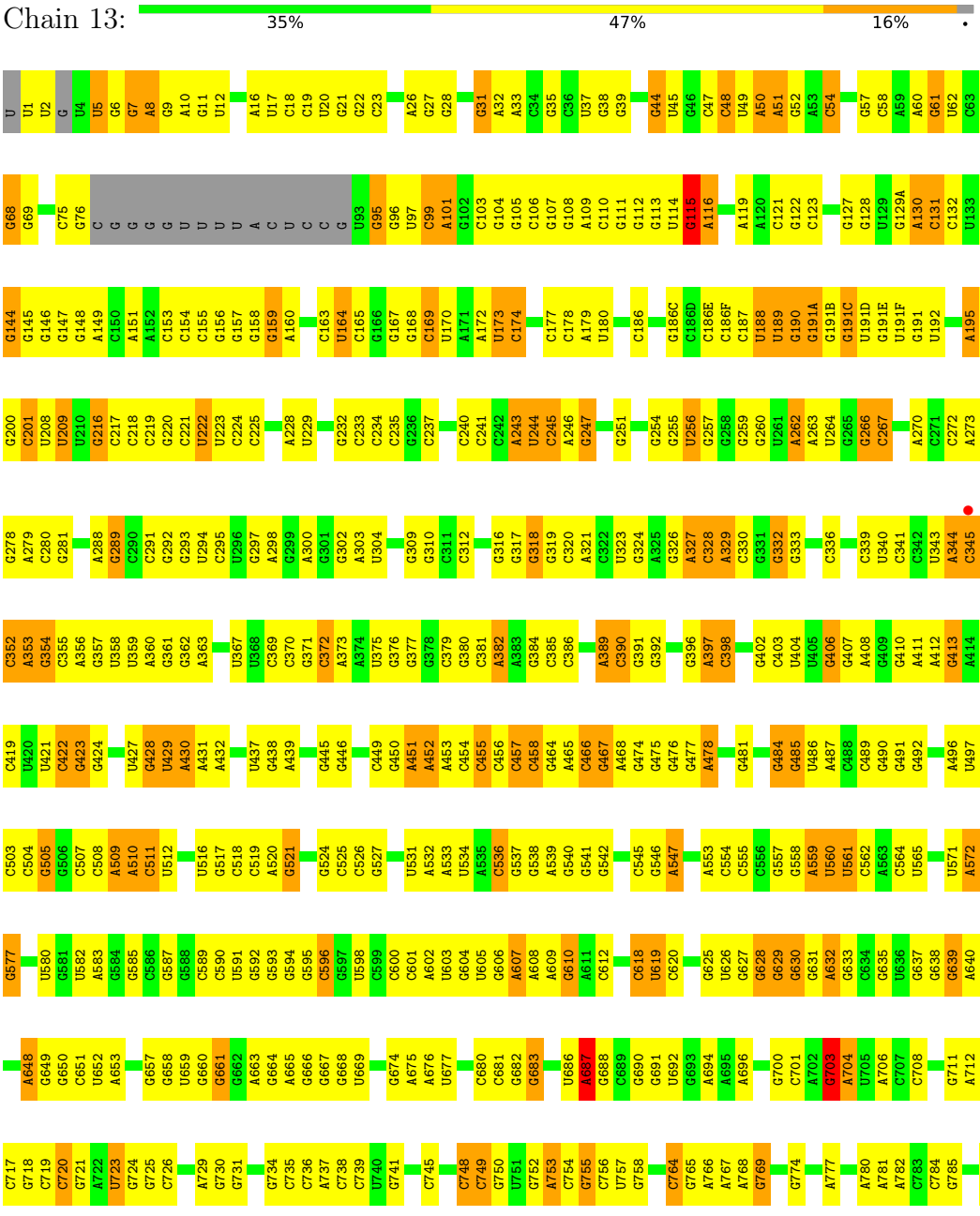
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	19	8	Total O 8 8	0	0
60	29	2	Total O 2 2	0	0
60	39	3	Total O 3 3	0	0
60	35	2	Total O 2 2	0	0
60	55	2	Total O 2 2	0	0
60	H5	1	Total O 1 1	0	0
60	L5	1	Total O 1 1	0	0

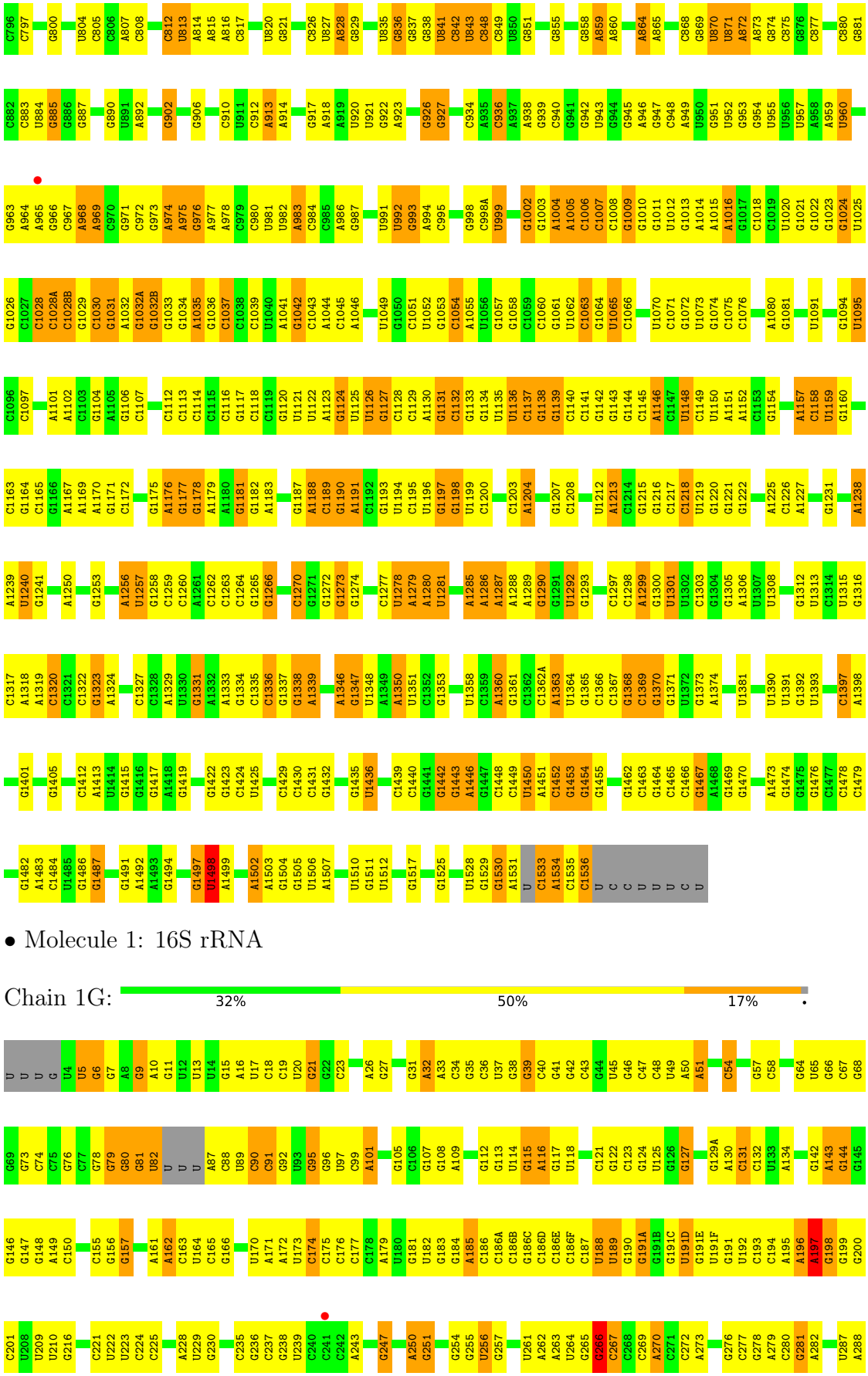
3 Residue-property plots (i)

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

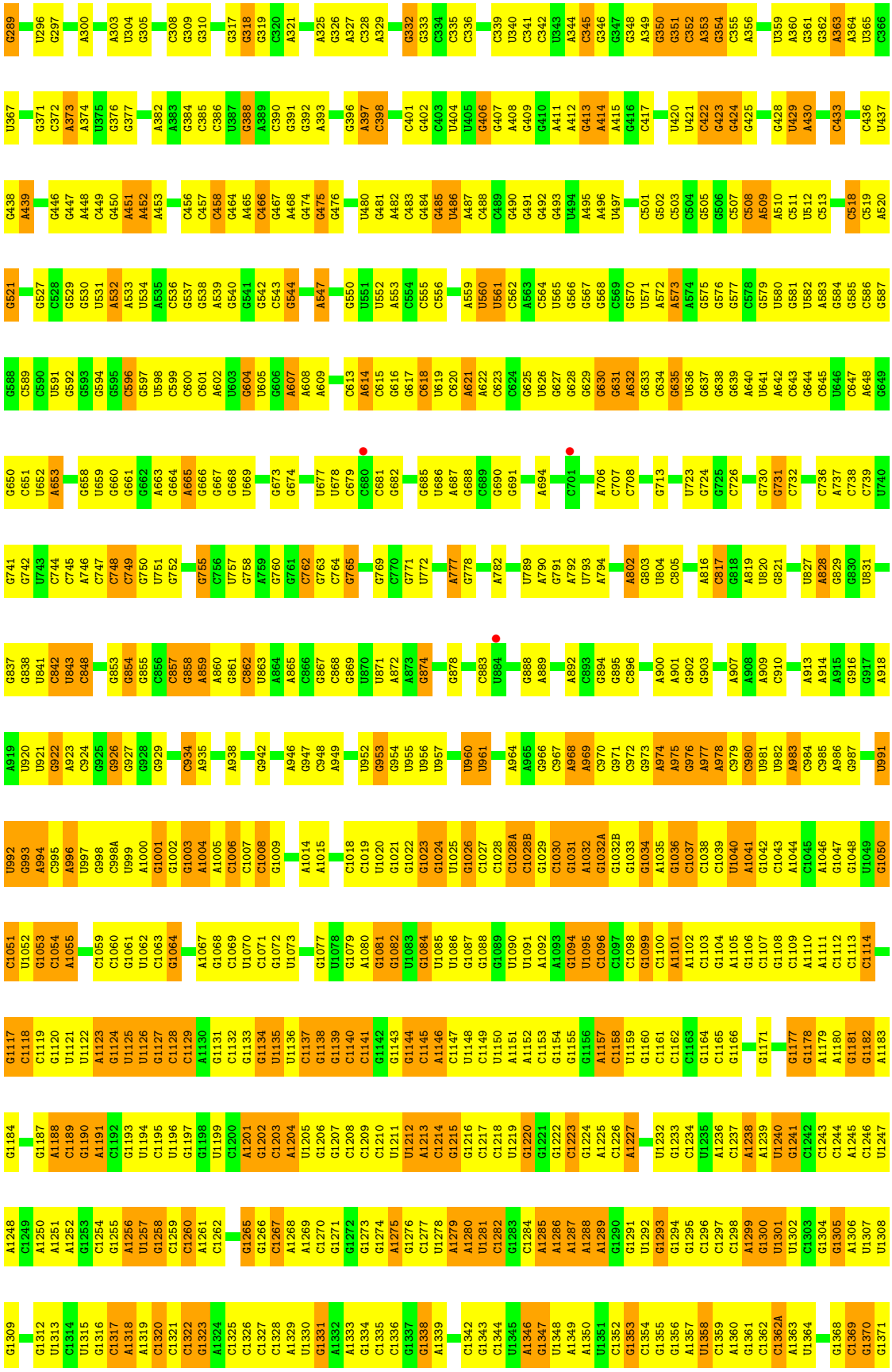
Chain 13:

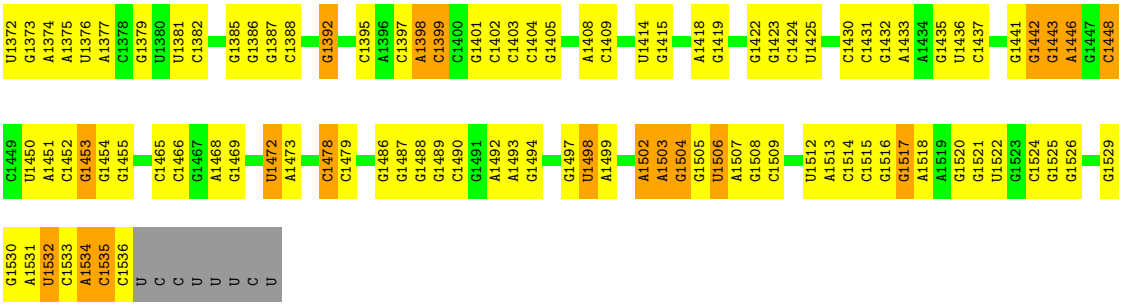




• Molecule 1: 16S rRNA

Chain 1G:

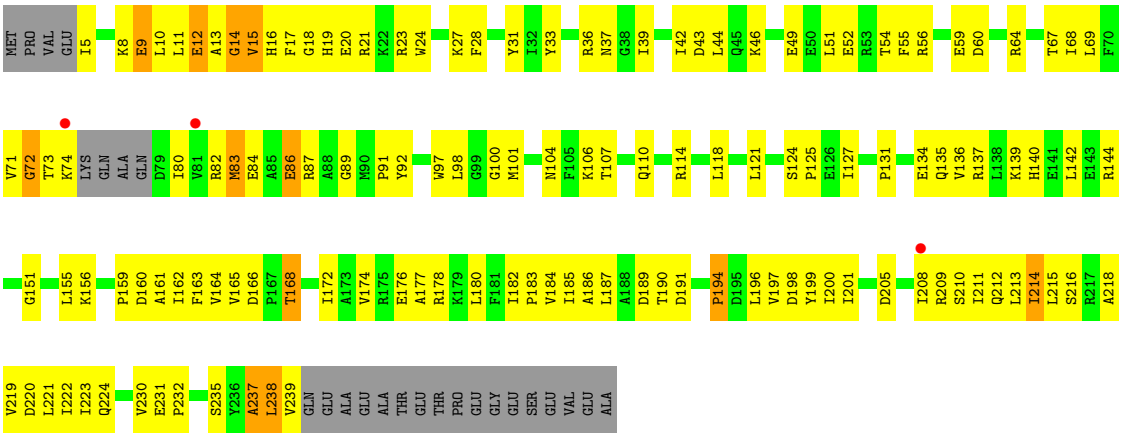




• Molecule 2: 30S ribosomal protein S2

Chain 1E:

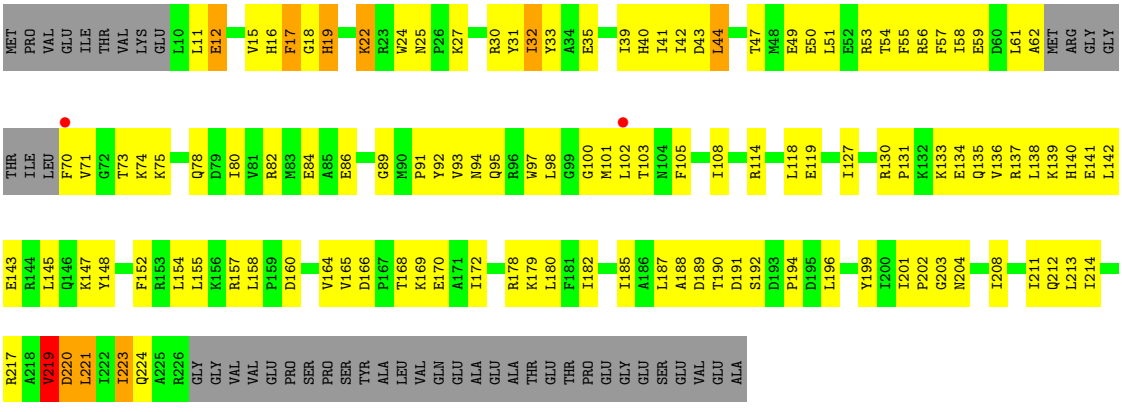




• Molecule 2: 30S ribosomal protein S2

Chain 12:

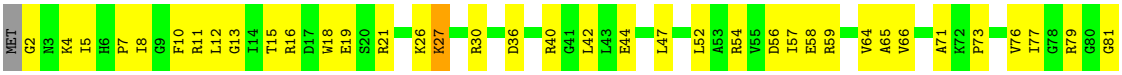


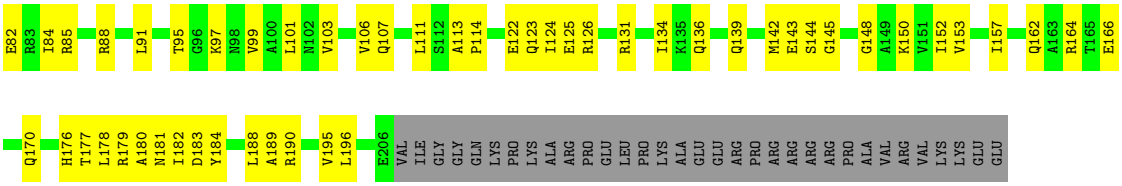


• Molecule 3: 30S ribosomal protein S3

Chain 2E:



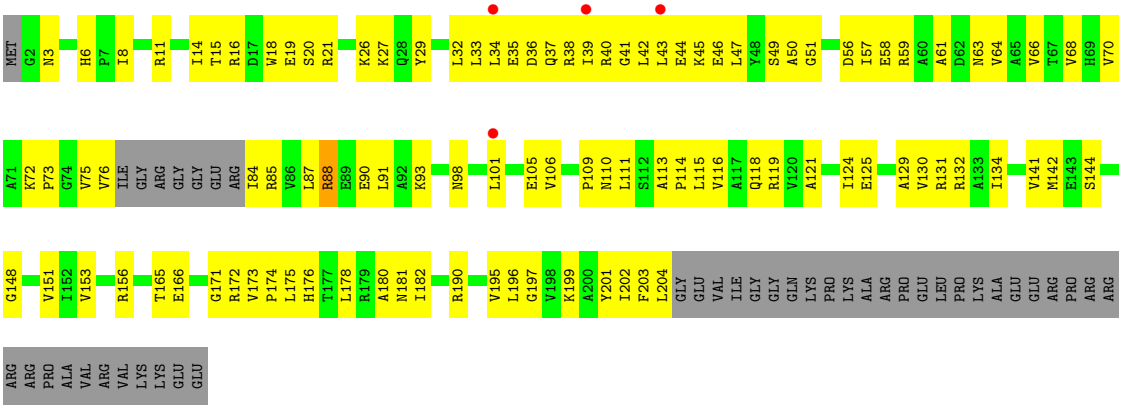




• Molecule 3: 30S ribosomal protein S3

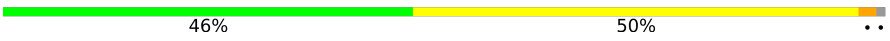
Chain 22:

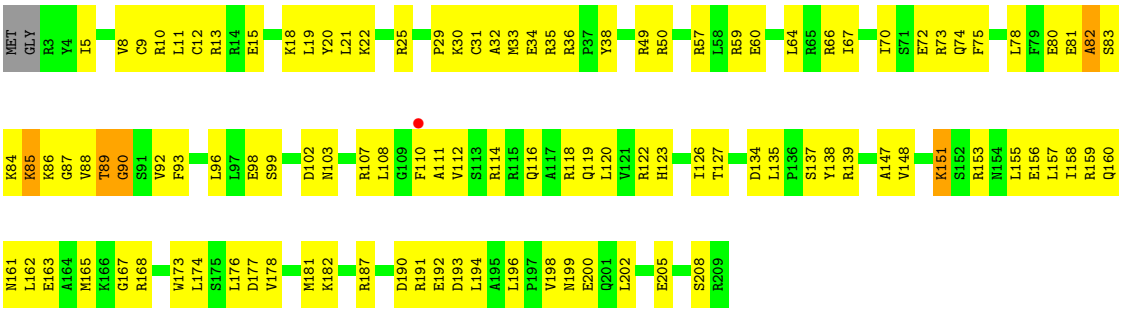




• Molecule 4: 30S ribosomal protein S4

Chain 3E:

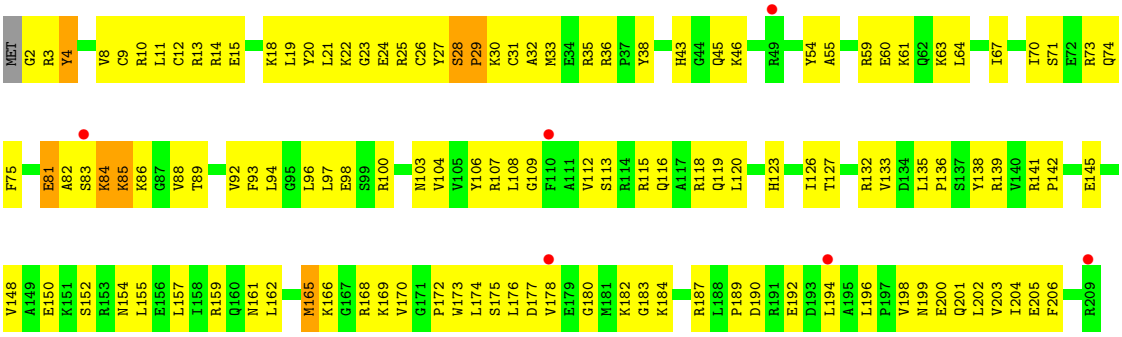




• Molecule 4: 30S ribosomal protein S4

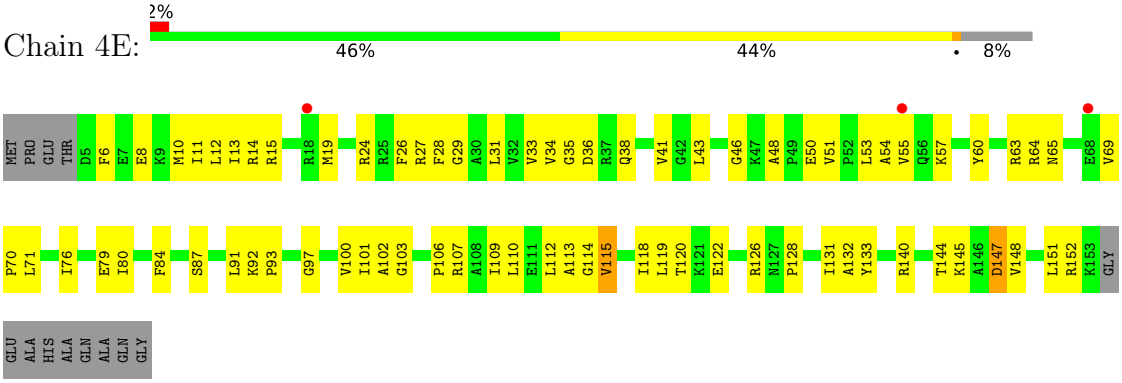
Chain 32:





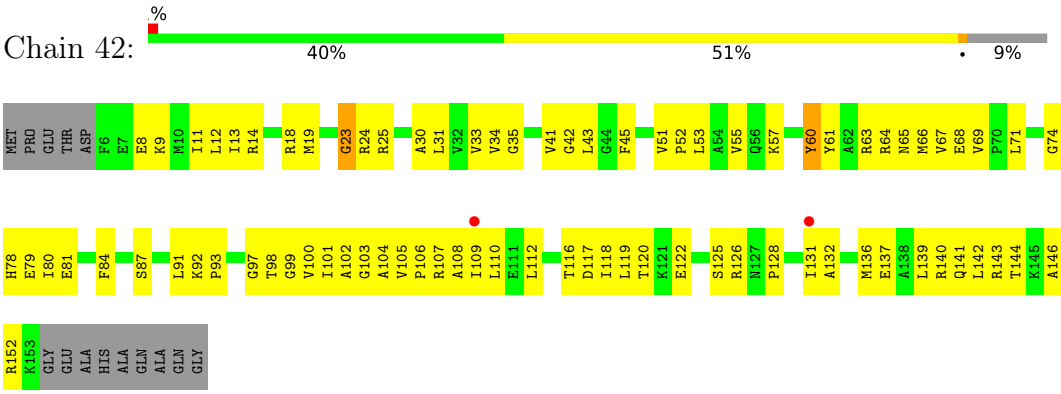
• Molecule 5: 30S ribosomal protein S5

Chain 4E:



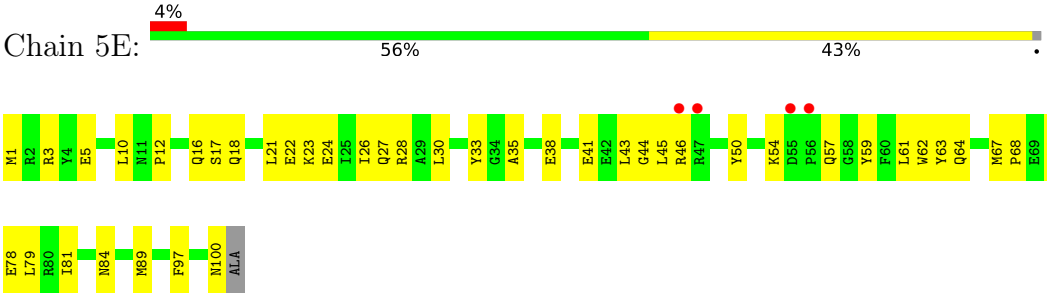
• Molecule 5: 30S ribosomal protein S5

Chain 42:



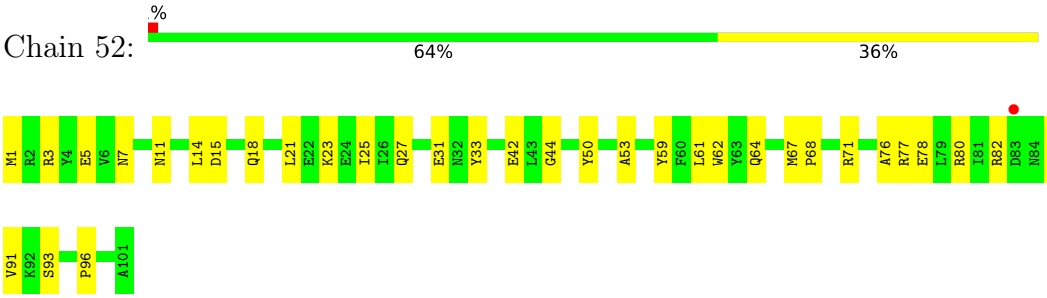
• Molecule 6: 30S ribosomal protein S6

Chain 5E:



• Molecule 6: 30S ribosomal protein S6

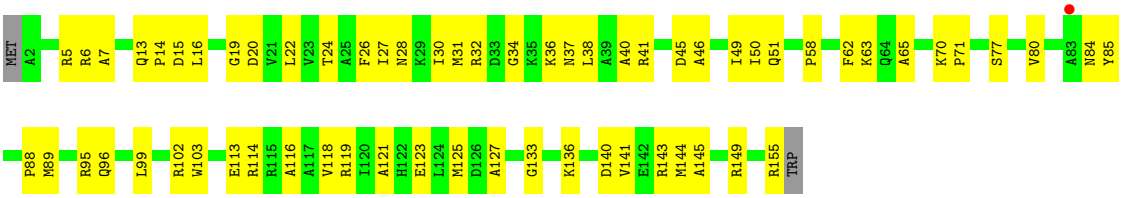
Chain 52:

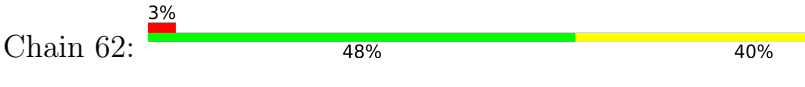


• Molecule 7: 30S ribosomal protein S7

Chain 6E:

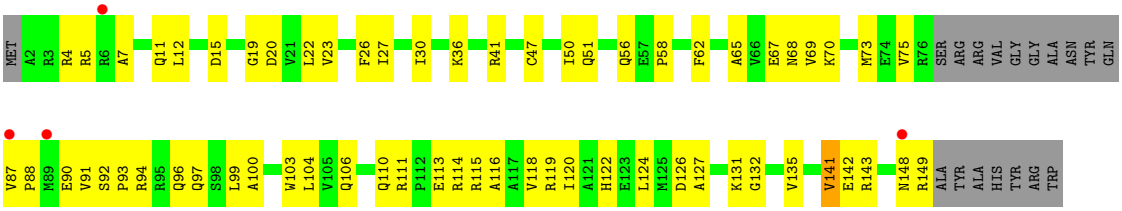






• Molecule 7: 30S ribosomal protein S7

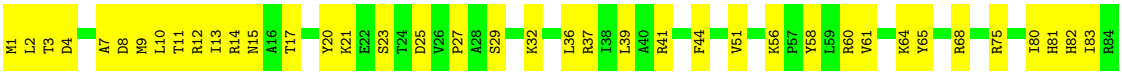
Chain 62:



• Molecule 8: 30S ribosomal protein S8

Chain 7E:



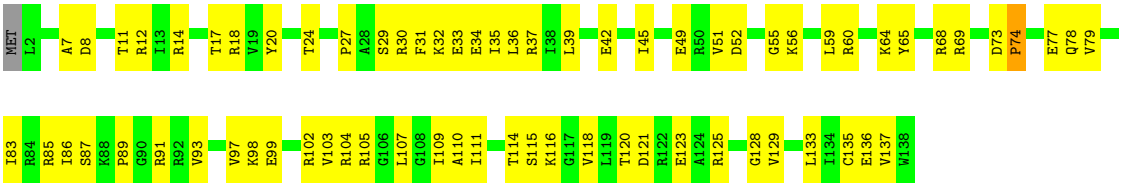




• Molecule 8: 30S ribosomal protein S8

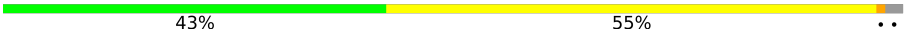
Chain 72:

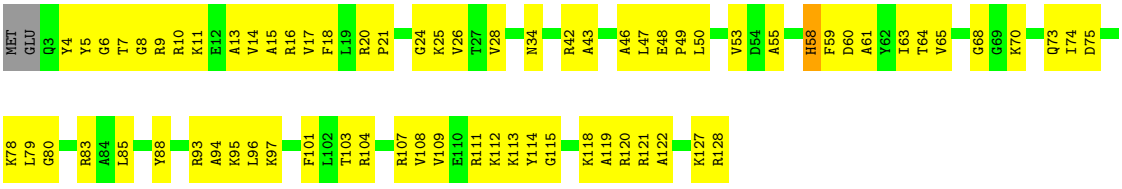




• Molecule 9: 30S ribosomal protein S9

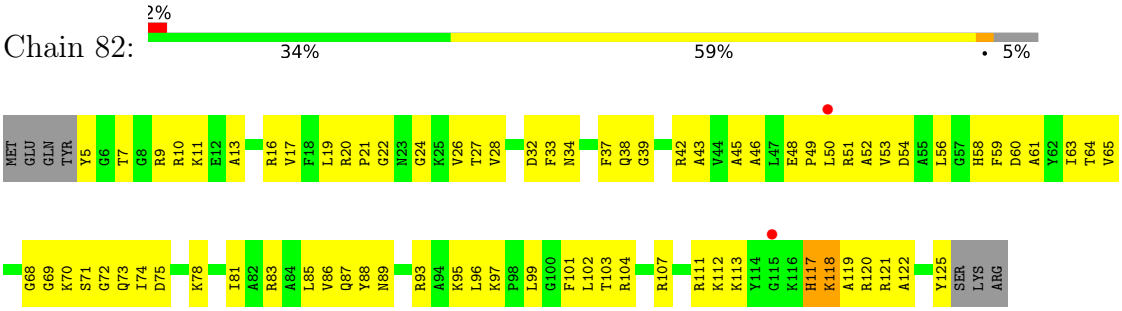
Chain 8E:





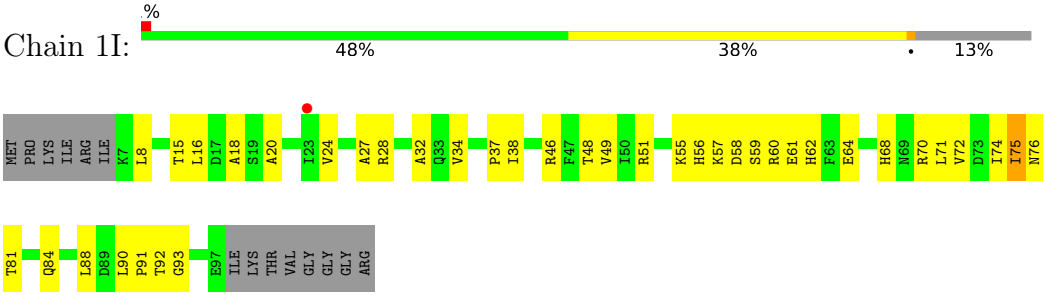
• Molecule 9: 30S ribosomal protein S9

Chain 82:



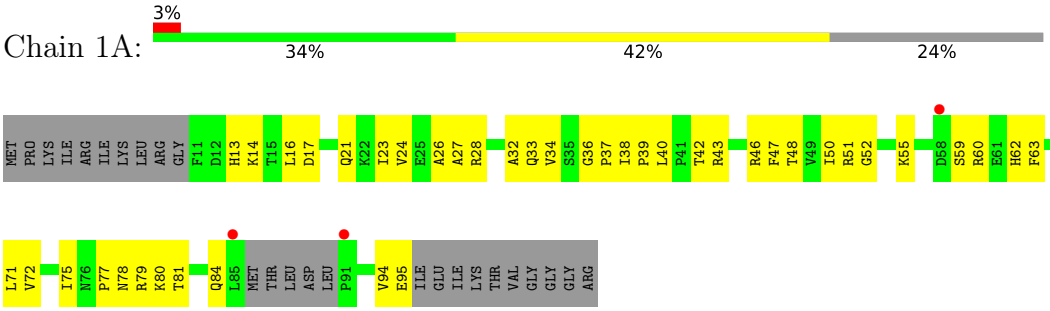
• Molecule 10: 30S ribosomal protein S10

Chain 1I:



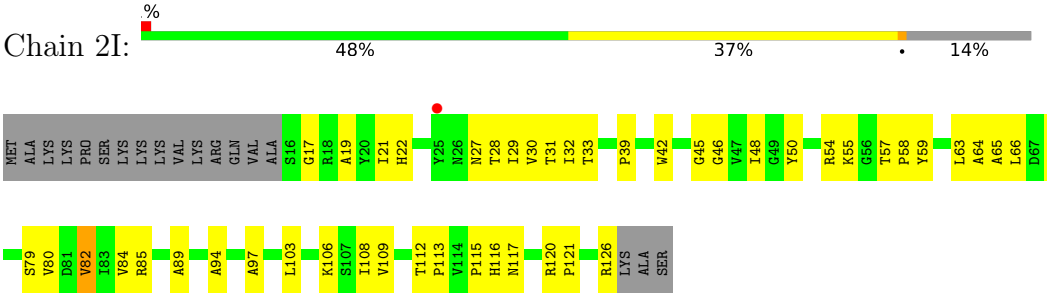
• Molecule 10: 30S ribosomal protein S10

Chain 1A:



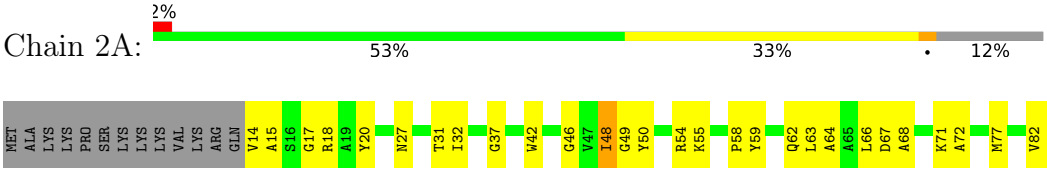
• Molecule 11: 30S ribosomal protein S11

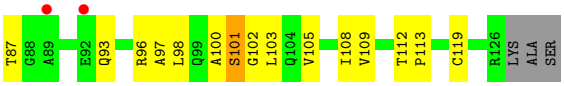
Chain 2I:



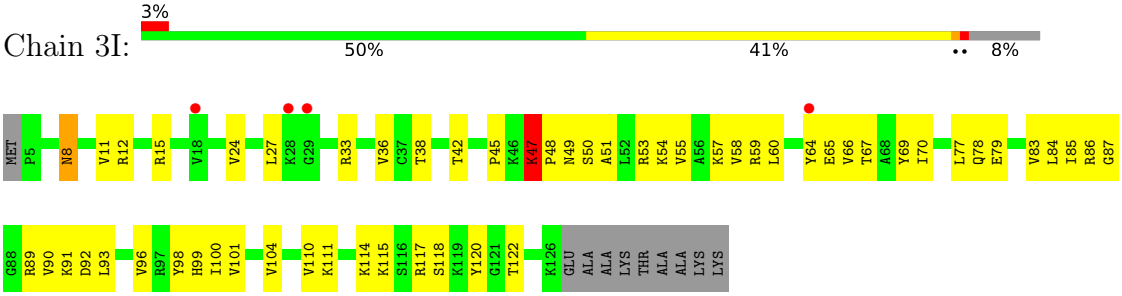
• Molecule 11: 30S ribosomal protein S11

Chain 2A:

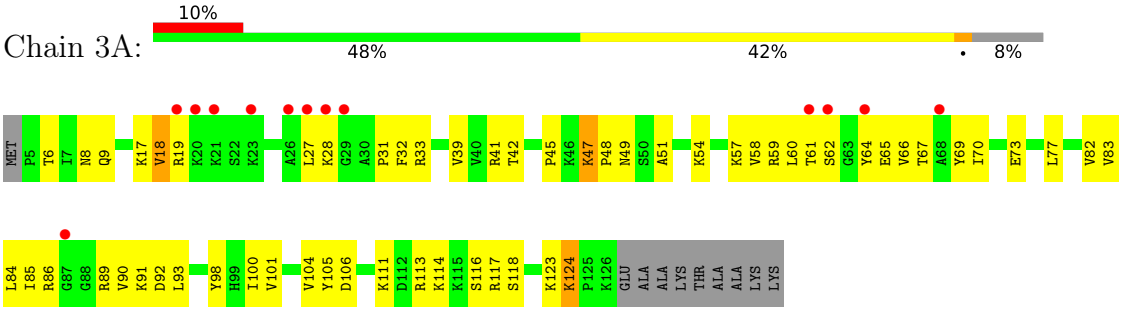




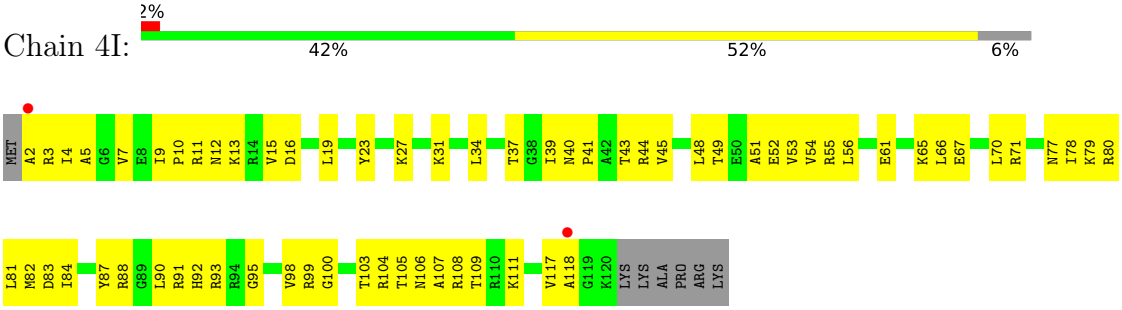
• Molecule 12: 30S ribosomal protein S12



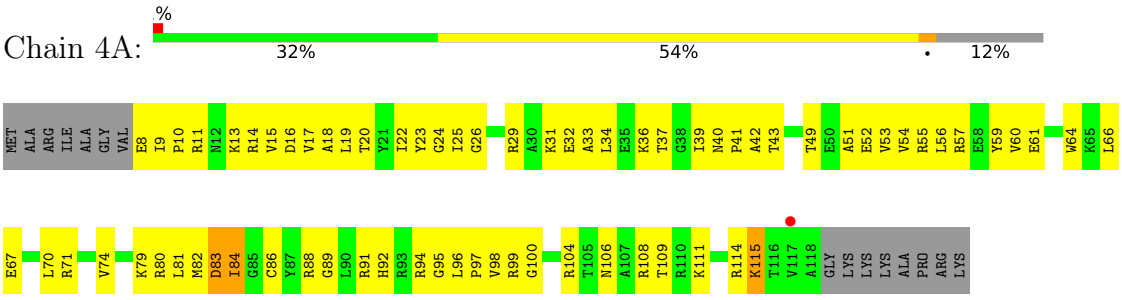
• Molecule 12: 30S ribosomal protein S12



• Molecule 13: 30S ribosomal protein S13

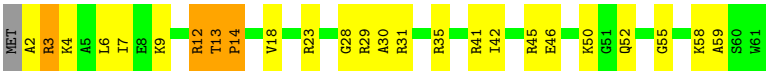


• Molecule 13: 30S ribosomal protein S13



• Molecule 14: 30S ribosomal protein S14 type Z

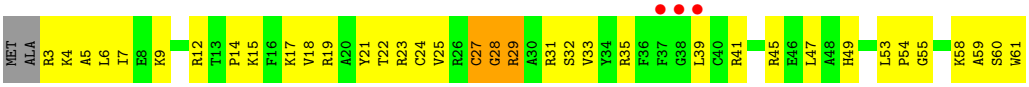




• Molecule 14: 30S ribosomal protein S14 type Z

Chain 5A:





• Molecule 15: 30S ribosomal protein S15

Chain 6I:





• Molecule 15: 30S ribosomal protein S15

Chain 6A:

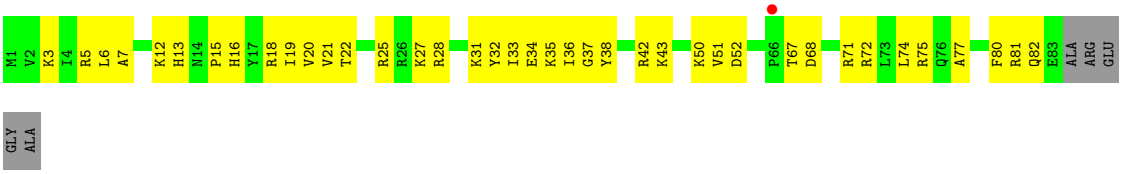




• Molecule 16: 30S ribosomal protein S16

Chain 7I:

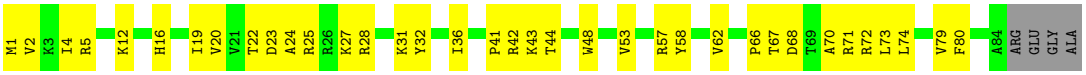




• Molecule 16: 30S ribosomal protein S16

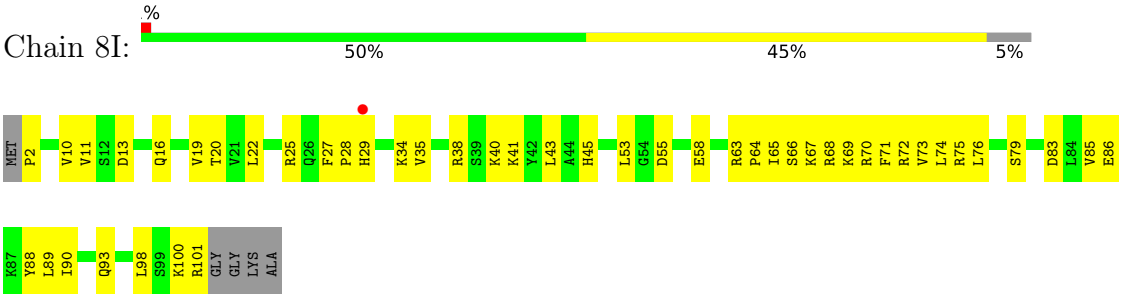
Chain 7A:





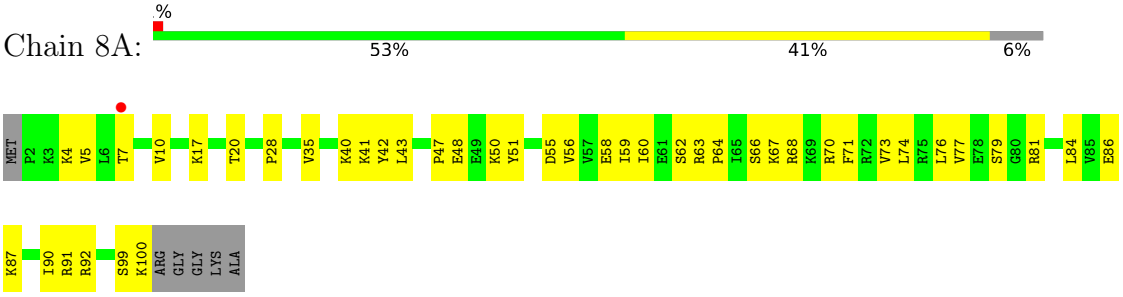
• Molecule 17: 30S ribosomal protein S17

Chain 8I:



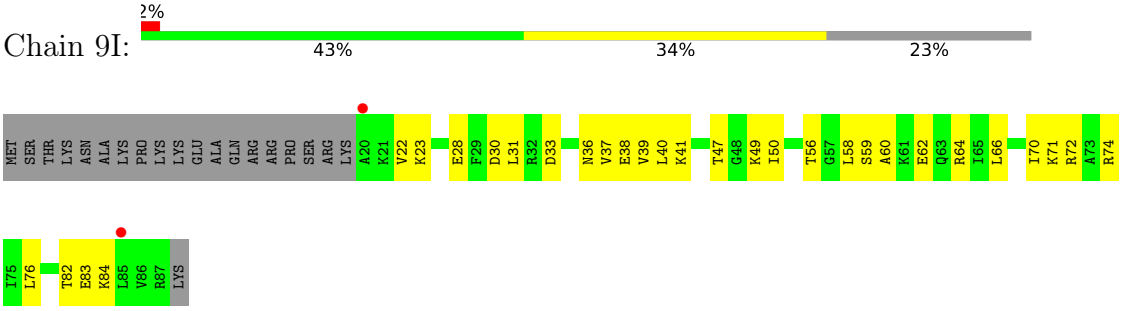
• Molecule 17: 30S ribosomal protein S17

Chain 8A:



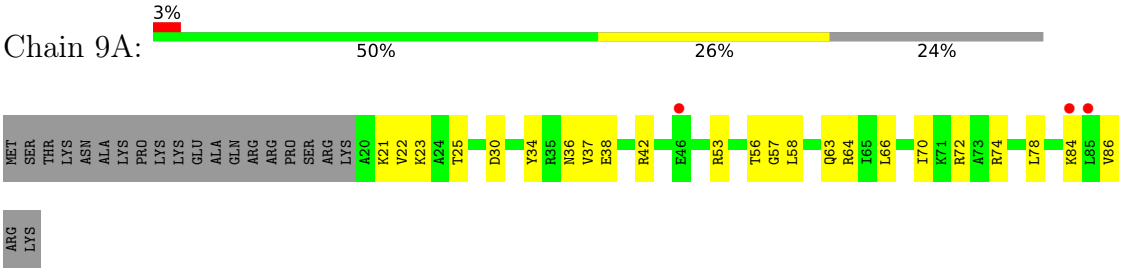
• Molecule 18: 30S ribosomal protein S18

Chain 9I:



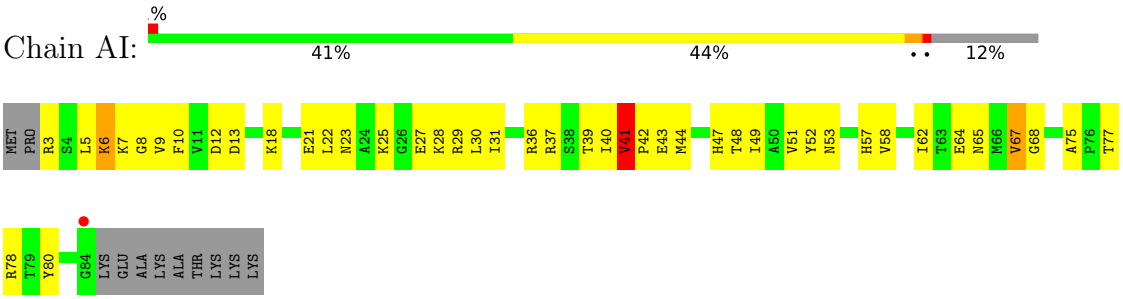
• Molecule 18: 30S ribosomal protein S18

Chain 9A:



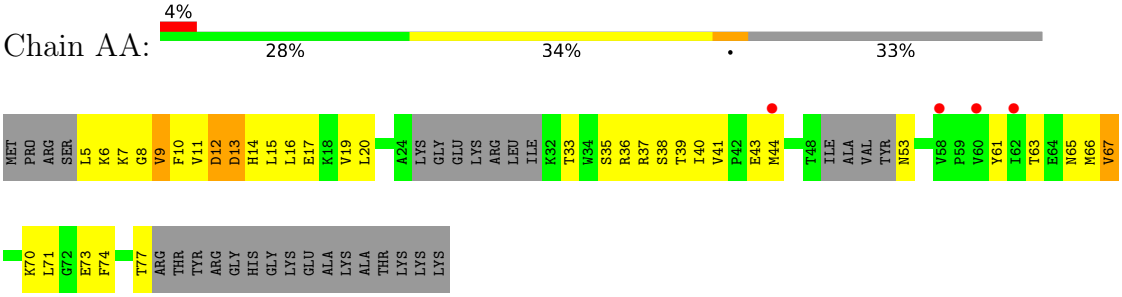
• Molecule 19: 30S ribosomal protein S19

Chain AI:



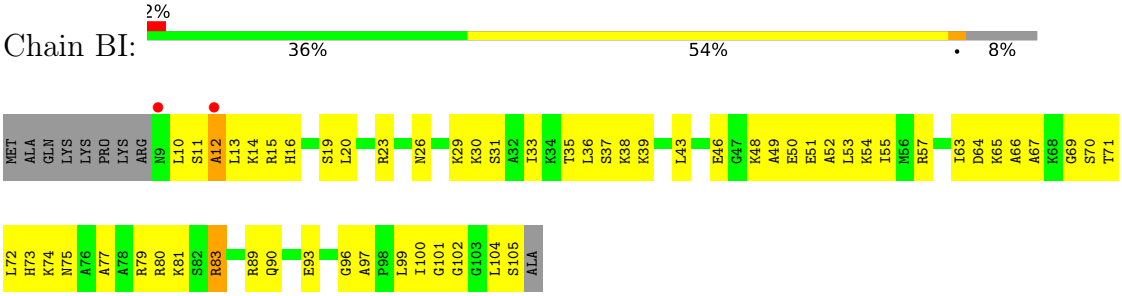
• Molecule 19: 30S ribosomal protein S19

Chain AA:



• Molecule 20: 30S ribosomal protein S20

Chain BI:



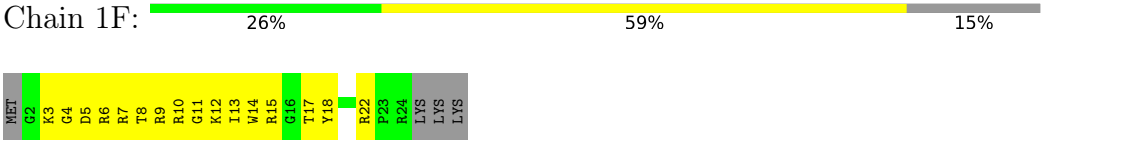
• Molecule 20: 30S ribosomal protein S20

Chain BA:



• Molecule 21: 30S ribosomal protein Thx

Chain 1F:



• Molecule 21: 30S ribosomal protein Thx

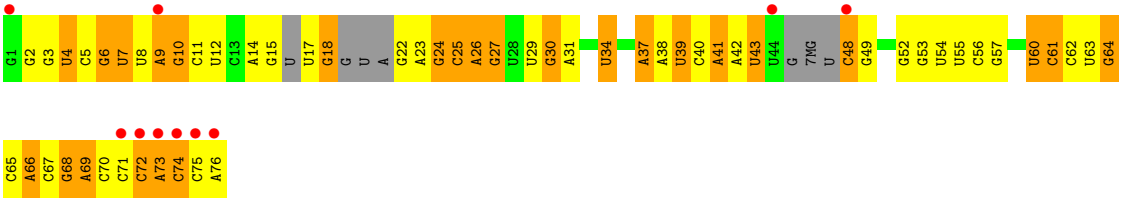
Chain 1B:



• Molecule 22: tRNALys

Chain 1K:





• Molecule 22: tRNALys

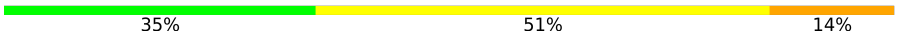
Chain 1L:





• Molecule 23: E. coli tRNAfMet

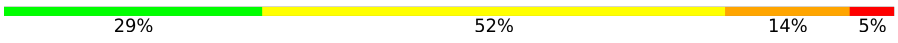
Chain 2K:





• Molecule 23: E. coli tRNAfMet

Chain 2L:

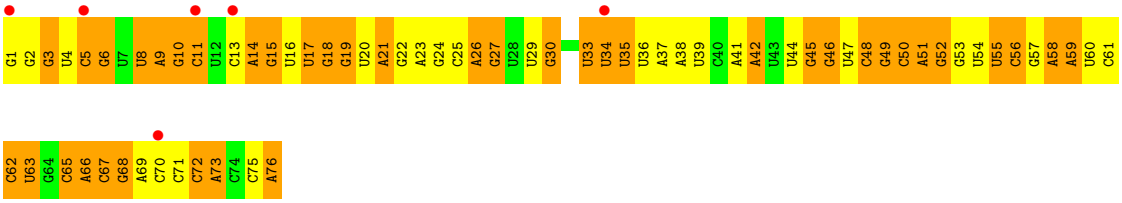




• Molecule 24: tRNALys

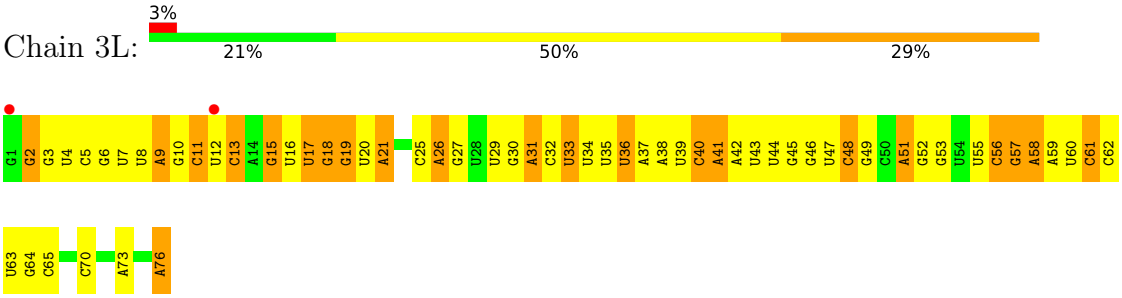
Chain 3K:





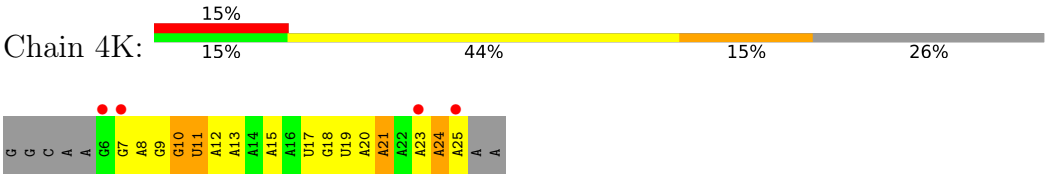
• Molecule 24: tRNALys

Chain 3L:



• Molecule 25: mRNA

Chain 4K:



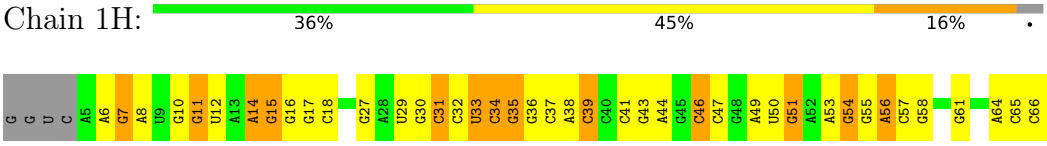
• Molecule 25: mRNA

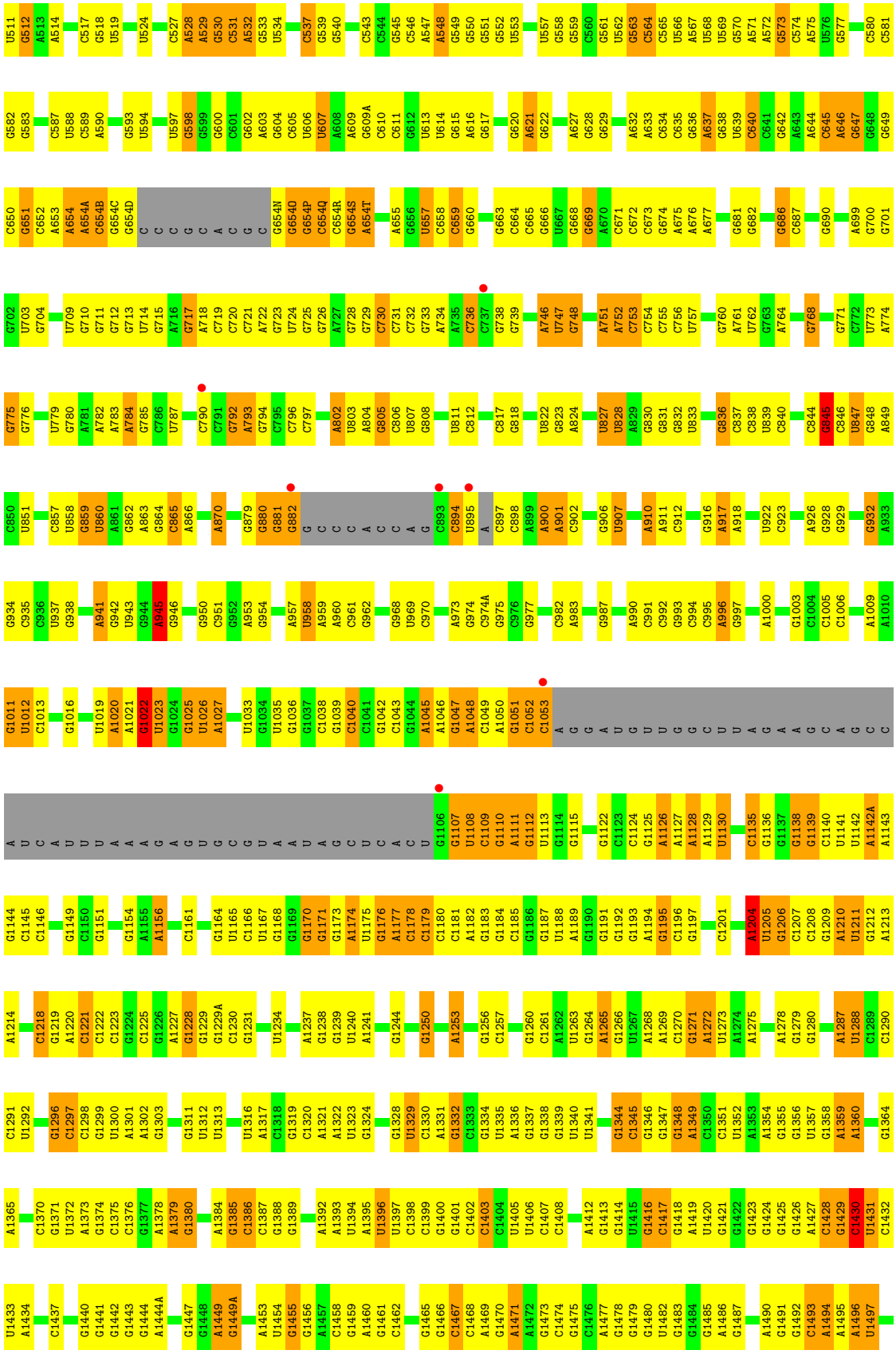
Chain 4L:

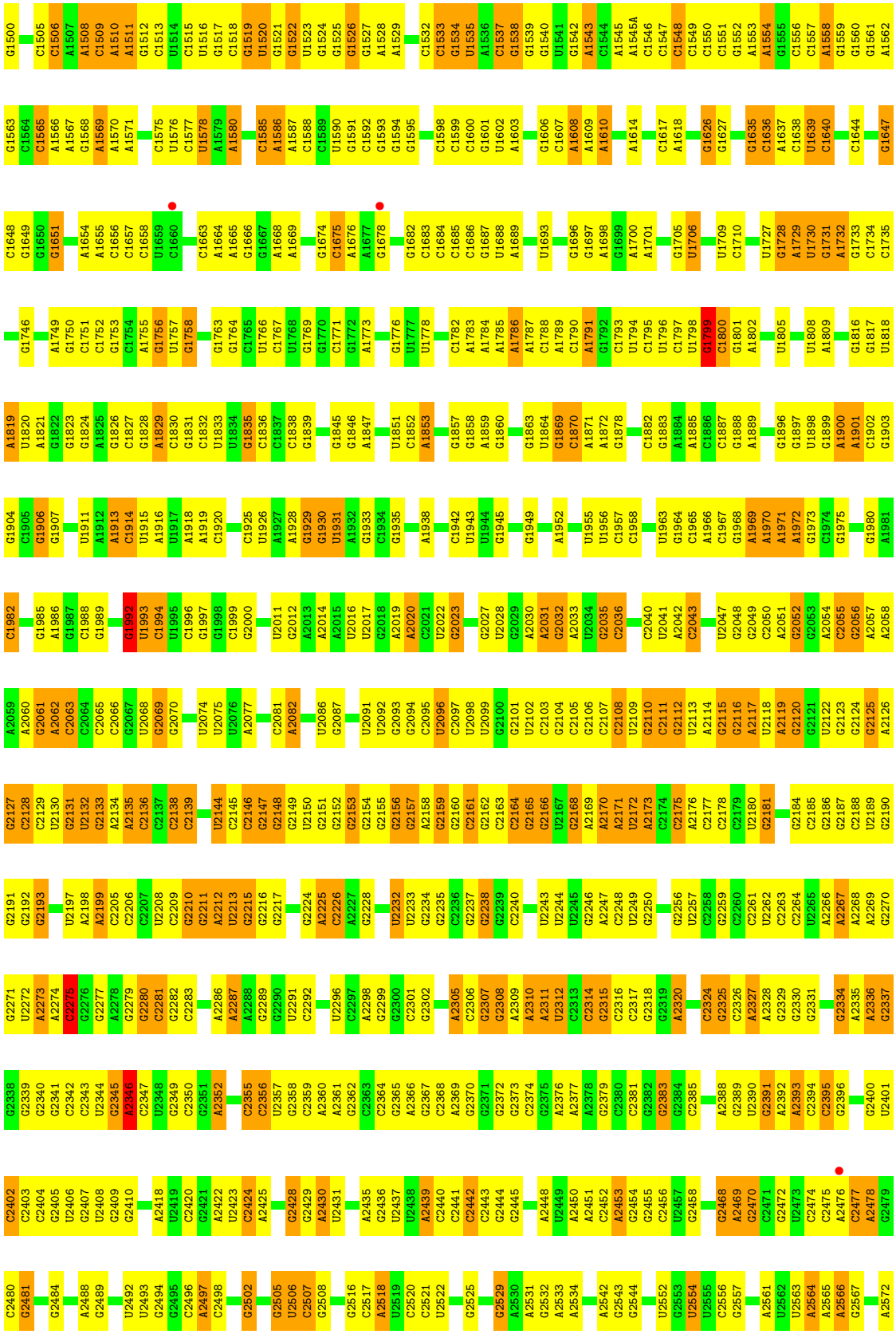


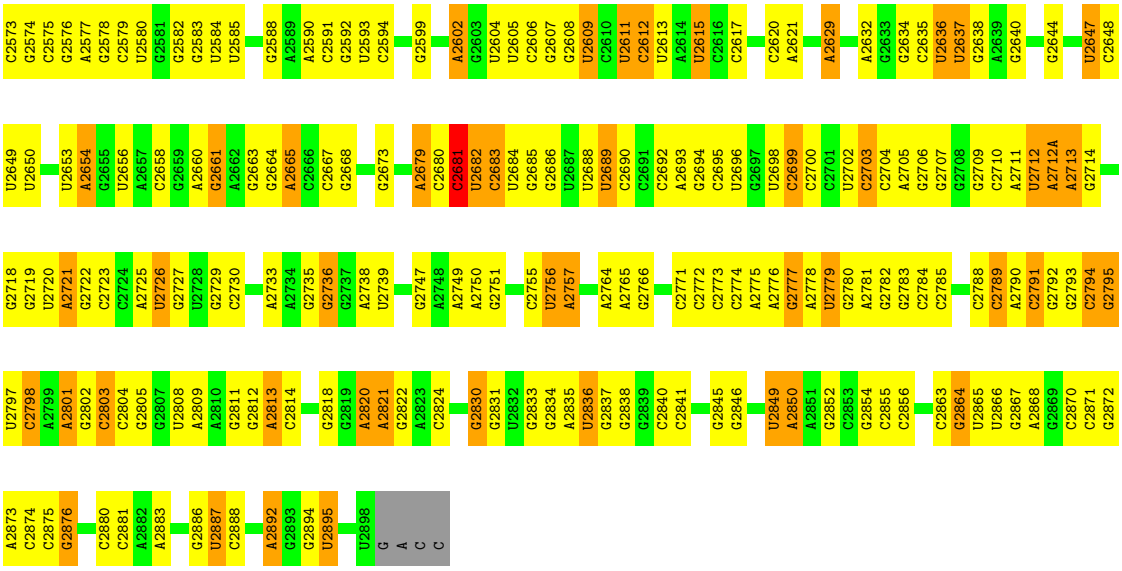
• Molecule 26: 23S rRNA

Chain 1H:





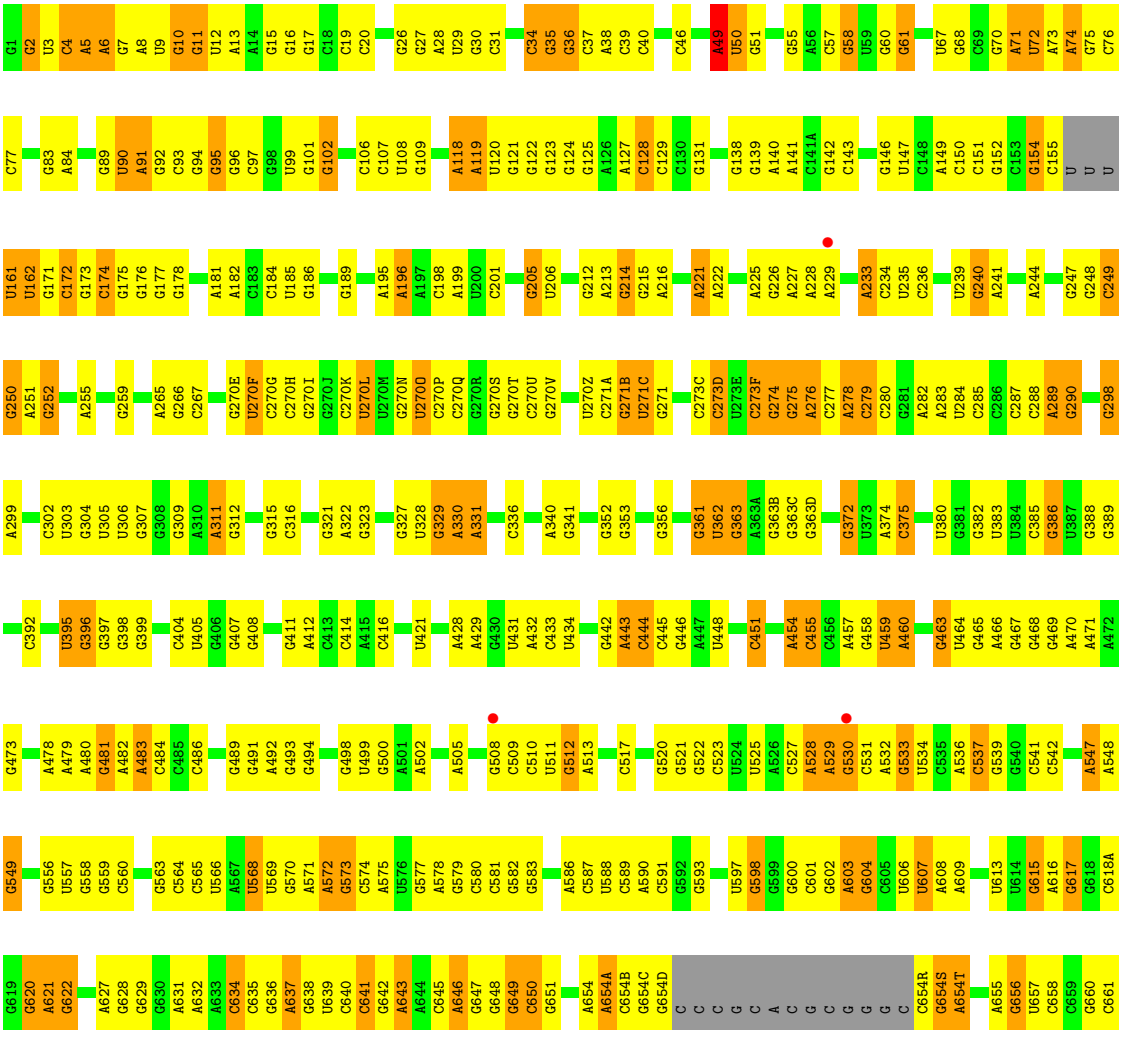


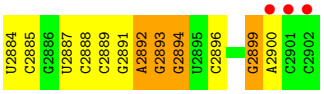


• Molecule 26: 23S rRNA

Chain 14:



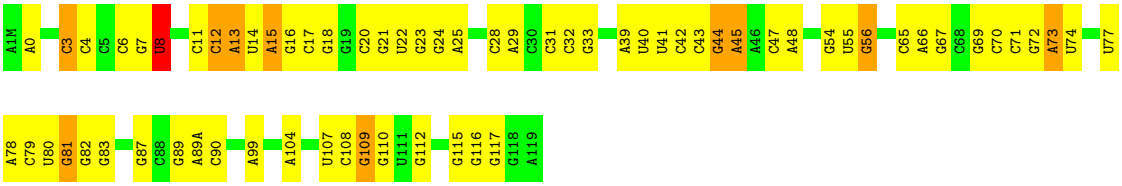




• Molecule 27: 5S rRNA

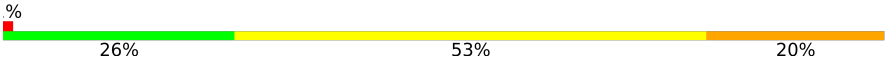
Chain 16:

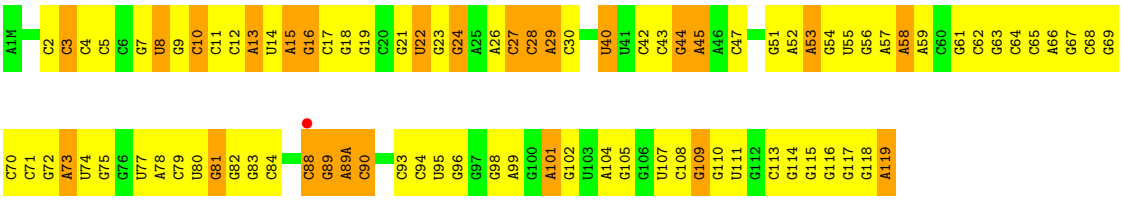




• Molecule 27: 5S rRNA

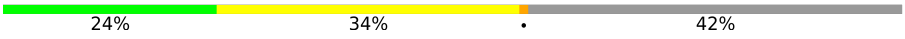
Chain 1J:

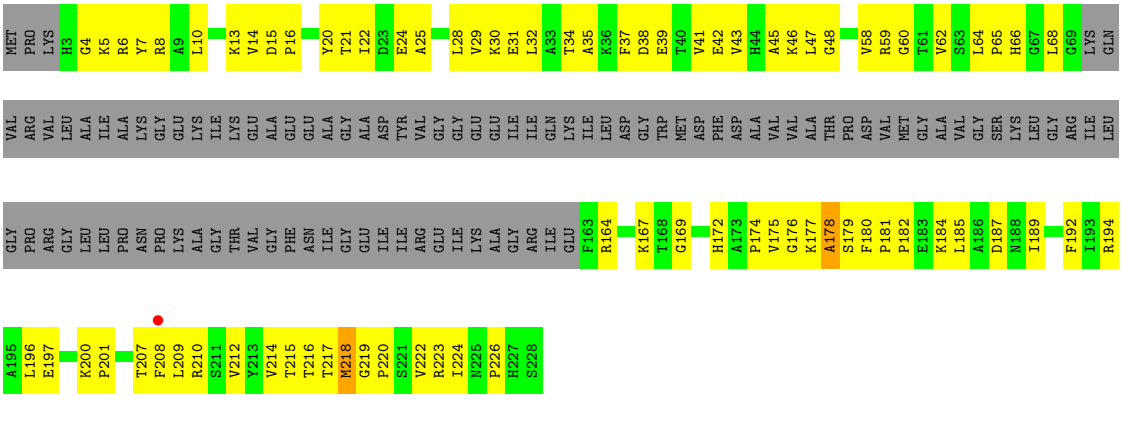




• Molecule 28: 50S ribosomal protein L1

Chain 71:

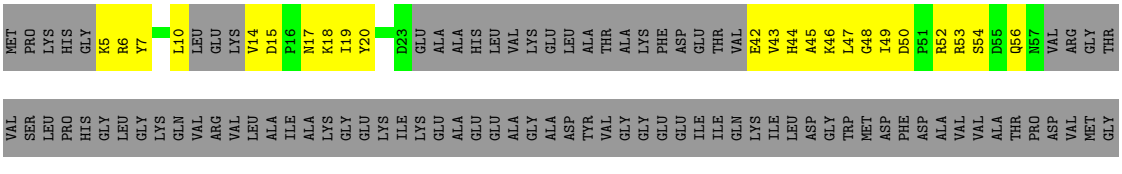


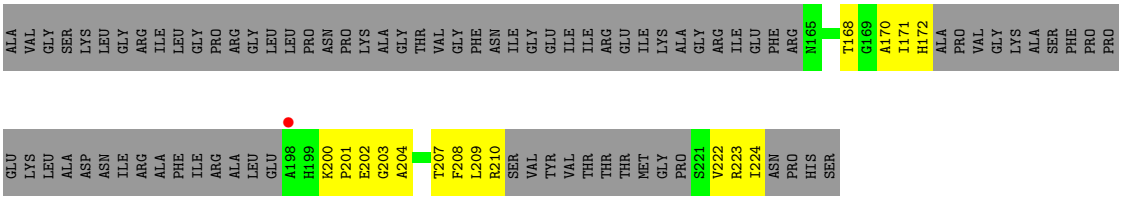


• Molecule 28: 50S ribosomal protein L1

Chain 79:

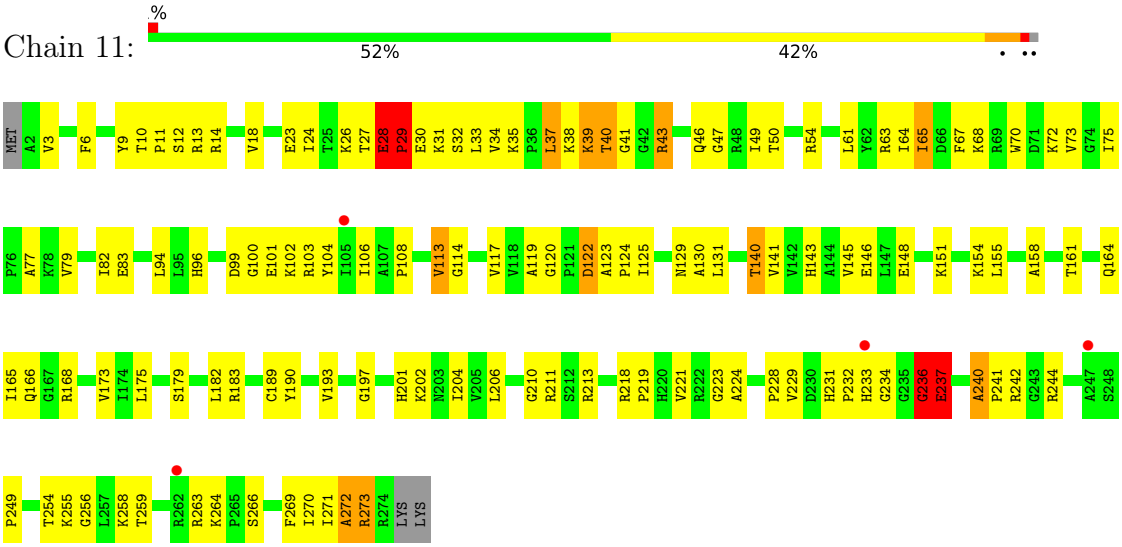






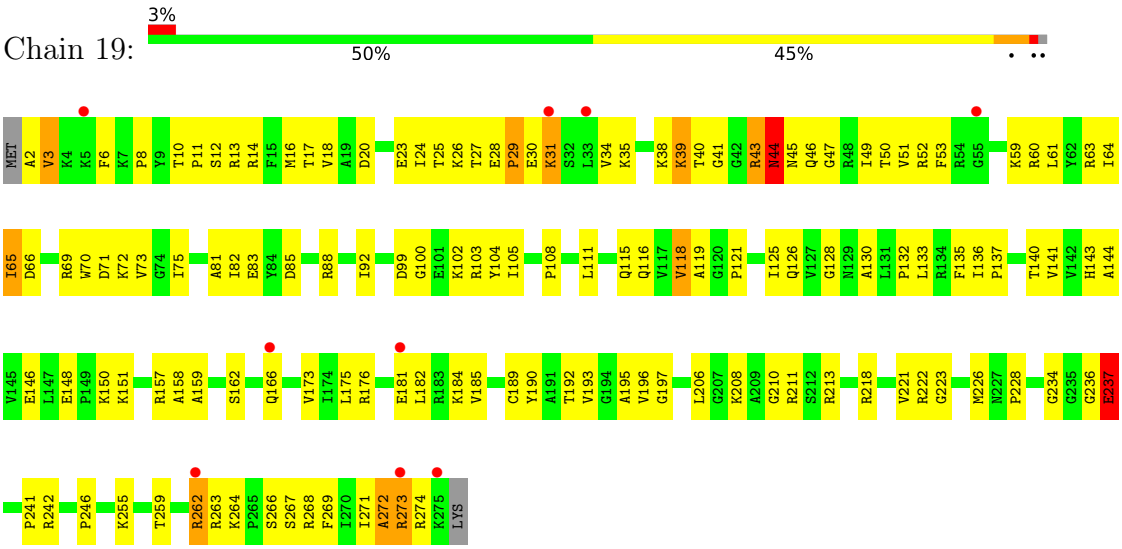
• Molecule 29: 50S ribosomal protein L2

Chain 11:



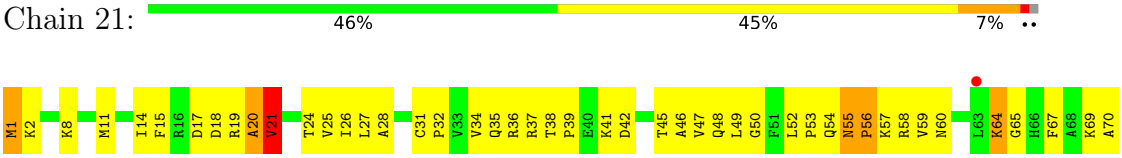
• Molecule 29: 50S ribosomal protein L2

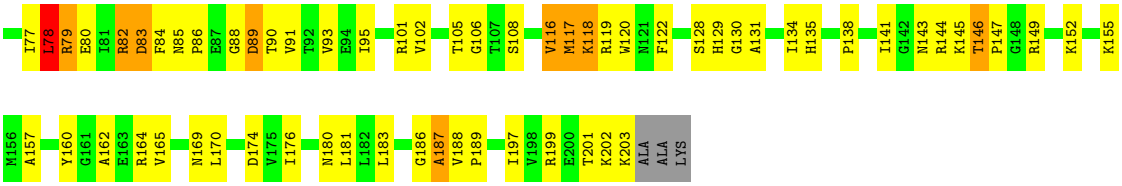
Chain 19:



• Molecule 30: 50S ribosomal protein L3

Chain 21:



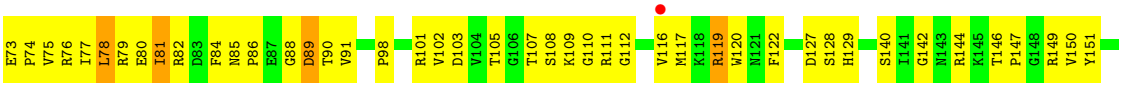


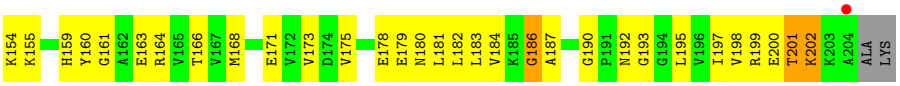
• Molecule 30: 50S ribosomal protein L3

Chain 29:





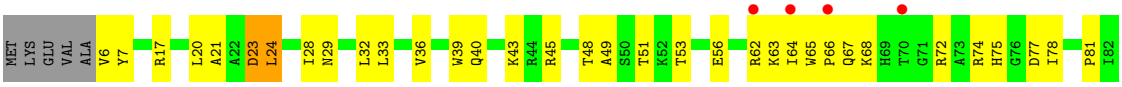


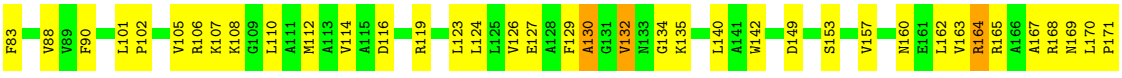


• Molecule 31: 50S ribosomal protein L4

Chain 31:





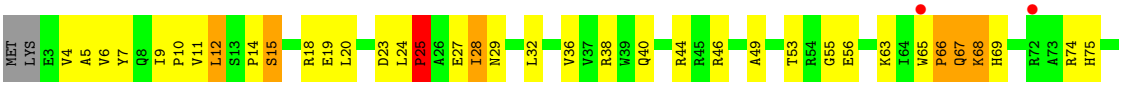


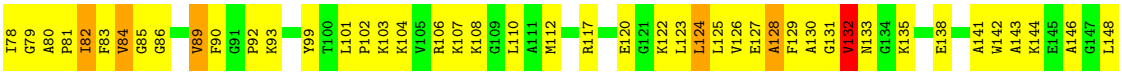


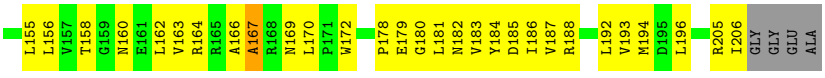
• Molecule 31: 50S ribosomal protein L4

Chain 39:



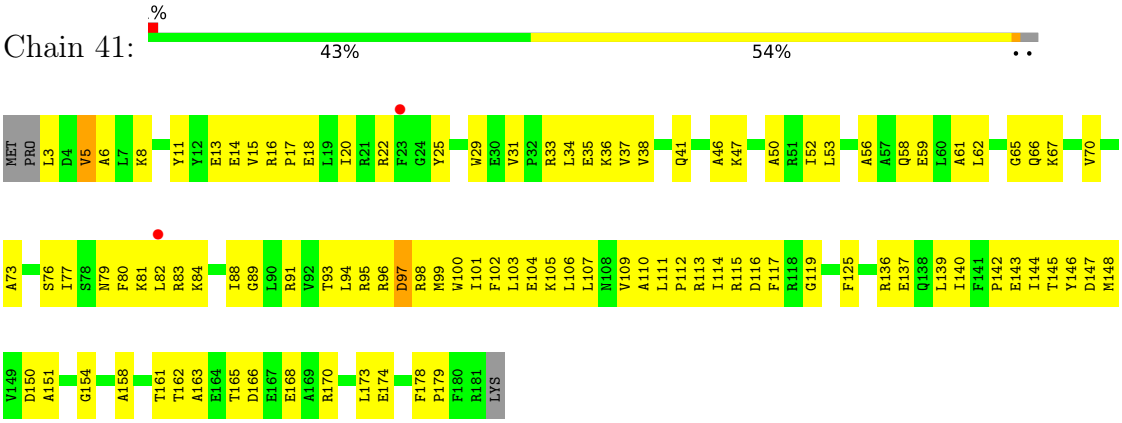






• Molecule 32: 50S ribosomal protein L5

Chain 41:



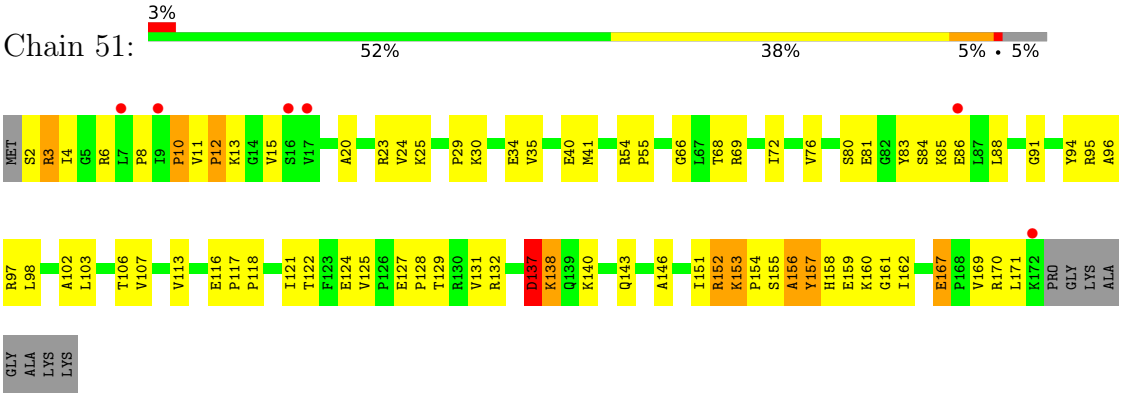
• Molecule 32: 50S ribosomal protein L5

Chain 49:



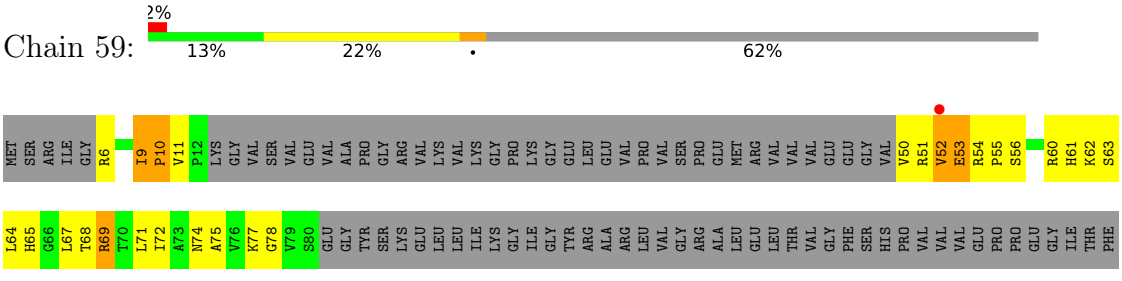
• Molecule 33: 50S ribosomal protein L6

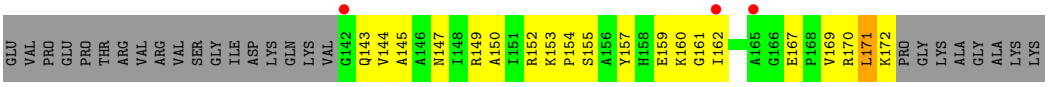
Chain 51:



• Molecule 33: 50S ribosomal protein L6

Chain 59:

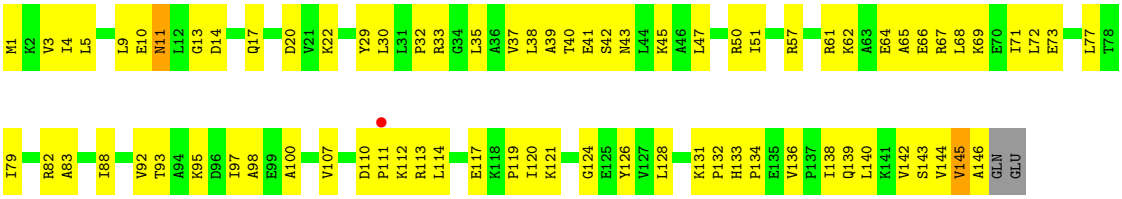




• Molecule 34: 50S ribosomal protein L9

Chain 61:

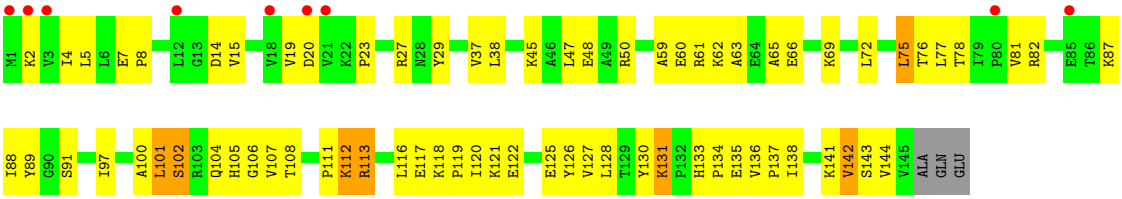




• Molecule 34: 50S ribosomal protein L9

Chain 69:

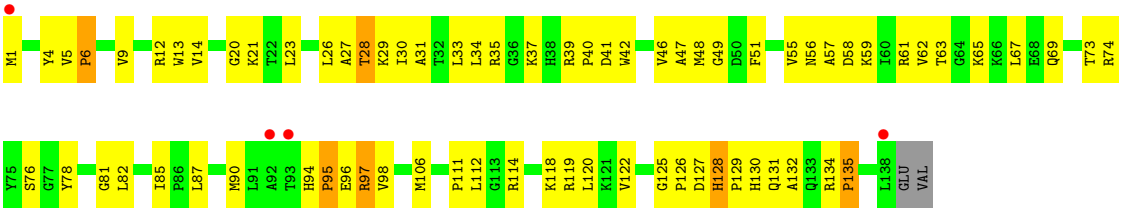




• Molecule 35: 50S ribosomal protein L13

Chain 58:

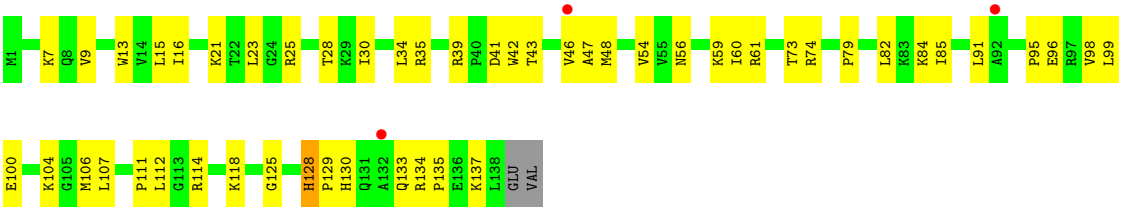




• Molecule 35: 50S ribosomal protein L13

Chain 15:

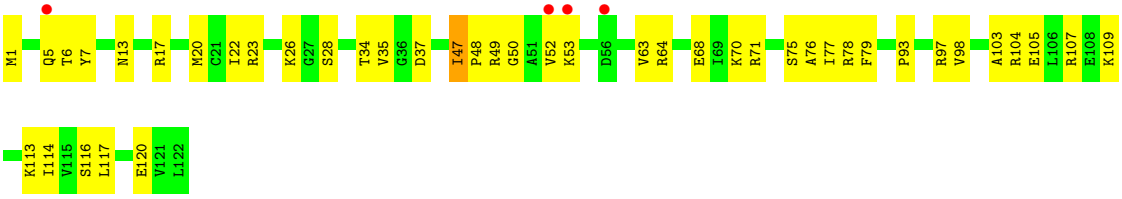




• Molecule 36: 50S ribosomal protein L14

Chain 68:





• Molecule 36: 50S ribosomal protein L14

Chain 25:

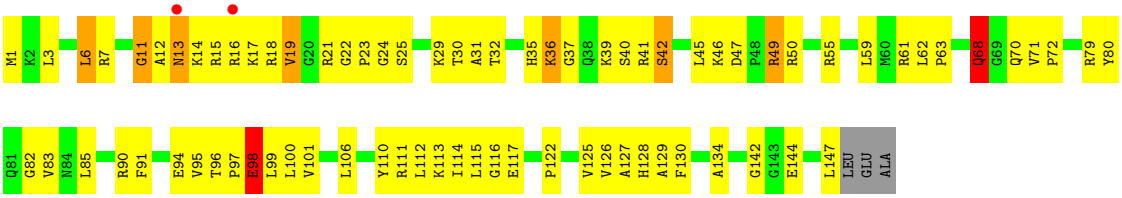




• Molecule 37: 50S ribosomal protein L15

Chain 78:

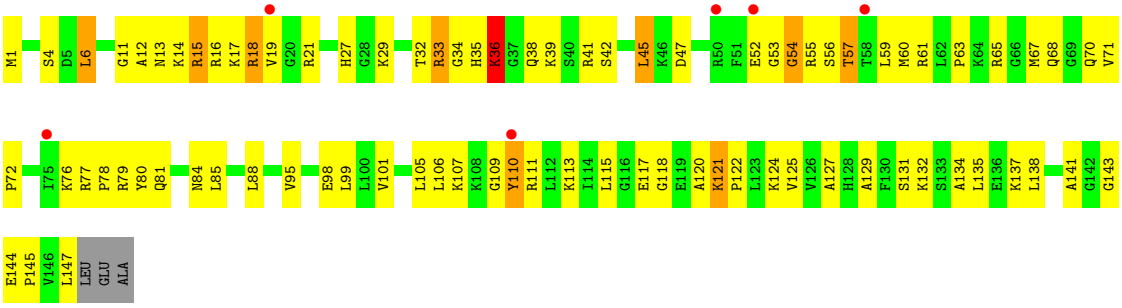




• Molecule 37: 50S ribosomal protein L15

Chain 35:

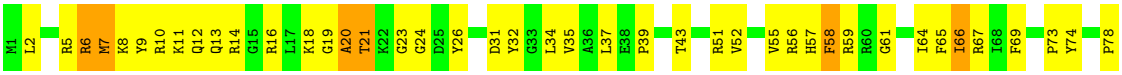




• Molecule 38: 50S ribosomal protein L16

Chain 88:



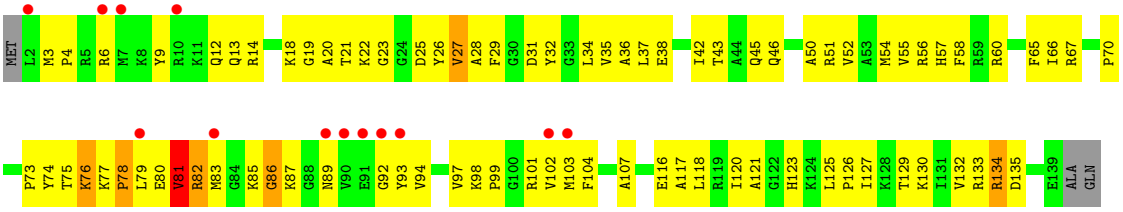




• Molecule 38: 50S ribosomal protein L16

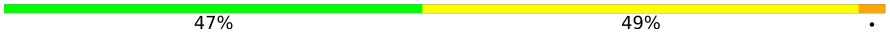
Chain 45:

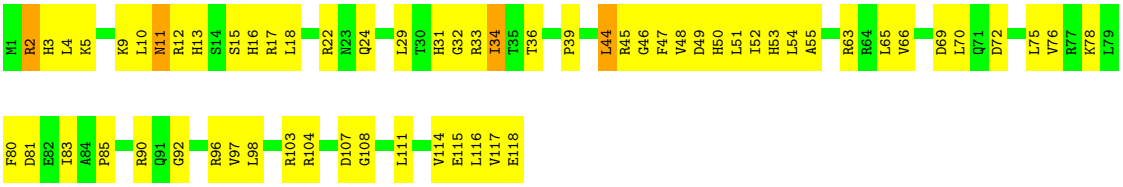




• Molecule 39: 50S ribosomal protein L17

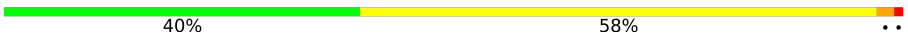
Chain 98:

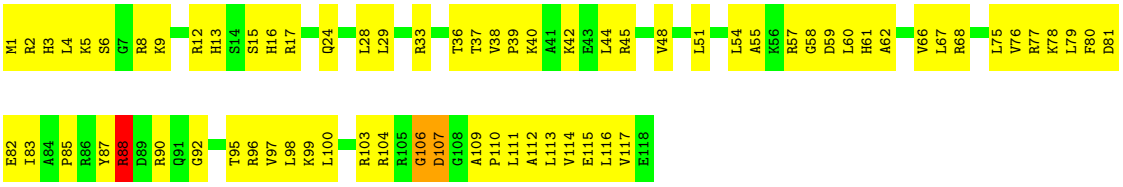




• Molecule 39: 50S ribosomal protein L17

Chain 55:





• Molecule 40: 50S ribosomal protein L18

Chain A8:

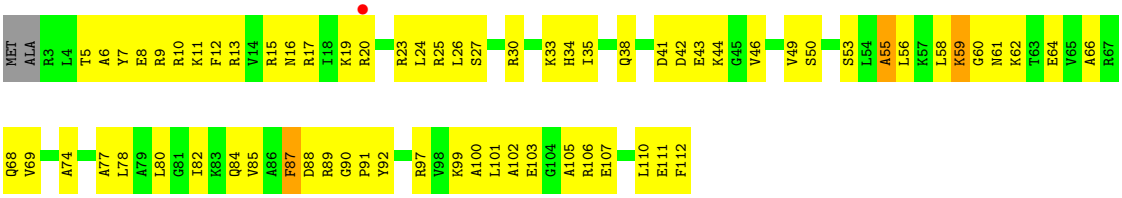


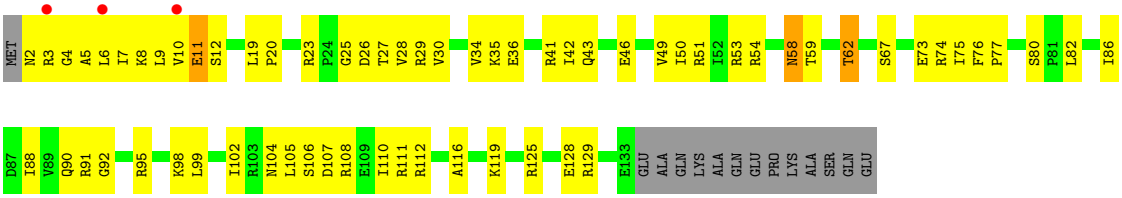


• Molecule 40: 50S ribosomal protein L18

Chain 65:







• Molecule 41: 50S ribosomal protein L19

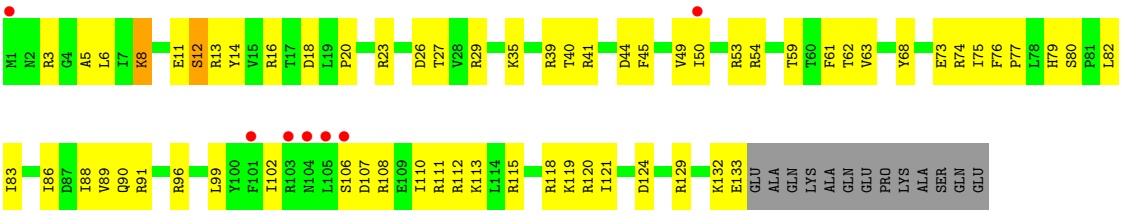
Chain B8:



• Molecule 41: 50S ribosomal protein L19

Chain 75:





• Molecule 42: 50S ribosomal protein L20

Chain C8:

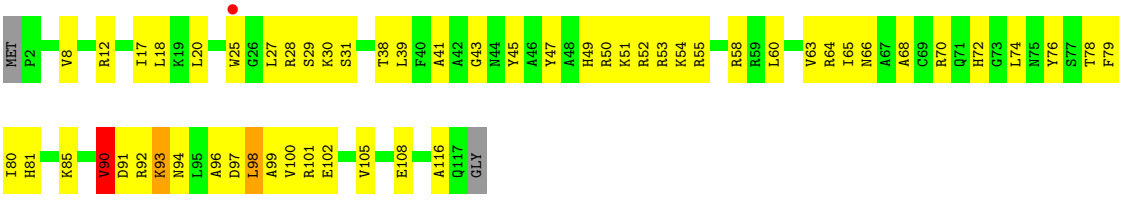




• Molecule 42: 50S ribosomal protein L20

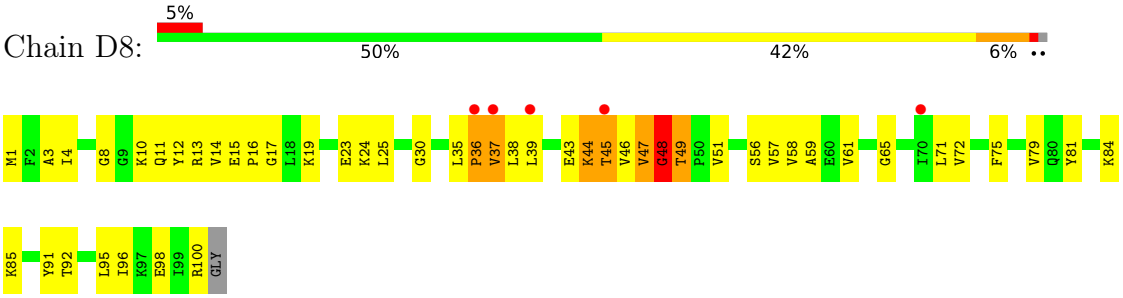
Chain 85:





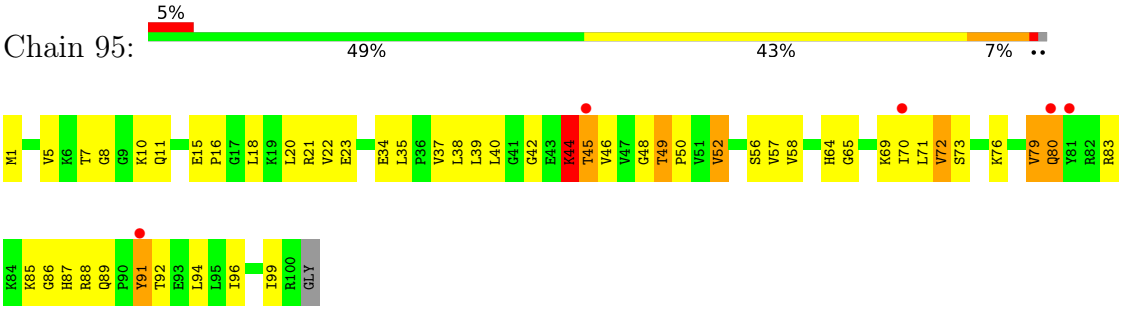
• Molecule 43: 50S ribosomal protein L21

Chain D8:



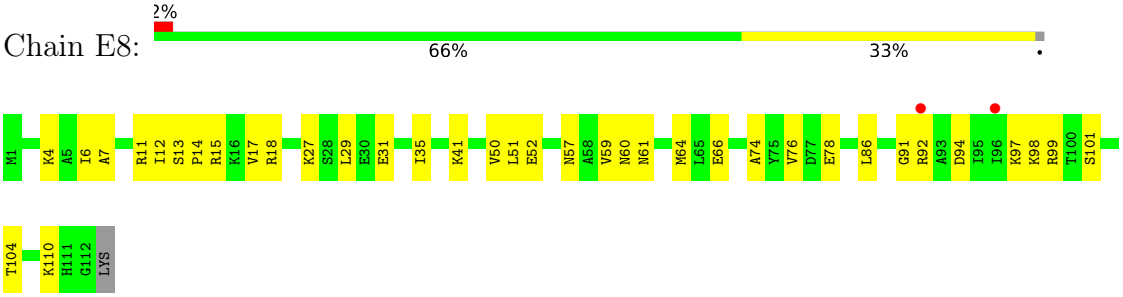
• Molecule 43: 50S ribosomal protein L21

Chain 95:



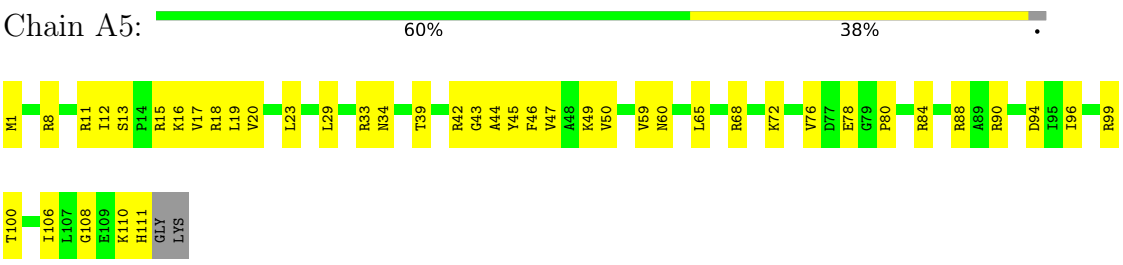
• Molecule 44: 50S ribosomal protein L22

Chain E8:



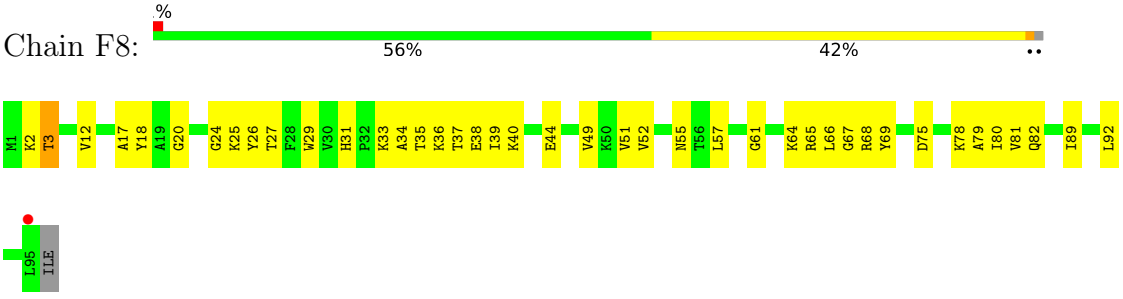
• Molecule 44: 50S ribosomal protein L22

Chain A5:



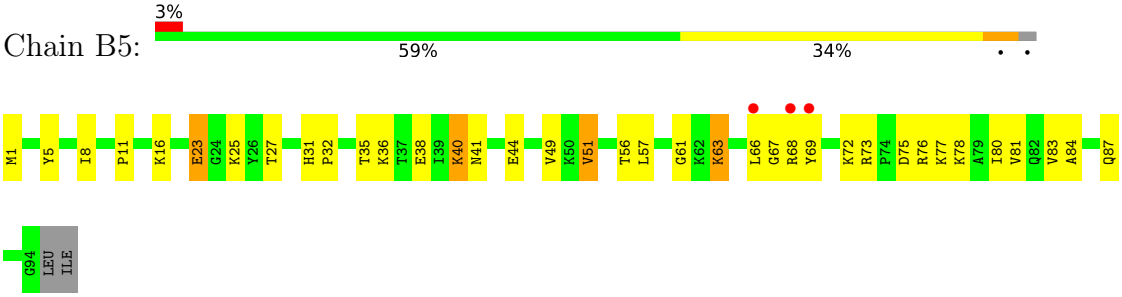
• Molecule 45: 50S ribosomal protein L23

Chain F8:



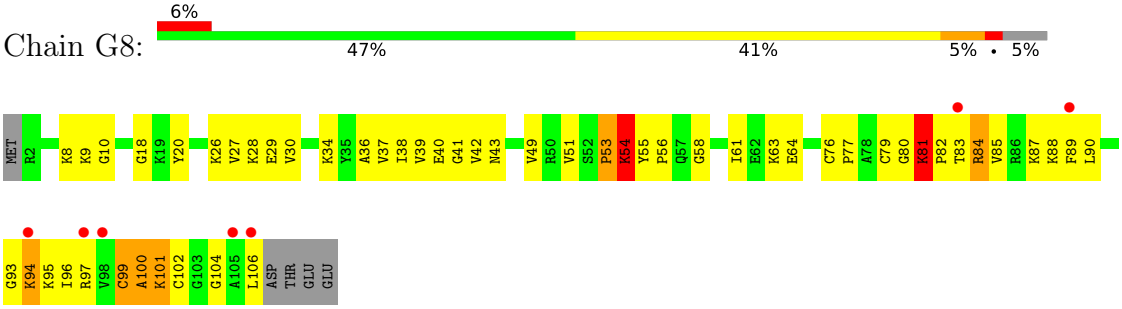
• Molecule 45: 50S ribosomal protein L23

Chain B5:



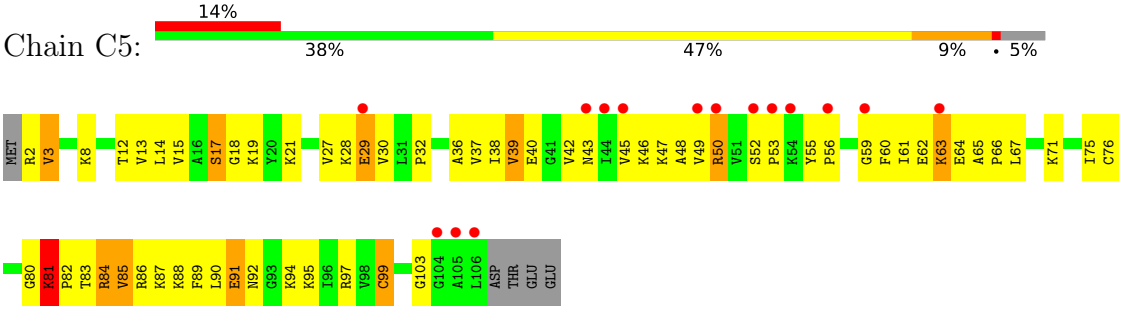
• Molecule 46: 50S ribosomal protein L24

Chain G8:



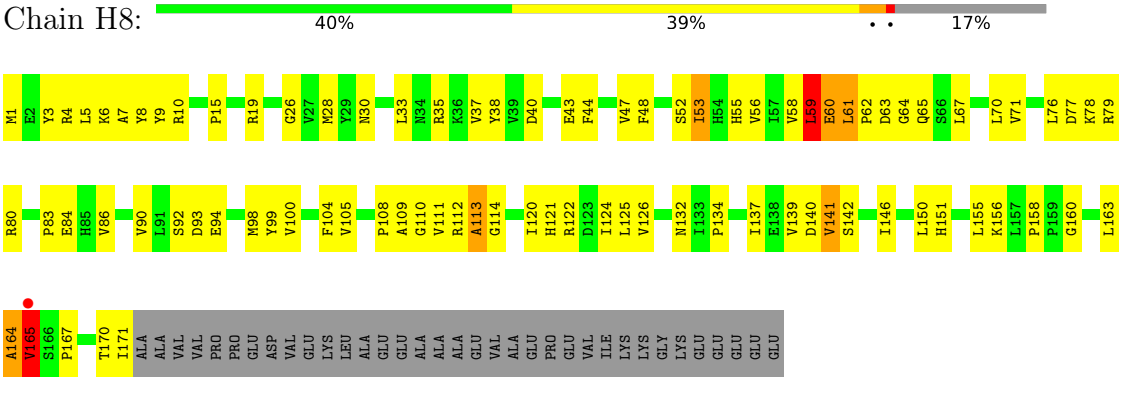
• Molecule 46: 50S ribosomal protein L24

Chain C5:



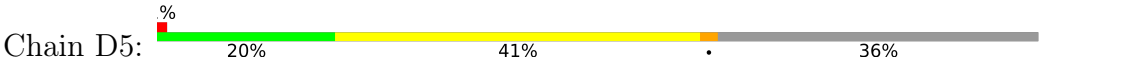
• Molecule 47: 50S ribosomal protein L25

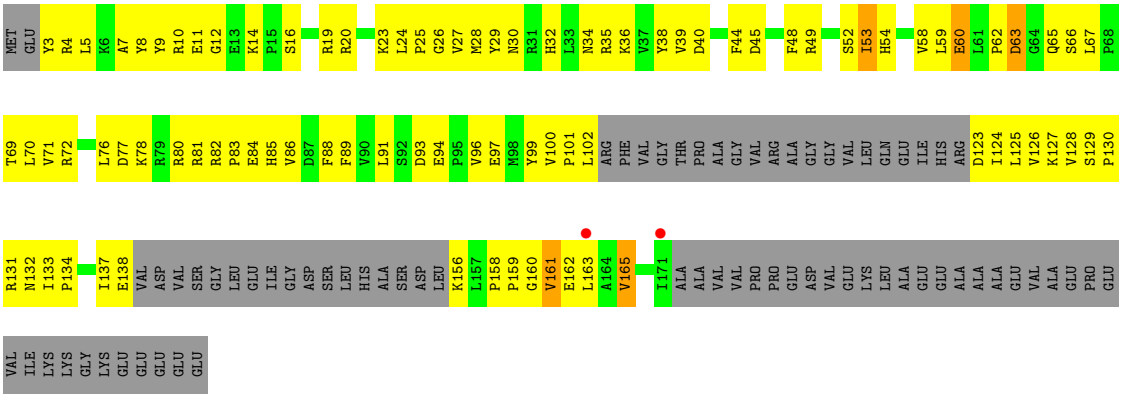
Chain H8:



• Molecule 47: 50S ribosomal protein L25

Chain D5:

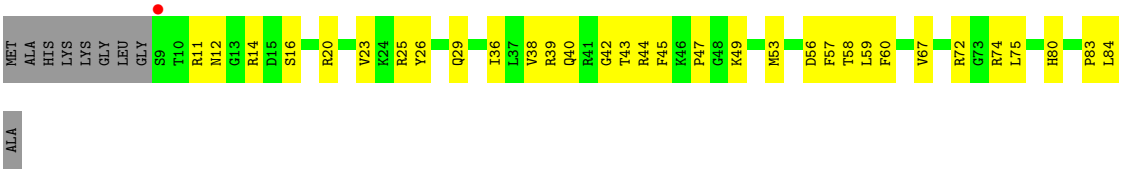




• Molecule 48: 50S ribosomal protein L27

Chain I8:

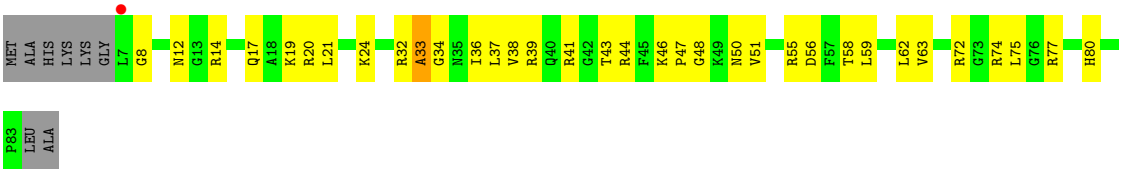




• Molecule 48: 50S ribosomal protein L27

Chain E5:





• Molecule 49: 50S ribosomal protein L28

Chain J8:

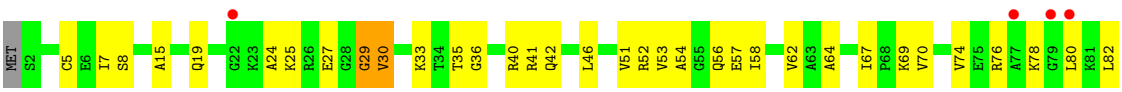




• Molecule 49: 50S ribosomal protein L28

Chain F5:



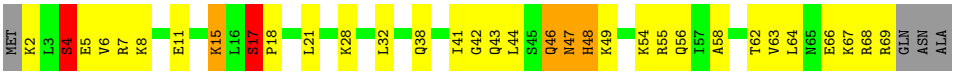




• Molecule 50: 50S ribosomal protein L29

Chain K8:

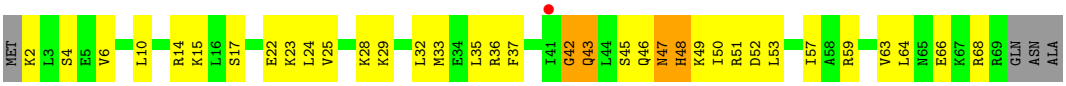




• Molecule 50: 50S ribosomal protein L29

Chain G5:





• Molecule 51: 50S ribosomal protein L30

Chain L8:

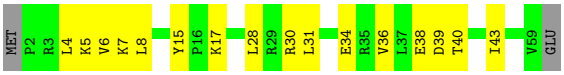




• Molecule 51: 50S ribosomal protein L30

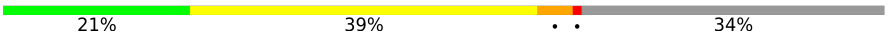
Chain H5:

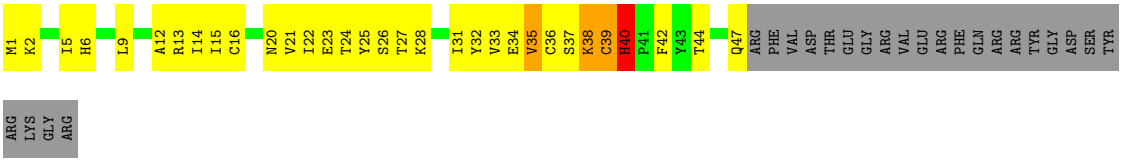




• Molecule 52: 50S ribosomal protein L31

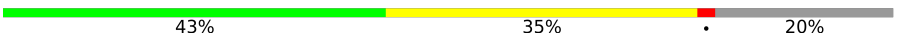
Chain M8:

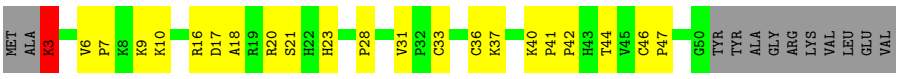




• Molecule 53: 50S ribosomal protein L32

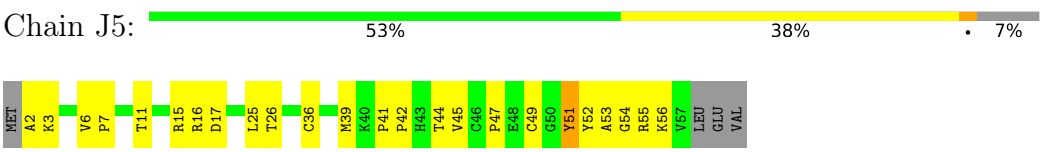
Chain N8:





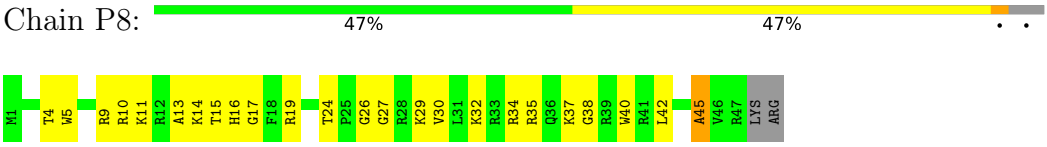
• Molecule 53: 50S ribosomal protein L32

Chain J5:



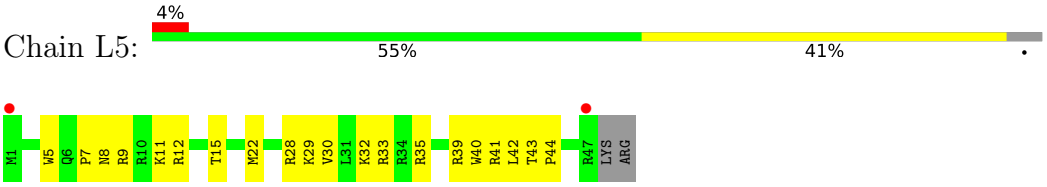
• Molecule 54: 50S ribosomal protein L34

Chain P8:



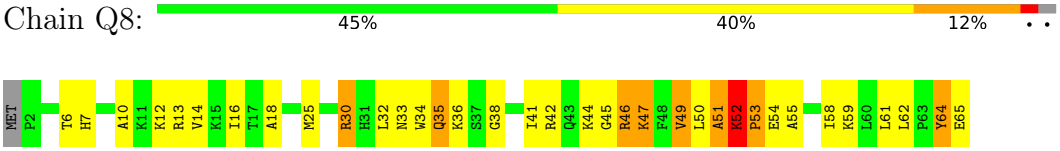
• Molecule 54: 50S ribosomal protein L34

Chain L5:



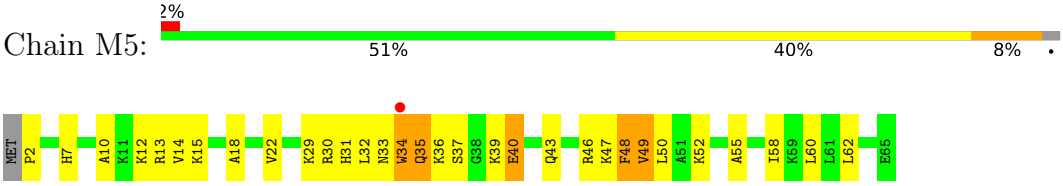
• Molecule 55: 50S ribosomal protein L35

Chain Q8:



• Molecule 55: 50S ribosomal protein L35

Chain M5:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	208.40Å 446.00Å 617.40Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	151.24 – 3.10 151.24 – 3.10	Depositor EDS
% Data completeness (in resolution range)	100.0 (151.24-3.10) 93.3 (151.24-3.10)	Depositor EDS
R_{merge}	0.29	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.91 (at 3.07Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.196 , 0.249 0.199 , 0.253	Depositor DCC
R_{free} test set	2000 reflections (0.19%)	wwPDB-VP
Wilson B-factor (Å^2)	91.6	Xtriage
Anisotropy	0.272	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.27 , 43.9	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	294257	wwPDB-VP
Average B, all atoms (Å^2)	106.0	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: OMC, 4SU, MG, G7M, PSU, U8U, SF4, PAR, 5MU, ZN, T6A

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	0.51	0/35994	0.76	9/56171 (0.0%)
1	1G	0.43	0/36258	0.66	4/56589 (0.0%)
2	12	0.50	0/1752	0.83	4/2360 (0.2%)
2	1E	0.43	0/1908	0.75	2/2573 (0.1%)
3	22	0.56	4/1564 (0.3%)	0.67	0/2109
3	2E	0.54	0/1629	0.71	0/2195
4	32	0.48	0/1732	0.75	0/2318
4	3E	0.55	0/1728	0.82	1/2313 (0.0%)
5	42	0.45	0/1150	0.75	0/1548
5	4E	0.53	0/1158	0.78	0/1559
6	52	0.50	0/855	0.73	0/1154
6	5E	0.60	0/850	0.73	0/1147
7	62	0.42	0/1122	0.74	3/1500 (0.2%)
7	6E	0.44	0/1259	0.63	0/1686
8	72	0.36	0/1127	0.67	0/1517
8	7E	0.69	4/1135 (0.4%)	0.77	0/1527
9	82	0.41	0/971	0.73	0/1304
9	8E	0.42	0/1019	0.79	0/1367
10	1A	0.50	0/658	0.71	0/885
10	1I	0.47	0/747	0.82	1/1006 (0.1%)
11	2A	0.42	0/850	0.68	0/1150
11	2I	0.50	0/838	0.78	2/1133 (0.2%)
12	3A	0.52	0/972	0.83	2/1301 (0.2%)
12	3I	0.71	0/972	1.07	3/1301 (0.2%)
13	4A	0.50	0/903	0.83	1/1211 (0.1%)
13	4I	0.54	0/952	0.77	0/1277
14	5A	0.43	0/495	0.90	2/657 (0.3%)
14	5I	0.54	0/500	0.86	2/664 (0.3%)
15	6A	0.45	0/740	0.67	0/987
15	6I	0.52	0/740	0.73	0/987
16	7A	0.47	0/721	0.76	0/970
16	7I	0.51	0/716	0.81	0/963

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	8A	0.42	0/836	0.67	0/1117
17	8I	0.47	0/847	0.77	0/1131
18	9A	0.48	0/549	0.71	0/732
18	9I	0.59	0/554	0.84	0/739
19	AA	0.46	0/490	0.79	0/662
19	AI	0.54	1/672 (0.1%)	0.83	0/904
20	BA	0.44	0/764	0.83	0/1007
20	BI	0.50	1/748 (0.1%)	0.76	1/986 (0.1%)
21	1B	0.37	0/192	0.68	0/252
21	1F	0.46	0/203	0.64	0/266
22	1K	0.49	0/1516	0.67	0/2350
22	1L	0.44	1/1613 (0.1%)	0.57	0/2504
23	2K	0.56	1/1721 (0.1%)	0.74	0/2682
23	2L	0.46	0/1721	0.66	0/2682
24	3K	0.47	0/1777	0.65	0/2767
24	3L	0.44	0/1777	0.60	0/2767
25	4K	0.57	0/494	0.68	0/767
25	4L	0.42	0/445	0.56	0/693
26	14	0.57	0/69023	0.81	22/107740 (0.0%)
26	1H	0.66	0/68351	0.90	33/106700 (0.0%)
27	16	0.54	0/2928	0.83	1/4568 (0.0%)
27	1J	0.47	0/2928	0.72	0/4568
28	71	0.41	0/1055	0.74	0/1425
28	79	0.45	0/459	0.75	0/608
29	11	0.89	3/2170 (0.1%)	1.32	16/2926 (0.5%)
29	19	0.84	5/2175 (0.2%)	1.17	11/2933 (0.4%)
30	21	0.66	0/1591	1.07	8/2146 (0.4%)
30	29	0.68	2/1596 (0.1%)	1.06	7/2153 (0.3%)
31	31	0.71	2/1620 (0.1%)	0.96	0/2194
31	39	0.82	1/1637 (0.1%)	1.06	5/2218 (0.2%)
32	41	0.51	0/1481	0.81	0/1994
32	49	0.41	0/1482	0.72	0/1994
33	51	0.60	0/1337	1.03	6/1809 (0.3%)
33	59	0.69	1/548 (0.2%)	1.21	7/738 (0.9%)
34	61	0.51	0/1151	0.84	1/1558 (0.1%)
34	69	0.50	0/1146	0.85	4/1551 (0.3%)
35	15	0.49	0/1131	0.82	0/1525
35	58	0.59	0/1131	0.89	2/1525 (0.1%)
36	25	0.61	1/942 (0.1%)	0.82	0/1269
36	68	0.62	0/942	0.85	0/1269
37	35	0.75	2/1139 (0.2%)	1.11	5/1514 (0.3%)
37	78	0.80	2/1139 (0.2%)	1.14	5/1514 (0.3%)
38	45	0.65	1/1120 (0.1%)	0.95	3/1498 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	88	0.80	1/1134 (0.1%)	1.14	6/1519 (0.4%)
39	55	0.70	2/981 (0.2%)	0.87	0/1312
39	98	0.56	0/981	0.88	0/1312
40	65	0.52	0/886	0.93	0/1180
40	A8	0.60	0/891	0.90	0/1187
41	75	0.61	0/1123	0.86	1/1500 (0.1%)
41	B8	0.69	0/1115	0.99	0/1490
42	85	0.53	0/977	0.79	0/1301
42	C8	0.64	0/968	0.90	0/1289
43	95	0.64	0/785	1.04	2/1052 (0.2%)
43	D8	0.58	0/785	0.93	2/1052 (0.2%)
44	A5	0.66	0/897	0.89	0/1204
44	E8	0.64	0/901	0.88	0/1209
45	B5	0.65	0/749	1.01	5/1007 (0.5%)
45	F8	0.72	0/757	1.17	4/1017 (0.4%)
46	C5	0.88	4/812 (0.5%)	1.14	5/1083 (0.5%)
46	G8	0.85	0/809	1.30	11/1080 (1.0%)
47	D5	0.52	0/1099	0.88	1/1490 (0.1%)
47	H8	0.49	0/1403	0.84	1/1901 (0.1%)
48	E5	0.59	0/616	0.97	0/821
48	I8	0.75	0/614	1.01	0/819
49	F5	0.61	0/744	0.99	4/989 (0.4%)
49	J8	0.68	0/744	0.95	0/989
50	G5	0.58	0/570	0.89	0/755
50	K8	0.72	0/570	1.08	3/755 (0.4%)
51	H5	0.45	0/464	0.74	0/623
51	L8	0.59	0/464	0.83	0/623
52	M8	0.55	0/375	1.09	1/507 (0.2%)
53	J5	0.59	0/448	0.84	0/606
53	N8	0.84	1/381 (0.3%)	0.97	0/516
54	L5	0.72	0/409	1.03	0/540
54	P8	0.90	0/409	1.08	1/540 (0.2%)
55	M5	0.74	0/524	1.18	3/691 (0.4%)
55	Q8	0.74	0/524	1.33	8/691 (1.2%)
All	All	0.57	40/317065 (0.0%)	0.83	231/475024 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
2	12	0	6

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	1E	0	5
4	32	0	6
4	3E	0	2
5	42	0	1
7	62	0	1
8	72	0	1
9	82	0	1
10	1A	0	2
11	2A	0	1
12	3I	0	2
13	4A	0	5
13	4I	0	2
14	5A	0	1
14	5I	0	1
19	AA	0	2
19	AI	0	2
20	BA	0	3
20	BI	0	2
28	71	0	3
29	11	0	8
29	19	0	4
30	21	0	10
30	29	0	6
31	31	0	2
31	39	0	9
32	49	0	3
33	51	0	6
33	59	0	5
34	61	0	4
34	69	0	4
35	58	0	1
37	35	0	4
37	78	0	7
38	45	0	6
38	88	0	3
39	55	0	1
39	98	0	2
40	65	0	2
40	A8	0	1
41	75	0	1
41	B8	0	2
42	85	0	4

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Mol	Chain	#Chirality outliers	#Planarity outliers
42	C8	0	4
43	95	0	3
43	D8	0	3
44	A5	0	1
45	B5	0	1
45	F8	0	3
46	C5	0	4
46	G8	0	7
47	D5	0	1
47	H8	0	4
49	F5	0	1
49	J8	0	1
50	G5	0	3
50	K8	0	3
52	M8	0	4
54	P8	0	1
55	M5	0	1
55	Q8	0	2
All	All	0	191

All (40) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	39	66	PRO	N-CD	-23.05	1.15	1.47
29	19	262	ARG	CZ-NH2	-11.90	1.18	1.33
37	35	121	LYS	C-N	11.64	1.61	1.33
8	7E	102	ARG	NE-CZ	-10.12	1.22	1.33
29	11	29	PRO	N-CD	-9.47	1.34	1.47
3	22	173	VAL	C-N	9.11	1.55	1.33
46	C5	84	ARG	NE-CZ	-8.91	1.23	1.33
29	19	262	ARG	CD-NE	-8.88	1.33	1.46
46	C5	84	ARG	CZ-NH2	-8.62	1.22	1.33
53	N8	3	LYS	CD-CE	-8.22	1.27	1.52
46	C5	84	ARG	CD-NE	-8.07	1.34	1.46
29	19	262	ARG	NE-CZ	-7.71	1.24	1.33
29	11	43	ARG	CG-CD	-7.53	1.29	1.52
8	7E	102	ARG	CZ-NH1	-7.42	1.22	1.32
39	55	88	ARG	CZ-NH2	-7.37	1.23	1.33
38	45	76	LYS	C-N	7.00	1.48	1.33
29	19	44	ASN	CA-C	6.92	1.62	1.52
3	22	88	ARG	CZ-NH2	-6.86	1.24	1.33
39	55	88	ARG	CZ-NH1	-6.76	1.23	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
38	88	138	ASP	CA-C	6.56	1.60	1.52
8	7E	102	ARG	CZ-NH2	-6.54	1.25	1.33
29	19	262	ARG	CZ-NH1	-6.52	1.23	1.32
30	29	119	ARG	CB-CG	-6.31	1.33	1.52
3	22	88	ARG	NE-CZ	-6.29	1.26	1.33
30	29	178	GLU	CD-OE1	-6.25	1.13	1.25
8	7E	102	ARG	CD-NE	-6.17	1.37	1.46
3	22	88	ARG	CD-NE	-5.99	1.37	1.46
37	78	68	GLN	CD-OE1	-5.93	1.12	1.23
29	11	28	GLU	CA-C	5.89	1.60	1.52
22	1L	37	T6A	O3'-P	5.64	1.61	1.56
23	2K	8	4SU	O3'-P	5.62	1.61	1.56
31	31	164	ARG	NE-CZ	-5.44	1.27	1.33
33	59	53	GLU	C-N	5.42	1.44	1.33
46	C5	84	ARG	CZ-NH1	-5.41	1.25	1.32
37	35	45	LEU	CG-CD1	-5.38	1.34	1.52
36	25	26	LYS	CD-CE	-5.37	1.36	1.52
19	AI	41	VAL	CA-CB	5.27	1.60	1.54
31	31	164	ARG	CZ-NH2	-5.15	1.26	1.33
20	BI	97	ALA	C-N	5.12	1.45	1.33
37	78	98	GLU	CD-OE1	-5.00	1.15	1.25

All (231) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	11	28	GLU	CA-C-N	18.89	143.45	119.84
29	11	28	GLU	C-N-CA	18.89	143.45	119.84
29	19	196	VAL	CA-C-N	-16.44	101.47	121.85
29	19	196	VAL	C-N-CA	-16.44	101.47	121.85
45	F8	3	THR	N-CA-C	-11.35	93.69	110.48
46	G8	81	LYS	CA-C-N	10.05	151.12	127.00
46	G8	81	LYS	C-N-CA	10.05	151.12	127.00
29	19	44	ASN	CA-C-N	9.70	139.15	121.70
29	19	44	ASN	C-N-CA	9.70	139.15	121.70
4	3E	85	LYS	N-CA-C	9.63	124.83	112.89
26	1H	2681	C	C2'-C3'-O3'	9.63	123.95	109.50
31	39	67	GLN	CA-C-N	-9.59	109.82	121.90
31	39	67	GLN	C-N-CA	-9.59	109.82	121.90
12	3I	47	LYS	CA-C-N	-9.41	108.08	119.84
12	3I	47	LYS	C-N-CA	-9.41	108.08	119.84
55	M5	48	PHE	CA-C-N	9.24	138.33	121.70
55	M5	48	PHE	C-N-CA	9.24	138.33	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
45	F8	3	THR	CA-C-N	9.23	138.32	121.70
45	F8	3	THR	C-N-CA	9.23	138.32	121.70
29	11	28	GLU	C-N-CD	-9.04	87.94	125.00
52	M8	40	HIS	N-CA-C	8.76	129.17	109.81
26	1H	1992	G	C2'-C3'-O3'	8.63	122.44	109.50
55	Q8	52	LYS	N-CA-C	-8.58	86.98	111.00
46	G8	99	CYS	N-CA-C	8.32	120.35	111.28
29	11	39	LYS	CA-C-N	8.32	137.43	121.54
29	11	39	LYS	C-N-CA	8.32	137.43	121.54
26	14	1992	G	C2'-C3'-O3'	8.20	121.80	109.50
46	G8	81	LYS	C-N-CD	-8.12	102.75	120.60
33	51	153	LYS	CA-C-N	7.88	145.91	127.00
33	51	153	LYS	C-N-CA	7.88	145.91	127.00
55	Q8	46	ARG	CA-C-N	7.79	135.72	121.70
55	Q8	46	ARG	C-N-CA	7.79	135.72	121.70
26	1H	271(B)	G	P-O3'-C3'	7.71	128.96	119.70
45	B5	23	GLU	CA-C-N	-7.52	106.67	121.41
45	B5	23	GLU	C-N-CA	-7.52	106.67	121.41
35	58	21	LYS	CA-C-N	-7.42	107.36	121.54
35	58	21	LYS	C-N-CA	-7.42	107.36	121.54
2	12	219	VAL	CA-C-N	7.24	134.73	121.70
2	12	219	VAL	C-N-CA	7.24	134.73	121.70
14	5I	12	ARG	CA-C-N	7.10	139.13	121.80
14	5I	12	ARG	C-N-CA	7.10	139.13	121.80
29	19	29	PRO	N-CA-C	-6.99	98.08	112.47
54	P8	45	ALA	N-CA-C	6.94	118.50	111.07
13	4A	95	GLY	N-CA-C	6.90	129.53	113.18
29	11	272	ALA	CA-C-N	6.89	134.70	121.54
29	11	272	ALA	C-N-CA	6.89	134.70	121.54
33	51	153	LYS	C-N-CD	-6.86	105.51	120.60
26	1H	1204	A	O4'-C1'-N9	6.83	118.45	108.20
45	B5	63	LYS	CG-CD-CE	6.82	126.98	111.30
29	11	39	LYS	N-CA-C	6.75	125.18	110.80
46	C5	81	LYS	CA-C-N	6.71	128.22	119.84
46	C5	81	LYS	C-N-CA	6.71	128.22	119.84
37	78	23	PRO	CA-C-N	-6.68	108.31	121.41
37	78	23	PRO	C-N-CA	-6.68	108.31	121.41
55	M5	48	PHE	CA-C-O	-6.67	113.30	121.11
30	21	54	GLN	CA-C-N	6.61	137.94	121.80
30	21	54	GLN	C-N-CA	6.61	137.94	121.80
43	95	79	VAL	CA-C-N	6.56	134.08	121.54
43	95	79	VAL	C-N-CA	6.56	134.08	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	5A	28	GLY	CA-C-N	6.55	134.05	121.54
14	5A	28	GLY	C-N-CA	6.55	134.05	121.54
41	75	8	LYS	CB-CG-CD	-6.50	96.35	111.30
37	78	42	SER	CA-C-N	-6.50	105.30	121.60
37	78	42	SER	C-N-CA	-6.50	105.30	121.60
26	14	1248	G	O5'-P-OP1	6.49	127.45	108.00
26	1H	1799	G	C2'-C3'-O3'	6.46	119.19	109.50
29	11	29	PRO	CA-N-CD	6.45	121.03	112.00
29	11	43	ARG	CA-CB-CG	-6.44	101.22	114.10
49	F5	29	GLY	CA-C-N	6.41	133.51	121.97
49	F5	29	GLY	C-N-CA	6.41	133.51	121.97
7	62	141	VAL	N-CA-C	-6.38	99.93	108.35
33	59	170	ARG	CA-C-N	6.36	135.69	121.76
33	59	170	ARG	C-N-CA	6.36	135.69	121.76
46	C5	103	GLY	N-CA-C	6.32	128.15	113.18
29	11	272	ALA	N-CA-C	6.25	124.12	110.80
38	45	82	ARG	N-CA-C	6.25	122.99	113.61
1	13	509	A	C2'-C3'-O3'	6.19	122.98	113.70
45	B5	40	LYS	CA-C-N	-6.14	112.95	122.16
45	B5	40	LYS	C-N-CA	-6.14	112.95	122.16
49	F5	54	ALA	CB-CA-C	-6.14	109.48	116.54
50	K8	17	SER	N-CA-C	6.10	123.29	109.81
26	1H	768	G	OP1-P-OP2	6.09	137.88	119.60
46	G8	77	PRO	CA-C-N	6.09	133.16	121.54
46	G8	77	PRO	C-N-CA	6.09	133.16	121.54
26	14	974	G	P-O3'-C3'	6.05	126.96	119.70
1	13	1498	U	C2'-C3'-O3'	6.04	118.56	109.50
26	14	2598	A	C2'-C3'-O3'	6.03	122.75	113.70
30	21	146	THR	N-CA-C	-6.03	101.04	110.14
37	35	33	ARG	CA-C-N	6.01	133.19	121.41
37	35	33	ARG	C-N-CA	6.01	133.19	121.41
26	14	1022	G	C2'-C3'-O3'	6.00	118.50	109.50
29	19	272	ALA	N-CA-C	5.99	123.56	110.80
26	14	2275	C	P-O3'-C3'	5.97	129.16	120.20
37	35	54	GLY	CA-C-N	5.96	131.16	121.74
37	35	54	GLY	C-N-CA	5.96	131.16	121.74
33	59	69	ARG	NH1-CZ-NH2	5.95	127.03	119.30
26	1H	1786	A	N9-C1'-C2'	5.94	122.92	114.00
12	3I	47	LYS	N-CA-C	5.93	120.43	109.10
30	29	53	PRO	CA-C-N	5.92	134.73	121.76
30	29	53	PRO	C-N-CA	5.92	134.73	121.76
1	1G	1498	U	C2'-C3'-O3'	5.92	118.38	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	59	10	PRO	N-CA-C	5.91	120.60	111.21
34	69	131	LYS	C-N-CD	-5.90	107.62	120.60
38	45	78	PRO	N-CA-C	5.90	124.63	112.47
34	69	131	LYS	CA-C-N	5.90	141.16	127.00
34	69	131	LYS	C-N-CA	5.90	141.16	127.00
33	59	69	ARG	CD-NE-CZ	5.88	132.62	124.40
46	G8	99	CYS	CA-C-N	5.85	132.23	121.70
46	G8	99	CYS	C-N-CA	5.85	132.23	121.70
26	1H	2346	A	O4'-C1'-N9	5.84	116.96	108.20
45	F8	3	THR	CA-C-O	-5.84	114.76	121.47
49	F5	36	GLY	N-CA-C	5.84	127.01	113.18
37	35	36	LYS	N-CA-C	5.83	123.22	110.80
1	1G	266	G	P-O3'-C3'	5.82	128.93	120.20
31	39	68	LYS	CA-C-N	-5.79	114.31	123.23
31	39	68	LYS	C-N-CA	-5.79	114.31	123.23
55	Q8	47	LYS	N-CA-C	-5.79	94.79	111.00
34	69	102	SER	N-CA-C	-5.79	98.47	110.80
30	29	78	LEU	CA-CB-CG	5.76	136.47	116.30
33	51	13	LYS	N-CA-C	5.76	123.08	110.80
55	Q8	51	ALA	CA-C-N	5.76	132.07	121.70
55	Q8	51	ALA	C-N-CA	5.76	132.07	121.70
30	29	61	ARG	CA-C-N	5.74	127.01	119.84
30	29	61	ARG	C-N-CA	5.74	127.01	119.84
38	88	20	ALA	CA-C-N	-5.72	112.26	122.45
38	88	20	ALA	C-N-CA	-5.72	112.26	122.45
1	1G	266	G	C2'-C3'-O3'	5.71	118.06	109.50
33	59	9	ILE	CB-CG1-CD1	5.67	125.69	113.80
26	14	784	A	P-O3'-C3'	5.64	128.66	120.20
29	19	44	ASN	O-C-N	-5.62	115.11	122.59
29	19	272	ALA	CA-C-N	5.62	132.27	121.54
29	19	272	ALA	C-N-CA	5.62	132.27	121.54
26	1H	2264	C	OP1-P-O3'	5.62	124.86	108.00
26	1H	845	G	P-O3'-C3'	5.60	128.60	120.20
26	14	1819	A	C4'-C3'-O3'	5.56	117.74	109.40
29	19	41	GLY	CA-C-O	-5.55	115.64	121.53
26	14	2066	C	OP1-P-O3'	5.53	124.60	108.00
26	14	1786	A	N9-C1'-C2'	5.52	122.28	114.00
31	39	132	VAL	N-CA-C	-5.52	97.86	109.34
30	21	117	MET	CA-C-N	5.51	132.07	121.54
30	21	117	MET	C-N-CA	5.51	132.07	121.54
26	14	1616	A	O4'-C1'-N9	5.51	116.46	108.20
1	13	687	A	C2'-C3'-O3'	5.50	117.75	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	11	37	LEU	CA-CB-CG	-5.48	97.11	116.30
26	1H	2712	U	P-O3'-C3'	5.48	126.28	119.70
26	1H	512	G	O4'-C1'-N9	5.46	116.39	108.20
34	61	143	SER	N-CA-C	5.46	122.42	110.80
1	13	703	G	C4'-C3'-O3'	5.45	117.57	109.40
26	1H	1108	U	O3'-P-O5'	5.42	112.13	104.00
26	14	49	A	P-O3'-C3'	5.41	128.31	120.20
26	1H	945	A	C4-N9-C1'	5.41	142.51	126.30
55	Q8	64	TYR	CA-CB-CG	-5.40	104.18	113.90
26	1H	140	A	OP1-P-O3'	-5.40	91.81	108.00
26	1H	2275	C	OP1-P-O3'	5.40	124.19	108.00
26	14	463	G	OP1-P-O3'	5.40	124.19	108.00
26	14	1602	U	O5'-P-OP2	5.39	124.18	108.00
30	29	51	PHE	CA-C-N	5.39	134.95	121.80
30	29	51	PHE	C-N-CA	5.39	134.95	121.80
1	13	115	G	C2'-C3'-O3'	5.38	117.56	109.50
26	1H	1786	A	OP1-P-O3'	5.37	124.11	108.00
26	1H	123	G	C5'-C4'-O4'	-5.34	101.78	109.80
7	62	141	VAL	CA-C-N	5.34	131.31	121.70
7	62	141	VAL	C-N-CA	5.34	131.31	121.70
27	16	8	U	O5'-P-OP1	5.33	124.00	108.00
46	G8	79	CYS	N-CA-C	5.33	122.15	110.80
38	45	81	VAL	N-CA-C	5.33	120.42	109.34
46	C5	85	VAL	CA-C-N	5.32	132.77	122.07
46	C5	85	VAL	C-N-CA	5.32	132.77	122.07
26	1H	138	G	N9-C1'-C2'	5.31	119.96	112.00
1	13	687	A	P-O3'-C3'	5.30	128.15	120.20
26	14	1141	U	P-O3'-C3'	5.30	128.15	120.20
26	1H	1430	C	OP1-P-O3'	5.29	123.86	108.00
50	K8	4	SER	CA-C-N	5.27	131.19	121.70
50	K8	4	SER	C-N-CA	5.27	131.19	121.70
30	21	186	GLY	CA-C-N	-5.26	113.16	122.26
30	21	186	GLY	C-N-CA	-5.26	113.16	122.26
26	1H	1829	A	O5'-P-OP1	-5.26	92.23	108.00
26	1H	1022	G	C2'-C3'-O3'	5.25	117.38	109.50
26	1H	657	U	OP1-P-O3'	-5.25	92.25	108.00
33	59	69	ARG	NE-CZ-NH2	-5.21	114.51	119.20
12	3A	18	VAL	CA-C-N	5.18	131.43	121.54
12	3A	18	VAL	C-N-CA	5.18	131.43	121.54
1	13	1336	C	C4'-C3'-O3'	5.15	117.12	109.40
43	D8	37	VAL	CA-C-N	5.15	131.38	121.54
43	D8	37	VAL	C-N-CA	5.15	131.38	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	122	G	OP1-P-O3'	-5.15	92.55	108.00
47	D5	138	GLU	N-CA-C	-5.14	105.76	113.89
26	1H	141(A)	C	OP1-P-O3'	-5.14	92.58	108.00
26	1H	659	C	OP1-P-O3'	-5.13	92.60	108.00
38	88	140	ALA	CA-C-N	5.13	130.94	121.70
38	88	140	ALA	C-N-CA	5.13	130.94	121.70
26	14	974	G	OP1-P-O3'	5.13	116.50	105.20
10	1I	75	ILE	CA-CB-CG1	5.13	119.12	110.40
47	H8	113	ALA	N-CA-C	5.13	118.41	111.17
55	Q8	30	ARG	CA-CB-CG	5.13	124.36	114.10
20	BI	83	ARG	NE-CZ-NH1	-5.13	116.37	121.50
11	2I	115	PRO	CA-C-N	-5.12	115.19	122.77
11	2I	115	PRO	C-N-CA	-5.12	115.19	122.77
46	G8	100	ALA	CA-C-N	5.12	130.92	121.70
46	G8	100	ALA	C-N-CA	5.12	130.92	121.70
26	14	2261	C	O5'-P-OP1	5.11	123.34	108.00
29	11	236	GLY	CA-C-O	5.11	124.45	119.04
2	12	17	PHE	CA-C-N	5.11	131.42	121.41
2	12	17	PHE	C-N-CA	5.11	131.42	121.41
2	1E	14	GLY	N-CA-C	5.10	125.27	113.18
33	51	156	ALA	CA-C-N	5.09	131.27	121.54
33	51	156	ALA	C-N-CA	5.09	131.27	121.54
29	19	65	ILE	CB-CG1-CD1	-5.09	103.11	113.80
26	1H	508	G	N9-C1'-C2'	5.09	121.63	114.00
26	1H	2000	G	O5'-P-OP1	5.08	123.25	108.00
26	14	1342	A	N9-C1'-C2'	5.08	121.62	114.00
26	1H	1297	C	OP2-P-O3'	-5.08	92.77	108.00
2	1E	72	GLY	N-CA-C	5.07	120.52	111.03
26	1H	865	C	O5'-P-OP2	5.07	123.21	108.00
29	11	140	THR	CA-C-N	-5.07	113.70	120.95
29	11	140	THR	C-N-CA	-5.07	113.70	120.95
38	88	57	HIS	CA-C-N	-5.07	115.02	123.33
38	88	57	HIS	C-N-CA	-5.07	115.02	123.33
1	13	1336	C	P-O3'-C3'	5.06	127.79	120.20
37	78	49	ARG	CG-CD-NE	5.06	123.13	112.00
26	14	2275	C	C4'-C3'-O3'	5.05	116.98	109.40
26	1H	2681	C	P-O3'-C3'	5.04	127.76	120.20
1	1G	197	A	P-O3'-C3'	5.04	127.76	120.20
26	1H	471	A	P-O3'-C3'	-5.03	112.65	120.20
26	14	1141	U	C2'-C3'-O3'	5.03	117.05	109.50
26	14	2873	A	N9-C1'-C2'	5.03	121.54	114.00
29	11	65	ILE	CB-CG1-CD1	-5.02	103.25	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	21	116	VAL	N-CA-C	-5.02	101.84	109.78
1	13	1065	U	P-O3'-C3'	5.02	127.73	120.20
26	1H	752	A	C4'-C3'-O3'	5.01	116.91	109.40
26	1H	752	A	C2'-C3'-O3'	5.01	117.01	109.50

There are no chirality outliers.

All (191) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
29	11	113	VAL	Peptide
29	11	114	GLY	Peptide
29	11	122	ASP	Peptide
29	11	197	GLY	Peptide
29	11	236	GLY	Peptide
29	11	237	GLU	Peptide
29	11	27	THR	Peptide
29	11	29	PRO	Peptide
2	12	12	GLU	Peptide
2	12	19	HIS	Peptide
2	12	219	VAL	Peptide
2	12	22	LYS	Peptide
2	12	221	LEU	Peptide
2	12	44	LEU	Peptide
29	19	197	GLY	Peptide
29	19	237	GLU	Peptide
29	19	28	GLU	Peptide
29	19	43	ARG	Peptide
10	1A	55	LYS	Peptide
10	1A	60	ARG	Peptide
2	1E	12	GLU	Peptide
2	1E	15	VAL	Peptide
2	1E	194	PRO	Peptide
2	1E	237	ALA	Peptide
2	1E	9	GLU	Peptide
30	21	1	MET	Peptide
30	21	187	ALA	Peptide
30	21	20	ALA	Peptide
30	21	21	VAL	Peptide
30	21	56	PRO	Peptide
30	21	57	LYS	Peptide
30	21	64	LYS	Peptide
30	21	67	PHE	Peptide

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Mol	Chain	Res	Type	Group
30	21	78	LEU	Peptide
30	21	82	ARG	Peptide
30	29	186	GLY	Peptide
30	29	201	THR	Peptide
30	29	202	LYS	Peptide
30	29	61	ARG	Peptide
30	29	88	GLY	Peptide
30	29	89	ASP	Peptide
11	2A	49	GLY	Peptide
31	31	130	ALA	Peptide
31	31	196	LEU	Peptide
4	32	165	MET	Peptide
4	32	29	PRO	Peptide
4	32	81	GLU	Peptide
4	32	83	SER	Peptide
4	32	84	LYS	Peptide
4	32	85	LYS	Peptide
37	35	110	TYR	Peptide
37	35	18	ARG	Peptide
37	35	36	LYS	Peptide
37	35	70	GLN	Peptide
31	39	12	LEU	Peptide
31	39	127	GLU	Peptide
31	39	15	SER	Peptide
31	39	166	ALA	Peptide
31	39	20	LEU	Peptide
31	39	24	LEU	Peptide
31	39	25	PRO	Peptide
31	39	82	ILE	Peptide
31	39	89	VAL	Peptide
4	3E	151	LYS	Peptide
4	3E	82	ALA	Peptide
12	3I	47	LYS	Peptide
12	3I	87	GLY	Peptide
5	42	23	GLY	Peptide
38	45	134	ARG	Peptide
38	45	135	ASP	Peptide
38	45	58	PHE	Peptide
38	45	80	GLU	Peptide
38	45	86	GLY	Peptide
38	45	87	LYS	Peptide
32	49	117	PHE	Peptide

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Mol	Chain	Res	Type	Group
32	49	13	GLU	Peptide
32	49	142	PRO	Peptide
13	4A	100	GLY	Peptide
13	4A	11	ARG	Peptide
13	4A	115	LYS	Peptide
13	4A	83	ASP	Peptide
13	4A	94	ARG	Peptide
13	4I	105	THR	Peptide
13	4I	107	ALA	Peptide
33	51	12	PRO	Peptide
33	51	137	ASP	Peptide
33	51	152	ARG	Peptide
33	51	156	ALA	Peptide
33	51	3	ARG	Peptide
33	51	91	GLY	Peptide
39	55	106	GLY	Peptide
35	58	6	PRO	Peptide
33	59	150	ALA	Peptide
33	59	155	SER	Peptide
33	59	159	GLU	Peptide
33	59	171	LEU	Peptide
33	59	52	VAL	Peptide
14	5A	27	CYS	Peptide
14	5I	3	ARG	Peptide
34	61	11	ASN	Peptide
34	61	114	LEU	Peptide
34	61	134	PRO	Peptide
34	61	82	ARG	Peptide
7	62	87	VAL	Peptide
40	65	55	ALA	Peptide
40	65	59	LYS	Peptide
34	69	101	LEU	Peptide
34	69	112	LYS	Peptide
34	69	142	VAL	Peptide
34	69	75	LEU	Peptide
28	71	178	ALA	Peptide
28	71	180	PHE	Peptide
28	71	218	MET	Peptide
8	72	74	PRO	Peptide
41	75	12	SER	Peptide
37	78	11	GLY	Peptide
37	78	115	LEU	Peptide

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Mol	Chain	Res	Type	Group
37	78	13	ASN	Peptide
37	78	19	VAL	Peptide
37	78	24	GLY	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	98	LEU	Peptide
42	85	99	ALA	Peptide
38	88	21	THR	Peptide
38	88	24	GLY	Peptide
38	88	58	PHE	Peptide
43	95	44	LYS	Peptide
43	95	49	THR	Peptide
43	95	52	VAL	Peptide
39	98	2	ARG	Peptide
39	98	44	LEU	Peptide
44	A5	43	GLY	Peptide
40	A8	110	LEU	Peptide
19	AA	12	ASP	Peptide
19	AA	13	ASP	Peptide
19	AI	6	LYS	Peptide
19	AI	7	LYS	Peptide
45	B5	61	GLY	Peptide
41	B8	12	SER	Peptide
41	B8	58	ASN	Peptide
20	BA	101	GLY	Peptide
20	BA	11	SER	Peptide
20	BA	72	LEU	Peptide
20	BI	12	ALA	Peptide
20	BI	96	GLY	Peptide
46	C5	39	VAL	Peptide
46	C5	50	ARG	Peptide
46	C5	81	LYS	Peptide
46	C5	91	GLU	Peptide
42	C8	90	VAL	Peptide
42	C8	92	ARG	Peptide
42	C8	95	LEU	Peptide
42	C8	96	ALA	Peptide
47	D5	159	PRO	Peptide
43	D8	36	PRO	Peptide

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Mol	Chain	Res	Type	Group
43	D8	44	LYS	Peptide
43	D8	48	GLY	Peptide
49	F5	85	LEU	Peptide
45	F8	2	LYS	Peptide
45	F8	24	GLY	Peptide
45	F8	3	THR	Peptide
50	G5	17	SER	Peptide
50	G5	42	GLY	Peptide
50	G5	43	GLN	Peptide
46	G8	101	LYS	Peptide
46	G8	104	GLY	Peptide
46	G8	53	PRO	Peptide
46	G8	54	LYS	Peptide
46	G8	80	GLY	Peptide
46	G8	84	ARG	Peptide
46	G8	94	LYS	Peptide
47	H8	164	ALA	Peptide
47	H8	165	VAL	Peptide
47	H8	59	LEU	Peptide
47	H8	63	ASP	Peptide
49	J8	75	GLU	Peptide
50	K8	15	LYS	Peptide
50	K8	17	SER	Peptide
50	K8	46	GLN	Peptide
55	M5	40	GLU	Peptide
52	M8	35	VAL	Peptide
52	M8	38	LYS	Peptide
52	M8	39	CYS	Peptide
52	M8	40	HIS	Peptide
54	P8	45	ALA	Peptide
55	Q8	49	VAL	Peptide
55	Q8	52	LYS	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	13	32157	0	16234	903	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1G	32391	0	16353	953	1
2	12	1721	0	1758	127	0
2	1E	1874	0	1926	130	0
3	22	1541	0	1606	94	0
3	2E	1605	0	1668	67	0
4	32	1702	0	1765	147	0
4	3E	1698	0	1760	127	0
5	42	1134	0	1200	81	0
5	4E	1142	0	1204	68	0
6	52	842	0	857	30	0
6	5E	837	0	852	47	0
7	62	1110	0	1163	64	0
7	6E	1242	0	1286	54	0
8	72	1107	0	1165	65	0
8	7E	1115	0	1177	76	0
9	82	953	0	983	92	0
9	8E	1000	0	1031	64	0
10	1A	646	0	662	42	0
10	1I	734	0	761	49	0
11	2A	835	0	847	36	0
11	2I	823	0	833	42	0
12	3A	956	0	1046	70	0
12	3I	956	0	1046	49	0
13	4A	893	0	946	73	0
13	4I	942	0	997	70	0
14	5A	486	0	525	51	0
14	5I	491	0	529	30	0
15	6A	729	0	768	30	0
15	6I	729	0	768	40	0
16	7A	705	0	725	46	0
16	7I	700	0	720	53	0
17	8A	823	0	891	39	0
17	8I	834	0	904	55	0
18	9A	544	0	605	23	0
18	9I	549	0	607	31	0
19	AA	481	0	468	46	0
19	AI	658	0	678	52	0
20	BA	762	0	861	45	0
20	BI	746	0	843	63	0
21	1B	188	0	195	14	0
21	1F	199	0	208	16	0
22	1K	1477	0	758	51	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
22	1L	1563	0	799	55	0
23	2K	1646	0	844	30	0
23	2L	1646	0	844	57	0
24	3K	1611	0	817	79	0
24	3L	1611	0	817	55	0
25	4K	439	0	219	11	0
25	4L	395	0	196	12	0
26	14	61630	0	31073	1539	1
26	1H	61028	0	30758	1549	0
27	16	2617	0	1328	67	0
27	1J	2617	0	1328	89	0
28	71	1033	0	1048	77	0
28	79	456	0	460	53	0
29	11	2120	0	2197	146	0
29	19	2125	0	2199	137	0
30	21	1558	0	1623	112	0
30	29	1563	0	1629	138	0
31	31	1585	0	1632	107	0
31	39	1602	0	1649	138	0
32	41	1457	0	1514	109	0
32	49	1458	0	1515	87	0
33	51	1312	0	1384	73	0
33	59	539	0	563	38	0
34	61	1136	0	1223	59	0
34	69	1131	0	1218	62	0
35	15	1104	0	1180	42	0
35	58	1104	0	1180	78	0
36	25	932	0	996	44	0
36	68	932	0	996	46	0
37	35	1122	0	1206	101	0
37	78	1122	0	1206	108	0
38	45	1099	0	1154	89	0
38	88	1113	0	1157	63	0
39	55	967	0	1033	67	0
39	98	967	0	1033	54	0
40	65	876	0	938	78	0
40	A8	881	0	943	59	0
41	75	1109	0	1170	64	0
41	B8	1101	0	1158	64	0
42	85	959	0	1019	69	0
42	C8	950	0	1011	67	0
43	95	774	0	849	66	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
43	D8	774	0	849	59	0
44	A5	886	0	948	32	0
44	E8	890	0	951	33	0
45	B5	735	0	785	39	0
45	F8	743	0	794	32	0
46	C5	799	0	888	72	0
46	G8	796	0	886	61	0
47	D5	1074	0	1087	77	0
47	H8	1373	0	1402	80	0
48	E5	608	0	622	33	0
48	I8	606	0	625	30	0
49	F5	737	0	813	51	0
49	J8	737	0	813	29	0
50	G5	568	0	614	43	0
50	K8	568	0	614	41	0
51	H5	459	0	512	11	0
51	L8	459	0	512	14	0
52	M8	366	0	370	49	0
53	J5	434	0	454	24	0
53	N8	369	0	388	24	0
54	L5	401	0	436	22	0
54	P8	401	0	436	21	0
55	M5	516	0	582	35	0
55	Q8	516	0	582	42	0
56	13	131	0	0	0	0
56	14	382	0	0	0	0
56	16	11	0	0	0	0
56	1G	81	0	0	0	0
56	1H	429	0	0	0	0
56	1J	5	0	0	0	0
56	1K	1	0	0	0	0
56	21	2	0	0	0	0
56	29	1	0	0	0	0
56	2K	3	0	0	0	0
56	2L	3	0	0	0	0
56	35	1	0	0	0	0
56	39	1	0	0	0	0
56	3E	1	0	0	0	0
56	3I	1	0	0	0	0
56	3K	1	0	0	0	0
56	41	1	0	0	0	0
56	45	3	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	4K	1	0	0	0	0
56	5E	1	0	0	0	0
56	5I	1	0	0	0	0
56	78	1	0	0	0	0
56	85	1	0	0	0	0
56	88	2	0	0	0	0
56	C5	1	0	0	0	0
56	E5	1	0	0	0	0
56	I8	3	0	0	0	0
56	L8	1	0	0	0	0
56	P8	1	0	0	0	0
56	Q8	1	0	0	0	0
57	13	42	0	45	3	0
57	1G	42	0	45	2	0
58	32	8	0	0	3	0
58	3E	8	0	0	3	0
59	5A	1	0	0	0	0
59	5I	1	0	0	0	0
59	C5	1	0	0	0	0
59	G8	1	0	0	0	0
60	11	10	0	0	3	0
60	13	144	0	0	15	0
60	14	367	0	0	32	0
60	16	22	0	0	1	0
60	19	8	0	0	0	0
60	1G	68	0	0	4	0
60	1H	540	0	0	71	0
60	1I	2	0	0	0	0
60	1J	12	0	0	3	0
60	29	2	0	0	1	0
60	31	7	0	0	0	0
60	32	2	0	0	0	0
60	35	2	0	0	0	0
60	39	3	0	0	1	0
60	3E	2	0	0	1	0
60	3K	1	0	0	0	0
60	4K	3	0	0	1	0
60	55	2	0	0	2	0
60	58	2	0	0	0	0
60	5I	2	0	0	0	0
60	6I	1	0	0	0	0
60	78	4	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	7I	1	0	0	0	0
60	98	1	0	0	1	0
60	BI	1	0	0	0	0
60	G8	1	0	0	0	0
60	H5	1	0	0	0	0
60	I8	2	0	0	0	0
60	L5	1	0	0	0	0
60	L8	3	0	0	1	0
60	P8	1	0	0	0	0
All	All	294257	0	196338	9976	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 21.

All (9976) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:943:U:OP2	37:78:36:LYS:NZ	1.64	1.30
31:39:38:ARG:NH2	31:39:99:TYR:CE1	1.96	1.30
44:E8:92:ARG:NH1	44:E8:94:ASP:OD1	1.71	1.22
35:58:49:GLY:O	35:58:119:ARG:NH1	1.77	1.16
29:11:183:ARG:NH1	29:11:269:PHE:HB2	1.61	1.15
31:39:38:ARG:NH2	31:39:99:TYR:HE1	1.35	1.12
31:39:38:ARG:NE	31:39:99:TYR:OH	1.80	1.12
26:14:606:U:OP1	31:39:104:LYS:HD3	1.50	1.08
26:14:606:U:OP2	31:39:104:LYS:HE2	1.51	1.07
37:78:49:ARG:NH1	55:Q8:61:LEU:CD2	2.17	1.07
12:3A:41:ARG:HH22	12:3A:57:LYS:HE2	0.91	1.07
47:D5:53:ILE:HG22	47:D5:71:VAL:HG23	1.38	1.06
29:19:262:ARG:H	29:19:262:ARG:HD3	1.14	1.06
32:49:59:GLU:OE1	32:49:153:ARG:NH2	1.90	1.05
26:1H:1359:A:N1	26:1H:1372:U:N3	2.05	1.04
29:11:29:PRO:HB2	29:11:30:GLU:HA	1.35	1.04
10:1I:64:GLU:OE1	14:5I:59:ALA:HB2	1.57	1.03
32:49:34:LEU:C	32:49:35:GLU:OE2	2.01	1.03
27:16:44:G:OP1	52:M8:1:MET:SD	2.16	1.03
50:K8:4:SER:HB2	50:K8:7:ARG:HG2	1.38	1.01
12:3A:41:ARG:NH2	12:3A:57:LYS:HE2	1.74	1.01
12:3A:39:VAL:HG11	12:3A:41:ARG:NH2	1.74	1.00
43:95:85:LYS:HG3	43:95:87:HIS:H	1.26	1.00
50:G5:50:ILE:HD12	50:G5:51:ARG:H	1.25	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:44:G:OP1	52:M8:1:MET:CE	2.10	0.99
1:13:1346:A:H5"	9:8E:120:ARG:HH12	1.27	0.99
1:13:1502:A:H2	1:13:1505:G:H1	1.09	0.99
37:78:101:VAL:HG12	37:78:106:LEU:HD12	1.45	0.99
47:H8:1:MET:HE3	47:H8:55:HIS:HB3	1.44	0.98
26:14:1757:U:H3	26:14:1762:A:H2	1.11	0.98
26:1H:1771:C:HO2'	26:1H:1786:A:H8	0.98	0.98
29:11:146:GLU:HB2	29:11:189:CYS:HB3	1.42	0.98
26:1H:862:G:OP2	60:1H:3502:HOH:O	1.79	0.97
26:1H:2849:U:OP2	41:B8:95:ARG:NH1	1.97	0.96
13:4I:3:ARG:HB3	13:4I:9:ILE:HG12	1.47	0.96
2:12:91:PRO:HG2	2:12:155:LEU:HG	1.44	0.96
51:L8:10:LYS:NZ	60:L8:201:HOH:O	1.97	0.96
26:14:602:G:N2	26:14:655:A:N7	2.12	0.96
29:11:182:LEU:H	29:11:272:ALA:HB3	1.30	0.96
26:14:606:U:P	31:39:104:LYS:HD3	2.06	0.95
55:M5:48:PHE:HB2	55:M5:49:VAL:HG22	1.45	0.95
2:1E:60:ASP:HB3	2:1E:64:ARG:HH21	1.31	0.95
44:E8:92:ARG:HH12	44:E8:94:ASP:CG	1.72	0.95
1:13:1422:G:H5"	36:68:48:PRO:HB3	1.47	0.95
2:12:220:ASP:HB2	2:12:224:GLN:HG3	1.48	0.95
28:79:49:ILE:HG21	28:79:204:ALA:HB1	1.48	0.95
33:59:72:ILE:HA	33:59:75:ALA:HB3	1.48	0.95
33:59:171:LEU:HD13	33:59:172:LYS:H	1.29	0.95
26:1H:2714:G:OP2	60:1H:3501:HOH:O	1.84	0.95
13:4A:13:LYS:HD3	13:4A:14:ARG:H	1.31	0.95
47:D5:53:ILE:HG13	47:D5:54:HIS:HD2	1.32	0.95
5:42:24:ARG:NH2	25:4L:23:A:N7	2.14	0.94
26:1H:442:G:H1'	31:31:48:THR:HG21	1.48	0.94
26:1H:2032:G:H21	30:21:146:THR:HG23	1.30	0.94
26:1H:1899:G:N2	26:1H:1902:C:H41	1.65	0.94
26:1H:2502:G:OP2	60:1H:3503:HOH:O	1.84	0.94
26:14:2292:C:OP1	40:65:17:ARG:NH2	2.01	0.94
1:13:547:A:OP1	4:3E:73:ARG:NH2	2.01	0.94
19:AI:18:LYS:NZ	19:AI:22:LEU:HD13	1.81	0.94
26:1H:2308:G:H1	26:1H:2311:A:H2	1.11	0.94
30:21:116:VAL:HG11	30:21:138:PRO:HB3	1.50	0.94
7:62:113:GLU:HB2	7:62:119:ARG:HG2	1.48	0.94
3:2E:123:GLN:HE22	3:2E:136:GLN:HE21	1.16	0.93
26:1H:2469:A:H2	26:1H:2481:G:H21	1.05	0.93
26:14:517:C:OP1	53:J5:16:ARG:NH2	2.02	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1305:G:N2	1:13:1331:G:H2'	1.83	0.93
2:12:11:LEU:HG	2:12:217:ARG:HH22	1.30	0.93
37:35:52:GLU:N	37:35:52:GLU:OE2	2.02	0.93
26:1H:1728:G:H3'	26:1H:1729:A:H5'	1.50	0.93
26:1H:620:G:H4'	26:1H:621:A:H5"	1.49	0.92
38:45:25:ASP:HB3	38:45:102:VAL:H	1.34	0.92
22:1L:1:G:H1	22:1L:72:C:H42	1.17	0.92
19:AI:18:LYS:NZ	19:AI:18:LYS:O	2.02	0.92
9:82:53:VAL:HG13	9:82:95:LYS:HZ2	1.34	0.92
22:1K:76:A:H8	26:1H:2583:G:H21	1.17	0.92
29:11:183:ARG:HH12	29:11:269:PHE:HB2	1.30	0.92
26:14:1899:G:H22	26:14:1902:C:H41	1.14	0.91
45:B5:41:ASN:HA	45:B5:44:GLU:HB2	1.52	0.91
46:C5:50:ARG:HB3	46:C5:53:PRO:HD3	1.50	0.91
10:1I:64:GLU:OE1	14:5I:59:ALA:CB	2.17	0.91
1:1G:1348:U:H3	1:1G:1374:A:H2	1.18	0.91
39:98:33:ARG:HG3	39:98:115:GLU:HB3	1.51	0.91
1:13:542:G:OP1	4:3E:10:ARG:NH2	2.04	0.90
38:88:139:GLU:HG3	47:H8:122:ARG:HH12	1.36	0.90
23:2L:50:G:H1	23:2L:66:C:H42	1.16	0.90
28:71:38:ASP:HB3	28:71:177:LYS:HD3	1.53	0.90
31:39:107:LYS:HZ3	31:39:205:ARG:HD2	1.34	0.90
26:14:1022:G:O2'	26:14:1023:U:OP2	1.89	0.90
26:1H:780:G:H21	26:1H:783:A:H62	1.18	0.90
26:14:780:G:H21	26:14:783:A:H62	1.16	0.90
4:3E:86:LYS:HB3	4:3E:87:GLY:HA3	1.53	0.90
18:9I:38:GLU:HA	18:9I:41:LYS:HZ2	1.33	0.90
27:16:15:A:H5'	27:16:16:G:C8	2.07	0.90
40:65:64:GLU:O	40:65:68:GLN:NE2	2.05	0.90
37:78:49:ARG:NH1	55:Q8:61:LEU:HD22	1.87	0.89
1:1G:147:G:H1	1:1G:175:C:H42	1.20	0.89
26:14:662:G:H5'	37:35:15:ARG:HA	1.52	0.89
39:98:103:ARG:NH1	39:98:108:GLY:O	2.05	0.89
35:58:47:ALA:HB2	35:58:112:LEU:HD11	1.55	0.89
1:1G:998:G:N2	1:1G:1043:C:N3	2.19	0.89
26:14:676:A:H8	26:14:2069:G:H21	1.19	0.89
1:13:974:A:OP2	14:5I:41:ARG:NH1	2.05	0.89
26:14:974:G:O2'	26:14:975:G:N7	2.04	0.89
26:1H:1899:G:H22	26:1H:1902:C:H41	0.90	0.89
26:14:270(Q):C:OP1	34:69:45:LYS:NZ	2.05	0.89
26:14:275:G:N2	26:14:276:A:N7	2.21	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:G8:85:VAL:HG23	46:G8:96:ILE:HG13	1.54	0.88
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.56	0.88
26:14:141:A:H8	26:14:1595:G:H21	1.18	0.88
27:16:80:U:H2'	27:16:81:G:H21	1.38	0.88
33:51:30:LYS:HE2	33:51:81:GLU:H	1.38	0.88
24:3L:27:G:H22	24:3L:44:U:H3	1.21	0.88
26:1H:2683:C:OP1	41:B8:53:ARG:NH2	2.05	0.88
32:49:151:ALA:H	32:49:153:ARG:HH12	1.21	0.88
1:13:664:G:H22	1:13:741:G:H1	1.20	0.88
4:32:18:LYS:NZ	58:32:301:SF4:S4	2.47	0.88
26:1H:676:A:H8	26:1H:2069:G:H21	1.22	0.88
47:H8:77:ASP:OD2	47:H8:80:ARG:NH1	2.05	0.88
26:1H:1899:G:H22	26:1H:1902:C:N4	1.71	0.88
2:12:18:GLY:O	2:12:19:HIS:ND1	2.06	0.88
17:8A:48:GLU:HB2	17:8A:50:LYS:HB2	1.53	0.88
2:12:19:HIS:CE1	2:12:204:ASN:HB3	2.08	0.88
39:55:3:HIS:NE2	60:55:201:HOH:O	2.06	0.88
26:1H:733:G:OP2	60:1H:3504:HOH:O	1.92	0.87
28:71:177:LYS:HE3	28:71:179:SER:H	1.39	0.87
26:14:631:A:OP2	55:M5:47:LYS:NZ	2.07	0.87
41:75:77:PRO:HG2	41:75:80:SER:HB3	1.57	0.87
42:85:92:ARG:HH22	43:95:10:LYS:HA	1.38	0.87
32:41:96:ARG:H	32:41:99:MET:HE2	1.40	0.87
43:D8:35:LEU:HB3	43:D8:57:VAL:HG13	1.56	0.87
1:1G:1047:G:H1	1:1G:1210:C:H42	1.21	0.87
4:32:82:ALA:HA	4:32:85:LYS:HB2	1.57	0.87
10:1I:61:GLU:OE2	14:5I:45:ARG:NH1	2.07	0.87
5:4E:11:ILE:HG13	5:4E:31:LEU:HB3	1.56	0.86
1:13:1286:A:H2'	1:13:1287:A:H4'	1.55	0.86
26:14:606:U:OP2	31:39:104:LYS:CE	2.23	0.86
26:14:2836:U:H2'	26:14:2837:G:C8	2.10	0.86
1:13:143:A:H5"	1:13:144:G:H5'	1.56	0.86
26:1H:2312:U:H5'	32:41:88:ILE:HD13	1.58	0.86
1:13:235:C:H5'	17:8I:70:ARG:HG2	1.57	0.86
26:1H:452:G:OP2	60:1H:3505:HOH:O	1.92	0.86
26:14:511:U:H3'	26:14:512:G:H5"	1.54	0.86
36:25:2:ILE:HD12	36:25:6:THR:HG21	1.57	0.86
1:13:619:U:H3	4:3E:134:ASP:HB2	1.40	0.86
2:1E:80:ILE:HG12	2:1E:212:GLN:HB2	1.57	0.86
26:14:945:A:N3	60:14:3409:HOH:O	2.09	0.86
19:AI:40:ILE:HG23	19:AI:41:VAL:HG13	1.56	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1367:C:H5'	10:1I:60:ARG:HH11	1.41	0.86
20:BI:69:GLY:O	20:BI:73:HIS:NE2	2.08	0.86
26:1H:1138:G:H21	35:58:106:MET:HE3	1.39	0.86
26:1H:1525:G:H2'	26:1H:1526:G:H8	1.41	0.86
47:H8:105:VAL:HG13	47:H8:140:ASP:HB3	1.57	0.86
37:78:49:ARG:HH11	55:Q8:61:LEU:HD21	1.38	0.85
12:3A:60:LEU:HD23	12:3A:64:TYR:HB3	1.58	0.85
4:32:3:ARG:HE	4:32:118:ARG:NE	1.74	0.85
26:14:1899:G:H22	26:14:1902:C:N4	1.74	0.85
9:8E:47:LEU:HD12	9:8E:50:LEU:HD12	1.58	0.85
8:72:29:SER:HB3	8:72:32:LYS:HG3	1.58	0.85
39:55:33:ARG:NH1	39:55:115:GLU:OE2	2.08	0.85
26:1H:1441:G:H2'	26:1H:1442:G:H8	1.39	0.85
41:B8:3:ARG:HB2	41:B8:6:LEU:HB2	1.57	0.85
1:1G:108:G:OP1	1:1G:326:G:N2	2.10	0.85
20:BI:73:HIS:HB3	20:BI:74:LYS:HG2	1.59	0.85
26:1H:2781:A:H5"	26:1H:2782:G:H5'	1.59	0.85
1:1G:926:G:N2	25:4L:15:A:OP2	2.08	0.85
1:1G:1441:G:H5"	1:1G:1442:G:H5'	1.56	0.85
26:1H:1385:G:HO2'	26:1H:1396:U:H6	1.22	0.85
31:39:6:VAL:HB	31:39:124:LEU:HA	1.59	0.84
8:7E:82:HIS:CE1	8:7E:138:TRP:CE2	2.65	0.84
26:1H:1534:G:N1	26:1H:1539:G:N3	2.24	0.84
31:39:25:PRO:HB2	31:39:27:GLU:H	1.41	0.84
40:65:12:PHE:O	40:65:16:ASN:ND2	2.10	0.84
37:78:39:LYS:HA	37:78:45:LEU:CD1	2.06	0.84
43:95:37:VAL:HG21	43:95:57:VAL:HG22	1.58	0.84
1:1G:961:U:O2	1:1G:1201:A:N6	2.11	0.84
26:14:843:G:H1	26:14:935:C:H42	1.24	0.84
52:M8:37:SER:OG	52:M8:42:PHE:CD1	2.28	0.84
10:1I:75:ILE:HD12	10:1I:76:ASN:H	1.41	0.84
4:32:23:GLY:N	4:32:26:CYS:SG	2.50	0.84
22:1K:25:C:N4	22:1K:26:A:N3	2.26	0.84
26:1H:1675:C:OP2	60:1H:3508:HOH:O	1.95	0.84
18:9A:53:ARG:HG3	18:9A:63:GLN:HE21	1.40	0.84
47:D5:91:LEU:HD13	47:D5:130:PRO:HG3	1.60	0.84
31:31:6:VAL:HG11	31:31:119:ARG:HA	1.58	0.84
26:14:879:G:O2'	26:14:898:C:N4	2.11	0.84
19:AI:41:VAL:HG11	19:AI:67:VAL:HA	1.60	0.83
26:1H:910:A:N7	38:88:13:GLN:HG3	1.92	0.83
31:39:53:THR:HG22	31:39:56:GLU:HG3	1.59	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:85:98:LEU:HB2	42:85:102:GLU:HB2	1.60	0.83
30:29:81:ILE:HG22	30:29:82:ARG:H	1.43	0.83
1:13:1028(B):C:O2	1:13:1032:A:N6	2.11	0.83
22:1K:7:U:O4	22:1K:66:A:N6	2.11	0.83
47:H8:9:TYR:HE2	47:H8:35:ARG:HH11	1.23	0.83
53:N8:41:PRO:O	53:N8:44:THR:OG1	1.96	0.83
26:14:71:A:OP2	26:14:71:A:H3'	1.77	0.83
4:3E:165:MET:SD	4:3E:168:ARG:NH1	2.51	0.83
26:1H:761:A:OP1	60:1H:3509:HOH:O	1.96	0.83
10:1A:17:ASP:OD1	10:1A:70:ARG:NH1	2.11	0.83
29:19:182:LEU:H	29:19:272:ALA:HB3	1.42	0.83
32:49:35:GLU:OE2	32:49:35:GLU:N	2.11	0.83
10:1I:24:VAL:O	10:1I:28:ARG:N	2.11	0.83
26:14:2012:G:H4'	44:A5:96:ILE:HD11	1.59	0.83
1:13:837:G:OP2	1:13:842:C:N4	2.10	0.83
26:1H:1533:C:H3'	26:1H:1534:G:H5"	1.59	0.82
1:1G:838:G:N2	1:1G:848:C:N3	2.26	0.82
2:12:130:ARG:O	2:12:135:GLN:NE2	2.12	0.82
1:13:812:C:N3	60:13:1805:HOH:O	2.12	0.82
22:1K:52:G:N2	22:1K:62:C:N3	2.26	0.82
26:1H:1405:U:H2'	26:1H:1406:U:C6	2.14	0.82
4:32:157:LEU:O	4:32:161:ASN:ND2	2.12	0.82
26:14:2380:C:P	40:65:20:ARG:HH12	2.01	0.82
24:3K:8:U:N3	24:3K:15:G:O6	2.13	0.82
26:14:2379:G:O3'	40:65:20:ARG:NH1	2.12	0.82
47:D5:76:LEU:HA	47:D5:83:PRO:HA	1.61	0.82
26:1H:993:G:OP1	42:C8:50:ARG:NH2	2.12	0.82
1:1G:54:C:N4	1:1G:353:A:OP2	2.12	0.82
14:5A:29:ARG:HG3	14:5A:31:ARG:H	1.43	0.82
26:14:34:C:HO2'	26:14:35:G:H8	1.27	0.82
28:79:43:VAL:HG22	28:79:224:ILE:HD13	1.62	0.82
50:G5:47:ASN:O	50:G5:49:LYS:N	2.12	0.82
8:7E:20:TYR:HE2	8:7E:75:ARG:HD2	1.43	0.82
26:1H:780:G:H21	26:1H:783:A:N6	1.77	0.82
26:1H:71:A:H2	45:F8:31:HIS:HE2	1.27	0.81
1:1G:1070:U:OP1	5:42:25:ARG:NH1	2.12	0.81
1:1G:1256:A:H62	1:1G:1277:C:H3'	1.45	0.81
26:14:1899:G:N2	26:14:1902:C:H41	1.78	0.81
26:14:2176:A:O2'	28:79:44:HIS:ND1	2.11	0.81
26:1H:900:A:H3'	26:1H:901:A:H8	1.45	0.81
26:1H:2135:A:N6	26:1H:2156:G:O2'	2.13	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2305:A:O2'	32:41:136:ARG:NH1	2.13	0.81
31:31:6:VAL:HG21	31:31:119:ARG:HB2	1.60	0.81
13:4A:81:LEU:HD11	13:4A:86:CYS:SG	2.21	0.81
26:14:2140:C:O2	26:14:2151:G:N2	2.13	0.81
26:14:2649:U:H3	26:14:2671:A:H61	1.25	0.81
1:1G:235:C:H5'	17:8A:70:ARG:HG2	1.60	0.81
1:1G:474:G:H2'	1:1G:475:G:C8	2.16	0.81
24:3L:18:G:H1	24:3L:55:U:HO2'	1.25	0.81
26:14:2392:A:H2	26:14:2424:C:H42	1.28	0.81
27:1J:80:U:H2'	27:1J:81:G:H21	1.44	0.81
1:13:1455:G:H5"	20:BI:31:SER:HB2	1.62	0.81
37:78:39:LYS:HA	37:78:45:LEU:HD13	1.61	0.81
31:39:4:VAL:HA	31:39:19:GLU:HB3	1.61	0.81
1:13:1292:U:OP1	7:6E:41:ARG:NH2	2.13	0.81
26:1H:1639:U:OP1	60:1H:3510:HOH:O	1.97	0.81
4:3E:107:ARG:HH22	4:3E:194:LEU:HD22	1.44	0.81
1:1G:1256:A:N6	1:1G:1278:U:OP2	2.13	0.81
46:C5:28:LYS:O	46:C5:38:ILE:HG13	1.80	0.81
8:7E:109:ILE:HG23	8:7E:137:VAL:HG23	1.60	0.81
26:1H:2588:G:OP1	60:1H:3511:HOH:O	1.99	0.81
26:14:1022:G:H22	26:14:1142(A):A:H2	1.27	0.81
26:14:1653:G:H3'	39:55:2:ARG:HG2	1.63	0.81
37:35:98:GLU:HA	37:35:101:VAL:HG12	1.63	0.81
2:1E:211:ILE:HA	2:1E:214:ILE:HD12	1.61	0.81
26:14:1037:G:N2	26:14:1118:C:O2	2.14	0.81
26:14:1048:A:N6	26:14:1112:G:O2'	2.13	0.81
26:1H:1021:A:H62	26:1H:1141:U:H3	1.28	0.81
26:14:938:G:OP2	55:M5:52:LYS:NZ	2.10	0.81
30:29:35:GLN:NE2	30:29:37:ARG:NH2	2.28	0.81
26:14:751:A:H5'	44:A5:90:ARG:HA	1.62	0.80
55:M5:22:VAL:HB	55:M5:55:ALA:HB1	1.62	0.80
1:1G:1248:A:N3	9:82:70:LYS:NZ	2.30	0.80
31:39:123:LEU:O	31:39:125:LEU:N	2.14	0.80
37:78:49:ARG:NH1	55:Q8:61:LEU:HD21	1.93	0.80
22:1L:2:G:N2	22:1L:71:C:N3	2.29	0.80
19:AI:18:LYS:HZ3	19:AI:22:LEU:HD13	1.43	0.80
27:16:44:G:P	52:M8:1:MET:SD	2.80	0.80
38:88:104:PHE:HE2	38:88:125:LEU:HD11	1.46	0.80
5:42:137:GLU:O	5:42:141:GLN:HG2	1.82	0.80
7:62:116:ALA:HA	7:62:119:ARG:HE	1.45	0.80
2:1E:33:TYR:HB2	2:1E:43:ASP:HB2	1.64	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3A:41:ARG:HH22	12:3A:57:LYS:CE	1.85	0.80
23:2L:8:4SU:O2	23:2L:14:A:N6	2.13	0.80
26:14:1532:C:H42	26:14:1539:G:H1	1.28	0.80
1:1G:1028(B):C:O2	1:1G:1030:C:N4	2.14	0.80
26:14:1315:C:OP2	60:14:3402:HOH:O	2.00	0.80
26:1H:1578:U:OP2	60:1H:3512:HOH:O	1.99	0.80
44:A5:20:VAL:HA	44:A5:23:LEU:HD23	1.62	0.80
26:14:249:C:OP1	60:14:3401:HOH:O	1.98	0.80
26:14:1041:C:O2	26:14:1114:G:N2	2.14	0.80
45:F8:36:LYS:HA	45:F8:39:ILE:HD12	1.64	0.80
10:1A:80:LYS:O	10:1A:84:GLN:NE2	2.15	0.80
2:1E:209:ARG:HH22	2:1E:239:VAL:HG22	1.47	0.80
26:1H:1299:G:N7	60:1H:3532:HOH:O	2.14	0.80
40:A8:78:LEU:HD11	40:A8:108:GLY:HA3	1.64	0.79
26:14:2380:C:P	40:65:20:ARG:NH1	2.55	0.79
27:1J:73:A:OP2	60:1J:301:HOH:O	2.00	0.79
46:C5:76:CYS:HB3	46:C5:97:ARG:HE	1.46	0.79
26:1H:2169:A:N7	26:1H:2170:A:N6	2.30	0.79
30:29:54:GLN:NE2	30:29:72:VAL:O	2.16	0.79
37:35:81:GLN:HG2	37:35:106:LEU:HA	1.63	0.79
1:13:1346:A:H5"	9:8E:120:ARG:NH1	1.97	0.79
26:1H:141:A:H8	26:1H:1595:G:H21	1.30	0.79
26:1H:1050:A:H2'	26:1H:1051:G:H8	1.47	0.79
1:1G:1120:G:O6	1:1G:1152:A:N6	2.16	0.79
3:22:47:LEU:O	3:22:51:GLY:N	2.15	0.79
9:82:121:ARG:NH1	9:82:122:ALA:O	2.15	0.79
28:79:52:ARG:NH1	28:79:52:ARG:O	2.15	0.79
9:8E:121:ARG:NH1	9:8E:122:ALA:O	2.14	0.79
26:1H:1533:C:H2'	26:1H:1534:G:C8	2.17	0.79
1:1G:975:A:H4'	1:1G:976:G:H5"	1.64	0.79
8:72:30:ARG:HG3	8:72:31:PHE:H	1.47	0.79
22:1L:5:C:N3	22:1L:68:G:N2	2.29	0.79
26:14:1416:G:O2'	26:14:1417:C:O5'	2.01	0.79
47:D5:59:LEU:HD12	47:D5:69:THR:HG21	1.64	0.79
32:41:112:PRO:HB3	52:M8:37:SER:H	1.47	0.79
5:42:79:GLU:OE1	8:72:104:ARG:HA	1.83	0.79
26:14:602:G:O2'	26:14:604:G:O2'	2.00	0.79
26:14:2315:G:OP1	32:49:36:LYS:NZ	2.15	0.79
1:13:1028(A):C:N3	1:13:1032(A):G:N2	2.31	0.79
30:21:50:GLY:HA2	30:21:77:ILE:HA	1.65	0.79
8:72:35:ILE:O	8:72:39:LEU:HD13	1.83	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:36:LEU:HA	8:72:39:LEU:HD22	1.63	0.79
47:D5:97:GLU:HB3	47:D5:125:LEU:HD11	1.65	0.79
1:13:1448:C:H42	1:13:1455:G:H1	1.30	0.79
24:3K:22:G:N7	24:3K:46:G:N2	2.30	0.79
2:12:105:PHE:HA	2:12:108:ILE:HG22	1.64	0.79
1:13:573:A:H5'	1:13:573:A:H8	1.48	0.79
29:19:69:ARG:NH2	29:19:128:GLY:O	2.16	0.79
47:D5:10:ARG:NH2	47:D5:26:GLY:O	2.16	0.79
4:3E:31:CYS:HB3	4:3E:34:GLU:HG2	1.65	0.79
26:1H:642:G:H21	26:1H:646:A:H2	1.31	0.79
36:68:104:ARG:NH1	41:B8:36:GLU:OE1	2.16	0.79
3:22:70:VAL:HG12	3:22:72:LYS:H	1.48	0.79
26:1H:2502:G:OP2	60:1H:3513:HOH:O	2.01	0.78
5:42:100:VAL:HG23	5:42:118:ILE:HG22	1.63	0.78
11:2A:14:VAL:HG12	11:2A:15:ALA:H	1.48	0.78
33:51:40:GLU:C	33:51:41:MET:HE3	2.06	0.78
33:51:153:LYS:HB2	33:51:155:SER:H	1.49	0.78
1:1G:1316:G:H4'	14:5A:18:VAL:HG11	1.65	0.78
26:1H:1386:C:H2'	26:1H:1387:C:H6	1.48	0.78
53:N8:16:ARG:NH1	53:N8:17:ASP:OD1	2.16	0.78
1:1G:957:U:H1'	1:1G:960:U:H5	1.47	0.78
26:1H:1678:G:N2	26:1H:1989:G:H22	1.81	0.78
30:21:197:ILE:HD11	30:21:199:ARG:HE	1.45	0.78
1:13:445:G:H1	1:13:489:C:H42	1.29	0.78
31:39:155:LEU:HD23	31:39:186:ILE:HD13	1.64	0.78
26:1H:674:G:H1'	31:31:74:ARG:HD2	1.64	0.78
2:12:98:LEU:HB2	2:12:101:MET:HE3	1.64	0.78
6:52:11:ASN:HB3	6:52:14:LEU:HD22	1.66	0.78
29:19:262:ARG:N	29:19:262:ARG:HH11	1.81	0.78
4:3E:122:ARG:NH1	4:3E:134:ASP:HB3	1.98	0.78
26:1H:376:C:OP2	60:1H:3514:HOH:O	2.02	0.78
26:1H:1329:U:H5"	26:1H:1330:C:H5	1.47	0.78
26:1H:1635:G:OP1	60:1H:3516:HOH:O	2.02	0.78
27:16:12:C:O2	48:I8:74:ARG:NH1	2.13	0.78
2:12:12:GLU:HG2	2:12:15:VAL:HB	1.66	0.78
26:14:602:G:HO2'	26:14:604:G:HO2'	1.27	0.78
26:14:2377:A:H4'	40:65:111:GLU:HG3	1.66	0.78
28:79:47:LEU:HD13	28:79:49:ILE:H	1.48	0.78
26:14:1021:A:H62	26:14:1141:U:H3	1.30	0.78
50:K8:4:SER:HB3	50:K8:7:ARG:H	1.49	0.78
1:1G:976:G:N2	1:1G:1362(A):C:OP2	2.14	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1L:9:A:C8	22:1L:45:G:H1'	2.18	0.78
26:14:1063:G:O6	26:14:1075:C:O2'	2.02	0.78
32:49:151:ALA:N	32:49:153:ARG:HH12	1.77	0.78
2:1E:198:ASP:HA	8:7E:68:ARG:HH12	1.47	0.78
5:4E:102:ALA:HB1	5:4E:106:PRO:HG2	1.65	0.78
26:1H:1022:G:N2	26:1H:1023:U:O4	2.17	0.78
26:1H:1253:A:N7	60:1H:3506:HOH:O	2.15	0.78
32:41:25:TYR:CD2	32:41:31:VAL:HG12	2.19	0.78
48:I8:11:ARG:O	48:I8:14:ARG:NH2	2.17	0.78
24:3K:6:G:N1	24:3K:67:C:O2	2.15	0.77
28:71:214:VAL:HG23	28:71:224:ILE:HD13	1.66	0.77
1:1G:1026:G:O6	1:1G:1036:G:N2	2.17	0.77
26:14:34:C:O2'	26:14:35:G:O5'	2.01	0.77
46:C5:76:CYS:HB3	46:C5:97:ARG:NE	1.99	0.77
50:G5:50:ILE:HD12	50:G5:51:ARG:N	1.99	0.77
1:13:324:G:OP2	60:13:1803:HOH:O	2.02	0.77
5:4E:15:ARG:HH11	25:4K:25:A:H5'	1.48	0.77
26:1H:2580:U:H4'	30:21:130:GLY:HA3	1.64	0.77
29:11:38:LYS:HD2	29:11:38:LYS:C	2.10	0.77
3:22:42:LEU:HA	3:22:45:LYS:HE3	1.67	0.77
26:14:288:C:O2	26:14:353:G:N2	2.18	0.77
1:13:1015:A:H2'	1:13:1016:A:C8	2.19	0.77
15:6I:17:ARG:HD3	15:6I:26:GLU:HG3	1.66	0.77
17:8I:67:LYS:HA	17:8I:70:ARG:HH12	1.50	0.77
26:1H:1047:G:N2	26:1H:1110:G:O2'	2.16	0.77
26:1H:1441:G:H2'	26:1H:1442:G:C8	2.19	0.77
35:58:96:GLU:O	35:58:98:VAL:N	2.14	0.77
26:14:2306:C:H2'	26:14:2307:G:H21	1.48	0.77
1:13:608:A:OP2	60:13:1801:HOH:O	2.01	0.77
13:4I:49:THR:HG22	13:4I:51:ALA:H	1.50	0.77
18:9I:59:SER:H	18:9I:62:GLU:HB2	1.49	0.77
1:1G:429:U:H3'	4:32:9:CYS:SG	2.24	0.77
35:15:56:ASN:H	35:15:125:GLY:HA3	1.47	0.77
38:45:81:VAL:O	38:45:82:ARG:NH1	2.16	0.77
45:B5:1:MET:H2	50:G5:29:LYS:HE3	1.50	0.77
1:13:768:A:OP2	60:13:1802:HOH:O	2.02	0.77
26:1H:563:G:OP2	60:1H:3518:HOH:O	2.03	0.77
26:1H:1418:G:OP2	60:1H:3515:HOH:O	2.02	0.77
46:G8:38:ILE:HD11	46:G8:64:GLU:HG3	1.65	0.77
8:72:120:THR:HG23	8:72:123:GLU:H	1.49	0.77
26:1H:942:G:OP2	37:78:39:LYS:NZ	2.18	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2572:A:C8	30:21:144:ARG:HG2	2.20	0.77
3:22:114:PRO:O	3:22:118:GLN:HG2	1.85	0.77
28:71:48:GLY:HA3	28:71:208:PHE:HA	1.67	0.77
3:22:106:VAL:HB	3:22:109:PRO:HB3	1.66	0.77
26:14:1154:G:OP2	42:85:58:ARG:NH1	2.18	0.77
4:3E:122:ARG:NH1	4:3E:134:ASP:O	2.17	0.77
23:2K:17:C:OP2	23:2K:18:C:O2'	2.02	0.77
43:D8:24:LYS:HA	43:D8:92:THR:HG23	1.65	0.77
1:1G:142:G:H1	1:1G:221:C:H42	1.33	0.77
5:42:101:ILE:O	5:42:120:THR:OG1	2.01	0.77
26:1H:226:G:H21	26:1H:228:A:H2	1.32	0.76
26:1H:1016:G:N7	60:1H:3548:HOH:O	2.18	0.76
26:1H:2656:U:H3	26:1H:2665:A:H2	1.32	0.76
1:1G:413:G:H2'	1:1G:428:G:H22	1.50	0.76
1:1G:1154:G:H2'	1:1G:1155:G:H8	1.50	0.76
4:32:94:LEU:HA	4:32:97:LEU:HD12	1.66	0.76
7:62:93:PRO:HD2	7:62:94:ARG:NH2	2.00	0.76
16:7A:53:VAL:HG13	16:7A:79:VAL:HG22	1.64	0.76
26:14:848:G:H2'	26:14:849:A:C8	2.20	0.76
36:25:35:VAL:HG11	36:25:103:ALA:HB3	1.64	0.76
1:13:1128:C:O2'	1:13:1146:A:N1	2.17	0.76
26:1H:847:U:OP2	60:1H:3517:HOH:O	2.02	0.76
1:1G:1347:G:N7	9:82:10:ARG:NH2	2.33	0.76
26:14:2808:U:O2	26:14:2892:A:N6	2.19	0.76
24:3K:3:G:N2	24:3K:70:C:N3	2.32	0.76
26:1H:270(J):G:N2	26:1H:270(P):C:O2	2.17	0.76
33:51:157:TYR:H	33:51:170:ARG:HA	1.50	0.76
2:12:71:VAL:HG11	2:12:164:VAL:HA	1.66	0.76
37:35:14:LYS:O	37:35:16:ARG:N	2.19	0.76
1:13:64:G:O6	1:13:99:C:N4	2.18	0.76
4:3E:187:ARG:NH2	4:3E:193:ASP:OD2	2.18	0.76
26:14:833:U:O2	37:35:55:ARG:NH1	2.17	0.76
11:2I:73:MET:HE2	11:2I:103:LEU:HD13	1.67	0.76
26:14:1330:C:OP1	60:14:3405:HOH:O	2.02	0.76
44:A5:18:ARG:HE	44:A5:76:VAL:HG13	1.50	0.76
26:1H:2791:C:N4	26:1H:2805:G:O6	2.18	0.76
27:1J:5:C:H42	27:1J:115:G:H1	1.32	0.76
26:1H:1026:U:H1'	26:1H:1027:A:O5'	1.84	0.76
35:58:49:GLY:C	35:58:119:ARG:HH12	1.93	0.76
26:14:1678:G:H22	26:14:1989:G:H22	1.33	0.76
31:39:38:ARG:HE	31:39:99:TYR:HH	1.30	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:87:LYS:HG2	46:C5:88:LYS:H	1.51	0.76
48:E5:12:ASN:HA	48:E5:14:ARG:HH21	1.50	0.76
22:1K:9:A:N6	22:1K:22:G:N7	2.33	0.76
26:1H:517:C:OP1	53:N8:16:ARG:NH2	2.17	0.76
4:32:108:LEU:HD21	4:32:183:GLY:HA3	1.68	0.76
1:13:112:G:OP1	16:7I:27:LYS:HD2	1.86	0.76
26:1H:67:U:H3	26:1H:74:A:H2	1.33	0.76
26:14:929:G:O6	60:14:3404:HOH:O	2.01	0.76
30:29:25:VAL:HG12	30:29:26:ILE:H	1.50	0.76
30:29:54:GLN:H	30:29:74:PRO:HB3	1.51	0.76
47:D5:5:LEU:HD11	47:D5:44:PHE:HA	1.67	0.76
49:F5:91:LYS:HD3	49:F5:92:LYS:N	2.00	0.76
1:1G:458:C:O2	1:1G:474:G:N2	2.19	0.76
9:82:46:ALA:HB2	9:82:74:ILE:HG23	1.67	0.76
13:4A:54:VAL:HA	13:4A:57:ARG:HB3	1.66	0.76
41:75:26:ASP:OD1	41:75:120:ARG:NH2	2.13	0.76
42:85:74:LEU:HD13	42:85:79:PHE:HB2	1.68	0.76
26:1H:1040:C:N4	26:1H:1115:G:O6	2.20	0.75
29:11:206:LEU:HD13	29:11:211:ARG:HG2	1.68	0.75
42:C8:92:ARG:O	42:C8:94:ASN:N	2.19	0.75
26:14:2098:U:N3	26:14:2191:G:O6	2.12	0.75
41:75:11:GLU:OE1	41:75:11:GLU:N	2.18	0.75
1:13:410:G:OP1	4:3E:30:LYS:NZ	2.19	0.75
26:1H:2334:G:H5'	40:A8:9:ARG:HG2	1.69	0.75
42:C8:8:VAL:HG23	42:C8:11:ARG:HH21	1.50	0.75
1:1G:353:A:H5'	1:1G:353:A:H8	1.49	0.75
42:85:90:VAL:HA	43:95:39:LEU:HD13	1.68	0.75
1:13:1226:C:O2'	13:4I:111:LYS:NZ	2.18	0.75
38:88:37:LEU:HD21	38:88:130:LYS:HG2	1.66	0.75
50:K8:4:SER:CB	50:K8:7:ARG:H	2.00	0.75
2:12:82:ARG:NH1	2:12:92:TYR:OH	2.18	0.75
39:55:85:PRO:O	39:55:88:ARG:HD2	1.86	0.75
30:21:201:THR:HG22	30:21:203:LYS:H	1.50	0.75
5:42:102:ALA:HB1	5:42:106:PRO:HG2	1.66	0.75
24:3L:52:G:N2	24:3L:62:C:O2	2.19	0.75
26:14:2685:G:O6	60:14:3406:HOH:O	2.03	0.75
38:88:65:PHE:O	38:88:66:ILE:HG13	1.85	0.75
48:I8:23:VAL:HA	48:I8:38:VAL:HG22	1.67	0.75
7:62:65:ALA:HB3	7:62:124:LEU:HD23	1.69	0.75
1:13:975:A:H4'	1:13:976:G:H5"	1.69	0.75
46:G8:43:ASN:O	46:G8:64:GLU:HA	1.87	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:362:G:H4'	12:3A:33:ARG:HH21	1.51	0.75
2:12:50:GLU:HG3	2:12:201:ILE:HG12	1.67	0.75
26:14:597:U:H2'	26:14:598:G:C8	2.21	0.75
26:14:1210:A:H5'	26:14:1212:G:H5'	1.68	0.75
30:29:60:ASN:HB2	30:29:62:PRO:HD2	1.69	0.75
3:2E:107:GLN:OE1	3:2E:107:GLN:N	2.20	0.75
16:7I:74:LEU:HA	16:7I:77:ALA:HB2	1.69	0.75
26:1H:309:G:N3	26:1H:329:G:O2'	2.19	0.75
50:K8:42:GLY:O	50:K8:44:LEU:N	2.20	0.75
1:1G:1095:U:OP1	1:1G:1108:G:N2	2.19	0.75
1:1G:1133:G:N2	1:1G:1141:C:O2	2.19	0.75
1:1G:1179:A:H4'	9:82:103:THR:HA	1.69	0.75
26:14:71:A:H5'	26:14:71:A:C8	2.21	0.75
31:39:66:PRO:O	31:39:67:GLN:HB3	1.86	0.75
41:B8:102:ILE:H	41:B8:102:ILE:HD12	1.52	0.75
1:1G:1368:G:H4'	10:1A:46:ARG:HH22	1.52	0.75
26:14:1056:G:O2'	26:14:1087:G:O6	2.05	0.75
9:8E:15:ALA:HB2	9:8E:65:VAL:HG23	1.69	0.75
26:1H:1542:G:OP2	26:1H:1543:A:O2'	2.05	0.75
35:58:129:PRO:O	35:58:134:ARG:NH1	2.19	0.75
43:D8:44:LYS:O	43:D8:46:VAL:N	2.18	0.75
50:K8:47:ASN:O	50:K8:49:LYS:N	2.18	0.75
26:14:1332:G:OP1	60:14:3407:HOH:O	2.04	0.75
26:14:1754:C:OP1	41:75:96:ARG:NH1	2.20	0.75
26:14:2415:G:H4'	37:35:67:MET:H	1.52	0.75
51:H5:7:LYS:HG3	51:H5:34:GLU:HG2	1.69	0.75
1:13:200:G:N2	1:13:218:C:O2	2.20	0.74
6:5E:18:GLN:HA	6:5E:21:LEU:HG	1.68	0.74
9:82:27:THR:HG22	9:82:32:ASP:HA	1.67	0.74
26:14:1332:G:C8	26:14:1332:G:H5'	2.22	0.74
4:3E:122:ARG:CZ	4:3E:134:ASP:HB3	2.17	0.74
28:71:16:PRO:HA	28:71:223:ARG:HB2	1.69	0.74
52:M8:12:ALA:HB3	52:M8:24:THR:HB	1.67	0.74
26:14:2079:U:O3'	49:F5:35:THR:OG1	2.05	0.74
48:I8:72:ARG:HB3	48:I8:75:LEU:HB2	1.70	0.74
30:29:50:GLY:HA2	30:29:78:LEU:HB3	1.69	0.74
24:3L:58:A:O2'	24:3L:60:U:OP2	2.05	0.74
26:14:1730:U:H3'	26:14:1731:G:H21	1.53	0.74
26:1H:1050:A:H2'	26:1H:1051:G:C8	2.22	0.74
26:1H:2308:G:N1	26:1H:2311:A:H2	1.86	0.74
36:68:35:VAL:HG11	36:68:103:ALA:HB3	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:47:ASP:OD2	37:78:50:ARG:NH2	2.20	0.74
1:1G:1432:G:N1	60:1G:1701:HOH:O	2.19	0.74
26:14:395:U:H2'	26:14:396:G:N7	2.02	0.74
1:13:396:G:O2'	1:13:398:C:OP1	2.05	0.74
3:2E:36:ASP:OD1	3:2E:59:ARG:NH2	2.21	0.74
8:7E:106:GLY:O	8:7E:122:ARG:NH2	2.21	0.74
1:1G:1154:G:H2'	1:1G:1155:G:C8	2.23	0.74
6:5E:50:TYR:OH	18:9I:74:ARG:O	2.03	0.74
12:3I:117:ARG:HB3	12:3I:122:THR:HB	1.69	0.74
30:21:101:ARG:HG2	30:21:169:ASN:OD1	1.87	0.74
3:22:57:ILE:HG12	3:22:66:VAL:HG22	1.70	0.74
5:42:101:ILE:HD11	5:42:119:LEU:HD23	1.69	0.74
26:14:198:C:H5'	26:14:2244:U:OP1	1.88	0.74
1:13:1391:U:H2'	1:13:1392:G:C8	2.23	0.74
52:M8:40:HIS:HB2	52:M8:47:GLN:HE22	1.52	0.74
30:29:48:GLN:NE2	30:29:78:LEU:HD13	2.02	0.74
43:95:85:LYS:HG3	43:95:87:HIS:N	2.03	0.74
1:13:538:G:H5"	12:3I:114:LYS:HB2	1.70	0.74
1:13:1305:G:H22	1:13:1331:G:H2'	1.52	0.74
14:5I:3:ARG:O	14:5I:6:LEU:N	2.19	0.74
26:1H:945:A:N3	60:1H:3557:HOH:O	2.20	0.74
26:1H:2287:A:H62	26:1H:2344:U:H3	1.35	0.74
26:1H:2315:G:OP1	32:41:36:LYS:NZ	2.19	0.74
26:1H:2492:U:H2'	26:1H:2493:U:C6	2.23	0.74
1:1G:978:A:O2'	1:1G:1322:C:N3	2.21	0.74
1:1G:1239:A:H4'	1:1G:1240:U:H5"	1.69	0.74
46:C5:14:LEU:HB2	46:C5:75:ILE:HD11	1.70	0.74
1:13:737:A:H2'	1:13:738:C:C6	2.23	0.74
1:13:1316:G:H4'	14:5I:18:VAL:HG11	1.69	0.74
13:4I:98:VAL:HG23	13:4I:99:ARG:HG3	1.70	0.74
2:12:58:ILE:HG23	2:12:62:ALA:HB3	1.69	0.74
22:1L:9:A:H3'	22:1L:10:G:C8	2.23	0.74
26:1H:138:G:N2	45:F8:44:GLU:OE2	2.13	0.73
41:B8:42:ILE:HD12	41:B8:42:ILE:O	1.88	0.73
1:1G:278:G:OP2	17:8A:41:LYS:NZ	2.21	0.73
1:1G:371:G:O2'	1:1G:373:A:N7	2.19	0.73
2:1E:212:GLN:NE2	2:1E:216:SER:OG	2.21	0.73
26:1H:49:A:N7	26:1H:120:U:H5	1.86	0.73
1:1G:186(B):C:O4'	20:BA:89:ARG:NH2	2.21	0.73
1:1G:1258:G:H1	1:1G:1277:C:H42	1.36	0.73
47:H8:19:ARG:NH1	47:H8:84:GLU:O	2.21	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1392:G:H21	1:1G:1502:A:H8	1.36	0.73
49:F5:52:ARG:HD2	49:F5:57:GLU:HG3	1.70	0.73
1:1G:345:C:OP2	41:75:39:ARG:NH2	2.21	0.73
3:22:6:HIS:CE1	3:22:8:ILE:HB	2.23	0.73
27:1J:15:A:H1'	27:1J:109:G:C8	2.24	0.73
40:65:106:ARG:HA	40:65:110:LEU:HD11	1.70	0.73
42:85:97:ASP:OD1	42:85:98:LEU:N	2.20	0.73
24:3K:11:C:H42	24:3K:24:G:H1	1.35	0.73
30:21:82:ARG:O	30:21:84:PHE:N	2.21	0.73
40:A8:61:ASN:ND2	40:A8:64:GLU:OE1	2.21	0.73
1:1G:673:G:H2'	1:1G:674:G:C8	2.24	0.73
1:1G:1273:G:H3'	1:1G:1274:G:H8	1.53	0.73
1:1G:1395:C:HO2'	1:1G:1401:G:HO2'	1.21	0.73
1:13:877:C:H5"	8:7E:88:LYS:HD3	1.70	0.73
2:1E:8:LYS:HG2	2:1E:9:GLU:HG2	1.70	0.73
10:1I:84:GLN:HG3	10:1I:88:LEU:HD13	1.69	0.73
28:71:177:LYS:HG3	28:71:179:SER:HB2	1.70	0.73
49:J8:23:LYS:HB3	49:J8:29:GLY:HA3	1.70	0.73
26:14:1225:C:O3'	43:95:85:LYS:HA	1.88	0.73
41:75:3:ARG:HG2	41:75:6:LEU:H	1.53	0.73
1:13:1331:G:OP1	1:13:1331:G:H4'	1.87	0.73
4:3E:122:ARG:NH2	4:3E:134:ASP:HB3	2.03	0.73
26:1H:1778:U:H2'	26:1H:1784:A:N6	2.04	0.73
1:1G:614:A:H61	1:1G:626:U:H3	1.33	0.73
9:82:71:SER:HA	9:82:74:ILE:HD12	1.69	0.73
26:14:84:A:N6	26:14:102:G:O2'	2.19	0.73
26:14:2032:G:H21	30:29:146:THR:HG23	1.53	0.73
1:13:1062:U:H2'	1:13:1063:C:C6	2.24	0.73
26:1H:1164:G:H2'	26:1H:1165:U:C6	2.24	0.73
55:Q8:52:LYS:O	55:Q8:54:GLU:N	2.21	0.73
26:14:2415:G:H4'	37:35:67:MET:N	2.04	0.73
1:13:505:G:N7	60:13:1811:HOH:O	2.22	0.73
3:2E:58:GLU:HB2	3:2E:65:ALA:HB3	1.70	0.73
26:1H:1525:G:H2'	26:1H:1526:G:C8	2.24	0.73
29:11:183:ARG:HH11	29:11:269:PHE:HB2	1.51	0.73
43:D8:37:VAL:O	43:D8:38:LEU:HG	1.88	0.73
1:1G:1001:G:H2'	1:1G:1002:G:H8	1.54	0.73
1:1G:1124:G:O2'	1:1G:1145:C:N4	2.21	0.73
4:32:168:ARG:NH1	4:32:169:LYS:O	2.22	0.73
30:29:31:CYS:SG	30:29:51:PHE:HB2	2.29	0.73
26:1H:459:U:H5"	54:P8:40:TRP:CD2	2.23	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:Q8:33:ASN:OD1	55:Q8:36:LYS:NZ	2.16	0.73
2:1E:84:GLU:HB3	2:1E:219:VAL:HG21	1.70	0.72
11:2I:69:ALA:HB1	11:2I:73:MET:HE3	1.71	0.72
12:3A:27:LEU:HD22	12:3A:60:LEU:HB3	1.71	0.72
45:B5:57:LEU:HD11	45:B5:78:LYS:HE2	1.71	0.72
1:13:1030:C:H2'	1:13:1031:G:C8	2.23	0.72
26:1H:55:G:H2'	26:1H:56:A:H8	1.54	0.72
26:1H:1535:U:OP2	26:1H:1538:G:N2	2.21	0.72
28:71:14:VAL:HA	28:71:222:VAL:HG22	1.69	0.72
11:2A:27:ASN:HD22	11:2A:55:LYS:HB3	1.54	0.72
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.25	0.72
35:58:57:ALA:C	35:58:59:LYS:H	1.97	0.72
1:13:1536:C:N4	25:4K:10:G:O2'	2.22	0.72
18:9I:33:ASP:O	18:9I:36:ASN:ND2	2.22	0.72
50:K8:42:GLY:C	50:K8:44:LEU:H	1.96	0.72
1:1G:1248:A:N6	1:1G:1288:A:OP2	2.22	0.72
26:14:2880:C:H1'	39:55:92:GLY:HA3	1.69	0.72
44:E8:92:ARG:HH22	44:E8:94:ASP:HA	1.55	0.72
1:13:1006:C:O2	1:13:1023:G:N2	2.17	0.72
1:13:1450:U:H3	1:13:1452:C:H5'	1.53	0.72
26:1H:1664:A:OP2	60:1H:3521:HOH:O	2.07	0.72
1:1G:189:U:O2'	17:8A:63:ARG:NH2	2.23	0.72
2:12:41:ILE:HD12	2:12:42:ILE:HD12	1.70	0.72
1:13:143:A:H2	1:13:220:G:H1	1.36	0.72
26:1H:1509:C:O2'	26:1H:1510:A:OP1	2.06	0.72
3:22:84:ILE:HG23	3:22:85:ARG:HD2	1.70	0.72
26:14:459:U:H5"	54:L5:40:TRP:CD2	2.24	0.72
27:16:15:A:H5'	27:16:16:G:H8	1.55	0.72
30:21:116:VAL:O	30:21:117:MET:HB3	1.89	0.72
1:1G:425:G:O3'	4:32:45:GLN:NE2	2.23	0.72
1:1G:742:G:OP2	15:6A:35:ARG:NH2	2.23	0.72
2:1E:174:VAL:HG13	2:1E:184:VAL:HG11	1.71	0.72
26:1H:1330:C:OP1	60:1H:3519:HOH:O	2.05	0.72
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.25	0.72
26:14:1060:U:H4'	26:14:1061:U:H5"	1.72	0.72
33:59:171:LEU:CD1	33:59:172:LYS:H	2.03	0.72
47:D5:60:GLU:HB2	47:D5:66:SER:HB2	1.72	0.72
1:13:835:U:H3	1:13:851:G:H1	1.36	0.72
1:1G:1373:G:H5"	7:62:36:LYS:HB2	1.70	0.72
26:14:1109:C:H2'	26:14:1110:G:H1'	1.71	0.72
40:A8:93:LYS:HG2	40:A8:95:HIS:HB2	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:C8:97:ASP:OD2	42:C8:101:ARG:NH1	2.23	0.71
46:G8:34:LYS:HG2	46:G8:36:ALA:HB2	1.70	0.71
1:1G:762:C:H2'	1:1G:763:G:H8	1.55	0.71
1:1G:980:C:H5'	1:1G:981:U:C5	2.24	0.71
26:14:2873:A:H8	39:55:6:SER:H	1.37	0.71
27:1J:18:G:H1	27:1J:65:C:H42	1.37	0.71
41:75:106:SER:HA	41:75:110:ILE:HD12	1.72	0.71
1:1G:452:A:H4'	16:7A:72:ARG:HH12	1.55	0.71
29:19:30:GLU:HG3	29:19:63:ARG:CZ	2.20	0.71
1:13:190:G:H3'	1:13:191(A):G:H5'	1.73	0.71
1:13:1034:G:N2	1:13:1035:A:N7	2.35	0.71
27:16:42:C:O2'	32:41:67:LYS:O	2.05	0.71
30:21:2:LYS:HD2	30:21:95:ILE:HG23	1.70	0.71
36:68:7:TYR:HE1	36:68:20:MET:HE3	1.54	0.71
26:14:2131:G:N2	26:14:2158:A:OP2	2.24	0.71
29:19:72:LYS:NZ	29:19:99:ASP:OD2	2.17	0.71
33:59:10:PRO:O	33:59:51:ARG:NH1	2.21	0.71
49:F5:5:CYS:SG	49:F5:8:SER:OG	2.47	0.71
12:3I:36:VAL:HG12	12:3I:59:ARG:HB3	1.72	0.71
40:A8:85:VAL:HG23	40:A8:112:PHE:CZ	2.24	0.71
1:1G:1080:A:H5'	5:42:14:ARG:HH21	1.54	0.71
3:22:182:ILE:HG22	3:22:203:PHE:HA	1.73	0.71
4:32:106:TYR:O	4:32:109:GLY:N	2.22	0.71
8:72:121:ASP:OD1	8:72:125:ARG:NH2	2.24	0.71
26:14:70:G:H21	26:14:71:A:H62	1.36	0.71
1:13:262:A:H2'	1:13:263:A:C8	2.25	0.71
1:13:1322:C:H5"	13:4I:100:GLY:HA2	1.70	0.71
5:4E:91:LEU:HD12	5:4E:118:ILE:HD11	1.72	0.71
26:1H:882:G:H1	26:1H:894:C:H42	1.37	0.71
26:1H:1165:U:H2'	26:1H:1166:C:C6	2.25	0.71
26:1H:2287:A:N6	26:1H:2344:U:H3	1.89	0.71
34:61:73:GLU:HG3	34:61:136:VAL:HG23	1.71	0.71
1:1G:1502:A:H2	1:1G:1505:G:H1	1.38	0.71
20:BA:33:ILE:O	20:BA:37:SER:OG	2.05	0.71
34:69:81:VAL:H	34:69:143:SER:HB3	1.55	0.71
1:13:711:G:OP1	6:5E:54:LYS:NZ	2.24	0.71
6:5E:43:LEU:CD2	6:5E:46:ARG:HD2	2.20	0.71
26:1H:1265:A:OP2	60:1H:3522:HOH:O	2.07	0.71
26:1H:1352:U:OP1	60:1H:3520:HOH:O	2.07	0.71
1:1G:1111:A:H61	3:22:176:HIS:HB3	1.56	0.71
3:22:87:LEU:H	3:22:88:ARG:HH21	1.38	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6A:16:ALA:HB1	15:6A:21:ASP:HB3	1.72	0.71
26:14:629:G:H1	26:14:634:C:H42	1.38	0.71
32:49:129:GLY:O	32:49:130:ASN:ND2	2.23	0.71
36:25:98:VAL:HG12	36:25:117:LEU:HB3	1.72	0.71
48:E5:21:LEU:HD11	48:E5:41:ARG:HH11	1.55	0.71
1:13:649:G:H2'	1:13:650:G:H8	1.55	0.71
1:13:755:G:H21	8:7E:1:MET:HE1	1.54	0.71
5:4E:101:ILE:O	5:4E:120:THR:OG1	2.08	0.71
9:8E:50:LEU:HD22	9:8E:55:ALA:HB3	1.72	0.71
9:8E:112:LYS:HA	9:8E:119:ALA:HB2	1.72	0.71
20:BI:43:LEU:HD13	20:BI:51:GLU:OE1	1.91	0.71
47:H8:76:LEU:HA	47:H8:83:PRO:HA	1.72	0.71
26:1H:458:G:O2'	26:1H:469:G:O6	2.06	0.71
17:8A:66:SER:O	17:8A:70:ARG:NH1	2.24	0.71
26:14:943:U:OP2	37:35:36:LYS:NZ	2.21	0.71
27:1J:83:G:N2	27:1J:93:C:O2	2.16	0.71
36:25:24:VAL:HA	36:25:39:ILE:HG22	1.72	0.71
37:35:122:PRO:HB3	37:35:141:ALA:HB1	1.73	0.71
43:95:70:ILE:N	43:95:86:GLY:O	2.24	0.71
26:1H:270(P):C:H1'	34:61:50:ARG:HH12	1.54	0.71
26:1H:1607:C:H4'	26:1H:1608:A:O5'	1.91	0.71
37:78:63:PRO:HB3	55:Q8:30:ARG:HH21	1.55	0.71
1:1G:108:G:H5'	1:1G:109:A:H5"	1.73	0.71
4:32:199:ASN:O	4:32:200:GLU:HG2	1.90	0.71
27:1J:8:U:O3'	40:65:25:ARG:NH2	2.23	0.71
28:79:44:HIS:CD2	28:79:172:HIS:HA	2.26	0.71
44:A5:88:ARG:NH1	44:A5:94:ASP:OD2	2.23	0.71
2:1E:74:LYS:HB2	2:1E:208:ILE:HD13	1.73	0.71
5:4E:50:GLU:HB2	5:4E:53:LEU:HD13	1.72	0.71
6:5E:1:MET:HE2	6:5E:68:PRO:HD3	1.73	0.71
21:1F:8:THR:HG23	21:1F:11:GLY:H	1.56	0.71
26:1H:910:A:H62	38:88:12:GLN:HA	1.55	0.71
26:1H:1570:A:H5'	29:11:37:LEU:HD21	1.73	0.71
26:1H:2111:C:N4	26:1H:2147:G:O6	2.24	0.71
29:11:106:ILE:HD11	29:11:143:HIS:HD2	1.56	0.71
4:32:31:CYS:C	4:32:33:MET:H	1.99	0.71
26:1H:1538:G:H2'	26:1H:1539:G:C8	2.26	0.70
37:78:39:LYS:CA	37:78:45:LEU:CD1	2.68	0.70
37:78:39:LYS:HB2	37:78:45:LEU:HD11	1.70	0.70
26:14:1153:C:OP1	42:85:93:LYS:NZ	2.25	0.70
26:14:1314:C:OP1	60:14:3408:HOH:O	2.09	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2232:U:P	49:F5:40:ARG:HH22	2.14	0.70
26:14:2287:A:N6	26:14:2344:U:H3	1.88	0.70
1:13:321:A:H62	1:13:328:C:H1'	1.54	0.70
26:1H:50:U:H3'	26:1H:51:G:H5'	1.73	0.70
12:3A:82:VAL:N	12:3A:106:ASP:OD2	2.18	0.70
26:14:329:G:H1	46:C5:19:LYS:NZ	1.88	0.70
38:45:79:LEU:HG	38:45:79:LEU:O	1.91	0.70
49:F5:91:LYS:HD3	49:F5:92:LYS:H	1.57	0.70
5:4E:43:LEU:HD11	5:4E:132:ALA:HB1	1.73	0.70
26:1H:831:G:OP1	60:1H:3526:HOH:O	2.09	0.70
26:1H:910:A:C5	38:88:13:GLN:HG3	2.26	0.70
26:1H:2588:G:OP1	60:1H:3523:HOH:O	2.08	0.70
1:1G:1114:C:H1'	14:5A:60:SER:HB3	1.74	0.70
1:1G:1342:C:H4'	9:82:125:TYR:HB2	1.73	0.70
2:12:80:ILE:HD13	2:12:212:GLN:HG3	1.72	0.70
40:65:74:ALA:HB1	40:65:107:GLU:HB2	1.72	0.70
55:M5:33:ASN:O	55:M5:35:GLN:N	2.24	0.70
1:13:5:U:H3	4:3E:87:GLY:HA3	1.56	0.70
2:1E:165:VAL:HG23	2:1E:166:ASP:H	1.57	0.70
24:3K:11:C:N4	24:3K:24:G:H1	1.88	0.70
28:71:30:LYS:NZ	28:71:39:GLU:OE2	2.25	0.70
29:11:72:LYS:HD2	29:11:75:ILE:HD12	1.73	0.70
1:1G:1294:G:H2'	1:1G:1295:G:C8	2.26	0.70
26:14:138:G:N2	45:B5:44:GLU:OE2	2.22	0.70
41:75:50:ILE:HD11	41:75:102:ILE:HG12	1.73	0.70
1:13:1279:A:O2'	1:13:1281:U:OP2	2.09	0.70
32:41:161:THR:HG22	32:41:163:ALA:H	1.57	0.70
2:12:91:PRO:HG3	2:12:154:LEU:HB2	1.73	0.70
26:14:2622:C:H5'	30:29:159:HIS:ND1	2.07	0.70
29:19:25:THR:CG2	29:19:82:ILE:H	2.05	0.70
3:2E:7:PRO:O	3:2E:11:ARG:HG2	1.91	0.70
6:5E:62:TRP:CH2	6:5E:64:GLN:HG2	2.26	0.70
26:1H:1040:C:N3	26:1H:1115:G:N1	2.37	0.70
27:16:90:C:H5'	38:88:18:LYS:HA	1.72	0.70
44:E8:57:ASN:HA	44:E8:61:ASN:HD22	1.55	0.70
47:H8:108:PRO:HB2	47:H8:112:ARG:HA	1.72	0.70
1:1G:438:G:H4'	4:32:123:HIS:CD2	2.27	0.70
1:1G:542:G:OP1	4:32:10:ARG:NH2	2.21	0.70
22:1L:28:U:H3	22:1L:42:A:H2	1.37	0.70
26:14:259:G:HO2'	26:14:621:A:HO2'	1.37	0.70
27:1J:15:A:H3'	27:1J:16:G:H5'	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:37:ARG:HE	30:29:42:ASP:CG	1.98	0.70
24:3K:76:A:H8	26:1H:2394:C:H42	1.39	0.70
41:B8:88:ILE:HD13	41:B8:91:ARG:CZ	2.20	0.70
1:1G:448:A:P	1:1G:485:G:H22	2.15	0.70
1:1G:660:G:H1	1:1G:745:C:H42	1.40	0.70
13:4A:13:LYS:HD3	13:4A:14:ARG:N	2.06	0.70
26:14:67:U:H3	26:14:74:A:H2	1.39	0.70
26:1H:994:C:OP1	42:C8:53:ARG:NH2	2.25	0.70
26:1H:996:A:OP2	42:C8:92:ARG:NH2	2.25	0.70
26:1H:2401:U:H2'	26:1H:2402:C:H5"	1.74	0.70
26:14:2118:U:O2'	26:14:2145:C:O2	2.10	0.70
26:14:2162:G:O2'	26:14:2173:A:OP1	2.08	0.70
41:75:54:ARG:HA	41:75:59:THR:HG23	1.74	0.70
1:13:468:A:H5"	16:7I:80:PHE:HB3	1.74	0.70
1:13:1280:A:H3'	1:13:1281:U:H5'	1.73	0.70
7:6E:22:LEU:HD22	7:6E:62:PHE:CE2	2.27	0.70
17:8I:88:TYR:HD1	17:8I:89:LEU:HD22	1.57	0.70
26:1H:1728:G:H8	26:1H:1732:A:H62	1.39	0.70
26:14:71:A:H2	45:B5:31:HIS:CE1	2.10	0.70
26:14:2878:U:O4	60:14:3410:HOH:O	2.09	0.70
42:85:92:ARG:NH2	43:95:10:LYS:HA	2.06	0.70
12:3I:24:VAL:HB	12:3I:27:LEU:HD12	1.74	0.70
26:1H:2124:G:N2	26:1H:2175:C:N3	2.39	0.70
37:78:97:PRO:HA	37:78:100:LEU:HB2	1.73	0.70
46:G8:81:LYS:HD2	46:G8:99:CYS:SG	2.31	0.70
26:14:389:G:OP1	49:F5:25:LYS:HE2	1.90	0.70
29:19:264:LYS:HG2	29:19:266:SER:HB3	1.74	0.70
47:D5:94:GLU:O	47:D5:129:SER:HA	1.91	0.70
15:6I:24:SER:HB3	15:6I:27:VAL:HG23	1.74	0.69
26:1H:2359:C:OP2	60:1H:3525:HOH:O	2.09	0.69
5:42:68:GLU:OE1	5:42:143:ARG:NH1	2.25	0.69
6:52:76:ALA:HB1	6:52:80:ARG:HH21	1.57	0.69
31:39:38:ARG:HH21	31:39:99:TYR:HE1	0.72	0.69
36:25:20:MET:HE3	36:25:44:LYS:HE3	1.74	0.69
45:B5:1:MET:N	50:G5:29:LYS:HE3	2.05	0.69
45:B5:63:LYS:N	45:B5:63:LYS:HD3	2.07	0.69
2:1E:67:THR:HG21	2:1E:155:LEU:HG	1.74	0.69
2:1E:209:ARG:NH1	2:1E:235:SER:O	2.25	0.69
3:2E:150:LYS:HE2	3:2E:152:ILE:HD11	1.73	0.69
13:4I:16:ASP:HB2	13:4I:31:LYS:HE3	1.74	0.69
15:6I:82:ILE:O	15:6I:86:GLY:N	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2588:G:OP1	60:1H:3524:HOH:O	2.08	0.69
28:71:10:LEU:HA	28:71:13:LYS:HD3	1.72	0.69
41:B8:3:ARG:O	41:B8:7:ILE:N	2.25	0.69
50:K8:47:ASN:C	50:K8:49:LYS:H	2.00	0.69
26:14:635:C:O2'	26:14:639:U:OP1	2.09	0.69
26:14:1171:G:O2'	26:14:1173:G:O4'	2.07	0.69
26:14:1486:A:H2'	26:14:1487:G:C8	2.27	0.69
37:35:13:ASN:C	37:35:15:ARG:H	2.00	0.69
48:E5:56:ASP:OD2	48:E5:58:THR:OG1	2.07	0.69
1:13:323:U:H5'	20:BI:23:ARG:HB2	1.73	0.69
1:13:1238:A:H62	1:13:1301:U:H3	1.39	0.69
3:2E:123:GLN:HE22	3:2E:136:GLN:NE2	1.89	0.69
26:1H:1900:A:H5'	26:1H:1900:A:C8	2.26	0.69
28:71:32:LEU:HD23	28:71:220:PRO:HG2	1.74	0.69
40:A8:85:VAL:HG23	40:A8:112:PHE:HZ	1.56	0.69
1:1G:1181:G:N2	1:1G:1182:G:O2'	2.25	0.69
26:14:960:A:H61	38:45:82:ARG:HH21	1.39	0.69
29:19:262:ARG:HD3	29:19:262:ARG:N	1.92	0.69
31:39:103:LYS:HA	31:39:106:ARG:HG3	1.73	0.69
35:15:7:LYS:HE2	35:15:7:LYS:HA	1.74	0.69
4:3E:108:LEU:HD23	4:3E:110:PHE:HE1	1.56	0.69
26:1H:1278:A:OP1	39:98:36:THR:HG22	1.92	0.69
37:78:49:ARG:HH11	37:78:49:ARG:HB2	1.57	0.69
38:88:19:GLY:O	38:88:21:THR:OG1	2.05	0.69
45:F8:61:GLY:N	45:F8:75:ASP:OD1	2.16	0.69
4:32:60:GLU:HG2	4:32:202:LEU:HB2	1.74	0.69
26:14:606:U:P	31:39:104:LYS:CD	2.80	0.69
26:14:2353:G:N2	26:14:2364:C:O2	2.25	0.69
1:13:1240:U:OP2	7:6E:116:ALA:N	2.26	0.69
26:1H:660:G:H21	37:78:12:ALA:HA	1.57	0.69
26:1H:2475:C:H1'	26:1H:2477:C:H5	1.58	0.69
29:19:44:ASN:HB3	29:19:45:ASN:C	2.18	0.69
8:7E:87:SER:HB2	8:7E:93:VAL:HB	1.73	0.69
13:4I:106:ASN:O	13:4I:106:ASN:ND2	2.24	0.69
28:71:22:ILE:HG12	28:71:189:ILE:HG21	1.74	0.69
29:11:10:THR:OG1	29:11:13:ARG:HB2	1.92	0.69
4:32:24:GLU:HG2	4:32:25:ARG:H	1.57	0.69
5:42:105:VAL:HG21	5:42:128:PRO:HB3	1.74	0.69
11:2A:67:ASP:OD2	11:2A:71:LYS:NZ	2.24	0.69
26:14:582:G:H2'	26:14:583:G:C8	2.28	0.69
2:1E:69:LEU:HD23	2:1E:159:PRO:HG3	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BI:71:THR:HG22	20:BI:72:LEU:H	1.56	0.69
29:11:39:LYS:HG3	29:11:40:THR:H	1.58	0.69
1:1G:345:C:O3'	41:75:41:ARG:NH2	2.25	0.69
1:1G:564:C:O2'	8:72:91:ARG:NH2	2.25	0.69
1:1G:979:C:H3'	1:1G:980:C:H5"	1.75	0.69
26:14:486:C:O2'	44:A5:60:ASN:ND2	2.22	0.69
26:14:1786:A:H1'	26:14:1938:A:N6	2.06	0.69
1:13:263:A:OP2	20:BI:79:ARG:NH1	2.25	0.69
1:13:323:U:OP2	60:13:1804:HOH:O	2.10	0.69
1:13:353:A:H8	1:13:353:A:H5'	1.57	0.69
3:2E:21:ARG:NH2	3:2E:56:ASP:OD2	2.26	0.69
8:7E:1:MET:HE3	8:7E:3:THR:HG23	1.75	0.69
26:1H:1156:A:C8	42:C8:51:LYS:HG2	2.28	0.69
26:1H:1678:G:H22	26:1H:1989:G:H22	1.40	0.69
26:1H:2784:C:O2'	30:21:37:ARG:NH1	2.25	0.69
29:11:182:LEU:N	29:11:272:ALA:HB3	2.06	0.69
34:61:88:ILE:O	34:61:121:LYS:NZ	2.26	0.69
41:B8:26:ASP:O	41:B8:49:VAL:HG12	1.92	0.69
8:72:51:VAL:HG21	8:72:60:ARG:HB2	1.75	0.69
13:4A:37:THR:HG22	13:4A:55:ARG:HE	1.56	0.69
19:AA:15:LEU:HD11	19:AA:33:THR:HB	1.72	0.69
26:14:801:G:OP2	60:14:3413:HOH:O	2.11	0.69
26:14:2250:G:C4	38:45:82:ARG:HG3	2.28	0.69
26:14:2820:A:C6	39:55:4:LEU:HD11	2.28	0.69
31:39:160:ASN:HB3	31:39:163:VAL:HB	1.74	0.69
1:13:145:G:N2	1:13:178:C:N3	2.41	0.69
1:13:859:A:H2'	1:13:860:A:H8	1.58	0.69
3:2E:91:LEU:HB3	3:2E:99:VAL:HG11	1.74	0.69
23:2K:30:G:H1	23:2K:42:C:H42	1.37	0.69
40:A8:27:SER:HA	40:A8:88:ASP:HB3	1.74	0.69
46:G8:54:LYS:HA	46:G8:56:PRO:HD3	1.75	0.69
13:4A:64:TRP:CD1	13:4A:66:LEU:HD23	2.28	0.69
24:3L:15:G:N2	24:3L:48:C:H41	1.91	0.69
26:14:2781:A:H5"	26:14:2782:G:H5'	1.75	0.69
32:49:97:ASP:H	32:49:100:TRP:HD1	1.41	0.69
48:E5:21:LEU:HD11	48:E5:41:ARG:NH1	2.08	0.69
1:13:110:C:O2'	16:7I:25:ARG:O	2.11	0.69
9:8E:13:ALA:HB2	9:8E:68:GLY:HA3	1.75	0.69
26:1H:1418:G:OP1	26:1H:1588:C:O2'	2.11	0.69
32:41:29:TRP:O	32:41:33:ARG:NH1	2.26	0.69
33:51:40:GLU:HB2	33:51:41:MET:CE	2.22	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1191:G:OP1	37:35:18:ARG:NH2	2.25	0.69
32:49:32:PRO:HB2	32:49:172:LEU:HD22	1.74	0.69
35:15:42:TRP:O	42:85:64:ARG:NH2	2.24	0.69
38:45:75:THR:HA	38:45:89:ASN:HA	1.72	0.69
55:M5:48:PHE:HA	55:M5:49:VAL:HG13	1.75	0.69
1:13:677:U:H3	1:13:713:G:H22	1.41	0.68
1:13:875:C:O2'	8:7E:14:ARG:NH1	2.26	0.68
13:4I:39:ILE:HG13	13:4I:56:LEU:HD21	1.76	0.68
26:1H:118:A:H5'	26:1H:119:A:H8	1.57	0.68
26:1H:142:G:H1'	45:F8:37:THR:HG21	1.73	0.68
35:58:34:LEU:HD21	35:58:120:LEU:HB2	1.75	0.68
12:3A:47:LYS:O	12:3A:49:ASN:N	2.25	0.68
26:14:1048:A:H8	26:14:1110:G:H22	1.40	0.68
26:14:2489:G:N2	26:14:2491:U:O4	2.24	0.68
43:95:21:ARG:NH2	43:95:65:GLY:O	2.26	0.68
43:95:85:LYS:HD2	43:95:86:GLY:H	1.57	0.68
9:8E:46:ALA:HB2	9:8E:74:ILE:HG23	1.75	0.68
26:1H:1218:C:OP2	42:C8:15:LYS:NZ	2.23	0.68
26:1H:1799:G:O2'	26:1H:1800:C:OP2	2.07	0.68
30:21:120:TRP:CE3	30:21:155:LYS:HD3	2.29	0.68
31:31:67:GLN:HE22	31:31:74:ARG:HD3	1.57	0.68
39:98:72:ASP:O	39:98:76:VAL:HG23	1.93	0.68
26:14:603:A:H8	26:14:604:G:H1'	1.58	0.68
26:14:817:C:O2'	26:14:839:U:OP1	2.09	0.68
26:14:990:A:H5'	26:14:990:A:H8	1.59	0.68
26:14:2118:U:H1'	26:14:2147:G:H21	1.56	0.68
31:39:181:LEU:HD21	31:39:186:ILE:HD11	1.75	0.68
1:13:221:C:H2'	1:13:222:U:H6	1.58	0.68
42:C8:90:VAL:HG22	43:D8:39:LEU:HB3	1.74	0.68
4:32:170:VAL:HB	4:32:176:LEU:HD11	1.74	0.68
26:14:574:C:OP2	60:14:3411:HOH:O	2.10	0.68
26:14:1203:G:H3'	26:14:1204:A:H5"	1.75	0.68
1:13:1159:U:O4'	1:13:1182:G:N2	2.26	0.68
13:4I:82:MET:HE2	13:4I:92:HIS:HB3	1.74	0.68
17:8I:76:LEU:HD11	17:8I:79:SER:HB2	1.75	0.68
26:1H:731:C:OP2	60:1H:3509:HOH:O	2.12	0.68
31:31:67:GLN:HG3	31:31:67:GLN:O	1.92	0.68
9:82:48:GLU:HA	9:82:51:ARG:HD3	1.75	0.68
26:14:127:A:H5"	26:14:128:C:C6	2.28	0.68
26:14:2468:G:H3'	26:14:2476:A:N1	2.08	0.68
30:29:35:GLN:HE22	30:29:37:ARG:NH2	1.90	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:46:LYS:HD3	46:C5:48:ALA:HB2	1.74	0.68
5:4E:144:THR:OG1	5:4E:147:ASP:OD1	2.10	0.68
26:1H:1385:G:O2'	26:1H:1396:U:H6	1.75	0.68
26:1H:2789:C:H1'	26:1H:2892:A:H2	1.58	0.68
32:41:98:ARG:NH2	52:M8:1:MET:CE	2.57	0.68
2:12:219:VAL:HA	2:12:220:ASP:OD2	1.93	0.68
26:14:273(C):C:H42	26:14:363(C):G:H1	1.41	0.68
34:69:65:ALA:O	34:69:69:LYS:N	2.25	0.68
36:25:92:GLU:HG2	36:25:113:LYS:NZ	2.08	0.68
1:13:1316:G:N2	1:13:1319:A:OP2	2.25	0.68
26:1H:1412:A:H2'	26:1H:1413:G:C8	2.29	0.68
26:1H:1900:A:H5'	26:1H:1900:A:H8	1.57	0.68
29:11:30:GLU:HB3	29:11:104:TYR:OH	1.94	0.68
1:1G:266:G:N3	1:1G:266:G:H5'	2.09	0.68
1:1G:1143:G:H2'	1:1G:1144:G:C8	2.28	0.68
1:1G:1266:G:N2	1:1G:1270:C:N3	2.42	0.68
26:14:2547:U:O2	36:25:23:ARG:NH2	2.25	0.68
28:79:44:HIS:HD2	28:79:172:HIS:HA	1.57	0.68
42:85:28:ARG:NH1	42:85:38:THR:OG1	2.25	0.68
15:6I:25:THR:HG21	15:6I:70:LEU:HB2	1.75	0.68
23:2K:48:U:O2'	23:2K:49:C:OP2	2.11	0.68
26:1H:719:C:H2'	26:1H:720:C:H6	1.56	0.68
26:1H:1257:C:H4'	31:31:83:PHE:CD1	2.28	0.68
32:41:67:LYS:HD2	52:M8:6:HIS:CD2	2.28	0.68
33:51:98:LEU:HD21	33:51:125:VAL:H	1.57	0.68
41:B8:58:ASN:O	41:B8:58:ASN:ND2	2.26	0.68
26:14:19:C:H2'	26:14:20:C:H6	1.59	0.68
26:1H:273(F):C:H3'	26:1H:274:G:H5"	1.74	0.68
27:16:8:U:O2	27:16:112:G:N1	2.20	0.68
45:F8:55:ASN:HB2	45:F8:80:ILE:HG13	1.76	0.68
9:82:5:TYR:N	9:82:87:GLN:OE1	2.27	0.68
14:5A:12:ARG:HB2	14:5A:14:PRO:HD3	1.76	0.68
20:BA:29:LYS:HG3	20:BA:71:THR:HG21	1.76	0.68
22:1L:9:A:N6	22:1L:22:G:N7	2.42	0.68
26:14:1752:C:P	41:75:115:ARG:HH22	2.17	0.68
30:29:8:LYS:HD3	30:29:192:ASN:HA	1.75	0.68
46:G8:20:TYR:CE2	46:G8:43:ASN:HA	2.28	0.68
1:1G:539:A:H2'	1:1G:540:G:C8	2.28	0.68
26:14:1486:A:H2'	26:14:1487:G:H8	1.58	0.68
26:14:2121:G:O6	26:14:2177:C:N4	2.26	0.68
28:79:53:ARG:HE	28:79:54:SER:H	1.42	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:65:33:LYS:HB3	40:65:34:HIS:CD2	2.29	0.68
1:13:1104:G:OP1	2:1E:144:ARG:NH2	2.27	0.68
26:1H:336:C:OP1	46:G8:83:THR:HB	1.94	0.68
32:41:98:ARG:NH2	52:M8:1:MET:HE3	2.10	0.68
41:B8:108:ARG:HA	41:B8:111:ARG:HE	1.59	0.68
4:32:86:LYS:HE2	4:32:86:LYS:H	1.59	0.68
9:82:53:VAL:HG13	9:82:95:LYS:NZ	2.09	0.68
13:4A:34:LEU:HD13	13:4A:41:PRO:HB3	1.75	0.68
26:14:993:G:OP1	42:85:50:ARG:NH2	2.27	0.68
26:14:994:C:OP1	42:85:53:ARG:NH2	2.26	0.68
26:14:1639:U:OP2	60:14:3412:HOH:O	2.11	0.68
26:14:2611:U:H6	26:14:2611:U:H5'	1.59	0.68
1:13:189:U:O2	17:8I:63:ARG:NH2	2.27	0.67
19:AI:29:ARG:NH1	19:AI:30:LEU:O	2.27	0.67
1:1G:1286:A:C8	1:1G:1287:A:H4'	2.30	0.67
9:82:111:ARG:HG3	9:82:113:LYS:HE3	1.76	0.67
26:14:1225:C:O2'	43:95:85:LYS:N	2.26	0.67
31:39:107:LYS:NZ	31:39:205:ARG:HD2	2.09	0.67
26:1H:10:G:N2	26:1H:2801:A:O2'	2.27	0.67
26:1H:1406:U:H2'	26:1H:1407:C:C6	2.29	0.67
26:1H:1528:A:H2	26:1H:1542:G:C2	2.12	0.67
26:1H:1980:G:O2'	26:1H:1982:C:OP2	2.10	0.67
42:C8:92:ARG:CZ	43:D8:11:GLN:H	2.07	0.67
1:1G:1204:A:OP1	14:5A:3:ARG:NH1	2.27	0.67
8:72:83:ILE:HG13	8:72:137:VAL:HG22	1.76	0.67
13:4A:49:THR:H	13:4A:52:GLU:HG3	1.58	0.67
13:4A:79:LYS:O	13:4A:82:MET:HG2	1.93	0.67
16:7A:74:LEU:HD12	16:7A:79:VAL:HG21	1.76	0.67
26:14:813:U:OP1	43:95:83:ARG:NH2	2.27	0.67
26:14:998:C:OP2	42:85:58:ARG:NH2	2.22	0.67
26:14:2656:U:H3	26:14:2665:A:H2	1.40	0.67
31:39:110:LEU:HD11	31:39:205:ARG:HH21	1.59	0.67
33:59:10:PRO:HG2	33:59:51:ARG:HG2	1.76	0.67
41:75:3:ARG:HG2	41:75:6:LEU:HB2	1.76	0.67
42:85:85:LYS:HB3	42:85:116:ALA:HB1	1.76	0.67
4:3E:98:GLU:O	4:3E:103:ASN:ND2	2.26	0.67
26:1H:2098:U:H3	26:1H:2191:G:H1	1.41	0.67
29:11:182:LEU:HB3	29:11:271:ILE:HG13	1.77	0.67
1:1G:407:G:H2'	1:1G:408:A:C8	2.30	0.67
3:22:37:GLN:O	3:22:41:GLY:N	2.27	0.67
26:14:72:U:OP1	60:14:3415:HOH:O	2.12	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2191:G:H5'	26:14:2192:G:OP2	1.95	0.67
30:29:55:ASN:O	30:29:57:LYS:NZ	2.27	0.67
34:69:37:VAL:HG12	34:69:38:LEU:H	1.60	0.67
36:25:115:VAL:HG13	36:25:121:VAL:HG21	1.75	0.67
39:55:51:LEU:HD22	39:55:66:VAL:HG23	1.76	0.67
2:1E:18:GLY:H	2:1E:42:ILE:HG13	1.60	0.67
6:5E:16:GLN:HG2	6:5E:17:SER:N	2.09	0.67
41:B8:5:ALA:HA	41:B8:8:LYS:HE2	1.75	0.67
47:H8:4:ARG:HD3	47:H8:60:GLU:OE1	1.95	0.67
1:1G:1300:G:O2'	1:1G:1301:U:O5'	2.12	0.67
2:12:49:GLU:N	2:12:49:GLU:OE2	2.26	0.67
24:3L:5:C:H2'	24:3L:6:G:C8	2.29	0.67
26:14:94:G:N3	50:G5:47:ASN:ND2	2.42	0.67
26:14:2108:C:N3	26:14:2181:G:N2	2.42	0.67
26:14:2168:G:N2	26:14:2170:A:OP2	2.27	0.67
29:19:43:ARG:HG2	29:19:49:ILE:HA	1.77	0.67
31:39:192:LEU:O	31:39:193:VAL:HG23	1.95	0.67
1:13:1149:C:OP1	9:8E:9:ARG:NH2	2.28	0.67
1:13:1290:G:O3'	7:6E:37:ASN:ND2	2.26	0.67
26:1H:958:U:OP2	38:88:14:ARG:NH1	2.28	0.67
26:1H:1859:A:N6	26:1H:1883:G:O2'	2.27	0.67
26:1H:2428:G:H21	37:78:61:ARG:HH21	1.43	0.67
26:1H:2867:G:OP2	41:B8:119:LYS:NZ	2.25	0.67
30:21:105:THR:OG1	30:21:199:ARG:NH2	2.26	0.67
39:98:51:LEU:HD22	39:98:66:VAL:HG13	1.77	0.67
41:B8:50:ILE:HD11	41:B8:102:ILE:HD13	1.75	0.67
9:82:13:ALA:HB2	9:82:68:GLY:HA3	1.77	0.67
12:3A:41:ARG:HG2	12:3A:42:THR:H	1.59	0.67
26:14:1730:U:H5"	26:14:1731:G:H22	1.60	0.67
26:14:2537:U:H2'	26:14:2538:C:C6	2.29	0.67
28:79:207:THR:O	28:79:210:ARG:NH1	2.28	0.67
29:19:182:LEU:N	29:19:272:ALA:HB3	2.10	0.67
31:39:141:ALA:HA	31:39:144:LYS:HB2	1.77	0.67
32:49:136:ARG:HG3	32:49:137:GLU:HG3	1.74	0.67
35:15:47:ALA:HB2	35:15:112:LEU:HD21	1.77	0.67
1:13:455:C:H42	1:13:477:G:N2	1.92	0.67
1:13:490:G:H5"	4:3E:151:LYS:HZ2	1.59	0.67
4:3E:19:LEU:HB3	4:3E:21:LEU:HD21	1.77	0.67
10:1I:48:THR:HA	10:1I:62:HIS:HB3	1.76	0.67
26:1H:187:G:N7	60:1H:3577:HOH:O	2.27	0.67
26:1H:2032:G:H21	30:21:146:THR:CG2	2.05	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:116:VAL:HG22	30:21:122:PHE:CG	2.30	0.67
34:61:98:ALA:HB2	34:61:111:PRO:HB3	1.76	0.67
1:1G:1055:A:O2'	3:22:156:ARG:NH1	2.26	0.67
1:1G:1360:A:OP2	14:5A:35:ARG:NH2	2.28	0.67
5:42:152:ARG:NH1	8:72:42:GLU:O	2.28	0.67
23:2L:30:G:N2	23:2L:42:C:O2	2.27	0.67
26:14:607:U:OP1	31:39:102:PRO:HA	1.94	0.67
26:14:1434:A:H61	26:14:1558:A:H62	1.42	0.67
27:1J:51:G:OP2	40:65:59:LYS:NZ	2.28	0.67
30:29:36:ARG:NH1	30:29:85:ASN:OD1	2.27	0.67
49:F5:62:VAL:HG21	49:F5:70:VAL:HG21	1.76	0.67
1:13:474:G:H5"	16:7I:81:ARG:NH2	2.08	0.67
4:3E:82:ALA:HB1	4:3E:90:GLY:HA2	1.75	0.67
26:1H:2714:G:OP1	60:1H:3529:HOH:O	2.13	0.67
41:B8:50:ILE:HG13	41:B8:99:LEU:O	1.95	0.67
12:3A:111:LYS:H	12:3A:111:LYS:HD2	1.59	0.67
26:14:1165:U:H2'	26:14:1166:C:C6	2.29	0.67
27:1J:113:C:H4'	40:65:46:VAL:HG23	1.75	0.67
1:13:1323:G:H2'	1:13:1324:A:C8	2.30	0.67
26:1H:1871:A:H2'	26:1H:1872:A:C8	2.30	0.67
26:1H:2139:C:H42	26:1H:2153:G:H1'	1.60	0.67
46:G8:10:GLY:O	46:G8:26:LYS:NZ	2.26	0.67
4:32:94:LEU:HD11	4:32:200:GLU:OE1	1.95	0.67
9:82:65:VAL:HG21	9:82:73:GLN:HB3	1.77	0.67
26:14:1817:G:OP1	29:19:88:ARG:NH2	2.27	0.67
29:19:242:ARG:HG3	29:19:246:PRO:HG3	1.76	0.67
26:1H:567:A:OP1	60:1H:3528:HOH:O	2.12	0.67
26:1H:2392:A:H2	26:1H:2424:C:H42	1.43	0.67
23:2L:24:C:H2'	23:2L:25:U:C6	2.29	0.67
26:14:590:A:H2'	26:14:591:C:C6	2.30	0.67
29:19:34:VAL:HB	29:19:64:ILE:HG23	1.77	0.67
4:3E:30:LYS:HA	4:3E:35:ARG:HE	1.60	0.67
4:3E:122:ARG:HH12	4:3E:134:ASP:HB3	1.60	0.67
11:2I:58:PRO:HD3	11:2I:89:ALA:HB1	1.75	0.67
24:3K:50:C:N3	24:3K:51:A:N6	2.43	0.67
26:1H:1429:G:O2'	26:1H:1430:C:H5'	1.95	0.67
26:1H:2836:U:H2'	26:1H:2837:G:C8	2.30	0.67
1:1G:690:G:H2'	1:1G:691:G:O4'	1.94	0.67
1:1G:857:C:H3'	1:1G:858:G:H8	1.60	0.67
19:AA:19:VAL:HG21	19:AA:44:MET:HA	1.76	0.67
26:14:708:C:H42	26:14:723:G:H1	1.41	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1579:A:H2'	26:14:1580:A:C8	2.29	0.67
8:7E:41:ARG:NH2	8:7E:123:GLU:OE1	2.22	0.66
26:1H:428:A:OP1	60:1H:3531:HOH:O	2.13	0.66
26:1H:1401:G:H2'	26:1H:1402:C:C6	2.31	0.66
43:D8:65:GLY:HA3	43:D8:91:TYR:CE1	2.30	0.66
1:1G:501:C:P	12:3A:124:LYS:HE2	2.35	0.66
5:42:148:VAL:HG21	8:72:107:LEU:HD23	1.76	0.66
26:14:780:G:H21	26:14:783:A:N6	1.92	0.66
26:14:1188:U:O2'	26:14:1189:A:H5'	1.95	0.66
1:13:1218:C:H2'	1:13:1219:U:C6	2.31	0.66
6:5E:43:LEU:HD22	6:5E:46:ARG:HD2	1.76	0.66
7:6E:28:ASN:HA	7:6E:31:MET:HE3	1.78	0.66
26:1H:1903:G:OP1	29:11:241:PRO:HB2	1.94	0.66
13:4A:96:LEU:HD22	13:4A:97:PRO:HD2	1.75	0.66
26:14:660:G:H21	37:35:12:ALA:HB2	1.59	0.66
26:14:779:U:OP1	29:19:49:ILE:HG23	1.96	0.66
26:14:1210:A:H5"	26:14:1211:U:H3'	1.77	0.66
26:14:1223:C:OP2	43:95:88:ARG:NH2	2.27	0.66
33:59:54:ARG:HB3	33:59:65:HIS:HB2	1.76	0.66
1:13:129(A):G:H4'	1:13:130:A:H5"	1.76	0.66
1:13:1182:G:H4'	1:13:1183:A:H5"	1.77	0.66
2:1E:118:LEU:HB3	2:1E:142:LEU:HD13	1.78	0.66
8:7E:51:VAL:HG11	8:7E:60:ARG:HD2	1.77	0.66
13:4I:91:ARG:HB2	13:4I:98:VAL:HG12	1.78	0.66
24:3K:3:G:H1	24:3K:70:C:H42	1.42	0.66
26:1H:719:C:H2'	26:1H:720:C:C6	2.30	0.66
26:1H:1113:U:OP1	33:51:2:SER:N	2.28	0.66
26:1H:1568:G:OP1	29:11:63:ARG:NH1	2.25	0.66
26:1H:2124:G:H5'	28:71:174:PRO:HD3	1.76	0.66
26:1H:2518:A:H5'	26:1H:2518:A:C8	2.29	0.66
35:58:96:GLU:O	35:58:98:VAL:HG12	1.95	0.66
1:1G:1356:G:H2'	1:1G:1357:A:C8	2.30	0.66
38:45:85:LYS:HG2	38:45:86:GLY:H	1.61	0.66
46:C5:42:VAL:HG13	46:C5:65:ALA:HB3	1.77	0.66
1:13:224:C:H2'	1:13:225:C:C6	2.30	0.66
26:1H:2019:A:N7	53:N8:9:LYS:NZ	2.38	0.66
52:M8:1:MET:HE3	52:M8:1:MET:H1	1.59	0.66
1:1G:619:U:O2	4:32:135:LEU:CD2	2.43	0.66
1:1G:828:A:H2'	1:1G:829:G:O4'	1.95	0.66
1:1G:1206:G:C6	1:1G:1207:G:C6	2.83	0.66
4:32:202:LEU:O	4:32:206:PHE:N	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2100:G:O6	26:14:2189:U:N3	2.28	0.66
26:14:2475:C:H5"	26:14:2476:A:H5"	1.77	0.66
36:25:1:MET:HB3	36:25:32:TYR:HB3	1.76	0.66
2:1E:54:THR:HG21	2:1E:201:ILE:HD11	1.77	0.66
15:6I:70:LEU:HG	15:6I:78:TYR:HB2	1.78	0.66
17:8I:65:ILE:HG21	17:8I:69:LYS:HE2	1.77	0.66
26:1H:805:G:OP1	60:1H:3533:HOH:O	2.14	0.66
30:21:78:LEU:C	30:21:79:ARG:HD2	2.20	0.66
41:B8:108:ARG:HA	41:B8:111:ARG:NE	2.10	0.66
1:1G:1256:A:N6	1:1G:1277:C:H3'	2.10	0.66
2:12:12:GLU:HG3	2:12:16:HIS:CG	2.30	0.66
26:14:275:G:O2'	26:14:276:A:O4'	2.11	0.66
26:14:2784:C:O2'	30:29:37:ARG:NH2	2.29	0.66
31:39:79:GLY:HA2	31:39:86:GLY:HA2	1.77	0.66
1:13:452:A:OP2	16:7I:43:LYS:NZ	2.20	0.66
2:1E:43:ASP:HB3	2:1E:46:LYS:HD2	1.78	0.66
26:1H:1433:U:O2	26:1H:1561:G:C2	2.48	0.66
32:41:5:VAL:H	52:M8:25:TYR:HE2	1.43	0.66
40:A8:28:VAL:HG11	40:A8:98:VAL:HG13	1.78	0.66
1:1G:422:C:O2'	1:1G:423:G:N2	2.28	0.66
1:1G:973:G:O3'	14:5A:41:ARG:NH2	2.27	0.66
1:1G:1025:U:H5'	1:1G:1026:G:H5'	1.78	0.66
5:42:31:LEU:HD22	5:42:45:PHE:HB3	1.78	0.66
28:79:47:LEU:HD22	28:79:48:GLY:H	1.59	0.66
1:13:680:C:H2'	1:13:681:C:H6	1.60	0.66
1:13:973:G:H3'	1:13:974:A:H5"	1.77	0.66
2:1E:80:ILE:HG21	2:1E:212:GLN:HA	1.77	0.66
19:AI:5:LEU:HD13	19:AI:10:PHE:CD2	2.31	0.66
24:3K:19:G:N2	24:3K:56:C:N3	2.40	0.66
26:1H:1970:A:OP1	60:1H:3530:HOH:O	2.13	0.66
1:1G:1432:G:N2	60:1G:1704:HOH:O	2.28	0.66
8:72:109:ILE:HG22	8:72:137:VAL:HB	1.78	0.66
27:1J:15:A:OP2	27:1J:69:G:N2	2.28	0.66
32:49:125:PHE:HB3	32:49:166:ASP:HB2	1.77	0.66
1:13:1238:A:N3	1:13:1241:G:O2'	2.28	0.66
4:3E:122:ARG:HH12	4:3E:135:LEU:HD13	1.61	0.66
26:1H:1693:U:O2'	29:11:14:ARG:NH2	2.29	0.66
26:1H:2232:U:P	49:J8:40:ARG:HH12	2.17	0.66
26:1H:2298:A:H62	26:1H:2318:G:H8	1.44	0.66
29:11:75:ILE:HD13	29:11:99:ASP:OD2	1.95	0.66
1:1G:1349:A:OP2	9:82:118:LYS:NZ	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:31:CYS:HB2	4:32:33:MET:O	1.96	0.66
26:14:271(B):G:N7	26:14:421:U:H2'	2.11	0.66
26:14:2681:C:H5	26:14:2725:A:H62	1.41	0.66
2:1E:121:LEU:HA	2:1E:124:SER:HB2	1.76	0.66
9:8E:43:ALA:HA	9:8E:74:ILE:HD13	1.78	0.66
10:1I:49:VAL:HG23	14:5I:41:ARG:HB2	1.76	0.66
26:1H:754:C:H2'	26:1H:755:C:H6	1.61	0.66
26:1H:1434:A:H61	26:1H:1558:A:N6	1.92	0.66
26:1H:1590:U:H2'	26:1H:1591:G:C8	2.30	0.66
26:1H:2246:G:H2'	26:1H:2247:A:H8	1.61	0.66
26:1H:2577:A:H5"	26:1H:2578:G:H5'	1.78	0.66
27:16:77:U:OP1	47:H8:19:ARG:NH2	2.29	0.66
31:31:67:GLN:NE2	31:31:74:ARG:HD3	2.11	0.66
50:K8:15:LYS:H	50:K8:15:LYS:HZ2	1.44	0.66
1:1G:1008:C:H42	1:1G:1021:G:H22	1.44	0.66
26:14:1169:G:N2	26:14:1180:C:N3	2.39	0.66
26:14:1871:A:H2'	26:14:1872:A:C8	2.30	0.66
26:14:2022:U:HO2'	26:14:2616:C:HO2'	1.41	0.66
26:14:2820:A:C5	39:55:4:LEU:HD11	2.31	0.66
33:59:171:LEU:HD13	33:59:172:LYS:N	2.08	0.66
34:69:59:ALA:HA	34:69:62:LYS:HB3	1.78	0.66
1:13:1263:C:H2'	1:13:1264:C:H6	1.60	0.66
4:3E:89:THR:HG22	5:4E:97:GLY:HA2	1.78	0.66
12:3I:83:VAL:HG13	12:3I:100:ILE:HG23	1.78	0.66
26:1H:2572:A:N7	30:21:145:LYS:HB2	2.11	0.66
1:1G:1095:U:P	1:1G:1108:G:H1	2.19	0.66
3:22:11:ARG:HE	3:22:180:ALA:HB3	1.61	0.66
8:72:39:LEU:HB3	8:72:45:ILE:HG12	1.78	0.66
26:14:30:G:H2'	26:14:31:C:C6	2.30	0.66
11:2I:109:VAL:HG11	18:9I:84:LYS:HE2	1.77	0.65
26:1H:547:A:N3	26:1H:548:A:N6	2.44	0.65
26:1H:2068:U:N3	26:1H:2430:A:C2	2.64	0.65
30:21:1:MET:N	30:21:83:ASP:O	2.27	0.65
1:1G:1160:G:OP1	2:12:133:LYS:NZ	2.29	0.65
20:BA:56:MET:HG2	20:BA:84:LEU:HD11	1.77	0.65
26:14:2250:G:O2'	26:14:2496:C:OP1	2.12	0.65
31:39:101:LEU:O	31:39:106:ARG:NH1	2.30	0.65
47:D5:59:LEU:HD12	47:D5:69:THR:CG2	2.25	0.65
48:E5:32:ARG:O	48:E5:34:GLY:N	2.25	0.65
1:13:682:G:H1	1:13:708:C:H42	1.43	0.65
2:1E:11:LEU:HD12	2:1E:14:GLY:H	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:47:LYS:HD2	32:41:81:LYS:HB2	1.78	0.65
1:1G:1124:G:HO2'	1:1G:1145:C:N4	1.93	0.65
12:3A:57:LYS:HG3	12:3A:67:THR:HG22	1.78	0.65
14:5A:21:TYR:HE1	14:5A:23:ARG:HE	1.44	0.65
22:1L:15:G:N2	22:1L:48:C:N3	2.44	0.65
26:14:34:C:O2'	26:14:35:G:H8	1.78	0.65
26:14:273(F):C:H3'	26:14:274:G:H5"	1.77	0.65
26:14:397:G:N7	60:14:3436:HOH:O	2.28	0.65
26:14:863:A:H2'	26:14:864:G:C8	2.31	0.65
29:19:10:THR:OG1	29:19:13:ARG:HG2	1.96	0.65
1:13:35:G:O2'	12:3I:118:SER:O	2.13	0.65
1:13:510:A:OP2	4:3E:49:ARG:NH2	2.25	0.65
2:1E:100:GLY:O	2:1E:104:ASN:N	2.24	0.65
2:1E:197:VAL:CG2	2:1E:200:ILE:HG12	2.26	0.65
20:BI:26:ASN:HB2	20:BI:71:THR:OG1	1.97	0.65
26:1H:1430:C:H2'	26:1H:1431:U:C6	2.31	0.65
26:1H:1828:G:OP1	60:1H:3536:HOH:O	2.14	0.65
33:51:23:ARG:HD2	33:51:25:LYS:HE2	1.76	0.65
42:C8:75:ASN:HB2	42:C8:78:THR:HG23	1.77	0.65
50:K8:64:LEU:HD22	50:K8:68:ARG:HD2	1.77	0.65
1:1G:1053:G:O2'	1:1G:1199:U:OP2	2.15	0.65
1:1G:1070:U:P	5:42:25:ARG:HH12	2.20	0.65
2:12:27:LYS:HE2	2:12:194:PRO:HD2	1.79	0.65
26:14:1131:G:H4'	35:15:82:LEU:HB2	1.77	0.65
46:C5:63:LYS:HE2	46:C5:63:LYS:HA	1.78	0.65
1:13:730:G:C5	1:13:731:G:H1'	2.30	0.65
15:6I:74:ASP:HB3	15:6I:77:ARG:HB3	1.77	0.65
26:1H:270(X):G:O6	60:1H:3527:HOH:O	2.12	0.65
26:1H:768:G:O2'	26:1H:1379:A:N6	2.28	0.65
26:1H:1000:A:N6	26:1H:1154:G:O2'	2.29	0.65
26:1H:2125:G:H1	26:1H:2171:A:H5"	1.61	0.65
32:41:66:GLN:NE2	32:41:93:THR:O	2.24	0.65
38:88:5:ARG:HH22	38:88:6:ARG:NH2	1.94	0.65
1:1G:40:C:H42	1:1G:402:G:H1	1.42	0.65
4:32:3:ARG:NE	4:32:118:ARG:HE	1.94	0.65
16:7I:71:ARG:O	16:7I:75:ARG:N	2.29	0.65
26:1H:1532:C:N3	26:1H:1539:G:N2	2.42	0.65
26:1H:1593:G:H2'	26:1H:1594:G:C8	2.31	0.65
29:11:124:PRO:HG2	29:11:129:ASN:HD21	1.62	0.65
1:1G:363:A:OP1	12:3A:33:ARG:HG3	1.96	0.65
1:1G:1209:C:O2'	1:1G:1214:C:N4	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1717:G:H1	26:14:1742:C:H42	1.43	0.65
26:14:2134:A:H8	26:14:2134:A:OP1	1.79	0.65
32:49:119:GLY:H	32:49:181:ARG:HB2	1.61	0.65
37:35:55:ARG:HG2	37:35:56:SER:H	1.60	0.65
1:13:191(D):U:H2'	1:13:191(E):G:C8	2.31	0.65
1:13:1226:C:H2'	13:4I:103:THR:HB	1.77	0.65
26:1H:1171:G:N7	26:1H:1174:A:N6	2.43	0.65
26:1H:2773:C:H5"	30:21:164:ARG:HG2	1.79	0.65
30:21:174:ASP:HB3	30:21:183:LEU:HD13	1.78	0.65
32:41:112:PRO:HB3	52:M8:37:SER:N	2.11	0.65
43:D8:47:VAL:HG13	43:D8:48:GLY:H	1.61	0.65
26:14:900:A:H2'	26:14:901:A:C8	2.32	0.65
31:39:108:LYS:O	31:39:112:MET:HG3	1.97	0.65
1:13:1:U:C2	1:13:630:G:H1'	2.31	0.65
1:13:247:G:OP2	17:8I:100:LYS:HG2	1.97	0.65
26:1H:771:G:N7	60:1H:3585:HOH:O	2.30	0.65
26:1H:2590:A:OP2	29:11:237:GLU:HB3	1.97	0.65
26:14:1314:C:OP1	60:14:3407:HOH:O	2.14	0.65
27:1J:80:U:H2'	27:1J:81:G:N2	2.11	0.65
38:45:38:GLU:HG3	38:45:127:ILE:HG22	1.79	0.65
19:AI:18:LYS:HZ1	19:AI:22:LEU:HD13	1.60	0.65
26:1H:1535:U:H5"	26:1H:1537:C:H41	1.61	0.65
26:1H:1997:G:OP2	60:1H:3537:HOH:O	2.15	0.65
26:1H:2713:A:OP2	60:1H:3534:HOH:O	2.14	0.65
28:71:182:PRO:HA	28:71:185:LEU:HG	1.79	0.65
29:11:183:ARG:NH1	29:11:269:PHE:CB	2.51	0.65
31:31:65:TRP:CZ3	31:31:72:ARG:HB3	2.32	0.65
32:41:95:ARG:HA	32:41:99:MET:HB2	1.78	0.65
42:C8:88:ILE:O	42:C8:90:VAL:N	2.30	0.65
8:72:97:VAL:HG22	8:72:129:VAL:O	1.97	0.65
24:3L:3:G:N2	24:3L:70:C:N3	2.40	0.65
42:85:90:VAL:HG22	43:95:39:LEU:HB3	1.78	0.65
55:M5:14:VAL:HG11	55:M5:22:VAL:HG13	1.77	0.65
1:13:427:U:OP1	4:3E:13:ARG:NH2	2.29	0.65
1:13:1177:G:OP1	1:13:1177:G:H4'	1.95	0.65
3:2E:73:PRO:O	3:2E:76:VAL:HG22	1.96	0.65
14:5I:2:ALA:HB3	14:5I:6:LEU:HD23	1.78	0.65
26:1H:2246:G:H2'	26:1H:2247:A:C8	2.32	0.65
1:1G:1127:G:H2'	1:1G:1128:C:H6	1.62	0.65
1:1G:1359:C:O2'	1:1G:1361:G:N7	2.30	0.65
8:72:36:LEU:HD23	8:72:39:LEU:HD22	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:108:U:H2'	26:14:109:G:C8	2.32	0.65
26:14:2745:C:H4'	33:59:145:ALA:HB3	1.78	0.65
37:35:85:LEU:HA	37:35:88:LEU:HB2	1.78	0.65
9:8E:21:PRO:HA	9:8E:58:HIS:O	1.96	0.65
16:7I:5:ARG:HE	16:7I:22:THR:HG21	1.61	0.65
26:1H:860:U:H5	26:1H:917:A:C2	2.14	0.65
26:1H:2599:G:N7	29:11:236:GLY:HA2	2.12	0.65
28:71:58:VAL:O	28:71:164:ARG:NH2	2.29	0.65
31:31:179:GLU:OE1	31:31:179:GLU:N	2.26	0.65
1:1G:32:A:H2'	1:1G:33:A:C8	2.32	0.65
2:12:189:ASP:HB3	2:12:203:GLY:O	1.97	0.65
12:3A:28:LYS:HD3	12:3A:33:ARG:NH1	2.12	0.65
19:AA:16:LEU:O	19:AA:20:LEU:HD13	1.96	0.65
26:14:1198:U:H2'	26:14:1199:U:C6	2.32	0.65
26:14:1384:A:N3	26:14:1405:U:H1'	2.11	0.65
26:14:2032:G:O6	60:14:3414:HOH:O	2.11	0.65
26:14:2134:A:H2	26:14:2159:G:H1'	1.62	0.65
6:5E:27:GLN:HA	6:5E:30:LEU:HD12	1.79	0.64
24:3K:67:C:H2'	24:3K:68:G:C8	2.31	0.64
26:1H:639:U:O2'	26:1H:640:C:H5'	1.96	0.64
26:1H:784:A:C6	29:11:229:VAL:HG11	2.31	0.64
1:1G:631:G:H4'	1:1G:632:A:H5'	1.78	0.64
4:32:13:ARG:HD2	4:32:38:TYR:O	1.96	0.64
5:42:81:GLU:N	5:42:81:GLU:OE1	2.29	0.64
26:14:1654:A:H1'	26:14:2823:A:H5'	1.78	0.64
26:14:2331:G:O3'	48:E5:43:THR:HG22	1.96	0.64
34:69:117:GLU:HG2	34:69:118:LYS:HG2	1.78	0.64
43:95:85:LYS:CG	43:95:87:HIS:H	2.08	0.64
4:3E:85:LYS:C	4:3E:88:VAL:HG23	2.22	0.64
5:4E:33:VAL:HG11	5:4E:109:ILE:HA	1.79	0.64
26:1H:2795:G:H2'	26:1H:2798:C:H5"	1.78	0.64
47:H8:9:TYR:HE1	47:H8:61:LEU:HD12	1.62	0.64
1:1G:736:C:OP1	18:9A:72:ARG:NH2	2.30	0.64
24:3L:18:G:N1	24:3L:55:U:O2'	2.18	0.64
26:14:2210:G:H3'	26:14:2211:G:C5	2.32	0.64
26:14:2439:A:H5'	26:14:2439:A:C8	2.32	0.64
29:19:71:ASP:N	29:19:71:ASP:OD1	2.27	0.64
38:45:89:ASN:ND2	38:45:89:ASN:O	2.29	0.64
45:B5:8:ILE:O	50:G5:36:ARG:NH2	2.30	0.64
26:1H:1899:G:H21	26:1H:1902:C:H5	1.44	0.64
38:88:66:ILE:O	38:88:104:PHE:N	2.29	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:C8:92:ARG:NH1	43:D8:11:GLN:O	2.31	0.64
5:42:51:VAL:HB	5:42:52:PRO:HD3	1.78	0.64
26:14:5:A:N6	26:14:7:G:O6	2.31	0.64
26:14:873:G:H1'	38:45:29:PHE:HE2	1.60	0.64
26:14:2147:G:C5	26:14:2148:G:H1'	2.31	0.64
40:65:62:LYS:O	40:65:66:ALA:N	2.30	0.64
49:F5:82:LEU:HG	49:F5:83:GLU:H	1.62	0.64
1:13:1127:G:H2'	1:13:1128:C:C2	2.32	0.64
6:5E:33:TYR:HB2	6:5E:75:LEU:HD23	1.79	0.64
10:1I:75:ILE:HD12	10:1I:76:ASN:N	2.13	0.64
20:BI:57:ARG:NH1	20:BI:102:GLY:HA2	2.12	0.64
1:1G:413:G:H2'	1:1G:428:G:N2	2.12	0.64
22:1L:53:G:H4'	38:45:56:ARG:NH2	2.12	0.64
26:14:140:A:H8	26:14:1408:C:HO2'	1.41	0.64
26:14:993:G:N3	43:95:89:GLN:NE2	2.45	0.64
33:59:11:VAL:HG13	33:59:69:ARG:HH22	1.62	0.64
38:45:21:THR:HG21	38:45:101:ARG:HD2	1.80	0.64
43:95:79:VAL:O	43:95:80:GLN:HG2	1.97	0.64
1:13:363:A:N7	12:3I:33:ARG:NH1	2.46	0.64
1:13:377:G:H1	1:13:386:C:H42	1.46	0.64
24:3K:19:G:O2'	24:3K:57:G:N3	2.29	0.64
24:3K:35:U:H2'	24:3K:36:U:H6	1.62	0.64
26:1H:1639:U:H2'	26:1H:1640:C:H5"	1.79	0.64
26:1H:2210:G:H3'	26:1H:2211:G:C8	2.33	0.64
32:41:50:ALA:O	32:41:53:LEU:HD23	1.97	0.64
13:4A:89:GLY:HA2	13:4A:92:HIS:HB2	1.78	0.64
26:14:566:U:H5"	37:35:29:LYS:HE3	1.80	0.64
26:14:1041:C:H2'	26:14:1042:G:C8	2.32	0.64
27:1J:44:G:H5"	27:1J:45:A:OP1	1.97	0.64
30:29:110:GLY:O	60:55:201:HOH:O	2.14	0.64
37:35:95:VAL:HG23	37:35:99:LEU:HD22	1.79	0.64
43:95:22:VAL:HG22	43:95:23:GLU:H	1.61	0.64
55:M5:33:ASN:HA	55:M5:36:LYS:HD2	1.79	0.64
1:13:177:C:OP1	20:BI:65:LYS:NZ	2.27	0.64
1:13:504:C:OP1	60:13:1807:HOH:O	2.15	0.64
1:13:780:A:OP2	60:13:1806:HOH:O	2.15	0.64
1:13:1367:C:H5'	10:1I:60:ARG:NH1	2.11	0.64
8:7E:82:HIS:CE1	8:7E:138:TRP:CZ2	2.85	0.64
23:2K:54:G:H2'	23:2K:55:5MU:H6	1.63	0.64
26:1H:106:C:H2'	26:1H:107:C:H6	1.63	0.64
26:1H:730:C:OP2	60:1H:3535:HOH:O	2.14	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:68:63:VAL:HG23	36:68:64:ARG:HG2	1.80	0.64
37:78:49:ARG:HH11	55:Q8:61:LEU:CD2	1.94	0.64
46:G8:38:ILE:HD12	46:G8:64:GLU:O	1.97	0.64
1:1G:317:G:H1	1:1G:336:C:H42	1.43	0.64
3:22:14:ILE:HG23	3:22:15:THR:HG23	1.80	0.64
4:32:108:LEU:HD13	4:32:174:LEU:HD22	1.79	0.64
8:72:86:ILE:HG21	8:72:133:LEU:HD22	1.79	0.64
10:1A:33:GLN:HB3	10:1A:75:ILE:HD11	1.79	0.64
11:2A:48:ILE:HD11	11:2A:64:ALA:HA	1.80	0.64
23:2L:1:C:H2'	23:2L:2:G:H5'	1.78	0.64
26:14:2429:G:O6	37:35:61:ARG:NH2	2.30	0.64
29:19:146:GLU:HB2	29:19:189:CYS:HB3	1.78	0.64
32:49:97:ASP:H	32:49:100:TRP:CD1	2.16	0.64
38:45:18:LYS:H	38:45:98:LYS:NZ	1.96	0.64
40:65:78:LEU:HD12	40:65:107:GLU:HB3	1.79	0.64
41:75:16:ARG:NH1	41:75:83:ILE:O	2.29	0.64
1:13:576:G:OP1	60:13:1808:HOH:O	2.15	0.64
1:13:1453:G:H2'	20:BI:39:LYS:HE2	1.79	0.64
5:4E:76:ILE:HG13	5:4E:93:PRO:HG3	1.79	0.64
13:4I:34:LEU:HD23	13:4I:39:ILE:HB	1.79	0.64
17:8I:43:LEU:HB3	17:8I:69:LYS:HG3	1.78	0.64
24:3K:36:U:H2'	24:3K:37:A:H8	1.62	0.64
26:1H:210:C:OP2	54:P8:29:LYS:NZ	2.30	0.64
26:1H:287:C:H2'	26:1H:288:C:H6	1.62	0.64
26:1H:1534:G:O2'	26:1H:1535:U:O4'	2.14	0.64
28:71:43:VAL:HG22	28:71:215:THR:H	1.63	0.64
39:98:13:HIS:CD2	39:98:15:SER:HB2	2.32	0.64
43:D8:15:GLU:HG3	43:D8:16:PRO:HD2	1.78	0.64
27:1J:101:A:N7	60:1J:302:HOH:O	2.30	0.64
2:1E:163:PHE:HD1	2:1E:185:ILE:HG13	1.63	0.64
2:1E:166:ASP:C	2:1E:168:THR:H	2.06	0.64
13:4I:27:LYS:HD3	13:4I:31:LYS:HZ3	1.63	0.64
19:AI:5:LEU:HD13	19:AI:10:PHE:CG	2.33	0.64
20:BI:53:LEU:HB3	20:BI:57:ARG:HH12	1.61	0.64
26:1H:184:C:H2'	26:1H:185:U:H6	1.62	0.64
26:1H:660:G:N2	37:78:12:ALA:HA	2.12	0.64
26:1H:1035:U:H2'	26:1H:1036:G:C8	2.33	0.64
26:1H:1639:U:C2'	26:1H:1640:C:H5"	2.28	0.64
34:61:3:VAL:HG12	34:61:38:LEU:HA	1.80	0.64
34:61:117:GLU:OE1	34:61:117:GLU:N	2.28	0.64
37:78:71:VAL:HG13	37:78:72:PRO:HD3	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:98:10:LEU:O	39:98:12:ARG:N	2.31	0.64
39:98:96:ARG:HD2	39:98:98:LEU:HD11	1.80	0.64
52:M8:34:GLU:HG2	52:M8:35:VAL:N	2.12	0.64
1:1G:192:U:H4'	20:BA:57:ARG:HD3	1.78	0.64
1:1G:977:A:HO2'	1:1G:981:U:H3	1.45	0.64
5:42:9:LYS:HB3	5:42:112:LEU:HD11	1.78	0.64
22:1L:57:G:OP2	38:45:60:ARG:NH2	2.31	0.64
26:14:77:C:H42	26:14:109:G:H1	1.46	0.64
26:14:1816:G:OP2	29:19:39:LYS:NZ	2.31	0.64
26:14:2250:G:C5	38:45:82:ARG:HG3	2.33	0.64
26:14:2749:A:H4'	33:59:62:LYS:HG3	1.80	0.64
29:19:12:SER:HB2	29:19:208:LYS:HB3	1.79	0.64
1:13:652:U:O4	1:13:752:G:O2'	2.13	0.64
26:1H:29:U:H2'	26:1H:30:G:C8	2.33	0.64
38:88:139:GLU:HG3	47:H8:122:ARG:NH1	2.11	0.64
47:H8:120:ILE:HG22	47:H8:121:HIS:ND1	2.12	0.64
55:Q8:54:GLU:O	55:Q8:58:ILE:HG12	1.98	0.64
1:1G:19:C:OP1	5:42:125:SER:OG	2.16	0.64
2:12:74:LYS:HE2	2:12:169:LYS:HG3	1.78	0.64
4:32:161:ASN:O	4:32:165:MET:HB2	1.97	0.64
13:4A:51:ALA:HA	13:4A:54:VAL:HG12	1.80	0.64
26:14:1771:C:HO2'	26:14:1786:A:H8	1.46	0.64
1:13:392:G:H5'	16:7I:12:LYS:HD2	1.80	0.64
2:1E:237:ALA:O	2:1E:239:VAL:N	2.31	0.64
4:3E:85:LYS:N	4:3E:86:LYS:HA	2.13	0.64
5:4E:79:GLU:HG2	5:4E:92:LYS:HG3	1.79	0.64
20:BI:35:THR:HA	20:BI:38:LYS:HE2	1.80	0.64
22:1K:6:G:H2'	22:1K:7:U:H6	1.63	0.64
24:3K:27:G:H22	24:3K:44:U:H1'	1.61	0.64
26:1H:184:C:H2'	26:1H:185:U:C6	2.33	0.64
26:1H:1556:C:H2'	26:1H:1557:C:H6	1.62	0.64
1:1G:827:U:H3	1:1G:872:A:H62	1.46	0.64
12:3A:39:VAL:HG11	12:3A:41:ARG:CZ	2.27	0.64
26:14:270(N):G:H1'	26:14:270(P):C:O4'	1.98	0.64
26:14:1341:U:OP2	26:14:1394:U:O2'	2.14	0.64
26:14:1342:A:H2	26:14:1602:U:H3	1.46	0.64
26:14:2267:A:OP2	60:14:3416:HOH:O	2.15	0.64
31:31:66:PRO:O	31:31:67:GLN:HB3	1.98	0.63
32:41:113:ARG:NE	52:M8:34:GLU:OE1	2.29	0.63
47:H8:165:VAL:HG12	47:H8:167:PRO:HD3	1.77	0.63
1:1G:359:U:H2'	1:1G:360:A:C8	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:736:C:H2'	1:1G:737:A:C8	2.33	0.63
26:14:108:U:H2'	26:14:109:G:H8	1.63	0.63
26:14:479:A:N3	26:14:481:G:H5"	2.13	0.63
26:14:2147:G:H2'	26:14:2148:G:H4'	1.80	0.63
26:14:2311:A:H62	32:49:47:LYS:HE3	1.62	0.63
26:14:2327:A:H2'	26:14:2328:A:C8	2.33	0.63
32:49:124:SER:HB2	32:49:131:TYR:CE1	2.32	0.63
8:7E:29:SER:HB3	8:7E:32:LYS:H	1.63	0.63
24:3K:56:C:H2'	24:3K:57:G:H8	1.63	0.63
26:1H:1022:G:N2	26:1H:1142(A):A:N1	2.43	0.63
20:BA:57:ARG:HA	20:BA:60:GLU:HB2	1.80	0.63
24:3L:8:U:O2'	24:3L:48:C:O2	2.15	0.63
26:14:559:G:O2'	42:85:52:ARG:NH1	2.32	0.63
31:39:63:LYS:HE3	31:39:67:GLN:HB2	1.80	0.63
42:85:66:ASN:HD21	42:85:70:ARG:HH21	1.44	0.63
47:D5:93:ASP:HB3	47:D5:131:ARG:NH2	2.14	0.63
1:13:76:G:O4'	1:13:95:G:N2	2.30	0.63
1:13:345:C:O2'	1:13:346:G:N2	2.30	0.63
2:1E:185:ILE:HG22	2:1E:199:TYR:HB2	1.81	0.63
26:1H:836:G:H5"	26:1H:837:C:OP2	1.99	0.63
26:1H:1021:A:H8	26:1H:1021:A:H3'	1.62	0.63
26:1H:1111:A:H4'	33:51:3:ARG:HH11	1.63	0.63
26:1H:1496:A:H5'	26:1H:1497:U:OP1	1.98	0.63
26:1H:2849:U:H4'	26:1H:2868:A:C2	2.33	0.63
33:51:40:GLU:HB2	33:51:41:MET:HE2	1.78	0.63
35:58:96:GLU:C	35:58:98:VAL:H	2.05	0.63
37:78:1:MET:HE1	37:78:6:LEU:HD13	1.79	0.63
45:F8:68:ARG:NH2	45:F8:69:TYR:OH	2.16	0.63
1:1G:1305:G:H21	1:1G:1331:G:H2'	1.64	0.63
3:22:34:LEU:HD13	14:5A:25:VAL:HG21	1.80	0.63
20:BA:49:ALA:HA	20:BA:52:ALA:HB3	1.80	0.63
26:14:459:U:H5"	54:L5:40:TRP:CE2	2.33	0.63
26:14:943:U:P	37:35:36:LYS:HG3	2.38	0.63
30:29:54:GLN:N	30:29:74:PRO:HB3	2.13	0.63
34:69:81:VAL:H	34:69:143:SER:CB	2.11	0.63
34:69:117:GLU:HG2	34:69:118:LYS:N	2.14	0.63
1:13:600:C:OP1	8:7E:98:LYS:NZ	2.26	0.63
4:3E:103:ASN:OD1	4:3E:114:ARG:NH2	2.31	0.63
16:7I:20:VAL:HG21	16:7I:32:TYR:CG	2.34	0.63
26:1H:860:U:C5	26:1H:917:A:C2	2.86	0.63
26:1H:2129:C:OP1	28:71:6:ARG:NE	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:71:208:PHE:CZ	28:71:209:LEU:HG	2.32	0.63
29:11:35:LYS:N	29:11:35:LYS:HZ2	1.96	0.63
32:41:16:ARG:O	32:41:20:ILE:HG13	1.97	0.63
34:61:65:ALA:O	34:61:68:LEU:N	2.31	0.63
41:B8:6:LEU:HA	41:B8:9:LEU:HB2	1.80	0.63
1:1G:1053:G:H5"	1:1G:1054:C:H3'	1.79	0.63
4:32:70:ILE:HD11	4:32:75:PHE:HD2	1.64	0.63
26:14:819:A:OP2	26:14:1187:G:N2	2.31	0.63
26:14:1041:C:H2'	26:14:1042:G:H8	1.64	0.63
26:14:1537:C:H2'	26:14:1538:G:C8	2.33	0.63
26:14:2324:C:H5"	26:14:2325:G:H5'	1.80	0.63
26:14:2380:C:OP1	40:65:20:ARG:NH1	2.32	0.63
29:19:83:GLU:OE1	29:19:104:TYR:OH	2.15	0.63
29:19:262:ARG:NH1	29:19:263:ARG:H	1.97	0.63
47:D5:65:GLN:HE21	47:D5:67:LEU:HD21	1.64	0.63
1:13:377:G:H5'	16:7I:5:ARG:HH12	1.64	0.63
7:6E:5:ARG:CZ	7:6E:7:ALA:HA	2.29	0.63
15:6I:48:LYS:HA	15:6I:48:LYS:HE3	1.80	0.63
26:1H:1130:U:O2	30:21:149:ARG:NH2	2.27	0.63
26:1H:2794:C:N4	26:1H:2804:C:N3	2.46	0.63
1:1G:552:U:H2'	1:1G:553:A:H8	1.64	0.63
26:14:91:A:H2'	26:14:92:G:H8	1.64	0.63
26:14:1485:G:H1	26:14:1504:C:H42	1.45	0.63
30:29:60:ASN:OD1	30:29:63:LEU:HD22	1.99	0.63
38:45:37:LEU:HD21	38:45:130:LYS:HD3	1.80	0.63
42:85:74:LEU:HB2	42:85:78:THR:HB	1.79	0.63
3:2E:16:ARG:HH22	3:2E:183:ASP:HA	1.63	0.63
9:8E:24:GLY:HA2	9:8E:59:PHE:O	1.99	0.63
26:1H:1516:U:H2'	26:1H:1517:G:H8	1.64	0.63
26:1H:2400:G:H2'	26:1H:2401:U:H6	1.64	0.63
42:C8:44:ASN:ND2	43:D8:75:PHE:O	2.28	0.63
3:22:109:PRO:HB2	3:22:115:LEU:HD13	1.79	0.63
4:32:81:GLU:HB3	4:32:85:LYS:HD3	1.80	0.63
23:2L:23:G:H2'	23:2L:24:C:H6	1.63	0.63
28:79:14:VAL:HA	28:79:222:VAL:HG22	1.81	0.63
32:49:119:GLY:N	32:49:181:ARG:HB2	2.14	0.63
1:13:964:A:O2'	10:1I:55:LYS:HE3	1.99	0.63
1:13:1171:G:H2'	1:13:1172:C:H6	1.62	0.63
1:13:1502:A:H2	1:13:1505:G:N1	1.90	0.63
6:5E:41:GLU:HB2	6:5E:62:TRP:HB3	1.80	0.63
26:1H:2795:G:O6	26:1H:2803:C:N4	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:28:ALA:HB3	30:21:93:VAL:HG12	1.79	0.63
31:31:29:ASN:HB3	31:31:112:MET:HE1	1.80	0.63
31:31:130:ALA:HA	31:31:132:VAL:HG22	1.81	0.63
32:41:67:LYS:H	32:41:67:LYS:CD	2.12	0.63
1:1G:222:U:H2'	1:1G:223:U:H6	1.63	0.63
20:BA:72:LEU:HD11	20:BA:80:ARG:HH21	1.64	0.63
26:14:1332:G:N2	26:14:1609:A:O2'	2.31	0.63
26:14:1525:G:H2'	26:14:1526:G:C8	2.34	0.63
31:39:53:THR:HG23	31:39:55:GLY:H	1.63	0.63
39:55:97:VAL:HG22	39:55:114:VAL:HG22	1.80	0.63
46:C5:82:PRO:HB3	46:C5:99:CYS:HB2	1.81	0.63
47:D5:93:ASP:HB3	47:D5:131:ARG:HH21	1.63	0.63
1:13:1117:G:H5"	9:8E:104:ARG:NH1	2.14	0.63
13:4I:13:LYS:O	13:4I:44:ARG:NH1	2.32	0.63
26:1H:654(O):G:H3'	26:1H:654(P):G:O4'	1.99	0.63
26:1H:1012:U:OP1	42:C8:75:ASN:ND2	2.30	0.63
26:1H:1568:G:P	29:11:63:ARG:HH12	2.22	0.63
26:1H:2061:G:OP2	26:1H:2502:G:H5'	1.99	0.63
38:88:134:ARG:NH1	47:H8:122:ARG:HD2	2.14	0.63
4:32:20:TYR:HD1	4:32:26:CYS:HB3	1.63	0.63
12:3A:33:ARG:H	12:3A:85:ILE:HG22	1.64	0.63
14:5A:9:LYS:HA	14:5A:12:ARG:NH1	2.14	0.63
17:8A:76:LEU:HD11	17:8A:79:SER:HB3	1.81	0.63
26:14:620:G:N3	26:14:620:G:H5"	2.13	0.63
26:14:2123:G:O6	26:14:2173:A:N6	2.31	0.63
47:D5:53:ILE:HG13	47:D5:54:HIS:CD2	2.24	0.63
1:13:686:U:O2'	1:13:687:A:OP2	2.15	0.63
1:13:1494:G:N7	57:13:1730:PAR:N32	2.47	0.63
21:1F:5:ASP:HB3	21:1F:8:THR:HG22	1.79	0.63
47:H8:33:LEU:HD21	47:H8:90:VAL:HG11	1.81	0.63
48:I8:83:PRO:O	48:I8:84:LEU:HB2	1.97	0.63
7:62:115:ARG:HB2	7:62:118:VAL:HG13	1.81	0.63
23:2L:62:C:H2'	23:2L:63:C:H6	1.64	0.63
1:13:1347:G:H5"	9:8E:107:ARG:HB3	1.80	0.62
1:13:1391:U:H2'	1:13:1392:G:H8	1.64	0.62
24:3K:15:G:H1	24:3K:48:C:N4	1.97	0.62
26:1H:1228:G:OP2	42:C8:16:LYS:NZ	2.31	0.62
26:1H:1405:U:H2'	26:1H:1406:U:H6	1.59	0.62
34:61:38:LEU:HD13	34:61:40:THR:HG23	1.81	0.62
1:1G:1157:A:H2	1:1G:1180:A:C6	2.16	0.62
1:1G:1287:A:H2'	1:1G:1288:A:C8	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:270(L):U:O2	34:69:50:ARG:NH1	2.32	0.62
28:79:19:ILE:HA	28:79:223:ARG:HB3	1.81	0.62
36:25:47:ILE:HG23	36:25:48:PRO:HD2	1.81	0.62
36:25:64:ARG:HB2	36:25:83:ALA:HB3	1.81	0.62
42:85:102:GLU:HB3	42:85:105:VAL:HG22	1.81	0.62
1:13:1189:C:OP1	10:1I:51:ARG:NH2	2.31	0.62
4:3E:88:VAL:O	4:3E:89:THR:OG1	2.12	0.62
8:7E:10:LEU:HD22	8:7E:83:ILE:HD11	1.81	0.62
15:6I:39:LEU:HB3	15:6I:56:LEU:HD12	1.79	0.62
26:1H:252:G:OP2	37:78:50:ARG:NH1	2.31	0.62
2:12:61:LEU:HD12	2:12:160:ASP:HB2	1.80	0.62
7:62:93:PRO:HA	7:62:96:GLN:HB2	1.81	0.62
12:3A:39:VAL:HG11	12:3A:41:ARG:HH21	1.62	0.62
26:14:863:A:H2'	26:14:864:G:H8	1.64	0.62
26:14:2660:A:H8	26:14:2660:A:OP1	1.82	0.62
26:14:2816:C:O3'	39:55:99:LYS:NZ	2.27	0.62
29:19:206:LEU:HA	29:19:211:ARG:HE	1.63	0.62
31:39:182:ASN:ND2	31:39:185:ASP:OD2	2.28	0.62
32:49:72:ARG:HB3	32:49:85:GLY:HA2	1.79	0.62
1:13:1189:C:H5'	3:2E:5:ILE:HD13	1.81	0.62
8:7E:88:LYS:N	8:7E:91:ARG:O	2.29	0.62
26:1H:1550:C:H2'	26:1H:1551:C:H6	1.64	0.62
26:1H:2032:G:N2	30:21:146:THR:HG23	2.07	0.62
26:1H:2098:U:O2	26:1H:2191:G:N2	2.22	0.62
29:11:29:PRO:HB2	29:11:30:GLU:CA	2.21	0.62
1:1G:664:G:P	18:9A:64:ARG:HH21	2.22	0.62
1:1G:1333:A:H3'	1:1G:1334:G:H8	1.64	0.62
12:3A:66:VAL:HG11	12:3A:98:TYR:HE2	1.64	0.62
26:14:1418:G:H8	26:14:1418:G:O5'	1.82	0.62
26:14:2542:A:N3	26:14:2542:A:H5"	2.14	0.62
26:14:2647:U:H3	26:14:2673:G:H1	1.45	0.62
46:C5:82:PRO:HG3	46:C5:97:ARG:HB3	1.81	0.62
47:D5:161:VAL:HG12	47:D5:162:GLU:H	1.64	0.62
1:13:129(A):G:N2	1:13:188:U:O2'	2.32	0.62
1:13:156:G:H2'	1:13:157:G:C8	2.35	0.62
26:1H:2130:U:OP2	28:71:6:ARG:NH1	2.32	0.62
26:1H:2154:G:H2'	26:1H:2155:G:H8	1.62	0.62
34:61:110:ASP:N	34:61:110:ASP:OD1	2.27	0.62
40:A8:106:ARG:HH11	40:A8:107:GLU:HG2	1.63	0.62
1:1G:1001:G:H2'	1:1G:1002:G:C8	2.34	0.62
26:14:588:U:H1'	31:39:90:PHE:CG	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:925:C:H2'	26:14:926:A:C8	2.35	0.62
30:29:68:ALA:C	30:29:70:ALA:H	2.08	0.62
31:39:25:PRO:HB3	31:39:28:ILE:HG23	1.80	0.62
1:13:451:A:OP1	1:13:481:G:N2	2.28	0.62
1:13:1118:C:H1'	1:13:1179:A:C4	2.34	0.62
17:8I:43:LEU:HD12	17:8I:68:ARG:HG2	1.81	0.62
26:1H:389:G:H1	37:78:71:VAL:HG12	1.63	0.62
26:1H:589:C:H2'	26:1H:590:A:C8	2.34	0.62
26:1H:754:C:H2'	26:1H:755:C:C6	2.34	0.62
26:1H:2210:G:H5'	26:1H:2211:G:N7	2.14	0.62
1:1G:420:U:H1'	1:1G:424:G:N2	2.14	0.62
12:3A:27:LEU:HD23	12:3A:33:ARG:HG2	1.81	0.62
26:14:382:G:H1	26:14:392:C:H42	1.48	0.62
47:D5:71:VAL:HG12	47:D5:88:PHE:CE1	2.34	0.62
1:13:991:U:C4	1:13:1212:U:H1'	2.34	0.62
1:13:1226:C:H4'	19:AI:80:TYR:OH	1.99	0.62
4:3E:64:LEU:HD13	4:3E:198:VAL:HG21	1.80	0.62
20:BI:64:ASP:HA	20:BI:67:ALA:HB3	1.81	0.62
26:1H:111:A:H4'	50:K8:69:ARG:NH2	2.15	0.62
26:1H:270(H):C:H42	26:1H:270(R):G:H1	1.47	0.62
26:1H:566:U:OP1	37:78:29:LYS:HD2	1.99	0.62
26:1H:2224:G:H4'	26:1H:2226:C:C2	2.35	0.62
29:11:101:GLU:OE1	29:11:103:ARG:NH1	2.32	0.62
31:31:6:VAL:N	31:31:24:LEU:O	2.33	0.62
32:41:8:LYS:NZ	32:41:97:ASP:OD1	2.33	0.62
34:61:131:LYS:HB3	34:61:132:PRO:HA	1.82	0.62
44:E8:35:ILE:HG23	53:N8:28:PRO:HD2	1.80	0.62
1:1G:438:G:H4'	4:32:123:HIS:HD2	1.63	0.62
1:1G:643:C:H2'	1:1G:644:G:H8	1.64	0.62
26:14:1657:C:H2'	26:14:1658:C:C6	2.34	0.62
1:13:1178:G:OP2	9:8E:93:ARG:NH1	2.33	0.62
4:3E:191:ARG:NH1	4:3E:200:GLU:OE1	2.33	0.62
26:1H:234:C:H2'	26:1H:235:U:H6	1.64	0.62
1:1G:1213:A:N6	1:1G:1215:G:N3	2.48	0.62
26:14:460:A:OP1	54:L5:41:ARG:NH2	2.32	0.62
26:14:1945:G:H2'	26:14:1946:U:C6	2.35	0.62
26:14:2512:C:H5"	26:14:2513:G:OP2	1.99	0.62
26:14:2577:A:O4'	53:J5:3:LYS:HB2	2.00	0.62
46:C5:46:LYS:HB2	46:C5:61:ILE:H	1.65	0.62
1:13:276:G:O3'	17:8I:68:ARG:NH1	2.31	0.62
26:1H:1021:A:H3'	26:1H:1021:A:C8	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2309:A:H2'	26:1H:2310:A:O4'	2.00	0.62
26:1H:2314:C:H2'	26:1H:2315:G:H8	1.65	0.62
26:1H:2689:U:H5"	26:1H:2713:A:C2	2.35	0.62
1:1G:501:C:H2'	1:1G:502:G:H8	1.65	0.62
26:14:706:A:H2'	26:14:707:G:O4'	2.00	0.62
26:14:1292:U:H2'	26:14:1293:C:C6	2.35	0.62
26:14:1403:C:OP1	26:14:1522:G:N2	2.25	0.62
26:14:2056:G:H1	53:J5:3:LYS:HB3	1.64	0.62
31:39:5:ALA:H	31:39:19:GLU:HA	1.65	0.62
1:13:407:G:O4'	4:3E:119:GLN:NE2	2.32	0.62
1:13:1256:A:OP2	3:2E:26:LYS:NZ	2.24	0.62
19:AI:40:ILE:HD11	19:AI:62:ILE:HG23	1.82	0.62
26:1H:934:G:H2'	26:1H:935:C:H6	1.64	0.62
26:1H:1705:G:C2'	26:1H:1706:U:H5'	2.29	0.62
26:1H:2362:G:OP2	55:Q8:44:LYS:NZ	2.32	0.62
29:11:33:LEU:HD23	29:11:33:LEU:H	1.64	0.62
31:31:39:TRP:O	31:31:43:LYS:HG2	2.00	0.62
32:41:150:ASP:OD1	32:41:151:ALA:N	2.33	0.62
37:78:59:LEU:HD11	55:Q8:10:ALA:HA	1.81	0.62
1:1G:448:A:OP2	1:1G:485:G:N2	2.32	0.62
1:1G:991:U:O2	1:1G:993:G:H8	1.83	0.62
1:1G:1080:A:H5'	5:42:14:ARG:NH2	2.13	0.62
1:1G:1305:G:N2	1:1G:1331:G:H2'	2.14	0.62
8:72:64:LYS:HG2	8:72:79:VAL:HG21	1.82	0.62
10:1A:16:LEU:HD23	10:1A:68:HIS:HB3	1.82	0.62
1:13:1028:C:N4	1:13:1033:G:O6	2.32	0.62
2:1E:118:LEU:HD12	2:1E:142:LEU:HB2	1.82	0.62
41:B8:26:ASP:HB2	41:B8:91:ARG:HA	1.80	0.62
26:14:1176:G:H8	26:14:1177:A:H2	1.47	0.62
26:14:2432:A:C8	49:F5:33:LYS:HD2	2.35	0.62
35:15:39:ARG:NH2	35:15:41:ASP:OD2	2.33	0.62
37:35:71:VAL:HG13	37:35:72:PRO:HD3	1.80	0.62
49:F5:56:GLN:HE22	49:F5:84:GLY:H	1.46	0.62
1:13:1171:G:H2'	1:13:1172:C:C6	2.35	0.61
6:5E:43:LEU:HG	6:5E:43:LEU:O	1.99	0.61
29:11:79:VAL:O	29:11:113:VAL:HG23	2.00	0.61
38:88:20:ALA:HB1	38:88:99:PRO:HB2	1.80	0.61
26:14:646:A:H2'	26:14:647:G:O4'	1.99	0.61
6:5E:97:PHE:CD1	18:9I:31:LEU:HD11	2.36	0.61
26:1H:729:G:OP2	29:11:13:ARG:NH1	2.30	0.61
26:1H:1332:G:H21	26:1H:1610:A:H8	1.48	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1466:G:N2	26:1H:1547:C:N3	2.48	0.61
26:1H:1517:G:H2'	26:1H:1518:C:C6	2.35	0.61
26:1H:1533:C:H3'	26:1H:1534:G:C5'	2.30	0.61
26:1H:2164:C:H5"	26:1H:2165:G:OP2	2.00	0.61
29:11:23:GLU:HG3	29:11:82:ILE:HG21	1.82	0.61
29:11:35:LYS:HA	29:11:64:ILE:HG22	1.81	0.61
1:1G:581:G:OP1	15:6A:61:GLY:HA3	1.99	0.61
1:1G:601:C:H2'	1:1G:602:A:C8	2.34	0.61
1:1G:677:U:H3	1:1G:713:G:H22	1.48	0.61
2:12:22:LYS:NZ	2:12:35:GLU:OE1	2.30	0.61
3:22:172:ARG:HH12	3:22:174:PRO:HG3	1.65	0.61
15:6A:77:ARG:HA	15:6A:80:ALA:HB3	1.81	0.61
26:14:901:A:H5'	26:14:902:C:OP2	2.00	0.61
27:1J:44:G:H1'	27:1J:47:C:H42	1.66	0.61
41:75:62:THR:HG22	41:75:75:ILE:HG12	1.81	0.61
1:13:8:A:N7	4:3E:208:SER:OG	2.32	0.61
4:3E:89:THR:O	4:3E:92:VAL:HG23	2.00	0.61
40:A8:34:HIS:NE2	40:A8:54:LEU:HD23	2.14	0.61
43:D8:56:SER:H	43:D8:100:ARG:HB2	1.64	0.61
1:1G:1084:G:H5'	1:1G:1102:A:OP2	2.00	0.61
7:62:51:GLN:HG3	7:62:58:PRO:HD3	1.80	0.61
8:72:110:ALA:O	8:72:121:ASP:N	2.32	0.61
26:14:71:A:H5'	26:14:71:A:H8	1.64	0.61
40:65:56:LEU:HD23	40:65:58:LEU:HD11	1.82	0.61
1:13:640:A:O2'	8:7E:115:SER:HB2	2.00	0.61
1:13:864:A:H2'	1:13:865:A:C8	2.36	0.61
26:1H:1478:G:H2'	26:1H:1479:G:H8	1.64	0.61
1:1G:1369:C:H2'	1:1G:1370:G:C8	2.36	0.61
22:1L:48:C:O2'	22:1L:59:A:O4'	2.18	0.61
26:14:997:G:O2'	26:14:998:C:H5'	2.01	0.61
47:D5:28:MET:O	47:D5:35:ARG:N	2.27	0.61
1:13:1013:G:N2	1:13:1016:A:OP2	2.33	0.61
2:1E:71:VAL:HG23	2:1E:164:VAL:HA	1.83	0.61
18:9I:59:SER:OG	18:9I:60:ALA:N	2.33	0.61
26:1H:155:C:H5'	26:1H:161:U:OP2	2.00	0.61
26:1H:1214:A:OP2	60:1H:3542:HOH:O	2.16	0.61
31:31:29:ASN:H	31:31:112:MET:HE1	1.64	0.61
36:68:7:TYR:CE1	36:68:20:MET:HE3	2.34	0.61
1:1G:1139:G:H4'	1:1G:1140:C:H5'	1.82	0.61
2:12:141:GLU:O	2:12:145:LEU:HB2	2.00	0.61
13:4A:29:ARG:HB3	13:4A:64:TRP:CH2	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:9A:25:THR:HG22	18:9A:42:ARG:HH21	1.64	0.61
31:39:25:PRO:C	31:39:27:GLU:N	2.56	0.61
31:39:117:ARG:NH2	37:35:1:MET:O	2.33	0.61
48:E5:17:GLN:O	48:E5:19:LYS:NZ	2.30	0.61
1:13:1190:G:H5"	3:2E:176:HIS:NE2	2.16	0.61
13:4I:80:ARG:NH1	19:AI:65:ASN:O	2.34	0.61
15:6I:9:GLN:HA	15:6I:12:ILE:HD12	1.82	0.61
26:1H:76:C:O2'	50:K8:62:THR:HG21	2.00	0.61
26:1H:607:U:OP1	31:31:102:PRO:HA	2.01	0.61
26:1H:1401:G:H2'	26:1H:1402:C:H6	1.65	0.61
26:1H:1455:G:OP2	60:1H:3543:HOH:O	2.16	0.61
26:1H:1731:G:H2'	26:1H:1732:A:H8	1.66	0.61
34:61:5:LEU:HD13	34:61:13:GLY:O	1.99	0.61
52:M8:39:CYS:HB3	52:M8:40:HIS:HA	1.82	0.61
1:1G:196:A:OP1	20:BA:68:LYS:NZ	2.34	0.61
1:1G:533:A:O2'	1:1G:534:U:H5"	2.01	0.61
1:1G:591:U:H2'	1:1G:592:G:C8	2.36	0.61
1:1G:1352:C:H2'	1:1G:1353:G:C8	2.36	0.61
3:22:18:TRP:H	3:22:18:TRP:HE3	1.49	0.61
26:14:305:U:H2'	26:14:306:U:C6	2.35	0.61
26:14:1210:A:H5'	26:14:1212:G:C5'	2.31	0.61
26:14:1329:U:H5"	26:14:1330:C:H5	1.66	0.61
29:19:262:ARG:H	29:19:262:ARG:HH11	1.48	0.61
37:35:79:ARG:HG3	37:35:110:TYR:HB2	1.81	0.61
39:55:67:LEU:HD12	39:55:76:VAL:HG21	1.83	0.61
45:B5:67:GLY:C	45:B5:69:TYR:H	2.09	0.61
1:13:67:C:H2'	1:13:68:G:H8	1.65	0.61
2:1E:60:ASP:HB3	2:1E:64:ARG:NH2	2.09	0.61
19:AI:41:VAL:HB	19:AI:42:PRO:HA	1.83	0.61
26:1H:323:G:C8	31:31:171:PRO:HG3	2.34	0.61
26:1H:543:C:H42	26:1H:550:G:H1	1.48	0.61
26:1H:1045:A:H1'	26:1H:1047:G:C5	2.35	0.61
26:1H:1386:C:H2'	26:1H:1387:C:C6	2.35	0.61
26:1H:1535:U:H5"	26:1H:1537:C:N4	2.15	0.61
26:1H:2331:G:O3'	48:I8:43:THR:HG22	2.00	0.61
36:68:98:VAL:HG11	36:68:114:ILE:HG23	1.82	0.61
46:G8:29:GLU:HB3	46:G8:38:ILE:CG2	2.31	0.61
1:1G:401:C:H2'	1:1G:402:G:C8	2.35	0.61
13:4A:66:LEU:HD13	13:4A:67:GLU:HB2	1.83	0.61
19:AA:10:PHE:HD2	19:AA:11:VAL:HG23	1.66	0.61
26:14:1204:A:H2	26:14:1241:A:N1	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1693:U:O2'	29:19:14:ARG:NH2	2.33	0.61
26:14:2115:G:H22	26:14:2117:A:H62	1.48	0.61
26:14:2357:U:OP1	48:E5:20:ARG:NH1	2.34	0.61
27:1J:88:C:H5"	27:1J:89:G:C6	2.34	0.61
41:75:91:ARG:HD2	41:75:124:ASP:OD2	2.01	0.61
45:B5:51:VAL:H	45:B5:83:VAL:HG23	1.65	0.61
19:AI:22:LEU:HD21	19:AI:29:ARG:HG2	1.81	0.61
19:AI:51:VAL:O	19:AI:58:VAL:N	2.31	0.61
26:1H:723:G:H2'	26:1H:724:U:O4'	2.00	0.61
26:1H:1443:G:H2'	26:1H:1444:G:H8	1.65	0.61
26:1H:1870:C:H2'	26:1H:1871:A:O4'	2.01	0.61
26:1H:2396:G:H5"	49:J8:25:LYS:HE2	1.82	0.61
29:11:231:HIS:CD2	29:11:249:PRO:HA	2.35	0.61
1:1G:411:A:C5	1:1G:413:G:H1'	2.36	0.61
1:1G:667:G:H4'	15:6A:51:HIS:ND1	2.16	0.61
22:1L:24:G:H2'	22:1L:25:C:C6	2.35	0.61
26:14:26:G:OP1	44:A5:80:PRO:HB3	2.00	0.61
38:45:25:ASP:CB	38:45:102:VAL:H	2.10	0.61
1:13:659:U:H2'	1:13:660:G:C8	2.36	0.61
24:3K:15:G:H1	24:3K:48:C:H42	1.49	0.61
26:1H:732:C:OP2	60:1H:3538:HOH:O	2.15	0.61
26:1H:2133:G:O2'	26:1H:2157:G:N2	2.34	0.61
37:78:39:LYS:CB	37:78:45:LEU:HD11	2.31	0.61
10:1A:38:ILE:HG13	10:1A:71:LEU:HB3	1.82	0.61
14:5A:45:ARG:O	14:5A:49:HIS:HD2	1.84	0.61
26:14:140:A:C8	26:14:1408:C:O2'	2.53	0.61
26:14:606:U:OP2	31:39:104:LYS:CD	2.49	0.61
26:14:1568:G:P	29:19:63:ARG:HH12	2.24	0.61
26:14:1678:G:N2	26:14:1989:G:H22	1.99	0.61
27:1J:2:C:H2'	27:1J:3:C:C6	2.36	0.61
32:49:153:ARG:HD3	32:49:153:ARG:N	2.15	0.61
34:69:77:LEU:HD12	34:69:78:THR:H	1.64	0.61
36:25:7:TYR:CE1	36:25:20:MET:HB2	2.36	0.61
1:13:50:A:H1'	1:13:52:G:C8	2.35	0.61
14:5I:6:LEU:HB3	14:5I:23:ARG:NH2	2.16	0.61
26:1H:732:C:H3'	60:1H:3504:HOH:O	2.01	0.61
26:1H:2123:G:H1'	28:71:172:HIS:ND1	2.16	0.61
26:1H:2788:C:O2'	26:1H:2809:A:N3	2.32	0.61
35:58:35:ARG:HD3	35:58:37:LYS:HD2	1.83	0.61
1:1G:157:G:H1	1:1G:164:U:H3	1.47	0.61
26:14:2507:C:H5"	26:14:2573:C:N4	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:151:TYR:HB3	35:15:79:PRO:HG3	1.81	0.61
1:13:406:G:H5'	4:3E:5:ILE:HD13	1.83	0.60
1:13:737:A:H2'	1:13:738:C:H6	1.63	0.60
1:13:1080:A:H5'	5:4E:14:ARG:NH2	2.16	0.60
3:2E:5:ILE:HD11	3:2E:10:PHE:CD1	2.35	0.60
8:7E:11:THR:HG23	8:7E:14:ARG:HH12	1.66	0.60
26:1H:270(P):C:H1'	34:61:50:ARG:NH1	2.16	0.60
26:1H:2096:U:H3	26:1H:2193:G:H1	1.46	0.60
28:71:41:VAL:HG22	28:71:216:THR:HG22	1.83	0.60
26:14:287:C:H2'	26:14:288:C:H6	1.66	0.60
26:14:1567:A:O2'	29:19:63:ARG:NH2	2.34	0.60
26:14:2287:A:H62	26:14:2344:U:H3	1.49	0.60
49:F5:92:LYS:O	49:F5:94:LEU:N	2.34	0.60
2:1E:189:ASP:CG	2:1E:205:ASP:HB3	2.26	0.60
5:4E:122:GLU:HG2	5:4E:131:ILE:HD12	1.81	0.60
5:4E:128:PRO:HA	5:4E:131:ILE:HB	1.83	0.60
19:AI:21:GLU:O	19:AI:25:LYS:HB2	2.01	0.60
24:3K:5:C:O2'	24:3K:68:G:N2	2.22	0.60
26:1H:1636:C:H2'	26:1H:1637:A:C8	2.36	0.60
29:11:65:ILE:HD11	29:11:67:PHE:CZ	2.35	0.60
29:11:158:ALA:O	29:11:161:THR:OG1	2.12	0.60
18:9A:22:VAL:HG22	18:9A:23:LYS:H	1.65	0.60
26:14:259:G:H21	26:14:621:A:H8	1.48	0.60
26:14:1316:U:H2'	26:14:1317:A:C8	2.36	0.60
28:79:202:GLU:CD	28:79:203:GLY:H	2.09	0.60
44:A5:45:TYR:CZ	44:A5:49:LYS:HD2	2.37	0.60
1:13:1028(A):C:H2'	1:13:1028(B):C:C5	2.37	0.60
3:2E:79:ARG:NH2	11:2A:105:VAL:O	2.34	0.60
5:4E:41:VAL:HG13	5:4E:113:ALA:HB2	1.83	0.60
8:7E:17:THR:HG21	8:7E:80:ILE:HD11	1.83	0.60
11:2I:27:ASN:OD1	11:2I:28:THR:N	2.34	0.60
13:4I:40:ASN:HB3	13:4I:43:THR:HG23	1.82	0.60
26:1H:2492:U:H2'	26:1H:2493:U:H6	1.65	0.60
50:K8:4:SER:HB3	50:K8:6:VAL:N	2.16	0.60
4:32:18:LYS:NZ	58:32:301:SF4:S1	2.71	0.60
26:14:1754:C:H2'	26:14:1755:A:C8	2.36	0.60
31:39:7:TYR:HE2	31:39:10:PRO:HG3	1.66	0.60
35:15:15:LEU:HB2	35:15:134:ARG:HB2	1.83	0.60
40:65:15:ARG:O	40:65:19:LYS:HD3	2.02	0.60
1:13:1348:U:H3	1:13:1374:A:H2	1.48	0.60
26:1H:2228:G:OP2	29:11:263:ARG:NH2	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2584:U:H2'	26:1H:2585:U:H2'	1.82	0.60
30:21:116:VAL:HG21	30:21:122:PHE:CE2	2.36	0.60
55:Q8:38:GLY:O	55:Q8:42:ARG:HB2	2.01	0.60
6:52:7:ASN:HD21	18:9A:34:TYR:HE2	1.48	0.60
8:72:7:ALA:HB2	8:72:85:ARG:HD3	1.82	0.60
25:4L:13:A:H2'	25:4L:14:A:O4'	2.01	0.60
26:14:1169:G:H1	26:14:1180:C:H42	1.50	0.60
33:59:149:ARG:HA	33:59:162:ILE:HG21	1.83	0.60
47:D5:45:ASP:O	47:D5:49:ARG:HG2	2.01	0.60
1:13:1145:C:H4'	1:13:1146:A:H8	1.67	0.60
26:1H:730:C:OP2	60:1H:3509:HOH:O	2.16	0.60
26:1H:760:G:OP1	60:1H:3541:HOH:O	2.16	0.60
26:1H:1388:G:H2'	26:1H:1389:G:H8	1.65	0.60
26:1H:1400:G:H2'	26:1H:1401:G:C8	2.36	0.60
26:1H:2062:A:H2'	26:1H:2062:A:N3	2.14	0.60
40:A8:83:LYS:HA	40:A8:109:GLY:HA2	1.82	0.60
1:1G:130:A:C8	17:8A:63:ARG:HG3	2.36	0.60
1:1G:142:G:H2'	1:1G:143:A:H8	1.65	0.60
4:32:32:ALA:HA	4:32:35:ARG:HB3	1.81	0.60
12:3A:27:LEU:HD21	12:3A:61:THR:OG1	2.02	0.60
26:14:162:U:H4'	26:14:171:G:O4'	2.02	0.60
26:14:666:G:H5"	37:35:47:ASP:O	2.02	0.60
26:14:1451:C:H6	26:14:1451:C:H5"	1.64	0.60
27:1J:13:A:N1	27:1J:69:G:O2'	2.31	0.60
32:49:73:ALA:HB3	32:49:85:GLY:H	1.67	0.60
38:45:32:TYR:HE1	38:45:133:ARG:HG3	1.67	0.60
42:85:100:VAL:O	42:85:101:ARG:HG2	2.01	0.60
1:13:221:C:H2'	1:13:222:U:C6	2.35	0.60
1:13:659:U:H2'	1:13:660:G:H8	1.66	0.60
2:1E:8:LYS:HG2	2:1E:9:GLU:H	1.66	0.60
3:2E:88:ARG:HH11	3:2E:101:LEU:HB3	1.65	0.60
8:7E:82:HIS:HE1	8:7E:138:TRP:NE1	2.00	0.60
26:1H:2343:C:O2'	26:1H:2373:G:O2'	2.08	0.60
29:11:30:GLU:HG3	29:11:63:ARG:CZ	2.32	0.60
31:31:197:ASP:N	31:31:197:ASP:OD1	2.31	0.60
40:A8:106:ARG:HD2	40:A8:106:ARG:C	2.25	0.60
45:F8:26:TYR:CD2	45:F8:89:ILE:HD12	2.37	0.60
1:1G:1347:G:O2'	1:1G:1373:G:O6	2.16	0.60
3:22:59:ARG:HB3	3:22:64:VAL:HG23	1.83	0.60
26:14:1636:C:H2'	26:14:1637:A:C8	2.36	0.60
26:14:1786:A:H2	26:14:2606:C:H1'	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2294:C:P	40:65:89:ARG:HH22	2.23	0.60
31:39:124:LEU:HG	31:39:126:VAL:HG12	1.84	0.60
1:13:343:U:H2'	1:13:345:C:H1'	1.82	0.60
1:13:1368:G:OP1	9:8E:111:ARG:NH2	2.34	0.60
26:1H:1516:U:H2'	26:1H:1517:G:C8	2.37	0.60
26:1H:1570:A:H5'	29:11:37:LEU:CD2	2.31	0.60
43:D8:37:VAL:C	43:D8:38:LEU:HG	2.27	0.60
1:1G:762:C:H2'	1:1G:763:G:C8	2.37	0.60
1:1G:1178:G:H5"	9:82:93:ARG:HH22	1.66	0.60
13:4A:23:TYR:HB3	13:4A:67:GLU:HA	1.83	0.60
16:7A:67:THR:H	16:7A:70:ALA:HB3	1.67	0.60
30:29:35:GLN:NE2	30:29:37:ARG:CZ	2.64	0.60
1:13:601:C:H2'	1:13:602:A:C8	2.37	0.60
1:13:1060:C:O2'	10:1I:56:HIS:ND1	2.30	0.60
4:3E:15:GLU:OE1	4:3E:66:ARG:NH1	2.34	0.60
10:1I:38:ILE:HG23	10:1I:71:LEU:HB3	1.83	0.60
26:1H:1731:G:H2'	26:1H:1732:A:C8	2.37	0.60
26:1H:2106:G:H22	26:1H:2184:G:H1'	1.67	0.60
26:1H:2336:A:H61	48:I8:43:THR:HB	1.66	0.60
30:21:77:ILE:O	30:21:79:ARG:N	2.34	0.60
31:31:126:VAL:O	31:31:196:LEU:HD22	2.02	0.60
35:58:131:GLN:OE1	35:58:132:ALA:N	2.35	0.60
36:68:52:VAL:C	36:68:53:LYS:HD2	2.26	0.60
1:1G:269:C:H2'	1:1G:270:A:C8	2.37	0.60
1:1G:1320:C:N4	19:AA:36:ARG:HG3	2.17	0.60
2:12:70:PHE:N	2:12:92:TYR:HA	2.17	0.60
23:2L:24:C:H2'	23:2L:25:U:H6	1.65	0.60
26:14:309:G:H4'	46:C5:18:GLY:HA3	1.82	0.60
26:14:1639:U:OP1	60:14:3417:HOH:O	2.16	0.60
53:J5:16:ARG:HG3	53:J5:17:ASP:N	2.16	0.60
1:13:1131:G:OP1	9:8E:20:ARG:NH2	2.35	0.60
24:3K:53:G:O6	24:3K:61:C:N4	2.35	0.60
26:1H:270(R):G:H2'	26:1H:270(S):G:C8	2.37	0.60
26:1H:1042:G:H1	26:1H:1113:U:H3	1.49	0.60
26:1H:1170:G:N2	26:1H:1180:C:O2	2.35	0.60
26:1H:1857:G:O2'	26:1H:1885:A:N6	2.30	0.60
30:21:105:THR:HG22	30:21:106:GLY:H	1.66	0.60
35:58:12:ARG:HG2	35:58:13:TRP:H	1.66	0.60
55:Q8:16:ILE:HD13	55:Q8:59:LYS:HG2	1.83	0.60
1:1G:276:G:O3'	17:8A:68:ARG:NH1	2.35	0.60
7:62:148:ASN:O	7:62:149:ARG:HD3	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:103:VAL:HG21	8:72:110:ALA:HB2	1.83	0.60
26:14:1106:G:C8	26:14:1107:G:C8	2.90	0.60
26:14:2520:C:H41	26:14:2542:A:H62	1.49	0.60
47:D5:71:VAL:HG12	47:D5:88:PHE:HE1	1.66	0.60
51:H5:5:LYS:HG3	51:H5:36:VAL:HG22	1.84	0.60
1:13:983:A:H5"	1:13:984:C:OP2	2.02	0.60
4:3E:10:ARG:HG3	4:3E:11:LEU:N	2.15	0.60
23:2K:20:G:C2	23:2K:58:A:N3	2.70	0.60
26:1H:528:A:C2	26:1H:2043:C:H4'	2.37	0.60
31:31:178:PRO:HB3	31:31:198:ALA:HA	1.84	0.60
34:61:37:VAL:HG11	34:61:43:ASN:HD22	1.67	0.60
35:58:57:ALA:O	35:58:59:LYS:N	2.35	0.60
46:G8:87:LYS:H	46:G8:94:LYS:HG2	1.67	0.60
26:14:19:C:H2'	26:14:20:C:C6	2.37	0.60
26:14:1784:A:OP1	60:14:3418:HOH:O	2.16	0.60
40:65:41:ASP:OD2	40:65:44:LYS:HE3	2.02	0.60
44:A5:72:LYS:HE2	44:A5:108:GLY:HA3	1.84	0.60
47:D5:137:ILE:HG23	47:D5:156:LYS:H	1.66	0.60
1:13:658:G:H2'	1:13:659:U:H6	1.67	0.59
1:13:917:G:H2'	1:13:918:A:C8	2.36	0.59
1:13:1213:A:O2'	1:13:1215:G:N7	2.26	0.59
2:1E:5:ILE:HG22	2:1E:224:GLN:OE1	2.02	0.59
24:3K:65:C:H2'	24:3K:66:A:H8	1.66	0.59
26:1H:907:U:O2'	38:88:101:ARG:NH2	2.28	0.59
26:1H:2199:A:H3'	26:1H:2205:C:H6	1.66	0.59
33:51:8:PRO:HG2	33:51:69:ARG:NH2	2.17	0.59
33:51:157:TYR:CE1	33:51:171:LEU:HB3	2.37	0.59
50:K8:4:SER:HB2	50:K8:7:ARG:CG	2.24	0.59
1:1G:112:G:OP1	16:7A:27:LYS:HE3	2.01	0.59
1:1G:618:C:H5'	1:1G:619:U:H5"	1.83	0.59
1:1G:938:A:N3	1:1G:1376:U:O2'	2.28	0.59
3:22:142:MET:HE1	3:22:148:GLY:HA2	1.84	0.59
26:14:654(C):G:N1	26:14:654(R):C:O2'	2.23	0.59
26:14:870:A:H5"	38:45:6:ARG:HB3	1.84	0.59
26:14:2346:A:H5"	26:14:2383:G:H1'	1.84	0.59
26:14:2689:U:OP2	26:14:2719:G:N2	2.32	0.59
26:14:2712:U:H2'	26:14:2714:G:H5"	1.83	0.59
28:79:201:PRO:HD2	28:79:208:PHE:CZ	2.37	0.59
30:29:25:VAL:HG12	30:29:26:ILE:N	2.17	0.59
1:13:1454:G:OP1	20:BI:39:LYS:NZ	2.22	0.59
4:3E:18:LYS:HG2	58:3E:302:SF4:S1	2.42	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:17:GLY:O	11:2I:80:VAL:HA	2.02	0.59
26:1H:176:G:O2'	26:1H:177:G:H5'	2.02	0.59
26:1H:455:C:N3	26:1H:472:A:H2'	2.17	0.59
26:1H:848:G:H2'	26:1H:849:A:C8	2.37	0.59
26:1H:1556:C:H2'	26:1H:1557:C:C6	2.37	0.59
26:1H:1794:U:H2'	26:1H:1795:C:C6	2.37	0.59
52:M8:15:ILE:HG13	52:M8:20:ASN:OD1	2.02	0.59
1:1G:1177:G:O2'	1:1G:1178:G:O5'	2.19	0.59
2:12:71:VAL:HG12	2:12:170:GLU:HG2	1.84	0.59
2:12:158:LEU:HD23	2:12:158:LEU:H	1.67	0.59
6:52:1:MET:HE3	6:52:68:PRO:HD3	1.84	0.59
17:8A:67:LYS:HA	17:8A:70:ARG:HH12	1.66	0.59
23:2L:50:G:H1	23:2L:66:C:N4	1.95	0.59
26:14:2689:U:H5"	26:14:2713:A:C2	2.36	0.59
26:14:2849:U:O4	41:75:23:ARG:NH2	2.35	0.59
27:1J:102:G:N7	60:1J:303:HOH:O	2.32	0.59
1:13:196:A:O2'	1:13:197:A:H2'	2.03	0.59
1:13:504:C:OP1	60:13:1810:HOH:O	2.17	0.59
1:13:973:G:OP1	10:1I:57:LYS:HD3	2.02	0.59
1:13:976:G:N2	1:13:1362(A):C:OP2	2.23	0.59
15:6I:54:ARG:HA	15:6I:57:LEU:HD12	1.84	0.59
20:BI:75:ASN:O	20:BI:79:ARG:HB2	2.01	0.59
22:1K:17:U:O2'	22:1K:57:G:N2	2.34	0.59
26:1H:363(B):G:H2'	26:1H:363(C):G:H8	1.66	0.59
26:1H:747:U:O2	26:1H:2014:A:H1'	2.01	0.59
26:1H:969:U:H2'	26:1H:970:C:C6	2.37	0.59
28:71:35:ALA:HB2	28:71:218:MET:HG2	1.82	0.59
31:31:153:SER:H	31:31:190:GLU:HG3	1.65	0.59
41:B8:29:ARG:HB2	41:B8:46:GLU:HG3	1.82	0.59
43:D8:30:GLY:H	43:D8:61:VAL:HG23	1.68	0.59
1:1G:983:A:H2	1:1G:984:C:C6	2.20	0.59
1:1G:1289:A:OP2	21:1B:9:ARG:NH2	2.36	0.59
2:12:18:GLY:HA2	2:12:41:ILE:HD13	1.85	0.59
2:12:53:ARG:HB3	2:12:57:PHE:CZ	2.36	0.59
5:42:67:VAL:HG21	5:42:140:ARG:HA	1.84	0.59
30:29:112:GLY:O	30:29:159:HIS:HA	2.03	0.59
34:69:2:LYS:HA	34:69:20:ASP:HA	1.83	0.59
48:E5:46:LYS:HB2	48:E5:77:ARG:O	2.02	0.59
1:13:427:U:OP2	4:3E:36:ARG:NH2	2.31	0.59
1:13:510:A:OP2	60:13:1809:HOH:O	2.17	0.59
4:3E:122:ARG:HH22	4:3E:134:ASP:HB3	1.65	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5E:62:TRP:HH2	6:5E:64:GLN:HG2	1.67	0.59
8:7E:82:HIS:HE1	8:7E:138:TRP:CE2	2.17	0.59
8:7E:95:VAL:HG21	8:7E:133:LEU:HD12	1.84	0.59
26:1H:265:A:C8	26:1H:266:G:H1'	2.37	0.59
26:1H:1534:G:N1	26:1H:1539:G:H1'	2.17	0.59
26:1H:2845:G:H2'	26:1H:2846:G:C8	2.38	0.59
29:11:242:ARG:HD2	29:11:242:ARG:N	2.17	0.59
32:41:139:LEU:HD13	32:41:146:TYR:HD2	1.67	0.59
33:51:3:ARG:NE	33:51:3:ARG:HA	2.18	0.59
34:61:92:VAL:HG13	34:61:120:ILE:HG23	1.84	0.59
36:68:75:SER:CB	41:B8:74:ARG:HH12	2.14	0.59
26:14:579:G:H2'	26:14:580:C:C6	2.37	0.59
26:14:2125:G:OP1	28:79:42:GLU:HB3	2.03	0.59
6:5E:97:PHE:HD1	18:9I:31:LEU:HD11	1.67	0.59
7:6E:77:SER:OG	7:6E:84:ASN:OD1	2.19	0.59
22:1K:26:A:H3'	22:1K:27:G:C8	2.37	0.59
26:1H:686:G:O5'	54:P8:11:LYS:NZ	2.36	0.59
26:1H:1053:C:H5"	26:1H:1107:G:N2	2.17	0.59
26:1H:2052:G:H4'	30:21:143:ASN:O	2.02	0.59
26:1H:2611:U:H6	26:1H:2611:U:H5'	1.67	0.59
27:16:77:U:P	47:H8:19:ARG:HH22	2.25	0.59
29:11:183:ARG:HD3	29:11:270:ILE:HG12	1.84	0.59
32:41:35:GLU:HG3	32:41:36:LYS:HB3	1.82	0.59
44:E8:27:LYS:HB3	44:E8:31:GLU:HG3	1.83	0.59
55:Q8:6:THR:HG23	55:Q8:64:TYR:HD2	1.67	0.59
8:72:114:THR:OG1	8:72:116:LYS:O	2.19	0.59
17:8A:7:THR:HG22	17:8A:58:GLU:HG2	1.84	0.59
26:14:923:C:H2'	26:14:924:C:C6	2.38	0.59
26:14:2031:A:N3	26:14:2455:G:O2'	2.33	0.59
26:14:2418:A:OP1	55:M5:29:LYS:NZ	2.35	0.59
46:C5:46:LYS:HB3	46:C5:60:PHE:HA	1.83	0.59
1:13:813:U:OP2	1:13:816:A:N6	2.34	0.59
1:13:1226:C:H4'	19:AI:80:TYR:CZ	2.38	0.59
3:2E:19:GLU:HG2	3:2E:54:ARG:HH11	1.67	0.59
22:1K:5:C:O2'	22:1K:68:G:N2	2.35	0.59
28:71:192:PHE:O	28:71:196:LEU:HB2	2.03	0.59
33:51:152:ARG:HG3	33:51:161:GLY:HA2	1.85	0.59
51:L8:9:VAL:HG21	51:L8:55:ARG:HB2	1.83	0.59
53:N8:31:VAL:HB	53:N8:42:PRO:HG3	1.83	0.59
1:1G:187:C:H2'	1:1G:188:U:O4'	2.02	0.59
1:1G:490:G:P	4:32:132:ARG:HH22	2.25	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1109:C:H2'	1:1G:1110:A:O4'	2.03	0.59
5:42:80:ILE:HG22	8:72:104:ARG:HD2	1.83	0.59
15:6A:28:GLN:HA	15:6A:31:LEU:HD22	1.84	0.59
19:AA:66:MET:N	19:AA:67:VAL:HB	2.18	0.59
20:BA:10:LEU:HD13	20:BA:12:ALA:H	1.67	0.59
26:14:70:G:H21	26:14:71:A:N6	2.00	0.59
26:14:1729:A:H2'	26:14:1731:G:N2	2.16	0.59
26:14:2134:A:C2	26:14:2159:G:H1'	2.38	0.59
26:14:2404:C:H1'	37:35:67:MET:HE1	1.85	0.59
33:59:154:PRO:HA	33:59:161:GLY:HA3	1.84	0.59
38:45:74:TYR:O	38:45:89:ASN:HB2	2.02	0.59
39:55:97:VAL:HA	39:55:113:LEU:O	2.03	0.59
40:65:23:ARG:HH12	40:65:84:GLN:HB2	1.67	0.59
42:85:92:ARG:C	42:85:94:ASN:H	2.09	0.59
1:13:390:C:O3'	16:7I:28:ARG:NH2	2.35	0.59
20:BI:30:LYS:HZ1	20:BI:80:ARG:HH12	1.49	0.59
22:1K:75:C:O2	26:1H:2507:C:O2'	2.17	0.59
26:1H:2505:G:O6	26:1H:2576:G:H2'	2.03	0.59
26:1H:2611:U:H2'	53:N8:3:LYS:HG2	1.84	0.59
29:11:106:ILE:HD11	29:11:143:HIS:CD2	2.36	0.59
40:A8:4:LEU:HD23	40:A8:8:GLU:HG3	1.85	0.59
1:1G:987:G:H1	1:1G:1218:C:H42	1.50	0.59
1:1G:1288:A:H4'	21:1B:13:ILE:HD13	1.84	0.59
26:14:161:U:H5'	26:14:171:G:H21	1.67	0.59
26:14:1754:C:P	41:75:96:ARG:HH12	2.26	0.59
26:14:2022:U:O2'	26:14:2617:C:H5'	2.03	0.59
26:14:2134:A:H61	26:14:2156:G:H2'	1.67	0.59
26:14:2320:A:H61	26:14:2333:A:H2'	1.67	0.59
49:F5:86:SER:N	49:F5:87:PRO:HD2	2.18	0.59
1:13:1446:A:OP1	1:13:1446:A:H4'	2.01	0.59
26:1H:65:C:H2'	26:1H:66:C:H6	1.67	0.59
26:1H:818:G:H4'	26:1H:838:C:O3'	2.02	0.59
1:1G:598:U:H2'	1:1G:599:C:C6	2.36	0.59
1:1G:1028(A):C:H42	1:1G:1032(B):G:H1	1.51	0.59
1:1G:1521:G:H2'	1:1G:1522:U:C6	2.38	0.59
4:32:3:ARG:HH11	4:32:118:ARG:HD3	1.66	0.59
5:42:61:TYR:HA	5:42:64:ARG:HG3	1.83	0.59
12:3A:6:THR:OG1	12:3A:9:GLN:HB2	2.01	0.59
26:14:796:C:H2'	26:14:797:C:C6	2.38	0.59
26:14:1266:G:O4'	44:A5:15:ARG:NH2	2.35	0.59
26:14:2228:G:OP2	29:19:263:ARG:NH2	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2657:A:O3'	33:59:160:LYS:NZ	2.33	0.59
50:G5:45:SER:O	50:G5:46:GLN:OE1	2.21	0.59
55:M5:22:VAL:HG12	55:M5:50:LEU:HG	1.83	0.59
55:M5:40:GLU:H	55:M5:43:GLN:HB2	1.68	0.59
1:13:1127:G:H1'	1:13:1148:U:H3	1.66	0.59
13:4I:79:LYS:O	13:4I:83:ASP:HB3	2.03	0.59
14:5I:6:LEU:HD12	14:5I:23:ARG:HH22	1.66	0.59
26:1H:957:A:N1	26:1H:2458:G:H4'	2.17	0.59
26:1H:2324:C:O2'	26:1H:2337:G:H5"	2.01	0.59
33:51:81:GLU:O	33:51:81:GLU:HG2	2.03	0.59
39:98:15:SER:OG	60:98:301:HOH:O	2.15	0.59
39:98:78:LYS:O	39:98:83:ILE:HG13	2.02	0.59
1:1G:817:C:H5'	60:1G:1727:HOH:O	2.02	0.59
4:32:173:TRP:CE3	4:32:189:PRO:HB3	2.38	0.59
7:62:20:ASP:HB3	7:62:23:VAL:HG23	1.85	0.59
26:14:140:A:H8	26:14:1408:C:O2'	1.86	0.59
26:14:2567:G:H2'	26:14:2568:C:C6	2.38	0.59
26:14:2784:C:H2'	26:14:2785:C:C6	2.38	0.59
43:95:76:LYS:HD2	43:95:80:GLN:O	2.02	0.59
49:F5:64:ALA:HA	49:F5:67:ILE:HG12	1.85	0.59
8:7E:23:SER:HA	8:7E:61:VAL:O	2.02	0.59
26:1H:265:A:H8	26:1H:266:G:H1'	1.68	0.59
26:1H:315:G:H2'	26:1H:316:C:C6	2.38	0.59
50:K8:2:LYS:O	50:K8:4:SER:HA	2.03	0.59
1:1G:122:G:H1	1:1G:239:U:H3	1.51	0.59
1:1G:1118:C:H1'	1:1G:1179:A:C4	2.37	0.59
20:BA:45:GLN:HA	20:BA:91:LEU:HB3	1.83	0.59
26:14:1187:G:H8	26:14:1187:G:O5'	1.85	0.59
26:14:1316:U:H2'	26:14:1317:A:H8	1.67	0.59
26:14:1332:G:H21	26:14:1610:A:H8	1.50	0.59
26:14:1519:G:H2'	26:14:1520:U:O4'	2.03	0.59
26:14:1794:U:H2'	26:14:1795:C:H6	1.68	0.59
26:14:2134:A:N6	26:14:2156:G:H2'	2.16	0.59
31:39:5:ALA:HB1	31:39:125:LEU:HD21	1.84	0.59
46:C5:50:ARG:HB3	46:C5:53:PRO:CD	2.30	0.59
1:13:156:G:H2'	1:13:157:G:H8	1.67	0.58
1:13:589:C:H42	1:13:650:G:H1	1.51	0.58
1:13:1122:U:O4	1:13:1123:A:N6	2.36	0.58
1:13:1510:U:H2'	1:13:1511:G:C8	2.37	0.58
8:7E:87:SER:HB2	8:7E:93:VAL:CB	2.33	0.58
26:1H:1590:U:H2'	26:1H:1591:G:H8	1.66	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2855:C:H2'	26:1H:2856:C:H6	1.68	0.58
28:71:215:THR:HG23	28:71:219:GLY:O	2.03	0.58
38:88:2:LEU:H	38:88:2:LEU:HD12	1.67	0.58
43:D8:10:LYS:NZ	43:D8:23:GLU:OE1	2.36	0.58
47:H8:48:PHE:HE1	47:H8:71:VAL:HG11	1.68	0.58
52:M8:1:MET:HE3	52:M8:1:MET:N	2.17	0.58
9:82:33:PHE:O	9:82:37:PHE:HB2	2.02	0.58
24:3L:27:G:H21	24:3L:45:G:H22	1.50	0.58
26:14:71:A:H4'	26:14:72:U:H5"	1.84	0.58
26:14:2734:A:H2'	26:14:2735:G:O4'	2.03	0.58
30:29:51:PHE:CG	30:29:52:LEU:N	2.71	0.58
31:39:28:ILE:HA	31:39:112:MET:HB3	1.84	0.58
38:45:22:LYS:N	38:45:23:GLY:HA3	2.18	0.58
38:45:37:LEU:HD11	38:45:130:LYS:HB3	1.85	0.58
38:45:66:ILE:HG22	38:45:104:PHE:CE1	2.37	0.58
1:13:652:U:O2'	1:13:653:A:O5'	2.19	0.58
1:13:1128:C:H2'	1:13:1139:G:O6	2.01	0.58
9:8E:55:ALA:HB1	9:8E:59:PHE:HD2	1.67	0.58
11:2I:19:ALA:O	11:2I:82:VAL:HA	2.02	0.58
26:1H:389:G:N1	37:78:71:VAL:HG12	2.17	0.58
26:1H:2801:A:H2'	26:1H:2802:G:O4'	2.04	0.58
37:78:31:ALA:O	37:78:32:THR:HB	2.02	0.58
2:12:136:VAL:O	2:12:139:LYS:HG2	2.03	0.58
2:12:188:ALA:HB1	2:12:192:SER:HB2	1.85	0.58
4:32:172:PRO:HB2	4:32:187:ARG:NH2	2.19	0.58
7:62:65:ALA:HB1	7:62:127:ALA:HB3	1.85	0.58
7:62:68:ASN:ND2	7:62:127:ALA:O	2.26	0.58
11:2A:20:TYR:CE2	11:2A:83:ILE:HD12	2.38	0.58
20:BA:29:LYS:O	20:BA:33:ILE:HG12	2.03	0.58
26:14:2176:A:H1'	28:79:44:HIS:CE1	2.37	0.58
28:79:49:ILE:HD13	28:79:56:GLN:HB3	1.84	0.58
30:29:147:PRO:HB2	30:29:149:ARG:HG2	1.85	0.58
35:15:13:TRP:O	35:15:135:PRO:HD2	2.02	0.58
1:13:223:U:H2'	1:13:224:C:H6	1.67	0.58
1:13:266:G:H5"	1:13:267:C:C5	2.38	0.58
16:7I:5:ARG:HE	16:7I:22:THR:CG2	2.16	0.58
33:51:8:PRO:HG2	33:51:69:ARG:HH21	1.68	0.58
1:1G:841:U:H4'	1:1G:842:C:C6	2.38	0.58
1:1G:1309:G:OP2	13:4A:99:ARG:NH2	2.35	0.58
7:62:148:ASN:O	7:62:148:ASN:ND2	2.36	0.58
9:82:9:ARG:HA	9:82:13:ALA:O	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AA:41:VAL:HG22	19:AA:44:MET:HG3	1.86	0.58
26:14:270(N):G:O2'	26:14:270(O):U:H5'	2.03	0.58
26:14:459:U:H2'	26:14:460:A:H8	1.66	0.58
26:14:1005:C:H2'	26:14:1006:C:C6	2.39	0.58
26:14:1198:U:H2'	26:14:1199:U:H6	1.68	0.58
26:14:1427:A:H4'	26:14:1428:C:O4'	2.02	0.58
26:14:2176:A:HO2'	28:79:44:HIS:CE1	2.17	0.58
26:14:2720:U:H3	26:14:2873:A:H2	1.51	0.58
30:29:101:ARG:CZ	30:29:171:GLU:HB2	2.33	0.58
40:65:10:ARG:HA	40:65:13:ARG:HE	1.68	0.58
40:65:23:ARG:NH1	40:65:85:VAL:O	2.36	0.58
47:D5:131:ARG:C	47:D5:132:ASN:HD22	2.10	0.58
53:J5:47:PRO:HA	53:J5:56:LYS:NZ	2.18	0.58
5:4E:91:LEU:HD13	5:4E:120:THR:HG22	1.85	0.58
19:AI:8:GLY:HA2	19:AI:10:PHE:CE1	2.38	0.58
26:1H:55:G:H2'	26:1H:56:A:C8	2.37	0.58
26:1H:987:G:OP2	60:1H:3547:HOH:O	2.17	0.58
26:1H:1299:G:OP1	60:1H:3540:HOH:O	2.16	0.58
26:1H:1332:G:H5'	26:1H:1332:G:C8	2.38	0.58
26:1H:2068:U:N3	26:1H:2430:A:H2	2.02	0.58
26:1H:2636:U:H2'	26:1H:2637:U:C6	2.38	0.58
31:31:29:ASN:H	31:31:112:MET:CE	2.16	0.58
47:H8:9:TYR:CE1	47:H8:61:LEU:HD12	2.38	0.58
1:1G:1298:C:H4'	1:1G:1299:A:C4	2.38	0.58
11:2A:32:ILE:HD13	11:2A:72:ALA:HB2	1.86	0.58
26:14:329:G:H1	46:C5:19:LYS:HZ1	1.50	0.58
26:14:2103:C:O2	26:14:2186:G:N2	2.33	0.58
32:49:37:VAL:HG23	32:49:99:MET:HE3	1.85	0.58
34:69:133:HIS:CG	34:69:134:PRO:HD3	2.38	0.58
49:F5:51:VAL:HG23	49:F5:58:ILE:HB	1.85	0.58
55:M5:14:VAL:CG1	55:M5:22:VAL:HG13	2.33	0.58
55:M5:14:VAL:HG21	55:M5:58:ILE:HD11	1.84	0.58
1:13:279:A:H4'	1:13:280:C:H5"	1.85	0.58
1:13:859:A:H2'	1:13:860:A:C8	2.37	0.58
1:13:1189:C:OP1	14:5I:58:LYS:NZ	2.36	0.58
13:4I:3:ARG:CB	13:4I:9:ILE:HG12	2.29	0.58
20:BI:29:LYS:O	20:BI:33:ILE:HD12	2.04	0.58
26:1H:664:C:OP1	37:78:18:ARG:NH2	2.37	0.58
26:1H:739:G:OP1	60:1H:3544:HOH:O	2.16	0.58
26:1H:1194:A:H8	26:1H:1194:A:OP2	1.86	0.58
26:1H:2016:U:O2	53:N8:7:PRO:HG2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2864:G:H2'	26:1H:2865:U:C6	2.39	0.58
42:C8:69:CYS:HG	42:C8:79:PHE:HD2	1.50	0.58
2:12:136:VAL:HA	2:12:139:LYS:HD3	1.86	0.58
13:4A:16:ASP:OD1	13:4A:16:ASP:N	2.36	0.58
17:8A:99:SER:OG	17:8A:100:LYS:N	2.37	0.58
20:BA:35:THR:HG22	20:BA:36:LEU:HD23	1.86	0.58
24:3L:3:G:H2'	24:3L:4:U:O4'	2.04	0.58
26:14:730:C:C2'	26:14:731:C:H5'	2.33	0.58
26:14:1149:G:H2'	26:14:1150:C:C6	2.39	0.58
26:14:1835:G:H5'	26:14:1836:C:OP2	2.04	0.58
26:14:2233:U:H2'	26:14:2234:G:C8	2.38	0.58
27:1J:3:C:H2'	27:1J:4:C:C6	2.39	0.58
29:19:3:VAL:HG13	29:19:17:THR:HB	1.86	0.58
1:13:592:G:H2'	1:13:593:G:H8	1.69	0.58
1:13:1011:G:H1	1:13:1018:C:H42	1.50	0.58
4:3E:29:PRO:HA	4:3E:34:GLU:HG3	1.85	0.58
16:7I:20:VAL:HG22	16:7I:32:TYR:HB2	1.86	0.58
26:1H:118:A:H5'	26:1H:119:A:C8	2.38	0.58
26:1H:928:G:OP2	60:1H:3546:HOH:O	2.17	0.58
26:1H:1417:C:H2'	26:1H:1418:G:O4'	2.04	0.58
28:71:64:LEU:HD23	28:71:65:PRO:HD2	1.86	0.58
30:21:176:ILE:HB	30:21:181:LEU:HB2	1.85	0.58
37:78:83:VAL:O	37:78:114:ILE:HD12	2.04	0.58
51:L8:8:LEU:HD22	51:L8:31:LEU:CD2	2.33	0.58
52:M8:16:CYS:SG	52:M8:36:CYS:HB2	2.44	0.58
1:1G:67:C:H2'	1:1G:68:G:C8	2.38	0.58
22:1L:34:U8U:H5"	22:1L:34:U8U:H6	1.86	0.58
22:1L:73:A:O3'	22:1L:74:C:H4'	2.02	0.58
26:14:870:A:OP1	38:45:6:ARG:NH1	2.37	0.58
26:14:2016:U:O2	53:J5:7:PRO:HG2	2.02	0.58
26:14:2675:A:H4'	36:25:29:ASN:ND2	2.17	0.58
26:14:2872:G:C4	26:14:2873:A:C2	2.92	0.58
29:19:242:ARG:HH11	29:19:242:ARG:H	1.52	0.58
30:29:52:LEU:HD23	30:29:76:ARG:HD3	1.85	0.58
31:39:83:PHE:O	31:39:84:VAL:HB	2.03	0.58
50:G5:32:LEU:HB2	50:G5:53:LEU:HD13	1.84	0.58
1:13:1003:G:H2'	1:13:1004:A:H4'	1.84	0.58
4:3E:167:GLY:HA2	29:19:135:PHE:CZ	2.38	0.58
26:1H:1021:A:C8	26:1H:1022:G:H5"	2.38	0.58
26:1H:2572:A:N7	30:21:144:ARG:HG2	2.19	0.58
30:21:31:CYS:HB2	30:21:91:VAL:HG23	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1532:U:O2'	1:1G:1534:A:OP2	2.20	0.58
2:12:30:ARG:NH2	2:12:194:PRO:HB2	2.19	0.58
9:82:20:ARG:HH12	9:82:22:GLY:HA3	1.68	0.58
26:14:673:C:O2'	31:39:82:ILE:HD11	2.03	0.58
26:14:686:G:N2	26:14:788:A:H61	2.02	0.58
26:14:910:A:H62	38:45:12:GLN:HA	1.68	0.58
26:14:1689:A:H62	26:14:1698:A:H2	1.51	0.58
26:14:2107:C:O2	26:14:2182:G:N2	2.30	0.58
26:14:2675:A:H4'	36:25:29:ASN:HD21	1.68	0.58
29:19:118:VAL:HG22	29:19:119:ALA:H	1.69	0.58
30:29:33:VAL:HG13	30:29:47:VAL:HG13	1.85	0.58
43:95:35:LEU:C	43:95:37:VAL:HG13	2.28	0.58
1:13:957:U:N3	1:13:960:U:OP2	2.33	0.58
2:1E:11:LEU:O	2:1E:14:GLY:N	2.36	0.58
26:1H:274:G:N2	26:1H:276:A:H61	2.02	0.58
26:1H:587:C:OP2	37:78:21:ARG:NH2	2.37	0.58
36:68:120:GLU:OE1	41:B8:67:SER:OG	2.22	0.58
54:P8:29:LYS:HA	54:P8:32:LYS:HB2	1.86	0.58
1:1G:954:G:O6	13:4A:104:ARG:NH1	2.37	0.58
9:82:24:GLY:HA2	9:82:59:PHE:O	2.03	0.58
23:2L:54:G:H2'	23:2L:55:5MU:H6	1.68	0.58
26:14:90:U:H1'	26:14:91:A:C8	2.39	0.58
26:14:2180:U:H2'	26:14:2181:G:O4'	2.04	0.58
29:19:72:LYS:HB3	29:19:75:ILE:HD12	1.86	0.58
30:29:150:VAL:HG13	30:29:154:LYS:HD2	1.84	0.58
30:29:197:ILE:HD11	30:29:199:ARG:HE	1.68	0.58
47:D5:65:GLN:NE2	47:D5:67:LEU:HD21	2.18	0.58
54:L5:35:ARG:HG3	54:L5:42:LEU:HD11	1.85	0.58
1:13:362:G:H4'	12:3I:33:ARG:HH21	1.69	0.58
1:13:664:G:N2	1:13:741:G:H1	1.97	0.58
4:3E:13:ARG:NH2	4:3E:36:ARG:HH21	2.02	0.58
6:5E:23:LYS:HA	6:5E:26:ILE:HD12	1.86	0.58
9:8E:95:LYS:O	9:8E:96:LEU:HD12	2.04	0.58
18:9I:38:GLU:HA	18:9I:41:LYS:NZ	2.14	0.58
18:9I:66:LEU:O	18:9I:70:ILE:HG13	2.04	0.58
26:1H:1257:C:H4'	31:31:83:PHE:CE1	2.39	0.58
26:1H:1359:A:H2'	26:1H:1360:A:H5'	1.84	0.58
26:1H:2108:C:H2'	26:1H:2109:U:O4'	2.04	0.58
37:78:106:LEU:HD23	37:78:112:LEU:HD23	1.86	0.58
40:A8:24:LEU:HB2	40:A8:85:VAL:HG12	1.86	0.58
52:M8:9:LEU:HD12	52:M8:27:THR:N	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:10:A:H2'	1:1G:11:G:H8	1.69	0.58
1:1G:422:C:HO2'	1:1G:423:G:N2	2.01	0.58
1:1G:512:U:H2'	1:1G:513:C:C6	2.39	0.58
1:1G:1125:U:H2'	1:1G:1126:U:C5	2.37	0.58
2:12:187:LEU:HD21	2:12:203:GLY:HA3	1.86	0.58
26:14:498:G:H21	46:C5:47:LYS:NZ	2.01	0.58
26:14:581:C:H2'	26:14:582:G:C8	2.38	0.58
26:14:1332:G:H5'	26:14:1332:G:H8	1.68	0.58
26:14:1757:U:N3	26:14:1762:A:H2	1.91	0.58
26:14:2009:G:N3	39:55:107:ASP:HA	2.18	0.58
26:14:2197:U:H1'	26:14:2198:A:C8	2.38	0.58
26:14:2875:C:O2'	41:75:3:ARG:NE	2.36	0.58
29:19:267:SER:C	29:19:269:PHE:H	2.12	0.58
7:6E:27:ILE:HD12	7:6E:40:ALA:HA	1.86	0.58
19:AI:39:THR:HG22	19:AI:40:ILE:H	1.69	0.58
26:1H:1520:U:H2'	26:1H:1521:G:O4'	2.04	0.58
28:71:59:ARG:HG3	28:71:164:ARG:HB2	1.86	0.58
46:G8:82:PRO:HG3	46:G8:97:ARG:HB3	1.86	0.58
54:P8:24:THR:HG23	54:P8:27:GLY:H	1.67	0.58
1:1G:280:C:H3'	1:1G:281:G:H5'	1.86	0.58
3:22:190:ARG:NE	3:22:190:ARG:HA	2.19	0.58
12:3A:84:LEU:HB2	12:3A:104:VAL:HG21	1.85	0.58
13:4A:108:ARG:HD3	13:4A:114:ARG:HG2	1.85	0.58
20:BA:25:ARG:HG3	20:BA:29:LYS:HE3	1.85	0.58
26:14:5:A:H2'	26:14:6:A:H5"	1.85	0.58
38:45:34:LEU:HD11	38:45:129:THR:HB	1.86	0.58
50:G5:14:ARG:O	50:G5:15:LYS:HG2	2.04	0.58
1:13:168:G:H21	1:13:169:C:H41	1.52	0.57
1:13:625:G:H4'	16:7I:16:HIS:CG	2.39	0.57
1:13:1429:C:H2'	1:13:1430:C:H6	1.69	0.57
5:4E:15:ARG:NH1	25:4K:25:A:H5'	2.18	0.57
24:3K:15:G:N1	24:3K:48:C:N4	2.52	0.57
26:1H:125:G:H5'	26:1H:125:G:C8	2.39	0.57
26:1H:817:C:H4'	26:1H:932:G:C5	2.39	0.57
26:1H:2120:G:N2	26:1H:2178:C:O2	2.28	0.57
26:1H:2680:C:H5'	30:21:189:PRO:HA	1.86	0.57
26:1H:2863:C:H2'	26:1H:2864:G:H8	1.69	0.57
27:16:44:G:H1'	27:16:47:C:N4	2.19	0.57
29:11:146:GLU:HG3	29:11:190:TYR:N	2.19	0.57
2:12:93:VAL:HG22	2:12:152:PHE:HB2	1.85	0.57
14:5A:4:LYS:O	14:5A:7:ILE:HG12	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:829:A:N7	26:14:2248:C:H5'	2.19	0.57
26:14:2129:C:H5"	26:14:2130:U:H5	1.69	0.57
26:14:2306:C:H2'	26:14:2307:G:N2	2.17	0.57
29:19:66:ASP:HB3	29:19:105:ILE:HD12	1.85	0.57
30:29:70:ALA:HB1	30:29:72:VAL:HG22	1.86	0.57
33:59:53:GLU:OE1	33:59:53:GLU:HA	2.04	0.57
1:13:67:C:H2'	1:13:68:G:C8	2.39	0.57
1:13:317:G:H1	1:13:336:C:H42	1.52	0.57
1:13:658:G:H2'	1:13:659:U:C6	2.40	0.57
1:13:1139:G:N2	1:13:1143:G:H1	2.02	0.57
1:13:1318:A:H5"	19:AI:10:PHE:CD2	2.39	0.57
2:1E:17:PHE:HA	2:1E:42:ILE:HB	1.85	0.57
3:2E:122:GLU:O	3:2E:126:ARG:HG2	2.04	0.57
21:1F:6:ARG:HH11	21:1F:15:ARG:NE	2.01	0.57
30:21:128:SER:OG	30:21:129:HIS:N	2.37	0.57
34:61:14:ASP:N	34:61:17:GLN:OE1	2.37	0.57
34:61:47:LEU:O	34:61:51:ILE:N	2.30	0.57
1:1G:977:A:O2'	1:1G:981:U:N3	2.33	0.57
1:1G:1015:A:O2'	14:5A:15:LYS:NZ	2.33	0.57
26:14:2788:C:O2'	26:14:2809:A:N3	2.36	0.57
27:1J:15:A:H1'	27:1J:109:G:N7	2.18	0.57
28:79:50:ASP:O	28:79:56:GLN:NE2	2.36	0.57
29:19:23:GLU:HG2	29:19:24:ILE:HD12	1.84	0.57
1:13:680:C:H2'	1:13:681:C:C6	2.39	0.57
1:13:1030:C:H2'	1:13:1031:G:H8	1.66	0.57
5:4E:126:ARG:HG3	5:4E:126:ARG:HH11	1.69	0.57
12:3I:110:VAL:CG2	12:3I:120:TYR:HB3	2.34	0.57
24:3K:48:C:H41	24:3K:59:A:N6	2.02	0.57
26:1H:86:C:H4'	26:1H:104:U:H1'	1.86	0.57
26:1H:307:G:H21	26:1H:330:A:H62	1.52	0.57
26:1H:1331:A:O2'	26:1H:1332:G:H8	1.87	0.57
26:1H:1336:A:OP2	45:F8:64:LYS:NZ	2.37	0.57
26:1H:1340:U:H4'	26:1H:1341:U:OP2	2.03	0.57
26:1H:2119:A:C2	26:1H:2171:A:H2	2.22	0.57
26:1H:2379:G:O2'	40:A8:17:ARG:NH1	2.36	0.57
28:71:212:VAL:HB	28:71:226:PRO:HD3	1.86	0.57
32:41:98:ARG:HH21	52:M8:1:MET:CE	2.16	0.57
38:88:78:PRO:O	38:88:79:LEU:HB3	2.05	0.57
43:D8:36:PRO:C	43:D8:38:LEU:H	2.11	0.57
1:1G:538:G:H5"	12:3A:114:LYS:HB2	1.85	0.57
4:32:190:ASP:HB3	4:32:192:GLU:HG2	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:806:C:O2	26:14:2444:G:O2'	2.21	0.57
26:14:1298:C:H5"	26:14:1299:G:OP2	2.04	0.57
26:14:1999:C:H4'	26:14:2723:C:O2	2.04	0.57
31:39:158:THR:C	31:39:178:PRO:HD3	2.30	0.57
34:69:75:LEU:HD22	34:69:77:LEU:N	2.18	0.57
45:B5:5:TYR:HB3	50:G5:33:MET:HB2	1.87	0.57
1:13:870:U:H4'	1:13:871:U:O5'	2.04	0.57
1:13:1285:A:O5'	1:13:1285:A:H8	1.87	0.57
8:7E:100:ILE:O	8:7E:125:ARG:NH2	2.37	0.57
17:8I:70:ARG:C	17:8I:71:PHE:HD1	2.12	0.57
18:9I:38:GLU:OE1	18:9I:41:LYS:NZ	2.32	0.57
20:BI:89:ARG:HH21	20:BI:104:LEU:HD11	1.69	0.57
23:2K:63:C:H2'	23:2K:64:G:H8	1.69	0.57
26:1H:459:U:H2'	26:1H:460:A:H8	1.70	0.57
26:1H:991:C:H2'	26:1H:992:C:H6	1.69	0.57
28:71:194:ARG:NH2	28:71:226:PRO:O	2.32	0.57
37:78:126:VAL:HG12	37:78:147:LEU:HD11	1.87	0.57
41:B8:99:LEU:HB2	41:B8:102:ILE:HD11	1.86	0.57
50:K8:2:LYS:O	50:K8:5:GLU:HB2	2.04	0.57
1:1G:411:A:H62	1:1G:413:G:H21	1.53	0.57
2:12:58:ILE:HD12	2:12:219:VAL:HG22	1.86	0.57
7:62:51:GLN:HB2	7:62:58:PRO:HG3	1.85	0.57
13:4A:55:ARG:O	13:4A:59:TYR:N	2.37	0.57
26:14:96:G:H4'	50:G5:48:HIS:CD2	2.38	0.57
26:14:581:C:H2'	26:14:582:G:H8	1.68	0.57
34:69:143:SER:O	34:69:144:VAL:HG22	2.04	0.57
38:45:35:VAL:HG12	38:45:36:ALA:H	1.69	0.57
5:4E:8:GLU:HG3	5:4E:34:VAL:HG22	1.86	0.57
11:2I:46:GLY:HA2	11:2I:50:TYR:O	2.05	0.57
1:1G:519:C:H2'	1:1G:520:A:O4'	2.03	0.57
1:1G:1448:C:H42	1:1G:1455:G:H1	1.51	0.57
3:22:26:LYS:HG3	3:22:27:LYS:H	1.68	0.57
6:52:96:PRO:HB3	18:9A:30:ASP:CG	2.28	0.57
26:14:459:U:H4'	54:L5:40:TRP:CZ3	2.38	0.57
26:14:981:A:N1	26:14:2027:G:O2'	2.34	0.57
26:14:1430:C:H2'	26:14:1431:U:C6	2.39	0.57
26:14:1653:G:C6	39:55:9:LYS:HB2	2.39	0.57
26:14:2064:C:H2'	26:14:2065:C:C6	2.40	0.57
34:69:142:VAL:HG12	34:69:143:SER:H	1.68	0.57
1:13:572:A:H5'	1:13:573:A:OP2	2.03	0.57
24:3K:58:A:O2'	24:3K:59:A:OP1	2.21	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:732:C:OP2	60:1H:3545:HOH:O	2.17	0.57
26:1H:870:A:OP1	38:88:6:ARG:NH2	2.37	0.57
26:1H:2212:A:H1'	26:1H:2215:G:C4	2.40	0.57
26:1H:2518:A:H5'	26:1H:2518:A:H8	1.67	0.57
26:1H:2721:A:H2'	26:1H:2722:G:O4'	2.05	0.57
1:1G:198:G:OP2	1:1G:198:G:H8	1.88	0.57
2:12:119:GLU:HG3	2:12:142:LEU:HD11	1.85	0.57
7:62:11:GLN:NE2	7:62:12:LEU:O	2.38	0.57
26:14:1558:A:O2'	26:14:1559:G:OP2	2.20	0.57
48:E5:72:ARG:HE	48:E5:75:LEU:HD12	1.69	0.57
1:13:1044:A:C5	1:13:1045:C:H1'	2.40	0.57
26:1H:298:G:OP2	46:G8:84:ARG:HD2	2.04	0.57
26:1H:833:U:O2	37:78:55:ARG:NH2	2.34	0.57
26:1H:1193:G:H2'	26:1H:1194:A:C8	2.40	0.57
26:1H:1565:C:O2'	26:1H:1567:A:N7	2.33	0.57
44:E8:12:ILE:HG12	44:E8:13:SER:H	1.70	0.57
1:1G:620:C:C4	4:32:135:LEU:HD11	2.39	0.57
1:1G:929:G:H1	1:1G:1388:C:H42	1.52	0.57
1:1G:1292:U:H2'	1:1G:1293:G:C8	2.40	0.57
26:14:303:U:H2'	26:14:304:G:C8	2.40	0.57
26:14:582:G:H2'	26:14:583:G:H8	1.69	0.57
26:14:860:U:H1'	26:14:2268:A:H5'	1.87	0.57
30:29:179:GLU:HB3	30:29:181:LEU:HD13	1.87	0.57
32:49:20:ILE:HG23	32:49:25:TYR:HB2	1.86	0.57
33:59:69:ARG:O	33:59:72:ILE:HG12	2.05	0.57
42:85:97:ASP:OD2	42:85:101:ARG:NH2	2.37	0.57
1:13:222:U:H2'	1:13:223:U:C6	2.40	0.57
1:13:324:G:N1	1:13:327:A:OP2	2.36	0.57
1:13:490:G:H5"	4:3E:151:LYS:NZ	2.19	0.57
1:13:598:U:H4'	8:7E:94:TYR:CD2	2.40	0.57
8:7E:104:ARG:HG3	8:7E:138:TRP:CD1	2.39	0.57
10:1I:75:ILE:HD12	10:1I:76:ASN:HD22	1.68	0.57
26:1H:355:G:H2'	26:1H:356:G:C8	2.40	0.57
26:1H:1863:G:H2'	26:1H:1864:U:O4'	2.05	0.57
26:1H:2074:U:H2'	26:1H:2075:U:C6	2.39	0.57
32:41:105:LYS:HE2	52:M8:26:SER:HB2	1.86	0.57
1:1G:620:C:N3	4:32:135:LEU:HD11	2.20	0.57
1:1G:1251:A:H2'	1:1G:1252:A:C8	2.39	0.57
2:12:71:VAL:HB	2:12:165:VAL:HG22	1.87	0.57
23:2L:54:G:O2'	23:2L:55:5MU:H5"	2.05	0.57
26:14:879:G:H2'	26:14:897:C:N4	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1963:U:H5"	26:14:1963:U:O2	2.05	0.57
26:14:2173:A:O2'	26:14:2174:C:OP1	2.20	0.57
29:19:108:PRO:HB3	29:19:143:HIS:HE1	1.70	0.57
30:29:12:THR:O	30:29:23:VAL:HG22	2.05	0.57
32:49:41:GLN:NE2	32:49:154:GLY:O	2.29	0.57
34:69:77:LEU:HD12	34:69:78:THR:N	2.20	0.57
38:45:134:ARG:O	38:45:134:ARG:HG2	2.04	0.57
39:55:45:ARG:HA	39:55:95:THR:HG21	1.87	0.57
39:55:57:ARG:NE	39:55:59:ASP:OD2	2.27	0.57
1:13:186(E):C:H42	1:13:191(B):G:H1	1.52	0.57
1:13:209:U:H4'	1:13:216:G:C2	2.40	0.57
1:13:407:G:H2'	1:13:408:A:C8	2.40	0.57
1:13:612:C:O2	1:13:629:G:N2	2.37	0.57
1:13:804:U:H5"	1:13:805:C:OP2	2.05	0.57
2:1E:82:ARG:NE	2:1E:92:TYR:OH	2.38	0.57
3:2E:162:GLN:HG2	25:4K:24:A:H3'	1.87	0.57
4:3E:90:GLY:O	4:3E:93:PHE:HB2	2.05	0.57
24:3K:35:U:H2'	24:3K:36:U:C6	2.39	0.57
26:1H:1021:A:H8	26:1H:1022:G:H5"	1.69	0.57
26:1H:1512:G:H2'	26:1H:1513:C:C6	2.40	0.57
26:1H:2175:C:H1'	28:71:217:THR:O	2.05	0.57
26:1H:2695:C:H2'	26:1H:2696:U:H6	1.70	0.57
30:21:119:ARG:NH2	30:21:157:ALA:C	2.63	0.57
34:61:33:ARG:HB3	34:61:35:LEU:HD13	1.86	0.57
35:58:73:THR:HB	35:58:82:LEU:HD11	1.86	0.57
37:78:37:GLY:HA2	37:78:41:ARG:NH2	2.20	0.57
37:78:116:GLY:H	37:78:134:ALA:HB2	1.70	0.57
47:H8:60:GLU:O	47:H8:61:LEU:CD2	2.53	0.57
49:J8:83:GLU:HG3	49:J8:85:LEU:HB2	1.85	0.57
20:BA:63:ILE:HG21	20:BA:81:LYS:HG3	1.86	0.57
26:14:270(F):U:H2'	26:14:270(G):C:C6	2.40	0.57
26:14:649:G:H2'	26:14:650:C:C6	2.40	0.57
30:29:23:VAL:HA	30:29:184:VAL:O	2.05	0.57
31:39:133:ASN:HA	31:39:162:LEU:HD23	1.86	0.57
33:59:67:LEU:O	33:59:71:LEU:HD13	2.05	0.57
3:2E:64:VAL:HG12	3:2E:66:VAL:HG23	1.87	0.57
20:BI:75:ASN:O	20:BI:79:ARG:N	2.36	0.57
26:1H:958:U:OP1	38:88:74:TYR:OH	2.17	0.57
26:1H:2031:A:C6	26:1H:2498:C:H1'	2.39	0.57
30:21:35:GLN:HG3	30:21:36:ARG:N	2.20	0.57
2:12:30:ARG:HH22	2:12:194:PRO:HB2	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:61:LYS:HB2	4:32:203:VAL:HG13	1.85	0.57
26:14:918:A:O2'	27:1J:96:G:N2	2.38	0.57
26:14:960:A:H61	38:45:82:ARG:NH2	2.02	0.57
26:14:1434:A:H2'	26:14:1435:G:C8	2.40	0.57
26:14:2086:U:P	29:19:262:ARG:NH2	2.77	0.57
29:19:39:LYS:O	29:19:40:THR:HG23	2.04	0.57
1:13:127:G:HO2'	17:8I:2:PRO:N	2.03	0.56
1:13:524:G:H2'	1:13:525:C:C6	2.40	0.56
1:13:1446:A:O2'	41:B8:125:ARG:NH2	2.38	0.56
4:3E:31:CYS:HB3	4:3E:34:GLU:CG	2.34	0.56
9:8E:50:LEU:HD23	9:8E:85:LEU:HD11	1.86	0.56
13:4I:82:MET:O	13:4I:84:ILE:N	2.37	0.56
18:9I:47:THR:HA	18:9I:83:GLU:HB2	1.87	0.56
22:1K:41:A:H2'	22:1K:42:A:C8	2.40	0.56
26:1H:1400:G:H2'	26:1H:1401:G:H8	1.70	0.56
26:1H:1538:G:H2'	26:1H:1539:G:H8	1.70	0.56
26:1H:2125:G:N1	26:1H:2171:A:H5"	2.20	0.56
26:1H:2199:A:H3'	26:1H:2205:C:C6	2.39	0.56
35:58:47:ALA:HB2	35:58:112:LEU:CD1	2.33	0.56
35:58:56:ASN:N	35:58:125:GLY:O	2.21	0.56
47:H8:60:GLU:O	47:H8:61:LEU:HD23	2.05	0.56
1:1G:449:C:O2'	16:7A:43:LYS:HE2	2.05	0.56
4:32:196:LEU:HD13	4:32:198:VAL:HG22	1.87	0.56
5:42:41:VAL:O	5:42:67:VAL:N	2.36	0.56
7:62:92:SER:HB2	7:62:94:ARG:HE	1.70	0.56
19:AA:11:VAL:HG12	19:AA:12:ASP:N	2.20	0.56
22:1L:53:G:H2'	22:1L:54:5MU:H5"	1.87	0.56
22:1L:58:A:O2'	22:1L:60:U:OP2	2.22	0.56
26:14:458:G:O2'	54:L5:39:ARG:HD3	2.05	0.56
26:14:753:C:H2'	26:14:754:C:H6	1.70	0.56
26:14:1729:A:H2'	26:14:1731:G:H22	1.70	0.56
26:14:2012:G:OP1	44:A5:11:ARG:NH2	2.38	0.56
26:14:2016:U:H1'	53:J5:6:VAL:HG13	1.87	0.56
26:14:2178:C:O2'	28:79:168:THR:OG1	2.22	0.56
26:14:2308:G:O2'	26:14:2309:A:OP1	2.21	0.56
29:19:6:PHE:HE1	29:19:18:VAL:HG23	1.70	0.56
29:19:25:THR:HG23	29:19:81:ALA:HB1	1.86	0.56
1:13:111:G:H8	1:13:111:G:O5'	1.88	0.56
3:2E:8:ILE:HG23	3:2E:16:ARG:HG2	1.85	0.56
22:1K:6:G:H2'	22:1K:7:U:C6	2.39	0.56
26:1H:1930:G:N2	26:1H:1968:G:H2'	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2661:G:OP2	26:1H:2661:G:H8	1.87	0.56
27:16:43:C:P	32:41:67:LYS:HZ1	2.28	0.56
29:11:242:ARG:HD2	29:11:242:ARG:H	1.70	0.56
46:G8:39:VAL:O	46:G8:42:VAL:HG22	2.04	0.56
46:G8:89:PHE:HD1	46:G8:90:LEU:N	2.02	0.56
1:1G:630:G:H5'	1:1G:631:G:OP2	2.05	0.56
11:2A:109:VAL:HG12	18:9A:86:VAL:HG22	1.86	0.56
20:BA:49:ALA:O	20:BA:100:ILE:HG21	2.04	0.56
26:14:27:G:N2	26:14:512:G:H1'	2.20	0.56
26:14:648:G:O2'	26:14:2351:G:OP1	2.15	0.56
35:15:35:ARG:HB3	35:15:42:TRP:CZ3	2.40	0.56
1:13:54:C:N4	1:13:353:A:OP2	2.34	0.56
1:13:376:G:H5"	16:7I:5:ARG:HB2	1.87	0.56
1:13:491:G:H2'	1:13:492:G:O4'	2.05	0.56
1:13:649:G:H2'	1:13:650:G:C8	2.40	0.56
1:13:1264:C:H2'	1:13:1265:G:C8	2.41	0.56
2:1E:18:GLY:H	2:1E:42:ILE:CG1	2.18	0.56
2:1E:59:GLU:HB2	2:1E:221:LEU:HD21	1.88	0.56
26:1H:1429:G:H2'	26:1H:1430:C:C6	2.40	0.56
26:1H:2213:U:H1'	49:J8:52:ARG:CZ	2.35	0.56
26:1H:2314:C:H2'	26:1H:2315:G:C8	2.40	0.56
26:1H:2345:G:H4'	26:1H:2346:A:O5'	2.05	0.56
30:21:131:ALA:HB1	30:21:135:HIS:CE1	2.41	0.56
31:31:127:GLU:HA	31:31:127:GLU:OE2	2.06	0.56
38:88:111:GLU:OE1	38:88:133:ARG:NH1	2.38	0.56
39:98:103:ARG:HA	39:98:111:LEU:HD12	1.87	0.56
45:F8:65:ARG:HG3	45:F8:67:GLY:H	1.70	0.56
46:G8:9:LYS:O	46:G8:27:VAL:HG13	2.05	0.56
46:G8:94:LYS:HG3	46:G8:95:LYS:N	2.21	0.56
50:K8:28:LYS:HE3	50:K8:56:GLN:NE2	2.20	0.56
1:1G:518:C:H5"	1:1G:519:C:C6	2.40	0.56
2:12:22:LYS:HG2	2:12:40:HIS:HE2	1.69	0.56
7:62:115:ARG:O	7:62:118:VAL:HG22	2.06	0.56
8:72:33:GLU:HB3	8:72:59:LEU:HD13	1.86	0.56
26:14:205:G:HO2'	26:14:206:U:P	2.29	0.56
26:14:1106:G:H3'	26:14:1107:G:C8	2.39	0.56
26:14:1593:G:H2'	26:14:1594:G:C8	2.40	0.56
26:14:2165:G:H3'	26:14:2166:G:H5'	1.87	0.56
26:14:2611:U:C4	53:J5:3:LYS:HG3	2.40	0.56
38:45:54:MET:O	38:45:57:HIS:N	2.35	0.56
39:55:78:LYS:O	39:55:83:ILE:HG13	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:44:LYS:O	43:95:46:VAL:N	2.24	0.56
53:J5:41:PRO:HG2	53:J5:44:THR:HG21	1.87	0.56
1:13:243:A:H5"	1:13:244:U:H3'	1.87	0.56
1:13:1374:A:O2'	7:6E:28:ASN:HB3	2.05	0.56
1:13:1429:C:H2'	1:13:1430:C:C6	2.40	0.56
26:1H:568:U:O4	60:1H:3539:HOH:O	2.16	0.56
26:1H:674:G:C1'	31:31:74:ARG:HD2	2.35	0.56
26:1H:1339:G:H21	26:1H:1603:A:H1'	1.70	0.56
38:88:12:GLN:HE21	38:88:73:PRO:HD2	1.68	0.56
46:G8:76:CYS:SG	46:G8:97:ARG:HG3	2.45	0.56
46:G8:83:THR:OG1	46:G8:84:ARG:N	2.37	0.56
1:1G:1136:U:H5"	1:1G:1137:C:C5	2.41	0.56
4:32:81:GLU:N	4:32:81:GLU:OE2	2.39	0.56
8:72:30:ARG:HG3	8:72:31:PHE:N	2.19	0.56
9:82:27:THR:HG22	9:82:32:ASP:CA	2.35	0.56
10:1A:78:ASN:O	10:1A:81:THR:OG1	2.21	0.56
23:2L:41:C:H2'	23:2L:42:C:C6	2.41	0.56
26:14:1425:G:H2'	26:14:1426:G:C8	2.40	0.56
26:14:2572:A:C4	30:29:144:ARG:NH1	2.71	0.56
27:1J:2:C:H2'	27:1J:3:C:H6	1.70	0.56
40:65:88:ASP:OD1	40:65:90:GLY:N	2.36	0.56
46:C5:86:ARG:NE	46:C5:87:LYS:O	2.38	0.56
1:13:793:U:H5'	1:13:794:A:H5"	1.88	0.56
1:13:995:C:O2	14:5I:4:LYS:NZ	2.36	0.56
4:3E:70:ILE:HG23	4:3E:75:PHE:HB2	1.88	0.56
9:8E:128:ARG:HH21	23:2K:36:A:P	2.29	0.56
12:3I:36:VAL:O	12:3I:59:ARG:N	2.39	0.56
13:4I:5:ALA:HB2	13:4I:61:GLU:HG2	1.87	0.56
24:3K:71:C:O2	26:1H:1851:U:O2'	2.18	0.56
26:1H:827:U:H5'	26:1H:828:U:O5'	2.04	0.56
26:1H:1177:A:OP1	26:1H:1178:C:N4	2.38	0.56
26:1H:1786:A:H2	26:1H:2606:C:H1'	1.71	0.56
26:1H:2122:U:O2'	28:71:172:HIS:HE1	1.88	0.56
26:1H:2870:C:H5"	39:98:65:LEU:HD21	1.87	0.56
29:11:183:ARG:HD2	29:11:269:PHE:O	2.05	0.56
33:51:158:HIS:HA	33:51:170:ARG:HE	1.70	0.56
1:1G:114:U:H2'	1:1G:115:G:C8	2.40	0.56
1:1G:393:A:OP2	16:7A:12:LYS:HD3	2.06	0.56
4:32:93:PHE:O	4:32:96:LEU:HB2	2.05	0.56
13:4A:49:THR:N	13:4A:52:GLU:HG3	2.20	0.56
13:4A:81:LEU:HD23	13:4A:88:ARG:HH21	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:154:G:O6	26:14:172:C:N4	2.38	0.56
29:19:108:PRO:HB3	29:19:143:HIS:CE1	2.40	0.56
51:H5:6:VAL:O	51:H5:34:GLU:HA	2.06	0.56
1:13:976:G:H5'	1:13:1358:U:O2'	2.06	0.56
1:13:1329:A:N7	21:1F:7:ARG:NH2	2.53	0.56
17:8I:55:ASP:HA	17:8I:79:SER:HA	1.88	0.56
24:3K:49:G:H1'	24:3K:66:A:C2	2.41	0.56
26:1H:674:G:O2'	31:31:74:ARG:HD3	2.06	0.56
26:1H:1334:G:H2'	26:1H:1335:U:H6	1.70	0.56
26:1H:2091:U:OP2	26:1H:2092:U:O2'	2.20	0.56
43:D8:36:PRO:O	43:D8:38:LEU:N	2.39	0.56
47:H8:53:ILE:HG22	47:H8:71:VAL:HG13	1.86	0.56
54:P8:15:THR:HG22	54:P8:16:HIS:CE1	2.41	0.56
1:1G:439:A:OP2	1:1G:493:G:N1	2.38	0.56
1:1G:1137:C:H1'	1:1G:1138:G:C2	2.40	0.56
7:62:26:PHE:CD1	7:62:30:ILE:HD11	2.40	0.56
8:72:87:SER:HB2	8:72:93:VAL:HB	1.88	0.56
9:82:26:VAL:HG22	9:82:60:ASP:HB3	1.85	0.56
24:3L:2:G:H2'	24:3L:3:G:C8	2.40	0.56
26:14:617:G:OP1	31:39:40:GLN:HG3	2.05	0.56
26:14:2887:U:H2'	26:14:2888:C:H6	1.70	0.56
1:13:128:G:H5'	17:8I:2:PRO:O	2.06	0.56
19:AI:36:ARG:NH1	19:AI:52:TYR:O	2.39	0.56
26:1H:234:C:H2'	26:1H:235:U:C6	2.40	0.56
33:51:40:GLU:O	33:51:41:MET:HE3	2.06	0.56
51:L8:7:LYS:HG3	51:L8:34:GLU:HG2	1.87	0.56
1:1G:502:G:OP1	12:3A:118:SER:HB3	2.06	0.56
12:3A:86:ARG:HB2	12:3A:101:VAL:HG23	1.88	0.56
26:14:39:C:O2	31:39:46:ARG:NH2	2.39	0.56
26:14:1727:U:H3	26:14:1733:G:H1	1.53	0.56
26:14:1794:U:H2'	26:14:1795:C:C6	2.41	0.56
26:14:2306:C:H3'	26:14:2307:G:H5"	1.87	0.56
26:14:2343:C:O2'	26:14:2373:G:O2'	2.22	0.56
27:1J:93:C:H2'	27:1J:94:C:H6	1.69	0.56
38:45:25:ASP:HB3	38:45:102:VAL:N	2.14	0.56
41:75:11:GLU:O	41:75:13:ARG:HD3	2.05	0.56
1:13:1031:G:H2'	1:13:1032:A:H5'	1.87	0.56
1:13:1080:A:H5'	5:4E:14:ARG:HH21	1.70	0.56
4:3E:84:LYS:C	4:3E:86:LYS:HA	2.31	0.56
13:4I:15:VAL:HG23	13:4I:43:THR:O	2.06	0.56
15:6I:3:ILE:HD12	15:6I:34:LEU:HD23	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:65:C:H2'	26:1H:66:C:C6	2.40	0.56
26:1H:192:C:O2'	26:1H:802:A:N3	2.39	0.56
33:51:103:LEU:HD22	33:51:131:VAL:HG21	1.88	0.56
35:58:35:ARG:O	35:58:42:TRP:HZ3	1.89	0.56
37:78:35:HIS:HA	60:78:302:HOH:O	2.05	0.56
40:A8:21:THR:HG23	40:A8:23:ARG:H	1.70	0.56
46:G8:34:LYS:HG3	46:G8:34:LYS:O	2.05	0.56
1:1G:777:A:H2	11:2A:119:CYS:HB3	1.71	0.56
1:1G:1325:C:H2'	1:1G:1326:C:C6	2.41	0.56
14:5A:29:ARG:HG3	14:5A:31:ARG:N	2.19	0.56
16:7A:43:LYS:HA	16:7A:48:TRP:CE3	2.41	0.56
17:8A:40:LYS:HD3	17:8A:42:TYR:CZ	2.41	0.56
26:14:1599:C:H2'	26:14:1600:C:H6	1.71	0.56
26:14:2129:C:H3'	26:14:2130:U:C6	2.41	0.56
26:14:2146:C:H4'	26:14:2147:G:C8	2.41	0.56
26:14:2275:C:C6	26:14:2275:C:H5'	2.41	0.56
26:14:2683:C:OP1	41:75:53:ARG:NH2	2.39	0.56
26:14:2887:U:H2'	26:14:2888:C:C6	2.41	0.56
40:65:49:VAL:HG11	40:65:77:ALA:HB2	1.87	0.56
1:13:601:C:H2'	1:13:602:A:H8	1.71	0.56
1:13:1442:G:C6	1:13:1446:A:C6	2.93	0.56
26:1H:106:C:H2'	26:1H:107:C:C6	2.40	0.56
26:1H:503:A:H4'	26:1H:504:U:H5"	1.87	0.56
26:1H:1021:A:H61	26:1H:1142(A):A:H61	1.54	0.56
35:58:1:MET:HE2	43:D8:13:ARG:H	1.71	0.56
36:68:17:ARG:HG3	36:68:47:ILE:HD13	1.88	0.56
43:D8:19:LYS:HE2	43:D8:95:LEU:HD23	1.87	0.56
49:J8:65:SER:OG	49:J8:66:HIS:ND1	2.36	0.56
2:12:73:THR:HG21	2:12:97:TRP:H	1.71	0.56
8:72:36:LEU:HD23	8:72:39:LEU:CD2	2.36	0.56
9:82:20:ARG:NH1	9:82:22:GLY:HA3	2.21	0.56
10:1A:17:ASP:O	10:1A:21:GLN:HB2	2.06	0.56
26:14:2129:C:OP1	28:79:6:ARG:NE	2.39	0.56
26:14:2819:G:H2'	26:14:2821:A:N7	2.21	0.56
29:19:70:TRP:CD1	29:19:70:TRP:C	2.83	0.56
30:29:11:MET:SD	30:29:24:THR:HG22	2.46	0.56
31:39:130:ALA:H	31:39:142:TRP:CD1	2.24	0.56
1:13:346:G:C8	41:B8:41:ARG:NH1	2.74	0.56
1:13:1060:C:OP1	14:5I:45:ARG:NH2	2.39	0.56
4:3E:82:ALA:HB2	4:3E:92:VAL:HB	1.88	0.56
26:1H:1338:G:H2'	26:1H:1339:G:H8	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2019:A:H4'	42:C8:34:LYS:HD2	1.87	0.56
28:71:59:ARG:HB2	28:71:164:ARG:HE	1.71	0.56
47:H8:4:ARG:NH1	47:H8:60:GLU:OE1	2.36	0.56
1:1G:9:G:H5"	5:42:126:ARG:HD2	1.88	0.56
1:1G:78:G:H2'	1:1G:79:G:O4'	2.06	0.56
1:1G:376:G:O3'	16:7A:5:ARG:NH1	2.31	0.56
1:1G:862:C:H1'	1:1G:874:G:H5"	1.88	0.56
1:1G:1294:G:H2'	1:1G:1295:G:H8	1.69	0.56
18:9A:53:ARG:CG	18:9A:63:GLN:HE21	2.14	0.56
26:14:1180:C:H2'	26:14:1181:C:C6	2.41	0.56
26:14:1784:A:H5"	60:14:3418:HOH:O	2.06	0.56
33:59:60:ARG:O	33:59:63:SER:OG	2.24	0.56
36:25:63:VAL:HG12	36:25:106:LEU:HD11	1.87	0.56
43:95:83:ARG:HD2	43:95:83:ARG:N	2.21	0.56
1:13:1423:G:P	36:68:49:ARG:HH22	2.29	0.55
2:1E:28:PHE:CE1	2:1E:31:TYR:HD2	2.24	0.55
4:3E:57:ARG:HG2	4:3E:202:LEU:HD22	1.88	0.55
23:2K:54:G:H2'	23:2K:55:5MU:C6	2.41	0.55
30:21:38:THR:HG23	30:21:41:LYS:H	1.71	0.55
1:1G:1288:A:N3	1:1G:1352:C:O2'	2.39	0.55
20:BA:72:LEU:O	20:BA:73:HIS:HB2	2.05	0.55
26:14:528:A:C2	26:14:2043:C:H4'	2.41	0.55
26:14:607:U:H3	26:14:621:A:H2	1.53	0.55
26:14:839:U:H2'	26:14:840:C:C6	2.42	0.55
27:1J:16:G:N2	27:1J:68:C:O2	2.31	0.55
33:59:61:HIS:O	33:59:65:HIS:N	2.31	0.55
43:95:71:LEU:O	43:95:72:VAL:HG12	2.06	0.55
1:13:417:C:H2'	1:13:418:C:H6	1.70	0.55
1:13:501:C:H2'	1:13:502:G:H8	1.71	0.55
1:13:1171:G:O2'	1:13:1172:C:H5'	2.05	0.55
1:13:1239:A:H62	1:13:1299:A:H62	1.55	0.55
26:1H:654(O):G:H8	26:1H:654(P):G:H1'	1.69	0.55
26:1H:1265:A:H8	26:1H:1265:A:OP1	1.88	0.55
26:1H:1346:G:H2'	26:1H:1347:G:H8	1.70	0.55
26:1H:1442:G:C2	26:1H:1550:C:O2	2.60	0.55
26:1H:1526:G:H2'	26:1H:1527:G:C8	2.41	0.55
26:1H:2048:G:C2	26:1H:2621:A:C2	2.94	0.55
26:1H:2160:G:H2'	26:1H:2161:C:H4'	1.88	0.55
26:1H:2287:A:H2	26:1H:2346:A:C2	2.24	0.55
26:1H:2360:A:C2	26:1H:2361:A:H1'	2.41	0.55
26:1H:2812:G:H1	26:1H:2888:C:H42	1.54	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:58:67:LEU:HA	35:58:87:LEU:HD12	1.87	0.55
38:88:10:ARG:HH21	38:88:11:LYS:HE3	1.72	0.55
42:C8:92:ARG:NH1	42:C8:94:ASN:OD1	2.39	0.55
49:J8:3:LYS:O	49:J8:12:PRO:HD3	2.06	0.55
1:1G:1095:U:H2'	1:1G:1096:C:C6	2.41	0.55
1:1G:1372:U:OP1	9:82:72:GLY:N	2.39	0.55
3:22:70:VAL:HG12	3:22:72:LYS:N	2.18	0.55
8:72:68:ARG:NH1	8:72:69:ARG:O	2.39	0.55
23:2L:8:4SU:O5'	23:2L:8:4SU:H6	2.06	0.55
23:2L:10:G:N2	23:2L:27:G:H1'	2.22	0.55
26:14:76:C:O3'	50:G5:59:ARG:HG3	2.06	0.55
26:14:89:G:H3'	26:14:90:U:H5"	1.87	0.55
26:14:1525:G:H2'	26:14:1526:G:H8	1.71	0.55
26:14:1786:A:C2	26:14:2606:C:H1'	2.42	0.55
31:39:67:GLN:HG3	31:39:67:GLN:O	2.06	0.55
31:39:170:LEU:HD22	31:39:172:TRP:HE1	1.71	0.55
32:49:76:SER:HB2	32:49:84:LYS:HB2	1.88	0.55
41:75:11:GLU:N	41:75:11:GLU:CD	2.64	0.55
1:13:233:C:H2'	1:13:234:C:H6	1.70	0.55
1:13:559:A:OP1	5:4E:126:ARG:NH2	2.38	0.55
1:13:1061:G:OP1	10:1I:59:SER:OG	2.20	0.55
1:13:1257:U:O4	3:2E:27:LYS:HE2	2.06	0.55
26:1H:2863:C:H2'	26:1H:2864:G:C8	2.42	0.55
27:16:73:A:C4	27:16:104:A:C2	2.94	0.55
31:31:129:PHE:HA	31:31:142:TRP:NE1	2.21	0.55
34:61:110:ASP:OD1	34:61:111:PRO:HA	2.07	0.55
37:78:63:PRO:CB	55:Q8:30:ARG:HH21	2.19	0.55
38:88:31:ASP:H	38:88:107:ALA:HB2	1.71	0.55
44:E8:97:LYS:HE2	44:E8:99:ARG:NH2	2.20	0.55
1:1G:198:G:H2'	1:1G:199:G:H8	1.71	0.55
1:1G:594:G:H1	1:1G:645:C:H42	1.54	0.55
1:1G:739:C:O2'	15:6A:42:HIS:ND1	2.31	0.55
4:32:28:SER:HB3	4:32:29:PRO:HA	1.89	0.55
24:3L:58:A:H1'	24:3L:60:U:C5	2.42	0.55
26:14:548:A:C5	26:14:549:G:H1'	2.41	0.55
26:14:557:U:H2'	26:14:558:G:C8	2.41	0.55
26:14:709:U:H3	26:14:722:A:H61	1.55	0.55
26:14:1022:G:C6	26:14:1140:C:C4	2.94	0.55
26:14:1040:C:O2	26:14:1115:G:N2	2.35	0.55
26:14:1484:G:H2'	26:14:1485:G:H8	1.70	0.55
26:14:2006:C:O2'	26:14:2823:A:N3	2.35	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2280:G:O2'	26:14:2388:A:N1	2.37	0.55
26:14:2292:C:P	40:65:17:ARG:HH21	2.29	0.55
26:14:2329:G:H21	48:E5:41:ARG:HD3	1.70	0.55
27:1J:17:C:H2'	27:1J:18:G:O4'	2.06	0.55
27:1J:118:G:C5	27:1J:119:A:N7	2.74	0.55
36:25:9:GLU:O	36:25:83:ALA:HA	2.06	0.55
48:E5:38:VAL:HG12	48:E5:59:LEU:HG	1.87	0.55
1:13:812:C:OP1	1:13:902:G:N2	2.32	0.55
1:13:890:G:O2'	1:13:906:G:O6	2.18	0.55
1:13:1126:U:H5	1:13:1127:G:C2	2.25	0.55
1:13:1318:A:H2'	1:13:1319:A:H5"	1.87	0.55
1:13:1367:C:OP2	9:8E:112:LYS:NZ	2.40	0.55
5:4E:110:LEU:HD13	5:4E:118:ILE:HD13	1.89	0.55
19:AI:18:LYS:CG	19:AI:31:ILE:HD12	2.36	0.55
26:1H:1468:C:H2'	26:1H:1469:A:C8	2.41	0.55
26:1H:2684:U:H1'	36:68:70:LYS:HE2	1.87	0.55
39:98:13:HIS:NE2	39:98:15:SER:HB2	2.22	0.55
47:H8:28:MET:HB2	47:H8:35:ARG:HB2	1.88	0.55
47:H8:104:PHE:HA	47:H8:139:VAL:HB	1.89	0.55
1:1G:1243:C:OP2	21:1B:10:ARG:NH1	2.40	0.55
1:1G:1308:U:OP1	13:4A:98:VAL:N	2.34	0.55
7:62:15:ASP:OD1	7:62:19:GLY:N	2.39	0.55
26:14:662:G:OP1	37:35:15:ARG:NH2	2.39	0.55
26:14:2320:A:N6	26:14:2333:A:H2'	2.21	0.55
40:65:27:SER:HA	40:65:88:ASP:HB2	1.88	0.55
1:13:413:G:N2	1:13:428:G:H1'	2.22	0.55
13:4I:78:ILE:HA	13:4I:81:LEU:HB2	1.87	0.55
19:AI:28:LYS:HD2	19:AI:47:HIS:HA	1.87	0.55
26:1H:493:G:H2'	26:1H:494:G:O4'	2.07	0.55
26:1H:534:U:H5'	42:C8:42:ALA:HB1	1.89	0.55
26:1H:654(N):G:N7	26:1H:654(P):G:N2	2.54	0.55
26:1H:736:C:O5'	26:1H:736:C:H6	1.90	0.55
26:1H:2747:G:OP1	33:51:138:LYS:NZ	2.37	0.55
29:11:165:ILE:HD13	29:11:175:LEU:HD21	1.89	0.55
30:21:24:THR:HG21	30:21:188:VAL:HG22	1.89	0.55
43:D8:14:VAL:HB	43:D8:96:ILE:HG13	1.88	0.55
47:H8:93:ASP:O	47:H8:94:GLU:HG3	2.07	0.55
1:1G:155:C:H2'	1:1G:156:G:C8	2.41	0.55
1:1G:359:U:H2'	1:1G:360:A:H8	1.70	0.55
1:1G:991:U:C5	1:1G:1212:U:H1'	2.42	0.55
1:1G:1181:G:N2	1:1G:1182:G:HO2'	2.03	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:79:LYS:HG3	13:4A:82:MET:HE3	1.88	0.55
22:1L:42:A:H2'	22:1L:43:U:C5	2.41	0.55
26:14:631:A:N3	26:14:2415:G:O2'	2.33	0.55
26:14:2184:G:H2'	26:14:2185:C:C6	2.41	0.55
26:14:2432:A:H2'	26:14:2433:A:C8	2.41	0.55
26:14:2443:C:H2'	26:14:2444:G:H8	1.71	0.55
26:14:2612:C:H2'	26:14:2613:U:H5'	1.89	0.55
26:14:2747:G:H21	26:14:2757:A:H62	1.54	0.55
32:49:161:THR:HG22	32:49:163:ALA:H	1.72	0.55
37:35:78:PRO:HA	37:35:110:TYR:CD2	2.42	0.55
40:65:23:ARG:NH1	40:65:84:GLN:HB2	2.22	0.55
46:C5:52:SER:HB2	46:C5:56:PRO:HA	1.89	0.55
1:13:1014:A:C2	1:13:1219:U:H1'	2.42	0.55
4:3E:31:CYS:SG	4:3E:33:MET:HB2	2.46	0.55
22:1K:37:T6A:H2'	22:1K:38:A:O4'	2.06	0.55
26:1H:539:G:H2'	26:1H:540:G:H8	1.72	0.55
26:1H:573:G:O2'	26:1H:574:C:H3'	2.06	0.55
26:1H:1783:A:H5'	26:1H:2608:G:H4'	1.87	0.55
26:1H:2054:A:H5"	26:1H:2055:C:O5'	2.07	0.55
26:1H:2712:U:H1'	26:1H:2712(A):A:C8	2.42	0.55
27:16:11:C:H3'	27:16:12:C:C6	2.41	0.55
33:51:167:GLU:N	33:51:167:GLU:OE2	2.39	0.55
38:88:39:PRO:HA	38:88:97:VAL:O	2.07	0.55
41:B8:11:GLU:OE2	41:B8:11:GLU:HA	1.97	0.55
41:B8:28:VAL:HB	41:B8:86:ILE:HD11	1.87	0.55
1:1G:1217:C:OP1	14:5A:9:LYS:HE2	2.07	0.55
1:1G:1239:A:O2'	1:1G:1298:C:N4	2.38	0.55
3:22:14:ILE:HG13	3:22:15:THR:H	1.70	0.55
6:52:27:GLN:O	6:52:31:GLU:HG3	2.06	0.55
11:2A:27:ASN:ND2	11:2A:55:LYS:HD2	2.22	0.55
26:14:1425:G:N2	26:14:1573:G:N7	2.53	0.55
26:14:1826:G:H2'	26:14:1827:C:C6	2.41	0.55
26:14:2439:A:O2'	26:14:2440:C:OP2	2.23	0.55
26:14:2655:G:N2	26:14:2665:A:OP2	2.38	0.55
29:19:137:PRO:O	29:19:140:THR:OG1	2.20	0.55
41:75:50:ILE:HD11	41:75:102:ILE:CD1	2.37	0.55
17:8I:100:LYS:HG3	17:8I:101:ARG:HG3	1.88	0.55
26:1H:673:C:H5"	31:31:81:PRO:HD2	1.87	0.55
26:1H:1637:A:H4'	26:1H:2711:A:O2'	2.07	0.55
28:71:10:LEU:HD22	28:71:32:LEU:HA	1.88	0.55
28:71:184:LYS:HA	28:71:187:ASP:HB2	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1369:C:OP1	9:82:111:ARG:HB3	2.06	0.55
19:AA:10:PHE:CD2	19:AA:11:VAL:HG23	2.41	0.55
26:14:636:G:N7	37:35:113:LYS:NZ	2.41	0.55
26:14:2391:G:O6	26:14:2425:A:H8	1.89	0.55
36:25:25:LEU:HB2	36:25:38:VAL:HG23	1.88	0.55
37:35:105:LEU:O	37:35:106:LEU:HB3	2.05	0.55
38:45:21:THR:HG22	38:45:23:GLY:HA3	1.88	0.55
40:65:7:TYR:CZ	40:65:91:PRO:HG3	2.42	0.55
40:65:106:ARG:NH1	40:65:107:GLU:OE2	2.39	0.55
1:13:131:C:O2'	1:13:262:A:N3	2.31	0.55
1:13:256:U:H2'	1:13:257:G:C8	2.41	0.55
1:13:1041:A:H2'	1:13:1042:G:O4'	2.06	0.55
4:3E:173:TRP:CZ3	4:3E:193:ASP:HB3	2.42	0.55
8:7E:8:ASP:O	8:7E:12:ARG:HG3	2.07	0.55
26:1H:248:G:H5'	26:1H:250:G:N7	2.22	0.55
26:1H:285:C:H2'	26:1H:286:C:C6	2.42	0.55
26:1H:1442:G:H2'	26:1H:1443:G:C8	2.41	0.55
26:1H:2845:G:H2'	26:1H:2846:G:H8	1.72	0.55
29:11:146:GLU:HB2	29:11:189:CYS:CB	2.28	0.55
31:31:32:LEU:HD21	31:31:105:VAL:HG13	1.89	0.55
33:51:10:PRO:O	33:51:11:VAL:HG23	2.06	0.55
52:M8:23:GLU:OE1	52:M8:24:THR:N	2.40	0.55
1:1G:36:C:OP1	12:3A:123:LYS:NZ	2.39	0.55
1:1G:955:U:H1'	1:1G:1227:A:N6	2.21	0.55
1:1G:1123:A:H4'	10:1A:36:GLY:HA3	1.89	0.55
16:7A:19:ILE:HB	16:7A:36:ILE:O	2.06	0.55
26:14:329:G:P	46:C5:71:LYS:HE3	2.46	0.55
26:14:1399:C:H2'	26:14:1400:G:H8	1.71	0.55
26:14:2313:C:H2'	26:14:2314:C:C6	2.42	0.55
29:19:148:GLU:HB2	29:19:151:LYS:HD2	1.89	0.55
31:39:7:TYR:O	31:39:15:SER:HA	2.07	0.55
31:39:135:LYS:HB3	31:39:138:GLU:HG3	1.88	0.55
32:49:136:ARG:NH1	32:49:137:GLU:OE2	2.39	0.55
41:75:11:GLU:CD	41:75:11:GLU:H	2.13	0.55
43:95:35:LEU:O	43:95:37:VAL:HG22	2.07	0.55
46:C5:88:LYS:O	46:C5:89:PHE:HD1	1.89	0.55
47:D5:127:LYS:O	47:D5:162:GLU:HB3	2.07	0.55
1:13:310:G:OP2	16:7I:27:LYS:NZ	2.39	0.55
1:13:339:C:OP2	36:68:97:ARG:HD3	2.06	0.55
2:1E:28:PHE:HE1	2:1E:31:TYR:HD2	1.53	0.55
26:1H:1338:G:O2'	26:1H:1339:G:H5'	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2131:G:H5"	26:1H:2132:U:H5"	1.89	0.55
26:1H:2345:G:N3	26:1H:2381:C:H2'	2.22	0.55
26:1H:2845:G:O6	60:1H:3549:HOH:O	2.18	0.55
29:11:140:THR:HG22	29:11:141:VAL:O	2.06	0.55
31:31:184:TYR:O	31:31:188:ARG:HG2	2.07	0.55
47:H8:100:VAL:HG11	47:H8:137:ILE:HG13	1.89	0.55
50:K8:46:GLN:OE1	50:K8:46:GLN:N	2.40	0.55
1:1G:637:G:H2'	1:1G:638:G:H8	1.72	0.55
21:1B:6:ARG:HD3	21:1B:15:ARG:NH1	2.21	0.55
26:14:6:A:N7	26:14:2899:G:N2	2.55	0.55
26:14:2836:U:H2'	26:14:2837:G:H8	1.65	0.55
30:29:33:VAL:HG23	30:29:89:ASP:H	1.72	0.55
1:13:232:G:H2'	1:13:233:C:H6	1.72	0.55
8:7E:98:LYS:H	8:7E:98:LYS:HD2	1.72	0.55
9:8E:79:LEU:O	9:8E:83:ARG:N	2.40	0.55
26:1H:287:C:H2'	26:1H:288:C:C6	2.42	0.55
26:1H:527:C:H4'	26:1H:528:A:O5'	2.07	0.55
26:1H:1171:G:N2	26:1H:1178:C:O2	2.37	0.55
26:1H:1496:A:H8	26:1H:1577:C:O2'	1.90	0.55
26:1H:1657:C:H2'	26:1H:1658:C:C6	2.42	0.55
26:1H:1675:C:H2'	26:1H:1676:A:O4'	2.06	0.55
26:1H:2400:G:H2'	26:1H:2401:U:C6	2.42	0.55
26:1H:2428:G:N2	37:78:61:ARG:HH21	2.04	0.55
29:11:32:SER:HA	29:11:35:LYS:HZ3	1.71	0.55
37:78:96:THR:C	37:78:98:GLU:H	2.14	0.55
52:M8:34:GLU:HG2	52:M8:35:VAL:H	1.72	0.55
20:BA:51:GLU:HA	20:BA:54:LYS:HE3	1.89	0.55
26:14:91:A:H2'	26:14:92:G:C8	2.40	0.55
26:14:492:A:H2'	26:14:493:G:O4'	2.07	0.55
26:14:1336:A:H2'	26:14:1337:G:C8	2.42	0.55
26:14:2052:G:O4'	30:29:142:GLY:HA3	2.07	0.55
26:14:2689:U:P	26:14:2719:G:H22	2.30	0.55
27:1J:11:C:OP2	27:1J:12:C:N4	2.35	0.55
29:19:27:THR:HG22	29:19:29:PRO:O	2.07	0.55
34:69:143:SER:OG	34:69:144:VAL:N	2.39	0.55
39:55:44:LEU:HD22	39:55:48:VAL:HG23	1.87	0.55
55:M5:37:SER:OG	55:M5:39:LYS:O	2.24	0.55
1:13:7:G:H2'	5:4E:119:LEU:HD22	1.88	0.54
1:13:628:G:H2'	1:13:629:G:C8	2.42	0.54
1:13:843:U:H5"	1:13:848:C:C5	2.43	0.54
13:4I:45:VAL:HA	13:4I:48:LEU:HD22	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8I:45:HIS:O	17:8I:73:VAL:HG23	2.06	0.54
21:1F:9:ARG:O	21:1F:13:ILE:HG13	2.06	0.54
26:1H:620:G:H4'	26:1H:621:A:C5'	2.31	0.54
26:1H:817:C:O2'	26:1H:839:U:OP1	2.15	0.54
26:1H:1196:C:H41	37:78:16:ARG:HH12	1.55	0.54
26:1H:1359:A:H2	26:1H:1372:U:O4	1.90	0.54
26:1H:2147:G:H3'	26:1H:2148:G:H8	1.71	0.54
26:1H:2705:A:H2'	26:1H:2706:G:O4'	2.07	0.54
30:21:89:ASP:OD1	30:21:90:THR:N	2.40	0.54
31:31:130:ALA:H	31:31:132:VAL:HG13	1.72	0.54
32:41:65:GLY:HA3	52:M8:9:LEU:HD13	1.89	0.54
33:51:6:ARG:HA	33:51:66:GLY:HA2	1.88	0.54
35:58:49:GLY:O	35:58:119:ARG:CZ	2.53	0.54
1:1G:446:G:H1	1:1G:488:C:H42	1.55	0.54
1:1G:1423:G:H2'	1:1G:1424:C:C6	2.42	0.54
1:1G:1502:A:H4'	1:1G:1503:A:OP2	2.07	0.54
10:1A:28:ARG:NH2	10:1A:34:VAL:HB	2.21	0.54
26:14:1164:G:H1	26:14:1185:C:H42	1.55	0.54
26:14:2010:G:H5"	44:A5:42:ARG:HB2	1.88	0.54
26:14:2649:U:H3	26:14:2671:A:N6	1.99	0.54
30:29:112:GLY:C	30:29:159:HIS:HD2	2.14	0.54
31:39:89:VAL:O	31:39:90:PHE:C	2.50	0.54
1:13:1075:C:H2'	1:13:1076:C:H6	1.72	0.54
1:13:1455:G:H8	1:13:1455:G:O5'	1.90	0.54
6:5E:16:GLN:HG2	6:5E:17:SER:H	1.70	0.54
18:9I:50:ILE:HD11	18:9I:70:ILE:HG21	1.88	0.54
26:1H:912:C:OP1	38:88:8:LYS:NZ	2.39	0.54
26:1H:1794:U:H2'	26:1H:1795:C:H6	1.71	0.54
27:16:44:G:OP1	52:M8:1:MET:HE1	2.02	0.54
1:1G:1258:G:H2'	1:1G:1259:C:C6	2.42	0.54
2:12:19:HIS:ND1	2:12:204:ASN:HB3	2.21	0.54
3:22:88:ARG:HG3	3:22:101:LEU:HD12	1.89	0.54
4:32:3:ARG:NE	4:32:118:ARG:NE	2.47	0.54
14:5A:9:LYS:HB3	14:5A:12:ARG:HH12	1.71	0.54
26:14:957:A:OP1	38:45:76:LYS:HD3	2.07	0.54
26:14:1826:G:H2'	26:14:1827:C:H6	1.73	0.54
29:19:108:PRO:HG2	29:19:111:LEU:HB2	1.89	0.54
32:49:36:LYS:HG3	32:49:93:THR:HG23	1.88	0.54
42:85:97:ASP:O	42:85:100:VAL:N	2.38	0.54
1:13:51:A:OP2	1:13:52:G:H8	1.90	0.54
1:13:57:G:H2'	1:13:58:C:C6	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:262:A:H5'	20:BI:74:LYS:HG3	1.89	0.54
1:13:560:U:O2'	1:13:561:U:OP2	2.24	0.54
5:4E:35:GLY:HA3	5:4E:112:LEU:HB3	1.90	0.54
7:6E:123:GLU:O	7:6E:127:ALA:N	2.34	0.54
9:8E:16:ARG:NE	9:8E:64:THR:OG1	2.41	0.54
26:1H:286:C:H2'	26:1H:287:C:C6	2.41	0.54
26:1H:1505:C:H2'	26:1H:1506:C:C6	2.43	0.54
28:71:29:VAL:HG13	28:71:30:LYS:HG3	1.90	0.54
28:71:62:VAL:HG21	28:71:192:PHE:CZ	2.42	0.54
34:61:9:LEU:O	34:61:10:GLU:HG3	2.06	0.54
35:58:130:HIS:C	35:58:134:ARG:HH22	2.15	0.54
38:88:34:LEU:HB2	38:88:118:LEU:HD22	1.89	0.54
41:B8:77:PRO:HG2	41:B8:80:SER:HB2	1.89	0.54
50:K8:4:SER:HB3	50:K8:7:ARG:N	2.21	0.54
1:1G:1281:U:H3'	1:1G:1282:C:C5	2.41	0.54
4:32:175:SER:HB3	4:32:184:LYS:HB2	1.88	0.54
5:42:42:GLY:HA3	5:42:66:MET:HA	1.89	0.54
5:42:42:GLY:HA3	5:42:65:ASN:O	2.07	0.54
9:82:19:LEU:HD13	9:82:88:TYR:CD2	2.43	0.54
9:82:102:LEU:O	9:82:103:THR:OG1	2.23	0.54
9:82:117:HIS:O	9:82:118:LYS:HB2	2.06	0.54
12:3A:39:VAL:HB	12:3A:57:LYS:HD3	1.89	0.54
26:14:95:G:H4'	50:G5:46:GLN:HB2	1.89	0.54
26:14:95:G:O2'	50:G5:48:HIS:ND1	2.39	0.54
26:14:278:A:OP2	26:14:278:A:H2'	2.08	0.54
26:14:336:C:OP1	46:C5:83:THR:HG23	2.07	0.54
26:14:1257:C:H4'	31:39:83:PHE:CD1	2.43	0.54
26:14:1444(A):A:O2'	26:14:1445:C:O5'	2.26	0.54
26:14:1657:C:H2'	26:14:1658:C:H6	1.72	0.54
26:14:1678:G:H22	26:14:1989:G:N2	2.04	0.54
26:14:2643:G:H2'	26:14:2644:G:O4'	2.07	0.54
41:75:108:ARG:HA	41:75:111:ARG:HB2	1.89	0.54
55:M5:33:ASN:O	55:M5:34:TRP:C	2.50	0.54
1:13:237:C:H5"	17:8I:25:ARG:CZ	2.38	0.54
1:13:682:G:H2'	1:13:683:G:H8	1.71	0.54
1:13:838:G:H1	1:13:848:C:H42	1.52	0.54
4:3E:155:LEU:O	4:3E:158:ILE:N	2.39	0.54
8:7E:27:PRO:HA	8:7E:58:TYR:HA	1.89	0.54
26:1H:2111:C:N3	26:1H:2118:U:O2'	2.41	0.54
26:1H:2695:C:H2'	26:1H:2696:U:C6	2.42	0.54
29:11:11:PRO:O	29:11:12:SER:OG	2.17	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:55:ASN:HB3	30:21:58:ARG:HG3	1.89	0.54
30:21:131:ALA:HB1	30:21:135:HIS:HE1	1.72	0.54
40:A8:8:GLU:O	40:A8:11:LYS:HB3	2.08	0.54
49:J8:78:LYS:HD3	49:J8:78:LYS:N	2.23	0.54
1:1G:146:G:H2'	1:1G:147:G:H8	1.72	0.54
1:1G:397:A:H3'	1:1G:397:A:N3	2.22	0.54
1:1G:407:G:OP1	4:32:115:ARG:NE	2.40	0.54
1:1G:857:C:H3'	1:1G:858:G:C8	2.42	0.54
1:1G:1273:G:H3'	1:1G:1274:G:C8	2.37	0.54
2:12:32:ILE:HD11	2:12:40:HIS:HB3	1.89	0.54
26:14:77:C:H5"	50:G5:10:LEU:HD21	1.90	0.54
26:14:1225:C:H4'	43:95:85:LYS:CG	2.38	0.54
26:14:1568:G:H5'	29:19:60:ARG:HA	1.89	0.54
26:14:1662:C:O2'	26:14:2687:U:OP1	2.22	0.54
26:14:1730:U:H3'	26:14:1731:G:N2	2.22	0.54
27:1J:5:C:N4	27:1J:115:G:H1	2.04	0.54
48:E5:72:ARG:HB3	48:E5:75:LEU:HB2	1.89	0.54
49:F5:53:VAL:HG21	49:F5:74:VAL:HG22	1.90	0.54
55:M5:43:GLN:HG3	55:M5:46:ARG:HH21	1.72	0.54
1:13:110:C:H2'	1:13:111:G:O4'	2.07	0.54
5:4E:6:PHE:CE1	5:4E:36:ASP:HB3	2.43	0.54
10:1I:92:THR:OG1	10:1I:93:GLY:N	2.40	0.54
14:5I:42:ILE:O	14:5I:46:GLU:HG3	2.07	0.54
15:6I:71:GLN:HG2	15:6I:78:TYR:CD1	2.43	0.54
26:1H:459:U:H2'	26:1H:460:A:C8	2.42	0.54
26:1H:528:A:O2'	26:1H:529:A:H5"	2.07	0.54
26:1H:530:G:C5	26:1H:2022:U:H5"	2.42	0.54
26:1H:1345:C:H2'	26:1H:1346:G:H8	1.72	0.54
26:1H:2615:U:OP2	60:1H:3551:HOH:O	2.18	0.54
52:M8:14:ILE:HG13	52:M8:31:ILE:HB	1.90	0.54
1:1G:222:U:H2'	1:1G:223:U:C6	2.41	0.54
1:1G:512:U:H2'	1:1G:513:C:H6	1.72	0.54
1:1G:620:C:C2	4:32:135:LEU:HG	2.42	0.54
4:32:31:CYS:C	4:32:33:MET:N	2.64	0.54
13:4A:32:GLU:O	13:4A:36:LYS:N	2.34	0.54
26:14:958:U:OP2	38:45:14:ARG:NH1	2.34	0.54
26:14:2404:C:O3'	37:35:77:ARG:NH2	2.40	0.54
26:14:2789:C:H1'	26:14:2892:A:H2	1.72	0.54
33:59:74:ASN:HA	33:59:77:LYS:HB2	1.88	0.54
41:75:50:ILE:HD11	41:75:102:ILE:CG1	2.37	0.54
46:C5:17:SER:O	46:C5:21:LYS:HB2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:48:ALA:HB1	46:C5:50:ARG:HD2	1.88	0.54
1:13:719:C:O2'	18:9I:49:LYS:HB3	2.07	0.54
2:1E:36:ARG:HD2	2:1E:37:ASN:H	1.73	0.54
2:1E:73:THR:HG22	2:1E:74:LYS:HG3	1.89	0.54
2:1E:114:ARG:HG3	2:1E:118:LEU:HD23	1.89	0.54
4:3E:107:ARG:NH2	4:3E:194:LEU:HD22	2.19	0.54
7:6E:143:ARG:NH1	24:3K:41:A:O3'	2.34	0.54
16:7I:68:ASP:O	16:7I:71:ARG:HG2	2.07	0.54
26:1H:616:A:C4	31:31:180:GLY:HA2	2.43	0.54
26:1H:2776:A:H4'	26:1H:2777:G:H5"	1.90	0.54
27:16:54:G:H2'	27:16:55:U:H6	1.73	0.54
32:41:3:LEU:O	32:41:3:LEU:HD23	2.06	0.54
32:41:98:ARG:NH2	52:M8:1:MET:HE1	2.22	0.54
37:78:125:VAL:O	37:78:144:GLU:HB2	2.07	0.54
42:C8:65:ILE:HG12	42:C8:96:ALA:HB2	1.89	0.54
44:E8:76:VAL:HG21	44:E8:101:SER:HB3	1.90	0.54
1:1G:458:C:N4	1:1G:464:G:O6	2.41	0.54
1:1G:481:G:O2'	1:1G:483:C:N4	2.41	0.54
1:1G:1161:C:H2'	1:1G:1162:C:C6	2.42	0.54
2:12:24:TRP:HE3	2:12:190:THR:HB	1.70	0.54
17:8A:51:TYR:CE1	17:8A:73:VAL:HG11	2.43	0.54
26:14:1500:G:O2'	29:19:100:GLY:O	2.20	0.54
26:14:2647:U:H2'	26:14:2648:C:C6	2.43	0.54
27:1J:55:U:HO2'	32:49:29:TRP:CD1	2.26	0.54
5:4E:148:VAL:O	5:4E:151:LEU:HB2	2.08	0.54
26:1H:1515:C:H2'	26:1H:1516:U:H6	1.72	0.54
26:1H:1534:G:H21	26:1H:1535:U:H5	1.55	0.54
26:1H:2346:A:C2	26:1H:2383:G:C2	2.96	0.54
26:1H:2690:C:N4	60:1H:3529:HOH:O	2.40	0.54
27:16:24:G:N7	27:16:56:G:H2'	2.23	0.54
29:11:236:GLY:O	29:11:237:GLU:O	2.26	0.54
31:31:63:LYS:NZ	31:31:75:HIS:O	2.40	0.54
32:41:56:ALA:O	32:41:59:GLU:N	2.41	0.54
32:41:109:VAL:O	32:41:113:ARG:HG3	2.08	0.54
33:51:68:THR:O	33:51:72:ILE:HG12	2.08	0.54
34:61:29:TYR:HD2	34:61:30:LEU:HD23	1.73	0.54
37:78:49:ARG:HH11	37:78:49:ARG:CB	2.19	0.54
1:1G:149:A:H2'	1:1G:150:C:C6	2.42	0.54
1:1G:165:C:H2'	1:1G:166:G:C8	2.43	0.54
1:1G:501:C:H2'	1:1G:502:G:C8	2.41	0.54
1:1G:582:U:OP1	15:6A:68:ARG:NH2	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1106:G:H5”	3:22:172:ARG:HG2	1.89	0.54
2:12:105:PHE:HA	2:12:108:ILE:CG2	2.35	0.54
3:22:6:HIS:ND1	14:5A:49:HIS:HB3	2.22	0.54
7:62:69:VAL:HG12	7:62:103:TRP:HE3	1.73	0.54
7:62:120:ILE:HG22	7:62:124:LEU:HD12	1.88	0.54
12:3A:84:LEU:HG	12:3A:105:TYR:CE2	2.43	0.54
23:2L:44:A:H2’	23:2L:45:A:C8	2.42	0.54
26:14:673:C:H5”	31:39:81:PRO:HD2	1.89	0.54
26:14:1106:G:H3’	26:14:1107:G:H8	1.71	0.54
27:1J:53:A:H2’	27:1J:54:G:O4’	2.08	0.54
30:29:53:PRO:HA	30:29:74:PRO:HB3	1.89	0.54
32:49:114:ILE:HD13	32:49:140:ILE:HG21	1.90	0.54
36:25:68:GLU:H	36:25:68:GLU:CD	2.14	0.54
37:35:57:THR:HG23	37:35:60:MET:HB2	1.88	0.54
46:C5:46:LYS:CB	46:C5:61:ILE:H	2.20	0.54
1:13:22:G:H4’	1:13:885:G:C8	2.43	0.54
1:13:457:C:H2’	1:13:458:C:C6	2.43	0.54
2:1E:8:LYS:HG2	2:1E:9:GLU:N	2.22	0.54
12:3I:70:ILE:HD13	12:3I:77:LEU:HD12	1.89	0.54
24:3K:59:A:H5’	24:3K:60:U:H5	1.73	0.54
26:1H:1209:G:H21	26:1H:1210:A:H62	1.56	0.54
26:1H:1296:G:O2’	26:1H:1297:C:H5’	2.07	0.54
31:31:196:LEU:O	31:31:200:GLU:HB2	2.07	0.54
32:41:106:LEU:HD12	32:41:110:ALA:HB3	1.89	0.54
1:1G:147:G:H2’	1:1G:148:G:H8	1.72	0.54
1:1G:261:U:OP2	20:BA:79:ARG:NH2	2.39	0.54
1:1G:353:A:H5’	1:1G:353:A:C8	2.38	0.54
1:1G:1386:G:C2	1:1G:1387:G:C8	2.95	0.54
1:1G:1443:G:N2	41:75:119:LYS:HB2	2.23	0.54
6:52:14:LEU:HB2	6:52:18:GLN:OE1	2.08	0.54
7:62:126:ASP:HB3	7:62:131:LYS:O	2.08	0.54
23:2L:60:A:H2’	23:2L:61:U:H5’	1.90	0.54
26:14:848:G:C4	26:14:933:A:H8	2.26	0.54
26:14:1729:A:C5	26:14:1731:G:C6	2.96	0.54
26:14:2733:A:H61	30:29:202:LYS:HB3	1.72	0.54
31:39:7:TYR:CD1	31:39:18:ARG:HB2	2.43	0.54
42:85:76:TYR:O	42:85:80:ILE:HG22	2.08	0.54
45:B5:63:LYS:N	45:B5:63:LYS:CD	2.70	0.54
51:H5:4:LEU:O	51:H5:36:VAL:HA	2.07	0.54
55:M5:34:TRP:HA	55:M5:34:TRP:CE3	2.42	0.54
1:13:38:G:H22	1:13:397:A:P	2.31	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1015:A:H2'	1:13:1016:A:H8	1.71	0.54
2:1E:8:LYS:CG	2:1E:9:GLU:H	2.21	0.54
12:3I:66:VAL:HG21	12:3I:98:TYR:HE1	1.73	0.54
20:BI:10:LEU:HD21	20:BI:12:ALA:HB3	1.90	0.54
26:1H:460:A:H5"	26:1H:461:C:OP2	2.08	0.54
26:1H:532:A:OP1	26:1H:561:G:N2	2.30	0.54
26:1H:1021:A:H3'	26:1H:1022:G:H5"	1.89	0.54
26:1H:1899:G:N2	26:1H:1902:C:N4	2.42	0.54
36:68:107:ARG:NH1	36:68:107:ARG:HB2	2.23	0.54
37:78:59:LEU:HB2	55:Q8:58:ILE:CD1	2.38	0.54
1:1G:589:C:H42	1:1G:650:G:H1	1.55	0.54
1:1G:1315:U:H2'	1:1G:1316:G:O4'	2.08	0.54
4:32:133:VAL:HG12	4:32:135:LEU:H	1.71	0.54
8:72:34:GLU:OE1	8:72:37:ARG:NH1	2.41	0.54
19:AA:66:MET:HA	19:AA:67:VAL:O	2.08	0.54
26:14:10:G:H2'	26:14:11:G:C8	2.43	0.54
26:14:89:G:H3'	26:14:90:U:C5'	2.38	0.54
26:14:660:G:H21	37:35:12:ALA:CB	2.21	0.54
26:14:2370:G:C6	26:14:2371:G:C6	2.96	0.54
30:29:81:ILE:HG22	30:29:82:ARG:N	2.19	0.54
31:39:89:VAL:HG12	31:39:90:PHE:H	1.73	0.54
40:65:87:PHE:CE1	40:65:102:ALA:HB2	2.43	0.54
1:13:618:C:H5"	1:13:619:U:H5"	1.89	0.54
4:3E:157:LEU:O	4:3E:161:ASN:ND2	2.41	0.54
26:1H:734:A:O2'	26:1H:1635:G:H5'	2.08	0.54
26:1H:1053:C:H5"	26:1H:1107:G:H22	1.72	0.54
26:1H:1279:G:H4'	39:98:31:HIS:CD2	2.43	0.54
26:1H:1551:C:C2	26:1H:1552:G:C8	2.96	0.54
26:1H:2709:G:H1'	60:1H:3976:HOH:O	2.08	0.54
39:98:12:ARG:HB3	39:98:16:HIS:HB3	1.90	0.54
40:A8:42:ASP:O	40:A8:43:GLU:HB3	2.07	0.54
55:Q8:50:LEU:HD13	55:Q8:50:LEU:O	2.07	0.54
1:1G:666:G:H5'	1:1G:726:C:H1'	1.90	0.54
1:1G:1220:G:O3'	19:AA:36:ARG:HD3	2.08	0.54
1:1G:1292:U:OP2	7:62:41:ARG:NH1	2.41	0.54
1:1G:1408:A:N1	57:1G:1681:PAR:H611	2.23	0.54
3:22:32:LEU:HD23	3:22:59:ARG:HH12	1.73	0.54
3:22:134:ILE:HD12	3:22:151:VAL:HG11	1.90	0.54
26:14:972:G:OP2	26:14:973:A:O2'	2.21	0.54
26:14:1572:A:H2'	26:14:1573:G:O4'	2.08	0.54
26:14:1771:C:O2'	26:14:1786:A:H8	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:108:SER:OG	30:29:163:GLU:HG2	2.08	0.54
33:59:144:VAL:HG13	33:59:147:ASN:HD21	1.73	0.54
38:45:50:ALA:HB1	38:45:121:ALA:HB1	1.90	0.54
39:55:24:GLN:HB3	39:55:44:LEU:HD11	1.90	0.54
43:95:38:LEU:HD23	43:95:40:LEU:O	2.08	0.54
47:D5:30:ASN:OD1	47:D5:32:HIS:N	2.33	0.54
1:13:539:A:OP1	12:3I:114:LYS:HE2	2.08	0.53
1:13:1003:G:H1	1:13:1037:C:H42	1.54	0.53
1:13:1423:G:OP1	36:68:49:ARG:NH2	2.42	0.53
4:3E:160:GLN:HA	4:3E:163:GLU:HB3	1.89	0.53
26:1H:33:U:H4'	26:1H:34:C:OP1	2.07	0.53
26:1H:125:G:H5'	26:1H:125:G:H8	1.74	0.53
26:1H:1187:G:H5"	43:D8:81:TYR:CE2	2.42	0.53
26:1H:2233:U:H2'	26:1H:2234:G:C8	2.44	0.53
31:31:129:PHE:HB2	31:31:132:VAL:HG13	1.89	0.53
43:D8:4:ILE:HG22	43:D8:39:LEU:HD12	1.89	0.53
43:D8:49:THR:HG23	43:D8:51:VAL:H	1.73	0.53
1:1G:636:U:H2'	1:1G:637:G:C8	2.43	0.53
1:1G:1137:C:H4'	1:1G:1138:G:O5'	2.08	0.53
26:14:528:A:O2'	26:14:529:A:H5'	2.08	0.53
26:14:2126:A:H1'	26:14:2127:G:H5"	1.89	0.53
26:14:2839:G:H21	39:55:92:GLY:HA2	1.73	0.53
36:25:3:GLN:HB2	36:25:4:PRO:HD2	1.90	0.53
36:25:13:ASN:ND2	36:25:96:THR:OG1	2.41	0.53
38:45:133:ARG:O	38:45:134:ARG:HB3	2.08	0.53
1:13:7:G:H5'	1:13:298:A:O4'	2.07	0.53
1:13:157:G:H2'	1:13:158:G:C8	2.42	0.53
1:13:158:G:H2'	1:13:159:G:H8	1.73	0.53
1:13:750:G:N3	15:6I:23:GLY:HA3	2.24	0.53
1:13:1263:C:H2'	1:13:1264:C:C6	2.43	0.53
2:1E:15:VAL:H	2:1E:16:HIS:CD2	2.26	0.53
2:1E:178:ARG:NH1	2:1E:196:LEU:O	2.32	0.53
9:8E:9:ARG:HB3	9:8E:14:VAL:HG22	1.90	0.53
10:1I:8:LEU:HD12	10:1I:20:ALA:HB2	1.90	0.53
17:8I:66:SER:O	17:8I:70:ARG:NH1	2.41	0.53
23:2K:2:G:H2'	23:2K:3:C:C6	2.43	0.53
26:1H:205:G:O6	49:J8:39:LYS:NZ	2.40	0.53
26:1H:1045:A:H1'	26:1H:1047:G:C6	2.43	0.53
26:1H:1483:G:O6	26:1H:1506:C:N4	2.40	0.53
27:16:90:C:P	38:88:16:ARG:HH21	2.30	0.53
31:31:167:ALA:HB1	31:31:173:VAL:HG11	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:95:ARG:HB2	33:51:128:PRO:HB2	1.90	0.53
55:Q8:52:LYS:O	55:Q8:55:ALA:N	2.38	0.53
1:1G:1277:C:O2'	1:1G:1279:A:H1'	2.09	0.53
3:22:16:ARG:HH22	3:22:181:ASN:HD22	1.55	0.53
16:7A:20:VAL:HG11	16:7A:32:TYR:CD2	2.43	0.53
24:3L:51:A:H62	24:3L:63:U:H3	1.55	0.53
26:14:468:G:N7	54:L5:39:ARG:NH2	2.52	0.53
26:14:536:A:H2'	26:14:537:C:C6	2.43	0.53
26:14:670:A:H4'	26:14:671:C:O5'	2.07	0.53
26:14:2086:U:P	29:19:262:ARG:HH21	2.32	0.53
26:14:2396:G:H4'	49:F5:30:VAL:H	1.73	0.53
30:29:9:VAL:HG23	30:29:26:ILE:O	2.09	0.53
34:69:81:VAL:HG12	34:69:143:SER:HB3	1.90	0.53
35:15:91:LEU:O	35:15:95:PRO:HB3	2.08	0.53
47:D5:3:TYR:O	47:D5:58:VAL:N	2.28	0.53
4:3E:12:CYS:SG	4:3E:19:LEU:N	2.71	0.53
5:4E:57:LYS:HA	5:4E:60:TYR:HB3	1.88	0.53
11:2I:22:HIS:HB3	11:2I:29:ILE:HG23	1.90	0.53
26:1H:16:G:H2'	26:1H:17:G:H8	1.73	0.53
26:1H:1533:C:H2'	26:1H:1534:G:H8	1.72	0.53
26:1H:2062:A:O2'	26:1H:2063:C:P	2.66	0.53
32:41:46:ALA:HB2	32:41:52:ILE:HB	1.89	0.53
37:78:39:LYS:CA	37:78:45:LEU:HD11	2.38	0.53
47:H8:61:LEU:O	47:H8:64:GLY:HA2	2.07	0.53
50:K8:15:LYS:HZ2	50:K8:15:LYS:N	2.07	0.53
1:1G:411:A:H61	1:1G:430:A:H62	1.57	0.53
1:1G:529:G:O6	12:3A:49:ASN:HA	2.08	0.53
1:1G:660:G:N2	1:1G:745:C:N3	2.48	0.53
1:1G:1132:C:H2'	1:1G:1133:G:H8	1.73	0.53
4:32:71:SER:HB3	4:32:74:GLN:OE1	2.08	0.53
23:2L:32:G:O6	23:2L:33:OMC:N4	2.42	0.53
26:14:635:C:H2'	26:14:636:G:O4'	2.07	0.53
26:14:674:G:C1'	31:39:74:ARG:HD3	2.38	0.53
26:14:1027:A:C2	26:14:2488:A:H5'	2.43	0.53
26:14:1946:U:H2'	26:14:1947:C:C6	2.42	0.53
26:14:2845:G:OP2	60:14:3419:HOH:O	2.19	0.53
1:13:324:G:OP1	20:BI:70:SER:OG	2.23	0.53
1:13:417:C:H2'	1:13:418:C:C6	2.43	0.53
1:13:1497:G:H2'	1:13:1498:U:H5'	1.89	0.53
5:4E:15:ARG:HB2	5:4E:28:PHE:CE2	2.44	0.53
6:5E:44:GLY:HA2	6:5E:59:TYR:CE1	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:21:LYS:O	8:7E:65:TYR:OH	2.24	0.53
9:8E:114:TYR:CE1	10:1I:59:SER:HA	2.44	0.53
20:BI:30:LYS:HZ1	20:BI:80:ARG:NH1	2.06	0.53
26:1H:764:A:O4'	29:11:213:ARG:HG3	2.08	0.53
26:1H:1260:G:C6	26:1H:1261:C:C4	2.96	0.53
26:1H:1359:A:C2	26:1H:1372:U:O4	2.62	0.53
26:1H:2052:G:C8	30:21:141:ILE:HD11	2.43	0.53
26:1H:2275:C:C6	26:1H:2275:C:H5'	2.44	0.53
30:21:39:PRO:HD3	30:21:45:THR:HG22	1.91	0.53
33:51:102:ALA:HB2	33:51:116:GLU:OE1	2.09	0.53
33:51:158:HIS:CA	33:51:170:ARG:HE	2.22	0.53
1:1G:5:U:H4'	1:1G:6:G:H5'	1.89	0.53
1:1G:868:C:H2'	1:1G:869:G:O4'	2.08	0.53
1:1G:1240:U:H3'	1:1G:1241:G:H8	1.73	0.53
1:1G:1494:G:N7	57:1G:1681:PAR:N32	2.56	0.53
2:12:11:LEU:HG	2:12:217:ARG:NH2	2.11	0.53
7:62:51:GLN:HG2	7:62:56:GLN:O	2.08	0.53
9:82:28:VAL:HG22	9:82:63:ILE:HB	1.89	0.53
13:4A:66:LEU:HA	13:4A:70:LEU:HB2	1.91	0.53
23:2L:36:A:H2'	23:2L:37:U:C6	2.44	0.53
26:14:2250:G:C2	38:45:82:ARG:HB3	2.44	0.53
30:29:7:VAL:HG12	30:29:193:GLY:HA2	1.91	0.53
50:G5:48:HIS:O	50:G5:52:ASP:HB2	2.09	0.53
1:13:1177:G:H2'	1:13:1178:G:C8	2.43	0.53
6:5E:44:GLY:HA2	6:5E:59:TYR:CZ	2.44	0.53
22:1K:38:A:H5'	26:1H:1913:A:C6	2.43	0.53
24:3K:6:G:N2	24:3K:67:C:O2'	2.39	0.53
24:3K:72:C:H3'	24:3K:73:A:H5"	1.89	0.53
26:1H:583:G:OP2	42:C8:10:ARG:HD2	2.09	0.53
26:1H:910:A:C4	38:88:13:GLN:NE2	2.77	0.53
26:1H:1799:G:O6	29:11:179:SER:HB3	2.09	0.53
29:11:34:VAL:C	29:11:35:LYS:HZ2	2.16	0.53
29:11:168:ARG:HG2	29:11:173:VAL:HG12	1.91	0.53
39:98:12:ARG:HG2	39:98:16:HIS:ND1	2.23	0.53
42:C8:88:ILE:C	42:C8:90:VAL:H	2.16	0.53
1:1G:90:C:H2'	1:1G:91:C:O4'	2.09	0.53
1:1G:364:A:H61	12:3A:28:LYS:HZ3	1.56	0.53
1:1G:617:G:H4'	16:7A:44:THR:HB	1.91	0.53
1:1G:854:G:C2	1:1G:855:G:C8	2.96	0.53
1:1G:946:A:O2'	1:1G:1333:A:N3	2.34	0.53
2:12:32:ILE:HG12	2:12:33:TYR:N	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:91:LEU:HD21	3:22:101:LEU:HD21	1.90	0.53
4:32:19:LEU:HB2	4:32:21:LEU:HD13	1.91	0.53
9:82:7:THR:O	9:82:83:ARG:HD2	2.09	0.53
26:14:460:A:H62	26:14:469:G:H21	1.57	0.53
26:14:1448:G:H1'	26:14:1528:A:H62	1.73	0.53
26:14:2641:G:P	35:15:74:ARG:HH21	2.31	0.53
28:79:17:ASN:HB2	28:79:18:LYS:HD2	1.89	0.53
43:95:85:LYS:HE3	43:95:88:ARG:H	1.73	0.53
45:B5:66:LEU:O	45:B5:66:LEU:HD23	2.09	0.53
45:B5:72:LYS:NZ	45:B5:75:ASP:OD1	2.41	0.53
3:2E:7:PRO:HG2	3:2E:184:TYR:HB2	1.90	0.53
26:1H:880:G:H8	26:1H:880:G:O5'	1.91	0.53
27:16:80:U:H2'	27:16:81:G:N2	2.16	0.53
31:31:192:LEU:HD23	31:31:193:VAL:N	2.23	0.53
35:58:20:GLY:HA2	35:58:61:ARG:HD3	1.89	0.53
35:58:26:LEU:O	35:58:30:ILE:HG13	2.08	0.53
36:68:13:ASN:ND2	36:68:97:ARG:HB2	2.23	0.53
41:B8:54:ARG:HA	41:B8:59:THR:HG23	1.90	0.53
45:F8:25:LYS:HA	45:F8:81:VAL:O	2.09	0.53
46:G8:94:LYS:HE3	46:G8:96:ILE:HG23	1.90	0.53
4:32:43:HIS:HA	4:32:46:LYS:HE3	1.90	0.53
8:72:35:ILE:HD13	8:72:118:VAL:HG11	1.90	0.53
19:AA:53:ASN:HA	19:AA:77:THR:HG22	1.89	0.53
24:3L:4:U:H2'	24:3L:5:C:O4'	2.08	0.53
26:14:89:G:OP2	26:14:90:U:H3'	2.09	0.53
26:14:606:U:OP1	31:39:104:LYS:CD	2.41	0.53
26:14:1533:C:N4	26:14:1534:G:O2'	2.42	0.53
26:14:2115:G:N1	26:14:2117:A:N7	2.57	0.53
26:14:2562:U:H4'	36:25:25:LEU:HD21	1.91	0.53
29:19:70:TRP:CH2	29:19:150:LYS:HA	2.44	0.53
32:49:73:ALA:HB3	32:49:84:LYS:HA	1.90	0.53
34:69:63:ALA:HA	34:69:66:GLU:HG2	1.91	0.53
44:A5:72:LYS:HB3	44:A5:106:ILE:HG13	1.90	0.53
1:13:403:C:OP1	4:3E:137:SER:OG	2.20	0.53
1:13:501:C:OP1	12:3I:117:ARG:NH2	2.40	0.53
6:5E:35:ALA:HA	6:5E:67:MET:HB3	1.90	0.53
6:5E:78:GLU:O	6:5E:81:ILE:HG22	2.09	0.53
7:6E:15:ASP:HB3	7:6E:19:GLY:N	2.23	0.53
7:6E:51:GLN:HB2	7:6E:58:PRO:HD3	1.91	0.53
13:4I:3:ARG:HD3	13:4I:7:VAL:HA	1.91	0.53
26:1H:6:A:H1'	35:58:131:GLN:HB3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:731:C:H2'	26:1H:732:C:H6	1.74	0.53
26:1H:1470:G:H5"	26:1H:1471:A:OP1	2.08	0.53
26:1H:2209:C:O2	26:1H:2216:G:C2	2.62	0.53
27:16:3:C:H2'	27:16:4:C:C6	2.44	0.53
28:71:28:LEU:HD12	28:71:31:GLU:OE2	2.09	0.53
45:F8:26:TYR:O	45:F8:81:VAL:HG12	2.09	0.53
1:1G:41:G:H2'	1:1G:42:G:C8	2.44	0.53
1:1G:560:U:O2'	1:1G:561:U:OP2	2.25	0.53
1:1G:737:A:H2'	1:1G:738:C:H6	1.74	0.53
1:1G:1031:G:H2'	1:1G:1032:A:C8	2.44	0.53
2:12:221:LEU:HA	2:12:223:ILE:HD12	1.91	0.53
5:42:144:THR:HG23	5:42:147:ASP:H	1.74	0.53
6:52:3:ARG:HG3	6:52:93:SER:HB2	1.91	0.53
8:72:55:GLY:C	8:72:56:LYS:HD3	2.33	0.53
20:BA:50:GLU:N	20:BA:100:ILE:HG12	2.23	0.53
26:14:1399:C:H2'	26:14:1400:G:C8	2.43	0.53
26:14:2250:G:C6	38:45:82:ARG:HD2	2.44	0.53
26:14:2360:A:H2'	26:14:2361:A:O4'	2.09	0.53
27:1J:57:A:H2'	27:1J:58:A:O4'	2.08	0.53
33:59:62:LYS:HA	33:59:65:HIS:HB3	1.91	0.53
43:95:44:LYS:C	43:95:46:VAL:H	2.15	0.53
1:13:232:G:H2'	1:13:233:C:C6	2.44	0.53
1:13:429:U:H1'	1:13:430:A:H5"	1.91	0.53
1:13:1006:C:H2'	1:13:1007:C:C6	2.43	0.53
2:1E:197:VAL:HG21	2:1E:200:ILE:HG12	1.90	0.53
8:7E:109:ILE:CG2	8:7E:137:VAL:HG23	2.36	0.53
13:4I:7:VAL:HB	32:41:115:ARG:HH22	1.72	0.53
26:1H:2750:A:H3'	33:51:4:ILE:HD12	1.91	0.53
26:1H:2863:C:O2'	26:1H:2864:G:H5'	2.08	0.53
35:58:128:HIS:HB2	35:58:129:PRO:HD2	1.91	0.53
36:68:68:GLU:CD	36:68:68:GLU:H	2.17	0.53
49:J8:81:LYS:N	49:J8:81:LYS:HD2	2.24	0.53
55:Q8:6:THR:HG22	55:Q8:62:LEU:HA	1.91	0.53
1:1G:297:G:N2	1:1G:300:A:OP2	2.41	0.53
1:1G:1244:C:OP2	21:1B:8:THR:OG1	2.27	0.53
26:14:828:U:H3	26:14:2247:A:H4'	1.73	0.53
26:14:1159:U:H2'	26:14:1160:G:H8	1.73	0.53
26:14:2275:C:C2	38:45:83:MET:HE3	2.44	0.53
26:14:2789:C:H1'	26:14:2892:A:C2	2.44	0.53
31:39:155:LEU:HB3	31:39:192:LEU:HD23	1.91	0.53
35:15:133:GLN:O	35:15:134:ARG:HG3	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:E5:50:ASN:C	48:E5:62:LEU:HD12	2.34	0.53
1:13:963:G:H5'	60:13:1837:HOH:O	2.08	0.53
5:4E:35:GLY:H	5:4E:112:LEU:HD13	1.72	0.53
19:AI:51:VAL:HG12	19:AI:52:TYR:H	1.74	0.53
26:1H:779:U:OP1	29:11:49:ILE:HG13	2.08	0.53
26:1H:1171:G:C5	26:1H:1174:A:C6	2.96	0.53
26:1H:1649:G:O2'	39:98:107:ASP:OD1	2.25	0.53
26:1H:1899:G:N2	26:1H:1902:C:C5	2.77	0.53
30:21:17:ASP:C	30:21:19:ARG:H	2.17	0.53
41:B8:30:VAL:HB	41:B8:86:ILE:HD13	1.90	0.53
47:H8:61:LEU:HB2	47:H8:62:PRO:HD2	1.91	0.53
1:1G:147:G:N2	1:1G:175:C:N3	2.49	0.53
1:1G:584:G:OP1	17:8A:91:ARG:NH2	2.42	0.53
1:1G:1147:C:O2	9:82:16:ARG:NH1	2.42	0.53
9:82:97:LYS:HD3	9:82:102:LEU:HB2	1.91	0.53
10:1A:13:HIS:HB3	10:1A:68:HIS:CE1	2.44	0.53
11:2A:18:ARG:HH21	11:2A:37:GLY:N	2.06	0.53
13:4A:19:LEU:HG	13:4A:25:ILE:HG21	1.91	0.53
22:1L:41:A:H2'	22:1L:42:A:O4'	2.09	0.53
26:14:1146:C:C2'	26:14:1147:C:H5'	2.39	0.53
26:14:2688:U:H2'	26:14:2719:G:N2	2.24	0.53
26:14:2779:U:H4'	26:14:2780:G:H5"	1.91	0.53
27:1J:15:A:H1'	27:1J:109:G:C5	2.44	0.53
29:19:6:PHE:CE1	29:19:18:VAL:HG23	2.44	0.53
30:29:54:GLN:HG2	30:29:72:VAL:HB	1.91	0.53
42:85:60:LEU:O	42:85:63:VAL:HG12	2.08	0.53
13:4I:3:ARG:HB2	13:4I:7:VAL:O	2.09	0.53
20:BI:50:GLU:HG2	20:BI:100:ILE:HD12	1.90	0.53
26:1H:1444:G:C2	26:1H:1548:C:N3	2.77	0.53
26:1H:1665:A:H1'	36:68:1:MET:HG3	1.90	0.53
26:1H:1835:G:N3	26:1H:1835:G:H2'	2.23	0.53
26:1H:2394:C:H2'	26:1H:2395:C:H6	1.75	0.53
26:1H:2693:A:H2'	26:1H:2694:G:H8	1.74	0.53
30:21:31:CYS:HB3	30:21:49:LEU:HG	1.91	0.53
40:A8:18:ILE:O	40:A8:21:THR:HG22	2.08	0.53
1:1G:309:G:O2'	1:1G:607:A:N1	2.42	0.53
1:1G:373:A:C2	1:1G:374:A:C8	2.96	0.53
16:7A:23:ASP:OD2	16:7A:25:ARG:NH1	2.42	0.53
26:14:303:U:H2'	26:14:304:G:H8	1.73	0.53
26:14:813:U:H2'	26:14:814:C:C6	2.44	0.53
26:14:814:C:P	43:95:83:ARG:HH11	2.31	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:987:G:O2'	26:14:1000:A:N3	2.39	0.53
26:14:1042:G:H2'	26:14:1043:C:O4'	2.09	0.53
26:14:1971:A:C4	29:19:241:PRO:HD3	2.44	0.53
30:29:201:THR:C	30:29:202:LYS:HZ2	2.17	0.53
32:49:118:ARG:H	32:49:118:ARG:HD2	1.74	0.53
33:59:154:PRO:HB3	33:59:162:ILE:O	2.08	0.53
38:45:66:ILE:HD12	38:45:67:ARG:N	2.24	0.53
39:55:55:ALA:HB2	39:55:79:LEU:CD1	2.39	0.53
40:65:100:ALA:HA	40:65:103:GLU:HG3	1.91	0.53
49:F5:29:GLY:O	49:F5:30:VAL:HG22	2.09	0.53
1:13:154:C:N4	1:13:167:G:H1	2.07	0.52
1:13:580:U:OP1	15:6I:54:ARG:NH2	2.42	0.52
1:13:682:G:H1	1:13:708:C:N4	2.07	0.52
1:13:756:C:H1'	8:7E:1:MET:HE2	1.90	0.52
1:13:1004:A:N1	1:13:1024:G:H2'	2.24	0.52
2:1E:11:LEU:HD23	2:1E:213:LEU:HD22	1.90	0.52
8:7E:104:ARG:O	8:7E:107:LEU:HB2	2.08	0.52
23:2K:30:G:H1	23:2K:42:C:N4	2.07	0.52
26:1H:270(L):U:C2	34:61:50:ARG:HG2	2.44	0.52
26:1H:270(L):U:N1	34:61:50:ARG:HG2	2.24	0.52
26:1H:286:C:H2'	26:1H:287:C:H6	1.74	0.52
26:1H:1493:C:N3	26:1H:2210:G:H1'	2.24	0.52
26:1H:2125:G:H21	26:1H:2173:A:N6	2.07	0.52
34:61:57:ARG:HG2	34:61:61:ARG:HH22	1.73	0.52
46:G8:89:PHE:CD1	46:G8:90:LEU:N	2.78	0.52
47:H8:5:LEU:HD23	47:H8:47:VAL:HG21	1.91	0.52
49:J8:83:GLU:HG3	49:J8:85:LEU:H	1.74	0.52
1:1G:143:A:H4'	1:1G:144:G:C8	2.44	0.52
1:1G:1113:C:H2'	1:1G:1114:C:C6	2.43	0.52
1:1G:1117:G:H4'	9:82:104:ARG:NH1	2.24	0.52
4:32:82:ALA:HB1	4:32:89:THR:HA	1.91	0.52
5:42:99:GLY:O	5:42:117:ASP:HA	2.08	0.52
6:52:62:TRP:CH2	6:52:64:GLN:HB2	2.44	0.52
9:82:24:GLY:N	9:82:60:ASP:OD1	2.42	0.52
10:1A:51:ARG:HB2	10:1A:59:SER:O	2.09	0.52
26:14:138:G:H22	45:B5:44:GLU:CD	2.17	0.52
26:14:247:G:H4'	26:14:386:G:C5	2.44	0.52
26:14:602:G:OP2	26:14:602:G:H8	1.92	0.52
26:14:824:A:H1'	26:14:2358:G:N7	2.24	0.52
28:79:6:ARG:O	28:79:10:LEU:HG	2.09	0.52
28:79:46:LYS:HB2	28:79:210:ARG:C	2.34	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:45:57:HIS:CG	38:45:117:ALA:HB2	2.43	0.52
42:85:92:ARG:CZ	43:95:11:GLN:H	2.22	0.52
45:B5:67:GLY:O	45:B5:69:TYR:N	2.34	0.52
46:C5:29:GLU:HG3	46:C5:30:VAL:H	1.73	0.52
1:13:149:A:O5'	1:13:149:A:H8	1.92	0.52
1:13:389:A:H2'	1:13:390:C:O4'	2.10	0.52
10:1I:37:PRO:HA	10:1I:72:VAL:HG22	1.91	0.52
10:1I:46:ARG:HB2	10:1I:46:ARG:HH11	1.74	0.52
22:1K:52:G:H2'	22:1K:53:G:H8	1.74	0.52
26:1H:35:G:H2'	26:1H:36:G:O4'	2.09	0.52
26:1H:863:A:H2'	26:1H:864:G:C8	2.44	0.52
26:1H:1173:G:H5'	26:1H:1174:A:C2	2.44	0.52
26:1H:1517:G:H2'	26:1H:1518:C:H6	1.73	0.52
26:1H:2266:A:H4'	26:1H:2267:A:N3	2.25	0.52
26:1H:2516:G:C6	26:1H:2517:C:N4	2.77	0.52
30:21:48:GLN:OE1	30:21:77:ILE:HG21	2.09	0.52
33:51:84:SER:O	33:51:85:LYS:HB2	2.09	0.52
37:78:15:ARG:O	37:78:16:ARG:C	2.51	0.52
40:A8:32:LEU:O	40:A8:62:LYS:NZ	2.39	0.52
45:F8:52:VAL:HG23	45:F8:82:GLN:HB3	1.90	0.52
46:G8:8:LYS:O	46:G8:27:VAL:HG11	2.09	0.52
46:G8:29:GLU:HB3	46:G8:38:ILE:HG23	1.90	0.52
46:G8:54:LYS:HG2	46:G8:55:TYR:H	1.74	0.52
46:G8:82:PRO:HB3	46:G8:99:CYS:HB2	1.91	0.52
1:1G:108:G:H5'	1:1G:109:A:C5'	2.38	0.52
1:1G:591:U:OP2	8:72:30:ARG:NH1	2.42	0.52
1:1G:922:G:N3	1:1G:1398:A:H2	2.07	0.52
1:1G:1321:C:H3'	1:1G:1322:C:H5"	1.91	0.52
1:1G:1343:G:H2'	1:1G:1344:C:C6	2.45	0.52
24:3L:3:G:H1	24:3L:70:C:H42	1.57	0.52
26:14:1131:G:OP2	26:14:2515:C:H4'	2.10	0.52
26:14:1259:G:H2'	26:14:1260:G:C8	2.44	0.52
26:14:1342:A:H2	26:14:1602:U:N3	2.07	0.52
26:14:1374:G:H2'	26:14:1375:C:H6	1.74	0.52
26:14:2416:C:H2'	26:14:2417:C:C6	2.44	0.52
26:14:2704:C:H2'	26:14:2705:A:O4'	2.09	0.52
49:F5:80:LEU:HD12	49:F5:82:LEU:HB2	1.91	0.52
1:13:310:G:P	16:7I:27:LYS:NZ	2.83	0.52
1:13:1028(A):C:H2'	1:13:1028(B):C:H5	1.73	0.52
1:13:1142:G:H2'	1:13:1143:G:O4'	2.09	0.52
2:1E:55:PHE:HD1	2:1E:221:LEU:HG	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:71:LEU:HD13	5:4E:114:GLY:HA3	1.91	0.52
13:4I:31:LYS:H	13:4I:31:LYS:HD2	1.75	0.52
16:7I:22:THR:HA	16:7I:33:ILE:HG13	1.92	0.52
20:BI:67:ALA:HA	20:BI:72:LEU:O	2.09	0.52
20:BI:89:ARG:NH2	20:BI:104:LEU:HD11	2.24	0.52
22:1K:3:G:N2	22:1K:71:C:H1'	2.25	0.52
30:21:197:ILE:CD1	30:21:199:ARG:HE	2.20	0.52
1:1G:229:U:H2'	1:1G:230:G:C8	2.44	0.52
1:1G:362:G:O2'	12:3A:33:ARG:NH2	2.42	0.52
1:1G:855:G:OP2	1:1G:871:U:N3	2.39	0.52
1:1G:977:A:H2'	1:1G:978:A:H5'	1.91	0.52
7:62:116:ALA:O	7:62:120:ILE:HG12	2.09	0.52
9:82:58:HIS:HB3	9:82:59:PHE:CE1	2.45	0.52
26:14:118:A:N3	26:14:178:G:H1'	2.23	0.52
26:14:821:A:O2'	26:14:946:G:OP2	2.26	0.52
26:14:2138:C:H42	26:14:2153:G:H1	1.55	0.52
26:14:2812:G:N2	26:14:2889:C:O2	2.42	0.52
45:B5:63:LYS:HA	45:B5:72:LYS:HA	1.91	0.52
50:G5:63:VAL:HA	50:G5:66:GLU:HG2	1.92	0.52
55:M5:14:VAL:HG21	55:M5:58:ILE:CD1	2.39	0.52
1:13:99:C:H42	1:13:101:A:H62	1.56	0.52
3:2E:77:ILE:HA	3:2E:84:ILE:HB	1.91	0.52
3:2E:82:GLU:HA	3:2E:85:ARG:HB3	1.91	0.52
12:3I:47:LYS:HA	12:3I:49:ASN:H	1.74	0.52
18:9I:59:SER:HB3	18:9I:62:GLU:HG3	1.92	0.52
21:1F:6:ARG:HH11	21:1F:15:ARG:HE	1.57	0.52
23:2K:63:C:H2'	23:2K:64:G:C8	2.44	0.52
26:1H:671:C:OP1	37:78:42:SER:O	2.28	0.52
26:1H:2115:G:H2'	26:1H:2116:G:H8	1.73	0.52
26:1H:2135:A:N6	26:1H:2136:C:O2	2.41	0.52
26:1H:2243:U:H2'	26:1H:2244:U:C6	2.44	0.52
31:31:129:PHE:HA	31:31:142:TRP:CD1	2.44	0.52
31:31:192:LEU:HD21	31:31:194:MET:HE2	1.90	0.52
32:41:114:ILE:HG22	32:41:115:ARG:O	2.09	0.52
35:58:130:HIS:HA	35:58:134:ARG:HH22	1.74	0.52
47:H8:7:ALA:HB3	47:H8:61:LEU:HB3	1.91	0.52
48:I8:36:ILE:C	48:I8:36:ILE:HD12	2.34	0.52
1:1G:1153:C:H2'	1:1G:1154:G:O4'	2.09	0.52
19:AA:11:VAL:HG13	19:AA:39:THR:HB	1.92	0.52
25:4L:11:U:H2'	25:4L:12:A:H5"	1.91	0.52
26:14:6:A:H2'	26:14:6:A:N3	2.23	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:287:C:H2'	26:14:288:C:C6	2.44	0.52
26:14:925:C:H2'	26:14:926:A:H8	1.74	0.52
26:14:1372:U:H2'	26:14:1373:A:O4'	2.10	0.52
26:14:2023:G:H5'	26:14:2617:C:H4'	1.92	0.52
26:14:2882:A:OP1	39:55:96:ARG:NE	2.30	0.52
29:19:71:ASP:OD2	29:19:103:ARG:NH2	2.42	0.52
30:29:36:ARG:NH2	30:29:86:PRO:O	2.39	0.52
32:49:170:ARG:HH22	32:49:182:LYS:HD3	1.74	0.52
38:45:20:ALA:HA	38:45:99:PRO:HG2	1.92	0.52
1:13:264:U:O2	17:8I:64:PRO:HG2	2.10	0.52
1:13:1124:G:O2'	10:1I:38:ILE:HD12	2.10	0.52
1:13:1179:A:H4'	9:8E:103:THR:HA	1.92	0.52
1:13:1266:G:N2	1:13:1270:C:N3	2.57	0.52
9:8E:9:ARG:N	9:8E:9:ARG:HD2	2.24	0.52
11:2I:21:ILE:HD13	11:2I:94:ALA:HB1	1.91	0.52
18:9I:82:THR:HG22	18:9I:83:GLU:O	2.09	0.52
26:1H:274:G:H2'	26:1H:275:G:O4'	2.08	0.52
26:1H:859:G:H5'	26:1H:2268:A:O2'	2.09	0.52
26:1H:1051:G:C6	26:1H:1052:C:H1'	2.44	0.52
26:1H:1682:G:C2	26:1H:1683:C:C2	2.97	0.52
30:21:49:LEU:HD21	30:21:91:VAL:HG21	1.92	0.52
33:51:107:VAL:HG11	33:51:162:ILE:HD11	1.90	0.52
37:78:49:ARG:HH12	37:78:50:ARG:HH21	1.58	0.52
41:B8:51:ARG:HB2	41:B8:98:LYS:HD2	1.91	0.52
47:H8:59:LEU:O	47:H8:60:GLU:HB2	2.09	0.52
53:N8:16:ARG:NH1	53:N8:17:ASP:CG	2.68	0.52
1:1G:878:G:H5'	8:72:89:PRO:HG2	1.91	0.52
1:1G:1069:C:H42	1:1G:1106:G:H1	1.56	0.52
1:1G:1134:G:C2	1:1G:1135:U:H1'	2.44	0.52
1:1G:1151:A:H4'	10:1A:39:PRO:HB2	1.92	0.52
4:32:98:GLU:OE2	4:32:103:ASN:ND2	2.37	0.52
5:42:8:GLU:HG2	5:42:34:VAL:HG23	1.90	0.52
9:82:51:ARG:HG2	9:82:56:LEU:HD13	1.92	0.52
10:1A:37:PRO:HA	10:1A:72:VAL:HG22	1.90	0.52
11:2A:46:GLY:HA2	11:2A:50:TYR:O	2.09	0.52
11:2A:85:ARG:HD3	11:2A:113:PRO:HD3	1.92	0.52
12:3A:84:LEU:HG	12:3A:105:TYR:HE2	1.74	0.52
17:8A:86:GLU:O	17:8A:90:ILE:HG12	2.09	0.52
20:BA:25:ARG:O	20:BA:29:LYS:HG2	2.10	0.52
26:14:90:U:O2'	26:14:91:A:O5'	2.28	0.52
26:14:588:U:H1'	31:39:90:PHE:CB	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1174:A:H2'	26:14:1176:G:OP1	2.09	0.52
26:14:2577:A:H5'	53:J5:3:LYS:HD3	1.91	0.52
27:1J:16:G:H2'	27:1J:17:C:H6	1.74	0.52
30:29:57:LYS:HZ2	30:29:57:LYS:H	1.56	0.52
34:69:14:ASP:OD1	34:69:15:VAL:N	2.42	0.52
35:15:128:HIS:HB2	35:15:129:PRO:HD2	1.90	0.52
36:25:120:GLU:HB2	41:75:68:TYR:HE2	1.74	0.52
42:85:50:ARG:HH12	43:95:72:VAL:HG23	1.73	0.52
43:95:7:THR:HG23	43:95:22:VAL:HG21	1.91	0.52
45:B5:75:ASP:C	45:B5:76:ARG:HG3	2.33	0.52
1:13:103:C:C2	1:13:104:G:C8	2.98	0.52
1:13:468:A:O2'	16:7I:81:ARG:HA	2.09	0.52
1:13:821:G:H5"	60:13:1938:HOH:O	2.10	0.52
1:13:953:G:H5'	1:13:965:A:H61	1.75	0.52
1:13:1006:C:H2'	1:13:1007:C:H6	1.75	0.52
2:1E:23:ARG:NH2	2:1E:191:ASP:OD1	2.43	0.52
17:8I:75:ARG:NH1	17:8I:76:LEU:O	2.43	0.52
29:11:40:THR:HG23	29:11:41:GLY:N	2.24	0.52
37:78:71:VAL:CG1	37:78:72:PRO:HD3	2.40	0.52
47:H8:61:LEU:HD22	47:H8:67:LEU:HD12	1.92	0.52
51:L8:8:LEU:HD22	51:L8:31:LEU:HD22	1.91	0.52
1:1G:396:G:O2'	1:1G:398:C:OP1	2.13	0.52
7:62:26:PHE:O	7:62:30:ILE:HG13	2.09	0.52
24:3L:29:U:H2'	24:3L:30:G:O4'	2.09	0.52
26:14:718:A:H3'	26:14:719:C:H6	1.75	0.52
26:14:2074:U:H2'	26:14:2075:U:C6	2.44	0.52
26:14:2542:A:C8	26:14:2544:G:O6	2.62	0.52
31:39:38:ARG:NH2	31:39:99:TYR:CZ	2.58	0.52
31:39:78:ILE:HA	31:39:83:PHE:CD2	2.45	0.52
34:69:102:SER:O	34:69:106:GLY:N	2.42	0.52
41:75:112:ARG:HD2	41:75:113:LYS:HD2	1.91	0.52
1:13:912:C:O2'	1:13:913:A:H5'	2.10	0.52
1:13:1369:C:H2'	1:13:1370:G:C8	2.45	0.52
26:1H:309:G:H4'	46:G8:18:GLY:HA2	1.91	0.52
26:1H:2811:G:OP1	30:21:60:ASN:HB2	2.10	0.52
29:11:231:HIS:HD2	29:11:249:PRO:HA	1.73	0.52
31:31:20:LEU:HD12	31:31:21:ALA:N	2.25	0.52
31:31:64:ILE:HG22	31:31:65:TRP:CD1	2.44	0.52
32:41:16:ARG:HH21	32:41:31:VAL:CG2	2.23	0.52
32:41:67:LYS:HD2	32:41:67:LYS:H	1.75	0.52
34:61:112:LYS:HB2	34:61:113:ARG:HG3	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:631:G:H1'	1:1G:632:A:N7	2.23	0.52
1:1G:902:G:O2'	1:1G:903:G:H5'	2.10	0.52
1:1G:1106:G:H2'	1:1G:1107:C:H6	1.75	0.52
1:1G:1179:A:OP2	9:82:93:ARG:NH2	2.42	0.52
1:1G:1190:G:H4'	3:22:176:HIS:CE1	2.45	0.52
1:1G:1298:C:C5	7:62:114:ARG:HD3	2.43	0.52
1:1G:1347:G:N1	1:1G:1374:A:OP2	2.37	0.52
2:12:42:ILE:HG21	2:12:202:PRO:HB2	1.91	0.52
12:3A:28:LYS:HD3	12:3A:33:ARG:HH12	1.74	0.52
15:6A:25:THR:HG21	15:6A:70:LEU:HB2	1.92	0.52
23:2L:16:C:O2'	23:2L:62:C:OP1	2.23	0.52
26:14:270(H):C:H2'	26:14:270(I):G:C8	2.45	0.52
26:14:329:G:O6	46:C5:19:LYS:HE2	2.09	0.52
26:14:1901:A:OP2	29:19:255:LYS:HE2	2.10	0.52
27:1J:16:G:H2'	27:1J:17:C:C6	2.45	0.52
34:69:38:LEU:H	34:69:38:LEU:HD12	1.74	0.52
35:15:13:TRP:HB2	35:15:133:GLN:HB2	1.92	0.52
38:45:25:ASP:HA	38:45:67:ARG:NH1	2.25	0.52
38:45:38:GLU:HG3	38:45:127:ILE:CG2	2.40	0.52
39:55:78:LYS:O	39:55:82:GLU:HG2	2.09	0.52
1:13:114:U:H2'	1:13:115:G:C8	2.45	0.52
1:13:573:A:H5'	1:13:573:A:C8	2.36	0.52
2:1E:52:GLU:HG2	2:1E:56:ARG:HD3	1.92	0.52
26:1H:325:G:O2'	26:1H:326:G:H5'	2.10	0.52
26:1H:565:C:O3'	60:1H:3554:HOH:O	2.19	0.52
26:1H:2248:C:H2'	26:1H:2249:U:O4'	2.10	0.52
26:1H:2272:U:H5"	26:1H:2273:A:OP1	2.10	0.52
26:1H:2306:C:H3'	26:1H:2307:G:C5'	2.39	0.52
26:1H:2591:C:H2'	26:1H:2592:G:C8	2.44	0.52
26:1H:2629:A:OP1	26:1H:2629:A:H4'	2.10	0.52
27:16:11:C:H3'	27:16:12:C:H6	1.74	0.52
30:21:52:LEU:HD23	30:21:53:PRO:HD2	1.92	0.52
32:41:37:VAL:O	32:41:94:LEU:HD23	2.10	0.52
38:88:66:ILE:HD12	38:88:67:ARG:H	1.73	0.52
40:A8:106:ARG:HD2	40:A8:107:GLU:HG2	1.91	0.52
1:1G:228:A:H4'	16:7A:62:VAL:HG11	1.92	0.52
1:1G:1179:A:H2'	1:1G:1180:A:O4'	2.09	0.52
4:32:150:GLU:C	4:32:152:SER:H	2.18	0.52
5:42:12:LEU:HD22	5:42:13:ILE:H	1.74	0.52
8:72:49:GLU:OE1	8:72:51:VAL:HG22	2.10	0.52
18:9A:25:THR:HG22	18:9A:42:ARG:NH2	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1B:9:ARG:HA	21:1B:22:ARG:HB2	1.91	0.52
26:14:1771:C:H1'	26:14:1786:A:C8	2.45	0.52
26:14:1952:A:C6	36:25:22:ILE:HD12	2.44	0.52
26:14:2108:C:H2'	26:14:2109:U:O4'	2.10	0.52
26:14:2607:G:H2'	26:14:2608:G:O4'	2.10	0.52
26:14:2708:G:H5'	39:55:68:ARG:HG2	1.90	0.52
30:29:117:MET:HB2	30:29:122:PHE:O	2.10	0.52
32:49:59:GLU:OE1	32:49:153:ARG:CZ	2.58	0.52
32:49:77:ILE:HG23	32:49:79:ASN:OD1	2.10	0.52
1:13:272:C:H2'	1:13:273:A:C8	2.44	0.52
1:13:507:C:OP2	1:13:508:C:O2'	2.23	0.52
1:13:1292:U:H2'	1:13:1293:G:C8	2.45	0.52
12:3I:58:VAL:O	12:3I:65:GLU:HA	2.10	0.52
13:4I:15:VAL:O	13:4I:19:LEU:HG	2.09	0.52
19:AI:40:ILE:HD11	19:AI:62:ILE:HD12	1.92	0.52
22:1K:72:C:H2'	22:1K:73:A:H5"	1.91	0.52
24:3K:54:U:H2'	24:3K:55:U:C2	2.45	0.52
26:1H:511:U:C5	26:1H:512:G:C5	2.97	0.52
26:1H:582:G:H2'	26:1H:583:G:C8	2.44	0.52
26:1H:613:U:O2	26:1H:613:U:O4'	2.27	0.52
26:1H:1591:G:H2'	26:1H:1592:C:C6	2.45	0.52
26:1H:1688:U:H2'	26:1H:1698:A:N6	2.25	0.52
28:71:10:LEU:HD13	28:71:32:LEU:HA	1.91	0.52
34:61:79:ILE:HD11	34:61:100:ALA:HB2	1.91	0.52
36:68:75:SER:HB2	41:B8:74:ARG:HH12	1.75	0.52
40:A8:103:GLU:O	40:A8:106:ARG:NE	2.23	0.52
41:B8:50:ILE:HG22	41:B8:62:THR:OG1	2.10	0.52
43:D8:65:GLY:N	43:D8:91:TYR:O	2.36	0.52
45:F8:34:ALA:HA	45:F8:38:GLU:OE1	2.10	0.52
47:H8:150:LEU:HD22	47:H8:171:ILE:HD12	1.91	0.52
50:K8:41:ILE:HD13	50:K8:44:LEU:HD23	1.91	0.52
1:1G:1028(B):C:H41	1:1G:1032(B):G:H1	1.58	0.52
1:1G:1224:G:C6	1:1G:1322:C:H1'	2.45	0.52
1:1G:1260:C:H3'	1:1G:1260:C:H6	1.74	0.52
4:32:12:CYS:SG	4:32:18:LYS:HA	2.50	0.52
4:32:107:ARG:HH12	4:32:194:LEU:HB3	1.75	0.52
6:52:33:TYR:CE1	6:52:78:GLU:HG3	2.45	0.52
12:3A:39:VAL:CG1	12:3A:41:ARG:NH2	2.63	0.52
13:4A:56:LEU:HA	13:4A:59:TYR:HB3	1.92	0.52
24:3L:27:G:N2	24:3L:45:G:H22	2.08	0.52
26:14:61:G:H5'	50:G5:50:ILE:HG12	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:639:U:O2'	26:14:640:C:H5'	2.10	0.52
26:14:721:C:H2'	26:14:722:A:C8	2.44	0.52
26:14:878:A:N1	26:14:899:A:H2	2.07	0.52
26:14:960:A:H2'	26:14:962:G:H5'	1.91	0.52
26:14:2766:G:H5"	26:14:2767:C:OP2	2.10	0.52
31:39:25:PRO:CB	31:39:27:GLU:H	2.19	0.52
35:15:7:LYS:O	35:15:9:VAL:HG13	2.10	0.52
1:13:1218:C:H2'	1:13:1219:U:H6	1.75	0.52
1:13:1292:U:H2'	1:13:1293:G:H8	1.74	0.52
2:1E:68:ILE:O	2:1E:91:PRO:HD2	2.09	0.52
4:3E:112:VAL:HG12	4:3E:116:GLN:OE1	2.10	0.52
15:6I:18:PHE:CE1	15:6I:21:ASP:HB2	2.45	0.52
26:1H:1430:C:H2'	26:1H:1431:U:H6	1.74	0.52
26:1H:2306:C:H3'	26:1H:2307:G:H5'	1.92	0.52
26:1H:2310:A:C8	32:41:77:ILE:HD11	2.45	0.52
26:1H:2572:A:H62	30:21:145:LYS:HD3	1.75	0.52
26:1H:2640:G:OP1	35:58:74:ARG:NH1	2.43	0.52
29:11:124:PRO:HG2	29:11:129:ASN:ND2	2.24	0.52
37:78:80:TYR:CE1	37:78:111:ARG:HD3	2.45	0.52
46:G8:55:TYR:CE1	46:G8:61:ILE:HD11	2.45	0.52
46:G8:93:GLY:O	46:G8:94:LYS:HB2	2.09	0.52
1:1G:147:G:H1	1:1G:175:C:N4	1.98	0.52
1:1G:503:C:OP2	12:3A:116:SER:HB3	2.10	0.52
1:1G:1244:C:O2	1:1G:1293:G:N2	2.42	0.52
2:12:12:GLU:OE2	2:12:15:VAL:N	2.43	0.52
2:12:165:VAL:HG23	2:12:166:ASP:H	1.75	0.52
3:22:141:VAL:HA	3:22:144:SER:HB3	1.91	0.52
21:1B:2:GLY:O	21:1B:4:GLY:N	2.43	0.52
26:14:71:A:H5"	26:14:73:A:C8	2.45	0.52
26:14:629:G:H1	26:14:634:C:N4	2.06	0.52
26:14:1142(A):A:N7	26:14:1144:G:C5	2.78	0.52
26:14:2317:C:H2'	26:14:2318:G:O4'	2.09	0.52
29:19:273:ARG:O	29:19:273:ARG:HG2	2.10	0.52
30:29:3:GLY:HA3	30:29:81:ILE:HD12	1.91	0.52
38:45:43:THR:HG22	38:45:94:VAL:HG12	1.91	0.52
40:65:30:ARG:HG3	40:65:35:ILE:HD12	1.92	0.52
45:B5:63:LYS:CD	45:B5:63:LYS:H	2.23	0.52
49:F5:19:GLN:HB3	49:F5:35:THR:O	2.10	0.52
49:F5:89:GLU:O	49:F5:93:GLU:HB2	2.10	0.52
1:13:1390:U:H2'	1:13:1391:U:C6	2.45	0.51
2:1E:11:LEU:C	2:1E:13:ALA:N	2.66	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4E:152:ARG:HA	8:7E:64:LYS:HE2	1.91	0.51
6:5E:67:MET:HE1	6:5E:75:LEU:HG	1.92	0.51
12:3I:8:ASN:O	12:3I:12:ARG:HG3	2.09	0.51
20:BI:46:GLU:HB3	20:BI:48:LYS:HG3	1.91	0.51
23:2K:19:G:C2	23:2K:59:A:C5	2.98	0.51
26:1H:141(A):C:H2'	26:1H:142:G:O4'	2.10	0.51
26:1H:569:U:C4	26:1H:570:G:C6	2.98	0.51
34:61:72:LEU:HD11	34:61:107:VAL:HG11	1.92	0.51
34:61:93:THR:O	34:61:97:ILE:HG13	2.10	0.51
42:C8:58:ARG:HA	42:C8:61:TRP:CE3	2.45	0.51
42:C8:69:CYS:SG	42:C8:79:PHE:HD2	2.32	0.51
53:N8:40:LYS:HE2	53:N8:47:PRO:HD2	1.93	0.51
53:N8:40:LYS:HE2	53:N8:46:CYS:HA	1.92	0.51
1:1G:49:U:O4'	12:3A:28:LYS:NZ	2.41	0.51
1:1G:317:G:H1	1:1G:336:C:N4	2.07	0.51
1:1G:641:U:H4'	8:72:115:SER:O	2.09	0.51
1:1G:1151:A:OP1	10:1A:42:THR:N	2.40	0.51
1:1G:1226:C:HO2'	13:4A:111:LYS:HZ3	1.53	0.51
1:1G:1502:A:H5"	1:1G:1504:G:N7	2.24	0.51
3:22:26:LYS:HG3	3:22:27:LYS:N	2.24	0.51
22:1L:76:A:H2	23:2L:77:A:H4'	1.75	0.51
23:2L:41:C:H2'	23:2L:42:C:H6	1.74	0.51
24:3L:8:U:H5'	24:3L:49:G:H5'	1.91	0.51
26:14:1027:A:H2	26:14:2487:G:O2'	1.93	0.51
26:14:1332:G:N2	26:14:1610:A:C8	2.78	0.51
26:14:1462:C:H4'	26:14:2703:C:H5'	1.92	0.51
26:14:1688:U:O2	26:14:1700:A:H5'	2.09	0.51
26:14:1909:C:H2'	26:14:1910:G:H8	1.76	0.51
26:14:2134:A:C5	26:14:2158:A:H8	2.27	0.51
26:14:2273:A:H2'	26:14:2274:A:C8	2.46	0.51
26:14:2275:C:H5'	26:14:2275:C:H6	1.75	0.51
26:14:2438:U:O3'	26:14:2439:A:H3'	2.10	0.51
32:49:102:PHE:O	32:49:106:LEU:N	2.41	0.51
37:35:52:GLU:HG2	37:35:53:GLY:N	2.24	0.51
38:45:4:PRO:HD3	38:45:70:PRO:O	2.09	0.51
39:55:104:ARG:HD2	39:55:109:ALA:HB3	1.92	0.51
42:85:98:LEU:HA	42:85:100:VAL:O	2.09	0.51
43:95:76:LYS:HB2	43:95:79:VAL:HG23	1.91	0.51
46:C5:43:ASN:HB2	46:C5:62:GLU:O	2.10	0.51
1:13:244:U:H4'	1:13:245:C:O5'	2.10	0.51
1:13:580:U:P	15:6I:54:ARG:HH21	2.33	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1112:C:H1'	3:2E:179:ARG:HH11	1.75	0.51
5:4E:15:ARG:HG3	5:4E:26:PHE:HD2	1.75	0.51
12:3I:89:ARG:NH2	12:3I:91:LYS:HD2	2.25	0.51
13:4I:81:LEU:HD11	13:4I:88:ARG:NH1	2.25	0.51
16:7I:19:ILE:HB	16:7I:36:ILE:O	2.10	0.51
26:1H:934:G:H2'	26:1H:935:C:C6	2.44	0.51
26:1H:1025:G:C4	26:1H:1135:C:H1'	2.45	0.51
28:71:59:ARG:HG2	28:71:60:GLY:H	1.75	0.51
28:71:200:LYS:HG2	28:71:201:PRO:O	2.10	0.51
34:61:77:LEU:HD12	34:61:140:LEU:HB3	1.93	0.51
35:58:76:SER:N	35:58:81:GLY:O	2.44	0.51
43:D8:17:GLY:N	43:D8:96:ILE:O	2.34	0.51
1:1G:707:C:OP1	11:2A:85:ARG:NH1	2.44	0.51
1:1G:1079:G:H5"	5:42:45:PHE:HZ	1.75	0.51
1:1G:1244:C:H2'	1:1G:1245:A:C8	2.45	0.51
1:1G:1348:U:N3	1:1G:1374:A:H2	1.99	0.51
5:42:84:PHE:N	5:42:87:SER:O	2.38	0.51
12:3A:58:VAL:O	12:3A:65:GLU:HA	2.11	0.51
26:14:528:A:C2	26:14:2042:A:H2'	2.45	0.51
26:14:631:A:H2'	26:14:632:A:O4'	2.10	0.51
26:14:1050:A:N7	26:14:1051:G:N2	2.59	0.51
26:14:1568:G:OP2	29:19:63:ARG:NH2	2.43	0.51
26:14:2175:C:N4	26:14:2176:A:N7	2.59	0.51
26:14:2712:U:H1'	26:14:2712(A):A:C8	2.45	0.51
30:29:54:GLN:HE21	30:29:72:VAL:HA	1.74	0.51
31:39:7:TYR:CE2	31:39:10:PRO:HG3	2.44	0.51
40:65:62:LYS:HD2	40:65:97:ARG:HD2	1.92	0.51
41:75:3:ARG:NE	41:75:6:LEU:HD13	2.26	0.51
1:13:540:G:H2'	1:13:541:G:O4'	2.08	0.51
6:5E:89:MET:HE3	18:9I:76:LEU:CD2	2.40	0.51
10:1I:16:LEU:HD12	10:1I:68:HIS:HB2	1.90	0.51
18:9I:56:THR:HB	18:9I:58:LEU:HD13	1.93	0.51
19:AI:5:LEU:HB2	19:AI:8:GLY:HA3	1.92	0.51
24:3K:48:C:H5	24:3K:59:A:C6	2.29	0.51
26:1H:710:G:H2'	26:1H:711:G:H8	1.75	0.51
26:1H:881:G:H2'	26:1H:881:G:N3	2.26	0.51
26:1H:1127:A:O2'	26:1H:2518:A:OP1	2.26	0.51
26:1H:2103:C:H2'	26:1H:2104:G:C8	2.46	0.51
26:1H:2543:G:H2'	26:1H:2544:G:C8	2.45	0.51
26:1H:2873:A:C2	39:98:5:LYS:HB2	2.45	0.51
27:16:44:G:OP1	52:M8:1:MET:HE3	2.04	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:153:LYS:HB2	33:51:155:SER:N	2.23	0.51
34:61:37:VAL:HG11	34:61:43:ASN:ND2	2.25	0.51
34:61:64:GLU:O	34:61:67:ARG:HB2	2.10	0.51
40:A8:69:VAL:HA	40:A8:72:ALA:HB3	1.92	0.51
49:J8:87:PRO:O	49:J8:91:LYS:HB2	2.11	0.51
1:1G:222:U:C2	1:1G:223:U:C5	2.98	0.51
2:12:217:ARG:C	2:12:219:VAL:H	2.18	0.51
4:32:88:VAL:HA	5:42:97:GLY:HA3	1.91	0.51
5:42:12:LEU:HD22	5:42:13:ILE:N	2.25	0.51
5:42:33:VAL:HG21	5:42:109:ILE:HG12	1.92	0.51
13:4A:17:VAL:O	13:4A:20:THR:OG1	2.20	0.51
26:14:321:G:OP1	31:39:135:LYS:NZ	2.38	0.51
26:14:962:G:H2'	26:14:963:U:C6	2.46	0.51
26:14:2512:C:H4'	30:29:122:PHE:CE2	2.45	0.51
26:14:2748:A:H2	33:59:63:SER:HB2	1.75	0.51
27:1J:78:A:H61	27:1J:98:G:H1'	1.75	0.51
30:29:120:TRP:CE3	30:29:155:LYS:HD3	2.45	0.51
33:59:68:THR:HA	33:59:71:LEU:HD22	1.91	0.51
41:75:118:ARG:NH2	41:75:121:ILE:HG21	2.25	0.51
1:13:1320:C:N4	19:AI:36:ARG:HG3	2.25	0.51
2:1E:83:MET:HA	2:1E:86:GLU:OE2	2.10	0.51
5:4E:35:GLY:HA3	5:4E:112:LEU:O	2.09	0.51
26:1H:910:A:C8	38:88:13:GLN:HG3	2.46	0.51
26:1H:1221:C:H2'	26:1H:1222:C:H6	1.75	0.51
26:1H:2364:C:H2'	26:1H:2365:G:O4'	2.11	0.51
26:1H:2477:C:H2'	26:1H:2529:G:O6	2.10	0.51
26:1H:2636:U:OP1	30:21:79:ARG:HA	2.09	0.51
31:31:184:TYR:CE1	37:78:3:LEU:HD11	2.45	0.51
44:E8:59:VAL:HG23	44:E8:60:ASN:H	1.75	0.51
1:1G:630:G:H3'	1:1G:631:G:H5'	1.92	0.51
2:12:118:LEU:HD13	2:12:142:LEU:HD12	1.93	0.51
7:62:27:ILE:HA	7:62:30:ILE:HD12	1.92	0.51
26:14:414:C:O2	26:14:1864:U:O2'	2.28	0.51
26:14:548:A:C6	26:14:549:G:H1'	2.45	0.51
26:14:1005:C:O2'	35:15:28:THR:HG23	2.10	0.51
26:14:1927:A:H2'	26:14:1928:A:C8	2.45	0.51
26:14:2137:C:H2'	26:14:2138:C:H6	1.76	0.51
26:14:2271:G:H2'	26:14:2272:U:C6	2.45	0.51
30:29:61:ARG:HA	30:29:63:LEU:HD23	1.92	0.51
31:39:164:ARG:O	31:39:167:ALA:HB3	2.11	0.51
31:39:183:VAL:O	31:39:187:VAL:HG23	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:55:37:THR:OG1	39:55:40:LYS:NZ	2.43	0.51
47:D5:7:ALA:O	47:D5:8:TYR:CG	2.64	0.51
47:D5:23:LYS:HD3	47:D5:40:ASP:HA	1.91	0.51
1:13:153:C:H42	1:13:168:G:N2	2.09	0.51
1:13:317:G:H1	1:13:336:C:N4	2.09	0.51
1:13:1347:G:N2	1:13:1373:G:H2'	2.26	0.51
24:3K:29:U:H2'	24:3K:30:G:H8	1.76	0.51
26:1H:278:A:H5'	26:1H:279:C:C5	2.45	0.51
26:1H:1443:G:H2'	26:1H:1444:G:C8	2.44	0.51
26:1H:1486:A:H2'	26:1H:1487:G:H8	1.74	0.51
26:1H:1675:C:N3	30:21:128:SER:OG	2.41	0.51
26:1H:2475:C:H1'	26:1H:2477:C:C5	2.43	0.51
26:1H:2685:G:OP2	41:B8:51:ARG:NH2	2.44	0.51
40:A8:37:ALA:HB2	40:A8:101:LEU:HD21	1.92	0.51
48:I8:11:ARG:NH1	48:I8:11:ARG:HB2	2.26	0.51
1:1G:665:A:H2'	1:1G:732:C:O2	2.10	0.51
1:1G:1505:G:H4'	1:1G:1506:U:H5"	1.92	0.51
4:32:166:LYS:HA	4:32:178:VAL:HG11	1.92	0.51
9:82:10:ARG:HD3	9:82:11:LYS:HB2	1.92	0.51
26:14:241:A:H8	26:14:241:A:OP1	1.93	0.51
26:14:1796:U:H2'	26:14:1797:C:C6	2.45	0.51
26:14:2104:G:H1	26:14:2185:C:H42	1.57	0.51
26:14:2464:C:H2'	26:14:2465:C:O4'	2.10	0.51
26:14:2873:A:C8	39:55:5:LYS:HA	2.46	0.51
28:79:50:ASP:OD1	28:79:52:ARG:HB3	2.11	0.51
31:39:107:LYS:HD3	31:39:206:ILE:HG22	1.92	0.51
33:59:152:ARG:HG3	33:59:153:LYS:HG3	1.92	0.51
37:35:113:LYS:HB2	37:35:129:ALA:HB3	1.92	0.51
39:55:13:HIS:CE1	39:55:15:SER:HB3	2.46	0.51
1:13:8:A:N6	4:3E:205:GLU:O	2.43	0.51
1:13:280:C:O2	17:8I:38:ARG:HG3	2.11	0.51
1:13:675:A:H1'	11:2I:116:HIS:CD2	2.46	0.51
1:13:917:G:H2'	1:13:918:A:H8	1.76	0.51
3:2E:76:VAL:HG21	3:2E:103:VAL:HG21	1.93	0.51
5:4E:65:ASN:OD1	5:4E:140:ARG:NH2	2.42	0.51
12:3I:53:ARG:NH1	12:3I:92:ASP:OD1	2.43	0.51
26:1H:270(K):C:H1'	26:1H:270(N):G:H1	1.76	0.51
26:1H:910:A:N1	26:1H:2277:G:H1'	2.25	0.51
26:1H:1387:C:O2	26:1H:1388:G:C8	2.64	0.51
26:1H:1470:G:N2	26:1H:1522:G:OP2	2.34	0.51
32:41:173:LEU:HB3	32:41:178:PHE:CD2	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:B8:74:ARG:HD3	41:B8:76:PHE:CZ	2.45	0.51
46:G8:38:ILE:CD1	46:G8:64:GLU:O	2.58	0.51
1:1G:449:C:H5	16:7A:42:ARG:NH1	2.09	0.51
2:12:101:MET:HB2	2:12:102:LEU:HD12	1.92	0.51
8:72:17:THR:HB	8:72:18:ARG:NH1	2.26	0.51
26:14:270(S):G:OP1	49:F5:76:ARG:NH2	2.44	0.51
26:14:1159:U:H2'	26:14:1160:G:C8	2.46	0.51
26:14:1771:C:C1'	26:14:1786:A:H8	2.23	0.51
26:14:2232:U:OP1	49:F5:40:ARG:NH2	2.44	0.51
31:39:131:GLY:H	31:39:142:TRP:HB2	1.75	0.51
32:49:44:GLY:HA2	32:49:47:LYS:HG3	1.93	0.51
35:15:91:LEU:CD2	35:15:98:VAL:HG11	2.40	0.51
40:65:24:LEU:HB2	40:65:85:VAL:HG12	1.93	0.51
46:C5:62:GLU:OE1	46:C5:64:GLU:HG3	2.10	0.51
50:G5:53:LEU:O	50:G5:57:ILE:HG13	2.11	0.51
1:13:129(A):G:N2	1:13:188:U:HO2'	2.06	0.51
1:13:359:U:OP1	34:69:87:LYS:HE3	2.11	0.51
1:13:875:C:O2	8:7E:15:ASN:ND2	2.43	0.51
1:13:964:A:N3	1:13:969:A:O2'	2.41	0.51
1:13:1289:A:H5'	21:1F:10:ARG:HH22	1.75	0.51
1:13:1319:A:O2'	19:AI:3:ARG:HD3	2.11	0.51
9:8E:65:VAL:HG21	9:8E:73:GLN:HB3	1.92	0.51
13:4I:9:ILE:HG22	13:4I:10:PRO:O	2.10	0.51
17:8I:10:VAL:HG13	17:8I:19:VAL:HB	1.92	0.51
18:9I:66:LEU:HD21	18:9I:70:ILE:HD11	1.92	0.51
26:1H:270(I):G:H1	26:1H:270(Q):C:H42	1.58	0.51
26:1H:845:G:H8	26:1H:845:G:OP2	1.94	0.51
31:31:63:LYS:HG2	31:31:65:TRP:O	2.09	0.51
31:31:160:ASN:OD1	31:31:163:VAL:HG23	2.11	0.51
40:A8:14:VAL:O	40:A8:18:ILE:HD13	2.11	0.51
42:C8:109:LEU:HD21	43:D8:47:VAL:HG21	1.93	0.51
1:1G:750:G:C2	15:6A:23:GLY:HA3	2.45	0.51
1:1G:1014:A:P	1:1G:1014:A:H8	2.33	0.51
1:1G:1022:G:C6	1:1G:1023:G:C8	2.98	0.51
3:22:18:TRP:CD1	14:5A:55:GLY:H	2.29	0.51
4:32:4:TYR:HE2	4:32:11:LEU:HD21	1.75	0.51
16:7A:67:THR:HG22	16:7A:68:ASP:H	1.75	0.51
22:1L:33:U:H2'	22:1L:35:U:OP2	2.11	0.51
23:2L:26:C:H2'	23:2L:27:G:O4'	2.10	0.51
26:14:747:U:O2	26:14:2014:A:H1'	2.10	0.51
26:14:1607:C:H4'	26:14:1608:A:O5'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1685:C:H2'	26:14:1686:C:C6	2.45	0.51
26:14:2176:A:O2'	26:14:2177:C:H5'	2.11	0.51
26:14:2343:C:HO2'	26:14:2373:G:HO2'	1.54	0.51
27:1J:88:C:H3'	27:1J:89:G:N7	2.25	0.51
1:13:826:C:H2'	1:13:827:U:O2	2.11	0.51
1:13:827:U:C5	1:13:872:A:N1	2.78	0.51
4:3E:110:PHE:HE2	4:3E:148:VAL:HG23	1.76	0.51
6:5E:70:ASP:OD1	6:5E:70:ASP:N	2.43	0.51
7:6E:15:ASP:HB3	7:6E:19:GLY:H	1.76	0.51
16:7I:51:VAL:HG12	16:7I:52:ASP:O	2.11	0.51
26:1H:1138:G:H21	35:58:106:MET:CE	2.17	0.51
26:1H:1278:A:H4'	39:98:34:ILE:HD11	1.92	0.51
26:1H:1374:G:H2'	26:1H:1375:C:H6	1.76	0.51
26:1H:2725:A:C4	26:1H:2727:G:C8	2.99	0.51
28:71:10:LEU:HB3	28:71:32:LEU:HG	1.93	0.51
33:51:24:VAL:HG22	33:51:35:VAL:HB	1.92	0.51
37:78:39:LYS:CB	37:78:45:LEU:CD1	2.89	0.51
37:78:50:ARG:HD3	55:Q8:7:HIS:HD2	1.75	0.51
38:88:134:ARG:HH12	47:H8:122:ARG:HD2	1.75	0.51
42:C8:8:VAL:HG23	42:C8:11:ARG:NH2	2.22	0.51
44:E8:12:ILE:HG12	44:E8:13:SER:N	2.24	0.51
1:1G:750:G:H1'	15:6A:22:THR:OG1	2.11	0.51
1:1G:1007:C:H2'	1:1G:1008:C:O4'	2.11	0.51
2:12:24:TRP:HA	2:12:191:ASP:HA	1.91	0.51
2:12:208:ILE:HA	2:12:211:ILE:HG22	1.92	0.51
4:32:107:ARG:HD3	4:32:173:TRP:CZ2	2.45	0.51
8:72:86:ILE:HG12	8:72:135:CYS:HA	1.93	0.51
20:BA:64:ASP:OD1	20:BA:81:LYS:HD2	2.10	0.51
24:3L:2:G:H2'	24:3L:3:G:H8	1.76	0.51
26:14:323:G:H2'	31:39:169:ASN:ND2	2.26	0.51
26:14:1537:C:O2'	26:14:1538:G:O4'	2.17	0.51
26:14:1950:G:C2	26:14:1951:U:C5	2.98	0.51
31:39:46:ARG:HG2	31:39:46:ARG:HH11	1.75	0.51
36:25:71:ARG:HE	36:25:105:GLU:CD	2.19	0.51
39:55:28:LEU:HD21	39:55:114:VAL:HG12	1.93	0.51
40:65:102:ALA:HA	40:65:105:ALA:HB3	1.93	0.51
1:13:280:C:H4'	1:13:281:G:OP2	2.11	0.51
4:3E:173:TRP:CD1	4:3E:174:LEU:HG	2.46	0.51
9:8E:55:ALA:HB1	9:8E:59:PHE:CD2	2.46	0.51
10:1I:32:ALA:HB1	10:1I:76:ASN:OD1	2.10	0.51
11:2I:48:ILE:HD11	11:2I:64:ALA:HA	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:320:A:OP1	31:31:135:LYS:NZ	2.27	0.51
26:1H:2106:G:N1	26:1H:2184:G:N3	2.58	0.51
27:16:15:A:H1'	27:16:109:G:C4	2.46	0.51
37:78:106:LEU:HD13	37:78:106:LEU:O	2.11	0.51
1:1G:750:G:N2	15:6A:23:GLY:HA3	2.25	0.51
1:1G:1080:A:H5"	1:1G:1081:G:OP2	2.11	0.51
1:1G:1152:A:H5'	10:1A:13:HIS:ND1	2.26	0.51
1:1G:1423:G:H2'	1:1G:1424:C:H6	1.74	0.51
2:12:41:ILE:HD12	2:12:42:ILE:H	1.76	0.51
3:22:33:LEU:O	3:22:36:ASP:N	2.43	0.51
3:22:87:LEU:H	3:22:88:ARG:NH2	2.07	0.51
9:82:43:ALA:HA	9:82:74:ILE:HD13	1.92	0.51
26:14:2313:C:H2'	26:14:2314:C:H6	1.74	0.51
26:14:2584:U:H2'	26:14:2585:U:H2'	1.93	0.51
30:29:65:GLY:N	30:29:73:GLU:OE1	2.44	0.51
32:49:60:LEU:HD22	32:49:68:PRO:HB3	1.93	0.51
47:D5:39:VAL:HG21	47:D5:44:PHE:HD2	1.76	0.51
49:F5:87:PRO:HA	49:F5:90:ILE:CG2	2.41	0.51
55:M5:31:HIS:O	55:M5:32:LEU:HB2	2.11	0.51
1:13:1187:G:O5'	9:8E:113:LYS:NZ	2.39	0.51
2:1E:21:ARG:C	2:1E:23:ARG:H	2.18	0.51
2:1E:72:GLY:HA2	2:1E:165:VAL:HG22	1.94	0.51
8:7E:87:SER:HB2	8:7E:93:VAL:N	2.26	0.51
9:8E:78:LYS:HE3	9:8E:101:PHE:CE1	2.46	0.51
22:1K:9:A:H3'	22:1K:10:G:H8	1.76	0.51
24:3K:72:C:C3'	24:3K:73:A:H5"	2.41	0.51
26:1H:32:C:O2'	26:1H:33:U:H5'	2.10	0.51
26:1H:71:A:OP1	26:1H:72:U:H2'	2.11	0.51
26:1H:270(M):U:OP2	34:61:57:ARG:NH2	2.42	0.51
26:1H:994:C:H3'	42:C8:54:LYS:HE3	1.92	0.51
26:1H:1337:G:C4	26:1H:1338:G:C8	2.99	0.51
26:1H:1416:G:O2'	26:1H:1417:C:H6	1.92	0.51
26:1H:1477:A:C6	26:1H:1478:G:C5	2.99	0.51
26:1H:1500:G:O2'	29:11:100:GLY:O	2.27	0.51
27:16:12:C:H6	27:16:12:C:OP2	1.93	0.51
31:31:177:ALA:HB1	31:31:178:PRO:HD2	1.93	0.51
39:98:34:ILE:HG22	39:98:114:VAL:CG2	2.41	0.51
39:98:104:ARG:HB2	39:98:107:ASP:HB3	1.92	0.51
40:A8:67:ARG:HH21	40:A8:103:GLU:HB2	1.76	0.51
1:1G:552:U:H2'	1:1G:553:A:C8	2.46	0.51
1:1G:664:G:H22	1:1G:741:G:H1	1.59	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:148:VAL:O	5:42:152:ARG:HG2	2.10	0.51
26:14:250:G:P	37:35:60:MET:HE1	2.51	0.51
26:14:753:C:H2'	26:14:754:C:C6	2.46	0.51
26:14:991:C:O2	26:14:1164:G:C2	2.64	0.51
26:14:1604:C:O2'	26:14:1610:A:N1	2.40	0.51
26:14:1668:A:H4'	26:14:1669:A:H5'	1.92	0.51
26:14:1678:G:N2	26:14:1989:G:N2	2.59	0.51
26:14:2099:U:H2'	26:14:2100:G:H5"	1.92	0.51
26:14:2292:C:H2'	26:14:2293:C:C6	2.46	0.51
26:14:2805:G:H2'	26:14:2807:G:O4'	2.09	0.51
30:29:201:THR:HG22	30:29:202:LYS:H	1.75	0.51
39:55:55:ALA:HB2	39:55:79:LEU:HD13	1.93	0.51
42:85:47:TYR:CE1	42:85:51:LYS:HE2	2.46	0.51
48:E5:12:ASN:HA	48:E5:14:ARG:NH2	2.22	0.51
55:M5:14:VAL:HG12	55:M5:15:LYS:N	2.26	0.51
1:13:179:A:H2'	1:13:180:U:H6	1.75	0.50
1:13:927:G:OP2	1:13:927:G:H4'	2.10	0.50
1:13:1405:G:OP2	57:13:1730:PAR:H34	2.11	0.50
4:3E:18:LYS:HD3	4:3E:31:CYS:SG	2.50	0.50
10:1I:49:VAL:CG2	14:5I:41:ARG:HB2	2.41	0.50
26:1H:353:G:H2'	26:1H:354:G:H8	1.76	0.50
26:1H:864:G:C6	26:1H:865:C:N4	2.79	0.50
26:1H:1026:U:H4'	26:1H:1027:A:OP1	2.11	0.50
26:1H:1312:U:H4'	26:1H:1313:U:O5'	2.10	0.50
26:1H:1385:G:O6	26:1H:1403:C:N4	2.44	0.50
26:1H:1534:G:H1	26:1H:1539:G:H1'	1.75	0.50
26:1H:1570:A:H2'	26:1H:1571:A:C8	2.47	0.50
26:1H:2154:G:H2'	26:1H:2155:G:C8	2.46	0.50
26:1H:2792:G:H22	26:1H:2804:C:H2'	1.76	0.50
28:71:45:ALA:HB2	28:71:212:VAL:HG22	1.93	0.50
31:31:149:ASP:OD1	31:31:149:ASP:N	2.33	0.50
35:58:9:VAL:HG11	35:58:39:ARG:HH12	1.76	0.50
36:68:105:GLU:O	36:68:109:LYS:HG2	2.11	0.50
38:88:6:ARG:HG2	38:88:7:MET:H	1.77	0.50
38:88:58:PHE:HB3	38:88:113:GLN:HE21	1.76	0.50
1:1G:339:C:H2'	1:1G:340:U:C6	2.47	0.50
1:1G:999:U:H2'	1:1G:1000:A:C8	2.47	0.50
1:1G:1051:C:H2'	1:1G:1052:U:C6	2.45	0.50
2:12:168:THR:HG23	2:12:192:SER:HA	1.93	0.50
3:22:72:LYS:HB3	3:22:75:VAL:HB	1.92	0.50
9:82:45:ALA:O	9:82:48:GLU:HB2	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AA:15:LEU:HD11	19:AA:33:THR:CB	2.42	0.50
24:3L:32:C:H2'	24:3L:33:U:C4	2.47	0.50
26:14:774:A:H2	26:14:787:U:HO2'	1.57	0.50
26:14:1127:A:N3	26:14:2518:A:H5'	2.27	0.50
26:14:2461:C:H2'	26:14:2462:U:H6	1.76	0.50
26:14:2773:C:OP1	30:29:166:THR:OG1	2.28	0.50
1:13:455:C:H42	1:13:477:G:H22	1.58	0.50
2:1E:183:PRO:HA	2:1E:198:ASP:OD2	2.11	0.50
12:3I:89:ARG:O	12:3I:99:HIS:HE1	1.95	0.50
13:4I:23:TYR:CE2	13:4I:71:ARG:HG3	2.46	0.50
23:2K:70:C:H2'	23:2K:71:G:O4'	2.11	0.50
26:1H:265:A:H1'	26:1H:266:G:O4'	2.11	0.50
26:1H:780:G:N2	26:1H:783:A:N6	2.52	0.50
26:1H:1035:U:H2'	26:1H:1036:G:H8	1.74	0.50
26:1H:1187:G:H8	26:1H:1187:G:O5'	1.94	0.50
26:1H:1416:G:O2'	26:1H:1417:C:C6	2.63	0.50
26:1H:1728:G:H5'	26:1H:1729:A:OP2	2.11	0.50
29:11:68:LYS:HA	29:11:70:TRP:CZ3	2.46	0.50
32:41:41:GLN:O	32:41:89:GLY:HA3	2.11	0.50
32:41:109:VAL:HG11	32:41:142:PRO:HD3	1.93	0.50
32:41:165:THR:OG1	32:41:168:GLU:HG3	2.11	0.50
48:I8:49:LYS:HB2	48:I8:80:HIS:HB3	1.92	0.50
1:1G:532:A:N6	1:1G:1206:G:O2'	2.36	0.50
1:1G:584:G:C5'	17:8A:91:ARG:HH21	2.24	0.50
20:BA:26:ASN:HA	20:BA:71:THR:HG23	1.92	0.50
23:2L:6:G:N2	23:2L:69:C:H1'	2.26	0.50
26:14:299:A:OP2	60:14:3420:HOH:O	2.19	0.50
26:14:628:G:H5"	55:M5:18:ALA:HB2	1.93	0.50
26:14:764:A:O4'	29:19:213:ARG:HG3	2.11	0.50
26:14:1484:G:H2'	26:14:1485:G:C8	2.46	0.50
26:14:2129:C:H5"	26:14:2130:U:C5	2.46	0.50
26:14:2865:U:C4	26:14:2866:U:C4	2.99	0.50
27:1J:52:A:N6	40:65:33:LYS:HD3	2.27	0.50
27:1J:75:G:H21	47:D5:85:HIS:CE1	2.29	0.50
29:19:44:ASN:HB3	29:19:47:GLY:H	1.76	0.50
29:19:44:ASN:CB	29:19:47:GLY:H	2.23	0.50
30:29:58:ARG:HD2	30:29:58:ARG:H	1.76	0.50
35:15:30:ILE:HG22	35:15:34:LEU:HD23	1.93	0.50
40:65:26:LEU:O	40:65:88:ASP:HB2	2.11	0.50
42:85:8:VAL:HB	42:85:12:ARG:HE	1.76	0.50
1:13:264:U:O2'	17:8I:63:ARG:HG3	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:501:C:H2'	1:13:502:G:C8	2.47	0.50
1:13:1194:U:H2'	1:13:1195:C:C6	2.46	0.50
1:13:1347:G:OP2	9:8E:107:ARG:HG2	2.11	0.50
1:13:1368:G:H5"	9:8E:112:LYS:HB3	1.93	0.50
3:2E:40:ARG:O	3:2E:44:GLU:HG2	2.11	0.50
5:4E:126:ARG:HG3	5:4E:126:ARG:NH1	2.26	0.50
6:5E:23:LYS:HD3	6:5E:61:LEU:HD21	1.92	0.50
6:5E:89:MET:HE1	18:9I:72:ARG:HB3	1.94	0.50
8:7E:81:HIS:N	8:7E:138:TRP:O	2.43	0.50
15:6I:33:THR:HA	15:6I:36:ILE:HD12	1.92	0.50
20:BI:35:THR:O	20:BI:38:LYS:HG2	2.12	0.50
20:BI:49:ALA:CB	20:BI:99:LEU:HB2	2.41	0.50
24:3K:16:U:O2'	24:3K:18:G:OP2	2.19	0.50
26:1H:529:A:H4'	26:1H:530:G:H5'	1.93	0.50
26:1H:860:U:C5	26:1H:917:A:H2	2.28	0.50
26:1H:941:A:H3'	26:1H:942:G:H8	1.77	0.50
26:1H:1598:C:O2'	26:1H:1599:C:H5'	2.11	0.50
26:1H:1678:G:N2	26:1H:1989:G:N2	2.57	0.50
26:1H:1728:G:O6	26:1H:1730:U:H5"	2.10	0.50
26:1H:2593:U:H2'	26:1H:2594:C:C6	2.46	0.50
26:1H:2636:U:H2'	26:1H:2637:U:H6	1.77	0.50
28:71:43:VAL:HG13	28:71:214:VAL:HA	1.92	0.50
31:31:51:THR:HB	31:31:88:VAL:HG11	1.92	0.50
37:78:19:VAL:HB	37:78:21:ARG:H	1.76	0.50
37:78:49:ARG:NH1	37:78:49:ARG:HB2	2.24	0.50
42:C8:14:HIS:O	42:C8:18:LEU:HD12	2.11	0.50
49:J8:91:LYS:O	49:J8:94:LEU:N	2.45	0.50
1:1G:129(A):G:C2	1:1G:191(A):G:C8	3.00	0.50
1:1G:176:C:OP1	20:BA:29:LYS:NZ	2.44	0.50
1:1G:404:U:OP2	4:32:118:ARG:NH1	2.45	0.50
1:1G:757:U:H2'	1:1G:758:G:O4'	2.11	0.50
1:1G:1452:C:H4'	1:1G:1453:G:H5'	1.92	0.50
4:32:13:ARG:C	4:32:15:GLU:H	2.19	0.50
15:6A:39:LEU:HD13	15:6A:56:LEU:HD12	1.93	0.50
17:8A:81:ARG:HB3	17:8A:84:LEU:HD12	1.93	0.50
26:14:579:G:H2'	26:14:580:C:H6	1.77	0.50
26:14:1328:G:H2'	26:14:1330:C:C5	2.46	0.50
26:14:2186:G:H2'	26:14:2187:G:H8	1.76	0.50
29:19:184:LYS:HD3	29:19:269:PHE:HA	1.93	0.50
30:29:55:ASN:HB2	30:29:58:ARG:HH21	1.75	0.50
31:39:130:ALA:O	31:39:132:VAL:HG12	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:69:75:LEU:HD13	34:69:77:LEU:HD23	1.93	0.50
43:95:85:LYS:CD	43:95:86:GLY:H	2.24	0.50
1:13:277:C:H2'	1:13:278:G:H8	1.76	0.50
2:1E:21:ARG:HB2	2:1E:39:ILE:HD13	1.92	0.50
4:3E:155:LEU:O	4:3E:157:LEU:N	2.44	0.50
22:1K:17:U:H4'	22:1K:60:U:C2	2.46	0.50
26:1H:654:A:H2'	26:1H:654(A):A:H8	1.76	0.50
26:1H:806:C:OP2	37:78:41:ARG:NH2	2.42	0.50
26:1H:859:G:O2'	26:1H:916:G:O6	2.24	0.50
26:1H:996:A:H4'	42:C8:92:ARG:NE	2.27	0.50
26:1H:1207:C:H2'	26:1H:1208:C:H6	1.76	0.50
26:1H:2212:A:H1'	26:1H:2215:G:C5	2.46	0.50
26:1H:2533:A:H2'	26:1H:2534:A:O4'	2.12	0.50
26:1H:2590:A:H2'	26:1H:2591:C:C6	2.47	0.50
29:11:30:GLU:HG3	29:11:63:ARG:NE	2.27	0.50
30:21:8:LYS:HA	30:21:26:ILE:HG22	1.92	0.50
34:61:4:ILE:HG13	34:61:39:ALA:HB2	1.93	0.50
37:78:122:PRO:HA	37:78:142:GLY:HA3	1.92	0.50
39:98:34:ILE:HG22	39:98:114:VAL:HG23	1.93	0.50
48:I8:25:ARG:HD3	48:I8:29:GLN:NE2	2.26	0.50
48:I8:40:GLN:OE1	48:I8:44:ARG:HB2	2.11	0.50
54:P8:37:LYS:O	54:P8:37:LYS:HG2	2.11	0.50
1:1G:571:U:O2	1:1G:918:A:H5'	2.11	0.50
1:1G:859:A:H2'	1:1G:860:A:O4'	2.11	0.50
2:12:80:ILE:HD13	2:12:212:GLN:CG	2.40	0.50
13:4A:14:ARG:HA	13:4A:43:THR:O	2.10	0.50
17:8A:41:LYS:NZ	17:8A:92:ARG:HH21	2.09	0.50
23:2L:8:4SU:C2	23:2L:14:A:H62	2.20	0.50
26:14:1991:U:H2'	26:14:1992:G:H5"	1.94	0.50
26:14:2512:C:H1'	30:29:140:SER:O	2.11	0.50
26:14:2786:U:O2	30:29:62:PRO:HB3	2.12	0.50
29:19:43:ARG:HG2	29:19:49:ILE:CA	2.41	0.50
30:29:54:GLN:O	30:29:75:VAL:HG13	2.10	0.50
30:29:65:GLY:O	30:29:68:ALA:HB2	2.11	0.50
31:39:38:ARG:CZ	31:39:99:TYR:OH	2.56	0.50
33:59:50:VAL:O	33:59:51:ARG:HG3	2.11	0.50
35:15:43:THR:HB	35:15:46:VAL:HG22	1.93	0.50
40:65:19:LYS:O	40:65:19:LYS:HG2	2.12	0.50
42:85:91:ASP:OD2	42:85:96:ALA:HB2	2.11	0.50
1:13:502:G:C6	1:13:503:C:C4	2.99	0.50
1:13:986:A:H2'	1:13:987:G:O4'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:31:CYS:O	4:3E:32:ALA:HB3	2.11	0.50
9:8E:47:LEU:HD23	9:8E:47:LEU:H	1.76	0.50
10:1I:55:LYS:O	10:1I:55:LYS:HD3	2.11	0.50
13:4I:82:MET:C	13:4I:84:ILE:H	2.20	0.50
19:AI:40:ILE:O	19:AI:41:VAL:HG22	2.12	0.50
21:1F:12:LYS:HB3	21:1F:22:ARG:HD2	1.93	0.50
22:1K:14:A:C5	22:1K:22:G:C6	3.00	0.50
26:1H:194:G:H2'	26:1H:195:A:O4'	2.12	0.50
26:1H:1140:C:OP1	35:58:23:LEU:HB3	2.12	0.50
26:1H:1204:A:H2	26:1H:1241:A:N1	2.10	0.50
26:1H:1678:G:H8	26:1H:1678:G:O5'	1.94	0.50
26:1H:1805:U:O2	29:11:50:THR:HB	2.11	0.50
29:11:31:LYS:HZ1	29:11:102:LYS:HZ3	1.59	0.50
29:11:31:LYS:HD3	29:11:94:LEU:HD11	1.93	0.50
32:41:11:TYR:HA	32:41:15:VAL:HB	1.93	0.50
43:D8:59:ALA:HB2	43:D8:96:ILE:HD13	1.92	0.50
45:F8:89:ILE:HG22	45:F8:92:LEU:H	1.75	0.50
47:H8:48:PHE:CE1	47:H8:71:VAL:HG11	2.44	0.50
1:1G:377:G:H5'	16:7A:5:ARG:HH12	1.75	0.50
1:1G:1224:G:N1	1:1G:1322:C:H1'	2.27	0.50
2:12:185:ILE:HG23	2:12:199:TYR:HB2	1.93	0.50
11:2A:82:VAL:HB	11:2A:108:ILE:HG12	1.94	0.50
26:14:723:G:H2'	26:14:724:U:O4'	2.12	0.50
26:14:2175:C:OP1	28:79:6:ARG:NH2	2.44	0.50
27:1J:78:A:H2'	27:1J:79:C:O4'	2.12	0.50
27:1J:95:U:OP2	47:D5:14:LYS:NZ	2.26	0.50
44:A5:15:ARG:O	44:A5:19:LEU:HD13	2.11	0.50
46:C5:63:LYS:HA	46:C5:63:LYS:CE	2.42	0.50
49:F5:85:LEU:HA	49:F5:87:PRO:HD2	1.93	0.50
1:13:255:G:H1'	17:8I:16:GLN:OE1	2.12	0.50
1:13:266:G:H5"	1:13:267:C:H5	1.77	0.50
1:13:814:A:N7	1:13:816:A:C4	2.80	0.50
5:4E:64:ARG:HG2	5:4E:64:ARG:HH11	1.77	0.50
7:6E:144:MET:SD	24:3K:41:A:H1'	2.52	0.50
26:1H:97:C:H5"	50:K8:2:LYS:HA	1.94	0.50
26:1H:1454:U:H5'	39:98:63:ARG:NE	2.26	0.50
27:16:73:A:OP2	60:16:301:HOH:O	2.19	0.50
27:16:90:C:OP2	38:88:16:ARG:NH2	2.41	0.50
30:21:88:GLY:O	30:21:89:ASP:HB2	2.10	0.50
38:88:20:ALA:HA	38:88:98:LYS:HB3	1.94	0.50
47:H8:110:GLY:H	47:H8:112:ARG:HG3	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:J8:53:VAL:HB	49:J8:58:ILE:HD13	1.92	0.50
49:J8:87:PRO:O	49:J8:91:LYS:N	2.43	0.50
50:K8:38:GLN:HB3	50:K8:44:LEU:HB3	1.94	0.50
1:1G:186(D):C:H42	1:1G:191(C):G:H1	1.60	0.50
1:1G:404:U:O4	4:32:2:GLY:N	2.44	0.50
1:1G:406:G:H1	1:1G:436:C:H42	1.59	0.50
1:1G:967:C:H2'	1:1G:968:A:N7	2.25	0.50
1:1G:1373:G:OP1	7:62:36:LYS:HD2	2.12	0.50
1:1G:1401:G:OP1	25:4L:18:G:O2'	2.22	0.50
2:12:187:LEU:HD22	2:12:188:ALA:H	1.76	0.50
10:1A:84:GLN:NE2	10:1A:84:GLN:N	2.60	0.50
11:2A:62:GLN:O	11:2A:66:LEU:HG	2.12	0.50
12:3A:47:LYS:HD2	12:3A:48:PRO:HD2	1.92	0.50
18:9A:53:ARG:HA	18:9A:56:THR:OG1	2.12	0.50
19:AA:11:VAL:HG21	19:AA:41:VAL:HG12	1.94	0.50
26:14:26:G:C6	26:14:27:G:N1	2.80	0.50
26:14:94:G:H21	50:G5:47:ASN:HD22	1.59	0.50
26:14:489:G:O6	44:A5:45:TYR:OH	2.28	0.50
26:14:899:A:H2'	26:14:900:A:C8	2.47	0.50
26:14:1011:G:H1	26:14:1150:C:H42	1.58	0.50
26:14:1262:A:P	44:A5:99:ARG:HH12	2.35	0.50
26:14:1878:G:H2'	26:14:1879:C:C6	2.47	0.50
26:14:2128:C:H42	26:14:2160:G:H1	1.59	0.50
26:14:2340:G:H2'	26:14:2341:G:H8	1.76	0.50
26:14:2346:A:H5"	26:14:2383:G:C1'	2.41	0.50
26:14:2745:C:H42	26:14:2759:G:H1	1.57	0.50
39:55:58:GLY:HA2	39:55:80:PHE:CE2	2.46	0.50
42:85:8:VAL:O	42:85:12:ARG:HG2	2.12	0.50
42:85:20:LEU:HB3	42:85:39:LEU:HD11	1.94	0.50
44:A5:17:VAL:O	44:A5:20:VAL:HG22	2.12	0.50
45:B5:40:LYS:HA	45:B5:51:VAL:HG11	1.92	0.50
1:13:200:G:H1	1:13:217:C:H42	1.60	0.50
1:13:222:U:H2'	1:13:223:U:H6	1.76	0.50
1:13:653:A:H5'	8:7E:56:LYS:HE2	1.92	0.50
1:13:952:U:O4	13:4I:104:ARG:HD3	2.12	0.50
1:13:1226:C:OP2	13:4I:103:THR:OG1	2.21	0.50
1:13:1305:G:O2'	1:13:1331:G:N2	2.33	0.50
1:13:1360:A:H2'	1:13:1361:G:O4'	2.12	0.50
5:4E:100:VAL:O	5:4E:107:ARG:NH2	2.45	0.50
13:4I:108:ARG:NH2	13:4I:111:LYS:HD3	2.27	0.50
20:BI:53:LEU:HB3	20:BI:57:ARG:NH1	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:49:G:H1'	24:3K:66:A:C4	2.47	0.50
24:3K:52:G:H2'	24:3K:53:G:C8	2.47	0.50
26:1H:639:U:H2'	26:1H:640:C:C6	2.46	0.50
26:1H:699:A:H2'	26:1H:700:G:O4'	2.12	0.50
26:1H:1021:A:H2'	26:1H:1023:U:H5'	1.92	0.50
26:1H:2135:A:C6	26:1H:2136:C:H1'	2.47	0.50
29:11:164:GLN:HG2	29:11:166:GLN:OE1	2.12	0.50
31:31:32:LEU:CD2	31:31:105:VAL:HG13	2.42	0.50
31:31:197:ASP:O	31:31:199:TRP:N	2.44	0.50
37:78:50:ARG:HD3	55:Q8:7:HIS:CD2	2.47	0.50
38:88:32:TYR:CE1	38:88:133:ARG:HG3	2.47	0.50
40:A8:58:LEU:HD13	40:A8:68:GLN:OE1	2.12	0.50
41:B8:111:ARG:HD3	41:B8:111:ARG:H	1.77	0.50
47:H8:8:TYR:HB2	47:H8:38:TYR:CE1	2.47	0.50
1:1G:6:G:P	4:32:84:LYS:HB3	2.52	0.50
1:1G:9:G:C6	1:1G:26:A:N6	2.79	0.50
1:1G:45:U:H2'	1:1G:46:G:C8	2.47	0.50
1:1G:352:C:O2	1:1G:355:C:N4	2.43	0.50
1:1G:376:G:H5"	16:7A:5:ARG:HD2	1.94	0.50
1:1G:486:U:H2'	1:1G:487:A:C8	2.46	0.50
1:1G:1037:C:H2'	1:1G:1038:C:C6	2.47	0.50
1:1G:1328:C:O2'	13:4A:29:ARG:NE	2.42	0.50
1:1G:1329:A:H5"	13:4A:25:ILE:O	2.12	0.50
7:62:88:PRO:HD2	7:62:148:ASN:HB3	1.93	0.50
9:82:42:ARG:NH1	9:82:75:ASP:OD1	2.45	0.50
12:3A:54:LYS:HD2	12:3A:54:LYS:H	1.76	0.50
14:5A:23:ARG:HH11	14:5A:28:GLY:HA2	1.77	0.50
20:BA:54:LYS:HA	20:BA:57:ARG:NH2	2.26	0.50
24:3L:21:A:H2'	24:3L:21:A:N3	2.26	0.50
26:14:270(Z):U:O3'	26:14:271(A):C:H6	1.95	0.50
26:14:433:C:C4	26:14:434:U:O4	2.65	0.50
26:14:656:G:H2'	26:14:657:U:O4'	2.12	0.50
26:14:868:U:C4	26:14:869:G:N7	2.80	0.50
26:14:1197:G:N2	26:14:1250:G:C5	2.79	0.50
26:14:1568:G:H4'	29:19:59:LYS:HD3	1.94	0.50
31:39:27:GLU:HB3	31:39:112:MET:HG2	1.94	0.50
36:25:14:THR:HG22	36:25:52:VAL:HG22	1.94	0.50
47:D5:25:PRO:O	47:D5:85:HIS:HA	2.12	0.50
1:13:757:U:H2'	1:13:758:G:O4'	2.12	0.50
1:13:1239:A:H62	1:13:1299:A:N6	2.10	0.50
1:13:1323:G:H2'	1:13:1324:A:H8	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:2:ALA:HB3	13:4I:53:VAL:HG11	1.93	0.50
13:4I:67:GLU:CG	13:4I:71:ARG:HH21	2.25	0.50
17:8I:85:VAL:HG13	17:8I:89:LEU:HD23	1.93	0.50
19:AI:18:LYS:HG3	19:AI:31:ILE:HD12	1.94	0.50
23:2K:62:C:H2'	23:2K:63:C:H6	1.77	0.50
26:1H:6:A:H4'	35:58:129:PRO:HB3	1.94	0.50
26:1H:1165:U:H2'	26:1H:1166:C:H6	1.74	0.50
26:1H:1467:C:O2'	26:1H:1468:C:H5'	2.12	0.50
26:1H:1689:A:C6	26:1H:1700:A:C2	3.00	0.50
26:1H:1971:A:C5	29:11:241:PRO:HG3	2.47	0.50
26:1H:2019:A:C4'	42:C8:34:LYS:HD2	2.41	0.50
26:1H:2280:G:C2'	26:1H:2281:C:H5'	2.41	0.50
26:1H:2564:A:OP1	26:1H:2648:C:H4'	2.12	0.50
32:41:25:TYR:OH	32:41:168:GLU:OE2	2.28	0.50
35:58:13:TRP:O	35:58:135:PRO:HD2	2.11	0.50
41:B8:107:ASP:O	41:B8:110:ILE:HG12	2.12	0.50
42:C8:50:ARG:HG2	42:C8:53:ARG:NH2	2.27	0.50
42:C8:90:VAL:CG2	43:D8:39:LEU:HB3	2.41	0.50
47:H8:40:ASP:OD2	47:H8:43:GLU:HG3	2.11	0.50
1:1G:1127:G:N2	1:1G:1144:G:H1	2.10	0.50
1:1G:1255:G:N2	1:1G:1259:C:O2	2.31	0.50
1:1G:1349:A:H2'	1:1G:1350:A:O4'	2.11	0.50
1:1G:1382:C:HO2'	24:3L:34:U:H5	1.57	0.50
2:12:54:THR:HA	2:12:57:PHE:CD2	2.47	0.50
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.92	0.50
18:9A:21:LYS:NZ	18:9A:22:VAL:O	2.44	0.50
23:2L:32:G:C6	23:2L:33:OMC:N4	2.79	0.50
26:14:34:C:H1'	26:14:35:G:OP1	2.11	0.50
26:14:49:A:H5"	26:14:51:G:O4'	2.12	0.50
26:14:195:A:H4'	26:14:251:A:O2'	2.11	0.50
26:14:1225:C:H5"	43:95:85:LYS:HD3	1.93	0.50
26:14:1257:C:OP1	31:39:75:HIS:HE1	1.95	0.50
26:14:1332:G:H5"	60:14:3408:HOH:O	2.11	0.50
26:14:2108:C:H42	26:14:2181:G:H1	1.60	0.50
26:14:2467:C:H4'	38:45:123:HIS:CD2	2.46	0.50
30:29:41:LYS:HG3	30:29:42:ASP:N	2.27	0.50
31:39:120:GLU:HG3	31:39:122:LYS:HG2	1.94	0.50
31:39:122:LYS:O	31:39:123:LEU:HG	2.11	0.50
32:49:27:ASN:HB3	32:49:30:GLU:HG3	1.93	0.50
36:25:73:ASP:OD1	36:25:73:ASP:N	2.41	0.50
39:55:12:ARG:HB3	39:55:16:HIS:HB3	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:15:VAL:HG12	46:C5:21:LYS:HA	1.94	0.50
1:13:38:G:C2	1:13:397:A:C2	3.00	0.50
1:13:453:A:H4'	16:7I:72:ARG:HB2	1.93	0.50
1:13:998:G:N2	1:13:1043:C:O2	2.43	0.50
1:13:1121:U:C4	1:13:1122:U:C4	2.99	0.50
5:4E:15:ARG:CG	5:4E:26:PHE:HD2	2.25	0.50
8:7E:134:ILE:HG22	8:7E:135:CYS:SG	2.52	0.50
9:8E:28:VAL:HG22	9:8E:63:ILE:HB	1.93	0.50
17:8I:28:PRO:HA	17:8I:34:LYS:O	2.12	0.50
26:1H:1188:U:C4'	43:D8:79:VAL:HG22	2.41	0.50
26:1H:1354:A:H4'	29:11:39:LYS:HE3	1.93	0.50
26:1H:1480:G:N1	26:1H:1482:U:O2	2.45	0.50
30:21:34:VAL:HG21	30:21:77:ILE:HD13	1.93	0.50
46:G8:87:LYS:O	46:G8:94:LYS:HB2	2.11	0.50
47:H8:126:VAL:HG12	47:H8:163:LEU:HD23	1.94	0.50
55:Q8:34:TRP:CZ2	55:Q8:35:GLN:NE2	2.80	0.50
1:1G:224:C:H2'	1:1G:225:C:C6	2.47	0.50
1:1G:256:U:H2'	1:1G:257:G:C8	2.46	0.50
1:1G:980:C:H5'	1:1G:981:U:C6	2.46	0.50
1:1G:994:A:C4	14:5A:5:ALA:HB2	2.46	0.50
1:1G:1512:U:H2'	1:1G:1513:A:C8	2.47	0.50
2:12:78:GLN:O	2:12:94:ASN:ND2	2.40	0.50
3:22:91:LEU:HD21	3:22:101:LEU:HD11	1.94	0.50
9:82:21:PRO:HA	9:82:59:PHE:HB3	1.94	0.50
18:9A:36:ASN:ND2	18:9A:38:GLU:OE1	2.45	0.50
20:BA:49:ALA:HB3	20:BA:100:ILE:HD13	1.93	0.50
23:2L:8:4SU:O2'	23:2L:22:A:N1	2.33	0.50
26:14:234:C:H2'	26:14:235:U:H6	1.77	0.50
26:14:571:A:H5'	26:14:2030:A:N7	2.27	0.50
26:14:1154:G:OP1	42:85:58:ARG:HD3	2.12	0.50
26:14:1374:G:H2'	26:14:1375:C:C6	2.47	0.50
26:14:1449:A:H8	26:14:1449:A:OP2	1.94	0.50
26:14:1858:G:N2	26:14:1883:G:H2'	2.27	0.50
26:14:1970:A:OP1	26:14:1970:A:H4'	2.12	0.50
26:14:2037:G:H2'	26:14:2038:G:C8	2.47	0.50
27:1J:7:G:N2	40:65:38:GLN:OE1	2.40	0.50
30:29:120:TRP:CG	30:29:155:LYS:HB3	2.47	0.50
34:69:130:TYR:O	34:69:131:LYS:HD3	2.12	0.50
36:25:92:GLU:HG2	36:25:113:LYS:HZ2	1.75	0.50
53:J5:51:TYR:O	53:J5:55:ARG:NH1	2.40	0.50
1:13:68:G:C2	1:13:69:G:C8	2.99	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:664:G:P	18:9I:64:ARG:HH21	2.34	0.49
1:13:1116:C:O2'	9:8E:108:VAL:HG21	2.12	0.49
1:13:1127:G:N7	1:13:1128:C:N4	2.59	0.49
1:13:1533:C:O2'	1:13:1534:A:OP1	2.24	0.49
17:8I:13:ASP:OD2	17:8I:53:LEU:HD13	2.12	0.49
22:1K:76:A:O5'	26:1H:2602:A:N6	2.45	0.49
26:1H:276:A:C8	26:1H:278:A:N6	2.80	0.49
26:1H:443:A:H1'	26:1H:1201:C:O4'	2.11	0.49
26:1H:572:A:H5"	26:1H:573:G:OP2	2.12	0.49
26:1H:1049:C:H2'	26:1H:1050:A:H5'	1.94	0.49
26:1H:1486:A:H2'	26:1H:1487:G:C8	2.47	0.49
26:1H:1751:C:H2'	26:1H:1752:C:C6	2.47	0.49
26:1H:2292:C:OP1	40:A8:17:ARG:NH2	2.45	0.49
26:1H:2801:A:H5'	26:1H:2895:U:O2'	2.12	0.49
29:11:108:PRO:HG3	29:11:143:HIS:CE1	2.46	0.49
30:21:34:VAL:HG22	30:21:48:GLN:HB3	1.94	0.49
32:41:104:GLU:CD	52:M8:23:GLU:HG3	2.37	0.49
32:41:139:LEU:HD13	32:41:146:TYR:CD2	2.46	0.49
32:41:144:ILE:HG22	32:41:146:TYR:H	1.77	0.49
39:98:97:VAL:HG22	39:98:114:VAL:HG12	1.94	0.49
40:A8:26:LEU:HD23	40:A8:87:PHE:HD1	1.76	0.49
40:A8:34:HIS:CD2	40:A8:54:LEU:HD23	2.47	0.49
42:C8:50:ARG:HH12	43:D8:72:VAL:HG23	1.77	0.49
47:H8:48:PHE:CE1	47:H8:52:SER:HA	2.46	0.49
1:1G:583:A:H2'	1:1G:584:G:O4'	2.12	0.49
1:1G:888:G:O2'	1:1G:1488:G:O2'	2.23	0.49
1:1G:1453:G:H3'	20:BA:39:LYS:NZ	2.26	0.49
4:32:70:ILE:HD11	4:32:75:PHE:CD2	2.46	0.49
7:62:67:GLU:HA	7:62:70:LYS:NZ	2.26	0.49
11:2A:27:ASN:ND2	11:2A:55:LYS:HB3	2.23	0.49
14:5A:59:ALA:HB1	14:5A:61:TRP:HZ3	1.77	0.49
24:3L:37:A:H2'	24:3L:38:A:C8	2.47	0.49
26:14:172:C:H2'	26:14:173:G:H8	1.77	0.49
26:14:184:C:H2'	26:14:185:U:C6	2.47	0.49
26:14:389:G:N1	37:35:71:VAL:HG12	2.26	0.49
26:14:817:C:H2'	26:14:818:G:O4'	2.12	0.49
26:14:2839:G:H21	39:55:92:GLY:CA	2.24	0.49
27:1J:70:C:H2'	27:1J:71:C:H6	1.76	0.49
29:19:141:VAL:HG23	29:19:162:SER:HB2	1.93	0.49
30:29:52:LEU:HD12	30:29:53:PRO:HD2	1.92	0.49
35:15:35:ARG:HB3	35:15:42:TRP:HZ3	1.75	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:1:MET:HB3	43:95:42:GLY:HA3	1.94	0.49
1:13:376:G:H2'	1:13:377:G:H8	1.77	0.49
1:13:667:G:H4'	15:6I:51:HIS:CE1	2.47	0.49
1:13:827:U:C5	1:13:870:U:C4	3.00	0.49
1:13:1128:C:C5	1:13:1139:G:C2	3.00	0.49
1:13:1264:C:H2'	1:13:1265:G:H8	1.76	0.49
12:3I:66:VAL:HG21	12:3I:98:TYR:CE1	2.47	0.49
22:1K:14:A:C6	22:1K:22:G:C5	3.00	0.49
24:3K:17:U:H3'	24:3K:18:G:C5'	2.42	0.49
26:1H:455:C:N3	26:1H:473:G:H5'	2.28	0.49
26:1H:994:C:O2'	26:1H:996:A:OP1	2.25	0.49
26:1H:1727:U:H2'	26:1H:1728:G:O4'	2.13	0.49
26:1H:1897:G:H2'	26:1H:1898:U:O4'	2.13	0.49
26:1H:2138:C:N3	26:1H:2153:G:N2	2.60	0.49
26:1H:2301:C:H2'	26:1H:2302:G:C8	2.47	0.49
26:1H:2579:C:H2'	26:1H:2580:U:O4'	2.11	0.49
26:1H:2703:C:H2'	26:1H:2704:C:H6	1.77	0.49
26:1H:2887:U:H2'	26:1H:2888:C:C6	2.48	0.49
27:16:8:U:O3'	40:A8:25:ARG:NH2	2.45	0.49
33:51:4:ILE:HG21	33:51:6:ARG:CZ	2.43	0.49
34:61:138:ILE:HG12	34:61:139:GLN:H	1.78	0.49
37:78:30:THR:HG21	37:78:35:HIS:H	1.77	0.49
42:C8:92:ARG:HD2	43:D8:11:GLN:HB2	1.94	0.49
46:G8:30:VAL:HG13	46:G8:37:VAL:HG12	1.93	0.49
1:1G:5:U:O3'	4:32:84:LYS:HB3	2.11	0.49
1:1G:625:G:H2'	1:1G:626:U:C6	2.47	0.49
1:1G:1063:C:H5	1:1G:1064:G:HO2'	1.59	0.49
1:1G:1157:A:H61	1:1G:1177:G:H1	1.59	0.49
1:1G:1205:U:H2'	1:1G:1206:G:C8	2.46	0.49
1:1G:1222:G:C6	1:1G:1223:C:C4	3.01	0.49
1:1G:1291:G:O3'	9:82:39:GLY:HA3	2.12	0.49
7:62:47:CYS:O	7:62:50:ILE:HG22	2.11	0.49
7:62:92:SER:HB2	7:62:94:ARG:HH21	1.77	0.49
26:14:57:C:H2'	26:14:58:G:O4'	2.12	0.49
26:14:1581:G:H2'	26:14:1582:C:O4'	2.12	0.49
26:14:1789:A:H2'	26:14:1790:C:O4'	2.13	0.49
26:14:2760:C:H2'	26:14:2761:G:H8	1.77	0.49
27:1J:44:G:H1'	27:1J:47:C:N4	2.26	0.49
30:29:37:ARG:HA	30:29:42:ASP:OD2	2.12	0.49
32:49:101:ILE:O	32:49:105:LYS:N	2.23	0.49
37:35:19:VAL:HG13	37:35:21:ARG:HG2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:35:85:LEU:HD22	37:35:115:LEU:O	2.12	0.49
38:45:57:HIS:NE2	38:45:116:GLU:HG2	2.27	0.49
51:H5:8:LEU:HD12	51:H5:28:LEU:HB3	1.94	0.49
1:13:868:C:H2'	1:13:869:G:O4'	2.11	0.49
1:13:887:G:H1	1:13:910:C:H42	1.59	0.49
1:13:1163:C:H2'	1:13:1164:G:H8	1.77	0.49
7:6E:13:GLN:O	7:6E:24:THR:HG21	2.12	0.49
7:6E:113:GLU:HG3	7:6E:118:VAL:HG12	1.94	0.49
13:4I:4:ILE:HG22	13:4I:5:ALA:H	1.76	0.49
26:1H:270(E):G:N2	26:1H:270(U):C:N3	2.58	0.49
26:1H:710:G:H2'	26:1H:711:G:C8	2.46	0.49
26:1H:1374:G:H2'	26:1H:1375:C:C6	2.46	0.49
26:1H:1428:C:N4	26:1H:1570:A:OP2	2.37	0.49
26:1H:1778:U:H2'	26:1H:1784:A:H62	1.76	0.49
26:1H:2166:G:H2'	26:1H:2168:G:OP2	2.12	0.49
26:1H:2395:C:H5"	26:1H:2396:G:OP2	2.12	0.49
34:61:77:LEU:CD1	34:61:140:LEU:HB3	2.42	0.49
36:68:113:LYS:O	36:68:116:SER:OG	2.27	0.49
40:A8:106:ARG:HH11	40:A8:107:GLU:CG	2.25	0.49
1:1G:1023:G:H5'	1:1G:1024:G:OP2	2.11	0.49
7:62:62:PHE:HA	7:62:124:LEU:HD22	1.95	0.49
8:72:17:THR:HG22	8:72:78:GLN:NE2	2.27	0.49
9:82:20:ARG:HG3	9:82:60:ASP:HB2	1.94	0.49
19:AA:61:TYR:CE2	19:AA:63:THR:HA	2.47	0.49
26:14:90:U:O2'	26:14:91:A:H8	1.95	0.49
26:14:251:A:C5	26:14:252:G:H1'	2.47	0.49
26:14:374:A:H3'	26:14:375:C:H6	1.77	0.49
26:14:760:G:H2'	26:14:761:A:O4'	2.11	0.49
26:14:1003:G:N2	26:14:1153:C:C2	2.81	0.49
26:14:1003:G:O2'	26:14:1010:A:N1	2.32	0.49
26:14:1259:G:O2'	26:14:1260:G:H5'	2.12	0.49
26:14:2151:G:H2'	26:14:2152:G:O4'	2.13	0.49
26:14:2152:G:N3	26:14:2152:G:H2'	2.26	0.49
26:14:2168:G:H21	26:14:2170:A:P	2.35	0.49
37:35:52:GLU:CD	37:35:52:GLU:C	2.79	0.49
38:45:19:GLY:O	38:45:99:PRO:HD2	2.11	0.49
38:45:52:VAL:HG12	38:45:56:ARG:HH11	1.77	0.49
44:A5:110:LYS:HG3	44:A5:111:HIS:ND1	2.27	0.49
49:F5:15:ALA:O	49:F5:40:ARG:HG3	2.11	0.49
3:2E:111:LEU:HD21	3:2E:145:GLY:O	2.12	0.49
24:3K:45:G:H4'	24:3K:46:G:OP1	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:384:U:H2'	26:1H:385:C:H6	1.76	0.49
26:1H:539:G:H2'	26:1H:540:G:C8	2.47	0.49
26:1H:1168:G:H1	26:1H:1181:C:H42	1.60	0.49
26:1H:1331:A:O2'	26:1H:1332:G:C8	2.66	0.49
26:1H:1796:U:H2'	26:1H:1797:C:C6	2.47	0.49
26:1H:1860:G:OP1	28:71:210:ARG:NH2	2.45	0.49
26:1H:1949:G:H1	26:1H:1957:C:H42	1.60	0.49
32:41:107:LEU:HD21	32:41:178:PHE:CE1	2.47	0.49
33:51:157:TYR:O	33:51:158:HIS:ND1	2.45	0.49
35:58:55:VAL:HB	35:58:126:PRO:HA	1.92	0.49
38:88:51:ARG:HH21	38:88:52:VAL:CG2	2.26	0.49
39:98:18:LEU:HD11	39:98:22:ARG:CZ	2.41	0.49
39:98:48:VAL:HA	39:98:51:LEU:HB2	1.95	0.49
40:A8:88:ASP:O	40:A8:90:GLY:N	2.44	0.49
43:D8:1:MET:SD	43:D8:43:GLU:HG2	2.53	0.49
47:H8:77:ASP:OD2	47:H8:80:ARG:HD2	2.12	0.49
47:H8:139:VAL:HG22	47:H8:155:LEU:HD22	1.95	0.49
53:N8:33:CYS:SG	53:N8:40:LYS:HD3	2.53	0.49
1:1G:9:G:OP1	5:42:122:GLU:HB2	2.11	0.49
1:1G:198:G:H2'	1:1G:199:G:C8	2.47	0.49
1:1G:501:C:OP2	12:3A:124:LYS:HE2	2.11	0.49
1:1G:685:G:O2'	1:1G:686:U:H5'	2.11	0.49
3:22:33:LEU:HD12	3:22:36:ASP:HB3	1.95	0.49
3:22:175:LEU:HD21	3:22:201:TYR:CE2	2.48	0.49
4:32:112:VAL:HG12	4:32:116:GLN:OE1	2.12	0.49
10:1A:26:ALA:O	10:1A:84:GLN:HG2	2.11	0.49
23:2L:23:G:H2'	23:2L:24:C:C6	2.46	0.49
26:14:1062:G:O6	26:14:1074:G:N2	2.37	0.49
26:14:1225:C:H4'	43:95:85:LYS:HB2	1.93	0.49
26:14:1351:C:O2'	26:14:1571:A:N3	2.41	0.49
26:14:1665:A:H2'	26:14:1666:G:O4'	2.12	0.49
26:14:2789:C:C2	26:14:2894:G:N2	2.80	0.49
27:1J:88:C:H5"	27:1J:89:G:C5	2.47	0.49
38:45:117:ALA:HA	38:45:120:ILE:HB	1.94	0.49
44:A5:78:GLU:OE1	44:A5:99:ARG:HD2	2.12	0.49
48:E5:48:GLY:HA3	48:E5:80:HIS:ND1	2.28	0.49
1:13:700:G:H4'	1:13:704:A:H1'	1.95	0.49
1:13:1197:G:C2'	1:13:1198:G:H5'	2.43	0.49
7:6E:149:ARG:HG2	11:2I:59:TYR:CZ	2.48	0.49
13:4I:3:ARG:HD2	52:M8:34:GLU:CD	2.38	0.49
13:4I:31:LYS:HD2	13:4I:31:LYS:N	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BI:79:ARG:HG2	20:BI:83:ARG:HH11	1.76	0.49
26:1H:29:U:H2'	26:1H:30:G:H8	1.74	0.49
26:1H:32:C:C2'	26:1H:33:U:H5'	2.43	0.49
26:1H:302:C:H2'	26:1H:303:U:C6	2.47	0.49
26:1H:580:C:H2'	26:1H:581:C:H6	1.77	0.49
26:1H:1328:G:H2'	26:1H:1330:C:C5	2.47	0.49
26:1H:1728:G:H2'	26:1H:1731:G:O6	2.12	0.49
27:16:6:C:H2'	27:16:7:G:O4'	2.13	0.49
28:71:22:ILE:HG23	28:71:189:ILE:HD12	1.93	0.49
31:31:39:TRP:CH2	31:31:106:ARG:HD2	2.48	0.49
37:78:46:LYS:O	37:78:47:ASP:HB3	2.11	0.49
48:I8:40:GLN:NE2	48:I8:45:PHE:O	2.40	0.49
1:1G:1061:G:H2'	1:1G:1062:U:H6	1.78	0.49
1:1G:1187:G:H3'	1:1G:1188:A:H8	1.76	0.49
24:3L:15:G:H2'	24:3L:59:A:N1	2.27	0.49
24:3L:19:G:OP2	24:3L:57:G:N2	2.43	0.49
26:14:106:C:H2'	26:14:107:C:H6	1.78	0.49
26:14:459:U:H2'	26:14:460:A:C8	2.47	0.49
26:14:521:G:H2'	26:14:522:G:H8	1.78	0.49
26:14:780:G:N2	26:14:783:A:H62	1.96	0.49
26:14:1028:A:N6	26:14:1125:G:H2'	2.27	0.49
26:14:1036:G:OP2	26:14:1036:G:H8	1.94	0.49
26:14:1784:A:H4'	26:14:1785:A:O5'	2.13	0.49
26:14:2298:A:H1'	26:14:2321:G:N2	2.28	0.49
26:14:2346:A:C2	26:14:2383:G:C2	3.01	0.49
27:1J:22:U:H5'	27:1J:23:G:OP2	2.11	0.49
29:19:35:LYS:HD2	29:19:61:LEU:HG	1.94	0.49
32:49:16:ARG:O	32:49:20:ILE:HG13	2.12	0.49
40:65:15:ARG:HB3	40:65:19:LYS:NZ	2.28	0.49
40:65:42:ASP:O	40:65:43:GLU:HG2	2.12	0.49
45:B5:27:THR:HG22	45:B5:80:ILE:HG13	1.94	0.49
1:13:1023:G:H3'	1:13:1024:G:H5"	1.95	0.49
1:13:1417:G:C6	1:13:1482:G:C6	3.00	0.49
5:4E:64:ARG:HG2	5:4E:64:ARG:NH1	2.26	0.49
13:4I:3:ARG:HH21	13:4I:9:ILE:HD11	1.76	0.49
22:1K:43:U:O5'	22:1K:43:U:H6	1.95	0.49
26:1H:270(E):G:H1	26:1H:270(U):C:H42	1.60	0.49
26:1H:276:A:N7	26:1H:278:A:N6	2.57	0.49
26:1H:307:G:N2	26:1H:309:G:H3'	2.28	0.49
26:1H:330:A:O2'	26:1H:331:A:H8	1.96	0.49
26:1H:2133:G:HO2'	26:1H:2157:G:N2	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2308:G:H2'	26:1H:2308:G:N3	2.27	0.49
26:1H:2453:A:H2'	26:1H:2454:G:O4'	2.12	0.49
32:41:125:PHE:HB3	32:41:166:ASP:CG	2.36	0.49
33:51:40:GLU:HB3	33:51:55:PRO:HG2	1.94	0.49
37:78:50:ARG:HH21	37:78:50:ARG:HG3	1.77	0.49
42:C8:88:ILE:O	42:C8:88:ILE:HG22	2.12	0.49
55:Q8:41:ILE:HG13	55:Q8:42:ARG:N	2.24	0.49
1:1G:1225:A:H5"	1:1G:1226:C:OP2	2.13	0.49
1:1G:1232:U:H2'	1:1G:1233:G:O4'	2.12	0.49
1:1G:1329:A:H2'	1:1G:1330:U:O4'	2.12	0.49
1:1G:1386:G:O2'	1:1G:1387:G:H5'	2.13	0.49
6:52:91:VAL:HG21	18:9A:72:ARG:HD3	1.94	0.49
12:3A:117:ARG:NH2	12:3A:124:LYS:HG3	2.28	0.49
22:1L:53:G:C2'	22:1L:54:5MU:H5"	2.42	0.49
26:14:271(A):C:O2'	26:14:271(B):G:H5'	2.12	0.49
26:14:815:C:H2'	26:14:816:C:H6	1.78	0.49
26:14:1454:U:OP1	39:55:77:ARG:HD3	2.12	0.49
26:14:1762:A:N6	60:14:3480:HOH:O	2.45	0.49
26:14:2462:U:H2'	26:14:2463:C:C6	2.47	0.49
27:1J:24:G:N7	27:1J:56:G:O2'	2.41	0.49
27:1J:109:G:C6	27:1J:110:G:C5	3.01	0.49
29:19:16:MET:HE2	29:19:208:LYS:HG2	1.94	0.49
29:19:133:LEU:HD13	29:19:173:VAL:CG1	2.42	0.49
30:29:7:VAL:HG12	30:29:8:LYS:H	1.77	0.49
31:39:23:ASP:OD1	31:39:23:ASP:N	2.43	0.49
35:15:21:LYS:O	35:15:60:ILE:HG13	2.12	0.49
35:15:96:GLU:O	35:15:100:GLU:HG3	2.12	0.49
37:35:85:LEU:HA	37:35:88:LEU:HD22	1.94	0.49
38:45:18:LYS:H	38:45:98:LYS:HZ3	1.60	0.49
46:C5:87:LYS:NZ	46:C5:89:PHE:CD1	2.81	0.49
1:13:475:G:H3'	1:13:476:G:H8	1.78	0.49
1:13:1126:U:C5	1:13:1127:G:C2	3.00	0.49
3:2E:95:THR:HB	3:2E:97:LYS:HG3	1.95	0.49
10:1I:34:VAL:HG12	10:1I:74:ILE:HG12	1.95	0.49
12:3I:66:VAL:HG22	12:3I:67:THR:N	2.28	0.49
24:3K:66:A:H5'	24:3K:67:C:OP2	2.13	0.49
26:1H:164:U:H5'	26:1H:165:U:OP2	2.12	0.49
26:1H:250:G:H2'	26:1H:251:A:C8	2.48	0.49
26:1H:701:G:N2	26:1H:731:C:O2	2.45	0.49
26:1H:1210:A:H5'	26:1H:1210:A:H8	1.76	0.49
26:1H:1443:G:C2	26:1H:1549:C:N3	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1626:G:H5"	26:1H:1627:G:OP1	2.13	0.49
26:1H:1655:A:H3'	26:1H:1656:C:H6	1.77	0.49
26:1H:2050:C:H2'	26:1H:2051:A:C8	2.47	0.49
26:1H:2123:G:N2	28:71:42:GLU:OE2	2.45	0.49
27:16:44:G:C2	27:16:48:A:C2	3.00	0.49
29:11:223:GLY:HA3	29:11:231:HIS:ND1	2.27	0.49
31:31:114:VAL:HG21	31:31:202:PHE:CZ	2.48	0.49
32:41:37:VAL:HA	32:41:158:ALA:O	2.13	0.49
33:51:158:HIS:HA	33:51:170:ARG:HH21	1.78	0.49
52:M8:14:ILE:CG2	52:M8:21:VAL:HB	2.43	0.49
1:1G:181:G:O2'	1:1G:183:G:O6	2.31	0.49
1:1G:1084:G:C5	1:1G:1085:U:C4	3.00	0.49
1:1G:1145:C:H5"	1:1G:1146:A:OP1	2.13	0.49
1:1G:1180:A:OP2	9:82:97:LYS:NZ	2.46	0.49
1:1G:1330:U:H4'	13:4A:23:TYR:CE1	2.47	0.49
1:1G:1371:G:OP2	9:82:11:LYS:HG2	2.13	0.49
1:1G:1382:C:O2'	24:3L:34:U:H5	1.94	0.49
1:1G:1431:C:H2'	1:1G:1432:G:O4'	2.12	0.49
3:22:50:ALA:HB1	3:22:72:LYS:HB2	1.94	0.49
7:62:106:GLN:O	7:62:110:GLN:HG2	2.12	0.49
8:72:7:ALA:O	8:72:11:THR:OG1	2.29	0.49
9:82:17:VAL:HG11	9:82:81:ILE:HA	1.94	0.49
22:1L:8:U:H2'	22:1L:13:C:H42	1.77	0.49
23:2L:17:C:H3'	23:2L:18:C:H2'	1.93	0.49
26:14:372:G:OP2	49:F5:69:LYS:HE3	2.13	0.49
26:14:389:G:H1	37:35:71:VAL:HG12	1.78	0.49
26:14:717:G:H2'	26:14:718:A:O4'	2.12	0.49
26:14:1203:G:OP2	26:14:1204:A:H2'	2.13	0.49
26:14:1590:U:H2'	26:14:1591:G:C8	2.48	0.49
26:14:1729:A:C6	26:14:1731:G:C5	3.01	0.49
26:14:2208:U:H4'	29:19:151:LYS:HG2	1.92	0.49
26:14:2384:G:OP2	48:E5:55:ARG:NH1	2.43	0.49
32:49:103:LEU:HD22	32:49:178:PHE:HZ	1.76	0.49
36:25:71:ARG:HG2	36:25:105:GLU:OE2	2.13	0.49
45:B5:5:TYR:HD1	50:G5:33:MET:SD	2.36	0.49
45:B5:23:GLU:HG3	45:B5:25:LYS:HD2	1.95	0.49
46:C5:75:ILE:HA	46:C5:80:GLY:HA2	1.94	0.49
1:13:237:C:O3'	17:8I:25:ARG:NH2	2.46	0.49
1:13:965:A:OP1	1:13:1198:G:H5"	2.12	0.49
2:1E:106:LYS:O	2:1E:110:GLN:HG3	2.12	0.49
7:6E:63:LYS:HD2	7:6E:63:LYS:O	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1I:32:ALA:H	10:1I:78:ASN:HB2	1.78	0.49
19:AI:51:VAL:O	19:AI:57:HIS:HA	2.13	0.49
26:1H:227:A:C2	26:1H:2407:G:H1'	2.48	0.49
26:1H:665:C:H2'	26:1H:666:G:C8	2.48	0.49
26:1H:1535:U:H3'	26:1H:1537:C:C5	2.48	0.49
26:1H:1729:A:O2'	26:1H:1730:U:O5'	2.24	0.49
26:1H:1935:G:H1'	26:1H:1964:G:N2	2.28	0.49
26:1H:2705:A:H3'	26:1H:2706:G:H8	1.77	0.49
29:11:183:ARG:CD	29:11:270:ILE:HG12	2.42	0.49
30:21:36:ARG:NH1	30:21:85:ASN:OD1	2.46	0.49
30:21:117:MET:O	30:21:118:LYS:HB3	2.13	0.49
32:41:110:ALA:HA	32:41:140:ILE:O	2.12	0.49
1:1G:250:A:H4'	1:1G:251:G:O5'	2.13	0.49
1:1G:1021:G:H2'	1:1G:1022:G:C8	2.48	0.49
1:1G:1317:C:C3'	1:1G:1318:A:H5'	2.43	0.49
1:1G:1521:G:H2'	1:1G:1522:U:H6	1.76	0.49
9:82:21:PRO:HA	9:82:59:PHE:HD1	1.78	0.49
9:82:95:LYS:HZ1	9:82:96:LEU:HD13	1.76	0.49
9:82:119:ALA:O	9:82:120:ARG:HB2	2.13	0.49
13:4A:86:CYS:HB2	19:AA:73:GLU:HB3	1.95	0.49
14:5A:3:ARG:O	14:5A:6:LEU:HD13	2.12	0.49
17:8A:5:VAL:HA	17:8A:59:ILE:O	2.13	0.49
22:1L:28:U:N3	22:1L:42:A:H2	2.08	0.49
26:14:443:A:H1'	26:14:1201:C:O4'	2.13	0.49
26:14:1181:C:H2'	26:14:1182:A:C8	2.47	0.49
26:14:1496:A:H8	26:14:1577:C:O2'	1.96	0.49
26:14:1970:A:OP2	60:14:3421:HOH:O	2.20	0.49
26:14:2173:A:HO2'	26:14:2174:C:P	2.34	0.49
30:29:111:ARG:HB2	30:29:160:TYR:HB3	1.94	0.49
31:39:25:PRO:HA	31:39:27:GLU:OE1	2.13	0.49
32:49:60:LEU:HD21	32:49:92:VAL:HG11	1.95	0.49
34:69:133:HIS:CD2	34:69:134:PRO:HD3	2.47	0.49
38:45:132:VAL:HG21	47:D5:81:ARG:HE	1.76	0.49
42:85:47:TYR:CZ	42:85:51:LYS:HE2	2.48	0.49
44:A5:29:LEU:O	44:A5:33:ARG:HB2	2.13	0.49
49:F5:35:THR:O	49:F5:35:THR:HG23	2.13	0.49
1:13:590:C:N3	1:13:649:G:N2	2.60	0.49
1:13:926:G:H5"	1:13:927:G:O5'	2.13	0.49
1:13:1167:A:H2'	1:13:1169:A:C8	2.48	0.49
1:13:1432:G:OP1	41:B8:107:ASP:HB2	2.13	0.49
2:1E:16:HIS:CD2	2:1E:16:HIS:N	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:50:ARG:O	4:3E:50:ARG:HG3	2.11	0.49
4:3E:111:ALA:HB2	4:3E:120:LEU:CD1	2.42	0.49
4:3E:122:ARG:NH2	4:3E:134:ASP:CB	2.74	0.49
8:7E:87:SER:HB2	8:7E:93:VAL:H	1.77	0.49
13:4I:37:THR:O	13:4I:55:ARG:NH1	2.46	0.49
22:1K:4:U:H3'	22:1K:5:C:H6	1.78	0.49
26:1H:207:A:H2'	26:1H:208:C:O4'	2.13	0.49
26:1H:621:A:O4'	26:1H:621:A:N3	2.43	0.49
26:1H:1124:C:H2'	26:1H:1125:G:O4'	2.13	0.49
26:1H:2106:G:C6	26:1H:2184:G:C2	3.01	0.49
26:1H:2355:C:H5"	26:1H:2356:C:OP2	2.13	0.49
26:1H:2822:G:O2'	26:1H:2824:C:OP2	2.29	0.49
26:1H:2880:C:O2'	39:98:90:ARG:NH1	2.41	0.49
28:71:175:VAL:HG23	28:71:176:GLY:H	1.78	0.49
30:21:134:ILE:C	30:21:134:ILE:HD12	2.38	0.49
30:21:201:THR:CG2	30:21:203:LYS:H	2.24	0.49
31:31:107:LYS:HD2	31:31:207:GLY:H	1.78	0.49
31:31:164:ARG:HG3	31:31:175:THR:HB	1.94	0.49
32:41:173:LEU:HD22	32:41:178:PHE:CE2	2.48	0.49
35:58:95:PRO:O	35:58:96:GLU:CD	2.56	0.49
45:F8:12:VAL:HG23	45:F8:17:ALA:HB2	1.93	0.49
46:G8:55:TYR:HB3	46:G8:58:GLY:HA3	1.95	0.49
47:H8:30:ASN:ND2	47:H8:90:VAL:HG13	2.27	0.49
1:1G:643:C:H2'	1:1G:644:G:C8	2.45	0.49
1:1G:668:G:O2'	15:6A:46:HIS:HB3	2.13	0.49
1:1G:900:A:H2'	1:1G:901:A:O4'	2.13	0.49
1:1G:947:G:H5"	13:4A:109:THR:HG23	1.95	0.49
1:1G:976:G:N2	1:1G:1362:C:H2'	2.28	0.49
1:1G:1238:A:N3	1:1G:1241:G:O2'	2.40	0.49
1:1G:1279:A:H5"	1:1G:1280:A:OP2	2.13	0.49
3:22:6:HIS:HB3	14:5A:49:HIS:ND1	2.28	0.49
3:22:181:ASN:OD1	3:22:204:LEU:HB2	2.13	0.49
4:32:8:VAL:HG22	4:32:115:ARG:HH12	1.78	0.49
5:42:122:GLU:HG2	5:42:131:ILE:HD12	1.95	0.49
16:7A:43:LYS:HG2	16:7A:48:TRP:HZ3	1.78	0.49
19:AA:11:VAL:HG13	19:AA:39:THR:H	1.77	0.49
26:14:29:U:H2'	26:14:30:G:C8	2.48	0.49
26:14:864:G:C6	26:14:865:C:N4	2.80	0.49
26:14:1047:G:H2'	26:14:1047:G:N3	2.28	0.49
26:14:2117:A:H2'	26:14:2118:U:C6	2.48	0.49
31:39:126:VAL:N	31:39:194:MET:O	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D5:100:VAL:O	47:D5:124:ILE:HG22	2.13	0.49
47:D5:100:VAL:HG11	47:D5:134:PRO:HB2	1.93	0.49
48:E5:36:ILE:HD12	48:E5:39:ARG:HG2	1.94	0.49
53:J5:11:THR:HG23	53:J5:15:ARG:HB3	1.95	0.49
1:13:421:U:OP2	1:13:422:C:N4	2.40	0.49
3:2E:57:ILE:HG12	3:2E:66:VAL:HG22	1.94	0.49
7:6E:121:ALA:O	7:6E:125:MET:HB2	2.12	0.49
13:4I:77:ASN:O	13:4I:81:LEU:N	2.45	0.49
24:3K:21:A:H61	24:3K:46:G:H2'	1.78	0.49
26:1H:176:G:C2'	26:1H:177:G:H5'	2.42	0.49
26:1H:298:G:H5"	26:1H:299:A:OP1	2.13	0.49
26:1H:960:A:C8	26:1H:962:G:C8	3.00	0.49
26:1H:1324:G:C4	26:1H:1328:G:O6	2.66	0.49
26:1H:1440:G:H2'	26:1H:1441:G:H8	1.77	0.49
26:1H:1952:A:H8	26:1H:1952:A:O5'	1.96	0.49
26:1H:2094:G:H2'	26:1H:2095:C:O4'	2.13	0.49
33:51:143:GLN:O	33:51:146:ALA:N	2.46	0.49
44:E8:86:LEU:C	44:E8:86:LEU:HD12	2.37	0.49
1:1G:34:C:H2'	1:1G:35:G:C8	2.48	0.49
1:1G:632:A:OP1	8:72:98:LYS:NZ	2.34	0.49
1:1G:1281:U:OP2	1:1G:1282:C:N4	2.46	0.49
1:1G:1306:A:C6	1:1G:1307:U:C2	3.01	0.49
2:12:35:GLU:HG3	2:12:40:HIS:CE1	2.48	0.49
9:82:24:GLY:HA2	9:82:59:PHE:C	2.38	0.49
12:3A:69:TYR:CG	12:3A:90:VAL:HG21	2.48	0.49
20:BA:49:ALA:HB2	20:BA:92:LEU:HD22	1.95	0.49
26:14:11:G:H2'	26:14:12:U:H5'	1.95	0.49
26:14:455:C:N3	26:14:473:G:H5'	2.27	0.49
26:14:852:G:H2'	26:14:853:G:H8	1.78	0.49
26:14:1110:G:O2'	26:14:1111:A:H5'	2.13	0.49
26:14:1115:G:C6	26:14:1116:C:C4	3.01	0.49
26:14:1278:A:H5"	39:55:36:THR:HG22	1.94	0.49
26:14:1590:U:H2'	26:14:1591:G:H8	1.77	0.49
26:14:2123:G:N2	26:14:2124:G:H1'	2.28	0.49
26:14:2162:G:H3'	26:14:2164:C:C5	2.48	0.49
41:75:35:LYS:HA	41:75:40:THR:HG22	1.95	0.49
54:L5:11:LYS:HE3	54:L5:15:THR:OG1	2.13	0.49
1:13:255:G:C6	1:13:256:U:C4	3.01	0.48
1:13:262:A:C6	1:13:263:A:C6	3.01	0.48
1:13:587:G:H4'	8:7E:3:THR:O	2.13	0.48
1:13:1053:G:H4'	1:13:1054:C:H5'	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:8:LYS:HD3	2:1E:8:LYS:H	1.77	0.48
7:6E:6:ARG:HG3	7:6E:6:ARG:O	2.12	0.48
26:1H:253:C:H2'	26:1H:254:G:O4'	2.13	0.48
26:1H:547:A:O2'	26:1H:548:A:N7	2.39	0.48
26:1H:552:G:C6	26:1H:553:U:C4	3.01	0.48
26:1H:1230:C:H2'	26:1H:1231:G:C8	2.48	0.48
26:1H:1268:A:H2'	26:1H:1269:A:O4'	2.13	0.48
26:1H:2065:C:H2'	26:1H:2066:C:C6	2.48	0.48
29:11:201:HIS:O	29:11:204:ILE:HG13	2.13	0.48
50:K8:64:LEU:CD2	50:K8:68:ARG:HD2	2.42	0.48
1:1G:247:G:OP2	17:8A:100:LYS:HG3	2.13	0.48
1:1G:264:U:H2'	1:1G:265:G:O4'	2.13	0.48
1:1G:409:G:H1	1:1G:433:C:H42	1.61	0.48
1:1G:742:G:H5"	15:6A:58:MET:HE1	1.94	0.48
1:1G:955:U:H2'	1:1G:956:U:H6	1.78	0.48
1:1G:1502:A:H2	1:1G:1505:G:N1	2.06	0.48
5:42:92:LYS:HB2	5:42:119:LEU:HB2	1.95	0.48
12:3A:117:ARG:HH22	12:3A:124:LYS:HG3	1.78	0.48
13:4A:84:ILE:HG23	19:AA:74:PHE:CE1	2.48	0.48
19:AA:17:GLU:O	19:AA:20:LEU:HB2	2.13	0.48
26:14:521:G:H2'	26:14:522:G:C8	2.48	0.48
26:14:1378:A:O2'	26:14:1380:G:N7	2.44	0.48
26:14:2137:C:H42	26:14:2154:G:H1	1.60	0.48
26:14:2652:C:H2'	26:14:2653:U:O4'	2.12	0.48
29:19:121:PRO:HB3	29:19:135:PHE:CE2	2.48	0.48
30:29:98:PRO:HG3	30:29:175:VAL:HG12	1.94	0.48
34:69:7:GLU:HB2	34:69:8:PRO:HD2	1.94	0.48
42:85:29:SER:OG	42:85:30:LYS:NZ	2.32	0.48
55:M5:22:VAL:O	55:M5:50:LEU:HB2	2.13	0.48
1:13:411:A:O2'	1:13:413:G:H5'	2.14	0.48
1:13:1060:C:C5	3:2E:2:GLY:HA2	2.49	0.48
1:13:1145:C:H4'	1:13:1146:A:H5'	1.95	0.48
1:13:1145:C:H5"	1:13:1146:A:OP1	2.14	0.48
2:1E:98:LEU:HB2	2:1E:101:MET:HG3	1.95	0.48
2:1E:209:ARG:NH1	2:1E:239:VAL:HA	2.28	0.48
5:4E:110:LEU:HD13	5:4E:118:ILE:HG21	1.95	0.48
8:7E:4:ASP:CG	8:7E:85:ARG:HH12	2.19	0.48
8:7E:102:ARG:HD3	8:7E:102:ARG:N	2.27	0.48
9:8E:25:LYS:HG2	9:8E:26:VAL:N	2.28	0.48
13:4I:82:MET:O	13:4I:83:ASP:HB3	2.14	0.48
19:AI:53:ASN:O	19:AI:77:THR:HG22	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1050:A:C8	26:1H:2751:G:C8	3.01	0.48
26:1H:1188:U:O2'	26:1H:1189:A:H5'	2.12	0.48
26:1H:1466:G:N3	26:1H:1547:C:N4	2.61	0.48
26:1H:1561:G:H2'	26:1H:1562:A:H8	1.77	0.48
26:1H:2472:G:O2'	26:1H:2478:A:N6	2.46	0.48
26:1H:2575:C:O5'	26:1H:2575:C:H6	1.96	0.48
26:1H:2576:G:O2'	26:1H:2579:C:OP2	2.23	0.48
27:16:17:C:H2'	27:16:18:G:O4'	2.13	0.48
31:31:36:VAL:O	31:31:40:GLN:HG3	2.12	0.48
42:C8:88:ILE:C	42:C8:90:VAL:N	2.71	0.48
1:1G:265:G:H2'	1:1G:267:C:H5	1.78	0.48
1:1G:652:U:H2'	1:1G:653:A:H5"	1.96	0.48
1:1G:737:A:H2'	1:1G:738:C:C6	2.47	0.48
1:1G:995:C:O2'	1:1G:996:A:H5'	2.13	0.48
1:1G:996:A:H8	1:1G:996:A:OP2	1.96	0.48
1:1G:1129:C:C5	1:1G:1139:G:N1	2.81	0.48
1:1G:1432:G:OP1	41:75:107:ASP:HB2	2.13	0.48
3:22:32:LEU:HB3	3:22:59:ARG:HH12	1.78	0.48
12:3A:27:LEU:CD2	12:3A:60:LEU:HB3	2.42	0.48
15:6A:10:LYS:HG2	15:6A:11:VAL:N	2.27	0.48
15:6A:70:LEU:HG	15:6A:78:TYR:HB2	1.94	0.48
26:14:97:C:H5"	50:G5:2:LYS:HA	1.95	0.48
26:14:273(C):C:N4	26:14:363(C):G:H1	2.09	0.48
26:14:971:C:H2'	26:14:972:G:O4'	2.13	0.48
26:14:1312:U:H4'	26:14:1313:U:O5'	2.13	0.48
26:14:2140:C:H2'	26:14:2141:G:H8	1.78	0.48
26:14:2688:U:H5	26:14:2720:U:OP2	1.97	0.48
26:14:2832:U:H3'	26:14:2833:G:C8	2.47	0.48
26:14:2850:A:H2'	26:14:2851:A:C8	2.48	0.48
30:29:173:VAL:N	30:29:183:LEU:O	2.33	0.48
32:49:120:LEU:HG	32:49:179:PRO:O	2.13	0.48
39:55:106:GLY:O	39:55:107:ASP:HB3	2.12	0.48
46:C5:36:ALA:HA	46:C5:67:LEU:O	2.13	0.48
55:M5:40:GLU:HA	55:M5:43:GLN:HB3	1.95	0.48
1:13:44:G:C2	1:13:45:U:H1'	2.48	0.48
1:13:191(F):U:O2	20:BI:105:SER:HB2	2.13	0.48
1:13:340:U:H2'	1:13:341:C:O4'	2.14	0.48
1:13:967:C:H3'	1:13:968:A:C8	2.48	0.48
1:13:1070:U:H2'	1:13:1071:C:H6	1.78	0.48
5:4E:6:PHE:HD2	5:4E:63:ARG:HH11	1.60	0.48
9:8E:112:LYS:CA	9:8E:119:ALA:HB2	2.42	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1I:80:LYS:HE3	10:1I:84:GLN:HE21	1.77	0.48
12:3I:66:VAL:HG22	12:3I:67:THR:H	1.77	0.48
16:7I:20:VAL:CG2	16:7I:32:TYR:HB2	2.44	0.48
17:8I:22:LEU:HD12	17:8I:40:LYS:O	2.13	0.48
26:1H:552:G:H2'	26:1H:553:U:O4'	2.13	0.48
26:1H:562:U:C4	26:1H:2036:C:O4'	2.66	0.48
26:1H:945:A:OP2	60:1H:3553:HOH:O	2.19	0.48
26:1H:1348:G:C3'	26:1H:1349:A:H5"	2.42	0.48
26:1H:1388:G:H2'	26:1H:1389:G:C8	2.47	0.48
26:1H:2341:G:H2'	26:1H:2342:C:C6	2.49	0.48
26:1H:2649:U:H2'	26:1H:2650:U:C6	2.48	0.48
26:1H:2705:A:O2'	26:1H:2852:G:OP1	2.23	0.48
28:71:4:GLY:HA3	28:71:6:ARG:HH22	1.78	0.48
46:G8:100:ALA:HB1	46:G8:101:LYS:HG3	1.94	0.48
52:M8:15:ILE:O	52:M8:33:VAL:HB	2.13	0.48
1:1G:539:A:H2'	1:1G:540:G:H8	1.73	0.48
1:1G:669:U:OP1	15:6A:48:LYS:HE3	2.13	0.48
1:1G:789:U:O2	1:1G:792:A:H8	1.96	0.48
1:1G:1148:U:H2'	1:1G:1149:C:O4'	2.13	0.48
1:1G:1181:G:C2	1:1G:1182:G:H1'	2.48	0.48
1:1G:1343:G:H4'	9:82:122:ALA:HB3	1.93	0.48
5:42:142:LEU:O	5:42:143:ARG:HD2	2.14	0.48
9:82:50:LEU:HD23	9:82:85:LEU:HD22	1.95	0.48
12:3A:27:LEU:HB3	12:3A:33:ARG:HG2	1.95	0.48
23:2L:62:C:H2'	23:2L:63:C:C6	2.46	0.48
26:14:445:C:O2'	26:14:446:G:H5'	2.13	0.48
26:14:686:G:H21	26:14:788:A:H61	1.59	0.48
26:14:878:A:H5'	26:14:900:A:H61	1.78	0.48
26:14:1210:A:C5'	26:14:1212:G:H5'	2.42	0.48
26:14:1505:C:H2'	26:14:1506:C:C6	2.49	0.48
26:14:2068:U:N3	26:14:2430:A:C2	2.70	0.48
26:14:2416:C:OP1	37:35:65:ARG:O	2.31	0.48
27:1J:18:G:H1	27:1J:65:C:N4	2.09	0.48
30:29:56:PRO:HD2	30:29:58:ARG:NH2	2.28	0.48
37:35:59:LEU:HD23	55:M5:58:ILE:HD12	1.95	0.48
37:35:124:LYS:HA	37:35:143:GLY:O	2.14	0.48
1:13:1175:G:H2'	1:13:1176:A:C8	2.48	0.48
2:1E:49:GLU:H	2:1E:49:GLU:CD	2.20	0.48
2:1E:72:GLY:HA2	2:1E:165:VAL:CG2	2.44	0.48
4:3E:122:ARG:HH22	4:3E:134:ASP:CB	2.25	0.48
6:5E:62:TRP:C	6:5E:63:TYR:HD1	2.21	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:21:ILE:HG12	11:2I:30:VAL:HG12	1.95	0.48
19:AI:41:VAL:H	19:AI:44:MET:HG3	1.78	0.48
19:AI:64:GLU:O	19:AI:67:VAL:HG23	2.13	0.48
26:1H:140:A:H8	26:1H:1408:C:HO2'	1.55	0.48
26:1H:862:G:H2'	26:1H:863:A:O4'	2.14	0.48
26:1H:1320:C:O2'	26:1H:1329:U:OP2	2.20	0.48
26:1H:1479:G:O2'	26:1H:1558:A:H5'	2.14	0.48
26:1H:1769:G:O2'	26:1H:1958:C:OP1	2.25	0.48
26:1H:2638:G:OP1	30:21:82:ARG:NH2	2.46	0.48
26:1H:2682:U:H5'	26:1H:2682:U:H6	1.78	0.48
29:11:183:ARG:HH11	29:11:269:PHE:CB	2.16	0.48
36:68:76:ALA:HB3	41:B8:75:ILE:HD12	1.93	0.48
42:C8:50:ARG:HH22	43:D8:72:VAL:HG23	1.79	0.48
43:D8:3:ALA:HB1	43:D8:38:LEU:HD22	1.94	0.48
47:H8:113:ALA:N	47:H8:114:GLY:HA2	2.28	0.48
1:1G:9:G:H5'	5:42:122:GLU:OE2	2.12	0.48
1:1G:831:U:H3	1:1G:855:G:H1	1.62	0.48
1:1G:1008:C:N4	1:1G:1021:G:H22	2.09	0.48
1:1G:1330:U:H5'	13:4A:24:GLY:H	1.78	0.48
1:1G:1354:C:O5'	1:1G:1354:C:H6	1.95	0.48
2:12:168:THR:CG2	2:12:192:SER:HA	2.42	0.48
4:32:22:LYS:O	4:32:113:SER:HB3	2.13	0.48
4:32:36:ARG:HB2	4:32:38:TYR:CZ	2.48	0.48
19:AA:11:VAL:HG12	19:AA:12:ASP:H	1.78	0.48
35:15:104:LYS:HA	35:15:107:LEU:HD12	1.95	0.48
37:35:6:LEU:HD12	37:35:6:LEU:HA	1.46	0.48
42:85:108:GLU:OE2	43:95:44:LYS:HB3	2.13	0.48
45:B5:51:VAL:HG13	45:B5:81:VAL:CG2	2.44	0.48
1:13:179:A:H2'	1:13:180:U:C6	2.48	0.48
1:13:223:U:H2'	1:13:224:C:C6	2.47	0.48
1:13:316:G:O2'	1:13:317:G:H5'	2.12	0.48
1:13:874:G:C6	1:13:875:C:C4	3.01	0.48
2:1E:12:GLU:HB3	2:1E:44:LEU:HD13	1.94	0.48
4:3E:148:VAL:HG21	4:3E:158:ILE:HG21	1.94	0.48
8:7E:25:ASP:OD1	8:7E:60:ARG:HG3	2.13	0.48
9:8E:11:LYS:C	9:8E:13:ALA:H	2.22	0.48
26:1H:182:A:C6	26:1H:183:C:C4	3.02	0.48
26:1H:430:G:H5"	26:1H:431:U:OP2	2.14	0.48
26:1H:654(A):A:N1	26:1H:654(T):A:N1	2.62	0.48
26:1H:1183:G:O2'	51:L8:29:ARG:NH1	2.46	0.48
26:1H:1992:G:H5'	26:1H:1994:C:H41	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2122:U:O2	28:71:172:HIS:NE2	2.47	0.48
26:1H:2139:C:H41	26:1H:2152:G:N2	2.12	0.48
26:1H:2663:G:C2	26:1H:2664:G:H1'	2.48	0.48
30:21:152:LYS:HG2	35:58:78:TYR:CE1	2.49	0.48
34:61:41:GLU:OE2	34:61:42:SER:OG	2.20	0.48
41:B8:20:PRO:HD2	41:B8:86:ILE:HG23	1.95	0.48
45:F8:57:LEU:N	45:F8:57:LEU:HD23	2.28	0.48
46:G8:49:VAL:HG21	46:G8:55:TYR:CE2	2.49	0.48
1:1G:193:C:H2'	1:1G:194:C:C6	2.49	0.48
1:1G:438:G:N1	1:1G:495:A:OP2	2.43	0.48
1:1G:580:U:H2'	1:1G:581:G:O4'	2.13	0.48
1:1G:991:U:O4	1:1G:1212:U:O2'	2.24	0.48
1:1G:998(A):C:H2'	1:1G:999:U:H6	1.78	0.48
1:1G:1259:C:N4	1:1G:1260:C:O2	2.47	0.48
1:1G:1369:C:H2'	1:1G:1370:G:H8	1.77	0.48
1:1G:1517:G:H1'	26:14:1919:A:O3'	2.13	0.48
2:12:71:VAL:HG11	2:12:164:VAL:HG13	1.94	0.48
4:32:63:LYS:O	4:32:67:ILE:HG13	2.14	0.48
4:32:150:GLU:O	4:32:152:SER:N	2.46	0.48
6:52:5:GLU:HB3	6:52:62:TRP:HE1	1.78	0.48
7:62:23:VAL:O	7:62:27:ILE:HG12	2.13	0.48
8:72:110:ALA:HB3	8:72:121:ASP:HB2	1.95	0.48
9:82:10:ARG:HH21	9:82:107:ARG:HB2	1.77	0.48
10:1A:24:VAL:HG21	10:1A:37:PRO:HD3	1.94	0.48
16:7A:68:ASP:O	16:7A:71:ARG:HB3	2.13	0.48
26:14:839:U:H2'	26:14:840:C:H6	1.77	0.48
26:14:946:G:H2'	26:14:947:G:C8	2.49	0.48
26:14:1015:G:O2'	26:14:1016:G:H5'	2.13	0.48
26:14:1106:G:H8	26:14:1107:G:C8	2.32	0.48
26:14:1839:G:C8	26:14:1927:A:H1'	2.49	0.48
26:14:1939:U:OP1	26:14:2604:U:O2'	2.24	0.48
26:14:2444:G:OP2	31:39:68:LYS:NZ	2.34	0.48
26:14:2488:A:H8	26:14:2488:A:O5'	1.95	0.48
26:14:2816:C:O2	26:14:2883:A:O2'	2.32	0.48
28:79:45:ALA:C	28:79:171:ILE:HB	2.39	0.48
38:45:27:VAL:HG12	47:D5:81:ARG:NH2	2.29	0.48
38:45:45:GLN:H	38:45:45:GLN:CD	2.21	0.48
40:65:26:LEU:O	40:65:88:ASP:N	2.47	0.48
42:85:91:ASP:OD1	42:85:96:ALA:HB2	2.13	0.48
47:D5:11:GLU:CD	47:D5:12:GLY:H	2.22	0.48
47:D5:99:TYR:HA	47:D5:124:ILE:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:H5:8:LEU:HD22	51:H5:31:LEU:HD12	1.95	0.48
1:13:158:G:C4	1:13:159:G:C8	3.02	0.48
1:13:377:G:H5'	16:7I:5:ARG:NH1	2.27	0.48
1:13:413:G:H21	1:13:428:G:H1'	1.79	0.48
1:13:663:A:O3'	18:9I:64:ARG:NH2	2.45	0.48
1:13:827:U:C4	1:13:870:U:N3	2.82	0.48
2:1E:27:LYS:HB2	2:1E:194:PRO:HD2	1.96	0.48
3:2E:77:ILE:HG22	3:2E:81:GLY:HA2	1.95	0.48
4:3E:194:LEU:HG	4:3E:196:LEU:HG	1.94	0.48
10:1I:55:LYS:O	10:1I:56:HIS:CG	2.66	0.48
11:2I:50:TYR:HD2	11:2I:54:ARG:HB2	1.77	0.48
26:1H:184:C:H1'	26:1H:217:G:H1'	1.94	0.48
26:1H:690:G:O2'	29:11:43:ARG:NH2	2.46	0.48
26:1H:950:G:H2'	26:1H:951:C:C6	2.49	0.48
26:1H:1263:U:H2'	26:1H:1264:G:O4'	2.14	0.48
26:1H:1534:G:N3	26:1H:1534:G:H2'	2.29	0.48
26:1H:1793:C:H2'	26:1H:1794:U:H6	1.79	0.48
30:21:64:LYS:O	30:21:70:ALA:HB2	2.14	0.48
31:31:6:VAL:HG12	31:31:7:TYR:H	1.77	0.48
38:88:55:VAL:HG12	38:88:64:ILE:HD12	1.95	0.48
38:88:66:ILE:O	38:88:67:ARG:HB2	2.12	0.48
40:A8:11:LYS:O	40:A8:15:ARG:HG2	2.13	0.48
40:A8:15:ARG:HB3	40:A8:19:LYS:HE2	1.96	0.48
1:1G:521:G:O5'	12:3A:73:GLU:HG2	2.14	0.48
1:1G:613:C:H2'	1:1G:614:A:O4'	2.14	0.48
1:1G:694:A:O2'	24:3L:38:A:O2'	2.24	0.48
1:1G:1037:C:H2'	1:1G:1038:C:H6	1.77	0.48
1:1G:1371:G:OP1	9:82:11:LYS:HB3	2.14	0.48
1:1G:1414:U:H2'	1:1G:1415:G:C8	2.48	0.48
2:12:219:VAL:CG2	2:12:221:LEU:H	2.26	0.48
3:22:11:ARG:HB3	3:22:15:THR:OG1	2.14	0.48
17:8A:56:VAL:O	17:8A:77:VAL:N	2.37	0.48
26:14:279:C:H42	26:14:361:G:H1	1.60	0.48
26:14:1421:G:C2	26:14:1422:G:C8	3.02	0.48
30:29:52:LEU:HD12	30:29:52:LEU:HA	1.55	0.48
32:49:145:THR:C	32:49:147:ASP:H	2.21	0.48
37:35:132:LYS:HZ1	37:35:135:LEU:HD11	1.79	0.48
38:45:75:THR:HB	38:45:86:GLY:HA3	1.96	0.48
38:45:102:VAL:O	38:45:102:VAL:HG12	2.13	0.48
38:45:126:PRO:O	38:45:127:ILE:HG23	2.13	0.48
39:55:13:HIS:ND1	39:55:15:SER:HB3	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:55:29:LEU:HB3	39:55:75:LEU:HD21	1.95	0.48
41:75:88:ILE:HG12	41:75:91:ARG:NH2	2.28	0.48
49:F5:80:LEU:HD12	49:F5:82:LEU:CB	2.44	0.48
55:M5:48:PHE:CB	55:M5:49:VAL:HG22	2.30	0.48
1:13:49:U:C2	1:13:361:G:N2	2.82	0.48
1:13:153:C:H42	1:13:168:G:H22	1.61	0.48
1:13:302:G:C6	1:13:303:A:C5	3.02	0.48
1:13:686:U:O4	1:13:703:G:H1'	2.14	0.48
1:13:1217:C:OP1	14:5I:9:LYS:NZ	2.46	0.48
8:7E:32:LYS:O	8:7E:36:LEU:HD12	2.14	0.48
11:2I:69:ALA:O	11:2I:73:MET:HG3	2.14	0.48
12:3I:53:ARG:HH12	12:3I:92:ASP:CG	2.21	0.48
15:6I:39:LEU:HD13	15:6I:56:LEU:HB2	1.96	0.48
16:7I:13:HIS:C	16:7I:15:PRO:HD3	2.39	0.48
19:AI:5:LEU:HD22	19:AI:10:PHE:CE2	2.48	0.48
22:1K:23:A:H2'	22:1K:24:G:C1'	2.43	0.48
24:3K:24:G:O5'	24:3K:24:G:H8	1.96	0.48
26:1H:195:A:H4'	26:1H:251:A:O2'	2.13	0.48
26:1H:863:A:H2'	26:1H:864:G:H8	1.78	0.48
26:1H:1260:G:C5	26:1H:1261:C:C5	3.02	0.48
26:1H:1316:U:H2'	26:1H:1317:A:H8	1.78	0.48
26:1H:1394:U:H4'	26:1H:1603:A:H4'	1.95	0.48
26:1H:1533:C:C5	26:1H:1534:G:H3'	2.48	0.48
31:31:78:ILE:HA	31:31:83:PHE:CD2	2.48	0.48
32:41:76:SER:OG	32:41:84:LYS:N	2.46	0.48
50:K8:8:LYS:O	50:K8:11:GLU:HG2	2.13	0.48
50:K8:42:GLY:C	50:K8:44:LEU:N	2.65	0.48
1:1G:948:C:OP1	13:4A:109:THR:OG1	2.29	0.48
1:1G:1117:G:H4'	9:82:104:ARG:HD2	1.94	0.48
2:12:18:GLY:CA	2:12:41:ILE:HD13	2.44	0.48
22:1L:1:G:H1	22:1L:72:C:N4	1.99	0.48
22:1L:25:C:C2	22:1L:26:A:H1'	2.49	0.48
26:14:590:A:H2'	26:14:591:C:H6	1.79	0.48
26:14:718:A:H3'	26:14:719:C:C6	2.48	0.48
26:14:870:A:C5'	38:45:6:ARG:HB3	2.44	0.48
26:14:1410:G:N2	26:14:1592:C:O2	2.45	0.48
26:14:1569:A:H2'	26:14:1570:A:C8	2.49	0.48
26:14:1891:G:C6	26:14:1892:C:C4	3.01	0.48
26:14:2286:A:H4'	26:14:2287:A:O4'	2.14	0.48
26:14:2320:A:H1'	26:14:2321:G:C6	2.49	0.48
26:14:2690:C:OP1	39:55:17:ARG:NH1	2.40	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2698:U:H2'	26:14:2699:C:C6	2.48	0.48
27:1J:15:A:H5'	27:1J:16:G:C8	2.48	0.48
28:79:20:TYR:N	28:79:223:ARG:O	2.45	0.48
29:19:61:LEU:HB3	29:19:63:ARG:NH1	2.29	0.48
31:39:130:ALA:H	31:39:142:TRP:HD1	1.61	0.48
31:39:192:LEU:HD22	31:39:194:MET:HE2	1.96	0.48
34:69:130:TYR:N	34:69:136:VAL:O	2.43	0.48
37:35:84:ASN:ND2	37:35:117:GLU:HB3	2.29	0.48
47:D5:62:PRO:O	47:D5:63:ASP:HB3	2.13	0.48
48:E5:24:LYS:N	48:E5:37:LEU:O	2.37	0.48
51:H5:40:THR:HG23	51:H5:43:ILE:HG13	1.95	0.48
1:13:454:C:H3'	1:13:455:C:C5	2.48	0.48
1:13:595:G:H1'	1:13:596:C:H5	1.77	0.48
1:13:715:A:H2'	1:13:716:A:C8	2.49	0.48
1:13:1203:C:H2'	1:13:1204:A:O4'	2.14	0.48
2:1E:161:ALA:O	2:1E:162:ILE:HD13	2.13	0.48
3:2E:124:ILE:HG21	3:2E:196:LEU:HD12	1.96	0.48
4:3E:67:ILE:HD13	4:3E:196:LEU:HD22	1.95	0.48
11:2I:59:TYR:CZ	11:2I:63:LEU:HD11	2.49	0.48
12:3I:90:VAL:HB	12:3I:96:VAL:CG2	2.43	0.48
26:1H:1019:U:OP1	26:1H:1035:U:O2'	2.29	0.48
26:1H:1831:G:H2'	26:1H:1832:C:C6	2.49	0.48
26:1H:2352:A:C4	26:1H:2366:A:C2	3.02	0.48
32:41:101:ILE:HD12	32:41:102:PHE:N	2.28	0.48
33:51:155:SER:HB2	33:51:160:LYS:O	2.14	0.48
37:78:97:PRO:HD3	37:78:126:VAL:O	2.13	0.48
39:98:51:LEU:HD13	39:98:70:LEU:HD11	1.95	0.48
41:B8:125:ARG:O	41:B8:129:ARG:N	2.36	0.48
46:G8:87:LYS:HB2	46:G8:96:ILE:HD13	1.95	0.48
55:Q8:52:LYS:HB3	55:Q8:53:PRO:CD	2.44	0.48
1:1G:363:A:N7	12:3A:33:ARG:NH1	2.62	0.48
1:1G:450:G:N7	1:1G:481:G:C6	2.82	0.48
1:1G:681:C:H2'	1:1G:682:G:C8	2.49	0.48
1:1G:985:C:H2'	1:1G:986:A:C8	2.48	0.48
1:1G:1127:G:O2'	1:1G:1128:C:H5'	2.14	0.48
1:1G:1325:C:H2'	1:1G:1326:C:H6	1.77	0.48
7:62:73:MET:HA	7:62:91:VAL:HG23	1.94	0.48
10:1A:39:PRO:HA	10:1A:70:ARG:HD3	1.96	0.48
26:14:212:G:H2'	26:14:213:A:O4'	2.14	0.48
26:14:557:U:H2'	26:14:558:G:H8	1.79	0.48
26:14:2495:G:O3'	38:45:81:VAL:HG12	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2822:G:O2'	26:14:2825:C:N4	2.47	0.48
26:14:2880:C:O2'	39:55:90:ARG:HD3	2.13	0.48
29:19:12:SER:O	29:19:16:MET:HB2	2.14	0.48
29:19:49:ILE:HD12	29:19:52:ARG:HA	1.96	0.48
30:29:81:ILE:O	30:29:82:ARG:HB2	2.12	0.48
34:69:45:LYS:HA	34:69:48:GLU:HB3	1.95	0.48
46:C5:83:THR:HG22	46:C5:84:ARG:H	1.77	0.48
1:13:632:A:H2'	1:13:633:G:O4'	2.12	0.48
1:13:1157:A:O2'	1:13:1158:C:OP2	2.28	0.48
19:AI:25:LYS:HD2	19:AI:25:LYS:HA	1.66	0.48
24:3K:51:A:N6	24:3K:63:U:H3	2.12	0.48
26:1H:271(B):G:H4'	26:1H:271(C):U:O5'	2.13	0.48
26:1H:651:G:H4'	55:Q8:18:ALA:HB3	1.96	0.48
26:1H:1359:A:H5'	26:1H:1359:A:N3	2.28	0.48
26:1H:1818:U:O4	29:11:154:LYS:HE3	2.13	0.48
26:1H:2369:A:H2'	26:1H:2370:G:H8	1.79	0.48
33:51:83:TYR:HB2	33:51:84:SER:H	1.55	0.48
34:61:42:SER:O	34:61:45:LYS:N	2.47	0.48
39:98:22:ARG:HG2	39:98:69:ASP:HB3	1.96	0.48
47:H8:124:ILE:HD12	47:H8:125:LEU:H	1.79	0.48
1:1G:690:G:C6	1:1G:691:G:C6	3.02	0.48
7:62:47:CYS:HB3	7:62:58:PRO:HB3	1.96	0.48
9:82:49:PRO:HB3	9:82:101:PHE:CD2	2.49	0.48
13:4A:22:ILE:HB	13:4A:25:ILE:HG13	1.94	0.48
14:5A:60:SER:C	14:5A:61:TRP:HE3	2.22	0.48
17:8A:48:GLU:CB	17:8A:50:LYS:HB2	2.36	0.48
24:3L:11:C:H42	24:3L:13:C:H41	1.60	0.48
26:14:173:G:N3	26:14:173:G:H2'	2.28	0.48
26:14:322:A:OP2	31:39:169:ASN:HB2	2.14	0.48
26:14:433:C:H2'	26:14:434:U:C6	2.48	0.48
26:14:901:A:H3'	26:14:902:C:C6	2.48	0.48
26:14:1101:U:H2'	26:14:1102:C:O4'	2.13	0.48
26:14:1999:C:H5"	26:14:2723:C:O2'	2.14	0.48
26:14:2176:A:H2	28:79:172:HIS:CD2	2.32	0.48
26:14:2400:G:H3'	26:14:2401:U:H6	1.79	0.48
26:14:2862:G:H2'	26:14:2863:C:C6	2.49	0.48
30:29:10:GLY:C	41:75:8:LYS:HZ3	2.21	0.48
33:59:9:ILE:HG22	33:59:52:VAL:H	1.78	0.48
37:35:13:ASN:C	37:35:15:ARG:N	2.66	0.48
37:35:95:VAL:HG13	37:35:125:VAL:HA	1.94	0.48
40:65:35:ILE:HB	40:65:97:ARG:NH2	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:A5:13:SER:HB3	44:A5:16:LYS:HD2	1.96	0.48
45:B5:63:LYS:HD3	45:B5:63:LYS:O	2.13	0.48
47:D5:72:ARG:HD3	47:D5:72:ARG:HA	1.70	0.48
1:13:474:G:C2	1:13:475:G:C4	3.01	0.48
1:13:598:U:H4'	8:7E:94:TYR:CG	2.49	0.48
1:13:635:G:O2'	17:8I:2:PRO:HD3	2.14	0.48
1:13:765:G:H5"	1:13:766:A:OP1	2.14	0.48
1:13:872:A:N3	1:13:872:A:H2'	2.29	0.48
1:13:1289:A:H5'	21:1F:10:ARG:NH2	2.29	0.48
4:3E:60:GLU:OE2	4:3E:199:ASN:N	2.43	0.48
6:5E:22:GLU:O	6:5E:26:ILE:HG13	2.14	0.48
8:7E:98:LYS:H	8:7E:98:LYS:CD	2.26	0.48
11:2I:19:ALA:HB2	11:2I:32:ILE:HG23	1.96	0.48
15:6I:53:HIS:CD2	15:6I:57:LEU:HD11	2.49	0.48
23:2K:10:G:N2	23:2K:27:G:H1'	2.29	0.48
26:1H:152:G:H1	26:1H:174:C:H42	1.62	0.48
26:1H:355:G:H2'	26:1H:356:G:H8	1.79	0.48
26:1H:588:U:H2'	26:1H:589:C:C6	2.49	0.48
26:1H:1454:U:O2'	26:1H:1455:G:N7	2.43	0.48
26:1H:1705:G:H2'	26:1H:1706:U:H5'	1.95	0.48
26:1H:2128:C:H2'	26:1H:2129:C:O4'	2.14	0.48
26:1H:2171:A:H2'	26:1H:2172:U:C6	2.49	0.48
27:16:28:C:OP1	40:A8:36:TYR:OH	2.27	0.48
27:16:43:C:OP1	52:M8:2:LYS:HB3	2.13	0.48
29:11:26:LYS:HB3	29:11:29:PRO:HG3	1.95	0.48
32:41:98:ARG:HH21	52:M8:1:MET:HE3	1.74	0.48
33:51:15:VAL:HG22	33:51:29:PRO:HD2	1.95	0.48
34:61:144:VAL:HG13	34:61:145:VAL:HG12	1.96	0.48
1:1G:920:U:H2'	1:1G:921:U:C6	2.48	0.48
1:1G:1106:G:H4'	3:22:171:GLY:O	2.14	0.48
2:12:55:PHE:O	2:12:59:GLU:N	2.39	0.48
9:82:16:ARG:CZ	9:82:64:THR:HG21	2.44	0.48
19:AA:66:MET:H	19:AA:67:VAL:HB	1.79	0.48
20:BA:67:ALA:HB2	20:BA:77:ALA:HB2	1.96	0.48
26:14:1512:G:H2'	26:14:1513:C:C6	2.49	0.48
26:14:2033:A:O2'	26:14:2035:G:OP2	2.19	0.48
27:1J:56:G:H4'	27:1J:57:A:H8	1.79	0.48
32:49:96:ARG:C	32:49:98:ARG:H	2.22	0.48
37:35:101:VAL:HA	37:35:105:LEU:O	2.14	0.48
37:35:138:LEU:HD12	37:35:144:GLU:OE2	2.14	0.48
44:A5:20:VAL:O	44:A5:23:LEU:HB2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:105:G:H2'	1:13:106:C:C6	2.49	0.47
1:13:687:A:N1	1:13:700:G:O2'	2.41	0.47
10:1I:80:LYS:HE3	10:1I:84:GLN:NE2	2.29	0.47
13:4I:66:LEU:O	13:4I:70:LEU:HB2	2.14	0.47
13:4I:92:HIS:O	13:4I:95:GLY:N	2.46	0.47
24:3K:27:G:N2	24:3K:44:U:H1'	2.29	0.47
24:3K:60:U:H6	24:3K:60:U:O5'	1.97	0.47
24:3K:75:C:O2'	24:3K:76:A:H2	1.97	0.47
26:1H:1026:U:O2	26:1H:1027:A:H3'	2.14	0.47
26:1H:1468:C:H2'	26:1H:1469:A:H8	1.79	0.47
26:1H:1887:C:N4	26:1H:1888:G:N7	2.62	0.47
26:1H:1965:C:H3'	26:1H:1966:A:H2'	1.94	0.47
26:1H:2164:C:OP1	26:1H:2166:G:N1	2.46	0.47
26:1H:2714:G:P	60:1H:3529:HOH:O	2.72	0.47
28:71:15:ASP:H	28:71:222:VAL:HG13	1.79	0.47
28:71:20:TYR:CB	28:71:25:ALA:HB2	2.44	0.47
33:51:81:GLU:HB2	33:51:83:TYR:CZ	2.49	0.47
36:68:52:VAL:O	36:68:53:LYS:HD2	2.14	0.47
37:78:71:VAL:HG13	37:78:72:PRO:CD	2.44	0.47
38:88:51:ARG:HH21	38:88:52:VAL:HG22	1.79	0.47
1:1G:113:G:O4'	1:1G:354:G:H4'	2.13	0.47
1:1G:228:A:C4'	16:7A:62:VAL:HG11	2.44	0.47
1:1G:308:C:H2'	1:1G:309:G:C8	2.49	0.47
1:1G:373:A:N3	1:1G:374:A:C8	2.82	0.47
1:1G:614:A:C4	1:1G:615:C:C5	3.02	0.47
1:1G:922:G:C6	1:1G:923:A:C6	3.02	0.47
1:1G:1165:C:H2'	1:1G:1166:G:O4'	2.13	0.47
2:12:114:ARG:O	2:12:118:LEU:HG	2.13	0.47
3:22:8:ILE:HG23	3:22:16:ARG:HG2	1.94	0.47
3:22:76:VAL:HG23	3:22:84:ILE:HG13	1.96	0.47
13:4A:8:GLU:CD	13:4A:9:ILE:H	2.22	0.47
13:4A:25:ILE:O	13:4A:29:ARG:HB2	2.14	0.47
15:6A:33:THR:HG21	15:6A:85:LEU:HD22	1.95	0.47
26:14:481:G:OP2	46:C5:47:LYS:HB2	2.14	0.47
26:14:482:A:H5"	26:14:483:A:OP1	2.14	0.47
26:14:952:G:C6	26:14:966:G:C6	3.01	0.47
26:14:1005:C:H2'	26:14:1006:C:H6	1.77	0.47
26:14:1161:C:H2'	26:14:1162:G:C8	2.49	0.47
26:14:1186:G:H2'	26:14:1187:G:O4'	2.14	0.47
26:14:2105:C:H2'	26:14:2106:G:H5'	1.96	0.47
26:14:2295:C:N3	26:14:2296:U:H5	2.12	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:79:48:GLY:HA3	28:79:208:PHE:HA	1.95	0.47
32:49:42:GLY:O	32:49:43:LEU:HD13	2.13	0.47
38:45:31:ASP:H	38:45:107:ALA:HB2	1.79	0.47
46:C5:82:PRO:CG	46:C5:97:ARG:HB3	2.44	0.47
1:13:186(F):C:N3	1:13:191(B):G:N2	2.62	0.47
1:13:1327:C:OP2	21:1F:12:LYS:NZ	2.45	0.47
2:1E:107:THR:HA	2:1E:110:GLN:OE1	2.14	0.47
7:6E:45:ASP:O	7:6E:49:ILE:HG13	2.14	0.47
8:7E:27:PRO:HG3	8:7E:58:TYR:CE2	2.49	0.47
10:1I:57:LYS:HD2	10:1I:60:ARG:NH2	2.29	0.47
11:2I:66:LEU:HG	11:2I:97:ALA:HB1	1.96	0.47
19:AI:31:ILE:HG23	19:AI:49:ILE:HG12	1.96	0.47
23:2K:26:C:H2'	23:2K:27:G:O4'	2.14	0.47
26:1H:721:C:H2'	26:1H:722:A:H8	1.79	0.47
26:1H:805:G:OP2	37:78:41:ARG:HG2	2.14	0.47
26:1H:1021:A:C8	26:1H:1021:A:C3'	2.95	0.47
26:1H:1475:G:C2	26:1H:1519:G:C2	3.01	0.47
26:1H:1482:U:O4	26:1H:1510:A:H8	1.97	0.47
26:1H:1700:A:H5'	26:1H:1701:A:OP2	2.14	0.47
31:31:160:ASN:CG	31:31:163:VAL:HG23	2.39	0.47
42:C8:27:LEU:HB3	42:C8:31:SER:HB3	1.95	0.47
49:J8:20:ARG:HB3	49:J8:32:LYS:HD2	1.96	0.47
54:P8:26:GLY:O	54:P8:30:VAL:HG23	2.14	0.47
1:1G:262:A:C6	1:1G:263:A:C6	3.01	0.47
1:1G:668:G:O4'	15:6A:49:ASP:HB2	2.14	0.47
1:1G:764:C:C2'	1:1G:765:G:H5'	2.44	0.47
1:1G:865:A:O5'	1:1G:865:A:H8	1.97	0.47
2:12:86:GLU:O	2:12:89:GLY:N	2.47	0.47
7:62:4:ARG:HG2	7:62:5:ARG:HH11	1.79	0.47
10:1A:27:ALA:HB1	10:1A:32:ALA:HB3	1.94	0.47
23:2L:24:C:C2	23:2L:25:U:C5	3.02	0.47
26:14:523:C:H4'	26:14:541:C:O2	2.14	0.47
26:14:1160:G:C6	26:14:1161:C:C4	3.02	0.47
26:14:1197:G:C2	26:14:1250:G:C6	3.01	0.47
26:14:1310:G:OP2	54:L5:9:ARG:NE	2.47	0.47
26:14:1358:G:O2'	26:14:1373:A:N6	2.47	0.47
26:14:1480:G:C6	26:14:1482:U:C4	3.02	0.47
26:14:1507:A:C4	26:14:1508:A:H1'	2.48	0.47
26:14:2051:A:H5'	26:14:2578:G:O4'	2.15	0.47
26:14:2055:C:H4'	26:14:2056:G:H5"	1.96	0.47
26:14:2190:G:H2'	26:14:2191:G:C1'	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2327:A:H2'	26:14:2328:A:H8	1.77	0.47
30:29:68:ALA:C	30:29:70:ALA:N	2.72	0.47
32:49:77:ILE:H	32:49:82:LEU:HD12	1.79	0.47
38:45:66:ILE:HD12	38:45:67:ARG:H	1.77	0.47
39:55:107:ASP:C	39:55:107:ASP:OD1	2.57	0.47
42:85:55:ARG:HE	42:85:55:ARG:HB2	1.50	0.47
46:C5:38:ILE:HG23	46:C5:66:PRO:HA	1.96	0.47
53:J5:49:CYS:O	53:J5:56:LYS:HB3	2.13	0.47
1:13:60:A:H4'	1:13:61:G:H5'	1.96	0.47
1:13:130:A:N3	1:13:263:A:O2'	2.39	0.47
1:13:372:C:H42	1:13:389:A:H62	1.62	0.47
1:13:431:A:H2'	1:13:432:A:O4'	2.14	0.47
1:13:1036:G:H3'	1:13:1037:C:C6	2.49	0.47
1:13:1308:U:OP1	13:4I:98:VAL:HG22	2.14	0.47
1:13:1347:G:H22	1:13:1373:G:H2'	1.79	0.47
4:3E:155:LEU:HD12	4:3E:158:ILE:HD11	1.95	0.47
6:5E:100:ASN:OD1	18:9I:23:LYS:HE2	2.14	0.47
9:8E:17:VAL:HG11	9:8E:80:GLY:C	2.39	0.47
11:2I:121:PRO:HG2	11:2I:126:ARG:HG3	1.95	0.47
20:BI:49:ALA:O	20:BI:52:ALA:N	2.47	0.47
20:BI:49:ALA:HB3	20:BI:99:LEU:HD22	1.96	0.47
23:2K:54:G:O2'	23:2K:55:5MU:H5"	2.14	0.47
26:1H:285:C:H2'	26:1H:286:C:H6	1.78	0.47
26:1H:537:C:H2'	26:1H:539:G:C8	2.49	0.47
26:1H:568:U:H5'	26:1H:945:A:C2	2.49	0.47
26:1H:945:A:OP2	60:1H:3556:HOH:O	2.20	0.47
26:1H:1533:C:C2	26:1H:1534:G:C5	3.03	0.47
26:1H:1665:A:N6	60:1H:3612:HOH:O	2.37	0.47
26:1H:2443:C:OP1	31:31:68:LYS:HD3	2.15	0.47
29:11:26:LYS:HB2	29:11:83:GLU:HB3	1.95	0.47
31:31:123:LEU:HD12	31:31:124:LEU:H	1.79	0.47
34:61:93:THR:HA	34:61:119:PRO:HB3	1.96	0.47
41:B8:51:ARG:HB2	41:B8:98:LYS:CD	2.44	0.47
45:F8:27:THR:HB	45:F8:80:ILE:HG22	1.96	0.47
46:G8:84:ARG:O	46:G8:85:VAL:HG13	2.14	0.47
55:Q8:46:ARG:HG2	55:Q8:47:LYS:HB3	1.96	0.47
1:1G:125:U:H3	1:1G:236:G:H1	1.63	0.47
1:1G:468:A:H4'	16:7A:80:PHE:O	2.14	0.47
1:1G:509:A:H5'	4:32:54:TYR:HD2	1.79	0.47
1:1G:1359:C:H1'	1:1G:1362:C:H41	1.78	0.47
3:22:125:GLU:HG2	3:22:190:ARG:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:88:VAL:O	4:32:92:VAL:HG23	2.14	0.47
5:42:98:THR:HB	5:42:117:ASP:HB3	1.97	0.47
20:BA:41:ILE:HA	20:BA:44:ALA:HB3	1.96	0.47
23:2L:2:G:H4'	48:E5:8:GLY:HA2	1.95	0.47
26:14:239:U:H2'	26:14:240:G:O4'	2.13	0.47
26:14:547:A:C6	26:14:548:A:N6	2.82	0.47
26:14:848:G:H2'	26:14:849:A:H8	1.76	0.47
26:14:2751:G:H4'	26:14:2752:C:OP2	2.14	0.47
30:29:103:ASP:OD2	30:29:168:MET:HE3	2.14	0.47
31:39:123:LEU:HA	31:39:192:LEU:C	2.39	0.47
49:F5:24:ALA:HB3	49:F5:27:GLU:HG2	1.96	0.47
1:13:9:G:C6	1:13:26:A:N6	2.83	0.47
1:13:68:G:H1	1:13:101:A:H61	1.62	0.47
1:13:113:G:O2'	1:13:354:G:H5'	2.15	0.47
1:13:704:A:H8	1:13:704:A:OP2	1.95	0.47
1:13:1259:C:N4	1:13:1260:C:O2	2.47	0.47
3:2E:44:GLU:HA	3:2E:52:LEU:HD11	1.96	0.47
23:2K:59:A:H4'	23:2K:60:A:OP1	2.15	0.47
26:1H:975:G:H1'	26:1H:990:A:C2	2.48	0.47
26:1H:1191:G:OP1	37:78:32:THR:HG23	2.13	0.47
26:1H:1647:G:P	26:1H:1647:G:H3'	2.54	0.47
26:1H:2110:G:C5	26:1H:2120:G:C8	3.02	0.47
26:1H:2408:U:H2'	26:1H:2409:G:C8	2.49	0.47
27:16:3:C:H2'	27:16:4:C:H6	1.79	0.47
27:16:11:C:O5'	27:16:12:C:H5	1.97	0.47
29:11:31:LYS:C	29:11:35:LYS:HZ1	2.17	0.47
29:11:70:TRP:CD1	29:11:70:TRP:C	2.93	0.47
30:21:170:LEU:HD11	30:21:187:ALA:HB3	1.96	0.47
34:61:67:ARG:O	34:61:71:ILE:HG22	2.13	0.47
36:68:68:GLU:OE2	36:68:68:GLU:N	2.47	0.47
41:B8:35:LYS:HG3	41:B8:36:GLU:N	2.29	0.47
1:1G:1448:C:N4	1:1G:1455:G:H1	2.12	0.47
6:52:5:GLU:HG3	6:52:93:SER:OG	2.14	0.47
6:52:25:ILE:HD13	6:52:82:ARG:HD2	1.95	0.47
7:62:75:VAL:HA	7:62:88:PRO:HA	1.96	0.47
9:82:46:ALA:HB2	9:82:74:ILE:CG2	2.40	0.47
9:82:95:LYS:NZ	9:82:96:LEU:HD13	2.30	0.47
14:5A:17:LYS:HD2	14:5A:18:VAL:N	2.29	0.47
15:6A:67:LEU:HD23	15:6A:67:LEU:HA	1.75	0.47
22:1L:49:G:H2'	22:1L:50:C:C6	2.49	0.47
25:4L:13:A:C4	25:4L:14:A:H1'	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:213:A:H5"	26:14:214:G:OP2	2.14	0.47
26:14:239:U:C2'	26:14:240:G:H5'	2.45	0.47
26:14:587:C:O2	37:35:33:ARG:NH1	2.46	0.47
26:14:957:A:N6	26:14:2459:A:C8	2.83	0.47
26:14:1672:C:H4'	26:14:2553:G:H5"	1.96	0.47
26:14:1716:U:O2'	26:14:1717:G:H5'	2.14	0.47
26:14:2134:A:C4	26:14:2158:A:C8	3.02	0.47
27:1J:89(A):A:H5'	27:1J:90:C:OP2	2.14	0.47
31:39:12:LEU:HD23	31:39:14:PRO:HD3	1.97	0.47
34:69:125:GLU:OE2	34:69:141:LYS:NZ	2.29	0.47
1:13:415:A:H3'	1:13:416:G:H8	1.79	0.47
1:13:650:G:H2'	1:13:651:C:H6	1.79	0.47
1:13:1053:G:O5'	1:13:1054:C:H3'	2.14	0.47
1:13:1097:C:O2'	1:13:1169:A:N3	2.38	0.47
1:13:1424:C:H2'	1:13:1425:U:O4'	2.15	0.47
6:5E:67:MET:HB2	6:5E:68:PRO:HD2	1.96	0.47
11:2I:33:THR:HA	11:2I:39:PRO:HA	1.96	0.47
20:BI:13:LEU:C	20:BI:13:LEU:HD12	2.39	0.47
24:3K:25:C:C4	24:3K:26:A:C8	3.03	0.47
24:3K:26:A:H2'	24:3K:27:G:H5'	1.96	0.47
26:1H:49:A:H5"	26:1H:51:G:O4'	2.15	0.47
26:1H:1174:A:H1'	26:1H:1178:C:N3	2.30	0.47
26:1H:1336:A:H2'	26:1H:1337:G:C8	2.49	0.47
26:1H:1475:G:N2	26:1H:1519:G:C4	2.82	0.47
26:1H:2165:G:O2'	26:1H:2166:G:H5'	2.14	0.47
26:1H:2199:A:C4	26:1H:2205:C:C6	3.02	0.47
30:21:65:GLY:HA2	30:21:70:ALA:HB3	1.96	0.47
32:41:80:PHE:O	32:41:82:LEU:HB2	2.15	0.47
46:G8:87:LYS:HD3	46:G8:88:LYS:N	2.29	0.47
52:M8:15:ILE:HB	52:M8:32:TYR:HA	1.97	0.47
55:Q8:49:VAL:O	55:Q8:50:LEU:C	2.58	0.47
2:12:147:LYS:HD2	2:12:148:TYR:CE1	2.50	0.47
3:22:131:ARG:NH2	3:22:166:GLU:OE1	2.42	0.47
6:52:67:MET:HB2	6:52:68:PRO:HD2	1.96	0.47
11:2A:96:ARG:H	11:2A:96:ARG:HD3	1.79	0.47
22:1L:29:U:H2'	22:1L:30:G:O4'	2.13	0.47
24:3L:37:A:H2'	24:3L:38:A:O4'	2.15	0.47
26:14:55:G:O2'	26:14:127:A:N1	2.37	0.47
26:14:61:G:P	50:G5:50:ILE:HD13	2.55	0.47
26:14:121:G:H4'	26:14:149:A:H5'	1.96	0.47
26:14:184:C:H2'	26:14:185:U:H6	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:270(L):U:C2	34:69:50:ARG:NH1	2.83	0.47
26:14:389:G:H22	37:35:72:PRO:CD	2.28	0.47
26:14:909:A:O2'	26:14:910:A:H5"	2.14	0.47
26:14:1340:U:H4'	26:14:1394:U:O2'	2.14	0.47
26:14:1341:U:O4	45:B5:16:LYS:NZ	2.37	0.47
26:14:1379:A:H4'	26:14:1380:G:OP2	2.12	0.47
26:14:2141:G:H1	26:14:2150:U:H3	1.61	0.47
26:14:2190:G:H2'	26:14:2191:G:H1'	1.96	0.47
26:14:2473:U:O2	26:14:2473:U:H2'	2.14	0.47
26:14:2493:U:H2'	26:14:2494:G:O4'	2.14	0.47
26:14:2747:G:O6	26:14:2755:C:H5"	2.15	0.47
32:49:115:ARG:HG3	32:49:136:ARG:HH12	1.79	0.47
37:35:39:LYS:HG3	37:35:45:LEU:HD13	1.95	0.47
44:A5:1:MET:HE2	44:A5:1:MET:HA	1.96	0.47
1:13:112:G:H4'	1:13:389:A:H4'	1.96	0.47
1:13:244:U:H4'	1:13:245:C:C5'	2.44	0.47
1:13:321:A:C2	1:13:333:G:C2	3.03	0.47
1:13:729:A:H2'	1:13:730:G:H8	1.79	0.47
1:13:838:G:H1	1:13:848:C:N4	2.13	0.47
1:13:1316:G:H22	1:13:1319:A:H5'	1.78	0.47
4:3E:8:VAL:CG1	4:3E:21:LEU:HB2	2.45	0.47
6:5E:61:LEU:HB3	6:5E:63:TYR:HE1	1.80	0.47
19:AI:23:ASN:OD1	19:AI:43:GLU:HB2	2.13	0.47
20:BI:20:LEU:O	20:BI:23:ARG:N	2.48	0.47
26:1H:518:G:H2'	26:1H:519:U:C6	2.49	0.47
26:1H:654(O):G:H5"	26:1H:654(P):G:C4	2.50	0.47
26:1H:1440:G:H2'	26:1H:1441:G:C8	2.49	0.47
26:1H:1790:C:H2'	26:1H:1791:A:C5	2.50	0.47
26:1H:2106:G:C6	26:1H:2107:C:C2	3.03	0.47
26:1H:2301:C:H2'	26:1H:2302:G:H8	1.79	0.47
26:1H:2358:G:C5	26:1H:2359:C:C5	3.03	0.47
26:1H:2552:U:H2'	26:1H:2554:U:OP2	2.14	0.47
26:1H:2563:U:H4'	36:68:28:SER:HA	1.95	0.47
26:1H:2688:U:H1'	26:1H:2721:A:N6	2.30	0.47
37:78:49:ARG:HH12	55:Q8:61:LEU:HD22	1.74	0.47
38:88:59:ARG:C	38:88:61:GLY:H	2.23	0.47
38:88:109:VAL:CG1	38:88:113:GLN:HB3	2.45	0.47
53:N8:40:LYS:HG2	53:N8:46:CYS:HA	1.96	0.47
54:P8:10:ARG:O	54:P8:14:LYS:HG3	2.15	0.47
1:1G:147:G:H2'	1:1G:148:G:C8	2.49	0.47
1:1G:452:A:O2'	1:1G:453:A:O5'	2.31	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:647:C:H2'	1:1G:648:A:C8	2.50	0.47
1:1G:1513:A:H2'	1:1G:1514:C:C6	2.49	0.47
2:12:53:ARG:HA	2:12:56:ARG:HD2	1.95	0.47
4:32:119:GLN:HG2	4:32:123:HIS:ND1	2.30	0.47
8:72:99:GLU:O	8:72:102:ARG:NH1	2.46	0.47
14:5A:24:CYS:HB3	14:5A:27:CYS:O	2.14	0.47
23:2L:44:A:H2'	23:2L:45:A:H8	1.78	0.47
26:14:522:G:H2'	26:14:523:C:H6	1.79	0.47
26:14:806:C:OP2	37:35:41:ARG:NH2	2.45	0.47
26:14:1288:U:C2	26:14:1327:C:O2	2.67	0.47
26:14:1416:G:HO2'	26:14:1417:C:P	2.33	0.47
26:14:1580:A:H8	26:14:1580:A:OP2	1.97	0.47
26:14:1731:G:C8	26:14:1732:A:C8	3.02	0.47
26:14:1936:A:C8	26:14:1940:U:O2	2.67	0.47
35:15:59:LYS:HD2	35:15:59:LYS:HA	1.50	0.47
37:35:11:GLY:C	37:35:13:ASN:H	2.22	0.47
37:35:52:GLU:HG3	37:35:55:ARG:HD2	1.97	0.47
38:45:52:VAL:CG1	38:45:56:ARG:HH11	2.28	0.47
38:45:118:LEU:HD23	38:45:118:LEU:HA	1.69	0.47
42:85:39:LEU:HD23	42:85:39:LEU:HA	1.66	0.47
43:95:15:GLU:HG3	43:95:16:PRO:HD2	1.96	0.47
43:95:21:ARG:HH22	43:95:65:GLY:C	2.21	0.47
43:95:64:HIS:ND1	43:95:92:THR:OG1	2.44	0.47
45:B5:32:PRO:HA	45:B5:77:LYS:HB2	1.97	0.47
45:B5:35:THR:HG23	45:B5:38:GLU:H	1.80	0.47
47:D5:60:GLU:HA	47:D5:66:SER:HA	1.97	0.47
1:13:134:A:H61	16:7I:25:ARG:NH1	2.12	0.47
1:13:228:A:H2'	1:13:229:U:O4'	2.14	0.47
1:13:310:G:H4'	16:7I:31:LYS:HE3	1.96	0.47
1:13:362:G:H4'	12:3I:33:ARG:NH2	2.30	0.47
1:13:735:C:H5'	18:9I:71:LYS:HD2	1.97	0.47
1:13:953:G:C2	1:13:954:G:H1'	2.50	0.47
1:13:1053:G:O2'	1:13:1199:U:H5	1.98	0.47
1:13:1127:G:H2'	1:13:1128:C:N1	2.29	0.47
1:13:1315:U:H2'	1:13:1316:G:O4'	2.15	0.47
2:1E:166:ASP:O	2:1E:168:THR:N	2.43	0.47
2:1E:220:ASP:HA	2:1E:223:ILE:HD11	1.96	0.47
3:2E:10:PHE:CZ	3:2E:178:LEU:HD21	2.50	0.47
3:2E:111:LEU:HD11	3:2E:144:SER:O	2.15	0.47
3:2E:157:ILE:HD12	3:2E:164:ARG:HG2	1.97	0.47
5:4E:15:ARG:HD2	5:4E:26:PHE:CD2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5E:10:LEU:HD22	6:5E:61:LEU:HD11	1.97	0.47
6:5E:97:PHE:N	18:9I:30:ASP:OD1	2.47	0.47
15:6I:27:VAL:HG12	15:6I:31:LEU:HD23	1.97	0.47
16:7I:21:VAL:O	16:7I:33:ILE:N	2.44	0.47
19:AI:13:ASP:OD1	19:AI:13:ASP:N	2.48	0.47
22:1K:41:A:H2'	22:1K:42:A:H8	1.77	0.47
24:3K:19:G:H1	26:1H:2112:G:C1'	2.28	0.47
26:1H:764:A:H5'	29:11:210:GLY:HA2	1.97	0.47
26:1H:1478:G:H2'	26:1H:1479:G:C8	2.46	0.47
26:1H:1528:A:C6	26:1H:1529:A:N1	2.83	0.47
26:1H:1796:U:H4'	29:11:256:GLY:H	1.80	0.47
26:1H:1820:U:O2	29:11:202:LYS:HB3	2.14	0.47
26:1H:1826:G:H4'	29:11:242:ARG:NH2	2.30	0.47
26:1H:1827:C:O2'	26:1H:1828:G:H5'	2.15	0.47
26:1H:1985:G:C2	26:1H:1986:A:C8	3.02	0.47
26:1H:2105:C:H2'	26:1H:2106:G:H8	1.79	0.47
26:1H:2125:G:N2	26:1H:2172:U:OP1	2.48	0.47
26:1H:2342:C:O2'	26:1H:2374:C:OP1	2.28	0.47
26:1H:2521:C:H2'	26:1H:2522:U:C6	2.49	0.47
26:1H:2756:U:H4'	26:1H:2757:A:OP1	2.14	0.47
26:1H:2792:G:C6	26:1H:2805:G:C6	3.03	0.47
29:11:228:PRO:O	60:11:401:HOH:O	2.21	0.47
34:61:69:LYS:HA	34:61:136:VAL:HB	1.97	0.47
35:58:51:PHE:CE1	35:58:119:ARG:NE	2.83	0.47
37:78:15:ARG:HD3	37:78:15:ARG:HA	1.55	0.47
39:98:24:GLN:HE22	39:98:36:THR:HG21	1.79	0.47
39:98:50:HIS:O	39:98:54:LEU:HD23	2.14	0.47
41:B8:104:ASN:O	41:B8:104:ASN:ND2	2.48	0.47
43:D8:48:GLY:O	43:D8:49:THR:O	2.32	0.47
51:L8:5:LYS:HD2	51:L8:34:GLU:OE1	2.14	0.47
51:L8:28:LEU:HA	51:L8:33:GLN:NE2	2.30	0.47
1:1G:99:C:H2'	1:1G:101:A:C8	2.49	0.47
1:1G:277:C:P	17:8A:68:ARG:HH12	2.38	0.47
1:1G:296:U:H2'	1:1G:297:G:C8	2.49	0.47
1:1G:617:G:N1	1:1G:618:C:C4	2.83	0.47
1:1G:707:C:H2'	1:1G:708:C:H6	1.80	0.47
1:1G:953:G:N7	13:4A:104:ARG:NH2	2.62	0.47
1:1G:1006:C:H2'	1:1G:1007:C:C6	2.50	0.47
1:1G:1059:C:O3'	14:5A:45:ARG:NH2	2.48	0.47
1:1G:1126:U:H1'	1:1G:1127:G:OP1	2.13	0.47
1:1G:1191:A:OP1	3:22:3:ASN:ND2	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1254:C:H41	10:1A:43:ARG:HH12	1.62	0.47
4:32:13:ARG:O	4:32:14:ARG:HB3	2.14	0.47
4:32:18:LYS:HE3	4:32:31:CYS:HB3	1.96	0.47
4:32:59:ARG:O	4:32:63:LYS:N	2.40	0.47
8:72:29:SER:HB3	8:72:32:LYS:CG	2.37	0.47
9:82:78:LYS:HE3	9:82:101:PHE:CD2	2.50	0.47
10:1A:16:LEU:HD13	10:1A:94:VAL:HG13	1.97	0.47
12:3A:70:ILE:HD13	12:3A:77:LEU:HD12	1.96	0.47
13:4A:14:ARG:HG2	13:4A:42:ALA:O	2.14	0.47
18:9A:25:THR:CG2	18:9A:42:ARG:HH21	2.27	0.47
21:1B:5:ASP:O	21:1B:11:GLY:HA3	2.15	0.47
22:1L:14:A:C5	22:1L:22:G:C2	3.03	0.47
24:3L:31:A:H5'	24:3L:32:C:OP2	2.14	0.47
24:3L:62:C:H1'	28:79:52:ARG:HH21	1.79	0.47
26:14:323:G:H1'	26:14:1205:U:O2	2.14	0.47
26:14:362:U:H5'	26:14:363:G:OP2	2.15	0.47
26:14:363(B):G:H2'	26:14:363(C):G:H8	1.79	0.47
26:14:522:G:H2'	26:14:523:C:C6	2.50	0.47
26:14:815:C:H2'	26:14:816:C:C6	2.49	0.47
26:14:1167:U:O2	26:14:1183:G:N2	2.47	0.47
26:14:1222:C:C2	26:14:1229(A):G:C2	3.02	0.47
26:14:1323:U:H2'	26:14:1324:G:H5'	1.96	0.47
26:14:1759:A:H4'	26:14:2715:C:O4'	2.15	0.47
26:14:1859:A:N6	26:14:1883:G:O2'	2.47	0.47
26:14:2305:A:H2'	26:14:2306:C:O4'	2.15	0.47
26:14:2400:G:H3'	26:14:2401:U:C6	2.50	0.47
26:14:2577:A:H2'	26:14:2614:A:N6	2.29	0.47
29:19:130:ALA:HA	29:19:192:THR:HA	1.97	0.47
30:29:89:ASP:OD2	30:29:91:VAL:HA	2.15	0.47
34:69:127:VAL:HA	34:69:138:ILE:O	2.14	0.47
35:15:23:LEU:HD12	35:15:99:LEU:HD23	1.96	0.47
36:25:35:VAL:HG11	36:25:103:ALA:CB	2.40	0.47
37:35:60:MET:HA	55:M5:13:ARG:NH1	2.30	0.47
40:65:49:VAL:HG22	40:65:80:LEU:HD12	1.95	0.47
43:95:39:LEU:HD21	43:95:50:PRO:O	2.15	0.47
43:95:49:THR:OG1	43:95:50:PRO:HD2	2.14	0.47
1:13:292:G:C5	1:13:293:G:H1'	2.49	0.47
1:13:381:C:H2'	1:13:382:A:O4'	2.14	0.47
1:13:637:G:H2'	1:13:638:G:H8	1.79	0.47
1:13:767:A:H2'	1:13:768:A:O4'	2.15	0.47
1:13:1240:U:OP1	7:6E:119:ARG:NH2	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1417:G:N2	1:13:1482:G:H2'	2.29	0.47
1:13:1454:G:H2'	1:13:1455:G:C8	2.50	0.47
7:6E:71:PRO:HG3	7:6E:103:TRP:CZ3	2.50	0.47
22:1K:39:PSU:H2'	22:1K:40:C:C6	2.50	0.47
22:1K:52:G:H2'	22:1K:53:G:C8	2.50	0.47
26:1H:55:G:C2	26:1H:116:C:C2	3.02	0.47
26:1H:139:G:N3	26:1H:141:A:N1	2.62	0.47
26:1H:1827:C:C2'	26:1H:1828:G:H5'	2.45	0.47
26:1H:2771:C:H2'	26:1H:2772:C:C6	2.50	0.47
30:21:20:ALA:O	30:21:21:VAL:HG22	2.14	0.47
34:61:62:LYS:O	34:61:66:GLU:HG2	2.15	0.47
50:K8:55:ARG:O	50:K8:58:ALA:HB3	2.14	0.47
51:L8:37:LEU:HD12	51:L8:43:ILE:HD13	1.95	0.47
1:1G:637:G:H2'	1:1G:638:G:C8	2.49	0.47
1:1G:747:C:H3'	1:1G:748:C:C6	2.50	0.47
1:1G:790:A:H2'	1:1G:791:G:C8	2.50	0.47
1:1G:1113:C:H2'	1:1G:1114:C:H6	1.78	0.47
1:1G:1213:A:C6	1:1G:1215:G:C4	3.03	0.47
13:4A:91:ARG:HG3	13:4A:98:VAL:HA	1.97	0.47
17:8A:43:LEU:HD12	17:8A:68:ARG:HG2	1.96	0.47
22:1L:22:G:H2'	22:1L:23:A:C8	2.50	0.47
23:2L:25:U:H2'	23:2L:26:C:O4'	2.14	0.47
26:14:39:C:H2'	26:14:40:C:C6	2.49	0.47
26:14:322:A:H3'	31:39:169:ASN:OD1	2.15	0.47
26:14:608:A:H2'	26:14:609:A:C8	2.50	0.47
26:14:1340:U:OP1	45:B5:16:LYS:HE2	2.15	0.47
26:14:1731:G:H2'	26:14:1732:A:C8	2.50	0.47
26:14:1853:A:H2'	26:14:1854:A:C8	2.50	0.47
29:19:25:THR:OG1	29:19:26:LYS:N	2.48	0.47
34:69:23:PRO:O	34:69:27:ARG:HG2	2.14	0.47
40:65:5:THR:O	40:65:8:GLU:N	2.48	0.47
48:E5:32:ARG:HG2	48:E5:33:ALA:H	1.80	0.47
1:13:21:G:H2'	1:13:22:G:C8	2.50	0.47
1:13:376:G:H2'	1:13:377:G:C8	2.50	0.47
1:13:1129:C:H4'	1:13:1130:A:C8	2.50	0.47
1:13:1366:C:H2'	1:13:1367:C:C6	2.50	0.47
1:13:1469:G:H2'	1:13:1470:G:C8	2.49	0.47
4:3E:78:LEU:HB3	4:3E:93:PHE:HE1	1.80	0.47
8:7E:29:SER:HB3	8:7E:32:LYS:HB2	1.95	0.47
13:4I:27:LYS:HA	13:4I:31:LYS:NZ	2.30	0.47
15:6I:7:GLU:O	15:6I:11:VAL:HG23	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:6I:26:GLU:OE1	15:6I:81:LEU:HD22	2.15	0.47
26:1H:38:A:H2'	26:1H:39:C:C6	2.50	0.47
26:1H:70:G:H21	26:1H:71:A:H62	1.63	0.47
26:1H:216:A:C4	26:1H:432:A:C2	3.03	0.47
26:1H:747:U:C4	26:1H:2613:U:C5	3.02	0.47
26:1H:1139:G:O2'	26:1H:1143:A:N1	2.42	0.47
26:1H:1358:G:N2	26:1H:1372:U:C5	2.83	0.47
26:1H:1553:A:HO2'	26:1H:1554:A:H8	1.61	0.47
26:1H:1684:C:N3	26:1H:1705:G:C2	2.83	0.47
26:1H:2127:G:H2'	26:1H:2128:C:O4'	2.15	0.47
26:1H:2667:C:H2'	26:1H:2668:G:O4'	2.15	0.47
26:1H:2783:G:H2'	26:1H:2784:C:C6	2.50	0.47
33:51:30:LYS:HE2	33:51:81:GLU:N	2.19	0.47
36:68:64:ARG:HB2	36:68:79:PHE:CG	2.50	0.47
40:A8:11:LYS:HE2	40:A8:91:PRO:HD3	1.97	0.47
40:A8:67:ARG:NH1	40:A8:67:ARG:HB2	2.30	0.47
41:B8:25:GLY:HA2	41:B8:99:LEU:HD21	1.96	0.47
1:1G:142:G:H2'	1:1G:143:A:C8	2.47	0.47
1:1G:176:C:H2'	1:1G:177:C:C6	2.50	0.47
1:1G:976:G:P	14:5A:32:SER:H	2.38	0.47
1:1G:1216:G:H5"	14:5A:5:ALA:HB3	1.96	0.47
1:1G:1418:A:H2	26:14:1948:G:N3	2.12	0.47
5:42:91:LEU:HD23	5:42:120:THR:HG22	1.96	0.47
14:5A:12:ARG:HH11	14:5A:12:ARG:HG3	1.80	0.47
23:2L:15:G:N2	23:2L:22:A:H1'	2.30	0.47
26:14:573:G:O2'	26:14:574:C:H3'	2.15	0.47
26:14:708:C:N4	26:14:723:G:H1	2.09	0.47
26:14:921:G:C6	26:14:922:U:C4	3.03	0.47
26:14:1048:A:C8	26:14:1110:G:N2	2.83	0.47
26:14:1054:A:C6	26:14:1104:C:N3	2.82	0.47
26:14:1654:A:C1'	26:14:2823:A:H5'	2.44	0.47
26:14:2038:G:H2'	26:14:2039:C:O4'	2.14	0.47
26:14:2747:G:O6	26:14:2754:U:H3'	2.15	0.47
29:19:108:PRO:HD2	29:19:111:LEU:HG	1.96	0.47
41:75:5:ALA:O	41:75:8:LYS:HB3	2.14	0.47
42:85:66:ASN:HD21	42:85:70:ARG:NH2	2.12	0.47
43:95:69:LYS:HD3	43:95:86:GLY:HA3	1.97	0.47
45:B5:84:ALA:HB3	45:B5:87:GLN:NE2	2.30	0.47
55:M5:43:GLN:HG3	55:M5:46:ARG:NH2	2.30	0.47
1:13:37:U:O2'	1:13:500:G:H4'	2.15	0.47
1:13:130:A:P	17:8I:63:ARG:HE	2.38	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:948:C:O2'	1:13:949:A:H5'	2.14	0.47
1:13:1497:G:C2'	1:13:1498:U:H5'	2.45	0.47
6:5E:23:LYS:O	6:5E:27:GLN:HG3	2.15	0.47
7:6E:70:LYS:HG2	7:6E:96:GLN:HB3	1.97	0.47
19:AI:30:LEU:HA	19:AI:48:THR:O	2.15	0.47
26:1H:412:A:H2'	26:1H:412:A:N3	2.30	0.47
26:1H:609:A:H8	26:1H:609:A:O5'	1.98	0.47
26:1H:1020:A:H4'	26:1H:1021:A:O5'	2.15	0.47
26:1H:1988:C:H2'	26:1H:1989:G:O4'	2.15	0.47
27:16:66:A:H61	27:16:107:U:H2'	1.80	0.47
28:71:4:GLY:HA3	28:71:6:ARG:NH2	2.30	0.47
29:11:6:PHE:HE1	29:11:18:VAL:HG23	1.79	0.47
38:88:11:LYS:NZ	38:88:88:GLY:O	2.37	0.47
42:C8:49:HIS:HA	42:C8:52:ARG:HB3	1.96	0.47
43:D8:71:LEU:HD22	43:D8:84:LYS:HE2	1.97	0.47
44:E8:76:VAL:CG2	44:E8:101:SER:HB3	2.45	0.47
47:H8:28:MET:SD	47:H8:37:VAL:HG11	2.55	0.47
1:1G:87:A:C5	1:1G:88:C:C4	3.02	0.47
1:1G:256:U:H3	1:1G:270:A:H61	1.63	0.47
1:1G:673:G:H5"	6:52:87:ARG:CZ	2.45	0.47
1:1G:922:G:H1'	5:42:19:MET:HB3	1.97	0.47
1:1G:1135:U:O2'	1:1G:1138:G:O6	2.27	0.47
3:22:110:ASN:HB3	3:22:141:VAL:CG1	2.45	0.47
9:82:86:VAL:HB	9:82:96:LEU:HD23	1.95	0.47
11:2A:17:GLY:N	11:2A:77:MET:SD	2.88	0.47
12:3A:59:ARG:HE	12:3A:59:ARG:HB2	1.52	0.47
20:BA:87:LYS:O	20:BA:91:LEU:HG	2.15	0.47
26:14:146:G:H2'	26:14:147:U:O4'	2.15	0.47
26:14:150:C:H2'	26:14:151:C:C6	2.50	0.47
26:14:398:G:H2'	26:14:399:G:C8	2.50	0.47
26:14:654(S):G:N2	26:14:654(T):A:C5	2.83	0.47
26:14:908:C:OP1	38:45:22:LYS:HD3	2.14	0.47
26:14:1116:C:H2'	26:14:1117:G:C8	2.49	0.47
26:14:1268:A:H2'	26:14:1269:A:O4'	2.14	0.47
26:14:1368:G:OP1	54:L5:28:ARG:NH2	2.48	0.47
26:14:1461:G:H2'	26:14:1462:C:C6	2.50	0.47
26:14:1731:G:H2'	26:14:1732:A:H8	1.79	0.47
26:14:1794:U:O2'	26:14:1795:C:H5'	2.15	0.47
26:14:2082:A:H2'	26:14:2083:G:O4'	2.15	0.47
26:14:2104:G:C2	26:14:2105:C:N4	2.83	0.47
26:14:2536:G:C6	26:14:2537:U:C4	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:126:GLN:O	29:19:193:VAL:HG13	2.15	0.47
30:29:26:ILE:HG22	30:29:27:LEU:C	2.40	0.47
31:39:25:PRO:C	31:39:27:GLU:H	2.21	0.47
32:49:47:LYS:HD3	32:49:81:LYS:HG3	1.97	0.47
41:75:90:GLN:OE1	41:75:121:ILE:HD11	2.14	0.47
47:D5:77:ASP:OD1	47:D5:80:ARG:NH1	2.47	0.47
1:13:538:G:OP2	12:3I:115:LYS:HD3	2.15	0.46
1:13:663:A:H5'	1:13:836:G:OP1	2.16	0.46
1:13:723:U:H5"	1:13:724:G:OP2	2.16	0.46
1:13:954:G:H2'	1:13:955:U:C6	2.50	0.46
3:2E:12:LEU:O	3:2E:13:GLY:C	2.56	0.46
3:2E:188:LEU:HD13	3:2E:189:ALA:N	2.30	0.46
4:3E:22:LYS:HB2	58:3E:302:SF4:S4	2.55	0.46
4:3E:81:GLU:H	4:3E:81:GLU:HG2	1.49	0.46
5:4E:12:LEU:HB3	5:4E:31:LEU:HB2	1.97	0.46
7:6E:77:SER:HB3	24:3K:33:U:OP1	2.16	0.46
7:6E:133:GLY:HA2	7:6E:136:LYS:HG2	1.97	0.46
8:7E:109:ILE:HD11	8:7E:120:THR:CG2	2.45	0.46
10:1I:15:THR:HA	10:1I:18:ALA:HB3	1.98	0.46
12:3I:93:LEU:HD23	12:3I:93:LEU:HA	1.66	0.46
20:BI:10:LEU:HD11	20:BI:12:ALA:HB3	1.96	0.46
23:2K:24:C:H2'	23:2K:25:U:C6	2.50	0.46
26:1H:634:C:H2'	26:1H:635:C:C6	2.50	0.46
26:1H:709:U:H2'	26:1H:710:G:C8	2.51	0.46
26:1H:973:A:O4'	26:1H:1188:U:C6	2.68	0.46
26:1H:997:G:OP1	42:C8:93:LYS:HD2	2.15	0.46
26:1H:1239:G:H2'	26:1H:1240:U:O4'	2.15	0.46
26:1H:1280:G:N2	26:1H:1291:C:C2	2.83	0.46
26:1H:1408:C:C2	26:1H:1595:G:N2	2.83	0.46
26:1H:2270:G:H2'	26:1H:2271:G:O4'	2.15	0.46
26:1H:2607:G:H2'	26:1H:2608:G:O4'	2.15	0.46
30:21:49:LEU:HD12	30:21:49:LEU:HA	1.59	0.46
33:51:116:GLU:HG3	33:51:117:PRO:HD2	1.98	0.46
35:58:57:ALA:C	35:58:59:LYS:N	2.67	0.46
39:98:10:LEU:O	39:98:11:ASN:C	2.58	0.46
41:B8:111:ARG:O	41:B8:112:ARG:HG2	2.14	0.46
1:1G:164:U:H2'	1:1G:165:C:C6	2.50	0.46
1:1G:164:U:H2'	1:1G:165:C:H6	1.80	0.46
1:1G:532:A:H2	1:1G:1055:A:H1'	1.81	0.46
1:1G:620:C:C2	4:32:135:LEU:CD1	2.97	0.46
1:1G:636:U:H2'	1:1G:637:G:H8	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:681:C:H2'	1:1G:682:G:H8	1.80	0.46
1:1G:749:C:H2'	1:1G:750:G:H8	1.80	0.46
1:1G:889:A:H61	1:1G:907:A:H5"	1.80	0.46
1:1G:1157:A:H2	1:1G:1180:A:C5	2.32	0.46
3:22:19:GLU:O	3:22:56:ASP:HA	2.14	0.46
4:32:4:TYR:CE2	4:32:11:LEU:HD11	2.50	0.46
11:2A:100:ALA:O	11:2A:102:GLY:N	2.48	0.46
19:AA:33:THR:HG23	19:AA:35:SER:H	1.80	0.46
22:1L:39:PSU:H2'	22:1L:40:C:H6	1.79	0.46
26:14:265:A:H1'	26:14:266:G:O4'	2.16	0.46
26:14:1751:C:O2'	26:14:1752:C:H5'	2.15	0.46
26:14:2377:A:H2'	26:14:2378:A:C8	2.50	0.46
30:29:51:PHE:O	30:29:74:PRO:HB2	2.15	0.46
30:29:64:LYS:C	30:29:66:HIS:H	2.23	0.46
36:25:92:GLU:HG2	36:25:113:LYS:HZ1	1.78	0.46
49:F5:7:ILE:CD1	49:F5:91:LYS:HZ1	2.27	0.46
50:G5:22:GLU:HG2	50:G5:64:LEU:HD11	1.96	0.46
1:13:429:U:H3'	4:3E:9:CYS:SG	2.55	0.46
1:13:711:G:O2'	1:13:712:A:H5'	2.15	0.46
1:13:1348:U:H4'	9:8E:120:ARG:HD2	1.98	0.46
2:1E:98:LEU:HG	2:1E:101:MET:HE3	1.97	0.46
2:1E:131:PRO:HD2	2:1E:134:GLU:HB3	1.98	0.46
4:3E:12:CYS:SG	4:3E:18:LYS:HA	2.55	0.46
4:3E:20:TYR:CZ	6:52:15:ASP:HB3	2.51	0.46
7:6E:31:MET:HE1	7:6E:36:LYS:HZ2	1.80	0.46
13:4I:23:TYR:HB3	13:4I:67:GLU:HB2	1.98	0.46
16:7I:20:VAL:CG2	16:7I:32:TYR:CG	2.98	0.46
26:1H:646:A:H2'	26:1H:647:G:O4'	2.15	0.46
26:1H:1431:U:C2	26:1H:1563:G:N2	2.83	0.46
26:1H:1684:C:C2	26:1H:1705:G:N2	2.84	0.46
26:1H:2030:A:H4'	26:1H:2031:A:C8	2.50	0.46
26:1H:2093:G:C6	26:1H:2225:A:C8	3.04	0.46
27:16:43:C:OP1	32:41:67:LYS:NZ	2.31	0.46
28:71:64:LEU:HD21	28:71:192:PHE:HB2	1.98	0.46
30:21:52:LEU:HD23	30:21:52:LEU:HA	1.75	0.46
31:31:134:GLY:H	31:31:162:LEU:HB3	1.80	0.46
35:58:114:ARG:O	35:58:118:LYS:HG3	2.16	0.46
40:A8:87:PHE:HZ	40:A8:98:VAL:HG12	1.80	0.46
45:F8:35:THR:HG22	45:F8:38:GLU:OE1	2.15	0.46
46:G8:28:LYS:NZ	46:G8:64:GLU:OE2	2.33	0.46
47:H8:77:ASP:CG	47:H8:80:ARG:HD2	2.40	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:K8:64:LEU:O	50:K8:68:ARG:HG3	2.14	0.46
1:1G:269:C:H2'	1:1G:270:A:H8	1.79	0.46
1:1G:420:U:O2'	1:1G:423:G:O6	2.22	0.46
1:1G:626:U:C2	1:1G:627:G:C8	3.03	0.46
1:1G:948:C:C6	13:4A:106:ASN:ND2	2.83	0.46
1:1G:1291:G:H5"	9:82:39:GLY:O	2.16	0.46
2:12:189:ASP:OD1	2:12:189:ASP:N	2.49	0.46
5:42:139:LEU:HA	5:42:142:LEU:HD11	1.97	0.46
19:AA:5:LEU:HA	19:AA:6:LYS:HA	1.74	0.46
22:1L:68:G:H2'	22:1L:69:A:N7	2.30	0.46
23:2L:22:A:N6	23:2L:47:G7M:H1'	2.30	0.46
26:14:142:G:H5"	26:14:1598:C:O2'	2.15	0.46
26:14:235:U:H2'	26:14:236:C:C6	2.50	0.46
26:14:784:A:H5'	26:14:785:G:OP1	2.16	0.46
26:14:820:A:N3	26:14:943:U:H4'	2.31	0.46
26:14:858:U:OP2	48:E5:77:ARG:NH2	2.42	0.46
26:14:1044:G:O2'	26:14:1047:G:O2'	2.22	0.46
26:14:1055:G:N3	26:14:1055:G:H2'	2.31	0.46
26:14:1434:A:H61	26:14:1558:A:N6	2.10	0.46
26:14:2134:A:C5	26:14:2158:A:C8	3.03	0.46
26:14:2208:U:O4'	29:19:151:LYS:HE2	2.15	0.46
26:14:2408:U:H2'	26:14:2409:G:C8	2.50	0.46
31:39:9:ILE:HB	31:39:128:ALA:HB2	1.97	0.46
32:49:50:ALA:HA	32:49:53:LEU:HD22	1.96	0.46
37:35:15:ARG:HH21	37:35:17:LYS:HD2	1.79	0.46
42:85:65:ILE:O	42:85:68:ALA:N	2.48	0.46
1:13:130:A:O5'	17:8I:63:ARG:NE	2.47	0.46
1:13:484:G:O2'	1:13:485:G:OP2	2.24	0.46
1:13:735:C:H2'	1:13:736:C:H6	1.80	0.46
2:1E:19:HIS:O	2:1E:39:ILE:HD12	2.15	0.46
7:6E:65:ALA:HB1	7:6E:127:ALA:HB3	1.96	0.46
7:6E:140:ASP:OD2	7:6E:143:ARG:NH2	2.48	0.46
10:1I:90:LEU:N	10:1I:91:PRO:HD3	2.30	0.46
15:6I:17:ARG:HH11	15:6I:17:ARG:HG3	1.80	0.46
26:1H:49:A:N7	26:1H:120:U:C5	2.76	0.46
26:1H:55:G:N3	26:1H:56:A:C8	2.84	0.46
26:1H:150:C:H2'	26:1H:151:C:C6	2.50	0.46
26:1H:446:G:OP1	42:C8:3:ARG:NH1	2.49	0.46
26:1H:496:G:H1'	44:E8:61:ASN:OD1	2.14	0.46
26:1H:880:G:H2'	26:1H:881:G:N7	2.31	0.46
26:1H:1125:G:C6	26:1H:1126:A:N6	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1173:G:H5'	26:1H:1174:A:N1	2.30	0.46
26:1H:1204:A:C2	26:1H:1241:A:N1	2.83	0.46
26:1H:1569:A:O5'	29:11:61:LEU:HD21	2.15	0.46
26:1H:1771:C:H1'	26:1H:1786:A:C8	2.50	0.46
26:1H:2061:G:C2	26:1H:2063:C:C4	3.03	0.46
26:1H:2173:A:H8	26:1H:2173:A:OP1	1.97	0.46
27:16:78:A:C2	27:16:99:A:C4	3.03	0.46
28:71:28:LEU:HD21	28:71:222:VAL:HG11	1.97	0.46
29:11:37:LEU:H	29:11:37:LEU:HG	1.18	0.46
31:31:116:ASP:HA	31:31:119:ARG:NH2	2.30	0.46
33:51:8:PRO:O	33:51:10:PRO:HD3	2.15	0.46
35:58:34:LEU:HD12	35:58:34:LEU:HA	1.80	0.46
38:88:19:GLY:O	38:88:98:LYS:HD3	2.15	0.46
40:A8:7:TYR:HA	40:A8:10:ARG:NH2	2.31	0.46
41:B8:34:VAL:CG2	41:B8:41:ARG:HG3	2.45	0.46
46:G8:76:CYS:HB2	46:G8:82:PRO:HG3	1.96	0.46
49:J8:8:SER:OG	49:J8:10:LYS:HG3	2.16	0.46
1:1G:134:A:H1'	1:1G:325:A:C5	2.51	0.46
1:1G:892:A:O2'	1:1G:1415:G:H4'	2.15	0.46
1:1G:1004:A:H61	1:1G:1023:G:H1	1.62	0.46
1:1G:1039:C:H2'	1:1G:1040:U:C5	2.50	0.46
1:1G:1536:C:H42	25:4L:8:A:H62	1.62	0.46
4:32:19:LEU:HB2	4:32:21:LEU:CD1	2.46	0.46
4:32:85:LYS:HE2	4:32:85:LYS:HB3	1.71	0.46
6:52:50:TYR:OH	18:9A:74:ARG:O	2.28	0.46
11:2A:32:ILE:HD11	11:2A:68:ALA:HB1	1.97	0.46
11:2A:59:TYR:CZ	11:2A:63:LEU:HD21	2.50	0.46
12:3A:83:VAL:HG13	12:3A:100:ILE:HG23	1.97	0.46
17:8A:28:PRO:HA	17:8A:35:VAL:HA	1.98	0.46
20:BA:10:LEU:HD13	20:BA:10:LEU:O	2.14	0.46
26:14:1204:A:C2	26:14:1241:A:N1	2.82	0.46
26:14:2850:A:C2	26:14:2851:A:C4	3.04	0.46
27:1J:21:G:H2'	27:1J:22:U:O4'	2.14	0.46
30:29:117:MET:HA	30:29:122:PHE:N	2.29	0.46
31:39:128:ALA:O	31:39:129:PHE:C	2.58	0.46
34:69:76:THR:HA	34:69:105:HIS:CE1	2.51	0.46
40:65:7:TYR:CE2	40:65:91:PRO:HG3	2.51	0.46
48:E5:38:VAL:HG12	48:E5:59:LEU:CG	2.45	0.46
49:F5:87:PRO:O	49:F5:88:LYS:C	2.57	0.46
49:F5:87:PRO:O	49:F5:91:LYS:N	2.48	0.46
1:13:66:G:O4'	1:13:173:U:C4	2.69	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:28:PHE:CE2	2:1E:190:THR:HA	2.51	0.46
7:6E:143:ARG:HH11	24:3K:42:A:P	2.38	0.46
8:7E:39:LEU:HD11	8:7E:111:ILE:HD11	1.97	0.46
13:4I:34:LEU:HD13	13:4I:41:PRO:HB3	1.96	0.46
14:5I:23:ARG:HD2	14:5I:28:GLY:O	2.15	0.46
22:1K:74:C:H42	26:1H:2508:G:H5'	1.81	0.46
24:3K:29:U:H2'	24:3K:30:G:C8	2.50	0.46
26:1H:470:A:H2'	26:1H:471:A:O4'	2.14	0.46
26:1H:731:C:H2'	26:1H:732:C:C6	2.50	0.46
26:1H:803:U:C4	26:1H:804:A:N7	2.84	0.46
26:1H:992:C:H2'	26:1H:993:G:H8	1.81	0.46
26:1H:1845:G:O2'	26:1H:1846:G:H5'	2.15	0.46
26:1H:2057:A:H2'	26:1H:2058:A:C8	2.51	0.46
26:1H:2081:C:O2'	26:1H:2082:A:H5'	2.15	0.46
26:1H:2250:G:C6	38:88:83:MET:HB3	2.50	0.46
28:71:207:THR:O	28:71:210:ARG:HD3	2.15	0.46
30:21:116:VAL:CG2	30:21:122:PHE:CD2	2.98	0.46
30:21:201:THR:HG22	30:21:202:LYS:N	2.30	0.46
31:31:191:ARG:HB3	31:31:191:ARG:HH11	1.80	0.46
35:58:51:PHE:CZ	35:58:119:ARG:HG2	2.51	0.46
37:78:37:GLY:N	37:78:40:SER:OG	2.47	0.46
41:B8:2:ASN:HB3	41:B8:3:ARG:H	1.56	0.46
41:B8:92:GLY:HA2	41:B8:116:ALA:HA	1.97	0.46
1:1G:377:G:H5'	16:7A:5:ARG:NH1	2.30	0.46
1:1G:751:U:H2'	1:1G:752:G:O4'	2.16	0.46
1:1G:843:U:H3'	1:1G:848:C:O4'	2.14	0.46
1:1G:862:C:O2'	1:1G:863:U:H5'	2.16	0.46
1:1G:1189:C:H5"	1:1G:1190:G:OP2	2.15	0.46
4:32:4:TYR:CZ	4:32:11:LEU:HD11	2.50	0.46
16:7A:1:MET:O	16:7A:24:ALA:N	2.32	0.46
22:1L:68:G:H2'	22:1L:69:A:C8	2.51	0.46
26:14:13:A:N1	26:14:525:U:H2'	2.31	0.46
26:14:17:G:H4'	42:85:25:TRP:CH2	2.50	0.46
26:14:643:A:H61	26:14:2369:A:H2	1.62	0.46
26:14:2315:G:H2'	26:14:2316:C:C6	2.50	0.46
26:14:2461:C:H2'	26:14:2462:U:C6	2.49	0.46
26:14:2690:C:H6	26:14:2690:C:OP2	1.99	0.46
26:14:2760:C:H2'	26:14:2761:G:C8	2.50	0.46
27:1J:104:A:H2'	27:1J:105:G:O4'	2.15	0.46
30:29:4:ILE:CD1	30:29:198:VAL:HB	2.45	0.46
31:39:27:GLU:O	31:39:28:ILE:HG12	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:65:TRP:HB3	31:39:66:PRO:HD2	1.97	0.46
32:49:139:LEU:HD22	32:49:146:TYR:CE2	2.51	0.46
32:49:165:THR:OG1	32:49:168:GLU:HG3	2.16	0.46
33:59:74:ASN:O	33:59:78:GLY:N	2.49	0.46
34:69:91:SER:HB3	34:69:119:PRO:HB2	1.98	0.46
34:69:112:LYS:O	34:69:113:ARG:HG2	2.16	0.46
40:65:89:ARG:O	40:65:92:TYR:N	2.47	0.46
42:85:18:LEU:HD23	42:85:18:LEU:HA	1.81	0.46
1:13:173:U:H5"	1:13:197:A:O4'	2.15	0.46
1:13:198:G:O6	1:13:219:C:N4	2.49	0.46
1:13:329:A:C4	1:13:332:G:C5	3.04	0.46
1:13:1301:U:O2	1:13:1301:U:H2'	2.14	0.46
2:1E:219:VAL:HA	2:1E:222:ILE:HD11	1.96	0.46
4:3E:85:LYS:O	4:3E:88:VAL:HG23	2.15	0.46
6:5E:89:MET:HE3	18:9I:76:LEU:HD21	1.96	0.46
8:7E:7:ALA:HB2	8:7E:85:ARG:HH11	1.80	0.46
12:3I:38:THR:HB	12:3I:57:LYS:HB3	1.98	0.46
15:6I:10:LYS:NZ	15:6I:11:VAL:HA	2.29	0.46
24:3K:49:G:H2'	24:3K:49:G:N3	2.30	0.46
26:1H:1266:G:O4'	44:E8:15:ARG:NH2	2.49	0.46
26:1H:1423:G:H2'	26:1H:1424:G:H8	1.80	0.46
26:1H:1434:A:H61	26:1H:1558:A:H62	1.63	0.46
26:1H:1785:A:H2'	26:1H:1787:A:N7	2.31	0.46
26:1H:2291:U:H2'	26:1H:2292:C:C6	2.51	0.46
29:11:28:GLU:HA	29:11:29:PRO:HD2	1.44	0.46
31:31:157:VAL:HB	31:31:194:MET:HG2	1.96	0.46
31:31:184:TYR:HE1	37:78:3:LEU:HD11	1.80	0.46
33:51:4:ILE:O	33:51:6:ARG:HG3	2.15	0.46
33:51:88:LEU:HD12	33:51:129:THR:O	2.16	0.46
36:68:93:PRO:HG3	36:68:114:ILE:HG12	1.98	0.46
37:78:85:LEU:HD23	37:78:85:LEU:HA	1.82	0.46
40:A8:88:ASP:C	40:A8:90:GLY:H	2.23	0.46
47:H8:10:ARG:HH21	47:H8:26:GLY:H	1.62	0.46
47:H8:132:ASN:CG	47:H8:160:GLY:HA3	2.40	0.46
49:J8:86:SER:O	49:J8:90:ILE:HG12	2.16	0.46
1:1G:894:G:C6	1:1G:895:G:C5	3.03	0.46
1:1G:1077:G:N2	1:1G:1080:A:OP2	2.46	0.46
1:1G:1298:C:O2'	1:1G:1299:A:OP2	2.33	0.46
1:1G:1369:C:OP2	9:82:111:ARG:HA	2.15	0.46
4:32:108:LEU:HB2	4:32:174:LEU:HD22	1.98	0.46
4:32:177:ASP:O	4:32:180:GLY:N	2.43	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:42:152:ARG:O	8:72:64:LYS:HD3	2.15	0.46
14:5A:28:GLY:O	14:5A:29:ARG:HG2	2.15	0.46
19:AA:12:ASP:HB2	19:AA:38:SER:HA	1.98	0.46
22:1L:26:A:H4'	22:1L:26:A:OP1	2.15	0.46
22:1L:51:A:N3	22:1L:64:G:N2	2.63	0.46
26:14:499:U:H4'	46:C5:45:VAL:HG21	1.98	0.46
26:14:654(A):A:H2	26:14:654(T):A:N7	2.13	0.46
26:14:1568:G:OP1	29:19:63:ARG:NH1	2.43	0.46
26:14:1582:C:O2'	26:14:1586:A:H8	1.99	0.46
26:14:1771:C:H1'	26:14:1786:A:H8	1.80	0.46
29:19:182:LEU:HB3	29:19:271:ILE:HG13	1.97	0.46
32:49:78:SER:HA	32:49:81:LYS:O	2.15	0.46
35:15:118:LYS:HD2	35:15:118:LYS:HA	1.72	0.46
44:A5:20:VAL:HG23	44:A5:47:VAL:HG21	1.97	0.46
49:F5:27:GLU:HG2	49:F5:27:GLU:H	1.47	0.46
1:13:164:U:H2'	1:13:165:C:C6	2.50	0.46
1:13:297:G:H4'	1:13:557:G:H4'	1.98	0.46
1:13:384:G:H2'	1:13:385:C:C6	2.51	0.46
1:13:585:G:H4'	12:3I:8:ASN:OD1	2.15	0.46
1:13:724:G:C2	1:13:725:G:C8	3.04	0.46
1:13:848:C:H2'	1:13:849:C:O4'	2.16	0.46
1:13:968:A:H4'	1:13:969:A:OP2	2.15	0.46
1:13:1240:U:C5	7:6E:32:ARG:HD2	2.51	0.46
1:13:1424:C:H42	1:13:1476:G:H1	1.64	0.46
2:1E:49:GLU:OE1	2:1E:49:GLU:N	2.46	0.46
2:1E:162:ILE:HG13	2:1E:177:ALA:HB2	1.97	0.46
4:3E:84:LYS:HD3	4:3E:84:LYS:HA	1.51	0.46
5:4E:19:MET:HE1	5:4E:24:ARG:HH21	1.81	0.46
5:4E:27:ARG:HE	5:4E:27:ARG:HB2	1.54	0.46
9:8E:8:GLY:C	9:8E:9:ARG:HD2	2.41	0.46
14:5I:9:LYS:HA	14:5I:12:ARG:HG2	1.97	0.46
20:BI:16:HIS:O	20:BI:19:SER:HB2	2.16	0.46
26:1H:581:C:OP1	42:C8:33:ARG:HG3	2.14	0.46
26:1H:1047:G:H4'	26:1H:1048:A:O5'	2.15	0.46
26:1H:1113:U:H5'	33:51:2:SER:HB2	1.97	0.46
26:1H:1535:U:O4	26:1H:1538:G:O2'	2.16	0.46
26:1H:2022:U:O2'	26:1H:2617:C:H5'	2.16	0.46
26:1H:2118:U:C1'	26:1H:2147:G:H1	2.28	0.46
26:1H:2171:A:H2'	26:1H:2172:U:H6	1.81	0.46
26:1H:2635:C:H5"	30:21:78:LEU:HA	1.98	0.46
27:16:7:G:H4'	40:A8:29:PHE:CD2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:31:20:LEU:HD12	31:31:21:ALA:H	1.81	0.46
31:31:108:LYS:HE2	31:31:108:LYS:HB3	1.86	0.46
31:31:197:ASP:O	31:31:198:ALA:HB3	2.16	0.46
32:41:91:ARG:HD2	32:41:91:ARG:C	2.40	0.46
32:41:107:LEU:HD11	32:41:178:PHE:HE1	1.81	0.46
43:D8:37:VAL:HG12	43:D8:56:SER:HB2	1.98	0.46
1:1G:192:U:O4'	20:BA:103:GLY:HA2	2.15	0.46
1:1G:628:G:H2'	1:1G:629:G:C8	2.50	0.46
2:12:91:PRO:CG	2:12:154:LEU:HB2	2.45	0.46
2:12:213:LEU:HG	2:12:214:ILE:HD13	1.97	0.46
3:22:47:LEU:HD12	3:22:50:ALA:HB3	1.98	0.46
4:32:64:LEU:HA	4:32:67:ILE:HD12	1.97	0.46
5:42:92:LYS:N	5:42:119:LEU:O	2.33	0.46
6:52:42:GLU:HG2	6:52:61:LEU:HG	1.96	0.46
9:82:17:VAL:HG21	9:82:81:ILE:HG13	1.97	0.46
12:3A:92:ASP:O	12:3A:93:LEU:HD23	2.15	0.46
13:4A:64:TRP:NE1	13:4A:66:LEU:HD23	2.30	0.46
15:6A:70:LEU:HD11	15:6A:77:ARG:HG3	1.97	0.46
26:14:569:U:C4	26:14:570:G:C6	3.04	0.46
26:14:1366:A:H2'	26:14:1367:A:O4'	2.15	0.46
26:14:1810:A:H2'	26:14:1811:G:O4'	2.15	0.46
26:14:1889:A:N1	26:14:2234:G:H1'	2.31	0.46
26:14:2068:U:H3	26:14:2430:A:H2	1.56	0.46
26:14:2695:C:H2'	26:14:2696:U:C6	2.50	0.46
29:19:119:ALA:HA	29:19:130:ALA:O	2.15	0.46
39:55:8:ARG:O	39:55:17:ARG:HD3	2.16	0.46
42:85:92:ARG:HG3	42:85:94:ASN:HB3	1.96	0.46
44:A5:23:LEU:HD21	53:J5:25:LEU:HB3	1.98	0.46
44:A5:65:LEU:HD13	44:A5:68:ARG:CD	2.46	0.46
47:D5:24:LEU:O	47:D5:38:TYR:HB2	2.16	0.46
1:13:376:G:O3'	16:7I:5:ARG:NH1	2.31	0.46
1:13:422:C:H4'	1:13:423:G:O5'	2.15	0.46
1:13:464:G:O6	1:13:466:C:H4'	2.16	0.46
1:13:663:A:H2'	1:13:664:G:O4'	2.15	0.46
1:13:922:G:C6	1:13:923:A:C6	3.04	0.46
5:4E:145:LYS:O	5:4E:148:VAL:HB	2.15	0.46
7:6E:89:MET:HE3	7:6E:155:ARG:HA	1.96	0.46
8:7E:103:VAL:HG12	8:7E:138:TRP:HD1	1.80	0.46
16:7I:7:ALA:HB3	16:7I:18:ARG:HB2	1.98	0.46
26:1H:301:G:C4	26:1H:302:C:C5	3.04	0.46
26:1H:353:G:H2'	26:1H:354:G:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1205:U:H4'	26:1H:1206:G:OP2	2.15	0.46
26:1H:1443:G:N2	26:1H:1549:C:C2	2.83	0.46
26:1H:1668:A:OP1	36:68:5:GLN:HG3	2.16	0.46
26:1H:1808:U:H2'	26:1H:1809:A:O4'	2.16	0.46
26:1H:1913:A:H4'	26:1H:1914:C:O5'	2.15	0.46
26:1H:2355:C:O2	48:I8:39:ARG:NH2	2.46	0.46
26:1H:2453:A:OP2	60:1H:3558:HOH:O	2.21	0.46
26:1H:2468:G:O4'	26:1H:2468:G:N3	2.49	0.46
26:1H:2564:A:C2	26:1H:2647:U:H4'	2.51	0.46
30:21:203:LYS:HD2	30:21:203:LYS:O	2.16	0.46
32:41:97:ASP:O	32:41:100:TRP:N	2.49	0.46
37:78:37:GLY:O	37:78:40:SER:OG	2.32	0.46
38:88:20:ALA:HB3	47:H8:79:ARG:CZ	2.44	0.46
38:88:23:GLY:H	47:H8:78:LYS:HE3	1.81	0.46
40:A8:12:PHE:HA	40:A8:15:ARG:HB2	1.97	0.46
46:G8:96:ILE:HD12	46:G8:101:LYS:HE2	1.98	0.46
49:J8:80:LEU:C	49:J8:81:LYS:HD2	2.40	0.46
52:M8:9:LEU:HD12	52:M8:27:THR:H	1.81	0.46
1:1G:584:G:OP1	17:8A:87:LYS:HD2	2.15	0.46
1:1G:1129:C:N4	1:1G:1139:G:H22	2.14	0.46
1:1G:1236:A:H4'	1:1G:1304:G:H4'	1.97	0.46
1:1G:1359:C:H5"	60:1G:1760:HOH:O	2.14	0.46
2:12:172:ILE:H	2:12:172:ILE:HD12	1.79	0.46
3:22:20:SER:HB2	3:22:40:ARG:HH22	1.79	0.46
12:3A:91:LYS:O	12:3A:91:LYS:HG3	2.16	0.46
26:14:315:G:H2'	26:14:316:C:C6	2.51	0.46
26:14:463:G:N2	26:14:466:A:OP2	2.46	0.46
26:14:597:U:H2'	26:14:598:G:H8	1.76	0.46
26:14:674:G:H2'	26:14:804:A:H61	1.81	0.46
26:14:754:C:H2'	26:14:755:C:H6	1.80	0.46
26:14:946:G:H2'	26:14:947:G:H8	1.81	0.46
26:14:1057:A:H3'	26:14:1058:U:C6	2.51	0.46
26:14:1359:A:H5'	26:14:1359:A:H8	1.81	0.46
26:14:1942:C:OP2	26:14:1943:U:O2'	2.11	0.46
26:14:1991:U:C2'	26:14:1992:G:H5"	2.46	0.46
26:14:2123:G:H1'	28:79:172:HIS:CD2	2.50	0.46
29:19:30:GLU:HG3	29:19:63:ARG:NH2	2.30	0.46
29:19:136:ILE:HG23	29:19:137:PRO:HD2	1.98	0.46
30:29:32:PRO:HG3	30:29:90:THR:HG22	1.97	0.46
30:29:119:ARG:HA	30:29:160:TYR:CD2	2.51	0.46
46:C5:8:LYS:HZ3	46:C5:95:LYS:HD2	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:37:VAL:O	46:C5:67:LEU:N	2.48	0.46
47:D5:53:ILE:CG2	47:D5:71:VAL:HG23	2.28	0.46
47:D5:130:PRO:HA	47:D5:133:ILE:HD11	1.97	0.46
50:G5:50:ILE:CD1	50:G5:51:ARG:N	2.73	0.46
55:M5:60:LEU:HD23	55:M5:60:LEU:HA	1.79	0.46
1:13:5:U:H3'	4:3E:86:LYS:HE3	1.98	0.46
1:13:109:A:C6	1:13:326:G:C6	3.03	0.46
1:13:240:C:H2'	1:13:241:C:H6	1.81	0.46
1:13:953:G:C6	1:13:954:G:C4	3.04	0.46
1:13:992:U:H4'	1:13:993:G:O5'	2.16	0.46
4:3E:84:LYS:HB2	4:3E:85:LYS:HE2	1.96	0.46
8:7E:97:VAL:HG12	8:7E:98:LYS:HE3	1.98	0.46
15:6I:81:LEU:O	15:6I:85:LEU:HB2	2.16	0.46
20:BI:79:ARG:HG2	20:BI:83:ARG:NH1	2.30	0.46
22:1K:6:G:O2'	22:1K:7:U:O5'	2.26	0.46
26:1H:71:A:H4'	26:1H:72:U:H5"	1.97	0.46
26:1H:551:G:H8	26:1H:551:G:O5'	1.99	0.46
26:1H:681:G:H2'	26:1H:682:G:O4'	2.16	0.46
26:1H:941:A:H3'	26:1H:942:G:C8	2.50	0.46
26:1H:1188:U:H5'	43:D8:79:VAL:HG22	1.98	0.46
26:1H:2016:U:H1'	53:N8:6:VAL:CG1	2.46	0.46
26:1H:2086:U:H2'	26:1H:2087:G:C8	2.51	0.46
26:1H:2751:G:C2	33:51:3:ARG:HB3	2.51	0.46
31:31:185:ASP:OD1	31:31:188:ARG:HD3	2.16	0.46
42:C8:92:ARG:HH21	43:D8:10:LYS:HG2	1.80	0.46
47:H8:10:ARG:HH21	47:H8:26:GLY:N	2.14	0.46
1:1G:667:G:H2'	1:1G:668:G:C8	2.50	0.46
1:1G:1047:G:H5"	14:5A:4:LYS:HE2	1.97	0.46
1:1G:1347:G:H22	1:1G:1374:A:P	2.39	0.46
3:22:90:GLU:O	3:22:93:LYS:HE2	2.16	0.46
4:32:100:ARG:HG2	4:32:136:PRO:O	2.16	0.46
5:42:76:ILE:HG23	5:42:142:LEU:HD13	1.96	0.46
11:2A:98:LEU:HA	11:2A:101:SER:HB3	1.98	0.46
12:3A:111:LYS:H	12:3A:111:LYS:CD	2.20	0.46
13:4A:84:ILE:HG12	19:AA:63:THR:HG21	1.97	0.46
26:14:77:C:O3'	50:G5:14:ARG:NH2	2.49	0.46
26:14:383:U:H2'	26:14:385:C:H5	1.79	0.46
26:14:1728:G:H5"	26:14:1728:G:N3	2.31	0.46
26:14:1812:A:O2'	29:19:45:ASN:HB2	2.15	0.46
26:14:1828:G:O6	29:19:222:ARG:HD3	2.16	0.46
26:14:2505:G:H2'	26:14:2576:G:O6	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:182:LEU:C	30:29:183:LEU:HD12	2.41	0.46
32:49:97:ASP:N	32:49:100:TRP:HD1	2.11	0.46
32:49:121:ASN:OD1	32:49:124:SER:N	2.49	0.46
34:69:142:VAL:HG12	34:69:143:SER:N	2.29	0.46
37:35:27:HIS:HB3	37:35:32:THR:HG23	1.97	0.46
42:85:91:ASP:C	42:85:93:LYS:H	2.24	0.46
45:B5:36:LYS:HG3	45:B5:56:THR:HG23	1.97	0.46
51:H5:38:GLU:HG3	51:H5:39:ASP:H	1.80	0.46
1:13:61:G:H1	1:13:106:C:H42	1.64	0.46
1:13:169:C:H2'	1:13:170:U:H5'	1.97	0.46
1:13:186:C:O4'	20:BI:81:LYS:NZ	2.49	0.46
1:13:753:A:H4'	1:13:754:C:C5'	2.46	0.46
2:1E:86:GLU:C	2:1E:89:GLY:H	2.24	0.46
3:2E:47:LEU:HB2	3:2E:52:LEU:HD13	1.98	0.46
5:4E:122:GLU:HG2	5:4E:131:ILE:CD1	2.46	0.46
15:6I:55:GLY:HA2	15:6I:58:MET:HE3	1.98	0.46
26:1H:1453:A:O2'	26:1H:1454:U:H2'	2.15	0.46
26:1H:2556:C:H2'	26:1H:2557:G:O4'	2.16	0.46
26:1H:2590:A:C2	26:1H:2605:U:C2	3.04	0.46
26:1H:2849:U:O4	41:B8:23:ARG:NH2	2.49	0.46
31:31:28:ILE:O	31:31:28:ILE:HD12	2.15	0.46
32:41:79:ASN:OD1	32:41:79:ASN:N	2.49	0.46
37:78:68:GLN:HG2	55:Q8:12:LYS:HD3	1.97	0.46
37:78:94:GLU:HG3	37:78:96:THR:HG23	1.98	0.46
42:C8:92:ARG:HD3	42:C8:94:ASN:HB3	1.97	0.46
46:G8:28:LYS:HE3	46:G8:40:GLU:HB2	1.98	0.46
1:1G:97:U:H2'	1:1G:99:C:C6	2.51	0.46
1:1G:841:U:H4'	1:1G:842:C:C5	2.51	0.46
4:32:145:GLU:HG3	4:32:182:LYS:HG3	1.98	0.46
4:32:182:LYS:NZ	4:32:184:LYS:HE2	2.31	0.46
6:52:23:LYS:HG2	6:52:61:LEU:HD21	1.98	0.46
13:4A:82:MET:HG3	13:4A:83:ASP:H	1.81	0.46
26:14:547:A:H2'	26:14:548:A:C8	2.51	0.46
26:14:841:A:H61	26:14:937:U:H3	1.63	0.46
26:14:1259:G:H2'	26:14:1260:G:H8	1.80	0.46
26:14:1717:G:H2'	26:14:1718:G:O4'	2.16	0.46
26:14:1921:G:H2'	26:14:1922:G:H8	1.79	0.46
26:14:2552:U:O5'	26:14:2552:U:H6	1.98	0.46
26:14:2615:U:C2	53:J5:7:PRO:HA	2.51	0.46
26:14:2635:C:H5'	30:29:78:LEU:HD12	1.98	0.46
26:14:2799:A:H5'	26:14:2801:A:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:61:G:C6	27:1J:62:C:C4	3.04	0.46
28:79:45:ALA:HB3	28:79:171:ILE:HG21	1.98	0.46
29:19:38:LYS:HB3	29:19:38:LYS:HE3	1.46	0.46
30:29:64:LYS:C	30:29:66:HIS:N	2.73	0.46
31:39:184:TYR:CE2	31:39:188:ARG:HD3	2.51	0.46
34:69:101:LEU:HD23	34:69:101:LEU:H	1.81	0.46
37:35:21:ARG:HA	37:35:21:ARG:HE	1.80	0.46
37:35:138:LEU:O	37:35:138:LEU:HD13	2.15	0.46
38:45:18:LYS:H	38:45:98:LYS:HZ2	1.63	0.46
41:75:132:LYS:HB2	41:75:133:GLU:OE1	2.16	0.46
42:85:92:ARG:NH1	43:95:11:GLN:H	2.13	0.46
42:85:100:VAL:C	42:85:102:GLU:H	2.24	0.46
47:D5:39:VAL:HG21	47:D5:44:PHE:HB2	1.97	0.46
1:13:243:A:H4'	1:13:244:U:H5"	1.97	0.46
1:13:266:G:H8	1:13:266:G:H2'	1.68	0.46
1:13:321:A:N6	1:13:328:C:H1'	2.27	0.46
1:13:652:U:HO2'	1:13:653:A:P	2.39	0.46
1:13:946:A:H2'	1:13:947:G:C8	2.51	0.46
1:13:1004:A:N3	1:13:1004:A:H5"	2.31	0.46
1:13:1333:A:H2'	1:13:1334:G:O4'	2.16	0.46
1:13:1511:G:H2'	1:13:1512:U:O4'	2.15	0.46
1:13:1534:A:P	1:13:1534:A:H8	2.39	0.46
3:2E:125:GLU:HG2	3:2E:190:ARG:O	2.16	0.46
7:6E:22:LEU:HD22	7:6E:62:PHE:CZ	2.51	0.46
13:4I:16:ASP:OD1	13:4I:16:ASP:N	2.48	0.46
17:8I:88:TYR:CD1	17:8I:89:LEU:HD22	2.44	0.46
20:BI:36:LEU:HD12	20:BI:55:ILE:HG23	1.97	0.46
22:1K:60:U:H5'	22:1K:61:C:H5	1.81	0.46
26:1H:85:G:OP2	46:G8:9:LYS:HB2	2.15	0.46
26:1H:94:G:H2'	26:1H:95:G:O4'	2.16	0.46
26:1H:298:G:N7	46:G8:84:ARG:NH1	2.64	0.46
26:1H:1442:G:H2'	26:1H:1443:G:H8	1.78	0.46
26:1H:1728:G:C3'	26:1H:1729:A:H5'	2.35	0.46
26:1H:2075:U:H2'	26:1H:2238:G:N2	2.31	0.46
27:16:14:U:O3'	27:16:107:U:O2'	2.29	0.46
28:71:41:VAL:O	28:71:175:VAL:HG22	2.16	0.46
30:21:143:ASN:HB2	30:21:147:PRO:HD2	1.98	0.46
35:58:14:VAL:HG21	35:58:33:LEU:HD23	1.98	0.46
38:88:136:ALA:HB1	47:H8:52:SER:HB2	1.98	0.46
44:E8:59:VAL:HG11	44:E8:66:GLU:HB2	1.98	0.46
1:1G:107:G:C2	1:1G:108:G:H1'	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:176:C:O2'	1:1G:177:C:H5'	2.16	0.46
1:1G:491:G:C6	1:1G:492:G:C5	3.04	0.46
1:1G:771:G:H2'	1:1G:772:U:C6	2.50	0.46
1:1G:980:C:H3'	1:1G:981:U:C6	2.51	0.46
1:1G:1149:C:O2'	1:1G:1280:A:N1	2.48	0.46
1:1G:1157:A:O4'	1:1G:1158:C:H6	1.99	0.46
1:1G:1316:G:H22	1:1G:1319:A:P	2.39	0.46
2:12:56:ARG:H	2:12:56:ARG:HG3	1.54	0.46
3:22:182:ILE:HA	3:22:202:ILE:O	2.16	0.46
4:32:4:TYR:CD1	4:32:4:TYR:C	2.94	0.46
4:32:26:CYS:SG	58:32:301:SF4:S1	3.12	0.46
9:82:20:ARG:O	9:82:60:ASP:N	2.47	0.46
12:3A:32:PHE:HD1	12:3A:86:ARG:HA	1.81	0.46
13:4A:20:THR:HG22	13:4A:26:GLY:C	2.41	0.46
15:6A:76:GLU:HA	15:6A:79:ARG:CZ	2.46	0.46
26:14:142:G:H2'	26:14:143:C:H6	1.80	0.46
26:14:528:A:N1	26:14:2042:A:H2'	2.31	0.46
26:14:639:U:H2'	26:14:640:C:C6	2.50	0.46
26:14:661:C:H1'	37:35:12:ALA:HA	1.98	0.46
26:14:729:G:OP1	29:19:10:THR:OG1	2.30	0.46
26:14:1946:U:H2'	26:14:1947:C:H6	1.80	0.46
26:14:2438:U:H5"	26:14:2600:A:OP1	2.16	0.46
26:14:2873:A:H3'	26:14:2874:C:C6	2.51	0.46
29:19:31:LYS:HZ1	29:19:102:LYS:HD3	1.80	0.46
29:19:262:ARG:NH1	29:19:263:ARG:N	2.64	0.46
31:39:36:VAL:HG11	31:39:183:VAL:HG21	1.97	0.46
39:55:115:GLU:HG3	39:55:116:LEU:O	2.16	0.46
40:65:42:ASP:C	40:65:44:LYS:H	2.24	0.46
48:E5:21:LEU:HD23	48:E5:21:LEU:HA	1.80	0.46
1:13:57:G:H2'	1:13:58:C:H6	1.79	0.45
1:13:186(C):G:C6	1:13:191(E):G:C6	3.04	0.45
1:13:329:A:C5	1:13:332:G:C6	3.04	0.45
1:13:718:G:H5'	11:2I:117:ASN:HB2	1.97	0.45
1:13:991:U:C5	1:13:1212:U:H1'	2.51	0.45
1:13:1453:G:H2'	20:BI:39:LYS:CE	2.46	0.45
1:13:1486:G:C6	1:13:1487:G:C6	3.05	0.45
2:1E:28:PHE:CD2	2:1E:190:THR:HA	2.51	0.45
2:1E:97:TRP:CZ3	2:1E:172:ILE:HB	2.51	0.45
8:7E:44:PHE:HE2	8:7E:109:ILE:CG2	2.29	0.45
21:1F:17:THR:O	21:1F:22:ARG:HD3	2.16	0.45
22:1K:75:C:H2'	22:1K:76:A:C4	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:484:C:OP1	46:G8:51:VAL:HG22	2.16	0.45
26:1H:507:A:H5"	26:1H:508:G:H3'	1.98	0.45
26:1H:822:U:O2'	26:1H:823:G:H5'	2.15	0.45
26:1H:858:U:O2	26:1H:2268:A:H2'	2.16	0.45
26:1H:1110:G:O2'	26:1H:1111:A:OP2	2.28	0.45
26:1H:1138:G:N2	35:58:106:MET:HE3	2.20	0.45
26:1H:2698:U:H2'	26:1H:2699:C:C6	2.51	0.45
28:71:216:THR:HB	28:71:218:MET:H	1.80	0.45
29:11:31:LYS:HG3	29:11:33:LEU:HD21	1.98	0.45
29:11:35:LYS:O	29:11:35:LYS:CG	2.65	0.45
32:41:62:LEU:HA	32:41:62:LEU:HD12	1.71	0.45
35:58:85:ILE:HG21	35:58:90:MET:HE2	1.98	0.45
36:68:71:ARG:HH21	36:68:77:ILE:HG21	1.80	0.45
43:D8:15:GLU:O	43:D8:96:ILE:HB	2.17	0.45
47:H8:151:HIS:HA	47:H8:170:THR:HA	1.97	0.45
50:K8:47:ASN:ND2	50:K8:47:ASN:H	2.14	0.45
54:P8:13:ALA:O	54:P8:17:GLY:HA3	2.16	0.45
55:Q8:49:VAL:O	55:Q8:51:ALA:N	2.48	0.45
1:1G:146:G:H2'	1:1G:147:G:C8	2.49	0.45
1:1G:414:A:H2'	1:1G:415:A:C8	2.51	0.45
1:1G:639:G:H2'	1:1G:640:A:H8	1.81	0.45
1:1G:837:G:H2'	1:1G:838:G:C8	2.51	0.45
1:1G:1216:G:H5"	14:5A:5:ALA:CB	2.46	0.45
1:1G:1298:C:N4	7:62:114:ARG:HB3	2.31	0.45
2:12:179:LYS:HD3	2:12:180:LEU:HG	1.98	0.45
2:12:187:LEU:HD22	2:12:188:ALA:N	2.31	0.45
3:22:43:LEU:HD21	3:22:68:VAL:HG21	1.97	0.45
4:32:82:ALA:HB3	4:32:89:THR:HG23	1.97	0.45
6:52:33:TYR:OH	6:52:78:GLU:HG3	2.16	0.45
10:1A:36:GLY:O	10:1A:38:ILE:HG23	2.16	0.45
14:5A:22:THR:HB	14:5A:33:VAL:HG21	1.97	0.45
15:6A:76:GLU:OE2	15:6A:79:ARG:NH1	2.49	0.45
16:7A:2:VAL:HA	16:7A:23:ASP:HA	1.97	0.45
22:1L:9:A:H3'	22:1L:10:G:N7	2.31	0.45
26:14:588:U:H2'	26:14:589:C:C6	2.51	0.45
26:14:853:G:H1	26:14:924:C:H42	1.64	0.45
26:14:1091:G:N2	26:14:1092:C:N3	2.62	0.45
26:14:1190:G:OP1	37:35:32:THR:HA	2.16	0.45
26:14:1204:A:N1	26:14:1241:A:H2	2.14	0.45
26:14:1243:G:H1'	37:35:4:SER:O	2.15	0.45
29:19:175:LEU:HD21	29:19:185:VAL:CG2	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:116:VAL:O	30:29:117:MET:HG2	2.16	0.45
31:39:49:ALA:O	31:39:92:PRO:HB2	2.16	0.45
32:49:59:GLU:CD	32:49:153:ARG:NH2	2.70	0.45
40:65:77:ALA:HB1	40:65:82:ILE:HG12	1.98	0.45
46:C5:47:LYS:HA	46:C5:60:PHE:CE2	2.51	0.45
47:D5:102:LEU:HD23	47:D5:137:ILE:O	2.15	0.45
1:13:123:C:OP1	1:13:312:C:H5'	2.16	0.45
1:13:609:A:H2'	1:13:610:G:H5'	1.98	0.45
1:13:626:U:C2	1:13:627:G:C8	3.05	0.45
2:1E:165:VAL:HG23	2:1E:166:ASP:N	2.29	0.45
2:1E:187:LEU:HD21	2:1E:211:ILE:HG22	1.96	0.45
3:2E:42:LEU:HD13	3:2E:42:LEU:HA	1.85	0.45
3:2E:142:MET:SD	3:2E:148:GLY:HA2	2.56	0.45
7:6E:27:ILE:HA	7:6E:30:ILE:HD12	1.98	0.45
8:7E:109:ILE:HG23	8:7E:137:VAL:CG2	2.39	0.45
26:1H:558:G:P	35:58:111:PRO:HD2	2.57	0.45
26:1H:1287:A:H3'	26:1H:1288:U:C6	2.52	0.45
26:1H:1423:G:C4	26:1H:1424:G:C8	3.04	0.45
26:1H:1528:A:N6	26:1H:1529:A:N1	2.64	0.45
26:1H:1799:G:C5'	26:1H:1819:A:H61	2.30	0.45
26:1H:1906:G:O2'	26:1H:1907:G:H5'	2.16	0.45
26:1H:1972:A:H2'	26:1H:1973:G:H8	1.80	0.45
26:1H:2315:G:H5"	26:1H:2316:C:OP2	2.16	0.45
26:1H:2335:A:C8	26:1H:2337:G:C5	3.04	0.45
28:71:22:ILE:HD11	28:71:226:PRO:O	2.15	0.45
29:11:146:GLU:HG3	29:11:190:TYR:H	1.81	0.45
32:41:96:ARG:O	32:41:97:ASP:HB2	2.16	0.45
33:51:2:SER:O	33:51:2:SER:OG	2.33	0.45
34:61:145:VAL:HG22	34:61:146:ALA:H	1.81	0.45
35:58:130:HIS:CA	35:58:134:ARG:HH22	2.30	0.45
41:B8:19:LEU:HD22	41:B8:86:ILE:HG22	1.97	0.45
50:K8:62:THR:O	50:K8:66:GLU:HG2	2.16	0.45
52:M8:38:LYS:HE3	52:M8:44:THR:HG21	1.97	0.45
54:P8:35:ARG:HG3	54:P8:42:LEU:HD11	1.98	0.45
1:1G:184:G:C2'	1:1G:185:A:H5'	2.46	0.45
1:1G:555:C:H2'	1:1G:556:C:C6	2.51	0.45
1:1G:690:G:H22	11:2A:55:LYS:HE2	1.81	0.45
1:1G:1402:C:H2'	1:1G:1403:C:O4'	2.16	0.45
1:1G:1442:G:O2'	1:1G:1443:G:OP1	2.33	0.45
1:1G:1465:C:H2'	1:1G:1466:C:O4'	2.17	0.45
1:1G:1524:C:H2'	1:1G:1525:G:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:12:GLU:HG3	2:12:16:HIS:ND1	2.30	0.45
4:32:24:GLU:O	4:32:27:TYR:N	2.48	0.45
5:42:11:ILE:HD12	5:42:31:LEU:HD12	1.98	0.45
5:42:103:GLY:C	5:42:106:PRO:HD2	2.41	0.45
6:52:76:ALA:HB1	6:52:80:ARG:NH2	2.26	0.45
24:3L:18:G:H2'	24:3L:57:G:N2	2.31	0.45
26:14:49:A:H4'	26:14:50:U:H5"	1.98	0.45
26:14:228:A:OP1	37:35:76:LYS:NZ	2.36	0.45
26:14:483:A:H5'	46:C5:49:VAL:HG23	1.99	0.45
26:14:636:G:O2'	26:14:638:G:O2'	2.27	0.45
26:14:642:G:H3'	26:14:642:G:C8	2.51	0.45
26:14:649:G:H2'	26:14:650:C:H6	1.80	0.45
26:14:860:U:C2	26:14:2268:A:C8	3.04	0.45
26:14:1358:G:O2'	26:14:1359:A:H5"	2.15	0.45
26:14:1798:U:H5'	29:19:259:THR:OG1	2.17	0.45
26:14:2232:U:O2'	26:14:2233:U:H5'	2.15	0.45
26:14:2647:U:O2	26:14:2673:G:N2	2.33	0.45
26:14:2841:C:H2'	26:14:2842:G:C8	2.51	0.45
26:14:2873:A:H8	39:55:6:SER:N	2.09	0.45
30:29:103:ASP:N	30:29:200:GLU:O	2.44	0.45
30:29:111:ARG:HB3	39:55:1:MET:HE1	1.98	0.45
35:15:128:HIS:CE1	35:15:130:HIS:HA	2.52	0.45
54:L5:5:TRP:CD1	54:L5:7:PRO:HG3	2.51	0.45
1:13:22:G:H2'	1:13:23:C:C6	2.51	0.45
1:13:380:G:C2	1:13:384:G:C6	3.04	0.45
1:13:590:C:N4	1:13:649:G:H1	2.15	0.45
1:13:690:G:H2'	1:13:691:G:O4'	2.17	0.45
1:13:1060:C:HO2'	10:1I:56:HIS:CE1	2.34	0.45
4:3E:31:CYS:C	4:3E:33:MET:H	2.24	0.45
9:8E:28:VAL:HA	9:8E:63:ILE:O	2.16	0.45
15:6I:71:GLN:HG2	15:6I:78:TYR:CE1	2.51	0.45
26:1H:71:A:H2	45:F8:31:HIS:NE2	2.05	0.45
26:1H:274:G:H1'	26:1H:276:A:C2	2.51	0.45
26:1H:1371:G:H2'	26:1H:1372:U:C5	2.51	0.45
26:1H:1466:G:H2'	26:1H:1547:C:N4	2.31	0.45
26:1H:1550:C:O2'	26:1H:1551:C:H5'	2.16	0.45
26:1H:1696:G:C6	26:1H:1697:G:C4	3.04	0.45
26:1H:2101:G:H2'	26:1H:2102:U:O4'	2.15	0.45
26:1H:2393:A:H2'	26:1H:2394:C:H6	1.81	0.45
26:1H:2729:G:H2'	26:1H:2730:C:C6	2.51	0.45
37:78:35:HIS:O	37:78:36:LYS:C	2.58	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:C8:65:ILE:CG1	42:C8:96:ALA:HB2	2.46	0.45
42:C8:91:ASP:O	42:C8:92:ARG:C	2.59	0.45
45:F8:44:GLU:HG2	45:F8:49:VAL:O	2.16	0.45
45:F8:52:VAL:HG22	45:F8:82:GLN:O	2.16	0.45
50:K8:38:GLN:NE2	50:K8:44:LEU:O	2.47	0.45
1:1G:888:G:H4'	1:1G:1489:G:H5'	1.98	0.45
1:1G:998(A):C:H2'	1:1G:999:U:C6	2.51	0.45
1:1G:1023:G:H5"	1:1G:1024:G:N2	2.31	0.45
1:1G:1122:U:C2'	1:1G:1123:A:H5'	2.47	0.45
1:1G:1277:C:H1'	1:1G:1282:C:O2	2.16	0.45
1:1G:1296:C:H5'	13:4A:14:ARG:HD3	1.98	0.45
4:32:15:GLU:OE1	4:32:59:ARG:NH2	2.46	0.45
9:82:58:HIS:HB3	9:82:59:PHE:CZ	2.52	0.45
12:3A:47:LYS:CG	12:3A:48:PRO:HD2	2.46	0.45
26:14:389:G:H22	37:35:72:PRO:HD3	1.81	0.45
26:14:638:G:H2'	26:14:639:U:O4'	2.17	0.45
26:14:1109:C:H2'	26:14:1110:G:C1'	2.44	0.45
26:14:1418:G:H2'	26:14:1579:A:N6	2.31	0.45
26:14:1753:G:N1	26:14:1756:G:C2	2.85	0.45
26:14:1973:G:H2'	26:14:1974:C:C6	2.50	0.45
26:14:2165:G:C3'	26:14:2166:G:H5'	2.46	0.45
26:14:2637:U:C4	26:14:2638:G:C6	3.04	0.45
27:1J:4:C:H2'	27:1J:5:C:C6	2.51	0.45
27:1J:52:A:H61	40:65:33:LYS:HD3	1.80	0.45
30:29:54:GLN:H	30:29:74:PRO:CB	2.27	0.45
32:49:18:GLU:O	32:49:22:ARG:N	2.50	0.45
32:49:56:ALA:HA	32:49:59:GLU:HB3	1.98	0.45
33:59:6:ARG:HH22	33:59:54:ARG:HH12	1.63	0.45
33:59:56:SER:HB3	33:59:61:HIS:CE1	2.52	0.45
1:13:807:A:H2'	1:13:808:C:C6	2.51	0.45
1:13:1350:A:H2	7:6E:34:GLY:HA3	1.82	0.45
1:13:1422:G:O3'	36:68:49:ARG:NH2	2.49	0.45
2:1E:67:THR:HG22	2:1E:68:ILE:N	2.31	0.45
2:1E:197:VAL:O	8:7E:68:ARG:NH2	2.47	0.45
4:3E:102:ASP:OD1	4:3E:103:ASN:N	2.49	0.45
4:3E:122:ARG:NH1	4:3E:135:LEU:HD13	2.30	0.45
17:8I:27:PHE:O	17:8I:35:VAL:HA	2.16	0.45
22:1K:34:U8U:HN3	25:4K:21:A:H2	1.65	0.45
26:1H:518:G:H2'	26:1H:519:U:H6	1.81	0.45
26:1H:628:G:H2'	26:1H:629:G:C8	2.51	0.45
26:1H:649:G:C5	26:1H:650:C:C4	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:862:G:H5'	27:16:79:C:H4'	1.99	0.45
26:1H:1290:C:H2'	26:1H:1291:C:C6	2.52	0.45
26:1H:1782:C:O4'	26:1H:2609:U:C2	2.69	0.45
26:1H:2040:C:H2'	26:1H:2041:U:O4'	2.17	0.45
26:1H:2262:U:H4'	26:1H:2328:A:C2	2.51	0.45
26:1H:2886:G:H2'	26:1H:2887:U:C6	2.51	0.45
28:71:66:HIS:NE2	28:71:184:LYS:HB3	2.31	0.45
32:41:143:GLU:HG2	52:M8:27:THR:HG22	1.98	0.45
37:78:112:LEU:H	37:78:128:HIS:HD1	1.64	0.45
38:88:5:ARG:HH22	38:88:6:ARG:CZ	2.29	0.45
40:A8:8:GLU:H	40:A8:8:GLU:HG2	1.53	0.45
41:B8:50:ILE:CD1	41:B8:102:ILE:HD13	2.45	0.45
42:C8:15:LYS:HB3	42:C8:15:LYS:HE2	1.55	0.45
1:1G:115:G:H4'	1:1G:116:A:O5'	2.15	0.45
1:1G:678:U:H2'	1:1G:679:C:C6	2.52	0.45
3:22:190:ARG:HA	3:22:190:ARG:HE	1.80	0.45
4:32:24:GLU:HG2	4:32:25:ARG:N	2.28	0.45
11:2A:87:THR:O	11:2A:87:THR:OG1	2.34	0.45
12:3A:89:ARG:HG2	12:3A:90:VAL:N	2.31	0.45
20:BA:86:ARG:NH1	20:BA:86:ARG:HB2	2.31	0.45
26:14:189:G:H1	26:14:205:G:HO2'	1.63	0.45
26:14:1769:G:O2'	26:14:1958:C:OP1	2.29	0.45
26:14:2104:G:H2'	26:14:2105:C:C6	2.51	0.45
26:14:2459:A:C4	26:14:2460:U:C5	3.05	0.45
28:79:207:THR:HG22	28:79:209:LEU:H	1.80	0.45
30:29:11:MET:HE3	30:29:186:GLY:HA2	1.98	0.45
32:49:73:ALA:HB1	32:49:82:LEU:HD11	1.97	0.45
35:15:128:HIS:NE2	35:15:134:ARG:HD3	2.31	0.45
41:75:18:ASP:OD1	41:75:18:ASP:N	2.50	0.45
45:B5:49:VAL:HB	45:B5:83:VAL:HG21	1.98	0.45
46:C5:67:LEU:HD12	46:C5:67:LEU:HA	1.70	0.45
47:D5:101:PRO:HA	47:D5:123:ASP:N	2.32	0.45
1:13:191(C):G:H2'	1:13:191(D):U:O4'	2.16	0.45
1:13:355:C:H2'	1:13:356:A:O4'	2.17	0.45
1:13:445:G:H1	1:13:489:C:N4	2.04	0.45
1:13:458:C:H42	1:13:474:G:H1	1.65	0.45
1:13:657:G:H4'	15:6I:28:GLN:HG2	1.99	0.45
1:13:1313:U:O4	19:AI:3:ARG:HA	2.16	0.45
16:7I:35:LYS:HE2	16:7I:37:GLY:O	2.17	0.45
21:1F:5:ASP:O	21:1F:11:GLY:HA3	2.16	0.45
22:1K:3:G:C2	22:1K:71:C:H1'	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:637:A:H4'	26:1H:638:G:O5'	2.16	0.45
26:1H:724:U:H2'	26:1H:725:G:O4'	2.16	0.45
26:1H:1176:G:H2'	26:1H:1177:A:C2	2.52	0.45
26:1H:1212:G:O2'	26:1H:1213:A:OP2	2.30	0.45
26:1H:1443:G:N2	26:1H:1549:C:O2	2.49	0.45
26:1H:1449:A:N7	26:1H:1449(A):G:C8	2.85	0.45
26:1H:1911:U:O4	26:1H:1918:A:H2'	2.17	0.45
26:1H:2127:G:C6	26:1H:2128:C:C4	3.04	0.45
26:1H:2329:G:H2'	26:1H:2330:G:C8	2.52	0.45
27:16:44:G:H1'	27:16:47:C:H42	1.80	0.45
29:11:218:ARG:HB3	29:11:219:PRO:HD2	1.98	0.45
30:21:11:MET:HE2	30:21:11:MET:HB3	1.65	0.45
30:21:181:LEU:HA	30:21:181:LEU:HD13	1.61	0.45
32:41:16:ARG:HH21	32:41:31:VAL:HG21	1.81	0.45
32:41:17:PRO:HA	32:41:20:ILE:HD12	1.98	0.45
32:41:38:VAL:HB	32:41:158:ALA:HB3	1.97	0.45
35:58:96:GLU:HG2	35:58:97:ARG:N	2.32	0.45
41:B8:7:ILE:O	41:B8:10:VAL:N	2.49	0.45
50:K8:18:PRO:O	50:K8:21:LEU:HB2	2.16	0.45
1:1G:631:G:H1'	1:1G:632:A:C8	2.52	0.45
1:1G:983:A:O2'	1:1G:1050:G:OP2	2.28	0.45
1:1G:1243:C:O2	1:1G:1295:G:N2	2.49	0.45
1:1G:1322:C:O2'	1:1G:1323:G:H5'	2.15	0.45
2:12:100:GLY:HA2	2:12:103:THR:OG1	2.17	0.45
2:12:127:ILE:HG12	2:12:135:GLN:NE2	2.32	0.45
5:42:69:VAL:O	5:42:71:LEU:N	2.50	0.45
11:2A:50:TYR:HD2	11:2A:54:ARG:HB3	1.81	0.45
19:AA:41:VAL:HG23	19:AA:43:GLU:H	1.81	0.45
24:3L:56:C:H2'	24:3L:57:G:C8	2.52	0.45
26:14:270(E):G:C2	26:14:270(V):G:C2	3.05	0.45
26:14:510:C:H2'	26:14:511:U:O4'	2.17	0.45
26:14:764:A:N1	26:14:1789:A:O2'	2.48	0.45
26:14:995:C:OP2	42:85:54:LYS:NZ	2.45	0.45
26:14:1338:G:N3	26:14:1393:A:H2	2.13	0.45
26:14:1728:G:O6	26:14:1730:U:H5'	2.16	0.45
26:14:2155:G:H2'	26:14:2156:G:O4'	2.17	0.45
26:14:2557:G:H2'	26:14:2558:C:C6	2.51	0.45
27:1J:114:G:O2'	40:65:50:SER:OG	2.34	0.45
29:19:132:PRO:HG3	29:19:190:TYR:CE1	2.52	0.45
29:19:143:HIS:NE2	29:19:192:THR:OG1	2.49	0.45
32:49:147:ASP:C	32:49:149:VAL:HG22	2.41	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:25:7:TYR:CZ	36:25:44:LYS:HG3	2.51	0.45
43:95:5:VAL:HA	43:95:37:VAL:HB	1.99	0.45
50:G5:46:GLN:OE1	50:G5:46:GLN:HA	2.17	0.45
1:13:627:G:H2'	1:13:628:G:H8	1.82	0.45
1:13:642:A:N3	8:7E:113:SER:OG	2.35	0.45
1:13:720:C:OP2	1:13:721:G:O2'	2.30	0.45
1:13:725:G:C2	1:13:726:C:C6	3.05	0.45
1:13:1142:G:H3'	1:13:1143:G:H8	1.82	0.45
1:13:1305:G:H8	1:13:1305:G:OP2	1.99	0.45
4:3E:111:ALA:HB1	4:3E:116:GLN:HB3	1.99	0.45
4:3E:151:LYS:HE2	4:3E:151:LYS:HB3	1.80	0.45
5:4E:6:PHE:CD1	5:4E:36:ASP:HB3	2.51	0.45
10:1I:64:GLU:OE1	14:5I:59:ALA:CA	2.64	0.45
13:4I:49:THR:HG22	13:4I:51:ALA:N	2.26	0.45
26:1H:649:G:C6	26:1H:650:C:C4	3.05	0.45
26:1H:657:U:H2'	26:1H:658:C:C6	2.51	0.45
26:1H:805:G:H4'	26:1H:806:C:OP2	2.17	0.45
26:1H:1287:A:C5	26:1H:1288:U:C4	3.05	0.45
26:1H:1392:A:C6	26:1H:1393:A:C6	3.05	0.45
26:1H:1416:G:O2'	26:1H:1417:C:O5'	2.34	0.45
26:1H:1845:G:OP1	29:11:258:LYS:NZ	2.37	0.45
26:1H:2450:A:C2	26:1H:2451:A:C4	3.05	0.45
26:1H:2505:G:O2'	26:1H:2506:U:H5'	2.17	0.45
26:1H:2735:G:H2'	26:1H:2736:G:C8	2.51	0.45
26:1H:2854:G:H2'	26:1H:2855:C:C6	2.52	0.45
26:1H:2881:C:O3'	39:98:96:ARG:HG3	2.16	0.45
28:71:214:VAL:HB	28:71:224:ILE:HG21	1.99	0.45
32:41:67:LYS:CD	32:41:67:LYS:N	2.76	0.45
47:H8:44:PHE:CD1	47:H8:44:PHE:C	2.95	0.45
1:1G:619:U:O2	4:32:135:LEU:HD22	2.16	0.45
1:1G:947:G:H2'	1:1G:948:C:C6	2.52	0.45
1:1G:1028(A):C:N4	1:1G:1028(B):C:H41	2.15	0.45
1:1G:1086:U:H2'	1:1G:1087:G:H8	1.81	0.45
1:1G:1327:C:H2'	1:1G:1328:C:C6	2.51	0.45
2:12:140:HIS:HA	2:12:143:GLU:CD	2.42	0.45
5:42:43:LEU:HD11	5:42:132:ALA:HB1	1.97	0.45
5:42:110:LEU:HD23	5:42:110:LEU:HA	1.84	0.45
6:52:44:GLY:HA2	6:52:59:TYR:CZ	2.51	0.45
12:3A:41:ARG:HG2	12:3A:42:THR:N	2.30	0.45
26:14:1430:C:H2'	26:14:1431:U:H6	1.79	0.45
26:14:2335:A:C8	26:14:2337:G:C5	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2443:C:H2'	26:14:2444:G:C8	2.48	0.45
27:1J:5:C:O2'	27:1J:27:C:O2	2.34	0.45
28:79:15:ASP:HB3	28:79:20:TYR:HH	1.82	0.45
28:79:46:LYS:O	28:79:210:ARG:N	2.40	0.45
29:19:121:PRO:HB3	29:19:135:PHE:CD2	2.51	0.45
31:39:178:PRO:HG2	31:39:179:GLU:OE1	2.16	0.45
32:49:36:LYS:O	32:49:160:VAL:HG23	2.17	0.45
41:75:16:ARG:HB2	41:75:79:HIS:CD2	2.51	0.45
47:D5:4:ARG:HB3	47:D5:58:VAL:HB	1.99	0.45
47:D5:94:GLU:H	47:D5:130:PRO:HD2	1.80	0.45
54:L5:12:ARG:NH2	54:L5:44:PRO:HB3	2.31	0.45
1:13:119:A:N7	1:13:288:A:C2	2.85	0.45
1:13:303:A:C5	1:13:304:U:C5	3.05	0.45
1:13:468:A:O2'	16:7I:82:GLN:HG2	2.15	0.45
1:13:1124:G:H3'	1:13:1145:C:N4	2.32	0.45
2:1E:124:SER:HB3	2:1E:125:PRO:HD2	1.99	0.45
6:5E:81:ILE:HD11	29:11:125:ILE:HB	1.98	0.45
8:7E:37:ARG:HH21	8:7E:41:ARG:HH11	1.64	0.45
9:8E:11:LYS:O	9:8E:13:ALA:N	2.49	0.45
12:3I:86:ARG:HG3	12:3I:101:VAL:HG22	1.97	0.45
14:5I:29:ARG:HD3	14:5I:31:ARG:O	2.17	0.45
24:3K:55:U:N3	24:3K:58:A:C8	2.83	0.45
26:1H:118:A:OP2	26:1H:119:A:H2'	2.16	0.45
26:1H:270(K):C:O2'	26:1H:270(N):G:N2	2.39	0.45
26:1H:270(P):C:H2'	26:1H:270(Q):C:C6	2.52	0.45
26:1H:386:G:H4'	26:1H:387:U:OP2	2.16	0.45
26:1H:1047:G:H2'	26:1H:1110:G:N7	2.32	0.45
26:1H:1344:G:H4'	26:1H:1384:A:C5	2.52	0.45
26:1H:1348:G:H5"	26:1H:1349:A:OP2	2.17	0.45
26:1H:2205:C:H2'	26:1H:2206:C:H6	1.82	0.45
28:71:47:LEU:HB2	28:71:169:GLY:O	2.17	0.45
30:21:59:VAL:O	30:21:60:ASN:CG	2.59	0.45
34:61:29:TYR:O	34:61:32:PRO:HD2	2.16	0.45
42:C8:79:PHE:CD1	42:C8:79:PHE:C	2.95	0.45
47:H8:44:PHE:HE2	47:H8:86:VAL:HG11	1.82	0.45
48:I8:26:TYR:O	48:I8:67:VAL:HG13	2.17	0.45
54:P8:35:ARG:O	54:P8:38:GLY:N	2.36	0.45
1:1G:507:C:H3'	1:1G:508:C:H2'	1.99	0.45
1:1G:614:A:N6	1:1G:626:U:H3	2.08	0.45
1:1G:707:C:H2'	1:1G:708:C:C6	2.51	0.45
1:1G:1053:G:N7	1:1G:1199:U:H3'	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1152:A:OP1	10:1A:68:HIS:NE2	2.50	0.45
1:1G:1178:G:OP2	9:82:93:ARG:NH2	2.50	0.45
1:1G:1343:G:C5	1:1G:1344:C:C4	3.04	0.45
3:22:21:ARG:O	3:22:58:GLU:HA	2.17	0.45
3:22:134:ILE:HG23	3:22:151:VAL:HB	1.98	0.45
8:72:29:SER:O	8:72:32:LYS:HB2	2.17	0.45
9:82:34:ASN:O	9:82:38:GLN:HB3	2.17	0.45
10:1A:50:ILE:HG22	10:1A:52:GLY:H	1.82	0.45
19:AA:9:VAL:HG13	19:AA:10:PHE:N	2.31	0.45
22:1L:9:A:H2'	22:1L:9:A:N3	2.31	0.45
26:14:142:G:H2'	26:14:143:C:C6	2.52	0.45
26:14:951:C:O2'	26:14:952:G:H5'	2.16	0.45
26:14:1774:C:O5'	26:14:1774:C:H6	1.99	0.45
26:14:2290:G:H2'	26:14:2291:U:O4'	2.17	0.45
30:29:201:THR:HG22	30:29:202:LYS:N	2.32	0.45
32:49:15:VAL:HG13	32:49:175:LEU:HB2	1.99	0.45
34:69:116:LEU:HD11	34:69:120:ILE:HG13	1.99	0.45
36:25:22:ILE:HA	36:25:22:ILE:HD13	1.58	0.45
36:25:111:PHE:N	36:25:111:PHE:CD1	2.84	0.45
40:65:69:VAL:HG13	40:65:101:LEU:HD13	1.98	0.45
40:65:107:GLU:H	40:65:110:LEU:HD11	1.82	0.45
46:C5:52:SER:O	46:C5:52:SER:OG	2.26	0.45
49:F5:56:GLN:NE2	49:F5:83:GLU:HA	2.32	0.45
49:F5:82:LEU:CG	49:F5:83:GLU:H	2.28	0.45
1:13:16:A:O2'	1:13:17:U:H5'	2.17	0.45
1:13:486:U:H2'	1:13:487:A:H8	1.81	0.45
1:13:782:A:H62	1:13:800:G:H21	1.64	0.45
1:13:947:G:H2'	1:13:948:C:O4'	2.16	0.45
5:4E:13:ILE:HA	5:4E:13:ILE:HD13	1.72	0.45
20:BI:100:ILE:HG12	20:BI:101:GLY:N	2.31	0.45
23:2K:29:C:H2'	23:2K:30:G:H8	1.81	0.45
26:1H:844:C:H3'	26:1H:845:G:C8	2.52	0.45
26:1H:929:G:O6	60:1H:3517:HOH:O	2.21	0.45
26:1H:2097:C:H2'	26:1H:2098:U:O4'	2.16	0.45
30:21:18:ASP:HA	41:B8:82:LEU:HD11	1.98	0.45
31:31:126:VAL:O	31:31:195:ASP:HA	2.17	0.45
32:41:145:THR:HG23	52:M8:28:LYS:NZ	2.32	0.45
33:51:153:LYS:HB3	33:51:153:LYS:HE2	1.86	0.45
34:61:68:LEU:HA	34:61:71:ILE:CG2	2.46	0.45
35:58:96:GLU:C	35:58:98:VAL:N	2.68	0.45
42:C8:28:ARG:HD3	42:C8:38:THR:OG1	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:H8:70:LEU:HD11	47:H8:98:MET:HE3	1.99	0.45
47:H8:105:VAL:O	47:H8:140:ASP:HA	2.17	0.45
53:N8:20:ARG:HA	53:N8:23:HIS:CE1	2.50	0.45
1:1G:38:G:C2	1:1G:397:A:C2	3.05	0.45
1:1G:620:C:N3	4:32:135:LEU:CD1	2.79	0.45
1:1G:730:G:C5	1:1G:731:G:H1'	2.51	0.45
1:1G:1377:A:H2'	7:62:7:ALA:HB3	1.99	0.45
1:1G:1430:C:H2'	1:1G:1431:C:C6	2.52	0.45
3:22:43:LEU:HA	3:22:46:GLU:HG2	1.99	0.45
7:62:132:GLY:H	7:62:135:VAL:HB	1.81	0.45
11:2A:14:VAL:HG12	11:2A:15:ALA:N	2.25	0.45
13:4A:81:LEU:HA	13:4A:81:LEU:HD13	1.50	0.45
26:14:7:G:H2'	26:14:8:A:C8	2.51	0.45
26:14:139:G:N2	26:14:141:A:N1	2.63	0.45
26:14:587:C:H4'	26:14:588:U:C6	2.52	0.45
26:14:674:G:O2'	31:39:74:ARG:HD3	2.16	0.45
26:14:848:G:C4	26:14:933:A:C8	3.04	0.45
26:14:910:A:C6	26:14:911:A:C6	3.05	0.45
26:14:1138:G:C4	26:14:1139:G:H1'	2.51	0.45
26:14:1159:U:OP1	51:H5:30:ARG:NH1	2.50	0.45
26:14:1169:G:H1	26:14:1180:C:N4	2.15	0.45
26:14:1312:U:O5'	45:B5:63:LYS:HE3	2.17	0.45
26:14:1412:A:H2'	26:14:1413:G:C8	2.52	0.45
26:14:1730:U:H5"	26:14:1731:G:N2	2.27	0.45
26:14:2845:G:N2	26:14:2871:C:O2	2.36	0.45
26:14:2864:G:OP1	41:75:119:LYS:HD2	2.17	0.45
28:79:15:ASP:HB3	28:79:20:TYR:OH	2.17	0.45
37:35:80:TYR:HA	37:35:111:ARG:O	2.17	0.45
40:65:99:LYS:HE2	40:65:103:GLU:OE2	2.16	0.45
40:65:102:ALA:O	40:65:105:ALA:N	2.50	0.45
49:F5:91:LYS:HB2	49:F5:91:LYS:HE2	1.78	0.45
49:F5:92:LYS:O	49:F5:93:GLU:C	2.59	0.45
54:L5:8:ASN:OD1	54:L5:11:LYS:N	2.29	0.45
1:13:8:A:H62	4:3E:208:SER:HB3	1.82	0.45
1:13:130:A:C8	17:8I:63:ARG:HD3	2.51	0.45
1:13:300:A:H1'	1:13:565:U:O2	2.16	0.45
1:13:942:G:C2	1:13:943:U:C6	3.04	0.45
2:1E:185:ILE:CG2	2:1E:199:TYR:HB2	2.45	0.45
6:5E:45:LEU:HA	6:5E:45:LEU:HD12	1.73	0.45
12:3I:8:ASN:O	12:3I:11:VAL:N	2.49	0.45
26:1H:443:A:H3'	31:31:45:ARG:NH2	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:486:C:H4'	44:E8:60:ASN:OD1	2.17	0.45
26:1H:577:G:OP1	26:1H:2502:G:O2'	2.28	0.45
26:1H:654(S):G:O2'	26:1H:654(T):A:OP2	2.31	0.45
26:1H:1826:G:O2'	29:11:242:ARG:NH2	2.50	0.45
29:11:30:GLU:HG3	29:11:63:ARG:NH2	2.31	0.45
30:21:2:LYS:HA	30:21:84:PHE:CD1	2.52	0.45
31:31:66:PRO:O	31:31:67:GLN:CB	2.58	0.45
31:31:164:ARG:NH1	31:31:164:ARG:HG2	2.32	0.45
33:51:137:ASP:HB2	33:51:140:LYS:HE2	1.98	0.45
35:58:39:ARG:NH2	35:58:41:ASP:OD2	2.50	0.45
37:78:113:LYS:HA	37:78:129:ALA:O	2.17	0.45
45:F8:18:TYR:O	45:F8:20:GLY:N	2.50	0.45
50:K8:32:LEU:HD11	50:K8:54:LYS:HG3	1.98	0.45
1:1G:407:G:O2'	4:32:116:GLN:HG3	2.17	0.45
1:1G:451:A:N6	1:1G:480:U:H2'	2.32	0.45
1:1G:1240:U:OP2	7:62:116:ALA:N	2.50	0.45
1:1G:1347:G:C6	9:82:107:ARG:NH2	2.85	0.45
2:12:101:MET:HE2	2:12:108:ILE:HG12	1.99	0.45
3:22:88:ARG:O	3:22:91:LEU:HD13	2.16	0.45
4:32:32:ALA:CA	4:32:35:ARG:HB3	2.47	0.45
4:32:107:ARG:HD3	4:32:173:TRP:CH2	2.52	0.45
8:72:111:ILE:HD12	8:72:135:CYS:SG	2.57	0.45
22:1L:39:PSU:H2'	22:1L:40:C:C6	2.52	0.45
26:14:330:A:H2	26:14:1210:A:O2'	2.00	0.45
26:14:446:G:OP2	60:14:3426:HOH:O	2.21	0.45
26:14:675:A:H4'	31:39:67:GLN:OE1	2.17	0.45
26:14:1226:G:H5'	43:95:85:LYS:HA	1.99	0.45
26:14:1229:G:N2	26:14:1229(A):G:H1'	2.31	0.45
26:14:1449(A):G:H2'	26:14:1450:C:C6	2.51	0.45
26:14:1515:C:H2'	26:14:1516:U:H6	1.80	0.45
26:14:1709:U:H2'	26:14:1710:C:C6	2.51	0.45
26:14:1907:G:C6	26:14:1908:C:C4	3.05	0.45
26:14:1954:G:C2	26:14:2551:C:H5"	2.52	0.45
26:14:2053:G:C2	26:14:2617:C:C2	3.05	0.45
26:14:2859:G:C8	26:14:2859:G:H3'	2.52	0.45
29:19:44:ASN:HB3	29:19:46:GLN:N	2.31	0.45
30:29:18:ASP:HB3	41:75:82:LEU:HD11	1.99	0.45
32:49:39:ILE:HD11	32:49:102:PHE:CE2	2.51	0.45
32:49:49:ASP:HB3	32:49:52:ILE:HG22	1.99	0.45
32:49:76:SER:OG	32:49:82:LEU:O	2.35	0.45
34:69:37:VAL:HG12	34:69:38:LEU:HD12	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:35:15:ARG:HB2	37:35:15:ARG:CZ	2.47	0.45
38:45:77:LYS:HE2	38:45:77:LYS:HB3	1.80	0.45
40:65:61:ASN:CG	40:65:62:LYS:H	2.25	0.45
43:95:71:LEU:HA	43:95:71:LEU:HD13	1.50	0.45
1:13:418:C:H2'	1:13:419:C:C6	2.52	0.45
1:13:681:C:H2'	1:13:682:G:H8	1.82	0.45
1:13:767:A:H3'	60:13:1802:HOH:O	2.17	0.45
1:13:843:U:H5"	1:13:848:C:H5	1.81	0.45
1:13:1118:C:H1'	1:13:1179:A:C5	2.52	0.45
1:13:1137:C:H1'	1:13:1138:G:C2	2.52	0.45
1:13:1260:C:H3'	1:13:1260:C:H6	1.82	0.45
1:13:1277:C:H2'	1:13:1279:A:H8	1.82	0.45
2:1E:8:LYS:CG	2:1E:9:GLU:N	2.79	0.45
6:5E:12:PRO:HG3	6:5E:57:GLN:HG3	1.99	0.45
6:5E:75:LEU:HD13	6:5E:79:LEU:HD11	1.99	0.45
7:6E:88:PRO:HB3	7:6E:145:ALA:HB1	1.98	0.45
9:8E:115:GLY:HA2	10:1I:58:ASP:OD2	2.17	0.45
11:2I:21:ILE:HD12	11:2I:84:VAL:HG12	1.98	0.45
23:2K:17:C:H3'	23:2K:18:C:H2'	1.99	0.45
26:1H:217:G:OP2	60:1H:3559:HOH:O	2.21	0.45
26:1H:311:A:C6	26:1H:328:U:C4	3.05	0.45
26:1H:349:G:H2'	26:1H:350:U:O4'	2.17	0.45
26:1H:442:G:C4	26:1H:444:C:C5	3.05	0.45
26:1H:654(A):A:H2'	26:1H:654(B):C:H6	1.82	0.45
26:1H:674:G:HO2'	31:31:67:GLN:HE22	1.63	0.45
26:1H:796:C:H2'	26:1H:797:C:C6	2.52	0.45
26:1H:880:G:N3	26:1H:881:G:N7	2.65	0.45
26:1H:1207:C:H2'	26:1H:1208:C:C6	2.51	0.45
26:1H:1346:G:C4	26:1H:1347:G:N7	2.85	0.45
26:1H:1412:A:H2'	26:1H:1413:G:H8	1.77	0.45
26:1H:1494:A:H2'	26:1H:1495:A:C8	2.52	0.45
26:1H:2324:C:H5"	26:1H:2325:G:H5'	1.98	0.45
26:1H:2392:A:H2'	26:1H:2393:A:O4'	2.17	0.45
26:1H:2841:C:H42	26:1H:2876:G:H1	1.65	0.45
29:11:6:PHE:CE1	29:11:18:VAL:HG23	2.52	0.45
38:88:139:GLU:OE2	38:88:141:GLN:HG2	2.16	0.45
39:98:32:GLY:HA2	39:98:116:LEU:CD1	2.47	0.45
1:1G:437:U:H1'	4:32:119:GLN:HE22	1.82	0.45
1:1G:1008:C:H1'	1:1G:1022:G:N2	2.32	0.45
1:1G:1125:U:H2'	1:1G:1126:U:H5	1.80	0.45
1:1G:1277:C:H1'	1:1G:1282:C:H1'	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:95:GLN:HB3	2:12:148:TYR:HD1	1.81	0.45
3:22:199:LYS:HB3	3:22:201:TYR:HE1	1.82	0.45
5:42:19:MET:HE3	5:42:23:GLY:HA2	1.99	0.45
7:62:69:VAL:HG22	7:62:135:VAL:HG22	1.98	0.45
9:82:26:VAL:HG13	9:82:61:ALA:O	2.17	0.45
19:AA:9:VAL:HG22	19:AA:10:PHE:H	1.81	0.45
23:2L:53:G:H2'	23:2L:54:G:H8	1.82	0.45
26:14:174:C:OP2	26:14:174:C:H6	2.00	0.45
26:14:498:G:H21	46:C5:47:LYS:HZ2	1.65	0.45
26:14:565:C:H2'	26:14:566:U:O4'	2.17	0.45
26:14:909:A:C6	26:14:912:C:C2	3.05	0.45
26:14:2050:C:H2'	26:14:2051:A:O4'	2.17	0.45
26:14:2472:G:H1	26:14:2477:C:P	2.40	0.45
26:14:2759:G:H21	33:59:143:GLN:HE22	1.65	0.45
26:14:2849:U:H4'	26:14:2868:A:C2	2.52	0.45
27:1J:10:C:C4	27:1J:11:C:C5	3.05	0.45
29:19:228:PRO:HD3	29:19:234:GLY:C	2.41	0.45
30:29:80:GLU:O	30:29:81:ILE:C	2.60	0.45
32:49:10:LYS:NZ	32:49:175:LEU:O	2.49	0.45
34:69:72:LEU:HD21	34:69:107:VAL:HG21	1.97	0.45
38:45:3:MET:HG3	38:45:4:PRO:O	2.16	0.45
39:55:8:ARG:HH11	39:55:39:PRO:HB3	1.82	0.45
40:65:23:ARG:NH2	40:65:84:GLN:OE1	2.49	0.45
42:85:91:ASP:CG	42:85:96:ALA:HB2	2.41	0.45
45:B5:67:GLY:C	45:B5:69:TYR:N	2.74	0.45
47:D5:124:ILE:HD11	47:D5:165:VAL:HG11	1.99	0.45
47:D5:126:VAL:HG12	47:D5:163:LEU:HA	1.98	0.45
49:F5:62:VAL:HB	49:F5:67:ILE:HD13	1.99	0.45
1:13:115:G:C2	1:13:289:G:N7	2.85	0.44
1:13:323:U:H2'	1:13:324:G:O4'	2.17	0.44
1:13:608:A:H2'	1:13:609:A:O4'	2.17	0.44
1:13:843:U:OP1	1:13:848:C:N4	2.50	0.44
1:13:971:G:N2	1:13:1363:A:OP2	2.42	0.44
1:13:1144:G:H21	1:13:1146:A:H62	1.65	0.44
1:13:1397:C:OP2	5:4E:24:ARG:NH2	2.50	0.44
1:13:1435:G:H2'	1:13:1436:U:C6	2.52	0.44
1:13:1528:U:C2	1:13:1530:G:C8	3.05	0.44
2:1E:127:ILE:HD11	2:1E:139:LYS:NZ	2.32	0.44
3:2E:12:LEU:HD23	3:2E:12:LEU:HA	1.80	0.44
5:4E:53:LEU:H	5:4E:53:LEU:HD12	1.82	0.44
10:1I:27:ALA:HB1	10:1I:34:VAL:HG11	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1I:57:LYS:O	10:1I:60:ARG:NH2	2.51	0.44
10:1I:81:THR:HA	10:1I:84:GLN:HB3	2.00	0.44
17:8I:86:GLU:O	17:8I:90:ILE:HG12	2.17	0.44
26:1H:70:G:H21	26:1H:71:A:N6	2.15	0.44
26:1H:140:A:H8	26:1H:1408:C:O2'	2.00	0.44
26:1H:638:G:C5	26:1H:651:G:C2	3.05	0.44
26:1H:1696:G:C6	26:1H:1697:G:C5	3.05	0.44
26:1H:1826:G:H4'	29:11:242:ARG:HE	1.82	0.44
26:1H:2679:A:H4'	30:21:165:VAL:HG11	1.99	0.44
27:16:15:A:H1'	27:16:109:G:N9	2.32	0.44
27:16:40:U:H1'	27:16:45:A:N6	2.32	0.44
28:71:7:TYR:CE1	28:71:220:PRO:HB3	2.52	0.44
29:11:223:GLY:HA3	29:11:231:HIS:CE1	2.52	0.44
30:21:69:LYS:HD2	30:21:89:ASP:OD2	2.17	0.44
35:58:62:VAL:HG22	35:58:63:THR:H	1.82	0.44
36:68:50:GLY:N	36:68:53:LYS:NZ	2.64	0.44
38:88:43:THR:HA	38:88:94:VAL:HG12	1.99	0.44
39:98:46:GLY:HA2	39:98:49:ASP:HB2	1.98	0.44
40:A8:34:HIS:CE1	40:A8:54:LEU:HD23	2.53	0.44
48:I8:12:ASN:HA	48:I8:14:ARG:HH21	1.82	0.44
49:J8:78:LYS:N	49:J8:78:LYS:CD	2.80	0.44
50:K8:4:SER:HB2	50:K8:7:ARG:H	1.76	0.44
1:1G:35:G:C2	1:1G:550:G:N3	2.86	0.44
1:1G:186(F):C:H2'	1:1G:187:C:O4'	2.17	0.44
1:1G:464:G:O6	1:1G:466:C:H4'	2.17	0.44
1:1G:1027:C:O2'	1:1G:1034:G:N2	2.50	0.44
4:32:108:LEU:HA	4:32:174:LEU:HD13	2.00	0.44
4:32:132:ARG:HE	4:32:132:ARG:HB3	1.60	0.44
5:42:107:ARG:NH2	5:42:108:ALA:HB2	2.32	0.44
14:5A:3:ARG:HA	14:5A:4:LYS:HA	1.68	0.44
23:2L:20:G:N2	32:49:78:SER:OG	2.50	0.44
23:2L:48:U:H1'	23:2L:49:C:OP2	2.17	0.44
26:14:249:C:H4'	26:14:250:G:O5'	2.17	0.44
26:14:250:G:OP1	37:35:60:MET:HE1	2.18	0.44
26:14:843:G:H1	26:14:935:C:N4	2.03	0.44
26:14:878:A:C6	26:14:899:A:H2	2.35	0.44
26:14:1170:G:C2'	26:14:1171:G:H5'	2.47	0.44
26:14:1278:A:H2'	26:14:1279:G:C8	2.52	0.44
26:14:1301:A:C8	26:14:1303:G:C8	3.04	0.44
26:14:1332:G:N2	26:14:1610:A:H8	2.14	0.44
26:14:1370:C:N4	26:14:1371:G:C6	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1424:G:H2'	26:14:1425:G:C8	2.51	0.44
26:14:2379:G:O2'	40:65:17:ARG:NH1	2.50	0.44
26:14:2465:C:O2	26:14:2486:G:C2	2.70	0.44
26:14:2818:G:OP2	39:55:42:LYS:NZ	2.50	0.44
27:1J:116:G:C5'	40:65:55:ALA:HB2	2.47	0.44
31:39:29:ASN:OD1	31:39:112:MET:HE1	2.17	0.44
34:69:128:LEU:O	34:69:138:ILE:N	2.49	0.44
34:69:131:LYS:HA	34:69:135:GLU:OE1	2.16	0.44
46:C5:39:VAL:O	46:C5:40:GLU:HB2	2.17	0.44
46:C5:84:ARG:HD3	46:C5:84:ARG:C	2.42	0.44
1:13:145:G:H8	1:13:145:G:OP2	1.99	0.44
1:13:536:C:H2'	1:13:537:G:C8	2.52	0.44
1:13:574:A:N3	1:13:883:C:H1'	2.31	0.44
1:13:582:U:H2'	1:13:583:A:C8	2.52	0.44
1:13:682:G:H2'	1:13:683:G:C8	2.50	0.44
1:13:1074:G:N3	1:13:1102:A:C2	2.86	0.44
1:13:1178:G:N2	1:13:1181:G:C8	2.86	0.44
1:13:1277:C:H2'	1:13:1279:A:C8	2.53	0.44
1:13:1412:C:H2'	1:13:1413:A:C8	2.52	0.44
3:2E:180:ALA:HB1	3:2E:182:ILE:HG13	1.98	0.44
4:3E:122:ARG:NH2	4:3E:134:ASP:CG	2.75	0.44
9:8E:108:VAL:HG12	9:8E:109:VAL:H	1.82	0.44
12:3I:55:VAL:HG12	12:3I:69:TYR:HA	1.98	0.44
20:BI:49:ALA:HB3	20:BI:99:LEU:HB2	2.00	0.44
26:1H:14:A:H5"	26:1H:15:G:OP2	2.17	0.44
26:1H:142:G:H1'	45:F8:37:THR:CG2	2.44	0.44
26:1H:280:C:N3	26:1H:361:G:C2	2.85	0.44
26:1H:459:U:H4'	54:P8:40:TRP:CZ3	2.53	0.44
26:1H:482:A:H5"	26:1H:483:A:OP1	2.17	0.44
26:1H:1561:G:H2'	26:1H:1562:A:C8	2.52	0.44
26:1H:1668:A:H4'	26:1H:1669:A:O5'	2.17	0.44
26:1H:2286:A:H4'	26:1H:2287:A:O4'	2.17	0.44
26:1H:2831:G:O4'	26:1H:2883:A:C2	2.70	0.44
26:1H:2837:G:H21	39:98:45:ARG:NH2	2.15	0.44
30:21:131:ALA:CB	30:21:135:HIS:HE1	2.30	0.44
31:31:40:GLN:NE2	31:31:184:TYR:HB3	2.33	0.44
32:41:59:GLU:HG2	32:41:148:MET:HE2	1.98	0.44
32:41:107:LEU:HD11	32:41:178:PHE:CE1	2.51	0.44
35:58:4:TYR:CE2	42:C8:100:VAL:HG11	2.52	0.44
35:58:94:HIS:C	35:58:95:PRO:O	2.58	0.44
44:E8:11:ARG:CZ	44:E8:98:LYS:HB3	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:F8:29:TRP:CZ3	45:F8:78:LYS:HD3	2.52	0.44
1:1G:325:A:H2'	1:1G:326:G:O4'	2.16	0.44
1:1G:428:G:C5	1:1G:430:A:C6	3.05	0.44
1:1G:437:U:C2'	1:1G:438:G:H5'	2.46	0.44
1:1G:1032(A):G:H2'	1:1G:1032(B):G:C8	2.52	0.44
1:1G:1101:A:H4'	1:1G:1102:A:O5'	2.17	0.44
1:1G:1126:U:H4'	1:1G:1127:G:C8	2.52	0.44
1:1G:1385:G:C2	1:1G:1386:G:C8	3.05	0.44
2:12:136:VAL:HG13	2:12:139:LYS:HE2	1.99	0.44
2:12:137:ARG:HG3	2:12:138:LEU:N	2.32	0.44
4:32:108:LEU:HD22	4:32:174:LEU:HD22	1.99	0.44
5:42:12:LEU:HD11	5:42:14:ARG:HB3	1.98	0.44
5:42:24:ARG:NH2	25:4L:23:A:C8	2.84	0.44
8:72:11:THR:HG23	8:72:14:ARG:HH12	1.83	0.44
8:72:51:VAL:HG12	8:72:52:ASP:N	2.31	0.44
9:82:69:GLY:O	9:82:73:GLN:N	2.45	0.44
12:3A:85:ILE:HD12	12:3A:85:ILE:HA	1.77	0.44
17:8A:86:GLU:OE1	17:8A:90:ILE:HD11	2.17	0.44
19:AA:11:VAL:HG21	19:AA:41:VAL:CG1	2.47	0.44
26:14:1568:G:P	29:19:63:ARG:HH22	2.41	0.44
26:14:2147:G:H2'	26:14:2148:G:C4'	2.46	0.44
26:14:2292:C:H2'	26:14:2293:C:H6	1.82	0.44
26:14:2392:A:OP2	55:M5:31:HIS:NE2	2.39	0.44
27:1J:56:G:H4'	27:1J:57:A:C8	2.51	0.44
29:19:176:ARG:HA	29:19:181:GLU:O	2.17	0.44
33:59:55:PRO:O	33:59:56:SER:HB2	2.17	0.44
34:69:66:GLU:HA	34:69:69:LYS:HB3	2.00	0.44
36:25:34:THR:HG22	36:25:37:ASP:OD2	2.17	0.44
37:35:36:LYS:HB2	37:35:36:LYS:HZ3	1.82	0.44
38:45:29:PHE:HD2	38:45:65:PHE:CE1	2.35	0.44
38:45:32:TYR:CE1	38:45:133:ARG:HG3	2.50	0.44
38:45:51:ARG:NH1	38:45:55:VAL:HG21	2.33	0.44
40:65:106:ARG:O	40:65:106:ARG:HD2	2.16	0.44
49:F5:91:LYS:HZ3	49:F5:95:LEU:HD22	1.82	0.44
50:G5:43:GLN:CD	50:G5:43:GLN:N	2.75	0.44
1:13:148:G:H2'	1:13:149:A:C8	2.53	0.44
1:13:200:G:H2'	1:13:201:C:C6	2.52	0.44
1:13:292:G:N7	1:13:293:G:H1'	2.33	0.44
1:13:521:G:OP2	12:3I:54:LYS:NZ	2.48	0.44
1:13:558:G:C4	1:13:559:A:C2	3.05	0.44
1:13:604:G:H2'	1:13:605:U:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:24:TRP:N	2:1E:24:TRP:CD1	2.84	0.44
2:1E:163:PHE:HA	2:1E:185:ILE:O	2.17	0.44
4:3E:86:LYS:HE2	4:3E:86:LYS:HB2	1.52	0.44
4:3E:108:LEU:CD1	4:3E:174:LEU:HD13	2.48	0.44
6:5E:5:GLU:HB3	6:5E:62:TRP:NE1	2.33	0.44
13:4I:66:LEU:C	13:4I:70:LEU:HB2	2.42	0.44
13:4I:90:LEU:HD22	19:AI:78:ARG:NH2	2.32	0.44
15:6I:53:HIS:NE2	15:6I:57:LEU:HD11	2.31	0.44
25:4K:17:U:H4'	60:4K:201:HOH:O	2.17	0.44
26:1H:30:G:H2'	26:1H:31:C:C6	2.52	0.44
26:1H:46:C:H2'	26:1H:47:C:C6	2.52	0.44
26:1H:197:A:N6	26:1H:2430:A:H2'	2.32	0.44
26:1H:270(A):A:N3	26:1H:365:C:O2'	2.41	0.44
26:1H:272:G:H2'	26:1H:273:G:O4'	2.17	0.44
26:1H:363:G:O2'	26:1H:363(A):A:H5'	2.17	0.44
26:1H:543:C:N4	26:1H:550:G:H1	2.13	0.44
26:1H:589:C:H2'	26:1H:590:A:H8	1.79	0.44
26:1H:1145:C:H2'	26:1H:1146:C:H6	1.82	0.44
26:1H:1416:G:O2'	26:1H:1417:C:P	2.75	0.44
26:1H:1931:U:O2	26:1H:1931:U:O4'	2.36	0.44
26:1H:2638:G:P	30:21:82:ARG:HH21	2.40	0.44
26:1H:2720:U:O2	26:1H:2720:U:H2'	2.17	0.44
28:71:68:LEU:O	28:71:176:GLY:HA3	2.16	0.44
29:11:145:VAL:HG12	29:11:146:GLU:O	2.17	0.44
29:11:204:ILE:HD12	29:11:204:ILE:O	2.17	0.44
30:21:119:ARG:HD3	30:21:160:TYR:HB2	1.99	0.44
33:51:113:VAL:HG11	33:51:151:ILE:HD13	2.00	0.44
34:61:29:TYR:C	34:61:32:PRO:HD2	2.42	0.44
34:61:92:VAL:HG13	34:61:120:ILE:CG2	2.47	0.44
35:58:27:ALA:O	35:58:28:THR:C	2.60	0.44
37:78:79:ARG:HB2	37:78:110:TYR:CD1	2.52	0.44
43:D8:38:LEU:O	43:D8:51:VAL:HG23	2.17	0.44
44:E8:92:ARG:NH1	44:E8:94:ASP:CG	2.53	0.44
47:H8:15:PRO:O	47:H8:19:ARG:HB2	2.18	0.44
1:1G:450:G:H4'	16:7A:41:PRO:HB2	1.98	0.44
1:1G:1145:C:H4'	1:1G:1146:A:O5'	2.17	0.44
1:1G:1194:U:H2'	1:1G:1195:C:C6	2.52	0.44
2:12:84:GLU:OE1	2:12:84:GLU:N	2.50	0.44
3:22:63:ASN:HA	3:22:98:ASN:HB2	1.98	0.44
4:32:4:TYR:C	4:32:4:TYR:HD1	2.26	0.44
6:52:53:ALA:HB3	6:52:86:ARG:HD3	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:100:ALA:O	7:62:104:LEU:HD13	2.17	0.44
12:3A:100:ILE:HG22	12:3A:101:VAL:N	2.32	0.44
26:14:273(F):C:H3'	26:14:274:G:C5'	2.46	0.44
26:14:340:A:H2'	26:14:341:G:O4'	2.17	0.44
26:14:459:U:H4'	54:L5:40:TRP:CH2	2.52	0.44
26:14:830:G:H4'	26:14:831:G:OP2	2.18	0.44
26:14:996:A:N6	26:14:1160:G:C6	2.85	0.44
26:14:1178:C:H2'	26:14:1179:C:C6	2.53	0.44
26:14:2115:G:H1'	26:14:2171:A:H61	1.82	0.44
26:14:2511:U:H2'	26:14:2512:C:C6	2.53	0.44
27:1J:18:G:H2'	27:1J:19:G:C8	2.53	0.44
29:19:236:GLY:O	29:19:237:GLU:O	2.35	0.44
30:29:171:GLU:O	30:29:184:VAL:HA	2.18	0.44
31:39:63:LYS:CE	31:39:67:GLN:HB2	2.46	0.44
32:49:70:VAL:HA	32:49:90:LEU:HD23	1.99	0.44
34:69:111:PRO:O	34:69:112:LYS:C	2.59	0.44
36:25:87:ILE:HG23	36:25:88:ASN:O	2.17	0.44
37:35:13:ASN:O	37:35:15:ARG:N	2.50	0.44
47:D5:52:SER:C	47:D5:54:HIS:H	2.25	0.44
50:G5:15:LYS:HG3	50:G5:15:LYS:O	2.17	0.44
53:J5:25:LEU:HD23	53:J5:25:LEU:HA	1.74	0.44
1:13:107:G:H2'	1:13:108:G:O4'	2.17	0.44
1:13:316:G:OP2	1:13:351:G:O2'	2.33	0.44
1:13:625:G:H2'	1:13:626:U:H6	1.82	0.44
1:13:639:G:H2'	1:13:640:A:H8	1.81	0.44
1:13:1072:G:C5	1:13:1073:U:C4	3.05	0.44
1:13:1091:U:C2	1:13:1095:U:C4	3.06	0.44
5:4E:71:LEU:CD1	5:4E:114:GLY:HA3	2.48	0.44
6:5E:75:LEU:O	6:5E:79:LEU:HG	2.17	0.44
11:2I:79:SER:HB2	11:2I:106:LYS:HD2	2.00	0.44
13:4I:3:ARG:HH11	13:4I:7:VAL:HG22	1.82	0.44
14:5I:3:ARG:O	14:5I:6:LEU:HB2	2.16	0.44
15:6I:56:LEU:O	15:6I:60:VAL:HG23	2.17	0.44
20:BI:12:ALA:O	20:BI:15:ARG:HB2	2.17	0.44
23:2K:63:C:O2	23:2K:64:G:C8	2.71	0.44
26:1H:18:C:O3'	42:C8:23:GLY:HA2	2.17	0.44
26:1H:566:U:OP1	37:78:29:LYS:NZ	2.48	0.44
26:1H:713:G:H2'	26:1H:714:U:C6	2.53	0.44
26:1H:725:G:C6	26:1H:726:G:N1	2.86	0.44
26:1H:1011:G:OP1	42:C8:75:ASN:HB3	2.18	0.44
26:1H:1337:G:H2'	26:1H:1338:G:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2331:G:H4'	48:I8:42:GLY:HA3	1.99	0.44
26:1H:2837:G:C6	26:1H:2838:G:N7	2.86	0.44
26:1H:2864:G:H2'	26:1H:2865:U:H6	1.80	0.44
28:71:197:GLU:HG2	28:71:208:PHE:HZ	1.83	0.44
32:41:61:ALA:HB2	32:41:67:LYS:HA	1.98	0.44
35:58:87:LEU:O	35:58:87:LEU:HD22	2.18	0.44
43:D8:71:LEU:HA	43:D8:71:LEU:HD23	1.83	0.44
49:J8:73:LEU:HD21	49:J8:90:ILE:O	2.17	0.44
1:1G:5:U:H4'	1:1G:6:G:C5'	2.46	0.44
1:1G:176:C:H2'	1:1G:177:C:H6	1.83	0.44
1:1G:224:C:H2'	1:1G:225:C:H6	1.82	0.44
1:1G:278:G:O4'	1:1G:282:A:H1'	2.17	0.44
1:1G:310:G:OP2	16:7A:27:LYS:HD3	2.17	0.44
1:1G:371:G:H1	1:1G:390:C:H42	1.64	0.44
1:1G:1217:C:H2'	1:1G:1218:C:C6	2.53	0.44
5:42:31:LEU:HA	5:42:45:PHE:HB2	1.99	0.44
5:42:104:ALA:O	5:42:107:ARG:NH2	2.50	0.44
13:4A:83:ASP:O	13:4A:84:ILE:HB	2.16	0.44
26:14:221:A:C4	26:14:266:G:N7	2.85	0.44
26:14:233:A:C5	26:14:234:C:C5	3.06	0.44
26:14:285:C:H42	26:14:356:G:H1	1.65	0.44
26:14:534:U:O2'	42:85:49:HIS:ND1	2.49	0.44
26:14:559:G:H2'	26:14:560:C:O4'	2.17	0.44
26:14:637:A:H2'	37:35:117:GLU:OE2	2.18	0.44
26:14:641:C:H5"	26:14:642:G:OP2	2.17	0.44
26:14:770:G:OP2	60:14:3424:HOH:O	2.21	0.44
26:14:770:G:H5"	26:14:771:G:OP2	2.17	0.44
26:14:1091:G:N2	26:14:1092:C:C2	2.86	0.44
26:14:1131:G:C8	26:14:2025:C:H4'	2.53	0.44
26:14:1154:G:O5'	26:14:1154:G:H8	2.00	0.44
26:14:1194:A:H2'	26:14:1195:G:O4'	2.17	0.44
26:14:1219:G:H1	26:14:1230:C:H42	1.64	0.44
26:14:1813:G:OP1	29:19:39:LYS:HE2	2.18	0.44
26:14:2162:G:C8	26:14:2164:C:N4	2.86	0.44
26:14:2646:C:OP2	26:14:2732:G:O2'	2.23	0.44
26:14:2748:A:H2'	26:14:2749:A:C8	2.53	0.44
28:79:207:THR:HB	28:79:210:ARG:NH1	2.32	0.44
31:39:110:LEU:HD23	31:39:110:LEU:HA	1.73	0.44
31:39:172:TRP:CD1	31:39:172:TRP:H	2.35	0.44
32:49:81:LYS:HB3	32:49:82:LEU:H	1.66	0.44
32:49:182:LYS:HE3	32:49:182:LYS:HB2	1.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:15:42:TRP:HA	35:15:48:MET:HE1	1.99	0.44
38:45:46:GLN:HE22	38:45:126:PRO:HG3	1.81	0.44
44:A5:46:PHE:O	44:A5:50:VAL:HG12	2.18	0.44
46:C5:82:PRO:HB3	46:C5:99:CYS:CB	2.47	0.44
50:G5:35:LEU:HD12	50:G5:53:LEU:HD12	1.98	0.44
54:L5:5:TRP:NE1	54:L5:7:PRO:HG3	2.31	0.44
1:13:51:A:OP2	1:13:52:G:C8	2.70	0.44
1:13:99:C:N4	1:13:101:A:H62	2.16	0.44
1:13:155:C:H2'	1:13:156:G:C8	2.53	0.44
1:13:198:G:C2	1:13:199:G:C8	3.06	0.44
1:13:263:A:OP1	20:BI:79:ARG:HD3	2.17	0.44
1:13:377:G:OP1	16:7I:3:LYS:HD2	2.17	0.44
20:BI:33:ILE:O	20:BI:37:SER:OG	2.28	0.44
26:1H:84:A:H3'	46:G8:8:LYS:HB2	1.99	0.44
26:1H:109:G:H2'	26:1H:110:G:O4'	2.18	0.44
26:1H:250:G:C6	26:1H:251:A:C6	3.06	0.44
26:1H:363(B):G:H2'	26:1H:363(C):G:C8	2.49	0.44
26:1H:637:A:H2'	37:78:117:GLU:OE1	2.18	0.44
26:1H:1575:C:H2'	26:1H:1576:U:C6	2.53	0.44
26:1H:1838:C:C2	26:1H:1898:U:C4	3.06	0.44
29:11:263:ARG:HH11	29:11:263:ARG:HG3	1.81	0.44
31:31:77:ASP:N	31:31:77:ASP:OD1	2.46	0.44
33:51:25:LYS:HG2	33:51:34:GLU:HG2	1.99	0.44
34:61:128:LEU:O	34:61:138:ILE:N	2.43	0.44
35:58:94:HIS:HB2	35:58:97:ARG:HE	1.83	0.44
40:A8:41:ASP:OD2	40:A8:44:LYS:HB2	2.17	0.44
43:D8:35:LEU:HD22	43:D8:36:PRO:HD2	1.98	0.44
44:E8:31:GLU:O	44:E8:35:ILE:HG13	2.17	0.44
46:G8:94:LYS:HG3	46:G8:95:LYS:C	2.43	0.44
48:I8:53:MET:HA	48:I8:58:THR:O	2.17	0.44
49:J8:71:TYR:O	49:J8:74:VAL:HG12	2.18	0.44
51:L8:4:LEU:HD23	51:L8:4:LEU:HA	1.80	0.44
55:Q8:32:LEU:O	55:Q8:36:LYS:HE3	2.17	0.44
1:1G:390:C:H2'	1:1G:391:G:C8	2.53	0.44
1:1G:428:G:C8	1:1G:430:A:C4	3.06	0.44
1:1G:980:C:C5	1:1G:981:U:C2	3.05	0.44
1:1G:1064:G:OP1	1:1G:1386:G:H4'	2.15	0.44
3:22:46:GLU:O	3:22:49:SER:OG	2.36	0.44
4:32:3:ARG:NH1	4:32:118:ARG:HD3	2.32	0.44
10:1A:48:THR:OG1	10:1A:62:HIS:HB3	2.18	0.44
18:9A:37:VAL:HG12	18:9A:78:LEU:HB3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1L:45:G:C6	22:1L:48:C:C4	3.06	0.44
22:1L:50:C:H2'	22:1L:51:A:H8	1.83	0.44
26:14:1002:G:H2'	26:14:1003:G:O4'	2.18	0.44
26:14:1050:A:N3	26:14:2751:G:H2'	2.32	0.44
26:14:1342:A:C2	26:14:1397:U:C2	3.05	0.44
26:14:2176:A:H1'	28:79:44:HIS:HE1	1.82	0.44
26:14:2386:C:H2'	26:14:2387:U:O4'	2.17	0.44
26:14:2528:U:O2'	26:14:2530:A:OP1	2.28	0.44
26:14:2737:G:H2'	26:14:2738:A:C8	2.52	0.44
27:1J:116:G:H2'	27:1J:117:G:O4'	2.16	0.44
30:29:41:LYS:HG3	30:29:42:ASP:H	1.82	0.44
30:29:127:ASP:OD2	60:29:401:HOH:O	2.21	0.44
32:49:32:PRO:HB3	32:49:163:ALA:HB2	1.99	0.44
34:69:4:ILE:HG21	34:69:47:LEU:HD13	2.00	0.44
37:35:65:ARG:O	37:35:65:ARG:HD2	2.18	0.44
40:65:6:ALA:HA	40:65:9:ARG:NH1	2.32	0.44
40:65:15:ARG:HB3	40:65:19:LYS:HZ2	1.82	0.44
42:85:91:ASP:OD1	42:85:96:ALA:N	2.49	0.44
1:13:491:G:P	4:3E:151:LYS:NZ	2.91	0.44
1:13:858:G:O6	1:13:869:G:H3'	2.18	0.44
1:13:953:G:H2'	1:13:954:G:O4'	2.18	0.44
1:13:1145:C:H4'	1:13:1146:A:C8	2.49	0.44
1:13:1152:A:OP1	10:1I:68:HIS:ND1	2.48	0.44
3:2E:30:ARG:NH1	14:5I:35:ARG:O	2.50	0.44
9:8E:118:LYS:O	9:8E:119:ALA:HB3	2.18	0.44
11:2I:116:HIS:CD2	11:2I:116:HIS:N	2.86	0.44
13:4I:11:ARG:HG3	13:4I:12:ASN:H	1.83	0.44
13:4I:81:LEU:HD23	13:4I:81:LEU:HA	1.57	0.44
19:AI:12:ASP:OD2	19:AI:37:ARG:HD3	2.18	0.44
22:1K:6:G:H4'	22:1K:7:U:OP1	2.17	0.44
22:1K:18:G:C5	22:1K:57:G:N2	2.85	0.44
26:1H:259:G:O2'	26:1H:621:A:O2'	2.08	0.44
26:1H:928:G:H2'	26:1H:929:G:O4'	2.17	0.44
26:1H:954:G:H4'	38:88:13:GLN:OE1	2.17	0.44
26:1H:991:C:H2'	26:1H:992:C:C6	2.51	0.44
26:1H:1379:A:H4'	26:1H:1380:G:OP1	2.15	0.44
26:1H:1972:A:H2'	26:1H:1973:G:C8	2.52	0.44
26:1H:2109:U:H1'	26:1H:2181:G:N2	2.33	0.44
26:1H:2349:G:OP2	55:Q8:42:ARG:HD3	2.18	0.44
26:1H:2644:G:H8	26:1H:2644:G:O5'	2.01	0.44
26:1H:2789:C:H1'	26:1H:2892:A:C2	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:233:HIS:HB3	60:11:402:HOH:O	2.18	0.44
33:51:6:ARG:CZ	33:51:54:ARG:HH12	2.30	0.44
33:51:72:ILE:O	33:51:76:VAL:HG23	2.17	0.44
35:58:29:LYS:O	35:58:30:ILE:C	2.58	0.44
37:78:96:THR:O	37:78:100:LEU:HD23	2.18	0.44
42:C8:39:LEU:HA	42:C8:39:LEU:HD23	1.72	0.44
43:D8:49:THR:HG23	43:D8:51:VAL:N	2.32	0.44
1:1G:191(C):G:C2	1:1G:191(D):U:C2	3.06	0.44
1:1G:947:G:C6	1:1G:948:C:C4	3.06	0.44
1:1G:1008:C:H1'	1:1G:1022:G:H22	1.82	0.44
1:1G:1112:C:N3	3:22:178:LEU:HD23	2.32	0.44
1:1G:1454:G:H5"	20:BA:35:THR:HG21	1.99	0.44
2:12:27:LYS:O	2:12:30:ARG:NH1	2.50	0.44
2:12:178:ARG:HD3	2:12:196:LEU:O	2.18	0.44
3:22:3:ASN:OD1	3:22:3:ASN:N	2.50	0.44
3:22:124:ILE:HG13	3:22:130:VAL:HG22	1.99	0.44
4:32:18:LYS:HE3	4:32:31:CYS:SG	2.57	0.44
4:32:120:LEU:HD23	4:32:120:LEU:HA	1.81	0.44
4:32:196:LEU:H	4:32:196:LEU:HG	1.49	0.44
7:62:99:LEU:HD22	7:62:103:TRP:CE2	2.53	0.44
9:82:26:VAL:HG12	9:82:27:THR:N	2.32	0.44
11:2A:20:TYR:CZ	11:2A:83:ILE:HD12	2.52	0.44
16:7A:62:VAL:O	16:7A:62:VAL:HG12	2.17	0.44
19:AA:14:HIS:CG	19:AA:15:LEU:N	2.85	0.44
23:2L:36:A:H2'	23:2L:37:U:H6	1.82	0.44
26:14:37:C:H2'	26:14:38:A:C8	2.52	0.44
26:14:71:A:H3'	26:14:71:A:P	2.57	0.44
26:14:511:U:C3'	26:14:512:G:H5"	2.38	0.44
26:14:807:U:H2'	26:14:808:G:H8	1.82	0.44
26:14:1115:G:C5	26:14:1116:C:C4	3.06	0.44
26:14:1496:A:C8	26:14:1577:C:O2'	2.71	0.44
26:14:2290:G:O2'	26:14:2381:C:H1'	2.17	0.44
26:14:2776:A:OP1	26:14:2776:A:H3'	2.18	0.44
28:79:44:HIS:HD2	28:79:171:ILE:O	2.00	0.44
29:19:65:ILE:HG21	29:19:65:ILE:HD13	1.53	0.44
31:39:5:ALA:HB3	31:39:18:ARG:C	2.43	0.44
31:39:11:VAL:HG23	31:39:12:LEU:H	1.82	0.44
37:35:52:GLU:O	37:35:54:GLY:N	2.50	0.44
37:35:101:VAL:HB	37:35:106:LEU:HD23	1.99	0.44
41:75:12:SER:HA	41:75:14:TYR:H	1.82	0.44
42:85:91:ASP:C	42:85:93:LYS:N	2.74	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:713:G:H2'	1:13:714:G:C8	2.53	0.44
1:13:749:C:H2'	1:13:750:G:H8	1.83	0.44
1:13:1439:C:H2'	1:13:1440:C:H6	1.83	0.44
4:3E:13:ARG:NH1	4:3E:38:TYR:O	2.51	0.44
7:6E:46:ALA:O	7:6E:50:ILE:N	2.44	0.44
9:8E:49:PRO:O	9:8E:53:VAL:HG22	2.17	0.44
11:2I:31:THR:HG22	11:2I:42:TRP:HB2	2.00	0.44
15:6I:39:LEU:HD13	15:6I:56:LEU:HD12	2.00	0.44
26:1H:558:G:OP1	35:58:111:PRO:HD2	2.17	0.44
26:1H:756:C:C4	26:1H:757:U:C5	3.06	0.44
26:1H:901:A:N3	26:1H:901:A:H2'	2.32	0.44
26:1H:1170:G:N2	26:1H:1180:C:C2	2.85	0.44
26:1H:1322:A:H2'	26:1H:1323:U:H6	1.83	0.44
26:1H:1479:G:C6	26:1H:1480:G:C5	3.05	0.44
26:1H:1523:U:C2	26:1H:1524:G:C8	3.05	0.44
26:1H:1638:C:H5"	26:1H:2710:C:O2'	2.17	0.44
26:1H:2162:G:C5	26:1H:2163:C:C4	3.05	0.44
26:1H:2170:A:H8	26:1H:2170:A:OP2	2.00	0.44
26:1H:2367:G:H2'	26:1H:2368:C:C6	2.53	0.44
26:1H:2439:A:H5'	26:1H:2439:A:C8	2.53	0.44
26:1H:2604:U:C2'	26:1H:2605:U:H5'	2.48	0.44
27:16:16:G:N2	27:16:69:G:H1'	2.32	0.44
27:16:82:G:H2'	27:16:83:G:O4'	2.17	0.44
30:21:47:VAL:O	30:21:80:GLU:HA	2.17	0.44
30:21:116:VAL:HG21	30:21:122:PHE:CD2	2.53	0.44
32:41:117:PHE:CZ	32:41:119:GLY:HA2	2.53	0.44
41:B8:125:ARG:HA	41:B8:128:GLU:CD	2.43	0.44
42:C8:79:PHE:CE1	42:C8:83:LEU:HD22	2.53	0.44
43:D8:72:VAL:CG1	43:D8:85:LYS:HB3	2.48	0.44
46:G8:96:ILE:HD12	46:G8:101:LYS:HG2	1.99	0.44
47:H8:111:VAL:HG12	47:H8:146:ILE:CG1	2.48	0.44
1:1G:596:C:H2'	1:1G:597:G:H8	1.81	0.44
1:1G:1018:C:H2'	1:1G:1019:C:O4'	2.18	0.44
1:1G:1033:G:H2'	1:1G:1033:G:N3	2.33	0.44
1:1G:1103:C:C2	1:1G:1104:G:C8	3.05	0.44
1:1G:1237:C:OP1	1:1G:1238:A:H1'	2.18	0.44
1:1G:1254:C:N4	10:1A:43:ARG:HH12	2.15	0.44
1:1G:1320:C:H2'	1:1G:1321:C:O4'	2.17	0.44
1:1G:1486:G:H2'	1:1G:1487:G:O4'	2.16	0.44
2:12:168:THR:HG21	2:12:191:ASP:O	2.18	0.44
3:22:121:ALA:O	3:22:125:GLU:HG3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:24:THR:O	8:72:60:ARG:HA	2.17	0.44
9:82:21:PRO:HA	9:82:59:PHE:CD1	2.52	0.44
9:82:99:LEU:HB3	9:82:101:PHE:HE1	1.82	0.44
11:2A:96:ARG:HD3	11:2A:96:ARG:N	2.32	0.44
23:2L:33:OMC:O2'	23:2L:34:U:H6	2.00	0.44
26:14:493:G:H2'	26:14:494:G:O4'	2.17	0.44
26:14:591:C:H1'	55:M5:2:PRO:N	2.33	0.44
26:14:754:C:H2'	26:14:755:C:C6	2.53	0.44
26:14:1444(A):A:O2'	26:14:1444(A):A:N3	2.42	0.44
26:14:1444(A):A:O2'	26:14:1445:C:P	2.76	0.44
26:14:1728:G:H2'	26:14:1731:G:O6	2.17	0.44
26:14:2543:G:H2'	26:14:2544:G:C8	2.53	0.44
29:19:85:ASP:HB2	29:19:92:ILE:HD13	1.98	0.44
29:19:223:GLY:HA2	29:19:226:MET:HG3	2.00	0.44
30:29:81:ILE:HD12	30:29:81:ILE:HG23	1.73	0.44
32:49:61:ALA:HB2	32:49:68:PRO:HD3	2.00	0.44
37:35:118:GLY:O	37:35:137:LYS:NZ	2.43	0.44
37:35:127:ALA:O	37:35:147:LEU:N	2.50	0.44
38:45:35:VAL:HG12	38:45:36:ALA:N	2.32	0.44
38:45:89:ASN:O	38:45:92:GLY:N	2.46	0.44
46:C5:8:LYS:O	46:C5:27:VAL:HG11	2.17	0.44
47:D5:5:LEU:HA	47:D5:5:LEU:HD23	1.74	0.44
47:D5:9:TYR:CZ	47:D5:35:ARG:NH1	2.85	0.44
47:D5:94:GLU:HB3	47:D5:96:VAL:HG23	1.99	0.44
49:F5:82:LEU:HG	49:F5:83:GLU:N	2.31	0.44
54:L5:22:MET:O	54:L5:28:ARG:NH1	2.51	0.44
1:13:51:A:N7	1:13:114:U:O2'	2.51	0.44
1:13:344:A:H5"	1:13:345:C:H6	1.83	0.44
1:13:358:U:H2'	1:13:359:U:O4'	2.18	0.44
1:13:734:G:C2	1:13:735:C:C2	3.05	0.44
1:13:939:G:H2'	1:13:940:C:C6	2.52	0.44
1:13:1020:U:H2'	1:13:1021:G:C8	2.53	0.44
2:1E:51:LEU:O	2:1E:55:PHE:HB2	2.18	0.44
2:1E:166:ASP:HB2	2:1E:205:ASP:OD2	2.17	0.44
2:1E:215:LEU:O	2:1E:218:ALA:HB3	2.17	0.44
3:2E:7:PRO:HG2	3:2E:184:TYR:CB	2.47	0.44
3:2E:195:VAL:O	3:2E:196:LEU:HD23	2.18	0.44
4:3E:107:ARG:HH12	4:3E:194:LEU:HD22	1.82	0.44
5:4E:103:GLY:O	5:4E:107:ARG:HB3	2.18	0.44
6:5E:3:ARG:NH1	6:5E:38:GLU:OE2	2.51	0.44
8:7E:120:THR:H	8:7E:123:GLU:HG3	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:48:GLU:N	9:8E:49:PRO:HD2	2.32	0.44
12:3I:78:GLN:HG3	12:3I:79:GLU:H	1.83	0.44
17:8I:45:HIS:HB3	17:8I:72:ARG:HG2	1.98	0.44
26:1H:587:C:H4'	26:1H:588:U:C6	2.53	0.44
26:1H:911:A:H2'	38:88:9:TYR:OH	2.17	0.44
26:1H:1042:G:H2'	26:1H:1043:C:O4'	2.18	0.44
26:1H:2287:A:C4	26:1H:2289:G:C8	3.05	0.44
26:1H:2747:G:O6	26:1H:2755:C:H5"	2.18	0.44
29:11:119:ALA:CB	29:11:130:ALA:HB3	2.48	0.44
31:31:17:ARG:O	31:31:17:ARG:HG3	2.18	0.44
33:51:86:GLU:OE1	33:51:86:GLU:N	2.49	0.44
46:G8:63:LYS:NZ	46:G8:64:GLU:HG3	2.33	0.44
1:1G:449:C:C5	16:7A:42:ARG:NH1	2.85	0.44
1:1G:1224:G:O2'	1:1G:1322:C:OP2	2.36	0.44
1:1G:1368:G:H5"	9:82:112:LYS:HB3	2.00	0.44
1:1G:1493:A:H2'	26:14:1913:A:N1	2.33	0.44
3:22:116:VAL:O	3:22:119:ARG:HB3	2.17	0.44
5:42:60:TYR:O	5:42:64:ARG:HG2	2.18	0.44
12:3A:47:LYS:O	12:3A:48:PRO:C	2.61	0.44
13:4A:15:VAL:HA	13:4A:18:ALA:HB3	1.99	0.44
13:4A:23:TYR:CZ	13:4A:71:ARG:HG2	2.53	0.44
13:4A:61:GLU:H	13:4A:61:GLU:HG3	1.37	0.44
17:8A:55:ASP:HA	17:8A:79:SER:HA	2.00	0.44
23:2L:76:C:H2'	23:2L:77:A:C8	2.52	0.44
26:14:580:C:H2'	26:14:581:C:C6	2.53	0.44
26:14:615:G:H2'	31:39:44:ARG:HH11	1.82	0.44
26:14:1335:U:H2'	26:14:1336:A:O4'	2.18	0.44
26:14:1416:G:H2'	26:14:1417:C:C6	2.53	0.44
26:14:1786:A:H1'	26:14:1938:A:H61	1.78	0.44
26:14:2141:G:C4	26:14:2151:G:C2	3.06	0.44
26:14:2416:C:H2'	26:14:2417:C:H6	1.82	0.44
26:14:2850:A:N7	26:14:2868:A:O2'	2.41	0.44
27:1J:11:C:H3'	27:1J:12:C:C6	2.53	0.44
31:39:129:PHE:HA	31:39:142:TRP:NE1	2.33	0.44
37:35:71:VAL:CG1	37:35:72:PRO:HD3	2.46	0.44
39:55:33:ARG:HD3	39:55:115:GLU:OE2	2.18	0.44
46:C5:60:PHE:HD1	46:C5:60:PHE:H	1.64	0.44
47:D5:78:LYS:H	47:D5:78:LYS:HG3	1.62	0.44
49:F5:46:LEU:HD12	49:F5:46:LEU:HA	1.76	0.44
1:13:438:G:H5'	4:3E:123:HIS:CG	2.53	0.44
1:13:625:G:H4'	16:7I:16:HIS:ND1	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1028(A):C:N4	1:13:1032(A):G:H22	2.16	0.44
1:13:1151:A:H4'	10:1I:70:ARG:NH2	2.32	0.44
1:13:1239:A:O2'	7:6E:114:ARG:O	2.31	0.44
2:1E:121:LEU:HA	2:1E:124:SER:CB	2.45	0.44
3:2E:142:MET:HE2	3:2E:170:GLN:HB3	2.00	0.44
4:3E:159:ARG:O	4:3E:163:GLU:N	2.38	0.44
4:3E:176:LEU:HD12	4:3E:177:ASP:N	2.33	0.44
5:4E:91:LEU:HD12	5:4E:118:ILE:CD1	2.43	0.44
5:4E:112:LEU:HD23	5:4E:112:LEU:HA	1.52	0.44
12:3I:70:ILE:HG12	12:3I:100:ILE:HG13	2.00	0.44
14:5I:6:LEU:HB3	14:5I:23:ARG:HH22	1.81	0.44
14:5I:13:THR:N	14:5I:14:PRO:HD2	2.33	0.44
22:1K:66:A:N7	22:1K:67:C:C2	2.86	0.44
26:1H:1197:G:H5'	26:1H:1228:G:O2'	2.18	0.44
26:1H:1684:C:H2'	26:1H:1685:C:C6	2.53	0.44
26:1H:1686:C:H2'	26:1H:1687:G:O4'	2.17	0.44
26:1H:1853:A:N1	26:1H:2087:G:H1'	2.32	0.44
26:1H:2115:G:H2'	26:1H:2116:G:C8	2.53	0.44
26:1H:2532:G:H2'	26:1H:2533:A:O4'	2.18	0.44
28:71:37:PHE:CG	28:71:38:ASP:N	2.86	0.44
29:11:31:LYS:NZ	29:11:102:LYS:NZ	2.66	0.44
29:11:272:ALA:HB1	29:11:273:ARG:H	1.57	0.44
31:31:130:ALA:C	31:31:132:VAL:H	2.26	0.44
43:D8:85:LYS:HE2	43:D8:85:LYS:HB2	1.89	0.44
45:F8:31:HIS:CE1	45:F8:33:LYS:HB2	2.53	0.44
47:H8:112:ARG:HE	47:H8:112:ARG:HB3	1.36	0.44
1:1G:437:U:H1'	4:32:119:GLN:NE2	2.33	0.44
1:1G:1111:A:H2'	1:1G:1112:C:C6	2.53	0.44
1:1G:1280:A:H5"	10:1A:40:LEU:HG	1.98	0.44
1:1G:1291:G:H2'	1:1G:1292:U:C6	2.53	0.44
2:12:17:PHE:CZ	2:12:44:LEU:HG	2.52	0.44
2:12:217:ARG:O	2:12:219:VAL:HG13	2.17	0.44
3:22:111:LEU:HD12	3:22:111:LEU:H	1.83	0.44
4:32:126:ILE:HG22	4:32:127:THR:H	1.82	0.44
4:32:138:TYR:HD1	4:32:139:ARG:N	2.16	0.44
7:62:47:CYS:HB3	7:62:58:PRO:CB	2.48	0.44
7:62:111:ARG:NH2	7:62:122:HIS:HB3	2.33	0.44
10:1A:63:PHE:HD1	14:5A:58:LYS:HA	1.82	0.44
16:7A:66:PRO:HG2	16:7A:71:ARG:HH21	1.82	0.44
17:8A:40:LYS:HB3	17:8A:42:TYR:CE1	2.53	0.44
19:AA:10:PHE:HB2	19:AA:11:VAL:HG23	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1L:63:U:H2'	22:1L:64:G:O4'	2.18	0.44
25:4L:10:G:H2'	25:4L:11:U:H5'	2.00	0.44
26:14:677:A:H61	26:14:800:A:H61	1.64	0.44
26:14:958:U:O2	27:1J:89(A):A:O2'	2.29	0.44
26:14:959:A:C6	26:14:960:A:N1	2.85	0.44
26:14:1028:A:H61	26:14:1125:G:H2'	1.83	0.44
26:14:1387:C:C2	26:14:1388:G:C8	3.06	0.44
26:14:1636:C:H2'	26:14:1637:A:H8	1.78	0.44
26:14:2095:C:C4	26:14:2096:U:C5	3.06	0.44
26:14:2649:U:H2'	26:14:2650:U:C6	2.53	0.44
27:1J:94:C:H2'	27:1J:95:U:C6	2.53	0.44
29:19:11:PRO:O	29:19:12:SER:OG	2.24	0.44
29:19:115:GLN:HG2	29:19:116:GLN:H	1.83	0.44
29:19:221:VAL:HB	29:19:226:MET:HE2	2.00	0.44
32:49:48:GLU:H	32:49:48:GLU:CD	2.25	0.44
34:69:37:VAL:HG12	34:69:38:LEU:N	2.30	0.44
38:45:73:PRO:HB3	38:45:93:TYR:CE1	2.52	0.44
1:13:191(E):G:H2'	1:13:191(F):U:C6	2.53	0.43
1:13:609:A:C2'	1:13:610:G:H5'	2.47	0.43
1:13:690:G:H22	11:2I:55:LYS:HE2	1.81	0.43
1:13:768:A:H2'	1:13:769:G:O4'	2.17	0.43
1:13:877:C:OP1	8:7E:88:LYS:NZ	2.37	0.43
1:13:1021:G:C6	1:13:1022:G:C5	3.06	0.43
1:13:1316:G:H2'	1:13:1318:A:OP2	2.18	0.43
1:13:1442:G:H2'	1:13:1443:G:C5'	2.48	0.43
1:13:1503:A:N3	25:4K:12:A:C2	2.86	0.43
2:1E:24:TRP:CD1	2:1E:24:TRP:H	2.36	0.43
8:7E:95:VAL:HG12	8:7E:96:GLY:O	2.18	0.43
11:2I:85:ARG:CG	11:2I:112:THR:H	2.31	0.43
13:4I:51:ALA:O	13:4I:54:VAL:N	2.48	0.43
13:4I:84:ILE:HD12	13:4I:84:ILE:HA	1.80	0.43
16:7I:3:LYS:O	16:7I:21:VAL:HA	2.18	0.43
20:BI:53:LEU:HA	20:BI:53:LEU:HD13	1.81	0.43
26:1H:10:G:H2'	26:1H:11:G:O4'	2.18	0.43
26:1H:105:C:H6	26:1H:105:C:O5'	2.01	0.43
26:1H:216:A:H2'	26:1H:217:G:H8	1.83	0.43
26:1H:419:C:H2'	26:1H:420:C:O4'	2.17	0.43
26:1H:728:G:H4'	29:11:13:ARG:HD3	2.00	0.43
26:1H:1389:G:C2	26:1H:1399:C:O2	2.72	0.43
26:1H:1901:A:OP2	29:11:255:LYS:HE2	2.18	0.43
26:1H:2404:C:N4	26:1H:2405:G:C6	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2726:U:O2'	26:1H:2727:G:H8	2.01	0.43
26:1H:2875:C:H2'	26:1H:2876:G:O4'	2.18	0.43
29:11:96:HIS:CE1	29:11:102:LYS:HE2	2.53	0.43
30:21:31:CYS:HA	30:21:32:PRO:HD3	1.83	0.43
31:31:51:THR:CB	31:31:88:VAL:HG11	2.48	0.43
32:41:83:ARG:HA	32:41:83:ARG:HD3	1.73	0.43
37:78:112:LEU:HD12	37:78:127:ALA:CB	2.47	0.43
41:B8:41:ARG:HH12	41:B8:43:GLN:HG3	1.82	0.43
41:B8:105:LEU:C	41:B8:107:ASP:H	2.25	0.43
48:I8:74:ARG:NH1	48:I8:74:ARG:HB3	2.33	0.43
50:K8:47:ASN:C	50:K8:49:LYS:N	2.68	0.43
53:N8:36:CYS:SG	53:N8:37:LYS:NZ	2.91	0.43
1:1G:57:G:C5	1:1G:58:C:C4	3.06	0.43
1:1G:304:U:H2'	1:1G:305:G:C8	2.53	0.43
1:1G:597:G:C6	1:1G:644:G:C6	3.05	0.43
1:1G:994:A:N7	1:1G:1216:G:H4'	2.33	0.43
1:1G:1321:C:C4	1:1G:1322:C:C4	3.06	0.43
1:1G:1368:G:O2'	1:1G:1369:C:H5'	2.18	0.43
1:1G:1401:G:C2	1:1G:1402:C:H1'	2.53	0.43
2:12:44:LEU:H	2:12:44:LEU:HD12	1.83	0.43
5:42:76:ILE:HD12	5:42:142:LEU:HD13	2.00	0.43
8:72:116:LYS:H	8:72:116:LYS:HG2	1.58	0.43
14:5A:47:LEU:HA	14:5A:47:LEU:HD23	1.70	0.43
15:6A:55:GLY:O	15:6A:59:MET:HB2	2.18	0.43
17:8A:17:LYS:HG2	17:8A:47:PRO:HA	2.00	0.43
19:AA:65:ASN:OD1	19:AA:66:MET:HG2	2.18	0.43
24:3L:36:U:H3'	24:3L:37:A:C8	2.52	0.43
24:3L:53:G:H1	24:3L:61:C:H42	1.65	0.43
26:14:852:G:H2'	26:14:853:G:C8	2.53	0.43
26:14:1069:A:H5"	26:14:1070:A:OP1	2.18	0.43
26:14:1151:G:O3'	42:85:81:HIS:HB2	2.18	0.43
26:14:1223:C:P	43:95:88:ARG:HH22	2.40	0.43
26:14:1646:C:H5"	26:14:1647:G:H5'	2.00	0.43
26:14:1717:G:H1	26:14:1742:C:N4	2.11	0.43
26:14:1818:U:H2'	29:19:157:ARG:HG3	1.99	0.43
26:14:1878:G:H2'	26:14:1879:C:H6	1.81	0.43
26:14:2176:A:H2'	26:14:2177:C:C6	2.53	0.43
26:14:2737:G:H2'	26:14:2738:A:H8	1.83	0.43
27:1J:63:G:C2	27:1J:64:C:C2	3.06	0.43
30:29:47:VAL:HG23	30:29:84:PHE:O	2.18	0.43
46:C5:3:VAL:HG11	46:C5:32:PRO:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:59:GLY:O	46:C5:61:ILE:HG13	2.18	0.43
50:G5:46:GLN:OE1	50:G5:46:GLN:CA	2.66	0.43
1:13:103:C:H2'	1:13:104:G:H8	1.82	0.43
1:13:247:G:OP1	17:8I:100:LYS:HD2	2.18	0.43
1:13:352:C:O2'	1:13:353:A:O3'	2.34	0.43
1:13:402:G:OP1	4:3E:74:GLN:HG2	2.18	0.43
1:13:575:G:C4	1:13:881:G:C2	3.06	0.43
1:13:603:U:H2'	1:13:604:G:C8	2.52	0.43
1:13:607:A:C2	16:7I:31:LYS:HG3	2.52	0.43
1:13:820:U:H4'	1:13:821:G:OP2	2.18	0.43
1:13:1121:U:H2'	1:13:1122:U:O4'	2.17	0.43
1:13:1306:A:H62	1:13:1331:G:N2	2.16	0.43
1:13:1423:G:P	36:68:49:ARG:NH2	2.91	0.43
2:1E:15:VAL:HG11	2:1E:210:SER:OG	2.18	0.43
2:1E:231:GLU:HA	2:1E:232:PRO:HD3	1.71	0.43
4:3E:161:ASN:O	4:3E:165:MET:HB2	2.17	0.43
5:4E:48:ALA:HB3	5:4E:54:ALA:HB2	2.00	0.43
9:8E:5:TYR:CG	9:8E:6:GLY:N	2.86	0.43
9:8E:34:ASN:OD1	9:8E:34:ASN:N	2.52	0.43
9:8E:70:LYS:O	9:8E:74:ILE:HG13	2.17	0.43
12:3I:65:GLU:O	12:3I:65:GLU:HG3	2.17	0.43
14:5I:23:ARG:NH1	14:5I:30:ALA:HB2	2.32	0.43
15:6I:27:VAL:O	15:6I:31:LEU:HD23	2.19	0.43
19:AI:25:LYS:HB3	19:AI:27:GLU:H	1.84	0.43
24:3K:61:C:H2'	24:3K:62:C:O4'	2.18	0.43
26:1H:289:A:N6	26:1H:351:G:H1'	2.33	0.43
26:1H:492:A:H2'	26:1H:493:G:O4'	2.18	0.43
26:1H:1515:C:H2'	26:1H:1516:U:C6	2.50	0.43
26:1H:1799:G:H5"	26:1H:1819:A:N6	2.33	0.43
26:1H:1826:G:H4'	29:11:242:ARG:HH21	1.83	0.43
26:1H:1926:U:O2	26:1H:1928:A:C8	2.72	0.43
26:1H:2299:G:H8	26:1H:2299:G:O5'	2.01	0.43
26:1H:2339:G:H2'	26:1H:2340:G:C8	2.53	0.43
26:1H:2478:A:C8	26:1H:2529:G:C6	3.06	0.43
26:1H:2542:A:H4'	26:1H:2543:G:C8	2.53	0.43
26:1H:2611:U:C2	53:N8:3:LYS:HB3	2.54	0.43
26:1H:2660:A:H8	26:1H:2660:A:O5'	2.00	0.43
26:1H:2813:A:C5	26:1H:2814:C:C5	3.06	0.43
29:11:46:GLN:H	29:11:46:GLN:HG2	1.70	0.43
29:11:145:VAL:HB	29:11:155:LEU:HB2	2.00	0.43
29:11:148:GLU:HB2	29:11:151:LYS:HD2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:68:26:LYS:HD2	36:68:37:ASP:CG	2.43	0.43
37:78:49:ARG:HH12	37:78:50:ARG:NH2	2.16	0.43
40:A8:66:ALA:HA	40:A8:69:VAL:HG12	1.99	0.43
46:G8:34:LYS:O	46:G8:34:LYS:CG	2.66	0.43
1:1G:37:U:O2'	1:1G:547:A:N1	2.39	0.43
1:1G:38:G:O2'	1:1G:39:G:H5"	2.17	0.43
1:1G:57:G:H2'	1:1G:58:C:C6	2.53	0.43
1:1G:509:A:H5"	4:32:55:ALA:HB2	1.98	0.43
1:1G:1032(B):G:H2'	1:1G:1033:G:O4'	2.17	0.43
1:1G:1039:C:H5"	1:1G:1040:U:OP1	2.18	0.43
1:1G:1062:U:H2'	1:1G:1063:C:C6	2.53	0.43
1:1G:1145:C:H4'	1:1G:1146:A:H8	1.81	0.43
1:1G:1237:C:O2'	1:1G:1300:G:N2	2.47	0.43
1:1G:1326:C:OP1	21:1B:17:THR:OG1	2.25	0.43
2:12:61:LEU:HD21	2:12:157:ARG:HH22	1.83	0.43
7:62:65:ALA:CB	7:62:124:LEU:HD23	2.45	0.43
9:82:89:ASN:OD1	9:82:89:ASN:N	2.51	0.43
11:2A:27:ASN:HD22	11:2A:55:LYS:HD2	1.83	0.43
11:2A:66:LEU:HD23	11:2A:97:ALA:HB1	2.01	0.43
12:3A:89:ARG:HE	12:3A:89:ARG:HB3	1.55	0.43
13:4A:79:LYS:HG3	13:4A:82:MET:CE	2.48	0.43
14:5A:7:ILE:HG22	14:5A:23:ARG:NH1	2.33	0.43
24:3L:18:G:H2'	24:3L:57:G:H21	1.82	0.43
26:14:28:A:C5	26:14:29:U:C5	3.06	0.43
26:14:302:C:N4	60:14:3484:HOH:O	2.51	0.43
26:14:1204:A:H61	26:14:1240:U:H2'	1.83	0.43
26:14:1269:A:H61	26:14:2011:U:H3	1.65	0.43
26:14:1356:G:H2'	26:14:1357:U:O4'	2.18	0.43
26:14:1685:C:H2'	26:14:1686:C:H6	1.83	0.43
26:14:2366:A:H2'	26:14:2367:G:O4'	2.18	0.43
26:14:2577:A:H4'	53:J5:2:ALA:HA	1.99	0.43
26:14:2720:U:N3	26:14:2873:A:H2	2.16	0.43
30:29:195:LEU:HD12	30:29:195:LEU:HA	1.65	0.43
34:69:75:LEU:HD22	34:69:77:LEU:H	1.83	0.43
37:35:131:SER:HB3	37:35:134:ALA:HB2	1.99	0.43
42:85:90:VAL:HG12	42:85:91:ASP:HA	2.01	0.43
46:C5:86:ARG:HG3	46:C5:87:LYS:N	2.32	0.43
1:13:5:U:N3	4:3E:87:GLY:HA3	2.30	0.43
1:13:113:G:N3	1:13:353:A:O2'	2.43	0.43
1:13:254:G:H2'	1:13:255:G:O4'	2.17	0.43
1:13:982:U:H4'	1:13:983:A:O5'	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1351:U:O4	9:8E:118:LYS:HE3	2.18	0.43
3:2E:178:LEU:HD13	3:2E:178:LEU:HA	1.90	0.43
4:3E:83:SER:O	4:3E:86:LYS:HG3	2.18	0.43
15:6I:40:SER:O	15:6I:44:LYS:HG3	2.18	0.43
26:1H:90:U:H1'	26:1H:91:A:C8	2.54	0.43
26:1H:530:G:N1	26:1H:2022:U:OP1	2.52	0.43
26:1H:654(N):G:C8	26:1H:654(P):G:N2	2.86	0.43
26:1H:1211:U:H4'	26:1H:1212:G:OP2	2.18	0.43
26:1H:1335:U:H2'	26:1H:1336:A:O4'	2.19	0.43
26:1H:1508:A:H4'	26:1H:1509:C:C1'	2.49	0.43
26:1H:1999:C:OP1	30:21:118:LYS:NZ	2.50	0.43
26:1H:2565:A:H5"	26:1H:2566:A:OP2	2.18	0.43
27:16:41:U:C5	32:41:70:VAL:HG12	2.54	0.43
30:21:14:ILE:O	30:21:15:PHE:HB2	2.18	0.43
32:41:103:LEU:HD21	32:41:178:PHE:HZ	1.83	0.43
33:51:20:ALA:HB3	33:51:23:ARG:HG2	1.99	0.43
34:61:124:GLY:H	34:61:142:VAL:HG23	1.81	0.43
35:58:12:ARG:HG2	35:58:13:TRP:N	2.32	0.43
42:C8:79:PHE:C	42:C8:79:PHE:HD1	2.26	0.43
50:K8:58:ALA:O	50:K8:62:THR:HG22	2.19	0.43
1:1G:223:U:H2'	1:1G:224:C:C6	2.53	0.43
1:1G:355:C:O2'	1:1G:388:G:N3	2.41	0.43
1:1G:617:G:C6	1:1G:618:C:C5	3.06	0.43
1:1G:934:C:O2'	1:1G:1344:C:OP2	2.22	0.43
1:1G:1126:U:N3	1:1G:1281:U:O4'	2.51	0.43
1:1G:1127:G:H2'	1:1G:1128:C:C6	2.47	0.43
2:12:86:GLU:C	2:12:89:GLY:H	2.25	0.43
4:32:25:ARG:HG3	4:32:30:LYS:O	2.18	0.43
4:32:63:LYS:HB2	4:32:63:LYS:HE3	1.71	0.43
7:62:20:ASP:HB3	7:62:23:VAL:CG2	2.48	0.43
8:72:120:THR:CG2	8:72:123:GLU:H	2.26	0.43
17:8A:60:ILE:HG23	17:8A:62:SER:OG	2.18	0.43
18:9A:37:VAL:CG1	18:9A:78:LEU:HB3	2.48	0.43
26:14:71:A:C2	45:B5:31:HIS:CE1	2.98	0.43
26:14:161:U:H5'	26:14:171:G:N2	2.33	0.43
26:14:631:A:O2'	37:35:67:MET:HB3	2.18	0.43
26:14:769:G:H2'	26:14:770:G:H8	1.82	0.43
26:14:943:U:OP1	37:35:36:LYS:HG3	2.19	0.43
26:14:1138:G:N3	35:15:106:MET:HE2	2.33	0.43
26:14:1170:G:H2'	26:14:1171:G:H5'	1.99	0.43
26:14:1674:G:H1'	26:14:1676:A:N6	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2622:C:H5'	30:29:159:HIS:CE1	2.52	0.43
26:14:2844:G:C6	26:14:2845:G:C4	3.07	0.43
26:14:2844:G:C5	26:14:2845:G:C5	3.06	0.43
29:19:8:PRO:HB3	29:19:14:ARG:HB2	2.01	0.43
29:19:70:TRP:O	29:19:73:VAL:HG23	2.18	0.43
29:19:228:PRO:HD3	29:19:234:GLY:O	2.19	0.43
39:55:100:LEU:HD12	39:55:111:LEU:HB2	2.00	0.43
40:65:7:TYR:HA	40:65:10:ARG:HH21	1.83	0.43
42:85:92:ARG:C	42:85:94:ASN:N	2.76	0.43
46:C5:2:ARG:HD3	46:C5:2:ARG:HA	1.73	0.43
46:C5:19:LYS:C	46:C5:21:LYS:H	2.26	0.43
47:D5:48:PHE:O	47:D5:52:SER:OG	2.30	0.43
54:L5:29:LYS:O	54:L5:33:ARG:HG3	2.18	0.43
1:13:51:A:N3	1:13:116:A:H1'	2.34	0.43
1:13:187:C:O2	1:13:191(A):G:C6	2.71	0.43
1:13:235:C:H5'	17:8I:70:ARG:CG	2.39	0.43
1:13:291:C:H42	1:13:309:G:H1	1.66	0.43
1:13:724:G:O2'	1:13:725:G:H5'	2.18	0.43
1:13:738:C:H2'	1:13:739:C:C6	2.53	0.43
1:13:827:U:C4	1:13:870:U:C4	3.07	0.43
1:13:1178:G:N7	9:8E:97:LYS:NZ	2.63	0.43
1:13:1197:G:H2'	1:13:1198:G:H5'	2.00	0.43
1:13:1448:C:N4	1:13:1455:G:H1	2.07	0.43
3:2E:139:GLN:O	3:2E:143:GLU:HG3	2.17	0.43
4:3E:80:GLU:O	4:3E:83:SER:HB2	2.19	0.43
6:5E:100:ASN:HB2	18:9I:28:GLU:HA	2.00	0.43
11:2I:30:VAL:HG21	11:2I:65:ALA:HA	1.99	0.43
12:3I:84:LEU:HD22	12:3I:104:VAL:HG11	1.99	0.43
18:9I:37:VAL:O	18:9I:41:LYS:HG2	2.19	0.43
20:BI:11:SER:O	20:BI:14:LYS:HB3	2.19	0.43
26:1H:394:A:C6	26:1H:395:U:N3	2.87	0.43
26:1H:606:U:H4'	26:1H:658:C:H4'	2.00	0.43
26:1H:633:A:H2'	26:1H:634:C:H5'	1.99	0.43
26:1H:658:C:H2'	26:1H:659:C:C6	2.54	0.43
26:1H:1195:G:O2'	26:1H:1227:A:N1	2.51	0.43
26:1H:1392:A:N6	26:1H:1393:A:N6	2.67	0.43
26:1H:1532:C:H2'	26:1H:1533:C:O4'	2.18	0.43
26:1H:2840:C:H4'	39:98:53:HIS:CE1	2.53	0.43
30:21:116:VAL:HG23	30:21:120:TRP:HD1	1.83	0.43
31:31:101:LEU:HA	31:31:101:LEU:HD23	1.68	0.43
34:61:95:LYS:HE3	34:61:95:LYS:HB3	1.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:14:LYS:O	37:78:15:ARG:C	2.60	0.43
40:A8:32:LEU:HD23	40:A8:32:LEU:N	2.34	0.43
42:C8:31:SER:O	42:C8:32:PHE:C	2.62	0.43
48:I8:42:GLY:O	48:I8:57:PHE:HD2	2.01	0.43
49:J8:71:TYR:HA	49:J8:74:VAL:HG12	2.00	0.43
55:Q8:6:THR:HG23	55:Q8:64:TYR:CD2	2.50	0.43
1:1G:457:C:H2'	1:1G:458:C:O4'	2.18	0.43
1:1G:565:U:H3'	1:1G:566:G:H2'	1.99	0.43
1:1G:888:G:HO2'	1:1G:1488:G:HO2'	1.61	0.43
1:1G:909:A:H2'	1:1G:910:C:O4'	2.18	0.43
1:1G:1105:A:H2'	1:1G:1106:G:H8	1.83	0.43
1:1G:1127:G:H2'	1:1G:1127:G:N3	2.33	0.43
2:12:139:LYS:O	2:12:143:GLU:HG3	2.17	0.43
3:22:35:GLU:HA	3:22:38:ARG:HE	1.83	0.43
5:42:18:ARG:HH21	5:42:25:ARG:HH11	1.67	0.43
6:52:7:ASN:N	6:52:7:ASN:OD1	2.52	0.43
15:6A:56:LEU:O	15:6A:60:VAL:HG23	2.18	0.43
22:1L:55:PSU:OP1	38:45:55:VAL:HG11	2.18	0.43
23:2L:40:C:H2'	23:2L:41:C:C6	2.53	0.43
26:14:1282:U:H2'	26:14:1283:G:O4'	2.18	0.43
26:14:2303:G:C2'	26:14:2304:G:H5'	2.48	0.43
26:14:2688:U:C5	26:14:2720:U:OP2	2.72	0.43
26:14:2837:G:H2'	26:14:2838:G:H8	1.83	0.43
26:14:2841:C:H2'	26:14:2842:G:H8	1.82	0.43
26:14:2869:G:H2'	26:14:2870:C:O4'	2.18	0.43
27:1J:47:C:H5'	40:65:10:ARG:HH12	1.83	0.43
27:1J:66:A:H61	27:1J:107:U:H2'	1.83	0.43
30:29:107:THR:O	30:29:190:GLY:HA2	2.19	0.43
31:39:66:PRO:O	31:39:67:GLN:CB	2.61	0.43
32:49:120:LEU:HB2	32:49:180:PHE:CD1	2.53	0.43
34:69:122:GLU:HB3	34:69:126:TYR:OH	2.17	0.43
40:65:43:GLU:HG3	40:65:44:LYS:HE2	2.00	0.43
41:75:86:ILE:HG21	41:75:86:ILE:HD13	1.71	0.43
43:95:34:GLU:OE2	43:95:56:SER:HB2	2.18	0.43
43:95:94:LEU:HD23	43:95:94:LEU:HA	1.78	0.43
50:G5:42:GLY:HA2	50:G5:43:GLN:OE1	2.19	0.43
1:13:254:G:O3'	17:8I:69:LYS:NZ	2.40	0.43
1:13:468:A:H3'	1:13:474:G:H8	1.84	0.43
1:13:807:A:H2'	1:13:808:C:H6	1.84	0.43
1:13:1191:A:H5"	3:2E:4:LYS:HE2	2.01	0.43
1:13:1286:A:C2	21:1F:18:TYR:OH	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1450:U:O2'	1:13:1451:A:C5	2.71	0.43
4:3E:22:LYS:HD3	4:3E:25:ARG:HD2	2.01	0.43
4:3E:64:LEU:O	4:3E:67:ILE:N	2.52	0.43
8:7E:87:SER:CB	8:7E:93:VAL:H	2.31	0.43
9:8E:7:THR:O	9:8E:83:ARG:HG3	2.18	0.43
13:4I:49:THR:HB	13:4I:52:GLU:HG2	1.99	0.43
13:4I:65:LYS:H	13:4I:65:LYS:HD2	1.82	0.43
26:1H:218:A:OP2	60:1H:3560:HOH:O	2.21	0.43
26:1H:478:A:C6	26:1H:480:A:C6	3.07	0.43
26:1H:607:U:H3	26:1H:621:A:H2	1.58	0.43
26:1H:806:C:P	37:78:41:ARG:NH2	2.92	0.43
26:1H:1380:G:N2	26:1H:1570:A:C2	2.86	0.43
26:1H:1425:G:H2'	26:1H:1426:G:O4'	2.18	0.43
26:1H:1473:G:H2'	26:1H:1474:C:O4'	2.18	0.43
26:1H:1491:G:O4'	29:11:99:ASP:HB3	2.19	0.43
26:1H:1830:C:O2'	26:1H:1831:G:H5'	2.19	0.43
26:1H:2172:U:H5'	26:1H:2173:A:OP2	2.19	0.43
26:1H:2392:A:H1'	37:78:61:ARG:HH11	1.82	0.43
26:1H:2561:A:N3	36:68:23:ARG:HD2	2.34	0.43
27:16:24:G:C5	27:16:56:G:C4	3.07	0.43
27:16:31:C:H2'	27:16:32:C:H6	1.84	0.43
28:71:21:THR:OG1	28:71:24:GLU:HG2	2.19	0.43
29:11:72:LYS:O	29:11:73:VAL:C	2.62	0.43
29:11:73:VAL:HG13	29:11:120:GLY:HA3	2.00	0.43
29:11:130:ALA:C	29:11:131:LEU:HD12	2.43	0.43
32:41:137:GLU:HG3	32:41:140:ILE:HG23	2.00	0.43
35:58:56:ASN:C	35:58:57:ALA:O	2.61	0.43
40:A8:69:VAL:HG13	40:A8:101:LEU:HD13	2.00	0.43
40:A8:78:LEU:HD11	40:A8:108:GLY:CA	2.43	0.43
1:1G:171:A:H2'	1:1G:172:A:C8	2.54	0.43
1:1G:591:U:H2'	1:1G:592:G:H8	1.80	0.43
1:1G:600:C:H4'	8:72:128:GLY:O	2.19	0.43
1:1G:957:U:H1'	1:1G:960:U:C5	2.39	0.43
1:1G:992:U:H3	1:1G:1044:A:N6	2.16	0.43
1:1G:1004:A:O2'	1:1G:1027:C:N4	2.52	0.43
1:1G:1138:G:O2'	1:1G:1139:G:H5'	2.19	0.43
1:1G:1328:C:O2'	13:4A:29:ARG:NH2	2.50	0.43
1:1G:1344:C:H5"	9:82:120:ARG:O	2.18	0.43
4:32:201:GLN:HA	4:32:204:ILE:HB	2.01	0.43
6:52:7:ASN:ND2	18:9A:34:TYR:HE2	2.14	0.43
8:72:12:ARG:CZ	8:72:27:PRO:HD3	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4A:92:HIS:NE2	13:4A:98:VAL:HG21	2.33	0.43
23:2L:14:A:C4	23:2L:23:G:C2	3.06	0.43
24:3L:40:C:H2'	24:3L:41:A:C8	2.53	0.43
24:3L:60:U:H5"	24:3L:61:C:OP2	2.18	0.43
26:14:123:G:H2'	26:14:124:G:O4'	2.19	0.43
26:14:234:C:H2'	26:14:235:U:C6	2.54	0.43
26:14:311:A:C6	26:14:328:U:C4	3.07	0.43
26:14:911:A:C6	38:45:9:TYR:CD2	3.07	0.43
26:14:1022:G:C5	26:14:1140:C:N4	2.86	0.43
26:14:1509:C:H5'	26:14:1510:A:O4'	2.18	0.43
33:59:61:HIS:HA	33:59:64:LEU:HG	2.00	0.43
34:69:5:LEU:HD11	34:69:19:VAL:HB	1.99	0.43
37:35:52:GLU:HG2	37:35:55:ARG:HB3	2.00	0.43
41:75:61:PHE:CE1	41:75:76:PHE:HB2	2.54	0.43
43:95:20:LEU:O	43:95:94:LEU:N	2.50	0.43
48:E5:51:VAL:N	48:E5:62:LEU:HD12	2.33	0.43
1:13:17:U:O2'	1:13:18:C:H5'	2.18	0.43
1:13:186(E):C:N4	1:13:191(B):G:H1	2.16	0.43
1:13:345:C:O2	1:13:345:C:H2'	2.17	0.43
1:13:376:G:H5"	16:7I:5:ARG:HD2	1.99	0.43
1:13:390:C:H2'	1:13:391:G:C8	2.53	0.43
1:13:458:C:H2'	1:13:464:G:O4'	2.18	0.43
1:13:590:C:H42	1:13:649:G:H1	1.66	0.43
1:13:841:U:H6	1:13:841:U:H2'	1.64	0.43
1:13:1188:A:N6	60:13:1828:HOH:O	2.45	0.43
1:13:1483:A:C8	1:13:1484:C:C6	3.07	0.43
4:3E:15:GLU:OE1	4:3E:59:ARG:NH2	2.40	0.43
7:6E:95:ARG:HH11	7:6E:99:LEU:HD21	1.83	0.43
9:8E:50:LEU:HD23	9:8E:50:LEU:HA	1.87	0.43
17:8I:11:VAL:HG22	17:8I:20:THR:O	2.18	0.43
17:8I:66:SER:OG	17:8I:69:LYS:HB2	2.19	0.43
22:1K:60:U:H5'	22:1K:61:C:C5	2.53	0.43
24:3K:18:G:H1'	24:3K:58:A:C2	2.54	0.43
26:1H:444:C:H4'	31:31:49:ALA:HB2	1.99	0.43
26:1H:506:G:H5"	26:1H:509:C:H1'	2.01	0.43
26:1H:900:A:H3'	26:1H:901:A:C8	2.37	0.43
26:1H:1223:C:C2	26:1H:1229:G:C2	3.07	0.43
26:1H:1585:C:H2'	26:1H:1586:A:H5'	2.00	0.43
26:1H:1799:G:H5'	26:1H:1819:A:H61	1.83	0.43
26:1H:1817:G:C6	26:1H:1818:U:C4	3.06	0.43
26:1H:2110:G:C6	26:1H:2120:G:C8	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2216:G:C2	26:1H:2217:G:C4	3.06	0.43
26:1H:2469:A:H2'	38:88:56:ARG:NH2	2.33	0.43
26:1H:2779:U:O2	26:1H:2779:U:O4'	2.33	0.43
31:31:28:ILE:HG12	31:31:119:ARG:NH2	2.33	0.43
32:41:142:PRO:HB2	52:M8:31:ILE:HG21	1.99	0.43
33:51:10:PRO:C	33:51:11:VAL:HG23	2.44	0.43
33:51:94:TYR:HA	33:51:106:THR:O	2.18	0.43
1:1G:20:U:H2'	1:1G:21:G:O4'	2.18	0.43
1:1G:236:G:H2'	1:1G:237:C:C6	2.53	0.43
1:1G:377:G:P	16:7A:5:ARG:HH11	2.42	0.43
1:1G:745:C:H2'	1:1G:746:A:C8	2.53	0.43
1:1G:782:A:O3'	1:1G:1515:C:H4'	2.18	0.43
2:12:51:LEU:HA	2:12:54:THR:HB	2.01	0.43
3:22:29:TYR:OH	14:5A:54:PRO:HD2	2.18	0.43
4:32:184:LYS:HB2	4:32:184:LYS:HE3	1.82	0.43
7:62:22:LEU:H	7:62:22:LEU:HG	1.60	0.43
19:AA:66:MET:HA	19:AA:67:VAL:C	2.43	0.43
22:1L:72:C:H3'	22:1L:73:A:H5"	2.01	0.43
23:2L:41:C:C2	23:2L:42:C:C5	3.07	0.43
26:14:579:G:C4	26:14:580:C:C5	3.07	0.43
26:14:1171:G:OP2	26:14:1171:G:H8	2.01	0.43
26:14:1429:G:H2'	26:14:1430:C:C6	2.54	0.43
26:14:1954:G:O2'	26:14:1956:U:O4	2.35	0.43
26:14:2178:C:H5'	28:79:46:LYS:HD3	2.01	0.43
26:14:2356:C:H4'	48:E5:20:ARG:HG3	1.99	0.43
26:14:2378:A:O2'	40:65:23:ARG:HD2	2.19	0.43
26:14:2600:A:H2'	26:14:2601:C:C6	2.54	0.43
26:14:2677:G:H2'	26:14:2678:C:C6	2.53	0.43
27:1J:88:C:H4'	27:1J:89:G:OP2	2.18	0.43
29:19:133:LEU:HD13	29:19:173:VAL:HG13	2.00	0.43
31:39:110:LEU:HD11	31:39:205:ARG:NH2	2.31	0.43
31:39:143:ALA:HB1	31:39:148:LEU:CB	2.48	0.43
32:49:52:ILE:HG23	32:49:53:LEU:N	2.33	0.43
38:45:42:ILE:HD13	38:45:97:VAL:HG21	2.01	0.43
38:45:81:VAL:HG23	38:45:82:ARG:H	1.84	0.43
38:45:103:MET:O	38:45:104:PHE:HB2	2.18	0.43
39:55:24:GLN:OE1	39:55:36:THR:HG21	2.18	0.43
39:55:38:VAL:HG22	39:55:112:ALA:HB2	2.01	0.43
42:85:12:ARG:HG2	42:85:12:ARG:H	1.60	0.43
43:95:71:LEU:CA	43:95:86:GLY:HA2	2.49	0.43
47:D5:27:VAL:HG23	47:D5:36:LYS:HA	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:F5:92:LYS:HG2	49:F5:93:GLU:H	1.83	0.43
54:L5:29:LYS:HA	54:L5:32:LYS:HB3	1.99	0.43
1:13:554:C:H2'	1:13:555:C:C6	2.54	0.43
1:13:872:A:C5	1:13:874:G:C8	3.06	0.43
1:13:948:C:OP1	13:4I:109:THR:OG1	2.35	0.43
1:13:1316:G:N2	1:13:1319:A:H5'	2.33	0.43
6:5E:23:LYS:HB3	6:5E:23:LYS:HE2	1.80	0.43
6:5E:24:GLU:HG3	6:5E:28:ARG:NE	2.33	0.43
18:9I:40:LEU:HA	18:9I:40:LEU:HD23	1.66	0.43
23:2K:65:G:C2	23:2K:66:C:C2	3.07	0.43
24:3K:51:A:H61	24:3K:63:U:H3	1.66	0.43
24:3K:59:A:H3'	24:3K:60:U:C6	2.54	0.43
26:1H:43:G:H2'	26:1H:44:A:O4'	2.19	0.43
26:1H:271(B):G:H8	26:1H:271(B):G:H2'	1.67	0.43
26:1H:602:G:N2	26:1H:655:A:C8	2.79	0.43
26:1H:996:A:O3'	42:C8:92:ARG:HG2	2.19	0.43
26:1H:1311:G:N7	54:P8:9:ARG:NH2	2.66	0.43
26:1H:1942:C:OP2	26:1H:1943:U:O2'	2.27	0.43
26:1H:2056:G:C2	26:1H:2057:A:C8	3.06	0.43
26:1H:2093:G:H5'	34:61:22:LYS:HD2	1.99	0.43
27:16:31:C:H2'	27:16:32:C:C6	2.54	0.43
32:41:139:LEU:HD23	32:41:139:LEU:H	1.83	0.43
33:51:24:VAL:HG21	33:51:72:ILE:HD12	2.00	0.43
35:58:46:VAL:O	35:58:47:ALA:HB3	2.18	0.43
38:88:69:PHE:C	38:88:95:ALA:HB2	2.44	0.43
43:D8:58:VAL:CG2	43:D8:98:GLU:HG3	2.49	0.43
47:H8:3:TYR:O	47:H8:58:VAL:HG22	2.19	0.43
48:I8:42:GLY:C	48:I8:57:PHE:HD2	2.26	0.43
1:1G:777:A:C6	1:1G:778:G:C4	3.07	0.43
1:1G:946:A:H61	1:1G:1234:C:H42	1.67	0.43
1:1G:960:U:O2'	1:1G:1223:C:H5"	2.19	0.43
1:1G:979:C:OP1	1:1G:1223:C:N4	2.50	0.43
2:12:182:ILE:H	2:12:182:ILE:HD12	1.83	0.43
3:22:35:GLU:O	3:22:39:ILE:HD12	2.19	0.43
13:4A:39:ILE:HG22	13:4A:40:ASN:H	1.83	0.43
14:5A:9:LYS:CA	14:5A:12:ARG:HH12	2.32	0.43
14:5A:17:LYS:NZ	14:5A:18:VAL:HG13	2.33	0.43
23:2L:5:G:H2'	23:2L:6:G:O4'	2.19	0.43
24:3L:59:A:C6	24:3L:60:U:H1'	2.54	0.43
26:14:123:G:O3'	26:14:1376:C:H4'	2.18	0.43
26:14:483:A:H5'	46:C5:49:VAL:HA	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1142:U:O2	26:14:1142:U:H2'	2.17	0.43
26:14:1573:G:C8	26:14:1574:C:C5	3.06	0.43
26:14:1813:G:H1'	29:19:50:THR:OG1	2.19	0.43
26:14:2197:U:O2'	26:14:2198:A:H2'	2.18	0.43
26:14:2259:G:C2	26:14:2282:G:N1	2.87	0.43
26:14:2271:G:H5"	48:E5:20:ARG:NE	2.33	0.43
26:14:2309:A:C6	26:14:2310:A:C6	3.07	0.43
26:14:2861:G:C2	26:14:2862:G:C4	3.07	0.43
27:1J:115:G:H8	27:1J:115:G:OP2	2.02	0.43
32:49:76:SER:HA	32:49:82:LEU:HD12	2.01	0.43
41:75:26:ASP:O	41:75:49:VAL:HG22	2.18	0.43
1:13:456:C:H42	1:13:476:G:H1	1.66	0.43
1:13:545:C:H5'	4:3E:72:GLU:HG2	2.00	0.43
1:13:660:G:H2'	1:13:661:G:O4'	2.19	0.43
1:13:691:G:O2'	1:13:797:C:H4'	2.19	0.43
1:13:936:C:O2'	24:3K:34:U:H5'	2.18	0.43
1:13:1120:G:H2'	1:13:1121:U:C6	2.53	0.43
1:13:1137:C:O2'	1:13:1138:G:N3	2.52	0.43
1:13:1338:G:C6	1:13:1339:A:C6	3.06	0.43
1:13:1478:C:H2'	1:13:1479:C:C6	2.53	0.43
7:6E:16:LEU:CD1	9:8E:42:ARG:HA	2.48	0.43
8:7E:86:ILE:HG22	8:7E:87:SER:H	1.84	0.43
11:2I:59:TYR:CE2	11:2I:63:LEU:HD11	2.54	0.43
12:3I:83:VAL:HG11	12:3I:100:ILE:HD12	2.01	0.43
13:4I:23:TYR:HD2	13:4I:67:GLU:HA	1.83	0.43
16:7I:21:VAL:HG22	16:7I:34:GLU:O	2.19	0.43
16:7I:72:ARG:HA	16:7I:75:ARG:HB3	1.99	0.43
17:8I:28:PRO:HA	17:8I:35:VAL:HA	2.01	0.43
22:1K:52:G:H22	22:1K:62:C:N4	2.16	0.43
24:3K:58:A:O2'	24:3K:59:A:P	2.77	0.43
26:1H:55:G:C2	26:1H:116:C:N3	2.87	0.43
26:1H:57:C:H2'	26:1H:58:G:O4'	2.19	0.43
26:1H:99:U:C6	26:1H:102:G:N1	2.87	0.43
26:1H:564:C:H2'	26:1H:565:C:O4'	2.19	0.43
26:1H:604:G:P	37:78:90:ARG:HH21	2.42	0.43
26:1H:792:G:H5"	26:1H:793:A:H5'	2.01	0.43
26:1H:1188:U:H4'	43:D8:79:VAL:HG22	2.00	0.43
26:1H:1766:U:H2'	26:1H:1767:C:H6	1.83	0.43
26:1H:2027:G:C5	26:1H:2028:U:C5	3.07	0.43
26:1H:2144:U:N3	26:1H:2146:C:O2	2.52	0.43
26:1H:2369:A:H2'	26:1H:2370:G:C8	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2393:A:H2'	26:1H:2394:C:C6	2.54	0.43
27:16:6:C:C2	27:16:115:G:N2	2.86	0.43
29:11:9:TYR:CZ	29:11:13:ARG:HG2	2.53	0.43
29:11:31:LYS:HZ1	29:11:102:LYS:NZ	2.17	0.43
31:31:23:ASP:OD1	31:31:24:LEU:N	2.46	0.43
32:41:46:ALA:HB1	32:41:53:LEU:HD22	2.01	0.43
32:41:111:LEU:HA	32:41:114:ILE:HG13	2.01	0.43
36:68:6:THR:HG22	36:68:7:TYR:O	2.19	0.43
38:88:20:ALA:CB	38:88:99:PRO:HB2	2.47	0.43
51:L8:7:LYS:HA	51:L8:33:GLN:O	2.19	0.43
1:1G:437:U:H5"	4:32:155:LEU:HD13	2.00	0.43
1:1G:837:G:H2'	1:1G:838:G:H8	1.84	0.43
1:1G:1219:U:OP1	14:5A:19:ARG:NH2	2.49	0.43
1:1G:1348:U:H4'	9:82:120:ARG:HD2	2.00	0.43
4:32:201:GLN:O	4:32:205:GLU:HB2	2.19	0.43
5:42:110:LEU:HD21	5:42:139:LEU:HD21	2.01	0.43
9:82:52:ALA:C	9:82:95:LYS:HD2	2.43	0.43
9:82:99:LEU:HB3	9:82:101:PHE:CE1	2.54	0.43
10:1A:94:VAL:HG12	10:1A:95:GLU:N	2.34	0.43
14:5A:60:SER:O	14:5A:61:TRP:HB3	2.18	0.43
15:6A:61:GLY:O	15:6A:65:ARG:HD2	2.19	0.43
16:7A:16:HIS:CD2	16:7A:16:HIS:N	2.85	0.43
16:7A:58:TYR:O	16:7A:62:VAL:HG23	2.19	0.43
22:1L:42:A:O5'	22:1L:42:A:H8	2.02	0.43
24:3L:58:A:OP1	24:3L:58:A:H8	2.02	0.43
25:4L:10:G:H8	25:4L:10:G:OP2	2.02	0.43
26:14:1141:U:P	35:15:25:ARG:HH21	2.42	0.43
26:14:1655:A:H3'	26:14:1656:C:H6	1.84	0.43
26:14:1945:G:C6	26:14:1946:U:C4	3.06	0.43
26:14:2137:C:N4	26:14:2154:G:H1	2.17	0.43
26:14:2146:C:H4'	26:14:2147:G:N7	2.33	0.43
26:14:2748:A:H2'	26:14:2749:A:H8	1.83	0.43
26:14:2884:U:H2'	26:14:2885:C:O4'	2.19	0.43
27:1J:14:U:H5'	27:1J:70:C:O2	2.19	0.43
28:79:46:LYS:HB2	28:79:210:ARG:CB	2.49	0.43
34:69:82:ARG:O	34:69:89:TYR:HD2	2.01	0.43
39:55:59:ASP:OD1	39:55:61:HIS:HB3	2.18	0.43
41:75:63:VAL:O	41:75:73:GLU:HA	2.19	0.43
42:85:100:VAL:O	42:85:102:GLU:N	2.50	0.43
43:95:79:VAL:O	43:95:80:GLN:CG	2.64	0.43
1:13:167:G:H2'	1:13:168:G:H8	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:449:C:C6	16:7I:42:ARG:HD2	2.54	0.43
1:13:577:G:N2	1:13:764:C:O2	2.41	0.43
1:13:641:U:O2'	1:13:642:A:OP2	2.32	0.43
1:13:994:A:H2'	1:13:994:A:N3	2.34	0.43
1:13:1005:A:H5"	1:13:1006:C:C6	2.54	0.43
1:13:1053:G:N7	1:13:1199:U:H3'	2.34	0.43
1:13:1053:G:N7	1:13:1200:C:H5"	2.34	0.43
1:13:1216:G:OP1	14:5I:2:ALA:HB1	2.18	0.43
1:13:1525:G:OP1	11:2I:120:ARG:NH2	2.51	0.43
2:1E:155:LEU:HD13	2:1E:155:LEU:HA	1.83	0.43
4:3E:126:ILE:HD13	4:3E:126:ILE:HA	1.88	0.43
11:2I:54:ARG:O	11:2I:57:THR:HG22	2.19	0.43
18:9I:59:SER:HB3	18:9I:62:GLU:CG	2.49	0.43
23:2K:53:G:C6	23:2K:54:G:N7	2.87	0.43
24:3K:1:G:N3	24:3K:1:G:H2'	2.34	0.43
26:1H:669:G:N3	26:1H:669:G:C2'	2.81	0.43
26:1H:1126:A:H8	26:1H:1126:A:O5'	2.01	0.43
26:1H:1271:G:O3'	26:1H:1272:A:H4'	2.19	0.43
26:1H:1321:A:H2'	26:1H:1322:A:O4'	2.19	0.43
26:1H:1387:C:C2	26:1H:1388:G:C8	3.07	0.43
26:1H:1485:G:C2	26:1H:1486:A:C4	3.07	0.43
26:1H:1512:G:H2'	26:1H:1513:C:H6	1.81	0.43
26:1H:1749:A:C4	26:1H:1750:G:C8	3.07	0.43
26:1H:1819:A:O4'	26:1H:1821:A:C5	2.72	0.43
26:1H:1823:G:OP1	29:11:54:ARG:NH2	2.45	0.43
26:1H:1996:C:H6	26:1H:1996:C:OP1	2.01	0.43
26:1H:2062:A:HO2'	26:1H:2063:C:P	2.42	0.43
26:1H:2470:G:H8	26:1H:2470:G:O5'	2.01	0.43
26:1H:2542:A:H4'	26:1H:2543:G:H8	1.83	0.43
26:1H:2653:U:H2'	26:1H:2654:A:C8	2.54	0.43
30:21:84:PHE:CZ	30:21:86:PRO:HB3	2.53	0.43
32:41:95:ARG:CA	32:41:99:MET:HB2	2.45	0.43
32:41:117:PHE:HZ	32:41:179:PRO:HG2	1.83	0.43
39:98:29:LEU:HB2	39:98:75:LEU:HD21	1.99	0.43
39:98:52:ILE:O	39:98:55:ALA:N	2.52	0.43
40:A8:24:LEU:CD1	40:A8:41:ASP:HB2	2.49	0.43
40:A8:83:LYS:O	40:A8:109:GLY:HA2	2.19	0.43
41:B8:26:ASP:CB	41:B8:91:ARG:HA	2.49	0.43
45:F8:55:ASN:HB2	45:F8:80:ILE:CG1	2.46	0.43
45:F8:55:ASN:O	45:F8:79:ALA:HA	2.19	0.43
45:F8:66:LEU:HD12	45:F8:66:LEU:HA	1.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:H8:67:LEU:HD22	47:H8:90:VAL:HG21	2.00	0.43
1:1G:567:G:C2	1:1G:568:G:H1'	2.54	0.43
1:1G:586:C:H1'	1:1G:878:G:O2'	2.18	0.43
1:1G:895:G:H2'	1:1G:896:C:C6	2.54	0.43
1:1G:956:U:C2	1:1G:1225:A:C2	3.07	0.43
1:1G:1050:G:N2	1:1G:1209:C:H1'	2.34	0.43
1:1G:1090:U:H2'	1:1G:1091:U:C6	2.53	0.43
2:12:25:ASN:OD1	2:12:27:LYS:HB2	2.18	0.43
2:12:219:VAL:HB	2:12:221:LEU:N	2.34	0.43
3:22:88:ARG:C	3:22:91:LEU:HD13	2.44	0.43
4:32:20:TYR:CD1	4:32:26:CYS:HB3	2.50	0.43
5:42:74:GLY:HA3	5:42:116:THR:OG1	2.19	0.43
7:62:73:MET:HG2	7:62:90:GLU:HA	2.00	0.43
17:8A:63:ARG:HG2	17:8A:64:PRO:HD2	2.01	0.43
19:AA:13:ASP:HA	19:AA:16:LEU:HD23	2.01	0.43
26:14:227:A:C2	26:14:2407:G:H1'	2.54	0.43
26:14:312:G:H5'	26:14:331:A:O2'	2.19	0.43
26:14:529:A:C8	26:14:530:G:C6	3.07	0.43
26:14:603:A:H1'	26:14:604:G:O4'	2.19	0.43
26:14:1324:G:H4'	26:14:1616:A:C2	2.54	0.43
26:14:2210:G:H5'	26:14:2211:G:C6	2.53	0.43
28:79:200:LYS:HB3	28:79:208:PHE:CG	2.54	0.43
29:19:2:ALA:HB3	29:19:20:ASP:HB2	2.01	0.43
31:39:123:LEU:O	31:39:193:VAL:HA	2.19	0.43
32:49:77:ILE:O	32:49:82:LEU:HB3	2.19	0.43
32:49:109:VAL:O	32:49:113:ARG:HG3	2.19	0.43
36:25:113:LYS:H	36:25:113:LYS:HG2	1.28	0.43
38:45:82:ARG:HD3	38:45:82:ARG:HA	1.68	0.43
38:45:125:LEU:HD23	38:45:125:LEU:HA	1.68	0.43
39:55:60:LEU:HA	39:55:60:LEU:HD12	1.67	0.43
40:65:34:HIS:HB3	40:65:53:SER:OG	2.18	0.43
41:75:29:ARG:HD3	41:75:44:ASP:OD2	2.18	0.43
45:B5:11:PRO:HD3	50:G5:37:PHE:CE2	2.53	0.43
1:13:22:G:H2'	1:13:23:C:H6	1.84	0.43
1:13:232:G:C5	1:13:233:C:C5	3.07	0.43
1:13:243:A:H4'	1:13:244:U:H3'	2.01	0.43
1:13:277:C:H2'	1:13:278:G:C8	2.53	0.43
1:13:450:G:N7	1:13:481:G:C6	2.87	0.43
1:13:457:C:H2'	1:13:458:C:H6	1.83	0.43
1:13:639:G:O2'	1:13:640:A:H5'	2.19	0.43
1:13:739:C:O2	15:6I:42:HIS:HE1	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:838:G:O6	1:13:848:C:N4	2.52	0.43
1:13:959:A:C2	1:13:1222:G:O4'	2.71	0.43
1:13:1032:A:H3'	1:13:1032(A):G:H4'	2.01	0.43
1:13:1305:G:H5'	21:1F:4:GLY:HA3	2.01	0.43
1:13:1531:A:N3	1:13:1531:A:H2'	2.34	0.43
2:1E:160:ASP:O	2:1E:183:PRO:HD2	2.19	0.43
13:4I:70:LEU:HD23	13:4I:70:LEU:HA	1.77	0.43
17:8I:63:ARG:HG3	17:8I:64:PRO:HD2	2.01	0.43
19:AI:58:VAL:HG11	19:AI:75:ALA:HB1	2.01	0.43
22:1K:22:G:OP1	22:1K:48:C:N4	2.51	0.43
24:3K:49:G:C8	24:3K:66:A:C6	3.07	0.43
26:1H:68:G:H2'	26:1H:69:C:O4'	2.19	0.43
26:1H:99:U:O4	46:G8:8:LYS:NZ	2.52	0.43
26:1H:153:C:H2'	26:1H:154:G:H8	1.84	0.43
26:1H:340:A:H2'	26:1H:341:G:O4'	2.19	0.43
26:1H:764:A:N3	29:11:213:ARG:NH1	2.64	0.43
26:1H:977:G:C5	26:1H:987:G:C2	3.07	0.43
26:1H:1257:C:OP1	31:31:75:HIS:HE1	2.01	0.43
26:1H:1397:U:OP2	26:1H:1398:C:N4	2.35	0.43
26:1H:1533:C:C6	26:1H:1534:G:H5"	2.53	0.43
26:1H:1550:C:H2'	26:1H:1551:C:C6	2.48	0.43
26:1H:1591:G:H2'	26:1H:1592:C:H6	1.83	0.43
26:1H:1729:A:H2'	26:1H:1731:G:N7	2.34	0.43
26:1H:2019:A:H62	53:N8:9:LYS:NZ	2.17	0.43
26:1H:2135:A:H5'	26:1H:2159:G:H21	1.84	0.43
26:1H:2208:U:O2	26:1H:2217:G:C2	2.72	0.43
30:21:38:THR:CG2	30:21:41:LYS:H	2.30	0.43
31:31:165:ARG:HA	31:31:168:ARG:HD3	2.01	0.43
35:58:1:MET:CE	43:D8:12:TYR:HA	2.49	0.43
37:78:127:ALA:HB3	37:78:130:PHE:CZ	2.53	0.43
38:88:109:VAL:HG13	38:88:113:GLN:HB3	2.01	0.43
48:I8:47:PRO:HB3	48:I8:59:LEU:HD22	2.00	0.43
55:Q8:52:LYS:O	55:Q8:53:PRO:C	2.62	0.43
1:1G:49:U:C2	1:1G:361:G:N2	2.87	0.43
1:1G:976:G:H5'	1:1G:1358:U:O2'	2.19	0.43
1:1G:977:A:H3'	1:1G:977:A:N3	2.34	0.43
1:1G:1178:G:O2'	1:1G:1180:A:N7	2.52	0.43
1:1G:1205:U:H2'	1:1G:1206:G:H8	1.84	0.43
2:12:12:GLU:CD	2:12:15:VAL:H	2.27	0.43
3:22:32:LEU:HD23	3:22:59:ARG:NH1	2.34	0.43
4:32:61:LYS:HD2	4:32:206:PHE:CE2	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:177:ASP:O	4:32:178:VAL:C	2.62	0.43
20:BA:54:LYS:HE3	20:BA:54:LYS:HB3	1.74	0.43
26:14:451:C:H41	26:14:454:A:H5'	1.84	0.43
26:14:491:G:H2'	26:14:492:A:C8	2.54	0.43
26:14:587:C:OP2	37:35:21:ARG:NH2	2.52	0.43
26:14:775:G:C5	26:14:794:G:C8	3.07	0.43
26:14:1052:C:H2'	26:14:1053:C:H5'	2.01	0.43
26:14:1054:A:N3	26:14:1054:A:H2'	2.34	0.43
26:14:1317:A:H2'	26:14:1318:C:C6	2.53	0.43
26:14:1514:U:H2'	26:14:1515:C:C6	2.53	0.43
26:14:2439:A:C8	26:14:2439:A:C5'	3.00	0.43
26:14:2631:G:C6	26:14:2632:A:N7	2.87	0.43
26:14:2845:G:H2'	26:14:2846:G:C8	2.54	0.43
27:1J:78:A:C2	27:1J:99:A:C4	3.06	0.43
27:1J:93:C:H2'	27:1J:94:C:C6	2.51	0.43
28:79:200:LYS:H	28:79:200:LYS:HG2	1.56	0.43
29:19:38:LYS:HD2	29:19:38:LYS:C	2.43	0.43
29:19:53:PHE:C	29:19:218:ARG:HB2	2.44	0.43
29:19:267:SER:O	29:19:268:ARG:HG2	2.18	0.43
30:29:120:TRP:CD1	30:29:155:LYS:HB3	2.53	0.43
33:59:68:THR:O	33:59:71:LEU:HB2	2.18	0.43
40:65:30:ARG:HE	40:65:30:ARG:HB3	1.66	0.43
43:95:35:LEU:O	43:95:37:VAL:HG13	2.18	0.43
50:G5:57:ILE:HG13	50:G5:57:ILE:H	1.57	0.43
53:J5:52:TYR:CD1	53:J5:53:ALA:N	2.87	0.43
1:13:20:U:H2'	1:13:21:G:O4'	2.18	0.42
1:13:404:U:OP1	4:3E:118:ARG:NH1	2.46	0.42
1:13:476:G:N2	1:13:477:G:H1'	2.34	0.42
1:13:593:G:H2'	1:13:594:G:H8	1.83	0.42
1:13:626:U:N3	1:13:627:G:N7	2.66	0.42
1:13:681:C:H2'	1:13:682:G:C8	2.54	0.42
1:13:1149:C:H2'	1:13:1150:U:H6	1.84	0.42
1:13:1298:C:H4'	1:13:1299:A:C4	2.54	0.42
3:2E:131:ARG:HD3	3:2E:166:GLU:HG2	2.01	0.42
4:3E:10:ARG:HG3	4:3E:11:LEU:H	1.80	0.42
5:4E:29:GLY:HA2	5:4E:46:GLY:O	2.18	0.42
5:4E:36:ASP:OD2	5:4E:38:GLN:HB2	2.19	0.42
16:7I:20:VAL:HG21	16:7I:32:TYR:CB	2.49	0.42
17:8I:25:ARG:H	17:8I:25:ARG:HG2	1.71	0.42
20:BI:57:ARG:HH11	20:BI:102:GLY:HA2	1.82	0.42
24:3K:48:C:C5	24:3K:59:A:C6	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:34:C:O4'	26:1H:34:C:P	2.77	0.42
26:1H:811:U:H3'	37:78:22:GLY:HA2	2.01	0.42
26:1H:937:U:H2'	26:1H:938:G:O4'	2.19	0.42
26:1H:1053:C:H6	26:1H:1107:G:C6	2.37	0.42
26:1H:2070:G:C2	26:1H:2442:C:C2	3.07	0.42
26:1H:2213:U:H1'	49:J8:52:ARG:NH2	2.34	0.42
26:1H:2256:G:H2'	26:1H:2257:U:O4'	2.19	0.42
26:1H:2320:A:H2'	26:1H:2320:A:N3	2.34	0.42
26:1H:2469:A:H2'	38:88:56:ARG:HH21	1.83	0.42
26:1H:2830:G:H5"	26:1H:2830:G:H8	1.84	0.42
26:1H:2867:G:P	41:B8:119:LYS:HZ3	2.39	0.42
30:21:84:PHE:HZ	30:21:91:VAL:HG11	1.84	0.42
31:31:181:LEU:O	31:31:205:ARG:NH2	2.50	0.42
33:51:118:PRO:O	33:51:121:ILE:HB	2.19	0.42
35:58:96:GLU:HB2	35:58:122:VAL:HG12	2.00	0.42
44:E8:7:ALA:HB2	44:E8:50:VAL:HG22	2.01	0.42
51:L8:31:LEU:HB3	51:L8:32:GLN:HG2	2.01	0.42
1:1G:80:G:O2'	1:1G:81:G:OP1	2.35	0.42
1:1G:254:G:OP1	17:8A:67:LYS:O	2.37	0.42
1:1G:604:G:H2'	1:1G:605:U:O4'	2.19	0.42
1:1G:804:U:H5"	1:1G:805:C:OP2	2.19	0.42
1:1G:955:U:H2'	1:1G:956:U:C6	2.54	0.42
1:1G:991:U:H5	1:1G:1212:U:H1'	1.83	0.42
1:1G:1014:A:H8	1:1G:1014:A:O5'	2.02	0.42
1:1G:1055:A:C6	1:1G:1206:G:C4	3.07	0.42
1:1G:1218:C:H2'	1:1G:1219:U:C6	2.54	0.42
1:1G:1525:G:H2'	1:1G:1526:G:O4'	2.18	0.42
10:1A:16:LEU:CD2	10:1A:68:HIS:HB3	2.48	0.42
10:1A:21:GLN:O	10:1A:24:VAL:HG12	2.19	0.42
12:3A:45:PRO:HD3	12:3A:51:ALA:O	2.19	0.42
13:4A:80:ARG:O	13:4A:84:ILE:HB	2.18	0.42
16:7A:74:LEU:O	16:7A:79:VAL:HG23	2.18	0.42
19:AA:35:SER:O	19:AA:71:LEU:HD23	2.19	0.42
26:14:51:G:N3	26:14:119:A:C2	2.87	0.42
26:14:388:G:O2'	26:14:389:G:N7	2.47	0.42
26:14:587:C:H4'	26:14:588:U:H6	1.83	0.42
26:14:1686:C:H2'	26:14:1687:G:O4'	2.19	0.42
26:14:1697:G:OP2	26:14:1698:A:O2'	2.31	0.42
26:14:2723:C:O5'	26:14:2723:C:H6	2.02	0.42
26:14:2728:U:O2'	26:14:2729:G:H5'	2.19	0.42
26:14:2729:G:H1'	30:29:187:ALA:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:40:U:O2	27:1J:43:C:H5”	2.18	0.42
28:79:7:TYR:CD1	28:79:10:LEU:HB2	2.54	0.42
29:19:267:SER:O	29:19:269:PHE:N	2.52	0.42
30:29:53:PRO:CA	30:29:74:PRO:HB3	2.49	0.42
41:75:45:PHE:CE2	41:75:74:ARG:HG3	2.54	0.42
42:85:66:ASN:ND2	42:85:70:ARG:HE	2.17	0.42
43:95:18:LEU:O	43:95:96:ILE:HG12	2.18	0.42
47:D5:94:GLU:N	47:D5:130:PRO:HD2	2.35	0.42
49:F5:40:ARG:NH2	49:F5:42:GLN:HG2	2.34	0.42
1:13:376:G:OP2	16:7I:67:THR:HG21	2.19	0.42
1:13:511:C:C2	1:13:512:U:C5	3.07	0.42
1:13:1028(A):C:H42	1:13:1032(A):G:H22	1.68	0.42
1:13:1131:G:O2’	1:13:1132:C:H5’	2.20	0.42
1:13:1366:C:H2’	1:13:1367:C:H6	1.84	0.42
2:1E:131:PRO:O	2:1E:135:GLN:HB2	2.19	0.42
12:3I:45:PRO:HD3	12:3I:51:ALA:O	2.19	0.42
16:7I:20:VAL:HG21	16:7I:32:TYR:CD2	2.53	0.42
16:7I:74:LEU:HA	16:7I:74:LEU:HD23	1.80	0.42
19:AI:6:LYS:HD2	19:AI:6:LYS:HA	1.71	0.42
20:BI:63:ILE:CG2	20:BI:77:ALA:HB1	2.49	0.42
24:3K:29:U:C2’	24:3K:30:G:H5’	2.49	0.42
24:3K:68:G:H2’	24:3K:69:A:C8	2.54	0.42
25:4K:11:U:OP2	25:4K:11:U:H6	2.02	0.42
26:1H:127:A:H5”	26:1H:128:C:C6	2.53	0.42
26:1H:557:U:H2’	26:1H:558:G:C8	2.54	0.42
26:1H:674:G:O2’	31:31:74:ARG:CD	2.66	0.42
26:1H:686:G:H4’	26:1H:687:C:OP2	2.19	0.42
26:1H:1052:C:O2’	26:1H:1109:C:N3	2.51	0.42
26:1H:1375:C:H2’	26:1H:1376:C:H6	1.84	0.42
26:1H:1534:G:N2	26:1H:1538:G:N3	2.65	0.42
26:1H:1568:G:N7	29:11:28:GLU:HG3	2.35	0.42
26:1H:1599:C:P	45:F8:36:LYS:HB2	2.59	0.42
26:1H:1664:A:N6	26:1H:1665:A:N6	2.68	0.42
26:1H:1790:C:H5”	26:1H:1791:A:OP1	2.19	0.42
26:1H:2153:G:C2	26:1H:2154:G:C6	3.07	0.42
26:1H:2187:G:C2	26:1H:2188:C:C2	3.07	0.42
26:1H:2593:U:H2’	26:1H:2594:C:H6	1.83	0.42
26:1H:2636:U:H3	26:1H:2782:G:H1	1.68	0.42
27:16:13:A:O2’	27:16:14:U:H3’	2.18	0.42
32:41:47:LYS:HD2	32:41:81:LYS:CB	2.46	0.42
35:58:65:LYS:HB3	35:58:69:GLN:HG3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:98:9:LYS:HA	39:98:17:ARG:CD	2.49	0.42
39:98:51:LEU:HD23	39:98:51:LEU:HA	1.71	0.42
40:A8:20:ARG:NH1	48:I8:47:PRO:O	2.52	0.42
44:E8:78:GLU:OE1	44:E8:99:ARG:HG2	2.19	0.42
46:G8:10:GLY:HA3	46:G8:106:LEU:O	2.19	0.42
46:G8:101:LYS:C	46:G8:102:CYS:SG	3.03	0.42
47:H8:100:VAL:HG21	47:H8:134:PRO:HG2	2.01	0.42
1:1G:191(F):U:H2'	1:1G:191:G:C8	2.54	0.42
1:1G:537:G:H5"	12:3A:113:ARG:NH1	2.34	0.42
1:1G:641:U:O3'	1:1G:642:A:H8	2.02	0.42
1:1G:1052:U:O2'	1:1G:1055:A:OP2	2.31	0.42
1:1G:1119:C:OP1	9:82:83:ARG:NH1	2.52	0.42
1:1G:1275:A:C6	1:1G:1276:G:C6	3.07	0.42
1:1G:1489:G:H2'	1:1G:1490:C:O4'	2.19	0.42
4:32:86:LYS:HE2	4:32:86:LYS:N	2.31	0.42
6:52:33:TYR:CZ	6:52:78:GLU:HG3	2.54	0.42
7:62:26:PHE:CE1	7:62:30:ILE:HD11	2.54	0.42
7:62:93:PRO:O	7:62:97:GLN:N	2.49	0.42
10:1A:13:HIS:CD2	10:1A:14:LYS:N	2.87	0.42
13:4A:33:ALA:O	13:4A:37:THR:HB	2.18	0.42
16:7A:48:TRP:CD1	16:7A:48:TRP:N	2.87	0.42
19:AA:11:VAL:HG12	19:AA:12:ASP:O	2.19	0.42
22:1L:24:G:C2	22:1L:25:C:C2	3.07	0.42
22:1L:44:U:H5"	22:1L:45:G:OP2	2.19	0.42
23:2L:69:C:H2'	23:2L:70:C:C6	2.54	0.42
26:14:142:G:OP1	26:14:1598:C:H1'	2.19	0.42
26:14:273(C):C:H2'	26:14:273(D):C:O4'	2.19	0.42
26:14:494:G:OP1	44:A5:8:ARG:HD3	2.18	0.42
26:14:860:U:C1'	26:14:2268:A:H5'	2.49	0.42
26:14:1858:G:H2'	26:14:1883:G:H22	1.85	0.42
26:14:2212:A:H1'	26:14:2215:G:C5	2.54	0.42
26:14:2892:A:H3'	26:14:2893:G:H4'	2.00	0.42
28:79:53:ARG:HE	28:79:54:SER:N	2.13	0.42
30:29:27:LEU:HA	30:29:180:ASN:O	2.19	0.42
30:29:105:THR:HG21	30:29:164:ARG:HE	1.84	0.42
31:39:146:ALA:CB	31:39:148:LEU:HG	2.49	0.42
33:59:9:ILE:HB	33:59:51:ARG:HB3	2.01	0.42
34:69:144:VAL:HG23	34:69:144:VAL:O	2.19	0.42
35:15:21:LYS:C	35:15:61:ARG:HB2	2.44	0.42
36:25:17:ARG:NH1	36:25:47:ILE:HD11	2.34	0.42
37:35:95:VAL:HA	37:35:99:LEU:HD13	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:75:91:ARG:HD3	41:75:120:ARG:HB3	2.01	0.42
46:C5:87:LYS:NZ	46:C5:88:LYS:O	2.47	0.42
47:D5:53:ILE:CG1	47:D5:54:HIS:HD2	2.17	0.42
48:E5:46:LYS:HA	48:E5:47:PRO:HD3	1.78	0.42
1:13:62:U:O2'	1:13:379:C:O2	2.34	0.42
1:13:186(E):C:N3	1:13:191(C):G:C2	2.87	0.42
1:13:259:G:H2'	1:13:260:G:O4'	2.19	0.42
1:13:558:G:C5	1:13:559:A:C2	3.07	0.42
1:13:998(A):C:H2'	1:13:999:U:C6	2.54	0.42
2:1E:28:PHE:HE2	2:1E:189:ASP:C	2.26	0.42
2:1E:136:VAL:O	2:1E:140:HIS:N	2.41	0.42
3:2E:47:LEU:N	3:2E:47:LEU:HD12	2.34	0.42
8:7E:109:ILE:HG13	8:7E:120:THR:HB	2.02	0.42
17:8I:22:LEU:HD13	17:8I:41:LYS:HG3	2.01	0.42
21:1F:3:LYS:HB3	21:1F:14:TRP:CD1	2.54	0.42
22:1K:56:C:N4	26:1H:897:C:O2'	2.52	0.42
22:1K:67:C:H2'	22:1K:68:G:C8	2.54	0.42
23:2K:20:G:C4	23:2K:58:A:C2	3.07	0.42
24:3K:22:G:N3	24:3K:22:G:H2'	2.34	0.42
26:1H:53:A:C8	26:1H:54:G:C8	3.07	0.42
26:1H:254:G:O2'	26:1H:384:U:H5'	2.18	0.42
26:1H:270(E):G:C6	26:1H:270(F):U:C4	3.07	0.42
26:1H:731:C:C2	26:1H:732:C:C5	3.07	0.42
26:1H:857:C:H4'	48:I8:23:VAL:HG21	2.00	0.42
26:1H:1144:G:C6	26:1H:1145:C:C4	3.07	0.42
26:1H:1166:C:H2'	26:1H:1167:U:C6	2.55	0.42
26:1H:1322:A:H2'	26:1H:1323:U:C6	2.55	0.42
26:1H:1355:G:H2'	26:1H:1356:G:O4'	2.20	0.42
26:1H:1392:A:C6	26:1H:1393:A:N1	2.87	0.42
26:1H:1826:G:H4'	29:11:242:ARG:NE	2.34	0.42
26:1H:1899:G:C2	26:1H:1903:G:C6	3.07	0.42
26:1H:2488:A:H2'	26:1H:2489:G:O4'	2.19	0.42
26:1H:2531:A:H2'	26:1H:2532:G:C8	2.54	0.42
26:1H:2636:U:P	30:21:79:ARG:HA	2.59	0.42
26:1H:2692:C:OP1	26:1H:2871:C:H5'	2.20	0.42
26:1H:2726:U:H4'	36:68:1:MET:HE1	2.00	0.42
28:71:31:GLU:H	28:71:31:GLU:HG2	1.65	0.42
28:71:207:THR:O	28:71:210:ARG:NH1	2.49	0.42
29:11:77:ALA:HB3	29:11:117:VAL:HG23	2.02	0.42
31:31:183:VAL:O	31:31:187:VAL:HG23	2.19	0.42
35:58:65:LYS:HB2	35:58:65:LYS:HE3	1.76	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:17:LYS:H	37:78:17:LYS:HG3	1.71	0.42
44:E8:18:ARG:NH1	44:E8:76:VAL:O	2.50	0.42
53:N8:18:ALA:O	53:N8:21:SER:OG	2.29	0.42
54:P8:30:VAL:O	54:P8:34:ARG:HG3	2.19	0.42
1:1G:15:G:H2'	1:1G:16:A:O4'	2.19	0.42
1:1G:32:A:C2	1:1G:33:A:C4	3.06	0.42
1:1G:131:C:H2'	1:1G:132:C:C6	2.54	0.42
1:1G:619:U:O2	4:32:135:LEU:HD21	2.19	0.42
1:1G:803:G:C6	1:1G:804:U:C4	3.07	0.42
1:1G:1122:U:N3	1:1G:1123:A:N7	2.67	0.42
1:1G:1178:G:H5"	9:82:93:ARG:NH2	2.33	0.42
1:1G:1246:C:H2'	1:1G:1247:U:O4'	2.19	0.42
1:1G:1298:C:H4'	1:1G:1299:A:C5	2.53	0.42
1:1G:1298:C:HO2'	1:1G:1299:A:P	2.42	0.42
3:22:61:ALA:C	3:22:63:ASN:H	2.27	0.42
3:22:90:GLU:OE2	3:22:90:GLU:N	2.45	0.42
7:62:116:ALA:HA	7:62:119:ARG:NE	2.25	0.42
10:1A:75:ILE:O	10:1A:77:PRO:HD3	2.18	0.42
18:9A:56:THR:HB	18:9A:58:LEU:HD12	2.02	0.42
26:14:270(T):G:C6	26:14:270(U):C:C4	3.08	0.42
26:14:855:G:C6	26:14:856:C:C4	3.07	0.42
26:14:870:A:H2'	26:14:871:U:O4'	2.20	0.42
26:14:917:A:H2'	26:14:917:A:N3	2.35	0.42
26:14:922:U:H2'	26:14:923:C:C6	2.54	0.42
26:14:933:A:C5	26:14:934:G:C8	3.07	0.42
26:14:1005:C:O2	26:14:1143:A:C6	2.72	0.42
26:14:1161:C:H1'	43:95:8:GLY:O	2.19	0.42
26:14:1453:A:O2'	26:14:1454:U:H2'	2.19	0.42
26:14:1556:C:H2'	26:14:1557:C:H6	1.84	0.42
26:14:1592:C:H2'	26:14:1593:G:C8	2.54	0.42
26:14:1670:C:O2	30:29:129:HIS:NE2	2.44	0.42
26:14:2432:A:H2'	26:14:2433:A:H8	1.82	0.42
26:14:2855:C:H2'	26:14:2856:C:H6	1.83	0.42
26:14:2892:A:C5	26:14:2893:G:H1'	2.54	0.42
27:1J:79:C:H2'	27:1J:80:U:O4'	2.20	0.42
31:39:132:VAL:HG13	31:39:133:ASN:ND2	2.34	0.42
31:39:143:ALA:HB1	31:39:148:LEU:HB2	2.02	0.42
34:69:78:THR:HG21	34:69:104:GLN:HG3	2.01	0.42
37:35:107:LYS:O	37:35:109:GLY:N	2.49	0.42
39:55:87:TYR:CE1	39:55:117:VAL:HG12	2.55	0.42
39:55:87:TYR:HE1	39:55:117:VAL:HG12	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:75:16:ARG:NH2	41:75:18:ASP:OD2	2.51	0.42
42:85:41:ALA:O	42:85:45:TYR:CD1	2.73	0.42
48:E5:72:ARG:CB	48:E5:75:LEU:HB2	2.47	0.42
1:13:10:A:OP2	5:4E:126:ARG:HD3	2.20	0.42
1:13:262:A:H2'	1:13:263:A:H8	1.80	0.42
1:13:939:G:H5'	7:6E:102:ARG:CZ	2.50	0.42
1:13:1009:G:C2	1:13:1010:G:C8	3.07	0.42
1:13:1298:C:P	7:6E:114:ARG:HH22	2.43	0.42
2:1E:178:ARG:HH12	2:1E:196:LEU:C	2.25	0.42
2:1E:222:ILE:HG13	2:1E:223:ILE:H	1.84	0.42
4:3E:147:ALA:HB2	4:3E:182:LYS:HB3	2.00	0.42
4:3E:155:LEU:O	4:3E:156:GLU:C	2.61	0.42
10:1I:46:ARG:HB2	10:1I:46:ARG:NH1	2.34	0.42
12:3I:64:TYR:O	12:3I:65:GLU:HB3	2.20	0.42
16:7I:33:ILE:HG13	16:7I:33:ILE:H	1.69	0.42
20:BI:30:LYS:NZ	20:BI:80:ARG:NH1	2.67	0.42
20:BI:46:GLU:CB	20:BI:48:LYS:HG3	2.49	0.42
24:3K:56:C:C2'	24:3K:57:G:H8	2.31	0.42
24:3K:59:A:H5'	24:3K:60:U:C5	2.52	0.42
26:1H:15:G:H4'	53:N8:21:SER:HB3	2.01	0.42
26:1H:242:G:H5'	55:Q8:64:TYR:CE2	2.55	0.42
26:1H:308:G:N2	26:1H:477:A:C8	2.88	0.42
26:1H:992:C:C2	26:1H:993:G:C8	3.07	0.42
26:1H:1006:C:H5'	35:58:28:THR:HG23	2.01	0.42
26:1H:1756:G:H4'	26:1H:1758:G:O4'	2.20	0.42
26:1H:1929:G:H4'	26:1H:1930:G:OP1	2.20	0.42
39:98:81:ASP:O	39:98:85:PRO:HG2	2.19	0.42
40:A8:11:LYS:HB2	40:A8:11:LYS:HE3	1.85	0.42
46:G8:63:LYS:HD2	46:G8:64:GLU:H	1.83	0.42
1:1G:73:G:C6	1:1G:74:C:C4	3.07	0.42
1:1G:129(A):G:C2	1:1G:188:U:O2'	2.65	0.42
1:1G:731:G:O2'	1:1G:732:C:H5'	2.20	0.42
1:1G:746:A:H2'	1:1G:747:C:C6	2.54	0.42
1:1G:1106:G:H5"	3:22:172:ARG:CG	2.49	0.42
1:1G:1424:C:H2'	1:1G:1425:U:O4'	2.19	0.42
1:1G:1468:A:H5"	1:1G:1469:G:OP2	2.18	0.42
1:1G:1534:A:H2'	1:1G:1534:A:N3	2.34	0.42
2:12:97:TRP:CE2	2:12:101:MET:HG3	2.55	0.42
5:42:78:HIS:CE1	5:42:80:ILE:HG23	2.55	0.42
6:52:77:ARG:HH21	6:52:78:GLU:HG2	1.85	0.42
14:5A:9:LYS:CA	14:5A:12:ARG:NH1	2.81	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:7A:23:ASP:OD1	16:7A:25:ARG:HG3	2.19	0.42
17:8A:4:LYS:O	17:8A:60:ILE:HD12	2.19	0.42
23:2L:25:U:O2	26:14:1923:U:H5"	2.19	0.42
26:14:270(E):G:C6	26:14:270(F):U:C4	3.07	0.42
26:14:959:A:N6	26:14:960:A:N1	2.67	0.42
26:14:962:G:H2'	26:14:963:U:O4'	2.19	0.42
26:14:1167:U:C2	26:14:1183:G:N2	2.87	0.42
26:14:1550:C:OP1	26:14:1727:U:O2'	2.33	0.42
26:14:2198:A:C2	34:69:29:TYR:HB2	2.54	0.42
26:14:2646:C:H2'	26:14:2647:U:O4'	2.20	0.42
30:29:102:VAL:HB	30:29:199:ARG:O	2.18	0.42
31:39:68:LYS:HG3	31:39:69:HIS:CE1	2.54	0.42
31:39:93:LYS:HA	31:39:93:LYS:HD2	1.80	0.42
31:39:123:LEU:C	31:39:125:LEU:H	2.20	0.42
35:15:128:HIS:NE2	35:15:130:HIS:HB3	2.34	0.42
41:75:53:ARG:O	41:75:53:ARG:HG3	2.19	0.42
46:C5:88:LYS:O	46:C5:89:PHE:CD1	2.71	0.42
1:13:104:G:C2	1:13:105:G:C8	3.07	0.42
1:13:753:A:H4'	1:13:754:C:H5"	2.02	0.42
1:13:1051:C:H2'	1:13:1052:U:C6	2.55	0.42
1:13:1288:A:N1	1:13:1371:G:H1'	2.35	0.42
20:BI:10:LEU:HG	20:BI:12:ALA:H	1.84	0.42
24:3K:54:U:H4'	28:71:167:LYS:HZ1	1.84	0.42
26:1H:7:G:H2'	26:1H:8:A:O4'	2.19	0.42
26:1H:16:G:H1	26:1H:524:U:H3	1.68	0.42
26:1H:46:C:H2'	26:1H:47:C:H6	1.83	0.42
26:1H:126:A:O5'	54:P8:19:ARG:HG3	2.19	0.42
26:1H:270(G):C:H2'	26:1H:270(H):C:C6	2.54	0.42
26:1H:275:G:N7	26:1H:363:G:C2	2.88	0.42
26:1H:281:G:H1'	26:1H:359:A:H61	1.84	0.42
26:1H:665:C:H2'	26:1H:666:G:H8	1.83	0.42
26:1H:722:A:H2'	26:1H:723:G:C8	2.54	0.42
26:1H:1053:C:C6	26:1H:1107:G:C6	3.07	0.42
26:1H:1142(A):A:C4	26:1H:1144:G:C8	3.07	0.42
26:1H:1279:G:N2	26:1H:1292:U:C2	2.88	0.42
26:1H:1364:G:OP2	49:J8:61:ARG:NH2	2.52	0.42
26:1H:2144:U:H4'	26:1H:2144:U:OP1	2.19	0.42
26:1H:2262:U:O2'	26:1H:2263:C:H5'	2.20	0.42
26:1H:2620:C:O2'	30:21:119:ARG:NH2	2.40	0.42
26:1H:2774:C:H2'	26:1H:2775:A:O4'	2.18	0.42
29:11:193:VAL:H	29:11:193:VAL:HG12	1.60	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:31:179:GLU:H	31:31:179:GLU:CD	2.24	0.42
32:41:8:LYS:O	32:41:11:TYR:HB3	2.20	0.42
32:41:58:GLN:NE2	32:41:59:GLU:HG3	2.35	0.42
34:61:83:ALA:HB2	34:61:144:VAL:HG23	2.01	0.42
36:68:22:ILE:HD13	36:68:22:ILE:HG21	1.72	0.42
36:68:34:THR:HG22	36:68:37:ASP:OD2	2.19	0.42
41:B8:27:THR:CG2	41:B8:90:GLN:HB3	2.48	0.42
47:H8:70:LEU:HD23	47:H8:70:LEU:HA	1.87	0.42
54:P8:5:TRP:HA	54:P8:5:TRP:CE3	2.53	0.42
1:1G:17:U:H2'	1:1G:18:C:C6	2.55	0.42
1:1G:287:U:H2'	1:1G:288:A:C8	2.53	0.42
1:1G:573:A:N3	1:1G:883:C:O2'	2.48	0.42
1:1G:579:G:C6	1:1G:580:U:C4	3.08	0.42
1:1G:599:C:H2'	1:1G:600:C:H6	1.84	0.42
4:32:22:LYS:N	4:32:26:CYS:SG	2.84	0.42
4:32:154:ASN:O	4:32:159:ARG:HB2	2.20	0.42
4:32:173:TRP:CD2	4:32:189:PRO:HB3	2.55	0.42
5:42:144:THR:O	5:42:148:VAL:HG23	2.19	0.42
13:4A:8:GLU:CD	13:4A:10:PRO:HD3	2.45	0.42
14:5A:29:ARG:CG	14:5A:31:ARG:H	2.23	0.42
14:5A:53:LEU:HD23	14:5A:53:LEU:HA	1.70	0.42
16:7A:43:LYS:HG2	16:7A:48:TRP:CZ3	2.54	0.42
18:9A:84:LYS:H	18:9A:84:LYS:HG2	1.51	0.42
26:14:28:A:O2'	26:14:583:G:H5'	2.19	0.42
26:14:196:A:N3	26:14:196:A:H2'	2.34	0.42
26:14:247:G:O6	55:M5:12:LYS:NZ	2.49	0.42
26:14:752:A:H4'	26:14:753:C:H5'	2.02	0.42
26:14:875:G:N3	26:14:875:G:H2'	2.34	0.42
26:14:1049:C:H5"	26:14:1051:G:H22	1.84	0.42
26:14:1321:A:H2'	26:14:1322:A:O4'	2.20	0.42
26:14:1405:U:H2'	26:14:1406:U:C6	2.55	0.42
26:14:1676:A:OP2	60:14:3423:HOH:O	2.21	0.42
26:14:1921:G:H2'	26:14:1922:G:C8	2.53	0.42
26:14:2230:G:C2'	26:14:2231:C:H5'	2.48	0.42
26:14:2392:A:H2	26:14:2424:C:N4	2.06	0.42
26:14:2418:A:H2'	26:14:2419:U:O4'	2.20	0.42
29:19:182:LEU:CB	29:19:271:ILE:HG13	2.50	0.42
30:29:79:ARG:N	30:29:79:ARG:HD2	2.34	0.42
31:39:25:PRO:O	31:39:27:GLU:HG3	2.20	0.42
31:39:129:PHE:HA	31:39:142:TRP:CD1	2.54	0.42
31:39:132:VAL:HG22	31:39:133:ASN:H	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:25:13:ASN:HD21	36:25:97:ARG:H	1.66	0.42
37:35:41:ARG:N	37:35:41:ARG:HD2	2.34	0.42
37:35:68:GLN:OE1	37:35:68:GLN:HA	2.19	0.42
37:35:84:ASN:OD1	37:35:115:LEU:HB2	2.20	0.42
37:35:101:VAL:N	37:35:106:LEU:HD23	2.34	0.42
39:55:54:LEU:HD12	39:55:62:ALA:HA	2.00	0.42
44:A5:34:ASN:OD1	53:J5:39:MET:HG3	2.19	0.42
45:B5:72:LYS:HE3	45:B5:73:ARG:O	2.20	0.42
1:13:148:G:H1	1:13:174:C:H42	1.68	0.42
1:13:255:G:C5	1:13:256:U:C5	3.07	0.42
1:13:279:A:C5	17:8I:98:LEU:HD12	2.55	0.42
1:13:359:U:H2'	1:13:360:A:C8	2.55	0.42
1:13:369:C:O2	1:13:392:G:N2	2.37	0.42
1:13:657:G:C1'	15:6I:28:GLN:HE21	2.32	0.42
1:13:1164:G:C6	1:13:1165:C:C4	3.08	0.42
1:13:1256:A:N6	1:13:1278:U:OP2	2.30	0.42
1:13:1272:G:C6	1:13:1273:G:C5	3.07	0.42
1:13:1536:C:N3	25:4K:9:G:N2	2.67	0.42
2:1E:176:GLU:O	2:1E:180:LEU:HG	2.19	0.42
3:2E:15:THR:HG21	3:2E:181:ASN:HA	2.01	0.42
6:5E:22:GLU:OE1	6:5E:84:ASN:HB2	2.20	0.42
17:8I:58:GLU:HB2	17:8I:74:LEU:HB3	2.00	0.42
20:BI:66:ALA:HB1	20:BI:71:THR:HB	2.01	0.42
22:1K:37:T6A:N1	22:1K:37:T6A:N11	2.56	0.42
24:3K:5:C:H2'	24:3K:6:G:N7	2.34	0.42
24:3K:13:C:C2'	24:3K:14:A:H5'	2.49	0.42
26:1H:182:A:O2'	26:1H:183:C:H5'	2.19	0.42
26:1H:531:C:H4'	26:1H:532:A:H5"	2.01	0.42
26:1H:675:A:C8	26:1H:804:A:C6	3.08	0.42
26:1H:860:U:H5	26:1H:917:A:N1	2.17	0.42
26:1H:1042:G:C6	26:1H:1043:C:C4	3.08	0.42
26:1H:1213:A:H1'	26:1H:1238:G:N3	2.34	0.42
26:1H:1516:U:C2	26:1H:1517:G:C8	3.08	0.42
26:1H:1831:G:C4	26:1H:1975:G:N2	2.88	0.42
26:1H:2184:G:C2	26:1H:2185:C:C2	3.07	0.42
26:1H:2394:C:H2'	26:1H:2395:C:C6	2.55	0.42
29:11:37:LEU:C	29:11:37:LEU:HD12	2.45	0.42
30:21:38:THR:H	30:21:42:ASP:HB2	1.84	0.42
31:31:140:LEU:HD13	31:31:170:LEU:HD11	2.00	0.42
32:41:66:GLN:HA	52:M8:6:HIS:NE2	2.34	0.42
32:41:101:ILE:HD12	32:41:101:ILE:C	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:96:ALA:HB1	33:51:103:LEU:HD11	2.02	0.42
35:58:90:MET:SD	35:58:97:ARG:HD2	2.59	0.42
37:78:62:LEU:HA	37:78:63:PRO:HD3	1.91	0.42
41:B8:62:THR:CG2	41:B8:75:ILE:HG12	2.50	0.42
43:D8:45:THR:O	43:D8:47:VAL:HG12	2.20	0.42
44:E8:110:LYS:HD3	44:E8:110:LYS:HA	1.85	0.42
47:H8:59:LEU:HA	47:H8:59:LEU:HD23	1.68	0.42
53:N8:40:LYS:HE2	53:N8:46:CYS:CA	2.50	0.42
1:1G:867:G:OP2	1:1G:867:G:H8	2.01	0.42
1:1G:1100:C:C2	1:1G:1102:A:H5'	2.55	0.42
1:1G:1157:A:O4'	1:1G:1158:C:C6	2.73	0.42
4:32:141:ARG:HB2	4:32:142:PRO:HD2	2.02	0.42
5:42:91:LEU:CD2	5:42:120:THR:HG22	2.50	0.42
16:7A:5:ARG:HE	16:7A:22:THR:CG2	2.33	0.42
19:AA:7:LYS:HB2	19:AA:8:GLY:HA2	2.00	0.42
20:BA:31:SER:HA	20:BA:34:LYS:HE2	2.00	0.42
22:1L:26:A:H5'	22:1L:27:G:OP2	2.19	0.42
26:14:10:G:O2'	26:14:2801:A:OP1	2.31	0.42
26:14:95:G:H4'	50:G5:46:GLN:CB	2.49	0.42
26:14:730:C:H2'	26:14:731:C:H5'	1.99	0.42
26:14:733:G:O6	26:14:761:A:C8	2.73	0.42
26:14:864:G:O2'	26:14:865:C:H5'	2.20	0.42
26:14:1029:A:OP2	26:14:1029:A:H8	2.03	0.42
26:14:1225:C:H4'	43:95:85:LYS:CB	2.50	0.42
26:14:1743:G:C2	26:14:1746:G:C8	3.07	0.42
26:14:2488:A:H2'	26:14:2489:G:O4'	2.20	0.42
26:14:2795:G:H2'	26:14:2795:G:N3	2.35	0.42
29:19:50:THR:O	29:19:51:VAL:HG23	2.20	0.42
31:39:129:PHE:CD2	31:39:163:VAL:HG21	2.55	0.42
31:39:185:ASP:HA	31:39:188:ARG:HB3	2.02	0.42
32:49:117:PHE:O	32:49:117:PHE:CG	2.72	0.42
35:15:85:ILE:HD12	35:15:85:ILE:O	2.19	0.42
38:45:19:GLY:O	38:45:98:LYS:HD2	2.19	0.42
39:55:103:ARG:NH1	39:55:110:PRO:HD3	2.34	0.42
43:95:34:GLU:OE1	43:95:58:VAL:HG22	2.19	0.42
47:D5:44:PHE:CZ	47:D5:86:VAL:HG21	2.55	0.42
1:13:294:U:O4	1:13:295:C:N4	2.53	0.42
1:13:407:G:O2'	4:3E:116:GLN:HG3	2.19	0.42
1:13:648:A:N1	1:13:649:G:C5	2.88	0.42
1:13:745:C:H5"	1:13:851:G:H1'	2.01	0.42
1:13:843:U:O2	1:13:843:U:H2'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:883:C:C2'	1:13:884:U:H5'	2.50	0.42
1:13:1364:U:O2'	1:13:1365:G:H5'	2.19	0.42
1:13:1452:C:H5"	1:13:1454:G:C8	2.54	0.42
2:1E:92:TYR:CE2	2:1E:151:GLY:HA3	2.54	0.42
3:2E:18:TRP:CZ2	14:5I:55:GLY:HA2	2.54	0.42
3:2E:73:PRO:O	3:2E:77:ILE:HG13	2.19	0.42
3:2E:123:GLN:NE2	3:2E:136:GLN:NE2	2.64	0.42
4:3E:31:CYS:HA	58:3E:302:SF4:S3	2.60	0.42
4:3E:192:GLU:OE1	4:3E:192:GLU:N	2.51	0.42
8:7E:2:LEU:HD23	8:7E:2:LEU:HA	1.85	0.42
11:2I:85:ARG:HG2	11:2I:112:THR:H	1.85	0.42
17:8I:83:ASP:OD1	17:8I:83:ASP:N	2.52	0.42
23:2K:1:C:C2	23:2K:2:G:C8	3.08	0.42
25:4K:20:A:C2'	25:4K:21:A:H5'	2.50	0.42
26:1H:72:U:H1'	50:K8:58:ALA:CB	2.50	0.42
26:1H:347:A:H2'	26:1H:348:G:C8	2.54	0.42
26:1H:531:C:C5	26:1H:2035:G:C2	3.07	0.42
26:1H:1171:G:C5	26:1H:1174:A:N6	2.88	0.42
26:1H:1181:C:O2'	26:1H:1182:A:H5'	2.20	0.42
26:1H:1188:U:C5'	43:D8:79:VAL:HG22	2.50	0.42
26:1H:1753:G:H2'	26:1H:1755:A:OP2	2.20	0.42
26:1H:1952:A:C2	36:68:22:ILE:HG23	2.53	0.42
26:1H:2019:A:C6	26:1H:2020:A:N7	2.88	0.42
26:1H:2364:C:H4'	48:I8:56:ASP:OD1	2.19	0.42
27:16:69:G:C5	27:16:70:C:C5	3.07	0.42
32:41:139:LEU:HA	32:41:144:ILE:HG21	2.02	0.42
35:58:127:ASP:O	35:58:128:HIS:HB3	2.19	0.42
44:E8:4:LYS:NZ	44:E8:6:ILE:HD11	2.34	0.42
46:G8:49:VAL:HG11	46:G8:61:ILE:HD13	2.01	0.42
47:H8:109:ALA:HB3	47:H8:142:SER:O	2.19	0.42
49:J8:4:VAL:HG23	49:J8:10:LYS:O	2.18	0.42
52:M8:37:SER:OG	52:M8:42:PHE:HD1	1.94	0.42
53:N8:41:PRO:HG2	53:N8:44:THR:OG1	2.20	0.42
1:1G:335:C:O2	1:1G:1433:A:H2	2.02	0.42
1:1G:608:A:H2'	1:1G:609:A:O4'	2.19	0.42
1:1G:861:G:H2'	1:1G:862:C:C6	2.54	0.42
1:1G:861:G:O2'	1:1G:862:C:H5'	2.20	0.42
1:1G:1048:G:O4'	1:1G:1215:G:H4'	2.19	0.42
1:1G:1127:G:H22	1:1G:1144:G:H1	1.66	0.42
1:1G:1158:C:HO2'	2:12:133:LYS:HZ2	1.58	0.42
1:1G:1516:G:H2'	1:1G:1518:A:OP2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:219:VAL:HG23	2:12:221:LEU:H	1.84	0.42
5:42:53:LEU:O	5:42:57:LYS:HB2	2.19	0.42
5:42:143:ARG:HG3	8:72:77:GLU:OE2	2.19	0.42
8:72:20:TYR:HA	8:72:65:TYR:CZ	2.55	0.42
17:8A:59:ILE:CG2	17:8A:71:PHE:HB3	2.49	0.42
19:AA:40:ILE:HA	19:AA:44:MET:SD	2.60	0.42
21:1B:6:ARG:H	21:1B:6:ARG:HG3	1.70	0.42
22:1L:57:G:H2'	22:1L:58:A:H5'	2.02	0.42
24:3L:2:G:P	24:3L:2:G:H8	2.43	0.42
26:14:270(H):C:H2'	26:14:270(I):G:H8	1.83	0.42
26:14:483:A:H3'	26:14:484:C:H6	1.85	0.42
26:14:1073:A:C5	26:14:1074:G:H8	2.37	0.42
26:14:1142(A):A:C5	26:14:1144:G:C5	3.08	0.42
26:14:1410:G:N2	26:14:1593:G:C4	2.88	0.42
26:14:1497:U:O2'	26:14:1578:U:OP1	2.37	0.42
26:14:1790:C:H2'	26:14:1791:A:C5	2.54	0.42
26:14:1993:U:H4'	30:29:128:SER:HB3	2.02	0.42
26:14:2453:A:O2'	26:14:2572:A:H1'	2.20	0.42
26:14:2543:G:H21	26:14:2646:C:H5"	1.85	0.42
26:14:2563:U:H2'	26:14:2565:A:OP2	2.20	0.42
26:14:2629:A:H3'	26:14:2629:A:OP2	2.20	0.42
26:14:2822:G:P	30:29:110:GLY:HA3	2.60	0.42
29:19:158:ALA:O	29:19:159:ALA:C	2.63	0.42
29:19:242:ARG:HH11	29:19:242:ARG:N	2.14	0.42
30:29:57:LYS:HA	30:29:57:LYS:HD3	1.81	0.42
31:39:38:ARG:NE	31:39:99:TYR:HH	1.97	0.42
34:69:88:ILE:O	34:69:121:LYS:NZ	2.49	0.42
41:75:129:ARG:HA	41:75:132:LYS:HE3	2.02	0.42
46:C5:14:LEU:HD23	46:C5:15:VAL:N	2.34	0.42
53:J5:45:VAL:HG12	53:J5:56:LYS:HD2	2.01	0.42
55:M5:7:HIS:ND1	55:M5:7:HIS:O	2.52	0.42
1:13:266:G:O2'	17:8I:67:LYS:HD3	2.20	0.42
1:13:375:U:H5"	16:7I:6:LEU:HD12	2.02	0.42
1:13:554:C:H2'	1:13:555:C:H6	1.83	0.42
1:13:947:G:H2'	1:13:948:C:C6	2.55	0.42
1:13:964:A:HO2'	10:1I:55:LYS:HE3	1.84	0.42
1:13:993:G:H2'	1:13:993:G:N3	2.35	0.42
1:13:1028(B):C:C4	1:13:1032(B):G:C6	3.07	0.42
1:13:1133:G:H2'	1:13:1134:G:H8	1.83	0.42
1:13:1151:A:O2'	1:13:1152:A:H8	2.02	0.42
1:13:1392:G:O2'	1:13:1393:U:H5'	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1466:C:H2'	1:13:1467:G:O4'	2.20	0.42
2:1E:185:ILE:HA	2:1E:199:TYR:O	2.19	0.42
3:2E:113:ALA:HB3	3:2E:114:PRO:HD3	2.02	0.42
7:6E:31:MET:HE1	7:6E:36:LYS:NZ	2.34	0.42
9:8E:18:PHE:O	9:8E:61:ALA:HA	2.20	0.42
13:4I:87:TYR:O	13:4I:90:LEU:N	2.52	0.42
20:BI:55:ILE:HD13	20:BI:55:ILE:HA	1.93	0.42
24:3K:3:G:O5'	24:3K:3:G:H8	2.03	0.42
26:1H:251:A:C5	26:1H:252:G:H1'	2.55	0.42
26:1H:610:C:H2'	26:1H:611:C:H6	1.85	0.42
26:1H:780:G:H8	26:1H:780:G:O5'	2.03	0.42
26:1H:1176:G:H2'	26:1H:1177:A:N3	2.35	0.42
26:1H:1432:C:H2'	26:1H:1433:U:O4'	2.19	0.42
26:1H:1824:G:N3	29:11:254:THR:OG1	2.53	0.42
26:1H:1956:U:H2'	26:1H:1957:C:H5'	2.02	0.42
26:1H:1993:U:H4'	30:21:128:SER:HB3	2.02	0.42
26:1H:2023:G:H5'	26:1H:2617:C:H4'	2.02	0.42
26:1H:2159:G:H2'	26:1H:2160:G:O4'	2.20	0.42
26:1H:2452:C:N4	26:1H:2453:A:N6	2.67	0.42
26:1H:2531:A:H2	26:1H:2658:C:O2	2.03	0.42
26:1H:2680:C:O2'	26:1H:2681:C:H5'	2.20	0.42
27:16:20:C:H2'	27:16:21:G:O4'	2.20	0.42
28:71:5:LYS:HA	28:71:8:ARG:HB3	2.02	0.42
31:31:164:ARG:HG2	31:31:164:ARG:HH11	1.83	0.42
36:68:117:LEU:HD23	36:68:117:LEU:HA	1.73	0.42
37:78:30:THR:CG2	37:78:35:HIS:H	2.32	0.42
39:98:55:ALA:HB1	39:98:80:PHE:HA	2.00	0.42
40:A8:27:SER:HA	40:A8:88:ASP:CB	2.46	0.42
42:C8:101:ARG:O	42:C8:103:PRO:HD3	2.20	0.42
44:E8:13:SER:O	44:E8:14:PRO:C	2.62	0.42
52:M8:34:GLU:HG2	52:M8:35:VAL:HG22	2.01	0.42
1:1G:449:C:H2'	1:1G:450:G:O4'	2.20	0.42
1:1G:634:C:H2'	1:1G:635:G:H8	1.85	0.42
1:1G:1021:G:H2'	1:1G:1022:G:H8	1.84	0.42
1:1G:1037:C:C2	1:1G:1038:C:C5	3.08	0.42
1:1G:1143:G:H2'	1:1G:1144:G:H8	1.77	0.42
2:12:98:LEU:O	2:12:101:MET:HG2	2.19	0.42
4:32:133:VAL:HG11	4:32:138:TYR:CD2	2.55	0.42
4:32:145:GLU:OE1	4:32:182:LYS:HD2	2.20	0.42
4:32:162:LEU:HA	4:32:165:MET:HB3	2.00	0.42
5:42:105:VAL:CG2	5:42:128:PRO:HB3	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:52:82:ARG:HB2	6:52:85:VAL:HG23	2.02	0.42
8:72:29:SER:H	8:72:32:LYS:HB2	1.85	0.42
17:8A:59:ILE:HG22	17:8A:71:PHE:CD2	2.54	0.42
19:AA:37:ARG:O	19:AA:70:LYS:HE3	2.19	0.42
20:BA:62:LEU:HD23	20:BA:62:LEU:HA	1.83	0.42
25:4L:19:U:C2	25:4L:20:A:C8	3.07	0.42
26:14:28:A:C2	26:14:513:A:C8	3.06	0.42
26:14:600:G:H2'	26:14:601:C:C6	2.54	0.42
26:14:776:G:H4'	26:14:777:A:O5'	2.19	0.42
26:14:907:U:O2'	38:45:101:ARG:NH2	2.47	0.42
26:14:974(A):C:H2'	26:14:974(A):C:O2	2.20	0.42
26:14:1049:C:N3	26:14:2751:G:N1	2.54	0.42
26:14:1166:C:H1'	26:14:1184:G:N2	2.34	0.42
26:14:1542:G:O5'	26:14:1543:A:H5"	2.20	0.42
26:14:1729:A:N3	26:14:1730:U:H5	2.18	0.42
26:14:1808:U:H5"	26:14:1809:A:OP2	2.20	0.42
26:14:1834:U:H4'	26:14:1969:A:C6	2.54	0.42
26:14:1870:C:H5"	26:14:1871:A:OP2	2.20	0.42
26:14:2162:G:H4'	26:14:2173:A:OP2	2.20	0.42
26:14:2171:A:N7	26:14:2172:U:C6	2.87	0.42
26:14:2331:G:H4'	48:E5:43:THR:H	1.85	0.42
26:14:2352:A:C2	48:E5:33:ALA:O	2.73	0.42
26:14:2415:G:C6	26:14:2416:C:C4	3.08	0.42
26:14:2419:U:H2'	26:14:2420:C:C6	2.55	0.42
26:14:2636:U:H4'	30:29:80:GLU:CD	2.44	0.42
26:14:2687:U:C4	26:14:2688:U:C5	3.08	0.42
29:19:85:ASP:OD2	29:19:88:ARG:NH1	2.43	0.42
30:29:49:LEU:HD22	30:29:91:VAL:HG21	2.02	0.42
30:29:65:GLY:C	30:29:68:ALA:H	2.28	0.42
35:15:47:ALA:CB	35:15:112:LEU:HD21	2.48	0.42
35:15:73:THR:HG22	35:15:84:LYS:HB3	2.01	0.42
1:13:319:G:H2'	1:13:320:C:O4'	2.20	0.42
1:13:498:A:C4	1:13:546:G:N2	2.81	0.42
1:13:539:A:H2'	1:13:540:G:C8	2.54	0.42
1:13:1149:C:H2'	1:13:1150:U:C6	2.55	0.42
2:1E:214:ILE:H	2:1E:214:ILE:HG13	1.50	0.42
5:4E:10:MET:HE2	5:4E:10:MET:HB2	1.68	0.42
5:4E:51:VAL:O	5:4E:55:VAL:HG23	2.19	0.42
5:4E:84:PHE:CZ	5:4E:133:TYR:HD2	2.38	0.42
8:7E:129:VAL:HG23	8:7E:130:GLY:H	1.83	0.42
9:8E:4:TYR:CD1	9:8E:88:TYR:HB2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1F:6:ARG:NH1	21:1F:15:ARG:HE	2.18	0.42
22:1K:68:G:H2'	22:1K:69:A:N7	2.35	0.42
26:1H:43:G:N2	26:1H:438:G:C4	2.88	0.42
26:1H:249:C:O2	55:Q8:12:LYS:NZ	2.41	0.42
26:1H:475:U:C4	26:1H:481:G:O6	2.72	0.42
26:1H:818:G:H5'	26:1H:839:U:OP1	2.19	0.42
26:1H:839:U:H2'	26:1H:840:C:C6	2.54	0.42
26:1H:1179:C:H2'	26:1H:1180:C:C6	2.55	0.42
26:1H:1221:C:H2'	26:1H:1222:C:C6	2.54	0.42
26:1H:2365:G:H4'	48:I8:60:PHE:CZ	2.54	0.42
26:1H:2629:A:N6	26:1H:2895:U:C2	2.88	0.42
26:1H:2850:A:OP2	26:1H:2866:U:N3	2.43	0.42
27:16:11:C:OP2	27:16:12:C:N4	2.40	0.42
27:16:89(A):A:N7	27:16:90:C:H1'	2.35	0.42
27:16:116:G:H2'	27:16:117:G:O4'	2.20	0.42
30:21:84:PHE:CZ	30:21:91:VAL:HG11	2.55	0.42
30:21:116:VAL:HG22	30:21:122:PHE:CD1	2.54	0.42
33:51:97:ARG:HG2	33:51:98:LEU:N	2.35	0.42
33:51:152:ARG:HA	33:51:152:ARG:HD3	1.86	0.42
36:68:53:LYS:HD2	36:68:53:LYS:N	2.27	0.42
37:78:59:LEU:HB2	55:Q8:58:ILE:HD12	2.01	0.42
37:78:79:ARG:HB2	37:78:110:TYR:HD1	1.84	0.42
1:1G:341:C:H2'	1:1G:342:C:C6	2.54	0.42
1:1G:1004:A:N1	1:1G:1006:C:C2	2.88	0.42
1:1G:1019:C:H2'	1:1G:1020:U:C6	2.55	0.42
1:1G:1026:G:H2'	1:1G:1027:C:H5'	2.02	0.42
4:32:133:VAL:HG11	4:32:138:TYR:HD2	1.84	0.42
9:82:118:LYS:HB3	9:82:121:ARG:HB3	2.02	0.42
13:4A:29:ARG:HD3	13:4A:64:TRP:CH2	2.54	0.42
17:8A:41:LYS:HZ1	17:8A:92:ARG:HH21	1.67	0.42
22:1L:19:G:P	22:1L:19:G:H3'	2.60	0.42
22:1L:22:G:H2'	22:1L:23:A:H8	1.85	0.42
23:2L:11:A:O5'	23:2L:11:A:H8	2.02	0.42
26:14:500:G:N2	26:14:502:A:H3'	2.34	0.42
26:14:671:C:OP1	37:35:42:SER:O	2.37	0.42
26:14:1109:C:H5"	26:14:1110:G:OP2	2.20	0.42
26:14:1142(A):A:C8	26:14:1144:G:N7	2.88	0.42
26:14:1329:U:H5"	26:14:1330:C:C5	2.51	0.42
26:14:1914:C:H2'	26:14:1915:U:O4'	2.19	0.42
26:14:2210:G:H5'	26:14:2211:G:N1	2.35	0.42
26:14:2319:G:N2	26:14:2334:G:OP1	2.38	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2766:G:N3	26:14:2766:G:H2'	2.35	0.42
28:79:46:LYS:HE2	28:79:210:ARG:HB3	2.01	0.42
30:29:1:MET:HG3	30:29:200:GLU:HB3	2.02	0.42
32:49:34:LEU:HB3	32:49:99:MET:HE1	2.02	0.42
32:49:75:LYS:HD2	32:49:75:LYS:C	2.45	0.42
34:69:76:THR:HG23	34:69:77:LEU:N	2.35	0.42
50:G5:25:VAL:HA	50:G5:28:LYS:HB2	2.01	0.42
1:13:27:G:C6	1:13:28:G:C5	3.07	0.42
1:13:122:G:H4'	1:13:312:C:O2'	2.20	0.42
1:13:191:G:C2	1:13:192:U:C2	3.08	0.42
1:13:690:G:N2	11:2I:55:LYS:HE2	2.35	0.42
1:13:821:G:C2	1:13:880:C:N3	2.88	0.42
1:13:1464:G:H2'	1:13:1465:C:H6	1.84	0.42
3:2E:15:THR:CG2	3:2E:181:ASN:HA	2.50	0.42
5:4E:26:PHE:CD1	5:4E:26:PHE:N	2.88	0.42
14:5I:4:LYS:HA	14:5I:7:ILE:HG13	2.02	0.42
15:6I:4:THR:OG1	15:6I:7:GLU:HG3	2.20	0.42
20:BI:51:GLU:OE1	20:BI:51:GLU:C	2.63	0.42
26:1H:55:G:N2	26:1H:116:C:C2	2.88	0.42
26:1H:243:U:OP1	55:Q8:6:THR:OG1	2.27	0.42
26:1H:363(F):A:H4'	26:1H:364:C:H5'	2.02	0.42
26:1H:514:A:H1'	26:1H:581:C:O2'	2.19	0.42
26:1H:587:C:P	37:78:21:ARG:HH22	2.42	0.42
26:1H:996:A:H4'	42:C8:92:ARG:HE	1.85	0.42
26:1H:1021:A:H61	26:1H:1142(A):A:N6	2.18	0.42
26:1H:1413:G:C4	26:1H:1414:G:C8	3.08	0.42
26:1H:1510:A:O2'	26:1H:1511:A:N7	2.46	0.42
26:1H:1580:A:H8	26:1H:1580:A:OP2	2.03	0.42
26:1H:2124:G:O3'	28:71:174:PRO:HB3	2.20	0.42
26:1H:2127:G:C5	26:1H:2162:G:C8	3.08	0.42
26:1H:2699:C:H2'	26:1H:2700:C:O4'	2.19	0.42
27:16:73:A:H2'	27:16:73:A:N3	2.34	0.42
29:11:102:LYS:C	29:11:103:ARG:HG2	2.45	0.42
31:31:64:ILE:HG23	31:31:64:ILE:HD12	1.65	0.42
32:41:112:PRO:HA	52:M8:37:SER:HB2	2.02	0.42
36:68:70:LYS:HE3	36:68:70:LYS:HB2	1.75	0.42
44:E8:74:ALA:HA	44:E8:104:THR:O	2.20	0.42
47:H8:125:LEU:HG	47:H8:164:ALA:CB	2.50	0.42
55:Q8:65:GLU:OE1	55:Q8:65:GLU:N	2.53	0.42
1:1G:192:U:C4'	20:BA:103:GLY:HA2	2.50	0.42
1:1G:197:A:H8	1:1G:198:G:C8	2.38	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:411:A:C6	1:1G:413:G:H1'	2.54	0.42
1:1G:1068:G:N7	1:1G:1094:G:C8	2.88	0.42
1:1G:1158:C:N3	1:1G:1160:G:C8	2.87	0.42
2:12:188:ALA:HB1	2:12:192:SER:CB	2.49	0.42
5:42:63:ARG:HG2	5:42:63:ARG:HH11	1.84	0.42
8:72:103:VAL:HG11	8:72:109:ILE:O	2.20	0.42
8:72:105:ARG:HD3	8:72:105:ARG:HA	1.67	0.42
13:4A:56:LEU:HD22	13:4A:60:VAL:HG23	2.01	0.42
14:5A:24:CYS:SG	14:5A:39:LEU:HA	2.60	0.42
15:6A:43:LEU:HD11	15:6A:53:HIS:HA	2.01	0.42
20:BA:83:ARG:O	20:BA:87:LYS:HG3	2.20	0.42
24:3L:9:A:O2'	24:3L:10:G:N7	2.41	0.42
24:3L:76:A:C8	26:14:2394:C:N4	2.87	0.42
26:14:141:A:C8	26:14:1408:C:H1'	2.55	0.42
26:14:848:G:C2	26:14:849:A:C5	3.08	0.42
26:14:1669:A:H2'	26:14:1670:C:H5'	2.01	0.42
26:14:1826:G:H4'	29:19:242:ARG:HH21	1.84	0.42
26:14:1899:G:N2	26:14:1902:C:C5	2.88	0.42
26:14:2262:U:O2'	26:14:2263:C:H5'	2.20	0.42
26:14:2567:G:H2'	26:14:2568:C:H6	1.83	0.42
27:1J:74:U:H2'	27:1J:75:G:O4'	2.20	0.42
27:1J:110:G:C5	27:1J:111:U:C5	3.08	0.42
31:39:146:ALA:HB3	31:39:148:LEU:HG	2.01	0.42
34:69:101:LEU:HB2	34:69:105:HIS:HB2	2.02	0.42
40:65:56:LEU:HD12	40:65:56:LEU:HA	1.84	0.42
40:65:74:ALA:O	40:65:78:LEU:HB2	2.20	0.42
40:65:106:ARG:O	40:65:107:GLU:CD	2.62	0.42
42:85:90:VAL:CG2	43:95:39:LEU:HD22	2.50	0.42
49:F5:91:LYS:NZ	49:F5:95:LEU:HD22	2.35	0.42
1:13:437:U:O4	1:13:438:G:C6	2.72	0.41
1:13:998(A):C:O2'	1:13:999:U:H5'	2.20	0.41
1:13:1004:A:H8	1:13:1036:G:H22	1.67	0.41
1:13:1124:G:C2	1:13:1127:G:N2	2.88	0.41
1:13:1126:U:H2'	1:13:1127:G:C8	2.55	0.41
1:13:1238:A:N6	1:13:1301:U:H3	2.13	0.41
1:13:1262:C:O5'	1:13:1262:C:H6	2.03	0.41
2:1E:223:ILE:H	2:1E:223:ILE:HG12	1.68	0.41
3:2E:177:THR:O	3:2E:180:ALA:HB2	2.20	0.41
11:2I:22:HIS:HB3	11:2I:29:ILE:CG2	2.50	0.41
26:1H:278:A:H3'	26:1H:279:C:C6	2.55	0.41
26:1H:1111:A:N3	26:1H:1112:G:H1'	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1328:G:H2'	26:1H:1330:C:C4	2.55	0.41
26:1H:1550:C:C6	26:1H:1551:C:H5	2.38	0.41
26:1H:1639:U:OP1	60:1H:3563:HOH:O	2.22	0.41
26:1H:1788:C:H2'	26:1H:1789:A:O4'	2.20	0.41
26:1H:1869:G:H8	26:1H:1869:G:H5"	1.85	0.41
26:1H:2122:U:O2'	28:71:172:HIS:CE1	2.70	0.41
26:1H:2171:A:O2'	26:1H:2172:U:O4'	2.25	0.41
26:1H:2634:G:H2'	26:1H:2635:C:O4'	2.20	0.41
26:1H:2780:G:OP2	35:58:118:LYS:HD3	2.20	0.41
26:1H:2820:A:O5'	39:98:4:LEU:HD23	2.20	0.41
26:1H:2855:C:H2'	26:1H:2856:C:C6	2.53	0.41
27:16:15:A:H4'	27:16:15:A:OP1	2.19	0.41
28:71:177:LYS:HD2	28:71:178:ALA:H	1.84	0.41
32:41:6:ALA:HB3	32:41:104:GLU:OE2	2.20	0.41
33:51:98:LEU:HD13	33:51:125:VAL:HG23	2.02	0.41
33:51:137:ASP:HB3	33:51:140:LYS:HB3	2.01	0.41
37:78:98:GLU:O	37:78:101:VAL:HG22	2.20	0.41
1:1G:587:G:N2	1:1G:755:G:C5	2.88	0.41
1:1G:1036:G:H3'	1:1G:1037:C:O4'	2.20	0.41
1:1G:1121:U:H2'	1:1G:1122:U:C6	2.55	0.41
1:1G:1274:G:H2'	1:1G:1275:A:H8	1.85	0.41
1:1G:1291:G:C6	1:1G:1292:U:O4	2.72	0.41
1:1G:1360:A:H8	1:1G:1360:A:OP1	2.03	0.41
1:1G:1368:G:H4'	10:1A:46:ARG:NH2	2.27	0.41
2:12:71:VAL:HG21	2:12:164:VAL:HA	2.02	0.41
4:32:104:VAL:O	4:32:108:LEU:HB3	2.20	0.41
5:42:78:HIS:HA	8:72:105:ARG:HG3	2.02	0.41
7:62:15:ASP:OD1	7:62:20:ASP:N	2.53	0.41
13:4A:53:VAL:O	13:4A:56:LEU:N	2.53	0.41
16:7A:57:ARG:HH21	16:7A:79:VAL:C	2.28	0.41
26:14:17:G:H4'	42:85:25:TRP:CZ3	2.54	0.41
26:14:171:G:H2'	26:14:172:C:C6	2.55	0.41
26:14:176:G:O2'	26:14:177:G:H5'	2.20	0.41
26:14:270(E):G:H2'	26:14:270(F):U:C6	2.54	0.41
26:14:289:A:H3'	26:14:290:G:H8	1.85	0.41
26:14:307:G:N2	26:14:309:G:H3'	2.35	0.41
26:14:443:A:H5"	26:14:444:C:OP1	2.20	0.41
26:14:1000:A:H62	26:14:1154:G:H2'	1.84	0.41
26:14:1291:C:H2'	26:14:1292:U:C6	2.54	0.41
26:14:1436:G:O2'	26:14:1477:A:H4'	2.19	0.41
26:14:1551:C:C4	26:14:1552:G:C5	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1804:C:O5'	26:14:1804:C:H6	2.02	0.41
26:14:1895:C:C2	26:14:1896:G:C8	3.08	0.41
26:14:2506:U:H4'	26:14:2507:C:OP1	2.18	0.41
26:14:2572:A:C5	30:29:144:ARG:NH1	2.85	0.41
26:14:2875:C:O2'	41:75:5:ALA:HB3	2.20	0.41
30:29:180:ASN:N	30:29:180:ASN:HD22	2.17	0.41
32:49:130:ASN:ND2	32:49:161:THR:H	2.17	0.41
32:49:173:LEU:HD22	32:49:178:PHE:CE2	2.55	0.41
37:35:11:GLY:O	37:35:12:ALA:HB3	2.20	0.41
41:75:8:LYS:CA	41:75:8:LYS:HE3	2.50	0.41
43:95:48:GLY:N	43:95:52:VAL:HG23	2.35	0.41
46:C5:46:LYS:HD2	46:C5:61:ILE:H	1.85	0.41
46:C5:87:LYS:HB3	46:C5:94:LYS:HA	2.01	0.41
47:D5:29:TYR:HA	47:D5:34:ASN:HA	2.01	0.41
47:D5:69:THR:HA	47:D5:89:PHE:O	2.20	0.41
47:D5:128:VAL:HG22	47:D5:129:SER:H	1.85	0.41
1:13:1057:G:H2'	1:13:1058:G:O4'	2.20	0.41
1:13:1135:U:H4'	1:13:1136:U:N3	2.35	0.41
1:13:1273:G:H3'	1:13:1274:G:H8	1.85	0.41
2:1E:21:ARG:C	2:1E:23:ARG:N	2.79	0.41
2:1E:69:LEU:HD23	2:1E:159:PRO:CG	2.47	0.41
2:1E:184:VAL:HG23	2:1E:198:ASP:OD2	2.20	0.41
13:4I:67:GLU:O	13:4I:71:ARG:HB2	2.20	0.41
17:8I:74:LEU:HD12	17:8I:75:ARG:HG2	2.02	0.41
26:1H:293:U:H5"	26:1H:294:A:OP2	2.20	0.41
26:1H:597:U:H2'	26:1H:598:G:H5'	2.01	0.41
26:1H:644:A:H4'	26:1H:645:C:C5	2.55	0.41
26:1H:1371:G:H2'	26:1H:1372:U:H5	1.85	0.41
26:1H:1798:U:H5'	29:11:259:THR:OG1	2.20	0.41
26:1H:1851:U:H2'	26:1H:1852:C:O4'	2.20	0.41
26:1H:2131:G:C5'	26:1H:2132:U:H5"	2.50	0.41
26:1H:2356:C:O3'	48:I8:20:ARG:HD3	2.20	0.41
26:1H:2472:G:O6	26:1H:2475:C:H2'	2.20	0.41
28:71:175:VAL:HG23	28:71:176:GLY:N	2.34	0.41
29:11:264:LYS:HE2	29:11:266:SER:HB3	2.02	0.41
31:31:62:ARG:HG3	31:31:63:LYS:N	2.34	0.41
35:58:5:VAL:HA	35:58:6:PRO:HD3	1.94	0.41
35:58:40:PRO:O	42:C8:64:ARG:HG2	2.19	0.41
37:78:49:ARG:NH1	37:78:50:ARG:HH21	2.17	0.41
39:98:44:LEU:O	39:98:47:PHE:N	2.45	0.41
44:E8:17:VAL:HG13	44:E8:76:VAL:HG11	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:G8:97:ARG:O	46:G8:101:LYS:HA	2.20	0.41
52:M8:13:ARG:NH2	52:M8:22:ILE:HD12	2.36	0.41
1:1G:191(F):U:H2'	1:1G:191:G:H8	1.86	0.41
1:1G:310:G:H5"	16:7A:31:LYS:HB3	2.01	0.41
1:1G:310:G:P	16:7A:27:LYS:HD3	2.60	0.41
1:1G:332:G:C2	1:1G:333:G:C8	3.08	0.41
1:1G:591:U:OP2	8:72:30:ARG:HD3	2.19	0.41
1:1G:626:U:H2'	1:1G:627:G:H8	1.85	0.41
1:1G:1224:G:N2	1:1G:1322:C:H4'	2.35	0.41
1:1G:1355:G:C6	1:1G:1368:G:C6	3.09	0.41
1:1G:1422:G:OP1	36:25:48:PRO:HA	2.20	0.41
3:22:129:ALA:HB3	3:22:132:ARG:HB3	2.02	0.41
5:42:76:ILE:HG12	5:42:118:ILE:CD1	2.50	0.41
13:4A:14:ARG:HB3	13:4A:16:ASP:OD1	2.20	0.41
24:3L:25:C:H2'	24:3L:26:A:O4'	2.20	0.41
24:3L:51:A:N6	24:3L:63:U:C2	2.87	0.41
26:14:465:G:H5"	54:L5:44:PRO:HG3	2.03	0.41
26:14:572:A:H2'	26:14:573:G:O4'	2.20	0.41
26:14:628:G:H2'	26:14:629:G:C8	2.56	0.41
26:14:677:A:H61	26:14:800:A:N6	2.18	0.41
26:14:709:U:H2'	26:14:710:G:C8	2.55	0.41
26:14:1055:G:C2	26:14:1085:A:H1'	2.55	0.41
26:14:1181:C:H2'	26:14:1182:A:H8	1.85	0.41
26:14:1257:C:H2'	26:14:1258:C:C6	2.55	0.41
26:14:1260:G:H2'	26:14:1261:C:C6	2.55	0.41
26:14:1297:C:OP1	26:14:2710:C:H4'	2.20	0.41
26:14:1441:G:H2'	26:14:1442:G:H8	1.85	0.41
26:14:1532:C:N3	26:14:1539:G:N2	2.53	0.41
26:14:2242:G:H2'	26:14:2243:U:O4'	2.20	0.41
27:1J:23:G:C2	27:1J:24:G:O6	2.72	0.41
27:1J:28:C:H2'	27:1J:29:A:C8	2.54	0.41
29:19:267:SER:C	29:19:269:PHE:N	2.75	0.41
30:29:31:CYS:O	30:29:90:THR:HA	2.19	0.41
30:29:55:ASN:HB2	30:29:58:ARG:NH2	2.34	0.41
32:49:107:LEU:HD23	32:49:107:LEU:HA	1.89	0.41
37:35:18:ARG:C	37:35:19:VAL:HG23	2.45	0.41
40:65:7:TYR:O	40:65:11:LYS:HB2	2.20	0.41
41:75:8:LYS:HE3	41:75:8:LYS:HA	2.02	0.41
42:85:17:ILE:HG23	42:85:17:ILE:HD12	1.71	0.41
43:95:21:ARG:HH21	43:95:91:TYR:C	2.27	0.41
43:95:44:LYS:HB2	43:95:45:THR:OG1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:A5:12:ILE:HD12	44:A5:42:ARG:HD3	2.03	0.41
1:13:130:A:C8	17:8I:63:ARG:HB2	2.55	0.41
1:13:344:A:H5"	1:13:345:C:C6	2.55	0.41
1:13:429:U:H4'	1:13:430:A:OP1	2.19	0.41
1:13:456:C:N3	1:13:476:G:N2	2.40	0.41
1:13:668:G:C6	1:13:669:U:C5	3.09	0.41
1:13:1491:G:N7	57:13:1730:PAR:O53	2.48	0.41
2:1E:185:ILE:HG22	2:1E:199:TYR:O	2.21	0.41
4:3E:196:LEU:HB3	4:3E:198:VAL:HG23	2.02	0.41
7:6E:80:VAL:HB	7:6E:85:TYR:CE1	2.54	0.41
12:3I:111:LYS:HD2	12:3I:111:LYS:HA	1.82	0.41
15:6I:78:TYR:O	15:6I:81:LEU:N	2.54	0.41
16:7I:38:TYR:CZ	16:7I:50:LYS:HB3	2.55	0.41
26:1H:125:G:C6	54:P8:10:ARG:HG3	2.55	0.41
26:1H:463:G:N2	26:1H:466:A:OP2	2.43	0.41
26:1H:571:A:H5'	26:1H:2030:A:N7	2.35	0.41
26:1H:588:U:H1'	31:31:90:PHE:CG	2.55	0.41
26:1H:593:G:C6	26:1H:594:U:C4	3.08	0.41
26:1H:775:G:C5	26:1H:794:G:C8	3.08	0.41
26:1H:922:U:H2'	26:1H:923:C:C6	2.55	0.41
26:1H:1270:C:H5"	26:1H:1271:G:O5'	2.20	0.41
26:1H:1493:C:C4	26:1H:2210:G:C8	3.08	0.41
26:1H:1638:C:H4'	26:1H:2710:C:O2	2.20	0.41
26:1H:1705:G:C6	26:1H:1706:U:N3	2.88	0.41
26:1H:1789:A:OP1	29:11:221:VAL:HA	2.20	0.41
26:1H:2147:G:H8	26:1H:2147:G:O5'	2.03	0.41
26:1H:2259:G:C2	26:1H:2282:G:N1	2.88	0.41
26:1H:2273:A:H2'	26:1H:2274:A:C8	2.55	0.41
27:16:71:C:C2	27:16:72:G:C8	3.08	0.41
27:16:109:G:C6	27:16:110:G:C5	3.08	0.41
28:71:46:LYS:HB3	28:71:210:ARG:HB2	2.03	0.41
29:11:228:PRO:HG3	29:11:234:GLY:O	2.19	0.41
32:41:73:ALA:HA	32:41:88:ILE:HD11	2.01	0.41
47:H8:99:TYR:CE1	47:H8:125:LEU:HB2	2.54	0.41
1:1G:147:G:N2	1:1G:148:G:C4	2.88	0.41
1:1G:186(E):C:C2	1:1G:191(C):G:N2	2.87	0.41
1:1G:272:C:H2'	1:1G:273:A:H8	1.84	0.41
1:1G:362:G:O2'	1:1G:364:A:N7	2.49	0.41
1:1G:607:A:C2	16:7A:31:LYS:HB2	2.55	0.41
1:1G:861:G:N2	1:1G:872:A:H2	2.18	0.41
1:1G:1067:A:H4'	1:1G:1068:G:O5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1086:U:H3	1:1G:1099:G:H22	1.68	0.41
1:1G:1203:C:H2'	1:1G:1204:A:C8	2.55	0.41
1:1G:1256:A:H3'	3:22:27:LYS:NZ	2.35	0.41
1:1G:1285:A:H4'	1:1G:1286:A:O5'	2.20	0.41
2:12:31:TYR:O	2:12:32:ILE:HB	2.19	0.41
3:22:195:VAL:O	3:22:196:LEU:HD22	2.20	0.41
4:32:148:VAL:HG12	4:32:152:SER:OG	2.21	0.41
5:42:136:MET:HB3	5:42:136:MET:HE3	1.74	0.41
7:62:99:LEU:HD22	7:62:103:TRP:NE1	2.35	0.41
9:82:20:ARG:HD2	9:82:20:ARG:C	2.45	0.41
16:7A:42:ARG:C	16:7A:43:LYS:HG3	2.45	0.41
19:AA:11:VAL:HG13	19:AA:39:THR:CB	2.51	0.41
19:AA:38:SER:O	19:AA:70:LYS:HG3	2.20	0.41
23:2L:17:C:OP1	23:2L:62:C:H5'	2.20	0.41
24:3L:76:A:H8	26:14:2394:C:N4	2.18	0.41
26:14:4:C:O2	26:14:4:C:H2'	2.20	0.41
26:14:468:G:H2'	26:14:469:G:O4'	2.20	0.41
26:14:520:G:H2'	26:14:521:G:C8	2.55	0.41
26:14:616:A:C5	31:39:180:GLY:HA3	2.56	0.41
26:14:621:A:H3'	26:14:622:G:H8	1.85	0.41
26:14:910:A:C5	38:45:13:GLN:HG3	2.55	0.41
26:14:1013:C:N3	26:14:1149:G:N2	2.57	0.41
26:14:1474:C:H2'	26:14:1475:G:C8	2.56	0.41
26:14:1788:C:C2	26:14:1789:A:C8	3.08	0.41
29:19:46:GLN:H	29:19:46:GLN:HG3	1.55	0.41
29:19:71:ASP:CG	29:19:103:ARG:HH22	2.28	0.41
34:69:97:ILE:O	34:69:100:ALA:HB3	2.21	0.41
36:25:34:THR:HG22	36:25:37:ASP:CG	2.45	0.41
36:25:71:ARG:HB2	36:25:73:ASP:OD1	2.20	0.41
1:13:592:G:O2'	1:13:593:G:H5'	2.21	0.41
1:13:706:A:N3	11:2I:31:THR:HG21	2.34	0.41
1:13:983:A:H1'	1:13:1049:U:O2	2.20	0.41
1:13:1367:C:H4'	10:1I:48:THR:HG21	2.01	0.41
4:3E:49:ARG:NH2	60:3E:401:HOH:O	2.53	0.41
4:3E:111:ALA:HB2	4:3E:120:LEU:HD11	2.02	0.41
7:6E:26:PHE:O	7:6E:27:ILE:C	2.63	0.41
8:7E:13:ILE:O	8:7E:17:THR:HG23	2.21	0.41
10:1I:55:LYS:O	10:1I:56:HIS:CD2	2.74	0.41
16:7I:19:ILE:HB	16:7I:36:ILE:HG13	2.02	0.41
22:1K:67:C:H5"	22:1K:68:G:OP1	2.20	0.41
26:1H:17:G:H2'	26:1H:18:C:C6	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:314:A:C2'	26:1H:315:G:H5'	2.51	0.41
26:1H:582:G:H2'	26:1H:583:G:H8	1.85	0.41
26:1H:654(O):G:C8	26:1H:654(P):G:H1'	2.52	0.41
26:1H:657:U:H2'	26:1H:658:C:H6	1.86	0.41
26:1H:1183:G:OP2	26:1H:1183:G:H8	2.03	0.41
26:1H:1324:G:N2	26:1H:1331:A:C4	2.89	0.41
26:1H:1349:A:N6	26:1H:1598:C:N4	2.68	0.41
26:1H:1351:C:H5"	60:1H:3790:HOH:O	2.19	0.41
26:1H:1465:G:C4	26:1H:1466:G:C8	3.08	0.41
26:1H:1545(A):A:N7	26:1H:1546:C:C2	2.88	0.41
26:1H:2118:U:O5'	26:1H:2118:U:H6	2.04	0.41
26:1H:2147:G:H3'	26:1H:2148:G:C8	2.53	0.41
26:1H:2259:G:C2	26:1H:2282:G:C6	3.09	0.41
26:1H:2663:G:H3'	26:1H:2664:G:H8	1.85	0.41
27:16:87:G:N2	27:16:89:G:H3'	2.34	0.41
29:11:24:ILE:HG23	29:11:83:GLU:HA	2.02	0.41
31:31:110:LEU:HA	31:31:183:VAL:HG12	2.02	0.41
33:51:80:SER:O	33:51:81:GLU:CD	2.63	0.41
33:51:97:ARG:HE	33:51:97:ARG:HB3	1.77	0.41
34:61:33:ARG:O	34:61:35:LEU:HD12	2.20	0.41
34:61:131:LYS:HA	34:61:131:LYS:HD3	1.95	0.41
35:58:48:MET:SD	35:58:48:MET:O	2.78	0.41
47:H8:56:VAL:HA	47:H8:70:LEU:HD23	2.03	0.41
50:K8:17:SER:HB3	50:K8:67:LYS:HE3	2.03	0.41
1:1G:123:C:H2'	1:1G:124:G:H8	1.86	0.41
1:1G:243:A:H62	1:1G:281:G:H1'	1.86	0.41
1:1G:446:G:H2'	1:1G:447:G:O4'	2.20	0.41
1:1G:585:G:H4'	12:3A:8:ASN:OD1	2.21	0.41
1:1G:802:A:H3'	1:1G:803:G:H8	1.85	0.41
1:1G:949:A:C2	1:1G:1233:G:N3	2.88	0.41
1:1G:1128:C:O2	1:1G:1128:C:H2'	2.19	0.41
1:1G:1177:G:O2'	1:1G:1178:G:C8	2.69	0.41
1:1G:1404:C:H2'	1:1G:1405:G:C8	2.55	0.41
2:12:42:ILE:HG22	2:12:43:ASP:O	2.20	0.41
3:22:73:PRO:HG3	3:22:105:GLU:HA	2.02	0.41
4:32:172:PRO:HB2	4:32:187:ARG:HH22	1.85	0.41
8:72:51:VAL:HG11	8:72:60:ARG:HH21	1.85	0.41
13:4A:31:LYS:O	13:4A:34:LEU:HG	2.20	0.41
19:AA:7:LYS:HB2	19:AA:7:LYS:HE2	1.89	0.41
23:2L:54:G:H2'	23:2L:55:5MU:C6	2.52	0.41
24:3L:63:U:H2'	24:3L:64:G:C8	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:226:G:H21	26:14:228:A:H62	1.68	0.41
26:14:289:A:C2'	26:14:290:G:H5'	2.50	0.41
26:14:541:C:H2'	26:14:542:C:C6	2.56	0.41
26:14:1802:A:N1	26:14:1822:G:H1'	2.36	0.41
26:14:2141:G:C6	26:14:2151:G:C6	3.09	0.41
26:14:2148:G:H2'	26:14:2149:G:H8	1.84	0.41
26:14:2162:G:H8	26:14:2164:C:H41	1.66	0.41
26:14:2290:G:C2	26:14:2343:C:O2	2.72	0.41
27:1J:81:G:C6	27:1J:82:G:C5	3.09	0.41
29:19:49:ILE:HG21	29:19:49:ILE:HD13	1.72	0.41
29:19:272:ALA:HB1	29:19:273:ARG:H	1.52	0.41
30:29:64:LYS:HB3	30:29:64:LYS:HE3	1.89	0.41
30:29:111:ARG:HD3	30:29:160:TYR:CD2	2.56	0.41
31:39:53:THR:HG22	31:39:56:GLU:CG	2.39	0.41
34:69:128:LEU:O	34:69:138:ILE:HG22	2.21	0.41
40:65:110:LEU:HD13	40:65:112:PHE:CZ	2.56	0.41
46:C5:40:GLU:N	46:C5:40:GLU:OE2	2.54	0.41
46:C5:81:LYS:HD2	46:C5:99:CYS:SG	2.61	0.41
47:D5:19:ARG:NH1	47:D5:84:GLU:O	2.52	0.41
1:13:110:C:H3'	1:13:111:G:C8	2.55	0.41
1:13:1176:A:N6	1:13:1177:G:C6	2.89	0.41
2:1E:222:ILE:H	2:1E:222:ILE:HG12	1.61	0.41
3:2E:11:ARG:HH21	3:2E:180:ALA:CB	2.34	0.41
3:2E:188:LEU:HA	3:2E:188:LEU:HD22	1.86	0.41
4:3E:153:ARG:HH11	4:3E:181:MET:HB2	1.85	0.41
8:7E:20:TYR:CE2	8:7E:75:ARG:HD2	2.35	0.41
8:7E:87:SER:HB3	8:7E:133:LEU:O	2.20	0.41
13:4I:117:VAL:HG13	13:4I:118:ALA:H	1.84	0.41
19:AI:41:VAL:HG21	19:AI:67:VAL:HG13	2.03	0.41
20:BI:48:LYS:HE2	20:BI:51:GLU:HG3	2.03	0.41
22:1K:30:G:H5'	22:1K:31:A:OP2	2.20	0.41
26:1H:37:C:O2'	26:1H:38:A:H5'	2.20	0.41
26:1H:600:G:N2	26:1H:605:C:O3'	2.52	0.41
26:1H:775:G:C4	26:1H:794:G:C8	3.09	0.41
26:1H:845:G:OP2	26:1H:845:G:C8	2.73	0.41
26:1H:1019:U:H3	26:1H:1142(A):A:H62	1.66	0.41
26:1H:1127:A:H2'	26:1H:1128:A:H5"	2.02	0.41
26:1H:1477:A:C2	26:1H:1517:G:C2	3.08	0.41
26:1H:1509:C:H2'	26:1H:1511:A:C8	2.55	0.41
26:1H:1601:G:C6	26:1H:1602:U:N3	2.89	0.41
26:1H:1830:C:C2'	26:1H:1831:G:H5'	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2148:G:C2	26:1H:2149:G:C8	3.09	0.41
26:1H:2480:C:H5'	26:1H:2481:G:OP2	2.20	0.41
26:1H:2688:U:OP1	26:1H:2713:A:N6	2.46	0.41
27:16:22:U:H2'	27:16:23:G:C8	2.55	0.41
28:71:10:LEU:HD23	28:71:13:LYS:HD3	2.01	0.41
29:11:32:SER:HA	29:11:35:LYS:NZ	2.36	0.41
30:21:35:GLN:HG3	30:21:36:ARG:H	1.86	0.41
30:21:108:SER:O	30:21:162:ALA:HA	2.21	0.41
31:31:64:ILE:HG22	31:31:65:TRP:CG	2.55	0.41
32:41:13:GLU:O	32:41:14:GLU:HG2	2.20	0.41
32:41:41:GLN:HG2	32:41:154:GLY:O	2.20	0.41
32:41:170:ARG:HE	32:41:174:GLU:HG2	1.86	0.41
35:58:31:ALA:O	35:58:35:ARG:HG3	2.20	0.41
36:68:35:VAL:HG11	36:68:103:ALA:CB	2.43	0.41
37:78:62:LEU:HA	37:78:62:LEU:HD23	1.80	0.41
46:G8:27:VAL:HA	46:G8:39:VAL:HA	2.01	0.41
46:G8:39:VAL:HG12	46:G8:42:VAL:HG13	2.02	0.41
47:H8:76:LEU:H	47:H8:76:LEU:HD23	1.85	0.41
47:H8:140:ASP:CG	47:H8:141:VAL:H	2.28	0.41
51:L8:31:LEU:C	51:L8:33:GLN:H	2.28	0.41
1:1G:66:G:C2	1:1G:67:C:C6	3.08	0.41
1:1G:117:G:H2'	1:1G:118:U:H6	1.86	0.41
1:1G:162:A:H8	1:1G:162:A:O5'	2.04	0.41
1:1G:184:G:O2'	1:1G:185:A:H5'	2.20	0.41
1:1G:223:U:H2'	1:1G:224:C:H6	1.85	0.41
1:1G:385:C:H2'	1:1G:386:C:C6	2.55	0.41
1:1G:407:G:H2'	1:1G:408:A:H8	1.82	0.41
1:1G:1255:G:H3'	1:1G:1279:A:N6	2.35	0.41
1:1G:1295:G:O2'	13:4A:14:ARG:NH1	2.54	0.41
1:1G:1299:A:C6	1:1G:1301:U:C2	3.08	0.41
1:1G:1317:C:H2'	1:1G:1318:A:H5'	2.01	0.41
2:12:185:ILE:H	2:12:185:ILE:HG13	1.75	0.41
5:42:79:GLU:HB3	5:42:93:PRO:HD2	2.02	0.41
9:82:28:VAL:HG22	9:82:63:ILE:O	2.21	0.41
11:2A:85:ARG:HA	11:2A:112:THR:OG1	2.20	0.41
12:3A:41:ARG:HH11	12:3A:41:ARG:HD2	1.76	0.41
15:6A:41:GLU:O	15:6A:45:VAL:HG22	2.21	0.41
24:3L:26:A:H61	24:3L:45:G:H1	1.69	0.41
26:14:151:C:O2'	26:14:152:G:H5'	2.21	0.41
26:14:298:G:OP1	46:C5:85:VAL:HA	2.19	0.41
26:14:702:G:C2	26:14:731:C:C2	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:753:C:O2'	26:14:754:C:H5'	2.21	0.41
26:14:805:G:H4'	37:35:38:GLN:HB2	2.01	0.41
26:14:814:C:N3	26:14:1194:A:C2	2.88	0.41
26:14:911:A:C5	38:45:9:TYR:CD2	3.09	0.41
26:14:1317:A:H2'	26:14:1318:C:H6	1.86	0.41
26:14:1684:C:C2	26:14:1705:G:N2	2.89	0.41
26:14:1731:G:N3	26:14:1731:G:O4'	2.52	0.41
26:14:1735:C:O5'	26:14:1735:C:H6	2.02	0.41
26:14:2261:C:O2'	26:14:2262:U:H5'	2.20	0.41
26:14:2758:A:H2'	26:14:2759:G:O4'	2.21	0.41
26:14:2789:C:N3	26:14:2894:G:N2	2.68	0.41
26:14:2822:G:O5'	26:14:2822:G:H8	2.04	0.41
27:1J:72:G:O2'	27:1J:104:A:N6	2.53	0.41
29:19:162:SER:HB3	29:19:195:ALA:HB1	2.03	0.41
36:25:47:ILE:HD13	36:25:47:ILE:HA	1.71	0.41
39:55:76:VAL:HA	39:55:79:LEU:HB3	2.02	0.41
46:C5:90:LEU:HA	46:C5:91:GLU:HA	1.83	0.41
47:D5:16:SER:O	47:D5:20:ARG:HG3	2.20	0.41
47:D5:96:VAL:HG12	47:D5:97:GLU:N	2.36	0.41
50:G5:47:ASN:C	50:G5:49:LYS:H	2.12	0.41
1:13:21:G:C2	1:13:22:G:C6	3.09	0.41
1:13:186(F):C:N3	1:13:191(B):G:C2	2.88	0.41
1:13:571:U:O2	1:13:918:A:H5'	2.21	0.41
1:13:748:C:H6	1:13:748:C:O5'	2.02	0.41
1:13:1003:G:H1	1:13:1037:C:N4	2.19	0.41
2:1E:180:LEU:HB2	2:1E:182:ILE:HG13	2.01	0.41
7:6E:20:ASP:O	7:6E:24:THR:HG23	2.20	0.41
9:8E:25:LYS:O	9:8E:60:ASP:HA	2.21	0.41
11:2I:19:ALA:HA	11:2I:32:ILE:HA	2.03	0.41
11:2I:32:ILE:HD11	11:2I:68:ALA:HB1	2.02	0.41
13:4I:67:GLU:HG3	13:4I:71:ARG:HH21	1.85	0.41
13:4I:92:HIS:O	13:4I:93:ARG:C	2.63	0.41
26:1H:81:G:O6	60:1H:3561:HOH:O	2.21	0.41
26:1H:270(J):G:N1	26:1H:270(P):C:N3	2.56	0.41
26:1H:459:U:H5"	54:P8:40:TRP:CG	2.54	0.41
26:1H:559:G:H22	42:C8:49:HIS:CE1	2.39	0.41
26:1H:773:U:H5'	29:11:47:GLY:HA3	2.02	0.41
26:1H:1357:U:C4	26:1H:1358:G:C5	3.08	0.41
26:1H:1479:G:C4	26:1H:1480:G:C8	3.08	0.41
26:1H:1509:C:C2	26:1H:1511:A:C8	3.09	0.41
26:1H:2152:G:O6	26:1H:2153:G:N1	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2436:G:C6	26:1H:2437:U:C4	3.08	0.41
29:11:75:ILE:HG21	29:11:99:ASP:OD2	2.20	0.41
29:11:106:ILE:O	29:11:108:PRO:HD3	2.20	0.41
31:31:134:GLY:HA3	31:31:162:LEU:O	2.20	0.41
32:41:34:LEU:HD23	32:41:34:LEU:HA	1.85	0.41
32:41:103:LEU:HD23	32:41:103:LEU:O	2.20	0.41
32:41:143:GLU:OE1	52:M8:26:SER:OG	2.37	0.41
36:68:78:ARG:HH11	41:B8:73:GLU:HB2	1.85	0.41
38:88:118:LEU:HD23	38:88:118:LEU:HA	1.71	0.41
40:A8:30:ARG:O	40:A8:30:ARG:HG3	2.19	0.41
46:G8:40:GLU:HA	46:G8:41:GLY:HA2	1.77	0.41
1:1G:186(A):C:O2'	20:BA:89:ARG:NH2	2.53	0.41
1:1G:288:A:H2'	1:1G:289:G:H4'	2.02	0.41
1:1G:341:C:H2'	1:1G:342:C:H6	1.86	0.41
1:1G:348:G:N2	1:1G:349:A:H1'	2.35	0.41
1:1G:407:G:C2	1:1G:436:C:C2	3.09	0.41
1:1G:439:A:OP2	1:1G:493:G:N2	2.53	0.41
1:1G:457:C:H2'	1:1G:458:C:H6	1.86	0.41
1:1G:596:C:H2'	1:1G:597:G:C8	2.56	0.41
1:1G:622:A:C8	1:1G:623:C:C6	3.09	0.41
1:1G:632:A:H2'	1:1G:633:G:O4'	2.20	0.41
1:1G:996:A:H2'	1:1G:997:U:O4'	2.21	0.41
1:1G:1071:C:H2'	1:1G:1072:G:C8	2.55	0.41
1:1G:1512:U:H2'	1:1G:1513:A:H8	1.83	0.41
2:12:131:PRO:HD2	2:12:134:GLU:OE1	2.20	0.41
4:32:9:CYS:SG	4:32:22:LYS:HE3	2.60	0.41
7:62:73:MET:CG	7:62:90:GLU:HA	2.51	0.41
7:62:141:VAL:C	7:62:143:ARG:H	2.26	0.41
11:2A:103:LEU:HD12	11:2A:103:LEU:HA	1.86	0.41
20:BA:56:MET:HE2	20:BA:56:MET:HB3	1.90	0.41
23:2L:53:G:H2'	23:2L:54:G:C8	2.56	0.41
26:14:106:C:H2'	26:14:107:C:C6	2.55	0.41
26:14:363(B):G:H2'	26:14:363(C):G:C8	2.55	0.41
26:14:866:A:N6	26:14:914:C:C5	2.88	0.41
26:14:1022:G:C5	26:14:1140:C:C4	3.08	0.41
26:14:1093:G:H1'	26:14:1098:A:H62	1.85	0.41
26:14:1677:A:H2'	26:14:1678:G:C8	2.55	0.41
26:14:1909:C:H2'	26:14:1910:G:C8	2.56	0.41
26:14:2402:C:H5'	26:14:2403:C:OP2	2.21	0.41
26:14:2745:C:H1'	33:59:143:GLN:O	2.21	0.41
28:79:50:ASP:CG	28:79:52:ARG:HB3	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:45:ASN:HB3	29:19:46:GLN:H	1.50	0.41
31:39:192:LEU:HD13	31:39:194:MET:CE	2.50	0.41
38:45:46:GLN:NE2	38:45:126:PRO:HG3	2.35	0.41
39:55:79:LEU:O	39:55:79:LEU:HD22	2.21	0.41
42:85:29:SER:C	42:85:30:LYS:HD3	2.45	0.41
42:85:43:GLY:HA3	43:95:73:SER:OG	2.20	0.41
53:J5:16:ARG:NH1	53:J5:17:ASP:OD1	2.43	0.41
54:L5:30:VAL:HG22	54:L5:33:ARG:HH12	1.85	0.41
1:13:122:G:H8	1:13:122:G:OP1	2.03	0.41
1:13:692:U:H2'	1:13:694:A:OP2	2.21	0.41
1:13:1207:G:H2'	1:13:1208:C:C6	2.56	0.41
2:1E:19:HIS:HB3	2:1E:20:GLU:HG2	2.03	0.41
2:1E:164:VAL:HB	2:1E:186:ALA:HB2	2.01	0.41
4:3E:162:LEU:HD22	4:3E:178:VAL:HG13	2.03	0.41
9:8E:128:ARG:NH2	23:2K:36:A:OP2	2.51	0.41
17:8I:29:HIS:N	17:8I:34:LYS:O	2.54	0.41
24:3K:56:C:C2	24:3K:57:G:C8	3.08	0.41
24:3K:71:C:H1'	26:1H:1851:U:H1'	2.02	0.41
26:1H:36:G:C5	26:1H:37:C:C5	3.09	0.41
26:1H:146:G:C6	26:1H:147:U:C4	3.09	0.41
26:1H:300:A:N6	60:1H:3591:HOH:O	2.31	0.41
26:1H:760:G:H2'	26:1H:761:A:O4'	2.21	0.41
26:1H:1009:A:OP1	35:58:37:LYS:NZ	2.54	0.41
26:1H:1299:G:H3'	26:1H:1639:U:O4	2.20	0.41
26:1H:1614:A:N1	44:E8:91:GLY:HA2	2.36	0.41
26:1H:1651:G:H5'	39:98:39:PRO:HG2	2.03	0.41
26:1H:1697:G:N1	26:1H:1698:A:N1	2.68	0.41
26:1H:1906:G:C8	26:1H:1929:G:C4	3.08	0.41
26:1H:1915:U:H2'	26:1H:1916:A:O4'	2.21	0.41
26:1H:2074:U:N3	26:1H:2075:U:C4	2.89	0.41
26:1H:2443:C:H2'	26:1H:2444:G:H8	1.85	0.41
26:1H:2709:G:H2'	26:1H:2710:C:O4'	2.21	0.41
26:1H:2785:C:O2'	30:21:64:LYS:HD3	2.21	0.41
26:1H:2801:A:C8	26:1H:2802:G:C8	3.08	0.41
26:1H:2845:G:H5"	41:B8:54:ARG:O	2.21	0.41
35:58:57:ALA:O	35:58:58:ASP:CG	2.63	0.41
39:98:75:LEU:HD23	39:98:75:LEU:O	2.20	0.41
44:E8:29:LEU:HD13	44:E8:51:LEU:HD22	2.03	0.41
1:1G:174:C:H6	1:1G:174:C:H5'	1.85	0.41
1:1G:452:A:O2'	1:1G:453:A:O4'	2.37	0.41
1:1G:747:C:H3'	1:1G:748:C:C5	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:924:C:H42	1:1G:1392:G:H1	1.69	0.41
1:1G:1126:U:C5	1:1G:1281:U:C6	3.08	0.41
1:1G:1203:C:H2'	1:1G:1204:A:H8	1.86	0.41
1:1G:1260:C:O5'	1:1G:1284:C:H4'	2.21	0.41
1:1G:1472:U:H2'	1:1G:1473:A:O4'	2.20	0.41
2:12:95:GLN:HB2	2:12:148:TYR:HA	2.01	0.41
2:12:211:ILE:HD12	2:12:211:ILE:HA	1.69	0.41
3:22:40:ARG:O	3:22:44:GLU:N	2.52	0.41
5:42:143:ARG:HH21	5:42:147:ASP:CG	2.28	0.41
10:1A:78:ASN:HB2	10:1A:79:ARG:NH1	2.35	0.41
12:3A:62:SER:O	12:3A:64:TYR:N	2.53	0.41
14:5A:59:ALA:HB1	14:5A:61:TRP:CZ3	2.55	0.41
18:9A:21:LYS:NZ	18:9A:57:GLY:HA3	2.35	0.41
18:9A:66:LEU:O	18:9A:70:ILE:HG13	2.21	0.41
23:2L:20:G:C4	23:2L:58:A:C2	3.09	0.41
26:14:38:A:H2'	26:14:39:C:C6	2.56	0.41
26:14:288:C:H2'	26:14:289:A:C8	2.56	0.41
26:14:565:C:H4'	26:14:1253:A:C6	2.55	0.41
26:14:568:U:H3'	60:14:3444:HOH:O	2.21	0.41
26:14:618(A):C:OP2	31:39:103:LYS:HE2	2.20	0.41
26:14:948:G:N2	26:14:970:C:O2	2.54	0.41
26:14:1019:U:H3	26:14:1142(A):A:H62	1.68	0.41
26:14:1331:A:O2'	26:14:1332:G:H8	2.02	0.41
26:14:1337:G:H2'	26:14:1338:G:H8	1.85	0.41
26:14:1410:G:H2'	26:14:1411:C:C6	2.56	0.41
26:14:1484:G:C4	26:14:1485:G:C8	3.09	0.41
26:14:1534:G:H5'	26:14:1535:U:O5'	2.20	0.41
26:14:1899:G:O2'	26:14:1900:A:H5"	2.20	0.41
26:14:2078:C:H2'	26:14:2079:U:C6	2.56	0.41
26:14:2127:G:H2'	26:14:2128:C:O4'	2.20	0.41
26:14:2129:C:N3	26:14:2160:G:C2	2.89	0.41
26:14:2820:A:O5'	39:55:4:LEU:HD23	2.21	0.41
29:19:115:GLN:HG2	29:19:116:GLN:N	2.35	0.41
30:29:109:LYS:O	30:29:161:GLY:HA3	2.21	0.41
31:39:32:LEU:HD23	31:39:32:LEU:O	2.20	0.41
31:39:125:LEU:HD12	31:39:125:LEU:O	2.20	0.41
31:39:169:ASN:ND2	31:39:169:ASN:O	2.54	0.41
35:15:137:LYS:HD3	35:15:137:LYS:HA	1.68	0.41
37:35:55:ARG:HG2	37:35:56:SER:N	2.33	0.41
37:35:121:LYS:HG3	37:35:122:PRO:HD2	2.02	0.41
40:65:110:LEU:HD13	40:65:112:PHE:CE1	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:75:106:SER:HA	41:75:110:ILE:CD1	2.45	0.41
42:85:41:ALA:O	42:85:45:TYR:HD1	2.04	0.41
42:85:52:ARG:O	42:85:52:ARG:HG3	2.20	0.41
46:C5:13:VAL:HG13	46:C5:27:VAL:HG23	2.02	0.41
47:D5:10:ARG:HD2	47:D5:36:LYS:HD2	2.03	0.41
47:D5:129:SER:OG	47:D5:130:PRO:HD2	2.21	0.41
1:13:406:G:H2'	1:13:407:G:C8	2.56	0.41
1:13:676:A:H5"	11:2I:113:PRO:HB3	2.02	0.41
1:13:980:C:H2'	1:13:981:U:O4'	2.21	0.41
1:13:1053:G:C4'	1:13:1054:C:H5'	2.50	0.41
1:13:1133:G:C2	1:13:1134:G:C8	3.09	0.41
1:13:1431:C:H2'	1:13:1432:G:O4'	2.21	0.41
2:1E:8:LYS:NZ	2:1E:10:LEU:HB2	2.35	0.41
2:1E:55:PHE:CZ	2:1E:218:ALA:HA	2.56	0.41
5:4E:69:VAL:HA	5:4E:70:PRO:HD3	1.89	0.41
7:6E:89:MET:HE1	7:6E:155:ARG:HG2	2.03	0.41
8:7E:1:MET:HE3	8:7E:3:THR:CG2	2.47	0.41
26:1H:152:G:H2'	26:1H:153:C:C6	2.55	0.41
26:1H:384:U:O2'	26:1H:385:C:H5'	2.21	0.41
26:1H:528:A:N1	26:1H:2042:A:H2'	2.36	0.41
26:1H:635:C:H2'	26:1H:636:G:O4'	2.20	0.41
26:1H:652:C:N4	26:1H:653:A:H62	2.18	0.41
26:1H:780:G:N2	26:1H:783:A:H62	1.99	0.41
26:1H:958:U:OP2	38:88:14:ARG:HD3	2.21	0.41
26:1H:1931:U:H5	26:1H:1969:A:N7	2.19	0.41
26:1H:2238:G:H2'	26:1H:2238:G:N3	2.36	0.41
26:1H:2330:G:H2'	26:1H:2331:G:O4'	2.20	0.41
26:1H:2331:G:C4'	48:I8:42:GLY:HA3	2.50	0.41
30:21:34:VAL:HG21	30:21:77:ILE:CD1	2.51	0.41
30:21:47:VAL:HG11	30:21:86:PRO:CD	2.51	0.41
31:31:29:ASN:N	31:31:112:MET:HE1	2.35	0.41
35:58:40:PRO:O	42:C8:100:VAL:HG22	2.20	0.41
43:D8:44:LYS:C	43:D8:46:VAL:N	2.79	0.41
44:E8:41:LYS:HE3	44:E8:41:LYS:HB3	1.94	0.41
47:H8:92:SER:OG	47:H8:94:GLU:OE1	2.39	0.41
1:1G:95:G:H2'	1:1G:96:G:O4'	2.20	0.41
1:1G:303:A:H2'	1:1G:304:U:O4'	2.21	0.41
1:1G:350:G:H5'	1:1G:351:G:OP2	2.21	0.41
1:1G:384:G:H2'	1:1G:385:C:C6	2.55	0.41
1:1G:616:G:C2	1:1G:617:G:C8	3.09	0.41
1:1G:973:G:O6	1:1G:974:A:N6	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1128:C:H5”	9:82:16:ARG:HH22	1.86	0.41
1:1G:1326:C:H2’	1:1G:1327:C:C6	2.56	0.41
1:1G:1508:G:H2’	1:1G:1509:C:O4’	2.20	0.41
2:12:166:ASP:HB3	2:12:169:LYS:HB2	2.03	0.41
17:8A:10:VAL:HA	17:8A:20:THR:O	2.21	0.41
24:3L:57:G:H2’	24:3L:57:G:N3	2.36	0.41
26:14:161:U:C5’	26:14:171:G:H21	2.30	0.41
26:14:537:C:H5’	26:14:539:G:OP2	2.21	0.41
26:14:937:U:H2’	26:14:938:G:O4’	2.21	0.41
26:14:1100:C:HO2’	26:14:1101:U:H6	1.67	0.41
26:14:1702:G:H2’	26:14:1703:G:O4’	2.21	0.41
26:14:2107:C:H2’	26:14:2108:C:C6	2.55	0.41
26:14:2136:C:H2’	26:14:2137:C:C6	2.55	0.41
26:14:2299:G:C6	26:14:2318:G:C8	3.08	0.41
26:14:2302:G:N1	26:14:2315:G:C6	2.89	0.41
26:14:2740:A:C6	26:14:2741:A:C6	3.08	0.41
26:14:2850:A:H2’	26:14:2851:A:O4’	2.20	0.41
27:1J:16:G:O6	27:1J:66:A:H2	2.02	0.41
30:29:47:VAL:HG21	30:29:86:PRO:HD2	2.02	0.41
31:39:143:ALA:O	31:39:148:LEU:HB2	2.20	0.41
37:35:39:LYS:HA	37:35:45:LEU:CD1	2.51	0.41
41:75:50:ILE:HD13	41:75:99:LEU:HB2	2.03	0.41
1:13:31:G:H2’	1:13:48:C:N4	2.36	0.41
1:13:195:A:C5	1:13:196:A:N1	2.89	0.41
1:13:247:G:O6	1:13:278:G:C6	2.74	0.41
1:13:360:A:H2’	1:13:361:G:C8	2.56	0.41
1:13:467:G:OP2	1:13:467:G:H3’	2.21	0.41
1:13:516:U:C4	1:13:517:G:C6	3.09	0.41
1:13:519:C:H2’	1:13:520:A:C8	2.56	0.41
1:13:591:U:H2’	1:13:592:G:C8	2.56	0.41
1:13:639:G:C2	1:13:640:A:C8	3.09	0.41
1:13:643:C:H2’	1:13:644:G:H8	1.84	0.41
1:13:687:A:H2’	1:13:701:C:H41	1.86	0.41
1:13:781:A:H5’	1:13:782:A:OP2	2.21	0.41
1:13:920:U:O2’	1:13:921:U:H5’	2.20	0.41
1:13:945:G:N3	1:13:945:G:H2’	2.36	0.41
1:13:1032(A):G:H2’	1:13:1032(B):G:N7	2.35	0.41
1:13:1106:G:C4	1:13:1107:C:C5	3.09	0.41
1:13:1306:A:H62	1:13:1331:G:H21	1.68	0.41
1:13:1368:G:C2’	1:13:1369:C:H5’	2.51	0.41
1:13:1473:A:H2’	1:13:1474:G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:71:VAL:HG23	2:1E:164:VAL:HG13	2.03	0.41
2:1E:238:LEU:O	2:1E:239:VAL:HB	2.21	0.41
6:5E:75:LEU:CD1	6:5E:79:LEU:HD11	2.51	0.41
7:6E:22:LEU:HD22	7:6E:62:PHE:HE2	1.78	0.41
7:6E:38:LEU:O	7:6E:38:LEU:HD13	2.21	0.41
7:6E:103:TRP:CH2	7:6E:141:VAL:HG21	2.56	0.41
11:2I:45:GLY:O	11:2I:50:TYR:HB2	2.21	0.41
13:4I:82:MET:C	13:4I:84:ILE:N	2.77	0.41
14:5I:50:LYS:HB2	14:5I:52:GLN:HG3	2.02	0.41
15:6I:32:LEU:O	15:6I:35:ARG:N	2.54	0.41
16:7I:37:GLY:HA3	16:7I:50:LYS:O	2.20	0.41
17:8I:58:GLU:O	17:8I:74:LEU:N	2.31	0.41
19:AI:40:ILE:HA	19:AI:44:MET:HE3	2.03	0.41
19:AI:80:TYR:HD1	19:AI:80:TYR:HA	1.74	0.41
22:1K:24:G:C5	22:1K:25:C:C4	3.09	0.41
26:1H:311:A:C8	26:1H:332:A:N7	2.89	0.41
26:1H:324:A:C8	26:1H:325:G:C8	3.08	0.41
26:1H:330:A:H2	26:1H:1210:A:O2'	2.03	0.41
26:1H:547:A:N3	26:1H:548:A:C6	2.89	0.41
26:1H:717:G:H2'	26:1H:718:A:O4'	2.21	0.41
26:1H:1045:A:H4'	26:1H:1045:A:OP1	2.20	0.41
26:1H:1161:C:H1'	43:D8:8:GLY:O	2.20	0.41
26:1H:1219:G:OP2	42:C8:19:LYS:NZ	2.54	0.41
26:1H:1329:U:H3'	26:1H:1330:C:C6	2.56	0.41
26:1H:1534:G:N2	26:1H:1535:U:H5	2.17	0.41
26:1H:1709:U:H2'	26:1H:1710:C:C6	2.55	0.41
26:1H:2017:U:O2	53:N8:10:LYS:HB2	2.21	0.41
26:1H:2261:C:C5	48:I8:16:SER:HB3	2.55	0.41
26:1H:2314:C:OP1	32:41:91:ARG:NH1	2.53	0.41
26:1H:2430:A:H8	26:1H:2431:U:C5	2.39	0.41
26:1H:2455:G:H2'	26:1H:2456:C:C6	2.56	0.41
26:1H:2599:G:C8	29:11:236:GLY:HA2	2.55	0.41
26:1H:2688:U:O2	26:1H:2688:U:H3'	2.21	0.41
26:1H:2880:C:H1'	39:98:92:GLY:O	2.20	0.41
27:16:4:C:H42	27:16:116:G:H1	1.68	0.41
27:16:44:G:OP1	32:41:98:ARG:NH2	2.45	0.41
28:71:181:PRO:HD2	28:71:184:LYS:HG3	2.03	0.41
30:21:102:VAL:HG22	30:21:170:LEU:O	2.20	0.41
31:31:53:THR:N	31:31:56:GLU:OE2	2.42	0.41
32:41:145:THR:C	32:41:147:ASP:H	2.29	0.41
34:61:10:GLU:O	34:61:11:ASN:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:61:120:ILE:HD11	34:61:126:TYR:CZ	2.55	0.41
35:58:23:LEU:HD12	35:58:23:LEU:HA	1.70	0.41
37:78:15:ARG:NH1	37:78:17:LYS:HD2	2.36	0.41
37:78:82:GLY:HA2	37:78:113:LYS:O	2.21	0.41
38:88:35:VAL:HG23	38:88:101:ARG:O	2.20	0.41
39:98:29:LEU:CB	39:98:75:LEU:HD21	2.50	0.41
39:98:117:VAL:HG22	39:98:118:GLU:H	1.85	0.41
40:A8:62:LYS:HA	40:A8:65:VAL:HB	2.01	0.41
42:C8:95:LEU:HA	42:C8:97:ASP:HB3	2.02	0.41
44:E8:64:MET:HE2	44:E8:64:MET:HB3	1.84	0.41
45:F8:40:LYS:HG3	45:F8:51:VAL:HB	2.03	0.41
47:H8:60:GLU:HA	47:H8:65:GLN:O	2.20	0.41
47:H8:98:MET:O	47:H8:125:LEU:HD12	2.21	0.41
49:J8:83:GLU:H	49:J8:83:GLU:HG2	1.62	0.41
49:J8:85:LEU:HA	49:J8:85:LEU:HD13	1.59	0.41
55:Q8:25:MET:SD	55:Q8:47:LYS:HB2	2.61	0.41
1:1G:42:G:H2'	1:1G:43:C:O4'	2.21	0.41
1:1G:127:G:OP1	1:1G:635:G:H1'	2.21	0.41
1:1G:186(C):G:H2'	1:1G:186(D):C:C6	2.56	0.41
1:1G:238:G:C6	1:1G:239:U:C4	3.09	0.41
1:1G:382:A:H8	1:1G:382:A:O5'	2.04	0.41
1:1G:391:G:C6	1:1G:392:G:C5	3.09	0.41
1:1G:401:C:O2'	1:1G:621:A:N3	2.51	0.41
1:1G:543:C:C2'	1:1G:544:G:H5'	2.51	0.41
1:1G:582:U:C2	1:1G:760:G:C6	3.09	0.41
1:1G:658:G:C6	1:1G:659:U:C4	3.09	0.41
1:1G:790:A:C2	1:1G:1497:G:H5"	2.56	0.41
1:1G:952:U:H4'	1:1G:964:A:N1	2.36	0.41
1:1G:977:A:C8	1:1G:1223:C:N3	2.89	0.41
1:1G:1003:G:N2	1:1G:1005:A:OP1	2.53	0.41
1:1G:1004:A:H8	1:1G:1026:G:C8	2.39	0.41
1:1G:1040:U:H2'	1:1G:1041:A:O4'	2.21	0.41
1:1G:1071:C:H2'	1:1G:1072:G:H8	1.86	0.41
1:1G:1157:A:OP1	1:1G:1158:C:C5	2.73	0.41
1:1G:1207:G:C6	1:1G:1208:C:C4	3.09	0.41
1:1G:1207:G:C2	1:1G:1208:C:C2	3.09	0.41
1:1G:1267:C:O2	21:1B:20:LYS:HD2	2.21	0.41
1:1G:1331:G:H4'	1:1G:1331:G:OP1	2.21	0.41
1:1G:1357:A:N7	1:1G:1358:U:C4	2.88	0.41
1:1G:1408:A:C5	1:1G:1409:C:C5	3.09	0.41
1:1G:1436:U:H2'	1:1G:1437:C:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1478:C:H2'	1:1G:1479:C:H6	1.86	0.41
2:12:220:ASP:HB2	2:12:224:GLN:CG	2.35	0.41
4:32:23:GLY:O	4:32:27:TYR:HD2	2.04	0.41
4:32:60:GLU:OE2	4:32:198:VAL:HA	2.21	0.41
4:32:96:LEU:HD13	4:32:139:ARG:NH1	2.36	0.41
7:62:141:VAL:HA	7:62:142:GLU:CB	2.50	0.41
8:72:8:ASP:OD2	8:72:12:ARG:HD2	2.20	0.41
9:82:54:ASP:OD1	9:82:54:ASP:N	2.54	0.41
12:3A:117:ARG:HH21	12:3A:124:LYS:N	2.19	0.41
16:7A:72:ARG:HD2	16:7A:73:LEU:HD23	2.03	0.41
19:AA:63:THR:OG1	19:AA:65:ASN:O	2.39	0.41
20:BA:24:LEU:HA	20:BA:24:LEU:HD13	1.62	0.41
21:1B:2:GLY:C	21:1B:4:GLY:N	2.79	0.41
22:1L:41:A:C2	22:1L:42:A:H1'	2.56	0.41
22:1L:76:A:C2	23:2L:77:A:H4'	2.54	0.41
24:3L:17:U:H5'	24:3L:18:G:OP2	2.21	0.41
26:14:67:U:H2'	26:14:68:G:H8	1.85	0.41
26:14:244:A:C2	26:14:255:A:C4	3.09	0.41
26:14:315:G:C6	26:14:316:C:C4	3.09	0.41
26:14:398:G:H2'	26:14:399:G:H8	1.84	0.41
26:14:431:U:H6	26:14:431:U:O5'	2.04	0.41
26:14:432:A:C6	26:14:433:C:C4	3.09	0.41
26:14:442:G:C4	26:14:444:C:C5	3.08	0.41
26:14:529:A:H8	26:14:530:G:C6	2.38	0.41
26:14:533:G:H2'	26:14:534:U:O4'	2.20	0.41
26:14:577:G:C6	26:14:578:A:C6	3.09	0.41
26:14:654(A):A:C2	26:14:654(T):A:N7	2.89	0.41
26:14:672:C:H2'	26:14:673:C:C6	2.56	0.41
26:14:675:A:N3	26:14:2443:C:O2'	2.47	0.41
26:14:678:C:H2'	26:14:679:C:C6	2.56	0.41
26:14:729:G:H2'	26:14:1775:U:O2	2.21	0.41
26:14:1107:G:H2'	26:14:1108:U:H5'	2.03	0.41
26:14:1142(A):A:N7	26:14:1144:G:C6	2.89	0.41
26:14:1146:C:H2'	26:14:1147:C:H5'	2.01	0.41
26:14:1517:G:H2'	26:14:1518:C:C6	2.56	0.41
26:14:1543:A:H1'	26:14:1545:A:H1'	2.03	0.41
26:14:1791:A:H8	26:14:1791:A:OP2	2.04	0.41
26:14:1925:C:C2'	26:14:1926:U:H5'	2.51	0.41
26:14:2086:U:H2'	26:14:2087:G:C8	2.55	0.41
26:14:2132:U:O4'	28:79:5:LYS:HD3	2.21	0.41
26:14:2177:C:O2'	28:79:170:ALA:HB1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2380:C:OP1	40:65:20:ARG:CZ	2.69	0.41
26:14:2570:G:H2'	26:14:2571:C:O4'	2.21	0.41
26:14:2648:C:H2'	26:14:2649:U:C6	2.56	0.41
26:14:2654:A:H8	26:14:2654:A:OP1	2.04	0.41
26:14:2872:G:C5	26:14:2873:A:C2	3.09	0.41
27:1J:12:C:O2'	48:E5:74:ARG:HB3	2.21	0.41
27:1J:15:A:H5'	27:1J:16:G:H8	1.85	0.41
27:1J:84:C:OP1	51:H5:15:TYR:OH	2.31	0.41
28:79:42:GLU:OE1	28:79:44:HIS:CE1	2.74	0.41
28:79:46:LYS:HB2	28:79:210:ARG:HB2	2.03	0.41
31:39:85:GLY:O	60:39:401:HOH:O	2.22	0.41
31:39:156:LEU:HD21	31:39:163:VAL:HG12	2.03	0.41
32:49:107:LEU:HD11	32:49:178:PHE:CE1	2.56	0.41
34:69:60:GLU:HG3	34:69:61:ARG:N	2.35	0.41
37:35:63:PRO:HB3	55:M5:30:ARG:NH2	2.36	0.41
39:55:33:ARG:HD3	39:55:115:GLU:HB3	2.03	0.41
39:55:98:LEU:HD23	39:55:98:LEU:HA	1.89	0.41
41:75:13:ARG:CD	41:75:13:ARG:H	2.34	0.41
47:D5:44:PHE:C	47:D5:44:PHE:CD1	2.99	0.41
47:D5:48:PHE:HE1	47:D5:71:VAL:HG21	1.86	0.41
47:D5:137:ILE:HD12	47:D5:156:LYS:O	2.21	0.41
49:F5:40:ARG:HD2	49:F5:41:ARG:N	2.36	0.41
49:F5:86:SER:N	49:F5:87:PRO:CD	2.84	0.41
50:G5:10:LEU:HD12	50:G5:10:LEU:HA	1.95	0.41
54:L5:22:MET:HB3	54:L5:22:MET:HE3	1.75	0.41
55:M5:58:ILE:H	55:M5:58:ILE:HG22	1.57	0.41
1:13:112:G:C4'	1:13:389:A:H4'	2.51	0.41
1:13:146:G:C2	1:13:177:C:N3	2.89	0.41
1:13:455:C:N4	1:13:477:G:N2	2.63	0.41
1:13:477:G:H2'	1:13:478:A:C8	2.56	0.41
1:13:892:A:O2'	1:13:1415:G:H4'	2.20	0.41
1:13:1178:G:N2	1:13:1181:G:H8	2.19	0.41
1:13:1363:A:H4'	1:13:1364:U:H2'	2.01	0.41
2:1E:134:GLU:CD	2:1E:137:ARG:HH22	2.28	0.41
4:3E:156:GLU:O	4:3E:160:GLN:HB3	2.20	0.41
4:3E:190:ASP:O	4:3E:193:ASP:HB2	2.21	0.41
9:8E:10:ARG:HD2	9:8E:75:ASP:HB2	2.03	0.41
12:3I:60:LEU:HD12	12:3I:60:LEU:HA	1.69	0.41
17:8I:90:ILE:O	17:8I:93:GLN:N	2.54	0.41
19:AI:67:VAL:HG12	19:AI:68:GLY:N	2.35	0.41
23:2K:20:G:N3	23:2K:58:A:N3	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3K:3:G:H2'	24:3K:4:U:O4'	2.20	0.41
24:3K:9:A:H3'	24:3K:10:G:C8	2.56	0.41
26:1H:56:A:C2	26:1H:57:C:C2	3.09	0.41
26:1H:185:U:H4'	26:1H:218:A:H4'	2.02	0.41
26:1H:537:C:H2'	26:1H:539:G:H8	1.86	0.41
26:1H:638:G:H2'	26:1H:639:U:C6	2.56	0.41
26:1H:807:U:C2	26:1H:808:G:C8	3.09	0.41
26:1H:1184:G:C5	26:1H:1185:C:C5	3.09	0.41
26:1H:1337:G:H2'	26:1H:1338:G:C8	2.56	0.41
26:1H:1347:G:C2	26:1H:1600:C:O2	2.74	0.41
26:1H:2327:A:H2'	26:1H:2328:A:H8	1.83	0.41
30:21:45:THR:O	30:21:83:ASP:N	2.54	0.41
31:31:116:ASP:OD2	37:78:1:MET:HB3	2.21	0.41
37:78:50:ARG:NH2	37:78:50:ARG:HG3	2.36	0.41
39:98:9:LYS:HA	39:98:17:ARG:HD3	2.02	0.41
42:C8:90:VAL:HG22	43:D8:39:LEU:HD22	2.02	0.41
43:D8:44:LYS:HB3	43:D8:45:THR:H	1.75	0.41
52:M8:38:LYS:HD2	52:M8:38:LYS:N	2.36	0.41
55:Q8:13:ARG:C	55:Q8:14:VAL:HG23	2.46	0.41
55:Q8:45:GLY:O	55:Q8:46:ARG:C	2.63	0.41
1:1G:199:G:H2'	1:1G:200:G:H8	1.86	0.41
1:1G:318:G:H2'	1:1G:319:G:C8	2.56	0.41
1:1G:620:C:H2'	1:1G:621:A:O4'	2.21	0.41
1:1G:1022:G:N3	1:1G:1023:G:H1'	2.36	0.41
1:1G:1111:A:H8	1:1G:1111:A:O5'	2.04	0.41
1:1G:1256:A:H4'	1:1G:1257:U:OP1	2.21	0.41
1:1G:1261:A:H3'	1:1G:1262:C:C6	2.57	0.41
1:1G:1265:G:C2	1:1G:1271:G:C6	3.09	0.41
3:22:172:ARG:HB3	3:22:172:ARG:NH1	2.35	0.41
8:72:17:THR:HB	8:72:18:ARG:HH11	1.86	0.41
8:72:86:ILE:HD11	8:72:136:GLU:HG2	2.03	0.41
9:82:51:ARG:HA	9:82:56:LEU:HD22	2.03	0.41
10:1A:81:THR:HA	10:1A:84:GLN:NE2	2.35	0.41
14:5A:9:LYS:CB	14:5A:12:ARG:HH12	2.33	0.41
16:7A:4:ILE:HB	16:7A:66:PRO:HA	2.04	0.41
26:14:35:G:H2'	26:14:36:G:O4'	2.21	0.41
26:14:751:A:H4'	44:A5:90:ARG:NH1	2.36	0.41
26:14:880:G:N7	26:14:897:C:N4	2.68	0.41
26:14:1011:G:C2	26:14:1151:G:C2	3.09	0.41
26:14:1225:C:H4'	43:95:85:LYS:HG2	2.03	0.41
26:14:1732:A:H2'	26:14:1733:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2001:A:H2'	26:14:2002:G:C8	2.56	0.41
26:14:2025:C:H2'	26:14:2026:C:C6	2.56	0.41
26:14:2365:G:H2'	26:14:2366:A:C8	2.56	0.41
26:14:2475:C:C5'	26:14:2476:A:H5"	2.48	0.41
26:14:2531:A:H5"	33:59:157:TYR:CE2	2.57	0.41
26:14:2547:U:H2'	26:14:2548:G:H8	1.86	0.41
26:14:2849:U:H1'	26:14:2866:U:O2	2.21	0.41
26:14:2863:C:O2'	26:14:2864:G:H5'	2.21	0.41
29:19:133:LEU:HB3	29:19:173:VAL:HG11	2.03	0.41
30:29:4:ILE:HD11	30:29:198:VAL:HB	2.02	0.41
30:29:14:ILE:HB	41:75:14:TYR:CE2	2.56	0.41
30:29:35:GLN:HG2	30:29:37:ARG:HG2	2.02	0.41
30:29:55:ASN:O	30:29:57:LYS:N	2.47	0.41
31:39:80:ALA:O	31:39:83:PHE:HB2	2.21	0.41
37:35:85:LEU:HD12	37:35:120:ALA:HA	2.03	0.41
37:35:132:LYS:NZ	37:35:135:LEU:HD11	2.35	0.41
38:45:26:TYR:O	38:45:28:ALA:N	2.54	0.41
38:45:98:LYS:HB3	38:45:99:PRO:HD2	2.03	0.41
39:55:28:LEU:CD2	39:55:114:VAL:HG12	2.50	0.41
40:65:77:ALA:HA	40:65:80:LEU:HB2	2.02	0.41
42:85:27:LEU:O	42:85:31:SER:N	2.46	0.41
46:C5:46:LYS:HD2	46:C5:61:ILE:N	2.36	0.41
55:M5:10:ALA:HB3	55:M5:62:LEU:HD21	2.03	0.41
1:13:11:G:C5	1:13:12:U:C4	3.08	0.40
1:13:303:A:C4	1:13:304:U:C6	3.09	0.40
1:13:370:C:O2'	1:13:371:G:H5'	2.22	0.40
1:13:403:C:OP2	4:3E:74:GLN:NE2	2.54	0.40
1:13:526:C:O5'	1:13:526:C:H6	2.04	0.40
1:13:562:C:H1'	12:3I:15:ARG:HB3	2.03	0.40
1:13:606:G:H2'	1:13:630:G:O6	2.20	0.40
1:13:637:G:H2'	1:13:638:G:C8	2.56	0.40
1:13:784:C:H2'	1:13:785:G:C8	2.56	0.40
1:13:827:U:H5	1:13:872:A:N1	2.18	0.40
1:13:1060:C:H2'	1:13:1061:G:C8	2.56	0.40
1:13:1138:G:C5	1:13:1140:C:H1'	2.56	0.40
1:13:1360:A:H3'	1:13:1361:G:H8	1.86	0.40
1:13:1442:G:C8	1:13:1442:G:H3'	2.56	0.40
12:3I:47:LYS:NZ	25:4K:21:A:OP1	2.54	0.40
12:3I:85:ILE:HG23	12:3I:85:ILE:HD12	1.64	0.40
20:BI:54:LYS:HD3	20:BI:54:LYS:C	2.45	0.40
22:1K:6:G:N2	22:1K:67:C:O2'	2.53	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:122:G:H2'	26:1H:123:G:H5"	2.03	0.40
26:1H:270(E):G:H1	26:1H:270(U):C:N4	2.19	0.40
26:1H:270(F):U:H3	26:1H:270(T):G:H1	1.68	0.40
26:1H:354:G:H2'	26:1H:355:G:C8	2.56	0.40
26:1H:389:G:H22	37:78:72:PRO:HD3	1.86	0.40
26:1H:663:G:OP1	37:78:17:LYS:HB3	2.21	0.40
26:1H:882:G:H1	26:1H:894:C:N4	2.10	0.40
26:1H:906:G:OP1	38:88:26:TYR:OH	2.15	0.40
26:1H:1250:G:OP2	37:78:21:ARG:HD2	2.22	0.40
26:1H:1316:U:H2'	26:1H:1317:A:C8	2.56	0.40
26:1H:1469:A:C6	26:1H:1524:G:C6	3.10	0.40
26:1H:1696:G:C5	26:1H:1697:G:C8	3.09	0.40
26:1H:2136:C:N4	26:1H:2156:G:N3	2.69	0.40
26:1H:2199:A:H5"	26:1H:2205:C:OP2	2.21	0.40
26:1H:2389:G:H5"	26:1H:2390:U:O4'	2.21	0.40
26:1H:2390:U:C2'	26:1H:2391:G:H5'	2.51	0.40
26:1H:2684:U:C4	26:1H:2685:G:N7	2.90	0.40
26:1H:2749:A:OP1	33:51:6:ARG:HG2	2.21	0.40
29:11:65:ILE:HG21	29:11:65:ILE:HD13	1.65	0.40
29:11:223:GLY:O	29:11:224:ALA:C	2.64	0.40
30:21:25:VAL:HG23	30:21:181:LEU:HD12	2.02	0.40
31:31:33:LEU:HD11	31:31:112:MET:HB2	2.03	0.40
31:31:64:ILE:HA	31:31:64:ILE:HD13	1.75	0.40
32:41:116:ASP:O	52:M8:42:PHE:CZ	2.73	0.40
32:41:142:PRO:HG2	32:41:143:GLU:OE2	2.20	0.40
33:51:159:GLU:C	33:51:160:LYS:HG3	2.46	0.40
37:78:11:GLY:O	37:78:13:ASN:N	2.47	0.40
40:A8:24:LEU:HD12	40:A8:41:ASP:HB2	2.03	0.40
41:B8:88:ILE:O	41:B8:88:ILE:HG13	2.16	0.40
49:J8:85:LEU:HD12	49:J8:88:LYS:HB2	2.02	0.40
50:K8:15:LYS:HA	50:K8:67:LYS:HZ1	1.86	0.40
1:1G:51:A:C2	1:1G:353:A:N1	2.89	0.40
1:1G:123:C:H2'	1:1G:124:G:C8	2.56	0.40
1:1G:186(B):C:H2'	1:1G:186(C):G:H8	1.86	0.40
1:1G:960:U:O5'	1:1G:961:U:H5'	2.21	0.40
1:1G:1025:U:C5'	1:1G:1026:G:H5'	2.49	0.40
1:1G:1035:A:H2'	1:1G:1036:G:H4'	2.03	0.40
1:1G:1072:G:H2'	1:1G:1073:U:O4'	2.21	0.40
1:1G:1082:G:H8	1:1G:1082:G:OP2	2.04	0.40
1:1G:1137:C:O2'	1:1G:1138:G:H5"	2.22	0.40
1:1G:1202:G:O2'	14:5A:27:CYS:HB2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1247:U:H2'	1:1G:1248:A:O4'	2.20	0.40
1:1G:1269:A:H2	1:1G:1312:G:N3	2.19	0.40
2:12:108:ILE:HD12	2:12:108:ILE:HA	1.92	0.40
17:8A:74:LEU:HD23	17:8A:74:LEU:HA	1.86	0.40
23:2L:15:G:H21	23:2L:22:A:H1'	1.86	0.40
24:3L:26:A:H2'	24:3L:27:G:O4'	2.21	0.40
25:4L:13:A:N3	25:4L:14:A:H1'	2.37	0.40
26:14:282:A:C6	26:14:284:U:C2	3.10	0.40
26:14:289:A:H2'	26:14:290:G:H5'	2.03	0.40
26:14:527:C:OP2	26:14:2779:U:H5	2.04	0.40
26:14:1000:A:C6	26:14:1001:A:N1	2.90	0.40
26:14:1010:A:N3	26:14:1153:C:H1'	2.36	0.40
26:14:1138:G:C5	26:14:1139:G:H1'	2.56	0.40
26:14:1165:U:H2'	26:14:1166:C:H6	1.82	0.40
26:14:1278:A:C5'	39:55:36:THR:HG22	2.51	0.40
26:14:2104:G:C2	26:14:2186:G:C2	3.09	0.40
26:14:2498:C:OP2	60:14:3422:HOH:O	2.20	0.40
26:14:2572:A:O5'	26:14:2574:G:H4'	2.21	0.40
26:14:2590:A:OP2	29:19:237:GLU:HB3	2.21	0.40
26:14:2749:A:N1	26:14:2750:A:N6	2.70	0.40
28:79:202:GLU:OE2	28:79:203:GLY:N	2.55	0.40
29:19:143:HIS:HD2	29:19:144:ALA:CB	2.33	0.40
31:39:196:LEU:HD22	31:39:196:LEU:HA	1.76	0.40
33:59:9:ILE:HB	33:59:51:ARG:HD3	2.03	0.40
36:25:107:ARG:HG2	36:25:115:VAL:HG11	2.03	0.40
46:C5:12:THR:HG22	46:C5:75:ILE:HG13	2.02	0.40
49:F5:87:PRO:HA	49:F5:90:ILE:HG23	2.04	0.40
50:G5:64:LEU:HD21	50:G5:68:ARG:NH1	2.36	0.40
1:13:22:G:C6	1:13:23:C:C4	3.09	0.40
1:13:416:G:C5	1:13:417:C:C4	3.10	0.40
1:13:524:G:C6	1:13:525:C:N4	2.90	0.40
1:13:927:G:N2	1:13:1391:U:H1'	2.37	0.40
1:13:951:G:C6	1:13:1231:G:C6	3.09	0.40
1:13:1002:G:C6	1:13:1003:G:C5	3.09	0.40
1:13:1106:G:H2'	1:13:1107:C:H6	1.86	0.40
1:13:1113:C:H2'	1:13:1114:C:H6	1.85	0.40
1:13:1129:C:O2	1:13:1143:G:N2	2.54	0.40
1:13:1305:G:OP2	1:13:1305:G:C8	2.74	0.40
1:13:1455:G:O5'	1:13:1455:G:C8	2.73	0.40
2:1E:97:TRP:HH2	2:1E:176:GLU:HG3	1.85	0.40
2:1E:209:ARG:CZ	2:1E:239:VAL:HA	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3E:99:SER:HB2	4:3E:139:ARG:HG3	2.04	0.40
7:6E:13:GLN:HG2	7:6E:14:PRO:HD2	2.03	0.40
8:7E:9:MET:O	8:7E:10:LEU:C	2.63	0.40
20:BI:90:GLN:H	20:BI:90:GLN:HG2	1.52	0.40
20:BI:90:GLN:HA	20:BI:93:GLU:HB3	2.03	0.40
22:1K:3:G:O2'	22:1K:4:U:OP2	2.29	0.40
26:1H:277:C:H3'	26:1H:278:A:O4'	2.21	0.40
26:1H:446:G:OP2	60:1H:3562:HOH:O	2.22	0.40
26:1H:469:G:O6	54:P8:37:LYS:HE2	2.21	0.40
26:1H:557:U:H2'	26:1H:558:G:H8	1.86	0.40
26:1H:593:G:H1	26:1H:664:C:H42	1.69	0.40
26:1H:746:A:H2'	26:1H:2612:C:H5"	2.03	0.40
26:1H:1663:C:O2'	26:1H:2686:G:H4'	2.21	0.40
26:1H:1728:G:C2	26:1H:1730:U:OP2	2.75	0.40
26:1H:1826:G:H2'	26:1H:1827:C:C6	2.56	0.40
26:1H:2117:A:H2'	26:1H:2147:G:N2	2.36	0.40
26:1H:2261:C:H1'	26:1H:2388:A:N3	2.36	0.40
26:1H:2820:A:O2'	26:1H:2821:A:OP1	2.36	0.40
29:11:242:ARG:O	29:11:244:ARG:HG2	2.21	0.40
29:11:271:ILE:HD13	29:11:271:ILE:HG21	1.88	0.40
33:51:124:GLU:O	33:51:132:ARG:N	2.52	0.40
34:61:1:MET:O	34:61:20:ASP:HA	2.22	0.40
47:H8:28:MET:HE2	47:H8:35:ARG:HG3	2.02	0.40
47:H8:44:PHE:CE2	47:H8:86:VAL:HG11	2.56	0.40
48:I8:75:LEU:HD23	48:I8:75:LEU:HA	1.58	0.40
53:N8:20:ARG:HA	53:N8:23:HIS:ND1	2.37	0.40
54:P8:11:LYS:HE2	54:P8:15:THR:OG1	2.22	0.40
1:1G:10:A:H2'	1:1G:11:G:C8	2.51	0.40
1:1G:193:C:H2'	1:1G:194:C:H6	1.87	0.40
1:1G:404:U:P	4:32:118:ARG:HH11	2.45	0.40
1:1G:660:G:H1	1:1G:745:C:N4	2.13	0.40
1:1G:1080:A:H3'	1:1G:1081:G:O4'	2.21	0.40
1:1G:1157:A:C5	1:1G:1181:G:H1'	2.56	0.40
1:1G:1375:A:H2'	1:1G:1376:U:O4'	2.21	0.40
1:1G:1399:C:C4	1:1G:1502:A:N6	2.89	0.40
1:1G:1442:G:C6	1:1G:1446:A:N6	2.89	0.40
1:1G:1535:C:O2'	1:1G:1536:C:H5'	2.22	0.40
5:42:30:ALA:O	5:42:45:PHE:HB2	2.20	0.40
5:42:51:VAL:O	5:42:55:VAL:HG23	2.20	0.40
7:62:27:ILE:HG12	7:62:27:ILE:H	1.71	0.40
10:1A:84:GLN:NE2	10:1A:84:GLN:H	2.19	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2A:62:GLN:CD	11:2A:93:GLN:HE22	2.29	0.40
24:3L:9:A:H4'	24:3L:10:G:OP2	2.20	0.40
26:14:90:U:O2'	26:14:91:A:C8	2.74	0.40
26:14:141:A:H8	26:14:1595:G:N2	2.00	0.40
26:14:185:U:H2'	26:14:186:G:O4'	2.22	0.40
26:14:280:C:N3	26:14:361:G:N2	2.70	0.40
26:14:875:G:N3	26:14:876:C:H5'	2.37	0.40
26:14:1014:U:H2'	26:14:1015:G:H8	1.85	0.40
26:14:1322:A:O3'	44:A5:84:ARG:NH1	2.53	0.40
26:14:1389:G:H2'	26:14:1390:U:O4'	2.22	0.40
26:14:1542:G:H3'	26:14:1543:A:H5"	2.04	0.40
26:14:2544:G:O5'	26:14:2544:G:H8	2.04	0.40
26:14:2663:G:C5	26:14:2664:G:C5	3.10	0.40
27:1J:102:G:H8	27:1J:102:G:O5'	2.04	0.40
29:19:125:ILE:HG22	29:19:193:VAL:HG21	2.03	0.40
29:19:222:ARG:HE	29:19:222:ARG:HB2	1.67	0.40
30:29:103:ASP:CG	30:29:168:MET:HE3	2.46	0.40
31:39:5:ALA:CB	31:39:125:LEU:HD21	2.52	0.40
32:49:22:ARG:NH1	32:49:175:LEU:HD21	2.37	0.40
34:69:62:LYS:HG3	34:69:63:ALA:N	2.37	0.40
41:75:27:THR:HB	41:75:89:VAL:HG22	2.03	0.40
42:85:100:VAL:HG13	42:85:101:ARG:HD3	2.02	0.40
46:C5:47:LYS:O	46:C5:48:ALA:C	2.64	0.40
47:D5:29:TYR:HB3	47:D5:34:ASN:HB2	2.03	0.40
47:D5:82:ARG:HA	47:D5:83:PRO:HD3	1.92	0.40
48:E5:38:VAL:CG1	48:E5:59:LEU:HG	2.51	0.40
1:13:674:G:N2	1:13:717:C:O2	2.54	0.40
1:13:691:G:H1'	1:13:696:A:N6	2.36	0.40
1:13:972:C:OP2	10:1I:57:LYS:HE2	2.21	0.40
3:2E:134:ILE:HD11	3:2E:153:VAL:HG23	2.04	0.40
4:3E:138:TYR:CD1	4:3E:138:TYR:C	2.99	0.40
5:4E:113:ALA:O	5:4E:115:VAL:HG23	2.21	0.40
11:2I:73:MET:CE	11:2I:103:LEU:HD13	2.42	0.40
12:3I:50:SER:O	12:3I:51:ALA:HB2	2.22	0.40
15:6I:17:ARG:HG2	15:6I:21:ASP:OD2	2.20	0.40
16:7I:20:VAL:CG2	16:7I:32:TYR:CB	3.00	0.40
22:1K:64:G:H3'	22:1K:65:C:C6	2.56	0.40
24:3K:14:A:C6	24:3K:15:G:C6	3.09	0.40
26:1H:96:G:H4'	50:K8:48:HIS:CD2	2.56	0.40
26:1H:247:G:H4'	26:1H:386:G:C5	2.56	0.40
26:1H:270:A:OP2	26:1H:270(Y):G:N1	2.41	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:753:C:O2'	26:1H:754:C:H5'	2.20	0.40
26:1H:1526:G:N2	26:1H:1545(A):A:H62	2.19	0.40
26:1H:1697:G:C6	26:1H:1698:A:N1	2.89	0.40
26:1H:1756:G:H1'	26:1H:1758:G:C2	2.57	0.40
26:1H:1925:C:C2'	26:1H:1926:U:H5'	2.50	0.40
26:1H:2011:U:H2'	26:1H:2012:G:O4'	2.22	0.40
26:1H:2056:G:N3	26:1H:2056:G:H2'	2.37	0.40
26:1H:2679:A:C2	26:1H:2729:G:C2	3.09	0.40
26:1H:2821:A:OP2	39:98:3:HIS:NE2	2.53	0.40
28:71:68:LEU:HG	28:71:176:GLY:HA2	2.03	0.40
30:21:37:ARG:HB2	30:21:46:ALA:HB3	2.03	0.40
30:21:77:ILE:HG21	30:21:77:ILE:HD13	1.79	0.40
30:21:105:THR:HG21	30:21:164:ARG:CZ	2.51	0.40
30:21:120:TRP:CD2	30:21:155:LYS:HD3	2.56	0.40
32:41:18:GLU:O	32:41:22:ARG:HB2	2.21	0.40
32:41:82:LEU:HD23	32:41:82:LEU:HA	1.84	0.40
34:61:79:ILE:HD11	34:61:100:ALA:CB	2.51	0.40
36:68:78:ARG:HH11	36:68:78:ARG:HG2	1.87	0.40
37:78:127:ALA:O	37:78:147:LEU:HG	2.21	0.40
41:B8:3:ARG:O	41:B8:4:GLY:C	2.64	0.40
42:C8:112:ARG:HH12	43:D8:45:THR:HG23	1.86	0.40
43:D8:36:PRO:C	43:D8:38:LEU:N	2.76	0.40
47:H8:156:LYS:HG3	47:H8:158:PRO:HD3	2.02	0.40
1:1G:318:G:H2'	1:1G:319:G:H8	1.87	0.40
1:1G:363:A:C5	12:3A:31:PRO:HD2	2.57	0.40
1:1G:414:A:H2'	1:1G:415:A:H8	1.85	0.40
1:1G:562:C:O2'	12:3A:17:LYS:HG2	2.21	0.40
1:1G:570:G:H1'	1:1G:820:U:C4	2.57	0.40
1:1G:599:C:H2'	1:1G:600:C:C6	2.56	0.40
1:1G:969:A:H2'	1:1G:970:C:O4'	2.21	0.40
1:1G:1028(A):C:H42	1:1G:1028(B):C:H41	1.69	0.40
1:1G:1326:C:OP1	21:1B:12:LYS:NZ	2.47	0.40
1:1G:1338:G:C6	1:1G:1339:A:C6	3.09	0.40
2:12:78:GLN:NE2	2:12:95:GLN:HA	2.35	0.40
3:22:180:ALA:O	3:22:181:ASN:HB3	2.21	0.40
4:32:18:LYS:HE2	4:32:18:LYS:HB2	1.82	0.40
4:32:30:LYS:HB3	4:32:35:ARG:NH1	2.36	0.40
4:32:33:MET:HE3	4:32:33:MET:HB3	2.01	0.40
4:32:93:PHE:CZ	4:32:97:LEU:HD11	2.56	0.40
5:42:144:THR:CG2	5:42:146:ALA:HB3	2.51	0.40
7:62:149:ARG:HH12	11:2A:58:PRO:HG2	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:5:TYR:HA	9:82:17:VAL:O	2.21	0.40
11:2A:31:THR:HA	11:2A:42:TRP:HA	2.03	0.40
13:4A:81:LEU:CD2	13:4A:88:ARG:HH21	2.34	0.40
13:4A:86:CYS:HA	19:AA:73:GLU:O	2.21	0.40
15:6A:82:ILE:HB	15:6A:87:ILE:HB	2.03	0.40
20:BA:72:LEU:HD11	20:BA:80:ARG:NH2	2.35	0.40
21:1B:2:GLY:C	21:1B:4:GLY:H	2.30	0.40
22:1L:55:PSU:H6	22:1L:55:PSU:O5'	2.05	0.40
23:2L:38:A:H2'	23:2L:39:A:O4'	2.20	0.40
26:14:464:U:H4'	54:L5:5:TRP:CZ3	2.57	0.40
26:14:836:G:C5	26:14:837:C:C4	3.08	0.40
26:14:910:A:H2'	26:14:2264:C:O2'	2.21	0.40
26:14:969:U:OP1	51:H5:17:LYS:N	2.54	0.40
26:14:1161:C:H2'	26:14:1162:G:H8	1.86	0.40
26:14:1161:C:O2'	43:95:23:GLU:HG2	2.21	0.40
26:14:1357:U:H2'	26:14:1358:G:O4'	2.22	0.40
26:14:1534:G:H2'	26:14:1537:C:H42	1.85	0.40
26:14:1710:C:H4'	26:14:2858:C:O2	2.20	0.40
26:14:2271:G:H2'	26:14:2272:U:H6	1.85	0.40
26:14:2753:A:H2'	26:14:2754:U:O4'	2.21	0.40
30:29:38:THR:H	30:29:38:THR:HG23	1.65	0.40
40:65:59:LYS:HD2	40:65:60:GLY:H	1.87	0.40
41:75:20:PRO:HD2	41:75:86:ILE:HG23	2.03	0.40
45:B5:31:HIS:ND1	45:B5:32:PRO:HD3	2.36	0.40
46:C5:17:SER:OG	46:C5:18:GLY:O	2.34	0.40
47:D5:158:PRO:HB2	47:D5:160:GLY:H	1.85	0.40
49:F5:7:ILE:HD13	49:F5:91:LYS:HZ1	1.85	0.40
49:F5:58:ILE:HD12	49:F5:87:PRO:HD3	2.02	0.40
1:13:131:C:H2'	1:13:132:C:C6	2.56	0.40
1:13:144:G:C6	1:13:145:G:C4	3.10	0.40
1:13:263:A:P	20:BI:79:ARG:HH11	2.44	0.40
1:13:724:G:H2'	1:13:725:G:H8	1.86	0.40
1:13:828:A:H2'	1:13:829:G:O4'	2.21	0.40
1:13:1006:C:O2'	1:13:1007:C:O5'	2.32	0.40
2:1E:16:HIS:ND1	2:1E:214:ILE:HG12	2.35	0.40
2:1E:87:ARG:NH1	2:1E:220:ASP:OD1	2.46	0.40
5:4E:80:ILE:HG13	8:7E:104:ARG:NH2	2.35	0.40
7:6E:27:ILE:CD1	7:6E:40:ALA:HA	2.49	0.40
7:6E:77:SER:HB2	7:6E:85:TYR:O	2.21	0.40
8:7E:104:ARG:HD2	8:7E:138:TRP:CG	2.56	0.40
12:3I:42:THR:HG22	12:3I:54:LYS:HE3	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:5I:3:ARG:O	14:5I:4:LYS:C	2.64	0.40
19:AI:43:GLU:CD	19:AI:43:GLU:H	2.29	0.40
22:1K:52:G:H22	22:1K:62:C:H42	1.67	0.40
23:2K:17:C:H4'	23:2K:18:C:OP2	2.21	0.40
26:1H:654(Q):C:H5'	26:1H:654(R):C:OP2	2.21	0.40
26:1H:748:G:O6	26:1H:751:A:H5'	2.22	0.40
26:1H:774:A:C2	26:1H:787:U:O2'	2.73	0.40
26:1H:851:U:O2'	51:L8:42:ALA:O	2.35	0.40
26:1H:1170:G:H2'	26:1H:1171:G:H5'	2.04	0.40
26:1H:1275:A:H62	39:98:15:SER:HB3	1.87	0.40
26:1H:2262:U:H4'	26:1H:2328:A:H2	1.87	0.40
26:1H:2420:C:O5'	26:1H:2420:C:H6	2.04	0.40
26:1H:2505:G:H2'	26:1H:2576:G:O6	2.21	0.40
26:1H:2516:G:C6	26:1H:2517:C:C4	3.09	0.40
31:31:195:ASP:O	31:31:197:ASP:O	2.40	0.40
32:41:101:ILE:O	32:41:105:LYS:HE3	2.22	0.40
33:51:137:ASP:CB	33:51:140:LYS:HB3	2.51	0.40
34:61:79:ILE:HD13	34:61:79:ILE:HA	1.92	0.40
35:58:94:HIS:HA	35:58:95:PRO:HD2	1.91	0.40
37:78:91:PHE:CD2	37:78:99:LEU:HD21	2.56	0.40
39:98:2:ARG:O	39:98:5:LYS:HG2	2.22	0.40
44:E8:92:ARG:NH2	44:E8:94:ASP:HA	2.28	0.40
45:F8:35:THR:O	45:F8:39:ILE:HG13	2.22	0.40
50:K8:63:VAL:HA	50:K8:66:GLU:CG	2.52	0.40
1:1G:46:G:O2'	1:1G:365:U:H1'	2.22	0.40
1:1G:129(A):G:N2	1:1G:191(A):G:C5	2.89	0.40
1:1G:255:G:C2	1:1G:272:C:C2	3.10	0.40
1:1G:390:C:O2'	16:7A:28:ARG:NH1	2.54	0.40
1:1G:929:G:H1	1:1G:1388:C:N4	2.18	0.40
1:1G:1319:A:OP1	19:AA:70:LYS:NZ	2.55	0.40
1:1G:1326:C:H2'	1:1G:1327:C:H6	1.86	0.40
1:1G:1346:A:H61	1:1G:1374:A:H3'	1.86	0.40
2:12:11:LEU:CG	2:12:217:ARG:HH22	2.16	0.40
2:12:44:LEU:O	2:12:47:THR:OG1	2.28	0.40
2:12:58:ILE:HG21	2:12:219:VAL:HG23	2.02	0.40
3:22:70:VAL:C	3:22:106:VAL:HG23	2.47	0.40
3:22:70:VAL:O	3:22:106:VAL:HG23	2.21	0.40
3:22:113:ALA:HB3	3:22:114:PRO:HD3	2.04	0.40
5:42:35:GLY:HA3	5:42:112:LEU:HB3	2.02	0.40
6:52:68:PRO:HG2	6:52:71:ARG:HB2	2.03	0.40
7:62:141:VAL:HA	7:62:142:GLU:HB2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1A:23:ILE:O	10:1A:26:ALA:N	2.55	0.40
10:1A:47:PHE:O	10:1A:63:PHE:N	2.38	0.40
22:1L:58:A:C8	22:1L:61:C:C4	3.09	0.40
22:1L:76:A:H3'	22:1L:76:A:N3	2.36	0.40
23:2L:2:G:N3	23:2L:2:G:H2'	2.37	0.40
26:14:2:G:N2	26:14:2900:A:N1	2.70	0.40
26:14:94:G:N2	50:G5:47:ASN:HD22	2.20	0.40
26:14:340:A:C2'	26:14:341:G:H5'	2.51	0.40
26:14:375:C:H5"	26:14:408:G:H5"	2.03	0.40
26:14:1250:G:OP2	37:35:21:ARG:NH1	2.52	0.40
26:14:1421:G:C2	26:14:1422:G:N7	2.89	0.40
26:14:1926:U:H2'	26:14:1928:A:OP2	2.21	0.40
26:14:2090:G:C6	26:14:2091:U:C4	3.09	0.40
26:14:2152:G:C6	26:14:2153:G:H1'	2.56	0.40
26:14:2178:C:C2	26:14:2179:C:H5	2.39	0.40
26:14:2190:G:H2'	26:14:2191:G:O4'	2.21	0.40
26:14:2193:G:C6	26:14:2194:G:C5	3.09	0.40
26:14:2210:G:H3'	26:14:2211:G:C4	2.55	0.40
26:14:2608:G:H5"	26:14:2609:U:OP1	2.21	0.40
26:14:2674:G:H4'	36:25:30:ALA:HB2	2.04	0.40
26:14:2720:U:C2	26:14:2721:A:C8	3.09	0.40
26:14:2736:G:N1	26:14:2737:G:C5	2.90	0.40
26:14:2873:A:H3'	26:14:2874:C:C5	2.56	0.40
30:29:7:VAL:HG12	30:29:8:LYS:N	2.37	0.40
32:49:37:VAL:N	32:49:94:LEU:O	2.54	0.40
35:15:111:PRO:HA	35:15:114:ARG:CZ	2.51	0.40
37:35:144:GLU:HA	37:35:145:PRO:HD3	1.95	0.40
41:75:3:ARG:CZ	41:75:6:LEU:HD13	2.51	0.40
41:75:27:THR:HB	41:75:89:VAL:CG2	2.51	0.40
50:G5:4:SER:HA	50:G5:6:VAL:N	2.36	0.40
53:J5:36:CYS:HG	53:J5:49:CYS:HG	1.66	0.40
1:13:317:G:C5	1:13:318:G:N7	2.90	0.40
1:13:553:A:H5"	12:3I:24:VAL:HG21	2.04	0.40
1:13:1028(A):C:H1'	1:13:1033:G:N2	2.37	0.40
1:13:1044:A:C6	1:13:1045:C:H1'	2.56	0.40
3:2E:71:ALA:HA	3:2E:106:VAL:HB	2.03	0.40
5:4E:43:LEU:CD1	5:4E:132:ALA:HB1	2.48	0.40
11:2I:54:ARG:H	11:2I:54:ARG:HG3	1.63	0.40
18:9I:59:SER:N	18:9I:62:GLU:HB2	2.27	0.40
19:AI:18:LYS:HA	19:AI:18:LYS:HD2	1.92	0.40
23:2K:50:G:H2'	23:2K:51:U:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:239:U:H2'	26:1H:240:G:C8	2.56	0.40
26:1H:322:A:H3'	31:31:169:ASN:OD1	2.21	0.40
26:1H:1145:C:H2'	26:1H:1146:C:C6	2.56	0.40
26:1H:1154:G:O5'	26:1H:1154:G:H8	2.05	0.40
26:1H:1319:G:C6	26:1H:1320:C:N4	2.90	0.40
26:1H:1447:G:H1'	26:1H:1545(A):A:H1'	2.03	0.40
26:1H:2496:C:C2'	26:1H:2497:A:H5'	2.50	0.40
27:16:29:A:OP2	40:A8:31:SER:HB2	2.21	0.40
28:71:6:ARG:HA	28:71:34:THR:OG1	2.22	0.40
29:11:31:LYS:HD3	29:11:94:LEU:CD1	2.52	0.40
29:11:232:PRO:HB3	29:11:244:ARG:NH1	2.36	0.40
29:11:240:ALA:HB1	60:11:407:HOH:O	2.21	0.40
30:21:27:LEU:HD12	30:21:180:ASN:O	2.22	0.40
31:31:123:LEU:HD12	31:31:124:LEU:N	2.36	0.40
33:51:118:PRO:HD2	33:51:121:ILE:HG21	2.02	0.40
34:61:124:GLY:H	34:61:142:VAL:CG2	2.34	0.40
43:D8:25:LEU:H	43:D8:92:THR:CG2	2.33	0.40
43:D8:35:LEU:HD22	43:D8:35:LEU:HA	1.77	0.40
46:G8:42:VAL:HG23	46:G8:43:ASN:N	2.36	0.40
47:H8:7:ALA:HB3	47:H8:61:LEU:CB	2.50	0.40
50:K8:15:LYS:HZ2	50:K8:67:LYS:HE2	1.86	0.40
1:1G:575:G:H4'	1:1G:575:G:OP1	2.21	0.40
1:1G:579:G:C5	1:1G:580:U:C5	3.10	0.40
2:12:54:THR:HA	2:12:57:PHE:HB2	2.04	0.40
2:12:55:PHE:CE2	2:12:221:LEU:HD21	2.57	0.40
3:22:153:VAL:O	3:22:165:THR:HG23	2.22	0.40
3:22:153:VAL:HA	3:22:197:GLY:O	2.21	0.40
8:72:68:ARG:CZ	8:72:74:PRO:HB3	2.52	0.40
10:1A:48:THR:HA	10:1A:62:HIS:HB3	2.03	0.40
13:4A:67:GLU:O	13:4A:71:ARG:HG3	2.22	0.40
13:4A:70:LEU:O	13:4A:74:VAL:HG23	2.21	0.40
14:5A:24:CYS:HB2	14:5A:33:VAL:HG12	2.04	0.40
20:BA:50:GLU:HA	20:BA:100:ILE:HG21	2.03	0.40
22:1L:63:U:HO2'	26:14:2482:G:HO2'	1.62	0.40
23:2L:38:A:H2'	23:2L:39:A:C8	2.56	0.40
24:3L:11:C:N4	24:3L:13:C:H41	2.20	0.40
24:3L:40:C:H2'	24:3L:41:A:H8	1.86	0.40
26:14:90:U:HO2'	26:14:91:A:P	2.44	0.40
26:14:270(S):G:H4'	49:F5:78:LYS:NZ	2.36	0.40
26:14:284:U:H2'	26:14:285:C:C6	2.57	0.40
26:14:642:G:C8	26:14:642:G:C3'	3.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:657:U:H2'	26:14:658:C:C6	2.56	0.40
26:14:764:A:H5'	29:19:210:GLY:HA2	2.02	0.40
26:14:1012:U:O2	35:15:25:ARG:NH1	2.54	0.40
26:14:1106:G:H5'	26:14:1107:G:OP2	2.21	0.40
26:14:1111:A:H5"	26:14:1112:G:OP1	2.22	0.40
26:14:1118:C:H2'	26:14:1119:C:C6	2.57	0.40
26:14:1366:A:C2	26:14:1367:A:H1'	2.57	0.40
26:14:1762:A:N6	60:14:3510:HOH:O	2.55	0.40
26:14:1793:C:H2'	26:14:1794:U:C6	2.57	0.40
26:14:2029:G:H2'	26:14:2031:A:OP1	2.21	0.40
26:14:2353:G:H8	26:14:2353:G:O5'	2.04	0.40
26:14:2364:C:H2'	26:14:2365:G:O4'	2.22	0.40
26:14:2520:C:H41	26:14:2542:A:N6	2.17	0.40
26:14:2543:G:N3	26:14:2765:A:H2'	2.36	0.40
26:14:2572:A:C8	30:29:144:ARG:HD3	2.56	0.40
26:14:2721:A:H1'	26:14:2873:A:O2'	2.21	0.40
26:14:2728:U:H2'	26:14:2729:G:C8	2.56	0.40
27:1J:117:G:O5'	27:1J:117:G:H8	2.05	0.40
32:49:148:MET:HE3	32:49:150:ASP:OD2	2.21	0.40
34:69:128:LEU:O	34:69:137:PRO:HA	2.21	0.40
35:15:15:LEU:HD13	35:15:16:ILE:N	2.37	0.40
35:15:16:ILE:HB	35:15:54:VAL:HG22	2.04	0.40
39:55:66:VAL:HG11	39:55:80:PHE:HE1	1.86	0.40
39:55:87:TYR:O	39:55:88:ARG:C	2.65	0.40
41:75:107:ASP:OD1	41:75:107:ASP:N	2.54	0.40
45:B5:63:LYS:H	45:B5:63:LYS:HD2	1.87	0.40
47:D5:70:LEU:HD23	47:D5:70:LEU:HA	1.88	0.40
50:G5:23:LYS:HG3	50:G5:24:LEU:N	2.37	0.40
53:J5:41:PRO:HA	53:J5:42:PRO:HD3	1.96	0.40
53:J5:54:GLY:O	53:J5:55:ARG:NH1	2.55	0.40

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:82:U:O2'	26:14:271(C):U:O4[3_545]	2.16	0.04

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%)	171 (83%)	30 (15%)	5 (2%)	4 22
2	1E	227/256 (89%)	188 (83%)	36 (16%)	3 (1%)	9 35
3	22	192/239 (80%)	172 (90%)	20 (10%)	0	100 100
3	2E	203/239 (85%)	185 (91%)	18 (9%)	0	100 100
4	32	206/209 (99%)	175 (85%)	29 (14%)	2 (1%)	12 41
4	3E	205/209 (98%)	188 (92%)	15 (7%)	2 (1%)	12 41
5	42	146/162 (90%)	135 (92%)	10 (7%)	1 (1%)	18 49
5	4E	147/162 (91%)	139 (95%)	7 (5%)	1 (1%)	18 49
6	52	99/101 (98%)	93 (94%)	6 (6%)	0	100 100
6	5E	98/101 (97%)	92 (94%)	6 (6%)	0	100 100
7	62	134/156 (86%)	122 (91%)	12 (9%)	0	100 100
7	6E	152/156 (97%)	144 (95%)	8 (5%)	0	100 100
8	72	135/138 (98%)	124 (92%)	10 (7%)	1 (1%)	18 49
8	7E	136/138 (99%)	124 (91%)	11 (8%)	1 (1%)	18 49
9	82	119/128 (93%)	111 (93%)	7 (6%)	1 (1%)	16 47
9	8E	124/128 (97%)	106 (86%)	16 (13%)	2 (2%)	7 30
10	1A	76/105 (72%)	70 (92%)	6 (8%)	0	100 100
10	1I	89/105 (85%)	80 (90%)	9 (10%)	0	100 100
11	2A	111/129 (86%)	100 (90%)	9 (8%)	2 (2%)	6 28
11	2I	109/129 (84%)	98 (90%)	9 (8%)	2 (2%)	6 28
12	3A	120/132 (91%)	98 (82%)	19 (16%)	3 (2%)	4 21
12	3I	120/132 (91%)	105 (88%)	14 (12%)	1 (1%)	16 47
13	4A	109/126 (86%)	93 (85%)	15 (14%)	1 (1%)	14 44
13	4I	117/126 (93%)	95 (81%)	22 (19%)	0	100 100
14	5A	57/61 (93%)	48 (84%)	8 (14%)	1 (2%)	6 28

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
14	5I	58/61 (95%)	48 (83%)	8 (14%)	2 (3%)	3 16
15	6A	85/89 (96%)	78 (92%)	7 (8%)	0	100 100
15	6I	85/89 (96%)	77 (91%)	7 (8%)	1 (1%)	10 37
16	7A	82/88 (93%)	77 (94%)	5 (6%)	0	100 100
16	7I	81/88 (92%)	78 (96%)	3 (4%)	0	100 100
17	8A	97/105 (92%)	92 (95%)	5 (5%)	0	100 100
17	8I	98/105 (93%)	92 (94%)	6 (6%)	0	100 100
18	9A	65/88 (74%)	61 (94%)	4 (6%)	0	100 100
18	9I	66/88 (75%)	62 (94%)	2 (3%)	2 (3%)	3 19
19	AA	56/93 (60%)	47 (84%)	7 (12%)	2 (4%)	2 16
19	AI	80/93 (86%)	67 (84%)	10 (12%)	3 (4%)	2 15
20	BA	97/106 (92%)	86 (89%)	9 (9%)	2 (2%)	5 25
20	BI	95/106 (90%)	84 (88%)	11 (12%)	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%)	19 (7%)	9 (3%)	3 17
29	19	272/276 (99%)	242 (89%)	23 (8%)	7 (3%)	4 21
30	21	201/206 (98%)	158 (79%)	35 (17%)	8 (4%)	2 13
30	29	202/206 (98%)	157 (78%)	37 (18%)	8 (4%)	2 13
31	31	200/210 (95%)	183 (92%)	14 (7%)	3 (2%)	8 32
31	39	202/210 (96%)	155 (77%)	40 (20%)	7 (4%)	3 16
32	41	177/182 (97%)	154 (87%)	21 (12%)	2 (1%)	11 39
32	49	177/182 (97%)	152 (86%)	23 (13%)	2 (1%)	11 39
33	51	169/180 (94%)	135 (80%)	25 (15%)	9 (5%)	1 10
33	59	63/180 (35%)	48 (76%)	13 (21%)	2 (3%)	3 18
34	61	144/148 (97%)	120 (83%)	22 (15%)	2 (1%)	9 34
34	69	143/148 (97%)	114 (80%)	28 (20%)	1 (1%)	18 49
35	15	136/140 (97%)	122 (90%)	13 (10%)	1 (1%)	18 49
35	58	136/140 (97%)	114 (84%)	18 (13%)	4 (3%)	3 19

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
36	25	120/122 (98%)	113 (94%)	7 (6%)	0	100 100
36	68	120/122 (98%)	114 (95%)	6 (5%)	0	100 100
37	35	145/150 (97%)	115 (79%)	25 (17%)	5 (3%)	3 16
37	78	145/150 (97%)	117 (81%)	24 (17%)	4 (3%)	4 20
38	45	136/141 (96%)	115 (85%)	18 (13%)	3 (2%)	5 24
38	88	139/141 (99%)	118 (85%)	17 (12%)	4 (3%)	3 19
39	55	116/118 (98%)	109 (94%)	6 (5%)	1 (1%)	14 44
39	98	116/118 (98%)	100 (86%)	15 (13%)	1 (1%)	14 44
40	65	108/112 (96%)	84 (78%)	23 (21%)	1 (1%)	14 44
40	A8	109/112 (97%)	87 (80%)	22 (20%)	0	100 100
41	75	131/146 (90%)	121 (92%)	10 (8%)	0	100 100
41	B8	130/146 (89%)	115 (88%)	14 (11%)	1 (1%)	16 47
42	85	114/118 (97%)	105 (92%)	7 (6%)	2 (2%)	6 28
42	C8	113/118 (96%)	103 (91%)	7 (6%)	3 (3%)	4 20
43	95	98/101 (97%)	73 (74%)	20 (20%)	5 (5%)	1 10
43	D8	98/101 (97%)	86 (88%)	8 (8%)	4 (4%)	2 13
44	A5	109/113 (96%)	103 (94%)	4 (4%)	2 (2%)	6 28
44	E8	110/113 (97%)	103 (94%)	7 (6%)	0	100 100
45	B5	92/96 (96%)	81 (88%)	9 (10%)	2 (2%)	5 24
45	F8	93/96 (97%)	84 (90%)	9 (10%)	0	100 100
46	C5	103/110 (94%)	72 (70%)	24 (23%)	7 (7%)	1 5
46	G8	103/110 (94%)	87 (84%)	13 (13%)	3 (3%)	3 19
47	D5	128/206 (62%)	104 (81%)	20 (16%)	4 (3%)	3 18
47	H8	169/206 (82%)	136 (80%)	26 (15%)	7 (4%)	2 13
48	E5	75/85 (88%)	67 (89%)	5 (7%)	3 (4%)	2 13
48	I8	74/85 (87%)	69 (93%)	5 (7%)	0	100 100
49	F5	92/98 (94%)	85 (92%)	5 (5%)	2 (2%)	5 24
49	J8	92/98 (94%)	84 (91%)	7 (8%)	1 (1%)	11 39
50	G5	66/72 (92%)	62 (94%)	2 (3%)	2 (3%)	3 19
50	K8	66/72 (92%)	59 (89%)	4 (6%)	3 (4%)	2 12
51	H5	56/60 (93%)	52 (93%)	4 (7%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
51	L8	56/60 (93%)	54 (96%)	2 (4%)	0	100 100
52	M8	45/71 (63%)	31 (69%)	13 (29%)	1 (2%)	5 24
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%)	42 (93%)	3 (7%)	0	100 100
54	P8	45/49 (92%)	41 (91%)	4 (9%)	0	100 100
55	M5	62/65 (95%)	50 (81%)	9 (14%)	3 (5%)	2 11
55	Q8	62/65 (95%)	51 (82%)	8 (13%)	3 (5%)	2 11
All	All	10971/12333 (89%)	9586 (87%)	1202 (11%)	183 (2%)	7 30

All (183) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
9	8E	127	LYS
18	9I	22	VAL
29	11	28	GLU
29	11	40	THR
30	21	83	ASP
33	51	10	PRO
39	98	11	ASN
42	C8	89	GLU
46	G8	81	LYS
50	K8	48	HIS
55	Q8	52	LYS
2	12	219	VAL
9	82	118	LYS
20	BA	73	HIS
29	19	237	GLU
30	29	25	VAL
31	39	28	ILE
31	39	84	VAL
38	45	27	VAL
39	55	107	ASP
43	95	45	THR
47	D5	53	ILE
48	E5	33	ALA
49	F5	30	VAL
50	G5	48	HIS
55	M5	49	VAL

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Mol	Chain	Res	Type
2	1E	238	LEU
4	3E	90	GLY
8	7E	86	ILE
12	3I	48	PRO
29	11	3	VAL
29	11	237	GLU
29	11	273	ARG
30	21	79	ARG
33	51	157	TYR
37	78	25	SER
38	88	66	ILE
42	C8	93	LYS
46	G8	54	LYS
47	H8	6	LYS
47	H8	165	VAL
2	12	32	ILE
11	2A	48	ILE
12	3A	18	VAL
30	29	51	PHE
30	29	59	VAL
30	29	81	ILE
31	39	25	PRO
31	39	132	VAL
34	69	113	ARG
37	35	15	ARG
43	95	44	LYS
46	C5	29	GLU
47	D5	165	VAL
55	M5	34	TRP
55	M5	35	GLN
14	5I	14	PRO
30	21	118	LYS
32	41	97	ASP
34	61	145	VAL
35	58	128	HIS
37	78	6	LEU
38	88	6	ARG
38	88	7	MET
38	88	134	ARG
43	D8	45	THR
47	H8	60	GLU
52	M8	5	ILE

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Mol	Chain	Res	Type
55	Q8	35	GLN
55	Q8	53	PRO
20	BA	49	ALA
29	19	44	ASN
29	19	273	ARG
29	19	274	ARG
31	39	124	LEU
35	15	128	HIS
38	45	78	PRO
38	45	81	VAL
40	65	87	PHE
43	95	80	GLN
45	B5	68	ARG
9	8E	94	ALA
29	11	122	ASP
30	21	78	LEU
33	51	169	VAL
35	58	97	ARG
35	58	135	PRO
42	C8	90	VAL
47	H8	61	LEU
50	K8	43	GLN
2	12	220	ASP
11	2A	101	SER
14	5A	29	ARG
19	AA	9	VAL
30	29	9	VAL
30	29	26	ILE
31	39	167	ALA
37	35	35	HIS
37	35	57	THR
44	A5	44	ALA
46	C5	17	SER
47	D5	60	GLU
47	D5	161	VAL
48	E5	44	ARG
49	F5	93	GLU
50	G5	47	ASN
19	AI	67	VAL
29	11	29	PRO
29	11	123	ALA
30	21	56	PRO

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Mol	Chain	Res	Type
31	31	23	ASP
33	51	137	ASP
33	51	138	LYS
34	61	133	HIS
41	B8	106	SER
43	D8	49	THR
46	G8	53	PRO
47	H8	59	LEU
50	K8	47	ASN
4	32	73	ARG
5	42	60	TYR
12	3A	19	ARG
29	19	39	LYS
29	19	118	VAL
32	49	149	VAL
37	35	6	LEU
42	85	93	LYS
46	C5	63	LYS
46	C5	99	CYS
2	1E	230	VAL
4	3E	89	THR
14	5I	13	THR
30	21	55	ASN
30	21	89	ASP
32	41	5	VAL
33	51	12	PRO
33	51	154	PRO
33	51	167	GLU
49	J8	76	ARG
30	29	77	ILE
31	39	128	ALA
37	35	34	GLY
46	C5	92	ASN
11	2I	82	VAL
19	AI	41	VAL
30	21	21	VAL
31	31	24	LEU
2	12	223	ILE
4	32	28	SER
8	72	73	ASP
12	3A	47	LYS
29	19	3	VAL

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Mol	Chain	Res	Type
43	95	72	VAL
2	1E	214	ILE
15	6I	36	ILE
35	58	95	PRO
43	D8	47	VAL
2	12	39	ILE
13	4A	84	ILE
19	AA	67	VAL
30	29	62	PRO
32	49	5	VAL
45	B5	51	VAL
11	2I	108	ILE
29	11	240	ALA
37	78	7	ARG
37	78	95	VAL
43	D8	48	GLY
47	H8	53	ILE
47	H8	141	VAL
43	95	99	ILE
48	E5	63	VAL
5	4E	115	VAL
31	31	132	VAL
33	59	167	GLU
33	59	169	VAL
42	85	90	VAL
44	A5	59	VAL
46	C5	55	TYR
18	9I	39	VAL
19	AI	9	VAL
33	51	127	GLU
46	C5	3	VAL

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.

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	12	182/220 (83%)	182 (100%)	0	100	100
2	1E	200/220 (91%)	196 (98%)	4 (2%)	48	72
3	22	154/188 (82%)	154 (100%)	0	100	100
3	2E	159/188 (85%)	158 (99%)	1 (1%)	78	83
4	32	180/181 (99%)	179 (99%)	1 (1%)	78	83
4	3E	180/181 (99%)	178 (99%)	2 (1%)	65	78
5	42	114/123 (93%)	114 (100%)	0	100	100
5	4E	115/123 (94%)	113 (98%)	2 (2%)	53	74
6	52	90/90 (100%)	89 (99%)	1 (1%)	65	78
6	5E	90/90 (100%)	90 (100%)	0	100	100
7	62	114/127 (90%)	114 (100%)	0	100	100
7	6E	125/127 (98%)	125 (100%)	0	100	100
8	72	118/119 (99%)	118 (100%)	0	100	100
8	7E	119/119 (100%)	119 (100%)	0	100	100
9	82	92/99 (93%)	92 (100%)	0	100	100
9	8E	97/99 (98%)	96 (99%)	1 (1%)	68	79
10	1A	71/92 (77%)	71 (100%)	0	100	100
10	1I	81/92 (88%)	81 (100%)	0	100	100
11	2A	85/99 (86%)	85 (100%)	0	100	100
11	2I	84/99 (85%)	84 (100%)	0	100	100
12	3A	103/109 (94%)	102 (99%)	1 (1%)	68	79
12	3I	103/109 (94%)	102 (99%)	1 (1%)	68	79
13	4A	91/101 (90%)	90 (99%)	1 (1%)	65	78
13	4I	94/101 (93%)	94 (100%)	0	100	100
14	5A	49/50 (98%)	49 (100%)	0	100	100
14	5I	49/50 (98%)	49 (100%)	0	100	100
15	6A	79/80 (99%)	79 (100%)	0	100	100
15	6I	79/80 (99%)	79 (100%)	0	100	100
16	7A	72/74 (97%)	72 (100%)	0	100	100
16	7I	72/74 (97%)	72 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
17	8A	94/97 (97%)	94 (100%)	0	100	100
17	8I	95/97 (98%)	95 (100%)	0	100	100
18	9A	58/77 (75%)	58 (100%)	0	100	100
18	9I	58/77 (75%)	58 (100%)	0	100	100
19	AA	52/80 (65%)	52 (100%)	0	100	100
19	AI	71/80 (89%)	71 (100%)	0	100	100
20	BA	76/82 (93%)	76 (100%)	0	100	100
20	BI	75/82 (92%)	75 (100%)	0	100	100
21	1B	17/22 (77%)	17 (100%)	0	100	100
21	1F	18/22 (82%)	18 (100%)	0	100	100
28	71	109/181 (60%)	109 (100%)	0	100	100
28	79	48/181 (26%)	48 (100%)	0	100	100
29	11	214/218 (98%)	214 (100%)	0	100	100
29	19	214/218 (98%)	212 (99%)	2 (1%)	70	80
30	21	165/166 (99%)	165 (100%)	0	100	100
30	29	165/166 (99%)	164 (99%)	1 (1%)	78	83
31	31	161/166 (97%)	161 (100%)	0	100	100
31	39	163/166 (98%)	163 (100%)	0	100	100
32	41	153/156 (98%)	152 (99%)	1 (1%)	76	82
32	49	153/156 (98%)	153 (100%)	0	100	100
33	51	142/148 (96%)	141 (99%)	1 (1%)	76	82
33	59	56/148 (38%)	56 (100%)	0	100	100
34	61	122/124 (98%)	122 (100%)	0	100	100
34	69	122/124 (98%)	121 (99%)	1 (1%)	73	81
35	15	117/119 (98%)	117 (100%)	0	100	100
35	58	117/119 (98%)	116 (99%)	1 (1%)	70	80
36	25	100/100 (100%)	99 (99%)	1 (1%)	68	79
36	68	100/100 (100%)	99 (99%)	1 (1%)	68	79
37	35	114/116 (98%)	114 (100%)	0	100	100
37	78	114/116 (98%)	112 (98%)	2 (2%)	51	73
38	45	109/111 (98%)	109 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
38	88	109/111 (98%)	109 (100%)	0	100	100
39	55	101/101 (100%)	99 (98%)	2 (2%)	48	72
39	98	101/101 (100%)	100 (99%)	1 (1%)	68	79
40	65	87/88 (99%)	87 (100%)	0	100	100
40	A8	87/88 (99%)	86 (99%)	1 (1%)	65	78
41	75	117/127 (92%)	117 (100%)	0	100	100
41	B8	116/127 (91%)	114 (98%)	2 (2%)	53	74
42	85	93/94 (99%)	93 (100%)	0	100	100
42	C8	92/94 (98%)	92 (100%)	0	100	100
43	95	82/82 (100%)	81 (99%)	1 (1%)	63	78
43	D8	82/82 (100%)	82 (100%)	0	100	100
44	A5	91/92 (99%)	89 (98%)	2 (2%)	45	71
44	E8	91/92 (99%)	90 (99%)	1 (1%)	65	78
45	B5	74/78 (95%)	74 (100%)	0	100	100
45	F8	75/78 (96%)	75 (100%)	0	100	100
46	C5	85/91 (93%)	85 (100%)	0	100	100
46	G8	85/91 (93%)	85 (100%)	0	100	100
47	D5	118/179 (66%)	117 (99%)	1 (1%)	73	81
47	H8	152/179 (85%)	152 (100%)	0	100	100
48	E5	61/67 (91%)	61 (100%)	0	100	100
48	I8	61/67 (91%)	61 (100%)	0	100	100
49	F5	79/83 (95%)	79 (100%)	0	100	100
49	J8	79/83 (95%)	79 (100%)	0	100	100
50	G5	62/67 (92%)	62 (100%)	0	100	100
50	K8	62/67 (92%)	61 (98%)	1 (2%)	55	75
51	H5	50/52 (96%)	50 (100%)	0	100	100
51	L8	50/52 (96%)	50 (100%)	0	100	100
52	M8	42/63 (67%)	42 (100%)	0	100	100
53	J5	48/52 (92%)	46 (96%)	2 (4%)	26	58
53	N8	43/52 (83%)	42 (98%)	1 (2%)	44	70
54	L5	38/42 (90%)	37 (97%)	1 (3%)	40	68

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
54	P8	38/42 (90%)	37 (97%)	1 (3%)	40 68
55	M5	54/55 (98%)	54 (100%)	0	100 100
55	Q8	54/55 (98%)	54 (100%)	0	100 100
All	All	9272/10193 (91%)	9229 (100%)	43 (0%)	81 85

All (43) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1E	83	MET
2	1E	86	GLU
2	1E	156	LYS
2	1E	168	THR
3	2E	27	LYS
4	3E	96	LEU
4	3E	127	THR
5	4E	87	SER
5	4E	147	ASP
9	8E	58	HIS
12	3I	8	ASN
32	41	162	THR
33	51	122	THR
35	58	28	THR
36	68	47	ILE
37	78	68	GLN
37	78	98	GLU
39	98	34	ILE
40	A8	32	LEU
41	B8	11	GLU
41	B8	62	THR
44	E8	52	GLU
50	K8	4	SER
53	N8	3	LYS
54	P8	4	THR
4	32	4	TYR
6	52	21	LEU
12	3A	124	LYS
13	4A	115	LYS
29	19	31	LYS
29	19	166	GLN
30	29	49	LEU
34	69	108	THR

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Mol	Chain	Res	Type
36	25	26	LYS
39	55	81	ASP
39	55	88	ARG
43	95	91	TYR
44	A5	39	THR
44	A5	100	THR
47	D5	63	ASP
53	J5	26	THR
53	J5	51	TYR
54	L5	43	THR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (82) such sidechains are listed below:

Mol	Chain	Res	Type
2	1E	16	HIS
2	1E	212	GLN
3	2E	110	ASN
3	2E	123	GLN
4	3E	161	ASN
7	6E	28	ASN
7	6E	37	ASN
7	6E	51	GLN
8	7E	82	HIS
9	8E	87	GLN
9	8E	124	GLN
10	1I	13	HIS
10	1I	76	ASN
15	6I	9	GLN
16	7I	13	HIS
18	9I	36	ASN
19	AI	83	HIS
28	71	17	ASN
28	71	56	GLN
28	71	172	HIS
29	11	96	HIS
29	11	126	GLN
29	11	129	ASN
29	11	143	HIS
29	11	231	HIS
30	21	159	HIS
31	31	40	GLN
31	31	67	GLN

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Mol	Chain	Res	Type
32	41	123	ASN
34	61	28	ASN
34	61	104	GLN
37	78	27	HIS
38	88	12	GLN
38	88	113	GLN
39	98	24	GLN
48	I8	29	GLN
49	J8	19	GLN
52	M8	47	GLN
54	P8	6	GLN
2	12	37	ASN
2	12	95	GLN
2	12	140	HIS
3	22	28	GLN
3	22	102	ASN
3	22	108	ASN
3	22	181	ASN
5	42	65	ASN
5	42	73	ASN
6	52	27	GLN
6	52	73	ASN
7	62	51	GLN
10	1A	84	GLN
11	2A	27	ASN
13	4A	40	ASN
14	5A	49	HIS
14	5A	52	GLN
15	6A	46	HIS
15	6A	53	HIS
16	7A	82	GLN
18	9A	36	ASN
18	9A	63	GLN
19	AA	53	ASN
29	19	87	ASN
29	19	227	ASN
30	29	180	ASN
31	39	8	GLN
31	39	169	ASN
32	49	130	ASN
33	59	143	GLN
34	69	28	ASN

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Mol	Chain	Res	Type
34	69	74	ASN
36	25	5	GLN
37	35	27	HIS
37	35	81	GLN
38	45	113	GLN
45	B5	87	GLN
47	D5	54	HIS
47	D5	65	GLN
48	E5	29	GLN
48	E5	70	GLN
50	G5	47	ASN
50	G5	65	ASN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	13	1493/1522 (98%)	349 (23%)	32 (2%)
1	1G	1505/1522 (98%)	385 (25%)	30 (1%)
22	1K	66/76 (86%)	31 (46%)	3 (4%)
22	1L	71/76 (93%)	32 (45%)	5 (7%)
23	2K	76/77 (98%)	23 (30%)	1 (1%)
23	2L	76/77 (98%)	19 (25%)	2 (2%)
24	3K	75/76 (98%)	45 (60%)	3 (4%)
24	3L	75/76 (98%)	33 (44%)	0
25	4K	18/27 (66%)	11 (61%)	1 (5%)
25	4L	17/27 (62%)	10 (58%)	0
26	14	2852/2912 (97%)	738 (25%)	51 (1%)
26	1H	2828/2912 (97%)	735 (25%)	51 (1%)
27	16	121/122 (99%)	17 (14%)	2 (1%)
27	1J	121/122 (99%)	33 (27%)	2 (1%)
All	All	9394/9624 (97%)	2461 (26%)	183 (1%)

All (2461) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	13	2	U
1	13	5	U
1	13	6	G
1	13	7	G
1	13	8	A
1	13	19	C

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Mol	Chain	Res	Type
1	13	31	G
1	13	32	A
1	13	33	A
1	13	39	G
1	13	44	G
1	13	47	C
1	13	48	C
1	13	51	A
1	13	54	C
1	13	61	G
1	13	65	U
1	13	66	G
1	13	68	G
1	13	75	C
1	13	95	G
1	13	96	G
1	13	97	U
1	13	99	C
1	13	101	A
1	13	116	A
1	13	121	C
1	13	130	A
1	13	131	C
1	13	142	G
1	13	143	A
1	13	144	G
1	13	147	G
1	13	151	A
1	13	159	G
1	13	160	A
1	13	163	C
1	13	164	U
1	13	169	C
1	13	172	A
1	13	173	U
1	13	174	C
1	13	188	U
1	13	189	U
1	13	190	G
1	13	191(A)	G
1	13	191(C)	G
1	13	195	A

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Mol	Chain	Res	Type
1	13	199	G
1	13	201	C
1	13	208	U
1	13	209	U
1	13	216	G
1	13	222	U
1	13	243	A
1	13	244	U
1	13	245	C
1	13	246	A
1	13	247	G
1	13	251	G
1	13	256	U
1	13	262	A
1	13	266	G
1	13	267	C
1	13	270	A
1	13	274	A
1	13	289	G
1	13	318	G
1	13	328	C
1	13	329	A
1	13	330	C
1	13	332	G
1	13	344	A
1	13	345	C
1	13	346	G
1	13	347	G
1	13	351	G
1	13	352	C
1	13	353	A
1	13	354	G
1	13	357	G
1	13	367	U
1	13	372	C
1	13	373	A
1	13	382	A
1	13	389	A
1	13	390	C
1	13	397	A
1	13	398	C
1	13	406	G

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Mol	Chain	Res	Type
1	13	412	A
1	13	413	G
1	13	422	C
1	13	423	G
1	13	424	G
1	13	429	U
1	13	430	A
1	13	439	A
1	13	446	G
1	13	451	A
1	13	452	A
1	13	455	C
1	13	457	C
1	13	458	C
1	13	465	A
1	13	466	C
1	13	467	G
1	13	478	A
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	518	C
1	13	521	G
1	13	527	G
1	13	531	U
1	13	532	A
1	13	533	A
1	13	534	U
1	13	536	C
1	13	547	A
1	13	559	A
1	13	561	U
1	13	564	C
1	13	572	A
1	13	573	A
1	13	576	G
1	13	577	G

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Mol	Chain	Res	Type
1	13	596	C
1	13	607	A
1	13	610	G
1	13	618	C
1	13	619	U
1	13	620	C
1	13	629	G
1	13	630	G
1	13	631	G
1	13	632	A
1	13	639	G
1	13	648	A
1	13	661	G
1	13	665	A
1	13	666	G
1	13	683	G
1	13	687	A
1	13	688	G
1	13	703	G
1	13	704	A
1	13	720	C
1	13	723	U
1	13	749	C
1	13	753	A
1	13	755	G
1	13	764	C
1	13	769	G
1	13	774	G
1	13	777	A
1	13	792	A
1	13	793	U
1	13	794	A
1	13	795	C
1	13	812	C
1	13	813	U
1	13	815	A
1	13	817	C
1	13	828	A
1	13	836	G
1	13	841	U
1	13	842	C
1	13	843	U

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Mol	Chain	Res	Type
1	13	848	C
1	13	855	G
1	13	859	A
1	13	864	A
1	13	870	U
1	13	871	U
1	13	872	A
1	13	873	A
1	13	885	G
1	13	902	G
1	13	914	A
1	13	926	G
1	13	927	G
1	13	934	C
1	13	936	C
1	13	938	A
1	13	960	U
1	13	966	G
1	13	968	A
1	13	969	A
1	13	974	A
1	13	975	A
1	13	976	G
1	13	977	A
1	13	978	A
1	13	983	A
1	13	992	U
1	13	993	G
1	13	999	U
1	13	1002	G
1	13	1004	A
1	13	1005	A
1	13	1006	C
1	13	1007	C
1	13	1008	C
1	13	1009	G
1	13	1012	U
1	13	1016	A
1	13	1024	G
1	13	1025	U
1	13	1026	G
1	13	1028	C

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Mol	Chain	Res	Type
1	13	1028(A)	C
1	13	1028(B)	C
1	13	1029	G
1	13	1030	C
1	13	1031	G
1	13	1032(A)	G
1	13	1032(B)	G
1	13	1035	A
1	13	1037	C
1	13	1039	C
1	13	1042	G
1	13	1046	A
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	1081	G
1	13	1094	G
1	13	1095	U
1	13	1101	A
1	13	1124	G
1	13	1125	U
1	13	1126	U
1	13	1127	G
1	13	1131	G
1	13	1132	C
1	13	1136	U
1	13	1137	C
1	13	1138	G
1	13	1139	G
1	13	1141	C
1	13	1146	A
1	13	1148	U
1	13	1154	G
1	13	1157	A
1	13	1158	C
1	13	1159	U
1	13	1160	G
1	13	1170	A
1	13	1176	A

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Mol	Chain	Res	Type
1	13	1177	G
1	13	1178	G
1	13	1181	G
1	13	1188	A
1	13	1189	C
1	13	1190	G
1	13	1191	A
1	13	1193	G
1	13	1196	U
1	13	1197	G
1	13	1198	G
1	13	1204	A
1	13	1213	A
1	13	1218	C
1	13	1220	G
1	13	1221	G
1	13	1225	A
1	13	1227	A
1	13	1238	A
1	13	1240	U
1	13	1250	A
1	13	1253	G
1	13	1256	A
1	13	1257	U
1	13	1258	G
1	13	1266	G
1	13	1270	C
1	13	1273	G
1	13	1278	U
1	13	1279	A
1	13	1280	A
1	13	1281	U
1	13	1285	A
1	13	1286	A
1	13	1287	A
1	13	1290	G
1	13	1292	U
1	13	1297	C
1	13	1299	A
1	13	1300	G
1	13	1301	U
1	13	1303	C

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Mol	Chain	Res	Type
1	13	1312	G
1	13	1317	C
1	13	1320	C
1	13	1323	G
1	13	1331	G
1	13	1335	C
1	13	1336	C
1	13	1337	G
1	13	1338	G
1	13	1339	A
1	13	1346	A
1	13	1347	G
1	13	1350	A
1	13	1353	G
1	13	1360	A
1	13	1363	A
1	13	1368	G
1	13	1369	C
1	13	1370	G
1	13	1381	U
1	13	1398	A
1	13	1401	G
1	13	1419	G
1	13	1436	U
1	13	1442	G
1	13	1443	G
1	13	1446	A
1	13	1449	C
1	13	1450	U
1	13	1452	C
1	13	1453	G
1	13	1454	G
1	13	1462	G
1	13	1463	C
1	13	1467	G
1	13	1487	G
1	13	1492	A
1	13	1497	G
1	13	1499	A
1	13	1502	A
1	13	1504	G
1	13	1506	U

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Mol	Chain	Res	Type
1	13	1507	A
1	13	1517	G
1	13	1529	G
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	6	G
22	1K	7	U
22	1K	8	U
22	1K	9	A
22	1K	10	G
22	1K	11	C
22	1K	12	U
22	1K	15	G
22	1K	18	G
22	1K	24	G
22	1K	25	C
22	1K	26	A
22	1K	27	G
22	1K	29	U
22	1K	30	G
22	1K	41	A
22	1K	43	U
22	1K	49	G
22	1K	60	U
22	1K	61	C
22	1K	63	U
22	1K	64	G
22	1K	66	A
22	1K	68	G
22	1K	69	A
22	1K	70	C
22	1K	72	C
22	1K	73	A
22	1K	74	C
23	2K	2	G
23	2K	8	4SU
23	2K	9	G
23	2K	13	C

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Mol	Chain	Res	Type
23	2K	15	G
23	2K	16	C
23	2K	17	C
23	2K	18	C
23	2K	19	G
23	2K	20	G
23	2K	21	U
23	2K	22	A
23	2K	27	G
23	2K	28	U
23	2K	32	G
23	2K	35	C
23	2K	44	A
23	2K	48	U
23	2K	49	C
23	2K	50	G
23	2K	57	C
23	2K	68	C
23	2K	77	A
24	3K	2	G
24	3K	3	G
24	3K	5	C
24	3K	6	G
24	3K	8	U
24	3K	9	A
24	3K	10	G
24	3K	11	C
24	3K	14	A
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	23	A
24	3K	26	A
24	3K	27	G
24	3K	30	G
24	3K	33	U
24	3K	34	U
24	3K	35	U
24	3K	38	A

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Mol	Chain	Res	Type
24	3K	42	A
24	3K	45	G
24	3K	46	G
24	3K	47	U
24	3K	48	C
24	3K	49	G
24	3K	50	C
24	3K	51	A
24	3K	52	G
24	3K	55	U
24	3K	56	C
24	3K	58	A
24	3K	59	A
24	3K	62	C
24	3K	63	U
24	3K	65	C
24	3K	66	A
24	3K	67	C
24	3K	68	G
24	3K	72	C
24	3K	73	A
24	3K	76	A
25	4K	7	G
25	4K	8	A
25	4K	10	G
25	4K	11	U
25	4K	13	A
25	4K	15	A
25	4K	18	G
25	4K	19	U
25	4K	21	A
25	4K	23	A
25	4K	24	A
26	1H	7	G
26	1H	11	G
26	1H	12	U
26	1H	14	A
26	1H	15	G
26	1H	27	G
26	1H	31	C
26	1H	33	U
26	1H	34	C

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Mol	Chain	Res	Type
26	1H	35	G
26	1H	39	C
26	1H	41	C
26	1H	46	C
26	1H	51	G
26	1H	54	G
26	1H	56	A
26	1H	61	G
26	1H	64	A
26	1H	71	A
26	1H	72	U
26	1H	74	A
26	1H	75	G
26	1H	85	G
26	1H	111	A
26	1H	118	A
26	1H	119	A
26	1H	120	U
26	1H	122	G
26	1H	123	G
26	1H	125	G
26	1H	126	A
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	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	220	G
26	1H	221	A
26	1H	222	A
26	1H	223	A
26	1H	224	G

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Mol	Chain	Res	Type
26	1H	227	A
26	1H	228	A
26	1H	229	A
26	1H	244	A
26	1H	245	G
26	1H	248	G
26	1H	250	G
26	1H	252	G
26	1H	260	G
26	1H	261	G
26	1H	264	C
26	1H	266	G
26	1H	267	C
26	1H	269	U
26	1H	270(F)	U
26	1H	270(H)	C
26	1H	270(I)	G
26	1H	270(K)	C
26	1H	270(L)	U
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(S)	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	279	C
26	1H	280	C
26	1H	283	A
26	1H	295	G
26	1H	299	A
26	1H	311	A
26	1H	315	G
26	1H	323	G
26	1H	324	A
26	1H	329	G
26	1H	330	A

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Mol	Chain	Res	Type
26	1H	331	A
26	1H	333	G
26	1H	334	C
26	1H	335	C
26	1H	342	G
26	1H	346	A
26	1H	347	A
26	1H	352	G
26	1H	363	G
26	1H	363(A)	A
26	1H	363(E)	U
26	1H	363(F)	A
26	1H	364	C
26	1H	372	G
26	1H	386	G
26	1H	389	G
26	1H	396	G
26	1H	404	C
26	1H	405	U
26	1H	406	G
26	1H	411	G
26	1H	418	G
26	1H	428	A
26	1H	443	A
26	1H	444	C
26	1H	448	U
26	1H	452	G
26	1H	455	C
26	1H	457	A
26	1H	459	U
26	1H	460	A
26	1H	470	A
26	1H	481	G
26	1H	482	A
26	1H	489	G
26	1H	501	A
26	1H	505	A
26	1H	508	G
26	1H	509	C
26	1H	510	C
26	1H	528	A
26	1H	529	A

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Mol	Chain	Res	Type
26	1H	530	G
26	1H	531	C
26	1H	532	A
26	1H	533	G
26	1H	537	C
26	1H	545	G
26	1H	546	C
26	1H	548	A
26	1H	549	G
26	1H	563	G
26	1H	564	C
26	1H	573	G
26	1H	575	A
26	1H	598	G
26	1H	603	A
26	1H	607	U
26	1H	609(A)	G
26	1H	614	U
26	1H	615	G
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	651	G
26	1H	654	A
26	1H	654(A)	A
26	1H	654(B)	C
26	1H	654(C)	G
26	1H	654(D)	G
26	1H	654(O)	G
26	1H	654(P)	G
26	1H	654(Q)	C
26	1H	654(S)	G
26	1H	654(T)	A
26	1H	668	G
26	1H	669	G

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Mol	Chain	Res	Type
26	1H	672	C
26	1H	677	A
26	1H	686	G
26	1H	703	U
26	1H	704	G
26	1H	712	G
26	1H	715	G
26	1H	717	G
26	1H	730	C
26	1H	736	C
26	1H	738	G
26	1H	747	U
26	1H	748	G
26	1H	751	A
26	1H	752	A
26	1H	753	C
26	1H	762	U
26	1H	775	G
26	1H	776	G
26	1H	782	A
26	1H	784	A
26	1H	785	G
26	1H	790	C
26	1H	792	G
26	1H	793	A
26	1H	802	A
26	1H	805	G
26	1H	812	C
26	1H	824	A
26	1H	827	U
26	1H	828	U
26	1H	830	G
26	1H	832	G
26	1H	836	G
26	1H	845	G
26	1H	846	C
26	1H	847	U
26	1H	859	G
26	1H	860	U
26	1H	866	A
26	1H	870	A
26	1H	879	G

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Mol	Chain	Res	Type
26	1H	881	G
26	1H	882	G
26	1H	894	C
26	1H	895	U
26	1H	898	C
26	1H	900	A
26	1H	901	A
26	1H	902	C
26	1H	907	U
26	1H	910	A
26	1H	917	A
26	1H	918	A
26	1H	926	A
26	1H	932	G
26	1H	941	A
26	1H	945	A
26	1H	946	G
26	1H	953	A
26	1H	958	U
26	1H	959	A
26	1H	961	C
26	1H	968	G
26	1H	974	G
26	1H	974(A)	C
26	1H	982	C
26	1H	983	A
26	1H	995	C
26	1H	996	A
26	1H	1003	G
26	1H	1005	C
26	1H	1011	G
26	1H	1012	U
26	1H	1013	C
26	1H	1020	A
26	1H	1022	G
26	1H	1023	U
26	1H	1025	G
26	1H	1026	U
26	1H	1027	A
26	1H	1033	U
26	1H	1038	C
26	1H	1039	G

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Mol	Chain	Res	Type
26	1H	1040	C
26	1H	1045	A
26	1H	1046	A
26	1H	1047	G
26	1H	1048	A
26	1H	1051	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	1122	G
26	1H	1126	A
26	1H	1128	A
26	1H	1129	A
26	1H	1130	U
26	1H	1135	C
26	1H	1136	G
26	1H	1138	G
26	1H	1139	G
26	1H	1142	U
26	1H	1142(A)	A
26	1H	1149	G
26	1H	1151	G
26	1H	1156	A
26	1H	1170	G
26	1H	1171	G
26	1H	1174	A
26	1H	1175	U
26	1H	1176	G
26	1H	1177	A
26	1H	1178	C
26	1H	1179	C
26	1H	1192	G
26	1H	1195	G
26	1H	1204	A
26	1H	1205	U
26	1H	1206	G
26	1H	1210	A

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Mol	Chain	Res	Type
26	1H	1211	U
26	1H	1218	C
26	1H	1220	A
26	1H	1221	C
26	1H	1225	C
26	1H	1228	G
26	1H	1229(A)	G
26	1H	1234	U
26	1H	1237	A
26	1H	1244	G
26	1H	1250	G
26	1H	1253	A
26	1H	1256	G
26	1H	1265	A
26	1H	1271	G
26	1H	1272	A
26	1H	1273	U
26	1H	1287	A
26	1H	1288	U
26	1H	1296	G
26	1H	1298	C
26	1H	1300	U
26	1H	1301	A
26	1H	1302	A
26	1H	1303	G
26	1H	1329	U
26	1H	1332	G
26	1H	1344	G
26	1H	1345	C
26	1H	1348	G
26	1H	1349	A
26	1H	1359	A
26	1H	1360	A
26	1H	1365	A
26	1H	1370	C
26	1H	1373	A
26	1H	1380	G
26	1H	1385	G
26	1H	1386	C
26	1H	1395	A
26	1H	1403	C
26	1H	1416	G

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Mol	Chain	Res	Type
26	1H	1417	C
26	1H	1419	A
26	1H	1420	U
26	1H	1421	G
26	1H	1427	A
26	1H	1428	C
26	1H	1429	G
26	1H	1430	C
26	1H	1431	U
26	1H	1437	C
26	1H	1444(A)	A
26	1H	1449	A
26	1H	1449(A)	G
26	1H	1455	G
26	1H	1456	G
26	1H	1458	C
26	1H	1459	G
26	1H	1460	A
26	1H	1461	G
26	1H	1462	C
26	1H	1467	C
26	1H	1471	A
26	1H	1490	A
26	1H	1492	G
26	1H	1493	C
26	1H	1494	A
26	1H	1496	A
26	1H	1497	U
26	1H	1506	C
26	1H	1508	A
26	1H	1509	C
26	1H	1510	A
26	1H	1511	A
26	1H	1519	G
26	1H	1520	U
26	1H	1522	G
26	1H	1526	G
26	1H	1533	C
26	1H	1534	G
26	1H	1535	U
26	1H	1537	C
26	1H	1538	G

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Mol	Chain	Res	Type
26	1H	1540	G
26	1H	1543	A
26	1H	1545	A
26	1H	1548	C
26	1H	1554	A
26	1H	1558	A
26	1H	1559	G
26	1H	1560	G
26	1H	1565	C
26	1H	1566	A
26	1H	1569	A
26	1H	1578	U
26	1H	1580	A
26	1H	1585	C
26	1H	1586	A
26	1H	1587	A
26	1H	1606	G
26	1H	1608	A
26	1H	1609	A
26	1H	1610	A
26	1H	1617	C
26	1H	1618	A
26	1H	1626	G
26	1H	1635	G
26	1H	1636	C
26	1H	1639	U
26	1H	1640	C
26	1H	1644	C
26	1H	1647	G
26	1H	1648	C
26	1H	1651	G
26	1H	1654	A
26	1H	1666	G
26	1H	1674	G
26	1H	1675	C
26	1H	1706	U
26	1H	1728	G
26	1H	1729	A
26	1H	1730	U
26	1H	1731	G
26	1H	1732	A
26	1H	1733	G

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Mol	Chain	Res	Type
26	1H	1734	C
26	1H	1735	C
26	1H	1746	G
26	1H	1756	G
26	1H	1758	G
26	1H	1763	G
26	1H	1764	G
26	1H	1773	A
26	1H	1776	G
26	1H	1791	A
26	1H	1799	G
26	1H	1800	C
26	1H	1801	G
26	1H	1802	A
26	1H	1816	G
26	1H	1819	A
26	1H	1829	A
26	1H	1833	U
26	1H	1835	G
26	1H	1836	C
26	1H	1839	G
26	1H	1847	A
26	1H	1853	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	1896	G
26	1H	1900	A
26	1H	1901	A
26	1H	1904	G
26	1H	1906	G
26	1H	1913	A
26	1H	1914	C
26	1H	1919	A
26	1H	1920	C
26	1H	1929	G
26	1H	1930	G
26	1H	1931	U
26	1H	1933	G

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Mol	Chain	Res	Type
26	1H	1938	A
26	1H	1945	G
26	1H	1955	U
26	1H	1963	U
26	1H	1967	C
26	1H	1969	A
26	1H	1970	A
26	1H	1971	A
26	1H	1972	A
26	1H	1982	C
26	1H	1992	G
26	1H	1993	U
26	1H	1994	C
26	1H	2020	A
26	1H	2023	G
26	1H	2031	A
26	1H	2032	G
26	1H	2033	A
26	1H	2035	G
26	1H	2036	C
26	1H	2043	C
26	1H	2047	U
26	1H	2049	G
26	1H	2052	G
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	2069	G
26	1H	2077	A
26	1H	2082	A
26	1H	2096	U
26	1H	2099	U
26	1H	2108	C
26	1H	2110	G
26	1H	2111	C
26	1H	2112	G
26	1H	2113	U
26	1H	2114	A
26	1H	2115	G

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Mol	Chain	Res	Type
26	1H	2116	G
26	1H	2117	A
26	1H	2119	A
26	1H	2120	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	2138	C
26	1H	2139	C
26	1H	2144	U
26	1H	2145	C
26	1H	2146	C
26	1H	2147	G
26	1H	2148	G
26	1H	2150	U
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	2164	C
26	1H	2165	G
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	2177	C
26	1H	2180	U
26	1H	2181	G
26	1H	2186	G

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Mol	Chain	Res	Type
26	1H	2189	U
26	1H	2190	G
26	1H	2192	G
26	1H	2193	G
26	1H	2197	U
26	1H	2198	A
26	1H	2199	A
26	1H	2210	G
26	1H	2211	G
26	1H	2212	A
26	1H	2213	U
26	1H	2215	G
26	1H	2225	A
26	1H	2226	C
26	1H	2232	U
26	1H	2235	G
26	1H	2237	G
26	1H	2238	G
26	1H	2240	C
26	1H	2267	A
26	1H	2269	A
26	1H	2273	A
26	1H	2275	C
26	1H	2279	G
26	1H	2280	G
26	1H	2281	C
26	1H	2283	C
26	1H	2287	A
26	1H	2296	U
26	1H	2305	A
26	1H	2307	G
26	1H	2308	G
26	1H	2310	A
26	1H	2311	A
26	1H	2312	U
26	1H	2314	C
26	1H	2315	G
26	1H	2317	C
26	1H	2320	A
26	1H	2324	C
26	1H	2325	G
26	1H	2326	C

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Mol	Chain	Res	Type
26	1H	2327	A
26	1H	2334	G
26	1H	2336	A
26	1H	2337	G
26	1H	2345	G
26	1H	2346	A
26	1H	2347	C
26	1H	2350	C
26	1H	2352	A
26	1H	2355	C
26	1H	2356	C
26	1H	2357	U
26	1H	2372	G
26	1H	2376	A
26	1H	2377	A
26	1H	2383	G
26	1H	2385	C
26	1H	2391	G
26	1H	2393	A
26	1H	2395	C
26	1H	2402	C
26	1H	2403	C
26	1H	2406	U
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	2435	A
26	1H	2439	A
26	1H	2440	C
26	1H	2441	C
26	1H	2442	C
26	1H	2445	G
26	1H	2448	A
26	1H	2453	A
26	1H	2468	G
26	1H	2469	A

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Mol	Chain	Res	Type
26	1H	2470	G
26	1H	2474	C
26	1H	2476	A
26	1H	2477	C
26	1H	2478	A
26	1H	2481	G
26	1H	2484	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	2520	C
26	1H	2525	G
26	1H	2529	G
26	1H	2554	U
26	1H	2564	A
26	1H	2566	A
26	1H	2567	G
26	1H	2573	C
26	1H	2574	G
26	1H	2582	G
26	1H	2602	A
26	1H	2609	U
26	1H	2611	U
26	1H	2612	C
26	1H	2615	U
26	1H	2629	A
26	1H	2632	A
26	1H	2636	U
26	1H	2637	U
26	1H	2647	U
26	1H	2654	A
26	1H	2661	G
26	1H	2665	A
26	1H	2673	G
26	1H	2679	A
26	1H	2681	C
26	1H	2682	U
26	1H	2683	C

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Mol	Chain	Res	Type
26	1H	2689	U
26	1H	2699	C
26	1H	2702	U
26	1H	2703	C
26	1H	2707	G
26	1H	2712(A)	A
26	1H	2713	A
26	1H	2718	G
26	1H	2719	G
26	1H	2721	A
26	1H	2723	C
26	1H	2726	U
26	1H	2733	A
26	1H	2736	G
26	1H	2738	A
26	1H	2739	U
26	1H	2756	U
26	1H	2757	A
26	1H	2764	A
26	1H	2765	A
26	1H	2766	G
26	1H	2777	G
26	1H	2778	A
26	1H	2779	U
26	1H	2789	C
26	1H	2790	A
26	1H	2791	C
26	1H	2793	G
26	1H	2794	C
26	1H	2795	G
26	1H	2797	U
26	1H	2798	C
26	1H	2801	A
26	1H	2803	C
26	1H	2808	U
26	1H	2813	A
26	1H	2818	G
26	1H	2820	A
26	1H	2821	A
26	1H	2830	G
26	1H	2833	G
26	1H	2834	G

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Mol	Chain	Res	Type
26	1H	2835	A
26	1H	2836	U
26	1H	2849	U
26	1H	2850	A
26	1H	2864	G
26	1H	2872	G
26	1H	2874	C
26	1H	2876	G
26	1H	2887	U
26	1H	2892	A
26	1H	2894	G
26	1H	2895	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	25	A
27	16	33	G
27	16	39	A
27	16	45	A
27	16	56	G
27	16	65	C
27	16	67	G
27	16	73	A
27	16	74	U
27	16	81	G
27	16	109	G
1	1G	5	U
1	1G	6	G
1	1G	7	G
1	1G	9	G
1	1G	13	U
1	1G	21	G
1	1G	23	C
1	1G	27	G
1	1G	31	G
1	1G	32	A
1	1G	39	G
1	1G	47	C
1	1G	48	C

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Mol	Chain	Res	Type
1	1G	50	A
1	1G	51	A
1	1G	54	C
1	1G	64	G
1	1G	65	U
1	1G	76	G
1	1G	79	G
1	1G	80	G
1	1G	81	G
1	1G	82	U
1	1G	89	U
1	1G	90	C
1	1G	91	C
1	1G	92	G
1	1G	95	G
1	1G	101	A
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	173	U
1	1G	174	C
1	1G	179	A
1	1G	182	U
1	1G	185	A
1	1G	186	C
1	1G	188	U
1	1G	189	U
1	1G	190	G
1	1G	191(A)	G
1	1G	191(D)	U
1	1G	191(E)	G
1	1G	195	A
1	1G	196	A

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Mol	Chain	Res	Type
1	1G	197	A
1	1G	198	G
1	1G	201	C
1	1G	209	U
1	1G	210	U
1	1G	216	G
1	1G	247	G
1	1G	250	A
1	1G	251	G
1	1G	256	U
1	1G	266	G
1	1G	267	C
1	1G	270	A
1	1G	279	A
1	1G	281	G
1	1G	289	G
1	1G	318	G
1	1G	321	A
1	1G	328	C
1	1G	329	A
1	1G	332	G
1	1G	344	A
1	1G	346	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	367	U
1	1G	372	C
1	1G	373	A
1	1G	388	G
1	1G	397	A
1	1G	398	C
1	1G	406	G
1	1G	412	A
1	1G	413	G
1	1G	414	A
1	1G	417	C
1	1G	421	U

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Mol	Chain	Res	Type
1	1G	422	C
1	1G	423	G
1	1G	424	G
1	1G	429	U
1	1G	430	A
1	1G	433	C
1	1G	439	A
1	1G	451	A
1	1G	452	A
1	1G	456	C
1	1G	458	C
1	1G	465	A
1	1G	466	C
1	1G	467	G
1	1G	475	G
1	1G	476	G
1	1G	482	A
1	1G	484	G
1	1G	485	G
1	1G	486	U
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	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	544	G
1	1G	547	A
1	1G	559	A
1	1G	561	U
1	1G	572	A
1	1G	573	A
1	1G	576	G
1	1G	577	G
1	1G	596	C

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Mol	Chain	Res	Type
1	1G	604	G
1	1G	607	A
1	1G	614	A
1	1G	618	C
1	1G	621	A
1	1G	630	G
1	1G	631	G
1	1G	632	A
1	1G	635	G
1	1G	651	C
1	1G	653	A
1	1G	661	G
1	1G	663	A
1	1G	665	A
1	1G	687	A
1	1G	688	G
1	1G	706	A
1	1G	723	U
1	1G	724	G
1	1G	731	G
1	1G	744	C
1	1G	749	C
1	1G	755	G
1	1G	762	C
1	1G	765	G
1	1G	769	G
1	1G	777	A
1	1G	793	U
1	1G	794	A
1	1G	802	A
1	1G	816	A
1	1G	817	C
1	1G	819	A
1	1G	821	G
1	1G	828	A
1	1G	842	C
1	1G	843	U
1	1G	848	C
1	1G	853	G
1	1G	854	G
1	1G	857	C
1	1G	858	G

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Mol	Chain	Res	Type
1	1G	859	A
1	1G	862	C
1	1G	874	G
1	1G	914	A
1	1G	916	G
1	1G	922	G
1	1G	926	G
1	1G	927	G
1	1G	934	C
1	1G	935	A
1	1G	942	G
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	980	C
1	1G	982	U
1	1G	983	A
1	1G	991	U
1	1G	992	U
1	1G	993	G
1	1G	994	A
1	1G	996	A
1	1G	1001	G
1	1G	1003	G
1	1G	1004	A
1	1G	1006	C
1	1G	1008	C
1	1G	1009	G
1	1G	1023	G
1	1G	1024	G
1	1G	1026	G
1	1G	1028	C

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Mol	Chain	Res	Type
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
1	1G	1032(A)	G
1	1G	1034	G
1	1G	1036	G
1	1G	1037	C
1	1G	1040	U
1	1G	1041	A
1	1G	1042	G
1	1G	1046	A
1	1G	1050	G
1	1G	1051	C
1	1G	1053	G
1	1G	1054	C
1	1G	1055	A
1	1G	1060	C
1	1G	1064	G
1	1G	1081	G
1	1G	1082	G
1	1G	1084	G
1	1G	1088	G
1	1G	1092	A
1	1G	1094	G
1	1G	1095	U
1	1G	1096	C
1	1G	1098	C
1	1G	1099	G
1	1G	1101	A
1	1G	1114	C
1	1G	1117	G
1	1G	1118	C
1	1G	1123	A
1	1G	1124	G
1	1G	1125	U
1	1G	1126	U
1	1G	1127	G
1	1G	1128	C
1	1G	1129	C

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Mol	Chain	Res	Type
1	1G	1131	G
1	1G	1134	G
1	1G	1135	U
1	1G	1137	C
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	1150	U
1	1G	1157	A
1	1G	1158	C
1	1G	1159	U
1	1G	1164	G
1	1G	1171	G
1	1G	1177	G
1	1G	1178	G
1	1G	1181	G
1	1G	1182	G
1	1G	1183	A
1	1G	1184	G
1	1G	1188	A
1	1G	1189	C
1	1G	1190	G
1	1G	1191	A
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	1215	G
1	1G	1220	G
1	1G	1223	C
1	1G	1227	A
1	1G	1238	A

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Mol	Chain	Res	Type
1	1G	1240	U
1	1G	1241	G
1	1G	1250	A
1	1G	1256	A
1	1G	1257	U
1	1G	1258	G
1	1G	1260	C
1	1G	1265	G
1	1G	1267	C
1	1G	1268	A
1	1G	1275	A
1	1G	1279	A
1	1G	1280	A
1	1G	1281	U
1	1G	1282	C
1	1G	1286	A
1	1G	1287	A
1	1G	1288	A
1	1G	1289	A
1	1G	1293	G
1	1G	1297	C
1	1G	1299	A
1	1G	1300	G
1	1G	1301	U
1	1G	1302	U
1	1G	1305	G
1	1G	1313	U
1	1G	1317	C
1	1G	1318	A
1	1G	1320	C
1	1G	1322	C
1	1G	1323	G
1	1G	1331	G
1	1G	1335	C
1	1G	1336	C
1	1G	1338	G
1	1G	1346	A
1	1G	1347	G
1	1G	1353	G
1	1G	1358	U
1	1G	1362(A)	C
1	1G	1363	A

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Mol	Chain	Res	Type
1	1G	1364	U
1	1G	1369	C
1	1G	1370	G
1	1G	1379	G
1	1G	1381	U
1	1G	1392	G
1	1G	1397	C
1	1G	1398	A
1	1G	1399	C
1	1G	1419	G
1	1G	1442	G
1	1G	1443	G
1	1G	1446	A
1	1G	1448	C
1	1G	1450	U
1	1G	1451	A
1	1G	1453	G
1	1G	1472	U
1	1G	1478	C
1	1G	1492	A
1	1G	1498	U
1	1G	1499	A
1	1G	1502	A
1	1G	1503	A
1	1G	1504	G
1	1G	1506	U
1	1G	1507	A
1	1G	1517	G
1	1G	1520	G
1	1G	1529	G
1	1G	1530	G
1	1G	1531	A
1	1G	1532	U
1	1G	1533	C
1	1G	1534	A
1	1G	1535	C
22	1L	2	G
22	1L	3	G
22	1L	4	U
22	1L	6	G
22	1L	7	U
22	1L	8	U

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Mol	Chain	Res	Type
22	1L	9	A
22	1L	10	G
22	1L	12	U
22	1L	13	C
22	1L	17	U
22	1L	18	G
22	1L	19	G
22	1L	20	U
22	1L	26	A
22	1L	30	G
22	1L	34	U8U
22	1L	35	U
22	1L	36	U
22	1L	41	A
22	1L	44	U
22	1L	45	G
22	1L	49	G
22	1L	53	G
22	1L	54	5MU
22	1L	66	A
22	1L	67	C
22	1L	69	A
22	1L	70	C
22	1L	73	A
22	1L	74	C
22	1L	75	C
23	2L	2	G
23	2L	8	4SU
23	2L	9	G
23	2L	16	C
23	2L	18	C
23	2L	19	G
23	2L	21	U
23	2L	22	A
23	2L	23	G
23	2L	32	G
23	2L	34	U
23	2L	47	G7M
23	2L	48	U
23	2L	49	C
23	2L	50	G
23	2L	55	5MU

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Mol	Chain	Res	Type
23	2L	57	C
23	2L	68	C
23	2L	77	A
24	3L	2	G
24	3L	7	U
24	3L	9	A
24	3L	11	C
24	3L	12	U
24	3L	13	C
24	3L	15	G
24	3L	16	U
24	3L	17	U
24	3L	18	G
24	3L	19	G
24	3L	20	U
24	3L	21	A
24	3L	26	A
24	3L	31	A
24	3L	33	U
24	3L	35	U
24	3L	36	U
24	3L	40	C
24	3L	41	A
24	3L	42	A
24	3L	43	U
24	3L	46	G
24	3L	47	U
24	3L	48	C
24	3L	51	A
24	3L	56	C
24	3L	57	G
24	3L	58	A
24	3L	61	C
24	3L	65	C
24	3L	73	A
24	3L	76	A
25	4L	8	A
25	4L	9	G
25	4L	11	U
25	4L	13	A
25	4L	14	A
25	4L	15	A

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Mol	Chain	Res	Type
25	4L	19	U
25	4L	21	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	10	G
26	14	11	G
26	14	15	G
26	14	16	G
26	14	34	C
26	14	35	G
26	14	36	G
26	14	46	C
26	14	49	A
26	14	50	U
26	14	58	G
26	14	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	91	A
26	14	93	C
26	14	95	G
26	14	99	U
26	14	101	G
26	14	102	G
26	14	118	A
26	14	119	A
26	14	120	U
26	14	125	G
26	14	129	C
26	14	131	G
26	14	154	G

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Mol	Chain	Res	Type
26	14	155	C
26	14	161	U
26	14	162	U
26	14	172	C
26	14	174	C
26	14	175	G
26	14	181	A
26	14	182	A
26	14	196	A
26	14	199	A
26	14	201	C
26	14	205	G
26	14	214	G
26	14	215	G
26	14	216	A
26	14	221	A
26	14	222	A
26	14	225	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	267	C
26	14	270(F)	U
26	14	270(K)	C
26	14	270(L)	U
26	14	270(O)	U
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	277	C
26	14	278	A
26	14	279	C
26	14	283	A

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Mol	Chain	Res	Type
26	14	289	A
26	14	290	G
26	14	298	G
26	14	311	A
26	14	327	G
26	14	329	G
26	14	330	A
26	14	331	A
26	14	352	G
26	14	361	G
26	14	362	U
26	14	363	G
26	14	363(D)	G
26	14	372	G
26	14	375	C
26	14	380	U
26	14	386	G
26	14	395	U
26	14	396	G
26	14	404	C
26	14	405	U
26	14	407	G
26	14	411	G
26	14	412	A
26	14	416	C
26	14	428	A
26	14	429	A
26	14	443	A
26	14	444	C
26	14	448	U
26	14	451	C
26	14	454	A
26	14	455	C
26	14	457	A
26	14	459	U
26	14	460	A
26	14	467	G
26	14	470	A
26	14	471	A
26	14	478	A
26	14	480	A
26	14	481	G

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Mol	Chain	Res	Type
26	14	483	A
26	14	505	A
26	14	508	G
26	14	509	C
26	14	512	G
26	14	528	A
26	14	529	A
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	563	G
26	14	564	C
26	14	568	U
26	14	572	A
26	14	573	G
26	14	575	A
26	14	586	A
26	14	593	G
26	14	598	G
26	14	603	A
26	14	604	G
26	14	607	U
26	14	613	U
26	14	615	G
26	14	617	G
26	14	620	G
26	14	621	A
26	14	622	G
26	14	627	A
26	14	634	C
26	14	637	A
26	14	641	C
26	14	643	A
26	14	645	C
26	14	646	A
26	14	649	G
26	14	650	C
26	14	651	G

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Mol	Chain	Res	Type
26	14	654	A
26	14	654(A)	A
26	14	654(B)	C
26	14	654(D)	G
26	14	654(S)	G
26	14	654(T)	A
26	14	656	G
26	14	664	C
26	14	668	G
26	14	669	G
26	14	671	C
26	14	673	C
26	14	682	G
26	14	686	G
26	14	708	C
26	14	709	U
26	14	717	G
26	14	722	A
26	14	730	C
26	14	731	C
26	14	738	G
26	14	740	U
26	14	748	G
26	14	751	A
26	14	753	C
26	14	764	A
26	14	765	G
26	14	770	G
26	14	771	G
26	14	775	G
26	14	776	G
26	14	779	U
26	14	782	A
26	14	784	A
26	14	785	G
26	14	789	A
26	14	792	G
26	14	805	G
26	14	812	C
26	14	816	C
26	14	819	A
26	14	824	A

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Mol	Chain	Res	Type
26	14	827	U
26	14	828	U
26	14	831	G
26	14	832	G
26	14	845	G
26	14	846	C
26	14	848	G
26	14	857	C
26	14	859	G
26	14	865	C
26	14	866	A
26	14	869	G
26	14	875	G
26	14	877	U
26	14	878	A
26	14	879	G
26	14	880	G
26	14	897	C
26	14	899	A
26	14	901	A
26	14	904	C
26	14	910	A
26	14	911	A
26	14	914	C
26	14	915	C
26	14	917	A
26	14	926	A
26	14	930	U
26	14	931	G
26	14	932	G
26	14	933	A
26	14	941	A
26	14	945	A
26	14	946	G
26	14	958	U
26	14	959	A
26	14	961	C
26	14	962	G
26	14	974	G
26	14	980	A
26	14	983	A
26	14	990	A

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Mol	Chain	Res	Type
26	14	996	A
26	14	1002	G
26	14	1008	C
26	14	1009	A
26	14	1010	A
26	14	1012	U
26	14	1013	C
26	14	1015	G
26	14	1020	A
26	14	1022	G
26	14	1023	U
26	14	1025	G
26	14	1026	U
26	14	1028	A
26	14	1029	A
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	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	1088	A
26	14	1090	U
26	14	1091	G
26	14	1093	G
26	14	1099	G
26	14	1100	C

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Mol	Chain	Res	Type
26	14	1105	U
26	14	1106	G
26	14	1110	G
26	14	1112	G
26	14	1113	U
26	14	1114	G
26	14	1120	G
26	14	1122	G
26	14	1129	A
26	14	1130	U
26	14	1135	C
26	14	1136	G
26	14	1139	G
26	14	1142	U
26	14	1142(A)	A
26	14	1143	A
26	14	1147	C
26	14	1150	C
26	14	1151	G
26	14	1155	A
26	14	1157	G
26	14	1164	G
26	14	1170	G
26	14	1171	G
26	14	1173	G
26	14	1174	A
26	14	1175	U
26	14	1177	A
26	14	1178	C
26	14	1183	G
26	14	1194	A
26	14	1195	G
26	14	1204	A
26	14	1205	U
26	14	1212	G
26	14	1213	A
26	14	1220	A
26	14	1221	C
26	14	1229	G
26	14	1236	G
26	14	1237	A
26	14	1252	G

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Mol	Chain	Res	Type
26	14	1253	A
26	14	1256	G
26	14	1262	A
26	14	1271	G
26	14	1272	A
26	14	1273	U
26	14	1298	C
26	14	1300	U
26	14	1301	A
26	14	1303	G
26	14	1325	G
26	14	1326	U
26	14	1329	U
26	14	1345	C
26	14	1348	G
26	14	1349	A
26	14	1352	U
26	14	1359	A
26	14	1360	A
26	14	1365	A
26	14	1368	G
26	14	1369	G
26	14	1379	A
26	14	1380	G
26	14	1385	G
26	14	1386	C
26	14	1389	G
26	14	1390	U
26	14	1406	U
26	14	1408	C
26	14	1416	G
26	14	1417	C
26	14	1419	A
26	14	1420	U
26	14	1421	G
26	14	1424	G
26	14	1425	G
26	14	1428	C
26	14	1437	C
26	14	1444(A)	A
26	14	1445	C
26	14	1447	G

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Mol	Chain	Res	Type
26	14	1449	A
26	14	1449(A)	G
26	14	1451	C
26	14	1454	U
26	14	1455	G
26	14	1459	G
26	14	1460	A
26	14	1464	C
26	14	1467	C
26	14	1471	A
26	14	1479	G
26	14	1483	G
26	14	1486	A
26	14	1490	A
26	14	1493	C
26	14	1496	A
26	14	1500	G
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	1533	C
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	1570	A
26	14	1578	U
26	14	1580	A

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Mol	Chain	Res	Type
26	14	1585	C
26	14	1586	A
26	14	1588	C
26	14	1594	G
26	14	1595	G
26	14	1597	A
26	14	1598	C
26	14	1606	G
26	14	1607	C
26	14	1608	A
26	14	1609	A
26	14	1610	A
26	14	1614	A
26	14	1630(A)	C
26	14	1640	C
26	14	1644	C
26	14	1647	G
26	14	1648	C
26	14	1654	A
26	14	1664	A
26	14	1669	A
26	14	1674	G
26	14	1675	C
26	14	1680	U
26	14	1696	G
26	14	1700	A
26	14	1701	A
26	14	1703	G
26	14	1717	G
26	14	1725	G
26	14	1726	G
26	14	1729	A
26	14	1730	U
26	14	1731	G
26	14	1732	A
26	14	1742	C
26	14	1743	G
26	14	1756	G
26	14	1762	A
26	14	1763	G
26	14	1764	G
26	14	1773	A

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Mol	Chain	Res	Type
26	14	1776	G
26	14	1780	A
26	14	1781	C
26	14	1782	C
26	14	1791	A
26	14	1800	C
26	14	1801	G
26	14	1808	U
26	14	1816	G
26	14	1820	U
26	14	1828	G
26	14	1829	A
26	14	1839	G
26	14	1847	A
26	14	1858	G
26	14	1860	G
26	14	1870	C
26	14	1878	G
26	14	1886	C
26	14	1888	G
26	14	1889	A
26	14	1894	C
26	14	1900	A
26	14	1906	G
26	14	1909	C
26	14	1917	U
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	1947	C
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	1993	U
26	14	2016	U
26	14	2023	G

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Mol	Chain	Res	Type
26	14	2031	A
26	14	2032	G
26	14	2033	A
26	14	2039	C
26	14	2043	C
26	14	2055	C
26	14	2056	G
26	14	2060	A
26	14	2061	G
26	14	2062	A
26	14	2063	C
26	14	2069	G
26	14	2074	U
26	14	2088	G
26	14	2095	C
26	14	2099	U
26	14	2100	G
26	14	2108	C
26	14	2110	G
26	14	2111	C
26	14	2114	A
26	14	2115	G
26	14	2116	G
26	14	2117	A
26	14	2122	U
26	14	2124	G
26	14	2125	G
26	14	2126	A
26	14	2127	G
26	14	2128	C
26	14	2129	C
26	14	2130	U
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	2142	C
26	14	2145	C

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Mol	Chain	Res	Type
26	14	2146	C
26	14	2147	G
26	14	2148	G
26	14	2150	U
26	14	2151	G
26	14	2153	G
26	14	2157	G
26	14	2158	A
26	14	2162	G
26	14	2164	C
26	14	2165	G
26	14	2166	G
26	14	2168	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	2179	C
26	14	2186	G
26	14	2188	C
26	14	2189	U
26	14	2190	G
26	14	2191	G
26	14	2192	G
26	14	2198	A
26	14	2210	G
26	14	2211	G
26	14	2212	A
26	14	2213	U
26	14	2215	G
26	14	2225	A
26	14	2231	C
26	14	2238	G
26	14	2239	G
26	14	2249	U
26	14	2251	G
26	14	2259	G
26	14	2267	A
26	14	2269	A
26	14	2273	A

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Mol	Chain	Res	Type
26	14	2275	C
26	14	2276	G
26	14	2277	G
26	14	2278	A
26	14	2280	G
26	14	2283	C
26	14	2287	A
26	14	2288	A
26	14	2305	A
26	14	2307	G
26	14	2308	G
26	14	2309	A
26	14	2310	A
26	14	2311	A
26	14	2312	U
26	14	2318	G
26	14	2319	G
26	14	2321	G
26	14	2324	C
26	14	2325	G
26	14	2327	A
26	14	2328	A
26	14	2334	G
26	14	2336	A
26	14	2343	C
26	14	2346	A
26	14	2347	C
26	14	2350	C
26	14	2354	G
26	14	2357	U
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	2400	G
26	14	2402	C
26	14	2406	U
26	14	2407	G
26	14	2414	G
26	14	2422	A

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Mol	Chain	Res	Type
26	14	2429	G
26	14	2430	A
26	14	2431	U
26	14	2432	A
26	14	2434	A
26	14	2435	A
26	14	2439	A
26	14	2440	C
26	14	2441	C
26	14	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	2478	A
26	14	2487	G
26	14	2489	G
26	14	2496	C
26	14	2497	A
26	14	2502	G
26	14	2504	U
26	14	2505	G
26	14	2506	U
26	14	2513	G
26	14	2517	C
26	14	2518	A
26	14	2525	G
26	14	2529	G
26	14	2532	G
26	14	2542	A
26	14	2543	G
26	14	2554	U
26	14	2566	A
26	14	2567	G
26	14	2569	G
26	14	2573	C
26	14	2585	U
26	14	2599	G
26	14	2602	A
26	14	2608	G

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Mol	Chain	Res	Type
26	14	2609	U
26	14	2611	U
26	14	2612	C
26	14	2630	G
26	14	2634	G
26	14	2636	U
26	14	2665	A
26	14	2667	C
26	14	2673	G
26	14	2679	A
26	14	2689	U
26	14	2690	C
26	14	2702	U
26	14	2703	C
26	14	2707	G
26	14	2712(A)	A
26	14	2713	A
26	14	2714	G
26	14	2726	U
26	14	2729	G
26	14	2730	C
26	14	2733	A
26	14	2739	U
26	14	2744	G
26	14	2748	A
26	14	2750	A
26	14	2751	G
26	14	2752	C
26	14	2756	U
26	14	2758	A
26	14	2764	A
26	14	2765	A
26	14	2766	G
26	14	2777	G
26	14	2778	A
26	14	2779	U
26	14	2780	G
26	14	2790	A
26	14	2791	C
26	14	2792	G
26	14	2793	G
26	14	2794	C

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Mol	Chain	Res	Type
26	14	2795	G
26	14	2797	U
26	14	2798	C
26	14	2799	A
26	14	2801	A
26	14	2802	G
26	14	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	2835	A
26	14	2849	U
26	14	2860	A
26	14	2864	G
26	14	2872	G
26	14	2873	A
26	14	2874	C
26	14	2879	C
26	14	2880	C
26	14	2891	G
26	14	2892	A
26	14	2893	G
26	14	2894	G
26	14	2896	C
26	14	2899	G
27	1J	3	C
27	1J	8	U
27	1J	9	G
27	1J	10	C
27	1J	13	A
27	1J	15	A
27	1J	16	G
27	1J	22	U
27	1J	24	G
27	1J	26	A
27	1J	27	C
27	1J	28	C
27	1J	29	A
27	1J	30	C

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Mol	Chain	Res	Type
27	1J	40	U
27	1J	42	C
27	1J	44	G
27	1J	45	A
27	1J	53	A
27	1J	58	A
27	1J	59	A
27	1J	67	G
27	1J	73	A
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	101	A
27	1J	108	C
27	1J	109	G
27	1J	119	A

All (183) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	13	5	U
1	13	31	G
1	13	50	A
1	13	115	G
1	13	163	C
1	13	243	A
1	13	244	U
1	13	266	G
1	13	327	A
1	13	389	A
1	13	428	G
1	13	429	U
1	13	484	G
1	13	509	A
1	13	560	U
1	13	628	G
1	13	687	A
1	13	703	G
1	13	748	C

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Mol	Chain	Res	Type
1	13	793	U
1	13	871	U
1	13	913	A
1	13	992	U
1	13	1006	C
1	13	1065	U
1	13	1126	U
1	13	1157	A
1	13	1285	A
1	13	1336	C
1	13	1397	C
1	13	1498	U
1	13	1533	C
22	1K	6	G
22	1K	48	C
22	1K	69	A
23	2K	48	U
24	3K	2	G
24	3K	17	U
24	3K	58	A
25	4K	18	G
26	1H	70	G
26	1H	125	G
26	1H	196	A
26	1H	222	A
26	1H	242	G
26	1H	271(B)	G
26	1H	334	C
26	1H	404	C
26	1H	508	G
26	1H	528	A
26	1H	645	C
26	1H	668	G
26	1H	746	A
26	1H	752	A
26	1H	776	G
26	1H	845	G
26	1H	880	G
26	1H	974	G
26	1H	1022	G
26	1H	1026	U
26	1H	1047	G

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Mol	Chain	Res	Type
26	1H	1210	A
26	1H	1378	A
26	1H	1379	A
26	1H	1396	U
26	1H	1416	G
26	1H	1493	C
26	1H	1508	A
26	1H	1509	C
26	1H	1558	A
26	1H	1608	A
26	1H	1609	A
26	1H	1757	U
26	1H	1799	G
26	1H	1900	A
26	1H	1992	G
26	1H	2035	G
26	1H	2060	A
26	1H	2062	A
26	1H	2172	U
26	1H	2225	A
26	1H	2346	A
26	1H	2422	A
26	1H	2428	G
26	1H	2439	A
26	1H	2448	A
26	1H	2476	A
26	1H	2611	U
26	1H	2681	C
26	1H	2756	U
26	1H	2797	U
27	16	44	G
27	16	108	C
1	1G	64	G
1	1G	80	G
1	1G	89	U
1	1G	115	G
1	1G	143	A
1	1G	197	A
1	1G	250	A
1	1G	266	G
1	1G	327	A
1	1G	345	C

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Mol	Chain	Res	Type
1	1G	353	A
1	1G	412	A
1	1G	413	G
1	1G	429	U
1	1G	509	A
1	1G	560	U
1	1G	687	A
1	1G	748	C
1	1G	913	A
1	1G	992	U
1	1G	1126	U
1	1G	1137	C
1	1G	1139	G
1	1G	1145	C
1	1G	1157	A
1	1G	1285	A
1	1G	1300	G
1	1G	1442	G
1	1G	1498	U
1	1G	1533	C
22	1L	3	G
22	1L	6	G
22	1L	18	G
22	1L	48	C
22	1L	69	A
23	2L	33	OMC
23	2L	48	U
26	14	34	C
26	14	49	A
26	14	71	A
26	14	83	G
26	14	90	U
26	14	128	C
26	14	278	A
26	14	528	A
26	14	530	G
26	14	627	A
26	14	752	A
26	14	764	A
26	14	784	A
26	14	791	C
26	14	930	U

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Mol	Chain	Res	Type
26	14	960	A
26	14	1022	G
26	14	1141	U
26	14	1177	A
26	14	1379	A
26	14	1396	U
26	14	1416	G
26	14	1444(A)	A
26	14	1534	G
26	14	1558	A
26	14	1608	A
26	14	1609	A
26	14	1610	A
26	14	1819	A
26	14	1899	G
26	14	1936	A
26	14	1992	G
26	14	2107	C
26	14	2133	G
26	14	2173	A
26	14	2211	G
26	14	2238	G
26	14	2275	C
26	14	2308	G
26	14	2335	A
26	14	2406	U
26	14	2439	A
26	14	2477	C
26	14	2572	A
26	14	2598	A
26	14	2611	U
26	14	2629	A
26	14	2689	U
26	14	2776	A
26	14	2790	A
26	14	2859	G
27	1J	88	C
27	1J	89	G

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

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

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
22	5MU	1L	54	22	19,22,23	3.96	5 (26%)	28,32,35	3.36	9 (32%)
24	PSU	3K	39	24	18,21,22	1.26	1 (5%)	22,30,33	1.82	7 (31%)
23	OMC	2K	33	23	19,22,23	1.73	3 (15%)	26,31,34	1.14	2 (7%)
22	5MU	1K	54	22	19,22,23	3.70	5 (26%)	28,32,35	2.98	6 (21%)
22	U8U	1K	34	22	19,24,25	2.55	7 (36%)	23,34,37	1.05	2 (8%)
23	G7M	2L	47	23	23,26,27	2.65	8 (34%)	35,39,42	1.75	7 (20%)
23	4SU	2L	8	23	18,21,22	1.78	3 (16%)	26,30,33	2.60	4 (15%)
23	G7M	2K	47	23	23,26,27	2.52	9 (39%)	35,39,42	1.59	10 (28%)
22	T6A	1L	37	22	31,34,35	2.21	5 (16%)	44,49,52	2.29	14 (31%)
23	PSU	2K	56	23	18,21,22	1.23	2 (11%)	22,30,33	1.73	3 (13%)
23	4SU	2K	8	23	18,21,22	1.90	5 (27%)	26,30,33	2.73	8 (30%)
22	T6A	1K	37	22	31,34,35	2.30	8 (25%)	44,49,52	2.03	11 (25%)
23	PSU	2L	56	23	18,21,22	1.21	1 (5%)	22,30,33	1.83	4 (18%)
23	5MU	2L	55	23	19,22,23	3.86	5 (26%)	28,32,35	3.46	10 (35%)
22	U8U	1L	34	25,22	19,24,25	2.57	7 (36%)	23,34,37	0.91	2 (8%)
23	5MU	2K	55	23	19,22,23	3.69	5 (26%)	28,32,35	3.41	7 (25%)
22	PSU	1K	55	22	18,21,22	1.15	1 (5%)	22,30,33	1.50	4 (18%)
22	PSU	1L	55	22	18,21,22	1.13	1 (5%)	22,30,33	1.57	4 (18%)
24	PSU	3L	39	24	18,21,22	1.16	1 (5%)	22,30,33	1.43	2 (9%)
22	PSU	1K	39	22	18,21,22	0.92	1 (5%)	22,30,33	1.54	3 (13%)
23	OMC	2L	33	23	19,22,23	1.82	4 (21%)	26,31,34	1.27	2 (7%)
22	PSU	1L	39	22	18,21,22	1.10	1 (5%)	22,30,33	1.61	3 (13%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
22	5MU	1L	54	22	-	3/7/25/26	0/2/2/2

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

All (88) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	1L	54	5MU	C2-N1	12.96	1.59	1.38
23	2L	55	5MU	C2-N1	12.45	1.58	1.38
22	1K	54	5MU	C2-N1	11.70	1.57	1.38
23	2K	55	5MU	C2-N1	11.53	1.56	1.38
22	1L	37	T6A	C10-N11	7.10	1.50	1.35
22	1K	37	T6A	C10-N11	6.54	1.49	1.35
23	2L	55	5MU	C4-N3	-6.40	1.27	1.38
23	2K	47	G7M	C4-N3	6.32	1.49	1.34
22	1L	54	5MU	C4-N3	-6.23	1.27	1.38
23	2L	47	G7M	C4-N3	6.11	1.48	1.34
22	1K	37	T6A	C10-N6	6.09	1.50	1.37
22	1L	37	T6A	C10-N6	6.07	1.50	1.37
23	2K	55	5MU	C2-N3	5.98	1.48	1.38
23	2K	55	5MU	C4-N3	-5.87	1.27	1.38
22	1K	54	5MU	C4-N3	-5.75	1.28	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	47	G7M	C2-N3	5.61	1.46	1.33
22	1L	54	5MU	C2-N3	5.59	1.47	1.38
22	1K	34	U8U	C2-S2	-5.58	1.59	1.67
22	1K	54	5MU	C6-N1	5.57	1.47	1.38
22	1K	54	5MU	C2-N3	5.57	1.47	1.38
22	1L	34	U8U	C2-N3	5.55	1.50	1.37
23	2L	55	5MU	C2-N3	5.54	1.47	1.38
22	1L	54	5MU	C4-C5	5.44	1.53	1.44
23	2K	55	5MU	C6-N1	5.35	1.47	1.38
23	2L	47	G7M	C5-N7	-5.34	1.33	1.39
23	2L	8	4SU	C5-C4	5.31	1.49	1.42
23	2L	55	5MU	C4-C5	5.29	1.53	1.44
22	1K	34	U8U	C6-C5	5.28	1.49	1.34
23	2K	8	4SU	C5-C4	5.19	1.49	1.42
22	1L	34	U8U	C6-C5	5.18	1.49	1.34
22	1L	54	5MU	C6-N1	5.17	1.46	1.38
23	2K	47	G7M	C2-N3	5.14	1.45	1.33
22	1L	37	T6A	C6-N6	5.11	1.49	1.39
23	2L	33	OMC	C2-N3	5.06	1.46	1.36
23	2L	55	5MU	C6-N1	5.00	1.46	1.38
22	1K	54	5MU	C4-C5	4.95	1.53	1.44
22	1K	37	T6A	C6-N6	4.94	1.49	1.39
23	2K	55	5MU	C4-C5	4.80	1.52	1.44
23	2L	47	G7M	C2-N2	4.80	1.45	1.34
22	1L	34	U8U	C2-S2	-4.61	1.60	1.67
22	1K	34	U8U	C2-N3	4.59	1.48	1.37
23	2K	33	OMC	C2-N3	4.49	1.45	1.36
23	2K	8	4SU	C2-N1	4.38	1.45	1.38
22	1L	34	U8U	C6-N1	4.34	1.45	1.38
23	2K	33	OMC	C4-N4	4.33	1.44	1.33
23	2K	47	G7M	C5-N7	-4.31	1.34	1.39
22	1K	34	U8U	C6-N1	4.27	1.45	1.38
22	1K	55	PSU	C6-C5	4.11	1.40	1.35
23	2L	56	PSU	C6-C5	4.06	1.40	1.35
23	2L	33	OMC	C4-N4	4.03	1.43	1.33
23	2K	47	G7M	C5-C6	4.01	1.54	1.43
23	2K	47	G7M	C2-N2	3.97	1.43	1.34
24	3K	39	PSU	C6-C5	3.94	1.39	1.35
22	1L	39	PSU	C6-C5	3.88	1.39	1.35
22	1L	34	U8U	C4-N3	3.82	1.45	1.38
23	2L	47	G7M	C5-C6	3.82	1.54	1.43
24	3L	39	PSU	C6-C5	3.69	1.39	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2K	56	PSU	C6-C5	3.60	1.39	1.35
22	1L	55	PSU	C6-C5	3.39	1.39	1.35
22	1K	37	T6A	C4-N9	-3.30	1.30	1.37
23	2L	8	4SU	C2-N1	3.19	1.43	1.38
22	1K	37	T6A	C5-N7	-3.16	1.33	1.39
23	2L	33	OMC	C5-C4	3.08	1.50	1.42
23	2L	8	4SU	C6-N1	3.05	1.45	1.38
22	1K	34	U8U	C4-N3	3.02	1.44	1.38
23	2K	33	OMC	C5-C4	2.93	1.49	1.42
22	1K	39	PSU	C6-C5	2.91	1.38	1.35
23	2K	47	G7M	C2-N1	2.81	1.44	1.37
23	2L	47	G7M	C2-N1	2.78	1.44	1.37
23	2K	8	4SU	C4-N3	2.56	1.40	1.37
23	2L	47	G7M	C6-N1	2.55	1.43	1.38
23	2K	47	G7M	C6-N1	2.55	1.43	1.38
22	1K	37	T6A	C5-C6	-2.53	1.35	1.41
22	1L	37	T6A	ODB-C13	-2.51	1.22	1.30
22	1K	37	T6A	C5-C4	-2.49	1.34	1.39
23	2K	8	4SU	C6-N1	2.39	1.43	1.38
22	1K	34	U8U	O4-C4	-2.35	1.19	1.23
23	2K	47	G7M	C4-N9	-2.35	1.31	1.38
23	2L	47	G7M	O6-C6	-2.34	1.19	1.23
23	2L	33	OMC	C6-N1	2.32	1.43	1.38
22	1L	34	U8U	O4-C4	-2.26	1.19	1.23
23	2K	8	4SU	C2-N3	2.22	1.41	1.38
23	2K	56	PSU	C4-C5	-2.19	1.37	1.44
23	2K	47	G7M	O6-C6	-2.16	1.19	1.23
22	1L	34	U8U	C4-C5	2.14	1.49	1.45
22	1K	37	T6A	ODA-C13	2.08	1.28	1.22
22	1K	34	U8U	C4-C5	2.08	1.49	1.45
22	1L	37	T6A	C2-N1	2.05	1.37	1.33

All (124) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2K	55	5MU	C5-C4-N3	11.33	124.98	115.31
23	2L	55	5MU	C5-C4-N3	10.65	124.40	115.31
22	1K	54	5MU	C5-C4-N3	10.44	124.22	115.31
22	1L	54	5MU	C5-C4-N3	10.32	124.12	115.31
23	2L	8	4SU	C4-N3-C2	-8.55	119.04	127.34
23	2K	8	4SU	C4-N3-C2	-8.12	119.45	127.34
23	2L	8	4SU	C5-C4-N3	7.78	121.91	114.69

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	2L	55	5MU	C5-C6-N1	-7.17	115.97	123.34
23	2L	55	5MU	C4-N3-C2	-7.16	118.08	127.35
22	1L	54	5MU	C4-N3-C2	-6.87	118.46	127.35
23	2L	55	5MU	C6-C5-C4	6.67	123.61	118.03
23	2K	55	5MU	C4-N3-C2	-6.64	118.75	127.35
23	2K	55	5MU	C5-C6-N1	-6.61	116.54	123.34
22	1K	37	T6A	N3-C2-N1	-6.57	118.33	128.60
22	1L	54	5MU	C6-C5-C4	6.56	123.51	118.03
22	1L	54	5MU	C5-C6-N1	-6.53	116.62	123.34
22	1K	37	T6A	C12-N11-C10	6.27	132.39	121.94
22	1L	37	T6A	N6-C10-N11	6.15	122.34	113.76
23	2K	55	5MU	O4-C4-C5	-6.13	117.79	124.90
23	2K	8	4SU	C5-C4-S4	-6.09	116.62	124.47
22	1K	54	5MU	C5-C6-N1	-5.94	117.23	123.34
22	1L	37	T6A	N3-C2-N1	-5.66	119.75	128.60
22	1K	54	5MU	C4-N3-C2	-5.33	120.45	127.35
23	2K	55	5MU	C6-C5-C4	5.19	122.37	118.03
22	1K	54	5MU	O4-C4-C5	-5.02	119.09	124.90
22	1L	37	T6A	C5-C4-N3	-4.98	120.25	126.75
22	1L	54	5MU	C5M-C5-C6	-4.93	116.27	122.85
23	2L	56	PSU	C4-N3-C2	-4.86	119.34	126.34
23	2L	56	PSU	N1-C2-N3	4.71	120.46	115.13
23	2K	8	4SU	C5-C4-N3	4.65	119.00	114.69
23	2L	33	OMC	O2'-C2'-C1'	4.64	118.14	109.08
23	2L	55	5MU	C5M-C5-C6	-4.59	116.72	122.85
23	2L	55	5MU	O4-C4-C5	-4.53	119.65	124.90
23	2K	56	PSU	C4-N3-C2	-4.52	119.83	126.34
22	1K	39	PSU	C4-N3-C2	-4.45	119.93	126.34
24	3K	39	PSU	C4-N3-C2	-4.43	119.95	126.34
22	1K	54	5MU	C6-C5-C4	4.41	121.72	118.03
22	1L	37	T6A	O10-C10-N6	-4.25	116.44	123.62
23	2K	56	PSU	N1-C2-N3	4.24	119.94	115.13
23	2K	8	4SU	S4-C4-N3	4.23	124.38	120.21
23	2L	47	G7M	C5-C4-N3	-4.18	120.14	128.15
23	2L	47	G7M	C2-N3-C4	4.15	119.70	112.30
22	1L	39	PSU	C4-N3-C2	-4.12	120.40	126.34
24	3K	39	PSU	N1-C2-N3	4.12	119.79	115.13
22	1L	54	5MU	O4-C4-C5	-4.08	120.18	124.90
23	2K	55	5MU	C5M-C5-C6	-4.07	117.41	122.85
23	2K	8	4SU	N3-C2-N1	4.07	120.29	114.89
22	1L	55	PSU	C4-N3-C2	-4.05	120.50	126.34
22	1K	54	5MU	C5M-C5-C6	-3.97	117.54	122.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	3L	39	PSU	C4-N3-C2	-3.97	120.62	126.34
23	2L	47	G7M	C5-C6-N1	3.89	119.92	111.79
22	1L	37	T6A	N9-C8-N7	-3.88	108.60	113.91
23	2L	8	4SU	N3-C2-N1	3.75	119.87	114.89
22	1L	39	PSU	N1-C2-N3	3.75	119.38	115.13
23	2L	8	4SU	C5-C4-S4	-3.74	119.65	124.47
22	1K	37	T6A	N9-C8-N7	-3.72	108.82	113.91
22	1L	37	T6A	C4-C5-C6	3.67	119.65	116.81
22	1K	37	T6A	C4-C5-C6	3.63	119.62	116.81
23	2L	47	G7M	O6-C6-C5	-3.54	120.07	128.06
23	2K	55	5MU	O2-C2-N1	-3.52	118.10	122.79
23	2K	8	4SU	C1'-N1-C2	3.51	123.93	117.57
22	1L	37	T6A	C2-N3-C4	3.50	120.02	111.75
22	1L	55	PSU	N1-C2-N3	3.48	119.08	115.13
22	1K	39	PSU	N1-C2-N3	3.47	119.06	115.13
23	2L	47	G7M	C2-N1-C6	-3.43	118.84	125.10
22	1K	55	PSU	N1-C2-N3	3.40	118.99	115.13
22	1L	39	PSU	O2-C2-N1	-3.39	119.06	122.79
22	1L	37	T6A	C5-N7-C8	3.36	108.28	103.51
23	2K	47	G7M	CN7-N7-C5	3.31	130.88	126.77
23	2K	47	G7M	C1'-N9-C4	-3.25	116.84	126.50
24	3L	39	PSU	N1-C2-N3	3.24	118.81	115.13
22	1K	34	U8U	C5-C4-N3	3.24	119.51	114.97
22	1K	55	PSU	C4-N3-C2	-3.18	121.76	126.34
23	2L	55	5MU	N3-C2-N1	3.18	119.11	114.89
23	2K	47	G7M	C5-C6-N1	3.12	118.31	111.79
22	1L	54	5MU	N3-C2-N1	3.10	119.00	114.89
22	1L	37	T6A	ODB-C13-ODA	-3.00	117.28	124.09
23	2K	47	G7M	C5-C4-N3	-2.99	122.42	128.15
22	1L	54	5MU	C6-N1-C2	-2.98	118.28	121.30
24	3K	39	PSU	C6-C5-C4	2.95	120.26	118.20
23	2L	56	PSU	O2-C2-N1	-2.84	119.67	122.79
22	1K	55	PSU	C6-N1-C2	-2.83	119.79	122.68
23	2K	47	G7M	CN7-N7-C8	-2.80	120.52	124.84
22	1L	37	T6A	C4-C5-N7	-2.79	107.22	110.62
23	2K	47	G7M	C2-N3-C4	2.76	117.22	112.30
23	2K	56	PSU	C6-N1-C2	-2.76	119.86	122.68
22	1L	34	U8U	C5-C4-N3	2.73	118.81	114.97
23	2K	47	G7M	C2-N1-C6	-2.72	120.14	125.10
22	1K	37	T6A	C2-N1-C6	2.71	124.35	115.25
22	1L	34	U8U	O4-C4-C5	-2.69	120.96	124.96
22	1K	37	T6A	C4-N9-C8	2.68	108.63	105.73

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	1K	37	T6A	N6-C6-N1	2.63	124.20	117.45
23	2K	33	OMC	C1'-N1-C2	2.60	124.23	118.42
23	2L	47	G7M	N9-C4-N3	2.60	131.15	125.94
22	1L	37	T6A	C5-C4-N9	2.56	108.76	105.78
24	3K	39	PSU	O2-C2-N1	-2.54	120.00	122.79
22	1K	37	T6A	C6-C5-N7	-2.50	129.69	132.39
23	2K	47	G7M	O6-C6-C5	-2.48	122.47	128.06
23	2K	33	OMC	N4-C4-N3	2.46	122.28	117.97
23	2L	55	5MU	C6-N1-C2	-2.45	118.81	121.30
22	1K	37	T6A	C2-N3-C4	2.45	117.54	111.75
22	1K	37	T6A	C5-C4-N3	-2.40	123.62	126.75
22	1L	37	T6A	N3-C4-N9	2.37	130.98	127.08
22	1K	55	PSU	O2-C2-N1	-2.35	120.20	122.79
23	2L	33	OMC	N4-C4-N3	2.34	122.08	117.97
22	1L	55	PSU	C6-C5-C4	2.33	119.83	118.20
22	1L	54	5MU	O4-C4-N3	-2.30	115.70	120.12
23	2K	8	4SU	C6-C5-C4	2.26	121.91	119.95
23	2L	47	G7M	CN7-N7-C5	2.26	129.57	126.77
22	1K	39	PSU	O2-C2-N1	-2.25	120.31	122.79
24	3K	39	PSU	C6-N1-C2	-2.18	120.46	122.68
23	2L	55	5MU	O4-C4-N3	-2.18	115.95	120.12
22	1K	34	U8U	O4-C4-C5	-2.16	121.75	124.96
23	2K	47	G7M	N9-C8-N7	-2.16	106.88	112.21
23	2K	8	4SU	C1'-N1-C6	-2.14	116.18	120.84
22	1L	55	PSU	O4'-C1'-C2'	2.13	108.14	105.14
22	1K	37	T6A	C4-N9-C1'	-2.10	121.58	126.59
23	2K	47	G7M	C1'-N9-C8	2.09	133.79	126.74
22	1L	37	T6A	ODB-C13-C12	2.06	121.48	114.21
23	2L	56	PSU	C6-N1-C2	-2.05	120.59	122.68
24	3K	39	PSU	O4-C4-C5	-2.04	118.72	124.05
23	2L	55	5MU	O2-C2-N1	-2.02	120.10	122.79
24	3K	39	PSU	O4'-C1'-C2'	2.01	107.98	105.14
22	1L	37	T6A	C13-C12-N11	2.00	114.65	110.28

There are no chirality outliers.

All (36) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
22	1L	34	U8U	N-C-C5-C4
22	1L	37	T6A	C5-C6-N6-C10
22	1L	37	T6A	N1-C6-N6-C10
22	1L	54	5MU	O4'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
23	2L	47	G7M	O4'-C4'-C5'-O5'
22	1L	34	U8U	O4'-C4'-C5'-O5'
23	2K	8	4SU	O4'-C4'-C5'-O5'
22	1L	34	U8U	C3'-C4'-C5'-O5'
22	1L	54	5MU	C3'-C4'-C5'-O5'
23	2L	47	G7M	C3'-C4'-C5'-O5'
23	2L	55	5MU	C3'-C4'-C5'-O5'
23	2L	55	5MU	O4'-C4'-C5'-O5'
22	1K	37	T6A	N11-C12-C13-ODB
23	2K	8	4SU	C3'-C4'-C5'-O5'
22	1L	37	T6A	C13-C12-C14-O14
22	1L	37	T6A	C13-C12-C14-C15
22	1K	37	T6A	N11-C12-C13-ODA
22	1L	54	5MU	C4'-C5'-O5'-P
23	2L	55	5MU	C4'-C5'-O5'-P
22	1K	39	PSU	O4'-C1'-C5-C4
24	3K	39	PSU	O4'-C1'-C5-C4
22	1L	39	PSU	O4'-C1'-C5-C4
22	1L	55	PSU	O4'-C1'-C5-C4
22	1K	37	T6A	C13-C12-N11-C10
23	2L	33	OMC	C2'-C1'-N1-C6
23	2L	56	PSU	O4'-C4'-C5'-O5'
23	2L	33	OMC	O4'-C1'-N1-C6
22	1K	37	T6A	C14-C12-C13-ODB
24	3K	39	PSU	O4'-C1'-C5-C6
22	1L	55	PSU	O4'-C1'-C5-C6
23	2L	33	OMC	C4'-C5'-O5'-P
23	2L	8	4SU	O4'-C4'-C5'-O5'
23	2K	47	G7M	O4'-C4'-C5'-O5'
22	1L	37	T6A	N11-C12-C14-C15
23	2L	47	G7M	C2'-C1'-N9-C8
22	1L	34	U8U	N-C-C5-C6

There are no ring outliers.

12 monomers are involved in 25 short contacts:

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

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
23	2L	55	5MU	3	0
22	1L	34	U8U	1	0
23	2K	55	5MU	3	0
22	1L	55	PSU	2	0
22	1K	39	PSU	1	0
23	2L	33	OMC	3	0
22	1L	39	PSU	2	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1081 ligands modelled in this entry, 1077 are monoatomic - leaving 4 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
58	SF4	32	301	4	0,12,12	-	-	-		
58	SF4	3E	302	4	0,12,12	-	-	-		
57	PAR	13	1730	-	45,45,45	0.87	1 (2%)	64,67,67	2.10	21 (32%)
57	PAR	1G	1681	-	45,45,45	0.82	1 (2%)	64,67,67	1.71	11 (17%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
58	SF4	32	301	4	-	-	0/6/5/5
58	SF4	3E	302	4	-	-	0/6/5/5
57	PAR	13	1730	-	-	6/18/94/94	0/4/4/4
57	PAR	1G	1681	-	-	4/18/94/94	0/4/4/4

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	1G	1681	PAR	C31-C21	-2.75	1.50	1.53
57	13	1730	PAR	O54-C14	2.13	1.47	1.41

All (32) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	1G	1681	PAR	O52-C13-O43	-6.13	104.79	111.43
57	13	1730	PAR	O52-C13-O43	-5.61	105.35	111.43
57	13	1730	PAR	C32-C22-C12	-4.88	101.16	111.18
57	1G	1681	PAR	C14-O54-C54	4.67	122.86	113.69
57	1G	1681	PAR	C13-O52-C52	-4.49	106.84	117.96
57	13	1730	PAR	C11-C21-N21	-4.48	102.13	110.20
57	1G	1681	PAR	O54-C54-C64	3.77	113.03	106.01
57	13	1730	PAR	O62-C62-C52	3.76	119.92	109.94
57	13	1730	PAR	O51-C11-C21	3.63	118.24	110.06
57	13	1730	PAR	C11-O51-C51	3.58	120.71	113.69
57	13	1730	PAR	C22-C12-C62	-3.47	104.79	110.04
57	13	1730	PAR	C62-C12-N12	-3.45	104.14	110.97
57	1G	1681	PAR	O51-C11-C21	3.43	117.78	110.06
57	13	1730	PAR	O34-C34-C24	-3.30	104.28	110.22
57	13	1730	PAR	O51-C51-C41	3.14	115.39	109.69
57	13	1730	PAR	O11-C11-C21	-3.04	102.98	108.22
57	13	1730	PAR	C44-C34-C24	2.86	115.99	111.07
57	1G	1681	PAR	C14-O33-C33	-2.82	110.97	117.96
57	1G	1681	PAR	C11-O51-C51	2.78	119.14	113.69
57	13	1730	PAR	O54-C54-C64	2.78	111.18	106.01
57	13	1730	PAR	O11-C42-C32	-2.70	102.74	109.18
57	13	1730	PAR	C31-C21-N21	-2.67	105.57	111.05
57	13	1730	PAR	C11-C21-C31	2.62	117.08	110.21
57	1G	1681	PAR	C62-C12-N12	-2.57	105.88	110.97
57	13	1730	PAR	O33-C14-O54	2.44	117.50	110.67
57	13	1730	PAR	C14-O54-C54	2.31	118.22	113.69
57	13	1730	PAR	C34-C24-N24	2.28	115.72	111.05
57	1G	1681	PAR	C41-C31-C21	-2.25	107.21	111.07
57	13	1730	PAR	O34-C34-C44	-2.24	105.17	110.35
57	13	1730	PAR	C13-C23-C33	2.20	104.75	102.10
57	1G	1681	PAR	O41-C41-C31	-2.11	105.47	110.35
57	1G	1681	PAR	O51-C51-C41	2.09	113.49	109.69

There are no chirality outliers.

All (10) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
57	13	1730	PAR	O54-C54-C64-N64
57	1G	1681	PAR	O51-C51-C61-O61
57	1G	1681	PAR	C41-C51-C61-O61
57	13	1730	PAR	C41-C51-C61-O61
57	1G	1681	PAR	O51-C11-O11-C42
57	13	1730	PAR	C24-C14-O33-C33
57	13	1730	PAR	O43-C13-O52-C52
57	13	1730	PAR	O51-C51-C61-O61
57	1G	1681	PAR	C33-C43-C53-O53
57	13	1730	PAR	C23-C13-O52-C52

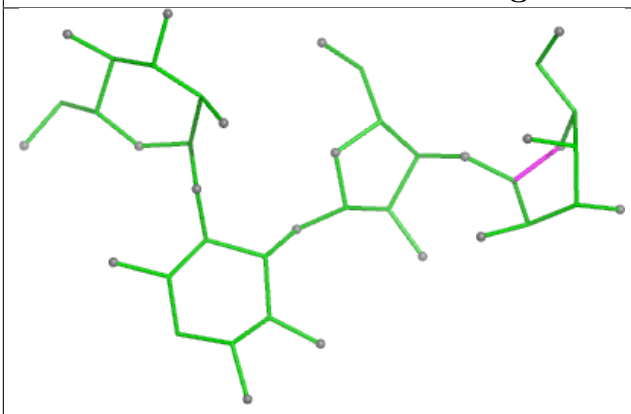
There are no ring outliers.

4 monomers are involved in 11 short contacts:

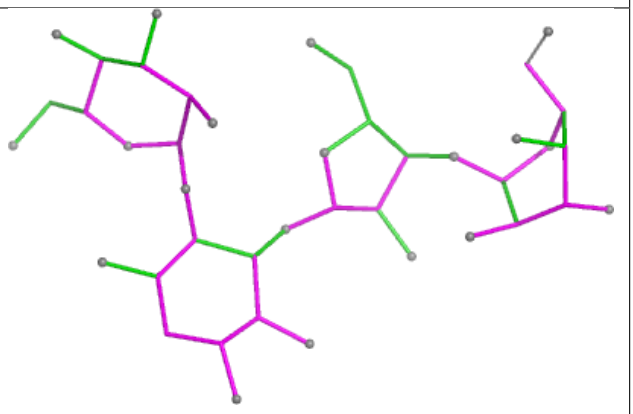
Mol	Chain	Res	Type	Clashes	Symm-Clashes
58	32	301	SF4	3	0
58	3E	302	SF4	3	0
57	13	1730	PAR	3	0
57	1G	1681	PAR	2	0

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

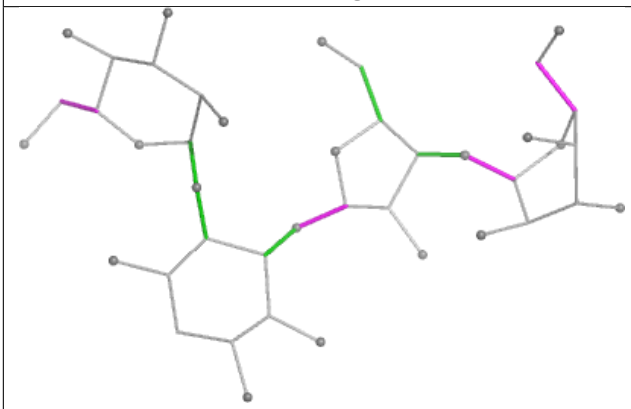
Ligand PAR 13 1730



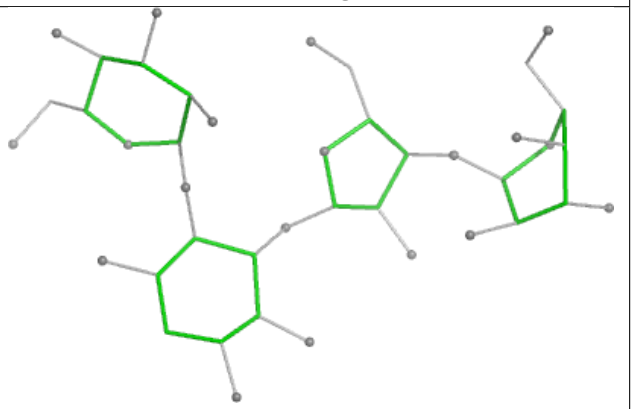
Bond lengths



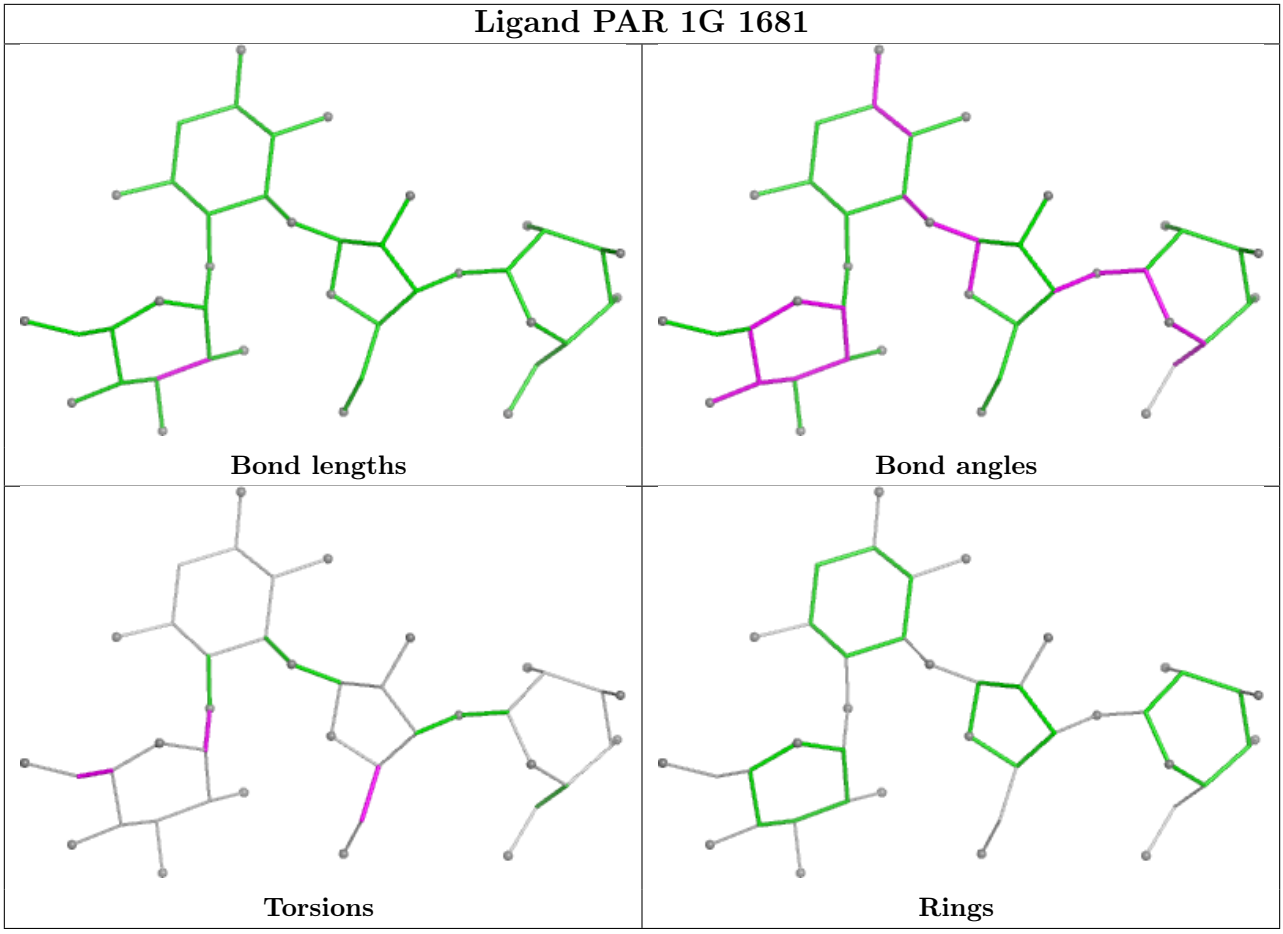
Bond angles



Torsions



Rings



5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

The following chains have linkage breaks:

Mol	Chain	Number of breaks
25	4K	1
37	35	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	4K	24:A	O3'	25:A	P	4.27
1	35	121:LYS	C	122:PRO	N	1.61

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	13	1496/1522 (98%)	-0.74	2 (0%) 92 86	64, 104, 160, 189	0
1	1G	1507/1522 (99%)	-0.71	4 (0%) 90 80	78, 123, 164, 193	0
2	12	210/256 (82%)	0.10	2 (0%) 79 61	121, 148, 157, 163	0
2	1E	231/256 (90%)	0.01	3 (1%) 75 56	112, 136, 153, 161	0
3	22	196/239 (82%)	0.12	4 (2%) 65 44	128, 141, 155, 161	0
3	2E	205/239 (85%)	-0.38	0 100 100	90, 109, 133, 144	0
4	32	208/209 (99%)	0.28	6 (2%) 53 32	101, 123, 139, 150	0
4	3E	207/209 (99%)	-0.09	1 (0%) 87 73	88, 106, 126, 133	0
5	42	148/162 (91%)	0.22	2 (1%) 73 53	110, 128, 140, 145	0
5	4E	149/162 (91%)	0.07	3 (2%) 65 44	80, 101, 118, 130	0
6	52	101/101 (100%)	-0.07	1 (0%) 79 61	96, 111, 126, 136	0
6	5E	100/101 (99%)	0.01	4 (4%) 42 23	84, 102, 119, 129	0
7	62	138/156 (88%)	-0.03	4 (2%) 53 32	120, 131, 141, 145	0
7	6E	154/156 (98%)	-0.16	1 (0%) 85 70	105, 124, 144, 159	0
8	72	137/138 (99%)	-0.31	0 100 100	111, 131, 141, 147	0
8	7E	138/138 (100%)	0.21	2 (1%) 73 53	92, 110, 121, 130	0
9	82	121/128 (94%)	-0.04	2 (1%) 69 48	115, 146, 155, 160	0
9	8E	126/128 (98%)	-0.22	0 100 100	93, 132, 149, 152	0
10	1A	80/105 (76%)	0.16	3 (3%) 44 25	125, 141, 153, 156	0
10	1I	91/105 (86%)	-0.23	1 (1%) 78 59	84, 125, 153, 158	0
11	2A	113/129 (87%)	0.18	2 (1%) 67 47	90, 119, 128, 133	0
11	2I	111/129 (86%)	0.24	1 (0%) 81 63	82, 112, 129, 144	0
12	3A	122/132 (92%)	0.55	13 (10%) 11 6	88, 112, 132, 146	0
12	3I	122/132 (92%)	-0.15	4 (3%) 49 29	73, 82, 106, 139	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	4A	111/126 (88%)	0.03	1 (0%) 81 63	124, 141, 150, 165	0
13	4I	119/126 (94%)	-0.25	2 (1%) 69 48	94, 120, 135, 146	0
14	5A	59/61 (96%)	0.21	3 (5%) 33 18	130, 140, 148, 150	0
14	5I	60/61 (98%)	-0.53	0 100 100	88, 100, 112, 125	0
15	6A	87/89 (97%)	-0.59	0 100 100	93, 117, 132, 135	0
15	6I	87/89 (97%)	-0.24	0 100 100	84, 103, 120, 126	0
16	7A	84/88 (95%)	-0.08	0 100 100	93, 111, 130, 141	0
16	7I	83/88 (94%)	0.07	1 (1%) 76 58	102, 112, 135, 147	0
17	8A	99/105 (94%)	-0.38	1 (1%) 79 61	108, 120, 133, 138	0
17	8I	100/105 (95%)	-0.07	1 (1%) 79 61	89, 111, 126, 131	0
18	9A	67/88 (76%)	-0.12	3 (4%) 38 20	106, 117, 135, 139	0
18	9I	68/88 (77%)	0.18	2 (2%) 53 32	89, 105, 124, 127	0
19	AA	62/93 (66%)	0.38	4 (6%) 25 13	123, 149, 157, 163	0
19	AI	82/93 (88%)	-0.17	1 (1%) 76 58	99, 118, 134, 142	0
20	BA	99/106 (93%)	-0.45	0 100 100	94, 116, 141, 150	0
20	BI	97/106 (91%)	-0.09	2 (2%) 63 42	114, 126, 144, 148	0
21	1B	22/27 (81%)	-0.07	0 100 100	124, 136, 143, 147	0
21	1F	23/27 (85%)	-0.74	0 100 100	99, 109, 116, 120	0
22	1K	64/76 (84%)	0.77	10 (15%) 5 2	93, 158, 171, 173	0
22	1L	68/76 (89%)	0.17	4 (5%) 28 15	125, 171, 178, 184	0
23	2K	72/77 (93%)	-0.29	0 100 100	77, 104, 130, 146	0
23	2L	72/77 (93%)	-0.35	0 100 100	84, 122, 150, 165	0
24	3K	75/76 (98%)	0.46	6 (8%) 18 10	81, 170, 184, 189	0
24	3L	75/76 (98%)	0.06	2 (2%) 56 35	89, 167, 182, 188	0
25	4K	20/27 (74%)	0.78	4 (20%) 3 1	76, 144, 177, 178	0
25	4L	18/27 (66%)	0.12	0 100 100	103, 157, 182, 183	0
26	14	2861/2912 (98%)	-0.80	9 (0%) 90 80	58, 92, 173, 197	0
26	1H	2833/2912 (97%)	-0.84	10 (0%) 88 76	50, 80, 164, 199	0
27	16	122/122 (100%)	-0.98	0 100 100	75, 98, 119, 170	0
27	1J	122/122 (100%)	-0.76	1 (0%) 82 65	93, 123, 141, 174	0
28	71	133/229 (58%)	0.12	1 (0%) 82 65	137, 169, 179, 181	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	79	57/229 (24%)	0.17	1 (1%) 67 47	139, 160, 169, 174	0
29	11	273/276 (98%)	0.09	4 (1%) 72 52	48, 74, 92, 101	0
29	19	274/276 (99%)	0.14	9 (3%) 49 29	60, 82, 99, 116	0
30	21	203/206 (98%)	-0.07	1 (0%) 87 73	58, 95, 135, 146	0
30	29	204/206 (99%)	-0.27	2 (0%) 79 61	67, 99, 134, 144	0
31	31	202/210 (96%)	-0.26	4 (1%) 65 44	54, 85, 119, 138	0
31	39	204/210 (97%)	-0.14	2 (0%) 79 61	64, 112, 147, 163	0
32	41	179/182 (98%)	-0.39	2 (1%) 78 59	87, 107, 136, 148	0
32	49	179/182 (98%)	0.09	3 (1%) 69 48	121, 137, 156, 168	0
33	51	171/180 (95%)	-0.01	6 (3%) 47 27	89, 110, 125, 137	0
33	59	69/180 (38%)	0.55	4 (5%) 29 16	131, 151, 162, 166	0
34	61	146/148 (98%)	-0.12	1 (0%) 84 68	85, 129, 142, 149	0
34	69	145/148 (97%)	0.08	9 (6%) 26 14	91, 126, 142, 151	0
35	15	138/140 (98%)	0.20	3 (2%) 62 41	87, 114, 138, 154	0
35	58	138/140 (98%)	0.10	4 (2%) 53 32	69, 97, 124, 140	0
36	25	122/122 (100%)	0.20	0 100 100	76, 96, 112, 118	0
36	68	122/122 (100%)	0.09	4 (3%) 49 29	63, 84, 101, 110	0
37	35	147/150 (98%)	0.19	6 (4%) 41 23	65, 110, 135, 148	0
37	78	147/150 (98%)	-0.11	2 (1%) 73 53	50, 89, 113, 128	0
38	45	138/141 (97%)	0.37	13 (9%) 14 8	84, 111, 129, 137	0
38	88	141/141 (100%)	-0.17	3 (2%) 63 42	58, 84, 107, 125	0
39	55	118/118 (100%)	-0.46	0 100 100	70, 86, 108, 121	0
39	98	118/118 (100%)	-0.17	0 100 100	71, 92, 112, 126	0
40	65	110/112 (98%)	-0.32	1 (0%) 81 63	91, 116, 132, 137	0
40	A8	111/112 (99%)	-0.38	0 100 100	76, 94, 117, 123	0
41	75	133/146 (91%)	0.06	7 (5%) 32 17	86, 102, 130, 142	0
41	B8	132/146 (90%)	0.01	3 (2%) 61 39	78, 99, 128, 138	0
42	85	116/118 (98%)	0.07	1 (0%) 81 63	76, 101, 130, 139	0
42	C8	115/118 (97%)	0.12	2 (1%) 69 48	65, 83, 114, 118	0
43	95	100/101 (99%)	0.36	5 (5%) 34 18	76, 123, 139, 141	0
43	D8	100/101 (99%)	0.42	5 (5%) 34 18	64, 105, 128, 134	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	A5	111/113 (98%)	-0.06	0 100 100	68, 84, 114, 141	0
44	E8	112/113 (99%)	0.08	2 (1%) 67 47	64, 82, 112, 142	0
45	B5	94/96 (97%)	-0.14	3 (3%) 50 30	75, 91, 115, 123	0
45	F8	95/96 (98%)	-0.24	1 (1%) 78 59	62, 79, 111, 125	0
46	C5	105/110 (95%)	0.71	15 (14%) 6 3	91, 124, 146, 152	0
46	G8	105/110 (95%)	0.26	7 (6%) 24 13	79, 101, 127, 132	0
47	D5	132/206 (64%)	-0.09	2 (1%) 72 52	115, 136, 152, 155	0
47	H8	171/206 (83%)	-0.07	1 (0%) 85 70	90, 124, 164, 168	0
48	E5	77/85 (90%)	-0.08	1 (1%) 75 56	75, 96, 113, 135	0
48	I8	76/85 (89%)	-0.27	1 (1%) 75 56	65, 78, 91, 107	0
49	F5	94/98 (95%)	0.48	6 (6%) 25 14	70, 90, 123, 133	0
49	J8	94/98 (95%)	-0.05	0 100 100	61, 81, 120, 128	0
50	G5	68/72 (94%)	-0.13	1 (1%) 72 52	88, 109, 129, 150	0
50	K8	68/72 (94%)	-0.08	0 100 100	66, 84, 104, 128	0
51	H5	58/60 (96%)	-0.18	0 100 100	85, 106, 134, 140	0
51	L8	58/60 (96%)	-0.22	0 100 100	65, 87, 115, 132	0
52	M8	47/71 (66%)	-0.14	0 100 100	111, 137, 156, 163	0
53	J5	56/60 (93%)	-0.16	0 100 100	67, 92, 137, 147	0
53	N8	48/60 (80%)	-0.30	0 100 100	61, 87, 134, 141	0
54	L5	47/49 (95%)	-0.33	2 (4%) 40 22	57, 68, 85, 103	0
54	P8	47/49 (95%)	-0.64	0 100 100	53, 60, 79, 88	0
55	M5	64/65 (98%)	0.06	1 (1%) 70 49	75, 86, 103, 126	0
55	Q8	64/65 (98%)	-0.12	0 100 100	64, 74, 92, 108	0
All	All	20598/21957 (93%)	-0.35	283 (1%) 73 53	48, 105, 159, 199	0

All (283) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
41	75	104	ASN	6.6
43	D8	37	VAL	6.0
41	75	106	SER	6.0
22	1K	76	A	5.9
38	45	90	VAL	5.6
46	C5	53	PRO	5.0

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Mol	Chain	Res	Type	RSRZ
46	C5	29	GLU	5.0
12	3A	27	LEU	4.8
38	45	91	GLU	4.7
41	75	1	MET	4.6
12	3A	21	LYS	4.5
19	AI	84	GLY	4.4
22	1L	76	A	4.4
2	12	102	LEU	4.3
3	22	39	ILE	4.3
12	3A	19	ARG	4.2
22	1K	73	A	4.1
34	69	20	ASP	4.0
12	3A	28	LYS	4.0
38	45	2	LEU	4.0
46	C5	49	VAL	3.9
46	G8	106	LEU	3.9
22	1K	74	C	3.8
38	45	93	TYR	3.8
34	69	18	VAL	3.8
22	1L	71	C	3.7
42	C8	116	ALA	3.7
29	11	247	ALA	3.7
26	1H	1106	G	3.7
33	59	142	GLY	3.7
12	3A	26	ALA	3.7
12	3A	64	TYR	3.6
13	4A	117	VAL	3.6
19	AA	44	MET	3.6
54	L5	47	ARG	3.6
26	14	2901	C	3.5
18	9A	84	LYS	3.5
8	7E	136	GLU	3.4
26	14	229	A	3.4
31	31	66	PRO	3.4
26	1H	882	G	3.3
18	9A	85	LEU	3.3
46	C5	43	ASN	3.3
22	1K	75	C	3.3
11	2A	89	ALA	3.3
26	14	530	G	3.3
35	15	46	VAL	3.3
12	3A	20	LYS	3.2

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Mol	Chain	Res	Type	RSRZ
26	14	508	G	3.2
26	1H	893	C	3.2
33	59	165	ALA	3.2
7	6E	83	ALA	3.1
38	45	79	LEU	3.1
46	G8	98	VAL	3.1
38	45	102	VAL	3.0
46	C5	106	LEU	3.0
37	78	13	ASN	3.0
38	45	89	ASN	3.0
43	95	81	TYR	3.0
29	19	55	GLY	2.9
2	12	70	PHE	2.9
24	3K	70	C	2.9
41	75	105	LEU	2.9
10	1A	58	ASP	2.9
9	82	115	GLY	2.9
2	1E	208	ILE	2.9
5	42	131	ILE	2.9
14	5A	39	LEU	2.9
2	1E	74	LYS	2.9
24	3L	1	G	2.9
49	F5	77	ALA	2.9
34	69	3	VAL	2.9
27	1J	88	C	2.9
38	88	104	PHE	2.9
50	G5	41	ILE	2.9
42	85	25	TRP	2.9
12	3I	64	TYR	2.9
29	19	5	LYS	2.9
33	51	9	ILE	2.8
43	95	70	ILE	2.8
22	1K	44	U	2.8
46	C5	45	VAL	2.8
10	1A	91	PRO	2.8
29	19	181	GLU	2.8
9	82	50	LEU	2.8
12	3I	28	LYS	2.8
12	3A	62	SER	2.8
12	3A	68	ALA	2.8
26	14	2902	C	2.8
5	4E	55	VAL	2.8

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Mol	Chain	Res	Type	RSRZ
31	31	62	ARG	2.7
41	75	50	ILE	2.7
26	14	880	G	2.7
38	45	7	MET	2.7
26	1H	790	C	2.7
46	G8	105	ALA	2.7
32	49	82	LEU	2.7
34	69	1	MET	2.7
43	D8	45	THR	2.7
4	32	83	SER	2.7
30	29	204	ALA	2.7
6	5E	56	PRO	2.6
29	11	262	ARG	2.6
22	1K	48	C	2.6
35	58	138	LEU	2.6
3	22	43	LEU	2.6
30	21	63	LEU	2.6
35	15	92	ALA	2.6
49	F5	22	GLY	2.6
49	F5	85	LEU	2.6
26	14	896	A	2.6
44	E8	92	ARG	2.6
31	31	70	THR	2.6
46	C5	63	LYS	2.6
26	1H	1678	G	2.6
32	41	23	PHE	2.6
46	C5	56	PRO	2.6
25	4K	25	A	2.6
12	3A	87	GLY	2.6
38	45	10	ARG	2.6
46	C5	104	GLY	2.5
6	52	83	ASP	2.5
46	C5	105	ALA	2.5
35	58	1	MET	2.5
1	13	345	C	2.5
24	3K	34	U	2.5
37	35	19	VAL	2.5
37	35	110	TYR	2.5
6	5E	46	ARG	2.5
34	69	2	LYS	2.5
38	45	92	GLY	2.5
45	B5	68	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
34	69	12	LEU	2.5
41	B8	6	LEU	2.5
26	1H	1053	C	2.5
28	71	208	PHE	2.5
18	9I	85	LEU	2.5
48	I8	9	SER	2.4
26	1H	2476	A	2.4
8	7E	91	ARG	2.4
22	1K	72	C	2.4
14	5A	37	PHE	2.4
29	19	262	ARG	2.4
45	B5	66	LEU	2.4
7	62	148	ASN	2.4
12	3A	61	THR	2.4
20	BI	9	ASN	2.4
4	32	178	VAL	2.4
34	69	21	VAL	2.4
46	C5	59	GLY	2.4
35	58	92	ALA	2.4
26	1H	895	U	2.4
14	5A	38	GLY	2.4
32	49	177	GLY	2.4
43	95	91	TYR	2.4
26	14	2900	A	2.4
54	L5	1	MET	2.4
37	35	52	GLU	2.4
34	69	80	PRO	2.4
43	95	45	THR	2.4
38	88	140	ALA	2.4
45	B5	69	TYR	2.4
18	9A	46	GLU	2.4
49	F5	86	SER	2.4
31	31	64	ILE	2.3
46	C5	50	ARG	2.3
46	G8	89	PHE	2.3
22	1K	9	A	2.3
31	39	65	TRP	2.3
49	F5	79	GLY	2.3
43	D8	70	ILE	2.3
47	D5	171	ILE	2.3
3	22	34	LEU	2.3
41	75	101	PHE	2.3

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Mol	Chain	Res	Type	RSRZ
38	45	6	ARG	2.3
41	B8	3	ARG	2.3
20	BI	12	ALA	2.3
4	3E	110	PHE	2.3
19	AA	60	VAL	2.3
30	29	116	VAL	2.3
36	68	52	VAL	2.3
37	35	75	ILE	2.3
18	9I	20	ALA	2.3
33	51	16	SER	2.3
37	35	58	THR	2.3
38	45	83	MET	2.3
22	1K	1	G	2.3
36	68	5	GLN	2.3
43	D8	36	PRO	2.3
12	3A	29	GLY	2.3
1	1G	701	C	2.3
17	8I	29	HIS	2.3
37	78	16	ARG	2.3
2	1E	81	VAL	2.3
33	51	17	VAL	2.3
38	88	91	GLU	2.2
44	E8	96	ILE	2.2
46	C5	44	ILE	2.2
7	62	89	MET	2.2
3	22	101	LEU	2.2
24	3L	12	U	2.2
33	51	7	LEU	2.2
46	C5	54	LYS	2.2
1	1G	241	C	2.2
1	1G	680	C	2.2
22	1K	71	C	2.2
34	69	85	GLU	2.2
19	AA	62	ILE	2.2
29	11	105	ILE	2.2
29	19	31	LYS	2.2
5	4E	18	ARG	2.2
43	95	80	GLN	2.2
26	1H	1660	C	2.2
34	61	111	PRO	2.2
47	D5	163	LEU	2.2
29	19	275	LYS	2.2

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Mol	Chain	Res	Type	RSRZ
37	35	50	ARG	2.2
41	75	103	ARG	2.2
25	4K	7	G	2.2
4	32	194	LEU	2.2
26	14	878	A	2.2
6	5E	55	ASP	2.2
35	58	93	THR	2.2
41	B8	10	VAL	2.2
47	H8	165	VAL	2.2
46	C5	52	SER	2.2
42	C8	95	LEU	2.2
4	32	49	ARG	2.2
55	M5	34	TRP	2.2
5	42	109	ILE	2.1
5	4E	68	GLU	2.1
12	3I	29	GLY	2.1
31	39	72	ARG	2.1
46	G8	97	ARG	2.1
36	68	56	ASP	2.1
12	3I	18	VAL	2.1
29	19	33	LEU	2.1
48	E5	7	LEU	2.1
11	2A	92	GLU	2.1
33	51	86	GLU	2.1
26	1H	737	C	2.1
7	62	87	VAL	2.1
11	2I	25	TYR	2.1
13	4I	2	ALA	2.1
29	19	166	GLN	2.1
1	13	965	A	2.1
16	7I	66	PRO	2.1
24	3K	1	G	2.1
25	4K	6	G	2.1
12	3A	23	LYS	2.1
49	F5	80	LEU	2.1
13	4I	118	ALA	2.1
28	79	198	ALA	2.1
1	1G	884	U	2.1
33	59	52	VAL	2.1
10	1A	85	LEU	2.1
29	19	273	ARG	2.1
32	41	82	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
29	11	233	HIS	2.1
46	G8	83	THR	2.1
22	1L	72	C	2.1
24	3K	5	C	2.1
24	3K	11	C	2.1
24	3K	13	C	2.1
4	32	110	PHE	2.1
33	51	172	LYS	2.0
36	68	53	LYS	2.0
46	G8	94	LYS	2.0
7	62	6	ARG	2.0
43	D8	39	LEU	2.0
45	F8	95	LEU	2.0
38	45	103	MET	2.0
17	8A	7	THR	2.0
35	15	132	ALA	2.0
19	AA	58	VAL	2.0
4	32	209	ARG	2.0
10	1I	23	ILE	2.0
32	49	151	ALA	2.0
25	4K	23	A	2.0
6	5E	47	ARG	2.0
40	65	20	ARG	2.0
33	59	162	ILE	2.0
22	1L	74	C	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 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
22	PSU	1K	55	20/21	0.84	0.09	102,113,120,131	0
23	OMC	2L	33	21/22	0.84	0.10	105,114,118,121	0
23	G7M	2L	47	24/25	0.86	0.10	126,133,141,145	0
23	5MU	2L	55	21/22	0.86	0.08	119,131,141,145	0
23	PSU	2K	56	20/21	0.86	0.08	99,110,121,122	0
23	PSU	2L	56	20/21	0.86	0.07	115,126,131,135	0
23	4SU	2L	8	20/21	0.88	0.08	114,124,129,130	0
24	PSU	3K	39	20/21	0.88	0.09	141,151,156,159	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
24	PSU	3L	39	20/21	0.88	0.08	145,155,159,162	0
22	PSU	1L	55	20/21	0.89	0.06	129,139,149,150	0
22	U8U	1L	34	23/24	0.89	0.09	123,133,138,150	0
22	PSU	1L	39	20/21	0.90	0.08	135,144,149,150	0
22	5MU	1K	54	21/22	0.90	0.08	110,117,132,137	0
23	5MU	2K	55	21/22	0.90	0.09	106,117,125,127	0
22	5MU	1L	54	21/22	0.91	0.07	133,141,146,152	0
22	T6A	1L	37	32/33	0.92	0.10	132,140,153,154	0
23	G7M	2K	47	24/25	0.93	0.08	102,114,127,133	0
22	PSU	1K	39	20/21	0.93	0.10	98,115,125,127	0
22	U8U	1K	34	23/24	0.94	0.08	84,92,100,108	0
22	T6A	1K	37	32/33	0.95	0.11	79,94,121,123	0
23	OMC	2K	33	21/22	0.96	0.11	77,83,91,93	0
23	4SU	2K	8	20/21	0.96	0.07	91,98,107,109	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
56	MG	1K	101	1/1	0.19	0.40	138,138,138,138	0
56	MG	2K	102	1/1	0.20	0.35	126,126,126,126	0
56	MG	1G	1656	1/1	0.51	0.23	138,138,138,138	0
56	MG	1J	203	1/1	0.52	0.26	113,113,113,113	0
56	MG	14	3250	1/1	0.55	0.30	99,99,99,99	0
56	MG	14	3055	1/1	0.55	0.33	112,112,112,112	0
56	MG	1G	1616	1/1	0.56	0.36	96,96,96,96	0
56	MG	14	3302	1/1	0.57	0.36	110,110,110,110	0
56	MG	1G	1640	1/1	0.57	0.28	108,108,108,108	0
56	MG	14	3130	1/1	0.58	0.34	78,78,78,78	0
56	MG	16	204	1/1	0.58	0.25	98,98,98,98	0
56	MG	14	3288	1/1	0.58	0.27	109,109,109,109	0
56	MG	1G	1602	1/1	0.58	0.36	105,105,105,105	0
56	MG	1H	3284	1/1	0.58	0.28	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3220	1/1	0.59	0.28	107,107,107,107	0
56	MG	13	1681	1/1	0.59	0.28	106,106,106,106	0
56	MG	14	3287	1/1	0.59	0.41	105,105,105,105	0
56	MG	14	3229	1/1	0.60	0.28	86,86,86,86	0
56	MG	14	3181	1/1	0.60	0.36	98,98,98,98	0
56	MG	1H	3045	1/1	0.60	0.29	116,116,116,116	0
56	MG	1H	3277	1/1	0.61	0.27	100,100,100,100	0
56	MG	1J	202	1/1	0.61	0.25	104,104,104,104	0
56	MG	14	3266	1/1	0.61	0.30	90,90,90,90	0
56	MG	13	1700	1/1	0.62	0.26	111,111,111,111	0
56	MG	14	3142	1/1	0.62	0.18	111,111,111,111	0
56	MG	1H	3280	1/1	0.62	0.23	88,88,88,88	0
56	MG	1G	1664	1/1	0.62	0.27	119,119,119,119	0
56	MG	2L	102	1/1	0.62	0.28	98,98,98,98	0
56	MG	13	1608	1/1	0.62	0.28	91,91,91,91	0
56	MG	1H	3295	1/1	0.63	0.23	85,85,85,85	0
56	MG	14	3039	1/1	0.63	0.43	103,103,103,103	0
56	MG	13	1628	1/1	0.63	0.33	95,95,95,95	0
56	MG	1G	1630	1/1	0.63	0.35	108,108,108,108	0
56	MG	1G	1665	1/1	0.63	0.24	93,93,93,93	0
56	MG	13	1691	1/1	0.64	0.20	109,109,109,109	0
56	MG	14	3301	1/1	0.64	0.27	99,99,99,99	0
56	MG	14	3260	1/1	0.64	0.31	90,90,90,90	0
56	MG	1G	1629	1/1	0.64	0.29	104,104,104,104	0
56	MG	14	3172	1/1	0.64	0.24	98,98,98,98	0
56	MG	14	3280	1/1	0.65	0.37	99,99,99,99	0
56	MG	14	3110	1/1	0.65	0.30	88,88,88,88	0
56	MG	13	1702	1/1	0.65	0.45	103,103,103,103	0
56	MG	13	1692	1/1	0.65	0.28	100,100,100,100	0
56	MG	14	3255	1/1	0.65	0.33	87,87,87,87	0
56	MG	14	3303	1/1	0.65	0.35	98,98,98,98	0
56	MG	1H	3318	1/1	0.65	0.24	96,96,96,96	0
56	MG	1H	3326	1/1	0.65	0.20	91,91,91,91	0
56	MG	14	3274	1/1	0.66	0.25	99,99,99,99	0
56	MG	13	1646	1/1	0.66	0.37	95,95,95,95	0
56	MG	1H	3015	1/1	0.66	0.38	77,77,77,77	0
56	MG	1H	3319	1/1	0.66	0.26	102,102,102,102	0
56	MG	14	3299	1/1	0.66	0.23	96,96,96,96	0
56	MG	13	1679	1/1	0.67	0.22	107,107,107,107	0
56	MG	13	1671	1/1	0.67	0.22	102,102,102,102	0
56	MG	4K	101	1/1	0.67	0.25	156,156,156,156	0
56	MG	1H	3308	1/1	0.68	0.40	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3381	1/1	0.68	0.20	102,102,102,102	0
56	MG	1G	1660	1/1	0.68	0.32	97,97,97,97	0
56	MG	14	3298	1/1	0.68	0.33	94,94,94,94	0
56	MG	1H	3184	1/1	0.69	0.29	96,96,96,96	0
56	MG	14	3017	1/1	0.69	0.27	92,92,92,92	0
56	MG	13	1606	1/1	0.69	0.24	115,115,115,115	0
56	MG	1G	1662	1/1	0.69	0.21	133,133,133,133	0
56	MG	1G	1633	1/1	0.69	0.25	83,83,83,83	0
56	MG	1H	3123	1/1	0.69	0.33	77,77,77,77	0
56	MG	14	3139	1/1	0.69	0.23	93,93,93,93	0
56	MG	45	202	1/1	0.69	0.26	103,103,103,103	0
56	MG	1H	3169	1/1	0.70	0.18	95,95,95,95	0
56	MG	13	1648	1/1	0.70	0.33	82,82,82,82	0
56	MG	1H	3321	1/1	0.70	0.26	85,85,85,85	0
56	MG	1H	3189	1/1	0.70	0.25	84,84,84,84	0
56	MG	1G	1638	1/1	0.70	0.36	81,81,81,81	0
56	MG	1H	3260	1/1	0.70	0.34	88,88,88,88	0
56	MG	16	208	1/1	0.70	0.22	82,82,82,82	0
56	MG	1H	3274	1/1	0.70	0.28	85,85,85,85	0
56	MG	C5	201	1/1	0.70	0.22	109,109,109,109	0
56	MG	14	3264	1/1	0.71	0.20	92,92,92,92	0
56	MG	1G	1641	1/1	0.71	0.22	92,92,92,92	0
56	MG	14	3210	1/1	0.71	0.24	96,96,96,96	0
56	MG	1H	3297	1/1	0.71	0.19	101,101,101,101	0
56	MG	1H	3306	1/1	0.71	0.23	84,84,84,84	0
56	MG	13	1622	1/1	0.71	0.20	94,94,94,94	0
56	MG	14	3169	1/1	0.71	0.20	104,104,104,104	0
56	MG	13	1664	1/1	0.71	0.27	99,99,99,99	0
56	MG	14	3227	1/1	0.72	0.22	81,81,81,81	0
56	MG	1H	3263	1/1	0.72	0.34	94,94,94,94	0
56	MG	1H	3281	1/1	0.72	0.22	81,81,81,81	0
56	MG	1H	3223	1/1	0.72	0.27	88,88,88,88	0
56	MG	1H	3311	1/1	0.72	0.24	96,96,96,96	0
56	MG	14	3133	1/1	0.72	0.28	97,97,97,97	0
56	MG	13	1623	1/1	0.72	0.26	105,105,105,105	0
56	MG	1G	1603	1/1	0.73	0.20	101,101,101,101	0
56	MG	13	1678	1/1	0.73	0.23	83,83,83,83	0
56	MG	14	3164	1/1	0.73	0.25	83,83,83,83	0
56	MG	13	1689	1/1	0.73	0.29	92,92,92,92	0
56	MG	1H	3293	1/1	0.73	0.23	98,98,98,98	0
56	MG	14	3012	1/1	0.73	0.30	82,82,82,82	0
56	MG	14	3193	1/1	0.73	0.27	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3270	1/1	0.73	0.31	70,70,70,70	0
56	MG	1H	3323	1/1	0.73	0.28	91,91,91,91	0
56	MG	1H	3209	1/1	0.73	0.20	82,82,82,82	0
56	MG	1H	3302	1/1	0.73	0.28	89,89,89,89	0
56	MG	14	3248	1/1	0.73	0.35	94,94,94,94	0
56	MG	14	3122	1/1	0.73	0.33	91,91,91,91	0
56	MG	14	3251	1/1	0.73	0.21	106,106,106,106	0
56	MG	1H	3032	1/1	0.73	0.20	80,80,80,80	0
56	MG	1H	3234	1/1	0.73	0.18	99,99,99,99	0
56	MG	13	1629	1/1	0.74	0.33	90,90,90,90	0
56	MG	14	3183	1/1	0.74	0.32	89,89,89,89	0
56	MG	14	3056	1/1	0.74	0.09	62,62,62,62	0
56	MG	13	1676	1/1	0.74	0.14	127,127,127,127	0
56	MG	13	1696	1/1	0.74	0.26	111,111,111,111	0
56	MG	14	3127	1/1	0.74	0.23	71,71,71,71	0
56	MG	1H	3047	1/1	0.74	0.25	92,92,92,92	0
56	MG	14	3232	1/1	0.74	0.23	127,127,127,127	0
56	MG	14	3239	1/1	0.74	0.24	79,79,79,79	0
56	MG	1H	3298	1/1	0.74	0.29	93,93,93,93	0
56	MG	1H	3300	1/1	0.74	0.22	77,77,77,77	0
56	MG	1H	3301	1/1	0.74	0.21	128,128,128,128	0
56	MG	3K	101	1/1	0.74	0.17	162,162,162,162	0
56	MG	14	3037	1/1	0.74	0.24	70,70,70,70	0
56	MG	13	1604	1/1	0.74	0.30	93,93,93,93	0
56	MG	14	3069	1/1	0.75	0.34	91,91,91,91	0
56	MG	1G	1667	1/1	0.75	0.25	100,100,100,100	0
56	MG	1H	3134	1/1	0.75	0.25	90,90,90,90	0
56	MG	1H	3141	1/1	0.75	0.24	69,69,69,69	0
56	MG	1G	1658	1/1	0.75	0.23	124,124,124,124	0
56	MG	13	1685	1/1	0.75	0.40	95,95,95,95	0
56	MG	13	1647	1/1	0.75	0.24	95,95,95,95	0
56	MG	1H	3128	1/1	0.75	0.25	83,83,83,83	0
56	MG	14	3154	1/1	0.75	0.23	90,90,90,90	0
56	MG	45	201	1/1	0.75	0.21	96,96,96,96	0
56	MG	1G	1612	1/1	0.75	0.24	93,93,93,93	0
56	MG	14	3235	1/1	0.75	0.25	104,104,104,104	0
56	MG	1H	3183	1/1	0.76	0.27	90,90,90,90	0
56	MG	14	3061	1/1	0.76	0.22	97,97,97,97	0
56	MG	88	202	1/1	0.76	0.23	87,87,87,87	0
56	MG	14	3167	1/1	0.76	0.24	99,99,99,99	0
56	MG	1H	3212	1/1	0.76	0.28	89,89,89,89	0
56	MG	14	3119	1/1	0.76	0.27	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3022	1/1	0.76	0.33	83,83,83,83	0
56	MG	14	3031	1/1	0.76	0.27	76,76,76,76	0
56	MG	14	3191	1/1	0.76	0.18	76,76,76,76	0
56	MG	1G	1643	1/1	0.76	0.30	91,91,91,91	0
56	MG	1G	1651	1/1	0.76	0.37	93,93,93,93	0
56	MG	1G	1634	1/1	0.76	0.29	109,109,109,109	0
56	MG	14	3140	1/1	0.76	0.26	87,87,87,87	0
56	MG	14	3168	1/1	0.77	0.28	66,66,66,66	0
56	MG	14	3135	1/1	0.77	0.20	78,78,78,78	0
56	MG	1H	3317	1/1	0.77	0.31	105,105,105,105	0
56	MG	13	1655	1/1	0.77	0.24	103,103,103,103	0
56	MG	1H	3200	1/1	0.77	0.27	87,87,87,87	0
56	MG	14	3308	1/1	0.77	0.24	82,82,82,82	0
56	MG	1H	3081	1/1	0.77	0.24	85,85,85,85	0
56	MG	14	3277	1/1	0.77	0.32	92,92,92,92	0
56	MG	14	3243	1/1	0.77	0.17	89,89,89,89	0
56	MG	14	3286	1/1	0.77	0.23	83,83,83,83	0
56	MG	13	1660	1/1	0.77	0.30	81,81,81,81	0
56	MG	14	3101	1/1	0.77	0.27	91,91,91,91	0
56	MG	1H	3315	1/1	0.78	0.15	91,91,91,91	0
56	MG	14	3240	1/1	0.78	0.31	87,87,87,87	0
56	MG	14	3272	1/1	0.78	0.29	93,93,93,93	0
56	MG	14	3273	1/1	0.78	0.26	94,94,94,94	0
56	MG	1G	1668	1/1	0.78	0.24	106,106,106,106	0
56	MG	14	3310	1/1	0.78	0.18	120,120,120,120	0
56	MG	1G	1646	1/1	0.78	0.33	86,86,86,86	0
56	MG	1H	3194	1/1	0.78	0.17	73,73,73,73	0
56	MG	1H	3307	1/1	0.78	0.21	82,82,82,82	0
56	MG	14	3252	1/1	0.78	0.19	73,73,73,73	0
56	MG	1G	1657	1/1	0.78	0.23	90,90,90,90	0
56	MG	14	3064	1/1	0.78	0.23	84,84,84,84	0
56	MG	14	3159	1/1	0.79	0.30	81,81,81,81	0
56	MG	14	3300	1/1	0.79	0.31	89,89,89,89	0
56	MG	13	1633	1/1	0.79	0.15	65,65,65,65	0
56	MG	1H	3013	1/1	0.79	0.34	89,89,89,89	0
56	MG	1H	3291	1/1	0.79	0.41	99,99,99,99	0
56	MG	14	3060	1/1	0.79	0.29	92,92,92,92	0
56	MG	14	3020	1/1	0.79	0.27	76,76,76,76	0
56	MG	14	3062	1/1	0.79	0.23	81,81,81,81	0
56	MG	78	201	1/1	0.79	0.34	75,75,75,75	0
56	MG	1G	1620	1/1	0.79	0.10	94,94,94,94	0
56	MG	14	3032	1/1	0.79	0.36	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3146	1/1	0.79	0.23	61,61,61,61	0
56	MG	1H	3052	1/1	0.79	0.54	99,99,99,99	0
56	MG	1H	3224	1/1	0.80	0.34	88,88,88,88	0
56	MG	1H	3227	1/1	0.80	0.15	50,50,50,50	0
56	MG	13	1699	1/1	0.80	0.23	81,81,81,81	0
56	MG	1H	3244	1/1	0.80	0.26	84,84,84,84	0
56	MG	1H	3044	1/1	0.80	0.40	89,89,89,89	0
56	MG	14	3259	1/1	0.80	0.24	84,84,84,84	0
56	MG	14	3221	1/1	0.80	0.15	91,91,91,91	0
56	MG	1H	3094	1/1	0.80	0.17	91,91,91,91	0
56	MG	14	3305	1/1	0.80	0.20	86,86,86,86	0
56	MG	13	1654	1/1	0.80	0.28	88,88,88,88	0
56	MG	13	1688	1/1	0.80	0.27	94,94,94,94	0
56	MG	1H	3219	1/1	0.80	0.32	89,89,89,89	0
56	MG	1H	3186	1/1	0.80	0.14	71,71,71,71	0
56	MG	14	3276	1/1	0.80	0.19	102,102,102,102	0
56	MG	39	301	1/1	0.80	0.16	80,80,80,80	0
56	MG	14	3180	1/1	0.80	0.22	79,79,79,79	0
56	MG	1G	1622	1/1	0.80	0.36	99,99,99,99	0
56	MG	14	3244	1/1	0.80	0.16	74,74,74,74	0
56	MG	1H	3097	1/1	0.81	0.17	103,103,103,103	0
56	MG	14	3131	1/1	0.81	0.28	76,76,76,76	0
56	MG	1H	3110	1/1	0.81	0.19	65,65,65,65	0
56	MG	14	3023	1/1	0.81	0.22	55,55,55,55	0
56	MG	13	1684	1/1	0.81	0.14	114,114,114,114	0
56	MG	1G	1644	1/1	0.81	0.26	86,86,86,86	0
56	MG	14	3290	1/1	0.81	0.25	90,90,90,90	0
56	MG	14	3295	1/1	0.81	0.23	114,114,114,114	0
56	MG	1H	3187	1/1	0.81	0.20	95,95,95,95	0
56	MG	1H	3254	1/1	0.81	0.35	95,95,95,95	0
56	MG	1H	3257	1/1	0.81	0.31	94,94,94,94	0
56	MG	13	1672	1/1	0.81	0.15	81,81,81,81	0
56	MG	1G	1611	1/1	0.81	0.29	108,108,108,108	0
56	MG	1H	3192	1/1	0.81	0.18	81,81,81,81	0
56	MG	13	1674	1/1	0.81	0.32	92,92,92,92	0
56	MG	1H	3039	1/1	0.81	0.30	80,80,80,80	0
56	MG	14	3068	1/1	0.81	0.12	89,89,89,89	0
56	MG	1H	3152	1/1	0.81	0.28	99,99,99,99	0
56	MG	1H	3163	1/1	0.81	0.30	48,48,48,48	0
56	MG	1H	3216	1/1	0.81	0.29	80,80,80,80	0
56	MG	1H	3167	1/1	0.81	0.22	81,81,81,81	0
56	MG	1H	3220	1/1	0.81	0.25	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3203	1/1	0.81	0.17	68,68,68,68	0
56	MG	13	1695	1/1	0.81	0.32	103,103,103,103	0
56	MG	14	3058	1/1	0.82	0.19	80,80,80,80	0
56	MG	1H	3204	1/1	0.82	0.14	100,100,100,100	0
56	MG	1H	3322	1/1	0.82	0.20	68,68,68,68	0
56	MG	14	3281	1/1	0.82	0.40	89,89,89,89	0
56	MG	1G	1642	1/1	0.82	0.24	123,123,123,123	0
56	MG	14	3150	1/1	0.82	0.26	91,91,91,91	0
56	MG	14	3003	1/1	0.82	0.26	69,69,69,69	0
56	MG	14	3238	1/1	0.82	0.25	78,78,78,78	0
56	MG	14	3291	1/1	0.82	0.31	94,94,94,94	0
56	MG	1H	3264	1/1	0.82	0.13	84,84,84,84	0
56	MG	14	3296	1/1	0.82	0.37	91,91,91,91	0
56	MG	14	3297	1/1	0.82	0.18	124,124,124,124	0
56	MG	14	3162	1/1	0.82	0.28	83,83,83,83	0
56	MG	13	1602	1/1	0.82	0.21	89,89,89,89	0
56	MG	14	3075	1/1	0.82	0.51	90,90,90,90	0
56	MG	1H	3180	1/1	0.82	0.23	76,76,76,76	0
56	MG	1H	3314	1/1	0.82	0.18	92,92,92,92	0
56	MG	1H	3055	1/1	0.82	0.28	88,88,88,88	0
56	MG	14	3120	1/1	0.82	0.21	71,71,71,71	0
56	MG	14	3307	1/1	0.82	0.24	108,108,108,108	0
56	MG	1G	1632	1/1	0.82	0.28	102,102,102,102	0
56	MG	14	3258	1/1	0.82	0.29	99,99,99,99	0
56	MG	1H	3051	1/1	0.82	0.16	84,84,84,84	0
56	MG	14	3188	1/1	0.82	0.32	92,92,92,92	0
56	MG	1H	3199	1/1	0.82	0.26	74,74,74,74	0
56	MG	1G	1636	1/1	0.82	0.20	101,101,101,101	0
56	MG	14	3197	1/1	0.82	0.33	84,84,84,84	0
56	MG	1G	1637	1/1	0.82	0.27	97,97,97,97	0
56	MG	1H	3140	1/1	0.82	0.13	69,69,69,69	0
56	MG	1H	3276	1/1	0.83	0.23	85,85,85,85	0
56	MG	1H	3065	1/1	0.83	0.27	55,55,55,55	0
56	MG	1H	3217	1/1	0.83	0.23	67,67,67,67	0
56	MG	1H	3040	1/1	0.83	0.36	72,72,72,72	0
56	MG	14	3234	1/1	0.83	0.26	89,89,89,89	0
56	MG	13	1632	1/1	0.83	0.28	73,73,73,73	0
56	MG	13	1677	1/1	0.83	0.23	91,91,91,91	0
56	MG	1H	3104	1/1	0.83	0.22	71,71,71,71	0
56	MG	1H	3025	1/1	0.83	0.17	77,77,77,77	0
56	MG	1H	3048	1/1	0.83	0.20	92,92,92,92	0
56	MG	14	3070	1/1	0.83	0.18	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3327	1/1	0.83	0.24	95,95,95,95	0
56	MG	16	202	1/1	0.83	0.23	86,86,86,86	0
56	MG	1H	3125	1/1	0.83	0.14	87,87,87,87	0
56	MG	14	3176	1/1	0.83	0.26	88,88,88,88	0
56	MG	14	3114	1/1	0.83	0.28	81,81,81,81	0
56	MG	1H	3050	1/1	0.83	0.26	78,78,78,78	0
56	MG	13	1620	1/1	0.83	0.15	82,82,82,82	0
56	MG	1H	3138	1/1	0.83	0.29	61,61,61,61	0
56	MG	14	3030	1/1	0.83	0.32	87,87,87,87	0
56	MG	1H	3035	1/1	0.83	0.13	76,76,76,76	0
56	MG	1H	3053	1/1	0.83	0.29	82,82,82,82	0
56	MG	14	3132	1/1	0.83	0.31	91,91,91,91	0
56	MG	13	1626	1/1	0.83	0.29	87,87,87,87	0
56	MG	35	201	1/1	0.83	0.23	76,76,76,76	0
56	MG	14	3214	1/1	0.83	0.35	87,87,87,87	0
56	MG	1H	3061	1/1	0.83	0.27	62,62,62,62	0
56	MG	14	3278	1/1	0.83	0.24	96,96,96,96	0
56	MG	1G	1652	1/1	0.84	0.26	88,88,88,88	0
56	MG	1G	1654	1/1	0.84	0.35	86,86,86,86	0
56	MG	1H	3010	1/1	0.84	0.33	57,57,57,57	0
56	MG	Q8	101	1/1	0.84	0.25	83,83,83,83	0
56	MG	13	1661	1/1	0.84	0.10	93,93,93,93	0
56	MG	1H	3305	1/1	0.84	0.25	68,68,68,68	0
56	MG	14	3071	1/1	0.84	0.19	84,84,84,84	0
56	MG	1G	1604	1/1	0.84	0.23	97,97,97,97	0
56	MG	14	3083	1/1	0.84	0.26	87,87,87,87	0
56	MG	1H	3158	1/1	0.84	0.24	68,68,68,68	0
56	MG	1H	3261	1/1	0.84	0.13	90,90,90,90	0
56	MG	14	3113	1/1	0.84	0.18	78,78,78,78	0
56	MG	1H	3159	1/1	0.84	0.27	83,83,83,83	0
56	MG	14	3115	1/1	0.84	0.26	66,66,66,66	0
56	MG	1H	3162	1/1	0.84	0.28	87,87,87,87	0
56	MG	1H	3265	1/1	0.84	0.15	74,74,74,74	0
56	MG	13	1642	1/1	0.84	0.19	73,73,73,73	0
56	MG	14	3126	1/1	0.84	0.36	83,83,83,83	0
56	MG	14	3004	1/1	0.84	0.24	83,83,83,83	0
56	MG	1H	3101	1/1	0.84	0.17	64,64,64,64	0
56	MG	1H	3019	1/1	0.84	0.35	89,89,89,89	0
56	MG	13	1643	1/1	0.84	0.20	79,79,79,79	0
56	MG	13	1645	1/1	0.84	0.19	66,66,66,66	0
56	MG	1H	3221	1/1	0.84	0.28	78,78,78,78	0
56	MG	13	1686	1/1	0.84	0.35	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3036	1/1	0.84	0.23	77,77,77,77	0
56	MG	13	1687	1/1	0.84	0.23	76,76,76,76	0
56	MG	14	3245	1/1	0.84	0.17	88,88,88,88	0
56	MG	14	3246	1/1	0.84	0.17	72,72,72,72	0
56	MG	14	3143	1/1	0.84	0.34	70,70,70,70	0
56	MG	13	1697	1/1	0.84	0.24	96,96,96,96	0
56	MG	16	203	1/1	0.84	0.17	91,91,91,91	0
56	MG	1H	3239	1/1	0.84	0.11	81,81,81,81	0
56	MG	16	207	1/1	0.84	0.23	76,76,76,76	0
56	MG	14	3256	1/1	0.84	0.22	76,76,76,76	0
56	MG	1H	3041	1/1	0.84	0.28	77,77,77,77	0
56	MG	1H	3246	1/1	0.84	0.28	88,88,88,88	0
56	MG	13	1656	1/1	0.85	0.23	88,88,88,88	0
56	MG	1G	1663	1/1	0.85	0.18	97,97,97,97	0
56	MG	13	1693	1/1	0.85	0.43	88,88,88,88	0
56	MG	14	3261	1/1	0.85	0.34	83,83,83,83	0
56	MG	1H	3132	1/1	0.85	0.30	78,78,78,78	0
56	MG	14	3086	1/1	0.85	0.35	82,82,82,82	0
56	MG	14	3271	1/1	0.85	0.17	74,74,74,74	0
56	MG	14	3096	1/1	0.85	0.23	60,60,60,60	0
56	MG	3E	301	1/1	0.85	0.33	94,94,94,94	0
56	MG	1H	3137	1/1	0.85	0.16	73,73,73,73	0
56	MG	2L	101	1/1	0.85	0.26	72,72,72,72	0
56	MG	1G	1631	1/1	0.85	0.23	91,91,91,91	0
56	MG	1H	3072	1/1	0.85	0.20	72,72,72,72	0
56	MG	14	3199	1/1	0.85	0.23	59,59,59,59	0
56	MG	14	3201	1/1	0.85	0.19	60,60,60,60	0
56	MG	5E	201	1/1	0.85	0.22	84,84,84,84	0
56	MG	1H	3236	1/1	0.85	0.35	91,91,91,91	0
56	MG	1G	1635	1/1	0.85	0.18	93,93,93,93	0
56	MG	1H	3093	1/1	0.85	0.18	72,72,72,72	0
56	MG	1H	3198	1/1	0.85	0.20	67,67,67,67	0
56	MG	14	3128	1/1	0.85	0.23	73,73,73,73	0
56	MG	13	1605	1/1	0.85	0.23	75,75,75,75	0
56	MG	14	3230	1/1	0.85	0.19	72,72,72,72	0
56	MG	14	3024	1/1	0.85	0.25	74,74,74,74	0
56	MG	14	3233	1/1	0.85	0.39	80,80,80,80	0
56	MG	1H	3248	1/1	0.85	0.21	83,83,83,83	0
56	MG	1H	3299	1/1	0.85	0.34	86,86,86,86	0
56	MG	1H	3250	1/1	0.85	0.24	87,87,87,87	0
56	MG	13	1673	1/1	0.85	0.20	102,102,102,102	0
56	MG	14	3304	1/1	0.85	0.23	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	13	1690	1/1	0.85	0.38	81,81,81,81	0
56	MG	14	3242	1/1	0.85	0.10	70,70,70,70	0
56	MG	1H	3258	1/1	0.85	0.11	72,72,72,72	0
56	MG	1G	1649	1/1	0.85	0.27	96,96,96,96	0
56	MG	1H	3206	1/1	0.85	0.29	94,94,94,94	0
56	MG	13	1669	1/1	0.85	0.23	72,72,72,72	0
56	MG	1H	3038	1/1	0.85	0.22	81,81,81,81	0
56	MG	14	3157	1/1	0.85	0.32	66,66,66,66	0
56	MG	1G	1610	1/1	0.85	0.16	102,102,102,102	0
56	MG	1H	3114	1/1	0.85	0.16	67,67,67,67	0
56	MG	1H	3007	1/1	0.85	0.27	80,80,80,80	0
56	MG	1G	1614	1/1	0.85	0.25	93,93,93,93	0
56	MG	14	3033	1/1	0.86	0.29	84,84,84,84	0
56	MG	1H	3088	1/1	0.86	0.13	54,54,54,54	0
56	MG	14	3206	1/1	0.86	0.22	82,82,82,82	0
56	MG	13	1636	1/1	0.86	0.36	85,85,85,85	0
56	MG	14	3212	1/1	0.86	0.29	69,69,69,69	0
56	MG	14	3053	1/1	0.86	0.30	61,61,61,61	0
56	MG	14	3217	1/1	0.86	0.15	87,87,87,87	0
56	MG	13	1644	1/1	0.86	0.22	84,84,84,84	0
56	MG	1G	1626	1/1	0.86	0.15	95,95,95,95	0
56	MG	14	3222	1/1	0.86	0.24	80,80,80,80	0
56	MG	13	1667	1/1	0.86	0.18	85,85,85,85	0
56	MG	1H	3099	1/1	0.86	0.24	75,75,75,75	0
56	MG	1H	3262	1/1	0.86	0.30	77,77,77,77	0
56	MG	14	3231	1/1	0.86	0.22	84,84,84,84	0
56	MG	13	1694	1/1	0.86	0.18	96,96,96,96	0
56	MG	14	3294	1/1	0.86	0.22	74,74,74,74	0
56	MG	1H	3028	1/1	0.86	0.32	72,72,72,72	0
56	MG	14	3149	1/1	0.86	0.32	92,92,92,92	0
56	MG	1H	3108	1/1	0.86	0.18	62,62,62,62	0
56	MG	1H	3042	1/1	0.86	0.28	93,93,93,93	0
56	MG	13	1652	1/1	0.86	0.22	74,74,74,74	0
56	MG	1H	3275	1/1	0.86	0.29	74,74,74,74	0
56	MG	14	3002	1/1	0.86	0.21	62,62,62,62	0
56	MG	14	3079	1/1	0.86	0.23	72,72,72,72	0
56	MG	14	3165	1/1	0.86	0.20	60,60,60,60	0
56	MG	I8	103	1/1	0.86	0.23	86,86,86,86	0
56	MG	1H	3309	1/1	0.86	0.21	79,79,79,79	0
56	MG	14	3306	1/1	0.86	0.19	110,110,110,110	0
56	MG	14	3007	1/1	0.86	0.29	63,63,63,63	0
56	MG	1H	3034	1/1	0.86	0.34	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3312	1/1	0.86	0.18	67,67,67,67	0
56	MG	14	3019	1/1	0.86	0.33	84,84,84,84	0
56	MG	1J	201	1/1	0.86	0.27	90,90,90,90	0
56	MG	1H	3164	1/1	0.86	0.17	73,73,73,73	0
56	MG	1H	3046	1/1	0.86	0.33	87,87,87,87	0
56	MG	13	1653	1/1	0.86	0.17	89,89,89,89	0
56	MG	1H	3249	1/1	0.86	0.31	86,86,86,86	0
56	MG	1H	3170	1/1	0.86	0.14	81,81,81,81	0
56	MG	1G	1615	1/1	0.86	0.18	119,119,119,119	0
56	MG	1G	1653	1/1	0.86	0.17	85,85,85,85	0
56	MG	1H	3290	1/1	0.87	0.16	80,80,80,80	0
56	MG	1H	3018	1/1	0.87	0.30	78,78,78,78	0
56	MG	14	3285	1/1	0.87	0.27	72,72,72,72	0
56	MG	14	3015	1/1	0.87	0.26	63,63,63,63	0
56	MG	13	1649	1/1	0.87	0.17	75,75,75,75	0
56	MG	1H	3269	1/1	0.87	0.28	97,97,97,97	0
56	MG	I8	102	1/1	0.87	0.38	83,83,83,83	0
56	MG	14	3192	1/1	0.87	0.18	80,80,80,80	0
56	MG	14	3293	1/1	0.87	0.10	99,99,99,99	0
56	MG	14	3134	1/1	0.87	0.15	74,74,74,74	0
56	MG	1H	3296	1/1	0.87	0.26	92,92,92,92	0
56	MG	1H	3033	1/1	0.87	0.15	68,68,68,68	0
56	MG	14	3249	1/1	0.87	0.23	78,78,78,78	0
56	MG	14	3076	1/1	0.87	0.27	89,89,89,89	0
56	MG	14	3202	1/1	0.87	0.17	79,79,79,79	0
56	MG	1H	3273	1/1	0.87	0.26	84,84,84,84	0
56	MG	14	3253	1/1	0.87	0.28	76,76,76,76	0
56	MG	1H	3084	1/1	0.87	0.17	82,82,82,82	0
56	MG	1H	3232	1/1	0.87	0.10	71,71,71,71	0
56	MG	1G	1609	1/1	0.87	0.23	94,94,94,94	0
56	MG	14	3097	1/1	0.87	0.19	74,74,74,74	0
56	MG	1H	3054	1/1	0.87	0.19	87,87,87,87	0
56	MG	14	3102	1/1	0.87	0.21	76,76,76,76	0
56	MG	14	3263	1/1	0.87	0.20	82,82,82,82	0
56	MG	14	3309	1/1	0.87	0.34	90,90,90,90	0
56	MG	1H	3089	1/1	0.87	0.21	74,74,74,74	0
56	MG	14	3265	1/1	0.87	0.27	89,89,89,89	0
56	MG	1H	3304	1/1	0.87	0.43	73,73,73,73	0
56	MG	14	3046	1/1	0.87	0.19	66,66,66,66	0
56	MG	1H	3043	1/1	0.87	0.28	87,87,87,87	0
56	MG	13	1675	1/1	0.87	0.14	124,124,124,124	0
56	MG	1H	3283	1/1	0.87	0.27	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1G	1618	1/1	0.87	0.20	101,101,101,101	0
56	MG	14	3170	1/1	0.87	0.36	81,81,81,81	0
56	MG	1H	3124	1/1	0.87	0.15	59,59,59,59	0
56	MG	13	1651	1/1	0.88	0.12	86,86,86,86	0
56	MG	14	3204	1/1	0.88	0.19	82,82,82,82	0
56	MG	5I	101	1/1	0.88	0.14	88,88,88,88	0
56	MG	1G	1647	1/1	0.88	0.19	102,102,102,102	0
56	MG	13	1698	1/1	0.88	0.28	81,81,81,81	0
56	MG	14	3213	1/1	0.88	0.16	89,89,89,89	0
56	MG	1G	1601	1/1	0.88	0.18	96,96,96,96	0
56	MG	1H	3118	1/1	0.88	0.16	61,61,61,61	0
56	MG	14	3050	1/1	0.88	0.21	73,73,73,73	0
56	MG	1H	3153	1/1	0.88	0.11	60,60,60,60	0
56	MG	1H	3225	1/1	0.88	0.32	74,74,74,74	0
56	MG	1H	3156	1/1	0.88	0.25	77,77,77,77	0
56	MG	1H	3230	1/1	0.88	0.20	73,73,73,73	0
56	MG	1H	3310	1/1	0.88	0.24	72,72,72,72	0
56	MG	1H	3191	1/1	0.88	0.15	90,90,90,90	0
56	MG	14	3289	1/1	0.88	0.17	91,91,91,91	0
56	MG	1G	1661	1/1	0.88	0.16	150,150,150,150	0
56	MG	1H	3157	1/1	0.88	0.35	83,83,83,83	0
56	MG	14	3292	1/1	0.88	0.19	86,86,86,86	0
56	MG	13	1611	1/1	0.88	0.15	61,61,61,61	0
56	MG	14	3156	1/1	0.88	0.14	62,62,62,62	0
56	MG	13	1663	1/1	0.88	0.16	75,75,75,75	0
56	MG	1H	3240	1/1	0.88	0.14	56,56,56,56	0
56	MG	1H	3241	1/1	0.88	0.29	73,73,73,73	0
56	MG	1H	3058	1/1	0.88	0.12	62,62,62,62	0
56	MG	13	1621	1/1	0.88	0.19	95,95,95,95	0
56	MG	1H	3287	1/1	0.88	0.36	86,86,86,86	0
56	MG	1H	3288	1/1	0.88	0.10	94,94,94,94	0
56	MG	1H	3005	1/1	0.88	0.16	62,62,62,62	0
56	MG	14	3247	1/1	0.88	0.29	73,73,73,73	0
56	MG	14	3087	1/1	0.88	0.30	79,79,79,79	0
56	MG	1H	3067	1/1	0.88	0.20	63,63,63,63	0
56	MG	16	201	1/1	0.88	0.16	92,92,92,92	0
56	MG	14	3009	1/1	0.88	0.23	52,52,52,52	0
56	MG	1H	3207	1/1	0.88	0.28	81,81,81,81	0
56	MG	1H	3251	1/1	0.88	0.15	63,63,63,63	0
56	MG	1H	3253	1/1	0.88	0.13	60,60,60,60	0
56	MG	16	205	1/1	0.88	0.26	84,84,84,84	0
56	MG	14	3257	1/1	0.88	0.11	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	16	206	1/1	0.88	0.13	84,84,84,84	0
56	MG	14	3117	1/1	0.88	0.34	77,77,77,77	0
56	MG	1H	3135	1/1	0.88	0.22	81,81,81,81	0
56	MG	13	1665	1/1	0.88	0.23	64,64,64,64	0
56	MG	14	3262	1/1	0.88	0.39	91,91,91,91	0
56	MG	1H	3172	1/1	0.88	0.18	82,82,82,82	0
56	MG	1H	3179	1/1	0.88	0.23	93,93,93,93	0
56	MG	E5	101	1/1	0.88	0.27	83,83,83,83	0
56	MG	14	3190	1/1	0.89	0.18	95,95,95,95	0
56	MG	14	3021	1/1	0.89	0.31	78,78,78,78	0
56	MG	1G	1606	1/1	0.89	0.21	82,82,82,82	0
56	MG	1H	3085	1/1	0.89	0.19	82,82,82,82	0
56	MG	13	1668	1/1	0.89	0.15	80,80,80,80	0
56	MG	14	3198	1/1	0.89	0.27	80,80,80,80	0
56	MG	14	3025	1/1	0.89	0.18	69,69,69,69	0
56	MG	14	3268	1/1	0.89	0.13	86,86,86,86	0
56	MG	1H	3012	1/1	0.89	0.21	79,79,79,79	0
56	MG	13	1612	1/1	0.89	0.19	79,79,79,79	0
56	MG	14	3123	1/1	0.89	0.15	82,82,82,82	0
56	MG	14	3125	1/1	0.89	0.22	54,54,54,54	0
56	MG	1H	3259	1/1	0.89	0.14	80,80,80,80	0
56	MG	1H	3014	1/1	0.89	0.39	69,69,69,69	0
56	MG	14	3211	1/1	0.89	0.27	74,74,74,74	0
56	MG	13	1683	1/1	0.89	0.26	91,91,91,91	0
56	MG	1H	3197	1/1	0.89	0.18	80,80,80,80	0
56	MG	14	3284	1/1	0.89	0.11	84,84,84,84	0
56	MG	1G	1619	1/1	0.89	0.12	89,89,89,89	0
56	MG	14	3215	1/1	0.89	0.20	83,83,83,83	0
56	MG	14	3047	1/1	0.89	0.15	57,57,57,57	0
56	MG	1H	3428	1/1	0.89	0.21	54,54,54,54	0
56	MG	14	3051	1/1	0.89	0.22	90,90,90,90	0
56	MG	1G	1621	1/1	0.89	0.26	61,61,61,61	0
56	MG	14	3224	1/1	0.89	0.26	75,75,75,75	0
56	MG	1H	3064	1/1	0.89	0.18	54,54,54,54	0
56	MG	1H	3017	1/1	0.89	0.31	77,77,77,77	0
56	MG	14	3141	1/1	0.89	0.14	90,90,90,90	0
56	MG	1G	1627	1/1	0.89	0.23	85,85,85,85	0
56	MG	13	1637	1/1	0.89	0.32	68,68,68,68	0
56	MG	1H	3202	1/1	0.89	0.24	75,75,75,75	0
56	MG	1H	3203	1/1	0.89	0.25	75,75,75,75	0
56	MG	1H	3271	1/1	0.89	0.28	94,94,94,94	0
56	MG	14	3237	1/1	0.89	0.15	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3152	1/1	0.89	0.24	91,91,91,91	0
56	MG	14	3067	1/1	0.89	0.19	74,74,74,74	0
56	MG	13	1627	1/1	0.89	0.33	81,81,81,81	0
56	MG	2L	103	1/1	0.89	0.25	79,79,79,79	0
56	MG	1H	3205	1/1	0.89	0.23	83,83,83,83	0
56	MG	14	3160	1/1	0.89	0.18	57,57,57,57	0
56	MG	1H	3173	1/1	0.89	0.34	79,79,79,79	0
56	MG	1H	3177	1/1	0.89	0.17	82,82,82,82	0
56	MG	1H	3020	1/1	0.89	0.21	60,60,60,60	0
56	MG	1H	3083	1/1	0.89	0.11	75,75,75,75	0
56	MG	14	3011	1/1	0.89	0.31	58,58,58,58	0
56	MG	1H	3115	1/1	0.89	0.24	76,76,76,76	0
56	MG	14	3013	1/1	0.89	0.25	83,83,83,83	0
56	MG	14	3091	1/1	0.89	0.42	87,87,87,87	0
56	MG	14	3014	1/1	0.89	0.21	49,49,49,49	0
56	MG	13	1662	1/1	0.89	0.23	82,82,82,82	0
56	MG	1H	3252	1/1	0.89	0.16	72,72,72,72	0
56	MG	1H	3285	1/1	0.89	0.19	72,72,72,72	0
56	MG	14	3184	1/1	0.89	0.24	86,86,86,86	0
56	MG	1H	3316	1/1	0.89	0.29	87,87,87,87	0
56	MG	1H	3278	1/1	0.90	0.27	92,92,92,92	0
56	MG	1H	3160	1/1	0.90	0.14	69,69,69,69	0
56	MG	13	1617	1/1	0.90	0.18	77,77,77,77	0
56	MG	13	1639	1/1	0.90	0.29	85,85,85,85	0
56	MG	13	1640	1/1	0.90	0.15	91,91,91,91	0
56	MG	1H	3166	1/1	0.90	0.11	68,68,68,68	0
56	MG	1H	3255	1/1	0.90	0.14	81,81,81,81	0
56	MG	1G	1645	1/1	0.90	0.28	88,88,88,88	0
56	MG	1H	3256	1/1	0.90	0.15	76,76,76,76	0
56	MG	1H	3289	1/1	0.90	0.20	82,82,82,82	0
56	MG	14	3219	1/1	0.90	0.24	78,78,78,78	0
56	MG	14	3148	1/1	0.90	0.24	72,72,72,72	0
56	MG	1H	3121	1/1	0.90	0.29	53,53,53,53	0
56	MG	14	3081	1/1	0.90	0.26	62,62,62,62	0
56	MG	14	3223	1/1	0.90	0.24	83,83,83,83	0
56	MG	14	3082	1/1	0.90	0.21	63,63,63,63	0
56	MG	14	3226	1/1	0.90	0.18	72,72,72,72	0
56	MG	1H	3098	1/1	0.90	0.13	69,69,69,69	0
56	MG	14	3228	1/1	0.90	0.23	93,93,93,93	0
56	MG	1H	3292	1/1	0.90	0.07	61,61,61,61	0
56	MG	1H	3151	1/1	0.90	0.09	52,52,52,52	0
56	MG	1H	3226	1/1	0.90	0.18	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3093	1/1	0.90	0.21	85,85,85,85	0
56	MG	14	3161	1/1	0.90	0.27	73,73,73,73	0
56	MG	14	3095	1/1	0.90	0.20	56,56,56,56	0
56	MG	1H	3171	1/1	0.90	0.20	74,74,74,74	0
56	MG	1H	3429	1/1	0.90	0.16	66,66,66,66	0
56	MG	14	3166	1/1	0.90	0.31	85,85,85,85	0
56	MG	14	3098	1/1	0.90	0.23	68,68,68,68	0
56	MG	14	3028	1/1	0.90	0.34	79,79,79,79	0
56	MG	1H	3009	1/1	0.90	0.23	66,66,66,66	0
56	MG	1G	1659	1/1	0.90	0.27	85,85,85,85	0
56	MG	1H	3231	1/1	0.90	0.25	56,56,56,56	0
56	MG	1G	1625	1/1	0.90	0.32	76,76,76,76	0
56	MG	14	3179	1/1	0.90	0.41	84,84,84,84	0
56	MG	13	1625	1/1	0.90	0.38	82,82,82,82	0
56	MG	14	3116	1/1	0.90	0.24	63,63,63,63	0
56	MG	14	3182	1/1	0.90	0.21	73,73,73,73	0
56	MG	1H	3155	1/1	0.90	0.21	86,86,86,86	0
56	MG	1H	3178	1/1	0.90	0.18	74,74,74,74	0
56	MG	1H	3126	1/1	0.90	0.15	72,72,72,72	0
56	MG	1G	1666	1/1	0.90	0.24	85,85,85,85	0
56	MG	14	3254	1/1	0.90	0.27	78,78,78,78	0
56	MG	13	1607	1/1	0.90	0.30	85,85,85,85	0
56	MG	14	3124	1/1	0.90	0.15	70,70,70,70	0
56	MG	1H	3182	1/1	0.90	0.18	77,77,77,77	0
56	MG	13	1731	1/1	0.90	0.19	94,94,94,94	0
56	MG	1H	3090	1/1	0.90	0.31	72,72,72,72	0
56	MG	14	3057	1/1	0.90	0.24	63,63,63,63	0
56	MG	1H	3213	1/1	0.90	0.47	84,84,84,84	0
56	MG	1H	3215	1/1	0.90	0.36	81,81,81,81	0
56	MG	14	3099	1/1	0.91	0.21	62,62,62,62	0
56	MG	1H	3142	1/1	0.91	0.19	68,68,68,68	0
56	MG	14	3044	1/1	0.91	0.26	68,68,68,68	0
56	MG	14	3103	1/1	0.91	0.16	66,66,66,66	0
56	MG	14	3107	1/1	0.91	0.15	87,87,87,87	0
56	MG	14	3163	1/1	0.91	0.30	76,76,76,76	0
56	MG	1H	3147	1/1	0.91	0.10	72,72,72,72	0
56	MG	1G	1628	1/1	0.91	0.13	98,98,98,98	0
56	MG	13	1722	1/1	0.91	0.10	93,93,93,93	0
56	MG	14	3283	1/1	0.91	0.17	80,80,80,80	0
56	MG	1H	3049	1/1	0.91	0.08	65,65,65,65	0
56	MG	1H	3303	1/1	0.91	0.23	73,73,73,73	0
56	MG	13	1670	1/1	0.91	0.20	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3030	1/1	0.91	0.24	69,69,69,69	0
56	MG	21	302	1/1	0.91	0.12	78,78,78,78	0
56	MG	14	3173	1/1	0.91	0.13	82,82,82,82	0
56	MG	14	3236	1/1	0.91	0.13	79,79,79,79	0
56	MG	41	201	1/1	0.91	0.18	71,71,71,71	0
56	MG	1H	3243	1/1	0.91	0.06	56,56,56,56	0
56	MG	1H	3075	1/1	0.91	0.10	79,79,79,79	0
56	MG	1H	3076	1/1	0.91	0.14	65,65,65,65	0
56	MG	1H	3210	1/1	0.91	0.20	73,73,73,73	0
56	MG	1H	3127	1/1	0.91	0.16	53,53,53,53	0
56	MG	1H	3100	1/1	0.91	0.14	56,56,56,56	0
56	MG	1H	3282	1/1	0.91	0.14	78,78,78,78	0
56	MG	1H	3185	1/1	0.91	0.19	78,78,78,78	0
56	MG	1H	3130	1/1	0.91	0.12	60,60,60,60	0
56	MG	1H	3161	1/1	0.91	0.21	84,84,84,84	0
56	MG	1H	3188	1/1	0.91	0.34	76,76,76,76	0
56	MG	14	3194	1/1	0.91	0.21	86,86,86,86	0
56	MG	2K	101	1/1	0.91	0.31	86,86,86,86	0
56	MG	14	3080	1/1	0.91	0.18	67,67,67,67	0
56	MG	1H	3008	1/1	0.91	0.12	74,74,74,74	0
56	MG	13	1601	1/1	0.91	0.18	59,59,59,59	0
56	MG	2K	103	1/1	0.91	0.17	71,71,71,71	0
56	MG	1H	3195	1/1	0.91	0.34	78,78,78,78	0
56	MG	1H	3324	1/1	0.91	0.17	69,69,69,69	0
56	MG	14	3205	1/1	0.91	0.08	80,80,80,80	0
56	MG	14	3382	1/1	0.91	0.14	100,100,100,100	0
56	MG	14	3147	1/1	0.91	0.22	93,93,93,93	0
56	MG	1H	3325	1/1	0.91	0.19	76,76,76,76	0
56	MG	1H	3196	1/1	0.91	0.35	80,80,80,80	0
56	MG	1H	3112	1/1	0.91	0.19	66,66,66,66	0
56	MG	1H	3228	1/1	0.91	0.21	57,57,57,57	0
56	MG	14	3153	1/1	0.91	0.26	78,78,78,78	0
56	MG	13	1603	1/1	0.91	0.25	92,92,92,92	0
56	MG	85	201	1/1	0.91	0.54	88,88,88,88	0
56	MG	14	3155	1/1	0.91	0.13	71,71,71,71	0
56	MG	1H	3024	1/1	0.91	0.34	70,70,70,70	0
56	MG	1H	3080	1/1	0.92	0.10	86,86,86,86	0
56	MG	14	3174	1/1	0.92	0.34	81,81,81,81	0
56	MG	14	3175	1/1	0.92	0.20	96,96,96,96	0
56	MG	1H	3096	1/1	0.92	0.27	78,78,78,78	0
56	MG	14	3177	1/1	0.92	0.26	87,87,87,87	0
56	MG	14	3178	1/1	0.92	0.44	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1G	1617	1/1	0.92	0.11	125,125,125,125	0
56	MG	1H	3272	1/1	0.92	0.14	89,89,89,89	0
56	MG	1H	3201	1/1	0.92	0.29	70,70,70,70	0
56	MG	13	1650	1/1	0.92	0.30	79,79,79,79	0
56	MG	14	3090	1/1	0.92	0.17	70,70,70,70	0
56	MG	13	1641	1/1	0.92	0.25	75,75,75,75	0
56	MG	88	201	1/1	0.92	0.22	81,81,81,81	0
56	MG	14	3048	1/1	0.92	0.27	55,55,55,55	0
56	MG	14	3008	1/1	0.92	0.28	65,65,65,65	0
56	MG	1H	3011	1/1	0.92	0.29	71,71,71,71	0
56	MG	14	3010	1/1	0.92	0.24	54,54,54,54	0
56	MG	1H	3027	1/1	0.92	0.24	48,48,48,48	0
56	MG	14	3195	1/1	0.92	0.08	107,107,107,107	0
56	MG	14	3196	1/1	0.92	0.23	69,69,69,69	0
56	MG	14	3100	1/1	0.92	0.14	91,91,91,91	0
56	MG	1H	3150	1/1	0.92	0.10	70,70,70,70	0
56	MG	1H	3087	1/1	0.92	0.11	65,65,65,65	0
56	MG	14	3200	1/1	0.92	0.22	67,67,67,67	0
56	MG	1H	3102	1/1	0.92	0.23	55,55,55,55	0
56	MG	14	3059	1/1	0.92	0.22	55,55,55,55	0
56	MG	14	3109	1/1	0.92	0.24	72,72,72,72	0
56	MG	1H	3070	1/1	0.92	0.24	50,50,50,50	0
56	MG	14	3111	1/1	0.92	0.22	69,69,69,69	0
56	MG	1H	3107	1/1	0.92	0.24	73,73,73,73	0
56	MG	13	1610	1/1	0.92	0.15	72,72,72,72	0
56	MG	1G	1605	1/1	0.92	0.23	85,85,85,85	0
56	MG	14	3066	1/1	0.92	0.17	72,72,72,72	0
56	MG	1H	3214	1/1	0.92	0.15	68,68,68,68	0
56	MG	1H	3175	1/1	0.92	0.28	70,70,70,70	0
56	MG	13	1615	1/1	0.92	0.14	85,85,85,85	0
56	MG	14	3216	1/1	0.92	0.18	70,70,70,70	0
56	MG	14	3121	1/1	0.92	0.18	84,84,84,84	0
56	MG	1H	3059	1/1	0.92	0.16	48,48,48,48	0
56	MG	29	301	1/1	0.92	0.16	63,63,63,63	0
56	MG	1H	3218	1/1	0.92	0.10	76,76,76,76	0
56	MG	14	3267	1/1	0.92	0.22	66,66,66,66	0
56	MG	14	3073	1/1	0.92	0.29	81,81,81,81	0
56	MG	14	3269	1/1	0.92	0.25	75,75,75,75	0
56	MG	45	203	1/1	0.92	0.20	73,73,73,73	0
56	MG	1G	1639	1/1	0.92	0.34	80,80,80,80	0
56	MG	14	3029	1/1	0.92	0.21	83,83,83,83	0
56	MG	1H	3113	1/1	0.92	0.12	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3222	1/1	0.93	0.28	79,79,79,79	0
56	MG	14	3207	1/1	0.93	0.12	89,89,89,89	0
56	MG	14	3208	1/1	0.93	0.10	67,67,67,67	0
56	MG	13	1638	1/1	0.93	0.30	87,87,87,87	0
56	MG	14	3088	1/1	0.93	0.21	73,73,73,73	0
56	MG	13	1630	1/1	0.93	0.37	71,71,71,71	0
56	MG	1G	1613	1/1	0.93	0.10	100,100,100,100	0
56	MG	1H	3174	1/1	0.93	0.16	85,85,85,85	0
56	MG	14	3094	1/1	0.93	0.12	82,82,82,82	0
56	MG	14	3275	1/1	0.93	0.16	68,68,68,68	0
56	MG	1H	3062	1/1	0.93	0.21	54,54,54,54	0
56	MG	1H	3294	1/1	0.93	0.32	71,71,71,71	0
56	MG	14	3218	1/1	0.93	0.20	60,60,60,60	0
56	MG	14	3158	1/1	0.93	0.09	71,71,71,71	0
56	MG	1H	3176	1/1	0.93	0.19	68,68,68,68	0
56	MG	1H	3359	1/1	0.93	0.16	66,66,66,66	0
56	MG	14	3036	1/1	0.93	0.20	73,73,73,73	0
56	MG	1H	3380	1/1	0.93	0.08	70,70,70,70	0
56	MG	14	3038	1/1	0.93	0.18	86,86,86,86	0
56	MG	3I	201	1/1	0.93	0.12	62,62,62,62	0
56	MG	1H	3086	1/1	0.93	0.21	41,41,41,41	0
56	MG	14	3105	1/1	0.93	0.11	52,52,52,52	0
56	MG	1H	3016	1/1	0.93	0.19	48,48,48,48	0
56	MG	1G	1624	1/1	0.93	0.18	76,76,76,76	0
56	MG	1H	3106	1/1	0.93	0.16	77,77,77,77	0
56	MG	14	3049	1/1	0.93	0.11	58,58,58,58	0
56	MG	14	3171	1/1	0.93	0.16	56,56,56,56	0
56	MG	1H	3268	1/1	0.93	0.26	79,79,79,79	0
56	MG	1H	3181	1/1	0.93	0.04	74,74,74,74	0
56	MG	13	1631	1/1	0.93	0.38	93,93,93,93	0
56	MG	1G	1682	1/1	0.93	0.12	91,91,91,91	0
56	MG	1H	3238	1/1	0.93	0.12	82,82,82,82	0
56	MG	1H	3208	1/1	0.93	0.22	63,63,63,63	0
56	MG	1H	3131	1/1	0.93	0.12	62,62,62,62	0
56	MG	21	301	1/1	0.93	0.17	57,57,57,57	0
56	MG	1H	3031	1/1	0.93	0.15	65,65,65,65	0
56	MG	1H	3242	1/1	0.93	0.27	64,64,64,64	0
56	MG	14	3005	1/1	0.93	0.18	44,44,44,44	0
56	MG	1H	3211	1/1	0.93	0.17	71,71,71,71	0
56	MG	1H	3133	1/1	0.93	0.23	69,69,69,69	0
56	MG	13	1624	1/1	0.93	0.11	71,71,71,71	0
56	MG	1H	3092	1/1	0.93	0.17	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3129	1/1	0.93	0.21	58,58,58,58	0
56	MG	1H	3136	1/1	0.93	0.13	68,68,68,68	0
56	MG	1H	3313	1/1	0.93	0.06	66,66,66,66	0
56	MG	1H	3002	1/1	0.93	0.17	49,49,49,49	0
56	MG	14	3072	1/1	0.93	0.17	55,55,55,55	0
56	MG	1H	3003	1/1	0.93	0.12	54,54,54,54	0
56	MG	1H	3079	1/1	0.93	0.12	61,61,61,61	0
56	MG	1H	3021	1/1	0.93	0.19	57,57,57,57	0
56	MG	14	3078	1/1	0.93	0.14	64,64,64,64	0
56	MG	14	3018	1/1	0.93	0.22	73,73,73,73	0
56	MG	1H	3119	1/1	0.93	0.27	78,78,78,78	0
56	MG	1H	3143	1/1	0.93	0.28	77,77,77,77	0
56	MG	14	3145	1/1	0.93	0.14	67,67,67,67	0
56	MG	1H	3320	1/1	0.93	0.07	68,68,68,68	0
56	MG	1G	1648	1/1	0.93	0.27	78,78,78,78	0
59	ZN	G8	201	1/1	0.93	0.19	144,144,144,144	0
56	MG	14	3189	1/1	0.94	0.25	73,73,73,73	0
56	MG	1H	3165	1/1	0.94	0.23	79,79,79,79	0
56	MG	14	3144	1/1	0.94	0.30	58,58,58,58	0
56	MG	14	3054	1/1	0.94	0.09	83,83,83,83	0
56	MG	14	3016	1/1	0.94	0.18	60,60,60,60	0
56	MG	13	1701	1/1	0.94	0.17	121,121,121,121	0
56	MG	1H	3068	1/1	0.94	0.12	56,56,56,56	0
56	MG	1H	3229	1/1	0.94	0.13	45,45,45,45	0
56	MG	1H	3146	1/1	0.94	0.19	59,59,59,59	0
56	MG	14	3104	1/1	0.94	0.10	64,64,64,64	0
56	MG	1G	1607	1/1	0.94	0.12	77,77,77,77	0
56	MG	1G	1608	1/1	0.94	0.06	101,101,101,101	0
56	MG	1H	3069	1/1	0.94	0.13	60,60,60,60	0
56	MG	1H	3006	1/1	0.94	0.14	61,61,61,61	0
56	MG	1H	3071	1/1	0.94	0.16	56,56,56,56	0
56	MG	14	3112	1/1	0.94	0.18	61,61,61,61	0
56	MG	14	3026	1/1	0.94	0.26	68,68,68,68	0
56	MG	1H	3286	1/1	0.94	0.09	64,64,64,64	0
56	MG	1H	3235	1/1	0.94	0.14	85,85,85,85	0
56	MG	1H	3193	1/1	0.94	0.25	72,72,72,72	0
56	MG	13	1613	1/1	0.94	0.14	77,77,77,77	0
56	MG	1H	3074	1/1	0.94	0.20	69,69,69,69	0
56	MG	1H	3060	1/1	0.94	0.18	52,52,52,52	0
56	MG	1H	3029	1/1	0.94	0.29	69,69,69,69	0
56	MG	1H	3077	1/1	0.94	0.09	63,63,63,63	0
56	MG	14	3077	1/1	0.94	0.13	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3095	1/1	0.94	0.15	73,73,73,73	0
56	MG	1H	3001	1/1	0.94	0.23	53,53,53,53	0
56	MG	14	3040	1/1	0.94	0.31	84,84,84,84	0
56	MG	14	3041	1/1	0.94	0.09	49,49,49,49	0
56	MG	14	3042	1/1	0.94	0.16	58,58,58,58	0
56	MG	14	3043	1/1	0.94	0.14	52,52,52,52	0
56	MG	14	3085	1/1	0.94	0.26	51,51,51,51	0
56	MG	1H	3245	1/1	0.94	0.24	74,74,74,74	0
56	MG	14	3045	1/1	0.94	0.20	64,64,64,64	0
56	MG	14	3270	1/1	0.94	0.25	84,84,84,84	0
56	MG	1G	1623	1/1	0.94	0.19	83,83,83,83	0
56	MG	1H	3117	1/1	0.94	0.18	82,82,82,82	0
56	MG	13	1619	1/1	0.94	0.16	69,69,69,69	0
56	MG	14	3136	1/1	0.94	0.13	62,62,62,62	0
56	MG	13	1616	1/1	0.94	0.29	77,77,77,77	0
56	MG	1H	3066	1/1	0.94	0.10	48,48,48,48	0
56	MG	1H	3122	1/1	0.94	0.16	50,50,50,50	0
56	MG	14	3052	1/1	0.94	0.13	71,71,71,71	0
56	MG	14	3279	1/1	0.94	0.09	73,73,73,73	0
56	MG	14	3065	1/1	0.95	0.10	68,68,68,68	0
56	MG	14	3092	1/1	0.95	0.06	75,75,75,75	0
56	MG	13	1680	1/1	0.95	0.33	87,87,87,87	0
56	MG	1H	3082	1/1	0.95	0.17	65,65,65,65	0
56	MG	14	3151	1/1	0.95	0.33	81,81,81,81	0
56	MG	1H	3129	1/1	0.95	0.07	56,56,56,56	0
56	MG	1H	3145	1/1	0.95	0.24	77,77,77,77	0
56	MG	13	1659	1/1	0.95	0.10	87,87,87,87	0
56	MG	14	3027	1/1	0.95	0.26	71,71,71,71	0
56	MG	1H	3247	1/1	0.95	0.20	73,73,73,73	0
56	MG	14	3187	1/1	0.95	0.21	75,75,75,75	0
56	MG	1H	3103	1/1	0.95	0.10	51,51,51,51	0
56	MG	1H	3148	1/1	0.95	0.11	49,49,49,49	0
56	MG	1H	3026	1/1	0.95	0.28	50,50,50,50	0
56	MG	1H	3105	1/1	0.95	0.13	64,64,64,64	0
56	MG	1H	3168	1/1	0.95	0.09	65,65,65,65	0
56	MG	14	3034	1/1	0.95	0.25	74,74,74,74	0
56	MG	14	3035	1/1	0.95	0.26	84,84,84,84	0
56	MG	14	3108	1/1	0.95	0.10	75,75,75,75	0
56	MG	1H	3057	1/1	0.95	0.18	52,52,52,52	0
56	MG	14	3138	1/1	0.95	0.18	55,55,55,55	0
56	MG	13	1682	1/1	0.95	0.07	73,73,73,73	0
56	MG	13	1666	1/1	0.95	0.05	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	13	1618	1/1	0.95	0.07	97,97,97,97	0
56	MG	1H	3111	1/1	0.95	0.12	60,60,60,60	0
56	MG	1H	3022	1/1	0.95	0.13	52,52,52,52	0
56	MG	14	3063	1/1	0.95	0.10	77,77,77,77	0
56	MG	14	3089	1/1	0.95	0.22	54,54,54,54	0
57	PAR	13	1730	42/42	0.95	0.08	67,77,86,91	0
56	MG	1H	3421	1/1	0.95	0.09	83,83,83,83	0
56	MG	1G	1678	1/1	0.96	0.07	92,92,92,92	0
56	MG	13	1723	1/1	0.96	0.10	73,73,73,73	0
56	MG	L8	101	1/1	0.96	0.35	88,88,88,88	0
56	MG	1H	3387	1/1	0.96	0.08	72,72,72,72	0
56	MG	1H	3399	1/1	0.96	0.06	91,91,91,91	0
56	MG	14	3241	1/1	0.96	0.26	68,68,68,68	0
56	MG	1H	3414	1/1	0.96	0.07	83,83,83,83	0
56	MG	1H	3237	1/1	0.96	0.08	77,77,77,77	0
56	MG	14	3185	1/1	0.96	0.08	74,74,74,74	0
56	MG	14	3186	1/1	0.96	0.43	83,83,83,83	0
56	MG	1H	3109	1/1	0.96	0.06	59,59,59,59	0
56	MG	1H	3154	1/1	0.96	0.28	69,69,69,69	0
56	MG	14	3006	1/1	0.96	0.30	58,58,58,58	0
56	MG	13	1728	1/1	0.96	0.07	127,127,127,127	0
56	MG	14	3311	1/1	0.96	0.12	83,83,83,83	0
56	MG	14	3340	1/1	0.96	0.07	83,83,83,83	0
56	MG	14	3137	1/1	0.96	0.07	62,62,62,62	0
56	MG	1H	3139	1/1	0.96	0.13	64,64,64,64	0
56	MG	1H	3073	1/1	0.96	0.10	47,47,47,47	0
56	MG	1H	3190	1/1	0.96	0.24	67,67,67,67	0
56	MG	1H	3063	1/1	0.96	0.12	55,55,55,55	0
56	MG	14	3225	1/1	0.96	0.07	71,71,71,71	0
56	MG	1H	3004	1/1	0.96	0.11	41,41,41,41	0
56	MG	13	1614	1/1	0.96	0.03	81,81,81,81	0
56	MG	1H	3056	1/1	0.96	0.15	40,40,40,40	0
56	MG	1H	3078	1/1	0.96	0.07	57,57,57,57	0
56	MG	13	1634	1/1	0.96	0.16	53,53,53,53	0
56	MG	13	1635	1/1	0.96	0.07	54,54,54,54	0
56	MG	1H	3149	1/1	0.96	0.33	65,65,65,65	0
56	MG	13	1657	1/1	0.96	0.09	80,80,80,80	0
56	MG	13	1658	1/1	0.96	0.04	82,82,82,82	0
57	PAR	1G	1681	42/42	0.96	0.07	79,90,98,101	0
56	MG	1H	3374	1/1	0.96	0.08	88,88,88,88	0
56	MG	14	3282	1/1	0.97	0.43	84,84,84,84	0
56	MG	14	3074	1/1	0.97	0.13	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1G	1674	1/1	0.97	0.04	123,123,123,123	0
56	MG	1G	1676	1/1	0.97	0.07	111,111,111,111	0
56	MG	13	1725	1/1	0.97	0.10	102,102,102,102	0
56	MG	1G	1679	1/1	0.97	0.10	138,138,138,138	0
56	MG	14	3317	1/1	0.97	0.07	64,64,64,64	0
56	MG	14	3334	1/1	0.97	0.06	85,85,85,85	0
56	MG	14	3338	1/1	0.97	0.10	111,111,111,111	0
56	MG	1H	3344	1/1	0.97	0.09	75,75,75,75	0
56	MG	14	3341	1/1	0.97	0.05	94,94,94,94	0
56	MG	14	3358	1/1	0.97	0.04	64,64,64,64	0
56	MG	14	3365	1/1	0.97	0.04	88,88,88,88	0
56	MG	14	3367	1/1	0.97	0.06	94,94,94,94	0
56	MG	14	3370	1/1	0.97	0.05	99,99,99,99	0
56	MG	14	3371	1/1	0.97	0.04	72,72,72,72	0
56	MG	14	3379	1/1	0.97	0.10	107,107,107,107	0
56	MG	1G	1655	1/1	0.97	0.12	94,94,94,94	0
56	MG	1H	3023	1/1	0.97	0.36	57,57,57,57	0
56	MG	1H	3091	1/1	0.97	0.05	61,61,61,61	0
56	MG	1H	3266	1/1	0.97	0.09	60,60,60,60	0
56	MG	14	3084	1/1	0.97	0.15	73,73,73,73	0
56	MG	1J	205	1/1	0.97	0.10	109,109,109,109	0
56	MG	1H	3267	1/1	0.97	0.13	69,69,69,69	0
56	MG	1H	3389	1/1	0.97	0.08	64,64,64,64	0
56	MG	1H	3116	1/1	0.97	0.07	56,56,56,56	0
56	MG	1H	3408	1/1	0.97	0.04	80,80,80,80	0
56	MG	1H	3413	1/1	0.97	0.06	107,107,107,107	0
56	MG	13	1732	1/1	0.97	0.14	65,65,65,65	0
56	MG	1H	3037	1/1	0.97	0.34	63,63,63,63	0
56	MG	1G	1650	1/1	0.97	0.08	91,91,91,91	0
56	MG	1H	3423	1/1	0.97	0.09	147,147,147,147	0
56	MG	13	1707	1/1	0.97	0.04	85,85,85,85	0
56	MG	14	3118	1/1	0.97	0.06	66,66,66,66	0
56	MG	1G	1671	1/1	0.97	0.07	90,90,90,90	0
59	ZN	C5	202	1/1	0.97	0.06	165,165,165,165	0
56	MG	1H	3418	1/1	0.98	0.05	88,88,88,88	0
56	MG	1H	3330	1/1	0.98	0.04	60,60,60,60	0
56	MG	14	3352	1/1	0.98	0.04	78,78,78,78	0
56	MG	P8	101	1/1	0.98	0.04	78,78,78,78	0
56	MG	14	3360	1/1	0.98	0.04	75,75,75,75	0
56	MG	1H	3343	1/1	0.98	0.05	65,65,65,65	0
56	MG	14	3366	1/1	0.98	0.08	92,92,92,92	0
56	MG	1G	1672	1/1	0.98	0.10	121,121,121,121	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3424	1/1	0.98	0.06	89,89,89,89	0
56	MG	1H	3427	1/1	0.98	0.04	84,84,84,84	0
56	MG	13	1705	1/1	0.98	0.04	94,94,94,94	0
56	MG	1H	3348	1/1	0.98	0.07	100,100,100,100	0
56	MG	1H	3358	1/1	0.98	0.06	68,68,68,68	0
56	MG	13	1609	1/1	0.98	0.08	73,73,73,73	0
56	MG	1H	3373	1/1	0.98	0.04	82,82,82,82	0
56	MG	1H	3144	1/1	0.98	0.03	54,54,54,54	0
56	MG	1J	204	1/1	0.98	0.09	99,99,99,99	0
56	MG	1H	3120	1/1	0.98	0.10	41,41,41,41	0
56	MG	1H	3386	1/1	0.98	0.04	52,52,52,52	0
56	MG	13	1724	1/1	0.98	0.04	108,108,108,108	0
56	MG	1H	3388	1/1	0.98	0.06	63,63,63,63	0
56	MG	1H	3279	1/1	0.98	0.09	51,51,51,51	0
56	MG	1H	3391	1/1	0.98	0.03	107,107,107,107	0
56	MG	13	1714	1/1	0.98	0.04	104,104,104,104	0
56	MG	13	1727	1/1	0.98	0.05	115,115,115,115	0
56	MG	14	3106	1/1	0.98	0.37	69,69,69,69	0
56	MG	1H	3409	1/1	0.98	0.04	86,86,86,86	0
56	MG	1H	3233	1/1	0.98	0.05	50,50,50,50	0
56	MG	14	3209	1/1	0.98	0.11	67,67,67,67	0
56	MG	14	3336	1/1	0.98	0.04	77,77,77,77	0
56	MG	1H	3328	1/1	0.98	0.04	52,52,52,52	0
56	MG	1H	3367	1/1	0.99	0.04	71,71,71,71	0
56	MG	1H	3369	1/1	0.99	0.03	69,69,69,69	0
56	MG	1H	3372	1/1	0.99	0.04	53,53,53,53	0
56	MG	13	1708	1/1	0.99	0.04	85,85,85,85	0
56	MG	13	1709	1/1	0.99	0.03	94,94,94,94	0
56	MG	1H	3376	1/1	0.99	0.03	60,60,60,60	0
56	MG	1H	3377	1/1	0.99	0.05	77,77,77,77	0
56	MG	1H	3378	1/1	0.99	0.03	68,68,68,68	0
56	MG	1G	1669	1/1	0.99	0.05	82,82,82,82	0
56	MG	1G	1670	1/1	0.99	0.03	88,88,88,88	0
56	MG	1H	3379	1/1	0.99	0.02	61,61,61,61	0
56	MG	13	1726	1/1	0.99	0.03	82,82,82,82	0
56	MG	1G	1673	1/1	0.99	0.04	85,85,85,85	0
56	MG	1H	3381	1/1	0.99	0.04	59,59,59,59	0
56	MG	1G	1675	1/1	0.99	0.04	116,116,116,116	0
56	MG	1H	3382	1/1	0.99	0.02	60,60,60,60	0
56	MG	1G	1677	1/1	0.99	0.04	119,119,119,119	0
56	MG	1H	3383	1/1	0.99	0.03	65,65,65,65	0
56	MG	1H	3384	1/1	0.99	0.04	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1G	1680	1/1	0.99	0.03	120,120,120,120	0
56	MG	1H	3385	1/1	0.99	0.04	78,78,78,78	0
56	MG	13	1711	1/1	0.99	0.05	92,92,92,92	0
56	MG	13	1712	1/1	0.99	0.03	78,78,78,78	0
56	MG	13	1729	1/1	0.99	0.05	103,103,103,103	0
56	MG	14	3001	1/1	0.99	0.02	51,51,51,51	0
56	MG	13	1713	1/1	0.99	0.02	88,88,88,88	0
56	MG	1H	3390	1/1	0.99	0.04	88,88,88,88	0
56	MG	13	1703	1/1	0.99	0.09	70,70,70,70	0
56	MG	1H	3392	1/1	0.99	0.03	71,71,71,71	0
56	MG	1H	3393	1/1	0.99	0.06	70,70,70,70	0
56	MG	1H	3395	1/1	0.99	0.03	74,74,74,74	0
56	MG	1H	3396	1/1	0.99	0.02	58,58,58,58	0
56	MG	1H	3397	1/1	0.99	0.03	71,71,71,71	0
56	MG	1H	3398	1/1	0.99	0.03	83,83,83,83	0
56	MG	13	1715	1/1	0.99	0.03	100,100,100,100	0
56	MG	1H	3404	1/1	0.99	0.08	64,64,64,64	0
56	MG	1H	3405	1/1	0.99	0.06	52,52,52,52	0
56	MG	1H	3406	1/1	0.99	0.04	65,65,65,65	0
56	MG	1H	3407	1/1	0.99	0.03	86,86,86,86	0
56	MG	14	3313	1/1	0.99	0.04	64,64,64,64	0
56	MG	14	3314	1/1	0.99	0.04	73,73,73,73	0
56	MG	14	3316	1/1	0.99	0.02	67,67,67,67	0
56	MG	13	1717	1/1	0.99	0.05	74,74,74,74	0
56	MG	14	3318	1/1	0.99	0.06	71,71,71,71	0
56	MG	14	3319	1/1	0.99	0.07	62,62,62,62	0
56	MG	14	3320	1/1	0.99	0.03	84,84,84,84	0
56	MG	14	3321	1/1	0.99	0.05	73,73,73,73	0
56	MG	14	3322	1/1	0.99	0.04	72,72,72,72	0
56	MG	14	3324	1/1	0.99	0.05	77,77,77,77	0
56	MG	14	3329	1/1	0.99	0.03	55,55,55,55	0
56	MG	14	3330	1/1	0.99	0.03	65,65,65,65	0
56	MG	14	3332	1/1	0.99	0.05	64,64,64,64	0
56	MG	14	3333	1/1	0.99	0.04	79,79,79,79	0
56	MG	1H	3329	1/1	0.99	0.04	59,59,59,59	0
56	MG	1H	3410	1/1	0.99	0.04	53,53,53,53	0
56	MG	14	3337	1/1	0.99	0.05	79,79,79,79	0
56	MG	1H	3411	1/1	0.99	0.03	100,100,100,100	0
56	MG	1H	3412	1/1	0.99	0.04	68,68,68,68	0
56	MG	13	1718	1/1	0.99	0.04	67,67,67,67	0
56	MG	14	3342	1/1	0.99	0.05	94,94,94,94	0
56	MG	14	3344	1/1	0.99	0.04	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	14	3345	1/1	0.99	0.07	118,118,118,118	0
56	MG	14	3347	1/1	0.99	0.06	77,77,77,77	0
56	MG	14	3348	1/1	0.99	0.03	83,83,83,83	0
56	MG	14	3349	1/1	0.99	0.03	90,90,90,90	0
56	MG	14	3350	1/1	0.99	0.06	76,76,76,76	0
56	MG	1H	3333	1/1	0.99	0.07	63,63,63,63	0
56	MG	14	3353	1/1	0.99	0.06	69,69,69,69	0
56	MG	14	3354	1/1	0.99	0.08	87,87,87,87	0
56	MG	14	3355	1/1	0.99	0.04	92,92,92,92	0
56	MG	14	3357	1/1	0.99	0.08	77,77,77,77	0
56	MG	1H	3415	1/1	0.99	0.04	94,94,94,94	0
56	MG	1H	3416	1/1	0.99	0.09	104,104,104,104	0
56	MG	14	3361	1/1	0.99	0.04	60,60,60,60	0
56	MG	14	3362	1/1	0.99	0.04	77,77,77,77	0
56	MG	14	3364	1/1	0.99	0.05	73,73,73,73	0
56	MG	1H	3334	1/1	0.99	0.04	51,51,51,51	0
56	MG	1H	3419	1/1	0.99	0.02	73,73,73,73	0
56	MG	1H	3420	1/1	0.99	0.10	76,76,76,76	0
56	MG	14	3369	1/1	0.99	0.11	84,84,84,84	0
56	MG	1H	3335	1/1	0.99	0.03	50,50,50,50	0
56	MG	1H	3422	1/1	0.99	0.05	100,100,100,100	0
56	MG	14	3373	1/1	0.99	0.03	87,87,87,87	0
56	MG	14	3374	1/1	0.99	0.04	129,129,129,129	0
56	MG	14	3375	1/1	0.99	0.05	111,111,111,111	0
56	MG	14	3376	1/1	0.99	0.03	90,90,90,90	0
56	MG	14	3377	1/1	0.99	0.05	60,60,60,60	0
56	MG	14	3378	1/1	0.99	0.02	62,62,62,62	0
56	MG	1H	3338	1/1	0.99	0.03	59,59,59,59	0
56	MG	14	3380	1/1	0.99	0.02	83,83,83,83	0
56	MG	1H	3341	1/1	0.99	0.03	57,57,57,57	0
56	MG	1H	3425	1/1	0.99	0.04	92,92,92,92	0
56	MG	13	1719	1/1	0.99	0.05	86,86,86,86	0
56	MG	13	1720	1/1	0.99	0.13	115,115,115,115	0
56	MG	1H	3345	1/1	0.99	0.05	58,58,58,58	0
56	MG	1H	3346	1/1	0.99	0.08	63,63,63,63	0
56	MG	13	1721	1/1	0.99	0.03	79,79,79,79	0
56	MG	1H	3350	1/1	0.99	0.05	72,72,72,72	0
56	MG	1H	3352	1/1	0.99	0.05	71,71,71,71	0
56	MG	1H	3354	1/1	0.99	0.11	65,65,65,65	0
56	MG	1H	3356	1/1	0.99	0.03	61,61,61,61	0
56	MG	1H	3357	1/1	0.99	0.03	58,58,58,58	0
56	MG	13	1706	1/1	0.99	0.05	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	16	209	1/1	0.99	0.04	64,64,64,64	0
56	MG	16	210	1/1	0.99	0.09	81,81,81,81	0
56	MG	16	211	1/1	0.99	0.06	85,85,85,85	0
56	MG	13	1704	1/1	0.99	0.04	85,85,85,85	0
56	MG	1H	3360	1/1	0.99	0.02	57,57,57,57	0
58	SF4	3E	302	8/8	0.99	0.05	76,86,96,96	0
58	SF4	32	301	8/8	0.99	0.03	92,113,120,129	0
56	MG	1H	3364	1/1	0.99	0.04	56,56,56,56	0
59	ZN	5A	101	1/1	0.99	0.04	139,139,139,139	0
56	MG	1H	3365	1/1	0.99	0.03	54,54,54,54	0
56	MG	14	3356	1/1	1.00	0.05	98,98,98,98	0
56	MG	13	1716	1/1	1.00	0.02	88,88,88,88	0
56	MG	1H	3400	1/1	1.00	0.05	52,52,52,52	0
56	MG	14	3359	1/1	1.00	0.03	55,55,55,55	0
56	MG	14	3315	1/1	1.00	0.06	71,71,71,71	0
56	MG	1H	3401	1/1	1.00	0.03	55,55,55,55	0
56	MG	1H	3402	1/1	1.00	0.04	60,60,60,60	0
56	MG	14	3363	1/1	1.00	0.01	51,51,51,51	0
56	MG	1H	3403	1/1	1.00	0.03	61,61,61,61	0
56	MG	1H	3355	1/1	1.00	0.02	58,58,58,58	0
56	MG	1H	3342	1/1	1.00	0.04	59,59,59,59	0
56	MG	13	1710	1/1	1.00	0.03	72,72,72,72	0
56	MG	14	3368	1/1	1.00	0.04	49,49,49,49	0
56	MG	1H	3331	1/1	1.00	0.02	51,51,51,51	0
56	MG	14	3323	1/1	1.00	0.03	66,66,66,66	0
56	MG	1H	3336	1/1	1.00	0.04	49,49,49,49	0
56	MG	14	3372	1/1	1.00	0.02	87,87,87,87	0
56	MG	14	3325	1/1	1.00	0.03	76,76,76,76	0
56	MG	14	3326	1/1	1.00	0.02	61,61,61,61	0
56	MG	14	3327	1/1	1.00	0.02	84,84,84,84	0
56	MG	14	3328	1/1	1.00	0.05	64,64,64,64	0
56	MG	1H	3337	1/1	1.00	0.05	55,55,55,55	0
56	MG	1H	3361	1/1	1.00	0.03	82,82,82,82	0
56	MG	14	3331	1/1	1.00	0.06	63,63,63,63	0
56	MG	1H	3362	1/1	1.00	0.02	64,64,64,64	0
56	MG	1H	3363	1/1	1.00	0.03	69,69,69,69	0
56	MG	1H	3347	1/1	1.00	0.02	78,78,78,78	0
56	MG	14	3335	1/1	1.00	0.02	63,63,63,63	0
56	MG	1H	3332	1/1	1.00	0.02	66,66,66,66	0
56	MG	1H	3366	1/1	1.00	0.11	59,59,59,59	0
56	MG	1H	3349	1/1	1.00	0.03	74,74,74,74	0
56	MG	14	3339	1/1	1.00	0.02	64,64,64,64	0

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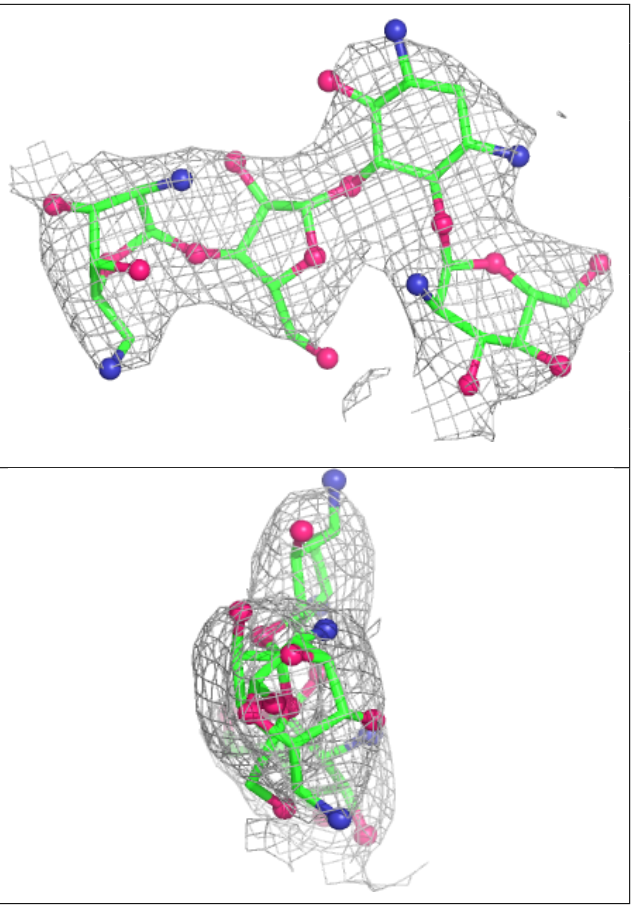
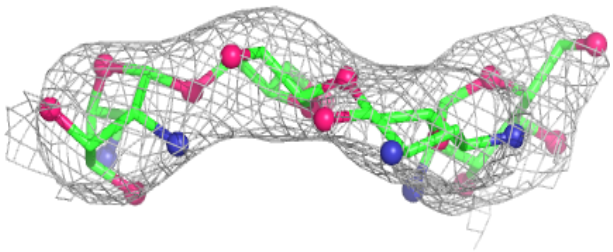
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	1H	3417	1/1	1.00	0.01	62,62,62,62	0
56	MG	I8	101	1/1	1.00	0.04	59,59,59,59	0
56	MG	1H	3368	1/1	1.00	0.04	57,57,57,57	0
56	MG	14	3343	1/1	1.00	0.02	71,71,71,71	0
56	MG	1H	3339	1/1	1.00	0.02	70,70,70,70	0
56	MG	1H	3370	1/1	1.00	0.01	76,76,76,76	0
56	MG	14	3346	1/1	1.00	0.01	64,64,64,64	0
56	MG	1H	3371	1/1	1.00	0.02	63,63,63,63	0
56	MG	1H	3394	1/1	1.00	0.05	60,60,60,60	0
56	MG	1H	3351	1/1	1.00	0.02	73,73,73,73	0
56	MG	1H	3340	1/1	1.00	0.03	58,58,58,58	0
56	MG	14	3351	1/1	1.00	0.02	65,65,65,65	0
56	MG	1H	3353	1/1	1.00	0.03	53,53,53,53	0
59	ZN	5I	102	1/1	1.00	0.02	99,99,99,99	0
56	MG	1H	3426	1/1	1.00	0.03	54,54,54,54	0
56	MG	1H	3375	1/1	1.00	0.02	67,67,67,67	0
56	MG	14	3312	1/1	1.00	0.05	70,70,70,70	0

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

Electron density around PAR 13 1730:

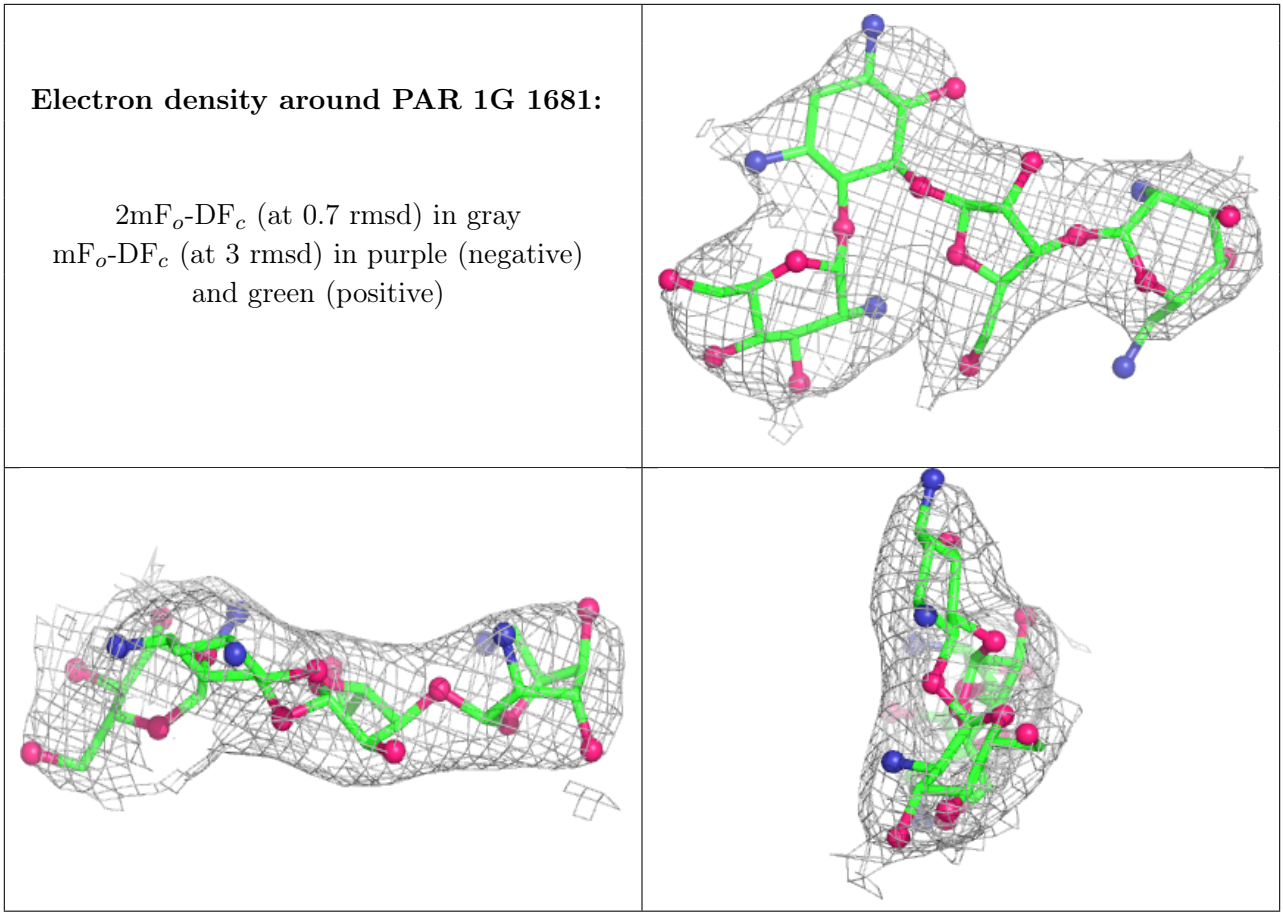
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)





Electron density around PAR 1G 1681:

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



6.5 Other polymers

There are no such residues in this entry.