Full wwPDB X-ray Structure Validation Report (i)

Mar 6, 2026 – 05:13 PM UTC

PDB ID	:	6FKR / pdb_00006fkr
Title	:	Crystal structure of the dolphin proline-rich antimicrobial peptide Tur1A bound to the Thermus thermophilus 70S ribosome
Authors	:	Mardirossian, M.; Perebaskine, N.; Benincasa, M.; Gambato, S.; Hofmann, S.; Huter, P.; Muller, C.; Hilpert, K.; Innis, C.A.; Tossi, A.; Wilson, D.N.
Deposited on	:	2018-01-24
Resolution	:	3.20 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the (i) symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

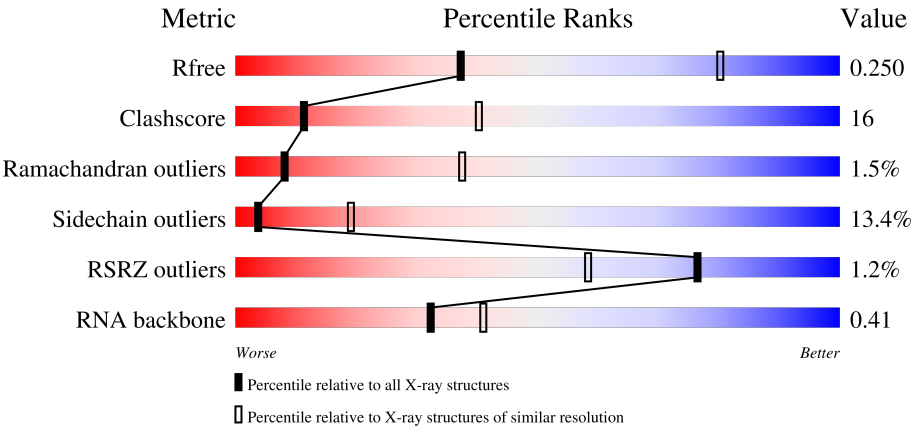
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.20 Å.

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



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

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

Mol	Chain	Length	Quality of chain
1	1A	2901	45% 43% 11%
1	2A	2901	39% 47% 13%
2	1B	120	47% 46% 8%
2	2B	120	39% 52% 8%

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Mol	Chain	Length	Quality of chain
3	1D	275	54% 35% 10%
3	2D	275	60% 32% 8%
4	1E	204	55% 34% 9%
4	2E	204	50% 38% 11%
5	1F	203	54% 37% 7%
5	2F	203	48% 43% 8%
6	1G	181	43% 46% 9%
6	2G	181	35% 55% 9%
7	1H	174	57% 36% 6%
7	2H	174	48% 45% 7%
8	1I	147	52% 34% 14%
8	2I	147	5% 39% 48% 12%
9	1N	140	62% 31% 6%
9	2N	140	51% 39% 9%
10	1O	122	54% 39% 7%
10	2O	122	52% 39% 8%
11	1P	149	44% 47% 9%
11	2P	149	57% 34% 9%
12	1Q	141	57% 35% 7%
12	2Q	141	47% 45% 8%
13	1R	118	46% 37% 14%
13	2R	118	42% 44% 13%
14	1S	110	51% 42% 6%
14	2S	110	49% 41% 10%
15	1T	131	2% 53% 41% 5%

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Mol	Chain	Length	Quality of chain
15	2T	131	53% 39% 8%
16	1U	116	53% 39% 9%
16	2U	116	53% 40% 7%
17	1V	101	64% 30% 6%
17	2V	101	60% 32% 7%
18	1W	112	53% 42%
18	2W	112	50% 40% 9%
19	1X	95	56% 38% 5%
19	2X	95	56% 39% 5%
20	1Y	107	53% 41% 5%
20	2Y	107	56% 36% 8%
21	1Z	203	54% 37% 7%
21	2Z	203	51% 39% 8%
22	10	77	62% 31% 5%
22	20	77	64% 29% 8%
23	11	97	60% 33% 6%
23	21	97	47% 44% 8%
24	12	70	63% 36%
24	22	70	53% 41% 6%
25	13	59	46% 42% 12%
25	23	59	46% 47% 7%
26	14	69	32% 46% 19%
26	24	69	43% 38% 17%
27	15	59	47% 42% 10%
27	25	59	54% 39% 7%

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Mol	Chain	Length	Quality of chain
28	16	53	42% 53%
28	26	53	47% 45% 8%
29	17	48	67% 23% 10%
29	27	48	2% 48% 33% 17%
30	18	64	45% 41% 14%
30	28	64	41% 53% 6%
31	19	37	59% 30% 11%
31	29	37	3% 41% 51% 8%
32	1a	1507	% 39% 50% 10%
32	2a	1507	% 42% 48% 10%
33	1b	231	% 38% 47% 13%
33	2b	231	3% 32% 51% 16%
34	1c	206	% 46% 50%
34	2c	206	3% 49% 44% 7%
35	1d	208	% 41% 45% 13%
35	2d	208	% 42% 47% 10%
36	1e	148	% 46% 48% 6%
36	2e	148	51% 43% 7%
37	1f	100	37% 56% 7%
37	2f	100	52% 44%
38	1g	155	63% 32% 6%
38	2g	155	% 54% 40% 5%
39	1h	137	% 43% 47% 9%
39	2h	137	2% 47% 42% 10%
40	1i	127	4% 40% 50% 9%

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Mol	Chain	Length	Quality of chain
40	2i	127	9% 46% 46% 7%
41	1j	97	4% 48% 41% 10%
41	2j	97	9% 44% 45% 9%
42	1k	114	61% 32% 6%
42	2k	114	54% 41%
43	1l	122	57% 36% 7%
43	2l	122	61% 34%
44	1m	116	46% 45% 9%
44	2m	116	7% 36% 53% 9%
45	1n	60	5% 40% 48% 12%
45	2n	60	8% 47% 43% 10%
46	1o	88	58% 38% 5%
46	2o	88	58% 35% 7%
47	1p	82	38% 48% 15%
47	2p	82	4% 34% 56% 10%
48	1q	99	53% 39% 7%
48	2q	99	64% 28% 8%
49	1r	68	44% 46% 10%
49	2r	68	49% 43% 7%
50	1s	83	52% 45%
50	2s	83	8% 39% 54% 7%
51	1t	96	4% 55% 35% 6%
51	2t	96	4% 57% 38%
52	1u	23	9% 52% 35% 13%
52	2u	23	22% 43% 52%

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Mol	Chain	Length	Quality of chain
53	1y	22	18% 27% 45% 27%
54	1z	97	2% 61% 34% 5%
54	2z	97	6% 46% 54%

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
43	0TD	1l	92	-	X	-	-
55	MG	1A	3252	-	-	-	X
55	MG	1A	3528	-	-	-	X
55	MG	1A	3553	-	-	-	X
55	MG	1A	3556	-	-	-	X
55	MG	1A	3584	-	-	-	X
55	MG	1D	303	-	-	-	X
55	MG	1a	1661	-	-	-	X
55	MG	2A	3492	-	-	-	X
55	MG	2A	3594	-	-	-	X
55	MG	2A	3911	-	-	-	X
55	MG	2A	3931	-	-	-	X
55	MG	2a	1739	-	-	-	X
57	SF4	2d	501	-	-	X	-

2 Entry composition (i)

There are 58 unique types of molecules in this entry. The entry contains 294294 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 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	1A	2872	Total	C	N	O	P	0	0	0
			61872	27540	11574	19886	2872			
1	2A	2872	Total	C	N	O	P	0	0	0
			61872	27540	11574	19886	2872			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
1A	652R	G	C	conflict	GB 37223181
1A	1227	G	UNK	conflict	GB 37223181
2A	652R	G	C	conflict	GB 37223181
2A	1227	G	UNK	conflict	GB 37223181

- Molecule 2 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	1B	120	Total	C	N	O	P	0	0	0
			2575	1145	476	834	120			
2	2B	120	Total	C	N	O	P	0	0	0
			2575	1145	476	834	120			

- Molecule 3 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	1D	275	Total	C	N	O	S	0	0	0
			2131	1346	422	360	3			
3	2D	275	Total	C	N	O	S	0	0	0
			2131	1346	422	360	3			

- Molecule 4 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	1E	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			
4	2E	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			

- Molecule 5 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	1F	203	Total	C	N	O	S	0	0	1
			1584	1009	298	275	2			
5	2F	203	Total	C	N	O	S	0	0	1
			1584	1009	298	275	2			

- Molecule 6 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	1G	181	Total	C	N	O	S	0	0	0
			1426	916	253	253	4			
6	2G	181	Total	C	N	O	S	0	0	0
			1426	916	253	253	4			

- Molecule 7 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	1H	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			
7	2H	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			

- Molecule 8 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	1I	147	Total	C	N	O	S	0	0	0
			1094	699	191	203	1			
8	2I	147	Total	C	N	O	S	0	0	0
			1094	699	191	203	1			

- Molecule 9 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	1N	140	Total	C	N	O	S	0	0	0
			1121	722	208	187	4			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	2N	140	Total	C	N	O	S	0	0	0
			1121	722	208	187	4			

- Molecule 10 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1O	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			
10	2O	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 11 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	1P	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			
11	2P	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			

- Molecule 12 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	1Q	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
12	2Q	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 13 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	1R	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
13	2R	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			

- Molecule 14 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
14	1S	110	Total	C	N	O	0	0	0
			877	553	175	149			
14	2S	110	Total	C	N	O	0	0	0
			877	553	175	149			

- Molecule 15 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	1T	131	Total	C	N	O	S	0	0	0
			1091	680	225	185	1			
15	2T	131	Total	C	N	O	S	0	0	0
			1091	680	225	185	1			

- Molecule 16 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	1U	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			
16	2U	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			

- Molecule 17 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	1V	101	Total	C	N	O	S	0	0	0
			775	498	141	135	1			
17	2V	101	Total	C	N	O	S	0	0	0
			775	498	141	135	1			

- Molecule 18 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	1W	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			
18	2W	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			

- Molecule 19 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	1X	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			
19	2X	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			

- Molecule 20 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	1Y	107	Total	C	N	O	S	0	0	0
			810	520	153	131	6			
20	2Y	107	Total	C	N	O	S	0	0	0
			810	520	153	131	6			

- Molecule 21 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	1Z	203	Total	C	N	O	S	0	0	0
			1587	1011	282	292	2			
21	2Z	203	Total	C	N	O	S	0	0	0
			1587	1011	282	292	2			

- Molecule 22 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	10	77	Total	C	N	O	S	0	0	0
			608	375	129	103	1			
22	20	77	Total	C	N	O	S	0	0	0
			608	375	129	103	1			

- Molecule 23 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	11	97	Total	C	N	O	S	0	0	0
			754	475	148	130	1			
23	21	97	Total	C	N	O	S	0	0	0
			754	475	148	130	1			

- Molecule 24 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	12	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			
24	22	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			

- Molecule 25 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
25	13	59	Total	C	N	O	0	0	0
			469	298	90	81			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
25	23	59	Total 469	C 298	N 90	O 81	0	0	0

- Molecule 26 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	14	69	Total 546	C 346	N 96	O 99	S 5	0	0	0
26	24	69	Total 546	C 346	N 96	O 99	S 5	0	0	0

- Molecule 27 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	15	59	Total 459	C 288	N 90	O 76	S 5	0	0	0
27	25	59	Total 459	C 288	N 90	O 76	S 5	0	0	0

- Molecule 28 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	16	53	Total 453	C 281	N 91	O 77	S 4	0	0	0
28	26	53	Total 453	C 281	N 91	O 77	S 4	0	0	0

- Molecule 29 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	17	48	Total 418	C 257	N 104	O 55	S 2	0	0	0
29	27	48	Total 418	C 257	N 104	O 55	S 2	0	0	0

- Molecule 30 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	18	64	Total 517	C 331	N 102	O 82	S 2	0	0	0
30	28	64	Total 517	C 331	N 102	O 82	S 2	0	0	0

- Molecule 31 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	19	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			
31	29	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			

- Molecule 32 is a RNA chain called 16 ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	1a	1500	Total	C	N	O	P	0	0	0
			32246	14358	5975	10413	1500			
32	2a	1500	Total	C	N	O	P	0	0	0
			32246	14358	5975	10413	1500			

- Molecule 33 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	1b	231	Total	C	N	O	S	0	0	0
			1842	1175	330	332	5			
33	2b	231	Total	C	N	O	S	0	0	0
			1842	1175	330	332	5			

- Molecule 34 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	1c	206	Total	C	N	O	S	0	0	0
			1558	979	305	273	1			
34	2c	206	Total	C	N	O	S	0	0	0
			1558	979	305	273	1			

- Molecule 35 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	1d	208	Total	C	N	O	S	0	0	0
			1665	1043	329	286	7			
35	2d	208	Total	C	N	O	S	0	0	0
			1665	1043	329	286	7			

- Molecule 36 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	1e	148	Total	C	N	O	S	0	0	0
			1133	716	214	199	4			
36	2e	148	Total	C	N	O	S	0	0	0
			1133	716	214	199	4			

- Molecule 37 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	1f	100	Total	C	N	O	S	0	0	0
			814	516	144	151	3			
37	2f	100	Total	C	N	O	S	0	0	0
			814	516	144	151	3			

- Molecule 38 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	1g	155	Total	C	N	O	S	0	0	0
			1235	769	244	216	6			
38	2g	155	Total	C	N	O	S	0	0	0
			1235	769	244	216	6			

- Molecule 39 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	1h	137	Total	C	N	O	S	0	0	0
			1098	694	210	192	2			
39	2h	137	Total	C	N	O	S	0	0	0
			1098	694	210	192	2			

- Molecule 40 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
40	1i	127	Total	C	N	O	0	0	0
			986	625	193	168			
40	2i	127	Total	C	N	O	0	0	0
			986	625	193	168			

- Molecule 41 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
41	1j	97	Total	C	N	O	0	0	0
			719	446	142	131			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
41	2j	97	Total 719	C 446	N 142	O 131	0	0	0

- Molecule 42 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	1k	114	Total 834	C 520	N 156	O 155	S 3	0	0	0
42	2k	114	Total 834	C 520	N 156	O 155	S 3	0	0	0

- Molecule 43 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	1l	122	Total 932	C 586	N 185	O 159	S 2	0	0	0
43	2l	122	Total 932	C 586	N 185	O 159	S 2	0	0	0

- Molecule 44 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	1m	116	Total 914	C 564	N 189	O 159	S 2	0	0	0
44	2m	116	Total 914	C 564	N 189	O 159	S 2	0	0	0

- Molecule 45 is a protein called 30S ribosomal protein S14 type Z.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	1n	60	Total 492	C 312	N 104	O 72	S 4	0	0	0
45	2n	60	Total 492	C 312	N 104	O 72	S 4	0	0	0

- Molecule 46 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	1o	88	Total 728	C 456	N 144	O 126	S 2	0	0	0
46	2o	88	Total 728	C 456	N 144	O 126	S 2	0	0	0

- Molecule 47 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	1p	82	Total	C	N	O	S	0	0	0
			681	433	134	113	1			
47	2p	82	Total	C	N	O	S	0	0	0
			681	433	134	113	1			

- Molecule 48 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	1q	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			
48	2q	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			

- Molecule 49 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
49	1r	68	Total	C	N	O	0	0	0
			555	355	108	92			
49	2r	68	Total	C	N	O	0	0	0
			555	355	108	92			

- Molecule 50 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	1s	83	Total	C	N	O	S	0	0	0
			648	415	120	111	2			
50	2s	83	Total	C	N	O	S	0	0	0
			648	415	120	111	2			

- Molecule 51 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	1t	96	Total	C	N	O	S	0	0	0
			732	449	157	124	2			
51	2t	96	Total	C	N	O	S	0	0	0
			732	449	157	124	2			

- Molecule 52 is a protein called 30S ribosomal protein Thx.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
52	1u	23	Total 199	C 122	N 48	O 29	0	0	0
52	2u	23	Total 199	C 122	N 48	O 29	0	0	0

- Molecule 53 is a protein called Tur1A peptide.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
53	1y	22	Total 168	C 111	N 34	O 23	0	0	0

- Molecule 54 is a protein called Ribosome-associated inhibitor A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	1z	97	Total 764	C 478	N 144	O 139	S 3	0	0	0
54	2z	97	Total 764	C 478	N 144	O 139	S 3	0	0	0

- Molecule 55 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	1A	957	Total 957	Mg 957	0	0
55	1B	28	Total 28	Mg 28	0	0
55	1D	17	Total 17	Mg 17	0	0
55	1E	5	Total 5	Mg 5	0	0
55	1F	14	Total 14	Mg 14	0	0
55	1G	3	Total 3	Mg 3	0	0
55	1H	2	Total 2	Mg 2	0	0
55	1N	4	Total 4	Mg 4	0	0
55	1P	4	Total 4	Mg 4	0	0
55	1Q	4	Total 4	Mg 4	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	1R	4	Total Mg 4 4	0	0
55	1T	2	Total Mg 2 2	0	0
55	1U	5	Total Mg 5 5	0	0
55	1V	3	Total Mg 3 3	0	0
55	1W	3	Total Mg 3 3	0	0
55	1X	2	Total Mg 2 2	0	0
55	1Y	1	Total Mg 1 1	0	0
55	10	7	Total Mg 7 7	0	0
55	11	4	Total Mg 4 4	0	0
55	13	2	Total Mg 2 2	0	0
55	15	5	Total Mg 5 5	0	0
55	17	2	Total Mg 2 2	0	0
55	18	3	Total Mg 3 3	0	0
55	19	3	Total Mg 3 3	0	0
55	1a	245	Total Mg 245 245	0	0
55	1b	1	Total Mg 1 1	0	0
55	1d	5	Total Mg 5 5	0	0
55	1e	1	Total Mg 1 1	0	0
55	1f	1	Total Mg 1 1	0	0
55	1g	1	Total Mg 1 1	0	0
55	1h	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	1i	1	Total Mg 1 1	0	0
55	1k	1	Total Mg 1 1	0	0
55	1l	2	Total Mg 2 2	0	0
55	1n	1	Total Mg 1 1	0	0
55	1o	2	Total Mg 2 2	0	0
55	1t	1	Total Mg 1 1	0	0
55	2A	971	Total Mg 971 971	0	0
55	2B	26	Total Mg 26 26	0	0
55	2D	17	Total Mg 17 17	0	0
55	2E	6	Total Mg 6 6	0	0
55	2F	11	Total Mg 11 11	0	0
55	2G	3	Total Mg 3 3	0	0
55	2H	2	Total Mg 2 2	0	0
55	2N	3	Total Mg 3 3	0	0
55	2P	2	Total Mg 2 2	0	0
55	2Q	4	Total Mg 4 4	0	0
55	2R	3	Total Mg 3 3	0	0
55	2S	1	Total Mg 1 1	0	0
55	2T	3	Total Mg 3 3	0	0
55	2U	5	Total Mg 5 5	0	0
55	2V	5	Total Mg 5 5	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	2W	3	Total Mg 3 3	0	0
55	2X	2	Total Mg 2 2	0	0
55	2Y	1	Total Mg 1 1	0	0
55	20	5	Total Mg 5 5	0	0
55	21	1	Total Mg 1 1	0	0
55	23	2	Total Mg 2 2	0	0
55	25	4	Total Mg 4 4	0	0
55	27	2	Total Mg 2 2	0	0
55	28	2	Total Mg 2 2	0	0
55	29	3	Total Mg 3 3	0	0
55	2a	242	Total Mg 242 242	0	0
55	2b	1	Total Mg 1 1	0	0
55	2d	3	Total Mg 3 3	0	0
55	2e	1	Total Mg 1 1	0	0
55	2f	1	Total Mg 1 1	0	0
55	2g	1	Total Mg 1 1	0	0
55	2h	2	Total Mg 2 2	0	0
55	2i	1	Total Mg 1 1	0	0
55	2l	2	Total Mg 2 2	0	0
55	2o	2	Total Mg 2 2	0	0
55	2t	2	Total Mg 2 2	0	0

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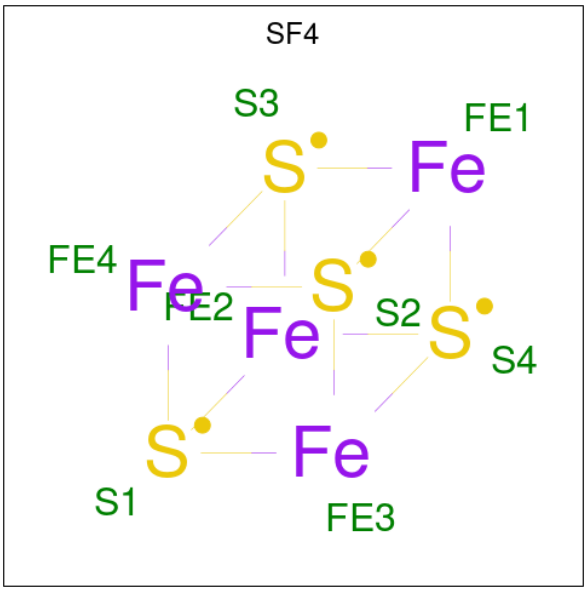
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	2z	2	Total Mg 2 2	0	0

- Molecule 56 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	1Y	1	Total Zn 1 1	0	0
56	14	1	Total Zn 1 1	0	0
56	15	1	Total Zn 1 1	0	0
56	16	1	Total Zn 1 1	0	0
56	19	1	Total Zn 1 1	0	0
56	1n	1	Total Zn 1 1	0	0
56	2Y	1	Total Zn 1 1	0	0
56	24	1	Total Zn 1 1	0	0
56	25	1	Total Zn 1 1	0	0
56	26	1	Total Zn 1 1	0	0
56	29	1	Total Zn 1 1	0	0
56	2n	1	Total Zn 1 1	0	0

- Molecule 57 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	1d	1	Total Fe S 8 4 4	0	0
57	2d	1	Total Fe S 8 4 4	0	0

- Molecule 58 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	1A	1782	Total O 1782 1782	0	0
58	1B	45	Total O 45 45	0	0
58	1D	15	Total O 15 15	0	0
58	1E	18	Total O 18 18	0	0
58	1F	14	Total O 14 14	0	0
58	1G	2	Total O 2 2	0	0
58	1H	5	Total O 5 5	0	0
58	1N	7	Total O 7 7	0	0
58	1P	12	Total O 12 12	0	0
58	1Q	6	Total O 6 6	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	1R	6	Total O 6 6	0	0
58	1T	5	Total O 5 5	0	0
58	1U	7	Total O 7 7	0	0
58	1V	3	Total O 3 3	0	0
58	1W	1	Total O 1 1	0	0
58	1X	6	Total O 6 6	0	0
58	1Y	5	Total O 5 5	0	0
58	10	6	Total O 6 6	0	0
58	11	2	Total O 2 2	0	0
58	13	2	Total O 2 2	0	0
58	15	2	Total O 2 2	0	0
58	16	2	Total O 2 2	0	0
58	17	2	Total O 2 2	0	0
58	18	9	Total O 9 9	0	0
58	19	2	Total O 2 2	0	0
58	1a	406	Total O 406 406	0	0
58	1d	8	Total O 8 8	0	0
58	1e	4	Total O 4 4	0	0
58	1f	1	Total O 1 1	0	0
58	1h	1	Total O 1 1	0	0
58	1j	1	Total O 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	1l	3	Total O 3 3	0	0
58	1m	3	Total O 3 3	0	0
58	1n	1	Total O 1 1	0	0
58	1o	1	Total O 1 1	0	0
58	1p	1	Total O 1 1	0	0
58	1t	1	Total O 1 1	0	0
58	1z	3	Total O 3 3	0	0
58	2A	1771	Total O 1771 1771	0	0
58	2B	46	Total O 46 46	0	0
58	2D	14	Total O 14 14	0	0
58	2E	20	Total O 20 20	0	0
58	2F	12	Total O 12 12	0	0
58	2G	2	Total O 2 2	0	0
58	2H	4	Total O 4 4	0	0
58	2N	7	Total O 7 7	0	0
58	2P	11	Total O 11 11	0	0
58	2Q	7	Total O 7 7	0	0
58	2R	6	Total O 6 6	0	0
58	2T	5	Total O 5 5	0	0
58	2U	8	Total O 8 8	0	0
58	2V	5	Total O 5 5	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	2W	2	Total O 2 2	0	0
58	2X	7	Total O 7 7	0	0
58	2Y	5	Total O 5 5	0	0
58	20	8	Total O 8 8	0	0
58	21	2	Total O 2 2	0	0
58	23	2	Total O 2 2	0	0
58	25	4	Total O 4 4	0	0
58	26	2	Total O 2 2	0	0
58	27	2	Total O 2 2	0	0
58	28	11	Total O 11 11	0	0
58	29	2	Total O 2 2	0	0
58	2a	404	Total O 404 404	0	0
58	2d	8	Total O 8 8	0	0
58	2e	6	Total O 6 6	0	0
58	2f	1	Total O 1 1	0	0
58	2h	1	Total O 1 1	0	0
58	2j	1	Total O 1 1	0	0
58	2l	3	Total O 3 3	0	0
58	2m	2	Total O 2 2	0	0
58	2n	1	Total O 1 1	0	0
58	2o	3	Total O 3 3	0	0

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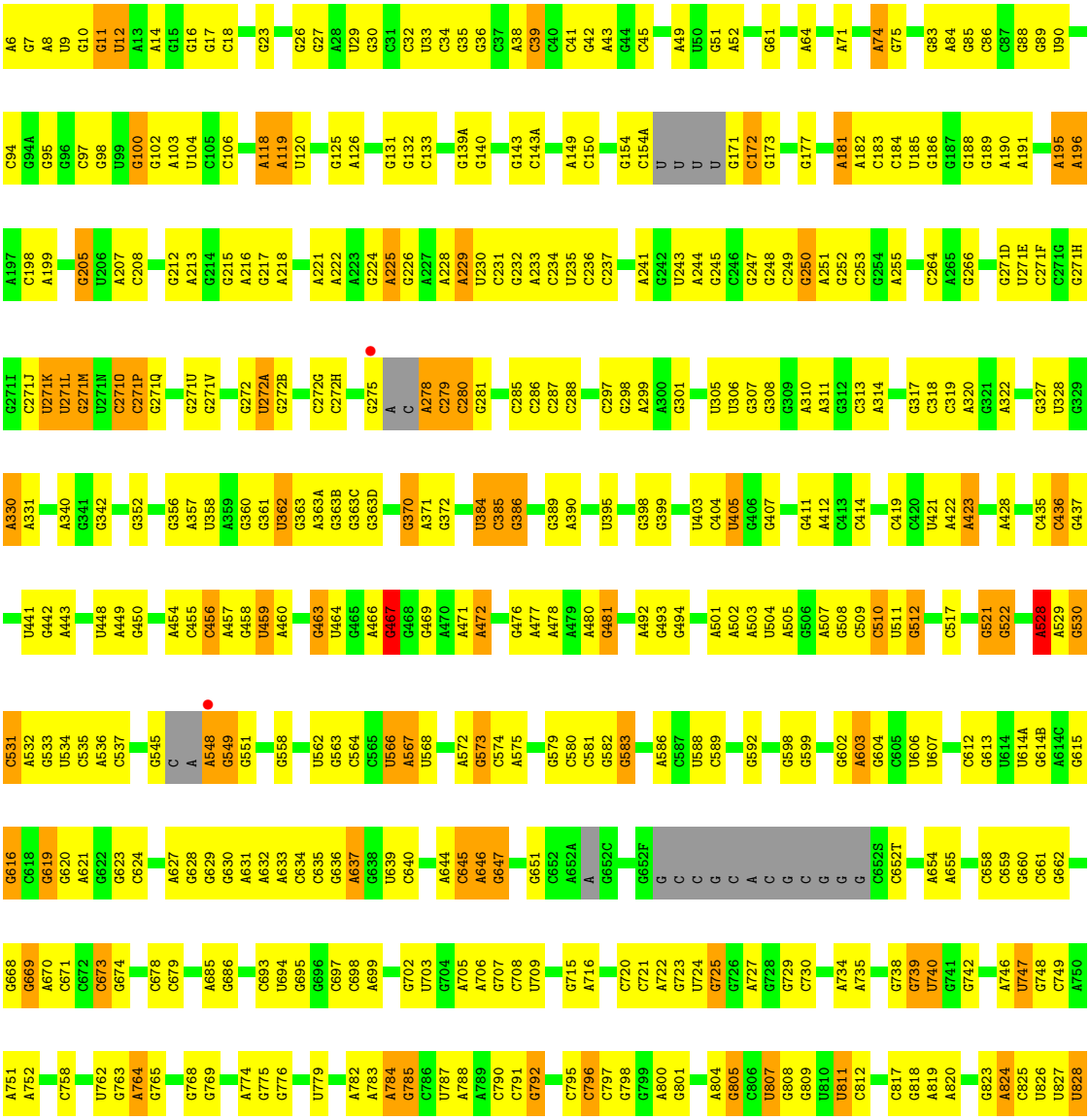
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	2p	1	Total O 1 1	0	0
58	2z	4	Total O 4 4	0	0

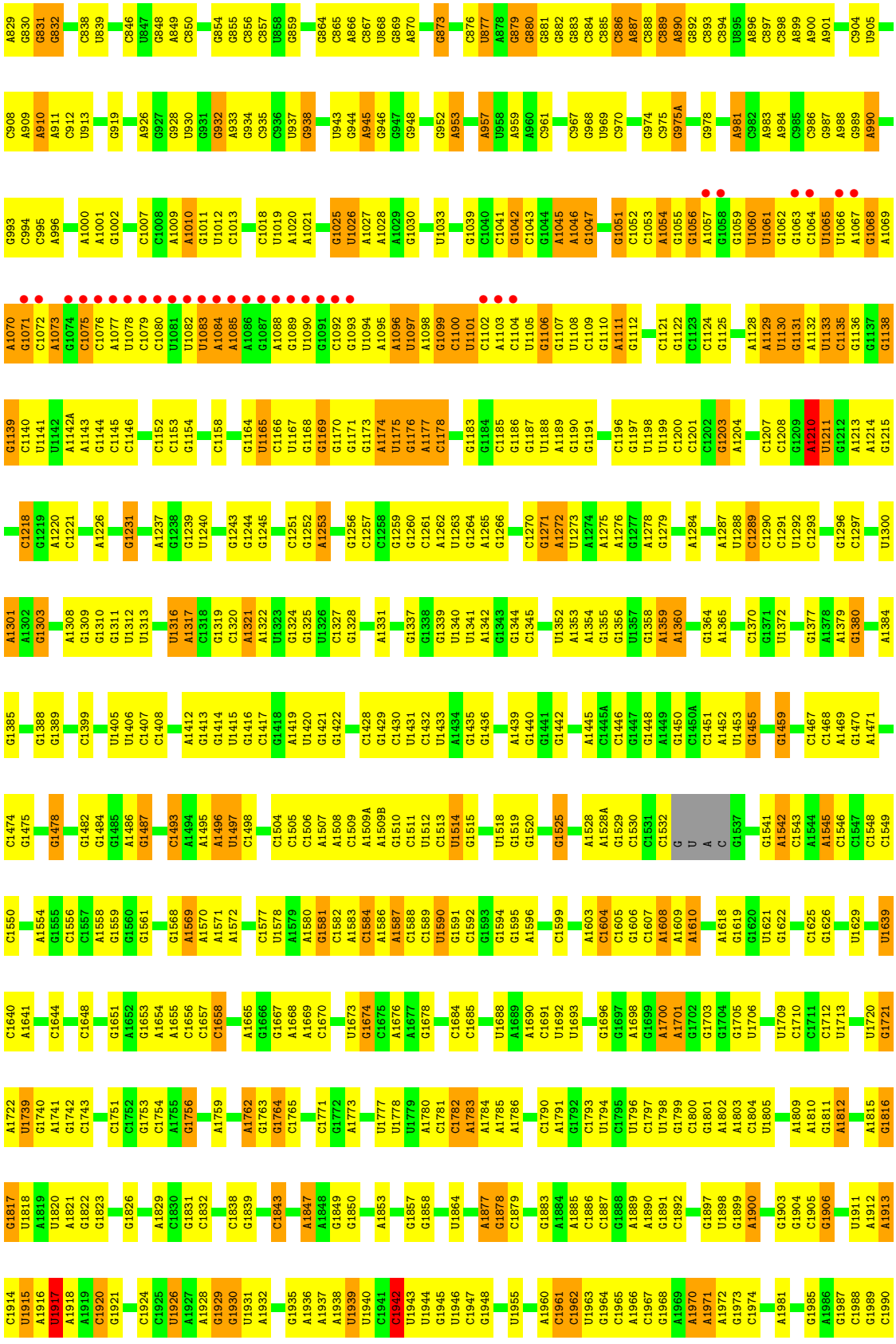
3 Residue-property plots (i)

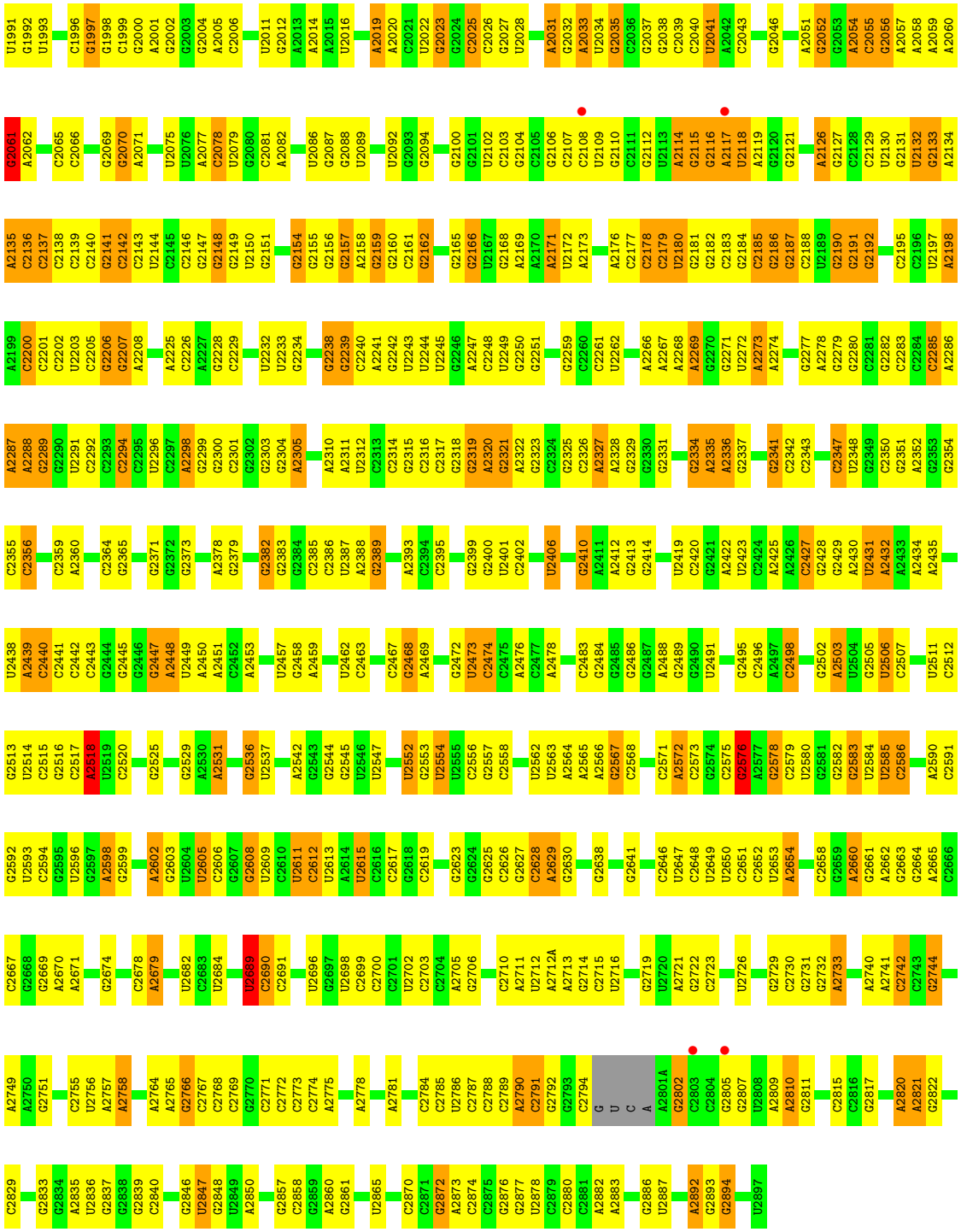
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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: 23S ribosomal RNA

Chain 1A:

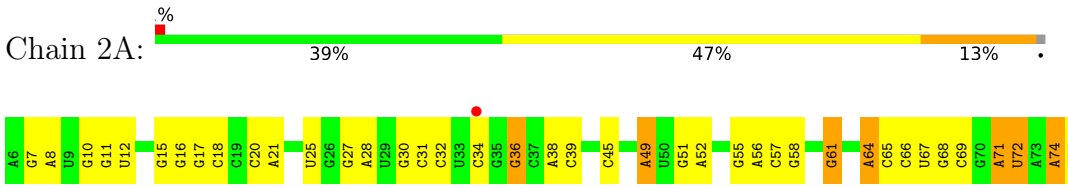


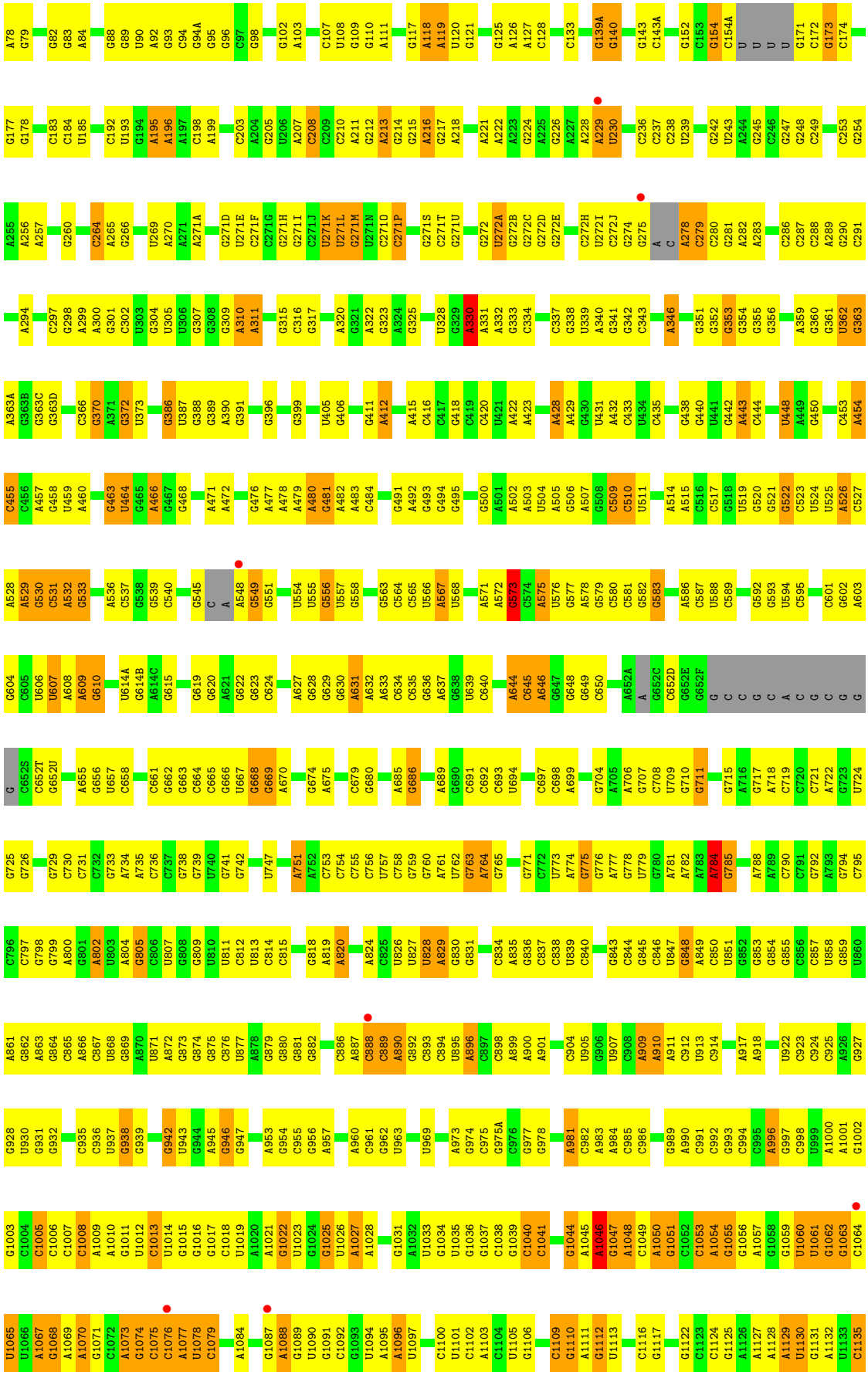

A829 G830 G831 G832 C838 U839 C846 U847 G848 A849 C850 G854 G855 C856 C857 U858 G859 G864 C865 A866 C867 U868 G869 A870 G873 C876 U877 A878 G879 G880 G881 G882 G883 C884 C885 C886 A887 C888 C889 A890 G892 C893 C894 U895 A896 C897 C898 A899 A900 A901 C904 U905
C908 A909 A910 A911 C912 U913 G919 A926 G927 G928 U930 G931 G932 A933 G934 C935 C936 U937 G938 U943 G944 A945 G946 G947 G948 G952 A953 A957 U958 A959 A960 C961 C967 G968 U969 C970 G974 C975 G975A G978 A981 C982 A983 A984 C985 C986 G987 A988 G989 A990
G993 C994 C995 A996 A1000 A1001 G1002 C1007 C1008 A1009 A1010 G1011 U1012 C1013 C1018 U1019 A1020 A1021 G1025 U1026 A1027 A1028 A1029 G1030 U1033 G1039 C1040 C1041 G1042 C1043 G1044 A1045 A1046 G1047 G1051 C1052 C1053 A1054 G1055 G1056 A1057 G1058 G1059 U1060 U1061 G1062 G1063 C1064 U1065 U1066 A1067 G1068 A1069
A1070 G1071 C1072 G1073 G1074 G1075 C1076 A1077 U1078 C1079 C1080 U1081 U1082 U1083 A1084 A1085 A1086 G1087 A1088 G1089 U1090 G1091 C1092 G1093 U1094 A1095 A1096 U1097 A1098 C1099 C1100 U1101 C1102 A1103 C1104 U1105 G1106 G1107 U1108 C1109 G1110 A1111 G1112 C1121 G1122 C1123 C1124 G1125 A1128 A1129 U1130 G1131 A1132 U1133 C1135 G1136 G1137 G1138
G1139 C1140 U1141 U1142 A1142A A1143 G1144 C1145 C1146 C1152 C1153 G1154 C1158 G1164 U1165 C1166 U1167 G1168 G1169 G1170 G1171 G1173 A1174 U1175 G1176 A1177 C1178 G1183 G1184 C1185 G1186 G1187 U1188 A1189 G1190 G1191 C1196 G1197 U1198 U1199 C1200 C1201 G1202 G1203 A1204 C1207 C1208 G1209 A1210 U1211 G1212 A1213 A1214 G1215
C1218 G1219 A1220 C1221 A1226 G1231 A1237 G1238 G1239 U1240 G1243 G1244 G1245 C1251 G1252 A1253 G1256 C1257 C1258 G1259 G1260 C1261 A1262 U1263 G1264 A1265 G1266 C1270 G1271 A1272 U1273 A1274 A1275 A1276 G1277 A1278 G1279 A1284 A1287 U1288 C1289 C1290 C1291 U1292 C1293 G1296 C1297 U1300
A1301 A1302 G1303 A1308 G1309 G1310 G1311 U1312 U1313 U1316 A1317 C1318 G1319 C1320 A1321 A1322 U1323 G1324 G1325 U1326 C1327 G1328 A1331 G1337 G1338 G1339 U1340 U1341 A1342 G1343 G1344 C1345 U1352 A1353 A1354 G1355 G1356 U1357 G1358 A1359 A1360 G1364 A1365 C1370 G1371 U1372 G1377 A1378 A1379 G1380 A1384
G1385 G1388 G1389 C1399 U1405 U1406 C1407 C1408 A1412 G1413 G1414 U1415 G1416 C1417 G1418 A1419 U1420 G1421 G1422 C1428 G1429 C1430 U1431 C1432 U1433 A1434 G1435 G1436 A1439 G1440 G1441 G1442 A1445 C1445A C1446 G1447 G1448 A1449 G1450 C1450A C1451 A1452 U1453 G1455 G1459 C1467 C1468 A1469 G1470 A1471
C1474 G1475 G1478 G1482 G1484 G1485 A1486 G1487 C1493 A1494 A1495 A1496 U1497 C1498 C1504 C1505 C1506 A1507 A1508 C1509 A1509A A1509B G1510 C1511 U1512 C1513 U1514 G1515 U1518 G1519 G1520 G1525 A1528 A1528A G1529 C1530 C1531 C1532 G U A C G1537 G1541 A1542 C1543 A1544 A1545 C1546 C1547 C1548 C1549
C1550 A1554 G1555 C1556 C1557 A1558 G1559 G1560 G1561 G1568 A1569 A1570 A1571 A1572 C1577 U1578 A1579 A1580 G1581 C1582 A1583 C1584 A1586 A1587 C1588 C1589 U1590 G1591 C1592 G1593 G1594 G1595 A1596 C1599 A1603 C1604 C1605 G1606 C1607 A1608 A1609 A1610 A1618 G1619 G1620 U1621 G1622 C1625 G1626 U1629 U1639
C1640 A1641 C1644 C1648 G1651 A1652 G1653 A1654 A1655 C1656 C1657 C1658 A1665 G1666 G1667 A1668 A1669 C1670 U1673 G1674 C1675 A1676 A1677 G1678 C1684 C1685 U1688 A1689 A1690 C1691 U1692 U1693 G1696 G1697 A1698 G1699 A1700 A1701 G1702 G1703 G1704 G1705 U1706 U1709 C1710 C1711 C1712 U1713 U1720 G1721
A1722 U1739 G1740 A1741 U1742 C1743 C1751 C1752 G1753 C1754 A1755 G1756 A1759 A1762 G1763 G1764 C1765 C1771 G1772 A1773 U1777 U1778 U1779 A1780 C1781 C1782 A1783 A1784 A1785 A1786 C1790 A1791 G1792 C1793 U1794 C1795 U1796 C1797 U1798 G1799 C1800 G1801 A1802 A1803 C1804 U1805 A1809 A1810 G1811 A1812 A1815 G1816
G1817 U1818 A1819 U1820 A1821 G1822 G1823 G1826 A1829 C1830 G1831 C1832 C1838 G1839 C1843 A1847 A1848 A1849 G1850 A1853 G1857 G1858 U1864 A1877 G1878 C1879 G1883 A1884 A1885 C1886 C1887 G1888 A1889 A1890 G1891 C1892 G1897 U1898 G1899 A1900 G1903 G1904 C1905 G1906 U1911 A1912 A1913
C1914 U1915 A1916 U1917 A1918 A1919 C1920 G1921 C1924 C1925 U1926 A1927 A1928 G1929 G1930 U1931 A1932 G1935 A1936 A1937 A1938 U1939 U1940 C1941 C1942 U1943 U1944 G1945 U1946 C1947 G1948 U1955 A1960 C1961 C1962 U1963 G1964 C1965 A1966 C1967 G1968 A1969 A1970 A1971 A1972 G1973 C1974 A1981 G1985 A1986 G1987 C1988 G1989 C1990

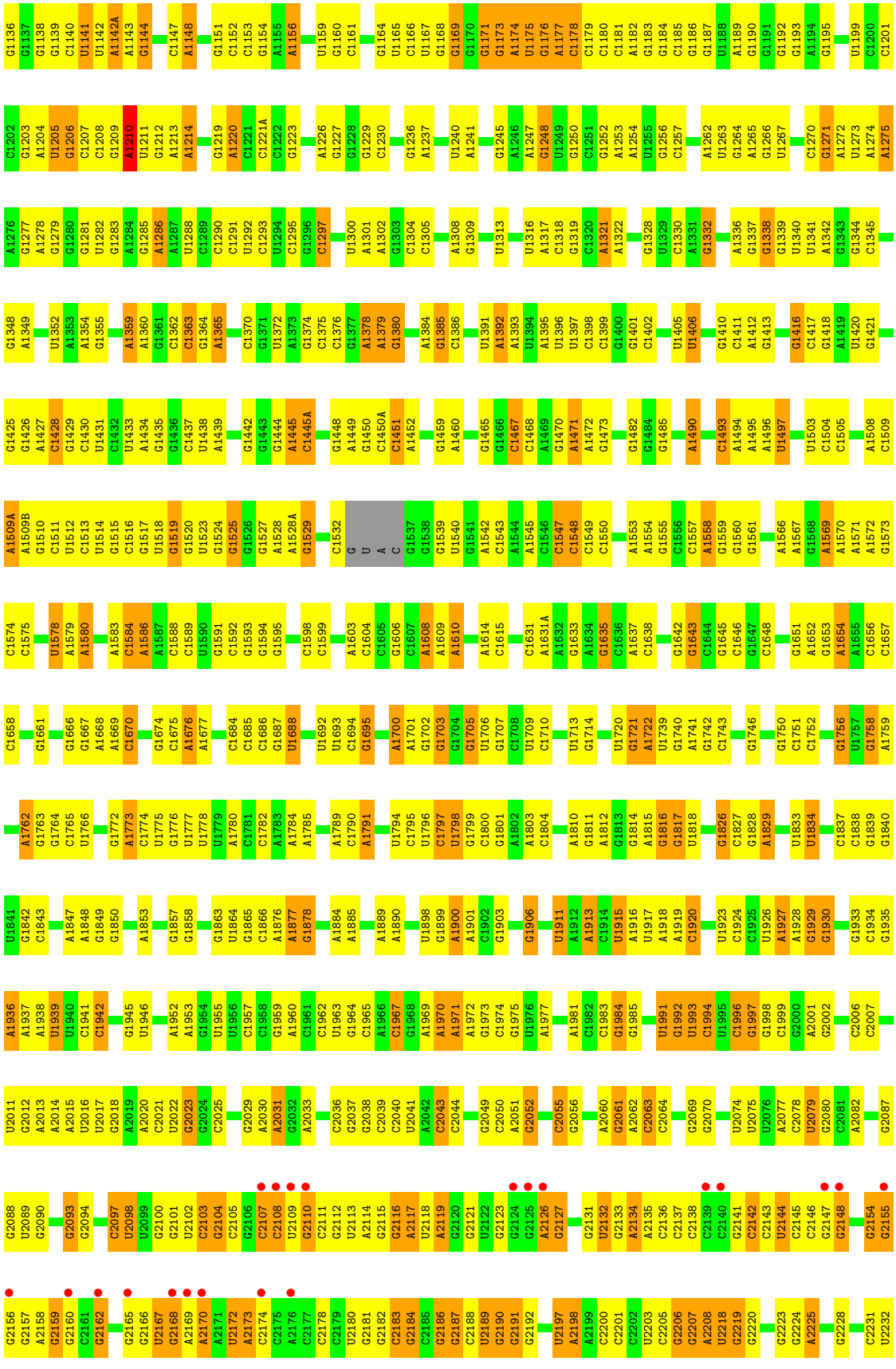


• Molecule 1: 23S ribosomal RNA

Chain 2A:



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C1202 G1203 A1204 U1205 G1206 C1207 C1208 G1209 A1210 U1211 G1212 A1213 A1214 G1219 A1220 C1221 C1221A C1222 G1223 A1226 G1227 G1228 G1229 C1230 G1236 A1237 U1240 A1241 G1245 A1246 A1247 G1248 U1249 G1250 C1251 G1252 A1253 A1254 U1255 G1256 C1257 A1262 G1263 G1264 A1265 G1266 U1267 C1270 G1271 A1272 U1273 A1274 A1275
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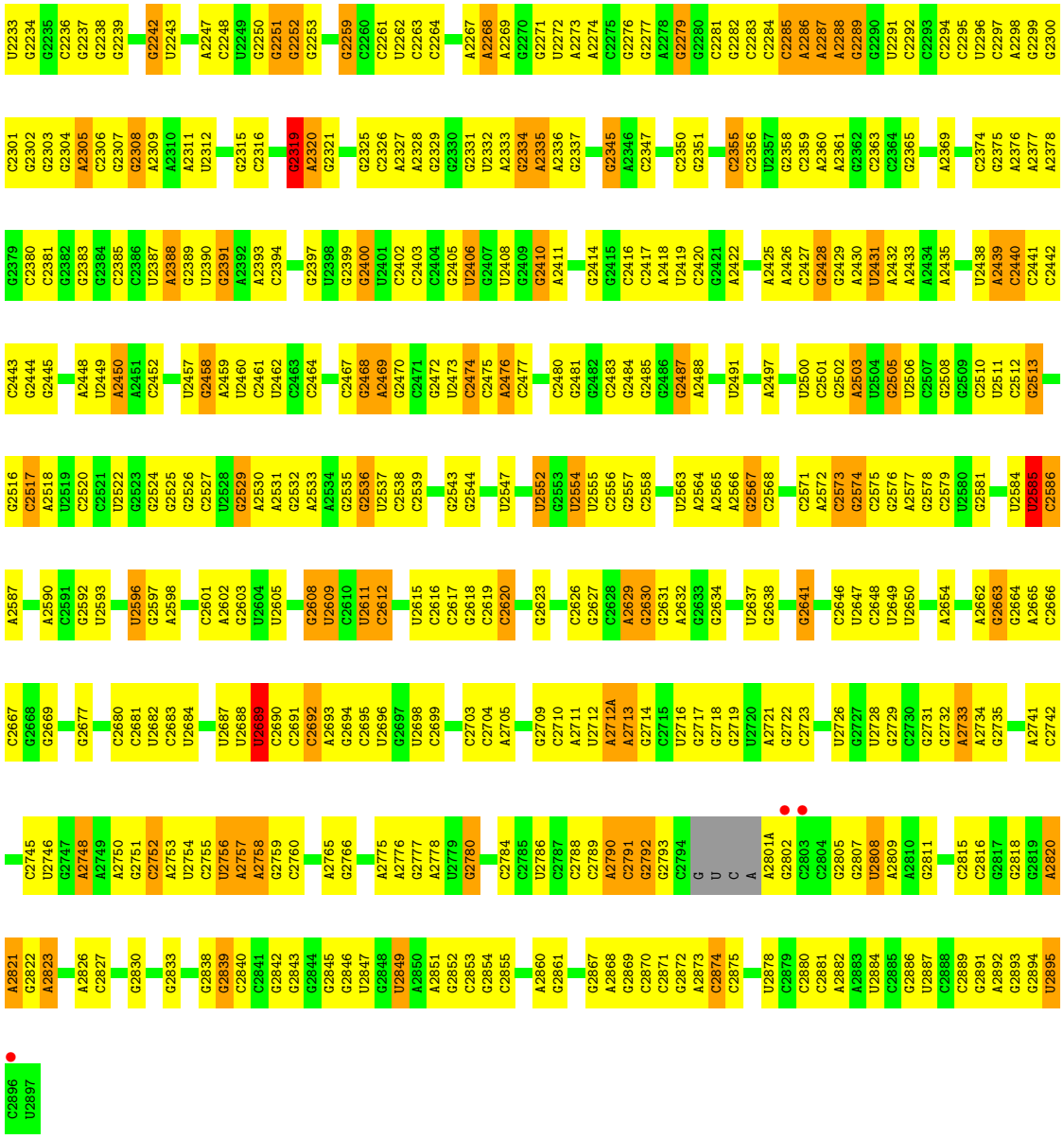
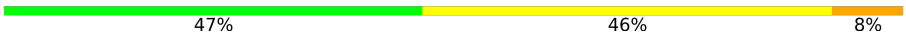
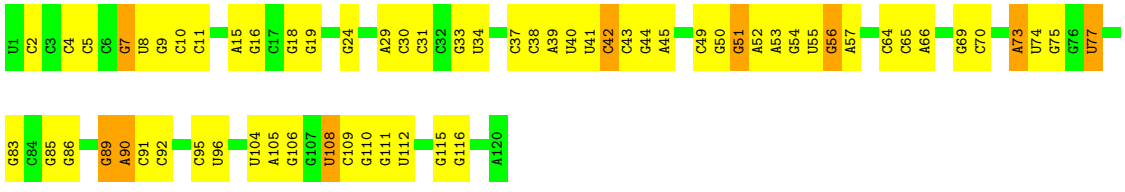


• Molecule 2: 5S ribosomal RNA

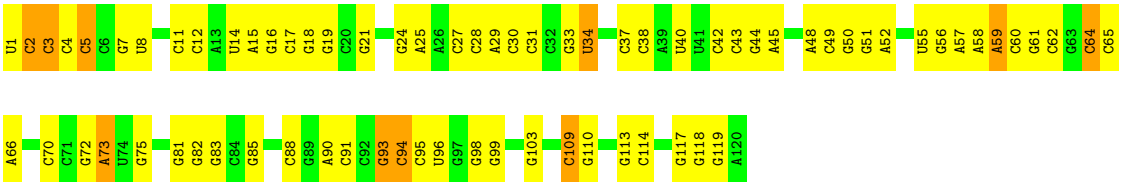
Chain 1B:





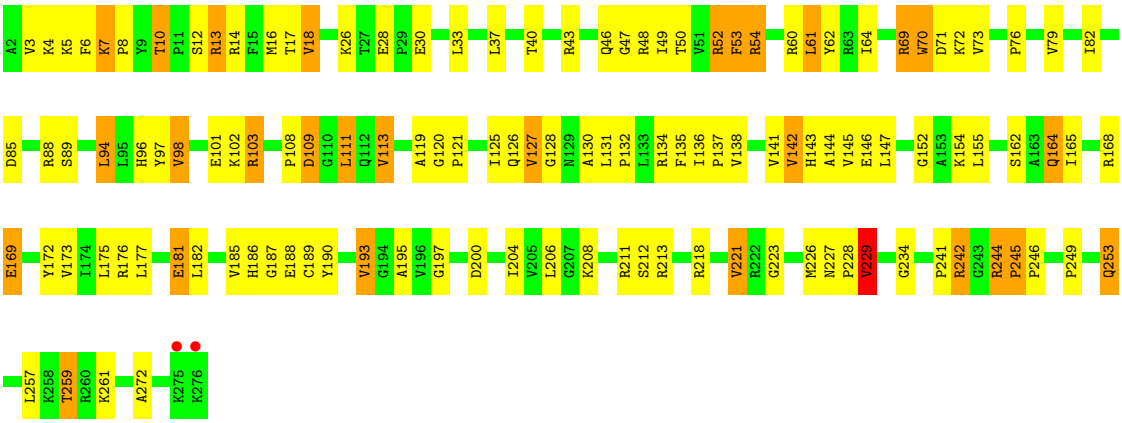
• Molecule 2: 5S ribosomal RNA

Chain 2B:



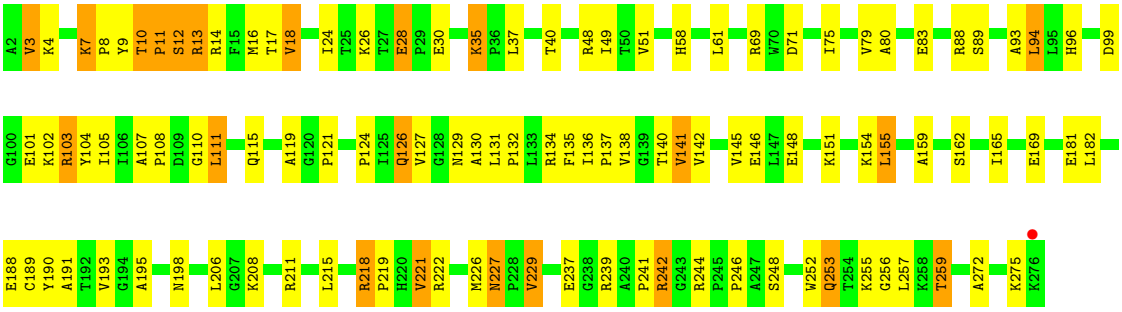
• Molecule 3: 50S ribosomal protein L2

Chain 1D:



• Molecule 3: 50S ribosomal protein L2

Chain 2D:



• Molecule 4: 50S ribosomal protein L3

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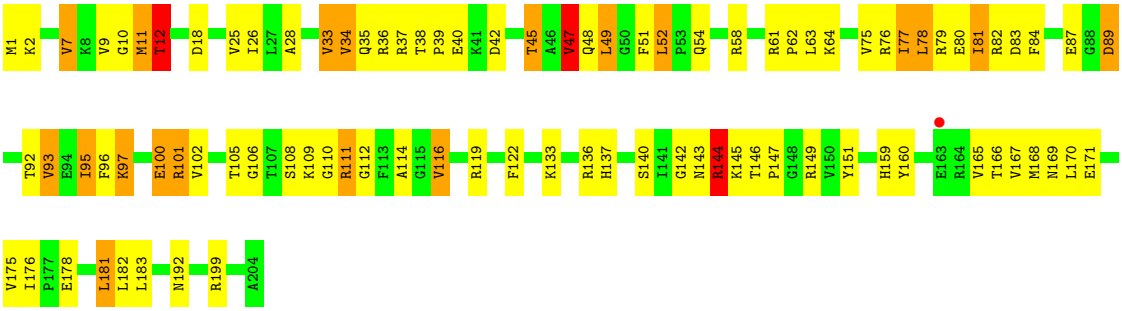
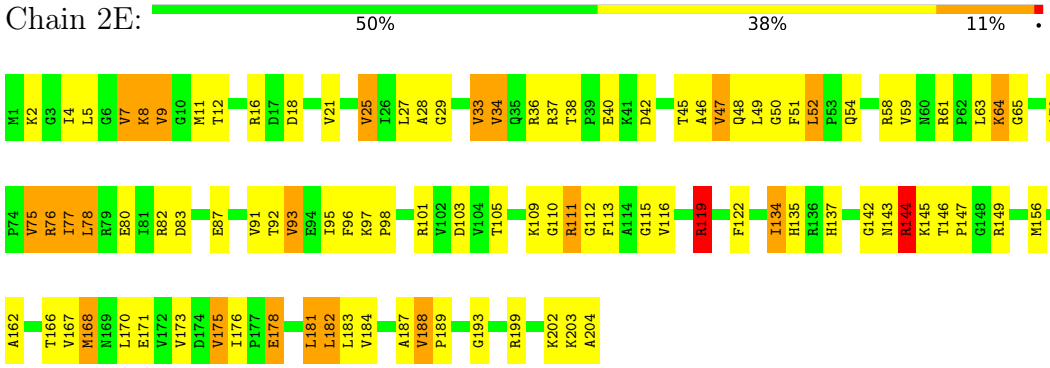


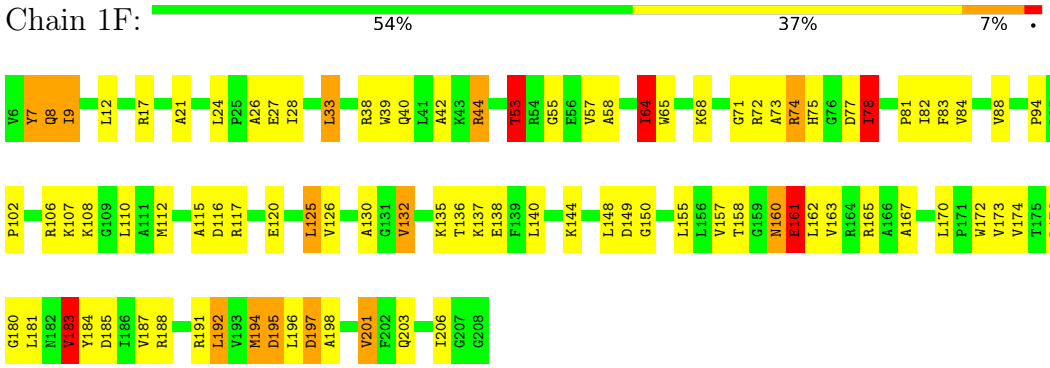
• Molecule 4: 50S ribosomal protein L3

Chain 2E:



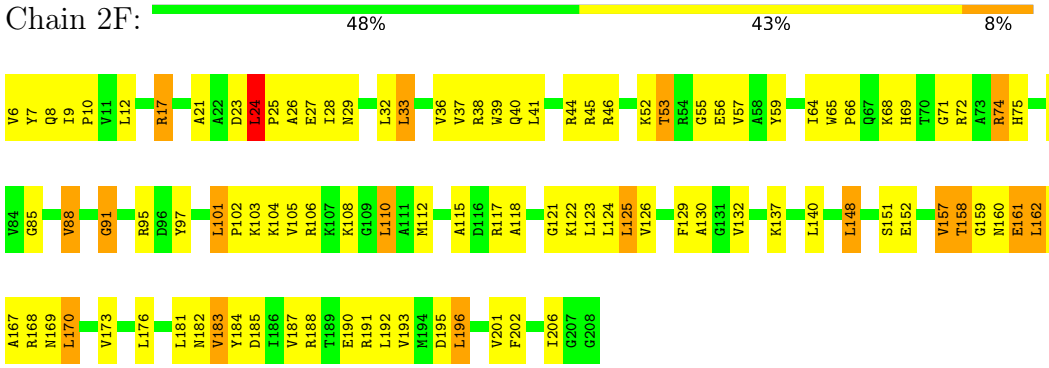
• Molecule 5: 50S ribosomal protein L4

Chain 1F:



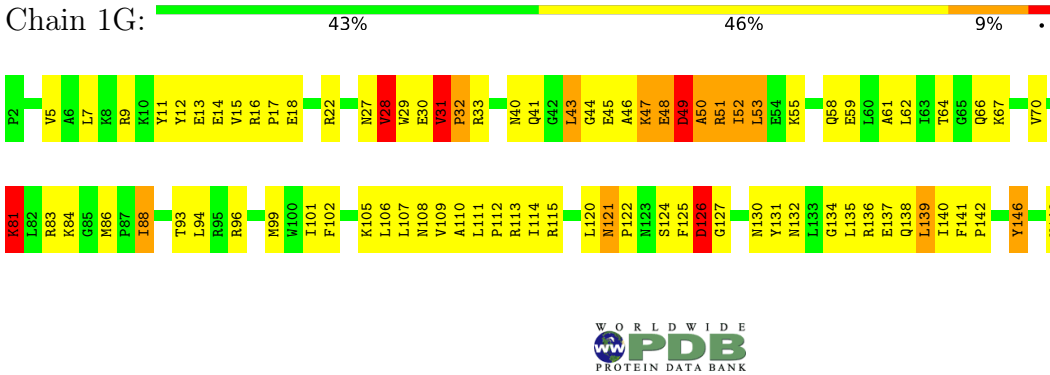
• Molecule 5: 50S ribosomal protein L4

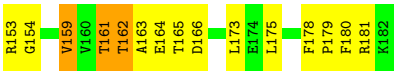
Chain 2F:



• Molecule 6: 50S ribosomal protein L5

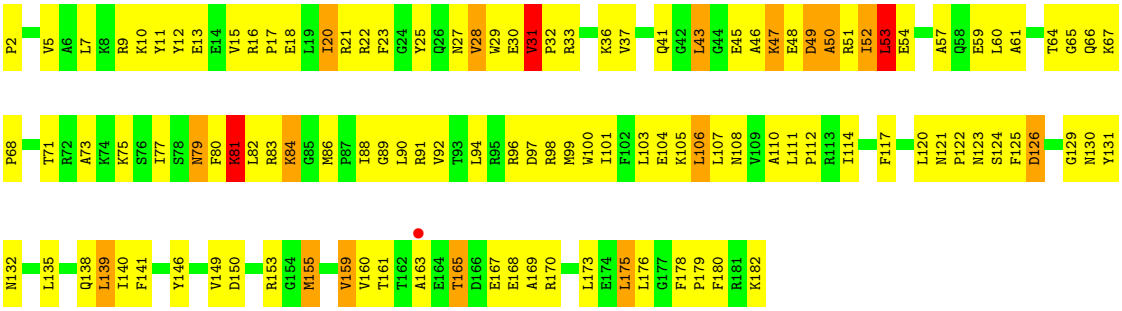
Chain 1G:





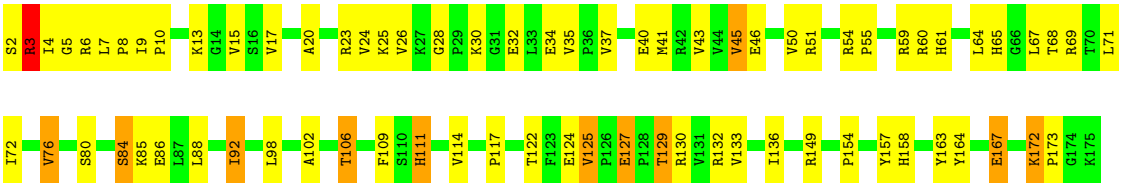
• Molecule 6: 50S ribosomal protein L5

Chain 2G:



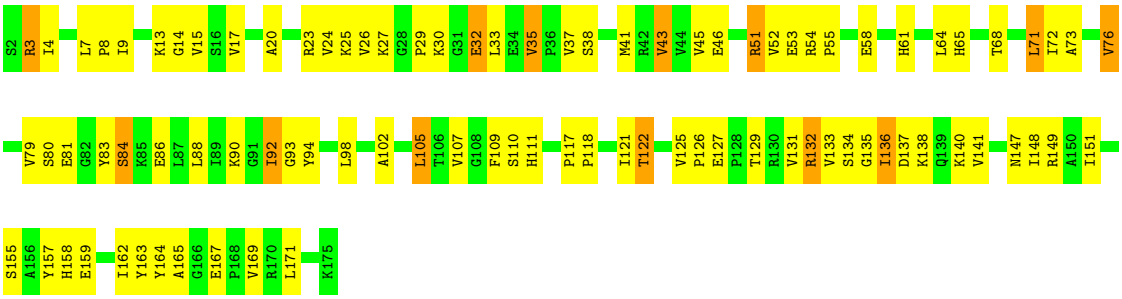
• Molecule 7: 50S ribosomal protein L6

Chain 1H:



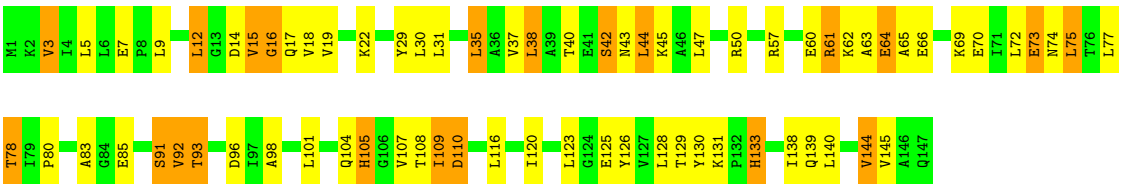
• Molecule 7: 50S ribosomal protein L6

Chain 2H:



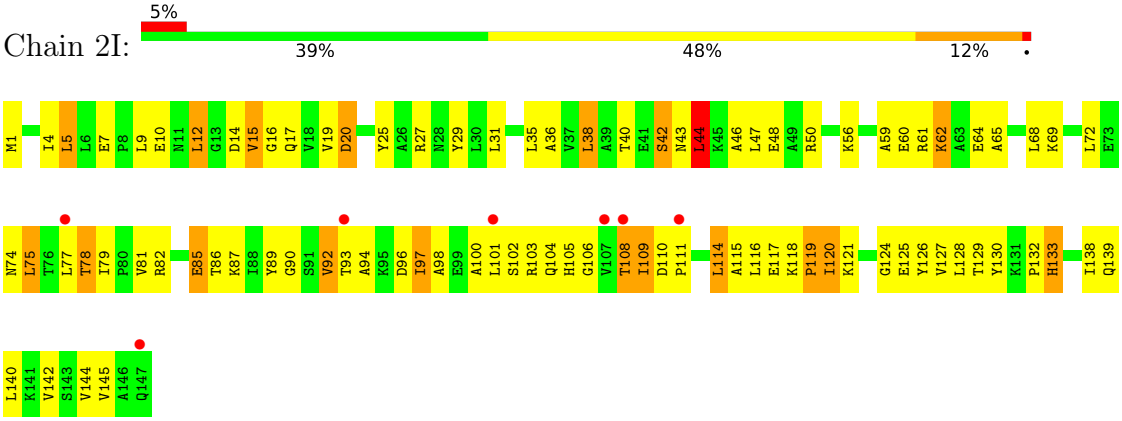
• Molecule 8: 50S ribosomal protein L9

Chain 1I:



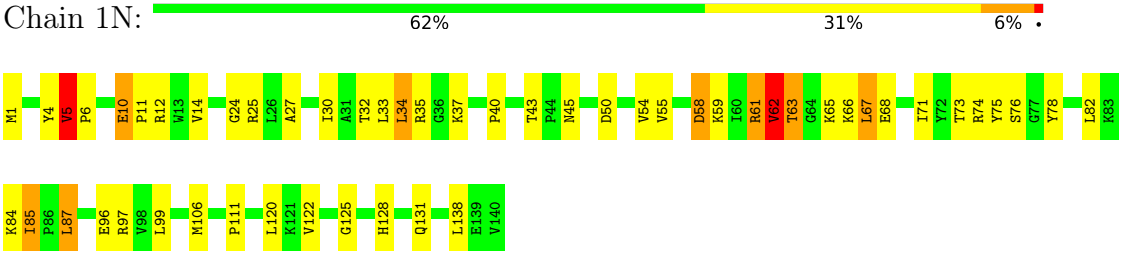
• Molecule 8: 50S ribosomal protein L9

Chain 2I:



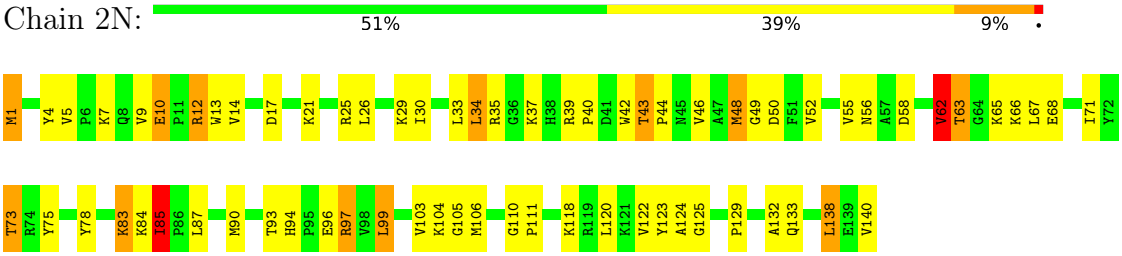
• Molecule 9: 50S ribosomal protein L13

Chain 1N:



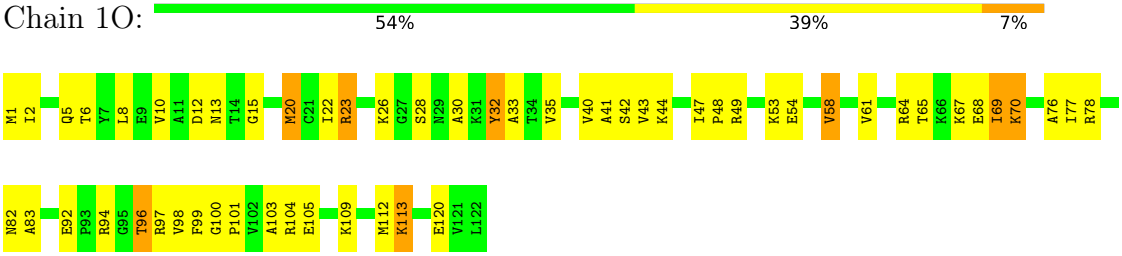
• Molecule 9: 50S ribosomal protein L13

Chain 2N:



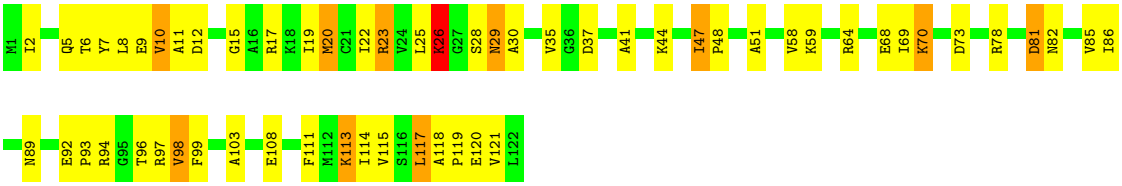
• Molecule 10: 50S ribosomal protein L14

Chain 1O:



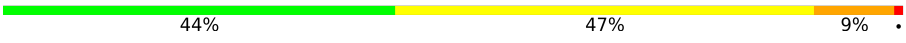
• Molecule 10: 50S ribosomal protein L14

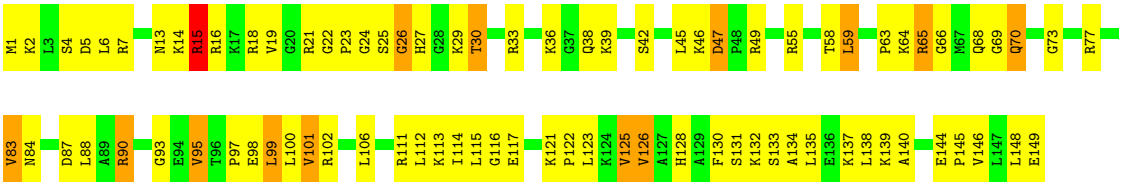
Chain 2O:



• Molecule 11: 50S ribosomal protein L15

Chain 1P:



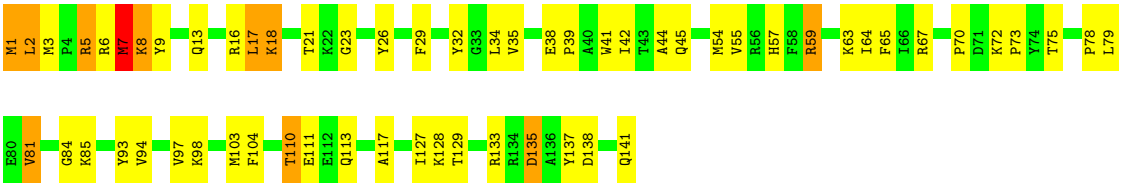


• Molecule 11: 50S ribosomal protein L15

Chain 2P:

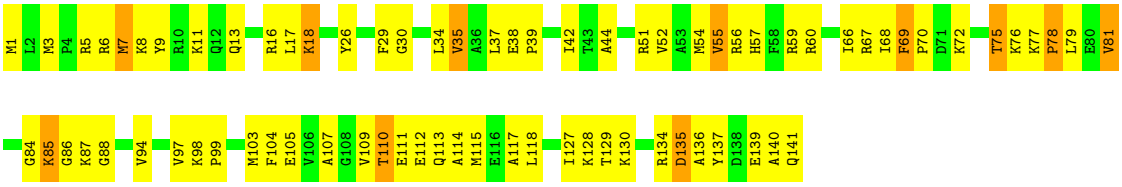
• Molecule 12: 50S ribosomal protein L16

Chain 1Q:



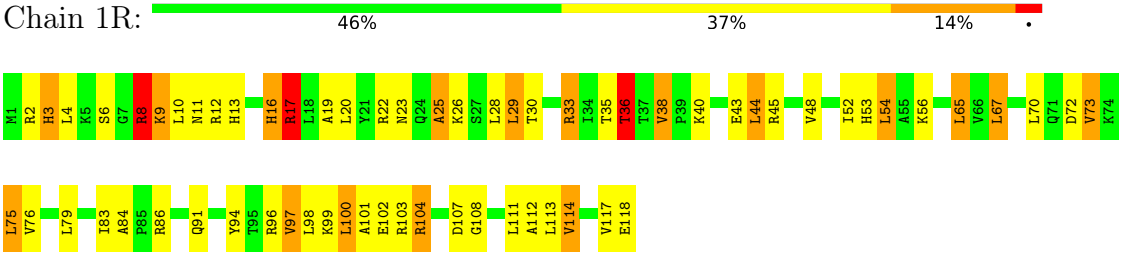
• Molecule 12: 50S ribosomal protein L16

Chain 2Q:



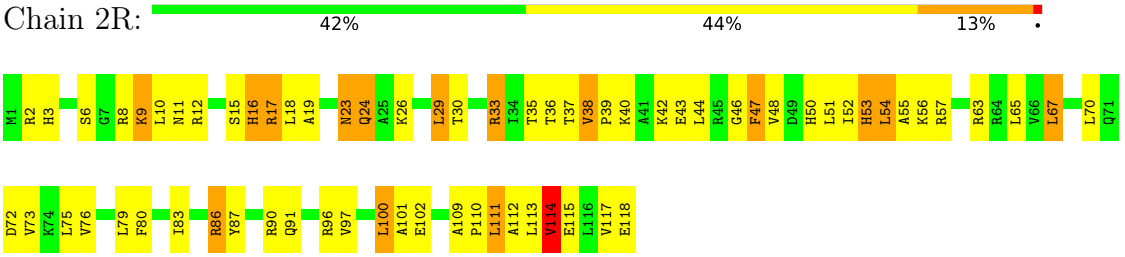
• Molecule 13: 50S ribosomal protein L17

Chain 1R:



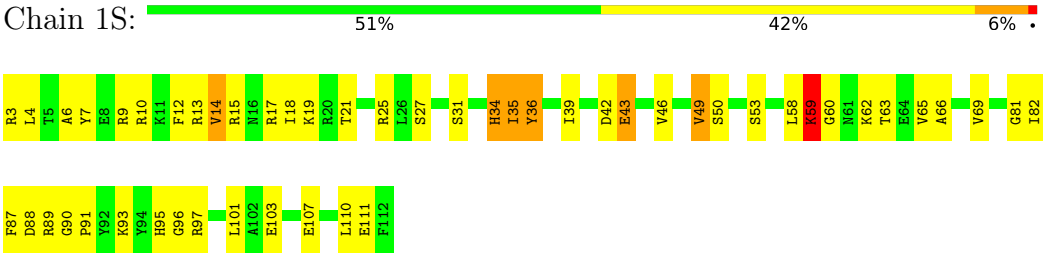
• Molecule 13: 50S ribosomal protein L17

Chain 2R:



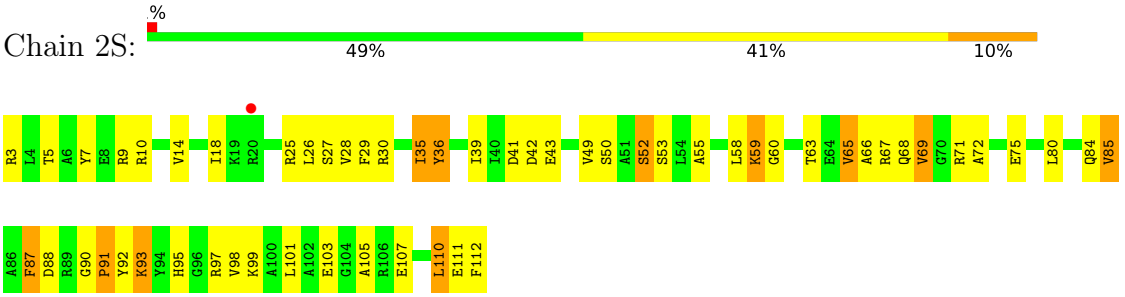
• Molecule 14: 50S ribosomal protein L18

Chain 1S:



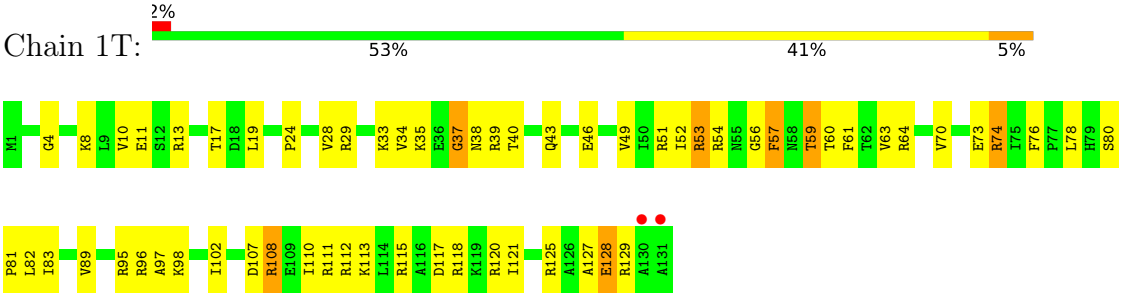
• Molecule 14: 50S ribosomal protein L18

Chain 2S:



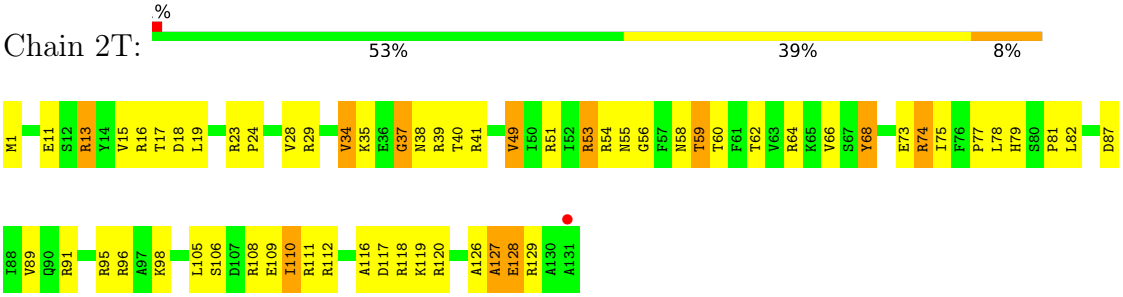
• Molecule 15: 50S ribosomal protein L19

Chain 1T:



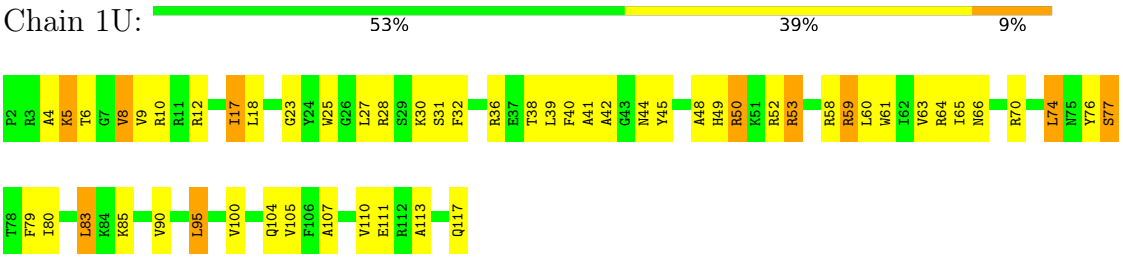
• Molecule 15: 50S ribosomal protein L19

Chain 2T:



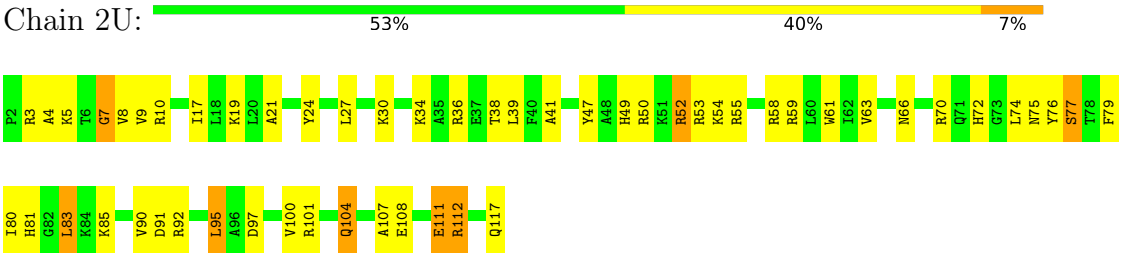
• Molecule 16: 50S ribosomal protein L20

Chain 1U:



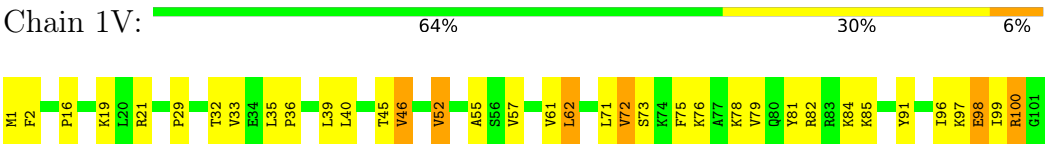
• Molecule 16: 50S ribosomal protein L20

Chain 2U:



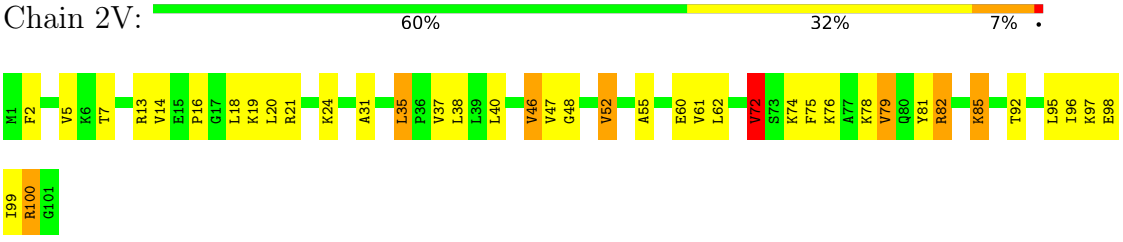
• Molecule 17: 50S ribosomal protein L21

Chain 1V:



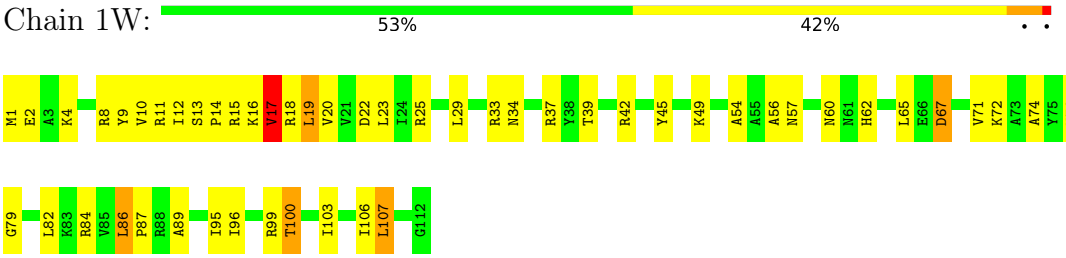
• Molecule 17: 50S ribosomal protein L21

Chain 2V:



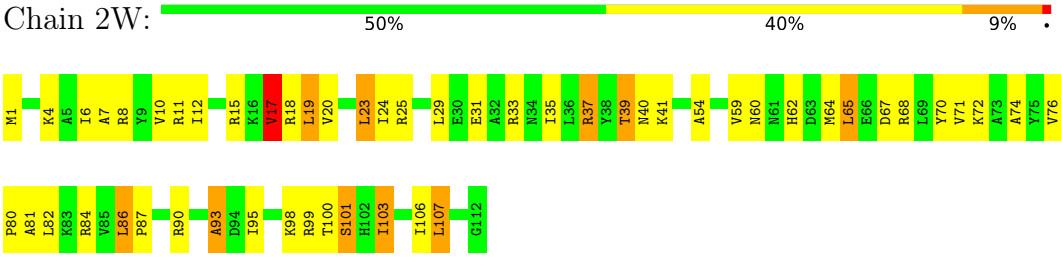
• Molecule 18: 50S ribosomal protein L22

Chain 1W:



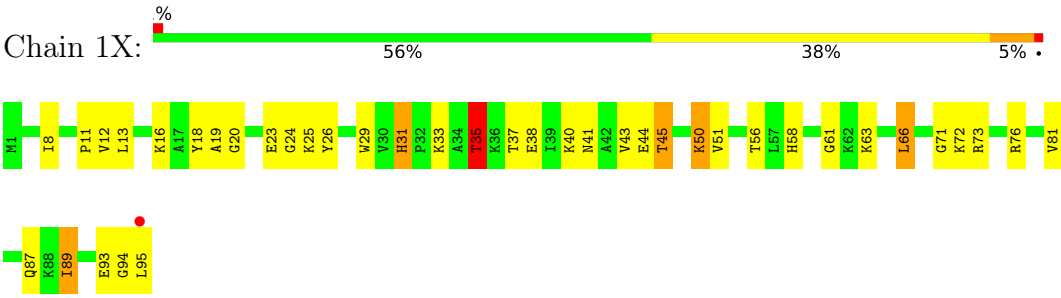
• Molecule 18: 50S ribosomal protein L22

Chain 2W:



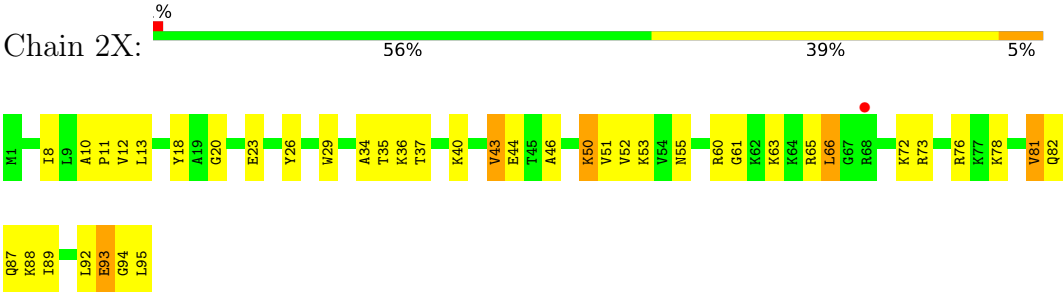
• Molecule 19: 50S ribosomal protein L23

Chain 1X:



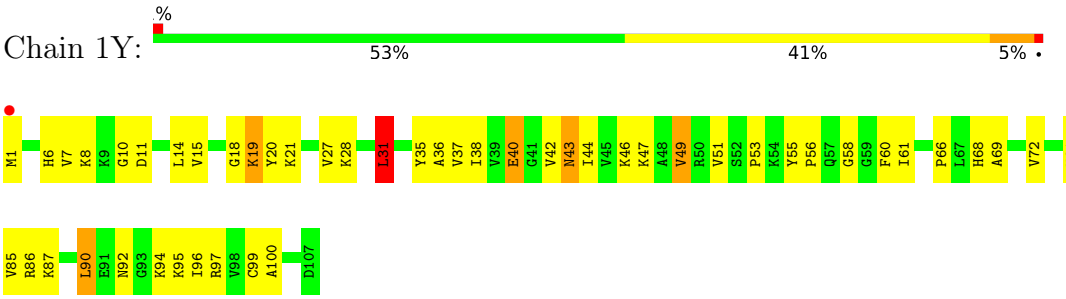
• Molecule 19: 50S ribosomal protein L23

Chain 2X:



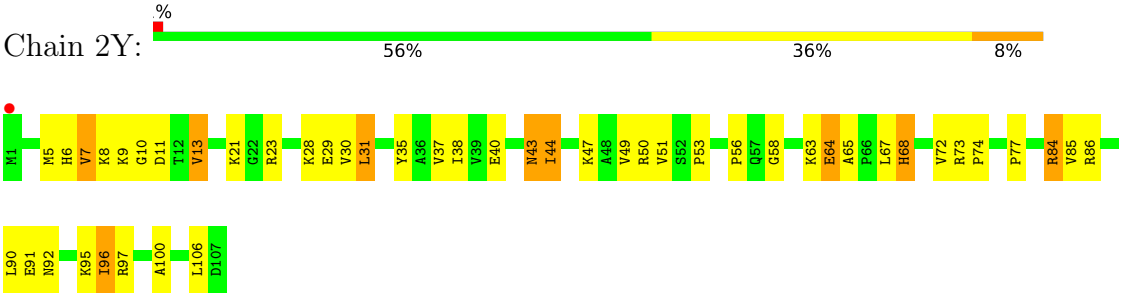
• Molecule 20: 50S ribosomal protein L24

Chain 1Y:



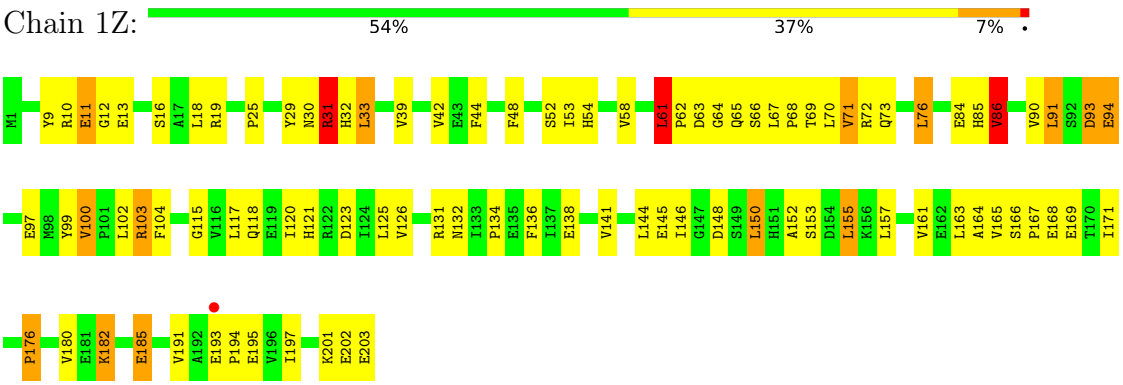
• Molecule 20: 50S ribosomal protein L24

Chain 2Y:



• Molecule 21: 50S ribosomal protein L25

Chain 1Z:

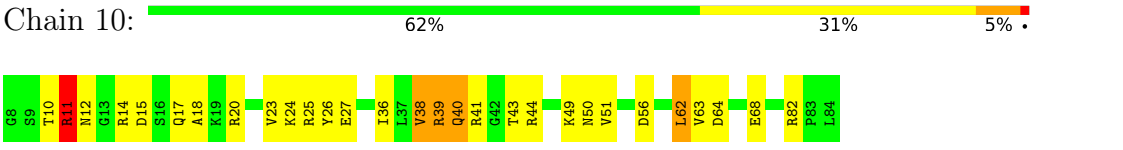


• Molecule 21: 50S ribosomal protein L25

Chain 2Z:

• Molecule 22: 50S ribosomal protein L27

Chain 10:



• Molecule 22: 50S ribosomal protein L27

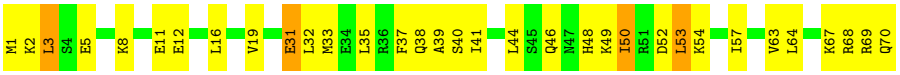
Chain 20:

• Molecule 23: 50S ribosomal protein L28

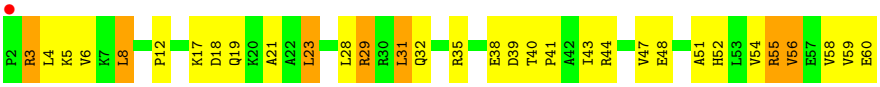
• Molecule 23: 50S ribosomal protein L28

• Molecule 24: 50S ribosomal protein L29

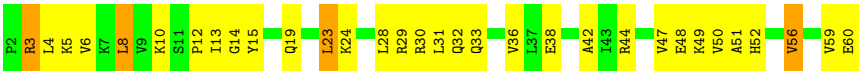
• Molecule 24: 50S ribosomal protein L29



• Molecule 25: 50S ribosomal protein L30

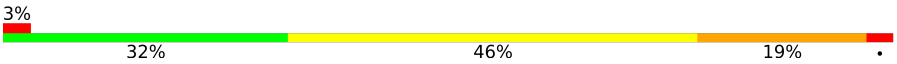


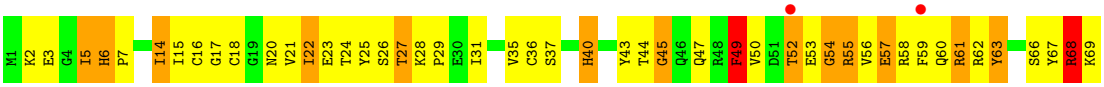
• Molecule 25: 50S ribosomal protein L30



• Molecule 26: 50S ribosomal protein L31

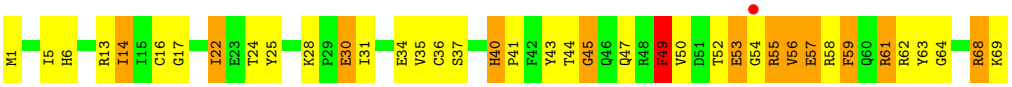
Chain 14:





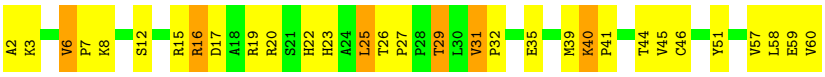
• Molecule 26: 50S ribosomal protein L31

Chain 24:



• Molecule 27: 50S ribosomal protein L32

Chain 15:

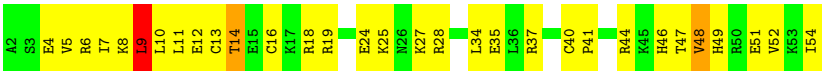


• Molecule 27: 50S ribosomal protein L32

Chain 25:

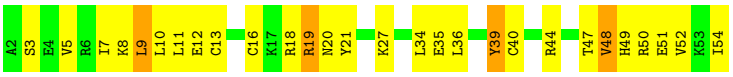
• Molecule 28: 50S ribosomal protein L33

Chain 16:



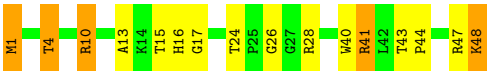
• Molecule 28: 50S ribosomal protein L33

Chain 26:



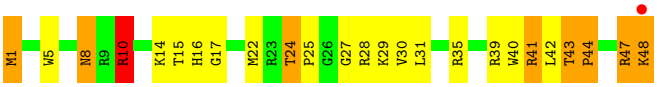
• Molecule 29: 50S ribosomal protein L34

Chain 17:



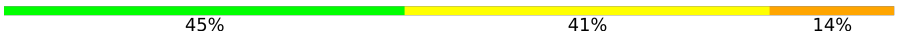
• Molecule 29: 50S ribosomal protein L34

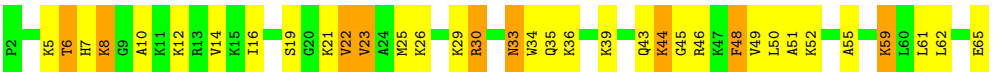
Chain 27:



• Molecule 30: 50S ribosomal protein L35

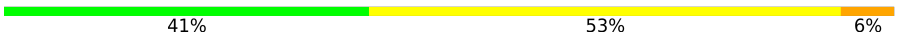
Chain 18:

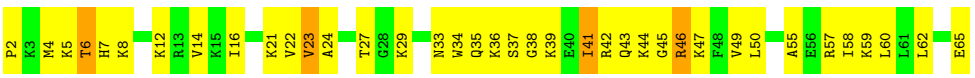




• Molecule 30: 50S ribosomal protein L35

Chain 28:





• Molecule 31: 50S ribosomal protein L36

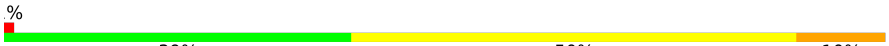
Chain 19:

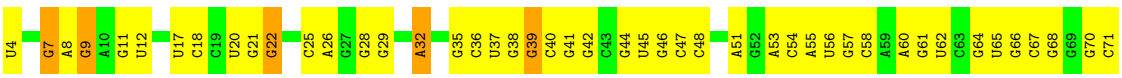
• Molecule 31: 50S ribosomal protein L36

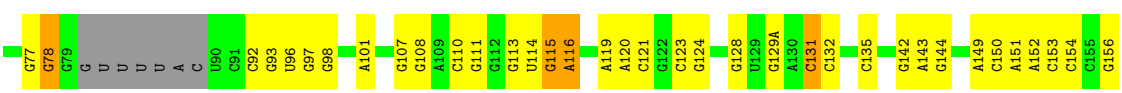
Chain 29:

• Molecule 32: 16 ribosomal RNA

Chain 1a:







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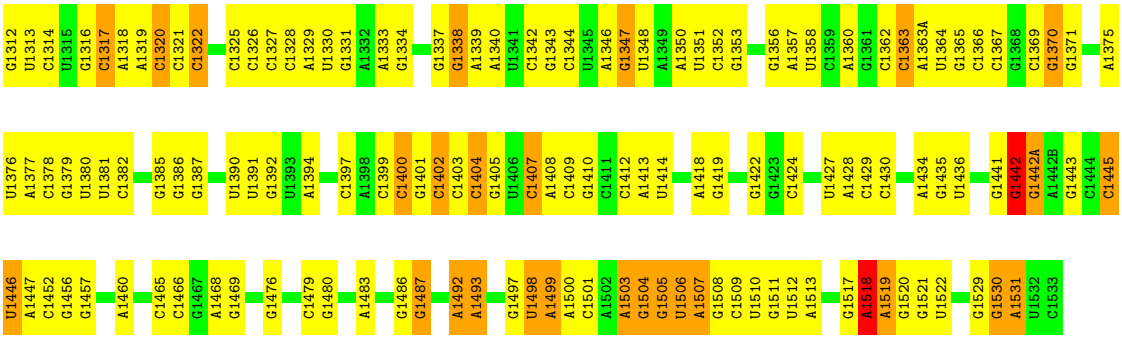
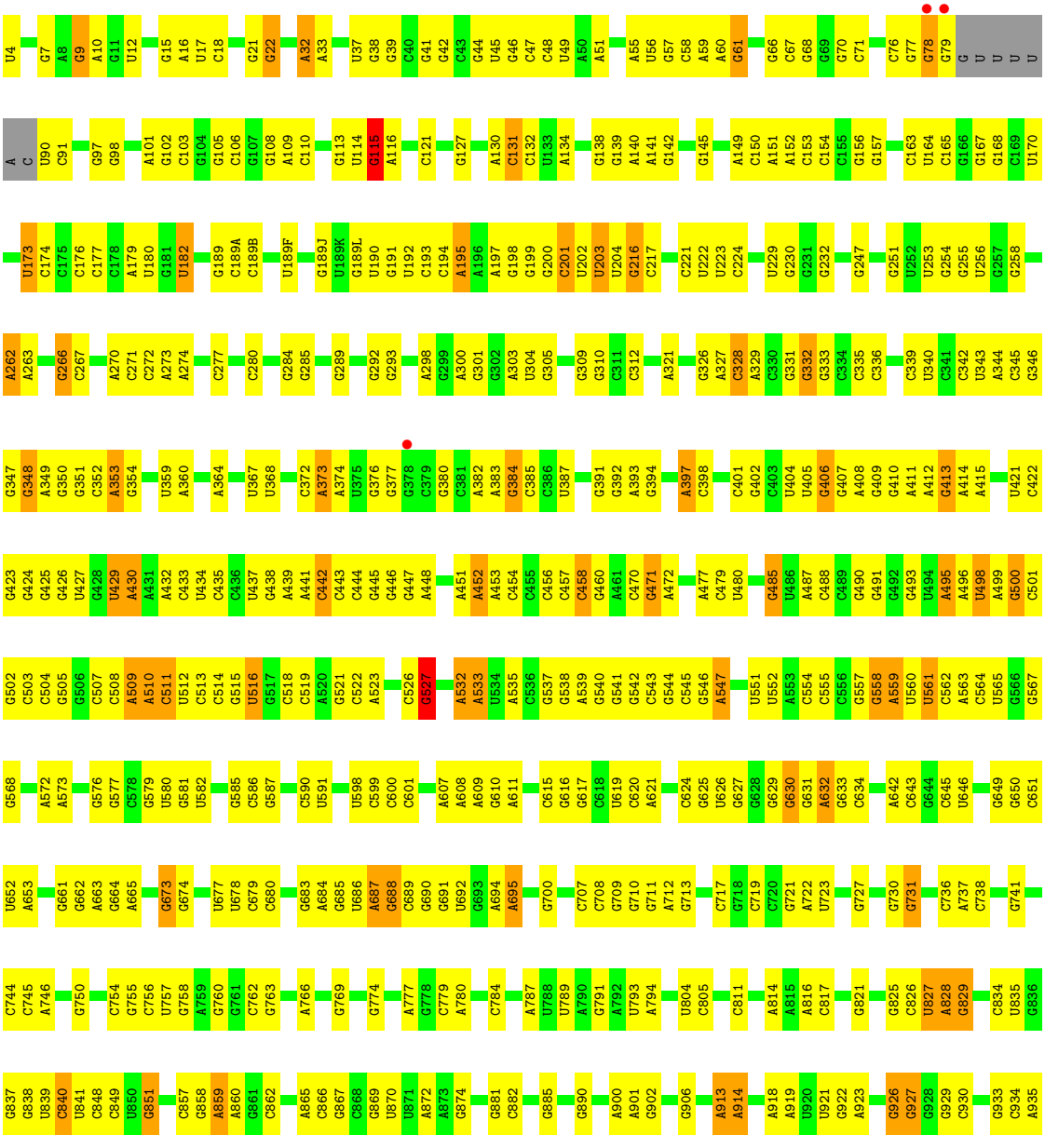
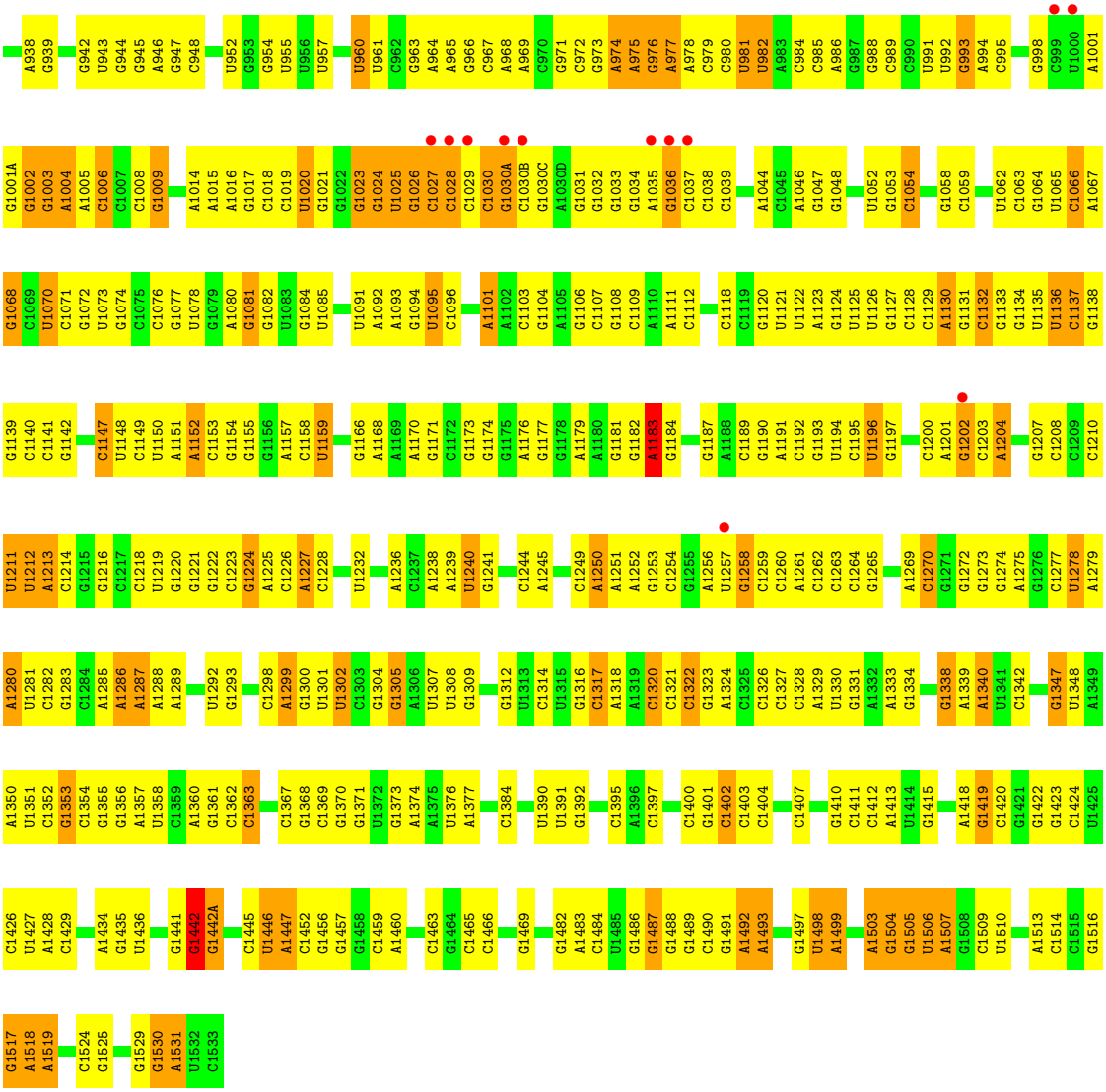


• Molecule 32: 16 ribosomal RNA

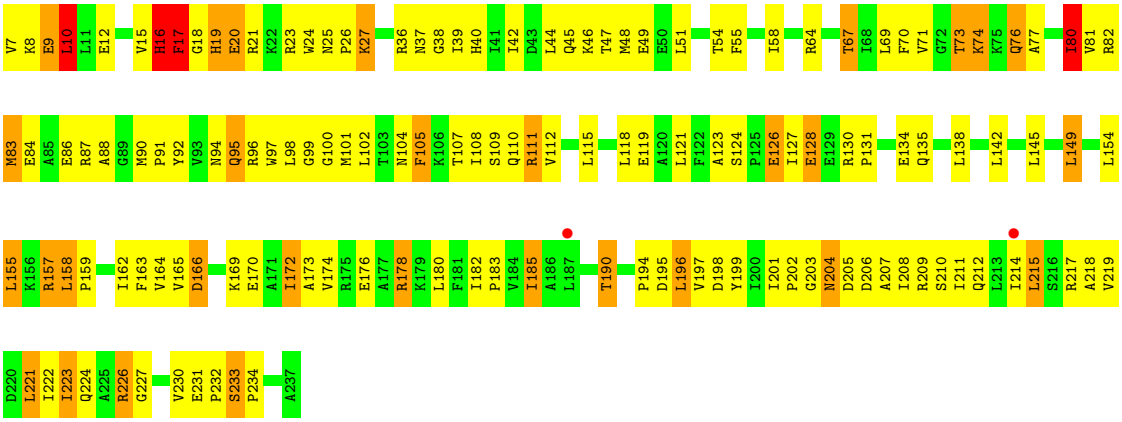
Chain 2a:





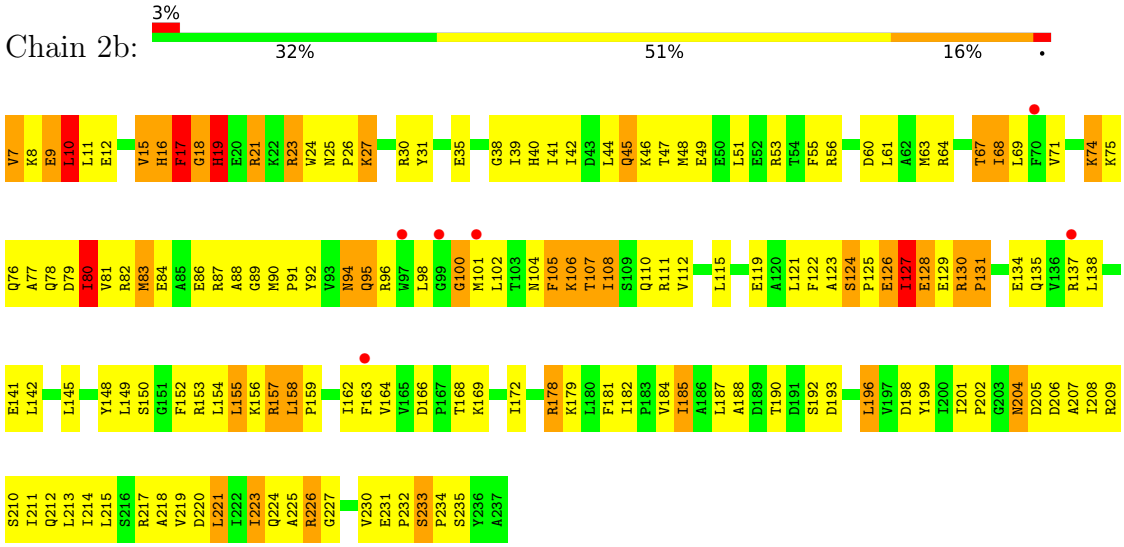
• Molecule 33: 30S ribosomal protein S2

Chain 1b:



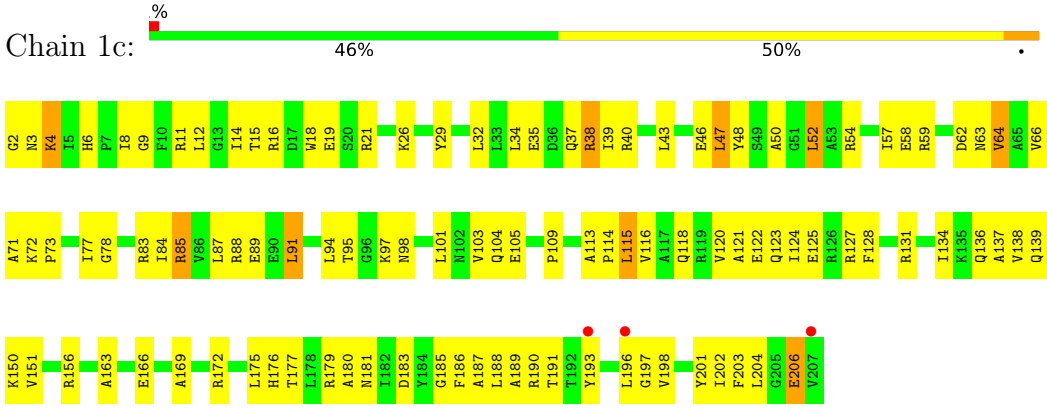
• Molecule 33: 30S ribosomal protein S2

Chain 2b:



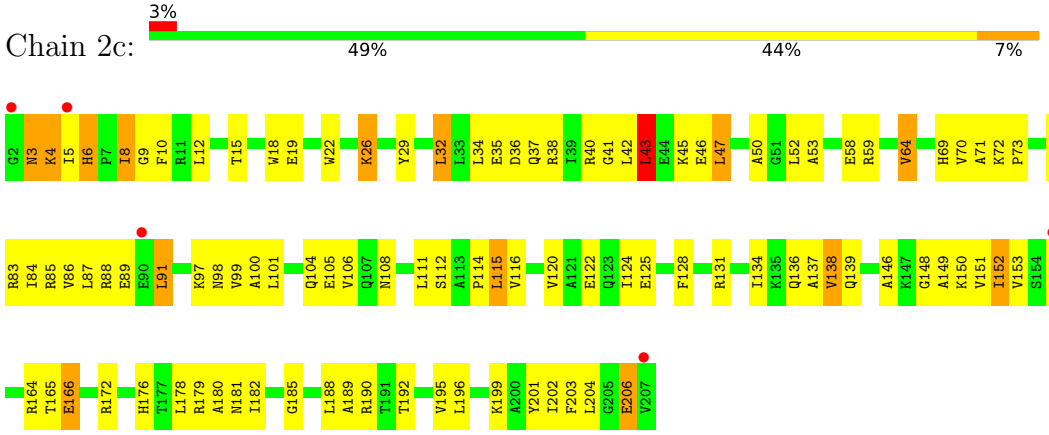
• Molecule 34: 30S ribosomal protein S3

Chain 1c:



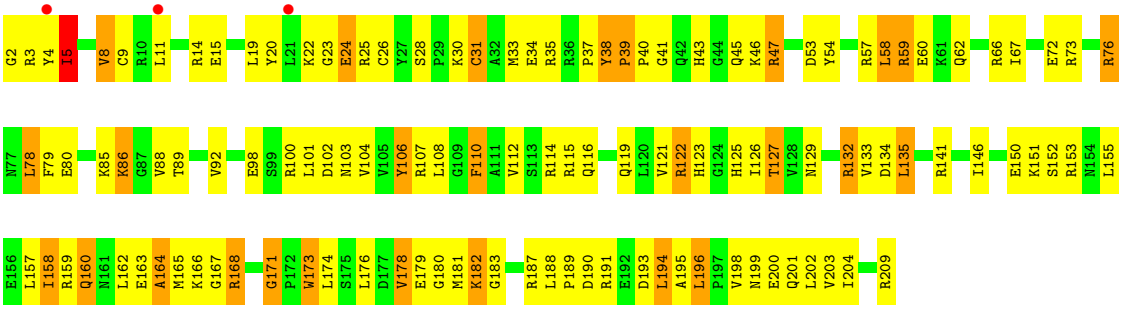
• Molecule 34: 30S ribosomal protein S3

Chain 2c:



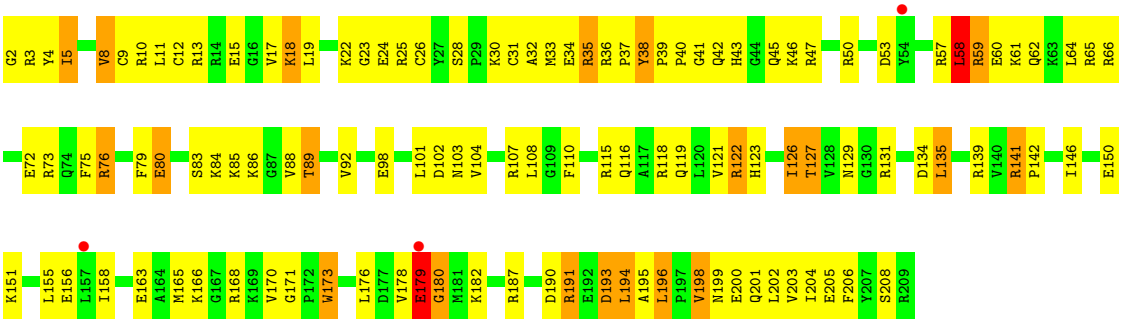
• Molecule 35: 30S ribosomal protein S4

Chain 1d:



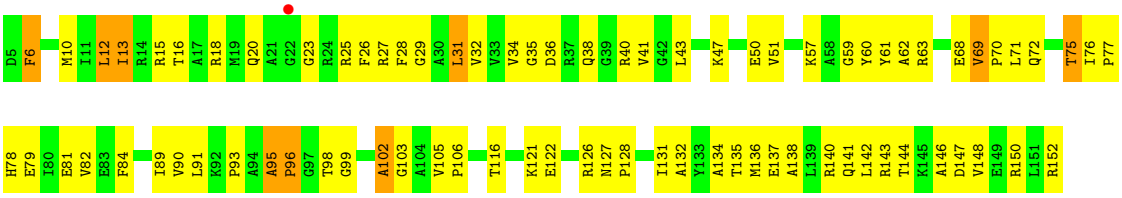
• Molecule 35: 30S ribosomal protein S4

Chain 2d:



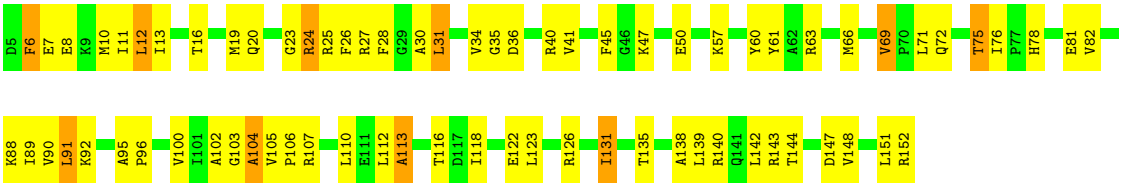
• Molecule 36: 30S ribosomal protein S5

Chain 1e:



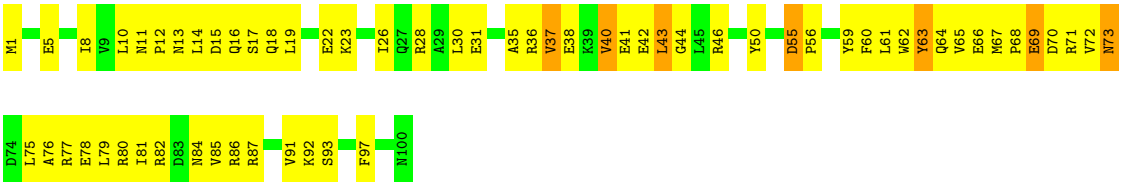
• Molecule 36: 30S ribosomal protein S5

Chain 2e:



• Molecule 37: 30S ribosomal protein S6

Chain 1f:

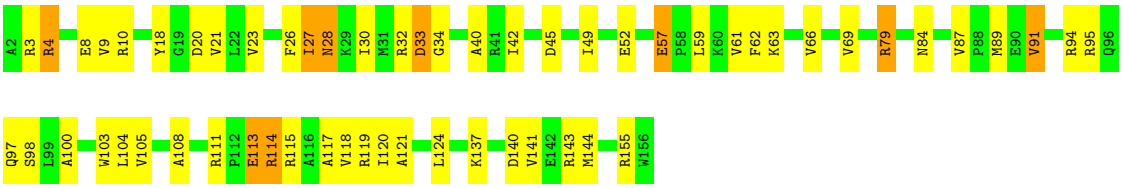


• Molecule 37: 30S ribosomal protein S6

Chain 2f:

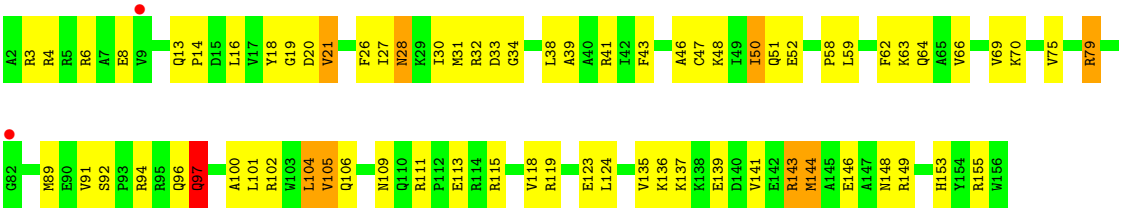
• Molecule 38: 30S ribosomal protein S7

Chain 1g:



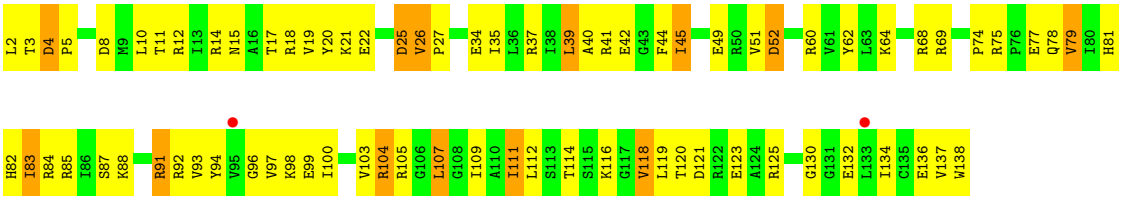
• Molecule 38: 30S ribosomal protein S7

Chain 2g:



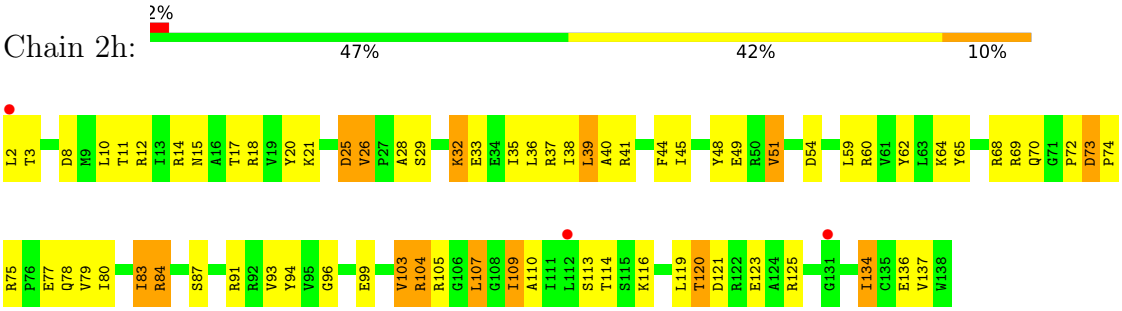
• Molecule 39: 30S ribosomal protein S8

Chain 1h:



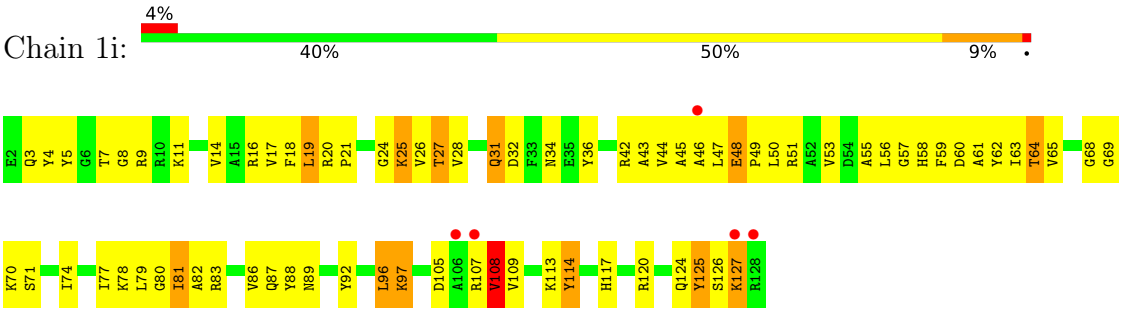
• Molecule 39: 30S ribosomal protein S8

Chain 2h:



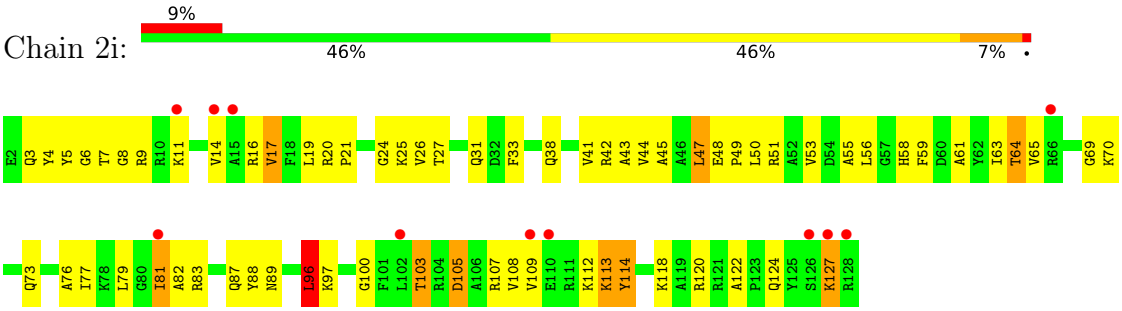
• Molecule 40: 30S ribosomal protein S9

Chain 1i:



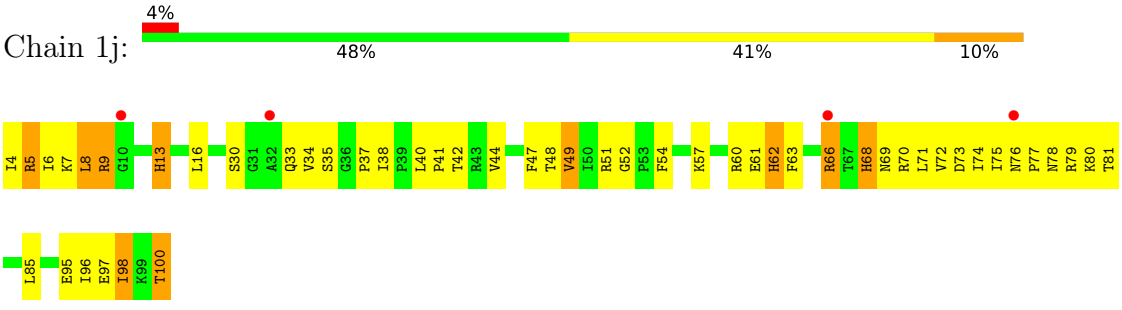
• Molecule 40: 30S ribosomal protein S9

Chain 2i:



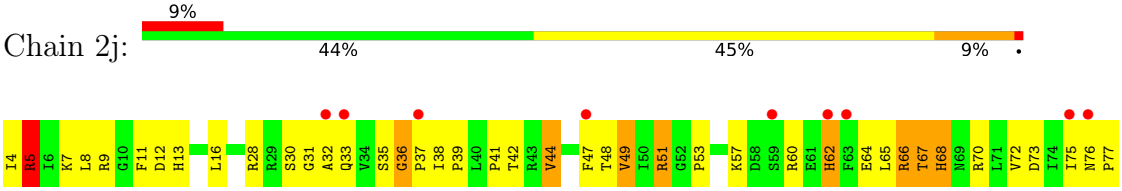
• Molecule 41: 30S ribosomal protein S10

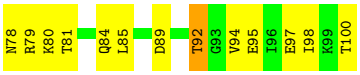
Chain 1j:



• Molecule 41: 30S ribosomal protein S10

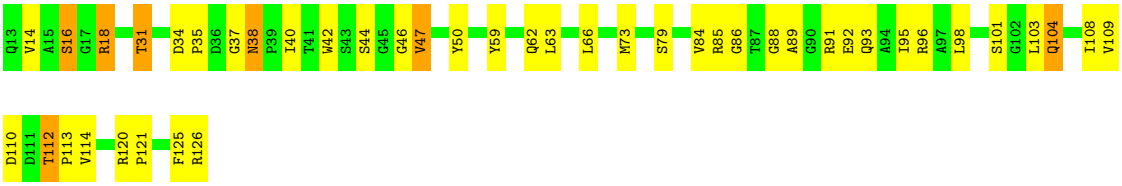
Chain 2j:





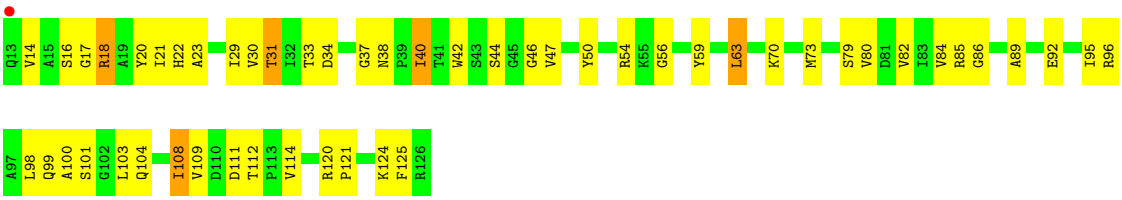
• Molecule 42: 30S ribosomal protein S11

Chain 1k:



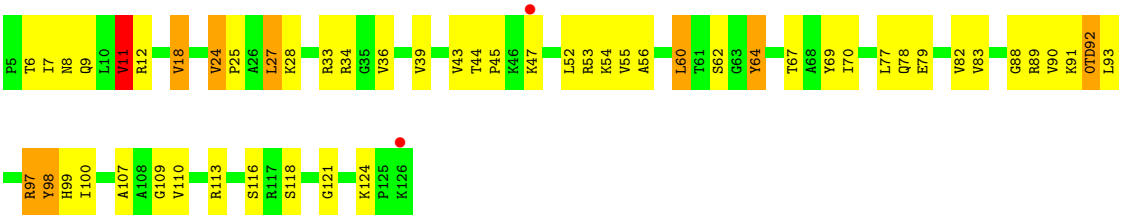
• Molecule 42: 30S ribosomal protein S11

Chain 2k:



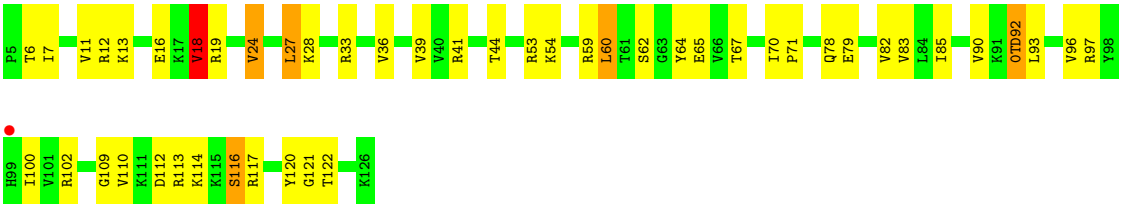
• Molecule 43: 30S ribosomal protein S12

Chain 1l:



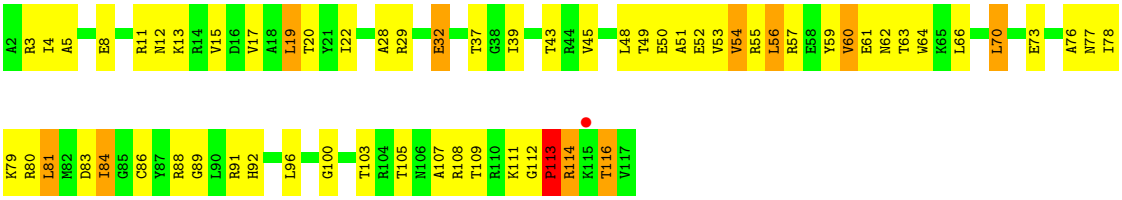
• Molecule 43: 30S ribosomal protein S12

Chain 2l:

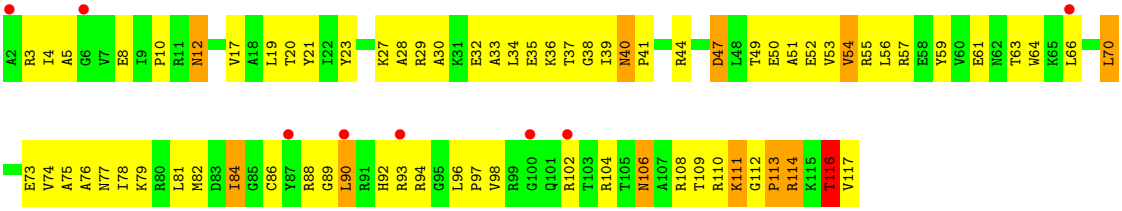


• Molecule 44: 30S ribosomal protein S13

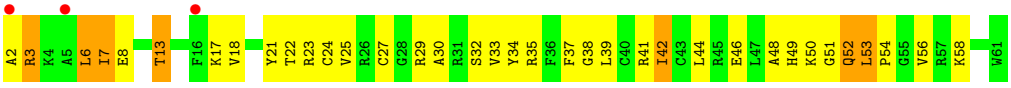
Chain 1m:



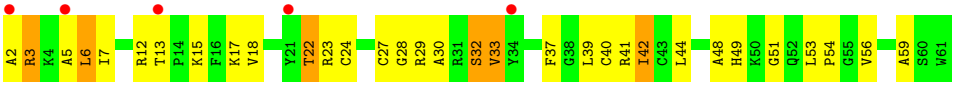
• Molecule 44: 30S ribosomal protein S13



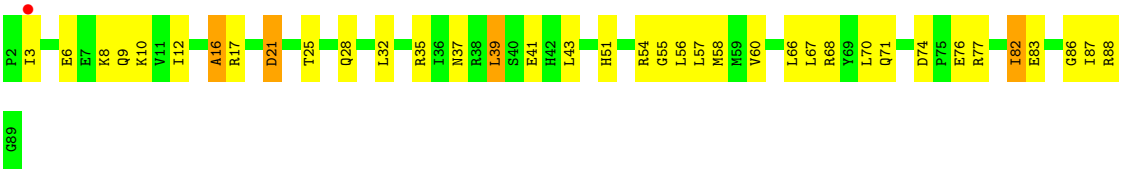
• Molecule 45: 30S ribosomal protein S14 type Z



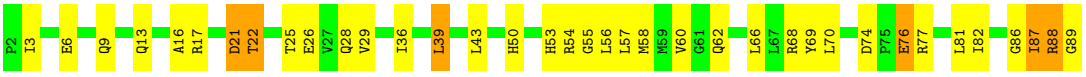
• Molecule 45: 30S ribosomal protein S14 type Z



• Molecule 46: 30S ribosomal protein S15

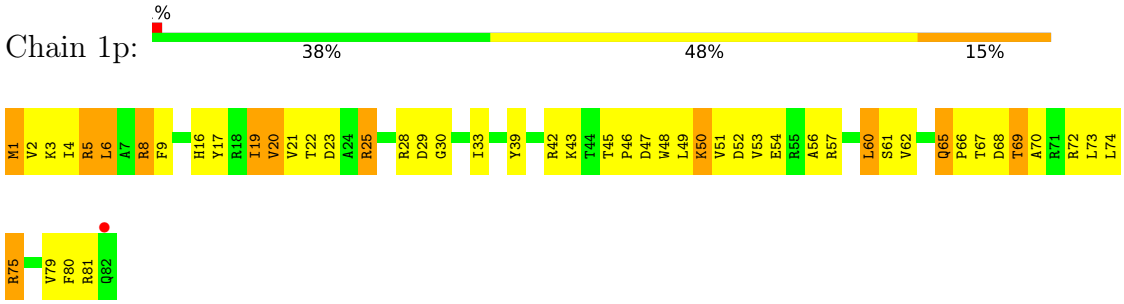


• Molecule 46: 30S ribosomal protein S15



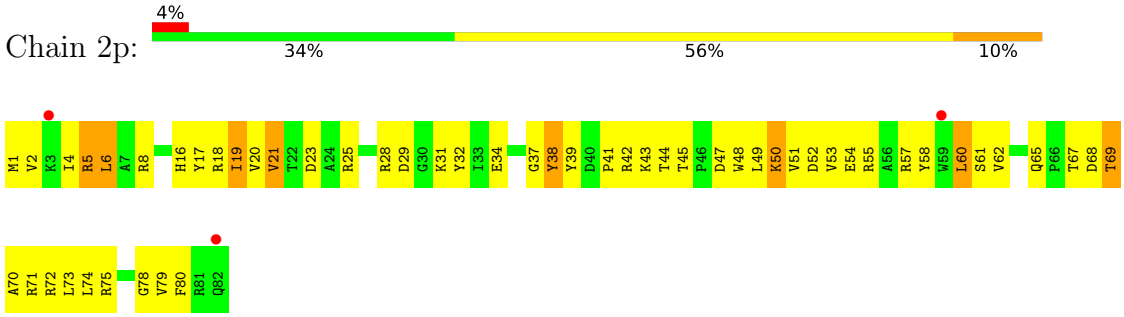
• Molecule 47: 30S ribosomal protein S16

Chain 1p:



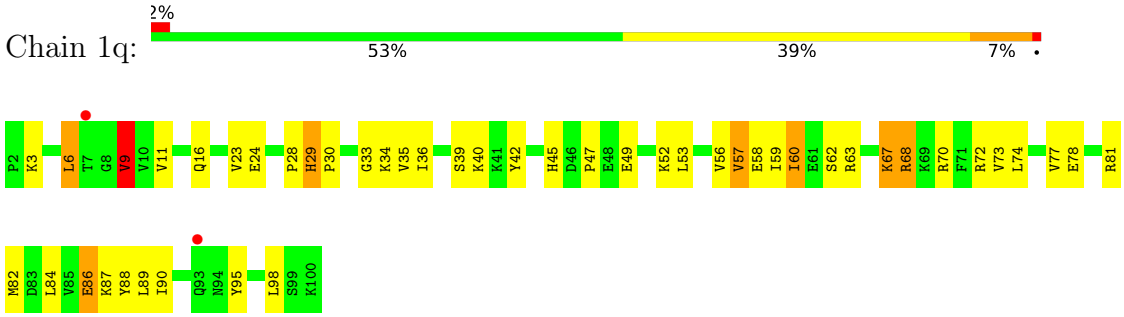
• Molecule 47: 30S ribosomal protein S16

Chain 2p:



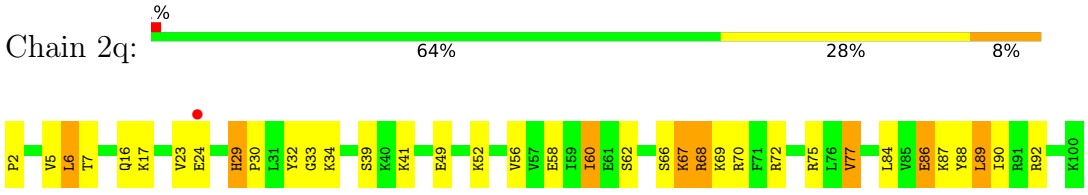
• Molecule 48: 30S ribosomal protein S17

Chain 1q:



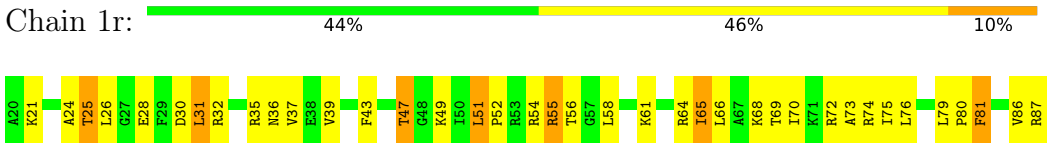
• Molecule 48: 30S ribosomal protein S17

Chain 2q:



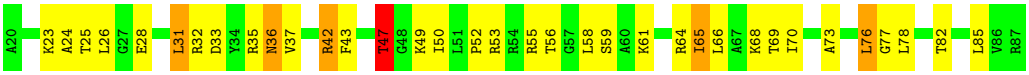
• Molecule 49: 30S ribosomal protein S18

Chain 1r:



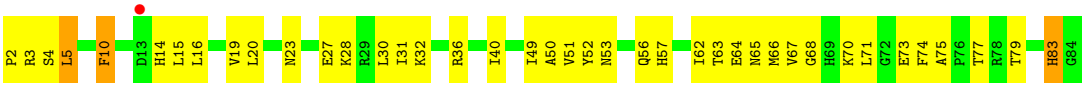
• Molecule 49: 30S ribosomal protein S18

Chain 2r:



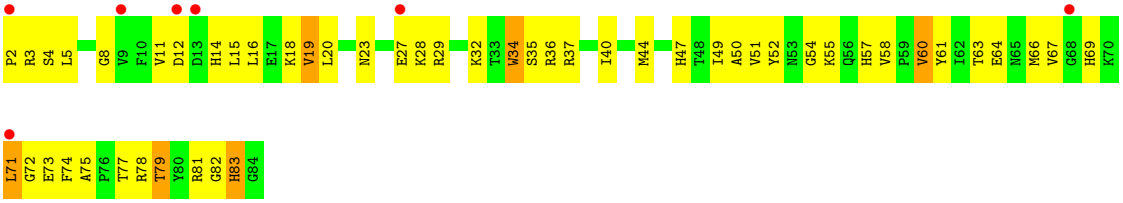
• Molecule 50: 30S ribosomal protein S19

Chain 1s:



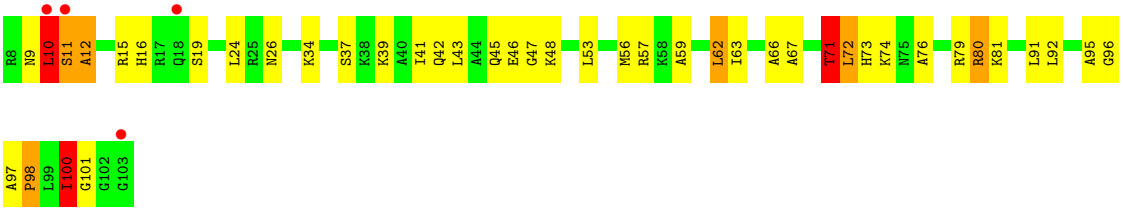
• Molecule 50: 30S ribosomal protein S19

Chain 2s:



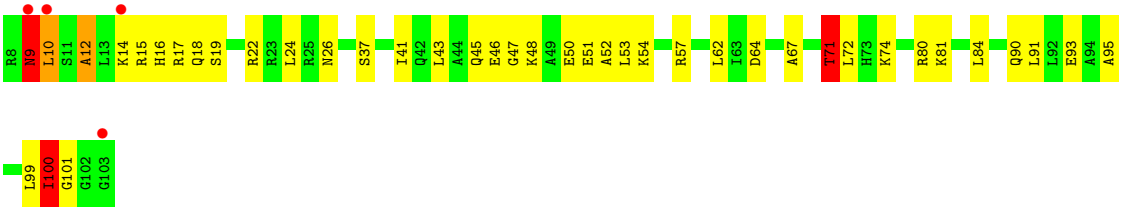
• Molecule 51: 30S ribosomal protein S20

Chain 1t:



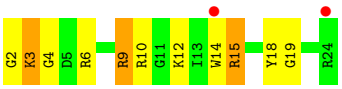
• Molecule 51: 30S ribosomal protein S20

Chain 2t:



• Molecule 52: 30S ribosomal protein Thx

Chain 1u:

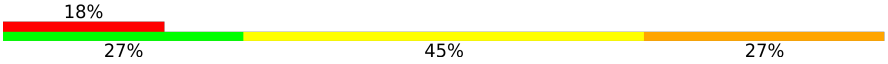


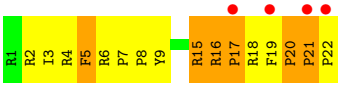
• Molecule 52: 30S ribosomal protein Thx

Chain 2u:

• Molecule 53: Tur1A peptide

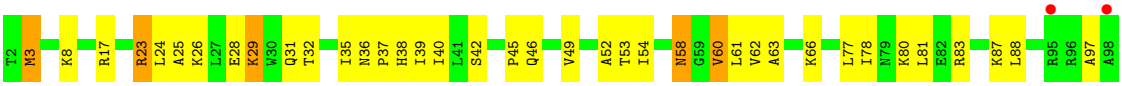
Chain 1y:





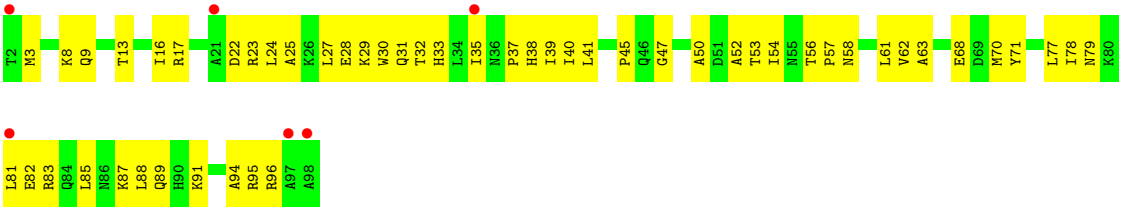
• Molecule 54: Ribosome-associated inhibitor A

Chain 1z:



• Molecule 54: Ribosome-associated inhibitor A

Chain 2z:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	209.68Å 449.25Å 621.90Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.76 – 3.20 49.76 – 3.20	Depositor EDS
% Data completeness (in resolution range)	98.6 (49.76-3.20) 98.6 (49.76-3.20)	Depositor EDS
R_{merge}	0.39	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.28 (at 3.19Å)	Xtriage
Refinement program	PHENIX 1.8.1_1168	Depositor
R, R_{free}	0.190 , 0.252 0.191 , 0.250	Depositor DCC
R_{free} test set	47082 reflections (5.00%)	wwPDB-VP
Wilson B-factor (Å^2)	75.9	Xtriage
Anisotropy	0.208	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.28 , 56.4	EDS
L-test for twinning[2]	$< \|L\| > = 0.46$, $< L^2 > = 0.29$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	294294	wwPDB-VP
Average B, all atoms (Å^2)	57.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.68% 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

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: 2MG, UR3, 2MA, 2MU, PSU, 5MC, 5MU, SF4, ZN, MA6, 4OC, M2G, MG, 0TD, 7MG, OMG

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	1A	0.80	0/69032	0.95	43/107750 (0.0%)
1	2A	0.63	0/69032	0.84	20/107750 (0.0%)
2	1B	0.66	0/2879	0.90	1/4490 (0.0%)
2	2B	0.58	0/2879	0.84	0/4490
3	1D	1.25	3/2181 (0.1%)	1.50	24/2940 (0.8%)
3	2D	1.06	2/2181 (0.1%)	1.42	22/2940 (0.7%)
4	1E	1.26	8/1592 (0.5%)	1.48	17/2149 (0.8%)
4	2E	1.06	3/1592 (0.2%)	1.41	12/2149 (0.6%)
5	1F	1.19	3/1619 (0.2%)	1.41	15/2193 (0.7%)
5	2F	0.87	0/1619	1.29	12/2193 (0.5%)
6	1G	0.82	0/1451	1.24	11/1961 (0.6%)
6	2G	0.78	0/1451	1.31	12/1961 (0.6%)
7	1H	1.11	0/1356	1.51	21/1834 (1.1%)
7	2H	0.90	0/1356	1.26	9/1834 (0.5%)
8	1I	0.88	0/1109	1.34	13/1512 (0.9%)
8	2I	0.98	1/1109 (0.1%)	1.44	14/1512 (0.9%)
9	1N	1.22	3/1148 (0.3%)	1.47	11/1547 (0.7%)
9	2N	0.91	2/1148 (0.2%)	1.45	18/1547 (1.2%)
10	1O	1.23	4/943 (0.4%)	1.41	8/1269 (0.6%)
10	2O	1.06	1/943 (0.1%)	1.37	7/1269 (0.6%)
11	1P	1.16	3/1152 (0.3%)	1.38	9/1533 (0.6%)
11	2P	0.90	0/1152	1.32	9/1533 (0.6%)
12	1Q	1.12	2/1143 (0.2%)	1.32	3/1527 (0.2%)
12	2Q	0.93	1/1143 (0.1%)	1.30	6/1527 (0.4%)
13	1R	1.26	4/982 (0.4%)	1.40	10/1312 (0.8%)
13	2R	0.95	0/982	1.33	8/1312 (0.6%)
14	1S	1.01	0/887	1.24	4/1180 (0.3%)
14	2S	0.88	1/887 (0.1%)	1.31	6/1180 (0.5%)
15	1T	1.20	3/1105 (0.3%)	1.43	7/1477 (0.5%)
15	2T	0.99	1/1105 (0.1%)	1.35	6/1477 (0.4%)
16	1U	1.32	4/977 (0.4%)	1.40	7/1301 (0.5%)
16	2U	0.95	0/977	1.27	3/1301 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	1V	1.16	1/786 (0.1%)	1.46	5/1053 (0.5%)
17	2V	0.92	1/786 (0.1%)	1.25	1/1053 (0.1%)
18	1W	1.37	4/897 (0.4%)	1.51	7/1205 (0.6%)
18	2W	1.16	4/897 (0.4%)	1.43	6/1205 (0.5%)
19	1X	1.27	2/764 (0.3%)	1.36	6/1025 (0.6%)
19	2X	1.03	0/764	1.36	6/1025 (0.6%)
20	1Y	1.15	1/823 (0.1%)	1.36	4/1099 (0.4%)
20	2Y	0.91	0/823	1.41	12/1099 (1.1%)
21	1Z	0.96	2/1620 (0.1%)	1.32	15/2200 (0.7%)
21	2Z	0.84	0/1620	1.35	18/2200 (0.8%)
22	10	1.17	0/616	1.43	6/821 (0.7%)
22	20	0.96	0/616	1.34	6/821 (0.7%)
23	11	1.26	2/761 (0.3%)	1.38	6/1013 (0.6%)
23	21	1.02	0/761	1.31	7/1013 (0.7%)
24	12	1.07	0/590	1.24	2/781 (0.3%)
24	22	0.84	0/590	1.20	3/781 (0.4%)
25	13	1.20	1/474 (0.2%)	1.32	3/635 (0.5%)
25	23	0.84	0/474	1.26	1/635 (0.2%)
26	14	0.80	1/559 (0.2%)	1.32	7/754 (0.9%)
26	24	0.91	0/559	1.33	7/754 (0.9%)
27	15	1.25	0/473	1.52	8/639 (1.3%)
27	25	1.00	0/473	1.32	1/639 (0.2%)
28	16	1.02	1/460 (0.2%)	1.24	1/613 (0.2%)
28	26	0.89	0/460	1.21	1/613 (0.2%)
29	17	1.26	1/426 (0.2%)	1.35	3/561 (0.5%)
29	27	1.05	0/426	1.39	5/561 (0.9%)
30	18	1.26	1/525 (0.2%)	1.43	8/691 (1.2%)
30	28	0.98	1/525 (0.2%)	1.33	4/691 (0.6%)
31	19	1.10	0/310	1.43	5/407 (1.2%)
31	29	0.97	0/310	1.36	3/407 (0.7%)
32	1a	0.54	1/35795 (0.0%)	0.75	9/55864 (0.0%)
32	2a	0.52	1/35795 (0.0%)	0.74	9/55864 (0.0%)
33	1b	0.77	0/1876	1.29	18/2533 (0.7%)
33	2b	0.77	0/1876	1.32	14/2533 (0.6%)
34	1c	0.71	0/1582	1.13	5/2137 (0.2%)
34	2c	0.74	0/1582	1.21	8/2137 (0.4%)
35	1d	0.78	0/1695	1.19	8/2274 (0.4%)
35	2d	0.78	0/1695	1.29	14/2274 (0.6%)
36	1e	0.86	0/1149	1.23	11/1548 (0.7%)
36	2e	0.83	0/1149	1.31	13/1548 (0.8%)
37	1f	0.85	0/827	1.24	4/1120 (0.4%)
37	2f	0.82	0/827	1.23	7/1120 (0.6%)
38	1g	0.71	0/1254	1.10	3/1683 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	2g	0.69	0/1254	1.22	9/1683 (0.5%)
39	1h	0.82	0/1118	1.26	10/1506 (0.7%)
39	2h	0.74	0/1118	1.27	10/1506 (0.7%)
40	1i	0.72	0/1005	1.16	4/1351 (0.3%)
40	2i	0.74	0/1005	1.19	5/1351 (0.4%)
41	1j	0.81	0/732	1.27	7/993 (0.7%)
41	2j	0.74	0/732	1.25	6/993 (0.6%)
42	1k	0.84	0/849	1.25	5/1150 (0.4%)
42	2k	0.82	0/849	1.19	2/1150 (0.2%)
43	1l	0.84	0/937	1.28	9/1260 (0.7%)
43	2l	0.85	0/937	1.21	9/1260 (0.7%)
44	1m	0.69	0/924	1.15	7/1242 (0.6%)
44	2m	0.83	0/924	1.32	7/1242 (0.6%)
45	1n	0.67	0/501	1.19	5/664 (0.8%)
45	2n	0.71	0/501	1.08	0/664
46	1o	0.84	0/739	1.18	4/985 (0.4%)
46	2o	0.78	0/739	1.19	3/985 (0.3%)
47	1p	0.78	0/697	1.21	6/939 (0.6%)
47	2p	0.82	0/697	1.15	1/939 (0.1%)
48	1q	0.82	0/836	1.26	8/1117 (0.7%)
48	2q	0.78	0/836	1.18	4/1117 (0.4%)
49	1r	0.83	0/560	1.21	5/746 (0.7%)
49	2r	0.85	0/560	1.17	2/746 (0.3%)
50	1s	0.72	0/663	1.15	3/895 (0.3%)
50	2s	0.81	0/663	1.16	6/895 (0.7%)
51	1t	0.83	0/734	1.31	6/969 (0.6%)
51	2t	0.79	0/734	1.19	2/969 (0.2%)
52	1u	0.62	0/203	1.11	0/266
52	2u	0.64	0/203	1.14	0/266
53	1y	1.28	2/177 (1.1%)	1.54	2/245 (0.8%)
54	1z	0.82	1/776 (0.1%)	1.29	6/1048 (0.6%)
54	2z	0.93	0/776	1.28	2/1048 (0.2%)
All	All	0.76	77/310361 (0.0%)	1.00	813/463769 (0.2%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
4	1E	0	1
4	2E	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
14	1S	0	1
14	2S	0	1
15	1T	0	1
15	2T	0	1
19	1X	0	1
19	2X	0	1
33	2b	0	1
44	1m	0	1
44	2m	0	1
53	1y	0	1
All	All	0	12

All (77) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	1R	38	VAL	CA-CB	-11.51	1.46	1.53
8	2I	108	THR	CA-CB	8.97	1.67	1.53
9	1N	85	ILE	CA-CB	-8.87	1.46	1.54
23	11	67	ILE	CA-CB	-7.69	1.50	1.54
5	1F	73	ALA	CA-CB	-7.54	1.42	1.53
19	1X	31	HIS	CA-C	-6.72	1.46	1.53
18	1W	96	ILE	CA-CB	-6.65	1.45	1.54
12	2Q	135	ASP	CA-C	-6.57	1.44	1.52
4	1E	146	THR	CA-C	-6.47	1.45	1.52
10	1O	61	VAL	CA-CB	-6.46	1.46	1.54
3	1D	142	VAL	CA-CB	-6.45	1.48	1.55
15	1T	64	ARG	CA-C	-6.43	1.45	1.52
17	2V	72	VAL	CA-CB	6.38	1.61	1.53
3	1D	144	ALA	CA-CB	-6.33	1.43	1.53
4	1E	111	ARG	CA-C	-6.22	1.44	1.52
10	1O	58	VAL	CA-CB	-6.18	1.45	1.54
4	1E	12	THR	CA-C	-6.16	1.46	1.53
16	1U	17	ILE	CA-CB	-6.08	1.46	1.54
20	1Y	37	VAL	CA-CB	-6.05	1.45	1.54
16	1U	9	VAL	CA-CB	-6.05	1.47	1.54
4	1E	144	ARG	C-O	-6.05	1.18	1.23
9	1N	54	VAL	CA-CB	-6.04	1.46	1.54
32	2a	1498	UR3	O3'-P	5.98	1.62	1.56
18	1W	10	VAL	CA-CB	-5.95	1.47	1.54
4	1E	95	ILE	CA-CB	-5.90	1.47	1.54
53	1y	21	PRO	CA-C	5.90	1.57	1.52
10	2O	85	VAL	CA-CB	-5.90	1.47	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	1D	82	ILE	CA-CB	-5.88	1.46	1.54
5	1F	84	VAL	CA-C	-5.88	1.45	1.52
4	1E	114	ALA	CA-CB	-5.86	1.44	1.53
17	1V	72	VAL	CA-CB	5.83	1.61	1.53
15	2T	110	ILE	CA-CB	-5.83	1.48	1.54
5	1F	42	ALA	CA-CB	-5.82	1.44	1.53
13	1R	52	ILE	CA-CB	-5.81	1.48	1.54
26	14	52	THR	CA-CB	5.66	1.61	1.53
19	1X	56	THR	CA-CB	-5.55	1.44	1.54
4	2E	25	VAL	CA-CB	-5.55	1.47	1.54
3	2D	79	VAL	CA-CB	-5.52	1.47	1.53
14	2S	85	VAL	CA-CB	-5.50	1.51	1.55
4	1E	102	VAL	N-CA	5.49	1.52	1.46
32	1a	1498	UR3	O3'-P	5.49	1.61	1.56
18	1W	56	ALA	C-O	-5.48	1.17	1.24
16	1U	48	ALA	CA-CB	-5.48	1.44	1.53
10	1O	43	VAL	CA-CB	-5.46	1.47	1.54
18	2W	81	ALA	CA-CB	-5.45	1.45	1.53
18	1W	20	VAL	CA-CB	-5.41	1.47	1.54
4	1E	114	ALA	CA-C	-5.40	1.46	1.52
28	16	9	LEU	CA-C	-5.38	1.46	1.52
9	1N	75	TYR	CA-C	5.38	1.59	1.52
25	13	21	ALA	CA-CB	-5.37	1.44	1.53
54	1z	36	ASN	CA-C	-5.35	1.49	1.53
30	18	22	VAL	CA-CB	-5.34	1.47	1.54
4	2E	173	VAL	CA-CB	-5.34	1.46	1.54
15	1T	10	VAL	CA-CB	-5.32	1.47	1.54
3	2D	51	VAL	CA-CB	-5.31	1.47	1.54
18	2W	103	ILE	CA-CB	-5.27	1.47	1.54
18	2W	93	ALA	CA-CB	-5.20	1.43	1.53
21	1Z	117	LEU	CA-C	-5.20	1.46	1.52
29	17	13	ALA	CA-CB	-5.18	1.45	1.53
11	1P	47	ASP	C-O	-5.17	1.17	1.24
9	2N	85	ILE	CA-C	-5.17	1.48	1.52
12	1Q	135	ASP	CA-C	-5.17	1.46	1.52
21	1Z	100	VAL	CA-C	-5.13	1.48	1.52
4	2E	146	THR	CA-C	-5.12	1.46	1.52
18	2W	7	ALA	CA-CB	-5.10	1.46	1.53
11	1P	126	VAL	CA-CB	-5.10	1.47	1.54
15	1T	60	THR	CA-C	-5.09	1.46	1.52
9	2N	73	THR	CA-C	5.05	1.58	1.52
30	28	41	ILE	CA-CB	-5.05	1.48	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	1P	15	ARG	CA-C	-5.05	1.46	1.52
12	1Q	7	MET	CA-C	-5.05	1.46	1.52
53	1y	7	PRO	C-O	-5.05	1.20	1.25
13	1R	97	VAL	CA-CB	-5.04	1.48	1.54
13	1R	25	ALA	CA-CB	-5.03	1.45	1.53
10	1O	76	ALA	CA-CB	-5.01	1.45	1.53
16	1U	107	ALA	CA-CB	-5.00	1.45	1.53
23	11	18	ILE	CA-CB	-5.00	1.48	1.54

All (813) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	2b	158	LEU	CA-C-N	12.78	132.93	119.90
33	2b	158	LEU	C-N-CA	12.78	132.93	119.90
21	2Z	94	GLU	CA-C-N	-11.16	109.47	120.52
21	2Z	94	GLU	C-N-CA	-11.16	109.47	120.52
9	2N	125	GLY	CA-C-N	10.95	131.32	119.28
9	2N	125	GLY	C-N-CA	10.95	131.32	119.28
5	1F	9	ILE	N-CA-C	10.93	120.19	107.73
7	1H	127	GLU	CA-C-N	-10.91	108.80	120.47
7	1H	127	GLU	C-N-CA	-10.91	108.80	120.47
8	2I	124	GLY	N-CA-C	10.61	126.04	110.97
44	2m	116	THR	N-CA-C	10.48	124.70	110.55
33	2b	23	ARG	N-CA-C	-10.15	97.21	112.54
10	1O	100	GLY	CA-C-N	-10.08	110.54	120.52
10	1O	100	GLY	C-N-CA	-10.08	110.54	120.52
9	1N	85	ILE	CB-CA-C	-10.04	99.38	110.52
4	2E	193	GLY	N-CA-C	-9.99	101.93	114.92
18	2W	79	GLY	CA-C-N	9.99	132.33	119.84
18	2W	79	GLY	C-N-CA	9.99	132.33	119.84
8	1I	7	GLU	CA-C-N	-9.92	109.84	120.66
8	1I	7	GLU	C-N-CA	-9.92	109.84	120.66
51	1t	9	ASN	N-CA-C	9.91	121.76	108.38
7	1H	28	GLY	CA-C-N	9.90	129.66	119.56
7	1H	28	GLY	C-N-CA	9.90	129.66	119.56
39	2h	73	ASP	CA-C-N	9.90	130.93	120.83
39	2h	73	ASP	C-N-CA	9.90	130.93	120.83
16	2U	7	GLY	N-CA-C	-9.76	102.69	111.67
35	2d	180	GLY	N-CA-C	-9.74	102.38	114.16
4	1E	47	VAL	CB-CA-C	-9.72	98.86	110.91
3	2D	28	GLU	CA-C-N	-9.71	109.84	120.14
3	2D	28	GLU	C-N-CA	-9.71	109.84	120.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
39	1h	79	VAL	N-CA-C	-9.71	103.46	111.81
33	2b	19	HIS	N-CA-C	9.54	121.33	107.88
6	2G	141	PHE	CA-C-N	9.47	129.22	119.19
6	2G	141	PHE	C-N-CA	9.47	129.22	119.19
18	1W	79	GLY	CA-C-N	9.45	131.65	119.84
18	1W	79	GLY	C-N-CA	9.45	131.65	119.84
33	1b	23	ARG	N-CA-C	-9.31	98.48	112.54
3	1D	245	PRO	CA-C-N	9.28	129.32	119.76
3	1D	245	PRO	C-N-CA	9.28	129.32	119.76
39	2h	26	VAL	N-CA-C	-9.18	101.66	109.19
35	1d	38	TYR	CA-C-N	9.10	126.30	119.66
35	1d	38	TYR	C-N-CA	9.10	126.30	119.66
3	1D	3	VAL	N-CA-C	-9.03	95.42	107.88
21	1Z	61	LEU	CA-C-N	9.00	129.04	119.05
21	1Z	61	LEU	C-N-CA	9.00	129.04	119.05
44	2m	112	GLY	CA-C-N	8.99	131.08	119.84
44	2m	112	GLY	C-N-CA	8.99	131.08	119.84
35	1d	190	ASP	N-CA-C	-8.96	98.97	110.53
6	2G	53	LEU	N-CA-C	-8.81	102.07	113.17
7	1H	172	LYS	CA-C-N	8.71	128.75	119.78
7	1H	172	LYS	C-N-CA	8.71	128.75	119.78
44	1m	114	ARG	N-CA-C	8.70	122.85	110.23
39	1h	4	ASP	CA-C-N	8.68	128.00	118.97
39	1h	4	ASP	C-N-CA	8.68	128.00	118.97
13	2R	16	HIS	N-CA-C	-8.60	102.91	113.41
42	1k	38	ASN	CA-C-N	8.59	130.57	119.84
42	1k	38	ASN	C-N-CA	8.59	130.57	119.84
3	1D	46	GLN	N-CA-C	-8.45	102.98	113.38
36	2e	105	VAL	CA-C-N	-8.39	111.16	119.64
36	2e	105	VAL	C-N-CA	-8.39	111.16	119.64
8	1I	44	LEU	N-CA-C	-8.37	102.51	112.89
36	2e	69	VAL	N-CA-C	8.35	116.19	107.76
23	11	2	SER	CA-C-N	-8.34	114.21	123.13
23	11	2	SER	C-N-CA	-8.34	114.21	123.13
26	24	40	HIS	CA-C-N	8.33	130.26	119.84
26	24	40	HIS	C-N-CA	8.33	130.26	119.84
51	1t	11	SER	N-CA-C	-8.25	103.31	112.72
44	2m	114	ARG	N-CA-C	8.16	122.36	110.28
36	1e	69	VAL	CA-C-N	8.13	130.00	119.84
36	1e	69	VAL	C-N-CA	8.13	130.00	119.84
6	2G	31	VAL	CA-C-N	8.12	129.99	119.84
6	2G	31	VAL	C-N-CA	8.12	129.99	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	11	83	GLU	N-CA-C	8.07	122.12	110.10
44	2m	40	ASN	CA-C-N	8.04	128.12	119.28
44	2m	40	ASN	C-N-CA	8.04	128.12	119.28
3	1D	244	ARG	CA-C-N	-7.98	112.16	120.38
3	1D	244	ARG	C-N-CA	-7.98	112.16	120.38
21	1Z	193	GLU	CA-C-N	7.97	128.44	119.83
21	1Z	193	GLU	C-N-CA	7.97	128.44	119.83
11	2P	73	GLY	N-CA-C	7.96	121.23	111.45
44	1m	32	GLU	N-CA-C	7.95	119.95	111.28
4	1E	102	VAL	CB-CA-C	-7.93	99.09	110.82
35	2d	38	TYR	CA-C-N	7.89	125.42	119.66
35	2d	38	TYR	C-N-CA	7.89	125.42	119.66
34	2c	72	LYS	CA-C-N	7.83	127.74	119.05
34	2c	72	LYS	C-N-CA	7.83	127.74	119.05
13	1R	16	HIS	N-CA-C	-7.82	103.87	113.41
10	2O	94	ARG	N-CA-C	-7.76	103.61	113.23
3	1D	227	ASN	CA-C-N	-7.76	110.97	119.19
3	1D	227	ASN	C-N-CA	-7.76	110.97	119.19
20	2Y	100	ALA	N-CA-C	-7.71	104.37	114.31
3	2D	275	LYS	N-CA-C	-7.70	97.63	109.65
8	2I	7	GLU	CA-C-N	-7.70	112.27	120.66
8	2I	7	GLU	C-N-CA	-7.70	112.27	120.66
43	1l	11	VAL	N-CA-C	-7.67	103.32	110.53
9	2N	85	ILE	CA-C-N	7.67	127.42	119.76
9	2N	85	ILE	C-N-CA	7.67	127.42	119.76
22	20	15	ASP	N-CA-C	-7.66	97.08	107.88
3	1D	85	ASP	CA-C-N	7.60	127.31	119.56
3	1D	85	ASP	C-N-CA	7.60	127.31	119.56
10	2O	9	GLU	CA-C-N	-7.56	113.40	122.93
10	2O	9	GLU	C-N-CA	-7.56	113.40	122.93
6	1G	31	VAL	CA-C-N	7.51	129.23	119.84
6	1G	31	VAL	C-N-CA	7.51	129.23	119.84
8	2I	90	GLY	N-CA-C	-7.51	102.07	112.13
14	2S	53	SER	N-CA-C	-7.49	103.20	111.36
11	2P	77	ARG	N-CA-C	-7.48	100.60	110.40
11	1P	68	GLN	N-CA-C	-7.47	103.11	112.90
6	2G	45	GLU	N-CA-C	-7.44	103.79	113.17
21	1Z	100	VAL	CA-C-N	7.43	129.13	119.84
21	1Z	100	VAL	C-N-CA	7.43	129.13	119.84
43	2l	24	VAL	CA-C-N	7.41	126.67	118.97
43	2l	24	VAL	C-N-CA	7.41	126.67	118.97
16	1U	40	PHE	N-CA-C	-7.40	103.15	111.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
15	1T	57	PHE	N-CA-C	-7.37	103.75	112.89
7	1H	167	GLU	CA-C-N	7.36	128.52	119.98
7	1H	167	GLU	C-N-CA	7.36	128.52	119.98
43	1l	124	LYS	CA-C-N	7.33	127.49	120.31
43	1l	124	LYS	C-N-CA	7.33	127.49	120.31
18	1W	17	VAL	CB-CA-C	-7.33	102.42	112.24
33	1b	158	LEU	CA-C-N	7.28	127.33	119.90
33	1b	158	LEU	C-N-CA	7.28	127.33	119.90
44	1m	112	GLY	CA-C-N	7.28	128.94	119.84
44	1m	112	GLY	C-N-CA	7.28	128.94	119.84
5	1F	194	MET	N-CA-C	7.26	121.24	109.40
42	2k	40	ILE	N-CA-C	-7.26	106.02	111.90
7	1H	125	VAL	CA-C-N	7.25	128.90	119.84
7	1H	125	VAL	C-N-CA	7.25	128.90	119.84
41	2j	76	ASN	CA-C-N	7.24	128.89	119.84
41	2j	76	ASN	C-N-CA	7.24	128.89	119.84
3	2D	218	ARG	CA-C-N	7.23	127.26	119.89
3	2D	218	ARG	C-N-CA	7.23	127.26	119.89
9	2N	62	VAL	N-CA-C	7.20	117.28	108.06
15	1T	53	ARG	CB-CA-C	-7.19	98.49	110.29
30	18	30	ARG	N-CA-C	-7.19	104.64	113.41
26	14	40	HIS	CA-C-N	7.18	128.81	119.84
26	14	40	HIS	C-N-CA	7.18	128.81	119.84
18	2W	17	VAL	CB-CA-C	-7.15	102.66	112.24
20	1Y	31	LEU	CA-C-N	7.15	126.64	118.85
20	1Y	31	LEU	C-N-CA	7.15	126.64	118.85
11	1P	116	GLY	N-CA-C	7.14	123.51	114.66
21	2Z	133	ILE	CA-C-N	7.13	127.12	119.78
21	2Z	133	ILE	C-N-CA	7.13	127.12	119.78
21	1Z	86	VAL	CB-CA-C	-7.11	100.02	110.62
33	1b	130	ARG	CA-C-N	7.09	128.70	119.84
33	1b	130	ARG	C-N-CA	7.09	128.70	119.84
4	2E	111	ARG	N-CA-C	-7.08	104.12	114.39
47	2p	5	ARG	N-CA-C	7.06	117.56	108.24
15	2T	53	ARG	CB-CA-C	-7.05	98.73	110.29
41	1j	52	GLY	CA-C-N	7.04	126.75	119.64
41	1j	52	GLY	C-N-CA	7.04	126.75	119.64
6	1G	164	GLU	N-CA-C	-7.04	105.23	114.31
5	1F	44	ARG	N-CA-C	-7.04	104.66	113.18
21	1Z	33	LEU	N-CA-C	7.03	119.62	109.14
38	2g	69	VAL	N-CA-C	-7.03	106.37	113.47
24	22	31	GLU	N-CA-C	-7.02	103.71	111.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	1E	168	MET	N-CA-C	7.02	120.89	109.59
47	1p	70	ALA	N-CA-C	-7.00	105.36	114.04
1	1A	2061	G	O5'-P-OP2	-7.00	87.00	108.00
41	2j	5	ARG	N-CA-C	7.00	120.93	109.24
3	1D	229	VAL	CB-CA-C	-6.99	101.33	112.16
13	2R	47	PHE	N-CA-C	-6.97	103.61	111.07
22	20	48	GLY	N-CA-C	6.97	121.47	112.13
28	16	7	ILE	N-CA-C	6.95	119.06	109.46
3	2D	229	VAL	CB-CA-C	-6.95	101.40	112.16
19	2X	81	VAL	N-CA-C	6.94	119.41	108.87
29	17	17	GLY	N-CA-C	6.91	121.51	112.25
18	1W	10	VAL	CB-CA-C	-6.89	101.06	111.33
13	2R	17	ARG	N-CA-C	-6.89	103.77	111.28
23	11	67	ILE	CA-C-N	-6.88	112.61	119.56
23	11	67	ILE	C-N-CA	-6.88	112.61	119.56
12	2Q	136	ALA	N-CA-C	-6.88	103.83	111.82
4	1E	111	ARG	N-CA-C	-6.88	103.02	113.89
20	2Y	31	LEU	CA-C-N	6.87	126.68	119.05
20	2Y	31	LEU	C-N-CA	6.87	126.68	119.05
21	1Z	161	VAL	N-CA-C	6.86	118.18	107.28
9	2N	52	VAL	N-CA-C	6.85	117.73	107.80
38	2g	13	GLN	CA-C-N	6.85	126.88	119.89
38	2g	13	GLN	C-N-CA	6.85	126.88	119.89
6	1G	45	GLU	N-CA-C	-6.84	104.50	112.92
9	1N	5	VAL	CB-CA-C	-6.84	103.49	110.13
21	1Z	94	GLU	CA-C-N	-6.84	113.75	120.52
21	1Z	94	GLU	C-N-CA	-6.84	113.75	120.52
33	2b	128	GLU	N-CA-C	-6.84	105.05	113.19
34	1c	4	LYS	N-CA-C	6.82	119.10	110.24
40	2i	122	ALA	CA-C-N	-6.80	112.93	120.14
40	2i	122	ALA	C-N-CA	-6.80	112.93	120.14
40	1i	48	GLU	N-CA-C	6.79	122.89	113.45
4	2E	168	MET	N-CA-C	6.79	120.51	109.59
40	2i	105	ASP	N-CA-C	6.78	119.56	109.59
15	2T	127	ALA	N-CA-C	-6.78	101.00	110.35
54	1z	63	ALA	N-CA-C	6.78	119.37	109.07
34	1c	72	LYS	CA-C-N	6.77	126.56	119.05
34	1c	72	LYS	C-N-CA	6.77	126.56	119.05
18	2W	31	GLU	N-CA-C	-6.77	103.83	111.07
51	1t	12	ALA	N-CA-C	-6.76	103.97	111.82
37	1f	55	ASP	CA-C-N	6.75	126.44	119.56
37	1f	55	ASP	C-N-CA	6.75	126.44	119.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
47	1p	5	ARG	N-CA-C	6.75	117.15	108.24
19	2X	10	ALA	CA-C-N	-6.75	113.30	120.66
19	2X	10	ALA	C-N-CA	-6.75	113.30	120.66
8	2I	48	GLU	N-CA-C	6.74	118.28	111.07
21	2Z	107	THR	CA-C-N	6.71	126.73	119.89
21	2Z	107	THR	C-N-CA	6.71	126.73	119.89
39	1h	134	ILE	CB-CA-C	-6.70	103.39	111.97
9	2N	48	MET	N-CA-C	6.68	121.28	111.87
33	2b	123	ALA	N-CA-C	-6.66	103.77	114.09
26	14	66	SER	N-CA-C	6.65	121.10	113.19
12	1Q	5	ARG	N-CA-C	-6.62	104.23	112.90
33	1b	19	HIS	N-CA-C	6.62	116.60	107.73
12	1Q	2	LEU	N-CA-C	6.60	119.30	109.59
8	1I	98	ALA	N-CA-C	-6.60	103.70	111.03
41	1j	5	ARG	N-CA-C	6.59	119.45	109.23
4	1E	100	GLU	N-CA-C	-6.59	102.31	110.41
8	2I	44	LEU	N-CA-C	-6.57	103.96	112.23
1	2A	2585	U	OP1-P-O3'	6.56	127.69	108.00
4	1E	176	ILE	CA-C-N	-6.56	113.02	119.64
4	1E	176	ILE	C-N-CA	-6.56	113.02	119.64
5	2F	159	GLY	N-CA-C	-6.55	106.74	115.32
35	2d	4	TYR	N-CA-C	6.54	118.07	111.07
15	1T	19	LEU	CA-C-N	6.54	126.46	119.85
15	1T	19	LEU	C-N-CA	6.54	126.46	119.85
8	2I	120	ILE	CB-CA-C	-6.53	102.66	111.15
36	2e	95	ALA	CA-C-N	6.53	128.00	119.84
36	2e	95	ALA	C-N-CA	6.53	128.00	119.84
27	15	40	LYS	N-CA-C	6.52	115.81	108.25
7	1H	117	PRO	CA-C-N	-6.51	111.70	119.84
7	1H	117	PRO	C-N-CA	-6.51	111.70	119.84
43	2l	44	THR	CA-C-N	6.51	126.97	120.52
43	2l	44	THR	C-N-CA	6.51	126.97	120.52
35	1d	4	TYR	N-CA-C	6.50	118.02	111.07
23	21	11	ARG	CA-C-N	6.49	126.88	119.93
23	21	11	ARG	C-N-CA	6.49	126.88	119.93
51	2t	9	ASN	N-CA-C	6.49	116.63	108.45
27	25	55	ARG	N-CA-C	6.49	120.20	110.14
30	18	21	LYS	CA-C-N	-6.46	114.51	123.10
30	18	21	LYS	C-N-CA	-6.46	114.51	123.10
3	1D	40	THR	CB-CA-C	-6.46	98.57	109.03
8	2I	110	ASP	CA-C-N	6.44	125.94	119.24
8	2I	110	ASP	C-N-CA	6.44	125.94	119.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	1y	21	PRO	N-CA-C	6.43	118.55	110.70
3	1D	221	VAL	N-CA-C	6.43	118.28	108.71
36	1e	31	LEU	N-CA-C	-6.42	98.75	108.96
34	2c	43	LEU	N-CA-C	6.42	118.82	111.11
35	1d	39	PRO	N-CA-C	6.42	116.63	110.47
16	1U	53	ARG	N-CA-C	-6.41	104.33	111.71
37	2f	55	ASP	CA-C-N	6.40	126.08	119.56
37	2f	55	ASP	C-N-CA	6.40	126.08	119.56
13	1R	9	LYS	N-CA-C	-6.38	105.80	113.97
43	1l	24	VAL	CA-C-N	6.38	125.61	118.97
43	1l	24	VAL	C-N-CA	6.38	125.61	118.97
33	1b	94	ASN	N-CA-C	-6.37	104.06	113.61
38	1g	87	VAL	N-CA-C	6.37	114.19	107.76
7	2H	32	GLU	N-CA-C	6.37	119.55	109.81
43	1l	18	VAL	N-CA-C	6.36	116.79	107.37
9	1N	76	SER	N-CA-C	6.36	120.29	112.54
41	1j	8	LEU	N-CA-C	6.34	119.20	107.99
43	1l	64	TYR	N-CA-C	6.33	118.96	110.35
53	1y	15	ARG	N-CA-C	6.33	119.22	108.90
8	2I	115	ALA	N-CA-C	6.31	119.45	110.68
45	1n	53	LEU	CA-C-N	6.31	126.53	119.90
45	1n	53	LEU	C-N-CA	6.31	126.53	119.90
1	1A	2054	A	OP1-P-O3'	-6.31	89.08	108.00
36	2e	92	LYS	CA-C-N	6.31	126.64	119.83
36	2e	92	LYS	C-N-CA	6.31	126.64	119.83
10	1O	43	VAL	CB-CA-C	-6.30	103.33	110.96
5	1F	94	PRO	CA-C-O	-6.30	114.26	121.56
40	2i	11	LYS	CB-CA-C	-6.29	109.33	116.63
20	2Y	53	PRO	CA-C-N	6.29	128.70	120.28
20	2Y	53	PRO	C-N-CA	6.29	128.70	120.28
51	2t	12	ALA	N-CA-C	-6.28	105.10	112.89
4	2E	146	THR	N-CA-C	-6.28	98.67	109.15
5	1F	53	THR	N-CA-CB	-6.28	100.81	110.04
21	2Z	181	GLU	N-CA-C	-6.27	104.52	111.36
40	1i	97	LYS	CA-C-N	-6.27	113.23	119.56
40	1i	97	LYS	C-N-CA	-6.27	113.23	119.56
7	1H	13	LYS	N-CA-C	-6.26	100.31	110.20
49	1r	21	LYS	N-CA-C	6.25	118.36	108.67
5	1F	8	GLN	N-CA-C	6.25	119.04	107.99
38	2g	69	VAL	CB-CA-C	6.24	117.36	110.62
22	10	40	GLN	N-CA-C	6.22	118.31	108.79
15	2T	68	TYR	N-CA-C	-6.22	102.81	111.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	195	A	P-O3'-C3'	6.21	129.52	120.20
41	1j	44	VAL	N-CA-C	6.21	116.80	107.80
11	1P	77	ARG	N-CA-C	-6.20	102.28	110.40
4	1E	192	ASN	N-CA-C	-6.20	100.87	110.10
33	1b	149	LEU	N-CA-C	6.19	120.83	113.28
2	1B	77	U	OP1-P-O3'	-6.19	89.43	108.00
33	2b	130	ARG	CA-C-N	6.18	127.57	119.84
33	2b	130	ARG	C-N-CA	6.18	127.57	119.84
4	1E	81	ILE	CB-CA-C	-6.18	102.43	110.84
6	2G	77	ILE	N-CA-C	6.18	117.19	108.17
48	1q	9	VAL	CB-CA-C	-6.18	102.27	110.98
1	1A	739	G	OP2-P-O3'	-6.18	89.47	108.00
5	2F	71	GLY	N-CA-C	-6.17	107.35	114.69
25	13	40	THR	CA-C-N	-6.16	112.14	119.84
25	13	40	THR	C-N-CA	-6.16	112.14	119.84
1	1A	191	A	OP1-P-O3'	-6.16	89.52	108.00
10	2O	51	ALA	N-CA-C	-6.16	104.47	112.23
35	2d	131	ARG	N-CA-C	6.16	118.25	110.24
1	1A	1337	G	OP1-P-O3'	6.16	126.47	108.00
4	1E	47	VAL	N-CA-C	6.15	117.44	108.58
13	2R	9	LYS	N-CA-C	-6.15	106.31	113.88
11	1P	26	GLY	N-CA-C	-6.15	106.75	115.30
13	1R	38	VAL	CB-CA-C	-6.14	107.84	114.35
22	20	62	LEU	N-CA-C	-6.14	106.38	114.31
43	1l	44	THR	CA-C-N	6.13	127.47	120.85
43	1l	44	THR	C-N-CA	6.13	127.47	120.85
3	2D	244	ARG	CA-C-N	-6.12	114.07	120.38
3	2D	244	ARG	C-N-CA	-6.12	114.07	120.38
3	1D	53	PHE	N-CA-C	6.11	120.06	112.24
18	2W	60	ASN	N-CA-CB	-6.11	100.90	110.06
5	1F	64	ILE	CB-CA-C	-6.11	102.70	112.16
32	1a	1067	A	C2'-C3'-O3'	6.10	118.66	109.50
32	1a	1183	A	P-O3'-C3'	6.10	129.35	120.20
37	2f	67	MET	CA-C-N	-6.10	113.69	119.85
37	2f	67	MET	C-N-CA	-6.10	113.69	119.85
36	2e	23	GLY	N-CA-C	6.09	119.34	110.63
6	2G	20	ILE	N-CA-C	-6.09	104.41	110.62
7	1H	111	HIS	CA-C-N	-6.08	114.03	120.66
7	1H	111	HIS	C-N-CA	-6.08	114.03	120.66
54	1z	32	THR	N-CA-C	-6.08	100.17	109.41
33	1b	128	GLU	N-CA-C	-6.07	105.96	113.19
18	1W	60	ASN	N-CA-C	6.07	117.89	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	1F	183	VAL	N-CA-C	6.07	118.67	111.09
11	1P	22	GLY	N-CA-C	6.07	124.72	112.34
9	1N	62	VAL	N-CA-C	6.06	115.82	108.06
36	1e	35	GLY	N-CA-C	6.05	122.04	111.14
39	1h	134	ILE	N-CA-C	6.05	116.23	110.42
3	1D	48	ARG	NE-CZ-NH1	-6.04	115.45	121.50
37	2f	94	GLN	N-CA-C	6.03	118.35	109.24
51	1t	66	ALA	N-CA-C	-6.03	104.34	111.03
9	2N	10	GLU	CA-C-N	6.02	126.49	119.99
9	2N	10	GLU	C-N-CA	6.02	126.49	119.99
48	2q	67	LYS	N-CA-C	-6.02	101.00	109.96
23	11	3	LYS	N-CA-C	6.01	114.52	108.75
21	2Z	14	LYS	CA-C-N	6.01	125.22	118.97
21	2Z	14	LYS	C-N-CA	6.01	125.22	118.97
1	1A	2506	U	O5'-P-OP1	6.00	126.00	108.00
19	2X	50	LYS	N-CA-C	-6.00	98.63	108.41
36	2e	148	VAL	CB-CA-C	-6.00	104.14	111.87
1	2A	2689	U	P-O3'-C3'	5.99	129.19	120.20
1	1A	2498	C	P-O3'-C3'	-5.99	111.22	120.20
29	27	24	THR	CB-CA-C	-5.97	100.38	108.68
36	2e	113	ALA	N-CA-C	-5.96	105.96	113.18
5	2F	24	LEU	CA-C-N	5.96	127.29	119.84
5	2F	24	LEU	C-N-CA	5.96	127.29	119.84
1	1A	2319	G	O4'-C1'-N9	5.96	117.14	108.20
14	2S	87	PHE	N-CA-C	5.96	118.47	107.99
12	2Q	69	PHE	CA-C-N	5.95	127.28	119.84
12	2Q	69	PHE	C-N-CA	5.95	127.28	119.84
50	2s	60	VAL	CB-CA-C	-5.95	103.65	110.73
13	1R	36	THR	CB-CA-C	-5.94	100.74	114.41
18	1W	22	ASP	N-CA-C	5.94	118.52	111.33
20	2Y	21	LYS	N-CA-CB	5.94	118.90	109.51
33	1b	99	GLY	N-CA-C	-5.94	101.11	111.62
3	1D	52	ARG	NE-CZ-NH2	5.93	124.54	119.20
33	2b	94	ASN	N-CA-C	-5.93	105.88	114.12
6	2G	65	GLY	N-CA-C	-5.93	105.95	115.08
31	19	29	ASN	CA-C-N	5.92	125.79	119.28
31	19	29	ASN	C-N-CA	5.92	125.79	119.28
33	1b	123	ALA	N-CA-C	-5.92	104.92	114.09
47	1p	65	GLN	CA-C-N	5.92	126.11	120.31
47	1p	65	GLN	C-N-CA	5.92	126.11	120.31
21	1Z	176	PRO	O-C-N	5.92	123.93	121.15
7	1H	20	ALA	CA-C-N	-5.92	113.84	119.76

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	1H	20	ALA	C-N-CA	-5.92	113.84	119.76
23	21	83	GLU	N-CA-C	5.91	118.91	110.10
48	2q	89	LEU	N-CA-C	5.90	117.71	111.28
13	2R	114	VAL	CB-CA-C	-5.90	101.83	110.62
32	2a	1183	A	P-O3'-C3'	5.90	129.04	120.20
41	2j	44	VAL	N-CA-C	5.90	116.35	107.80
50	1s	10	PHE	N-CA-C	5.89	119.24	109.46
29	27	44	PRO	CB-CA-C	-5.89	103.86	111.46
4	1E	106	GLY	N-CA-C	-5.89	100.89	110.55
41	2j	51	ARG	N-CA-C	5.87	117.37	110.97
1	1A	2319	G	C4-N9-C1'	5.87	144.11	126.50
11	2P	144	GLU	CA-C-N	5.87	125.81	119.76
11	2P	144	GLU	C-N-CA	5.87	125.81	119.76
22	20	44	ARG	N-CA-C	-5.86	105.02	111.82
1	1A	739	G	P-O5'-C5'	-5.86	112.11	120.90
8	1I	110	ASP	CA-C-N	5.84	127.15	119.84
8	1I	110	ASP	C-N-CA	5.84	127.15	119.84
30	18	21	LYS	N-CA-C	-5.84	101.88	110.52
13	2R	57	ARG	N-CA-C	-5.84	104.51	111.69
40	2i	103	THR	N-CA-C	5.83	118.74	109.81
1	1A	2054	A	OP2-P-O3'	5.83	125.50	108.00
3	2D	35	LYS	CA-C-N	-5.83	113.96	119.85
3	2D	35	LYS	C-N-CA	-5.83	113.96	119.85
4	2E	8	LYS	CA-C-N	-5.83	117.00	122.66
4	2E	8	LYS	C-N-CA	-5.83	117.00	122.66
6	1G	48	GLU	N-CA-C	-5.83	104.89	112.23
30	18	8	LYS	N-CA-C	5.83	117.44	111.14
36	1e	105	VAL	CA-C-N	-5.82	113.76	119.64
36	1e	105	VAL	C-N-CA	-5.82	113.76	119.64
33	1b	234	PRO	N-CA-C	5.82	120.35	111.15
32	2a	687	A	C2'-C3'-O3'	5.82	118.23	109.50
21	2Z	179	ASP	N-CA-C	5.82	118.99	108.69
5	1F	9	ILE	CB-CA-C	-5.81	104.17	110.85
3	2D	107	ALA	CA-C-N	5.81	126.00	120.31
3	2D	107	ALA	C-N-CA	5.81	126.00	120.31
1	2A	2689	U	C2'-C3'-O3'	5.80	118.20	109.50
34	1c	48	TYR	N-CA-C	-5.79	104.66	110.97
3	1D	60	ARG	NE-CZ-NH1	-5.79	115.71	121.50
13	1R	73	VAL	N-CA-C	5.79	115.98	110.42
35	2d	58	LEU	N-CA-C	-5.78	104.67	110.97
41	2j	28	ARG	N-CA-C	-5.78	104.58	111.69
3	1D	98	VAL	CA-C-N	5.78	129.10	120.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	1D	98	VAL	C-N-CA	5.78	129.10	120.31
38	1g	33	ASP	N-CA-C	5.78	123.11	110.80
3	1D	7	LYS	N-CA-C	-5.78	101.88	110.20
5	2F	101	LEU	CA-C-N	5.78	127.06	119.84
5	2F	101	LEU	C-N-CA	5.78	127.06	119.84
23	21	66	HIS	CA-C-N	-5.76	115.72	120.33
23	21	66	HIS	C-N-CA	-5.76	115.72	120.33
11	1P	139	LYS	N-CA-C	-5.76	104.69	110.97
22	10	62	LEU	N-CA-C	-5.76	106.88	114.31
32	1a	266	G	P-O3'-C3'	5.76	128.84	120.20
1	1A	948	G	O5'-P-OP2	5.76	125.28	108.00
7	2H	131	VAL	N-CA-C	5.76	117.04	108.46
23	21	25	LYS	N-CA-C	-5.76	105.09	111.71
8	1I	105	HIS	N-CA-C	5.75	123.06	110.80
1	1A	2506	U	O5'-P-OP2	-5.75	90.75	108.00
29	27	25	PRO	N-CA-C	-5.75	105.54	113.53
16	1U	50	ARG	N-CA-C	-5.75	104.71	110.97
7	2H	117	PRO	CA-C-N	-5.75	114.83	120.52
7	2H	117	PRO	C-N-CA	-5.75	114.83	120.52
10	1O	32	TYR	N-CA-C	5.74	118.83	109.06
20	2Y	13	VAL	N-CA-C	5.74	118.43	108.95
7	2H	35	VAL	N-CA-C	5.74	116.77	107.71
11	2P	57	THR	N-CA-C	5.73	118.09	110.53
26	14	3	GLU	N-CA-C	5.73	119.25	110.20
6	2G	114	ILE	CB-CA-C	-5.72	103.66	111.33
1	2A	784	A	P-O3'-C3'	5.71	128.77	120.20
35	2d	39	PRO	N-CA-C	5.71	115.95	110.47
1	2A	784	A	O3'-P-O5'	-5.70	95.45	104.00
4	2E	144	ARG	CB-CA-C	-5.69	108.23	116.54
30	18	44	LYS	N-CA-C	-5.69	106.38	113.15
32	1a	266	G	C2'-C3'-O3'	5.68	118.02	109.50
32	1a	1442	G	P-O3'-C3'	5.68	126.52	119.70
1	2A	2319	G	O4'-C1'-N9	5.68	116.72	108.20
50	2s	29	ARG	N-CA-C	5.68	118.82	109.85
49	1r	51	LEU	CA-C-N	5.67	126.93	119.84
49	1r	51	LEU	C-N-CA	5.67	126.93	119.84
7	2H	132	ARG	N-CA-C	5.67	117.66	108.41
49	1r	81	PHE	N-CA-C	-5.67	106.50	113.41
1	1A	1331	A	OP1-P-O3'	-5.67	91.00	108.00
20	1Y	8	LYS	N-CA-C	5.66	117.58	109.14
7	1H	84	SER	N-CA-C	5.66	117.67	109.07
19	1X	8	ILE	CB-CA-C	-5.66	103.23	110.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	1b	166	ASP	CA-C-N	5.65	125.33	119.05
33	1b	166	ASP	C-N-CA	5.65	125.33	119.05
1	1A	528	A	N9-C1'-C2'	5.65	120.48	112.00
13	1R	84	ALA	CA-C-N	-5.65	113.20	119.19
13	1R	84	ALA	C-N-CA	-5.65	113.20	119.19
4	1E	146	THR	CB-CA-C	-5.65	102.56	110.13
1	2A	453	C	O5'-P-OP1	-5.65	91.05	108.00
3	2D	218	ARG	N-CA-C	-5.64	101.92	110.39
15	2T	34	VAL	N-CA-C	-5.63	100.92	108.35
33	2b	18	GLY	CA-C-O	-5.63	118.34	122.23
5	1F	7	TYR	N-CA-C	-5.63	99.12	108.75
27	15	27	PRO	CA-C-N	5.62	125.64	119.90
27	15	27	PRO	C-N-CA	5.62	125.64	119.90
54	1z	35	ILE	N-CA-C	5.62	116.50	107.73
42	1k	40	ILE	CB-CA-C	-5.62	106.10	111.44
43	2l	6	THR	N-CA-C	-5.62	101.86	109.95
5	2F	66	PRO	CA-C-O	-5.61	115.14	121.43
48	1q	63	ARG	CA-C-N	5.61	125.93	119.93
48	1q	63	ARG	C-N-CA	5.61	125.93	119.93
30	28	21	LYS	N-CA-C	-5.61	102.22	110.52
27	15	41	PRO	CA-C-N	-5.60	114.83	120.21
27	15	41	PRO	C-N-CA	-5.60	114.83	120.21
51	1t	98	PRO	N-CA-C	5.59	119.64	111.03
14	2S	91	PRO	N-CA-C	-5.59	108.26	114.92
22	10	36	ILE	N-CA-C	-5.59	100.37	108.87
34	2c	4	LYS	N-CA-C	5.59	117.51	110.24
31	19	4	ARG	N-CA-C	5.59	116.45	108.74
1	1A	1231	G	O5'-P-OP1	5.58	124.75	108.00
32	2a	115	G	C2'-C3'-O3'	5.56	117.84	109.50
47	1p	75	ARG	N-CA-C	-5.56	104.91	110.97
36	1e	95	ALA	CA-C-N	5.55	126.78	119.84
36	1e	95	ALA	C-N-CA	5.55	126.78	119.84
36	1e	23	GLY	N-CA-C	5.54	119.09	110.88
5	1F	26	ALA	N-CA-C	-5.54	105.25	112.23
8	1I	83	ALA	N-CA-C	5.54	115.72	108.07
35	2d	23	GLY	N-CA-C	5.54	116.77	111.67
8	1I	131	LYS	CA-C-N	5.54	126.03	120.04
8	1I	131	LYS	C-N-CA	5.54	126.03	120.04
27	15	26	THR	CA-C-N	5.54	123.70	119.66
27	15	26	THR	C-N-CA	5.54	123.70	119.66
1	2A	1210	A	P-O3'-C3'	5.54	128.50	120.20
1	1A	1221	C	OP1-P-O3'	5.53	117.37	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
46	2o	22	THR	N-CA-C	-5.53	100.90	109.14
1	1A	2689	U	C4'-C3'-O3'	5.53	117.69	109.40
16	1U	65	ILE	N-CA-C	-5.53	105.11	110.42
3	2D	40	THR	CB-CA-C	-5.52	100.08	109.03
7	1H	3	ARG	N-CA-C	5.52	118.08	108.76
1	2A	1975	G	O5'-P-OP2	-5.52	91.45	108.00
21	2Z	193	GLU	CA-C-N	5.51	125.83	119.93
21	2Z	193	GLU	C-N-CA	5.51	125.83	119.93
35	2d	84	LYS	N-CA-C	-5.51	104.92	111.03
32	2a	1442	G	P-O3'-C3'	5.51	126.31	119.70
26	14	68	ARG	N-CA-C	5.50	117.63	110.53
42	2k	108	ILE	N-CA-C	5.50	116.49	107.24
54	1z	8	LYS	N-CA-C	5.49	117.65	109.59
34	2c	6	HIS	CA-C-N	5.48	126.53	120.45
34	2c	6	HIS	C-N-CA	5.48	126.53	120.45
9	2N	132	ALA	N-CA-C	5.48	118.01	111.71
35	2d	176	LEU	N-CA-C	5.47	116.50	107.20
1	2A	1046	A	O4'-C1'-N9	5.47	116.70	108.50
37	2f	6	VAL	CB-CA-C	-5.47	102.32	111.29
26	24	59	PHE	N-CA-C	5.47	117.05	111.14
14	1S	87	PHE	N-CA-C	5.46	117.61	107.99
50	2s	19	VAL	CB-CA-C	-5.46	104.98	111.81
4	1E	144	ARG	CB-CA-C	-5.46	108.56	116.54
7	1H	45	VAL	N-CA-C	5.46	115.65	107.51
35	1d	114	ARG	N-CA-C	-5.46	105.33	111.28
4	2E	119	ARG	N-CA-C	5.46	117.68	111.02
50	2s	34	TRP	N-CA-C	-5.46	105.32	112.41
32	1a	903	G	O5'-P-OP2	-5.46	91.63	108.00
22	20	11	ARG	N-CA-C	-5.46	106.30	113.17
1	1A	1790	C	O3'-P-O5'	-5.45	95.82	104.00
48	1q	29	HIS	CA-C-N	5.45	125.53	119.32
48	1q	29	HIS	C-N-CA	5.45	125.53	119.32
19	1X	50	LYS	N-CA-C	-5.45	99.53	108.41
1	2A	751	A	O5'-P-OP1	-5.45	91.65	108.00
8	2I	142	VAL	N-CA-C	5.44	116.38	107.24
1	1A	299	A	OP1-P-O3'	-5.44	91.68	108.00
1	2A	330	A	N9-C1'-C2'	-5.44	105.84	114.00
9	1N	78	TYR	CA-C-N	-5.44	114.32	119.76
9	1N	78	TYR	C-N-CA	-5.44	114.32	119.76
1	2A	573	G	OP1-P-O3'	5.43	124.30	108.00
5	1F	78	ILE	N-CA-C	-5.43	107.08	111.91
6	1G	40	ASN	N-CA-C	5.43	117.25	108.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	2D	227	ASN	CA-C-N	-5.43	113.43	119.19
3	2D	227	ASN	C-N-CA	-5.43	113.43	119.19
41	1j	76	ASN	CA-C-N	5.43	126.63	119.84
41	1j	76	ASN	C-N-CA	5.43	126.63	119.84
1	2A	1297	C	OP2-P-O3'	-5.43	91.72	108.00
5	2F	91	GLY	CA-C-N	5.43	125.35	119.76
5	2F	91	GLY	C-N-CA	5.43	125.35	119.76
3	2D	256	GLY	N-CA-C	5.42	122.32	114.67
21	2Z	150	LEU	N-CA-C	-5.42	101.73	110.14
37	2f	88	VAL	N-CA-C	-5.42	100.31	108.12
48	1q	67	LYS	N-CA-C	-5.41	101.90	109.96
33	2b	100	GLY	N-CA-C	-5.41	108.25	114.69
18	2W	60	ASN	N-CA-C	5.41	117.87	111.33
33	2b	108	ILE	CB-CA-C	-5.41	105.05	111.97
11	1P	134	ALA	N-CA-C	-5.40	105.82	112.90
44	1m	116	THR	N-CA-C	5.40	117.66	110.53
30	18	48	PHE	N-CA-C	5.40	117.19	109.14
1	1A	673	C	O5'-P-OP1	5.40	124.19	108.00
30	18	33	ASN	N-CA-C	5.40	120.53	113.30
49	2r	42	ARG	N-CA-C	-5.40	106.65	113.18
10	2O	26	LYS	N-CA-C	-5.39	99.33	110.80
7	2H	162	ILE	CB-CA-C	-5.38	104.45	110.96
21	2Z	14	LYS	N-CA-C	5.38	116.44	109.65
46	2o	21	ASP	N-CA-C	5.38	118.03	109.96
9	1N	125	GLY	CA-C-N	5.38	125.20	119.28
9	1N	125	GLY	C-N-CA	5.38	125.20	119.28
32	2a	115	G	P-O3'-C3'	5.38	128.27	120.20
1	1A	1783	A	OP1-P-O3'	5.38	124.13	108.00
1	1A	2041	U	OP1-P-O3'	-5.38	91.87	108.00
19	1X	58	HIS	CA-C-N	-5.38	116.29	123.17
19	1X	58	HIS	C-N-CA	-5.38	116.29	123.17
6	1G	51	ARG	N-CA-C	-5.37	107.03	113.21
13	1R	8	ARG	NE-CZ-NH1	-5.37	116.13	121.50
32	2a	913	A	P-O3'-C3'	5.37	128.25	120.20
38	1g	114	ARG	N-CA-C	5.36	118.29	111.69
15	1T	70	VAL	CA-C-N	-5.36	116.37	121.57
15	1T	70	VAL	C-N-CA	-5.36	116.37	121.57
7	2H	53	GLU	N-CA-C	5.36	117.16	108.26
21	2Z	33	LEU	N-CA-C	5.36	117.13	109.14
35	1d	24	GLU	N-CA-C	5.36	116.98	111.03
35	2d	191	ARG	CA-CB-CG	-5.36	103.39	114.10
45	1n	24	CYS	N-CA-C	-5.35	102.95	110.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	2P	22	GLY	CA-C-N	5.35	124.99	119.05
11	2P	22	GLY	C-N-CA	5.35	124.99	119.05
38	2g	75	VAL	N-CA-C	5.35	117.26	108.97
35	2d	193	ASP	N-CA-C	5.35	119.29	112.34
1	1A	2025	C	OP1-P-O3'	-5.35	91.96	108.00
3	1D	70	TRP	CA-C-N	5.35	127.70	120.38
3	1D	70	TRP	C-N-CA	5.35	127.70	120.38
9	1N	5	VAL	N-CA-C	5.34	113.97	107.61
14	1S	85	VAL	N-CA-C	5.34	114.22	107.70
18	1W	100	THR	N-CA-C	5.34	117.88	108.75
1	1A	2427	C	O5'-P-OP1	-5.33	92.01	108.00
33	1b	86	GLU	N-CA-C	-5.31	105.38	111.07
13	1R	17	ARG	N-CA-C	-5.31	105.57	111.36
1	2A	739	G	OP2-P-O3'	-5.31	92.06	108.00
29	27	10	ARG	N-CA-C	-5.31	105.39	111.07
7	2H	122	THR	N-CA-C	5.31	117.31	108.02
21	2Z	171	ILE	N-CA-C	5.31	120.39	109.34
46	1o	21	ASP	N-CA-C	5.31	117.92	109.96
26	24	6	HIS	CA-C-N	5.31	125.56	119.83
26	24	6	HIS	C-N-CA	5.31	125.56	119.83
16	1U	80	ILE	CB-CA-C	-5.31	105.03	111.87
6	2G	139	LEU	N-CA-C	-5.31	106.81	113.28
22	10	11	ARG	N-CA-C	-5.30	106.49	113.17
1	1A	739	G	O5'-P-OP1	-5.30	92.10	108.00
12	1Q	67	ARG	N-CA-C	5.30	119.59	113.18
48	2q	29	HIS	CA-C-N	5.30	125.36	119.32
48	2q	29	HIS	C-N-CA	5.30	125.36	119.32
15	1T	97	ALA	N-CA-C	5.30	116.86	111.14
37	1f	60	PHE	N-CA-C	5.30	118.86	109.96
48	1q	11	VAL	CB-CA-C	-5.30	105.10	110.93
4	2E	188	VAL	CA-C-N	5.29	126.46	119.84
4	2E	188	VAL	C-N-CA	5.29	126.46	119.84
50	2s	82	GLY	N-CA-C	5.29	118.03	110.46
4	1E	10	GLY	N-CA-C	5.29	117.73	110.69
26	14	54	GLY	N-CA-C	-5.29	108.34	115.21
7	1H	46	GLU	N-CA-C	-5.29	102.34	109.95
1	1A	1783	A	OP2-P-O3'	-5.28	92.15	108.00
1	1A	456	C	O3'-P-O5'	-5.28	96.08	104.00
44	1m	60	VAL	N-CA-C	5.28	115.49	110.42
39	2h	80	ILE	CB-CA-C	-5.28	105.90	112.45
27	15	31	VAL	N-CA-C	5.28	113.70	107.84
9	2N	78	TYR	CA-C-N	-5.28	114.36	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
9	2N	78	TYR	C-N-CA	-5.28	114.36	119.90
50	2s	81	ARG	N-CA-C	-5.28	106.84	113.28
34	2c	156	ARG	N-CA-C	5.27	117.78	109.39
8	2I	92	VAL	N-CA-C	5.27	116.29	108.23
44	2m	66	LEU	N-CA-C	5.27	116.67	109.18
17	1V	33	VAL	N-CA-C	5.27	116.44	108.96
39	1h	100	ILE	CA-C-N	5.26	125.72	120.14
39	1h	100	ILE	C-N-CA	5.26	125.72	120.14
51	1t	10	LEU	N-CA-C	5.26	116.13	108.14
8	1I	18	VAL	N-CA-C	5.26	115.67	107.99
44	1m	105	THR	N-CA-C	-5.26	102.12	109.69
1	1A	1847	A	O4'-C1'-N9	5.26	116.08	108.20
9	2N	5	VAL	CA-C-N	5.26	125.17	119.76
9	2N	5	VAL	C-N-CA	5.26	125.17	119.76
17	2V	37	VAL	N-CA-C	5.25	116.15	108.53
3	1D	47	GLY	N-CA-C	-5.25	108.09	114.92
29	27	17	GLY	N-CA-C	5.25	119.29	112.25
32	1a	687	A	C2'-C3'-O3'	5.25	117.38	109.50
3	1D	109	ASP	N-CA-C	-5.24	101.88	109.59
43	2l	116	SER	CB-CA-C	-5.24	104.29	111.73
46	1o	16	ALA	N-CA-C	5.24	117.63	110.24
38	2g	143	ARG	CA-C-N	5.24	127.30	120.28
38	2g	143	ARG	C-N-CA	5.24	127.30	120.28
22	20	60	PHE	N-CA-C	5.24	117.03	109.07
8	1I	126	TYR	N-CA-C	5.23	118.02	109.59
48	1q	57	VAL	N-CA-C	5.23	116.43	108.80
39	1h	42	GLU	N-CA-C	-5.23	106.68	113.16
14	2S	5	THR	N-CA-C	-5.22	100.51	109.24
19	1X	56	THR	CB-CA-C	-5.22	99.96	110.30
21	2Z	35	ARG	N-CA-C	5.22	117.59	108.76
34	2c	128	PHE	N-CA-C	5.22	117.60	110.55
46	2o	87	ILE	N-CA-C	5.22	120.20	109.34
10	1O	58	VAL	N-CA-C	5.22	116.37	108.96
3	2D	237	GLU	N-CA-C	-5.22	100.79	109.46
40	1i	108	VAL	CB-CA-C	-5.22	104.60	111.70
16	2U	75	ASN	N-CA-C	5.22	117.55	110.35
10	1O	15	GLY	N-CA-C	-5.21	108.28	114.48
39	2h	44	PHE	N-CA-C	-5.21	107.30	113.97
14	2S	7	TYR	N-CA-C	-5.21	105.29	110.97
22	10	15	ASP	N-CA-C	-5.21	100.53	107.88
26	24	53	GLU	N-CA-C	5.21	121.89	110.80
1	1A	2576	G	O5'-P-OP1	5.21	123.62	108.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	1G	88	ILE	CB-CA-C	-5.21	105.55	110.65
24	22	39	ALA	N-CA-C	-5.21	105.60	111.28
4	1E	137	HIS	CA-C-N	-5.20	114.38	119.64
4	1E	137	HIS	C-N-CA	-5.20	114.38	119.64
3	2D	191	ALA	CA-C-N	-5.20	115.82	123.00
3	2D	191	ALA	C-N-CA	-5.20	115.82	123.00
35	1d	78	LEU	N-CA-C	-5.20	105.52	111.14
47	1p	30	GLY	N-CA-C	5.20	120.04	112.60
25	23	13	ILE	N-CA-C	5.20	115.95	108.93
20	2Y	91	GLU	N-CA-C	-5.20	105.69	111.36
6	2G	175	LEU	N-CA-C	5.20	117.85	111.82
1	1A	1210	A	P-O3'-C3'	5.19	127.99	120.20
17	1V	36	PRO	CA-C-N	-5.19	116.41	123.10
17	1V	36	PRO	C-N-CA	-5.19	116.41	123.10
10	2O	12	ASP	N-CA-C	-5.19	101.54	108.34
4	2E	33	VAL	N-CA-CB	5.19	117.37	110.26
33	1b	64	ARG	N-CA-C	-5.18	106.35	113.30
46	1o	83	GLU	N-CA-C	-5.18	105.54	111.14
24	22	11	GLU	CB-CA-C	-5.18	102.92	110.95
31	29	9	ARG	CA-C-N	-5.18	116.47	122.63
31	29	9	ARG	C-N-CA	-5.18	116.47	122.63
33	1b	190	THR	N-CA-C	5.18	117.67	111.71
39	2h	75	ARG	CA-C-N	5.18	125.11	119.78
39	2h	75	ARG	C-N-CA	5.18	125.11	119.78
11	1P	126	VAL	CB-CA-C	-5.17	102.80	111.29
1	2A	2319	G	N9-C1'-C2'	5.17	121.76	114.00
8	1I	91	SER	N-CA-C	5.17	116.93	108.76
1	1A	2598	A	P-O3'-C3'	5.17	127.95	120.20
10	2O	81	ASP	N-CA-C	5.16	114.95	108.45
54	1z	3	MET	N-CA-C	5.16	117.38	109.07
20	2Y	68	HIS	N-CA-C	-5.16	102.65	110.24
1	1A	2319	G	C8-N9-C1'	-5.16	111.52	127.00
49	1r	86	VAL	N-CA-C	5.16	116.01	108.53
54	2z	96	ARG	N-CA-C	5.16	117.30	111.11
5	1F	9	ILE	CA-C-N	5.15	125.09	119.78
5	1F	9	ILE	C-N-CA	5.15	125.09	119.78
1	1A	2354	G	O5'-C5'-C4'	-5.15	103.78	111.50
5	2F	151	SER	N-CA-C	-5.15	106.83	113.01
35	2d	156	GLU	N-CA-CB	5.15	117.61	109.94
21	1Z	157	LEU	CA-C-N	5.15	125.68	120.38
21	1Z	157	LEU	C-N-CA	5.15	125.68	120.38
5	2F	26	ALA	N-CA-C	-5.15	105.36	111.69

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	29	34	GLN	N-CA-C	5.15	117.63	109.50
49	2r	47	THR	N-CA-C	-5.15	106.69	113.17
8	2I	97	ILE	CB-CA-C	-5.14	104.19	112.16
13	2R	109	ALA	CA-C-N	-5.14	113.90	120.23
13	2R	109	ALA	C-N-CA	-5.14	113.90	120.23
26	24	49	PHE	N-CA-C	5.14	121.76	110.80
1	1A	831	G	OP2-P-O3'	-5.14	92.57	108.00
1	2A	2689	U	C4'-C3'-O3'	5.14	117.11	109.40
36	1e	6	PHE	N-CA-C	5.14	118.11	110.14
9	2N	104	LYS	N-CA-C	-5.14	105.11	111.33
11	1P	69	GLY	CA-C-O	-5.14	117.87	121.88
12	2Q	78	PRO	CA-C-N	-5.14	113.57	120.87
12	2Q	78	PRO	C-N-CA	-5.14	113.57	120.87
14	1S	59	LYS	N-CA-C	5.13	121.73	110.80
1	2A	675	A	OP1-P-O3'	-5.13	92.60	108.00
43	2l	18	VAL	N-CA-C	5.13	114.97	107.37
1	1A	467	G	O5'-P-OP2	-5.13	92.61	108.00
38	2g	153	HIS	N-CA-C	-5.13	106.97	113.18
39	2h	134	ILE	CB-CA-C	-5.13	105.41	111.97
6	1G	121	ASN	CA-C-N	5.12	126.25	119.84
6	1G	121	ASN	C-N-CA	5.12	126.25	119.84
19	2X	34	ALA	N-CA-C	5.12	117.59	109.24
23	21	35	THR	N-CA-C	-5.12	106.27	112.88
15	2T	19	LEU	CA-C-N	5.12	124.88	119.76
15	2T	19	LEU	C-N-CA	5.12	124.88	119.76
29	17	4	THR	CA-C-N	-5.11	115.62	122.42
29	17	4	THR	C-N-CA	-5.11	115.62	122.42
19	2X	8	ILE	CB-CA-C	-5.11	104.57	110.91
20	1Y	19	LYS	N-CA-C	-5.11	106.30	112.54
43	2l	85	ILE	N-CA-C	5.11	116.96	108.99
46	1o	82	ILE	N-CA-C	-5.11	106.12	113.07
34	1c	18	TRP	N-CA-C	5.11	117.50	110.35
13	1R	104	ARG	CB-CG-CD	-5.10	99.56	111.30
39	2h	28	ALA	N-CA-C	5.10	118.43	110.32
45	1n	13	THR	CA-C-N	5.10	125.57	120.52
45	1n	13	THR	C-N-CA	5.10	125.57	120.52
12	2Q	76	LYS	N-CA-C	5.10	116.34	107.93
54	2z	94	ALA	N-CA-C	5.10	117.74	111.82
50	1s	67	VAL	N-CA-C	5.10	115.94	111.56
22	10	64	ASP	CB-CA-C	-5.10	101.53	109.84
20	2Y	21	LYS	N-CA-C	-5.10	102.37	109.96
31	19	9	ARG	CA-C-N	-5.09	117.94	123.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	19	9	ARG	C-N-CA	-5.09	117.94	123.08
30	28	21	LYS	CA-C-N	-5.09	116.33	123.10
30	28	21	LYS	C-N-CA	-5.09	116.33	123.10
14	2S	65	VAL	N-CA-C	-5.09	105.01	110.36
9	1N	128	HIS	CA-C-N	5.09	126.10	120.45
9	1N	128	HIS	C-N-CA	5.09	126.10	120.45
1	2A	1210	A	C2'-C3'-O3'	5.09	117.14	109.50
5	2F	52	LYS	N-CA-C	5.09	117.26	109.07
1	1A	2518	A	O5'-P-OP2	5.09	123.26	108.00
20	2Y	84	ARG	CA-C-N	-5.09	115.63	122.91
20	2Y	84	ARG	C-N-CA	-5.09	115.63	122.91
50	1s	36	ARG	N-CA-C	-5.08	106.58	112.89
33	2b	41	ILE	N-CA-C	5.08	115.36	107.28
42	1k	104	GLN	N-CA-C	5.08	116.82	111.28
1	1A	472	A	O5'-P-OP2	-5.08	92.75	108.00
33	1b	16	HIS	N-CA-C	5.08	121.62	110.80
8	2I	126	TYR	N-CA-C	5.08	117.77	109.59
36	2e	11	ILE	CB-CA-C	-5.08	105.39	112.04
16	1U	4	ALA	N-CA-C	5.08	115.70	108.54
9	2N	110	GLY	CA-C-N	5.07	124.68	119.05
9	2N	110	GLY	C-N-CA	5.07	124.68	119.05
25	13	12	PRO	N-CA-C	-5.07	108.02	114.35
32	1a	913	A	C2'-C3'-O3'	5.07	117.10	109.50
39	1h	44	PHE	N-CA-C	-5.07	107.13	113.72
10	1O	94	ARG	N-CA-C	-5.07	106.95	113.23
32	2a	266	G	C2'-C3'-O3'	5.07	117.10	109.50
9	2N	75	TYR	N-CA-C	5.06	116.85	108.20
21	2Z	86	VAL	CB-CA-C	-5.06	102.71	110.50
19	1X	35	THR	N-CA-C	5.06	117.38	110.55
36	1e	102	ALA	N-CA-C	5.06	115.83	108.14
10	1O	40	VAL	N-CA-C	-5.06	101.13	108.97
37	1f	77	ARG	N-CA-C	-5.06	105.46	110.97
32	1a	343	U	C2-N1-C1'	-5.06	102.53	117.70
1	1A	2041	U	OP2-P-O3'	5.05	123.17	108.00
42	1k	18	ARG	N-CA-C	5.05	116.87	109.24
4	2E	162	ALA	N-CA-C	-5.05	104.67	111.54
54	1z	23	ARG	N-CA-C	5.05	116.47	111.07
6	1G	28	VAL	CB-CA-C	-5.04	105.26	112.22
30	28	41	ILE	CB-CA-C	-5.04	105.43	112.04
21	1Z	132	ASN	N-CA-C	5.04	118.27	112.57
16	1U	18	LEU	CA-CB-CG	-5.04	98.66	116.30
28	26	39	TYR	N-CA-C	5.04	116.41	109.15

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	14	6	HIS	N-CA-C	5.04	117.46	109.40
1	1A	2576	G	O5'-P-OP2	-5.04	92.89	108.00
1	1A	195	A	OP1-P-O3'	-5.04	92.89	108.00
5	1F	71	GLY	N-CA-C	-5.03	107.72	114.25
36	2e	104	ALA	N-CA-C	-5.03	104.89	111.02
33	2b	17	PHE	N-CA-C	5.02	121.50	110.80
14	1S	34	HIS	N-CA-C	5.02	116.92	109.69
35	2d	4	TYR	N-CA-CB	5.02	117.29	110.01
36	2e	6	PHE	N-CA-C	5.02	117.78	109.85
11	2P	17	LYS	CA-C-N	-5.01	115.04	122.41
11	2P	17	LYS	C-N-CA	-5.01	115.04	122.41
39	2h	84	ARG	N-CA-C	5.01	116.86	108.99
43	2l	19	ARG	N-CA-C	5.01	116.80	110.33
17	1V	45	THR	CA-C-N	-5.01	116.57	123.14
17	1V	45	THR	C-N-CA	-5.01	116.57	123.14
3	2D	10	THR	CA-C-N	5.01	126.10	119.84
3	2D	10	THR	C-N-CA	5.01	126.10	119.84
4	1E	101	ARG	N-CA-CB	-5.01	102.11	110.83
24	12	17	SER	CA-C-N	5.01	124.45	119.24
24	12	17	SER	C-N-CA	5.01	124.45	119.24
16	2U	9	VAL	N-CA-C	5.01	115.23	110.42
32	2a	1285	A	C2'-C3'-O3'	5.01	117.01	109.50
1	1A	1272	A	O5'-P-OP2	-5.00	92.98	108.00
39	1h	112	LEU	N-CA-C	-5.00	103.05	110.46
1	2A	2692	C	OP2-P-O3'	-5.00	92.99	108.00
38	2g	105	VAL	CB-CA-C	-5.00	105.56	111.97
32	2a	1285	A	P-O3'-C3'	5.00	127.70	120.20

There are no chirality outliers.

All (12) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
4	1E	11	MET	Peptide
14	1S	58	LEU	Peptide
15	1T	128	GLU	Peptide
19	1X	93	GLU	Peptide
44	1m	113	PRO	Peptide
53	1y	20	PRO	Peptide
4	2E	11	MET	Peptide
14	2S	58	LEU	Peptide
15	2T	128	GLU	Peptide
19	2X	93	GLU	Peptide

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Mol	Chain	Res	Type	Group
33	2b	11	LEU	Peptide
44	2m	113	PRO	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	1A	61872	0	31187	1114	0
1	2A	61872	0	31190	1378	0
2	1B	2575	0	1304	59	0
2	2B	2575	0	1304	66	0
3	1D	2131	0	2207	95	0
3	2D	2131	0	2207	76	0
4	1E	1559	0	1618	66	0
4	2E	1559	0	1618	78	0
5	1F	1584	0	1625	62	0
5	2F	1584	0	1624	73	0
6	1G	1426	0	1445	85	0
6	2G	1426	0	1445	91	0
7	1H	1330	0	1407	50	0
7	2H	1330	0	1407	70	0
8	1I	1094	0	1127	49	1
8	2I	1094	0	1127	70	0
9	1N	1121	0	1195	33	0
9	2N	1121	0	1195	44	0
10	1O	933	0	996	28	0
10	2O	933	0	996	37	0
11	1P	1135	0	1212	71	0
11	2P	1135	0	1212	53	0
12	1Q	1122	0	1179	46	0
12	2Q	1122	0	1179	57	0
13	1R	968	0	1033	47	0
13	2R	968	0	1033	57	0
14	1S	877	0	938	44	0
14	2S	877	0	938	48	0
15	1T	1091	0	1151	41	0
15	2T	1091	0	1151	54	0
16	1U	959	0	1019	34	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
16	2U	959	0	1019	47	0
17	1V	775	0	841	23	0
17	2V	775	0	841	29	0
18	1W	886	0	940	33	0
18	2W	886	0	940	40	0
19	1X	750	0	814	32	0
19	2X	750	0	814	25	0
20	1Y	810	0	892	26	0
20	2Y	810	0	892	29	0
21	1Z	1587	0	1598	62	0
21	2Z	1587	0	1598	70	0
22	10	608	0	622	26	0
22	20	608	0	622	26	0
23	11	754	0	823	27	0
23	21	754	0	823	42	0
24	12	588	0	643	19	0
24	22	588	0	643	24	0
25	13	469	0	518	24	0
25	23	469	0	517	28	0
26	14	546	0	522	43	0
26	24	546	0	522	34	0
27	15	459	0	476	23	0
27	25	459	0	476	27	0
28	16	453	0	473	20	0
28	26	453	0	473	22	0
29	17	418	0	467	12	0
29	27	418	0	467	26	0
30	18	517	0	582	30	0
30	28	517	0	582	33	0
31	19	307	0	335	8	0
31	29	307	0	335	14	0
32	1a	32246	0	16296	813	0
32	2a	32246	0	16294	778	1
33	1b	1842	0	1862	119	0
33	2b	1842	0	1862	123	0
34	1c	1558	0	1557	81	0
34	2c	1558	0	1557	91	0
35	1d	1665	0	1687	114	0
35	2d	1665	0	1687	113	0
36	1e	1133	0	1190	47	0
36	2e	1133	0	1191	48	0
37	1f	814	0	808	47	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
37	2f	814	0	808	28	0
38	1g	1235	0	1249	40	0
38	2g	1235	0	1249	46	0
39	1h	1098	0	1143	64	0
39	2h	1098	0	1143	61	0
40	1i	986	0	990	61	0
40	2i	986	0	990	61	0
41	1j	719	0	672	54	0
41	2j	719	0	672	46	0
42	1k	834	0	838	32	0
42	2k	834	0	838	33	0
43	1l	932	0	981	39	0
43	2l	932	0	981	31	0
44	1m	914	0	954	59	0
44	2m	914	0	954	63	0
45	1n	492	0	529	33	0
45	2n	492	0	529	34	0
46	1o	728	0	760	27	0
46	2o	728	0	760	29	0
47	1p	681	0	697	52	0
47	2p	681	0	697	41	0
48	1q	823	0	891	38	0
48	2q	823	0	891	36	0
49	1r	555	0	618	27	0
49	2r	555	0	618	24	0
50	1s	648	0	658	32	0
50	2s	648	0	658	43	0
51	1t	732	0	809	29	0
51	2t	732	0	809	31	0
52	1u	199	0	208	14	0
52	2u	199	0	208	13	0
53	1y	168	0	163	13	0
54	1z	764	0	786	34	0
54	2z	764	0	786	46	0
55	10	7	0	0	0	0
55	11	4	0	0	0	0
55	13	2	0	0	0	0
55	15	5	0	0	0	0
55	17	2	0	0	0	0
55	18	3	0	0	0	0
55	19	3	0	0	0	0
55	1A	957	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	1B	28	0	0	0	0
55	1D	17	0	0	0	0
55	1E	5	0	0	0	0
55	1F	14	0	0	0	0
55	1G	3	0	0	0	0
55	1H	2	0	0	0	0
55	1N	4	0	0	0	0
55	1P	4	0	0	0	0
55	1Q	4	0	0	0	0
55	1R	4	0	0	0	0
55	1T	2	0	0	0	0
55	1U	5	0	0	0	0
55	1V	3	0	0	0	0
55	1W	3	0	0	0	0
55	1X	2	0	0	0	0
55	1Y	1	0	0	0	0
55	1a	245	0	0	0	0
55	1b	1	0	0	0	0
55	1d	5	0	0	0	0
55	1e	1	0	0	0	0
55	1f	1	0	0	0	0
55	1g	1	0	0	0	0
55	1h	1	0	0	0	0
55	1i	1	0	0	0	0
55	1k	1	0	0	0	0
55	1l	2	0	0	0	0
55	1n	1	0	0	0	0
55	1o	2	0	0	0	0
55	1t	1	0	0	0	0
55	20	5	0	0	0	0
55	21	1	0	0	0	0
55	23	2	0	0	0	0
55	25	4	0	0	0	0
55	27	2	0	0	0	0
55	28	2	0	0	0	0
55	29	3	0	0	0	0
55	2A	971	0	0	0	0
55	2B	26	0	0	0	0
55	2D	17	0	0	0	0
55	2E	6	0	0	0	0
55	2F	11	0	0	0	0
55	2G	3	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	2H	2	0	0	0	0
55	2N	3	0	0	0	0
55	2P	2	0	0	0	0
55	2Q	4	0	0	0	0
55	2R	3	0	0	0	0
55	2S	1	0	0	0	0
55	2T	3	0	0	0	0
55	2U	5	0	0	0	0
55	2V	5	0	0	0	0
55	2W	3	0	0	0	0
55	2X	2	0	0	0	0
55	2Y	1	0	0	0	0
55	2a	242	0	0	0	0
55	2b	1	0	0	0	0
55	2d	3	0	0	0	0
55	2e	1	0	0	0	0
55	2f	1	0	0	0	0
55	2g	1	0	0	0	0
55	2h	2	0	0	0	0
55	2i	1	0	0	0	0
55	2l	2	0	0	0	0
55	2o	2	0	0	0	0
55	2t	2	0	0	0	0
55	2z	2	0	0	0	0
56	14	1	0	0	0	0
56	15	1	0	0	0	0
56	16	1	0	0	0	0
56	19	1	0	0	0	0
56	1Y	1	0	0	0	0
56	1n	1	0	0	0	0
56	24	1	0	0	0	0
56	25	1	0	0	0	0
56	26	1	0	0	0	0
56	29	1	0	0	0	0
56	2Y	1	0	0	0	0
56	2n	1	0	0	0	0
57	1d	8	0	0	0	0
57	2d	8	0	0	2	0
58	10	6	0	0	1	0
58	11	2	0	0	0	0
58	13	2	0	0	0	0
58	15	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	16	2	0	0	0	0
58	17	2	0	0	0	0
58	18	9	0	0	0	0
58	19	2	0	0	0	0
58	1A	1782	0	0	11	0
58	1B	45	0	0	1	0
58	1D	15	0	0	1	0
58	1E	18	0	0	0	0
58	1F	14	0	0	0	0
58	1G	2	0	0	0	0
58	1H	5	0	0	0	0
58	1N	7	0	0	0	0
58	1P	12	0	0	0	0
58	1Q	6	0	0	1	0
58	1R	6	0	0	2	0
58	1T	5	0	0	0	0
58	1U	7	0	0	0	0
58	1V	3	0	0	0	0
58	1W	1	0	0	0	0
58	1X	6	0	0	0	0
58	1Y	5	0	0	0	0
58	1a	406	0	0	5	0
58	1d	8	0	0	0	0
58	1e	4	0	0	0	0
58	1f	1	0	0	0	0
58	1h	1	0	0	0	0
58	1j	1	0	0	0	0
58	1l	3	0	0	0	0
58	1m	3	0	0	1	0
58	1n	1	0	0	0	0
58	1o	1	0	0	0	0
58	1p	1	0	0	0	0
58	1t	1	0	0	0	0
58	1z	3	0	0	1	0
58	20	8	0	0	1	0
58	21	2	0	0	0	0
58	23	2	0	0	0	0
58	25	4	0	0	0	0
58	26	2	0	0	0	0
58	27	2	0	0	0	0
58	28	11	0	0	0	0
58	29	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	2A	1771	0	0	22	0
58	2B	46	0	0	0	0
58	2D	14	0	0	1	0
58	2E	20	0	0	0	0
58	2F	12	0	0	0	0
58	2G	2	0	0	0	0
58	2H	4	0	0	0	0
58	2N	7	0	0	0	0
58	2P	11	0	0	0	0
58	2Q	7	0	0	0	0
58	2R	6	0	0	1	0
58	2T	5	0	0	0	0
58	2U	8	0	0	1	0
58	2V	5	0	0	0	0
58	2W	2	0	0	0	0
58	2X	7	0	0	0	0
58	2Y	5	0	0	0	0
58	2a	404	0	0	7	0
58	2d	8	0	0	1	0
58	2e	6	0	0	0	0
58	2f	1	0	0	0	0
58	2h	1	0	0	0	0
58	2j	1	0	0	0	0
58	2l	3	0	0	0	0
58	2m	2	0	0	1	0
58	2n	1	0	0	0	0
58	2o	3	0	0	0	0
58	2p	1	0	0	0	0
58	2z	4	0	0	0	0
All	All	294294	0	194907	7779	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 16.

All (7779) 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)
1:1A:2552:2MU:C4	1:1A:2552:2MU:C5	1.75	1.59
1:2A:2552:2MU:C5	1:2A:2552:2MU:C4	1.76	1.57
1:2A:307:G:H21	1:2A:330:A:N6	1.23	1.37
32:1a:1005:A:N6	32:1a:1024:G:H21	1.31	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1359:A:N6	1:1A:1372:U:H3	1.37	1.22
32:2a:1003:G:H2'	32:2a:1004:A:H4'	1.28	1.12
32:2a:1005:A:N6	32:2a:1024:G:H21	1.48	1.11
1:2A:307:G:N2	1:2A:330:A:N6	1.99	1.09
10:2O:48:PRO:HB3	32:2a:1422:G:H5"	1.34	1.09
1:2A:1065:U:H3	1:2A:1073:A:N6	1.50	1.08
32:2a:1005:A:C5	32:2a:1024:G:N2	2.25	1.03
32:2a:1005:A:C6	32:2a:1024:G:N2	2.26	1.02
1:1A:1060:U:H4'	1:1A:1061:U:H5'	1.43	1.01
32:1a:255:G:H1'	48:1q:16:GLN:HE21	1.25	1.01
1:2A:2100:G:H1	1:2A:2189:U:H3	1.10	1.00
1:1A:1264:G:OP1	27:15:19:ARG:NH2	1.95	0.99
1:2A:2111:C:N3	1:2A:2147:G:N2	2.11	0.98
32:2a:1005:A:N6	32:2a:1024:G:N2	2.11	0.98
15:2T:39:ARG:NH2	32:2a:345:C:OP2	1.95	0.98
32:2a:1244:C:H42	32:2a:1293:G:H1	0.98	0.98
41:1j:35:SER:HB3	41:1j:73:ASP:HB2	1.44	0.97
32:1a:1005:A:C6	32:1a:1024:G:N2	2.33	0.97
1:2A:1007:C:OP1	9:2N:35:ARG:NH1	1.98	0.96
1:1A:1171:G:H1	1:1A:1178:C:H42	1.11	0.96
32:1a:1005:A:C5	32:1a:1024:G:N2	2.33	0.96
1:1A:1798:U:H5'	3:1D:259:THR:HG22	1.48	0.96
1:2A:1843:C:H5'	3:2D:253:GLN:HE21	1.28	0.96
1:2A:226:G:H21	1:2A:228:A:H62	1.12	0.96
1:2A:226:G:N2	1:2A:228:A:H62	1.63	0.95
11:2P:90:ARG:HG2	11:2P:90:ARG:HH11	1.31	0.95
1:1A:226:G:H21	1:1A:228:A:H62	1.11	0.95
33:1b:223:ILE:HA	33:1b:226:ARG:HB2	1.44	0.95
32:1a:1005:A:N6	32:1a:1024:G:N2	2.15	0.94
1:2A:1064:C:H3'	1:2A:1065:U:H5"	1.49	0.94
41:2j:35:SER:HB3	41:2j:73:ASP:HB2	1.49	0.94
23:11:23:LYS:HB3	23:11:29:GLY:HA3	1.46	0.94
32:1a:142:G:H1	32:1a:221:C:H42	1.12	0.94
1:1A:2319:G:H21	14:1S:3:ARG:HD3	1.30	0.94
34:2c:138:VAL:HG23	34:2c:151:VAL:HG23	1.50	0.94
32:1a:877:C:OP1	39:1h:88:LYS:NZ	2.01	0.94
32:1a:1003:G:H2'	32:1a:1004:A:H4'	1.48	0.94
25:13:3:ARG:HB2	25:13:60:GLU:HG3	1.48	0.94
15:2T:41:ARG:NH2	32:2a:346:G:OP1	2.01	0.93
7:2H:118:PRO:HG2	7:2H:121:ILE:HG13	1.46	0.93
51:2t:57:ARG:HH22	51:2t:100:ILE:HD12	1.32	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:279:C:H42	1:1A:361:G:H1	1.14	0.93
1:1A:1105:U:H2'	1:1A:1106:G:H8	1.33	0.92
35:1d:107:ARG:HH22	35:1d:194:LEU:HG	1.34	0.92
1:1A:2552:2MU:C4	1:1A:2552:2MU:C6	2.44	0.92
1:2A:2319:G:H21	14:2S:3:ARG:HD3	1.34	0.92
32:1a:1158:C:H5	32:1a:1181:G:H1	1.09	0.91
3:2D:242:ARG:HH11	3:2D:242:ARG:HG3	1.34	0.91
32:2a:1005:A:H62	32:2a:1024:G:H21	0.96	0.91
1:1A:271(L):U:H4'	8:1I:50:ARG:HH22	1.35	0.91
32:1a:224:C:OP1	51:1t:74:LYS:NZ	2.04	0.91
32:2a:446:G:H1	32:2a:488:C:H42	1.15	0.91
32:1a:1005:A:H62	32:1a:1024:G:H21	1.04	0.90
32:2a:1005:A:N7	32:2a:1024:G:N2	2.17	0.90
1:2A:307:G:H21	1:2A:330:A:H61	1.16	0.90
13:2R:67:LEU:HD13	13:2R:76:VAL:HG21	1.53	0.90
12:1Q:111:GLU:OE2	12:1Q:133:ARG:NH2	2.04	0.90
44:2m:37:THR:O	44:2m:55:ARG:NH1	2.05	0.90
32:1a:144:G:H1	32:1a:178:C:N4	1.70	0.90
32:1a:659:U:H2'	32:1a:660:G:H8	1.34	0.90
38:2g:113:GLU:HG2	38:2g:119:ARG:HG2	1.53	0.90
1:2A:2319:G:N2	14:2S:3:ARG:HD3	1.87	0.90
32:2a:975:A:H4'	32:2a:976:G:H5"	1.52	0.89
1:1A:2131:G:H5"	1:1A:2132:U:H5'	1.55	0.89
33:2b:77:ALA:HB2	33:2b:211:ILE:HD13	1.55	0.89
11:2P:15:ARG:HG3	11:2P:15:ARG:HH21	1.38	0.89
1:1A:320:A:OP1	5:1F:135:LYS:NZ	2.05	0.88
32:2a:1244:C:N4	32:2a:1293:G:H1	1.70	0.88
3:1D:10:THR:HG23	3:1D:13:ARG:HB2	1.53	0.88
32:2a:677:U:H3	32:2a:713:G:H22	1.21	0.88
1:1A:11:G:H2'	1:1A:12:U:H5'	1.55	0.88
32:1a:1103:C:OP1	33:1b:96:ARG:NH2	2.05	0.88
46:2o:16:ALA:HB1	46:2o:21:ASP:HB3	1.56	0.88
1:1A:534:U:H5'	16:1U:42:ALA:HB1	1.54	0.88
1:1A:1359:A:N1	1:1A:1372:U:O4	2.06	0.88
32:2a:516:PSU:HN3	32:2a:533:A:N6	1.72	0.88
32:2a:1158:C:H5	32:2a:1181:G:H1	1.14	0.88
33:1b:118:LEU:HB2	33:1b:142:LEU:HD13	1.54	0.87
32:2a:79:G:N2	32:2a:90:U:O2	2.05	0.87
1:1A:1093:G:O2'	1:1A:1098:A:N6	2.07	0.87
2:2B:66:A:N6	2:2B:109:C:OP2	2.08	0.87
13:2R:3:HIS:NE2	58:2R:301:HOH:O	2.08	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:82:ARG:NH1	33:2b:92:TYR:OH	2.08	0.87
5:1F:101:LEU:HD12	5:1F:102:PRO:HD2	1.56	0.86
32:2a:343:U:C2	32:2a:346:G:O6	2.27	0.86
34:1c:11:ARG:NH2	34:1c:177:THR:O	2.07	0.86
1:2A:1063:G:H22	1:2A:1075:C:H42	1.18	0.86
34:2c:78:GLY:HA3	34:2c:83:ARG:H	1.39	0.86
36:1e:75:THR:OG1	36:1e:76:ILE:N	1.98	0.85
35:2d:107:ARG:HH22	35:2d:194:LEU:HG	1.38	0.85
1:2A:307:G:N2	1:2A:330:A:H61	1.68	0.85
21:2Z:69:THR:HG22	21:2Z:90:VAL:HA	1.58	0.85
10:1O:104:ARG:NH2	15:1T:43:GLN:OE1	2.09	0.85
21:2Z:48:PHE:HE1	21:2Z:71:VAL:HG11	1.42	0.85
39:1h:64:LYS:HG2	39:1h:79:VAL:HG21	1.57	0.85
23:21:23:LYS:HB3	23:21:29:GLY:HA3	1.57	0.85
14:1S:10:ARG:HH21	14:1S:91:PRO:HB2	1.42	0.85
1:1A:226:G:H21	1:1A:228:A:N6	1.75	0.85
1:1A:279:C:N4	1:1A:361:G:H1	1.75	0.85
32:1a:837:G:H1	32:1a:849:C:H42	1.25	0.85
32:1a:1244:C:H42	32:1a:1293:G:H1	1.24	0.85
1:1A:2319:G:N2	14:1S:3:ARG:HA	1.92	0.85
1:1A:631:A:OP1	11:1P:65:ARG:NH1	2.10	0.85
46:2o:54:ARG:HG2	46:2o:58:MET:HE2	1.57	0.85
33:1b:88:ALA:HB2	33:1b:219:VAL:HG13	1.58	0.84
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.12	0.84
12:2Q:97:VAL:HG11	12:2Q:103:MET:HE3	1.59	0.84
40:1i:16:ARG:HB2	40:1i:64:THR:HG22	1.59	0.84
26:24:14:ILE:HD12	26:24:22:ILE:HB	1.59	0.84
38:2g:50:ILE:HD11	38:2g:58:PRO:HA	1.59	0.84
1:1A:1783:A:H5'	1:1A:2608:G:H4'	1.59	0.84
1:1A:2116:G:OP2	1:1A:2166:G:N2	2.09	0.84
1:1A:1064:C:H3'	1:1A:1065:U:H5"	1.60	0.83
5:1F:185:ASP:HA	5:1F:188:ARG:HD3	1.60	0.83
15:1T:54:ARG:HA	15:1T:59:THR:HB	1.60	0.83
32:1a:659:U:H2'	32:1a:660:G:C8	2.13	0.83
21:1Z:19:ARG:NH1	21:1Z:84:GLU:O	2.12	0.83
42:1k:91:ARG:NH1	42:1k:110:ASP:OD2	2.10	0.83
32:2a:1182:G:H4'	32:2a:1183:A:H3'	1.59	0.83
42:2k:79:SER:HA	42:2k:104:GLN:HB3	1.61	0.83
40:2i:16:ARG:HB2	40:2i:64:THR:HG22	1.60	0.83
1:1A:2134:A:H62	1:1A:2157:G:H4'	1.41	0.83
21:1Z:30:ASN:O	21:1Z:32:HIS:N	2.12	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2e:144:THR:H	36:2e:147:ASP:HB2	1.42	0.83
1:1A:1104:C:H2'	1:1A:1105:U:C5	2.14	0.82
32:1a:142:G:H1	32:1a:221:C:N4	1.77	0.82
47:1p:21:VAL:HG22	47:1p:33:ILE:HD12	1.60	0.82
32:2a:343:U:O2	32:2a:346:G:O6	1.97	0.82
47:2p:50:LYS:HD3	47:2p:51:VAL:H	1.44	0.82
5:2F:53:THR:HG23	5:2F:55:GLY:H	1.43	0.82
33:1b:67:THR:HA	33:1b:90:MET:HE2	1.58	0.82
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.15	0.82
1:2A:2107:C:N3	1:2A:2182:G:N2	2.27	0.82
32:1a:405:U:O4	35:1d:2:GLY:N	2.11	0.82
32:2a:516:PSU:HN3	32:2a:533:A:H62	0.86	0.82
32:2a:1244:C:N3	32:2a:1293:G:N2	2.27	0.82
34:2c:6:HIS:HD2	34:2c:9:GLY:H	1.27	0.82
1:1A:529:A:H62	1:1A:2041:U:H3	1.25	0.82
33:2b:15:VAL:HG13	33:2b:209:ARG:HG3	1.59	0.82
1:1A:1493:C:N4	1:1A:2206:G:O2'	2.11	0.82
5:2F:101:LEU:HD12	5:2F:102:PRO:HD2	1.60	0.82
32:2a:533:A:O2'	32:2a:535:A:OP2	1.97	0.82
39:1h:51:VAL:HG12	39:1h:52:ASP:H	1.43	0.82
52:1u:2:GLY:O	52:1u:4:GLY:N	2.12	0.82
1:2A:1798:U:H5'	3:2D:259:THR:HG22	1.59	0.82
1:1A:2292:C:OP1	14:1S:17:ARG:NH2	2.13	0.81
5:1F:195:ASP:HB3	5:1F:198:ALA:H	1.45	0.81
21:1Z:58:VAL:HG12	21:1Z:68:PRO:HA	1.60	0.81
1:2A:226:G:N2	1:2A:228:A:N6	2.28	0.81
33:2b:55:PHE:HE1	33:2b:218:ALA:HA	1.45	0.81
1:1A:1047:G:H2'	1:1A:1110:G:N2	1.96	0.81
1:1A:2319:G:N2	14:1S:3:ARG:HD3	1.94	0.81
32:1a:989:C:H42	32:1a:1216:G:H1	1.24	0.81
34:1c:138:VAL:HG23	34:1c:151:VAL:HG23	1.61	0.81
32:2a:1036:G:H5"	32:2a:1037:C:H5	1.45	0.81
32:1a:142:G:H2'	32:1a:143:A:H8	1.44	0.81
37:1f:1:MET:HE3	37:1f:66:GLU:HG2	1.60	0.81
1:2A:588:U:H2'	1:2A:589:C:C6	2.15	0.81
32:1a:263:A:OP2	51:1t:79:ARG:NH1	2.13	0.81
33:1b:82:ARG:NH1	33:1b:92:TYR:OH	2.14	0.81
33:1b:185:ILE:HG22	33:1b:199:TYR:HB2	1.63	0.81
1:2A:2469:A:H4'	12:2Q:56:ARG:HG2	1.62	0.81
1:1A:9:U:N3	1:1A:2629:A:C2	2.47	0.81
33:1b:178:ARG:HH11	33:1b:178:ARG:HG3	1.45	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1843:C:H5'	3:2D:253:GLN:NE2	1.96	0.81
16:2U:27:LEU:HA	16:2U:30:LYS:HB2	1.62	0.81
44:2m:53:VAL:HG12	44:2m:57:ARG:HH12	1.44	0.81
1:2A:1495:A:H2'	1:2A:1496:A:C8	2.16	0.81
16:2U:112:ARG:HH11	17:2V:47:VAL:HB	1.46	0.81
3:1D:177:LEU:HD12	3:1D:181:GLU:HG2	1.63	0.81
51:2t:46:GLU:HG3	51:2t:48:LYS:HD2	1.60	0.81
1:2A:2585:U:H4'	1:2A:2586:C:OP1	1.81	0.80
1:2A:2784:C:H1'	4:2E:37:ARG:HH12	1.46	0.80
1:2A:2102:U:O2	1:2A:2187:G:O6	1.99	0.80
37:1f:68:PRO:HG2	37:1f:71:ARG:HD2	1.61	0.80
1:2A:323:G:O2'	1:2A:1205:U:N3	2.13	0.80
1:1A:1568:G:H5"	3:1D:61:LEU:HD13	1.63	0.80
53:1y:20:PRO:HB2	53:1y:22:PRO:HD2	1.63	0.80
1:1A:530:G:H4'	1:1A:531:C:OP1	1.81	0.80
32:1a:881:G:OP2	43:1l:12:ARG:NH2	2.14	0.80
33:1b:19:HIS:HE1	33:1b:206:ASP:HB2	1.47	0.80
1:1A:1266:G:O5'	18:1W:15:ARG:NH2	2.14	0.80
40:1i:46:ALA:HB2	40:1i:74:ILE:HG23	1.62	0.80
32:1a:975:A:H4'	32:1a:976:G:H5"	1.64	0.80
43:1l:24:VAL:HB	43:1l:27:LEU:HD23	1.64	0.80
1:2A:2464:C:O2'	58:2A:4001:HOH:O	1.99	0.80
23:21:3:LYS:HB3	23:21:61:ARG:HH22	1.47	0.79
32:2a:837:G:H1	32:2a:849:C:H42	1.30	0.79
35:2d:150:GLU:HG3	35:2d:151:LYS:H	1.47	0.79
32:1a:1309:G:OP1	44:1m:88:ARG:NH2	2.16	0.79
5:2F:108:LYS:HG2	5:2F:112:MET:HE3	1.63	0.79
1:1A:1055:G:O2'	1:1A:1084:A:N1	2.15	0.79
2:1B:18:G:H1	2:1B:65:C:H42	1.30	0.79
11:1P:95:VAL:HG22	11:1P:125:VAL:HG12	1.64	0.79
1:2A:992:C:OP1	16:2U:47:TYR:OH	2.01	0.79
4:2E:2:LYS:NZ	4:2E:95:ILE:O	2.15	0.79
32:1a:559:A:OP1	36:1e:126:ARG:NH2	2.16	0.79
7:2H:149:ARG:NH1	7:2H:167:GLU:OE2	2.16	0.79
1:1A:1569:A:H5'	3:1D:61:LEU:HD11	1.63	0.79
32:1a:1189:C:OP1	41:1j:51:ARG:NH2	2.16	0.79
1:2A:2131:G:H5"	1:2A:2132:U:H5"	1.63	0.79
41:1j:49:VAL:HG23	45:1n:41:ARG:HB2	1.65	0.79
4:1E:12:THR:HG21	15:1T:11:GLU:OE2	1.83	0.79
48:2q:67:LYS:HA	48:2q:70:ARG:HH12	1.47	0.79
1:1A:2206:G:H8	1:1A:2207:G:H1	1.29	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:13:3:ARG:NH1	25:13:60:GLU:OE2	2.16	0.78
1:1A:2134:A:N6	1:1A:2157:G:H4'	1.98	0.78
1:1A:2445:G:OP1	5:1F:74:ARG:NH2	2.16	0.78
15:1T:51:ARG:HG3	15:1T:98:LYS:HD2	1.63	0.78
1:2A:226:G:H21	1:2A:228:A:N6	1.80	0.78
1:2A:1359:A:N6	1:2A:1372:U:H3	1.81	0.78
27:25:16:ARG:HG3	27:25:17:ASP:N	1.96	0.78
1:1A:1092:C:N4	1:1A:1099:G:O6	2.16	0.78
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.16	0.78
46:2o:25:THR:HG21	46:2o:70:LEU:HB2	1.66	0.78
36:1e:102:ALA:HB1	36:1e:106:PRO:HG2	1.64	0.78
7:2H:98:LEU:HD22	7:2H:125:VAL:HG23	1.64	0.78
1:1A:2180:U:H2'	1:1A:2181:G:C8	2.19	0.78
1:1A:2847:U:OP1	15:1T:98:LYS:NZ	2.16	0.78
32:1a:184:G:H2'	32:1a:185:A:H8	1.48	0.78
43:1l:53:ARG:HG3	43:1l:93:LEU:HD21	1.66	0.78
1:2A:1060:U:H4'	1:2A:1061:U:H5'	1.65	0.78
19:2X:11:PRO:HG2	19:2X:13:LEU:HD21	1.64	0.78
23:21:77:ALA:HA	23:21:80:LEU:HD13	1.64	0.78
36:2e:75:THR:OG1	36:2e:76:ILE:N	2.13	0.78
3:1D:69:ARG:NH2	3:1D:128:GLY:O	2.17	0.78
32:1a:1319:A:OP1	50:1s:70:LYS:NZ	2.16	0.78
4:2E:12:THR:HG21	15:2T:11:GLU:OE2	1.82	0.78
32:2a:1338:G:H2'	32:2a:1339:A:C8	2.17	0.78
33:2b:76:GLN:NE2	33:2b:206:ASP:O	2.15	0.78
1:1A:517:C:OP1	27:15:16:ARG:NH2	2.15	0.78
4:1E:105:THR:OG1	4:1E:199:ARG:NH2	2.16	0.78
12:1Q:26:TYR:OH	58:1Q:301:HOH:O	2.02	0.78
1:2A:214:G:HO2'	1:2A:216:A:HO2'	1.17	0.78
1:1A:1105:U:H2'	1:1A:1106:G:C8	2.18	0.78
32:1a:1026:G:H5"	32:1a:1027:C:H5	1.49	0.78
33:1b:16:HIS:O	33:1b:18:GLY:N	2.15	0.78
1:2A:601:C:O2'	5:2F:104:LYS:NZ	2.17	0.78
26:14:57:GLU:HB2	26:14:58:ARG:HA	1.64	0.77
39:1h:11:THR:HG22	39:1h:15:ASN:HD21	1.48	0.77
48:2q:62:SER:OG	48:2q:72:ARG:NH1	2.17	0.77
32:1a:516:PSU:HN3	32:1a:533:A:H62	1.29	0.77
32:1a:953:G:C2	32:1a:954:G:H1'	2.19	0.77
32:1a:737:A:H2'	32:1a:738:C:H6	1.50	0.77
36:2e:102:ALA:HB1	36:2e:106:PRO:HG2	1.67	0.77
1:2A:1588:C:H2'	1:2A:1589:C:H6	1.48	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:245:G:H1	1:2A:253:C:H42	1.30	0.77
12:2Q:11:LYS:NZ	12:2Q:88:GLY:O	2.17	0.77
1:1A:1055:G:N2	1:1A:1104:C:O2	2.16	0.77
32:2a:1402:4OC:HM23	32:2a:1403:C:H5'	1.65	0.77
33:2b:76:GLN:HB3	33:2b:208:ILE:HG12	1.65	0.77
1:2A:494:G:OP1	18:2W:8:ARG:NH1	2.18	0.77
1:2A:1171:G:OP2	1:2A:1174:A:N6	2.18	0.77
5:2F:167:ALA:HB1	5:2F:173:VAL:HG11	1.66	0.77
33:1b:24:TRP:CZ3	33:1b:26:PRO:HA	2.20	0.77
39:1h:20:TYR:HE2	39:1h:75:ARG:HD2	1.50	0.77
39:1h:25:ASP:N	39:1h:25:ASP:OD1	2.17	0.77
32:2a:1129:C:H4'	40:2i:16:ARG:HH22	1.50	0.77
32:1a:737:A:H2'	32:1a:738:C:C6	2.20	0.77
1:2A:1817:G:OP1	3:2D:88:ARG:NH2	2.18	0.77
10:2O:59:LYS:HE3	10:2O:89:ASN:HD21	1.48	0.77
32:2a:1019:C:H2'	32:2a:1020:U:H5'	1.67	0.77
1:2A:1359:A:H61	1:2A:1372:U:H3	1.29	0.76
1:2A:2684:U:H1'	10:2O:70:LYS:HD2	1.67	0.76
27:15:45:VAL:HG11	27:15:58:LEU:HD13	1.66	0.76
33:1b:74:LYS:NZ	33:1b:206:ASP:OD1	2.15	0.76
1:2A:1063:G:H1	1:2A:1075:C:N4	1.84	0.76
45:1n:48:ALA:HB2	45:1n:53:LEU:HD12	1.68	0.76
1:1A:1047:G:H2'	1:1A:1110:G:H22	1.49	0.76
28:16:14:THR:HB	28:16:48:VAL:O	1.85	0.76
32:1a:1504:G:OP1	32:1a:1507:A:H4'	1.85	0.76
33:1b:15:VAL:HG13	33:1b:209:ARG:HG3	1.67	0.76
34:1c:120:VAL:HG21	34:1c:137:ALA:HB2	1.65	0.76
32:2a:1441:G:H5"	32:2a:1442:G:H5'	1.66	0.76
15:1T:80:SER:HB3	15:1T:83:ILE:HD12	1.66	0.76
32:1a:472:A:H5"	47:1p:80:PHE:HB3	1.67	0.76
38:2g:62:PHE:HA	38:2g:124:LEU:HD21	1.68	0.76
32:1a:693:G:H5'	54:1z:97:ALA:HB2	1.65	0.76
32:1a:747:C:OP2	32:1a:748:C:N4	2.18	0.76
1:2A:2103:C:O2	1:2A:2186:G:N2	2.17	0.76
32:2a:673:G:H2'	32:2a:674:G:C8	2.19	0.76
33:2b:198:ASP:OD1	39:2h:68:ARG:NH2	2.18	0.76
11:1P:15:ARG:HH21	11:1P:15:ARG:HG3	1.51	0.76
36:1e:57:LYS:HG2	36:1e:61:TYR:HE2	1.49	0.76
1:2A:2807:G:N1	1:2A:2893:G:O6	2.19	0.76
7:2H:8:PRO:HB3	7:2H:51:ARG:HG3	1.68	0.76
26:24:57:GLU:HB2	26:24:58:ARG:HA	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1493:C:N4	1:2A:2206:G:O2'	2.17	0.76
6:2G:161:THR:HG22	6:2G:163:ALA:H	1.48	0.76
15:2T:74:ARG:HH11	15:2T:74:ARG:HG2	1.49	0.76
33:2b:185:ILE:HG23	33:2b:199:TYR:HB2	1.66	0.76
1:1A:1171:G:N2	1:1A:1178:C:N3	2.32	0.76
4:1E:167:VAL:HG12	4:1E:170:LEU:HD11	1.68	0.75
10:1O:20:MET:HE3	10:1O:44:LYS:HE3	1.67	0.75
19:1X:31:HIS:CD2	19:1X:33:LYS:H	2.03	0.75
32:1a:1070:U:OP1	36:1e:25:ARG:NH1	2.19	0.75
40:1i:21:PRO:HA	40:1i:59:PHE:HA	1.68	0.75
1:2A:2074:U:H2'	1:2A:2075:U:C6	2.21	0.75
1:1A:2127:G:N2	1:1A:2161:C:O2	2.19	0.75
32:1a:1030(A):G:O2'	32:1a:1031:G:N2	2.18	0.75
33:1b:48:MET:HA	33:1b:51:LEU:HB2	1.68	0.75
12:2Q:75:THR:HG21	12:2Q:87:LYS:HE3	1.67	0.75
25:23:59:VAL:HG23	25:23:60:GLU:HG2	1.69	0.75
32:2a:736:C:H2'	32:2a:737:A:C8	2.20	0.75
33:1b:84:GLU:HB3	33:1b:219:VAL:HG21	1.67	0.75
1:2A:1178:C:H2'	1:2A:1179:C:H6	1.51	0.75
2:1B:31:C:O2	2:1B:53:A:N6	2.19	0.75
5:1F:108:LYS:HG2	5:1F:112:MET:HE3	1.68	0.75
1:2A:323:G:HO2'	1:2A:1205:U:H3	1.33	0.75
33:1b:87:ARG:NH1	33:1b:233:SER:OG	2.19	0.75
1:2A:2788:C:OP1	4:2E:61:ARG:NH2	2.19	0.75
7:2H:86:GLU:OE2	7:2H:132:ARG:NH2	2.19	0.75
21:2Z:30:ASN:O	21:2Z:32:HIS:N	2.20	0.75
32:2a:426:G:OP1	35:2d:38:TYR:OH	2.03	0.75
34:2c:6:HIS:CD2	34:2c:9:GLY:H	2.05	0.75
2:2B:48:A:H4'	14:2S:95:HIS:HD2	1.52	0.75
7:2H:3:ARG:HH21	7:2H:65:HIS:HB3	1.50	0.75
51:2t:57:ARG:NH2	51:2t:100:ILE:HD12	2.01	0.75
10:1O:48:PRO:HB3	32:1a:1422:G:H5"	1.67	0.75
39:1h:41:ARG:NH2	39:1h:123:GLU:OE2	2.20	0.75
1:2A:1709:U:H2'	1:2A:1710:C:C6	2.21	0.75
17:2V:76:LYS:HB2	17:2V:81:TYR:HB3	1.69	0.74
42:2k:21:ILE:HD12	42:2k:84:VAL:HG22	1.69	0.74
49:2r:56:THR:HB	49:2r:58:LEU:HD13	1.69	0.74
43:1l:70:ILE:HD13	43:1l:77:LEU:HD12	1.67	0.74
44:2m:3:ARG:HG3	44:2m:4:ILE:HG23	1.69	0.74
3:2D:12:SER:HB3	3:2D:208:LYS:HB3	1.69	0.74
32:2a:353:A:H5'	32:2a:353:A:H8	1.52	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:2l:109:GLY:HA3	43:2l:121:GLY:O	1.88	0.74
4:1E:34:VAL:HG22	4:1E:48:GLN:HE21	1.53	0.74
1:2A:800:A:H8	1:2A:800:A:OP1	1.70	0.74
32:2a:1129:C:O2	32:2a:1130:A:N6	2.19	0.74
1:2A:82:G:N1	1:2A:103:A:OP2	2.20	0.74
21:2Z:5:LEU:HD11	21:2Z:43:GLU:HB3	1.69	0.74
32:2a:1002:G:O6	32:2a:1003:G:N2	2.15	0.74
11:1P:98:GLU:OE2	11:1P:102:ARG:HG3	1.87	0.74
1:2A:2445:G:OP1	5:2F:74:ARG:NH2	2.19	0.74
1:1A:1045:A:H1'	1:1A:1047:G:N3	2.01	0.74
32:2a:1190:G:H5'	34:2c:176:HIS:CE1	2.22	0.74
12:1Q:54:MET:HE3	12:1Q:64:ILE:HD13	1.68	0.74
14:1S:14:VAL:O	14:1S:18:ILE:HG12	1.87	0.74
32:1a:881:G:P	43:1l:12:ARG:HH22	2.09	0.74
32:2a:444:C:H2'	32:2a:445:G:H8	1.52	0.74
32:2a:444:C:H2'	32:2a:445:G:C8	2.23	0.74
6:1G:131:TYR:HB3	6:1G:159:VAL:HG13	1.68	0.73
13:1R:67:LEU:HD13	13:1R:76:VAL:HG21	1.68	0.73
23:11:50:ARG:HG2	23:11:59:THR:HB	1.70	0.73
46:1o:25:THR:HG21	46:1o:70:LEU:HB2	1.70	0.73
32:2a:539:A:H2'	32:2a:540:G:C8	2.23	0.73
5:1F:53:THR:HG22	5:1F:55:GLY:H	1.53	0.73
1:1A:11:G:C2'	1:1A:12:U:H5'	2.18	0.73
1:1A:102:G:OP1	24:12:7:ARG:NH2	2.21	0.73
21:2Z:144:LEU:HD11	21:2Z:150:LEU:HD22	1.70	0.73
32:2a:256:U:OP1	48:2q:17:LYS:NZ	2.21	0.73
39:2h:2:LEU:HD12	39:2h:3:THR:H	1.54	0.73
1:1A:602:G:O2'	1:1A:655:A:N6	2.22	0.73
3:1D:71:ASP:OD2	3:1D:103:ARG:NH2	2.22	0.73
7:1H:41:MET:HE2	7:1H:65:HIS:HA	1.71	0.73
32:1a:1228:C:P	44:1m:108:ARG:HH22	2.12	0.73
37:1f:23:LYS:NZ	37:1f:42:GLU:OE1	2.21	0.73
46:1o:39:LEU:HD13	46:1o:56:LEU:HB2	1.68	0.73
1:2A:301:G:OP2	20:2Y:84:ARG:NH2	2.20	0.73
21:2Z:103:ARG:HB3	21:2Z:138:GLU:HA	1.70	0.73
35:2d:122:ARG:NH1	35:2d:134:ASP:O	2.20	0.73
42:2k:92:GLU:HG3	42:2k:96:ARG:HH12	1.53	0.73
1:1A:1312:U:OP2	19:1X:63:LYS:NZ	2.21	0.73
48:1q:67:LYS:HA	48:1q:70:ARG:HH12	1.53	0.73
12:2Q:72:LYS:HB3	12:2Q:94:VAL:HG23	1.71	0.73
17:2V:72:VAL:HG13	17:2V:85:LYS:HB3	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1171:G:H1	1:1A:1178:C:N4	1.87	0.73
37:1f:22:GLU:O	37:1f:26:ILE:HG13	1.89	0.73
1:2A:1266:G:O5'	18:2W:15:ARG:NH2	2.22	0.73
1:1A:1130:U:O2	4:1E:149:ARG:NH2	2.22	0.73
1:1A:2321:G:H5"	1:1A:2322:A:OP2	1.89	0.73
1:1A:2451:A:C2	53:1y:9:TYR:HB2	2.24	0.73
10:1O:35:VAL:HG11	10:1O:103:ALA:HB3	1.71	0.73
34:1c:19:GLU:O	34:1c:40:ARG:NH2	2.22	0.73
1:2A:1336:A:H2'	1:2A:1337:G:C8	2.24	0.73
23:21:50:ARG:HG2	23:21:59:THR:HB	1.71	0.73
32:2a:1031:G:H2'	32:2a:1032:G:C8	2.24	0.73
41:1j:9:ARG:HH11	41:1j:9:ARG:HG3	1.53	0.72
1:1A:2327:A:H2'	1:1A:2328:A:C8	2.24	0.72
3:2D:132:PRO:HD3	3:2D:190:TYR:CZ	2.24	0.72
39:2h:64:LYS:HG2	39:2h:79:VAL:HG21	1.70	0.72
31:29:29:ASN:HD22	31:29:32:HIS:CE1	2.07	0.72
42:2k:73:MET:HG2	42:2k:103:LEU:HD21	1.69	0.72
13:2R:33:ARG:NH2	27:25:57:VAL:O	2.16	0.72
44:2m:49:THR:HB	44:2m:52:GLU:H	1.53	0.72
1:1A:1970:A:H4'	58:1A:4085:HOH:O	1.87	0.72
1:2A:1290:C:H2'	1:2A:1291:C:H6	1.53	0.72
1:2A:1496:A:O2'	1:2A:1497:U:O2	2.08	0.72
1:2A:1645:G:H5"	1:2A:1646:C:H5'	1.72	0.72
6:2G:107:LEU:HD23	6:2G:111:LEU:HD12	1.72	0.72
34:2c:181:ASN:HD22	34:2c:204:LEU:HB2	1.54	0.72
1:1A:1817:G:OP1	3:1D:88:ARG:NH2	2.23	0.72
50:1s:32:LYS:HA	50:1s:50:ALA:HB3	1.71	0.72
52:2u:2:GLY:O	52:2u:4:GLY:N	2.19	0.72
1:1A:1065:U:H3	1:1A:1073:A:N6	1.87	0.72
8:1I:61:ARG:HA	8:1I:61:ARG:HH11	1.54	0.72
32:1a:1019:C:H2'	32:1a:1020:U:H5'	1.70	0.72
1:2A:1818:U:O4	3:2D:154:LYS:HE3	1.89	0.72
4:2E:52:LEU:HB2	4:2E:76:ARG:HB2	1.71	0.72
5:2F:110:LEU:HD21	5:2F:181:LEU:HG	1.69	0.72
16:2U:85:LYS:NZ	16:2U:117:GLN:HG3	2.04	0.72
32:2a:1305:G:N2	32:2a:1331:G:H1'	2.05	0.72
2:1B:42:C:O2	6:1G:93:THR:N	2.20	0.72
32:1a:1073:U:O2'	33:1b:104:ASN:OD1	2.06	0.72
1:2A:1011:G:OP1	16:2U:77:SER:OG	2.08	0.72
7:2H:30:LYS:HG3	7:2H:80:SER:O	1.89	0.72
12:2Q:77:LYS:NZ	12:2Q:86:GLY:O	2.23	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:2T:54:ARG:HA	15:2T:59:THR:HB	1.72	0.72
33:2b:19:HIS:NE2	33:2b:206:ASP:OD2	2.23	0.72
1:1A:1141:U:H2'	9:1N:63:THR:HG21	1.72	0.72
1:1A:1171:G:OP2	1:1A:1174:A:N6	2.23	0.72
2:1B:66:A:H61	2:1B:108:U:H2'	1.55	0.72
4:2E:2:LYS:HB2	4:2E:95:ILE:HD12	1.72	0.72
10:2O:2:ILE:HD12	10:2O:6:THR:HG21	1.71	0.72
32:2a:224:C:OP1	51:2t:74:LYS:NZ	2.22	0.72
35:2d:196:LEU:H	35:2d:196:LEU:HD12	1.54	0.72
39:2h:11:THR:O	39:2h:15:ASN:ND2	2.22	0.72
47:2p:75:ARG:O	47:2p:78:GLY:N	2.15	0.72
54:2z:25:ALA:HA	54:2z:28:GLU:HG3	1.72	0.72
4:1E:54:GLN:HE22	4:1E:58:ARG:HD2	1.54	0.71
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.71	0.71
34:2c:35:GLU:OE2	34:2c:59:ARG:NH2	2.23	0.71
38:2g:32:ARG:O	38:2g:34:GLY:N	2.21	0.71
1:1A:1359:A:N1	1:1A:1372:U:C4	2.59	0.71
32:1a:450:G:OP1	47:1p:43:LYS:NZ	2.22	0.71
14:2S:10:ARG:HH21	14:2S:91:PRO:HB2	1.53	0.71
40:2i:50:LEU:HD13	40:2i:56:LEU:HA	1.72	0.71
11:1P:140:ALA:O	25:23:38:GLU:HG2	1.89	0.71
13:1R:117:VAL:HG12	13:1R:118:GLU:H	1.54	0.71
32:1a:1125:U:H4'	41:1j:5:ARG:NH2	2.06	0.71
1:2A:1062:G:N2	1:2A:1063:G:N3	2.39	0.71
32:2a:1015:A:H2'	32:2a:1016:A:C8	2.24	0.71
35:2d:187:ARG:NH1	35:2d:190:ASP:OD2	2.24	0.71
49:2r:24:ALA:O	49:2r:26:LEU:N	2.24	0.71
1:1A:1550:C:OP1	1:1A:1720:U:O2'	2.07	0.71
15:1T:112:ARG:HG3	15:1T:115:ARG:NH2	2.06	0.71
1:2A:1826:G:H4'	3:2D:242:ARG:NH2	2.04	0.71
14:2S:99:LYS:HE2	14:2S:103:GLU:OE2	1.90	0.71
26:24:16:CYS:SG	26:24:17:GLY:N	2.63	0.71
1:1A:1359:A:H61	1:1A:1372:U:H3	0.74	0.71
54:1z:49:VAL:HG22	54:1z:66:LYS:HG2	1.72	0.71
1:2A:984:A:H5"	1:2A:985:C:H5	1.55	0.71
1:2A:1065:U:H3	1:2A:1073:A:H61	0.78	0.71
8:2I:62:LYS:HE2	8:2I:133:HIS:CE1	2.25	0.71
1:1A:1257:C:H4'	5:1F:83:PHE:CD1	2.25	0.71
3:1D:242:ARG:HG3	3:1D:242:ARG:HH11	1.55	0.71
6:1G:64:THR:HB	6:1G:94:LEU:HD21	1.72	0.71
32:2a:1356:G:H2'	32:2a:1357:A:C8	2.26	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:993:G:OP1	16:1U:50:ARG:NH2	2.23	0.71
41:1j:42:THR:HG21	41:1j:66:ARG:HG3	1.71	0.71
46:1o:16:ALA:HB1	46:1o:21:ASP:HB3	1.73	0.71
49:2r:47:THR:OG1	49:2r:49:LYS:HE2	1.89	0.71
32:1a:17:U:H2'	32:1a:18:C:C6	2.26	0.71
33:1b:163:PHE:HA	33:1b:185:ILE:O	1.91	0.71
35:1d:30:LYS:HA	35:1d:35:ARG:HE	1.56	0.71
32:2a:587:G:N2	32:2a:754:C:OP2	2.23	0.71
37:2f:62:TRP:C	37:2f:63:TYR:HD1	1.98	0.71
1:2A:483:A:H5"	20:2Y:50:ARG:HD3	1.72	0.71
1:2A:1996:C:H4'	1:2A:1997:G:OP1	1.89	0.71
6:2G:15:VAL:HG13	6:2G:175:LEU:HB3	1.72	0.71
32:2a:1292:U:OP2	38:2g:41:ARG:NH2	2.24	0.71
34:2c:180:ALA:HB1	34:2c:203:PHE:CE1	2.26	0.71
1:1A:226:G:N2	1:1A:228:A:N6	2.38	0.70
19:1X:43:VAL:HG21	19:1X:81:VAL:HG11	1.73	0.70
25:13:3:ARG:HD3	25:13:60:GLU:HG3	1.73	0.70
33:1b:219:VAL:HA	33:1b:222:ILE:HD12	1.72	0.70
34:1c:6:HIS:CD2	34:1c:9:GLY:H	2.09	0.70
1:2A:226:G:C2	1:2A:228:A:N6	2.58	0.70
32:2a:744:C:O2'	32:2a:851:G:N2	2.23	0.70
51:1t:46:GLU:HG3	51:1t:48:LYS:HD2	1.73	0.70
1:2A:2867:G:OP2	15:2T:119:LYS:NZ	2.17	0.70
6:2G:64:THR:HB	6:2G:94:LEU:HD21	1.72	0.70
8:2I:62:LYS:HE2	8:2I:133:HIS:HE1	1.56	0.70
13:2R:102:GLU:OE2	18:2W:37:ARG:NH2	2.22	0.70
41:2j:8:LEU:HB2	41:2j:70:ARG:HB2	1.73	0.70
44:2m:59:TYR:CE1	44:2m:63:THR:HG21	2.26	0.70
1:2A:872:A:OP1	12:2Q:5:ARG:NH2	2.24	0.70
32:2a:406:G:H21	35:2d:119:GLN:HE22	1.35	0.70
1:2A:2134:A:O2'	1:2A:2159:G:N3	2.24	0.70
1:2A:2375:G:O2'	1:2A:2377:A:N7	2.22	0.70
33:2b:84:GLU:HB3	33:2b:219:VAL:HG21	1.72	0.70
33:2b:96:ARG:HG2	33:2b:98:LEU:HD23	1.74	0.70
39:2h:14:ARG:NH1	39:2h:83:ILE:O	2.25	0.70
1:1A:1218:C:H42	1:1A:1231:G:H1	1.37	0.70
11:1P:121:LYS:HG2	11:1P:122:PRO:HD2	1.73	0.70
1:2A:1143:A:OP1	9:2N:25:ARG:NH2	2.25	0.70
1:2A:1688:U:O2	1:2A:1700:A:H5'	1.91	0.70
1:2A:2547:U:O2	10:2O:23:ARG:NH2	2.24	0.70
7:2H:92:ILE:HD13	7:2H:92:ILE:H	1.55	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:144:LEU:HD21	21:2Z:150:LEU:HD13	1.74	0.70
33:2b:98:LEU:HG	33:2b:101:MET:HE3	1.74	0.70
1:1A:1176:G:H1'	1:1A:1177:A:H5'	1.72	0.70
11:1P:100:LEU:HD12	11:1P:112:LEU:HD11	1.74	0.70
26:14:16:CYS:SG	26:14:17:GLY:N	2.62	0.70
1:2A:1429:G:H2'	1:2A:1430:C:C6	2.27	0.70
1:2A:2497:A:H5"	58:2A:4558:HOH:O	1.92	0.70
1:1A:2711:A:H5"	1:1A:2712:U:H5"	1.71	0.70
14:1S:84:GLN:HA	14:1S:111:GLU:HB2	1.72	0.70
37:1f:69:GLU:O	37:1f:72:VAL:HG12	1.91	0.70
1:1A:2129:C:O2	1:1A:2159:G:N1	2.22	0.70
8:1I:14:ASP:OD1	8:1I:15:VAL:N	2.24	0.70
20:1Y:15:VAL:HG21	20:1Y:42:VAL:HG11	1.71	0.70
1:2A:568:U:O2'	58:2A:4003:HOH:O	2.10	0.70
1:2A:2552:2MU:H2'	1:2A:2554:U:OP2	1.92	0.70
21:2Z:52:SER:OG	21:2Z:53:ILE:N	2.24	0.70
43:2l:53:ARG:HG3	43:2l:93:LEU:HD21	1.74	0.70
1:1A:1877:A:H5'	1:1A:1878:G:OP2	1.91	0.70
9:1N:67:LEU:HA	9:1N:87:LEU:HD12	1.73	0.70
1:2A:143:G:H1'	19:2X:37:THR:HG21	1.73	0.70
1:2A:2079:U:O3'	23:21:35:THR:OG1	2.10	0.70
1:2A:2615:U:H2'	1:2A:2616:C:H6	1.56	0.70
19:2X:60:ARG:HH22	29:27:47:ARG:HH22	1.40	0.70
25:23:3:ARG:HB2	25:23:60:GLU:HG3	1.72	0.70
32:2a:926:G:C6	54:2z:87:LYS:HG3	2.27	0.70
1:1A:1937:A:H1'	1:1A:1939:5MU:H72	1.73	0.69
32:1a:959:A:HO2'	32:1a:984:C:HO2'	1.39	0.69
44:1m:17:VAL:O	44:1m:20:THR:OG1	2.10	0.69
1:2A:602:G:O2'	1:2A:655:A:N6	2.24	0.69
1:2A:1011:G:OP2	16:2U:70:ARG:NH2	2.24	0.69
41:2j:78:ASN:O	41:2j:80:LYS:N	2.22	0.69
1:1A:2106:G:H1	1:1A:2183:C:H42	1.40	0.69
32:1a:601:C:H2'	32:1a:602:A:H8	1.57	0.69
34:1c:37:GLN:NE2	45:1n:52:GLN:OE1	2.25	0.69
46:1o:56:LEU:O	46:1o:60:VAL:HG23	1.91	0.69
32:2a:108:G:N1	51:2t:15:ARG:HG2	2.08	0.69
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.27	0.69
1:2A:1286:A:O2'	1:2A:1288:U:OP2	2.10	0.69
8:2I:114:LEU:HD21	8:2I:128:LEU:HD13	1.72	0.69
32:2a:78:G:N2	32:2a:91:C:H42	1.91	0.69
32:2a:433:C:H2'	32:2a:434:U:H6	1.55	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1025:U:N3	32:2a:1034:G:O6	2.26	0.69
33:2b:47:THR:HA	33:2b:202:PRO:HG2	1.74	0.69
1:1A:1065:U:H3	1:1A:1073:A:H61	1.38	0.69
14:1S:88:ASP:OD1	14:1S:90:GLY:N	2.22	0.69
28:16:16:CYS:SG	28:16:18:ARG:HG3	2.33	0.69
1:2A:1056:G:H5"	1:2A:1057:A:H5'	1.73	0.69
1:2A:1068:G:O2'	1:2A:1096:A:O2'	1.94	0.69
34:2c:120:VAL:HG21	34:2c:137:ALA:HB2	1.73	0.69
47:2p:18:ARG:NH1	47:2p:32:TYR:OH	2.25	0.69
27:15:25:LEU:HD12	27:15:25:LEU:H	1.57	0.69
44:1m:3:ARG:HG3	44:1m:4:ILE:HG12	1.74	0.69
1:2A:1178:C:H2'	1:2A:1179:C:C6	2.27	0.69
35:2d:150:GLU:HG3	35:2d:151:LYS:N	2.08	0.69
1:1A:2291:U:H2'	1:1A:2292:C:C6	2.27	0.69
1:1A:2547:U:O2	10:1O:23:ARG:NH2	2.24	0.69
32:1a:1286:A:H2'	32:1a:1287:A:H4'	1.73	0.69
1:2A:1651:G:H5'	13:2R:39:PRO:HG2	1.74	0.69
7:2H:90:LYS:HD2	7:2H:163:TYR:CE1	2.27	0.69
1:1A:2689:U:H4'	1:1A:2690:C:H5'	1.75	0.69
5:1F:184:TYR:CE2	5:1F:188:ARG:HD2	2.28	0.69
25:13:8:LEU:HD13	25:13:31:LEU:HA	1.74	0.69
1:2A:2439:A:H5'	1:2A:2439:A:C8	2.28	0.69
34:2c:79:ARG:N	34:2c:82:GLU:HB3	2.08	0.69
1:1A:9:U:H3	1:1A:2629:A:H2	1.33	0.69
1:1A:2343:C:O2'	1:1A:2373:G:O2'	2.10	0.69
33:1b:178:ARG:HG3	33:1b:178:ARG:NH1	2.06	0.69
40:1i:49:PRO:HD2	40:1i:81:ILE:HD11	1.75	0.69
46:1o:82:ILE:HB	46:1o:87:ILE:HB	1.75	0.69
1:2A:1044:G:H21	1:2A:1111:A:H2	1.41	0.69
3:2D:134:ARG:NH1	3:2D:188:GLU:OE2	2.26	0.69
44:2m:76:ALA:HA	44:2m:79:LYS:HB3	1.75	0.69
1:1A:125:G:C6	29:17:10:ARG:HG3	2.28	0.69
1:1A:530:G:N1	1:1A:2023:G:OP1	2.26	0.69
1:1A:1085:A:O2'	1:1A:1104:C:O2'	2.07	0.69
1:1A:1947:C:H2'	1:1A:1948:G:H8	1.56	0.69
32:1a:144:G:H1	32:1a:178:C:H42	1.39	0.69
44:1m:15:VAL:HG11	44:1m:48:LEU:HD21	1.74	0.69
44:2m:73:GLU:O	44:2m:77:ASN:N	2.20	0.69
1:1A:1292:U:H2'	1:1A:1293:C:C6	2.27	0.69
26:14:40:HIS:HB3	26:14:43:TYR:HB2	1.75	0.68
1:1A:900:A:H2'	1:1A:901:A:H8	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:9:ILE:HG21	5:1F:125:LEU:HD22	1.73	0.68
32:1a:376:G:H5"	47:1p:5:ARG:HD2	1.76	0.68
39:1h:20:TYR:CE2	39:1h:75:ARG:HD2	2.28	0.68
44:1m:50:GLU:O	44:1m:54:VAL:HG13	1.93	0.68
1:2A:1448:G:O2'	1:2A:1528(A):A:N1	2.24	0.68
13:2R:19:ALA:O	13:2R:23:ASN:ND2	2.26	0.68
15:2T:51:ARG:HG3	15:2T:98:LYS:HD2	1.74	0.68
35:2d:8:VAL:HG13	35:2d:22:LYS:HE2	1.75	0.68
35:2d:53:ASP:O	35:2d:57:ARG:NH1	2.26	0.68
40:2i:3:GLN:HE21	40:2i:20:ARG:HE	1.40	0.68
1:1A:228:A:H8	1:1A:229:A:H5'	1.57	0.68
1:1A:2794:C:H42	1:1A:2802:G:H1	1.39	0.68
32:2a:973:G:OP1	41:2j:57:LYS:NZ	2.24	0.68
34:2c:58:GLU:HB3	41:2j:92:THR:HG21	1.73	0.68
13:1R:3:HIS:NE2	58:1R:301:HOH:O	2.25	0.68
1:1A:2438:U:O2'	1:1A:2440:C:OP1	2.12	0.68
3:1D:147:LEU:HD13	3:1D:155:LEU:HD11	1.75	0.68
42:1k:121:PRO:HD2	42:1k:126:ARG:HD2	1.76	0.68
47:1p:67:THR:HG22	47:1p:68:ASP:H	1.59	0.68
1:2A:854:G:H2'	1:2A:855:G:H8	1.58	0.68
1:2A:1379:A:H4'	1:2A:1380:G:OP2	1.92	0.68
16:2U:66:ASN:CG	16:2U:76:TYR:HB2	2.19	0.68
1:1A:184:C:H2'	1:1A:185:U:H6	1.59	0.68
32:1a:630:G:H2'	32:1a:631:G:O4'	1.94	0.68
33:1b:198:ASP:OD1	39:1h:68:ARG:NH2	2.26	0.68
39:1h:11:THR:O	39:1h:15:ASN:ND2	2.26	0.68
43:1l:53:ARG:HB3	43:1l:69:TYR:HE1	1.59	0.68
1:2A:1937:A:H1'	1:2A:1939:5MU:H72	1.75	0.68
37:2f:82:ARG:HB2	37:2f:85:VAL:HG23	1.75	0.68
2:1B:104:U:HO2'	21:1Z:29:TYR:HH	1.38	0.68
4:1E:40:GLU:OE1	4:1E:40:GLU:N	2.24	0.68
22:10:12:ASN:HB3	58:10:201:HOH:O	1.92	0.68
8:2I:102:SER:HA	8:2I:106:GLY:O	1.93	0.68
18:2W:25:ARG:NH2	18:2W:74:ALA:O	2.27	0.68
32:2a:404:U:O2	32:2a:498:U:O4	2.11	0.68
32:2a:736:C:H2'	32:2a:737:A:H8	1.59	0.68
54:2z:54:ILE:HB	54:2z:61:LEU:HD12	1.75	0.68
32:1a:736:C:H2'	32:1a:737:A:C8	2.29	0.68
32:1a:1003:G:C2'	32:1a:1004:A:H4'	2.22	0.68
32:1a:1409:C:H2'	32:1a:1410:G:H8	1.58	0.68
13:2R:24:GLN:OE1	13:2R:36:THR:HG21	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:2f:61:LEU:HB3	37:2f:63:TYR:HE1	1.59	0.68
43:2l:70:ILE:HG12	43:2l:100:ILE:HD12	1.75	0.68
1:1A:2771:C:H2'	1:1A:2772:C:H6	1.59	0.68
33:1b:19:HIS:CE1	33:1b:206:ASP:HB2	2.28	0.68
42:1k:91:ARG:NH2	49:1r:87:ARG:HH22	1.92	0.68
44:1m:3:ARG:HH21	44:1m:8:GLU:HG3	1.58	0.68
1:2A:2307:G:H8	1:2A:2307:G:OP1	1.77	0.68
32:2a:1036:G:H5"	32:2a:1037:C:C5	2.29	0.68
1:1A:272(H):C:H42	1:1A:363(B):G:H1	1.40	0.68
17:1V:98:GLU:OE2	17:1V:100:ARG:NH1	2.27	0.68
33:1b:166:ASP:HB3	33:1b:169:LYS:HB3	1.76	0.68
1:2A:455:C:N3	1:2A:472:A:H2'	2.08	0.68
33:2b:7:VAL:O	33:2b:217:ARG:NH2	2.27	0.68
32:1a:77:G:H2'	32:1a:78:G:H5'	1.74	0.67
32:1a:176:C:H2'	32:1a:177:C:H6	1.59	0.67
32:1a:1346:A:H5"	40:1i:120:ARG:HH12	1.58	0.67
35:1d:15:GLU:OE2	35:1d:66:ARG:NH1	2.27	0.67
2:2B:117:G:H5'	14:2S:55:ALA:HB2	1.75	0.67
1:2A:1028:A:N6	1:2A:1125:G:H2'	2.09	0.67
4:2E:135:HIS:H	4:2E:135:HIS:CD2	2.12	0.67
19:2X:50:LYS:HB3	19:2X:84:ALA:HB2	1.75	0.67
33:2b:48:MET:HA	33:2b:51:LEU:HB2	1.75	0.67
37:2f:10:LEU:HD13	37:2f:61:LEU:HD13	1.76	0.67
13:1R:97:VAL:HG22	13:1R:114:VAL:HG13	1.77	0.67
32:1a:373:A:H2'	32:1a:374:A:H8	1.59	0.67
32:1a:517:G:N2	32:1a:533:A:OP2	2.20	0.67
34:1c:179:ARG:NH1	34:1c:206:GLU:OE1	2.28	0.67
32:2a:737:A:H2'	32:2a:738:C:C6	2.30	0.67
20:1Y:28:LYS:HG3	20:1Y:40:GLU:HG2	1.76	0.67
32:1a:1182:G:H4'	32:1a:1183:A:H3'	1.75	0.67
1:2A:1270:C:H5"	1:2A:1271:G:H5'	1.76	0.67
40:2i:82:ALA:HB1	40:2i:96:LEU:HD21	1.76	0.67
33:1b:54:THR:HG21	33:1b:201:ILE:HD11	1.74	0.67
39:1h:119:LEU:HB3	39:1h:123:GLU:HB2	1.75	0.67
21:2Z:19:ARG:NH1	21:2Z:84:GLU:O	2.27	0.67
32:2a:1187:G:H5'	40:2i:113:LYS:HE2	1.76	0.67
1:1A:1174:A:H4'	1:1A:1175:U:OP1	1.95	0.67
1:1A:2147:G:H2'	1:1A:2148:G:H4'	1.75	0.67
23:11:19:GLN:HB2	23:11:35:THR:HG23	1.76	0.67
32:1a:1004:A:H3'	32:1a:1005:A:H8	1.59	0.67
33:1b:185:ILE:CG2	33:1b:199:TYR:HB2	2.25	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:179:ARG:NH1	34:2c:206:GLU:OE1	2.26	0.67
54:2z:13:THR:HG23	54:2z:16:ILE:HD12	1.75	0.67
1:1A:1061:U:O2'	1:1A:1062:G:H5'	1.95	0.67
32:1a:1005:A:H62	32:1a:1024:G:N2	1.85	0.67
18:2W:71:VAL:HA	18:2W:107:LEU:HD12	1.76	0.67
32:2a:977:A:N6	32:2a:1224:G:OP1	2.25	0.67
32:2a:1149:C:O2'	32:2a:1280:A:N1	2.27	0.67
6:1G:79:ASN:OD1	6:1G:79:ASN:N	2.18	0.67
32:1a:890:G:O2'	32:1a:906:G:O6	2.11	0.67
1:2A:2117:A:N1	1:2A:2172:U:O4	2.28	0.67
1:2A:2319:G:N2	14:2S:3:ARG:HA	2.10	0.67
13:2R:29:LEU:HB3	13:2R:75:LEU:HD21	1.77	0.67
22:20:53:MET:HG3	22:20:59:LEU:HD12	1.76	0.67
1:1A:548:A:N6	17:1V:19:LYS:H	1.92	0.67
2:1B:86:G:H1	2:1B:91:C:H42	1.43	0.67
1:2A:2116:G:OP1	1:2A:2166:G:N2	2.27	0.67
1:2A:2298:A:H2'	1:2A:2299:G:O4'	1.95	0.67
5:2F:184:TYR:CE2	5:2F:188:ARG:HD2	2.30	0.67
17:2V:62:LEU:HD11	17:2V:95:LEU:HB2	1.77	0.67
32:2a:991:U:C4	32:2a:1212:U:H1'	2.30	0.67
41:2j:5:ARG:HB2	41:2j:73:ASP:OD1	1.94	0.67
15:1T:107:ASP:HA	15:1T:110:ILE:HD12	1.77	0.67
21:1Z:104:PHE:HD1	21:1Z:141:VAL:HG11	1.60	0.67
33:1b:69:LEU:HB3	33:1b:162:ILE:HG22	1.75	0.67
36:1e:18:ARG:NH1	36:1e:27:ARG:HH21	1.93	0.67
1:2A:526:A:H5"	1:2A:527:C:OP1	1.94	0.67
4:2E:9:VAL:HG13	4:2E:25:VAL:O	1.95	0.67
7:2H:90:LYS:HD3	7:2H:159:GLU:HG2	1.77	0.67
8:2I:9:LEU:HD23	8:2I:12:LEU:HD13	1.77	0.67
13:2R:117:VAL:HG12	13:2R:118:GLU:H	1.60	0.67
26:24:53:GLU:HB3	26:24:55:ARG:H	1.60	0.67
33:2b:101:MET:HA	33:2b:108:ILE:HG13	1.75	0.67
34:2c:148:GLY:HA3	34:2c:172:ARG:O	1.95	0.67
38:2g:20:ASP:OD2	38:2g:63:LYS:NZ	2.18	0.67
16:2U:49:HIS:HA	16:2U:52:ARG:HG2	1.76	0.66
7:1H:157:TYR:C	7:1H:158:HIS:HD1	2.03	0.66
21:1Z:53:ILE:HG22	21:1Z:71:VAL:O	1.94	0.66
32:1a:1095:U:H2'	32:1a:1096:C:C6	2.30	0.66
41:1j:68:HIS:H	41:1j:68:HIS:CD2	2.12	0.66
1:2A:873:G:N2	1:2A:905:U:C2	2.63	0.66
1:2A:2287:A:O2'	1:2A:2288:A:H3'	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2789:C:O3'	1:2A:2790:A:H4'	1.95	0.66
32:2a:976:G:N2	32:2a:1363:C:OP2	2.28	0.66
32:2a:1189:C:OP1	41:2j:51:ARG:NH2	2.28	0.66
41:2j:81:THR:HA	41:2j:84:GLN:HG3	1.77	0.66
2:1B:19:G:H1	2:1B:64:C:H42	1.41	0.66
12:1Q:17:LEU:HD21	12:1Q:41:TRP:HE1	1.59	0.66
33:1b:101:MET:HA	33:1b:108:ILE:HG13	1.78	0.66
1:2A:924:C:H2'	1:2A:925:C:C6	2.31	0.66
1:2A:1853:A:N3	1:2A:2233:U:O2'	2.28	0.66
11:2P:88:LEU:HD11	11:2P:114:ILE:HD12	1.77	0.66
32:2a:1435:G:H2'	32:2a:1436:U:C6	2.29	0.66
40:1i:50:LEU:HD13	40:1i:56:LEU:HA	1.76	0.66
41:1j:33:GLN:O	41:1j:75:ILE:N	2.28	0.66
1:2A:571:A:H5'	1:2A:2030:A:N7	2.11	0.66
1:2A:1076:C:H5	12:2Q:60:ARG:HE	1.43	0.66
24:22:31:GLU:HB3	24:22:53:LEU:HD11	1.78	0.66
1:1A:2473:U:H2'	1:1A:2474:C:H6	1.61	0.66
25:13:59:VAL:HG23	25:13:60:GLU:HG2	1.76	0.66
32:1a:472:A:H4'	47:1p:80:PHE:O	1.96	0.66
34:1c:12:LEU:HD11	45:1n:51:GLY:HA2	1.77	0.66
1:1A:2052:G:O4'	4:1E:142:GLY:HA3	1.94	0.66
1:1A:2296:U:OP2	14:1S:9:ARG:NH2	2.27	0.66
32:1a:948:C:H42	32:1a:1233:G:H1	1.41	0.66
32:1a:1108:G:H5'	34:1c:176:HIS:CD2	2.31	0.66
32:1a:1338:G:H2'	32:1a:1339:A:C8	2.31	0.66
1:2A:668:G:H2'	1:2A:670:A:H62	1.60	0.66
6:2G:135:LEU:HB2	6:2G:155:MET:HE3	1.77	0.66
10:2O:35:VAL:HG11	10:2O:103:ALA:HB3	1.78	0.66
10:2O:68:GLU:HB3	10:2O:78:ARG:HB2	1.78	0.66
12:1Q:97:VAL:HG11	12:1Q:103:MET:HE3	1.78	0.66
12:1Q:135:ASP:HB3	12:1Q:137:TYR:H	1.61	0.66
1:2A:2365:G:O6	30:28:39:LYS:HE3	1.95	0.66
6:2G:49:ASP:O	6:2G:51:ARG:N	2.28	0.66
7:2H:137:ASP:O	7:2H:141:VAL:HG23	1.96	0.66
12:2Q:135:ASP:HB3	12:2Q:137:TYR:H	1.61	0.66
21:2Z:5:LEU:HD13	21:2Z:47:VAL:HG21	1.76	0.66
1:1A:1709:U:H2'	1:1A:1710:C:C6	2.31	0.66
1:1A:2698:U:H2'	1:1A:2699:C:C6	2.31	0.66
2:1B:41:U:H5	6:1G:70:VAL:H	1.43	0.66
8:1I:15:VAL:O	8:1I:17:GLN:N	2.29	0.66
32:1a:406:G:H21	35:1d:119:GLN:NE2	1.93	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:701:C:O2	32:1a:703:G:N1	2.29	0.66
32:1a:1503:A:OP1	32:1a:1531:A:O2'	2.13	0.66
12:2Q:110:THR:HG23	12:2Q:113:GLN:OE1	1.94	0.66
32:2a:1492:A:H5"	32:2a:1493:A:C2	2.31	0.66
34:2c:53:ALA:HB2	34:2c:115:LEU:HD13	1.78	0.66
44:2m:78:ILE:HA	44:2m:81:LEU:HB2	1.78	0.66
44:2m:90:LEU:HG	44:2m:93:ARG:HH21	1.60	0.66
1:1A:2531:A:H5'	7:1H:157:TYR:CZ	2.30	0.66
10:1O:92:GLU:HG2	10:1O:113:LYS:HD3	1.78	0.66
15:1T:35:LYS:HG2	15:1T:40:THR:HG22	1.77	0.66
39:1h:51:VAL:HG21	39:1h:60:ARG:HH11	1.61	0.66
1:2A:1762:A:H2'	58:2A:5323:HOH:O	1.94	0.66
1:1A:1889:A:H2'	1:1A:1890:A:C8	2.31	0.66
32:1a:1352:C:OP1	52:1u:3:LYS:NZ	2.28	0.66
44:1m:60:VAL:HG22	44:1m:64:TRP:HZ3	1.61	0.66
44:1m:76:ALA:HA	44:1m:79:LYS:HB3	1.75	0.66
51:1t:10:LEU:HB3	51:1t:12:ALA:H	1.61	0.66
1:2A:278:A:O2'	1:2A:279:C:OP1	2.12	0.66
1:2A:2162:G:H1'	1:2A:2173:A:H1'	1.78	0.66
1:2A:2331:G:O2'	22:20:43:THR:HG22	1.96	0.66
6:2G:107:LEU:HD21	6:2G:178:PHE:CD1	2.31	0.66
1:1A:1170:G:H8	1:1A:1170:G:H5"	1.61	0.65
1:1A:2331:G:O2'	1:1A:2336:A:N1	2.29	0.65
32:1a:262:A:H2'	32:1a:263:A:C8	2.31	0.65
32:1a:762:C:H2'	32:1a:763:G:H8	1.59	0.65
11:2P:59:LEU:HD12	11:2P:60:MET:HE2	1.77	0.65
32:2a:537:G:H2'	32:2a:538:G:H8	1.61	0.65
38:2g:26:PHE:O	38:2g:30:ILE:HG13	1.96	0.65
1:1A:2312:U:H5'	6:1G:88:ILE:HD11	1.76	0.65
51:1t:10:LEU:HD23	51:1t:11:SER:H	1.61	0.65
1:2A:322:A:OP2	5:2F:169:ASN:HB2	1.96	0.65
1:2A:572:A:OP2	17:2V:78:LYS:NZ	2.29	0.65
1:2A:1676:A:C2	1:2A:1993:U:H5'	2.31	0.65
7:2H:125:VAL:HG12	7:2H:127:GLU:O	1.96	0.65
32:2a:446:G:N2	32:2a:488:C:N3	2.44	0.65
32:1a:1356:G:H2'	32:1a:1357:A:H8	1.62	0.65
32:1a:1441:G:H5"	32:1a:1442:G:H5'	1.78	0.65
32:1a:1503:A:H5'	32:1a:1531:A:H1'	1.77	0.65
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.31	0.65
1:2A:1579:A:H2'	1:2A:1580:A:C8	2.31	0.65
1:2A:1652:A:OP1	13:2R:8:ARG:NH1	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:106:LEU:HA	6:2G:110:ALA:HB3	1.77	0.65
32:2a:1251:A:H2'	32:2a:1252:A:C8	2.31	0.65
34:2c:37:GLN:O	34:2c:41:GLY:N	2.29	0.65
1:1A:184:C:H2'	1:1A:185:U:C6	2.30	0.65
1:1A:1657:C:O2'	1:1A:1658:C:H5'	1.96	0.65
1:1A:2190:G:H2'	1:1A:2191:G:O4'	1.97	0.65
3:1D:206:LEU:O	3:1D:211:ARG:HD3	1.97	0.65
1:2A:1062:G:H1'	1:2A:1088:A:H62	1.61	0.65
13:2R:33:ARG:HD2	13:2R:113:LEU:HD13	1.79	0.65
33:2b:166:ASP:HB3	33:2b:169:LYS:HB3	1.79	0.65
35:2d:18:LYS:NZ	35:2d:31:CYS:SG	2.69	0.65
40:2i:47:LEU:O	40:2i:50:LEU:HG	1.97	0.65
32:1a:353:A:H5'	32:1a:353:A:H8	1.62	0.65
42:1k:98:LEU:O	42:1k:101:SER:OG	2.07	0.65
1:2A:620:G:N3	1:2A:620:G:H5'	2.11	0.65
1:2A:1430:C:H2'	1:2A:1431:U:C6	2.32	0.65
7:2H:41:MET:HE2	7:2H:65:HIS:HA	1.77	0.65
32:2a:1270:C:OP2	52:2u:24:ARG:NH2	2.28	0.65
1:1A:1606:G:H5"	1:1A:1607:C:OP1	1.97	0.65
2:1B:8:U:O3'	14:1S:25:ARG:NH2	2.28	0.65
3:1D:242:ARG:NH2	58:1D:401:HOH:O	2.26	0.65
32:1a:1403:C:H2'	32:1a:1404:5MC:HM53	1.79	0.65
33:1b:55:PHE:HE1	33:1b:218:ALA:HA	1.62	0.65
40:1i:3:GLN:NE2	40:1i:20:ARG:HH21	1.93	0.65
1:2A:2319:G:C2	14:2S:3:ARG:HA	2.32	0.65
3:2D:108:PRO:HD2	3:2D:111:LEU:HG	1.77	0.65
1:1A:83:G:OP1	20:1Y:95:LYS:NZ	2.27	0.65
1:1A:2022:U:O2'	1:1A:2617:C:H5'	1.96	0.65
1:1A:2116:G:P	1:1A:2166:G:H21	2.19	0.65
30:18:33:ASN:OD1	30:18:36:LYS:NZ	2.19	0.65
32:1a:1159:U:O4'	32:1a:1182:G:N2	2.30	0.65
38:1g:32:ARG:O	38:1g:34:GLY:N	2.29	0.65
1:2A:2723:C:OP2	4:2E:109:LYS:NZ	2.30	0.65
13:2R:70:LEU:O	13:2R:72:ASP:N	2.27	0.65
34:2c:6:HIS:HB3	45:2n:49:HIS:ND1	2.11	0.65
36:2e:122:GLU:O	36:2e:126:ARG:NH1	2.30	0.65
49:2r:35:ARG:O	49:2r:37:VAL:N	2.27	0.65
51:2t:9:ASN:OD1	51:2t:9:ASN:N	2.30	0.65
1:1A:207:A:H2'	1:1A:208:C:O4'	1.97	0.65
38:1g:42:ILE:HG23	38:1g:117:ALA:HA	1.78	0.65
1:2A:639:U:H2'	1:2A:640:C:C6	2.31	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1188:U:C2'	1:1A:1189:A:H5'	2.27	0.65
1:1A:2791:C:H2'	1:1A:2792:G:H8	1.62	0.65
32:1a:545:C:H5'	35:1d:72:GLU:HB2	1.79	0.65
33:1b:118:LEU:HD21	33:1b:138:LEU:HD22	1.78	0.65
6:2G:16:ARG:NH2	6:2G:28:VAL:HG12	2.11	0.65
32:2a:1280:A:O2'	32:2a:1281:U:H5'	1.97	0.65
33:2b:40:HIS:HB3	33:2b:190:THR:HG21	1.79	0.65
39:2h:21:LYS:O	39:2h:65:TYR:OH	2.15	0.65
42:2k:22:HIS:HB3	42:2k:29:ILE:HB	1.77	0.65
46:2o:56:LEU:O	46:2o:60:VAL:HG23	1.97	0.65
1:1A:1818:U:O4	3:1D:154:LYS:HE3	1.97	0.65
1:1A:2233:U:H2'	1:1A:2234:G:C8	2.32	0.65
16:1U:79:PHE:CZ	16:1U:83:LEU:HD21	2.31	0.65
34:2c:22:TRP:CH2	34:2c:32:LEU:HB3	2.32	0.65
1:1A:1341:U:O4	19:1X:16:LYS:NZ	2.28	0.64
48:1q:45:HIS:NE2	48:1q:47:PRO:HG3	2.12	0.64
1:2A:909:A:H2'	1:2A:912:C:H5	1.60	0.64
8:2I:129:THR:HG22	8:2I:139:GLN:HE22	1.62	0.64
10:2O:64:ARG:NH1	10:2O:81:ASP:OD1	2.30	0.64
34:2c:150:LYS:HB3	34:2c:201:TYR:HB2	1.79	0.64
41:2j:33:GLN:O	41:2j:75:ILE:N	2.28	0.64
35:1d:191:ARG:NH1	35:1d:200:GLU:OE1	2.31	0.64
48:1q:6:LEU:HG	48:1q:23:VAL:HG11	1.80	0.64
26:24:14:ILE:HD11	26:24:24:THR:HG21	1.79	0.64
32:2a:977:A:O2'	32:2a:979:C:OP2	2.16	0.64
1:1A:1097:U:H3'	1:1A:1098:A:H8	1.62	0.64
18:1W:4:LYS:HB2	18:1W:106:ILE:HG12	1.79	0.64
23:11:75:GLU:HA	23:11:78:LYS:HE3	1.78	0.64
32:1a:1380:U:O2	38:1g:3:ARG:NH1	2.30	0.64
35:1d:53:ASP:HB3	35:1d:57:ARG:HH12	1.61	0.64
35:1d:110:PHE:H	35:1d:110:PHE:HD1	1.45	0.64
1:2A:587:C:N4	58:2A:4009:HOH:O	2.26	0.64
32:2a:1009:G:O6	32:2a:1020:U:O2	2.16	0.64
44:2m:3:ARG:HG3	44:2m:4:ILE:HG12	1.80	0.64
1:1A:1007:C:OP1	9:1N:37:LYS:NZ	2.31	0.64
1:1A:2286:A:H4'	1:1A:2287:A:O4'	1.97	0.64
7:1H:25:LYS:HE2	7:1H:32:GLU:OE1	1.97	0.64
25:13:23:LEU:HD12	25:13:28:LEU:HB2	1.79	0.64
32:1a:976:G:H5'	32:1a:1358:U:O2'	1.97	0.64
34:1c:181:ASN:HD22	34:1c:204:LEU:HB2	1.62	0.64
37:1f:82:ARG:HB2	37:1f:85:VAL:HG23	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:172:C:H2'	1:2A:173:G:H8	1.60	0.64
4:2E:38:THR:O	4:2E:42:ASP:N	2.25	0.64
19:2X:12:VAL:HG22	19:2X:29:TRP:CE2	2.33	0.64
33:2b:187:LEU:HA	33:2b:201:ILE:HB	1.80	0.64
41:2j:47:PHE:CZ	45:2n:37:PHE:HE1	2.15	0.64
1:1A:1011:G:OP2	16:1U:70:ARG:NH2	2.28	0.64
1:1A:1188:U:H2'	1:1A:1189:A:H5'	1.80	0.64
1:1A:2287:A:O2'	1:1A:2288:A:H3'	1.97	0.64
1:1A:2791:C:H2'	1:1A:2792:G:C8	2.33	0.64
6:1G:107:LEU:HD21	6:1G:178:PHE:CD1	2.32	0.64
32:1a:1255:G:O2'	32:1a:1258:G:O2'	2.10	0.64
24:22:16:LEU:O	24:22:67:LYS:NZ	2.30	0.64
32:2a:678:U:H2'	32:2a:679:C:C6	2.33	0.64
1:1A:286:C:H2'	1:1A:287:C:C6	2.33	0.64
39:1h:17:THR:O	39:1h:78:GLN:NE2	2.30	0.64
44:1m:59:TYR:CE1	44:1m:63:THR:HG21	2.33	0.64
1:2A:854:G:H2'	1:2A:855:G:C8	2.32	0.64
1:2A:1174:A:H4'	1:2A:1175:U:OP1	1.96	0.64
1:2A:2050:C:H1'	4:2E:156:MET:HE2	1.79	0.64
4:2E:16:ARG:NH1	4:2E:171:GLU:OE2	2.27	0.64
13:2R:83:ILE:O	13:2R:86:ARG:HG2	1.98	0.64
32:2a:1003:G:H2'	32:2a:1004:A:C4'	2.18	0.64
54:2z:38:HIS:CD2	54:2z:40:ILE:HD11	2.33	0.64
1:1A:370:G:H8	1:1A:370:G:OP2	1.79	0.64
36:1e:121:LYS:HG3	36:1e:122:GLU:O	1.98	0.64
43:1l:28:LYS:HE2	43:1l:64:TYR:CE1	2.33	0.64
1:2A:577:G:O2'	1:2A:1254:A:OP1	2.15	0.64
12:2Q:38:GLU:HG3	12:2Q:127:ILE:HB	1.80	0.64
32:2a:437:U:H5"	35:2d:155:LEU:HD21	1.80	0.64
32:2a:1008:C:O2	32:2a:1021:G:N1	2.30	0.64
32:2a:1506:U:O2'	58:2a:1901:HOH:O	2.15	0.64
46:2o:17:ARG:HH11	46:2o:17:ARG:HG3	1.63	0.64
1:1A:2585:U:H4'	1:1A:2586:C:OP1	1.98	0.64
3:1D:206:LEU:HD22	3:1D:211:ARG:HB3	1.80	0.64
5:1F:197:ASP:N	5:1F:197:ASP:OD1	2.30	0.64
5:2F:32:LEU:HD11	5:2F:105:VAL:HG13	1.80	0.64
10:2O:68:GLU:CB	10:2O:78:ARG:HB2	2.28	0.64
1:1A:2228:G:OP1	3:1D:261:LYS:NZ	2.20	0.64
48:1q:6:LEU:HD23	48:1q:23:VAL:HG21	1.79	0.64
51:1t:57:ARG:HH22	51:1t:100:ILE:HD13	1.63	0.64
1:2A:2079:U:OP1	23:21:21:ARG:NH2	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:99:TYR:HB3	21:2Z:123:ASP:OD2	1.98	0.64
32:2a:411:A:OP2	35:2d:25:ARG:NH2	2.30	0.64
32:2a:511:C:H42	32:2a:540:G:H1	1.46	0.64
40:2i:17:VAL:HG21	40:2i:81:ILE:HG22	1.79	0.64
1:1A:568:U:OP1	11:1P:36:LYS:HE3	1.99	0.63
32:1a:826:C:H4'	39:1h:12:ARG:HG2	1.80	0.63
32:1a:920:U:H2'	32:1a:921:U:C6	2.33	0.63
44:1m:53:VAL:HG12	44:1m:57:ARG:HH12	1.63	0.63
35:2d:194:LEU:HD12	35:2d:196:LEU:HG	1.79	0.63
32:1a:142:G:N2	32:1a:221:C:N3	2.43	0.63
32:1a:1060:C:C5	34:1c:2:GLY:HA3	2.34	0.63
1:2A:463:G:H5"	1:2A:464:U:OP2	1.98	0.63
4:2E:105:THR:OG1	4:2E:199:ARG:NH2	2.31	0.63
22:20:11:ARG:O	22:20:14:ARG:NH2	2.32	0.63
32:2a:730:G:C5	32:2a:731:G:H1'	2.33	0.63
12:1Q:84:GLY:O	12:1Q:85:LYS:HB2	1.97	0.63
34:1c:6:HIS:HD2	34:1c:8:ILE:H	1.47	0.63
1:2A:1063:G:N2	1:2A:1075:C:H42	1.93	0.63
22:20:18:ALA:O	22:20:20:ARG:NH1	2.31	0.63
51:2t:16:HIS:O	51:2t:19:SER:OG	2.15	0.63
1:1A:695:G:OP1	1:1A:1380:G:O2'	2.14	0.63
1:1A:910:A:C5	12:1Q:13:GLN:HG3	2.34	0.63
1:1A:1721:G:H8	1:1A:1741:A:H62	1.47	0.63
7:1H:64:LEU:O	7:1H:68:THR:OG1	2.17	0.63
36:1e:10:MET:HA	36:1e:32:VAL:HG22	1.80	0.63
1:2A:96:G:H4'	24:22:48:HIS:CD2	2.34	0.63
1:2A:779:U:OP1	3:2D:49:ILE:HG13	1.98	0.63
1:2A:2431:U:H3'	58:2A:4068:HOH:O	1.99	0.63
46:2o:82:ILE:HD12	46:2o:88:ARG:HB2	1.80	0.63
1:1A:887:A:H2	1:1A:889:C:H2'	1.64	0.63
2:1B:86:G:H1	2:1B:91:C:N4	1.97	0.63
32:1a:142:G:H2'	32:1a:143:A:C8	2.32	0.63
39:1h:11:THR:HG23	39:1h:14:ARG:HH21	1.62	0.63
52:1u:6:ARG:HG2	52:1u:15:ARG:HD3	1.79	0.63
54:1z:24:LEU:HD11	54:1z:39:ILE:HD11	1.81	0.63
1:2A:657:U:H2'	1:2A:658:C:C6	2.33	0.63
32:2a:560:U:O2'	32:2a:561:U:OP2	2.11	0.63
7:1H:88:LEU:HD23	7:1H:130:ARG:HG3	1.79	0.63
29:17:16:HIS:HB2	29:17:44:PRO:HG2	1.81	0.63
32:1a:108:G:N1	51:1t:15:ARG:HG2	2.13	0.63
32:1a:359:U:H2'	32:1a:360:A:C8	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2D:71:ASP:OD2	3:2D:103:ARG:NH2	2.31	0.63
21:2Z:39:VAL:HG21	21:2Z:44:PHE:HB2	1.81	0.63
32:2a:1003:G:C2'	32:2a:1004:A:H4'	2.19	0.63
1:1A:305:U:H2'	1:1A:306:U:C6	2.33	0.63
1:1A:1379:A:H4'	1:1A:1380:G:OP2	1.97	0.63
7:1H:154:PRO:HB3	7:1H:163:TYR:CZ	2.32	0.63
18:1W:13:SER:HB3	18:1W:16:LYS:HD2	1.80	0.63
32:1a:590:C:H2'	32:1a:591:U:H6	1.64	0.63
1:2A:460:A:P	29:27:41:ARG:HH22	2.22	0.63
2:2B:75:G:H22	21:2Z:73:GLN:NE2	1.97	0.63
11:2P:86:LYS:HB3	11:2P:118:GLY:HA3	1.79	0.63
24:22:53:LEU:O	24:22:57:ILE:HG13	1.98	0.63
1:1A:2611:U:H2'	27:15:2:ALA:O	1.99	0.63
24:12:32:LEU:HD11	24:12:54:LYS:HG3	1.81	0.63
32:1a:144:G:N2	32:1a:178:C:N3	2.43	0.63
32:1a:600:C:H2'	32:1a:601:C:C6	2.34	0.63
44:1m:49:THR:HB	44:1m:52:GLU:H	1.64	0.63
51:1t:45:GLN:HA	51:1t:91:LEU:HD22	1.80	0.63
1:2A:2503:2MA:O2'	1:2A:2505:G:OP2	2.11	0.63
3:2D:242:ARG:NH2	58:2D:401:HOH:O	2.06	0.63
15:2T:55:ASN:H	15:2T:59:THR:HG22	1.62	0.63
20:2Y:43:ASN:CG	20:2Y:65:ALA:HB3	2.23	0.63
32:2a:1352:C:H2'	32:2a:1353:G:C8	2.34	0.63
6:1G:110:ALA:HB1	6:1G:140:ILE:HG22	1.81	0.63
32:1a:344:A:H4'	32:1a:345:C:OP2	1.99	0.63
32:2a:384:G:H2'	32:2a:385:C:C6	2.34	0.63
32:2a:1312:G:N7	50:2s:2:PRO:HD3	2.13	0.63
46:2o:88:ARG:HB3	46:2o:88:ARG:CZ	2.28	0.63
1:1A:287:C:H2'	1:1A:288:C:H6	1.64	0.62
1:1A:572:A:OP2	17:1V:78:LYS:NZ	2.31	0.62
32:1a:414:A:H2'	32:1a:415:A:H8	1.64	0.62
32:1a:1161:C:H2'	32:1a:1162:C:H6	1.64	0.62
35:1d:100:ARG:NH2	35:1d:102:ASP:OD2	2.32	0.62
38:1g:108:ALA:HA	38:1g:111:ARG:HD2	1.80	0.62
1:2A:438:G:H2'	1:2A:440:G:C8	2.34	0.62
1:2A:1842:G:O3'	3:2D:253:GLN:NE2	2.32	0.62
1:2A:2315:G:H2'	1:2A:2316:C:C6	2.34	0.62
2:2B:91:C:OP1	12:2Q:16:ARG:NH1	2.31	0.62
9:2N:62:VAL:HG22	9:2N:66:LYS:HZ2	1.64	0.62
10:2O:10:VAL:HG13	10:2O:17:ARG:C	2.24	0.62
32:2a:516:PSU:O2	32:2a:533:A:N7	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1125:U:O2	32:2a:1126:U:O2'	2.05	0.62
32:2a:1289:A:N1	32:2a:1371:G:O2'	2.29	0.62
51:2t:57:ARG:HH12	51:2t:100:ILE:HB	1.64	0.62
1:1A:1141:U:OP2	9:1N:63:THR:OG1	2.17	0.62
33:1b:12:GLU:HA	33:1b:15:VAL:HB	1.81	0.62
33:1b:98:LEU:HG	33:1b:101:MET:HE3	1.81	0.62
35:1d:31:CYS:SG	35:1d:33:MET:N	2.72	0.62
1:2A:83:G:OP1	20:2Y:95:LYS:NZ	2.32	0.62
1:2A:994:C:OP1	16:2U:53:ARG:NH2	2.32	0.62
1:2A:2615:U:H2'	1:2A:2616:C:C6	2.34	0.62
1:2A:2849:U:OP2	15:2T:95:ARG:NH1	2.32	0.62
6:2G:27:ASN:HB3	6:2G:30:GLU:HG3	1.80	0.62
6:2G:97:ASP:HA	6:2G:100:TRP:HD1	1.64	0.62
32:2a:1067:A:N3	32:2a:1068:G:H1'	2.14	0.62
32:2a:1286:A:H2'	32:2a:1287:A:H4'	1.79	0.62
33:2b:24:TRP:CZ3	33:2b:26:PRO:HA	2.34	0.62
34:2c:91:LEU:HD22	34:2c:101:LEU:HD22	1.79	0.62
1:1A:2771:C:H2'	1:1A:2772:C:C6	2.33	0.62
2:1B:91:C:OP1	12:1Q:16:ARG:NH1	2.32	0.62
32:1a:200:G:H1	32:1a:217:C:N4	1.97	0.62
33:1b:211:ILE:O	33:1b:215:LEU:HB2	1.99	0.62
41:1j:61:GLU:OE2	45:1n:58:LYS:NZ	2.21	0.62
1:2A:278:A:N6	1:2A:362:U:O4	2.30	0.62
1:2A:1337:G:H2'	1:2A:1338:G:H8	1.64	0.62
7:2H:38:SER:HB3	7:2H:41:MET:HG2	1.82	0.62
32:2a:446:G:H1	32:2a:488:C:N4	1.92	0.62
32:2a:1151:A:H5'	41:2j:41:PRO:HA	1.81	0.62
32:2a:1348:U:H4'	40:2i:120:ARG:HD2	1.80	0.62
49:2r:32:ARG:HA	49:2r:69:THR:HG21	1.79	0.62
32:1a:216:G:O2'	32:1a:217:C:O4'	2.10	0.62
32:1a:667:G:H4'	46:1o:51:HIS:CE1	2.34	0.62
1:2A:192:C:N4	1:2A:203:C:O2	2.15	0.62
1:2A:359:A:H2'	1:2A:360:G:O4'	1.98	0.62
4:2E:7:VAL:HG13	4:2E:27:LEU:HB3	1.81	0.62
15:2T:13:ARG:HB3	15:2T:13:ARG:HH11	1.63	0.62
15:2T:39:ARG:HH22	32:2a:345:C:P	2.22	0.62
15:2T:62:THR:HG23	15:2T:75:ILE:HG12	1.82	0.62
33:2b:83:MET:SD	33:2b:234:PRO:HB2	2.38	0.62
38:2g:14:PRO:HG3	38:2g:21:VAL:HG13	1.81	0.62
42:2k:34:ASP:OD1	42:2k:38:ASN:N	2.32	0.62
1:1A:2817:G:OP1	13:1R:99:LYS:NZ	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:1S:3:ARG:NH1	14:1S:4:LEU:O	2.32	0.62
32:1a:1074:G:O2'	32:1a:1101:A:N1	2.31	0.62
1:2A:11:G:H2'	1:2A:12:U:H5'	1.80	0.62
1:2A:49:A:H5"	1:2A:51:G:O4'	1.99	0.62
1:2A:2683:C:OP1	15:2T:53:ARG:NH2	2.31	0.62
14:2S:10:ARG:NH2	14:2S:91:PRO:HB2	2.14	0.62
21:2Z:10:ARG:NH2	21:2Z:26:GLY:O	2.30	0.62
23:21:75:GLU:O	23:21:78:LYS:HG2	2.00	0.62
37:2f:12:PRO:HG2	37:2f:13:ASN:ND2	2.13	0.62
1:1A:1291:C:H2'	1:1A:1292:U:H6	1.64	0.62
18:1W:67:ASP:N	18:1W:67:ASP:OD1	2.33	0.62
32:1a:1149:C:H2'	32:1a:1150:U:C6	2.35	0.62
1:2A:479:A:N3	1:2A:481:G:H5"	2.14	0.62
7:2H:41:MET:HE1	7:2H:54:ARG:HB3	1.82	0.62
30:28:16:ILE:HD13	30:28:59:LYS:HG2	1.80	0.62
54:2z:24:LEU:HD11	54:2z:39:ILE:HD11	1.80	0.62
1:1A:286:C:H2'	1:1A:287:C:H6	1.65	0.62
1:1A:729:G:OP2	3:1D:13:ARG:NH1	2.32	0.62
1:1A:1751:C:HO2'	1:1A:2861:G:HO2'	1.45	0.62
17:1V:21:ARG:HG2	17:1V:91:TYR:CD2	2.34	0.62
32:1a:67:C:H2'	32:1a:68:G:C8	2.35	0.62
32:1a:447:G:O6	32:1a:485:G:O2'	2.15	0.62
32:1a:1251:A:H2'	32:1a:1252:A:C8	2.35	0.62
39:1h:49:GLU:HG2	39:1h:62:TYR:HE2	1.64	0.62
1:2A:212:G:H2'	1:2A:213:A:O4'	1.99	0.62
1:2A:784:A:H5"	58:2A:4685:HOH:O	1.98	0.62
1:2A:1518:U:H2'	1:2A:1519:G:O4'	2.00	0.62
1:2A:2334:G:O6	22:20:74:ARG:NH1	2.32	0.62
20:2Y:6:HIS:CD2	20:2Y:7:VAL:HB	2.34	0.62
24:22:32:LEU:HD11	24:22:54:LYS:HG3	1.82	0.62
32:2a:837:G:H1	32:2a:849:C:N4	1.97	0.62
34:2c:46:GLU:HB2	34:2c:47:LEU:HD23	1.81	0.62
1:1A:779:U:OP1	3:1D:49:ILE:HG13	2.00	0.62
32:1a:436:C:H1'	35:1d:157:LEU:HD12	1.82	0.62
1:2A:1889:A:H2'	1:2A:1890:A:C8	2.34	0.62
1:2A:2405:G:O2'	1:2A:2406:U:OP1	2.14	0.62
6:2G:103:LEU:HD23	6:2G:106:LEU:HD23	1.82	0.62
32:2a:890:G:O2'	32:2a:906:G:O6	2.11	0.62
33:2b:12:GLU:HA	33:2b:15:VAL:HB	1.82	0.62
20:1Y:31:LEU:HD12	20:1Y:36:ALA:O	1.98	0.62
32:1a:674:G:N2	32:1a:717:C:O2	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:67:THR:HG22	33:1b:90:MET:HG2	1.82	0.62
36:1e:57:LYS:HG2	36:1e:61:TYR:CE2	2.34	0.62
40:1i:7:THR:O	40:1i:83:ARG:NH1	2.33	0.62
1:2A:184:C:H2'	1:2A:185:U:C6	2.35	0.62
1:2A:198:C:O2'	1:2A:199:A:H5'	1.98	0.62
1:2A:2443:C:O2'	1:2A:2444:G:H5'	2.00	0.62
6:2G:79:ASN:OD1	6:2G:79:ASN:N	2.23	0.62
32:2a:1362:C:H2'	32:2a:1363:C:H5"	1.82	0.62
1:2A:1290:C:H2'	1:2A:1291:C:C6	2.34	0.62
1:2A:2882:A:OP1	13:2R:96:ARG:NH1	2.29	0.62
6:2G:7:LEU:N	6:2G:104:GLU:OE2	2.32	0.62
14:2S:14:VAL:O	14:2S:18:ILE:HG12	1.99	0.62
32:2a:976:G:H5'	32:2a:1358:U:O2'	2.00	0.62
34:2c:3:ASN:N	34:2c:3:ASN:OD1	2.33	0.62
1:1A:919:G:N2	1:1A:2269:A:OP2	2.33	0.61
4:1E:116:VAL:HG13	4:1E:122:PHE:HB2	1.81	0.61
32:1a:1158:C:H5	32:1a:1181:G:N1	1.91	0.61
54:1z:38:HIS:CD2	54:1z:40:ILE:HD11	2.36	0.61
1:2A:143:G:H2'	1:2A:143(A):C:C6	2.35	0.61
1:2A:2791:C:H5'	1:2A:2893:G:H21	1.63	0.61
22:20:14:ARG:NH2	58:20:201:HOH:O	2.33	0.61
32:2a:38:G:H22	32:2a:397:A:H5'	1.65	0.61
32:2a:447:G:O6	32:2a:485:G:O2'	2.16	0.61
32:2a:1019:C:C2'	32:2a:1020:U:H5'	2.30	0.61
32:2a:1272:G:H2'	32:2a:1273:G:O4'	2.00	0.61
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.35	0.61
5:1F:39:TRP:CH2	5:1F:106:ARG:HD3	2.35	0.61
1:2A:11:G:C2'	1:2A:12:U:H5'	2.30	0.61
1:2A:576:U:H2'	1:2A:577:G:C8	2.35	0.61
32:2a:57:G:H2'	32:2a:58:C:C6	2.35	0.61
39:2h:110:ALA:HB3	39:2h:121:ASP:HB3	1.82	0.61
51:2t:45:GLN:HA	51:2t:91:LEU:HD22	1.80	0.61
10:1O:2:ILE:HB	10:1O:33:ALA:HB3	1.81	0.61
32:1a:1348:U:H4'	40:1i:120:ARG:HD2	1.82	0.61
32:1a:1367:C:H5'	41:1j:60:ARG:NH1	2.15	0.61
1:2A:1064:C:H3'	1:2A:1065:U:C5'	2.28	0.61
1:2A:2711:A:H5"	1:2A:2712:U:H5"	1.83	0.61
32:2a:1103:C:H2'	32:2a:1104:G:O4'	2.01	0.61
32:2a:1159:U:O4'	32:2a:1182:G:N2	2.34	0.61
39:2h:41:ARG:NH2	39:2h:123:GLU:OE2	2.33	0.61
41:2j:7:LYS:HB3	41:2j:97:GLU:HB2	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:2z:52:ALA:HB2	54:2z:77:LEU:HD21	1.82	0.61
10:1O:1:MET:HE3	10:1O:32:TYR:CE2	2.36	0.61
32:1a:444:C:H2'	32:1a:445:G:C8	2.36	0.61
32:1a:736:C:H2'	32:1a:737:A:H8	1.65	0.61
32:1a:1314:C:N4	50:1s:2:PRO:O	2.33	0.61
49:1r:26:LEU:HD22	49:1r:39:VAL:HG13	1.80	0.61
1:2A:1166:C:H2'	1:2A:1167:U:C6	2.36	0.61
1:2A:1877:A:H5'	1:2A:1878:G:OP2	2.00	0.61
2:2B:24:G:H4'	2:2B:25:A:C8	2.35	0.61
32:2a:78:G:OP2	32:2a:78:G:H8	1.83	0.61
32:2a:1074:G:O2'	32:2a:1101:A:N1	2.32	0.61
7:1H:164:TYR:HB2	7:1H:167:GLU:HB2	1.83	0.61
32:1a:540:G:H2'	32:1a:541:G:O4'	1.99	0.61
32:1a:1124:G:N7	32:1a:1145:C:O2'	2.33	0.61
32:1a:1254:C:H42	32:1a:1283:G:H1	1.48	0.61
32:1a:1429:C:H2'	32:1a:1430:C:C6	2.34	0.61
35:1d:20:TYR:HD1	35:1d:26:CYS:HB3	1.65	0.61
1:2A:548:A:N6	17:2V:19:LYS:H	1.97	0.61
1:2A:1077:A:H2'	1:2A:1078:U:O4'	2.00	0.61
1:2A:2297:C:O2	1:2A:2333:A:N6	2.25	0.61
8:2I:38:LEU:H	8:2I:38:LEU:HD22	1.65	0.61
32:2a:499:A:H4'	32:2a:500:G:OP1	2.00	0.61
32:2a:1006:C:O2	32:2a:1023:G:N2	2.19	0.61
35:2d:88:VAL:HG22	36:2e:96:PRO:HB2	1.82	0.61
1:1A:762:U:H4'	1:1A:763:G:O5'	2.00	0.61
1:1A:2001:A:H2'	1:1A:2002:G:C8	2.35	0.61
1:1A:2788:C:OP1	4:1E:61:ARG:NH2	2.33	0.61
1:2A:468:G:N7	29:27:39:ARG:NH2	2.45	0.61
2:2B:49:C:OP1	14:2S:97:ARG:HB2	2.00	0.61
4:2E:40:GLU:OE1	4:2E:40:GLU:N	2.27	0.61
17:2V:60:GLU:OE1	17:2V:97:LYS:NZ	2.21	0.61
32:2a:438:G:N1	32:2a:495:A:OP2	2.30	0.61
35:2d:98:GLU:OE1	35:2d:103:ASN:ND2	2.28	0.61
40:2i:50:LEU:HB2	40:2i:55:ALA:HB3	1.83	0.61
1:1A:1430:C:H2'	1:1A:1431:U:C6	2.35	0.61
7:1H:92:ILE:HD13	7:1H:92:ILE:H	1.64	0.61
32:1a:1005:A:H1'	32:1a:1036:G:H22	1.64	0.61
34:1c:6:HIS:CD2	34:1c:8:ILE:H	2.19	0.61
34:1c:63:ASN:CB	34:1c:98:ASN:HB2	2.30	0.61
1:2A:579:G:H2'	1:2A:580:C:C6	2.35	0.61
32:2a:862:C:H42	32:2a:867:G:H1	1.47	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1106:G:H5”	34:2c:172:ARG:HG2	1.82	0.61
1:1A:1495:A:H2’	1:1A:1496:A:C8	2.36	0.61
1:1A:2749:A:OP1	7:1H:3:ARG:NH1	2.22	0.61
14:1S:25:ARG:NH1	14:1S:42:ASP:OD1	2.33	0.61
23:11:11:ARG:HG3	23:11:12:PRO:HD2	1.81	0.61
30:18:22:VAL:HB	30:18:55:ALA:HB1	1.82	0.61
35:1d:15:GLU:OE2	35:1d:59:ARG:NH1	2.34	0.61
43:1l:109:GLY:HA3	43:1l:121:GLY:O	2.00	0.61
1:2A:2410:G:C2	1:2A:2411:A:H1’	2.35	0.61
1:2A:2468:G:C8	1:2A:2476:A:C2	2.88	0.61
1:2A:2512:C:H5”	1:2A:2513:G:OP2	2.00	0.61
1:2A:2557:G:H2’	1:2A:2558:C:C6	2.36	0.61
1:2A:2693:A:H2’	1:2A:2694:G:H8	1.66	0.61
20:2Y:13:VAL:HG12	20:2Y:74:PRO:HA	1.83	0.61
1:1A:1027:A:C2	1:1A:2488:A:H5’	2.36	0.61
1:1A:2573:C:C2	53:1y:2:ARG:HD3	2.36	0.61
8:1I:77:LEU:HD22	8:1I:101:LEU:HG	1.82	0.61
24:12:9:GLN:HE22	24:12:56:GLN:HB3	1.65	0.61
31:19:32:HIS:O	31:19:34:GLN:HG3	2.00	0.61
32:1a:144:G:N1	32:1a:178:C:N4	2.46	0.61
32:1a:359:U:H2’	32:1a:360:A:H8	1.64	0.61
52:1u:9:ARG:HB3	52:1u:9:ARG:HH11	1.66	0.61
1:2A:2845:G:H2’	1:2A:2846:G:C8	2.35	0.61
5:2F:183:VAL:O	5:2F:187:VAL:HG23	2.00	0.61
32:2a:262:A:H2’	32:2a:263:A:C8	2.35	0.61
33:2b:185:ILE:CG2	33:2b:199:TYR:HB2	2.30	0.61
1:1A:548:A:H61	17:1V:19:LYS:H	1.48	0.61
6:1G:27:ASN:HB3	6:1G:30:GLU:HG3	1.82	0.61
14:1S:39:ILE:HB	14:1S:49:VAL:HG13	1.83	0.61
32:1a:1015:A:H2’	32:1a:1016:A:C8	2.36	0.61
38:1g:113:GLU:HG2	38:1g:119:ARG:HG2	1.82	0.61
1:2A:127:A:H5”	1:2A:128:C:C6	2.36	0.61
1:2A:438:G:H2’	1:2A:440:G:H8	1.65	0.61
1:2A:517:C:OP1	27:25:16:ARG:NH2	2.29	0.61
5:2F:157:VAL:HG13	5:2F:176:LEU:HB3	1.83	0.61
6:2G:12:TYR:HA	6:2G:16:ARG:HG3	1.82	0.61
26:24:36:CYS:O	26:24:40:HIS:HB2	2.01	0.61
1:1A:1484:G:H1	1:1A:1505:C:H42	1.47	0.60
6:1G:135:LEU:HD23	6:1G:140:ILE:HD12	1.82	0.60
32:1a:97:G:H2’	32:1a:98:G:O4’	2.00	0.60
32:1a:989:C:N4	32:1a:1216:G:H1	1.96	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:1j:30:SER:HB2	41:1j:81:THR:HG22	1.81	0.60
46:1o:54:ARG:HG2	46:1o:58:MET:HE2	1.83	0.60
1:2A:900:A:H2'	1:2A:901:A:O4'	2.00	0.60
1:2A:2029:G:H2'	1:2A:2031:A:OP1	2.01	0.60
32:2a:404:U:OP1	35:2d:118:ARG:NH2	2.33	0.60
50:2s:40:ILE:HG12	50:2s:71:LEU:HD23	1.81	0.60
1:1A:1678:G:H5"	1:1A:1678:G:N3	2.16	0.60
1:1A:2305:A:H5"	6:1G:134:GLY:HA3	1.82	0.60
3:1D:16:MET:HG3	3:1D:206:LEU:O	2.01	0.60
5:1F:53:THR:CG2	5:1F:55:GLY:H	2.14	0.60
6:1G:109:VAL:HG21	26:14:14:ILE:HD12	1.83	0.60
7:1H:7:LEU:HD12	7:1H:8:PRO:HD2	1.82	0.60
34:1c:121:ALA:HA	34:1c:198:VAL:HG21	1.83	0.60
35:1d:201:GLN:HE22	36:1e:99:GLY:HA2	1.65	0.60
1:2A:243:U:OP1	30:28:6:THR:HB	2.01	0.60
1:2A:652(D):C:N3	1:2A:652(U):G:O6	2.33	0.60
1:2A:1412:A:H2'	1:2A:1413:G:C8	2.37	0.60
1:2A:1527:G:H5"	1:2A:1528:A:OP1	2.00	0.60
29:27:22:MET:O	29:27:28:ARG:NH1	2.35	0.60
30:28:29:LYS:HD3	30:28:44:LYS:O	2.02	0.60
1:1A:234:C:H2'	1:1A:235:U:C6	2.36	0.60
1:1A:1651:G:OP1	13:1R:40:LYS:NZ	2.31	0.60
5:1F:160:ASN:ND2	5:1F:163:VAL:HG23	2.16	0.60
12:1Q:18:LYS:O	12:1Q:98:LYS:HE3	2.01	0.60
22:10:23:VAL:HA	22:10:38:VAL:HG22	1.82	0.60
32:1a:923:A:O2'	32:1a:1399:C:OP2	2.14	0.60
1:2A:214:G:O2'	1:2A:216:A:O2'	2.02	0.60
1:2A:576:U:H5	58:2A:4487:HOH:O	1.84	0.60
1:2A:850:C:O3'	25:23:49:LYS:HE2	2.01	0.60
1:2A:981:A:OP2	1:2A:982:C:N4	2.23	0.60
1:2A:1027:A:C2	1:2A:2488:A:H5'	2.36	0.60
32:2a:1068:G:H8	32:2a:1068:G:OP2	1.84	0.60
34:2c:18:TRP:CD1	45:2n:54:PRO:HA	2.37	0.60
1:1A:181:A:H1'	1:1A:435:C:H5'	1.82	0.60
1:1A:1405:U:H2'	1:1A:1406:U:C6	2.36	0.60
5:1F:149:ASP:OD1	5:1F:149:ASP:N	2.33	0.60
15:1T:108:ARG:HG3	15:1T:111:ARG:HH12	1.66	0.60
42:1k:14:VAL:HG21	42:1k:35:PRO:HD3	1.83	0.60
1:2A:1105:U:H2'	1:2A:1106:G:H8	1.67	0.60
3:2D:69:ARG:HE	3:2D:130:ALA:HB2	1.64	0.60
6:2G:165:THR:OG1	6:2G:167:GLU:HB3	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:2U:79:PHE:CZ	16:2U:83:LEU:HD21	2.36	0.60
19:2X:36:LYS:HE2	19:2X:55:ASN:HA	1.82	0.60
33:2b:88:ALA:HB2	33:2b:219:VAL:HG13	1.81	0.60
1:1A:2166:G:O6	1:1A:2172:U:C5	2.54	0.60
14:1S:35:ILE:HD11	14:1S:101:LEU:HD12	1.83	0.60
1:2A:1637:A:H4'	1:2A:2711:A:O2'	2.01	0.60
32:2a:401:C:P	35:2d:73:ARG:NH2	2.75	0.60
32:2a:737:A:H2'	32:2a:738:C:H6	1.66	0.60
33:2b:60:ASP:OD1	33:2b:64:ARG:NE	2.34	0.60
43:2l:83:VAL:HG13	43:2l:100:ILE:HG23	1.82	0.60
1:1A:886:C:H3'	1:1A:887:A:H5"	1.84	0.60
1:1A:2784:C:H1'	4:1E:37:ARG:HH12	1.66	0.60
1:1A:2846:G:H2'	1:1A:2847:U:O4'	2.02	0.60
4:1E:33:VAL:HG13	4:1E:89:ASP:C	2.27	0.60
25:13:3:ARG:HD3	25:13:60:GLU:CD	2.27	0.60
29:17:24:THR:HG22	29:17:26:GLY:N	2.16	0.60
1:2A:177:G:H3'	1:2A:178:G:H8	1.67	0.60
1:2A:674:G:O2'	5:2F:74:ARG:HD3	2.02	0.60
1:2A:2563:U:O2	1:2A:2565:A:H8	1.84	0.60
4:2E:12:THR:HG22	15:2T:58:ASN:OD1	2.01	0.60
32:2a:405:U:O4	35:2d:2:GLY:N	2.35	0.60
32:2a:1226:C:O2'	44:2m:111:LYS:NZ	2.21	0.60
36:2e:110:LEU:HD13	36:2e:118:ILE:HD13	1.84	0.60
44:2m:33:ALA:HA	44:2m:59:TYR:HE2	1.65	0.60
7:1H:92:ILE:H	7:1H:92:ILE:CD1	2.13	0.60
27:15:12:SER:OG	27:15:15:ARG:N	2.32	0.60
32:1a:713:G:H2'	32:1a:714:G:C8	2.36	0.60
42:1k:16:SER:HB3	42:1k:79:SER:HB3	1.84	0.60
1:2A:661:C:H4'	11:2P:13:ASN:OD1	2.02	0.60
1:2A:1062:G:N1	1:2A:1077:A:H2	2.00	0.60
1:2A:1359:A:N1	1:2A:1372:U:C4	2.70	0.60
8:2I:102:SER:O	8:2I:106:GLY:HA2	2.02	0.60
13:2R:87:TYR:OH	13:2R:117:VAL:O	2.11	0.60
15:2T:74:ARG:HH11	15:2T:74:ARG:CG	2.13	0.60
16:2U:112:ARG:NH1	17:2V:47:VAL:HB	2.15	0.60
32:2a:664:G:P	49:2r:64:ARG:HH21	2.25	0.60
39:2h:29:SER:HB3	39:2h:32:LYS:HB2	1.83	0.60
39:2h:119:LEU:HB3	39:2h:123:GLU:HB2	1.82	0.60
44:2m:32:GLU:HG2	44:2m:64:TRP:HZ2	1.67	0.60
1:1A:566:U:H5"	11:1P:29:LYS:HE3	1.83	0.60
3:1D:13:ARG:HA	3:1D:16:MET:HE3	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:949:A:H1'	32:1a:1364:U:H3	1.66	0.60
34:1c:69:HIS:CD2	34:1c:104:GLN:HG2	2.37	0.60
1:2A:271(L):U:H4'	8:2I:50:ARG:HH22	1.65	0.60
1:2A:2107:C:H42	1:2A:2182:G:H1	1.49	0.60
7:2H:3:ARG:NH1	7:2H:4:ILE:H	1.99	0.60
32:2a:1132:C:H2'	32:2a:1133:G:H8	1.65	0.60
32:2a:1305:G:H22	32:2a:1331:G:H1'	1.66	0.60
45:2n:37:PHE:HB3	45:2n:39:LEU:HD12	1.84	0.60
1:1A:143:G:H2'	1:1A:143(A):C:C6	2.36	0.60
21:1Z:99:TYR:HB3	21:1Z:123:ASP:OD2	2.02	0.60
32:1a:444:C:H2'	32:1a:445:G:H8	1.65	0.60
2:2B:40:U:O4	26:24:1:MET:HA	2.02	0.60
3:2D:242:ARG:HG3	3:2D:242:ARG:NH1	2.09	0.60
7:2H:83:TYR:CE2	7:2H:138:LYS:HB2	2.37	0.60
14:2S:27:SER:HA	14:2S:88:ASP:HB3	1.84	0.60
32:2a:9:G:H2'	32:2a:10:A:H8	1.67	0.60
1:1A:1218:C:N4	1:1A:1231:G:H1	1.99	0.60
1:1A:2058:A:H5"	1:1A:2059:A:OP2	2.02	0.60
1:1A:2365:G:O6	30:18:39:LYS:HE3	2.01	0.60
1:1A:2689:U:OP2	1:1A:2719:G:N2	2.27	0.60
3:1D:4:LYS:HB3	3:1D:18:VAL:HG23	1.84	0.60
32:1a:926:G:O6	54:1z:87:LYS:HE2	2.01	0.60
44:1m:80:ARG:O	44:1m:84:ILE:HG22	2.01	0.60
50:1s:20:LEU:HD23	50:1s:23:ASN:ND2	2.16	0.60
1:2A:247:G:H4'	1:2A:386:G:C5	2.36	0.60
32:2a:487:A:H2'	32:2a:488:C:O4'	2.01	0.60
32:2a:598:U:H4'	39:2h:94:TYR:CD2	2.37	0.60
32:2a:1263:C:H2'	32:2a:1264:C:C6	2.37	0.60
37:2f:69:GLU:O	37:2f:72:VAL:HG12	2.01	0.60
1:1A:1207:C:H2'	1:1A:1208:C:C6	2.37	0.59
1:1A:2166:G:O6	1:1A:2172:U:C4	2.55	0.59
1:1A:2602:A:H2	53:1y:5:PHE:HD2	1.49	0.59
32:1a:673:G:H2'	32:1a:674:G:C8	2.36	0.59
32:1a:1132:C:H2'	32:1a:1133:G:H8	1.65	0.59
32:1a:1530:G:H4'	32:1a:1530:G:OP1	2.01	0.59
36:1e:75:THR:HG1	36:1e:76:ILE:N	2.00	0.59
1:2A:624:C:O2'	1:2A:657:U:H5"	2.01	0.59
1:2A:1359:A:N1	1:2A:1372:U:O4	2.34	0.59
1:2A:2159:G:H2'	1:2A:2160:G:C8	2.36	0.59
3:2D:96:HIS:HD2	3:2D:102:LYS:HG2	1.67	0.59
3:2D:248:SER:HG	3:2D:252:TRP:CG	2.18	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:50:ALA:C	6:2G:52:ILE:H	2.10	0.59
9:2N:1:MET:HE3	17:2V:13:ARG:HB3	1.83	0.59
13:2R:72:ASP:OD1	13:2R:75:LEU:N	2.20	0.59
15:2T:56:GLY:O	15:2T:59:THR:HG23	2.02	0.59
18:2W:35:ILE:HG23	27:25:28:PRO:HD2	1.83	0.59
32:2a:353:A:H5'	32:2a:353:A:C8	2.36	0.59
33:2b:87:ARG:HD2	33:2b:233:SER:CB	2.32	0.59
50:2s:36:ARG:HH12	50:2s:75:ALA:HB3	1.67	0.59
1:1A:635:C:O2'	1:1A:639:U:OP1	2.20	0.59
21:1Z:182:LYS:O	21:1Z:185:GLU:HG3	2.01	0.59
32:1a:277:C:OP1	48:1q:68:ARG:NH2	2.33	0.59
35:1d:194:LEU:HD13	35:1d:195:ALA:N	2.17	0.59
1:2A:210:C:OP2	29:27:29:LYS:NZ	2.32	0.59
1:2A:1509(A):A:H2'	1:2A:1509(B):A:O4'	2.02	0.59
1:2A:2303:G:O2'	6:2G:132:ASN:HB2	2.02	0.59
32:2a:67:C:H2'	32:2a:68:G:C8	2.37	0.59
32:2a:179:A:H2'	32:2a:180:U:C6	2.37	0.59
32:2a:1191:A:OP2	34:2c:3:ASN:ND2	2.34	0.59
37:2f:26:ILE:O	37:2f:30:LEU:HD12	2.02	0.59
16:1U:25:TRP:O	16:1U:28:ARG:HB2	2.02	0.59
17:1V:16:PRO:HA	17:1V:96:ILE:HG22	1.84	0.59
19:1X:41:ASN:O	19:1X:45:THR:HG23	2.02	0.59
30:18:8:LYS:O	30:18:12:LYS:HG3	2.03	0.59
35:1d:163:GLU:O	35:1d:166:LYS:HG2	2.01	0.59
54:1z:52:ALA:HB2	54:1z:77:LEU:HD21	1.83	0.59
1:2A:566:U:H5"	11:2P:29:LYS:HE3	1.84	0.59
1:2A:1668:A:H4'	1:2A:1669:A:O5'	2.02	0.59
1:2A:2619:C:H2'	1:2A:2620:C:H6	1.67	0.59
5:2F:185:ASP:HA	5:2F:188:ARG:HD3	1.84	0.59
11:2P:70:GLN:OE1	11:2P:70:GLN:N	2.35	0.59
9:1N:12:ARG:NH1	9:1N:50:ASP:OD2	2.34	0.59
32:1a:657:G:H4'	46:1o:28:GLN:HG2	1.85	0.59
32:1a:1346:A:H5"	40:1i:120:ARG:NH1	2.17	0.59
42:1k:85:ARG:HD3	42:1k:113:PRO:HD3	1.84	0.59
1:2A:61:G:H5'	24:22:50:ILE:HG21	1.85	0.59
1:2A:2102:U:O2	1:2A:2187:G:C6	2.55	0.59
7:2H:80:SER:OG	7:2H:81:GLU:N	2.27	0.59
14:2S:52:SER:HB2	14:2S:55:ALA:H	1.66	0.59
32:2a:1411:C:H2'	32:2a:1412:C:C6	2.37	0.59
33:2b:16:HIS:CE1	33:2b:44:LEU:HD11	2.38	0.59
35:2d:64:LEU:HB2	35:2d:198:VAL:HG11	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1B:42:C:OP1	6:1G:67:LYS:NZ	2.35	0.59
32:1a:186:C:H2'	32:1a:187:C:C6	2.37	0.59
33:1b:17:PHE:HA	33:1b:44:LEU:HD21	1.84	0.59
34:1c:8:ILE:HD12	34:1c:16:ARG:HD3	1.83	0.59
1:2A:797:C:H2'	1:2A:798:G:O4'	2.02	0.59
1:2A:1363:C:O2	1:2A:1363:C:H2'	2.01	0.59
6:2G:28:VAL:O	6:2G:31:VAL:HG13	2.03	0.59
6:2G:96:ARG:O	6:2G:99:MET:HB3	2.01	0.59
7:2H:26:VAL:HG12	7:2H:79:VAL:HG21	1.84	0.59
32:2a:943:U:H1'	40:2i:124:GLN:HE22	1.67	0.59
2:1B:75:G:H22	21:1Z:73:GLN:NE2	2.01	0.59
2:1B:83:G:OP1	25:13:19:GLN:NE2	2.35	0.59
5:1F:192:LEU:HD22	5:1F:194:MET:HE2	1.85	0.59
13:1R:8:ARG:HG3	13:1R:43:GLU:HG3	1.84	0.59
18:1W:86:LEU:HD12	18:1W:87:PRO:N	2.17	0.59
20:1Y:19:LYS:HE2	20:1Y:20:TYR:CE1	2.37	0.59
32:1a:1009:G:O6	32:1a:1020:U:O2	2.20	0.59
35:1d:107:ARG:NH2	35:1d:194:LEU:HG	2.13	0.59
1:2A:1247:A:O2'	1:2A:1248:G:H5"	2.02	0.59
1:2A:1514:U:H2'	1:2A:1515:G:H8	1.68	0.59
1:2A:1915:5MU:H2'	1:2A:1916:A:O4'	2.03	0.59
1:2A:2874:C:H2'	1:2A:2875:C:H6	1.68	0.59
5:2F:152:GLU:HA	5:2F:190:GLU:OE1	2.03	0.59
16:2U:90:VAL:HG12	16:2U:95:LEU:HD22	1.84	0.59
35:2d:3:ARG:O	35:2d:5:ILE:HG22	2.02	0.59
1:1A:1913:A:C2	32:1a:1493:A:H8	2.21	0.59
6:1G:15:VAL:HG13	6:1G:175:LEU:HB3	1.85	0.59
11:1P:112:LEU:HD23	11:1P:113:LYS:N	2.17	0.59
20:1Y:20:TYR:CE1	20:1Y:43:ASN:HA	2.37	0.59
25:13:4:LEU:HG	25:13:39:ASP:HB2	1.85	0.59
32:1a:1405:G:H21	32:1a:1518:MA6:H1'	1.67	0.59
1:2A:993:G:OP1	16:2U:50:ARG:NH2	2.36	0.59
2:2B:94:C:H2'	2:2B:95:C:H6	1.68	0.59
6:2G:47:LYS:NZ	6:2G:80:PHE:O	2.23	0.59
15:2T:35:LYS:HZ3	15:2T:37:GLY:HA2	1.66	0.59
18:2W:65:LEU:HD12	18:2W:68:ARG:HD2	1.85	0.59
36:2e:88:LYS:HB3	36:2e:123:LEU:HB2	1.83	0.59
47:2p:4:ILE:HG22	47:2p:19:ILE:HD11	1.84	0.59
8:1I:43:ASN:ND2	23:11:75:GLU:OE2	2.36	0.59
51:1t:39:LYS:O	51:1t:42:GLN:HB3	2.02	0.59
1:2A:2473:U:H2'	1:2A:2474:C:C6	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1053:G:N2	58:2a:1904:HOH:O	2.35	0.59
32:2a:1095:U:H5"	32:2a:1109:C:O2	2.02	0.59
32:2a:1329:A:P	44:2m:28:ALA:HB3	2.42	0.59
1:1A:645:C:H5'	1:1A:646:A:OP2	2.02	0.59
1:1A:1056:G:H5"	1:1A:1057:A:O4'	2.03	0.59
1:1A:1359:A:N6	1:1A:1372:U:N3	2.17	0.59
1:1A:1796:U:H2'	1:1A:1797:C:C6	2.37	0.59
10:1O:22:ILE:HG12	10:1O:41:ALA:HA	1.84	0.59
13:1R:101:ALA:HA	27:15:44:THR:HG21	1.84	0.59
20:1Y:51:VAL:HG22	20:1Y:58:GLY:HA3	1.85	0.59
24:12:1:MET:HE2	24:12:6:VAL:HA	1.84	0.59
32:1a:503:C:OP2	43:1l:116:SER:OG	2.13	0.59
50:1s:30:LEU:HD11	50:1s:50:ALA:HB2	1.85	0.59
1:2A:708:C:H2'	1:2A:709:U:H6	1.66	0.59
1:2A:1065:U:N3	1:2A:1073:A:N6	2.35	0.59
1:2A:2080:G:H5'	23:21:35:THR:O	2.02	0.59
1:2A:2272:U:H5"	1:2A:2273:A:OP1	2.03	0.59
7:2H:3:ARG:HA	7:2H:3:ARG:HH11	1.68	0.59
51:2t:18:GLN:O	51:2t:22:ARG:HG3	2.02	0.59
51:2t:51:GLU:HA	51:2t:54:LYS:HE2	1.84	0.59
1:1A:588:U:H2'	1:1A:589:C:C6	2.38	0.59
32:1a:601:C:H2'	32:1a:602:A:C8	2.37	0.59
39:1h:14:ARG:NH1	39:1h:83:ILE:O	2.36	0.59
39:1h:49:GLU:OE2	39:1h:62:TYR:OH	2.18	0.59
43:1l:36:VAL:HG22	43:1l:82:VAL:HG22	1.85	0.59
1:2A:2320:A:H61	1:2A:2333:A:H2'	1.66	0.59
1:2A:2440:C:O2'	58:2A:4004:HOH:O	2.17	0.59
1:1A:385:C:H5"	1:1A:386:G:OP1	2.03	0.58
4:1E:54:GLN:NE2	4:1E:58:ARG:HD2	2.17	0.58
32:1a:833:U:H2'	32:1a:834:C:C6	2.37	0.58
48:1q:62:SER:OG	48:1q:72:ARG:HG3	2.03	0.58
1:2A:861:A:H2'	1:2A:862:G:O4'	2.02	0.58
1:2A:984:A:H5"	1:2A:985:C:C5	2.38	0.58
1:2A:1248:G:C5	16:2U:3:ARG:HB2	2.37	0.58
1:2A:2182:G:H2'	1:2A:2183:C:C6	2.38	0.58
3:2D:80:ALA:HB3	3:2D:94:LEU:HB3	1.84	0.58
6:2G:18:GLU:OE2	6:2G:21:ARG:NH1	2.36	0.58
8:2I:82:ARG:O	8:2I:89:TYR:HB2	2.03	0.58
11:2P:38:GLN:O	11:2P:44:GLY:HA2	2.02	0.58
32:2a:376:G:H5"	47:2p:5:ARG:HD2	1.85	0.58
32:2a:1014:A:H2'	32:2a:1015:A:C8	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1176:G:H1'	1:1A:1177:A:C5'	2.33	0.58
4:1E:34:VAL:HG22	4:1E:48:GLN:NE2	2.18	0.58
7:1H:30:LYS:HG3	7:1H:80:SER:O	2.03	0.58
10:1O:26:LYS:O	10:1O:30:ALA:HB2	2.03	0.58
15:1T:24:PRO:HD3	15:1T:52:ILE:HD12	1.85	0.58
32:1a:255:G:H1'	48:1q:16:GLN:NE2	2.08	0.58
38:1g:91:VAL:HG12	38:1g:95:ARG:HB3	1.85	0.58
41:1j:13:HIS:HB3	41:1j:68:HIS:CE1	2.37	0.58
1:2A:548:A:O2'	1:2A:549:G:OP1	2.21	0.58
1:2A:1657:C:H2'	1:2A:1658:C:H6	1.68	0.58
1:2A:2776:A:H4'	1:2A:2777:G:H5"	1.84	0.58
14:2S:36:TYR:CD2	14:2S:52:SER:HB3	2.38	0.58
29:27:28:ARG:HH11	29:27:28:ARG:HG3	1.67	0.58
32:2a:132:C:H42	32:2a:230:G:H1	1.51	0.58
35:2d:165:MET:HE1	35:2d:170:VAL:HG21	1.84	0.58
39:2h:10:LEU:HD22	39:2h:83:ILE:HD11	1.84	0.58
39:2h:35:ILE:HG22	39:2h:39:LEU:HD22	1.83	0.58
1:1A:228:A:C8	1:1A:229:A:H5'	2.38	0.58
1:1A:2079:U:O3'	23:11:35:THR:OG1	2.21	0.58
13:1R:53:HIS:HB2	13:1R:94:TYR:HE2	1.67	0.58
26:14:53:GLU:O	26:14:56:VAL:HG12	2.03	0.58
32:1a:1244:C:N4	32:1a:1293:G:H1	1.97	0.58
1:2A:143:G:H2'	1:2A:143(A):C:H6	1.67	0.58
1:2A:307:G:H21	1:2A:330:A:H62	1.40	0.58
1:2A:2397:G:N2	1:2A:2420:C:H1'	2.18	0.58
6:2G:146:TYR:O	6:2G:149:VAL:HG12	2.02	0.58
6:2G:165:THR:HG1	6:2G:168:GLU:H	1.51	0.58
11:2P:39:LYS:HD2	11:2P:45:LEU:HD11	1.83	0.58
21:2Z:19:ARG:HH11	21:2Z:84:GLU:HB2	1.68	0.58
32:2a:946:A:H2'	32:2a:947:G:C8	2.38	0.58
35:2d:31:CYS:SG	35:2d:33:MET:N	2.76	0.58
1:1A:668:G:H5'	1:1A:669:G:OP2	2.03	0.58
1:1A:2787:C:H1'	4:1E:62:PRO:HG3	1.84	0.58
26:14:43:TYR:O	26:14:45:GLY:N	2.37	0.58
32:1a:452:A:H4'	47:1p:72:ARG:NH1	2.18	0.58
32:1a:1149:C:H2'	32:1a:1150:U:H6	1.67	0.58
43:1l:11:VAL:HG11	48:1q:36:ILE:HG21	1.86	0.58
49:1r:35:ARG:O	49:1r:37:VAL:N	2.35	0.58
1:2A:2538:C:H2'	1:2A:2539:C:H6	1.68	0.58
6:2G:16:ARG:HB2	6:2G:17:PRO:HD3	1.86	0.58
6:2G:54:GLU:HA	6:2G:57:ALA:HB3	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:93:THR:HG23	8:2I:96:ASP:H	1.67	0.58
8:2I:104:GLN:HG2	8:2I:105:HIS:CD2	2.38	0.58
30:28:33:ASN:HA	30:28:36:LYS:HD2	1.85	0.58
35:2d:28:SER:OG	35:2d:30:LYS:HB2	2.04	0.58
45:2n:27:CYS:SG	45:2n:29:ARG:HB2	2.43	0.58
47:2p:4:ILE:CG2	47:2p:19:ILE:HD11	2.33	0.58
1:1A:143:G:H1'	19:1X:37:THR:HG21	1.84	0.58
1:1A:1025:G:C4	1:1A:1135:C:H1'	2.38	0.58
11:1P:49:ARG:NH1	30:18:61:LEU:HD23	2.19	0.58
32:1a:1048:G:OP1	45:1n:3:ARG:HB3	2.03	0.58
41:1j:49:VAL:CG2	45:1n:41:ARG:HB2	2.33	0.58
1:2A:298:G:H5"	1:2A:299:A:OP1	2.03	0.58
10:2O:7:TYR:CE1	10:2O:20:MET:HB2	2.39	0.58
32:2a:376:G:H2'	32:2a:377:G:H8	1.69	0.58
32:2a:434:U:H2'	32:2a:435:C:C6	2.39	0.58
32:2a:559:A:OP1	36:2e:126:ARG:NH2	2.36	0.58
32:2a:1219:U:HO2'	50:2s:34:TRP:CD1	2.22	0.58
33:2b:91:PRO:HG2	33:2b:155:LEU:HD13	1.84	0.58
33:2b:95:GLN:HG2	33:2b:148:TYR:HA	1.84	0.58
36:2e:81:GLU:HG2	36:2e:90:VAL:HG22	1.86	0.58
40:2i:26:VAL:HG13	40:2i:61:ALA:HB3	1.85	0.58
44:2m:49:THR:O	44:2m:53:VAL:HG23	2.02	0.58
1:1A:1742:G:O5'	1:1A:1742:G:H8	1.86	0.58
25:13:47:VAL:HG11	25:13:56:VAL:HG21	1.84	0.58
32:1a:427:U:H5'	35:1d:41:GLY:HA2	1.85	0.58
32:1a:590:C:H2'	32:1a:591:U:C6	2.39	0.58
32:1a:769:G:H4'	32:1a:1513:A:H4'	1.84	0.58
34:1c:87:LEU:O	34:1c:91:LEU:HB2	2.04	0.58
1:2A:1450(A):C:N4	1:2A:1451:C:H41	2.01	0.58
1:2A:2207:G:H2'	1:2A:2208:A:C2	2.37	0.58
1:2A:2251:OMG:H5'	58:2A:4326:HOH:O	2.04	0.58
32:2a:1015:A:H2'	32:2a:1016:A:H8	1.67	0.58
32:2a:1026:G:C6	32:2a:1027:C:H1'	2.38	0.58
37:2f:2:ARG:NE	37:2f:69:GLU:HG2	2.18	0.58
47:2p:50:LYS:HD3	47:2p:51:VAL:N	2.15	0.58
1:1A:2106:G:N2	1:1A:2183:C:N3	2.48	0.58
1:1A:2766:G:H2'	1:1A:2766:G:N3	2.18	0.58
35:1d:98:GLU:OE1	35:1d:103:ASN:ND2	2.33	0.58
41:1j:37:PRO:HA	41:1j:72:VAL:HG12	1.85	0.58
44:1m:3:ARG:NE	44:1m:8:GLU:OE2	2.35	0.58
1:2A:2427:C:H5"	1:2A:2428:G:OP1	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2567:G:H2'	1:2A:2568:C:C6	2.38	0.58
3:2D:93:ALA:HB3	3:2D:105:ILE:HG13	1.85	0.58
28:26:10:LEU:HD21	28:26:54:ILE:HG13	1.85	0.58
32:2a:965:A:OP2	54:2z:8:LYS:NZ	2.37	0.58
35:2d:166:LYS:NZ	35:2d:179:GLU:HG3	2.19	0.58
37:2f:15:ASP:OD2	37:2f:18:GLN:NE2	2.37	0.58
3:1D:130:ALA:C	3:1D:131:LEU:HD12	2.29	0.58
11:1P:59:LEU:HD11	30:18:10:ALA:HB2	1.84	0.58
18:1W:78:GLU:OE2	18:1W:99:ARG:HG2	2.03	0.58
32:1a:193:C:H2'	32:1a:194:C:H6	1.68	0.58
32:1a:402:G:O2'	32:1a:620:C:N4	2.36	0.58
32:1a:473:G:H2'	32:1a:474:G:H8	1.69	0.58
32:1a:625:G:H4'	47:1p:16:HIS:CD2	2.38	0.58
34:1c:6:HIS:HD2	34:1c:9:GLY:H	1.51	0.58
1:2A:839:U:H2'	1:2A:840:C:C6	2.38	0.58
1:2A:1009:A:O4'	16:2U:59:ARG:HG2	2.04	0.58
1:2A:1140:C:O3'	9:2N:25:ARG:NH1	2.37	0.58
1:2A:2197:U:H1'	1:2A:2198:A:C8	2.39	0.58
1:2A:2261:C:C5	22:20:16:SER:HB3	2.38	0.58
1:2A:2306:C:OP2	1:2A:2307:G:O2'	2.20	0.58
58:2A:4881:HOH:O	13:2R:15:SER:HB3	2.04	0.58
15:2T:60:THR:HG22	15:2T:77:PRO:HA	1.86	0.58
1:1A:748:G:C8	18:1W:89:ALA:HB1	2.39	0.58
7:1H:40:GLU:OE1	7:1H:60:ARG:NH1	2.36	0.58
7:1H:72:ILE:O	7:1H:76:VAL:HG23	2.04	0.58
18:1W:86:LEU:HD12	18:1W:86:LEU:C	2.29	0.58
44:1m:19:LEU:HD21	44:1m:56:LEU:HD11	1.86	0.58
1:2A:2439:A:H5'	1:2A:2439:A:H8	1.69	0.58
8:2I:5:LEU:HD12	8:2I:36:ALA:HB2	1.85	0.58
32:2a:527:7MG:H3'	32:2a:527:7MG:H81	1.85	0.58
1:1A:784:A:H5'	1:1A:785:G:OP1	2.04	0.58
1:1A:1075:C:H2'	1:1A:1076:C:H2'	1.86	0.58
4:1E:111:ARG:HH11	4:1E:111:ARG:HG3	1.68	0.58
7:1H:125:VAL:HG12	7:1H:127:GLU:O	2.04	0.58
26:14:53:GLU:HB3	26:14:55:ARG:H	1.67	0.58
33:1b:20:GLU:O	33:1b:40:HIS:N	2.24	0.58
34:1c:16:ARG:NH1	34:1c:183:ASP:OD1	2.37	0.58
1:2A:2742:C:OP1	31:29:35:ARG:NH1	2.35	0.58
1:2A:2807:G:H2'	1:2A:2808:U:O4'	2.04	0.58
11:2P:101:VAL:HA	11:2P:106:LEU:O	2.04	0.58
11:2P:121:LYS:HG2	11:2P:122:PRO:HD2	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:2W:37:ARG:HG3	18:2W:37:ARG:HH21	1.69	0.58
25:23:10:LYS:NZ	25:23:15:TYR:OH	2.37	0.58
32:2a:401:C:O2'	32:2a:621:A:N3	2.30	0.58
34:2c:180:ALA:HB1	34:2c:203:PHE:HE1	1.68	0.58
54:2z:53:THR:HA	54:2z:61:LEU:O	2.04	0.58
1:1A:234:C:H2'	1:1A:235:U:H6	1.68	0.57
1:1A:2572:A:N7	4:1E:144:ARG:HD2	2.19	0.57
5:1F:28:ILE:HD12	5:1F:112:MET:HB3	1.86	0.57
32:1a:58:C:O2'	32:1a:388:G:N7	2.37	0.57
32:1a:919:A:H8	32:1a:919:A:O5'	1.87	0.57
32:1a:982:U:H5"	45:1n:6:LEU:HD21	1.85	0.57
32:1a:1212:U:H5"	32:1a:1213:A:H5'	1.85	0.57
35:1d:187:ARG:NH1	35:1d:193:ASP:OD2	2.35	0.57
36:1e:144:THR:H	36:1e:147:ASP:HB2	1.67	0.57
1:2A:667:U:O2	30:28:2:PRO:HD2	2.03	0.57
1:2A:1504:C:H2'	1:2A:1505:C:H6	1.68	0.57
1:2A:2332:U:H5'	1:2A:2336:A:N6	2.19	0.57
32:2a:839:U:H5"	32:2a:840:C:H5	1.69	0.57
33:2b:16:HIS:HB2	33:2b:204:ASN:HB3	1.86	0.57
48:2q:41:LYS:NZ	48:2q:92:ARG:HH21	2.02	0.57
51:2t:51:GLU:O	51:2t:54:LYS:HB3	2.04	0.57
6:1G:67:LYS:HG3	26:14:5:ILE:HG22	1.86	0.57
32:1a:236:G:H5"	48:1q:42:TYR:OH	2.04	0.57
32:1a:1086:U:H3	32:1a:1099:G:H22	1.51	0.57
32:1a:1320:C:H2'	32:1a:1321:C:O4'	2.05	0.57
39:1h:94:TYR:CE1	39:1h:132:GLU:HB2	2.39	0.57
1:2A:96:G:H4'	24:22:48:HIS:NE2	2.19	0.57
1:2A:2377:A:H2'	1:2A:2378:A:C8	2.39	0.57
5:2F:132:VAL:HG21	5:2F:163:VAL:HG22	1.86	0.57
8:2I:116:LEU:HD21	8:2I:119:PRO:HA	1.85	0.57
15:2T:24:PRO:HA	15:2T:49:VAL:HG22	1.85	0.57
32:2a:689:C:OP1	42:2k:44:SER:OG	2.19	0.57
33:2b:137:ARG:NH2	33:2b:138:LEU:HD21	2.20	0.57
1:1A:9:U:N3	1:1A:2629:A:H2	1.95	0.57
1:1A:800:A:H8	1:1A:800:A:OP1	1.86	0.57
32:1a:131:C:H2'	32:1a:132:C:C6	2.38	0.57
32:1a:1378:C:C5	32:1a:1379:G:C8	2.93	0.57
35:1d:194:LEU:HD13	35:1d:195:ALA:H	1.69	0.57
38:1g:111:ARG:HB2	38:1g:119:ARG:HD2	1.84	0.57
50:1s:3:ARG:CZ	50:1s:10:PHE:HB2	2.34	0.57
1:2A:1437:C:H2'	1:2A:1438:U:H6	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1778:U:H2'	1:2A:1784:A:N6	2.18	0.57
2:2B:31:C:H4'	6:2G:29:TRP:CZ2	2.40	0.57
4:2E:105:THR:HA	4:2E:166:THR:HA	1.87	0.57
24:22:1:MET:HG3	24:22:5:GLU:OE1	2.05	0.57
41:2j:16:LEU:HD12	41:2j:94:VAL:HG23	1.85	0.57
44:2m:35:GLU:O	44:2m:38:GLY:N	2.36	0.57
1:1A:644:A:H4'	1:1A:645:C:C5	2.39	0.57
1:1A:957:A:N1	1:1A:2458:G:H4'	2.19	0.57
1:1A:1092:C:H2'	1:1A:1093:G:H5'	1.86	0.57
3:1D:33:LEU:O	3:1D:64:ILE:HG13	2.05	0.57
26:14:59:PHE:CZ	50:1s:64:GLU:HG3	2.39	0.57
32:1a:611:A:H61	32:1a:629:G:H1	1.52	0.57
32:1a:1003:G:H2'	32:1a:1004:A:C4'	2.30	0.57
32:1a:1137:C:H4'	32:1a:1138:G:C2	2.39	0.57
1:2A:575:A:OP2	1:2A:2055:C:N4	2.37	0.57
1:2A:1138:G:N3	9:2N:106:MET:HE2	2.19	0.57
1:2A:1141:U:OP2	9:2N:63:THR:OG1	2.22	0.57
1:2A:2273:A:H2'	1:2A:2274:A:C8	2.39	0.57
1:2A:2533:A:OP1	1:2A:2665:A:O2'	2.21	0.57
1:2A:2849:U:H5'	1:2A:2867:G:N2	2.19	0.57
8:2I:117:GLU:HG3	8:2I:118:LYS:H	1.68	0.57
22:20:37:LEU:HG	22:20:60:PHE:HA	1.86	0.57
32:2a:97:G:H2'	32:2a:98:G:O4'	2.05	0.57
32:2a:410:G:C2	32:2a:429:U:C2	2.93	0.57
32:2a:882:C:OP2	43:2l:13:LYS:NZ	2.37	0.57
1:1A:1291:C:H2'	1:1A:1292:U:C6	2.40	0.57
1:1A:1406:U:H2'	1:1A:1407:C:C6	2.40	0.57
1:1A:2304:G:H22	1:1A:2312:U:H3	1.51	0.57
1:1A:2453:A:OP1	53:1y:2:ARG:NH1	2.38	0.57
2:1B:90:A:N7	2:1B:91:C:H1'	2.20	0.57
5:1F:65:TRP:HH2	5:1F:72:ARG:HH21	1.51	0.57
22:10:18:ALA:O	22:10:20:ARG:NH1	2.37	0.57
32:1a:45:U:H2'	32:1a:46:G:C8	2.39	0.57
32:1a:200:G:H1	32:1a:217:C:H42	1.53	0.57
32:1a:1161:C:H2'	32:1a:1162:C:C6	2.40	0.57
34:1c:88:ARG:HG2	34:1c:101:LEU:HB3	1.87	0.57
1:2A:1101:U:H2'	1:2A:1102:C:H6	1.70	0.57
1:2A:2231:C:OP1	23:21:42:GLN:HA	2.05	0.57
4:2E:167:VAL:HG12	4:2E:170:LEU:HD11	1.86	0.57
17:2V:24:LYS:HA	17:2V:92:THR:OG1	2.04	0.57
32:2a:433:C:H2'	32:2a:434:U:C6	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1026:G:N3	32:2a:1026:G:H2'	2.18	0.57
1:1A:534:U:H5'	16:1U:42:ALA:CB	2.31	0.57
1:1A:2684:U:H1'	10:1O:70:LYS:HD2	1.86	0.57
26:14:59:PHE:CE1	50:1s:64:GLU:HA	2.39	0.57
32:1a:1129:C:O2'	32:1a:1139:G:N7	2.36	0.57
1:2A:1328:G:H2'	1:2A:1330:C:C5	2.39	0.57
12:2Q:72:LYS:HB3	12:2Q:94:VAL:CG2	2.35	0.57
32:2a:38:G:H22	32:2a:397:A:C5'	2.17	0.57
32:2a:582:U:OP1	46:2o:68:ARG:NH2	2.36	0.57
32:2a:1129:C:H5'	40:2i:16:ARG:HH12	1.69	0.57
32:2a:1219:U:O2'	50:2s:34:TRP:HB3	2.04	0.57
32:2a:1314:C:N4	50:2s:2:PRO:O	2.37	0.57
33:2b:112:VAL:HG12	33:2b:149:LEU:HD13	1.87	0.57
52:2u:6:ARG:HG2	52:2u:15:ARG:HD2	1.85	0.57
1:1A:226:G:N2	1:1A:228:A:H62	1.90	0.57
26:14:14:ILE:HB	26:14:22:ILE:HG13	1.87	0.57
37:1f:91:VAL:HG12	37:1f:92:LYS:O	2.05	0.57
1:2A:985:C:H2'	1:2A:986:C:H6	1.70	0.57
32:2a:76:C:O5'	32:2a:76:C:H6	1.87	0.57
32:2a:404:U:H2'	32:2a:405:U:C6	2.40	0.57
38:2g:149:ARG:HD2	42:2k:59:TYR:CE1	2.40	0.57
44:2m:39:ILE:HD12	44:2m:56:LEU:HG	1.86	0.57
1:1A:900:A:H2'	1:1A:901:A:C8	2.39	0.57
1:1A:1051:G:H5"	1:1A:1052:C:OP2	2.05	0.57
1:1A:1688:U:O2	1:1A:1700:A:H5'	2.04	0.57
7:1H:23:ARG:HD2	7:1H:34:GLU:OE1	2.05	0.57
12:1Q:70:PRO:HA	12:1Q:94:VAL:O	2.05	0.57
14:1S:27:SER:HA	14:1S:88:ASP:HB3	1.85	0.57
32:1a:38:G:H22	32:1a:397:A:H5'	1.70	0.57
33:1b:18:GLY:HA3	33:1b:42:ILE:HG13	1.87	0.57
34:1c:63:ASN:HB2	34:1c:98:ASN:HB2	1.87	0.57
34:1c:78:GLY:HA3	34:1c:83:ARG:H	1.67	0.57
1:2A:1045:A:H1'	1:2A:1047:G:N3	2.20	0.57
1:2A:1810:A:H2'	1:2A:1811:G:O4'	2.04	0.57
1:2A:2512:C:H4'	4:2E:122:PHE:CE2	2.40	0.57
2:2B:11:C:H3'	2:2B:12:C:C6	2.39	0.57
10:2O:20:MET:HE3	10:2O:44:LYS:HE3	1.87	0.57
25:23:23:LEU:HD12	25:23:28:LEU:HB2	1.86	0.57
28:26:8:LYS:HD3	30:28:34:TRP:CD2	2.39	0.57
32:2a:532:A:H5'	32:2a:532:A:N3	2.20	0.57
36:2e:12:LEU:HB3	36:2e:31:LEU:HB2	1.84	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:2n:2:ALA:HB1	45:2n:6:LEU:HD22	1.87	0.57
47:2p:68:ASP:C	47:2p:70:ALA:H	2.11	0.57
50:2s:69:HIS:HB3	50:2s:73:GLU:CD	2.30	0.57
2:1B:7:G:H5"	2:1B:7:G:H8	1.70	0.57
12:1Q:72:LYS:HB3	12:1Q:94:VAL:HG23	1.87	0.57
32:1a:114:U:H2'	32:1a:115:G:C8	2.40	0.57
32:1a:194:C:H2'	32:1a:195:A:H5"	1.86	0.57
32:1a:1131:G:OP1	40:1i:20:ARG:NH2	2.38	0.57
32:1a:1192:C:OP2	34:1c:4:LYS:NZ	2.38	0.57
35:1d:103:ASN:O	35:1d:107:ARG:HG2	2.04	0.57
1:2A:271(E):U:H2'	1:2A:271(F):C:C6	2.39	0.57
1:2A:592:G:O2'	30:28:4:MET:HG3	2.03	0.57
1:2A:814:C:H2'	1:2A:815:C:C6	2.40	0.57
1:2A:2590:A:O3'	3:2D:239:ARG:NH2	2.38	0.57
1:2A:2791:C:H5'	1:2A:2893:G:N2	2.20	0.57
2:2B:11:C:OP2	2:2B:12:C:N4	2.27	0.57
3:2D:148:GLU:HB2	3:2D:151:LYS:HD2	1.85	0.57
6:2G:17:PRO:HA	6:2G:20:ILE:HG13	1.87	0.57
8:2I:125:GLU:HA	8:2I:125:GLU:OE1	2.04	0.57
21:2Z:129:SER:HB3	21:2Z:132:ASN:HB2	1.87	0.57
34:2c:42:LEU:O	34:2c:45:LYS:HB3	2.05	0.57
44:2m:17:VAL:O	44:2m:20:THR:OG1	2.18	0.57
1:1A:639:U:H2'	1:1A:640:C:C6	2.39	0.57
1:1A:1486:A:H2'	1:1A:1487:G:H8	1.70	0.57
1:1A:2857:G:N2	1:1A:2860:A:OP2	2.37	0.57
6:1G:146:TYR:O	6:1G:149:VAL:HG12	2.05	0.57
32:1a:1019:C:C2'	32:1a:1020:U:H5'	2.35	0.57
1:2A:777:A:H2'	1:2A:778:G:H8	1.68	0.57
1:2A:839:U:H3	1:2A:939:G:H1	1.51	0.57
1:2A:1071:G:N3	1:2A:1089:G:O2'	2.31	0.57
1:2A:2732:G:OP1	4:2E:203:LYS:NZ	2.32	0.57
12:2Q:75:THR:HG21	12:2Q:87:LYS:CE	2.33	0.57
23:21:62:VAL:HG22	23:21:63:ALA:O	2.05	0.57
32:2a:9:G:H2'	32:2a:10:A:C8	2.40	0.57
32:2a:1305:G:OP2	52:2u:2:GLY:HA3	2.04	0.57
47:2p:75:ARG:HG3	47:2p:80:PHE:HD2	1.69	0.57
51:2t:47:GLY:HA2	51:2t:48:LYS:HB2	1.87	0.57
1:1A:1998:G:OP2	4:1E:136:ARG:NH2	2.37	0.56
12:1Q:39:PRO:HA	12:1Q:97:VAL:O	2.05	0.56
14:1S:7:TYR:CE1	14:1S:91:PRO:HG3	2.40	0.56
21:1Z:63:ASP:OD1	21:1Z:65:GLN:N	2.31	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:539:A:H2'	32:1a:540:G:C8	2.40	0.56
32:1a:1298:C:H2'	38:1g:114:ARG:NH2	2.20	0.56
32:1a:1313:U:P	50:1s:5:LEU:HB2	2.45	0.56
32:1a:1343:G:H2'	32:1a:1344:C:C6	2.40	0.56
33:1b:16:HIS:HB2	33:1b:204:ASN:HB3	1.86	0.56
39:1h:121:ASP:OD2	39:1h:125:ARG:NH2	2.37	0.56
46:1o:74:ASP:CG	46:1o:77:ARG:HB2	2.30	0.56
48:1q:88:TYR:CD1	48:1q:89:LEU:HD23	2.40	0.56
1:2A:1045:A:H5'	1:2A:1046:A:H5"	1.87	0.56
1:2A:2107:C:N4	1:2A:2182:G:H1	2.03	0.56
2:2B:28:C:H2'	2:2B:29:A:H8	1.70	0.56
5:2F:7:TYR:O	5:2F:21:ALA:HA	2.04	0.56
16:2U:52:ARG:HA	16:2U:55:ARG:HG3	1.87	0.56
29:27:27:GLY:HA2	29:27:30:VAL:HG23	1.87	0.56
32:2a:933:G:O6	38:2g:3:ARG:NH2	2.38	0.56
32:2a:1277:C:O2'	32:2a:1279:A:H1'	2.04	0.56
36:2e:139:LEU:HA	36:2e:142:LEU:HD12	1.87	0.56
42:2k:79:SER:HA	42:2k:104:GLN:CB	2.34	0.56
19:1X:50:LYS:HB3	19:1X:84:ALA:HB2	1.88	0.56
32:1a:1132:C:H2'	32:1a:1133:G:C8	2.40	0.56
44:1m:91:ARG:NH1	44:1m:96:LEU:HD13	2.21	0.56
1:2A:388:G:O2'	58:2A:4005:HOH:O	2.17	0.56
1:2A:491:G:H2'	1:2A:492:A:H8	1.69	0.56
1:2A:2101:G:H2'	1:2A:2102:U:O4'	2.05	0.56
10:2O:98:VAL:HG22	10:2O:118:ALA:HA	1.86	0.56
28:26:35:GLU:C	28:26:36:LEU:HG	2.30	0.56
32:2a:523:A:N1	43:2l:92:0TD:H6	2.20	0.56
32:2a:1301:U:O2'	32:2a:1302:U:H5"	2.04	0.56
35:2d:76:ARG:NH2	35:2d:80:GLU:OE1	2.38	0.56
40:2i:47:LEU:HA	40:2i:81:ILE:HD11	1.87	0.56
1:1A:1904:G:O2'	1:1A:1928:A:N1	2.30	0.56
1:1A:1918:A:O2'	1:1A:1920:4OC:N4	2.38	0.56
8:1I:15:VAL:C	8:1I:17:GLN:H	2.13	0.56
15:1T:13:ARG:HB3	15:1T:13:ARG:HH11	1.71	0.56
32:1a:193:C:H2'	32:1a:194:C:C6	2.40	0.56
32:1a:321:A:N7	32:1a:328:C:O2'	2.30	0.56
34:1c:150:LYS:HB3	34:1c:201:TYR:HB2	1.88	0.56
39:1h:83:ILE:HG13	39:1h:137:VAL:HG22	1.87	0.56
41:1j:40:LEU:CB	41:1j:69:ASN:HB2	2.36	0.56
42:1k:86:GLY:N	42:1k:112:THR:OG1	2.33	0.56
1:2A:762:U:H4'	1:2A:763:G:H5"	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1116:C:O5'	1:2A:1116:C:H6	1.88	0.56
1:2A:1365:A:O2'	23:21:11:ARG:NH1	2.38	0.56
1:2A:1826:G:H2'	1:2A:1827:C:O4'	2.05	0.56
1:2A:2023:G:H5'	1:2A:2617:C:H4'	1.88	0.56
2:2B:95:C:H2'	2:2B:96:U:C6	2.40	0.56
5:2F:17:ARG:HB3	5:2F:17:ARG:HH11	1.70	0.56
6:2G:82:LEU:HD21	6:2G:88:ILE:HD13	1.86	0.56
8:2I:92:VAL:HG13	8:2I:120:ILE:HB	1.87	0.56
11:2P:15:ARG:HG3	11:2P:15:ARG:NH2	2.15	0.56
19:2X:60:ARG:NH2	29:27:47:ARG:HH22	2.01	0.56
21:2Z:19:ARG:NH1	21:2Z:84:GLU:HB2	2.21	0.56
32:2a:113:G:H2'	32:2a:114:U:C6	2.39	0.56
33:2b:115:LEU:O	33:2b:119:GLU:HG2	2.04	0.56
34:2c:43:LEU:HD23	34:2c:47:LEU:HG	1.87	0.56
37:2f:22:GLU:OE2	37:2f:84:ASN:ND2	2.24	0.56
48:2q:68:ARG:H	48:2q:70:ARG:NH1	2.04	0.56
51:2t:43:LEU:O	51:2t:47:GLY:N	2.38	0.56
1:1A:857:C:H4'	22:10:23:VAL:HG21	1.88	0.56
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.40	0.56
35:1d:167:GLY:H	35:1d:168:ARG:CZ	2.18	0.56
41:1j:78:ASN:O	41:1j:80:LYS:N	2.38	0.56
1:2A:1073:A:N1	1:2A:1074:G:C8	2.74	0.56
1:2A:1087:G:N2	1:2A:1103:A:H1'	2.20	0.56
1:2A:2363:C:O2	22:20:39:ARG:NH2	2.39	0.56
8:2I:130:TYR:HD2	8:2I:138:ILE:HD12	1.70	0.56
32:2a:933:G:H1	32:2a:1384:C:H42	1.54	0.56
32:2a:1320:C:H2'	32:2a:1321:C:O4'	2.05	0.56
43:2l:110:VAL:HB	43:2l:113:ARG:HG2	1.87	0.56
2:1B:18:G:H1	2:1B:65:C:N4	2.00	0.56
19:1X:31:HIS:CD2	19:1X:33:LYS:HB2	2.41	0.56
21:1Z:63:ASP:OD1	21:1Z:64:GLY:N	2.39	0.56
32:1a:678:U:H2'	32:1a:679:C:C6	2.40	0.56
32:1a:1414:U:H3	32:1a:1486:G:H1	1.52	0.56
33:1b:158:LEU:HD21	33:1b:180:LEU:HD13	1.88	0.56
35:1d:108:LEU:HB3	35:1d:110:PHE:HE1	1.70	0.56
41:1j:16:LEU:HD23	41:1j:70:ARG:HG2	1.87	0.56
47:1p:23:ASP:OD1	47:1p:25:ARG:HG2	2.05	0.56
1:2A:290:G:H2'	1:2A:291:C:O4'	2.04	0.56
1:2A:588:U:H2'	1:2A:589:C:H6	1.64	0.56
1:2A:1574:C:H2'	1:2A:1575:C:C6	2.40	0.56
7:2H:98:LEU:HD12	7:2H:102:ALA:O	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:448:A:P	32:2a:485:G:H22	2.28	0.56
32:2a:1423:G:H2'	32:2a:1424:C:C6	2.40	0.56
35:2d:8:VAL:HA	35:2d:11:LEU:HD13	1.88	0.56
45:2n:51:GLY:C	45:2n:53:LEU:H	2.13	0.56
1:1A:616:G:OP2	5:1F:106:ARG:NH1	2.33	0.56
6:1G:46:ALA:HB1	6:1G:51:ARG:HA	1.88	0.56
7:1H:98:LEU:HD22	7:1H:125:VAL:HG23	1.87	0.56
8:1I:62:LYS:HE2	8:1I:133:HIS:HE1	1.70	0.56
26:14:69:LYS:HE2	50:1s:20:LEU:HD22	1.87	0.56
28:16:8:LYS:HD3	30:18:34:TRP:CD2	2.40	0.56
32:1a:258:G:H2'	32:1a:259:G:H8	1.70	0.56
34:1c:21:ARG:NH2	34:1c:58:GLU:OE2	2.38	0.56
40:1i:24:GLY:HA2	40:1i:59:PHE:O	2.06	0.56
41:1j:7:LYS:HB3	41:1j:97:GLU:HB2	1.87	0.56
47:1p:57:ARG:HH21	47:1p:79:VAL:C	2.13	0.56
1:2A:1062:G:C6	1:2A:1077:A:H2	2.23	0.56
1:2A:1509(B):A:H2'	1:2A:1510:G:C8	2.40	0.56
1:2A:2223:G:H2'	1:2A:2224:G:H5'	1.86	0.56
35:2d:199:ASN:OD1	35:2d:201:GLN:HB3	2.06	0.56
43:2l:71:PRO:O	43:2l:102:ARG:NH1	2.38	0.56
1:1A:535:C:O3'	16:1U:53:ARG:NH1	2.38	0.56
1:1A:2638:G:O2'	1:1A:2775:A:N1	2.34	0.56
6:1G:96:ARG:N	6:1G:99:MET:HE2	2.21	0.56
18:1W:78:GLU:OE2	18:1W:99:ARG:NH1	2.39	0.56
25:13:3:ARG:HD3	25:13:60:GLU:CG	2.35	0.56
32:1a:523:A:H61	43:1l:92:0TD:CG	2.18	0.56
32:1a:1285:A:H4'	32:1a:1286:A:H5'	1.88	0.56
39:1h:87:SER:HA	39:1h:93:VAL:HG23	1.87	0.56
46:1o:28:GLN:HE21	46:1o:66:LEU:HD21	1.70	0.56
49:1r:24:ALA:O	49:1r:26:LEU:N	2.39	0.56
1:2A:125:G:C6	29:27:10:ARG:HG3	2.41	0.56
1:2A:491:G:H2'	1:2A:492:A:C8	2.41	0.56
1:2A:1709:U:H2'	1:2A:1710:C:H6	1.66	0.56
1:2A:1799:G:O2'	3:2D:181:GLU:OE2	2.14	0.56
1:2A:2849:U:H5'	1:2A:2867:G:H21	1.69	0.56
5:2F:28:ILE:HD11	5:2F:115:ALA:HB3	1.86	0.56
11:2P:99:LEU:HD22	11:2P:102:ARG:HH21	1.70	0.56
16:2U:58:ARG:HA	16:2U:61:TRP:CE3	2.39	0.56
24:22:8:LYS:HE2	24:22:12:GLU:HG2	1.87	0.56
32:2a:359:U:H2'	32:2a:360:A:C8	2.41	0.56
35:2d:15:GLU:OE2	35:2d:66:ARG:NH1	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2e:20:GLN:NE2	36:2e:25:ARG:HD2	2.20	0.56
36:2e:20:GLN:HE22	36:2e:25:ARG:HD2	1.71	0.56
1:1A:6:A:H2'	1:1A:7:G:O4'	2.05	0.56
1:1A:118:A:C8	1:1A:119:A:C8	2.94	0.56
1:1A:2662:A:H2'	1:1A:2663:G:O4'	2.06	0.56
32:1a:41:G:H2'	32:1a:42:G:C8	2.41	0.56
32:1a:62:U:O2'	32:1a:379:C:O2	2.18	0.56
32:1a:1268:A:H2'	32:1a:1269:A:C8	2.41	0.56
48:1q:84:LEU:O	48:1q:87:LYS:HB2	2.06	0.56
1:2A:2500:U:H5"	1:2A:2501:C:OP2	2.06	0.56
1:2A:2784:C:H1'	4:2E:37:ARG:NH1	2.20	0.56
2:2B:33:G:O2'	2:2B:34:U:H5'	2.06	0.56
6:2G:178:PHE:HB3	6:2G:180:PHE:HE1	1.71	0.56
21:2Z:104:PHE:HB3	21:2Z:141:VAL:HG11	1.88	0.56
32:2a:509:A:C8	32:2a:509:A:H3'	2.41	0.56
32:2a:991:U:C5	32:2a:1212:U:H1'	2.41	0.56
33:2b:69:LEU:O	33:2b:163:PHE:N	2.25	0.56
41:2j:4:ILE:N	41:2j:100:THR:HG22	2.20	0.56
1:1A:251:A:C5	1:1A:252:G:H1'	2.40	0.56
1:1A:2285:C:OP2	28:16:6:ARG:NH1	2.38	0.56
7:1H:3:ARG:NH1	7:1H:3:ARG:HA	2.20	0.56
19:1X:94:GLY:HA3	19:1X:95:LEU:O	2.06	0.56
32:1a:1506:U:O2'	58:1a:1901:HOH:O	2.18	0.56
1:2A:620:G:OP2	1:2A:620:G:N2	2.36	0.56
1:2A:973:A:H8	1:2A:973:A:OP1	1.89	0.56
1:2A:1445:A:C8	1:2A:1460:A:C5	2.94	0.56
1:2A:2061:G:H5"	1:2A:2503:2MA:C2	2.36	0.56
1:2A:2390:U:O2'	1:2A:2391:G:H5'	2.06	0.56
1:2A:2585:U:H1'	1:2A:2586:C:H5'	1.87	0.56
5:2F:59:TYR:HE2	5:2F:85:GLY:O	1.88	0.56
5:2F:129:PHE:O	5:2F:132:VAL:HG22	2.06	0.56
12:2Q:84:GLY:O	12:2Q:85:LYS:HB2	2.05	0.56
14:2S:103:GLU:O	14:2S:107:GLU:HG3	2.06	0.56
32:2a:551:U:H2'	32:2a:552:U:C6	2.40	0.56
33:2b:179:LYS:HA	39:2h:72:PRO:HG3	1.88	0.56
35:2d:61:LYS:NZ	35:2d:72:GLU:OE1	2.27	0.56
37:2f:1:MET:HE3	37:2f:66:GLU:HG2	1.87	0.56
37:2f:78:GLU:O	37:2f:81:ILE:HG22	2.05	0.56
39:2h:11:THR:HG22	39:2h:15:ASN:HD21	1.71	0.56
42:2k:16:SER:CB	42:2k:79:SER:HB3	2.35	0.56
43:2l:59:ARG:HG3	43:2l:65:GLU:HB2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:566:U:OP1	11:1P:29:LYS:HD2	2.06	0.56
1:1A:1947:C:H2'	1:1A:1948:G:C8	2.40	0.56
1:1A:2564:A:C2	1:1A:2647:U:H4'	2.41	0.56
32:1a:37:U:O2'	32:1a:500:G:H4'	2.05	0.56
32:1a:901:A:C5	32:1a:902:G:H1'	2.41	0.56
34:1c:175:LEU:HD11	34:1c:201:TYR:CE2	2.41	0.56
47:1p:56:ALA:HB1	47:1p:74:LEU:HD21	1.87	0.56
1:2A:1159:U:O2'	1:2A:1160:G:H5'	2.05	0.56
1:2A:1292:U:H2'	1:2A:1293:C:C6	2.41	0.56
1:2A:2641:G:H8	1:2A:2641:G:H5"	1.69	0.56
2:2B:64:C:H2'	2:2B:65:C:C6	2.41	0.56
33:2b:82:ARG:NH1	33:2b:92:TYR:HH	2.04	0.56
33:2b:98:LEU:HB2	33:2b:101:MET:HG3	1.86	0.56
1:1A:171:G:O2'	1:1A:172:C:H5'	2.06	0.55
1:1A:1028:A:N6	1:1A:1125:G:H2'	2.21	0.55
1:1A:1133:U:H5"	1:1A:1135:C:OP2	2.07	0.55
1:1A:1262:A:OP2	18:1W:99:ARG:NH2	2.38	0.55
32:1a:837:G:H1	32:1a:849:C:N4	1.98	0.55
32:1a:1135:U:H4'	32:1a:1136:U:H5	1.69	0.55
33:1b:208:ILE:HA	33:1b:211:ILE:HD12	1.87	0.55
35:1d:155:LEU:HB3	35:1d:158:ILE:HG22	1.88	0.55
35:1d:173:TRP:CD1	35:1d:193:ASP:HB3	2.41	0.55
37:1f:26:ILE:O	37:1f:30:LEU:HD12	2.06	0.55
40:1i:9:ARG:HG2	40:1i:14:VAL:HG22	1.87	0.55
49:1r:47:THR:OG1	49:1r:49:LYS:HE2	2.06	0.55
51:1t:57:ARG:HH22	51:1t:100:ILE:CD1	2.19	0.55
4:2E:54:GLN:NE2	4:2E:58:ARG:HD2	2.20	0.55
4:2E:134:ILE:HA	4:2E:137:HIS:CD2	2.41	0.55
10:2O:28:SER:OG	10:2O:29:ASN:ND2	2.39	0.55
14:2S:88:ASP:OD1	14:2S:90:GLY:N	2.31	0.55
20:2Y:51:VAL:HG13	20:2Y:56:PRO:HA	1.89	0.55
32:2a:1212:U:H5"	32:2a:1213:A:H5'	1.87	0.55
1:1A:363(B):G:H2'	1:1A:363(C):G:H8	1.72	0.55
1:1A:463:G:N2	1:1A:466:A:OP2	2.35	0.55
1:1A:1996:C:H4'	1:1A:1997:G:OP1	2.06	0.55
4:1E:47:VAL:HB	4:1E:49:LEU:HD13	1.89	0.55
5:1F:183:VAL:O	5:1F:187:VAL:HG23	2.06	0.55
21:1Z:9:TYR:OH	21:1Z:61:LEU:HG	2.07	0.55
26:14:18:CYS:SG	26:14:20:ASN:HB2	2.47	0.55
34:1c:124:ILE:HD11	34:1c:189:ALA:HB3	1.87	0.55
36:1e:68:GLU:O	36:1e:70:PRO:HD3	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:7:G:H4'	9:2N:13:TRP:HH2	1.71	0.55
1:2A:1364:G:OP2	23:21:3:LYS:HD2	2.06	0.55
1:2A:2094:G:H5'	8:2I:25:TYR:CD1	2.41	0.55
1:2A:2142:C:H2'	1:2A:2143:C:C6	2.42	0.55
1:2A:2219:G:H2'	1:2A:2220:G:H8	1.71	0.55
6:2G:82:LEU:HD21	6:2G:88:ILE:HG21	1.87	0.55
7:2H:24:VAL:HG13	7:2H:37:VAL:HG21	1.88	0.55
8:2I:14:ASP:O	8:2I:17:GLN:HB3	2.06	0.55
10:2O:120:GLU:HB2	15:2T:68:TYR:HE1	1.70	0.55
32:2a:1126:U:H6	32:2a:1281:U:C2	2.23	0.55
33:2b:45:GLN:HG3	33:2b:46:LYS:N	2.21	0.55
33:2b:162:ILE:HD11	33:2b:184:VAL:HG22	1.87	0.55
1:1A:100:G:H3'	1:1A:102:G:H5'	1.88	0.55
1:1A:1929:G:H4'	1:1A:1930:G:OP1	2.07	0.55
1:1A:2810:A:H2'	1:1A:2811:G:O4'	2.05	0.55
3:1D:152:GLY:O	3:1D:154:LYS:HG2	2.06	0.55
4:1E:76:ARG:HB3	4:1E:77:ILE:HD12	1.87	0.55
8:1I:78:THR:H	8:1I:104:GLN:HE22	1.54	0.55
16:1U:8:VAL:CG2	16:1U:12:ARG:HE	2.18	0.55
19:1X:26:TYR:CE1	19:1X:89:ILE:HG13	2.41	0.55
32:1a:77:G:C2'	32:1a:78:G:H5'	2.37	0.55
34:1c:95:THR:O	34:1c:97:LYS:HE3	2.06	0.55
39:1h:19:VAL:HG23	39:1h:21:LYS:HG2	1.89	0.55
41:1j:9:ARG:HH11	41:1j:9:ARG:CG	2.19	0.55
46:1o:17:ARG:HH11	46:1o:17:ARG:HG3	1.71	0.55
51:1t:43:LEU:O	51:1t:47:GLY:N	2.39	0.55
52:1u:2:GLY:C	52:1u:4:GLY:H	2.14	0.55
1:2A:1876:A:H2'	1:2A:1877:A:C8	2.41	0.55
20:2Y:44:ILE:HA	20:2Y:63:LYS:O	2.06	0.55
26:24:58:ARG:O	26:24:61:ARG:HG2	2.07	0.55
32:2a:1317:C:O2	50:2s:37:ARG:NH2	2.35	0.55
34:2c:134:ILE:HD11	34:2c:153:VAL:HG23	1.87	0.55
38:2g:109:ASN:OD1	38:2g:119:ARG:NH2	2.38	0.55
47:2p:17:TYR:HE2	47:2p:41:PRO:HG3	1.72	0.55
1:1A:658:C:H2'	1:1A:659:C:C6	2.42	0.55
1:1A:2751:G:C5	7:1H:2:SER:N	2.75	0.55
11:1P:2:LYS:NZ	11:1P:4:SER:HB3	2.21	0.55
21:1Z:52:SER:OG	21:1Z:53:ILE:N	2.39	0.55
24:12:53:LEU:O	24:12:57:ILE:HG13	2.06	0.55
32:1a:836:G:OP1	49:1r:61:LYS:NZ	2.38	0.55
35:1d:108:LEU:CD1	35:1d:174:LEU:HD13	2.35	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1g:115:ARG:HB2	38:1g:118:VAL:HG23	1.87	0.55
1:2A:853:G:H1	1:2A:924:C:H42	1.54	0.55
1:2A:864:G:C6	1:2A:865:C:N4	2.74	0.55
1:2A:1790:C:H2'	1:2A:1791:A:C5	2.42	0.55
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.42	0.55
1:2A:2473:U:H2'	1:2A:2474:C:H6	1.72	0.55
10:2O:73:ASP:HB2	15:2T:82:LEU:HD22	1.89	0.55
10:2O:113:LYS:O	10:2O:117:LEU:HD12	2.06	0.55
32:2a:620:C:C2	35:2d:135:LEU:HG	2.42	0.55
38:2g:111:ARG:NH1	38:2g:113:GLU:OE1	2.39	0.55
43:2l:33:ARG:NH1	43:2l:62:SER:HB3	2.21	0.55
51:2t:64:ASP:OD2	51:2t:81:LYS:NZ	2.26	0.55
1:1A:1097:U:H3'	1:1A:1098:A:C8	2.42	0.55
9:1N:120:LEU:HG	9:1N:122:VAL:HG23	1.88	0.55
10:1O:2:ILE:HD12	10:1O:6:THR:HG21	1.87	0.55
26:14:58:ARG:NH2	50:1s:68:GLY:HA3	2.21	0.55
32:1a:1322:C:H5"	44:1m:100:GLY:HA3	1.88	0.55
40:1i:26:VAL:HG22	40:1i:61:ALA:HB3	1.88	0.55
1:2A:7:G:H4'	9:2N:13:TRP:CH2	2.42	0.55
1:2A:1588:C:H2'	1:2A:1589:C:C6	2.34	0.55
1:2A:2279:G:O6	22:20:14:ARG:HD2	2.07	0.55
32:2a:67:C:H2'	32:2a:68:G:H8	1.71	0.55
32:2a:384:G:H2'	32:2a:385:C:H6	1.70	0.55
32:2a:1036:G:H3'	32:2a:1037:C:C6	2.42	0.55
33:2b:124:SER:HB3	33:2b:125:PRO:HA	1.89	0.55
35:2d:163:GLU:O	35:2d:166:LYS:HG2	2.07	0.55
1:1A:2277:G:OP2	22:10:10:THR:HG21	2.07	0.55
1:1A:2486:G:N2	58:1A:4009:HOH:O	2.30	0.55
1:1A:2593:U:H2'	1:1A:2594:C:C6	2.41	0.55
11:1P:97:PRO:HD3	11:1P:126:VAL:O	2.07	0.55
25:13:48:GLU:HA	25:13:51:ALA:HB2	1.89	0.55
32:1a:407:G:OP1	35:1d:115:ARG:NH2	2.37	0.55
33:1b:97:TRP:CH2	33:1b:173:ALA:HA	2.41	0.55
39:1h:34:GLU:HB3	39:1h:118:VAL:HG21	1.88	0.55
51:1t:16:HIS:O	51:1t:19:SER:OG	2.19	0.55
1:2A:443:A:H1'	1:2A:1201:C:O4'	2.06	0.55
1:2A:805:G:N2	1:2A:829:A:OP1	2.39	0.55
1:2A:826:U:OP1	1:2A:2428:G:H3'	2.06	0.55
1:2A:2360:A:H2'	1:2A:2361:A:O4'	2.06	0.55
32:2a:1356:G:H2'	32:2a:1357:A:H8	1.70	0.55
33:2b:55:PHE:CE1	33:2b:218:ALA:HA	2.34	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:12:CYS:HA	35:2d:19:LEU:HD13	1.88	0.55
38:2g:146:GLU:OE2	38:2g:149:ARG:NE	2.40	0.55
1:1A:2011:U:H2'	1:1A:2012:G:H5'	1.88	0.55
2:1B:90:A:C5	2:1B:91:C:H1'	2.41	0.55
3:1D:109:ASP:HB2	3:1D:197:GLY:HA2	1.88	0.55
6:1G:80:PHE:O	6:1G:81:LYS:HB2	2.06	0.55
13:1R:33:ARG:HD2	13:1R:113:LEU:HD13	1.89	0.55
35:1d:150:GLU:C	35:1d:152:SER:H	2.15	0.55
47:1p:74:LEU:O	47:1p:79:VAL:HG13	2.06	0.55
1:2A:30:G:C5	1:2A:31:C:C4	2.95	0.55
1:2A:2805:G:H2'	1:2A:2807:G:H8	1.70	0.55
7:2H:55:PRO:HG2	7:2H:61:HIS:NE2	2.22	0.55
32:2a:1030(A):G:O2'	32:2a:1031:G:N2	2.40	0.55
34:2c:155:GLY:HA3	34:2c:196:LEU:HD22	1.89	0.55
35:2d:194:LEU:HD13	35:2d:195:ALA:H	1.72	0.55
36:2e:100:VAL:O	36:2e:107:ARG:NH2	2.39	0.55
1:1A:74:A:N3	1:1A:74:A:H5"	2.22	0.55
1:1A:389:G:H8	1:1A:389:G:O5'	1.90	0.55
1:1A:2141:G:H22	1:1A:2151:G:H1'	1.71	0.55
13:1R:104:ARG:NH1	13:1R:107:ASP:OD2	2.37	0.55
16:1U:38:THR:O	16:1U:41:ALA:HB3	2.07	0.55
32:1a:263:A:P	51:1t:79:ARG:HH11	2.30	0.55
32:1a:713:G:H21	32:1a:777:A:H1'	1.71	0.55
37:1f:11:ASN:HB3	37:1f:14:LEU:HG	1.88	0.55
46:1o:82:ILE:HD12	46:1o:88:ARG:HB2	1.89	0.55
1:2A:1187:G:H5"	17:2V:81:TYR:CE1	2.41	0.55
1:2A:2748:A:H5'	7:2H:4:ILE:HD12	1.88	0.55
24:22:1:MET:HE3	24:22:5:GLU:HB3	1.88	0.55
33:2b:102:LEU:HD23	33:2b:182:ILE:HD12	1.88	0.55
38:2g:31:MET:HA	38:2g:39:ALA:HB2	1.88	0.55
1:1A:190:A:N3	1:1A:679:C:O2'	2.37	0.55
1:1A:2690:C:H5"	1:1A:2872:G:N2	2.22	0.55
10:1O:64:ARG:HB2	10:1O:83:ALA:HB3	1.89	0.55
32:1a:1036:G:H3'	32:1a:1037:C:C6	2.42	0.55
32:1a:1203:C:H2'	32:1a:1204:A:C8	2.42	0.55
32:1a:1369:C:H2'	32:1a:1370:G:C8	2.42	0.55
46:1o:8:LYS:O	46:1o:12:ILE:HG13	2.07	0.55
1:2A:68:G:H2'	1:2A:69:C:C6	2.42	0.55
6:2G:108:ASN:HA	26:24:37:SER:HB3	1.88	0.55
26:24:43:TYR:O	26:24:45:GLY:N	2.40	0.55
32:2a:1002:G:C6	32:2a:1003:G:N3	2.75	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1036:G:H3'	32:2a:1037:C:H6	1.70	0.55
32:2a:1095:U:H2'	32:2a:1096:C:C6	2.41	0.55
32:2a:1327:C:H2'	32:2a:1328:C:C6	2.42	0.55
35:2d:57:ARG:HB3	35:2d:206:PHE:HB2	1.89	0.55
36:2e:71:LEU:HD11	36:2e:113:ALA:O	2.06	0.55
40:2i:43:ALA:O	40:2i:45:ALA:N	2.40	0.55
46:2o:28:GLN:HE21	46:2o:66:LEU:HD21	1.71	0.55
1:1A:226:G:C2	1:1A:228:A:N6	2.74	0.55
1:1A:2159:G:H2'	1:1A:2160:G:C8	2.42	0.55
1:1A:2584:U:H2'	1:1A:2585:U:C5'	2.37	0.55
1:1A:2674:G:H5'	10:1O:26:LYS:HE3	1.89	0.55
32:1a:135:C:O2	47:1p:1:MET:N	2.35	0.55
32:1a:434:U:H2'	32:1a:435:C:C6	2.42	0.55
32:1a:453:A:O5'	47:1p:72:ARG:HD3	2.07	0.55
32:1a:979:C:OP1	32:1a:1223:C:N4	2.40	0.55
34:1c:124:ILE:HD12	34:1c:196:LEU:HD12	1.89	0.55
54:1z:3:MET:HG3	54:1z:37:PRO:HG2	1.88	0.55
1:2A:478:A:N1	1:2A:500:G:H4'	2.22	0.55
1:2A:606:U:H4'	1:2A:658:C:H4'	1.88	0.55
1:2A:830:G:H4'	1:2A:831:G:OP2	2.06	0.55
1:2A:1651:G:OP2	13:2R:40:LYS:NZ	2.40	0.55
1:2A:1999:C:H4'	1:2A:2723:C:O2	2.07	0.55
1:2A:2849:U:H4'	1:2A:2868:A:C2	2.42	0.55
8:2I:109:ILE:HG23	8:2I:130:TYR:OH	2.07	0.55
12:2Q:39:PRO:HD3	12:2Q:99:PRO:HG3	1.89	0.55
32:2a:1118:C:H1'	32:2a:1179:A:C4	2.42	0.55
32:2a:1148:U:O4'	40:2i:16:ARG:HD2	2.07	0.55
32:2a:1269:A:N1	32:2a:1312:G:O2'	2.37	0.55
45:2n:24:CYS:HB3	45:2n:28:GLY:H	1.72	0.55
1:1A:228:A:H8	1:1A:229:A:C5'	2.21	0.54
1:1A:990:A:N6	1:1A:1186:G:H1'	2.22	0.54
1:1A:1657:C:H5"	4:1E:133:LYS:O	2.07	0.54
4:1E:28:ALA:HB3	4:1E:93:VAL:HG12	1.88	0.54
5:1F:184:TYR:CD2	5:1F:188:ARG:HD2	2.42	0.54
32:1a:438:G:O2'	32:1a:494:U:O4	2.21	0.54
32:1a:834:C:H2'	32:1a:835:U:C6	2.41	0.54
32:1a:1309:G:C6	32:1a:1329:A:C2	2.95	0.54
40:1i:11:LYS:HA	40:1i:108:VAL:HG13	1.89	0.54
1:2A:2252:G:H2'	1:2A:2253:G:O4'	2.07	0.54
1:2A:2457:U:H2'	1:2A:2458:G:H5'	1.88	0.54
8:2I:15:VAL:O	8:2I:17:GLN:N	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:28:8:LYS:O	30:28:12:LYS:HG3	2.07	0.54
32:2a:1077:G:N2	32:2a:1080:A:OP2	2.38	0.54
37:2f:76:ALA:O	37:2f:80:ARG:HG3	2.07	0.54
39:2h:121:ASP:OD2	39:2h:125:ARG:NH2	2.40	0.54
44:2m:70:LEU:O	44:2m:74:VAL:HG23	2.07	0.54
1:1A:2723:C:OP1	13:1R:3:HIS:ND1	2.33	0.54
12:1Q:32:TYR:OH	12:1Q:111:GLU:OE2	2.13	0.54
25:13:3:ARG:CB	25:13:60:GLU:HG3	2.32	0.54
32:1a:1149:C:P	40:1i:9:ARG:HH21	2.30	0.54
1:2A:2530:A:O2'	1:2A:2532:G:OP2	2.10	0.54
35:2d:13:ARG:HB3	35:2d:40:PRO:HD3	1.89	0.54
40:2i:33:PHE:CZ	40:2i:47:LEU:HD11	2.42	0.54
8:1I:104:GLN:HG2	8:1I:105:HIS:CD2	2.42	0.54
14:1S:10:ARG:NH2	14:1S:91:PRO:HB2	2.16	0.54
29:17:41:ARG:HG3	29:17:41:ARG:HH11	1.72	0.54
34:1c:57:ILE:HG12	34:1c:66:VAL:HG22	1.89	0.54
34:1c:118:GLN:HG3	34:1c:187:ALA:HB2	1.90	0.54
1:2A:910:A:C5	12:2Q:13:GLN:HG3	2.42	0.54
1:2A:1504:C:H2'	1:2A:1505:C:C6	2.42	0.54
3:2D:242:ARG:HD3	3:2D:246:PRO:HG3	1.90	0.54
4:2E:37:ARG:NH1	4:2E:42:ASP:OD1	2.39	0.54
14:2S:59:LYS:HD2	14:2S:60:GLY:H	1.72	0.54
18:2W:82:LEU:HD22	18:2W:84:ARG:NH2	2.22	0.54
23:21:13:ILE:HD11	23:21:42:GLN:OE1	2.07	0.54
32:2a:406:G:H21	35:2d:119:GLN:NE2	2.04	0.54
32:2a:1327:C:H5"	52:2u:20:LYS:HE2	1.87	0.54
32:2a:1503:A:OP1	32:2a:1531:A:O2'	2.25	0.54
1:1A:2135:A:N6	1:1A:2156:G:H1'	2.22	0.54
1:1A:2159:G:H2'	1:1A:2160:G:H8	1.73	0.54
2:1B:57:A:H3'	58:1B:316:HOH:O	2.07	0.54
5:1F:65:TRP:CZ2	5:1F:75:HIS:HD2	2.26	0.54
10:1O:69:ILE:HD11	10:1O:105:GLU:OE2	2.07	0.54
16:1U:59:ARG:O	16:1U:63:VAL:HG23	2.07	0.54
17:1V:76:LYS:HG3	17:1V:81:TYR:CD2	2.42	0.54
32:1a:376:G:OP1	47:1p:5:ARG:HB2	2.08	0.54
32:1a:406:G:H21	35:1d:119:GLN:HE22	1.54	0.54
32:1a:1004:A:H3'	32:1a:1005:A:C8	2.41	0.54
32:1a:1530:G:H2'	32:1a:1531:A:C8	2.43	0.54
37:1f:44:GLY:HA2	37:1f:59:TYR:CE2	2.42	0.54
40:1i:88:TYR:CD2	40:1i:89:ASN:HB2	2.42	0.54
1:2A:1429:G:H2'	1:2A:1430:C:H6	1.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1509(B):A:H2'	1:2A:1510:G:H8	1.72	0.54
1:2A:1570:A:H2'	1:2A:1571:A:C8	2.42	0.54
1:2A:2126:A:H1'	1:2A:2162:G:N2	2.22	0.54
32:2a:406:G:H5'	35:2d:5:ILE:HG13	1.89	0.54
32:2a:438:G:H4'	35:2d:123:HIS:HD2	1.72	0.54
32:2a:512:U:H2'	32:2a:513:C:H6	1.72	0.54
32:2a:717:C:H6	32:2a:717:C:H5"	1.72	0.54
32:2a:1077:G:C2	32:2a:1081:G:C6	2.96	0.54
32:2a:1093:A:N3	32:2a:1109:C:O2'	2.34	0.54
34:2c:6:HIS:NE2	34:2c:8:ILE:HB	2.22	0.54
34:2c:124:ILE:HD11	34:2c:189:ALA:HB3	1.89	0.54
1:1A:1068:G:O2'	1:1A:1096:A:H1'	2.08	0.54
1:1A:1278:A:OP1	13:1R:36:THR:HG23	2.07	0.54
1:1A:1290:C:H2'	1:1A:1291:C:C6	2.43	0.54
1:1A:1581:G:H5"	1:1A:1581:G:H8	1.73	0.54
1:1A:1656:C:H5"	4:1E:136:ARG:HB2	1.89	0.54
1:1A:1794:U:H1'	1:1A:1900:A:N3	2.22	0.54
6:1G:16:ARG:NH1	6:1G:31:VAL:HG22	2.22	0.54
6:1G:41:GLN:HE22	6:1G:153:ARG:HG3	1.71	0.54
13:1R:103:ARG:NH1	13:1R:108:GLY:O	2.40	0.54
17:1V:76:LYS:HG3	17:1V:81:TYR:HD2	1.72	0.54
32:1a:926:G:C6	54:1z:87:LYS:HG3	2.43	0.54
32:1a:1402:4OC:HM22	32:1a:1403:C:H5'	1.88	0.54
32:1a:1429:C:H2'	32:1a:1430:C:H6	1.73	0.54
34:1c:6:HIS:NE2	34:1c:8:ILE:HB	2.23	0.54
38:1g:89:MET:SD	38:1g:155:ARG:HG3	2.48	0.54
47:1p:57:ARG:NE	47:1p:79:VAL:O	2.39	0.54
1:2A:760:G:H2'	1:2A:761:A:O4'	2.07	0.54
1:2A:1250:G:H5"	58:2U:305:HOH:O	2.06	0.54
8:2I:77:LEU:HD22	8:2I:97:ILE:HG23	1.89	0.54
9:2N:96:GLU:CD	9:2N:96:GLU:H	2.16	0.54
32:2a:413:G:N7	35:2d:35:ARG:NH1	2.55	0.54
32:2a:927:G:O2'	32:2a:1503:A:N7	2.36	0.54
33:2b:9:GLU:HG3	33:2b:213:LEU:HD21	1.90	0.54
3:1D:121:PRO:HB3	3:1D:135:PHE:CE2	2.43	0.54
4:1E:143:ASN:HD22	4:1E:147:PRO:HD3	1.73	0.54
6:1G:161:THR:HG23	6:1G:163:ALA:H	1.71	0.54
8:1I:108:THR:HG22	8:1I:109:ILE:H	1.72	0.54
13:1R:100:LEU:HD11	13:1R:113:LEU:HD23	1.88	0.54
13:1R:117:VAL:HG12	13:1R:118:GLU:N	2.21	0.54
18:1W:71:VAL:HA	18:1W:107:LEU:HD12	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1128:C:H42	32:1a:1144:G:H1	1.55	0.54
41:1j:4:ILE:N	41:1j:100:THR:HG22	2.23	0.54
53:1y:16:ARG:HG2	53:1y:17:PRO:N	2.21	0.54
1:2A:996:A:C2	1:2A:997:G:C8	2.96	0.54
1:2A:1275:A:N1	1:2A:1295:C:O2'	2.37	0.54
1:2A:2630:G:H2'	1:2A:2631:G:C8	2.43	0.54
1:2A:2693:A:H2'	1:2A:2694:G:C8	2.43	0.54
6:2G:9:ARG:NH1	6:2G:13:GLU:OE2	2.40	0.54
6:2G:46:ALA:HB1	6:2G:51:ARG:HA	1.88	0.54
7:2H:46:GLU:OE2	7:2H:51:ARG:NH2	2.41	0.54
26:24:41:PRO:HG3	26:24:49:PHE:CD1	2.42	0.54
32:2a:1262:C:H2'	32:2a:1263:C:H6	1.73	0.54
32:2a:1371:G:O3'	40:2i:69:GLY:HA3	2.08	0.54
41:2j:47:PHE:CZ	45:2n:37:PHE:CE1	2.95	0.54
1:1A:2320:A:H2'	1:1A:2320:A:N3	2.23	0.54
1:1A:2836:U:H2'	1:1A:2837:G:C8	2.42	0.54
8:1I:14:ASP:O	8:1I:17:GLN:HB3	2.08	0.54
21:1Z:152:ALA:HB1	21:1Z:163:LEU:HD21	1.90	0.54
32:1a:413:G:N2	32:1a:428:G:H1'	2.23	0.54
35:1d:119:GLN:O	35:1d:123:HIS:ND1	2.40	0.54
35:1d:176:LEU:HD12	35:1d:182:LYS:O	2.07	0.54
37:1f:42:GLU:OE2	37:1f:59:TYR:OH	2.19	0.54
38:1g:61:VAL:HG12	38:1g:124:LEU:HD23	1.89	0.54
47:1p:8:ARG:C	47:1p:9:PHE:HD1	2.16	0.54
1:2A:271(H):G:H2'	1:2A:271(I):G:H8	1.73	0.54
23:21:64:ALA:HA	23:21:67:ILE:HG13	1.89	0.54
32:2a:292:G:C5	32:2a:293:G:H1'	2.42	0.54
32:2a:401:C:OP2	35:2d:73:ARG:NH2	2.40	0.54
32:2a:422:C:H5'	32:2a:423:G:N7	2.23	0.54
32:2a:828:A:H5"	32:2a:859:A:C2	2.43	0.54
32:2a:1239:A:H4'	32:2a:1240:U:H5"	1.89	0.54
32:2a:1326:C:H2'	32:2a:1327:C:C6	2.43	0.54
1:1A:16:G:H2'	1:1A:17:G:H8	1.73	0.54
1:1A:278:A:H5"	1:1A:278:A:H8	1.73	0.54
1:1A:904:C:H2'	1:1A:905:U:C6	2.43	0.54
1:1A:1167:U:H2'	1:1A:1168:G:C8	2.42	0.54
1:1A:1802:A:N1	1:1A:1822:G:H1'	2.23	0.54
1:1A:2355:C:H1'	22:10:39:ARG:HH21	1.73	0.54
4:1E:111:ARG:HD2	4:1E:160:TYR:CD2	2.43	0.54
5:1F:40:GLN:NE2	5:1F:184:TYR:HB3	2.23	0.54
6:1G:107:LEU:HD11	6:1G:178:PHE:CE1	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:1Y:49:VAL:HG21	20:1Y:61:ILE:HG23	1.88	0.54
32:1a:828:A:H2'	32:1a:829:G:O4'	2.08	0.54
32:1a:1317:C:OP1	45:1n:17:LYS:HG2	2.07	0.54
35:1d:162:LEU:CD1	35:1d:181:MET:HE2	2.38	0.54
40:1i:31:GLN:HG2	40:1i:36:TYR:HB2	1.90	0.54
1:2A:923:C:H2'	1:2A:924:C:C6	2.43	0.54
1:2A:1180:C:H2'	1:2A:1181:C:C6	2.42	0.54
1:2A:2261:C:C6	22:20:16:SER:HB3	2.43	0.54
1:2A:2320:A:N6	1:2A:2333:A:H2'	2.22	0.54
7:2H:64:LEU:O	7:2H:68:THR:OG1	2.18	0.54
13:2R:67:LEU:HD13	13:2R:76:VAL:CG2	2.33	0.54
21:2Z:99:TYR:HA	21:2Z:124:ILE:O	2.07	0.54
32:2a:1073:U:H2'	32:2a:1074:G:H8	1.73	0.54
32:2a:1202:G:H2'	32:2a:1203:C:O4'	2.07	0.54
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.43	0.54
1:1A:1139:G:O2'	1:1A:1143:A:N1	2.37	0.54
1:1A:1207:C:H2'	1:1A:1208:C:H6	1.73	0.54
1:1A:1665:A:H4'	10:1O:67:LYS:HB2	1.88	0.54
1:1A:1667:G:O2'	1:1A:1991:U:O4	2.24	0.54
1:1A:1936:A:OP1	1:1A:1937:A:H5'	2.08	0.54
1:1A:2294:C:P	14:1S:89:ARG:HH22	2.30	0.54
1:1A:2732:G:H3'	1:1A:2733:A:O4'	2.08	0.54
4:1E:52:LEU:O	4:1E:76:ARG:N	2.35	0.54
8:1I:93:THR:O	8:1I:96:ASP:HB2	2.07	0.54
32:1a:1086:U:H2'	32:1a:1087:G:O4'	2.08	0.54
37:1f:30:LEU:HB3	37:1f:35:ALA:HB3	1.89	0.54
1:2A:2206:G:H5"	1:2A:2207:G:C5	2.42	0.54
4:2E:34:VAL:HG22	4:2E:48:GLN:HE21	1.72	0.54
5:2F:129:PHE:CD2	5:2F:163:VAL:HG21	2.43	0.54
7:2H:3:ARG:HE	7:2H:54:ARG:NH1	2.05	0.54
7:2H:29:PRO:HD2	7:2H:80:SER:HA	1.89	0.54
8:2I:43:ASN:ND2	23:21:75:GLU:OE2	2.41	0.54
8:2I:87:LYS:HD3	8:2I:121:LYS:HE2	1.89	0.54
15:2T:74:ARG:HG2	15:2T:74:ARG:NH1	2.20	0.54
32:2a:460:G:N2	32:2a:471:G:N7	2.56	0.54
32:2a:1327:C:H2'	32:2a:1328:C:H6	1.72	0.54
32:2a:1411:C:H2'	32:2a:1412:C:H6	1.72	0.54
1:1A:363(A):A:H2'	1:1A:363(B):G:C8	2.43	0.54
1:1A:2473:U:H2'	1:1A:2474:C:C6	2.42	0.54
4:1E:78:LEU:O	4:1E:79:ARG:NH1	2.41	0.54
9:1N:67:LEU:HA	9:1N:87:LEU:CD1	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:269:C:H2'	32:1a:270:A:C8	2.43	0.54
32:1a:922:G:C6	32:1a:923:A:C6	2.95	0.54
32:1a:1030(A):G:H1'	32:1a:1031:G:H22	1.73	0.54
32:1a:1518:MA6:H102	32:1a:1519:MA6:H103	1.90	0.54
34:1c:73:PRO:O	34:1c:77:ILE:HG13	2.07	0.54
35:1d:38:TYR:CE1	35:1d:45:GLN:HG2	2.43	0.54
1:2A:177:G:H3'	1:2A:178:G:C8	2.43	0.54
1:2A:228:A:H8	1:2A:229:A:H5'	1.73	0.54
1:2A:460:A:OP1	29:27:41:ARG:NH2	2.41	0.54
1:2A:946:G:O2'	1:2A:947:G:H5'	2.07	0.54
1:2A:1416:G:H1'	1:2A:1417:C:C5	2.43	0.54
1:2A:1901:A:OP2	3:2D:255:LYS:HE3	2.08	0.54
1:2A:2064:C:H1'	1:2A:2450:A:C2	2.43	0.54
1:2A:2752:C:H6	1:2A:2752:C:O5'	1.90	0.54
14:2S:26:LEU:HD22	14:2S:87:PHE:CE1	2.42	0.54
32:2a:512:U:H2'	32:2a:513:C:C6	2.42	0.54
32:2a:986:A:N3	50:2s:52:TYR:OH	2.41	0.54
33:2b:121:LEU:HD12	33:2b:126:GLU:HG2	1.90	0.54
35:2d:18:LYS:HG3	35:2d:33:MET:HG3	1.90	0.54
41:2j:37:PRO:HA	41:2j:72:VAL:HG12	1.90	0.54
43:2l:7:ILE:O	43:2l:11:VAL:HG23	2.07	0.54
1:1A:51:G:O2'	1:1A:119:A:N1	2.41	0.53
1:1A:795:C:H2'	1:1A:796:C:H6	1.73	0.53
1:1A:2023:G:H5'	1:1A:2617:C:H4'	1.90	0.53
26:14:15:ILE:HD12	26:14:21:VAL:HG22	1.90	0.53
28:16:6:ARG:NE	28:16:24:GLU:OE2	2.35	0.53
32:1a:406:G:N2	35:1d:119:GLN:HE22	2.06	0.53
32:1a:1014:A:H4'	50:1s:14:HIS:CD2	2.42	0.53
37:1f:10:LEU:HD13	37:1f:61:LEU:HD13	1.90	0.53
37:1f:41:GLU:HG2	37:1f:43:LEU:HD12	1.91	0.53
1:2A:1062:G:H1'	1:2A:1088:A:N6	2.24	0.53
1:2A:1073:A:C2	1:2A:1074:G:H8	2.26	0.53
1:2A:1364:G:N7	23:21:3:LYS:HE2	2.24	0.53
1:2A:2320:A:N3	1:2A:2320:A:H2'	2.24	0.53
1:2A:2380:C:O5'	1:2A:2380:C:H6	1.91	0.53
14:2S:84:GLN:HA	14:2S:111:GLU:HB2	1.88	0.53
18:2W:29:LEU:O	18:2W:33:ARG:HG3	2.08	0.53
32:2a:404:U:O2	32:2a:498:U:C4	2.61	0.53
32:2a:1002:G:C2	32:2a:1003:G:H1'	2.43	0.53
32:2a:1347:G:O2'	32:2a:1373:G:O6	2.13	0.53
32:2a:1504:G:OP1	32:2a:1507:A:H4'	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:188:LEU:O	34:2c:190:ARG:NH2	2.40	0.53
48:2q:72:ARG:HH11	48:2q:72:ARG:HG3	1.73	0.53
1:1A:100:G:H3'	1:1A:102:G:C5'	2.38	0.53
1:1A:272(H):C:N4	1:1A:363(B):G:H1	2.06	0.53
1:1A:1158:C:H4'	25:13:32:GLN:HB2	1.90	0.53
1:1A:1164:G:H2'	1:1A:1165:U:C6	2.43	0.53
3:1D:52:ARG:NH1	3:1D:249:PRO:HG2	2.23	0.53
28:16:13:CYS:SG	28:16:47:THR:HG21	2.48	0.53
32:1a:946:A:H2'	32:1a:947:G:C8	2.43	0.53
32:1a:1060:C:H4'	41:1j:51:ARG:HB3	1.91	0.53
35:1d:163:GLU:C	35:1d:165:MET:H	2.15	0.53
40:1i:114:TYR:HD2	41:1j:60:ARG:H	1.54	0.53
1:2A:555:U:O2'	1:2A:556:G:N7	2.33	0.53
1:2A:1514:U:H2'	1:2A:1515:G:C8	2.43	0.53
1:2A:2207:G:H2'	1:2A:2208:A:H2	1.73	0.53
13:2R:12:ARG:O	13:2R:17:ARG:NH1	2.41	0.53
15:2T:55:ASN:N	15:2T:59:THR:HG22	2.22	0.53
31:29:17:ILE:HG12	31:29:26:ILE:HD11	1.91	0.53
32:2a:1046:A:H3'	32:2a:1047:G:H8	1.73	0.53
34:2c:125:GLU:HG2	34:2c:190:ARG:O	2.08	0.53
39:2h:96:GLY:O	39:2h:99:GLU:HG2	2.09	0.53
44:2m:49:THR:HG22	44:2m:51:ALA:H	1.73	0.53
1:1A:249:C:H4'	1:1A:250:G:H5"	1.89	0.53
1:1A:1815:A:OP2	3:1D:54:ARG:NH2	2.40	0.53
1:1A:2406:U:H2'	1:1A:2406:U:OP2	2.09	0.53
3:1D:175:LEU:HD12	3:1D:185:VAL:HG21	1.90	0.53
5:1F:161:GLU:O	5:1F:165:ARG:HG3	2.08	0.53
23:11:82:LEU:O	23:11:85:LEU:HD12	2.08	0.53
29:17:28:ARG:HH11	29:17:28:ARG:HG3	1.74	0.53
32:1a:437:U:H5'	35:1d:155:LEU:HD21	1.90	0.53
32:1a:688:G:H2'	32:1a:689:C:H6	1.73	0.53
34:1c:148:GLY:HA3	34:1c:172:ARG:O	2.08	0.53
1:2A:751:A:H5'	18:2W:90:ARG:HA	1.88	0.53
1:2A:1001:A:H2'	1:2A:1002:G:O4'	2.08	0.53
3:2D:16:MET:CE	3:2D:208:LYS:HD3	2.38	0.53
5:2F:148:LEU:HD21	5:2F:191:ARG:HH21	1.74	0.53
13:2R:97:VAL:HG22	13:2R:114:VAL:HG13	1.89	0.53
21:2Z:25:PRO:O	21:2Z:85:HIS:HA	2.08	0.53
32:2a:1072:G:H2'	32:2a:1073:U:C6	2.44	0.53
32:2a:1095:U:P	32:2a:1108:G:H1	2.30	0.53
39:2h:33:GLU:HG2	39:2h:48:TYR:CE2	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:100:GLY:O	40:2i:103:THR:HG22	2.08	0.53
43:2l:24:VAL:HB	43:2l:27:LEU:HD23	1.90	0.53
2:1B:4:C:H2'	2:1B:5:C:O4'	2.08	0.53
14:1S:81:GLY:HA2	14:1S:83:LYS:NZ	2.23	0.53
32:1a:175:C:H2'	32:1a:176:C:C6	2.44	0.53
41:1j:34:VAL:HG12	41:1j:74:ILE:HA	1.90	0.53
44:1m:11:ARG:HA	44:1m:45:VAL:HB	1.91	0.53
48:1q:88:TYR:HD1	48:1q:89:LEU:HD23	1.72	0.53
1:2A:633:A:H1'	1:2A:2403:C:O3'	2.09	0.53
1:2A:2142:C:H2'	1:2A:2143:C:H6	1.74	0.53
1:2A:2646:C:H2'	1:2A:2647:U:O4'	2.07	0.53
8:2I:31:LEU:HD21	8:2I:38:LEU:HD13	1.90	0.53
32:2a:1077:G:C2	32:2a:1081:G:C5	2.97	0.53
35:2d:102:ASP:OD1	35:2d:103:ASN:N	2.42	0.53
38:2g:79:ARG:HG2	38:2g:79:ARG:HH11	1.74	0.53
40:2i:5:TYR:HD1	40:2i:17:VAL:O	1.91	0.53
1:1A:2820:A:P	13:1R:2:ARG:HH22	2.31	0.53
5:1F:53:THR:HG22	5:1F:55:GLY:N	2.23	0.53
11:1P:26:GLY:C	11:1P:27:HIS:HD2	2.16	0.53
24:12:23:LYS:O	24:12:27:GLU:HG3	2.07	0.53
32:1a:598:U:H2'	32:1a:599:C:H6	1.72	0.53
32:1a:1144:G:H21	32:1a:1146:A:H62	1.56	0.53
42:1k:59:TYR:CZ	42:1k:63:LEU:HD21	2.43	0.53
42:1k:84:VAL:HG21	42:1k:95:ILE:HD11	1.91	0.53
45:1n:50:LYS:HD3	45:1n:52:GLN:NE2	2.23	0.53
47:1p:43:LYS:HG2	47:1p:48:TRP:CE2	2.44	0.53
1:2A:580:C:H2'	1:2A:581:C:H6	1.73	0.53
1:2A:608:A:H2'	1:2A:609:A:C8	2.44	0.53
1:2A:777:A:H2'	1:2A:778:G:C8	2.42	0.53
1:2A:1926:U:O2'	1:2A:1928:A:N7	2.37	0.53
3:2D:159:ALA:HB1	3:2D:198:ASN:HB3	1.90	0.53
12:2Q:57:HIS:HD2	12:2Q:117:ALA:HB2	1.73	0.53
18:2W:4:LYS:HB2	18:2W:106:ILE:HG12	1.90	0.53
21:2Z:6:LYS:HG2	21:2Z:60:GLU:HB2	1.90	0.53
32:2a:632:A:H5'	32:2a:633:G:OP2	2.08	0.53
34:2c:29:TYR:OH	45:2n:54:PRO:HD2	2.07	0.53
42:2k:34:ASP:OD1	42:2k:37:GLY:N	2.38	0.53
51:2t:10:LEU:HB3	51:2t:12:ALA:H	1.74	0.53
1:1A:449:A:H2'	1:1A:450:G:H5'	1.91	0.53
2:1B:40:U:H2'	26:14:2:LYS:HE3	1.91	0.53
32:1a:149:A:H2'	32:1a:150:C:H6	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1c:181:ASN:ND2	34:1c:204:LEU:HB2	2.23	0.53
44:1m:39:ILE:HG12	44:1m:52:GLU:HG2	1.89	0.53
48:1q:24:GLU:HG3	48:1q:39:SER:HB3	1.89	0.53
5:2F:124:LEU:HB3	5:2F:193:VAL:HG22	1.90	0.53
21:2Z:58:VAL:HG12	21:2Z:68:PRO:HA	1.91	0.53
26:24:61:ARG:NH1	26:24:61:ARG:HB2	2.23	0.53
26:24:61:ARG:HB2	26:24:61:ARG:HH11	1.73	0.53
32:2a:811:C:H4'	32:2a:900:A:N6	2.24	0.53
33:2b:78:GLN:NE2	33:2b:94:ASN:O	2.41	0.53
34:2c:88:ARG:HG2	34:2c:101:LEU:HB3	1.91	0.53
48:2q:58:GLU:OE1	48:2q:75:ARG:NE	2.41	0.53
50:2s:50:ALA:HB1	50:2s:57:HIS:HB3	1.90	0.53
1:1A:271(L):U:H4'	8:1I:50:ARG:NH2	2.14	0.53
1:1A:579:G:H2'	1:1A:580:C:C6	2.44	0.53
6:1G:179:PRO:HG3	26:14:43:TYR:OH	2.08	0.53
13:1R:13:HIS:CE1	13:1R:16:HIS:HB2	2.43	0.53
13:1R:72:ASP:HB3	13:1R:75:LEU:HB2	1.90	0.53
17:1V:76:LYS:HB2	17:1V:81:TYR:HB3	1.89	0.53
23:11:5:CYS:SG	23:11:8:SER:N	2.72	0.53
32:1a:473:G:H2'	32:1a:474:G:C8	2.43	0.53
32:1a:977:A:H1'	32:1a:982:U:O4	2.08	0.53
33:1b:76:GLN:HE21	33:1b:206:ASP:HA	1.73	0.53
44:1m:11:ARG:O	44:1m:13:LYS:N	2.42	0.53
44:1m:76:ALA:O	44:1m:80:ARG:HG2	2.09	0.53
1:2A:459:U:H5"	29:27:40:TRP:CD2	2.44	0.53
1:2A:1210:A:H5"	1:2A:1212:G:O4'	2.08	0.53
1:2A:1354:A:H2'	1:2A:1355:G:O4'	2.08	0.53
1:2A:2203:U:O2'	1:2A:2205:C:H5'	2.08	0.53
15:2T:119:LYS:HB2	32:2a:1442(A):G:N2	2.24	0.53
21:2Z:8:TYR:N	21:2Z:8:TYR:CD1	2.77	0.53
32:2a:176:C:H2'	32:2a:177:C:H6	1.73	0.53
48:2q:62:SER:OG	48:2q:72:ARG:HG3	2.08	0.53
2:1B:66:A:N6	2:1B:108:U:H2'	2.22	0.53
9:1N:10:GLU:OE1	9:1N:11:PRO:HD2	2.08	0.53
16:1U:90:VAL:HG12	16:1U:95:LEU:HD22	1.91	0.53
32:1a:343:U:O2	32:1a:346:G:O6	2.25	0.53
32:1a:859:A:H2'	32:1a:860:A:O4'	2.09	0.53
32:1a:1266:G:N2	32:1a:1269:A:OP2	2.41	0.53
32:1a:1370:G:C2	32:1a:1371:G:C8	2.97	0.53
33:1b:109:SER:O	33:1b:112:VAL:N	2.42	0.53
33:1b:231:GLU:OE1	33:1b:232:PRO:HD3	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:9:CYS:SG	35:1d:22:LYS:HE3	2.49	0.53
36:1e:79:GLU:HG3	36:1e:93:PRO:HD2	1.89	0.53
1:2A:1997:G:P	58:2A:4024:HOH:O	2.67	0.53
1:2A:2853:C:H2'	1:2A:2854:G:C8	2.44	0.53
4:2E:59:VAL:HB	4:2E:64:LYS:HE3	1.90	0.53
9:2N:37:LYS:HG3	9:2N:42:TRP:CE2	2.44	0.53
29:27:16:HIS:HB2	29:27:44:PRO:HG2	1.91	0.53
32:2a:4:U:O4	39:2h:105:ARG:HD3	2.09	0.53
32:2a:222:U:H2'	32:2a:223:U:C6	2.44	0.53
33:2b:162:ILE:O	33:2b:185:ILE:HG13	2.09	0.53
38:2g:18:TYR:CE2	38:2g:59:LEU:HB2	2.43	0.53
1:1A:606:U:H4'	1:1A:658:C:H4'	1.91	0.53
1:1A:729:G:OP2	3:1D:208:LYS:NZ	2.42	0.53
1:1A:957:A:N6	1:1A:2459:A:C8	2.76	0.53
1:1A:1484:G:H1	1:1A:1505:C:N4	2.07	0.53
1:1A:1674:G:H1'	1:1A:1676:A:N6	2.24	0.53
1:1A:2447:G:N2	1:1A:2450:A:OP2	2.42	0.53
6:1G:124:SER:HB2	6:1G:131:TYR:CE1	2.44	0.53
32:1a:576:G:N2	32:1a:759:A:OP1	2.38	0.53
33:1b:37:ASN:O	33:1b:39:ILE:HG12	2.09	0.53
38:1g:79:ARG:HG3	38:1g:84:ASN:HA	1.90	0.53
42:1k:79:SER:HA	42:1k:104:GLN:HB3	1.89	0.53
43:1l:8:ASN:HA	43:1l:11:VAL:HG23	1.90	0.53
51:1t:37:SER:O	51:1t:41:ILE:HG12	2.09	0.53
1:2A:1495:A:H2'	1:2A:1496:A:H8	1.70	0.53
1:2A:1614:A:C2	18:2W:93:ALA:HB2	2.43	0.53
1:2A:1849:G:H2'	1:2A:1850:G:H8	1.74	0.53
32:2a:1333:A:H2'	32:2a:1334:G:O4'	2.09	0.53
33:2b:163:PHE:HA	33:2b:185:ILE:O	2.09	0.53
40:2i:48:GLU:OE2	40:2i:51:ARG:HD2	2.08	0.53
1:1A:883:G:N2	1:1A:894:C:C2	2.77	0.53
1:1A:1570:A:H2'	1:1A:1571:A:C8	2.43	0.53
1:1A:2300:G:C2	1:1A:2317:C:O2	2.62	0.53
17:1V:40:LEU:HB2	17:1V:46:VAL:HG13	1.91	0.53
18:1W:11:ARG:HG3	18:1W:11:ARG:O	2.08	0.53
32:1a:44:G:H2'	32:1a:45:U:O4'	2.09	0.53
38:1g:26:PHE:O	38:1g:30:ILE:HG13	2.09	0.53
1:2A:528:A:O2'	1:2A:529:A:H5'	2.09	0.53
1:2A:1598:C:H2'	1:2A:1599:C:C6	2.44	0.53
1:2A:1798:U:H5'	3:2D:259:THR:CG2	2.34	0.53
1:2A:2267:A:H5"	1:2A:2268:A:H5'	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2361:A:O5'	30:28:27:THR:OG1	2.27	0.53
4:2E:52:LEU:O	4:2E:76:ARG:N	2.32	0.53
12:2Q:6:ARG:HA	21:2Z:195:GLU:O	2.08	0.53
29:27:22:MET:SD	29:27:31:LEU:HD12	2.49	0.53
33:2b:150:SER:O	33:2b:153:ARG:HG2	2.09	0.53
41:2j:49:VAL:HG23	45:2n:41:ARG:HB2	1.91	0.53
51:2t:26:ASN:OD1	51:2t:71:THR:HG23	2.07	0.53
1:1A:864:G:C2'	1:1A:865:C:H5'	2.39	0.52
1:1A:1857:G:C6	1:1A:1858:G:C6	2.97	0.52
1:1A:2327:A:H5'	21:1Z:201:LYS:HG3	1.92	0.52
2:1B:95:C:H2'	2:1B:96:U:C6	2.44	0.52
6:1G:178:PHE:HB3	6:1G:180:PHE:CE1	2.44	0.52
32:1a:953:G:C6	32:1a:954:G:C4	2.97	0.52
32:1a:1034:G:H2'	32:1a:1035:A:C8	2.44	0.52
33:1b:51:LEU:O	33:1b:55:PHE:HD2	1.91	0.52
45:1n:23:ARG:HH12	45:1n:30:ALA:HB2	1.73	0.52
1:2A:668:G:H3'	1:2A:669:G:H5'	1.91	0.52
1:2A:1109:C:H3'	1:2A:1110:G:C8	2.43	0.52
1:2A:1973:G:H2'	1:2A:1974:C:C6	2.44	0.52
1:2A:2144:U:H1'	1:2A:2148:G:N2	2.24	0.52
1:2A:2291:U:O2'	1:2A:2374:C:O2	2.27	0.52
3:2D:96:HIS:CD2	3:2D:102:LYS:HG2	2.44	0.52
5:2F:64:ILE:HD11	5:2F:75:HIS:HB2	1.91	0.52
6:2G:103:LEU:HA	6:2G:106:LEU:HB3	1.91	0.52
12:2Q:1:MET:HG2	12:2Q:44:ALA:HB1	1.91	0.52
22:20:51:VAL:N	22:20:62:LEU:HD12	2.24	0.52
26:24:59:PHE:O	26:24:61:ARG:HG3	2.09	0.52
32:2a:190:U:H2'	32:2a:191:G:H8	1.73	0.52
32:2a:216:G:O2'	32:2a:217:C:O4'	2.18	0.52
32:2a:410:G:H5"	35:2d:30:LYS:NZ	2.24	0.52
38:2g:111:ARG:HB3	38:2g:113:GLU:OE2	2.08	0.52
40:2i:24:GLY:HA2	40:2i:59:PHE:O	2.09	0.52
1:1A:271(D):G:C6	1:1A:271(E):U:C4	2.97	0.52
1:1A:278:A:O2'	1:1A:279:C:OP1	2.22	0.52
1:1A:1849:G:H2'	1:1A:1850:G:H8	1.73	0.52
1:1A:2536:G:C6	1:1A:2537:U:C4	2.97	0.52
8:1I:3:VAL:HG12	8:1I:37:VAL:O	2.08	0.52
22:10:51:VAL:N	22:10:62:LEU:HD12	2.25	0.52
32:1a:165:C:H2'	32:1a:166:G:C8	2.45	0.52
32:1a:376:G:H4'	47:1p:5:ARG:NH1	2.25	0.52
32:1a:520:A:N1	32:1a:536:C:H1'	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:626:U:C2	32:1a:627:G:C8	2.98	0.52
32:1a:1238:A:N7	32:1a:1303:C:H1'	2.24	0.52
32:1a:1306:A:H2'	32:1a:1307:U:H6	1.73	0.52
32:1a:1316:G:H2'	32:1a:1318:A:OP2	2.08	0.52
39:1h:104:ARG:O	39:1h:107:LEU:HG	2.09	0.52
1:2A:298:G:N2	1:2A:339:U:C5	2.77	0.52
1:2A:755:C:H2'	1:2A:756:C:H6	1.73	0.52
1:2A:829:A:C5	1:2A:2248:C:H5'	2.45	0.52
1:2A:864:G:O2'	1:2A:865:C:H5'	2.09	0.52
1:2A:2070:G:C2	1:2A:2442:C:C2	2.97	0.52
1:2A:2162:G:O3'	1:2A:2172:U:O2'	2.23	0.52
13:2R:23:ASN:ND2	13:2R:23:ASN:H	2.06	0.52
13:2R:35:THR:HG23	13:2R:112:ALA:O	2.08	0.52
19:2X:11:PRO:HB3	19:2X:92:LEU:HD11	1.90	0.52
23:21:4:VAL:HG22	23:21:11:ARG:HB2	1.90	0.52
32:2a:344:A:H4'	32:2a:345:C:OP2	2.09	0.52
32:2a:437:U:C5'	35:2d:155:LEU:HD21	2.39	0.52
32:2a:1030:C:N4	32:2a:1032:G:C6	2.78	0.52
1:1A:708:C:H2'	1:1A:709:U:C6	2.45	0.52
4:1E:143:ASN:HB2	4:1E:147:PRO:HD2	1.92	0.52
19:1X:31:HIS:HD2	19:1X:33:LYS:H	1.54	0.52
21:1Z:103:ARG:HB3	21:1Z:138:GLU:HA	1.91	0.52
32:1a:402:G:O2'	32:1a:620:C:N3	2.39	0.52
32:1a:1070:U:H2'	32:1a:1071:C:C6	2.44	0.52
34:1c:116:VAL:HG21	34:1c:202:ILE:HD11	1.91	0.52
36:1e:77:PRO:HD2	36:1e:142:LEU:HD22	1.91	0.52
40:1i:31:GLN:HG3	40:1i:32:ASP:N	2.23	0.52
51:1t:97:ALA:HB1	51:1t:98:PRO:HD2	1.90	0.52
1:2A:990:A:H1'	1:2A:1156:A:N3	2.25	0.52
1:2A:1814:G:H2'	1:2A:1815:A:C8	2.44	0.52
1:2A:2457:U:C2'	1:2A:2458:G:H5'	2.40	0.52
1:2A:2526:G:H5'	1:2A:2742:C:O2'	2.10	0.52
2:2B:51:G:O2'	2:2B:52:A:H5'	2.09	0.52
6:2G:73:ALA:HB2	6:2G:82:LEU:HD22	1.92	0.52
11:2P:90:ARG:HG3	11:2P:91:PHE:CD1	2.45	0.52
33:2b:69:LEU:HB3	33:2b:162:ILE:HG22	1.90	0.52
34:2c:131:ARG:CZ	36:2e:50:GLU:HG3	2.39	0.52
35:2d:59:ARG:CZ	35:2d:59:ARG:HA	2.40	0.52
41:2j:11:PHE:HE1	41:2j:67:THR:HG22	1.74	0.52
1:1A:154:G:C6	1:1A:154(A):C:N4	2.77	0.52
1:1A:637:A:OP1	11:1P:133:SER:OG	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1110:G:O2'	1:1A:1111:A:OP2	2.26	0.52
1:1A:2820:A:N3	1:1A:2820:A:H2'	2.24	0.52
2:1B:19:G:H1	2:1B:64:C:N4	2.07	0.52
4:1E:92:THR:O	4:1E:95:ILE:HG23	2.10	0.52
11:1P:26:GLY:O	11:1P:27:HIS:HD2	1.92	0.52
26:14:54:GLY:C	26:14:56:VAL:HA	2.34	0.52
33:1b:223:ILE:CA	33:1b:226:ARG:HB2	2.30	0.52
35:1d:106:TYR:CD1	35:1d:106:TYR:C	2.86	0.52
1:2A:271(S):G:H5"	1:2A:271(S):G:H8	1.75	0.52
1:2A:1147:C:C2'	1:2A:1148:A:H5'	2.40	0.52
1:2A:1838:C:N4	1:2A:1898:U:H2'	2.23	0.52
2:2B:48:A:H2'	2:2B:49:C:C6	2.45	0.52
32:2a:113:G:H2'	32:2a:114:U:H6	1.74	0.52
33:2b:115:LEU:HD13	33:2b:145:LEU:HB3	1.92	0.52
34:2c:114:PRO:HA	34:2c:185:GLY:HA3	1.92	0.52
39:2h:113:SER:HB3	39:2h:134:ILE:HD11	1.91	0.52
1:1A:2187:G:H2'	1:1A:2188:C:O4'	2.08	0.52
3:1D:121:PRO:HB3	3:1D:135:PHE:CD2	2.45	0.52
8:1I:125:GLU:OE1	8:1I:125:GLU:HA	2.08	0.52
32:1a:926:G:N1	54:1z:87:LYS:HG3	2.25	0.52
32:1a:1402:4OC:O5'	32:1a:1402:4OC:H6	2.09	0.52
36:1e:137:GLU:OE2	36:1e:141:GLN:NE2	2.41	0.52
44:1m:84:ILE:HD11	50:1s:66:MET:HB3	1.92	0.52
1:2A:217:G:H8	1:2A:217:G:O5'	1.92	0.52
1:2A:245:G:H1	1:2A:253:C:N4	2.02	0.52
1:2A:2474:C:H5"	1:2A:2475:C:OP2	2.10	0.52
1:2A:2630:G:H2'	1:2A:2631:G:H8	1.75	0.52
2:2B:90:A:N7	2:2B:91:C:H1'	2.25	0.52
7:2H:20:ALA:HB3	7:2H:23:ARG:HG3	1.91	0.52
9:2N:71:ILE:HG21	9:2N:84:LYS:HB3	1.90	0.52
17:2V:20:LEU:HD12	17:2V:21:ARG:H	1.74	0.52
22:20:49:LYS:O	22:20:50:ASN:HB2	2.08	0.52
32:2a:78:G:OP2	32:2a:78:G:C8	2.63	0.52
32:2a:373:A:H61	32:2a:391:G:H1'	1.74	0.52
32:2a:404:U:H5"	35:2d:122:ARG:HD3	1.92	0.52
32:2a:625:G:H4'	47:2p:16:HIS:CD2	2.45	0.52
32:2a:1262:C:H2'	32:2a:1263:C:C6	2.44	0.52
32:2a:1273:G:H3'	32:2a:1274:G:C8	2.44	0.52
36:2e:135:THR:O	36:2e:138:ALA:HB3	2.10	0.52
1:1A:2034:U:C2'	1:1A:2035:G:H5'	2.39	0.52
5:1F:39:TRP:CZ3	5:1F:106:ARG:HD3	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:136:THR:O	5:1F:140:LEU:HB2	2.10	0.52
12:1Q:57:HIS:HD2	12:1Q:117:ALA:HB2	1.74	0.52
14:1S:103:GLU:O	14:1S:107:GLU:HG3	2.10	0.52
21:1Z:125:LEU:HD23	21:1Z:164:ALA:O	2.09	0.52
30:18:29:LYS:HD3	30:18:44:LYS:O	2.09	0.52
32:1a:113:G:H2'	32:1a:114:U:C6	2.44	0.52
32:1a:1239:A:H4'	32:1a:1240:U:H5"	1.92	0.52
35:1d:23:GLY:HA2	35:1d:112:VAL:O	2.10	0.52
1:2A:301:G:H1	1:2A:316:C:H42	1.57	0.52
1:2A:851:U:H5"	25:23:49:LYS:HD2	1.92	0.52
1:2A:1018:C:H2'	1:2A:1019:U:C6	2.43	0.52
1:2A:1308:A:H2'	1:2A:1309:G:O4'	2.10	0.52
1:2A:1490:A:O5'	1:2A:1490:A:H8	1.92	0.52
1:2A:1598:C:H2'	1:2A:1599:C:H6	1.75	0.52
1:2A:1919:A:O3'	32:2a:1517:G:H1'	2.10	0.52
5:2F:118:ALA:O	5:2F:121:GLY:N	2.38	0.52
11:2P:90:ARG:HG2	11:2P:90:ARG:NH1	2.08	0.52
40:2i:105:ASP:HB2	40:2i:107:ARG:HG3	1.92	0.52
1:1A:106:C:H1'	20:1Y:1:MET:HG3	1.92	0.52
1:1A:838:C:H2'	1:1A:839:U:H6	1.74	0.52
1:1A:1139:G:O3'	9:1N:24:GLY:HA3	2.10	0.52
1:1A:2451:A:N1	53:1y:9:TYR:HB2	2.24	0.52
1:1A:2721:A:O2'	1:1A:2874:C:H5'	2.10	0.52
1:1A:2722:G:H2'	1:1A:2723:C:C6	2.44	0.52
1:1A:2820:A:OP2	13:1R:2:ARG:NH2	2.42	0.52
6:1G:178:PHE:HB3	6:1G:180:PHE:HE1	1.75	0.52
32:1a:922:G:H4'	36:1e:20:GLN:HA	1.91	0.52
32:1a:1067:A:O2'	32:1a:1094:G:H5'	2.10	0.52
40:1i:4:TYR:HD1	40:1i:87:GLN:HE21	1.58	0.52
1:2A:844:C:C5	1:2A:845:G:C6	2.98	0.52
1:2A:1079:C:N4	1:2A:1088:A:N3	2.57	0.52
10:2O:59:LYS:HE3	10:2O:89:ASN:ND2	2.23	0.52
10:2O:97:ARG:NH1	32:2a:339:C:OP2	2.37	0.52
23:21:3:LYS:CB	23:21:61:ARG:HH22	2.21	0.52
32:2a:273:A:N6	32:2a:274:A:N6	2.58	0.52
51:2t:57:ARG:NH1	51:2t:100:ILE:HB	2.25	0.52
1:1A:889:C:O2'	1:1A:890:A:O5'	2.26	0.52
1:1A:1204:A:H8	1:1A:1204:A:OP1	1.93	0.52
3:1D:102:LYS:C	3:1D:103:ARG:HG2	2.34	0.52
6:1G:55:LYS:O	6:1G:59:GLU:HG3	2.10	0.52
12:1Q:137:TYR:O	12:1Q:141:GLN:HG2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1177:G:OP2	40:1i:97:LYS:NZ	2.37	0.52
32:1a:1435:G:H2'	32:1a:1436:U:H6	1.73	0.52
35:1d:79:PHE:HE1	35:1d:204:ILE:HD13	1.75	0.52
1:2A:217:G:H2'	1:2A:218:A:O4'	2.10	0.52
1:2A:1359:A:C2	1:2A:1372:U:O4	2.63	0.52
1:2A:1654:A:C2	4:2E:113:PHE:CD2	2.98	0.52
1:2A:2721:A:H1'	1:2A:2873:A:O2'	2.10	0.52
2:2B:42:C:OP1	6:2G:67:LYS:NZ	2.42	0.52
3:2D:16:MET:HG2	3:2D:211:ARG:NH1	2.24	0.52
10:2O:15:GLY:O	10:2O:47:ILE:HG12	2.09	0.52
25:23:30:ARG:O	25:23:33:GLN:HB3	2.10	0.52
32:2a:1391:U:H2'	32:2a:1392:G:C8	2.45	0.52
33:2b:104:ASN:O	33:2b:108:ILE:HG12	2.10	0.52
40:2i:3:GLN:NE2	40:2i:20:ARG:HE	2.04	0.52
44:2m:29:ARG:HD3	44:2m:64:TRP:CD1	2.44	0.52
1:1A:271(M):G:N2	8:1I:50:ARG:HH21	2.07	0.52
1:1A:1239:G:H2'	1:1A:1240:U:O4'	2.10	0.52
1:1A:2605:PSU:H2'	1:1A:2606:C:C6	2.45	0.52
1:1A:2729:G:H2'	1:1A:2730:C:O4'	2.10	0.52
3:1D:242:ARG:HD2	3:1D:246:PRO:HG3	1.91	0.52
6:1G:44:GLY:N	6:1G:88:ILE:O	2.43	0.52
6:1G:50:ALA:C	6:1G:52:ILE:H	2.17	0.52
7:1H:3:ARG:HD3	7:1H:54:ARG:HH12	1.74	0.52
14:1S:10:ARG:O	14:1S:14:VAL:HG13	2.09	0.52
19:1X:11:PRO:HD3	24:12:37:PHE:CD2	2.45	0.52
28:16:44:ARG:HG2	28:16:44:ARG:HH11	1.74	0.52
32:1a:262:A:C6	32:1a:263:A:C6	2.98	0.52
32:1a:565:U:H3'	32:1a:566:G:H2'	1.91	0.52
32:1a:983:A:H3'	32:1a:983:A:N3	2.25	0.52
32:1a:1280:A:O2'	32:1a:1281:U:H5'	2.10	0.52
1:2A:1049:C:H1'	1:2A:1113:U:O2'	2.08	0.52
1:2A:1056:G:H21	1:2A:1103:A:H62	1.58	0.52
1:2A:1067:A:O2'	1:2A:1068:G:N2	2.43	0.52
1:2A:1539:G:H2'	1:2A:1540:U:C6	2.45	0.52
1:2A:2134:A:H2'	1:2A:2134:A:N3	2.25	0.52
1:2A:2469:A:H5"	1:2A:2470:G:OP2	2.10	0.52
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.45	0.52
1:2A:2728:U:H2'	1:2A:2729:G:C8	2.45	0.52
6:2G:23:PHE:HB2	6:2G:25:TYR:CE2	2.45	0.52
8:2I:15:VAL:C	8:2I:17:GLN:H	2.18	0.52
30:28:57:ARG:O	30:28:60:LEU:HB2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:193:C:H2'	32:2a:194:C:H6	1.75	0.52
32:2a:881:G:P	43:2l:12:ARG:HH22	2.32	0.52
32:2a:1326:C:H2'	32:2a:1327:C:H6	1.75	0.52
35:2d:191:ARG:NE	35:2d:200:GLU:OE2	2.43	0.52
44:2m:96:LEU:O	44:2m:110:ARG:NE	2.41	0.52
1:1A:279:C:N3	1:1A:361:G:N2	2.49	0.52
1:1A:619:G:H5"	1:1A:620:G:OP2	2.10	0.52
1:1A:2658:C:H5"	7:1H:158:HIS:CD2	2.44	0.52
3:1D:242:ARG:HG3	3:1D:242:ARG:NH1	2.23	0.52
16:1U:44:ASN:ND2	17:1V:75:PHE:O	2.38	0.52
32:1a:20:U:H1'	32:1a:916:G:N2	2.24	0.52
33:1b:40:HIS:HB3	33:1b:190:THR:HG21	1.92	0.52
33:1b:162:ILE:O	33:1b:185:ILE:HG12	2.10	0.52
34:1c:29:TYR:OH	45:1n:54:PRO:O	2.25	0.52
38:1g:111:ARG:HB3	38:1g:113:GLU:OE2	2.10	0.52
43:1l:6:THR:HG23	43:1l:9:GLN:OE1	2.10	0.52
1:2A:245:G:O6	30:28:8:LYS:NZ	2.34	0.52
1:2A:708:C:H2'	1:2A:709:U:C6	2.45	0.52
1:2A:985:C:H2'	1:2A:986:C:C6	2.45	0.52
1:2A:1025:G:C4	1:2A:1135:C:H1'	2.45	0.52
1:2A:2689:U:P	1:2A:2719:G:H22	2.33	0.52
1:2A:2889:C:H2'	1:2A:2891:G:O4'	2.10	0.52
14:2S:25:ARG:HD3	14:2S:42:ASP:OD1	2.10	0.52
1:1A:255:A:O2'	1:1A:384:U:OP1	2.26	0.51
1:1A:634:C:H2'	1:1A:635:C:C6	2.45	0.51
1:1A:2400:G:H2'	1:1A:2401:U:H6	1.75	0.51
7:1H:124:GLU:OE2	7:1H:132:ARG:HD2	2.10	0.51
21:1Z:61:LEU:HD12	21:1Z:62:PRO:HD2	1.92	0.51
32:1a:38:G:H22	32:1a:397:A:C5'	2.22	0.51
32:1a:108:G:C6	51:1t:15:ARG:HG2	2.45	0.51
32:1a:499:A:H4'	32:1a:500:G:OP1	2.08	0.51
32:1a:501:C:H2'	32:1a:502:G:H8	1.74	0.51
32:1a:1329:A:P	44:1m:28:ALA:HB3	2.50	0.51
32:1a:1492:A:H4'	32:1a:1493:A:C4	2.45	0.51
33:1b:73:THR:HG23	33:1b:170:GLU:OE2	2.10	0.51
34:1c:50:ALA:HB1	34:1c:70:VAL:HG21	1.93	0.51
36:1e:28:PHE:CD2	36:1e:51:VAL:HG22	2.45	0.51
36:1e:43:LEU:HD21	36:1e:132:ALA:HB1	1.91	0.51
40:1i:43:ALA:O	40:1i:45:ALA:N	2.43	0.51
1:2A:2190:G:H2'	1:2A:2191:G:O4'	2.09	0.51
11:2P:50:ARG:N	30:28:57:ARG:HH21	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:7:MET:HE2	12:2Q:7:MET:N	2.25	0.51
15:2T:16:ARG:HB3	15:2T:18:ASP:OD1	2.10	0.51
32:2a:453:A:C6	32:2a:454:C:C4	2.98	0.51
32:2a:664:G:H22	32:2a:741:G:H1	1.57	0.51
32:2a:1228:C:P	44:2m:108:ARG:HH22	2.32	0.51
32:2a:1486:G:H2'	32:2a:1487:G:O4'	2.10	0.51
35:2d:178:VAL:C	35:2d:180:GLY:H	2.18	0.51
1:1A:715:G:H2'	1:1A:716:A:O4'	2.10	0.51
1:1A:764:A:N3	3:1D:213:ARG:NH1	2.58	0.51
1:1A:1099:G:H2'	1:1A:1099:G:N3	2.24	0.51
1:1A:1359:A:C2	1:1A:1372:U:O4	2.63	0.51
1:1A:1514:U:H2'	1:1A:1515:G:C8	2.45	0.51
3:1D:228:PRO:HG3	3:1D:234:GLY:O	2.11	0.51
24:12:68:ARG:C	24:12:70:GLN:H	2.17	0.51
25:13:38:GLU:O	25:13:43:ILE:HD12	2.10	0.51
26:14:56:VAL:HB	26:14:60:GLN:NE2	2.25	0.51
32:1a:598:U:H2'	32:1a:599:C:C6	2.46	0.51
32:1a:677:U:H3	32:1a:713:G:H22	1.58	0.51
32:1a:973:G:OP1	41:1j:57:LYS:NZ	2.24	0.51
32:1a:1026:G:H5"	32:1a:1027:C:C5	2.38	0.51
32:1a:1360:A:OP2	45:1n:35:ARG:NH2	2.43	0.51
43:1l:89:ARG:HA	43:1l:97:ARG:HA	1.92	0.51
47:1p:4:ILE:HB	47:1p:66:PRO:HA	1.91	0.51
49:1r:43:PHE:C	49:1r:51:LEU:HD12	2.34	0.51
54:1z:38:HIS:NE2	54:1z:40:ILE:HD11	2.25	0.51
1:2A:820:A:N3	1:2A:943:U:H4'	2.25	0.51
1:2A:1425:G:H2'	1:2A:1426:G:C8	2.45	0.51
1:2A:1970:A:H4'	1:2A:1971:A:OP1	2.10	0.51
7:2H:109:PHE:C	7:2H:111:HIS:H	2.17	0.51
20:2Y:30:VAL:HG22	20:2Y:37:VAL:HG12	1.92	0.51
32:2a:153:C:H2'	32:2a:154:C:C6	2.45	0.51
32:2a:1150:U:O2	41:2j:39:PRO:HG2	2.10	0.51
41:2j:12:ASP:OD1	41:2j:13:HIS:N	2.44	0.51
1:1A:1069:A:H4'	1:1A:1070:A:O5'	2.10	0.51
1:1A:1140:C:O3'	9:1N:25:ARG:NH1	2.42	0.51
3:1D:169:GLU:O	3:1D:169:GLU:HG3	2.09	0.51
34:1c:113:ALA:N	34:1c:183:ASP:OD2	2.37	0.51
49:1r:56:THR:HB	49:1r:58:LEU:HD13	1.91	0.51
1:2A:271(L):U:H4'	8:2I:50:ARG:NH2	2.25	0.51
1:2A:2389:G:H5"	1:2A:2390:U:H5'	1.93	0.51
3:2D:146:GLU:HB2	3:2D:189:CYS:HB3	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:35:VAL:O	7:2H:37:VAL:HG23	2.10	0.51
7:2H:159:GLU:HG3	7:2H:169:VAL:HG11	1.92	0.51
32:2a:134:A:H61	47:2p:25:ARG:NH1	2.08	0.51
32:2a:292:G:N7	32:2a:293:G:H1'	2.26	0.51
33:2b:79:ASP:O	33:2b:81:VAL:N	2.43	0.51
33:2b:86:GLU:O	33:2b:89:GLY:N	2.35	0.51
46:2o:82:ILE:HB	46:2o:87:ILE:HB	1.92	0.51
1:1A:1018:C:O2'	1:1A:1019:U:H5'	2.11	0.51
1:1A:2395:C:O2'	23:11:30:VAL:HG13	2.11	0.51
3:1D:108:PRO:HD2	3:1D:111:LEU:HG	1.92	0.51
18:1W:4:LYS:CB	18:1W:106:ILE:HG12	2.40	0.51
32:1a:438:G:C4'	35:1d:123:HIS:HD2	2.23	0.51
32:1a:632:A:H5'	32:1a:633:G:OP2	2.10	0.51
32:1a:1221:G:H4'	50:1s:53:ASN:O	2.10	0.51
32:1a:1412:C:H2'	32:1a:1413:A:C8	2.46	0.51
34:1c:34:LEU:O	34:1c:38:ARG:HD2	2.11	0.51
42:1k:34:ASP:OD1	42:1k:37:GLY:N	2.42	0.51
42:1k:73:MET:HG2	42:1k:103:LEU:HD21	1.92	0.51
1:2A:482:A:OP1	20:2Y:50:ARG:NH2	2.38	0.51
1:2A:522:G:H2'	1:2A:523:C:C6	2.45	0.51
1:2A:2205:C:O2	1:2A:2220:G:C2	2.63	0.51
1:2A:2315:G:H2'	1:2A:2316:C:H6	1.75	0.51
8:2I:4:ILE:HD11	8:2I:44:LEU:HD13	1.92	0.51
23:21:18:ILE:HG12	23:21:37:ILE:HG12	1.91	0.51
32:2a:189:G:C2	32:2a:189(L):G:C2	2.98	0.51
32:2a:191:G:O2'	51:2t:101:GLY:HA3	2.10	0.51
32:2a:1218:C:OP1	45:2n:12:ARG:NH2	2.43	0.51
35:2d:59:ARG:NH2	35:2d:62:GLN:HG3	2.25	0.51
41:2j:30:SER:HB2	41:2j:81:THR:HG22	1.93	0.51
1:1A:978:G:C2	1:1A:986:C:C2	2.99	0.51
1:1A:1484:G:N2	1:1A:1505:C:N3	2.55	0.51
1:1A:2544:G:H1'	1:1A:2646:C:H4'	1.93	0.51
1:1A:2791:C:N3	1:1A:2805:G:O6	2.44	0.51
4:1E:111:ARG:HD2	4:1E:160:TYR:CE2	2.46	0.51
6:1G:115:ARG:HB3	6:1G:115:ARG:CZ	2.40	0.51
7:1H:17:VAL:HG11	7:1H:50:VAL:HG21	1.92	0.51
11:1P:39:LYS:HD2	11:1P:45:LEU:HD11	1.92	0.51
27:15:20:ARG:HG2	27:15:23:HIS:CE1	2.46	0.51
29:17:48:LYS:N	29:17:48:LYS:HD2	2.26	0.51
32:1a:35:G:O2'	43:1l:118:SER:O	2.26	0.51
32:1a:316:G:OP2	32:1a:351:G:O2'	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:110:PHE:HD1	35:1d:110:PHE:N	2.08	0.51
37:1f:12:PRO:HG2	37:1f:13:ASN:ND2	2.26	0.51
1:2A:390:A:H4'	1:2A:391:G:H5'	1.92	0.51
1:2A:697:C:H2'	1:2A:698:C:C6	2.45	0.51
1:2A:784:A:H3'	58:2A:4763:HOH:O	2.09	0.51
1:2A:1316:U:H2'	1:2A:1317:A:H8	1.76	0.51
1:2A:2854:G:H2'	1:2A:2855:C:C6	2.45	0.51
32:2a:501:C:OP1	43:2l:117:ARG:NH2	2.39	0.51
32:2a:1323:G:H4'	32:2a:1363:C:C2	2.46	0.51
33:2b:100:GLY:O	33:2b:104:ASN:N	2.43	0.51
34:2c:108:ASN:HB3	34:2c:111:LEU:HB2	1.91	0.51
43:2l:112:ASP:O	43:2l:114:LYS:HE2	2.10	0.51
48:2q:68:ARG:HH11	48:2q:68:ARG:HG3	1.75	0.51
50:2s:15:LEU:O	50:2s:19:VAL:HG23	2.09	0.51
51:2t:72:LEU:HD11	51:2t:80:ARG:HD2	1.92	0.51
1:1A:492:A:H2'	1:1A:493:G:O4'	2.09	0.51
1:1A:819:A:C4	1:1A:1189:A:C2	2.99	0.51
1:1A:1674:G:H5"	1:1A:1674:G:C8	2.45	0.51
1:1A:1915:5MU:H2'	1:1A:1916:A:O4'	2.10	0.51
1:1A:1965:C:H2'	1:1A:1966:A:C8	2.45	0.51
1:1A:2292:C:P	14:1S:17:ARG:HH21	2.33	0.51
1:1A:2439:A:C8	1:1A:2439:A:C5'	2.93	0.51
1:1A:2628:C:H5"	1:1A:2629:A:O5'	2.10	0.51
8:1I:107:VAL:HG12	8:1I:109:ILE:HD12	1.92	0.51
15:1T:112:ARG:HG3	15:1T:115:ARG:HH22	1.76	0.51
32:1a:7:G:H5'	32:1a:298:A:O4'	2.11	0.51
32:1a:458:C:H2'	32:1a:460:G:H8	1.75	0.51
32:1a:948:C:N4	32:1a:1233:G:H1	2.09	0.51
33:1b:102:LEU:HB3	33:1b:180:LEU:HD12	1.91	0.51
40:1i:17:VAL:HA	40:1i:63:ILE:HG12	1.93	0.51
48:1q:72:ARG:HG3	48:1q:72:ARG:HH11	1.74	0.51
1:2A:882:G:H1	1:2A:894:C:H42	1.57	0.51
1:2A:889:C:O2'	1:2A:890:A:O5'	2.24	0.51
1:2A:1079:C:C4	1:2A:1088:A:C2	2.98	0.51
1:2A:1153:C:C4	1:2A:1154:G:C6	2.98	0.51
1:2A:1795:C:O2	3:2D:255:LYS:NZ	2.37	0.51
1:2A:2206:G:H8	1:2A:2207:G:H1	1.57	0.51
1:2A:2741:A:H2'	1:2A:2742:C:O4'	2.11	0.51
2:2B:37:C:C5	2:2B:38:C:C5	2.98	0.51
5:2F:65:TRP:HH2	5:2F:72:ARG:HH21	1.59	0.51
7:2H:3:ARG:HE	7:2H:54:ARG:HH12	1.59	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:2T:29:ARG:HB3	15:2T:87:ASP:HB2	1.92	0.51
32:2a:1058:G:H2'	32:2a:1059:C:O4'	2.10	0.51
38:2g:47:CYS:HB3	38:2g:58:PRO:HB3	1.93	0.51
40:2i:33:PHE:CE1	40:2i:47:LEU:HD11	2.45	0.51
1:1A:881:G:H2'	1:1A:882:G:O4'	2.11	0.51
1:1A:1101:U:H2'	1:1A:1102:C:C6	2.44	0.51
1:1A:2059:A:H2'	1:1A:2503:2MA:HM22	1.93	0.51
1:1A:2772:C:H2'	1:1A:2773:C:C6	2.46	0.51
1:1A:2794:C:N4	1:1A:2802:G:H1	2.07	0.51
10:1O:97:ARG:HD3	32:1a:339:C:OP2	2.11	0.51
12:1Q:2:LEU:H	12:1Q:2:LEU:HD12	1.75	0.51
31:19:11:CYS:HB3	31:19:32:HIS:HE1	1.75	0.51
32:1a:523:A:N1	43:1l:92:0TD:H6	2.25	0.51
32:1a:1068:G:H8	32:1a:1068:G:OP2	1.94	0.51
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.45	0.51
37:1f:78:GLU:O	37:1f:81:ILE:HG22	2.11	0.51
40:1i:8:GLY:HA2	40:1i:79:LEU:HD23	1.93	0.51
1:2A:568:U:H6	1:2A:568:U:H5"	1.76	0.51
1:2A:848:G:H2'	1:2A:849:A:C8	2.46	0.51
1:2A:909:A:H2'	1:2A:912:C:C5	2.43	0.51
1:2A:1291:C:H2'	1:2A:1292:U:C6	2.46	0.51
1:2A:1999:C:O2	1:2A:2687:U:O2'	2.25	0.51
18:2W:78:GLU:OE2	18:2W:99:ARG:HG2	2.10	0.51
21:2Z:10:ARG:NE	21:2Z:37:VAL:O	2.30	0.51
21:2Z:108:PRO:HG3	21:2Z:141:VAL:O	2.11	0.51
24:22:46:GLN:HB2	24:22:49:LYS:HD2	1.91	0.51
29:27:8:ASN:C	29:27:8:ASN:OD1	2.54	0.51
32:2a:1483:A:H2'	32:2a:1484:C:O4'	2.10	0.51
32:2a:1498:UR3:O2	32:2a:1499:A:N6	2.35	0.51
33:2b:16:HIS:O	33:2b:18:GLY:N	2.43	0.51
33:2b:46:LYS:O	33:2b:49:GLU:HB2	2.10	0.51
34:2c:152:ILE:HB	34:2c:199:LYS:HB2	1.92	0.51
41:2j:81:THR:O	41:2j:85:LEU:HG	2.11	0.51
42:2k:92:GLU:HG3	42:2k:96:ARG:NH1	2.25	0.51
48:2q:29:HIS:CG	48:2q:30:PRO:HD2	2.45	0.51
1:1A:631:A:H1'	11:1P:66:GLY:HA2	1.92	0.51
1:1A:774:A:N3	1:1A:774:A:H2'	2.25	0.51
1:1A:2243:U:H2'	1:1A:2244:U:C6	2.45	0.51
28:16:37:ARG:HA	28:16:47:THR:O	2.11	0.51
32:1a:392:G:H2'	32:1a:393:A:H8	1.76	0.51
32:1a:858:G:O6	32:1a:869:G:H3'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:96:ARG:HG2	33:1b:98:LEU:HD23	1.93	0.51
34:1c:180:ALA:HB1	34:1c:203:PHE:CE1	2.46	0.51
39:1h:81:HIS:ND1	39:1h:138:TRP:OXT	2.44	0.51
1:2A:567:A:OP1	11:2P:35:HIS:HE1	1.94	0.51
1:2A:922:U:H2'	1:2A:923:C:C6	2.46	0.51
1:2A:1131:G:C2	1:2A:1132:A:C4	2.98	0.51
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	1.92	0.51
2:2B:50:G:O5'	2:2B:50:G:H8	1.93	0.51
5:2F:95:ARG:NH1	5:2F:97:TYR:OH	2.44	0.51
8:2I:92:VAL:HG23	8:2I:96:ASP:HB2	1.92	0.51
10:2O:98:VAL:HG11	10:2O:114:ILE:HG23	1.93	0.51
20:2Y:43:ASN:ND2	20:2Y:65:ALA:HB3	2.26	0.51
32:2a:425:G:O3'	35:2d:45:GLN:NE2	2.43	0.51
32:2a:1210:C:C2'	32:2a:1211:U:H5'	2.40	0.51
34:2c:5:ILE:HD11	45:2n:49:HIS:HE1	1.76	0.51
34:2c:19:GLU:O	34:2c:40:ARG:NH2	2.44	0.51
47:2p:72:ARG:HG2	47:2p:73:LEU:HD23	1.93	0.51
1:1A:172:C:H2'	1:1A:173:G:H8	1.76	0.51
1:1A:1603:A:H5"	1:1A:1604:C:OP2	2.11	0.51
1:1A:1784:A:H4'	1:1A:1785:A:O5'	2.11	0.51
1:1A:2432:A:C4	23:11:33:LYS:HG2	2.46	0.51
1:1A:2583:G:H2'	1:1A:2584:U:H6	1.75	0.51
3:1D:125:ILE:HD12	3:1D:137:PRO:HD3	1.93	0.51
8:1I:9:LEU:HD23	8:1I:12:LEU:HD13	1.92	0.51
10:1O:13:ASN:ND2	10:1O:96:THR:HG23	2.26	0.51
11:1P:111:ARG:HB3	11:1P:128:HIS:CG	2.46	0.51
20:1Y:18:GLY:O	20:1Y:21:LYS:HG2	2.10	0.51
32:1a:533:A:O2'	32:1a:535:A:OP2	2.22	0.51
32:1a:664:G:H22	32:1a:741:G:H1	1.58	0.51
32:1a:1036:G:H3'	32:1a:1037:C:C5	2.46	0.51
32:1a:1325:C:OP1	52:1u:15:ARG:NH1	2.41	0.51
38:1g:111:ARG:NH1	38:1g:113:GLU:OE2	2.44	0.51
39:1h:97:VAL:HG13	39:1h:98:LYS:HG3	1.93	0.51
40:1i:24:GLY:HA3	40:1i:57:GLY:HA2	1.93	0.51
42:1k:59:TYR:CE2	42:1k:63:LEU:HD11	2.46	0.51
1:2A:25:U:H5"	18:2W:80:PRO:HD3	1.93	0.51
1:2A:363:G:H2'	1:2A:363(A):A:H8	1.75	0.51
1:2A:2472:G:N1	1:2A:2477:C:OP1	2.42	0.51
1:2A:2608:G:H5"	1:2A:2609:U:OP2	2.09	0.51
1:2A:2626:C:H2'	1:2A:2627:G:O4'	2.11	0.51
1:2A:2716:U:O2'	1:2A:2717:G:H5'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:28:C:H2'	2:2B:29:A:C8	2.45	0.51
5:2F:29:ASN:ND2	5:2F:32:LEU:HB2	2.26	0.51
6:2G:131:TYR:HB3	6:2G:159:VAL:HG13	1.91	0.51
20:2Y:96:ILE:HD12	20:2Y:97:ARG:O	2.10	0.51
32:2a:1158:C:H5	32:2a:1181:G:N1	1.95	0.51
32:2a:1395:C:OP1	32:2a:1402:4OC:HM21	2.11	0.51
37:2f:99:ALA:HB1	49:2r:23:LYS:HZ2	1.76	0.51
47:2p:39:TYR:CD1	47:2p:73:LEU:HD13	2.46	0.51
1:1A:1290:C:H2'	1:1A:1291:C:H6	1.75	0.51
1:1A:1297:C:OP1	1:1A:2710:C:H4'	2.11	0.51
1:1A:1453:U:O2'	1:1A:1455:G:N7	2.43	0.51
1:1A:1588:C:O2'	1:1A:1589:C:H5'	2.11	0.51
1:1A:1899:G:N3	1:1A:1899:G:H2'	2.26	0.51
11:1P:15:ARG:HG3	11:1P:15:ARG:NH2	2.19	0.51
12:1Q:8:LYS:HA	21:1Z:197:ILE:HD12	1.93	0.51
14:1S:36:TYR:N	14:1S:36:TYR:CD1	2.78	0.51
15:1T:29:ARG:NE	15:1T:46:GLU:OE1	2.41	0.51
32:1a:507:C:OP2	32:1a:508:C:O2'	2.24	0.51
33:1b:9:GLU:O	33:1b:10:LEU:HB2	2.10	0.51
36:1e:89:ILE:HG21	36:1e:135:THR:HA	1.92	0.51
41:1j:40:LEU:HB2	41:1j:69:ASN:HB2	1.93	0.51
44:1m:3:ARG:HG3	44:1m:4:ILE:N	2.25	0.51
1:2A:1047:G:H2'	1:2A:1110:G:N2	2.26	0.51
1:2A:1573:G:C8	1:2A:1574:C:C5	2.99	0.51
1:2A:2619:C:H2'	1:2A:2620:C:C6	2.45	0.51
1:2A:2680:C:H5'	4:2E:189:PRO:HA	1.92	0.51
2:2B:29:A:H2'	2:2B:30:C:C6	2.46	0.51
3:2D:26:LYS:HE2	3:2D:28:GLU:O	2.11	0.51
8:2I:97:ILE:O	8:2I:101:LEU:HB2	2.10	0.51
9:2N:99:LEU:HD22	9:2N:103:VAL:HG23	1.93	0.51
16:2U:76:TYR:CE1	16:2U:80:ILE:HG13	2.46	0.51
20:2Y:40:GLU:HA	20:2Y:64:GLU:OE2	2.11	0.51
32:2a:255:G:H1'	48:2q:16:GLN:HE21	1.75	0.51
32:2a:328:C:H4'	32:2a:329:A:H5'	1.93	0.51
32:2a:885:G:O2'	32:2a:914:A:N1	2.33	0.51
32:2a:1403:C:H6	32:2a:1403:C:O5'	1.94	0.51
38:2g:136:LYS:HA	38:2g:139:GLU:HB2	1.91	0.51
1:1A:12:U:O2	1:1A:12:U:H2'	2.11	0.50
1:1A:189:G:H2'	1:1A:205:G:N2	2.26	0.50
1:1A:705:A:H2'	1:1A:706:A:O4'	2.12	0.50
1:1A:1640:C:H2'	1:1A:1641:A:C8	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2126:A:H4'	1:1A:2127:G:C4'	2.41	0.50
1:1A:2150:U:H2'	1:1A:2151:G:C8	2.46	0.50
6:1G:125:PHE:HB3	6:1G:166:ASP:OD1	2.11	0.50
12:1Q:110:THR:HG23	12:1Q:113:GLN:HB2	1.92	0.50
32:1a:1306:A:H2'	32:1a:1307:U:C6	2.46	0.50
32:1a:1492:A:OP1	43:1l:47:LYS:HG3	2.10	0.50
35:1d:162:LEU:O	35:1d:165:MET:HB2	2.11	0.50
45:1n:37:PHE:HB3	45:1n:39:LEU:HD12	1.93	0.50
1:2A:307:G:N2	1:2A:330:A:H62	2.00	0.50
1:2A:735:A:H3'	1:2A:736:C:C6	2.46	0.50
1:2A:1059:G:H2'	1:2A:1060:U:C5	2.46	0.50
1:2A:2532:G:H2'	1:2A:2533:A:O4'	2.11	0.50
9:2N:120:LEU:HG	9:2N:122:VAL:HG23	1.93	0.50
13:2R:56:LYS:NZ	13:2R:90:ARG:O	2.43	0.50
24:22:32:LEU:HB2	24:22:53:LEU:HD13	1.93	0.50
32:2a:501:C:H2'	32:2a:502:G:C8	2.46	0.50
32:2a:688:G:H2'	32:2a:689:C:H6	1.76	0.50
32:2a:1073:U:C2	32:2a:1074:G:C8	2.98	0.50
33:2b:155:LEU:HD11	33:2b:159:PRO:HG3	1.93	0.50
43:2l:60:LEU:HB3	43:2l:62:SER:H	1.76	0.50
47:2p:21:VAL:CG1	47:2p:34:GLU:HB3	2.41	0.50
1:1A:1359:A:N3	1:1A:1359:A:H5'	2.26	0.50
1:1A:1809:A:N6	1:1A:1810:A:N1	2.59	0.50
1:1A:2755:C:C4	31:19:19:ARG:NH1	2.79	0.50
3:1D:164:GLN:HG3	3:1D:176:ARG:NH2	2.27	0.50
32:1a:829:G:C6	32:1a:858:G:N2	2.79	0.50
32:1a:976:G:N2	32:1a:1363:C:OP2	2.37	0.50
32:1a:1492:A:OP2	43:1l:47:LYS:HE3	2.11	0.50
33:1b:98:LEU:HB2	33:1b:101:MET:HG3	1.93	0.50
33:1b:112:VAL:O	33:1b:115:LEU:HB3	2.10	0.50
1:2A:1784:A:H4'	1:2A:1785:A:O5'	2.11	0.50
1:2A:1935:G:H1'	1:2A:1964:G:N2	2.26	0.50
1:2A:2206:G:H5"	1:2A:2207:G:C6	2.45	0.50
1:2A:2611:U:H6	1:2A:2611:U:H5'	1.77	0.50
2:2B:30:C:H2'	2:2B:31:C:H5'	1.92	0.50
20:2Y:77:PRO:CD	20:2Y:106:LEU:HD23	2.42	0.50
21:2Z:157:LEU:HB3	21:2Z:161:VAL:HG23	1.94	0.50
26:24:54:GLY:C	26:24:56:VAL:HA	2.36	0.50
50:2s:3:ARG:NE	50:2s:8:GLY:O	2.42	0.50
1:1A:225:A:H2'	1:1A:226:G:H5'	1.93	0.50
1:1A:1059:G:H2'	1:1A:1060:U:C5	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1218:C:N3	1:1A:1231:G:N2	2.57	0.50
1:1A:1799:G:O2'	3:1D:181:GLU:OE2	2.23	0.50
1:1A:2789:C:O3'	1:1A:2790:A:H4'	2.11	0.50
11:1P:63:PRO:HB2	30:18:30:ARG:NH2	2.27	0.50
32:1a:107:G:H2'	32:1a:108:G:O4'	2.10	0.50
32:1a:657:G:C2	32:1a:658:G:C8	3.00	0.50
32:1a:1004:A:C6	32:1a:1037:C:C4	3.00	0.50
33:1b:69:LEU:HD13	33:1b:91:PRO:HB2	1.93	0.50
39:1h:10:LEU:HD22	39:1h:83:ILE:HD11	1.94	0.50
40:1i:50:LEU:HB2	40:1i:55:ALA:HB3	1.93	0.50
40:1i:89:ASN:O	40:1i:92:TYR:HB2	2.11	0.50
52:1u:14:TRP:HE3	52:1u:15:ARG:HG2	1.75	0.50
1:2A:2667:C:N3	7:2H:110:SER:OG	2.34	0.50
3:2D:111:LEU:HD22	3:2D:115:GLN:NE2	2.27	0.50
8:2I:72:LEU:C	8:2I:74:ASN:H	2.19	0.50
8:2I:108:THR:O	8:2I:109:ILE:HD12	2.12	0.50
12:2Q:26:TYR:O	12:2Q:67:ARG:NH1	2.36	0.50
13:2R:101:ALA:HA	27:25:44:THR:HG21	1.93	0.50
28:26:35:GLU:O	28:26:36:LEU:HG	2.11	0.50
32:2a:300:A:O2'	32:2a:564:C:N3	2.40	0.50
32:2a:452:A:O2'	32:2a:453:A:OP2	2.24	0.50
32:2a:1062:U:H2'	32:2a:1063:C:C6	2.47	0.50
32:2a:1107:C:C4	32:2a:1108:G:C8	2.99	0.50
32:2a:1148:U:H2'	32:2a:1149:C:O4'	2.12	0.50
32:2a:1151:A:O2'	32:2a:1152:A:H8	1.94	0.50
32:2a:1245:A:H61	32:2a:1292:U:H3	1.58	0.50
32:2a:1263:C:H2'	32:2a:1264:C:H6	1.75	0.50
34:2c:79:ARG:H	34:2c:82:GLU:HB3	1.76	0.50
39:2h:11:THR:HG23	39:2h:14:ARG:HH21	1.76	0.50
1:1A:832:G:H5'	11:1P:45:LEU:HD21	1.92	0.50
1:1A:1141:U:H4'	1:1A:1142(A):A:O4'	2.11	0.50
6:1G:126:ASP:HB2	6:1G:130:ASN:H	1.75	0.50
26:14:35:VAL:HG22	26:14:36:CYS:H	1.76	0.50
32:1a:41:G:H2'	32:1a:42:G:H8	1.75	0.50
32:1a:222:U:H2'	32:1a:223:U:C6	2.46	0.50
32:1a:414:A:H2'	32:1a:415:A:C8	2.46	0.50
33:1b:223:ILE:HA	33:1b:226:ARG:CB	2.29	0.50
34:1c:62:ASP:O	34:1c:97:LYS:HB2	2.12	0.50
34:1c:121:ALA:O	34:1c:124:ILE:HG12	2.12	0.50
36:1e:36:ASP:OD2	36:1e:40:ARG:HB2	2.12	0.50
45:1n:2:ALA:HB1	45:1n:6:LEU:HD13	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:734:A:O2'	1:2A:1635:G:H5'	2.11	0.50
1:2A:735:A:H3'	1:2A:736:C:H6	1.77	0.50
1:2A:1173:G:N2	1:2A:1177:A:OP1	2.44	0.50
1:2A:1418:G:H8	1:2A:1418:G:O5'	1.94	0.50
1:2A:1983:C:H2'	1:2A:1984:G:H5"	1.94	0.50
1:2A:2356:C:O3'	22:20:20:ARG:HD3	2.11	0.50
6:2G:71:THR:N	6:2G:89:GLY:O	2.37	0.50
6:2G:179:PRO:HG3	26:24:43:TYR:OH	2.11	0.50
15:2T:16:ARG:NH2	15:2T:18:ASP:OD2	2.44	0.50
32:2a:1152:A:H5'	41:2j:13:HIS:ND1	2.27	0.50
48:2q:88:TYR:HE2	48:2q:92:ARG:CZ	2.24	0.50
1:1A:796:C:H2'	1:1A:797:C:C6	2.46	0.50
1:1A:2016:U:H1'	27:15:6:VAL:HG13	1.94	0.50
1:1A:2648:C:H2'	1:1A:2649:U:C6	2.46	0.50
1:1A:2766:G:H5"	1:1A:2767:C:OP2	2.12	0.50
12:1Q:78:PRO:HB2	12:1Q:81:VAL:HG11	1.93	0.50
32:1a:78:G:H8	32:1a:78:G:OP2	1.93	0.50
32:1a:714:G:H2'	32:1a:715:A:C8	2.47	0.50
32:1a:1057:G:H2'	32:1a:1058:G:O4'	2.11	0.50
34:1c:91:LEU:O	34:1c:94:LEU:N	2.45	0.50
3:2D:206:LEU:O	3:2D:211:ARG:HD3	2.11	0.50
24:22:35:LEU:HD13	24:22:50:ILE:HA	1.93	0.50
25:23:8:LEU:O	25:23:32:GLN:N	2.37	0.50
28:26:35:GLU:OE2	28:26:50:ARG:NH1	2.45	0.50
32:2a:689:C:H2'	32:2a:690:G:O4'	2.11	0.50
32:2a:1027:C:H2'	32:2a:1028:C:C4	2.47	0.50
32:2a:1240:U:OP2	38:2g:115:ARG:HA	2.12	0.50
33:2b:105:PHE:O	33:2b:107:THR:N	2.45	0.50
33:2b:127:ILE:C	33:2b:129:GLU:N	2.69	0.50
39:2h:109:ILE:HG13	39:2h:137:VAL:HB	1.94	0.50
47:2p:74:LEU:O	47:2p:79:VAL:HG13	2.11	0.50
1:1A:662:G:H5"	11:1P:16:ARG:HG2	1.93	0.50
1:1A:1185:C:H5"	1:1A:1186:G:OP1	2.12	0.50
1:1A:1674:G:H1'	1:1A:1676:A:H62	1.76	0.50
1:1A:2012:G:OP2	18:1W:16:LYS:NZ	2.44	0.50
1:1A:2329:G:H21	22:10:41:ARG:HD2	1.77	0.50
1:1A:2467:C:C2'	1:1A:2468:G:H5'	2.41	0.50
24:12:32:LEU:CD2	24:12:36:ARG:HH11	2.25	0.50
32:1a:390:C:H2'	32:1a:391:G:C8	2.46	0.50
32:1a:964:A:N3	32:1a:969:A:O2'	2.44	0.50
33:1b:44:LEU:HA	33:1b:47:THR:OG1	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1g:23:VAL:O	38:1g:27:ILE:HG12	2.12	0.50
51:1t:47:GLY:HA2	51:1t:48:LYS:HB2	1.94	0.50
1:2A:2851:A:H2'	1:2A:2852:G:O4'	2.12	0.50
4:2E:34:VAL:HG22	4:2E:48:GLN:NE2	2.27	0.50
5:2F:53:THR:CG2	5:2F:55:GLY:H	2.20	0.50
8:2I:65:ALA:O	8:2I:69:LYS:N	2.45	0.50
16:2U:59:ARG:O	16:2U:63:VAL:HG23	2.11	0.50
32:2a:37:U:O2'	32:2a:547:A:N1	2.37	0.50
32:2a:685:G:O2'	32:2a:686:U:H5'	2.12	0.50
32:2a:1273:G:H3'	32:2a:1274:G:H8	1.76	0.50
33:2b:87:ARG:HD2	33:2b:233:SER:OG	2.11	0.50
33:2b:207:ALA:O	33:2b:210:SER:N	2.44	0.50
34:2c:50:ALA:HB1	34:2c:70:VAL:HG21	1.93	0.50
34:2c:153:VAL:O	34:2c:165:THR:HG23	2.12	0.50
40:2i:77:ILE:O	40:2i:81:ILE:HG23	2.11	0.50
42:2k:16:SER:HB3	42:2k:79:SER:HB3	1.94	0.50
1:1A:909:A:H2'	1:1A:912:C:C5	2.46	0.50
1:1A:1289:C:H2'	1:1A:1290:C:H6	1.77	0.50
1:1A:2137:C:N4	1:1A:2154:G:H1	2.09	0.50
1:1A:2815:C:H5'	27:15:29:THR:HG21	1.94	0.50
5:1F:101:LEU:HD12	5:1F:102:PRO:CD	2.37	0.50
14:1S:15:ARG:O	14:1S:19:LYS:HG3	2.12	0.50
18:1W:2:GLU:OE2	18:1W:72:LYS:NZ	2.35	0.50
29:17:15:THR:HG22	29:17:16:HIS:CE1	2.47	0.50
32:1a:300:A:H1'	32:1a:565:U:O2	2.11	0.50
32:1a:725:G:O2'	32:1a:726:C:H5'	2.11	0.50
32:1a:1330:U:H2'	32:1a:1331:G:H5'	1.93	0.50
32:1a:1362:C:H2'	32:1a:1363:C:H5"	1.93	0.50
35:1d:127:THR:HB	35:1d:132:ARG:HA	1.93	0.50
40:1i:45:ALA:HA	40:1i:48:GLU:HB2	1.92	0.50
1:2A:111:A:H4'	24:22:69:ARG:NH1	2.26	0.50
1:2A:1936:A:OP1	1:2A:1937:A:H5'	2.11	0.50
1:2A:2014:A:H2'	1:2A:2015:A:C8	2.45	0.50
1:2A:2287:A:C8	1:2A:2289:G:C8	2.99	0.50
1:2A:2564:A:C2	1:2A:2647:U:H4'	2.47	0.50
1:2A:2573:C:OP1	1:2A:2574:G:OP1	2.30	0.50
1:2A:2680:C:N4	1:2A:2681:C:H41	2.09	0.50
5:2F:36:VAL:HG11	5:2F:183:VAL:HG13	1.94	0.50
18:2W:12:ILE:O	18:2W:101:SER:OG	2.30	0.50
32:2a:458:C:H2'	32:2a:460:G:O4'	2.11	0.50
33:2b:178:ARG:NH2	39:2h:68:ARG:NH2	2.60	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:229:A:OP1	1:1A:229:A:C8	2.65	0.50
1:1A:459:U:H5"	29:17:40:TRP:CD2	2.47	0.50
1:1A:1288:U:C2	1:1A:1327:C:O2	2.65	0.50
1:1A:2191:G:C6	1:1A:2192:G:C5	3.00	0.50
1:1A:2784:C:H1'	4:1E:37:ARG:NH1	2.27	0.50
8:1I:61:ARG:HA	8:1I:61:ARG:NH1	2.25	0.50
12:1Q:73:PRO:HB3	12:1Q:93:TYR:CE2	2.47	0.50
16:1U:58:ARG:HA	16:1U:61:TRP:CE3	2.47	0.50
27:15:40:LYS:HD3	27:15:46:CYS:HA	1.94	0.50
30:18:6:THR:HG22	30:18:8:LYS:HD3	1.93	0.50
32:1a:153:C:H2'	32:1a:154:C:C6	2.46	0.50
32:1a:258:G:H2'	32:1a:259:G:C8	2.47	0.50
35:1d:196:LEU:O	35:1d:198:VAL:N	2.41	0.50
36:1e:6:PHE:HB2	36:1e:63:ARG:NH1	2.26	0.50
38:1g:9:VAL:HG13	38:1g:94:ARG:NE	2.26	0.50
38:1g:69:VAL:HG12	38:1g:100:ALA:HA	1.94	0.50
44:1m:114:ARG:NH1	58:1m:201:HOH:O	2.44	0.50
53:1y:2:ARG:HG2	53:1y:2:ARG:HH11	1.76	0.50
1:2A:270:A:N1	1:2A:366:C:O2'	2.42	0.50
1:2A:580:C:H2'	1:2A:581:C:C6	2.47	0.50
1:2A:686:G:N2	1:2A:788:A:H61	2.09	0.50
1:2A:864:G:H1'	1:2A:914:C:N4	2.27	0.50
1:2A:2037:G:H2'	1:2A:2038:G:C8	2.46	0.50
4:2E:28:ALA:HB3	4:2E:93:VAL:HG12	1.93	0.50
4:2E:111:ARG:HD2	4:2E:160:TYR:CD2	2.47	0.50
4:2E:112:GLY:O	4:2E:159:HIS:HA	2.11	0.50
23:21:51:VAL:HG11	23:21:74:VAL:HG21	1.94	0.50
25:23:3:ARG:HD3	25:23:60:GLU:HG3	1.94	0.50
28:26:7:ILE:HG21	28:26:27:LYS:HD3	1.94	0.50
28:26:9:LEU:HD13	28:26:51:GLU:HG3	1.94	0.50
32:2a:77:G:H2'	32:2a:78:G:H5'	1.92	0.50
32:2a:190:U:H2'	32:2a:191:G:C8	2.47	0.50
32:2a:359:U:H2'	32:2a:360:A:H8	1.76	0.50
32:2a:406:G:N2	35:2d:119:GLN:HE22	2.07	0.50
32:2a:538:G:C2	32:2a:539:A:C4	3.00	0.50
32:2a:539:A:H2'	32:2a:540:G:H8	1.73	0.50
32:2a:986:A:O2'	50:2s:55:LYS:O	2.30	0.50
32:2a:1015:A:C6	32:2a:1016:A:C6	3.00	0.50
38:2g:92:SER:O	38:2g:96:GLN:HG3	2.12	0.50
1:1A:2273:A:H2'	1:1A:2274:A:C8	2.47	0.50
32:1a:149:A:H2'	32:1a:150:C:C6	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:300:A:H8	32:1a:300:A:O5'	1.94	0.50
32:1a:731:G:OP1	32:1a:766:A:H1'	2.12	0.50
32:1a:1342:C:H5"	40:1i:125:TYR:HE1	1.77	0.50
33:1b:44:LEU:O	33:1b:47:THR:HB	2.12	0.50
36:1e:143:ARG:NH1	39:1h:77:GLU:OE1	2.45	0.50
1:2A:2304:G:H22	1:2A:2312:U:H3	1.58	0.50
1:2A:2472:G:N2	1:2A:2477:C:OP1	2.44	0.50
3:2D:71:ASP:HB3	3:2D:103:ARG:NH2	2.27	0.50
6:2G:50:ALA:C	6:2G:52:ILE:N	2.70	0.50
8:2I:130:TYR:HB3	8:2I:138:ILE:HB	1.94	0.50
10:2O:93:PRO:HD2	10:2O:113:LYS:HD3	1.93	0.50
16:2U:111:GLU:HA	16:2U:111:GLU:OE2	2.12	0.50
32:2a:17:U:H2'	32:2a:18:C:C6	2.47	0.50
32:2a:769:G:H4'	32:2a:1513:A:H4'	1.94	0.50
32:2a:1122:U:C4	32:2a:1123:A:N7	2.80	0.50
32:2a:1132:C:H2'	32:2a:1133:G:C8	2.46	0.50
1:1A:330:A:HO2'	1:1A:331:A:H8	1.58	0.49
1:1A:1100:C:OP2	1:1A:1100:C:H6	1.95	0.49
1:1A:1621:U:H5"	1:1A:1622:G:OP1	2.11	0.49
1:1A:2299:G:N2	1:1A:2318:G:H1'	2.27	0.49
1:1A:2567:G:H2'	1:1A:2568:C:C6	2.47	0.49
21:1Z:136:PHE:HE1	21:1Z:138:GLU:HG3	1.77	0.49
21:1Z:166:SER:O	21:1Z:169:GLU:N	2.36	0.49
32:1a:25:C:H2'	32:1a:26:A:C8	2.47	0.49
32:1a:92:C:H2'	32:1a:93:G:H8	1.76	0.49
32:1a:685:G:O2'	32:1a:686:U:H5'	2.11	0.49
34:1c:177:THR:HG22	34:1c:180:ALA:H	1.77	0.49
35:1d:47:ARG:HH11	35:1d:47:ARG:HB2	1.76	0.49
37:1f:76:ALA:O	37:1f:80:ARG:HG3	2.12	0.49
40:1i:5:TYR:OH	40:1i:16:ARG:HG2	2.12	0.49
44:1m:22:ILE:HG21	44:1m:66:LEU:HD13	1.93	0.49
46:1o:55:GLY:HA2	46:1o:58:MET:HE3	1.93	0.49
49:1r:52:PRO:HB2	49:1r:54:ARG:HG2	1.93	0.49
1:2A:346:A:H2'	1:2A:346:A:N3	2.26	0.49
6:2G:36:LYS:HE2	6:2G:160:VAL:HG21	1.94	0.49
6:2G:98:ARG:HA	6:2G:101:ILE:HD12	1.93	0.49
7:2H:55:PRO:HG2	7:2H:61:HIS:CE1	2.47	0.49
9:2N:58:ASP:HB3	9:2N:124:ALA:HB1	1.92	0.49
10:2O:22:ILE:HG12	10:2O:41:ALA:HA	1.94	0.49
18:2W:18:ARG:NH1	18:2W:76:VAL:O	2.44	0.49
26:24:28:LYS:HD3	26:24:31:ILE:HD11	1.92	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:25:41:PRO:O	27:25:44:THR:OG1	2.30	0.49
27:25:46:CYS:SG	27:25:48:GLU:HB2	2.52	0.49
32:2a:15:G:C4'	36:2e:24:ARG:HH21	2.25	0.49
32:2a:407:G:O2'	35:2d:116:GLN:HG3	2.12	0.49
32:2a:1347:G:N2	32:2a:1373:G:H2'	2.27	0.49
32:2a:1504:G:H3'	58:2a:2050:HOH:O	2.12	0.49
1:1A:253:C:OP2	30:18:5:LYS:NZ	2.41	0.49
1:1A:476:G:H4'	1:1A:502:A:N1	2.26	0.49
1:1A:628:G:H2'	1:1A:629:G:C8	2.47	0.49
1:1A:2705:A:H2'	1:1A:2706:G:O4'	2.11	0.49
3:1D:145:VAL:HG12	3:1D:146:GLU:O	2.13	0.49
5:1F:198:ALA:O	5:1F:201:VAL:HG13	2.11	0.49
14:1S:81:GLY:HA2	14:1S:83:LYS:HZ2	1.77	0.49
22:10:49:LYS:O	22:10:50:ASN:HB2	2.13	0.49
22:10:68:GLU:HB2	22:10:82:ARG:HD3	1.94	0.49
32:1a:567:G:C2	32:1a:568:G:H1'	2.47	0.49
1:2A:576:U:H2'	1:2A:577:G:H8	1.77	0.49
1:2A:582:G:H2'	1:2A:583:G:C8	2.47	0.49
1:2A:2104:G:N2	1:2A:2186:G:H1'	2.26	0.49
14:2S:66:ALA:HA	14:2S:69:VAL:HG23	1.94	0.49
26:24:55:ARG:N	26:24:56:VAL:HA	2.27	0.49
32:2a:115:G:H1	32:2a:312:C:H42	1.57	0.49
32:2a:1071:C:H2'	32:2a:1072:G:H8	1.76	0.49
32:2a:1091:U:O2	32:2a:1093:A:C8	2.65	0.49
32:2a:1374:A:O2'	38:2g:28:ASN:HB3	2.12	0.49
32:2a:1505:G:H4'	32:2a:1506:U:H5"	1.94	0.49
32:2a:1516:G:H2'	32:2a:1518:MA6:OP2	2.13	0.49
1:1A:1054:A:H5"	1:1A:1054:A:H8	1.76	0.49
1:1A:1138:G:N3	9:1N:106:MET:HE2	2.26	0.49
6:1G:18:GLU:HG3	6:1G:175:LEU:HD21	1.94	0.49
8:1I:75:LEU:HD22	8:1I:105:HIS:ND1	2.27	0.49
11:1P:88:LEU:HD11	11:1P:114:ILE:HD12	1.94	0.49
13:1R:79:LEU:HD12	13:1R:83:ILE:HB	1.94	0.49
32:1a:450:G:N7	32:1a:481:G:C6	2.80	0.49
32:1a:1316:G:N2	32:1a:1318:A:H3'	2.27	0.49
32:1a:1521:G:H2'	32:1a:1522:U:C6	2.47	0.49
33:1b:185:ILE:HA	33:1b:199:TYR:O	2.11	0.49
35:1d:146:ILE:HD12	35:1d:146:ILE:N	2.27	0.49
35:1d:164:ALA:O	35:1d:168:ARG:NE	2.44	0.49
40:1i:5:TYR:H	40:1i:87:GLN:NE2	2.10	0.49
1:2A:492:A:H2'	1:2A:493:G:O4'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:872:A:H2'	1:2A:873:G:O4'	2.11	0.49
1:2A:1059:G:C2	1:2A:1060:U:O4	2.66	0.49
1:2A:1866:C:H2'	1:2A:1876:A:O4'	2.12	0.49
1:2A:1933:G:C6	1:2A:1934:C:C4	3.01	0.49
1:2A:2173:A:N6	1:2A:2174:C:O2	2.46	0.49
2:2B:55:U:H1'	6:2G:29:TRP:HE1	1.77	0.49
4:2E:135:HIS:CD2	4:2E:135:HIS:N	2.79	0.49
4:2E:143:ASN:HD22	4:2E:147:PRO:HD3	1.77	0.49
5:2F:65:TRP:CZ2	5:2F:75:HIS:HD2	2.29	0.49
7:2H:105:LEU:HD21	7:2H:148:ILE:HG23	1.94	0.49
8:2I:38:LEU:H	8:2I:38:LEU:CD2	2.24	0.49
23:21:94:LEU:O	23:21:97:LEU:HB2	2.13	0.49
34:2c:111:LEU:HD21	34:2c:146:ALA:HB2	1.93	0.49
34:2c:181:ASN:HD21	34:2c:204:LEU:HD12	1.78	0.49
1:1A:88:G:O2'	1:1A:89:G:H5'	2.13	0.49
1:1A:228:A:H2'	1:1A:230:U:O4'	2.12	0.49
1:1A:1278:A:H2'	1:1A:1279:G:H8	1.78	0.49
1:1A:1340:U:OP1	19:1X:16:LYS:NZ	2.45	0.49
7:1H:3:ARG:HA	7:1H:3:ARG:HH11	1.78	0.49
28:16:9:LEU:HD21	28:16:25:LYS:HB3	1.93	0.49
32:1a:397:A:H3'	32:1a:397:A:N3	2.28	0.49
32:1a:963:G:H5'	58:1a:2165:HOH:O	2.11	0.49
33:1b:87:ARG:HH11	33:1b:233:SER:HG	1.56	0.49
35:1d:173:TRP:CZ3	35:1d:174:LEU:HD11	2.47	0.49
40:1i:3:GLN:HE21	40:1i:20:ARG:HH21	1.58	0.49
50:1s:52:TYR:HA	50:1s:56:GLN:O	2.13	0.49
1:2A:923:C:H2'	1:2A:924:C:H6	1.76	0.49
7:2H:92:ILE:HG12	7:2H:93:GLY:H	1.77	0.49
9:2N:46:VAL:HG23	9:2N:48:MET:HG3	1.94	0.49
10:2O:10:VAL:HG13	10:2O:17:ARG:O	2.13	0.49
21:2Z:93:ASP:O	21:2Z:131:ARG:NH2	2.45	0.49
23:21:91:LYS:HG2	23:21:95:LEU:CD2	2.43	0.49
30:28:37:SER:O	30:28:41:ILE:HG12	2.13	0.49
32:2a:229:U:O2'	47:2p:23:ASP:OD2	2.21	0.49
32:2a:947:G:H2'	32:2a:948:C:O4'	2.12	0.49
32:2a:1092:A:N3	32:2a:1183:A:N6	2.61	0.49
32:2a:1176:A:H2'	32:2a:1177:G:C8	2.47	0.49
32:2a:1350:A:OP2	40:2i:118:LYS:NZ	2.45	0.49
32:2a:1395:C:O5'	32:2a:1395:C:H6	1.95	0.49
33:2b:212:GLN:NE2	33:2b:235:SER:HB3	2.27	0.49
35:2d:178:VAL:O	35:2d:180:GLY:N	2.39	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:2h:2:LEU:HD12	39:2h:3:THR:N	2.26	0.49
47:2p:1:MET:HG3	47:2p:65:GLN:HG3	1.94	0.49
52:2u:14:TRP:HE3	52:2u:15:ARG:HG2	1.77	0.49
54:2z:53:THR:HG22	54:2z:62:VAL:HG22	1.94	0.49
1:1A:271(J):C:O5'	1:1A:271(J):C:H6	1.95	0.49
1:1A:1259:G:H2'	1:1A:1260:G:C8	2.48	0.49
1:1A:2141:G:H3'	1:1A:2142:C:C6	2.48	0.49
1:1A:2310:A:H8	1:1A:2310:A:O5'	1.95	0.49
1:1A:2556:C:H2'	1:1A:2557:G:O4'	2.12	0.49
1:1A:2638:G:OP2	4:1E:82:ARG:NH1	2.46	0.49
3:1D:17:THR:O	3:1D:211:ARG:NH1	2.41	0.49
6:1G:9:ARG:NH1	6:1G:13:GLU:OE2	2.46	0.49
8:1I:61:ARG:NH1	8:1I:64:GLU:HB2	2.27	0.49
15:1T:118:ARG:HG3	32:1a:1442(A):G:C8	2.47	0.49
18:1W:12:ILE:HG12	18:1W:13:SER:N	2.27	0.49
21:1Z:70:LEU:HG	21:1Z:91:LEU:HD21	1.94	0.49
32:1a:189(D):C:H1'	32:1a:189(H):G:C2	2.48	0.49
32:1a:603:U:H2'	32:1a:604:G:C8	2.47	0.49
32:1a:713:G:N2	32:1a:714:G:C2	2.80	0.49
32:1a:974:A:H8	32:1a:974:A:OP1	1.95	0.49
32:1a:975:A:C8	32:1a:1357:A:H2	2.31	0.49
48:1q:53:LEU:HD23	48:1q:82:MET:HE1	1.95	0.49
51:1t:63:ILE:HD13	51:1t:80:ARG:HB3	1.94	0.49
1:2A:813:U:H2'	1:2A:814:C:C6	2.48	0.49
1:2A:1141:U:OP1	9:2N:25:ARG:NH1	2.44	0.49
1:2A:1160:G:C6	1:2A:1161:C:C4	3.00	0.49
1:2A:1171:G:C4	1:2A:1173:G:C8	3.00	0.49
1:2A:2012:G:OP1	18:2W:11:ARG:NH2	2.46	0.49
1:2A:2786:U:O2'	4:2E:65:GLY:HA3	2.12	0.49
1:2A:2886:G:H2'	1:2A:2887:U:H6	1.77	0.49
2:2B:83:G:H5"	25:23:52:HIS:CD2	2.47	0.49
3:2D:242:ARG:HH11	3:2D:242:ARG:CG	2.16	0.49
7:2H:84:SER:HA	7:2H:133:VAL:O	2.12	0.49
12:2Q:135:ASP:HB3	12:2Q:137:TYR:N	2.28	0.49
19:2X:84:ALA:O	19:2X:87:GLN:HG3	2.12	0.49
21:2Z:53:ILE:HG22	21:2Z:71:VAL:HG12	1.93	0.49
32:2a:1210:C:N4	32:2a:1211:U:O4	2.45	0.49
32:2a:1250:A:C6	32:2a:1251:A:C6	3.01	0.49
35:2d:139:ARG:O	35:2d:141:ARG:HG2	2.12	0.49
39:2h:51:VAL:HG11	39:2h:60:ARG:NH1	2.28	0.49
44:2m:106:ASN:OD1	44:2m:106:ASN:N	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:521:G:C2'	1:1A:522:G:H5'	2.42	0.49
1:1A:2011:U:C2'	1:1A:2012:G:H5'	2.43	0.49
1:1A:2467:C:O2'	1:1A:2468:G:H5'	2.13	0.49
1:1A:2699:C:H2'	1:1A:2700:C:O4'	2.13	0.49
3:1D:72:LYS:HD3	3:1D:97:TYR:CE2	2.47	0.49
5:1F:107:LYS:HE3	5:1F:206:ILE:C	2.38	0.49
28:16:47:THR:HG22	28:16:48:VAL:O	2.12	0.49
32:1a:448:A:H2'	32:1a:449:C:C6	2.47	0.49
32:1a:501:C:H2'	32:1a:502:G:C8	2.47	0.49
32:1a:872:A:C4	32:1a:874:G:N7	2.80	0.49
32:1a:1134:G:N3	32:1a:1134:G:H2'	2.28	0.49
32:1a:1245:A:H2'	32:1a:1246:C:O4'	2.12	0.49
32:1a:1316:G:H5"	45:1n:17:LYS:HE3	1.94	0.49
40:1i:3:GLN:HE21	40:1i:20:ARG:HE	1.59	0.49
43:1l:54:LYS:HD2	43:1l:54:LYS:N	2.27	0.49
46:1o:74:ASP:OD2	46:1o:77:ARG:HD3	2.12	0.49
1:2A:342:G:H2'	1:2A:343:C:H6	1.77	0.49
1:2A:594:U:H2'	1:2A:595:C:C6	2.47	0.49
1:2A:1131:G:C8	1:2A:2025:C:H4'	2.47	0.49
4:2E:29:GLY:O	4:2E:51:PHE:HE1	1.95	0.49
13:2R:38:VAL:HG23	13:2R:110:PRO:O	2.12	0.49
20:2Y:77:PRO:HD2	20:2Y:106:LEU:HD23	1.95	0.49
23:21:62:VAL:CG1	23:21:67:ILE:HG12	2.42	0.49
32:2a:1423:G:H2'	32:2a:1424:C:H6	1.77	0.49
34:2c:134:ILE:HD11	34:2c:153:VAL:CG2	2.43	0.49
1:1A:511:U:C5	1:1A:512:G:C5	3.00	0.49
1:1A:568:U:H6	1:1A:568:U:H5"	1.78	0.49
1:1A:826:U:H2'	1:1A:828:U:O4'	2.12	0.49
1:1A:1103:A:C8	1:1A:1104:C:C5	3.01	0.49
1:1A:1308:A:H3'	1:1A:1309:G:H8	1.77	0.49
1:1A:2261:C:H1'	1:1A:2388:A:N3	2.27	0.49
1:1A:2516:G:C6	1:1A:2517:C:N4	2.80	0.49
1:1A:2563:U:H4'	10:1O:28:SER:HA	1.95	0.49
3:1D:6:PHE:CE1	3:1D:18:VAL:HG22	2.48	0.49
3:1D:134:ARG:NH1	3:1D:188:GLU:OE2	2.46	0.49
10:1O:13:ASN:HD21	10:1O:96:THR:HG23	1.78	0.49
22:10:17:GLN:OE1	22:10:17:GLN:HA	2.11	0.49
26:14:62:ARG:C	26:14:63:TYR:HD1	2.19	0.49
30:18:50:LEU:HB3	30:18:55:ALA:HB2	1.93	0.49
31:19:7:VAL:HG22	31:19:36:GLN:HG3	1.95	0.49
32:1a:996:A:H8	32:1a:996:A:O5'	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1021:G:C2	32:1a:1022:G:H1'	2.48	0.49
32:1a:1030:C:C4	32:1a:1031:G:N2	2.81	0.49
32:1a:1063:C:H2'	32:1a:1064:G:C8	2.47	0.49
32:1a:1068:G:N7	32:1a:1094:G:H2'	2.28	0.49
34:1c:114:PRO:HA	34:1c:185:GLY:HA3	1.95	0.49
39:1h:94:TYR:HE1	39:1h:132:GLU:HB2	1.74	0.49
40:1i:34:ASN:H	40:1i:34:ASN:HD22	1.58	0.49
1:2A:103:A:H4'	24:22:3:LEU:HD11	1.94	0.49
1:2A:269:U:O2	1:2A:269:U:H2'	2.11	0.49
1:2A:363:G:H2'	1:2A:363(A):A:C8	2.48	0.49
1:2A:635:C:O2'	1:2A:639:U:OP1	2.29	0.49
1:2A:888:C:O5'	1:2A:888:C:H6	1.96	0.49
1:2A:1008:C:H4'	1:2A:1009:A:OP1	2.13	0.49
1:2A:2564:A:C6	1:2A:2565:A:N1	2.80	0.49
7:2H:33:LEU:HD21	7:2H:136:ILE:HG12	1.95	0.49
8:2I:78:THR:H	8:2I:104:GLN:HE22	1.61	0.49
19:2X:26:TYR:CE1	19:2X:89:ILE:HG13	2.48	0.49
20:2Y:8:LYS:HE3	20:2Y:97:ARG:NH2	2.27	0.49
32:2a:192:U:H2'	32:2a:193:C:C6	2.48	0.49
32:2a:804:U:H5"	32:2a:805:C:OP2	2.12	0.49
32:2a:1014:A:OP1	50:2s:18:LYS:NZ	2.44	0.49
32:2a:1151:A:O2'	32:2a:1152:A:O5'	2.30	0.49
35:2d:9:CYS:SG	35:2d:22:LYS:HE3	2.52	0.49
39:2h:68:ARG:HG3	39:2h:69:ARG:N	2.28	0.49
44:2m:34:LEU:HD13	44:2m:41:PRO:HA	1.94	0.49
1:1A:322:A:C5	1:1A:340:A:C2	3.01	0.49
1:1A:459:U:H2'	1:1A:460:A:H8	1.77	0.49
1:1A:1997:G:O2'	1:1A:1998:G:H5'	2.12	0.49
1:1A:2137:C:H42	1:1A:2154:G:H1	1.60	0.49
1:1A:2511:U:O4	1:1A:2575:C:N3	2.46	0.49
1:1A:2591:C:H2'	1:1A:2592:G:C8	2.47	0.49
5:1F:40:GLN:HE22	5:1F:184:TYR:H	1.61	0.49
9:1N:71:ILE:HG21	9:1N:84:LYS:HB3	1.95	0.49
30:18:33:ASN:HA	30:18:36:LYS:HD2	1.94	0.49
32:1a:1039:C:H2'	32:1a:1040:U:C6	2.48	0.49
32:1a:1206:G:O2'	34:1c:193:TYR:HA	2.13	0.49
35:1d:8:VAL:HA	35:1d:11:LEU:HD13	1.94	0.49
39:1h:83:ILE:HB	39:1h:137:VAL:HG13	1.94	0.49
43:1l:83:VAL:HG13	43:1l:100:ILE:HG23	1.94	0.49
1:2A:1102:C:H2'	1:2A:1103:A:C8	2.48	0.49
1:2A:1206:G:H5"	1:2A:1207:C:OP2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1282:U:H2'	1:2A:1283:G:O4'	2.13	0.49
1:2A:1337:G:H2'	1:2A:1338:G:C8	2.46	0.49
1:2A:1591:G:H2'	1:2A:1592:C:C6	2.47	0.49
1:2A:2577:A:OP2	27:25:3:LYS:NZ	2.41	0.49
4:2E:144:ARG:HB3	4:2E:145:LYS:H	1.42	0.49
18:2W:12:ILE:HD13	18:2W:17:VAL:HG22	1.95	0.49
32:2a:957:U:H4'	50:2s:79:THR:HB	1.95	0.49
32:2a:974:A:H8	32:2a:974:A:OP1	1.96	0.49
32:2a:1278:U:O2	32:2a:1278:U:H2'	2.13	0.49
33:2b:181:PHE:HD1	39:2h:70:GLN:HB3	1.78	0.49
44:2m:33:ALA:HA	44:2m:59:TYR:CE2	2.46	0.49
50:2s:58:VAL:O	50:2s:60:VAL:HG23	2.13	0.49
51:2t:14:LYS:HA	51:2t:17:ARG:CZ	2.43	0.49
1:1A:271(Q):G:OP1	8:1I:42:SER:HB3	2.12	0.49
1:1A:1639:U:O2'	1:1A:1640:C:H5'	2.13	0.49
1:1A:2250:G:O2'	1:1A:2496:C:OP1	2.22	0.49
6:1G:125:PHE:O	6:1G:127:GLY:N	2.46	0.49
32:1a:447:G:H2'	32:1a:485:G:N2	2.28	0.49
32:1a:1260:C:O5'	32:1a:1284:C:H4'	2.13	0.49
33:1b:158:LEU:HG	33:1b:182:ILE:HD11	1.95	0.49
42:1k:108:ILE:O	49:1r:87:ARG:HG2	2.12	0.49
48:1q:29:HIS:HB2	48:1q:36:ILE:HD13	1.95	0.49
1:2A:2109:U:H2'	1:2A:2110:G:C8	2.47	0.49
1:2A:2815:C:H2'	1:2A:2816:C:H6	1.77	0.49
1:2A:2881:C:C4	1:2A:2882:A:N7	2.81	0.49
7:2H:90:LYS:O	7:2H:94:TYR:HB2	2.12	0.49
9:2N:73:THR:HA	9:2N:83:LYS:O	2.13	0.49
19:2X:46:ALA:HB1	24:22:33:MET:HE1	1.95	0.49
24:22:69:ARG:O	24:22:70:GLN:HG3	2.13	0.49
29:27:1:MET:H3	29:27:1:MET:HE3	1.78	0.49
32:2a:757:U:H2'	32:2a:758:G:O4'	2.13	0.49
33:2b:168:THR:OG1	33:2b:192:SER:HA	2.13	0.49
40:2i:4:TYR:CE1	40:2i:88:TYR:HA	2.48	0.49
42:2k:82:VAL:HB	42:2k:108:ILE:HG12	1.95	0.49
44:2m:81:LEU:O	44:2m:89:GLY:HA3	2.12	0.49
1:1A:38:A:H2'	1:1A:39:C:C6	2.48	0.49
1:1A:97:C:OP1	24:12:2:LYS:NZ	2.42	0.49
1:1A:361:G:C6	1:1A:362:U:O4	2.66	0.49
1:1A:458:G:O2'	1:1A:469:G:O6	2.27	0.49
1:1A:1607:C:N4	1:1A:1622:G:OP2	2.39	0.49
1:1A:2161:C:H2'	1:1A:2162:G:O4'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2388:A:C2'	1:1A:2389:G:H5'	2.43	0.49
1:1A:2789:C:O2	1:1A:2894:G:N1	2.36	0.49
8:1I:73:GLU:HG3	8:1I:138:ILE:HG23	1.95	0.49
16:1U:74:LEU:HD12	16:1U:74:LEU:H	1.77	0.49
20:1Y:6:HIS:H	20:1Y:6:HIS:CD2	2.31	0.49
32:1a:35:G:C6	32:1a:36:C:N4	2.81	0.49
32:1a:1148:U:H2'	32:1a:1149:C:O4'	2.12	0.49
33:1b:115:LEU:O	33:1b:119:GLU:HG2	2.12	0.49
43:1l:25:PRO:O	43:1l:28:LYS:HD3	2.13	0.49
1:2A:271(P):C:H4'	8:2I:42:SER:O	2.12	0.49
1:2A:412:A:H8	1:2A:412:A:O5'	1.95	0.49
1:2A:942:G:O2'	1:2A:1189:A:N3	2.42	0.49
1:2A:1131:G:H8	1:2A:2025:C:H4'	1.77	0.49
1:2A:1721:G:N1	1:2A:1739:U:OP2	2.46	0.49
1:2A:2745:C:H2'	1:2A:2746:U:O4'	2.13	0.49
1:2A:2881:C:O2'	13:2R:96:ARG:HA	2.13	0.49
3:2D:16:MET:HG2	3:2D:211:ARG:HH11	1.78	0.49
12:2Q:54:MET:HG2	12:2Q:117:ALA:HB1	1.95	0.49
25:23:23:LEU:HD22	25:23:50:VAL:HG11	1.95	0.49
32:2a:1129:C:H1'	32:2a:1130:A:N7	2.28	0.49
40:2i:8:GLY:HA3	40:2i:76:ALA:O	2.13	0.49
42:2k:98:LEU:O	42:2k:101:SER:OG	2.16	0.49
54:2z:29:LYS:O	54:2z:31:GLN:HG3	2.13	0.49
1:1A:271(L):U:OP1	8:1I:50:ARG:NH1	2.46	0.48
1:1A:1439:A:H2'	1:1A:1440:G:O4'	2.13	0.48
3:1D:119:ALA:CB	3:1D:130:ALA:HB3	2.42	0.48
3:1D:182:LEU:HB2	3:1D:272:ALA:HB3	1.95	0.48
7:1H:3:ARG:NH1	7:1H:4:ILE:H	2.11	0.48
13:1R:102:GLU:OE2	18:1W:37:ARG:NH2	2.46	0.48
23:11:19:GLN:CB	23:11:35:THR:HG23	2.41	0.48
32:1a:862:C:H42	32:1a:867:G:H1	1.61	0.48
34:1c:63:ASN:HB3	34:1c:98:ASN:HB2	1.95	0.48
34:1c:123:GLN:O	34:1c:128:PHE:HB2	2.12	0.48
1:2A:271(S):G:H5"	1:2A:271(S):G:C8	2.48	0.48
1:2A:287:C:H2'	1:2A:288:C:H6	1.78	0.48
1:2A:721:C:H2'	1:2A:722:A:H8	1.77	0.48
1:2A:1510:G:H2'	1:2A:1511:C:O4'	2.13	0.48
1:2A:1558:A:C2	1:2A:1560:G:C8	3.01	0.48
1:2A:1593:G:H2'	1:2A:1594:G:C8	2.47	0.48
1:2A:1656:C:H2'	1:2A:1657:C:H6	1.78	0.48
1:2A:1666:G:H2'	1:2A:1667:G:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1803:A:H4'	3:2D:259:THR:HG23	1.95	0.48
1:2A:2440:C:H5'	58:2A:4280:HOH:O	2.12	0.48
1:2A:2830:G:OP1	4:2E:76:ARG:NH2	2.46	0.48
5:2F:188:ARG:HA	11:2P:3:LEU:HD13	1.95	0.48
6:2G:108:ASN:O	6:2G:112:PRO:HG2	2.13	0.48
11:2P:126:VAL:HG12	11:2P:148:LEU:HD23	1.95	0.48
14:2S:35:ILE:HD11	14:2S:101:LEU:HD12	1.95	0.48
16:2U:72:HIS:CE1	16:2U:107:ALA:HA	2.48	0.48
29:27:35:ARG:HG3	29:27:42:LEU:HD21	1.95	0.48
32:2a:164:U:H2'	32:2a:165:C:C6	2.48	0.48
32:2a:938:A:C6	32:2a:939:G:C5	3.01	0.48
32:2a:977:A:O2'	32:2a:980:C:N4	2.46	0.48
33:2b:60:ASP:O	33:2b:64:ARG:HG3	2.13	0.48
39:2h:114:THR:C	39:2h:116:LYS:H	2.21	0.48
40:2i:17:VAL:HB	40:2i:63:ILE:HG12	1.94	0.48
46:2o:9:GLN:O	46:2o:13:GLN:HG3	2.12	0.48
1:1A:185:U:H2'	1:1A:186:G:C8	2.48	0.48
1:1A:1364:G:N7	23:11:3:LYS:HE2	2.27	0.48
1:1A:1591:G:H2'	1:1A:1592:C:O4'	2.13	0.48
1:1A:1913:A:C2	32:1a:1493:A:C8	3.00	0.48
1:1A:2335:A:C8	1:1A:2337:G:C5	3.01	0.48
1:1A:2393:A:H5"	11:1P:63:PRO:HB3	1.95	0.48
9:1N:96:GLU:H	9:1N:96:GLU:CD	2.20	0.48
32:1a:460:G:N2	32:1a:471:G:N7	2.62	0.48
32:1a:1277:C:O2'	32:1a:1279:A:H1'	2.13	0.48
32:1a:1333:A:H2'	32:1a:1334:G:O4'	2.13	0.48
33:1b:83:MET:HB2	33:1b:84:GLU:HG2	1.94	0.48
35:1d:150:GLU:O	35:1d:152:SER:N	2.46	0.48
1:2A:31:C:C4	1:2A:32:C:C5	3.01	0.48
1:2A:807:U:OP2	11:2P:41:ARG:NH2	2.44	0.48
1:2A:2734:A:H2'	1:2A:2735:G:O4'	2.13	0.48
3:2D:137:PRO:O	3:2D:140:THR:HG23	2.14	0.48
5:2F:40:GLN:NE2	5:2F:182:ASN:HB2	2.28	0.48
7:2H:25:LYS:HE2	7:2H:27:LYS:HE3	1.95	0.48
12:2Q:78:PRO:HB2	12:2Q:81:VAL:HG11	1.95	0.48
32:2a:582:U:C2	32:2a:760:G:C6	3.01	0.48
32:2a:963:G:H5'	58:2a:2164:HOH:O	2.13	0.48
32:2a:1166:G:H5'	32:2a:1168:A:OP2	2.13	0.48
34:2c:34:LEU:HG	34:2c:38:ARG:NH1	2.28	0.48
38:2g:16:LEU:HD12	40:2i:41:VAL:O	2.13	0.48
51:2t:50:GLU:HB2	51:2t:99:LEU:CB	2.42	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:2u:2:GLY:C	52:2u:4:GLY:H	2.20	0.48
1:1A:125:G:H4'	1:1A:126:A:OP2	2.13	0.48
1:1A:297:C:H2'	1:1A:298:G:O4'	2.13	0.48
1:1A:1045:A:H5'	1:1A:1046:A:H5"	1.96	0.48
1:1A:1412:A:H2'	1:1A:1413:G:C8	2.49	0.48
1:1A:1607:C:H4'	1:1A:1608:A:O5'	2.13	0.48
1:1A:1826:G:O2'	1:1A:1971:A:OP2	2.31	0.48
1:1A:2200:C:O5'	1:1A:2200:C:H6	1.95	0.48
2:1B:83:G:H5"	25:13:52:HIS:NE2	2.27	0.48
17:1V:71:LEU:HD13	17:1V:84:LYS:HE3	1.95	0.48
32:1a:189:G:C6	32:1a:189(L):G:N1	2.81	0.48
32:1a:689:C:H2'	32:1a:690:G:O4'	2.14	0.48
32:1a:826:C:H2'	32:1a:827:U:H6	1.78	0.48
35:1d:168:ARG:HD3	35:1d:168:ARG:N	2.28	0.48
47:1p:3:LYS:HG2	47:1p:65:GLN:O	2.13	0.48
47:1p:51:VAL:O	47:1p:53:VAL:N	2.46	0.48
47:1p:74:LEU:HB3	47:1p:79:VAL:HG21	1.95	0.48
1:2A:1048:A:N1	1:2A:1112:G:O2'	2.37	0.48
1:2A:1182:A:H2'	1:2A:1183:G:C8	2.49	0.48
1:2A:2082:A:N6	1:2A:2237:G:O2'	2.40	0.48
1:2A:2791:C:H6	1:2A:2791:C:OP2	1.96	0.48
4:2E:18:ASP:HA	15:2T:82:LEU:HD11	1.95	0.48
6:2G:61:ALA:HA	6:2G:66:GLN:O	2.13	0.48
10:2O:19:ILE:O	10:2O:19:ILE:HG13	2.14	0.48
13:2R:76:VAL:O	13:2R:79:LEU:HB3	2.13	0.48
16:2U:21:ALA:HB1	16:2U:24:TYR:HD2	1.78	0.48
32:2a:32:A:C2	32:2a:33:A:C4	3.01	0.48
32:2a:1118:C:OP1	40:2i:9:ARG:HD2	2.14	0.48
32:2a:1120:G:C6	32:2a:1121:U:C4	3.01	0.48
32:2a:1347:G:H5"	40:2i:107:ARG:HB3	1.94	0.48
33:2b:201:ILE:HG21	33:2b:214:ILE:HG21	1.95	0.48
35:2d:191:ARG:HG3	35:2d:191:ARG:O	2.13	0.48
38:2g:135:VAL:O	38:2g:139:GLU:N	2.28	0.48
1:1A:29:U:H2'	1:1A:30:G:C8	2.48	0.48
1:1A:1094:U:H1'	1:1A:1097:U:C5	2.48	0.48
1:1A:1203:G:C6	1:1A:1204:A:N6	2.82	0.48
1:1A:1451:C:H42	1:1A:1459:G:H1	1.61	0.48
1:1A:2135:A:H4'	1:1A:2160:G:H5'	1.95	0.48
1:1A:2667:C:H1'	7:1H:109:PHE:CD1	2.48	0.48
6:1G:49:ASP:OD1	6:1G:49:ASP:N	2.27	0.48
13:1R:28:LEU:HD23	13:1R:48:VAL:HG21	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:838:G:N2	32:1a:849:C:C2	2.82	0.48
32:1a:1252:A:H2'	32:1a:1253:G:O4'	2.13	0.48
33:1b:203:GLY:O	33:1b:205:ASP:N	2.45	0.48
35:1d:122:ARG:NH1	35:1d:134:ASP:O	2.46	0.48
40:1i:77:ILE:O	40:1i:81:ILE:HG23	2.13	0.48
47:1p:74:LEU:HD23	47:1p:79:VAL:HG21	1.95	0.48
1:2A:753:C:H2'	1:2A:754:C:H6	1.78	0.48
1:2A:799:G:H3'	1:2A:800:A:H2'	1.95	0.48
1:2A:1362:C:C4	1:2A:1363:C:C5	3.00	0.48
32:2a:66:G:H4'	32:2a:173:U:C5	2.49	0.48
32:2a:438:G:C4'	35:2d:123:HIS:HD2	2.27	0.48
32:2a:1227:A:C8	50:2s:83:HIS:HB3	2.49	0.48
32:2a:1250:A:H61	32:2a:1354:C:C1'	2.27	0.48
34:2c:85:ARG:O	34:2c:89:GLU:HG2	2.13	0.48
34:2c:182:ILE:HG12	34:2c:203:PHE:HD1	1.79	0.48
38:2g:101:LEU:O	38:2g:105:VAL:HG23	2.13	0.48
40:2i:4:TYR:HD1	40:2i:87:GLN:HE21	1.60	0.48
44:2m:84:ILE:HG12	50:2s:74:PHE:HE2	1.77	0.48
1:1A:271(U):G:H2'	1:1A:271(V):G:H8	1.77	0.48
1:1A:370:G:O5'	1:1A:423:A:N6	2.47	0.48
1:1A:1530:C:O5'	1:1A:1530:C:H6	1.95	0.48
1:1A:2106:G:H1	1:1A:2183:C:N4	2.06	0.48
1:1A:2296:U:OP2	14:1S:6:ALA:HB2	2.13	0.48
9:1N:131:GLN:OE1	9:1N:131:GLN:HA	2.14	0.48
12:1Q:59:ARG:HH11	12:1Q:59:ARG:HG2	1.77	0.48
29:17:24:THR:HG22	29:17:26:GLY:H	1.77	0.48
32:1a:53:A:N6	32:1a:54:C:C4	2.81	0.48
32:1a:482:A:H2'	32:1a:483:C:O4'	2.14	0.48
32:1a:1166:G:N2	32:1a:1170:A:OP2	2.36	0.48
34:1c:29:TYR:OH	45:1n:54:PRO:HD2	2.14	0.48
34:1c:186:PHE:HE2	34:1c:188:LEU:HB2	1.78	0.48
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.96	0.48
1:2A:631:A:H5"	1:2A:632:A:OP2	2.14	0.48
1:2A:851:U:C5'	25:23:49:LYS:HD2	2.44	0.48
1:2A:1073:A:C2	1:2A:1074:G:C8	3.01	0.48
1:2A:1167:U:H2'	1:2A:1168:G:O4'	2.13	0.48
1:2A:1467:C:C4	1:2A:1468:C:H5	2.31	0.48
1:2A:1720:U:H2'	1:2A:1721:G:O4'	2.12	0.48
1:2A:2756:U:H1'	1:2A:2757:A:H5"	1.95	0.48
22:20:50:ASN:O	22:20:62:LEU:HB2	2.14	0.48
32:2a:110:C:O2'	47:2p:25:ARG:HB3	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:391:G:C6	32:2a:392:G:C5	3.01	0.48
39:2h:20:TYR:HA	39:2h:65:TYR:CE2	2.48	0.48
39:2h:91:ARG:HE	48:2q:33:GLY:HA3	1.78	0.48
44:2m:50:GLU:O	44:2m:54:VAL:HG13	2.13	0.48
1:1A:185:U:H4'	1:1A:218:A:H4'	1.95	0.48
1:1A:1514:U:H2'	1:1A:1515:G:H8	1.77	0.48
6:1G:111:LEU:HD23	6:1G:114:ILE:HD12	1.95	0.48
7:1H:41:MET:CE	7:1H:65:HIS:HA	2.42	0.48
13:1R:26:LYS:HE2	13:1R:70:LEU:O	2.13	0.48
15:1T:56:GLY:O	15:1T:59:THR:HG23	2.13	0.48
15:1T:63:VAL:O	15:1T:73:GLU:HA	2.14	0.48
24:12:69:ARG:O	24:12:70:GLN:HG3	2.14	0.48
32:1a:401:C:OP1	35:1d:73:ARG:NH2	2.46	0.48
32:1a:1202:G:H2'	32:1a:1203:C:O4'	2.14	0.48
37:1f:79:LEU:O	37:1f:85:VAL:HG21	2.13	0.48
39:1h:18:ARG:HG2	39:1h:18:ARG:HH11	1.77	0.48
39:1h:51:VAL:HG21	39:1h:60:ARG:NH1	2.28	0.48
41:1j:57:LYS:O	41:1j:60:ARG:NE	2.32	0.48
46:1o:6:GLU:O	46:1o:9:GLN:HB2	2.14	0.48
1:2A:572:A:H2'	1:2A:573:G:O4'	2.13	0.48
1:2A:867:C:C5	1:2A:868:U:C5	3.01	0.48
1:2A:876:C:H2'	1:2A:877:U:O4'	2.13	0.48
1:2A:1503:U:H2'	1:2A:1504:C:C6	2.48	0.48
1:2A:1515:G:H2'	1:2A:1516:C:C6	2.48	0.48
1:2A:2036:C:O2'	1:2A:2037:G:H5'	2.14	0.48
1:2A:2483:C:H2'	1:2A:2484:G:O4'	2.14	0.48
1:2A:2648:C:H2'	1:2A:2649:U:C6	2.49	0.48
1:2A:2698:U:H2'	1:2A:2699:C:C6	2.48	0.48
4:2E:101:ARG:CZ	4:2E:171:GLU:HB2	2.43	0.48
6:2G:16:ARG:O	6:2G:20:ILE:HG13	2.13	0.48
6:2G:29:TRP:O	6:2G:33:ARG:NH1	2.43	0.48
6:2G:84:LYS:HB2	6:2G:84:LYS:HZ2	1.78	0.48
8:2I:128:LEU:HD23	8:2I:128:LEU:HA	1.59	0.48
9:2N:43:THR:HG22	9:2N:44:PRO:HD2	1.95	0.48
25:23:8:LEU:HB2	25:23:28:LEU:HD22	1.96	0.48
32:2a:537:G:H2'	32:2a:538:G:C8	2.44	0.48
32:2a:1347:G:H22	32:2a:1374:A:P	2.37	0.48
34:2c:195:VAL:C	34:2c:196:LEU:HD23	2.38	0.48
39:2h:113:SER:CB	39:2h:134:ILE:HD11	2.44	0.48
41:2j:49:VAL:HG23	45:2n:41:ARG:HD2	1.95	0.48
44:2m:84:ILE:HD11	50:2s:66:MET:HB3	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2118:U:P	1:1A:2147:G:HO2'	2.37	0.48
32:1a:176:C:H2'	32:1a:177:C:C6	2.46	0.48
32:1a:373:A:H2'	32:1a:374:A:C8	2.46	0.48
32:1a:926:G:H5"	32:1a:927:G:O5'	2.13	0.48
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.48	0.48
35:1d:202:LEU:HD23	35:1d:202:LEU:HA	1.62	0.48
36:1e:78:HIS:ND1	39:1h:104:ARG:HD3	2.28	0.48
47:1p:75:ARG:HG3	47:1p:80:PHE:HD2	1.78	0.48
1:2A:271(A):A:N1	1:2A:272(D):G:O2'	2.44	0.48
1:2A:1523:U:H2'	1:2A:1524:G:O4'	2.14	0.48
1:2A:2511:U:O4	1:2A:2575:C:N3	2.46	0.48
2:2B:50:G:OP1	14:2S:63:THR:OG1	2.28	0.48
3:2D:130:ALA:C	3:2D:131:LEU:HD12	2.38	0.48
9:2N:34:LEU:HD12	9:2N:34:LEU:HA	1.67	0.48
10:2O:113:LYS:C	10:2O:117:LEU:HD12	2.38	0.48
12:2Q:34:LEU:HD11	12:2Q:129:THR:HB	1.96	0.48
12:2Q:134:ARG:CZ	21:2Z:122:ARG:HD3	2.44	0.48
13:2R:10:LEU:O	13:2R:12:ARG:N	2.47	0.48
26:24:34:GLU:OE2	26:24:34:GLU:N	2.43	0.48
26:24:47:GLN:C	26:24:49:PHE:H	2.19	0.48
32:2a:1279:A:H5"	32:2a:1280:A:OP1	2.13	0.48
32:2a:1463:C:O5'	32:2a:1463:C:H6	1.97	0.48
38:2g:94:ARG:O	38:2g:97:GLN:HB2	2.13	0.48
44:2m:75:ALA:O	44:2m:79:LYS:N	2.37	0.48
44:2m:77:ASN:O	44:2m:81:LEU:HD12	2.13	0.48
1:1A:271(H):G:H5'	23:11:81:LYS:HE3	1.95	0.48
1:1A:580:C:H2'	1:1A:581:C:C6	2.48	0.48
1:1A:831:G:O2'	11:1P:38:GLN:HB2	2.13	0.48
1:1A:865:C:C4	1:1A:908:C:N4	2.82	0.48
1:1A:1805:U:O2	3:1D:50:THR:HB	2.14	0.48
1:1A:2118:U:N3	1:1A:2149:G:H1'	2.29	0.48
1:1A:2129:C:N3	1:1A:2159:G:O6	2.47	0.48
3:1D:5:LYS:HE3	3:1D:5:LYS:HB3	1.65	0.48
3:1D:52:ARG:HH12	3:1D:249:PRO:HG2	1.78	0.48
21:1Z:25:PRO:O	21:1Z:85:HIS:HA	2.14	0.48
32:1a:1030(D):A:H2'	32:1a:1031:G:H5'	1.96	0.48
32:1a:1072:G:H2'	32:1a:1073:U:C6	2.49	0.48
32:1a:1363(A):A:H1'	32:1a:1365:G:N7	2.29	0.48
33:1b:7:VAL:O	33:1b:217:ARG:NH2	2.47	0.48
33:1b:100:GLY:O	33:1b:104:ASN:N	2.47	0.48
39:1h:39:LEU:HB3	39:1h:45:ILE:HD11	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:1h:51:VAL:HG12	39:1h:52:ASP:N	2.23	0.48
42:1k:34:ASP:OD1	42:1k:38:ASN:N	2.46	0.48
1:2A:662:G:O2'	1:2A:663:G:H5'	2.13	0.48
1:2A:911:A:H2'	12:2Q:9:TYR:OH	2.14	0.48
1:2A:1336:A:H2'	1:2A:1337:G:H8	1.76	0.48
1:2A:1444:G:H2'	1:2A:1445(A):C:C5	2.49	0.48
1:2A:1667:G:O2'	1:2A:1991:U:O4	2.29	0.48
1:2A:1913:A:C2	32:2a:1493:A:C8	3.01	0.48
1:2A:2001:A:H2'	1:2A:2002:G:C8	2.48	0.48
1:2A:2233:U:H2'	1:2A:2234:G:C8	2.49	0.48
1:2A:2615:U:C2	27:25:7:PRO:HA	2.49	0.48
2:2B:21:G:H1	2:2B:62:C:H42	1.61	0.48
3:2D:121:PRO:HB3	3:2D:135:PHE:CE2	2.48	0.48
6:2G:111:LEU:HD22	6:2G:117:PHE:CZ	2.48	0.48
11:2P:82:GLY:HA2	11:2P:113:LYS:O	2.14	0.48
16:2U:85:LYS:HZ3	16:2U:117:GLN:HG3	1.77	0.48
26:24:35:VAL:HG22	26:24:36:CYS:H	1.79	0.48
32:2a:108:G:C6	51:2t:15:ARG:HG2	2.48	0.48
32:2a:515:G:C6	32:2a:516:PSU:C2	3.02	0.48
32:2a:1063:C:H2'	32:2a:1064:G:C8	2.49	0.48
34:2c:116:VAL:HG21	34:2c:202:ILE:HD11	1.96	0.48
39:2h:39:LEU:HA	39:2h:39:LEU:HD12	1.67	0.48
48:2q:5:VAL:HG22	48:2q:60:ILE:HG12	1.96	0.48
48:2q:62:SER:CB	48:2q:72:ARG:HH11	2.27	0.48
1:1A:1474:C:H2'	1:1A:1475:G:C8	2.48	0.48
1:1A:2583:G:H2'	1:1A:2584:U:C6	2.49	0.48
58:1A:5286:HOH:O	19:1X:38:GLU:HA	2.14	0.48
3:1D:172:TYR:CD2	3:1D:186:HIS:HA	2.49	0.48
9:1N:59:LYS:HA	9:1N:61:ARG:HH12	1.78	0.48
19:1X:84:ALA:HB3	19:1X:87:GLN:CD	2.39	0.48
32:1a:232:G:H1'	32:1a:262:A:N1	2.28	0.48
32:1a:1123:A:H61	32:1a:1149:C:N4	2.12	0.48
32:1a:1125:U:H4'	41:1j:5:ARG:HH22	1.79	0.48
38:1g:62:PHE:HD1	38:1g:124:LEU:HD11	1.78	0.48
1:2A:548:A:N7	17:2V:19:LYS:NZ	2.35	0.48
1:2A:924:C:H2'	1:2A:925:C:H6	1.77	0.48
1:2A:1467:C:C4	1:2A:1468:C:C5	3.02	0.48
1:2A:2135:A:N6	1:2A:2156:G:H1'	2.29	0.48
1:2A:2524:G:N2	1:2A:2525:G:H1'	2.28	0.48
1:2A:2808:U:H2'	1:2A:2809:A:H5'	1.96	0.48
2:2B:81:G:C6	2:2B:82:G:C5	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:113:G:H2'	2:2B:114:C:H6	1.79	0.48
3:2D:141:VAL:HG23	3:2D:162:SER:HB2	1.96	0.48
9:2N:7:LYS:O	9:2N:9:VAL:HG13	2.13	0.48
14:2S:35:ILE:HG22	14:2S:97:ARG:HH21	1.79	0.48
32:2a:59:A:H3'	32:2a:331:G:H22	1.79	0.48
32:2a:645:C:H2'	32:2a:646:U:O4'	2.14	0.48
32:2a:926:G:N1	54:2z:87:LYS:HG3	2.28	0.48
32:2a:952:U:H4'	32:2a:964:A:N1	2.29	0.48
32:2a:1112:C:N3	34:2c:178:LEU:HD12	2.29	0.48
32:2a:1202:G:O4'	45:2n:29:ARG:NH1	2.47	0.48
35:2d:26:CYS:HA	57:2d:501:SF4:S3	2.54	0.48
41:2j:66:ARG:HB2	41:2j:68:HIS:CE1	2.48	0.48
48:2q:84:LEU:O	48:2q:87:LYS:HB2	2.14	0.48
1:1A:196:A:H2'	1:1A:196:A:N3	2.29	0.48
1:1A:243:U:O2'	1:1A:244:A:H5'	2.14	0.48
1:1A:831:G:H8	1:1A:831:G:O5'	1.97	0.48
1:1A:1278:A:H2'	1:1A:1279:G:C8	2.49	0.48
1:1A:1301:A:C8	1:1A:1303:G:C8	3.01	0.48
1:1A:1778:U:H2'	1:1A:1784:A:N6	2.28	0.48
3:1D:101:GLU:CD	3:1D:103:ARG:HH11	2.22	0.48
4:1E:101:ARG:CZ	4:1E:171:GLU:HB2	2.44	0.48
6:1G:67:LYS:H	26:14:6:HIS:CE1	2.31	0.48
18:1W:19:LEU:HB3	27:15:25:LEU:HD11	1.96	0.48
30:18:16:ILE:HD13	30:18:59:LYS:HG2	1.95	0.48
32:1a:21:G:H2'	32:1a:22:G:C8	2.49	0.48
32:1a:152:A:N6	32:1a:170:U:C2	2.82	0.48
32:1a:955:U:O2'	50:1s:83:HIS:HD2	1.97	0.48
32:1a:1386:G:C2	32:1a:1387:G:C8	3.01	0.48
33:1b:115:LEU:HD12	33:1b:142:LEU:CD1	2.43	0.48
39:1h:2:LEU:HD12	39:1h:3:THR:H	1.78	0.48
39:1h:11:THR:HG22	39:1h:15:ASN:ND2	2.24	0.48
40:1i:28:VAL:HG11	40:1i:36:TYR:CE2	2.49	0.48
41:1j:38:ILE:HG12	41:1j:71:LEU:HB3	1.96	0.48
44:1m:80:ARG:HG3	44:1m:81:LEU:H	1.78	0.48
50:1s:31:ILE:HB	50:1s:49:ILE:HG23	1.96	0.48
50:1s:62:ILE:HA	50:1s:66:MET:SD	2.53	0.48
1:2A:1023:U:O2'	1:2A:1122:G:H5'	2.13	0.48
1:2A:1412:A:H2'	1:2A:1413:G:H8	1.77	0.48
1:2A:1608:A:H1'	1:2A:1610:A:OP2	2.14	0.48
1:2A:2282:G:H4'	1:2A:2389:G:O2'	2.14	0.48
1:2A:2288:A:H8	1:2A:2288:A:O5'	1.97	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2808:U:N3	1:2A:2809:A:C8	2.82	0.48
7:2H:163:TYR:CE2	7:2H:169:VAL:HG22	2.49	0.48
8:2I:109:ILE:O	8:2I:111:PRO:HD3	2.14	0.48
13:2R:50:HIS:HD2	13:2R:51:LEU:HD23	1.79	0.48
28:26:44:ARG:HG2	28:26:44:ARG:HH11	1.78	0.48
32:2a:401:C:P	35:2d:73:ARG:HH21	2.36	0.48
32:2a:1427:U:H2'	32:2a:1428:A:C8	2.48	0.48
36:2e:12:LEU:HD22	36:2e:13:ILE:N	2.29	0.48
37:2f:91:VAL:HG12	37:2f:92:LYS:O	2.13	0.48
39:2h:103:VAL:HG21	39:2h:109:ILE:O	2.14	0.48
49:2r:53:ARG:C	49:2r:55:ARG:H	2.21	0.48
1:1A:271(M):G:H21	8:1I:50:ARG:HH21	1.61	0.47
1:1A:306:U:H2'	1:1A:307:G:O4'	2.14	0.47
1:1A:994:C:OP1	16:1U:53:ARG:NH2	2.47	0.47
1:1A:1470:G:N2	1:1A:1520:G:OP2	2.38	0.47
1:1A:1935:G:H1'	1:1A:1964:G:N2	2.29	0.47
1:1A:2241:A:H2'	1:1A:2242:G:C8	2.49	0.47
1:1A:2786:U:O2'	4:1E:62:PRO:O	2.28	0.47
5:1F:160:ASN:CG	5:1F:163:VAL:HG23	2.39	0.47
6:1G:44:GLY:O	6:1G:47:LYS:HG2	2.14	0.47
7:1H:5:GLY:HA3	7:1H:65:HIS:CD2	2.49	0.47
12:1Q:6:ARG:HA	21:1Z:195:GLU:O	2.14	0.47
12:1Q:103:MET:HB2	12:1Q:104:PHE:CD1	2.48	0.47
19:1X:44:GLU:CG	19:1X:51:VAL:HG23	2.44	0.47
20:1Y:35:TYR:CE2	20:1Y:69:ALA:HB3	2.49	0.47
21:1Z:152:ALA:O	21:1Z:155:LEU:HB2	2.13	0.47
22:10:11:ARG:O	22:10:14:ARG:NH2	2.42	0.47
24:12:53:LEU:HD23	24:12:53:LEU:HA	1.60	0.47
28:16:5:VAL:O	28:16:27:LYS:HG2	2.14	0.47
32:1a:410:G:C2	32:1a:429:U:C2	3.01	0.47
32:1a:453:A:C6	32:1a:454:C:C4	3.02	0.47
32:1a:487:A:H2'	32:1a:488:C:O4'	2.13	0.47
32:1a:509:A:H5'	35:1d:54:TYR:HD2	1.77	0.47
32:1a:618:C:O2	32:1a:622:A:N6	2.47	0.47
32:1a:947:G:C6	32:1a:948:C:C4	3.01	0.47
32:1a:1278:U:O2	32:1a:1278:U:H2'	2.13	0.47
32:1a:1402:4OC:H2'	32:1a:1403:C:O4'	2.14	0.47
41:1j:38:ILE:CG1	41:1j:71:LEU:HB3	2.43	0.47
1:2A:271(D):G:C2	1:2A:271(E):U:C2	3.02	0.47
1:2A:989:G:H4'	1:2A:990:A:OP1	2.14	0.47
1:2A:1692:U:H2'	1:2A:1694:C:C5	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:22:ARG:HH22	6:2G:175:LEU:HD11	1.77	0.47
10:2O:115:VAL:HG13	10:2O:121:VAL:HG21	1.96	0.47
12:2Q:30:GLY:HA2	12:2Q:107:ALA:HB2	1.96	0.47
15:2T:106:SER:O	15:2T:110:ILE:HD12	2.14	0.47
21:2Z:152:ALA:HA	21:2Z:155:LEU:HD22	1.95	0.47
31:29:17:ILE:HG22	31:29:24:TYR:HB2	1.95	0.47
32:2a:194:C:H2'	32:2a:195:A:H5"	1.96	0.47
32:2a:1053:G:O5'	32:2a:1054:C:H3'	2.14	0.47
32:2a:1084:G:C5	32:2a:1085:U:C4	3.02	0.47
37:2f:63:TYR:N	37:2f:63:TYR:CD1	2.82	0.47
39:2h:17:THR:O	39:2h:78:GLN:NE2	2.47	0.47
44:2m:3:ARG:HG3	44:2m:4:ILE:N	2.29	0.47
49:2r:33:ASP:OD2	49:2r:36:ASN:HB2	2.14	0.47
1:1A:898:C:H2'	1:1A:899:A:O4'	2.14	0.47
1:1A:1131:G:O6	1:1A:2040:C:H1'	2.14	0.47
1:1A:2457:U:C2'	1:1A:2458:G:H5'	2.44	0.47
15:1T:108:ARG:HB3	15:1T:108:ARG:HH11	1.79	0.47
21:1Z:118:GLN:O	21:1Z:120:ILE:N	2.47	0.47
32:1a:567:G:H2'	32:1a:568:G:O4'	2.14	0.47
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.29	0.47
33:1b:24:TRP:CD1	33:1b:24:TRP:H	2.32	0.47
34:1c:6:HIS:HB3	45:1n:49:HIS:ND1	2.29	0.47
44:1m:15:VAL:HG13	44:1m:43:THR:O	2.14	0.47
47:1p:69:THR:O	47:1p:69:THR:OG1	2.32	0.47
48:1q:40:LYS:HD3	48:1q:42:TYR:CE1	2.50	0.47
1:2A:271(U):G:H2'	1:2A:271(U):G:N3	2.29	0.47
1:2A:1654:A:H1'	1:2A:2823:A:H5'	1.96	0.47
1:2A:2018:G:O2'	16:2U:34:LYS:HE3	2.15	0.47
1:2A:2188:C:H2'	1:2A:2189:U:O4'	2.14	0.47
1:2A:2881:C:H2'	1:2A:2882:A:O4'	2.14	0.47
23:21:82:LEU:O	23:21:85:LEU:HD12	2.14	0.47
32:2a:624:C:H2'	32:2a:625:G:H8	1.79	0.47
32:2a:1264:C:H2'	32:2a:1265:G:C8	2.49	0.47
33:2b:157:ARG:HG2	33:2b:158:LEU:N	2.29	0.47
34:2c:26:LYS:HE2	34:2c:26:LYS:HB3	1.60	0.47
1:1A:1797:C:H4'	3:1D:257:LEU:O	2.14	0.47
1:1A:2051:A:H5'	1:1A:2578:G:O4'	2.14	0.47
1:1A:2138:C:H2'	1:1A:2139:C:C6	2.49	0.47
2:1B:77:U:OP1	21:1Z:19:ARG:NH2	2.48	0.47
6:1G:83:ARG:H	6:1G:86:MET:CE	2.27	0.47
6:1G:110:ALA:O	6:1G:113:ARG:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:1P:98:GLU:O	11:1P:101:VAL:N	2.48	0.47
14:1S:63:THR:O	14:1S:66:ALA:HB3	2.15	0.47
32:1a:64:G:H4'	32:1a:65:U:H3'	1.96	0.47
32:1a:1095:U:H5"	32:1a:1109:C:O2	2.14	0.47
32:1a:1195:C:H5"	32:1a:1196:U:O5'	2.13	0.47
33:1b:77:ALA:HB2	33:1b:211:ILE:HD13	1.95	0.47
35:1d:110:PHE:N	35:1d:110:PHE:CD1	2.79	0.47
37:1f:61:LEU:HB3	37:1f:63:TYR:HE1	1.78	0.47
37:1f:81:ILE:O	37:1f:81:ILE:HG13	2.13	0.47
37:1f:97:PHE:N	49:1r:30:ASP:OD1	2.43	0.47
54:1z:37:PRO:HB3	54:1z:54:ILE:HG12	1.96	0.47
1:2A:272:G:H4'	1:2A:272(A):U:H5"	1.97	0.47
1:2A:558:G:OP1	9:2N:111:PRO:HD2	2.14	0.47
1:2A:710:G:H2'	1:2A:711:G:C8	2.49	0.47
1:2A:1003:G:N2	1:2A:1153:C:C2	2.82	0.47
1:2A:1101:U:H2'	1:2A:1102:C:C6	2.48	0.47
1:2A:1567:A:H4'	3:2D:58:HIS:CE1	2.48	0.47
1:2A:2704:C:H2'	1:2A:2705:A:O4'	2.14	0.47
1:2A:2722:G:H5"	1:2A:2820:A:N7	2.30	0.47
1:2A:2733:A:H2	4:2E:204:ALA:H	1.63	0.47
3:2D:13:ARG:HD2	3:2D:13:ARG:HA	1.45	0.47
4:2E:92:THR:O	4:2E:95:ILE:HG23	2.13	0.47
6:2G:12:TYR:HA	6:2G:16:ARG:CG	2.43	0.47
10:2O:2:ILE:HD11	10:2O:82:ASN:OD1	2.13	0.47
15:2T:35:LYS:HD3	15:2T:37:GLY:H	1.79	0.47
19:2X:43:VAL:HG21	19:2X:81:VAL:HG11	1.95	0.47
21:2Z:53:ILE:HG22	21:2Z:71:VAL:O	2.13	0.47
28:26:21:TYR:OH	28:26:39:TYR:O	2.22	0.47
32:2a:277:C:OP1	48:2q:41:LYS:HE3	2.14	0.47
32:2a:598:U:H4'	39:2h:94:TYR:CG	2.50	0.47
34:2c:112:SER:O	34:2c:116:VAL:HG23	2.14	0.47
44:2m:97:PRO:HA	44:2m:110:ARG:HG3	1.95	0.47
54:2z:47:GLY:HA3	54:2z:68:GLU:HA	1.96	0.47
1:1A:64:A:C5	19:1X:66:LEU:HD12	2.50	0.47
1:1A:849:A:H3'	1:1A:850:C:C6	2.50	0.47
1:1A:857:C:H1'	22:10:26:TYR:CE1	2.49	0.47
1:1A:2070:G:C2	1:1A:2442:C:C2	3.03	0.47
4:1E:2:LYS:HB2	4:1E:95:ILE:HD12	1.95	0.47
4:1E:96:PHE:HA	4:1E:100:GLU:OE2	2.14	0.47
7:1H:9:ILE:HA	7:1H:10:PRO:HD2	1.68	0.47
7:1H:172:LYS:HB2	7:1H:173:PRO:HD2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:63:ALA:HA	8:1I:66:GLU:HG2	1.96	0.47
30:18:62:LEU:HB3	30:18:65:GLU:HG2	1.96	0.47
32:1a:509:A:H3'	58:1a:1966:HOH:O	2.14	0.47
32:1a:674:G:H2'	32:1a:675:A:H8	1.79	0.47
32:1a:763:G:H2'	32:1a:764:C:C6	2.48	0.47
35:1d:8:VAL:HB	35:1d:115:ARG:NH1	2.29	0.47
39:1h:35:ILE:HG23	39:1h:111:ILE:HD12	1.96	0.47
41:1j:40:LEU:HB3	41:1j:69:ASN:HB2	1.96	0.47
44:1m:84:ILE:HG12	50:1s:74:PHE:HE2	1.80	0.47
1:2A:110:G:C2	1:2A:111:A:C8	3.02	0.47
1:2A:548:A:H61	17:2V:18:LEU:HD12	1.79	0.47
1:2A:568:U:OP1	11:2P:36:LYS:HE3	2.15	0.47
1:2A:656:G:H2'	1:2A:657:U:O4'	2.14	0.47
1:2A:863:A:O2'	1:2A:864:G:H5'	2.15	0.47
1:2A:1018:C:H2'	1:2A:1019:U:H6	1.79	0.47
1:2A:1167:U:O2	1:2A:1183:G:N2	2.48	0.47
1:2A:1278:A:H2'	1:2A:1279:G:C8	2.50	0.47
1:2A:1416:G:H1'	1:2A:1417:C:C6	2.49	0.47
1:2A:1472:A:C4	1:2A:1473:G:C8	3.03	0.47
1:2A:1512:U:H2'	1:2A:1513:C:C6	2.49	0.47
1:2A:1919:A:H5"	1:2A:1920:4OC:OP2	2.14	0.47
1:2A:2305:A:H4'	1:2A:2305:A:OP1	2.14	0.47
4:2E:109:LYS:O	4:2E:111:ARG:NH1	2.48	0.47
6:2G:16:ARG:HH21	6:2G:28:VAL:HG12	1.78	0.47
6:2G:126:ASP:HB2	6:2G:130:ASN:O	2.13	0.47
7:2H:58:GLU:O	7:2H:61:HIS:HB2	2.14	0.47
33:2b:152:PHE:CE1	33:2b:155:LEU:HD23	2.49	0.47
38:2g:148:ASN:ND2	42:2k:54:ARG:HH22	2.12	0.47
46:2o:74:ASP:CG	46:2o:77:ARG:HB2	2.40	0.47
54:2z:16:ILE:HG12	54:2z:71:TYR:OH	2.14	0.47
1:1A:272:G:H4'	1:1A:272(A):U:H5"	1.97	0.47
1:1A:398:G:H2'	1:1A:399:G:O4'	2.14	0.47
1:1A:459:U:H2'	1:1A:460:A:C8	2.50	0.47
1:1A:551:G:O2'	1:1A:1220:A:N3	2.41	0.47
1:1A:566:U:H2'	1:1A:567:A:O4'	2.15	0.47
1:1A:747:U:O2	1:1A:2014:A:H1'	2.14	0.47
1:1A:1066:U:O4	1:1A:1069:A:H8	1.97	0.47
1:1A:1885:A:H2'	1:1A:1886:C:O4'	2.14	0.47
1:1A:2077:A:O2'	1:1A:2078:C:H5'	2.13	0.47
1:1A:2202:C:H2'	1:1A:2203:U:O4'	2.13	0.47
1:1A:2420:C:H5'	28:16:54:ILE:HD11	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1B:29:A:OP2	14:1S:31:SER:HB2	2.14	0.47
4:1E:47:VAL:HG22	4:1E:84:PHE:O	2.15	0.47
8:1I:123:LEU:HD22	8:1I:144:VAL:O	2.14	0.47
17:1V:57:VAL:HG22	17:1V:99:ILE:HA	1.95	0.47
21:1Z:44:PHE:CE2	21:1Z:86:VAL:HG11	2.49	0.47
32:1a:407:G:O2'	35:1d:116:GLN:HG3	2.14	0.47
32:1a:1250:A:H4'	40:1i:68:GLY:N	2.30	0.47
32:1a:1258:G:H2'	32:1a:1259:C:H6	1.80	0.47
38:1g:105:VAL:O	38:1g:108:ALA:HB3	2.14	0.47
39:1h:37:ARG:HG2	39:1h:37:ARG:HH11	1.79	0.47
1:2A:30:G:O2'	1:2A:1214:A:N3	2.43	0.47
1:2A:373:U:H1'	1:2A:423:A:N3	2.30	0.47
1:2A:1274:A:N3	1:2A:1297:C:H1'	2.30	0.47
1:2A:1380:G:N2	1:2A:1570:A:C2	2.82	0.47
1:2A:1465:G:O2'	1:2A:1545:A:N1	2.41	0.47
1:2A:1494:A:H2'	1:2A:1495:A:O4'	2.14	0.47
1:2A:2327:A:H5'	21:2Z:201:LYS:HG3	1.95	0.47
1:2A:2695:C:H2'	1:2A:2696:U:C6	2.50	0.47
7:2H:9:ILE:HG21	7:2H:76:VAL:HG21	1.97	0.47
8:2I:27:ARG:HD3	23:21:71:TYR:CE1	2.50	0.47
9:2N:29:LYS:HD2	9:2N:140:VAL:HB	1.96	0.47
12:2Q:109:VAL:HG22	12:2Q:113:GLN:CB	2.44	0.47
12:2Q:139:GLU:C	12:2Q:141:GLN:H	2.21	0.47
16:2U:90:VAL:CG1	16:2U:95:LEU:HD22	2.44	0.47
32:2a:130:A:O2'	32:2a:131:C:O5'	2.30	0.47
32:2a:402:G:O2'	32:2a:620:C:N3	2.42	0.47
32:2a:434:U:H2'	32:2a:435:C:H6	1.79	0.47
32:2a:1036:G:N3	32:2a:1036:G:H2'	2.29	0.47
32:2a:1077:G:C6	32:2a:1081:G:O6	2.67	0.47
33:2b:63:MET:HE2	33:2b:225:ALA:HB1	1.96	0.47
33:2b:178:ARG:HH22	39:2h:74:PRO:HB3	1.79	0.47
38:2g:26:PHE:CE2	38:2g:30:ILE:HD11	2.50	0.47
40:2i:7:THR:O	40:2i:83:ARG:NH1	2.47	0.47
1:1A:363(B):G:H2'	1:1A:363(C):G:C8	2.49	0.47
1:1A:989:G:H4'	1:1A:990:A:OP1	2.14	0.47
1:1A:1095:A:H2'	1:1A:1096:A:C8	2.49	0.47
1:1A:1170:G:H5"	1:1A:1170:G:C8	2.46	0.47
1:1A:1316:U:H2'	1:1A:1317:A:C8	2.49	0.47
1:1A:1914:C:H2'	1:1A:1915:5MU:O2	2.14	0.47
4:1E:144:ARG:HB3	4:1E:145:LYS:H	1.39	0.47
7:1H:109:PHE:C	7:1H:111:HIS:H	2.23	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:1R:54:LEU:HD12	13:1R:54:LEU:HA	1.75	0.47
32:1a:674:G:H2'	32:1a:675:A:C8	2.49	0.47
32:1a:1072:G:C5	32:1a:1073:U:C4	3.03	0.47
32:1a:1232:U:H5"	40:1i:124:GLN:O	2.14	0.47
32:1a:1244:C:OP1	52:1u:9:ARG:HB2	2.14	0.47
39:1h:40:ALA:HA	39:1h:45:ILE:HG13	1.97	0.47
1:2A:154:G:C6	1:2A:154(A):C:N4	2.83	0.47
1:2A:192:C:H2'	1:2A:193:U:O4'	2.13	0.47
1:2A:994:C:OP2	16:2U:54:LYS:NZ	2.45	0.47
1:2A:996:A:N6	1:2A:1160:G:C6	2.83	0.47
1:2A:1686:C:H2'	1:2A:1687:G:O4'	2.14	0.47
1:2A:2387:U:H1'	22:20:41:ARG:NE	2.30	0.47
3:2D:7:LYS:O	3:2D:9:TYR:N	2.46	0.47
4:2E:178:GLU:CD	4:2E:178:GLU:H	2.22	0.47
15:2T:105:LEU:HD13	15:2T:109:GLU:HB3	1.97	0.47
17:2V:40:LEU:O	17:2V:46:VAL:N	2.41	0.47
32:2a:141:A:H1'	32:2a:182:U:O2	2.13	0.47
32:2a:300:A:H1'	32:2a:565:U:O2	2.15	0.47
32:2a:557:G:N1	32:2a:558:G:C2	2.82	0.47
33:2b:15:VAL:HG21	33:2b:213:LEU:HD12	1.97	0.47
37:2f:100:ASN:HD21	49:2r:23:LYS:HG2	1.79	0.47
40:2i:5:TYR:OH	40:2i:16:ARG:HG2	2.14	0.47
46:2o:87:ILE:O	46:2o:89:GLY:N	2.47	0.47
1:1A:568:U:O2'	58:1A:4003:HOH:O	2.20	0.47
1:1A:603:A:O3'	11:1P:90:ARG:NH2	2.48	0.47
1:1A:662:G:H5'	11:1P:14:LYS:O	2.15	0.47
1:1A:671:C:N4	58:1A:4089:HOH:O	2.47	0.47
1:1A:795:C:H2'	1:1A:796:C:C6	2.48	0.47
1:1A:1007:C:OP1	9:1N:35:ARG:NH1	2.48	0.47
1:1A:1042:G:C6	1:1A:1043:C:C4	3.03	0.47
1:1A:1354:A:H2'	1:1A:1355:G:O4'	2.15	0.47
1:1A:1889:A:N1	1:1A:2234:G:H1'	2.28	0.47
1:1A:1936:A:C8	1:1A:1940:U:O2	2.68	0.47
1:1A:2406:U:OP2	1:1A:2406:U:C6	2.68	0.47
1:1A:2663:G:C6	1:1A:2664:G:C4	3.03	0.47
2:1B:75:G:O2'	21:1Z:85:HIS:NE2	2.40	0.47
3:1D:43:ARG:HG3	3:1D:49:ILE:HA	1.96	0.47
4:1E:97:LYS:O	4:1E:100:GLU:HG3	2.15	0.47
6:1G:107:LEU:HD11	6:1G:178:PHE:CD1	2.50	0.47
6:1G:121:ASN:ND2	6:1G:181:ARG:HH12	2.13	0.47
14:1S:7:TYR:CZ	14:1S:91:PRO:HG3	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1Z:100:VAL:HG11	21:1Z:134:PRO:HG2	1.96	0.47
30:18:16:ILE:CD1	30:18:59:LYS:HG2	2.45	0.47
30:18:26:LYS:HA	30:18:26:LYS:HD2	1.75	0.47
32:1a:375:U:H4'	47:1p:17:TYR:CE1	2.50	0.47
32:1a:446:G:H1	32:1a:488:C:H42	1.63	0.47
32:1a:448:A:C4	32:1a:487:A:C2	3.02	0.47
32:1a:454:C:P	47:1p:75:ARG:HH22	2.36	0.47
32:1a:458:C:H2'	32:1a:460:G:O4'	2.15	0.47
32:1a:503:C:H2'	32:1a:504:C:H6	1.80	0.47
32:1a:963:G:N3	41:1j:54:PHE:HZ	2.12	0.47
32:1a:1305:G:OP2	52:1u:2:GLY:HA3	2.14	0.47
33:1b:185:ILE:HG12	33:1b:185:ILE:H	1.46	0.47
38:1g:27:ILE:O	38:1g:30:ILE:N	2.47	0.47
40:1i:4:TYR:CE2	40:1i:88:TYR:HD1	2.33	0.47
45:1n:52:GLN:O	45:1n:53:LEU:HD23	2.14	0.47
47:1p:4:ILE:CG2	47:1p:19:ILE:HD11	2.45	0.47
48:1q:28:PRO:HA	48:1q:35:VAL:HA	1.97	0.47
1:2A:224:G:N7	1:2A:420:C:H4'	2.29	0.47
1:2A:494:G:O2'	1:2A:495:G:H5'	2.14	0.47
1:2A:628:G:H2'	1:2A:629:G:C8	2.49	0.47
1:2A:826:U:H2'	1:2A:828:U:O4'	2.15	0.47
1:2A:880:G:C2	1:2A:881:G:C8	3.03	0.47
1:2A:930:U:H3'	1:2A:930:U:OP1	2.14	0.47
1:2A:1291:C:H2'	1:2A:1292:U:H6	1.80	0.47
1:2A:1957:C:O2'	1:2A:1985:G:H1'	2.14	0.47
1:2A:2119:A:C2	1:2A:2170:A:H2'	2.50	0.47
1:2A:2232:U:P	23:21:40:ARG:HH12	2.38	0.47
1:2A:2284:C:H2'	1:2A:2285:C:H6	1.78	0.47
1:2A:2393:A:H2'	1:2A:2394:C:O4'	2.15	0.47
1:2A:2472:G:H1	1:2A:2477:C:P	2.37	0.47
1:2A:2484:G:C2	1:2A:2485:G:C8	3.02	0.47
1:2A:2537:U:N3	1:2A:2538:C:C4	2.82	0.47
1:2A:2632:A:O2'	1:2A:2811:G:O2'	2.10	0.47
1:2A:2823:A:OP1	4:2E:113:PHE:HB2	2.15	0.47
2:2B:48:A:H4'	14:2S:95:HIS:CD2	2.40	0.47
3:2D:71:ASP:HB3	3:2D:103:ARG:HH22	1.80	0.47
10:2O:11:ALA:HB1	10:2O:99:PHE:O	2.14	0.47
10:2O:119:PRO:HB2	15:2T:68:TYR:CE1	2.49	0.47
11:2P:59:LEU:HD23	30:28:58:ILE:HD13	1.95	0.47
18:2W:4:LYS:NZ	18:2W:6:ILE:HD11	2.30	0.47
19:2X:53:LYS:HB3	19:2X:82:GLN:CB	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:48:PHE:CE1	21:2Z:71:VAL:HG11	2.34	0.47
32:2a:189:G:H2'	32:2a:189(A):C:C6	2.49	0.47
32:2a:407:G:OP1	35:2d:115:ARG:NH2	2.36	0.47
32:2a:580:U:H2'	32:2a:581:G:O4'	2.15	0.47
32:2a:617:G:H4'	47:2p:44:THR:O	2.13	0.47
32:2a:826:C:H2'	32:2a:827:U:C6	2.49	0.47
32:2a:918:A:H2'	32:2a:919:A:O4'	2.15	0.47
32:2a:993:G:O2'	32:2a:995:C:N4	2.32	0.47
32:2a:1048:G:OP1	45:2n:3:ARG:HB3	2.14	0.47
32:2a:1141:C:H2'	32:2a:1142:G:H8	1.79	0.47
32:2a:1288:A:H2'	32:2a:1289:A:O4'	2.15	0.47
32:2a:1330:U:H2'	32:2a:1331:G:H5'	1.97	0.47
32:2a:1360:A:H2'	32:2a:1361:G:O4'	2.15	0.47
32:2a:1402:4OC:HM22	32:2a:1402:4OC:O3'	2.14	0.47
33:2b:47:THR:O	33:2b:51:LEU:N	2.42	0.47
33:2b:96:ARG:HG2	33:2b:98:LEU:CD2	2.44	0.47
34:2c:64:VAL:HG13	34:2c:99:VAL:HA	1.96	0.47
36:2e:122:GLU:HG2	36:2e:131:ILE:HD12	1.96	0.47
36:2e:143:ARG:HA	36:2e:143:ARG:HD3	1.62	0.47
37:2f:48:LEU:HD22	49:2r:77:GLY:HA3	1.96	0.47
39:2h:49:GLU:HG2	39:2h:62:TYR:HE2	1.80	0.47
47:2p:28:ARG:HG2	47:2p:29:ASP:OD1	2.15	0.47
48:2q:66:SER:OG	48:2q:69:LYS:HB2	2.14	0.47
54:2z:23:ARG:HD3	54:2z:23:ARG:HA	1.74	0.47
1:1A:86:C:H4'	1:1A:104:U:H1'	1.96	0.47
1:1A:1257:C:H4'	5:1F:83:PHE:CE1	2.50	0.47
1:1A:1762:A:H2'	58:1A:5006:HOH:O	2.15	0.47
1:1A:1793:C:H2'	1:1A:1794:U:C6	2.50	0.47
1:1A:2431:U:H3'	58:1A:4044:HOH:O	2.14	0.47
2:1B:9:G:P	14:1S:25:ARG:HH22	2.38	0.47
3:1D:134:ARG:HG3	3:1D:135:PHE:CE1	2.49	0.47
32:1a:437:U:O2	35:1d:119:GLN:NE2	2.48	0.47
32:1a:672:U:O2'	32:1a:673:G:O5'	2.31	0.47
32:1a:717:C:H6	32:1a:717:C:H5"	1.80	0.47
35:1d:3:ARG:O	35:1d:5:ILE:HG22	2.15	0.47
1:2A:322:A:H5'	1:2A:340:A:H1'	1.97	0.47
1:2A:431:U:O5'	1:2A:431:U:H6	1.98	0.47
1:2A:581:C:H2'	1:2A:582:G:C8	2.50	0.47
1:2A:586:A:N1	1:2A:809:G:O2'	2.46	0.47
1:2A:981:A:H8	1:2A:982:C:C5	2.32	0.47
1:2A:1022:G:O6	9:2N:66:LYS:HE2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1152:C:H2'	1:2A:1153:C:H6	1.78	0.47
1:2A:1176:G:H4'	1:2A:1177:A:OP1	2.15	0.47
1:2A:1721:G:H3'	1:2A:1722:A:H5"	1.96	0.47
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.28	0.47
1:2A:2112:G:N1	1:2A:2169:A:N7	2.63	0.47
8:2I:81:VAL:HG22	8:2I:145:VAL:O	2.14	0.47
13:2R:8:ARG:HG3	13:2R:43:GLU:OE2	2.14	0.47
14:2S:25:ARG:O	14:2S:39:ILE:HA	2.15	0.47
14:2S:36:TYR:N	14:2S:36:TYR:CD1	2.82	0.47
17:2V:40:LEU:HB2	17:2V:46:VAL:HG22	1.96	0.47
23:21:73:LEU:HB3	23:21:94:LEU:HD22	1.97	0.47
32:2a:590:C:H2'	32:2a:591:U:H6	1.80	0.47
32:2a:1123:A:H4'	41:2j:37:PRO:HD2	1.97	0.47
32:2a:1253:G:H2'	32:2a:1254:C:C6	2.49	0.47
33:2b:30:ARG:HG3	33:2b:31:TYR:CD1	2.49	0.47
39:2h:8:ASP:OD2	39:2h:12:ARG:NE	2.47	0.47
42:2k:20:TYR:O	42:2k:30:VAL:HA	2.14	0.47
42:2k:96:ARG:HA	42:2k:99:GLN:OE1	2.15	0.47
47:2p:55:ARG:O	47:2p:58:TYR:HB3	2.15	0.47
48:2q:6:LEU:O	48:2q:58:GLU:HA	2.15	0.47
51:2t:54:LYS:HA	51:2t:57:ARG:NH2	2.29	0.47
1:1A:41:C:H2'	1:1A:42:G:O4'	2.14	0.47
1:1A:1545:A:H2'	1:1A:1546:C:O4'	2.15	0.47
1:1A:1571:A:H2'	1:1A:1572:A:C8	2.50	0.47
1:1A:1721:G:C2	1:1A:1739:U:OP2	2.68	0.47
1:1A:1987:G:H2'	1:1A:1988:C:C6	2.49	0.47
1:1A:2061:G:H5"	1:1A:2503:2MA:C2	2.45	0.47
1:1A:2626:C:H2'	1:1A:2627:G:O4'	2.14	0.47
1:1A:2660:A:H5"	1:1A:2661:G:OP2	2.15	0.47
4:1E:25:VAL:HG13	4:1E:183:LEU:HD12	1.97	0.47
7:1H:129:THR:O	7:1H:129:THR:OG1	2.26	0.47
9:1N:40:PRO:O	16:1U:64:ARG:HD3	2.15	0.47
11:1P:126:VAL:HG13	11:1P:146:VAL:HB	1.96	0.47
18:1W:34:ASN:OD1	27:15:39:MET:HB2	2.14	0.47
28:16:11:LEU:HB3	28:16:49:HIS:HB3	1.97	0.47
32:1a:4:U:C5	39:1h:105:ARG:CZ	2.98	0.47
32:1a:506:G:C6	32:1a:507:C:C4	3.02	0.47
32:1a:1014:A:H2'	32:1a:1015:A:C8	2.50	0.47
32:1a:1070:U:H2'	32:1a:1071:C:H6	1.80	0.47
32:1a:1124:G:H5"	41:1j:35:SER:OG	2.15	0.47
32:1a:1519:MA6:H8	32:1a:1519:MA6:O5'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1c:85:ARG:H	34:1c:85:ARG:HG3	1.55	0.47
47:1p:75:ARG:HG3	47:1p:80:PHE:CD2	2.50	0.47
48:1q:67:LYS:HA	48:1q:70:ARG:NH1	2.25	0.47
51:1t:56:MET:O	51:1t:59:ALA:HB3	2.15	0.47
1:2A:84:A:N1	1:2A:98:G:O2'	2.40	0.47
1:2A:271(D):G:H1	1:2A:271(T):C:H42	1.61	0.47
1:2A:515:A:H1'	1:2A:581:C:H1'	1.97	0.47
1:2A:800:A:OP1	1:2A:800:A:C8	2.60	0.47
1:2A:1186:G:H2'	1:2A:1187:G:O4'	2.15	0.47
1:2A:2307:G:H4'	1:2A:2308:G:O5'	2.15	0.47
1:2A:2432:A:C4	23:21:33:LYS:HG2	2.49	0.47
1:2A:2821:A:H3'	58:2A:4063:HOH:O	2.15	0.47
1:2A:2884:U:C2	27:25:52:TYR:CE1	3.02	0.47
5:2F:53:THR:HG22	5:2F:56:GLU:H	1.80	0.47
6:2G:41:GLN:HG2	6:2G:155:MET:HB3	1.95	0.47
18:2W:19:LEU:HD12	18:2W:19:LEU:HA	1.71	0.47
26:24:13:ARG:O	26:24:30:GLU:HA	2.15	0.47
32:2a:44:G:H2'	32:2a:45:U:O4'	2.15	0.47
32:2a:745:C:H2'	32:2a:746:A:C8	2.50	0.47
32:2a:762:C:H2'	32:2a:763:G:C8	2.50	0.47
32:2a:865:A:H5'	32:2a:1078:U:O4	2.15	0.47
32:2a:1220:G:H5'	50:2s:34:TRP:O	2.15	0.47
36:2e:66:MET:HE3	36:2e:66:MET:HB3	1.83	0.47
43:2l:59:ARG:HA	43:2l:65:GLU:HA	1.97	0.47
47:2p:58:TYR:O	47:2p:61:SER:OG	2.25	0.47
54:2z:70:MET:HE2	54:2z:70:MET:HB3	1.72	0.47
1:1A:139(A):G:O2'	1:1A:140:G:H5'	2.15	0.47
1:1A:647:G:H8	1:1A:647:G:O5'	1.97	0.47
1:1A:1289:C:H2'	1:1A:1290:C:C6	2.49	0.47
1:1A:1406:U:H2'	1:1A:1407:C:H6	1.78	0.47
1:1A:1657:C:C2'	1:1A:1658:C:H5'	2.45	0.47
1:1A:1803:A:O2'	3:1D:259:THR:HG21	2.15	0.47
1:1A:2238:G:N3	1:1A:2238:G:H2'	2.30	0.47
1:1A:2877:G:O2'	1:1A:2878:U:H5'	2.14	0.47
3:1D:33:LEU:HA	3:1D:33:LEU:HD23	1.53	0.47
21:1Z:144:LEU:HD11	21:1Z:150:LEU:HD22	1.97	0.47
22:10:43:THR:O	22:10:43:THR:HG23	2.15	0.47
28:16:10:LEU:HD21	28:16:54:ILE:HG13	1.96	0.47
32:1a:353:A:H5'	32:1a:353:A:C8	2.47	0.47
32:1a:664:G:P	49:1r:64:ARG:HH21	2.38	0.47
32:1a:1090:U:H2'	32:1a:1091:U:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.50	0.47
32:1a:1405:G:H1'	32:1a:1519:MA6:O4'	2.14	0.47
33:1b:174:VAL:O	33:1b:178:ARG:HB2	2.15	0.47
33:1b:174:VAL:HG11	33:1b:196:LEU:HB3	1.97	0.47
34:1c:12:LEU:HD23	34:1c:12:LEU:HA	1.81	0.47
35:1d:108:LEU:HD23	35:1d:183:GLY:HA3	1.96	0.47
44:1m:15:VAL:O	44:1m:19:LEU:HD23	2.16	0.47
49:1r:73:ALA:HB3	49:1r:79:LEU:HD12	1.97	0.47
1:2A:463:G:N2	1:2A:466:A:OP2	2.38	0.47
1:2A:814:C:H2'	1:2A:815:C:H6	1.79	0.47
1:2A:831:G:N2	11:2P:53:GLY:O	2.46	0.47
1:2A:2251:OMG:HM23	1:2A:2251:OMG:H1'	1.44	0.47
1:2A:2592:G:H2'	1:2A:2593:U:O4'	2.15	0.47
9:2N:34:LEU:O	9:2N:49:GLY:HA3	2.15	0.47
15:2T:23:ARG:HD2	15:2T:120:ARG:CZ	2.45	0.47
25:23:3:ARG:HD3	25:23:60:GLU:CG	2.45	0.47
32:2a:339:C:H2'	32:2a:340:U:H6	1.80	0.47
32:2a:633:G:H2'	32:2a:634:C:C6	2.50	0.47
32:2a:1367:C:H5'	41:2j:60:ARG:NH1	2.30	0.47
36:2e:57:LYS:HG2	36:2e:61:TYR:CE2	2.49	0.47
42:2k:46:GLY:HA2	42:2k:50:TYR:O	2.14	0.47
43:2l:78:GLN:HG3	43:2l:79:GLU:O	2.15	0.47
47:2p:57:ARG:HH21	47:2p:79:VAL:C	2.23	0.47
48:2q:66:SER:O	48:2q:70:ARG:NH1	2.48	0.47
50:2s:16:LEU:O	50:2s:19:VAL:HB	2.15	0.47
1:1A:185:U:H2'	1:1A:186:G:H8	1.80	0.46
1:1A:467:G:H8	1:1A:467:G:O5'	1.98	0.46
1:1A:1009:A:H5"	16:1U:63:VAL:HG22	1.96	0.46
1:1A:1897:G:H2'	1:1A:1898:U:O4'	2.14	0.46
1:1A:2625:G:H2'	1:1A:2626:C:C6	2.50	0.46
1:1A:2829:C:O3'	4:1E:76:ARG:NH2	2.48	0.46
2:1B:24:G:N7	2:1B:56:G:H2'	2.30	0.46
5:1F:176:LEU:HD23	5:1F:176:LEU:HA	1.69	0.46
7:1H:55:PRO:HG2	7:1H:61:HIS:CE1	2.50	0.46
19:1X:12:VAL:HG22	19:1X:29:TRP:CE2	2.50	0.46
21:1Z:115:GLY:CA	21:1Z:146:ILE:HD11	2.45	0.46
31:19:11:CYS:HB3	31:19:32:HIS:CE1	2.50	0.46
32:1a:600:C:OP1	39:1h:97:VAL:HG12	2.15	0.46
32:1a:954:G:C2	32:1a:955:U:C2	3.04	0.46
32:1a:1151:A:H5'	41:1j:41:PRO:HA	1.97	0.46
32:1a:1330:U:C2'	32:1a:1331:G:H5'	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:70:PHE:HB2	33:1b:92:TYR:HB3	1.97	0.46
33:1b:178:ARG:HH11	33:1b:178:ARG:CG	2.23	0.46
38:1g:118:VAL:O	38:1g:121:ALA:HB3	2.14	0.46
40:1i:17:VAL:HG11	40:1i:80:GLY:C	2.39	0.46
43:1l:45:PRO:HB2	43:1l:92:0TD:OD1	2.15	0.46
47:1p:43:LYS:HA	47:1p:48:TRP:CD1	2.50	0.46
47:1p:72:ARG:HG2	47:1p:73:LEU:HD23	1.98	0.46
1:2A:236:C:H2'	1:2A:237:C:H6	1.80	0.46
1:2A:2815:C:H2'	1:2A:2816:C:C6	2.51	0.46
3:2D:16:MET:HG3	3:2D:206:LEU:O	2.14	0.46
4:2E:101:ARG:NH2	4:2E:171:GLU:HB2	2.30	0.46
6:2G:129:GLY:HA2	6:2G:169:ALA:HB2	1.97	0.46
8:2I:77:LEU:HD21	8:2I:79:ILE:HD11	1.96	0.46
32:2a:380:G:C2	32:2a:384:G:C6	3.03	0.46
33:2b:80:ILE:O	33:2b:80:ILE:HG13	2.15	0.46
33:2b:231:GLU:HB3	33:2b:232:PRO:CD	2.44	0.46
34:2c:181:ASN:ND2	34:2c:204:LEU:HB2	2.27	0.46
35:2d:50:ARG:NH1	36:2e:10:MET:SD	2.89	0.46
39:2h:104:ARG:O	39:2h:107:LEU:HG	2.15	0.46
40:2i:3:GLN:HE21	40:2i:20:ARG:NE	2.11	0.46
41:2j:48:THR:OG1	41:2j:62:HIS:CE1	2.68	0.46
43:2l:113:ARG:HH21	43:2l:116:SER:HB2	1.79	0.46
44:2m:57:ARG:O	44:2m:61:GLU:HG3	2.15	0.46
44:2m:114:ARG:NH1	58:2m:201:HOH:O	2.49	0.46
1:1A:868:U:C4	1:1A:869:G:N7	2.83	0.46
1:1A:2200:C:H2'	1:1A:2201:C:C6	2.50	0.46
5:1F:57:VAL:HG22	5:1F:58:ALA:H	1.79	0.46
10:1O:12:ASP:C	10:1O:99:PHE:HE2	2.23	0.46
32:1a:599:C:H4'	39:1h:130:GLY:C	2.40	0.46
32:1a:1289:A:OP1	52:1u:10:ARG:NH2	2.49	0.46
32:1a:1328:C:H2'	32:1a:1329:A:O4'	2.14	0.46
32:1a:1394:A:O2'	32:1a:1501:C:O2	2.33	0.46
35:1d:108:LEU:HD11	35:1d:174:LEU:HD13	1.97	0.46
35:1d:178:VAL:O	35:1d:180:GLY:N	2.43	0.46
40:1i:88:TYR:HD2	40:1i:89:ASN:HB2	1.79	0.46
42:1k:92:GLU:O	42:1k:95:ILE:HB	2.16	0.46
45:1n:3:ARG:NH1	45:1n:3:ARG:HA	2.30	0.46
1:2A:278:A:HO2'	1:2A:279:C:P	2.36	0.46
1:2A:422:A:H2'	1:2A:423:A:C8	2.50	0.46
1:2A:532:A:H4'	1:2A:533:G:O4'	2.16	0.46
1:2A:1124:C:O5'	1:2A:1124:C:H6	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1180:C:H2'	1:2A:1181:C:H6	1.80	0.46
1:2A:1433:U:H1'	1:2A:1561:G:N2	2.30	0.46
1:2A:2801(A):A:N3	1:2A:2895:U:H1'	2.30	0.46
1:2A:2845:G:H2'	1:2A:2846:G:H8	1.79	0.46
2:2B:49:C:H2'	2:2B:50:G:C8	2.50	0.46
3:2D:99:ASP:HB3	3:2D:101:GLU:H	1.80	0.46
15:2T:64:ARG:HB2	15:2T:73:GLU:HG2	1.98	0.46
16:2U:36:ARG:HA	16:2U:39:LEU:HD12	1.98	0.46
32:2a:452:A:C4	32:2a:453:A:C8	3.02	0.46
32:2a:1150:U:O2'	41:2j:39:PRO:O	2.30	0.46
32:2a:1269:A:H2	32:2a:1312:G:N3	2.13	0.46
39:2h:36:LEU:HD12	39:2h:59:LEU:HD13	1.98	0.46
41:2j:30:SER:HB2	41:2j:81:THR:CG2	2.45	0.46
45:2n:29:ARG:HD3	45:2n:40:CYS:CB	2.45	0.46
45:2n:48:ALA:HB2	45:2n:53:LEU:HD12	1.97	0.46
1:1A:26:G:C6	1:1A:27:G:N1	2.83	0.46
1:1A:32:C:O2'	1:1A:33:U:H5'	2.15	0.46
1:1A:1045:A:H1'	1:1A:1047:G:C4	2.50	0.46
1:1A:1142(A):A:C2	1:1A:1144:G:C6	3.03	0.46
1:1A:1474:C:H2'	1:1A:1475:G:H8	1.79	0.46
1:1A:1529:G:H2'	1:1A:1530:C:C6	2.51	0.46
1:1A:1759:A:H4'	1:1A:2715:C:O4'	2.14	0.46
1:1A:2356:C:O3'	22:10:20:ARG:HD3	2.15	0.46
1:1A:2612:C:H2'	1:1A:2613:U:H5'	1.97	0.46
7:1H:35:VAL:O	7:1H:37:VAL:HG23	2.16	0.46
13:1R:12:ARG:O	13:1R:17:ARG:NH1	2.48	0.46
21:1Z:153:SER:C	21:1Z:155:LEU:H	2.24	0.46
23:11:75:GLU:O	23:11:78:LYS:HG2	2.14	0.46
32:1a:119:A:H4'	32:1a:120:A:C8	2.51	0.46
32:1a:198:G:C2	32:1a:199:G:C8	3.03	0.46
35:1d:160:GLN:HE21	35:1d:160:GLN:HB3	1.54	0.46
39:1h:114:THR:C	39:1h:116:LYS:H	2.23	0.46
43:1l:110:VAL:HB	43:1l:113:ARG:HG2	1.98	0.46
46:1o:67:LEU:HA	46:1o:67:LEU:HD23	1.65	0.46
48:1q:62:SER:CB	48:1q:72:ARG:HG3	2.45	0.46
1:2A:143:G:H1'	19:2X:37:THR:CG2	2.42	0.46
1:2A:302:C:OP2	20:2Y:73:ARG:NH1	2.34	0.46
1:2A:784:A:H5'	1:2A:785:G:OP1	2.14	0.46
1:2A:1713:U:O2'	1:2A:1714:G:H5'	2.16	0.46
1:2A:1999:C:H5"	1:2A:2723:C:O2'	2.16	0.46
5:2F:202:PHE:CZ	5:2F:206:ILE:HD13	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:44:LEU:O	8:2I:47:LEU:HB3	2.15	0.46
10:2O:92:GLU:HG2	10:2O:113:LYS:CD	2.45	0.46
12:2Q:52:VAL:HA	12:2Q:55:VAL:HG13	1.98	0.46
25:23:5:LYS:HG3	25:23:36:VAL:HG22	1.97	0.46
32:2a:284:G:H2'	32:2a:285:G:H8	1.81	0.46
32:2a:401:C:N4	58:2a:1917:HOH:O	2.48	0.46
32:2a:493:G:O5'	32:2a:493:G:H8	1.99	0.46
32:2a:1225:A:H2'	32:2a:1226:C:C5	2.51	0.46
41:2j:11:PHE:CE1	41:2j:67:THR:HG22	2.49	0.46
44:2m:78:ILE:O	44:2m:82:MET:N	2.46	0.46
46:2o:54:ARG:HG2	46:2o:58:MET:CE	2.37	0.46
1:1A:106:C:C1'	20:1Y:1:MET:HG3	2.46	0.46
1:1A:528:A:O2'	1:1A:529:A:H5'	2.15	0.46
1:1A:805:G:N2	1:1A:829:A:OP1	2.48	0.46
1:1A:849:A:H3'	1:1A:850:C:H6	1.79	0.46
1:1A:879:G:H2'	1:1A:880:G:O4'	2.15	0.46
1:1A:2232:U:P	23:11:40:ARG:HH12	2.39	0.46
1:1A:2646:C:OP2	1:1A:2732:G:O2'	2.23	0.46
3:1D:145:VAL:HB	3:1D:155:LEU:HB2	1.95	0.46
5:1F:192:LEU:CD2	5:1F:194:MET:HE2	2.46	0.46
6:1G:161:THR:CG2	6:1G:163:ALA:H	2.28	0.46
11:1P:26:GLY:C	11:1P:27:HIS:CD2	2.93	0.46
17:1V:52:VAL:HG22	17:1V:55:ALA:HB3	1.97	0.46
21:1Z:144:LEU:HD11	21:1Z:150:LEU:CD2	2.45	0.46
32:1a:166:G:H2'	32:1a:167:G:C8	2.51	0.46
32:1a:245:C:C2	32:1a:284:G:C2	3.03	0.46
32:1a:857:C:H2'	32:1a:858:G:O4'	2.15	0.46
32:1a:926:G:C6	32:1a:1505:G:C6	3.03	0.46
32:1a:977:A:H2'	32:1a:978:A:H5"	1.96	0.46
32:1a:1289:A:N1	32:1a:1371:G:O2'	2.36	0.46
33:1b:121:LEU:HD12	33:1b:126:GLU:HG2	1.97	0.46
47:1p:51:VAL:O	47:1p:53:VAL:HG23	2.15	0.46
48:1q:59:ILE:HA	48:1q:74:LEU:H	1.80	0.46
48:1q:59:ILE:HG22	48:1q:73:VAL:HA	1.96	0.46
1:2A:254:G:N7	30:28:5:LYS:HE2	2.30	0.46
1:2A:755:C:H2'	1:2A:756:C:C6	2.49	0.46
1:2A:834:C:C2	1:2A:835:A:C8	3.03	0.46
1:2A:857:C:H4'	22:20:23:VAL:HG21	1.98	0.46
1:2A:1283:G:N2	1:2A:1286:A:O5'	2.47	0.46
1:2A:1316:U:H2'	1:2A:1317:A:C8	2.49	0.46
1:2A:1591:G:H2'	1:2A:1592:C:H6	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2821:A:H2'	1:2A:2822:G:C8	2.50	0.46
6:2G:15:VAL:HG21	6:2G:176:LEU:HD23	1.97	0.46
7:2H:121:ILE:HD11	7:2H:140:LYS:HG2	1.97	0.46
9:2N:21:LYS:NZ	9:2N:140:VAL:OXT	2.42	0.46
17:2V:20:LEU:HD12	17:2V:21:ARG:N	2.30	0.46
21:2Z:14:LYS:HA	21:2Z:15:PRO:HD3	1.84	0.46
29:27:10:ARG:O	29:27:14:LYS:HG3	2.16	0.46
30:28:14:VAL:HG22	30:28:24:ALA:HB2	1.96	0.46
32:2a:516:PSU:N3	32:2a:533:A:N6	2.47	0.46
32:2a:1135:U:H4'	32:2a:1136:U:C5	2.50	0.46
32:2a:1154:G:C2	32:2a:1155:G:C8	3.04	0.46
34:2c:138:VAL:HG23	34:2c:151:VAL:CG2	2.35	0.46
41:2j:31:GLY:HA2	41:2j:32:ALA:HA	1.69	0.46
45:2n:29:ARG:NH1	45:2n:42:ILE:HD11	2.30	0.46
48:2q:86:GLU:O	48:2q:90:ILE:HG12	2.15	0.46
1:1A:272:G:O2'	1:1A:421:U:OP2	2.16	0.46
1:1A:651:G:OP1	30:18:19:SER:OG	2.24	0.46
1:1A:1364:G:OP2	23:11:3:LYS:HB2	2.16	0.46
1:1A:1655:A:H3'	1:1A:1656:C:C6	2.50	0.46
1:1A:2206:G:H5"	1:1A:2207:G:C5	2.50	0.46
1:1A:2406:U:OP2	1:1A:2406:U:H6	1.98	0.46
1:1A:2590:A:H2'	1:1A:2591:C:C6	2.51	0.46
2:1B:89:G:H2'	2:1B:90:A:C8	2.50	0.46
3:1D:76:PRO:HG2	3:1D:98:VAL:CG1	2.46	0.46
11:1P:64:LYS:HE3	30:18:12:LYS:HD2	1.97	0.46
18:1W:37:ARG:HG3	18:1W:37:ARG:HH21	1.81	0.46
32:1a:36:C:O2'	32:1a:501:C:OP1	2.34	0.46
32:1a:393:A:C2	32:1a:394:G:C8	3.04	0.46
32:1a:762:C:H2'	32:1a:763:G:C8	2.44	0.46
32:1a:1120:G:C6	32:1a:1121:U:C4	3.04	0.46
32:1a:1302:U:OP1	44:1m:13:LYS:NZ	2.44	0.46
34:1c:109:PRO:HA	34:1c:115:LEU:HD23	1.98	0.46
42:1k:46:GLY:HA2	42:1k:50:TYR:O	2.16	0.46
43:1l:90:VAL:O	43:1l:92:0TD:N	2.49	0.46
44:1m:53:VAL:HG12	44:1m:57:ARG:NH1	2.29	0.46
1:2A:71:A:H4'	1:2A:72:U:H5"	1.97	0.46
1:2A:582:G:H2'	1:2A:583:G:H8	1.81	0.46
1:2A:2040:C:H2'	1:2A:2041:U:O4'	2.15	0.46
1:2A:2522:U:O2'	1:2A:2647:U:H5"	2.15	0.46
1:2A:2680:C:H1'	4:2E:187:ALA:HB1	1.98	0.46
1:2A:2780:G:OP2	9:2N:118:LYS:HD3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:4:ILE:HD12	4:2E:91:VAL:HG12	1.98	0.46
9:2N:123:TYR:CE1	9:2N:129:PRO:HD2	2.50	0.46
19:2X:66:LEU:HD23	19:2X:66:LEU:HA	1.64	0.46
21:2Z:152:ALA:HB1	21:2Z:163:LEU:HD21	1.97	0.46
24:22:37:PHE:O	24:22:40:SER:HB3	2.15	0.46
30:28:22:VAL:HB	30:28:55:ALA:HB1	1.96	0.46
32:2a:406:G:C5'	35:2d:5:ILE:HG13	2.46	0.46
32:2a:1058:G:N2	41:2j:53:PRO:HG3	2.31	0.46
32:2a:1324:A:O4'	32:2a:1362:C:H4'	2.16	0.46
32:2a:1376:U:P	38:2g:94:ARG:HH22	2.38	0.46
32:2a:1419:G:C5	32:2a:1482:G:C2	3.04	0.46
32:2a:1459:C:H2'	32:2a:1460:A:O4'	2.15	0.46
32:2a:1517:G:H3'	32:2a:1518:MA6:H8	1.98	0.46
33:2b:9:GLU:HB3	33:2b:10:LEU:H	1.53	0.46
35:2d:107:ARG:HA	35:2d:107:ARG:HD2	1.78	0.46
54:2z:54:ILE:O	54:2z:61:LEU:N	2.29	0.46
1:1A:85:G:H8	1:1A:85:G:H5"	1.79	0.46
1:1A:801:G:N7	5:1F:53:THR:HG23	2.31	0.46
1:1A:1106:G:N1	1:1A:1107:G:N7	2.64	0.46
1:1A:1692:U:O2'	1:1A:1693:U:H2'	2.15	0.46
1:1A:1843:C:H5'	3:1D:253:GLN:NE2	2.31	0.46
1:1A:2584:U:O2	53:1y:8:PRO:HG3	2.16	0.46
2:1B:5:C:H42	2:1B:116:G:H1	1.64	0.46
4:1E:54:GLN:NE2	4:1E:58:ARG:HB2	2.31	0.46
10:1O:35:VAL:CG1	10:1O:103:ALA:HB3	2.45	0.46
15:1T:39:ARG:NH2	32:1a:346:G:O4'	2.48	0.46
17:1V:2:PHE:CD1	17:1V:2:PHE:C	2.93	0.46
32:1a:171:A:H2'	32:1a:172:A:C8	2.50	0.46
32:1a:313:A:H2'	32:1a:314:C:C6	2.50	0.46
32:1a:992:U:H2'	32:1a:1043:C:H41	1.81	0.46
37:1f:5:GLU:HG3	37:1f:93:SER:OG	2.15	0.46
39:1h:5:PRO:O	39:1h:8:ASP:HB3	2.16	0.46
42:1k:34:ASP:HB2	42:1k:35:PRO:HD2	1.97	0.46
1:2A:829:A:H5"	1:2A:831:G:N7	2.30	0.46
1:2A:1652:A:C2	1:2A:2006:C:N3	2.83	0.46
1:2A:1991:U:H2'	1:2A:1992:G:H5'	1.97	0.46
1:2A:2271:G:H2'	1:2A:2272:U:C6	2.50	0.46
2:2B:94:C:H2'	2:2B:95:C:C6	2.47	0.46
3:2D:145:VAL:HG12	3:2D:146:GLU:O	2.16	0.46
8:2I:72:LEU:C	8:2I:74:ASN:N	2.72	0.46
23:21:51:VAL:O	23:21:58:ILE:N	2.44	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:21:62:VAL:HG13	23:21:67:ILE:HG12	1.97	0.46
26:24:24:THR:OG1	26:24:25:TYR:N	2.48	0.46
28:26:16:CYS:SG	28:26:18:ARG:HG3	2.56	0.46
31:29:22:ARG:HD3	31:29:35:ARG:HD2	1.96	0.46
32:2a:562:C:H4'	32:2a:563:A:O5'	2.15	0.46
32:2a:677:U:H3	32:2a:713:G:N2	2.02	0.46
32:2a:1030(A):G:H2'	32:2a:1030(C):G:OP2	2.16	0.46
32:2a:1418:A:H5"	32:2a:1419:G:OP2	2.16	0.46
33:2b:188:ALA:HB1	33:2b:192:SER:CB	2.46	0.46
40:2i:50:LEU:HD12	40:2i:51:ARG:N	2.31	0.46
40:2i:88:TYR:CD2	40:2i:89:ASN:HB2	2.51	0.46
46:2o:57:LEU:HD23	46:2o:57:LEU:HA	1.44	0.46
1:1A:944:G:H5"	1:1A:945:A:H5'	1.96	0.46
1:1A:1245:G:OP1	11:1P:13:ASN:ND2	2.49	0.46
1:1A:2206:G:OP2	1:1A:2206:G:H4'	2.14	0.46
1:1A:2364:C:H2'	1:1A:2365:G:O4'	2.15	0.46
1:1A:2774:C:H2'	1:1A:2775:A:O4'	2.16	0.46
5:1F:167:ALA:HB1	5:1F:173:VAL:HG11	1.97	0.46
26:14:24:THR:OG1	26:14:25:TYR:N	2.48	0.46
26:14:26:SER:OG	26:14:27:THR:N	2.49	0.46
32:1a:198:G:C6	32:1a:220:G:C2	3.04	0.46
32:1a:1264:C:H2'	32:1a:1265:G:C8	2.50	0.46
32:1a:1279:A:O2'	32:1a:1282:C:N4	2.49	0.46
33:1b:17:PHE:HA	33:1b:44:LEU:CD2	2.46	0.46
34:1c:71:ALA:O	34:1c:73:PRO:HD3	2.16	0.46
35:1d:88:VAL:O	35:1d:92:VAL:HG23	2.16	0.46
40:1i:27:THR:O	40:1i:63:ILE:HB	2.15	0.46
54:1z:25:ALA:HA	54:1z:28:GLU:HG3	1.98	0.46
1:2A:539:G:H2'	1:2A:540:C:H6	1.81	0.46
1:2A:781:A:C2	1:2A:1776:G:H2'	2.50	0.46
1:2A:804:A:H5"	1:2A:805:G:OP1	2.15	0.46
1:2A:1063:G:N7	1:2A:1065:U:H5	2.14	0.46
1:2A:1494:A:C2	1:2A:1495:A:C4	3.04	0.46
1:2A:1864:U:OP1	1:2A:2410:G:O2'	2.26	0.46
1:2A:2331:G:H4'	22:20:43:THR:H	1.81	0.46
1:2A:2536:G:C6	1:2A:2537:U:C4	3.04	0.46
1:2A:2596:U:O5'	1:2A:2596:U:H6	1.99	0.46
1:2A:2839:G:H5'	13:2R:46:GLY:CA	2.46	0.46
3:2D:162:SER:HB3	3:2D:195:ALA:CB	2.45	0.46
8:2I:25:TYR:O	8:2I:29:TYR:HB3	2.16	0.46
11:2P:52:GLU:OE2	11:2P:58:THR:HB	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:109:VAL:HG22	12:2Q:113:GLN:HB2	1.98	0.46
13:2R:10:LEU:O	13:2R:11:ASN:C	2.58	0.46
17:2V:2:PHE:C	17:2V:2:PHE:CD1	2.94	0.46
19:2X:61:GLY:HA3	19:2X:73:ARG:O	2.16	0.46
32:2a:303:A:O2'	32:2a:555:C:O2'	2.24	0.46
32:2a:881:G:OP2	43:2l:12:ARG:NH2	2.49	0.46
32:2a:952:U:O4	44:2m:104:ARG:HD3	2.16	0.46
32:2a:1129:C:C5'	40:2i:16:ARG:HH12	2.29	0.46
32:2a:1329:A:N7	52:2u:7:ARG:NH2	2.64	0.46
34:2c:69:HIS:HA	34:2c:104:GLN:HB3	1.98	0.46
35:2d:28:SER:C	35:2d:30:LYS:H	2.24	0.46
35:2d:41:GLY:O	35:2d:43:HIS:N	2.48	0.46
35:2d:166:LYS:HZ3	35:2d:179:GLU:HG3	1.80	0.46
36:2e:7:GLU:HG2	36:2e:8:GLU:N	2.31	0.46
37:2f:8:ILE:HG22	37:2f:10:LEU:HD12	1.97	0.46
47:2p:61:SER:OG	47:2p:62:VAL:N	2.49	0.46
47:2p:74:LEU:HD23	47:2p:79:VAL:HG21	1.97	0.46
1:1A:83:G:N2	1:1A:103:A:OP2	2.44	0.46
1:1A:784:A:C8	1:1A:792:G:C5	3.03	0.46
1:1A:849:A:H5"	1:1A:850:C:OP2	2.15	0.46
1:1A:1926:U:H2'	1:1A:1928:A:OP2	2.15	0.46
1:1A:2140:C:H42	1:1A:2151:G:H1	1.64	0.46
4:1E:108:SER:HB3	4:1E:165:VAL:HG21	1.97	0.46
9:1N:24:GLY:O	9:1N:27:ALA:HB3	2.16	0.46
15:1T:117:ASP:O	15:1T:121:ILE:HG13	2.15	0.46
21:1Z:44:PHE:CD1	21:1Z:44:PHE:C	2.93	0.46
26:14:40:HIS:O	26:14:43:TYR:N	2.49	0.46
32:1a:57:G:H1	32:1a:355:C:H42	1.62	0.46
32:1a:67:C:O2'	32:1a:171:A:H1'	2.15	0.46
32:1a:110:C:H2'	32:1a:111:G:O4'	2.15	0.46
32:1a:437:U:C5'	35:1d:155:LEU:HD21	2.46	0.46
32:1a:872:A:C5	32:1a:874:G:C8	3.04	0.46
32:1a:1312:G:N7	50:1s:2:PRO:HD3	2.30	0.46
39:1h:87:SER:HA	39:1h:93:VAL:CG2	2.46	0.46
41:1j:6:ILE:HA	41:1j:98:ILE:HG13	1.97	0.46
54:1z:29:LYS:O	54:1z:31:GLN:HG3	2.16	0.46
1:2A:221:A:N1	1:2A:265:A:O2'	2.48	0.46
1:2A:271(H):G:H2'	1:2A:271(I):G:C8	2.50	0.46
1:2A:936:C:H2'	1:2A:937:U:C6	2.51	0.46
1:2A:1339:G:H21	1:2A:1603:A:H1'	1.80	0.46
1:2A:2108:C:H2'	1:2A:2109:U:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2527:C:H5”	31:29:30:PRO:HB3	1.97	0.46
3:2D:69:ARG:HH11	3:2D:105:ILE:HG21	1.80	0.46
4:2E:176:ILE:HB	4:2E:181:LEU:HB2	1.97	0.46
5:2F:121:GLY:C	5:2F:123:LEU:H	2.24	0.46
15:2T:108:ARG:HA	15:2T:111:ARG:NH1	2.31	0.46
18:2W:86:LEU:C	18:2W:86:LEU:HD12	2.41	0.46
32:2a:41:G:H2’	32:2a:42:G:H8	1.80	0.46
32:2a:339:C:H2’	32:2a:340:U:C6	2.50	0.46
32:2a:422:C:H5’	32:2a:423:G:C5	2.51	0.46
32:2a:1218:C:H2’	32:2a:1219:U:C6	2.51	0.46
32:2a:1465:C:H2’	32:2a:1466:C:O4’	2.16	0.46
33:2b:163:PHE:CD2	33:2b:185:ILE:HB	2.50	0.46
42:2k:23:ALA:HB3	42:2k:86:GLY:O	2.16	0.46
42:2k:31:THR:HA	42:2k:42:TRP:HA	1.98	0.46
44:2m:116:THR:HG22	44:2m:117:VAL:H	1.80	0.46
51:2t:53:LEU:HD13	51:2t:100:ILE:H	1.80	0.46
54:2z:85:LEU:O	54:2z:89:GLN:HG2	2.16	0.46
1:1A:327:G:H2’	1:1A:328:U:C6	2.51	0.46
1:1A:330:A:H2	1:1A:1210:A:O2’	1.99	0.46
1:1A:673:C:H5”	5:1F:81:PRO:HD2	1.97	0.46
1:1A:705:A:O5’	1:1A:705:A:H8	1.99	0.46
1:1A:1518:U:H2’	1:1A:1519:G:H5’	1.98	0.46
1:1A:1815:A:C6	1:1A:1817:G:C6	3.04	0.46
1:1A:2439:A:H8	1:1A:2439:A:H5”	1.80	0.46
1:1A:2571:C:H5”	1:1A:2572:A:H5”	1.97	0.46
2:1B:111:G:H2’	2:1B:112:U:H6	1.81	0.46
4:1E:49:LEU:HD22	4:1E:81:ILE:HG12	1.97	0.46
15:1T:108:ARG:O	15:1T:111:ARG:HB2	2.16	0.46
20:1Y:53:PRO:O	20:1Y:56:PRO:HD3	2.16	0.46
26:14:67:TYR:HD2	50:1s:16:LEU:HD21	1.80	0.46
32:1a:652:U:O4	32:1a:752:G:O2’	2.28	0.46
32:1a:1060:C:O2’	32:1a:1061:G:H5’	2.16	0.46
33:1b:47:THR:HA	33:1b:202:PRO:HG2	1.97	0.46
43:1l:70:ILE:HG12	43:1l:100:ILE:HD12	1.98	0.46
46:1o:39:LEU:HD22	46:1o:43:LEU:HG	1.98	0.46
1:2A:271(K):U:O2	8:2I:50:ARG:HG3	2.16	0.46
1:2A:524:U:H2’	1:2A:525:U:C6	2.51	0.46
1:2A:530:G:N1	1:2A:2023:G:OP1	2.38	0.46
1:2A:1062:G:N1	1:2A:1077:A:C2	2.80	0.46
1:2A:1199:U:H1’	16:2U:4:ALA:HB2	1.98	0.46
1:2A:1265:A:O4’	1:2A:1267:U:C6	2.69	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1494:A:H2'	1:2A:1495:A:C8	2.51	0.46
1:2A:1514:U:O2'	1:2A:1515:G:H5'	2.15	0.46
1:2A:1765:C:H2'	1:2A:1766:U:H6	1.79	0.46
1:2A:2050:C:H42	1:2A:2618:G:H1	1.64	0.46
1:2A:2236:C:H2'	1:2A:2237:G:O4'	2.15	0.46
1:2A:2557:G:H2'	1:2A:2558:C:H6	1.81	0.46
1:2A:2808:U:H5'	1:2A:2891:G:O6	2.16	0.46
9:2N:37:LYS:HB3	9:2N:37:LYS:HE2	1.81	0.46
15:2T:53:ARG:O	15:2T:59:THR:HB	2.16	0.46
32:2a:624:C:H2'	32:2a:625:G:C8	2.51	0.46
32:2a:1232:U:H5"	40:2i:124:GLN:O	2.16	0.46
32:2a:1240:U:O3'	38:2g:38:LEU:HD21	2.16	0.46
37:2f:5:GLU:HG3	37:2f:93:SER:OG	2.16	0.46
40:2i:8:GLY:HA2	40:2i:79:LEU:HD23	1.97	0.46
47:2p:43:LYS:HA	47:2p:48:TRP:CD1	2.51	0.46
1:1A:384:U:H2'	1:1A:385:C:H6	1.82	0.46
1:1A:674:G:H1'	5:1F:74:ARG:HD3	1.98	0.46
1:1A:784:A:C5	3:1D:229:VAL:HG21	2.51	0.46
1:1A:857:C:H1'	22:10:26:TYR:HE1	1.80	0.46
1:1A:1510:G:H2'	1:1A:1511:C:C6	2.51	0.46
1:1A:2287:A:H1'	1:1A:2288:A:O2'	2.16	0.46
20:1Y:55:TYR:CE1	20:1Y:61:ILE:HG21	2.50	0.46
23:11:64:ALA:HA	23:11:67:ILE:HG13	1.97	0.46
25:13:18:ASP:OD1	25:13:18:ASP:N	2.49	0.46
32:1a:96:U:H2'	32:1a:97:G:H8	1.80	0.46
32:1a:269:C:H2'	32:1a:270:A:H8	1.79	0.46
32:1a:1010:G:N1	32:1a:1020:U:H1'	2.30	0.46
32:1a:1365:G:H2'	32:1a:1366:C:H6	1.81	0.46
32:1a:1375:A:C6	32:1a:1376:U:C4	3.04	0.46
33:1b:16:HIS:C	33:1b:18:GLY:H	2.20	0.46
33:1b:163:PHE:HD2	33:1b:185:ILE:HG13	1.80	0.46
41:1j:48:THR:OG1	41:1j:62:HIS:CE1	2.69	0.46
1:2A:481:G:C4	1:2A:507:A:C2	3.04	0.46
1:2A:1142(A):A:O2'	1:2A:1143:A:H3'	2.16	0.46
1:2A:1751:C:H2'	1:2A:1752:C:C6	2.50	0.46
1:2A:1777:U:O2'	1:2A:1778:U:H5'	2.16	0.46
1:2A:2277:G:OP2	22:20:10:THR:HG21	2.16	0.46
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.50	0.46
1:2A:2846:G:H2'	1:2A:2847:U:O4'	2.16	0.46
7:2H:155:SER:HB3	7:2H:158:HIS:O	2.15	0.46
19:2X:88:LYS:HD2	19:2X:93:GLU:HG3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:33:LEU:HG	21:2Z:34:ASN:N	2.30	0.46
21:2Z:97:GLU:HG2	21:2Z:125:LEU:HD11	1.98	0.46
32:2a:348:G:N2	32:2a:349:A:C4	2.84	0.46
32:2a:421:U:O2	32:2a:421:U:H2'	2.15	0.46
32:2a:1054:C:C2	54:2z:45:PRO:HG2	2.51	0.46
32:2a:1249:C:O2'	40:2i:73:GLN:NE2	2.49	0.46
32:2a:1316:G:H5"	45:2n:17:LYS:HE3	1.98	0.46
34:2c:87:LEU:O	34:2c:91:LEU:HB2	2.15	0.46
37:2f:35:ALA:HA	37:2f:67:MET:HB3	1.98	0.46
46:2o:76:GLU:H	46:2o:76:GLU:HG2	1.46	0.46
52:2u:3:LYS:HD2	52:2u:14:TRP:CD1	2.51	0.46
1:1A:405:U:O5'	1:1A:405:U:H6	1.99	0.45
1:1A:825:C:O2	11:1P:55:ARG:NH1	2.49	0.45
1:1A:1512:U:H2'	1:1A:1513:C:C6	2.51	0.45
1:1A:1674:G:H5"	1:1A:1674:G:H8	1.81	0.45
1:1A:1831:G:H2'	1:1A:1832:C:C6	2.51	0.45
1:1A:1864:U:OP1	1:1A:2410:G:O2'	2.20	0.45
1:1A:2031:A:C6	1:1A:2498:C:H1'	2.51	0.45
1:1A:2262:U:OP1	1:1A:2387:U:O2'	2.31	0.45
1:1A:2386:C:H4'	22:10:56:ASP:HA	1.98	0.45
1:1A:2420:C:OP2	30:18:33:ASN:HB2	2.16	0.45
21:1Z:53:ILE:HG13	21:1Z:54:HIS:CD2	2.51	0.45
23:11:80:LEU:HB3	23:11:82:LEU:HG	1.97	0.45
26:14:47:GLN:C	26:14:49:PHE:H	2.23	0.45
30:18:51:ALA:O	30:18:52:LYS:C	2.57	0.45
32:1a:439:A:C5	32:1a:441:A:H1'	2.50	0.45
32:1a:589:C:H42	32:1a:650:G:H1	1.62	0.45
32:1a:1135:U:H4'	32:1a:1136:U:C5	2.50	0.45
45:1n:7:ILE:HG13	45:1n:8:GLU:N	2.30	0.45
45:1n:27:CYS:SG	45:1n:29:ARG:HB2	2.57	0.45
51:1t:72:LEU:HD11	51:1t:80:ARG:HD3	1.99	0.45
1:2A:66:C:H2'	1:2A:67:U:H6	1.81	0.45
1:2A:536:A:H2'	1:2A:537:C:C6	2.51	0.45
1:2A:957:A:N6	1:2A:2459:A:C8	2.84	0.45
1:2A:1127:A:O2'	1:2A:2517:C:H5"	2.16	0.45
1:2A:1142(A):A:C2	1:2A:1144:G:C6	3.04	0.45
1:2A:1152:C:H2'	1:2A:1153:C:C6	2.50	0.45
1:2A:1332:G:N3	1:2A:1332:G:H2'	2.31	0.45
1:2A:2281:C:O2'	1:2A:2282:G:H5'	2.17	0.45
1:2A:2286:A:H4'	1:2A:2287:A:O4'	2.16	0.45
2:2B:61:G:C6	2:2B:62:C:C4	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:76:ARG:HB3	4:2E:77:ILE:HD12	1.98	0.45
5:2F:68:LYS:HB2	5:2F:69:HIS:ND1	2.30	0.45
6:2G:25:TYR:HB3	6:2G:30:GLU:HB2	1.98	0.45
6:2G:135:LEU:HD23	6:2G:140:ILE:HD12	1.98	0.45
13:2R:47:PHE:O	13:2R:50:HIS:HB3	2.16	0.45
15:2T:35:LYS:HZ1	15:2T:38:ASN:HA	1.81	0.45
15:2T:118:ARG:HG2	32:2a:1442(A):G:C8	2.52	0.45
18:2W:41:LYS:HE2	27:25:25:LEU:HD21	1.97	0.45
25:23:47:VAL:HG11	25:23:56:VAL:HG21	1.97	0.45
26:24:14:ILE:O	26:24:22:ILE:HG13	2.16	0.45
32:2a:376:G:H1	32:2a:387:U:H3	1.64	0.45
32:2a:509:A:H3'	58:2a:1950:HOH:O	2.16	0.45
32:2a:872:A:C4	32:2a:874:G:N7	2.85	0.45
32:2a:1112:C:C4	34:2c:178:LEU:HD12	2.51	0.45
32:2a:1509:C:H2'	32:2a:1510:U:O4'	2.16	0.45
35:2d:10:ARG:HB2	35:2d:40:PRO:HG3	1.97	0.45
54:2z:29:LYS:HB3	54:2z:30:TRP:CE3	2.51	0.45
1:1A:826:U:OP1	1:1A:2428:G:H3'	2.15	0.45
1:1A:987:G:C2'	1:1A:988:A:H5'	2.46	0.45
1:1A:1030:G:OP2	12:1Q:128:LYS:NZ	2.47	0.45
1:1A:1084:A:C2	1:1A:1085:A:C6	3.04	0.45
1:1A:1777:U:C2'	1:1A:1778:U:H5'	2.45	0.45
1:1A:2126:A:H4'	1:1A:2127:G:H4'	1.98	0.45
1:1A:2126:A:H1'	1:1A:2162:G:N2	2.31	0.45
1:1A:2512:C:H4'	4:1E:122:PHE:CE2	2.51	0.45
1:1A:2584:U:H2'	1:1A:2585:U:H5"	1.97	0.45
1:1A:2611:U:C4	27:15:3:LYS:HG2	2.50	0.45
6:1G:173:LEU:HD22	6:1G:178:PHE:CE2	2.51	0.45
14:1S:43:GLU:O	14:1S:43:GLU:HG3	2.16	0.45
24:12:32:LEU:HB2	24:12:53:LEU:HD13	1.97	0.45
26:14:14:ILE:HG23	26:14:31:ILE:HG22	1.97	0.45
32:1a:225:C:H2'	32:1a:226:G:H8	1.81	0.45
32:1a:458:C:H2'	32:1a:460:G:C8	2.50	0.45
32:1a:600:C:H2'	32:1a:601:C:H6	1.80	0.45
32:1a:811:C:O2'	32:1a:901:A:N1	2.47	0.45
32:1a:818:G:O2'	32:1a:819:A:H5'	2.16	0.45
32:1a:1014:A:H2	32:1a:1219:U:O2	1.99	0.45
32:1a:1206:G:C6	32:1a:1207:2MG:C5	3.04	0.45
32:1a:1262:C:H2'	32:1a:1263:C:C6	2.51	0.45
33:1b:97:TRP:HZ3	33:1b:172:ILE:HB	1.81	0.45
48:1q:9:VAL:HG13	48:1q:56:VAL:HG22	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1q:87:LYS:HA	48:1q:87:LYS:HD3	1.64	0.45
51:1t:53:LEU:HD23	51:1t:56:MET:HE2	1.98	0.45
1:2A:775:G:C2	1:2A:777:A:N6	2.84	0.45
1:2A:1062:G:C2	1:2A:1063:G:N3	2.84	0.45
1:2A:1374:G:C2	1:2A:1375:C:C2	3.04	0.45
1:2A:2731:G:C6	1:2A:2732:G:O6	2.69	0.45
2:2B:73:A:N1	21:2Z:34:ASN:ND2	2.63	0.45
6:2G:91:ARG:HG2	6:2G:92:VAL:N	2.30	0.45
8:2I:114:LEU:HD12	8:2I:130:TYR:HD1	1.81	0.45
12:2Q:118:LEU:HD23	12:2Q:118:LEU:HA	1.75	0.45
18:2W:54:ALA:HB1	18:2W:107:LEU:HD22	1.98	0.45
25:23:23:LEU:HA	25:23:23:LEU:HD13	1.62	0.45
32:2a:56:U:H2'	32:2a:57:G:C8	2.51	0.45
32:2a:507:C:OP2	32:2a:508:C:O2'	2.22	0.45
32:2a:579:G:C4	32:2a:580:U:C5	3.04	0.45
32:2a:615:C:H2'	32:2a:616:G:O4'	2.16	0.45
35:2d:65:ARG:HG3	35:2d:75:PHE:CD2	2.51	0.45
37:2f:55:ASP:HA	37:2f:56:PRO:HD2	1.78	0.45
39:2h:51:VAL:HG11	39:2h:60:ARG:HH12	1.81	0.45
41:2j:81:THR:HA	41:2j:84:GLN:HE21	1.81	0.45
43:2l:92:0TD:H4	43:2l:92:0TD:H8	1.59	0.45
44:2m:44:ARG:HB2	44:2m:47:ASP:OD2	2.16	0.45
49:2r:43:PHE:HE2	49:2r:58:LEU:HD11	1.82	0.45
1:1A:370:G:H4'	1:1A:371:A:OP2	2.15	0.45
1:1A:969:U:H2'	1:1A:970:C:C6	2.52	0.45
1:1A:1262:A:P	18:1W:99:ARG:HH22	2.38	0.45
1:1A:1587:A:H2'	1:1A:1588:C:C6	2.51	0.45
1:1A:1684:C:H2'	1:1A:1685:C:H6	1.81	0.45
1:1A:1688:U:N3	1:1A:1698:A:C2	2.85	0.45
1:1A:1793:C:H2'	1:1A:1794:U:H6	1.80	0.45
1:1A:1906:G:H1	1:1A:1924:C:H42	1.63	0.45
2:1B:10:C:C4	2:1B:11:C:C5	3.05	0.45
2:1B:73:A:C4	2:1B:105:A:C2	3.05	0.45
4:1E:63:LEU:HD23	4:1E:63:LEU:HA	1.74	0.45
6:1G:12:TYR:HA	6:1G:16:ARG:HG3	1.98	0.45
6:1G:142:PRO:HB2	26:14:31:ILE:HG21	1.98	0.45
9:1N:73:THR:OG1	9:1N:82:LEU:HD11	2.16	0.45
11:1P:121:LYS:O	11:1P:123:LEU:N	2.49	0.45
32:1a:662:G:H2'	32:1a:663:A:C8	2.51	0.45
32:1a:1152:A:H2'	32:1a:1153:C:H6	1.82	0.45
32:1a:1508:G:H2'	32:1a:1509:C:C6	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:55:PHE:CD1	33:1b:58:ILE:HD12	2.51	0.45
33:1b:157:ARG:HE	33:1b:157:ARG:HB3	1.49	0.45
38:1g:49:ILE:CD1	38:1g:118:VAL:HA	2.45	0.45
40:1i:25:LYS:NZ	40:1i:26:VAL:O	2.48	0.45
41:1j:8:LEU:HD21	41:1j:96:ILE:HG23	1.98	0.45
1:2A:311:A:C8	1:2A:332:A:N7	2.84	0.45
1:2A:479:A:H4'	1:2A:480:A:OP1	2.14	0.45
1:2A:718:A:H3'	1:2A:719:C:H6	1.81	0.45
1:2A:751:A:C5'	18:2W:90:ARG:HA	2.45	0.45
1:2A:2022:U:O2'	1:2A:2617:C:H5'	2.17	0.45
1:2A:2093:G:C6	1:2A:2225:A:C8	3.04	0.45
1:2A:2206:G:H8	1:2A:2207:G:N1	2.14	0.45
1:2A:2218:U:H4'	1:2A:2219:G:OP2	2.16	0.45
5:2F:88:VAL:HG21	5:2F:91:GLY:HA3	1.99	0.45
7:2H:88:LEU:HD12	7:2H:165:ALA:HA	1.97	0.45
14:2S:59:LYS:HZ1	14:2S:68:GLN:NE2	2.14	0.45
29:27:28:ARG:NH1	29:27:28:ARG:HG3	2.30	0.45
35:2d:166:LYS:N	35:2d:168:ARG:HH21	2.13	0.45
37:2f:8:ILE:HD11	37:2f:79:LEU:HD13	1.98	0.45
39:2h:51:VAL:HG21	39:2h:60:ARG:NH1	2.32	0.45
54:2z:29:LYS:HD2	54:2z:30:TRP:CZ3	2.50	0.45
54:2z:30:TRP:HB2	54:2z:85:LEU:HD21	1.99	0.45
1:1A:27:G:C4	1:1A:512:G:N2	2.84	0.45
1:1A:932:G:H4'	1:1A:933:A:O5'	2.16	0.45
1:1A:2315:G:H2'	1:1A:2316:C:H6	1.82	0.45
9:1N:5:VAL:HG12	9:1N:6:PRO:HD2	1.99	0.45
13:1R:4:LEU:HD23	13:1R:4:LEU:HA	1.61	0.45
14:1S:95:HIS:ND1	14:1S:96:GLY:N	2.65	0.45
19:1X:44:GLU:HG3	19:1X:51:VAL:HG23	1.97	0.45
28:16:25:LYS:NZ	28:16:51:GLU:OE1	2.47	0.45
32:1a:406:G:H5"	35:1d:5:ILE:HG13	1.99	0.45
32:1a:920:U:H2'	32:1a:921:U:H6	1.80	0.45
33:1b:215:LEU:HD23	33:1b:215:LEU:HA	1.68	0.45
34:1c:136:GLN:O	34:1c:140:ARG:N	2.40	0.45
36:1e:28:PHE:O	36:1e:47:LYS:HA	2.16	0.45
43:1l:77:LEU:HD21	43:1l:107:ALA:HA	1.97	0.45
45:1n:53:LEU:HB3	45:1n:56:VAL:HG21	1.99	0.45
1:2A:228:A:H2'	1:2A:230:U:H1'	1.98	0.45
1:2A:287:C:H2'	1:2A:288:C:C6	2.52	0.45
1:2A:710:G:H2'	1:2A:711:G:H8	1.80	0.45
1:2A:867:C:H2'	1:2A:868:U:H6	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2399:G:H2'	1:2A:2400:G:O4'	2.16	0.45
4:2E:46:ALA:HB2	4:2E:82:ARG:HA	1.98	0.45
12:2Q:3:MET:HE3	21:2Z:191:VAL:HG11	1.98	0.45
15:2T:82:LEU:N	15:2T:82:LEU:HD12	2.32	0.45
16:2U:21:ALA:HB1	16:2U:24:TYR:CD2	2.51	0.45
18:2W:59:VAL:HA	18:2W:64:MET:O	2.17	0.45
19:2X:18:TYR:C	19:2X:20:GLY:N	2.73	0.45
21:2Z:136:PHE:HE1	21:2Z:138:GLU:HG2	1.81	0.45
32:2a:629:G:H2'	32:2a:630:G:O4'	2.17	0.45
32:2a:984:C:H2'	32:2a:985:C:H6	1.81	0.45
32:2a:988:G:H2'	32:2a:989:C:O4'	2.17	0.45
32:2a:1153:C:C4	32:2a:1154:G:N7	2.84	0.45
40:2i:21:PRO:HA	40:2i:59:PHE:HA	1.97	0.45
45:2n:32:SER:HB3	45:2n:41:ARG:HG2	1.99	0.45
46:2o:26:GLU:OE2	46:2o:77:ARG:HG2	2.16	0.45
54:2z:78:ILE:O	54:2z:82:GLU:HG3	2.16	0.45
1:1A:271(K):U:O2	8:1I:50:ARG:HG3	2.17	0.45
1:1A:583:G:OP2	16:1U:10:ARG:NH1	2.43	0.45
1:1A:1106:G:C2	1:1A:1107:G:C8	3.04	0.45
1:1A:1430:C:H2'	1:1A:1431:U:H6	1.80	0.45
1:1A:2678:C:H2'	1:1A:2679:A:O4'	2.16	0.45
1:1A:2741:A:H2'	1:1A:2742:C:O4'	2.16	0.45
2:1B:115:G:H2'	2:1B:116:G:H8	1.80	0.45
3:1D:223:GLY:HA2	3:1D:226:MET:HE3	1.97	0.45
4:1E:82:ARG:HG3	4:1E:83:ASP:N	2.31	0.45
8:1I:93:THR:HG23	8:1I:96:ASP:CG	2.42	0.45
11:1P:59:LEU:HD11	30:18:10:ALA:CB	2.46	0.45
11:1P:131:SER:O	11:1P:132:LYS:C	2.59	0.45
15:1T:61:PHE:CE1	15:1T:76:PHE:HB2	2.52	0.45
15:1T:108:ARG:HA	15:1T:111:ARG:NH1	2.32	0.45
21:1Z:93:ASP:OD1	21:1Z:131:ARG:NH2	2.49	0.45
32:1a:277:C:H5"	48:1q:68:ARG:NH2	2.31	0.45
32:1a:757:U:O2'	32:1a:879:C:H1'	2.16	0.45
32:1a:1090:U:H2'	32:1a:1091:U:H6	1.81	0.45
32:1a:1124:G:N2	32:1a:1125:U:O4	2.44	0.45
32:1a:1279:A:O2'	32:1a:1281:U:OP2	2.24	0.45
32:1a:1299:A:N3	32:1a:1299:A:H5"	2.32	0.45
33:1b:176:GLU:O	33:1b:180:LEU:HG	2.16	0.45
43:1l:78:GLN:HG3	43:1l:79:GLU:O	2.17	0.45
44:1m:78:ILE:HD13	44:1m:92:HIS:CD2	2.52	0.45
46:1o:37:ASN:O	46:1o:41:GLU:HG2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:1z:53:THR:HA	54:1z:61:LEU:O	2.17	0.45
1:2A:71:A:H3'	1:2A:71:A:OP2	2.16	0.45
1:2A:172:C:H2'	1:2A:173:G:C8	2.45	0.45
1:2A:864:G:H1'	1:2A:914:C:H42	1.82	0.45
1:2A:1923:U:H2'	1:2A:1924:C:C6	2.51	0.45
1:2A:1977:A:H8	1:2A:1977:A:O5'	1.99	0.45
1:2A:2207:G:O2'	1:2A:2208:A:OP1	2.33	0.45
1:2A:2219:G:H2'	1:2A:2220:G:C8	2.52	0.45
1:2A:2845:G:H5"	15:2T:54:ARG:O	2.17	0.45
2:2B:113:G:H2'	2:2B:114:C:C6	2.52	0.45
5:2F:8:GLN:NE2	5:2F:21:ALA:HB2	2.31	0.45
6:2G:37:VAL:HG23	6:2G:99:MET:HG3	1.99	0.45
6:2G:53:LEU:HD13	6:2G:90:LEU:HD21	1.97	0.45
8:2I:114:LEU:HD12	8:2I:130:TYR:CD1	2.51	0.45
9:2N:42:TRP:HA	9:2N:48:MET:HE1	1.98	0.45
10:2O:26:LYS:O	10:2O:30:ALA:HB2	2.16	0.45
12:2Q:37:LEU:HB2	12:2Q:128:LYS:O	2.16	0.45
17:2V:95:LEU:HD23	17:2V:96:ILE:N	2.31	0.45
25:23:4:LEU:O	25:23:36:VAL:HA	2.16	0.45
32:2a:41:G:H2'	32:2a:42:G:C8	2.51	0.45
32:2a:157:G:C2	32:2a:165:C:C2	3.05	0.45
32:2a:551:U:H2'	32:2a:552:U:H6	1.82	0.45
32:2a:981:U:O4	32:2a:1222:G:O6	2.34	0.45
32:2a:1016:A:OP1	45:2n:15:LYS:HE3	2.17	0.45
32:2a:1350:A:C5	32:2a:1351:U:C4	3.05	0.45
33:2b:79:ASP:C	33:2b:81:VAL:H	2.24	0.45
40:2i:17:VAL:HG21	40:2i:81:ILE:HA	1.99	0.45
41:2j:38:ILE:O	41:2j:38:ILE:HG13	2.15	0.45
42:2k:56:GLY:O	42:2k:89:ALA:HB3	2.17	0.45
44:2m:10:PRO:HG2	44:2m:21:TYR:CG	2.51	0.45
50:2s:61:TYR:CE2	50:2s:63:THR:HG22	2.51	0.45
1:1A:536:A:H2'	1:1A:537:C:C6	2.51	0.45
1:1A:582:G:H2'	1:1A:583:G:C8	2.51	0.45
1:1A:1094:U:H2'	1:1A:1096:A:OP2	2.16	0.45
1:1A:1583:A:H5'	1:1A:1584:C:OP1	2.15	0.45
1:1A:1945:G:C6	1:1A:1946:U:C4	3.04	0.45
8:1I:35:LEU:H	8:1I:35:LEU:HG	1.42	0.45
8:1I:42:SER:HA	8:1I:45:LYS:HD2	1.97	0.45
11:1P:59:LEU:HD21	30:18:10:ALA:HA	1.97	0.45
15:1T:125:ARG:NH1	32:1a:1443:G:H5'	2.32	0.45
25:13:4:LEU:HD23	25:13:4:LEU:HA	1.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:13:5:LYS:HA	25:13:35:ARG:O	2.17	0.45
32:1a:46:G:O2'	32:1a:365:U:H1'	2.16	0.45
32:1a:96:U:H2'	32:1a:97:G:C8	2.52	0.45
32:1a:192:U:H2'	32:1a:193:C:C6	2.52	0.45
32:1a:194:C:C2'	32:1a:195:A:H5"	2.47	0.45
32:1a:421:U:O2	32:1a:421:U:H2'	2.17	0.45
32:1a:472:A:O2'	47:1p:81:ARG:HA	2.16	0.45
32:1a:865:A:H2'	32:1a:866:C:C6	2.51	0.45
32:1a:952:U:O2'	32:1a:953:G:H5'	2.17	0.45
33:1b:221:LEU:O	33:1b:221:LEU:HD13	2.17	0.45
50:1s:50:ALA:HB1	50:1s:57:HIS:HB3	1.97	0.45
1:2A:92:A:H2'	1:2A:93:G:C8	2.51	0.45
1:2A:444:C:OP1	5:2F:45:ARG:NH2	2.49	0.45
1:2A:706:A:H2'	1:2A:707:G:O4'	2.17	0.45
1:2A:753:C:O2'	1:2A:754:C:H5'	2.16	0.45
1:2A:851:U:O2	1:2A:927:G:C2	2.69	0.45
1:2A:1053:C:N3	1:2A:1054:A:C8	2.84	0.45
1:2A:1054:A:H5'	1:2A:1055:G:OP2	2.16	0.45
1:2A:1448:G:H1'	1:2A:1528:A:N1	2.32	0.45
1:2A:2050:C:N4	1:2A:2051:A:N1	2.65	0.45
5:2F:117:ARG:NH2	11:2P:1:MET:O	2.49	0.45
17:2V:97:LYS:HD3	17:2V:97:LYS:HA	1.75	0.45
25:23:12:PRO:O	25:23:15:TYR:HB2	2.16	0.45
27:25:26:THR:O	27:25:26:THR:OG1	2.34	0.45
32:2a:408:A:C6	32:2a:409:G:C5	3.04	0.45
32:2a:453:A:C5	32:2a:454:C:C4	3.05	0.45
32:2a:814:A:N7	32:2a:816:A:C4	2.85	0.45
32:2a:977:A:H2'	32:2a:978:A:H5"	1.99	0.45
36:2e:28:PHE:O	36:2e:47:LYS:HA	2.17	0.45
40:2i:49:PRO:HG2	40:2i:82:ALA:HB2	1.97	0.45
1:1A:403:U:H4'	1:1A:404:C:H5'	1.98	0.45
1:1A:823:G:O2'	1:1A:824:A:H5'	2.17	0.45
1:1A:1070:A:N1	1:1A:1096:A:C2	2.85	0.45
1:1A:1071:G:C6	1:1A:1072:C:C4	3.05	0.45
1:1A:1078:U:H1'	1:1A:1079:C:C5	2.51	0.45
1:1A:1930:G:N2	1:1A:1968:G:H2'	2.31	0.45
1:1A:2336:A:H61	22:10:43:THR:CG2	2.30	0.45
1:1A:2552:2MU:H2'	1:1A:2554:U:OP2	2.17	0.45
6:1G:120:LEU:O	6:1G:122:PRO:HD3	2.16	0.45
7:1H:3:ARG:NH2	7:1H:5:GLY:H	2.14	0.45
7:1H:98:LEU:HD12	7:1H:102:ALA:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:109:ILE:HG23	8:1I:130:TYR:CZ	2.52	0.45
9:1N:74:ARG:CZ	9:1N:85:ILE:HD11	2.47	0.45
10:1O:68:GLU:HB3	10:1O:78:ARG:HB2	1.99	0.45
32:1a:9:G:C6	32:1a:26:A:N6	2.85	0.45
32:1a:11:G:C5	32:1a:12:U:C5	3.05	0.45
32:1a:1313:U:OP1	50:1s:5:LEU:HB2	2.16	0.45
32:1a:1366:C:O2'	41:1j:60:ARG:NH1	2.43	0.45
36:1e:71:LEU:O	36:1e:72:GLN:HG2	2.16	0.45
38:1g:23:VAL:HG12	38:1g:27:ILE:HD11	1.98	0.45
50:1s:15:LEU:O	50:1s:19:VAL:HG23	2.17	0.45
1:2A:271(H):G:H5'	23:21:81:LYS:HE3	1.98	0.45
1:2A:443:A:N7	5:2F:45:ARG:HG2	2.32	0.45
1:2A:448:U:O4	1:2A:583:G:H1'	2.17	0.45
1:2A:1169:G:N2	1:2A:1181:C:C2	2.85	0.45
1:2A:1374:G:H2'	1:2A:1375:C:C6	2.51	0.45
1:2A:1524:G:N2	1:2A:1525:G:H1'	2.31	0.45
1:2A:1756:G:H1'	1:2A:1758:G:C2	2.52	0.45
1:2A:2755:C:C4	31:29:19:ARG:NH1	2.84	0.45
2:2B:1:U:H2'	2:2B:2:C:C5	2.52	0.45
2:2B:3:C:H2'	2:2B:4:C:C6	2.51	0.45
4:2E:54:GLN:HE22	4:2E:58:ARG:HD2	1.81	0.45
5:2F:9:ILE:CG2	5:2F:125:LEU:HD22	2.47	0.45
5:2F:102:PRO:O	5:2F:105:VAL:N	2.48	0.45
5:2F:162:LEU:HD12	5:2F:162:LEU:HA	1.62	0.45
8:2I:72:LEU:HA	8:2I:75:LEU:HD11	1.99	0.45
12:2Q:111:GLU:O	12:2Q:115:MET:HG2	2.16	0.45
21:2Z:76:LEU:HD12	21:2Z:76:LEU:N	2.32	0.45
32:2a:15:G:C2	32:2a:16:A:C4	3.05	0.45
32:2a:408:A:H2'	32:2a:409:G:O4'	2.17	0.45
32:2a:540:G:H2'	32:2a:541:G:O4'	2.16	0.45
32:2a:828:A:H2'	32:2a:829:G:O4'	2.16	0.45
42:2k:34:ASP:HB3	42:2k:40:ILE:HD11	1.97	0.45
1:1A:1684:C:H2'	1:1A:1685:C:C6	2.52	0.45
1:1A:1810:A:H2'	1:1A:1811:G:O4'	2.16	0.45
8:1I:129:THR:HG22	8:1I:139:GLN:HE22	1.82	0.45
9:1N:30:ILE:HG22	9:1N:34:LEU:HD22	1.98	0.45
13:1R:9:LYS:O	13:1R:10:LEU:C	2.60	0.45
13:1R:35:THR:HG23	13:1R:112:ALA:O	2.17	0.45
18:1W:82:LEU:HD22	18:1W:84:ARG:HH12	1.82	0.45
32:1a:250:A:H4'	32:1a:251:G:O5'	2.17	0.45
32:1a:555:C:H2'	32:1a:556:C:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:614:A:OP1	35:1d:86:LYS:HE2	2.17	0.45
32:1a:954:G:H5'	54:1z:17:ARG:CZ	2.47	0.45
32:1a:1144:G:N2	32:1a:1146:A:H62	2.14	0.45
32:1a:1152:A:H5'	41:1j:13:HIS:CG	2.52	0.45
32:1a:1486:G:H2'	32:1a:1487:G:O4'	2.17	0.45
41:1j:7:LYS:N	41:1j:97:GLU:O	2.41	0.45
1:2A:286:C:H2'	1:2A:287:C:C6	2.51	0.45
1:2A:300:A:O5'	20:2Y:84:ARG:NH2	2.47	0.45
1:2A:896:A:H61	1:2A:1076:C:N4	2.13	0.45
1:2A:1283:G:H2'	1:2A:1285:G:OP2	2.17	0.45
1:2A:1391:U:H4'	58:2A:5094:HOH:O	2.15	0.45
1:2A:1604:C:H5"	58:2A:4677:HOH:O	2.17	0.45
1:2A:1759:A:H1'	1:2A:2711:A:C2	2.52	0.45
1:2A:2664:G:H8	1:2A:2664:G:O5'	1.99	0.45
2:2B:59:A:H2'	2:2B:60:C:O4'	2.16	0.45
3:2D:24:ILE:HG23	3:2D:83:GLU:HA	1.99	0.45
4:2E:52:LEU:HD12	4:2E:77:ILE:HD13	1.99	0.45
14:2S:92:TYR:HB3	14:2S:98:VAL:HG21	1.97	0.45
19:2X:18:TYR:O	19:2X:20:GLY:N	2.50	0.45
28:26:9:LEU:HD12	28:26:10:LEU:O	2.16	0.45
32:2a:600:C:H2'	32:2a:601:C:C6	2.51	0.45
32:2a:858:G:O6	32:2a:869:G:H3'	2.17	0.45
32:2a:1216:G:H5"	45:2n:5:ALA:CB	2.47	0.45
33:2b:15:VAL:HG22	33:2b:209:ARG:HD2	1.99	0.45
36:2e:6:PHE:H	36:2e:63:ARG:HH12	1.65	0.45
39:2h:37:ARG:HG2	39:2h:37:ARG:HH11	1.81	0.45
50:2s:50:ALA:HA	50:2s:58:VAL:O	2.17	0.45
1:1A:247:G:H4'	1:1A:386:G:C5	2.51	0.45
1:1A:598:G:H2'	1:1A:599:G:O4'	2.17	0.45
1:1A:630:G:N2	1:1A:633:A:OP2	2.50	0.45
1:1A:1108:U:H2'	1:1A:1109:C:O4'	2.17	0.45
1:1A:1858:G:N2	1:1A:1883:G:H2'	2.31	0.45
1:1A:2489:G:O2'	1:1A:2518:A:N6	2.44	0.45
1:1A:2821:A:H2'	1:1A:2822:G:C8	2.51	0.45
2:1B:39:A:H2'	2:1B:40:U:C6	2.50	0.45
5:1F:178:PRO:HG2	5:1F:179:GLU:OE2	2.16	0.45
7:1H:109:PHE:HB3	7:1H:111:HIS:CD2	2.52	0.45
20:1Y:56:PRO:C	20:1Y:58:GLY:H	2.25	0.45
24:12:35:LEU:HA	24:12:35:LEU:HD23	1.53	0.45
32:1a:567:G:N3	32:1a:568:G:H1'	2.32	0.45
32:1a:591:U:H2'	32:1a:592:G:H8	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1258:G:H2'	32:1a:1259:C:C6	2.52	0.45
33:1b:27:LYS:HB3	33:1b:194:PRO:HD2	1.98	0.45
33:1b:46:LYS:O	33:1b:49:GLU:HB2	2.16	0.45
41:1j:40:LEU:HD22	41:1j:41:PRO:HD2	1.99	0.45
1:2A:333:G:C6	1:2A:334:C:C4	3.05	0.45
1:2A:528:A:C2'	1:2A:529:A:H5'	2.46	0.45
1:2A:937:U:H2'	1:2A:938:G:O4'	2.17	0.45
1:2A:1031:G:H4'	31:29:6:SER:OG	2.17	0.45
1:2A:1141:U:H2'	9:2N:63:THR:HG21	1.98	0.45
1:2A:1470:G:H5"	1:2A:1471:A:OP1	2.16	0.45
6:2G:7:LEU:O	6:2G:7:LEU:HD23	2.17	0.45
7:2H:122:THR:HB	7:2H:134:SER:HB2	1.98	0.45
9:2N:4:TYR:CD2	16:2U:100:VAL:HG11	2.52	0.45
21:2Z:110:GLY:HA3	21:2Z:174:VAL:HG11	1.99	0.45
21:2Z:119:GLU:HB2	21:2Z:122:ARG:CZ	2.47	0.45
23:21:52:ARG:HA	23:21:56:GLN:O	2.16	0.45
32:2a:284:G:H2'	32:2a:285:G:C8	2.52	0.45
32:2a:443:C:H2'	32:2a:444:C:H6	1.82	0.45
32:2a:859:A:H2'	32:2a:860:A:O4'	2.17	0.45
32:2a:1135:U:H4'	32:2a:1136:U:H5	1.82	0.45
40:2i:5:TYR:H	40:2i:87:GLN:NE2	2.15	0.45
41:2j:81:THR:O	41:2j:84:GLN:N	2.50	0.45
44:2m:53:VAL:HG12	44:2m:57:ARG:NH1	2.22	0.45
47:2p:68:ASP:C	47:2p:70:ALA:N	2.75	0.45
54:2z:95:ARG:HD3	54:2z:95:ARG:HA	1.78	0.45
1:1A:225:A:C2'	1:1A:226:G:H5'	2.47	0.45
1:1A:357:A:C2	1:1A:358:U:C2	3.05	0.45
1:1A:1106:G:N1	1:1A:1107:G:C5	2.84	0.45
1:1A:1106:G:N3	1:1A:1106:G:H2'	2.32	0.45
1:1A:1496:A:H2'	1:1A:1498:C:C4	2.52	0.45
1:1A:1878:G:H2'	1:1A:1879:C:C6	2.52	0.45
1:1A:2266:A:C2	1:1A:2272:U:C5	3.05	0.45
1:1A:2322:A:H2'	1:1A:2323:G:O4'	2.16	0.45
1:1A:2602:A:C2	53:1y:5:PHE:HD2	2.33	0.45
3:1D:245:PRO:HA	3:1D:246:PRO:HD3	1.69	0.45
8:1I:29:TYR:CD2	8:1I:30:LEU:HD23	2.52	0.45
13:1R:10:LEU:O	13:1R:11:ASN:C	2.60	0.45
19:1X:94:GLY:HA3	19:1X:95:LEU:C	2.42	0.45
32:1a:410:G:H5"	35:1d:30:LYS:NZ	2.31	0.45
32:1a:1054:C:C5	54:1z:45:PRO:HG2	2.52	0.45
32:1a:1073:U:HO2'	33:1b:104:ASN:CG	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1210:C:C2’	32:1a:1211:U:H5’	2.47	0.45
32:1a:1298:C:H4’	32:1a:1299:A:C4	2.52	0.45
32:1a:1428:A:H2’	32:1a:1429:C:C6	2.51	0.45
43:1l:91:LYS:O	43:1l:91:LYS:HG2	2.17	0.45
44:1m:49:THR:O	44:1m:53:VAL:HG23	2.16	0.45
44:1m:81:LEU:O	44:1m:89:GLY:HA3	2.17	0.45
47:1p:5:ARG:HH12	47:1p:28:ARG:HA	1.82	0.45
47:1p:6:LEU:HB3	47:1p:17:TYR:CD1	2.52	0.45
1:2A:12:U:H2’	1:2A:12:U:O2	2.15	0.45
1:2A:55:G:O2’	1:2A:127:A:N1	2.47	0.45
1:2A:272:G:H4’	1:2A:272(A):U:C5’	2.46	0.45
1:2A:1050:A:H2’	1:2A:1051:G:O4’	2.16	0.45
1:2A:1430:C:H2’	1:2A:1431:U:H6	1.77	0.45
1:2A:1495:A:O2’	1:2A:1496:A:H5’	2.17	0.45
1:2A:1645:G:C5’	1:2A:1646:C:H5’	2.44	0.45
1:2A:1884:A:C2	1:2A:1885:A:C8	3.05	0.45
1:2A:1964:G:H4’	1:2A:1965:C:OP2	2.16	0.45
1:2A:2791:C:H2’	1:2A:2792:G:O4’	2.17	0.45
1:2A:2822:G:H2’	1:2A:2823:A:H5”	1.99	0.45
2:2B:29:A:C2	2:2B:30:C:C2	3.04	0.45
3:2D:221:VAL:HG22	3:2D:226:MET:HE2	1.98	0.45
5:2F:160:ASN:ND2	5:2F:163:VAL:HG23	2.31	0.45
7:2H:17:VAL:HG13	7:2H:26:VAL:HG22	1.99	0.45
7:2H:33:LEU:HD11	7:2H:136:ILE:O	2.17	0.45
12:2Q:55:VAL:HG22	21:2Z:183:LEU:HD11	1.98	0.45
13:2R:33:ARG:HB2	13:2R:115:GLU:HB3	1.99	0.45
17:2V:40:LEU:HB2	17:2V:46:VAL:HG13	1.98	0.45
18:2W:10:VAL:HG12	18:2W:12:ILE:HG22	1.99	0.45
28:26:9:LEU:HA	28:26:54:ILE:HB	1.99	0.45
32:2a:688:G:C6	32:2a:700:G:C2	3.05	0.45
32:2a:984:C:H2’	32:2a:985:C:C6	2.52	0.45
32:2a:1141:C:C2	32:2a:1142:G:C8	3.05	0.45
32:2a:1420:C:O5’	32:2a:1420:C:H6	2.00	0.45
36:2e:90:VAL:O	36:2e:91:LEU:HD13	2.17	0.45
1:1A:911:A:H2’	12:1Q:9:TYR:OH	2.16	0.44
1:1A:1199:U:H2’	1:1A:1200:C:C6	2.51	0.44
1:1A:1608:A:O2’	1:1A:1610:A:OP2	2.32	0.44
1:1A:2056:G:O3’	27:15:8:LYS:NZ	2.50	0.44
1:1A:2715:C:H2’	1:1A:2716:U:H6	1.83	0.44
1:1A:2809:A:C6	1:1A:2810:A:C6	3.05	0.44
4:1E:112:GLY:O	4:1E:159:HIS:HA	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:1N:43:THR:HG22	9:1N:45:ASN:OD1	2.16	0.44
12:1Q:29:PHE:HB3	12:1Q:65:PHE:CE2	2.51	0.44
18:1W:8:ARG:O	18:1W:9:TYR:HB2	2.15	0.44
19:1X:11:PRO:HG2	19:1X:13:LEU:HD21	1.99	0.44
21:1Z:30:ASN:C	21:1Z:32:HIS:H	2.23	0.44
32:1a:56:U:H2'	32:1a:57:G:C8	2.52	0.44
32:1a:235:C:H5'	48:1q:70:ARG:HG3	1.98	0.44
32:1a:658:G:C6	32:1a:659:U:C4	3.05	0.44
32:1a:757:U:H2'	32:1a:758:G:O4'	2.17	0.44
32:1a:1126:U:O2	32:1a:1280:A:H2'	2.17	0.44
32:1a:1151:A:O2'	32:1a:1152:A:H8	2.00	0.44
32:1a:1301:U:O2'	32:1a:1302:U:H5"	2.17	0.44
35:1d:57:ARG:HG2	35:1d:202:LEU:HD22	2.00	0.44
36:1e:146:ALA:O	36:1e:147:ASP:C	2.60	0.44
37:1f:55:ASP:HA	37:1f:56:PRO:HD2	1.84	0.44
38:1g:59:LEU:O	38:1g:62:PHE:HB3	2.16	0.44
41:1j:47:PHE:CE2	45:1n:37:PHE:HE1	2.34	0.44
49:1r:28:GLU:HA	49:1r:28:GLU:OE2	2.17	0.44
1:2A:27:G:O2'	1:2A:28:A:OP2	2.34	0.44
1:2A:57:C:H2'	1:2A:58:G:O4'	2.18	0.44
1:2A:118:A:N3	1:2A:178:G:H1'	2.32	0.44
1:2A:304:G:H2'	1:2A:305:U:O4'	2.18	0.44
1:2A:773:U:O2'	3:2D:48:ARG:HD3	2.17	0.44
1:2A:824:A:H1'	1:2A:2358:G:N7	2.32	0.44
1:2A:898:C:H2'	1:2A:899:A:O4'	2.17	0.44
1:2A:1130:U:O2	4:2E:149:ARG:NH2	2.50	0.44
1:2A:1184:G:C6	1:2A:1185:C:C4	3.05	0.44
1:2A:1203:G:C6	1:2A:1204:A:N6	2.85	0.44
1:2A:1638:C:O3'	1:2A:2709:G:N2	2.50	0.44
1:2A:1669:A:H5"	1:2A:1670:C:OP2	2.16	0.44
1:2A:2418:A:C2	1:2A:2419:U:C2	3.05	0.44
1:2A:2758:A:H3'	58:2A:4844:HOH:O	2.17	0.44
4:2E:111:ARG:HD2	4:2E:160:TYR:CE2	2.52	0.44
6:2G:80:PHE:O	6:2G:81:LYS:HB2	2.17	0.44
12:2Q:68:ILE:HD13	12:2Q:103:MET:HB3	2.00	0.44
18:2W:29:LEU:HD21	18:2W:33:ARG:CZ	2.47	0.44
32:2a:70:G:C6	32:2a:71:C:C4	3.05	0.44
32:2a:102:G:H2'	32:2a:103:C:C6	2.53	0.44
32:2a:189(F):U:C4	48:2q:72:ARG:NH1	2.85	0.44
32:2a:509:A:O4'	35:2d:58:LEU:HD12	2.17	0.44
32:2a:662:G:H2'	32:2a:663:A:C8	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:838:G:N2	32:2a:849:C:C2	2.85	0.44
32:2a:1288:A:H1'	32:2a:1352:C:O2'	2.17	0.44
36:2e:36:ASP:OD2	36:2e:40:ARG:HB2	2.17	0.44
36:2e:72:GLN:O	36:2e:75:THR:HG23	2.17	0.44
36:2e:89:ILE:HG21	36:2e:135:THR:HA	1.99	0.44
39:2h:77:GLU:HG2	39:2h:78:GLN:N	2.32	0.44
42:2k:70:LYS:HE2	42:2k:70:LYS:HB2	1.79	0.44
49:2r:31:LEU:HD12	49:2r:31:LEU:HA	1.47	0.44
1:1A:848:G:H2'	1:1A:849:A:C8	2.52	0.44
1:1A:892:G:H2'	1:1A:893:C:C6	2.53	0.44
1:1A:910:A:C6	12:1Q:13:GLN:HG3	2.53	0.44
1:1A:1056:G:N2	1:1A:1102:C:C5	2.84	0.44
1:1A:1071:G:C5	1:1A:1072:C:C4	3.06	0.44
1:1A:2006:C:O5'	1:1A:2006:C:H6	1.99	0.44
1:1A:2034:U:H2'	1:1A:2035:G:H5'	2.00	0.44
7:1H:17:VAL:HG13	7:1H:26:VAL:HG22	1.99	0.44
7:1H:86:GLU:OE2	7:1H:132:ARG:NH1	2.50	0.44
11:1P:87:ASP:O	11:1P:90:ARG:HD2	2.17	0.44
21:1Z:141:VAL:HB	21:1Z:144:LEU:HD12	1.99	0.44
32:1a:119:A:C5	32:1a:240:C:C4	3.05	0.44
32:1a:299:G:H2'	32:1a:300:A:C8	2.53	0.44
32:1a:1057:G:O3'	34:1c:197:GLY:HA3	2.17	0.44
33:1b:195:ASP:N	33:1b:195:ASP:OD1	2.50	0.44
41:1j:81:THR:O	41:1j:85:LEU:HG	2.18	0.44
46:1o:57:LEU:HA	46:1o:57:LEU:HD23	1.73	0.44
47:1p:39:TYR:HB2	47:1p:49:LEU:HD13	1.99	0.44
51:1t:74:LYS:HE2	51:1t:74:LYS:HB3	1.73	0.44
54:1z:38:HIS:O	54:1z:52:ALA:HA	2.17	0.44
1:2A:36:G:O2'	1:2A:450:G:H2'	2.16	0.44
1:2A:330:A:HO2'	1:2A:331:A:H8	1.62	0.44
1:2A:386:G:H4'	1:2A:387:U:OP2	2.18	0.44
1:2A:918:A:H5"	2:2B:98:G:O2'	2.17	0.44
1:2A:1714:G:C6	1:2A:1746:G:C5	3.06	0.44
1:2A:1929:G:H4'	1:2A:1930:G:OP1	2.17	0.44
1:2A:2808:U:N3	1:2A:2809:A:N7	2.65	0.44
3:2D:75:ILE:H	3:2D:75:ILE:HG13	1.57	0.44
4:2E:103:ASP:OD2	4:2E:168:MET:HE2	2.18	0.44
5:2F:37:VAL:HG21	11:2P:6:LEU:CD1	2.47	0.44
6:2G:170:ARG:NH2	6:2G:182:LYS:O	2.50	0.44
14:2S:69:VAL:O	14:2S:72:ALA:HB3	2.17	0.44
25:23:6:VAL:HG22	25:23:56:VAL:HG23	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:24:61:ARG:HG3	26:24:61:ARG:H	1.53	0.44
32:2a:425:G:H4'	35:2d:45:GLN:NE2	2.32	0.44
32:2a:779:C:H2'	32:2a:780:A:O4'	2.17	0.44
32:2a:1124:G:N2	32:2a:1125:U:O4	2.50	0.44
32:2a:1376:U:H2'	32:2a:1377:A:C8	2.52	0.44
33:2b:105:PHE:O	33:2b:106:LYS:C	2.60	0.44
35:2d:194:LEU:HD22	35:2d:194:LEU:HA	1.75	0.44
44:2m:39:ILE:HG12	44:2m:52:GLU:HG2	1.99	0.44
49:2r:76:LEU:HB3	49:2r:78:LEU:HG	1.99	0.44
51:2t:71:THR:HB	51:2t:72:LEU:H	1.68	0.44
51:2t:74:LYS:HE2	51:2t:74:LYS:HB3	1.74	0.44
1:1A:1069:A:H4'	1:1A:1070:A:C5'	2.48	0.44
1:1A:1142(A):A:C4	1:1A:1144:G:N7	2.85	0.44
1:1A:2401:U:H3'	1:1A:2402:C:C6	2.52	0.44
3:1D:108:PRO:HG3	3:1D:143:HIS:CE1	2.52	0.44
6:1G:33:ARG:HB2	6:1G:162:THR:HG21	2.00	0.44
19:1X:24:GLY:O	19:1X:83:VAL:HG22	2.17	0.44
20:1Y:81:LYS:HE2	20:1Y:81:LYS:HB3	1.80	0.44
24:12:21:LEU:HD23	24:12:21:LEU:HA	1.83	0.44
32:1a:475:G:H2'	32:1a:476:G:C8	2.53	0.44
32:1a:545:C:H5'	35:1d:72:GLU:CB	2.46	0.44
32:1a:966:M2G:HM13	40:1i:127:LYS:HE2	2.00	0.44
32:1a:1051:C:H2'	32:1a:1052:U:C6	2.52	0.44
32:1a:1418:A:C2	32:1a:1483:A:C2	3.05	0.44
33:1b:145:LEU:O	33:1b:149:LEU:HB2	2.18	0.44
51:1t:26:ASN:HA	51:1t:71:THR:HG22	1.99	0.44
52:1u:3:LYS:HD2	52:1u:14:TRP:HD1	1.82	0.44
1:2A:108:U:H2'	1:2A:109:G:C8	2.53	0.44
1:2A:207:A:H2'	1:2A:208:C:O4'	2.17	0.44
1:2A:315:G:H2'	1:2A:316:C:O4'	2.16	0.44
1:2A:539:G:H2'	1:2A:540:C:C6	2.52	0.44
1:2A:556:G:H2'	1:2A:557:U:C6	2.52	0.44
1:2A:1138:G:O2'	9:2N:105:GLY:HA3	2.18	0.44
1:2A:1410:G:H2'	1:2A:1411:C:C6	2.53	0.44
1:2A:2103:C:H2'	1:2A:2104:G:H5'	1.98	0.44
1:2A:2443:C:H2'	1:2A:2444:G:C8	2.52	0.44
5:2F:39:TRP:CH2	5:2F:106:ARG:HD3	2.51	0.44
11:2P:99:LEU:N	11:2P:99:LEU:HD23	2.32	0.44
22:20:52:GLY:O	22:20:59:LEU:HA	2.17	0.44
26:24:41:PRO:HG3	26:24:49:PHE:CE1	2.53	0.44
32:2a:335:C:H2'	32:2a:336:C:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:2g:16:LEU:HD11	40:2i:42:ARG:NH1	2.32	0.44
41:2j:62:HIS:O	45:2n:59:ALA:N	2.48	0.44
44:2m:90:LEU:HG	44:2m:93:ARG:NH2	2.29	0.44
46:2o:36:ILE:O	46:2o:39:LEU:N	2.51	0.44
54:2z:22:ASP:O	54:2z:25:ALA:HB3	2.17	0.44
54:2z:24:LEU:O	54:2z:27:LEU:HB2	2.17	0.44
1:1A:620:G:N3	1:1A:620:G:H5'	2.32	0.44
1:1A:1026:U:O2	1:1A:1026:U:H2'	2.17	0.44
1:1A:1252:G:C2	1:1A:1253:A:C2	3.05	0.44
1:1A:1906:G:C8	1:1A:1929:G:H2'	2.53	0.44
5:1F:107:LYS:HE3	5:1F:206:ILE:HA	1.99	0.44
6:1G:11:TYR:HD2	6:1G:12:TYR:CD1	2.36	0.44
7:1H:92:ILE:HD13	7:1H:92:ILE:N	2.31	0.44
23:11:94:LEU:O	23:11:97:LEU:HB2	2.18	0.44
32:1a:1286:A:C8	32:1a:1287:A:H4'	2.53	0.44
32:1a:1321:C:O5'	32:1a:1321:C:H6	2.00	0.44
33:1b:9:GLU:HB3	33:1b:10:LEU:H	1.29	0.44
33:1b:25:ASN:OD1	33:1b:27:LYS:HB2	2.18	0.44
35:1d:196:LEU:HD12	35:1d:196:LEU:N	2.32	0.44
37:1f:86:ARG:O	37:1f:87:ARG:HG2	2.17	0.44
44:1m:107:ALA:O	44:1m:111:LYS:HB2	2.17	0.44
47:1p:61:SER:OG	47:1p:62:VAL:N	2.50	0.44
1:2A:849:A:H3'	1:2A:850:C:C6	2.53	0.44
1:2A:923:C:O5'	1:2A:923:C:H6	2.01	0.44
1:2A:1212:G:N2	1:2A:1236:G:O2'	2.48	0.44
1:2A:1263:U:O3'	27:25:11:THR:HB	2.17	0.44
1:2A:1321:A:H2'	1:2A:1322:A:O4'	2.18	0.44
1:2A:1557:C:H5"	1:2A:1558:A:OP2	2.17	0.44
1:2A:1778:U:O4	1:2A:1784:A:H1'	2.18	0.44
1:2A:2754:U:O2'	1:2A:2756:U:OP2	2.30	0.44
2:2B:14:U:H4'	2:2B:15:A:OP2	2.17	0.44
2:2B:27:C:C4	2:2B:28:C:C4	3.05	0.44
2:2B:37:C:C5	2:2B:38:C:C4	3.06	0.44
5:2F:36:VAL:HG22	5:2F:101:LEU:HD21	1.99	0.44
5:2F:158:THR:HB	5:2F:195:ASP:HB2	2.00	0.44
12:2Q:69:PHE:HA	12:2Q:70:PRO:HD2	1.83	0.44
18:2W:29:LEU:HD21	18:2W:33:ARG:NH2	2.33	0.44
32:2a:21:G:H2'	32:2a:22:G:C8	2.52	0.44
32:2a:142:G:H1	32:2a:221:C:H42	1.65	0.44
32:2a:1070:U:H2'	32:2a:1071:C:H6	1.83	0.44
32:2a:1131:G:H2'	32:2a:1132:C:H6	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1492:A:H4'	32:2a:1493:A:C5	2.53	0.44
35:2d:57:ARG:HD3	35:2d:205:GLU:HB2	1.99	0.44
35:2d:155:LEU:O	35:2d:158:ILE:HG22	2.17	0.44
36:2e:57:LYS:HG2	36:2e:61:TYR:HE2	1.83	0.44
38:2g:48:LYS:O	38:2g:51:GLN:HB3	2.17	0.44
38:2g:89:MET:SD	38:2g:155:ARG:HG3	2.57	0.44
39:2h:73:ASP:HA	39:2h:74:PRO:HD2	1.76	0.44
45:2n:6:LEU:HD12	45:2n:6:LEU:HA	1.87	0.44
46:2o:88:ARG:HB3	46:2o:88:ARG:NH2	2.32	0.44
48:2q:24:GLU:HG3	48:2q:39:SER:HB3	1.99	0.44
48:2q:67:LYS:O	48:2q:68:ARG:HB3	2.17	0.44
50:2s:44:MET:O	50:2s:47:HIS:HB2	2.17	0.44
54:2z:41:LEU:HD12	54:2z:50:ALA:HA	2.00	0.44
1:1A:478:A:C6	1:1A:480:A:C6	3.06	0.44
1:1A:749:C:H4'	1:1A:1271:G:N3	2.32	0.44
1:1A:817:C:H4'	1:1A:932:G:C5	2.53	0.44
1:1A:1084:A:H2	1:1A:1085:A:C6	2.35	0.44
1:1A:1153:C:H2'	1:1A:1154:G:C8	2.53	0.44
1:1A:1321:A:C6	1:1A:1322:A:C5	3.06	0.44
1:1A:2114:A:H3'	1:1A:2115:G:H8	1.83	0.44
1:1A:2133:G:C2	1:1A:2157:G:H2'	2.52	0.44
1:1A:2244:U:O2'	1:1A:2245:U:H5'	2.17	0.44
1:1A:2287:A:C5	1:1A:2289:G:C8	3.05	0.44
1:1A:2303:G:O2'	6:1G:132:ASN:HB2	2.18	0.44
1:1A:2572:A:C8	4:1E:144:ARG:HD2	2.52	0.44
1:1A:2740:A:C6	1:1A:2764:A:C8	3.05	0.44
1:1A:2820:A:P	13:1R:2:ARG:NH2	2.91	0.44
3:1D:73:VAL:HG13	3:1D:120:GLY:HA3	2.00	0.44
8:1I:72:LEU:C	8:1I:74:ASN:H	2.26	0.44
13:1R:38:VAL:H	13:1R:38:VAL:HG23	1.57	0.44
24:12:68:ARG:O	24:12:70:GLN:N	2.50	0.44
26:14:68:ARG:HG3	26:14:69:LYS:H	1.81	0.44
32:1a:114:U:O2'	32:1a:115:G:H5'	2.18	0.44
32:1a:116:A:H8	32:1a:116:A:O5'	2.01	0.44
32:1a:251:G:N2	32:1a:253:U:C5	2.86	0.44
32:1a:857:C:N4	32:1a:858:G:C6	2.86	0.44
32:1a:1076:C:C2	32:1a:1082:G:C2	3.06	0.44
32:1a:1152:A:H2'	32:1a:1153:C:C6	2.53	0.44
32:1a:1379:G:C4	32:1a:1380:U:C5	3.04	0.44
32:1a:1518:MA6:H93	32:1a:1519:MA6:H92	2.00	0.44
35:1d:194:LEU:HD22	35:1d:194:LEU:HA	1.74	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1e:143:ARG:HA	36:1e:143:ARG:HD3	1.89	0.44
39:1h:68:ARG:HG3	39:1h:69:ARG:N	2.31	0.44
40:1i:25:LYS:HB3	40:1i:25:LYS:HE3	1.66	0.44
43:1l:8:ASN:O	43:1l:11:VAL:HG23	2.18	0.44
47:1p:60:LEU:HD12	47:1p:60:LEU:HA	1.74	0.44
51:1t:92:LEU:O	51:1t:96:GLY:N	2.51	0.44
1:2A:583:G:OP2	16:2U:10:ARG:HD2	2.17	0.44
1:2A:754:C:H2'	1:2A:755:C:C6	2.52	0.44
1:2A:888:C:H4'	1:2A:889:C:OP1	2.18	0.44
1:2A:1055:G:C2	1:2A:1056:G:H1'	2.52	0.44
1:2A:1055:G:H5"	1:2A:1056:G:OP2	2.18	0.44
1:2A:1076:C:H41	12:2Q:60:ARG:NH1	2.15	0.44
1:2A:1096:A:N6	1:2A:1097:U:C4	2.85	0.44
1:2A:1278:A:OP1	13:2R:36:THR:HG22	2.18	0.44
1:2A:1308:A:H5'	1:2A:1309:G:OP2	2.18	0.44
1:2A:1653:G:C6	13:2R:9:LYS:HB2	2.53	0.44
1:2A:2355:C:H5"	1:2A:2356:C:OP2	2.18	0.44
1:2A:2666:C:H3'	1:2A:2667:C:C6	2.53	0.44
5:2F:6:VAL:CB	5:2F:23:ASP:HB3	2.48	0.44
5:2F:41:LEU:HD21	5:2F:184:TYR:CE1	2.52	0.44
6:2G:52:ILE:H	6:2G:52:ILE:HG13	1.53	0.44
8:2I:101:LEU:HD23	8:2I:101:LEU:O	2.17	0.44
12:2Q:18:LYS:O	12:2Q:98:LYS:HE3	2.18	0.44
23:21:89:GLU:O	23:21:92:LYS:HB2	2.17	0.44
28:26:10:LEU:O	28:26:11:LEU:HD23	2.17	0.44
32:2a:332:G:C2	32:2a:333:G:C8	3.06	0.44
32:2a:406:G:OP1	35:2d:5:ILE:HD11	2.17	0.44
32:2a:630:G:H2'	32:2a:631:G:O4'	2.17	0.44
32:2a:866:C:C4	32:2a:867:G:H1'	2.52	0.44
32:2a:1016:A:H8	32:2a:1016:A:O5'	2.01	0.44
32:2a:1066:C:O2'	32:2a:1067:A:H5'	2.18	0.44
32:2a:1323:G:H2'	32:2a:1324:A:C8	2.52	0.44
32:2a:1355:G:O6	32:2a:1367:C:N3	2.49	0.44
34:2c:120:VAL:CG2	34:2c:137:ALA:HB2	2.45	0.44
34:2c:136:GLN:HA	34:2c:139:GLN:HB3	1.98	0.44
35:2d:31:CYS:O	35:2d:35:ARG:HG3	2.18	0.44
41:2j:64:GLU:OE1	41:2j:66:ARG:NH1	2.50	0.44
47:2p:55:ARG:O	47:2p:58:TYR:N	2.50	0.44
1:1A:143:G:H1'	19:1X:37:THR:CG2	2.46	0.44
1:1A:231:C:C5	1:1A:232:G:C6	3.06	0.44
1:1A:846:C:C2	1:1A:930:U:C4	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1097:U:H2'	1:1A:1098:A:O4'	2.17	0.44
1:1A:1145:C:H2'	1:1A:1146:C:H6	1.83	0.44
1:1A:1432:C:H2'	1:1A:1433:U:O4'	2.17	0.44
1:1A:1811:G:H2'	1:1A:1812:A:O4'	2.17	0.44
1:1A:2846:G:OP2	15:1T:54:ARG:HB2	2.17	0.44
5:1F:125:LEU:HD12	5:1F:125:LEU:HA	1.73	0.44
17:1V:29:PRO:HA	17:1V:61:VAL:HG13	1.98	0.44
18:1W:86:LEU:HD12	18:1W:87:PRO:CD	2.48	0.44
32:1a:509:A:H3'	32:1a:509:A:C8	2.53	0.44
32:1a:562:C:H4'	32:1a:563:A:O5'	2.17	0.44
32:1a:728:A:C6	46:1o:54:ARG:HD2	2.52	0.44
32:1a:991:U:C5	32:1a:1212:U:H1'	2.53	0.44
32:1a:1154:G:C2	32:1a:1155:G:C8	3.06	0.44
32:1a:1269:A:C2	32:1a:1313:U:O4'	2.71	0.44
32:1a:1326:C:H2'	32:1a:1327:C:C6	2.53	0.44
32:1a:1427:U:H2'	32:1a:1428:A:C8	2.53	0.44
33:1b:221:LEU:HD22	33:1b:221:LEU:HA	1.70	0.44
34:1c:183:ASP:N	34:1c:202:ILE:O	2.43	0.44
35:1d:108:LEU:HB3	35:1d:110:PHE:CE1	2.52	0.44
35:1d:173:TRP:CE3	35:1d:174:LEU:HD21	2.52	0.44
37:1f:15:ASP:OD1	37:1f:18:GLN:N	2.32	0.44
39:1h:77:GLU:HG2	39:1h:78:GLN:N	2.33	0.44
42:1k:89:ALA:C	42:1k:91:ARG:H	2.24	0.44
54:1z:25:ALA:O	54:1z:28:GLU:N	2.38	0.44
1:2A:265:A:H8	1:2A:265:A:OP1	2.00	0.44
1:2A:927:G:H2'	1:2A:928:G:O4'	2.17	0.44
1:2A:1141:U:H4'	1:2A:1142(A):A:O4'	2.17	0.44
1:2A:1142:U:H5"	1:2A:1142(A):A:H5'	2.00	0.44
3:2D:145:VAL:HB	3:2D:155:LEU:HB2	1.98	0.44
5:2F:195:ASP:OD1	5:2F:196:LEU:N	2.51	0.44
6:2G:7:LEU:HA	6:2G:10:LYS:HB3	1.98	0.44
8:2I:9:LEU:HD12	8:2I:9:LEU:HA	1.64	0.44
14:2S:67:ARG:HD2	14:2S:71:ARG:NH2	2.32	0.44
16:2U:91:ASP:O	16:2U:95:LEU:HB2	2.17	0.44
16:2U:104:GLN:O	16:2U:107:ALA:HB3	2.18	0.44
21:2Z:8:TYR:HB2	21:2Z:38:TYR:CE2	2.53	0.44
21:2Z:70:LEU:HD23	21:2Z:70:LEU:HA	1.54	0.44
30:28:14:VAL:HG13	30:28:22:VAL:HG13	1.98	0.44
30:28:22:VAL:CG2	30:28:59:LYS:HG3	2.48	0.44
30:28:23:VAL:HG13	30:28:47:LYS:HB3	2.00	0.44
31:29:10:ILE:HD13	31:29:32:HIS:CD2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:12:U:H4'	32:2a:526:C:H4'	1.99	0.44
32:2a:445:G:C4	32:2a:446:G:C8	3.05	0.44
32:2a:509:A:H3'	32:2a:509:A:H8	1.83	0.44
32:2a:664:G:OP1	49:2r:64:ARG:NH2	2.49	0.44
32:2a:1151:A:C5'	41:2j:41:PRO:HA	2.47	0.44
32:2a:1410:G:N2	32:2a:1411:C:C2	2.86	0.44
35:2d:193:ASP:N	35:2d:193:ASP:OD1	2.51	0.44
36:2e:60:TYR:C	36:2e:60:TYR:CD1	2.96	0.44
39:2h:120:THR:HG23	39:2h:123:GLU:HG3	1.98	0.44
54:2z:33:HIS:O	54:2z:56:THR:HA	2.17	0.44
1:1A:706:A:H2'	1:1A:707:G:O4'	2.18	0.44
1:1A:797:C:H2'	1:1A:798:G:O4'	2.18	0.44
1:1A:984:A:C8	1:1A:984:A:H3'	2.53	0.44
1:1A:1581:G:H5"	1:1A:1581:G:C8	2.51	0.44
1:1A:1655:A:H61	1:1A:2005:A:H1'	1.83	0.44
1:1A:1693:U:H1'	3:1D:14:ARG:NH1	2.33	0.44
1:1A:1793:C:O2'	1:1A:1900:A:N1	2.43	0.44
1:1A:1903:G:OP1	3:1D:241:PRO:HB2	2.17	0.44
1:1A:2259:G:C8	1:1A:2427:C:C4	3.05	0.44
1:1A:2359:C:H2'	1:1A:2360:A:O4'	2.18	0.44
1:1A:2625:G:H2'	1:1A:2626:C:H6	1.83	0.44
2:1B:108:U:H2'	2:1B:109:C:H5"	2.00	0.44
3:1D:96:HIS:CD2	3:1D:102:LYS:HG2	2.53	0.44
4:1E:105:THR:HA	4:1E:166:THR:HA	2.00	0.44
5:1F:9:ILE:CG2	5:1F:125:LEU:HD22	2.45	0.44
18:1W:18:ARG:CG	18:1W:76:VAL:HB	2.48	0.44
26:14:59:PHE:CE2	50:1s:64:GLU:HG3	2.53	0.44
29:17:28:ARG:HG3	29:17:28:ARG:NH1	2.32	0.44
31:19:27:CYS:SG	31:19:28:GLU:N	2.91	0.44
32:1a:226:G:N2	32:1a:227:G:H1'	2.33	0.44
32:1a:259:G:H2'	32:1a:260:G:C8	2.53	0.44
32:1a:438:G:H4'	35:1d:123:HIS:CD2	2.53	0.44
32:1a:684:A:C6	32:1a:685:G:C6	3.06	0.44
32:1a:1010:G:C2	32:1a:1020:U:H1'	2.52	0.44
33:1b:81:VAL:HG12	33:1b:215:LEU:HD11	2.00	0.44
37:1f:72:VAL:HG13	37:1f:73:ASN:N	2.32	0.44
40:1i:82:ALA:O	40:1i:86:VAL:HG23	2.18	0.44
40:1i:125:TYR:CG	40:1i:126:SER:N	2.86	0.44
46:1o:6:GLU:O	46:1o:10:LYS:HG3	2.18	0.44
1:2A:118:A:C8	1:2A:119:A:C8	3.06	0.44
1:2A:280:C:C4	1:2A:281:G:C5	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:784:A:O4'	3:2D:227:ASN:ND2	2.50	0.44
1:2A:818:G:C2	1:2A:1190:G:O6	2.71	0.44
1:2A:1034:G:H2'	1:2A:1035:U:O4'	2.17	0.44
1:2A:1153:C:H2'	1:2A:1154:G:C8	2.53	0.44
1:2A:1652:A:N7	1:2A:1653:G:C6	2.86	0.44
1:2A:1693:U:H1'	3:2D:14:ARG:NH1	2.32	0.44
1:2A:1853:A:N1	1:2A:2087:G:H1'	2.33	0.44
1:2A:2016:U:H2'	1:2A:2017:U:H6	1.82	0.44
1:2A:2306:C:H3'	1:2A:2307:G:H2'	2.00	0.44
1:2A:2662:A:H2'	1:2A:2663:G:O4'	2.18	0.44
1:2A:2869:G:H2'	1:2A:2870:C:O4'	2.17	0.44
6:2G:101:ILE:HG22	6:2G:105:LYS:HE2	2.00	0.44
8:2I:92:VAL:HG23	8:2I:96:ASP:CB	2.48	0.44
11:2P:97:PRO:HD3	11:2P:126:VAL:O	2.18	0.44
13:2R:52:ILE:O	13:2R:55:ALA:N	2.51	0.44
26:24:57:GLU:HB2	26:24:58:ARG:CA	2.41	0.44
28:26:12:GLU:HA	28:26:18:ARG:O	2.18	0.44
32:2a:327:A:H1'	32:2a:329:A:O4'	2.18	0.44
32:2a:393:A:C2	32:2a:394:G:C8	3.06	0.44
32:2a:1052:U:O4	32:2a:1200:C:C2	2.71	0.44
34:2c:32:LEU:HD23	34:2c:32:LEU:HA	1.72	0.44
35:2d:79:PHE:CZ	35:2d:204:ILE:HA	2.53	0.44
36:2e:103:GLY:O	36:2e:104:ALA:C	2.61	0.44
46:2o:50:HIS:O	46:2o:53:HIS:HB3	2.17	0.44
49:2r:70:ILE:O	49:2r:73:ALA:HB3	2.18	0.44
50:2s:20:LEU:HD23	50:2s:23:ASN:HD22	1.82	0.44
50:2s:51:VAL:HG22	50:2s:71:LEU:HD13	2.00	0.44
1:1A:724:U:H2'	1:1A:725:G:O4'	2.18	0.44
1:1A:1084:A:C2	1:1A:1085:A:C5	3.06	0.44
1:1A:1360:A:C6	1:1A:1372:U:C4	3.06	0.44
1:1A:1435:G:H2'	1:1A:1436:G:O4'	2.18	0.44
1:1A:1777:U:O2'	1:1A:1778:U:H5'	2.17	0.44
1:1A:2114:A:C2	1:1A:2168:G:O4'	2.71	0.44
1:1A:2516:G:C6	1:1A:2517:C:C4	3.06	0.44
1:1A:2744:G:H2'	1:1A:2744:G:N3	2.32	0.44
1:1A:2882:A:OP1	13:1R:96:ARG:NH1	2.47	0.44
11:1P:83:VAL:CG1	11:1P:112:LEU:HD21	2.48	0.44
12:1Q:17:LEU:HD21	12:1Q:41:TRP:NE1	2.28	0.44
15:1T:81:PRO:HG2	15:1T:82:LEU:HD12	2.00	0.44
25:13:23:LEU:HD13	25:13:23:LEU:HA	1.64	0.44
32:1a:28:G:C6	32:1a:29:G:C5	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:391:G:C6	32:1a:392:G:C5	3.06	0.44
32:1a:411:A:OP2	35:1d:25:ARG:NH2	2.51	0.44
32:1a:1131:G:H8	32:1a:1131:G:O5'	2.01	0.44
33:1b:36:ARG:O	33:1b:38:GLY:N	2.48	0.44
34:1c:85:ARG:C	34:1c:87:LEU:N	2.75	0.44
35:1d:79:PHE:HE1	35:1d:204:ILE:HA	1.82	0.44
39:1h:96:GLY:O	39:1h:99:GLU:HG2	2.17	0.44
41:1j:8:LEU:HB2	41:1j:70:ARG:HB2	2.00	0.44
44:1m:4:ILE:HG22	44:1m:57:ARG:HB2	2.00	0.44
1:2A:271(T):C:C4	1:2A:271(U):G:N7	2.86	0.44
1:2A:874:G:N2	1:2A:904:C:C2	2.85	0.44
1:2A:935:C:H2'	1:2A:936:C:C6	2.53	0.44
1:2A:1257:C:H4'	5:2F:83:PHE:CD1	2.53	0.44
1:2A:1429:G:O2'	1:2A:1430:C:H5'	2.16	0.44
1:2A:1467:C:N3	1:2A:1468:C:C5	2.86	0.44
1:2A:2088:G:C6	1:2A:2089:U:C4	3.06	0.44
1:2A:2223:G:C2'	1:2A:2224:G:H5'	2.47	0.44
2:2B:42:C:O2	6:2G:92:VAL:HA	2.17	0.44
2:2B:59:A:C6	2:2B:60:C:C2	3.06	0.44
7:2H:35:VAL:HG13	7:2H:71:LEU:HD23	1.99	0.44
11:2P:97:PRO:HG3	11:2P:112:LEU:HD12	2.00	0.44
13:2R:37:THR:HA	13:2R:111:LEU:HA	2.00	0.44
15:2T:117:ASP:OD2	15:2T:120:ARG:NE	2.39	0.44
32:2a:277:C:OP1	48:2q:68:ARG:NH2	2.51	0.44
32:2a:300:A:H2'	32:2a:301:G:O4'	2.17	0.44
32:2a:373:A:H2'	32:2a:374:A:H8	1.83	0.44
32:2a:711:G:O2'	32:2a:712:A:H5'	2.18	0.44
32:2a:756:C:H2'	32:2a:757:U:O4'	2.18	0.44
35:2d:101:LEU:HD23	35:2d:121:VAL:HG11	2.00	0.44
35:2d:178:VAL:HG12	35:2d:179:GLU:H	1.82	0.44
43:2l:110:VAL:O	43:2l:122:THR:OG1	2.32	0.44
44:2m:3:ARG:HH21	44:2m:8:GLU:HG3	1.81	0.44
48:2q:7:THR:O	48:2q:23:VAL:HG13	2.18	0.44
1:1A:783:A:N3	1:1A:783:A:H2'	2.33	0.44
1:1A:1493:C:H41	1:1A:2206:G:HO2'	1.64	0.44
1:1A:2033:A:H8	58:1A:4130:HOH:O	1.99	0.44
1:1A:2078:C:C4	1:1A:2079:U:C4	3.06	0.44
1:1A:2129:C:C4	1:1A:2130:U:O4	2.70	0.44
1:1A:2178:C:H2'	1:1A:2179:C:O4'	2.18	0.44
1:1A:2628:C:H1'	1:1A:2781:A:N3	2.33	0.44
1:1A:2892:A:N6	1:1A:2893:G:N1	2.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:8:PRO:HB3	3:1D:14:ARG:HG3	2.00	0.44
6:1G:125:PHE:HE2	6:1G:180:PHE:HE2	1.65	0.44
12:1Q:34:LEU:HD11	12:1Q:129:THR:HB	1.99	0.44
14:1S:89:ARG:O	14:1S:90:GLY:C	2.60	0.44
18:1W:18:ARG:HG3	18:1W:76:VAL:HB	2.00	0.44
20:1Y:99:CYS:SG	20:1Y:100:ALA:N	2.90	0.44
21:1Z:91:LEU:HD13	21:1Z:91:LEU:HA	1.72	0.44
32:1a:255:G:H2'	32:1a:256:U:H6	1.83	0.44
32:1a:343:U:O2	32:1a:347:G:N2	2.51	0.44
32:1a:437:U:O3'	35:1d:125:HIS:HE1	2.01	0.44
32:1a:438:G:O2'	32:1a:493:G:C2	2.71	0.44
32:1a:530:G:H8	32:1a:530:G:H3'	1.83	0.44
32:1a:1326:C:OP1	52:1u:12:LYS:NZ	2.50	0.44
32:1a:1424:C:H42	32:1a:1476:G:H1	1.65	0.44
33:1b:10:LEU:HD13	33:1b:10:LEU:HA	1.55	0.44
35:1d:155:LEU:O	35:1d:159:ARG:HG3	2.18	0.44
37:1f:26:ILE:HG22	37:1f:30:LEU:HD11	2.00	0.44
38:1g:103:TRP:CH2	38:1g:141:VAL:HG21	2.52	0.44
39:1h:83:ILE:HA	39:1h:136:GLU:O	2.18	0.44
1:2A:110:G:C4	1:2A:111:A:C8	3.06	0.44
1:2A:139(A):G:C2'	1:2A:140:G:H5'	2.48	0.44
1:2A:272(A):U:H5	1:2A:272(C):G:OP1	1.99	0.44
1:2A:829:A:N7	1:2A:2248:C:H5'	2.33	0.44
1:2A:1208:C:H2'	1:2A:1209:G:H5'	1.99	0.44
1:2A:1614:A:N1	18:2W:93:ALA:HB2	2.31	0.44
1:2A:1751:C:H2'	1:2A:1752:C:H6	1.83	0.44
1:2A:1833:U:H2'	1:2A:1834:U:H6	1.83	0.44
1:2A:1993:U:H2'	1:2A:1994:C:O4'	2.18	0.44
1:2A:2097:C:O2'	1:2A:2098:U:H5'	2.18	0.44
1:2A:2126:A:N6	1:2A:2172:U:OP2	2.50	0.44
1:2A:2145:C:H2'	1:2A:2147:G:N2	2.33	0.44
1:2A:2432:A:C6	23:21:33:LYS:HB3	2.53	0.44
1:2A:2722:G:H2'	1:2A:2723:C:C6	2.52	0.44
1:2A:2838:G:C2	1:2A:2881:C:C2	3.06	0.44
2:2B:33:G:C2'	2:2B:34:U:H5'	2.48	0.44
3:2D:3:VAL:HG13	3:2D:17:THR:HB	2.00	0.44
4:2E:110:GLY:O	13:2R:3:HIS:CE1	2.70	0.44
7:2H:90:LYS:HD2	7:2H:163:TYR:CD1	2.52	0.44
8:2I:104:GLN:C	8:2I:106:GLY:H	2.26	0.44
11:2P:95:VAL:HG22	11:2P:125:VAL:HG12	1.99	0.44
14:2S:59:LYS:CD	14:2S:60:GLY:H	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:23:LYS:O	21:2Z:25:PRO:HD3	2.17	0.44
23:21:83:GLU:HA	23:21:83:GLU:OE2	2.17	0.44
30:28:29:LYS:HD3	30:28:44:LYS:C	2.43	0.44
32:2a:139:G:C2	32:2a:140:A:C8	3.05	0.44
32:2a:310:G:H4'	47:2p:31:LYS:HD3	2.00	0.44
32:2a:585:G:C6	32:2a:586:C:C4	3.06	0.44
32:2a:610:G:H2'	32:2a:611:A:O4'	2.18	0.44
35:2d:180:GLY:O	35:2d:182:LYS:NZ	2.39	0.44
43:2l:36:VAL:HG22	43:2l:82:VAL:HG22	2.00	0.44
44:2m:3:ARG:CG	44:2m:4:ILE:HG12	2.47	0.44
45:2n:29:ARG:HD3	45:2n:40:CYS:SG	2.58	0.44
48:2q:41:LYS:HZ3	48:2q:92:ARG:HH21	1.64	0.44
50:2s:14:HIS:HE1	50:2s:35:SER:OG	2.00	0.44
51:2t:90:GLN:HA	51:2t:93:GLU:HG3	2.00	0.44
1:1A:301:G:OP2	20:1Y:84:ARG:NH2	2.51	0.43
1:1A:385:C:H2'	1:1A:390:A:H2	1.82	0.43
1:1A:645:C:H5'	1:1A:646:A:P	2.58	0.43
1:1A:1599:C:C5'	19:1X:35:THR:HG22	2.48	0.43
1:1A:2483:C:H2'	1:1A:2484:G:O4'	2.18	0.43
1:1A:2848:G:H3'	15:1T:95:ARG:O	2.18	0.43
6:1G:137:GLU:HG2	6:1G:152:LEU:HD22	2.00	0.43
21:1Z:69:THR:HG22	21:1Z:90:VAL:HA	1.98	0.43
25:13:3:ARG:CD	25:13:60:GLU:HG3	2.46	0.43
32:1a:189(K):U:H2'	32:1a:189(L):G:C8	2.53	0.43
32:1a:534:U:O5'	32:1a:534:U:H6	2.01	0.43
32:1a:575:G:C8	32:1a:881:G:N2	2.86	0.43
32:1a:989:C:N3	32:1a:1216:G:N2	2.53	0.43
33:1b:183:PRO:HA	33:1b:198:ASP:OD2	2.17	0.43
35:1d:166:LYS:N	35:1d:168:ARG:NH2	2.66	0.43
39:1h:4:ASP:OD2	39:1h:85:ARG:NH1	2.50	0.43
40:1i:17:VAL:HG11	40:1i:80:GLY:O	2.18	0.43
43:1l:7:ILE:HD13	43:1l:7:ILE:HA	1.89	0.43
44:1m:3:ARG:HG3	44:1m:4:ILE:H	1.83	0.43
1:2A:16:G:O2'	1:2A:17:G:H5'	2.18	0.43
1:2A:30:G:OP1	16:2U:7:GLY:HA2	2.17	0.43
1:2A:143:G:C1'	19:2X:37:THR:HG21	2.46	0.43
1:2A:309:G:C5	1:2A:330:A:C6	3.06	0.43
1:2A:1208:C:C4	1:2A:1209:G:N7	2.86	0.43
1:2A:2112:G:C4	1:2A:2113:U:H5	2.36	0.43
1:2A:2460:U:H2'	1:2A:2461:C:H6	1.83	0.43
1:2A:2695:C:H2'	1:2A:2696:U:H6	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:2A:5451:HOH:O	11:2P:39:LYS:HB3	2.18	0.43
9:2N:62:VAL:HG22	9:2N:66:LYS:NZ	2.32	0.43
12:2Q:29:PHE:HB2	12:2Q:105:GLU:OE1	2.18	0.43
24:22:44:LEU:HD11	24:22:49:LYS:HD3	2.00	0.43
32:2a:145:G:H1	32:2a:177:C:H42	1.66	0.43
32:2a:232:G:H1'	32:2a:262:A:N1	2.33	0.43
32:2a:346:G:H2'	32:2a:347:G:O4'	2.19	0.43
32:2a:443:C:H2'	32:2a:444:C:C6	2.53	0.43
32:2a:557:G:C6	32:2a:558:G:N1	2.86	0.43
33:2b:74:LYS:NZ	33:2b:205:ASP:O	2.50	0.43
33:2b:223:ILE:HA	33:2b:226:ARG:HB2	1.99	0.43
35:2d:60:GLU:HG3	35:2d:202:LEU:HD12	1.99	0.43
1:1A:245:G:O5'	11:1P:73:GLY:HA2	2.18	0.43
1:1A:1183:G:O3'	25:13:29:ARG:NH1	2.45	0.43
1:1A:1388:G:H4'	1:1A:1525:G:O2'	2.16	0.43
1:1A:1619:G:N3	1:1A:1619:G:H2'	2.32	0.43
1:1A:1804:C:O5'	1:1A:1804:C:H6	2.00	0.43
1:1A:2147:G:C5	1:1A:2148:G:H1'	2.54	0.43
1:1A:2206:G:C8	1:1A:2207:G:N2	2.81	0.43
3:1D:162:SER:HB3	3:1D:195:ALA:CB	2.48	0.43
4:1E:110:GLY:C	58:1R:301:HOH:O	2.60	0.43
24:12:32:LEU:HD12	24:12:53:LEU:HB3	1.99	0.43
32:1a:221:C:H2'	32:1a:222:U:H6	1.83	0.43
32:1a:592:G:C6	32:1a:648:A:C6	3.06	0.43
32:1a:815:A:N7	32:1a:1509:C:O2'	2.43	0.43
32:1a:1171:G:H2'	32:1a:1172:C:C6	2.52	0.43
32:1a:1203:C:H2'	32:1a:1204:A:H8	1.81	0.43
32:1a:1204:A:C5	32:1a:1205:U:C5	3.06	0.43
32:1a:1342:C:H5"	40:1i:125:TYR:CE1	2.52	0.43
35:1d:153:ARG:O	35:1d:181:MET:HE1	2.18	0.43
36:1e:15:ARG:O	36:1e:15:ARG:HG2	2.17	0.43
43:1l:34:ARG:O	43:1l:60:LEU:HD12	2.18	0.43
47:1p:50:LYS:HD3	47:1p:50:LYS:HA	1.81	0.43
53:1y:17:PRO:O	53:1y:19:PHE:N	2.42	0.43
1:2A:373:U:H1'	1:2A:423:A:C2	2.53	0.43
1:2A:432:A:H2'	1:2A:433:C:H6	1.84	0.43
1:2A:442:G:H4'	5:2F:46:ARG:HG3	1.99	0.43
1:2A:566:U:OP1	11:2P:29:LYS:HD2	2.18	0.43
1:2A:644:A:C2	1:2A:2369:A:H1'	2.53	0.43
1:2A:669:G:H2'	1:2A:669:G:N3	2.32	0.43
1:2A:724:U:H2'	1:2A:725:G:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1549:C:H2'	1:2A:1550:C:C6	2.52	0.43
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.53	0.43
1:2A:1971:A:C4	3:2D:241:PRO:HD3	2.52	0.43
4:2E:8:LYS:NZ	4:2E:188:VAL:O	2.44	0.43
14:2S:87:PHE:HB2	14:2S:112:PHE:CE2	2.54	0.43
26:24:62:ARG:HA	26:24:62:ARG:HD3	1.59	0.43
32:2a:1127:G:H2'	32:2a:1128:C:C6	2.53	0.43
32:2a:1427:U:H2'	32:2a:1428:A:H8	1.83	0.43
32:2a:1530:G:OP1	32:2a:1530:G:H4'	2.17	0.43
35:2d:18:LYS:HG2	57:2d:501:SF4:S1	2.58	0.43
35:2d:24:GLU:O	35:2d:26:CYS:N	2.51	0.43
37:2f:63:TYR:HD1	37:2f:63:TYR:N	2.15	0.43
40:2i:6:GLY:HA3	40:2i:83:ARG:CB	2.49	0.43
44:2m:10:PRO:HG2	44:2m:21:TYR:CD1	2.53	0.43
54:2z:3:MET:HG3	54:2z:37:PRO:HG2	1.99	0.43
1:1A:564:C:O2'	1:1A:1253:A:N1	2.51	0.43
1:1A:635:C:H2'	1:1A:636:G:O4'	2.17	0.43
1:1A:854:G:H2'	1:1A:855:G:C8	2.54	0.43
1:1A:1973:G:H2'	1:1A:1974:C:C6	2.53	0.43
1:1A:2191:G:H3'	1:1A:2192:G:H8	1.84	0.43
1:1A:2238:G:H5'	1:1A:2239:G:N7	2.33	0.43
1:1A:2443:C:OP1	5:1F:68:LYS:HD3	2.19	0.43
2:1B:16:G:C6	2:1B:69:G:C2	3.06	0.43
2:1B:50:G:H8	2:1B:50:G:O5'	2.01	0.43
4:1E:38:THR:O	4:1E:42:ASP:N	2.47	0.43
6:1G:49:ASP:O	6:1G:51:ARG:N	2.51	0.43
8:1I:110:ASP:N	8:1I:130:TYR:OH	2.47	0.43
11:1P:2:LYS:HZ1	11:1P:4:SER:HB3	1.82	0.43
13:1R:98:LEU:HD23	13:1R:98:LEU:HA	1.82	0.43
19:1X:72:LYS:HG2	19:1X:73:ARG:O	2.19	0.43
32:1a:39:G:C6	32:1a:40:C:C5	3.06	0.43
32:1a:236:G:C6	32:1a:237:C:C4	3.06	0.43
32:1a:551:U:H2'	32:1a:552:U:C6	2.53	0.43
32:1a:659:U:C2	32:1a:660:G:N7	2.87	0.43
32:1a:1376:U:H2'	32:1a:1377:A:C8	2.52	0.43
36:1e:127:ASN:HA	36:1e:128:PRO:HD3	1.85	0.43
37:1f:19:LEU:HD21	37:1f:59:TYR:CE1	2.54	0.43
37:1f:91:VAL:HG11	49:1r:72:ARG:HH12	1.84	0.43
39:1h:82:HIS:CD2	39:1h:138:TRP:CZ3	3.07	0.43
47:1p:28:ARG:HG2	47:1p:29:ASP:OD1	2.18	0.43
54:1z:52:ALA:HB3	54:1z:77:LEU:HD11	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:280:C:C5	1:2A:281:G:N7	2.87	0.43
1:2A:1517:G:H2'	1:2A:1518:U:O4'	2.17	0.43
1:2A:1547:C:H2'	1:2A:1548:C:C6	2.54	0.43
1:2A:2052:G:O4'	4:2E:142:GLY:HA3	2.18	0.43
1:2A:2274:A:C5	1:2A:2276:G:C8	3.06	0.43
1:2A:2860:A:N7	1:2A:2861:G:H1'	2.33	0.43
4:2E:27:LEU:HD22	15:2T:1:MET:CE	2.47	0.43
6:2G:41:GLN:HE22	6:2G:153:ARG:HG3	1.83	0.43
6:2G:60:LEU:HD12	6:2G:68:PRO:HG3	2.00	0.43
13:2R:70:LEU:C	13:2R:72:ASP:H	2.22	0.43
15:2T:35:LYS:NZ	15:2T:38:ASN:HA	2.33	0.43
16:2U:104:GLN:CD	16:2U:104:GLN:H	2.25	0.43
18:2W:84:ARG:HG3	18:2W:98:LYS:HD2	2.00	0.43
19:2X:44:GLU:OE2	19:2X:51:VAL:N	2.31	0.43
20:2Y:67:LEU:O	20:2Y:68:HIS:C	2.60	0.43
27:25:16:ARG:O	27:25:19:ARG:HB3	2.18	0.43
30:28:50:LEU:HA	30:28:50:LEU:HD23	1.66	0.43
32:2a:179:A:O2'	32:2a:180:U:H5'	2.18	0.43
32:2a:632:A:C8	32:2a:632:A:H5"	2.53	0.43
32:2a:986:A:H1'	50:2s:54:GLY:O	2.17	0.43
32:2a:1017:G:H2'	32:2a:1018:C:C6	2.53	0.43
32:2a:1034:G:H3'	32:2a:1035:A:C8	2.54	0.43
32:2a:1111:A:H2'	32:2a:1112:C:C6	2.53	0.43
32:2a:1170:A:H2'	32:2a:1171:G:O4'	2.19	0.43
32:2a:1426:C:H2'	32:2a:1427:U:H6	1.82	0.43
34:2c:5:ILE:HD11	45:2n:49:HIS:CE1	2.51	0.43
34:2c:149:ALA:HA	34:2c:201:TYR:O	2.18	0.43
35:2d:110:PHE:N	35:2d:110:PHE:CD1	2.85	0.43
35:2d:150:GLU:CG	35:2d:151:LYS:H	2.25	0.43
35:2d:196:LEU:HD12	35:2d:196:LEU:N	2.30	0.43
37:2f:22:GLU:O	37:2f:26:ILE:HG13	2.17	0.43
42:2k:103:LEU:HA	42:2k:103:LEU:HD23	1.71	0.43
43:2l:16:GLU:O	43:2l:18:VAL:HG13	2.18	0.43
44:2m:40:ASN:HA	44:2m:41:PRO:HD2	1.76	0.43
46:2o:9:GLN:HB3	46:2o:13:GLN:HE21	1.83	0.43
52:2u:9:ARG:HH22	52:2u:10:ARG:NH2	2.16	0.43
1:1A:510:C:H5"	1:1A:511:U:OP2	2.19	0.43
1:1A:1478:G:N2	1:1A:1514:U:C2	2.87	0.43
1:1A:1710:C:O2'	1:1A:2858:C:N3	2.49	0.43
1:1A:1987:G:H2'	1:1A:1988:C:H6	1.82	0.43
1:1A:2114:A:H3'	1:1A:2115:G:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2200:C:H2'	1:1A:2201:C:H6	1.83	0.43
1:1A:2536:G:C5	1:1A:2537:U:C5	3.07	0.43
1:1A:2805:G:O2'	1:1A:2807:G:H5'	2.18	0.43
3:1D:134:ARG:HG3	3:1D:135:PHE:CD1	2.54	0.43
6:1G:102:PHE:CE1	6:1G:141:PHE:HE1	2.36	0.43
12:1Q:38:GLU:HG3	12:1Q:127:ILE:HB	1.99	0.43
12:1Q:59:ARG:HG2	12:1Q:59:ARG:NH1	2.34	0.43
16:1U:117:GLN:N	16:1U:117:GLN:OE1	2.51	0.43
23:11:50:ARG:HD2	23:11:57:GLU:OE2	2.18	0.43
27:15:31:VAL:HB	27:15:32:PRO:HD2	2.01	0.43
30:18:34:TRP:CG	30:18:35:GLN:N	2.86	0.43
32:1a:37:U:H2'	32:1a:38:G:O4'	2.18	0.43
32:1a:123:C:OP1	32:1a:311:C:O2'	2.24	0.43
32:1a:149:A:O2'	32:1a:150:C:H5'	2.19	0.43
32:1a:255:G:H2'	32:1a:256:U:C6	2.53	0.43
32:1a:506:G:C5	32:1a:507:C:C4	3.06	0.43
32:1a:1030(C):G:H2'	32:1a:1030(D):A:C8	2.54	0.43
32:1a:1055:A:H2'	34:1c:156:ARG:HD2	2.00	0.43
33:1b:80:ILE:HD13	33:1b:212:GLN:HA	2.00	0.43
34:1c:11:ARG:O	34:1c:14:ILE:N	2.49	0.43
34:1c:186:PHE:CE2	34:1c:188:LEU:HB2	2.53	0.43
35:1d:58:LEU:HD22	35:1d:62:GLN:HG2	1.99	0.43
36:1e:122:GLU:HG2	36:1e:131:ILE:HD12	2.00	0.43
38:1g:57:GLU:H	38:1g:57:GLU:HG2	1.45	0.43
40:1i:69:GLY:O	40:1i:71:SER:N	2.51	0.43
42:1k:86:GLY:H	42:1k:112:THR:HG1	1.61	0.43
48:1q:29:HIS:CG	48:1q:30:PRO:HD2	2.53	0.43
1:2A:630:G:N2	1:2A:632:A:H3'	2.33	0.43
1:2A:693:C:H2'	1:2A:694:U:O4'	2.18	0.43
1:2A:962:G:H2'	1:2A:963:U:O4'	2.18	0.43
1:2A:1059:G:H5"	1:2A:1060:U:OP2	2.18	0.43
1:2A:1515:G:H2'	1:2A:1516:C:H6	1.83	0.43
1:2A:1657:C:H2'	1:2A:1658:C:C6	2.51	0.43
1:2A:2417:C:C2	1:2A:2418:A:C8	3.06	0.43
1:2A:2529:G:O6	31:29:31:LYS:NZ	2.51	0.43
4:2E:98:PRO:HG3	4:2E:175:VAL:HG13	2.01	0.43
4:2E:182:LEU:HD12	4:2E:183:LEU:N	2.33	0.43
5:2F:33:LEU:HD13	5:2F:33:LEU:HA	1.88	0.43
6:2G:125:PHE:HE2	6:2G:180:PHE:HE2	1.67	0.43
16:2U:50:ARG:HG2	16:2U:53:ARG:HH22	1.83	0.43
26:24:62:ARG:C	26:24:64:GLY:HA2	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:198:G:C2	32:2a:199:G:C8	3.05	0.43
32:2a:203:U:H3'	32:2a:203:U:OP2	2.18	0.43
32:2a:255:G:H2'	32:2a:256:U:C6	2.54	0.43
32:2a:373:A:C4	32:2a:374:A:C8	3.06	0.43
32:2a:409:G:H2'	32:2a:410:G:O4'	2.18	0.43
32:2a:457:C:H2'	32:2a:458:C:C6	2.54	0.43
32:2a:509:A:C5	32:2a:510:A:C6	3.06	0.43
32:2a:922:G:C6	32:2a:923:A:C6	3.06	0.43
32:2a:1338:G:C6	32:2a:1339:A:C6	3.06	0.43
33:2b:25:ASN:OD1	33:2b:27:LYS:N	2.48	0.43
33:2b:77:ALA:HA	33:2b:80:ILE:HG23	1.99	0.43
35:2d:89:THR:N	58:2d:603:HOH:O	2.51	0.43
39:2h:11:THR:HG22	39:2h:15:ASN:ND2	2.33	0.43
44:2m:4:ILE:HA	44:2m:5:ALA:HA	1.69	0.43
1:1A:384:U:H2'	1:1A:385:C:C6	2.52	0.43
1:1A:720:C:H2'	1:1A:721:C:H6	1.83	0.43
1:1A:758:C:O2	1:1A:1981:A:H2	2.01	0.43
1:1A:811:U:C2	1:1A:1251:C:C5	3.06	0.43
1:1A:818:G:N1	1:1A:1188:U:OP2	2.38	0.43
1:1A:975(A):G:H1'	1:1A:990:A:C2	2.53	0.43
1:1A:1210:A:H4'	1:1A:1211:U:H5"	2.01	0.43
1:1A:1588:C:H2'	1:1A:1589:C:H6	1.83	0.43
1:1A:2056:G:C2	1:1A:2057:A:C8	3.06	0.43
1:1A:2181:G:C6	1:1A:2182:G:C6	3.06	0.43
1:1A:2557:G:H2'	1:1A:2558:C:C6	2.52	0.43
1:1A:2648:C:H2'	1:1A:2649:U:H6	1.81	0.43
1:1A:2768:C:H2'	1:1A:2769:C:O4'	2.18	0.43
3:1D:206:LEU:HA	3:1D:206:LEU:HD23	1.51	0.43
8:1I:15:VAL:HG22	8:1I:16:GLY:N	2.34	0.43
11:1P:70:GLN:CD	11:1P:70:GLN:N	2.76	0.43
11:1P:101:VAL:O	11:1P:102:ARG:C	2.61	0.43
12:1Q:3:MET:HE2	12:1Q:3:MET:HB3	1.85	0.43
14:1S:62:LYS:HB3	14:1S:97:ARG:HD2	2.01	0.43
23:11:90:ILE:O	23:11:93:GLU:HB2	2.18	0.43
32:1a:292:G:C5	32:1a:293:G:H1'	2.54	0.43
32:1a:667:G:O5'	32:1a:667:G:H8	2.02	0.43
32:1a:724:G:C2	32:1a:725:G:C8	3.05	0.43
32:1a:973:G:H3'	32:1a:974:A:H5"	1.99	0.43
32:1a:1014:A:C2	32:1a:1219:U:H1'	2.54	0.43
33:1b:208:ILE:H	33:1b:208:ILE:HG13	1.61	0.43
36:1e:36:ASP:OD1	36:1e:38:GLN:N	2.37	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:1h:26:VAL:HG23	39:1h:27:PRO:O	2.19	0.43
40:1i:28:VAL:HG11	40:1i:36:TYR:CD2	2.54	0.43
42:1k:125:PHE:C	42:1k:126:ARG:HG3	2.44	0.43
43:1l:88:GLY:O	43:1l:99:HIS:HD2	2.00	0.43
1:2A:271(L):U:OP1	8:2I:50:ARG:NH1	2.52	0.43
1:2A:477:A:C6	1:2A:478:A:C6	3.06	0.43
1:2A:691:C:H2'	1:2A:692:C:H6	1.83	0.43
1:2A:876:C:O5'	1:2A:876:C:H6	2.02	0.43
1:2A:1653:G:H3'	13:2R:2:ARG:HD3	2.01	0.43
1:2A:2111:C:O5'	1:2A:2111:C:H6	2.02	0.43
1:2A:2183:C:H2'	1:2A:2184:G:C8	2.53	0.43
1:2A:2587:A:H8	1:2A:2587:A:O5'	2.02	0.43
3:2D:182:LEU:HB2	3:2D:272:ALA:HB3	2.01	0.43
11:2P:6:LEU:HA	11:2P:6:LEU:HD23	1.55	0.43
14:2S:87:PHE:HB2	14:2S:112:PHE:CD2	2.52	0.43
20:2Y:5:MET:HE2	20:2Y:35:TYR:CD1	2.54	0.43
21:2Z:112:ARG:NH1	21:2Z:112:ARG:HG2	2.33	0.43
24:22:38:GLN:O	24:22:41:ILE:HG12	2.18	0.43
32:2a:105:G:C6	32:2a:106:C:C4	3.06	0.43
32:2a:152:A:N6	32:2a:170:U:C2	2.87	0.43
32:2a:193:C:H2'	32:2a:194:C:C6	2.54	0.43
32:2a:451:A:N6	32:2a:480:U:H2'	2.32	0.43
32:2a:504:C:C2	32:2a:542:G:C2	3.06	0.43
32:2a:619:U:H6	32:2a:619:U:O5'	2.00	0.43
32:2a:811:C:N4	58:2a:1926:HOH:O	2.51	0.43
32:2a:1194:U:H2'	32:2a:1195:C:C6	2.52	0.43
33:2b:87:ARG:NH1	33:2b:233:SER:OG	2.52	0.43
35:2d:166:LYS:N	35:2d:168:ARG:NH2	2.66	0.43
36:2e:143:ARG:NH1	39:2h:77:GLU:OE1	2.51	0.43
37:2f:45:LEU:HD12	37:2f:59:TYR:CD2	2.54	0.43
42:2k:84:VAL:HG21	42:2k:95:ILE:HD11	1.99	0.43
1:1A:18:C:O3'	16:1U:23:GLY:HA2	2.17	0.43
1:1A:2025:C:H2'	1:1A:2026:C:C6	2.53	0.43
4:1E:7:VAL:HG12	4:1E:51:PHE:HE2	1.84	0.43
4:1E:11:MET:HE2	4:1E:11:MET:HB3	1.85	0.43
5:1F:78:ILE:H	5:1F:78:ILE:HG13	1.65	0.43
6:1G:28:VAL:O	6:1G:31:VAL:HG13	2.18	0.43
6:1G:33:ARG:O	6:1G:162:THR:HG23	2.18	0.43
13:1R:76:VAL:O	13:1R:79:LEU:HB3	2.19	0.43
18:1W:25:ARG:NH2	18:1W:74:ALA:O	2.50	0.43
26:14:28:LYS:HA	26:14:29:PRO:HD3	1.79	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:59:PHE:CE1	50:1s:64:GLU:HG3	2.53	0.43
29:17:16:HIS:CB	29:17:44:PRO:HG2	2.47	0.43
32:1a:64:G:N2	32:1a:67:C:C4	2.86	0.43
32:1a:191:G:C5	32:1a:192:U:C5	3.07	0.43
32:1a:568:G:H2'	32:1a:568:G:N3	2.33	0.43
34:1c:125:GLU:HG2	34:1c:190:ARG:O	2.19	0.43
35:1d:79:PHE:CE1	35:1d:204:ILE:HA	2.53	0.43
37:1f:82:ARG:C	37:1f:84:ASN:H	2.27	0.43
40:1i:50:LEU:HD12	40:1i:51:ARG:N	2.33	0.43
43:1l:25:PRO:HD2	43:1l:98:TYR:OH	2.18	0.43
44:1m:4:ILE:HA	44:1m:5:ALA:HA	1.70	0.43
47:1p:50:LYS:HD2	47:1p:51:VAL:H	1.84	0.43
54:1z:61:LEU:HB3	54:1z:81:LEU:HD22	2.01	0.43
1:2A:30:G:C6	1:2A:31:C:C4	3.06	0.43
1:2A:94:C:H2'	1:2A:94(A):G:O4'	2.19	0.43
1:2A:299:A:H5"	20:2Y:86:ARG:HH21	1.83	0.43
1:2A:341:G:C6	1:2A:342:G:C5	3.06	0.43
1:2A:686:G:N7	29:27:5:TRP:CH2	2.87	0.43
1:2A:811:U:P	11:2P:22:GLY:H	2.41	0.43
1:2A:868:U:C4	1:2A:869:G:N7	2.87	0.43
1:2A:1583:A:OP1	1:2A:1584:C:H5	2.02	0.43
1:2A:1638:C:H4'	1:2A:2710:C:O2	2.19	0.43
1:2A:1652:A:N7	13:2R:11:ASN:ND2	2.65	0.43
1:2A:1677:A:H8	1:2A:1677:A:O5'	2.01	0.43
1:2A:1702:G:H2'	1:2A:1703:G:O4'	2.18	0.43
1:2A:2049:G:N2	1:2A:2620:C:C2	2.86	0.43
2:2B:55:U:O3'	6:2G:27:ASN:ND2	2.51	0.43
4:2E:47:VAL:O	4:2E:80:GLU:HA	2.18	0.43
6:2G:173:LEU:C	6:2G:178:PHE:HB2	2.43	0.43
6:2G:178:PHE:HB3	6:2G:180:PHE:CE1	2.52	0.43
7:2H:24:VAL:HG21	7:2H:72:ILE:HG23	1.99	0.43
8:2I:69:LYS:HG3	8:2I:138:ILE:HG12	2.00	0.43
9:2N:94:HIS:CD2	9:2N:97:ARG:NH1	2.87	0.43
13:2R:52:ILE:O	13:2R:54:LEU:N	2.51	0.43
14:2S:110:LEU:HD12	14:2S:110:LEU:HA	1.81	0.43
17:2V:31:ALA:O	17:2V:61:VAL:HG12	2.18	0.43
21:2Z:152:ALA:O	21:2Z:155:LEU:HB2	2.18	0.43
32:2a:633:G:C6	32:2a:634:C:N4	2.86	0.43
32:2a:649:G:C6	32:2a:650:G:N7	2.87	0.43
32:2a:683:G:C6	32:2a:684:A:C5	3.07	0.43
32:2a:1320:C:C2	50:2s:72:GLY:HA3	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1330:U:H4'	44:2m:23:TYR:CE1	2.53	0.43
32:2a:1415:G:C2	32:2a:1486:G:C4	3.06	0.43
33:2b:21:ARG:H	33:2b:21:ARG:HG2	1.28	0.43
33:2b:35:GLU:HA	33:2b:39:ILE:O	2.18	0.43
34:2c:124:ILE:HD12	34:2c:196:LEU:HD12	1.99	0.43
36:2e:144:THR:N	36:2e:147:ASP:HB2	2.21	0.43
38:2g:43:PHE:O	38:2g:46:ALA:HB3	2.18	0.43
44:2m:27:LYS:O	44:2m:30:ALA:HB3	2.18	0.43
47:2p:5:ARG:HH12	47:2p:28:ARG:HA	1.83	0.43
1:1A:7:G:H2'	1:1A:8:A:O4'	2.19	0.43
1:1A:132:G:H2'	1:1A:133:C:C6	2.53	0.43
1:1A:280:C:H5'	1:1A:281:G:OP2	2.19	0.43
1:1A:1000:A:H2'	1:1A:1001:A:C8	2.53	0.43
1:1A:2055:C:H5'	1:1A:2056:G:O5'	2.18	0.43
1:1A:2248:C:H2'	1:1A:2249:U:O4'	2.17	0.43
1:1A:2572:A:H62	4:1E:145:LYS:HD2	1.83	0.43
1:1A:2579:C:H2'	1:1A:2580:U:O4'	2.19	0.43
2:1B:33:G:O2'	2:1B:34:U:H5'	2.19	0.43
2:1B:91:C:O2'	2:1B:92:C:H5'	2.19	0.43
5:1F:33:LEU:HA	5:1F:33:LEU:HD12	1.70	0.43
6:1G:33:ARG:HB2	6:1G:162:THR:CG2	2.48	0.43
13:1R:10:LEU:HA	13:1R:10:LEU:HD23	1.85	0.43
17:1V:21:ARG:HG2	17:1V:91:TYR:CE2	2.54	0.43
32:1a:165:C:H2'	32:1a:166:G:H8	1.83	0.43
32:1a:186:C:H2'	32:1a:187:C:C5	2.54	0.43
32:1a:189(J):G:H2'	32:1a:189(K):U:O4'	2.19	0.43
32:1a:670:G:C6	32:1a:671:G:C5	3.06	0.43
32:1a:894:G:C6	32:1a:895:G:C5	3.07	0.43
32:1a:1152:A:O3'	41:1j:13:HIS:CE1	2.72	0.43
32:1a:1227:A:C8	50:1s:83:HIS:HB3	2.53	0.43
35:1d:59:ARG:H	35:1d:59:ARG:HG2	1.61	0.43
40:1i:58:HIS:CD2	40:1i:58:HIS:N	2.86	0.43
41:1j:30:SER:O	41:1j:81:THR:HG23	2.17	0.43
41:1j:51:ARG:HG3	41:1j:60:ARG:C	2.44	0.43
44:1m:4:ILE:CG2	44:1m:57:ARG:HB2	2.48	0.43
54:1z:37:PRO:HA	54:1z:54:ILE:HG12	2.01	0.43
54:1z:60:VAL:HG23	54:1z:62:VAL:HG23	2.00	0.43
1:2A:16:G:H2'	1:2A:17:G:H8	1.84	0.43
1:2A:551:G:O2'	1:2A:1220:A:N3	2.40	0.43
1:2A:836:G:C5	1:2A:837:C:C4	3.06	0.43
1:2A:1014:U:H2'	1:2A:1015:G:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1062:G:H1	1:2A:1077:A:H2	1.59	0.43
1:2A:1071:G:H1'	1:2A:1089:G:H2'	2.00	0.43
1:2A:1378:A:OP1	29:27:10:ARG:NH2	2.51	0.43
1:2A:1467:C:OP2	1:2A:1547:C:N4	2.50	0.43
1:2A:1654:A:C1'	1:2A:2823:A:H5'	2.49	0.43
1:2A:1751:C:C2	1:2A:1752:C:C5	3.07	0.43
1:2A:1759:A:H5'	58:2A:4655:HOH:O	2.18	0.43
1:2A:1952:A:C6	1:2A:1953:A:N1	2.86	0.43
1:2A:2020:A:P	16:2U:27:LEU:HD23	2.58	0.43
1:2A:2043:C:H2'	1:2A:2044:C:C6	2.54	0.43
1:2A:2114:A:O2'	1:2A:2168:G:H5'	2.18	0.43
1:2A:2126:A:H4'	1:2A:2127:G:H4'	1.99	0.43
1:2A:2420:C:H5'	28:26:54:ILE:HD11	2.01	0.43
1:2A:2468:G:C8	1:2A:2476:A:H2	2.34	0.43
5:2F:95:ARG:NH1	5:2F:97:TYR:CZ	2.87	0.43
7:2H:32:GLU:O	7:2H:136:ILE:HD11	2.18	0.43
12:2Q:7:MET:HE2	12:2Q:7:MET:H	1.83	0.43
14:2S:14:VAL:HG21	14:2S:90:GLY:O	2.18	0.43
19:2X:29:TRP:CZ3	19:2X:78:LYS:HB3	2.53	0.43
22:20:38:VAL:HG12	22:20:40:GLN:HG2	2.00	0.43
25:23:48:GLU:HA	25:23:51:ALA:HB2	2.01	0.43
30:28:6:THR:HG22	30:28:8:LYS:HE2	1.99	0.43
30:28:34:TRP:CG	30:28:35:GLN:N	2.87	0.43
31:29:27:CYS:SG	31:29:28:GLU:N	2.91	0.43
32:2a:438:G:H4'	35:2d:123:HIS:CD2	2.54	0.43
32:2a:709:G:H2'	32:2a:710:G:H8	1.83	0.43
32:2a:750:G:O2'	46:2o:22:THR:O	2.29	0.43
32:2a:1001(A):G:O6	32:2a:1039:C:N3	2.52	0.43
32:2a:1004:A:H8	32:2a:1005:A:C8	2.36	0.43
32:2a:1368:G:H5"	40:2i:112:LYS:HG2	2.01	0.43
32:2a:1435:G:H2'	32:2a:1436:U:H6	1.78	0.43
33:2b:10:LEU:HA	33:2b:10:LEU:HD13	1.68	0.43
34:2c:120:VAL:O	34:2c:124:ILE:HG23	2.19	0.43
35:2d:200:GLU:O	35:2d:204:ILE:HG12	2.18	0.43
36:2e:35:GLY:HA3	36:2e:112:LEU:HB3	2.01	0.43
38:2g:143:ARG:HG3	38:2g:144:MET:N	2.33	0.43
43:2l:83:VAL:CG1	43:2l:100:ILE:HG23	2.47	0.43
50:2s:20:LEU:HD23	50:2s:23:ASN:ND2	2.34	0.43
50:2s:36:ARG:NH1	50:2s:75:ALA:HB3	2.32	0.43
1:1A:734:A:C5	1:1A:735:A:C8	3.07	0.43
1:1A:817:C:O2'	1:1A:839:U:H5"	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:839:U:H1'	1:1A:1191:G:H1'	2.00	0.43
1:1A:981:A:N1	1:1A:2027:G:O2'	2.48	0.43
1:1A:1138:G:C2	9:1N:106:MET:HE2	2.53	0.43
1:1A:1321:A:H2'	1:1A:1322:A:O4'	2.18	0.43
1:1A:1451:C:N4	1:1A:1459:G:H1	2.17	0.43
1:1A:1599:C:H5'	19:1X:35:THR:HG22	2.00	0.43
1:1A:1948:G:H1'	32:1a:1483:A:H1'	2.00	0.43
1:1A:2075:U:C4	1:1A:2238:G:C6	3.05	0.43
6:1G:101:ILE:HG22	6:1G:105:LYS:HE2	2.01	0.43
6:1G:115:ARG:HG2	6:1G:136:ARG:HH22	1.83	0.43
11:1P:135:LEU:HD23	11:1P:135:LEU:HA	1.45	0.43
18:1W:29:LEU:O	18:1W:33:ARG:HG3	2.19	0.43
21:1Z:10:ARG:HB2	21:1Z:13:GLU:OE1	2.19	0.43
27:15:16:ARG:NH1	27:15:17:ASP:OD1	2.50	0.43
32:1a:160:A:H2'	32:1a:161:A:O4'	2.19	0.43
32:1a:370:C:H2'	32:1a:371:G:C8	2.54	0.43
32:1a:413:G:H21	32:1a:428:G:H1'	1.81	0.43
32:1a:502:G:C6	32:1a:503:C:N3	2.87	0.43
32:1a:574:A:N3	32:1a:883:C:H1'	2.33	0.43
32:1a:760:G:O2'	48:1q:98:LEU:HD12	2.18	0.43
32:1a:1054:C:N3	32:1a:1196:U:C5	2.86	0.43
32:1a:1296:C:H4'	32:1a:1302:U:C5	2.54	0.43
32:1a:1347:G:H5"	40:1i:107:ARG:HB3	2.00	0.43
37:1f:26:ILE:HG22	37:1f:30:LEU:CD1	2.48	0.43
37:1f:81:ILE:HG23	37:1f:82:ARG:HG2	2.01	0.43
39:1h:91:ARG:NE	48:1q:33:GLY:HA3	2.34	0.43
40:1i:19:LEU:HD23	40:1i:59:PHE:HB3	2.01	0.43
44:1m:57:ARG:O	44:1m:61:GLU:HG3	2.19	0.43
48:1q:84:LEU:O	48:1q:87:LYS:N	2.50	0.43
54:1z:58:ASN:OD1	54:1z:58:ASN:N	2.51	0.43
1:2A:238:C:H1'	1:2A:609:A:H1'	2.00	0.43
1:2A:483:A:H5'	20:2Y:50:ARG:NH1	2.34	0.43
1:2A:506:G:H5"	1:2A:509:C:H1'	2.00	0.43
1:2A:669:G:H3'	1:2A:670:A:C8	2.54	0.43
1:2A:692:C:C2	1:2A:771:G:N2	2.87	0.43
1:2A:747:U:O2	1:2A:2014:A:H1'	2.18	0.43
1:2A:851:U:C2	1:2A:927:G:C2	3.06	0.43
1:2A:895:U:O3'	1:2A:896:A:H3'	2.19	0.43
1:2A:1091:G:H2'	1:2A:1092:C:H6	1.83	0.43
1:2A:1839:G:C8	1:2A:1927:A:H1'	2.53	0.43
1:2A:2692:C:H2'	1:2A:2693:A:O4'	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:23:ARG:HG2	7:2H:23:ARG:HH11	1.83	0.43
7:2H:92:ILE:H	7:2H:92:ILE:CD1	2.25	0.43
12:2Q:114:ALA:O	12:2Q:118:LEU:HB2	2.19	0.43
15:2T:116:ALA:O	15:2T:118:ARG:N	2.52	0.43
20:2Y:9:LYS:HA	20:2Y:10:GLY:HA2	1.64	0.43
32:2a:167:G:H2'	32:2a:168:G:C8	2.54	0.43
32:2a:424:G:H2'	32:2a:425:G:H8	1.84	0.43
32:2a:490:G:C6	32:2a:491:G:C5	3.07	0.43
32:2a:827:U:O2'	32:2a:859:A:N1	2.47	0.43
32:2a:926:G:H5"	32:2a:927:G:O5'	2.19	0.43
32:2a:1287:A:H2'	32:2a:1288:A:C8	2.53	0.43
32:2a:1299:A:H5"	32:2a:1299:A:N3	2.34	0.43
32:2a:1318:A:H5"	50:2s:3:ARG:NH1	2.34	0.43
33:2b:115:LEU:HD12	33:2b:142:LEU:HD12	2.00	0.43
33:2b:122:PHE:HD1	33:2b:122:PHE:HA	1.78	0.43
34:2c:97:LYS:HE2	34:2c:97:LYS:HB3	1.86	0.43
40:2i:26:VAL:HG22	40:2i:61:ALA:HB3	2.01	0.43
40:2i:58:HIS:HB2	40:2i:59:PHE:CD2	2.54	0.43
50:2s:32:LYS:HA	50:2s:50:ALA:HB3	1.99	0.43
54:2z:52:ALA:HB3	54:2z:77:LEU:HD11	2.01	0.43
1:1A:241:A:H8	1:1A:241:A:OP1	2.01	0.43
1:1A:1083:U:H2'	1:1A:1084:A:H3'	2.01	0.43
1:1A:1339:G:H5"	19:1X:16:LYS:HD2	2.01	0.43
1:1A:1413:G:N2	1:1A:1590:U:C2	2.86	0.43
1:1A:1486:A:H2'	1:1A:1487:G:C8	2.53	0.43
1:1A:1688:U:H1'	1:1A:1701:A:C6	2.53	0.43
1:1A:1816:G:H8	3:1D:62:TYR:CZ	2.37	0.43
1:1A:1891:G:C6	1:1A:1892:C:C4	3.07	0.43
1:1A:2134:A:H2'	1:1A:2134:A:N3	2.34	0.43
3:1D:70:TRP:HB3	3:1D:190:TYR:CE1	2.54	0.43
3:1D:168:ARG:HA	3:1D:173:VAL:HA	2.01	0.43
3:1D:242:ARG:O	3:1D:244:ARG:HG2	2.19	0.43
6:1G:22:ARG:NH2	6:1G:175:LEU:HD11	2.33	0.43
6:1G:53:LEU:C	6:1G:55:LYS:N	2.76	0.43
7:1H:7:LEU:HD23	7:1H:69:ARG:CZ	2.48	0.43
13:1R:44:LEU:HD22	13:1R:48:VAL:HG23	2.00	0.43
14:1S:59:LYS:HZ2	14:1S:59:LYS:HG2	1.64	0.43
14:1S:59:LYS:CD	14:1S:60:GLY:H	2.31	0.43
15:1T:127:ALA:C	15:1T:129:ARG:H	2.27	0.43
17:1V:96:ILE:HD13	17:1V:96:ILE:HA	1.78	0.43
21:1Z:145:GLU:O	21:1Z:148:ASP:N	2.46	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:16:12:GLU:HB2	28:16:52:VAL:HG11	2.00	0.43
32:1a:66:G:O4'	32:1a:173:U:C4	2.72	0.43
32:1a:409:G:H2'	32:1a:410:G:O4'	2.19	0.43
32:1a:432:A:H3'	32:1a:433:C:C6	2.54	0.43
32:1a:437:U:O3'	35:1d:125:HIS:CE1	2.71	0.43
32:1a:690:G:H2'	32:1a:691:G:O4'	2.19	0.43
32:1a:932:C:H5"	38:1g:4:ARG:CZ	2.49	0.43
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.34	0.43
32:1a:1316:G:N1	32:1a:1319:A:OP2	2.51	0.43
32:1a:1408:A:N1	32:1a:1492:A:H2	2.17	0.43
33:1b:77:ALA:HB1	33:1b:165:VAL:HG21	2.00	0.43
34:1c:59:ARG:HG2	34:1c:64:VAL:HB	2.00	0.43
37:1f:65:VAL:HG21	37:1f:67:MET:HE2	2.01	0.43
38:1g:20:ASP:OD2	38:1g:63:LYS:NZ	2.37	0.43
44:1m:37:THR:O	44:1m:55:ARG:HD2	2.18	0.43
47:1p:53:VAL:HG22	47:1p:79:VAL:HG12	2.01	0.43
51:1t:100:ILE:HG22	51:1t:101:GLY:H	1.83	0.43
1:2A:340:A:O2'	5:2F:168:ARG:NH2	2.52	0.43
1:2A:482:A:P	20:2Y:50:ARG:HH22	2.41	0.43
1:2A:828:U:H4'	1:2A:831:G:N1	2.34	0.43
1:2A:843:G:N2	1:2A:936:C:C2	2.87	0.43
1:2A:1045:A:H1'	1:2A:1047:G:C2	2.54	0.43
1:2A:1053:C:H2'	1:2A:1054:A:O4'	2.19	0.43
1:2A:1171:G:OP2	1:2A:1171:G:H8	2.01	0.43
1:2A:1392:A:N6	1:2A:1393:A:N6	2.67	0.43
1:2A:1684:C:H2'	1:2A:1685:C:C6	2.53	0.43
1:2A:1721:G:H5'	1:2A:1722:A:OP2	2.19	0.43
1:2A:2104:G:C2	1:2A:2186:G:H1'	2.54	0.43
1:2A:2109:U:H1'	1:2A:2181:G:N2	2.34	0.43
1:2A:2584:U:O2	1:2A:2584:U:H2'	2.19	0.43
1:2A:2597:G:H2'	1:2A:2598:A:C8	2.53	0.43
1:2A:2826:A:C5	1:2A:2827:C:C5	3.07	0.43
5:2F:161:GLU:O	5:2F:165:ARG:HG3	2.18	0.43
6:2G:123:ASN:C	6:2G:125:PHE:H	2.27	0.43
7:2H:13:LYS:HA	7:2H:14:GLY:HA2	1.60	0.43
7:2H:24:VAL:HG11	7:2H:43:VAL:HG11	2.00	0.43
18:2W:65:LEU:HD12	18:2W:68:ARG:CD	2.49	0.43
24:22:1:MET:HB2	24:22:52:ASP:OD2	2.18	0.43
26:24:69:LYS:HB2	26:24:69:LYS:HE3	1.80	0.43
27:25:20:ARG:HG2	27:25:23:HIS:ND1	2.34	0.43
29:27:1:MET:HE3	29:27:1:MET:N	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:138:G:H2'	32:2a:139:G:O4'	2.19	0.43
32:2a:382:A:H2'	32:2a:383:A:H8	1.84	0.43
32:2a:690:G:C6	32:2a:691:G:N1	2.87	0.43
32:2a:789:U:O2	32:2a:791:G:C8	2.72	0.43
32:2a:1137:C:H4'	32:2a:1138:G:C2	2.54	0.43
34:2c:6:HIS:CD2	34:2c:8:ILE:H	2.37	0.43
34:2c:164:ARG:NH1	34:2c:166:GLU:OE2	2.52	0.43
36:2e:123:LEU:HD23	36:2e:123:LEU:HA	1.81	0.43
36:2e:151:LEU:HA	36:2e:151:LEU:HD23	1.76	0.43
39:2h:25:ASP:OD1	39:2h:60:ARG:HG3	2.19	0.43
47:2p:19:ILE:HG23	47:2p:37:GLY:C	2.44	0.43
1:1A:143:G:H2'	1:1A:143(A):C:H6	1.79	0.43
1:1A:787:U:H5"	1:1A:788:A:H5'	2.01	0.43
1:1A:1197:G:O2'	1:1A:1198:U:H5'	2.19	0.43
1:1A:2228:G:H2'	1:1A:2229:C:O4'	2.19	0.43
3:1D:96:HIS:HD2	3:1D:102:LYS:HG2	1.84	0.43
6:1G:16:ARG:HH11	6:1G:31:VAL:HG22	1.84	0.43
9:1N:62:VAL:HG13	9:1N:66:LYS:HB2	2.01	0.43
11:1P:84:ASN:HB3	11:1P:117:GLU:O	2.19	0.43
12:1Q:42:ILE:HG13	12:1Q:97:VAL:HG21	2.00	0.43
16:1U:49:HIS:HA	16:1U:52:ARG:HG2	2.01	0.43
20:1Y:38:ILE:HD13	20:1Y:66:PRO:HA	2.00	0.43
21:1Z:30:ASN:O	21:1Z:31:ARG:C	2.62	0.43
21:1Z:39:VAL:HG21	21:1Z:44:PHE:HB2	2.00	0.43
21:1Z:115:GLY:HA3	21:1Z:146:ILE:HD11	2.01	0.43
21:1Z:150:LEU:HB3	21:1Z:171:ILE:HD11	2.00	0.43
23:11:83:GLU:HA	23:11:83:GLU:OE2	2.19	0.43
26:14:49:PHE:HE1	44:1m:62:ASN:OD1	2.01	0.43
32:1a:57:G:H2'	32:1a:58:C:C6	2.54	0.43
32:1a:160:A:N6	32:1a:346:G:C5	2.87	0.43
32:1a:1016:A:H2'	32:1a:1017:G:O4'	2.19	0.43
32:1a:1118:C:O5'	32:1a:1118:C:H6	2.02	0.43
32:1a:1367:C:H5'	41:1j:60:ARG:HH12	1.84	0.43
33:1b:16:HIS:C	33:1b:16:HIS:ND1	2.76	0.43
33:1b:112:VAL:HG12	33:1b:149:LEU:HD13	2.01	0.43
34:1c:180:ALA:HA	34:1c:206:GLU:HB3	2.00	0.43
38:1g:137:LYS:O	38:1g:141:VAL:HG23	2.19	0.43
39:1h:51:VAL:HG11	39:1h:60:ARG:HH12	1.83	0.43
40:1i:49:PRO:HG2	40:1i:78:LYS:O	2.19	0.43
42:1k:86:GLY:O	42:1k:88:GLY:N	2.51	0.43
44:1m:19:LEU:HD21	44:1m:56:LEU:CD1	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:1z:78:ILE:HD13	54:1z:78:ILE:HA	1.85	0.43
1:2A:125:G:H4'	1:2A:126:A:OP2	2.19	0.43
1:2A:363:G:C2	1:2A:363(A):A:C5	3.07	0.43
1:2A:977:G:H2'	1:2A:978:G:O4'	2.19	0.43
1:2A:1153:C:N4	1:2A:1154:G:C6	2.87	0.43
1:2A:1340:U:H4'	1:2A:1341:U:OP2	2.18	0.43
1:2A:2871:C:N4	58:2A:4088:HOH:O	2.50	0.43
2:2B:57:A:H4'	6:2G:30:GLU:HG2	2.01	0.43
5:2F:140:LEU:CD1	5:2F:170:LEU:HD21	2.48	0.43
6:2G:59:GLU:OE2	6:2G:138:GLN:HG3	2.19	0.43
7:2H:148:ILE:HA	7:2H:151:ILE:CD1	2.49	0.43
8:2I:46:ALA:O	8:2I:50:ARG:HG2	2.18	0.43
11:2P:88:LEU:HD23	11:2P:88:LEU:HA	1.79	0.43
14:2S:36:TYR:HD2	14:2S:52:SER:HB3	1.84	0.43
24:22:63:VAL:O	24:22:67:LYS:HG2	2.19	0.43
27:25:16:ARG:HH11	27:25:17:ASP:CG	2.26	0.43
30:28:60:LEU:HD23	30:28:60:LEU:HA	1.62	0.43
32:2a:719:C:O2'	49:2r:50:ILE:O	2.22	0.43
32:2a:1190:G:O2'	34:2c:3:ASN:HB2	2.18	0.43
34:2c:97:LYS:O	34:2c:99:VAL:N	2.51	0.43
39:2h:37:ARG:NH2	39:2h:38:ILE:HD11	2.34	0.43
45:2n:23:ARG:NH1	45:2n:30:ALA:HB2	2.34	0.43
46:2o:39:LEU:HD13	46:2o:56:LEU:HB2	2.01	0.43
48:2q:29:HIS:ND1	48:2q:32:TYR:HB2	2.34	0.43
1:1A:443:A:H1'	1:1A:1201:C:O4'	2.19	0.42
1:1A:1105:U:O2'	1:1A:1106:G:H5'	2.19	0.42
1:1A:2028:U:O4	1:1A:2033:A:C8	2.73	0.42
1:1A:2328:A:H2'	1:1A:2329:G:C8	2.54	0.42
1:1A:2473:U:C6	1:1A:2474:C:H5	2.36	0.42
1:1A:2562:U:H1'	10:1O:23:ARG:HE	1.84	0.42
4:1E:109:LYS:O	4:1E:111:ARG:NH1	2.52	0.42
6:1G:126:ASP:OD2	6:1G:130:ASN:HB2	2.19	0.42
7:1H:40:GLU:CD	7:1H:60:ARG:NH1	2.77	0.42
13:1R:22:ARG:O	13:1R:25:ALA:N	2.52	0.42
32:1a:518:C:H5"	32:1a:519:C:C5	2.54	0.42
32:1a:721:G:N1	32:1a:733:A:C2	2.87	0.42
32:1a:826:C:H5'	39:1h:12:ARG:CZ	2.49	0.42
32:1a:1381:U:O2'	32:1a:1382:C:H5'	2.19	0.42
44:1m:3:ARG:CG	44:1m:4:ILE:N	2.82	0.42
1:2A:271(M):G:N2	8:2I:50:ARG:HH21	2.17	0.42
1:2A:332:A:O2'	1:2A:334:C:OP2	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:342:G:O2'	1:2A:343:C:H5'	2.19	0.42
1:2A:494:G:H2'	1:2A:495:G:H8	1.84	0.42
1:2A:757:U:H2'	1:2A:758:C:O4'	2.19	0.42
1:2A:873:G:H2'	1:2A:874:G:O4'	2.18	0.42
1:2A:956:G:OP1	12:2Q:87:LYS:HG3	2.19	0.42
1:2A:997:G:O2'	1:2A:998:C:H5'	2.19	0.42
1:2A:1005:C:C2	1:2A:1006:C:C5	3.07	0.42
1:2A:1263:U:H1'	27:25:10:LYS:HG3	2.00	0.42
1:2A:1695:G:C8	3:2D:8:PRO:HG2	2.54	0.42
1:2A:1773:A:N7	1:2A:1829:A:H1'	2.33	0.42
1:2A:1857:G:C6	1:2A:1858:G:C6	3.07	0.42
3:2D:119:ALA:CB	3:2D:130:ALA:HB3	2.49	0.42
8:2I:38:LEU:HB2	8:2I:40:THR:CG2	2.48	0.42
9:2N:39:ARG:HA	9:2N:40:PRO:HD3	1.82	0.42
12:2Q:134:ARG:NH2	21:2Z:122:ARG:HD3	2.34	0.42
14:2S:105:ALA:O	14:2S:110:LEU:HB2	2.19	0.42
16:2U:47:TYR:CE2	17:2V:74:LYS:HE3	2.54	0.42
22:20:43:THR:HG23	22:20:43:THR:O	2.19	0.42
30:28:43:GLN:C	30:28:45:GLY:H	2.27	0.42
32:2a:149:A:H2'	32:2a:150:C:C6	2.54	0.42
32:2a:309:G:O2'	32:2a:607:A:N1	2.51	0.42
32:2a:500:G:N2	32:2a:546:G:H1'	2.33	0.42
32:2a:690:G:N1	32:2a:691:G:C2	2.87	0.42
32:2a:692:U:H1'	32:2a:695:A:N7	2.34	0.42
32:2a:942:G:C2	32:2a:1342:C:C2	3.07	0.42
32:2a:1005:A:C5'	32:2a:1038:C:H1'	2.49	0.42
32:2a:1258:G:H2'	32:2a:1259:C:C6	2.54	0.42
32:2a:1503:A:H5'	32:2a:1531:A:H1'	2.01	0.42
33:2b:19:HIS:HB3	33:2b:204:ASN:ND2	2.34	0.42
33:2b:154:LEU:O	33:2b:156:LYS:N	2.52	0.42
34:2c:115:LEU:HD12	34:2c:115:LEU:HA	1.89	0.42
35:2d:17:VAL:HG12	35:2d:18:LYS:N	2.34	0.42
35:2d:88:VAL:O	35:2d:92:VAL:HG23	2.19	0.42
39:2h:91:ARG:NE	48:2q:33:GLY:HA3	2.34	0.42
42:2k:59:TYR:CZ	42:2k:63:LEU:HD21	2.54	0.42
51:2t:37:SER:O	51:2t:41:ILE:HG12	2.19	0.42
1:1A:363(C):G:H2'	1:1A:363(D):G:H8	1.84	0.42
1:1A:660:G:C6	1:1A:661:C:C4	3.07	0.42
1:1A:2117:A:C6	1:1A:2171:A:N1	2.88	0.42
1:1A:2271:G:C5	1:1A:2272:U:C4	3.07	0.42
1:1A:2351:G:O6	30:18:39:LYS:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2513:G:C2	1:1A:2514:U:C2	3.07	0.42
1:1A:2886:G:N2	1:1A:2887:U:C2	2.87	0.42
4:1E:39:PRO:HD3	4:1E:45:THR:HG23	2.01	0.42
5:1F:179:GLU:CD	5:1F:179:GLU:H	2.27	0.42
18:1W:54:ALA:O	18:1W:57:ASN:HB2	2.18	0.42
19:1X:61:GLY:HA3	19:1X:73:ARG:O	2.19	0.42
30:18:43:GLN:C	30:18:45:GLY:H	2.25	0.42
32:1a:428:G:C5	32:1a:430:A:C6	3.07	0.42
32:1a:544:G:OP2	35:1d:66:ARG:NH2	2.52	0.42
32:1a:584:G:H2'	32:1a:585:G:C8	2.54	0.42
32:1a:690:G:C6	32:1a:691:G:C6	3.06	0.42
32:1a:874:G:C6	32:1a:875:C:C4	3.07	0.42
32:1a:1017:G:H2'	32:1a:1018:C:C6	2.53	0.42
32:1a:1479:C:O2'	32:1a:1480:G:H5'	2.19	0.42
32:1a:1500:A:OP2	32:1a:1505:G:OP1	2.37	0.42
33:1b:109:SER:C	33:1b:111:ARG:N	2.75	0.42
34:1c:122:GLU:HA	34:1c:125:GLU:OE1	2.19	0.42
44:1m:51:ALA:O	44:1m:54:VAL:HG22	2.19	0.42
44:1m:86:CYS:HB2	50:1s:73:GLU:OE1	2.18	0.42
49:1r:74:ARG:HB3	49:1r:81:PHE:CE2	2.54	0.42
1:2A:320:A:OP2	5:2F:137:LYS:HE3	2.19	0.42
1:2A:362:U:O2'	1:2A:363:G:H5"	2.19	0.42
1:2A:415:A:H2'	1:2A:416:C:C6	2.54	0.42
1:2A:554:U:C4	1:2A:555:U:C4	3.07	0.42
1:2A:699:A:C2	1:2A:1633:G:N3	2.87	0.42
1:2A:1129:A:H1'	1:2A:2516:G:H1'	2.00	0.42
1:2A:1593:G:C2	1:2A:1594:G:C4	3.07	0.42
1:2A:1776:G:C2	1:2A:1789:A:C2	3.07	0.42
1:2A:1889:A:N1	1:2A:2234:G:H1'	2.34	0.42
1:2A:2431:U:H2'	1:2A:2433:A:OP2	2.20	0.42
1:2A:2505:G:O6	1:2A:2576:G:H2'	2.19	0.42
1:2A:2629:A:H1'	1:2A:2630:G:C5'	2.49	0.42
1:2A:2637:U:H5"	4:2E:82:ARG:NH1	2.33	0.42
9:2N:17:ASP:OD1	9:2N:56:ASN:HB2	2.19	0.42
14:2S:36:TYR:HA	14:2S:52:SER:HA	2.00	0.42
32:2a:45:U:H2'	32:2a:46:G:C8	2.54	0.42
32:2a:960:U:H1'	32:2a:1223:C:H5'	2.01	0.42
32:2a:1058:G:H22	41:2j:53:PRO:HG3	1.83	0.42
33:2b:67:THR:HG22	33:2b:90:MET:HG2	2.01	0.42
33:2b:105:PHE:O	33:2b:108:ILE:N	2.52	0.42
33:2b:193:ASP:OD2	33:2b:196:LEU:HD22	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:181:ASN:ND2	34:2c:204:LEU:HD12	2.34	0.42
35:2d:43:HIS:HA	35:2d:46:LYS:HG3	2.01	0.42
39:2h:41:ARG:HH22	39:2h:123:GLU:CD	2.26	0.42
41:2j:42:THR:OG1	41:2j:68:HIS:HB3	2.18	0.42
46:2o:62:GLN:HE21	46:2o:66:LEU:HD13	1.84	0.42
47:2p:48:TRP:CE3	47:2p:49:LEU:HB2	2.54	0.42
47:2p:69:THR:O	47:2p:69:THR:OG1	2.37	0.42
51:2t:43:LEU:HD12	51:2t:52:ALA:HA	2.01	0.42
52:2u:14:TRP:CE3	52:2u:15:ARG:HG2	2.54	0.42
54:2z:88:LEU:HA	54:2z:88:LEU:HD23	1.73	0.42
1:1A:734:A:C4	1:1A:735:A:C8	3.08	0.42
1:1A:1803:A:N1	1:1A:1822:G:O2'	2.48	0.42
1:1A:1849:G:H2'	1:1A:1850:G:C8	2.53	0.42
1:1A:2711:A:OP1	1:1A:2712:U:H3'	2.19	0.42
2:1B:83:G:H5"	25:13:52:HIS:CD2	2.54	0.42
3:1D:213:ARG:HA	3:1D:213:ARG:HD2	1.73	0.42
5:1F:116:ASP:OD2	11:1P:1:MET:HB3	2.19	0.42
8:1I:72:LEU:HD21	8:1I:107:VAL:HG11	2.01	0.42
10:1O:53:LYS:O	10:1O:54:GLU:C	2.62	0.42
12:1Q:17:LEU:HD12	12:1Q:39:PRO:HB2	2.02	0.42
15:1T:51:ARG:HG3	15:1T:98:LYS:CD	2.43	0.42
21:1Z:11:GLU:HB3	21:1Z:12:GLY:H	1.69	0.42
21:1Z:125:LEU:HG	21:1Z:164:ALA:HB3	2.00	0.42
26:14:6:HIS:HA	26:14:7:PRO:HD3	1.92	0.42
26:14:62:ARG:O	26:14:63:TYR:HD1	2.02	0.42
32:1a:70:G:H2'	32:1a:71:C:C6	2.55	0.42
32:1a:517:G:C2	32:1a:531:U:H4'	2.54	0.42
33:1b:102:LEU:O	33:1b:105:PHE:HB2	2.18	0.42
33:1b:109:SER:O	33:1b:112:VAL:HG22	2.18	0.42
36:1e:57:LYS:O	36:1e:60:TYR:HB3	2.19	0.42
36:1e:146:ALA:C	36:1e:148:VAL:N	2.77	0.42
44:1m:86:CYS:O	44:1m:89:GLY:N	2.49	0.42
45:1n:54:PRO:C	45:1n:56:VAL:H	2.26	0.42
1:2A:320:A:H4'	1:2A:322:A:N7	2.34	0.42
1:2A:775:G:C4	1:2A:794:G:C8	3.07	0.42
1:2A:1011:G:H1'	1:2A:1013:C:O4'	2.19	0.42
1:2A:1578:U:O2	1:2A:1578:U:H2'	2.18	0.42
1:2A:1638:C:H5"	1:2A:2710:C:O2'	2.19	0.42
1:2A:2250:G:N3	1:2A:2250:G:H5"	2.33	0.42
1:2A:2291:U:OP1	1:2A:2380:C:O2'	2.28	0.42
1:2A:2713:A:N3	1:2A:2713:A:H2'	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:28:C:C2	2:2B:29:A:C8	3.07	0.42
4:2E:70:ALA:O	4:2E:72:VAL:HG23	2.20	0.42
4:2E:115:GLY:O	4:2E:119:ARG:HB2	2.19	0.42
5:2F:110:LEU:HD23	5:2F:110:LEU:HA	1.76	0.42
7:2H:9:ILE:HG12	7:2H:73:ALA:HB2	2.01	0.42
21:2Z:155:LEU:HA	21:2Z:155:LEU:HD12	1.74	0.42
23:21:24:ALA:HB3	23:21:27:GLU:HG3	2.00	0.42
32:2a:189(B):C:N3	32:2a:189(J):G:C2	2.87	0.42
32:2a:543:C:O2'	32:2a:544:G:H5'	2.20	0.42
32:2a:727:G:N2	32:2a:730:G:OP2	2.42	0.42
32:2a:837:G:H2'	32:2a:838:G:O4'	2.19	0.42
32:2a:1054:C:N3	32:2a:1196:U:C5	2.87	0.42
32:2a:1309:G:O2'	44:2m:77:ASN:ND2	2.52	0.42
32:2a:1446:U:O2'	32:2a:1447:A:C8	2.68	0.42
32:2a:1524:C:H2'	32:2a:1525:G:C8	2.54	0.42
33:2b:127:ILE:C	33:2b:129:GLU:H	2.27	0.42
33:2b:219:VAL:O	33:2b:223:ILE:HG13	2.19	0.42
35:2d:12:CYS:SG	35:2d:19:LEU:HB2	2.59	0.42
36:2e:30:ALA:O	36:2e:45:PHE:HA	2.19	0.42
49:2r:28:GLU:HA	49:2r:28:GLU:OE2	2.19	0.42
1:1A:313:C:H2'	1:1A:314:A:H8	1.84	0.42
1:1A:328:U:H4'	20:1Y:68:HIS:CD2	2.54	0.42
1:1A:612:C:H2'	1:1A:613:G:O4'	2.19	0.42
1:1A:1278:A:OP1	13:1R:36:THR:CG2	2.67	0.42
1:1A:1720:U:H2'	1:1A:1721:G:O4'	2.19	0.42
1:1A:2004:G:H2'	1:1A:2005:A:H5'	2.01	0.42
1:1A:2094:G:OP1	8:1I:22:LYS:HD2	2.20	0.42
1:1A:2176:A:H2'	1:1A:2177:C:C6	2.54	0.42
1:1A:2334:G:H8	1:1A:2334:G:OP1	2.02	0.42
2:1B:54:G:H2'	2:1B:55:U:H6	1.85	0.42
3:1D:127:VAL:HA	3:1D:193:VAL:HG22	2.00	0.42
6:1G:47:LYS:HB2	6:1G:48:GLU:H	1.60	0.42
6:1G:61:ALA:O	26:14:7:PRO:HG2	2.20	0.42
15:1T:108:ARG:HG3	15:1T:111:ARG:NH1	2.34	0.42
23:11:86:SER:O	23:11:89:GLU:N	2.51	0.42
32:1a:375:U:C2	32:1a:376:G:C8	3.07	0.42
32:1a:973:G:H8	32:1a:973:G:O5'	2.02	0.42
32:1a:1445:C:N4	32:1a:1446:U:C4	2.87	0.42
34:1c:115:LEU:HD12	34:1c:115:LEU:HA	1.75	0.42
34:1c:150:LYS:HG3	34:1c:169:ALA:HB2	2.00	0.42
35:1d:122:ARG:O	35:1d:134:ASP:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:1f:8:ILE:HG22	37:1f:10:LEU:HD12	2.02	0.42
37:1f:37:VAL:H	37:1f:37:VAL:HG23	1.58	0.42
38:1g:62:PHE:CD1	38:1g:124:LEU:HD11	2.54	0.42
39:1h:84:ARG:HG2	39:1h:136:GLU:HG2	2.01	0.42
43:1l:43:VAL:HG23	43:1l:55:VAL:HG21	2.01	0.42
54:1z:23:ARG:HD3	54:1z:23:ARG:HA	1.51	0.42
1:2A:17:G:C6	1:2A:18:C:N4	2.88	0.42
1:2A:152:G:H1	1:2A:174:C:H42	1.68	0.42
1:2A:270:A:H1'	1:2A:370:G:C2	2.55	0.42
1:2A:521:G:C2'	1:2A:522:G:H5'	2.49	0.42
1:2A:530:G:H4'	1:2A:531:C:OP1	2.18	0.42
1:2A:1278:A:P	13:2R:36:THR:HG22	2.59	0.42
1:2A:1615:C:C2	18:2W:87:PRO:HG2	2.55	0.42
1:2A:1742:G:H2'	1:2A:1743:C:O4'	2.19	0.42
1:2A:1816:G:O6	3:2D:35:LYS:NZ	2.38	0.42
1:2A:2090:G:H21	23:21:45:ASN:CG	2.25	0.42
1:2A:2166:G:N7	1:2A:2167:U:C2	2.87	0.42
1:2A:2263:C:O2'	1:2A:2264:C:H5'	2.20	0.42
1:2A:2687:U:H2'	1:2A:2688:U:O4'	2.19	0.42
1:2A:2807:G:C2	1:2A:2893:G:O6	2.72	0.42
3:2D:222:ARG:HH11	3:2D:222:ARG:HD2	1.72	0.42
6:2G:107:LEU:HD11	6:2G:178:PHE:CD1	2.54	0.42
7:2H:157:TYR:O	7:2H:171:LEU:HD13	2.20	0.42
13:2R:12:ARG:HD3	13:2R:16:HIS:CD2	2.55	0.42
14:2S:93:LYS:HE2	14:2S:93:LYS:HB3	1.90	0.42
21:2Z:41:LEU:O	21:2Z:42:VAL:C	2.63	0.42
21:2Z:65:GLN:OE1	21:2Z:67:LEU:HD21	2.18	0.42
29:27:22:MET:HE3	29:27:22:MET:HB3	1.78	0.42
32:2a:327:A:C4	32:2a:329:A:C8	3.07	0.42
32:2a:453:A:C6	32:2a:454:C:N3	2.88	0.42
32:2a:981:U:H2'	32:2a:982:U:C5	2.54	0.42
32:2a:1073:U:N3	32:2a:1074:G:N7	2.67	0.42
32:2a:1340:A:OP1	54:2z:57:PRO:HB3	2.20	0.42
32:2a:1428:A:H2'	32:2a:1429:C:O4'	2.19	0.42
33:2b:19:HIS:CE1	33:2b:206:ASP:HB2	2.54	0.42
35:2d:178:VAL:C	35:2d:180:GLY:N	2.78	0.42
35:2d:178:VAL:HG12	35:2d:179:GLU:N	2.34	0.42
38:2g:104:LEU:HD13	38:2g:104:LEU:HA	1.71	0.42
38:2g:115:ARG:HB2	38:2g:118:VAL:HG23	2.02	0.42
41:2j:44:VAL:HG21	41:2j:66:ARG:NH2	2.34	0.42
44:2m:37:THR:HG21	44:2m:56:LEU:HA	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:2s:11:VAL:HG11	50:2s:16:LEU:HB2	2.01	0.42
54:2z:38:HIS:O	54:2z:52:ALA:HA	2.20	0.42
54:2z:79:ASN:O	54:2z:82:GLU:HB2	2.19	0.42
54:2z:87:LYS:O	54:2z:91:LYS:HB2	2.19	0.42
1:1A:36:G:O2'	1:1A:450:G:H2'	2.20	0.42
1:1A:308:G:C8	1:1A:501:A:O4'	2.72	0.42
1:1A:395:U:H6	1:1A:395:U:H2'	1.66	0.42
1:1A:632:A:H8	1:1A:632:A:O5'	2.03	0.42
1:1A:1106:G:C6	1:1A:1107:G:N7	2.87	0.42
1:1A:1196:C:O4'	1:1A:1226:A:C2	2.72	0.42
1:1A:1260:G:C6	1:1A:1261:C:C4	3.07	0.42
1:1A:1355:G:C6	1:1A:1356:G:C5	3.08	0.42
1:1A:1414:G:C6	1:1A:1415:U:C4	3.07	0.42
1:1A:1548:C:H2'	1:1A:1549:C:C6	2.54	0.42
1:1A:2037:G:H2'	1:1A:2038:G:C8	2.55	0.42
1:1A:2341:G:H2'	1:1A:2342:C:C6	2.54	0.42
1:1A:2412:A:H2'	1:1A:2413:G:O4'	2.20	0.42
1:1A:2619:C:H4'	4:1E:151:TYR:O	2.19	0.42
2:1B:69:G:C5	2:1B:70:C:C5	3.07	0.42
6:1G:114:ILE:HG12	6:1G:140:ILE:HD13	2.01	0.42
8:1I:15:VAL:C	8:1I:17:GLN:N	2.76	0.42
8:1I:65:ALA:O	8:1I:69:LYS:N	2.53	0.42
11:1P:6:LEU:HD23	11:1P:6:LEU:HA	1.75	0.42
12:1Q:63:LYS:HE3	21:1Z:176:PRO:O	2.19	0.42
15:1T:4:GLY:O	15:1T:8:LYS:HG2	2.20	0.42
19:1X:18:TYR:O	19:1X:20:GLY:N	2.53	0.42
20:1Y:46:LYS:HD3	20:1Y:60:PHE:CD2	2.54	0.42
22:10:40:GLN:OE1	22:10:44:ARG:N	2.53	0.42
23:11:5:CYS:SG	23:11:62:VAL:HG23	2.59	0.42
32:1a:55:A:C5	32:1a:56:U:C5	3.07	0.42
32:1a:189:G:H2'	32:1a:189(A):C:C6	2.54	0.42
32:1a:376:G:H2'	32:1a:377:G:C8	2.54	0.42
32:1a:389:A:C6	32:1a:390:C:H1'	2.54	0.42
32:1a:502:G:H2'	32:1a:503:C:O4'	2.20	0.42
32:1a:657:G:O2'	32:1a:658:G:H5'	2.20	0.42
32:1a:1152:A:OP1	41:1j:13:HIS:HB2	2.19	0.42
32:1a:1512:U:H2'	32:1a:1513:A:C8	2.54	0.42
38:1g:18:TYR:CE2	38:1g:59:LEU:HB2	2.54	0.42
38:1g:27:ILE:HG12	38:1g:27:ILE:H	1.63	0.42
1:2A:38:A:H2'	1:2A:39:C:C6	2.54	0.42
1:2A:51:G:N3	1:2A:119:A:C2	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:64:A:H2'	1:2A:65:C:O4'	2.19	0.42
1:2A:256:A:C2	1:2A:257:A:C4	3.08	0.42
1:2A:272(I):U:H2'	1:2A:272(J):C:C6	2.54	0.42
1:2A:458:G:O2'	29:27:39:ARG:HD3	2.20	0.42
1:2A:663:G:C6	1:2A:664:C:C4	3.08	0.42
1:2A:991:C:O2	1:2A:1164:G:C2	2.73	0.42
1:2A:1016:G:H2'	1:2A:1017:G:H8	1.83	0.42
1:2A:1219:G:OP2	16:2U:19:LYS:HE3	2.19	0.42
1:2A:1428:C:C5	1:2A:1569:A:H5"	2.55	0.42
1:2A:2021:C:OP1	27:25:12:SER:OG	2.23	0.42
1:2A:2416:C:H2'	1:2A:2417:C:C6	2.54	0.42
1:2A:2874:C:H2'	1:2A:2875:C:C6	2.51	0.42
2:2B:14:U:OP2	2:2B:70:C:O2'	2.29	0.42
2:2B:17:C:H2'	2:2B:18:G:O4'	2.19	0.42
2:2B:33:G:OP1	6:2G:2:PRO:HG2	2.19	0.42
3:2D:124:PRO:HD2	3:2D:129:ASN:ND2	2.35	0.42
4:2E:4:ILE:HG12	4:2E:5:LEU:O	2.19	0.42
5:2F:108:LYS:O	5:2F:112:MET:HG3	2.19	0.42
5:2F:117:ARG:HH21	5:2F:187:VAL:HA	1.83	0.42
7:2H:83:TYR:HB2	7:2H:135:GLY:O	2.20	0.42
9:2N:37:LYS:HG3	9:2N:42:TRP:NE1	2.34	0.42
16:2U:38:THR:O	16:2U:41:ALA:HB3	2.18	0.42
16:2U:66:ASN:OD1	16:2U:76:TYR:HB2	2.19	0.42
27:25:16:ARG:HD2	27:25:17:ASP:OD1	2.20	0.42
32:2a:4:U:C5	39:2h:105:ARG:CZ	3.03	0.42
32:2a:690:G:C6	32:2a:691:G:C6	3.07	0.42
32:2a:1027:C:H2'	32:2a:1028:C:C2	2.55	0.42
36:2e:110:LEU:CD2	36:2e:139:LEU:HD21	2.49	0.42
38:2g:46:ALA:O	38:2g:50:ILE:HG23	2.19	0.42
38:2g:137:LYS:O	38:2g:141:VAL:HG23	2.19	0.42
42:2k:99:GLN:C	42:2k:101:SER:H	2.27	0.42
47:2p:1:MET:SD	47:2p:1:MET:N	2.72	0.42
54:2z:52:ALA:CB	54:2z:81:LEU:HD11	2.50	0.42
1:1A:603:A:C8	1:1A:655:A:C6	3.08	0.42
1:1A:623:G:H2'	1:1A:624:C:C6	2.55	0.42
1:1A:639:U:H2'	1:1A:640:C:H6	1.83	0.42
1:1A:934:G:H2'	1:1A:935:C:C6	2.55	0.42
1:1A:1010:A:N3	1:1A:1153:C:H1'	2.34	0.42
1:1A:1541:G:H5"	1:1A:1542:A:OP2	2.20	0.42
1:1A:1629:U:O2	1:1A:2698:U:H5"	2.18	0.42
1:1A:2070:G:H2'	1:1A:2071:A:O4'	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2378:A:O5'	1:1A:2378:A:H8	2.03	0.42
5:1F:96:ASP:C	5:1F:96:ASP:OD1	2.62	0.42
12:1Q:135:ASP:N	12:1Q:138:ASP:OD2	2.53	0.42
14:1S:34:HIS:ND1	14:1S:53:SER:OG	2.49	0.42
14:1S:66:ALA:HA	14:1S:69:VAL:HG22	2.02	0.42
16:1U:110:VAL:O	16:1U:113:ALA:HB3	2.19	0.42
32:1a:129(A):G:C6	32:1a:189(E):U:H4'	2.54	0.42
32:1a:436:C:O2'	35:1d:157:LEU:HB2	2.20	0.42
32:1a:1065:U:H5"	32:1a:1190:G:N2	2.34	0.42
34:1c:134:ILE:HG23	34:1c:151:VAL:HB	2.00	0.42
35:1d:31:CYS:SG	35:1d:33:MET:HB2	2.59	0.42
35:1d:164:ALA:C	35:1d:168:ARG:HE	2.28	0.42
37:1f:70:ASP:OD2	37:1f:71:ARG:HG3	2.19	0.42
42:1k:31:THR:HG22	42:1k:42:TRP:HB2	2.02	0.42
50:1s:51:VAL:HB	50:1s:75:ALA:HB2	2.01	0.42
1:2A:76:C:O2'	1:2A:77:C:H5'	2.20	0.42
1:2A:213:A:H5"	1:2A:214:G:P	2.59	0.42
1:2A:510:C:H2'	1:2A:511:U:O4'	2.19	0.42
1:2A:1192:G:O2'	1:2A:1193:G:H5'	2.19	0.42
1:2A:1195:G:O2'	1:2A:1226:A:N1	2.45	0.42
1:2A:1485:G:C2	1:2A:1505:C:C2	3.07	0.42
1:2A:1572:A:H8	1:2A:1572:A:O5'	2.01	0.42
1:2A:1656:C:O2'	1:2A:1657:C:H5'	2.19	0.42
1:2A:2043:C:H2'	1:2A:2044:C:H6	1.85	0.42
1:2A:2228:G:H8	1:2A:2228:G:O5'	2.02	0.42
1:2A:2712:U:H1'	1:2A:2712(A):A:C8	2.54	0.42
1:2A:2752:C:H2'	1:2A:2753:A:O4'	2.20	0.42
1:2A:2840:C:O3'	13:2R:53:HIS:CE1	2.73	0.42
3:2D:4:LYS:HB2	3:2D:18:VAL:HG23	2.02	0.42
3:2D:162:SER:HB3	3:2D:195:ALA:HB2	2.02	0.42
5:2F:176:LEU:HA	5:2F:176:LEU:HD23	1.79	0.42
8:2I:108:THR:HG22	8:2I:109:ILE:H	1.85	0.42
9:2N:13:TRP:CZ3	9:2N:133:GLN:HG3	2.55	0.42
12:2Q:37:LEU:HD21	12:2Q:130:LYS:HB2	2.01	0.42
12:2Q:66:ILE:HG12	12:2Q:104:PHE:CD2	2.54	0.42
13:2R:29:LEU:HA	13:2R:29:LEU:HD12	1.67	0.42
21:2Z:74:VAL:HG22	21:2Z:86:VAL:CG1	2.49	0.42
26:24:53:GLU:O	26:24:56:VAL:HG12	2.19	0.42
32:2a:411:A:O2'	32:2a:413:G:H5'	2.19	0.42
32:2a:678:U:H2'	32:2a:679:C:H6	1.83	0.42
32:2a:1173:G:H2'	32:2a:1174:G:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1192:C:OP2	34:2c:4:LYS:NZ	2.53	0.42
36:2e:78:HIS:NE2	36:2e:142:LEU:HA	2.35	0.42
39:2h:84:ARG:HG2	39:2h:136:GLU:HG2	2.01	0.42
44:2m:97:PRO:HG3	44:2m:110:ARG:HB2	2.01	0.42
49:2r:52:PRO:O	49:2r:56:THR:HG23	2.20	0.42
1:1A:10:G:C4	1:1A:2629:A:N6	2.88	0.42
1:1A:236:C:H2'	1:1A:237:C:C6	2.54	0.42
1:1A:327:G:H2'	1:1A:328:U:H6	1.84	0.42
1:1A:678:C:H2'	1:1A:679:C:C6	2.55	0.42
1:1A:968:G:C6	1:1A:969:U:N3	2.88	0.42
1:1A:1263:U:C4	1:1A:1264:G:C6	3.08	0.42
1:1A:1355:G:C4	1:1A:1356:G:C8	3.07	0.42
1:1A:1655:A:N6	1:1A:2005:A:H1'	2.35	0.42
1:1A:1753:G:N2	1:1A:1756:G:OP2	2.51	0.42
1:1A:1764:G:C6	1:1A:1989:G:C2	3.07	0.42
1:1A:2576:G:H1'	58:1A:4433:HOH:O	2.20	0.42
1:1A:2638:G:P	4:1E:82:ARG:HH12	2.42	0.42
1:1A:2652:C:C2	1:1A:2669:G:C2	3.08	0.42
1:1A:2794:C:N3	1:1A:2802:G:N2	2.60	0.42
4:1E:18:ASP:OD2	15:1T:33:LYS:HE3	2.20	0.42
4:1E:111:ARG:HG3	4:1E:111:ARG:NH1	2.34	0.42
6:1G:14:GLU:O	6:1G:17:PRO:HD2	2.19	0.42
6:1G:29:TRP:O	6:1G:33:ARG:NH1	2.53	0.42
10:1O:49:ARG:NH1	32:1a:1422:G:O3'	2.52	0.42
13:1R:19:ALA:O	13:1R:20:LEU:C	2.62	0.42
18:1W:1:MET:HE3	18:1W:62:HIS:HB3	2.02	0.42
23:11:18:ILE:C	23:11:19:GLN:HE21	2.28	0.42
26:14:2:LYS:O	26:14:5:ILE:HG13	2.20	0.42
30:18:23:VAL:HA	30:18:48:PHE:O	2.19	0.42
32:1a:191:G:O2'	51:1t:101:GLY:HA3	2.19	0.42
32:1a:241:C:C2	32:1a:286:G:N2	2.88	0.42
32:1a:279:A:OP2	48:1q:95:TYR:OH	2.36	0.42
32:1a:309:G:H1'	32:1a:608:A:C2	2.54	0.42
32:1a:1318:A:H5"	50:1s:3:ARG:HH12	1.84	0.42
32:1a:1401:G:O6	54:1z:83:ARG:NH2	2.50	0.42
34:1c:35:GLU:O	34:1c:39:ILE:HG13	2.19	0.42
37:1f:19:LEU:HD11	37:1f:59:TYR:CE2	2.55	0.42
42:1k:31:THR:HA	42:1k:42:TRP:HA	2.02	0.42
42:1k:66:LEU:HD23	42:1k:66:LEU:HA	1.68	0.42
48:1q:68:ARG:H	48:1q:70:ARG:NH1	2.16	0.42
1:2A:68:G:N2	1:2A:74:A:OP2	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:88:G:O2'	1:2A:89:G:H5'	2.20	0.42
1:2A:341:G:H2'	1:2A:342:G:O4'	2.20	0.42
1:2A:875:G:H2'	1:2A:876:C:O4'	2.20	0.42
1:2A:892:G:H2'	1:2A:893:C:C6	2.54	0.42
1:2A:1011:G:C2	1:2A:1151:G:C2	3.07	0.42
1:2A:1013:C:H2'	1:2A:1014:U:H6	1.85	0.42
1:2A:1038:C:H42	1:2A:1117:G:H1	1.66	0.42
1:2A:1174:A:P	1:2A:1177:A:H62	2.42	0.42
1:2A:1553:A:C5	1:2A:1555:G:C5	3.07	0.42
1:2A:1580:A:H8	1:2A:1580:A:OP2	2.02	0.42
1:2A:1959:G:C6	1:2A:1960:A:C5	3.08	0.42
1:2A:2020:A:OP1	16:2U:27:LEU:HD23	2.19	0.42
1:2A:2100:G:N1	1:2A:2189:U:N3	2.45	0.42
1:2A:2154:G:C6	1:2A:2155:G:C5	3.07	0.42
1:2A:2160:G:H8	1:2A:2160:G:O5'	2.02	0.42
1:2A:2291:U:H2'	1:2A:2292:C:C6	2.55	0.42
1:2A:2335:A:N7	1:2A:2337:G:C5	2.87	0.42
1:2A:2579:C:H6	1:2A:2579:C:O5'	2.03	0.42
2:2B:118:G:H2'	2:2B:119:G:O4'	2.20	0.42
4:2E:29:GLY:H	4:2E:93:VAL:HG12	1.84	0.42
4:2E:50:GLY:CA	4:2E:75:VAL:HG11	2.49	0.42
8:2I:100:ALA:C	8:2I:102:SER:N	2.78	0.42
12:2Q:54:MET:SD	12:2Q:118:LEU:HD23	2.60	0.42
13:2R:117:VAL:HG12	13:2R:118:GLU:N	2.31	0.42
20:2Y:23:ARG:HA	20:2Y:23:ARG:HD3	1.76	0.42
21:2Z:17:ALA:HA	21:2Z:20:ARG:CZ	2.50	0.42
21:2Z:124:ILE:HG13	21:2Z:125:LEU:N	2.35	0.42
25:23:3:ARG:CB	25:23:60:GLU:HG3	2.47	0.42
32:2a:109:A:C6	32:2a:326:G:C6	3.08	0.42
32:2a:414:A:H2'	32:2a:415:A:H8	1.85	0.42
32:2a:510:A:H5"	32:2a:511:C:P	2.60	0.42
32:2a:626:U:C2	32:2a:627:G:C8	3.07	0.42
32:2a:721:G:H4'	32:2a:722:A:O4'	2.20	0.42
32:2a:825:G:C6	32:2a:826:C:C4	3.07	0.42
32:2a:938:A:H2'	32:2a:939:G:O4'	2.20	0.42
32:2a:963:G:H5"	54:2z:9:GLN:HE21	1.85	0.42
32:2a:1292:U:H5'	40:2i:38:GLN:OE1	2.20	0.42
32:2a:1401:G:N7	54:2z:83:ARG:NH2	2.68	0.42
38:2g:27:ILE:O	38:2g:30:ILE:N	2.52	0.42
44:2m:35:GLU:O	44:2m:37:THR:N	2.52	0.42
1:1A:9:U:C4	1:1A:2629:A:H2	2.38	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:35:G:H2'	1:1A:36:G:O4'	2.20	0.42
1:1A:441:U:H2'	1:1A:442:G:C8	2.54	0.42
1:1A:654:A:H2	1:1A:655:A:C2	2.38	0.42
1:1A:722:A:H2'	1:1A:723:G:O4'	2.20	0.42
1:1A:729:G:C6	3:1D:208:LYS:HB2	2.55	0.42
1:1A:870:A:C2	1:1A:908:C:C2	3.08	0.42
1:1A:873:G:N2	1:1A:905:U:C2	2.88	0.42
1:1A:1129:A:O2'	1:1A:2515:C:O2	2.38	0.42
1:1A:1218:C:H5"	1:1A:1218:C:H6	1.85	0.42
1:1A:1509(A):A:H2'	1:1A:1509(B):A:O4'	2.19	0.42
1:1A:2315:G:H2'	1:1A:2316:C:C6	2.54	0.42
1:1A:2329:G:N2	22:10:41:ARG:HD2	2.34	0.42
1:1A:2654:A:N1	1:1A:2665:A:H5"	2.34	0.42
2:1B:7:G:C6	2:1B:8:U:C4	3.08	0.42
2:1B:40:U:N3	2:1B:44:G:OP2	2.53	0.42
2:1B:115:G:H2'	2:1B:116:G:C8	2.54	0.42
3:1D:72:LYS:HD2	3:1D:103:ARG:NH1	2.34	0.42
6:1G:58:GLN:O	6:1G:62:LEU:HG	2.20	0.42
7:1H:3:ARG:CZ	7:1H:4:ILE:H	2.33	0.42
7:1H:149:ARG:NH1	7:1H:167:GLU:OE2	2.52	0.42
11:1P:144:GLU:HA	11:1P:145:PRO:HD2	1.78	0.42
12:1Q:98:LYS:HB3	12:1Q:98:LYS:HE2	1.93	0.42
15:1T:11:GLU:OE1	15:1T:57:PHE:HB3	2.18	0.42
32:1a:790:A:C2	54:1z:29:LYS:HD3	2.55	0.42
32:1a:812:C:OP1	32:1a:903:G:H1'	2.20	0.42
32:1a:1443:G:C2	32:1a:1460:A:N3	2.88	0.42
35:1d:171:GLY:C	35:1d:173:TRP:H	2.28	0.42
49:1r:72:ARG:HA	49:1r:75:ILE:HD12	2.02	0.42
52:1u:12:LYS:HE3	52:1u:19:GLY:HA3	2.02	0.42
54:1z:29:LYS:HB2	54:1z:29:LYS:HE3	1.84	0.42
1:2A:7:G:H2'	1:2A:8:A:O4'	2.20	0.42
1:2A:20:C:O2'	1:2A:21:A:H5'	2.20	0.42
1:2A:79:G:H1	1:2A:107:C:H42	1.68	0.42
1:2A:304:G:H2'	1:2A:305:U:C6	2.55	0.42
1:2A:514:A:H1'	1:2A:581:C:O2'	2.20	0.42
1:2A:519:U:H2'	1:2A:520:G:H8	1.84	0.42
1:2A:522:G:H2'	1:2A:523:C:H6	1.84	0.42
1:2A:566:U:H5"	11:2P:29:LYS:CE	2.50	0.42
1:2A:1040:C:H2'	1:2A:1041:C:O4'	2.20	0.42
1:2A:1913:A:H62	32:2a:1491:G:N2	2.17	0.42
1:2A:2420:C:P	30:28:33:ASN:H	2.43	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:42:C:C5	2:2B:43:C:C5	3.08	0.42
3:2D:124:PRO:HB2	3:2D:126:GLN:CD	2.44	0.42
4:2E:4:ILE:HG22	4:2E:96:PHE:HE2	1.85	0.42
11:2P:26:GLY:O	11:2P:27:HIS:HD2	2.02	0.42
16:2U:92:ARG:HA	16:2U:95:LEU:HB2	2.00	0.42
21:2Z:28:MET:CE	21:2Z:35:ARG:HB2	2.50	0.42
21:2Z:112:ARG:HG2	21:2Z:112:ARG:HH11	1.85	0.42
23:21:91:LYS:HG2	23:21:95:LEU:HD22	2.01	0.42
28:26:35:GLU:HA	28:26:49:HIS:O	2.20	0.42
30:28:38:GLY:O	30:28:42:ARG:HB2	2.20	0.42
31:29:18:ARG:NH2	31:29:21:GLY:HA2	2.35	0.42
32:2a:427:U:OP1	35:2d:13:ARG:NH1	2.53	0.42
32:2a:501:C:H2'	32:2a:502:G:H8	1.84	0.42
32:2a:590:C:H2'	32:2a:591:U:C6	2.54	0.42
32:2a:866:C:H4'	32:2a:919:A:H5'	2.01	0.42
32:2a:952:U:C5	44:2m:104:ARG:NH1	2.88	0.42
32:2a:1137:C:H3'	32:2a:1137:C:H6	1.85	0.42
32:2a:1226:C:H4'	32:2a:1227:A:OP1	2.19	0.42
33:2b:138:LEU:HA	33:2b:138:LEU:HD23	1.71	0.42
34:2c:8:ILE:HD12	34:2c:8:ILE:HA	1.87	0.42
40:2i:45:ALA:O	40:2i:48:GLU:HB2	2.19	0.42
44:2m:3:ARG:CG	44:2m:4:ILE:N	2.83	0.42
1:1A:212:G:H2'	1:1A:213:A:O4'	2.20	0.42
1:1A:363(A):A:H2'	1:1A:363(B):G:H8	1.85	0.42
1:1A:536:A:H5'	16:1U:53:ARG:HD3	2.02	0.42
1:1A:930:U:OP1	1:1A:930:U:H3'	2.19	0.42
1:1A:1011:G:OP1	16:1U:77:SER:OG	2.37	0.42
1:1A:1486:A:O2'	1:1A:1487:G:H5'	2.19	0.42
1:1A:2046:G:O5'	27:15:19:ARG:HA	2.20	0.42
1:1A:2248:C:C5	1:1A:2249:U:C4	3.08	0.42
1:1A:2319:G:C2	14:1S:3:ARG:HA	2.54	0.42
1:1A:2462:U:H2'	1:1A:2463:C:O4'	2.20	0.42
2:1B:108:U:C2'	2:1B:109:C:H5"	2.50	0.42
3:1D:146:GLU:HB2	3:1D:189:CYS:HB3	2.01	0.42
5:1F:40:GLN:O	5:1F:44:ARG:HG3	2.20	0.42
7:1H:154:PRO:HB3	7:1H:163:TYR:CE2	2.55	0.42
12:1Q:21:THR:OG1	12:1Q:23:GLY:O	2.38	0.42
16:1U:5:LYS:O	16:1U:6:THR:C	2.62	0.42
16:1U:105:VAL:HG11	17:1V:39:LEU:HD21	2.02	0.42
32:1a:375:U:H5"	47:1p:6:LEU:HD23	2.02	0.42
32:1a:664:G:N2	32:1a:741:G:H1	2.17	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:945:G:C2	32:1a:1337:G:C2	3.08	0.42
32:1a:983:A:H2	32:1a:984:C:C6	2.38	0.42
32:1a:1183:A:H1'	32:1a:1184:G:OP1	2.20	0.42
33:1b:207:ALA:O	33:1b:211:ILE:HG13	2.20	0.42
35:1d:189:PRO:HB3	35:1d:193:ASP:HB2	2.02	0.42
36:1e:81:GLU:HG2	36:1e:90:VAL:HG22	2.02	0.42
41:1j:41:PRO:O	41:1j:69:ASN:ND2	2.53	0.42
43:1l:33:ARG:HD3	43:1l:33:ARG:HA	1.60	0.42
46:1o:71:GLN:O	46:1o:71:GLN:HG2	2.20	0.42
1:2A:274:G:N3	1:2A:274:G:H2'	2.35	0.42
1:2A:1062:G:N2	1:2A:1063:G:C2	2.87	0.42
1:2A:1094:U:H2'	1:2A:1096:A:OP2	2.19	0.42
1:2A:1221(A):C:C2	1:2A:1229:G:C2	3.08	0.42
1:2A:1494:A:C4	1:2A:1495:A:C8	3.08	0.42
1:2A:2078:C:H2'	1:2A:2079:U:O4'	2.20	0.42
1:2A:2168:G:N2	1:2A:2170:A:H3'	2.35	0.42
1:2A:2584:U:H2'	1:2A:2585:U:C5'	2.50	0.42
1:2A:2611:U:C4	27:25:3:LYS:HG2	2.54	0.42
2:2B:103:G:H21	21:2Z:73:GLN:HE22	1.66	0.42
4:2E:27:LEU:HB2	15:2T:1:MET:HE1	2.02	0.42
8:2I:1:MET:O	8:2I:20:ASP:HA	2.19	0.42
10:2O:111:PHE:O	10:2O:115:VAL:HG23	2.19	0.42
11:2P:31:ALA:C	11:2P:32:THR:HG23	2.45	0.42
12:2Q:42:ILE:HG13	12:2Q:97:VAL:HG21	2.02	0.42
18:2W:70:TYR:CE2	18:2W:72:LYS:HA	2.55	0.42
19:2X:29:TRP:CE3	19:2X:78:LYS:HB3	2.55	0.42
19:2X:63:LYS:HA	19:2X:72:LYS:HA	2.02	0.42
30:28:6:THR:HG22	30:28:8:LYS:HD3	2.02	0.42
32:2a:132:C:N4	32:2a:230:G:H1	2.14	0.42
32:2a:270:A:H2'	32:2a:271:C:C6	2.54	0.42
32:2a:522:C:H5"	43:2l:120:TYR:OH	2.20	0.42
32:2a:944:G:O2'	32:2a:1339:A:N6	2.52	0.42
32:2a:973:G:H8	32:2a:973:G:O5'	2.03	0.42
32:2a:973:G:H3'	32:2a:974:A:H5"	2.00	0.42
32:2a:1073:U:C4	32:2a:1074:G:N7	2.88	0.42
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.35	0.42
33:2b:75:LYS:HG2	33:2b:75:LYS:O	2.20	0.42
35:2d:31:CYS:SG	35:2d:33:MET:HB2	2.59	0.42
39:2h:29:SER:HB3	39:2h:32:LYS:HG3	2.02	0.42
42:2k:124:LYS:HE3	42:2k:125:PHE:CZ	2.55	0.42
43:2l:28:LYS:HE2	43:2l:64:TYR:HE1	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:64:A:O3'	19:1X:71:GLY:HA3	2.20	0.42
1:1A:271(D):G:N2	1:1A:271(U):G:C4	2.88	0.42
1:1A:449:A:H2'	1:1A:450:G:C5'	2.49	0.42
1:1A:574:C:H1'	1:1A:2055:C:C6	2.55	0.42
1:1A:581:C:H2'	1:1A:582:G:C8	2.55	0.42
1:1A:693:C:H2'	1:1A:694:U:O4'	2.19	0.42
1:1A:804:A:H5"	1:1A:805:G:OP1	2.19	0.42
1:1A:911:A:H2'	12:1Q:9:TYR:CZ	2.55	0.42
1:1A:1095:A:H8	1:1A:1095:A:O5'	2.03	0.42
1:1A:1168:G:O2'	1:1A:1169:G:H5'	2.20	0.42
1:1A:1319:G:C6	1:1A:1320:C:N4	2.88	0.42
1:1A:1754:C:H5"	15:1T:113:LYS:HE3	2.02	0.42
1:1A:1878:G:C6	1:1A:1879:C:N4	2.88	0.42
1:1A:2185:C:H2'	1:1A:2186:G:O4'	2.19	0.42
5:1F:28:ILE:HD13	5:1F:28:ILE:HA	1.83	0.42
5:1F:132:VAL:HA	5:1F:138:GLU:HB3	2.02	0.42
6:1G:138:GLN:HB3	6:1G:153:ARG:O	2.20	0.42
11:1P:98:GLU:O	11:1P:99:LEU:C	2.63	0.42
13:1R:53:HIS:HA	13:1R:56:LYS:HD3	2.01	0.42
20:1Y:10:GLY:HA2	20:1Y:27:VAL:HB	2.01	0.42
32:1a:54:C:H42	32:1a:357:G:H1	1.68	0.42
32:1a:456:C:H2'	32:1a:457:C:C6	2.55	0.42
32:1a:565:U:C5	32:1a:566:G:C4	3.08	0.42
32:1a:631:G:H2'	32:1a:632:A:C8	2.54	0.42
32:1a:815:A:N6	32:1a:1509:C:H1'	2.35	0.42
32:1a:1350:A:C5	32:1a:1351:U:C4	3.08	0.42
32:1a:1401:G:N7	54:1z:83:ARG:NH2	2.68	0.42
34:1c:136:GLN:HA	34:1c:139:GLN:HB3	2.02	0.42
38:1g:45:ASP:HB3	38:1g:117:ALA:HB1	2.01	0.42
38:1g:140:ASP:O	38:1g:143:ARG:HG2	2.20	0.42
45:1n:25:VAL:HG22	45:1n:38:GLY:O	2.19	0.42
49:1r:25:THR:OG1	49:1r:26:LEU:HD12	2.19	0.42
1:2A:196:A:O2'	1:2A:805:G:O6	2.33	0.42
1:2A:265:A:N6	1:2A:428:A:H1'	2.35	0.42
1:2A:282:A:C4	1:2A:359:A:C2	3.07	0.42
1:2A:432:A:H2'	1:2A:433:C:C6	2.54	0.42
1:2A:942:G:O2'	1:2A:1189:A:H2'	2.19	0.42
1:2A:1022:G:C5	1:2A:1140:C:C4	3.08	0.42
1:2A:1102:C:H2'	1:2A:1103:A:H8	1.84	0.42
1:2A:2467:C:C5	1:2A:2468:G:C6	3.07	0.42
1:2A:2572:A:O5'	1:2A:2574:G:H4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2623:G:N2	27:25:22:HIS:CE1	2.88	0.42
6:2G:121:ASN:HA	6:2G:122:PRO:HD3	1.75	0.42
7:2H:90:LYS:HE3	7:2H:169:VAL:HG21	2.02	0.42
8:2I:116:LEU:HD23	8:2I:116:LEU:O	2.20	0.42
29:27:43:THR:HG23	29:27:44:PRO:HD2	2.02	0.42
32:2a:255:G:O3'	48:2q:17:LYS:HD2	2.20	0.42
32:2a:262:A:C6	32:2a:263:A:C6	3.08	0.42
32:2a:441:A:H3'	32:2a:442:C:C6	2.55	0.42
32:2a:456:C:H2'	32:2a:457:C:C6	2.55	0.42
32:2a:545:C:OP1	35:2d:61:LYS:NZ	2.45	0.42
32:2a:651:C:O2'	32:2a:652:U:H5'	2.20	0.42
32:2a:694:A:N1	32:2a:787:A:O2'	2.50	0.42
32:2a:1071:C:H2'	32:2a:1072:G:C8	2.54	0.42
32:2a:1261:A:C8	32:2a:1275:A:C6	3.08	0.42
32:2a:1368:G:O2'	32:2a:1369:C:H5'	2.20	0.42
35:2d:126:ILE:HG22	35:2d:127:THR:N	2.35	0.42
35:2d:146:ILE:N	35:2d:146:ILE:HD12	2.35	0.42
39:2h:33:GLU:HG3	39:2h:59:LEU:HD11	2.02	0.42
44:2m:86:CYS:SG	44:2m:88:ARG:HB2	2.59	0.42
49:2r:24:ALA:C	49:2r:26:LEU:H	2.27	0.42
1:1A:471:A:H2'	1:1A:472:A:O4'	2.20	0.41
1:1A:790:C:H6	1:1A:790:C:H2'	1.48	0.41
1:1A:792:G:O2'	1:1A:2440:C:N3	2.47	0.41
1:1A:811:U:H2'	11:1P:21:ARG:HA	2.02	0.41
1:1A:909:A:H2'	1:1A:912:C:H5	1.84	0.41
1:1A:1495:A:C6	1:1A:1496:A:C6	3.08	0.41
1:1A:1498:C:O4'	1:1A:1577:C:H4'	2.20	0.41
1:1A:2136:C:N3	1:1A:2155:G:O6	2.53	0.41
1:1A:2197:U:H1'	1:1A:2198:A:C8	2.55	0.41
1:1A:2439:A:C8	1:1A:2439:A:H5'	2.55	0.41
1:1A:2653:U:H2'	1:1A:2654:A:C8	2.54	0.41
2:1B:40:U:C2	2:1B:43:C:OP2	2.73	0.41
6:1G:50:ALA:C	6:1G:52:ILE:N	2.78	0.41
6:1G:83:ARG:H	6:1G:86:MET:HE3	1.84	0.41
9:1N:82:LEU:HA	9:1N:82:LEU:HD12	1.76	0.41
11:1P:24:GLY:O	11:1P:25:SER:C	2.62	0.41
11:1P:65:ARG:HE	11:1P:65:ARG:HB2	1.65	0.41
11:1P:88:LEU:HA	11:1P:88:LEU:HD23	1.66	0.41
12:1Q:44:ALA:O	12:1Q:45:GLN:C	2.63	0.41
26:14:50:VAL:HG21	44:1m:64:TRP:C	2.45	0.41
26:14:58:ARG:HG2	50:1s:65:ASN:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:32:A:OP1	32:1a:398:C:H1'	2.19	0.41
32:1a:67:C:H2'	32:1a:68:G:H8	1.83	0.41
32:1a:175:C:H2'	32:1a:176:C:H6	1.83	0.41
32:1a:1190:G:H5'	34:1c:176:HIS:CE1	2.55	0.41
32:1a:1243:C:H42	32:1a:1294:G:H1	1.66	0.41
49:1r:70:ILE:O	49:1r:73:ALA:HB3	2.19	0.41
1:2A:55:G:H2'	1:2A:56:A:H8	1.85	0.41
1:2A:271(L):U:C4'	8:2I:50:ARG:HH22	2.32	0.41
1:2A:753:C:O5'	1:2A:753:C:H6	2.03	0.41
1:2A:861:A:C2	1:2A:917:A:C4	3.08	0.41
1:2A:867:C:O2	1:2A:913:U:H5'	2.20	0.41
1:2A:942:G:OP2	11:2P:39:LYS:NZ	2.48	0.41
1:2A:1308:A:N6	1:2A:1606:G:H1'	2.35	0.41
1:2A:1398:C:H2'	1:2A:1399:C:H6	1.85	0.41
1:2A:1651:G:N2	1:2A:2007:C:C2	2.88	0.41
1:2A:1695:G:H1'	3:2D:8:PRO:O	2.20	0.41
1:2A:2759:G:H2'	1:2A:2760:C:C6	2.55	0.41
6:2G:47:LYS:HG3	6:2G:48:GLU:H	1.85	0.41
6:2G:83:ARG:O	6:2G:86:MET:HB2	2.19	0.41
6:2G:121:ASN:HB3	6:2G:124:SER:OG	2.20	0.41
7:2H:27:LYS:HA	7:2H:32:GLU:HB3	2.02	0.41
11:2P:93:GLY:N	11:2P:123:LEU:HD22	2.35	0.41
14:2S:28:VAL:HG11	14:2S:98:VAL:HG13	2.02	0.41
15:2T:78:LEU:O	15:2T:78:LEU:HD23	2.20	0.41
15:2T:126:ALA:HA	15:2T:129:ARG:NH1	2.35	0.41
17:2V:75:PHE:HE1	17:2V:82:ARG:NH1	2.18	0.41
21:2Z:3:TYR:O	21:2Z:58:VAL:HG22	2.19	0.41
21:2Z:5:LEU:HD13	21:2Z:47:VAL:CG2	2.48	0.41
32:2a:945:G:C2	32:2a:946:A:C8	3.07	0.41
32:2a:1148:U:O3'	40:2i:14:VAL:HG11	2.20	0.41
32:2a:1219:U:HO2'	50:2s:34:TRP:CG	2.38	0.41
32:2a:1239:A:C2'	32:2a:1298:C:H42	2.32	0.41
32:2a:1239:A:H62	32:2a:1299:A:H62	1.67	0.41
33:2b:51:LEU:HD22	33:2b:55:PHE:HE2	1.85	0.41
33:2b:223:ILE:HA	33:2b:226:ARG:HG3	2.02	0.41
37:2f:33:TYR:HE2	37:2f:74:ASP:HB3	1.84	0.41
38:2g:16:LEU:HD11	40:2i:42:ARG:HH12	1.85	0.41
42:2k:17:GLY:O	42:2k:80:VAL:HA	2.20	0.41
43:2l:90:VAL:O	43:2l:92:0TD:N	2.53	0.41
50:2s:40:ILE:HA	50:2s:44:MET:SD	2.60	0.41
54:2z:53:THR:HG22	54:2z:62:VAL:HG13	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:7:G:C2	1:1A:8:A:C4	3.08	0.41
1:1A:271(O):C:H2'	1:1A:271(P):C:C6	2.55	0.41
1:1A:635:C:H6	1:1A:635:C:O5'	2.02	0.41
1:1A:1287:A:H8	13:1R:104:ARG:HD3	1.85	0.41
1:1A:1407:C:C2	1:1A:1596:A:C2	3.08	0.41
1:1A:1448:G:O2'	1:1A:1528(A):A:N1	2.47	0.41
1:1A:1518:U:C2'	1:1A:1519:G:H5'	2.50	0.41
1:1A:2033:A:H2'	58:1A:4130:HOH:O	2.19	0.41
1:1A:2142:C:H2'	1:1A:2143:C:C6	2.55	0.41
1:1A:2298:A:H2'	1:1A:2299:G:O4'	2.20	0.41
1:1A:2517:C:C4	1:1A:2542:A:C6	3.08	0.41
1:1A:2689:U:P	1:1A:2719:G:H22	2.38	0.41
2:1B:51:G:C6	2:1B:52:A:C6	3.08	0.41
5:1F:64:ILE:HD12	5:1F:65:TRP:CE3	2.55	0.41
5:1F:117:ARG:NH1	5:1F:120:GLU:OE1	2.53	0.41
5:1F:150:GLY:HA2	5:1F:172:TRP:CE3	2.55	0.41
6:1G:135:LEU:HD12	6:1G:135:LEU:N	2.35	0.41
8:1I:128:LEU:HD23	8:1I:128:LEU:HA	1.67	0.41
9:1N:59:LYS:CA	9:1N:61:ARG:HH12	2.32	0.41
12:1Q:1:MET:HE2	12:1Q:1:MET:HB3	1.78	0.41
16:1U:36:ARG:HA	16:1U:39:LEU:HD12	2.01	0.41
22:10:50:ASN:C	22:10:62:LEU:HD12	2.45	0.41
26:14:61:ARG:HG3	26:14:62:ARG:H	1.86	0.41
32:1a:110:C:O2'	47:1p:25:ARG:O	2.36	0.41
32:1a:619:U:H2'	35:1d:135:LEU:HD21	2.01	0.41
32:1a:684:A:N6	58:1a:1927:HOH:O	2.53	0.41
32:1a:691:G:H1'	32:1a:696:A:N6	2.35	0.41
32:1a:814:A:N7	32:1a:816:A:C4	2.89	0.41
32:1a:1002:G:H2'	32:1a:1003:G:O4'	2.20	0.41
32:1a:1232:U:H2'	32:1a:1233:G:O4'	2.20	0.41
32:1a:1428:A:C6	32:1a:1429:C:C4	3.08	0.41
33:1b:210:SER:O	33:1b:214:ILE:HG12	2.20	0.41
36:1e:95:ALA:HB1	36:1e:96:PRO:HD2	2.01	0.41
36:1e:150:ARG:O	36:1e:150:ARG:HG3	2.20	0.41
41:1j:13:HIS:ND1	41:1j:13:HIS:C	2.78	0.41
42:1k:93:GLN:HA	42:1k:96:ARG:HG3	2.02	0.41
1:2A:183:C:H1'	1:2A:433:C:H1'	2.03	0.41
1:2A:211:A:H2'	1:2A:212:G:O4'	2.19	0.41
1:2A:307:G:N2	1:2A:310:A:C8	2.87	0.41
1:2A:1122:G:N3	1:2A:1122:G:H2'	2.36	0.41
1:2A:1154:G:O5'	1:2A:1154:G:H8	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1509(B):A:O2'	1:2A:1510:G:H5'	2.20	0.41
1:2A:2167:U:H2'	1:2A:2168:G:C8	2.54	0.41
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.50	0.41
4:2E:82:ARG:HG3	4:2E:83:ASP:N	2.34	0.41
8:2I:56:LYS:O	8:2I:59:ALA:N	2.54	0.41
14:2S:88:ASP:OD1	14:2S:88:ASP:C	2.63	0.41
27:25:35:GLU:HG2	27:25:51:TYR:CD2	2.54	0.41
32:2a:254:G:OP1	48:2q:67:LYS:O	2.38	0.41
32:2a:707:C:H2'	32:2a:708:C:H6	1.84	0.41
32:2a:834:C:H2'	32:2a:835:U:C6	2.55	0.41
32:2a:922:G:H4'	36:2e:20:GLN:HA	2.01	0.41
32:2a:954:G:C5	32:2a:955:U:C4	3.08	0.41
32:2a:1002:G:H2'	32:2a:1003:G:O4'	2.19	0.41
32:2a:1118:C:O5'	32:2a:1118:C:H6	2.03	0.41
32:2a:1287:A:H2	32:2a:1353:G:N3	2.18	0.41
32:2a:1318:A:H5"	50:2s:3:ARG:HH12	1.85	0.41
33:2b:38:GLY:O	33:2b:39:ILE:HD13	2.20	0.41
33:2b:130:ARG:HA	33:2b:131:PRO:HD3	1.85	0.41
34:2c:150:LYS:HD3	34:2c:152:ILE:HD11	2.02	0.41
36:2e:26:PHE:CD2	36:2e:26:PHE:N	2.86	0.41
36:2e:27:ARG:HE	36:2e:27:ARG:HB2	1.64	0.41
43:2l:54:LYS:N	43:2l:54:LYS:HD2	2.35	0.41
54:2z:39:ILE:HG22	54:2z:41:LEU:HD13	2.02	0.41
1:1A:149:A:C6	1:1A:150:C:N3	2.89	0.41
1:1A:455:C:N3	1:1A:472:A:H2'	2.35	0.41
1:1A:558:G:P	9:1N:111:PRO:HD2	2.61	0.41
1:1A:620:G:H4'	1:1A:621:A:O5'	2.20	0.41
1:1A:702:G:H2'	1:1A:703:U:C6	2.56	0.41
1:1A:967:C:H2'	1:1A:968:G:O4'	2.20	0.41
1:1A:1001:A:H2'	1:1A:1002:G:O4'	2.19	0.41
1:1A:1166:C:H1'	58:1A:4002:HOH:O	2.20	0.41
1:1A:1243:G:O2'	11:1P:7:ARG:NH2	2.54	0.41
1:1A:1399:C:OP1	19:1X:25:LYS:NZ	2.45	0.41
1:1A:1971:A:C4	3:1D:241:PRO:HD3	2.56	0.41
2:1B:37:C:C5	2:1B:38:C:C5	3.08	0.41
3:1D:177:LEU:HD23	3:1D:177:LEU:HA	1.76	0.41
5:1F:115:ALA:O	5:1F:116:ASP:C	2.63	0.41
5:1F:180:GLY:O	5:1F:181:LEU:C	2.63	0.41
11:1P:49:ARG:CZ	30:18:61:LEU:HD23	2.50	0.41
12:1Q:141:GLN:NE2	21:1Z:76:LEU:HD11	2.36	0.41
13:1R:10:LEU:O	13:1R:12:ARG:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1Z:166:SER:O	21:1Z:168:GLU:N	2.53	0.41
32:1a:163:C:O2	32:1a:163:C:H2'	2.20	0.41
32:1a:166:G:H2'	32:1a:167:G:H8	1.85	0.41
32:1a:186:C:C2	32:1a:187:C:C5	3.08	0.41
32:1a:438:G:H4'	35:1d:123:HIS:HD2	1.85	0.41
32:1a:721:G:H4'	32:1a:722:A:O4'	2.19	0.41
32:1a:909:A:H2'	32:1a:910:C:O4'	2.19	0.41
32:1a:1122:U:C4	32:1a:1123:A:N7	2.88	0.41
33:1b:95:GLN:OE1	33:1b:95:GLN:HA	2.21	0.41
33:1b:102:LEU:HB3	33:1b:180:LEU:CD1	2.51	0.41
34:1c:46:GLU:HB2	34:1c:47:LEU:HD23	2.01	0.41
35:1d:19:LEU:HD23	35:1d:67:ILE:HG13	2.01	0.41
35:1d:43:HIS:ND1	35:1d:46:LYS:HE3	2.36	0.41
42:1k:59:TYR:O	42:1k:62:GLN:HB3	2.21	0.41
42:1k:62:GLN:HG2	42:1k:63:LEU:HD23	2.02	0.41
49:1r:51:LEU:HD22	49:1r:55:ARG:HD3	2.01	0.41
49:1r:65:ILE:H	49:1r:65:ILE:HG12	1.57	0.41
1:2A:52:A:OP2	1:2A:117:G:N1	2.43	0.41
1:2A:301:G:H1'	1:2A:302:C:C6	2.55	0.41
1:2A:361:G:C2	1:2A:362:U:N3	2.88	0.41
1:2A:704:G:H1'	1:2A:726:G:N2	2.35	0.41
1:2A:733:G:O6	1:2A:761:A:C8	2.72	0.41
1:2A:738:G:C2	1:2A:759:G:C5	3.08	0.41
1:2A:984:A:H8	1:2A:984:A:O5'	2.03	0.41
1:2A:1164:G:H2'	1:2A:1165:U:C6	2.55	0.41
1:2A:1223:G:C6	1:2A:1227:G:O6	2.73	0.41
1:2A:1281:G:C2	1:2A:1290:C:C2	3.08	0.41
1:2A:1348:G:O6	1:2A:1349:A:N6	2.53	0.41
1:2A:1539:G:H2'	1:2A:1540:U:H6	1.83	0.41
1:2A:1705:G:C2'	1:2A:1706:U:H5'	2.50	0.41
1:2A:1926:U:H2'	1:2A:1928:A:OP2	2.19	0.41
1:2A:2141:G:H3'	1:2A:2142:C:C6	2.55	0.41
1:2A:2543:G:H2'	1:2A:2544:G:C8	2.54	0.41
1:2A:2649:U:H2'	1:2A:2650:U:C6	2.56	0.41
2:2B:4:C:H2'	2:2B:5:C:O4'	2.20	0.41
3:2D:215:LEU:HA	3:2D:215:LEU:HD23	1.75	0.41
5:2F:123:LEU:HD12	5:2F:124:LEU:N	2.34	0.41
7:2H:7:LEU:HA	7:2H:8:PRO:HD3	1.88	0.41
12:2Q:34:LEU:HB2	12:2Q:118:LEU:HD22	2.02	0.41
13:2R:26:LYS:HE2	13:2R:70:LEU:O	2.20	0.41
14:2S:66:ALA:O	14:2S:67:ARG:C	2.63	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:2T:15:VAL:HG13	15:2T:79:HIS:CE1	2.54	0.41
15:2T:18:ASP:OD1	15:2T:18:ASP:N	2.53	0.41
17:2V:48:GLY:CA	17:2V:52:VAL:HG12	2.50	0.41
28:26:48:VAL:H	28:26:48:VAL:HG12	1.53	0.41
29:27:47:ARG:C	29:27:48:LYS:HD2	2.45	0.41
32:2a:471:G:C6	32:2a:472:A:C5	3.08	0.41
32:2a:680:C:H42	32:2a:710:G:H1	1.68	0.41
32:2a:762:C:H2'	32:2a:763:G:H8	1.84	0.41
32:2a:929:G:C6	32:2a:930:C:C4	3.07	0.41
32:2a:1324:A:H4'	32:2a:1362:C:O3'	2.20	0.41
32:2a:1390:U:H2'	32:2a:1391:U:C6	2.54	0.41
32:2a:1490:C:C2	32:2a:1491:G:C8	3.08	0.41
33:2b:7:VAL:CG2	33:2b:221:LEU:HD23	2.50	0.41
33:2b:24:TRP:CH2	33:2b:26:PRO:HA	2.55	0.41
33:2b:61:LEU:HD23	33:2b:68:ILE:HD11	2.03	0.41
33:2b:82:ARG:O	33:2b:86:GLU:HB2	2.20	0.41
34:2c:98:ASN:O	34:2c:100:ALA:N	2.54	0.41
36:2e:31:LEU:HD23	36:2e:31:LEU:HA	1.68	0.41
40:2i:114:TYR:HD2	41:2j:60:ARG:H	1.68	0.41
44:2m:92:HIS:CE1	44:2m:98:VAL:HG21	2.55	0.41
54:2z:29:LYS:HD2	54:2z:30:TRP:CH2	2.54	0.41
1:1A:636:G:C2	11:1P:115:LEU:HD11	2.55	0.41
1:1A:740:U:H1'	1:1A:1981:A:C4	2.55	0.41
1:1A:876:C:H2'	1:1A:877:U:O4'	2.20	0.41
1:1A:1429:G:H2'	1:1A:1430:C:C6	2.55	0.41
1:1A:1582:C:C2	1:1A:1583:A:C8	3.09	0.41
1:1A:1965:C:OP1	1:1A:1966:A:O2'	2.35	0.41
1:1A:2078:C:H2'	1:1A:2079:U:O4'	2.21	0.41
1:1A:2474:C:O2	1:1A:2474:C:H2'	2.18	0.41
1:1A:2516:G:O6	1:1A:2517:C:N4	2.53	0.41
2:1B:29:A:H2'	2:1B:30:C:O4'	2.20	0.41
2:1B:49:C:H6	2:1B:49:C:O5'	2.03	0.41
3:1D:94:LEU:HD23	3:1D:94:LEU:HA	1.69	0.41
5:1F:155:LEU:CD1	5:1F:174:VAL:HG12	2.50	0.41
6:1G:96:ARG:O	6:1G:99:MET:HB3	2.21	0.41
6:1G:109:VAL:C	6:1G:112:PRO:HD2	2.45	0.41
7:1H:3:ARG:HG2	7:1H:6:ARG:HG2	2.01	0.41
8:1I:31:LEU:HD21	8:1I:38:LEU:HD13	2.01	0.41
17:1V:97:LYS:HA	17:1V:97:LYS:HD3	1.84	0.41
20:1Y:86:ARG:O	20:1Y:97:ARG:HA	2.19	0.41
28:16:40:CYS:HA	28:16:41:PRO:HD3	1.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:329:A:H4'	58:1a:1980:HOH:O	2.20	0.41
32:1a:570:G:H1'	32:1a:820:U:C4	2.55	0.41
32:1a:585:G:H8	32:1a:585:G:O5'	2.02	0.41
32:1a:1202:G:H22	45:1n:46:GLU:CD	2.26	0.41
32:1a:1218:C:H2'	32:1a:1219:U:C6	2.55	0.41
32:1a:1285:A:H4'	32:1a:1286:A:C5'	2.49	0.41
32:1a:1468:A:H8	32:1a:1468:A:O5'	2.02	0.41
35:1d:132:ARG:HG3	35:1d:133:VAL:N	2.36	0.41
37:1f:62:TRP:C	37:1f:63:TYR:HD1	2.28	0.41
39:1h:49:GLU:HG2	39:1h:62:TYR:CE2	2.51	0.41
41:1j:48:THR:HG1	41:1j:62:HIS:CE1	2.39	0.41
44:1m:4:ILE:HD13	44:1m:4:ILE:HG21	1.83	0.41
45:1n:7:ILE:HA	45:1n:23:ARG:HD2	2.00	0.41
46:1o:51:HIS:O	46:1o:54:ARG:HB3	2.20	0.41
51:1t:34:LYS:HZ1	51:1t:80:ARG:HH12	1.69	0.41
53:1y:17:PRO:C	53:1y:19:PHE:H	2.25	0.41
1:2A:79:G:N2	1:2A:108:U:C2	2.89	0.41
1:2A:92:A:H2'	1:2A:93:G:H8	1.85	0.41
1:2A:253:C:H2'	1:2A:254:G:O4'	2.20	0.41
1:2A:857:C:H1'	22:20:26:TYR:CE1	2.55	0.41
1:2A:1283:G:N2	1:2A:1285:G:H3'	2.35	0.41
1:2A:1642:G:O2'	1:2A:1643:G:H5'	2.21	0.41
1:2A:2063:C:O2	1:2A:2450:A:N1	2.53	0.41
1:2A:2406:U:H6	1:2A:2406:U:H2'	1.66	0.41
1:2A:2438:U:O3'	1:2A:2439:A:H3'	2.21	0.41
1:2A:2442:C:H2'	1:2A:2443:C:H6	1.85	0.41
1:2A:2851:A:C5	1:2A:2852:G:C5	3.09	0.41
4:2E:18:ASP:HB3	15:2T:82:LEU:HD21	2.02	0.41
4:2E:103:ASP:CG	4:2E:168:MET:HE2	2.45	0.41
5:2F:9:ILE:HA	5:2F:10:PRO:HD2	1.87	0.41
7:2H:3:ARG:NE	7:2H:54:ARG:HH12	2.18	0.41
7:2H:140:LYS:HE3	7:2H:140:LYS:HB2	1.72	0.41
8:2I:94:ALA:O	8:2I:98:ALA:N	2.47	0.41
13:2R:55:ALA:HA	13:2R:80:PHE:CZ	2.55	0.41
13:2R:63:ARG:HA	13:2R:80:PHE:CZ	2.55	0.41
15:2T:64:ARG:HD2	15:2T:73:GLU:OE2	2.21	0.41
17:2V:19:LYS:HE3	17:2V:19:LYS:HB2	1.80	0.41
32:2a:55:A:C5	32:2a:56:U:C5	3.08	0.41
32:2a:134:A:H61	47:2p:25:ARG:HH12	1.67	0.41
32:2a:954:G:H5'	54:2z:17:ARG:CZ	2.49	0.41
32:2a:975:A:H5'	32:2a:975:A:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:975:A:H5'	32:2a:975:A:H8	1.85	0.41
32:2a:988:G:H4'	32:2a:1014:A:H61	1.86	0.41
32:2a:1147:C:O2'	40:2i:5:TYR:OH	2.33	0.41
32:2a:1236:A:O2'	32:2a:1304:G:H4'	2.20	0.41
33:2b:79:ASP:C	33:2b:81:VAL:N	2.78	0.41
33:2b:155:LEU:HD21	33:2b:159:PRO:HG3	2.03	0.41
34:2c:71:ALA:O	34:2c:73:PRO:HD3	2.21	0.41
34:2c:83:ARG:O	34:2c:86:VAL:N	2.54	0.41
38:2g:102:ARG:HG2	38:2g:106:GLN:OE1	2.20	0.41
38:2g:111:ARG:NE	38:2g:123:GLU:HB2	2.36	0.41
47:2p:53:VAL:HG22	47:2p:79:VAL:HG12	2.01	0.41
49:2r:26:LEU:HD11	49:2r:42:ARG:HG2	2.02	0.41
1:1A:317:G:N2	1:1A:318:C:H1'	2.36	0.41
1:1A:1408:C:C2	1:1A:1595:G:N2	2.89	0.41
1:1A:1433:U:O2	1:1A:1561:G:C2	2.74	0.41
1:1A:2065:C:H2'	1:1A:2066:C:C6	2.55	0.41
1:1A:2086:U:H2'	1:1A:2087:G:C8	2.55	0.41
1:1A:2348:U:O4	1:1A:2382:G:C2	2.74	0.41
2:1B:29:A:C2	2:1B:30:C:C2	3.08	0.41
2:1B:91:C:P	12:1Q:16:ARG:NH1	2.93	0.41
3:1D:132:PRO:HD3	3:1D:190:TYR:CZ	2.55	0.41
6:1G:33:ARG:H	6:1G:162:THR:HG23	1.85	0.41
9:1N:58:ASP:OD1	9:1N:58:ASP:N	2.52	0.41
15:1T:53:ARG:CZ	15:1T:53:ARG:HB3	2.51	0.41
15:1T:74:ARG:HD3	15:1T:76:PHE:CZ	2.55	0.41
16:1U:28:ARG:HD3	16:1U:38:THR:OG1	2.20	0.41
21:1Z:166:SER:C	21:1Z:168:GLU:N	2.78	0.41
32:1a:181:G:N2	32:1a:183:G:C2	2.88	0.41
32:1a:244:U:H4'	32:1a:245:C:H5"	2.01	0.41
32:1a:666:G:H5'	32:1a:726:C:H1'	2.01	0.41
32:1a:763:G:H2'	32:1a:764:C:H6	1.84	0.41
33:1b:88:ALA:HB2	33:1b:219:VAL:CG1	2.41	0.41
36:1e:13:ILE:HA	36:1e:29:GLY:O	2.19	0.41
36:1e:84:PHE:HB3	36:1e:134:ALA:HB2	2.01	0.41
37:1f:97:PHE:CD2	49:1r:31:LEU:HD23	2.56	0.41
38:1g:79:ARG:HG3	38:1g:84:ASN:CA	2.49	0.41
43:1l:55:VAL:HG12	43:1l:56:ALA:N	2.36	0.41
43:1l:113:ARG:HH21	43:1l:116:SER:HB2	1.85	0.41
44:1m:80:ARG:O	44:1m:83:ASP:N	2.51	0.41
47:1p:5:ARG:HB3	47:1p:67:THR:OG1	2.20	0.41
1:2A:564:C:H2'	1:2A:565:C:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:607:U:H5”	5:2F:103:LYS:HD2	2.02	0.41
1:2A:649:G:C5	1:2A:650:C:C4	3.09	0.41
1:2A:818:G:H4’	1:2A:838:C:O3’	2.20	0.41
1:2A:819:A:N3	1:2A:1189:A:C2	2.89	0.41
1:2A:1000:A:C6	1:2A:1001:A:N1	2.88	0.41
1:2A:1401:G:H2’	1:2A:1402:C:O4’	2.20	0.41
1:2A:2524:G:C2	1:2A:2525:G:H1’	2.55	0.41
1:2A:2728:U:H2’	1:2A:2729:G:H8	1.84	0.41
1:2A:2731:G:N1	1:2A:2732:G:C6	2.89	0.41
9:2N:138:LEU:HD22	9:2N:138:LEU:HA	1.84	0.41
14:2S:41:ASP:OD1	14:2S:43:GLU:HB3	2.20	0.41
21:2Z:17:ALA:O	21:2Z:20:ARG:HB2	2.20	0.41
27:25:38:ALA:CB	27:25:48:GLU:HG3	2.51	0.41
29:27:15:THR:HG22	29:27:16:HIS:CE1	2.56	0.41
32:2a:102:G:C6	32:2a:103:C:C4	3.08	0.41
32:2a:503:C:OP2	43:2l:116:SER:OG	2.26	0.41
32:2a:542:G:H2’	32:2a:543:C:H6	1.85	0.41
32:2a:900:A:C6	32:2a:901:A:C6	3.08	0.41
34:2c:131:ARG:NH2	36:2e:50:GLU:HG3	2.36	0.41
35:2d:173:TRP:CD1	35:2d:173:TRP:N	2.88	0.41
39:2h:40:ALA:HB2	39:2h:45:ILE:HG13	2.02	0.41
45:2n:3:ARG:NH1	45:2n:3:ARG:HA	2.35	0.41
48:2q:16:GLN:O	48:2q:17:LYS:HB2	2.21	0.41
49:2r:53:ARG:HA	49:2r:56:THR:OG1	2.21	0.41
50:2s:66:MET:HB2	50:2s:74:PHE:CZ	2.55	0.41
54:2z:63:ALA:HB3	54:2z:81:LEU:HD23	2.01	0.41
1:1A:84:A:N1	1:1A:98:G:O2’	2.52	0.41
1:1A:493:G:H2’	1:1A:494:G:O4’	2.21	0.41
1:1A:548:A:O2’	1:1A:549:G:OP1	2.28	0.41
1:1A:678:C:H2’	1:1A:679:C:H6	1.86	0.41
1:1A:866:A:O2’	1:1A:867:C:H5’	2.20	0.41
1:1A:1292:U:H2’	1:1A:1293:C:H6	1.79	0.41
1:1A:1653:G:C6	13:1R:9:LYS:HB2	2.56	0.41
1:1A:1823:G:OP1	3:1D:54:ARG:NH1	2.54	0.41
1:1A:2109:U:H2’	1:1A:2110:G:C8	2.56	0.41
1:1A:2544:G:H2’	1:1A:2545:G:O4’	2.21	0.41
1:1A:2593:U:H2’	1:1A:2594:C:H6	1.85	0.41
3:1D:53:PHE:HB3	3:1D:218:ARG:O	2.20	0.41
3:1D:119:ALA:HB1	3:1D:130:ALA:HB3	2.02	0.41
3:1D:186:HIS:ND1	3:1D:187:GLY:N	2.68	0.41
6:1G:121:ASN:HA	6:1G:122:PRO:HD3	1.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:1H:106:THR:O	7:1H:106:THR:HG22	2.20	0.41
8:1I:80:PRO:HA	8:1I:145:VAL:HG23	2.02	0.41
13:1R:65:LEU:HD12	13:1R:65:LEU:HA	1.69	0.41
15:1T:37:GLY:HA2	15:1T:38:ASN:HA	1.64	0.41
17:1V:62:LEU:HD12	17:1V:62:LEU:HA	1.83	0.41
18:1W:45:TYR:CZ	18:1W:49:LYS:HD2	2.56	0.41
21:1Z:102:LEU:HD13	21:1Z:123:ASP:HA	2.02	0.41
21:1Z:134:PRO:HB2	21:1Z:136:PHE:O	2.20	0.41
32:1a:8:A:N6	35:1d:209:ARG:HB2	2.35	0.41
32:1a:373:A:C2	32:1a:482:A:C6	3.08	0.41
32:1a:409:G:OP1	35:1d:24:GLU:HB2	2.21	0.41
32:1a:475:G:H2'	32:1a:476:G:H8	1.86	0.41
32:1a:616:G:O2'	32:1a:617:G:H5'	2.21	0.41
32:1a:658:G:H2'	32:1a:659:U:C6	2.55	0.41
32:1a:933:G:C6	32:1a:1385:G:C6	3.09	0.41
32:1a:1207:2MG:O2'	32:1a:1208:C:H5'	2.20	0.41
32:1a:1223:C:H3'	32:1a:1224:G:H5"	2.02	0.41
32:1a:1434:A:H2'	32:1a:1435:G:O4'	2.20	0.41
33:1b:16:HIS:CE1	33:1b:44:LEU:HD11	2.55	0.41
34:1c:52:LEU:HD12	34:1c:54:ARG:H	1.84	0.41
37:1f:75:LEU:O	37:1f:79:LEU:HG	2.20	0.41
40:1i:18:PHE:HB2	40:1i:62:TYR:O	2.21	0.41
41:1j:8:LEU:HA	41:1j:8:LEU:HD23	1.82	0.41
44:1m:73:GLU:O	44:1m:77:ASN:HB2	2.21	0.41
47:1p:23:ASP:O	47:1p:25:ARG:N	2.53	0.41
48:1q:3:LYS:HD2	48:1q:60:ILE:HD11	2.03	0.41
49:1r:61:LYS:O	49:1r:65:ILE:HG12	2.20	0.41
50:1s:63:THR:H	50:1s:66:MET:CG	2.34	0.41
53:1y:2:ARG:NH1	53:1y:2:ARG:HG2	2.35	0.41
1:2A:196:A:N3	1:2A:196:A:H2'	2.35	0.41
1:2A:301:G:C6	1:2A:317:G:C6	3.08	0.41
1:2A:328:U:H4'	20:2Y:68:HIS:CD2	2.55	0.41
1:2A:704:G:N3	1:2A:726:G:C2	2.88	0.41
1:2A:1056:G:N2	1:2A:1103:A:H62	2.18	0.41
1:2A:1344:G:O2'	1:2A:1385:G:H2'	2.19	0.41
1:2A:1992:G:N2	1:2A:1996:C:O2'	2.54	0.41
1:2A:2308:G:H8	1:2A:2308:G:H2'	1.75	0.41
1:2A:2345:G:N3	1:2A:2381:C:H2'	2.36	0.41
1:2A:2571:C:H5"	1:2A:2572:A:H5"	2.02	0.41
2:2B:98:G:C5	2:2B:99:G:C8	3.08	0.41
5:2F:23:ASP:C	5:2F:24:LEU:HD13	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:2F:122:LYS:HB3	5:2F:191:ARG:HG2	2.02	0.41
11:2P:19:VAL:CG2	11:2P:31:ALA:HB1	2.51	0.41
11:2P:65:ARG:HE	11:2P:65:ARG:HB2	1.71	0.41
11:2P:126:VAL:HG12	11:2P:148:LEU:CD2	2.51	0.41
12:2Q:51:ARG:O	12:2Q:54:MET:N	2.53	0.41
13:2R:100:LEU:HD13	13:2R:100:LEU:HA	1.47	0.41
15:2T:91:ARG:HD2	15:2T:120:ARG:NH1	2.36	0.41
26:24:68:ARG:HG3	26:24:69:LYS:N	2.36	0.41
27:25:20:ARG:HG2	27:25:23:HIS:CE1	2.55	0.41
28:26:34:LEU:HD13	28:26:36:LEU:HD11	2.02	0.41
32:2a:254:G:H1	32:2a:272:C:H42	1.69	0.41
32:2a:554:C:H2'	32:2a:555:C:C6	2.56	0.41
32:2a:598:U:H2'	32:2a:599:C:C6	2.56	0.41
32:2a:754:C:H6	46:2o:69:TYR:CE2	2.39	0.41
32:2a:1516:G:N2	32:2a:1519:MA6:OP2	2.53	0.41
32:2a:1531:A:OP2	32:2a:1531:A:H8	2.04	0.41
39:2h:14:ARG:O	39:2h:18:ARG:HG3	2.20	0.41
42:2k:85:ARG:HG2	42:2k:111:ASP:C	2.46	0.41
44:2m:90:LEU:HD22	44:2m:94:ARG:HH12	1.85	0.41
46:2o:6:GLU:O	46:2o:9:GLN:HB2	2.21	0.41
46:2o:55:GLY:HA2	46:2o:58:MET:HE3	2.02	0.41
48:2q:56:VAL:HB	48:2q:77:VAL:HG12	2.02	0.41
54:2z:29:LYS:HB2	54:2z:29:LYS:HE3	1.70	0.41
1:1A:1214:A:H2'	1:1A:1215:G:O4'	2.21	0.41
1:1A:1705:G:C6	1:1A:1706:U:C4	3.09	0.41
1:1A:1771:C:H1'	1:1A:1786:A:N3	2.36	0.41
1:1A:2300:G:C2	1:1A:2301:C:C2	3.09	0.41
1:1A:2314:C:H2'	1:1A:2315:G:H8	1.85	0.41
1:1A:2758:A:C4	7:1H:67:LEU:HD21	2.55	0.41
1:1A:2785:C:H2'	1:1A:2786:U:O4'	2.21	0.41
2:1B:105:A:OP1	21:1Z:72:ARG:NH2	2.42	0.41
2:1B:111:G:C5	2:1B:112:U:C5	3.09	0.41
3:1D:30:GLU:HB3	3:1D:33:LEU:HB2	2.03	0.41
3:1D:125:ILE:HD12	3:1D:125:ILE:HG23	1.77	0.41
4:1E:181:LEU:HD12	4:1E:181:LEU:HA	1.68	0.41
8:1I:61:ARG:HA	8:1I:61:ARG:HD3	1.49	0.41
11:1P:63:PRO:HG2	30:18:25:MET:HB2	2.01	0.41
14:1S:82:ILE:C	14:1S:83:LYS:HD2	2.45	0.41
15:1T:102:ILE:HD13	15:1T:102:ILE:HG21	1.77	0.41
16:1U:31:SER:O	16:1U:32:PHE:C	2.61	0.41
16:1U:42:ALA:HA	16:1U:45:TYR:HB2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:186:C:H2'	32:1a:187:C:H6	1.81	0.41
32:1a:196:A:H5"	32:1a:197:A:OP1	2.20	0.41
32:1a:266:G:H5"	32:1a:268:C:H41	1.85	0.41
32:1a:298:A:H2'	32:1a:299:G:C8	2.56	0.41
32:1a:360:A:H2'	32:1a:361:G:O4'	2.19	0.41
32:1a:434:U:H2'	32:1a:435:C:H6	1.82	0.41
32:1a:456:C:N4	32:1a:475:G:H1	2.18	0.41
32:1a:1054:C:H4'	32:1a:1055:A:C5'	2.50	0.41
32:1a:1084:G:C5	32:1a:1085:U:C4	3.09	0.41
32:1a:1286:A:C2	52:1u:18:TYR:OH	2.72	0.41
33:1b:105:PHE:O	33:1b:107:THR:N	2.54	0.41
33:1b:201:ILE:HA	33:1b:202:PRO:HD2	1.88	0.41
34:1c:34:LEU:HG	34:1c:38:ARG:CZ	2.50	0.41
34:1c:131:ARG:NH2	36:1e:50:GLU:HG3	2.36	0.41
39:1h:138:TRP:CD1	39:1h:138:TRP:C	2.98	0.41
45:1n:51:GLY:C	45:1n:53:LEU:H	2.29	0.41
47:1p:20:VAL:CG2	47:1p:22:THR:HB	2.51	0.41
1:2A:98:G:P	24:22:2:LYS:HG2	2.60	0.41
1:2A:242:G:O2'	1:2A:254:G:O6	2.33	0.41
1:2A:412:A:O5'	1:2A:412:A:C8	2.74	0.41
1:2A:996:A:N3	1:2A:997:G:C8	2.89	0.41
1:2A:1047:G:H2'	1:2A:1110:G:H21	1.86	0.41
1:2A:1266:G:O4'	18:2W:15:ARG:NH2	2.53	0.41
1:2A:1553:A:C6	1:2A:1555:G:C4	3.09	0.41
1:2A:1668:A:O4'	1:2A:1669:A:C2	2.73	0.41
1:2A:1804:C:H6	1:2A:1804:C:O5'	2.03	0.41
1:2A:1833:U:O2'	1:2A:1969:A:N1	2.39	0.41
1:2A:1863:G:H2'	1:2A:1864:U:O4'	2.20	0.41
1:2A:1945:G:H2'	1:2A:1946:U:C6	2.55	0.41
1:2A:2038:G:H2'	1:2A:2039:C:C6	2.56	0.41
1:2A:2168:G:H2'	1:2A:2170:A:OP2	2.20	0.41
1:2A:2262:U:H4'	1:2A:2328:A:H2	1.86	0.41
1:2A:2516:G:C6	1:2A:2517:C:C4	3.09	0.41
1:2A:2886:G:H2'	1:2A:2887:U:C6	2.55	0.41
6:2G:11:TYR:HB2	6:2G:176:LEU:HD21	2.02	0.41
6:2G:75:LYS:HA	6:2G:84:LYS:NZ	2.36	0.41
12:2Q:26:TYR:CD2	12:2Q:141:GLN:HB3	2.56	0.41
12:2Q:75:THR:HG21	12:2Q:87:LYS:NZ	2.36	0.41
18:2W:40:ASN:O	18:2W:41:LYS:HG2	2.21	0.41
20:2Y:28:LYS:HG3	20:2Y:40:GLU:HG2	2.03	0.41
21:2Z:5:LEU:HD12	21:2Z:5:LEU:HA	1.81	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:255:G:C2	32:2a:272:C:C2	3.09	0.41
32:2a:425:G:H4'	35:2d:45:GLN:HE22	1.86	0.41
32:2a:511:C:N4	32:2a:540:G:H1	2.14	0.41
32:2a:707:C:H2'	32:2a:708:C:C6	2.56	0.41
32:2a:921:U:O2	36:2e:19:MET:HB2	2.21	0.41
32:2a:1322:C:OP1	50:2s:78:ARG:NH2	2.54	0.41
33:2b:87:ARG:NH1	33:2b:220:ASP:OD1	2.53	0.41
33:2b:105:PHE:C	33:2b:107:THR:N	2.77	0.41
35:2d:107:ARG:NH2	35:2d:194:LEU:HG	2.20	0.41
37:2f:3:ARG:HB3	37:2f:93:SER:HB2	2.02	0.41
38:2g:14:PRO:HB3	38:2g:19:GLY:C	2.45	0.41
38:2g:70:LYS:HG2	38:2g:96:GLN:HB3	2.01	0.41
38:2g:100:ALA:O	38:2g:104:LEU:HB2	2.20	0.41
41:2j:65:LEU:HD13	45:2n:56:VAL:HG22	2.02	0.41
47:2p:6:LEU:HD12	47:2p:6:LEU:HA	1.86	0.41
48:2q:89:LEU:HD23	48:2q:89:LEU:HA	1.53	0.41
1:1A:481:G:C4	1:1A:507:A:C2	3.09	0.41
1:1A:572:A:H2'	1:1A:573:G:O4'	2.19	0.41
1:1A:945:A:C6	1:1A:2448:A:C5	3.08	0.41
1:1A:1056:G:O3'	1:1A:1057:A:H8	2.04	0.41
1:1A:1141:U:C2'	9:1N:63:THR:HG21	2.47	0.41
1:1A:1665:A:C4'	10:1O:67:LYS:HB2	2.51	0.41
1:1A:1942:5MC:OP2	1:1A:1943:U:O2'	2.30	0.41
1:1A:2462:U:C2	1:1A:2489:G:N2	2.89	0.41
4:1E:35:GLN:HB3	4:1E:48:GLN:HB3	2.03	0.41
5:1F:8:GLN:NE2	5:1F:21:ALA:HB2	2.36	0.41
11:1P:93:GLY:N	11:1P:123:LEU:HD22	2.36	0.41
12:1Q:7:MET:HE1	21:1Z:194:PRO:HB2	2.02	0.41
13:1R:94:TYR:O	13:1R:117:VAL:HG23	2.21	0.41
14:1S:12:PHE:O	14:1S:13:ARG:C	2.64	0.41
22:10:24:LYS:O	22:10:25:ARG:NH1	2.52	0.41
25:13:54:VAL:CG1	25:13:55:ARG:N	2.84	0.41
32:1a:60:A:P	32:1a:60:A:H8	2.44	0.41
32:1a:391:G:P	47:1p:28:ARG:HH12	2.43	0.41
32:1a:392:G:H2'	32:1a:393:A:C8	2.55	0.41
32:1a:451:A:N7	32:1a:481:G:C2	2.89	0.41
32:1a:556:C:O2'	32:1a:557:G:H5'	2.21	0.41
32:1a:597:G:H1	32:1a:643:C:H42	1.69	0.41
32:1a:715:A:H2'	32:1a:716:A:C8	2.55	0.41
32:1a:949:A:C1'	32:1a:1364:U:H3	2.30	0.41
32:1a:951:G:C6	32:1a:952:U:C4	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:199:ASN:O	35:1d:202:LEU:HB2	2.20	0.41
37:1f:62:TRP:C	37:1f:63:TYR:CD1	2.98	0.41
47:1p:6:LEU:HG	47:1p:17:TYR:CB	2.51	0.41
48:1q:58:GLU:O	48:1q:74:LEU:N	2.54	0.41
1:2A:192:C:O2'	1:2A:802:A:N3	2.51	0.41
1:2A:353:G:N3	1:2A:353:G:H2'	2.36	0.41
1:2A:636:G:OP1	11:2P:132:LYS:HE2	2.20	0.41
1:2A:729:G:H2'	1:2A:1775:U:O2	2.19	0.41
1:2A:1005:C:H2'	1:2A:1006:C:H6	1.85	0.41
1:2A:1095:A:C6	1:2A:1096:A:N6	2.89	0.41
1:2A:1362:C:C2	1:2A:1363:C:C6	3.09	0.41
1:2A:1586:A:H8	1:2A:1586:A:O5'	2.03	0.41
1:2A:1865:G:O2'	1:2A:1876:A:N7	2.48	0.41
1:2A:2261:C:H1'	1:2A:2388:A:N3	2.36	0.41
1:2A:2359:C:H2'	1:2A:2360:A:O4'	2.21	0.41
1:2A:2842:G:H2'	1:2A:2843:G:O4'	2.20	0.41
1:2A:2882:A:H5'	13:2R:96:ARG:HB2	2.02	0.41
2:2B:2:C:H2'	2:2B:3:C:H6	1.86	0.41
2:2B:30:C:H2'	2:2B:31:C:C5'	2.51	0.41
6:2G:53:LEU:H	6:2G:53:LEU:HG	1.52	0.41
6:2G:111:LEU:HD21	6:2G:120:LEU:HD21	2.01	0.41
6:2G:173:LEU:HB3	6:2G:178:PHE:CD2	2.56	0.41
8:2I:109:ILE:HG23	8:2I:130:TYR:CZ	2.56	0.41
10:2O:7:TYR:CD1	10:2O:20:MET:HB2	2.55	0.41
10:2O:25:LEU:HA	10:2O:25:LEU:HD23	1.76	0.41
14:2S:99:LYS:O	14:2S:103:GLU:HG3	2.21	0.41
16:2U:50:ARG:HG2	16:2U:53:ARG:NH2	2.36	0.41
19:2X:94:GLY:HA3	19:2X:95:LEU:C	2.44	0.41
23:21:3:LYS:HB3	23:21:61:ARG:NH2	2.24	0.41
26:24:68:ARG:HG3	26:24:69:LYS:H	1.85	0.41
32:2a:127:G:O2'	48:2q:2:PRO:O	2.38	0.41
32:2a:380:G:N2	32:2a:384:G:C5	2.89	0.41
32:2a:423:G:N2	32:2a:424:G:C8	2.89	0.41
32:2a:633:G:C6	32:2a:634:C:C4	3.09	0.41
32:2a:642:A:H2'	32:2a:643:C:C6	2.56	0.41
32:2a:690:G:H2'	32:2a:691:G:O4'	2.19	0.41
32:2a:1486:G:H2'	32:2a:1487:G:C1'	2.51	0.41
33:2b:138:LEU:O	33:2b:141:GLU:HB3	2.21	0.41
35:2d:165:MET:HE3	35:2d:165:MET:HB3	1.90	0.41
47:2p:60:LEU:HD12	47:2p:60:LEU:HA	1.66	0.41
48:2q:88:TYR:CE2	48:2q:92:ARG:CZ	3.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:2s:5:LEU:HD23	50:2s:5:LEU:HA	1.86	0.41
1:1A:188:G:H1	1:1A:208:C:H42	1.67	0.41
1:1A:588:U:O4	1:1A:670:A:H1'	2.21	0.41
1:1A:705:A:C2	1:1A:727:A:H1'	2.55	0.41
1:1A:742:G:H4'	1:1A:1676:A:H5'	2.03	0.41
1:1A:807:U:H2'	1:1A:808:G:O4'	2.21	0.41
1:1A:912:C:O2'	1:1A:913:U:H5'	2.21	0.41
1:1A:928:G:O5'	1:1A:928:G:H8	2.04	0.41
1:1A:1103:A:C8	1:1A:1104:C:C4	3.09	0.41
1:1A:1121:C:H2'	1:1A:1122:G:O4'	2.20	0.41
1:1A:1176:G:H4'	1:1A:1177:A:OP1	2.20	0.41
1:1A:1324:G:C4	1:1A:1328:G:O6	2.73	0.41
1:1A:1496:A:O3'	1:1A:1497:U:O2	2.39	0.41
1:1A:1506:C:C2	1:1A:1507:A:C8	3.09	0.41
1:1A:1668:A:H4'	1:1A:1669:A:O5'	2.21	0.41
1:1A:1782:C:H2'	1:1A:2608:G:O2'	2.21	0.41
1:1A:2161:C:H2'	1:1A:2162:G:C4'	2.51	0.41
1:1A:2203:U:O2'	1:1A:2205:C:H5'	2.21	0.41
1:1A:2371:G:N3	28:16:46:HIS:HE1	2.19	0.41
3:1D:185:VAL:HG12	3:1D:186:HIS:N	2.34	0.41
5:1F:78:ILE:HA	5:1F:83:PHE:CD2	2.55	0.41
8:1I:70:GLU:O	8:1I:74:ASN:HB2	2.21	0.41
9:1N:67:LEU:HD12	9:1N:87:LEU:CD1	2.51	0.41
11:1P:23:PRO:HG2	11:1P:24:GLY:H	1.85	0.41
11:1P:138:LEU:HA	11:1P:138:LEU:HD12	1.83	0.41
12:1Q:110:THR:HG23	12:1Q:113:GLN:CG	2.51	0.41
13:1R:29:LEU:HD12	13:1R:29:LEU:HA	1.90	0.41
15:1T:53:ARG:O	15:1T:59:THR:HB	2.21	0.41
15:1T:125:ARG:O	15:1T:127:ALA:O	2.39	0.41
16:1U:66:ASN:CG	16:1U:76:TYR:HB2	2.45	0.41
18:1W:12:ILE:HD13	18:1W:17:VAL:HG22	2.02	0.41
19:1X:66:LEU:HD23	19:1X:66:LEU:HA	1.87	0.41
23:11:53:VAL:HG21	23:11:74:VAL:HG22	2.02	0.41
26:14:35:VAL:HG22	26:14:36:CYS:N	2.36	0.41
31:19:17:ILE:HG12	31:19:26:ILE:HD11	2.02	0.41
32:1a:55:A:C4	32:1a:56:U:C5	3.09	0.41
32:1a:113:G:H2'	32:1a:114:U:H6	1.86	0.41
32:1a:124:G:H4'	32:1a:291:C:O2'	2.20	0.41
32:1a:484:G:C8	32:1a:486:U:C2	3.09	0.41
32:1a:632:A:H3'	32:1a:633:G:H8	1.86	0.41
32:1a:745:C:H2'	32:1a:746:A:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:864:A:N1	32:1a:917:G:O2'	2.47	0.41
32:1a:881:G:H2'	32:1a:882:C:O4'	2.21	0.41
32:1a:947:G:H2'	32:1a:948:C:O4'	2.21	0.41
32:1a:947:G:C5	32:1a:948:C:C5	3.08	0.41
32:1a:1036:G:H3'	32:1a:1037:C:H6	1.85	0.41
32:1a:1036:G:H2'	32:1a:1036:G:N3	2.35	0.41
32:1a:1113:C:O5'	32:1a:1113:C:H6	2.03	0.41
32:1a:1157:A:H4'	32:1a:1158:C:O5'	2.20	0.41
32:1a:1176:A:H2'	32:1a:1177:G:C8	2.55	0.41
32:1a:1195:C:H5"	32:1a:1196:U:P	2.61	0.41
32:1a:1305:G:C2	32:1a:1331:G:N3	2.89	0.41
32:1a:1309:G:N2	32:1a:1329:A:H1'	2.36	0.41
32:1a:1401:G:OP1	54:1z:80:LYS:HE2	2.21	0.41
33:1b:104:ASN:O	33:1b:108:ILE:HG12	2.21	0.41
33:1b:115:LEU:HD12	33:1b:142:LEU:HD12	2.02	0.41
35:1d:14:ARG:HA	35:1d:14:ARG:HD3	1.95	0.41
35:1d:39:PRO:HA	35:1d:40:PRO:HD3	1.96	0.41
35:1d:107:ARG:HA	35:1d:107:ARG:HD2	1.63	0.41
36:1e:26:PHE:CD2	36:1e:26:PHE:N	2.87	0.41
36:1e:103:GLY:O	36:1e:106:PRO:HD2	2.20	0.41
37:1f:16:GLN:CD	37:1f:16:GLN:H	2.29	0.41
37:1f:62:TRP:CH2	37:1f:64:GLN:HB2	2.56	0.41
38:1g:27:ILE:HG21	38:1g:40:ALA:HA	2.03	0.41
39:1h:77:GLU:HG2	39:1h:78:GLN:O	2.21	0.41
39:1h:92:ARG:HA	39:1h:92:ARG:HD3	1.87	0.41
42:1k:44:SER:H	42:1k:47:VAL:CG2	2.34	0.41
44:1m:3:ARG:NH2	44:1m:8:GLU:HG3	2.29	0.41
47:1p:5:ARG:CZ	47:1p:22:THR:HG21	2.51	0.41
51:1t:73:HIS:O	51:1t:76:ALA:HB3	2.20	0.41
1:2A:195:A:H2'	1:2A:198:C:N4	2.36	0.41
1:2A:337:C:N3	1:2A:338:G:H1'	2.36	0.41
1:2A:389:G:O5'	1:2A:389:G:H8	2.04	0.41
1:2A:454:A:H4'	1:2A:455:C:OP2	2.21	0.41
1:2A:648:G:O2'	1:2A:2351:G:OP1	2.35	0.41
1:2A:853:G:H1	1:2A:924:C:N4	2.16	0.41
1:2A:969:U:O3'	25:23:14:GLY:HA2	2.20	0.41
1:2A:993:G:C5	1:2A:994:C:C5	3.08	0.41
1:2A:1069:A:H4'	1:2A:1070:A:H5"	2.03	0.41
1:2A:1151:G:H5"	16:2U:81:HIS:CD2	2.56	0.41
1:2A:1304:C:O2'	1:2A:1305:C:H5'	2.20	0.41
1:2A:1713:U:O5'	1:2A:1713:U:H6	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1837:C:OP1	32:2a:784:C:H4'	2.21	0.41
1:2A:1919:A:H3'	1:2A:1920:4OC:H6	2.02	0.41
1:2A:1923:U:H2'	1:2A:1924:C:H6	1.84	0.41
1:2A:1939:5MU:O2	1:2A:1967:C:H4'	2.21	0.41
1:2A:1941:C:O2'	1:2A:1942:5MC:H5'	2.20	0.41
1:2A:2145:C:O5'	1:2A:2145:C:H6	2.04	0.41
1:2A:2206:G:H3'	1:2A:2207:G:C4	2.56	0.41
1:2A:2431:U:O2	1:2A:2433:A:C8	2.73	0.41
1:2A:2462:U:H1'	1:2A:2491:U:O4	2.20	0.41
1:2A:2555:U:C5	1:2A:2556:C:C2	3.09	0.41
2:2B:90:A:C5	2:2B:91:C:H1'	2.56	0.41
3:2D:253:GLN:HB3	3:2D:257:LEU:HB2	2.03	0.41
5:2F:121:GLY:C	5:2F:123:LEU:N	2.79	0.41
8:2I:130:TYR:CE2	8:2I:132:PRO:HB3	2.55	0.41
9:2N:99:LEU:HD23	9:2N:99:LEU:HA	1.86	0.41
11:2P:19:VAL:HG23	11:2P:31:ALA:HB1	2.03	0.41
14:2S:29:PHE:CD1	14:2S:30:ARG:N	2.88	0.41
17:2V:16:PRO:HD3	17:2V:99:ILE:HD11	2.03	0.41
22:20:70:GLN:HB3	22:20:78:TYR:HB2	2.03	0.41
25:23:4:LEU:HA	25:23:4:LEU:HD23	1.73	0.41
27:25:16:ARG:HG3	27:25:17:ASP:H	1.77	0.41
32:2a:49:U:C4	32:2a:364:A:C6	3.09	0.41
32:2a:304:U:H2'	32:2a:305:G:C8	2.55	0.41
32:2a:392:G:H2'	32:2a:393:A:C8	2.56	0.41
32:2a:429:U:H4'	32:2a:430:A:O5'	2.21	0.41
32:2a:1014:A:H2'	32:2a:1015:A:N9	2.36	0.41
32:2a:1026:G:H5"	32:2a:1027:C:H5	1.85	0.41
32:2a:1076:C:C2	32:2a:1082:G:C2	3.09	0.41
32:2a:1123:A:O3'	41:2j:36:GLY:HA3	2.20	0.41
32:2a:1244:C:OP1	52:2u:9:ARG:HB2	2.21	0.41
32:2a:1309:G:H5'	44:2m:78:ILE:HD11	2.03	0.41
32:2a:1340:A:H4'	54:2z:35:ILE:HD13	2.02	0.41
32:2a:1488:G:H2'	32:2a:1489:G:C8	2.56	0.41
33:2b:53:ARG:HA	33:2b:56:ARG:NH1	2.36	0.41
34:2c:131:ARG:HD3	34:2c:166:GLU:OE1	2.21	0.41
34:2c:182:ILE:HG12	34:2c:203:PHE:CD1	2.55	0.41
39:2h:51:VAL:HG21	39:2h:60:ARG:HH11	1.86	0.41
40:2i:58:HIS:CD2	40:2i:58:HIS:N	2.89	0.41
42:2k:18:ARG:HG3	42:2k:33:THR:OG1	2.20	0.41
44:2m:59:TYR:O	44:2m:63:THR:OG1	2.24	0.41
47:2p:68:ASP:O	47:2p:71:ARG:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:2r:53:ARG:HH21	49:2r:59:SER:HA	1.86	0.41
50:2s:49:ILE:HD13	50:2s:71:LEU:HD11	2.03	0.41
1:1A:43:A:O5'	1:1A:43:A:H8	2.04	0.41
1:1A:98:G:P	24:12:2:LYS:HG2	2.60	0.41
1:1A:645:C:O2	1:1A:645:C:H2'	2.21	0.41
1:1A:752:A:H3'	29:17:1:MET:HE2	2.01	0.41
1:1A:856:C:O4'	22:10:27:GLU:HB3	2.21	0.41
1:1A:1071:G:C6	1:1A:1072:C:N3	2.89	0.41
1:1A:1105:U:O5'	1:1A:1105:U:H6	2.04	0.41
1:1A:1270:C:H4'	1:1A:1325:G:N7	2.36	0.41
1:1A:1353:A:H62	1:1A:1377:G:H2'	1.86	0.41
1:1A:1712:C:H2'	1:1A:1713:U:O4'	2.21	0.41
1:1A:1853:A:N1	1:1A:2087:G:H1'	2.35	0.41
1:1A:1990:C:H2'	1:1A:1991:U:C6	2.56	0.41
1:1A:1999:C:H2'	1:1A:2000:G:O4'	2.21	0.41
1:1A:2088:G:C6	1:1A:2089:U:C4	3.08	0.41
1:1A:2287:A:C4	1:1A:2289:G:N7	2.89	0.41
1:1A:2347:C:H2'	1:1A:2348:U:C6	2.56	0.41
1:1A:2892:A:N6	1:1A:2893:G:C6	2.88	0.41
4:1E:1:MET:HE3	4:1E:1:MET:O	2.20	0.41
4:1E:47:VAL:O	4:1E:80:GLU:HA	2.21	0.41
8:1I:61:ARG:HH11	8:1I:64:GLU:HB2	1.85	0.41
11:1P:130:PHE:HB2	11:1P:135:LEU:HG	2.02	0.41
17:1V:96:ILE:HD12	17:1V:96:ILE:HG23	1.79	0.41
20:1Y:90:LEU:HD22	20:1Y:94:LYS:O	2.21	0.41
24:12:31:GLU:HB3	24:12:53:LEU:HD11	2.03	0.41
27:15:15:ARG:HH11	27:15:15:ARG:HD3	1.66	0.41
28:16:35:GLU:HA	28:16:49:HIS:O	2.21	0.41
32:1a:299:G:O5'	32:1a:299:G:H8	2.04	0.41
32:1a:1328:C:O2'	44:1m:29:ARG:NH2	2.47	0.41
32:1a:1465:C:H2'	32:1a:1466:C:O4'	2.21	0.41
32:1a:1498:UR3:O2	32:1a:1499:A:N6	2.42	0.41
33:1b:115:LEU:HD13	33:1b:145:LEU:HB3	2.02	0.41
35:1d:101:LEU:HD23	35:1d:121:VAL:HG13	2.03	0.41
36:1e:59:GLY:O	36:1e:62:ALA:HB3	2.21	0.41
38:1g:28:ASN:ND2	38:1g:28:ASN:N	2.69	0.41
44:1m:11:ARG:C	44:1m:13:LYS:H	2.29	0.41
44:1m:70:LEU:HD23	44:1m:70:LEU:HA	1.84	0.41
47:1p:25:ARG:HG2	47:1p:25:ARG:H	1.71	0.41
49:1r:74:ARG:HG2	49:1r:80:PRO:O	2.21	0.41
1:2A:184:C:H2'	1:2A:185:U:H6	1.81	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:301:G:C4	1:2A:302:C:C5	3.09	0.41
1:2A:610:G:N2	1:2A:619:G:H1'	2.36	0.41
1:2A:741:G:O2'	1:2A:742:G:H5'	2.21	0.41
1:2A:1449:A:N3	1:2A:1529:G:H1'	2.36	0.41
1:2A:1911:PSU:C4	1:2A:1918:A:C2	3.09	0.41
1:2A:2259:G:H1'	1:2A:2427:C:C2	2.55	0.41
1:2A:2408:U:H6	1:2A:2408:U:O5'	2.04	0.41
2:2B:29:A:O2'	2:2B:58:A:N1	2.51	0.41
10:2O:59:LYS:O	10:2O:86:ILE:HG23	2.21	0.41
13:2R:38:VAL:O	13:2R:42:LYS:HG3	2.21	0.41
18:2W:1:MET:HE3	18:2W:62:HIS:HB3	2.02	0.41
18:2W:20:VAL:O	18:2W:23:LEU:HB2	2.21	0.41
21:2Z:44:PHE:CZ	21:2Z:48:PHE:CD1	3.09	0.41
21:2Z:72:ARG:HB2	21:2Z:89:PHE:HB2	2.02	0.41
21:2Z:193:GLU:HA	21:2Z:194:PRO:HD3	1.91	0.41
24:22:68:ARG:C	24:22:70:GLN:H	2.29	0.41
26:24:59:PHE:HZ	50:2s:64:GLU:HG3	1.85	0.41
28:26:13:CYS:HB2	28:26:20:ASN:ND2	2.36	0.41
28:26:47:THR:HG22	28:26:48:VAL:O	2.21	0.41
32:2a:200:G:H2'	32:2a:201:C:C6	2.56	0.41
32:2a:567:G:H2'	32:2a:568:G:O4'	2.19	0.41
32:2a:688:G:C5	32:2a:700:G:N2	2.89	0.41
32:2a:1220:G:H2'	32:2a:1221:G:O4'	2.21	0.41
34:2c:71:ALA:HA	34:2c:106:VAL:HB	2.03	0.41
43:2l:110:VAL:HG23	43:2l:120:TYR:HB3	2.01	0.41
45:2n:3:ARG:O	45:2n:7:ILE:HG23	2.21	0.41
45:2n:22:THR:O	45:2n:33:VAL:HG21	2.21	0.41
1:1A:697:C:C2	1:1A:698:C:C5	3.09	0.40
1:1A:768:G:C6	1:1A:769:G:C5	3.09	0.40
1:1A:805:G:H4'	11:1P:38:GLN:HA	2.03	0.40
1:1A:937:U:H2'	1:1A:938:G:O4'	2.20	0.40
1:1A:1186:G:H2'	1:1A:1187:G:O4'	2.21	0.40
1:1A:1690:A:H5"	1:1A:1691:C:OP2	2.21	0.40
1:1A:2839:G:C6	1:1A:2840:C:C4	3.09	0.40
10:1O:101:PRO:HA	10:1O:120:GLU:O	2.21	0.40
11:1P:30:THR:O	11:1P:33:ARG:HB2	2.20	0.40
11:1P:97:PRO:HA	11:1P:112:LEU:HD12	2.04	0.40
21:1Z:48:PHE:HE1	21:1Z:71:VAL:HG11	1.86	0.40
21:1Z:94:GLU:H	21:1Z:94:GLU:HG3	1.66	0.40
21:1Z:136:PHE:CE1	21:1Z:138:GLU:HG3	2.56	0.40
32:1a:299:G:C6	32:1a:300:A:C6	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:657:G:H2'	32:1a:658:G:H8	1.86	0.40
32:1a:981:U:H5'	45:1n:21:TYR:CZ	2.56	0.40
34:1c:125:GLU:C	34:1c:127:ARG:H	2.28	0.40
36:1e:98:THR:HG22	36:1e:99:GLY:O	2.21	0.40
38:1g:120:ILE:O	38:1g:124:LEU:HB2	2.21	0.40
40:1i:105:ASP:HB2	40:1i:107:ARG:HG3	2.03	0.40
41:1j:63:PHE:HE1	45:1n:58:LYS:HG3	1.86	0.40
42:1k:44:SER:OG	42:1k:47:VAL:HG23	2.21	0.40
45:1n:42:ILE:H	45:1n:42:ILE:HG13	1.67	0.40
46:1o:43:LEU:HD23	46:1o:43:LEU:HA	1.76	0.40
48:1q:56:VAL:HB	48:1q:78:GLU:HB3	2.03	0.40
54:1z:83:ARG:HG3	58:1z:103:HOH:O	2.19	0.40
1:2A:272(J):C:C2	1:2A:274:G:C8	3.10	0.40
1:2A:954:G:C5	1:2A:955:C:C5	3.10	0.40
1:2A:1190:G:H5"	11:2P:32:THR:HA	2.03	0.40
1:2A:1838:C:C5	1:2A:1899:G:C2	3.10	0.40
1:2A:1900:A:N1	1:2A:1970:A:C6	2.89	0.40
1:2A:2013:A:N6	1:2A:2014:A:C6	2.89	0.40
1:2A:2721:A:O2'	1:2A:2874:C:H5"	2.21	0.40
7:2H:164:TYR:O	7:2H:167:GLU:HB2	2.21	0.40
11:2P:100:LEU:HD22	11:2P:105:LEU:HD12	2.04	0.40
13:2R:18:LEU:O	13:2R:19:ALA:C	2.63	0.40
16:2U:85:LYS:CE	16:2U:117:GLN:HG3	2.51	0.40
23:21:2:SER:N	23:21:46:LEU:HD12	2.36	0.40
32:2a:203:U:H3'	32:2a:203:U:P	2.60	0.40
32:2a:342:C:H2'	32:2a:343:U:O4'	2.20	0.40
32:2a:409:G:C6	32:2a:410:G:C4	3.09	0.40
32:2a:422:C:H4'	32:2a:423:G:C4	2.56	0.40
32:2a:432:A:H3'	32:2a:433:C:C6	2.56	0.40
32:2a:608:A:H2'	32:2a:609:A:O4'	2.20	0.40
32:2a:731:G:OP1	32:2a:766:A:H1'	2.20	0.40
32:2a:960:U:O3'	32:2a:1223:C:H4'	2.21	0.40
32:2a:1072:G:C6	32:2a:1073:U:C4	3.08	0.40
32:2a:1326:C:OP1	52:2u:12:LYS:NZ	2.55	0.40
33:2b:223:ILE:O	33:2b:226:ARG:HB2	2.21	0.40
34:2c:78:GLY:HA3	34:2c:83:ARG:N	2.21	0.40
35:2d:31:CYS:SG	35:2d:32:ALA:N	2.92	0.40
49:2r:61:LYS:O	49:2r:65:ILE:HG13	2.20	0.40
1:1A:182:A:H2'	1:1A:183:C:O4'	2.20	0.40
1:1A:820:A:H1'	1:1A:943:U:H1'	2.02	0.40
1:1A:1528:A:C2	1:1A:1528(A):A:C2	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1912:A:N1	32:1a:1407:5MC:O2'	2.48	0.40
1:1A:1917:PSU:O4	1:1A:1917:PSU:H2'	2.20	0.40
1:1A:2177:C:N4	1:1A:2178:C:C4	2.90	0.40
2:1B:42:C:O2'	6:1G:66:GLN:HG2	2.22	0.40
3:1D:79:VAL:HG12	3:1D:113:VAL:HA	2.02	0.40
4:1E:101:ARG:HD2	4:1E:169:ASN:O	2.21	0.40
5:1F:178:PRO:C	5:1F:180:GLY:H	2.29	0.40
6:1G:125:PHE:HB3	6:1G:166:ASP:CG	2.46	0.40
11:1P:2:LYS:O	11:1P:5:ASP:N	2.49	0.40
11:1P:46:LYS:O	11:1P:47:ASP:C	2.63	0.40
14:1S:69:VAL:HG23	14:1S:101:LEU:HG	2.02	0.40
30:18:7:HIS:C	30:18:7:HIS:ND1	2.78	0.40
32:1a:295:C:H2'	32:1a:296:U:O4'	2.22	0.40
32:1a:575:G:C5	32:1a:881:G:C2	3.09	0.40
32:1a:756:C:H2'	32:1a:757:U:O4'	2.22	0.40
32:1a:939:G:C2	32:1a:940:C:C2	3.10	0.40
32:1a:1054:C:N4	54:1z:46:GLN:HG2	2.36	0.40
32:1a:1346:A:H2'	38:1g:10:ARG:HH22	1.86	0.40
32:1a:1486:G:H2'	32:1a:1487:G:C1'	2.51	0.40
33:1b:178:ARG:NH2	39:1h:74:PRO:HB3	2.36	0.40
35:1d:79:PHE:CE1	35:1d:204:ILE:HD13	2.55	0.40
36:1e:12:LEU:HD23	36:1e:13:ILE:N	2.36	0.40
36:1e:43:LEU:HD12	36:1e:43:LEU:HA	1.79	0.40
37:1f:36:ARG:NH2	37:1f:38:GLU:OE2	2.51	0.40
39:1h:103:VAL:HG21	39:1h:109:ILE:C	2.46	0.40
40:1i:45:ALA:CA	40:1i:48:GLU:HB2	2.51	0.40
46:1o:32:LEU:O	46:1o:35:ARG:N	2.54	0.40
54:1z:25:ALA:O	54:1z:26:LYS:C	2.64	0.40
1:2A:154(A):C:H6	1:2A:154(A):C:H5"	1.86	0.40
1:2A:481:G:H1'	1:2A:507:A:N1	2.37	0.40
1:2A:645:C:H5'	1:2A:646:A:O5'	2.21	0.40
1:2A:758:C:O2'	1:2A:1981:A:N3	2.45	0.40
1:2A:764:A:N1	1:2A:1789:A:O2'	2.47	0.40
1:2A:829:A:N7	1:2A:2247:A:O2'	2.41	0.40
1:2A:1035:U:H2'	1:2A:1036:G:C8	2.56	0.40
1:2A:1434:A:O2'	1:2A:1435:G:H5'	2.21	0.40
1:2A:1439:A:C2	1:2A:1553:A:C4	3.09	0.40
1:2A:1569:A:H2'	1:2A:1570:A:O4'	2.21	0.40
1:2A:1707:G:C5	1:2A:1756:G:C6	3.09	0.40
1:2A:2242:G:H2'	1:2A:2243:U:O4'	2.21	0.40
1:2A:2284:C:OP1	28:26:3:SER:OG	2.34	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2302:G:N1	1:2A:2303:G:C5	2.89	0.40
1:2A:2517:C:H42	1:2A:2567:G:H1	1.69	0.40
1:2A:2612:C:OP2	27:25:2:ALA:HB3	2.21	0.40
3:2D:110:GLY:O	3:2D:111:LEU:C	2.64	0.40
4:2E:78:LEU:HA	4:2E:78:LEU:HD12	1.88	0.40
4:2E:181:LEU:HD12	4:2E:181:LEU:HA	1.60	0.40
5:2F:101:LEU:HD12	5:2F:102:PRO:CD	2.42	0.40
9:2N:26:LEU:O	9:2N:30:ILE:HG13	2.21	0.40
11:2P:50:ARG:HD3	30:28:7:HIS:CD2	2.56	0.40
15:2T:127:ALA:C	15:2T:129:ARG:H	2.30	0.40
18:2W:39:THR:O	18:2W:39:THR:HG22	2.22	0.40
18:2W:82:LEU:HD22	18:2W:84:ARG:HH22	1.86	0.40
21:2Z:11:GLU:HB3	21:2Z:12:GLY:H	1.69	0.40
21:2Z:14:LYS:O	21:2Z:17:ALA:HB3	2.21	0.40
23:21:67:ILE:N	23:21:68:PRO:HD2	2.37	0.40
28:26:19:ARG:HH12	28:26:52:VAL:HG21	1.87	0.40
32:2a:60:A:H4'	32:2a:61:G:OP1	2.22	0.40
32:2a:152:A:C8	32:2a:153:C:C5	3.09	0.40
32:2a:407:G:OP1	35:2d:115:ARG:HD3	2.20	0.40
32:2a:411:A:OP1	35:2d:30:LYS:NZ	2.50	0.40
32:2a:857:C:H2'	32:2a:858:G:O4'	2.21	0.40
32:2a:1132:C:O2'	32:2a:1133:G:H5'	2.21	0.40
32:2a:1227:A:OP2	44:2m:111:LYS:HE3	2.20	0.40
32:2a:1307:U:H2'	32:2a:1308:U:C6	2.56	0.40
32:2a:1401:G:OP2	54:2z:83:ARG:NH1	2.53	0.40
34:2c:8:ILE:C	34:2c:10:PHE:N	2.79	0.40
35:2d:163:GLU:HA	35:2d:166:LYS:HD3	2.02	0.40
40:2i:6:GLY:HA3	40:2i:83:ARG:HB2	2.02	0.40
41:2j:35:SER:N	41:2j:73:ASP:O	2.52	0.40
45:2n:51:GLY:C	45:2n:53:LEU:N	2.78	0.40
46:2o:43:LEU:HD23	46:2o:43:LEU:HA	1.78	0.40
47:2p:38:TYR:CD2	47:2p:38:TYR:N	2.88	0.40
1:1A:198:C:H5'	1:1A:2244:U:OP1	2.20	0.40
1:1A:436:C:H2'	1:1A:437:G:C8	2.55	0.40
1:1A:1493:C:H5	1:1A:2206:G:H2'	1.86	0.40
1:1A:2112:G:C6	1:1A:2169:A:N6	2.89	0.40
1:1A:2118:U:C4	1:1A:2149:G:H1'	2.56	0.40
1:1A:2400:G:H2'	1:1A:2401:U:C6	2.55	0.40
1:1A:2564:A:C6	1:1A:2565:A:C6	3.09	0.40
1:1A:2615:U:C2	27:15:7:PRO:HA	2.57	0.40
6:1G:173:LEU:HB3	6:1G:178:PHE:CD2	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:1N:4:TYR:CD2	16:1U:100:VAL:HG11	2.56	0.40
11:1P:133:SER:O	11:1P:137:LYS:HG3	2.21	0.40
16:1U:59:ARG:O	16:1U:60:LEU:C	2.63	0.40
16:1U:85:LYS:CE	16:1U:117:GLN:HG3	2.51	0.40
18:1W:14:PRO:O	18:1W:15:ARG:C	2.64	0.40
21:1Z:67:LEU:HD23	21:1Z:67:LEU:HA	1.76	0.40
22:10:50:ASN:HB3	22:10:63:VAL:HG22	2.03	0.40
31:19:1:MET:HE2	31:19:1:MET:HB2	1.40	0.40
32:1a:603:U:H2'	32:1a:604:G:H8	1.86	0.40
32:1a:762:C:C2	32:1a:763:G:C8	3.10	0.40
32:1a:943:U:H2'	32:1a:944:G:H5'	2.03	0.40
32:1a:1056:U:O5'	34:1c:163:ALA:HB2	2.20	0.40
32:1a:1386:G:C2	32:1a:1387:G:N7	2.90	0.40
32:1a:1519:MA6:H102	32:1a:1520:G:O2'	2.20	0.40
33:1b:155:LEU:HD21	33:1b:159:PRO:HD3	2.04	0.40
34:1c:69:HIS:HA	34:1c:104:GLN:HB3	2.02	0.40
35:1d:73:ARG:HD2	35:1d:73:ARG:HA	1.94	0.40
37:1f:97:PHE:HD2	49:1r:31:LEU:HD23	1.86	0.40
42:1k:120:ARG:HA	42:1k:121:PRO:HD3	1.90	0.40
44:1m:32:GLU:HG2	44:1m:64:TRP:HZ2	1.86	0.40
44:1m:49:THR:HG22	44:1m:51:ALA:H	1.87	0.40
48:1q:86:GLU:O	48:1q:90:ILE:HG12	2.22	0.40
1:2A:264:C:O2'	1:2A:265:A:H2'	2.21	0.40
1:2A:297:C:H2'	1:2A:298:G:O4'	2.21	0.40
1:2A:628:G:H2'	1:2A:629:G:H8	1.85	0.40
1:2A:679:C:H2'	1:2A:680:G:C8	2.55	0.40
1:2A:857:C:C6	1:2A:858:U:H5	2.39	0.40
1:2A:1050:A:H2'	1:2A:1051:G:C8	2.57	0.40
1:2A:1176:G:H1'	1:2A:1177:A:O5'	2.20	0.40
1:2A:1513:C:H2'	1:2A:1514:U:C6	2.56	0.40
1:2A:2011:U:H2'	1:2A:2012:G:H5'	2.03	0.40
1:2A:2038:G:C6	1:2A:2039:C:C4	3.10	0.40
1:2A:2300:G:H2'	1:2A:2301:C:C6	2.56	0.40
1:2A:2329:G:N2	22:20:41:ARG:HD2	2.36	0.40
1:2A:2335:A:C8	1:2A:2337:G:C5	3.09	0.40
1:2A:2487:G:H2'	1:2A:2488:A:C8	2.57	0.40
2:2B:83:G:OP1	25:23:19:GLN:NE2	2.50	0.40
2:2B:91:C:P	12:2Q:16:ARG:HH12	2.43	0.40
3:2D:218:ARG:HB3	3:2D:219:PRO:HD2	2.02	0.40
7:2H:147:ASN:O	7:2H:151:ILE:HG13	2.20	0.40
8:2I:93:THR:O	8:2I:96:ASP:HB2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:2N:12:ARG:HG2	9:2N:50:ASP:CG	2.47	0.40
9:2N:85:ILE:HD13	9:2N:90:MET:CE	2.51	0.40
17:2V:5:VAL:HB	17:2V:35:LEU:HB3	2.03	0.40
17:2V:55:ALA:HA	17:2V:100:ARG:O	2.21	0.40
21:2Z:94:GLU:H	21:2Z:94:GLU:HG3	1.52	0.40
22:20:49:LYS:HG2	22:20:50:ASN:ND2	2.37	0.40
30:28:46:ARG:H	30:28:46:ARG:HG3	1.54	0.40
30:28:62:LEU:HB3	30:28:65:GLU:HG2	2.03	0.40
32:2a:421:U:O2'	32:2a:423:G:N7	2.50	0.40
32:2a:429:U:OP2	35:2d:36:ARG:NH2	2.55	0.40
32:2a:457:C:H2'	32:2a:458:C:H6	1.87	0.40
32:2a:514:C:O2'	32:2a:515:G:H5'	2.20	0.40
32:2a:938:A:H8	32:2a:938:A:O5'	2.05	0.40
32:2a:1259:C:O2'	32:2a:1283:G:N2	2.50	0.40
32:2a:1411:C:H42	32:2a:1489:G:H1	1.69	0.40
39:2h:51:VAL:HG21	39:2h:60:ARG:HB2	2.03	0.40
42:2k:120:ARG:HA	42:2k:121:PRO:HD3	1.90	0.40
1:1A:356:G:C2	1:1A:357:A:C8	3.09	0.40
1:1A:573:G:OP2	17:1V:78:LYS:NZ	2.48	0.40
1:1A:934:G:H2'	1:1A:935:C:H6	1.87	0.40
1:1A:1110:G:H1'	1:1A:1111:A:C8	2.57	0.40
1:1A:1152:C:O2'	1:1A:1153:C:H5'	2.22	0.40
1:1A:1388:G:H2'	1:1A:1389:G:H8	1.86	0.40
1:1A:2334:G:C2	14:1S:12:PHE:CE1	3.10	0.40
1:1A:2462:U:H1'	1:1A:2491:U:O4	2.22	0.40
3:1D:26:LYS:HE2	3:1D:28:GLU:O	2.20	0.40
6:1G:108:ASN:HA	26:14:37:SER:HB3	2.02	0.40
6:1G:135:LEU:O	6:1G:154:GLY:HA3	2.22	0.40
6:1G:139:LEU:H	6:1G:139:LEU:HG	1.75	0.40
7:1H:54:ARG:HA	7:1H:55:PRO:HD2	1.94	0.40
27:15:25:LEU:HD12	27:15:25:LEU:N	2.32	0.40
32:1a:128:G:H4'	48:1q:3:LYS:HG2	2.04	0.40
32:1a:585:G:N3	32:1a:879:C:H4'	2.37	0.40
32:1a:623:C:H2'	32:1a:624:C:O4'	2.21	0.40
32:1a:657:G:C4'	46:1o:28:GLN:HG2	2.51	0.40
32:1a:691:G:H1'	32:1a:696:A:H61	1.87	0.40
32:1a:815:A:H4'	32:1a:817:C:C4	2.57	0.40
32:1a:837:G:N2	32:1a:850:U:C2	2.90	0.40
32:1a:900:A:H2'	32:1a:901:A:O4'	2.21	0.40
32:1a:1007:C:H2'	32:1a:1008:C:H6	1.85	0.40
32:1a:1054:C:H41	54:1z:46:GLN:CD	2.28	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1093:A:N3	32:1a:1095:U:H5'	2.37	0.40
32:1a:1203:C:H2'	32:1a:1204:A:O4'	2.22	0.40
32:1a:1226:C:O2'	44:1m:103:THR:O	2.23	0.40
35:1d:43:HIS:ND1	35:1d:46:LYS:HD2	2.37	0.40
35:1d:73:ARG:O	35:1d:76:ARG:N	2.54	0.40
37:1f:28:ARG:O	37:1f:31:GLU:HB3	2.21	0.40
43:1l:33:ARG:NH1	43:1l:62:SER:HB3	2.37	0.40
45:1n:34:TYR:HE1	45:1n:41:ARG:HB3	1.86	0.40
51:1t:59:ALA:O	51:1t:62:LEU:N	2.54	0.40
1:2A:171:G:H2'	1:2A:172:C:C6	2.56	0.40
1:2A:239:U:O2'	1:2A:622:G:H4'	2.21	0.40
1:2A:355:G:C2	1:2A:356:G:C4	3.08	0.40
1:2A:476:G:H4'	1:2A:502:A:N1	2.36	0.40
1:2A:794:G:H2'	1:2A:795:C:C6	2.56	0.40
1:2A:826:U:H4'	11:2P:55:ARG:HB3	2.03	0.40
1:2A:1952:A:N6	1:2A:1953:A:N1	2.69	0.40
1:2A:1998:G:H2'	1:2A:1999:C:O4'	2.22	0.40
1:2A:2531:A:H5'	7:2H:157:TYR:CE1	2.57	0.40
2:2B:93:G:O2'	2:2B:94:C:H5'	2.21	0.40
6:2G:64:THR:OG1	6:2G:66:GLN:O	2.40	0.40
11:2P:100:LEU:HD12	11:2P:112:LEU:HD11	2.04	0.40
12:2Q:35:VAL:HG13	12:2Q:130:LYS:HB3	2.02	0.40
15:2T:81:PRO:HG2	15:2T:82:LEU:HD12	2.04	0.40
20:2Y:29:GLU:HB3	20:2Y:38:ILE:HG13	2.03	0.40
20:2Y:56:PRO:C	20:2Y:58:GLY:H	2.29	0.40
31:29:4:ARG:O	31:29:36:GLN:HA	2.21	0.40
32:2a:32:A:H3'	32:2a:33:A:H8	1.86	0.40
32:2a:373:A:N3	32:2a:374:A:C8	2.90	0.40
32:2a:477:A:N1	32:2a:479:C:C4	2.89	0.40
32:2a:504:C:C2	32:2a:542:G:N2	2.89	0.40
32:2a:839:U:H3'	32:2a:840:C:C5	2.56	0.40
32:2a:1076:C:C2	32:2a:1082:G:N2	2.90	0.40
32:2a:1434:A:H2'	32:2a:1435:G:O4'	2.22	0.40
33:2b:19:HIS:CE1	33:2b:206:ASP:OD2	2.75	0.40
33:2b:25:ASN:HA	33:2b:26:PRO:HD3	1.86	0.40
34:2c:12:LEU:HA	34:2c:12:LEU:HD23	1.70	0.40
34:2c:34:LEU:HG	34:2c:38:ARG:CZ	2.50	0.40
35:2d:83:SER:HA	35:2d:89:THR:HG23	2.03	0.40
39:2h:87:SER:HA	39:2h:93:VAL:HG23	2.04	0.40
40:2i:97:LYS:O	40:2i:100:GLY:N	2.52	0.40
46:2o:29:VAL:HG11	46:2o:81:LEU:HD21	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:247:G:N2	1:1A:250:G:H3'	2.36	0.40
1:1A:251:A:H8	1:1A:251:A:O5'	2.05	0.40
1:1A:297:C:OP1	20:1Y:87:LYS:HG3	2.22	0.40
1:1A:952:G:C6	1:1A:953:A:N7	2.90	0.40
1:1A:1308:A:H3'	1:1A:1309:G:C8	2.55	0.40
1:1A:1422:G:H1'	1:1A:1496:A:N1	2.36	0.40
1:1A:1504:C:H2'	1:1A:1505:C:H6	1.87	0.40
1:1A:1625:C:H2'	1:1A:1626:G:O4'	2.21	0.40
1:1A:1820:U:H4'	1:1A:1821:A:OP2	2.21	0.40
1:1A:1961:C:C5	1:1A:1962:5MC:C4	3.10	0.40
1:1A:2019:A:H2	1:1A:2035:G:H22	1.70	0.40
1:1A:2206:G:H2'	1:1A:2207:G:N2	2.37	0.40
1:1A:2279:G:O6	22:10:14:ARG:HD2	2.20	0.40
1:1A:2623:G:N2	27:15:22:HIS:CE1	2.89	0.40
1:1A:2650:U:H2'	1:1A:2651:C:C6	2.56	0.40
1:1A:2670:A:C2	1:1A:2671:A:C4	3.10	0.40
9:1N:59:LYS:C	9:1N:61:ARG:HH12	2.30	0.40
11:1P:101:VAL:HA	11:1P:106:LEU:O	2.21	0.40
14:1S:3:ARG:HH12	14:1S:9:ARG:HH12	1.70	0.40
15:1T:118:ARG:CG	32:1a:1442(A):G:C8	3.04	0.40
21:1Z:166:SER:HA	21:1Z:167:PRO:HD3	1.87	0.40
22:10:11:ARG:HH11	22:10:11:ARG:HB3	1.86	0.40
27:15:35:GLU:HG2	27:15:51:TYR:CD2	2.56	0.40
28:16:10:LEU:CD2	28:16:54:ILE:HG13	2.50	0.40
32:1a:266:G:H2'	32:1a:266:G:N3	2.37	0.40
32:1a:544:G:OP1	35:1d:62:GLN:NE2	2.39	0.40
32:1a:872:A:C4	32:1a:874:G:C8	3.09	0.40
32:1a:928:G:C2	32:1a:1390:U:O2	2.75	0.40
32:1a:963:G:N3	41:1j:54:PHE:CZ	2.89	0.40
32:1a:1157:A:H4'	32:1a:1158:C:C5'	2.51	0.40
32:1a:1366:C:OP1	40:1i:117:HIS:HE1	2.04	0.40
33:1b:95:GLN:HB3	33:1b:96:ARG:H	1.67	0.40
35:1d:78:LEU:HD23	35:1d:78:LEU:HA	1.70	0.40
36:1e:136:MET:O	36:1e:138:ALA:N	2.55	0.40
37:1f:50:TYR:OH	49:1r:74:ARG:O	2.38	0.40
1:2A:372:G:H8	23:21:65:SER:O	2.05	0.40
1:2A:483:A:H3'	1:2A:484:C:H6	1.87	0.40
1:2A:665:C:O2'	1:2A:666:G:H5'	2.22	0.40
1:2A:851:U:O2'	25:23:42:ALA:O	2.37	0.40
1:2A:931:G:O2'	25:23:24:LYS:HD3	2.21	0.40
1:2A:1317:A:H2'	1:2A:1318:C:C6	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1651:G:H2'	1:2A:1652:A:O4'	2.21	0.40
1:2A:1906:G:H5"	1:2A:1929:G:O2'	2.21	0.40
1:2A:2077:A:O2'	1:2A:2078:C:H5'	2.20	0.40
1:2A:2294:C:H2'	1:2A:2295:C:H6	1.86	0.40
4:2E:63:LEU:HD23	4:2E:63:LEU:HA	1.91	0.40
8:2I:85:GLU:HB3	8:2I:86:THR:H	1.61	0.40
10:2O:26:LYS:HD3	10:2O:37:ASP:CG	2.46	0.40
11:2P:46:LYS:HE3	11:2P:46:LYS:HB3	1.80	0.40
14:2S:80:LEU:HD12	14:2S:80:LEU:HA	1.89	0.40
16:2U:97:ASP:OD1	16:2U:101:ARG:HD2	2.22	0.40
31:29:17:ILE:HD12	31:29:17:ILE:HA	1.94	0.40
32:2a:422:C:O4'	32:2a:423:G:C6	2.75	0.40
32:2a:447:G:H2'	32:2a:485:G:N2	2.37	0.40
32:2a:540:G:C4	32:2a:541:G:C8	3.09	0.40
32:2a:1066:C:C2'	32:2a:1067:A:H5'	2.52	0.40
32:2a:1106:G:H5"	34:2c:172:ARG:CG	2.51	0.40
32:2a:1203:C:H2'	32:2a:1204:A:C8	2.57	0.40
32:2a:1264:C:H2'	32:2a:1265:G:H8	1.87	0.40
32:2a:1518:MA6:H93	32:2a:1519:MA6:H92	2.04	0.40
33:2b:24:TRP:CE3	33:2b:26:PRO:HA	2.57	0.40
33:2b:42:ILE:HG21	33:2b:202:PRO:O	2.21	0.40
33:2b:158:LEU:HA	33:2b:159:PRO:HD3	1.73	0.40
34:2c:122:GLU:HA	34:2c:125:GLU:OE1	2.21	0.40
45:2n:23:ARG:HH12	45:2n:30:ALA:HB2	1.87	0.40
50:2s:12:ASP:O	50:2s:14:HIS:N	2.51	0.40
51:2t:12:ALA:O	51:2t:15:ARG:HB3	2.21	0.40

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:91:SER:OG	32:2a:368:U:OP1[3_654]	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	
3	1D	273/275 (99%)	256 (94%)	17 (6%)	0	100	100
3	2D	273/275 (99%)	257 (94%)	14 (5%)	2 (1%)	18	52
4	1E	202/204 (99%)	189 (94%)	12 (6%)	1 (0%)	24	59
4	2E	202/204 (99%)	189 (94%)	12 (6%)	1 (0%)	24	59
5	1F	201/203 (99%)	187 (93%)	11 (6%)	3 (2%)	8	37
5	2F	201/203 (99%)	186 (92%)	13 (6%)	2 (1%)	12	45
6	1G	179/181 (99%)	155 (87%)	16 (9%)	8 (4%)	2	15
6	2G	179/181 (99%)	152 (85%)	20 (11%)	7 (4%)	2	18
7	1H	172/174 (99%)	156 (91%)	15 (9%)	1 (1%)	21	56
7	2H	172/174 (99%)	153 (89%)	17 (10%)	2 (1%)	10	42
8	1I	145/147 (99%)	118 (81%)	24 (17%)	3 (2%)	5	31
8	2I	145/147 (99%)	116 (80%)	25 (17%)	4 (3%)	4	25
9	1N	138/140 (99%)	129 (94%)	9 (6%)	0	100	100
9	2N	138/140 (99%)	130 (94%)	8 (6%)	0	100	100
10	1O	120/122 (98%)	112 (93%)	7 (6%)	1 (1%)	16	50
10	2O	120/122 (98%)	113 (94%)	4 (3%)	3 (2%)	4	27
11	1P	147/149 (99%)	125 (85%)	21 (14%)	1 (1%)	18	52
11	2P	147/149 (99%)	130 (88%)	15 (10%)	2 (1%)	9	39
12	1Q	139/141 (99%)	125 (90%)	14 (10%)	0	100	100
12	2Q	139/141 (99%)	125 (90%)	12 (9%)	2 (1%)	9	39
13	1R	116/118 (98%)	98 (84%)	16 (14%)	2 (2%)	7	35
13	2R	116/118 (98%)	98 (84%)	17 (15%)	1 (1%)	14	47
14	1S	108/110 (98%)	96 (89%)	12 (11%)	0	100	100
14	2S	108/110 (98%)	94 (87%)	14 (13%)	0	100	100
15	1T	129/131 (98%)	122 (95%)	6 (5%)	1 (1%)	16	50
15	2T	129/131 (98%)	120 (93%)	8 (6%)	1 (1%)	16	50
16	1U	114/116 (98%)	109 (96%)	5 (4%)	0	100	100
16	2U	114/116 (98%)	111 (97%)	3 (3%)	0	100	100
17	1V	99/101 (98%)	91 (92%)	8 (8%)	0	100	100
17	2V	99/101 (98%)	91 (92%)	7 (7%)	1 (1%)	12	45

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
18	1W	110/112 (98%)	100 (91%)	10 (9%)	0	100 100
18	2W	110/112 (98%)	104 (94%)	6 (6%)	0	100 100
19	1X	93/95 (98%)	90 (97%)	2 (2%)	1 (1%)	11 43
19	2X	93/95 (98%)	88 (95%)	5 (5%)	0	100 100
20	1Y	105/107 (98%)	93 (89%)	11 (10%)	1 (1%)	12 45
20	2Y	105/107 (98%)	93 (89%)	11 (10%)	1 (1%)	12 45
21	1Z	201/203 (99%)	170 (85%)	30 (15%)	1 (0%)	24 59
21	2Z	201/203 (99%)	174 (87%)	26 (13%)	1 (0%)	24 59
22	10	75/77 (97%)	67 (89%)	8 (11%)	0	100 100
22	20	75/77 (97%)	67 (89%)	8 (11%)	0	100 100
23	11	95/97 (98%)	90 (95%)	5 (5%)	0	100 100
23	21	95/97 (98%)	90 (95%)	5 (5%)	0	100 100
24	12	68/70 (97%)	64 (94%)	4 (6%)	0	100 100
24	22	68/70 (97%)	63 (93%)	5 (7%)	0	100 100
25	13	57/59 (97%)	52 (91%)	4 (7%)	1 (2%)	6 34
25	23	57/59 (97%)	51 (90%)	6 (10%)	0	100 100
26	14	67/69 (97%)	52 (78%)	11 (16%)	4 (6%)	1 10
26	24	67/69 (97%)	51 (76%)	12 (18%)	4 (6%)	1 10
27	15	57/59 (97%)	53 (93%)	4 (7%)	0	100 100
27	25	57/59 (97%)	54 (95%)	3 (5%)	0	100 100
28	16	51/53 (96%)	47 (92%)	4 (8%)	0	100 100
28	26	51/53 (96%)	48 (94%)	3 (6%)	0	100 100
29	17	46/48 (96%)	44 (96%)	2 (4%)	0	100 100
29	27	46/48 (96%)	43 (94%)	3 (6%)	0	100 100
30	18	62/64 (97%)	60 (97%)	2 (3%)	0	100 100
30	28	62/64 (97%)	59 (95%)	3 (5%)	0	100 100
31	19	35/37 (95%)	35 (100%)	0	0	100 100
31	29	35/37 (95%)	34 (97%)	1 (3%)	0	100 100
33	1b	229/231 (99%)	174 (76%)	39 (17%)	16 (7%)	1 6
33	2b	229/231 (99%)	174 (76%)	40 (18%)	15 (7%)	1 7
34	1c	204/206 (99%)	175 (86%)	26 (13%)	3 (2%)	8 37

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
34	2c	204/206 (99%)	173 (85%)	27 (13%)	4 (2%)	6 31
35	1d	206/208 (99%)	176 (85%)	24 (12%)	6 (3%)	3 24
35	2d	206/208 (99%)	172 (84%)	29 (14%)	5 (2%)	4 28
36	1e	146/148 (99%)	124 (85%)	20 (14%)	2 (1%)	9 39
36	2e	146/148 (99%)	125 (86%)	20 (14%)	1 (1%)	18 52
37	1f	98/100 (98%)	88 (90%)	9 (9%)	1 (1%)	12 45
37	2f	98/100 (98%)	87 (89%)	10 (10%)	1 (1%)	12 45
38	1g	153/155 (99%)	133 (87%)	18 (12%)	2 (1%)	9 40
38	2g	153/155 (99%)	132 (86%)	18 (12%)	3 (2%)	6 31
39	1h	135/137 (98%)	122 (90%)	13 (10%)	0	100 100
39	2h	135/137 (98%)	123 (91%)	12 (9%)	0	100 100
40	1i	125/127 (98%)	105 (84%)	16 (13%)	4 (3%)	3 21
40	2i	125/127 (98%)	105 (84%)	15 (12%)	5 (4%)	2 17
41	1j	95/97 (98%)	76 (80%)	17 (18%)	2 (2%)	5 31
41	2j	95/97 (98%)	72 (76%)	20 (21%)	3 (3%)	3 21
42	1k	112/114 (98%)	97 (87%)	15 (13%)	0	100 100
42	2k	112/114 (98%)	97 (87%)	14 (12%)	1 (1%)	14 47
43	1l	119/122 (98%)	100 (84%)	19 (16%)	0	100 100
43	2l	119/122 (98%)	104 (87%)	15 (13%)	0	100 100
44	1m	114/116 (98%)	99 (87%)	13 (11%)	2 (2%)	6 34
44	2m	114/116 (98%)	101 (89%)	10 (9%)	3 (3%)	4 26
45	1n	58/60 (97%)	52 (90%)	5 (9%)	1 (2%)	7 35
45	2n	58/60 (97%)	53 (91%)	5 (9%)	0	100 100
46	1o	86/88 (98%)	76 (88%)	9 (10%)	1 (1%)	10 42
46	2o	86/88 (98%)	79 (92%)	6 (7%)	1 (1%)	10 42
47	1p	80/82 (98%)	59 (74%)	19 (24%)	2 (2%)	4 27
47	2p	80/82 (98%)	60 (75%)	19 (24%)	1 (1%)	9 40
48	1q	97/99 (98%)	87 (90%)	7 (7%)	3 (3%)	3 22
48	2q	97/99 (98%)	85 (88%)	9 (9%)	3 (3%)	3 22
49	1r	66/68 (97%)	55 (83%)	9 (14%)	2 (3%)	3 23
49	2r	66/68 (97%)	56 (85%)	8 (12%)	2 (3%)	3 23

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
50	1s	81/83 (98%)	74 (91%)	6 (7%)	1 (1%)	10 42
50	2s	81/83 (98%)	71 (88%)	9 (11%)	1 (1%)	10 42
51	1t	94/96 (98%)	74 (79%)	16 (17%)	4 (4%)	2 16
51	2t	94/96 (98%)	74 (79%)	16 (17%)	4 (4%)	2 16
52	1u	21/23 (91%)	15 (71%)	5 (24%)	1 (5%)	2 14
52	2u	21/23 (91%)	17 (81%)	3 (14%)	1 (5%)	2 14
53	1y	20/22 (91%)	12 (60%)	4 (20%)	4 (20%)	0 0
54	1z	95/97 (98%)	89 (94%)	5 (5%)	1 (1%)	11 43
54	2z	95/97 (98%)	90 (95%)	5 (5%)	0	100 100
All	All	11656/11860 (98%)	10281 (88%)	1200 (10%)	175 (2%)	8 37

All (175) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	1F	130	ALA
6	1G	47	LYS
6	1G	126	ASP
20	1Y	92	ASN
21	1Z	31	ARG
26	14	44	THR
26	14	55	ARG
33	1b	17	PHE
33	1b	127	ILE
33	1b	155	LEU
33	1b	204	ASN
35	1d	129	ASN
37	1f	40	VAL
38	1g	33	ASP
40	1i	96	LEU
41	1j	79	ARG
44	1m	12	ASN
44	1m	113	PRO
48	1q	34	LYS
49	1r	25	THR
49	1r	36	ASN
51	1t	71	THR
52	1u	3	LYS
5	2F	130	ALA
6	2G	47	LYS

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Mol	Chain	Res	Type
6	2G	50	ALA
6	2G	126	ASP
20	2Y	92	ASN
21	2Z	31	ARG
26	24	44	THR
26	24	49	PHE
26	24	55	ARG
33	2b	8	LYS
33	2b	9	GLU
33	2b	17	PHE
33	2b	126	GLU
33	2b	127	ILE
33	2b	155	LEU
33	2b	204	ASN
35	2d	129	ASN
37	2f	40	VAL
38	2g	33	ASP
41	2j	79	ARG
44	2m	113	PRO
49	2r	25	THR
49	2r	36	ASN
51	2t	71	THR
51	2t	95	ALA
52	2u	3	LYS
6	1G	43	LEU
6	1G	49	ASP
6	1G	50	ALA
6	1G	78	SER
6	1G	81	LYS
8	1I	16	GLY
10	1O	5	GLN
19	1X	19	ALA
26	14	45	GLY
26	14	49	PHE
33	1b	8	LYS
33	1b	10	LEU
33	1b	80	ILE
33	1b	83	MET
34	1c	26	LYS
34	1c	91	LEU
35	1d	171	GLY
36	1e	140	ARG

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Mol	Chain	Res	Type
38	1g	4	ARG
40	1i	70	LYS
46	1o	86	GLY
50	1s	27	GLU
51	1t	67	ALA
51	1t	95	ALA
53	1y	18	ARG
6	2G	43	LEU
6	2G	81	LYS
8	2I	16	GLY
10	2O	5	GLN
33	2b	10	LEU
33	2b	80	ILE
34	2c	26	LYS
34	2c	91	LEU
35	2d	171	GLY
40	2i	44	VAL
40	2i	70	LYS
40	2i	96	LEU
44	2m	12	ASN
46	2o	86	GLY
4	1E	52	LEU
8	1I	73	GLU
15	1T	37	GLY
33	1b	110	GLN
40	1i	44	VAL
47	1p	52	ASP
48	1q	68	ARG
53	1y	4	ARG
53	1y	17	PRO
3	2D	11	PRO
4	2E	52	LEU
10	2O	26	LYS
15	2T	37	GLY
33	2b	124	SER
36	2e	140	ARG
38	2g	4	ARG
48	2q	34	LYS
48	2q	68	ARG
51	2t	67	ALA
33	1b	9	GLU
33	1b	126	GLU

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Mol	Chain	Res	Type
48	1q	49	GLU
51	1t	100	ILE
53	1y	21	PRO
33	2b	83	MET
33	2b	105	PHE
35	2d	179	GLU
41	2j	77	PRO
47	2p	52	ASP
51	2t	100	ILE
5	1F	160	ASN
11	1P	101	VAL
13	1R	3	HIS
33	1b	105	PHE
33	1b	131	PRO
33	1b	154	LEU
34	1c	84	ILE
35	1d	151	LYS
35	1d	164	ALA
54	1z	29	LYS
3	2D	30	GLU
6	2G	49	ASP
8	2I	103	ARG
10	2O	29	ASN
12	2Q	59	ARG
12	2Q	140	ALA
33	2b	110	GLN
38	2g	97	GLN
40	2i	53	VAL
44	2m	36	LYS
48	2q	49	GLU
50	2s	27	GLU
5	1F	161	GLU
13	1R	45	ARG
33	1b	227	GLY
45	1n	52	GLN
7	2H	76	VAL
13	2R	53	HIS
26	24	45	GLY
33	2b	131	PRO
33	2b	227	GLY
34	2c	36	ASP
34	2c	84	ILE

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Mol	Chain	Res	Type
35	2d	42	GLN
40	2i	127	LYS
42	2k	100	ALA
7	1H	76	VAL
8	1I	15	VAL
40	1i	53	VAL
11	2P	101	VAL
33	1b	124	SER
5	2F	25	PRO
8	2I	15	VAL
35	2d	37	PRO
25	13	41	PRO
6	2G	32	PRO
6	1G	32	PRO
35	1d	37	PRO
36	1e	96	PRO
41	1j	77	PRO
7	2H	126	PRO
8	2I	119	PRO
17	2V	79	VAL
35	1d	5	ILE
47	1p	46	PRO
11	2P	37	GLY
41	2j	36	GLY

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	1D	214/217 (99%)	181 (85%)	33 (15%)	2 14
3	2D	214/217 (99%)	185 (86%)	29 (14%)	3 18
4	1E	164/165 (99%)	138 (84%)	26 (16%)	2 13
4	2E	164/165 (99%)	136 (83%)	28 (17%)	2 11
5	1F	160/161 (99%)	126 (79%)	34 (21%)	1 6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
5	2F	160/161 (99%)	134 (84%)	26 (16%)	2 12
6	1G	144/155 (93%)	123 (85%)	21 (15%)	3 16
6	2G	144/155 (93%)	129 (90%)	15 (10%)	7 28
7	1H	144/145 (99%)	127 (88%)	17 (12%)	5 23
7	2H	144/145 (99%)	131 (91%)	13 (9%)	9 34
8	1I	111/123 (90%)	87 (78%)	24 (22%)	1 6
8	2I	111/123 (90%)	88 (79%)	23 (21%)	1 7
9	1N	119/119 (100%)	100 (84%)	19 (16%)	2 13
9	2N	119/119 (100%)	99 (83%)	20 (17%)	2 11
10	1O	100/100 (100%)	83 (83%)	17 (17%)	2 11
10	2O	100/100 (100%)	87 (87%)	13 (13%)	4 20
11	1P	115/116 (99%)	99 (86%)	16 (14%)	3 17
11	2P	115/116 (99%)	100 (87%)	15 (13%)	4 20
12	1Q	111/111 (100%)	98 (88%)	13 (12%)	5 23
12	2Q	111/111 (100%)	99 (89%)	12 (11%)	6 27
13	1R	101/101 (100%)	82 (81%)	19 (19%)	1 9
13	2R	101/101 (100%)	83 (82%)	18 (18%)	2 10
14	1S	87/87 (100%)	74 (85%)	13 (15%)	3 15
14	2S	87/87 (100%)	75 (86%)	12 (14%)	3 18
15	1T	115/115 (100%)	103 (90%)	12 (10%)	7 28
15	2T	115/115 (100%)	102 (89%)	13 (11%)	5 24
16	1U	93/93 (100%)	81 (87%)	12 (13%)	4 20
16	2U	93/93 (100%)	81 (87%)	12 (13%)	4 20
17	1V	81/82 (99%)	68 (84%)	13 (16%)	2 13
17	2V	81/82 (99%)	69 (85%)	12 (15%)	3 15
18	1W	90/91 (99%)	77 (86%)	13 (14%)	3 16
18	2W	90/91 (99%)	75 (83%)	15 (17%)	2 11
19	1X	77/77 (100%)	70 (91%)	7 (9%)	9 34
19	2X	77/77 (100%)	69 (90%)	8 (10%)	7 28
20	1Y	86/88 (98%)	73 (85%)	13 (15%)	3 14
20	2Y	86/88 (98%)	74 (86%)	12 (14%)	3 17

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
21	1Z	169/176 (96%)	143 (85%)	26 (15%)	2 14
21	2Z	169/176 (96%)	143 (85%)	26 (15%)	2 14
22	10	61/62 (98%)	58 (95%)	3 (5%)	22 55
22	20	61/62 (98%)	58 (95%)	3 (5%)	22 55
23	11	79/82 (96%)	71 (90%)	8 (10%)	7 30
23	21	79/82 (96%)	73 (92%)	6 (8%)	12 42
24	12	65/66 (98%)	59 (91%)	6 (9%)	8 33
24	22	65/66 (98%)	60 (92%)	5 (8%)	12 41
25	13	51/51 (100%)	40 (78%)	11 (22%)	1 6
25	23	51/51 (100%)	44 (86%)	7 (14%)	3 18
26	14	58/62 (94%)	47 (81%)	11 (19%)	1 9
26	24	58/62 (94%)	47 (81%)	11 (19%)	1 9
27	15	51/51 (100%)	44 (86%)	7 (14%)	3 18
27	25	51/51 (100%)	45 (88%)	6 (12%)	5 23
28	16	51/51 (100%)	44 (86%)	7 (14%)	3 18
28	26	51/51 (100%)	46 (90%)	5 (10%)	7 31
29	17	41/41 (100%)	34 (83%)	7 (17%)	2 11
29	27	41/41 (100%)	33 (80%)	8 (20%)	1 8
30	18	54/54 (100%)	48 (89%)	6 (11%)	6 25
30	28	54/54 (100%)	50 (93%)	4 (7%)	13 43
31	19	34/34 (100%)	29 (85%)	5 (15%)	3 16
31	29	34/34 (100%)	29 (85%)	5 (15%)	3 16
33	1b	191/199 (96%)	159 (83%)	32 (17%)	2 11
33	2b	191/199 (96%)	155 (81%)	36 (19%)	1 9
34	1c	144/160 (90%)	127 (88%)	17 (12%)	5 23
34	2c	144/160 (90%)	128 (89%)	16 (11%)	6 25
35	1d	171/180 (95%)	137 (80%)	34 (20%)	1 7
35	2d	171/180 (95%)	143 (84%)	28 (16%)	2 12
36	1e	114/114 (100%)	102 (90%)	12 (10%)	6 28
36	2e	114/114 (100%)	101 (89%)	13 (11%)	5 24
37	1f	85/90 (94%)	77 (91%)	8 (9%)	8 33

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
37	2f	85/90 (94%)	80 (94%)	5 (6%)	18 50
38	1g	120/126 (95%)	106 (88%)	14 (12%)	5 23
38	2g	120/126 (95%)	107 (89%)	13 (11%)	6 27
39	1h	116/118 (98%)	103 (89%)	13 (11%)	6 25
39	2h	116/118 (98%)	104 (90%)	12 (10%)	7 28
40	1i	91/98 (93%)	74 (81%)	17 (19%)	1 9
40	2i	91/98 (93%)	76 (84%)	15 (16%)	2 12
41	1j	68/87 (78%)	59 (87%)	9 (13%)	4 19
41	2j	68/87 (78%)	57 (84%)	11 (16%)	2 12
42	1k	83/86 (96%)	76 (92%)	7 (8%)	10 38
42	2k	83/86 (96%)	75 (90%)	8 (10%)	8 32
43	1l	96/102 (94%)	87 (91%)	9 (9%)	8 33
43	2l	96/102 (94%)	88 (92%)	8 (8%)	10 38
44	1m	90/94 (96%)	81 (90%)	9 (10%)	7 30
44	2m	90/94 (96%)	78 (87%)	12 (13%)	4 19
45	1n	49/49 (100%)	39 (80%)	10 (20%)	1 7
45	2n	49/49 (100%)	40 (82%)	9 (18%)	1 9
46	1o	78/79 (99%)	74 (95%)	4 (5%)	21 54
46	2o	78/79 (99%)	74 (95%)	4 (5%)	21 54
47	1p	69/71 (97%)	55 (80%)	14 (20%)	1 7
47	2p	69/71 (97%)	54 (78%)	15 (22%)	1 6
48	1q	94/94 (100%)	86 (92%)	8 (8%)	10 37
48	2q	94/94 (100%)	89 (95%)	5 (5%)	20 53
49	1r	59/59 (100%)	52 (88%)	7 (12%)	5 23
49	2r	59/59 (100%)	51 (86%)	8 (14%)	3 18
50	1s	68/72 (94%)	60 (88%)	8 (12%)	5 23
50	2s	68/72 (94%)	61 (90%)	7 (10%)	7 28
51	1t	71/74 (96%)	63 (89%)	8 (11%)	5 24
51	2t	71/74 (96%)	64 (90%)	7 (10%)	7 31
52	1u	18/18 (100%)	16 (89%)	2 (11%)	6 25
52	2u	18/18 (100%)	17 (94%)	1 (6%)	19 52

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
53	1y	16/21 (76%)	11 (69%)	5 (31%)	0 1
54	1z	82/83 (99%)	78 (95%)	4 (5%)	22 55
54	2z	82/83 (99%)	80 (98%)	2 (2%)	43 70
All	All	9582/9879 (97%)	8295 (87%)	1287 (13%)	4 19

All (1287) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	7	LYS
3	1D	10	THR
3	1D	12	SER
3	1D	13	ARG
3	1D	18	VAL
3	1D	37	LEU
3	1D	54	ARG
3	1D	61	LEU
3	1D	69	ARG
3	1D	89	SER
3	1D	94	LEU
3	1D	103	ARG
3	1D	111	LEU
3	1D	113	VAL
3	1D	126	GLN
3	1D	127	VAL
3	1D	136	ILE
3	1D	138	VAL
3	1D	141	VAL
3	1D	142	VAL
3	1D	164	GLN
3	1D	165	ILE
3	1D	169	GLU
3	1D	181	GLU
3	1D	193	VAL
3	1D	200	ASP
3	1D	204	ILE
3	1D	212	SER
3	1D	221	VAL
3	1D	229	VAL
3	1D	242	ARG
3	1D	253	GLN
3	1D	259	THR

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Mol	Chain	Res	Type
4	1E	7	VAL
4	1E	9	VAL
4	1E	12	THR
4	1E	26	ILE
4	1E	33	VAL
4	1E	34	VAL
4	1E	36	ARG
4	1E	45	THR
4	1E	47	VAL
4	1E	49	LEU
4	1E	64	LYS
4	1E	75	VAL
4	1E	77	ILE
4	1E	78	LEU
4	1E	87	GLU
4	1E	89	ASP
4	1E	93	VAL
4	1E	97	LYS
4	1E	116	VAL
4	1E	119	ARG
4	1E	140	SER
4	1E	144	ARG
4	1E	175	VAL
4	1E	178	GLU
4	1E	181	LEU
4	1E	182	LEU
5	1F	7	TYR
5	1F	12	LEU
5	1F	17	ARG
5	1F	24	LEU
5	1F	27	GLU
5	1F	33	LEU
5	1F	38	ARG
5	1F	53	THR
5	1F	64	ILE
5	1F	74	ARG
5	1F	77	ASP
5	1F	78	ILE
5	1F	82	ILE
5	1F	88	VAL
5	1F	110	LEU
5	1F	125	LEU

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Mol	Chain	Res	Type
5	1F	126	VAL
5	1F	132	VAL
5	1F	137	LYS
5	1F	144	LYS
5	1F	148	LEU
5	1F	157	VAL
5	1F	158	THR
5	1F	161	GLU
5	1F	162	LEU
5	1F	170	LEU
5	1F	183	VAL
5	1F	191	ARG
5	1F	192	LEU
5	1F	195	ASP
5	1F	196	LEU
5	1F	197	ASP
5	1F	201	VAL
5	1F	203	GLN
6	1G	5	VAL
6	1G	7	LEU
6	1G	28	VAL
6	1G	31	VAL
6	1G	32	PRO
6	1G	43	LEU
6	1G	49	ASP
6	1G	52	ILE
6	1G	53	LEU
6	1G	79	ASN
6	1G	81	LYS
6	1G	84	LYS
6	1G	106	LEU
6	1G	126	ASP
6	1G	139	LEU
6	1G	146	TYR
6	1G	150	ASP
6	1G	159	VAL
6	1G	161	THR
6	1G	162	THR
6	1G	165	THR
7	1H	3	ARG
7	1H	15	VAL
7	1H	24	VAL

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Mol	Chain	Res	Type
7	1H	43	VAL
7	1H	45	VAL
7	1H	51	ARG
7	1H	59	ARG
7	1H	71	LEU
7	1H	84	SER
7	1H	85	LYS
7	1H	92	ILE
7	1H	106	THR
7	1H	114	VAL
7	1H	122	THR
7	1H	129	THR
7	1H	133	VAL
7	1H	136	ILE
8	1I	3	VAL
8	1I	5	LEU
8	1I	12	LEU
8	1I	19	VAL
8	1I	35	LEU
8	1I	38	LEU
8	1I	40	THR
8	1I	42	SER
8	1I	44	LEU
8	1I	47	LEU
8	1I	57	ARG
8	1I	60	GLU
8	1I	61	ARG
8	1I	64	GLU
8	1I	75	LEU
8	1I	78	THR
8	1I	85	GLU
8	1I	92	VAL
8	1I	93	THR
8	1I	109	ILE
8	1I	116	LEU
8	1I	133	HIS
8	1I	140	LEU
8	1I	144	VAL
9	1N	1	MET
9	1N	5	VAL
9	1N	10	GLU
9	1N	14	VAL

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Mol	Chain	Res	Type
9	1N	32	THR
9	1N	33	LEU
9	1N	34	LEU
9	1N	55	VAL
9	1N	58	ASP
9	1N	61	ARG
9	1N	62	VAL
9	1N	63	THR
9	1N	65	LYS
9	1N	67	LEU
9	1N	68	GLU
9	1N	87	LEU
9	1N	97	ARG
9	1N	99	LEU
9	1N	138	LEU
10	1O	8	LEU
10	1O	10	VAL
10	1O	20	MET
10	1O	23	ARG
10	1O	42	SER
10	1O	47	ILE
10	1O	58	VAL
10	1O	65	THR
10	1O	69	ILE
10	1O	70	LYS
10	1O	77	ILE
10	1O	82	ASN
10	1O	96	THR
10	1O	98	VAL
10	1O	109	LYS
10	1O	112	MET
10	1O	113	LYS
11	1P	15	ARG
11	1P	18	ARG
11	1P	19	VAL
11	1P	30	THR
11	1P	42	SER
11	1P	58	THR
11	1P	59	LEU
11	1P	65	ARG
11	1P	70	GLN
11	1P	83	VAL

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Mol	Chain	Res	Type
11	1P	90	ARG
11	1P	95	VAL
11	1P	99	LEU
11	1P	125	VAL
11	1P	148	LEU
11	1P	149	GLU
12	1Q	1	MET
12	1Q	5	ARG
12	1Q	7	MET
12	1Q	8	LYS
12	1Q	17	LEU
12	1Q	18	LYS
12	1Q	35	VAL
12	1Q	55	VAL
12	1Q	59	ARG
12	1Q	75	THR
12	1Q	79	LEU
12	1Q	81	VAL
12	1Q	110	THR
13	1R	6	SER
13	1R	8	ARG
13	1R	17	ARG
13	1R	23	ASN
13	1R	29	LEU
13	1R	30	THR
13	1R	33	ARG
13	1R	36	THR
13	1R	44	LEU
13	1R	54	LEU
13	1R	65	LEU
13	1R	67	LEU
13	1R	73	VAL
13	1R	75	LEU
13	1R	86	ARG
13	1R	91	GLN
13	1R	100	LEU
13	1R	111	LEU
13	1R	114	VAL
14	1S	14	VAL
14	1S	21	THR
14	1S	35	ILE
14	1S	36	TYR

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Mol	Chain	Res	Type
14	1S	43	GLU
14	1S	46	VAL
14	1S	49	VAL
14	1S	50	SER
14	1S	59	LYS
14	1S	65	VAL
14	1S	85	VAL
14	1S	93	LYS
14	1S	110	LEU
15	1T	17	THR
15	1T	28	VAL
15	1T	34	VAL
15	1T	49	VAL
15	1T	59	THR
15	1T	74	ARG
15	1T	78	LEU
15	1T	89	VAL
15	1T	96	ARG
15	1T	108	ARG
15	1T	120	ARG
15	1T	128	GLU
16	1U	5	LYS
16	1U	8	VAL
16	1U	17	ILE
16	1U	27	LEU
16	1U	30	LYS
16	1U	59	ARG
16	1U	74	LEU
16	1U	77	SER
16	1U	83	LEU
16	1U	95	LEU
16	1U	104	GLN
16	1U	111	GLU
17	1V	1	MET
17	1V	32	THR
17	1V	35	LEU
17	1V	46	VAL
17	1V	52	VAL
17	1V	62	LEU
17	1V	72	VAL
17	1V	73	SER
17	1V	79	VAL

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Mol	Chain	Res	Type
17	1V	82	ARG
17	1V	85	LYS
17	1V	98	GLU
17	1V	100	ARG
18	1W	17	VAL
18	1W	19	LEU
18	1W	23	LEU
18	1W	39	THR
18	1W	42	ARG
18	1W	65	LEU
18	1W	67	ASP
18	1W	77	ASP
18	1W	86	LEU
18	1W	95	ILE
18	1W	100	THR
18	1W	103	ILE
18	1W	107	LEU
19	1X	23	GLU
19	1X	35	THR
19	1X	40	LYS
19	1X	45	THR
19	1X	66	LEU
19	1X	76	ARG
19	1X	89	ILE
20	1Y	7	VAL
20	1Y	11	ASP
20	1Y	14	LEU
20	1Y	31	LEU
20	1Y	40	GLU
20	1Y	43	ASN
20	1Y	44	ILE
20	1Y	47	LYS
20	1Y	49	VAL
20	1Y	72	VAL
20	1Y	85	VAL
20	1Y	90	LEU
20	1Y	96	ILE
21	1Z	11	GLU
21	1Z	16	SER
21	1Z	18	LEU
21	1Z	31	ARG
21	1Z	33	LEU

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Mol	Chain	Res	Type
21	1Z	42	VAL
21	1Z	61	LEU
21	1Z	66	SER
21	1Z	71	VAL
21	1Z	76	LEU
21	1Z	86	VAL
21	1Z	91	LEU
21	1Z	93	ASP
21	1Z	97	GLU
21	1Z	103	ARG
21	1Z	121	HIS
21	1Z	126	VAL
21	1Z	150	LEU
21	1Z	155	LEU
21	1Z	165	VAL
21	1Z	180	VAL
21	1Z	182	LYS
21	1Z	185	GLU
21	1Z	191	VAL
21	1Z	202	GLU
21	1Z	203	GLU
22	10	11	ARG
22	10	38	VAL
22	10	39	ARG
23	11	35	THR
23	11	38	SER
23	11	51	VAL
23	11	59	THR
23	11	67	ILE
23	11	73	LEU
23	11	75	GLU
23	11	95	LEU
24	12	3	LEU
24	12	16	LEU
24	12	19	VAL
24	12	53	LEU
24	12	62	THR
24	12	64	LEU
25	13	3	ARG
25	13	6	VAL
25	13	8	LEU
25	13	17	LYS

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Mol	Chain	Res	Type
25	13	23	LEU
25	13	29	ARG
25	13	31	LEU
25	13	44	ARG
25	13	55	ARG
25	13	56	VAL
25	13	58	VAL
26	14	5	ILE
26	14	14	ILE
26	14	22	ILE
26	14	23	GLU
26	14	27	THR
26	14	49	PHE
26	14	52	THR
26	14	57	GLU
26	14	61	ARG
26	14	63	TYR
26	14	68	ARG
27	15	6	VAL
27	15	16	ARG
27	15	25	LEU
27	15	29	THR
27	15	57	VAL
27	15	59	GLU
27	15	60	VAL
28	16	4	GLU
28	16	9	LEU
28	16	14	THR
28	16	19	ARG
28	16	28	ARG
28	16	34	LEU
28	16	48	VAL
29	17	1	MET
29	17	4	THR
29	17	10	ARG
29	17	41	ARG
29	17	43	THR
29	17	47	ARG
29	17	48	LYS
30	18	6	THR
30	18	14	VAL
30	18	23	VAL

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Mol	Chain	Res	Type
30	18	46	ARG
30	18	49	VAL
30	18	59	LYS
31	19	1	MET
31	19	3	VAL
31	19	4	ARG
31	19	17	ILE
31	19	26	ILE
33	1b	10	LEU
33	1b	16	HIS
33	1b	17	PHE
33	1b	20	GLU
33	1b	21	ARG
33	1b	27	LYS
33	1b	45	GLN
33	1b	67	THR
33	1b	71	VAL
33	1b	73	THR
33	1b	74	LYS
33	1b	76	GLN
33	1b	80	ILE
33	1b	95	GLN
33	1b	111	ARG
33	1b	128	GLU
33	1b	134	GLU
33	1b	135	GLN
33	1b	157	ARG
33	1b	164	VAL
33	1b	172	ILE
33	1b	178	ARG
33	1b	185	ILE
33	1b	196	LEU
33	1b	197	VAL
33	1b	215	LEU
33	1b	221	LEU
33	1b	223	ILE
33	1b	224	GLN
33	1b	226	ARG
33	1b	230	VAL
33	1b	233	SER
34	1c	3	ASN
34	1c	15	THR

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Mol	Chain	Res	Type
34	1c	32	LEU
34	1c	38	ARG
34	1c	43	LEU
34	1c	47	LEU
34	1c	52	LEU
34	1c	64	VAL
34	1c	67	THR
34	1c	85	ARG
34	1c	89	GLU
34	1c	103	VAL
34	1c	105	GLU
34	1c	115	LEU
34	1c	166	GLU
34	1c	191	THR
34	1c	206	GLU
35	1d	5	ILE
35	1d	8	VAL
35	1d	28	SER
35	1d	31	CYS
35	1d	34	GLU
35	1d	47	ARG
35	1d	58	LEU
35	1d	59	ARG
35	1d	60	GLU
35	1d	76	ARG
35	1d	80	GLU
35	1d	85	LYS
35	1d	86	LYS
35	1d	89	THR
35	1d	104	VAL
35	1d	106	TYR
35	1d	110	PHE
35	1d	122	ARG
35	1d	126	ILE
35	1d	127	THR
35	1d	132	ARG
35	1d	135	LEU
35	1d	141	ARG
35	1d	158	ILE
35	1d	160	GLN
35	1d	168	ARG
35	1d	173	TRP

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Mol	Chain	Res	Type
35	1d	178	VAL
35	1d	179	GLU
35	1d	182	LYS
35	1d	188	LEU
35	1d	194	LEU
35	1d	196	LEU
35	1d	203	VAL
36	1e	12	LEU
36	1e	13	ILE
36	1e	16	THR
36	1e	31	LEU
36	1e	34	VAL
36	1e	41	VAL
36	1e	69	VAL
36	1e	75	THR
36	1e	82	VAL
36	1e	91	LEU
36	1e	116	THR
36	1e	152	ARG
37	1f	17	SER
37	1f	37	VAL
37	1f	40	VAL
37	1f	43	LEU
37	1f	46	ARG
37	1f	63	TYR
37	1f	69	GLU
37	1f	73	ASN
38	1g	8	GLU
38	1g	21	VAL
38	1g	27	ILE
38	1g	28	ASN
38	1g	52	GLU
38	1g	57	GLU
38	1g	66	VAL
38	1g	79	ARG
38	1g	91	VAL
38	1g	97	GLN
38	1g	98	SER
38	1g	104	LEU
38	1g	113	GLU
38	1g	144	MET
39	1h	22	GLU

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Mol	Chain	Res	Type
39	1h	25	ASP
39	1h	26	VAL
39	1h	39	LEU
39	1h	45	ILE
39	1h	52	ASP
39	1h	83	ILE
39	1h	91	ARG
39	1h	104	ARG
39	1h	107	LEU
39	1h	111	ILE
39	1h	118	VAL
39	1h	120	THR
40	1i	19	LEU
40	1i	25	LYS
40	1i	27	THR
40	1i	31	GLN
40	1i	42	ARG
40	1i	47	LEU
40	1i	60	ASP
40	1i	64	THR
40	1i	65	VAL
40	1i	81	ILE
40	1i	96	LEU
40	1i	108	VAL
40	1i	109	VAL
40	1i	113	LYS
40	1i	114	TYR
40	1i	125	TYR
40	1i	127	LYS
41	1j	9	ARG
41	1j	13	HIS
41	1j	49	VAL
41	1j	62	HIS
41	1j	66	ARG
41	1j	68	HIS
41	1j	95	GLU
41	1j	98	ILE
41	1j	100	THR
42	1k	16	SER
42	1k	18	ARG
42	1k	31	THR
42	1k	47	VAL

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Mol	Chain	Res	Type
42	1k	109	VAL
42	1k	112	THR
42	1k	114	VAL
43	1l	11	VAL
43	1l	18	VAL
43	1l	27	LEU
43	1l	39	VAL
43	1l	52	LEU
43	1l	60	LEU
43	1l	67	THR
43	1l	97	ARG
43	1l	98	TYR
44	1m	19	LEU
44	1m	54	VAL
44	1m	56	LEU
44	1m	70	LEU
44	1m	81	LEU
44	1m	84	ILE
44	1m	109	THR
44	1m	113	PRO
44	1m	116	THR
45	1n	3	ARG
45	1n	6	LEU
45	1n	7	ILE
45	1n	13	THR
45	1n	18	VAL
45	1n	22	THR
45	1n	32	SER
45	1n	33	VAL
45	1n	42	ILE
45	1n	44	LEU
46	1o	3	ILE
46	1o	39	LEU
46	1o	68	ARG
46	1o	76	GLU
47	1p	1	MET
47	1p	2	VAL
47	1p	6	LEU
47	1p	8	ARG
47	1p	19	ILE
47	1p	20	VAL
47	1p	25	ARG

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Mol	Chain	Res	Type
47	1p	42	ARG
47	1p	45	THR
47	1p	47	ASP
47	1p	50	LYS
47	1p	54	GLU
47	1p	60	LEU
47	1p	69	THR
48	1q	6	LEU
48	1q	9	VAL
48	1q	52	LYS
48	1q	57	VAL
48	1q	60	ILE
48	1q	77	VAL
48	1q	81	ARG
48	1q	86	GLU
49	1r	31	LEU
49	1r	47	THR
49	1r	55	ARG
49	1r	65	ILE
49	1r	66	LEU
49	1r	68	LYS
49	1r	76	LEU
50	1s	4	SER
50	1s	5	LEU
50	1s	28	LYS
50	1s	40	ILE
50	1s	71	LEU
50	1s	77	THR
50	1s	79	THR
50	1s	83	HIS
51	1t	10	LEU
51	1t	24	LEU
51	1t	62	LEU
51	1t	71	THR
51	1t	72	LEU
51	1t	80	ARG
51	1t	81	LYS
51	1t	100	ILE
52	1u	9	ARG
52	1u	15	ARG
53	1y	3	ILE
53	1y	5	PHE

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Mol	Chain	Res	Type
53	1y	6	ARG
53	1y	15	ARG
53	1y	16	ARG
54	1z	42	SER
54	1z	58	ASN
54	1z	60	VAL
54	1z	88	LEU
3	2D	3	VAL
3	2D	7	LYS
3	2D	10	THR
3	2D	11	PRO
3	2D	12	SER
3	2D	13	ARG
3	2D	18	VAL
3	2D	37	LEU
3	2D	61	LEU
3	2D	89	SER
3	2D	94	LEU
3	2D	103	ARG
3	2D	104	TYR
3	2D	111	LEU
3	2D	126	GLN
3	2D	127	VAL
3	2D	136	ILE
3	2D	138	VAL
3	2D	141	VAL
3	2D	142	VAL
3	2D	155	LEU
3	2D	165	ILE
3	2D	169	GLU
3	2D	193	VAL
3	2D	221	VAL
3	2D	229	VAL
3	2D	242	ARG
3	2D	253	GLN
3	2D	259	THR
4	2E	7	VAL
4	2E	9	VAL
4	2E	21	VAL
4	2E	33	VAL
4	2E	34	VAL
4	2E	36	ARG

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Mol	Chain	Res	Type
4	2E	45	THR
4	2E	47	VAL
4	2E	49	LEU
4	2E	64	LYS
4	2E	73	GLU
4	2E	75	VAL
4	2E	76	ARG
4	2E	77	ILE
4	2E	78	LEU
4	2E	87	GLU
4	2E	93	VAL
4	2E	97	LYS
4	2E	116	VAL
4	2E	119	ARG
4	2E	134	ILE
4	2E	144	ARG
4	2E	175	VAL
4	2E	178	GLU
4	2E	181	LEU
4	2E	182	LEU
4	2E	184	VAL
4	2E	202	LYS
5	2F	12	LEU
5	2F	17	ARG
5	2F	24	LEU
5	2F	27	GLU
5	2F	33	LEU
5	2F	38	ARG
5	2F	44	ARG
5	2F	53	THR
5	2F	57	VAL
5	2F	74	ARG
5	2F	78	ILE
5	2F	82	ILE
5	2F	88	VAL
5	2F	110	LEU
5	2F	125	LEU
5	2F	126	VAL
5	2F	148	LEU
5	2F	157	VAL
5	2F	158	THR
5	2F	161	GLU

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Mol	Chain	Res	Type
5	2F	162	LEU
5	2F	170	LEU
5	2F	183	VAL
5	2F	192	LEU
5	2F	196	LEU
5	2F	201	VAL
6	2G	5	VAL
6	2G	28	VAL
6	2G	31	VAL
6	2G	43	LEU
6	2G	52	ILE
6	2G	53	LEU
6	2G	79	ASN
6	2G	81	LYS
6	2G	84	LYS
6	2G	106	LEU
6	2G	139	LEU
6	2G	150	ASP
6	2G	155	MET
6	2G	159	VAL
6	2G	165	THR
7	2H	3	ARG
7	2H	15	VAL
7	2H	43	VAL
7	2H	45	VAL
7	2H	51	ARG
7	2H	52	VAL
7	2H	71	LEU
7	2H	84	SER
7	2H	92	ILE
7	2H	105	LEU
7	2H	107	VAL
7	2H	129	THR
7	2H	136	ILE
8	2I	5	LEU
8	2I	10	GLU
8	2I	12	LEU
8	2I	19	VAL
8	2I	20	ASP
8	2I	35	LEU
8	2I	38	LEU
8	2I	42	SER

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Mol	Chain	Res	Type
8	2I	44	LEU
8	2I	60	GLU
8	2I	61	ARG
8	2I	62	LYS
8	2I	64	GLU
8	2I	68	LEU
8	2I	75	LEU
8	2I	78	THR
8	2I	85	GLU
8	2I	109	ILE
8	2I	114	LEU
8	2I	127	VAL
8	2I	133	HIS
8	2I	140	LEU
8	2I	144	VAL
9	2N	1	MET
9	2N	10	GLU
9	2N	12	ARG
9	2N	14	VAL
9	2N	33	LEU
9	2N	34	LEU
9	2N	43	THR
9	2N	55	VAL
9	2N	62	VAL
9	2N	63	THR
9	2N	65	LYS
9	2N	67	LEU
9	2N	68	GLU
9	2N	83	LYS
9	2N	85	ILE
9	2N	87	LEU
9	2N	93	THR
9	2N	97	ARG
9	2N	99	LEU
9	2N	138	LEU
10	2O	8	LEU
10	2O	10	VAL
10	2O	20	MET
10	2O	23	ARG
10	2O	47	ILE
10	2O	58	VAL
10	2O	69	ILE

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Mol	Chain	Res	Type
10	2O	70	LYS
10	2O	96	THR
10	2O	98	VAL
10	2O	108	GLU
10	2O	113	LYS
10	2O	117	LEU
11	2P	15	ARG
11	2P	18	ARG
11	2P	19	VAL
11	2P	32	THR
11	2P	42	SER
11	2P	58	THR
11	2P	65	ARG
11	2P	83	VAL
11	2P	90	ARG
11	2P	95	VAL
11	2P	96	THR
11	2P	99	LEU
11	2P	125	VAL
11	2P	132	LYS
11	2P	148	LEU
12	2Q	7	MET
12	2Q	8	LYS
12	2Q	17	LEU
12	2Q	18	LYS
12	2Q	35	VAL
12	2Q	55	VAL
12	2Q	75	THR
12	2Q	79	LEU
12	2Q	81	VAL
12	2Q	85	LYS
12	2Q	110	THR
12	2Q	112	GLU
13	2R	6	SER
13	2R	23	ASN
13	2R	24	GLN
13	2R	29	LEU
13	2R	30	THR
13	2R	33	ARG
13	2R	38	VAL
13	2R	44	LEU
13	2R	48	VAL

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Mol	Chain	Res	Type
13	2R	54	LEU
13	2R	65	LEU
13	2R	67	LEU
13	2R	73	VAL
13	2R	86	ARG
13	2R	91	GLN
13	2R	100	LEU
13	2R	111	LEU
13	2R	114	VAL
14	2S	35	ILE
14	2S	36	TYR
14	2S	49	VAL
14	2S	50	SER
14	2S	52	SER
14	2S	59	LYS
14	2S	65	VAL
14	2S	69	VAL
14	2S	75	GLU
14	2S	85	VAL
14	2S	93	LYS
14	2S	110	LEU
15	2T	13	ARG
15	2T	17	THR
15	2T	28	VAL
15	2T	34	VAL
15	2T	40	THR
15	2T	49	VAL
15	2T	59	THR
15	2T	66	VAL
15	2T	74	ARG
15	2T	89	VAL
15	2T	96	ARG
15	2T	112	ARG
15	2T	128	GLU
16	2U	5	LYS
16	2U	8	VAL
16	2U	17	ILE
16	2U	52	ARG
16	2U	74	LEU
16	2U	77	SER
16	2U	83	LEU
16	2U	95	LEU

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Mol	Chain	Res	Type
16	2U	104	GLN
16	2U	108	GLU
16	2U	111	GLU
16	2U	112	ARG
17	2V	7	THR
17	2V	14	VAL
17	2V	35	LEU
17	2V	38	LEU
17	2V	46	VAL
17	2V	52	VAL
17	2V	72	VAL
17	2V	79	VAL
17	2V	82	ARG
17	2V	85	LYS
17	2V	98	GLU
17	2V	100	ARG
18	2W	17	VAL
18	2W	19	LEU
18	2W	23	LEU
18	2W	24	ILE
18	2W	37	ARG
18	2W	39	THR
18	2W	65	LEU
18	2W	67	ASP
18	2W	77	ASP
18	2W	86	LEU
18	2W	95	ILE
18	2W	100	THR
18	2W	101	SER
18	2W	103	ILE
18	2W	107	LEU
19	2X	23	GLU
19	2X	35	THR
19	2X	40	LYS
19	2X	43	VAL
19	2X	52	VAL
19	2X	65	ARG
19	2X	66	LEU
19	2X	76	ARG
20	2Y	7	VAL
20	2Y	11	ASP
20	2Y	31	LEU

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Mol	Chain	Res	Type
20	2Y	43	ASN
20	2Y	44	ILE
20	2Y	47	LYS
20	2Y	49	VAL
20	2Y	64	GLU
20	2Y	72	VAL
20	2Y	85	VAL
20	2Y	90	LEU
20	2Y	96	ILE
21	2Z	3	TYR
21	2Z	8	TYR
21	2Z	11	GLU
21	2Z	16	SER
21	2Z	19	ARG
21	2Z	31	ARG
21	2Z	33	LEU
21	2Z	37	VAL
21	2Z	40	ASP
21	2Z	42	VAL
21	2Z	53	ILE
21	2Z	61	LEU
21	2Z	71	VAL
21	2Z	76	LEU
21	2Z	86	VAL
21	2Z	91	LEU
21	2Z	103	ARG
21	2Z	121	HIS
21	2Z	126	VAL
21	2Z	150	LEU
21	2Z	155	LEU
21	2Z	165	VAL
21	2Z	180	VAL
21	2Z	182	LYS
21	2Z	191	VAL
21	2Z	202	GLU
22	20	10	THR
22	20	16	SER
22	20	39	ARG
23	21	21	ARG
23	21	38	SER
23	21	51	VAL
23	21	59	THR

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Mol	Chain	Res	Type
23	21	73	LEU
23	21	95	LEU
24	22	3	LEU
24	22	19	VAL
24	22	50	ILE
24	22	53	LEU
24	22	64	LEU
25	23	3	ARG
25	23	8	LEU
25	23	23	LEU
25	23	29	ARG
25	23	31	LEU
25	23	44	ARG
25	23	56	VAL
26	24	5	ILE
26	24	14	ILE
26	24	22	ILE
26	24	30	GLU
26	24	50	VAL
26	24	52	THR
26	24	56	VAL
26	24	57	GLU
26	24	61	ARG
26	24	63	TYR
26	24	68	ARG
27	25	6	VAL
27	25	16	ARG
27	25	25	LEU
27	25	29	THR
27	25	35	GLU
27	25	57	VAL
28	26	5	VAL
28	26	9	LEU
28	26	19	ARG
28	26	40	CYS
28	26	48	VAL
29	27	1	MET
29	27	8	ASN
29	27	10	ARG
29	27	24	THR
29	27	41	ARG
29	27	43	THR

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Mol	Chain	Res	Type
29	27	47	ARG
29	27	48	LYS
30	28	6	THR
30	28	23	VAL
30	28	46	ARG
30	28	49	VAL
31	29	1	MET
31	29	3	VAL
31	29	9	ARG
31	29	17	ILE
31	29	26	ILE
33	2b	7	VAL
33	2b	10	LEU
33	2b	15	VAL
33	2b	16	HIS
33	2b	17	PHE
33	2b	19	HIS
33	2b	21	ARG
33	2b	23	ARG
33	2b	27	LYS
33	2b	45	GLN
33	2b	67	THR
33	2b	68	ILE
33	2b	71	VAL
33	2b	74	LYS
33	2b	80	ILE
33	2b	95	GLN
33	2b	106	LYS
33	2b	107	THR
33	2b	111	ARG
33	2b	127	ILE
33	2b	128	GLU
33	2b	134	GLU
33	2b	135	GLN
33	2b	157	ARG
33	2b	164	VAL
33	2b	172	ILE
33	2b	178	ARG
33	2b	185	ILE
33	2b	196	LEU
33	2b	215	LEU
33	2b	221	LEU

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Mol	Chain	Res	Type
33	2b	223	ILE
33	2b	224	GLN
33	2b	226	ARG
33	2b	230	VAL
33	2b	233	SER
34	2c	3	ASN
34	2c	8	ILE
34	2c	15	THR
34	2c	32	LEU
34	2c	43	LEU
34	2c	47	LEU
34	2c	52	LEU
34	2c	64	VAL
34	2c	82	GLU
34	2c	105	GLU
34	2c	115	LEU
34	2c	138	VAL
34	2c	152	ILE
34	2c	166	GLU
34	2c	192	THR
34	2c	206	GLU
35	2d	5	ILE
35	2d	8	VAL
35	2d	18	LYS
35	2d	34	GLU
35	2d	35	ARG
35	2d	47	ARG
35	2d	58	LEU
35	2d	59	ARG
35	2d	76	ARG
35	2d	80	GLU
35	2d	85	LYS
35	2d	86	LYS
35	2d	89	THR
35	2d	104	VAL
35	2d	108	LEU
35	2d	122	ARG
35	2d	126	ILE
35	2d	127	THR
35	2d	135	LEU
35	2d	141	ARG
35	2d	142	PRO

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Mol	Chain	Res	Type
35	2d	173	TRP
35	2d	179	GLU
35	2d	194	LEU
35	2d	196	LEU
35	2d	198	VAL
35	2d	203	VAL
35	2d	208	SER
36	2e	12	LEU
36	2e	16	THR
36	2e	24	ARG
36	2e	31	LEU
36	2e	34	VAL
36	2e	41	VAL
36	2e	69	VAL
36	2e	75	THR
36	2e	82	VAL
36	2e	91	LEU
36	2e	116	THR
36	2e	131	ILE
36	2e	152	ARG
37	2f	37	VAL
37	2f	43	LEU
37	2f	63	TYR
37	2f	69	GLU
37	2f	98	LEU
38	2g	6	ARG
38	2g	8	GLU
38	2g	21	VAL
38	2g	28	ASN
38	2g	50	ILE
38	2g	52	GLU
38	2g	64	GLN
38	2g	66	VAL
38	2g	79	ARG
38	2g	91	VAL
38	2g	97	GLN
38	2g	104	LEU
38	2g	144	MET
39	2h	25	ASP
39	2h	26	VAL
39	2h	32	LYS
39	2h	39	LEU

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Mol	Chain	Res	Type
39	2h	51	VAL
39	2h	54	ASP
39	2h	83	ILE
39	2h	103	VAL
39	2h	104	ARG
39	2h	107	LEU
39	2h	109	ILE
39	2h	120	THR
40	2i	17	VAL
40	2i	19	LEU
40	2i	25	LYS
40	2i	27	THR
40	2i	31	GLN
40	2i	47	LEU
40	2i	64	THR
40	2i	65	VAL
40	2i	81	ILE
40	2i	96	LEU
40	2i	108	VAL
40	2i	109	VAL
40	2i	113	LYS
40	2i	114	TYR
40	2i	127	LYS
41	2j	5	ARG
41	2j	9	ARG
41	2j	49	VAL
41	2j	62	HIS
41	2j	66	ARG
41	2j	67	THR
41	2j	68	HIS
41	2j	89	ASP
41	2j	92	THR
41	2j	95	GLU
41	2j	98	ILE
42	2k	14	VAL
42	2k	18	ARG
42	2k	31	THR
42	2k	47	VAL
42	2k	63	LEU
42	2k	109	VAL
42	2k	112	THR
42	2k	114	VAL

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Mol	Chain	Res	Type
43	2l	18	VAL
43	2l	27	LEU
43	2l	39	VAL
43	2l	41	ARG
43	2l	60	LEU
43	2l	67	THR
43	2l	96	VAL
43	2l	97	ARG
44	2m	12	ASN
44	2m	19	LEU
44	2m	47	ASP
44	2m	54	VAL
44	2m	70	LEU
44	2m	84	ILE
44	2m	90	LEU
44	2m	102	ARG
44	2m	106	ASN
44	2m	109	THR
44	2m	111	LYS
44	2m	116	THR
45	2n	3	ARG
45	2n	6	LEU
45	2n	13	THR
45	2n	18	VAL
45	2n	22	THR
45	2n	32	SER
45	2n	33	VAL
45	2n	42	ILE
45	2n	44	LEU
46	2o	3	ILE
46	2o	39	LEU
46	2o	76	GLU
46	2o	88	ARG
47	2p	2	VAL
47	2p	6	LEU
47	2p	8	ARG
47	2p	19	ILE
47	2p	20	VAL
47	2p	21	VAL
47	2p	38	TYR
47	2p	42	ARG
47	2p	45	THR

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Mol	Chain	Res	Type
47	2p	47	ASP
47	2p	50	LYS
47	2p	54	GLU
47	2p	60	LEU
47	2p	67	THR
47	2p	69	THR
48	2q	6	LEU
48	2q	52	LYS
48	2q	60	ILE
48	2q	77	VAL
48	2q	86	GLU
49	2r	31	LEU
49	2r	47	THR
49	2r	65	ILE
49	2r	66	LEU
49	2r	68	LYS
49	2r	76	LEU
49	2r	82	THR
49	2r	85	LEU
50	2s	4	SER
50	2s	28	LYS
50	2s	67	VAL
50	2s	71	LEU
50	2s	77	THR
50	2s	79	THR
50	2s	83	HIS
51	2t	9	ASN
51	2t	10	LEU
51	2t	24	LEU
51	2t	62	LEU
51	2t	71	THR
51	2t	84	LEU
51	2t	100	ILE
52	2u	8	THR
54	2z	32	THR
54	2z	58	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (165) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	87	ASN
3	1D	96	HIS

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Mol	Chain	Res	Type
3	1D	166	GLN
4	1E	48	GLN
4	1E	143	ASN
5	1F	8	GLN
5	1F	40	GLN
5	1F	75	HIS
5	1F	203	GLN
6	1G	41	GLN
8	1I	104	GLN
8	1I	133	HIS
9	1N	94	HIS
11	1P	27	HIS
12	1Q	12	GLN
12	1Q	13	GLN
12	1Q	57	HIS
13	1R	13	HIS
15	1T	84	GLN
16	1U	94	ASN
18	1W	60	ASN
19	1X	31	HIS
20	1Y	43	ASN
21	1Z	32	HIS
21	1Z	73	GLN
21	1Z	121	HIS
21	1Z	151	HIS
23	11	19	GLN
24	12	65	ASN
25	13	32	GLN
26	14	60	GLN
27	15	22	HIS
27	15	23	HIS
33	1b	40	HIS
33	1b	78	GLN
33	1b	135	GLN
33	1b	146	GLN
33	1b	224	GLN
34	1c	6	HIS
34	1c	37	GLN
34	1c	104	GLN
34	1c	162	GLN
34	1c	176	HIS
34	1c	181	ASN

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Mol	Chain	Res	Type
35	1d	45	GLN
35	1d	77	ASN
35	1d	119	GLN
35	1d	125	HIS
35	1d	160	GLN
35	1d	201	GLN
37	1f	13	ASN
37	1f	100	ASN
38	1g	28	ASN
38	1g	86	GLN
38	1g	109	ASN
40	1i	3	GLN
40	1i	34	ASN
40	1i	73	GLN
40	1i	87	GLN
40	1i	117	HIS
41	1j	56	HIS
41	1j	68	HIS
41	1j	69	ASN
42	1k	93	GLN
43	1l	80	HIS
43	1l	99	HIS
44	1m	92	HIS
46	1o	28	GLN
46	1o	50	HIS
47	1p	13	HIS
47	1p	16	HIS
48	1q	16	GLN
50	1s	83	HIS
54	1z	89	GLN
3	2D	87	ASN
3	2D	143	HIS
3	2D	164	GLN
3	2D	166	GLN
3	2D	253	GLN
4	2E	48	GLN
4	2E	121	ASN
4	2E	137	HIS
4	2E	180	ASN
5	2F	8	GLN
5	2F	75	HIS
5	2F	203	GLN

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Mol	Chain	Res	Type
6	2G	41	GLN
8	2I	11	ASN
8	2I	104	GLN
8	2I	105	HIS
8	2I	133	HIS
8	2I	139	GLN
9	2N	94	HIS
9	2N	133	GLN
10	2O	5	GLN
10	2O	89	ASN
11	2P	27	HIS
11	2P	35	HIS
12	2Q	12	GLN
13	2R	13	HIS
13	2R	23	ASN
13	2R	50	HIS
13	2R	91	GLN
14	2S	68	GLN
16	2U	104	GLN
18	2W	60	ASN
19	2X	31	HIS
19	2X	82	GLN
20	2Y	6	HIS
21	2Z	32	HIS
21	2Z	34	ASN
21	2Z	73	GLN
21	2Z	151	HIS
24	22	56	GLN
24	22	70	GLN
25	23	32	GLN
26	24	40	HIS
28	26	20	ASN
29	27	36	GLN
31	29	29	ASN
33	2b	135	GLN
33	2b	212	GLN
34	2c	6	HIS
34	2c	28	GLN
34	2c	104	GLN
34	2c	108	ASN
34	2c	170	GLN
34	2c	181	ASN

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Mol	Chain	Res	Type
35	2d	77	ASN
35	2d	119	GLN
35	2d	160	GLN
35	2d	161	ASN
35	2d	201	GLN
37	2f	13	ASN
37	2f	18	GLN
37	2f	32	ASN
37	2f	100	ASN
38	2g	28	ASN
38	2g	86	GLN
40	2i	3	GLN
40	2i	31	GLN
40	2i	34	ASN
40	2i	58	HIS
40	2i	87	GLN
40	2i	117	HIS
40	2i	124	GLN
41	2j	56	HIS
41	2j	68	HIS
41	2j	69	ASN
41	2j	84	GLN
42	2k	93	GLN
43	2l	99	HIS
44	2m	77	ASN
46	2o	13	GLN
46	2o	28	GLN
46	2o	62	GLN
47	2p	13	HIS
47	2p	16	HIS
48	2q	16	GLN
50	2s	14	HIS
54	2z	9	GLN
54	2z	19	HIS
54	2z	38	HIS
54	2z	89	GLN
54	2z	90	HIS

5.3.3 RNA

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2866/2901 (98%)	614 (21%)	46 (1%)
1	2A	2865/2901 (98%)	617 (21%)	51 (1%)
2	1B	119/120 (99%)	15 (12%)	0
2	2B	119/120 (99%)	21 (17%)	1 (0%)
32	1a	1497/1507 (99%)	247 (16%)	0
32	2a	1497/1507 (99%)	244 (16%)	0
All	All	8963/9056 (98%)	1758 (19%)	98 (1%)

All (1758) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	11	G
1	1A	12	U
1	1A	14	A
1	1A	23	G
1	1A	34	C
1	1A	39	C
1	1A	45	C
1	1A	49	A
1	1A	52	A
1	1A	61	G
1	1A	71	A
1	1A	74	A
1	1A	75	G
1	1A	90	U
1	1A	94	C
1	1A	95	G
1	1A	100	G
1	1A	118	A
1	1A	119	A
1	1A	120	U
1	1A	131	G
1	1A	172	C
1	1A	177	G
1	1A	181	A
1	1A	196	A
1	1A	199	A
1	1A	205	G
1	1A	215	G
1	1A	216	A
1	1A	217	G

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Mol	Chain	Res	Type
1	1A	221	A
1	1A	222	A
1	1A	224	G
1	1A	225	A
1	1A	229	A
1	1A	233	A
1	1A	248	G
1	1A	250	G
1	1A	264	C
1	1A	266	G
1	1A	271(F)	C
1	1A	271(K)	U
1	1A	271(L)	U
1	1A	271(M)	G
1	1A	271(O)	C
1	1A	271(P)	C
1	1A	272(A)	U
1	1A	272(B)	G
1	1A	272(G)	C
1	1A	275	G
1	1A	279	C
1	1A	280	C
1	1A	285	C
1	1A	311	A
1	1A	319	C
1	1A	330	A
1	1A	342	G
1	1A	352	G
1	1A	360	G
1	1A	362	U
1	1A	363	G
1	1A	370	G
1	1A	372	G
1	1A	384	U
1	1A	385	C
1	1A	386	G
1	1A	405	U
1	1A	407	G
1	1A	411	G
1	1A	412	A
1	1A	414	C
1	1A	419	C

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Mol	Chain	Res	Type
1	1A	422	A
1	1A	423	A
1	1A	428	A
1	1A	436	C
1	1A	448	U
1	1A	454	A
1	1A	456	C
1	1A	457	A
1	1A	459	U
1	1A	463	G
1	1A	464	U
1	1A	467	G
1	1A	477	A
1	1A	481	G
1	1A	504	U
1	1A	505	A
1	1A	508	G
1	1A	509	C
1	1A	510	C
1	1A	512	G
1	1A	521	G
1	1A	522	G
1	1A	528	A
1	1A	530	G
1	1A	531	C
1	1A	532	A
1	1A	533	G
1	1A	545	G
1	1A	549	G
1	1A	562	U
1	1A	563	G
1	1A	566	U
1	1A	567	A
1	1A	573	G
1	1A	575	A
1	1A	583	G
1	1A	586	A
1	1A	592	G
1	1A	603	A
1	1A	604	G
1	1A	607	U
1	1A	614(A)	U

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Mol	Chain	Res	Type
1	1A	614(B)	G
1	1A	615	G
1	1A	616	G
1	1A	619	G
1	1A	627	A
1	1A	637	A
1	1A	645	C
1	1A	646	A
1	1A	647	G
1	1A	652(T)	C
1	1A	669	G
1	1A	685	A
1	1A	686	G
1	1A	699	A
1	1A	725	G
1	1A	730	C
1	1A	738	G
1	1A	739	G
1	1A	740	U
1	1A	746	A
1	1A	747	U
1	1A	751	A
1	1A	764	A
1	1A	765	G
1	1A	775	G
1	1A	776	G
1	1A	782	A
1	1A	784	A
1	1A	785	G
1	1A	792	G
1	1A	796	C
1	1A	805	G
1	1A	807	U
1	1A	809	G
1	1A	811	U
1	1A	812	C
1	1A	824	A
1	1A	827	U
1	1A	828	U
1	1A	830	G
1	1A	832	G
1	1A	859	G

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Mol	Chain	Res	Type
1	1A	873	G
1	1A	877	U
1	1A	879	G
1	1A	880	G
1	1A	884	C
1	1A	885	C
1	1A	886	C
1	1A	887	A
1	1A	888	C
1	1A	889	C
1	1A	890	A
1	1A	896	A
1	1A	897	C
1	1A	910	A
1	1A	926	A
1	1A	932	G
1	1A	938	G
1	1A	945	A
1	1A	946	G
1	1A	953	A
1	1A	957	A
1	1A	959	A
1	1A	961	C
1	1A	974	G
1	1A	975	C
1	1A	975(A)	G
1	1A	981	A
1	1A	983	A
1	1A	990	A
1	1A	995	C
1	1A	996	A
1	1A	1010	A
1	1A	1012	U
1	1A	1013	C
1	1A	1020	A
1	1A	1021	A
1	1A	1025	G
1	1A	1026	U
1	1A	1033	U
1	1A	1039	G
1	1A	1041	C
1	1A	1042	G

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Mol	Chain	Res	Type
1	1A	1046	A
1	1A	1047	G
1	1A	1051	G
1	1A	1053	C
1	1A	1054	A
1	1A	1056	G
1	1A	1060	U
1	1A	1061	U
1	1A	1063	G
1	1A	1065	U
1	1A	1067	A
1	1A	1068	G
1	1A	1070	A
1	1A	1071	G
1	1A	1073	A
1	1A	1075	C
1	1A	1077	A
1	1A	1080	C
1	1A	1083	U
1	1A	1084	A
1	1A	1085	A
1	1A	1088	A
1	1A	1089	G
1	1A	1090	U
1	1A	1096	A
1	1A	1097	U
1	1A	1099	G
1	1A	1100	C
1	1A	1101	U
1	1A	1106	G
1	1A	1111	A
1	1A	1112	G
1	1A	1124	C
1	1A	1128	A
1	1A	1129	A
1	1A	1130	U
1	1A	1131	G
1	1A	1132	A
1	1A	1133	U
1	1A	1135	C
1	1A	1136	G
1	1A	1138	G

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Mol	Chain	Res	Type
1	1A	1139	G
1	1A	1165	U
1	1A	1169	G
1	1A	1173	G
1	1A	1175	U
1	1A	1176	G
1	1A	1177	A
1	1A	1178	C
1	1A	1190	G
1	1A	1203	G
1	1A	1210	A
1	1A	1211	U
1	1A	1213	A
1	1A	1218	C
1	1A	1237	A
1	1A	1244	G
1	1A	1253	A
1	1A	1256	G
1	1A	1265	A
1	1A	1271	G
1	1A	1272	A
1	1A	1273	U
1	1A	1276	A
1	1A	1284	A
1	1A	1289	C
1	1A	1296	G
1	1A	1300	U
1	1A	1301	A
1	1A	1303	G
1	1A	1310	G
1	1A	1311	G
1	1A	1313	U
1	1A	1316	U
1	1A	1317	A
1	1A	1321	A
1	1A	1342	A
1	1A	1344	G
1	1A	1345	C
1	1A	1352	U
1	1A	1358	G
1	1A	1359	A
1	1A	1360	A

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Mol	Chain	Res	Type
1	1A	1365	A
1	1A	1370	C
1	1A	1380	G
1	1A	1384	A
1	1A	1385	G
1	1A	1416	G
1	1A	1417	C
1	1A	1420	U
1	1A	1421	G
1	1A	1428	C
1	1A	1445	A
1	1A	1446	C
1	1A	1450	G
1	1A	1452	A
1	1A	1455	G
1	1A	1459	G
1	1A	1467	C
1	1A	1468	C
1	1A	1469	A
1	1A	1471	A
1	1A	1478	G
1	1A	1482	G
1	1A	1487	G
1	1A	1493	C
1	1A	1496	A
1	1A	1497	U
1	1A	1508	A
1	1A	1509	C
1	1A	1514	U
1	1A	1525	G
1	1A	1532	C
1	1A	1542	A
1	1A	1543	C
1	1A	1545	A
1	1A	1554	A
1	1A	1556	C
1	1A	1558	A
1	1A	1559	G
1	1A	1569	A
1	1A	1578	U
1	1A	1580	A
1	1A	1581	G

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Mol	Chain	Res	Type
1	1A	1584	C
1	1A	1586	A
1	1A	1587	A
1	1A	1590	U
1	1A	1594	G
1	1A	1604	C
1	1A	1605	C
1	1A	1608	A
1	1A	1609	A
1	1A	1610	A
1	1A	1618	A
1	1A	1639	U
1	1A	1644	C
1	1A	1648	C
1	1A	1654	A
1	1A	1658	C
1	1A	1670	C
1	1A	1673	U
1	1A	1674	G
1	1A	1696	G
1	1A	1700	A
1	1A	1701	A
1	1A	1703	G
1	1A	1721	G
1	1A	1722	A
1	1A	1739	U
1	1A	1740	G
1	1A	1743	C
1	1A	1756	G
1	1A	1762	A
1	1A	1763	G
1	1A	1764	G
1	1A	1765	C
1	1A	1773	A
1	1A	1780	A
1	1A	1781	C
1	1A	1782	C
1	1A	1791	A
1	1A	1800	C
1	1A	1801	G
1	1A	1812	A
1	1A	1816	G

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Mol	Chain	Res	Type
1	1A	1817	G
1	1A	1829	A
1	1A	1839	G
1	1A	1843	C
1	1A	1847	A
1	1A	1877	A
1	1A	1878	G
1	1A	1887	C
1	1A	1900	A
1	1A	1905	C
1	1A	1906	G
1	1A	1913	A
1	1A	1917	PSU
1	1A	1921	G
1	1A	1926	U
1	1A	1929	G
1	1A	1930	G
1	1A	1931	U
1	1A	1932	A
1	1A	1938	A
1	1A	1942	5MC
1	1A	1944	U
1	1A	1955	U
1	1A	1960	A
1	1A	1961	C
1	1A	1963	U
1	1A	1967	C
1	1A	1970	A
1	1A	1971	A
1	1A	1972	A
1	1A	1985	G
1	1A	1992	G
1	1A	1993	U
1	1A	1997	G
1	1A	2020	A
1	1A	2023	G
1	1A	2031	A
1	1A	2032	G
1	1A	2033	A
1	1A	2035	G
1	1A	2039	C
1	1A	2043	C

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Mol	Chain	Res	Type
1	1A	2052	G
1	1A	2054	A
1	1A	2055	C
1	1A	2056	G
1	1A	2060	A
1	1A	2061	G
1	1A	2062	A
1	1A	2069	G
1	1A	2070	G
1	1A	2078	C
1	1A	2081	C
1	1A	2082	A
1	1A	2092	U
1	1A	2100	G
1	1A	2102	U
1	1A	2103	C
1	1A	2104	G
1	1A	2107	C
1	1A	2108	C
1	1A	2114	A
1	1A	2115	G
1	1A	2116	G
1	1A	2117	A
1	1A	2118	U
1	1A	2119	A
1	1A	2121	G
1	1A	2126	A
1	1A	2132	U
1	1A	2133	G
1	1A	2135	A
1	1A	2136	C
1	1A	2137	C
1	1A	2141	G
1	1A	2142	C
1	1A	2144	U
1	1A	2146	C
1	1A	2148	G
1	1A	2154	G
1	1A	2157	G
1	1A	2158	A
1	1A	2159	G
1	1A	2162	G

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Mol	Chain	Res	Type
1	1A	2165	G
1	1A	2166	G
1	1A	2171	A
1	1A	2173	A
1	1A	2178	C
1	1A	2179	C
1	1A	2180	U
1	1A	2184	G
1	1A	2185	C
1	1A	2186	G
1	1A	2187	G
1	1A	2190	G
1	1A	2191	G
1	1A	2192	G
1	1A	2195	C
1	1A	2198	A
1	1A	2200	C
1	1A	2206	G
1	1A	2207	G
1	1A	2208	A
1	1A	2225	A
1	1A	2226	C
1	1A	2238	G
1	1A	2239	G
1	1A	2240	C
1	1A	2247	A
1	1A	2267	A
1	1A	2268	A
1	1A	2269	A
1	1A	2273	A
1	1A	2278	A
1	1A	2280	G
1	1A	2282	G
1	1A	2283	C
1	1A	2285	C
1	1A	2287	A
1	1A	2288	A
1	1A	2289	G
1	1A	2294	C
1	1A	2298	A
1	1A	2305	A
1	1A	2311	A

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Mol	Chain	Res	Type
1	1A	2320	A
1	1A	2321	G
1	1A	2325	G
1	1A	2326	C
1	1A	2327	A
1	1A	2334	G
1	1A	2335	A
1	1A	2336	A
1	1A	2341	G
1	1A	2347	C
1	1A	2350	C
1	1A	2352	A
1	1A	2356	C
1	1A	2379	G
1	1A	2382	G
1	1A	2383	G
1	1A	2385	C
1	1A	2389	G
1	1A	2399	G
1	1A	2406	U
1	1A	2410	G
1	1A	2414	G
1	1A	2419	U
1	1A	2422	A
1	1A	2423	U
1	1A	2425	A
1	1A	2429	G
1	1A	2430	A
1	1A	2431	U
1	1A	2432	A
1	1A	2434	A
1	1A	2435	A
1	1A	2439	A
1	1A	2440	C
1	1A	2441	C
1	1A	2447	G
1	1A	2448	A
1	1A	2449	U
1	1A	2468	G
1	1A	2469	A
1	1A	2472	G
1	1A	2473	U

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Mol	Chain	Res	Type
1	1A	2474	C
1	1A	2476	A
1	1A	2478	A
1	1A	2495	G
1	1A	2502	G
1	1A	2505	G
1	1A	2506	U
1	1A	2507	C
1	1A	2518	A
1	1A	2520	C
1	1A	2525	G
1	1A	2529	G
1	1A	2531	A
1	1A	2536	G
1	1A	2553	G
1	1A	2554	U
1	1A	2566	A
1	1A	2567	G
1	1A	2572	A
1	1A	2576	G
1	1A	2578	G
1	1A	2582	G
1	1A	2583	G
1	1A	2585	U
1	1A	2586	C
1	1A	2596	U
1	1A	2599	G
1	1A	2602	A
1	1A	2603	G
1	1A	2608	G
1	1A	2609	U
1	1A	2611	U
1	1A	2612	C
1	1A	2615	U
1	1A	2628	C
1	1A	2629	A
1	1A	2630	G
1	1A	2641	G
1	1A	2654	A
1	1A	2660	A
1	1A	2679	A
1	1A	2682	U

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Mol	Chain	Res	Type
1	1A	2689	U
1	1A	2690	C
1	1A	2691	C
1	1A	2696	U
1	1A	2702	U
1	1A	2703	C
1	1A	2712(A)	A
1	1A	2713	A
1	1A	2714	G
1	1A	2726	U
1	1A	2731	G
1	1A	2733	A
1	1A	2742	C
1	1A	2744	G
1	1A	2757	A
1	1A	2758	A
1	1A	2765	A
1	1A	2766	G
1	1A	2778	A
1	1A	2790	A
1	1A	2791	C
1	1A	2802	G
1	1A	2810	A
1	1A	2820	A
1	1A	2821	A
1	1A	2833	G
1	1A	2835	A
1	1A	2847	U
1	1A	2850	A
1	1A	2865	U
1	1A	2870	C
1	1A	2872	G
1	1A	2873	A
1	1A	2876	G
1	1A	2880	C
1	1A	2883	A
1	1A	2892	A
1	1A	2894	G
2	1B	2	C
2	1B	7	G
2	1B	15	A
2	1B	42	C

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Mol	Chain	Res	Type
2	1B	45	A
2	1B	51	G
2	1B	56	G
2	1B	73	A
2	1B	74	U
2	1B	85	G
2	1B	89	G
2	1B	90	A
2	1B	106	G
2	1B	108	U
2	1B	110	G
32	1a	7	G
32	1a	9	G
32	1a	22	G
32	1a	32	A
32	1a	39	G
32	1a	47	C
32	1a	48	C
32	1a	51	A
32	1a	61	G
32	1a	78	G
32	1a	101	A
32	1a	115	G
32	1a	116	A
32	1a	121	C
32	1a	131	C
32	1a	151	A
32	1a	156	G
32	1a	163	C
32	1a	173	U
32	1a	174	C
32	1a	182	U
32	1a	189(F)	U
32	1a	195	A
32	1a	197	A
32	1a	201	C
32	1a	202	U
32	1a	203	U
32	1a	204	U
32	1a	216	G
32	1a	231	G
32	1a	245	C

Continued on next page...

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Mol	Chain	Res	Type
32	1a	247	G
32	1a	251	G
32	1a	253	U
32	1a	258	G
32	1a	262	A
32	1a	266	G
32	1a	267	C
32	1a	280	C
32	1a	289	G
32	1a	298	A
32	1a	321	A
32	1a	328	C
32	1a	331	G
32	1a	332	G
32	1a	348	G
32	1a	350	G
32	1a	351	G
32	1a	352	C
32	1a	353	A
32	1a	354	G
32	1a	367	U
32	1a	372	C
32	1a	373	A
32	1a	397	A
32	1a	398	C
32	1a	406	G
32	1a	412	A
32	1a	413	G
32	1a	424	G
32	1a	429	U
32	1a	430	A
32	1a	439	A
32	1a	442	C
32	1a	452	A
32	1a	458	C
32	1a	470	C
32	1a	471	G
32	1a	485	G
32	1a	495	A
32	1a	496	A
32	1a	498	U
32	1a	500	G

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Mol	Chain	Res	Type
32	1a	505	G
32	1a	509	A
32	1a	510	A
32	1a	511	C
32	1a	518	C
32	1a	519	C
32	1a	521	G
32	1a	531	U
32	1a	532	A
32	1a	533	A
32	1a	547	A
32	1a	558	G
32	1a	559	A
32	1a	561	U
32	1a	572	A
32	1a	573	A
32	1a	576	G
32	1a	577	G
32	1a	630	G
32	1a	632	A
32	1a	653	A
32	1a	661	G
32	1a	665	A
32	1a	673	G
32	1a	687	A
32	1a	688	G
32	1a	695	A
32	1a	723	U
32	1a	731	G
32	1a	755	G
32	1a	774	G
32	1a	777	A
32	1a	793	U
32	1a	794	A
32	1a	817	C
32	1a	821	G
32	1a	828	A
32	1a	829	G
32	1a	840	C
32	1a	841	U
32	1a	848	C
32	1a	851	G

Continued on next page...

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Mol	Chain	Res	Type
32	1a	859	A
32	1a	870	U
32	1a	902	G
32	1a	913	A
32	1a	914	A
32	1a	926	G
32	1a	927	G
32	1a	934	C
32	1a	935	A
32	1a	960	U
32	1a	961	U
32	1a	969	A
32	1a	971	G
32	1a	972	C
32	1a	974	A
32	1a	975	A
32	1a	976	G
32	1a	977	A
32	1a	981	U
32	1a	982	U
32	1a	992	U
32	1a	993	G
32	1a	994	A
32	1a	998	G
32	1a	1001	A
32	1a	1002	G
32	1a	1003	G
32	1a	1004	A
32	1a	1006	C
32	1a	1009	G
32	1a	1020	U
32	1a	1022	G
32	1a	1023	G
32	1a	1024	G
32	1a	1025	U
32	1a	1026	G
32	1a	1027	C
32	1a	1028	C
32	1a	1029	C
32	1a	1030	C
32	1a	1030(A)	G
32	1a	1030(B)	C

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Mol	Chain	Res	Type
32	1a	1033	G
32	1a	1036	G
32	1a	1044	A
32	1a	1054	C
32	1a	1065	U
32	1a	1066	C
32	1a	1068	G
32	1a	1070	U
32	1a	1081	G
32	1a	1094	G
32	1a	1095	U
32	1a	1101	A
32	1a	1130	A
32	1a	1132	C
32	1a	1134	G
32	1a	1136	U
32	1a	1137	C
32	1a	1139	G
32	1a	1147	C
32	1a	1152	A
32	1a	1159	U
32	1a	1183	A
32	1a	1184	G
32	1a	1193	G
32	1a	1196	U
32	1a	1197	G
32	1a	1202	G
32	1a	1204	A
32	1a	1208	C
32	1a	1211	U
32	1a	1212	U
32	1a	1213	A
32	1a	1214	C
32	1a	1224	G
32	1a	1227	A
32	1a	1236	A
32	1a	1238	A
32	1a	1240	U
32	1a	1241	G
32	1a	1250	A
32	1a	1256	A
32	1a	1257	U

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Mol	Chain	Res	Type
32	1a	1258	G
32	1a	1260	C
32	1a	1270	C
32	1a	1278	U
32	1a	1280	A
32	1a	1282	C
32	1a	1286	A
32	1a	1287	A
32	1a	1299	A
32	1a	1300	G
32	1a	1302	U
32	1a	1305	G
32	1a	1317	C
32	1a	1320	C
32	1a	1322	C
32	1a	1338	G
32	1a	1340	A
32	1a	1347	G
32	1a	1353	G
32	1a	1363	C
32	1a	1370	G
32	1a	1397	C
32	1a	1400	5MC
32	1a	1419	G
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1445	C
32	1a	1446	U
32	1a	1447	A
32	1a	1452	C
32	1a	1456	G
32	1a	1457	G
32	1a	1469	G
32	1a	1487	G
32	1a	1492	A
32	1a	1493	A
32	1a	1497	G
32	1a	1499	A
32	1a	1503	A
32	1a	1504	G
32	1a	1505	G
32	1a	1506	U

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Mol	Chain	Res	Type
32	1a	1507	A
32	1a	1517	G
32	1a	1518	MA6
32	1a	1529	G
32	1a	1530	G
32	1a	1531	A
1	2A	10	G
1	2A	15	G
1	2A	34	C
1	2A	36	G
1	2A	45	C
1	2A	61	G
1	2A	64	A
1	2A	71	A
1	2A	72	U
1	2A	74	A
1	2A	75	G
1	2A	77	C
1	2A	78	A
1	2A	90	U
1	2A	95	G
1	2A	102	G
1	2A	118	A
1	2A	119	A
1	2A	120	U
1	2A	121	G
1	2A	133	C
1	2A	139(A)	G
1	2A	140	G
1	2A	154	G
1	2A	173	G
1	2A	196	A
1	2A	205	G
1	2A	208	C
1	2A	213	A
1	2A	215	G
1	2A	216	A
1	2A	222	A
1	2A	229	A
1	2A	230	U
1	2A	248	G
1	2A	249	C

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Mol	Chain	Res	Type
1	2A	260	G
1	2A	264	C
1	2A	271(K)	U
1	2A	271(L)	U
1	2A	271(M)	G
1	2A	271(O)	C
1	2A	271(P)	C
1	2A	272(A)	U
1	2A	272(B)	G
1	2A	272(E)	G
1	2A	272(H)	C
1	2A	275	G
1	2A	279	C
1	2A	283	A
1	2A	289	A
1	2A	294	A
1	2A	310	A
1	2A	311	A
1	2A	325	G
1	2A	330	A
1	2A	346	A
1	2A	351	G
1	2A	352	G
1	2A	353	G
1	2A	354	G
1	2A	362	U
1	2A	363	G
1	2A	363(C)	G
1	2A	363(D)	G
1	2A	370	G
1	2A	372	G
1	2A	386	G
1	2A	396	G
1	2A	399	G
1	2A	405	U
1	2A	406	G
1	2A	411	G
1	2A	412	A
1	2A	418	G
1	2A	428	A
1	2A	429	A
1	2A	435	C

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Mol	Chain	Res	Type
1	2A	443	A
1	2A	448	U
1	2A	454	A
1	2A	455	C
1	2A	457	A
1	2A	463	G
1	2A	464	U
1	2A	466	A
1	2A	471	A
1	2A	480	A
1	2A	481	G
1	2A	503	A
1	2A	504	U
1	2A	505	A
1	2A	509	C
1	2A	510	C
1	2A	522	G
1	2A	526	A
1	2A	529	A
1	2A	530	G
1	2A	531	C
1	2A	532	A
1	2A	533	G
1	2A	545	G
1	2A	549	G
1	2A	556	G
1	2A	563	G
1	2A	567	A
1	2A	573	G
1	2A	575	A
1	2A	578	A
1	2A	583	G
1	2A	593	G
1	2A	603	A
1	2A	604	G
1	2A	607	U
1	2A	609	A
1	2A	610	G
1	2A	614(A)	U
1	2A	614(B)	G
1	2A	615	G
1	2A	623	G

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Mol	Chain	Res	Type
1	2A	627	A
1	2A	631	A
1	2A	634	C
1	2A	637	A
1	2A	644	A
1	2A	645	C
1	2A	646	A
1	2A	652(T)	C
1	2A	668	G
1	2A	669	G
1	2A	686	G
1	2A	689	A
1	2A	711	G
1	2A	715	G
1	2A	717	G
1	2A	730	C
1	2A	731	C
1	2A	763	G
1	2A	764	A
1	2A	765	G
1	2A	774	A
1	2A	775	G
1	2A	776	G
1	2A	782	A
1	2A	784	A
1	2A	785	G
1	2A	790	C
1	2A	792	G
1	2A	802	A
1	2A	805	G
1	2A	812	C
1	2A	820	A
1	2A	827	U
1	2A	828	U
1	2A	829	A
1	2A	846	C
1	2A	847	U
1	2A	848	G
1	2A	859	G
1	2A	866	A
1	2A	871	U
1	2A	879	G

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Mol	Chain	Res	Type
1	2A	886	C
1	2A	887	A
1	2A	888	C
1	2A	889	C
1	2A	890	A
1	2A	896	A
1	2A	907	U
1	2A	909	A
1	2A	910	A
1	2A	932	G
1	2A	938	G
1	2A	942	G
1	2A	945	A
1	2A	946	G
1	2A	953	A
1	2A	960	A
1	2A	961	C
1	2A	974	G
1	2A	975	C
1	2A	975(A)	G
1	2A	981	A
1	2A	983	A
1	2A	996	A
1	2A	1005	C
1	2A	1008	C
1	2A	1010	A
1	2A	1012	U
1	2A	1013	C
1	2A	1021	A
1	2A	1022	G
1	2A	1025	G
1	2A	1026	U
1	2A	1027	A
1	2A	1033	U
1	2A	1037	G
1	2A	1039	G
1	2A	1041	C
1	2A	1044	G
1	2A	1046	A
1	2A	1047	G
1	2A	1048	A
1	2A	1050	A

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Mol	Chain	Res	Type
1	2A	1051	G
1	2A	1053	C
1	2A	1054	A
1	2A	1055	G
1	2A	1060	U
1	2A	1061	U
1	2A	1062	G
1	2A	1063	G
1	2A	1065	U
1	2A	1068	G
1	2A	1070	A
1	2A	1073	A
1	2A	1074	G
1	2A	1075	C
1	2A	1076	C
1	2A	1077	A
1	2A	1078	U
1	2A	1079	C
1	2A	1084	A
1	2A	1088	A
1	2A	1090	U
1	2A	1096	A
1	2A	1100	C
1	2A	1109	C
1	2A	1110	G
1	2A	1112	G
1	2A	1128	A
1	2A	1129	A
1	2A	1130	U
1	2A	1135	C
1	2A	1136	G
1	2A	1139	G
1	2A	1141	U
1	2A	1142(A)	A
1	2A	1144	G
1	2A	1148	A
1	2A	1156	A
1	2A	1169	G
1	2A	1171	G
1	2A	1173	G
1	2A	1175	U
1	2A	1176	G

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Mol	Chain	Res	Type
1	2A	1177	A
1	2A	1178	C
1	2A	1205	U
1	2A	1206	G
1	2A	1210	A
1	2A	1211	U
1	2A	1213	A
1	2A	1214	A
1	2A	1220	A
1	2A	1230	C
1	2A	1237	A
1	2A	1241	A
1	2A	1245	G
1	2A	1248	G
1	2A	1253	A
1	2A	1256	G
1	2A	1262	A
1	2A	1271	G
1	2A	1272	A
1	2A	1273	U
1	2A	1275	A
1	2A	1277	G
1	2A	1300	U
1	2A	1301	A
1	2A	1302	A
1	2A	1313	U
1	2A	1319	G
1	2A	1321	A
1	2A	1332	G
1	2A	1338	G
1	2A	1342	A
1	2A	1345	C
1	2A	1352	U
1	2A	1359	A
1	2A	1360	A
1	2A	1363	C
1	2A	1365	A
1	2A	1370	C
1	2A	1376	C
1	2A	1378	A
1	2A	1380	G
1	2A	1384	A

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Mol	Chain	Res	Type
1	2A	1385	G
1	2A	1386	C
1	2A	1392	A
1	2A	1396	U
1	2A	1397	U
1	2A	1406	U
1	2A	1416	G
1	2A	1420	U
1	2A	1421	G
1	2A	1427	A
1	2A	1428	C
1	2A	1445	A
1	2A	1445(A)	C
1	2A	1450	G
1	2A	1451	C
1	2A	1452	A
1	2A	1459	G
1	2A	1467	C
1	2A	1471	A
1	2A	1482	G
1	2A	1490	A
1	2A	1493	C
1	2A	1497	U
1	2A	1508	A
1	2A	1509	C
1	2A	1509(A)	A
1	2A	1519	G
1	2A	1520	G
1	2A	1525	G
1	2A	1529	G
1	2A	1532	C
1	2A	1542	A
1	2A	1543	C
1	2A	1547	C
1	2A	1548	C
1	2A	1554	A
1	2A	1558	A
1	2A	1559	G
1	2A	1566	A
1	2A	1569	A
1	2A	1578	U
1	2A	1580	A

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Mol	Chain	Res	Type
1	2A	1584	C
1	2A	1586	A
1	2A	1595	G
1	2A	1608	A
1	2A	1609	A
1	2A	1610	A
1	2A	1631	C
1	2A	1631(A)	A
1	2A	1635	G
1	2A	1643	G
1	2A	1648	C
1	2A	1654	A
1	2A	1661	G
1	2A	1670	C
1	2A	1674	G
1	2A	1675	C
1	2A	1676	A
1	2A	1688	U
1	2A	1695	G
1	2A	1700	A
1	2A	1701	A
1	2A	1703	G
1	2A	1705	G
1	2A	1721	G
1	2A	1722	A
1	2A	1740	G
1	2A	1741	A
1	2A	1750	G
1	2A	1756	G
1	2A	1758	G
1	2A	1762	A
1	2A	1763	G
1	2A	1764	G
1	2A	1772	G
1	2A	1773	A
1	2A	1774	C
1	2A	1780	A
1	2A	1782	C
1	2A	1791	A
1	2A	1797	C
1	2A	1798	U
1	2A	1800	C

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Mol	Chain	Res	Type
1	2A	1801	G
1	2A	1812	A
1	2A	1816	G
1	2A	1817	G
1	2A	1826	G
1	2A	1828	G
1	2A	1829	A
1	2A	1834	U
1	2A	1840	G
1	2A	1847	A
1	2A	1848	A
1	2A	1877	A
1	2A	1878	G
1	2A	1900	A
1	2A	1903	G
1	2A	1906	G
1	2A	1913	A
1	2A	1927	A
1	2A	1929	G
1	2A	1930	G
1	2A	1936	A
1	2A	1938	A
1	2A	1955	U
1	2A	1963	U
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1984	G
1	2A	1991	U
1	2A	1992	G
1	2A	1993	U
1	2A	1994	C
1	2A	1997	G
1	2A	2023	G
1	2A	2031	A
1	2A	2033	A
1	2A	2043	C
1	2A	2052	G
1	2A	2055	C
1	2A	2056	G
1	2A	2060	A

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Mol	Chain	Res	Type
1	2A	2061	G
1	2A	2062	A
1	2A	2063	C
1	2A	2069	G
1	2A	2079	U
1	2A	2093	G
1	2A	2097	C
1	2A	2098	U
1	2A	2103	C
1	2A	2104	G
1	2A	2105	C
1	2A	2107	C
1	2A	2108	C
1	2A	2110	G
1	2A	2115	G
1	2A	2116	G
1	2A	2117	A
1	2A	2118	U
1	2A	2119	A
1	2A	2121	G
1	2A	2123	G
1	2A	2126	A
1	2A	2127	G
1	2A	2132	U
1	2A	2133	G
1	2A	2134	A
1	2A	2136	C
1	2A	2137	C
1	2A	2138	C
1	2A	2142	C
1	2A	2144	U
1	2A	2146	C
1	2A	2148	G
1	2A	2154	G
1	2A	2155	G
1	2A	2157	G
1	2A	2158	A
1	2A	2159	G
1	2A	2162	G
1	2A	2165	G
1	2A	2168	G
1	2A	2170	A

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Mol	Chain	Res	Type
1	2A	2172	U
1	2A	2173	A
1	2A	2178	C
1	2A	2180	U
1	2A	2183	C
1	2A	2184	G
1	2A	2186	G
1	2A	2187	G
1	2A	2189	U
1	2A	2190	G
1	2A	2191	G
1	2A	2192	G
1	2A	2197	U
1	2A	2198	A
1	2A	2200	C
1	2A	2201	C
1	2A	2206	G
1	2A	2207	G
1	2A	2208	A
1	2A	2218	U
1	2A	2219	G
1	2A	2225	A
1	2A	2238	G
1	2A	2239	G
1	2A	2242	G
1	2A	2252	G
1	2A	2259	G
1	2A	2268	A
1	2A	2269	A
1	2A	2279	G
1	2A	2283	C
1	2A	2285	C
1	2A	2286	A
1	2A	2287	A
1	2A	2289	G
1	2A	2305	A
1	2A	2308	G
1	2A	2309	A
1	2A	2311	A
1	2A	2319	G
1	2A	2320	A
1	2A	2321	G

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Mol	Chain	Res	Type
1	2A	2325	G
1	2A	2326	C
1	2A	2334	G
1	2A	2345	G
1	2A	2347	C
1	2A	2350	C
1	2A	2355	C
1	2A	2376	A
1	2A	2383	G
1	2A	2385	C
1	2A	2388	A
1	2A	2391	G
1	2A	2400	G
1	2A	2402	C
1	2A	2406	U
1	2A	2410	G
1	2A	2414	G
1	2A	2422	A
1	2A	2425	A
1	2A	2426	A
1	2A	2428	G
1	2A	2429	G
1	2A	2430	A
1	2A	2431	U
1	2A	2435	A
1	2A	2439	A
1	2A	2440	C
1	2A	2441	C
1	2A	2448	A
1	2A	2449	U
1	2A	2450	A
1	2A	2452	C
1	2A	2458	G
1	2A	2468	G
1	2A	2469	A
1	2A	2474	C
1	2A	2476	A
1	2A	2480	C
1	2A	2481	G
1	2A	2487	G
1	2A	2502	G
1	2A	2505	G

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Mol	Chain	Res	Type
1	2A	2506	U
1	2A	2508	G
1	2A	2510	C
1	2A	2513	G
1	2A	2517	C
1	2A	2518	A
1	2A	2520	C
1	2A	2529	G
1	2A	2535	G
1	2A	2536	G
1	2A	2554	U
1	2A	2566	A
1	2A	2567	G
1	2A	2573	C
1	2A	2574	G
1	2A	2578	G
1	2A	2585	U
1	2A	2586	C
1	2A	2596	U
1	2A	2601	C
1	2A	2602	A
1	2A	2603	G
1	2A	2608	G
1	2A	2609	U
1	2A	2611	U
1	2A	2612	C
1	2A	2620	C
1	2A	2629	A
1	2A	2630	G
1	2A	2634	G
1	2A	2638	G
1	2A	2641	G
1	2A	2654	A
1	2A	2663	G
1	2A	2669	G
1	2A	2677	G
1	2A	2682	U
1	2A	2689	U
1	2A	2690	C
1	2A	2691	C
1	2A	2703	C
1	2A	2712(A)	A

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Mol	Chain	Res	Type
1	2A	2713	A
1	2A	2714	G
1	2A	2718	G
1	2A	2726	U
1	2A	2733	A
1	2A	2748	A
1	2A	2751	G
1	2A	2752	C
1	2A	2757	A
1	2A	2758	A
1	2A	2765	A
1	2A	2766	G
1	2A	2775	A
1	2A	2778	A
1	2A	2780	G
1	2A	2790	A
1	2A	2791	C
1	2A	2792	G
1	2A	2793	G
1	2A	2802	G
1	2A	2808	U
1	2A	2818	G
1	2A	2820	A
1	2A	2821	A
1	2A	2823	A
1	2A	2833	G
1	2A	2839	G
1	2A	2849	U
1	2A	2872	G
1	2A	2874	C
1	2A	2878	U
1	2A	2880	C
1	2A	2892	A
1	2A	2894	G
1	2A	2895	U
2	2B	2	C
2	2B	3	C
2	2B	5	C
2	2B	7	G
2	2B	8	U
2	2B	16	G
2	2B	19	G

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Mol	Chain	Res	Type
2	2B	34	U
2	2B	44	G
2	2B	45	A
2	2B	56	G
2	2B	59	A
2	2B	64	C
2	2B	72	G
2	2B	73	A
2	2B	85	G
2	2B	88	C
2	2B	93	G
2	2B	94	C
2	2B	109	C
2	2B	110	G
32	2a	7	G
32	2a	9	G
32	2a	22	G
32	2a	32	A
32	2a	39	G
32	2a	47	C
32	2a	48	C
32	2a	51	A
32	2a	61	G
32	2a	78	G
32	2a	101	A
32	2a	115	G
32	2a	116	A
32	2a	121	C
32	2a	131	C
32	2a	151	A
32	2a	156	G
32	2a	163	C
32	2a	173	U
32	2a	174	C
32	2a	182	U
32	2a	195	A
32	2a	197	A
32	2a	201	C
32	2a	202	U
32	2a	203	U
32	2a	204	U
32	2a	216	G

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Mol	Chain	Res	Type
32	2a	247	G
32	2a	251	G
32	2a	253	U
32	2a	258	G
32	2a	262	A
32	2a	266	G
32	2a	267	C
32	2a	280	C
32	2a	289	G
32	2a	298	A
32	2a	321	A
32	2a	328	C
32	2a	332	G
32	2a	348	G
32	2a	350	G
32	2a	351	G
32	2a	352	C
32	2a	353	A
32	2a	354	G
32	2a	367	U
32	2a	372	C
32	2a	373	A
32	2a	384	G
32	2a	397	A
32	2a	398	C
32	2a	406	G
32	2a	412	A
32	2a	413	G
32	2a	429	U
32	2a	430	A
32	2a	439	A
32	2a	442	C
32	2a	452	A
32	2a	458	C
32	2a	470	C
32	2a	471	G
32	2a	485	G
32	2a	495	A
32	2a	496	A
32	2a	498	U
32	2a	500	G
32	2a	505	G

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Mol	Chain	Res	Type
32	2a	509	A
32	2a	510	A
32	2a	511	C
32	2a	518	C
32	2a	519	C
32	2a	521	G
32	2a	527	7MG
32	2a	532	A
32	2a	533	A
32	2a	547	A
32	2a	558	G
32	2a	559	A
32	2a	561	U
32	2a	572	A
32	2a	573	A
32	2a	576	G
32	2a	577	G
32	2a	630	G
32	2a	632	A
32	2a	653	A
32	2a	661	G
32	2a	665	A
32	2a	673	G
32	2a	687	A
32	2a	688	G
32	2a	695	A
32	2a	723	U
32	2a	731	G
32	2a	755	G
32	2a	774	G
32	2a	777	A
32	2a	793	U
32	2a	794	A
32	2a	817	C
32	2a	821	G
32	2a	827	U
32	2a	828	A
32	2a	829	G
32	2a	840	C
32	2a	841	U
32	2a	848	C
32	2a	851	G

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Mol	Chain	Res	Type
32	2a	859	A
32	2a	870	U
32	2a	902	G
32	2a	913	A
32	2a	914	A
32	2a	926	G
32	2a	927	G
32	2a	934	C
32	2a	935	A
32	2a	960	U
32	2a	961	U
32	2a	968	A
32	2a	969	A
32	2a	971	G
32	2a	972	C
32	2a	974	A
32	2a	975	A
32	2a	976	G
32	2a	977	A
32	2a	981	U
32	2a	982	U
32	2a	992	U
32	2a	993	G
32	2a	994	A
32	2a	998	G
32	2a	1001	A
32	2a	1002	G
32	2a	1003	G
32	2a	1004	A
32	2a	1006	C
32	2a	1009	G
32	2a	1020	U
32	2a	1023	G
32	2a	1024	G
32	2a	1025	U
32	2a	1026	G
32	2a	1027	C
32	2a	1028	C
32	2a	1029	C
32	2a	1030	C
32	2a	1030(A)	G
32	2a	1030(B)	C

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Mol	Chain	Res	Type
32	2a	1033	G
32	2a	1036	G
32	2a	1044	A
32	2a	1054	C
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1070	U
32	2a	1081	G
32	2a	1094	G
32	2a	1095	U
32	2a	1101	A
32	2a	1130	A
32	2a	1132	C
32	2a	1134	G
32	2a	1136	U
32	2a	1137	C
32	2a	1139	G
32	2a	1140	C
32	2a	1147	C
32	2a	1152	A
32	2a	1157	A
32	2a	1159	U
32	2a	1183	A
32	2a	1184	G
32	2a	1193	G
32	2a	1196	U
32	2a	1197	G
32	2a	1201	A
32	2a	1202	G
32	2a	1204	A
32	2a	1208	C
32	2a	1211	U
32	2a	1212	U
32	2a	1213	A
32	2a	1214	C
32	2a	1224	G
32	2a	1227	A
32	2a	1238	A
32	2a	1240	U
32	2a	1241	G
32	2a	1250	A

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Mol	Chain	Res	Type
32	2a	1256	A
32	2a	1257	U
32	2a	1258	G
32	2a	1260	C
32	2a	1270	C
32	2a	1278	U
32	2a	1280	A
32	2a	1282	C
32	2a	1286	A
32	2a	1287	A
32	2a	1299	A
32	2a	1300	G
32	2a	1302	U
32	2a	1305	G
32	2a	1317	C
32	2a	1320	C
32	2a	1322	C
32	2a	1338	G
32	2a	1340	A
32	2a	1347	G
32	2a	1353	G
32	2a	1363	C
32	2a	1370	G
32	2a	1397	C
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1445	C
32	2a	1446	U
32	2a	1447	A
32	2a	1452	C
32	2a	1456	G
32	2a	1457	G
32	2a	1469	G
32	2a	1487	G
32	2a	1492	A
32	2a	1493	A
32	2a	1497	G
32	2a	1499	A
32	2a	1503	A
32	2a	1504	G
32	2a	1505	G

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Mol	Chain	Res	Type
32	2a	1506	U
32	2a	1507	A
32	2a	1517	G
32	2a	1529	G
32	2a	1530	G
32	2a	1531	A

All (98) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	195	A
1	1A	266	G
1	1A	278	A
1	1A	310	A
1	1A	503	A
1	1A	548	A
1	1A	627	A
1	1A	685	A
1	1A	764	A
1	1A	791	C
1	1A	827	U
1	1A	859	G
1	1A	945	A
1	1A	1026	U
1	1A	1045	A
1	1A	1065	U
1	1A	1067	A
1	1A	1082	U
1	1A	1174	A
1	1A	1175	U
1	1A	1176	G
1	1A	1210	A
1	1A	1275	A
1	1A	1419	A
1	1A	1420	U
1	1A	1442	G
1	1A	1608	A
1	1A	1609	A
1	1A	1762	A
1	1A	1800	C
1	1A	1838	C
1	1A	1929	G

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Mol	Chain	Res	Type
1	1A	2019	A
1	1A	2225	A
1	1A	2238	G
1	1A	2422	A
1	1A	2430	A
1	1A	2439	A
1	1A	2447	G
1	1A	2448	A
1	1A	2585	U
1	1A	2598	A
1	1A	2609	U
1	1A	2689	U
1	1A	2756	U
1	1A	2873	A
1	2A	49	A
1	2A	195	A
1	2A	196	A
1	2A	266	G
1	2A	278	A
1	2A	310	A
1	2A	503	A
1	2A	614(A)	U
1	2A	645	C
1	2A	685	A
1	2A	774	A
1	2A	827	U
1	2A	859	G
1	2A	888	C
1	2A	945	A
1	2A	974	G
1	2A	1026	U
1	2A	1040	C
1	2A	1046	A
1	2A	1065	U
1	2A	1067	A
1	2A	1174	A
1	2A	1175	U
1	2A	1176	G
1	2A	1210	A
1	2A	1240	U
1	2A	1252	G
1	2A	1286	A

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Mol	Chain	Res	Type
1	2A	1379	A
1	2A	1395	A
1	2A	1396	U
1	2A	1442	G
1	2A	1608	A
1	2A	1762	A
1	2A	1996	C
1	2A	2133	G
1	2A	2167	U
1	2A	2172	U
1	2A	2288	A
1	2A	2308	G
1	2A	2320	A
1	2A	2335	A
1	2A	2430	A
1	2A	2439	A
1	2A	2581	G
1	2A	2585	U
1	2A	2602	A
1	2A	2689	U
1	2A	2750	A
1	2A	2756	U
1	2A	2833	G
2	2B	44	G

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

48 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	$\#\|Z\| > 2$
32	4OC	2a	1402	32	20,23,24	2.39	8 (40%)	25,32,35	1.33	2 (8%)
1	5MC	1A	1942	1	19,22,23	1.98	4 (21%)	26,32,35	1.22	3 (11%)
1	5MU	2A	1939	1	19,22,23	1.41	2 (10%)	27,32,35	1.65	4 (14%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
1	PSU	1A	1911	1	18,21,22	1.34	3 (16%)	21,30,33	1.83	6 (28%)
1	4OC	1A	1920	1	19,22,24	2.41	7 (36%)	25,31,35	1.43	5 (20%)
1	5MU	1A	1915	1	19,22,23	1.15	1 (5%)	27,32,35	1.60	6 (22%)
1	OMG	2A	2251	1	23,26,27	1.72	2 (8%)	32,38,41	2.53	13 (40%)
32	MA6	2a	1518	32	23,26,27	1.31	4 (17%)	33,38,41	3.98	15 (45%)
1	5MC	1A	1962	1	19,22,23	1.43	1 (5%)	26,32,35	1.69	4 (15%)
32	PSU	1a	516	55,32	18,21,22	1.28	3 (16%)	21,30,33	1.96	6 (28%)
1	OMG	1A	2251	1	23,26,27	1.61	5 (21%)	32,38,41	2.15	10 (31%)
32	5MC	1a	967	32	19,22,23	1.00	1 (5%)	26,32,35	1.24	4 (15%)
32	5MC	1a	1404	32	19,22,23	1.00	1 (5%)	26,32,35	1.43	5 (19%)
1	PSU	2A	1917	1	18,21,22	1.16	1 (5%)	21,30,33	1.74	6 (28%)
32	5MC	2a	1407	32	19,22,23	1.22	3 (15%)	26,32,35	1.27	2 (7%)
1	5MC	2A	1942	1	19,22,23	2.20	2 (10%)	26,32,35	1.17	3 (11%)
32	M2G	1a	966	32	24,27,28	2.00	5 (20%)	33,40,43	1.71	7 (21%)
32	PSU	2a	516	55,32	18,21,22	1.72	4 (22%)	21,30,33	2.33	5 (23%)
1	5MU	2A	1915	1	19,22,23	1.51	2 (10%)	27,32,35	1.39	3 (11%)
1	PSU	2A	2605	1	18,21,22	1.68	3 (16%)	21,30,33	1.92	3 (14%)
32	7MG	2a	527	55,32	23,26,27	2.38	8 (34%)	27,39,42	2.11	9 (33%)
32	5MC	2a	1404	32	19,22,23	1.31	2 (10%)	26,32,35	1.38	3 (11%)
1	2MA	1A	2503	1,55	22,25,26	2.56	8 (36%)	32,37,40	3.15	10 (31%)
43	0TD	1l	92	43	8,9,10	6.15	3 (37%)	6,11,13	3.67	4 (66%)
1	PSU	1A	1917	1	18,21,22	1.12	1 (5%)	21,30,33	1.71	6 (28%)
32	7MG	1a	527	55,32	23,26,27	2.10	7 (30%)	27,39,42	1.88	8 (29%)
32	M2G	2a	966	32	24,27,28	2.02	5 (20%)	33,40,43	1.42	7 (21%)
1	2MA	2A	2503	1,55	22,25,26	2.38	7 (31%)	32,37,40	2.51	6 (18%)
32	2MG	2a	1207	55,32	23,26,27	2.14	4 (17%)	33,38,41	2.47	12 (36%)
32	MA6	2a	1519	32	23,26,27	1.08	2 (8%)	33,38,41	4.04	12 (36%)
1	2MU	2A	2552	1,55	19,22,24	6.82	10 (52%)	25,31,36	2.81	8 (32%)
32	5MC	1a	1400	32	19,22,23	1.41	1 (5%)	26,32,35	1.93	7 (26%)
32	MA6	1a	1518	32	23,26,27	1.29	3 (13%)	33,38,41	4.45	13 (39%)
32	5MC	1a	1407	32	19,22,23	1.30	2 (10%)	26,32,35	1.22	4 (15%)
1	PSU	2A	1911	1	18,21,22	1.73	3 (16%)	21,30,33	1.40	4 (19%)
43	0TD	2l	92	43	8,9,10	5.73	3 (37%)	6,11,13	3.06	3 (50%)
1	PSU	1A	2605	1	18,21,22	1.94	5 (27%)	21,30,33	1.42	3 (14%)
1	5MC	2A	1962	1,55	19,22,23	1.51	4 (21%)	26,32,35	1.22	3 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
32	5MC	2a	1400	32	19,22,23	1.27	2 (10%)	26,32,35	1.52	5 (19%)
1	2MU	1A	2552	1,55	19,22,24	6.70	10 (52%)	25,31,36	3.06	10 (40%)
1	5MU	1A	1939	1	19,22,23	1.47	4 (21%)	27,32,35	1.56	4 (14%)
32	MA6	1a	1519	32	23,26,27	1.26	4 (17%)	33,38,41	4.57	13 (39%)
32	UR3	2a	1498	32	19,22,23	2.03	4 (21%)	26,32,35	1.57	5 (19%)
1	4OC	2A	1920	1	19,22,24	2.44	7 (36%)	25,31,35	0.83	0
32	5MC	2a	967	32	19,22,23	0.89	1 (5%)	26,32,35	1.36	4 (15%)
32	UR3	1a	1498	32	19,22,23	2.04	4 (21%)	26,32,35	1.55	4 (15%)
32	4OC	1a	1402	32	20,23,24	2.51	8 (40%)	25,32,35	1.17	2 (8%)
32	2MG	1a	1207	55,32	23,26,27	2.25	5 (21%)	33,38,41	2.39	11 (33%)

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
32	4OC	2a	1402	32	-	1/9/29/30	0/2/2/2
1	5MC	1A	1942	1	-	2/7/25/26	0/2/2/2
1	5MU	2A	1939	1	-	0/7/25/26	0/2/2/2
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
1	4OC	1A	1920	1	-	2/9/27/30	0/2/2/2
1	5MU	1A	1915	1	-	2/7/25/26	0/2/2/2
1	OMG	2A	2251	1	-	1/9/27/28	0/3/3/3
32	MA6	2a	1518	32	-	1/11/29/30	0/3/3/3
1	5MC	1A	1962	1	-	1/7/25/26	0/2/2/2
32	PSU	1a	516	55,32	-	0/7/25/26	0/2/2/2
1	OMG	1A	2251	1	-	1/9/27/28	0/3/3/3
32	5MC	1a	967	32	-	0/7/25/26	0/2/2/2
32	5MC	1a	1404	32	-	2/7/25/26	0/2/2/2
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2
32	5MC	2a	1407	32	-	1/7/25/26	0/2/2/2
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
32	M2G	1a	966	32	-	0/11/29/30	0/3/3/3
32	PSU	2a	516	55,32	-	0/7/25/26	0/2/2/2
1	5MU	2A	1915	1	-	2/7/25/26	0/2/2/2
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
32	7MG	2a	527	55,32	-	2/7/37/38	0/3/3/3
32	5MC	2a	1404	32	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	2MA	1A	2503	1,55	-	0/7/25/26	0/3/3/3
43	0TD	1l	92	43	-	6/7/12/14	-
1	PSU	1A	1917	1	-	3/7/25/26	0/2/2/2
32	7MG	1a	527	55,32	-	2/7/37/38	0/3/3/3
32	M2G	2a	966	32	-	2/11/29/30	0/3/3/3
1	2MA	2A	2503	1,55	-	1/7/25/26	0/3/3/3
32	2MG	2a	1207	55,32	-	0/9/27/28	0/3/3/3
32	MA6	2a	1519	32	-	3/11/29/30	0/3/3/3
1	2MU	2A	2552	1,55	-	0/9/27/28	0/2/2/2
32	5MC	1a	1400	32	-	2/7/25/26	0/2/2/2
32	MA6	1a	1518	32	-	3/11/29/30	0/3/3/3
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
43	0TD	2l	92	43	-	2/7/12/14	-
1	PSU	1A	2605	1	-	0/7/25/26	0/2/2/2
1	5MC	2A	1962	1,55	-	4/7/25/26	0/2/2/2
32	5MC	2a	1400	32	-	2/7/25/26	0/2/2/2
1	2MU	1A	2552	1,55	-	0/9/27/28	0/2/2/2
1	5MU	1A	1939	1	-	0/7/25/26	0/2/2/2
32	MA6	1a	1519	32	-	2/11/29/30	0/3/3/3
32	UR3	2a	1498	32	-	1/7/25/26	0/2/2/2
1	4OC	2A	1920	1	-	0/9/27/30	0/2/2/2
32	5MC	2a	967	32	-	0/7/25/26	0/2/2/2
32	UR3	1a	1498	32	-	1/7/25/26	0/2/2/2
32	4OC	1a	1402	32	-	2/9/29/30	0/2/2/2
32	2MG	1a	1207	55,32	-	0/9/27/28	0/3/3/3

All (189) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	1l	92	0TD	CB-CA	-16.11	1.49	1.54
1	1A	2552	2MU	C4-N3	-15.71	1.11	1.38
1	2A	2552	2MU	C4-N3	-15.70	1.11	1.38
1	2A	2552	2MU	C5-C4	15.21	1.76	1.43
43	2l	92	0TD	CB-CA	-14.77	1.50	1.54
1	1A	2552	2MU	C5-C4	14.51	1.75	1.43
1	2A	2552	2MU	C6-C5	-10.61	1.10	1.35
1	1A	2552	2MU	C6-C5	-10.37	1.11	1.35
1	1A	2552	2MU	C3'-C2'	-9.59	1.32	1.53
1	2A	1942	5MC	C5-C4	-8.56	1.37	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	2552	2MU	C3'-C2'	-8.52	1.34	1.53
1	2A	2552	2MU	C6-N1	7.89	1.56	1.38
1	1A	2552	2MU	C6-N1	7.75	1.56	1.38
1	2A	2503	2MA	C4-N3	7.01	1.43	1.34
1	1A	2552	2MU	O4'-C4'	-6.74	1.30	1.45
1	2A	2552	2MU	O4'-C4'	-6.66	1.30	1.45
1	1A	2503	2MA	C4-N3	6.62	1.42	1.34
1	2A	2552	2MU	O4'-C1'	6.58	1.57	1.42
1	2A	2552	2MU	C1'-N1	-6.27	1.29	1.47
1	1A	2552	2MU	O4'-C1'	5.76	1.55	1.42
43	2l	92	0TD	CB-SB	-5.65	1.76	1.82
1	1A	2552	2MU	C1'-N1	-5.64	1.31	1.47
32	1a	1402	4OC	C4-N4	5.63	1.47	1.36
1	2A	1920	4OC	C4-N4	5.62	1.47	1.33
32	1a	1207	2MG	C2-N3	5.61	1.42	1.32
43	1l	92	0TD	CB-SB	-5.55	1.76	1.82
32	2a	527	7MG	C8-N9	5.51	1.49	1.45
1	1A	1942	5MC	C5-C4	-5.30	1.40	1.44
32	2a	1207	2MG	C2-N3	5.25	1.42	1.32
1	1A	2503	2MA	C2-N1	5.21	1.43	1.34
32	2a	516	PSU	C2-N1	5.18	1.43	1.36
1	1A	1920	4OC	C4-N4	5.14	1.46	1.33
1	2A	2251	OMG	C4-N3	5.13	1.46	1.34
32	1a	1498	UR3	C6-C5	5.12	1.46	1.35
32	1a	1498	UR3	C2-N1	5.11	1.45	1.38
32	2a	966	M2G	C2-N3	5.07	1.44	1.32
32	2a	1498	UR3	C6-C5	5.05	1.46	1.35
32	1a	966	M2G	C2-N3	5.01	1.44	1.32
32	1a	966	M2G	C4-N3	5.00	1.45	1.34
32	1a	1400	5MC	C2-N1	4.99	1.50	1.40
1	1A	1920	4OC	C2-N3	4.97	1.46	1.36
32	1a	527	7MG	C8-N9	4.96	1.49	1.45
1	2A	2605	PSU	C2-N1	4.95	1.43	1.36
1	2A	1920	4OC	C6-C5	4.92	1.46	1.35
32	2a	527	7MG	C5-N7	4.91	1.41	1.35
32	1a	1207	2MG	C2-N2	4.91	1.43	1.33
1	1A	1962	5MC	C5-C4	-4.90	1.40	1.44
32	2a	1402	4OC	C4-N4	4.88	1.46	1.36
32	1a	1207	2MG	C4-N3	4.88	1.45	1.34
32	2a	966	M2G	C4-N3	4.87	1.45	1.34
32	2a	527	7MG	C4-N3	4.84	1.45	1.34
1	2A	1915	5MU	C2-N1	4.79	1.46	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	2503	2MA	C2-N3	4.79	1.42	1.34
1	2A	1920	4OC	C2-N3	4.77	1.45	1.36
32	2a	1207	2MG	C2-N1	4.74	1.44	1.36
1	1A	2605	PSU	C2-N1	4.59	1.42	1.36
32	2a	1207	2MG	C4-N3	4.56	1.44	1.34
32	1a	1207	2MG	C2-N1	4.55	1.43	1.36
32	2a	1498	UR3	C2-N3	4.54	1.47	1.39
1	2A	1939	5MU	C5M-C5	-4.52	1.39	1.50
1	2A	1911	PSU	C2-N1	4.48	1.42	1.36
32	2a	1498	UR3	C2-N1	4.48	1.44	1.38
32	1a	527	7MG	C5-N7	4.48	1.41	1.35
32	2a	1207	2MG	C2-N2	4.45	1.42	1.33
32	1a	1402	4OC	C6-C5	4.41	1.45	1.35
1	1A	1920	4OC	C6-C5	4.41	1.45	1.35
32	1a	966	M2G	C2-N2	4.40	1.43	1.35
1	2A	2503	2MA	C2-N3	4.38	1.41	1.34
1	1A	2251	OMG	C4-N3	4.37	1.44	1.34
32	1a	1402	4OC	C2-N3	4.36	1.45	1.36
32	2a	527	7MG	C2-N3	4.31	1.43	1.33
32	2a	1402	4OC	C2-N3	4.27	1.44	1.36
32	1a	527	7MG	C4-N3	4.24	1.43	1.34
32	2a	1402	4OC	C6-C5	4.15	1.44	1.35
32	2a	966	M2G	C2-N2	4.15	1.42	1.35
1	1A	1920	4OC	C2-N1	4.14	1.48	1.40
1	2A	2251	OMG	C2-N3	4.13	1.43	1.33
1	2A	2503	2MA	C2-N1	4.13	1.41	1.34
1	1A	1942	5MC	C2-N1	-4.10	1.31	1.40
1	2A	2552	2MU	C3'-C4'	4.06	1.63	1.53
1	1A	1939	5MU	C4-C5	-3.96	1.38	1.44
32	2a	1400	5MC	C2-N1	3.95	1.48	1.40
32	2a	1404	5MC	C5-C4	-3.93	1.41	1.44
1	1A	1915	5MU	C2-N1	3.91	1.44	1.38
32	2a	1402	4OC	C4-N3	3.89	1.39	1.32
32	1a	1402	4OC	C2-N1	3.88	1.48	1.40
1	1A	1911	PSU	C2-N1	3.87	1.41	1.36
32	2a	1402	4OC	O2-C2	-3.78	1.16	1.23
1	1A	2251	OMG	C2-N3	3.75	1.42	1.33
32	1a	1407	5MC	C2-N1	3.75	1.47	1.40
1	2A	1911	PSU	C6-N1	3.68	1.42	1.36
32	1a	1518	MA6	C5-C4	-3.65	1.32	1.39
32	1a	527	7MG	C2-N3	3.63	1.42	1.33
1	1A	2503	2MA	C4-N9	-3.63	1.30	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	1962	5MC	C5-C4	-3.62	1.41	1.44
32	2a	1518	MA6	C6-N6	3.61	1.46	1.36
32	1a	1402	4OC	C4-N3	3.61	1.38	1.32
1	1A	2552	2MU	C3'-C4'	3.49	1.61	1.53
32	1a	1498	UR3	C2-N3	3.48	1.45	1.39
1	1A	2605	PSU	C6-N1	3.40	1.41	1.36
32	1a	1518	MA6	C5-C6	-3.40	1.33	1.41
1	2A	1917	PSU	C2-N1	3.40	1.41	1.36
1	2A	1911	PSU	C4-N3	3.36	1.45	1.38
32	1a	1402	4OC	C5-C4	3.27	1.48	1.41
1	2A	1962	5MC	C4-N4	3.25	1.42	1.34
1	1A	2503	2MA	C6-N1	3.23	1.39	1.35
32	2a	966	M2G	C2-N1	3.16	1.44	1.36
1	2A	1915	5MU	C2-N3	3.16	1.43	1.38
1	1A	1917	PSU	C2-N1	3.15	1.40	1.36
1	2A	2503	2MA	C4-N9	-3.13	1.31	1.37
32	1a	1519	MA6	C5-C6	-2.99	1.34	1.41
32	1a	516	PSU	C6-N1	2.99	1.41	1.36
32	2a	1402	4OC	C5-C4	2.98	1.47	1.41
1	2A	2605	PSU	C6-N1	2.97	1.41	1.36
32	1a	527	7MG	C5-C6	2.94	1.50	1.43
32	2a	527	7MG	C5-C6	2.94	1.50	1.43
32	1a	1402	4OC	O2-C2	-2.94	1.18	1.23
1	2A	1920	4OC	O2-C2	-2.92	1.18	1.23
32	2a	527	7MG	C2-N2	2.92	1.41	1.34
32	2a	1407	5MC	C2-N1	2.91	1.46	1.40
1	1A	2503	2MA	C5-C4	-2.88	1.33	1.39
32	2a	516	PSU	C6-N1	2.84	1.41	1.36
32	1a	516	PSU	C2-N1	2.83	1.40	1.36
32	2a	516	PSU	O4'-C1'	-2.83	1.39	1.43
1	2A	1962	5MC	C2-N3	2.82	1.41	1.36
1	1A	1920	4OC	C4-N3	2.81	1.40	1.34
1	2A	1942	5MC	CM5-C5	-2.78	1.43	1.50
1	2A	1920	4OC	C5-C4	2.76	1.49	1.42
32	2a	1519	MA6	C6-N6	2.76	1.44	1.36
1	1A	1939	5MU	C2-N1	-2.74	1.34	1.38
1	1A	1939	5MU	C5M-C5	-2.72	1.44	1.50
1	1A	2605	PSU	O4'-C1'	-2.72	1.40	1.43
32	2a	1402	4OC	CM4-N4	-2.72	1.40	1.45
1	2A	1920	4OC	C4-N3	2.70	1.39	1.34
1	1A	2605	PSU	O4-C4	-2.67	1.18	1.23
1	1A	1920	4OC	O2-C2	-2.63	1.18	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	1942	5MC	C4-N3	-2.61	1.30	1.34
1	2A	1939	5MU	C2-N3	2.59	1.42	1.38
1	2A	1920	4OC	C2-N1	2.59	1.45	1.40
32	2a	527	7MG	C2-N1	2.59	1.43	1.37
32	1a	966	M2G	C2-N1	2.57	1.42	1.36
32	2a	1404	5MC	CM5-C5	-2.57	1.44	1.50
32	2a	1402	4OC	C2-N1	2.55	1.45	1.40
1	2A	2552	2MU	O2'-C2'	2.54	1.48	1.42
1	1A	2251	OMG	C8-N7	2.54	1.39	1.32
32	2a	1518	MA6	C5-C4	-2.53	1.34	1.39
32	1a	966	M2G	C5-N7	-2.53	1.34	1.39
32	1a	1402	4OC	CM4-N4	-2.48	1.41	1.45
32	1a	516	PSU	O4'-C1'	-2.41	1.40	1.43
32	1a	1519	MA6	C5-N7	-2.40	1.34	1.39
1	2A	2503	2MA	C8-N7	2.40	1.36	1.31
32	2a	1519	MA6	C5-C6	-2.38	1.35	1.41
1	2A	2503	2MA	C5-C6	2.35	1.47	1.41
32	2a	1407	5MC	C5-C4	-2.35	1.42	1.44
1	2A	1962	5MC	CM5-C5	-2.34	1.45	1.50
1	1A	1911	PSU	C4-C5	2.32	1.50	1.44
1	1A	2251	OMG	O6-C6	-2.30	1.19	1.23
32	2a	1407	5MC	C6-C5	2.29	1.38	1.34
32	2a	967	5MC	C5-C4	-2.26	1.42	1.44
43	1l	92	0TD	CA-N	-2.26	1.41	1.47
32	2a	966	M2G	C5-C6	2.25	1.52	1.44
32	1a	527	7MG	C2-N2	2.25	1.39	1.34
32	1a	1404	5MC	CM5-C5	-2.23	1.45	1.50
32	1a	1498	UR3	C3U-N3	-2.23	1.43	1.47
32	2a	516	PSU	C1'-C5	-2.22	1.45	1.50
32	1a	1519	MA6	C6-N6	2.22	1.42	1.36
1	2A	2503	2MA	C6-N6	-2.18	1.28	1.34
32	1a	1407	5MC	C6-C5	2.17	1.38	1.34
32	2a	1518	MA6	C5-C6	-2.17	1.36	1.41
32	1a	967	5MC	C5-C4	-2.17	1.42	1.44
1	1A	2251	OMG	C2-N2	2.16	1.39	1.34
1	1A	1920	4OC	C5-C4	2.15	1.47	1.42
32	1a	527	7MG	C2-N1	2.14	1.42	1.37
1	1A	1911	PSU	C4-N3	2.13	1.42	1.38
32	2a	1518	MA6	C2-N1	2.12	1.37	1.33
32	2a	1498	UR3	C3U-N3	-2.11	1.43	1.47
1	1A	2503	2MA	C8-N7	2.11	1.35	1.31
1	1A	1942	5MC	CM5-C5	-2.10	1.45	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	1939	5MU	C2-N3	2.09	1.41	1.38
1	1A	2605	PSU	O2-C2	2.04	1.27	1.23
32	2a	1400	5MC	CM5-C5	-2.04	1.45	1.50
43	2l	92	0TD	CA-N	-2.03	1.41	1.47
32	1a	1519	MA6	C5-C4	-2.03	1.35	1.39
1	1A	2503	2MA	C5-C6	2.03	1.46	1.41
32	2a	527	7MG	C4-N9	2.03	1.40	1.37
32	1a	1207	2MG	C5-N7	-2.02	1.35	1.39
32	1a	1518	MA6	C4-N9	-2.01	1.33	1.37
1	2A	2605	PSU	O4'-C1'	-2.01	1.41	1.43
1	1A	2552	2MU	O2'-C2'	2.00	1.47	1.42

All (292) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	1518	MA6	N1-C6-N6	-17.85	95.10	116.86
32	1a	1519	MA6	N1-C6-N6	-17.26	95.83	116.86
32	2a	1519	MA6	N1-C6-N6	-15.21	98.32	116.86
32	2a	1518	MA6	N1-C6-N6	-14.25	99.49	116.86
32	1a	1519	MA6	C5-C6-N6	13.39	146.53	125.33
32	2a	1518	MA6	C5-C6-N6	11.28	143.18	125.33
32	1a	1518	MA6	C5-C6-N6	11.21	143.08	125.33
32	2a	1519	MA6	C5-C6-N6	11.18	143.03	125.33
1	1A	2503	2MA	C1'-N9-C8	-10.37	104.09	127.09
1	2A	2503	2MA	C1'-N9-C8	-9.35	106.35	127.09
32	2a	516	PSU	C6-C5-C4	8.29	123.77	118.17
1	2A	2552	2MU	C5-C4-N3	7.77	125.69	114.80
32	1a	1519	MA6	C4-C5-C6	7.57	123.74	115.91
1	1A	2552	2MU	C5-C4-N3	7.43	125.21	114.80
1	1A	2503	2MA	C4-N9-C1'	7.22	143.53	126.63
1	2A	2503	2MA	C4-N9-C1'	7.14	143.34	126.63
1	1A	2552	2MU	C4-N3-C2	-6.84	118.12	126.61
32	1a	1207	2MG	C2-N3-C4	6.77	120.46	112.00
32	2a	1519	MA6	C4-C5-C6	6.69	122.83	115.91
1	2A	2251	OMG	C1'-N9-C8	-6.60	108.00	126.73
1	2A	2552	2MU	C4-N3-C2	-6.58	118.44	126.61
32	2a	1207	2MG	C2-N3-C4	6.34	119.93	112.00
32	1a	1518	MA6	N1-C2-N3	-6.30	119.04	128.58
32	2a	1518	MA6	C4-C5-C6	6.30	122.43	115.91
1	1A	2503	2MA	N9-C8-N7	-6.29	105.01	113.94
1	1A	2503	2MA	C4-N9-C8	6.24	112.29	105.74
1	2A	2605	PSU	C6-C5-C4	6.23	122.38	118.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	1939	5MU	C6-C5-C4	5.93	122.91	118.02
1	1A	2552	2MU	N3-C2-N1	5.93	122.61	114.89
32	1a	1518	MA6	C4-N9-C1'	-5.77	113.13	126.63
32	2a	1519	MA6	C5-C4-N3	-5.70	118.87	126.72
32	1a	966	M2G	C5-C4-N3	-5.61	119.45	128.39
32	1a	1519	MA6	C5-C4-N3	-5.54	119.09	126.72
1	1A	2503	2MA	N6-C6-N1	5.53	124.48	117.03
32	1a	1207	2MG	C5-C4-N3	-5.48	119.68	128.39
43	1l	92	0TD	CB-CA-N	-5.30	98.36	109.10
32	2a	527	7MG	C5-C6-N1	5.17	120.03	110.94
43	1l	92	0TD	CSB-SB-CB	5.13	111.59	102.36
32	2a	1518	MA6	N1-C2-N3	-5.12	120.83	128.58
1	1A	2552	2MU	O4-C4-C5	-5.03	116.48	125.16
1	1A	2251	OMG	C5-C4-N3	-5.01	120.42	128.39
32	1a	1518	MA6	C1'-N9-C8	4.93	138.03	127.09
1	1A	2552	2MU	O2-C2-N1	-4.90	116.42	122.80
32	2a	1207	2MG	C5-C4-N3	-4.89	120.60	128.39
32	1a	516	PSU	C6-C5-C4	4.88	121.47	118.17
1	1A	1962	5MC	C5-C4-N3	4.75	126.63	121.75
1	1A	2251	OMG	C2-N3-C4	4.74	120.46	112.30
32	1a	1400	5MC	C5-C4-N3	4.71	126.59	121.75
32	1a	1498	UR3	C4-N3-C2	-4.65	120.84	124.58
1	1A	1917	PSU	C6-C5-C4	4.63	121.30	118.17
1	2A	2552	2MU	O2-C2-N1	-4.63	116.77	122.80
32	1a	1519	MA6	N1-C2-N3	-4.61	121.60	128.58
43	2l	92	0TD	CSB-SB-CB	4.60	110.63	102.36
32	2a	1207	2MG	C1'-N9-C4	-4.58	112.95	126.49
1	2A	2251	OMG	C1'-N9-C4	4.58	140.01	126.49
32	1a	1518	MA6	C5-C4-N3	-4.57	120.42	126.72
1	1A	1939	5MU	C6-C5-C4	4.57	121.78	118.02
1	1A	2251	OMG	C1'-N9-C8	-4.54	113.84	126.73
1	1A	1911	PSU	C6-C5-C4	4.52	121.23	118.17
32	2a	966	M2G	C5-C4-N3	-4.48	121.25	128.39
32	2a	1518	MA6	C5-C4-N3	-4.43	120.61	126.72
1	1A	1962	5MC	C5-C6-N1	-4.42	118.51	123.31
32	2a	1519	MA6	N3-C4-N9	4.42	134.68	127.17
1	2A	2552	2MU	N3-C2-N1	4.41	120.64	114.89
1	2A	2503	2MA	C4-N9-C8	4.36	110.31	105.74
32	2a	1207	2MG	C1'-N9-C8	4.30	138.95	126.73
32	2a	527	7MG	C2-N3-C4	4.29	119.69	112.30
1	2A	2251	OMG	C5-C4-N3	-4.29	121.56	128.39
32	2a	1400	5MC	C5-C4-N3	4.25	126.11	121.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	1519	MA6	N1-C2-N3	-4.21	122.21	128.58
1	2A	2503	2MA	N9-C8-N7	-4.20	107.98	113.94
32	1a	1518	MA6	N9-C8-N7	-4.17	108.02	113.94
1	2A	2251	OMG	N9-C8-N7	-4.14	105.73	113.40
1	2A	2251	OMG	O6-C6-C5	-4.12	115.66	126.53
32	1a	1400	5MC	C5-C6-N1	-4.11	118.85	123.31
43	1l	92	0TD	OD2-CG-CB	4.08	121.97	113.15
1	2A	1911	PSU	C6-C5-C4	4.07	120.92	118.17
1	1A	2605	PSU	C6-C5-C4	4.01	120.88	118.17
32	2a	1207	2MG	N1-C2-N2	4.00	120.64	116.56
32	2a	1518	MA6	N9-C8-N7	-3.99	108.28	113.94
32	2a	1400	5MC	C5-C6-N1	-3.97	119.00	123.31
32	2a	967	5MC	C5-C4-N3	3.95	125.80	121.75
32	2a	1518	MA6	C4-N9-C1'	-3.92	117.46	126.63
32	1a	527	7MG	C5-C6-N1	3.92	117.84	110.94
1	1A	1939	5MU	C4-N3-C2	-3.90	122.23	127.34
32	2a	1519	MA6	C6-C5-N7	-3.89	127.22	133.43
32	1a	516	PSU	C6-N1-C2	-3.89	119.08	122.69
1	1A	2251	OMG	C1'-N9-C4	3.86	137.90	126.49
1	2A	1917	PSU	C6-C5-C4	3.85	120.77	118.17
1	2A	1915	5MU	C6-C5-C4	3.82	121.17	118.02
1	2A	1939	5MU	C4-N3-C2	-3.81	122.35	127.34
32	1a	527	7MG	C2-N3-C4	3.80	118.85	112.30
32	1a	1207	2MG	C1'-N9-C4	-3.80	115.25	126.49
32	1a	1404	5MC	C5-C6-N1	-3.78	119.21	123.31
1	2A	2251	OMG	N9-C4-N3	3.76	133.48	125.95
43	2l	92	0TD	OD2-CG-CB	3.75	121.26	113.15
32	2a	527	7MG	C5-C4-N3	-3.75	121.09	128.13
1	1A	1942	5MC	C5-C6-N1	-3.72	119.27	123.31
32	2a	1518	MA6	C2-N1-C6	3.70	120.86	111.83
32	1a	516	PSU	N1-C2-N3	3.68	119.05	115.17
32	1a	1519	MA6	C2-N1-C6	3.67	120.80	111.83
32	2a	1498	UR3	C1'-N1-C2	3.66	123.03	117.04
32	1a	527	7MG	C5-C4-N9	3.66	111.03	106.33
1	2A	2552	2MU	O4-C4-C5	-3.63	118.90	125.16
32	1a	1519	MA6	N3-C4-N9	3.63	133.34	127.17
32	2a	1404	5MC	C5-C6-N1	-3.63	119.37	123.31
1	1A	1915	5MU	C6-C5-C4	3.62	121.01	118.02
32	1a	966	M2G	N9-C4-N3	3.59	133.13	125.95
1	1A	1920	4OC	C1'-N1-C2	3.57	126.33	118.44
1	1A	1962	5MC	C4-N3-C2	-3.57	115.86	120.81
1	2A	2251	OMG	C2-N3-C4	3.55	118.41	112.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	527	7MG	C5-C4-N3	-3.55	121.47	128.13
32	2a	527	7MG	C4-C5-N7	3.54	109.56	105.38
1	2A	2251	OMG	C2-N1-C6	-3.53	118.72	125.11
1	1A	2503	2MA	CM2-C2-N1	3.52	122.40	117.13
32	2a	1402	4OC	CM2-O2'-C2'	3.52	123.51	114.47
32	2a	1207	2MG	C2-N1-C6	-3.48	120.34	124.55
43	2l	92	0TD	CB-CA-N	-3.48	102.05	109.10
32	1a	967	5MC	C5-C4-N3	3.47	125.32	121.75
32	1a	1404	5MC	C5-C4-N3	3.47	125.31	121.75
32	1a	1519	MA6	C6-C5-N7	-3.46	127.90	133.43
32	2a	1404	5MC	C5-C4-N3	3.46	125.30	121.75
32	2a	1407	5MC	C5-C4-N3	3.44	125.28	121.75
1	2A	1917	PSU	O2-C2-N1	-3.39	119.30	122.79
32	1a	1207	2MG	C1'-N9-C8	3.37	136.30	126.73
32	1a	1519	MA6	N9-C8-N7	-3.37	109.16	113.94
32	1a	1518	MA6	N3-C4-N9	3.36	132.89	127.17
32	2a	1498	UR3	C4-N3-C2	-3.36	121.88	124.58
32	2a	1518	MA6	N3-C4-N9	3.35	132.87	127.17
32	2a	967	5MC	C5-C6-N1	-3.35	119.68	123.31
1	2A	2552	2MU	C6-C5-C4	-3.33	115.28	119.53
32	1a	1518	MA6	C2-N3-C4	3.33	119.95	111.83
32	1a	527	7MG	C4-C5-N7	3.32	109.30	105.38
32	1a	1519	MA6	C4-N9-C1'	-3.31	118.88	126.63
32	1a	1207	2MG	N9-C4-N3	3.30	132.56	125.95
32	2a	1518	MA6	C6-C5-N7	-3.27	128.22	133.43
32	1a	966	M2G	C2-N3-C4	3.23	118.49	112.51
32	1a	1518	MA6	C2-N1-C6	3.22	119.70	111.83
32	1a	1207	2MG	N9-C8-N7	-3.21	107.45	113.40
1	2A	1962	5MC	C5-C6-N1	-3.19	119.85	123.31
1	1A	2503	2MA	C5-C6-N6	-3.19	115.40	123.29
1	1A	1920	4OC	C1'-N1-C6	-3.18	113.97	120.78
32	1a	1207	2MG	C2-N1-C6	-3.18	120.70	124.55
1	2A	1942	5MC	C5-C6-N1	-3.16	119.88	123.31
1	1A	1911	PSU	N1-C2-N3	3.15	118.49	115.17
1	2A	1962	5MC	C4-N3-C2	-3.14	116.45	120.81
32	1a	1400	5MC	CM5-C5-C6	-3.12	118.63	122.85
32	1a	967	5MC	C5-C6-N1	-3.11	119.93	123.31
1	2A	2251	OMG	C8-N9-C4	3.11	111.85	106.03
32	1a	966	M2G	O6-C6-C5	-3.10	118.34	126.53
32	2a	527	7MG	C5-C4-N9	3.10	110.31	106.33
1	2A	2605	PSU	C6-N1-C2	-3.10	119.82	122.69
1	2A	1915	5MU	C4-N3-C2	-3.09	123.29	127.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	1400	5MC	N4-C4-N3	-3.09	112.92	118.51
32	2a	1498	UR3	C5-C4-N3	3.09	119.10	115.04
32	2a	1519	MA6	C4-N9-C1'	-3.08	119.43	126.63
32	1a	1519	MA6	C1'-N9-C8	3.07	133.91	127.09
32	2a	1519	MA6	C2-N1-C6	3.07	119.33	111.83
32	1a	1518	MA6	C4-C5-C6	3.07	119.08	115.91
1	1A	1911	PSU	O2-C2-N1	-3.07	119.63	122.79
1	1A	1939	5MU	O4-C4-C5	-3.06	121.42	124.92
1	1A	2552	2MU	C6-C5-C4	-3.03	115.67	119.53
1	1A	2251	OMG	C5-C6-N1	3.02	120.95	113.25
32	2a	1404	5MC	C4-N3-C2	-3.02	116.62	120.81
1	1A	2251	OMG	C2-N1-C6	-3.01	119.66	125.11
32	2a	1207	2MG	N9-C8-N7	-3.00	107.84	113.40
32	2a	1518	MA6	C1'-N9-C8	2.98	133.70	127.09
32	1a	1400	5MC	C1'-N1-C6	-2.96	116.28	121.15
32	1a	1400	5MC	C4-N3-C2	-2.94	116.72	120.81
32	1a	1498	UR3	C1'-N1-C2	2.93	121.84	117.04
32	1a	1404	5MC	C4-N3-C2	-2.93	116.74	120.81
1	2A	2251	OMG	C5-C6-N1	2.93	120.70	113.25
32	2a	516	PSU	C6-N1-C2	-2.92	119.98	122.69
32	2a	1518	MA6	C4-N9-C8	2.92	108.80	105.74
32	1a	1402	4OC	O2-C2-N3	-2.90	117.76	122.33
32	2a	527	7MG	O6-C6-C5	-2.90	120.51	127.62
32	1a	1518	MA6	C4-N9-C8	2.89	108.78	105.74
32	2a	1519	MA6	N9-C8-N7	-2.86	109.88	113.94
32	2a	516	PSU	O4'-C1'-C2'	2.85	109.10	105.15
32	1a	1407	5MC	C5-C4-N3	2.85	124.68	121.75
32	1a	1407	5MC	C5-C6-N1	-2.85	120.22	123.31
32	2a	516	PSU	N1-C2-N3	2.85	118.17	115.17
1	2A	1939	5MU	C5-C6-N1	-2.84	120.22	123.31
1	2A	2605	PSU	N1-C2-N3	2.83	118.15	115.17
1	2A	1942	5MC	C5-C4-N3	2.82	124.65	121.75
32	2a	967	5MC	C4-N3-C2	-2.81	116.91	120.81
1	1A	1911	PSU	O4-C4-N3	-2.81	114.84	120.11
1	2A	1917	PSU	O4-C4-N3	-2.79	114.88	120.11
1	1A	1917	PSU	O2-C2-N1	-2.78	119.92	122.79
1	1A	2251	OMG	N9-C8-N7	-2.78	108.24	113.40
32	1a	1519	MA6	C5-N7-C8	2.77	107.80	103.45
32	1a	967	5MC	C4-N3-C2	-2.76	116.98	120.81
32	2a	1519	MA6	C1'-N9-C8	2.73	133.16	127.09
32	1a	516	PSU	O4-C4-N3	-2.73	114.98	120.11
32	1a	1207	2MG	O3'-C3'-C2'	2.73	120.57	111.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1915	5MU	C4-N3-C2	-2.72	123.77	127.34
1	2A	1917	PSU	N1-C2-N3	2.72	118.03	115.17
32	2a	527	7MG	C2-N1-C6	-2.69	120.24	125.11
32	2a	1400	5MC	C4-N3-C2	-2.68	117.09	120.81
1	2A	2552	2MU	O4-C4-N3	-2.67	115.41	119.27
1	1A	2605	PSU	O4-C4-N3	-2.67	115.10	120.11
1	2A	2552	2MU	C4'-O4'-C1'	-2.65	103.61	109.47
1	1A	1911	PSU	O4-C4-C5	2.64	130.57	124.01
32	2a	1400	5MC	N4-C4-N3	-2.64	113.73	118.51
32	1a	966	M2G	C5-C6-N1	2.64	119.97	113.25
1	2A	1917	PSU	C4-N3-C2	-2.63	122.75	126.37
1	1A	2552	2MU	C6-N1-C2	-2.62	117.81	121.00
1	1A	1917	PSU	O4-C4-N3	-2.61	115.20	120.11
32	2a	1498	UR3	C3U-N3-C2	2.60	121.87	117.33
32	2a	1519	MA6	C2-N3-C4	2.59	118.15	111.83
32	2a	1498	UR3	C6-N1-C2	-2.58	119.69	121.80
32	1a	1207	2MG	C8-N7-C5	2.57	108.83	104.26
32	2a	1518	MA6	C2-N3-C4	2.56	118.08	111.83
1	1A	2251	OMG	N9-C4-N3	2.55	131.06	125.95
32	2a	966	M2G	N9-C4-N3	2.54	131.04	125.95
32	2a	966	M2G	C2-N3-C4	2.53	117.19	112.51
32	2a	1402	4OC	C6-C5-C4	2.50	120.01	117.00
32	1a	1498	UR3	C5-C4-N3	2.49	118.32	115.04
1	1A	1920	4OC	O2-C2-N3	-2.49	118.41	122.33
32	1a	516	PSU	O4'-C1'-C2'	2.48	108.58	105.15
1	1A	2552	2MU	C1'-N1-C2	2.48	122.04	117.59
32	1a	1207	2MG	N1-C2-N3	-2.47	119.52	123.68
32	1a	1404	5MC	CM5-C5-C6	-2.46	119.53	122.85
32	2a	1207	2MG	N9-C4-N3	2.44	130.84	125.95
1	1A	2251	OMG	O6-C6-C5	-2.44	120.10	126.53
1	1A	1915	5MU	O4-C4-N3	-2.41	115.58	120.11
1	2A	2251	OMG	CM2-O2'-C2'	-2.40	108.31	114.47
32	2a	966	M2G	N9-C8-N7	-2.40	108.95	113.40
1	2A	1942	5MC	C4-N3-C2	-2.40	117.48	120.81
1	2A	1939	5MU	C5M-C5-C6	-2.39	119.62	122.85
32	1a	1404	5MC	N4-C4-N3	-2.38	114.19	118.51
32	1a	1207	2MG	C5-C6-N1	2.38	119.30	113.25
1	1A	1920	4OC	CM2-O2'-C2'	2.37	120.57	114.47
1	1A	2552	2MU	C4'-O4'-C1'	-2.37	104.23	109.47
1	2A	2503	2MA	CM2-C2-N3	2.36	120.66	117.13
1	1A	1915	5MU	C1'-N1-C2	2.34	121.79	117.59
1	2A	1915	5MU	C1'-N1-C2	2.34	121.79	117.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	2a	1407	5MC	C4-N3-C2	-2.32	117.59	120.81
1	2A	2503	2MA	N6-C6-N1	2.32	120.16	117.03
1	1A	2251	OMG	N2-C2-N1	2.32	121.65	116.76
32	2a	1207	2MG	C5-C6-N1	2.31	119.14	113.25
32	1a	966	M2G	N9-C8-N7	-2.31	109.11	113.40
1	1A	1911	PSU	C4-N3-C2	-2.29	123.21	126.37
32	2a	1207	2MG	C8-N7-C5	2.29	108.34	104.26
1	1A	1942	5MC	C4-N3-C2	-2.29	117.63	120.81
32	2a	1518	MA6	C5-N7-C8	2.29	107.05	103.45
32	1a	966	M2G	CM2-N2-CM1	2.27	123.11	115.87
32	2a	967	5MC	N4-C4-N3	-2.26	114.41	118.51
32	1a	1519	MA6	C2-N3-C4	2.25	117.34	111.83
32	1a	516	PSU	O4-C4-C5	2.25	129.60	124.01
43	1l	92	0TD	OD1-CG-CB	-2.25	117.73	122.44
1	1A	2552	2MU	C3'-C2'-C1'	2.25	107.11	102.81
1	1A	1917	PSU	O4-C4-C5	2.23	129.56	124.01
32	2a	1207	2MG	CM2-N2-C2	-2.23	118.86	123.65
1	1A	1942	5MC	CM5-C5-C6	-2.22	119.85	122.85
1	1A	1962	5MC	C5-C4-N4	-2.21	118.29	121.39
1	1A	2503	2MA	C5-N7-C8	2.20	106.91	103.45
1	1A	1915	5MU	O4-C4-C5	2.19	127.42	124.92
32	2a	1518	MA6	C9-N6-C6	2.19	126.10	120.52
32	2a	966	M2G	C5-C6-N1	2.18	118.80	113.25
32	2a	527	7MG	C6-C5-C4	-2.18	118.57	122.40
32	1a	1407	5MC	C4-N3-C2	-2.15	117.82	120.81
32	2a	966	M2G	O6-C6-C5	-2.14	120.88	126.53
32	2a	527	7MG	N9-C4-N3	2.14	128.59	125.46
32	2a	966	M2G	CM2-N2-CM1	2.14	122.70	115.87
32	1a	1402	4OC	C6-C5-C4	2.14	119.57	117.00
32	1a	527	7MG	N2-C2-N1	2.13	121.26	116.76
1	1A	2503	2MA	N3-C2-N1	-2.13	122.01	125.77
1	1A	1917	PSU	N1-C2-N3	2.13	117.41	115.17
1	1A	2605	PSU	O2'-C2'-C3'	-2.12	105.01	111.82
32	1a	1407	5MC	N4-C4-N3	-2.12	114.67	118.51
1	2A	1962	5MC	CM5-C5-C6	-2.12	119.98	122.85
32	2a	1207	2MG	C4-C5-N7	-2.12	107.31	110.67
1	2A	1911	PSU	O2-C2-N1	-2.12	120.61	122.79
32	1a	1518	MA6	C10-N6-C6	-2.10	115.18	120.52
32	1a	1400	5MC	CM5-C5-C4	2.10	123.95	120.51
1	2A	1911	PSU	O4-C4-N3	-2.09	116.18	120.11
1	2A	1911	PSU	O4'-C1'-C2'	2.09	108.04	105.15
1	1A	2503	2MA	C5-C4-N3	-2.08	124.99	127.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	1915	5MU	C5M-C5-C6	-2.07	120.05	122.85
32	1a	1498	UR3	C6-N1-C2	-2.07	120.11	121.80
32	1a	967	5MC	N4-C4-N3	-2.07	114.77	118.51
32	2a	516	PSU	C4-N3-C2	-2.06	123.53	126.37
1	2A	2251	OMG	O2'-C2'-C1'	-2.06	105.08	108.99
32	1a	527	7MG	O6-C6-C5	-2.04	122.60	127.62
1	2A	2251	OMG	C8-N7-C5	2.04	107.89	104.26
32	1a	527	7MG	N9-C8-N7	2.04	106.25	103.37
1	1A	1920	4OC	O2-C2-N1	2.03	122.88	118.90
1	2A	1917	PSU	O4-C4-C5	2.03	129.05	124.01
1	1A	1917	PSU	C4-N3-C2	-2.02	123.59	126.37
32	2a	1400	5MC	CM5-C5-C6	-2.01	120.12	122.85
1	1A	1939	5MU	C5M-C5-C4	-2.01	116.64	118.78

There are no chirality outliers.

All (54) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	1A	1915	5MU	O4'-C1'-N1-C2
1	1A	1915	5MU	O4'-C1'-N1-C6
1	1A	1917	PSU	C2'-C1'-C5-C4
1	1A	1917	PSU	O4'-C4'-C5'-O5'
43	1l	92	0TD	CA-CB-SB-CSB
43	1l	92	0TD	CA-CB-CG-OD1
43	1l	92	0TD	SB-CB-CG-OD2
43	1l	92	0TD	SB-CB-CG-OD1
1	2A	1915	5MU	O4'-C1'-N1-C2
1	2A	1915	5MU	O4'-C1'-N1-C6
1	2A	2251	OMG	C1'-C2'-O2'-CM2
43	2l	92	0TD	CA-CB-SB-CSB
1	1A	1942	5MC	O4'-C4'-C5'-O5'
32	1a	1400	5MC	O4'-C4'-C5'-O5'
32	1a	1402	4OC	O4'-C4'-C5'-O5'
32	2a	527	7MG	C3'-C4'-C5'-O5'
32	2a	527	7MG	O4'-C4'-C5'-O5'
32	2a	1400	5MC	O4'-C4'-C5'-O5'
32	2a	1519	MA6	O4'-C4'-C5'-O5'
1	1A	1917	PSU	C3'-C4'-C5'-O5'
32	1a	1518	MA6	O4'-C4'-C5'-O5'
32	1a	1518	MA6	C3'-C4'-C5'-O5'
32	1a	1400	5MC	C3'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
32	2a	1518	MA6	C5-C6-N6-C9
32	1a	1404	5MC	O4'-C4'-C5'-O5'
32	1a	1404	5MC	C3'-C4'-C5'-O5'
1	1A	1942	5MC	C3'-C4'-C5'-O5'
32	1a	1402	4OC	C3'-C4'-C5'-O5'
32	2a	1400	5MC	C3'-C4'-C5'-O5'
1	2A	1962	5MC	C2'-C1'-N1-C6
32	1a	1519	MA6	O4'-C4'-C5'-O5'
32	2a	1498	UR3	O4'-C4'-C5'-O5'
32	1a	1498	UR3	O4'-C4'-C5'-O5'
1	1A	2251	OMG	C4'-C5'-O5'-P
32	1a	1518	MA6	C5-C6-N6-C9
1	2A	1962	5MC	O4'-C1'-N1-C6
1	1A	1962	5MC	O4'-C4'-C5'-O5'
1	2A	2503	2MA	O4'-C4'-C5'-O5'
32	2a	1519	MA6	C4'-C5'-O5'-P
1	1A	1920	4OC	C2'-C1'-N1-C6
32	1a	527	7MG	C4'-C5'-O5'-P
32	1a	527	7MG	C3'-C4'-C5'-O5'
32	2a	966	M2G	C3'-C4'-C5'-O5'
43	1l	92	0TD	CA-CB-CG-OD2
43	1l	92	0TD	CG-CB-SB-CSB
43	2l	92	0TD	CG-CB-SB-CSB
1	1A	1920	4OC	C2'-C1'-N1-C2
32	2a	966	M2G	O4'-C4'-C5'-O5'
32	2a	1402	4OC	O4'-C4'-C5'-O5'
1	2A	1962	5MC	O4'-C1'-N1-C2
1	2A	1962	5MC	C2'-C1'-N1-C2
32	2a	1407	5MC	C2'-C1'-N1-C2
32	1a	1519	MA6	C3'-C4'-C5'-O5'

There are no ring outliers.

34 monomers are involved in 63 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	2a	1402	4OC	3	0
1	1A	1942	5MC	1	0
1	2A	1939	5MU	2	0
1	1A	1920	4OC	1	0
1	1A	1915	5MU	2	0
1	2A	2251	OMG	2	0
32	2a	1518	MA6	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	1A	1962	5MC	1	0
32	1a	516	PSU	1	0
32	1a	1404	5MC	1	0
1	2A	1942	5MC	1	0
32	1a	966	M2G	1	0
32	2a	516	PSU	5	0
1	2A	1915	5MU	1	0
32	2a	527	7MG	1	0
1	1A	2503	2MA	2	0
43	1l	92	0TD	4	0
1	1A	1917	PSU	1	0
1	2A	2503	2MA	2	0
32	2a	1519	MA6	2	0
1	2A	2552	2MU	2	0
32	1a	1518	MA6	3	0
32	1a	1407	5MC	1	0
1	2A	1911	PSU	1	0
43	2l	92	0TD	3	0
1	1A	2605	PSU	1	0
1	1A	2552	2MU	3	0
1	1A	1939	5MU	1	0
32	1a	1519	MA6	5	0
32	2a	1498	UR3	1	0
1	2A	1920	4OC	2	0
32	1a	1498	UR3	1	0
32	1a	1402	4OC	3	0
32	1a	1207	2MG	2	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 2708 ligands modelled in this entry, 2706 are monoatomic - leaving 2 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the

expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
57	SF4	1d	302	35	0,12,12	-	-	-		
57	SF4	2d	501	35	0,12,12	-	-	-		

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
57	SF4	1d	302	35	-	-	0/6/5/5
57	SF4	2d	501	35	-	-	0/6/5/5

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

1 monomer is involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
57	2d	501	SF4	2	0

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	1A	2861/2901 (98%)	-0.92	37 (1%) 75 55	9, 28, 117, 139	0
1	2A	2861/2901 (98%)	-0.74	32 (1%) 78 61	23, 45, 119, 140	0
2	1B	120/120 (100%)	-0.94	0 100 100	20, 48, 70, 100	0
2	2B	120/120 (100%)	-0.44	0 100 100	47, 69, 82, 106	0
3	1D	275/275 (100%)	-0.66	2 (0%) 84 69	12, 26, 43, 74	0
3	2D	275/275 (100%)	-0.47	1 (0%) 88 79	21, 38, 51, 72	0
4	1E	204/204 (100%)	-0.66	1 (0%) 87 76	10, 29, 55, 71	0
4	2E	204/204 (100%)	-0.51	0 100 100	22, 44, 63, 82	0
5	1F	203/203 (100%)	-0.62	0 100 100	8, 31, 65, 93	0
5	2F	203/203 (100%)	-0.43	0 100 100	23, 52, 77, 96	0
6	1G	181/181 (100%)	-0.22	0 100 100	43, 68, 90, 101	0
6	2G	181/181 (100%)	0.19	1 (0%) 85 73	66, 84, 98, 106	0
7	1H	174/174 (100%)	-0.55	0 100 100	26, 43, 62, 76	0
7	2H	174/174 (100%)	-0.03	0 100 100	52, 72, 82, 93	0
8	1I	147/147 (100%)	-0.20	0 100 100	37, 73, 88, 93	0
8	2I	147/147 (100%)	0.32	7 (4%) 35 22	47, 85, 97, 102	0
9	1N	140/140 (100%)	-0.72	0 100 100	17, 28, 59, 66	0
9	2N	140/140 (100%)	-0.42	0 100 100	33, 49, 70, 79	0
10	1O	122/122 (100%)	-0.73	0 100 100	16, 29, 48, 57	0
10	2O	122/122 (100%)	-0.58	0 100 100	29, 41, 59, 66	0
11	1P	149/149 (100%)	-0.55	0 100 100	8, 37, 57, 83	0
11	2P	149/149 (100%)	-0.31	0 100 100	28, 55, 78, 86	0
12	1Q	141/141 (100%)	-0.48	0 100 100	20, 32, 46, 72	0
12	2Q	141/141 (100%)	-0.27	0 100 100	35, 50, 64, 81	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	1R	118/118 (100%)	-0.74	0 100 100	14, 23, 39, 58	0
13	2R	118/118 (100%)	-0.47	0 100 100	27, 38, 53, 66	0
14	1S	110/110 (100%)	-0.48	0 100 100	29, 45, 60, 69	0
14	2S	110/110 (100%)	0.06	1 (0%) 81 64	50, 64, 79, 82	0
15	1T	131/131 (100%)	-0.55	2 (1%) 72 52	23, 35, 71, 88	0
15	2T	131/131 (100%)	-0.42	1 (0%) 82 67	33, 47, 80, 92	0
16	1U	116/116 (100%)	-0.69	0 100 100	10, 19, 39, 60	0
16	2U	116/116 (100%)	-0.44	0 100 100	27, 44, 60, 66	0
17	1V	101/101 (100%)	-0.77	0 100 100	11, 29, 50, 65	0
17	2V	101/101 (100%)	-0.39	0 100 100	24, 54, 70, 75	0
18	1W	112/112 (100%)	-0.67	0 100 100	10, 19, 42, 99	0
18	2W	112/112 (100%)	-0.56	0 100 100	23, 34, 57, 97	0
19	1X	95/95 (100%)	-0.57	1 (1%) 78 61	17, 27, 51, 68	0
19	2X	95/95 (100%)	-0.14	1 (1%) 78 61	35, 46, 66, 76	0
20	1Y	107/107 (100%)	-0.45	1 (0%) 81 64	23, 41, 68, 78	0
20	2Y	107/107 (100%)	0.06	1 (0%) 81 64	43, 61, 78, 87	0
21	1Z	203/203 (100%)	-0.36	1 (0%) 87 76	32, 57, 79, 96	0
21	2Z	203/203 (100%)	-0.18	2 (0%) 79 63	53, 71, 89, 104	0
22	10	77/77 (100%)	-0.63	0 100 100	20, 30, 52, 63	0
22	20	77/77 (100%)	-0.11	1 (1%) 75 55	37, 48, 62, 70	0
23	11	97/97 (100%)	-0.47	1 (1%) 79 63	17, 36, 68, 83	0
23	21	97/97 (100%)	-0.25	1 (1%) 79 63	30, 46, 74, 85	0
24	12	70/70 (100%)	-0.37	1 (1%) 73 54	26, 41, 57, 87	0
24	22	70/70 (100%)	-0.22	0 100 100	47, 61, 74, 84	0
25	13	59/59 (100%)	-0.50	1 (1%) 69 49	16, 26, 60, 79	0
25	23	59/59 (100%)	-0.39	0 100 100	36, 48, 71, 93	0
26	14	69/69 (100%)	-0.08	2 (2%) 53 35	62, 92, 109, 110	0
26	24	69/69 (100%)	0.31	1 (1%) 73 54	76, 100, 113, 119	0
27	15	59/59 (100%)	-0.73	0 100 100	10, 24, 45, 62	0
27	25	59/59 (100%)	-0.55	0 100 100	26, 40, 59, 82	0
28	16	53/53 (100%)	-0.66	0 100 100	28, 37, 50, 57	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	26	53/53 (100%)	-0.51	0 100 100	41, 52, 62, 70	0
29	17	48/48 (100%)	-0.58	0 100 100	12, 17, 50, 59	0
29	27	48/48 (100%)	-0.37	1 (2%) 63 43	24, 31, 56, 72	0
30	18	64/64 (100%)	-0.66	0 100 100	15, 22, 35, 42	0
30	28	64/64 (100%)	-0.25	0 100 100	32, 39, 51, 57	0
31	19	37/37 (100%)	-0.44	0 100 100	28, 36, 59, 63	0
31	29	37/37 (100%)	0.31	1 (2%) 56 36	47, 54, 70, 73	0
32	1a	1488/1507 (98%)	-0.38	8 (0%) 87 76	27, 76, 115, 143	0
32	2a	1488/1507 (98%)	-0.32	15 (1%) 79 63	33, 79, 116, 143	0
33	1b	231/231 (100%)	0.09	2 (0%) 81 64	70, 88, 100, 113	0
33	2b	231/231 (100%)	0.19	6 (2%) 57 37	75, 91, 104, 113	0
34	1c	206/206 (100%)	0.09	3 (1%) 72 52	72, 89, 100, 105	0
34	2c	206/206 (100%)	0.22	6 (2%) 53 35	82, 93, 104, 109	0
35	1d	208/208 (100%)	0.26	3 (1%) 73 54	57, 80, 93, 98	0
35	2d	208/208 (100%)	0.27	3 (1%) 73 54	61, 81, 94, 103	0
36	1e	148/148 (100%)	-0.29	1 (0%) 84 69	45, 69, 83, 94	0
36	2e	148/148 (100%)	-0.07	0 100 100	50, 72, 85, 100	0
37	1f	100/100 (100%)	-0.25	0 100 100	52, 71, 81, 86	0
37	2f	100/100 (100%)	-0.18	0 100 100	54, 71, 84, 88	0
38	1g	155/155 (100%)	-0.09	0 100 100	72, 84, 95, 105	0
38	2g	155/155 (100%)	0.14	2 (1%) 75 55	78, 88, 98, 106	0
39	1h	137/137 (100%)	-0.12	2 (1%) 72 52	50, 69, 79, 87	0
39	2h	137/137 (100%)	0.08	3 (2%) 62 42	56, 73, 82, 94	0
40	1i	127/127 (100%)	0.52	5 (3%) 43 27	68, 96, 105, 108	0
40	2i	127/127 (100%)	0.76	11 (8%) 16 11	77, 99, 108, 112	0
41	1j	97/97 (100%)	0.59	4 (4%) 41 25	75, 97, 107, 113	0
41	2j	97/97 (100%)	0.75	9 (9%) 14 9	81, 100, 109, 112	0
42	1k	114/114 (100%)	-0.40	0 100 100	39, 64, 81, 90	0
42	2k	114/114 (100%)	-0.10	1 (0%) 81 64	52, 71, 85, 98	0
43	1l	121/122 (99%)	-0.10	2 (1%) 69 49	42, 61, 77, 87	0
43	2l	121/122 (99%)	0.06	1 (0%) 82 67	50, 66, 79, 88	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	1m	116/116 (100%)	0.01	1 (0%) 81 64	71, 89, 97, 99	0
44	2m	116/116 (100%)	0.62	8 (6%) 23 14	79, 97, 104, 109	0
45	1n	60/60 (100%)	0.61	3 (5%) 34 22	70, 86, 94, 100	0
45	2n	60/60 (100%)	0.83	5 (8%) 17 11	82, 92, 100, 102	0
46	1o	88/88 (100%)	-0.07	1 (1%) 78 61	46, 66, 83, 91	0
46	2o	88/88 (100%)	-0.15	0 100 100	52, 68, 88, 93	0
47	1p	82/82 (100%)	0.24	1 (1%) 76 58	64, 78, 92, 100	0
47	2p	82/82 (100%)	0.41	3 (3%) 45 28	65, 75, 91, 101	0
48	1q	99/99 (100%)	0.15	2 (2%) 65 45	52, 68, 79, 84	0
48	2q	99/99 (100%)	0.06	1 (1%) 79 63	53, 69, 81, 86	0
49	1r	68/68 (100%)	-0.35	0 100 100	53, 66, 81, 91	0
49	2r	68/68 (100%)	-0.25	0 100 100	54, 69, 86, 94	0
50	1s	83/83 (100%)	0.42	1 (1%) 76 58	78, 94, 102, 108	0
50	2s	83/83 (100%)	0.85	7 (8%) 17 11	84, 101, 111, 116	0
51	1t	96/96 (100%)	0.31	4 (4%) 40 25	65, 76, 90, 95	0
51	2t	96/96 (100%)	0.24	4 (4%) 40 25	60, 75, 90, 93	0
52	1u	23/23 (100%)	0.86	2 (8%) 16 11	78, 84, 90, 94	0
52	2u	23/23 (100%)	1.35	5 (21%) 2 2	82, 90, 97, 99	0
53	1y	22/22 (100%)	0.62	4 (18%) 3 3	16, 39, 78, 90	0
54	1z	97/97 (100%)	0.01	2 (2%) 63 43	52, 63, 79, 84	0
54	2z	97/97 (100%)	0.65	6 (6%) 26 17	63, 75, 85, 93	0
All	All	20796/20916 (99%)	-0.38	249 (1%) 76 58	8, 58, 104, 143	0

All (249) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	1A	1087	G	9.4
1	1A	1081	U	7.7
1	1A	1089	G	6.9
1	1A	1077	A	6.3
40	2i	128	ARG	6.3
32	2a	1036	G	6.1
1	1A	1092	C	6.0
1	1A	1091	G	6.0
23	21	2	SER	5.9

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Mol	Chain	Res	Type	RSRZ
1	1A	1080	C	5.9
40	1i	106	ALA	5.7
51	2t	9	ASN	5.6
1	1A	1088	A	5.5
54	2z	98	ALA	5.3
1	1A	1082	U	5.3
1	1A	1090	U	5.0
1	1A	1079	C	4.9
1	1A	1074	G	4.6
29	27	48	LYS	4.5
1	1A	1072	C	4.5
1	1A	1076	C	4.4
1	2A	1076	C	4.4
23	11	2	SER	4.4
1	1A	1078	U	4.3
53	1y	17	PRO	4.3
1	1A	1067	A	4.3
1	1A	1066	U	4.3
1	1A	1086	A	4.2
32	2a	1028	C	4.2
1	1A	1064	C	4.1
1	1A	1075	C	4.1
1	1A	1103	A	4.0
1	1A	1083	U	4.0
1	1A	1104	C	3.9
20	1Y	1	MET	3.9
1	1A	1102	C	3.9
24	12	70	GLN	3.9
8	2I	108	THR	3.8
8	2I	77	LEU	3.8
53	1y	22	PRO	3.8
51	1t	103	GLY	3.8
45	2n	2	ALA	3.7
41	2j	47	PHE	3.7
8	2I	107	VAL	3.7
40	1i	128	ARG	3.7
54	2z	97	ALA	3.6
51	2t	103	GLY	3.5
54	1z	98	ALA	3.5
51	1t	10	LEU	3.5
32	1a	1036	G	3.4
32	2a	1030(B)	C	3.3

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Mol	Chain	Res	Type	RSRZ
38	2g	9	VAL	3.3
41	1j	10	GLY	3.3
8	2I	111	PRO	3.3
44	2m	2	ALA	3.3
40	2i	126	SER	3.3
54	1z	95	ARG	3.3
1	1A	1093	G	3.3
1	2A	2896	C	3.2
32	2a	1257	U	3.2
40	2i	109	VAL	3.2
41	2j	62	HIS	3.2
41	2j	63	PHE	3.2
1	1A	1071	G	3.1
32	2a	79	G	3.1
40	2i	127	LYS	3.1
35	2d	157	LEU	3.1
1	1A	1063	G	3.1
32	2a	1037	C	3.0
40	1i	46	ALA	3.0
39	2h	131	GLY	3.0
33	2b	70	PHE	3.0
41	1j	76	ASN	3.0
44	2m	93	ARG	2.9
50	2s	27	GLU	2.9
47	2p	82	GLN	2.9
1	2A	275	G	2.9
48	1q	93	GLN	2.9
34	2c	158	GLY	2.9
33	2b	163	PHE	2.9
14	2S	20	ARG	2.9
1	2A	1087	G	2.9
32	2a	1030(A)	G	2.9
48	1q	7	THR	2.9
1	2A	2148	G	2.9
32	2a	78	G	2.9
32	2a	1027	C	2.8
26	14	52	THR	2.8
8	2I	147	GLN	2.8
1	2A	2156	G	2.8
48	2q	24	GLU	2.8
50	2s	9	VAL	2.8
40	2i	14	VAL	2.8

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Mol	Chain	Res	Type	RSRZ
33	1b	214	ILE	2.8
42	2k	13	GLN	2.8
52	2u	7	ARG	2.8
3	2D	276	LYS	2.8
40	2i	102	LEU	2.8
1	1A	548	A	2.8
15	1T	130	ALA	2.8
44	1m	115	LYS	2.7
53	1y	21	PRO	2.7
50	2s	12	ASP	2.7
44	2m	102	ARG	2.7
39	2h	112	LEU	2.7
1	2A	2802	G	2.7
1	1A	1084	A	2.7
1	2A	2176	A	2.7
32	1a	1286	A	2.7
45	1n	2	ALA	2.7
41	2j	76	ASN	2.7
34	2c	2	GLY	2.7
1	2A	2165	G	2.7
32	2a	1029	C	2.6
1	2A	2124	G	2.6
1	2A	2125	G	2.6
32	1a	1030(C)	G	2.6
4	1E	163	GLU	2.6
35	1d	21	LEU	2.6
1	2A	2155	G	2.6
33	1b	187	LEU	2.6
35	1d	11	LEU	2.6
40	2i	110	GLU	2.6
44	2m	66	LEU	2.5
45	1n	16	PHE	2.5
1	1A	1057	A	2.5
1	2A	2147	G	2.5
22	20	74	ARG	2.5
33	2b	101	MET	2.5
1	2A	2169	A	2.5
32	2a	1202	G	2.5
51	1t	11	SER	2.5
1	2A	1064	C	2.5
20	2Y	1	MET	2.5
54	2z	35	ILE	2.4

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Mol	Chain	Res	Type	RSRZ
32	1a	1035	A	2.4
32	1a	1030(B)	C	2.4
44	2m	87	TYR	2.4
41	1j	66	ARG	2.4
47	2p	59	TRP	2.4
1	2A	888	C	2.4
1	2A	2108	C	2.4
1	2A	2140	C	2.4
32	1a	1030(A)	G	2.4
32	1a	1031	G	2.4
21	2Z	203	GLU	2.4
46	1o	3	ILE	2.4
34	1c	196	LEU	2.4
34	2c	5	ILE	2.4
47	2p	3	LYS	2.4
50	2s	71	LEU	2.4
1	1A	2117	A	2.4
41	2j	33	GLN	2.3
34	2c	207	VAL	2.3
1	2A	548	A	2.3
44	2m	100	GLY	2.3
41	2j	32	ALA	2.3
34	1c	193	TYR	2.3
45	2n	21	TYR	2.3
1	2A	2139	C	2.3
44	2m	90	LEU	2.3
31	29	37	GLY	2.3
45	2n	13	THR	2.3
53	1y	19	PHE	2.3
41	2j	59	SER	2.3
40	2i	66	ARG	2.3
21	2Z	192	ALA	2.3
1	2A	34	C	2.3
35	1d	4	TYR	2.3
45	2n	34	TYR	2.3
52	2u	6	ARG	2.3
15	1T	131	ALA	2.2
39	2h	2	LEU	2.2
8	2I	93	THR	2.2
52	1u	24	ARG	2.2
50	1s	13	ASP	2.2
50	2s	2	PRO	2.2

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Mol	Chain	Res	Type	RSRZ
1	2A	2160	G	2.2
1	2A	2168	G	2.2
3	1D	275	LYS	2.2
50	2s	68	GLY	2.2
19	2X	68	ARG	2.2
54	2z	2	THR	2.2
39	1h	95	VAL	2.2
1	1A	275	G	2.2
6	2G	163	ALA	2.2
45	1n	5	ALA	2.2
52	2u	23	PRO	2.2
32	1a	1030	C	2.2
33	2b	97	TRP	2.2
41	1j	32	ALA	2.2
36	1e	22	GLY	2.2
1	2A	2126	A	2.2
32	2a	1035	A	2.2
1	1A	1058	G	2.2
1	1A	2805	G	2.2
1	2A	2162	G	2.2
34	1c	207	VAL	2.1
43	1l	47	LYS	2.1
51	2t	10	LEU	2.1
1	2A	2110	G	2.1
15	2T	131	ALA	2.1
33	2b	99	GLY	2.1
34	2c	155	GLY	2.1
32	2a	999	C	2.1
43	2l	99	HIS	2.1
1	2A	2109	U	2.1
51	2t	14	LYS	2.1
52	2u	24	ARG	2.1
47	1p	82	GLN	2.1
51	1t	18	GLN	2.1
21	1Z	193	GLU	2.1
26	14	59	PHE	2.1
1	1A	2108	C	2.1
1	2A	2174	C	2.1
52	1u	14	TRP	2.1
39	1h	133	LEU	2.1
52	2u	8	THR	2.1
44	2m	6	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
34	2c	90	GLU	2.1
41	2j	37	PRO	2.1
1	2A	229	A	2.1
3	1D	276	LYS	2.1
40	1i	107	ARG	2.1
54	2z	81	LEU	2.1
50	2s	13	ASP	2.1
1	1A	2803	C	2.1
1	2A	2803	C	2.1
32	2a	378	G	2.1
26	24	54	GLY	2.1
25	13	2	PRO	2.1
35	2d	179	GLU	2.1
43	1l	126	LYS	2.0
40	2i	81	ILE	2.0
1	1A	1085	A	2.0
1	2A	2170	A	2.0
40	2i	15	ALA	2.0
45	2n	5	ALA	2.0
1	2A	2107	C	2.0
40	1i	127	LYS	2.0
19	1X	95	LEU	2.0
33	2b	137	ARG	2.0
41	2j	75	ILE	2.0
32	2a	1000	U	2.0
54	2z	21	ALA	2.0
35	2d	54	TYR	2.0
38	2g	82	GLY	2.0
40	2i	11	LYS	2.0
8	2I	101	LEU	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
32	2MG	2a	1207	24/25	0.84	0.10	91,98,105,108	0
32	PSU	2a	516	20/21	0.86	0.11	72,81,90,91	0
1	5MU	2A	1915	21/22	0.87	0.07	86,95,109,116	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
1	5MU	1A	1915	21/22	0.89	0.09	81,89,96,98	0
1	PSU	2A	1917	20/21	0.90	0.06	76,81,94,98	0
1	PSU	2A	1911	20/21	0.90	0.07	65,72,79,80	0
32	PSU	1a	516	20/21	0.90	0.09	69,78,82,84	0
1	PSU	1A	1911	20/21	0.91	0.08	64,69,74,74	0
32	7MG	2a	527	24/25	0.91	0.12	61,66,74,77	0
1	PSU	1A	1917	20/21	0.91	0.07	61,75,81,85	0
32	M2G	2a	966	25/26	0.92	0.10	65,73,81,86	0
32	5MC	2a	967	21/22	0.92	0.10	65,74,83,89	0
32	2MG	1a	1207	24/25	0.92	0.07	82,91,97,98	0
1	4OC	2A	1920	21/23	0.93	0.08	55,67,70,73	0
32	5MC	2a	1400	21/22	0.93	0.11	64,68,73,77	0
32	M2G	1a	966	25/26	0.94	0.08	56,64,75,80	0
32	5MC	1a	967	21/22	0.94	0.09	61,69,81,82	0
32	7MG	1a	527	24/25	0.94	0.10	52,56,64,67	0
32	5MC	1a	1400	21/22	0.94	0.09	51,55,58,60	0
32	4OC	1a	1402	22/23	0.94	0.09	51,55,61,63	0
32	UR3	1a	1498	21/22	0.95	0.08	39,50,58,61	0
43	0TD	1l	92	10/11	0.95	0.09	64,66,69,72	0
32	4OC	2a	1402	22/23	0.95	0.08	56,59,64,70	0
32	5MC	2a	1404	21/22	0.95	0.08	47,54,61,64	0
32	5MC	2a	1407	21/22	0.95	0.07	50,59,65,66	0
1	2MA	2A	2503	23/24	0.96	0.08	19,23,26,34	0
1	4OC	1A	1920	21/23	0.96	0.07	47,60,68,69	0
32	5MC	1a	1404	21/22	0.96	0.07	42,50,53,57	0
32	5MC	1a	1407	21/22	0.96	0.08	38,55,60,63	0
1	5MC	2A	1962	21/22	0.96	0.07	32,41,48,55	0
32	UR3	2a	1498	21/22	0.96	0.08	47,52,58,61	0
32	MA6	2a	1518	24/25	0.96	0.08	43,53,58,61	0
43	0TD	2l	92	10/11	0.96	0.08	64,71,79,83	0
1	OMG	1A	2251	24/25	0.97	0.07	17,21,27,28	0
1	OMG	2A	2251	24/25	0.97	0.07	29,34,37,43	0
1	5MC	1A	1942	21/22	0.97	0.06	19,27,30,36	0
1	PSU	2A	2605	20/21	0.97	0.07	21,28,33,36	0
32	MA6	1a	1518	24/25	0.97	0.07	36,42,45,48	0
1	5MC	1A	1962	21/22	0.97	0.07	25,29,32,41	0
1	5MU	2A	1939	21/22	0.97	0.07	26,31,36,40	0
32	MA6	2a	1519	24/25	0.97	0.11	44,51,54,55	0
1	5MC	2A	1942	21/22	0.97	0.05	37,44,48,50	0
1	2MA	1A	2503	23/24	0.98	0.06	7,11,12,12	0
1	2MU	1A	2552	21/23	0.98	0.07	15,19,22,25	0
32	MA6	1a	1519	24/25	0.98	0.06	34,40,44,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
1	2MU	2A	2552	21/23	0.98	0.05	24,29,32,34	0
1	PSU	1A	2605	20/21	0.98	0.06	11,17,22,26	0
1	5MU	1A	1939	21/22	0.98	0.06	14,22,25,27	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
55	MG	2B	3016	1/1	0.01	0.34	85,85,85,85	0
55	MG	2H	8001	1/1	0.08	0.14	93,93,93,93	0
55	MG	2B	3014	1/1	0.14	0.22	76,76,76,76	0
55	MG	2A	3784	1/1	0.16	0.17	86,86,86,86	0
55	MG	2a	1747	1/1	0.20	0.26	106,106,106,106	0
55	MG	2a	1643	1/1	0.25	0.28	86,86,86,86	0
55	MG	2a	1796	1/1	0.25	0.15	95,95,95,95	0
55	MG	2A	3907	1/1	0.30	0.22	56,56,56,56	0
55	MG	2A	3764	1/1	0.32	0.17	70,70,70,70	0
55	MG	2a	1619	1/1	0.34	0.35	95,95,95,95	0
55	MG	2a	1724	1/1	0.34	0.27	96,96,96,96	0
55	MG	2A	3260	1/1	0.35	0.16	94,94,94,94	0
55	MG	2A	3279	1/1	0.38	0.11	83,83,83,83	0
55	MG	2a	1658	1/1	0.39	0.16	83,83,83,83	0
55	MG	2z	101	1/1	0.41	0.36	111,111,111,111	0
55	MG	2a	1617	1/1	0.42	0.35	83,83,83,83	0
55	MG	2B	3006	1/1	0.43	0.20	64,64,64,64	0
55	MG	1a	1752	1/1	0.43	0.25	86,86,86,86	0
55	MG	1A	3528	1/1	0.43	0.53	31,31,31,31	0
55	MG	1a	1763	1/1	0.45	0.20	91,91,91,91	0
55	MG	1a	1661	1/1	0.46	0.41	67,67,67,67	0
55	MG	2A	3515	1/1	0.47	0.26	68,68,68,68	0
55	MG	1A	3553	1/1	0.47	0.52	37,37,37,37	0
55	MG	2A	3945	1/1	0.47	0.20	81,81,81,81	0
55	MG	2A	3142	1/1	0.50	0.22	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3801	1/1	0.50	0.18	83,83,83,83	0
55	MG	2a	1779	1/1	0.51	0.20	92,92,92,92	0
55	MG	1A	3584	1/1	0.51	0.85	32,32,32,32	0
55	MG	2A	3734	1/1	0.51	0.17	81,81,81,81	0
55	MG	1A	3809	1/1	0.52	0.17	63,63,63,63	0
55	MG	2A	3146	1/1	0.53	0.25	68,68,68,68	0
55	MG	2B	3026	1/1	0.53	0.12	83,83,83,83	0
55	MG	2A	3259	1/1	0.54	0.12	82,82,82,82	0
55	MG	2A	3680	1/1	0.54	0.12	53,53,53,53	0
55	MG	2A	3923	1/1	0.54	0.26	83,83,83,83	0
55	MG	2A	3419	1/1	0.55	0.17	60,60,60,60	0
55	MG	2A	3567	1/1	0.56	0.28	53,53,53,53	0
55	MG	2a	1739	1/1	0.57	0.45	82,82,82,82	0
55	MG	2a	1806	1/1	0.58	0.22	84,84,84,84	0
55	MG	1a	1813	1/1	0.58	0.19	76,76,76,76	0
55	MG	2A	3929	1/1	0.59	0.26	58,58,58,58	0
55	MG	2a	1676	1/1	0.60	0.18	102,102,102,102	0
55	MG	1A	3480	1/1	0.60	0.24	45,45,45,45	0
55	MG	2A	3626	1/1	0.62	0.11	64,64,64,64	0
55	MG	2a	1635	1/1	0.62	0.35	63,63,63,63	0
55	MG	2A	3370	1/1	0.62	0.18	76,76,76,76	0
55	MG	2A	3022	1/1	0.62	0.18	49,49,49,49	0
55	MG	2A	3487	1/1	0.63	0.20	52,52,52,52	0
55	MG	1n	502	1/1	0.63	0.15	74,74,74,74	0
55	MG	2a	1613	1/1	0.63	0.16	72,72,72,72	0
55	MG	2a	1834	1/1	0.63	0.19	76,76,76,76	0
55	MG	2A	3007	1/1	0.63	0.22	59,59,59,59	0
55	MG	2A	3710	1/1	0.64	0.18	40,40,40,40	0
55	MG	1a	1753	1/1	0.64	0.21	81,81,81,81	0
55	MG	2A	3595	1/1	0.65	0.12	79,79,79,79	0
55	MG	1a	1835	1/1	0.65	0.10	81,81,81,81	0
55	MG	2a	1748	1/1	0.65	0.24	71,71,71,71	0
55	MG	1A	3562	1/1	0.65	0.24	63,63,63,63	0
55	MG	2a	1646	1/1	0.66	0.17	76,76,76,76	0
55	MG	2A	3176	1/1	0.66	0.23	81,81,81,81	0
55	MG	2a	1835	1/1	0.66	0.22	87,87,87,87	0
55	MG	2A	3811	1/1	0.66	0.14	65,65,65,65	0
55	MG	2A	3513	1/1	0.67	0.15	66,66,66,66	0
55	MG	1a	1845	1/1	0.67	0.31	107,107,107,107	0
55	MG	2A	3332	1/1	0.67	0.15	61,61,61,61	0
55	MG	2A	3241	1/1	0.67	0.22	72,72,72,72	0
55	MG	1a	1721	1/1	0.67	0.22	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3488	1/1	0.67	0.22	54,54,54,54	0
55	MG	2D	315	1/1	0.67	0.11	60,60,60,60	0
55	MG	2a	1663	1/1	0.67	0.26	86,86,86,86	0
55	MG	2a	1664	1/1	0.67	0.18	80,80,80,80	0
55	MG	2i	3001	1/1	0.67	0.14	73,73,73,73	0
55	MG	2A	3694	1/1	0.67	0.20	75,75,75,75	0
55	MG	2A	3888	1/1	0.68	0.21	63,63,63,63	0
55	MG	2A	3623	1/1	0.68	0.12	54,54,54,54	0
55	MG	2G	3001	1/1	0.68	0.10	92,92,92,92	0
55	MG	2a	1842	1/1	0.68	0.29	71,71,71,71	0
55	MG	1a	1663	1/1	0.68	0.19	86,86,86,86	0
55	MG	1B	217	1/1	0.68	0.17	57,57,57,57	0
55	MG	1a	1615	1/1	0.69	0.14	72,72,72,72	0
55	MG	1a	1723	1/1	0.69	0.19	55,55,55,55	0
55	MG	2A	3402	1/1	0.69	0.13	47,47,47,47	0
55	MG	1A	3660	1/1	0.69	0.16	55,55,55,55	0
55	MG	2B	3017	1/1	0.69	0.12	68,68,68,68	0
55	MG	1A	3512	1/1	0.69	0.21	59,59,59,59	0
55	MG	1a	1669	1/1	0.69	0.20	61,61,61,61	0
55	MG	2a	1828	1/1	0.69	0.12	90,90,90,90	0
55	MG	2a	1662	1/1	0.69	0.28	90,90,90,90	0
55	MG	1a	1681	1/1	0.69	0.17	59,59,59,59	0
55	MG	2a	1838	1/1	0.69	0.13	111,111,111,111	0
55	MG	2A	3727	1/1	0.69	0.24	67,67,67,67	0
55	MG	2H	8002	1/1	0.69	0.30	90,90,90,90	0
55	MG	2a	1680	1/1	0.69	0.12	82,82,82,82	0
55	MG	1a	1740	1/1	0.70	0.10	81,81,81,81	0
55	MG	1A	3047	1/1	0.70	0.17	31,31,31,31	0
55	MG	2A	3788	1/1	0.70	0.08	94,94,94,94	0
55	MG	1A	3085	1/1	0.70	0.13	32,32,32,32	0
55	MG	2a	1754	1/1	0.71	0.15	104,104,104,104	0
55	MG	2A	3061	1/1	0.71	0.15	39,39,39,39	0
55	MG	1A	3912	1/1	0.71	0.18	35,35,35,35	0
55	MG	2a	1801	1/1	0.71	0.08	86,86,86,86	0
55	MG	2A	3701	1/1	0.71	0.15	60,60,60,60	0
55	MG	2A	3299	1/1	0.71	0.10	44,44,44,44	0
55	MG	2A	3559	1/1	0.71	0.32	63,63,63,63	0
55	MG	1a	1670	1/1	0.71	0.25	55,55,55,55	0
55	MG	1a	1618	1/1	0.71	0.30	89,89,89,89	0
55	MG	1A	3864	1/1	0.71	0.16	51,51,51,51	0
55	MG	1Q	203	1/1	0.71	0.19	40,40,40,40	0
55	MG	2A	3628	1/1	0.71	0.20	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3599	1/1	0.72	0.11	52,52,52,52	0
55	MG	2A	3036	1/1	0.72	0.26	49,49,49,49	0
55	MG	2a	1787	1/1	0.72	0.13	66,66,66,66	0
55	MG	1A	3170	1/1	0.72	0.30	62,62,62,62	0
55	MG	2Y	201	1/1	0.72	0.34	61,61,61,61	0
55	MG	2a	1666	1/1	0.72	0.19	68,68,68,68	0
55	MG	2A	3800	1/1	0.72	0.26	73,73,73,73	0
55	MG	2a	1830	1/1	0.72	0.18	119,119,119,119	0
55	MG	2A	3721	1/1	0.72	0.18	47,47,47,47	0
55	MG	2A	3885	1/1	0.72	0.15	67,67,67,67	0
55	MG	2a	1730	1/1	0.72	0.12	81,81,81,81	0
55	MG	1A	3252	1/1	0.72	0.66	41,41,41,41	0
55	MG	1a	1746	1/1	0.72	0.10	55,55,55,55	0
55	MG	2A	3917	1/1	0.72	0.17	71,71,71,71	0
55	MG	1A	3669	1/1	0.73	0.16	47,47,47,47	0
55	MG	2D	317	1/1	0.73	0.20	61,61,61,61	0
55	MG	2A	3911	1/1	0.73	0.56	53,53,53,53	0
55	MG	1a	1779	1/1	0.73	0.10	81,81,81,81	0
55	MG	2A	3753	1/1	0.73	0.17	41,41,41,41	0
55	MG	1a	1647	1/1	0.73	0.19	65,65,65,65	0
55	MG	1a	1608	1/1	0.73	0.09	74,74,74,74	0
55	MG	1a	1837	1/1	0.73	0.12	93,93,93,93	0
55	MG	2A	3319	1/1	0.73	0.16	81,81,81,81	0
55	MG	1a	1685	1/1	0.73	0.34	55,55,55,55	0
55	MG	2A	3591	1/1	0.73	0.16	50,50,50,50	0
55	MG	1A	3664	1/1	0.73	0.13	31,31,31,31	0
55	MG	2l	3002	1/1	0.73	0.13	70,70,70,70	0
55	MG	2o	101	1/1	0.73	0.27	66,66,66,66	0
55	MG	2a	1647	1/1	0.73	0.25	67,67,67,67	0
55	MG	1A	3718	1/1	0.74	0.12	58,58,58,58	0
55	MG	1a	1755	1/1	0.74	0.10	76,76,76,76	0
55	MG	1A	3270	1/1	0.74	0.33	43,43,43,43	0
55	MG	1A	3865	1/1	0.74	0.13	48,48,48,48	0
55	MG	2a	1621	1/1	0.74	0.07	82,82,82,82	0
55	MG	2A	3378	1/1	0.74	0.14	72,72,72,72	0
55	MG	17	101	1/1	0.74	0.35	34,34,34,34	0
55	MG	1a	1828	1/1	0.74	0.11	74,74,74,74	0
55	MG	2A	3608	1/1	0.74	0.13	48,48,48,48	0
55	MG	2A	3469	1/1	0.74	0.21	58,58,58,58	0
55	MG	2a	1769	1/1	0.74	0.17	83,83,83,83	0
55	MG	1a	1602	1/1	0.74	0.22	78,78,78,78	0
55	MG	2A	3768	1/1	0.74	0.13	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	1717	1/1	0.75	0.19	90,90,90,90	0
55	MG	2G	3002	1/1	0.75	0.14	71,71,71,71	0
55	MG	1A	3934	1/1	0.75	0.17	67,67,67,67	0
55	MG	1B	211	1/1	0.75	0.27	58,58,58,58	0
55	MG	2a	1745	1/1	0.75	0.18	70,70,70,70	0
55	MG	1A	3503	1/1	0.75	0.16	60,60,60,60	0
55	MG	1a	1754	1/1	0.75	0.19	66,66,66,66	0
55	MG	1D	303	1/1	0.75	0.44	27,27,27,27	0
55	MG	2a	1618	1/1	0.75	0.17	96,96,96,96	0
55	MG	1a	1732	1/1	0.75	0.16	75,75,75,75	0
55	MG	2A	3612	1/1	0.75	0.20	65,65,65,65	0
55	MG	1A	3717	1/1	0.75	0.19	29,29,29,29	0
55	MG	2A	3503	1/1	0.76	0.14	62,62,62,62	0
55	MG	2a	1808	1/1	0.76	0.08	76,76,76,76	0
55	MG	1a	1644	1/1	0.76	0.19	70,70,70,70	0
55	MG	2A	3703	1/1	0.76	0.23	56,56,56,56	0
55	MG	2A	3777	1/1	0.76	0.15	63,63,63,63	0
55	MG	2A	3915	1/1	0.76	0.20	70,70,70,70	0
55	MG	2A	3594	1/1	0.76	1.04	43,43,43,43	0
55	MG	1A	3481	1/1	0.76	0.12	56,56,56,56	0
55	MG	2a	1782	1/1	0.76	0.09	79,79,79,79	0
55	MG	2A	3596	1/1	0.76	0.11	68,68,68,68	0
55	MG	1A	3602	1/1	0.76	0.20	46,46,46,46	0
55	MG	2A	3872	1/1	0.76	0.11	71,71,71,71	0
55	MG	2a	1805	1/1	0.77	0.21	66,66,66,66	0
55	MG	1a	1842	1/1	0.77	0.15	56,56,56,56	0
55	MG	2A	3776	1/1	0.77	0.21	69,69,69,69	0
55	MG	1A	3256	1/1	0.77	0.07	68,68,68,68	0
55	MG	1A	3264	1/1	0.77	0.15	58,58,58,58	0
55	MG	1A	3723	1/1	0.77	0.19	63,63,63,63	0
55	MG	2A	3492	1/1	0.77	0.49	41,41,41,41	0
55	MG	2A	3803	1/1	0.77	0.12	83,83,83,83	0
55	MG	2A	3331	1/1	0.77	0.21	46,46,46,46	0
55	MG	2A	3236	1/1	0.77	0.09	91,91,91,91	0
55	MG	2A	3365	1/1	0.77	0.15	72,72,72,72	0
55	MG	1A	3782	1/1	0.77	0.13	60,60,60,60	0
55	MG	1a	1750	1/1	0.77	0.10	68,68,68,68	0
55	MG	2z	102	1/1	0.77	0.17	78,78,78,78	0
55	MG	1A	3325	1/1	0.78	0.18	29,29,29,29	0
55	MG	2B	3008	1/1	0.78	0.18	69,69,69,69	0
55	MG	2a	1624	1/1	0.78	0.25	62,62,62,62	0
55	MG	2a	1773	1/1	0.78	0.14	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	1778	1/1	0.78	0.16	63,63,63,63	0
55	MG	1a	1724	1/1	0.78	0.28	70,70,70,70	0
55	MG	2a	1642	1/1	0.78	0.23	80,80,80,80	0
55	MG	1A	3589	1/1	0.78	0.13	72,72,72,72	0
55	MG	2A	3867	1/1	0.78	0.08	58,58,58,58	0
55	MG	2A	3326	1/1	0.78	0.07	54,54,54,54	0
55	MG	2A	3495	1/1	0.78	0.10	42,42,42,42	0
55	MG	1A	3238	1/1	0.78	0.16	20,20,20,20	0
55	MG	2E	303	1/1	0.78	0.37	37,37,37,37	0
55	MG	2A	3200	1/1	0.78	0.26	41,41,41,41	0
55	MG	1A	3617	1/1	0.78	0.10	54,54,54,54	0
55	MG	2a	1832	1/1	0.78	0.15	83,83,83,83	0
55	MG	1a	1789	1/1	0.78	0.12	117,117,117,117	0
55	MG	2A	3677	1/1	0.78	0.10	48,48,48,48	0
55	MG	1a	1720	1/1	0.78	0.22	79,79,79,79	0
55	MG	20	102	1/1	0.78	0.09	66,66,66,66	0
55	MG	2a	1603	1/1	0.78	0.09	93,93,93,93	0
55	MG	2A	3683	1/1	0.78	0.11	57,57,57,57	0
55	MG	1A	3274	1/1	0.78	0.16	79,79,79,79	0
55	MG	2a	1746	1/1	0.78	0.14	87,87,87,87	0
55	MG	2B	3005	1/1	0.78	0.09	74,74,74,74	0
55	MG	23	102	1/1	0.79	0.30	59,59,59,59	0
55	MG	1A	3255	1/1	0.79	0.13	57,57,57,57	0
55	MG	1A	3556	1/1	0.79	0.45	34,34,34,34	0
55	MG	2A	3116	1/1	0.79	0.18	45,45,45,45	0
55	MG	1a	1616	1/1	0.79	0.24	75,75,75,75	0
55	MG	2A	3939	1/1	0.79	0.30	53,53,53,53	0
55	MG	1A	3903	1/1	0.79	0.15	36,36,36,36	0
55	MG	2A	3765	1/1	0.79	0.10	67,67,67,67	0
55	MG	2A	3153	1/1	0.79	0.12	52,52,52,52	0
55	MG	2A	3174	1/1	0.79	0.24	36,36,36,36	0
55	MG	2B	3010	1/1	0.79	0.23	70,70,70,70	0
55	MG	1A	3673	1/1	0.79	0.26	40,40,40,40	0
55	MG	1A	3699	1/1	0.79	0.13	47,47,47,47	0
55	MG	1A	3122	1/1	0.79	0.17	39,39,39,39	0
55	MG	1A	3313	1/1	0.79	0.13	41,41,41,41	0
55	MG	2a	1809	1/1	0.79	0.10	68,68,68,68	0
55	MG	1A	3002	1/1	0.79	0.12	49,49,49,49	0
55	MG	1d	303	1/1	0.79	0.18	59,59,59,59	0
55	MG	1A	3328	1/1	0.79	0.14	45,45,45,45	0
55	MG	1A	3455	1/1	0.79	0.16	89,89,89,89	0
55	MG	2A	3521	1/1	0.79	0.11	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	1682	1/1	0.79	0.27	73,73,73,73	0
55	MG	2A	3557	1/1	0.79	0.23	77,77,77,77	0
55	MG	2A	3706	1/1	0.79	0.16	70,70,70,70	0
55	MG	2Q	203	1/1	0.79	0.24	51,51,51,51	0
55	MG	1A	3532	1/1	0.79	0.21	68,68,68,68	0
55	MG	2a	1741	1/1	0.79	0.10	66,66,66,66	0
55	MG	2A	3912	1/1	0.79	0.32	38,38,38,38	0
55	MG	1a	1677	1/1	0.80	0.14	102,102,102,102	0
55	MG	1B	209	1/1	0.80	0.07	41,41,41,41	0
55	MG	15	101	1/1	0.80	0.50	19,19,19,19	0
55	MG	1a	1705	1/1	0.80	0.15	48,48,48,48	0
55	MG	2a	1655	1/1	0.80	0.29	62,62,62,62	0
55	MG	2A	3731	1/1	0.80	0.11	65,65,65,65	0
55	MG	1A	3262	1/1	0.80	0.24	44,44,44,44	0
55	MG	2G	3003	1/1	0.80	0.15	66,66,66,66	0
55	MG	1a	1656	1/1	0.80	0.17	71,71,71,71	0
55	MG	2A	3491	1/1	0.80	0.17	38,38,38,38	0
55	MG	1A	3778	1/1	0.80	0.28	46,46,46,46	0
55	MG	1a	1778	1/1	0.80	0.19	92,92,92,92	0
55	MG	2A	3931	1/1	0.80	0.75	63,63,63,63	0
55	MG	1B	204	1/1	0.80	0.21	63,63,63,63	0
55	MG	2A	3650	1/1	0.80	0.14	71,71,71,71	0
55	MG	2A	3051	1/1	0.80	0.22	51,51,51,51	0
55	MG	2a	1738	1/1	0.80	0.17	83,83,83,83	0
55	MG	1F	301	1/1	0.80	0.09	17,17,17,17	0
55	MG	2A	3068	1/1	0.80	0.26	39,39,39,39	0
55	MG	1a	1791	1/1	0.80	0.16	64,64,64,64	0
55	MG	1G	3001	1/1	0.80	0.08	96,96,96,96	0
55	MG	2A	3857	1/1	0.80	0.24	47,47,47,47	0
55	MG	2a	1628	1/1	0.80	0.30	52,52,52,52	0
55	MG	1a	1742	1/1	0.80	0.12	60,60,60,60	0
55	MG	2a	1606	1/1	0.81	0.23	53,53,53,53	0
55	MG	1a	1650	1/1	0.81	0.22	59,59,59,59	0
55	MG	2a	1616	1/1	0.81	0.17	69,69,69,69	0
55	MG	1a	1811	1/1	0.81	0.09	61,61,61,61	0
55	MG	2A	3042	1/1	0.81	0.23	29,29,29,29	0
55	MG	2A	3964	1/1	0.81	0.13	42,42,42,42	0
55	MG	2A	3254	1/1	0.81	0.20	74,74,74,74	0
55	MG	2a	1763	1/1	0.81	0.08	73,73,73,73	0
55	MG	1a	1612	1/1	0.81	0.24	60,60,60,60	0
55	MG	1A	3656	1/1	0.81	0.33	36,36,36,36	0
55	MG	2A	3268	1/1	0.81	0.17	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1D	316	1/1	0.81	0.23	53,53,53,53	0
55	MG	2A	3668	1/1	0.81	0.21	44,44,44,44	0
55	MG	2a	1645	1/1	0.81	0.21	33,33,33,33	0
55	MG	1a	1668	1/1	0.81	0.21	60,60,60,60	0
55	MG	2A	3849	1/1	0.81	0.27	64,64,64,64	0
55	MG	2a	1652	1/1	0.81	0.14	43,43,43,43	0
55	MG	2A	3302	1/1	0.81	0.23	51,51,51,51	0
55	MG	2A	3520	1/1	0.81	0.14	54,54,54,54	0
55	MG	2a	1659	1/1	0.81	0.27	74,74,74,74	0
55	MG	2a	1827	1/1	0.81	0.15	77,77,77,77	0
55	MG	1D	317	1/1	0.81	0.12	38,38,38,38	0
55	MG	2A	3550	1/1	0.81	0.14	53,53,53,53	0
55	MG	1a	1730	1/1	0.81	0.16	48,48,48,48	0
55	MG	2A	3889	1/1	0.81	0.11	57,57,57,57	0
55	MG	1a	1642	1/1	0.81	0.14	89,89,89,89	0
55	MG	2A	3564	1/1	0.81	0.29	42,42,42,42	0
55	MG	1A	3731	1/1	0.81	0.16	60,60,60,60	0
55	MG	2a	1705	1/1	0.81	0.27	63,63,63,63	0
55	MG	2A	3590	1/1	0.81	0.49	43,43,43,43	0
55	MG	1A	3163	1/1	0.81	0.33	32,32,32,32	0
55	MG	2t	201	1/1	0.81	0.19	75,75,75,75	0
55	MG	2A	3187	1/1	0.81	0.15	63,63,63,63	0
55	MG	2A	3194	1/1	0.81	0.23	40,40,40,40	0
55	MG	2A	3462	1/1	0.82	0.29	59,59,59,59	0
55	MG	25	103	1/1	0.82	0.29	49,49,49,49	0
55	MG	2A	3729	1/1	0.82	0.11	66,66,66,66	0
55	MG	2A	3073	1/1	0.82	0.11	41,41,41,41	0
55	MG	2A	3473	1/1	0.82	0.11	66,66,66,66	0
55	MG	2A	3930	1/1	0.82	0.12	61,61,61,61	0
55	MG	2A	3742	1/1	0.82	0.14	52,52,52,52	0
55	MG	2A	3744	1/1	0.82	0.12	58,58,58,58	0
55	MG	2A	3086	1/1	0.82	0.18	61,61,61,61	0
55	MG	1A	3875	1/1	0.82	0.35	26,26,26,26	0
55	MG	1a	1674	1/1	0.82	0.22	68,68,68,68	0
55	MG	1A	3899	1/1	0.82	0.20	68,68,68,68	0
55	MG	1A	3112	1/1	0.82	0.25	46,46,46,46	0
55	MG	2a	1636	1/1	0.82	0.37	63,63,63,63	0
55	MG	1A	3558	1/1	0.82	0.47	19,19,19,19	0
55	MG	1A	3544	1/1	0.82	0.12	51,51,51,51	0
55	MG	2a	1789	1/1	0.82	0.27	51,51,51,51	0
55	MG	1A	3957	1/1	0.82	0.17	78,78,78,78	0
55	MG	1A	3650	1/1	0.82	0.31	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2B	3025	1/1	0.82	0.09	63,63,63,63	0
55	MG	2A	3672	1/1	0.82	0.08	65,65,65,65	0
55	MG	2A	3538	1/1	0.82	0.08	52,52,52,52	0
55	MG	2A	3047	1/1	0.82	0.19	39,39,39,39	0
55	MG	2A	3201	1/1	0.82	0.13	71,71,71,71	0
55	MG	2F	311	1/1	0.82	0.12	72,72,72,72	0
55	MG	1A	3081	1/1	0.82	0.28	41,41,41,41	0
55	MG	2A	3563	1/1	0.82	0.63	46,46,46,46	0
55	MG	1a	1631	1/1	0.82	0.13	61,61,61,61	0
55	MG	2A	3406	1/1	0.82	0.10	45,45,45,45	0
55	MG	2a	1677	1/1	0.82	0.09	68,68,68,68	0
55	MG	2A	3570	1/1	0.82	0.31	53,53,53,53	0
55	MG	2d	504	1/1	0.82	0.14	66,66,66,66	0
55	MG	1a	1838	1/1	0.82	0.12	27,27,27,27	0
55	MG	2a	1688	1/1	0.82	0.24	71,71,71,71	0
55	MG	2U	205	1/1	0.82	0.39	49,49,49,49	0
55	MG	2a	1709	1/1	0.82	0.15	102,102,102,102	0
55	MG	2A	3723	1/1	0.82	0.60	65,65,65,65	0
55	MG	2A	3726	1/1	0.82	0.19	73,73,73,73	0
55	MG	2A	3542	1/1	0.83	0.12	66,66,66,66	0
55	MG	2A	3549	1/1	0.83	0.08	65,65,65,65	0
55	MG	2A	3704	1/1	0.83	0.08	69,69,69,69	0
55	MG	2A	3126	1/1	0.83	0.10	71,71,71,71	0
55	MG	2a	1611	1/1	0.83	0.38	48,48,48,48	0
55	MG	1a	1749	1/1	0.83	0.15	68,68,68,68	0
55	MG	1A	3763	1/1	0.83	0.10	40,40,40,40	0
55	MG	2A	3150	1/1	0.83	1.27	34,34,34,34	0
55	MG	2a	1751	1/1	0.83	0.07	93,93,93,93	0
55	MG	1A	3474	1/1	0.83	0.64	18,18,18,18	0
55	MG	1A	3590	1/1	0.83	0.10	47,47,47,47	0
55	MG	1i	3001	1/1	0.83	0.21	74,74,74,74	0
55	MG	2A	3941	1/1	0.83	0.35	104,104,104,104	0
55	MG	2A	3571	1/1	0.83	0.15	50,50,50,50	0
55	MG	2A	3394	1/1	0.83	0.13	72,72,72,72	0
55	MG	1A	3229	1/1	0.83	0.07	42,42,42,42	0
55	MG	1a	1700	1/1	0.83	0.17	75,75,75,75	0
55	MG	1A	3253	1/1	0.83	0.10	59,59,59,59	0
55	MG	1a	1645	1/1	0.83	0.23	64,64,64,64	0
55	MG	1A	3621	1/1	0.83	0.13	58,58,58,58	0
55	MG	1A	3027	1/1	0.83	0.20	46,46,46,46	0
55	MG	18	3301	1/1	0.83	0.21	45,45,45,45	0
55	MG	1B	215	1/1	0.83	0.09	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	1605	1/1	0.83	0.16	60,60,60,60	0
55	MG	2A	3262	1/1	0.83	0.21	51,51,51,51	0
55	MG	2A	3643	1/1	0.83	0.28	49,49,49,49	0
55	MG	2A	3502	1/1	0.83	0.09	69,69,69,69	0
55	MG	2A	3658	1/1	0.83	0.25	45,45,45,45	0
55	MG	1A	3563	1/1	0.83	0.37	28,28,28,28	0
55	MG	2a	1675	1/1	0.83	0.21	44,44,44,44	0
55	MG	1A	3491	1/1	0.83	0.12	21,21,21,21	0
55	MG	2A	3675	1/1	0.83	0.13	63,63,63,63	0
55	MG	2A	3289	1/1	0.83	0.11	64,64,64,64	0
55	MG	2A	3874	1/1	0.83	0.20	67,67,67,67	0
55	MG	2A	3876	1/1	0.83	0.12	38,38,38,38	0
55	MG	2U	201	1/1	0.83	0.20	55,55,55,55	0
55	MG	2A	3097	1/1	0.83	0.16	69,69,69,69	0
55	MG	1D	315	1/1	0.83	0.06	68,68,68,68	0
55	MG	2A	3303	1/1	0.83	0.12	55,55,55,55	0
55	MG	1a	1770	1/1	0.84	0.17	53,53,53,53	0
55	MG	2B	3009	1/1	0.84	0.14	72,72,72,72	0
55	MG	1a	1772	1/1	0.84	0.22	71,71,71,71	0
55	MG	2A	3177	1/1	0.84	0.06	42,42,42,42	0
55	MG	2a	1631	1/1	0.84	0.26	56,56,56,56	0
55	MG	2A	3833	1/1	0.84	0.15	44,44,44,44	0
55	MG	2A	3017	1/1	0.84	0.22	36,36,36,36	0
55	MG	1a	1775	1/1	0.84	0.12	68,68,68,68	0
55	MG	2A	3025	1/1	0.84	0.28	42,42,42,42	0
55	MG	1A	3494	1/1	0.84	0.09	28,28,28,28	0
55	MG	1A	3804	1/1	0.84	0.19	26,26,26,26	0
55	MG	1F	310	1/1	0.84	0.15	18,18,18,18	0
55	MG	2A	3881	1/1	0.84	0.14	49,49,49,49	0
55	MG	1a	1733	1/1	0.84	0.21	67,67,67,67	0
55	MG	2A	3056	1/1	0.84	0.12	54,54,54,54	0
55	MG	1a	1671	1/1	0.84	0.10	49,49,49,49	0
55	MG	1B	202	1/1	0.84	0.17	52,52,52,52	0
55	MG	2A	3908	1/1	0.84	0.10	56,56,56,56	0
55	MG	1A	3640	1/1	0.84	0.23	35,35,35,35	0
55	MG	2R	202	1/1	0.84	0.15	43,43,43,43	0
55	MG	2a	1669	1/1	0.84	0.12	56,56,56,56	0
55	MG	1a	1830	1/1	0.84	0.14	56,56,56,56	0
55	MG	1A	3279	1/1	0.84	0.16	70,70,70,70	0
55	MG	2A	3508	1/1	0.84	0.09	59,59,59,59	0
55	MG	2A	3106	1/1	0.84	0.27	43,43,43,43	0
55	MG	20	104	1/1	0.84	0.10	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3687	1/1	0.84	0.10	46,46,46,46	0
55	MG	2A	3754	1/1	0.84	0.15	39,39,39,39	0
55	MG	1A	3774	1/1	0.84	0.18	54,54,54,54	0
55	MG	2g	3001	1/1	0.84	0.17	64,64,64,64	0
55	MG	2A	3644	1/1	0.84	0.23	48,48,48,48	0
55	MG	1A	3269	1/1	0.84	0.17	49,49,49,49	0
55	MG	2A	3524	1/1	0.84	0.12	74,74,74,74	0
55	MG	1A	3780	1/1	0.84	0.17	39,39,39,39	0
55	MG	1A	3907	1/1	0.84	0.38	20,20,20,20	0
55	MG	1A	3493	1/1	0.84	0.21	44,44,44,44	0
55	MG	1A	3722	1/1	0.85	0.17	49,49,49,49	0
55	MG	2A	3749	1/1	0.85	0.08	56,56,56,56	0
55	MG	2A	3504	1/1	0.85	0.48	71,71,71,71	0
55	MG	1A	3574	1/1	0.85	0.11	49,49,49,49	0
55	MG	1A	3149	1/1	0.85	0.17	15,15,15,15	0
55	MG	2A	3640	1/1	0.85	0.07	72,72,72,72	0
55	MG	2A	3149	1/1	0.85	0.27	43,43,43,43	0
55	MG	2A	3517	1/1	0.85	0.14	48,48,48,48	0
55	MG	2A	3316	1/1	0.85	0.14	32,32,32,32	0
55	MG	2A	3779	1/1	0.85	0.08	60,60,60,60	0
55	MG	2A	3781	1/1	0.85	0.54	53,53,53,53	0
55	MG	1a	1782	1/1	0.85	0.17	68,68,68,68	0
55	MG	2A	3659	1/1	0.85	0.51	45,45,45,45	0
55	MG	1G	3002	1/1	0.85	0.11	49,49,49,49	0
55	MG	2a	1638	1/1	0.85	0.17	50,50,50,50	0
55	MG	2A	3532	1/1	0.85	0.15	56,56,56,56	0
55	MG	1a	1638	1/1	0.85	0.20	30,30,30,30	0
55	MG	2A	3031	1/1	0.85	0.16	45,45,45,45	0
55	MG	1A	3466	1/1	0.85	0.10	36,36,36,36	0
55	MG	1A	3033	1/1	0.85	0.11	49,49,49,49	0
55	MG	1a	1684	1/1	0.85	0.24	44,44,44,44	0
55	MG	1A	3061	1/1	0.85	0.08	34,34,34,34	0
55	MG	2A	3396	1/1	0.85	0.20	49,49,49,49	0
55	MG	2A	3875	1/1	0.85	0.28	102,102,102,102	0
55	MG	1a	1831	1/1	0.85	0.15	66,66,66,66	0
55	MG	2A	3232	1/1	0.85	0.11	44,44,44,44	0
55	MG	2a	1822	1/1	0.85	0.07	51,51,51,51	0
55	MG	1A	3364	1/1	0.85	0.10	54,54,54,54	0
55	MG	1D	311	1/1	0.85	0.17	43,43,43,43	0
55	MG	2A	3248	1/1	0.85	0.11	44,44,44,44	0
55	MG	1A	3485	1/1	0.85	0.43	30,30,30,30	0
55	MG	1A	3514	1/1	0.85	0.11	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3515	1/1	0.85	0.26	49,49,49,49	0
55	MG	2a	1837	1/1	0.85	0.16	51,51,51,51	0
55	MG	1a	1664	1/1	0.85	0.15	67,67,67,67	0
55	MG	1d	304	1/1	0.85	0.18	68,68,68,68	0
55	MG	20	105	1/1	0.85	0.29	62,62,62,62	0
55	MG	2a	1689	1/1	0.85	0.13	63,63,63,63	0
55	MG	2a	1690	1/1	0.85	0.17	53,53,53,53	0
55	MG	2a	1694	1/1	0.85	0.15	53,53,53,53	0
55	MG	2a	1697	1/1	0.85	0.07	66,66,66,66	0
55	MG	2a	1701	1/1	0.85	0.07	84,84,84,84	0
55	MG	2A	3123	1/1	0.85	0.15	49,49,49,49	0
55	MG	2A	3743	1/1	0.85	0.14	55,55,55,55	0
55	MG	1A	3224	1/1	0.86	0.39	32,32,32,32	0
55	MG	2a	1704	1/1	0.86	0.22	63,63,63,63	0
55	MG	2A	3916	1/1	0.86	0.24	48,48,48,48	0
55	MG	1a	1611	1/1	0.86	0.12	48,48,48,48	0
55	MG	2A	3624	1/1	0.86	0.22	56,56,56,56	0
55	MG	1A	3100	1/1	0.86	0.13	43,43,43,43	0
55	MG	1a	1659	1/1	0.86	0.25	70,70,70,70	0
55	MG	2a	1607	1/1	0.86	0.21	49,49,49,49	0
55	MG	1A	3257	1/1	0.86	0.33	54,54,54,54	0
55	MG	1a	1708	1/1	0.86	0.12	63,63,63,63	0
55	MG	2A	3130	1/1	0.86	0.17	41,41,41,41	0
55	MG	2A	3132	1/1	0.86	0.12	36,36,36,36	0
55	MG	2A	3954	1/1	0.86	0.35	36,36,36,36	0
55	MG	1a	1717	1/1	0.86	0.17	49,49,49,49	0
55	MG	2B	3003	1/1	0.86	0.27	67,67,67,67	0
55	MG	1a	1662	1/1	0.86	0.09	72,72,72,72	0
55	MG	2a	1625	1/1	0.86	0.17	59,59,59,59	0
55	MG	2A	3534	1/1	0.86	0.24	43,43,43,43	0
55	MG	1A	3949	1/1	0.86	0.38	14,14,14,14	0
55	MG	2a	1774	1/1	0.86	0.08	81,81,81,81	0
55	MG	2A	3673	1/1	0.86	0.09	58,58,58,58	0
55	MG	1U	202	1/1	0.86	0.28	27,27,27,27	0
55	MG	1a	1665	1/1	0.86	0.22	75,75,75,75	0
55	MG	2B	3015	1/1	0.86	0.07	62,62,62,62	0
55	MG	2A	3806	1/1	0.86	0.64	54,54,54,54	0
55	MG	2a	1795	1/1	0.86	0.23	53,53,53,53	0
55	MG	1a	1728	1/1	0.86	0.07	69,69,69,69	0
55	MG	2A	3819	1/1	0.86	0.34	55,55,55,55	0
55	MG	1a	1667	1/1	0.86	0.25	63,63,63,63	0
55	MG	2D	308	1/1	0.86	0.20	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	1622	1/1	0.86	0.15	59,59,59,59	0
55	MG	2A	3695	1/1	0.86	0.17	39,39,39,39	0
55	MG	2A	3179	1/1	0.86	0.23	39,39,39,39	0
55	MG	2A	3032	1/1	0.86	0.16	51,51,51,51	0
55	MG	1a	1796	1/1	0.86	0.12	57,57,57,57	0
55	MG	2A	3039	1/1	0.86	0.12	45,45,45,45	0
55	MG	2a	1665	1/1	0.86	0.17	48,48,48,48	0
55	MG	1a	1798	1/1	0.86	0.13	48,48,48,48	0
55	MG	1a	1806	1/1	0.86	0.14	74,74,74,74	0
55	MG	2a	1673	1/1	0.86	0.27	61,61,61,61	0
55	MG	1A	3952	1/1	0.86	0.17	23,23,23,23	0
55	MG	2N	202	1/1	0.86	0.06	64,64,64,64	0
55	MG	2A	3052	1/1	0.86	0.48	47,47,47,47	0
55	MG	1A	3056	1/1	0.86	0.17	50,50,50,50	0
55	MG	2S	201	1/1	0.86	0.11	46,46,46,46	0
55	MG	1A	3663	1/1	0.86	0.08	77,77,77,77	0
55	MG	1A	3054	1/1	0.86	0.16	34,34,34,34	0
55	MG	2X	101	1/1	0.86	0.23	64,64,64,64	0
55	MG	2t	202	1/1	0.86	0.42	72,72,72,72	0
55	MG	2A	3606	1/1	0.86	0.37	66,66,66,66	0
55	MG	1A	3198	1/1	0.86	0.12	67,67,67,67	0
55	MG	1D	304	1/1	0.87	0.26	34,34,34,34	0
55	MG	1A	3883	1/1	0.87	0.10	39,39,39,39	0
55	MG	1A	3646	1/1	0.87	0.14	38,38,38,38	0
55	MG	2A	3691	1/1	0.87	0.08	49,49,49,49	0
55	MG	2W	3003	1/1	0.87	0.20	43,43,43,43	0
55	MG	2a	1700	1/1	0.87	0.11	68,68,68,68	0
55	MG	2A	3882	1/1	0.87	0.22	64,64,64,64	0
55	MG	2A	3102	1/1	0.87	0.17	45,45,45,45	0
55	MG	1A	3197	1/1	0.87	0.14	21,21,21,21	0
55	MG	2A	3699	1/1	0.87	0.07	56,56,56,56	0
55	MG	2A	3546	1/1	0.87	0.11	52,52,52,52	0
55	MG	2a	1722	1/1	0.87	0.10	52,52,52,52	0
55	MG	2A	3112	1/1	0.87	0.30	32,32,32,32	0
55	MG	2A	3114	1/1	0.87	0.12	43,43,43,43	0
55	MG	29	104	1/1	0.87	0.18	75,75,75,75	0
55	MG	1a	1619	1/1	0.87	0.13	52,52,52,52	0
55	MG	2A	3118	1/1	0.87	0.17	44,44,44,44	0
55	MG	2A	3561	1/1	0.87	0.20	55,55,55,55	0
55	MG	2a	1610	1/1	0.87	0.13	79,79,79,79	0
55	MG	1A	3735	1/1	0.87	0.22	63,63,63,63	0
55	MG	1A	3372	1/1	0.87	0.08	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3411	1/1	0.87	0.28	51,51,51,51	0
55	MG	1a	1759	1/1	0.87	0.08	94,94,94,94	0
55	MG	2a	1759	1/1	0.87	0.11	84,84,84,84	0
55	MG	1A	3413	1/1	0.87	0.10	39,39,39,39	0
55	MG	2a	1767	1/1	0.87	0.27	74,74,74,74	0
55	MG	2A	3932	1/1	0.87	0.22	56,56,56,56	0
55	MG	2A	3580	1/1	0.87	0.15	60,60,60,60	0
55	MG	1a	1765	1/1	0.87	0.10	81,81,81,81	0
55	MG	2a	1777	1/1	0.87	0.19	55,55,55,55	0
55	MG	1A	3020	1/1	0.87	0.10	22,22,22,22	0
55	MG	2a	1626	1/1	0.87	0.07	53,53,53,53	0
55	MG	1N	203	1/1	0.87	0.13	55,55,55,55	0
55	MG	2A	3745	1/1	0.87	0.33	48,48,48,48	0
55	MG	1a	1774	1/1	0.87	0.23	66,66,66,66	0
55	MG	2A	3165	1/1	0.87	0.15	55,55,55,55	0
55	MG	2a	1637	1/1	0.87	0.18	47,47,47,47	0
55	MG	2A	3412	1/1	0.87	0.15	68,68,68,68	0
55	MG	1A	3513	1/1	0.87	0.08	46,46,46,46	0
55	MG	1A	3786	1/1	0.87	0.10	65,65,65,65	0
55	MG	1a	1653	1/1	0.87	0.24	43,43,43,43	0
55	MG	2A	3178	1/1	0.87	0.18	37,37,37,37	0
55	MG	1A	3084	1/1	0.87	0.11	48,48,48,48	0
55	MG	1a	1784	1/1	0.87	0.19	74,74,74,74	0
55	MG	2A	3037	1/1	0.87	0.14	39,39,39,39	0
55	MG	1A	3164	1/1	0.87	0.19	23,23,23,23	0
55	MG	2A	3040	1/1	0.87	0.38	51,51,51,51	0
55	MG	2A	3213	1/1	0.87	0.26	37,37,37,37	0
55	MG	2A	3649	1/1	0.87	0.09	26,26,26,26	0
55	MG	1a	1790	1/1	0.87	0.08	76,76,76,76	0
55	MG	2A	3653	1/1	0.87	0.20	76,76,76,76	0
55	MG	1B	210	1/1	0.87	0.09	52,52,52,52	0
55	MG	2d	503	1/1	0.87	0.12	77,77,77,77	0
55	MG	2a	1668	1/1	0.87	0.48	60,60,60,60	0
55	MG	2A	3828	1/1	0.87	0.20	88,88,88,88	0
55	MG	1A	3046	1/1	0.87	0.25	40,40,40,40	0
55	MG	2A	3842	1/1	0.87	0.13	65,65,65,65	0
55	MG	1a	1604	1/1	0.87	0.22	73,73,73,73	0
55	MG	1A	3175	1/1	0.87	0.20	50,50,50,50	0
55	MG	2a	1678	1/1	0.87	0.13	60,60,60,60	0
55	MG	1A	3267	1/1	0.87	0.15	20,20,20,20	0
55	MG	1A	3330	1/1	0.87	0.17	57,57,57,57	0
55	MG	2A	3871	1/1	0.88	0.14	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3255	1/1	0.88	0.22	35,35,35,35	0
55	MG	1A	3522	1/1	0.88	0.08	71,71,71,71	0
55	MG	1A	3058	1/1	0.88	0.13	49,49,49,49	0
55	MG	1A	3078	1/1	0.88	0.37	30,30,30,30	0
55	MG	1A	3250	1/1	0.88	0.08	44,44,44,44	0
55	MG	1A	3486	1/1	0.88	0.09	35,35,35,35	0
55	MG	2A	3284	1/1	0.88	0.10	79,79,79,79	0
55	MG	2A	3619	1/1	0.88	0.15	74,74,74,74	0
55	MG	2A	3621	1/1	0.88	0.11	62,62,62,62	0
55	MG	1a	1621	1/1	0.88	0.07	38,38,38,38	0
55	MG	2a	1656	1/1	0.88	0.13	76,76,76,76	0
55	MG	1B	226	1/1	0.88	0.08	49,49,49,49	0
55	MG	2A	3034	1/1	0.88	0.09	40,40,40,40	0
55	MG	2a	1660	1/1	0.88	0.22	42,42,42,42	0
55	MG	1a	1626	1/1	0.88	0.19	47,47,47,47	0
55	MG	1B	227	1/1	0.88	0.10	29,29,29,29	0
55	MG	1a	1744	1/1	0.88	0.26	64,64,64,64	0
55	MG	1a	1636	1/1	0.88	0.17	62,62,62,62	0
55	MG	1a	1748	1/1	0.88	0.11	86,86,86,86	0
55	MG	1B	228	1/1	0.88	0.06	53,53,53,53	0
55	MG	1a	1639	1/1	0.88	0.15	63,63,63,63	0
55	MG	1a	1751	1/1	0.88	0.06	98,98,98,98	0
55	MG	2A	3372	1/1	0.88	0.16	56,56,56,56	0
55	MG	1A	3793	1/1	0.88	0.28	36,36,36,36	0
55	MG	1A	3125	1/1	0.88	0.39	26,26,26,26	0
55	MG	1A	3489	1/1	0.88	0.06	23,23,23,23	0
55	MG	1A	3668	1/1	0.88	0.10	43,43,43,43	0
55	MG	2A	3961	1/1	0.88	0.14	52,52,52,52	0
55	MG	2A	3676	1/1	0.88	0.18	62,62,62,62	0
55	MG	2A	3081	1/1	0.88	0.21	40,40,40,40	0
55	MG	2A	3679	1/1	0.88	0.13	60,60,60,60	0
55	MG	1A	3135	1/1	0.88	0.13	22,22,22,22	0
55	MG	1A	3136	1/1	0.88	0.17	31,31,31,31	0
55	MG	2A	3684	1/1	0.88	0.13	61,61,61,61	0
55	MG	1a	1654	1/1	0.88	0.19	46,46,46,46	0
55	MG	2a	1703	1/1	0.88	0.11	60,60,60,60	0
55	MG	1a	1655	1/1	0.88	0.20	35,35,35,35	0
55	MG	1A	3138	1/1	0.88	0.15	52,52,52,52	0
55	MG	2A	3481	1/1	0.88	0.29	40,40,40,40	0
55	MG	2a	1714	1/1	0.88	0.19	55,55,55,55	0
55	MG	2A	3485	1/1	0.88	0.12	60,60,60,60	0
55	MG	2B	3020	1/1	0.88	0.09	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2B	3022	1/1	0.88	0.20	68,68,68,68	0
55	MG	1F	302	1/1	0.88	0.18	29,29,29,29	0
55	MG	2a	1735	1/1	0.88	0.09	87,87,87,87	0
55	MG	2A	3488	1/1	0.88	0.07	64,64,64,64	0
55	MG	1A	3882	1/1	0.88	0.08	56,56,56,56	0
55	MG	2D	309	1/1	0.88	0.20	47,47,47,47	0
55	MG	1A	3301	1/1	0.88	0.08	32,32,32,32	0
55	MG	2A	3720	1/1	0.88	0.16	60,60,60,60	0
55	MG	1A	3509	1/1	0.88	0.09	45,45,45,45	0
55	MG	1A	3457	1/1	0.88	0.10	41,41,41,41	0
55	MG	1A	3108	1/1	0.88	0.23	24,24,24,24	0
55	MG	1A	3910	1/1	0.88	0.19	44,44,44,44	0
55	MG	2a	1755	1/1	0.88	0.09	99,99,99,99	0
55	MG	10	106	1/1	0.88	0.08	39,39,39,39	0
55	MG	10	107	1/1	0.88	0.34	40,40,40,40	0
55	MG	1a	1794	1/1	0.88	0.14	45,45,45,45	0
55	MG	2a	1768	1/1	0.88	0.08	59,59,59,59	0
55	MG	1A	3320	1/1	0.88	0.08	44,44,44,44	0
55	MG	2A	3151	1/1	0.88	0.08	37,37,37,37	0
55	MG	2A	3152	1/1	0.88	0.20	36,36,36,36	0
55	MG	15	102	1/1	0.88	0.14	33,33,33,33	0
55	MG	2A	3528	1/1	0.88	0.07	62,62,62,62	0
55	MG	1a	1672	1/1	0.88	0.26	70,70,70,70	0
55	MG	2V	204	1/1	0.88	0.16	53,53,53,53	0
55	MG	1A	3475	1/1	0.88	0.17	37,37,37,37	0
55	MG	2A	3757	1/1	0.88	0.12	60,60,60,60	0
55	MG	2A	3536	1/1	0.88	0.16	58,58,58,58	0
55	MG	20	101	1/1	0.88	0.12	48,48,48,48	0
55	MG	1A	3946	1/1	0.88	0.13	40,40,40,40	0
55	MG	1a	1680	1/1	0.88	0.26	65,65,65,65	0
55	MG	2A	3774	1/1	0.88	0.06	49,49,49,49	0
55	MG	2A	3543	1/1	0.88	0.12	57,57,57,57	0
55	MG	18	3302	1/1	0.88	0.22	24,24,24,24	0
55	MG	1a	1683	1/1	0.88	0.16	72,72,72,72	0
55	MG	1a	1601	1/1	0.88	0.16	45,45,45,45	0
55	MG	2A	3556	1/1	0.88	0.18	65,65,65,65	0
55	MG	1A	3623	1/1	0.88	0.08	59,59,59,59	0
55	MG	2A	3198	1/1	0.88	0.10	49,49,49,49	0
55	MG	1a	1603	1/1	0.88	0.14	49,49,49,49	0
55	MG	1a	1840	1/1	0.88	0.16	81,81,81,81	0
55	MG	2a	1615	1/1	0.88	0.14	80,80,80,80	0
55	MG	1A	3739	1/1	0.88	0.14	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	1840	1/1	0.88	0.14	59,59,59,59	0
55	MG	1A	3742	1/1	0.88	0.10	77,77,77,77	0
55	MG	1b	3001	1/1	0.88	0.09	79,79,79,79	0
55	MG	1a	1711	1/1	0.88	0.10	72,72,72,72	0
55	MG	2f	8001	1/1	0.88	0.13	75,75,75,75	0
55	MG	2a	1620	1/1	0.88	0.10	58,58,58,58	0
55	MG	2h	3002	1/1	0.88	0.10	73,73,73,73	0
55	MG	2A	3247	1/1	0.88	0.16	48,48,48,48	0
55	MG	2a	1622	1/1	0.88	0.19	51,51,51,51	0
55	MG	1A	3743	1/1	0.88	0.19	19,19,19,19	0
55	MG	1A	3635	1/1	0.88	0.14	65,65,65,65	0
55	MG	2A	3866	1/1	0.88	0.15	49,49,49,49	0
55	MG	2A	3592	1/1	0.88	0.52	43,43,43,43	0
55	MG	2A	3868	1/1	0.88	0.21	106,106,106,106	0
55	MG	2A	3041	1/1	0.89	0.11	46,46,46,46	0
55	MG	1A	3840	1/1	0.89	0.14	36,36,36,36	0
55	MG	1a	1768	1/1	0.89	0.10	75,75,75,75	0
55	MG	1A	3700	1/1	0.89	0.07	48,48,48,48	0
55	MG	1A	3297	1/1	0.89	0.28	34,34,34,34	0
55	MG	1A	3872	1/1	0.89	0.28	86,86,86,86	0
55	MG	2B	3024	1/1	0.89	0.10	62,62,62,62	0
55	MG	2A	3059	1/1	0.89	0.18	67,67,67,67	0
55	MG	2A	3562	1/1	0.89	0.45	39,39,39,39	0
55	MG	1a	1614	1/1	0.89	0.21	75,75,75,75	0
55	MG	2a	1683	1/1	0.89	0.35	48,48,48,48	0
55	MG	2a	1684	1/1	0.89	0.26	53,53,53,53	0
55	MG	1a	1678	1/1	0.89	0.14	46,46,46,46	0
55	MG	1A	3873	1/1	0.89	0.14	20,20,20,20	0
55	MG	2A	3569	1/1	0.89	0.38	46,46,46,46	0
55	MG	1A	3096	1/1	0.89	0.16	48,48,48,48	0
55	MG	2E	306	1/1	0.89	0.07	35,35,35,35	0
55	MG	2F	301	1/1	0.89	0.09	47,47,47,47	0
55	MG	1a	1682	1/1	0.89	0.17	56,56,56,56	0
55	MG	2A	3317	1/1	0.89	0.09	45,45,45,45	0
55	MG	1A	3518	1/1	0.89	0.06	50,50,50,50	0
55	MG	1A	3083	1/1	0.89	0.78	33,33,33,33	0
55	MG	1A	3730	1/1	0.89	0.15	61,61,61,61	0
55	MG	2A	3109	1/1	0.89	0.09	43,43,43,43	0
55	MG	2A	3343	1/1	0.89	0.09	39,39,39,39	0
55	MG	1a	1697	1/1	0.89	0.12	53,53,53,53	0
55	MG	2A	3113	1/1	0.89	0.15	35,35,35,35	0
55	MG	1A	3184	1/1	0.89	0.12	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	1731	1/1	0.89	0.10	62,62,62,62	0
55	MG	1A	3192	1/1	0.89	0.33	31,31,31,31	0
55	MG	2a	1736	1/1	0.89	0.11	46,46,46,46	0
55	MG	2A	3393	1/1	0.89	0.08	74,74,74,74	0
55	MG	1a	1630	1/1	0.89	0.21	42,42,42,42	0
55	MG	1F	303	1/1	0.89	0.28	56,56,56,56	0
55	MG	2a	1744	1/1	0.89	0.19	72,72,72,72	0
55	MG	1A	3537	1/1	0.89	0.18	54,54,54,54	0
55	MG	1F	314	1/1	0.89	0.07	47,47,47,47	0
55	MG	1A	3104	1/1	0.89	0.30	26,26,26,26	0
55	MG	2A	3415	1/1	0.89	0.11	46,46,46,46	0
55	MG	2A	3858	1/1	0.89	0.28	51,51,51,51	0
55	MG	2A	3636	1/1	0.89	0.14	67,67,67,67	0
55	MG	2A	3417	1/1	0.89	0.25	46,46,46,46	0
55	MG	2A	3641	1/1	0.89	0.44	57,57,57,57	0
55	MG	1a	1640	1/1	0.89	0.33	58,58,58,58	0
55	MG	2a	1764	1/1	0.89	0.09	67,67,67,67	0
55	MG	2a	1765	1/1	0.89	0.16	35,35,35,35	0
55	MG	2A	3439	1/1	0.89	0.08	50,50,50,50	0
55	MG	2A	3647	1/1	0.89	0.42	37,37,37,37	0
55	MG	1a	1641	1/1	0.89	0.28	37,37,37,37	0
55	MG	2a	1609	1/1	0.89	0.10	78,78,78,78	0
55	MG	1a	1727	1/1	0.89	0.18	77,77,77,77	0
55	MG	1A	3059	1/1	0.89	0.19	51,51,51,51	0
55	MG	1A	3755	1/1	0.89	0.12	58,58,58,58	0
55	MG	1A	3143	1/1	0.89	0.09	29,29,29,29	0
55	MG	2A	3660	1/1	0.89	0.59	59,59,59,59	0
55	MG	2a	1785	1/1	0.89	0.07	77,77,77,77	0
55	MG	1A	3951	1/1	0.89	0.18	50,50,50,50	0
55	MG	1a	1734	1/1	0.89	0.14	61,61,61,61	0
55	MG	2A	3169	1/1	0.89	0.35	54,54,54,54	0
55	MG	1a	1736	1/1	0.89	0.10	42,42,42,42	0
55	MG	2a	1800	1/1	0.89	0.12	68,68,68,68	0
55	MG	1X	102	1/1	0.89	0.14	49,49,49,49	0
55	MG	10	102	1/1	0.89	0.11	36,36,36,36	0
55	MG	10	104	1/1	0.89	0.10	34,34,34,34	0
55	MG	1A	3110	1/1	0.89	0.09	40,40,40,40	0
55	MG	2A	3008	1/1	0.89	0.16	40,40,40,40	0
55	MG	2A	3509	1/1	0.89	0.08	63,63,63,63	0
55	MG	2a	1630	1/1	0.89	0.15	56,56,56,56	0
55	MG	2A	3013	1/1	0.89	0.13	31,31,31,31	0
55	MG	2A	3197	1/1	0.89	0.19	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3953	1/1	0.89	0.23	22,22,22,22	0
55	MG	2A	3933	1/1	0.89	0.10	36,36,36,36	0
55	MG	1A	3954	1/1	0.89	0.17	21,21,21,21	0
55	MG	2a	1641	1/1	0.89	0.10	95,95,95,95	0
55	MG	1A	3233	1/1	0.89	0.09	33,33,33,33	0
55	MG	2A	3942	1/1	0.89	0.06	30,30,30,30	0
55	MG	2A	3944	1/1	0.89	0.18	57,57,57,57	0
55	MG	2A	3207	1/1	0.89	0.12	58,58,58,58	0
55	MG	2A	3949	1/1	0.89	0.30	37,37,37,37	0
55	MG	2A	3951	1/1	0.89	0.17	38,38,38,38	0
55	MG	2A	3526	1/1	0.89	0.09	60,60,60,60	0
55	MG	1A	3010	1/1	0.89	0.20	32,32,32,32	0
55	MG	2A	3708	1/1	0.89	0.06	63,63,63,63	0
55	MG	1A	3451	1/1	0.89	0.14	48,48,48,48	0
55	MG	1A	3670	1/1	0.89	0.26	36,36,36,36	0
55	MG	1A	3242	1/1	0.89	0.23	40,40,40,40	0
55	MG	1A	3094	1/1	0.89	0.42	23,23,23,23	0
55	MG	1A	3695	1/1	0.89	0.09	50,50,50,50	0
55	MG	1A	3284	1/1	0.89	0.17	34,34,34,34	0
55	MG	2A	3919	1/1	0.90	0.08	122,122,122,122	0
55	MG	1a	1841	1/1	0.90	0.14	52,52,52,52	0
55	MG	2A	3924	1/1	0.90	0.34	43,43,43,43	0
55	MG	2a	1651	1/1	0.90	0.20	60,60,60,60	0
55	MG	1A	3761	1/1	0.90	0.16	30,30,30,30	0
55	MG	1A	3272	1/1	0.90	0.32	22,22,22,22	0
55	MG	1a	1737	1/1	0.90	0.10	67,67,67,67	0
55	MG	2A	3450	1/1	0.90	0.27	28,28,28,28	0
55	MG	2A	3456	1/1	0.90	0.06	62,62,62,62	0
55	MG	1A	3388	1/1	0.90	0.15	45,45,45,45	0
55	MG	1A	3119	1/1	0.90	0.10	35,35,35,35	0
55	MG	1A	3017	1/1	0.90	0.36	9,9,9,9	0
55	MG	1l	3002	1/1	0.90	0.11	62,62,62,62	0
55	MG	1A	3498	1/1	0.90	0.16	46,46,46,46	0
55	MG	2A	3948	1/1	0.90	0.16	38,38,38,38	0
55	MG	2a	1667	1/1	0.90	0.25	52,52,52,52	0
55	MG	2A	3173	1/1	0.90	0.19	69,69,69,69	0
55	MG	2A	3681	1/1	0.90	0.13	82,82,82,82	0
55	MG	2a	1671	1/1	0.90	0.22	49,49,49,49	0
55	MG	2A	3002	1/1	0.90	0.12	38,38,38,38	0
55	MG	2A	3489	1/1	0.90	0.14	38,38,38,38	0
55	MG	2A	3004	1/1	0.90	0.24	54,54,54,54	0
55	MG	2A	3971	1/1	0.90	0.12	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3783	1/1	0.90	0.14	67,67,67,67	0
55	MG	1A	3080	1/1	0.90	0.26	22,22,22,22	0
55	MG	1A	3506	1/1	0.90	0.16	44,44,44,44	0
55	MG	2A	3185	1/1	0.90	0.14	51,51,51,51	0
55	MG	1A	3800	1/1	0.90	0.08	48,48,48,48	0
55	MG	2A	3507	1/1	0.90	0.08	38,38,38,38	0
55	MG	2A	3021	1/1	0.90	0.51	44,44,44,44	0
55	MG	1A	3290	1/1	0.90	0.14	21,21,21,21	0
55	MG	2A	3709	1/1	0.90	0.10	78,78,78,78	0
55	MG	1A	3217	1/1	0.90	0.09	62,62,62,62	0
55	MG	2A	3714	1/1	0.90	0.10	50,50,50,50	0
55	MG	1A	3597	1/1	0.90	0.08	67,67,67,67	0
55	MG	2B	3023	1/1	0.90	0.22	92,92,92,92	0
55	MG	1B	218	1/1	0.90	0.12	51,51,51,51	0
55	MG	1A	3830	1/1	0.90	0.42	21,21,21,21	0
55	MG	1A	3090	1/1	0.90	0.13	22,22,22,22	0
55	MG	2a	1710	1/1	0.90	0.19	49,49,49,49	0
55	MG	2a	1713	1/1	0.90	0.07	78,78,78,78	0
55	MG	2A	3221	1/1	0.90	0.14	30,30,30,30	0
55	MG	1A	3610	1/1	0.90	0.49	30,30,30,30	0
55	MG	2a	1719	1/1	0.90	0.11	76,76,76,76	0
55	MG	2a	1721	1/1	0.90	0.18	84,84,84,84	0
55	MG	2D	313	1/1	0.90	0.34	34,34,34,34	0
55	MG	1A	3467	1/1	0.90	0.07	23,23,23,23	0
55	MG	2a	1728	1/1	0.90	0.08	79,79,79,79	0
55	MG	2A	3238	1/1	0.90	0.25	30,30,30,30	0
55	MG	2A	3533	1/1	0.90	0.09	65,65,65,65	0
55	MG	1A	3871	1/1	0.90	0.19	48,48,48,48	0
55	MG	2A	3245	1/1	0.90	0.14	54,54,54,54	0
55	MG	2F	303	1/1	0.90	0.36	40,40,40,40	0
55	MG	2F	308	1/1	0.90	0.41	34,34,34,34	0
55	MG	1a	1771	1/1	0.90	0.10	92,92,92,92	0
55	MG	1A	3065	1/1	0.90	0.12	11,11,11,11	0
55	MG	2A	3751	1/1	0.90	0.15	77,77,77,77	0
55	MG	1A	3622	1/1	0.90	0.10	57,57,57,57	0
55	MG	2A	3048	1/1	0.90	0.67	68,68,68,68	0
55	MG	2A	3548	1/1	0.90	0.18	69,69,69,69	0
55	MG	2a	1750	1/1	0.90	0.13	72,72,72,72	0
55	MG	2A	3763	1/1	0.90	0.17	61,61,61,61	0
55	MG	1A	3074	1/1	0.90	0.17	31,31,31,31	0
55	MG	1A	3877	1/1	0.90	0.09	61,61,61,61	0
55	MG	1a	1623	1/1	0.90	0.25	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2T	203	1/1	0.90	0.22	59,59,59,59	0
55	MG	2A	3058	1/1	0.90	0.13	59,59,59,59	0
55	MG	2U	202	1/1	0.90	0.34	39,39,39,39	0
55	MG	2A	3271	1/1	0.90	0.18	34,34,34,34	0
55	MG	1A	3265	1/1	0.90	0.16	43,43,43,43	0
55	MG	2A	3283	1/1	0.90	0.13	61,61,61,61	0
55	MG	1a	1690	1/1	0.90	0.18	65,65,65,65	0
55	MG	1a	1692	1/1	0.90	0.17	53,53,53,53	0
55	MG	2A	3565	1/1	0.90	0.27	33,33,33,33	0
55	MG	1A	3637	1/1	0.90	0.13	36,36,36,36	0
55	MG	1A	3176	1/1	0.90	0.17	20,20,20,20	0
55	MG	1a	1632	1/1	0.90	0.26	57,57,57,57	0
55	MG	2A	3310	1/1	0.90	0.07	69,69,69,69	0
55	MG	2A	3091	1/1	0.90	0.31	38,38,38,38	0
55	MG	2A	3586	1/1	0.90	0.18	35,35,35,35	0
55	MG	2a	1601	1/1	0.90	0.12	66,66,66,66	0
55	MG	2A	3832	1/1	0.90	0.57	39,39,39,39	0
55	MG	1a	1635	1/1	0.90	0.10	46,46,46,46	0
55	MG	1A	3178	1/1	0.90	0.18	34,34,34,34	0
55	MG	2A	3325	1/1	0.90	0.06	76,76,76,76	0
55	MG	2A	3103	1/1	0.90	0.11	40,40,40,40	0
55	MG	1A	3905	1/1	0.90	0.12	61,61,61,61	0
55	MG	1a	1810	1/1	0.90	0.13	81,81,81,81	0
55	MG	2A	3336	1/1	0.90	0.11	57,57,57,57	0
55	MG	2A	3338	1/1	0.90	0.12	51,51,51,51	0
55	MG	1A	3335	1/1	0.90	0.12	36,36,36,36	0
55	MG	1A	3909	1/1	0.90	0.08	58,58,58,58	0
55	MG	1H	202	1/1	0.90	0.10	51,51,51,51	0
55	MG	2A	3115	1/1	0.90	0.22	31,31,31,31	0
55	MG	2A	3376	1/1	0.90	0.08	58,58,58,58	0
55	MG	2A	3879	1/1	0.90	0.11	38,38,38,38	0
55	MG	1A	3749	1/1	0.90	0.10	61,61,61,61	0
55	MG	2A	3381	1/1	0.90	0.19	47,47,47,47	0
55	MG	1A	3753	1/1	0.90	0.24	49,49,49,49	0
55	MG	2d	502	1/1	0.90	0.17	48,48,48,48	0
55	MG	2A	3632	1/1	0.90	0.12	74,74,74,74	0
55	MG	1A	3754	1/1	0.90	0.15	16,16,16,16	0
55	MG	2A	3893	1/1	0.90	0.18	55,55,55,55	0
55	MG	2a	1632	1/1	0.90	0.15	55,55,55,55	0
55	MG	2a	1634	1/1	0.90	0.05	59,59,59,59	0
55	MG	2A	3395	1/1	0.90	0.07	22,22,22,22	0
55	MG	1A	3940	1/1	0.90	0.22	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3140	1/1	0.90	0.49	32,32,32,32	0
55	MG	2A	3405	1/1	0.90	0.07	51,51,51,51	0
55	MG	1a	1651	1/1	0.90	0.11	43,43,43,43	0
55	MG	2A	3141	1/1	0.90	0.08	35,35,35,35	0
55	MG	2A	3413	1/1	0.90	0.23	36,36,36,36	0
55	MG	2A	3665	1/1	0.91	0.13	38,38,38,38	0
55	MG	1A	3148	1/1	0.91	0.12	38,38,38,38	0
55	MG	1A	3495	1/1	0.91	0.21	33,33,33,33	0
55	MG	1A	3706	1/1	0.91	0.12	20,20,20,20	0
55	MG	2A	3160	1/1	0.91	0.16	41,41,41,41	0
55	MG	2A	3164	1/1	0.91	0.10	44,44,44,44	0
55	MG	1d	301	1/1	0.91	0.08	110,110,110,110	0
55	MG	1A	3086	1/1	0.91	0.19	38,38,38,38	0
55	MG	1A	3598	1/1	0.91	0.09	61,61,61,61	0
55	MG	1d	305	1/1	0.91	0.17	59,59,59,59	0
55	MG	1e	3001	1/1	0.91	0.17	36,36,36,36	0
55	MG	1g	3001	1/1	0.91	0.13	35,35,35,35	0
55	MG	2A	3689	1/1	0.91	0.14	37,37,37,37	0
55	MG	2A	3690	1/1	0.91	0.07	43,43,43,43	0
55	MG	1A	3152	1/1	0.91	0.11	37,37,37,37	0
55	MG	2a	1670	1/1	0.91	0.17	56,56,56,56	0
55	MG	2A	3493	1/1	0.91	0.13	53,53,53,53	0
55	MG	1A	3879	1/1	0.91	0.16	33,33,33,33	0
55	MG	1A	3605	1/1	0.91	0.13	44,44,44,44	0
55	MG	1H	201	1/1	0.91	0.10	47,47,47,47	0
55	MG	1a	1648	1/1	0.91	0.16	44,44,44,44	0
55	MG	2A	3005	1/1	0.91	0.18	37,37,37,37	0
55	MG	2A	3006	1/1	0.91	0.25	42,42,42,42	0
55	MG	1a	1649	1/1	0.91	0.20	47,47,47,47	0
55	MG	1A	3218	1/1	0.91	0.05	46,46,46,46	0
55	MG	2A	3206	1/1	0.91	0.18	54,54,54,54	0
55	MG	1A	3507	1/1	0.91	0.12	47,47,47,47	0
55	MG	2A	3519	1/1	0.91	0.09	51,51,51,51	0
55	MG	2B	3021	1/1	0.91	0.12	45,45,45,45	0
55	MG	1A	3900	1/1	0.91	0.11	32,32,32,32	0
55	MG	2A	3214	1/1	0.91	0.41	32,32,32,32	0
55	MG	2A	3523	1/1	0.91	0.12	38,38,38,38	0
55	MG	1A	3395	1/1	0.91	0.08	34,34,34,34	0
55	MG	2A	3230	1/1	0.91	0.10	49,49,49,49	0
55	MG	2D	306	1/1	0.91	0.08	33,33,33,33	0
55	MG	1A	3223	1/1	0.91	0.12	31,31,31,31	0
55	MG	1A	3077	1/1	0.91	0.13	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3026	1/1	0.91	0.76	36,36,36,36	0
55	MG	1A	3005	1/1	0.91	0.11	20,20,20,20	0
55	MG	1A	3029	1/1	0.91	0.06	21,21,21,21	0
55	MG	1A	3638	1/1	0.91	0.13	49,49,49,49	0
55	MG	1A	3172	1/1	0.91	0.22	52,52,52,52	0
55	MG	2A	3250	1/1	0.91	0.15	54,54,54,54	0
55	MG	1A	3240	1/1	0.91	0.38	17,17,17,17	0
55	MG	1a	1757	1/1	0.91	0.09	83,83,83,83	0
55	MG	2A	3756	1/1	0.91	0.26	49,49,49,49	0
55	MG	2a	1729	1/1	0.91	0.15	65,65,65,65	0
55	MG	2A	3258	1/1	0.91	0.24	63,63,63,63	0
55	MG	1A	3052	1/1	0.91	0.23	34,34,34,34	0
55	MG	2A	3554	1/1	0.91	0.11	67,67,67,67	0
55	MG	1a	1760	1/1	0.91	0.10	76,76,76,76	0
55	MG	1a	1761	1/1	0.91	0.07	72,72,72,72	0
55	MG	2A	3770	1/1	0.91	0.16	47,47,47,47	0
55	MG	2A	3043	1/1	0.91	0.16	35,35,35,35	0
55	MG	2R	201	1/1	0.91	0.23	48,48,48,48	0
55	MG	1a	1666	1/1	0.91	0.31	42,42,42,42	0
55	MG	2A	3272	1/1	0.91	0.07	54,54,54,54	0
55	MG	1A	3653	1/1	0.91	0.34	21,21,21,21	0
55	MG	1A	3288	1/1	0.91	0.27	7,7,7,7	0
55	MG	2a	1749	1/1	0.91	0.13	75,75,75,75	0
55	MG	2A	3783	1/1	0.91	0.14	42,42,42,42	0
55	MG	2U	203	1/1	0.91	0.09	42,42,42,42	0
55	MG	1A	3775	1/1	0.91	0.08	52,52,52,52	0
55	MG	1A	3657	1/1	0.91	0.17	32,32,32,32	0
55	MG	2A	3795	1/1	0.91	0.15	42,42,42,42	0
55	MG	1A	3245	1/1	0.91	0.10	65,65,65,65	0
55	MG	1A	3955	1/1	0.91	0.08	19,19,19,19	0
55	MG	1A	3291	1/1	0.91	0.20	45,45,45,45	0
55	MG	1a	1675	1/1	0.91	0.07	25,25,25,25	0
55	MG	2A	3818	1/1	0.91	0.10	50,50,50,50	0
55	MG	2A	3581	1/1	0.91	0.08	55,55,55,55	0
55	MG	2a	1770	1/1	0.91	0.13	72,72,72,72	0
55	MG	1a	1676	1/1	0.91	0.16	46,46,46,46	0
55	MG	2A	3587	1/1	0.91	0.13	38,38,38,38	0
55	MG	2a	1776	1/1	0.91	0.11	60,60,60,60	0
55	MG	27	101	1/1	0.91	0.12	38,38,38,38	0
55	MG	29	102	1/1	0.91	0.69	48,48,48,48	0
55	MG	1A	3246	1/1	0.91	0.05	32,32,32,32	0
55	MG	1A	3784	1/1	0.91	0.20	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	1679	1/1	0.91	0.16	46,46,46,46	0
55	MG	2A	3852	1/1	0.91	0.11	50,50,50,50	0
55	MG	1A	3667	1/1	0.91	0.11	41,41,41,41	0
55	MG	2A	3098	1/1	0.91	0.19	50,50,50,50	0
55	MG	1A	3247	1/1	0.91	0.05	41,41,41,41	0
55	MG	1a	1792	1/1	0.91	0.07	60,60,60,60	0
55	MG	2a	1612	1/1	0.91	0.19	42,42,42,42	0
55	MG	2A	3604	1/1	0.91	0.08	49,49,49,49	0
55	MG	1A	3102	1/1	0.91	0.35	39,39,39,39	0
55	MG	2A	3107	1/1	0.91	0.34	40,40,40,40	0
55	MG	1A	3022	1/1	0.91	0.18	42,42,42,42	0
55	MG	1A	3671	1/1	0.91	0.08	42,42,42,42	0
55	MG	2a	1824	1/1	0.91	0.08	65,65,65,65	0
55	MG	1a	1800	1/1	0.91	0.15	45,45,45,45	0
55	MG	1a	1804	1/1	0.91	0.09	52,52,52,52	0
55	MG	1A	3073	1/1	0.91	0.09	36,36,36,36	0
55	MG	1A	3814	1/1	0.91	0.10	41,41,41,41	0
55	MG	1A	3685	1/1	0.91	0.18	43,43,43,43	0
55	MG	1A	3189	1/1	0.91	0.33	30,30,30,30	0
55	MG	1A	3846	1/1	0.91	0.13	29,29,29,29	0
55	MG	2A	3129	1/1	0.91	0.48	33,33,33,33	0
55	MG	2A	3901	1/1	0.91	0.11	54,54,54,54	0
55	MG	1a	1629	1/1	0.91	0.23	51,51,51,51	0
55	MG	2A	3131	1/1	0.91	0.08	44,44,44,44	0
55	MG	1a	1707	1/1	0.91	0.15	54,54,54,54	0
55	MG	2A	3137	1/1	0.91	0.15	36,36,36,36	0
55	MG	2e	201	1/1	0.91	0.22	57,57,57,57	0
55	MG	1A	3855	1/1	0.91	0.14	37,37,37,37	0
55	MG	1A	3860	1/1	0.91	0.10	54,54,54,54	0
55	MG	1A	3862	1/1	0.91	0.26	42,42,42,42	0
55	MG	2A	3918	1/1	0.91	0.15	70,70,70,70	0
55	MG	1a	1634	1/1	0.91	0.12	38,38,38,38	0
55	MG	2A	3920	1/1	0.91	0.10	54,54,54,54	0
55	MG	2a	1644	1/1	0.91	0.22	46,46,46,46	0
55	MG	2A	3423	1/1	0.91	0.06	49,49,49,49	0
55	MG	1A	3041	1/1	0.91	0.14	26,26,26,26	0
55	MG	2A	3661	1/1	0.91	0.29	37,37,37,37	0
55	MG	1A	3557	1/1	0.92	0.39	32,32,32,32	0
55	MG	2A	3334	1/1	0.92	0.14	47,47,47,47	0
55	MG	2A	3884	1/1	0.92	0.07	65,65,65,65	0
55	MG	2A	3611	1/1	0.92	0.07	47,47,47,47	0
55	MG	1A	3038	1/1	0.92	0.38	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3615	1/1	0.92	0.14	70,70,70,70	0
55	MG	1A	3014	1/1	0.92	0.10	28,28,28,28	0
55	MG	2a	1639	1/1	0.92	0.34	63,63,63,63	0
55	MG	2A	3895	1/1	0.92	0.08	55,55,55,55	0
55	MG	1F	305	1/1	0.92	0.31	18,18,18,18	0
55	MG	2A	3902	1/1	0.92	0.15	87,87,87,87	0
55	MG	2A	3903	1/1	0.92	0.10	58,58,58,58	0
55	MG	2A	3363	1/1	0.92	0.10	50,50,50,50	0
55	MG	2A	3124	1/1	0.92	0.37	48,48,48,48	0
55	MG	1F	308	1/1	0.92	0.24	39,39,39,39	0
55	MG	1A	3904	1/1	0.92	0.12	36,36,36,36	0
55	MG	2A	3914	1/1	0.92	0.11	57,57,57,57	0
55	MG	2a	1653	1/1	0.92	0.14	70,70,70,70	0
55	MG	2A	3629	1/1	0.92	0.10	48,48,48,48	0
55	MG	1A	3268	1/1	0.92	0.09	32,32,32,32	0
55	MG	1a	1729	1/1	0.92	0.26	43,43,43,43	0
55	MG	1A	3570	1/1	0.92	0.12	24,24,24,24	0
55	MG	2A	3383	1/1	0.92	0.09	46,46,46,46	0
55	MG	2a	1661	1/1	0.92	0.15	60,60,60,60	0
55	MG	2A	3392	1/1	0.92	0.15	41,41,41,41	0
55	MG	1A	3144	1/1	0.92	0.13	29,29,29,29	0
55	MG	1G	3003	1/1	0.92	0.11	43,43,43,43	0
55	MG	1A	3385	1/1	0.92	0.11	47,47,47,47	0
55	MG	1A	3588	1/1	0.92	0.43	31,31,31,31	0
55	MG	2A	3397	1/1	0.92	0.17	49,49,49,49	0
55	MG	1A	3932	1/1	0.92	0.46	24,24,24,24	0
55	MG	1h	8001	1/1	0.92	0.09	64,64,64,64	0
55	MG	1A	3243	1/1	0.92	0.08	34,34,34,34	0
55	MG	1U	201	1/1	0.92	0.12	26,26,26,26	0
55	MG	2a	1672	1/1	0.92	0.29	64,64,64,64	0
55	MG	1A	3937	1/1	0.92	0.16	19,19,19,19	0
55	MG	2A	3667	1/1	0.92	0.08	89,89,89,89	0
55	MG	2A	3156	1/1	0.92	0.29	47,47,47,47	0
55	MG	2A	3669	1/1	0.92	0.10	31,31,31,31	0
55	MG	2A	3157	1/1	0.92	0.19	51,51,51,51	0
55	MG	1t	3001	1/1	0.92	0.33	69,69,69,69	0
55	MG	2A	3420	1/1	0.92	0.06	50,50,50,50	0
55	MG	2A	3959	1/1	0.92	0.53	44,44,44,44	0
55	MG	1A	3938	1/1	0.92	0.27	21,21,21,21	0
55	MG	1a	1747	1/1	0.92	0.20	36,36,36,36	0
55	MG	10	101	1/1	0.92	0.11	36,36,36,36	0
55	MG	2A	3455	1/1	0.92	0.13	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	1691	1/1	0.92	0.14	59,59,59,59	0
55	MG	2a	1692	1/1	0.92	0.10	61,61,61,61	0
55	MG	2B	3004	1/1	0.92	0.06	67,67,67,67	0
55	MG	1A	3501	1/1	0.92	0.15	31,31,31,31	0
55	MG	1A	3596	1/1	0.92	0.10	46,46,46,46	0
55	MG	1A	3675	1/1	0.92	0.10	44,44,44,44	0
55	MG	2A	3471	1/1	0.92	0.09	61,61,61,61	0
55	MG	1A	3271	1/1	0.92	0.27	29,29,29,29	0
55	MG	2B	3011	1/1	0.92	0.15	89,89,89,89	0
55	MG	11	102	1/1	0.92	0.09	36,36,36,36	0
55	MG	1A	3686	1/1	0.92	0.10	22,22,22,22	0
55	MG	2A	3184	1/1	0.92	0.18	42,42,42,42	0
55	MG	1A	3016	1/1	0.92	0.42	15,15,15,15	0
55	MG	2a	1716	1/1	0.92	0.08	55,55,55,55	0
55	MG	2A	3186	1/1	0.92	0.23	50,50,50,50	0
55	MG	1a	1756	1/1	0.92	0.06	75,75,75,75	0
55	MG	2A	3188	1/1	0.92	0.29	39,39,39,39	0
55	MG	2A	3189	1/1	0.92	0.21	43,43,43,43	0
55	MG	1A	3036	1/1	0.92	0.09	56,56,56,56	0
55	MG	2a	1726	1/1	0.92	0.27	46,46,46,46	0
55	MG	2A	3501	1/1	0.92	0.21	41,41,41,41	0
55	MG	1A	3812	1/1	0.92	0.12	96,96,96,96	0
55	MG	1A	3604	1/1	0.92	0.05	25,25,25,25	0
55	MG	2A	3033	1/1	0.92	0.19	44,44,44,44	0
55	MG	2a	1733	1/1	0.92	0.15	47,47,47,47	0
55	MG	19	102	1/1	0.92	0.09	50,50,50,50	0
55	MG	2A	3202	1/1	0.92	0.14	61,61,61,61	0
55	MG	2a	1737	1/1	0.92	0.10	73,73,73,73	0
55	MG	1A	3448	1/1	0.92	0.08	41,41,41,41	0
55	MG	1A	3609	1/1	0.92	0.21	63,63,63,63	0
55	MG	2E	301	1/1	0.92	0.16	63,63,63,63	0
55	MG	2A	3212	1/1	0.92	0.17	51,51,51,51	0
55	MG	2E	305	1/1	0.92	0.10	53,53,53,53	0
55	MG	1B	206	1/1	0.92	0.18	50,50,50,50	0
55	MG	2A	3518	1/1	0.92	0.10	58,58,58,58	0
55	MG	2A	3735	1/1	0.92	0.07	103,103,103,103	0
55	MG	1A	3195	1/1	0.92	0.05	34,34,34,34	0
55	MG	2A	3218	1/1	0.92	0.22	45,45,45,45	0
55	MG	1a	1673	1/1	0.92	0.18	35,35,35,35	0
55	MG	2A	3225	1/1	0.92	0.09	30,30,30,30	0
55	MG	1A	3249	1/1	0.92	0.07	24,24,24,24	0
55	MG	1a	1606	1/1	0.92	0.19	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3126	1/1	0.92	0.06	47,47,47,47	0
55	MG	1a	1609	1/1	0.92	0.06	80,80,80,80	0
55	MG	2A	3240	1/1	0.92	0.27	37,37,37,37	0
55	MG	1A	3251	1/1	0.92	0.36	16,16,16,16	0
55	MG	2A	3758	1/1	0.92	0.06	32,32,32,32	0
55	MG	2A	3243	1/1	0.92	0.39	28,28,28,28	0
55	MG	1A	3724	1/1	0.92	0.13	47,47,47,47	0
55	MG	2A	3246	1/1	0.92	0.19	56,56,56,56	0
55	MG	2A	3055	1/1	0.92	0.40	51,51,51,51	0
55	MG	1A	3159	1/1	0.92	0.26	16,16,16,16	0
55	MG	1B	225	1/1	0.92	0.10	36,36,36,36	0
55	MG	1A	3631	1/1	0.92	0.24	70,70,70,70	0
55	MG	1A	3127	1/1	0.92	0.14	34,34,34,34	0
55	MG	2A	3066	1/1	0.92	0.14	46,46,46,46	0
55	MG	2a	1784	1/1	0.92	0.05	125,125,125,125	0
55	MG	1A	3298	1/1	0.92	0.07	34,34,34,34	0
55	MG	2A	3069	1/1	0.92	0.36	36,36,36,36	0
55	MG	2A	3261	1/1	0.92	0.09	39,39,39,39	0
55	MG	2A	3560	1/1	0.92	0.09	85,85,85,85	0
55	MG	1a	1620	1/1	0.92	0.06	77,77,77,77	0
55	MG	2A	3799	1/1	0.92	0.21	72,72,72,72	0
55	MG	2A	3265	1/1	0.92	0.10	50,50,50,50	0
55	MG	25	104	1/1	0.92	0.48	33,33,33,33	0
55	MG	1A	3128	1/1	0.92	0.07	22,22,22,22	0
55	MG	2A	3804	1/1	0.92	0.07	54,54,54,54	0
55	MG	2A	3083	1/1	0.92	0.63	35,35,35,35	0
55	MG	2a	1810	1/1	0.92	0.08	105,105,105,105	0
55	MG	2a	1814	1/1	0.92	0.07	66,66,66,66	0
55	MG	2a	1817	1/1	0.92	0.14	68,68,68,68	0
55	MG	2a	1820	1/1	0.92	0.07	51,51,51,51	0
55	MG	1a	1797	1/1	0.92	0.07	72,72,72,72	0
55	MG	2A	3816	1/1	0.92	0.08	42,42,42,42	0
55	MG	2A	3088	1/1	0.92	0.12	44,44,44,44	0
55	MG	2A	3568	1/1	0.92	0.15	53,53,53,53	0
55	MG	2a	1608	1/1	0.92	0.05	88,88,88,88	0
55	MG	2A	3824	1/1	0.92	0.08	47,47,47,47	0
55	MG	1A	3876	1/1	0.92	0.09	19,19,19,19	0
55	MG	1a	1693	1/1	0.92	0.19	44,44,44,44	0
55	MG	2a	1836	1/1	0.92	0.20	46,46,46,46	0
55	MG	1D	307	1/1	0.92	0.37	24,24,24,24	0
55	MG	2A	3296	1/1	0.92	0.10	54,54,54,54	0
55	MG	2a	1614	1/1	0.92	0.16	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	1625	1/1	0.92	0.25	54,54,54,54	0
55	MG	2A	3585	1/1	0.92	0.14	65,65,65,65	0
55	MG	1a	1704	1/1	0.92	0.05	67,67,67,67	0
55	MG	1A	3048	1/1	0.92	0.49	43,43,43,43	0
55	MG	1A	3051	1/1	0.92	0.11	18,18,18,18	0
55	MG	2A	3108	1/1	0.92	0.15	50,50,50,50	0
55	MG	1a	1826	1/1	0.92	0.09	53,53,53,53	0
55	MG	2A	3110	1/1	0.92	0.13	58,58,58,58	0
55	MG	1A	3173	1/1	0.92	0.08	49,49,49,49	0
55	MG	2l	3001	1/1	0.92	0.15	45,45,45,45	0
55	MG	1A	3092	1/1	0.92	0.14	11,11,11,11	0
55	MG	2A	3329	1/1	0.92	0.09	43,43,43,43	0
55	MG	2a	1627	1/1	0.92	0.26	25,25,25,25	0
55	MG	2A	3603	1/1	0.92	0.08	59,59,59,59	0
55	MG	2a	1629	1/1	0.92	0.17	44,44,44,44	0
55	MG	1a	1715	1/1	0.92	0.09	58,58,58,58	0
55	MG	1B	221	1/1	0.93	0.06	33,33,33,33	0
55	MG	2A	3199	1/1	0.93	0.14	32,32,32,32	0
55	MG	1A	3142	1/1	0.93	0.20	44,44,44,44	0
55	MG	1A	3285	1/1	0.93	0.11	12,12,12,12	0
55	MG	2A	3670	1/1	0.93	0.14	57,57,57,57	0
55	MG	2a	1654	1/1	0.93	0.18	42,42,42,42	0
55	MG	1A	3203	1/1	0.93	0.24	34,34,34,34	0
55	MG	2A	3204	1/1	0.93	0.16	31,31,31,31	0
55	MG	2A	3935	1/1	0.93	0.19	49,49,49,49	0
55	MG	2A	3674	1/1	0.93	0.25	55,55,55,55	0
55	MG	2A	3482	1/1	0.93	0.11	50,50,50,50	0
55	MG	1a	1783	1/1	0.93	0.12	60,60,60,60	0
55	MG	1A	3209	1/1	0.93	0.40	54,54,54,54	0
55	MG	1a	1787	1/1	0.93	0.09	60,60,60,60	0
55	MG	1A	3867	1/1	0.93	0.07	48,48,48,48	0
55	MG	2A	3490	1/1	0.93	0.15	68,68,68,68	0
55	MG	2A	3950	1/1	0.93	0.14	55,55,55,55	0
55	MG	1A	3211	1/1	0.93	0.42	20,20,20,20	0
55	MG	1A	3727	1/1	0.93	0.09	39,39,39,39	0
55	MG	2A	3688	1/1	0.93	0.05	51,51,51,51	0
55	MG	2A	3960	1/1	0.93	0.12	44,44,44,44	0
55	MG	2A	3219	1/1	0.93	0.04	68,68,68,68	0
55	MG	2A	3220	1/1	0.93	0.08	58,58,58,58	0
55	MG	2A	3500	1/1	0.93	0.06	45,45,45,45	0
55	MG	1a	1689	1/1	0.93	0.23	59,59,59,59	0
55	MG	1a	1793	1/1	0.93	0.10	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3226	1/1	0.93	0.27	41,41,41,41	0
55	MG	2A	3227	1/1	0.93	0.32	49,49,49,49	0
55	MG	1D	309	1/1	0.93	0.14	27,27,27,27	0
55	MG	1a	1795	1/1	0.93	0.11	66,66,66,66	0
55	MG	2A	3065	1/1	0.93	0.05	12,12,12,12	0
55	MG	1A	3471	1/1	0.93	0.06	46,46,46,46	0
55	MG	1A	3636	1/1	0.93	0.39	40,40,40,40	0
55	MG	1A	3098	1/1	0.93	0.32	34,34,34,34	0
55	MG	1A	3174	1/1	0.93	0.18	40,40,40,40	0
55	MG	2A	3244	1/1	0.93	0.13	29,29,29,29	0
55	MG	1A	3878	1/1	0.93	0.13	49,49,49,49	0
55	MG	2a	1693	1/1	0.93	0.13	67,67,67,67	0
55	MG	1a	1805	1/1	0.93	0.07	66,66,66,66	0
55	MG	2A	3725	1/1	0.93	0.08	40,40,40,40	0
55	MG	2A	3085	1/1	0.93	0.13	52,52,52,52	0
55	MG	1A	3221	1/1	0.93	0.22	34,34,34,34	0
55	MG	2A	3249	1/1	0.93	0.06	67,67,67,67	0
55	MG	1a	1807	1/1	0.93	0.07	98,98,98,98	0
55	MG	2A	3253	1/1	0.93	0.19	56,56,56,56	0
55	MG	2D	307	1/1	0.93	0.24	41,41,41,41	0
55	MG	2A	3089	1/1	0.93	0.12	49,49,49,49	0
55	MG	2A	3741	1/1	0.93	0.11	45,45,45,45	0
55	MG	2D	312	1/1	0.93	0.14	48,48,48,48	0
55	MG	1A	3642	1/1	0.93	0.12	29,29,29,29	0
55	MG	1A	3744	1/1	0.93	0.07	29,29,29,29	0
55	MG	1F	307	1/1	0.93	0.26	25,25,25,25	0
55	MG	2A	3100	1/1	0.93	0.07	56,56,56,56	0
55	MG	2A	3747	1/1	0.93	0.15	43,43,43,43	0
55	MG	1A	3745	1/1	0.93	0.13	28,28,28,28	0
55	MG	1A	3055	1/1	0.93	0.28	36,36,36,36	0
55	MG	2A	3104	1/1	0.93	0.14	57,57,57,57	0
55	MG	1A	3751	1/1	0.93	0.17	21,21,21,21	0
55	MG	2F	304	1/1	0.93	0.15	45,45,45,45	0
55	MG	1A	3034	1/1	0.93	0.08	18,18,18,18	0
55	MG	2A	3552	1/1	0.93	0.70	40,40,40,40	0
55	MG	2a	1734	1/1	0.93	0.09	79,79,79,79	0
55	MG	2A	3553	1/1	0.93	0.07	51,51,51,51	0
55	MG	2A	3761	1/1	0.93	0.10	58,58,58,58	0
55	MG	1A	3561	1/1	0.93	0.24	18,18,18,18	0
55	MG	2A	3273	1/1	0.93	0.12	50,50,50,50	0
55	MG	1A	3655	1/1	0.93	0.42	41,41,41,41	0
55	MG	2a	1740	1/1	0.93	0.28	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	1725	1/1	0.93	0.12	47,47,47,47	0
55	MG	2a	1742	1/1	0.93	0.14	51,51,51,51	0
55	MG	1A	3760	1/1	0.93	0.14	51,51,51,51	0
55	MG	1a	1643	1/1	0.93	0.15	61,61,61,61	0
55	MG	2A	3295	1/1	0.93	0.28	32,32,32,32	0
55	MG	1A	3322	1/1	0.93	0.13	30,30,30,30	0
55	MG	2A	3297	1/1	0.93	0.10	40,40,40,40	0
55	MG	2A	3298	1/1	0.93	0.07	59,59,59,59	0
55	MG	1a	1844	1/1	0.93	0.08	70,70,70,70	0
55	MG	1A	3762	1/1	0.93	0.07	50,50,50,50	0
55	MG	1A	3914	1/1	0.93	0.05	40,40,40,40	0
55	MG	2V	201	1/1	0.93	0.16	40,40,40,40	0
55	MG	2a	1756	1/1	0.93	0.13	67,67,67,67	0
55	MG	2a	1758	1/1	0.93	0.04	75,75,75,75	0
55	MG	1R	203	1/1	0.93	0.09	31,31,31,31	0
55	MG	2W	3001	1/1	0.93	0.10	27,27,27,27	0
55	MG	1T	202	1/1	0.93	0.14	60,60,60,60	0
55	MG	2A	3125	1/1	0.93	0.18	44,44,44,44	0
55	MG	2A	3318	1/1	0.93	0.17	32,32,32,32	0
55	MG	2A	3584	1/1	0.93	0.31	33,33,33,33	0
55	MG	1A	3921	1/1	0.93	0.20	35,35,35,35	0
55	MG	1A	3003	1/1	0.93	0.08	21,21,21,21	0
55	MG	1d	306	1/1	0.93	0.06	98,98,98,98	0
55	MG	2A	3589	1/1	0.93	0.18	43,43,43,43	0
55	MG	1a	1652	1/1	0.93	0.21	41,41,41,41	0
55	MG	1f	8001	1/1	0.93	0.11	68,68,68,68	0
55	MG	2A	3135	1/1	0.93	0.09	30,30,30,30	0
55	MG	28	101	1/1	0.93	0.23	36,36,36,36	0
55	MG	2A	3831	1/1	0.93	0.07	64,64,64,64	0
55	MG	1W	3003	1/1	0.93	0.10	21,21,21,21	0
55	MG	1A	3772	1/1	0.93	0.08	41,41,41,41	0
55	MG	2a	1602	1/1	0.93	0.07	60,60,60,60	0
55	MG	2a	1788	1/1	0.93	0.12	86,86,86,86	0
55	MG	1A	3565	1/1	0.93	0.15	42,42,42,42	0
55	MG	2a	1791	1/1	0.93	0.07	47,47,47,47	0
55	MG	2a	1604	1/1	0.93	0.07	81,81,81,81	0
55	MG	2A	3341	1/1	0.93	0.14	32,32,32,32	0
55	MG	1k	3001	1/1	0.93	0.14	53,53,53,53	0
55	MG	1A	3326	1/1	0.93	0.12	32,32,32,32	0
55	MG	2A	3605	1/1	0.93	0.21	55,55,55,55	0
55	MG	1a	1658	1/1	0.93	0.24	41,41,41,41	0
55	MG	1A	3012	1/1	0.93	0.23	15,15,15,15	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3001	1/1	0.93	0.11	47,47,47,47	0
55	MG	1a	1660	1/1	0.93	0.28	57,57,57,57	0
55	MG	2A	3613	1/1	0.93	0.09	33,33,33,33	0
55	MG	2a	1816	1/1	0.93	0.07	66,66,66,66	0
55	MG	2A	3873	1/1	0.93	0.08	80,80,80,80	0
55	MG	1A	3234	1/1	0.93	0.05	66,66,66,66	0
55	MG	2A	3617	1/1	0.93	0.07	59,59,59,59	0
55	MG	1A	3586	1/1	0.93	0.22	9,9,9,9	0
55	MG	1A	3266	1/1	0.93	0.22	29,29,29,29	0
55	MG	1A	3188	1/1	0.93	0.09	33,33,33,33	0
55	MG	1A	3239	1/1	0.93	0.21	46,46,46,46	0
55	MG	2A	3010	1/1	0.93	0.24	49,49,49,49	0
55	MG	2a	1623	1/1	0.93	0.17	41,41,41,41	0
55	MG	1A	3060	1/1	0.93	0.13	22,22,22,22	0
55	MG	1A	3006	1/1	0.93	0.07	21,21,21,21	0
55	MG	2A	3630	1/1	0.93	0.10	73,73,73,73	0
55	MG	2A	3891	1/1	0.93	0.09	72,72,72,72	0
55	MG	1A	3679	1/1	0.93	0.10	36,36,36,36	0
55	MG	1A	3194	1/1	0.93	0.23	39,39,39,39	0
55	MG	1A	3397	1/1	0.93	0.05	77,77,77,77	0
55	MG	1A	3409	1/1	0.93	0.12	21,21,21,21	0
55	MG	2A	3182	1/1	0.93	0.15	49,49,49,49	0
55	MG	2A	3027	1/1	0.93	0.13	42,42,42,42	0
55	MG	2A	3030	1/1	0.93	0.23	23,23,23,23	0
55	MG	1A	3691	1/1	0.93	0.09	39,39,39,39	0
55	MG	1A	3822	1/1	0.93	0.08	50,50,50,50	0
55	MG	1A	3244	1/1	0.93	0.11	30,30,30,30	0
55	MG	2A	3654	1/1	0.93	0.12	37,37,37,37	0
55	MG	2a	1640	1/1	0.93	0.33	60,60,60,60	0
55	MG	2A	3655	1/1	0.93	0.17	53,53,53,53	0
55	MG	1A	3117	1/1	0.93	0.10	72,72,72,72	0
55	MG	1A	3021	1/1	0.93	0.16	26,26,26,26	0
55	MG	2A	3195	1/1	0.93	0.29	42,42,42,42	0
55	MG	1A	3613	1/1	0.93	0.08	53,53,53,53	0
55	MG	2A	3147	1/1	0.94	0.25	38,38,38,38	0
55	MG	2A	3330	1/1	0.94	0.08	78,78,78,78	0
55	MG	1A	3508	1/1	0.94	0.05	46,46,46,46	0
55	MG	2A	3598	1/1	0.94	0.24	34,34,34,34	0
55	MG	2a	1633	1/1	0.94	0.10	47,47,47,47	0
55	MG	1o	102	1/1	0.94	0.13	29,29,29,29	0
55	MG	2A	3601	1/1	0.94	0.12	34,34,34,34	0
55	MG	2A	3878	1/1	0.94	0.21	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3333	1/1	0.94	0.08	40,40,40,40	0
55	MG	1A	3137	1/1	0.94	0.13	33,33,33,33	0
55	MG	1A	3219	1/1	0.94	0.09	30,30,30,30	0
55	MG	1A	3147	1/1	0.94	0.30	30,30,30,30	0
55	MG	2A	3155	1/1	0.94	0.22	45,45,45,45	0
55	MG	2A	3610	1/1	0.94	0.10	35,35,35,35	0
55	MG	1A	3615	1/1	0.94	0.10	52,52,52,52	0
55	MG	1A	3419	1/1	0.94	0.11	39,39,39,39	0
55	MG	1A	3726	1/1	0.94	0.06	44,44,44,44	0
55	MG	2A	3368	1/1	0.94	0.08	51,51,51,51	0
55	MG	2A	3161	1/1	0.94	0.12	31,31,31,31	0
55	MG	2a	1648	1/1	0.94	0.15	42,42,42,42	0
55	MG	2A	3618	1/1	0.94	0.09	83,83,83,83	0
55	MG	1A	3168	1/1	0.94	0.06	31,31,31,31	0
55	MG	2A	3620	1/1	0.94	0.20	65,65,65,65	0
55	MG	1F	304	1/1	0.94	0.07	31,31,31,31	0
55	MG	2A	3168	1/1	0.94	0.22	38,38,38,38	0
55	MG	1A	3728	1/1	0.94	0.14	61,61,61,61	0
55	MG	2A	3170	1/1	0.94	0.14	48,48,48,48	0
55	MG	2A	3627	1/1	0.94	0.09	68,68,68,68	0
55	MG	2A	3385	1/1	0.94	0.07	40,40,40,40	0
55	MG	2A	3386	1/1	0.94	0.06	44,44,44,44	0
55	MG	2A	3387	1/1	0.94	0.07	35,35,35,35	0
55	MG	2A	3172	1/1	0.94	0.18	54,54,54,54	0
55	MG	1F	306	1/1	0.94	0.17	26,26,26,26	0
55	MG	2A	3639	1/1	0.94	0.08	36,36,36,36	0
55	MG	1A	3450	1/1	0.94	0.06	63,63,63,63	0
55	MG	2A	3019	1/1	0.94	0.46	40,40,40,40	0
55	MG	1A	3191	1/1	0.94	0.19	31,31,31,31	0
55	MG	1A	3624	1/1	0.94	0.07	58,58,58,58	0
55	MG	1F	311	1/1	0.94	0.18	11,11,11,11	0
55	MG	2A	3404	1/1	0.94	0.08	78,78,78,78	0
55	MG	1A	3627	1/1	0.94	0.12	62,62,62,62	0
55	MG	2A	3936	1/1	0.94	0.07	35,35,35,35	0
55	MG	2A	3938	1/1	0.94	0.27	46,46,46,46	0
55	MG	2A	3652	1/1	0.94	0.07	40,40,40,40	0
55	MG	1A	3889	1/1	0.94	0.09	34,34,34,34	0
55	MG	1A	3891	1/1	0.94	0.09	34,34,34,34	0
55	MG	1A	3897	1/1	0.94	0.07	45,45,45,45	0
55	MG	1A	3525	1/1	0.94	0.08	33,33,33,33	0
55	MG	1A	3452	1/1	0.94	0.11	40,40,40,40	0
55	MG	1A	3292	1/1	0.94	0.07	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2a	1687	1/1	0.94	0.14	67,67,67,67	0
55	MG	1a	1769	1/1	0.94	0.10	62,62,62,62	0
55	MG	1N	204	1/1	0.94	0.15	73,73,73,73	0
55	MG	2A	3426	1/1	0.94	0.05	66,66,66,66	0
55	MG	2A	3957	1/1	0.94	0.11	61,61,61,61	0
55	MG	2A	3038	1/1	0.94	0.16	46,46,46,46	0
55	MG	2A	3445	1/1	0.94	0.10	55,55,55,55	0
55	MG	2A	3448	1/1	0.94	0.06	41,41,41,41	0
55	MG	2A	3449	1/1	0.94	0.06	50,50,50,50	0
55	MG	1P	204	1/1	0.94	0.06	68,68,68,68	0
55	MG	2B	3001	1/1	0.94	0.12	51,51,51,51	0
55	MG	2a	1702	1/1	0.94	0.13	52,52,52,52	0
55	MG	2A	3451	1/1	0.94	0.07	30,30,30,30	0
55	MG	1A	3456	1/1	0.94	0.08	55,55,55,55	0
55	MG	1A	3169	1/1	0.94	0.08	46,46,46,46	0
55	MG	2A	3457	1/1	0.94	0.11	55,55,55,55	0
55	MG	1A	3639	1/1	0.94	0.12	33,33,33,33	0
55	MG	1A	3552	1/1	0.94	0.09	12,12,12,12	0
55	MG	1A	3231	1/1	0.94	0.09	40,40,40,40	0
55	MG	1U	205	1/1	0.94	0.14	22,22,22,22	0
55	MG	2A	3476	1/1	0.94	0.12	56,56,56,56	0
55	MG	2A	3049	1/1	0.94	0.18	44,44,44,44	0
55	MG	2A	3211	1/1	0.94	0.19	40,40,40,40	0
55	MG	1A	3645	1/1	0.94	0.08	45,45,45,45	0
55	MG	1A	3026	1/1	0.94	0.74	22,22,22,22	0
55	MG	2a	1725	1/1	0.94	0.09	58,58,58,58	0
55	MG	1A	3916	1/1	0.94	0.08	116,116,116,116	0
55	MG	1A	3258	1/1	0.94	0.15	38,38,38,38	0
55	MG	2A	3697	1/1	0.94	0.16	33,33,33,33	0
55	MG	10	103	1/1	0.94	0.08	45,45,45,45	0
55	MG	1A	3923	1/1	0.94	0.11	26,26,26,26	0
55	MG	2A	3702	1/1	0.94	0.21	50,50,50,50	0
55	MG	1A	3259	1/1	0.94	0.13	17,17,17,17	0
55	MG	2A	3222	1/1	0.94	0.06	42,42,42,42	0
55	MG	1A	3654	1/1	0.94	0.16	35,35,35,35	0
55	MG	2A	3497	1/1	0.94	0.08	31,31,31,31	0
55	MG	2D	311	1/1	0.94	0.18	24,24,24,24	0
55	MG	2A	3498	1/1	0.94	0.07	38,38,38,38	0
55	MG	1A	3766	1/1	0.94	0.10	24,24,24,24	0
55	MG	13	102	1/1	0.94	0.32	32,32,32,32	0
55	MG	2D	316	1/1	0.94	0.33	58,58,58,58	0
55	MG	1A	3559	1/1	0.94	0.29	15,15,15,15	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3231	1/1	0.94	0.16	59,59,59,59	0
55	MG	1A	3123	1/1	0.94	0.19	24,24,24,24	0
55	MG	2A	3233	1/1	0.94	0.18	56,56,56,56	0
55	MG	2A	3235	1/1	0.94	0.06	63,63,63,63	0
55	MG	2A	3075	1/1	0.94	0.15	50,50,50,50	0
55	MG	2A	3510	1/1	0.94	0.06	43,43,43,43	0
55	MG	15	105	1/1	0.94	0.48	36,36,36,36	0
55	MG	2F	305	1/1	0.94	0.10	45,45,45,45	0
55	MG	2A	3733	1/1	0.94	0.06	62,62,62,62	0
55	MG	1A	3324	1/1	0.94	0.07	52,52,52,52	0
55	MG	1A	3236	1/1	0.94	0.12	22,22,22,22	0
55	MG	1A	3779	1/1	0.94	0.08	17,17,17,17	0
55	MG	1A	3564	1/1	0.94	0.13	25,25,25,25	0
55	MG	1A	3237	1/1	0.94	0.07	23,23,23,23	0
55	MG	1a	1809	1/1	0.94	0.06	85,85,85,85	0
55	MG	2A	3093	1/1	0.94	0.11	37,37,37,37	0
55	MG	2N	203	1/1	0.94	0.29	90,90,90,90	0
55	MG	2A	3094	1/1	0.94	0.50	42,42,42,42	0
55	MG	2Q	204	1/1	0.94	0.14	32,32,32,32	0
55	MG	2a	1771	1/1	0.94	0.07	83,83,83,83	0
55	MG	2A	3525	1/1	0.94	0.18	33,33,33,33	0
55	MG	2A	3750	1/1	0.94	0.08	75,75,75,75	0
55	MG	1A	3196	1/1	0.94	0.18	23,23,23,23	0
55	MG	2A	3527	1/1	0.94	0.09	28,28,28,28	0
55	MG	1A	3571	1/1	0.94	0.07	55,55,55,55	0
55	MG	2A	3251	1/1	0.94	0.07	60,60,60,60	0
55	MG	2a	1781	1/1	0.94	0.06	73,73,73,73	0
55	MG	1A	3151	1/1	0.94	0.06	20,20,20,20	0
55	MG	1a	1822	1/1	0.94	0.13	74,74,74,74	0
55	MG	2A	3535	1/1	0.94	0.16	50,50,50,50	0
55	MG	2a	1786	1/1	0.94	0.18	52,52,52,52	0
55	MG	2V	203	1/1	0.94	0.08	58,58,58,58	0
55	MG	1A	3579	1/1	0.94	0.09	49,49,49,49	0
55	MG	2A	3257	1/1	0.94	0.12	47,47,47,47	0
55	MG	1B	203	1/1	0.94	0.22	46,46,46,46	0
55	MG	1A	3796	1/1	0.94	0.14	33,33,33,33	0
55	MG	1A	3042	1/1	0.94	0.21	1,1,1,1	0
55	MG	2a	1797	1/1	0.94	0.07	75,75,75,75	0
55	MG	1B	207	1/1	0.94	0.27	41,41,41,41	0
55	MG	1B	208	1/1	0.94	0.10	41,41,41,41	0
55	MG	2a	1803	1/1	0.94	0.17	81,81,81,81	0
55	MG	1A	3672	1/1	0.94	0.06	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3551	1/1	0.94	0.10	60,60,60,60	0
55	MG	1A	3336	1/1	0.94	0.11	37,37,37,37	0
55	MG	2A	3270	1/1	0.94	0.27	45,45,45,45	0
55	MG	1A	3357	1/1	0.94	0.15	40,40,40,40	0
55	MG	1a	1713	1/1	0.94	0.10	36,36,36,36	0
55	MG	1a	1843	1/1	0.94	0.11	57,57,57,57	0
55	MG	2A	3796	1/1	0.94	0.10	79,79,79,79	0
55	MG	1a	1617	1/1	0.94	0.08	93,93,93,93	0
55	MG	1A	3201	1/1	0.94	0.24	29,29,29,29	0
55	MG	2A	3119	1/1	0.94	0.15	35,35,35,35	0
55	MG	2A	3286	1/1	0.94	0.06	61,61,61,61	0
55	MG	1A	3156	1/1	0.94	0.04	20,20,20,20	0
55	MG	2a	1605	1/1	0.94	0.21	82,82,82,82	0
55	MG	1A	3593	1/1	0.94	0.08	48,48,48,48	0
55	MG	2A	3814	1/1	0.94	0.07	92,92,92,92	0
55	MG	1A	3063	1/1	0.94	0.11	41,41,41,41	0
55	MG	1B	224	1/1	0.94	0.11	63,63,63,63	0
55	MG	2A	3127	1/1	0.94	0.24	29,29,29,29	0
55	MG	1A	3161	1/1	0.94	0.20	26,26,26,26	0
55	MG	1a	1624	1/1	0.94	0.18	49,49,49,49	0
55	MG	1A	3215	1/1	0.94	0.13	23,23,23,23	0
55	MG	2b	3001	1/1	0.94	0.14	68,68,68,68	0
55	MG	2A	3309	1/1	0.94	0.06	41,41,41,41	0
55	MG	1A	3179	1/1	0.94	0.29	51,51,51,51	0
55	MG	2A	3834	1/1	0.94	0.12	26,26,26,26	0
55	MG	2A	3840	1/1	0.94	0.10	39,39,39,39	0
55	MG	2A	3133	1/1	0.94	0.11	28,28,28,28	0
55	MG	2A	3845	1/1	0.94	0.38	42,42,42,42	0
55	MG	1a	1627	1/1	0.94	0.08	46,46,46,46	0
55	MG	1A	3857	1/1	0.94	0.14	52,52,52,52	0
55	MG	2A	3856	1/1	0.94	0.20	47,47,47,47	0
55	MG	1A	3398	1/1	0.94	0.06	55,55,55,55	0
55	MG	2A	3321	1/1	0.94	0.13	30,30,30,30	0
55	MG	2o	102	1/1	0.94	0.07	38,38,38,38	0
55	MG	2A	3860	1/1	0.94	0.16	58,58,58,58	0
55	MG	2A	3322	1/1	0.94	0.07	62,62,62,62	0
55	MG	1A	3705	1/1	0.94	0.11	58,58,58,58	0
55	MG	1A	3863	1/1	0.94	0.08	66,66,66,66	0
55	MG	2A	3158	1/1	0.95	0.21	37,37,37,37	0
55	MG	2A	3864	1/1	0.95	0.15	47,47,47,47	0
55	MG	1A	3858	1/1	0.95	0.10	51,51,51,51	0
55	MG	1A	3165	1/1	0.95	0.42	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3163	1/1	0.95	0.20	38,38,38,38	0
55	MG	2A	3870	1/1	0.95	0.12	48,48,48,48	0
55	MG	1A	3698	1/1	0.95	0.04	25,25,25,25	0
55	MG	1A	3166	1/1	0.95	0.24	33,33,33,33	0
55	MG	2A	3166	1/1	0.95	0.27	36,36,36,36	0
55	MG	1D	306	1/1	0.95	0.08	17,17,17,17	0
55	MG	1A	3337	1/1	0.95	0.09	25,25,25,25	0
55	MG	1a	1739	1/1	0.95	0.07	67,67,67,67	0
55	MG	1A	3213	1/1	0.95	0.12	29,29,29,29	0
55	MG	1A	3214	1/1	0.95	0.31	22,22,22,22	0
55	MG	1D	312	1/1	0.95	0.07	24,24,24,24	0
55	MG	1D	313	1/1	0.95	0.19	24,24,24,24	0
55	MG	2A	3883	1/1	0.95	0.11	71,71,71,71	0
55	MG	1A	3714	1/1	0.95	0.10	26,26,26,26	0
55	MG	1A	3716	1/1	0.95	0.05	23,23,23,23	0
55	MG	1A	3134	1/1	0.95	0.19	24,24,24,24	0
55	MG	2A	3181	1/1	0.95	0.16	36,36,36,36	0
55	MG	1E	302	1/1	0.95	0.22	18,18,18,18	0
55	MG	1a	1637	1/1	0.95	0.33	57,57,57,57	0
55	MG	1A	3376	1/1	0.95	0.12	26,26,26,26	0
55	MG	2A	3409	1/1	0.95	0.09	46,46,46,46	0
55	MG	2A	3411	1/1	0.95	0.07	49,49,49,49	0
55	MG	1A	3032	1/1	0.95	0.21	30,30,30,30	0
55	MG	1A	3611	1/1	0.95	0.08	60,60,60,60	0
55	MG	1A	3101	1/1	0.95	0.13	24,24,24,24	0
55	MG	1A	3393	1/1	0.95	0.10	34,34,34,34	0
55	MG	2A	3191	1/1	0.95	0.12	45,45,45,45	0
55	MG	2A	3193	1/1	0.95	0.16	45,45,45,45	0
55	MG	1A	3171	1/1	0.95	0.15	24,24,24,24	0
55	MG	2A	3645	1/1	0.95	0.08	33,33,33,33	0
55	MG	1a	1758	1/1	0.95	0.07	99,99,99,99	0
55	MG	2A	3432	1/1	0.95	0.06	38,38,38,38	0
55	MG	2A	3434	1/1	0.95	0.07	39,39,39,39	0
55	MG	1A	3619	1/1	0.95	0.08	45,45,45,45	0
55	MG	2A	3921	1/1	0.95	0.21	40,40,40,40	0
55	MG	1A	3220	1/1	0.95	0.14	27,27,27,27	0
55	MG	1A	3045	1/1	0.95	0.11	13,13,13,13	0
55	MG	2A	3928	1/1	0.95	0.18	35,35,35,35	0
55	MG	1A	3896	1/1	0.95	0.10	35,35,35,35	0
55	MG	1A	3103	1/1	0.95	0.18	29,29,29,29	0
55	MG	1A	3736	1/1	0.95	0.10	33,33,33,33	0
55	MG	2A	3453	1/1	0.95	0.13	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3454	1/1	0.95	0.04	38,38,38,38	0
55	MG	2A	3662	1/1	0.95	0.09	46,46,46,46	0
55	MG	2A	3664	1/1	0.95	0.11	51,51,51,51	0
55	MG	2A	3937	1/1	0.95	0.09	40,40,40,40	0
55	MG	2A	3203	1/1	0.95	0.10	36,36,36,36	0
55	MG	1A	3024	1/1	0.95	0.09	19,19,19,19	0
55	MG	1A	3226	1/1	0.95	0.09	27,27,27,27	0
55	MG	2A	3461	1/1	0.95	0.07	88,88,88,88	0
55	MG	2A	3046	1/1	0.95	0.22	50,50,50,50	0
55	MG	2A	3466	1/1	0.95	0.07	37,37,37,37	0
55	MG	2A	3947	1/1	0.95	0.17	33,33,33,33	0
55	MG	2a	1681	1/1	0.95	0.15	54,54,54,54	0
55	MG	2A	3467	1/1	0.95	0.09	30,30,30,30	0
55	MG	2A	3209	1/1	0.95	0.39	36,36,36,36	0
55	MG	1A	3414	1/1	0.95	0.07	29,29,29,29	0
55	MG	1A	3530	1/1	0.95	0.08	53,53,53,53	0
55	MG	2A	3952	1/1	0.95	0.10	27,27,27,27	0
55	MG	1N	201	1/1	0.95	0.10	39,39,39,39	0
55	MG	2A	3955	1/1	0.95	0.17	46,46,46,46	0
55	MG	2A	3678	1/1	0.95	0.17	53,53,53,53	0
55	MG	2A	3958	1/1	0.95	0.10	59,59,59,59	0
55	MG	2A	3477	1/1	0.95	0.06	32,32,32,32	0
55	MG	1A	3227	1/1	0.95	0.23	28,28,28,28	0
55	MG	1a	1776	1/1	0.95	0.06	66,66,66,66	0
55	MG	2A	3963	1/1	0.95	0.14	64,64,64,64	0
55	MG	2A	3682	1/1	0.95	0.07	49,49,49,49	0
55	MG	2A	3965	1/1	0.95	0.14	42,42,42,42	0
55	MG	2A	3967	1/1	0.95	0.46	48,48,48,48	0
55	MG	2A	3969	1/1	0.95	0.36	53,53,53,53	0
55	MG	2A	3970	1/1	0.95	0.18	54,54,54,54	0
55	MG	2A	3484	1/1	0.95	0.06	25,25,25,25	0
55	MG	1a	1657	1/1	0.95	0.05	67,67,67,67	0
55	MG	2A	3685	1/1	0.95	0.08	56,56,56,56	0
55	MG	1A	3082	1/1	0.95	0.48	32,32,32,32	0
55	MG	1a	1781	1/1	0.95	0.07	63,63,63,63	0
55	MG	1P	203	1/1	0.95	0.31	9,9,9,9	0
55	MG	2a	1718	1/1	0.95	0.06	38,38,38,38	0
55	MG	2A	3060	1/1	0.95	0.15	26,26,26,26	0
55	MG	1A	3543	1/1	0.95	0.15	52,52,52,52	0
55	MG	2A	3063	1/1	0.95	0.07	32,32,32,32	0
55	MG	2A	3696	1/1	0.95	0.09	48,48,48,48	0
55	MG	2A	3064	1/1	0.95	0.09	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3015	1/1	0.95	0.30	33,33,33,33	0
55	MG	1a	1785	1/1	0.95	0.08	96,96,96,96	0
55	MG	1A	3546	1/1	0.95	0.08	48,48,48,48	0
55	MG	2B	3018	1/1	0.95	0.07	70,70,70,70	0
55	MG	2A	3499	1/1	0.95	0.20	28,28,28,28	0
55	MG	1a	1788	1/1	0.95	0.05	70,70,70,70	0
55	MG	2A	3705	1/1	0.95	0.10	54,54,54,54	0
55	MG	1R	204	1/1	0.95	0.06	19,19,19,19	0
55	MG	1A	3915	1/1	0.95	0.12	63,63,63,63	0
55	MG	2A	3080	1/1	0.95	0.19	55,55,55,55	0
55	MG	1A	3549	1/1	0.95	0.12	40,40,40,40	0
55	MG	2D	301	1/1	0.95	0.15	46,46,46,46	0
55	MG	2D	303	1/1	0.95	0.29	41,41,41,41	0
55	MG	2A	3082	1/1	0.95	0.09	50,50,50,50	0
55	MG	1A	3759	1/1	0.95	0.07	28,28,28,28	0
55	MG	1A	3643	1/1	0.95	0.14	40,40,40,40	0
55	MG	2A	3722	1/1	0.95	0.07	63,63,63,63	0
55	MG	2D	310	1/1	0.95	0.17	40,40,40,40	0
55	MG	1V	202	1/1	0.95	0.18	19,19,19,19	0
55	MG	2A	3512	1/1	0.95	0.09	50,50,50,50	0
55	MG	1A	3930	1/1	0.95	0.14	36,36,36,36	0
55	MG	2D	314	1/1	0.95	0.05	50,50,50,50	0
55	MG	1X	101	1/1	0.95	0.10	32,32,32,32	0
55	MG	1A	3009	1/1	0.95	0.11	19,19,19,19	0
55	MG	1A	3146	1/1	0.95	0.14	22,22,22,22	0
55	MG	1A	3649	1/1	0.95	0.09	40,40,40,40	0
55	MG	2a	1757	1/1	0.95	0.08	69,69,69,69	0
55	MG	2A	3252	1/1	0.95	0.15	53,53,53,53	0
55	MG	1a	1801	1/1	0.95	0.05	69,69,69,69	0
55	MG	1A	3181	1/1	0.95	0.18	34,34,34,34	0
55	MG	1A	3183	1/1	0.95	0.33	39,39,39,39	0
55	MG	1A	3943	1/1	0.95	0.22	34,34,34,34	0
55	MG	1A	3114	1/1	0.95	0.14	18,18,18,18	0
55	MG	1A	3187	1/1	0.95	0.17	28,28,28,28	0
55	MG	2F	306	1/1	0.95	0.22	34,34,34,34	0
55	MG	2F	307	1/1	0.95	0.13	30,30,30,30	0
55	MG	2A	3746	1/1	0.95	0.16	63,63,63,63	0
55	MG	2F	309	1/1	0.95	0.34	42,42,42,42	0
55	MG	1A	3950	1/1	0.95	0.13	10,10,10,10	0
55	MG	1A	3050	1/1	0.95	0.18	29,29,29,29	0
55	MG	1A	3470	1/1	0.95	0.09	20,20,20,20	0
55	MG	15	103	1/1	0.95	0.07	19,19,19,19	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3266	1/1	0.95	0.18	41,41,41,41	0
55	MG	1a	1825	1/1	0.95	0.08	71,71,71,71	0
55	MG	1A	3007	1/1	0.95	0.11	26,26,26,26	0
55	MG	15	106	1/1	0.95	0.07	50,50,50,50	0
55	MG	2P	201	1/1	0.95	0.30	31,31,31,31	0
55	MG	1A	3150	1/1	0.95	0.14	41,41,41,41	0
55	MG	1A	3067	1/1	0.95	0.25	27,27,27,27	0
55	MG	2A	3274	1/1	0.95	0.23	51,51,51,51	0
55	MG	1a	1832	1/1	0.95	0.07	104,104,104,104	0
55	MG	2A	3117	1/1	0.95	0.19	36,36,36,36	0
55	MG	2T	202	1/1	0.95	0.06	56,56,56,56	0
55	MG	1a	1833	1/1	0.95	0.12	98,98,98,98	0
55	MG	1a	1834	1/1	0.95	0.06	60,60,60,60	0
55	MG	2A	3120	1/1	0.95	0.08	54,54,54,54	0
55	MG	2A	3121	1/1	0.95	0.10	60,60,60,60	0
55	MG	2a	1802	1/1	0.95	0.09	95,95,95,95	0
55	MG	2A	3555	1/1	0.95	0.10	54,54,54,54	0
55	MG	2A	3122	1/1	0.95	0.07	44,44,44,44	0
55	MG	2A	3780	1/1	0.95	0.06	29,29,29,29	0
55	MG	1A	3956	1/1	0.95	0.14	21,21,21,21	0
55	MG	2A	3782	1/1	0.95	0.07	58,58,58,58	0
55	MG	1A	3566	1/1	0.95	0.06	52,52,52,52	0
55	MG	19	104	1/1	0.95	0.07	58,58,58,58	0
55	MG	1a	1694	1/1	0.95	0.11	48,48,48,48	0
55	MG	1A	3476	1/1	0.95	0.11	41,41,41,41	0
55	MG	1A	3478	1/1	0.95	0.05	36,36,36,36	0
55	MG	1A	3091	1/1	0.95	0.20	18,18,18,18	0
55	MG	1B	205	1/1	0.95	0.07	49,49,49,49	0
55	MG	1A	3039	1/1	0.95	0.14	35,35,35,35	0
55	MG	25	102	1/1	0.95	0.18	41,41,41,41	0
55	MG	1A	3583	1/1	0.95	0.07	21,21,21,21	0
55	MG	1A	3802	1/1	0.95	0.08	26,26,26,26	0
55	MG	1A	3040	1/1	0.95	0.14	39,39,39,39	0
55	MG	27	102	1/1	0.95	0.06	48,48,48,48	0
55	MG	2A	3140	1/1	0.95	0.07	51,51,51,51	0
55	MG	29	101	1/1	0.95	0.06	46,46,46,46	0
55	MG	2A	3815	1/1	0.95	0.12	47,47,47,47	0
55	MG	2a	1839	1/1	0.95	0.11	62,62,62,62	0
55	MG	1a	1610	1/1	0.95	0.13	33,33,33,33	0
55	MG	1a	1716	1/1	0.95	0.04	71,71,71,71	0
55	MG	1A	3075	1/1	0.95	0.34	21,21,21,21	0
55	MG	1A	3676	1/1	0.95	0.06	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3148	1/1	0.95	0.11	35,35,35,35	0
55	MG	1A	3677	1/1	0.95	0.12	57,57,57,57	0
55	MG	1A	3162	1/1	0.95	0.12	45,45,45,45	0
55	MG	1A	3681	1/1	0.95	0.10	38,38,38,38	0
55	MG	1A	3031	1/1	0.95	0.08	22,22,22,22	0
55	MG	2h	3001	1/1	0.95	0.09	43,43,43,43	0
55	MG	2A	3837	1/1	0.95	0.07	42,42,42,42	0
55	MG	1A	3131	1/1	0.95	0.07	19,19,19,19	0
55	MG	2A	3593	1/1	0.95	0.15	37,37,37,37	0
55	MG	1l	3001	1/1	0.95	0.16	59,59,59,59	0
55	MG	2A	3848	1/1	0.95	0.09	40,40,40,40	0
55	MG	2A	3342	1/1	0.95	0.08	45,45,45,45	0
55	MG	1A	3591	1/1	0.95	0.18	60,60,60,60	0
55	MG	2A	3347	1/1	0.95	0.09	44,44,44,44	0
55	MG	1A	3207	1/1	0.95	0.32	27,27,27,27	0
55	MG	2A	3600	1/1	0.95	0.06	29,29,29,29	0
56	ZN	24	501	1/1	0.95	0.09	150,150,150,150	0
55	MG	1A	3070	1/1	0.96	0.20	24,24,24,24	0
55	MG	1A	3756	1/1	0.96	0.06	14,14,14,14	0
55	MG	23	101	1/1	0.96	0.32	56,56,56,56	0
55	MG	1A	3529	1/1	0.96	0.14	34,34,34,34	0
55	MG	2A	3057	1/1	0.96	0.12	24,24,24,24	0
55	MG	1A	3133	1/1	0.96	0.27	47,47,47,47	0
55	MG	1A	3105	1/1	0.96	0.29	33,33,33,33	0
55	MG	1A	3536	1/1	0.96	0.07	40,40,40,40	0
55	MG	1A	3107	1/1	0.96	0.07	20,20,20,20	0
55	MG	2A	3062	1/1	0.96	0.24	40,40,40,40	0
55	MG	1A	3538	1/1	0.96	0.08	48,48,48,48	0
55	MG	2A	3786	1/1	0.96	0.12	50,50,50,50	0
55	MG	1A	3768	1/1	0.96	0.06	25,25,25,25	0
55	MG	2A	3789	1/1	0.96	0.08	41,41,41,41	0
55	MG	2A	3791	1/1	0.96	0.05	63,63,63,63	0
55	MG	2A	3531	1/1	0.96	0.05	51,51,51,51	0
55	MG	1a	1764	1/1	0.96	0.04	75,75,75,75	0
55	MG	1A	3539	1/1	0.96	0.06	17,17,17,17	0
55	MG	1a	1766	1/1	0.96	0.04	62,62,62,62	0
55	MG	1a	1628	1/1	0.96	0.20	38,38,38,38	0
55	MG	2A	3070	1/1	0.96	0.12	37,37,37,37	0
55	MG	2A	3537	1/1	0.96	0.11	65,65,65,65	0
55	MG	2A	3808	1/1	0.96	0.07	48,48,48,48	0
55	MG	2A	3072	1/1	0.96	0.06	39,39,39,39	0
55	MG	2A	3541	1/1	0.96	0.10	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3442	1/1	0.96	0.06	25,25,25,25	0
55	MG	1A	3647	1/1	0.96	0.04	28,28,28,28	0
55	MG	2A	3256	1/1	0.96	0.10	45,45,45,45	0
55	MG	1A	3777	1/1	0.96	0.07	57,57,57,57	0
55	MG	1A	3446	1/1	0.96	0.05	76,76,76,76	0
55	MG	1a	1773	1/1	0.96	0.11	43,43,43,43	0
55	MG	1a	1633	1/1	0.96	0.08	34,34,34,34	0
55	MG	1A	3072	1/1	0.96	0.12	37,37,37,37	0
55	MG	1A	3449	1/1	0.96	0.06	45,45,45,45	0
55	MG	2A	3263	1/1	0.96	0.10	44,44,44,44	0
55	MG	2A	3087	1/1	0.96	0.17	43,43,43,43	0
55	MG	1A	3551	1/1	0.96	0.19	47,47,47,47	0
55	MG	2A	3267	1/1	0.96	0.15	44,44,44,44	0
55	MG	1A	3199	1/1	0.96	0.11	44,44,44,44	0
55	MG	2A	3090	1/1	0.96	0.10	46,46,46,46	0
55	MG	1A	3167	1/1	0.96	0.15	33,33,33,33	0
55	MG	2A	3850	1/1	0.96	0.10	81,81,81,81	0
55	MG	1B	219	1/1	0.96	0.06	51,51,51,51	0
55	MG	2A	3854	1/1	0.96	0.05	35,35,35,35	0
55	MG	1A	3109	1/1	0.96	0.05	19,19,19,19	0
55	MG	2A	3095	1/1	0.96	0.11	17,17,17,17	0
55	MG	2A	3276	1/1	0.96	0.07	41,41,41,41	0
55	MG	2A	3859	1/1	0.96	0.14	62,62,62,62	0
55	MG	2A	3566	1/1	0.96	0.11	26,26,26,26	0
55	MG	2A	3277	1/1	0.96	0.17	39,39,39,39	0
55	MG	2A	3865	1/1	0.96	0.07	56,56,56,56	0
55	MG	1A	3658	1/1	0.96	0.06	27,27,27,27	0
55	MG	2A	3282	1/1	0.96	0.12	41,41,41,41	0
55	MG	1A	3453	1/1	0.96	0.06	36,36,36,36	0
55	MG	1A	3798	1/1	0.96	0.10	60,60,60,60	0
55	MG	2A	3573	1/1	0.96	0.09	27,27,27,27	0
55	MG	2A	3101	1/1	0.96	0.26	36,36,36,36	0
55	MG	1A	3204	1/1	0.96	0.08	31,31,31,31	0
55	MG	2A	3294	1/1	0.96	0.06	77,77,77,77	0
55	MG	1A	3206	1/1	0.96	0.33	18,18,18,18	0
55	MG	1a	1646	1/1	0.96	0.22	47,47,47,47	0
55	MG	2a	1650	1/1	0.96	0.23	51,51,51,51	0
55	MG	1A	3665	1/1	0.96	0.11	23,23,23,23	0
55	MG	1A	3666	1/1	0.96	0.05	42,42,42,42	0
55	MG	1A	3305	1/1	0.96	0.12	47,47,47,47	0
55	MG	1A	3089	1/1	0.96	0.45	26,26,26,26	0
55	MG	1A	3314	1/1	0.96	0.05	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3304	1/1	0.96	0.06	51,51,51,51	0
55	MG	2A	3306	1/1	0.96	0.06	46,46,46,46	0
55	MG	2A	3886	1/1	0.96	0.06	55,55,55,55	0
55	MG	2A	3111	1/1	0.96	0.14	44,44,44,44	0
55	MG	1A	3818	1/1	0.96	0.10	40,40,40,40	0
55	MG	2A	3311	1/1	0.96	0.08	66,66,66,66	0
55	MG	2A	3892	1/1	0.96	0.10	61,61,61,61	0
55	MG	1A	3111	1/1	0.96	0.11	29,29,29,29	0
55	MG	2A	3894	1/1	0.96	0.10	38,38,38,38	0
55	MG	1A	3823	1/1	0.96	0.10	60,60,60,60	0
55	MG	2A	3896	1/1	0.96	0.13	45,45,45,45	0
55	MG	2A	3900	1/1	0.96	0.16	69,69,69,69	0
55	MG	1D	314	1/1	0.96	0.06	42,42,42,42	0
55	MG	2A	3602	1/1	0.96	0.09	53,53,53,53	0
55	MG	1A	3210	1/1	0.96	0.16	28,28,28,28	0
55	MG	2A	3906	1/1	0.96	0.11	79,79,79,79	0
55	MG	1a	1802	1/1	0.96	0.05	67,67,67,67	0
55	MG	2a	1674	1/1	0.96	0.13	31,31,31,31	0
55	MG	1a	1803	1/1	0.96	0.08	40,40,40,40	0
55	MG	2A	3910	1/1	0.96	0.13	37,37,37,37	0
55	MG	2A	3324	1/1	0.96	0.04	28,28,28,28	0
55	MG	1A	3141	1/1	0.96	0.14	36,36,36,36	0
55	MG	2A	3609	1/1	0.96	0.12	64,64,64,64	0
55	MG	1A	3843	1/1	0.96	0.35	25,25,25,25	0
55	MG	1A	3023	1/1	0.96	0.19	33,33,33,33	0
55	MG	1A	3848	1/1	0.96	0.12	63,63,63,63	0
55	MG	1A	3852	1/1	0.96	0.06	29,29,29,29	0
55	MG	2a	1686	1/1	0.96	0.04	78,78,78,78	0
55	MG	1A	3854	1/1	0.96	0.18	38,38,38,38	0
55	MG	1A	3057	1/1	0.96	0.18	16,16,16,16	0
55	MG	1A	3477	1/1	0.96	0.08	8,8,8,8	0
55	MG	2A	3335	1/1	0.96	0.06	77,77,77,77	0
55	MG	1a	1814	1/1	0.96	0.11	54,54,54,54	0
55	MG	2A	3926	1/1	0.96	0.08	50,50,50,50	0
55	MG	1A	3116	1/1	0.96	0.10	35,35,35,35	0
55	MG	1a	1823	1/1	0.96	0.15	51,51,51,51	0
55	MG	1A	3580	1/1	0.96	0.06	26,26,26,26	0
55	MG	1A	3582	1/1	0.96	0.08	14,14,14,14	0
55	MG	1A	3019	1/1	0.96	0.26	15,15,15,15	0
55	MG	1A	3118	1/1	0.96	0.05	35,35,35,35	0
55	MG	1A	3484	1/1	0.96	0.14	38,38,38,38	0
55	MG	2A	3367	1/1	0.96	0.05	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3631	1/1	0.96	0.04	75,75,75,75	0
55	MG	2a	1706	1/1	0.96	0.06	58,58,58,58	0
55	MG	1A	3866	1/1	0.96	0.09	79,79,79,79	0
55	MG	1A	3587	1/1	0.96	0.17	29,29,29,29	0
55	MG	2A	3637	1/1	0.96	0.08	39,39,39,39	0
55	MG	1A	3869	1/1	0.96	0.07	38,38,38,38	0
55	MG	2A	3943	1/1	0.96	0.10	38,38,38,38	0
55	MG	2A	3144	1/1	0.96	0.35	33,33,33,33	0
55	MG	2A	3145	1/1	0.96	0.12	42,42,42,42	0
55	MG	1A	3870	1/1	0.96	0.12	47,47,47,47	0
55	MG	2a	1720	1/1	0.96	0.13	60,60,60,60	0
55	MG	2A	3382	1/1	0.96	0.12	37,37,37,37	0
55	MG	1A	3692	1/1	0.96	0.07	29,29,29,29	0
55	MG	2a	1723	1/1	0.96	0.06	73,73,73,73	0
55	MG	1A	3693	1/1	0.96	0.08	20,20,20,20	0
55	MG	1A	3177	1/1	0.96	0.11	46,46,46,46	0
55	MG	1A	3697	1/1	0.96	0.09	37,37,37,37	0
55	MG	2a	1727	1/1	0.96	0.06	62,62,62,62	0
55	MG	2A	3953	1/1	0.96	0.17	48,48,48,48	0
55	MG	2A	3651	1/1	0.96	0.08	47,47,47,47	0
55	MG	2A	3388	1/1	0.96	0.06	56,56,56,56	0
55	MG	2A	3389	1/1	0.96	0.08	25,25,25,25	0
55	MG	1A	3049	1/1	0.96	0.10	22,22,22,22	0
55	MG	1A	3487	1/1	0.96	0.11	21,21,21,21	0
55	MG	1A	3008	1/1	0.96	0.15	32,32,32,32	0
55	MG	2A	3154	1/1	0.96	0.06	44,44,44,44	0
55	MG	2A	3962	1/1	0.96	0.12	32,32,32,32	0
55	MG	1Q	204	1/1	0.96	0.06	28,28,28,28	0
55	MG	1A	3359	1/1	0.96	0.03	46,46,46,46	0
55	MG	2A	3398	1/1	0.96	0.10	47,47,47,47	0
55	MG	1A	3880	1/1	0.96	0.13	54,54,54,54	0
55	MG	1A	3595	1/1	0.96	0.12	27,27,27,27	0
55	MG	2A	3159	1/1	0.96	0.06	45,45,45,45	0
55	MG	1a	1688	1/1	0.96	0.08	68,68,68,68	0
55	MG	1A	3001	1/1	0.96	0.06	23,23,23,23	0
55	MG	2A	3162	1/1	0.96	0.06	33,33,33,33	0
55	MG	2A	3671	1/1	0.96	0.07	52,52,52,52	0
55	MG	1A	3885	1/1	0.96	0.11	47,47,47,47	0
55	MG	1A	3888	1/1	0.96	0.09	60,60,60,60	0
55	MG	1A	3715	1/1	0.96	0.09	16,16,16,16	0
55	MG	1W	3001	1/1	0.96	0.14	14,14,14,14	0
55	MG	1A	3370	1/1	0.96	0.08	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3124	1/1	0.96	0.13	28,28,28,28	0
55	MG	1A	3043	1/1	0.96	0.19	10,10,10,10	0
55	MG	2A	3425	1/1	0.96	0.05	32,32,32,32	0
55	MG	2A	3171	1/1	0.96	0.09	40,40,40,40	0
55	MG	2a	1760	1/1	0.96	0.07	52,52,52,52	0
55	MG	2a	1761	1/1	0.96	0.04	77,77,77,77	0
55	MG	2A	3427	1/1	0.96	0.12	44,44,44,44	0
55	MG	2A	3428	1/1	0.96	0.11	62,62,62,62	0
55	MG	1A	3719	1/1	0.96	0.26	22,22,22,22	0
55	MG	2a	1766	1/1	0.96	0.05	94,94,94,94	0
55	MG	1a	1706	1/1	0.96	0.10	44,44,44,44	0
55	MG	1A	3603	1/1	0.96	0.10	48,48,48,48	0
55	MG	2A	3441	1/1	0.96	0.05	87,87,87,87	0
55	MG	2A	3444	1/1	0.96	0.06	36,36,36,36	0
55	MG	2A	3175	1/1	0.96	0.06	42,42,42,42	0
55	MG	1o	101	1/1	0.96	0.16	42,42,42,42	0
55	MG	1A	3902	1/1	0.96	0.12	55,55,55,55	0
55	MG	1A	3497	1/1	0.96	0.17	37,37,37,37	0
55	MG	2D	304	1/1	0.96	0.10	35,35,35,35	0
55	MG	2D	305	1/1	0.96	0.11	33,33,33,33	0
55	MG	1A	3377	1/1	0.96	0.12	16,16,16,16	0
55	MG	2a	1780	1/1	0.96	0.08	93,93,93,93	0
55	MG	2A	3180	1/1	0.96	0.10	51,51,51,51	0
55	MG	1A	3380	1/1	0.96	0.07	23,23,23,23	0
55	MG	1A	3502	1/1	0.96	0.05	36,36,36,36	0
55	MG	2A	3183	1/1	0.96	0.13	43,43,43,43	0
55	MG	11	103	1/1	0.96	0.14	44,44,44,44	0
55	MG	1A	3908	1/1	0.96	0.17	14,14,14,14	0
55	MG	1A	3185	1/1	0.96	0.15	25,25,25,25	0
55	MG	1A	3729	1/1	0.96	0.07	95,95,95,95	0
55	MG	2A	3009	1/1	0.96	0.14	31,31,31,31	0
55	MG	2a	1793	1/1	0.96	0.05	66,66,66,66	0
55	MG	1A	3612	1/1	0.96	0.06	50,50,50,50	0
55	MG	2A	3011	1/1	0.96	0.09	54,54,54,54	0
55	MG	2A	3012	1/1	0.96	0.19	34,34,34,34	0
55	MG	2a	1799	1/1	0.96	0.07	46,46,46,46	0
55	MG	2E	302	1/1	0.96	0.05	31,31,31,31	0
55	MG	2A	3717	1/1	0.96	0.06	43,43,43,43	0
55	MG	2A	3718	1/1	0.96	0.12	44,44,44,44	0
55	MG	2A	3475	1/1	0.96	0.13	39,39,39,39	0
55	MG	2a	1804	1/1	0.96	0.07	88,88,88,88	0
55	MG	1A	3153	1/1	0.96	0.36	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3015	1/1	0.96	0.20	44,44,44,44	0
55	MG	1A	3733	1/1	0.96	0.12	37,37,37,37	0
55	MG	1A	3390	1/1	0.96	0.12	36,36,36,36	0
55	MG	1A	3154	1/1	0.96	0.28	41,41,41,41	0
55	MG	1A	3064	1/1	0.96	0.03	20,20,20,20	0
55	MG	1A	3924	1/1	0.96	0.14	16,16,16,16	0
55	MG	2A	3730	1/1	0.96	0.21	43,43,43,43	0
55	MG	1A	3928	1/1	0.96	0.14	33,33,33,33	0
55	MG	2A	3732	1/1	0.96	0.10	95,95,95,95	0
55	MG	1A	3740	1/1	0.96	0.04	46,46,46,46	0
55	MG	2a	1825	1/1	0.96	0.05	97,97,97,97	0
55	MG	2a	1826	1/1	0.96	0.14	85,85,85,85	0
55	MG	2A	3029	1/1	0.96	0.05	39,39,39,39	0
55	MG	1a	1735	1/1	0.96	0.07	41,41,41,41	0
55	MG	2a	1829	1/1	0.96	0.06	64,64,64,64	0
55	MG	2A	3738	1/1	0.96	0.14	60,60,60,60	0
55	MG	1A	3018	1/1	0.96	0.42	20,20,20,20	0
55	MG	1A	3030	1/1	0.96	0.16	10,10,10,10	0
55	MG	1A	3935	1/1	0.96	0.24	20,20,20,20	0
55	MG	2P	202	1/1	0.96	0.04	84,84,84,84	0
55	MG	2A	3496	1/1	0.96	0.10	43,43,43,43	0
55	MG	1A	3403	1/1	0.96	0.06	40,40,40,40	0
55	MG	1a	1741	1/1	0.96	0.09	42,42,42,42	0
55	MG	1A	3406	1/1	0.96	0.07	38,38,38,38	0
55	MG	2a	1841	1/1	0.96	0.04	87,87,87,87	0
55	MG	2A	3216	1/1	0.96	0.15	37,37,37,37	0
55	MG	1a	1743	1/1	0.96	0.22	58,58,58,58	0
55	MG	1A	3747	1/1	0.96	0.08	27,27,27,27	0
55	MG	1a	1745	1/1	0.96	0.19	61,61,61,61	0
55	MG	1A	3941	1/1	0.96	0.08	48,48,48,48	0
55	MG	2A	3755	1/1	0.96	0.12	35,35,35,35	0
55	MG	2U	204	1/1	0.96	0.23	44,44,44,44	0
55	MG	2A	3506	1/1	0.96	0.08	55,55,55,55	0
55	MG	1A	3626	1/1	0.96	0.04	68,68,68,68	0
55	MG	2V	202	1/1	0.96	0.14	37,37,37,37	0
55	MG	1A	3944	1/1	0.96	0.24	28,28,28,28	0
55	MG	2A	3759	1/1	0.96	0.07	28,28,28,28	0
55	MG	2V	205	1/1	0.96	0.10	59,59,59,59	0
55	MG	1A	3945	1/1	0.96	0.08	22,22,22,22	0
55	MG	2W	3002	1/1	0.96	0.08	41,41,41,41	0
55	MG	1A	3407	1/1	0.96	0.18	34,34,34,34	0
55	MG	1A	3752	1/1	0.96	0.11	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3408	1/1	0.96	0.05	54,54,54,54	0
55	MG	1A	3277	1/1	0.96	0.10	37,37,37,37	0
55	MG	2A	3769	1/1	0.96	0.04	62,62,62,62	0
55	MG	1A	3887	1/1	0.97	0.12	71,71,71,71	0
55	MG	2A	3505	1/1	0.97	0.06	47,47,47,47	0
55	MG	1A	3581	1/1	0.97	0.08	24,24,24,24	0
55	MG	2A	3223	1/1	0.97	0.12	48,48,48,48	0
55	MG	2X	102	1/1	0.97	0.07	66,66,66,66	0
55	MG	2A	3224	1/1	0.97	0.20	31,31,31,31	0
55	MG	1A	3011	1/1	0.97	0.06	27,27,27,27	0
55	MG	2A	3773	1/1	0.97	0.05	46,46,46,46	0
55	MG	1a	1731	1/1	0.97	0.05	59,59,59,59	0
55	MG	1A	3890	1/1	0.97	0.06	21,21,21,21	0
55	MG	1A	3202	1/1	0.97	0.22	29,29,29,29	0
55	MG	2A	3514	1/1	0.97	0.04	59,59,59,59	0
55	MG	25	101	1/1	0.97	0.07	48,48,48,48	0
55	MG	1A	3362	1/1	0.97	0.14	38,38,38,38	0
55	MG	1A	3585	1/1	0.97	0.06	29,29,29,29	0
55	MG	2A	3044	1/1	0.97	0.07	26,26,26,26	0
55	MG	1A	3160	1/1	0.97	0.44	23,23,23,23	0
55	MG	1A	3479	1/1	0.97	0.09	39,39,39,39	0
55	MG	2A	3785	1/1	0.97	0.06	71,71,71,71	0
55	MG	1a	1738	1/1	0.97	0.09	50,50,50,50	0
55	MG	2A	3239	1/1	0.97	0.08	29,29,29,29	0
55	MG	11	101	1/1	0.97	0.03	26,26,26,26	0
55	MG	1A	3088	1/1	0.97	0.24	24,24,24,24	0
55	MG	2A	3793	1/1	0.97	0.04	52,52,52,52	0
55	MG	2A	3242	1/1	0.97	0.04	32,32,32,32	0
55	MG	1A	3028	1/1	0.97	0.15	19,19,19,19	0
55	MG	2A	3798	1/1	0.97	0.08	60,60,60,60	0
55	MG	2A	3053	1/1	0.97	0.12	37,37,37,37	0
55	MG	2A	3530	1/1	0.97	0.27	37,37,37,37	0
55	MG	2A	3801	1/1	0.97	0.06	57,57,57,57	0
55	MG	2A	3802	1/1	0.97	0.04	45,45,45,45	0
55	MG	2A	3054	1/1	0.97	0.04	31,31,31,31	0
55	MG	13	101	1/1	0.97	0.12	30,30,30,30	0
55	MG	1A	3482	1/1	0.97	0.12	37,37,37,37	0
55	MG	1A	3725	1/1	0.97	0.05	29,29,29,29	0
55	MG	1A	3906	1/1	0.97	0.05	14,14,14,14	0
55	MG	1A	3375	1/1	0.97	0.11	24,24,24,24	0
55	MG	1A	3592	1/1	0.97	0.16	23,23,23,23	0
55	MG	1A	3182	1/1	0.97	0.07	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3539	1/1	0.97	0.07	20,20,20,20	0
55	MG	2A	3540	1/1	0.97	0.06	49,49,49,49	0
55	MG	1A	3208	1/1	0.97	0.17	16,16,16,16	0
55	MG	2A	3827	1/1	0.97	0.13	48,48,48,48	0
55	MG	1A	3278	1/1	0.97	0.10	42,42,42,42	0
55	MG	2A	3829	1/1	0.97	0.19	77,77,77,77	0
55	MG	1A	3382	1/1	0.97	0.07	35,35,35,35	0
55	MG	19	101	1/1	0.97	0.10	24,24,24,24	0
55	MG	1A	3241	1/1	0.97	0.74	21,21,21,21	0
55	MG	2A	3067	1/1	0.97	0.12	41,41,41,41	0
55	MG	1A	3490	1/1	0.97	0.05	17,17,17,17	0
55	MG	2A	3838	1/1	0.97	0.08	48,48,48,48	0
55	MG	1A	3920	1/1	0.97	0.44	33,33,33,33	0
55	MG	1A	3387	1/1	0.97	0.05	54,54,54,54	0
55	MG	2A	3071	1/1	0.97	0.11	43,43,43,43	0
55	MG	1A	3492	1/1	0.97	0.14	28,28,28,28	0
55	MG	2A	3264	1/1	0.97	0.13	16,16,16,16	0
55	MG	1A	3044	1/1	0.97	0.10	21,21,21,21	0
55	MG	1A	3925	1/1	0.97	0.18	26,26,26,26	0
55	MG	2A	3853	1/1	0.97	0.05	53,53,53,53	0
55	MG	2A	3076	1/1	0.97	0.16	36,36,36,36	0
55	MG	1A	3389	1/1	0.97	0.05	8,8,8,8	0
55	MG	1a	1607	1/1	0.97	0.07	74,74,74,74	0
55	MG	1A	3025	1/1	0.97	0.38	22,22,22,22	0
55	MG	1A	3391	1/1	0.97	0.15	30,30,30,30	0
55	MG	2A	3084	1/1	0.97	0.29	38,38,38,38	0
55	MG	2A	3861	1/1	0.97	0.09	50,50,50,50	0
55	MG	2A	3862	1/1	0.97	0.05	63,63,63,63	0
55	MG	1A	3392	1/1	0.97	0.05	50,50,50,50	0
55	MG	1A	3499	1/1	0.97	0.05	33,33,33,33	0
55	MG	1A	3748	1/1	0.97	0.04	49,49,49,49	0
55	MG	1a	1613	1/1	0.97	0.08	26,26,26,26	0
55	MG	1A	3145	1/1	0.97	0.35	24,24,24,24	0
55	MG	1A	3939	1/1	0.97	0.11	24,24,24,24	0
55	MG	1A	3616	1/1	0.97	0.11	38,38,38,38	0
55	MG	2A	3572	1/1	0.97	0.06	67,67,67,67	0
55	MG	2A	3092	1/1	0.97	0.36	47,47,47,47	0
55	MG	2A	3577	1/1	0.97	0.07	69,69,69,69	0
55	MG	2a	1657	1/1	0.97	0.15	46,46,46,46	0
55	MG	2A	3578	1/1	0.97	0.08	43,43,43,43	0
55	MG	1A	3186	1/1	0.97	0.18	24,24,24,24	0
55	MG	2A	3293	1/1	0.97	0.14	7,7,7,7	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3396	1/1	0.97	0.17	35,35,35,35	0
55	MG	1A	3505	1/1	0.97	0.11	48,48,48,48	0
55	MG	1A	3068	1/1	0.97	0.24	33,33,33,33	0
55	MG	1a	1777	1/1	0.97	0.06	72,72,72,72	0
55	MG	2A	3099	1/1	0.97	0.12	43,43,43,43	0
55	MG	1A	3093	1/1	0.97	0.12	27,27,27,27	0
55	MG	1A	3947	1/1	0.97	0.26	24,24,24,24	0
55	MG	1A	3948	1/1	0.97	0.37	24,24,24,24	0
55	MG	1A	3399	1/1	0.97	0.04	30,30,30,30	0
55	MG	2A	3890	1/1	0.97	0.08	43,43,43,43	0
55	MG	1A	3293	1/1	0.97	0.05	45,45,45,45	0
55	MG	2A	3105	1/1	0.97	0.25	39,39,39,39	0
55	MG	1A	3511	1/1	0.97	0.11	46,46,46,46	0
55	MG	1A	3294	1/1	0.97	0.09	22,22,22,22	0
55	MG	1A	3632	1/1	0.97	0.07	16,16,16,16	0
55	MG	1A	3634	1/1	0.97	0.07	34,34,34,34	0
55	MG	2A	3897	1/1	0.97	0.09	52,52,52,52	0
55	MG	1A	3216	1/1	0.97	0.11	21,21,21,21	0
55	MG	1A	3069	1/1	0.97	0.31	17,17,17,17	0
55	MG	2A	3320	1/1	0.97	0.05	72,72,72,72	0
55	MG	1A	3190	1/1	0.97	0.38	36,36,36,36	0
55	MG	2A	3904	1/1	0.97	0.06	35,35,35,35	0
55	MG	1A	3517	1/1	0.97	0.08	21,21,21,21	0
55	MG	2a	1685	1/1	0.97	0.09	47,47,47,47	0
55	MG	1A	3302	1/1	0.97	0.14	43,43,43,43	0
55	MG	1A	3519	1/1	0.97	0.15	27,27,27,27	0
55	MG	2A	3909	1/1	0.97	0.05	58,58,58,58	0
55	MG	1A	3520	1/1	0.97	0.07	35,35,35,35	0
55	MG	2A	3328	1/1	0.97	0.14	39,39,39,39	0
55	MG	1A	3521	1/1	0.97	0.22	19,19,19,19	0
55	MG	2A	3913	1/1	0.97	0.05	55,55,55,55	0
55	MG	1A	3095	1/1	0.97	0.25	21,21,21,21	0
55	MG	1A	3523	1/1	0.97	0.04	12,12,12,12	0
55	MG	2a	1695	1/1	0.97	0.05	48,48,48,48	0
55	MG	1a	1799	1/1	0.97	0.06	73,73,73,73	0
55	MG	2a	1698	1/1	0.97	0.04	75,75,75,75	0
55	MG	2A	3616	1/1	0.97	0.28	35,35,35,35	0
55	MG	1A	3524	1/1	0.97	0.17	24,24,24,24	0
55	MG	1A	3648	1/1	0.97	0.10	66,66,66,66	0
55	MG	1A	3787	1/1	0.97	0.05	23,23,23,23	0
55	MG	1A	3789	1/1	0.97	0.06	42,42,42,42	0
55	MG	2A	3922	1/1	0.97	0.09	17,17,17,17	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1B	216	1/1	0.97	0.09	29,29,29,29	0
55	MG	2A	3622	1/1	0.97	0.09	46,46,46,46	0
55	MG	2A	3925	1/1	0.97	0.17	24,24,24,24	0
55	MG	1A	3791	1/1	0.97	0.09	38,38,38,38	0
55	MG	1A	3311	1/1	0.97	0.10	11,11,11,11	0
55	MG	1A	3794	1/1	0.97	0.04	50,50,50,50	0
55	MG	1A	3527	1/1	0.97	0.05	40,40,40,40	0
55	MG	2A	3349	1/1	0.97	0.05	42,42,42,42	0
55	MG	2A	3350	1/1	0.97	0.05	40,40,40,40	0
55	MG	2A	3359	1/1	0.97	0.05	34,34,34,34	0
55	MG	1B	223	1/1	0.97	0.14	61,61,61,61	0
55	MG	1A	3797	1/1	0.97	0.21	37,37,37,37	0
55	MG	2A	3634	1/1	0.97	0.08	68,68,68,68	0
55	MG	1A	3652	1/1	0.97	0.09	31,31,31,31	0
55	MG	2A	3134	1/1	0.97	0.06	40,40,40,40	0
55	MG	1A	3415	1/1	0.97	0.05	49,49,49,49	0
55	MG	2A	3136	1/1	0.97	0.07	34,34,34,34	0
55	MG	2A	3374	1/1	0.97	0.07	30,30,30,30	0
55	MG	2A	3642	1/1	0.97	0.08	53,53,53,53	0
55	MG	1a	1815	1/1	0.97	0.07	93,93,93,93	0
55	MG	2A	3138	1/1	0.97	0.14	40,40,40,40	0
55	MG	2a	1732	1/1	0.97	0.09	78,78,78,78	0
55	MG	2A	3380	1/1	0.97	0.06	35,35,35,35	0
55	MG	2A	3139	1/1	0.97	0.08	38,38,38,38	0
55	MG	2A	3648	1/1	0.97	0.11	49,49,49,49	0
55	MG	1a	1820	1/1	0.97	0.11	65,65,65,65	0
55	MG	1A	3417	1/1	0.97	0.06	32,32,32,32	0
55	MG	1A	3004	1/1	0.97	0.04	29,29,29,29	0
55	MG	2A	3143	1/1	0.97	0.14	42,42,42,42	0
55	MG	1A	3531	1/1	0.97	0.09	42,42,42,42	0
55	MG	2A	3956	1/1	0.97	0.19	34,34,34,34	0
55	MG	1A	3421	1/1	0.97	0.14	29,29,29,29	0
55	MG	1A	3534	1/1	0.97	0.06	14,14,14,14	0
55	MG	2A	3656	1/1	0.97	0.08	62,62,62,62	0
55	MG	2A	3391	1/1	0.97	0.08	63,63,63,63	0
55	MG	1a	1829	1/1	0.97	0.06	84,84,84,84	0
55	MG	1A	3422	1/1	0.97	0.05	42,42,42,42	0
55	MG	1A	3816	1/1	0.97	0.12	43,43,43,43	0
55	MG	1D	310	1/1	0.97	0.14	10,10,10,10	0
55	MG	2A	3663	1/1	0.97	0.04	25,25,25,25	0
55	MG	2a	1752	1/1	0.97	0.09	77,77,77,77	0
55	MG	2a	1753	1/1	0.97	0.05	102,102,102,102	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3817	1/1	0.97	0.22	35,35,35,35	0
55	MG	2A	3968	1/1	0.97	0.20	34,34,34,34	0
55	MG	1A	3661	1/1	0.97	0.06	27,27,27,27	0
55	MG	1A	3434	1/1	0.97	0.06	20,20,20,20	0
55	MG	1a	1836	1/1	0.97	0.05	53,53,53,53	0
55	MG	2A	3403	1/1	0.97	0.06	68,68,68,68	0
55	MG	1A	3438	1/1	0.97	0.06	33,33,33,33	0
55	MG	1A	3439	1/1	0.97	0.08	49,49,49,49	0
55	MG	2a	1762	1/1	0.97	0.14	71,71,71,71	0
55	MG	1A	3541	1/1	0.97	0.09	41,41,41,41	0
55	MG	1A	3254	1/1	0.97	0.11	41,41,41,41	0
55	MG	2B	3007	1/1	0.97	0.06	52,52,52,52	0
55	MG	2A	3410	1/1	0.97	0.08	54,54,54,54	0
55	MG	1A	3444	1/1	0.97	0.33	32,32,32,32	0
55	MG	1E	304	1/1	0.97	0.06	25,25,25,25	0
55	MG	1E	305	1/1	0.97	0.08	25,25,25,25	0
55	MG	2A	3414	1/1	0.97	0.04	70,70,70,70	0
55	MG	1A	3847	1/1	0.97	0.12	41,41,41,41	0
55	MG	1A	3445	1/1	0.97	0.11	19,19,19,19	0
55	MG	1A	3851	1/1	0.97	0.06	43,43,43,43	0
55	MG	2a	1775	1/1	0.97	0.06	54,54,54,54	0
55	MG	1A	3113	1/1	0.97	0.11	21,21,21,21	0
55	MG	2A	3421	1/1	0.97	0.04	54,54,54,54	0
55	MG	1A	3550	1/1	0.97	0.13	36,36,36,36	0
55	MG	2A	3167	1/1	0.97	0.09	35,35,35,35	0
55	MG	2A	3686	1/1	0.97	0.12	39,39,39,39	0
55	MG	1A	3071	1/1	0.97	0.09	26,26,26,26	0
55	MG	1A	3323	1/1	0.97	0.05	24,24,24,24	0
55	MG	2a	1783	1/1	0.97	0.08	90,90,90,90	0
55	MG	1A	3099	1/1	0.97	0.15	29,29,29,29	0
55	MG	1F	309	1/1	0.97	0.21	21,21,21,21	0
55	MG	2D	302	1/1	0.97	0.27	28,28,28,28	0
55	MG	1A	3225	1/1	0.97	0.07	25,25,25,25	0
55	MG	2A	3437	1/1	0.97	0.05	44,44,44,44	0
55	MG	1A	3861	1/1	0.97	0.14	63,63,63,63	0
55	MG	2a	1790	1/1	0.97	0.04	57,57,57,57	0
55	MG	2A	3440	1/1	0.97	0.11	27,27,27,27	0
55	MG	2a	1792	1/1	0.97	0.10	56,56,56,56	0
55	MG	1F	312	1/1	0.97	0.40	22,22,22,22	0
55	MG	1A	3053	1/1	0.97	0.43	18,18,18,18	0
55	MG	1A	3155	1/1	0.97	0.04	16,16,16,16	0
55	MG	1A	3680	1/1	0.97	0.10	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3329	1/1	0.97	0.06	67,67,67,67	0
55	MG	1A	3682	1/1	0.97	0.12	39,39,39,39	0
55	MG	1A	3228	1/1	0.97	0.12	37,37,37,37	0
55	MG	1a	1691	1/1	0.97	0.12	59,59,59,59	0
55	MG	1A	3332	1/1	0.97	0.05	53,53,53,53	0
55	MG	1N	202	1/1	0.97	0.17	32,32,32,32	0
55	MG	2A	3713	1/1	0.97	0.13	34,34,34,34	0
55	MG	1A	3460	1/1	0.97	0.07	16,16,16,16	0
55	MG	1a	1695	1/1	0.97	0.08	53,53,53,53	0
55	MG	2A	3459	1/1	0.97	0.05	53,53,53,53	0
55	MG	2A	3719	1/1	0.97	0.05	25,25,25,25	0
55	MG	1a	1696	1/1	0.97	0.09	63,63,63,63	0
55	MG	1A	3690	1/1	0.97	0.19	33,33,33,33	0
55	MG	2F	302	1/1	0.97	0.15	35,35,35,35	0
55	MG	2a	1819	1/1	0.97	0.08	61,61,61,61	0
55	MG	1P	202	1/1	0.97	0.18	17,17,17,17	0
55	MG	1a	1703	1/1	0.97	0.14	42,42,42,42	0
55	MG	1A	3462	1/1	0.97	0.16	50,50,50,50	0
55	MG	2A	3192	1/1	0.97	0.21	44,44,44,44	0
55	MG	2A	3472	1/1	0.97	0.08	68,68,68,68	0
55	MG	2A	3728	1/1	0.97	0.07	37,37,37,37	0
55	MG	1A	3464	1/1	0.97	0.04	38,38,38,38	0
55	MG	2F	310	1/1	0.97	0.23	40,40,40,40	0
55	MG	1Q	202	1/1	0.97	0.04	19,19,19,19	0
55	MG	1A	3334	1/1	0.97	0.07	29,29,29,29	0
55	MG	1A	3035	1/1	0.97	0.04	16,16,16,16	0
55	MG	2A	3016	1/1	0.97	0.25	38,38,38,38	0
55	MG	1A	3469	1/1	0.97	0.08	41,41,41,41	0
55	MG	2A	3483	1/1	0.97	0.08	36,36,36,36	0
55	MG	2N	201	1/1	0.97	0.13	72,72,72,72	0
55	MG	2A	3018	1/1	0.97	0.36	41,41,41,41	0
55	MG	2A	3739	1/1	0.97	0.08	57,57,57,57	0
55	MG	1a	1712	1/1	0.97	0.08	83,83,83,83	0
55	MG	2A	3020	1/1	0.97	0.09	43,43,43,43	0
55	MG	2Q	201	1/1	0.97	0.10	79,79,79,79	0
55	MG	1A	3230	1/1	0.97	0.23	36,36,36,36	0
55	MG	1A	3575	1/1	0.97	0.08	43,43,43,43	0
55	MG	2A	3205	1/1	0.97	0.28	42,42,42,42	0
55	MG	1A	3200	1/1	0.97	0.15	23,23,23,23	0
55	MG	1A	3702	1/1	0.97	0.05	43,43,43,43	0
55	MG	2T	201	1/1	0.97	0.10	21,21,21,21	0
55	MG	2A	3748	1/1	0.97	0.04	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1a	1719	1/1	0.97	0.05	44,44,44,44	0
55	MG	2A	3494	1/1	0.97	0.10	34,34,34,34	0
55	MG	2A	3210	1/1	0.97	0.17	37,37,37,37	0
55	MG	2A	3028	1/1	0.97	0.17	38,38,38,38	0
55	MG	1U	203	1/1	0.97	0.06	32,32,32,32	0
55	MG	1U	204	1/1	0.97	0.18	22,22,22,22	0
55	MG	1A	3704	1/1	0.97	0.07	57,57,57,57	0
55	MG	1V	201	1/1	0.97	0.12	16,16,16,16	0
55	MG	1A	3884	1/1	0.97	0.05	76,76,76,76	0
55	MG	1A	3341	1/1	0.97	0.06	29,29,29,29	0
55	MG	2A	3035	1/1	0.97	0.08	41,41,41,41	0
55	MG	1A	3386	1/1	0.98	0.06	18,18,18,18	0
55	MG	1A	3319	1/1	0.98	0.07	52,52,52,52	0
55	MG	1A	3275	1/1	0.98	0.06	11,11,11,11	0
55	MG	2A	3880	1/1	0.98	0.04	58,58,58,58	0
55	MG	2A	3424	1/1	0.98	0.08	72,72,72,72	0
55	MG	1A	3276	1/1	0.98	0.04	35,35,35,35	0
55	MG	1A	3911	1/1	0.98	0.15	61,61,61,61	0
55	MG	1R	201	1/1	0.98	0.07	20,20,20,20	0
55	MG	2A	3228	1/1	0.98	0.05	43,43,43,43	0
55	MG	2A	3429	1/1	0.98	0.04	23,23,23,23	0
55	MG	2A	3430	1/1	0.98	0.06	71,71,71,71	0
55	MG	2A	3229	1/1	0.98	0.05	29,29,29,29	0
55	MG	1R	202	1/1	0.98	0.05	26,26,26,26	0
55	MG	1A	3776	1/1	0.98	0.12	46,46,46,46	0
55	MG	2A	3646	1/1	0.98	0.10	40,40,40,40	0
55	MG	1A	3913	1/1	0.98	0.09	27,27,27,27	0
55	MG	1T	201	1/1	0.98	0.06	30,30,30,30	0
55	MG	2A	3234	1/1	0.98	0.08	29,29,29,29	0
55	MG	2A	3442	1/1	0.98	0.10	20,20,20,20	0
55	MG	1a	1818	1/1	0.98	0.07	72,72,72,72	0
55	MG	1a	1819	1/1	0.98	0.04	52,52,52,52	0
55	MG	2A	3447	1/1	0.98	0.05	29,29,29,29	0
55	MG	2A	3237	1/1	0.98	0.11	41,41,41,41	0
55	MG	1A	3459	1/1	0.98	0.07	8,8,8,8	0
55	MG	2A	3096	1/1	0.98	0.10	35,35,35,35	0
55	MG	2A	3905	1/1	0.98	0.05	51,51,51,51	0
55	MG	2A	3657	1/1	0.98	0.14	45,45,45,45	0
55	MG	1A	3232	1/1	0.98	0.04	16,16,16,16	0
55	MG	2A	3452	1/1	0.98	0.08	82,82,82,82	0
55	MG	2a	1649	1/1	0.98	0.09	65,65,65,65	0
55	MG	1A	3461	1/1	0.98	0.07	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3917	1/1	0.98	0.07	23,23,23,23	0
55	MG	1A	3918	1/1	0.98	0.14	35,35,35,35	0
55	MG	1a	1686	1/1	0.98	0.18	33,33,33,33	0
55	MG	1A	3087	1/1	0.98	0.04	30,30,30,30	0
55	MG	2A	3458	1/1	0.98	0.04	46,46,46,46	0
55	MG	2A	3666	1/1	0.98	0.11	51,51,51,51	0
55	MG	1A	3781	1/1	0.98	0.05	28,28,28,28	0
55	MG	1A	3132	1/1	0.98	0.05	22,22,22,22	0
55	MG	1A	3281	1/1	0.98	0.06	58,58,58,58	0
55	MG	2A	3463	1/1	0.98	0.06	36,36,36,36	0
55	MG	1A	3235	1/1	0.98	0.06	27,27,27,27	0
55	MG	1A	3927	1/1	0.98	0.08	27,27,27,27	0
55	MG	2A	3468	1/1	0.98	0.05	36,36,36,36	0
55	MG	1A	3468	1/1	0.98	0.06	24,24,24,24	0
55	MG	1Y	502	1/1	0.98	0.10	90,90,90,90	0
55	MG	1A	3929	1/1	0.98	0.09	25,25,25,25	0
55	MG	1A	3158	1/1	0.98	0.05	28,28,28,28	0
55	MG	2A	3927	1/1	0.98	0.04	28,28,28,28	0
55	MG	2A	3474	1/1	0.98	0.04	38,38,38,38	0
55	MG	1A	3526	1/1	0.98	0.05	28,28,28,28	0
55	MG	1a	1701	1/1	0.98	0.04	56,56,56,56	0
55	MG	1a	1702	1/1	0.98	0.04	46,46,46,46	0
55	MG	2A	3478	1/1	0.98	0.05	58,58,58,58	0
55	MG	2A	3479	1/1	0.98	0.09	53,53,53,53	0
55	MG	1A	3287	1/1	0.98	0.07	26,26,26,26	0
55	MG	10	105	1/1	0.98	0.07	49,49,49,49	0
55	MG	1A	3599	1/1	0.98	0.12	34,34,34,34	0
55	MG	2A	3687	1/1	0.98	0.04	80,80,80,80	0
55	MG	2a	1679	1/1	0.98	0.23	27,27,27,27	0
55	MG	1A	3936	1/1	0.98	0.07	41,41,41,41	0
55	MG	1A	3600	1/1	0.98	0.13	41,41,41,41	0
55	MG	2A	3486	1/1	0.98	0.11	59,59,59,59	0
55	MG	1A	3683	1/1	0.98	0.03	73,73,73,73	0
55	MG	2A	3692	1/1	0.98	0.05	46,46,46,46	0
55	MG	1a	1709	1/1	0.98	0.06	37,37,37,37	0
55	MG	1A	3684	1/1	0.98	0.05	41,41,41,41	0
55	MG	1A	3601	1/1	0.98	0.17	57,57,57,57	0
55	MG	1A	3799	1/1	0.98	0.04	35,35,35,35	0
55	MG	1A	3120	1/1	0.98	0.17	26,26,26,26	0
55	MG	2A	3700	1/1	0.98	0.05	58,58,58,58	0
55	MG	2A	3269	1/1	0.98	0.21	51,51,51,51	0
55	MG	1A	3333	1/1	0.98	0.06	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3079	1/1	0.98	0.14	36,36,36,36	0
55	MG	2A	3128	1/1	0.98	0.07	39,39,39,39	0
55	MG	1A	3405	1/1	0.98	0.07	51,51,51,51	0
55	MG	1A	3606	1/1	0.98	0.05	23,23,23,23	0
55	MG	2A	3707	1/1	0.98	0.04	26,26,26,26	0
55	MG	2a	1699	1/1	0.98	0.05	53,53,53,53	0
55	MG	2A	3275	1/1	0.98	0.04	47,47,47,47	0
55	MG	1A	3607	1/1	0.98	0.07	16,16,16,16	0
55	MG	17	102	1/1	0.98	0.08	28,28,28,28	0
55	MG	2A	3278	1/1	0.98	0.16	38,38,38,38	0
55	MG	1A	3694	1/1	0.98	0.05	31,31,31,31	0
55	MG	2A	3280	1/1	0.98	0.05	33,33,33,33	0
55	MG	2A	3281	1/1	0.98	0.04	56,56,56,56	0
55	MG	2a	1708	1/1	0.98	0.05	76,76,76,76	0
55	MG	2A	3966	1/1	0.98	0.10	46,46,46,46	0
55	MG	1A	3815	1/1	0.98	0.08	57,57,57,57	0
55	MG	1A	3106	1/1	0.98	0.05	27,27,27,27	0
55	MG	1A	3696	1/1	0.98	0.05	50,50,50,50	0
55	MG	1A	3533	1/1	0.98	0.07	25,25,25,25	0
55	MG	1A	3062	1/1	0.98	0.23	17,17,17,17	0
55	MG	2A	3724	1/1	0.98	0.07	63,63,63,63	0
55	MG	2B	3002	1/1	0.98	0.04	69,69,69,69	0
55	MG	2A	3511	1/1	0.98	0.18	64,64,64,64	0
55	MG	2A	3290	1/1	0.98	0.06	29,29,29,29	0
55	MG	2A	3292	1/1	0.98	0.05	38,38,38,38	0
55	MG	2A	3003	1/1	0.98	0.07	34,34,34,34	0
55	MG	1A	3535	1/1	0.98	0.05	19,19,19,19	0
55	MG	1A	3828	1/1	0.98	0.10	52,52,52,52	0
55	MG	1A	3829	1/1	0.98	0.05	50,50,50,50	0
55	MG	1B	201	1/1	0.98	0.12	27,27,27,27	0
55	MG	1A	3222	1/1	0.98	0.27	30,30,30,30	0
55	MG	2B	3012	1/1	0.98	0.04	56,56,56,56	0
55	MG	1A	3831	1/1	0.98	0.08	13,13,13,13	0
55	MG	2A	3522	1/1	0.98	0.05	32,32,32,32	0
55	MG	2A	3737	1/1	0.98	0.03	43,43,43,43	0
55	MG	1A	3832	1/1	0.98	0.06	10,10,10,10	0
55	MG	1A	3838	1/1	0.98	0.09	39,39,39,39	0
55	MG	2A	3740	1/1	0.98	0.20	86,86,86,86	0
55	MG	1A	3115	1/1	0.98	0.05	23,23,23,23	0
55	MG	1A	3348	1/1	0.98	0.06	11,11,11,11	0
55	MG	2A	3307	1/1	0.98	0.07	57,57,57,57	0
55	MG	2A	3308	1/1	0.98	0.05	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3014	1/1	0.98	0.16	23,23,23,23	0
55	MG	1A	3845	1/1	0.98	0.14	47,47,47,47	0
55	MG	1A	3013	1/1	0.98	0.06	17,17,17,17	0
55	MG	2a	1743	1/1	0.98	0.05	75,75,75,75	0
55	MG	1A	3618	1/1	0.98	0.19	24,24,24,24	0
55	MG	1A	3709	1/1	0.98	0.04	31,31,31,31	0
55	MG	1B	212	1/1	0.98	0.04	59,59,59,59	0
55	MG	1A	3710	1/1	0.98	0.10	36,36,36,36	0
55	MG	1A	3139	1/1	0.98	0.15	33,33,33,33	0
55	MG	1A	3853	1/1	0.98	0.05	47,47,47,47	0
55	MG	2A	3023	1/1	0.98	0.24	44,44,44,44	0
55	MG	2A	3323	1/1	0.98	0.06	27,27,27,27	0
55	MG	1A	3360	1/1	0.98	0.05	16,16,16,16	0
55	MG	1A	3416	1/1	0.98	0.06	38,38,38,38	0
55	MG	1A	3856	1/1	0.98	0.12	34,34,34,34	0
55	MG	2A	3544	1/1	0.98	0.10	29,29,29,29	0
55	MG	2A	3762	1/1	0.98	0.10	69,69,69,69	0
55	MG	2A	3545	1/1	0.98	0.12	39,39,39,39	0
55	MG	2A	3327	1/1	0.98	0.04	34,34,34,34	0
55	MG	1A	3545	1/1	0.98	0.06	40,40,40,40	0
55	MG	1A	3361	1/1	0.98	0.06	35,35,35,35	0
55	MG	1A	3625	1/1	0.98	0.09	69,69,69,69	0
55	MG	1A	3720	1/1	0.98	0.13	40,40,40,40	0
55	MG	2A	3772	1/1	0.98	0.07	50,50,50,50	0
55	MG	1A	3547	1/1	0.98	0.04	29,29,29,29	0
55	MG	1A	3548	1/1	0.98	0.10	27,27,27,27	0
55	MG	1D	301	1/1	0.98	0.09	21,21,21,21	0
55	MG	1A	3628	1/1	0.98	0.12	10,10,10,10	0
55	MG	1A	3629	1/1	0.98	0.12	55,55,55,55	0
55	MG	1D	305	1/1	0.98	0.08	42,42,42,42	0
55	MG	2A	3339	1/1	0.98	0.05	34,34,34,34	0
55	MG	1A	3193	1/1	0.98	0.33	20,20,20,20	0
55	MG	1A	3420	1/1	0.98	0.03	48,48,48,48	0
55	MG	1A	3868	1/1	0.98	0.04	29,29,29,29	0
55	MG	1A	3037	1/1	0.98	0.23	30,30,30,30	0
55	MG	2A	3348	1/1	0.98	0.07	56,56,56,56	0
55	MG	1A	3368	1/1	0.98	0.05	13,13,13,13	0
55	MG	1A	3431	1/1	0.98	0.05	14,14,14,14	0
55	MG	2A	3790	1/1	0.98	0.13	52,52,52,52	0
55	MG	2A	3353	1/1	0.98	0.05	24,24,24,24	0
55	MG	2A	3354	1/1	0.98	0.05	39,39,39,39	0
55	MG	1A	3555	1/1	0.98	0.04	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3361	1/1	0.98	0.05	26,26,26,26	0
55	MG	2A	3362	1/1	0.98	0.04	32,32,32,32	0
55	MG	1A	3732	1/1	0.98	0.03	91,91,91,91	0
55	MG	1A	3303	1/1	0.98	0.06	27,27,27,27	0
55	MG	2A	3576	1/1	0.98	0.08	25,25,25,25	0
55	MG	2Q	202	1/1	0.98	0.10	34,34,34,34	0
55	MG	2A	3366	1/1	0.98	0.07	25,25,25,25	0
55	MG	1A	3436	1/1	0.98	0.07	11,11,11,11	0
55	MG	2A	3579	1/1	0.98	0.03	37,37,37,37	0
55	MG	1A	3304	1/1	0.98	0.04	34,34,34,34	0
55	MG	2A	3050	1/1	0.98	0.35	48,48,48,48	0
55	MG	2a	1794	1/1	0.98	0.04	92,92,92,92	0
55	MG	2A	3582	1/1	0.98	0.06	29,29,29,29	0
55	MG	1A	3641	1/1	0.98	0.14	36,36,36,36	0
55	MG	1A	3496	1/1	0.98	0.06	40,40,40,40	0
55	MG	2a	1798	1/1	0.98	0.07	46,46,46,46	0
55	MG	1A	3560	1/1	0.98	0.11	34,34,34,34	0
55	MG	2A	3817	1/1	0.98	0.08	66,66,66,66	0
55	MG	2A	3377	1/1	0.98	0.04	36,36,36,36	0
55	MG	1A	3881	1/1	0.98	0.04	57,57,57,57	0
55	MG	2A	3820	1/1	0.98	0.04	36,36,36,36	0
55	MG	2A	3823	1/1	0.98	0.07	60,60,60,60	0
55	MG	1A	3644	1/1	0.98	0.07	30,30,30,30	0
55	MG	2A	3825	1/1	0.98	0.08	67,67,67,67	0
55	MG	1a	1780	1/1	0.98	0.06	45,45,45,45	0
55	MG	1A	3374	1/1	0.98	0.05	21,21,21,21	0
55	MG	1A	3441	1/1	0.98	0.04	16,16,16,16	0
55	MG	2a	1812	1/1	0.98	0.06	69,69,69,69	0
55	MG	2a	1813	1/1	0.98	0.05	72,72,72,72	0
55	MG	2A	3830	1/1	0.98	0.11	71,71,71,71	0
55	MG	2a	1815	1/1	0.98	0.06	75,75,75,75	0
55	MG	1A	3180	1/1	0.98	0.12	24,24,24,24	0
55	MG	1A	3886	1/1	0.98	0.08	38,38,38,38	0
55	MG	1A	3500	1/1	0.98	0.09	44,44,44,44	0
55	MG	1A	3443	1/1	0.98	0.06	45,45,45,45	0
55	MG	1A	3212	1/1	0.98	0.23	21,21,21,21	0
55	MG	2a	1823	1/1	0.98	0.05	94,94,94,94	0
55	MG	2A	3390	1/1	0.98	0.10	41,41,41,41	0
55	MG	20	103	1/1	0.98	0.06	64,64,64,64	0
55	MG	2A	3839	1/1	0.98	0.04	28,28,28,28	0
55	MG	1A	3651	1/1	0.98	0.05	37,37,37,37	0
55	MG	1A	3312	1/1	0.98	0.08	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	2A	3843	1/1	0.98	0.09	38,38,38,38	0
55	MG	1A	3892	1/1	0.98	0.08	27,27,27,27	0
55	MG	2a	1831	1/1	0.98	0.10	67,67,67,67	0
55	MG	2A	3846	1/1	0.98	0.09	56,56,56,56	0
55	MG	1F	313	1/1	0.98	0.03	4,4,4,4	0
55	MG	1A	3893	1/1	0.98	0.09	53,53,53,53	0
55	MG	1A	3504	1/1	0.98	0.04	32,32,32,32	0
55	MG	2A	3851	1/1	0.98	0.11	66,66,66,66	0
55	MG	2A	3607	1/1	0.98	0.10	74,74,74,74	0
55	MG	28	102	1/1	0.98	0.07	60,60,60,60	0
55	MG	1A	3379	1/1	0.98	0.06	13,13,13,13	0
55	MG	1A	3097	1/1	0.98	0.35	23,23,23,23	0
55	MG	2A	3399	1/1	0.98	0.03	38,38,38,38	0
55	MG	2A	3401	1/1	0.98	0.04	36,36,36,36	0
55	MG	2A	3208	1/1	0.98	0.06	38,38,38,38	0
55	MG	1A	3577	1/1	0.98	0.05	20,20,20,20	0
55	MG	1A	3901	1/1	0.98	0.07	29,29,29,29	0
55	MG	2A	3074	1/1	0.98	0.07	46,46,46,46	0
55	MG	1A	3578	1/1	0.98	0.14	26,26,26,26	0
55	MG	2A	3863	1/1	0.98	0.09	61,61,61,61	0
55	MG	1A	3381	1/1	0.98	0.07	19,19,19,19	0
55	MG	2A	3077	1/1	0.98	0.17	47,47,47,47	0
55	MG	2A	3215	1/1	0.98	0.16	38,38,38,38	0
55	MG	2A	3078	1/1	0.98	0.10	44,44,44,44	0
55	MG	2A	3217	1/1	0.98	0.10	32,32,32,32	0
55	MG	2A	3869	1/1	0.98	0.07	50,50,50,50	0
55	MG	2A	3079	1/1	0.98	0.18	41,41,41,41	0
55	MG	1A	3130	1/1	0.98	0.05	14,14,14,14	0
55	MG	2A	3416	1/1	0.98	0.04	21,21,21,21	0
55	MG	1A	3383	1/1	0.98	0.07	13,13,13,13	0
55	MG	2A	3418	1/1	0.98	0.04	60,60,60,60	0
55	MG	1A	3317	1/1	0.98	0.06	13,13,13,13	0
56	ZN	2n	101	1/1	0.98	0.04	96,96,96,96	0
55	MG	1A	3356	1/1	0.99	0.04	20,20,20,20	0
55	MG	2A	3460	1/1	0.99	0.04	25,25,25,25	0
55	MG	1A	3472	1/1	0.99	0.08	28,28,28,28	0
55	MG	1A	3608	1/1	0.99	0.04	49,49,49,49	0
55	MG	1A	3263	1/1	0.99	0.05	35,35,35,35	0
55	MG	2A	3464	1/1	0.99	0.03	37,37,37,37	0
55	MG	1A	3790	1/1	0.99	0.07	36,36,36,36	0
55	MG	2A	3887	1/1	0.99	0.03	76,76,76,76	0
55	MG	1a	1839	1/1	0.99	0.03	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3688	1/1	0.99	0.03	23,23,23,23	0
55	MG	1A	3792	1/1	0.99	0.09	25,25,25,25	0
55	MG	2A	3470	1/1	0.99	0.04	26,26,26,26	0
55	MG	1A	3919	1/1	0.99	0.08	9,9,9,9	0
55	MG	1A	3358	1/1	0.99	0.04	33,33,33,33	0
55	MG	1V	203	1/1	0.99	0.07	29,29,29,29	0
55	MG	1a	1698	1/1	0.99	0.03	37,37,37,37	0
55	MG	1a	1699	1/1	0.99	0.04	33,33,33,33	0
55	MG	1A	3315	1/1	0.99	0.03	10,10,10,10	0
55	MG	2A	3898	1/1	0.99	0.03	24,24,24,24	0
55	MG	1W	3002	1/1	0.99	0.10	27,27,27,27	0
55	MG	1A	3922	1/1	0.99	0.15	31,31,31,31	0
55	MG	2A	3285	1/1	0.99	0.04	27,27,27,27	0
55	MG	2A	3480	1/1	0.99	0.04	39,39,39,39	0
55	MG	1A	3795	1/1	0.99	0.03	27,27,27,27	0
55	MG	2A	3287	1/1	0.99	0.03	24,24,24,24	0
55	MG	2A	3288	1/1	0.99	0.05	24,24,24,24	0
55	MG	1A	3205	1/1	0.99	0.04	14,14,14,14	0
55	MG	1A	3540	1/1	0.99	0.06	32,32,32,32	0
55	MG	1A	3614	1/1	0.99	0.10	32,32,32,32	0
55	MG	1A	3410	1/1	0.99	0.04	8,8,8,8	0
55	MG	1A	3542	1/1	0.99	0.04	49,49,49,49	0
55	MG	1A	3318	1/1	0.99	0.06	9,9,9,9	0
55	MG	1A	3931	1/1	0.99	0.04	32,32,32,32	0
55	MG	1A	3412	1/1	0.99	0.03	50,50,50,50	0
55	MG	1A	3803	1/1	0.99	0.10	46,46,46,46	0
55	MG	1a	1714	1/1	0.99	0.04	49,49,49,49	0
55	MG	1A	3248	1/1	0.99	0.23	39,39,39,39	0
55	MG	1A	3806	1/1	0.99	0.03	37,37,37,37	0
55	MG	1A	3620	1/1	0.99	0.09	58,58,58,58	0
55	MG	2A	3305	1/1	0.99	0.02	31,31,31,31	0
55	MG	1a	1718	1/1	0.99	0.04	48,48,48,48	0
55	MG	2A	3693	1/1	0.99	0.03	37,37,37,37	0
55	MG	11	104	1/1	0.99	0.10	24,24,24,24	0
55	MG	1A	3811	1/1	0.99	0.02	13,13,13,13	0
55	MG	1A	3701	1/1	0.99	0.07	33,33,33,33	0
55	MG	1a	1722	1/1	0.99	0.05	63,63,63,63	0
55	MG	2A	3698	1/1	0.99	0.06	44,44,44,44	0
55	MG	1A	3813	1/1	0.99	0.14	26,26,26,26	0
55	MG	2A	3313	1/1	0.99	0.04	36,36,36,36	0
55	MG	2A	3314	1/1	0.99	0.03	31,31,31,31	0
55	MG	1A	3121	1/1	0.99	0.06	21,21,21,21	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3483	1/1	0.99	0.08	62,62,62,62	0
55	MG	1a	1726	1/1	0.99	0.03	68,68,68,68	0
55	MG	2A	3934	1/1	0.99	0.03	45,45,45,45	0
55	MG	1A	3365	1/1	0.99	0.03	33,33,33,33	0
55	MG	1A	3366	1/1	0.99	0.05	27,27,27,27	0
55	MG	1A	3707	1/1	0.99	0.06	33,33,33,33	0
55	MG	1A	3820	1/1	0.99	0.07	53,53,53,53	0
55	MG	1A	3367	1/1	0.99	0.04	24,24,24,24	0
55	MG	2A	3940	1/1	0.99	0.04	48,48,48,48	0
55	MG	1A	3418	1/1	0.99	0.06	53,53,53,53	0
55	MG	2A	3711	1/1	0.99	0.03	51,51,51,51	0
55	MG	18	3303	1/1	0.99	0.06	56,56,56,56	0
55	MG	2A	3516	1/1	0.99	0.06	65,65,65,65	0
55	MG	2A	3715	1/1	0.99	0.07	37,37,37,37	0
55	MG	2A	3716	1/1	0.99	0.04	27,27,27,27	0
55	MG	1A	3825	1/1	0.99	0.07	18,18,18,18	0
55	MG	1A	3826	1/1	0.99	0.13	60,60,60,60	0
55	MG	1A	3827	1/1	0.99	0.10	57,57,57,57	0
55	MG	1A	3711	1/1	0.99	0.05	21,21,21,21	0
55	MG	1A	3713	1/1	0.99	0.03	22,22,22,22	0
55	MG	1A	3321	1/1	0.99	0.05	17,17,17,17	0
55	MG	2a	1696	1/1	0.99	0.04	38,38,38,38	0
55	MG	1A	3369	1/1	0.99	0.03	12,12,12,12	0
55	MG	2A	3024	1/1	0.99	0.03	31,31,31,31	0
55	MG	1A	3554	1/1	0.99	0.04	56,56,56,56	0
55	MG	1A	3833	1/1	0.99	0.03	17,17,17,17	0
55	MG	1A	3834	1/1	0.99	0.08	60,60,60,60	0
55	MG	2A	3337	1/1	0.99	0.03	22,22,22,22	0
55	MG	2A	3529	1/1	0.99	0.06	21,21,21,21	0
55	MG	1A	3835	1/1	0.99	0.04	14,14,14,14	0
55	MG	1A	3836	1/1	0.99	0.04	27,27,27,27	0
55	MG	1A	3837	1/1	0.99	0.04	9,9,9,9	0
55	MG	2a	1707	1/1	0.99	0.04	51,51,51,51	0
55	MG	1A	3630	1/1	0.99	0.08	46,46,46,46	0
55	MG	1A	3839	1/1	0.99	0.04	11,11,11,11	0
55	MG	2A	3344	1/1	0.99	0.04	49,49,49,49	0
55	MG	2a	1711	1/1	0.99	0.02	62,62,62,62	0
55	MG	2a	1712	1/1	0.99	0.12	59,59,59,59	0
55	MG	2A	3736	1/1	0.99	0.06	52,52,52,52	0
55	MG	2A	3346	1/1	0.99	0.03	35,35,35,35	0
55	MG	1A	3066	1/1	0.99	0.10	23,23,23,23	0
55	MG	1A	3842	1/1	0.99	0.13	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3371	1/1	0.99	0.03	17,17,17,17	0
55	MG	1A	3844	1/1	0.99	0.07	53,53,53,53	0
55	MG	2A	3352	1/1	0.99	0.06	48,48,48,48	0
55	MG	1A	3633	1/1	0.99	0.06	40,40,40,40	0
55	MG	1B	213	1/1	0.99	0.04	21,21,21,21	0
55	MG	2A	3356	1/1	0.99	0.03	29,29,29,29	0
55	MG	2A	3358	1/1	0.99	0.03	23,23,23,23	0
55	MG	1A	3721	1/1	0.99	0.07	18,18,18,18	0
55	MG	1A	3423	1/1	0.99	0.04	9,9,9,9	0
55	MG	1A	3424	1/1	0.99	0.02	45,45,45,45	0
55	MG	2A	3190	1/1	0.99	0.13	35,35,35,35	0
55	MG	2A	3364	1/1	0.99	0.06	37,37,37,37	0
55	MG	2A	3752	1/1	0.99	0.03	31,31,31,31	0
55	MG	2B	3013	1/1	0.99	0.05	66,66,66,66	0
55	MG	1A	3849	1/1	0.99	0.07	39,39,39,39	0
55	MG	1A	3850	1/1	0.99	0.07	43,43,43,43	0
55	MG	1B	220	1/1	0.99	0.04	29,29,29,29	0
55	MG	2A	3045	1/1	0.99	0.03	28,28,28,28	0
55	MG	1A	3425	1/1	0.99	0.04	10,10,10,10	0
55	MG	2B	3019	1/1	0.99	0.04	63,63,63,63	0
55	MG	2A	3371	1/1	0.99	0.04	45,45,45,45	0
55	MG	2A	3558	1/1	0.99	0.09	15,15,15,15	0
55	MG	1a	1762	1/1	0.99	0.05	54,54,54,54	0
55	MG	2A	3373	1/1	0.99	0.03	27,27,27,27	0
55	MG	1B	222	1/1	0.99	0.08	35,35,35,35	0
55	MG	1A	3426	1/1	0.99	0.06	15,15,15,15	0
55	MG	1A	3430	1/1	0.99	0.06	29,29,29,29	0
55	MG	2A	3766	1/1	0.99	0.03	74,74,74,74	0
55	MG	2A	3767	1/1	0.99	0.02	52,52,52,52	0
55	MG	1A	3296	1/1	0.99	0.04	36,36,36,36	0
55	MG	2A	3379	1/1	0.99	0.05	15,15,15,15	0
55	MG	1a	1767	1/1	0.99	0.04	78,78,78,78	0
55	MG	2A	3771	1/1	0.99	0.12	46,46,46,46	0
55	MG	1A	3433	1/1	0.99	0.03	22,22,22,22	0
55	MG	1A	3373	1/1	0.99	0.03	7,7,7,7	0
55	MG	1A	3435	1/1	0.99	0.04	47,47,47,47	0
55	MG	2A	3384	1/1	0.99	0.03	35,35,35,35	0
55	MG	1A	3157	1/1	0.99	0.07	21,21,21,21	0
55	MG	2A	3778	1/1	0.99	0.07	63,63,63,63	0
55	MG	1D	302	1/1	0.99	0.07	22,22,22,22	0
55	MG	1A	3859	1/1	0.99	0.05	35,35,35,35	0
55	MG	2A	3574	1/1	0.99	0.04	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3567	1/1	0.99	0.04	12,12,12,12	0
55	MG	1A	3568	1/1	0.99	0.04	19,19,19,19	0
55	MG	1A	3734	1/1	0.99	0.03	26,26,26,26	0
55	MG	1A	3437	1/1	0.99	0.03	9,9,9,9	0
55	MG	1D	308	1/1	0.99	0.07	27,27,27,27	0
55	MG	2A	3787	1/1	0.99	0.05	20,20,20,20	0
55	MG	1A	3280	1/1	0.99	0.06	13,13,13,13	0
55	MG	1A	3737	1/1	0.99	0.08	53,53,53,53	0
55	MG	2A	3583	1/1	0.99	0.06	50,50,50,50	0
55	MG	1A	3738	1/1	0.99	0.05	19,19,19,19	0
55	MG	2A	3792	1/1	0.99	0.04	51,51,51,51	0
55	MG	1A	3572	1/1	0.99	0.06	34,34,34,34	0
55	MG	2a	1772	1/1	0.99	0.03	57,57,57,57	0
55	MG	2A	3794	1/1	0.99	0.05	46,46,46,46	0
55	MG	1A	3299	1/1	0.99	0.03	28,28,28,28	0
55	MG	1A	3741	1/1	0.99	0.16	29,29,29,29	0
55	MG	2A	3797	1/1	0.99	0.03	36,36,36,36	0
55	MG	2A	3588	1/1	0.99	0.04	24,24,24,24	0
55	MG	1A	3440	1/1	0.99	0.06	26,26,26,26	0
55	MG	2A	3400	1/1	0.99	0.03	29,29,29,29	0
55	MG	1a	1786	1/1	0.99	0.02	69,69,69,69	0
55	MG	1A	3327	1/1	0.99	0.08	23,23,23,23	0
55	MG	1A	3300	1/1	0.99	0.03	21,21,21,21	0
55	MG	1A	3129	1/1	0.99	0.12	17,17,17,17	0
55	MG	2A	3805	1/1	0.99	0.08	73,73,73,73	0
55	MG	1A	3874	1/1	0.99	0.07	27,27,27,27	0
55	MG	2A	3807	1/1	0.99	0.07	55,55,55,55	0
55	MG	1A	3746	1/1	0.99	0.08	48,48,48,48	0
55	MG	2A	3809	1/1	0.99	0.03	35,35,35,35	0
55	MG	2A	3597	1/1	0.99	0.11	52,52,52,52	0
55	MG	2A	3813	1/1	0.99	0.04	21,21,21,21	0
55	MG	2A	3407	1/1	0.99	0.03	32,32,32,32	0
55	MG	1A	3282	1/1	0.99	0.03	18,18,18,18	0
55	MG	1A	3510	1/1	0.99	0.03	57,57,57,57	0
55	MG	1A	3283	1/1	0.99	0.05	9,9,9,9	0
55	MG	2R	203	1/1	0.99	0.04	16,16,16,16	0
55	MG	1A	3260	1/1	0.99	0.04	10,10,10,10	0
55	MG	1A	3447	1/1	0.99	0.06	29,29,29,29	0
55	MG	1A	3384	1/1	0.99	0.04	46,46,46,46	0
55	MG	2A	3822	1/1	0.99	0.04	53,53,53,53	0
55	MG	1A	3261	1/1	0.99	0.05	20,20,20,20	0
55	MG	1A	3516	1/1	0.99	0.03	19,19,19,19	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3308	1/1	0.99	0.04	17,17,17,17	0
55	MG	2A	3826	1/1	0.99	0.04	43,43,43,43	0
55	MG	1A	3757	1/1	0.99	0.09	9,9,9,9	0
55	MG	1A	3310	1/1	0.99	0.03	17,17,17,17	0
55	MG	1A	3286	1/1	0.99	0.05	17,17,17,17	0
55	MG	2a	1807	1/1	0.99	0.04	55,55,55,55	0
55	MG	1A	3338	1/1	0.99	0.03	17,17,17,17	0
55	MG	2A	3422	1/1	0.99	0.05	60,60,60,60	0
55	MG	1A	3339	1/1	0.99	0.03	13,13,13,13	0
55	MG	2a	1811	1/1	0.99	0.07	60,60,60,60	0
55	MG	2A	3614	1/1	0.99	0.06	62,62,62,62	0
55	MG	1A	3340	1/1	0.99	0.05	20,20,20,20	0
55	MG	2A	3835	1/1	0.99	0.03	41,41,41,41	0
55	MG	2A	3836	1/1	0.99	0.06	79,79,79,79	0
55	MG	1A	3764	1/1	0.99	0.03	45,45,45,45	0
55	MG	1a	1808	1/1	0.99	0.12	67,67,67,67	0
55	MG	2a	1818	1/1	0.99	0.06	45,45,45,45	0
55	MG	1A	3765	1/1	0.99	0.06	38,38,38,38	0
55	MG	1A	3594	1/1	0.99	0.09	16,16,16,16	0
55	MG	2a	1821	1/1	0.99	0.03	46,46,46,46	0
55	MG	2A	3841	1/1	0.99	0.04	25,25,25,25	0
55	MG	1A	3767	1/1	0.99	0.04	42,42,42,42	0
55	MG	1a	1812	1/1	0.99	0.03	50,50,50,50	0
55	MG	21	8001	1/1	0.99	0.03	51,51,51,51	0
55	MG	2A	3844	1/1	0.99	0.13	65,65,65,65	0
55	MG	2A	3431	1/1	0.99	0.07	20,20,20,20	0
55	MG	1A	3076	1/1	0.99	0.07	17,17,17,17	0
55	MG	2A	3847	1/1	0.99	0.12	52,52,52,52	0
55	MG	2A	3433	1/1	0.99	0.06	33,33,33,33	0
55	MG	2A	3625	1/1	0.99	0.11	66,66,66,66	0
55	MG	1A	3770	1/1	0.99	0.06	45,45,45,45	0
55	MG	2a	1833	1/1	0.99	0.04	71,71,71,71	0
55	MG	2A	3435	1/1	0.99	0.04	42,42,42,42	0
55	MG	2A	3436	1/1	0.99	0.03	47,47,47,47	0
55	MG	1A	3343	1/1	0.99	0.04	12,12,12,12	0
55	MG	2A	3438	1/1	0.99	0.07	38,38,38,38	0
55	MG	2A	3855	1/1	0.99	0.03	64,64,64,64	0
55	MG	1a	1816	1/1	0.99	0.09	51,51,51,51	0
55	MG	1a	1817	1/1	0.99	0.03	65,65,65,65	0
55	MG	2A	3633	1/1	0.99	0.10	17,17,17,17	0
55	MG	1A	3773	1/1	0.99	0.10	20,20,20,20	0
55	MG	2A	3635	1/1	0.99	0.03	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3394	1/1	0.99	0.02	18,18,18,18	0
55	MG	2A	3443	1/1	0.99	0.05	25,25,25,25	0
55	MG	2A	3638	1/1	0.99	0.03	51,51,51,51	0
55	MG	1A	3344	1/1	0.99	0.03	21,21,21,21	0
55	MG	1a	1821	1/1	0.99	0.04	70,70,70,70	0
55	MG	2A	3446	1/1	0.99	0.04	22,22,22,22	0
55	MG	1A	3347	1/1	0.99	0.05	13,13,13,13	0
55	MG	1Q	201	1/1	0.99	0.03	27,27,27,27	0
55	MG	1a	1824	1/1	0.99	0.05	42,42,42,42	0
55	MG	1A	3273	1/1	0.99	0.07	21,21,21,21	0
55	MG	1A	3678	1/1	0.99	0.03	32,32,32,32	0
55	MG	1a	1827	1/1	0.99	0.03	49,49,49,49	0
55	MG	1A	3349	1/1	0.99	0.04	31,31,31,31	0
55	MG	1A	3350	1/1	0.99	0.04	14,14,14,14	0
55	MG	1A	3400	1/1	0.99	0.07	35,35,35,35	0
55	MG	1A	3353	1/1	0.99	0.03	13,13,13,13	0
55	MG	2A	3877	1/1	0.99	0.04	26,26,26,26	0
56	ZN	14	501	1/1	0.99	0.06	138,138,138,138	0
56	ZN	19	103	1/1	0.99	0.03	40,40,40,40	0
56	ZN	1n	501	1/1	0.99	0.03	75,75,75,75	0
56	ZN	2Y	202	1/1	0.99	0.03	80,80,80,80	0
55	MG	1A	3404	1/1	0.99	0.05	38,38,38,38	0
56	ZN	26	101	1/1	0.99	0.02	57,57,57,57	0
56	ZN	29	103	1/1	0.99	0.03	66,66,66,66	0
55	MG	1a	1687	1/1	0.99	0.10	31,31,31,31	0
57	SF4	1d	302	8/8	0.99	0.03	46,61,71,75	0
57	SF4	2d	501	8/8	0.99	0.04	54,68,91,93	0
55	MG	1A	3354	1/1	1.00	0.02	12,12,12,12	0
55	MG	1E	301	1/1	1.00	0.06	9,9,9,9	0
55	MG	2A	3345	1/1	1.00	0.03	21,21,21,21	0
55	MG	1A	3708	1/1	1.00	0.06	32,32,32,32	0
55	MG	1E	303	1/1	1.00	0.04	11,11,11,11	0
55	MG	1A	3788	1/1	1.00	0.10	25,25,25,25	0
55	MG	1A	3355	1/1	1.00	0.04	10,10,10,10	0
55	MG	1A	3674	1/1	1.00	0.06	27,27,27,27	0
55	MG	2A	3351	1/1	1.00	0.07	22,22,22,22	0
55	MG	1A	3841	1/1	1.00	0.07	20,20,20,20	0
55	MG	1A	3342	1/1	1.00	0.02	30,30,30,30	0
55	MG	1a	1710	1/1	1.00	0.02	38,38,38,38	0
55	MG	2A	3355	1/1	1.00	0.02	54,54,54,54	0
55	MG	1A	3894	1/1	1.00	0.03	13,13,13,13	0
55	MG	2A	3357	1/1	1.00	0.05	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3895	1/1	1.00	0.03	21,21,21,21	0
55	MG	1A	3712	1/1	1.00	0.03	11,11,11,11	0
55	MG	2A	3360	1/1	1.00	0.02	26,26,26,26	0
55	MG	2E	304	1/1	1.00	0.01	16,16,16,16	0
55	MG	1A	3750	1/1	1.00	0.05	14,14,14,14	0
55	MG	1A	3898	1/1	1.00	0.09	58,58,58,58	0
55	MG	1A	3316	1/1	1.00	0.03	36,36,36,36	0
55	MG	2A	3760	1/1	1.00	0.04	31,31,31,31	0
55	MG	1A	3473	1/1	1.00	0.04	20,20,20,20	0
55	MG	2a	1715	1/1	1.00	0.03	44,44,44,44	0
55	MG	2A	3291	1/1	1.00	0.02	29,29,29,29	0
55	MG	1A	3306	1/1	1.00	0.05	31,31,31,31	0
55	MG	1A	3345	1/1	1.00	0.01	4,4,4,4	0
55	MG	1A	3427	1/1	1.00	0.04	16,16,16,16	0
55	MG	2A	3369	1/1	1.00	0.02	28,28,28,28	0
55	MG	1A	3428	1/1	1.00	0.02	12,12,12,12	0
55	MG	1A	3429	1/1	1.00	0.05	18,18,18,18	0
55	MG	1A	3758	1/1	1.00	0.06	17,17,17,17	0
55	MG	1A	3346	1/1	1.00	0.03	12,12,12,12	0
55	MG	1A	3307	1/1	1.00	0.03	12,12,12,12	0
55	MG	2A	3375	1/1	1.00	0.02	21,21,21,21	0
55	MG	2A	3946	1/1	1.00	0.02	24,24,24,24	0
55	MG	2A	3300	1/1	1.00	0.02	31,31,31,31	0
55	MG	2A	3301	1/1	1.00	0.03	52,52,52,52	0
55	MG	2A	3775	1/1	1.00	0.02	35,35,35,35	0
55	MG	1A	3454	1/1	1.00	0.03	9,9,9,9	0
55	MG	1A	3805	1/1	1.00	0.04	34,34,34,34	0
55	MG	1A	3432	1/1	1.00	0.08	8,8,8,8	0
55	MG	1A	3807	1/1	1.00	0.02	20,20,20,20	0
55	MG	1A	3808	1/1	1.00	0.03	14,14,14,14	0
55	MG	1P	201	1/1	1.00	0.01	23,23,23,23	0
55	MG	1B	214	1/1	1.00	0.02	31,31,31,31	0
55	MG	1A	3331	1/1	1.00	0.02	10,10,10,10	0
55	MG	1A	3810	1/1	1.00	0.07	35,35,35,35	0
55	MG	1A	3378	1/1	1.00	0.03	17,17,17,17	0
55	MG	2A	3465	1/1	1.00	0.04	32,32,32,32	0
55	MG	2A	3312	1/1	1.00	0.02	23,23,23,23	0
55	MG	1A	3689	1/1	1.00	0.02	20,20,20,20	0
55	MG	1A	3458	1/1	1.00	0.01	14,14,14,14	0
55	MG	2A	3547	1/1	1.00	0.05	50,50,50,50	0
55	MG	2A	3315	1/1	1.00	0.05	25,25,25,25	0
55	MG	1A	3363	1/1	1.00	0.03	19,19,19,19	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	1A	3289	1/1	1.00	0.03	24,24,24,24	0
55	MG	1A	3769	1/1	1.00	0.07	30,30,30,30	0
55	MG	2A	3712	1/1	1.00	0.07	44,44,44,44	0
55	MG	1A	3659	1/1	1.00	0.02	6,6,6,6	0
55	MG	1A	3771	1/1	1.00	0.04	20,20,20,20	0
55	MG	1A	3819	1/1	1.00	0.04	23,23,23,23	0
55	MG	1A	3569	1/1	1.00	0.02	17,17,17,17	0
55	MG	1A	3926	1/1	1.00	0.08	52,52,52,52	0
55	MG	1A	3821	1/1	1.00	0.04	33,33,33,33	0
55	MG	1A	3309	1/1	1.00	0.02	7,7,7,7	0
55	MG	1A	3662	1/1	1.00	0.06	36,36,36,36	0
55	MG	2A	3196	1/1	1.00	0.03	29,29,29,29	0
55	MG	1A	3824	1/1	1.00	0.06	23,23,23,23	0
55	MG	1A	3351	1/1	1.00	0.04	11,11,11,11	0
55	MG	1A	3463	1/1	1.00	0.03	13,13,13,13	0
55	MG	1A	3933	1/1	1.00	0.02	17,17,17,17	0
55	MG	2A	3408	1/1	1.00	0.02	29,29,29,29	0
55	MG	2A	3810	1/1	1.00	0.02	27,27,27,27	0
55	MG	1A	3573	1/1	1.00	0.06	10,10,10,10	0
55	MG	2A	3812	1/1	1.00	0.02	53,53,53,53	0
55	MG	2A	3899	1/1	1.00	0.03	29,29,29,29	0
55	MG	1A	3352	1/1	1.00	0.01	11,11,11,11	0
55	MG	1A	3465	1/1	1.00	0.07	48,48,48,48	0
56	ZN	1Y	501	1/1	1.00	0.01	43,43,43,43	0
55	MG	1A	3576	1/1	1.00	0.03	13,13,13,13	0
56	ZN	15	104	1/1	1.00	0.03	37,37,37,37	0
56	ZN	16	101	1/1	1.00	0.02	34,34,34,34	0
55	MG	1A	3703	1/1	1.00	0.06	17,17,17,17	0
55	MG	1A	3295	1/1	1.00	0.02	18,18,18,18	0
55	MG	1A	3401	1/1	1.00	0.01	21,21,21,21	0
55	MG	1A	3402	1/1	1.00	0.02	12,12,12,12	0
56	ZN	25	105	1/1	1.00	0.01	51,51,51,51	0
55	MG	2A	3340	1/1	1.00	0.02	39,39,39,39	0
55	MG	2A	3821	1/1	1.00	0.03	46,46,46,46	0
55	MG	2A	3575	1/1	1.00	0.04	29,29,29,29	0
55	MG	1A	3942	1/1	1.00	0.06	10,10,10,10	0
55	MG	1A	3785	1/1	1.00	0.03	8,8,8,8	0

6.5 Other polymers (i)

There are no such residues in this entry.