Full wwPDB X-ray Structure Validation Report (i)

Feb 1, 2016 – 08:59 AM GMT

PDB ID	:	3G6E
Title	:	Co-crystal structure of Homoharringtonine bound to the large ribosomal subunit
Authors	:	Gurel, G.; Blaha, G.; Moore, P.B.; Steitz, T.A.
Deposited on	:	2009-02-06
Resolution	:	2.70 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
http://wwpdb.org/validation/2016/XrayValidationReportHelp
with specific help available everywhere you see the (i) symbol.

The following versions of software and data (see references (1)) were used in the production of this report:

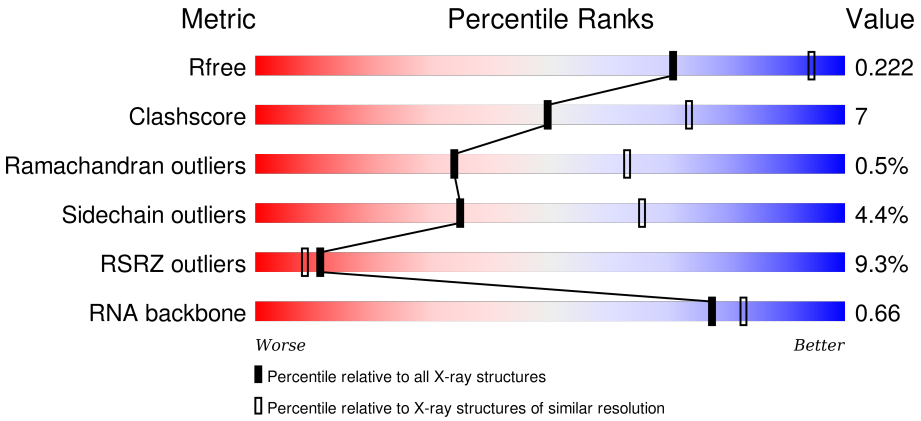
MolProbity	:	4.02b-467
Mogul	:	1.7 (RC4), CSD as536be (2015)
Xtriage (Phenix)	:	1.9-1692
EDS	:	rb-20026688
Percentile statistics	:	20151230.v01 (using entries in the PDB archive December 30th 2015)
Refmac	:	5.8.0135
CCP4	:	6.5.0
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	trunk26865

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 2.70 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}	91344	2103 (2.70-2.70)
Clashscore	102246	2422 (2.70-2.70)
Ramachandran outliers	100387	2382 (2.70-2.70)
Sidechain outliers	100360	2382 (2.70-2.70)
RSRZ outliers	91569	2107 (2.70-2.70)
RNA backbone	2183	1069 (3.10-2.30)

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 on the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria. 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	0	2923	2% 59% 30% 5% 6%
2	A	237	15% 86% 12% •
3	B	337	5% 87% 12% •
4	C	246	3% 80% 16% •

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Mol	Chain	Length	Quality of chain
5	D	177	45% 65% 14% 21%
6	E	172	9% 91% 9%
7	F	119	29% 92% 8%
8	G	348	3% 8% 92%
9	H	177	27% 79% 11% 10%
10	I	70	93% 94% 6%
11	J	142	% 87% 13%
12	K	132	4% 90% 9%
13	L	165	21% 78% 10% 12%
14	M	194	% 86% 13%
15	N	186	27% 85% 15%
16	O	115	4% 96%
17	P	143	5% 90% 10%
18	Q	95	% 87% 12%
19	R	150	89% 9%
20	S	81	21% 93% 7%
21	T	119	14% 86% 13%
22	U	53	6% 94% 6%
23	V	65	54% 92% 8%
24	W	154	% 81% 18%
25	X	82	10% 83% 16%
26	Y	142	4% 92% 7%
27	Z	73	48% 90% 10%
28	1	56	84% 16%
29	2	50	14% 74% 18% 8%

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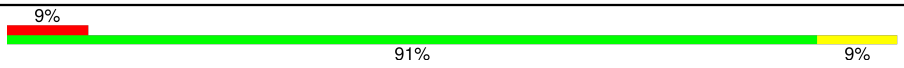
Mol	Chain	Length	Quality of chain
30	3	92	
31	9	122	

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
32	MG	0	8001	-	-	-	X
32	MG	0	8003	-	-	-	X
32	MG	0	8004	-	-	-	X
32	MG	0	8006	-	-	-	X
32	MG	0	8008	-	-	-	X
32	MG	0	8009	-	-	-	X
32	MG	0	8011	-	-	-	X
32	MG	0	8014	-	-	-	X
32	MG	0	8028	-	-	-	X
32	MG	0	8041	-	-	-	X
32	MG	0	8047	-	-	-	X
32	MG	0	8062	-	-	-	X
32	MG	0	8065	-	-	-	X
32	MG	0	8070	-	-	-	X
32	MG	9	8040	-	-	-	X
33	K	0	8401	-	-	-	X
34	NA	0	8502	-	-	-	X
34	NA	0	8504	-	-	-	X
34	NA	0	8507	-	-	-	X
34	NA	0	8508	-	-	-	X
34	NA	0	8517	-	-	-	X
34	NA	0	8519	-	-	-	X
34	NA	0	8520	-	-	-	X
34	NA	0	8521	-	-	-	X
34	NA	0	8522	-	-	-	X
34	NA	0	8523	-	-	-	X
34	NA	0	8528	-	-	-	X
34	NA	0	8530	-	-	-	X
34	NA	0	8533	-	-	-	X
34	NA	0	8534	-	-	-	X
34	NA	0	8535	-	-	-	X
34	NA	0	8542	-	-	-	X
34	NA	0	8546	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
34	NA	0	8547	-	-	-	X
34	NA	0	8552	-	-	-	X
34	NA	0	8553	-	-	-	X
34	NA	0	8555	-	-	-	X
34	NA	0	8556	-	-	-	X
34	NA	0	8558	-	-	-	X
34	NA	0	8559	-	-	-	X
34	NA	0	8560	-	-	-	X
34	NA	0	8562	-	-	-	X
34	NA	0	8563	-	-	-	X
34	NA	0	8564	-	-	-	X
34	NA	0	8565	-	-	-	X
34	NA	0	8568	-	-	-	X
34	NA	0	8569	-	-	-	X
34	NA	0	8575	-	-	-	X
34	NA	9	8572	-	-	-	X
35	CL	0	8815	-	-	-	X
36	SR	0	8903	-	-	-	X
36	SR	0	8904	-	-	-	X
36	SR	0	8910	-	-	-	X
36	SR	0	8913	-	-	-	X
36	SR	0	8947	-	-	-	X
36	SR	0	8957	-	-	-	X
36	SR	0	8991	-	-	-	X
36	SR	B	8987	-	-	-	X
36	SR	J	8986	-	-	-	X
37	HMT	0	9101	-	-	-	X

2 Entry composition

There are 39 unique types of molecules in this entry. The entry contains 99174 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
			Total	C	N	O	P			
1	0	2754	59021	26349	10873	19054	2745	0	0	0

- Molecule 2 is a protein called 50S ribosomal protein L2P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	A	237	1754	1072	352	325	5	0	0	0

- Molecule 3 is a protein called 50S ribosomal protein L3P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	B	337	2625	1616	493	511	5	0	0	0

- Molecule 4 is a protein called 50S ribosomal protein L4P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
4	C	246	1860	1130	345	384	1	0	0	0

- Molecule 5 is a protein called 50S ribosomal protein L5P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
5	D	140	1094	685	195	210	4	0	0	0

- Molecule 6 is a protein called 50S ribosomal protein L6P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
6	E	172	1358	840	224	290	4	0	0	0

- Molecule 7 is a protein called 50S ribosomal protein L7Ae.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	F	119	Total	C	N	O	S	0	0	0
			890	551	141	197	1			

- Molecule 8 is a protein called 50S ribosomal protein L10E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	G	29	Total	C	N	O	S	0	0	0
			240	149	39	51	1			

- Molecule 9 is a protein called 50S ribosomal protein L10e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	H	160	Total	C	N	O	S	0	0	0
			1282	798	240	238	6			

- Molecule 10 is a protein called 50S ribosomal protein L11P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	I	70	Total	C	N	O	S	0	0	0
			520	323	81	115	1			

- Molecule 11 is a protein called 50S ribosomal protein L13P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	J	142	Total	C	N	O	S	0	0	0
			1120	696	199	222	3			

- Molecule 12 is a protein called 50S ribosomal protein L14P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	K	132	Total	C	N	O	S	0	0	0
			994	609	189	192	4			

- Molecule 13 is a protein called 50S ribosomal protein L15P.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
13	L	145	Total	C	N	O	0	0	0
			1118	670	222	226			

- Molecule 14 is a protein called 50S ribosomal protein L15e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	M	194	Total	C	N	O	S	0	0	0
			1559	943	333	282	1			

- Molecule 15 is a protein called 50S ribosomal protein L18P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	N	186	Total	C	N	O	S	0	0	0
			1445	895	262	286	2			

- Molecule 16 is a protein called 50S ribosomal protein L18e.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
16	O	115	Total	C	N	O	0	0	0
			865	529	161	175			

- Molecule 17 is a protein called 50S ribosomal protein L19e.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
17	P	143	Total	C	N	O	0	0	0
			1137	683	229	225			

- Molecule 18 is a protein called 50S ribosomal protein L21e.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	Q	95	Total	C	N	O	0	0	0
			735	450	141	144			

- Molecule 19 is a protein called 50S ribosomal protein L22P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	R	150	Total	C	N	O	S	0	0	0
			1150	713	209	224	4			

- Molecule 20 is a protein called 50S ribosomal protein L23P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	S	81	Total	C	N	O	S	0	0	0
			642	389	111	139	3			

- Molecule 21 is a protein called 50S ribosomal protein L24P.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	T	119	Total	C	N	O	0	0	0
			950	568	180	202			

- Molecule 22 is a protein called 50S ribosomal protein L24e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	U	53	Total	C	N	O	S	0	0	0
			411	244	75	87	5			

- Molecule 23 is a protein called 50S ribosomal protein L29P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	V	65	Total	C	N	O	S	0	0	0
			500	304	94	101	1			

- Molecule 24 is a protein called 50S ribosomal protein L30P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	W	154	Total	C	N	O	S	0	0	0
			1196	737	209	244	6			

- Molecule 25 is a protein called 50S ribosomal protein L31e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	X	82	Total	C	N	O	S	0	0	0
			655	402	129	123	1			

- Molecule 26 is a protein called 50S ribosomal protein L32e.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
26	Y	142	Total	C	N	O	0	0	0
			1131	686	228	217			

- Molecule 27 is a protein called 50S ribosomal protein L37Ae.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	Z	73	Total	C	N	O	S	0	0	0
			574	343	113	113	5			

- Molecule 28 is a protein called 50S ribosomal protein L37e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	1	56	Total	C	N	O	S	0	0	0
			431	258	86	83	4			

- Molecule 29 is a protein called 50S ribosomal protein L39e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	2	46	Total	C	N	O	S	0	0	0
			396	239	89	67	1			

- Molecule 30 is a protein called 50S ribosomal protein L44E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	3	92	Total	C	N	O	S	0	0	0
			755	458	153	137	7			

- Molecule 31 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	9	122	Total	C	N	O	P	0	0	0
			2599	1160	471	847	121			

- Molecule 32 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
32	0	85	Total	Mg	0	0
			85	85		
32	9	2	Total	Mg	0	0
			2	2		
32	K	1	Total	Mg	0	0
			1	1		
32	B	1	Total	Mg	0	0
			1	1		
32	A	1	Total	Mg	0	0
			1	1		
32	T	1	Total	Mg	0	0
			1	1		
32	2	1	Total	Mg	0	0
			1	1		
32	Y	1	Total	Mg	0	0
			1	1		

- Molecule 33 is POTASSIUM ION (three-letter code: K) (formula: K).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
33	0	2	Total K 2 2	0	0

- Molecule 34 is SODIUM ION (three-letter code: NA) (formula: Na).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
34	0	66	Total Na 66 66	0	0
34	J	1	Total Na 1 1	0	0
34	Q	1	Total Na 1 1	0	0
34	C	1	Total Na 1 1	0	0
34	R	1	Total Na 1 1	0	0
34	9	3	Total Na 3 3	0	0
34	S	1	Total Na 1 1	0	0
34	M	1	Total Na 1 1	0	0

- Molecule 35 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
35	0	10	Total Cl 10 10	0	0
35	J	3	Total Cl 3 3	0	0
35	B	1	Total Cl 1 1	0	0
35	A	1	Total Cl 1 1	0	0
35	N	1	Total Cl 1 1	0	0
35	O	1	Total Cl 1 1	0	0
35	R	1	Total Cl 1 1	0	0
35	Y	1	Total Cl 1 1	0	0
35	L	1	Total Cl 1 1	0	0

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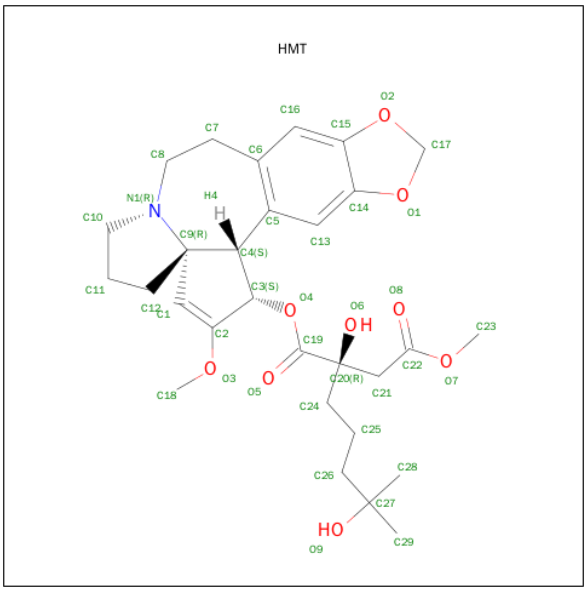
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
35	3	1	Total Cl 1 1	0	0
35	M	1	Total Cl 1 1	0	0

- Molecule 36 is STRONTIUM ION (three-letter code: SR) (formula: Sr).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
36	0	93	Total Sr 93 93	0	0
36	J	1	Total Sr 1 1	0	0
36	1	1	Total Sr 1 1	0	0
36	B	2	Total Sr 2 2	0	0
36	3	2	Total Sr 2 2	0	0
36	A	3	Total Sr 3 3	0	0
36	R	1	Total Sr 1 1	0	0
36	9	3	Total Sr 3 3	0	0
36	S	1	Total Sr 1 1	0	0
36	F	1	Total Sr 1 1	0	0

- Molecule 37 is (3BETA)-O 3 -[(2R)-2,6-DIHYDROXY-2-(2-METHOXY-2-OXOETHYL)-6-METHYLHEPTANOYL]CEPHALOTAXINE (three-letter code: HMT) (formula: $C_{29}H_{39}NO_9$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
37	0	1	Total C N O 39 29 1 9	0	0

- Molecule 38 is CADMIUM ION (three-letter code: CD) (formula: Cd).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
38	O	1	Total Cd 1 1	0	0
38	Z	1	Total Cd 1 1	0	0
38	1	1	Total Cd 1 1	0	0
38	3	1	Total Cd 1 1	0	0
38	U	1	Total Cd 1 1	0	0

- Molecule 39 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
39	0	5969	Total O 5969 5969	0	0
39	A	111	Total O 111 111	0	0
39	B	138	Total O 138 138	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
39	C	169	Total O 169 169	0	0
39	D	44	Total O 44 44	0	0
39	E	45	Total O 45 45	0	0
39	F	26	Total O 26 26	0	0
39	G	17	Total O 17 17	0	0
39	H	65	Total O 65 65	0	0
39	I	6	Total O 6 6	0	0
39	J	51	Total O 51 51	0	0
39	K	59	Total O 59 59	0	0
39	L	84	Total O 84 84	0	0
39	M	119	Total O 119 119	0	0
39	N	60	Total O 60 60	0	0
39	O	37	Total O 37 37	0	0
39	P	67	Total O 67 67	0	0
39	Q	42	Total O 42 42	0	0
39	R	81	Total O 81 81	0	0
39	S	30	Total O 30 30	0	0
39	T	34	Total O 34 34	0	0
39	U	26	Total O 26 26	0	0
39	V	10	Total O 10 10	0	0
39	W	67	Total O 67 67	0	0

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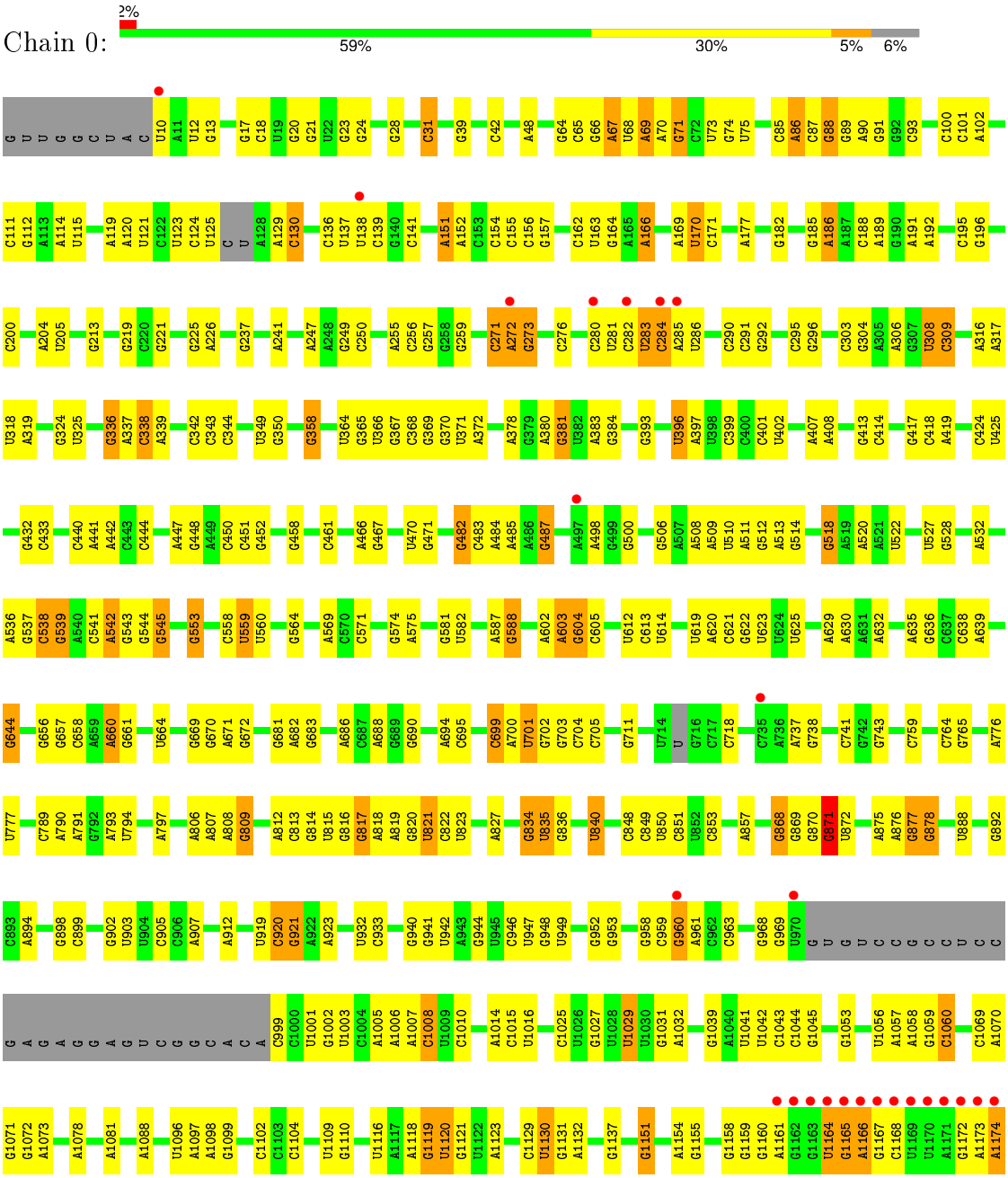
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
39	X	25	Total O 25 25	0	0
39	Y	96	Total O 96 96	0	0
39	Z	32	Total O 32 32	0	0
39	1	52	Total O 52 52	0	0
39	2	44	Total O 44 44	0	0
39	3	66	Total O 66 66	0	0
39	9	151	Total O 151 151	0	0

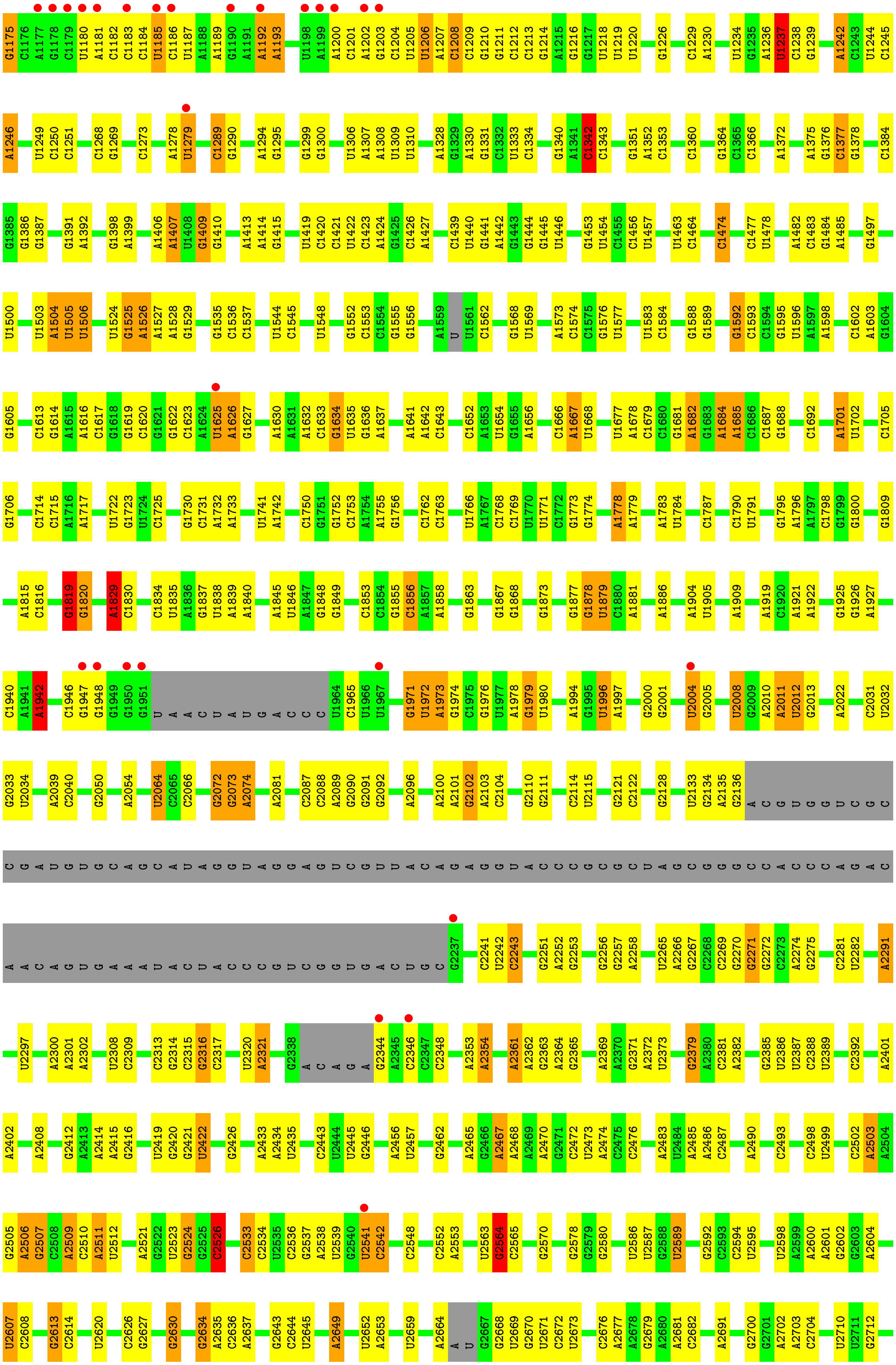
3 Residue-property plots (i)

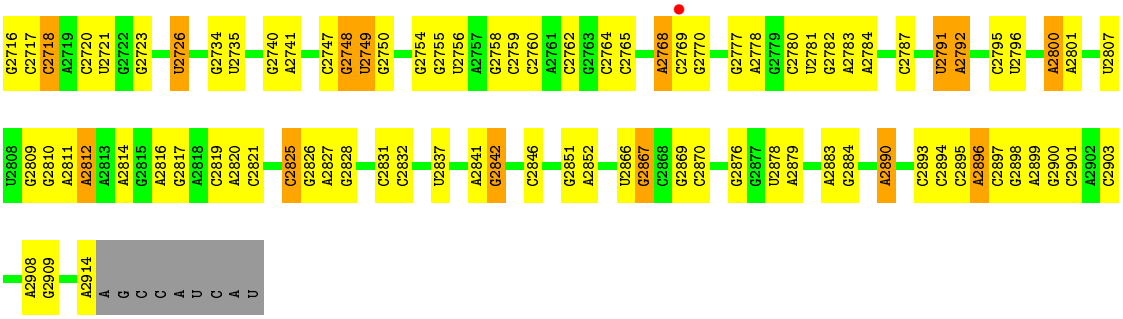
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according 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 0:

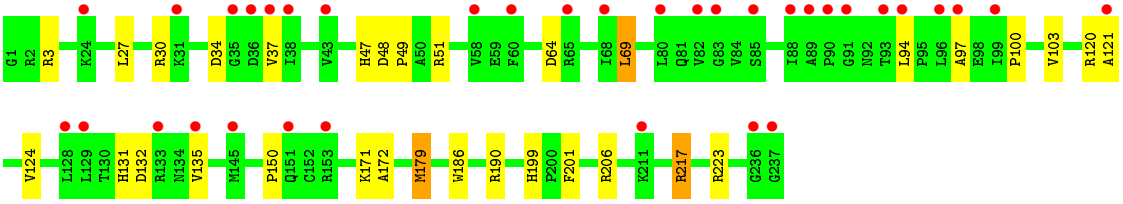






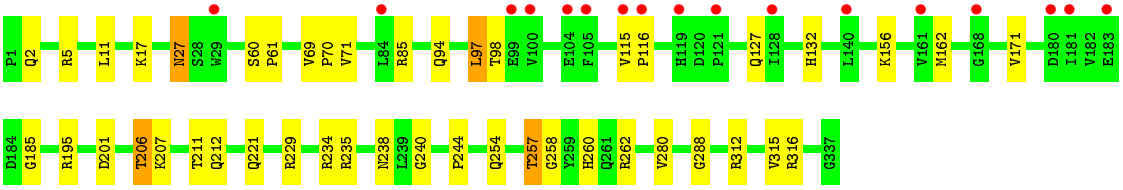
- Molecule 2: 50S ribosomal protein L2P

Chain A:



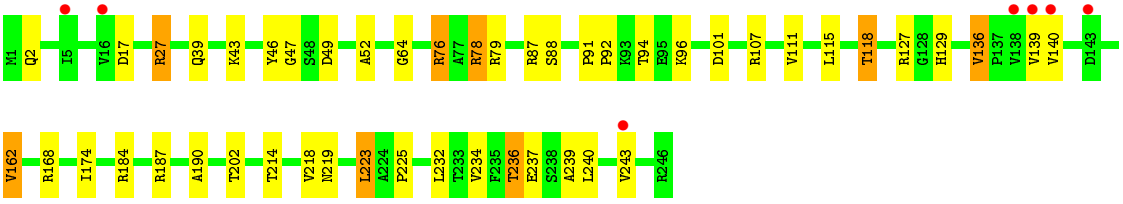
- Molecule 3: 50S ribosomal protein L3P

Chain B:



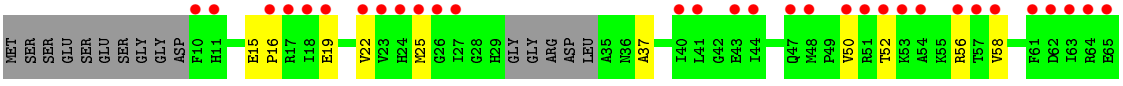
- Molecule 4: 50S ribosomal protein L4P

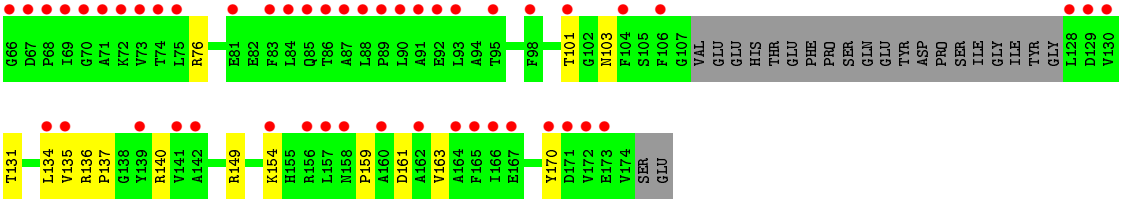
Chain C:



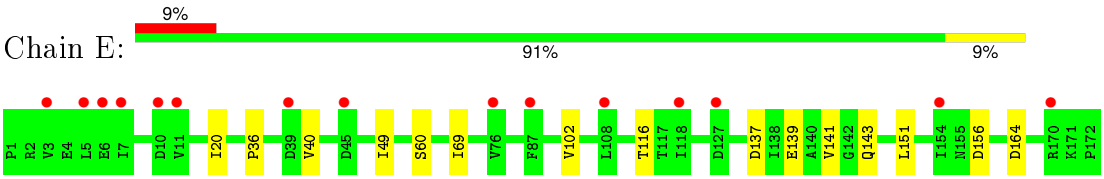
- Molecule 5: 50S ribosomal protein L5P

Chain D:

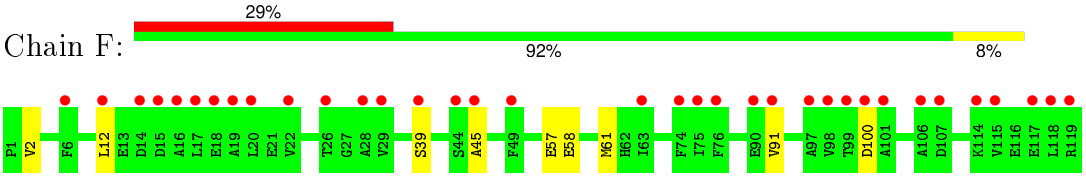




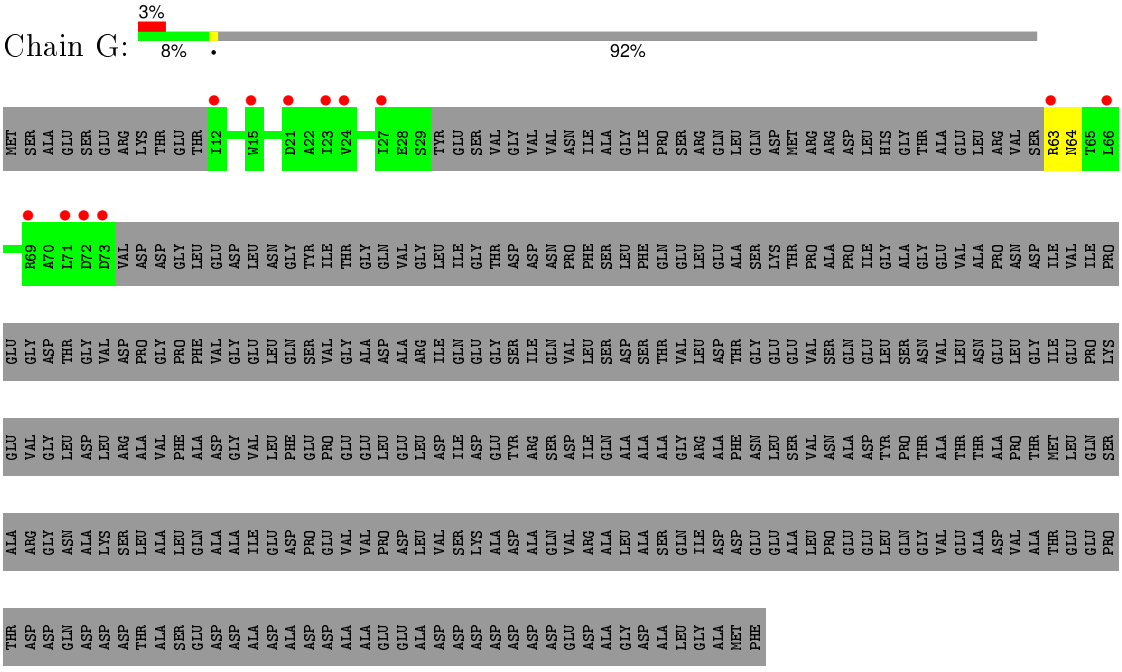
• Molecule 6: 50S ribosomal protein L6P



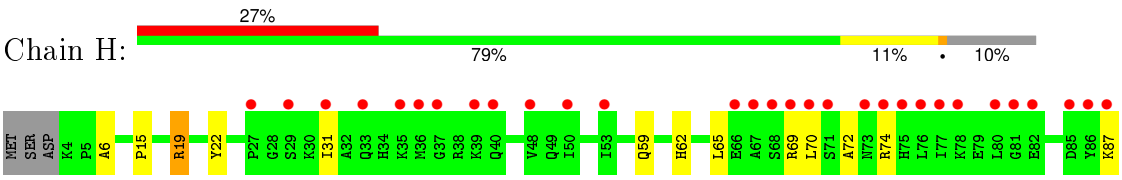
• Molecule 7: 50S ribosomal protein L7Ae

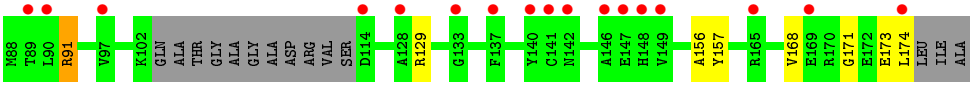


• Molecule 8: 50S ribosomal protein L10E

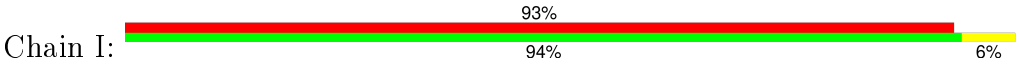


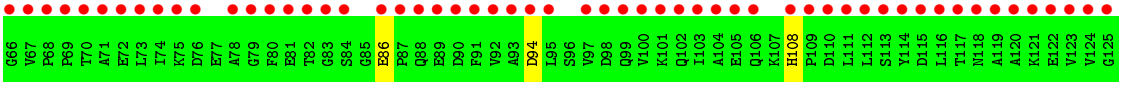
• Molecule 9: 50S ribosomal protein L10e

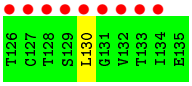




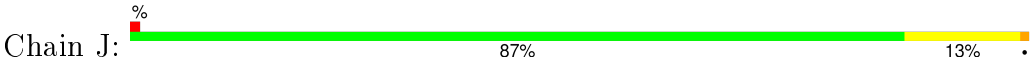
• Molecule 10: 50S ribosomal protein L11P

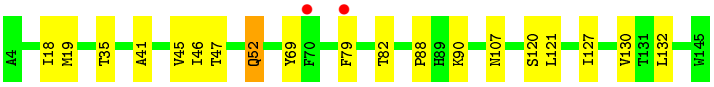




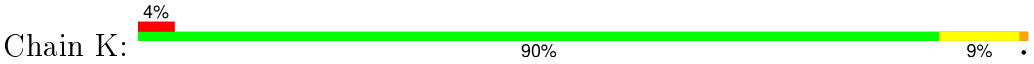


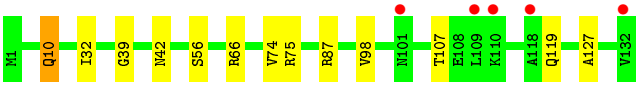
• Molecule 11: 50S ribosomal protein L13P



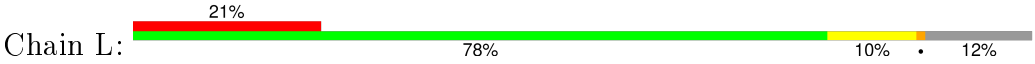


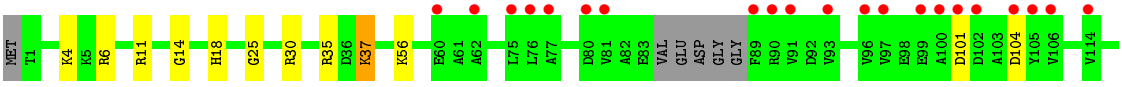
• Molecule 12: 50S ribosomal protein L14P

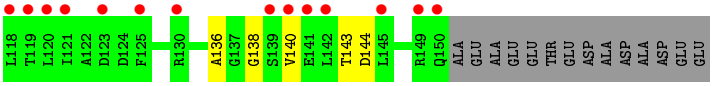




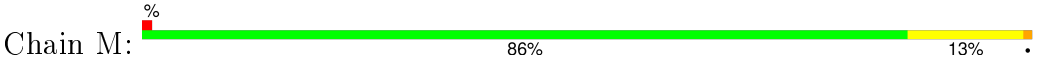
• Molecule 13: 50S ribosomal protein L15P

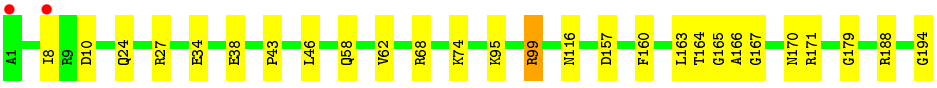




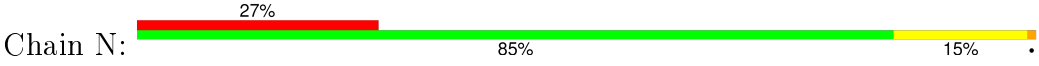


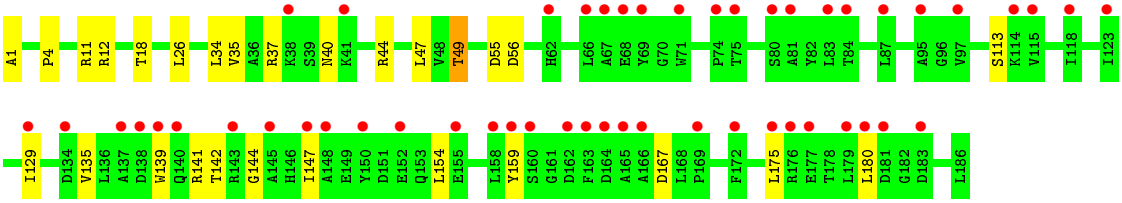
• Molecule 14: 50S ribosomal protein L15e



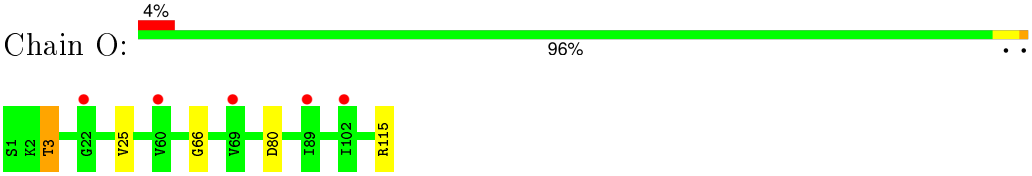


• Molecule 15: 50S ribosomal protein L18P

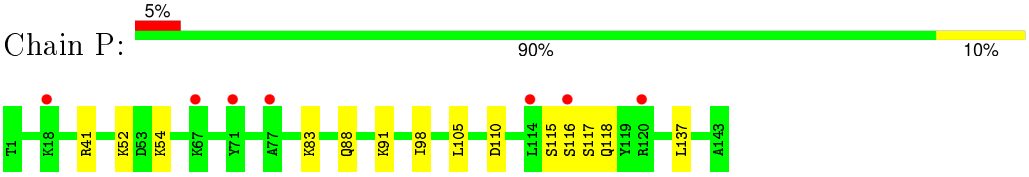




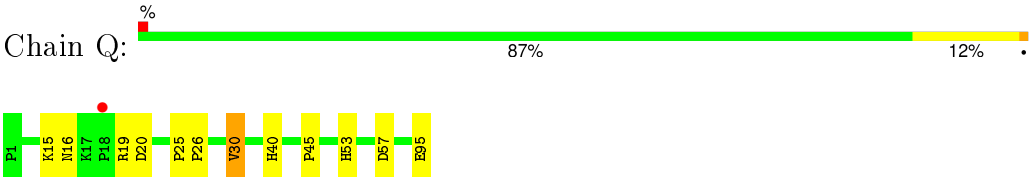
- Molecule 16: 50S ribosomal protein L18e



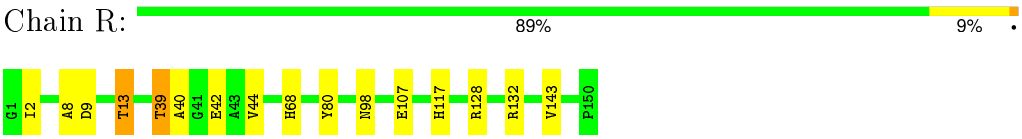
- Molecule 17: 50S ribosomal protein L19e



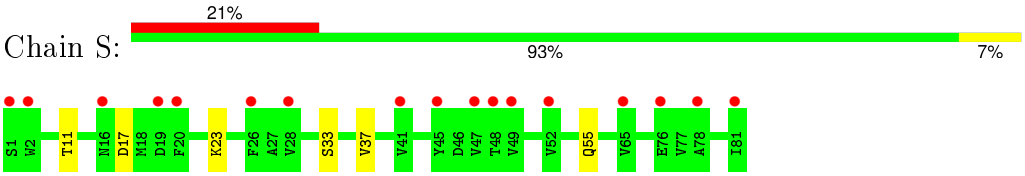
- Molecule 18: 50S ribosomal protein L21e



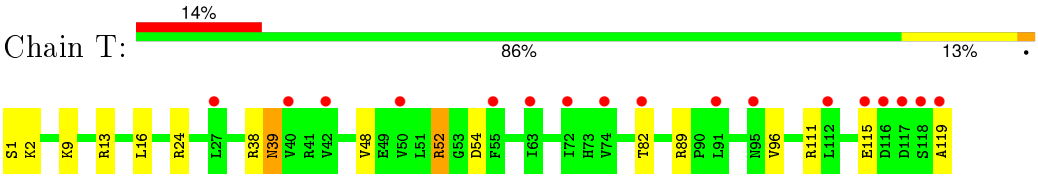
- Molecule 19: 50S ribosomal protein L22P



- Molecule 20: 50S ribosomal protein L23P

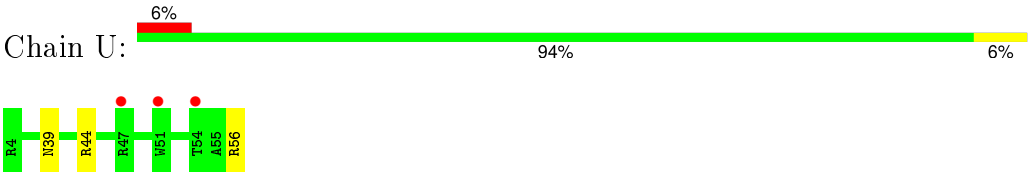


- Molecule 21: 50S ribosomal protein L24P



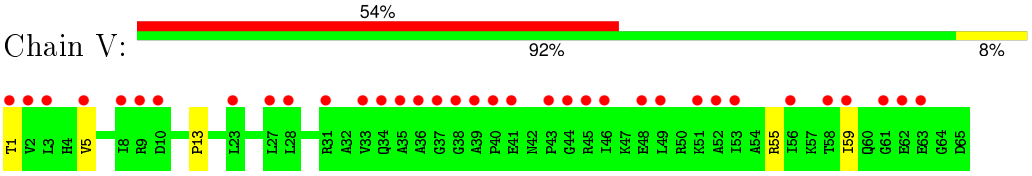
- Molecule 22: 50S ribosomal protein L24e

Chain U:



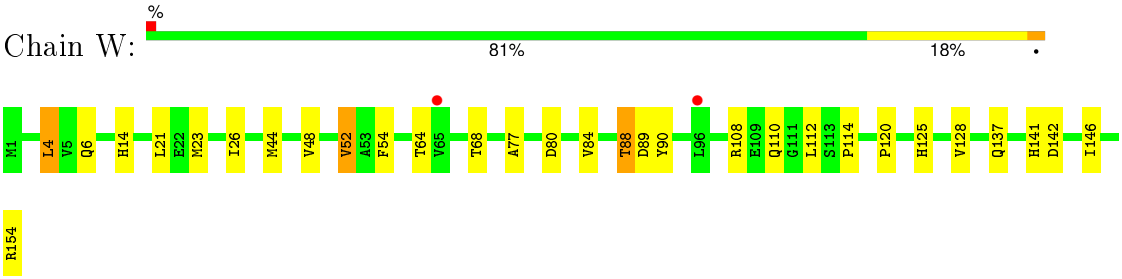
• Molecule 23: 50S ribosomal protein L29P

Chain V:



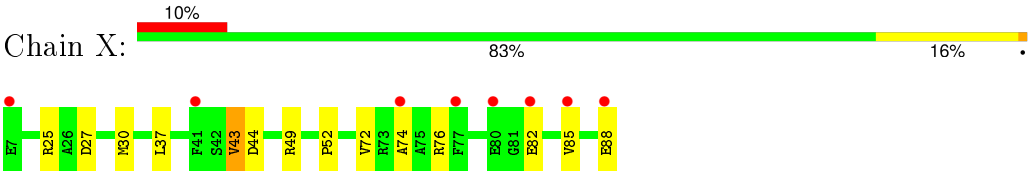
• Molecule 24: 50S ribosomal protein L30P

Chain W:



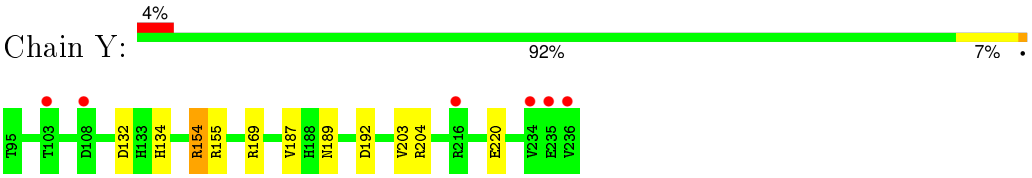
• Molecule 25: 50S ribosomal protein L31e

Chain X:



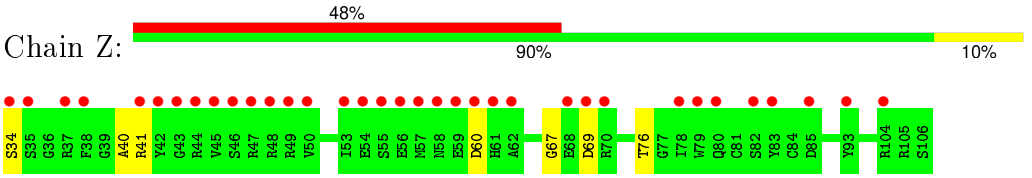
• Molecule 26: 50S ribosomal protein L32e

Chain Y:



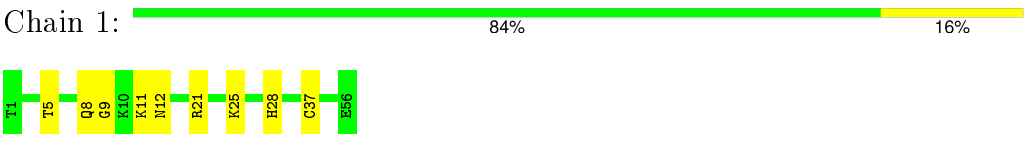
• Molecule 27: 50S ribosomal protein L37Ae

Chain Z:



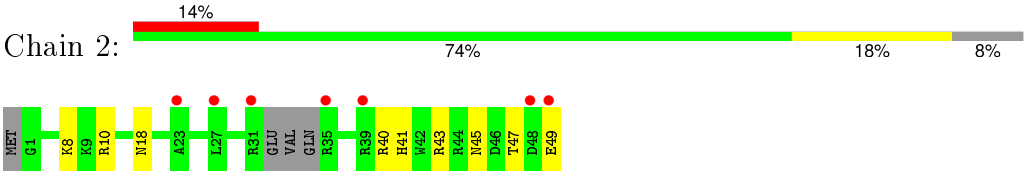
• Molecule 28: 50S ribosomal protein L37e

Chain 1:



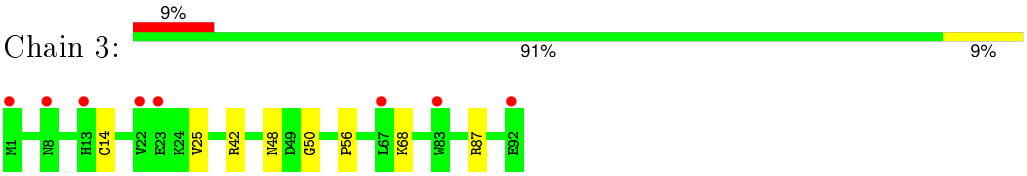
- Molecule 29: 50S ribosomal protein L39e

Chain 2:



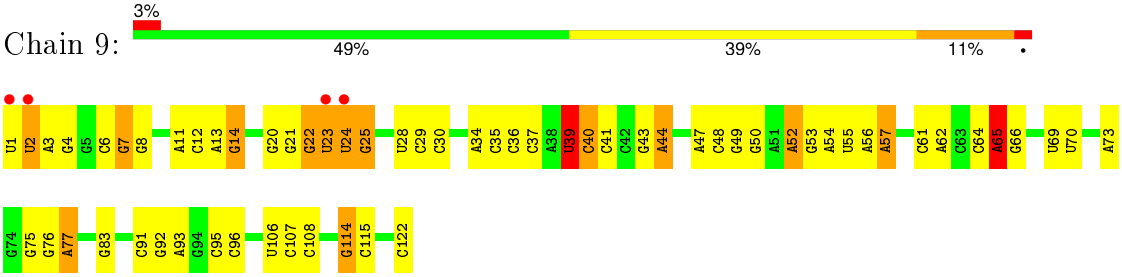
- Molecule 30: 50S ribosomal protein L44E

Chain 3:



- Molecule 31: 5S ribosomal RNA

Chain 9:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	C 2 2 21	Depositor
Cell constants a, b, c, α, β, γ	211.86Å 299.42Å 574.09Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.90 – 2.70 85.51 – 2.40	Depositor EDS
% Data completeness (in resolution range)	94.0 (49.90-2.70) 92.7 (85.51-2.40)	Depositor EDS
R_{merge}	0.07	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.00 (at 2.40Å)	Xtriage
Refinement program	CNS 1.0	Depositor
R, R_{free}	0.190 , 0.229 0.185 , 0.222	Depositor DCC
R_{free} test set	4856 reflections (1.06%)	DCC
Wilson B-factor (Å^2)	52.8	Xtriage
Anisotropy	0.146	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.31 , 72.0	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning[2]	$< \|L\| > = 0.49$, $< L^2 > = 0.32$	Xtriage
Outliers	0 of 667216 reflections	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	99174	wwPDB-VP
Average B, all atoms (Å^2)	60.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.64% 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, 0.375 respectively for untwinned datasets, and 0.333, 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: SR, MG, OMG, CL, HMT, NA, K, CD, OMU, UR3, 1MA, PSU

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|>5$	RMSZ	#$\|Z\|>5$
1	0	0.37	0/65958	0.68	11/102869 (0.0%)
2	A	0.51	0/1787	0.77	1/2408 (0.0%)
3	B	0.54	0/2690	0.78	0/3652
4	C	0.56	0/1885	0.79	0/2552
5	D	0.64	0/1111	0.70	1/1498 (0.1%)
6	E	0.60	0/1383	0.68	0/1880
7	F	0.54	0/901	0.69	0/1224
8	G	0.51	0/241	0.65	0/324
9	H	0.61	0/1302	0.77	0/1743
10	I	0.59	0/527	0.61	0/716
11	J	0.62	0/1136	0.72	0/1530
12	K	0.50	0/1004	0.80	0/1351
13	L	0.52	0/1130	0.75	0/1509
14	M	0.51	0/1583	0.77	0/2116
15	N	0.56	0/1474	0.76	0/1999
16	O	0.49	0/874	0.72	1/1181 (0.1%)
17	P	0.53	0/1148	0.66	0/1528
18	Q	0.51	0/749	0.77	0/1005
19	R	0.55	0/1173	0.75	0/1578
20	S	0.55	0/649	0.67	0/875
21	T	0.48	0/958	0.75	1/1289 (0.1%)
22	U	0.59	0/418	0.70	0/562
23	V	0.44	0/503	0.65	0/675
24	W	0.53	0/1219	0.77	1/1655 (0.1%)
25	X	0.53	0/665	0.73	0/895
26	Y	0.53	0/1147	0.73	0/1536
27	Z	0.67	0/585	0.72	0/781
28	1	0.57	0/438	0.73	0/578
29	2	0.46	0/401	0.69	0/529
30	3	0.57	0/771	0.68	0/1024
31	9	0.33	0/2904	0.68	1/4526 (0.0%)
All	All	0.43	0/98714	0.70	17/147588 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	0	0	42
24	W	0	1
31	9	0	2
All	All	0	45

There are no bond length outliers.

All (17) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	0	871	G	C5'-C4'-O4'	-7.15	100.52	109.10
1	0	1942	A	C5'-C4'-C3'	7.11	127.37	116.00
24	W	4	LEU	CA-CB-CG	5.76	128.54	115.30
1	0	1504	A	C1'-O4'-C4'	-5.73	105.32	109.90
1	0	2726	U	N1-C1'-C2'	5.64	121.34	114.00
1	0	1504	A	N9-C1'-C2'	5.64	121.33	114.00
1	0	2316	G	C5'-C4'-C3'	-5.58	107.08	116.00
1	0	2467	A	C1'-O4'-C4'	-5.53	105.47	109.90
16	O	66	GLY	N-CA-C	5.49	126.83	113.10
31	9	39	U	N1-C1'-C2'	5.32	120.91	114.00
5	D	170	TYR	N-CA-C	5.26	125.20	111.00
21	T	52	ARG	N-CA-C	5.24	125.14	111.00
1	0	1819	G	C5'-C4'-C3'	5.17	124.28	116.00
2	A	69	LEU	CA-CB-CG	5.17	127.20	115.30
1	0	1120	U	C5'-C4'-C3'	-5.13	107.78	116.00
1	0	2607	U	N1-C1'-C2'	5.13	120.67	114.00
1	0	2526	C	N1-C1'-C2'	5.08	120.60	114.00

There are no chirality outliers.

All (45) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	0	1039	G	Sidechain
1	0	1078	A	Sidechain
1	0	1237	U	Sidechain
1	0	1340	G	Sidechain
1	0	1342	C	Sidechain
1	0	1809	G	Sidechain

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Mol	Chain	Res	Type	Group
1	0	1829	A	Sidechain
1	0	1848	G	Sidechain
1	0	1863	G	Sidechain
1	0	1867	G	Sidechain
1	0	1877	G	Sidechain
1	0	1878	G	Sidechain
1	0	1972	U	Sidechain
1	0	1979	G	Sidechain
1	0	221	G	Sidechain
1	0	2308	U	Sidechain
1	0	2316	G	Sidechain
1	0	2412	G	Sidechain
1	0	2465	A	Sidechain
1	0	2493	C	Sidechain
1	0	2503	A	Sidechain
1	0	2506	A	Sidechain
1	0	2524	G	Sidechain
1	0	2526	C	Sidechain
1	0	2552	C	Sidechain
1	0	2564	G	Sidechain
1	0	2607	U	Sidechain
1	0	2630	G	Sidechain
1	0	2679	G	Sidechain
1	0	2842	G	Sidechain
1	0	396	U	Sidechain
1	0	458	G	Sidechain
1	0	470	U	Sidechain
1	0	471	G	Sidechain
1	0	48	A	Sidechain
1	0	482	G	Sidechain
1	0	518	G	Sidechain
1	0	619	U	Sidechain
1	0	817	G	Sidechain
1	0	818	A	Sidechain
1	0	868	G	Sidechain
1	0	888	U	Sidechain
31	9	39	U	Sidechain
31	9	65	A	Sidechain
24	W	90	TYR	Sidechain

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	0	59021	0	29812	849	0
2	A	1754	0	1766	20	0
3	B	2625	0	2533	28	0
4	C	1860	0	1813	27	0
5	D	1094	0	1085	11	0
6	E	1358	0	1266	8	0
7	F	890	0	843	4	0
8	G	240	0	231	2	0
9	H	1282	0	1292	14	0
10	I	520	0	500	2	0
11	J	1120	0	1098	15	0
12	K	994	0	1027	9	0
13	L	1118	0	1076	11	0
14	M	1559	0	1573	21	0
15	N	1445	0	1401	21	0
16	O	865	0	873	2	0
17	P	1137	0	1123	10	0
18	Q	735	0	729	8	0
19	R	1150	0	1122	12	0
20	S	642	0	605	4	0
21	T	950	0	924	11	0
22	U	411	0	364	2	0
23	V	500	0	511	3	0
24	W	1196	0	1137	17	0
25	X	655	0	653	6	0
26	Y	1131	0	1133	10	0
27	Z	574	0	532	6	0
28	1	431	0	426	8	0
29	2	396	0	413	8	0
30	3	755	0	729	4	0
31	9	2599	0	1325	69	0
32	0	85	0	0	0	0
32	2	1	0	0	0	0
32	9	2	0	0	0	0
32	A	1	0	0	0	0
32	B	1	0	0	0	0
32	K	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
32	T	1	0	0	0	0
32	Y	1	0	0	0	0
33	0	2	0	0	0	0
34	0	66	0	0	0	0
34	9	3	0	0	0	0
34	C	1	0	0	0	0
34	J	1	0	0	0	0
34	M	1	0	0	0	0
34	Q	1	0	0	0	0
34	R	1	0	0	0	0
34	S	1	0	0	0	0
35	0	10	0	0	0	0
35	3	1	0	0	0	0
35	A	1	0	0	0	0
35	B	1	0	0	0	0
35	J	3	0	0	1	0
35	L	1	0	0	0	0
35	M	1	0	0	0	0
35	N	1	0	0	0	0
35	O	1	0	0	0	0
35	R	1	0	0	0	0
35	Y	1	0	0	0	0
36	0	93	0	0	0	0
36	1	1	0	0	0	0
36	3	2	0	0	0	0
36	9	3	0	0	0	0
36	A	3	0	0	0	0
36	B	2	0	0	0	0
36	F	1	0	0	0	0
36	J	1	0	0	0	0
36	R	1	0	0	0	0
36	S	1	0	0	0	0
37	0	39	0	39	11	0
38	1	1	0	0	0	0
38	3	1	0	0	0	0
38	O	1	0	0	0	0
38	U	1	0	0	0	0
38	Z	1	0	0	0	0
39	0	5969	0	0	110	0
39	1	52	0	0	0	0
39	2	44	0	0	0	0
39	3	66	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
39	9	151	0	0	4	0
39	A	111	0	0	2	0
39	B	138	0	0	0	0
39	C	169	0	0	4	0
39	D	44	0	0	0	0
39	E	45	0	0	1	0
39	F	26	0	0	0	0
39	G	17	0	0	0	0
39	H	65	0	0	3	0
39	I	6	0	0	0	0
39	J	51	0	0	1	0
39	K	59	0	0	0	0
39	L	84	0	0	2	0
39	M	119	0	0	0	0
39	N	60	0	0	1	0
39	O	37	0	0	0	0
39	P	67	0	0	0	0
39	Q	42	0	0	0	0
39	R	81	0	0	0	0
39	S	30	0	0	0	0
39	T	34	0	0	0	0
39	U	26	0	0	0	0
39	V	10	0	0	1	0
39	W	67	0	0	1	0
39	X	25	0	0	1	0
39	Y	96	0	0	0	0
39	Z	32	0	0	1	0
All	All	99174	0	59954	1065	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 7.

All (1065) 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)
1:0:1160:G:H5'	1:0:1161:A:H5'	1.19	1.14
31:9:76:G:H3'	31:9:77:A:H5"	1.38	1.04
1:0:871:G:C8	1:0:871:G:H5'	1.96	0.98
1:0:1242:A:H5'	11:J:82:THR:HG23	1.46	0.98
31:9:56:A:H2'	31:9:57:A:H5"	1.47	0.96
1:0:2717:C:H2'	1:0:2718:C:H5"	1.48	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:156:C:H5”	14:M:171:ARG:HD3	1.45	0.94
1:0:1187:U:HO2’	1:0:1189:A:H2	1.08	0.94
1:0:656:G:H5’	16:O:3:THR:HG22	1.49	0.94
1:0:1701:A:H4’	1:0:1702:U:H5”	1.48	0.93
1:0:871:G:H8	1:0:871:G:H5’	1.30	0.93
15:N:37:ARG:NH1	31:9:6:C:H5”	1.84	0.92
1:0:2717:C:C2’	1:0:2718:C:H5”	2.01	0.90
1:0:542:A:H5’	1:0:542:A:H8	1.36	0.89
1:0:1160:G:H5’	1:0:1161:A:C5’	2.02	0.89
12:K:10:GLN:H	12:K:10:GLN:HE21	1.15	0.89
1:0:1160:G:C5’	1:0:1161:A:H5’	2.02	0.88
1:0:2812:A:H2	1:0:2814:A:H62	1.21	0.88
1:0:1474:C:H6	1:0:1474:C:H5’	1.39	0.88
1:0:506:G:H22	1:0:509:A:H5”	1.38	0.87
24:W:137:GLN:HE21	24:W:141:HIS:HE1	1.23	0.86
1:0:870:G:H2’	1:0:871:G:H5”	1.57	0.85
1:0:2487:C:O4’	37:0:9101:HMT:H17	1.77	0.85
1:0:2506:A:HO2’	1:0:2507:G:H8	0.88	0.85
1:0:381:G:H5”	39:0:2945:HOH:O	1.74	0.85
1:0:1667:A:H8	1:0:1667:A:H5’	1.43	0.84
1:0:545:G:H8	1:0:545:G:H5’	1.41	0.83
1:0:2908:A:H2’	1:0:2909:G:O4’	1.79	0.83
1:0:1603:A:H5’	1:0:1605:G:O4’	1.79	0.83
1:0:1835:U:H5	1:0:1840:A:N7	1.77	0.81
1:0:823:U:H3’	39:0:3123:HOH:O	1.80	0.81
1:0:1116:U:HO2’	1:0:1118:A:H2	0.82	0.81
1:0:1116:U:O2’	1:0:1118:A:H2	1.64	0.81
1:0:2586:U:H3	1:0:2592:G:H22	1.28	0.80
1:0:541:C:H2’	1:0:542:A:H5”	1.63	0.80
1:0:506:G:H22	1:0:509:A:C5’	1.95	0.80
17:P:115:SER:H	17:P:118:GLN:HE21	1.27	0.80
1:0:1209:C:H2’	1:0:1210:G:H8	1.46	0.79
1:0:877:G:H5’	1:0:878:G:OP1	1.83	0.79
1:0:2533:C:H5’	1:0:2533:C:H6	1.48	0.79
1:0:1330:A:H4’	39:0:7277:HOH:O	1.81	0.79
1:0:2506:A:O2’	1:0:2507:G:H8	1.67	0.78
31:9:73:A:H61	31:9:108:C:H42	1.32	0.78
1:0:1372:A:H3’	39:0:6923:HOH:O	1.82	0.78
1:0:2291:A:C8	1:0:2309:C:H5’	2.19	0.78
1:0:871:G:H8	1:0:871:G:C5’	1.97	0.78
1:0:2270:G:H4’	2:A:223:ARG:HH12	1.48	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:559:U:H5'	1:0:559:U:H6	1.49	0.77
31:9:29:C:H2'	31:9:30:C:H5'	1.67	0.76
1:0:657:G:OP1	4:C:27:ARG:NH2	2.19	0.76
1:0:541:C:C2'	1:0:542:A:H5"	2.16	0.76
1:0:182:G:H5'	39:0:4102:HOH:O	1.85	0.76
1:0:1300:G:H1'	39:0:3448:HOH:O	1.85	0.76
31:9:56:A:C2'	31:9:57:A:H5"	2.16	0.75
1:0:1189:A:H1'	1:0:1209:C:O4'	1.87	0.75
1:0:1119:G:H2'	11:J:52:GLN:NE2	2.02	0.75
1:0:1206:U:H6	1:0:1206:U:H5'	1.53	0.74
1:0:2486:A:H2'	39:0:7215:HOH:O	1.88	0.74
1:0:500:G:H21	19:R:98:ASN:HD21	1.34	0.74
1:0:1164:U:H3	1:0:1192:A:H2	1.32	0.73
1:0:2637:A:H5'	39:0:3790:HOH:O	1.87	0.73
1:0:1008:C:H5"	9:H:19:ARG:HH12	1.54	0.73
19:R:8:ALA:HB1	19:R:13:THR:HG21	1.70	0.72
1:0:2468:A:H61	30:3:48:ASN:HD21	1.36	0.72
9:H:59:GLN:HE21	9:H:129:ARG:HE	1.34	0.72
1:0:1116:U:H3	1:0:1246:A:H62	1.35	0.72
1:0:1666:C:O2'	1:0:1667:A:H5"	1.89	0.72
1:0:2756:U:H3	1:0:2896:A:H2	1.35	0.72
1:0:1474:C:C6	1:0:1474:C:H5'	2.25	0.71
1:0:2270:G:H4'	2:A:223:ARG:NH1	2.06	0.71
1:0:2769:C:C2'	1:0:2770:G:H5'	2.19	0.71
1:0:1183:C:H2'	39:0:5603:HOH:O	1.91	0.71
1:0:871:G:C8	1:0:871:G:C5'	2.71	0.71
3:B:221:GLN:HE22	12:K:42:ASN:HD22	1.38	0.71
21:T:24:ARG:HH21	21:T:39:ASN:HD22	1.37	0.70
1:0:1118:A:H3'	1:0:1118:A:C8	2.26	0.70
1:0:1701:A:H4'	1:0:1702:U:C5'	2.19	0.70
1:0:1118:A:H3'	1:0:1118:A:H8	1.56	0.70
1:0:2073:G:H5"	39:0:8500:HOH:O	1.91	0.70
1:0:282:C:H1'	1:0:368:C:N4	2.07	0.70
1:0:1119:G:N2	1:0:1246:A:C2	2.58	0.69
31:9:7:G:H5'	39:9:5071:HOH:O	1.93	0.69
1:0:1118:A:H62	1:0:1244:U:H3	1.39	0.69
1:0:870:G:C2'	1:0:871:G:H5"	2.23	0.69
1:0:282:C:O2'	1:0:283:U:H5'	1.93	0.69
1:0:2780:C:H1'	6:E:143:GLN:HE21	1.58	0.69
31:9:75:G:H1	31:9:106:U:H3	1.38	0.69
31:9:14:G:H5'	31:9:14:G:H8	1.56	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:542:A:H5'	1:0:542:A:C8	2.25	0.68
1:0:1973:A:H5'	1:0:1973:A:H8	1.58	0.68
29:2:41:HIS:H	29:2:45:ASN:HD22	1.41	0.68
1:0:1878:G:H1'	39:0:5431:HOH:O	1.94	0.68
1:0:2827:A:H2'	1:0:2828:G:O4'	1.94	0.68
1:0:1377:C:H6	1:0:1377:C:H5'	1.57	0.68
1:0:541:C:H2'	1:0:542:A:C5'	2.24	0.68
1:0:1120:U:H5'	1:0:1121:G:OP2	1.94	0.68
1:0:2716:G:H5"	3:B:206:THR:HG21	1.76	0.67
1:0:196:G:H2'	39:0:6170:HOH:O	1.95	0.67
1:0:2533:C:C6	1:0:2533:C:H5'	2.28	0.67
1:0:2426:G:H1'	39:0:5391:HOH:O	1.94	0.67
1:0:853:C:H3'	39:0:3276:HOH:O	1.94	0.66
1:0:1209:C:H2'	1:0:1210:G:C8	2.29	0.66
1:0:544:G:H2'	1:0:545:G:H5"	1.77	0.66
1:0:545:G:C8	1:0:545:G:H5'	2.27	0.66
1:0:281:U:H2'	1:0:282:C:O4'	1.95	0.66
11:J:45:VAL:HG11	11:J:121:LEU:HD22	1.77	0.66
1:0:603:A:H5"	1:0:604:G:OP1	1.95	0.66
1:0:1667:A:H2'	1:0:1668:U:C6	2.31	0.66
1:0:450:C:OP1	4:C:184:ARG:NH2	2.29	0.66
1:0:1947:G:H2'	1:0:1948:G:H8	1.60	0.66
1:0:2534:C:H1'	39:0:8159:HOH:O	1.95	0.66
25:X:37:LEU:HD13	25:X:85:VAL:HG21	1.77	0.66
22:U:39:ASN:ND2	22:U:44:ARG:HH11	1.93	0.66
1:0:2851:G:O2'	1:0:2852:A:H5'	1.96	0.66
1:0:1641:A:H2'	1:0:1642:A:H5'	1.78	0.66
1:0:188:C:H5"	14:M:163:LEU:HD21	1.78	0.65
9:H:59:GLN:NE2	9:H:129:ARG:HE	1.93	0.65
1:0:1183:C:N4	1:0:1184:C:H41	1.94	0.65
1:0:1819:G:H2'	1:0:1820:G:H4'	1.78	0.65
1:0:1119:G:H8	11:J:52:GLN:HE22	1.43	0.65
14:M:24:GLN:HE21	14:M:27:ARG:HH11	1.45	0.65
1:0:12:U:H2'	1:0:13:G:H5'	1.79	0.65
1:0:1667:A:C8	1:0:1667:A:H5'	2.30	0.64
1:0:553:G:P	26:Y:204:ARG:HH22	2.20	0.64
24:W:6:GLN:HB2	24:W:26:ILE:HD11	1.80	0.64
14:M:24:GLN:NE2	14:M:27:ARG:HH11	1.96	0.64
1:0:2878:U:H2'	1:0:2879:A:O4'	1.97	0.64
1:0:1666:C:H2'	1:0:1667:A:H5'	1.80	0.64
39:0:4183:HOH:O	12:K:39:GLY:HA2	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:W:4:LEU:HD23	24:W:54:PHE:HB3	1.80	0.63
1:0:123:U:H5'	39:0:6169:HOH:O	1.97	0.63
1:0:2769:C:H2'	1:0:2770:G:H5'	1.79	0.63
1:0:1625:U:H4'	39:0:3427:HOH:O	1.98	0.63
1:0:1189:A:H3'	39:0:7609:HOH:O	1.96	0.63
1:0:2563:U:H2'	1:0:2565:C:O5'	1.98	0.63
1:0:2670:G:O2'	1:0:2671:U:H5'	1.98	0.63
3:B:238:ASN:HD22	3:B:240:GLY:H	1.45	0.63
1:0:558:C:C2'	1:0:559:U:H5"	2.29	0.63
1:0:2005:G:H3'	1:0:2005:G:OP2	1.99	0.63
1:0:119:A:H2'	1:0:120:A:H5"	1.80	0.63
1:0:130:C:H2'	39:0:7268:HOH:O	1.98	0.63
1:0:711:G:H1'	39:0:6793:HOH:O	1.98	0.63
1:0:814:G:H4'	39:0:7163:HOH:O	1.99	0.63
1:0:1733:A:H4'	3:B:212:GLN:HA	1.79	0.63
1:0:1684:A:H1'	29:2:43:ARG:HH22	1.64	0.62
1:0:2054:A:N3	19:R:128:ARG:NH2	2.47	0.62
1:0:1102:C:H4'	39:0:5065:HOH:O	1.99	0.62
1:0:2578:G:H5'	1:0:2578:G:H8	1.64	0.62
1:0:2710:U:H1'	39:0:7520:HOH:O	1.98	0.62
1:0:621:C:H5'	26:Y:132:ASP:OD2	2.00	0.62
37:0:9101:HMT:H12A	39:0:3785:HOH:O	2.00	0.61
1:0:681:G:N3	1:0:681:G:H5'	2.15	0.61
31:9:49:G:O2'	31:9:50:G:H5'	2.00	0.61
1:0:2816:A:H5"	1:0:2817:G:H5'	1.82	0.61
1:0:1441:G:O2'	1:0:1442:A:H5'	1.99	0.61
1:0:1205:U:H2'	1:0:1206:U:C5'	2.29	0.61
1:0:1184:C:H1'	39:0:7308:HOH:O	1.98	0.61
1:0:1741:U:H5'	1:0:1742:A:OP1	2.00	0.61
1:0:1947:G:H2'	1:0:1948:G:C8	2.34	0.61
1:0:2004:U:H4'	39:0:4302:HOH:O	2.01	0.61
1:0:1701:A:H5"	1:0:1702:U:H3'	1.80	0.61
1:0:2507:G:H2'	1:0:2510:C:H42	1.65	0.61
31:9:92:G:H2'	31:9:93:A:C8	2.35	0.61
31:9:24:U:H3'	31:9:25:G:H5'	1.81	0.61
1:0:2505:G:O2'	1:0:2506:A:H5'	2.01	0.61
1:0:1328:A:OP1	26:Y:169:ARG:HD2	2.00	0.61
1:0:2896:A:H5"	39:0:5399:HOH:O	2.00	0.61
1:0:308:U:H5'	1:0:309:C:OP1	1.99	0.60
1:0:2541:U:H3	1:0:2620:U:H3	1.49	0.60
1:0:2541:U:H4'	1:0:2542:C:OP1	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2635:A:O2'	1:0:2636:C:H5'	2.01	0.60
3:B:212:GLN:HB2	3:B:257:THR:HG21	1.83	0.60
1:0:1528:A:H2'	1:0:1529:G:O4'	2.01	0.60
1:0:588:G:O6	24:W:154:ARG:NH1	2.34	0.60
1:0:2502:C:C2'	1:0:2503:A:H5'	2.31	0.60
1:0:272:A:H5'	1:0:273:G:OP2	2.01	0.60
24:W:21:LEU:HD21	24:W:48:VAL:HG11	1.84	0.60
1:0:2320:U:H4'	1:0:2321:A:O4'	2.02	0.60
11:J:41:ALA:HB3	39:J:5907:HOH:O	2.02	0.59
1:0:1342:C:C2'	1:0:1343:C:H5'	2.31	0.59
1:0:2717:C:O2'	1:0:2718:C:H5"	2.02	0.59
1:0:1159:G:H21	1:0:1189:A:H8	1.50	0.59
24:W:137:GLN:HE21	24:W:141:HIS:CE1	2.12	0.59
1:0:271:C:H41	1:0:378:A:H2	1.49	0.59
31:9:29:C:C2'	31:9:30:C:H5'	2.33	0.59
1:0:1790:C:H2'	1:0:1791:U:H6	1.67	0.59
4:C:139:VAL:HG13	39:C:6251:HOH:O	2.02	0.58
1:0:306:A:P	21:T:38:ARG:HH21	2.26	0.58
1:0:544:G:C2'	1:0:545:G:H5"	2.33	0.58
1:0:2487:C:N3	37:0:9101:HMT:H11	2.18	0.58
31:9:13:A:O2'	31:9:14:G:H5"	2.04	0.58
1:0:2064:U:H5'	1:0:2652:U:H4'	1.85	0.58
1:0:249:G:O2'	1:0:250:C:H5'	2.04	0.58
31:9:73:A:N6	31:9:108:C:H42	2.00	0.58
1:0:1132:A:N6	1:0:1229:C:H2'	2.19	0.58
14:M:99:ARG:HD2	14:M:167:GLY:HA2	1.84	0.58
1:0:2769:C:H2'	1:0:2770:G:C5'	2.34	0.58
1:0:2768:A:H2'	1:0:2769:C:O4'	2.03	0.58
31:9:49:G:H5"	39:9:4707:HOH:O	2.02	0.58
15:N:141:ARG:HH21	31:9:48:C:H4'	1.69	0.58
1:0:338:C:H4'	4:C:174:ILE:CD1	2.34	0.58
1:0:482:G:H4'	1:0:508:A:N1	2.19	0.58
1:0:558:C:O2'	1:0:559:U:H5"	2.04	0.58
1:0:93:C:H5"	23:V:1:THR:HB	1.86	0.58
30:3:25:VAL:HG22	30:3:68:LYS:HG3	1.85	0.58
31:9:14:G:H5'	31:9:14:G:C8	2.38	0.57
31:9:76:G:C3'	31:9:77:A:H5"	2.25	0.57
39:0:7291:HOH:O	3:B:211:THR:HG21	2.04	0.57
1:0:2420:G:O2'	1:0:2421:G:H5'	2.05	0.57
1:0:794:U:H3	1:0:819:A:H61	1.50	0.57
1:0:1053:G:OP1	9:H:15:PRO:HG3	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2541:U:O2'	1:0:2542:C:H5'	2.04	0.57
1:0:1189:A:H1'	1:0:1209:C:C1'	2.34	0.57
1:0:2613:G:O2'	1:0:2614:C:H5'	2.03	0.57
1:0:42:C:H1'	39:0:3438:HOH:O	2.05	0.57
1:0:2548:C:OP2	3:B:5:ARG:NH2	2.37	0.57
15:N:144:GLY:O	15:N:147:ILE:HG22	2.03	0.57
4:C:127:ARG:NH2	4:C:225:PRO:HG2	2.20	0.57
1:0:2783:A:H3'	39:0:4201:HOH:O	2.03	0.57
1:0:10:U:O4	1:0:532:A:OP2	2.22	0.57
1:0:1299:G:O6	13:L:6:ARG:HD3	2.04	0.56
1:0:1886:A:H4'	39:Z:395:HOH:O	2.05	0.56
1:0:164:G:H3'	39:0:8309:HOH:O	2.05	0.56
1:0:1166:A:H61	1:0:1180:U:H3	1.53	0.56
1:0:380:A:H2'	39:0:6974:HOH:O	2.05	0.56
1:0:1201:C:H5"	39:0:5584:HOH:O	2.04	0.56
1:0:2419:U:H5"	1:0:2420:G:H5'	1.87	0.56
2:A:48:ASP:HB3	39:A:5706:HOH:O	2.05	0.56
1:0:1118:A:H8	1:0:1119:G:H5"	1.69	0.56
1:0:2769:C:H2'	1:0:2770:G:O4'	2.06	0.56
1:0:2443:C:H1'	13:L:56:LYS:HE3	1.88	0.56
1:0:2414:A:H2'	1:0:2415:A:C8	2.40	0.56
1:0:1666:C:H2'	1:0:1667:A:C5'	2.35	0.56
1:0:2894:C:O2'	1:0:2895:C:H5'	2.05	0.56
1:0:1295:G:H5"	13:L:14:GLY:O	2.05	0.56
1:0:1741:U:O2'	1:0:2723:G:H4'	2.06	0.56
1:0:1205:U:H2'	1:0:1206:U:H5'	1.87	0.56
12:K:10:GLN:N	12:K:10:GLN:HE21	1.96	0.56
1:0:1835:U:C5	1:0:1840:A:N7	2.67	0.56
1:0:2712:G:H5'	39:0:4183:HOH:O	2.06	0.56
1:0:2502:C:H2'	1:0:2503:A:H5'	1.88	0.56
1:0:1800:G:H1'	17:P:88:GLN:NE2	2.21	0.56
1:0:2721:U:H4'	12:K:87:ARG:HG3	1.88	0.56
1:0:836:G:H5"	39:0:3978:HOH:O	2.06	0.56
1:0:2700:G:H3'	39:0:8246:HOH:O	2.06	0.56
1:0:1855:G:H4'	1:0:1856:C:O5'	2.05	0.55
1:0:1130:U:H2'	1:0:1131:G:O4'	2.06	0.55
5:D:154:LYS:HD2	5:D:154:LYS:H	1.71	0.55
1:0:2587:OMU:H2'	1:0:2589:U:H5"	1.87	0.55
1:0:90:A:H2'	1:0:91:G:O4'	2.06	0.55
1:0:20:G:H21	19:R:117:HIS:HD2	1.55	0.55
1:0:1527:A:H1'	1:0:1528:A:C8	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1666:C:C2'	1:0:1667:A:H5"	2.36	0.55
27:Z:60:ASP:HB3	27:Z:69:ASP:HB3	1.87	0.55
1:0:1187:U:O2'	1:0:1189:A:H2	1.82	0.55
9:H:59:GLN:HE21	9:H:129:ARG:NE	2.03	0.55
1:0:2064:U:H5'	1:0:2652:U:O3'	2.07	0.55
31:9:73:A:H61	31:9:108:C:N4	2.03	0.55
1:0:1386:G:O2'	1:0:1387:G:H5'	2.06	0.55
15:N:113:SER:HB2	39:N:6448:HOH:O	2.07	0.55
5:D:140:ARG:HB3	31:9:29:C:H5"	1.89	0.55
1:0:2100:A:H5'	39:C:7192:HOH:O	2.07	0.55
1:0:226:A:H1'	1:0:393:G:C5	2.42	0.55
1:0:2756:U:N3	1:0:2896:A:H2	2.03	0.55
31:9:24:U:H3'	31:9:25:G:C5'	2.37	0.55
1:0:2539:U:H2'	39:0:3785:HOH:O	2.06	0.54
1:0:2507:G:H2'	1:0:2510:C:N4	2.21	0.54
1:0:2769:C:O2'	1:0:2770:G:H5'	2.06	0.54
1:0:602:A:O2'	1:0:605:C:H4'	2.07	0.54
1:0:2748:G:H2'	39:0:7410:HOH:O	2.06	0.54
1:0:441:A:H1'	1:0:442:A:N7	2.22	0.54
31:9:34:A:H2'	31:9:35:C:O4'	2.07	0.54
1:0:538:C:H5"	1:0:539:G:C8	2.42	0.54
2:A:121:ALA:O	2:A:124:VAL:HG22	2.07	0.54
1:0:558:C:H2'	1:0:559:U:C5'	2.37	0.54
1:0:1211:G:O2'	1:0:1212:C:H5'	2.07	0.54
1:0:1333:U:H2'	1:0:1334:C:C6	2.41	0.54
31:9:64:C:C2'	31:9:65:A:H5'	2.37	0.54
1:0:1189:A:O2'	1:0:1208:C:H2'	2.07	0.54
1:0:2703:A:H2'	1:0:2704:C:H6	1.73	0.54
1:0:2524:G:H21	1:0:2526:C:N4	2.05	0.54
1:0:31:C:H2'	39:0:7619:HOH:O	2.08	0.54
15:N:37:ARG:NH1	31:9:6:C:OP1	2.36	0.54
1:0:1180:U:H4'	10:I:86:GLU:HG2	1.90	0.54
31:9:49:G:H2'	31:9:50:G:O4'	2.08	0.54
1:0:1427:A:H61	1:0:1440:U:H1'	1.73	0.54
28:1:21:ARG:HD2	28:1:37:CYS:SG	2.48	0.54
1:0:1342:C:O2'	1:0:1343:C:H5'	2.07	0.54
1:0:2604:A:H5'	39:0:4959:HOH:O	2.07	0.54
12:K:32:ILE:HD11	12:K:56:SER:HB3	1.89	0.54
1:0:1701:A:H5'	39:0:5659:HOH:O	2.08	0.54
1:0:136:C:H2'	1:0:137:U:O4'	2.08	0.54
31:9:55:U:H4'	31:9:56:A:H8	1.71	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2899:A:O2'	1:0:2900:G:H5'	2.09	0.53
1:0:2851:G:C2'	1:0:2852:A:H5'	2.37	0.53
24:W:48:VAL:HG12	24:W:52:VAL:HB	1.90	0.53
1:0:1838:U:O2'	1:0:2644:C:H5'	2.09	0.53
1:0:1058:A:H2'	1:0:1060:C:H5"	1.89	0.53
1:0:1681:G:H5"	1:0:1682:A:H5'	1.89	0.53
4:C:88:SER:HB3	4:C:91:PRO:HB3	1.91	0.53
1:0:656:G:H5'	16:O:3:THR:CG2	2.32	0.53
14:M:99:ARG:HE	14:M:170:ASN:ND2	2.06	0.53
1:0:2748:G:H5'	39:0:7410:HOH:O	2.07	0.53
1:0:2795:C:O2'	1:0:2796:U:H5'	2.08	0.53
1:0:671:A:O2'	1:0:672:G:H2'	2.08	0.53
1:0:920:C:H5"	1:0:921:G:O5'	2.09	0.53
31:9:55:U:H4'	31:9:56:A:C8	2.43	0.53
1:0:316:A:N3	1:0:336:G:O2'	2.38	0.53
1:0:2787:C:H5	39:0:3383:HOH:O	1.92	0.53
31:9:39:U:H1'	31:9:44:A:H61	1.73	0.53
1:0:65:C:O2'	1:0:66:G:H5'	2.08	0.53
1:0:1641:A:C2'	1:0:1642:A:H5'	2.39	0.53
1:0:1596:U:H2'	1:0:1598:A:OP2	2.09	0.53
31:9:52:A:H2'	31:9:53:G:O4'	2.09	0.53
1:0:1118:A:C8	1:0:1118:A:C3'	2.89	0.53
1:0:1165:G:H21	1:0:1173:A:H5"	1.73	0.53
1:0:280:C:H2'	1:0:281:U:O4'	2.08	0.53
1:0:669:G:O2'	1:0:670:G:H5'	2.09	0.53
14:M:24:GLN:HE21	14:M:27:ARG:NH1	2.06	0.52
15:N:11:ARG:HD3	31:9:114:G:O6	2.08	0.52
1:0:256:C:H2'	1:0:257:G:O4'	2.09	0.52
1:0:1278:A:H4'	1:0:1279:U:C4	2.44	0.52
1:0:259:G:H21	14:M:58:GLN:NE2	2.08	0.52
1:0:88:G:H2'	1:0:89:G:C8	2.43	0.52
1:0:821:U:H2'	1:0:822:C:H6	1.75	0.52
1:0:1183:C:H42	1:0:1184:C:H41	1.56	0.52
1:0:2348:C:H1'	5:D:131:THR:HG21	1.90	0.52
1:0:694:A:H2'	1:0:695:C:H5'	1.91	0.52
1:0:1595:G:O2'	1:0:1596:U:H5'	2.10	0.52
24:W:88:THR:HG23	24:W:110:GLN:HB3	1.91	0.52
1:0:1632:A:H2'	1:0:1633:C:H5'	1.91	0.52
1:0:1755:A:H2'	1:0:1756:G:O4'	2.08	0.52
1:0:1477:C:H5'	1:0:1868:G:C5'	2.39	0.52
1:0:1994:A:P	12:K:66:ARG:HH22	2.32	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1778:A:H2'	1:0:1779:A:H5'	1.92	0.52
1:0:407:A:H2'	1:0:408:A:C8	2.44	0.52
1:0:69:A:H5'	1:0:69:A:C8	2.44	0.52
1:0:1244:U:OP1	11:J:18:ILE:HD13	2.09	0.52
1:0:195:C:H2'	1:0:196:G:H5'	1.92	0.52
1:0:1790:C:H2'	1:0:1791:U:C6	2.44	0.52
1:0:157:G:H4'	14:M:95:LYS:HE2	1.92	0.52
1:0:2301:A:H5"	1:0:2302:A:H5'	1.92	0.52
23:V:55:ARG:O	23:V:59:ILE:HG12	2.09	0.52
1:0:1972:U:H2'	1:0:1973:A:C5'	2.39	0.52
14:M:99:ARG:HE	14:M:170:ASN:HD22	1.56	0.52
1:0:2241:C:O2'	1:0:2242:U:H5'	2.10	0.52
4:C:236:THR:HG22	4:C:239:ALA:H	1.74	0.52
1:0:848:C:H5'	39:0:7034:HOH:O	2.10	0.52
1:0:1856:C:H5'	1:0:1858:A:O4'	2.10	0.51
1:0:1213:C:O2'	1:0:1214:G:H5'	2.10	0.51
1:0:1593:C:OP1	17:P:117:SER:HB3	2.10	0.51
1:0:399:C:H5'	14:M:179:GLY:O	2.11	0.51
1:0:371:U:H2'	1:0:372:A:H8	1.75	0.51
1:0:2364:A:H5"	18:Q:15:LYS:HD3	1.93	0.51
1:0:2387:U:H2'	1:0:2388:C:C6	2.45	0.51
1:0:522:U:O2'	1:0:1366:C:H5'	2.10	0.51
1:0:1666:C:C2'	1:0:1667:A:C5'	2.88	0.51
1:0:944:G:H21	24:W:44:MET:CE	2.22	0.51
1:0:2445:U:H2'	1:0:2446:G:C8	2.45	0.51
1:0:485:A:N3	1:0:487:G:H5"	2.25	0.51
1:0:1119:G:H2'	11:J:52:GLN:HE22	1.75	0.51
1:0:338:C:H4'	4:C:174:ILE:HD11	1.93	0.51
1:0:1333:U:H2'	1:0:1334:C:H6	1.75	0.51
1:0:1205:U:H2'	1:0:1206:U:H5"	1.93	0.51
31:9:39:U:H3'	31:9:40:C:H5"	1.93	0.51
1:0:2890:A:H1'	22:U:56:ARG:NH2	2.26	0.51
7:F:2:VAL:HG22	7:F:57:GLU:OE1	2.10	0.51
1:0:292:G:H2'	1:0:358:G:N2	2.25	0.51
29:2:40:ARG:HD2	29:2:47:THR:HG22	1.92	0.51
19:R:39:THR:HG23	19:R:107:GLU:O	2.11	0.51
1:0:960:G:H2'	1:0:960:G:N3	2.25	0.51
1:0:1795:G:H2'	1:0:1796:A:O4'	2.10	0.51
1:0:1834:C:H2'	1:0:1840:A:N6	2.25	0.51
31:9:91:C:H2'	31:9:92:G:O4'	2.10	0.51
1:0:2081:A:H4'	11:J:69:TYR:CE1	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1218:U:H2'	1:0:1219:U:C6	2.45	0.51
8:G:64:ASN:N	8:G:64:ASN:HD22	2.08	0.51
1:0:2353:A:H4'	1:0:2354:A:O5'	2.11	0.51
1:0:1845:A:OP2	2:A:190:ARG:NH1	2.44	0.51
1:0:2073:G:OP2	1:0:2490:A:H5'	2.11	0.50
1:0:1419:U:H2'	1:0:1685:A:C2	2.46	0.50
1:0:2256:G:O2'	1:0:2257:G:H5'	2.11	0.50
24:W:64:THR:O	24:W:68:THR:HG22	2.11	0.50
9:H:31:ILE:HG23	39:H:6314:HOH:O	2.10	0.50
1:0:2365:G:H4'	18:Q:45:PRO:O	2.11	0.50
1:0:1181:A:N1	1:0:1192:A:O2'	2.44	0.50
3:B:201:ASP:HB2	3:B:312:ARG:HD2	1.93	0.50
18:Q:26:PRO:O	18:Q:30:VAL:HG23	2.10	0.50
1:0:1819:G:H5'	39:0:3491:HOH:O	2.11	0.50
1:0:64:G:H2'	1:0:65:C:O4'	2.12	0.50
19:R:39:THR:HG22	19:R:42:GLU:H	1.77	0.50
28:1:8:GLN:HE22	28:1:11:LYS:NZ	2.09	0.50
14:M:164:THR:HG22	14:M:165:GLY:N	2.27	0.50
2:A:199:HIS:HD2	2:A:201:PHE:H	1.59	0.50
1:0:317:A:OP1	21:T:52:ARG:O	2.28	0.50
1:0:1603:A:H5"	1:0:1605:G:H5'	1.92	0.50
30:3:48:ASN:ND2	30:3:50:GLY:H	2.09	0.50
39:0:6217:HOH:O	21:T:38:ARG:NH1	2.45	0.50
1:0:255:A:H2'	1:0:256:C:C6	2.46	0.50
1:0:2050:G:H5"	19:R:80:TYR:O	2.12	0.50
4:C:118:THR:O	4:C:136:VAL:HG13	2.12	0.50
1:0:1537:C:H1'	39:0:6076:HOH:O	2.11	0.50
1:0:123:U:H2'	1:0:124:C:C6	2.46	0.50
1:0:1307:A:H2'	1:0:1308:A:C8	2.47	0.50
31:9:95:C:O2'	31:9:96:C:H5'	2.12	0.50
1:0:396:U:O2'	1:0:418:C:H4'	2.11	0.50
1:0:1201:C:H2'	1:0:1202:A:H5'	1.92	0.50
1:0:1654:U:H2'	2:A:47:HIS:HD2	1.76	0.50
1:0:2749:U:H5'	39:0:7896:HOH:O	2.12	0.50
1:0:185:G:H4'	1:0:186:A:OP1	2.12	0.50
1:0:2039:A:OP2	3:B:234:ARG:NH2	2.45	0.50
31:9:64:C:H2'	31:9:65:A:H5'	1.93	0.49
1:0:1677:U:OP2	29:2:8:LYS:NZ	2.36	0.49
1:0:364:U:H2'	1:0:365:G:O4'	2.12	0.49
6:E:137:ASP:O	6:E:141:VAL:HG23	2.11	0.49
31:9:54:A:O2'	31:9:55:U:H5'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:P:115:SER:H	17:P:118:GLN:NE2	2.02	0.49
1:0:949:U:H4'	18:Q:95:GLU:HA	1.95	0.49
17:P:105:LEU:HD21	17:P:137:LEU:HD11	1.95	0.49
1:0:660:A:H4'	1:0:661:G:O5'	2.13	0.49
1:0:558:C:H2'	1:0:559:U:H5"	1.93	0.49
15:N:141:ARG:NH2	31:9:48:C:H4'	2.26	0.49
1:0:960:G:N3	1:0:960:G:C2'	2.76	0.49
1:0:1289:C:O2'	1:0:1290:G:H5'	2.13	0.49
11:J:19:MET:HE3	11:J:132:LEU:HD21	1.94	0.49
1:0:1165:G:H4'	1:0:1174:A:O2'	2.12	0.49
1:0:1166:A:H1'	1:0:1192:A:C2	2.47	0.49
1:0:1377:C:H5'	1:0:1377:C:C6	2.42	0.49
1:0:2251:G:H2'	1:0:2252:A:C8	2.47	0.49
1:0:625:U:H5"	1:0:1044:C:N4	2.26	0.49
1:0:1426:C:H2'	39:0:5198:HOH:O	2.12	0.49
1:0:702:G:O2'	1:0:703:G:H5'	2.13	0.49
1:0:2372:A:H2'	1:0:2373:U:C6	2.48	0.49
1:0:1010:C:H4'	15:N:4:PRO:HB2	1.94	0.49
1:0:2812:A:C2	1:0:2814:A:N6	2.73	0.49
31:9:23:U:O2'	31:9:24:U:H4'	2.12	0.49
1:0:319:A:H4'	1:0:338:C:C5	2.47	0.49
9:H:72:ALA:HB2	9:H:156:ALA:HB2	1.94	0.49
1:0:2470:A:H5"	39:0:7539:HOH:O	2.12	0.49
1:0:1268:C:O2'	1:0:1269:G:H5'	2.11	0.49
1:0:1682:A:H5"	39:0:4688:HOH:O	2.13	0.49
1:0:2781:U:H1'	6:E:139:GLU:OE2	2.11	0.49
1:0:1016:U:H1'	39:0:8324:HOH:O	2.12	0.49
1:0:952:G:N3	1:0:2302:A:H2'	2.28	0.49
24:W:108:ARG:HH21	24:W:114:PRO:HG2	1.78	0.49
1:0:2472:C:O2'	1:0:2634:G:H4'	2.13	0.49
1:0:2740:G:H2'	1:0:2741:A:O4'	2.11	0.49
1:0:2361:A:H8	1:0:2361:A:H5'	1.77	0.49
1:0:1398:G:H2'	1:0:1399:A:C8	2.47	0.49
1:0:2768:A:O2'	1:0:2769:C:H5'	2.13	0.49
1:0:1641:A:H2'	1:0:1642:A:C5'	2.43	0.49
1:0:821:U:H3'	39:0:8439:HOH:O	2.12	0.49
1:0:1787:C:H4'	1:0:2883:A:O4'	2.13	0.49
5:D:159:PRO:O	5:D:163:VAL:HG23	2.13	0.49
1:0:2672:C:H1'	39:0:6210:HOH:O	2.12	0.49
15:N:40:ASN:ND2	31:9:28:U:H5"	2.28	0.49
1:0:1972:U:H2'	1:0:1973:A:H5"	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:9:35:C:H5"	39:9:4078:HOH:O	2.13	0.49
1:0:1060:C:H6	1:0:1060:C:H5'	1.77	0.49
1:0:834:G:H3'	1:0:835:U:H4'	1.95	0.49
20:S:33:SER:O	20:S:37:VAL:HG23	2.13	0.49
4:C:39:GLN:O	4:C:43:LYS:HD3	2.13	0.49
1:0:396:U:H1'	39:0:7529:HOH:O	2.11	0.49
1:0:1206:U:H2'	1:0:1207:A:O4'	2.13	0.48
1:0:1131:G:C6	1:0:1230:A:C4	3.02	0.48
1:0:1200:A:H3'	39:0:4912:HOH:O	2.12	0.48
1:0:793:A:H5"	17:P:83:LYS:HG2	1.95	0.48
1:0:441:A:H8	1:0:441:A:O5'	1.94	0.48
1:0:316:A:H5'	21:T:54:ASP:OD2	2.12	0.48
1:0:2344:G:N3	1:0:2344:G:H2'	2.28	0.48
1:0:2415:A:H2'	1:0:2416:G:H5'	1.95	0.48
1:0:1220:U:H4'	9:H:174:LEU:HD21	1.95	0.48
1:0:1342:C:H2'	1:0:1343:C:H5'	1.96	0.48
1:0:67:A:H5"	1:0:69:A:C8	2.49	0.48
1:0:2104:C:O2	1:0:2485:A:N1	2.46	0.48
1:0:1415:G:H5'	28:1:12:ASN:O	2.13	0.48
1:0:919:U:O3'	13:L:37:LYS:NZ	2.46	0.48
1:0:506:G:N2	1:0:509:A:H5"	2.19	0.48
1:0:1118:A:C8	1:0:1119:G:H5"	2.49	0.48
15:N:4:PRO:HG3	31:9:69:U:OP1	2.13	0.48
1:0:1942:A:H3'	39:0:7130:HOH:O	2.14	0.48
31:9:20:G:O2'	31:9:21:G:H5'	2.13	0.48
1:0:1175:G:H1'	1:0:1193:A:H2'	1.95	0.48
1:0:137:U:H2'	1:0:139:C:C5	2.49	0.48
5:D:76:ARG:NE	31:9:44:A:O4'	2.41	0.48
1:0:969:G:H1	1:0:999:C:H42	1.61	0.48
1:0:564:G:H1'	39:0:5694:HOH:O	2.14	0.48
1:0:512:G:O3'	1:0:513:A:H8	1.96	0.48
26:Y:187:VAL:HG23	26:Y:192:ASP:HB2	1.95	0.48
1:0:2807:U:P	3:B:27:ASN:HD21	2.36	0.48
1:0:1463:U:H2'	1:0:1464:C:C6	2.49	0.48
1:0:2346:C:O5'	1:0:2346:C:H6	1.96	0.48
31:9:12:C:H5'	31:9:70:U:O4'	2.12	0.48
1:0:1881:A:OP1	2:A:199:HIS:HE1	1.96	0.48
1:0:2505:G:C2'	1:0:2506:A:H5'	2.44	0.48
1:0:920:C:H5'	1:0:921:G:C4	2.49	0.48
1:0:2509:A:H2'	1:0:2510:C:O4'	2.14	0.48
1:0:1819:G:H2'	1:0:1820:G:C4'	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:E:49:ILE:HD11	6:E:69:ILE:HD12	1.96	0.48
1:0:806:A:H2'	1:0:807:A:O4'	2.14	0.48
31:9:76:G:H3'	31:9:77:A:C5'	2.27	0.48
1:0:450:C:H4'	4:C:46:TYR:CE1	2.48	0.48
1:0:1279:U:O2	1:0:1279:U:H2'	2.12	0.48
1:0:2716:G:H5'	3:B:262:ARG:HG3	1.95	0.47
25:X:74:ALA:HB2	25:X:85:VAL:HG13	1.96	0.47
1:0:69:A:H5'	1:0:69:A:H8	1.79	0.47
1:0:1384:C:H5'	25:X:30:MET:HG2	1.96	0.47
1:0:1973:A:H2'	1:0:1974:G:O4'	2.14	0.47
1:0:364:U:H2'	1:0:365:G:C8	2.49	0.47
1:0:1634:G:H3'	39:0:8633:HOH:O	2.14	0.47
1:0:776:A:OP1	28:1:28:HIS:HE1	1.97	0.47
1:0:2780:C:C1'	6:E:143:GLN:HE21	2.27	0.47
1:0:1007:A:H2'	9:H:22:TYR:CZ	2.49	0.47
25:X:25:ARG:HD2	39:X:5356:HOH:O	2.14	0.47
1:0:125:U:H2'	39:0:8435:HOH:O	2.13	0.47
1:0:1249:U:H2'	1:0:1250:C:C6	2.49	0.47
1:0:622:G:O2'	1:0:623:U:H5'	2.14	0.47
1:0:1849:G:H1'	1:0:2011:A:N1	2.30	0.47
31:9:56:A:C3'	31:9:57:A:H5"	2.43	0.47
1:0:1406:A:H5'	1:0:1407:A:C8	2.49	0.47
3:B:97:LEU:HD22	3:B:127:GLN:HE21	1.79	0.47
37:0:9101:HMT:C1	37:0:9101:HMT:H7A	2.45	0.47
1:0:1453:G:H2'	1:0:1454:U:O4'	2.14	0.47
1:0:1925:G:O2'	1:0:1926:G:H5'	2.14	0.47
1:0:1482:A:O2'	1:0:1483:C:H5'	2.15	0.47
1:0:559:U:H5'	1:0:559:U:C6	2.40	0.47
7:F:58:GLU:CD	14:M:27:ARG:HH22	2.18	0.47
1:0:1041:U:H4'	1:0:1295:G:H5'	1.96	0.47
1:0:317:A:H4'	39:0:8441:HOH:O	2.13	0.47
1:0:121:U:OP2	29:2:10:ARG:NH2	2.38	0.47
1:0:903:U:OP2	13:L:11:ARG:NH1	2.47	0.47
1:0:2401:A:H2'	1:0:2402:A:C8	2.50	0.47
4:C:115:LEU:HD13	4:C:223:LEU:HD21	1.97	0.47
1:0:2266:A:H2'	1:0:2267:G:C8	2.50	0.47
1:0:1616:A:H5"	1:0:1617:C:OP1	2.15	0.47
1:0:1119:G:N2	1:0:1246:A:N1	2.63	0.47
2:A:51:ARG:NH1	2:A:120:ARG:O	2.48	0.47
2:A:51:ARG:HB2	39:A:5706:HOH:O	2.15	0.47
24:W:88:THR:HG22	24:W:89:ASP:H	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:247:A:H2'	39:0:8663:HOH:O	2.13	0.47
1:0:1104:C:H4'	11:J:88:PRO:HD3	1.95	0.47
14:M:34:GLU:HB3	14:M:38:GLU:HG3	1.96	0.47
1:0:1364:G:H1'	39:0:3619:HOH:O	2.15	0.47
14:M:43:PRO:HG3	14:M:62:VAL:HG21	1.96	0.47
1:0:1181:A:H2'	1:0:1182:C:H5'	1.97	0.47
1:0:2900:G:H2'	1:0:2901:C:O4'	2.15	0.47
1:0:816:G:H5'	1:0:1598:A:H4'	1.95	0.47
1:0:1940:C:H4'	39:0:7130:HOH:O	2.13	0.47
1:0:1837:G:H3'	39:0:7745:HOH:O	2.15	0.47
1:0:2630:G:O6	2:A:206:ARG:NH2	2.48	0.47
1:0:2676:C:H6	1:0:2676:C:H5"	1.78	0.47
1:0:2649:A:H5'	1:0:2649:A:H8	1.80	0.47
31:9:114:G:H2'	31:9:115:C:C6	2.50	0.47
1:0:1123:A:C2	1:0:1129:C:H4'	2.50	0.47
1:0:2521:A:OP2	9:H:6:ALA:HB3	2.15	0.47
1:0:1234:U:N3	3:B:244:PRO:HB3	2.30	0.47
1:0:424:C:H2'	1:0:425:U:C6	2.49	0.47
1:0:612:U:H2'	1:0:613:C:C6	2.50	0.47
1:0:447:A:O2'	1:0:448:G:H5'	2.15	0.47
1:0:2883:A:H2'	1:0:2884:G:O4'	2.16	0.46
1:0:1309:U:O2'	1:0:1310:U:H5'	2.15	0.46
1:0:958:G:H2'	1:0:959:C:C6	2.49	0.46
1:0:538:C:OP2	26:Y:134:HIS:HE1	1.98	0.46
1:0:1768:C:H2'	1:0:1769:C:O4'	2.16	0.46
4:C:76:ARG:HG2	4:C:78:ARG:NH1	2.29	0.46
1:0:1167:G:H4'	10:I:130:LEU:HD21	1.97	0.46
1:0:17:G:H2'	1:0:18:C:C6	2.51	0.46
21:T:111:ARG:HB3	21:T:119:ALA:HB2	1.97	0.46
9:H:70:LEU:O	9:H:74:ARG:HB2	2.15	0.46
1:0:2538:A:H1'	37:0:9101:HMT:C18	2.45	0.46
31:9:61:C:H2'	31:9:62:A:H8	1.79	0.46
1:0:1445:G:N2	1:0:1678:A:H1'	2.31	0.46
1:0:2718:C:H6	1:0:2718:C:H5'	1.80	0.46
1:0:1299:G:N7	13:L:6:ARG:NH1	2.63	0.46
1:0:559:U:H2'	1:0:560:U:O4'	2.14	0.46
1:0:241:A:C2	1:0:378:A:H4'	2.50	0.46
1:0:2421:G:H3'	1:0:2422:U:C5'	2.45	0.46
1:0:1878:G:O2'	1:0:1879:U:OP2	2.33	0.46
1:0:2720:C:O2	12:K:87:ARG:NH2	2.48	0.46
1:0:1592:G:H2'	1:0:1593:C:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2649:A:H5'	1:0:2649:A:C8	2.50	0.46
1:0:2297:U:H1'	39:0:4127:HOH:O	2.16	0.46
13:L:136:ALA:HB3	39:L:6166:HOH:O	2.15	0.46
1:0:1116:U:O2'	1:0:1118:A:C2	2.49	0.46
1:0:797:A:H4'	27:Z:34:SER:HB3	1.97	0.46
7:F:39:SER:HB3	7:F:45:ALA:HB2	1.98	0.46
1:0:24:G:N2	1:0:518:G:H1'	2.31	0.46
1:0:638:C:H2'	1:0:639:A:C8	2.51	0.46
1:0:1562:C:O2	1:0:1562:C:H2'	2.15	0.46
1:0:790:A:H2'	1:0:791:A:O4'	2.15	0.46
1:0:527:U:H2'	1:0:528:G:C8	2.50	0.46
1:0:812:A:H2'	1:0:813:C:C6	2.51	0.46
4:C:49:ASP:HB3	4:C:52:ALA:HB2	1.98	0.46
1:0:2691:A:N1	1:0:2702:A:H5"	2.31	0.46
1:0:1218:U:H2'	1:0:1219:U:H6	1.81	0.46
1:0:613:C:H2'	1:0:614:U:H6	1.81	0.46
1:0:447:A:OP1	21:T:2:LYS:HG2	2.16	0.46
1:0:1688:G:O2'	28:1:5:THR:HG23	2.16	0.46
1:0:1783:A:O2'	1:0:1784:U:H5'	2.15	0.46
1:0:644:G:N3	1:0:644:G:H5'	2.31	0.46
1:0:2252:A:C5	1:0:2253:G:H1'	2.50	0.46
1:0:812:A:H1'	39:0:8698:HOH:O	2.16	0.46
1:0:2314:G:C2'	1:0:2315:C:H5'	2.45	0.46
13:L:138:GLY:HA3	39:L:4360:HOH:O	2.15	0.46
1:0:2135:A:O2'	1:0:2136:G:H5'	2.14	0.46
1:0:282:C:H1'	1:0:368:C:H41	1.81	0.46
1:0:440:C:H2'	1:0:441:A:C8	2.52	0.46
1:0:920:C:H4'	1:0:921:G:C2	2.51	0.46
1:0:949:U:O2'	18:Q:40:HIS:HE1	1.99	0.46
1:0:1014:A:H2'	1:0:1015:C:H5'	1.97	0.46
1:0:1613:C:H2'	1:0:1614:G:O4'	2.16	0.46
15:N:34:LEU:HD22	15:N:129:ILE:HD13	1.98	0.46
1:0:2072:G:H3'	1:0:2073:G:C5'	2.47	0.45
31:9:1:U:H4'	31:9:3:A:OP1	2.16	0.45
1:0:162:C:H2'	1:0:163:U:H5'	1.98	0.45
1:0:2121:G:O2'	1:0:2122:C:H5'	2.16	0.45
1:0:1003:U:H4'	9:H:91:ARG:O	2.16	0.45
1:0:2486:A:H2	37:0:9101:HMT:H23B	1.81	0.45
1:0:1603:A:H5'	1:0:1605:G:C4'	2.46	0.45
1:0:285:A:H2'	1:0:286:U:O4'	2.16	0.45
1:0:1845:A:P	2:A:190:ARG:HH11	2.40	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:K:74:VAL:HG12	12:K:75:ARG:HG3	1.97	0.45
1:0:366:U:H2'	1:0:367:G:O4'	2.15	0.45
6:E:116:THR:HG22	6:E:151:LEU:HD22	1.99	0.45
1:0:2541:U:O4'	37:0:9101:HMT:H16	2.16	0.45
1:0:1972:U:C2'	1:0:1973:A:H5"	2.46	0.45
1:0:2256:G:C2'	1:0:2257:G:H5'	2.47	0.45
1:0:1406:A:H4'	1:0:1407:A:H5"	1.97	0.45
1:0:1762:C:H2'	1:0:1763:C:H6	1.82	0.45
1:0:947:U:O2'	1:0:948:G:H5'	2.16	0.45
1:0:553:G:H3'	39:0:8829:HOH:O	2.16	0.45
1:0:1497:G:H4'	1:0:1627:G:O2'	2.16	0.45
1:0:2668:G:H2'	1:0:2669:U:C6	2.51	0.45
1:0:821:U:H2'	1:0:822:C:C6	2.52	0.45
1:0:204:A:H2'	1:0:205:U:H5'	1.98	0.45
1:0:1583:U:H2'	1:0:1584:C:O4'	2.17	0.45
1:0:1687:C:O2	28:1:9:GLY:HA2	2.16	0.45
15:N:44:ARG:NH1	31:9:4:G:H21	2.14	0.45
1:0:2385:G:H2'	1:0:2386:U:C6	2.52	0.45
15:N:49:THR:HG22	15:N:56:ASP:HB2	1.99	0.45
1:0:189:A:OP1	14:M:171:ARG:NH2	2.50	0.45
1:0:1603:A:C5'	1:0:1605:G:H5'	2.47	0.45
1:0:2781:U:C2'	1:0:2782:G:H5'	2.47	0.45
1:0:958:G:O2'	1:0:959:C:H5'	2.16	0.45
1:0:2089:A:O2'	1:0:2090:G:H5'	2.17	0.45
1:0:2456:A:H2'	1:0:2457:U:C6	2.52	0.45
1:0:1714:C:O2'	1:0:1715:C:H5'	2.17	0.45
1:0:1636:G:O2'	1:0:1637:A:H5'	2.16	0.45
1:0:506:G:H22	1:0:509:A:H5'	1.79	0.45
1:0:1330:A:H2	39:0:3448:HOH:O	2.00	0.45
1:0:368:C:H2'	1:0:369:G:H5'	1.99	0.45
4:C:107:ARG:O	4:C:111:VAL:HG23	2.17	0.45
1:0:1873:G:H3'	39:0:4169:HOH:O	2.17	0.45
21:T:9:LYS:NZ	21:T:13:ARG:NH1	2.65	0.45
1:0:2506:A:O2'	1:0:2507:G:O5'	2.35	0.45
1:0:308:U:C4	1:0:342:C:H1'	2.51	0.45
1:0:2783:A:H2'	1:0:2784:A:C8	2.52	0.45
1:0:941:G:C5	1:0:942:U:C4	3.05	0.45
1:0:1667:A:H2'	1:0:1668:U:H6	1.78	0.45
1:0:284:C:H4'	1:0:285:A:H8	1.82	0.45
1:0:2421:G:H3'	1:0:2422:U:H5"	1.99	0.45
1:0:816:G:C6	1:0:817:G:N1	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:808:A:C5	1:0:809:G:H1'	2.51	0.45
1:0:1634:G:H2'	1:0:1635:U:C6	2.51	0.45
1:0:213:G:N2	1:0:225:G:H2'	2.32	0.45
1:0:569:A:H5"	1:0:587:A:N1	2.32	0.45
1:0:1154:A:H2'	1:0:1155:G:C8	2.52	0.45
1:0:137:U:OP1	1:0:259:G:O2'	2.35	0.45
1:0:2090:G:H2'	1:0:2091:G:C8	2.52	0.45
1:0:2898:G:H4'	3:B:288:GLY:HA2	1.99	0.45
5:D:103:ASN:HD22	5:D:134:LEU:H	1.65	0.45
1:0:558:C:H2'	1:0:559:U:H5'	1.99	0.44
1:0:2100:A:H4'	4:C:64:GLY:O	2.17	0.44
1:0:255:A:H2'	1:0:256:C:H6	1.82	0.44
1:0:1250:C:O2'	1:0:1251:C:H5'	2.17	0.44
1:0:1853:C:O2'	2:A:217:ARG:NH2	2.50	0.44
1:0:1422:U:H2'	1:0:1423:C:C6	2.52	0.44
24:W:80:ASP:O	24:W:84:VAL:HG23	2.17	0.44
1:0:536:A:H3'	39:0:3958:HOH:O	2.16	0.44
1:0:2842:G:H5'	19:R:68:HIS:O	2.16	0.44
37:0:9101:HMT:C1	37:0:9101:HMT:C7	2.95	0.44
1:0:877:G:C5'	1:0:878:G:OP1	2.62	0.44
31:9:28:U:H2'	31:9:29:C:C6	2.52	0.44
1:0:1185:U:H2'	1:0:1186:C:C6	2.52	0.44
1:0:2241:C:H2'	1:0:2242:U:C6	2.53	0.44
1:0:2256:G:H2'	1:0:2257:G:C5'	2.48	0.44
1:0:1044:C:H5"	39:0:3013:HOH:O	2.18	0.44
1:0:1167:G:H2'	1:0:1168:C:C6	2.51	0.44
1:0:1622:G:H2'	1:0:1623:C:H5'	1.99	0.44
1:0:1446:U:H2'	20:S:55:GLN:NE2	2.32	0.44
1:0:932:U:H2'	1:0:933:C:C6	2.52	0.44
1:0:1158:G:O2'	1:0:1159:G:H5'	2.17	0.44
1:0:542:A:H2'	1:0:543:G:O4'	2.17	0.44
1:0:1204:C:H2'	1:0:1205:U:O4'	2.17	0.44
1:0:138:U:H5"	1:0:139:C:OP2	2.17	0.44
1:0:1477:C:O2'	1:0:1478:U:H5'	2.17	0.44
1:0:1766:U:O2	1:0:1778:A:H5'	2.17	0.44
1:0:1398:G:O2'	1:0:1399:A:H5'	2.17	0.44
1:0:1762:C:H2'	1:0:1763:C:C6	2.52	0.44
4:C:162:VAL:HG22	4:C:232:LEU:HD21	1.97	0.44
1:0:1839:A:H5'	1:0:2643:G:H4'	1.99	0.44
18:Q:19:ARG:HH21	31:9:11:A:P	2.40	0.44
1:0:1029:U:O2'	1:0:1273:C:OP1	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:711:G:C2	1:0:718:C:C2	3.06	0.44
1:0:1427:A:H61	1:0:1440:U:C1'	2.29	0.44
1:0:969:G:H1	1:0:999:C:N4	2.15	0.44
1:0:946:C:H2'	1:0:947:U:C6	2.52	0.44
1:0:2659:U:H5"	39:0:8874:HOH:O	2.16	0.44
1:0:2382:A:H5'	39:0:3538:HOH:O	2.17	0.44
1:0:68:U:O2'	1:0:69:A:H5"	2.18	0.44
1:0:661:G:C5	1:0:686:A:C2	3.06	0.44
1:0:703:G:O2'	1:0:704:C:H5'	2.17	0.44
1:0:2538:A:O2'	37:0:9101:HMT:H18	2.17	0.44
1:0:1119:G:H8	11:J:52:GLN:NE2	2.11	0.44
1:0:285:A:C2	1:0:368:C:H4'	2.52	0.44
24:W:4:LEU:HD22	24:W:52:VAL:HG21	1.98	0.44
31:9:92:G:H2'	31:9:93:A:H8	1.79	0.44
1:0:2064:U:H4'	1:0:2653:A:OP1	2.16	0.44
1:0:407:A:H8	39:0:3145:HOH:O	2.00	0.44
1:0:1592:G:H2'	1:0:1593:C:H6	1.83	0.44
1:0:371:U:H2'	1:0:372:A:C8	2.51	0.44
1:0:73:U:O2'	1:0:74:G:H5'	2.18	0.44
1:0:1503:U:H2'	1:0:1504:A:O4'	2.17	0.44
28:1:25:LYS:HG3	29:2:49:GLU:H	1.82	0.44
1:0:1535:G:H2'	1:0:1536:C:C6	2.53	0.44
1:0:902:G:N7	13:L:18:HIS:HD2	2.15	0.44
1:0:1245:C:O5'	1:0:1245:C:H6	2.00	0.44
1:0:1484:G:H2'	39:0:3274:HOH:O	2.18	0.44
1:0:2487:C:C1'	37:0:9101:HMT:H17	2.48	0.44
1:0:2781:U:H2'	1:0:2782:G:H5'	1.99	0.44
1:0:737:A:H2'	1:0:738:G:O4'	2.18	0.44
1:0:1375:A:C2'	1:0:1376:G:H5'	2.48	0.44
5:D:25:MET:SD	5:D:37:ALA:HB1	2.58	0.44
1:0:2072:G:C6	1:0:2533:C:H1'	2.53	0.44
1:0:1165:G:C4'	1:0:1174:A:O2'	2.66	0.44
1:0:1328:A:C8	26:Y:169:ARG:HD3	2.53	0.44
1:0:2134:G:N2	1:0:2242:U:C2	2.86	0.44
1:0:1617:C:C4	1:0:1643:C:H4'	2.52	0.44
1:0:318:U:H5'	1:0:339:A:C2	2.53	0.44
1:0:1500:U:P	17:P:41:ARG:HH22	2.40	0.44
1:0:1236:A:H2'	1:0:1237:U:O4'	2.18	0.44
1:0:170:U:H2'	1:0:171:C:H5'	1.99	0.44
1:0:1878:G:O2'	1:0:1879:U:P	2.75	0.43
1:0:12:U:C2'	1:0:13:G:H5'	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1679:C:H5'	39:0:4151:HOH:O	2.18	0.43
1:0:2433:A:H2'	1:0:2434:A:C8	2.52	0.43
39:E:2512:HOH:O	11:J:127:ILE:HD11	2.17	0.43
3:B:258:GLY:H	3:B:260:HIS:CE1	2.36	0.43
5:D:135:VAL:HG22	5:D:136:ARG:H	1.82	0.43
1:0:2754:G:H2'	1:0:2755:G:O4'	2.18	0.43
4:C:47:GLY:HA2	4:C:92:PRO:HB2	2.00	0.43
1:0:1119:G:C8	11:J:52:GLN:NE2	2.86	0.43
15:N:55:ASP:OD2	31:9:7:G:H4'	2.19	0.43
15:N:12:ARG:HD3	15:N:18:THR:OG1	2.18	0.43
31:9:107:C:H5	39:9:3167:HOH:O	2.00	0.43
39:0:6068:HOH:O	31:9:83:G:H4'	2.18	0.43
1:0:1202:A:H2'	1:0:1203:G:O4'	2.19	0.43
1:0:2758:G:H2'	1:0:2759:C:C6	2.53	0.43
1:0:74:G:H2'	1:0:75:U:C6	2.52	0.43
14:M:157:ASP:HB3	14:M:160:PHE:HD1	1.82	0.43
1:0:1391:G:H2'	1:0:1392:A:H5'	2.01	0.43
1:0:2421:G:H4'	39:0:3592:HOH:O	2.17	0.43
1:0:2300:A:H4'	1:0:2301:A:O5'	2.19	0.43
1:0:1504:A:H5'	39:0:3079:HOH:O	2.18	0.43
1:0:1500:U:OP2	17:P:41:ARG:NH2	2.51	0.43
1:0:2594:C:O2'	1:0:2595:U:H5'	2.18	0.43
1:0:2570:G:H5"	39:0:3767:HOH:O	2.18	0.43
1:0:101:C:H2'	1:0:102:A:C8	2.53	0.43
1:0:1244:U:H4'	1:0:1246:A:O4'	2.18	0.43
1:0:1771:U:O2'	1:0:1773:G:N7	2.51	0.43
1:0:2087:C:O2'	1:0:2088:C:H5'	2.19	0.43
1:0:151:A:H2'	1:0:152:A:O4'	2.18	0.43
1:0:28:G:H1'	39:0:3446:HOH:O	2.19	0.43
1:0:1544:U:H2'	1:0:1545:C:C6	2.54	0.43
1:0:2717:C:H2'	1:0:2718:C:C5'	2.32	0.43
1:0:281:U:O2'	1:0:282:C:H5'	2.19	0.43
1:0:2712:G:P	39:0:4183:HOH:O	2.76	0.43
1:0:120:A:H2'	1:0:120:A:N3	2.34	0.43
1:0:1130:U:O4	1:0:2523:U:H5"	2.19	0.43
1:0:440:C:O2'	1:0:441:A:H5'	2.18	0.43
1:0:1588:G:C6	1:0:1589:G:N1	2.87	0.43
9:H:168:VAL:HG13	39:H:4963:HOH:O	2.18	0.43
1:0:2379:G:H5'	1:0:2381:C:O4'	2.19	0.43
1:0:1001:U:O2'	1:0:1002:G:H5'	2.18	0.43
2:A:132:ASP:HB3	2:A:135:VAL:H	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2269:C:C2'	1:0:2270:G:H5'	2.49	0.43
1:0:1419:U:H5'	1:0:1420:C:OP2	2.18	0.43
1:0:1845:A:O2'	1:0:1846:U:H5'	2.18	0.43
1:0:2821:C:H4'	3:B:116:PRO:HG3	2.01	0.43
1:0:1750:C:H5"	39:0:8333:HOH:O	2.18	0.43
1:0:574:G:O2'	1:0:575:A:H5'	2.18	0.43
1:0:2717:C:OP1	3:B:207:LYS:HG3	2.19	0.43
1:0:840:U:H2'	19:R:128:ARG:HH12	1.84	0.43
31:9:34:A:H8	31:9:34:A:O5'	2.02	0.43
1:0:290:C:O2'	1:0:291:C:H5'	2.18	0.43
1:0:424:C:H2'	1:0:425:U:H6	1.83	0.43
1:0:1773:G:C8	27:Z:40:ALA:HA	2.54	0.43
1:0:1946:C:H2'	1:0:1971:G:C8	2.54	0.43
1:0:85:C:H5"	1:0:86:A:OP2	2.18	0.43
1:0:700:A:H5"	1:0:701:U:H5'	2.01	0.43
1:0:571:C:H6	1:0:571:C:O5'	2.02	0.43
1:0:1439:C:H6	1:0:1439:C:O5'	2.02	0.43
1:0:1423:C:O2'	1:0:1424:A:H5'	2.19	0.43
1:0:1444:G:H5"	20:S:11:THR:HG22	2.01	0.43
1:0:2800:A:H5'	1:0:2801:A:OP2	2.19	0.43
13:L:143:THR:HG22	13:L:144:ASP:H	1.84	0.43
1:0:1069:C:H2'	1:0:1070:A:O4'	2.19	0.43
1:0:295:C:H2'	1:0:296:G:O4'	2.18	0.43
1:0:834:G:H4'	1:0:835:U:OP2	2.18	0.43
1:0:1773:G:N2	1:0:1774:G:C8	2.86	0.43
1:0:1071:G:H4'	26:Y:154:ARG:NH2	2.33	0.43
1:0:2371:G:H5'	39:0:3898:HOH:O	2.18	0.43
1:0:1242:A:H5'	11:J:82:THR:CG2	2.32	0.42
2:A:97:ALA:HB2	2:A:150:PRO:HB2	2.01	0.42
1:0:1413:A:H2'	1:0:1414:A:O4'	2.19	0.42
1:0:2274:A:O2'	1:0:2275:G:H5'	2.18	0.42
1:0:2825:C:H4'	1:0:2826:G:O5'	2.19	0.42
1:0:1098:A:H2'	1:0:1099:G:O4'	2.19	0.42
1:0:635:A:H2'	1:0:636:G:H5"	2.00	0.42
1:0:1505:U:H1'	39:0:7476:HOH:O	2.19	0.42
1:0:1909:A:N1	1:0:2128:G:H1'	2.33	0.42
1:0:343:C:O2'	1:0:344:C:H5'	2.18	0.42
1:0:2866:U:H4'	1:0:2867:G:H5'	2.01	0.42
31:9:29:C:H2'	31:9:30:C:C5'	2.44	0.42
1:0:1973:A:H5'	1:0:1973:A:C8	2.45	0.42
31:9:3:A:OP2	31:9:25:G:N2	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:255:A:H2'	1:0:256:C:O4'	2.19	0.42
1:0:2445:U:H2'	1:0:2446:G:H8	1.82	0.42
4:C:219:ASN:O	4:C:223:LEU:HB2	2.19	0.42
1:0:1234:U:O2	1:0:2066:C:H5"	2.20	0.42
4:C:79:ARG:O	4:C:87:ARG:HG2	2.18	0.42
24:W:125:HIS:HE1	39:W:3071:HOH:O	2.03	0.42
1:0:2010:A:H2'	39:0:5197:HOH:O	2.18	0.42
1:0:1456:C:H2'	1:0:1457:U:C6	2.54	0.42
1:0:39:G:N2	1:0:444:C:C2	2.87	0.42
1:0:1166:A:OP1	1:0:1174:A:H4'	2.20	0.42
1:0:2852:A:H5"	39:0:4206:HOH:O	2.19	0.42
1:0:2243:C:H5"	39:0:8419:HOH:O	2.20	0.42
1:0:2598:U:O2	1:0:2600:A:H8	2.03	0.42
1:0:899:C:H5'	39:0:7400:HOH:O	2.19	0.42
1:0:21:G:H4'	19:R:2:ILE:HG22	2.00	0.42
1:0:451:C:O2'	1:0:452:G:H5'	2.19	0.42
1:0:291:C:H2'	1:0:292:G:O4'	2.19	0.42
1:0:1626:A:H2'	1:0:1627:G:C5'	2.50	0.42
1:0:2031:C:H2'	1:0:2032:U:O4'	2.20	0.42
1:0:324:G:O2'	1:0:325:U:H5'	2.20	0.42
4:C:140:VAL:HB	39:C:6502:HOH:O	2.20	0.42
1:0:432:G:O2'	1:0:433:C:H5'	2.19	0.42
1:0:2498:C:O2'	1:0:2499:U:H5'	2.19	0.42
1:0:657:G:H2'	1:0:658:C:C6	2.55	0.42
1:0:664:U:O4	1:0:681:G:H5"	2.19	0.42
1:0:807:A:O2'	1:0:808:A:H5'	2.20	0.42
1:0:101:C:H2'	1:0:102:A:H8	1.85	0.42
1:0:2777:G:O2'	1:0:2778:A:H5'	2.20	0.42
25:X:43:VAL:HG12	25:X:44:ASP:H	1.84	0.42
1:0:1819:G:H2'	1:0:1820:G:C5'	2.50	0.42
1:0:907:A:H4'	1:0:1328:A:C2	2.54	0.42
1:0:399:C:H1'	14:M:194:GLY:OXT	2.20	0.42
1:0:1921:A:O2'	1:0:1922:A:H5'	2.20	0.42
1:0:1996:U:O2'	1:0:1997:A:H5'	2.19	0.42
1:0:2111:G:H1'	39:0:3082:HOH:O	2.19	0.42
1:0:1555:G:H4'	1:0:1630:A:H2	1.84	0.42
1:0:553:G:P	26:Y:204:ARG:NH2	2.90	0.42
14:M:164:THR:HG22	14:M:166:ALA:H	1.85	0.42
1:0:2091:G:O3'	3:B:235:ARG:HD3	2.19	0.42
1:0:303:C:H2'	1:0:304:G:O4'	2.20	0.42
1:0:155:C:OP2	14:M:188:ARG:HD3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1829:A:H2'	1:0:1830:C:H5'	2.02	0.42
1:0:1878:G:C1'	39:0:5431:HOH:O	2.62	0.42
4:C:127:ARG:HD3	4:C:129:HIS:HE1	1.85	0.42
1:0:370:G:O2'	1:0:371:U:H5'	2.20	0.42
1:0:485:A:HO2'	1:0:487:G:H8	1.66	0.42
1:0:1044:C:H5	39:0:6095:HOH:O	2.01	0.42
1:0:947:U:H2'	1:0:948:G:C8	2.55	0.42
1:0:1705:C:H2'	1:0:1706:G:O4'	2.20	0.42
1:0:2533:C:H6	1:0:2533:C:C5'	2.26	0.42
1:0:1174:A:C5	1:0:1201:C:H4'	2.54	0.42
3:B:238:ASN:HD22	3:B:240:GLY:N	2.16	0.42
26:Y:187:VAL:HG23	26:Y:192:ASP:CB	2.50	0.42
1:0:447:A:P	21:T:1:SER:HB2	2.60	0.42
1:0:2379:G:N7	1:0:2408:A:N1	2.68	0.42
1:0:2580:G:N3	1:0:2600:A:H2	2.18	0.42
1:0:1025:C:H5'	24:W:23:MET:O	2.19	0.42
1:0:699:C:C2	1:0:743:G:N2	2.88	0.42
1:0:23:G:H1'	1:0:520:A:N6	2.35	0.42
1:0:2896:A:N3	1:0:2896:A:H2'	2.35	0.41
1:0:1878:G:O2'	1:0:1879:U:C6	2.69	0.41
1:0:31:C:H4'	39:0:7242:HOH:O	2.20	0.41
31:9:39:U:H1'	31:9:44:A:N6	2.35	0.41
1:0:694:A:C2'	1:0:695:C:H5'	2.50	0.41
1:0:447:A:OP2	21:T:1:SER:HB2	2.20	0.41
1:0:1626:A:H2'	1:0:1627:G:H5'	2.01	0.41
1:0:204:A:C2'	1:0:205:U:H5'	2.49	0.41
1:0:1421:C:O2'	1:0:1422:U:H5'	2.19	0.41
1:0:154:C:H2'	1:0:155:C:H6	1.85	0.41
1:0:1042:U:O2'	1:0:1043:C:H5'	2.20	0.41
1:0:2389:U:H4'	18:Q:53:HIS:CD2	2.55	0.41
1:0:1568:G:O2'	1:0:1569:U:H5'	2.19	0.41
1:0:1980:U:O2	1:0:2008:U:H4'	2.19	0.41
1:0:705:C:H2'	1:0:705:C:O2	2.20	0.41
1:0:2756:U:N3	1:0:2896:A:C2	2.73	0.41
31:9:47:A:C2	31:9:48:C:C2	3.08	0.41
1:0:821:U:H4'	27:Z:41:ARG:HH12	1.86	0.41
1:0:1632:A:C2'	1:0:1633:C:H5'	2.50	0.41
18:Q:25:PRO:HA	18:Q:26:PRO:HD3	1.83	0.41
1:0:396:U:H5'	30:3:42:ARG:NH1	2.35	0.41
1:0:1525:G:H5'	1:0:1526:A:OP2	2.20	0.41
1:0:2281:C:C2'	1:0:2282:U:H5'	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:349:U:H2'	1:0:350:G:H8	1.85	0.41
1:0:820:G:C5	2:A:171:LYS:HB2	2.55	0.41
1:0:1573:A:H2'	1:0:1574:C:O4'	2.20	0.41
1:0:657:G:H2'	1:0:658:C:H6	1.85	0.41
1:0:2092:G:H2'	1:0:2613:G:OP1	2.21	0.41
1:0:815:U:O2'	1:0:1598:A:H4'	2.19	0.41
5:D:103:ASN:ND2	5:D:134:LEU:H	2.18	0.41
1:0:1622:G:C2'	1:0:1623:C:H5'	2.50	0.41
1:0:1409:G:C2	1:0:1410:G:C8	3.09	0.41
1:0:963:C:O2	1:0:1005:A:N1	2.53	0.41
1:0:629:A:H2'	1:0:630:A:O4'	2.20	0.41
1:0:1965:C:H6	1:0:1965:C:O5'	2.02	0.41
15:N:37:ARG:NH1	31:9:6:C:C5'	2.69	0.41
1:0:1184:C:O2'	1:0:1185:U:OP2	2.30	0.41
1:0:1976:G:H1'	1:0:2005:G:N2	2.36	0.41
1:0:821:U:H4'	27:Z:41:ARG:NH1	2.35	0.41
39:0:6210:HOH:O	3:B:85:ARG:NH1	2.53	0.41
1:0:820:G:H3'	39:0:6830:HOH:O	2.20	0.41
1:0:2791:U:H1'	1:0:2792:A:H5"	2.02	0.41
1:0:2362:A:H2'	1:0:2363:G:C8	2.56	0.41
2:A:179:MET:HG2	2:A:186:TRP:HB2	2.02	0.41
1:0:1548:U:H1'	39:0:6454:HOH:O	2.19	0.41
1:0:2114:C:O2'	1:0:2115:U:H5'	2.20	0.41
1:0:466:A:H2'	1:0:467:G:O4'	2.21	0.41
1:0:2510:C:H42	1:0:2564:G:H22	1.68	0.41
1:0:2784:A:H1'	6:E:60:SER:OG	2.21	0.41
1:0:1015:C:H2'	1:0:1016:U:C6	2.55	0.41
1:0:2102:G:C2	1:0:2104:C:C4	3.08	0.41
1:0:894:A:C2	4:C:87:ARG:NH2	2.89	0.41
1:0:2626:C:H2'	1:0:2627:G:C8	2.55	0.41
1:0:1619:G:H2'	1:0:1620:C:O4'	2.20	0.41
2:A:100:PRO:HG2	2:A:103:VAL:HG21	2.03	0.41
1:0:1552:G:H2'	1:0:1553:C:C6	2.56	0.41
1:0:1506:U:H5'	1:0:1506:U:H6	1.84	0.41
1:0:1441:G:H1'	39:0:7717:HOH:O	2.20	0.41
1:0:2121:G:H1'	39:0:3302:HOH:O	2.20	0.41
1:0:401:C:H2'	1:0:402:U:C6	2.55	0.41
4:C:218:VAL:HG12	39:C:5065:HOH:O	2.20	0.41
1:0:2764:C:H2'	1:0:2765:C:C6	2.56	0.41
31:9:3:A:N6	31:9:22:G:H1'	2.35	0.41
1:0:1427:A:N6	1:0:1440:U:H1'	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2348:C:H5'	5:D:22:VAL:HG11	2.01	0.41
1:0:2040:C:H5"	1:0:2759:C:O2'	2.20	0.41
3:B:17:LYS:O	3:B:260:HIS:HD2	2.04	0.41
1:0:827:A:H1'	39:0:5560:HOH:O	2.19	0.41
1:0:2764:C:H2'	1:0:2765:C:H6	1.85	0.41
1:0:764:C:H2'	1:0:765:G:O4'	2.20	0.41
1:0:1031:G:O3'	1:0:1032:A:H8	2.02	0.41
1:0:413:G:H2'	1:0:414:C:C6	2.55	0.41
1:0:166:A:N7	13:L:25:GLY:HA2	2.36	0.41
1:0:1096:U:O2'	1:0:1097:A:H5'	2.21	0.41
1:0:870:G:C3'	1:0:871:G:H5"	2.50	0.41
1:0:1593:C:H5'	17:P:116:SER:O	2.20	0.41
1:0:2039:A:H4'	1:0:2760:C:O2'	2.21	0.41
1:0:789:C:H1'	1:0:827:A:C2	2.55	0.41
1:0:111:C:H2'	1:0:112:G:O4'	2.21	0.41
1:0:849:C:O2'	1:0:850:U:H5'	2.20	0.41
1:0:851:C:O2	1:0:2022:A:H2	2.03	0.41
1:0:2511:A:H2'	1:0:2512:U:O4'	2.20	0.41
1:0:690:G:H4'	1:0:741:C:O2	2.20	0.41
1:0:1056:U:H2'	1:0:1057:A:O4'	2.20	0.41
1:0:2734:G:O2'	1:0:2735:U:H5'	2.21	0.41
1:0:1351:G:OP1	4:C:96:LYS:NZ	2.41	0.41
1:0:2392:C:H4'	39:0:9114:HOH:O	2.20	0.41
15:N:35:VAL:HG11	31:9:6:C:H4'	2.02	0.41
1:0:558:C:C2'	1:0:559:U:C5'	2.94	0.41
1:0:1205:U:C2'	1:0:1206:U:H5"	2.50	0.41
1:0:1181:A:C2'	1:0:1182:C:H5'	2.51	0.41
1:0:2768:A:H5"	39:0:3093:HOH:O	2.21	0.41
31:9:2:U:OP2	31:9:3:A:H5'	2.20	0.41
1:0:319:A:H4'	1:0:338:C:C4	2.56	0.41
1:0:2526:C:H5'	1:0:2526:C:C6	2.56	0.41
28:1:8:GLN:HE22	28:1:11:LYS:HZ2	1.69	0.41
1:0:1926:G:H2'	1:0:1927:A:C8	2.55	0.41
1:0:2897:C:O2'	1:0:2898:G:H5'	2.21	0.41
1:0:318:U:H5'	1:0:339:A:C4	2.56	0.41
25:X:43:VAL:HG22	25:X:76:ARG:NH1	2.35	0.41
1:0:1555:G:O2'	1:0:1556:G:H5'	2.21	0.41
1:0:1073:A:H4'	26:Y:155:ARG:O	2.21	0.41
19:R:40:ALA:O	19:R:44:VAL:HG23	2.21	0.41
1:0:2473:U:O3'	1:0:2474:A:H3'	2.20	0.41
1:0:1904:A:H2'	1:0:1905:U:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1815:A:H2'	1:0:1816:C:O4'	2.21	0.41
1:0:1151:G:OP1	8:G:63:ARG:NH1	2.54	0.41
3:B:69:VAL:HA	3:B:70:PRO:HD3	1.93	0.41
31:9:36:C:C5	31:9:37:C:C5	3.09	0.41
1:0:1226:G:H5'	39:0:3248:HOH:O	2.21	0.41
1:0:2819:C:H2'	1:0:2820:A:C8	2.55	0.41
4:C:168:ARG:NH2	4:C:190:ALA:O	2.54	0.41
1:0:2673:U:H4'	3:B:94:GLN:O	2.21	0.41
1:0:1753:C:O2	3:B:229:ARG:NH2	2.46	0.41
1:0:1684:A:H1'	29:2:43:ARG:NH2	2.34	0.41
1:0:2265:U:H2'	1:0:2266:A:C8	2.56	0.41
1:0:318:U:H5'	1:0:339:A:N3	2.36	0.41
1:0:1098:A:OP1	24:W:128:VAL:HG22	2.20	0.41
1:0:940:G:C5	1:0:1027:G:C2	3.09	0.41
1:0:1652:C:H4'	27:Z:76:THR:HG21	2.02	0.41
20:S:17:ASP:HB3	20:S:23:LYS:HB2	2.03	0.41
11:J:90:LYS:HB2	35:J:8802:CL:CL	2.58	0.41
1:0:1717:A:H5"	17:P:54:LYS:HB2	2.03	0.41
1:0:2846:C:H4'	3:B:156:LYS:HB3	2.02	0.41
1:0:276:C:O5'	1:0:276:C:H6	2.04	0.41
15:N:159:TYR:HE1	31:9:50:G:H5"	1.85	0.40
1:0:968:G:O2'	1:0:969:G:H5'	2.21	0.40
1:0:2676:C:C2'	1:0:2677:A:H5'	2.50	0.40
1:0:2088:C:H1'	1:0:2841:A:N1	2.36	0.40
1:0:71:G:H8	39:0:8650:HOH:O	2.04	0.40
1:0:177:A:O2'	1:0:892:G:H4'	2.21	0.40
1:0:2831:C:H2'	1:0:2832:C:H5'	2.02	0.40
1:0:483:C:C4	1:0:484:A:C6	3.10	0.40
1:0:2538:A:C8	37:0:9101:HMT:H28B	2.56	0.40
1:0:1972:U:H2'	1:0:1973:A:H5'	2.02	0.40
7:F:58:GLU:HB3	14:M:8:ILE:HG23	2.03	0.40
1:0:120:A:H2	29:2:49:GLU:OE1	2.04	0.40
1:0:2893:C:O2'	1:0:2894:C:H5'	2.20	0.40
1:0:2809:G:H2'	1:0:2810:G:O4'	2.21	0.40
1:0:2869:G:H2'	1:0:2870:C:C6	2.56	0.40
1:0:876:A:N3	1:0:876:A:H2'	2.36	0.40
1:0:1306:U:H5"	4:C:184:ARG:HD2	2.02	0.40
1:0:1592:G:N2	1:0:1602:C:O2	2.52	0.40
1:0:1846:U:O2'	2:A:172:ALA:HB2	2.21	0.40
9:H:69:ARG:HD3	39:H:6314:HOH:O	2.21	0.40
1:0:2039:A:H2'	1:0:2040:C:C6	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2011:A:H4'	1:0:2012:U:O5'	2.22	0.40
1:0:527:U:H2'	1:0:528:G:H8	1.86	0.40
1:0:2755:G:H1'	39:0:3447:HOH:O	2.21	0.40
3:B:115:VAL:HA	3:B:116:PRO:HD3	1.94	0.40
1:0:154:C:H2'	1:0:155:C:C6	2.56	0.40
1:0:629:A:C2	1:0:2074:A:C2	3.09	0.40
6:E:20:ILE:HD11	6:E:40:VAL:HG11	2.03	0.40
1:0:581:G:O2'	1:0:582:U:H5'	2.20	0.40
3:B:315:VAL:HG23	3:B:316:ARG:HG2	2.03	0.40
1:0:2000:G:O2'	1:0:2001:G:H5'	2.22	0.40
1:0:912:A:C4	1:0:1294:A:C2	3.09	0.40
3:B:60:SER:HA	3:B:61:PRO:HD3	1.98	0.40
5:D:15:GLU:HA	5:D:16:PRO:HD3	1.92	0.40
1:0:2271:G:N3	1:0:2271:G:H2'	2.36	0.40
15:N:47:LEU:HA	15:N:47:LEU:HD13	1.99	0.40
1:0:1299:G:N2	39:0:3448:HOH:O	2.54	0.40
19:R:9:ASP:O	19:R:13:THR:HB	2.22	0.40
15:N:1:ALA:HB2	31:9:14:G:O2'	2.21	0.40
1:0:1120:U:H5"	1:0:1120:U:C6	2.57	0.40
1:0:1684:A:O2'	1:0:1685:A:H5"	2.21	0.40
2:A:48:ASP:HA	2:A:49:PRO:HD3	1.94	0.40
1:0:1130:U:H5'	39:0:7596:HOH:O	2.20	0.40
15:N:11:ARG:NH1	31:9:8:G:O6	2.55	0.40
1:0:2434:A:H2'	1:0:2435:U:O4'	2.22	0.40
1:0:419:A:H1'	1:0:1921:A:C2	2.56	0.40
1:0:484:A:N1	1:0:506:G:H4'	2.37	0.40
1:0:2781:U:H2'	1:0:2782:G:C5'	2.51	0.40
23:V:5:VAL:HG23	39:V:2271:HOH:O	2.20	0.40
1:0:682:A:H2'	1:0:683:G:O4'	2.21	0.40
1:0:383:A:H2'	1:0:384:G:O4'	2.21	0.40
1:0:2837:U:H2'	39:0:6433:HOH:O	2.22	0.40
1:0:1172:G:H1'	39:0:3847:HOH:O	2.20	0.40
1:0:100:C:H4'	21:T:16:LEU:HB2	2.04	0.40
1:0:1576:G:H2'	1:0:1577:U:O4'	2.22	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	A	235/237 (99%)	219 (93%)	13 (6%)	3 (1%)	15	37
3	B	335/337 (99%)	314 (94%)	18 (5%)	3 (1%)	21	49
4	C	244/246 (99%)	227 (93%)	17 (7%)	0	100	100
5	D	134/177 (76%)	121 (90%)	11 (8%)	2 (2%)	13	32
6	E	170/172 (99%)	161 (95%)	9 (5%)	0	100	100
7	F	117/119 (98%)	112 (96%)	3 (3%)	2 (2%)	11	29
8	G	25/348 (7%)	25 (100%)	0	0	100	100
9	H	156/177 (88%)	149 (96%)	5 (3%)	2 (1%)	15	37
10	I	68/70 (97%)	56 (82%)	11 (16%)	1 (2%)	13	32
11	J	140/142 (99%)	135 (96%)	5 (4%)	0	100	100
12	K	130/132 (98%)	124 (95%)	5 (4%)	1 (1%)	24	51
13	L	141/165 (86%)	132 (94%)	9 (6%)	0	100	100
14	M	192/194 (99%)	188 (98%)	4 (2%)	0	100	100
15	N	184/186 (99%)	173 (94%)	8 (4%)	3 (2%)	12	30
16	O	113/115 (98%)	111 (98%)	2 (2%)	0	100	100
17	P	141/143 (99%)	141 (100%)	0	0	100	100
18	Q	93/95 (98%)	89 (96%)	4 (4%)	0	100	100
19	R	148/150 (99%)	143 (97%)	5 (3%)	0	100	100
20	S	79/81 (98%)	77 (98%)	2 (2%)	0	100	100
21	T	117/119 (98%)	112 (96%)	5 (4%)	0	100	100
22	U	51/53 (96%)	48 (94%)	3 (6%)	0	100	100
23	V	63/65 (97%)	60 (95%)	3 (5%)	0	100	100
24	W	152/154 (99%)	148 (97%)	3 (2%)	1 (1%)	26	55
25	X	80/82 (98%)	77 (96%)	3 (4%)	0	100	100
26	Y	140/142 (99%)	137 (98%)	3 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
27	Z	71/73 (97%)	65 (92%)	5 (7%)	1 (1%)	14 35
28	1	54/56 (96%)	52 (96%)	2 (4%)	0	100 100
29	2	42/50 (84%)	42 (100%)	0	0	100 100
30	3	90/92 (98%)	89 (99%)	1 (1%)	0	100 100
All	All	3705/4172 (89%)	3527 (95%)	159 (4%)	19 (0%)	34 63

All (19) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	A	37	VAL
15	N	154	LEU
2	A	27	LEU
9	H	19	ARG
24	W	77	ALA
2	A	34	ASP
5	D	56	ARG
7	F	61	MET
15	N	139	TRP
15	N	167	ASP
3	B	2	GLN
5	D	137	PRO
7	F	100	ASP
12	K	127	ALA
3	B	185	GLY
3	B	206	THR
10	I	108	HIS
27	Z	67	GLY
9	H	171	GLY

5.3.2 Protein sidechains

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	A	179/179 (100%)	171 (96%)	8 (4%)	34 65

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	B	282/282 (100%)	270 (96%)	12 (4%)	35 66
4	C	193/193 (100%)	174 (90%)	19 (10%)	10 23
5	D	117/148 (79%)	110 (94%)	7 (6%)	24 50
6	E	152/152 (100%)	148 (97%)	4 (3%)	54 83
7	F	93/93 (100%)	91 (98%)	2 (2%)	60 86
8	G	27/282 (10%)	27 (100%)	0	100 100
9	H	134/145 (92%)	128 (96%)	6 (4%)	34 65
10	I	58/58 (100%)	57 (98%)	1 (2%)	68 90
11	J	118/118 (100%)	110 (93%)	8 (7%)	20 43
12	K	106/106 (100%)	102 (96%)	4 (4%)	40 71
13	L	113/127 (89%)	106 (94%)	7 (6%)	23 49
14	M	158/158 (100%)	152 (96%)	6 (4%)	40 71
15	N	149/149 (100%)	143 (96%)	6 (4%)	38 69
16	O	93/93 (100%)	89 (96%)	4 (4%)	35 66
17	P	113/113 (100%)	109 (96%)	4 (4%)	43 74
18	Q	79/79 (100%)	75 (95%)	4 (5%)	29 59
19	R	117/117 (100%)	113 (97%)	4 (3%)	44 75
20	S	71/71 (100%)	71 (100%)	0	100 100
21	T	105/105 (100%)	99 (94%)	6 (6%)	25 53
22	U	44/44 (100%)	44 (100%)	0	100 100
23	V	51/51 (100%)	50 (98%)	1 (2%)	63 87
24	W	130/130 (100%)	123 (95%)	7 (5%)	27 56
25	X	66/66 (100%)	59 (89%)	7 (11%)	8 19
26	Y	120/120 (100%)	116 (97%)	4 (3%)	45 76
27	Z	60/60 (100%)	60 (100%)	0	100 100
28	1	46/46 (100%)	46 (100%)	0	100 100
29	2	42/46 (91%)	41 (98%)	1 (2%)	57 85
30	3	79/79 (100%)	76 (96%)	3 (4%)	40 71
All	All	3095/3410 (91%)	2960 (96%)	135 (4%)	35 65

All (135) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	A	3	ARG
2	A	30	ARG
2	A	64	ASP
2	A	69	LEU
2	A	94	LEU
2	A	131	HIS
2	A	179	MET
2	A	217	ARG
3	B	11	LEU
3	B	27	ASN
3	B	71	VAL
3	B	97	LEU
3	B	98	THR
3	B	132	HIS
3	B	162	MET
3	B	171	VAL
3	B	195	ARG
3	B	254	GLN
3	B	257	THR
3	B	280	VAL
4	C	2	GLN
4	C	17	ASP
4	C	27	ARG
4	C	76	ARG
4	C	78	ARG
4	C	94	THR
4	C	101	ASP
4	C	118	THR
4	C	136	VAL
4	C	162	VAL
4	C	187	ARG
4	C	202	THR
4	C	214	THR
4	C	223	LEU
4	C	234	VAL
4	C	236	THR
4	C	237	GLU
4	C	240	LEU
4	C	243	VAL
5	D	19	GLU
5	D	50	VAL
5	D	52	THR
5	D	58	VAL

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Mol	Chain	Res	Type
5	D	101	THR
5	D	149	ARG
5	D	161	ASP
6	E	36	PRO
6	E	102	VAL
6	E	156	ASP
6	E	164	ASP
7	F	12	LEU
7	F	91	VAL
9	H	62	HIS
9	H	65	LEU
9	H	87	LYS
9	H	91	ARG
9	H	157	TYR
9	H	173	GLU
10	I	94	ASP
11	J	35	THR
11	J	46	ILE
11	J	47	THR
11	J	52	GLN
11	J	79	PHE
11	J	107	ASN
11	J	120	SER
11	J	130	VAL
12	K	10	GLN
12	K	98	VAL
12	K	107	THR
12	K	119	GLN
13	L	4	LYS
13	L	30	ARG
13	L	35	ARG
13	L	37	LYS
13	L	101	ASP
13	L	104	ASP
13	L	140	VAL
14	M	10	ASP
14	M	46	LEU
14	M	68	ARG
14	M	74	LYS
14	M	99	ARG
14	M	116	ASN
15	N	26	LEU

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Mol	Chain	Res	Type
15	N	49	THR
15	N	135	VAL
15	N	142	THR
15	N	175	LEU
15	N	180	LEU
16	O	3	THR
16	O	25	VAL
16	O	80	ASP
16	O	115	ARG
17	P	52	LYS
17	P	91	LYS
17	P	98	ILE
17	P	110	ASP
18	Q	16	ASN
18	Q	20	ASP
18	Q	30	VAL
18	Q	57	ASP
19	R	13	THR
19	R	39	THR
19	R	132	ARG
19	R	143	VAL
21	T	39	ASN
21	T	48	VAL
21	T	82	THR
21	T	89	ARG
21	T	96	VAL
21	T	115	GLU
23	V	13	PRO
24	W	14	HIS
24	W	52	VAL
24	W	88	THR
24	W	112	LEU
24	W	120	PRO
24	W	142	ASP
24	W	146	ILE
25	X	27	ASP
25	X	43	VAL
25	X	49	ARG
25	X	52	PRO
25	X	72	VAL
25	X	82	GLU
25	X	88	GLU

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Mol	Chain	Res	Type
26	Y	154	ARG
26	Y	189	ASN
26	Y	203	VAL
26	Y	220	GLU
29	2	18	ASN
30	3	14	CYS
30	3	56	PRO
30	3	87	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (70) such sidechains are listed below:

Mol	Chain	Res	Type
2	A	47	HIS
2	A	176	HIS
2	A	199	HIS
3	B	27	ASN
3	B	127	GLN
3	B	145	HIS
3	B	191	ASN
3	B	221	GLN
3	B	238	ASN
3	B	260	HIS
3	B	320	GLN
3	B	332	ASN
4	C	73	GLN
4	C	129	HIS
5	D	103	ASN
6	E	143	GLN
8	G	64	ASN
9	H	34	HIS
9	H	59	GLN
9	H	62	HIS
10	I	102	GLN
10	I	106	GLN
11	J	52	GLN
11	J	107	ASN
11	J	142	ASN
12	K	10	GLN
12	K	44	HIS
13	L	18	HIS
13	L	41	HIS
14	M	24	GLN

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Mol	Chain	Res	Type
14	M	58	GLN
14	M	137	ASN
14	M	170	ASN
15	N	40	ASN
15	N	107	ASN
17	P	66	GLN
17	P	73	HIS
17	P	88	GLN
17	P	89	ASN
17	P	118	GLN
18	Q	40	HIS
19	R	22	GLN
19	R	94	ASN
19	R	98	ASN
19	R	117	HIS
19	R	122	GLN
19	R	123	GLN
20	S	44	GLN
20	S	51	GLN
21	T	39	ASN
22	U	39	ASN
22	U	48	ASN
23	V	60	GLN
24	W	12	ASN
24	W	110	GLN
24	W	119	HIS
24	W	125	HIS
24	W	141	HIS
25	X	23	HIS
26	Y	133	HIS
26	Y	134	HIS
26	Y	189	ASN
28	1	8	GLN
28	1	16	HIS
28	1	28	HIS
29	2	18	ASN
29	2	41	HIS
29	2	45	ASN
30	3	2	GLN
30	3	48	ASN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	0	2745/2923 (93%)	224 (8%)	30 (1%)
31	9	121/122 (99%)	18 (14%)	1 (0%)
All	All	2866/3045 (94%)	242 (8%)	31 (1%)

All (242) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	0	31	C
1	0	67	A
1	0	69	A
1	0	70	A
1	0	71	G
1	0	86	A
1	0	87	C
1	0	88	G
1	0	114	A
1	0	115	U
1	0	130	C
1	0	141	C
1	0	151	A
1	0	166	A
1	0	170	U
1	0	186	A
1	0	191	A
1	0	192	A
1	0	200	C
1	0	219	G
1	0	237	G
1	0	271	C
1	0	272	A
1	0	273	G
1	0	283	U
1	0	284	C
1	0	308	U
1	0	309	C
1	0	336	G
1	0	337	A
1	0	358	G
1	0	381	G
1	0	397	A
1	0	417	G
1	0	461	C
1	0	487	G

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Mol	Chain	Res	Type
1	0	498	A
1	0	510	U
1	0	511	A
1	0	514	G
1	0	537	G
1	0	538	C
1	0	539	G
1	0	542	A
1	0	545	G
1	0	553	G
1	0	559	U
1	0	588	G
1	0	604	G
1	0	620	A
1	0	632	A
1	0	644	G
1	0	660	A
1	0	688	A
1	0	701	U
1	0	759	C
1	0	777	U
1	0	809	G
1	0	821	U
1	0	835	U
1	0	840	U
1	0	868	G
1	0	869	G
1	0	871	G
1	0	872	U
1	0	875	A
1	0	877	G
1	0	878	G
1	0	898	G
1	0	905	C
1	0	920	C
1	0	921	G
1	0	923	A
1	0	953	G
1	0	960	G
1	0	961	A
1	0	1006	A
1	0	1008	C

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Mol	Chain	Res	Type
1	0	1029	U
1	0	1045	G
1	0	1059	G
1	0	1060	C
1	0	1072	G
1	0	1081	A
1	0	1088	A
1	0	1109	U
1	0	1110	G
1	0	1119	G
1	0	1130	U
1	0	1137	G
1	0	1151	G
1	0	1164	U
1	0	1165	G
1	0	1166	A
1	0	1174	A
1	0	1175	G
1	0	1185	U
1	0	1192	A
1	0	1193	A
1	0	1206	U
1	0	1208	C
1	0	1216	G
1	0	1237	U
1	0	1238	C
1	0	1239	G
1	0	1242	A
1	0	1279	U
1	0	1289	C
1	0	1331	G
1	0	1342	C
1	0	1353	C
1	0	1360	C
1	0	1377	C
1	0	1378	G
1	0	1407	A
1	0	1409	G
1	0	1474	C
1	0	1485	A
1	0	1505	U
1	0	1506	U

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Mol	Chain	Res	Type
1	0	1524	U
1	0	1525	G
1	0	1526	A
1	0	1592	G
1	0	1625	U
1	0	1626	A
1	0	1634	G
1	0	1656	A
1	0	1667	A
1	0	1682	A
1	0	1684	A
1	0	1685	A
1	0	1692	C
1	0	1701	A
1	0	1722	U
1	0	1723	G
1	0	1725	C
1	0	1730	G
1	0	1731	C
1	0	1732	A
1	0	1752	G
1	0	1778	A
1	0	1798	C
1	0	1819	G
1	0	1820	G
1	0	1829	A
1	0	1856	C
1	0	1879	U
1	0	1919	A
1	0	1942	A
1	0	1971	G
1	0	1973	A
1	0	1978	A
1	0	1979	G
1	0	1996	U
1	0	2004	U
1	0	2008	U
1	0	2011	A
1	0	2012	U
1	0	2013	G
1	0	2033	G
1	0	2034	U

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Mol	Chain	Res	Type
1	0	2064	U
1	0	2072	G
1	0	2073	G
1	0	2074	A
1	0	2096	A
1	0	2101	A
1	0	2102	G
1	0	2103	A
1	0	2110	G
1	0	2133	U
1	0	2243	C
1	0	2258	A
1	0	2271	G
1	0	2272	G
1	0	2291	A
1	0	2317	C
1	0	2321	A
1	0	2354	A
1	0	2361	A
1	0	2369	A
1	0	2379	G
1	0	2422	U
1	0	2462	G
1	0	2476	C
1	0	2483	A
1	0	2507	G
1	0	2509	A
1	0	2511	A
1	0	2533	C
1	0	2537	G
1	0	2542	C
1	0	2553	A
1	0	2564	G
1	0	2589	U
1	0	2601	A
1	0	2602	G
1	0	2608	C
1	0	2613	G
1	0	2634	G
1	0	2645	U
1	0	2649	A
1	0	2664	A

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Mol	Chain	Res	Type
1	0	2681	A
1	0	2682	C
1	0	2726	U
1	0	2747	C
1	0	2748	G
1	0	2749	U
1	0	2750	G
1	0	2762	C
1	0	2768	A
1	0	2792	A
1	0	2800	A
1	0	2811	A
1	0	2812	A
1	0	2825	C
1	0	2867	G
1	0	2876	G
1	0	2890	A
1	0	2896	A
1	0	2903	C
1	0	2914	A
31	9	2	U
31	9	7	G
31	9	14	G
31	9	22	G
31	9	23	U
31	9	24	U
31	9	25	G
31	9	39	U
31	9	40	C
31	9	41	C
31	9	43	G
31	9	44	A
31	9	52	A
31	9	57	A
31	9	66	G
31	9	77	A
31	9	114	G
31	9	122	C

All (31) RNA pucker outliers are listed below:

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Mol	Chain	Res	Type
1	0	69	A
1	0	129	A
1	0	169	A
1	0	338	C
1	0	603	A
1	0	644	G
1	0	699	C
1	0	834	G
1	0	857	A
1	0	871	G
1	0	877	G
1	0	898	G
1	0	1237	U
1	0	1246	A
1	0	1352	A
1	0	1377	C
1	0	1684	A
1	0	1685	A
1	0	1692	C
1	0	1942	A
1	0	2313	C
1	0	2467	A
1	0	2526	C
1	0	2536	C
1	0	2541	U
1	0	2649	A
1	0	2681	A
1	0	2718	C
1	0	2726	U
1	0	2791	U
31	9	65	A

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

5 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	$\#\|Z\| > 2$
1	OMU	0	2587	1,34	12,22,23	1.05	1 (8%)	19,31,34	3.14	2 (10%)
1	OMG	0	2588	1	17,26,27	1.04	1 (5%)	21,38,41	2.53	3 (14%)
1	UR3	0	2619	1	12,22,23	0.88	0	16,32,35	0.76	0
1	PSU	0	2621	1	13,21,22	1.58	2 (15%)	18,30,33	6.14	3 (16%)
1	1MA	0	628	1,34	14,25,26	0.97	1 (7%)	15,37,40	1.17	1 (6%)

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
1	OMU	0	2587	1,34	-	0/5/27/28	0/2/2/2
1	OMG	0	2588	1	-	0/5/27/28	0/3/3/3
1	UR3	0	2619	1	-	0/3/25/26	0/2/2/2
1	PSU	0	2621	1	-	0/7/25/26	0/2/2/2
1	1MA	0	628	1,34	-	0/3/25/26	0/3/3/3

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	0	2621	PSU	C5-C1'	-4.78	1.48	1.52
1	0	2587	OMU	C4-N3	2.42	1.37	1.33
1	0	628	1MA	C6-N6	2.58	1.33	1.29
1	0	2621	PSU	C4-N3	2.68	1.38	1.33
1	0	2588	OMG	C6-N1	3.17	1.39	1.33

All (9) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	0	2621	PSU	N1-C2-N3	-21.59	114.56	128.33
1	0	2588	OMG	C5-C6-N1	-8.72	111.67	123.59
1	0	628	1MA	C2-N3-C4	-3.61	110.81	116.40
1	0	2587	OMU	C5-C4-N3	-3.21	114.89	123.12
1	0	2588	OMG	N3-C2-N1	-2.27	123.98	127.44
1	0	2621	PSU	C6-N1-C2	2.83	120.03	115.47
1	0	2588	OMG	C6-N1-C2	6.66	125.18	115.94
1	0	2587	OMU	C4-N3-C2	13.04	127.06	114.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	0	2621	PSU	C4-N3-C2	13.92	127.28	115.25

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

1 monomer is involved in 1 short contact:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	0	2587	OMU	1	0

5.5 Carbohydrates (i)

There are no carbohydrates in this entry.

5.6 Ligand geometry (i)

Of 306 ligands modelled in this entry, 305 are monoatomic - leaving 1 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	$\#\|Z\| > 2$
37	HMT	0	9101	-	37,43,43	0.65	0	38,66,66	1.88	10 (26%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
37	HMT	0	9101	-	-	0/27/74/74	0/5/5/5

There are no bond length outliers.

All (10) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	0	9101	HMT	O1-C17-O2	-3.92	101.49	108.12
37	0	9101	HMT	C18-O3-C2	-3.28	110.58	116.28
37	0	9101	HMT	C11-C10-N1	-2.88	99.63	103.90
37	0	9101	HMT	C3-O4-C19	-2.70	112.51	117.26
37	0	9101	HMT	C12-C11-C10	-2.59	99.30	104.43
37	0	9101	HMT	C7-C6-C16	-2.48	113.71	119.10
37	0	9101	HMT	O2-C15-C16	2.77	131.85	127.88
37	0	9101	HMT	O1-C14-C13	2.94	132.10	127.88
37	0	9101	HMT	O7-C22-C21	3.70	119.71	111.41
37	0	9101	HMT	O4-C19-C20	3.89	119.11	111.11

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

1 monomer is involved in 11 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
37	0	9101	HMT	11	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	0	2749/2923 (94%)	-0.27	53 (1%) 70 70	22, 50, 99, 170	0
2	A	237/237 (100%)	0.84	35 (14%) 3 2	30, 62, 104, 124	0
3	B	337/337 (100%)	0.40	17 (5%) 32 31	30, 59, 88, 105	0
4	C	246/246 (100%)	0.45	7 (2%) 56 57	25, 51, 78, 88	0
5	D	140/177 (79%)	2.67	80 (57%) 0 0	70, 112, 138, 148	0
6	E	172/172 (100%)	0.70	15 (8%) 13 10	51, 76, 98, 104	0
7	F	119/119 (100%)	1.44	35 (29%) 1 0	58, 83, 116, 132	0
8	G	29/348 (8%)	2.01	12 (41%) 0 0	78, 102, 109, 111	0
9	H	160/177 (90%)	1.34	47 (29%) 1 0	49, 73, 112, 120	0
10	I	70/70 (100%)	5.26	65 (92%) 0 0	140, 157, 176, 177	0
11	J	142/142 (100%)	0.27	2 (1%) 78 77	39, 56, 79, 98	0
12	K	132/132 (100%)	0.25	5 (3%) 44 44	39, 56, 81, 85	0
13	L	145/165 (87%)	1.22	35 (24%) 1 1	30, 76, 128, 140	0
14	M	194/194 (100%)	0.24	2 (1%) 84 85	35, 49, 67, 73	0
15	N	186/186 (100%)	1.38	51 (27%) 1 1	48, 75, 130, 137	0
16	O	115/115 (100%)	0.58	5 (4%) 39 38	42, 61, 79, 88	0
17	P	143/143 (100%)	0.51	7 (4%) 33 32	43, 63, 80, 87	0
18	Q	95/95 (100%)	0.17	1 (1%) 82 83	40, 53, 67, 79	0
19	R	150/150 (100%)	0.11	0 100 100	33, 51, 71, 82	0
20	S	81/81 (100%)	1.05	17 (20%) 1 1	49, 68, 90, 99	0
21	T	119/119 (100%)	0.99	17 (14%) 4 3	42, 66, 92, 119	0
22	U	53/53 (100%)	0.62	3 (5%) 27 26	46, 63, 84, 89	0
23	V	65/65 (100%)	2.87	35 (53%) 0 0	62, 87, 128, 136	0
24	W	154/154 (100%)	0.38	2 (1%) 79 79	38, 56, 73, 83	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
25	X	82/82 (100%)	0.62	8 (9%) 10 7	50, 68, 93, 107	0
26	Y	142/142 (100%)	0.32	6 (4%) 40 39	26, 50, 75, 96	0
27	Z	73/73 (100%)	2.24	35 (47%) 0 0	69, 94, 110, 115	0
28	1	56/56 (100%)	0.15	0 100 100	30, 36, 44, 54	0
29	2	46/50 (92%)	0.77	7 (15%) 3 2	41, 70, 100, 111	0
30	3	92/92 (100%)	0.83	8 (8%) 13 10	42, 70, 83, 95	0
31	9	122/122 (100%)	-0.29	4 (3%) 50 50	42, 72, 98, 150	0
All	All	6646/7217 (92%)	0.39	616 (9%) 11 8	22, 58, 112, 177	0

All (616) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
23	V	1	THR	18.2
23	V	39	ALA	16.9
5	D	63	ILE	12.2
10	I	74	ILE	12.1
10	I	128	THR	11.4
10	I	97	VAL	11.0
10	I	70	THR	9.4
31	9	1	U	9.4
10	I	112	LEU	9.0
23	V	40	PRO	8.9
10	I	104	ALA	8.4
27	Z	46	SER	8.1
15	N	166	ALA	8.0
10	I	132	VAL	8.0
10	I	71	ALA	7.9
10	I	108	HIS	7.9
10	I	72	GLU	7.8
10	I	83	GLY	7.8
27	Z	35	SER	7.7
23	V	43	PRO	7.5
10	I	79	GLY	7.5
10	I	92	VAL	7.5
10	I	127	CYS	7.5
10	I	106	GLN	7.5
27	Z	58	ASN	7.4
10	I	91	PHE	7.4
10	I	80	PHE	7.2
5	D	88	LEU	7.2

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Mol	Chain	Res	Type	RSRZ
23	V	38	GLY	7.0
10	I	66	GLY	7.0
5	D	69	ILE	6.9
10	I	67	VAL	6.9
27	Z	43	GLY	6.8
5	D	90	LEU	6.7
10	I	88	GLN	6.7
5	D	40	ILE	6.6
5	D	18	ILE	6.6
10	I	94	ASP	6.4
5	D	89	PRO	6.4
10	I	93	ALA	6.3
10	I	69	PRO	6.3
10	I	113	SER	6.3
5	D	10	PHE	6.2
10	I	73	LEU	6.1
21	T	119	ALA	6.1
5	D	128	LEU	6.0
10	I	82	THR	6.0
10	I	105	GLU	6.0
7	F	17	LEU	5.9
10	I	111	LEU	5.9
2	A	82	VAL	5.8
1	0	1198	U	5.8
20	S	81	ILE	5.8
5	D	44	ILE	5.7
5	D	64	ARG	5.7
7	F	106	ALA	5.6
27	Z	68	GLU	5.6
10	I	76	ASP	5.6
5	D	26	GLY	5.6
13	L	106	VAL	5.6
5	D	57	THR	5.5
10	I	109	PRO	5.5
27	Z	69	ASP	5.5
5	D	130	VAL	5.5
7	F	101	ALA	5.5
10	I	100	VAL	5.4
13	L	99	GLU	5.4
13	L	80	ASP	5.4
5	D	66	GLY	5.4
10	I	99	GLN	5.4

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Mol	Chain	Res	Type	RSRZ
5	D	106	PHE	5.3
15	N	147	ILE	5.3
23	V	41	GLU	5.3
27	Z	45	VAL	5.2
23	V	3	LEU	5.2
7	F	119	ARG	5.2
10	I	81	GLU	5.2
15	N	145	ALA	5.2
27	Z	49	ARG	5.2
8	G	23	ILE	5.1
2	A	237	GLY	5.1
23	V	36	ALA	5.1
5	D	134	LEU	5.0
13	L	105	TYR	5.0
1	0	282	C	5.0
5	D	27	ILE	5.0
5	D	68	PRO	4.9
5	D	85	GLN	4.9
1	0	1172	G	4.9
10	I	98	ASP	4.9
27	Z	44	ARG	4.9
31	9	24	U	4.9
1	0	1169	U	4.9
7	F	75	ILE	4.9
8	G	71	LEU	4.9
10	I	102	GLN	4.9
5	D	75	LEU	4.8
2	A	37	VAL	4.8
10	I	130	LEU	4.8
13	L	60	GLU	4.7
10	I	121	LYS	4.7
10	I	86	GLU	4.7
10	I	78	ALA	4.7
13	L	96	VAL	4.7
15	N	83	LEU	4.7
14	M	1	ALA	4.7
2	A	99	ILE	4.7
15	N	159	TYR	4.7
27	Z	50	VAL	4.7
27	Z	83	TYR	4.6
8	G	27	ILE	4.6
5	D	70	GLY	4.6

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Mol	Chain	Res	Type	RSRZ
10	I	117	THR	4.6
21	T	116	ASP	4.6
2	A	80	LEU	4.6
5	D	154	LYS	4.5
1	0	970	U	4.5
9	H	86	TYR	4.5
5	D	73	VAL	4.5
1	0	1163	G	4.4
5	D	93	LEU	4.4
11	J	70	PHE	4.4
1	0	1177	A	4.4
10	I	103	ILE	4.3
7	F	49	PHE	4.3
10	I	116	LEU	4.3
10	I	119	ALA	4.3
7	F	44	SER	4.3
9	H	35	LYS	4.3
1	0	1173	A	4.3
1	0	1199	A	4.3
10	I	75	LYS	4.3
23	V	2	VAL	4.3
10	I	110	ASP	4.3
10	I	84	SER	4.2
6	E	45	ASP	4.2
27	Z	60	ASP	4.2
5	D	24	HIS	4.2
23	V	37	GLY	4.2
27	Z	42	TYR	4.2
23	V	46	ILE	4.2
5	D	104	PHE	4.2
5	D	25	MET	4.1
9	H	76	LEU	4.1
17	P	71	TYR	4.1
5	D	61	PHE	4.1
13	L	91	VAL	4.1
23	V	59	ILE	4.1
5	D	65	GLU	4.1
1	0	1951	G	4.0
10	I	129	SER	4.0
7	F	99	THR	4.0
10	I	120	ALA	4.0
26	Y	235	GLU	4.0

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Mol	Chain	Res	Type	RSRZ
5	D	56	ARG	4.0
23	V	52	ALA	4.0
13	L	102	ASP	4.0
7	F	22	VAL	4.0
2	A	97	ALA	4.0
21	T	118	SER	3.9
15	N	67	ALA	3.9
5	D	17	ARG	3.9
15	N	172	PHE	3.9
15	N	155	GLU	3.9
27	Z	54	GLU	3.9
1	0	1168	C	3.9
5	D	157	LEU	3.9
15	N	158	LEU	3.9
15	N	115	VAL	3.9
23	V	45	ARG	3.9
27	Z	78	ILE	3.8
15	N	138	ASP	3.8
10	I	133	THR	3.8
10	I	123	VAL	3.8
21	T	55	PHE	3.8
3	B	181	ILE	3.8
5	D	141	VAL	3.8
8	G	21	ASP	3.8
9	H	48	VAL	3.8
13	L	100	ALA	3.8
23	V	34	GLN	3.8
5	D	11	HIS	3.8
5	D	166	ILE	3.8
5	D	74	THR	3.8
13	L	62	ALA	3.7
1	0	1171	A	3.7
2	A	83	GLY	3.7
4	C	139	VAL	3.7
2	A	94	LEU	3.7
10	I	124	VAL	3.7
9	H	140	TYR	3.7
13	L	118	LEU	3.7
27	Z	53	ILE	3.7
21	T	40	VAL	3.6
5	D	165	PHE	3.6
10	I	126	THR	3.6

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Mol	Chain	Res	Type	RSRZ
10	I	68	PRO	3.6
2	A	85	SER	3.6
15	N	164	ASP	3.6
13	L	140	VAL	3.5
25	X	41	PHE	3.5
5	D	43	GLU	3.5
13	L	81	VAL	3.5
13	L	97	VAL	3.5
1	0	1181	A	3.5
15	N	97	VAL	3.5
9	H	73	ASN	3.5
5	D	170	TYR	3.5
21	T	115	GLU	3.5
29	2	49	GLU	3.5
2	A	91	GLY	3.5
8	G	69	ARG	3.5
15	N	179	LEU	3.5
2	A	58	VAL	3.5
15	N	38	LYS	3.5
16	O	22	GLY	3.4
9	H	36	MET	3.4
1	0	1202	A	3.4
5	D	172	VAL	3.4
23	V	44	GLY	3.4
5	D	16	PRO	3.4
1	0	1180	U	3.4
1	0	1162	G	3.4
27	Z	38	PHE	3.4
9	H	174	LEU	3.4
23	V	8	ILE	3.4
20	S	2	TRP	3.4
5	D	23	VAL	3.4
2	A	88	ILE	3.3
16	O	89	ILE	3.3
27	Z	47	ARG	3.3
23	V	51	LYS	3.3
9	H	81	GLY	3.3
10	I	131	GLY	3.3
5	D	171	ASP	3.3
15	N	143	ARG	3.3
27	Z	34	SER	3.3
1	0	1164	U	3.3

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Mol	Chain	Res	Type	RSRZ
10	I	90	ASP	3.3
5	D	142	ALA	3.3
1	0	735	C	3.3
5	D	135	VAL	3.3
30	3	83	TRP	3.2
5	D	50	VAL	3.2
13	L	76	LEU	3.2
20	S	20	PHE	3.2
7	F	15	ASP	3.2
1	0	1279	U	3.2
13	L	150	GLN	3.2
9	H	141	CYS	3.2
22	U	54	THR	3.2
9	H	77	ILE	3.2
5	D	22	VAL	3.2
5	D	84	LEU	3.2
7	F	91	VAL	3.2
23	V	49	LEU	3.2
3	B	180	ASP	3.2
5	D	91	ALA	3.2
15	N	87	LEU	3.2
15	N	62	HIS	3.2
15	N	137	ALA	3.2
2	A	128	LEU	3.2
9	H	50	ILE	3.1
5	D	92	GLU	3.1
9	H	169	GLU	3.1
3	B	128	ILE	3.1
21	T	42	VAL	3.1
1	0	1166	A	3.1
5	D	53	LYS	3.1
29	2	27	LEU	3.1
5	D	98	PHE	3.1
12	K	132	VAL	3.1
13	L	75	LEU	3.1
21	T	112	LEU	3.1
7	F	114	LYS	3.1
5	D	19	GLU	3.1
15	N	162	ASP	3.1
30	3	92	GLU	3.1
22	U	47	ARG	3.1
10	I	125	GLY	3.1

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Mol	Chain	Res	Type	RSRZ
15	N	69	TYR	3.1
10	I	122	GLU	3.1
9	H	74	ARG	3.0
3	B	121	PRO	3.0
21	T	50	VAL	3.0
15	N	84	THR	3.0
31	9	2	U	3.0
13	L	101	ASP	3.0
10	I	118	ASN	3.0
25	X	85	VAL	3.0
15	N	139	TRP	3.0
1	0	1948	G	3.0
2	A	96	LEU	3.0
15	N	95	ALA	3.0
15	N	165	ALA	3.0
5	D	47	GLN	3.0
9	H	40	GLN	3.0
1	0	284	C	3.0
9	H	90	LEU	3.0
9	H	68	SER	3.0
23	V	31	ARG	3.0
10	I	134	ILE	3.0
25	X	7	GLU	3.0
23	V	5	VAL	3.0
27	Z	55	SER	3.0
5	D	129	ASP	3.0
9	H	37	GLY	2.9
27	Z	48	ARG	2.9
27	Z	104	ARG	2.9
10	I	95	LEU	2.9
5	D	81	GLU	2.9
7	F	26	THR	2.9
13	L	149	ARG	2.9
2	A	90	PRO	2.9
1	0	1170	U	2.9
2	A	31	LYS	2.9
2	A	65	ARG	2.9
13	L	130	ARG	2.9
3	B	100	VAL	2.9
9	H	149	VAL	2.9
15	N	183	ASP	2.9
1	0	2004	U	2.9

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Mol	Chain	Res	Type	RSRZ
16	O	102	ILE	2.9
13	L	120	LEU	2.9
9	H	114	ASP	2.9
5	D	54	ALA	2.9
12	K	118	ALA	2.9
5	D	83	PHE	2.9
6	E	7	ILE	2.9
6	E	118	ILE	2.9
7	F	20	LEU	2.9
7	F	100	ASP	2.9
23	V	10	ASP	2.9
9	H	133	GLY	2.9
9	H	147	GLU	2.9
20	S	16	ASN	2.9
1	0	1203	G	2.8
9	H	53	ILE	2.8
8	G	12	ILE	2.8
8	G	72	ASP	2.8
17	P	67	LYS	2.8
1	0	10	U	2.8
21	T	117	ASP	2.8
8	G	24	VAL	2.8
7	F	19	ALA	2.8
7	F	6	PHE	2.8
5	D	71	ALA	2.8
3	B	119	HIS	2.8
3	B	168	GLY	2.8
15	N	180	LEU	2.8
30	3	13	HIS	2.8
4	C	243	VAL	2.8
24	W	65	VAL	2.8
9	H	66	GLU	2.8
9	H	78	LYS	2.8
15	N	75	THR	2.8
6	E	10	ASP	2.8
1	0	1947	G	2.8
1	0	2237	G	2.8
6	E	6	GLU	2.8
5	D	156	ARG	2.8
15	N	163	PHE	2.8
1	0	1200	A	2.8
5	D	52	THR	2.8

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Mol	Chain	Res	Type	RSRZ
23	V	61	GLY	2.8
2	A	38	ILE	2.7
9	H	31	ILE	2.7
9	H	85	ASP	2.7
15	N	160	SER	2.7
1	0	1178	G	2.7
26	Y	234	VAL	2.7
30	3	1	MET	2.7
25	X	77	PHE	2.7
1	0	272	A	2.7
7	F	118	LEU	2.7
20	S	76	GLU	2.7
1	0	2769	C	2.7
15	N	71	TRP	2.7
21	T	91	LEU	2.7
7	F	28	ALA	2.7
5	D	67	ASP	2.7
23	V	53	ILE	2.7
7	F	29	VAL	2.7
16	O	60	VAL	2.7
20	S	47	VAL	2.7
3	B	99	GLU	2.7
27	Z	56	GLU	2.7
5	D	158	ASN	2.7
5	D	72	LYS	2.7
13	L	123	ASP	2.7
1	0	1161	A	2.7
1	0	1174	A	2.7
8	G	63	ARG	2.6
13	L	93	VAL	2.6
1	0	1950	G	2.6
15	N	81	ALA	2.6
6	E	5	LEU	2.6
15	N	129	ILE	2.6
20	S	41	VAL	2.6
30	3	8	ASN	2.6
2	A	36	ASP	2.6
5	D	58	VAL	2.6
1	0	280	C	2.6
15	N	152	GLU	2.6
1	0	1165	G	2.6
20	S	1	SER	2.6

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Mol	Chain	Res	Type	RSRZ
27	Z	70	ARG	2.6
9	H	146	ALA	2.6
27	Z	37	ARG	2.6
7	F	18	GLU	2.6
27	Z	57	MET	2.6
2	A	35	GLY	2.6
27	Z	82	SER	2.6
2	A	60	PHE	2.6
3	B	183	GLU	2.6
9	H	97	VAL	2.6
7	F	16	ALA	2.6
2	A	135	VAL	2.6
2	A	129	LEU	2.5
2	A	153	ARG	2.5
1	0	1190	G	2.5
22	U	51	TRP	2.5
27	Z	59	GLU	2.5
14	M	8	ILE	2.5
15	N	140	GLN	2.5
4	C	138	VAL	2.5
13	L	89	PHE	2.5
1	0	1192	A	2.5
6	E	76	VAL	2.5
15	N	114	LYS	2.5
15	N	118	ILE	2.5
21	T	27	LEU	2.5
1	0	285	A	2.5
9	H	71	SER	2.5
1	0	1179	C	2.5
23	V	9	ARG	2.5
9	H	80	LEU	2.5
15	N	175	LEU	2.5
23	V	58	THR	2.5
7	F	117	GLU	2.5
3	B	116	PRO	2.5
7	F	107	ASP	2.5
20	S	49	VAL	2.5
24	W	96	LEU	2.5
20	S	45	TYR	2.5
29	2	31	ARG	2.5
15	N	68	GLU	2.5
1	0	2344	G	2.5

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Mol	Chain	Res	Type	RSRZ
12	K	109	LEU	2.5
26	Y	216	ARG	2.5
15	N	80	SER	2.5
7	F	45	ALA	2.4
9	H	69	ARG	2.4
10	I	114	TYR	2.4
23	V	27	LEU	2.4
6	E	170	ARG	2.4
29	2	39	ARG	2.4
5	D	101	THR	2.4
26	Y	103	THR	2.4
29	2	48	ASP	2.4
9	H	70	LEU	2.4
5	D	86	THR	2.4
17	P	18	LYS	2.4
15	N	134	ASP	2.4
23	V	63	GLU	2.4
5	D	41	LEU	2.4
4	C	16	VAL	2.4
20	S	52	VAL	2.4
31	9	23	U	2.4
21	T	95	ASN	2.4
7	F	97	ALA	2.4
20	S	78	ALA	2.4
1	0	138	U	2.4
2	A	151	GLN	2.4
3	B	105	PHE	2.4
2	A	24	LYS	2.4
2	A	145	MET	2.4
15	N	150	TYR	2.4
2	A	89	ALA	2.4
27	Z	62	ALA	2.4
27	Z	79	TRP	2.4
3	B	104	GLU	2.4
10	I	89	GLU	2.4
15	N	66	LEU	2.3
27	Z	93	TYR	2.3
30	3	22	VAL	2.3
27	Z	80	GLN	2.3
2	A	133	ARG	2.3
29	2	35	ARG	2.3
13	L	77	ALA	2.3

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Mol	Chain	Res	Type	RSRZ
7	F	98	VAL	2.3
15	N	123	ILE	2.3
9	H	39	LYS	2.3
1	0	1625	U	2.3
10	I	115	ASP	2.3
23	V	35	ALA	2.3
27	Z	85	ASP	2.3
21	T	72	ILE	2.3
15	N	169	PRO	2.3
1	0	1186	C	2.3
5	D	139	TYR	2.3
2	A	68	ILE	2.3
7	F	90	GLU	2.3
9	H	137	PHE	2.3
6	E	127	ASP	2.3
5	D	164	ALA	2.3
9	H	128	ALA	2.3
10	I	101	LYS	2.3
25	X	80	GLU	2.3
5	D	95	THR	2.3
20	S	26	PHE	2.3
8	G	73	ASP	2.3
29	2	23	ALA	2.3
23	V	28	LEU	2.3
13	L	125	PHE	2.3
15	N	74	PRO	2.3
5	D	87	ALA	2.3
17	P	77	ALA	2.3
4	C	140	VAL	2.3
16	O	69	VAL	2.3
30	3	23	GLU	2.2
30	3	67	LEU	2.2
17	P	116	SER	2.2
25	X	74	ALA	2.2
3	B	115	VAL	2.2
8	G	15	TRP	2.2
13	L	142	LEU	2.2
9	H	142	ASN	2.2
15	N	41	LYS	2.2
5	D	160	ALA	2.2
15	N	177	GLU	2.2
7	F	76	PHE	2.2

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Mol	Chain	Res	Type	RSRZ
15	N	176	ARG	2.2
12	K	101	ASN	2.2
5	D	162	ALA	2.2
2	A	211	LYS	2.2
9	H	87	LYS	2.2
17	P	114	LEU	2.2
6	E	154	ILE	2.2
23	V	56	ILE	2.2
1	0	2346	C	2.2
7	F	12	LEU	2.2
7	F	14	ASP	2.2
15	N	181	ASP	2.2
7	F	39	SER	2.2
25	X	82	GLU	2.2
5	D	48	MET	2.2
20	S	65	VAL	2.2
26	Y	108	ASP	2.2
9	H	33	GLN	2.2
1	0	497	A	2.2
9	H	165	ARG	2.2
15	N	148	ALA	2.2
17	P	120	ARG	2.2
13	L	114	VAL	2.2
20	S	48	THR	2.2
5	D	167	GLU	2.2
23	V	48	GLU	2.2
9	H	29	SER	2.2
13	L	139	SER	2.2
12	K	110	LYS	2.2
9	H	75	HIS	2.2
27	Z	41	ARG	2.2
23	V	62	GLU	2.2
6	E	87	PHE	2.1
9	H	27	PRO	2.1
5	D	51	ARG	2.1
1	0	1967	U	2.1
21	T	74	VAL	2.1
23	V	23	LEU	2.1
21	T	63	ILE	2.1
10	I	87	PRO	2.1
2	A	236	GLY	2.1
13	L	90	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
2	A	93	THR	2.1
13	L	145	LEU	2.1
23	V	33	VAL	2.1
25	X	88	GLU	2.1
20	S	19	ASP	2.1
9	H	67	ALA	2.1
3	B	161	VAL	2.1
7	F	115	VAL	2.1
2	A	121	ALA	2.1
26	Y	236	VAL	2.1
18	Q	18	PRO	2.1
1	0	1185	U	2.1
5	D	62	ASP	2.1
13	L	104	ASP	2.1
1	0	1183	C	2.1
5	D	173	GLU	2.1
9	H	82	GLU	2.1
3	B	84	LEU	2.1
6	E	108	LEU	2.1
6	E	11	VAL	2.1
11	J	79	PHE	2.1
13	L	141	GLU	2.1
2	A	43	VAL	2.0
7	F	63	ILE	2.0
6	E	39	ASP	2.0
1	0	960	G	2.0
27	Z	61	HIS	2.0
21	T	82	THR	2.0
4	C	5	ILE	2.0
7	F	74	PHE	2.0
13	L	121	ILE	2.0
4	C	143	ASP	2.0
9	H	148	HIS	2.0
1	0	1167	G	2.0
3	B	140	LEU	2.0
13	L	119	THR	2.0
3	B	29	TRP	2.0
1	0	2541	U	2.0
8	G	66	LEU	2.0
6	E	3	VAL	2.0
9	H	89	THR	2.0
20	S	28	VAL	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. 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	LLDF	B-factors(Å^2)	Q<0.9
1	1MA	0	628	23/24	0.98	0.18	-	31,34,35,38	0
1	OMU	0	2587	21/22	0.99	0.14	-	35,38,41,42	0
1	OMG	0	2588	24/25	0.98	0.15	-	35,38,39,41	0
1	UR3	0	2619	21/22	0.98	0.16	-	40,43,45,50	0
1	PSU	0	2621	20/21	0.98	0.14	-	26,30,42,42	0

6.3 Carbohydrates (i)

There are no carbohydrates 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. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. 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	LLDF	B-factors(Å^2)	Q<0.9
36	SR	J	8986	1/1	0.15	1.96	64.32	200,200,200,200	0
34	NA	0	8562	1/1	0.77	0.57	53.89	63,63,63,63	0
36	SR	0	8913	1/1	0.58	1.01	53.82	169,169,169,169	0
34	NA	0	8565	1/1	0.92	0.67	52.80	73,73,73,73	0
33	K	0	8401	1/1	0.89	0.44	46.53	130,130,130,130	0
32	MG	9	8040	1/1	0.88	0.45	44.16	103,103,103,103	0
34	NA	0	8542	1/1	0.91	0.46	43.87	52,52,52,52	0
34	NA	0	8547	1/1	0.93	0.54	30.33	49,49,49,49	0
34	NA	0	8559	1/1	0.82	0.43	26.17	98,98,98,98	0
34	NA	0	8530	1/1	0.84	0.42	21.90	56,56,56,56	0
32	MG	0	8047	1/1	0.89	0.48	19.91	61,61,61,61	0
36	SR	0	8957	1/1	0.63	0.67	17.84	200,200,200,200	0
32	MG	0	8041	1/1	0.93	0.34	17.50	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
34	NA	0	8553	1/1	0.90	0.40	16.94	75,75,75,75	0
34	NA	0	8555	1/1	0.96	0.53	16.91	59,59,59,59	0
36	SR	0	8947	1/1	0.84	0.49	16.23	199,199,199,199	0
34	NA	0	8502	1/1	0.93	0.27	15.42	69,69,69,69	0
34	NA	0	8558	1/1	0.93	0.48	15.15	50,50,50,50	0
34	NA	0	8560	1/1	0.85	0.64	14.01	73,73,73,73	0
34	NA	0	8552	1/1	0.92	0.38	13.90	73,73,73,73	0
34	NA	0	8564	1/1	0.84	0.35	12.44	74,74,74,74	0
34	NA	0	8569	1/1	0.88	0.35	11.29	70,70,70,70	0
34	NA	0	8519	1/1	0.87	0.27	11.20	42,42,42,42	0
34	NA	0	8508	1/1	0.95	0.33	10.77	46,46,46,46	0
34	NA	0	8563	1/1	0.94	0.35	10.37	70,70,70,70	0
32	MG	0	8009	1/1	0.96	0.29	10.15	31,31,31,31	0
34	NA	0	8523	1/1	0.70	0.27	9.96	54,54,54,54	0
34	NA	0	8521	1/1	0.86	0.29	9.51	67,67,67,67	0
34	NA	0	8507	1/1	0.89	0.26	9.22	49,49,49,49	0
34	NA	0	8522	1/1	0.52	0.47	9.10	96,96,96,96	0
34	NA	0	8568	1/1	0.93	0.32	9.06	60,60,60,60	0
34	NA	0	8546	1/1	0.69	0.66	8.67	107,107,107,107	0
34	NA	9	8572	1/1	0.69	0.31	8.43	82,82,82,82	0
36	SR	B	8987	1/1	0.42	0.76	8.19	200,200,200,200	0
34	NA	0	8575	1/1	0.87	0.38	8.10	100,100,100,100	0
32	MG	0	8014	1/1	0.99	0.22	7.26	30,30,30,30	0
32	MG	0	8028	1/1	0.98	0.28	7.04	33,33,33,33	0
34	NA	0	8535	1/1	0.96	0.20	7.03	52,52,52,52	0
32	MG	0	8001	1/1	0.91	0.22	6.39	32,32,32,32	0
32	MG	0	8011	1/1	0.97	0.35	6.39	31,31,31,31	0
32	MG	0	8062	1/1	0.94	0.32	6.05	55,55,55,55	0
32	MG	0	8070	1/1	0.93	0.21	5.92	58,58,58,58	0
34	NA	0	8504	1/1	0.92	0.26	5.92	34,34,34,34	0
34	NA	0	8534	1/1	0.92	0.35	5.80	44,44,44,44	0
34	NA	0	8528	1/1	0.92	0.24	5.74	50,50,50,50	0
35	CL	0	8815	1/1	0.96	0.17	5.73	66,66,66,66	0
32	MG	0	8065	1/1	0.91	0.18	4.48	45,45,45,45	0
32	MG	0	8006	1/1	0.98	0.19	4.40	30,30,30,30	0
36	SR	0	8903	1/1	0.99	0.21	4.33	58,58,58,58	0
34	NA	0	8556	1/1	0.87	0.35	3.90	47,47,47,47	0
32	MG	0	8003	1/1	0.99	0.21	3.53	34,34,34,34	0
34	NA	0	8520	1/1	0.93	0.24	3.48	60,60,60,60	0
34	NA	0	8517	1/1	0.98	0.20	3.43	38,38,38,38	0
36	SR	0	8910	1/1	0.94	0.20	3.42	108,108,108,108	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
37	HMT	0	9101	39/39	0.84	0.30	3.26	69,75,86,87	0
36	SR	0	8991	1/1	0.85	0.20	3.20	199,199,199,199	0
32	MG	0	8008	1/1	0.96	0.20	2.78	29,29,29,29	0
32	MG	0	8004	1/1	0.97	0.23	2.35	29,29,29,29	0
36	SR	0	8904	1/1	0.99	0.20	2.29	56,56,56,56	0
34	NA	0	8533	1/1	0.75	0.23	2.14	73,73,73,73	0
32	MG	0	8012	1/1	0.98	0.24	1.76	22,22,22,22	0
34	NA	0	8557	1/1	0.92	0.15	1.74	77,77,77,77	0
34	NA	0	8527	1/1	0.98	0.20	1.73	55,55,55,55	0
36	SR	0	8962	1/1	0.94	0.19	1.71	168,168,168,168	0
32	MG	0	8084	1/1	0.97	0.18	1.64	40,40,40,40	0
32	MG	0	8021	1/1	0.94	0.18	1.27	40,40,40,40	0
32	MG	0	8002	1/1	0.97	0.19	1.19	25,25,25,25	0
32	MG	A	8051	1/1	0.47	0.30	1.12	92,92,92,92	0
36	SR	0	8992	1/1	0.76	0.18	0.98	132,132,132,132	0
36	SR	0	8975	1/1	0.91	0.18	0.85	150,150,150,150	0
34	NA	0	8515	1/1	0.92	0.23	0.81	43,43,43,43	0
36	SR	0	8981	1/1	0.76	0.19	0.60	159,159,159,159	0
36	SR	A	8929	1/1	0.89	0.21	0.60	134,134,134,134	0
32	MG	0	8050	1/1	0.86	0.20	0.38	48,48,48,48	0
35	CL	O	8808	1/1	0.98	0.26	0.28	69,69,69,69	0
36	SR	3	8932	1/1	0.98	0.15	0.02	84,84,84,84	0
38	CD	U	8701	1/1	0.99	0.18	-0.03	72,72,72,72	0
34	NA	0	8537	1/1	0.94	0.18	-0.11	45,45,45,45	0
32	MG	0	8088	1/1	0.93	0.17	-0.19	42,42,42,42	0
34	NA	Q	8540	1/1	0.89	0.18	-0.29	67,67,67,67	0
36	SR	0	8902	1/1	0.97	0.18	-0.41	59,59,59,59	0
32	MG	B	8042	1/1	0.93	0.16	-0.50	60,60,60,60	0
35	CL	0	8816	1/1	0.96	0.15	-0.53	63,63,63,63	0
34	NA	M	8539	1/1	0.92	0.16	-0.57	42,42,42,42	0
34	NA	J	8538	1/1	0.88	0.18	-0.63	62,62,62,62	0
32	MG	0	8043	1/1	0.96	0.13	-0.64	45,45,45,45	0
36	SR	0	8936	1/1	0.92	0.15	-0.68	106,106,106,106	0
36	SR	0	8972	1/1	0.93	0.15	-0.88	135,135,135,135	0
32	MG	0	8045	1/1	0.92	0.13	-1.03	36,36,36,36	0
32	MG	0	8034	1/1	0.90	0.16	-1.08	48,48,48,48	0
36	SR	A	8930	1/1	0.84	0.15	-1.21	147,147,147,147	0
32	MG	0	8058	1/1	0.99	0.12	-1.35	30,30,30,30	0
36	SR	0	8935	1/1	0.95	0.13	-1.35	89,89,89,89	0
36	SR	0	8943	1/1	0.92	0.11	-1.36	97,97,97,97	0
35	CL	J	8821	1/1	0.98	0.12	-1.42	57,57,57,57	0
32	MG	0	8044	1/1	0.93	0.13	-1.44	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
35	CL	B	8819	1/1	0.98	0.15	-1.53	52,52,52,52	0
38	CD	3	8704	1/1	0.99	0.09	-1.72	76,76,76,76	0
38	CD	Z	8703	1/1	0.98	0.07	-1.87	98,98,98,98	0
35	CL	0	8812	1/1	0.98	0.09	-1.99	46,46,46,46	0
36	SR	0	8985	1/1	0.86	0.09	-2.02	122,122,122,122	0
32	MG	0	8025	1/1	0.93	0.14	-2.04	28,28,28,28	0
32	MG	Y	8086	1/1	0.97	0.13	-2.11	46,46,46,46	0
36	SR	0	8964	1/1	0.94	0.10	-2.22	130,130,130,130	0
35	CL	M	8818	1/1	0.99	0.11	-2.26	46,46,46,46	0
32	MG	T	8057	1/1	0.84	0.10	-2.51	70,70,70,70	0
32	MG	0	8075	1/1	0.80	0.13	-2.69	58,58,58,58	0
35	CL	0	8805	1/1	0.93	0.10	-2.87	70,70,70,70	0
36	SR	0	8969	1/1	0.82	0.14	-2.99	149,149,149,149	0
32	MG	0	8053	1/1	0.95	0.10	-3.28	79,79,79,79	0
35	CL	3	8804	1/1	0.93	0.07	-4.02	65,65,65,65	0
32	MG	0	8087	1/1	0.91	0.16	-4.06	38,38,38,38	0
38	CD	1	8702	1/1	1.00	0.09	-4.49	57,57,57,57	0
32	MG	0	8013	1/1	0.96	0.08	-4.52	35,35,35,35	0
33	K	0	8402	1/1	0.96	0.11	-4.71	65,65,65,65	0
36	SR	0	8945	1/1	0.85	0.11	-5.29	117,117,117,117	0
32	MG	0	8052	1/1	0.97	0.10	-6.59	54,54,54,54	0
36	SR	0	8982	1/1	0.45	1.00	-	200,200,200,200	0
32	MG	0	8037	1/1	0.89	0.22	-	83,83,83,83	0
34	NA	C	8503	1/1	0.91	0.27	-	40,40,40,40	0
32	MG	0	8017	1/1	0.97	0.23	-	39,39,39,39	0
34	NA	0	8561	1/1	0.55	0.69	-	99,99,99,99	0
32	MG	0	8082	1/1	0.96	0.32	-	70,70,70,70	0
36	SR	0	8973	1/1	0.96	0.16	-	139,139,139,139	0
36	SR	0	8976	1/1	0.05	0.55	-	199,199,199,199	0
36	SR	0	8996	1/1	0.87	0.77	-	200,200,200,200	0
36	SR	0	9001	1/1	0.83	0.18	-	187,187,187,187	0
36	SR	0	8941	1/1	0.93	0.16	-	113,113,113,113	0
32	MG	0	8031	1/1	0.86	0.46	-	83,83,83,83	0
32	MG	0	8061	1/1	0.96	0.30	-	30,30,30,30	0
34	NA	0	8566	1/1	0.94	0.35	-	47,47,47,47	0
36	SR	0	8984	1/1	0.60	0.13	-	157,157,157,157	0
32	MG	0	8019	1/1	0.96	0.35	-	28,28,28,28	0
35	CL	N	8807	1/1	0.98	0.17	-	68,68,68,68	0
36	SR	0	8907	1/1	0.99	0.17	-	57,57,57,57	0
36	SR	0	8990	1/1	0.75	0.30	-	161,161,161,161	0
32	MG	0	8015	1/1	0.99	0.22	-	36,36,36,36	0
36	SR	0	8966	1/1	0.96	0.08	-	113,113,113,113	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
34	NA	0	8574	1/1	0.91	0.64	-	75,75,75,75	0
34	NA	0	8514	1/1	0.92	0.26	-	47,47,47,47	0
32	MG	0	8032	1/1	0.92	0.09	-	41,41,41,41	0
32	MG	0	8023	1/1	0.94	0.22	-	28,28,28,28	0
32	MG	0	8055	1/1	0.92	0.27	-	44,44,44,44	0
36	SR	0	8958	1/1	0.83	0.14	-	105,105,105,105	0
32	MG	0	8048	1/1	0.98	0.29	-	28,28,28,28	0
34	NA	0	8524	1/1	0.92	0.39	-	57,57,57,57	0
32	MG	0	8077	1/1	0.95	0.17	-	38,38,38,38	0
34	NA	0	8501	1/1	0.89	0.22	-	43,43,43,43	0
34	NA	0	8550	1/1	0.94	0.30	-	59,59,59,59	0
36	SR	0	8953	1/1	0.31	0.26	-	179,179,179,179	0
36	SR	0	8926	1/1	0.89	0.12	-	132,132,132,132	0
32	MG	0	8071	1/1	0.82	0.28	-	72,72,72,72	0
36	SR	0	8927	1/1	0.93	0.19	-	172,172,172,172	0
36	SR	F	9005	1/1	0.89	0.08	-	138,138,138,138	0
34	NA	0	8511	1/1	0.80	0.55	-	91,91,91,91	0
36	SR	0	8967	1/1	0.96	0.06	-	132,132,132,132	0
32	MG	0	8092	1/1	0.87	0.11	-	80,80,80,80	0
36	SR	A	8977	1/1	0.40	0.12	-	182,182,182,182	0
32	MG	0	8081	1/1	0.90	0.18	-	63,63,63,63	0
36	SR	1	8952	1/1	0.96	0.15	-	85,85,85,85	0
34	NA	0	8536	1/1	0.92	0.09	-	56,56,56,56	0
36	SR	0	8960	1/1	0.88	0.08	-	162,162,162,162	0
35	CL	0	8811	1/1	0.96	0.14	-	65,65,65,65	0
36	SR	0	8940	1/1	0.97	0.11	-	84,84,84,84	0
32	MG	0	8089	1/1	0.94	0.11	-	45,45,45,45	0
36	SR	0	8924	1/1	-0.05	0.23	-	166,166,166,166	0
36	SR	0	8949	1/1	0.67	0.20	-	134,134,134,134	0
38	CD	O	8705	1/1	0.99	0.06	-	99,99,99,99	0
32	MG	0	8063	1/1	0.80	0.29	-	79,79,79,79	0
36	SR	0	9007	1/1	0.89	0.44	-	200,200,200,200	0
36	SR	0	9008	1/1	0.93	0.15	-	96,96,96,96	0
36	SR	0	8956	1/1	0.35	0.21	-	183,183,183,183	0
35	CL	0	8814	1/1	0.98	0.10	-	49,49,49,49	0
36	SR	0	8918	1/1	0.90	0.17	-	87,87,87,87	0
36	SR	9	8980	1/1	0.69	0.11	-	188,188,188,188	0
36	SR	0	9006	1/1	-0.01	0.90	-	200,200,200,200	0
32	MG	0	8038	1/1	0.97	0.07	-	63,63,63,63	0
32	MG	0	8085	1/1	0.92	0.14	-	89,89,89,89	0
32	MG	0	8090	1/1	0.93	0.25	-	96,96,96,96	0
32	MG	0	8064	1/1	0.94	0.26	-	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
36	SR	0	8988	1/1	0.74	0.11	-	182,182,182,182	0
36	SR	0	8919	1/1	0.67	0.17	-	168,168,168,168	0
34	NA	0	8567	1/1	0.91	0.49	-	81,81,81,81	0
32	MG	0	8036	1/1	0.93	0.10	-	50,50,50,50	0
36	SR	S	8961	1/1	0.86	0.10	-	141,141,141,141	0
36	SR	3	8999	1/1	0.93	0.11	-	110,110,110,110	0
32	MG	0	8046	1/1	0.97	0.17	-	39,39,39,39	0
35	CL	0	8822	1/1	0.91	0.38	-	74,74,74,74	0
32	MG	0	8005	1/1	0.99	0.29	-	34,34,34,34	0
32	MG	0	8035	1/1	0.96	0.22	-	63,63,63,63	0
36	SR	0	8917	1/1	0.79	0.15	-	117,117,117,117	0
32	MG	0	8016	1/1	0.93	0.32	-	50,50,50,50	0
36	SR	0	8970	1/1	0.87	0.06	-	131,131,131,131	0
36	SR	0	8979	1/1	0.66	0.19	-	196,196,196,196	0
32	MG	0	8078	1/1	0.94	0.31	-	49,49,49,49	0
36	SR	0	8922	1/1	0.59	0.37	-	158,158,158,158	0
34	NA	0	8554	1/1	0.82	0.83	-	72,72,72,72	0
36	SR	0	8923	1/1	0.26	0.49	-	192,192,192,192	0
36	SR	0	8901	1/1	0.92	0.14	-	93,93,93,93	0
34	NA	S	8510	1/1	0.94	0.22	-	51,51,51,51	0
34	NA	R	8532	1/1	0.87	0.17	-	59,59,59,59	0
36	SR	0	9004	1/1	0.68	0.56	-	200,200,200,200	0
36	SR	R	8912	1/1	0.96	0.21	-	90,90,90,90	0
32	MG	K	8054	1/1	0.88	0.22	-	44,44,44,44	0
34	NA	0	8549	1/1	0.81	0.46	-	64,64,64,64	0
36	SR	0	8937	1/1	0.98	0.27	-	104,104,104,104	0
34	NA	9	8543	1/1	0.95	0.20	-	50,50,50,50	0
36	SR	0	8965	1/1	0.79	0.19	-	145,145,145,145	0
32	MG	0	8073	1/1	0.92	0.28	-	96,96,96,96	0
36	SR	0	8994	1/1	0.70	0.77	-	200,200,200,200	0
36	SR	9	8978	1/1	0.64	0.22	-	165,165,165,165	0
35	CL	0	8813	1/1	0.97	0.08	-	53,53,53,53	0
36	SR	0	8968	1/1	0.77	0.13	-	168,168,168,168	0
34	NA	0	8512	1/1	0.96	0.34	-	48,48,48,48	0
35	CL	J	8801	1/1	0.94	0.20	-	70,70,70,70	0
34	NA	0	8545	1/1	0.98	0.14	-	35,35,35,35	0
34	NA	0	8548	1/1	0.85	0.35	-	61,61,61,61	0
35	CL	R	8806	1/1	0.99	0.16	-	47,47,47,47	0
36	SR	0	8997	1/1	0.87	1.15	-	200,200,200,200	0
32	MG	0	8024	1/1	0.95	0.22	-	47,47,47,47	0
32	MG	9	8074	1/1	0.80	0.18	-	71,71,71,71	0
32	MG	0	8069	1/1	0.82	0.62	-	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
36	SR	0	8928	1/1	0.85	0.12	-	140,140,140,140	0
35	CL	0	8803	1/1	0.98	0.08	-	53,53,53,53	0
36	SR	0	8914	1/1	0.92	0.29	-	113,113,113,113	0
32	MG	0	8033	1/1	0.97	0.16	-	54,54,54,54	0
34	NA	9	8544	1/1	0.93	0.22	-	68,68,68,68	0
36	SR	9	9003	1/1	0.48	0.13	-	194,194,194,194	0
36	SR	0	8915	1/1	0.93	0.09	-	128,128,128,128	0
32	MG	0	8079	1/1	0.93	0.32	-	60,60,60,60	0
36	SR	0	8925	1/1	0.99	0.14	-	97,97,97,97	0
34	NA	0	8518	1/1	0.85	0.45	-	96,96,96,96	0
34	NA	0	8505	1/1	0.96	0.47	-	42,42,42,42	0
32	MG	0	8093	1/1	0.96	0.10	-	42,42,42,42	0
36	SR	0	8951	1/1	0.92	0.05	-	144,144,144,144	0
36	SR	0	8931	1/1	0.97	0.10	-	114,114,114,114	0
32	MG	0	8018	1/1	0.93	0.27	-	39,39,39,39	0
32	MG	0	8056	1/1	0.90	0.18	-	67,67,67,67	0
34	NA	0	8526	1/1	0.98	0.07	-	47,47,47,47	0
35	CL	J	8802	1/1	0.93	0.12	-	72,72,72,72	0
36	SR	0	8942	1/1	0.80	0.18	-	138,138,138,138	0
36	SR	0	8939	1/1	0.96	0.14	-	147,147,147,147	0
34	NA	0	8570	1/1	0.84	0.17	-	59,59,59,59	0
32	MG	0	8022	1/1	0.97	0.21	-	38,38,38,38	0
32	MG	0	8091	1/1	0.99	0.06	-	60,60,60,60	0
36	SR	0	8983	1/1	0.57	0.27	-	191,191,191,191	0
32	MG	0	8026	1/1	0.99	0.12	-	36,36,36,36	0
32	MG	2	8060	1/1	0.93	0.12	-	56,56,56,56	0
36	SR	0	8944	1/1	0.81	0.18	-	187,187,187,187	0
32	MG	0	8072	1/1	0.93	0.24	-	62,62,62,62	0
36	SR	0	8906	1/1	0.99	0.24	-	59,59,59,59	0
36	SR	0	8946	1/1	0.97	0.20	-	117,117,117,117	0
32	MG	0	8076	1/1	0.99	0.13	-	41,41,41,41	0
32	MG	0	8027	1/1	0.95	0.12	-	41,41,41,41	0
32	MG	0	8066	1/1	0.87	0.22	-	62,62,62,62	0
32	MG	0	8029	1/1	0.94	0.18	-	49,49,49,49	0
36	SR	0	8948	1/1	0.78	0.16	-	107,107,107,107	0
32	MG	0	8039	1/1	0.85	0.31	-	56,56,56,56	0
32	MG	0	8020	1/1	0.91	0.12	-	66,66,66,66	0
34	NA	0	8541	1/1	0.94	0.31	-	59,59,59,59	0
34	NA	0	8525	1/1	0.67	0.23	-	70,70,70,70	0
36	SR	0	8963	1/1	0.91	0.16	-	132,132,132,132	0
34	NA	0	8551	1/1	0.96	0.31	-	49,49,49,49	0
36	SR	0	8954	1/1	0.97	0.11	-	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å^2)	Q<0.9
36	SR	0	8989	1/1	0.80	0.34	-	191,191,191,191	0
36	SR	B	8950	1/1	0.66	0.24	-	123,123,123,123	0
35	CL	L	8810	1/1	0.95	0.14	-	54,54,54,54	0
32	MG	0	8083	1/1	0.78	0.15	-	68,68,68,68	0
36	SR	0	8933	1/1	0.70	0.47	-	159,159,159,159	0
34	NA	0	8531	1/1	0.85	0.24	-	56,56,56,56	0
36	SR	0	8998	1/1	0.66	0.23	-	155,155,155,155	0
32	MG	0	8080	1/1	0.96	0.34	-	75,75,75,75	0
34	NA	0	8529	1/1	0.86	0.09	-	46,46,46,46	0
36	SR	0	8995	1/1	0.67	0.17	-	148,148,148,148	0
35	CL	A	8809	1/1	0.98	0.35	-	72,72,72,72	0
36	SR	0	8909	1/1	0.97	0.16	-	100,100,100,100	0
36	SR	0	8908	1/1	0.94	0.12	-	100,100,100,100	0
36	SR	0	8905	1/1	0.99	0.30	-	68,68,68,68	0
36	SR	0	8974	1/1	0.74	0.42	-	183,183,183,183	0
32	MG	0	8068	1/1	0.96	0.09	-	57,57,57,57	0
34	NA	0	8509	1/1	0.81	0.33	-	71,71,71,71	0
32	MG	0	8010	1/1	0.77	0.29	-	52,52,52,52	0
36	SR	0	8911	1/1	0.92	0.09	-	92,92,92,92	0
35	CL	0	8817	1/1	0.98	0.11	-	64,64,64,64	0
32	MG	0	8059	1/1	0.93	0.12	-	50,50,50,50	0
36	SR	0	8920	1/1	0.83	0.58	-	200,200,200,200	0
36	SR	0	8921	1/1	0.94	0.13	-	94,94,94,94	0
34	NA	0	8516	1/1	0.88	0.30	-	39,39,39,39	0
34	NA	0	8506	1/1	0.81	0.17	-	65,65,65,65	0
36	SR	0	8959	1/1	0.44	0.24	-	189,189,189,189	0
36	SR	0	8938	1/1	0.57	0.15	-	198,198,198,198	0
36	SR	0	8934	1/1	0.61	0.88	-	172,172,172,172	0
36	SR	0	8955	1/1	0.63	0.28	-	200,200,200,200	0
32	MG	0	8030	1/1	0.77	0.53	-	91,91,91,91	0
36	SR	0	9002	1/1	0.86	0.13	-	176,176,176,176	0
34	NA	0	8573	1/1	0.75	0.31	-	92,92,92,92	0
36	SR	0	8993	1/1	0.74	0.13	-	186,186,186,186	0
32	MG	0	8067	1/1	0.92	0.30	-	35,35,35,35	0
36	SR	0	8971	1/1	0.67	0.13	-	181,181,181,181	0
32	MG	0	8007	1/1	0.99	0.26	-	31,31,31,31	0
32	MG	0	8049	1/1	0.83	0.96	-	95,95,95,95	0
36	SR	0	8916	1/1	0.73	0.15	-	118,118,118,118	0
35	CL	Y	8820	1/1	0.94	0.09	-	45,45,45,45	0
34	NA	0	8513	1/1	0.96	0.20	-	53,53,53,53	0
36	SR	0	9000	1/1	0.86	0.27	-	180,180,180,180	0
34	NA	0	8571	1/1	0.36	0.38	-	96,96,96,96	0

6.5 Other polymers (i)

There are no such residues in this entry.