



wwPDB X-ray Structure Validation Summary Report ⓘ

Feb 1, 2016 – 07:58 AM GMT

PDB ID : 3CCL
Title : Structure of Anisomycin resistant 50S Ribosomal Subunit: 23S rRNA mutation U2535C. Density for Anisomycin is visible but not included in model.
Authors : Blaha, G.; Gurel, G.
Deposited on : 2008-02-26
Resolution : 2.90 Å(reported)

This is a wwPDB X-ray Structure Validation Summary 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 ⓘ symbol.

The following versions of software and data (see [references ⓘ](#)) 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

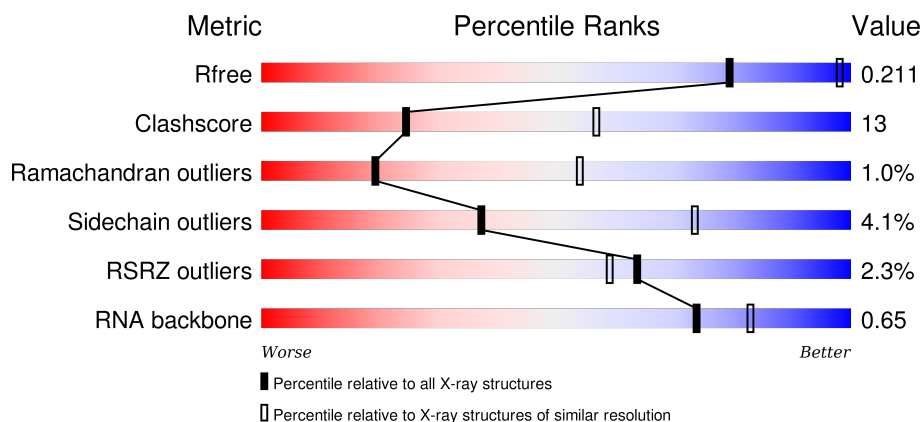
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.90 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.





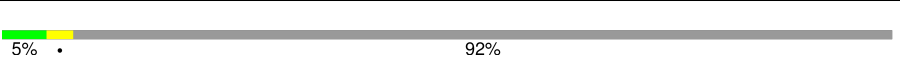
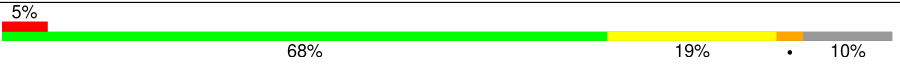
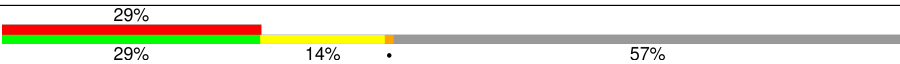

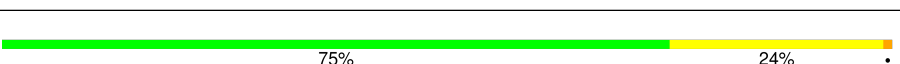
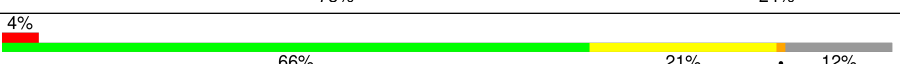
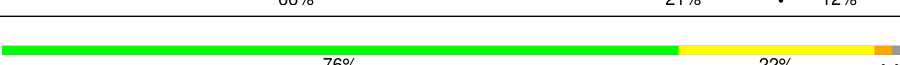
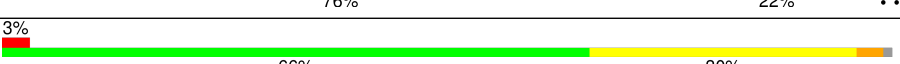
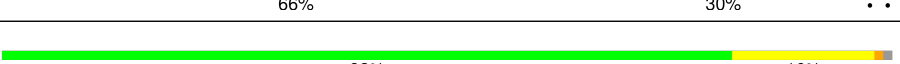
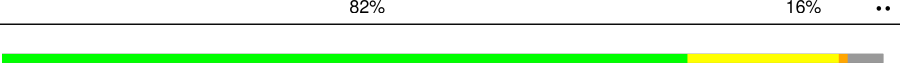

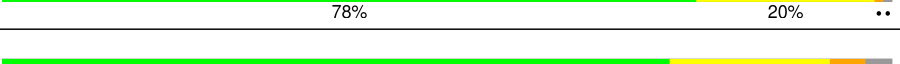



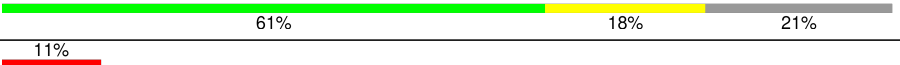

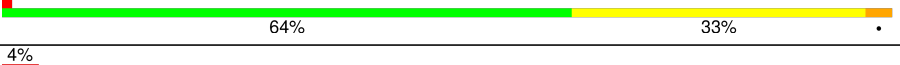
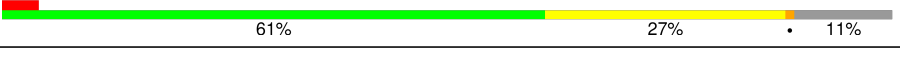
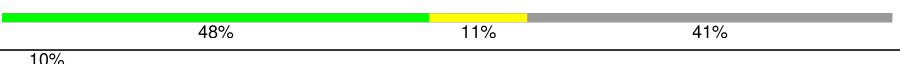
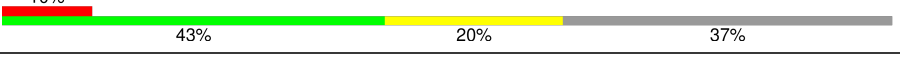
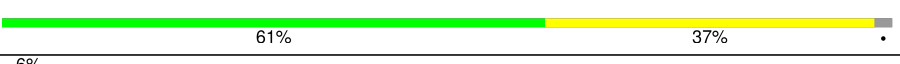

Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	91344	1451 (2.90-2.90)
Clashscore	102246	1668 (2.90-2.90)
Ramachandran outliers	100387	1630 (2.90-2.90)
Sidechain outliers	100360	1632 (2.90-2.90)
RSRZ outliers	91569	1456 (2.90-2.90)
RNA backbone	2183	1093 (3.30-2.50)

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 $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	240	<div> <div>2%</div> <div> <div></div> <div>72%</div> <div>23%</div> <div>• •</div> </div> </div>
2	B	338	<div> <div>66%</div> <div>31%</div> <div>•</div> </div>
3	C	246	<div> <div>72%</div> <div>24%</div> <div>•</div> </div>
4	D	177	<div> <div>18%</div> <div>45%</div> <div>32%</div> <div>•</div> <div>21%</div> </div>

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Mol	Chain	Length	Quality of chain
5	E	178	
6	F	120	
7	G	348	
8	H	177	
9	I	162	
10	J	145	
11	K	132	
12	L	165	
13	M	196	
14	N	187	
15	O	116	
16	P	149	
17	Q	96	
18	R	155	
19	S	85	
20	T	120	
21	U	67	
22	V	71	
23	W	154	
24	X	92	
25	Y	241	
26	Z	116	
27	1	57	
28	2	50	
29	3	92	

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Mol	Chain	Length	Quality of chain
30	0	2923	
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	8008	-	-	-	X
32	MG	0	8009	-	-	-	X
32	MG	0	8041	-	-	-	X
32	MG	0	8047	-	-	-	X
32	MG	0	8084	-	-	-	X
32	MG	A	8051	-	-	-	X
33	K	0	8402	-	-	-	X
34	NA	0	8507	-	-	-	X
34	NA	0	8508	-	-	-	X
34	NA	0	8512	-	-	-	X
34	NA	0	8517	-	-	-	X
34	NA	0	8522	-	-	-	X
34	NA	0	8527	-	-	-	X
34	NA	0	8528	-	-	-	X
34	NA	0	8530	-	-	-	X
34	NA	0	8534	-	-	-	X
34	NA	0	8542	-	-	-	X
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	8559	-	-	-	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	9	8572	-	-	-	X
36	SR	0	8903	-	-	-	X
36	SR	0	8904	-	-	-	X
36	SR	0	8947	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
36	SR	B	8987	-	-	-	X

2 Entry composition [i](#)

There are 38 unique types of molecules in this entry. The entry contains 99122 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 protein called 50S ribosomal protein L2P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	237	Total	C	N	O	S	0	0	0
			1753	1072	352	324	5			

- Molecule 2 is a protein called 50S ribosomal protein L3P.

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

- Molecule 3 is a protein called 50S ribosomal protein L4P.

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

- Molecule 4 is a protein called 50S ribosomal protein L5P.

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

- Molecule 5 is a protein called 50S ribosomal protein L6P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	E	172	Total	C	N	O	S	0	0	0
			1357	840	224	289	4			

- Molecule 6 is a protein called 50S ribosomal protein L7Ae.

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

- Molecule 7 is a protein called 50S ribosomal protein L10E.

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

- Molecule 8 is a protein called 50S ribosomal protein L10e.

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

- Molecule 9 is a protein called 50S ribosomal protein L11P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	I	70	Total	C	N	O	S	0	0	0
			519	323	81	114	1			

- Molecule 10 is a protein called 50S ribosomal protein L13P.

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

- Molecule 11 is a protein called 50S ribosomal protein L14P.

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

- Molecule 12 is a protein called 50S ribosomal protein L15P.

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

- Molecule 13 is a protein called 50S ribosomal protein L15e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	M	194	Total	C	N	O	S	0	0	0
			1558	943	333	281	1			

- Molecule 14 is a protein called 50S ribosomal protein L18P.

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

- Molecule 15 is a protein called 50S ribosomal protein L18e.

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

- Molecule 16 is a protein called 50S ribosomal protein L19e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	P	143	Total	C	N	O		0	0	0
			1136	683	229	224				

- Molecule 17 is a protein called 50S ribosomal protein L21e.

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

- Molecule 18 is a protein called 50S ribosomal protein L22P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	R	150	Total	C	N	O	S	0	0	0
			1149	713	209	223	4			

- Molecule 19 is a protein called 50S ribosomal protein L23P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	S	81	Total	C	N	O	S	0	0	0
			641	389	111	138	3			

- Molecule 20 is a protein called 50S ribosomal protein L24P.

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

- Molecule 21 is a protein called 50S ribosomal protein L24e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	U	53	Total	C	N	O	S	0	0	0
			410	244	75	86	5			

- Molecule 22 is a protein called 50S ribosomal protein L29P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	V	65	Total	C	N	O	S	0	0	0
			499	304	94	100	1			

- Molecule 23 is a protein called 50S ribosomal protein L30P.

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

- Molecule 24 is a protein called 50S ribosomal protein L31e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	X	82	Total	C	N	O	S	0	0	0
			654	402	129	122	1			

- Molecule 25 is a protein called 50S ribosomal protein L32e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	Y	142	Total	C	N	O		0	0	0
			1130	686	228	216				

- Molecule 26 is a protein called 50S ribosomal protein L37Ae.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	Z	73	Total	C	N	O	S	0	0	0
			573	343	113	112	5			

- Molecule 27 is a protein called 50S ribosomal protein L37e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	1	56	Total	C	N	O	S	0	0	0
			431	258	86	83	4			

- Molecule 28 is a protein called 50S ribosomal protein L39e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	2	46	Total	C	N	O	S	0	0	0
			396	239	89	67	1			

- Molecule 29 is a protein called 50S ribosomal protein L44E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	3	92	Total	C	N	O	S	0	0	0
			755	458	153	137	7			

- Molecule 30 is a RNA chain called 23S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	0	2754	Total	C	N	O	P	0	0	0
			59020	26349	10874	19052	2745			

- 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	87	Total	Mg	0	0
			87	87		
32	Y	1	Total	Mg	0	0
			1	1		
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	9	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	67	Total Na 67 67	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	2	Total Na 2 2	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 1	Cl 1	0	0
35	M	1	Total 1	Cl 1	0	0

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

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

- Molecule 37 is CADMIUM ION (three-letter code: CD) (formula: Cd).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
37	O	1	Total 1	Cd 1	0	0
37	Z	1	Total 1	Cd 1	0	0
37	1	1	Total 1	Cd 1	0	0
37	3	1	Total 1	Cd 1	0	0
37	U	1	Total 1	Cd 1	0	0

- Molecule 38 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
38	0	5929	Total 5929	O 5929	0	0
38	9	147	Total 147	O 147	0	0
38	A	116	Total 116	O 116	0	0
38	B	141	Total 141	O 141	0	0
38	C	170	Total 170	O 170	0	0
38	D	44	Total 44	O 44	0	0
38	E	45	Total 45	O 45	0	0
38	F	27	Total 27	O 27	0	0
38	G	19	Total 19	O 19	0	0
38	H	63	Total 63	O 63	0	0
38	I	8	Total 8	O 8	0	0
38	J	53	Total 53	O 53	0	0
38	K	56	Total 56	O 56	0	0
38	L	85	Total 85	O 85	0	0
38	M	123	Total 123	O 123	0	0
38	N	55	Total 55	O 55	0	0
38	O	43	Total 43	O 43	0	0
38	P	67	Total 67	O 67	0	0
38	Q	50	Total 50	O 50	0	0
38	R	85	Total 85	O 85	0	0
38	S	33	Total 33	O 33	0	0
38	T	34	Total 34	O 34	0	0

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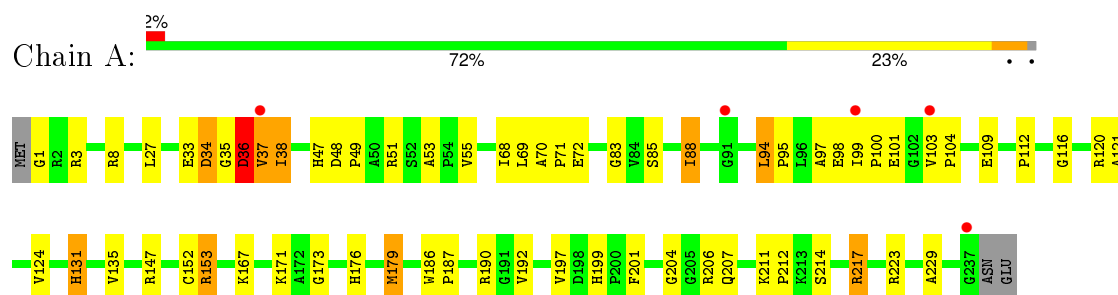
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
38	U	27	Total 27	O 27	0	0
38	V	13	Total 13	O 13	0	0
38	W	69	Total 69	O 69	0	0
38	X	25	Total 25	O 25	0	0
38	Y	95	Total 95	O 95	0	0
38	Z	26	Total 26	O 26	0	0
38	1	63	Total 63	O 63	0	0
38	2	50	Total 50	O 50	0	0
38	3	62	Total 62	O 62	0	0

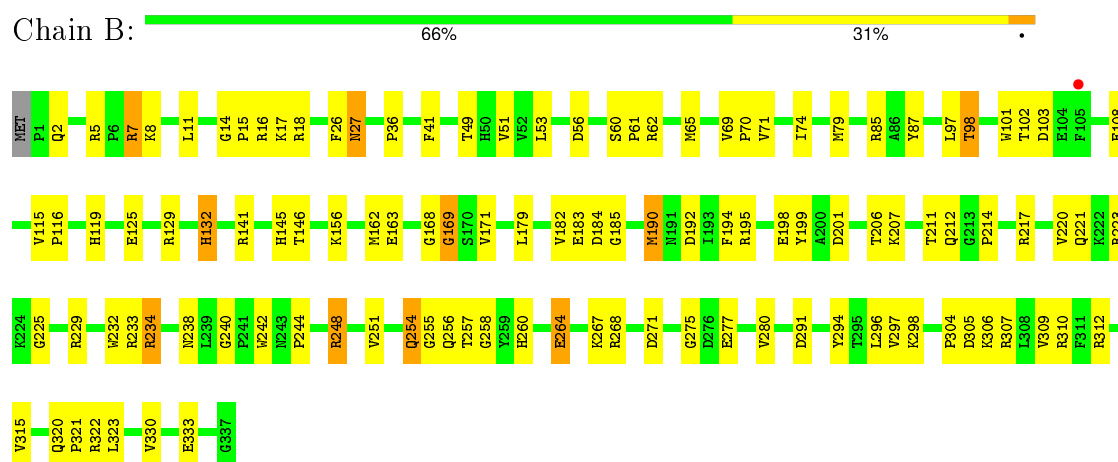
3 Residue-property plots

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 ($\text{RSRZ} > 2$). 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.

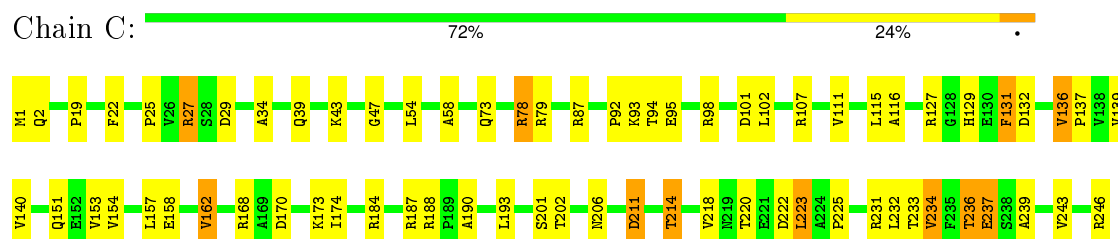
- Molecule 1: 50S ribosomal protein L2P



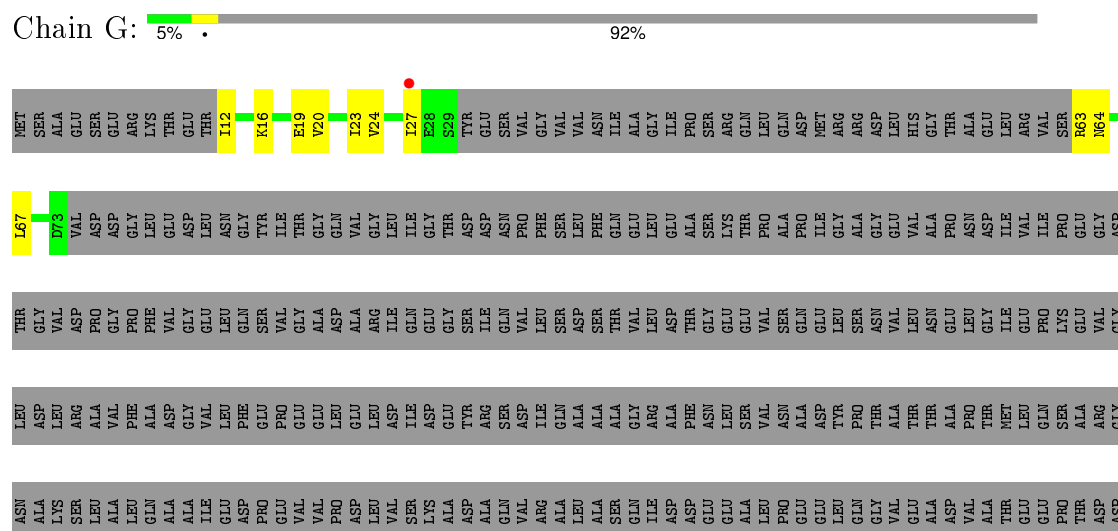
- Molecule 2: 50S ribosomal protein L3P



- Molecule 3: 50S ribosomal protein L4P



- Molecule 4: 50S ribosomal protein L5P



GLN
ASP
ASP
ASP
THR
ALA
SER
GLU
ASP
ASP
ALA
ALA
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ASP
ALA
LEU
GLY
ALA
MET
PHE

• Molecule 8: 50S ribosomal protein L10e

Chain H: 

MET SER ASP K4 P5 A6 S7 M8 I12 P15 R19 Y22 I26 P27 G28 S29 K30 I31 H34 K35 K36 G37 R38 K39 Q40 Y46 P47 V54 T57 Y58 Q59 L60 R61 R62 L65 E66 R69 A72 L76 Y86 K87 L90 R91 R99

K102 GLN THR A6 ALA GLY ASP ARG VAL SER D114 I123 R129 G133 T138 V149 A156 Y157 N158 P162 R165 V168 E169 R170 L174 LEU ILE ALA

• Molecule 9: 50S ribosomal protein L11P


Chain I: 

MET ALA GLY THR ILE VAL LEU VAL PRO GLY THR VAL GLN ASN PRO GLY PRO LEU PRO GLY THR VAL GLN ILE ASN ASP GLN THR ALA PHE ASP GLY THR VAL PRO VAL THR LYS ASP ASP GLY

SER PHE GLU ILE VAL G86 V87 P88 P89 A71 A72 L73 I74 K75 D76 E77 A78 G79 E81 T82 S83 G84 G85 E86 P87 Q88 F91 V92 A93 D94 L95 S96 V97 D98 Q99 V100 Q101 I103 A104 E105 Q106 K107 H108 P109 D110 L111 L112 S113 Y114 D115 L116 T117 M118 A119 A120

V124 G125 T126 G127 S128 L130 G131 V132 T133 I134 E135 GLY GLU ASN PRO ARG GLU LYS GLU ARG ILE ASP ALA GLY TYR ASP VAL PHE ALA ALA GLN ALA

• Molecule 10: 50S ribosomal protein L13P

Chain J: 

MET SER VAL L4 I18 M19 V26 V36 A37 V38 V39 P40 A41 E42 V45 I46 Q52 R55 N65 P69 F70 R74 P75 D76 G77 I78 F79 T82 P88 R89 R90 L105 G106 H107 P108 Y109 D112 I127 V130 T131 L132 G133 E134 I135 S136 M145

• Molecule 11: 50S ribosomal protein L14P

Chain K: 

H1 Q10 K14 C20 R27 E28 L29 I32 S33 V34 Y37 S38 G39 K40 M42 P45 K46 A47 V55 S56 E63 R66 V74 R75 K78 F79 R80 R81 R82 R87 V98 E102 I113 A114 R115 E116 V117 A118 Q119 A125 S126 A127

V132

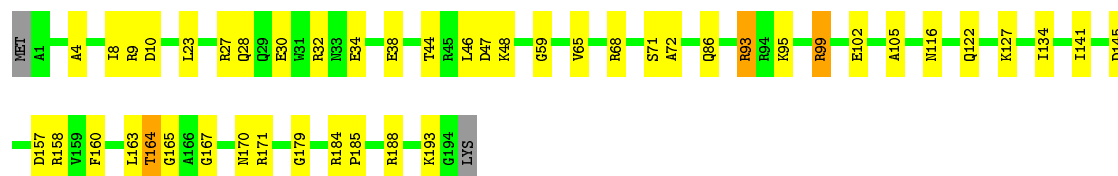
• Molecule 12: 50S ribosomal protein L15P

Chain L: 

MET T1 K4 K5 R6 G14 H18 R22 R27 R30 G94 R35 D96 K37 H38 E39 F40 H41 K48 K56 V57 E60 A61 R67 V73 T74 L75 L76 D80 V81 A82 E83 VAL GLU ASP GLY GLY F89 A100 D104 Y105 V106 G112 Q113

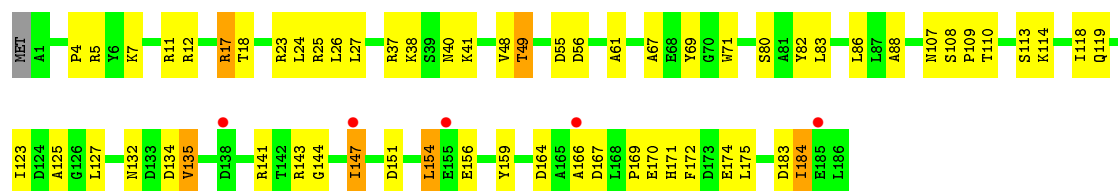
- Molecule 13: 50S ribosomal protein L15e

Chain M:  76% 22% ..



- Molecule 14: 50S ribosomal protein L18P

Chain N:  3% 66% 30% .



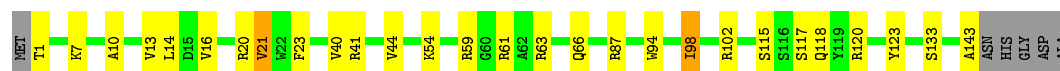
- Molecule 15: 50S ribosomal protein L18e

Chain 0: 82% 16% .

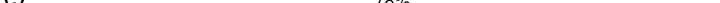


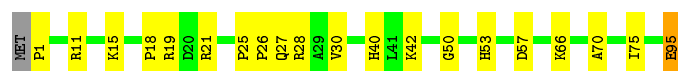
- Molecule 16: 50S ribosomal protein L19e

Chain P:  77% 17% ..



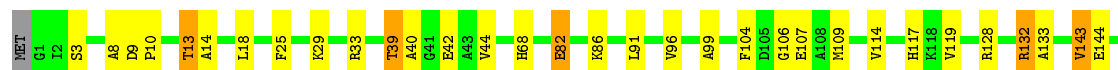
- Molecule 17: 50S ribosomal protein L21e

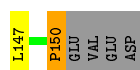
Chain Q:  78% 20%



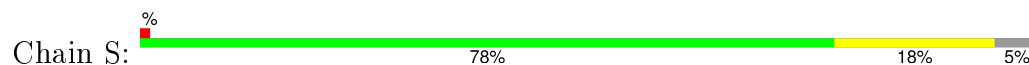
- Molecule 18: 50S ribosomal protein L22P

Chain R:  75% 18% . .

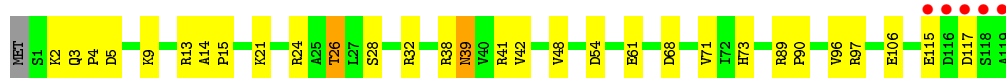
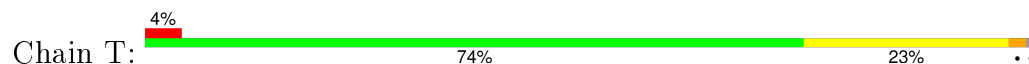




- Molecule 19: 50S ribosomal protein L23P



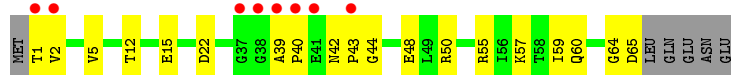
- Molecule 20: 50S ribosomal protein L24P



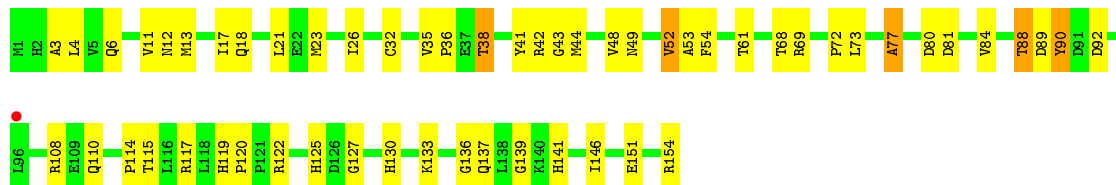
- Molecule 21: 50S ribosomal protein L24e



- Molecule 22: 50S ribosomal protein L29P



- Molecule 23: 50S ribosomal protein L30P

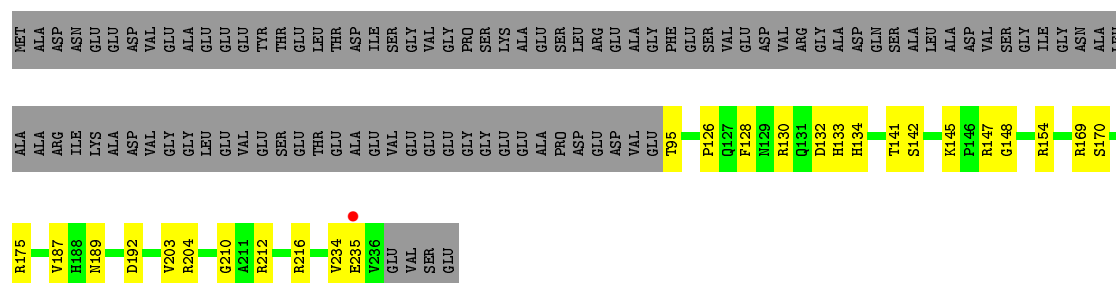


- Molecule 24: 50S ribosomal protein L31e

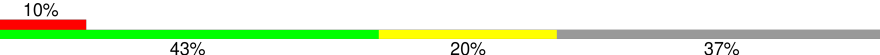


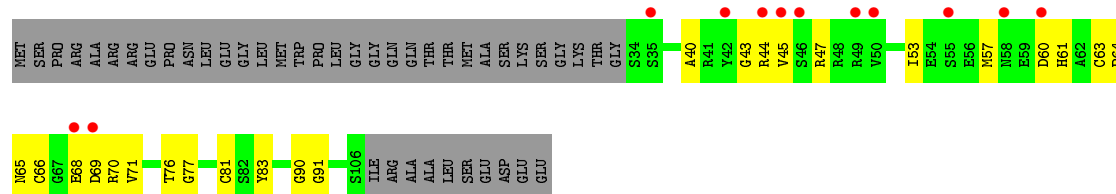
- Molecule 25: 50S ribosomal protein L32e

Chain Y:  48% 11% 41%



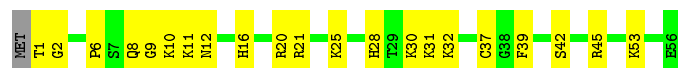
- Molecule 26: 50S ribosomal protein L37Ae

Chain Z:  10% 43% 20% 37%



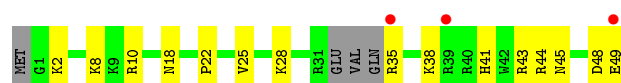
- Molecule 27: 50S ribosomal protein L37e

Chain 1:  61% 37% 2%




- Molecule 28: 50S ribosomal protein L39e

Chain 2:  6% 62% 30% 8%



- Molecule 29: 50S ribosomal protein L44E

Chain 3:  77% 22% 1%



- Molecule 30: 23S RIBOSOMAL RNA

Chain 0:  54% 35% 5% 6%



C1554	G1441	G1351	C1245	C1168	C1068	U	C880	A790	G884	C583	C491	A378	G289	C200	U107
G1555	A1442	C1353	A1246	U1169	A1352	C	G885	A791	A686	U584	C492	G379	C290	U210	U108
A1559	U1446	A1358	U1249	A1171	G1071	G	A886	G800	G687	G588	G496	A380	C291	U211	C111
U	U1447	U1359	C1250	G1172	G1072	A	G887	U801	A688	G689	A497	G382	C292	A212	G112
U1561	U1447	C1360	C1268	A1173	A1078	G	U888	G807	G689	G605	A498	A383	C295	A213	A113
C1562	C1450	C1366	G1269	G1175	A1079	A	G898	A807	G690	C605	G499	G384	C296	U214	U115
A1573	C1451	C1366	C1273	U1180	A1080	A	C899	A808	G694	C613	G500	U392	C298	G219	A119
G1586	U1461	A1372	A1278	A1181	A1081	G	U903	G809	C695	U614	G503	U392	C298	G219	A119
U1587	C1462	G1373	U1279	C1182	A1088	U	U904	A812	C696	G615	G504	U396	U299	C220	A120
G1588	C1374	C1183	A1280	C1183	A1097	C	C905	C813	G697	U616	G506	U397	A302	A222	U121
G1589	C1474	A1375	A1280	C1184	A1098	G	C905	C814	C699	U616	C506	A397	A302	G222	
C1592	U1477	G1376	U1287	U1185	A1098	G	A912	U815	C699	U619	G506	U398	C303	U224	U125
G1593	U1477	G1377	A1287	U1186	G1099	G	A912	U816	C700	A620	A508	G399	G304	G224	C
C1594	U1478	G1378	U1288	U1187	G1099	A	C920	G817	U701	C621	A509	A407	A305	G225	U
U1595	U1482	A1379	C1289	A1188	C1104	C	G921	G817	G702	G622	A509	A407	A306	G225	
G1596	C1483	U1380	G1290	A1189	U1109	A	A922	G820	G703	U624	U510	A408	G307	C228	A128
A1597	C1484	U1381	A1291	U1190	G1110	C999	A923	U821	U713	U624	A511	A408	G307	C228	A128
C1598	A1485	G1382	A1291	A1191	G1110	C1000	A926	C822	U714	U625	A513	A408	U308	G229	A129
U1598	A1486	U1383	A1294	A1192	U1115	U1001	U932	U823	U715	U626	C515	A418	C309	G229	A131
A1603	A1487	G1384	G1295	A1193	U1115	G1002	U932	G824	G710	U627	C515	U420	U312	A236	
G1604	U1488	G1385	A1296	A1194	U1116		U932	U825	G711	A628		U420	U312	G237	U134
U1605	G1387	G1386	U1297	A1194	A1117		U932	U826	C712	A629		G422	A316	A241	G135
A1606	G1387	G1387	U1298	U1198	A1118	A1005	A939	U827	U713	U629		G422	A317	A242	G136
U1607	C1495	G1387	G1300	A1199	U1119	A1006	G940	A827	U714	A632	U522	C424	U318	C244	C139
U1613	U1503	A1392	U1304	A1201	G1121	C1008	G941	G834	U716	G633	C523	C424	A319	G244	C139
G1614	A1504	A1393	U1306	A1202	C1127	U1010	U942	U835	C717	G634	A524	C440	G320	G249	G140
U1615	U1505	C1394	U1307	G1203	U1128	A1014	U945	U840	C718	A635	A532	A441	A329	C250	G141
A1616	U1506	C1396	A1307	U1205	C1129	C1015	C946	A841	C718	G636	A532	A442	C330	C251	A145
U1617	G1513	C1397	A1308	U1206	U1130	U1016	U947	C942	G724	C637	A532	A442	C330	C251	
C1622	C1514	G1398	U1207	A1207	G1131	A1020	G948	A843	G738	A639	A536	U445	G333	C252	A151
U1623	A1515	A1399	G1311	C1208	A1132	A1020	U949	U843	U734	A644	A536	U445	G333	A255	
A1624	U1516	C1400	G1312	C1209	G1135	C1025	G950	A846	C735	U645	C537	G446	G336	C256	C154
U1625	G1520	A1401	U1314	G1211	U1136	A1313	A951	C947	C736	U645	C538	G448	A337	G257	C155
A1626	C1521	U1407	U1314	G1211	U1136	U1026	A951	C947	A737	U645	C538	G448	A337	G257	C155
G1627	A1522	G1408	A1321	C1212	G1137	G1027	G952	C948	A737	U653	C541	A449	C338	G258	C156
	C1523	U1409	G1322	G1216	U1138	U1028	G953	A843	G738	U654	A542	A451	A339	G259	A157
A1630	U1524	A1413	G1325	G1221	U1139	U1029	G958	C853	C741	U655	C543	G452	C342	A262	A158
G1631	C1525	A1414	A1328	G1221	C1140	U1029	G959	G854	C741	U656	C544	U457	C342	U263	C162
C1633	A1527	G1415	A1328	G1229	U1149	C1044	C960	A857	G744	G656	C545	U457	C344	G264	C163
G1634	A1528	G1415	A1328	G1229	U1150	G1045	A961	U858	G745	G657	C545	U457	C344	G264	C163
U1635	C1529	U1419	G1331	A1231	G1151	G1052	C963	A861	G746	C658	C553	A460	A347	U265	A166
G1636	G1535	U1422	C1332	A1232	A1154	G1053	C963	A861	G747	A660	C558	A466	A347	U265	A166
A1637	U1536	C1423	U1334	A1233	G1155	G1054	G969	A867	G748	U669	C559	G467	A351	C271	C168
A1641	C1537	A1424	G1339	G1235	G1159	U1056	U970	G868	C749	G670	C564	U469	A351	C271	
A1642	U1538	G1425	G1340	U1236	G1160	A1057	U	G869	C759	A671	G564	U470	A352	G272	U178
C1643	U1539	C1426	G1340	U1237	A1161	A1058	G	C871	C759	A671	G564	U470	A352	G272	
U1644	C1545	U1430	C1342	G1239	G1162	G1059	U	U872	C764	G672	U567	U364	A352	G272	
G1645	G1546	C1344	C1344	G1239	G1163	C1060	U	U873	G765	G672	C568	U364	A352	G272	
C1652	U1434	G1344	G1344	A1242	G1165	G1063	U	A875	G775	G672	C568	U364	A352	G272	
A1653	C1436	C1344	U1350	C1243	G1166	G1066	U	A876	G775	G672	C568	U364	A352	G272	
U1654	G1435	C1436	U1350	C1243	G1166	U1066	U	A877	G775	G672	C568	U364	A352	G272	
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	C1436	C1436	U1350	C1243	G1166	U1066	U	A877	G775	G672	C568	U364	A352	G272	
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	C1436	C1436	U1350	C1243	G1166	U1066	U	A8							



U69	U70	G75	G76	A77	G88	C91	C92	A93	G94	C95	C96	G101	U106	C107	C108	U112	C113	G114	C115	C122
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4 Data and refinement statistics

Property	Value	Source
Space group	C 2 2 21	Depositor
Cell constants a, b, c, α , β , γ	213.16Å 300.03Å 576.13Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.98 – 2.90 85.91 – 2.41	Depositor EDS
% Data completeness (in resolution range)	92.2 (49.98-2.90) 92.3 (85.91-2.41)	Depositor EDS
R_{merge}	0.13	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	0.00 (at 2.40Å)	Xtriage
Refinement program	CNS 1.0	Depositor
R, R_{free}	0.171 , 0.220 0.167 , 0.211	Depositor DCC
R_{free} test set	3946 reflections (1.07%)	DCC
Wilson B-factor (Å ²)	57.0	Xtriage
Anisotropy	0.314	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.31 , 81.4	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning ²	$\langle L \rangle = 0.49$, $\langle L^2 \rangle = 0.32$	Xtriage
Outliers	0 of 667133 reflections	Xtriage
F_o, F_c correlation	0.95	EDS
Total number of atoms	99122	wwPDB-VP
Average B, all atoms (Å ²)	61.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.55% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.375 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: MG, OMG, CL, SR, 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	A	0.32	0/1786	0.64	0/2408
2	B	0.32	0/2690	0.64	0/3652
3	C	0.36	0/1885	0.63	0/2552
4	D	0.32	0/1111	0.56	0/1498
5	E	0.33	0/1382	0.56	0/1880
6	F	0.34	0/901	0.58	0/1224
7	G	0.31	0/241	0.49	0/324
8	H	0.33	0/1302	0.63	0/1743
9	I	0.29	0/526	0.51	0/716
10	J	0.36	0/1136	0.60	0/1530
11	K	0.35	0/1004	0.67	0/1351
12	L	0.33	0/1130	0.63	0/1509
13	M	0.35	0/1582	0.61	0/2116
14	N	0.30	0/1474	0.62	0/1999
15	O	0.34	0/874	0.59	0/1181
16	P	0.32	0/1147	0.51	0/1528
17	Q	0.33	0/749	0.65	0/1005
18	R	1.26	7/1172 (0.6%)	1.10	6/1578 (0.4%)
19	S	0.32	0/648	0.55	0/875
20	T	0.33	0/958	0.64	0/1289
21	U	0.33	0/417	0.59	0/562
22	V	0.33	0/502	0.52	0/675
23	W	0.34	0/1219	0.63	0/1655
24	X	0.35	0/664	0.60	0/895
25	Y	0.36	0/1146	0.62	0/1536
26	Z	0.37	0/584	0.60	0/781
27	1	0.39	0/438	0.59	0/578
28	2	0.34	0/401	0.60	0/529
29	3	0.36	0/771	0.55	0/1024
30	0	0.37	0/65957	0.68	13/102867 (0.0%)
31	9	0.32	0/2904	0.68	1/4526 (0.0%)
All	All	0.38	7/98701 (0.0%)	0.67	20/147586 (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
18	R	1	0
23	W	0	1
30	0	0	28
31	9	0	1
All	All	1	30

The worst 5 of 7 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
18	R	150	PRO	CB-CG	27.29	2.86	1.50
18	R	150	PRO	CA-C	-18.25	1.16	1.52
18	R	150	PRO	CG-CD	13.93	1.96	1.50
18	R	150	PRO	C-O	11.88	1.47	1.23
18	R	150	PRO	N-CA	11.37	1.66	1.47

The worst 5 of 20 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	R	150	PRO	CB-CA-C	-22.47	55.83	112.00
18	R	150	PRO	N-CA-C	-19.40	61.65	112.10
18	R	150	PRO	CA-N-CD	12.30	128.92	111.70
18	R	150	PRO	N-CA-CB	10.97	116.46	103.30
18	R	150	PRO	CA-C-O	-8.51	99.79	120.20

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
18	R	150	PRO	CA

5 of 30 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
30	0	131	A	Sidechain
30	0	220	C	Sidechain
30	0	333	G	Sidechain
30	0	48	A	Sidechain
23	W	90	TYR	Sidechain

5.2 Too-close contacts ⓘ

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	A	1753	0	1766	63	0
2	B	2625	0	2533	89	0
3	C	1860	0	1813	59	0
4	D	1094	0	1085	45	0
5	E	1357	0	1266	29	0
6	F	890	0	843	26	0
7	G	240	0	231	8	0
8	H	1282	0	1292	33	0
9	I	519	0	500	23	0
10	J	1120	0	1098	32	0
11	K	994	0	1027	32	0
12	L	1118	0	1076	29	0
13	M	1558	0	1573	42	0
14	N	1445	0	1401	51	0
15	O	865	0	873	18	0
16	P	1136	0	1123	24	0
17	Q	735	0	729	21	0
18	R	1149	0	1122	37	0
19	S	641	0	605	10	0
20	T	950	0	924	21	0
21	U	410	0	364	8	0
22	V	499	0	511	17	0
23	W	1196	0	1137	56	0
24	X	654	0	653	18	0
25	Y	1130	0	1133	23	0
26	Z	573	0	532	15	0
27	1	431	0	426	23	0
28	2	396	0	413	15	0
29	3	755	0	728	18	0
30	0	59020	0	29811	1159	0
31	9	2599	0	1325	100	0
32	0	87	0	0	0	0
32	9	1	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
32	T	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
32	Y	1	0	0	0	0
33	0	2	0	0	0	0
34	0	67	0	0	0	0
34	9	2	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	4	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	2	0
35	L	1	0	0	0	0
35	M	1	0	0	0	0
35	N	1	0	0	1	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	2	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	R	1	0	0	0	0
36	S	1	0	0	0	0
37	1	1	0	0	0	0
37	3	1	0	0	0	0
37	O	1	0	0	0	0
37	U	1	0	0	0	0
37	Z	1	0	0	0	0
38	0	5929	0	0	185	0
38	1	63	0	0	4	0
38	2	50	0	0	1	0
38	3	62	0	0	3	0
38	9	147	0	0	7	0
38	A	116	0	0	5	0
38	B	141	0	0	13	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
38	C	170	0	0	13	0
38	D	44	0	0	3	0
38	E	45	0	0	2	0
38	F	27	0	0	2	0
38	G	19	0	0	1	0
38	H	63	0	0	7	0
38	I	8	0	0	3	0
38	J	53	0	0	1	0
38	K	56	0	0	5	0
38	L	85	0	0	6	0
38	M	123	0	0	2	0
38	N	55	0	0	5	0
38	O	43	0	0	3	0
38	P	67	0	0	2	0
38	Q	50	0	0	3	0
38	R	85	0	0	1	0
38	S	33	0	0	2	0
38	T	34	0	0	2	0
38	U	27	0	0	2	0
38	V	13	0	0	2	0
38	W	69	0	0	4	0
38	X	25	0	0	2	0
38	Y	95	0	0	5	0
38	Z	26	0	0	3	0
All	All	99122	0	59913	1941	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 13.

The worst 5 of 1941 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)
18:R:150:PRO:CG	18:R:150:PRO:CD	1.96	1.43
30:0:1160:G:C5'	30:0:1161:A:H5'	1.77	1.12
30:0:871:G:C8	30:0:871:G:H5'	1.84	1.11
30:0:871:G:H8	30:0:871:G:H5'	1.09	1.10
31:9:56:A:H2'	31:9:57:A:H5''	1.31	1.10

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	235/240 (98%)	211 (90%)	18 (8%)	6 (3%)	7	26
2	B	335/338 (99%)	306 (91%)	25 (8%)	4 (1%)	16	48
3	C	244/246 (99%)	224 (92%)	19 (8%)	1 (0%)	39	74
4	D	134/177 (76%)	113 (84%)	16 (12%)	5 (4%)	4	17
5	E	170/178 (96%)	161 (95%)	9 (5%)	0	100	100
6	F	117/120 (98%)	106 (91%)	8 (7%)	3 (3%)	7	26
7	G	25/348 (7%)	25 (100%)	0	0	100	100
8	H	156/177 (88%)	147 (94%)	8 (5%)	1 (1%)	30	67
9	I	68/162 (42%)	54 (79%)	13 (19%)	1 (2%)	13	42
10	J	140/145 (97%)	130 (93%)	9 (6%)	1 (1%)	26	63
11	K	130/132 (98%)	124 (95%)	5 (4%)	1 (1%)	24	60
12	L	141/165 (86%)	125 (89%)	14 (10%)	2 (1%)	14	44
13	M	192/196 (98%)	182 (95%)	9 (5%)	1 (0%)	34	71
14	N	184/187 (98%)	169 (92%)	12 (6%)	3 (2%)	12	40
15	O	113/116 (97%)	108 (96%)	5 (4%)	0	100	100
16	P	141/149 (95%)	141 (100%)	0	0	100	100
17	Q	93/96 (97%)	88 (95%)	5 (5%)	0	100	100
18	R	148/155 (96%)	141 (95%)	7 (5%)	0	100	100
19	S	79/85 (93%)	75 (95%)	4 (5%)	0	100	100
20	T	117/120 (98%)	110 (94%)	7 (6%)	0	100	100
21	U	51/67 (76%)	45 (88%)	5 (10%)	1 (2%)	9	33
22	V	63/71 (89%)	60 (95%)	2 (3%)	1 (2%)	12	40
23	W	152/154 (99%)	146 (96%)	4 (3%)	2 (1%)	15	46
24	X	80/92 (87%)	75 (94%)	4 (5%)	1 (1%)	15	46
25	Y	140/241 (58%)	138 (99%)	2 (1%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
26	Z	71/116 (61%)	62 (87%)	7 (10%)	2 (3%)	6	24
27	1	54/57 (95%)	52 (96%)	2 (4%)	0	100	100
28	2	42/50 (84%)	41 (98%)	1 (2%)	0	100	100
29	3	90/92 (98%)	88 (98%)	2 (2%)	0	100	100
All	All	3705/4472 (83%)	3447 (93%)	222 (6%)	36 (1%)	19	54

5 of 36 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	37	VAL
4	D	137	PRO
6	F	101	ALA
14	N	154	LEU
14	N	183	ASP

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	
1	A	179/182 (98%)	170 (95%)	9 (5%)	30	65
2	B	282/283 (100%)	263 (93%)	19 (7%)	20	50
3	C	193/193 (100%)	176 (91%)	17 (9%)	12	35
4	D	117/148 (79%)	110 (94%)	7 (6%)	24	57
5	E	152/156 (97%)	149 (98%)	3 (2%)	63	88
6	F	93/94 (99%)	91 (98%)	2 (2%)	60	88
7	G	27/282 (10%)	27 (100%)	0	100	100
8	H	134/145 (92%)	129 (96%)	5 (4%)	41	77
9	I	58/130 (45%)	57 (98%)	1 (2%)	68	91
10	J	118/121 (98%)	110 (93%)	8 (7%)	20	49
11	K	106/106 (100%)	104 (98%)	2 (2%)	65	89
12	L	113/127 (89%)	110 (97%)	3 (3%)	52	84

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
13	M	158/160 (99%)	151 (96%)	7 (4%)	35	70
14	N	149/150 (99%)	142 (95%)	7 (5%)	32	68
15	O	93/94 (99%)	92 (99%)	1 (1%)	80	95
16	P	113/117 (97%)	111 (98%)	2 (2%)	66	90
17	Q	79/80 (99%)	76 (96%)	3 (4%)	40	76
18	R	117/122 (96%)	111 (95%)	6 (5%)	29	65
19	S	71/74 (96%)	70 (99%)	1 (1%)	74	93
20	T	105/106 (99%)	97 (92%)	8 (8%)	16	43
21	U	44/53 (83%)	43 (98%)	1 (2%)	58	87
22	V	51/57 (90%)	50 (98%)	1 (2%)	63	88
23	W	130/130 (100%)	126 (97%)	4 (3%)	47	82
24	X	66/74 (89%)	62 (94%)	4 (6%)	23	56
25	Y	120/196 (61%)	116 (97%)	4 (3%)	45	80
26	Z	60/94 (64%)	60 (100%)	0	100	100
27	1	46/47 (98%)	46 (100%)	0	100	100
28	2	42/46 (91%)	41 (98%)	1 (2%)	57	86
29	3	79/79 (100%)	78 (99%)	1 (1%)	76	94
All	All	3095/3646 (85%)	2968 (96%)	127 (4%)	37	73

5 of 127 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
8	H	62	HIS
11	K	10	GLN
24	X	27	ASP
8	H	87	LYS
10	J	46	ILE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 75 such sidechains are listed below:

Mol	Chain	Res	Type
13	M	58	GLN
16	P	66	GLN
27	1	28	HIS
13	M	77	HIS

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Mol	Chain	Res	Type
14	N	107	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
30	0	2745/2923 (93%)	242 (8%)	27 (0%)
31	9	121/122 (99%)	15 (12%)	1 (0%)
All	All	2866/3045 (94%)	257 (8%)	28 (0%)

5 of 257 RNA backbone outliers are listed below:

Mol	Chain	Res	Type
30	0	31	C
30	0	67	A
30	0	69	A
30	0	70	A
30	0	71	G

5 of 28 RNA pucker outliers are listed below:

Mol	Chain	Res	Type
30	0	1237	U
30	0	1377	C
30	0	2718	C
30	0	1246	A
30	0	1352	A

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

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
30	OMU	0	2587	30	12,22,23	1.01	1 (8%)	19,31,34	3.13	2 (10%)
30	OMG	0	2588	30	17,26,27	1.03	1 (5%)	21,38,41	2.51	3 (14%)
30	UR3	0	2619	30	12,22,23	0.76	0	16,32,35	0.75	0
30	PSU	0	2621	30	13,21,22	1.80	2 (15%)	18,30,33	6.12	4 (22%)
30	1MA	0	628	30	14,25,26	1.00	1 (7%)	15,37,40	1.09	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
30	OMU	0	2587	30	-	0/5/27/28	0/2/2/2
30	OMG	0	2588	30	-	0/5/27/28	0/3/3/3
30	UR3	0	2619	30	-	0/3/25/26	0/2/2/2
30	PSU	0	2621	30	-	0/7/25/26	0/2/2/2
30	1MA	0	628	30	-	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)
30	0	2621	PSU	C5-C1'	-5.55	1.47	1.52
30	0	2587	OMU	C4-N3	2.43	1.37	1.33
30	0	2621	PSU	C4-N3	2.59	1.37	1.33
30	0	628	1MA	C6-N6	2.64	1.33	1.29
30	0	2588	OMG	C6-N1	3.14	1.38	1.33

The worst 5 of 10 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	0	2621	PSU	N1-C2-N3	-21.50	114.61	128.33
30	0	2588	OMG	C5-C6-N1	-8.65	111.77	123.59
30	0	628	1MA	C2-N3-C4	-3.64	110.76	116.40
30	0	2587	OMU	C5-C4-N3	-3.28	114.70	123.12
30	0	2588	OMG	N3-C2-N1	-2.28	123.97	127.44

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

1 monomer is involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
30	0	2587	OMU	3	0

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

Of 305 ligands modelled in this entry, 305 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

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, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	237/240 (98%)	-0.39	5 (2%) 67 62	35, 59, 97, 117	0
2	B	337/338 (99%)	-0.59	1 (0%) 94 94	36, 60, 90, 100	0
3	C	246/246 (100%)	-0.57	0 100 100	30, 51, 75, 89	0
4	D	140/177 (79%)	1.10	31 (22%) 1 0	73, 108, 135, 146	0
5	E	172/178 (96%)	-0.51	1 (0%) 90 89	51, 74, 96, 104	0
6	F	119/120 (99%)	0.14	5 (4%) 40 33	55, 78, 111, 125	0
7	G	29/348 (8%)	0.50	1 (3%) 49 41	83, 103, 109, 112	0
8	H	160/177 (90%)	0.04	9 (5%) 28 21	50, 73, 106, 113	0
9	I	70/162 (43%)	3.19	47 (67%) 0 0	137, 156, 173, 174	0
10	J	142/145 (97%)	-0.56	1 (0%) 89 88	41, 58, 78, 97	0
11	K	132/132 (100%)	-0.71	0 100 100	40, 55, 79, 82	0
12	L	145/165 (87%)	0.08	7 (4%) 34 28	34, 73, 123, 136	0
13	M	194/196 (98%)	-0.70	0 100 100	35, 50, 66, 73	0
14	N	186/187 (99%)	-0.07	5 (2%) 58 52	52, 75, 123, 135	0
15	O	115/116 (99%)	-0.60	0 100 100	45, 61, 78, 84	0
16	P	143/149 (95%)	-0.63	0 100 100	46, 61, 77, 84	0
17	Q	95/96 (98%)	-0.60	0 100 100	44, 55, 71, 86	0
18	R	150/155 (96%)	-0.72	0 100 100	39, 52, 71, 86	0
19	S	81/85 (95%)	-0.50	1 (1%) 81 78	49, 65, 86, 98	0
20	T	119/120 (99%)	-0.34	5 (4%) 40 33	47, 62, 89, 123	0
21	U	53/67 (79%)	-0.62	0 100 100	48, 62, 79, 88	0
22	V	65/71 (91%)	0.71	8 (12%) 5 3	55, 80, 129, 134	0
23	W	154/154 (100%)	-0.52	1 (0%) 90 89	41, 57, 74, 88	0
24	X	82/92 (89%)	-0.18	4 (4%) 33 27	49, 67, 90, 108	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
25	Y	142/241 (58%)	-0.75	1 (0%) 89 88	31, 50, 73, 94	0
26	Z	73/116 (62%)	0.75	12 (16%) 2 1	63, 87, 101, 106	0
27	1	56/57 (98%)	-0.65	0 100 100	32, 39, 45, 53	0
28	2	46/50 (92%)	-0.11	3 (6%) 22 16	41, 69, 104, 115	0
29	3	92/92 (100%)	-0.37	0 100 100	44, 68, 81, 91	0
30	0	2749/2923 (94%)	-0.60	5 (0%) 95 95	28, 53, 96, 172	0
31	9	122/122 (100%)	-0.77	1 (0%) 87 86	45, 74, 96, 153	0
All	All	6646/7517 (88%)	-0.42	154 (2%) 64 59	28, 58, 108, 174	0

The worst 5 of 154 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
9	I	74	ILE	10.2
22	V	39	ALA	8.0
22	V	1	THR	7.8
26	Z	46	SER	7.7
4	D	63	ILE	7.6

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, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å ²)	Q<0.9
30	OMU	0	2587	21/22	0.99	0.13	-	40,43,46,49	0
30	1MA	0	628	23/24	0.99	0.15	-	35,38,38,39	0
30	OMG	0	2588	24/25	0.98	0.12	-	38,42,43,43	0
30	PSU	0	2621	20/21	0.99	0.14	-	35,38,47,48	0
30	UR3	0	2619	21/22	0.98	0.14	-	43,45,48,49	0

6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

6.4 Ligands ⓘ

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, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å ²)	Q<0.9
34	NA	0	8565	1/1	0.94	0.93	67.70	68,68,68,68	0
34	NA	0	8562	1/1	0.55	0.80	63.04	74,74,74,74	0
34	NA	0	8564	1/1	0.96	0.42	34.64	81,81,81,81	0
34	NA	0	8547	1/1	0.93	0.60	26.69	54,54,54,54	0
34	NA	0	8522	1/1	0.54	0.39	21.22	83,83,83,83	0
34	NA	0	8568	1/1	0.97	0.50	18.72	50,50,50,50	0
34	NA	0	8512	1/1	0.99	0.42	15.04	56,56,56,56	0
34	NA	0	8542	1/1	0.96	0.39	14.61	66,66,66,66	0
34	NA	0	8555	1/1	0.64	0.49	14.54	51,51,51,51	0
34	NA	0	8553	1/1	0.99	0.36	13.94	68,68,68,68	0
34	NA	9	8572	1/1	0.72	0.34	13.34	111,111,111,111	0
36	SR	B	8987	1/1	0.67	0.49	13.33	200,200,200,200	0
34	NA	0	8563	1/1	0.71	0.36	11.31	94,94,94,94	0
34	NA	0	8528	1/1	0.85	0.29	10.62	58,58,58,58	0
36	SR	0	8903	1/1	0.99	0.18	8.43	58,58,58,58	0
34	NA	0	8530	1/1	0.91	0.28	6.97	55,55,55,55	0
34	NA	0	8556	1/1	0.96	0.40	6.75	49,49,49,49	0
34	NA	0	8517	1/1	0.99	0.20	6.69	36,36,36,36	0
34	NA	0	8552	1/1	1.00	0.29	6.17	72,72,72,72	0
32	MG	0	8047	1/1	0.99	0.28	5.86	65,65,65,65	0
34	NA	0	8527	1/1	0.87	0.23	5.38	71,71,71,71	0
36	SR	0	8947	1/1	0.82	0.27	5.32	200,200,200,200	0
34	NA	0	8508	1/1	0.98	0.18	5.08	39,39,39,39	0
34	NA	0	8559	1/1	0.90	0.14	4.95	76,76,76,76	0
32	MG	A	8051	1/1	0.88	0.41	4.92	72,72,72,72	0
32	MG	0	8041	1/1	0.98	0.20	4.74	31,31,31,31	0
33	K	0	8402	1/1	0.97	0.27	4.36	87,87,87,87	0
32	MG	0	8008	1/1	0.99	0.15	3.89	27,27,27,27	0
34	NA	0	8534	1/1	0.96	0.23	3.66	42,42,42,42	0
32	MG	0	8084	1/1	0.99	0.15	3.05	37,37,37,37	0
36	SR	0	8904	1/1	0.99	0.19	2.90	66,66,66,66	0
32	MG	0	8009	1/1	0.99	0.20	2.80	29,29,29,29	0
34	NA	0	8569	1/1	0.96	0.20	2.10	54,54,54,54	0
34	NA	0	8507	1/1	0.95	0.16	2.09	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
32	MG	0	8014	1/1	0.99	0.15	1.96	35,35,35,35	0
36	SR	0	8918	1/1	0.98	0.14	1.90	85,85,85,85	0
32	MG	0	8003	1/1	1.00	0.18	1.86	34,34,34,34	0
32	MG	0	8067	1/1	0.97	0.20	1.76	34,34,34,34	0
32	MG	0	8028	1/1	0.99	0.16	1.58	27,27,27,27	0
32	MG	0	8016	1/1	0.98	0.18	1.35	60,60,60,60	0
34	NA	0	8575	1/1	0.97	0.18	1.31	86,86,86,86	0
32	MG	0	8006	1/1	0.94	0.14	1.30	30,30,30,30	0
36	SR	A	8929	1/1	0.95	0.16	1.25	137,137,137,137	0
36	SR	0	8992	1/1	0.95	0.15	1.21	137,137,137,137	0
32	MG	0	8045	1/1	0.99	0.11	1.08	35,35,35,35	0
36	SR	R	8912	1/1	0.99	0.16	1.03	86,86,86,86	0
32	MG	0	8004	1/1	1.00	0.17	0.89	30,30,30,30	0
34	NA	0	8557	1/1	0.87	0.10	0.82	52,52,52,52	0
34	NA	0	8558	1/1	0.94	0.18	0.68	50,50,50,50	0
32	MG	0	8062	1/1	0.88	0.17	0.61	50,50,50,50	0
34	NA	0	8533	1/1	0.90	0.13	0.60	67,67,67,67	0
35	CL	0	8815	1/1	0.96	0.10	0.53	78,78,78,78	0
36	SR	0	8948	1/1	0.97	0.12	0.48	102,102,102,102	0
34	NA	0	8504	1/1	0.99	0.16	0.31	37,37,37,37	0
34	NA	0	8537	1/1	0.96	0.11	0.13	41,41,41,41	0
34	NA	0	8502	1/1	0.89	0.12	0.11	65,65,65,65	0
32	MG	0	8070	1/1	0.98	0.13	0.00	45,45,45,45	0
34	NA	C	8503	1/1	0.91	0.16	-0.06	44,44,44,44	0
34	NA	J	8538	1/1	0.85	0.16	-0.27	60,60,60,60	0
32	MG	0	8088	1/1	0.98	0.13	-0.28	42,42,42,42	0
34	NA	0	8523	1/1	0.98	0.12	-0.28	45,45,45,45	0
37	CD	U	8701	1/1	0.99	0.11	-0.30	72,72,72,72	0
33	K	0	8401	1/1	0.93	0.13	-0.31	74,74,74,74	0
36	SR	0	8972	1/1	0.96	0.14	-0.32	141,141,141,141	0
32	MG	0	8011	1/1	1.00	0.16	-0.36	33,33,33,33	0
35	CL	J	8821	1/1	0.99	0.13	-0.48	71,71,71,71	0
32	MG	0	8012	1/1	0.98	0.16	-0.56	25,25,25,25	0
32	MG	0	8043	1/1	0.96	0.10	-0.62	49,49,49,49	0
36	SR	3	8932	1/1	1.00	0.12	-0.62	79,79,79,79	0
34	NA	0	8515	1/1	0.96	0.14	-0.63	37,37,37,37	0
32	MG	K	8054	1/1	0.95	0.13	-0.80	50,50,50,50	0
32	MG	0	8050	1/1	0.98	0.12	-0.83	37,37,37,37	0
32	MG	B	8042	1/1	0.98	0.09	-0.84	50,50,50,50	0
35	CL	M	8818	1/1	0.98	0.10	-0.88	47,47,47,47	0
36	SR	0	8935	1/1	0.99	0.10	-0.89	80,80,80,80	0
32	MG	0	8021	1/1	0.96	0.10	-0.92	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
34	NA	M	8539	1/1	0.99	0.10	-1.02	34,34,34,34	0
36	SR	0	8936	1/1	0.98	0.10	-1.14	94,94,94,94	0
34	NA	0	8520	1/1	0.97	0.08	-1.21	53,53,53,53	0
36	SR	F	9005	1/1	0.98	0.07	-1.31	134,134,134,134	0
32	MG	0	8010	1/1	0.96	0.12	-1.31	35,35,35,35	0
37	CD	Z	8703	1/1	0.99	0.09	-1.34	91,91,91,91	0
37	CD	1	8702	1/1	0.99	0.10	-1.40	65,65,65,65	0
34	NA	R	8532	1/1	0.97	0.08	-1.44	46,46,46,46	0
34	NA	Q	8540	1/1	0.92	0.08	-1.49	60,60,60,60	0
35	CL	L	8810	1/1	0.96	0.08	-1.54	61,61,61,61	0
36	SR	0	8943	1/1	0.99	0.07	-1.64	117,117,117,117	0
37	CD	3	8704	1/1	1.00	0.07	-1.69	81,81,81,81	0
32	MG	0	8025	1/1	0.99	0.11	-1.85	35,35,35,35	0
36	SR	0	8969	1/1	0.97	0.10	-1.88	160,160,160,160	0
32	MG	T	8057	1/1	0.93	0.07	-1.89	65,65,65,65	0
32	MG	0	8058	1/1	0.99	0.08	-1.90	23,23,23,23	0
35	CL	O	8808	1/1	0.93	0.07	-1.99	81,81,81,81	0
36	SR	0	8975	1/1	0.97	0.07	-1.99	135,135,135,135	0
36	SR	A	8930	1/1	0.99	0.05	-2.05	104,104,104,104	0
36	SR	9	8978	1/1	0.99	0.07	-2.27	133,133,133,133	0
32	MG	0	8085	1/1	0.96	0.08	-2.52	73,73,73,73	0
32	MG	0	8052	1/1	0.93	0.07	-2.53	52,52,52,52	0
35	CL	0	8813	1/1	0.99	0.06	-2.78	61,61,61,61	0
36	SR	0	8985	1/1	0.89	0.06	-2.78	143,143,143,143	0
35	CL	0	8805	1/1	0.97	0.06	-2.83	67,67,67,67	0
36	SR	0	8949	1/1	0.97	0.09	-3.09	119,119,119,119	0
36	SR	0	8945	1/1	0.95	0.07	-3.28	112,112,112,112	0
32	MG	0	8001	1/1	0.97	0.09	-3.61	33,33,33,33	0
36	SR	0	8902	1/1	1.00	0.11	-3.64	66,66,66,66	0
35	CL	0	8812	1/1	0.97	0.06	-3.82	54,54,54,54	0
35	CL	3	8804	1/1	0.99	0.06	-3.88	67,67,67,67	0
34	NA	0	8519	1/1	0.92	0.12	-3.89	50,50,50,50	0
32	MG	0	8060	1/1	0.95	0.06	-3.96	61,61,61,61	0
32	MG	0	8002	1/1	0.99	0.07	-4.04	32,32,32,32	0
32	MG	Y	8086	1/1	0.98	0.05	-4.19	46,46,46,46	0
35	CL	B	8819	1/1	0.98	0.09	-4.22	54,54,54,54	0
36	SR	1	8913	1/1	1.00	0.09	-4.26	96,96,96,96	0
36	SR	0	8910	1/1	0.99	0.05	-4.51	101,101,101,101	0
32	MG	0	8065	1/1	0.99	0.06	-4.57	49,49,49,49	0
34	NA	0	8521	1/1	0.97	0.07	-4.60	65,65,65,65	0
32	MG	0	8034	1/1	0.99	0.07	-4.64	45,45,45,45	0
36	SR	0	8984	1/1	0.92	0.04	-5.67	123,123,123,123	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
32	MG	0	8075	1/1	0.90	0.03	-5.85	46,46,46,46	0
36	SR	0	8970	1/1	0.95	0.03	-6.52	128,128,128,128	0
32	MG	0	8044	1/1	0.98	0.05	-6.72	53,53,53,53	0
32	MG	0	8013	1/1	0.99	0.03	-8.68	30,30,30,30	0
32	MG	0	8040	1/1	0.98	0.16	-	96,96,96,96	0
36	SR	0	8921	1/1	0.97	0.12	-	92,92,92,92	0
36	SR	0	8942	1/1	0.92	0.08	-	133,133,133,133	0
36	SR	0	8923	1/1	0.98	0.10	-	116,116,116,116	0
36	SR	0	8946	1/1	0.94	0.23	-	122,122,122,122	0
35	CL	0	8814	1/1	0.98	0.10	-	60,60,60,60	0
36	SR	B	8950	1/1	0.98	0.17	-	132,132,132,132	0
36	SR	9	8980	1/1	0.76	0.15	-	200,200,200,200	0
34	NA	0	8571	1/1	0.85	0.09	-	77,77,77,77	0
32	MG	0	8005	1/1	0.99	0.17	-	33,33,33,33	0
32	MG	0	8055	1/1	0.98	0.20	-	46,46,46,46	0
36	SR	0	8924	1/1	0.94	0.16	-	135,135,135,135	0
32	MG	0	8063	1/1	0.96	0.17	-	71,71,71,71	0
36	SR	0	8988	1/1	0.78	0.13	-	173,173,173,173	0
36	SR	0	8920	1/1	0.98	0.05	-	134,134,134,134	0
34	NA	0	8511	1/1	0.96	0.13	-	59,59,59,59	0
32	MG	0	8090	1/1	0.93	0.33	-	62,62,62,62	0
36	SR	0	8996	1/1	0.84	1.02	-	200,200,200,200	0
36	SR	0	8994	1/1	0.40	0.98	-	200,200,200,200	0
36	SR	0	8939	1/1	0.94	0.04	-	160,160,160,160	0
32	MG	0	8015	1/1	0.99	0.17	-	36,36,36,36	0
36	SR	0	8953	1/1	0.98	0.08	-	157,157,157,157	0
32	MG	0	8048	1/1	0.95	0.20	-	26,26,26,26	0
36	SR	0	8906	1/1	1.00	0.21	-	60,60,60,60	0
36	SR	0	8928	1/1	0.88	0.06	-	135,135,135,135	0
36	SR	0	8993	1/1	0.78	0.09	-	182,182,182,182	0
32	MG	9	8074	1/1	0.96	0.11	-	77,77,77,77	0
32	MG	0	8089	1/1	0.58	0.12	-	57,57,57,57	0
36	SR	0	8997	1/1	0.72	0.47	-	200,200,200,200	0
36	SR	0	8941	1/1	0.95	0.13	-	116,116,116,116	0
32	MG	0	8061	1/1	0.96	0.21	-	30,30,30,30	0
36	SR	0	8979	1/1	0.90	0.20	-	198,198,198,198	0
36	SR	0	9004	1/1	0.98	0.64	-	200,200,200,200	0
32	MG	0	8017	1/1	0.99	0.22	-	25,25,25,25	0
34	NA	0	8506	1/1	0.81	0.25	-	68,68,68,68	0
34	NA	0	8549	1/1	0.97	0.28	-	58,58,58,58	0
32	MG	0	8072	1/1	0.91	0.10	-	53,53,53,53	0
34	NA	0	8501	1/1	0.98	0.22	-	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
32	MG	0	8053	1/1	0.98	0.04	-	59,59,59,59	0
36	SR	0	9002	1/1	0.97	0.08	-	184,184,184,184	0
36	SR	0	9006	1/1	0.11	1.24	-	200,200,200,200	0
35	CL	R	8806	1/1	0.97	0.13	-	52,52,52,52	0
36	SR	0	8926	1/1	0.98	0.10	-	127,127,127,127	0
34	NA	0	8548	1/1	0.90	0.16	-	55,55,55,55	0
36	SR	0	8995	1/1	0.96	0.17	-	140,140,140,140	0
32	MG	0	8081	1/1	0.85	0.19	-	74,74,74,74	0
35	CL	0	8811	1/1	0.92	0.11	-	68,68,68,68	0
36	SR	0	8964	1/1	0.98	0.10	-	139,139,139,139	0
32	MG	0	8046	1/1	0.97	0.13	-	41,41,41,41	0
36	SR	0	8960	1/1	0.92	0.05	-	150,150,150,150	0
36	SR	0	8911	1/1	0.97	0.08	-	85,85,85,85	0
34	NA	0	8505	1/1	0.80	1.03	-	49,49,49,49	0
35	CL	J	8802	1/1	0.97	0.09	-	76,76,76,76	0
34	NA	0	8536	1/1	0.94	0.08	-	65,65,65,65	0
35	CL	0	8816	1/1	0.97	0.18	-	85,85,85,85	0
32	MG	0	8091	1/1	0.77	0.06	-	62,62,62,62	0
36	SR	0	8973	1/1	0.98	0.07	-	137,137,137,137	0
36	SR	0	8956	1/1	0.94	0.09	-	155,155,155,155	0
36	SR	0	8983	1/1	0.91	0.45	-	195,195,195,195	0
34	NA	0	8570	1/1	0.71	0.13	-	60,60,60,60	0
36	SR	1	8952	1/1	0.99	0.13	-	91,91,91,91	0
36	SR	0	8914	1/1	1.00	0.27	-	110,110,110,110	0
35	CL	0	8817	1/1	0.99	0.10	-	65,65,65,65	0
36	SR	0	8931	1/1	0.98	0.09	-	117,117,117,117	0
34	NA	0	8524	1/1	0.95	0.18	-	58,58,58,58	0
32	MG	0	8037	1/1	0.74	0.33	-	90,90,90,90	0
34	NA	0	8560	1/1	0.78	0.37	-	83,83,83,83	0
34	NA	0	8566	1/1	0.93	0.25	-	60,60,60,60	0
32	MG	0	8069	1/1	0.99	0.17	-	72,72,72,72	0
32	MG	0	8082	1/1	0.90	0.28	-	69,69,69,69	0
34	NA	9	8543	1/1	0.96	0.18	-	49,49,49,49	0
36	SR	0	8963	1/1	0.97	0.04	-	134,134,134,134	0
32	MG	0	8035	1/1	0.94	0.14	-	68,68,68,68	0
36	SR	0	8967	1/1	0.97	0.08	-	132,132,132,132	0
32	MG	0	8022	1/1	0.99	0.11	-	32,32,32,32	0
36	SR	0	8927	1/1	0.87	0.06	-	151,151,151,151	0
36	SR	0	8966	1/1	0.94	0.08	-	111,111,111,111	0
36	SR	0	8922	1/1	0.42	0.22	-	170,170,170,170	0
36	SR	0	8981	1/1	0.98	0.16	-	153,153,153,153	0
34	NA	0	8516	1/1	0.96	0.12	-	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
32	MG	0	8026	1/1	0.98	0.07	-	37,37,37,37	0
32	MG	0	8030	1/1	0.98	0.48	-	69,69,69,69	0
34	NA	0	8551	1/1	0.97	0.24	-	59,59,59,59	0
36	SR	0	8958	1/1	0.92	0.11	-	123,123,123,123	0
36	SR	0	9008	1/1	0.99	0.14	-	89,89,89,89	0
36	SR	0	8938	1/1	0.77	0.13	-	192,192,192,192	0
32	MG	0	8064	1/1	0.96	0.15	-	37,37,37,37	0
36	SR	3	8999	1/1	0.99	0.04	-	106,106,106,106	0
32	MG	0	8049	1/1	0.98	0.38	-	68,68,68,68	0
36	SR	9	9003	1/1	0.97	0.01	-	170,170,170,170	0
36	SR	0	8965	1/1	0.98	0.05	-	124,124,124,124	0
36	SR	0	8991	1/1	0.58	0.09	-	197,197,197,197	0
36	SR	0	9001	1/1	0.71	0.10	-	173,173,173,173	0
34	NA	0	8531	1/1	0.94	0.11	-	44,44,44,44	0
36	SR	0	8998	1/1	0.89	0.13	-	175,175,175,175	0
32	MG	0	8038	1/1	0.93	0.10	-	75,75,75,75	0
34	NA	0	8526	1/1	0.96	0.05	-	57,57,57,57	0
35	CL	Y	8820	1/1	0.99	0.23	-	51,51,51,51	0
32	MG	0	8020	1/1	0.98	0.13	-	43,43,43,43	0
36	SR	0	8954	1/1	0.97	0.12	-	112,112,112,112	0
35	CL	J	8801	1/1	0.96	0.17	-	79,79,79,79	0
32	MG	0	8073	1/1	0.99	0.07	-	83,83,83,83	0
36	SR	0	8917	1/1	0.95	0.13	-	111,111,111,111	0
32	MG	0	8092	1/1	0.96	0.26	-	67,67,67,67	0
32	MG	0	8066	1/1	0.92	0.15	-	76,76,76,76	0
32	MG	0	8077	1/1	0.88	0.07	-	49,49,49,49	0
32	MG	0	8039	1/1	0.96	0.25	-	77,77,77,77	0
36	SR	0	8901	1/1	0.98	0.10	-	85,85,85,85	0
36	SR	0	8944	1/1	0.80	0.12	-	182,182,182,182	0
32	MG	0	8083	1/1	0.92	0.11	-	73,73,73,73	0
32	MG	0	8023	1/1	0.99	0.14	-	32,32,32,32	0
36	SR	0	9000	1/1	0.99	0.12	-	177,177,177,177	0
34	NA	0	8525	1/1	0.78	0.19	-	78,78,78,78	0
34	NA	0	8541	1/1	0.92	0.22	-	69,69,69,69	0
36	SR	0	8962	1/1	0.93	0.05	-	175,175,175,175	0
36	SR	0	8959	1/1	0.81	0.20	-	174,174,174,174	0
36	SR	0	8905	1/1	0.99	0.28	-	68,68,68,68	0
32	MG	0	8079	1/1	0.96	0.10	-	55,55,55,55	0
36	SR	0	8955	1/1	0.97	0.16	-	200,200,200,200	0
32	MG	0	8080	1/1	0.99	0.36	-	69,69,69,69	0
36	SR	0	8908	1/1	0.96	0.10	-	110,110,110,110	0
37	CD	O	8705	1/1	1.00	0.07	-	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
32	MG	0	8059	1/1	0.91	0.06	-	59,59,59,59	0
32	MG	0	8027	1/1	0.99	0.09	-	49,49,49,49	0
34	NA	0	8535	1/1	0.94	0.25	-	53,53,53,53	0
34	NA	0	8546	1/1	0.60	1.30	-	112,112,112,112	0
32	MG	0	8007	1/1	0.95	0.20	-	38,38,38,38	0
32	MG	0	8068	1/1	0.99	0.09	-	54,54,54,54	0
34	NA	0	8574	1/1	0.90	0.38	-	55,55,55,55	0
36	SR	0	8937	1/1	0.97	0.21	-	115,115,115,115	0
36	SR	0	8957	1/1	0.86	0.10	-	196,196,196,196	0
32	MG	0	8087	1/1	0.91	0.08	-	47,47,47,47	0
36	SR	0	8933	1/1	0.97	0.17	-	150,150,150,150	0
36	SR	0	8974	1/1	0.93	0.13	-	149,149,149,149	0
34	NA	0	8544	1/1	0.84	0.20	-	75,75,75,75	0
36	SR	0	8925	1/1	1.00	0.12	-	91,91,91,91	0
32	MG	0	8019	1/1	0.99	0.18	-	27,27,27,27	0
32	MG	0	8076	1/1	0.98	0.07	-	42,42,42,42	0
36	SR	0	8907	1/1	1.00	0.14	-	56,56,56,56	0
32	MG	0	8024	1/1	0.96	0.13	-	55,55,55,55	0
32	MG	0	8078	1/1	0.97	0.32	-	61,61,61,61	0
34	NA	0	8518	1/1	0.71	0.47	-	94,94,94,94	0
34	NA	0	8514	1/1	0.96	0.59	-	48,48,48,48	0
36	SR	0	8934	1/1	0.99	0.11	-	130,130,130,130	0
32	MG	0	8031	1/1	0.97	0.39	-	72,72,72,72	0
35	CL	0	8822	1/1	0.98	0.55	-	106,106,106,106	0
36	SR	0	8916	1/1	0.99	0.06	-	113,113,113,113	0
36	SR	0	8982	1/1	0.75	1.20	-	200,200,200,200	0
34	NA	0	8509	1/1	0.92	0.15	-	69,69,69,69	0
32	MG	0	8032	1/1	0.98	0.05	-	46,46,46,46	0
36	SR	0	8989	1/1	0.92	0.13	-	185,185,185,185	0
32	MG	0	8071	1/1	0.89	0.19	-	71,71,71,71	0
36	SR	0	8971	1/1	0.95	0.07	-	180,180,180,180	0
36	SR	0	8919	1/1	0.61	0.13	-	192,192,192,192	0
32	MG	0	8093	1/1	0.98	0.08	-	35,35,35,35	0
36	SR	0	8951	1/1	0.88	0.07	-	142,142,142,142	0
32	MG	0	8056	1/1	0.98	0.11	-	51,51,51,51	0
32	MG	0	8018	1/1	0.99	0.19	-	46,46,46,46	0
36	SR	0	8976	1/1	0.81	0.25	-	200,200,200,200	0
36	SR	S	8961	1/1	0.93	0.10	-	122,122,122,122	0
32	MG	0	8033	1/1	0.98	0.09	-	49,49,49,49	0
36	SR	0	9007	1/1	0.89	1.35	-	200,200,200,200	0
35	CL	A	8809	1/1	0.94	0.09	-	74,74,74,74	0
36	SR	0	8968	1/1	0.90	0.08	-	165,165,165,165	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
34	NA	0	8529	1/1	0.93	0.05	-	45,45,45,45	0
36	SR	0	8940	1/1	0.99	0.08	-	93,93,93,93	0
34	NA	S	8510	1/1	0.91	0.06	-	49,49,49,49	0
35	CL	N	8807	1/1	0.97	0.10	-	71,71,71,71	0
36	SR	0	8990	1/1	0.99	0.10	-	137,137,137,137	0
34	NA	0	8554	1/1	0.97	0.89	-	78,78,78,78	0
35	CL	0	8803	1/1	0.97	0.08	-	62,62,62,62	0
34	NA	0	8561	1/1	0.91	0.50	-	78,78,78,78	0
34	NA	0	8513	1/1	0.97	0.13	-	58,58,58,58	0
36	SR	0	8986	1/1	0.61	0.17	-	200,200,200,200	0
34	NA	0	8545	1/1	0.95	0.14	-	41,41,41,41	0
32	MG	0	8036	1/1	0.83	0.09	-	50,50,50,50	0
34	NA	0	8573	1/1	0.95	0.26	-	77,77,77,77	0
34	NA	0	8567	1/1	0.94	0.21	-	80,80,80,80	0
36	SR	0	8909	1/1	0.98	0.14	-	85,85,85,85	0
36	SR	0	8915	1/1	0.91	0.09	-	131,131,131,131	0
32	MG	0	8029	1/1	0.97	0.17	-	48,48,48,48	0
34	NA	0	8550	1/1	0.82	0.52	-	61,61,61,61	0
36	SR	A	8977	1/1	0.87	0.06	-	161,161,161,161	0

6.5 Other polymers

There are no such residues in this entry.