



Full wwPDB X-ray Structure Validation Report ⓘ

May 29, 2020 – 06:17 am BST

PDB ID : 4Y0W
Title : YeaZ from *Pseudomonas aeruginosa*
Authors : Milani, M.
Deposited on : 2015-02-06
Resolution : 2.50 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Xtriage (Phenix) : 1.13
EDS : 2.11
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.11

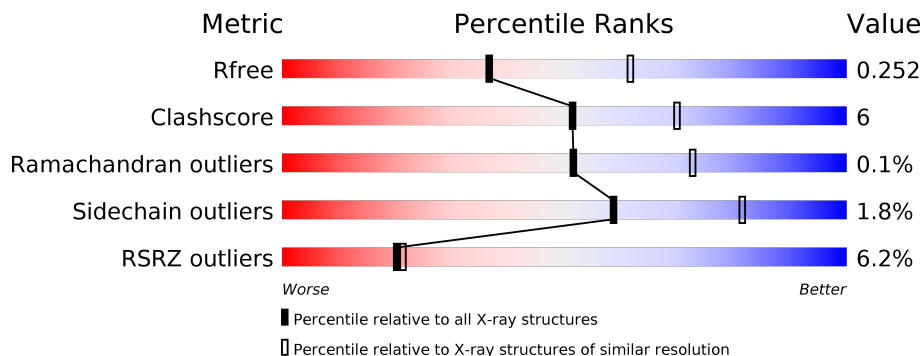
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.50 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}	130704	4661 (2.50-2.50)
Clashscore	141614	5346 (2.50-2.50)
Ramachandran outliers	138981	5231 (2.50-2.50)
Sidechain outliers	138945	5233 (2.50-2.50)
RSRZ outliers	127900	4559 (2.50-2.50)

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 respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. 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	232	
1	B	232	
1	C	232	
1	D	232	
1	E	232	

2 Entry composition i

There are 3 unique types of molecules in this entry. The entry contains 8084 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 YeaZ.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	215	Total 1631	C 1036	N 290	O 298	S 7	0	1	0
1	B	212	Total 1597	C 1016	N 280	O 294	S 7	0	0	0
1	C	213	Total 1610	C 1024	N 284	O 295	S 7	0	0	0
1	D	205	Total 1542	C 982	N 270	O 284	S 6	0	0	0
1	E	208	Total 1569	C 999	N 274	O 290	S 6	0	0	0

There are 30 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-5	HIS	-	expression tag	UNP K0Y2M1
A	-4	HIS	-	expression tag	UNP K0Y2M1
A	-3	HIS	-	expression tag	UNP K0Y2M1
A	-2	HIS	-	expression tag	UNP K0Y2M1
A	-1	HIS	-	expression tag	UNP K0Y2M1
A	0	HIS	-	expression tag	UNP K0Y2M1
B	-5	HIS	-	expression tag	UNP K0Y2M1
B	-4	HIS	-	expression tag	UNP K0Y2M1
B	-3	HIS	-	expression tag	UNP K0Y2M1
B	-2	HIS	-	expression tag	UNP K0Y2M1
B	-1	HIS	-	expression tag	UNP K0Y2M1
B	0	HIS	-	expression tag	UNP K0Y2M1
C	-5	HIS	-	expression tag	UNP K0Y2M1
C	-4	HIS	-	expression tag	UNP K0Y2M1
C	-3	HIS	-	expression tag	UNP K0Y2M1
C	-2	HIS	-	expression tag	UNP K0Y2M1
C	-1	HIS	-	expression tag	UNP K0Y2M1
C	0	HIS	-	expression tag	UNP K0Y2M1
D	-5	HIS	-	expression tag	UNP K0Y2M1

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Chain	Residue	Modelled	Actual	Comment	Reference
D	-4	HIS	-	expression tag	UNP K0Y2M1
D	-3	HIS	-	expression tag	UNP K0Y2M1
D	-2	HIS	-	expression tag	UNP K0Y2M1
D	-1	HIS	-	expression tag	UNP K0Y2M1
D	0	HIS	-	expression tag	UNP K0Y2M1
E	-5	HIS	-	expression tag	UNP K0Y2M1
E	-4	HIS	-	expression tag	UNP K0Y2M1
E	-3	HIS	-	expression tag	UNP K0Y2M1
E	-2	HIS	-	expression tag	UNP K0Y2M1
E	-1	HIS	-	expression tag	UNP K0Y2M1
E	0	HIS	-	expression tag	UNP K0Y2M1

- Molecule 2 is SODIUM ION (three-letter code: NA) (formula: Na).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
2	B	1	Total Na 1 1	0	0
2	A	2	Total Na 2 2	0	0
2	C	1	Total Na 1 1	0	0

- Molecule 3 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	A	45	Total O 45 45	0	0
3	B	25	Total O 25 25	0	0
3	C	33	Total O 33 33	0	0
3	D	19	Total O 19 19	0	0
3	E	9	Total O 9 9	0	0

V213
TYR
LEU
ARG
ASP
ASN
VAL
ALA
THR
PRO
LYS
LYS
ALA
PRO

• Molecule 1: YeaZ

Chain E: 10% 82% 8% 10%

HIS HIS HIS HIS HIS HIS MET S2 A6 V16 A17 L18 L19 E21 G22 R23 A24 L25 S26 H27 I31 P32 ARG L34 L39 L46 L47 D48 E49 A50 GLY V62 V72 I76 G77 V78 V90 Y104 R105 G108 A109 Q131 G132 G133 E134 M135 V143

A155 ALA A158 E171 R176 P177 V178 A210 Y214 LEU ARG ASP ASN VAL ALA THR PRO LYS LYS ALA PRO

4 Data and refinement statistics

Property	Value	Source
Space group	C 2 2 21	Depositor
Cell constants a, b, c, α , β , γ	78.03Å 198.44Å 161.35Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	43.22 – 2.50 42.78 – 2.50	Depositor EDS
% Data completeness (in resolution range)	99.9 (43.22-2.50) 99.9 (42.78-2.50)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.77 (at 2.51Å)	Xtrriage
Refinement program	REFMAC 5.8.0073	Depositor
R, R_{free}	0.178 , 0.250 0.182 , 0.252	Depositor DCC
R_{free} test set	2244 reflections (5.14%)	wwPDB-VP
Wilson B-factor (Å ²)	65.3	Xtrriage
Anisotropy	0.308	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.39 , 62.7	EDS
L-test for twinning ²	$\langle L \rangle = 0.49$, $\langle L^2 \rangle = 0.32$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.96	EDS
Total number of atoms	8084	wwPDB-VP
Average B, all atoms (Å ²)	76.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.55% 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, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality [i](#)

5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: NA

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	0.58	0/1666	0.74	0/2271
1	B	0.51	0/1629	0.70	0/2218
1	C	0.52	0/1644	0.72	1/2240 (0.0%)
1	D	0.46	0/1573	0.65	0/2142
1	E	0.46	0/1599	0.64	0/2176
All	All	0.51	0/8111	0.69	1/11047 (0.0%)

There are no bond length outliers.

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed($^{\circ}$)	Ideal($^{\circ}$)
1	C	180	LEU	CA-CB-CG	5.04	126.89	115.30

There are no chirality outliers.

There are no planarity outliers.

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	A	1631	0	1622	20	0
1	B	1597	0	1582	22	0
1	C	1610	0	1599	10	0
1	D	1542	0	1525	28	0
1	E	1569	0	1550	11	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	A	2	0	0	0	0
2	B	1	0	0	0	0
2	C	1	0	0	0	0
3	A	45	0	0	0	0
3	B	25	0	0	1	0
3	C	33	0	0	0	0
3	D	19	0	0	0	0
3	E	9	0	0	0	0
All	All	8084	0	7878	89	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 6.

All (89) 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:A:69:PHE:CD1	1:A:215:LEU:HD22	1.95	0.99
1:A:69:PHE:CE1	1:A:215:LEU:CD2	2.63	0.82
1:A:16:VAL:HG12	1:A:46:LEU:HD22	1.67	0.76
1:A:69:PHE:CE1	1:A:215:LEU:HD22	2.20	0.76
1:E:27:HIS:CE1	1:E:46:LEU:HB2	2.26	0.70
1:D:72:VAL:O	1:D:76:ILE:HG12	1.92	0.69
1:D:210:ALA:C	1:D:211:LEU:HG	2.13	0.69
1:C:64:ARG:HD2	1:C:213:VAL:HG13	1.76	0.67
1:A:31:ILE:HD12	1:A:33:ARG:HG3	1.79	0.64
1:A:31:ILE:HD12	1:A:33:ARG:CG	2.29	0.62
1:E:31:ILE:HG13	1:E:34:LEU:HD13	1.82	0.62
1:A:69:PHE:CD1	1:A:215:LEU:CD2	2.76	0.62
1:C:34:LEU:HB3	1:C:37:GLN:OE1	2.01	0.60
1:D:173:MET:N	1:D:174:PRO:HA	2.16	0.60
1:B:73:ARG:HH22	1:B:214:TYR:HE1	1.48	0.60
1:B:58:ASP:O	1:B:89:PRO:HD2	2.02	0.59
1:D:31:ILE:HG21	1:D:38:ARG:HD2	1.83	0.59
1:D:69:PHE:O	1:D:73:ARG:HG2	2.02	0.59
1:C:34:LEU:HD22	1:C:37:GLN:OE1	2.03	0.59
1:B:155:ALA:O	1:B:156:ALA:C	2.40	0.58
1:B:146:PRO:HG3	1:B:169:TYR:CD2	2.39	0.57
1:B:3:THR:HA	1:B:19:LEU:O	2.05	0.57
1:B:102:ARG:HD3	1:B:184:LEU:HD22	1.89	0.56
1:B:69:PHE:O	1:B:73:ARG:HD2	2.07	0.55
1:D:10:SER:HG	1:D:95:ASP:CG	2.10	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:125:TRP:CE2	1:D:149:VAL:CG1	2.90	0.54
1:A:69:PHE:HE1	1:A:215:LEU:CD2	2.18	0.53
1:A:69:PHE:HD1	1:A:215:LEU:HD22	1.64	0.53
1:D:145:PRO:CG	1:D:148:ARG:HD3	2.39	0.53
1:B:1:MET:HG3	1:B:1:MET:O	2.10	0.52
1:B:136:ARG:NH2	3:B:421:HOH:O	2.42	0.52
1:C:34:LEU:O	1:C:37:GLN:HB2	2.11	0.51
1:C:64:ARG:CD	1:C:213:VAL:HG13	2.40	0.51
1:D:115:ALA:HA	1:D:124:TYR:O	2.11	0.51
1:A:118:ALA:HB2	1:A:124:TYR:CD2	2.45	0.50
1:A:80:GLN:HB3	1:D:40:LEU:HD11	1.93	0.49
1:E:39:LEU:HD23	1:E:78:VAL:HG21	1.94	0.49
1:D:95:ASP:HA	1:D:98:ILE:HD12	1.95	0.48
1:D:125:TRP:CE3	1:D:149:VAL:HG11	2.49	0.48
1:A:76:ILE:CD1	1:A:215:LEU:HD11	2.43	0.47
1:D:3:THR:HA	1:D:19:LEU:O	2.13	0.47
1:E:27:HIS:CE1	1:E:46:LEU:CB	2.96	0.47
1:D:125:TRP:CD2	1:D:149:VAL:HG13	2.48	0.47
1:E:72:VAL:O	1:E:76:ILE:HG12	2.14	0.47
1:D:125:TRP:CD2	1:D:149:VAL:CG1	2.97	0.47
1:E:31:ILE:HD12	1:E:32:PRO:HD2	1.97	0.47
1:A:205:VAL:HG13	1:A:209:GLN:HB3	1.95	0.47
1:C:119:ARG:HG3	1:C:120:MET:HG3	1.96	0.47
1:C:3:THR:HA	1:C:19:LEU:O	2.15	0.46
1:D:18:LEU:HB2	1:D:46:LEU:HD21	1.97	0.46
1:C:180:LEU:C	1:C:180:LEU:HD23	2.35	0.46
1:D:125:TRP:CZ3	1:D:149:VAL:HG11	2.51	0.46
1:B:62:PHE:HB3	1:B:79:VAL:HG21	1.97	0.46
1:D:125:TRP:CE2	1:D:149:VAL:HG13	2.51	0.46
1:B:16:VAL:HG12	1:B:46:LEU:HD22	1.98	0.46
1:A:95:ASP:HA	1:A:98:ILE:HD12	1.97	0.45
1:B:14:CYS:HB2	1:B:35:HIS:CE1	2.51	0.45
1:D:197:PHE:HB3	1:D:201:ARG:HH21	1.82	0.45
1:B:156:ALA:O	1:B:158:ALA:N	2.49	0.45
1:E:90:VAL:HG21	1:E:210:ALA:HB2	1.98	0.45
1:A:28:TYR:CD2	1:A:187:HIS:CD2	3.05	0.44
1:B:57:VAL:O	1:B:88:ARG:NE	2.45	0.44
1:D:209:GLN:O	1:D:211:LEU:HD12	2.18	0.44
1:E:134:GLU:HG2	1:E:135:MET:O	2.18	0.44
1:E:6:ALA:O	1:E:16:VAL:HA	2.18	0.44
1:B:90:VAL:HG21	1:B:210:ALA:HB2	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:62:PHE:HB3	1:D:79:VAL:HG21	1.99	0.43
1:B:34:LEU:HD23	1:B:37:GLN:HB2	1.99	0.43
1:B:146:PRO:HG3	1:B:169:TYR:HD2	1.83	0.43
1:D:9:THR:OG1	1:D:71:GLY:O	2.35	0.43
1:B:40:LEU:HB3	1:B:41:PRO:HD3	2.01	0.42
1:A:76:ILE:HD11	1:A:215:LEU:HD11	2.00	0.42
1:D:16:VAL:HG12	1:D:46:LEU:HD22	2.01	0.42
1:D:100:ALA:O	1:D:135:MET:HG3	2.20	0.42
1:D:12:GLU:N	1:D:12:GLU:CD	2.72	0.42
1:B:154:ASP:OD1	1:B:155:ALA:N	2.53	0.42
1:A:118:ALA:HB2	1:A:124:TYR:CE2	2.55	0.41
1:B:9:THR:CG2	1:B:39:LEU:HD13	2.49	0.41
1:D:35:HIS:C	1:D:37:GLN:H	2.23	0.41
1:D:10:SER:OG	1:D:95:ASP:OD1	2.36	0.41
1:E:27:HIS:HE1	1:E:46:LEU:CA	2.32	0.41
1:A:118:ALA:CB	1:A:124:TYR:CE2	3.03	0.41
1:B:39:LEU:HD23	1:B:78:VAL:HG21	2.03	0.41
1:C:95:ASP:HA	1:C:98:ILE:HD12	2.02	0.41
1:D:9:THR:OG1	1:D:75:ALA:HB2	2.20	0.40
1:A:62:PHE:HB3	1:A:79:VAL:HG21	2.02	0.40
1:B:208:GLU:OE1	1:C:44:ARG:HD3	2.22	0.40
1:A:40:LEU:HB2	1:A:41:PRO:HD3	2.03	0.40
1:E:143:VAL:HG13	1:E:143:VAL:O	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	
1	A	214/232 (92%)	210 (98%)	4 (2%)	0	100	100
1	B	206/232 (89%)	200 (97%)	6 (3%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	C	209/232 (90%)	202 (97%)	6 (3%)	1 (0%)	29	48
1	D	197/232 (85%)	188 (95%)	9 (5%)	0	100	100
1	E	198/232 (85%)	192 (97%)	6 (3%)	0	100	100
All	All	1024/1160 (88%)	992 (97%)	31 (3%)	1 (0%)	51	73

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	C	32	PRO

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	158/172 (92%)	155 (98%)	3 (2%)	57	80
1	B	155/172 (90%)	152 (98%)	3 (2%)	57	80
1	C	157/172 (91%)	156 (99%)	1 (1%)	86	95
1	D	151/172 (88%)	146 (97%)	5 (3%)	38	64
1	E	153/172 (89%)	151 (99%)	2 (1%)	69	87
All	All	774/860 (90%)	760 (98%)	14 (2%)	59	81

All (14) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	2	SER
1	A	38	ARG
1	A	174	PRO
1	B	2	SER
1	B	73	ARG
1	B	149	VAL
1	C	180	LEU
1	D	10	SER
1	D	12	GLU

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Mol	Chain	Res	Type
1	D	47	LEU
1	D	153	TRP
1	D	211	LEU
1	E	131	GLN
1	E	171	GLU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (1) such sidechains are listed below:

Mol	Chain	Res	Type
1	E	27	HIS

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

Of 4 ligands modelled in this entry, 4 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

There are no such residues in this entry.

5.8 Polymer linkage issues

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	215/232 (92%)	0.17	5 (2%) 60 63	38, 57, 97, 129	0
1	B	212/232 (91%)	-0.04	5 (2%) 59 62	44, 64, 106, 132	0
1	C	213/232 (91%)	-0.11	2 (0%) 84 86	45, 65, 114, 146	0
1	D	205/232 (88%)	0.63	30 (14%) 2 2	51, 85, 134, 177	0
1	E	208/232 (89%)	0.49	23 (11%) 5 5	58, 88, 128, 163	0
All	All	1053/1160 (90%)	0.22	65 (6%) 20 21	38, 70, 121, 177	0

All (65) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	E	25	LEU	6.4
1	D	167	TRP	6.3
1	E	27	HIS	5.5
1	E	18	LEU	5.3
1	E	23	ARG	5.3
1	E	46	LEU	5.3
1	D	168	GLY	5.3
1	E	19	LEU	5.0
1	D	120	MET	4.5
1	D	180	LEU	4.3
1	D	179	ALA	4.3
1	D	170	VAL	4.1
1	D	173	MET	3.9
1	D	184	LEU	3.8
1	C	158	ALA	3.7
1	D	161	PHE	3.7
1	E	47	LEU	3.6
1	E	24	ALA	3.6
1	D	166	GLY	3.5
1	D	121	ASP	3.4

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Mol	Chain	Res	Type	RSRZ
1	D	185	LEU	3.4
1	D	165	THR	3.4
1	D	182	ALA	3.3
1	E	109	ALA	3.2
1	B	23	ARG	3.2
1	D	38	ARG	3.2
1	E	49	GLU	3.1
1	A	23	ARG	3.0
1	E	21	GLU	3.0
1	D	183	SER	3.0
1	D	123	VAL	3.0
1	D	169	TYR	3.0
1	D	172	ARG	3.0
1	E	178	VAL	2.9
1	B	1	MET	2.9
1	B	49	GLU	2.9
1	E	214	TYR	2.7
1	E	155	ALA	2.7
1	D	146	PRO	2.7
1	A	158	ALA	2.7
1	D	103	ALA	2.7
1	B	46	LEU	2.6
1	A	104	TYR	2.6
1	C	109	ALA	2.6
1	E	16	VAL	2.6
1	B	34	LEU	2.5
1	D	197	PHE	2.4
1	D	13	ALA	2.4
1	A	215	LEU	2.3
1	E	108	GLY	2.3
1	D	28	TYR	2.3
1	D	109	ALA	2.3
1	E	104	TYR	2.3
1	E	133	GLY	2.3
1	E	26	SER	2.3
1	D	31	ILE	2.2
1	D	130	LEU	2.2
1	A	34	LEU	2.2
1	E	105	ARG	2.2
1	D	124	TYR	2.2
1	E	176	ARG	2.1
1	D	23	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
1	E	52	VAL	2.0
1	E	22	GLY	2.0
1	D	122	GLU	2.0

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

There are no non-standard protein/DNA/RNA residues in this entry.

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
2	NA	A	302	1/1	0.75	0.16	78,78,78,78	0
2	NA	B	301	1/1	0.90	0.07	72,72,72,72	0
2	NA	A	301	1/1	0.91	0.09	60,60,60,60	0
2	NA	C	301	1/1	0.99	0.19	76,76,76,76	0

6.5 Other polymers [i](#)

There are no such residues in this entry.