Full wwPDB X-ray Structure Validation Report ⓘ

Oct 21, 2024 – 01:20 PM EDT

PDB ID	:	2HXR
Title	:	Structure of the ligand binding domain of E. coli CynR, a transcriptional regulator controlling cyanate metabolism
Authors	:	Singer, A.U.; Cuff, M.E.; Evdokimova, E.; Kagan, O.; Joachimiak, A.; Edwards, A.M.; Savchenko, A.; Midwest Center for Structural Genomics (MCSG)
Deposited on	:	2006-08-03
Resolution	:	2.05 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 types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

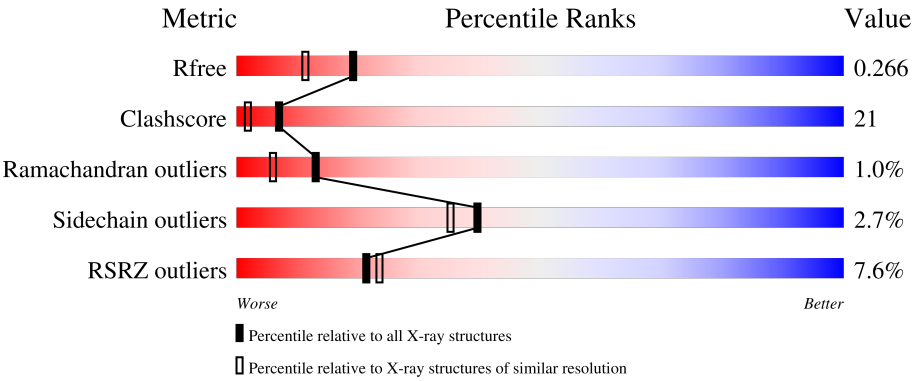
MolProbity	:	4.02b-467
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	1.20.1
EDS	:	3.0
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.003 (Gargrove)
Density-Fitness	:	1.0.11
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.39

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 2.05 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}	164625	2096 (2.04-2.04)
Clashscore	180529	2229 (2.04-2.04)
Ramachandran outliers	177936	2217 (2.04-2.04)
Sidechain outliers	177891	2217 (2.04-2.04)
RSRZ outliers	164620	2096 (2.04-2.04)

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

Mol	Chain	Length	Quality of chain
1	A	238	7%, 53%, 29%, ·, 16%
1	B	238	5%, 61%, 23%, ·, 15%

2 Entry composition (i)

There are 2 unique types of molecules in this entry. The entry contains 3471 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 HTH-type transcriptional regulator cynR.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	A	200	Total	C	N	O	S	Se	0	0	0
			1554	994	267	286	3	4			
1	B	202	Total	C	N	O	S	Se	0	0	0
			1569	1002	272	288	3	4			

There are 10 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	62	GLY	-	cloning artifact	UNP P27111
A	110	MSE	MET	modified residue	UNP P27111
A	127	MSE	MET	modified residue	UNP P27111
A	135	MSE	MET	modified residue	UNP P27111
A	285	MSE	MET	modified residue	UNP P27111
B	62	GLY	-	cloning artifact	UNP P27111
B	110	MSE	MET	modified residue	UNP P27111
B	127	MSE	MET	modified residue	UNP P27111
B	135	MSE	MET	modified residue	UNP P27111
B	285	MSE	MET	modified residue	UNP P27111

- Molecule 2 is water.

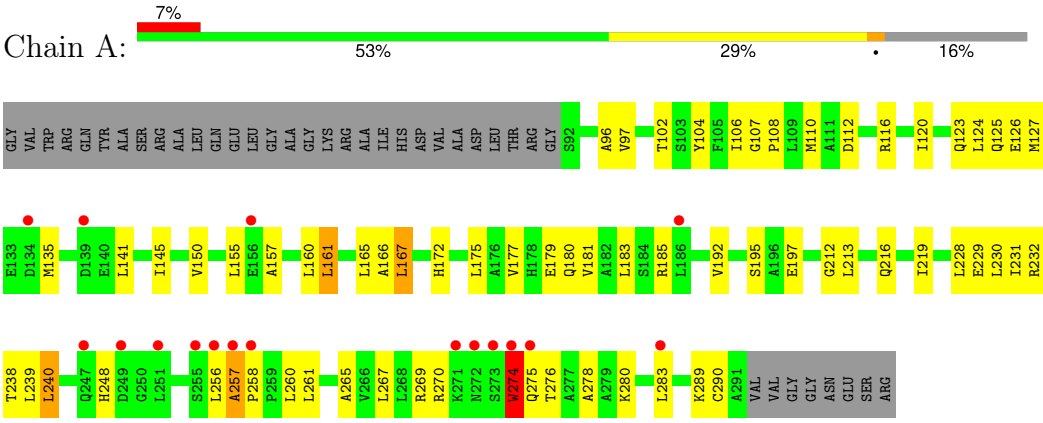
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	169	Total	O	0	0
			169	169		
2	B	179	Total	O	0	0
			179	179		

3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density (RSRZ > 2). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

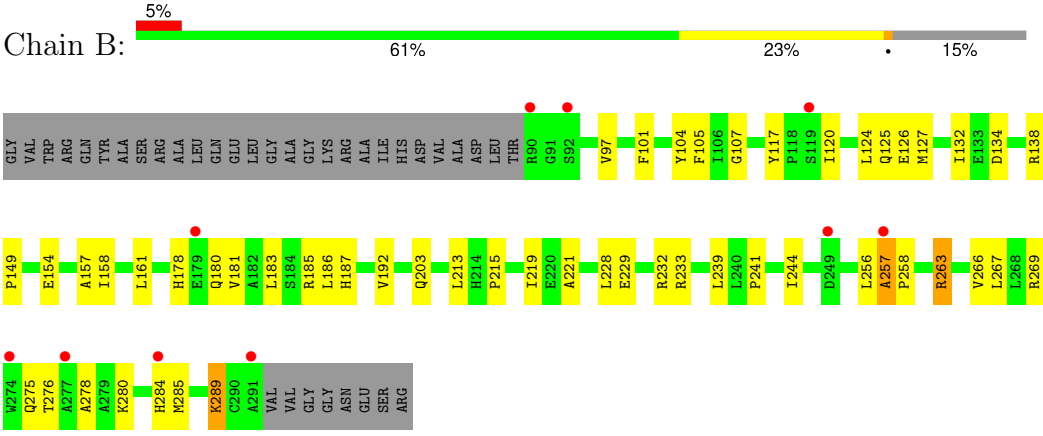
• Molecule 1: HTH-type transcriptional regulator cynR

Chain A:



• Molecule 1: HTH-type transcriptional regulator cynR

Chain B:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α, β, γ	87.91Å 98.56Å 62.24Å 90.00° 104.35° 90.00°	Depositor
Resolution (Å)	19.98 – 2.05 19.98 – 2.05	Depositor EDS
% Data completeness (in resolution range)	89.5 (19.98-2.05) 93.0 (19.98-2.05)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.07	Depositor
$< I/\sigma(I) >$ [1]	2.80 (at 2.04Å)	Xtriage
Refinement program	CNS 1.1	Depositor
R, R_{free}	0.239 , 0.256 0.249 , 0.266	Depositor DCC
R_{free} test set	1434 reflections (4.78%)	wwPDB-VP
Wilson B-factor (Å^2)	23.7	Xtriage
Anisotropy	0.785	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.36 , 47.2	EDS
L-test for twinning[2]	$< \|L\| > = 0.49$, $< L^2 > = 0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.93	EDS
Total number of atoms	3471	wwPDB-VP
Average B, all atoms (Å^2)	32.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 6.83% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

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	0.35	0/1581	0.68	1/2146 (0.0%)
1	B	0.35	0/1596	0.66	0/2165
All	All	0.35	0/3177	0.67	1/4311 (0.0%)

There are no bond length outliers.

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	274	TRP	N-CA-C	5.36	125.47	111.00

There are no chirality outliers.

There are no planarity outliers.

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	1554	0	1592	78	0
1	B	1569	0	1608	55	0
2	A	169	0	0	10	0
2	B	179	0	0	7	0
All	All	3471	0	3200	131	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 21.

All (131) 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:B:97:VAL:HG23	1:B:145:ILE:HB	1.42	1.01
1:B:263:ARG:HH11	1:B:263:ARG:HG3	1.24	1.00
1:B:157:ALA:HB1	1:B:266:VAL:HG21	1.43	0.97
1:A:257:ALA:HB3	1:A:258:PRO:HD3	1.51	0.91
1:A:274:TRP:HA	1:A:274:TRP:CE3	2.07	0.90
1:A:275:GLN:HE21	1:A:280:LYS:HE3	1.35	0.90
1:A:106:ILE:HD12	1:A:107:GLY:N	1.86	0.88
1:A:97:VAL:HG11	1:A:106:ILE:HG21	1.56	0.87
1:A:183:LEU:HG	1:A:213:LEU:HD11	1.58	0.86
1:A:275:GLN:HB3	2:A:1097:HOH:O	1.76	0.85
1:A:274:TRP:HA	1:A:274:TRP:HE3	1.43	0.84
1:B:269:ARG:HH11	1:B:275:GLN:HE22	1.22	0.83
1:B:257:ALA:HB3	1:B:258:PRO:HD3	1.63	0.80
1:A:160:LEU:HD11	1:A:267:LEU:HD13	1.63	0.78
1:A:229:GLU:HG2	1:B:107:GLY:HA3	1.68	0.74
1:B:117:TYR:HE2	1:B:285:MSE:HE1	1.53	0.73
1:A:175:LEU:HD21	1:A:185:ARG:HH12	1.54	0.73
1:B:257:ALA:HB3	1:B:258:PRO:CD	2.19	0.73
1:A:257:ALA:HB3	1:A:258:PRO:CD	2.19	0.72
1:B:105:PHE:CE1	1:B:289:LYS:HD2	2.24	0.72
1:A:112:ASP:HB3	1:A:116:ARG:NH1	2.06	0.71
1:B:270:ARG:HG3	1:B:273:SER:HB3	1.71	0.70
1:B:183:LEU:HG	1:B:213:LEU:HD11	1.73	0.69
1:B:257:ALA:CB	1:B:258:PRO:HD3	2.21	0.69
1:A:97:VAL:HG11	1:A:106:ILE:CG2	2.24	0.68
1:A:175:LEU:HD21	1:A:185:ARG:NH1	2.10	0.67
1:A:257:ALA:CB	1:A:258:PRO:HD3	2.24	0.66
1:B:154:GLU:O	1:B:271:LYS:HG2	1.95	0.66
1:A:260:LEU:C	2:A:1438:HOH:O	2.34	0.64
1:B:269:ARG:NH1	1:B:275:GLN:HE22	1.95	0.64
1:A:183:LEU:HB2	1:A:258:PRO:HD2	1.80	0.64
1:A:110:MSE:SE	1:A:124:LEU:HD22	2.49	0.63
1:A:269:ARG:NH1	1:A:275:GLN:HE22	1.97	0.62
1:A:166:ALA:HA	1:A:256:LEU:CD2	2.31	0.61
1:A:135:MSE:HE2	1:A:141:LEU:HG	1.83	0.61
1:A:238:THR:HG21	1:A:240:LEU:HD22	1.82	0.60
1:A:160:LEU:HB3	1:A:161:LEU:HD13	1.84	0.59
1:A:229:GLU:OE2	1:A:233:ARG:NH1	2.35	0.59
1:A:160:LEU:HB3	1:A:161:LEU:CD1	2.33	0.58
1:A:276:THR:O	1:A:280:LYS:HG3	2.04	0.58
1:A:123:GLN:HG2	2:A:1029:HOH:O	2.04	0.57
1:B:97:VAL:CG2	1:B:101:PHE:HB2	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:160:LEU:CD1	1:A:267:LEU:HD13	2.32	0.57
1:A:275:GLN:NE2	1:A:280:LYS:HE3	2.15	0.56
1:B:257:ALA:CB	1:B:258:PRO:CD	2.80	0.56
1:B:263:ARG:HG3	1:B:263:ARG:NH1	2.03	0.56
1:A:238:THR:CG2	1:A:240:LEU:HD22	2.35	0.56
1:A:150:VAL:HG21	1:A:157:ALA:HB2	1.88	0.55
1:B:125:GLN:HG3	2:B:1031:HOH:O	2.05	0.55
1:B:263:ARG:HH11	1:B:263:ARG:CG	2.08	0.55
1:A:239:LEU:O	1:A:240:LEU:HD13	2.06	0.55
1:B:187:HIS:HE1	2:B:1153:HOH:O	1.88	0.55
1:A:269:ARG:HH11	1:A:275:GLN:HE22	1.54	0.54
1:B:229:GLU:OE2	1:B:233:ARG:NE	2.41	0.53
1:A:228:LEU:O	1:A:232:ARG:HG2	2.08	0.53
1:B:161:LEU:C	1:B:161:LEU:HD12	2.30	0.52
1:B:192:VAL:HG22	1:B:219:ILE:HB	1.91	0.52
1:A:257:ALA:CB	1:A:258:PRO:CD	2.85	0.52
1:A:274:TRP:CE3	1:A:274:TRP:CA	2.90	0.52
1:B:97:VAL:HG22	1:B:101:PHE:CD1	2.45	0.52
1:B:186:LEU:O	1:B:215:PRO:HB3	2.10	0.52
1:A:192:VAL:HG22	1:A:219:ILE:HB	1.93	0.51
1:B:97:VAL:HG21	1:B:101:PHE:HB2	1.93	0.51
1:A:112:ASP:HB3	1:A:116:ARG:HH12	1.75	0.50
1:A:212:GLY:HA2	2:A:1408:HOH:O	2.11	0.50
1:A:256:LEU:O	1:A:257:ALA:O	2.30	0.50
1:B:154:GLU:OE1	1:B:154:GLU:N	2.36	0.50
1:A:160:LEU:HD11	1:A:267:LEU:CD1	2.40	0.49
1:A:181:VAL:CG2	1:A:185:ARG:HG3	2.42	0.49
1:A:161:LEU:HD13	1:A:161:LEU:N	2.28	0.49
1:A:195:SER:HG	1:A:197:GLU:CD	2.16	0.49
1:A:167:LEU:HD22	1:A:237:SER:HB2	1.94	0.48
1:A:108:PRO:HB2	1:A:289:LYS:NZ	2.29	0.48
1:B:228:LEU:O	1:B:232:ARG:HG3	2.14	0.48
1:B:134:ASP:OD2	1:B:138:ARG:CZ	2.62	0.47
1:B:181:VAL:HB	1:B:185:ARG:HG3	1.96	0.47
1:A:145:ILE:HG12	1:A:267:LEU:HD12	1.97	0.47
1:B:97:VAL:HG21	1:B:101:PHE:CB	2.45	0.47
1:B:276:THR:O	1:B:280:LYS:HG3	2.15	0.47
1:A:261:LEU:HA	2:A:1438:HOH:O	2.16	0.46
1:A:261:LEU:N	2:A:1438:HOH:O	2.47	0.46
1:A:127:MSE:SE	1:A:135:MSE:SE	3.34	0.45
1:A:165:LEU:CD1	1:A:261:LEU:HD23	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:149:PRO:HB3	2:B:1141:HOH:O	2.15	0.45
1:A:124:LEU:O	1:B:221:ALA:HA	2.17	0.45
1:B:97:VAL:HG22	1:B:101:PHE:HB2	1.99	0.45
1:A:228:LEU:HA	1:A:231:ILE:HG12	1.98	0.45
1:A:127:MSE:HG3	1:A:132:ILE:HG13	1.99	0.45
1:B:256:LEU:O	1:B:257:ALA:O	2.34	0.45
1:B:97:VAL:O	1:B:126:GLU:HA	2.17	0.45
1:A:177:VAL:O	1:A:177:VAL:HG12	2.15	0.44
1:B:178:HIS:HD2	2:B:1297:HOH:O	2.00	0.44
1:A:181:VAL:HG22	1:A:185:ARG:HG3	1.98	0.44
1:A:96:ALA:HA	1:A:125:GLN:O	2.18	0.44
1:A:120:ILE:HD13	1:A:278:ALA:HB2	2.00	0.44
1:A:160:LEU:HD22	1:A:290:CYS:SG	2.58	0.44
1:A:97:VAL:O	1:A:126:GLU:HA	2.18	0.43
1:B:124:LEU:C	1:B:124:LEU:HD13	2.38	0.43
1:A:102:THR:HA	1:A:106:ILE:CG1	2.48	0.43
1:A:155:LEU:HD23	1:A:270:ARG:HA	2.00	0.43
1:B:269:ARG:HH11	1:B:275:GLN:NE2	2.03	0.43
1:B:157:ALA:CB	1:B:266:VAL:HG21	2.31	0.43
1:B:263:ARG:NH1	1:B:263:ARG:CG	2.74	0.43
1:A:275:GLN:H	1:A:275:GLN:HG2	1.36	0.43
1:B:186:LEU:HD21	1:B:239:LEU:HD21	2.01	0.43
1:A:161:LEU:C	1:A:161:LEU:HD22	2.40	0.42
1:A:283:LEU:C	1:A:283:LEU:HD23	2.39	0.42
1:B:203:GLN:NE2	2:B:1172:HOH:O	2.52	0.42
1:A:108:PRO:HB2	1:A:289:LYS:HZ1	1.84	0.42
1:A:248:HIS:HA	2:A:1410:HOH:O	2.19	0.42
1:A:216:GLN:HB2	2:A:1413:HOH:O	2.19	0.42
1:B:284:HIS:HB3	2:B:1143:HOH:O	2.20	0.42
1:B:97:VAL:HG22	1:B:101:PHE:HD1	1.83	0.42
1:A:165:LEU:HD11	1:A:261:LEU:HD23	2.01	0.41
1:A:261:LEU:CA	2:A:1438:HOH:O	2.68	0.41
1:B:266:VAL:HG22	1:B:267:LEU:N	2.34	0.41
1:A:116:ARG:HH11	1:A:116:ARG:HG3	1.84	0.41
1:A:129:GLN:NE2	2:A:1115:HOH:O	2.53	0.41
1:A:180:GLN:HG2	1:A:181:VAL:N	2.36	0.41
1:B:158:ILE:O	1:B:266:VAL:HG23	2.20	0.41
1:B:183:LEU:HB2	1:B:258:PRO:HD2	2.01	0.41
1:A:125:GLN:HE22	1:A:135:MSE:HE1	1.85	0.41
1:B:145:ILE:HG12	1:B:267:LEU:HD23	2.02	0.41
1:B:120:ILE:HD13	1:B:278:ALA:HB2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:127:MSE:HG3	1:B:132:ILE:HG13	2.02	0.41
1:B:266:VAL:HG22	1:B:267:LEU:O	2.21	0.40
1:A:172:HIS:HE1	1:A:234:THR:O	2.04	0.40
1:B:180:GLN:NE2	2:B:1213:HOH:O	2.46	0.40
1:A:127:MSE:HE1	1:A:135:MSE:SE	2.72	0.40
1:A:161:LEU:HD13	1:A:265:ALA:HB3	2.03	0.40
1:B:241:PRO:HD2	1:B:244:ILE:HD12	2.03	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	198/238 (83%)	191 (96%)	5 (2%)	2 (1%)	13 6
1	B	200/238 (84%)	196 (98%)	2 (1%)	2 (1%)	13 6
All	All	398/476 (84%)	387 (97%)	7 (2%)	4 (1%)	13 6

All (4) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	257	ALA
1	B	257	ALA
1	A	104	TYR
1	B	104	TYR

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	169/192 (88%)	163 (96%)	6 (4%)	30 25
1	B	170/192 (88%)	167 (98%)	3 (2%)	54 52
All	All	339/384 (88%)	330 (97%)	9 (3%)	40 35

All (9) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	161	LEU
1	A	167	LEU
1	A	179	GLU
1	A	230	LEU
1	A	240	LEU
1	A	274	TRP
1	B	139	ASP
1	B	263	ARG
1	B	289	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (7) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	125	GLN
1	A	129	GLN
1	A	172	HIS
1	A	275	GLN
1	B	129	GLN
1	B	216	GLN
1	B	275	GLN

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 oligosaccharides in this entry.

5.6 Ligand geometry (i)

There are no ligands in this entry.

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	A	196/238 (82%)	0.73	17 (8%)	17	19	19, 32, 47, 54	0
1	B	198/238 (83%)	0.34	13 (6%)	26	27	17, 27, 44, 56	0
All	All	394/476 (82%)	0.53	30 (7%)	21	23	17, 29, 46, 56	0

All (30) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	274	TRP	6.2
1	A	257	ALA	5.5
1	B	274	TRP	4.9
1	A	272	ASN	4.3
1	A	273	SER	4.2
1	A	275	GLN	4.1
1	B	90	ARG	3.9
1	B	257	ALA	3.9
1	B	273	SER	3.6
1	B	272	ASN	3.1
1	B	270	ARG	3.1
1	A	156	GLU	3.0
1	A	249	ASP	2.8
1	B	92	SER	2.7
1	A	256	LEU	2.6
1	A	271	LYS	2.6
1	B	249	ASP	2.6
1	B	291	ALA	2.5
1	B	277	ALA	2.3
1	B	119	SER	2.3
1	A	139	ASP	2.2
1	A	247	GLN	2.2
1	B	179	GLU	2.2
1	A	258	PRO	2.2

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Mol	Chain	Res	Type	RSRZ
1	A	134	ASP	2.2
1	A	186	LEU	2.2
1	B	284	HIS	2.1
1	A	255	SER	2.1
1	A	251	LEU	2.1
1	A	283	LEU	2.1

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 monosaccharides in this entry.

6.4 Ligands (i)

There are no ligands in this entry.

6.5 Other polymers (i)

There are no such residues in this entry.