



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 17, 2026 – 01:44 PM UTC

PDB ID : 7CT6 / pdb_00007ct6
Title : Crystal structure of GCL from Deinococcus metallilatus
Authors : Kim, J.H.; Kim, J.S.
Deposited on : 2020-08-18
Resolution : 2.10 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 : 4-5-2 with Phenix2.0
Mogul : 2022.3.0, CSD as543be (2022)
Xtriage (Phenix) : 2.0
EDS : 3.0
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4 : 9.0.010 (Gargrove)
Density-Fitness : 1.0.12
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.48.1

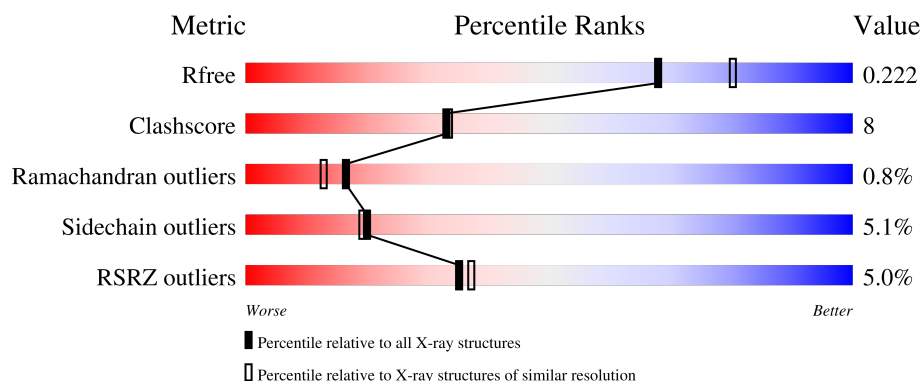
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.10 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	6234 (2.10-2.10)
Clashscore	180529	6893 (2.10-2.10)
Ramachandran outliers	177936	6839 (2.10-2.10)
Sidechain outliers	177891	6840 (2.10-2.10)
RSRZ outliers	164620	6234 (2.10-2.10)

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 $\leq 5\%$. 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	558	5% 81% 17% .
1	B	558	5% 81% 17% .

2 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 8916 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 Glyoxylate carboligase.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	A	558	Total	C	N	O	S	Se	0	0	0
			4295	2743	748	781	4	19			
1	B	558	Total	C	N	O	S	Se	0	0	0
			4295	2743	748	781	4	19			

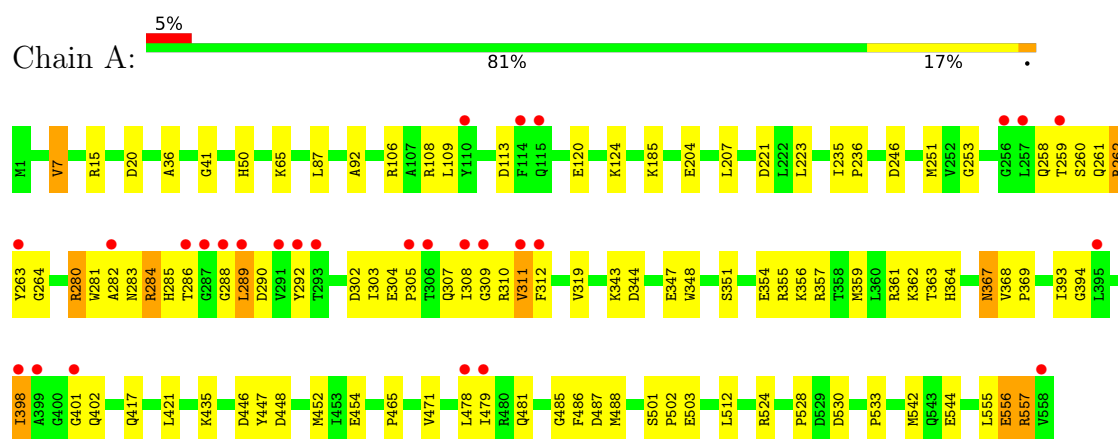
- Molecule 2 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	163	Total	O	0	0
			163	163		
2	B	163	Total	O	0	0
			163	163		

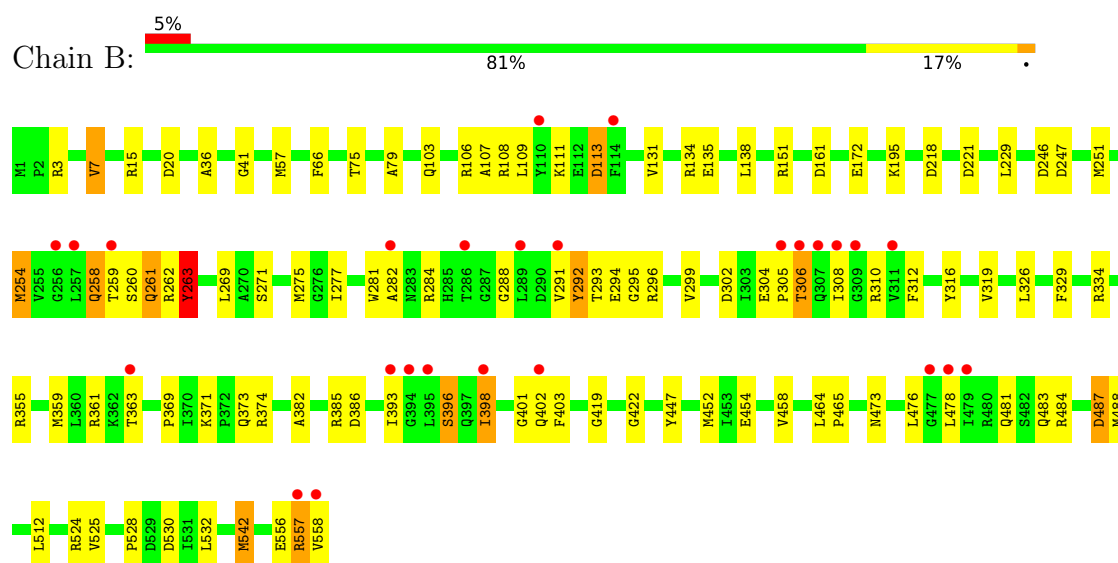
3 Residue-property plots

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: Glyoxylate carboligase



• Molecule 1: Glyoxylate carboligase



4 Data and refinement statistics

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α , β , γ	148.06Å 106.47Å 89.09Å 90.00° 124.09° 90.00°	Depositor
Resolution (Å)	46.50 – 2.10 46.50 – 2.10	Depositor EDS
% Data completeness (in resolution range)	98.4 (46.50-2.10) 98.4 (46.50-2.10)	Depositor EDS
R_{merge}	0.09	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.89 (at 2.10Å)	Xtriage
Refinement program	PHENIX 1.12_2829	Depositor
R, R_{free}	0.176 , 0.215 0.186 , 0.222	Depositor DCC
R_{free} test set	2631 reflections (4.00%)	wwPDB-VP
Wilson B-factor (Å ²)	35.0	Xtriage
Anisotropy	0.727	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.34 , 50.5	EDS
L-test for twinning ²	$\langle L \rangle = 0.50$, $\langle L^2 \rangle = 0.33$	Xtriage
Estimated twinning fraction	0.023 for -h-2*1,-k,l	Xtriage
F_o, F_c correlation	0.96	EDS
Total number of atoms	8916	wwPDB-VP
Average B, all atoms (Å ²)	55.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 11.61% 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](#)

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	0.34	0/4375	0.56	0/5916
1	B	0.32	0/4375	0.53	0/5916
All	All	0.33	0/8750	0.54	0/11832

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	B	0	1

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	B	263	TYR	Peptide

5.2 Too-close contacts [i](#)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	4295	0	4308	67	1
1	B	4295	0	4308	65	0
2	A	163	0	0	10	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	B	163	0	0	7	0
All	All	8916	0	8616	132	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 8.

All (132) 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:280:ARG:HA	1:A:308:ILE:HD11	1.57	0.84
1:A:544:GLU:OE1	2:A:601:HOH:O	1.94	0.83
1:B:151:ARG:NH1	2:B:601:HOH:O	2.09	0.81
1:B:229:LEU:HD21	1:B:334:ARG:HG3	1.64	0.79
1:B:263:TYR:HD1	1:B:263:TYR:H	1.34	0.76
1:A:92:ALA:HB1	1:A:417:GLN:HG2	1.69	0.75
1:A:302:ASP:OD1	2:A:602:HOH:O	2.06	0.73
1:B:361:ARG:HB3	1:B:401:GLY:HA2	1.73	0.70
1:A:487:ASP:O	2:A:603:HOH:O	2.09	0.70
1:B:284:ARG:HH22	1:B:292:TYR:HB3	1.55	0.70
1:B:271:SER:O	1:B:296:ARG:NH1	2.26	0.68
1:A:344:ASP:OD2	2:A:604:HOH:O	2.10	0.68
1:A:354:GLU:OE1	1:A:357:ARG:NH1	2.26	0.68
1:A:284:ARG:HH22	1:A:289:LEU:HD13	1.58	0.67
1:A:454:GLU:OE1	2:A:605:HOH:O	2.14	0.66
1:B:258:GLN:HB2	1:B:282:ALA:HB3	1.77	0.66
1:B:308:ILE:N	2:B:607:HOH:O	2.28	0.65
1:A:259:THR:HB	1:A:289:LEU:HD22	1.78	0.65
1:B:221:ASP:OD1	2:B:602:HOH:O	2.15	0.64
1:A:465:PRO:HB2	1:A:542:MSE:HG3	1.79	0.64
1:B:293:THR:HG22	1:B:295:GLY:H	1.64	0.61
1:B:305:PRO:HA	2:B:607:HOH:O	2.01	0.60
1:A:421:LEU:HD22	1:A:448:ASP:HB2	1.83	0.60
1:A:398:ILE:H	1:A:398:ILE:HD13	1.68	0.58
1:B:284:ARG:CZ	1:B:288:GLY:HA2	2.33	0.58
1:A:185:LYS:HD2	1:A:303:ILE:HD11	1.85	0.58
1:B:57:MSE:HE1	1:B:458:VAL:HG21	1.85	0.58
1:B:304:GLU:C	1:B:306:THR:H	2.12	0.58
1:A:305:PRO:HG2	1:A:319:VAL:HG22	1.85	0.57
1:A:355:ARG:O	1:A:359:MSE:HG2	2.04	0.57
1:B:281:TRP:H	1:B:308:ILE:HD11	1.70	0.57
1:B:487:ASP:O	2:B:603:HOH:O	2.18	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:280:ARG:HH12	1:A:417:GLN:CD	2.13	0.56
1:B:302:ASP:O	1:B:305:PRO:HD3	2.05	0.56
1:B:275:MSE:HE3	1:B:299:VAL:HG11	1.87	0.56
1:B:259:THR:OG1	1:B:284:ARG:HA	2.06	0.55
1:A:485:GLY:HA2	1:A:488:MSE:HE2	1.88	0.55
1:B:396:SER:HB2	1:B:403:PHE:CZ	2.41	0.55
1:B:20:ASP:OD2	2:B:604:HOH:O	2.18	0.55
1:B:310:ARG:HA	1:B:310:ARG:HH11	1.72	0.54
1:B:294:GLU:H	1:B:294:GLU:CD	2.14	0.54
1:A:361:ARG:HD2	1:A:402:GLN:H	1.73	0.54
1:A:258:GLN:HG2	1:A:282:ALA:HB3	1.89	0.54
1:A:356:LYS:NZ	2:A:611:HOH:O	2.38	0.54
1:B:106:ARG:HA	1:B:109:LEU:HG	1.90	0.54
1:B:259:THR:HG21	1:B:284:ARG:HE	1.73	0.53
1:B:465:PRO:HB2	1:B:542:MSE:HG2	1.91	0.53
1:A:367:ASN:OD1	1:A:367:ASN:N	2.41	0.53
1:A:15:ARG:NH1	1:A:41:GLY:O	2.41	0.52
1:A:106:ARG:HA	1:A:109:LEU:HB2	1.90	0.52
1:A:261:GLN:O	1:A:289:LEU:HD21	2.10	0.52
1:A:65:LYS:HE3	1:A:435:LYS:HG2	1.92	0.52
1:A:246:ASP:O	1:A:251:MSE:HE3	2.10	0.52
1:A:292:TYR:HB3	1:A:311:VAL:HG23	1.92	0.51
1:A:284:ARG:NH2	1:A:289:LEU:HD13	2.26	0.51
1:A:305:PRO:HA	1:A:308:ILE:HG22	1.94	0.50
1:B:310:ARG:HA	1:B:310:ARG:NH1	2.25	0.50
1:B:195:LYS:HD3	1:B:316:TYR:CE1	2.46	0.50
1:B:246:ASP:O	1:B:251:MSE:HE2	2.12	0.50
1:B:260:SER:C	1:B:261:GLN:HG3	2.37	0.50
1:A:50:HIS:HB3	1:A:452:MSE:HE1	1.93	0.50
1:A:260:SER:HB3	1:A:264:GLY:HA2	1.94	0.50
1:A:7:VAL:HG13	1:A:36:ALA:HB2	1.93	0.49
1:A:280:ARG:NH1	1:A:417:GLN:OE1	2.45	0.49
1:A:478:LEU:HA	2:A:653:HOH:O	2.11	0.49
1:A:502:PRO:HG2	1:A:503:GLU:OE1	2.13	0.49
1:A:285:HIS:O	1:A:285:HIS:ND1	2.43	0.48
1:A:471:VAL:HB	1:A:555:LEU:HD11	1.95	0.48
1:B:374:ARG:HG2	1:B:528:PRO:HB3	1.96	0.48
1:B:195:LYS:HD3	1:B:316:TYR:CZ	2.49	0.48
1:A:236:PRO:HD2	1:A:253:GLY:O	2.14	0.48
1:B:108:ARG:NE	1:B:113:ASP:OD2	2.47	0.48
1:A:363:THR:O	1:A:402:GLN:NE2	2.27	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:284:ARG:HD2	1:A:285:HIS:N	2.30	0.47
1:A:479:ILE:HG22	2:A:607:HOH:O	2.14	0.47
1:B:363:THR:HB	1:B:373:GLN:HB3	1.96	0.47
1:B:454:GLU:OE1	2:B:605:HOH:O	2.21	0.47
1:B:557:ARG:HA	1:B:557:ARG:HD2	1.61	0.47
1:A:92:ALA:HB1	1:A:417:GLN:CG	2.41	0.46
1:B:305:PRO:HD2	1:B:319:VAL:HG22	1.97	0.46
1:B:512:LEU:HD21	1:B:524:ARG:HB2	1.97	0.46
1:B:310:ARG:C	1:B:312:PHE:H	2.23	0.46
1:A:512:LEU:HD22	1:A:524:ARG:CZ	2.45	0.46
1:B:512:LEU:HD22	1:B:524:ARG:CZ	2.45	0.46
1:B:247:ASP:OD2	1:B:385:ARG:NH1	2.42	0.46
1:B:304:GLU:C	1:B:306:THR:N	2.74	0.45
1:A:304:GLU:N	1:A:305:PRO:HD3	2.32	0.44
1:B:422:GLY:O	1:B:452:MSE:HG3	2.17	0.44
1:B:135:GLU:HG2	1:B:138:LEU:HG	1.99	0.44
1:B:277:ILE:HD13	1:B:326:LEU:HD21	1.99	0.44
1:B:251:MSE:O	1:B:251:MSE:HE3	2.18	0.44
1:B:305:PRO:HD2	1:B:319:VAL:HG13	1.99	0.44
1:A:368:VAL:HG22	1:A:528:PRO:HD3	2.00	0.43
1:A:20:ASP:OD2	2:A:606:HOH:O	2.21	0.43
1:B:106:ARG:HD3	1:B:134:ARG:O	2.18	0.43
1:B:103:GLN:HB2	1:B:161:ASP:OD1	2.19	0.43
1:A:108:ARG:CZ	1:A:113:ASP:HB2	2.49	0.43
1:A:465:PRO:HB2	1:A:542:MSE:CG	2.47	0.43
1:B:261:GLN:HB2	1:B:262:ARG:H	1.65	0.43
1:A:361:ARG:NE	1:A:401:GLY:HA2	2.33	0.43
1:A:288:GLY:HA2	1:A:292:TYR:OH	2.19	0.43
1:B:382:ALA:HB2	1:B:532:LEU:HD12	2.00	0.42
1:A:246:ASP:CG	1:A:251:MSE:HE2	2.44	0.42
1:A:259:THR:C	1:A:261:GLN:H	2.26	0.42
1:A:310:ARG:C	1:A:312:PHE:H	2.28	0.42
1:B:66:PHE:CD1	1:B:218:ASP:HB2	2.54	0.42
1:A:530:ASP:C	1:A:533:PRO:HD2	2.45	0.42
1:B:7:VAL:HG13	1:B:36:ALA:HB2	2.02	0.42
1:A:304:GLU:O	1:A:308:ILE:HG22	2.19	0.42
1:B:107:ALA:O	1:B:111:LYS:HE2	2.19	0.42
1:A:120:GLU:O	1:A:124:LYS:HG3	2.19	0.42
1:B:254:MSE:HE2	1:B:254:MSE:HB3	1.78	0.41
1:B:355:ARG:O	1:B:359:MSE:HG2	2.20	0.41
1:A:284:ARG:HD3	1:A:285:HIS:CD2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:465:PRO:CB	1:A:542:MSE:HG3	2.48	0.41
1:A:369:PRO:HB2	1:A:556:GLU:HB3	2.01	0.41
1:B:275:MSE:HE1	1:B:329:PHE:CZ	2.56	0.41
1:B:258:GLN:NE2	1:B:291:VAL:HG21	2.36	0.41
1:A:364:HIS:HA	2:A:654:HOH:O	2.19	0.41
1:B:15:ARG:HD2	1:B:41:GLY:O	2.21	0.41
1:A:185:LYS:CD	1:A:303:ILE:HD11	2.51	0.41
1:B:369:PRO:HB3	1:B:476:LEU:HD11	2.01	0.41
1:B:371:LYS:HD3	1:B:556:GLU:OE2	2.20	0.41
1:A:204:GLU:OE2	1:A:343:LYS:NZ	2.35	0.40
1:A:207:LEU:HD13	1:A:235:ILE:HD12	2.03	0.40
1:A:262:ARG:HA	1:A:290:ASP:OD2	2.20	0.40
1:B:75:THR:O	1:B:79:ALA:HB3	2.21	0.40
1:A:283:ASN:HB3	1:A:286:THR:HA	2.03	0.40
1:B:473:ASN:O	1:B:558:VAL:HB	2.22	0.40
1:B:398:ILE:H	1:B:398:ILE:HG12	1.63	0.40
1:A:446:ASP:OD1	1:A:446:ASP:N	2.52	0.40
1:B:525:VAL:HG13	1:B:530:ASP:HB2	2.04	0.40

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:262:ARG:NH2	1:A:348:TRP:O[2_556]	2.01	0.19

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	556/558 (100%)	533 (96%)	18 (3%)	5 (1%)	14	11
1	B	556/558 (100%)	533 (96%)	19 (3%)	4 (1%)	19	16

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
All	All	1112/1116 (100%)	1066 (96%)	37 (3%)	9 (1%)	16	13

All (9) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	557	ARG
1	A	263	TYR
1	A	557	ARG
1	B	484	ARG
1	A	309	GLY
1	B	261	GLN
1	A	311	VAL
1	B	419	GLY
1	A	394	GLY

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	448/429 (104%)	426 (95%)	22 (5%)	21	20
1	B	448/429 (104%)	424 (95%)	24 (5%)	18	17
All	All	896/858 (104%)	850 (95%)	46 (5%)	20	19

All (46) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	7	VAL
1	A	87	LEU
1	A	221	ASP
1	A	223	LEU
1	A	262	ARG
1	A	280	ARG
1	A	281	TRP
1	A	284	ARG
1	A	289	LEU

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Mol	Chain	Res	Type
1	A	307	GLN
1	A	347	GLU
1	A	351	SER
1	A	362	LYS
1	A	367	ASN
1	A	393	ILE
1	A	398	ILE
1	A	447	TYR
1	A	481	GLN
1	A	486	PHE
1	A	501	SER
1	A	556	GLU
1	A	557	ARG
1	B	3	ARG
1	B	7	VAL
1	B	113	ASP
1	B	131	VAL
1	B	172	GLU
1	B	254	MSE
1	B	258	GLN
1	B	263	TYR
1	B	269	LEU
1	B	292	TYR
1	B	306	THR
1	B	386	ASP
1	B	393	ILE
1	B	396	SER
1	B	398	ILE
1	B	402	GLN
1	B	447	TYR
1	B	464	LEU
1	B	478	LEU
1	B	481	GLN
1	B	483	GLN
1	B	487	ASP
1	B	488	MSE
1	B	542	MSE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (8) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	167	GLN

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Mol	Chain	Res	Type
1	A	307	GLN
1	A	450	GLN
1	A	468	GLN
1	A	481	GLN
1	B	167	GLN
1	B	265	ASN
1	B	405	HIS

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

5.6 Ligand geometry ⓘ

There are no ligands in this entry.

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	539/558 (96%)	-0.05	28 (5%) 34 36	28, 41, 139, 232	0
1	B	539/558 (96%)	-0.04	26 (4%) 36 38	28, 42, 132, 200	0
All	All	1078/1116 (96%)	-0.04	54 (5%) 35 37	28, 41, 133, 232	0

All (54) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	305	PRO	6.3
1	A	305	PRO	5.6
1	B	558	VAL	5.2
1	A	558	VAL	5.1
1	B	306	THR	4.5
1	A	398	ILE	4.2
1	A	399	ALA	4.1
1	B	398	ILE	4.0
1	A	311	VAL	3.9
1	A	263	TYR	3.9
1	B	308	ILE	3.8
1	B	309	GLY	3.8
1	A	114	PHE	3.7
1	A	309	GLY	3.6
1	A	259	THR	3.6
1	A	306	THR	3.3
1	A	257	LEU	3.3
1	B	291	VAL	3.2
1	A	256	GLY	3.2
1	B	395	LEU	3.2
1	A	479	ILE	3.1
1	A	312	PHE	3.1
1	A	287	GLY	3.0
1	B	477	GLY	3.0

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Mol	Chain	Res	Type	RSRZ
1	B	257	LEU	3.0
1	B	479	ILE	2.9
1	B	311	VAL	2.8
1	A	286	THR	2.8
1	A	291	VAL	2.7
1	B	282	ALA	2.7
1	B	110	TYR	2.7
1	B	289	LEU	2.7
1	A	308	ILE	2.6
1	A	293	THR	2.6
1	A	289	LEU	2.6
1	B	363	THR	2.5
1	A	282	ALA	2.5
1	B	307	GLN	2.3
1	B	114	PHE	2.3
1	B	478	LEU	2.3
1	B	557	ARG	2.3
1	A	110	TYR	2.2
1	A	395	LEU	2.2
1	B	402	GLN	2.2
1	A	401	GLY	2.2
1	B	394	GLY	2.2
1	B	393	ILE	2.2
1	A	292	TYR	2.1
1	B	256	GLY	2.1
1	B	286	THR	2.1
1	A	478	LEU	2.1
1	B	259	THR	2.1
1	A	115	GLN	2.1
1	A	288	GLY	2.0

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

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

6.3 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

6.4 Ligands

There are no ligands in this entry.

6.5 Other polymers

There are no such residues in this entry.