



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 5, 2026 – 03:21 PM UTC

PDB ID : 2W3N / pdb_00002w3n
Title : Structure and inhibition of the CO₂-sensing carbonic anhydrase Can2 from the pathogenic fungus *Cryptococcus neoformans*
Authors : Schlicker, C.; Hall, R.A.; Vullo, D.; Middelhaufe, S.; Gertz, M.; Supuran, C.T.; Muehlschlegel, F.A.; Steegborn, C.
Deposited on : 2008-11-13
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 : 4-5-2 with Phenix2.0
Mogul : 2022.3.0, CSD as543be (2022)
Xtriage (Phenix) : 2.0
EDS : 3.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
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) : 2.49

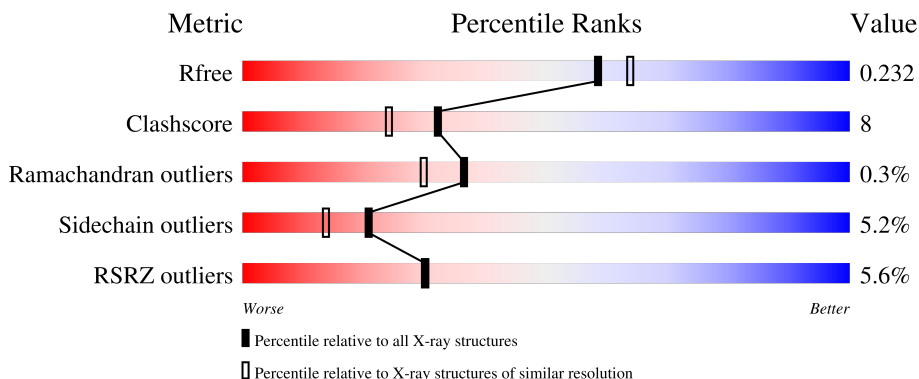
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.05 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}	180053	2260 (2.04-2.04)
Clashscore	190562	2333 (2.04-2.04)
Ramachandran outliers	187476	2318 (2.04-2.04)
Sidechain outliers	187428	2318 (2.04-2.04)
RSRZ outliers	180081	2260 (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 $\leq 5\%$. 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	239	
1	B	239	
1	C	239	

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
3	ACT	A	1233[A]	-	-	X	-

2 Entry composition

There are 5 unique types of molecules in this entry. The entry contains 5432 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.

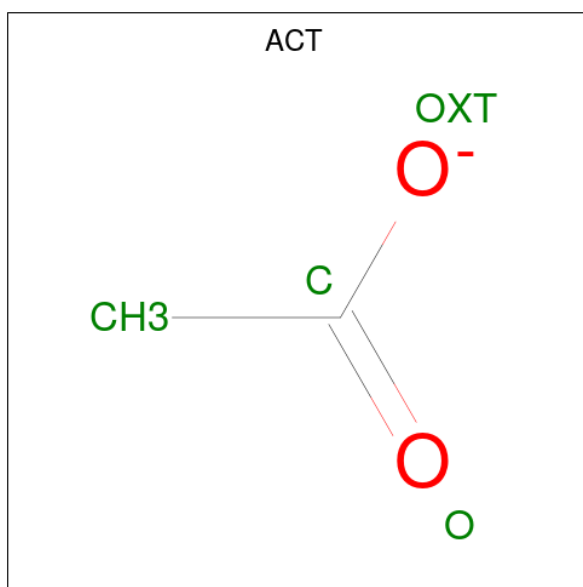
- Molecule 1 is a protein called CARBONIC ANHYDRASE 2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	230	Total	C	N	O	S	0	0	0
			1787	1133	311	334	9			
1	B	225	Total	C	N	O	S	0	0	0
			1743	1107	306	321	9			
1	C	225	Total	C	N	O	S	0	0	0
			1733	1100	304	320	9			

- Molecule 2 is ZINC ION (CCD ID: ZN) (formula: Zn).

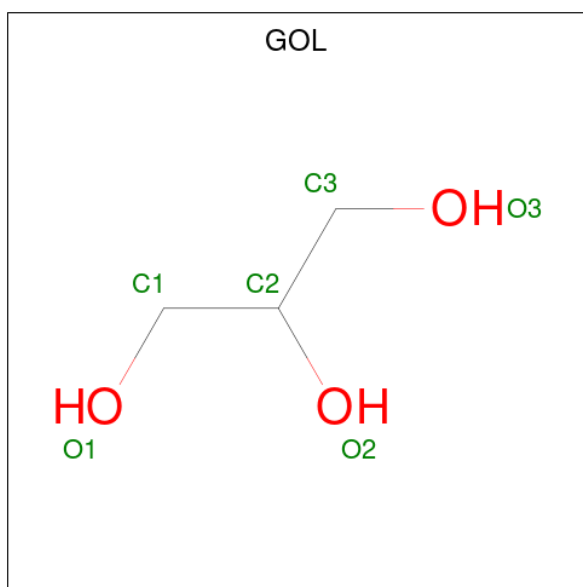
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	1	Total	Zn	0	0
			1	1		
2	B	1	Total	Zn	0	0
			1	1		
2	C	1	Total	Zn	0	0
			1	1		

- Molecule 3 is ACETATE ION (CCD ID: ACT) (formula: C₂H₃O₂).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
3	A	1	Total	C	O	0	1
			8	4	4		
3	B	1	Total	C	O	0	0
			4	2	2		
3	C	1	Total	C	O	0	0
			4	2	2		

- Molecule 4 is GLYCEROL (CCD ID: GOL) (formula: $C_3H_8O_3$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	A	1	Total	C	O	0	0
			6	3	3		

- Molecule 5 is water.

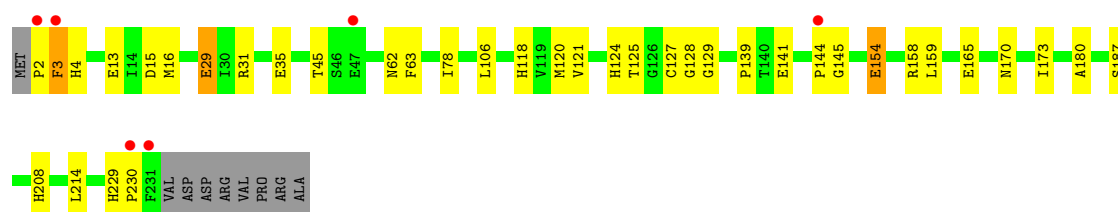
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	70	Total 70	O 70	0	0
5	B	45	Total 45	O 45	0	0
5	C	29	Total 29	O 29	0	0

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.

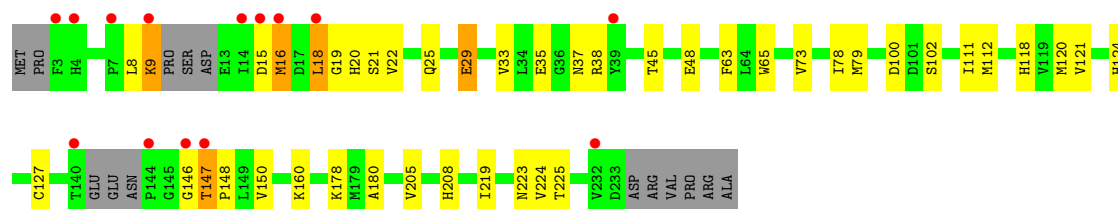
• Molecule 1: CARBONIC ANHYDRASE 2

Chain A: 



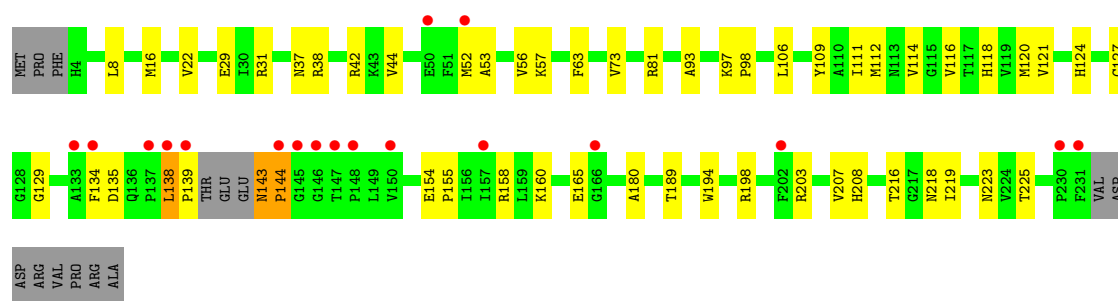
• Molecule 1: CARBONIC ANHYDRASE 2

Chain B: 



• Molecule 1: CARBONIC ANHYDRASE 2

Chain C: 



4 Data and refinement statistics

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α , β , γ	177.98Å 56.59Å 83.22Å 90.00° 116.58° 90.00°	Depositor
Resolution (Å)	79.56 – 2.05 79.56 – 2.05	Depositor EDS
% Data completeness (in resolution range)	99.1 (79.56-2.05) 99.1 (79.56-2.05)	Depositor EDS
R_{merge}	0.13	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.32 (at 2.05Å)	Xtriage
Refinement program	REFMAC 5.2.0019	Depositor
R, R_{free}	0.187 , 0.231 0.187 , 0.232	Depositor DCC
R_{free} test set	2337 reflections (5.00%)	wwPDB-VP
Wilson B-factor (Å ²)	28.0	Xtriage
Anisotropy	0.045	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.36 , 43.6	EDS
L-test for twinning ²	$\langle L \rangle = 0.48$, $\langle L^2 \rangle = 0.31$	Xtriage
Estimated twinning fraction	0.026 for -h-2*1,-k,l	Xtriage
F_o, F_c correlation	0.95	EDS
Total number of atoms	5432	wwPDB-VP
Average B, all atoms (Å ²)	34.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 4.99% 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

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, ACT, GOL

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	1.00	0/1832	1.06	5/2492 (0.2%)
1	B	0.88	0/1784	0.98	0/2421
1	C	0.82	1/1775 (0.1%)	0.94	1/2414 (0.0%)
All	All	0.90	1/5391 (0.0%)	1.00	6/7327 (0.1%)

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	A	0	1
1	B	0	1
1	C	0	1
All	All	0	3

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	73	VAL	CA-C	5.39	1.58	1.52

All (6) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	144	PRO	N-CA-C	8.53	124.53	113.86
1	A	229	HIS	CA-C-N	6.79	128.33	119.84
1	A	229	HIS	C-N-CA	6.79	128.33	119.84
1	A	187	SER	CA-C-N	5.83	125.97	119.32
1	A	187	SER	C-N-CA	5.83	125.97	119.32
1	C	44	VAL	N-CA-C	5.04	115.66	110.36

There are no chirality outliers.

All (3) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	145	GLY	Peptide
1	B	8	LEU	Peptide
1	C	143	ASN	Peptide

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	1787	0	1734	20	0
1	B	1743	0	1699	35	0
1	C	1733	0	1678	39	0
2	A	1	0	0	0	0
2	B	1	0	0	0	0
2	C	1	0	0	0	0
3	A	8	0	6	3	0
3	B	4	0	3	0	0
3	C	4	0	3	0	0
4	A	6	0	8	0	0
5	A	70	0	0	0	0
5	B	45	0	0	0	0
5	C	29	0	0	1	0
All	All	5432	0	5131	83	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 8.

All (83) 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:111:ILE:HG22	1:B:112:MET:HE2	1.27	1.14
1:B:111:ILE:HG22	1:B:112:MET:CE	1.93	0.98
1:B:111:ILE:CG2	1:B:112:MET:HE2	2.02	0.90
1:C:138:LEU:HD21	1:C:158:ARG:HH12	1.39	0.87
1:B:111:ILE:CG2	1:B:112:MET:CE	2.56	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:219:ILE:H	1:C:37:ASN:HD21	1.35	0.72
1:B:147:THR:OG1	1:B:148:PRO:HD2	1.91	0.71
1:A:2:PRO:N	1:A:4:HIS:H	1.91	0.68
1:C:154:GLU:HB3	1:C:155:PRO:HD3	1.75	0.68
1:A:118:HIS:ND1	1:A:208:HIS:HE1	1.91	0.68
1:A:129:GLY:H	3:A:1233[A]:ACT:H2	1.59	0.68
1:B:219:ILE:H	1:C:37:ASN:ND2	1.92	0.67
1:B:63:PHE:HB3	1:B:120:MET:HE1	1.79	0.65
1:B:29:GLU:H	1:B:29:GLU:CD	2.06	0.63
1:B:37:ASN:ND2	1:C:219:ILE:H	1.98	0.61
1:C:138:LEU:HD21	1:C:158:ARG:NH1	2.11	0.60
1:C:31:ARG:NH2	5:C:2004:HOH:O	2.35	0.59
1:C:63:PHE:HB3	1:C:120:MET:HE1	1.85	0.59
1:C:29:GLU:H	1:C:29:GLU:CD	2.11	0.58
1:B:37:ASN:HD21	1:C:219:ILE:H	1.52	0.57
1:B:22:VAL:H	1:C:223:ASN:HD21	1.53	0.57
1:B:121:VAL:HG11	1:B:180:ALA:HB3	1.85	0.56
1:C:138:LEU:HG	1:C:139:PRO:HD2	1.86	0.56
1:B:65:TRP:CE3	1:B:79:MET:HE2	2.41	0.56
1:B:16:MET:HE1	1:C:216:THR:HG21	1.88	0.56
1:A:63:PHE:HB3	1:A:120:MET:HE1	1.87	0.55
1:C:134:PHE:CE1	1:C:160:LYS:HE3	2.41	0.55
1:B:19:GLY:O	1:B:25:GLN:NE2	2.40	0.54
1:B:15:ASP:OD2	1:B:20:HIS:ND1	2.40	0.53
1:A:29:GLU:H	1:A:29:GLU:CD	2.17	0.53
1:B:147:THR:HG23	1:B:150:VAL:HG23	1.90	0.53
1:B:223:ASN:HD21	1:C:22:VAL:H	1.57	0.52
1:C:118:HIS:ND1	1:C:208:HIS:HE1	2.07	0.52
1:B:147:THR:OG1	1:B:148:PRO:CD	2.58	0.52
1:A:154:GLU:CD	1:A:158:ARG:HE	2.18	0.51
1:A:121:VAL:HG11	1:A:180:ALA:HB3	1.91	0.51
1:C:194:TRP:O	1:C:198:ARG:HG3	2.11	0.51
1:B:120:MET:HG3	1:B:208:HIS:HB2	1.93	0.50
1:B:18:LEU:HD11	1:B:35:GLU:HG3	1.93	0.50
1:B:100:ASP:OD1	1:B:102:SER:HB3	2.13	0.49
1:B:147:THR:CG2	1:B:150:VAL:HG23	2.43	0.48
1:A:45:THR:O	1:A:45:THR:HG22	2.13	0.48
1:C:121:VAL:HG11	1:C:180:ALA:HB3	1.96	0.48
1:B:22:VAL:H	1:C:223:ASN:ND2	2.11	0.48
1:B:124:HIS:CE1	1:B:127:CYS:HA	2.48	0.47
1:B:118:HIS:ND1	1:B:208:HIS:HE1	2.12	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:128:GLY:H	3:A:1233[B]:ACT:C	2.27	0.47
1:C:37:ASN:HD22	1:C:38:ARG:HH11	1.63	0.47
1:C:207:VAL:O	1:C:225:THR:HA	2.14	0.47
1:B:223:ASN:ND2	1:C:22:VAL:H	2.12	0.47
1:A:3:PHE:N	1:A:3:PHE:CD2	2.83	0.46
1:C:160:LYS:O	1:C:160:LYS:HD2	2.15	0.45
1:B:33:VAL:HG12	1:C:81:ARG:HD2	1.98	0.45
1:C:139:PRO:HG3	1:C:154:GLU:HG3	1.98	0.45
1:A:125:THR:O	1:A:214:LEU:HD22	2.17	0.45
1:B:208:HIS:HD2	1:B:225:THR:OG1	2.00	0.45
1:A:129:GLY:N	3:A:1233[A]:ACT:H2	2.29	0.45
1:C:109:TYR:O	1:C:114:VAL:HG23	2.18	0.44
1:C:124:HIS:CE1	1:C:127:CYS:HA	2.52	0.44
1:C:93:ALA:HB2	1:C:129:GLY:HA3	1.99	0.44
1:C:111:ILE:O	1:C:203:ARG:NH2	2.49	0.44
1:C:120:MET:HE2	1:C:120:MET:HB2	1.83	0.44
1:B:37:ASN:HD21	1:C:218:ASN:HA	1.82	0.44
1:C:38:ARG:O	1:C:42:ARG:HG3	2.17	0.44
1:A:31:ARG:O	1:A:35:GLU:HG3	2.18	0.44
1:C:53:ALA:O	1:C:57:LYS:HG3	2.18	0.43
1:C:118:HIS:ND1	1:C:208:HIS:CE1	2.85	0.43
1:B:9:LYS:HB3	1:B:9:LYS:HE2	1.59	0.43
1:B:178:LYS:HD3	1:B:224:VAL:HG11	2.00	0.43
1:B:18:LEU:HD22	1:B:38:ARG:HG3	2.01	0.43
1:A:120:MET:HE2	1:A:120:MET:HB2	1.88	0.42
1:A:158:ARG:O	1:A:159:LEU:C	2.60	0.42
1:A:124:HIS:CE1	1:A:127:CYS:HA	2.54	0.42
1:B:120:MET:HB2	1:B:120:MET:HE2	1.61	0.42
1:A:106:LEU:C	1:A:106:LEU:HD23	2.45	0.42
1:C:143:ASN:N	1:C:144:PRO:HD3	2.35	0.42
1:A:170:ASN:HD22	1:A:173:ILE:HD12	1.85	0.42
1:A:16:MET:HE2	1:A:16:MET:HB3	1.89	0.41
1:C:97:LYS:HA	1:C:98:PRO:HD3	1.87	0.41
1:C:16:MET:HE2	1:C:16:MET:HB3	1.80	0.41
1:C:106:LEU:HD23	1:C:106:LEU:C	2.46	0.41
1:A:139:PRO:HG2	1:A:154:GLU:CG	2.51	0.41
1:C:112:MET:HE2	1:C:189:THR:HG23	2.02	0.41

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	228/239 (95%)	224 (98%)	4 (2%)	0	100	100
1	B	219/239 (92%)	216 (99%)	2 (1%)	1 (0%)	24	16
1	C	221/239 (92%)	216 (98%)	4 (2%)	1 (0%)	24	16
All	All	668/717 (93%)	656 (98%)	10 (2%)	2 (0%)	36	30

All (2) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	146	GLY
1	C	144	PRO

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	192/204 (94%)	182 (95%)	10 (5%)	21	14
1	B	186/204 (91%)	174 (94%)	12 (6%)	15	9
1	C	183/204 (90%)	176 (96%)	7 (4%)	29	24
All	All	561/612 (92%)	532 (95%)	29 (5%)	21	14

All (29) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	3	PHE

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Mol	Chain	Res	Type
1	A	13	GLU
1	A	15	ASP
1	A	29	GLU
1	A	62	ASN
1	A	78	ILE
1	A	141	GLU
1	A	154	GLU
1	A	165	GLU
1	A	230	PRO
1	B	9	LYS
1	B	16	MET
1	B	18	LEU
1	B	21	SER
1	B	29	GLU
1	B	45	THR
1	B	48	GLU
1	B	73	VAL
1	B	78	ILE
1	B	147	THR
1	B	160	LYS
1	B	205	VAL
1	C	8	LEU
1	C	52	MET
1	C	56	VAL
1	C	116	VAL
1	C	135	ASP
1	C	138	LEU
1	C	165	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (19) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	25	GLN
1	A	170	ASN
1	A	208	HIS
1	B	37	ASN
1	B	62	ASN
1	B	89	GLN
1	B	170	ASN
1	B	191	GLN
1	B	208	HIS
1	B	223	ASN

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Mol	Chain	Res	Type
1	C	37	ASN
1	C	62	ASN
1	C	104	GLN
1	C	143	ASN
1	C	170	ASN
1	C	196	GLN
1	C	208	HIS
1	C	223	ASN
1	C	226	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](#)

Of 8 ligands modelled in this entry, 3 are monoatomic - leaving 5 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
3	ACT	B	1235	2	3,3,3	0.79	0	3,3,3	1.13	0
4	GOL	A	1234	-	5,5,5	0.87	0	5,5,5	0.75	0
3	ACT	A	1233[B]	2	3,3,3	1.23	0	3,3,3	0.43	0
3	ACT	C	1233	2	3,3,3	0.95	0	3,3,3	1.04	0
3	ACT	A	1233[A]	2	3,3,3	0.89	0	3,3,3	1.10	0

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
4	GOL	A	1234	-	-	2/4/4/4	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	A	1234	GOL	O1-C1-C2-C3
4	A	1234	GOL	O1-C1-C2-O2

There are no ring outliers.

2 monomers are involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	A	1233[B]	ACT	1	0
3	A	1233[A]	ACT	2	0

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ > 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 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	230/239 (96%)	-0.18	6 (2%) 57 59	14, 25, 45, 68	0
1	B	225/239 (94%)	0.29	14 (6%) 26 26	19, 31, 58, 68	4 (1%)
1	C	225/239 (94%)	0.46	18 (8%) 18 18	21, 37, 63, 69	1 (0%)
All	All	680/717 (94%)	0.19	38 (5%) 30 30	14, 31, 58, 69	5 (0%)

All (38) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	C	144	PRO	10.0
1	B	14	ILE	9.6
1	B	7	PRO	8.3
1	B	16	MET	7.5
1	B	15	ASP	6.1
1	A	2	PRO	5.5
1	B	3	PHE	5.5
1	C	231	PHE	4.1
1	B	144	PRO	3.8
1	B	147	THR	3.7
1	B	232	VAL	3.6
1	C	138	LEU	3.6
1	B	140	THR	3.4
1	B	146	GLY	3.4
1	C	150	VAL	3.0
1	A	3	PHE	3.0
1	C	230	PRO	2.8
1	A	231	PHE	2.8
1	C	139	PRO	2.7
1	C	137	PRO	2.5
1	C	50	GLU	2.4
1	C	146	GLY	2.4
1	B	9	LYS	2.4

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Mol	Chain	Res	Type	RSRZ
1	B	18	LEU	2.2
1	B	39	TYR	2.2
1	C	147	THR	2.2
1	C	166	GLY	2.2
1	C	134	PHE	2.2
1	C	52	MET	2.2
1	A	47	GLU	2.1
1	C	145	GLY	2.1
1	B	4	HIS	2.1
1	A	144	PRO	2.1
1	A	230	PRO	2.1
1	C	133	ALA	2.1
1	C	148	PRO	2.0
1	C	157	ILE	2.0
1	C	202	PHE	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 oligosaccharides 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($\text{\AA}^2$)	Q<0.9
4	GOL	A	1234	6/6	0.88	0.15	37,42,46,48	0
3	ACT	A	1233[B]	4/4	0.92	0.10	23,23,24,25	4
3	ACT	C	1233	4/4	0.92	0.10	38,39,44,45	0
3	ACT	A	1233[A]	4/4	0.92	0.10	12,19,20,23	4
3	ACT	B	1235	4/4	0.93	0.12	42,46,47,49	0
2	ZN	C	1232	1/1	0.99	0.03	31,31,31,31	0
2	ZN	A	1232	1/1	1.00	0.01	20,20,20,20	0
2	ZN	B	1234	1/1	1.00	0.01	29,29,29,29	0

6.5 Other polymers [i](#)

There are no such residues in this entry.