



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 1, 2026 – 01:36 PM UTC

PDB ID : 5HLB / pdb_00005h1b
Title : E. coli PBP1b in complex with acyl-aztreonam and moenomycin
Authors : King, D.T.; Strynadka, N.C.J.
Deposited on : 2016-01-14
Resolution : 2.42 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
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
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

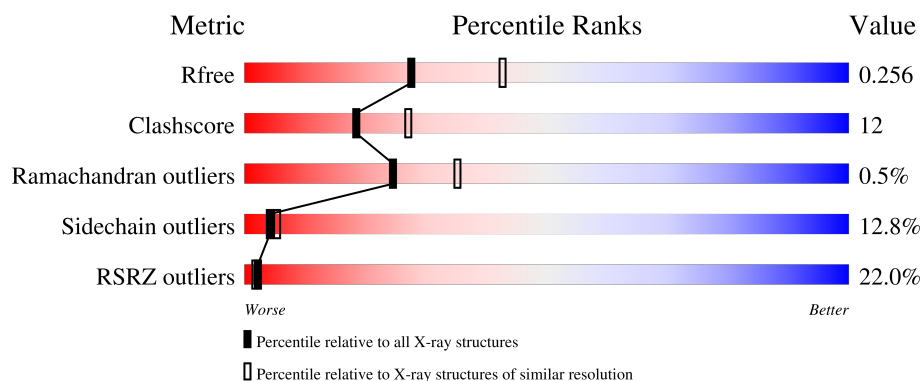
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.42 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	6062 (2.44-2.40)
Clashscore	190562	6562 (2.44-2.40)
Ramachandran outliers	187476	6481 (2.44-2.40)
Sidechain outliers	187428	6482 (2.44-2.40)
RSRZ outliers	180081	6066 (2.44-2.40)

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	747	22% 71% 22% 5% ..

2 Entry composition [i](#)

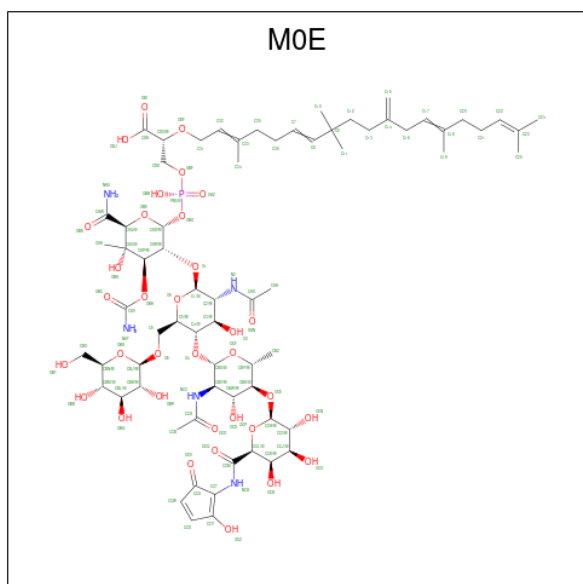
There are 4 unique types of molecules in this entry. The entry contains 6076 atoms, of which 0 are hydrogens and 0 are deuteriums.

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 Penicillin-binding protein 1B.

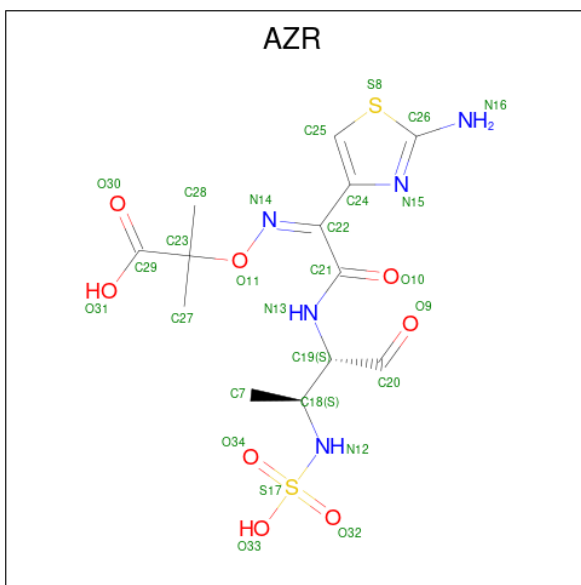
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	733	5738	3638	1012	1062	26	0	0	0

- Molecule 2 is MOENOMYCIN (CCD ID: M0E) (formula: C₆₉H₁₀₆N₅O₃₄P).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
			Total	C	N	O	P		
2	A	1	77	39	5	32	1	0	0

- Molecule 3 is 2-({[(1Z)-1-(2-amino-1,3-thiazol-4-yl)-2-oxo-2-{{[(2S,3S)-1-oxo-3-(sulfoamino)butan-2-yl]amino}ethylidene]amino}oxy)-2-methylpropanoic acid (CCD ID: AZR) (formula: C₁₃H₁₉N₅O₈S₂).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	A	1	Total	C	N	O	S	0	0
			28	13	5	8	2		

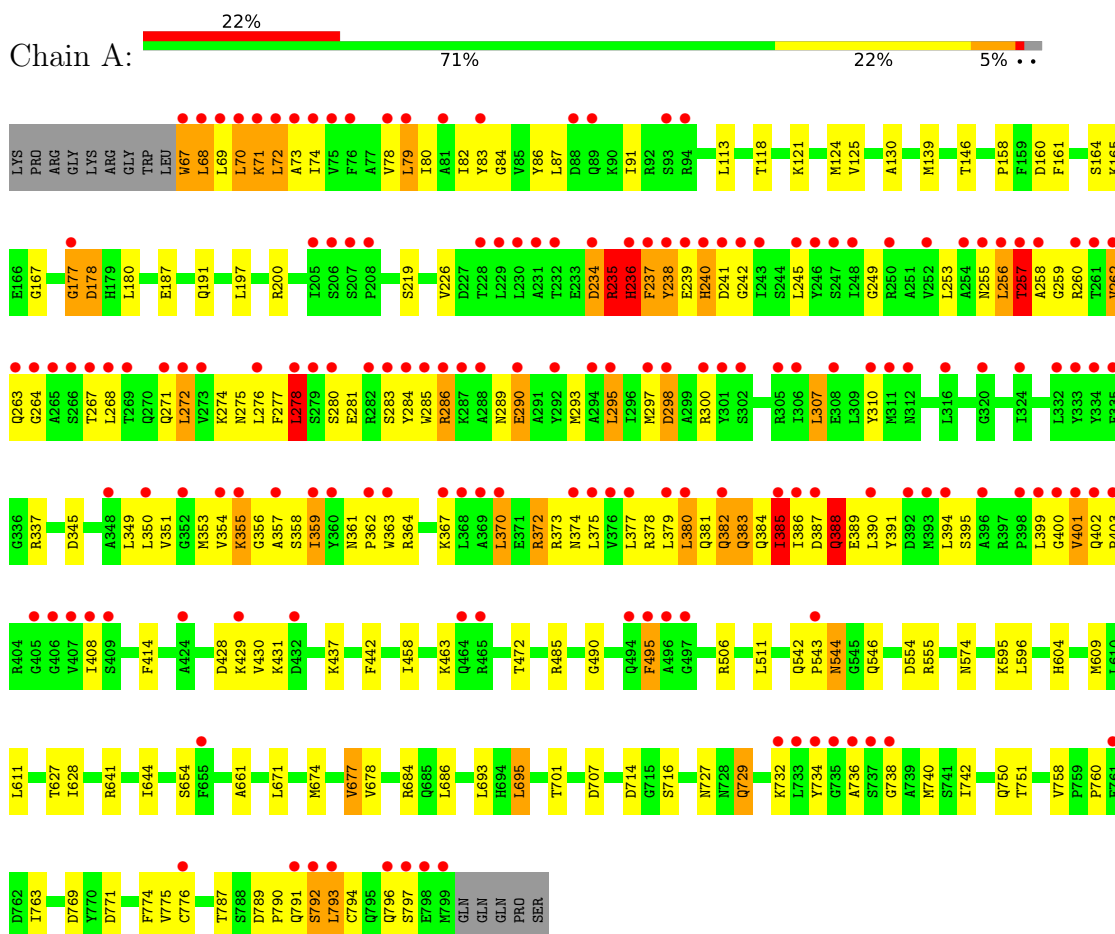
- Molecule 4 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	233	Total	O	0	0
			233	233		

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: Penicillin-binding protein 1B



4 Data and refinement statistics

Property	Value	Source
Space group	P 2 21 21	Depositor
Cell constants a, b, c, α , β , γ	62.53Å 64.39Å 301.40Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	35.43 – 2.42 35.43 – 2.42	Depositor EDS
% Data completeness (in resolution range)	96.6 (35.43-2.42) 96.5 (35.43-2.42)	Depositor EDS
R_{merge}	0.06	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.24 (at 2.42Å)	Xtriage
Refinement program	BUSTER 2.10.0	Depositor
R, R_{free}	0.225 , 0.243 0.238 , 0.256	Depositor DCC
R_{free} test set	2377 reflections (5.17%)	wwPDB-VP
Wilson B-factor (Å ²)	36.0	Xtriage
Anisotropy	0.760	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.29 , 53.6	EDS
L-test for twinning ²	$\langle L \rangle = 0.41$, $\langle L^2 \rangle = 0.23$	Xtriage
Estimated twinning fraction	0.076 for k,h,-l	Xtriage
F_o, F_c correlation	0.90	EDS
Total number of atoms	6076	wwPDB-VP
Average B, all atoms (Å ²)	60.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.48% 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: M0E, AZR

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	0.82	1/5854 (0.0%)	1.45	51/7947 (0.6%)

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

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	237	PHE	CA-C	5.28	1.59	1.52

All (51) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	384	GLN	N-CA-C	18.01	130.34	111.07
1	A	792	SER	N-CA-C	-9.81	100.73	112.89
1	A	234	ASP	N-CA-C	9.12	120.69	108.38
1	A	284	TYR	N-CA-C	-8.71	102.09	112.89
1	A	257	THR	N-CA-C	-8.47	92.77	110.80
1	A	262	VAL	N-CA-C	8.10	118.14	110.53
1	A	298	ASP	CA-CB-CG	6.92	119.53	112.60
1	A	792	SER	CA-C-N	6.81	129.29	120.44
1	A	792	SER	C-N-CA	6.81	129.29	120.44
1	A	544	ASN	CA-CB-CG	6.69	119.29	112.60
1	A	284	TYR	CA-C-N	6.56	131.84	120.68
1	A	284	TYR	C-N-CA	6.56	131.84	120.68

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	238	TYR	N-CA-C	6.54	119.76	110.14
1	A	235	ARG	CA-C-N	6.52	131.40	122.34
1	A	235	ARG	C-N-CA	6.52	131.40	122.34
1	A	751	THR	CB-CA-C	6.35	117.25	110.65
1	A	236	HIS	N-CA-C	5.98	119.90	111.52
1	A	714	ASP	CA-CB-CG	5.93	118.53	112.60
1	A	357	ALA	N-CA-C	-5.76	106.38	113.41
1	A	604	HIS	CB-CA-C	5.66	116.10	110.33
1	A	83	TYR	N-CA-C	-5.64	105.22	111.36
1	A	275	ASN	CA-C-N	5.57	128.01	120.44
1	A	275	ASN	C-N-CA	5.57	128.01	120.44
1	A	385	ILE	N-CA-C	5.54	120.87	109.34
1	A	554	ASP	CA-CB-CG	5.45	118.05	112.60
1	A	495	PHE	CA-CB-CG	5.42	119.22	113.80
1	A	388	GLN	N-CA-C	5.39	119.35	112.34
1	A	86	TYR	N-CA-C	-5.39	105.84	112.90
1	A	281	GLU	CB-CG-CD	5.37	121.73	112.60
1	A	769	ASP	CA-CB-CG	5.32	117.92	112.60
1	A	383	GLN	N-CA-C	-5.31	101.50	109.79
1	A	278	LEU	N-CA-C	5.30	118.36	110.14
1	A	285	TRP	CA-C-N	5.28	127.30	120.44
1	A	285	TRP	C-N-CA	5.28	127.30	120.44
1	A	281	GLU	N-CA-C	5.25	115.47	108.23
1	A	758	VAL	N-CA-C	-5.22	102.81	107.56
1	A	490	GLY	CA-C-N	5.18	127.74	120.28
1	A	490	GLY	C-N-CA	5.18	127.74	120.28
1	A	295	LEU	N-CA-C	-5.16	107.11	113.41
1	A	289	ASN	CA-C-N	5.15	127.60	120.29
1	A	289	ASN	C-N-CA	5.15	127.60	120.29
1	A	118	THR	CB-CA-C	5.14	120.64	110.42
1	A	775	VAL	CA-C-N	5.13	127.42	120.65
1	A	775	VAL	C-N-CA	5.13	127.42	120.65
1	A	367	LYS	CA-C-N	5.11	127.08	120.44
1	A	367	LYS	C-N-CA	5.11	127.08	120.44
1	A	277	PHE	N-CA-C	5.08	120.12	113.88
1	A	574	ASN	CA-C-N	5.04	125.27	120.43
1	A	574	ASN	C-N-CA	5.04	125.27	120.43
1	A	262	VAL	CA-C-N	5.00	130.71	121.70
1	A	262	VAL	C-N-CA	5.00	130.71	121.70

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	237	PHE	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	5738	0	5792	128	0
2	A	77	0	57	20	0
3	A	28	0	16	1	0
4	A	233	0	0	0	0
All	All	6076	0	5865	141	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 12.

All (141) 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)
2:A:901:M0E:CAX	2:A:901:M0E:OBG	1.64	1.45
2:A:901:M0E:CAR	2:A:901:M0E:O1	1.65	1.41
1:A:372:ARG:NH1	1:A:375:LEU:HD22	1.36	1.35
1:A:258:ALA:HB1	1:A:259:GLY:HA3	1.21	1.18
1:A:355:LYS:HD2	1:A:372:ARG:NH2	1.60	1.15
1:A:355:LYS:HD2	1:A:372:ARG:HH21	0.96	1.05
1:A:372:ARG:HH12	1:A:375:LEU:CD2	1.76	0.99
2:A:901:M0E:CAR	2:A:901:M0E:C1	2.41	0.98
1:A:71:LYS:HG3	1:A:72:LEU:N	1.78	0.95
1:A:71:LYS:HG3	1:A:72:LEU:H	1.32	0.94
1:A:68:LEU:HG	1:A:71:LYS:HG2	1.49	0.94
1:A:69:LEU:O	1:A:73:ALA:CB	2.17	0.93
1:A:69:LEU:O	1:A:73:ALA:HB2	1.69	0.92
1:A:400:GLY:HA3	1:A:402:GLN:HG2	1.50	0.92
1:A:355:LYS:CD	1:A:372:ARG:HH21	1.84	0.91
1:A:374:ASN:HA	1:A:377:LEU:HD12	1.54	0.88
1:A:258:ALA:CB	1:A:259:GLY:HA3	1.97	0.86
1:A:372:ARG:HH11	1:A:375:LEU:HD22	1.40	0.85
1:A:372:ARG:NH1	1:A:375:LEU:CD2	2.30	0.84

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:355:LYS:O	2:A:901:M0E:H5	1.78	0.83
1:A:258:ALA:HB1	1:A:259:GLY:CA	2.10	0.80
1:A:372:ARG:HH12	1:A:375:LEU:HD22	0.98	0.80
1:A:388:GLN:HA	1:A:391:TYR:HB3	1.64	0.80
1:A:362:PRO:HB3	1:A:399:LEU:HD13	1.65	0.79
1:A:262:VAL:CG1	1:A:264:GLY:H	1.95	0.79
2:A:901:M0E:O1	2:A:901:M0E:CAP	2.32	0.78
1:A:262:VAL:HG11	2:A:901:M0E:HAU2	1.50	0.76
1:A:240:HIS:H	1:A:240:HIS:CD2	2.07	0.72
1:A:79:LEU:HA	1:A:82:ILE:HG12	1.72	0.70
1:A:283:SER:HB3	1:A:286:ARG:HB2	1.73	0.70
1:A:283:SER:CB	1:A:286:ARG:HB2	2.22	0.69
1:A:69:LEU:O	1:A:73:ALA:HB3	1.91	0.69
1:A:71:LYS:O	1:A:74:ILE:HG22	1.92	0.69
1:A:363:TRP:CZ3	1:A:402:GLN:HB3	2.29	0.68
2:A:901:M0E:CAX	2:A:901:M0E:PBI	2.82	0.67
2:A:901:M0E:O3	2:A:901:M0E:OCF	2.13	0.64
1:A:91:ILE:HD11	1:A:293:MET:HG2	1.80	0.64
1:A:67:TRP:CE3	1:A:67:TRP:HA	2.32	0.63
1:A:262:VAL:HG13	1:A:264:GLY:H	1.61	0.63
1:A:506:ARG:HD2	1:A:707:ASP:OD1	2.00	0.61
2:A:901:M0E:HAS2	2:A:901:M0E:OBD	1.99	0.61
1:A:239:GLU:CB	1:A:298:ASP:HB3	2.30	0.61
2:A:901:M0E:OBG	2:A:901:M0E:CAR	2.45	0.61
1:A:388:GLN:HA	1:A:391:TYR:CB	2.31	0.61
1:A:377:LEU:HD22	1:A:394:LEU:HB3	1.82	0.60
1:A:399:LEU:HD12	1:A:400:GLY:N	2.18	0.58
1:A:113:LEU:HD22	1:A:124:MET:HE1	1.86	0.58
1:A:359:ILE:HD12	2:A:901:M0E:HCB1	1.86	0.57
1:A:776:CYS:HA	1:A:793:LEU:HD13	1.86	0.57
2:A:901:M0E:HO3	2:A:901:M0E:CBU	2.13	0.56
1:A:239:GLU:HB2	1:A:298:ASP:HB3	1.87	0.56
1:A:262:VAL:HG13	1:A:264:GLY:N	2.21	0.55
1:A:789:ASP:C	1:A:791:GLN:H	2.15	0.55
1:A:380:LEU:HD23	1:A:386:ILE:HG12	1.87	0.55
1:A:379:LEU:HD23	1:A:382:GLN:HE22	1.73	0.54
1:A:239:GLU:N	1:A:240:HIS:C	2.65	0.54
1:A:349:LEU:O	1:A:353:MET:HG2	2.08	0.54
1:A:67:TRP:HA	1:A:67:TRP:HE3	1.73	0.53
1:A:458:ILE:HD11	1:A:472:THR:HB	1.89	0.53
1:A:235:ARG:HG2	1:A:238:TYR:OH	2.08	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:377:LEU:CD2	1:A:394:LEU:HB3	2.38	0.52
1:A:760:PRO:HD2	1:A:763:ILE:HG13	1.90	0.52
1:A:262:VAL:HG13	1:A:263:GLN:N	2.24	0.52
1:A:239:GLU:N	1:A:240:HIS:O	2.43	0.52
1:A:283:SER:HB2	1:A:286:ARG:HB2	1.91	0.52
1:A:736:ALA:O	1:A:740:MET:HB2	2.10	0.52
1:A:370:LEU:HG	1:A:399:LEU:HD23	1.90	0.52
1:A:701:THR:HG21	1:A:734:TYR:HA	1.92	0.51
1:A:283:SER:HB3	1:A:286:ARG:H	1.75	0.51
1:A:239:GLU:CA	1:A:240:HIS:C	2.84	0.51
1:A:139:MET:HG3	1:A:146:THR:HG23	1.93	0.51
1:A:349:LEU:HB2	1:A:373:ARG:HG3	1.93	0.50
1:A:70:LEU:O	1:A:74:ILE:N	2.42	0.50
1:A:240:HIS:H	1:A:240:HIS:HD2	1.59	0.50
1:A:596:LEU:HA	1:A:627:THR:HG21	1.94	0.50
1:A:278:LEU:HD11	1:A:290:GLU:HB2	1.93	0.50
1:A:595:LYS:HB3	1:A:661:ALA:HB1	1.93	0.50
1:A:354:VAL:HG22	2:A:901:M0E:HAH3	1.93	0.50
1:A:611:LEU:O	3:A:902:AZR:H25	2.11	0.49
1:A:377:LEU:C	1:A:391:TYR:HE2	2.20	0.49
1:A:272:LEU:HD13	1:A:297:MET:HE3	1.94	0.49
1:A:355:LYS:O	2:A:901:M0E:H1	2.13	0.49
1:A:161:PHE:HB2	1:A:164:SER:O	2.12	0.48
1:A:241:ASP:HB3	1:A:267:THR:HG21	1.95	0.48
2:A:901:M0E:OBC	2:A:901:M0E:HAH2	2.13	0.48
1:A:262:VAL:CG1	1:A:264:GLY:N	2.73	0.48
1:A:789:ASP:O	1:A:791:GLN:N	2.46	0.48
1:A:240:HIS:CD2	1:A:240:HIS:N	2.80	0.48
1:A:262:VAL:CG1	2:A:901:M0E:HAU2	2.25	0.48
1:A:274:LYS:HA	1:A:278:LEU:HD12	1.94	0.48
1:A:236:HIS:HA	1:A:238:TYR:CD2	2.48	0.47
1:A:363:TRP:HH2	1:A:403:PRO:HD2	1.79	0.47
1:A:370:LEU:CD2	1:A:373:ARG:HH21	2.27	0.47
1:A:674:MET:HA	1:A:677:VAL:HG13	1.96	0.47
1:A:160:ASP:HA	1:A:165:LYS:HG3	1.97	0.47
1:A:249:GLY:O	1:A:262:VAL:O	2.33	0.47
2:A:901:M0E:OBG	2:A:901:M0E:HAQ	2.15	0.47
1:A:130:ALA:O	1:A:200:ARG:HD3	2.14	0.46
1:A:428:ASP:O	1:A:430:VAL:N	2.40	0.46
1:A:307:LEU:HA	1:A:310:TYR:HB3	1.98	0.46
2:A:901:M0E:HAH2	2:A:901:M0E:CAV	2.46	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:271:GLN:HG2	2:A:901:M0E:HAT2	1.80	0.45
1:A:353:MET:O	1:A:356:GLY:O	2.35	0.45
1:A:693:LEU:HB3	1:A:695:LEU:HD13	1.98	0.45
1:A:84:GLY:HA2	1:A:87:LEU:HD12	1.98	0.45
1:A:378:ARG:O	1:A:381:GLN:HG2	2.17	0.45
1:A:776:CYS:CA	1:A:793:LEU:HD13	2.47	0.44
1:A:431:LYS:HZ3	1:A:431:LYS:HB3	1.82	0.44
1:A:274:LYS:HA	1:A:278:LEU:CD1	2.48	0.44
1:A:234:ASP:CG	1:A:238:TYR:HE2	2.26	0.44
1:A:353:MET:O	1:A:356:GLY:C	2.60	0.44
1:A:239:GLU:H	1:A:240:HIS:C	2.24	0.43
1:A:256:LEU:O	1:A:257:THR:C	2.61	0.43
1:A:241:ASP:CB	1:A:267:THR:HG21	2.48	0.43
1:A:242:GLY:O	1:A:245:LEU:N	2.50	0.43
1:A:363:TRP:CH2	1:A:403:PRO:HD2	2.53	0.43
1:A:375:LEU:O	1:A:378:ARG:HG3	2.18	0.43
1:A:727:ASN:OD1	1:A:729:GLN:HB2	2.19	0.43
1:A:177:GLY:HA2	1:A:178:ASP:HA	1.87	0.43
1:A:268:LEU:HD23	1:A:271:GLN:OE1	2.18	0.43
1:A:414:PHE:CE1	1:A:442:PHE:HB2	2.54	0.43
1:A:283:SER:HB3	1:A:286:ARG:N	2.34	0.42
1:A:385:ILE:H	1:A:385:ILE:HD13	1.84	0.42
1:A:774:PHE:N	1:A:796:GLN:HG2	2.34	0.42
1:A:345:ASP:HB3	1:A:394:LEU:HD22	2.02	0.42
1:A:377:LEU:HB3	1:A:391:TYR:CE2	2.55	0.42
1:A:262:VAL:HG12	1:A:264:GLY:H	1.80	0.42
1:A:738:GLY:O	1:A:742:ILE:HG12	2.20	0.42
1:A:256:LEU:O	1:A:258:ALA:N	2.53	0.41
1:A:378:ARG:HB3	1:A:391:TYR:OH	2.20	0.41
1:A:793:LEU:HD12	1:A:793:LEU:C	2.46	0.41
1:A:362:PRO:HB3	1:A:399:LEU:CD1	2.42	0.41
1:A:678:VAL:O	1:A:684:ARG:HA	2.21	0.41
2:A:901:M0E:OBG	2:A:901:M0E:CAQ	2.69	0.41
1:A:351:VAL:O	1:A:354:VAL:HG12	2.20	0.41
1:A:158:PRO:HB3	1:A:167:GLY:HA2	2.03	0.41
1:A:278:LEU:HD13	1:A:286:ARG:HG2	2.03	0.40
1:A:121:LYS:O	1:A:125:VAL:HG23	2.20	0.40
1:A:428:ASP:C	1:A:430:VAL:H	2.25	0.40
1:A:542:GLN:HB2	1:A:543:PRO:CD	2.52	0.40
1:A:428:ASP:C	1:A:430:VAL:N	2.80	0.40

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	731/747 (98%)	677 (93%)	50 (7%)	4 (0%)	24	35

All (4) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	790	PRO
1	A	177	GLY
1	A	78	VAL
1	A	401	VAL

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	615/627 (98%)	536 (87%)	79 (13%)	4	5

All (79) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	67	TRP
1	A	68	LEU
1	A	70	LEU
1	A	71	LYS
1	A	72	LEU
1	A	79	LEU
1	A	80	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	178	ASP
1	A	180	LEU
1	A	187	GLU
1	A	191	GLN
1	A	197	LEU
1	A	219	SER
1	A	226	VAL
1	A	235	ARG
1	A	236	HIS
1	A	240	HIS
1	A	253	LEU
1	A	255	ASN
1	A	256	LEU
1	A	257	THR
1	A	260	ARG
1	A	272	LEU
1	A	276	LEU
1	A	278	LEU
1	A	280	SER
1	A	286	ARG
1	A	290	GLU
1	A	295	LEU
1	A	300	ARG
1	A	307	LEU
1	A	337	ARG
1	A	350	LEU
1	A	355	LYS
1	A	358	SER
1	A	359	ILE
1	A	361	ASN
1	A	364	ARG
1	A	370	LEU
1	A	372	ARG
1	A	380	LEU
1	A	382	GLN
1	A	383	GLN
1	A	385	ILE
1	A	387	ASP
1	A	388	GLN
1	A	389	GLU
1	A	390	LEU
1	A	395	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	401	VAL
1	A	408	ILE
1	A	429	LYS
1	A	437	LYS
1	A	463	LYS
1	A	485	ARG
1	A	495	PHE
1	A	511	LEU
1	A	544	ASN
1	A	546	GLN
1	A	555	ARG
1	A	609	MET
1	A	628	ILE
1	A	641	ARG
1	A	644	ILE
1	A	654	SER
1	A	671	LEU
1	A	677	VAL
1	A	686	LEU
1	A	695	LEU
1	A	716	SER
1	A	729	GLN
1	A	732	LYS
1	A	750	GLN
1	A	771	ASP
1	A	787	THR
1	A	792	SER
1	A	793	LEU
1	A	794	CYS
1	A	797	SER

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	132	GLN
1	A	185	ASN
1	A	240	HIS
1	A	255	ASN
1	A	322	ASN
1	A	347	GLN
1	A	365	ASN
1	A	382	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	464	GLN
1	A	494	GLN
1	A	523	GLN
1	A	542	GLN
1	A	551	GLN
1	A	552	ASN
1	A	602	GLN
1	A	633	ASN
1	A	653	GLN
1	A	756	ASN
1	A	773	ASN

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 ⓘ

2 ligands 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	$\# Z > 2$
2	M0E	A	901	-	79,81,114	3.24	37 (46%)	112,122,166	3.53	55 (49%)
3	AZR	A	902	1	26,28,28	3.95	11 (42%)	31,41,41	7.87	13 (41%)

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
2	M0E	A	901	-	-	17/52/158/206	0/5/5/6
3	AZR	A	902	1	-	8/32/35/35	0/1/1/1

All (48) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	901	M0E	ODF-CDG	-11.02	1.18	1.42
3	A	902	AZR	C26-S8	-10.98	1.59	1.74
2	A	901	M0E	CAW-NAU	9.46	1.55	1.32
2	A	901	M0E	O1-CAR	8.28	1.65	1.43
3	A	902	AZR	C24-N15	7.58	1.54	1.38
2	A	901	M0E	CAO-CAQ	-7.48	1.44	1.54
2	A	901	M0E	CAR-CAP	-7.16	1.38	1.52
3	A	902	AZR	C18-N12	-7.06	1.41	1.47
3	A	902	AZR	C25-S8	-6.80	1.55	1.71
2	A	901	M0E	OCD-CBW	6.69	1.59	1.43
3	A	902	AZR	C26-N15	6.54	1.41	1.31
2	A	901	M0E	CDG-CDH	6.02	1.60	1.52
2	A	901	M0E	OBR-CBM	-5.60	1.29	1.43
2	A	901	M0E	OCQ-CCM	-4.79	1.15	1.23
3	A	902	AZR	C25-C24	4.73	1.44	1.36
2	A	901	M0E	CAH-CAG	4.58	1.60	1.50
2	A	901	M0E	CAO-CAP	-4.26	1.47	1.54
3	A	902	AZR	C26-N16	3.91	1.42	1.34
2	A	901	M0E	O6-C6	3.84	1.50	1.43
2	A	901	M0E	ODI-CDH	-3.78	1.10	1.22
2	A	901	M0E	CBK-CBL	-3.73	1.42	1.52
2	A	901	M0E	CCA-NCC	3.47	1.45	1.34
2	A	901	M0E	CBW-CBV	-3.46	1.46	1.53
2	A	901	M0E	C6-C5	-3.37	1.41	1.51
2	A	901	M0E	O6-CBJ	3.30	1.45	1.40
2	A	901	M0E	OCP-CCL	3.21	1.49	1.43
3	A	902	AZR	C19-N13	-3.21	1.42	1.46
2	A	901	M0E	OBH-CAV	3.20	1.41	1.35
3	A	902	AZR	C21-N13	3.14	1.40	1.34
2	A	901	M0E	OCG-CCA	-3.09	1.16	1.23
2	A	901	M0E	CBV-NCC	2.88	1.50	1.45
2	A	901	M0E	PBI-OB	-2.81	1.42	1.55

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	901	M0E	CBO-CBN	-2.76	1.42	1.51
2	A	901	M0E	O5-C5	2.69	1.50	1.44
2	A	901	M0E	CBZ-CBY	2.60	1.57	1.51
2	A	901	M0E	OBC-CAV	-2.54	1.17	1.22
2	A	901	M0E	CCM-NCS	-2.52	1.27	1.32
3	A	902	AZR	S17-N12	2.49	1.62	1.59
2	A	901	M0E	CBW-CBX	-2.47	1.45	1.52
3	A	902	AZR	O11-N14	-2.45	1.36	1.42
2	A	901	M0E	OBQ-CBL	-2.43	1.36	1.43
2	A	901	M0E	CAQ-CAW	-2.42	1.45	1.52
2	A	901	M0E	PBI-OFB	2.40	1.68	1.59
2	A	901	M0E	PBI-OBG	2.30	1.66	1.59
2	A	901	M0E	ODJ-CDH	-2.23	1.23	1.30
2	A	901	M0E	CCJ-CCI	-2.14	1.46	1.52
2	A	901	M0E	CBJ-CBK	2.08	1.58	1.52
2	A	901	M0E	OCE-CBX	2.05	1.49	1.43

All (68) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	902	AZR	C25-S8-C26	39.50	105.86	88.84
2	A	901	M0E	C1-C2-N2	-11.35	91.87	110.92
3	A	902	AZR	S8-C26-N16	10.09	132.72	120.99
2	A	901	M0E	OBH-CAV-NAT	9.10	125.02	110.92
2	A	901	M0E	CBL-CBM-CBN	-8.70	94.45	110.23
3	A	902	AZR	S8-C26-N15	-8.42	107.90	114.54
3	A	902	AZR	O32-S17-O34	-8.37	101.75	120.36
2	A	901	M0E	CBZ-CBY-CBX	-8.18	101.22	113.39
2	A	901	M0E	OBS-CBN-CBM	8.06	124.23	109.70
2	A	901	M0E	CAS-CAO-CAQ	-8.06	104.49	111.14
2	A	901	M0E	O3-C3-C4	-8.03	89.35	109.94
2	A	901	M0E	CAQ-CAW-NAU	7.61	121.81	117.34
2	A	901	M0E	CBJ-CBK-CBL	-7.36	94.53	110.01
2	A	901	M0E	OBE-CAX-OBG	-7.00	102.22	111.36
2	A	901	M0E	CCL-CCM-NCS	6.52	125.76	116.64
2	A	901	M0E	OBH-CAV-OBC	-6.40	113.27	123.06
2	A	901	M0E	C3-C2-N2	6.35	122.32	110.62
2	A	901	M0E	C1-O1-CAR	-6.23	103.20	117.98
2	A	901	M0E	OBT-CBO-CBN	-5.95	91.09	111.33
2	A	901	M0E	C1-O5-C5	-5.93	102.14	113.72
2	A	901	M0E	O5-C5-C4	-5.18	99.02	109.72
2	A	901	M0E	OBS-CBN-CBO	-4.66	94.89	106.44

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	901	M0E	OBG-PBI-OAZ	4.58	124.45	109.81
2	A	901	M0E	OCO-CCJ-CCK	-4.43	99.93	110.38
2	A	901	M0E	OCQ-CCM-NCS	-4.27	115.50	123.04
3	A	902	AZR	O32-S17-N12	4.07	115.69	108.88
3	A	902	AZR	N16-C26-N15	-4.04	119.36	124.05
2	A	901	M0E	CCB-CCA-NCC	4.01	122.77	116.12
3	A	902	AZR	O11-N14-C22	3.96	117.93	111.76
2	A	901	M0E	C3-C4-C5	-3.94	102.20	110.93
2	A	901	M0E	OBS-CBJ-CBK	3.88	118.33	110.37
2	A	901	M0E	OCD-CBW-CBX	-3.82	100.14	109.94
3	A	902	AZR	C25-C24-N15	-3.77	110.25	115.43
3	A	902	AZR	C20-C19-N13	3.74	115.70	109.80
2	A	901	M0E	OBQ-CBL-CBM	3.67	119.02	110.38
2	A	901	M0E	OBD-CAW-NAU	-3.34	117.14	123.04
2	A	901	M0E	OBP-CBK-CBL	-3.31	102.56	110.38
2	A	901	M0E	OCR-CCK-CCL	3.22	117.12	109.76
2	A	901	M0E	OBR-CBM-CBL	3.21	117.93	110.38
2	A	901	M0E	ODJ-CDH-CDG	3.07	119.24	112.74
2	A	901	M0E	CAS-CAO-CAP	-3.01	107.72	111.23
3	A	902	AZR	C24-C25-S8	-2.94	106.84	110.24
3	A	902	AZR	O31-C29-C23	2.84	121.94	113.83
2	A	901	M0E	OBG-CAX-CAR	-2.83	103.19	108.38
2	A	901	M0E	O1-CAR-CAP	-2.83	99.68	106.82
2	A	901	M0E	C6-O6-CBJ	-2.83	107.73	113.80
2	A	901	M0E	O1-C1-C2	2.80	112.62	108.07
2	A	901	M0E	O4-C4-C5	2.80	116.82	109.48
2	A	901	M0E	O5-C5-C6	2.69	112.02	106.69
2	A	901	M0E	OCR-CCK-CCJ	-2.68	104.06	110.38
2	A	901	M0E	OCF-CBY-CBX	2.68	114.15	109.19
2	A	901	M0E	OBA-CAO-CAQ	2.67	112.82	107.68
2	A	901	M0E	OCG-CCA-NCC	-2.63	117.33	121.98
2	A	901	M0E	OBD-CAW-CAQ	2.61	120.81	118.93
2	A	901	M0E	CBU-CBV-NCC	-2.57	106.60	110.92
2	A	901	M0E	ODF-CDG-CDH	-2.47	104.08	110.36
2	A	901	M0E	OBC-CAV-NAT	-2.47	121.68	125.58
2	A	901	M0E	CBO-CBN-CBM	-2.43	107.06	113.02
2	A	901	M0E	C4-C3-C2	2.37	116.11	110.31
2	A	901	M0E	CCH-OCE-CBX	-2.26	112.62	117.98
2	A	901	M0E	OBB-PBI-OAZ	-2.26	101.93	112.44
2	A	901	M0E	ODJ-CDH-ODI	-2.22	119.03	124.08
2	A	901	M0E	CBK-CBL-CBM	2.20	114.70	110.83
3	A	902	AZR	O9-C20-C19	-2.19	119.07	124.86

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	901	M0E	C6-C5-C4	2.09	118.38	113.35
3	A	902	AZR	C25-C24-C22	2.08	129.42	125.69
2	A	901	M0E	OCF-CBY-CBZ	2.03	111.25	106.74
2	A	901	M0E	OCN-CCI-CCH	-2.01	105.30	110.08

There are no chirality outliers.

All (25) torsion outliers are listed below:

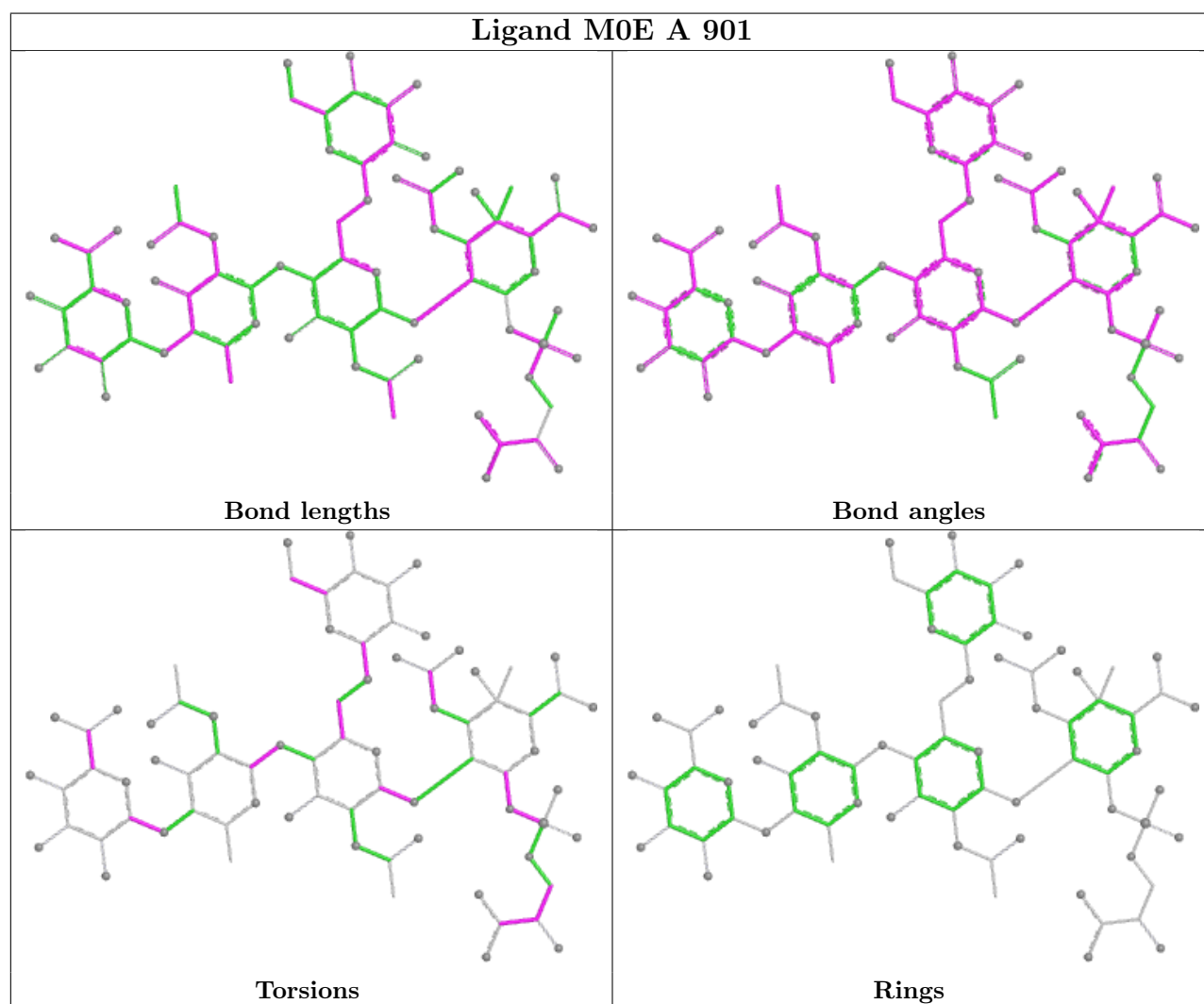
Mol	Chain	Res	Type	Atoms
2	A	901	M0E	CDH-CDG-CDK-OBF
2	A	901	M0E	CAX-OBG-PBI-OB
2	A	901	M0E	OBC-CAV-OBH-CAP
2	A	901	M0E	NAT-CAV-OBH-CAP
2	A	901	M0E	CBK-CBJ-O6-C6
2	A	901	M0E	OCP-CCL-CCM-NCS
3	A	902	AZR	C22-N14-O11-C23
3	A	902	AZR	C27-C23-O11-N14
3	A	902	AZR	C28-C23-O11-N14
3	A	902	AZR	C18-C19-C20-O9
2	A	901	M0E	O5-C5-C6-O6
2	A	901	M0E	C4-C5-C6-O6
2	A	901	M0E	OBS-CBJ-O6-C6
2	A	901	M0E	O5-C1-O1-CAR
2	A	901	M0E	OBS-CBN-CBO-OBT
2	A	901	M0E	OCP-CCL-CCM-OCQ
3	A	902	AZR	N13-C21-C22-C24
3	A	902	AZR	O10-C21-C22-N14
2	A	901	M0E	CAR-CAX-OBG-PBI
2	A	901	M0E	OCF-CBU-O4-C4
3	A	902	AZR	O10-C21-C22-C24
2	A	901	M0E	OCP-CCH-OCE-CBX
2	A	901	M0E	CCI-CCH-OCE-CBX
3	A	902	AZR	N13-C21-C22-N14
2	A	901	M0E	ODF-CDG-CDH-ODJ

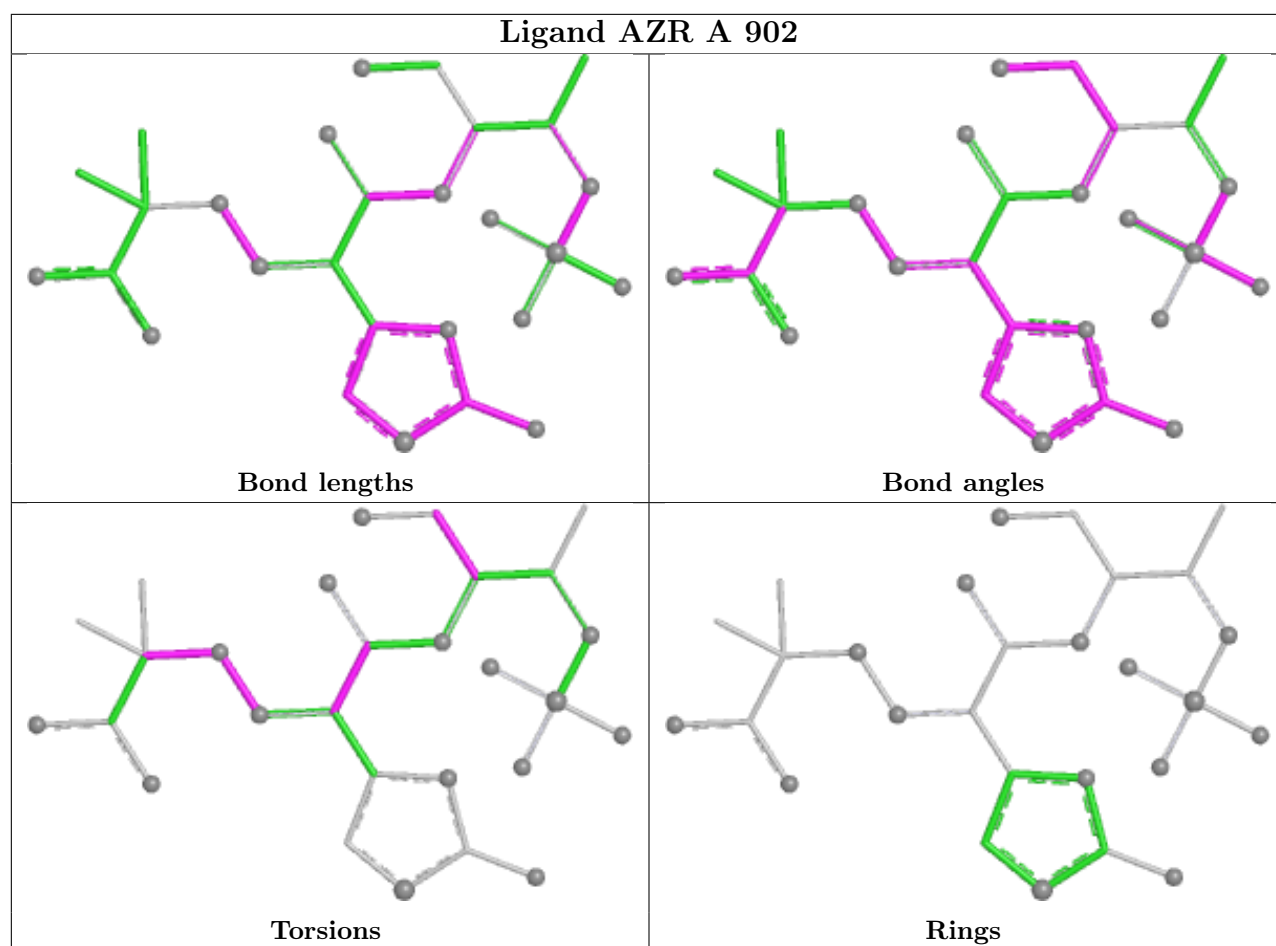
There are no ring outliers.

2 monomers are involved in 21 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	A	901	M0E	20	0
3	A	902	AZR	1	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.





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	733/747 (98%)	1.05	161 (21%) 2 2	16, 46, 122, 172	0

All (161) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	401	VAL	7.5
1	A	246	TYR	6.8
1	A	734	TYR	6.6
1	A	735	GLY	5.8
1	A	67	TRP	5.5
1	A	70	LEU	5.4
1	A	256	LEU	5.4
1	A	406	GLY	5.3
1	A	237	PHE	5.2
1	A	238	TYR	5.0
1	A	74	ILE	4.9
1	A	403	PRO	4.9
1	A	285	TRP	4.8
1	A	245	LEU	4.8
1	A	408	ILE	4.8
1	A	284	TYR	4.7
1	A	68	LEU	4.6
1	A	262	VAL	4.4
1	A	791	GLN	4.4
1	A	236	HIS	4.4
1	A	409	SER	4.4
1	A	243	ILE	4.3
1	A	465	ARG	4.3
1	A	287	LYS	4.2
1	A	268	LEU	4.2
1	A	385	ILE	4.1
1	A	257	THR	4.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	A	407	VAL	4.1
1	A	405	GLY	4.0
1	A	776	CYS	4.0
1	A	248	ILE	4.0
1	A	359	ILE	4.0
1	A	231	ALA	3.9
1	A	72	LEU	3.9
1	A	736	ALA	3.8
1	A	386	ILE	3.8
1	A	286	ARG	3.7
1	A	228	THR	3.7
1	A	247	SER	3.6
1	A	737	SER	3.6
1	A	399	LEU	3.6
1	A	78	VAL	3.5
1	A	273	VAL	3.5
1	A	379	LEU	3.5
1	A	380	LEU	3.5
1	A	242	GLY	3.5
1	A	496	ALA	3.4
1	A	355	LYS	3.4
1	A	402	GLN	3.4
1	A	400	GLY	3.4
1	A	393	MET	3.4
1	A	301	TYR	3.3
1	A	234	ASP	3.3
1	A	276	LEU	3.3
1	A	208	PRO	3.3
1	A	269	THR	3.3
1	A	495	PHE	3.2
1	A	69	LEU	3.2
1	A	261	THR	3.2
1	A	272	LEU	3.2
1	A	258	ALA	3.2
1	A	297	MET	3.2
1	A	177	GLY	3.2
1	A	369	ALA	3.1
1	A	797	SER	3.1
1	A	377	LEU	3.1
1	A	494	GLN	3.1
1	A	278	LEU	3.1
1	A	240	HIS	3.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	A	398	PRO	3.0
1	A	497	GLY	3.0
1	A	79	LEU	3.0
1	A	295	LEU	3.0
1	A	367	LYS	3.0
1	A	799	MET	3.0
1	A	265	ALA	3.0
1	A	288	ALA	3.0
1	A	271	GLN	3.0
1	A	267	THR	2.9
1	A	292	TYR	2.9
1	A	334	TYR	2.9
1	A	264	GLY	2.9
1	A	360	TYR	2.9
1	A	354	VAL	2.8
1	A	390	LEU	2.8
1	A	280	SER	2.8
1	A	396	ALA	2.8
1	A	283	SER	2.8
1	A	206	SER	2.7
1	A	230	LEU	2.7
1	A	290	GLU	2.7
1	A	282	ARG	2.7
1	A	252	VAL	2.6
1	A	88	ASP	2.6
1	A	241	ASP	2.6
1	A	306	ILE	2.6
1	A	733	LEU	2.6
1	A	294	ALA	2.6
1	A	357	ALA	2.6
1	A	93	SER	2.5
1	A	792	SER	2.5
1	A	71	LYS	2.5
1	A	368	LEU	2.5
1	A	732	LYS	2.5
1	A	75	VAL	2.5
1	A	73	ALA	2.5
1	A	266	SER	2.5
1	A	332	LEU	2.5
1	A	350	LEU	2.5
1	A	424	ALA	2.5
1	A	83	TYR	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	A	324	ILE	2.4
1	A	432	ASP	2.4
1	A	370	LEU	2.4
1	A	279	SER	2.4
1	A	798	GLU	2.4
1	A	655	PHE	2.4
1	A	254	ALA	2.4
1	A	793	LEU	2.4
1	A	363	TRP	2.4
1	A	232	THR	2.4
1	A	239	GLU	2.4
1	A	310	TYR	2.4
1	A	543	PRO	2.3
1	A	260	ARG	2.3
1	A	387	ASP	2.3
1	A	394	LEU	2.3
1	A	76	PHE	2.3
1	A	255	ASN	2.3
1	A	305	ARG	2.3
1	A	382	GLN	2.3
1	A	429	LYS	2.3
1	A	320	GLY	2.3
1	A	796	GLN	2.3
1	A	311	MET	2.3
1	A	312	ASN	2.2
1	A	263	GLN	2.2
1	A	335	PHE	2.2
1	A	81	ALA	2.2
1	A	333	TYR	2.2
1	A	316	LEU	2.2
1	A	207	SER	2.2
1	A	94	ARG	2.2
1	A	738	GLY	2.2
1	A	376	VAL	2.2
1	A	348	ALA	2.2
1	A	352	GLY	2.2
1	A	374	ASN	2.1
1	A	375	LEU	2.1
1	A	761	GLU	2.1
1	A	298	ASP	2.1
1	A	302	SER	2.1
1	A	464	GLN	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	A	89	GLN	2.1
1	A	300	ARG	2.1
1	A	205	ILE	2.1
1	A	362	PRO	2.1
1	A	250	ARG	2.1
1	A	308	GLU	2.0
1	A	392	ASP	2.0
1	A	229	LEU	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](#)

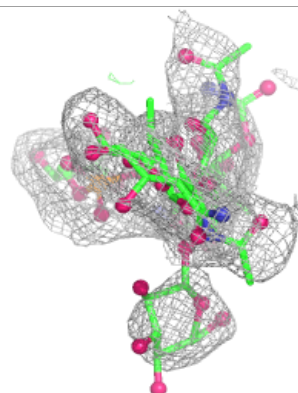
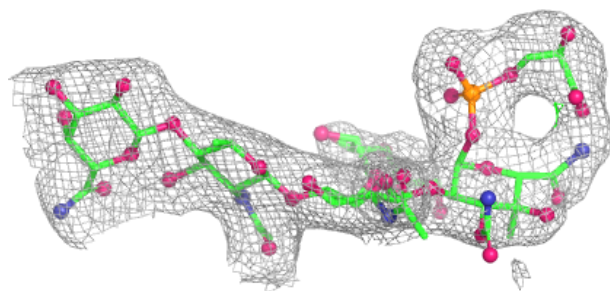
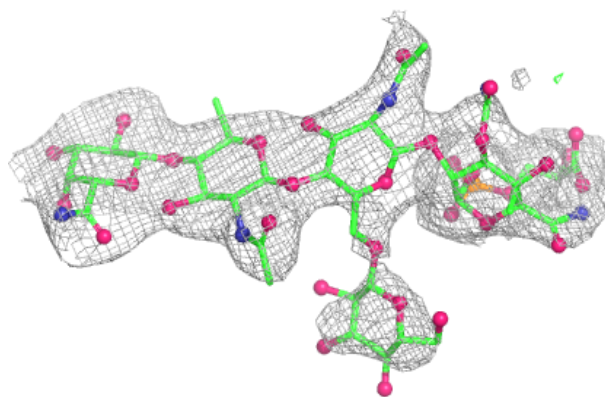
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
2	M0E	A	901	77/109	0.85	0.14	79,106,125,132	0
3	AZR	A	902	28/28	0.95	0.11	33,47,73,76	0

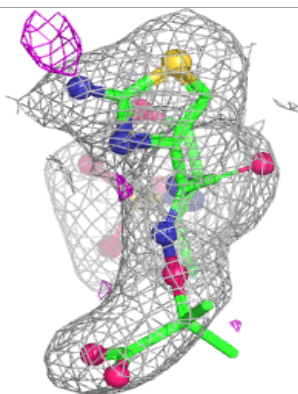
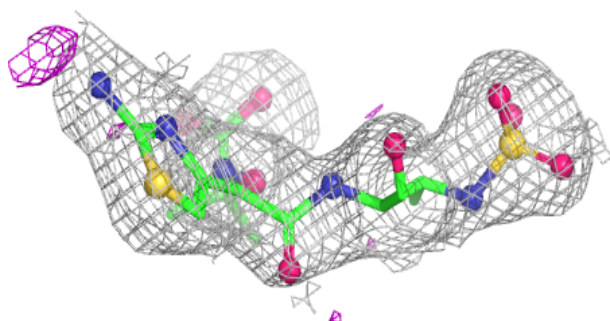
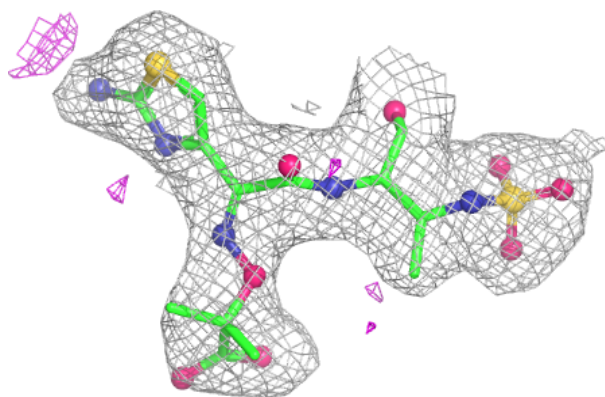
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around M0E A 901:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

**Electron density around AZR A 902:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



6.5 Other polymers [i](#)

There are no such residues in this entry.