



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 8, 2026 – 01:38 AM UTC

PDB ID : 1MWT / pdb_00001mwt
Title : Structure of penicillin G acyl-Penicillin binding protein 2a from methicillin resistant Staphylococcus aureus strain 27r at 2.45 Å resolution.
Authors : Lim, D.C.; Strynadka, N.C.J.
Deposited on : 2002-10-01
Resolution : 2.45 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

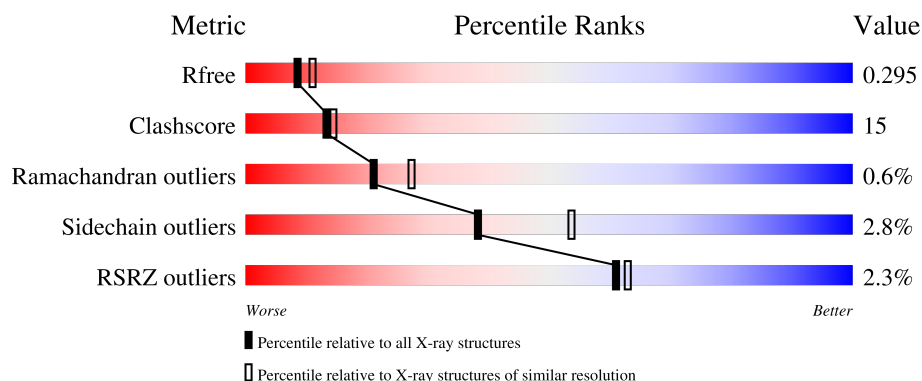
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.45 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	1190 (2.46-2.46)
Clashscore	190562	1229 (2.46-2.46)
Ramachandran outliers	187476	1218 (2.46-2.46)
Sidechain outliers	187428	1218 (2.46-2.46)
RSRZ outliers	180081	1190 (2.46-2.46)

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	646	3% 68% 28% ..
1	B	646	2% 70% 24% ..

2 Entry composition

There are 5 unique types of molecules in this entry. The entry contains 10298 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 PBP2a.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	635	Total	C	N	O	S	0	0	0
			5101	3216	860	1010	15			
1	B	626	Total	C	N	O	S	0	0	0
			5036	3179	846	996	15			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	23	MET	-	initiating methionine	UNP O54286
B	23	MET	-	initiating methionine	UNP O54286

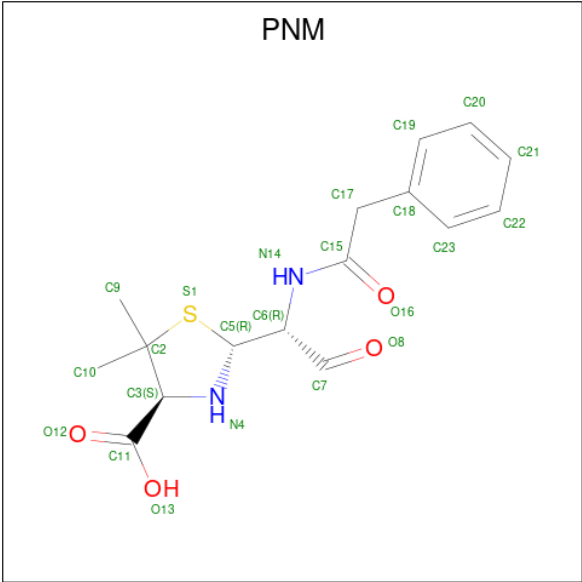
- Molecule 2 is CADMIUM ION (CCD ID: CD) (formula: Cd).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	4	Total	Cd	0	0
			4	4		
2	B	5	Total	Cd	0	0
			5	5		

- Molecule 3 is CHLORIDE ION (CCD ID: CL) (formula: Cl).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	2	Total	Cl	0	0
			2	2		
3	B	2	Total	Cl	0	0
			2	2		

- Molecule 4 is OPEN FORM - PENICILLIN G (CCD ID: PNM) (formula: C₁₆H₂₀N₂O₄S).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
4	A	1	Total	C	N	O	S	0	0
			23	16	2	4	1		
4	B	1	Total	C	N	O	S	0	0
			23	16	2	4	1		

- Molecule 5 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	63	Total	O	0	0
			63	63		
5	B	39	Total	O	0	0
			39	39		

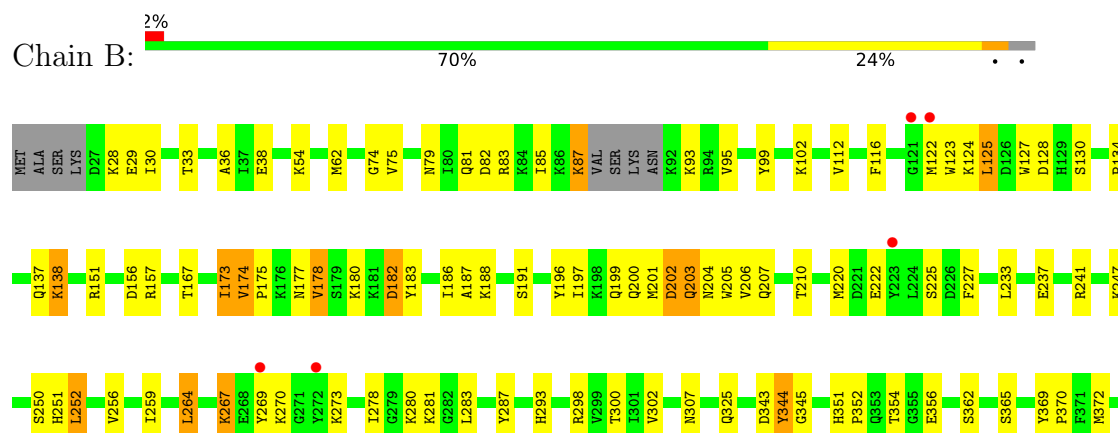
3 Residue-property plots [i](#)

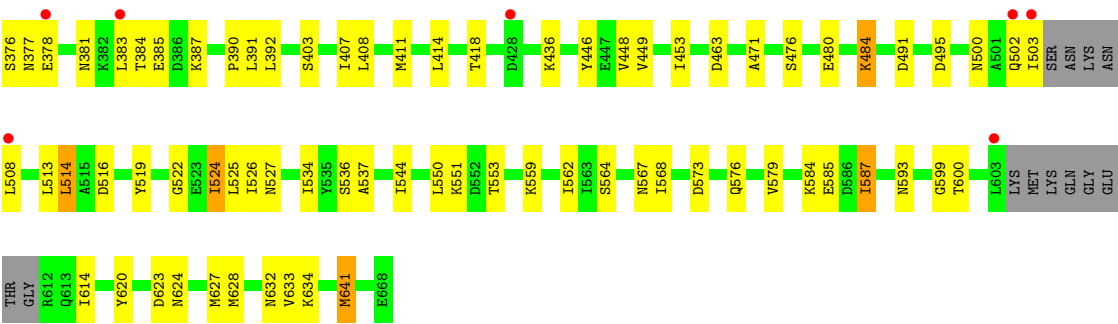
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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: PBP2a



• Molecule 1: PBP2a





4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	80.55Å 103.27Å 186.82Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	24.89 – 2.45 24.89 – 2.45	Depositor EDS
% Data completeness (in resolution range)	97.3 (24.89-2.45) 97.3 (24.89-2.45)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.05	Depositor
$\langle I/\sigma(I) \rangle$ ¹	3.27 (at 2.44Å)	Xtriage
Refinement program	CNS 1.1	Depositor
R, R_{free}	0.233 , 0.295 0.233 , 0.295	Depositor DCC
R_{free} test set	2863 reflections (5.07%)	wwPDB-VP
Wilson B-factor (Å ²)	41.3	Xtriage
Anisotropy	0.741	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.32 , 39.5	EDS
L-test for twinning ²	$\langle L \rangle = 0.49$, $\langle L^2 \rangle = 0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.94	EDS
Total number of atoms	10298	wwPDB-VP
Average B, all atoms (Å ²)	51.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.16% 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: PNM, CL, CD

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	0.39	1/5186 (0.0%)	0.88	13/6974 (0.2%)
1	B	0.38	0/5119	0.89	13/6882 (0.2%)
All	All	0.38	1/10305 (0.0%)	0.88	26/13856 (0.2%)

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	629	MET	SD-CE	-5.54	1.65	1.79

All (26) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	174	VAL	N-CA-C	-7.12	100.50	107.55
1	B	351	HIS	CA-C-N	7.07	126.60	119.24
1	B	351	HIS	C-N-CA	7.07	126.60	119.24
1	A	351	HIS	CA-C-N	6.32	127.75	119.84
1	A	351	HIS	C-N-CA	6.32	127.75	119.84
1	A	292	GLN	N-CA-C	6.27	118.39	110.24
1	B	587	ILE	N-CA-C	6.09	119.62	113.47
1	A	652	VAL	N-CA-C	-5.99	104.90	110.53
1	A	129	HIS	N-CA-C	5.78	119.86	112.34
1	A	468	ALA	N-CA-C	-5.75	105.09	111.36
1	B	178	VAL	N-CA-C	5.74	116.13	107.75
1	A	624	ASN	CA-C-N	5.68	126.94	119.84
1	A	624	ASN	C-N-CA	5.68	126.94	119.84
1	B	641	MET	CB-CA-C	-5.66	110.07	116.63
1	B	495	ASP	N-CA-C	-5.65	106.27	112.72
1	A	178	VAL	N-CA-C	5.58	115.98	108.17
1	A	394	LYS	N-CA-C	5.45	117.98	111.71
1	B	448	VAL	N-CA-C	5.38	116.13	107.73

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	173	ILE	N-CA-C	5.37	115.63	108.11
1	A	613	GLN	N-CA-C	5.30	118.09	109.24
1	A	131	VAL	N-CA-C	-5.06	105.46	112.50
1	A	344	TYR	N-CA-C	-5.06	101.52	109.25
1	B	418	THR	N-CA-C	-5.05	106.95	113.02
1	B	627	MET	N-CA-C	5.05	116.81	108.13
1	B	624	ASN	CA-C-N	5.01	126.11	119.84
1	B	624	ASN	C-N-CA	5.01	126.11	119.84

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	5101	0	5092	161	0
1	B	5036	0	5024	141	0
2	A	4	0	0	0	0
2	B	5	0	0	0	0
3	A	2	0	0	0	0
3	B	2	0	0	0	0
4	A	23	0	18	0	0
4	B	23	0	18	3	0
5	A	63	0	0	6	0
5	B	39	0	0	1	0
All	All	10298	0	10152	302	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 15.

All (302) 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:629:MET:HE1	1:A:652:VAL:HG11	1.23	1.12
1:A:136:MET:HE2	1:A:142:ILE:HD11	1.37	1.07

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:336:ILE:HD11	1:A:629:MET:HE2	1.34	1.06
1:B:267:LYS:H	1:B:267:LYS:HD3	1.27	0.95
1:B:600:THR:HG22	4:B:708:PNM:HC3	1.56	0.88
1:B:414:LEU:HB3	1:B:567:ASN:HD22	1.35	0.87
1:A:133:ILE:HB	1:A:136:MET:HE3	1.55	0.87
1:B:381:ASN:HA	1:B:384:THR:HG22	1.57	0.87
1:B:403:SER:HB2	1:B:599:GLY:HA2	1.60	0.82
1:A:554:LYS:HD3	1:A:554:LYS:H	1.43	0.82
1:B:579:VAL:HG13	1:B:587:ILE:HG23	1.58	0.82
1:A:119:GLU:HG3	1:A:124:LYS:HG3	1.61	0.81
1:A:112:VAL:HG13	1:A:134:PRO:HB3	1.62	0.81
1:B:503:ILE:HD12	1:B:524:ILE:HA	1.61	0.81
1:A:491:ASP:HA	1:A:500:ASN:HD21	1.46	0.80
1:B:186:ILE:HD13	1:B:233:LEU:HD21	1.62	0.80
1:A:611:GLY:HA3	1:A:635:ASP:OD1	1.82	0.80
1:B:87:LYS:HE2	1:B:87:LYS:H	1.47	0.79
1:B:200:GLN:HA	1:B:203:GLN:HE21	1.46	0.79
1:B:576:GLN:HE22	1:B:593:ASN:HD21	1.30	0.79
1:A:138:LYS:H	1:A:138:LYS:HD2	1.47	0.78
1:A:89:SER:HB3	1:A:92:LYS:HB2	1.67	0.77
1:A:336:ILE:CD1	1:A:629:MET:HE2	2.15	0.76
1:A:387:LYS:HG3	5:A:1110:HOH:O	1.86	0.76
1:B:414:LEU:HB3	1:B:567:ASN:ND2	2.02	0.75
1:B:503:ILE:CD1	1:B:525:LEU:H	1.99	0.75
1:A:352:PRO:HG3	1:A:628:MET:HG3	1.70	0.74
1:A:333:GLN:HE22	1:A:360:LEU:H	1.34	0.73
1:A:138:LYS:H	1:A:138:LYS:CD	2.01	0.73
1:A:28:LYS:HD2	1:A:28:LYS:N	2.06	0.71
1:B:503:ILE:HD11	1:B:525:LEU:H	1.54	0.71
1:A:171:ILE:HD11	1:A:220:MET:HE1	1.73	0.71
1:A:491:ASP:HA	1:A:500:ASN:ND2	2.06	0.70
1:B:87:LYS:HE2	1:B:87:LYS:N	2.05	0.70
1:A:241:ARG:HB3	1:A:372:MET:HE1	1.73	0.70
1:A:91:ASN:HD22	1:A:118:LYS:HB3	1.56	0.69
1:A:486:LEU:HD23	1:A:562:ILE:HD12	1.74	0.69
1:A:230:LYS:HD2	1:A:231:PHE:CE1	2.28	0.69
1:A:136:MET:CE	1:A:142:ILE:HD11	2.20	0.68
1:B:524:ILE:HD12	1:B:524:ILE:H	1.58	0.68
1:B:502:GLN:C	1:B:503:ILE:HD13	2.19	0.67
1:A:262:GLU:HA	1:A:265:LYS:HE3	1.75	0.67
1:B:247:LYS:HB3	1:B:365:SER:HB3	1.75	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:480:GLU:HG3	1:A:508:LEU:HD12	1.78	0.65
1:B:269:TYR:CE2	1:B:278:ILE:HD12	2.33	0.64
1:B:408:LEU:CD2	1:B:534:ILE:HG21	2.28	0.64
1:A:267:LYS:HD3	1:A:270:LYS:HE3	1.80	0.64
1:B:267:LYS:O	1:B:270:LYS:HG3	1.98	0.64
1:B:502:GLN:O	1:B:503:ILE:HD13	1.98	0.64
1:A:187:ALA:HB1	1:A:192:ILE:O	1.97	0.63
1:A:76:LYS:HE3	1:A:104:ASN:OD1	1.99	0.63
1:A:403:SER:HB2	1:A:599:GLY:HA2	1.81	0.62
1:B:516:ASP:HA	1:B:519:TYR:CE2	2.34	0.62
1:B:79:ASN:HB3	1:B:81:GLN:NE2	2.14	0.62
1:B:251:HIS:CD2	1:B:362:SER:HB3	2.34	0.62
1:A:569:ASN:O	1:A:573:ASP:HB2	1.99	0.62
1:B:381:ASN:HA	1:B:384:THR:CG2	2.26	0.62
1:A:99:TYR:HD1	1:A:112:VAL:HG11	1.64	0.62
1:A:406:LYS:HE2	1:A:519:TYR:HB2	1.81	0.62
1:B:259:ILE:HG12	1:B:264:LEU:HG	1.82	0.62
1:B:471:ALA:HB1	1:B:514:LEU:HD22	1.81	0.62
1:A:408:LEU:HD11	1:A:534:ILE:HD13	1.82	0.61
1:A:620:TYR:CE1	1:A:628:MET:HE2	2.35	0.61
1:A:112:VAL:CG1	1:A:134:PRO:HB3	2.30	0.61
1:B:354:THR:OG1	1:B:356:GLU:HG3	2.01	0.60
1:A:27:ASP:OD1	1:A:85:ILE:HG21	2.02	0.60
1:B:269:TYR:HE2	1:B:278:ILE:HD12	1.67	0.60
1:A:298:ARG:HG2	1:A:300:THR:HG23	1.83	0.60
1:B:54:LYS:HA	1:B:62:MET:SD	2.42	0.60
1:B:593:ASN:HB2	1:B:623:ASP:OD2	2.01	0.59
1:B:522:GLY:H	1:B:524:ILE:HD11	1.66	0.58
1:B:220:MET:HE2	1:B:220:MET:HA	1.84	0.58
1:B:138:LYS:H	1:B:138:LYS:HZ3	1.52	0.58
1:A:262:GLU:HA	1:A:265:LYS:HZ2	1.69	0.58
1:B:576:GLN:HE22	1:B:593:ASN:ND2	2.01	0.57
1:A:46:TYR:CE1	1:A:54:LYS:HG3	2.38	0.57
1:A:408:LEU:HD13	1:A:534:ILE:HG21	1.85	0.57
1:A:407:ILE:O	1:A:411:MET:HG3	2.05	0.57
1:A:408:LEU:CD1	1:A:534:ILE:HG21	2.34	0.57
1:A:381:ASN:HB3	1:A:385:GLU:OE2	2.05	0.57
1:A:182:ASP:HB3	1:A:231:PHE:CD2	2.40	0.56
1:A:252:LEU:O	1:A:283:LEU:HG	2.05	0.56
1:A:182:ASP:HB3	1:A:231:PHE:HD2	1.70	0.56
1:A:224:LEU:HA	1:A:227:PHE:HB3	1.87	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:138:LYS:HD2	1:A:138:LYS:N	2.19	0.56
1:A:262:GLU:HA	1:A:265:LYS:CE	2.35	0.56
1:A:501:ALA:HB1	1:A:525:LEU:O	2.05	0.56
1:B:87:LYS:H	1:B:87:LYS:CE	2.19	0.56
1:B:186:ILE:HA	1:B:227:PHE:HZ	1.70	0.55
1:B:122:MET:HE2	1:B:124:LYS:NZ	2.21	0.55
1:A:592:ALA:HA	5:A:1138:HOH:O	2.06	0.55
1:B:203:GLN:HB2	1:B:206:VAL:HG23	1.89	0.55
1:B:384:THR:HG23	1:B:385:GLU:HG3	1.88	0.55
1:A:363:THR:HA	1:A:364:PRO:C	2.30	0.55
1:A:176:LYS:HG3	1:A:208:ASP:O	2.06	0.55
1:A:200:GLN:O	1:A:203:GLN:HG3	2.07	0.55
1:B:352:PRO:HG3	1:B:628:MET:HG3	1.88	0.54
1:A:173:ILE:HG13	1:A:214:LEU:HD11	1.89	0.54
1:A:472:LEU:HD23	1:A:514:LEU:HD12	1.88	0.54
1:A:406:LYS:HD3	1:A:467:PHE:CD1	2.42	0.54
1:B:491:ASP:HA	1:B:500:ASN:OD1	2.07	0.54
1:B:600:THR:HA	1:B:614:ILE:O	2.07	0.54
1:B:524:ILE:H	1:B:524:ILE:CD1	2.17	0.54
1:A:29:GLU:HA	1:A:32:ASN:HD22	1.72	0.54
1:A:344:TYR:CD1	1:A:344:TYR:C	2.85	0.54
1:A:290:LYS:HB2	1:A:324:ILE:HD11	1.90	0.53
1:B:99:TYR:CD1	1:B:134:PRO:HG3	2.43	0.53
1:B:180:LYS:HA	1:B:183:TYR:CD1	2.43	0.53
1:A:437:SER:C	1:A:439:GLY:H	2.15	0.53
1:A:300:THR:HG22	1:A:312:THR:HA	1.89	0.53
1:B:247:LYS:HA	1:B:250:SER:OG	2.09	0.53
1:B:137:GLN:HB3	1:B:138:LYS:HZ1	1.74	0.53
1:B:298:ARG:HD3	5:B:804:HOH:O	2.08	0.53
1:B:600:THR:CG2	4:B:708:PNM:HC3	2.35	0.52
1:A:27:ASP:N	1:A:28:LYS:HD2	2.24	0.52
1:B:267:LYS:HD3	1:B:267:LYS:N	2.11	0.52
1:B:484:LYS:NZ	1:B:484:LYS:HB2	2.25	0.52
1:A:371:PHE:CE1	1:A:375:MET:HE1	2.45	0.52
1:A:516:ASP:HA	1:A:519:TYR:CE2	2.45	0.52
1:B:137:GLN:HB3	1:B:138:LYS:NZ	2.26	0.52
1:A:151:ARG:HD3	1:A:241:ARG:CZ	2.40	0.51
1:A:456:LYS:HE3	1:A:577:GLN:HE21	1.74	0.51
1:B:446:TYR:HB3	4:B:708:PNM:H101	1.92	0.51
1:A:172:GLY:HA2	1:A:214:LEU:HG	1.92	0.51
1:B:584:LYS:HG3	1:B:585:GLU:H	1.76	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:259:ILE:HD13	1:B:264:LEU:HD23	1.92	0.51
1:A:136:MET:HE2	1:A:142:ILE:CD1	2.27	0.51
1:B:99:TYR:HD1	1:B:112:VAL:HG11	1.76	0.51
1:B:403:SER:HB2	1:B:599:GLY:CA	2.37	0.51
1:B:449:VAL:HG23	1:B:449:VAL:O	2.11	0.51
1:A:519:TYR:HE1	1:A:521:GLN:NE2	2.08	0.51
1:A:75:VAL:HG23	1:A:75:VAL:O	2.10	0.51
1:A:220:MET:HE3	1:A:220:MET:HA	1.93	0.50
1:B:449:VAL:O	1:B:453:ILE:HD11	2.10	0.50
1:A:425:TYR:HD2	1:A:469:ARG:NH1	2.09	0.50
1:A:262:GLU:HA	1:A:265:LYS:NZ	2.27	0.50
1:B:196:TYR:O	1:B:199:GLN:HB3	2.11	0.50
1:B:343:ASP:HB3	1:B:633:VAL:HG13	1.93	0.50
1:A:128:ASP:OD2	1:A:128:ASP:C	2.54	0.50
1:A:432:TRP:CZ2	1:A:469:ARG:NE	2.80	0.50
1:A:615:GLY:HA3	1:A:645:ASN:HD21	1.76	0.50
1:A:636:VAL:HG23	1:A:641:MET:HA	1.93	0.50
1:A:527:ASN:ND2	1:A:528:PRO:HD2	2.26	0.50
1:B:38:GLU:OE1	1:B:83:ARG:NH2	2.45	0.50
1:B:200:GLN:HA	1:B:203:GLN:NE2	2.22	0.49
1:A:155:LEU:CD2	1:A:161:GLU:HG2	2.42	0.49
1:A:382:LYS:HD3	1:A:382:LYS:C	2.37	0.49
1:B:79:ASN:HB3	1:B:81:GLN:HE21	1.76	0.49
1:B:200:GLN:CA	1:B:203:GLN:HE21	2.19	0.49
1:B:614:ILE:HD13	1:B:634:LYS:HA	1.93	0.49
1:A:91:ASN:ND2	1:A:118:LYS:HD3	2.28	0.49
1:B:182:ASP:N	1:B:182:ASP:OD2	2.44	0.49
1:B:384:THR:HG23	1:B:385:GLU:N	2.28	0.49
1:B:471:ALA:HB1	1:B:514:LEU:CD2	2.42	0.49
1:B:550:LEU:HB2	1:B:553:THR:OG1	2.13	0.49
1:A:100:LYS:HA	1:A:108:ILE:O	2.13	0.49
1:B:503:ILE:HD12	1:B:524:ILE:CG2	2.43	0.49
1:A:66:PRO:HG3	1:A:132:ILE:HD13	1.95	0.49
1:A:662:LYS:C	1:A:663:LYS:HD2	2.38	0.49
1:B:174:VAL:HB	1:B:177:ASN:ND2	2.28	0.49
1:A:224:LEU:HD12	1:A:224:LEU:N	2.28	0.48
1:A:554:LYS:H	1:A:554:LYS:CD	2.19	0.48
1:B:344:TYR:CD2	1:B:344:TYR:C	2.91	0.48
1:A:476:SER:HB2	1:A:508:LEU:HB2	1.94	0.48
1:A:52:ILE:HG23	1:A:53:SER:H	1.79	0.47
1:A:437:SER:C	1:A:439:GLY:N	2.72	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:99:TYR:CG	1:B:134:PRO:HG3	2.50	0.47
1:B:325:GLN:OE1	1:B:551:LYS:HG2	2.15	0.47
1:B:573:ASP:O	1:B:576:GLN:HB3	2.14	0.47
1:A:634:LYS:O	1:A:635:ASP:HB2	2.15	0.47
1:A:344:TYR:HA	1:A:364:PRO:HD3	1.97	0.47
1:B:620:TYR:CE1	1:B:628:MET:HE2	2.50	0.47
1:A:176:LYS:HB2	1:A:176:LYS:NZ	2.30	0.47
1:A:408:LEU:CD1	1:A:534:ILE:HD13	2.45	0.46
1:B:378:GLU:HA	1:B:378:GLU:OE2	2.14	0.46
1:B:252:LEU:HD22	1:B:283:LEU:HG	1.98	0.46
1:A:428:ASP:HA	1:A:450:ASN:OD1	2.15	0.46
1:A:595:ILE:HD11	1:A:620:TYR:CZ	2.50	0.46
1:B:157:ARG:HB2	1:B:551:LYS:HE2	1.96	0.46
1:A:66:PRO:HG3	1:A:132:ILE:CD1	2.46	0.46
1:B:202:ASP:O	1:B:203:GLN:C	2.57	0.46
1:A:173:ILE:HG23	1:A:178:VAL:HB	1.97	0.46
1:B:536:SER:HA	1:B:628:MET:SD	2.55	0.46
1:B:587:ILE:HG12	1:B:587:ILE:O	2.15	0.46
1:B:302:VAL:CG1	1:B:307:ASN:HA	2.46	0.46
1:A:620:TYR:CD1	1:A:628:MET:HE2	2.50	0.46
1:B:128:ASP:C	1:B:128:ASP:OD2	2.59	0.46
1:A:327:THR:OG1	1:A:549:LEU:HA	2.16	0.46
1:B:138:LYS:H	1:B:138:LYS:NZ	2.12	0.46
1:A:138:LYS:H	1:A:138:LYS:CE	2.28	0.45
1:A:192:ILE:HA	5:A:1136:HOH:O	2.15	0.45
1:B:584:LYS:HG3	1:B:585:GLU:N	2.31	0.45
1:A:259:ILE:HA	1:A:263:GLU:OE2	2.16	0.45
1:A:615:GLY:HA3	1:A:645:ASN:ND2	2.30	0.45
1:A:613:GLN:HE22	1:A:641:MET:HG2	1.82	0.45
1:A:401:PRO:O	1:A:402:GLY:C	2.58	0.45
1:B:256:VAL:HG22	1:B:372:MET:CE	2.47	0.45
1:B:436:LYS:O	1:B:436:LYS:HG2	2.17	0.45
1:B:544:ILE:HD11	1:B:562:ILE:HD13	1.97	0.45
1:A:396:GLN:HG2	1:A:499:TYR:CD1	2.52	0.45
1:A:424:SER:HA	1:A:453:ILE:O	2.17	0.45
1:A:432:TRP:NE1	1:A:469:ARG:HH21	2.15	0.45
1:B:544:ILE:HB	1:B:559:LYS:HB2	1.99	0.45
1:A:173:ILE:CG2	1:A:178:VAL:HB	2.46	0.45
1:A:504:SER:HA	1:A:523:GLU:HB2	1.99	0.45
1:A:629:MET:CE	1:A:652:VAL:HG11	2.17	0.45
1:B:222:GLU:HA	1:B:225:SER:HB3	1.99	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:564:SER:O	1:B:568:ILE:HG13	2.17	0.45
1:A:231:PHE:HB2	1:A:233:LEU:HG	1.99	0.44
1:A:292:GLN:OE1	1:A:292:GLN:HA	2.17	0.44
1:A:452:ASN:O	1:A:453:ILE:HD13	2.17	0.44
1:B:345:GLY:HA3	1:B:632:ASN:O	2.16	0.44
1:A:46:TYR:O	1:A:54:LYS:HE2	2.17	0.44
1:A:256:VAL:HG22	1:A:372:MET:HE3	2.00	0.44
1:B:241:ARG:HB3	1:B:372:MET:HE1	1.99	0.44
1:B:503:ILE:CD1	1:B:524:ILE:HA	2.41	0.44
1:B:526:ILE:HG22	1:B:527:ASN:N	2.31	0.44
1:B:287:TYR:CZ	1:B:550:LEU:HD11	2.52	0.44
1:A:223:TYR:N	1:A:223:TYR:CD2	2.85	0.44
1:A:353:GLN:CD	1:A:353:GLN:H	2.25	0.44
1:B:175:PRO:HG3	1:B:201:MET:HE3	1.98	0.44
1:B:503:ILE:CD1	1:B:524:ILE:HG22	2.48	0.44
1:B:537:ALA:CB	1:B:562:ILE:HD11	2.48	0.44
1:A:52:ILE:HG23	1:A:53:SER:N	2.33	0.44
1:B:352:PRO:HA	1:B:536:SER:HB2	2.00	0.44
1:A:265:LYS:NZ	1:A:265:LYS:HB2	2.33	0.43
1:A:375:MET:HB2	1:A:379:GLU:OE2	2.18	0.43
1:A:396:GLN:HG2	1:A:499:TYR:CE1	2.52	0.43
1:A:562:ILE:HD13	1:A:562:ILE:HA	1.90	0.43
1:B:407:ILE:O	1:B:411:MET:HG3	2.17	0.43
1:B:476:SER:HB2	1:B:508:LEU:O	2.19	0.43
1:A:70:TYR:HB3	1:A:75:VAL:CG2	2.48	0.43
1:B:138:LYS:H	1:B:138:LYS:CE	2.32	0.43
1:B:446:TYR:CE2	1:B:641:MET:HE1	2.53	0.43
1:A:262:GLU:H	1:A:262:GLU:CD	2.26	0.43
1:B:600:THR:HG23	1:B:600:THR:O	2.18	0.43
1:A:261:SER:O	1:A:265:LYS:HG3	2.18	0.43
1:B:256:VAL:H	1:B:372:MET:HE3	1.84	0.43
1:A:221:ASP:O	1:A:225:SER:HB2	2.18	0.43
1:A:425:TYR:CE2	1:A:469:ARG:HB3	2.53	0.43
1:B:30:ILE:HG23	1:B:116:PHE:CZ	2.54	0.43
1:B:93:LYS:HG3	1:B:123:TRP:CH2	2.53	0.43
1:B:125:LEU:HD13	1:B:127:TRP:N	2.34	0.43
1:A:408:LEU:CD1	1:A:486:LEU:HD13	2.49	0.43
1:B:82:ASP:OD1	1:B:82:ASP:O	2.37	0.43
1:B:387:LYS:HA	1:B:387:LYS:HE2	2.01	0.43
1:B:280:LYS:O	1:B:281:LYS:HG3	2.19	0.43
1:A:157:ARG:HD3	1:A:666:ILE:O	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:600:THR:HA	1:A:614:ILE:O	2.19	0.43
1:A:405:GLN:O	1:A:408:LEU:HB2	2.19	0.42
1:B:383:LEU:HB3	1:B:391:LEU:CD1	2.49	0.42
1:A:65:ARG:N	1:A:66:PRO:CD	2.82	0.42
1:B:33:THR:O	1:B:36:ALA:HB3	2.19	0.42
1:B:74:GLY:O	1:B:75:VAL:C	2.61	0.42
1:A:514:LEU:HD13	1:A:514:LEU:C	2.44	0.42
1:B:414:LEU:HD22	1:B:567:ASN:ND2	2.35	0.42
1:B:536:SER:HA	1:B:628:MET:CE	2.49	0.42
1:A:264:LEU:C	1:A:266:GLN:H	2.26	0.42
1:A:618:ILE:HA	1:A:629:MET:O	2.19	0.42
1:B:156:ASP:OD2	1:B:156:ASP:C	2.61	0.42
1:B:187:ALA:HB2	1:B:197:ILE:HD12	2.01	0.42
1:B:369:TYR:HB2	1:B:370:PRO:HD3	2.00	0.42
1:B:167:THR:CG2	1:B:237:GLU:HG3	2.50	0.42
1:B:174:VAL:O	1:B:175:PRO:C	2.62	0.42
1:B:191:SER:HB3	1:B:376:SER:HB3	2.01	0.42
1:A:252:LEU:O	1:A:252:LEU:HD12	2.19	0.42
1:A:427:ILE:HA	5:A:1140:HOH:O	2.18	0.42
1:B:138:LYS:HZ3	1:B:138:LYS:N	2.18	0.42
1:B:251:HIS:HE1	1:B:390:PRO:O	2.02	0.42
1:A:137:GLN:HB3	1:A:138:LYS:HD2	2.00	0.42
1:A:419:LEU:HD23	1:A:420:ASP:N	2.34	0.42
1:A:435:ASP:OD2	1:A:435:ASP:C	2.63	0.42
1:B:85:ILE:HG12	1:B:95:VAL:HG22	2.02	0.42
1:B:174:VAL:HB	1:B:177:ASN:HD22	1.85	0.42
1:A:174:VAL:O	1:A:175:PRO:C	2.62	0.42
1:A:62:MET:HE3	1:A:127:TRP:CG	2.55	0.41
1:B:173:ILE:HG23	1:B:178:VAL:HB	2.02	0.41
1:B:524:ILE:HD12	1:B:524:ILE:N	2.30	0.41
1:B:29:GLU:HG3	1:B:30:ILE:N	2.36	0.41
1:A:88:VAL:O	1:A:88:VAL:HG12	2.19	0.41
1:A:389:GLU:HA	5:A:1115:HOH:O	2.20	0.41
1:A:542:GLY:O	1:A:562:ILE:HB	2.20	0.41
1:A:612:ARG:HB2	1:A:637:GLN:CD	2.44	0.41
1:B:207:GLN:HB2	1:B:210:THR:OG1	2.20	0.41
1:A:27:ASP:C	1:A:28:LYS:HD2	2.45	0.41
1:B:151:ARG:HA	1:B:293:HIS:CD2	2.55	0.41
1:B:344:TYR:C	1:B:344:TYR:HD2	2.29	0.41
1:A:223:TYR:N	1:A:223:TYR:HD2	2.19	0.41
1:A:521:GLN:HG3	5:A:1133:HOH:O	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:425:TYR:CD2	1:A:469:ARG:NH1	2.89	0.41
1:A:75:VAL:HA	1:A:102:LYS:O	2.21	0.41
1:A:263:GLU:OE2	1:A:278:ILE:HD11	2.21	0.41
1:A:331:LYS:NZ	1:A:668:GLU:OXT	2.54	0.41
1:A:402:GLY:O	1:A:520:GLY:HA3	2.20	0.41
1:A:579:VAL:HG11	1:A:594:LEU:O	2.20	0.41
1:B:75:VAL:HA	1:B:102:LYS:O	2.21	0.41
1:A:483:MET:HB2	1:A:503:ILE:HD13	2.02	0.40
1:B:180:LYS:HA	1:B:183:TYR:CE1	2.56	0.40
1:B:204:ASN:OD1	1:B:205:TRP:N	2.54	0.40
1:A:223:TYR:HB2	1:A:224:LEU:HD12	2.01	0.40
1:B:298:ARG:HG2	1:B:300:THR:HG23	2.03	0.40
1:A:173:ILE:HG23	1:A:178:VAL:CG2	2.52	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	631/646 (98%)	593 (94%)	36 (6%)	2 (0%)	36	45
1	B	618/646 (96%)	574 (93%)	39 (6%)	5 (1%)	16	20
All	All	1249/1292 (97%)	1167 (93%)	75 (6%)	7 (1%)	21	27

All (7) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	203	GLN
1	B	273	LYS
1	A	175	PRO
1	B	28	LYS
1	B	264	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	B	188	LYS
1	A	625	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	567/576 (98%)	552 (97%)	15 (3%)	40	55
1	B	559/576 (97%)	542 (97%)	17 (3%)	36	51
All	All	1126/1152 (98%)	1094 (97%)	32 (3%)	38	54

All (32) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	28	LYS
1	A	111	ASN
1	A	112	VAL
1	A	125	LEU
1	A	138	LYS
1	A	148	LYS
1	A	175	PRO
1	A	176	LYS
1	A	177	ASN
1	A	223	TYR
1	A	245	LEU
1	A	265	LYS
1	A	344	TYR
1	A	419	LEU
1	A	573	ASP
1	B	87	LYS
1	B	125	LEU
1	B	130	SER
1	B	138	LYS
1	B	182	ASP
1	B	202	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	B	252	LEU
1	B	267	LYS
1	B	344	TYR
1	B	377	ASN
1	B	392	LEU
1	B	463	ASP
1	B	480	GLU
1	B	484	LYS
1	B	513	LEU
1	B	514	LEU
1	B	524	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (37) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	32	ASN
1	A	71	ASN
1	A	81	GLN
1	A	91	ASN
1	A	137	GLN
1	A	207	GLN
1	A	305	ASN
1	A	333	GLN
1	A	377	ASN
1	A	433	GLN
1	A	457	GLN
1	A	500	ASN
1	A	540	ASN
1	A	577	GLN
1	A	593	ASN
1	A	613	GLN
1	A	645	ASN
1	B	32	ASN
1	B	79	ASN
1	B	81	GLN
1	B	115	ASN
1	B	159	ASN
1	B	177	ASN
1	B	199	GLN
1	B	207	GLN
1	B	251	HIS
1	B	266	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	B	377	ASN
1	B	381	ASN
1	B	396	GLN
1	B	415	ASN
1	B	433	GLN
1	B	502	GLN
1	B	521	GLN
1	B	567	ASN
1	B	577	GLN
1	B	593	ASN

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 15 ligands modelled in this entry, 13 are monoatomic - leaving 2 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	$\# Z > 2$
4	PNM	B	708	1	19,24,24	1.54	4 (21%)	25,34,34	2.08	3 (12%)
4	PNM	A	1007	1	19,24,24	1.49	3 (15%)	25,34,34	2.00	2 (8%)

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	PNM	B	708	1	-	2/12/33/33	0/2/2/2
4	PNM	A	1007	1	-	1/12/33/33	0/2/2/2

All (7) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	1007	PNM	C21-C20	3.88	1.46	1.38
4	B	708	PNM	C21-C20	3.83	1.46	1.38
4	B	708	PNM	C15-N14	2.88	1.40	1.34
4	A	1007	PNM	C15-N14	2.68	1.39	1.34
4	B	708	PNM	O13-C11	-2.39	1.23	1.30
4	A	1007	PNM	O13-C11	-2.17	1.23	1.30
4	B	708	PNM	C6-N14	2.06	1.49	1.46

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	B	708	PNM	C7-C6-N14	-7.79	97.52	109.80
4	A	1007	PNM	C7-C6-N14	-7.48	98.00	109.80
4	B	708	PNM	C5-C6-N14	4.83	120.17	109.93
4	A	1007	PNM	C5-C6-N14	4.48	119.42	109.93
4	B	708	PNM	C2-C3-C11	2.17	116.48	112.37

There are no chirality outliers.

All (3) torsion outliers are listed below:

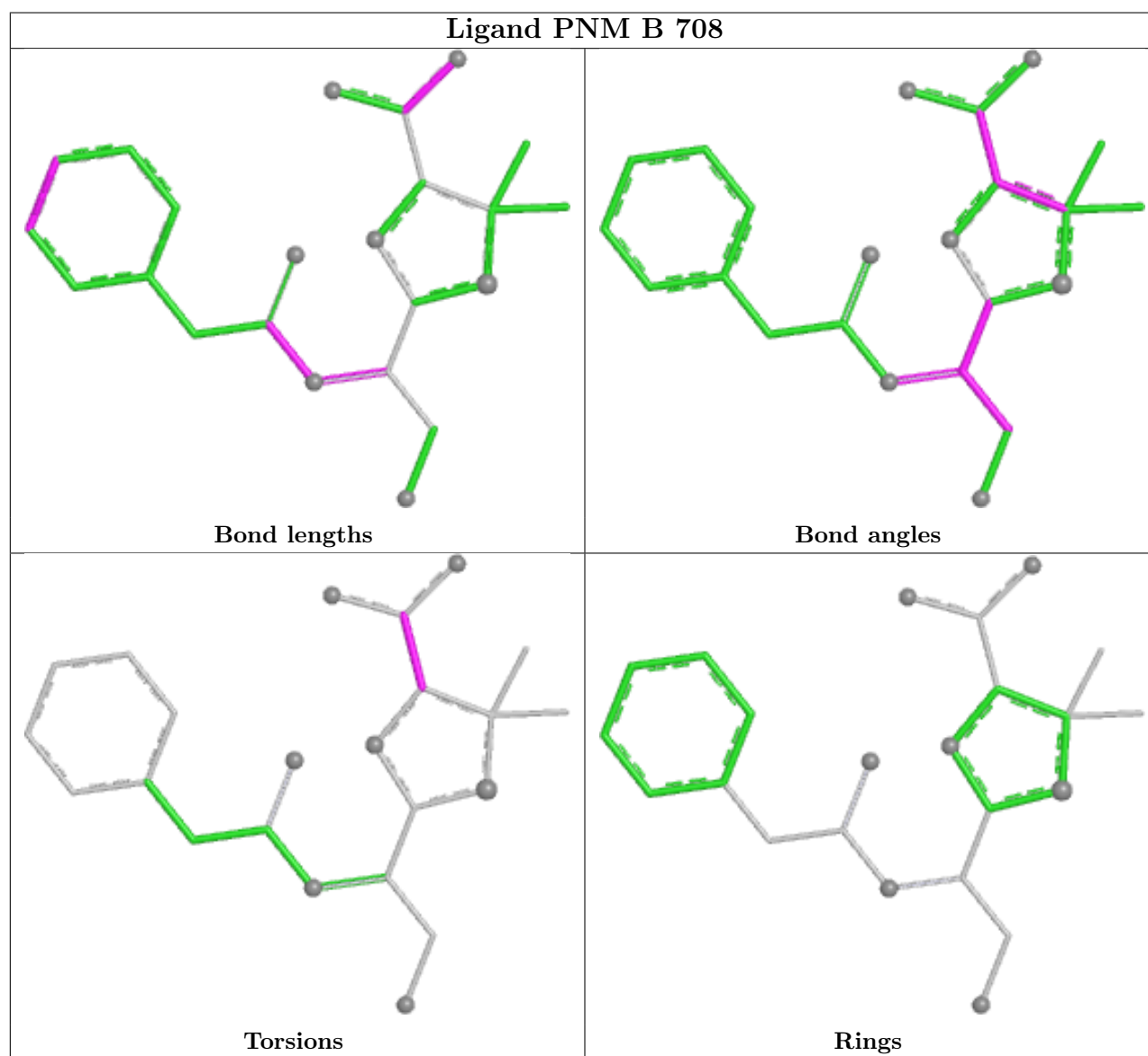
Mol	Chain	Res	Type	Atoms
4	B	708	PNM	O13-C11-C3-N4
4	B	708	PNM	O12-C11-C3-N4
4	A	1007	PNM	C7-C6-N14-C15

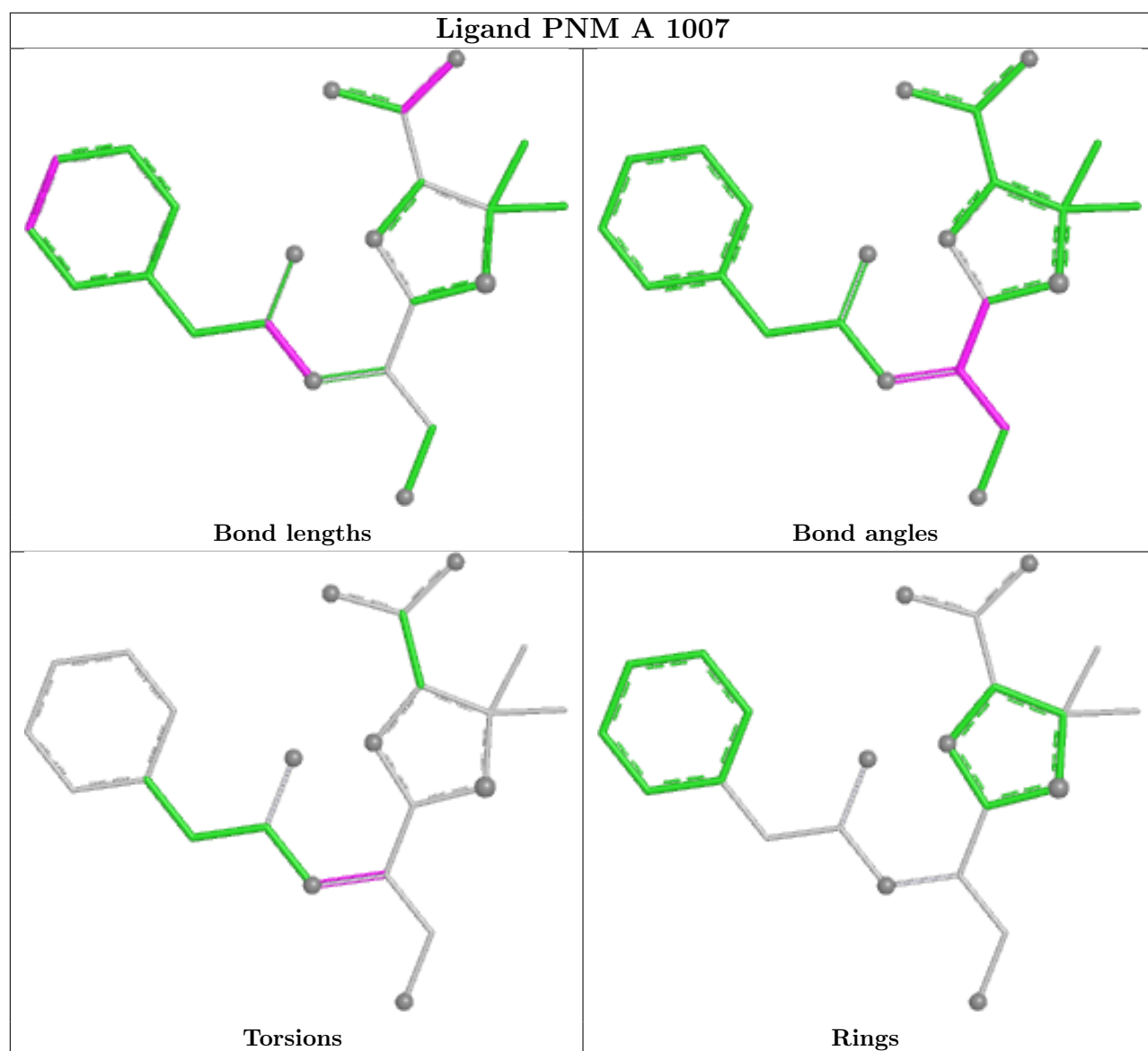
There are no ring outliers.

1 monomer is involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	B	708	PNM	3	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	635/646 (98%)	-0.03	17 (2%) 56 57	21, 45, 83, 101	0
1	B	626/646 (96%)	0.15	12 (1%) 66 67	27, 50, 82, 102	0
All	All	1261/1292 (97%)	0.06	29 (2%) 61 63	21, 48, 83, 102	0

All (29) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	503	ILE	4.2
1	A	28	LYS	3.6
1	B	603	LEU	3.4
1	B	502	GLN	3.3
1	A	264	LEU	3.2
1	B	269	TYR	3.1
1	A	223	TYR	3.0
1	A	272	TYR	3.0
1	B	122	MET	2.8
1	B	223	TYR	2.7
1	B	383	LEU	2.7
1	A	265	LYS	2.7
1	A	611	GLY	2.7
1	B	508	LEU	2.4
1	A	267	LYS	2.4
1	A	27	ASP	2.4
1	A	603	LEU	2.3
1	B	121	GLY	2.3
1	A	90	LYS	2.3
1	A	122	MET	2.2
1	A	224	LEU	2.2
1	B	428	ASP	2.2
1	A	91	ASN	2.1
1	A	85	ILE	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	B	272	TYR	2.1
1	A	88	VAL	2.0
1	A	111	ASN	2.0
1	A	269	TYR	2.0
1	B	378	GLU	2.0

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

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

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

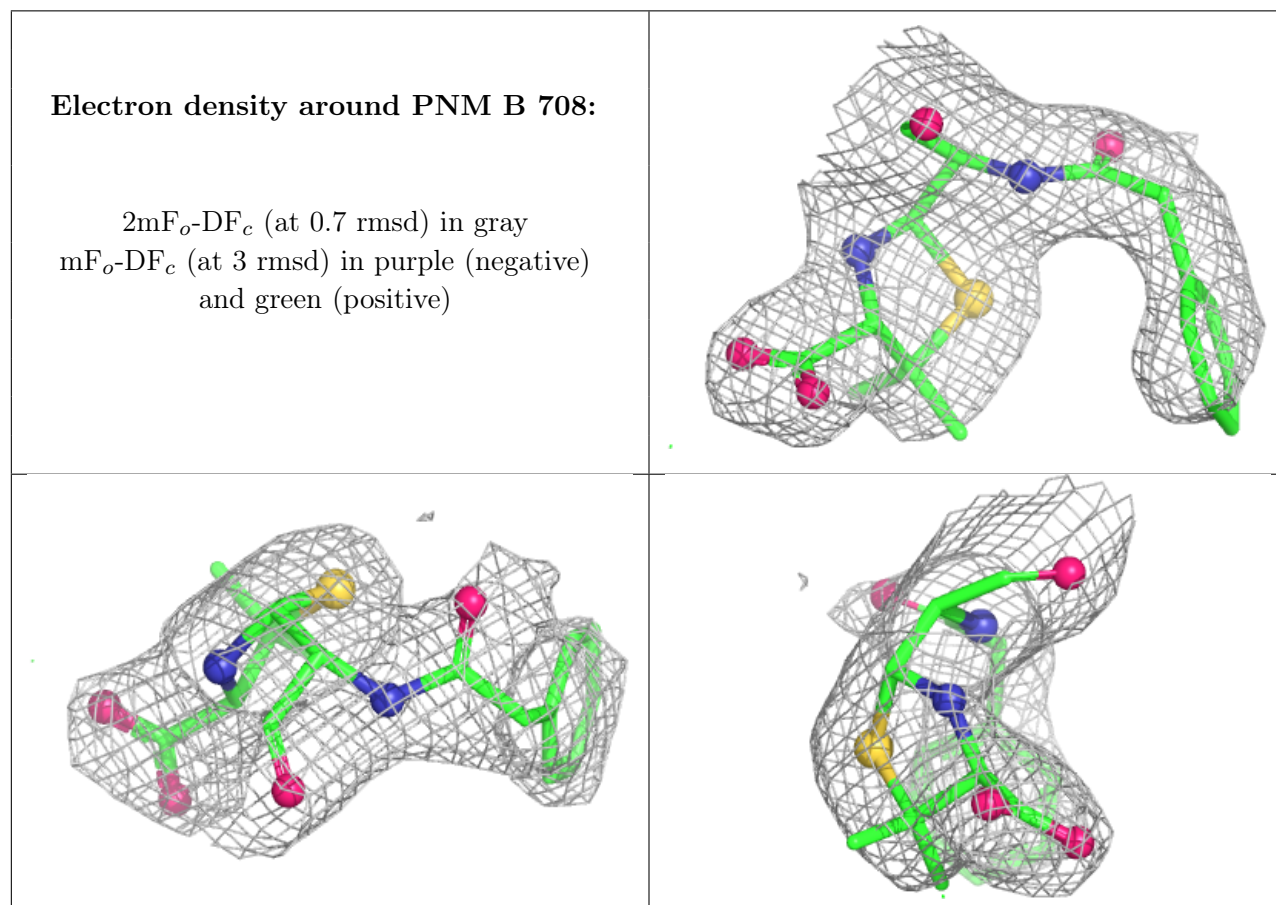
6.4 Ligands [i](#)

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
2	CD	B	705	1/1	0.92	0.09	60,60,60,60	1
2	CD	B	703	1/1	0.93	0.10	60,60,60,60	1
2	CD	A	1003	1/1	0.94	0.11	67,67,67,67	1
2	CD	A	1004	1/1	0.94	0.07	61,61,61,61	1
4	PNM	B	708	23/23	0.94	0.10	48,53,66,69	0
4	PNM	A	1007	23/23	0.96	0.08	31,40,60,62	0
3	CL	A	1006	1/1	0.98	0.06	38,38,38,38	0
2	CD	B	704	1/1	0.99	0.06	57,57,57,57	1
3	CL	B	706	1/1	0.99	0.04	30,30,30,30	0
3	CL	B	707	1/1	0.99	0.03	32,32,32,32	0
2	CD	B	702	1/1	0.99	0.03	35,35,35,35	0
3	CL	A	1005	1/1	0.99	0.03	36,36,36,36	0
2	CD	A	1002	1/1	1.00	0.03	42,42,42,42	0
2	CD	B	701	1/1	1.00	0.01	34,34,34,34	0
2	CD	A	1001	1/1	1.00	0.02	35,35,35,35	0

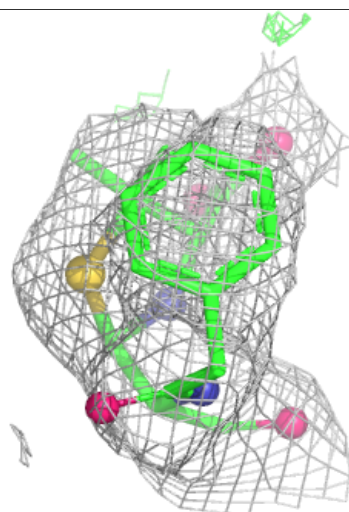
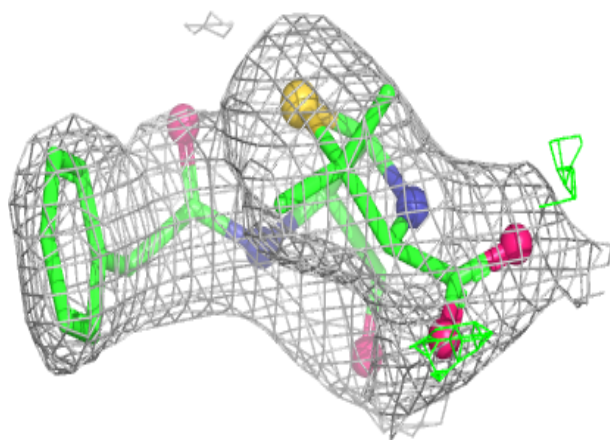
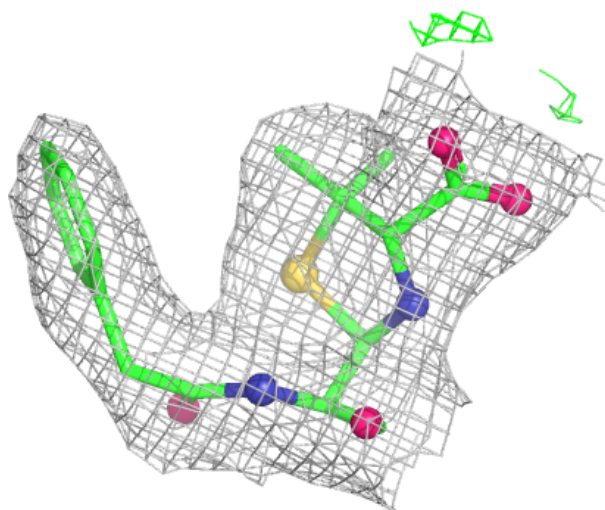
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers

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 PNM A 1007:

$2mF_o-DF_c$ (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.