Full wwPDB X-ray Structure Validation Report ⓘ

Apr 9, 2026 – 09:55 PM UTC

PDB ID	:	9R9B / pdb_00009r9b
Title	:	Crystal structure of clathrin heavy chain in complex with a peptidomimetic inhibitor of the TACC3 interaction
Authors	:	Bayliss, R.; Gunning, V.
Deposited on	:	2025-05-19
Resolution	:	2.15 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:

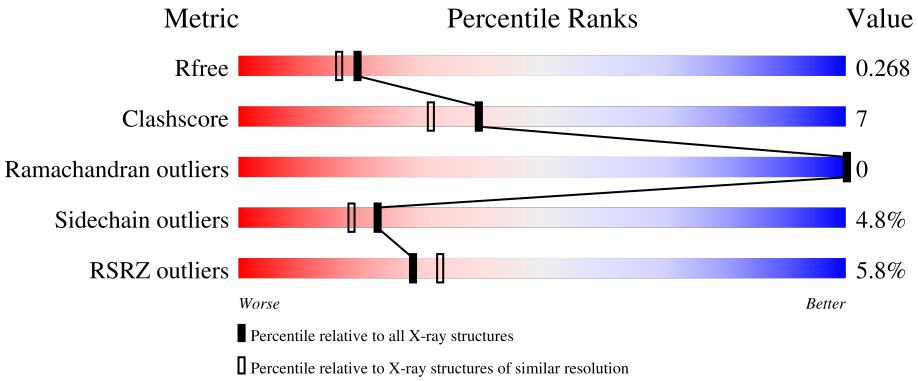
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 2.15 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	3689 (2.16-2.12)
Clashscore	190562	3812 (2.16-2.12)
Ramachandran outliers	187476	3773 (2.16-2.12)
Sidechain outliers	187428	3772 (2.16-2.12)
RSRZ outliers	180081	3691 (2.16-2.12)

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

Mol	Chain	Length	Quality of chain
1	A	574	6% 78% 20%
2	B	21	10% 57% 24% 10% 5% 5%

2 Entry composition (i)

There are 3 unique types of molecules in this entry. The entry contains 4695 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 Clathrin heavy chain 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	569	Total	C	N	O	S	0	0	0
			4469	2854	764	826	25			

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	301	LYS	GLU	conflict	UNP P11442

- Molecule 2 is a protein called SP-TACC3.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
2	B	20	Total	C	N	O	0	0	0
			159	106	24	29			

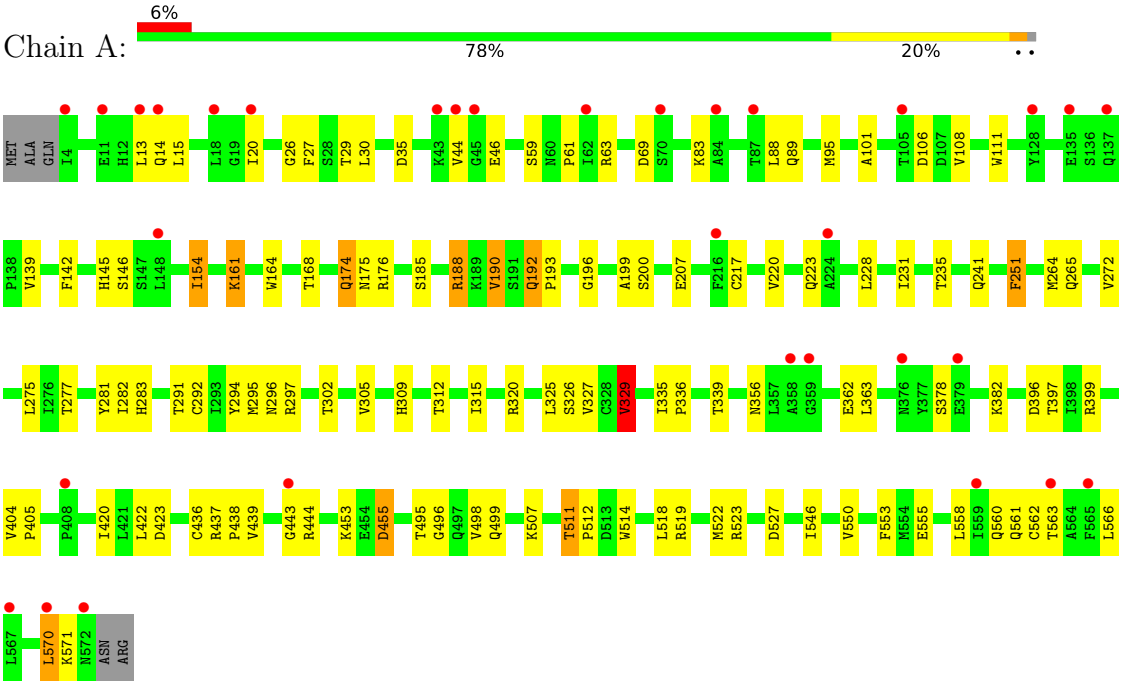
- Molecule 3 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	64	Total	O	0	0
			64	64		
3	B	3	Total	O	0	0
			3	3		

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: Clathrin heavy chain 1



• Molecule 2: SP-TACC3

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 61 2 2	Depositor
Cell constants a, b, c, α, β, γ	111.22Å 111.22Å 212.86Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	96.32 – 2.15 96.32 – 2.15	Depositor EDS
% Data completeness (in resolution range)	55.9 (96.32-2.15) 55.9 (96.32-2.15)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.70 (at 2.14Å)	Xtriage
Refinement program	REFMAC 5.8.0430 (refmacat 0.4.88)	Depositor
R, R_{free}	0.204 , 0.268 0.204 , 0.268	Depositor DCC
R_{free} test set	1204 reflections (2.78%)	wwPDB-VP
Wilson B-factor (Å^2)	52.1	Xtriage
Anisotropy	0.095	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.31 , 43.4	EDS
L-test for twinning[2]	$< \|L\| > = 0.50$, $< L^2 > = 0.33$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	4695	wwPDB-VP
Average B, all atoms (Å^2)	63.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.02% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: MK8

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	0.78	0/4559	1.47	34/6181 (0.6%)
2	B	0.75	0/141	1.47	3/186 (1.6%)
All	All	0.78	0/4700	1.47	37/6367 (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	4
2	B	0	1
All	All	0	5

There are no bond length outliers.

All (37) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	235	THR	CA-CB-OG1	-8.56	96.76	109.60
1	A	14	GLN	CB-CA-C	7.73	122.87	110.19
1	A	241	GLN	N-CA-CB	-7.48	100.19	110.29
1	A	329	VAL	N-CA-CB	7.42	120.43	110.26
1	A	95	MET	CG-SD-CE	7.42	117.22	100.90
1	A	527	ASP	CA-CB-CG	7.39	119.99	112.60
1	A	555	GLU	CB-CG-CD	7.37	125.12	112.60
1	A	555	GLU	N-CA-CB	7.18	120.68	110.12
1	A	511	THR	OG1-CB-CG2	6.83	122.96	109.30
1	A	291	THR	CA-CB-OG1	-6.77	99.45	109.60
1	A	423	ASP	CB-CA-C	6.50	122.22	110.72
1	A	142	PHE	CA-CB-CG	6.43	120.23	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	175	ASN	CB-CA-C	6.34	121.69	111.36
1	A	339	THR	CA-CB-OG1	-6.27	100.19	109.60
1	A	207	GLU	N-CA-CB	6.23	119.23	109.69
1	A	29	THR	CA-CB-OG1	-6.08	100.48	109.60
1	A	422	LEU	N-CA-CB	5.94	118.60	109.98
1	A	251	PHE	CA-CB-CG	-5.78	108.03	113.80
1	A	397	THR	CA-CB-OG1	-5.63	101.16	109.60
2	B	551	GLU	CA-C-N	5.56	128.60	120.71
2	B	551	GLU	C-N-CA	5.56	128.60	120.71
1	A	223	GLN	CB-CA-C	5.53	119.96	110.79
1	A	46	GLU	CB-CG-CD	5.52	121.99	112.60
1	A	495	THR	CA-CB-OG1	5.52	117.88	109.60
1	A	106	ASP	CA-CB-CG	5.50	118.10	112.60
1	A	174	GLN	CB-CA-C	5.35	122.61	111.97
1	A	455	ASP	CB-CA-C	5.26	119.20	111.73
1	A	294	TYR	N-CA-CB	-5.21	101.83	111.52
1	A	399	ARG	CB-CA-C	-5.20	102.15	110.79
1	A	499	GLN	CB-CA-C	5.17	120.55	110.57
2	B	555	ARG	CG-CD-NE	5.17	123.36	112.00
1	A	161	LYS	N-CA-CB	5.15	117.94	110.47
1	A	95	MET	CB-CA-C	5.10	118.12	109.55
1	A	188	ARG	N-CA-C	-5.10	107.10	113.38
1	A	35	ASP	CA-CB-CG	5.08	117.68	112.60
1	A	356	ASN	CB-CA-C	5.08	119.52	112.11
1	A	192	GLN	CB-CA-C	-5.01	100.30	110.17

There are no chirality outliers.

All (5) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	297	ARG	Sidechain
1	A	320	ARG	Sidechain
1	A	519	ARG	Sidechain
1	A	523	ARG	Sidechain
2	B	555	ARG	Sidechain

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	4469	0	4514	58	0
2	B	159	0	151	5	0
3	A	64	0	0	4	0
3	B	3	0	0	0	0
All	All	4695	0	4665	62	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 7.

All (62) 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:292:CYS:SG	1:A:295:MET:HE3	2.35	0.67
1:A:83:LYS:HE3	1:A:108:VAL:HB	1.82	0.60
1:A:30:LEU:C	1:A:30:LEU:HD23	2.25	0.60
1:A:69:ASP:HB3	1:A:83:LYS:O	2.03	0.59
2:B:557:MK8:HG	2:B:558:GLU:N	2.18	0.59
1:A:443:GLY:HA2	3:A:636:HOH:O	2.02	0.58
1:A:199:ALA:HA	1:A:264:MET:HE2	1.86	0.58
1:A:145:HIS:CE1	1:A:193:PRO:HG3	2.40	0.57
1:A:562:CYS:O	1:A:566:LEU:HD12	2.08	0.54
1:A:453:LYS:HG3	2:B:566:LEU:HD13	1.90	0.53
1:A:507:LYS:O	1:A:507:LYS:HG3	2.07	0.52
1:A:329:VAL:HG13	3:A:603:HOH:O	2.10	0.51
2:B:554:LEU:HD23	2:B:555:ARG:HH12	1.75	0.51
1:A:251:PHE:HB3	1:A:295:MET:HE1	1.93	0.50
1:A:217:CYS:C	1:A:264:MET:HE1	2.37	0.49
1:A:498:VAL:HG23	3:A:630:HOH:O	2.12	0.49
1:A:15:LEU:O	1:A:20:ILE:HD12	2.12	0.49
1:A:15:LEU:O	1:A:20:ILE:CD1	2.60	0.49
1:A:188:ARG:O	1:A:190:VAL:HG13	2.13	0.49
1:A:277:THR:OG1	1:A:281:TYR:HB2	2.13	0.48
1:A:546:ILE:O	1:A:550:VAL:HG23	2.14	0.48
1:A:437:ARG:HB3	1:A:438:PRO:HD3	1.95	0.47
1:A:362:GLU:HG3	1:A:363:LEU:HD12	1.95	0.47
1:A:553:PHE:HB3	1:A:562:CYS:HB2	1.96	0.47
1:A:378:SER:HB2	1:A:420:ILE:HD11	1.96	0.47
2:B:560:LEU:O	2:B:561:MK8:C	2.62	0.47
1:A:283:HIS:CG	1:A:295:MET:HG2	2.50	0.47
1:A:570:LEU:O	1:A:571:LYS:C	2.59	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:174:GLN:N	1:A:174:GLN:OE1	2.49	0.45
1:A:282:ILE:HD13	1:A:327:VAL:HG11	1.99	0.45
1:A:315:ILE:O	1:A:326:SER:HA	2.17	0.45
2:B:555:ARG:HD3	2:B:555:ARG:HA	1.77	0.45
1:A:562:CYS:O	1:A:566:LEU:CD1	2.65	0.45
1:A:522:MET:HE2	1:A:553:PHE:CE1	2.52	0.44
1:A:164:TRP:CZ3	1:A:185:SER:HB2	2.52	0.44
1:A:174:GLN:C	1:A:176:ARG:H	2.24	0.44
1:A:217:CYS:SG	1:A:228:LEU:HD11	2.57	0.44
1:A:88:LEU:O	1:A:101:ALA:HA	2.17	0.44
1:A:59:SER:O	1:A:61:PRO:HD3	2.18	0.43
1:A:496:GLY:HA2	3:A:630:HOH:O	2.17	0.43
1:A:265:GLN:HG3	1:A:315:ILE:HG13	1.99	0.43
1:A:200:SER:N	1:A:264:MET:HE2	2.34	0.43
1:A:154:ILE:HD11	1:A:168:THR:HG22	2.01	0.43
1:A:196:GLY:HA2	1:A:220:VAL:HB	2.01	0.42
1:A:26:GLY:O	1:A:27:PHE:C	2.62	0.42
1:A:199:ALA:C	1:A:264:MET:HE2	2.45	0.42
1:A:295:MET:O	1:A:296:ASN:HB2	2.20	0.42
1:A:275:LEU:O	1:A:282:ILE:HA	2.19	0.42
1:A:404:VAL:HG13	1:A:405:PRO:HD2	2.02	0.42
1:A:83:LYS:HG3	1:A:88:LEU:CD2	2.50	0.41
1:A:88:LEU:HD22	1:A:111:TRP:CZ3	2.55	0.41
1:A:439:VAL:HG13	1:A:444:ARG:HB2	2.01	0.41
1:A:325:LEU:C	1:A:325:LEU:HD12	2.46	0.41
1:A:83:LYS:HG3	1:A:88:LEU:HD21	2.02	0.41
1:A:436:CYS:O	1:A:437:ARG:C	2.62	0.41
1:A:512:PRO:HG2	1:A:514:TRP:CE2	2.56	0.41
1:A:518:LEU:HD11	1:A:522:MET:HE3	2.03	0.41
1:A:309:HIS:ND1	1:A:312:THR:OG1	2.50	0.41
1:A:378:SER:O	1:A:382:LYS:HG3	2.21	0.41
1:A:199:ALA:CA	1:A:264:MET:HE2	2.50	0.40
1:A:335:ILE:HB	1:A:336:PRO:HD3	2.03	0.40
1:A:378:SER:HB2	1:A:420:ILE:CD1	2.51	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	567/574 (99%)	530 (94%)	37 (6%)	0	100	100
2	B	16/21 (76%)	16 (100%)	0	0	100	100
All	All	583/595 (98%)	546 (94%)	37 (6%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	488/494 (99%)	465 (95%)	23 (5%)	23	19
2	B	14/18 (78%)	13 (93%)	1 (7%)	13	8
All	All	502/512 (98%)	478 (95%)	24 (5%)	23	18

All (24) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	13	LEU
1	A	44	VAL
1	A	63	ARG
1	A	89	GLN
1	A	139	VAL
1	A	146	SER
1	A	154	ILE
1	A	161	LYS

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Mol	Chain	Res	Type
1	A	190	VAL
1	A	192	GLN
1	A	231	ILE
1	A	272	VAL
1	A	302	THR
1	A	305	VAL
1	A	329	VAL
1	A	396	ASP
1	A	455	ASP
1	A	511	THR
1	A	558	LEU
1	A	560	GLN
1	A	561	GLN
1	A	563	THR
1	A	570	LEU
2	B	555	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (9) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	12	HIS
1	A	16	GLN
1	A	89	GLN
1	A	102	HIS
1	A	137	GLN
1	A	270	HIS
1	A	499	GLN
1	A	538	GLN
1	A	561	GLN

5.3.3 RNA

There are no RNA molecules in this entry.

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

2 non-standard protein/DNA/RNA residues 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	MK8	B	557	2	5,8,9	1.18	1 (20%)	6,10,12	2.41	4 (66%)
2	MK8	B	561	2	5,8,9	1.07	0	6,10,12	1.92	1 (16%)

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	MK8	B	557	2	-	4/6/8/11	-
2	MK8	B	561	2	-	0/6/8/11	-

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	557	MK8	O-C	2.52	1.28	1.20

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	561	MK8	CB1-CA-CB	-4.25	103.97	110.97
2	B	557	MK8	CB1-CA-CB	-3.82	104.67	110.97
2	B	557	MK8	CB-CG-CD	3.07	122.53	113.11
2	B	557	MK8	CB-CA-C	2.41	114.67	108.47
2	B	557	MK8	CE-CD-CG	2.05	127.21	113.36

There are no chirality outliers.

All (4) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	B	557	MK8	N-CA-CB-CG
2	B	557	MK8	CB1-CA-CB-CG
2	B	557	MK8	C-CA-CB-CG
2	B	557	MK8	CA-CB-CG-CD

There are no ring outliers.

2 monomers are involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	B	557	MK8	1	0
2	B	561	MK8	1	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

There are no ligands in this entry.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å^2)	Q<0.9
1	A	569/574 (99%)	0.34	32 (5%)	30	34	28, 59, 105, 152	0
2	B	18/21 (85%)	0.59	2 (11%)	10	12	33, 58, 120, 122	0
All	All	587/595 (98%)	0.35	34 (5%)	29	33	28, 59, 105, 152	0

All (34) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	62	ILE	3.7
1	A	224	ALA	3.7
1	A	105	THR	3.0
1	A	135	GLU	2.9
1	A	18	LEU	2.8
2	B	551	GLU	2.8
1	A	408	PRO	2.8
1	A	376	ASN	2.7
1	A	44	VAL	2.6
1	A	4	ILE	2.5
1	A	572	ASN	2.5
1	A	216	PHE	2.5
1	A	565	PHE	2.4
1	A	559	ILE	2.4
1	A	563	THR	2.4
1	A	359	GLY	2.3
2	B	550	LYS	2.3
1	A	137	GLN	2.2
1	A	43	LYS	2.2
1	A	11	GLU	2.2
1	A	45	GLY	2.2
1	A	379	GLU	2.2
1	A	148	LEU	2.2
1	A	570	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
1	A	20	ILE	2.1
1	A	70	SER	2.1
1	A	358	ALA	2.1
1	A	567	LEU	2.0
1	A	87	THR	2.0
1	A	128	TYR	2.0
1	A	443	GLY	2.0
1	A	84	ALA	2.0
1	A	13	LEU	2.0
1	A	14	GLN	2.0

6.2 Non-standard residues in protein, DNA, RNA chains (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, 95^{th} 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	MK8	B	557	9/10	0.94	0.10	38,42,48,50	0
2	MK8	B	561	9/10	0.97	0.06	33,38,44,44	0

6.3 Carbohydrates (i)

There are no oligosaccharides in this entry.

6.4 Ligands (i)

There are no ligands in this entry.

6.5 Other polymers (i)

There are no such residues in this entry.