Full wwPDB X-ray Structure Validation Report (i)

Mar 30, 2026 – 03:09 AM UTC

PDB ID	:	6ZYQ / pdb_00006zyq
Title	:	Structure of NDM-1 with 2-Mercaptomethyl-thiazolidine D-syn-1b
Authors	:	Hinchliffe, P.; Spencer, J.
Deposited on	:	2020-08-02
Resolution	:	1.70 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 (i) 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 (i)) were used in the production of this report:

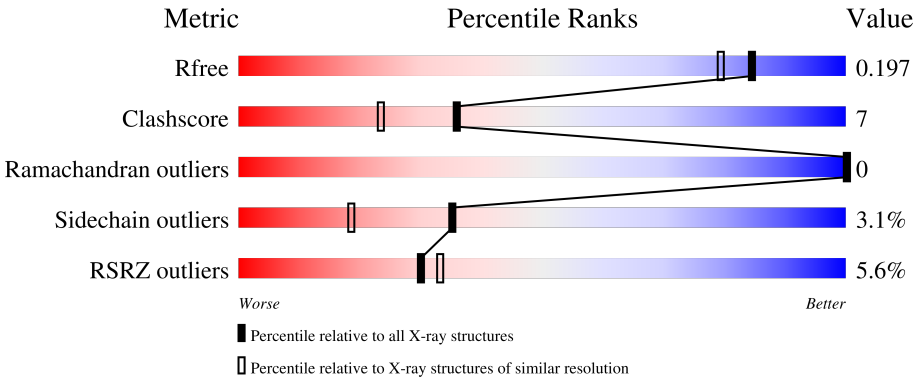
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal 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 (i)

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

The reported resolution of this entry is 1.70 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	5551 (1.70-1.70)
Clashscore	190562	5924 (1.70-1.70)
Ramachandran outliers	187476	5846 (1.70-1.70)
Sidechain outliers	187428	5846 (1.70-1.70)
RSRZ outliers	180081	5554 (1.70-1.70)

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	244	7% 82% 15%
1	B	244	4% 77% 15% 7%

2 Entry composition (i)

There are 5 unique types of molecules in this entry. The entry contains 3841 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 Metallo-beta-lactamase type 2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	240	Total	C	N	O	S	0	1	0
			1795	1127	320	339	9			
1	B	228	Total	C	N	O	S	0	1	0
			1704	1072	303	321	8			

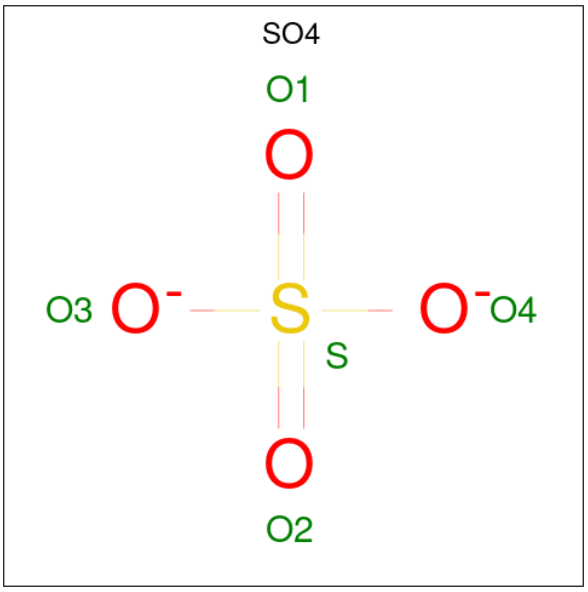
There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	27	GLY	-	expression tag	UNP C7C422
A	28	SER	-	expression tag	UNP C7C422
B	27	GLY	-	expression tag	UNP C7C422
B	28	SER	-	expression tag	UNP C7C422

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

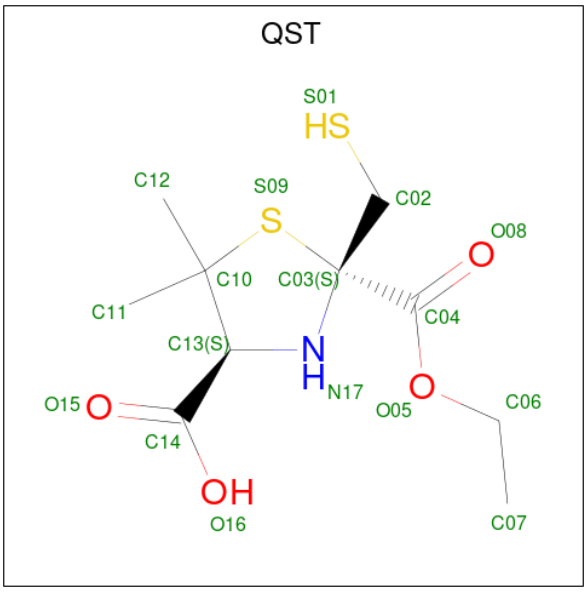
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	2	Total	Zn	0	0
			2	2		
2	B	2	Total	Zn	0	0
			2	2		

- Molecule 3 is SULFATE ION (CCD ID: SO4) (formula: O_4S).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	A	1	Total O S 5 4 1	0	0
3	A	1	Total O S 5 4 1	0	0

- Molecule 4 is (2 {S},4 {S})-2-ethoxycarbonyl-5,5-dimethyl-2-(sulfanylmethyl)-1,3-thiazolidine-4-carboxylic acid (CCD ID: QST) (formula: $C_{10}H_{17}NO_4S_2$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	A	1	Total C N O S 17 10 1 4 2	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
4	B	1	Total	C	N	O	S	0	0
			17	10	1	4	2		

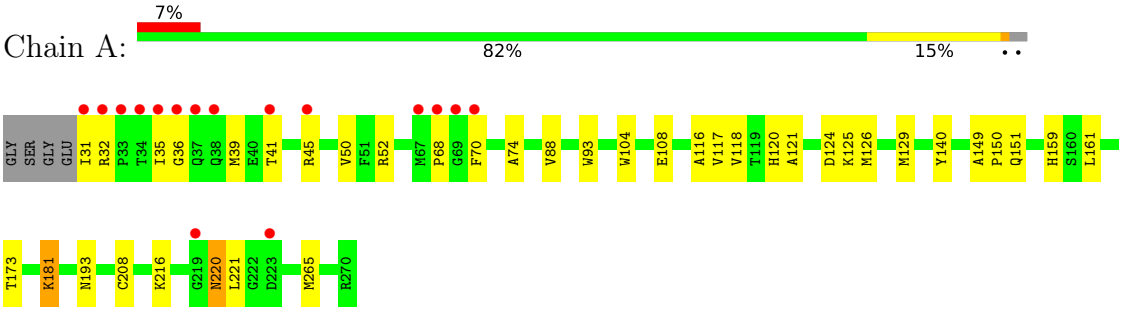
- Molecule 5 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	163	Total	O	0	0
			163	163		
5	B	131	Total	O	0	0
			131	131		

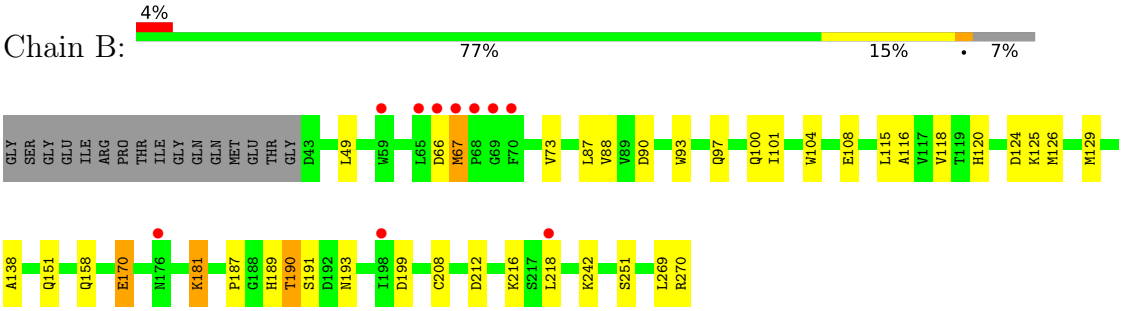
3 Residue-property plots (i)

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: Metallo-beta-lactamase type 2



• Molecule 1: Metallo-beta-lactamase type 2



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	70.18Å 73.84Å 77.44Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	38.72 – 1.70 38.72 – 1.70	Depositor EDS
% Data completeness (in resolution range)	99.5 (38.72-1.70) 99.5 (38.72-1.70)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.52 (at 1.70Å)	Xtriage
Refinement program	PHENIX 1.12_2829	Depositor
R, R_{free}	0.177 , 0.198 0.177 , 0.197	Depositor DCC
R_{free} test set	2151 reflections (4.80%)	wwPDB-VP
Wilson B-factor (Å^2)	24.7	Xtriage
Anisotropy	0.313	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.36 , 40.3	EDS
L-test for twinning[2]	$< \|L\| > = 0.49$, $< L^2 > = 0.32$	Xtriage
Estimated twinning fraction	0.018 for -h,l,k	Xtriage
F_o,F_c correlation	0.96	EDS
Total number of atoms	3841	wwPDB-VP
Average B, all atoms (Å^2)	32.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 4.65% 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: QST, SO4, ZN

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	0.50	4/1836 (0.2%)	0.63	2/2500 (0.1%)
1	B	0.41	3/1744 (0.2%)	0.55	0/2376
All	All	0.46	7/3580 (0.2%)	0.59	2/4876 (0.0%)

All (7) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	190	THR	C-O	-7.01	1.14	1.23
1	A	181	LYS	C-O	-6.73	1.16	1.24
1	A	117[A]	VAL	C-O	-6.48	1.17	1.24
1	A	117[B]	VAL	C-O	-6.48	1.17	1.24
1	A	151	GLN	C-O	-5.89	1.16	1.24
1	B	170	GLU	C-O	-5.86	1.16	1.24
1	B	181	LYS	C-O	-5.69	1.17	1.24

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	220	ASN	N-CA-C	10.41	123.68	111.71
1	A	221	LEU	N-CA-C	6.75	121.28	113.38

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	1795	0	1748	24	0
1	B	1704	0	1655	26	0
2	A	2	0	0	0	0
2	B	2	0	0	0	0
3	A	10	0	0	1	0
4	A	17	0	0	0	0
4	B	17	0	0	0	0
5	A	163	0	0	5	1
5	B	131	0	0	4	0
All	All	3841	0	3403	51	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 7.

All (51) 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:39:MET:HE1	1:A:45:ARG:HG2	1.51	0.90
1:B:270:ARG:O	5:B:401:HOH:O	2.01	0.77
1:B:242:LYS:HE3	5:B:509:HOH:O	1.91	0.70
1:A:45:ARG:HD2	1:A:50:VAL:HG22	1.74	0.68
1:A:126:MET:O	1:A:129:MET:HG2	1.93	0.68
1:B:126:MET:O	1:B:129:MET:HG2	1.94	0.68
1:B:49:LEU:HD22	1:B:101:ILE:CG1	2.26	0.65
1:A:52:ARG:CZ	5:A:404:HOH:O	2.45	0.64
1:A:31:ILE:HG22	1:A:32:ARG:N	2.13	0.63
1:B:218:LEU:HD12	1:B:269:LEU:HD11	1.84	0.60
1:A:39:MET:SD	1:A:45:ARG:HD3	2.42	0.59
1:B:49:LEU:HD22	1:B:101:ILE:HG12	1.85	0.57
1:A:52:ARG:NH1	5:A:404:HOH:O	2.38	0.57
1:A:216:LYS:NZ	5:A:403:HOH:O	2.35	0.55
1:B:66:ASP:O	5:B:403:HOH:O	2.18	0.54
1:B:49:LEU:HD22	1:B:101:ILE:HG13	1.90	0.52
1:B:93:TRP:CZ3	1:B:124:ASP:HB3	2.45	0.51
1:B:138:ALA:HA	1:B:158:GLN:OE1	2.11	0.51
1:B:212:ASP:HB3	1:B:251:SER:HB3	1.93	0.51
1:A:118:VAL:HG21	1:A:126:MET:HG2	1.93	0.50
1:B:151:GLN:NE2	5:B:402:HOH:O	2.03	0.50
1:A:120:HIS:HE1	1:A:208:CYS:SG	2.36	0.48
1:A:161:LEU:HD23	1:A:173:THR:O	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:212:ASP:HB3	1:B:251:SER:CB	2.44	0.48
1:A:36:GLY:HA3	1:A:74:ALA:HB3	1.98	0.46
1:A:39:MET:HE1	1:A:45:ARG:CG	2.34	0.46
1:A:31:ILE:CG2	1:A:32:ARG:N	2.78	0.45
1:A:93:TRP:CZ3	1:A:124:ASP:HB3	2.52	0.45
1:A:39:MET:CE	1:A:45:ARG:HG2	2.36	0.45
3:A:303:SO4:O2	5:A:401:HOH:O	2.21	0.45
1:B:120:HIS:CE1	1:B:125:LYS:HG3	2.51	0.44
1:B:218:LEU:CD1	1:B:269:LEU:HD11	2.46	0.44
1:A:265:MET:HE2	5:A:432:HOH:O	2.17	0.44
1:B:104:TRP:NE1	1:B:108:GLU:HG3	2.33	0.44
1:B:87:LEU:HD22	1:B:115:LEU:HG	1.99	0.43
1:B:49:LEU:HD11	1:B:97:GLN:HB3	2.00	0.43
1:B:88:VAL:O	1:B:116:ALA:HA	2.19	0.43
1:B:90:ASP:CG	1:B:125:LYS:HD3	2.44	0.43
1:A:104:TRP:CE2	1:A:108:GLU:HG3	2.54	0.42
1:B:189:HIS:CD2	1:B:190:THR:HG23	2.55	0.42
1:A:140:TYR:CD2	1:A:159:HIS:HB2	2.55	0.42
1:B:120:HIS:HE1	1:B:208:CYS:SG	2.43	0.41
1:A:121:ALA:HA	1:A:126:MET:SD	2.61	0.41
1:A:88:VAL:O	1:A:116:ALA:HA	2.20	0.41
1:A:125:LYS:HA	1:A:125:LYS:HE2	2.02	0.41
1:A:149:ALA:HB3	1:A:150:PRO:HD3	2.02	0.41
1:B:49:LEU:HD13	1:B:100:GLN:HB2	2.03	0.41
1:B:118:VAL:HG21	1:B:126:MET:HG2	2.03	0.41
1:A:68:PRO:C	1:A:70:PHE:H	2.28	0.41
1:B:67:MET:SD	1:B:73:VAL:HG21	2.61	0.41
1:B:187:PRO:HB3	1:B:191:SER:HA	2.03	0.40

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A:505:HOH:O	5:A:517:HOH:O[2_554]	2.14	0.06

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	239/244 (98%)	236 (99%)	3 (1%)	0	100	100
1	B	227/244 (93%)	225 (99%)	2 (1%)	0	100	100
All	All	466/488 (96%)	461 (99%)	5 (1%)	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	182/183 (100%)	177 (97%)	5 (3%)	39	23
1	B	172/183 (94%)	166 (96%)	6 (4%)	32	15
All	All	354/366 (97%)	343 (97%)	11 (3%)	35	18

All (11) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	35	ILE
1	A	41	THR
1	A	181	LYS
1	A	193	ASN
1	A	220	ASN
1	B	67	MET
1	B	170	GLU
1	B	181	LYS

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Mol	Chain	Res	Type
1	B	193	ASN
1	B	199	ASP
1	B	216	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (1) such sidechains are listed below:

Mol	Chain	Res	Type
1	B	44	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, 4 are monoatomic - leaving 4 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	SO4	A	303	-	4,4,4	0.25	0	6,6,6	0.09	0
4	QST	B	303	2	11,17,17	1.81	3 (27%)	14,26,26	2.39	8 (57%)
4	QST	A	305	2	11,17,17	1.67	3 (27%)	14,26,26	2.42	7 (50%)
3	SO4	A	304	-	4,4,4	1.48	0	6,6,6	0.47	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	QST	A	305	2	-	3/13/33/33	0/1/1/1
4	QST	B	303	2	-	4/13/33/33	0/1/1/1

All (6) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	B	303	QST	C02-C03	3.53	1.56	1.53
4	A	305	QST	C02-S01	3.37	1.88	1.81
4	B	303	QST	C02-S01	2.65	1.86	1.81
4	A	305	QST	C02-C03	2.64	1.55	1.53
4	B	303	QST	C10-S09	2.43	1.86	1.84
4	A	305	QST	C10-S09	2.20	1.86	1.84

All (15) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	A	305	QST	C03-C02-S01	-5.29	108.20	114.16
4	B	303	QST	C03-C02-S01	-4.63	108.94	114.16
4	A	305	QST	C10-C13-C14	-3.72	105.33	112.37
4	B	303	QST	C10-C13-C14	-3.67	105.43	112.37
4	A	305	QST	O05-C04-O08	-3.18	118.21	124.57
4	B	303	QST	C14-C13-N17	2.99	115.40	110.61
4	A	305	QST	C14-C13-N17	2.87	115.22	110.61
4	B	303	QST	C02-C03-C04	-2.87	103.65	110.56
4	B	303	QST	C06-O05-C04	2.76	122.15	116.66
4	A	305	QST	O16-C14-O15	2.65	130.09	124.08
4	B	303	QST	O16-C14-O15	2.64	130.08	124.08
4	A	305	QST	C02-C03-C04	-2.22	105.22	110.56
4	B	303	QST	O05-C04-O08	-2.14	120.28	124.57
4	B	303	QST	C04-C03-N17	2.13	114.95	110.25
4	A	305	QST	O05-C06-C07	2.02	115.66	108.40

There are no chirality outliers.

All (7) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	A	305	QST	C03-C04-O05-C06

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Mol	Chain	Res	Type	Atoms
4	A	305	QST	O08-C04-O05-C06
4	B	303	QST	C07-C06-O05-C04
4	B	303	QST	C02-C03-C04-O05
4	A	305	QST	C07-C06-O05-C04
4	B	303	QST	C02-C03-C04-O08
4	B	303	QST	N17-C03-C04-O08

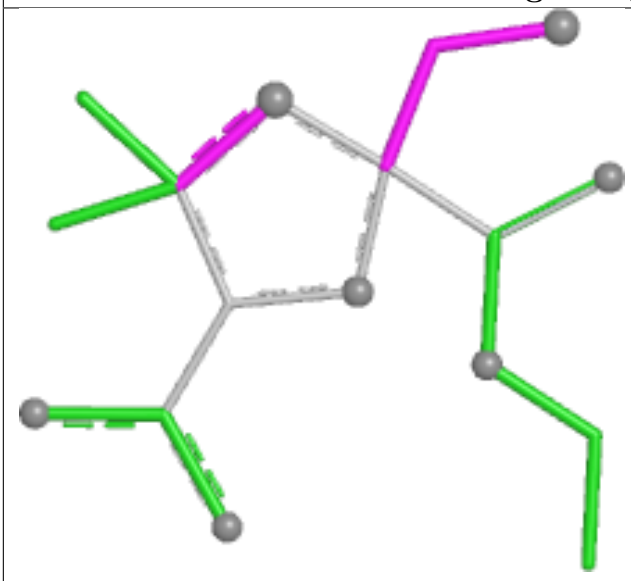
There are no ring outliers.

1 monomer is involved in 1 short contact:

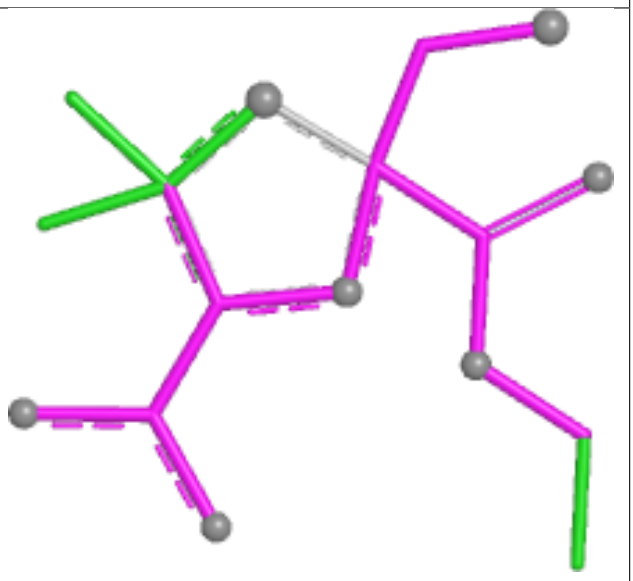
Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	A	303	SO4	1	0

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 then 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.

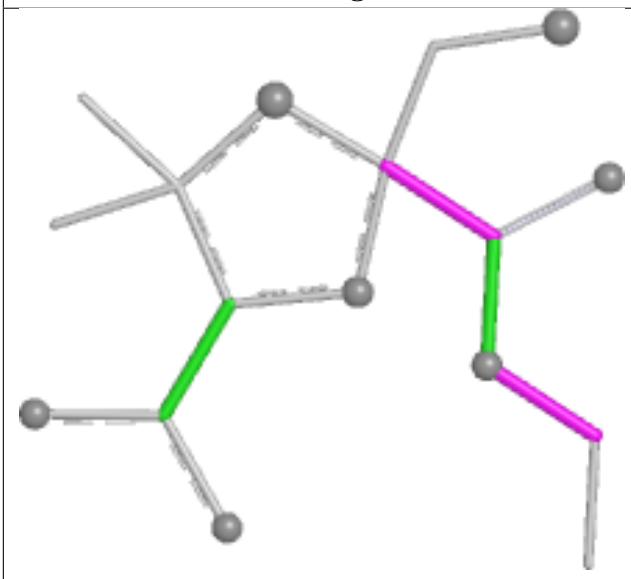
Ligand QST B 303



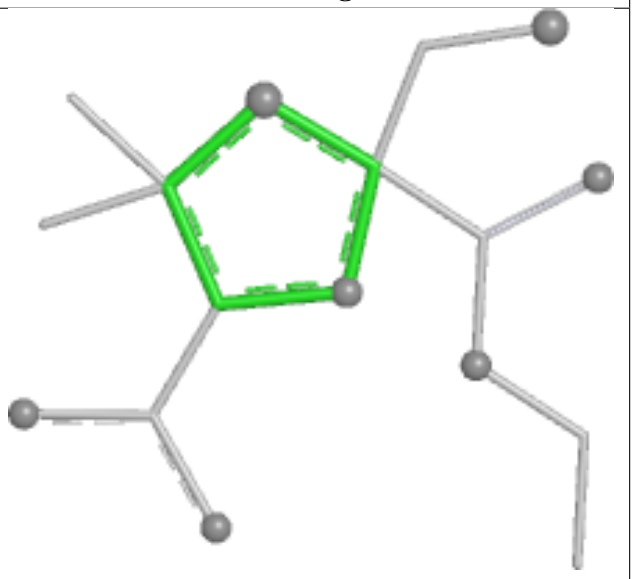
Bond lengths



Bond angles

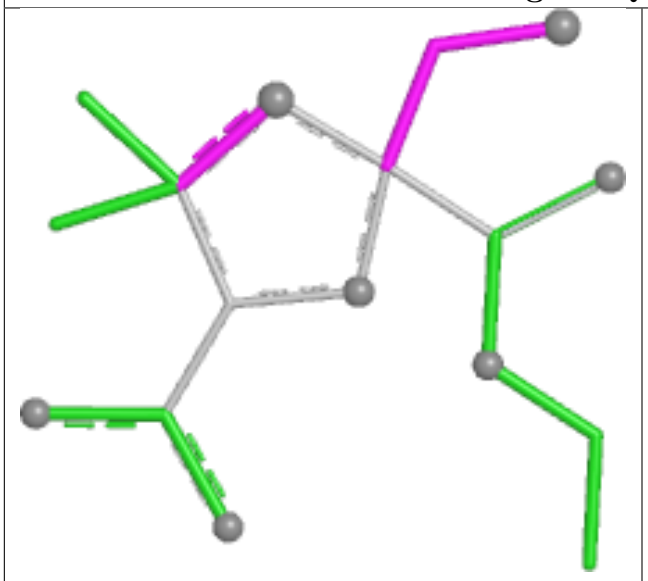


Torsions

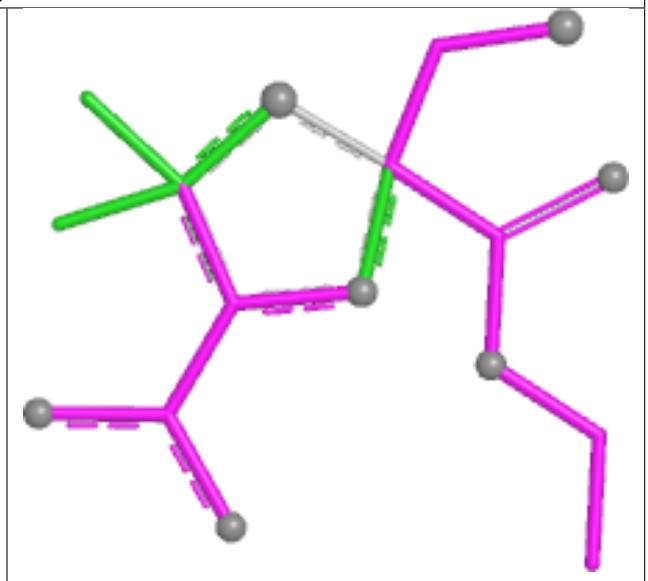


Rings

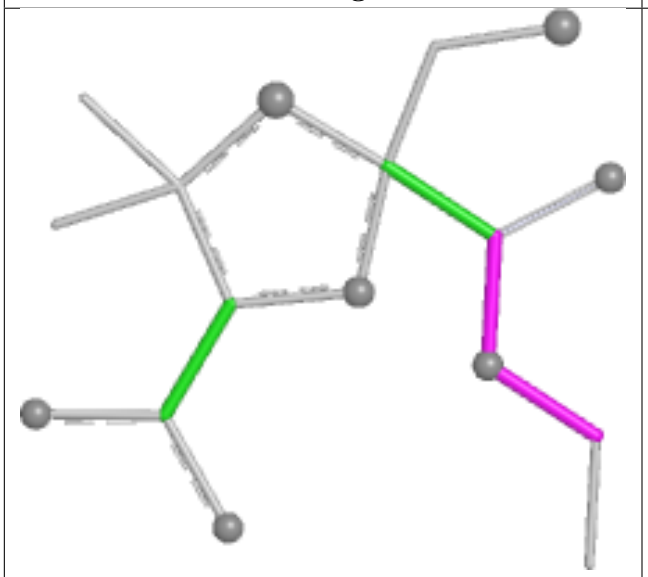
Ligand QST A 305



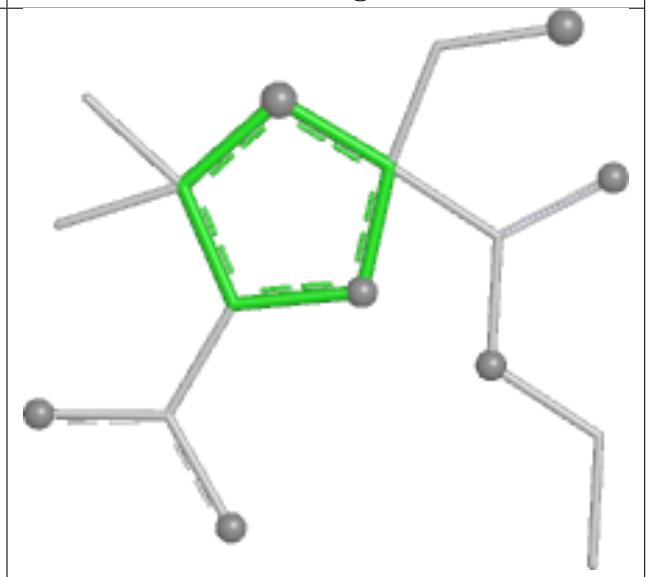
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 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	240/244 (98%)	0.13	16 (6%)	24	26	9, 24, 62, 96	1 (0%)
1	B	228/244 (93%)	0.56	10 (4%)	39	42	13, 30, 56, 104	1 (0%)
All	All	468/488 (95%)	0.34	26 (5%)	30	33	9, 27, 59, 104	2 (0%)

All (26) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	69	GLY	4.7
1	A	70	PHE	4.6
1	A	35	ILE	4.5
1	B	70	PHE	4.0
1	A	33	PRO	3.9
1	A	31	ILE	3.8
1	A	36	GLY	3.5
1	B	68	PRO	3.4
1	A	34	THR	3.2
1	A	219	GLY	2.6
1	B	198	ILE	2.6
1	A	69	GLY	2.5
1	A	45	ARG	2.5
1	B	218	LEU	2.4
1	B	66	ASP	2.4
1	A	67	MET	2.4
1	B	176	ASN	2.3
1	A	68	PRO	2.3
1	A	37	GLN	2.3
1	B	67	MET	2.3
1	A	41	THR	2.3
1	A	223	ASP	2.2
1	B	59	TRP	2.2
1	B	65	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
1	A	32	ARG	2.2
1	A	38	GLN	2.1

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)

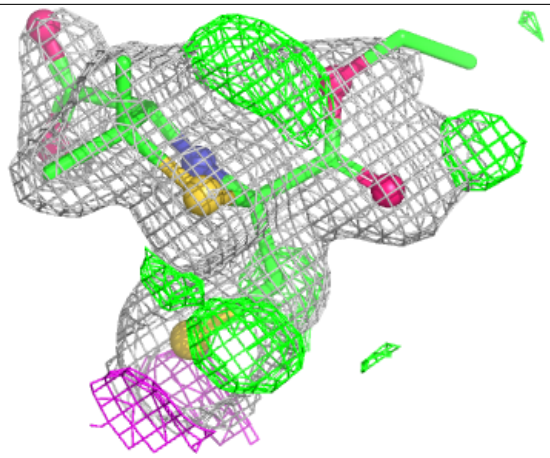
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9'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

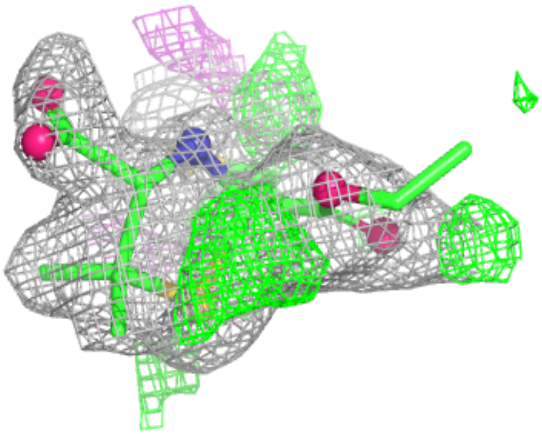
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
4	QST	B	303	17/17	0.90	0.14	25,37,48,51	17
3	SO4	A	303	5/5	0.94	0.08	41,42,45,52	0
4	QST	A	305	17/17	0.95	0.10	25,34,55,58	0
3	SO4	A	304	5/5	0.97	0.04	31,36,38,39	0
2	ZN	B	302	1/1	0.98	0.08	31,31,31,31	0
2	ZN	B	301	1/1	0.99	0.06	30,30,30,30	0
2	ZN	A	301	1/1	0.99	0.02	25,25,25,25	0
2	ZN	A	302	1/1	0.99	0.03	24,24,24,24	0

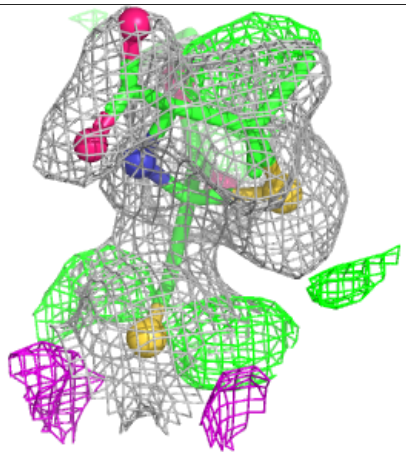
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

Electron density around QST B 303:

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

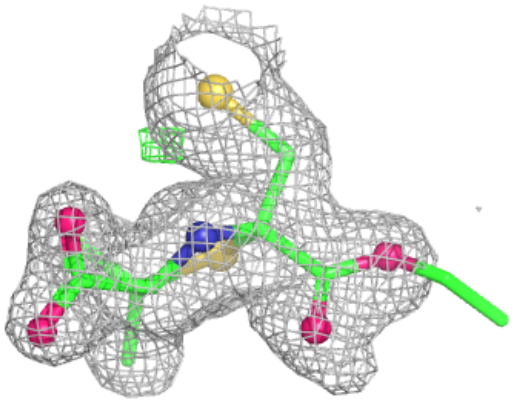


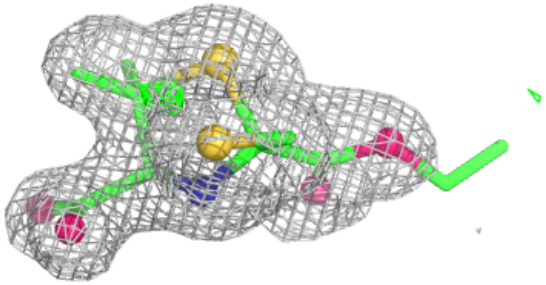


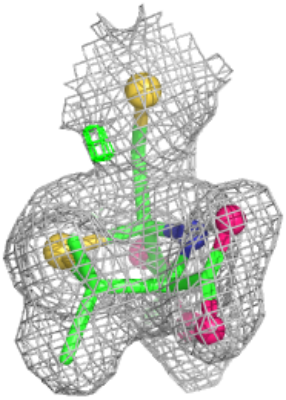


Electron density around QST A 305:

$2mF_o$-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

There are no such residues in this entry.