Full wwPDB X-ray Structure Validation Report (i)

Feb 1, 2016 – 09:06 AM GMT

PDB ID	:	3H64
Title	:	Catalytic domain of human Serine/Threonine Phosphatase 5 (PP5c) with two Mn2+ atoms complexed with endothall
Authors	:	Bertini, I.; Calderone, V.; Fragai, M.; Luchinat, C.; Talluri, E.
Deposited on	:	2009-04-23
Resolution	:	1.90 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
http://wwpdb.org/validation/2016/XrayValidationReportHelp
with specific help available everywhere you see the (i) symbol.

The following versions of software and data (see references (1)) were used in the production of this report:

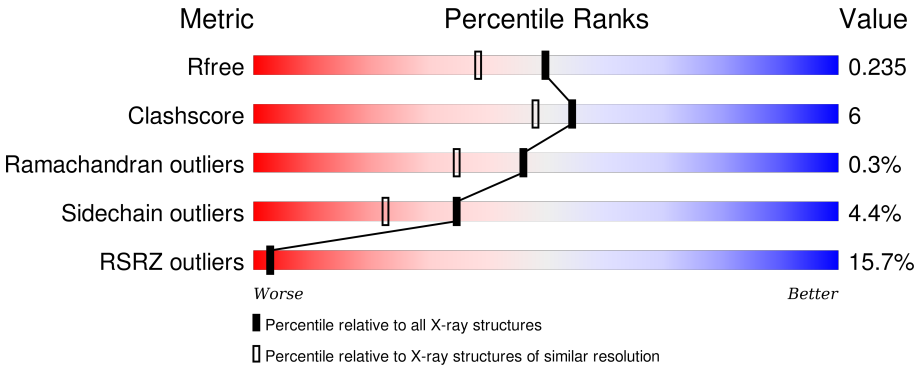
MolProbity	:	4.02b-467
Mogul	:	1.7 (RC4), CSD as536be (2015)
Xtriage (Phenix)	:	1.9-1692
EDS	:	rb-20026688
Percentile statistics	:	20151230.v01 (using entries in the PDB archive December 30th 2015)
Refmac	:	5.8.0135
CCP4	:	6.5.0
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	trunk26865

1 Overall quality at a glance (i)

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

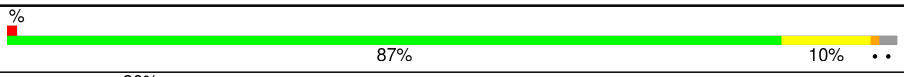
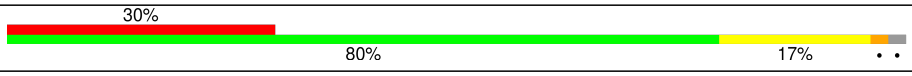
The reported resolution of this entry is 1.90 Å.

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}	91344	4755 (1.90-1.90)
Clashscore	102246	5398 (1.90-1.90)
Ramachandran outliers	100387	5338 (1.90-1.90)
Sidechain outliers	100360	5339 (1.90-1.90)
RSRZ outliers	91569	4766 (1.90-1.90)

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 on the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria. 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	315	
1	D	315	

2 Entry composition

There are 4 unique types of molecules in this entry. The entry contains 5259 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.

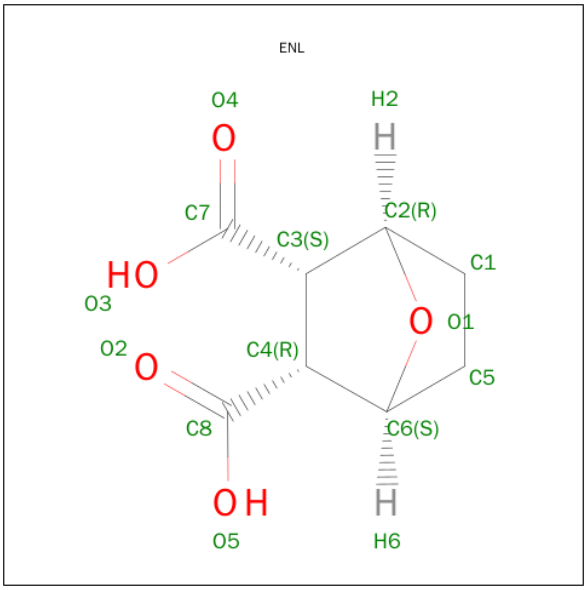
- Molecule 1 is a protein called Serine/threonine-protein phosphatase 5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	309	Total	C	N	O	S	0	0	0
			2482	1584	418	466	14			
1	D	309	Total	C	N	O	S	0	0	0
			2482	1584	418	465	15			

- Molecule 2 is MANGANESE (II) ION (three-letter code: MN) (formula: Mn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	2	Total	Mn	0	0
			2	2		
2	D	2	Total	Mn	0	0
			2	2		

- Molecule 3 is (1R,2S,3R,4S)-7-OXABICYCLO[2.2.1]HEPTANE-2,3-DICARBOXYLIC ACID (three-letter code: ENL) (formula: $C_8H_{10}O_5$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	A	1	Total C O 26 16 10	0	1
3	D	1	Total C O 13 8 5	0	0

- Molecule 4 is water.

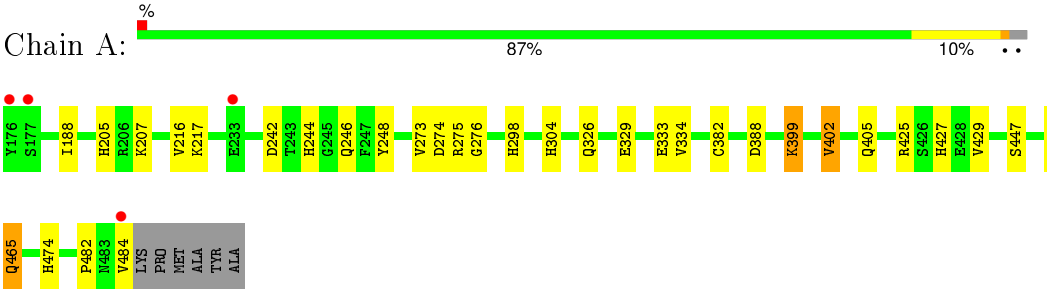
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	A	213	Total O 213 213	0	0
4	D	39	Total O 39 39	0	0

3 Residue-property plots (i)

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors 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.

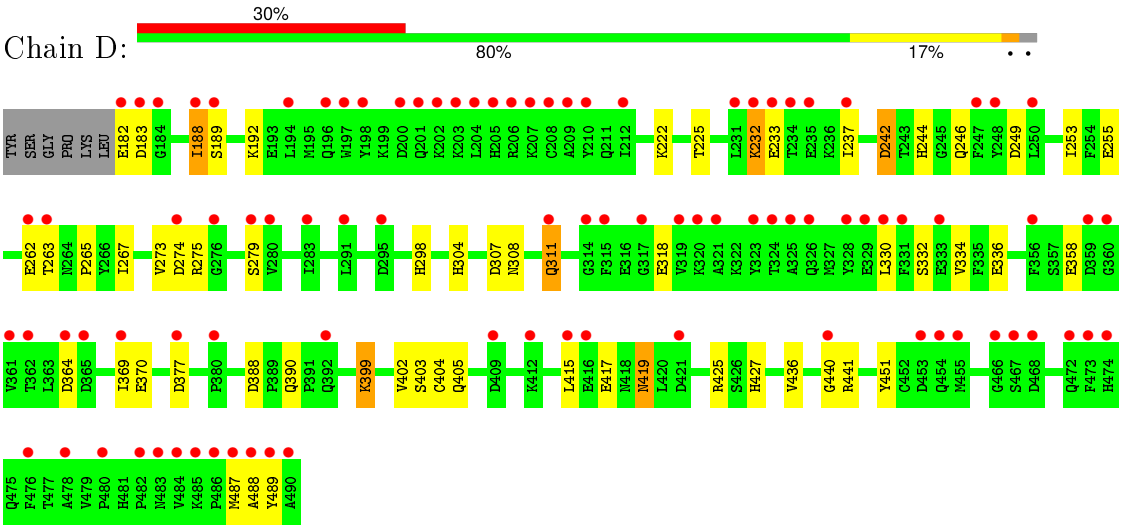
- Molecule 1: Serine/threonine-protein phosphatase 5

Chain A:



- Molecule 1: Serine/threonine-protein phosphatase 5

Chain D:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α, β, γ	154.55Å 41.46Å 95.61Å 90.00° 96.78° 90.00°	Depositor
Resolution (Å)	38.38 – 1.90 38.37 – 1.90	Depositor EDS
% Data completeness (in resolution range)	100.0 (38.38-1.90) 99.9 (38.37-1.90)	Depositor EDS
R_{merge}	0.10	Depositor
R_{sym}	0.10	Depositor
$< I/\sigma(I) >$ [1]	2.62 (at 1.89Å)	Xtriage
Refinement program	REFMAC 5.5.0089	Depositor
R, R_{free}	0.190 , 0.237 0.190 , 0.235	Depositor DCC
R_{free} test set	4389 reflections (10.07%)	DCC
Wilson B-factor (Å^2)	16.6	Xtriage
Anisotropy	0.688	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.38 , 60.2	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning[2]	$< \|L\| > = 0.47$, $< L^2 > = 0.29$	Xtriage
Outliers	1 of 47995 reflections (0.002%)	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	5259	wwPDB-VP
Average B, all atoms (Å^2)	28.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 6.07% 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, 0.375 respectively for untwinned datasets, and 0.333, 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: MN, ENL

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	0.92	1/2544 (0.0%)	0.78	0/3441
1	D	0.55	0/2544	0.66	0/3441
All	All	0.76	1/5088 (0.0%)	0.72	0/6882

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	429	VAL	CB-CG1	-5.08	1.42	1.52

There are no bond angle outliers.

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	2482	0	2414	26	0
1	D	2482	0	2414	36	0
2	A	2	0	0	0	0
2	D	2	0	0	0	0
3	A	26	0	16	5	0
3	D	13	0	8	5	0
4	A	213	0	0	8	0
4	D	39	0	0	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
All	All	5259	0	4852	63	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 6.

All (63) 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:D:275:ARG:HE	3:D:0:ENL:H5	1.23	1.03
1:D:188:ILE:CD1	1:D:192:LYS:HE3	1.91	1.00
1:D:275:ARG:NE	3:D:0:ENL:H5	1.84	0.93
3:A:0[B]:ENL:H2	4:A:60:HOH:O	1.71	0.90
1:D:188:ILE:HD11	1:D:192:LYS:HE3	1.60	0.82
1:D:188:ILE:HD12	1:D:192:LYS:HE3	1.64	0.79
1:D:415:LEU:HD11	1:D:441:ARG:HB3	1.67	0.75
1:A:474:HIS:HE1	4:A:549:HOH:O	1.71	0.74
1:D:188:ILE:HB	4:D:152:HOH:O	1.92	0.70
1:D:419:ASN:N	1:D:419:ASN:HD22	1.93	0.66
1:A:326:GLN:HG3	4:A:79:HOH:O	1.96	0.65
1:A:465:GLN:HB2	4:A:506:HOH:O	1.95	0.65
1:A:205:HIS:HD2	1:A:207:LYS:H	1.45	0.62
1:D:307:ASP:O	1:D:311:GLN:HG2	2.00	0.61
1:A:205:HIS:CD2	1:A:207:LYS:HG3	2.36	0.60
1:A:298:HIS:HE1	4:A:49:HOH:O	1.84	0.60
1:D:222:LYS:HB2	4:D:511:HOH:O	2.00	0.59
1:D:415:LEU:CD1	1:D:441:ARG:HB3	2.31	0.58
1:A:451:TYR:OH	3:A:0[B]:ENL:H5A	2.03	0.58
1:D:436:VAL:HG12	1:D:440:GLY:HA2	1.85	0.57
1:A:217:LYS:HB2	1:A:334:VAL:HG22	1.88	0.54
1:D:304:HIS:NE2	3:D:0:ENL:H1	2.23	0.53
1:D:330:LEU:O	1:D:334:VAL:HG23	2.08	0.53
1:A:205:HIS:CD2	1:A:207:LYS:H	2.24	0.53
1:D:487:MET:C	1:D:489:TYR:H	2.14	0.51
1:A:388:ASP:O	1:A:405:GLN:HA	2.09	0.51
1:A:474:HIS:CE1	4:A:549:HOH:O	2.53	0.49
1:A:273:VAL:O	1:A:274:ASP:HB2	2.12	0.49
1:D:427:HIS:CE1	3:D:0:ENL:O3	2.66	0.48
1:D:332:SER:O	1:D:336:GLU:HG3	2.13	0.48
1:A:298:HIS:HD2	4:A:38:HOH:O	1.97	0.48
1:A:447:SER:HA	1:A:459:ALA:HB1	1.95	0.48
1:A:329:GLU:HB3	4:A:167:HOH:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:275:ARG:NH1	1:A:304:HIS:CE1	2.83	0.47
1:D:451:TYR:OH	3:D:0:ENL:H6	2.13	0.47
1:D:267:ILE:HG12	1:D:298:HIS:HB2	1.96	0.47
1:A:275:ARG:HG3	1:A:451:TYR:OH	2.13	0.47
1:A:329:GLU:O	1:A:333:GLU:HG3	2.15	0.47
1:D:417:GLU:HG2	1:D:417:GLU:O	2.15	0.47
1:D:388:ASP:O	1:D:405:GLN:HA	2.16	0.46
1:A:399:LYS:HD3	1:A:405:GLN:OE1	2.14	0.46
1:A:275:ARG:CZ	3:A:0[B]:ENL:H5	2.46	0.46
1:A:451:TYR:OH	3:A:0[B]:ENL:C5	2.64	0.46
1:D:390:GLN:HB3	1:D:405:GLN:HE21	1.82	0.45
1:D:237:ILE:HG13	1:D:265:PRO:HB2	1.99	0.44
1:D:225:THR:HG21	1:D:369:ILE:HB	1.99	0.44
1:A:382:CYS:SG	1:A:402:VAL:HG23	2.58	0.44
1:D:273:VAL:O	1:D:274:ASP:HB2	2.18	0.43
1:D:244:HIS:HE1	1:D:304:HIS:CD2	2.37	0.42
1:A:244:HIS:O	1:A:276:GLY:HA3	2.19	0.42
1:D:249:ASP:O	1:D:253:ILE:HG13	2.18	0.42
1:D:263:THR:C	1:D:265:PRO:HD3	2.40	0.42
1:D:246:GLN:HE22	1:D:451:TYR:HA	1.83	0.41
1:D:399:LYS:HE2	1:D:399:LYS:HB3	1.75	0.41
1:A:248:TYR:CE1	1:A:482:PRO:HD2	2.55	0.41
1:A:246:GLN:HE22	1:A:451:TYR:HA	1.84	0.41
1:D:232:LYS:HE2	1:D:232:LYS:HB3	1.58	0.41
1:A:427:HIS:CE1	3:A:0[B]:ENL:O3	2.74	0.41
1:D:267:ILE:HA	1:D:298:HIS:O	2.21	0.41
1:D:403:SER:OG	1:D:404:CYS:N	2.53	0.41
1:D:182:GLU:O	1:D:183:ASP:HB2	2.20	0.40
1:D:242:ASP:HB3	1:D:244:HIS:CD2	2.56	0.40
1:D:279:SER:HB2	1:D:318:GLU:OE1	2.22	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	307/315 (98%)	297 (97%)	10 (3%)	0	100 100
1	D	307/315 (98%)	278 (91%)	27 (9%)	2 (1%)	26 14
All	All	614/630 (98%)	575 (94%)	37 (6%)	2 (0%)	46 35

All (2) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	D	308	ASN
1	D	488	ALA

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	275/279 (99%)	267 (97%)	8 (3%)	50 40
1	D	274/279 (98%)	258 (94%)	16 (6%)	25 13
All	All	549/558 (98%)	525 (96%)	24 (4%)	35 22

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

Mol	Chain	Res	Type
1	A	188	ILE
1	A	216	VAL
1	A	242	ASP
1	A	399	LYS
1	A	402	VAL
1	A	425	ARG
1	A	465	GLN
1	A	484	VAL
1	D	188	ILE
1	D	189	SER
1	D	232	LYS

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Mol	Chain	Res	Type
1	D	233	GLU
1	D	242	ASP
1	D	255	GLU
1	D	262	GLU
1	D	311	GLN
1	D	358	GLU
1	D	364	ASP
1	D	370	GLU
1	D	377	ASP
1	D	399	LYS
1	D	402	VAL
1	D	419	ASN
1	D	425	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (13) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	205	HIS
1	A	246	GLN
1	A	264	ASN
1	A	298	HIS
1	A	311	GLN
1	A	465	GLN
1	A	474	HIS
1	D	205	HIS
1	D	246	GLN
1	D	264	ASN
1	D	298	HIS
1	D	405	GLN
1	D	419	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 carbohydrates in this entry.

5.6 Ligand geometry (i)

Of 7 ligands modelled in this entry, 4 are monoatomic - leaving 3 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	ENL	A	0[A]	2	6,14,14	0.87	0	11,21,21	1.63	1 (9%)
3	ENL	A	0[B]	2	6,14,14	1.31	1 (16%)	11,21,21	1.39	2 (18%)
3	ENL	D	0	2	6,14,14	1.00	0	11,21,21	1.04	1 (9%)

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
3	ENL	A	0[A]	2	-	0/0/29/29	0/0/2/2
3	ENL	A	0[B]	2	-	0/0/29/29	0/0/2/2
3	ENL	D	0	2	-	0/0/29/29	0/0/2/2

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A	0[B]	ENL	C3-C4	-2.04	1.52	1.57

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A	0[A]	ENL	C1-C2-C3	-4.56	104.07	109.55
3	A	0[B]	ENL	O1-C6-C5	-2.31	100.28	104.41
3	A	0[B]	ENL	O1-C2-C3	-2.25	98.55	102.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	D	0	ENL	O1-C6-C5	-2.01	100.81	104.41

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

2 monomers are involved in 10 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	A	0[B]	ENL	5	0
3	D	0	ENL	5	0

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 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	309/315 (98%)	0.24	4 (1%) 79 82	3, 12, 26, 50	2 (0%)
1	D	309/315 (98%)	1.55	93 (30%) 1 0	21, 43, 61, 72	3 (0%)
All	All	618/630 (98%)	0.89	97 (15%) 3 3	3, 27, 58, 72	5 (0%)

All (97) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	176	TYR	8.2
1	D	467	SER	6.6
1	D	360	GLY	5.4
1	D	319	VAL	5.2
1	D	489	TYR	5.2
1	D	202	LYS	5.1
1	D	197	TRP	5.0
1	D	234	THR	5.0
1	D	484	VAL	4.8
1	D	198	TYR	4.7
1	D	485	LYS	4.6
1	D	276	GLY	4.6
1	D	314	GLY	4.5
1	D	210	TYR	4.4
1	D	490	ALA	4.3
1	D	206	ARG	4.2
1	D	482	PRO	3.9
1	D	454	GLN	3.8
1	D	204	LEU	3.8
1	A	484	VAL	3.7
1	D	311	GLN	3.7
1	D	487	MET	3.7
1	D	205	HIS	3.7
1	D	247	PHE	3.7

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Mol	Chain	Res	Type	RSRZ
1	D	184	GLY	3.6
1	D	317	GLY	3.6
1	D	326	GLN	3.5
1	D	325	ALA	3.5
1	D	377	ASP	3.5
1	D	416	GLU	3.4
1	D	328	TYR	3.4
1	D	183	ASP	3.4
1	D	324	THR	3.3
1	D	362	THR	3.3
1	D	359	ASP	3.3
1	D	231	LEU	3.3
1	D	361	VAL	3.2
1	D	466	GLY	3.2
1	D	182	GLU	3.1
1	D	248	TYR	3.1
1	D	455	MET	3.1
1	D	212	ILE	3.1
1	D	473	PHE	3.0
1	D	203	LYS	3.0
1	D	280	VAL	2.9
1	D	483	ASN	2.9
1	D	412	LYS	2.9
1	D	476	PHE	2.9
1	D	315	PHE	2.9
1	D	201	GLN	2.9
1	D	323	TYR	2.9
1	D	330	LEU	2.8
1	D	321	ALA	2.8
1	D	488	ALA	2.8
1	D	474	HIS	2.6
1	D	329	GLU	2.6
1	D	421	ASP	2.6
1	D	207	LYS	2.6
1	D	365	ASP	2.5
1	D	250	LEU	2.5
1	D	364	ASP	2.5
1	D	333	GLU	2.5
1	D	209	ALA	2.5
1	D	233	GLU	2.5
1	D	356	PHE	2.4
1	D	208	CYS	2.4

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Mol	Chain	Res	Type	RSRZ
1	D	486	PRO	2.4
1	D	320	LYS	2.4
1	D	472	GLN	2.4
1	D	468	ASP	2.4
1	D	196	GLN	2.4
1	A	177	SER	2.3
1	D	415	LEU	2.3
1	D	263	THR	2.3
1	D	291	LEU	2.3
1	D	453	ASP	2.3
1	D	188	ILE	2.3
1	D	232	LYS	2.3
1	D	189	SER	2.2
1	D	331	PHE	2.2
1	D	194	LEU	2.2
1	D	392	GLN	2.2
1	D	283	ILE	2.2
1	D	279	SER	2.2
1	D	200	ASP	2.1
1	D	440	GLY	2.1
1	A	233	GLU	2.1
1	D	369	ILE	2.1
1	D	380	PRO	2.1
1	D	237	ILE	2.1
1	D	274	ASP	2.0
1	D	409	ASP	2.0
1	D	480	PRO	2.0
1	D	235	GLU	2.0
1	D	262	GLU	2.0
1	D	478	ALA	2.0
1	D	295	ASP	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 carbohydrates in this entry.

6.4 Ligands

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. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. 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	LLDF	B-factors(Å^2)	Q<0.9
2	MN	D	501	1/1	1.00	0.17	1.94	10,10,10,10	0
3	ENL	D	0	13/13	0.84	0.20	1.78	32,42,45,47	0
2	MN	D	500	1/1	0.99	0.14	1.70	9,9,9,9	0
3	ENL	A	0[A]	13/13	0.98	0.13	1.09	9,11,15,15	13
3	ENL	A	0[B]	13/13	0.98	0.13	1.09	9,12,14,15	13
2	MN	A	500	1/1	1.00	0.04	-2.80	2,2,2,2	0
2	MN	A	501	1/1	1.00	0.03	-5.18	2,2,2,2	0

6.5 Other polymers

There are no such residues in this entry.