Full wwPDB X-ray Structure Validation Report ⓘ

Sep 14, 2020 – 01:45 AM BST

PDB ID	:	6HZF
Title	:	BP0997, GH138 enzyme targeting pectin rhamnogalacturonan II
Authors	:	Basle, A.; Cartmell, A.; Labourel, A.; Gilbert, H.
Deposited on	:	2018-10-23
Resolution	:	1.95 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 following versions of software and data (see references ⓘ) were used in the production of this report:

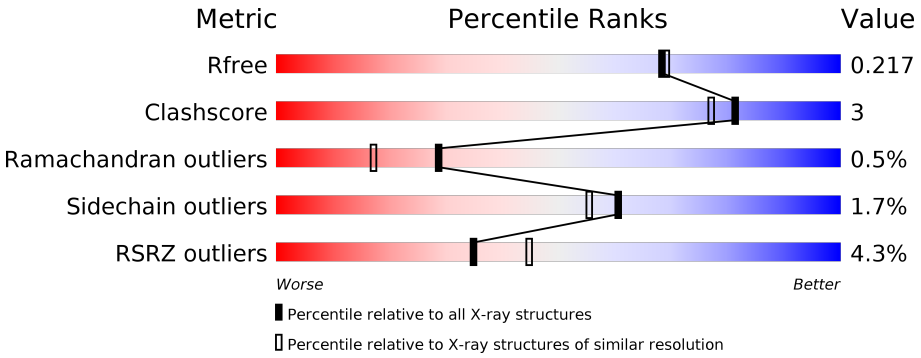
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.14.4.dev1
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.14.4.dev1

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 1.95 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}	130704	2580 (1.96-1.96)
Clashscore	141614	2705 (1.96-1.96)
Ramachandran outliers	138981	2678 (1.96-1.96)
Sidechain outliers	138945	2678 (1.96-1.96)
RSRZ outliers	127900	2539 (1.96-1.96)

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 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	893	2% 89% 7% .
2	B	871	6% 90% 8% .

2 Entry composition

There are 5 unique types of molecules in this entry. The entry contains 14603 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.

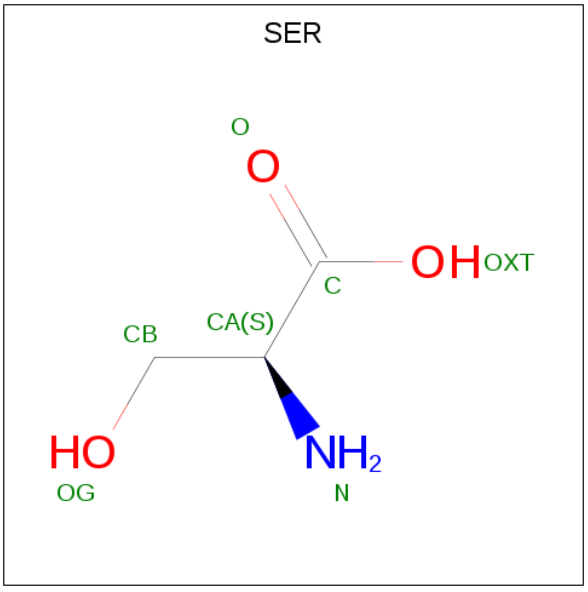
- Molecule 1 is a protein called BPa0997.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
			Total	C	N	O	S	Se			
1	A	860	7003	4501	1171	1298	9	24	0	3	0

- Molecule 2 is a protein called BPa0997.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
			Total	C	N	O	S	Se			
2	B	848	6895	4437	1152	1274	9	23	0	1	0

- Molecule 3 is SERINE (three-letter code: SER) (formula: $C_3H_7NO_3$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	N	O		
3	A	1	7	3	1	3	0	0
3	B	1	7	3	1	3	0	0

- Molecule 4 is SODIUM ION (three-letter code: NA) (formula: Na).

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

- Molecule 5 is water.

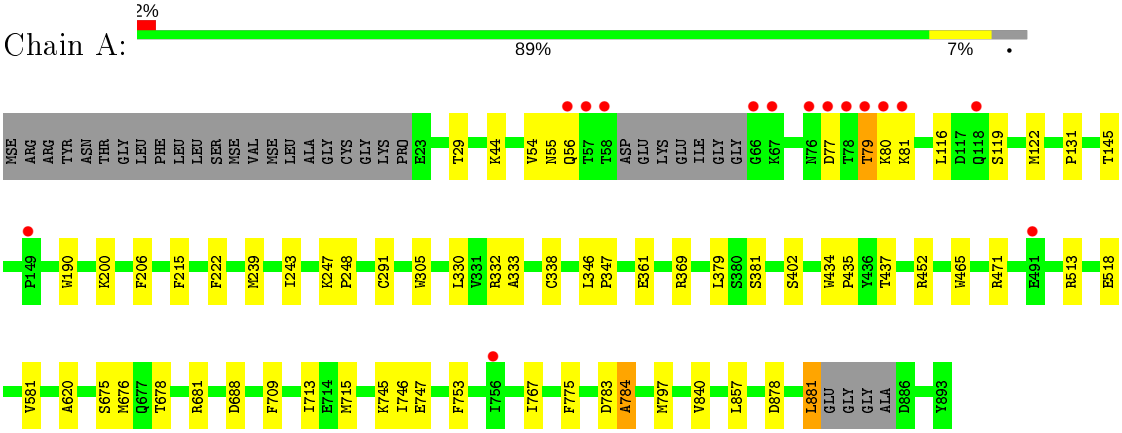
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	A	452	Total O 452 452	0	0
5	B	234	Total O 234 234	0	0

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.

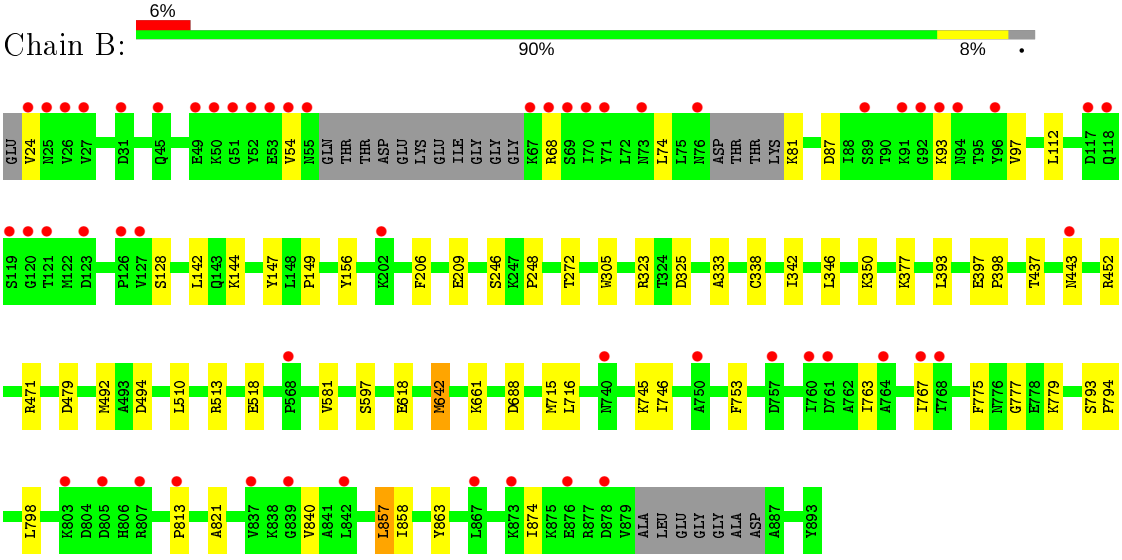
- Molecule 1: BPa0997

Chain A:



- Molecule 2: BPa0997

Chain B:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	69.78Å 106.21Å 138.50Å 90.00° 99.44° 90.00°	Depositor
Resolution (Å)	49.55 – 1.95 49.50 – 1.95	Depositor EDS
% Data completeness (in resolution range)	99.9 (49.55-1.95) 99.9 (49.50-1.95)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.36 (at 1.95Å)	Xtriage
Refinement program	REFMAC 5.8.0232	Depositor
R, R_{free}	0.173 , 0.208 0.185 , 0.217	Depositor DCC
R_{free} test set	7185 reflections (4.96%)	wwPDB-VP
Wilson B-factor (Å^2)	32.3	Xtriage
Anisotropy	0.425	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.33 , 40.9	EDS
L-test for twinning[2]	$< \|L\| > = 0.47$, $< L^2 > = 0.29$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.96	EDS
Total number of atoms	14603	wwPDB-VP
Average B, all atoms (Å^2)	41.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.66% 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: NA

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	0.79	2/7165 (0.0%)	0.89	3/9655 (0.0%)
2	B	0.75	0/7053	0.86	5/9504 (0.1%)
All	All	0.77	2/14218 (0.0%)	0.87	8/19159 (0.0%)

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	361	GLU	CD-OE2	7.04	1.33	1.25
1	A	122	MSE	CG-SE	-5.13	1.77	1.95

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	369	ARG	NE-CZ-NH1	8.63	124.62	120.30
2	B	471	ARG	CG-CD-NE	-8.39	94.17	111.80
1	A	369	ARG	NE-CZ-NH2	-8.09	116.25	120.30
2	B	492	MSE	CG-SE-CE	7.71	115.85	98.90
2	B	715	MSE	CG-SE-CE	7.05	114.42	98.90
1	A	715	MSE	CG-SE-CE	6.40	112.98	98.90
2	B	642	MSE	CG-SE-CE	5.67	111.36	98.90
2	B	393	LEU	CA-CB-CG	-5.07	103.64	115.30

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	7003	0	6894	39	0
2	B	6895	0	6779	32	0
3	A	7	0	4	0	0
3	B	7	0	4	0	0
4	A	2	0	0	0	0
4	B	3	0	0	0	0
5	A	452	0	0	0	0
5	B	234	0	0	0	0
All	All	14603	0	13681	71	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 3.

All (71) 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:676[B]:MSE:HE3	1:A:676[B]:MSE:O	1.67	0.92
1:A:676[B]:MSE:CE	1:A:681:ARG:HB2	2.13	0.79
1:A:676[B]:MSE:CE	1:A:676[B]:MSE:O	2.36	0.73
1:A:797:MSE:HE1	1:A:857:LEU:HD23	1.72	0.71
1:A:797:MSE:HE1	1:A:857:LEU:CD2	2.22	0.69
2:B:857:LEU:HD12	2:B:858:ILE:N	2.08	0.68
1:A:44:LYS:HE2	1:A:56:GLN:HB3	1.76	0.66
1:A:676[B]:MSE:HE1	1:A:681:ARG:HB2	1.76	0.65
1:A:783:ASP:O	1:A:784:ALA:HB3	1.97	0.63
1:A:676[B]:MSE:HE3	1:A:676[B]:MSE:C	2.18	0.62
1:A:878:ASP:HB3	1:A:881:LEU:HD22	1.80	0.62
1:A:44:LYS:HG2	1:A:54:VAL:HG11	1.83	0.61
1:A:676[B]:MSE:HE2	1:A:681:ARG:HB2	1.84	0.59
1:A:709:PHE:CZ	1:A:713:ILE:HD11	2.38	0.59
1:A:333:ALA:HB1	1:A:338:CYS:SG	2.43	0.58
1:A:116:LEU:O	1:A:119:SER:O	2.21	0.57
2:B:437:THR:HG21	2:B:452:ARG:HD3	1.88	0.55
2:B:333:ALA:HB1	2:B:338:CYS:SG	2.49	0.53
1:A:437:THR:HG21	1:A:452:ARG:HD3	1.90	0.53
2:B:323:ARG:NH2	2:B:325:ASP:OD2	2.32	0.53
2:B:798:LEU:HD21	2:B:874:ILE:CD1	2.38	0.53
1:A:44:LYS:CE	1:A:56:GLN:HB3	2.39	0.52
2:B:338:CYS:O	2:B:342:ILE:HG12	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:24:VAL:HA	2:B:68:ARG:O	2.13	0.49
1:A:247:LYS:HB3	1:A:248:PRO:HD3	1.94	0.49
2:B:777:GLY:HA3	2:B:863:TYR:CZ	2.48	0.48
2:B:793:SER:HB2	2:B:794:PRO:HD2	1.95	0.48
1:A:145:THR:HG22	1:A:675:SER:O	2.14	0.47
2:B:24:VAL:O	2:B:54:VAL:HA	2.13	0.47
1:A:44:LYS:HE2	1:A:56:GLN:CB	2.42	0.47
1:A:709:PHE:CE2	1:A:713:ILE:HD11	2.50	0.47
2:B:144:LYS:HB2	2:B:156:TYR:CE2	2.50	0.46
2:B:813:PRO:HB2	2:B:821:ALA:HB1	1.98	0.46
1:A:338:CYS:HB3	1:A:379:LEU:HD21	1.98	0.46
2:B:147:TYR:N	2:B:147:TYR:CD1	2.84	0.45
1:A:200:LYS:HE3	1:A:215:PHE:CE2	2.51	0.45
2:B:206:PHE:O	2:B:248:PRO:HB2	2.16	0.45
2:B:746:ILE:HG22	2:B:763:ILE:HD11	1.97	0.45
2:B:479:ASP:OD1	2:B:494:ASP:HA	2.17	0.45
1:A:206:PHE:O	1:A:248:PRO:HB2	2.17	0.45
2:B:857:LEU:C	2:B:857:LEU:HD12	2.35	0.45
1:A:746:ILE:HG21	1:A:767:ILE:HG22	1.98	0.44
2:B:777:GLY:HA3	2:B:863:TYR:CE2	2.52	0.44
1:A:767:ILE:O	1:A:767:ILE:HG22	2.17	0.44
2:B:209:GLU:HG3	2:B:246:SER:HB2	2.00	0.44
2:B:753:PHE:HA	2:B:775:PHE:O	2.17	0.44
2:B:618:GLU:HG3	2:B:661:LYS:HG3	2.00	0.43
1:A:676[B]:MSE:HE3	1:A:678:THR:H	1.84	0.43
1:A:753:PHE:HA	1:A:775:PHE:O	2.18	0.43
1:A:333:ALA:CB	1:A:338:CYS:SG	3.05	0.43
1:A:131:PRO:HD3	1:A:465:TRP:CH2	2.54	0.43
1:A:434:TRP:CG	1:A:435:PRO:HA	2.54	0.43
1:A:346:LEU:N	1:A:347:PRO:CD	2.82	0.42
1:A:190:TRP:HA	1:A:239:MSE:HB3	2.01	0.42
1:A:783:ASP:O	1:A:784:ALA:CB	2.60	0.42
2:B:746:ILE:HG21	2:B:767:ILE:HG22	2.01	0.42
1:A:330:LEU:HD12	1:A:330:LEU:N	2.34	0.42
1:A:243:ILE:HG12	1:A:305:TRP:CE2	2.55	0.41
2:B:798:LEU:HD21	2:B:874:ILE:HD13	2.03	0.41
2:B:510:LEU:HD11	2:B:581:VAL:HG11	2.03	0.41
2:B:397:GLU:HA	2:B:398:PRO:HA	1.85	0.41
2:B:87:ASP:OD1	2:B:128:SER:OG	2.30	0.41
2:B:97:VAL:HG21	2:B:112:LEU:HD11	2.03	0.41
2:B:272:THR:HG21	2:B:305:TRP:CZ2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:346:LEU:HA	2:B:346:LEU:HD23	1.94	0.41
2:B:716:LEU:HA	2:B:716:LEU:HD23	1.91	0.41
1:A:745:LYS:CD	1:A:747:GLU:OE1	2.69	0.40
1:A:581:VAL:HG12	1:A:620:ALA:HB1	2.04	0.40
2:B:68:ARG:HD2	2:B:93:LYS:O	2.22	0.40
2:B:793:SER:HB2	2:B:794:PRO:CD	2.52	0.40
1:A:291:CYS:HB2	1:A:332:ARG:HD3	2.04	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	857/893 (96%)	836 (98%)	15 (2%)	6 (1%)	22 11
2	B	841/871 (97%)	812 (97%)	27 (3%)	2 (0%)	47 38
All	All	1698/1764 (96%)	1648 (97%)	42 (2%)	8 (0%)	29 17

All (8) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	79	THR
1	A	81	LYS
1	A	80	LYS
1	A	402	SER
2	B	443	ASN
1	A	784	ALA
2	B	840	VAL
1	A	840	VAL

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	746/742 (100%)	735 (98%)	11 (2%)	65	60
2	B	733/727 (101%)	719 (98%)	14 (2%)	57	50
All	All	1479/1469 (101%)	1454 (98%)	25 (2%)	60	55

All (25) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	29	THR
1	A	55	ASN
1	A	77	ASP
1	A	79	THR
1	A	222	PHE
1	A	381	SER
1	A	471	ARG
1	A	513	ARG
1	A	518	GLU
1	A	688	ASP
1	A	881	LEU
2	B	74	LEU
2	B	81	LYS
2	B	142	LEU
2	B	149	PRO
2	B	350	LYS
2	B	377	LYS
2	B	513	ARG
2	B	518	GLU
2	B	597	SER
2	B	642	MSE
2	B	688	ASP
2	B	745	LYS
2	B	779	LYS
2	B	857	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. There are no

such sidechains identified.

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry

Of 7 ligands modelled in this entry, 5 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	$\#\|Z\| > 2$
3	SER	B	904	-	3,6,6	1.17	0	1,7,7	0.41	0
3	SER	A	901	-	3,6,6	0.72	0	1,7,7	0.39	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
3	SER	B	904	-	-	0/2/6/6	-
3	SER	A	901	-	-	0/2/6/6	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

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	838/893 (93%)	0.08	15 (1%)	68	76	22, 33, 54, 93	0
2	B	826/871 (94%)	0.31	56 (6%)	17	25	30, 45, 78, 109	0
All	All	1664/1764 (94%)	0.19	71 (4%)	35	45	22, 39, 68, 109	0

All (71) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	B	119	SER	7.5
1	A	78	THR	7.2
1	A	80	LYS	6.1
2	B	118	GLN	5.8
2	B	121	THR	5.7
2	B	120	GLY	5.1
2	B	52	TYR	4.7
1	A	66	GLY	4.7
2	B	94	ASN	4.5
1	A	58	THR	4.4
1	A	77	ASP	4.2
2	B	92	GLY	4.2
2	B	839	GLY	4.1
2	B	93	LYS	4.1
2	B	70	ILE	4.0
2	B	96	TYR	3.9
2	B	69	SER	3.8
1	A	81	LYS	3.7
2	B	68	ARG	3.6
1	A	56	GLN	3.4
1	A	57	THR	3.3
2	B	71	TYR	3.3
2	B	51	GLY	3.2
2	B	26	VAL	3.2

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Mol	Chain	Res	Type	RSRZ
2	B	45	GLN	3.0
2	B	67	LYS	3.0
2	B	813	PRO	3.0
2	B	760	ILE	2.9
2	B	76	ASN	2.9
2	B	50	LYS	2.9
2	B	24	VAL	2.9
1	A	76	ASN	2.9
2	B	807	ARG	2.8
2	B	202	LYS	2.8
2	B	123	ASP	2.7
2	B	750	ALA	2.7
2	B	91	LYS	2.6
2	B	25	ASN	2.6
2	B	49	GLU	2.6
2	B	53	GLU	2.6
2	B	27	VAL	2.6
1	A	67	LYS	2.5
2	B	767	ILE	2.5
2	B	54	VAL	2.5
2	B	31	ASP	2.5
2	B	89	SER	2.5
2	B	127	VAL	2.5
2	B	55	ASN	2.4
2	B	443	ASN	2.4
2	B	740	ASN	2.4
2	B	764	ALA	2.4
2	B	73	ASN	2.3
2	B	117	ASP	2.3
2	B	803	LYS	2.3
1	A	79	THR	2.3
2	B	761	ASP	2.3
1	A	491	GLU	2.2
1	A	149	PRO	2.2
2	B	805	ASP	2.2
2	B	842	LEU	2.2
2	B	568	PRO	2.2
2	B	126	PRO	2.2
2	B	768	THR	2.1
1	A	118	GLN	2.1
1	A	756	ILE	2.1
2	B	876	GLU	2.0

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Mol	Chain	Res	Type	RSRZ
2	B	873	LYS	2.0
2	B	878	ASP	2.0
2	B	837	VAL	2.0
2	B	757	ASP	2.0
2	B	867	LEU	2.0

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

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

6.3 Carbohydrates (i)

There are no monosaccharides 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	NA	B	901	1/1	0.96	0.05	38,38,38,38	0
3	SER	B	904	7/7	0.96	0.10	34,36,38,39	0
4	NA	B	902	1/1	0.97	0.11	42,42,42,42	0
3	SER	A	901	7/7	0.98	0.10	26,29,30,31	0
4	NA	A	903	1/1	0.99	0.26	17,17,17,17	0
4	NA	B	903	1/1	0.99	0.22	24,24,24,24	0
4	NA	A	902	1/1	0.99	0.09	32,32,32,32	0

6.5 Other polymers (i)

There are no such residues in this entry.