



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 9, 2026 – 07:06 AM UTC

PDB ID : 6O42 / pdb_00006o42
Title : Crystal structure of the germline PGZL1 (PGZL1_gVmDmJ) Fab in complex with MPER peptide epitope.
Authors : Irimia, A.; Wilson, I.A.
Deposited on : 2019-02-27
Resolution : 2.60 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:

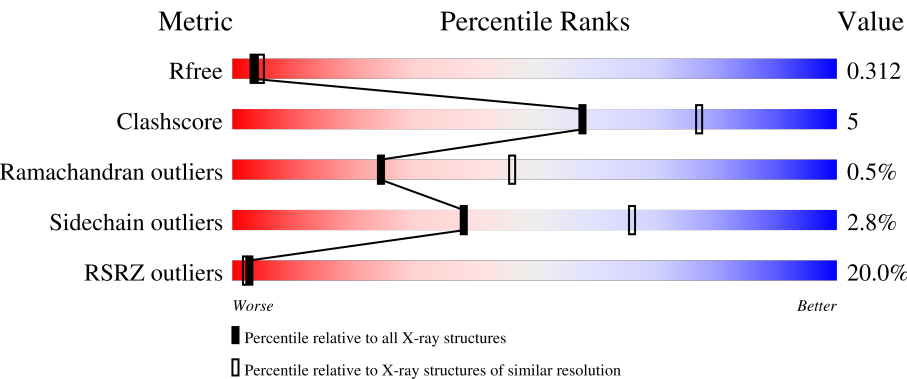
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (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 2.60 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	4008 (2.60-2.60)
Clashscore	190562	4347 (2.60-2.60)
Ramachandran outliers	187476	4277 (2.60-2.60)
Sidechain outliers	187428	4277 (2.60-2.60)
RSRZ outliers	180081	4008 (2.60-2.60)

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	215	16% 83%16%
1	L	215	19% 80%18%.
2	B	227	21% 86%11%..
2	H	227	20% 83%13%. .
3	G	16	25% 94%6%

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Mol	Chain	Length	Quality of chain
3	I	16	44% 88% 6% 6%

2 Entry composition

There are 6 unique types of molecules in this entry. The entry contains 6994 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 PGZL1_gVmDmJ light chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	L	214	Total	C	N	O	S	0	3	0
			1659	1032	282	340	5			
1	A	214	Total	C	N	O	S	0	4	0
			1668	1037	286	340	5			

- Molecule 2 is a protein called PGZL1_gVmDmJ heavy chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	H	220	Total	C	N	O	S	0	4	0
			1633	1036	271	317	9			
2	B	221	Total	C	N	O	S	0	4	0
			1656	1052	274	320	10			

- Molecule 3 is a protein called MPER peptide, region 671-683 of HIV-1 gp41.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
3	G	15	Total	C	N	O	0	0	0
			139	97	21	21			
3	I	15	Total	C	N	O	0	0	0
			139	97	21	21			

- Molecule 4 is GLYCEROL (CCD ID: GOL) (formula: C₃H₈O₃).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	L	1	Total	C	O	0	0
			6	3	3		
4	H	1	Total	C	O	0	0
			6	3	3		
4	H	1	Total	C	O	0	0
			6	3	3		
4	A	1	Total	C	O	0	0
			6	3	3		

- Molecule 5 is SULFATE ION (CCD ID: SO4) (formula: O₄S).



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

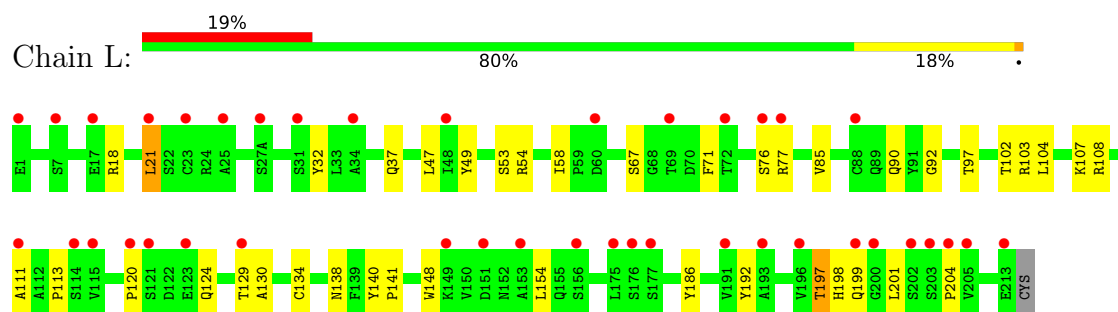
- Molecule 6 is water.

Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
6	L	14	Total	O		0	0
			14	14			
6	H	30	Total	O		0	0
			30	30			
6	A	19	Total	O		0	0
			19	19			
6	B	7	Total	O		0	0
			7	7			
6	I	1	Total	O		0	0
			1	1			

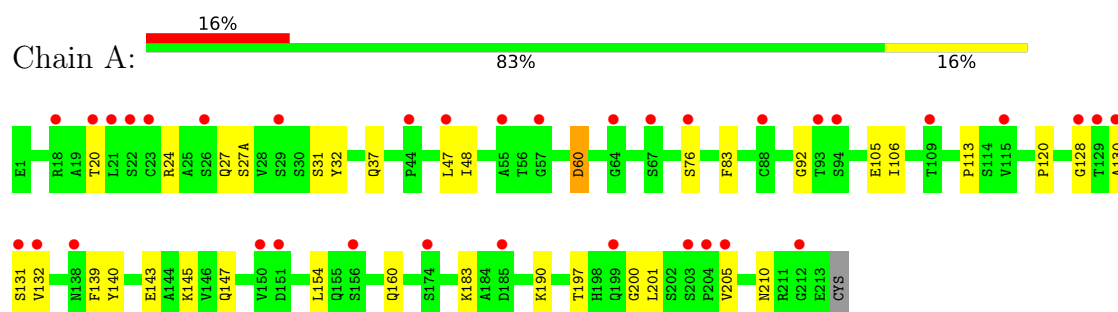
3 Residue-property plots [i](#)

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.

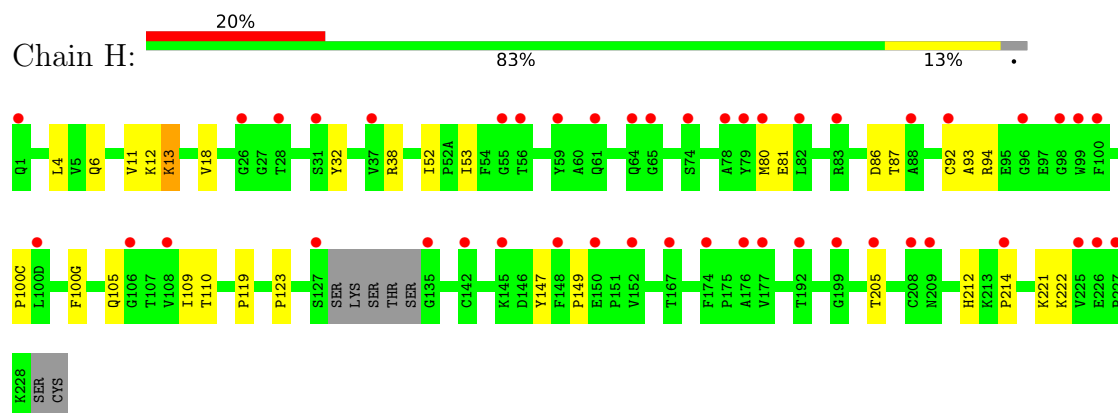
- Molecule 1: PGZL1_gVmDmJ light chain



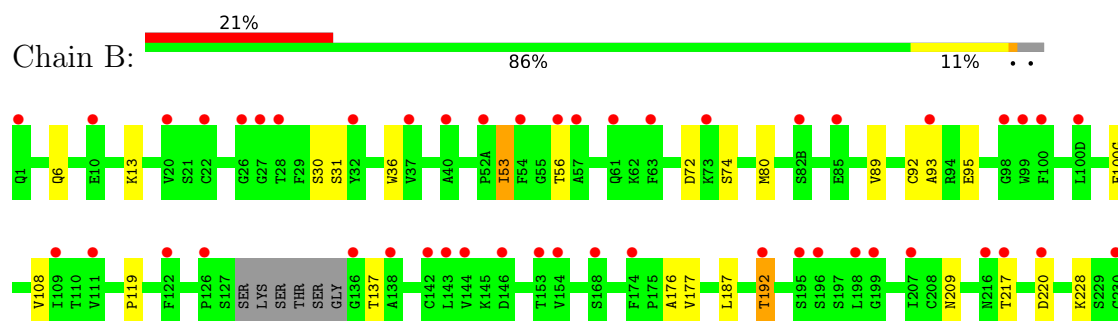
- Molecule 1: PGZL1_gVmDmJ light chain



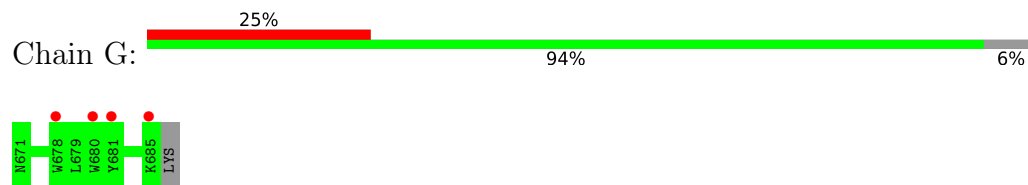
- Molecule 2: PGZL1_gVmDmJ heavy chain



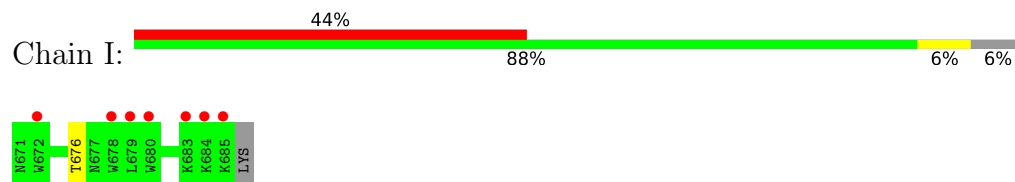
- Molecule 2: PGZL1_gVmDmJ heavy chain



- Molecule 3: MPER peptide, region 671-683 of HIV-1 gp41



- Molecule 3: MPER peptide, region 671-683 of HIV-1 gp41



4 Data and refinement statistics

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α , β , γ	208.36Å 37.92Å 133.52Å 90.00° 93.68° 90.00°	Depositor
Resolution (Å)	39.77 – 2.60 39.77 – 2.60	Depositor EDS
% Data completeness (in resolution range)	93.8 (39.77-2.60) 93.8 (39.77-2.60)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.15	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.51 (at 2.61Å)	Xtriage
Refinement program	PHENIX (1.12_2829: ???)	Depositor
R, R_{free}	0.257 , 0.310 0.261 , 0.312	Depositor DCC
R_{free} test set	1546 reflections (4.99%)	wwPDB-VP
Wilson B-factor (Å ²)	43.3	Xtriage
Anisotropy	0.540	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.32 , 48.1	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	0.90	EDS
Total number of atoms	6994	wwPDB-VP
Average B, all atoms (Å ²)	49.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 6.95% 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: GOL, SO4

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	0.11	0/1705	0.32	0/2313
1	L	0.12	0/1696	0.33	0/2301
2	B	0.11	0/1705	0.29	0/2318
2	H	0.12	0/1680	0.29	0/2284
3	G	0.07	0/146	0.19	0/201
3	I	0.15	0/146	0.31	0/201
All	All	0.11	0/7078	0.31	0/9618

There are no bond length outliers.

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	1668	0	1618	16	0
1	L	1659	0	1605	18	0
2	B	1656	0	1635	13	0
2	H	1633	0	1605	17	0
3	G	139	0	120	0	0
3	I	139	0	120	1	0
4	A	6	0	8	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	H	12	0	16	1	0
4	L	6	0	8	0	0
5	H	5	0	0	0	0
6	A	19	0	0	0	0
6	B	7	0	0	0	0
6	H	30	0	0	0	0
6	I	1	0	0	0	0
6	L	14	0	0	0	0
All	All	6994	0	6735	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 5.

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:190:LYS:HE2	1:A:210:ASN:HB3	1.68	0.73
2:H:38:ARG:HH22	2:H:86:ASP:HA	1.63	0.64
2:H:13:LYS:H	2:H:13:LYS:HE2	1.64	0.63
2:H:6:GLN:HG2	2:H:92[A]:CYS:SG	2.41	0.61
2:H:11:VAL:HG21	2:H:149:PRO:HG3	1.83	0.61
2:B:209:ASN:ND2	2:B:220:ASP:OD2	2.35	0.59
2:B:176:ALA:HA	2:B:187:LEU:HB3	1.84	0.59
1:L:198:HIS:ND1	1:L:199:GLN:O	2.36	0.58
2:B:89:VAL:HG22	2:B:108:VAL:HG22	1.85	0.57
2:H:105:GLN:HB3	4:H:302:GOL:H2	1.86	0.57
1:L:37:GLN:HB2	1:L:47:LEU:HD11	1.86	0.56
2:H:87:THR:HG23	2:H:110:THR:HA	1.88	0.55
1:A:37:GLN:HB2	1:A:47:LEU:HD11	1.88	0.55
2:H:12:LYS:HG3	2:H:18:VAL:HB	1.89	0.54
2:H:123:PRO:HD3	2:H:221:LYS:HE2	1.89	0.54
1:L:18:ARG:HH12	1:A:24[B]:ARG:HH12	1.57	0.54
2:B:30:SER:HB2	2:B:53:ILE:HG13	1.90	0.53
1:A:113:PRO:HB3	1:A:139:PHE:HB3	1.92	0.51
2:B:6:GLN:HG2	2:B:92[A]:CYS:SG	2.50	0.51
1:A:160:GLN:HB3	2:B:177:VAL:HG11	1.92	0.51
1:L:186:TYR:O	1:L:192:TYR:OH	2.29	0.51
1:A:120:PRO:HG3	1:A:130:ALA:HB1	1.94	0.50
2:B:137:THR:HG23	2:B:192:THR:HG23	1.95	0.49
2:H:119:PRO:HB3	2:H:147:TYR:HB3	1.95	0.49
2:H:212:HIS:CD2	2:H:214:PRO:HD2	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:18:VAL:HG21	2:H:109:ILE:HD12	1.95	0.49
2:B:72:ASP:OD2	2:B:74:SER:OG	2.31	0.48
2:H:205:THR:HG23	2:H:222:LYS:HE3	1.95	0.47
1:L:120:PRO:HG3	1:L:130:ALA:HB1	1.96	0.47
1:L:32:TYR:HD2	1:L:92:GLY:HA2	1.79	0.47
2:B:31:SER:HB3	2:B:53:ILE:HD12	1.96	0.47
1:L:21:LEU:HD12	1:L:102:THR:HG21	1.97	0.46
1:L:54:ARG:HG2	1:L:58:ILE:HB	1.98	0.46
1:A:120:PRO:HD3	1:A:132:VAL:HG22	1.96	0.46
1:A:145:LYS:HB3	1:A:197:THR:OG1	2.15	0.46
1:L:90:GLN:NE2	1:L:97:THR:OG1	2.40	0.45
1:L:108:ARG:HH21	1:L:111:ALA:HB2	1.80	0.45
2:B:36:TRP:CE2	2:B:80:MET:HB2	2.52	0.44
1:L:197:THR:HG22	1:L:204:PRO:HB3	1.99	0.44
2:B:95:GLU:OE1	3:I:676:THR:HG21	2.18	0.44
1:L:49:TYR:O	1:L:53[B]:SER:OG	2.24	0.44
1:A:83:PHE:CG	1:A:106:ILE:HG12	2.53	0.43
2:H:93:ALA:HB1	2:H:100(G):PHE:HB3	2.01	0.43
1:A:60:ASP:OD1	1:A:60:ASP:N	2.37	0.43
2:H:32:TYR:CE2	2:H:100(C):PRO:HB3	2.54	0.42
1:L:113:PRO:HD2	1:L:201:LEU:HD11	2.00	0.42
1:L:67:SER:HA	1:L:71:PHE:CE2	2.55	0.42
1:L:124:GLN:HG2	1:L:129:THR:O	2.19	0.42
2:H:52:ILE:HG22	2:H:53:ILE:HG22	2.02	0.42
2:H:4:LEU:HD11	2:H:94:ARG:HB2	2.02	0.42
1:A:128:GLY:HA2	1:A:183:LYS:HB2	2.02	0.42
2:B:93:ALA:HB1	2:B:100(G):PHE:HB3	2.02	0.42
2:B:119:PRO:HD2	2:B:217:THR:HG21	2.02	0.42
1:A:201:LEU:HD13	1:A:205:VAL:HG23	2.03	0.41
1:A:32:TYR:HD2	1:A:92:GLY:HA2	1.86	0.41
1:L:134:CYS:HB2	1:L:148:TRP:CH2	2.55	0.41
1:L:140:TYR:CG	1:L:141:PRO:HA	2.56	0.41
1:L:85:VAL:HG22	1:L:103:ARG:HG3	2.02	0.41
1:A:105:GLU:OE2	1:A:140:TYR:OH	2.35	0.40
1:A:120:PRO:HB3	1:A:131[B]:SER:H	1.86	0.40
1:A:147:GLN:HB3	1:A:154:LEU:HD11	2.02	0.40
2:H:13:LYS:HE2	2:H:13:LYS:N	2.32	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	216/215 (100%)	207 (96%)	7 (3%)	2 (1%)	14	30
1	L	215/215 (100%)	205 (95%)	8 (4%)	2 (1%)	14	30
2	B	221/227 (97%)	209 (95%)	12 (5%)	0	100	100
2	H	220/227 (97%)	210 (96%)	10 (4%)	0	100	100
3	G	13/16 (81%)	12 (92%)	1 (8%)	0	100	100
3	I	13/16 (81%)	13 (100%)	0	0	100	100
All	All	898/916 (98%)	856 (95%)	38 (4%)	4 (0%)	24	51

All (4) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	L	76	SER
1	A	76	SER
1	A	200	GLY
1	L	138	ASN

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	189/186 (102%)	182 (96%)	7 (4%)	30	57
1	L	188/186 (101%)	182 (97%)	6 (3%)	34	62
2	B	185/187 (99%)	180 (97%)	5 (3%)	39	67

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	H	180/187 (96%)	177 (98%)	3 (2%)	53	78
3	G	13/16 (81%)	13 (100%)	0	100	100
3	I	13/16 (81%)	13 (100%)	0	100	100
All	All	768/778 (99%)	747 (97%)	21 (3%)	38	67

All (21) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	L	21	LEU
1	L	77	ARG
1	L	104	LEU
1	L	107	LYS
1	L	154	LEU
1	L	197	THR
2	H	13	LYS
2	H	80	MET
2	H	81	GLU
1	A	20	THR
1	A	27	GLN
1	A	27(A)	SER
1	A	31	SER
1	A	48	ILE
1	A	60	ASP
1	A	143	GLU
2	B	13	LYS
2	B	53	ILE
2	B	56	THR
2	B	192	THR
2	B	228	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (2) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	160	GLN
2	B	203	GLN

5.3.3 RNA ⓘ

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](#)

5 ligands 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	$\# Z > 2$
4	GOL	H	302	-	5,5,5	0.93	0	5,5,5	1.06	0
4	GOL	A	301	-	5,5,5	0.94	0	5,5,5	1.05	0
5	SO4	H	303	-	4,4,4	0.24	0	6,6,6	0.09	0
4	GOL	H	301	-	5,5,5	0.96	0	5,5,5	1.06	0
4	GOL	L	301	-	5,5,5	0.97	0	5,5,5	1.05	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	GOL	L	301	-	-	4/4/4/4	-
4	GOL	H	302	-	-	2/4/4/4	-
4	GOL	A	301	-	-	0/4/4/4	-
4	GOL	H	301	-	-	0/4/4/4	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (6) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	L	301	GOL	O1-C1-C2-O2
4	L	301	GOL	O2-C2-C3-O3
4	L	301	GOL	O1-C1-C2-C3
4	L	301	GOL	C1-C2-C3-O3
4	H	302	GOL	O1-C1-C2-C3
4	H	302	GOL	O1-C1-C2-O2

There are no ring outliers.

1 monomer is involved in 1 short contact:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	H	302	GOL	1	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, 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	214/215 (99%)	1.20	35 (16%) 4 3	20, 46, 65, 98	4 (1%)
1	L	214/215 (99%)	1.26	40 (18%) 3 2	22, 45, 67, 88	3 (1%)
2	B	221/227 (97%)	1.38	48 (21%) 2 2	26, 48, 79, 109	4 (1%)
2	H	220/227 (96%)	1.30	46 (20%) 2 2	13, 46, 76, 98	5 (2%)
3	G	15/16 (93%)	1.65	4 (26%) 1 1	41, 65, 99, 103	0
3	I	15/16 (93%)	2.04	7 (46%) 0 0	50, 63, 93, 103	0
All	All	899/916 (98%)	1.30	180 (20%) 3 2	13, 47, 78, 109	16 (1%)

All (180) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	B	199	GLY	5.4
2	B	99	TRP	5.2
1	A	185	ASP	4.7
2	H	99	TRP	4.6
2	B	100	PHE	4.5
1	L	23	CYS	4.3
1	L	203	SER	4.3
1	L	205	VAL	4.3
2	B	154	VAL	4.2
1	L	202	SER	3.8
1	A	93	THR	3.7
1	L	200	GLY	3.7
1	A	23	CYS	3.7
2	H	61	GLN	3.7
2	H	56	THR	3.7
2	B	196	SER	3.7
2	B	61	GLN	3.7
1	L	176	SER	3.6
2	B	54	PHE	3.6

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Mol	Chain	Res	Type	RSRZ
2	B	28	THR	3.6
2	B	73	LYS	3.6
3	I	680	TRP	3.6
2	B	85	GLU	3.5
2	H	64	GLN	3.5
1	L	48	ILE	3.4
3	G	680	TRP	3.4
1	L	88	CYS	3.3
3	G	681	TYR	3.3
1	A	128	GLY	3.3
1	L	115	VAL	3.2
2	H	152	VAL	3.2
3	I	678	TRP	3.2
2	B	144	VAL	3.2
2	B	100(D)	LEU	3.2
1	A	131[A]	SER	3.1
1	L	121	SER	3.1
2	H	100(D)	LEU	3.1
2	H	100	PHE	3.1
2	B	56	THR	3.0
2	H	92[A]	CYS	3.0
1	A	203	SER	3.0
2	B	168	SER	3.0
2	H	82	LEU	3.0
2	B	1	GLN	3.0
1	A	212	GLY	3.0
1	L	193	ALA	3.0
1	A	20	THR	3.0
2	H	225	VAL	3.0
1	A	18	ARG	2.9
2	H	31	SER	2.9
1	A	204	PRO	2.9
2	B	198	LEU	2.9
1	A	88	CYS	2.8
2	B	93	ALA	2.8
1	L	76	SER	2.8
1	A	174	SER	2.8
2	B	98	GLY	2.8
1	L	175	LEU	2.8
2	B	220	ASP	2.8
2	H	1	GLN	2.8
3	G	685	LYS	2.8

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Mol	Chain	Res	Type	RSRZ
1	L	213	GLU	2.8
1	L	120	PRO	2.7
1	A	44	PRO	2.7
2	H	142[A]	CYS	2.7
1	L	149	LYS	2.7
1	A	55	ALA	2.7
3	I	684	LYS	2.7
2	H	208[A]	CYS	2.7
2	B	142[A]	CYS	2.7
2	H	199	GLY	2.7
1	L	111	ALA	2.7
2	B	122	PHE	2.7
1	A	199	GLN	2.7
1	A	21	LEU	2.7
3	G	678	TRP	2.7
2	H	227	PRO	2.7
2	B	52(A)	PRO	2.7
2	B	207	ILE	2.6
1	L	123[A]	GLU	2.6
3	I	683	LYS	2.6
1	A	115	VAL	2.6
1	A	156	SER	2.6
2	B	153	THR	2.6
2	B	143	LEU	2.6
2	B	57	ALA	2.6
2	B	82(B)	SER	2.6
2	B	63	PHE	2.6
2	B	138	ALA	2.6
2	H	192	THR	2.6
2	H	176	ALA	2.6
1	A	94	SER	2.5
1	A	129[A]	THR	2.5
2	B	109	ILE	2.5
2	H	88	ALA	2.5
3	I	685	LYS	2.5
1	A	150	VAL	2.5
2	B	40	ALA	2.5
2	B	216	ASN	2.5
1	L	31	SER	2.5
2	H	148	PHE	2.5
1	L	69	THR	2.4
1	L	21	LEU	2.4

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Mol	Chain	Res	Type	RSRZ
1	A	151	ASP	2.4
2	H	145	LYS	2.4
2	H	205	THR	2.4
2	B	26	GLY	2.4
1	L	77	ARG	2.4
2	H	28	THR	2.4
2	B	10	GLU	2.4
2	B	230	CYS	2.4
3	I	672	TRP	2.4
2	H	209	ASN	2.4
1	L	153	ALA	2.4
1	L	17	GLU	2.3
1	L	204	PRO	2.3
2	H	177	VAL	2.3
1	L	60	ASP	2.3
1	A	64	GLY	2.3
2	H	96	GLY	2.3
2	H	59	TYR	2.3
2	H	150	GLU	2.3
2	B	195	SER	2.3
2	B	22	CYS	2.3
2	B	217	THR	2.3
2	H	226	GLU	2.3
2	B	146	ASP	2.3
1	L	196	VAL	2.3
3	I	679	LEU	2.3
2	H	174	PHE	2.3
1	L	72	THR	2.2
1	L	151	ASP	2.2
1	A	26	SER	2.2
1	A	67	SER	2.2
1	A	76	SER	2.2
1	A	47	LEU	2.2
1	L	25	ALA	2.2
1	A	130	ALA	2.2
2	H	214	PRO	2.2
1	A	29	SER	2.2
2	B	111	VAL	2.2
1	L	1	GLU	2.2
1	L	129	THR	2.2
2	H	79	TYR	2.2
1	L	7	SER	2.2

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Mol	Chain	Res	Type	RSRZ
1	L	156	SER	2.2
2	B	20	VAL	2.2
2	H	26	GLY	2.2
2	H	37	VAL	2.2
2	B	174	PHE	2.2
2	H	135	GLY	2.1
1	L	114	SER	2.1
2	H	83	ARG	2.1
1	A	109	THR	2.1
2	H	80	MET	2.1
2	B	136	GLY	2.1
1	L	191	VAL	2.1
1	L	199	GLN	2.1
1	A	138	ASN	2.1
2	H	55	GLY	2.1
1	L	177	SER	2.1
2	H	74	SER	2.1
2	B	27	GLY	2.1
2	B	32	TYR	2.1
2	H	108	VAL	2.1
2	B	37	VAL	2.1
1	A	22	SER	2.0
2	H	167	THR	2.0
2	B	192	THR	2.0
2	B	126	PRO	2.0
1	A	57	GLY	2.0
2	H	65	GLY	2.0
2	H	98	GLY	2.0
1	L	34	ALA	2.0
2	H	78	ALA	2.0
1	L	27(A)	SER	2.0
2	H	127	SER	2.0
2	H	106	GLY	2.0
1	A	132	VAL	2.0
1	A	205	VAL	2.0

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

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
4	GOL	H	302	6/6	0.73	0.26	55,73,77,79	0
4	GOL	A	301	6/6	0.73	0.15	33,45,52,53	0
4	GOL	L	301	6/6	0.75	0.17	44,46,48,49	0
4	GOL	H	301	6/6	0.84	0.14	43,57,59,68	0
5	SO4	H	303	5/5	0.95	0.08	31,49,58,61	0

6.5 Other polymers [i](#)

There are no such residues in this entry.