Full wwPDB X-ray Structure Validation Report (i)

Oct 5, 2023 – 02:54 PM EDT

PDB ID	:	6VL7
Title	:	Crystal structure of the H583C mutant of GoxA soaked with glycine
Authors	:	Yukl, E.T.
Deposited on	:	2020-01-22
Resolution	:	2.14 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:

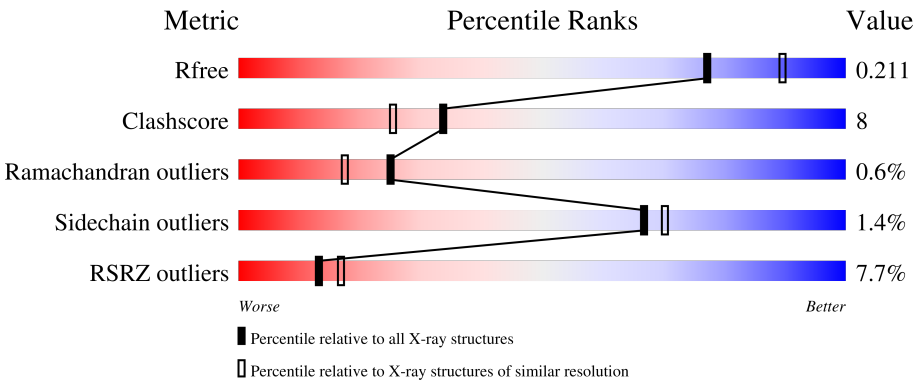
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.35.1
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.35.1

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 2.14 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	2523 (2.16-2.12)
Clashscore	141614	2653 (2.16-2.12)
Ramachandran outliers	138981	2618 (2.16-2.12)
Sidechain outliers	138945	2617 (2.16-2.12)
RSRZ outliers	127900	2485 (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	816	7% 79% 15% • 5%
1	B	816	10% 80% 15% • •
1	C	816	6% 81% 13% • 5%
1	D	816	7% 81% 12% • 5%

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard

residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
3	SO4	A	903	-	-	X	-
3	SO4	B	903	-	-	-	X

2 Entry composition (i)

There are 6 unique types of molecules in this entry. The entry contains 26500 atoms, of which 52 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 Glycine oxidase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	777	6251	3949	1063	1218	21	7	15	0
1	B	782	6253	3948	1064	1219	22	0	9	0
1	C	774	6172	3903	1049	1199	21	0	7	0
1	D	772	6136	3874	1044	1197	21	0	5	0

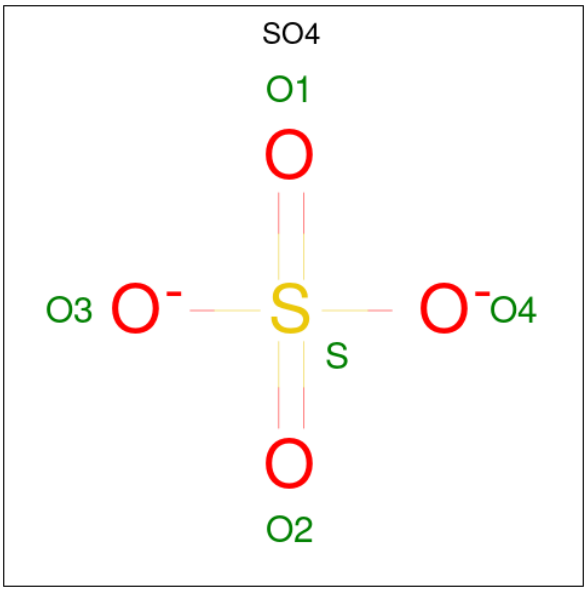
There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	583	CYS	HIS	engineered mutation	UNP A0A161XU12
B	583	CYS	HIS	engineered mutation	UNP A0A161XU12
C	583	CYS	HIS	engineered mutation	UNP A0A161XU12
D	583	CYS	HIS	engineered mutation	UNP A0A161XU12

- Molecule 2 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

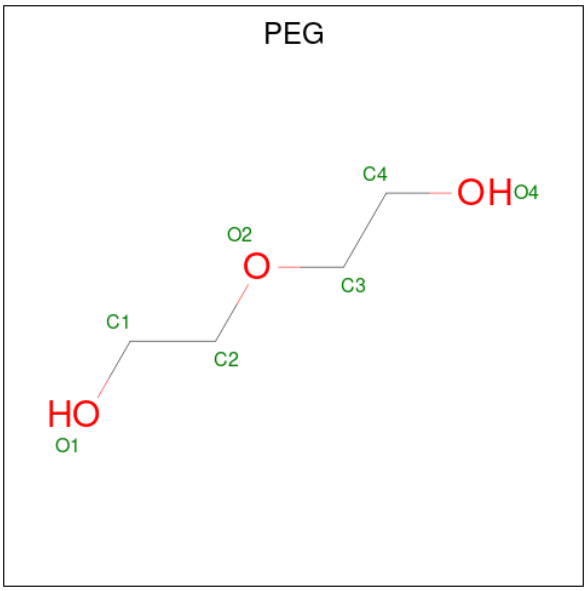
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Mg		
2	A	1	1	1	0	0
2	B	1	1	1	0	0
2	C	1	1	1	0	0
2	D	1	1	1	0	0

- Molecule 3 is SULFATE ION (three-letter code: SO4) (formula: O_4S).



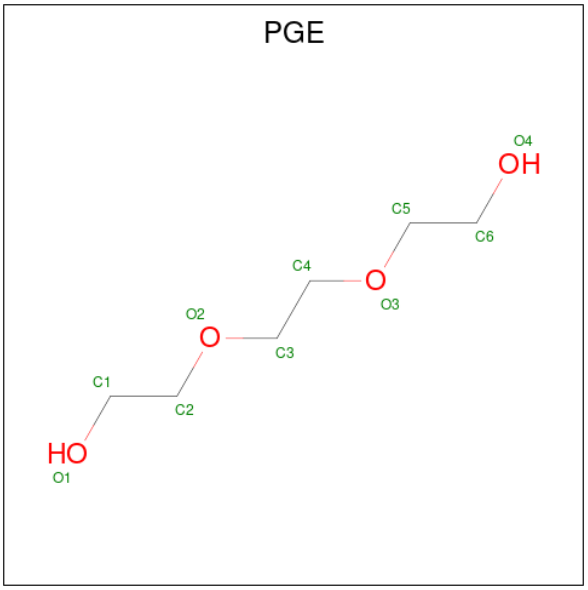
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	O	S			
3	A	1	5	4	1		0	0
			Total	O	S			
3	A	1	5	4	1		0	0
			Total	O	S			
3	A	1	5	4	1		0	0
			Total	O	S			
3	B	1	5	4	1		0	0
			Total	O	S			
3	B	1	5	4	1		0	0
			Total	O	S			
3	C	1	5	4	1		0	0
			Total	O	S			
3	C	1	5	4	1		0	0
			Total	O	S			
3	C	1	5	4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

- Molecule 4 is DI(HYDROXYETHYL)ETHER (three-letter code: PEG) (formula: $C_4H_{10}O_3$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	H	O		
4	A	1	17	4	10	3	0	0

- Molecule 5 is TRIETHYLENE GLYCOL (three-letter code: PGE) (formula: $C_6H_{14}O_4$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	H	O		
5	B	1	24	6	14	4	0	0
			Total	C	H	O		
5	B	1	24	6	14	4	0	0
			Total	C	H	O		
5	D	1	24	6	14	4	0	0

- Molecule 6 is water.

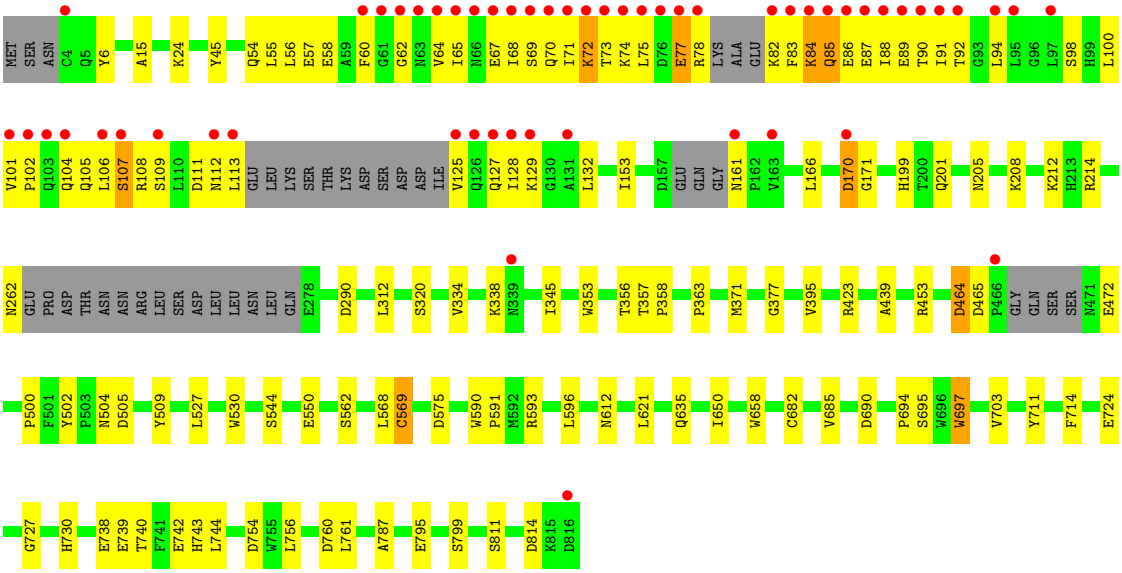
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	O		
6	A	424	425	425	0	1
			Total	O		
6	B	314	314	314	0	0
			Total	O		
6	C	430	430	430	0	0
			Total	O		
6	D	376	376	376	0	0

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.

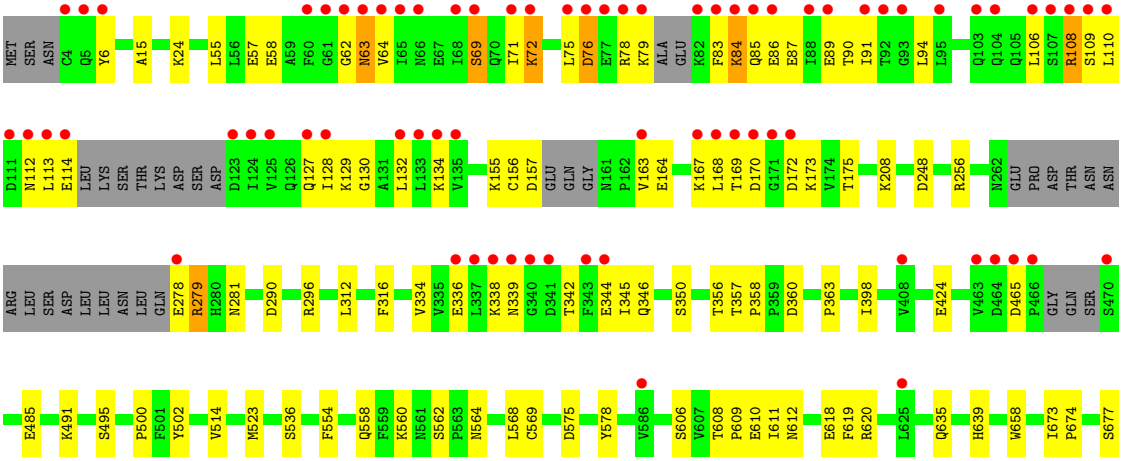
- Molecule 1: Glycine oxidase

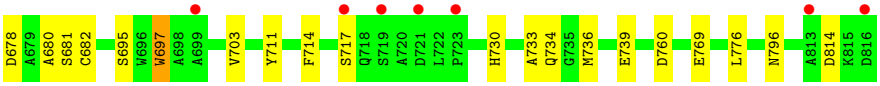
Chain A:



- Molecule 1: Glycine oxidase

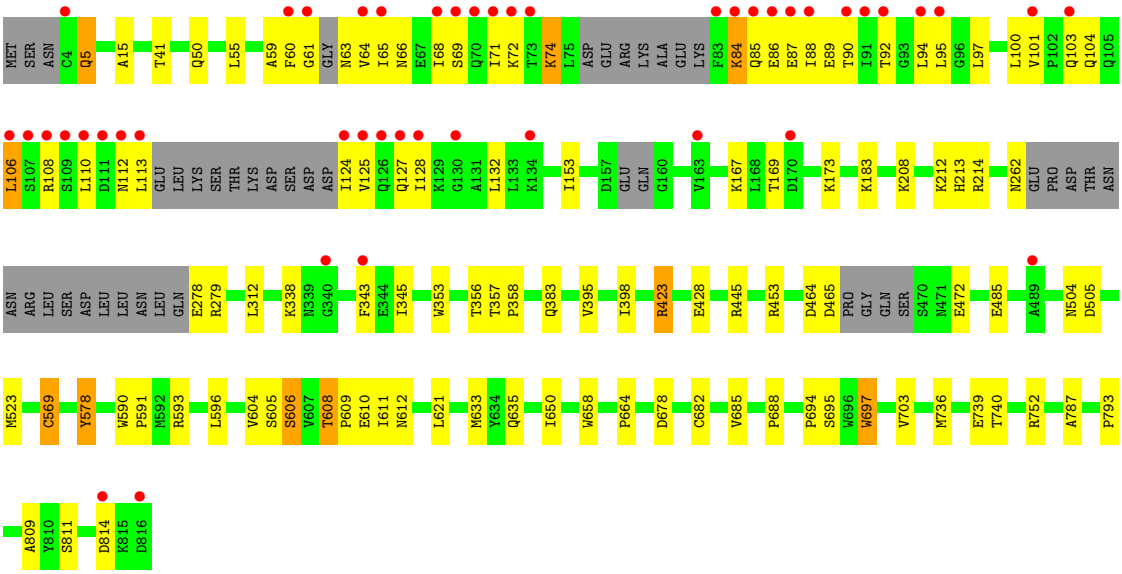
Chain B:





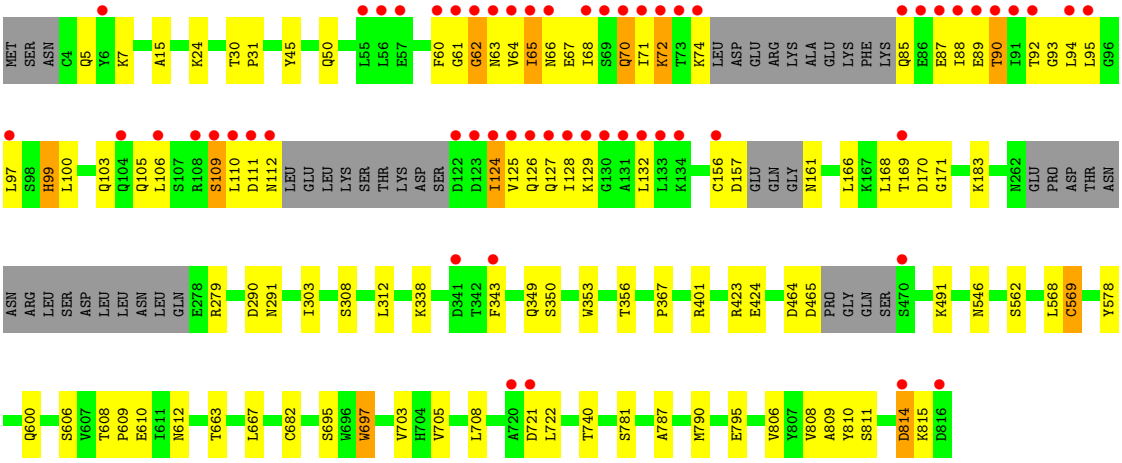
• Molecule 1: Glycine oxidase

Chain C:



• Molecule 1: Glycine oxidase

Chain D:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	109.81Å 93.28Å 188.57Å 90.00° 95.08° 90.00°	Depositor
Resolution (Å)	49.19 – 2.14 49.19 – 2.14	Depositor EDS
% Data completeness (in resolution range)	99.4 (49.19-2.14) 99.4 (49.19-2.14)	Depositor EDS
R_{merge}	0.09	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.25 (at 2.14Å)	Xtriage
Refinement program	PHENIX 1.14_3260	Depositor
R, R_{free}	0.157 , 0.211 0.157 , 0.211	Depositor DCC
R_{free} test set	1999 reflections (0.96%)	wwPDB-VP
Wilson B-factor (Å^2)	32.0	Xtriage
Anisotropy	0.796	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.31 , 45.6	EDS
L-test for twinning[2]	$< \|L\| > = 0.49$, $< L^2 > = 0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.97	EDS
Total number of atoms	26500	wwPDB-VP
Average B, all atoms (Å^2)	47.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.50% 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 (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: PGE, MG, SO4, TRQ, PEG

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	0.69	1/6380 (0.0%)	0.73	6/8684 (0.1%)
1	B	0.60	0/6382	0.67	3/8681 (0.0%)
1	C	0.70	2/6299 (0.0%)	0.71	4/8570 (0.0%)
1	D	0.61	1/6263 (0.0%)	0.67	2/8525 (0.0%)
All	All	0.65	4/25324 (0.0%)	0.70	15/34460 (0.0%)

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	B	0	1
1	C	0	1
1	D	0	3
All	All	0	5

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	569	CYS	CB-SG	-7.51	1.69	1.82
1	C	569	CYS	CB-SG	-6.91	1.70	1.82
1	C	608	THR	CB-CG2	-5.87	1.32	1.52
1	D	569	CYS	CB-SG	-5.47	1.73	1.81

All (15) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	760	ASP	CB-CG-OD1	7.93	125.44	118.30
1	C	453	ARG	NE-CZ-NH2	-7.86	116.37	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	453	ARG	NE-CZ-NH2	-6.91	116.85	120.30
1	C	453	ARG	NE-CZ-NH1	6.56	123.58	120.30
1	A	453	ARG	NE-CZ-NH1	6.49	123.55	120.30
1	C	633	MET	CG-SD-CE	-6.15	90.36	100.20
1	B	814	ASP	CB-CG-OD1	5.88	123.60	118.30
1	A	814	ASP	CB-CG-OD1	5.86	123.57	118.30
1	A	371	MET	CG-SD-CE	5.53	109.05	100.20
1	D	290	ASP	CB-CG-OD1	5.45	123.20	118.30
1	C	445	ARG	NE-CZ-NH2	-5.20	117.70	120.30
1	A	754	ASP	CB-CG-OD1	5.18	122.96	118.30
1	B	769	GLU	C-N-CA	-5.16	111.46	122.30
1	B	760	ASP	CB-CG-OD1	5.12	122.91	118.30
1	D	814	ASP	CB-CG-OD1	5.04	122.83	118.30

There are no chirality outliers.

All (5) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	B	71	ILE	Peptide
1	C	84	LYS	Peptide
1	D	65	ILE	Peptide
1	D	72	LYS	Peptide
1	D	90	THR	Peptide

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	6251	0	6011	121	0
1	B	6253	0	6013	107	0
1	C	6172	0	5940	107	0
1	D	6136	0	5893	87	0
2	A	1	0	0	0	0
2	B	1	0	0	0	0
2	C	1	0	0	0	0
2	D	1	0	0	0	0
3	A	15	0	0	4	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	B	10	0	0	1	0
3	C	20	0	0	0	0
3	D	5	0	0	1	0
4	A	7	10	10	3	0
5	B	20	28	28	3	0
5	D	10	14	14	0	0
6	A	425	0	0	10	0
6	B	314	0	0	4	0
6	C	430	0	0	11	0
6	D	376	0	0	4	0
All	All	26448	52	23909	415	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 8.

All (415) 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:C:125:VAL:HA	1:C:128:ILE:HD12	1.27	1.16
1:B:678:ASP:OD2	6:B:1001:HOH:O	1.74	1.04
1:C:113:LEU:HB3	1:C:127:GLN:HE21	1.25	1.01
3:A:903:SO4:O2	1:D:423[B]:ARG:NH1	1.92	1.01
1:B:739:GLU:OE2	6:B:1002:HOH:O	1.79	0.99
1:A:67:GLU:HG2	1:A:70:GLN:HE21	1.26	0.98
1:D:65:ILE:HA	1:D:68:ILE:HG12	1.46	0.97
1:C:101:VAL:HG23	1:C:106:LEU:HD11	1.48	0.96
1:C:50:GLN:NE2	6:C:1001:HOH:O	1.99	0.94
1:C:124:ILE:N	6:C:1002:HOH:O	2.01	0.93
1:B:84:LYS:HE2	1:B:84:LYS:HA	1.50	0.93
1:A:69:SER:O	1:A:72:LYS:HB3	1.70	0.92
1:B:69:SER:HB2	1:B:72:LYS:NZ	1.90	0.87
1:D:68:ILE:HG21	1:D:125:VAL:HG12	1.56	0.86
1:A:562:SER:HB3	1:A:568:LEU:HD11	1.58	0.86
1:D:106:LEU:HA	1:D:109:SER:HB2	1.58	0.86
1:C:84:LYS:HG2	1:C:85:GLN:N	1.91	0.85
1:A:104:GLN:O	1:A:107:SER:OG	1.95	0.85
1:C:113:LEU:HB3	1:C:127:GLN:NE2	1.91	0.84
1:C:110:LEU:CD2	1:C:128:ILE:HG23	2.09	0.82
1:A:739:GLU:OE2	6:A:1001:HOH:O	1.97	0.80
1:A:74:LYS:HA	1:A:77:GLU:HB2	1.63	0.80
1:D:740:THR:OG1	3:D:902:SO4:O3	2.00	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:74:LYS:O	1:A:77:GLU:HB3	1.81	0.79
1:B:69:SER:HA	1:B:72:LYS:HB2	1.65	0.79
1:C:110:LEU:HD22	1:C:128:ILE:HG23	1.64	0.79
1:A:64:VAL:HG13	1:A:94:LEU:HD13	1.64	0.78
1:A:320[A]:SER:OG	6:A:1002:HOH:O	2.02	0.78
1:B:62:GLY:HA2	1:B:64:VAL:N	1.99	0.78
1:D:166:LEU:HD21	1:D:168:LEU:HD21	1.66	0.78
1:B:106:LEU:O	1:B:109:SER:HB3	1.84	0.77
1:B:69:SER:HB2	1:B:72:LYS:HZ2	1.49	0.77
1:C:169:THR:OG1	1:C:338:LYS:HE2	1.86	0.75
1:D:65:ILE:CG2	1:D:125:VAL:HG11	2.17	0.75
1:A:743:HIS:ND1	3:A:903:SO4:O1	2.16	0.74
1:A:67:GLU:O	1:A:71:ILE:HG12	1.87	0.74
1:A:74:LYS:HA	1:A:77:GLU:CB	2.17	0.74
1:C:423[A]:ARG:HH11	1:C:423[A]:ARG:HB3	1.52	0.74
1:A:724:GLU:OE1	1:A:727:GLY:HA2	1.87	0.74
1:C:65:ILE:HD12	1:C:65:ILE:H	1.51	0.74
1:B:677:SER:HB3	1:B:776:LEU:HD13	1.69	0.73
1:D:64:VAL:HA	1:D:94:LEU:HD12	1.68	0.73
1:D:68:ILE:HG21	1:D:125:VAL:CG1	2.19	0.73
1:D:781[B]:SER:OG	6:D:1001:HOH:O	2.05	0.73
1:C:398[B]:ILE:HD11	1:C:523:MET:CE	2.18	0.72
1:B:619:PHE:O	1:B:620:ARG:HD2	1.89	0.72
1:C:84:LYS:HE3	1:C:85:GLN:HG2	1.72	0.71
1:C:262:ASN:O	6:C:1003:HOH:O	2.08	0.71
1:A:71:ILE:HA	1:A:74:LYS:HE3	1.72	0.71
1:C:68:ILE:HG21	1:C:125:VAL:HG12	1.73	0.70
1:D:65:ILE:HA	1:D:68:ILE:CG1	2.20	0.70
1:A:56:LEU:HD12	1:A:57:GLU:N	2.07	0.69
1:A:740:THR:OG1	3:A:903:SO4:O4	2.05	0.69
1:C:682:CYS:SG	1:C:697:TRQ:HB3	2.33	0.69
1:A:82:LYS:NZ	1:A:113:LEU:HA	2.08	0.69
1:D:68:ILE:HG22	1:D:124:ILE:CG2	2.22	0.69
1:A:69:SER:HA	1:A:72:LYS:HB2	1.73	0.69
1:A:106:LEU:H	1:A:106:LEU:HD12	1.57	0.69
1:D:110:LEU:O	1:D:112:ASN:N	2.24	0.69
1:D:353:TRP:CD1	1:D:667:LEU:HD22	2.28	0.69
1:C:64:VAL:HG22	1:C:94:LEU:HB3	1.74	0.68
1:A:24:LYS:HE3	4:A:905:PEG:H21	1.75	0.68
1:A:101:VAL:HG13	1:A:102:PRO:HD2	1.74	0.68
1:C:90:THR:O	1:C:94:LEU:HD23	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:88:ILE:O	1:D:92:THR:HG23	1.94	0.67
1:C:811:SER:OG	1:C:814:ASP:HB2	1.93	0.67
1:B:564[B]:ASN:OD1	1:B:564[B]:ASN:N	2.26	0.67
1:B:717[B]:SER:OG	1:B:796[B]:ASN:HB2	1.95	0.67
1:C:606[A]:SER:HB3	1:C:612:ASN:HA	1.77	0.66
1:C:59:ALA:O	1:C:95:LEU:HD23	1.94	0.66
1:D:60:PHE:CE2	1:D:129:LYS:HG3	2.30	0.66
1:D:70:GLN:HE21	1:D:71:ILE:HG23	1.61	0.66
1:A:82:LYS:HE2	1:A:112:ASN:C	2.15	0.66
1:D:65:ILE:HG22	1:D:125:VAL:HG11	1.77	0.66
1:B:562:SER:HB3	1:B:568:LEU:HD11	1.77	0.66
1:B:173:LYS:HD3	1:B:248:ASP:OD2	1.96	0.65
1:A:214:ARG:NH1	1:A:472:GLU:OE2	2.29	0.65
1:A:795:GLU:HA	1:A:795:GLU:OE2	1.96	0.65
1:B:113:LEU:HD22	1:B:127:GLN:HG2	1.79	0.65
1:D:795:GLU:HA	1:D:795:GLU:OE1	1.96	0.65
1:C:84:LYS:HG2	1:C:85:GLN:H	1.60	0.65
1:B:55:LEU:O	1:B:58:GLU:HG3	1.97	0.65
1:B:76:ASP:O	1:B:79:LYS:HD2	1.97	0.65
1:B:167:LYS:HD3	1:B:168:LEU:N	2.12	0.65
1:C:86:GLU:HG2	1:C:89:GLU:OE2	1.96	0.65
1:D:63:ASN:O	1:D:66:ASN:HB3	1.97	0.65
1:B:69:SER:CA	1:B:72:LYS:HB2	2.27	0.65
1:D:464:ASP:O	1:D:465:ASP:HB2	1.97	0.64
1:A:107:SER:OG	1:A:108:ARG:N	2.29	0.64
1:B:680:ALA:HB3	1:B:776:LEU:CD2	2.28	0.64
1:C:635:GLN:HG2	1:C:658:TRP:CE2	2.32	0.64
1:C:610:GLU:OE2	6:C:1004:HOH:O	2.15	0.64
1:D:68:ILE:HG22	1:D:124:ILE:HG21	1.78	0.64
1:A:82:LYS:CE	1:A:113:LEU:HA	2.28	0.63
1:A:612[A]:ASN:ND2	6:A:1004:HOH:O	2.32	0.63
1:D:89:GLU:HG2	1:D:89:GLU:O	1.97	0.63
1:B:338:LYS:HG3	1:B:339:ASN:OD1	1.98	0.63
1:B:608:THR:HG22	1:B:610:GLU:H	1.62	0.63
1:A:102:PRO:HG2	1:A:105:GLN:HE21	1.62	0.63
1:A:199:HIS:HA	6:A:1014:HOH:O	1.98	0.63
1:C:398[B]:ILE:HD11	1:C:523:MET:HE2	1.79	0.63
1:B:76:ASP:HB3	1:B:79:LYS:HE3	1.80	0.63
1:C:596:LEU:HD11	1:C:650:ILE:HD12	1.80	0.63
1:B:175:THR:HB	1:B:334:VAL:CG1	2.28	0.62
1:D:110:LEU:C	1:D:112:ASN:H	2.01	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:608:THR:HG22	1:C:610:GLU:H	1.64	0.62
1:B:345:ILE:HG23	1:B:350[A]:SER:OG	2.00	0.62
1:A:290:ASP:HB3	4:A:905:PEG:H41	1.82	0.62
1:B:680:ALA:HB3	1:B:776:LEU:HD22	1.82	0.61
1:A:108:ARG:HA	1:A:111:ASP:HB2	1.81	0.61
1:B:86:GLU:O	1:B:90:THR:HG23	2.00	0.61
1:A:544:SER:O	1:A:550:GLU:HG2	2.01	0.61
1:A:635:GLN:HG2	1:A:658:TRP:CE2	2.35	0.61
1:D:106:LEU:CA	1:D:109:SER:HB2	2.29	0.61
1:A:67:GLU:HG2	1:A:70:GLN:NE2	2.09	0.61
1:B:312:LEU:HD11	1:D:312:LEU:HD11	1.83	0.61
1:B:155:LYS:HD3	1:B:156:CYS:N	2.17	0.60
1:B:290:ASP:HB3	5:B:904:PGE:H22	1.83	0.60
1:A:69:SER:C	1:A:72:LYS:HB3	2.21	0.60
1:B:85:GLN:HG3	1:B:89:GLU:OE2	2.01	0.60
1:B:608:THR:HB	1:B:611:ILE:HB	1.83	0.60
1:C:610:GLU:HB2	6:C:1136:HOH:O	2.00	0.60
1:B:55:LEU:HD12	1:B:58:GLU:OE2	2.01	0.60
1:A:153:ILE:HD12	1:A:345:ILE:CD1	2.32	0.60
1:D:106:LEU:O	1:D:109:SER:HB3	2.02	0.60
1:B:87:GLU:O	1:B:91:ILE:HG13	2.01	0.59
1:B:336:GLU:HG2	1:B:342:THR:HG22	1.84	0.59
1:D:24:LYS:NZ	6:D:1009:HOH:O	2.35	0.59
1:C:85:GLN:O	1:C:89:GLU:HG3	2.03	0.59
1:C:101:VAL:CG2	1:C:106:LEU:HD11	2.29	0.59
1:D:65:ILE:HG21	1:D:125:VAL:HG11	1.85	0.59
1:A:395[A]:VAL:HG21	1:A:530:TRP:HB2	1.85	0.58
1:B:290:ASP:HB3	5:B:904:PGE:H3	1.85	0.58
1:A:171:GLY:HA3	1:A:338:LYS:HG2	1.85	0.58
1:D:15:ALA:O	1:D:356:THR:HA	2.02	0.58
1:D:64:VAL:O	1:D:68:ILE:HG12	2.02	0.58
1:C:61:GLY:O	1:C:63:ASN:ND2	2.35	0.58
1:D:682:CYS:SG	1:D:697:TRQ:HB3	2.44	0.58
1:C:214:ARG:NH1	1:C:472:GLU:OE1	2.34	0.58
1:C:84:LYS:CG	1:C:85:GLN:N	2.64	0.57
1:A:423:ARG:HD2	6:A:1148:HOH:O	2.04	0.57
1:C:125:VAL:HA	1:C:128:ILE:CD1	2.18	0.57
1:C:423[A]:ARG:HH11	1:C:423[A]:ARG:CB	2.16	0.57
1:D:606:SER:HB2	1:D:612:ASN:HA	1.87	0.57
1:A:69:SER:HA	1:A:72:LYS:CB	2.35	0.56
1:A:170:ASP:O	1:A:338:LYS:HD3	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:153:ILE:HD12	1:C:345:ILE:HD12	1.88	0.56
1:D:70:GLN:HE21	1:D:71:ILE:CG2	2.18	0.56
1:D:349:GLN:OE1	1:D:600:GLN:NE2	2.38	0.56
1:A:102:PRO:HB2	1:A:105:GLN:HG3	1.88	0.56
1:B:682:CYS:SG	1:B:697:TRQ:HB3	2.46	0.56
1:C:71:ILE:HD13	1:C:87:GLU:HB2	1.86	0.56
1:C:423[A]:ARG:HH11	1:C:423[A]:ARG:CG	2.18	0.56
1:A:153:ILE:HD12	1:A:345:ILE:HD12	1.88	0.56
1:A:56:LEU:HD13	1:A:129:LYS:HD2	1.88	0.56
1:A:82:LYS:HZ2	1:A:83:PHE:H	1.53	0.56
1:B:69:SER:C	1:B:72:LYS:CB	2.74	0.56
1:C:110:LEU:HD21	1:C:128:ILE:HG23	1.86	0.56
1:C:183:LYS:HE3	1:C:664:PRO:O	2.06	0.55
1:C:695:SER:HB2	1:C:703:VAL:HG21	1.88	0.55
1:C:85:GLN:O	1:C:88:ILE:HG13	2.07	0.55
1:A:312:LEU:HD11	1:C:312:LEU:HD11	1.88	0.55
1:B:695[B]:SER:HB3	1:B:703:VAL:HG21	1.89	0.55
1:C:84:LYS:HG2	1:C:85:GLN:HG2	1.89	0.55
1:D:608:THR:HG23	1:D:609:PRO:HD2	1.88	0.55
1:A:125:VAL:HG12	1:A:125:VAL:O	2.07	0.55
1:B:84:LYS:HE2	1:B:84:LYS:CA	2.30	0.55
1:B:108:ARG:O	1:B:112:ASN:ND2	2.40	0.55
1:B:278:GLU:N	6:B:1004:HOH:O	2.40	0.54
1:D:811:SER:O	1:D:815:LYS:HG2	2.08	0.54
1:B:62:GLY:HA2	1:B:63:ASN:C	2.27	0.54
1:D:65:ILE:CA	1:D:68:ILE:HG12	2.30	0.54
1:D:367:PRO:O	1:D:401:ARG:HD3	2.08	0.54
1:B:618:GLU:OE2	1:B:620:ARG:HD3	2.08	0.54
1:A:15:ALA:O	1:A:356:THR:HA	2.07	0.54
1:A:65:ILE:HA	1:A:68:ILE:HG12	1.90	0.54
1:C:88:ILE:HD12	1:C:89:GLU:N	2.23	0.54
1:D:90:THR:HA	1:D:93:GLY:H	1.73	0.54
1:A:54:GLN:HG3	1:A:58:GLU:OE2	2.08	0.53
1:D:128:ILE:O	1:D:132:LEU:HG	2.08	0.53
1:D:562:SER:HB3	1:D:568:LEU:HD11	1.88	0.53
1:D:695[B]:SER:HB3	1:D:703:VAL:HG21	1.90	0.53
1:D:721:ASP:O	1:D:722:LEU:HD23	2.08	0.53
1:A:86:GLU:O	1:A:90:THR:OG1	2.22	0.53
1:A:682:CYS:SG	1:A:697:TRQ:HB3	2.48	0.53
1:B:113:LEU:HD22	1:B:127:GLN:CG	2.39	0.53
1:B:69:SER:HB2	1:B:72:LYS:HZ3	1.69	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:82:LYS:HE2	1:A:113:LEU:HA	1.90	0.53
1:A:199:HIS:CE1	6:A:1233:HOH:O	2.61	0.53
1:C:5:GLN:HE21	1:C:343:PHE:HD2	1.55	0.53
1:C:811:SER:OG	1:C:814:ASP:CB	2.55	0.53
1:B:69:SER:C	1:B:72:LYS:HB2	2.29	0.52
1:A:82:LYS:HG3	1:A:83:PHE:N	2.24	0.52
1:B:514:VAL:HG12	1:B:514:VAL:O	2.09	0.52
1:B:681:SER:HB3	1:B:776:LEU:HD21	1.92	0.52
1:B:62:GLY:HA2	1:B:64:VAL:H	1.73	0.52
1:A:75:LEU:HD11	1:A:83:PHE:HE1	1.73	0.52
1:A:811:SER:HA	6:A:1317:HOH:O	2.09	0.52
1:A:75:LEU:HD11	1:A:83:PHE:CE1	2.45	0.52
1:A:730:HIS:HD2	6:A:1345:HOH:O	1.91	0.52
1:B:15:ALA:O	1:B:356:THR:HA	2.10	0.52
1:B:635:GLN:CG	1:B:658:TRP:CE2	2.93	0.52
1:B:57:GLU:OE2	1:B:129:LYS:HE2	2.10	0.51
1:C:125:VAL:CA	1:C:128:ILE:HD12	2.20	0.51
1:D:708:LEU:HD13	1:D:810:TYR:CE2	2.45	0.51
1:A:685:VAL:O	1:A:694:PRO:HD2	2.10	0.51
1:C:86:GLU:HA	1:C:89:GLU:HG3	1.93	0.51
1:C:608:THR:HG23	1:C:609:PRO:HD2	1.92	0.51
1:C:60:PHE:O	1:C:65:ILE:HD11	2.12	0.50
1:C:92:THR:OG1	1:C:103:GLN:NE2	2.45	0.50
1:A:85:GLN:O	1:A:88:ILE:N	2.43	0.50
1:A:744:LEU:HD21	1:D:423[A]:ARG:CZ	2.42	0.50
1:D:303:ILE:HB	6:D:1236:HOH:O	2.11	0.50
1:B:608:THR:CG2	1:B:610:GLU:OE2	2.59	0.50
1:B:75:LEU:O	1:B:79:LYS:N	2.45	0.50
1:D:353:TRP:NE1	1:D:667:LEU:HD22	2.26	0.50
1:A:64:VAL:HG22	1:A:94:LEU:HD22	1.93	0.50
1:D:166:LEU:HD21	1:D:168:LEU:CD2	2.40	0.50
1:B:113:LEU:CD2	1:B:127:GLN:HG2	2.41	0.50
1:A:695:SER:HB2	1:A:703:VAL:HG21	1.94	0.50
1:C:41:THR:HB	1:C:793:PRO:HD3	1.94	0.49
1:C:72:LYS:HE2	1:C:124:ILE:HG22	1.93	0.49
1:D:157:ASP:OD1	1:D:161:ASN:HB3	2.12	0.49
1:C:95:LEU:O	1:C:97:LEU:N	2.39	0.49
1:C:66:ASN:HA	1:C:69:SER:OG	2.12	0.49
1:C:124:ILE:HG13	1:C:128:ILE:HD11	1.94	0.49
1:A:71:ILE:HA	1:A:74:LYS:CE	2.41	0.49
1:A:787:ALA:HA	1:A:811:SER:HB3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:161:ASN:HD22	1:A:161:ASN:N	2.10	0.49
1:A:500:PRO:HB2	1:A:502:TYR:CE2	2.48	0.49
1:A:690:ASP:OD2	1:D:814:ASP:HB3	2.11	0.49
1:C:590:TRP:CG	1:C:591:PRO:HD3	2.48	0.49
1:A:68:ILE:O	1:A:72:LYS:N	2.34	0.49
1:B:83:PHE:O	1:B:84:LYS:HE2	2.12	0.49
1:B:170:ASP:O	1:B:338:LYS:HE2	2.11	0.49
1:B:296:ARG:HB2	5:B:904:PGE:H42	1.94	0.49
1:A:756:LEU:O	1:A:761[A]:LEU:HD12	2.13	0.49
1:B:110:LEU:HB3	1:B:113:LEU:HD12	1.95	0.49
1:C:739:GLU:CD	1:C:739:GLU:H	2.17	0.49
1:D:132:LEU:N	1:D:132:LEU:HD23	2.27	0.49
1:C:110:LEU:O	1:C:113:LEU:HD12	2.12	0.48
1:A:55:LEU:HD21	1:A:100:LEU:HD11	1.93	0.48
1:A:64:VAL:HA	1:A:94:LEU:HD13	1.95	0.48
1:A:68:ILE:HG13	1:A:69:SER:N	2.27	0.48
1:C:72:LYS:HE2	1:C:124:ILE:CG2	2.43	0.48
1:C:383:GLN:HG2	6:C:1317:HOH:O	2.12	0.48
1:D:171:GLY:HA3	1:D:338:LYS:HB3	1.95	0.48
1:B:130:GLY:O	1:B:134:LYS:HD2	2.13	0.48
1:C:15:ALA:O	1:C:356:THR:HA	2.13	0.48
1:C:84:LYS:CG	1:C:85:GLN:H	2.23	0.48
1:C:740:THR:HG22	6:C:1370:HOH:O	2.13	0.48
1:A:6:TYR:HE2	1:A:166:LEU:HD13	1.79	0.48
1:C:95:LEU:HD13	1:C:132:LEU:CD1	2.44	0.48
1:C:104:GLN:O	1:C:108:ARG:HG3	2.13	0.48
1:A:464:ASP:O	1:A:465:ASP:C	2.52	0.47
1:D:68:ILE:O	1:D:71:ILE:HG13	2.14	0.47
1:A:102:PRO:O	1:A:106:LEU:HD12	2.14	0.47
1:C:212:LYS:HD2	1:C:213:HIS:CD2	2.49	0.47
1:D:806:VAL:HG23	1:D:808:VAL:HG23	1.97	0.47
1:C:101:VAL:HG21	1:C:106:LEU:HD21	1.96	0.47
1:A:74:LYS:C	1:A:77:GLU:HB3	2.35	0.47
1:D:546:ASN:OD1	6:D:1002:HOH:O	2.20	0.47
1:C:74:LYS:HD2	1:C:74:LYS:HA	1.70	0.47
1:C:606[A]:SER:HB2	1:C:608:THR:O	2.15	0.47
1:D:608:THR:HG22	1:D:610:GLU:H	1.80	0.47
1:C:84:LYS:HE3	1:C:85:GLN:CG	2.43	0.47
1:C:423[B]:ARG:HD2	6:C:1315:HOH:O	2.14	0.47
1:A:439:ALA:HB2	3:A:902:SO4:O2	2.15	0.47
1:A:98:SER:HA	1:A:101:VAL:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:604:VAL:O	1:C:605:SER:HB3	2.15	0.47
1:B:500:PRO:HB2	1:B:502:TYR:CE2	2.50	0.46
1:C:398[B]:ILE:HD11	1:C:523:MET:HE1	1.93	0.46
1:D:99:HIS:CD2	1:D:100:LEU:HG	2.50	0.46
1:A:290:ASP:HB3	4:A:905:PEG:C4	2.44	0.46
1:B:608:THR:HG23	1:B:609:PRO:HD2	1.97	0.46
1:D:5:GLN:OE1	1:D:343:PHE:HE2	1.98	0.46
1:B:680:ALA:HB3	1:B:776:LEU:HD23	1.96	0.46
1:D:45:TYR:CD2	1:D:790:MET:HG2	2.50	0.46
1:C:485:GLU:CD	1:C:485:GLU:H	2.19	0.46
1:D:169:THR:OG1	1:D:338:LYS:HD3	2.15	0.46
1:A:85:GLN:OE1	1:A:89:GLU:HG3	2.15	0.46
1:B:316:PHE:HB2	1:B:681:SER:OG	2.16	0.46
1:B:167:LYS:HD3	1:B:167:LYS:C	2.36	0.46
1:C:278:GLU:O	1:C:279:ARG:HB2	2.14	0.46
1:D:125:VAL:HG23	1:D:126:GLN:OE1	2.16	0.46
1:B:64:VAL:HG22	1:B:94:LEU:HG	1.97	0.46
1:C:423[A]:ARG:CG	1:C:423[A]:ARG:NH1	2.78	0.46
1:B:6:TYR:O	1:B:350[A]:SER:OG	2.34	0.45
1:C:504:ASN:CG	1:C:505:ASP:H	2.18	0.45
1:B:398:ILE:HD11	1:B:523[A]:MET:CE	2.45	0.45
1:B:608:THR:HG22	1:B:610:GLU:N	2.30	0.45
1:D:105:GLN:O	1:D:109:SER:HB2	2.16	0.45
1:A:395[A]:VAL:HG13	1:A:527:LEU:HD12	1.98	0.45
1:A:596:LEU:HD11	1:A:650:ILE:HD12	1.99	0.45
1:B:424:GLU:HB2	1:C:736:MET:HE2	1.98	0.45
1:C:128:ILE:O	1:C:132:LEU:HG	2.17	0.45
1:A:6:TYR:CE2	1:A:166:LEU:HD13	2.52	0.45
1:A:67:GLU:OE2	1:A:90:THR:HG23	2.17	0.45
1:B:278:GLU:HG2	1:B:279:ARG:N	2.32	0.45
1:C:55:LEU:HD21	1:C:100:LEU:CD1	2.47	0.45
1:D:156:CYS:HB3	1:D:161:ASN:N	2.31	0.45
1:A:357:THR:HB	1:A:358:PRO:HD2	1.98	0.45
1:B:175:THR:HB	1:B:334:VAL:HG12	1.96	0.45
1:B:711:TYR:HA	1:B:714:PHE:CE2	2.51	0.45
1:D:68:ILE:CG2	1:D:124:ILE:HG22	2.47	0.45
1:D:106:LEU:HA	1:D:109:SER:CB	2.39	0.45
1:A:395[A]:VAL:HG13	1:A:527:LEU:CD1	2.47	0.45
1:B:278:GLU:CG	1:B:279:ARG:H	2.30	0.45
1:C:112:ASN:C	1:C:113:LEU:HG	2.37	0.45
1:C:95:LEU:HD13	1:C:132:LEU:HD13	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:72:LYS:NZ	1:D:74:LYS:O	2.46	0.44
1:A:756:LEU:HD22	1:A:761[A]:LEU:HD13	1.98	0.44
1:A:45:TYR:CD2	1:A:363:PRO:HG2	2.52	0.44
1:A:74:LYS:HZ1	1:A:87:GLU:HG2	1.82	0.44
6:A:1328:HOH:O	1:B:491:LYS:HE2	2.16	0.44
1:B:208:LYS:HD2	6:B:1013:HOH:O	2.16	0.44
1:B:344:GLU:HB3	1:B:346:GLN:OE1	2.17	0.44
1:C:787:ALA:HB1	1:C:809:ALA:HB1	1.99	0.44
1:D:7:LYS:HG2	1:D:350:SER:HA	2.00	0.44
1:D:67:GLU:O	1:D:71:ILE:HG23	2.17	0.44
1:A:54:GLN:OE1	1:A:54:GLN:HA	2.17	0.44
1:B:730:HIS:O	1:B:734:GLN:HG3	2.17	0.44
1:A:590:TRP:CG	1:A:591:PRO:HD3	2.52	0.44
1:B:256:ARG:HD3	1:B:281:ASN:HB3	1.98	0.44
1:B:495:SER:HB3	3:B:903:SO4:O3	2.17	0.44
1:D:72:LYS:CE	1:D:74:LYS:O	2.66	0.44
1:C:68:ILE:HD13	1:C:128:ILE:HD13	2.00	0.44
1:D:156:CYS:HB3	1:D:161:ASN:O	2.18	0.44
1:A:74:LYS:NZ	1:A:87:GLU:CG	2.80	0.43
1:B:163:VAL:HG23	1:B:164:GLU:N	2.33	0.43
1:B:635:GLN:HG3	1:B:658:TRP:CE2	2.53	0.43
1:C:113:LEU:HD22	1:C:127:GLN:HE21	1.83	0.43
1:A:73:THR:O	1:A:77:GLU:HB2	2.18	0.43
1:B:76:ASP:OD1	1:B:76:ASP:N	2.51	0.43
1:B:562:SER:OG	1:B:564[B]:ASN:OD1	2.35	0.43
1:A:55:LEU:HD21	1:A:100:LEU:CD1	2.48	0.43
1:C:113:LEU:HD22	1:C:127:GLN:CG	2.49	0.43
1:D:183:LYS:NZ	1:D:663:THR:OG1	2.50	0.43
1:A:711:TYR:HA	1:A:714:PHE:CE2	2.53	0.43
1:A:106:LEU:O	1:A:109:SER:HB3	2.17	0.43
1:B:24:LYS:O	1:B:24:LYS:HD3	2.18	0.43
1:B:169:THR:OG1	1:B:338:LYS:HE3	2.18	0.43
1:D:65:ILE:HA	1:D:68:ILE:CB	2.47	0.43
1:D:65:ILE:HA	1:D:68:ILE:HB	2.01	0.43
1:A:509:TYR:CD1	1:B:639:HIS:HB3	2.54	0.43
1:A:86:GLU:OE1	1:A:89:GLU:HG3	2.19	0.43
1:C:395:VAL:HA	1:C:398[A]:ILE:HD12	2.00	0.43
1:A:92:THR:HG22	1:A:92:THR:O	2.19	0.42
1:B:554:PHE:O	1:B:558:GLN:HG2	2.18	0.42
1:A:74:LYS:HD2	1:A:78:ARG:HH12	1.83	0.42
1:A:87:GLU:O	1:A:91:ILE:HG13	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:102:PRO:HG2	1:A:105:GLN:NE2	2.31	0.42
1:B:69:SER:C	1:B:72:LYS:HB3	2.37	0.42
1:C:173:LYS:NZ	6:C:1029:HOH:O	2.51	0.42
1:B:128:ILE:O	1:B:132:LEU:HD13	2.19	0.42
1:A:690:ASP:OD2	1:D:814:ASP:CB	2.66	0.42
1:A:353:TRP:CB	1:A:621:LEU:HD12	2.50	0.42
1:B:357:THR:HB	1:B:358:PRO:HD2	2.01	0.42
1:B:360:ASP:OD2	1:B:363:PRO:HA	2.19	0.42
1:B:635:GLN:HG3	1:B:658:TRP:CZ2	2.54	0.42
1:D:68:ILE:HG22	1:D:124:ILE:HG22	1.97	0.42
1:A:85:GLN:O	1:A:88:ILE:HB	2.19	0.42
1:B:635:GLN:HG2	1:B:658:TRP:CE2	2.53	0.42
1:C:428:GLU:HA	1:C:428:GLU:OE1	2.20	0.42
1:C:688:PRO:HD2	6:C:1171:HOH:O	2.19	0.42
1:A:64:VAL:HG13	1:A:94:LEU:CD1	2.43	0.42
1:B:339:ASN:OD1	1:B:339:ASN:N	2.52	0.42
1:B:485:GLU:CD	1:B:485:GLU:H	2.23	0.42
1:B:560:LYS:HE3	1:B:560:LYS:HB3	1.77	0.42
1:D:787:ALA:HA	1:D:810:TYR:O	2.19	0.42
1:B:94:LEU:HD12	1:B:94:LEU:HA	1.90	0.41
1:B:278:GLU:HG2	1:B:279:ARG:H	1.84	0.41
1:B:606[A]:SER:HB3	1:B:612:ASN:HA	2.02	0.41
1:C:608:THR:HB	1:C:611:ILE:HB	2.01	0.41
1:D:110:LEU:HD21	1:D:132:LEU:HD21	2.02	0.41
1:D:95:LEU:HB3	1:D:97:LEU:HG	2.02	0.41
1:A:201:GLN:HA	1:A:208:LYS:HD2	2.02	0.41
1:B:334:VAL:HG13	1:B:334:VAL:O	2.20	0.41
1:A:71:ILE:HD12	1:A:74:LYS:CE	2.50	0.41
1:C:590:TRP:O	1:C:593:ARG:HG2	2.21	0.41
1:A:738:GLU:O	1:A:742:GLU:HG2	2.20	0.41
1:B:110:LEU:HD23	1:B:128:ILE:HD13	2.02	0.41
1:A:504:ASN:CG	1:A:505:ASP:H	2.23	0.41
1:D:705:VAL:HB	1:D:809:ALA:HB2	2.02	0.41
1:A:82:LYS:HE2	1:A:113:LEU:N	2.36	0.41
1:A:101:VAL:HG13	1:A:102:PRO:CD	2.47	0.41
1:C:113:LEU:CB	1:C:127:GLN:HE21	2.14	0.41
1:D:30:THR:HG23	1:D:31:PRO:HD2	2.02	0.41
1:D:63:ASN:HA	1:D:66:ASN:HB2	2.03	0.41
1:A:128:ILE:O	1:A:132:LEU:HG	2.20	0.41
1:A:64:VAL:O	1:A:68:ILE:HG23	2.20	0.41
1:A:590:TRP:O	1:A:593:ARG:HG2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:155:LYS:O	1:B:163:VAL:HG22	2.20	0.41
1:B:733:ALA:O	1:B:736:MET:HG2	2.20	0.41
1:C:55:LEU:HD21	1:C:100:LEU:HD13	2.01	0.41
1:C:353:TRP:CB	1:C:621:LEU:HD12	2.50	0.41
1:C:752:ARG:HA	1:C:752:ARG:HD3	1.94	0.41
1:D:61:GLY:HA2	1:D:62:GLY:HA2	1.56	0.41
1:D:62:GLY:C	1:D:64:VAL:N	2.74	0.41
1:A:205:ASN:OD1	1:A:377:GLY:HA3	2.20	0.41
1:C:208:LYS:HE3	1:C:208:LYS:HB2	1.47	0.41
1:A:84:LYS:NZ	1:A:86:GLU:H	2.19	0.40
1:A:334[A]:VAL:HG13	1:A:334[A]:VAL:O	2.21	0.40
1:D:129:LYS:HB2	1:D:129:LYS:HE3	1.70	0.40
1:B:172:ASP:OD1	1:B:338:LYS:N	2.41	0.40
1:C:110:LEU:HA	1:C:113:LEU:CD1	2.51	0.40
1:D:127:GLN:HE21	1:D:127:GLN:HB3	1.63	0.40
1:C:357:THR:HB	1:C:358:PRO:HD2	2.03	0.40
1:C:685:VAL:O	1:C:694:PRO:HD2	2.21	0.40
6:C:1237:HOH:O	1:D:491:LYS:HE2	2.21	0.40
1:A:199:HIS:HE1	6:A:1233:HOH:O	2.02	0.40
1:B:673:ILE:HD12	1:B:674:PRO:HA	2.03	0.40
1:C:423[A]:ARG:NH1	1:C:423[A]:ARG:HG2	2.36	0.40
1:C:464:ASP:O	1:C:465:ASP:HB2	2.22	0.40
1:C:578:TYR:CD2	1:C:697:TRQ:HD1	2.57	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	779/816 (96%)	744 (96%)	29 (4%)	6 (1%)	19 11
1	B	778/816 (95%)	753 (97%)	21 (3%)	4 (0%)	29 22

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	C	766/816 (94%)	734 (96%)	32 (4%)	0	100	100
1	D	764/816 (94%)	733 (96%)	24 (3%)	7 (1%)	17	10
All	All	3087/3264 (95%)	2964 (96%)	106 (3%)	17 (1%)	25	17

All (17) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	77	GLU
1	B	72	LYS
1	B	279	ARG
1	A	127	GLN
1	D	87	GLU
1	D	103	GLN
1	D	111	ASP
1	D	124	ILE
1	A	60	PHE
1	A	62	GLY
1	D	279	ARG
1	A	85	GLN
1	B	63	ASN
1	A	107	SER
1	D	109	SER
1	B	465	ASP
1	D	62	GLY

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	690/711 (97%)	681 (99%)	9 (1%)	69	73
1	B	689/711 (97%)	678 (98%)	11 (2%)	62	65
1	C	679/711 (96%)	668 (98%)	11 (2%)	62	65
1	D	675/711 (95%)	665 (98%)	10 (2%)	65	68

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
All	All	2733/2844 (96%)	2692 (98%)	41 (2%)	67 68

All (41) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	72	LYS
1	A	84	LYS
1	A	170	ASP
1	A	212	LYS
1	A	262	ASN
1	A	464	ASP
1	A	569	CYS
1	A	575	ASP
1	A	799	SER
1	B	69	SER
1	B	76	ASP
1	B	78	ARG
1	B	84	LYS
1	B	108	ARG
1	B	114	GLU
1	B	157	ASP
1	B	536	SER
1	B	569	CYS
1	B	575	ASP
1	B	578	TYR
1	C	5	GLN
1	C	74	LYS
1	C	106	LEU
1	C	167	LYS
1	C	423[A]	ARG
1	C	423[B]	ARG
1	C	569	CYS
1	C	578	TYR
1	C	606[A]	SER
1	C	606[B]	SER
1	C	678	ASP
1	D	50	GLN
1	D	70	GLN
1	D	85	GLN
1	D	99	HIS
1	D	170	ASP
1	D	291	ASN

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Mol	Chain	Res	Type
1	D	308	SER
1	D	424	GLU
1	D	569	CYS
1	D	578	TYR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (23) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	70	GLN
1	A	105	GLN
1	A	201	GLN
1	A	349	GLN
1	A	767	HIS
1	B	105	GLN
1	B	112	ASN
1	C	5	GLN
1	C	103	GLN
1	C	127	GLN
1	C	349	GLN
1	C	471	ASN
1	C	612	ASN
1	C	767	HIS
1	D	5	GLN
1	D	54	GLN
1	D	63	ASN
1	D	70	GLN
1	D	127	GLN
1	D	142	HIS
1	D	291	ASN
1	D	796	ASN
1	D	812	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)

4 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	$\#\|Z\| > 2$
1	TRQ	A	697	1	13,17,18	1.72	3 (23%)	14,24,26	2.54	6 (42%)
1	TRQ	B	697	1	13,17,18	1.49	3 (23%)	14,24,26	2.17	3 (21%)
1	TRQ	C	697	1	13,17,18	1.56	2 (15%)	14,24,26	2.22	6 (42%)
1	TRQ	D	697	1	13,17,18	1.77	2 (15%)	14,24,26	1.69	2 (14%)

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
1	TRQ	A	697	1	-	0/4/19/21	0/2/2/2
1	TRQ	B	697	1	-	0/4/19/21	0/2/2/2
1	TRQ	C	697	1	-	0/4/19/21	0/2/2/2
1	TRQ	D	697	1	-	0/4/19/21	0/2/2/2

All (10) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	697	TRQ	CE2-CZ2	-4.10	1.44	1.50
1	C	697	TRQ	CE2-CZ2	-3.75	1.45	1.50
1	A	697	TRQ	CE2-CZ2	-3.43	1.45	1.50
1	A	697	TRQ	CB-CG	-2.93	1.47	1.51
1	B	697	TRQ	CE2-CZ2	-2.61	1.46	1.50
1	D	697	TRQ	CB-CG	-2.46	1.48	1.51
1	C	697	TRQ	CB-CG	-2.32	1.48	1.51
1	B	697	TRQ	CH2-CZ2	-2.32	1.51	1.54
1	A	697	TRQ	CZ3-CE3	2.28	1.38	1.34
1	B	697	TRQ	CD1-CG	2.07	1.43	1.37

All (17) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	B	697	TRQ	CZ2-CE2-NE1	6.04	129.59	119.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	697	TRQ	CZ2-CE2-NE1	5.82	129.24	119.94
1	C	697	TRQ	CZ2-CE2-NE1	4.60	127.28	119.94
1	D	697	TRQ	CZ2-CE2-NE1	4.58	127.25	119.94
1	A	697	TRQ	O6-CH2-CZ2	4.46	121.54	118.51
1	B	697	TRQ	O7-CZ2-CE2	4.39	126.48	121.84
1	C	697	TRQ	CE3-CZ3-CH2	3.51	123.74	121.08
1	A	697	TRQ	CD2-CE3-CZ3	3.06	124.79	121.09
1	D	697	TRQ	O7-CZ2-CE2	3.02	125.03	121.84
1	A	697	TRQ	CE2-CD2-CE3	-2.71	115.77	119.15
1	C	697	TRQ	O6-CH2-CZ2	2.63	120.30	118.51
1	C	697	TRQ	O7-CZ2-CH2	2.63	122.09	119.00
1	C	697	TRQ	CG-CB-CA	-2.37	110.87	114.53
1	A	697	TRQ	CD2-CE2-NE1	-2.34	105.86	109.64
1	C	697	TRQ	O7-CZ2-CE2	2.29	124.26	121.84
1	A	697	TRQ	CG-CB-CA	-2.04	111.37	114.53
1	B	697	TRQ	CD2-CE3-CZ3	2.02	123.53	121.09

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

4 monomers are involved in 5 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	A	697	TRQ	1	0
1	B	697	TRQ	1	0
1	C	697	TRQ	2	0
1	D	697	TRQ	1	0

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 18 ligands modelled in this entry, 4 are monoatomic - leaving 14 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	C	902	-	4,4,4	0.15	0	6,6,6	0.17	0
3	SO4	C	903	-	4,4,4	0.17	0	6,6,6	0.13	0
5	PGE	B	904	-	9,9,9	0.36	0	8,8,8	0.44	0
5	PGE	D	903	-	9,9,9	0.38	0	8,8,8	0.50	0
3	SO4	D	902	-	4,4,4	0.15	0	6,6,6	0.13	0
3	SO4	A	903	-	4,4,4	0.18	0	6,6,6	0.14	0
3	SO4	B	903	-	4,4,4	0.14	0	6,6,6	0.15	0
3	SO4	A	904	-	4,4,4	0.18	0	6,6,6	0.58	0
3	SO4	A	902	-	4,4,4	0.15	0	6,6,6	0.32	0
3	SO4	C	905	-	4,4,4	0.12	0	6,6,6	0.17	0
3	SO4	C	904	-	4,4,4	0.13	0	6,6,6	0.24	0
4	PEG	A	905	-	6,6,6	0.52	0	5,5,5	0.58	0
5	PGE	B	905	-	9,9,9	0.41	0	8,8,8	0.68	0
3	SO4	B	902	-	4,4,4	0.18	0	6,6,6	0.36	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
5	PGE	D	903	-	-	3/7/7/7	-
5	PGE	B	904	-	-	5/7/7/7	-
4	PEG	A	905	-	-	3/4/4/4	-
5	PGE	B	905	-	-	4/7/7/7	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (15) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	D	903	PGE	O3-C5-C6-O4
4	A	905	PEG	O1-C1-C2-O2
5	B	904	PGE	O1-C1-C2-O2
5	B	904	PGE	O3-C5-C6-O4

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Mol	Chain	Res	Type	Atoms
5	D	903	PGE	O2-C3-C4-O3
5	B	905	PGE	O2-C3-C4-O3
5	B	905	PGE	O1-C1-C2-O2
5	B	904	PGE	O2-C3-C4-O3
5	D	903	PGE	C6-C5-O3-C4
5	B	904	PGE	C1-C2-O2-C3
5	B	905	PGE	C1-C2-O2-C3
5	B	904	PGE	C4-C3-O2-C2
4	A	905	PEG	O2-C3-C4-O4
4	A	905	PEG	C4-C3-O2-C2
5	B	905	PGE	O3-C5-C6-O4

There are no ring outliers.

6 monomers are involved in 12 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	B	904	PGE	3	0
3	D	902	SO4	1	0
3	A	903	SO4	3	0
3	B	903	SO4	1	0
3	A	902	SO4	1	0
4	A	905	PEG	3	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 (i)

6.1 Protein, DNA and RNA chains (i)

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	776/816 (95%)	0.14	55 (7%)	16	20	23, 36, 93, 134	0
1	B	781/816 (95%)	0.25	81 (10%)	6	8	29, 46, 100, 126	0
1	C	773/816 (94%)	0.07	46 (5%)	21	27	22, 36, 89, 132	0
1	D	771/816 (94%)	0.15	58 (7%)	14	18	25, 42, 104, 150	0
All	All	3101/3264 (95%)	0.15	240 (7%)	13	17	22, 40, 98, 150	0

All (240) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	D	71	ILE	8.4
1	D	73	THR	7.3
1	A	94	LEU	6.8
1	D	68	ILE	6.8
1	D	64	VAL	6.8
1	B	75	LEU	6.7
1	D	94	LEU	6.7
1	D	124	ILE	6.5
1	C	110	LEU	6.4
1	D	816	ASP	6.4
1	B	83	PHE	6.4
1	A	75	LEU	6.3
1	A	91	ILE	6.3
1	C	83	PHE	6.2
1	B	340	GLY	6.2
1	D	65	ILE	6.1
1	C	68	ILE	5.7
1	A	816	ASP	5.7
1	A	83	PHE	5.7
1	A	62	GLY	5.6
1	A	68	ILE	5.5

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Mol	Chain	Res	Type	RSRZ
1	A	64	VAL	5.5
1	A	65	ILE	5.5
1	C	61	GLY	5.5
1	D	122	ASP	5.4
1	D	91	ILE	5.4
1	A	76	ASP	5.4
1	D	60	PHE	5.3
1	C	113	LEU	5.3
1	C	73	THR	5.2
1	A	88	ILE	5.1
1	A	128	ILE	5.1
1	D	123	ASP	5.1
1	A	4	CYS	5.0
1	B	111	ASP	5.0
1	B	113	LEU	5.0
1	A	73	THR	4.9
1	C	91	ILE	4.9
1	B	124	ILE	4.8
1	D	66	ASN	4.8
1	A	106	LEU	4.7
1	D	126	GLN	4.6
1	A	70	GLN	4.6
1	D	88	ILE	4.6
1	D	61	GLY	4.5
1	B	110	LEU	4.4
1	A	61	GLY	4.4
1	A	95	LEU	4.4
1	D	95	LEU	4.4
1	A	66	ASN	4.4
1	D	62	GLY	4.4
1	D	110	LEU	4.4
1	D	133	LEU	4.3
1	B	107	SER	4.3
1	B	108	ARG	4.2
1	B	88	ILE	4.2
1	D	125	VAL	4.2
1	C	64	VAL	4.0
1	A	112	ASN	4.0
1	A	77	GLU	4.0
1	A	113	LEU	4.0
1	B	106	LEU	4.0
1	C	124	ILE	4.0

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Mol	Chain	Res	Type	RSRZ
1	D	128	ILE	4.0
1	D	130	GLY	3.9
1	D	90	THR	3.9
1	C	71	ILE	3.9
1	B	93	GLY	3.9
1	B	128	ILE	3.9
1	C	88	ILE	3.9
1	A	67	GLU	3.8
1	B	466	PRO	3.8
1	B	341	ASP	3.8
1	A	101	VAL	3.8
1	D	104	GLN	3.8
1	B	71	ILE	3.7
1	B	66	ASN	3.7
1	D	112	ASN	3.7
1	D	127	GLN	3.7
1	C	128	ILE	3.7
1	C	127	GLN	3.7
1	B	337	LEU	3.7
1	D	86	GLU	3.6
1	B	109	SER	3.6
1	D	131	ALA	3.6
1	B	343	PHE	3.6
1	C	60	PHE	3.6
1	A	60	PHE	3.5
1	A	109	SER	3.5
1	B	114	GLU	3.5
1	A	71	ILE	3.5
1	D	109	SER	3.5
1	B	132	LEU	3.5
1	A	127	GLN	3.5
1	C	85	GLN	3.5
1	A	466	PRO	3.5
1	B	816	ASP	3.4
1	B	339	ASN	3.4
1	C	84	LYS	3.4
1	B	278	GLU	3.4
1	C	95	LEU	3.4
1	C	106	LEU	3.4
1	C	170	ASP	3.4
1	A	126	GLN	3.4
1	C	125	VAL	3.4

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Mol	Chain	Res	Type	RSRZ
1	A	69	SER	3.3
1	B	79	LYS	3.3
1	C	4	CYS	3.3
1	C	814	ASP	3.3
1	D	87	GLU	3.3
1	D	156	CYS	3.3
1	B	470	SER	3.3
1	C	109	SER	3.3
1	B	68	ILE	3.3
1	B	112	ASN	3.2
1	C	69	SER	3.2
1	A	102	PRO	3.2
1	A	63	ASN	3.2
1	A	103	GLN	3.2
1	A	170	ASP	3.2
1	A	72	LYS	3.2
1	B	6	TYR	3.2
1	D	129	LYS	3.2
1	B	95	LEU	3.1
1	B	85	GLN	3.1
1	B	82	LYS	3.1
1	D	97	LEU	3.1
1	C	65	ILE	3.1
1	D	85	GLN	3.1
1	B	78	ARG	3.0
1	D	56	LEU	3.0
1	A	85	GLN	3.0
1	C	130	GLY	3.0
1	A	78	ARG	3.0
1	D	721	ASP	3.0
1	B	719	SER	3.0
1	B	168	LEU	2.9
1	D	106	LEU	2.9
1	D	132	LEU	2.9
1	A	90	THR	2.9
1	B	62	GLY	2.9
1	B	169	THR	2.9
1	A	87	GLU	2.9
1	A	129	LYS	2.9
1	C	126	GLN	2.9
1	C	70	GLN	2.9
1	D	108	ARG	2.9

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Mol	Chain	Res	Type	RSRZ
1	D	57	GLU	2.9
1	B	5	GLN	2.8
1	C	108	ARG	2.8
1	A	74	LYS	2.8
1	B	84	LYS	2.8
1	A	125	VAL	2.8
1	A	86	GLU	2.8
1	B	167	LYS	2.8
1	C	163	VAL	2.8
1	D	69	SER	2.8
1	B	127	GLN	2.8
1	A	104	GLN	2.8
1	B	133	LEU	2.8
1	B	721	ASP	2.7
1	D	720	ALA	2.7
1	A	89	GLU	2.7
1	A	84	LYS	2.7
1	B	60	PHE	2.7
1	B	86	GLU	2.7
1	B	338	LYS	2.7
1	B	103	GLN	2.7
1	B	69	SER	2.6
1	B	4	CYS	2.6
1	B	464	ASP	2.6
1	D	814	ASP	2.6
1	A	339	ASN	2.6
1	B	76	ASP	2.6
1	B	170	ASP	2.6
1	C	72	LYS	2.6
1	D	55	LEU	2.6
1	B	125	VAL	2.6
1	B	171	GLY	2.6
1	A	131	ALA	2.6
1	B	89	GLU	2.5
1	D	89	GLU	2.5
1	A	97	LEU	2.5
1	C	94	LEU	2.5
1	D	134	LYS	2.5
1	B	586	VAL	2.5
1	D	92	THR	2.5
1	A	82	LYS	2.5
1	D	343	PHE	2.5

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Mol	Chain	Res	Type	RSRZ
1	B	104	GLN	2.5
1	D	70	GLN	2.4
1	C	816	ASP	2.4
1	C	112	ASN	2.4
1	A	163	VAL	2.4
1	B	65	ILE	2.4
1	D	63	ASN	2.4
1	B	91	ILE	2.4
1	B	717[A]	SER	2.4
1	C	340	GLY	2.4
1	B	465	ASP	2.4
1	B	63	ASN	2.3
1	B	344	GLU	2.3
1	C	134	LYS	2.3
1	D	74	LYS	2.3
1	B	64	VAL	2.3
1	C	87	GLU	2.3
1	B	699	ALA	2.3
1	D	72	LYS	2.3
1	D	6	TYR	2.3
1	C	90	THR	2.3
1	B	172	ASP	2.2
1	B	77	GLU	2.2
1	B	163	VAL	2.2
1	C	103	GLN	2.2
1	C	107	SER	2.2
1	D	111	ASP	2.2
1	B	92	THR	2.2
1	C	92	THR	2.2
1	B	135	VAL	2.2
1	D	470	SER	2.2
1	A	161	ASN	2.2
1	B	61	GLY	2.2
1	A	107	SER	2.2
1	D	341	ASP	2.2
1	B	625	LEU	2.1
1	B	123	ASP	2.1
1	C	111	ASP	2.1
1	C	101	VAL	2.1
1	B	723	PRO	2.1
1	B	408	VAL	2.1
1	B	813	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
1	D	169	THR	2.1
1	B	463	VAL	2.1
1	C	86	GLU	2.1
1	A	92	THR	2.1
1	C	343	PHE	2.1
1	B	134	LYS	2.1
1	B	72	LYS	2.0
1	C	489	ALA	2.0
1	B	336	GLU	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, 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(Å^2)	Q<0.9
1	TRQ	A	697	16/17	0.98	0.14	24,26,37,46	0
1	TRQ	B	697	16/17	0.98	0.17	27,33,41,53	0
1	TRQ	C	697	16/17	0.98	0.13	25,29,36,41	0
1	TRQ	D	697	16/17	0.98	0.16	26,33,46,56	0

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, 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(Å^2)	Q<0.9
3	SO4	B	903	5/5	0.60	0.42	156,159,160,162	0
3	SO4	C	903	5/5	0.75	0.22	150,150,152,153	0
3	SO4	C	904	5/5	0.77	0.22	150,152,153,153	0
3	SO4	C	905	5/5	0.83	0.26	137,138,139,139	0
3	SO4	A	904	5/5	0.85	0.18	90,96,97,100	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
4	PEG	A	905	7/7	0.86	0.15	62,75,86,96	0
5	PGE	B	904	10/10	0.86	0.14	83,105,113,114	0
5	PGE	B	905	10/10	0.88	0.14	60,73,87,88	0
5	PGE	D	903	10/10	0.88	0.18	59,71,79,81	0
3	SO4	C	902	5/5	0.92	0.24	102,107,111,111	0
2	MG	B	901	1/1	0.94	0.08	41,41,41,41	0
3	SO4	B	902	5/5	0.95	0.21	85,92,97,97	0
3	SO4	A	903	5/5	0.96	0.21	86,92,103,113	0
3	SO4	D	902	5/5	0.96	0.16	86,108,116,117	0
3	SO4	A	902	5/5	0.97	0.21	77,79,80,83	0
2	MG	D	901	1/1	0.97	0.14	38,38,38,38	0
2	MG	A	901	1/1	0.98	0.09	33,33,33,33	0
2	MG	C	901	1/1	0.99	0.10	30,30,30,30	0

6.5 Other polymers (i)

There are no such residues in this entry.