



Full wwPDB X-ray Structure Validation Report ⓘ

Jan 8, 2024 – 03:14 am GMT

PDB ID : 6FIZ
Title : Crystal Structure of CNG mimicking NaK-EAPP mutant (T67A) cocrystal-
lized with K⁺
Authors : Napolitano, L.M.R.; De March, M.; Steiner, R.A.; Onesti, S.
Deposited on : 2018-01-19
Resolution : 2.63 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 : 4.02b-467
Mogul : 1.8.4, CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.36
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) : 2.36

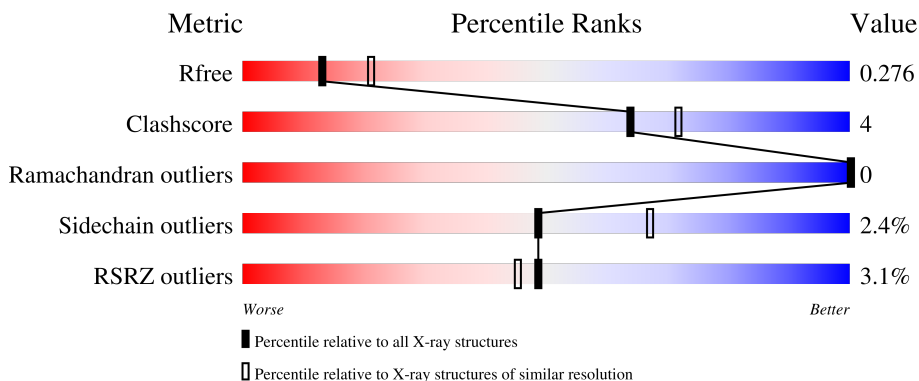
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.63 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	1426 (2.66-2.62)
Clashscore	141614	1472 (2.66-2.62)
Ramachandran outliers	138981	1446 (2.66-2.62)
Sidechain outliers	138945	1446 (2.66-2.62)
RSRZ outliers	127900	1408 (2.66-2.62)

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	94	 3% 87% 10%
1	B	94	 9% 84% 11%
1	C	94	 9% 86% 11%
1	D	94	 5% 85% 12%
1	E	94	 5% 84% 12%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
1	F	94	
1	G	94	
1	H	94	
1	I	94	
1	J	94	
1	K	94	
1	L	94	
1	M	94	
1	N	94	
1	O	94	
1	P	94	

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
2	GLY	B	201	-	X	-	-
2	GLY	D	201	-	X	-	-
2	GLY	D	204	-	X	-	-
2	GLY	E	201	-	X	-	-
2	GLY	G	202	-	X	-	-
2	GLY	H	201	-	X	-	-
2	GLY	H	203	-	X	-	-
2	GLY	I	202	-	X	-	-
2	GLY	J	204	-	X	-	-
2	GLY	J	205	-	X	-	-
2	GLY	J	208	-	X	-	-
2	GLY	K	202	-	X	-	-
2	GLY	K	203	-	X	-	-
2	GLY	M	201	-	X	-	-
2	GLY	M	202	-	X	-	-
2	GLY	M	206	-	X	-	-
2	GLY	N	205	-	X	-	-
2	GLY	N	207	-	X	-	-

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
2	GLY	O	204	-	X	-	-
2	GLY	P	201	-	X	-	-
2	GLY	P	202	-	X	-	-
2	GLY	P	203	-	X	-	-
4	MPD	F	203	-	-	X	-

2 Entry composition [i](#)

There are 5 unique types of molecules in this entry. The entry contains 11844 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 Potassium channel protein,Cyclic nucleotide-gated olfactory channel,Potassium channel protein.

Mol	Chain	Residues	Atoms			ZeroOcc	AltConf	Trace	
1	A	91	Total	C	N	O	0	0	0
			708	481	104	123			
1	B	91	Total	C	N	O	0	0	0
			708	481	104	123			
1	C	91	Total	C	N	O	0	0	0
			708	481	104	123			
1	D	91	Total	C	N	O	0	0	0
			708	481	104	123			
1	E	91	Total	C	N	O	0	0	0
			708	481	104	123			
1	F	91	Total	C	N	O	0	0	0
			708	481	104	123			
1	G	91	Total	C	N	O	0	0	0
			708	481	104	123			
1	H	91	Total	C	N	O	0	0	0
			708	481	104	123			
1	I	94	Total	C	N	O	0	0	0
			730	494	108	128			
1	J	91	Total	C	N	O	0	1	0
			717	487	106	124			
1	K	91	Total	C	N	O	0	0	0
			708	481	104	123			
1	L	91	Total	C	N	O	0	0	0
			708	481	104	123			
1	M	94	Total	C	N	O	0	0	0
			730	494	108	128			
1	N	91	Total	C	N	O	0	0	0
			708	481	104	123			
1	O	91	Total	C	N	O	0	0	0
			708	481	104	123			
1	P	91	Total	C	N	O	0	0	0
			708	481	104	123			

There are 80 discrepancies between the modelled and reference sequences:

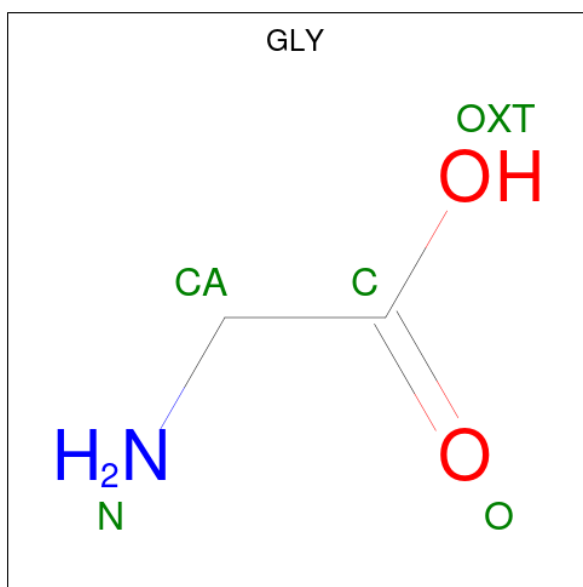
Chain	Residue	Modelled	Actual	Comment	Reference
A	19	ALA	-	expression tag	UNP Q81HW2
A	67	ALA	THR	engineered mutation	UNP Q16280
A	110	VAL	-	expression tag	UNP Q81HW2
A	111	VAL	-	expression tag	UNP Q81HW2
A	112	PRO	-	expression tag	UNP Q81HW2
B	19	ALA	-	expression tag	UNP Q81HW2
B	67	ALA	THR	engineered mutation	UNP Q16280
B	110	VAL	-	expression tag	UNP Q81HW2
B	111	VAL	-	expression tag	UNP Q81HW2
B	112	PRO	-	expression tag	UNP Q81HW2
C	19	ALA	-	expression tag	UNP Q81HW2
C	67	ALA	THR	engineered mutation	UNP Q16280
C	110	VAL	-	expression tag	UNP Q81HW2
C	111	VAL	-	expression tag	UNP Q81HW2
C	112	PRO	-	expression tag	UNP Q81HW2
D	19	ALA	-	expression tag	UNP Q81HW2
D	67	ALA	THR	engineered mutation	UNP Q16280
D	110	VAL	-	expression tag	UNP Q81HW2
D	111	VAL	-	expression tag	UNP Q81HW2
D	112	PRO	-	expression tag	UNP Q81HW2
E	19	ALA	-	expression tag	UNP Q81HW2
E	67	ALA	THR	engineered mutation	UNP Q16280
E	110	VAL	-	expression tag	UNP Q81HW2
E	111	VAL	-	expression tag	UNP Q81HW2
E	112	PRO	-	expression tag	UNP Q81HW2
F	19	ALA	-	expression tag	UNP Q81HW2
F	67	ALA	THR	engineered mutation	UNP Q16280
F	110	VAL	-	expression tag	UNP Q81HW2
F	111	VAL	-	expression tag	UNP Q81HW2
F	112	PRO	-	expression tag	UNP Q81HW2
G	19	ALA	-	expression tag	UNP Q81HW2
G	67	ALA	THR	engineered mutation	UNP Q16280
G	110	VAL	-	expression tag	UNP Q81HW2
G	111	VAL	-	expression tag	UNP Q81HW2
G	112	PRO	-	expression tag	UNP Q81HW2
H	19	ALA	-	expression tag	UNP Q81HW2
H	67	ALA	THR	engineered mutation	UNP Q16280
H	110	VAL	-	expression tag	UNP Q81HW2
H	111	VAL	-	expression tag	UNP Q81HW2
H	112	PRO	-	expression tag	UNP Q81HW2
I	19	ALA	-	expression tag	UNP Q81HW2
I	67	ALA	THR	engineered mutation	UNP Q16280

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
I	110	VAL	-	expression tag	UNP Q81HW2
I	111	VAL	-	expression tag	UNP Q81HW2
I	112	PRO	-	expression tag	UNP Q81HW2
J	19	ALA	-	expression tag	UNP Q81HW2
J	67	ALA	THR	engineered mutation	UNP Q16280
J	110	VAL	-	expression tag	UNP Q81HW2
J	111	VAL	-	expression tag	UNP Q81HW2
J	112	PRO	-	expression tag	UNP Q81HW2
K	19	ALA	-	expression tag	UNP Q81HW2
K	67	ALA	THR	engineered mutation	UNP Q16280
K	110	VAL	-	expression tag	UNP Q81HW2
K	111	VAL	-	expression tag	UNP Q81HW2
K	112	PRO	-	expression tag	UNP Q81HW2
L	19	ALA	-	expression tag	UNP Q81HW2
L	67	ALA	THR	engineered mutation	UNP Q16280
L	110	VAL	-	expression tag	UNP Q81HW2
L	111	VAL	-	expression tag	UNP Q81HW2
L	112	PRO	-	expression tag	UNP Q81HW2
M	19	ALA	-	expression tag	UNP Q81HW2
M	67	ALA	THR	engineered mutation	UNP Q16280
M	110	VAL	-	expression tag	UNP Q81HW2
M	111	VAL	-	expression tag	UNP Q81HW2
M	112	PRO	-	expression tag	UNP Q81HW2
N	19	ALA	-	expression tag	UNP Q81HW2
N	67	ALA	THR	engineered mutation	UNP Q16280
N	110	VAL	-	expression tag	UNP Q81HW2
N	111	VAL	-	expression tag	UNP Q81HW2
N	112	PRO	-	expression tag	UNP Q81HW2
O	19	ALA	-	expression tag	UNP Q81HW2
O	67	ALA	THR	engineered mutation	UNP Q16280
O	110	VAL	-	expression tag	UNP Q81HW2
O	111	VAL	-	expression tag	UNP Q81HW2
O	112	PRO	-	expression tag	UNP Q81HW2
P	19	ALA	-	expression tag	UNP Q81HW2
P	67	ALA	THR	engineered mutation	UNP Q16280
P	110	VAL	-	expression tag	UNP Q81HW2
P	111	VAL	-	expression tag	UNP Q81HW2
P	112	PRO	-	expression tag	UNP Q81HW2

- Molecule 2 is GLYCINE (three-letter code: GLY) (formula: C₂H₅NO₂).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
2	A	1	Total	C	N	O	0	0
			5	2	1	2		
2	A	1	Total	C	N	O	0	0
			5	2	1	2		
2	B	1	Total	C	N	O	0	0
			5	2	1	2		
2	B	1	Total	C	N	O	0	0
			5	2	1	2		
2	B	1	Total	C	N	O	0	0
			5	2	1	2		
2	C	1	Total	C	N	O	0	0
			5	2	1	2		
2	D	1	Total	C	N	O	0	0
			5	2	1	2		
2	D	1	Total	C	N	O	0	0
			5	2	1	2		
2	D	1	Total	C	N	O	0	0
			5	2	1	2		
2	D	1	Total	C	N	O	0	0
			5	2	1	2		
2	E	1	Total	C	N	O	0	0
			5	2	1	2		
2	E	1	Total	C	N	O	0	0
			5	2	1	2		
2	E	1	Total	C	N	O	0	0
			5	2	1	2		
2	E	1	Total	C	N	O	0	0
			5	2	1	2		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
2	F	1	Total	C	N	O	0	0
			5	2	1	2		
2	F	1	Total	C	N	O	0	0
			5	2	1	2		
2	G	1	Total	C	N	O	0	0
			5	2	1	2		
2	G	1	Total	C	N	O	0	0
			5	2	1	2		
2	H	1	Total	C	N	O	0	0
			5	2	1	2		
2	H	1	Total	C	N	O	0	0
			5	2	1	2		
2	H	1	Total	C	N	O	0	0
			5	2	1	2		
2	H	1	Total	C	N	O	0	0
			5	2	1	2		
2	I	1	Total	C	N	O	0	0
			5	2	1	2		
2	I	1	Total	C	N	O	0	0
			5	2	1	2		
2	I	1	Total	C	N	O	0	0
			5	2	1	2		
2	J	1	Total	C	N	O	0	0
			5	2	1	2		
2	J	1	Total	C	N	O	0	0
			5	2	1	2		
2	J	1	Total	C	N	O	0	0
			5	2	1	2		
2	J	1	Total	C	N	O	0	0
			5	2	1	2		
2	J	1	Total	C	N	O	0	0
			5	2	1	2		
2	J	1	Total	C	N	O	0	0
			5	2	1	2		
2	J	1	Total	C	N	O	0	0
			5	2	1	2		
2	K	1	Total	C	N	O	0	0
			5	2	1	2		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
2	K	1	Total	C	N	O	0	0
			5	2	1	2		
2	K	1	Total	C	N	O	0	0
			5	2	1	2		
2	L	1	Total	C	N	O	0	0
			5	2	1	2		
2	L	1	Total	C	N	O	0	0
			5	2	1	2		
2	M	1	Total	C	N	O	0	0
			5	2	1	2		
2	M	1	Total	C	N	O	0	0
			5	2	1	2		
2	M	1	Total	C	N	O	0	0
			5	2	1	2		
2	M	1	Total	C	N	O	0	0
			5	2	1	2		
2	M	1	Total	C	N	O	0	0
			5	2	1	2		
2	M	1	Total	C	N	O	0	0
			5	2	1	2		
2	N	1	Total	C	N	O	0	0
			5	2	1	2		
2	N	1	Total	C	N	O	0	0
			5	2	1	2		
2	N	1	Total	C	N	O	0	0
			5	2	1	2		
2	N	1	Total	C	N	O	0	0
			5	2	1	2		
2	N	1	Total	C	N	O	0	0
			5	2	1	2		
2	N	1	Total	C	N	O	0	0
			5	2	1	2		
2	O	1	Total	C	N	O	0	0
			5	2	1	2		
2	O	1	Total	C	N	O	0	0
			5	2	1	2		
2	O	1	Total	C	N	O	0	0
			5	2	1	2		

Continued on next page...

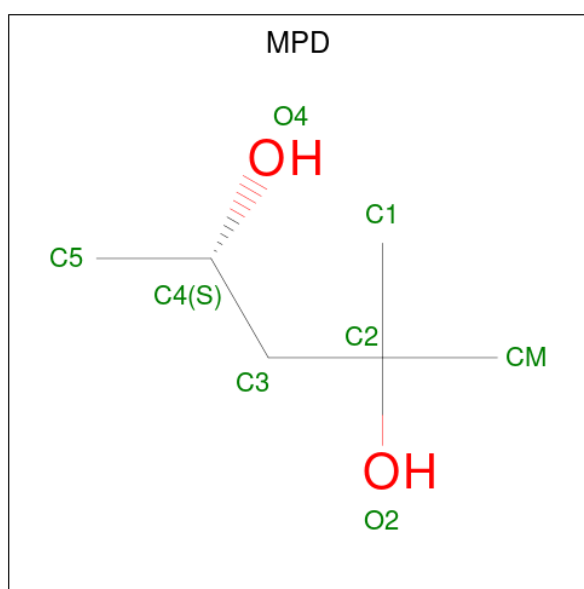
Continued from previous page...

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
2	O	1	Total	C	N	O	0	0
			5	2	1	2		
2	P	1	Total	C	N	O	0	0
			5	2	1	2		
2	P	1	Total	C	N	O	0	0
			5	2	1	2		
2	P	1	Total	C	N	O	0	0
			5	2	1	2		

- Molecule 3 is POTASSIUM ION (three-letter code: K) (formula: K).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	3	Total	K	0	0
			3	3		
3	E	3	Total	K	0	0
			3	3		
3	I	3	Total	K	0	0
			3	3		
3	M	3	Total	K	0	0
			3	3		

- Molecule 4 is (4S)-2-METHYL-2,4-PENTANEDIOL (three-letter code: MPD) (formula: C₆H₁₄O₂).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	D	1	Total	C	O	0	0
			8	6	2		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	F	1	Total C O 8 6 2	0	0
4	G	1	Total C O 8 6 2	0	0
4	J	1	Total C O 8 6 2	0	0
4	J	1	Total C O 8 6 2	0	0
4	M	1	Total C O 8 6 2	0	0
4	N	1	Total C O 8 6 2	0	0

- Molecule 5 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	A	8	Total O 8 8	0	0
5	B	1	Total O 1 1	0	0
5	C	4	Total O 4 4	0	0
5	D	6	Total O 6 6	0	0
5	E	3	Total O 3 3	0	0
5	F	8	Total O 8 8	0	0
5	G	4	Total O 4 4	0	0
5	H	3	Total O 3 3	0	0
5	I	6	Total O 6 6	0	0
5	J	5	Total O 5 5	0	0
5	K	6	Total O 6 6	0	0
5	L	12	Total O 12 12	0	0
5	M	5	Total O 5 5	0	0

Continued on next page...

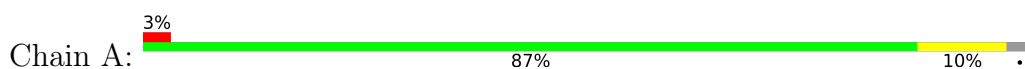
Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	N	11	Total 11	O 11	0	0
5	O	6	Total 6	O 6	0	0
5	P	7	Total 7	O 7	0	0

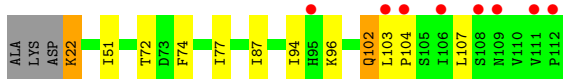
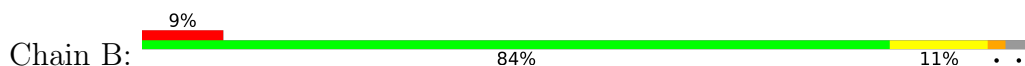
3 Residue-property plots [i](#)

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.

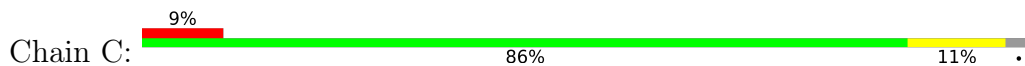
- Molecule 1: Potassium channel protein,Cyclic nucleotide-gated olfactory channel,Potassium channel protein



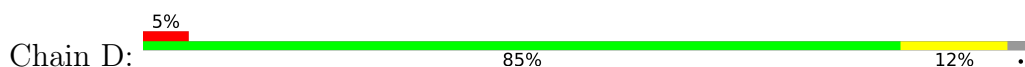
- Molecule 1: Potassium channel protein,Cyclic nucleotide-gated olfactory channel,Potassium channel protein



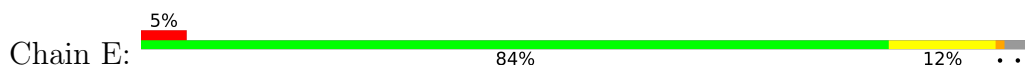
- Molecule 1: Potassium channel protein,Cyclic nucleotide-gated olfactory channel,Potassium channel protein



- Molecule 1: Potassium channel protein,Cyclic nucleotide-gated olfactory channel,Potassium channel protein

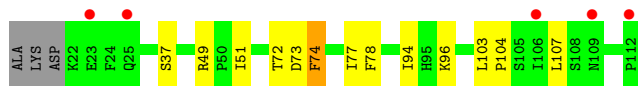
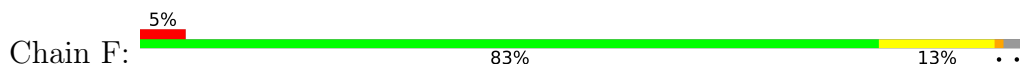


- Molecule 1: Potassium channel protein,Cyclic nucleotide-gated olfactory channel,Potassium channel protein

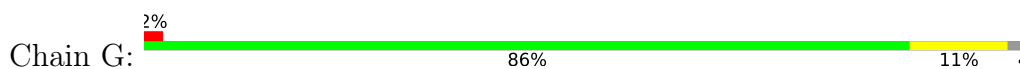




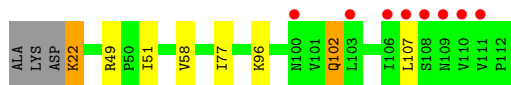
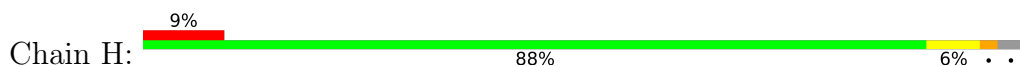
- Molecule 1: Potassium channel protein,Cyclic nucleotide-gated olfactory channel,Potassium channel protein



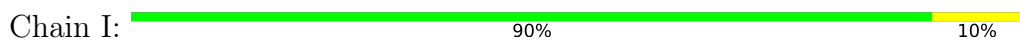
- Molecule 1: Potassium channel protein,Cyclic nucleotide-gated olfactory channel,Potassium channel protein



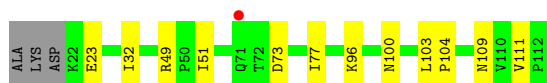
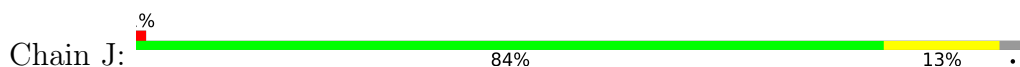
- Molecule 1: Potassium channel protein,Cyclic nucleotide-gated olfactory channel,Potassium channel protein



- Molecule 1: Potassium channel protein,Cyclic nucleotide-gated olfactory channel,Potassium channel protein



- Molecule 1: Potassium channel protein,Cyclic nucleotide-gated olfactory channel,Potassium channel protein

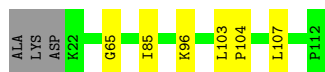


- Molecule 1: Potassium channel protein,Cyclic nucleotide-gated olfactory channel,Potassium channel protein

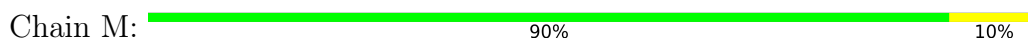




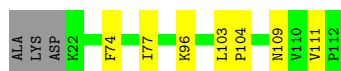
- Molecule 1: Potassium channel protein,Cyclic nucleotide-gated olfactory channel,Potassium channel protein



- Molecule 1: Potassium channel protein,Cyclic nucleotide-gated olfactory channel,Potassium channel protein



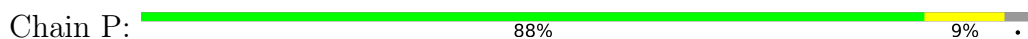
- Molecule 1: Potassium channel protein,Cyclic nucleotide-gated olfactory channel,Potassium channel protein



- Molecule 1: Potassium channel protein,Cyclic nucleotide-gated olfactory channel,Potassium channel protein



- Molecule 1: Potassium channel protein,Cyclic nucleotide-gated olfactory channel,Potassium channel protein



4 Data and refinement statistics i

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α , β , γ	181.22Å 135.25Å 67.43Å 90.00° 91.95° 90.00°	Depositor
Resolution (Å)	67.62 – 2.63 67.62 – 2.63	Depositor EDS
% Data completeness (in resolution range)	84.5 (67.62-2.63) 92.7 (67.62-2.63)	Depositor EDS
R_{merge}	0.19	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.72 (at 2.62Å)	Xtrriage
Refinement program	REFMAC 5.8.0238	Depositor
R, R_{free}	0.235 , 0.269 0.241 , 0.276	Depositor DCC
R_{free} test set	2291 reflections (5.12%)	wwPDB-VP
Wilson B-factor (Å ²)	40.3	Xtrriage
Anisotropy	0.414	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.32 , 38.2	EDS
L-test for twinning ²	$\langle L \rangle = 0.49$, $\langle L^2 \rangle = 0.32$	Xtrriage
Estimated twinning fraction	0.108 for -h,-k,l	Xtrriage
Reported twinning fraction	0.914 for H, K, L 0.086 for h,-k,-l	Depositor
Outliers	5 of 44750 reflections (0.011%)	Xtrriage
F_o, F_c correlation	0.93	EDS
Total number of atoms	11844	wwPDB-VP
Average B, all atoms (Å ²)	49.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The analyses of the Patterson function reveals a significant off-origin peak that is 78.50 % of the origin peak, indicating pseudo-translational symmetry. The chance of finding a peak of this or larger height randomly in a structure without pseudo-translational symmetry is equal to 6.8231e-07. The detected translational NCS is most likely also responsible for the elevated intensity ratio.*

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 [i](#)

5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: K, MPD

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	0.70	0/726	0.66	0/994
1	B	0.68	0/726	0.69	0/994
1	C	0.68	0/726	0.69	0/994
1	D	0.66	0/726	0.66	0/994
1	E	0.68	0/726	0.70	0/994
1	F	0.67	0/726	0.67	0/994
1	G	0.70	0/726	0.68	0/994
1	H	0.69	0/726	0.68	0/994
1	I	0.68	0/748	0.67	0/1023
1	J	0.68	0/735	0.69	0/1005
1	K	0.69	0/726	0.68	0/994
1	L	0.69	0/726	0.67	0/994
1	M	0.70	0/748	0.70	0/1023
1	N	0.70	0/726	0.68	0/994
1	O	0.69	0/726	0.69	0/994
1	P	0.72	1/726 (0.1%)	0.68	0/994
All	All	0.69	1/11669 (0.0%)	0.68	0/15973

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	P	66	GLU	CD-OE2	-5.17	1.20	1.25

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	708	0	745	9	0
1	B	708	0	745	13	0
1	C	708	0	745	8	0
1	D	708	0	745	8	0
1	E	708	0	745	13	0
1	F	708	0	745	14	0
1	G	708	0	745	9	0
1	H	708	0	745	7	0
1	I	730	0	767	6	0
1	J	717	0	757	15	0
1	K	708	0	745	12	0
1	L	708	0	745	4	0
1	M	730	0	767	4	0
1	N	708	0	745	6	0
1	O	708	0	745	3	0
1	P	708	0	745	4	0
2	A	10	0	4	0	0
2	B	15	0	6	0	0
2	C	5	0	2	1	0
2	D	20	0	8	1	0
2	E	20	0	8	3	0
2	F	10	0	4	0	0
2	G	10	0	4	3	0
2	H	20	0	8	0	0
2	I	15	0	6	0	0
2	J	45	0	18	1	0
2	K	15	0	6	0	0
2	L	10	0	4	0	0
2	M	30	0	12	1	0
2	N	40	0	16	0	0
2	O	20	0	8	0	0
2	P	15	0	6	0	0
3	A	3	0	0	0	0
3	E	3	0	0	0	0
3	I	3	0	0	0	0
3	M	3	0	0	0	0
4	D	8	0	14	1	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	F	8	0	14	8	0
4	G	8	0	14	0	0
4	J	16	0	28	2	0
4	M	8	0	14	0	0
4	N	8	0	14	0	0
5	A	8	0	0	1	0
5	B	1	0	0	0	0
5	C	4	0	0	0	0
5	D	6	0	0	0	0
5	E	3	0	0	0	0
5	F	8	0	0	0	0
5	G	4	0	0	0	0
5	H	3	0	0	0	0
5	I	6	0	0	1	0
5	J	5	0	0	1	0
5	K	6	0	0	0	0
5	L	12	0	0	0	0
5	M	5	0	0	0	0
5	N	11	0	0	1	0
5	O	6	0	0	0	0
5	P	7	0	0	1	0
All	All	11844	0	12194	101	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 4.

All (101) 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:E:83:ILE:HG23	1:E:87:ILE:HD12	1.38	1.06
1:E:83:ILE:HG23	1:E:87:ILE:CD1	1.99	0.90
1:J:96[B]:LYS:HE2	1:J:100:ASN:OD1	1.70	0.90
1:I:110:VAL:HG13	5:I:301:HOH:O	1.78	0.82
4:F:203:MPD:H52	4:F:203:MPD:H11	1.69	0.73
1:C:51:ILE:HD11	1:D:77:ILE:HG13	1.72	0.71
1:J:111:VAL:HG23	1:N:111:VAL:HG23	1.75	0.68
1:J:23:GLU:CD	1:J:96[B]:LYS:HE3	2.14	0.67
1:E:77:ILE:HG13	1:H:51:ILE:HD11	1.81	0.62
1:C:49:ARG:NH2	1:D:73:ASP:OD2	2.32	0.61
1:E:83:ILE:CG2	1:E:87:ILE:HD12	2.24	0.60
1:J:96[B]:LYS:NZ	5:J:302:HOH:O	2.35	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:F:203:MPD:H52	4:F:203:MPD:C1	2.33	0.58
4:F:203:MPD:H13	1:K:33:LEU:HD22	1.84	0.58
1:E:51:ILE:HD11	1:F:77:ILE:HG13	1.88	0.56
4:F:203:MPD:C1	1:K:33:LEU:HD22	2.36	0.55
1:J:23:GLU:OE2	1:J:96[B]:LYS:HE3	2.07	0.55
1:A:94:ILE:HG21	1:B:87:ILE:HG23	1.89	0.54
1:F:78:PHE:HE1	4:F:203:MPD:H12	1.72	0.54
1:B:94:ILE:HD13	1:C:87:ILE:HG21	1.90	0.54
1:G:68:PRO:O	2:G:201:GLY:HA2	2.08	0.53
1:F:51:ILE:HD11	1:G:77:ILE:HG13	1.91	0.52
1:J:49:ARG:NH2	1:K:73:ASP:OD2	2.39	0.51
1:G:56:PHE:CD1	2:G:201:GLY:HA3	2.46	0.51
1:N:74:PHE:HE1	5:N:311:HOH:O	1.95	0.50
1:A:109:ASN:ND2	5:A:301:HOH:O	2.43	0.50
1:H:102:GLN:N	1:H:102:GLN:OE1	2.45	0.50
1:B:102:GLN:N	1:B:102:GLN:OE1	2.44	0.50
1:C:48:LEU:HD11	2:C:201:GLY:HA2	1.94	0.50
1:A:94:ILE:HD13	1:B:87:ILE:HG21	1.93	0.49
1:E:48:LEU:HD11	2:E:202:GLY:CA	2.42	0.49
1:B:51:ILE:HD11	1:C:77:ILE:HG13	1.93	0.49
1:M:33:LEU:HD22	2:M:204:GLY:HA3	1.95	0.49
1:J:32:ILE:HD11	4:J:210:MPD:HM1	1.94	0.48
1:B:94:ILE:HG21	1:C:87:ILE:HG23	1.96	0.48
1:E:48:LEU:HD11	2:E:202:GLY:HA2	1.96	0.47
1:F:78:PHE:CE1	4:F:203:MPD:H12	2.49	0.47
1:J:49:ARG:HH22	1:K:73:ASP:CG	2.18	0.47
1:M:51:ILE:HD11	1:N:77:ILE:HG13	1.95	0.47
1:A:94:ILE:HG21	1:B:87:ILE:CG2	2.45	0.46
1:F:94:ILE:HD13	1:G:87:ILE:HG21	1.97	0.46
1:E:73:ASP:OD2	1:H:49:ARG:NH2	2.41	0.46
1:G:51:ILE:HD11	1:H:77:ILE:HG13	1.97	0.46
1:A:51:ILE:HD11	1:B:77:ILE:HG13	1.98	0.46
1:N:96:LYS:HA	1:N:96:LYS:HD3	1.81	0.46
1:K:96:LYS:HA	1:K:96:LYS:HD3	1.82	0.45
1:J:51:ILE:HD11	1:K:77:ILE:HG13	1.97	0.45
1:I:96:LYS:HA	1:I:96:LYS:HD3	1.81	0.45
1:F:96:LYS:HA	1:F:96:LYS:HD3	1.83	0.45
1:M:87:ILE:HG21	1:P:94:ILE:HD13	1.98	0.44
1:F:37:SER:OG	4:F:203:MPD:H51	2.17	0.44
1:K:102:GLN:NE2	1:L:85:ILE:O	2.47	0.44
1:L:96:LYS:HA	1:L:96:LYS:HD3	1.78	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:22:LYS:HG2	5:P:305:HOH:O	2.17	0.44
1:B:72:THR:HB	1:N:109:ASN:O	2.18	0.44
1:F:49:ARG:NH2	1:G:73:ASP:OD2	2.43	0.43
1:K:103:LEU:HB3	1:K:104:PRO:HD3	2.00	0.43
1:D:96:LYS:HA	1:D:96:LYS:HD3	1.83	0.43
1:F:103:LEU:HB3	1:F:104:PRO:HD3	2.00	0.43
1:H:96:LYS:HD3	1:H:96:LYS:HA	1.84	0.43
1:M:103:LEU:HB3	1:M:104:PRO:HD3	1.99	0.43
1:I:51:ILE:HD11	1:J:77:ILE:HG13	2.00	0.43
1:E:103:LEU:HB3	1:E:104:PRO:HD3	2.01	0.43
4:F:203:MPD:C1	1:K:33:LEU:CD2	2.97	0.43
1:G:103:LEU:HB3	1:G:104:PRO:HD3	1.99	0.43
1:D:103:LEU:HB3	1:D:104:PRO:HD3	2.01	0.43
1:A:73:ASP:OD2	1:D:49:ARG:NH2	2.45	0.43
1:A:77:ILE:HG13	1:D:51:ILE:HD11	2.01	0.43
1:F:94:ILE:HG21	1:G:87:ILE:HG23	2.00	0.43
1:A:94:ILE:CG2	1:B:87:ILE:HG23	2.49	0.43
1:A:103:LEU:HB3	1:A:104:PRO:HD3	2.00	0.43
1:D:37:SER:CB	4:D:205:MPD:O2	2.67	0.43
1:O:103:LEU:HB3	1:O:104:PRO:HD3	2.00	0.43
1:C:103:LEU:HB3	1:C:104:PRO:HD3	2.01	0.42
1:E:49:ARG:NH2	1:F:73:ASP:OD2	2.48	0.42
1:I:103:LEU:HB3	1:I:104:PRO:HD3	2.00	0.42
1:F:72:THR:HB	1:J:109:ASN:O	2.19	0.42
1:C:96:LYS:HA	1:C:96:LYS:HD3	1.83	0.42
1:J:103:LEU:HB3	1:J:104:PRO:HD3	2.01	0.42
1:I:49:ARG:HH22	1:J:73:ASP:CG	2.23	0.42
1:P:103:LEU:HB3	1:P:104:PRO:HD3	2.01	0.42
1:J:96[A]:LYS:HA	1:J:96[A]:LYS:HD3	1.80	0.42
1:F:74:PHE:CE2	1:K:30:LEU:CD2	3.03	0.42
1:G:56:PHE:CE1	2:G:201:GLY:CA	3.03	0.42
1:N:103:LEU:HB3	1:N:104:PRO:HD3	2.01	0.42
1:O:22:LYS:HD2	1:O:22:LYS:HA	1.93	0.42
1:L:103:LEU:HB3	1:L:104:PRO:HD3	2.01	0.41
1:F:74:PHE:CE2	1:K:30:LEU:HD21	2.55	0.41
1:E:22:LYS:HD2	1:E:22:LYS:HA	1.92	0.41
1:H:22:LYS:HA	1:H:22:LYS:HD2	1.94	0.41
1:P:96:LYS:HD3	1:P:96:LYS:HA	1.81	0.41
1:B:103:LEU:HB3	1:B:104:PRO:HD3	2.02	0.41
1:B:96:LYS:HA	1:B:96:LYS:HD3	1.84	0.41
1:B:22:LYS:HA	1:B:22:LYS:HD2	1.95	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:64:VAL:O	1:L:65:GLY:HA3	2.20	0.41
1:O:96:LYS:HD3	1:O:96:LYS:HA	1.84	0.41
1:J:23:GLU:HA	2:J:207:GLY:HA2	2.03	0.41
1:D:45:VAL:O	2:D:204:GLY:N	2.54	0.40
1:E:48:LEU:HD11	2:E:202:GLY:HA3	2.04	0.40
1:E:80:ILE:HG23	1:H:58:VAL:HG21	2.04	0.40
1:I:32:ILE:HD11	4:J:211:MPD:H51	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	89/94 (95%)	88 (99%)	1 (1%)	0	100	100
1	B	89/94 (95%)	88 (99%)	1 (1%)	0	100	100
1	C	89/94 (95%)	88 (99%)	1 (1%)	0	100	100
1	D	89/94 (95%)	88 (99%)	1 (1%)	0	100	100
1	E	89/94 (95%)	88 (99%)	1 (1%)	0	100	100
1	F	89/94 (95%)	88 (99%)	1 (1%)	0	100	100
1	G	89/94 (95%)	88 (99%)	1 (1%)	0	100	100
1	H	89/94 (95%)	88 (99%)	1 (1%)	0	100	100
1	I	92/94 (98%)	91 (99%)	1 (1%)	0	100	100
1	J	90/94 (96%)	89 (99%)	1 (1%)	0	100	100
1	K	89/94 (95%)	88 (99%)	1 (1%)	0	100	100
1	L	89/94 (95%)	88 (99%)	1 (1%)	0	100	100
1	M	92/94 (98%)	91 (99%)	1 (1%)	0	100	100
1	N	89/94 (95%)	88 (99%)	1 (1%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	O	89/94 (95%)	88 (99%)	1 (1%)	0	100	100
1	P	89/94 (95%)	88 (99%)	1 (1%)	0	100	100
All	All	1431/1504 (95%)	1415 (99%)	16 (1%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	81/83 (98%)	79 (98%)	2 (2%)	47	66
1	B	81/83 (98%)	77 (95%)	4 (5%)	25	39
1	C	81/83 (98%)	79 (98%)	2 (2%)	47	66
1	D	81/83 (98%)	79 (98%)	2 (2%)	47	66
1	E	81/83 (98%)	79 (98%)	2 (2%)	47	66
1	F	81/83 (98%)	79 (98%)	2 (2%)	47	66
1	G	81/83 (98%)	79 (98%)	2 (2%)	47	66
1	H	81/83 (98%)	78 (96%)	3 (4%)	34	51
1	I	83/83 (100%)	81 (98%)	2 (2%)	49	67
1	J	82/83 (99%)	82 (100%)	0	100	100
1	K	81/83 (98%)	79 (98%)	2 (2%)	47	66
1	L	81/83 (98%)	80 (99%)	1 (1%)	71	83
1	M	83/83 (100%)	79 (95%)	4 (5%)	25	39
1	N	81/83 (98%)	81 (100%)	0	100	100
1	O	81/83 (98%)	80 (99%)	1 (1%)	71	83
1	P	81/83 (98%)	79 (98%)	2 (2%)	47	66
All	All	1301/1328 (98%)	1270 (98%)	31 (2%)	49	67

All (31) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	22	LYS
1	A	107	LEU
1	B	22	LYS
1	B	74	PHE
1	B	102	GLN
1	B	107	LEU
1	C	22	LYS
1	C	107	LEU
1	D	22	LYS
1	D	107	LEU
1	E	22	LYS
1	E	107	LEU
1	F	74	PHE
1	F	107	LEU
1	G	22	LYS
1	G	107	LEU
1	H	22	LYS
1	H	102	GLN
1	H	107	LEU
1	I	21	ASP
1	I	107	LEU
1	K	22	LYS
1	K	107	LEU
1	L	107	LEU
1	M	20	LYS
1	M	21	ASP
1	M	107	LEU
1	M	111	VAL
1	O	22	LYS
1	P	107	LEU
1	P	111	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. There are no such sidechains identified.

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 monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 79 ligands modelled in this entry, 12 are monoatomic - leaving 67 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
2	GLY	D	201	-	4,4,4	1.02	0	3,4,4	2.39	2 (66%)
2	GLY	P	201	-	4,4,4	0.98	0	3,4,4	2.06	2 (66%)
2	GLY	M	201	-	4,4,4	0.81	0	3,4,4	1.92	2 (66%)
2	GLY	K	202	-	4,4,4	0.99	0	3,4,4	1.67	2 (66%)
2	GLY	J	207	-	4,4,4	1.05	0	3,4,4	1.36	0
2	GLY	M	203	-	4,4,4	0.98	0	3,4,4	1.59	1 (33%)
2	GLY	B	201	-	4,4,4	1.18	1 (25%)	3,4,4	1.90	1 (33%)
4	MPD	J	210	-	7,7,7	0.25	0	9,10,10	0.63	0
2	GLY	N	203	-	4,4,4	1.09	0	3,4,4	1.17	0
2	GLY	I	201	-	4,4,4	1.09	0	3,4,4	1.16	0
2	GLY	J	202	-	4,4,4	0.93	0	3,4,4	1.55	1 (33%)
2	GLY	C	201	-	4,4,4	0.92	0	3,4,4	1.34	0
2	GLY	H	202	-	4,4,4	1.15	1 (25%)	3,4,4	1.55	1 (33%)
2	GLY	H	201	-	4,4,4	1.14	0	3,4,4	1.83	2 (66%)
2	GLY	A	202	-	4,4,4	0.90	0	3,4,4	2.52	2 (66%)
2	GLY	N	204	-	4,4,4	1.18	1 (25%)	3,4,4	1.59	0
2	GLY	E	202	-	4,4,4	1.04	0	3,4,4	1.64	1 (33%)
2	GLY	J	206	-	4,4,4	1.12	1 (25%)	3,4,4	1.06	0
2	GLY	E	204	-	4,4,4	1.03	0	3,4,4	3.03	2 (66%)
2	GLY	D	204	-	4,4,4	1.16	1 (25%)	3,4,4	2.15	2 (66%)
4	MPD	M	210	-	7,7,7	0.16	0	9,10,10	0.72	0
2	GLY	J	201	-	4,4,4	0.98	0	3,4,4	1.49	0
2	GLY	E	201	-	4,4,4	1.36	1 (25%)	3,4,4	1.56	1 (33%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
2	GLY	E	203	-	4,4,4	1.20	1 (25%)	3,4,4	1.51	0
2	GLY	F	202	-	4,4,4	1.17	1 (25%)	3,4,4	1.44	0
2	GLY	H	203	-	4,4,4	1.08	1 (25%)	3,4,4	1.88	2 (66%)
2	GLY	N	207	-	4,4,4	1.05	1 (25%)	3,4,4	1.69	1 (33%)
2	GLY	N	208	-	4,4,4	1.15	1 (25%)	3,4,4	1.94	1 (33%)
2	GLY	N	202	-	4,4,4	1.09	1 (25%)	3,4,4	1.57	0
2	GLY	I	203	-	4,4,4	0.96	0	3,4,4	1.20	0
2	GLY	H	204	-	4,4,4	1.31	1 (25%)	3,4,4	0.82	0
2	GLY	L	202	-	4,4,4	1.15	1 (25%)	3,4,4	2.26	2 (66%)
2	GLY	D	203	-	4,4,4	0.56	0	3,4,4	1.83	1 (33%)
2	GLY	N	206	-	4,4,4	1.14	1 (25%)	3,4,4	1.33	0
2	GLY	B	203	-	4,4,4	1.10	1 (25%)	3,4,4	1.50	1 (33%)
2	GLY	J	204	-	4,4,4	0.91	0	3,4,4	1.82	2 (66%)
2	GLY	K	201	-	4,4,4	0.81	0	3,4,4	1.61	1 (33%)
2	GLY	J	208	-	4,4,4	1.16	1 (25%)	3,4,4	2.34	2 (66%)
4	MPD	G	203	-	7,7,7	0.24	0	9,10,10	0.47	0
2	GLY	L	201	-	4,4,4	1.18	1 (25%)	3,4,4	2.13	2 (66%)
2	GLY	J	203	-	4,4,4	1.15	1 (25%)	3,4,4	1.79	1 (33%)
2	GLY	N	205	-	4,4,4	0.69	0	3,4,4	2.18	2 (66%)
2	GLY	P	202	-	4,4,4	1.18	1 (25%)	3,4,4	2.00	1 (33%)
2	GLY	K	203	-	4,4,4	1.02	0	3,4,4	1.93	2 (66%)
2	GLY	I	202	-	4,4,4	1.07	1 (25%)	3,4,4	2.38	2 (66%)
2	GLY	O	202	-	4,4,4	0.99	0	3,4,4	2.23	2 (66%)
2	GLY	F	201	-	4,4,4	1.26	1 (25%)	3,4,4	1.05	0
2	GLY	M	205	-	4,4,4	1.01	0	3,4,4	1.75	1 (33%)
2	GLY	M	204	-	4,4,4	0.84	0	3,4,4	2.22	1 (33%)
2	GLY	O	204	-	4,4,4	1.27	1 (25%)	3,4,4	1.68	1 (33%)
4	MPD	F	203	-	7,7,7	0.29	0	9,10,10	0.53	0
2	GLY	D	202	-	4,4,4	1.38	1 (25%)	3,4,4	1.62	1 (33%)
2	GLY	O	203	-	4,4,4	1.23	1 (25%)	3,4,4	1.03	0
2	GLY	M	202	-	4,4,4	1.10	1 (25%)	3,4,4	2.25	2 (66%)
4	MPD	D	205	-	7,7,7	0.31	0	9,10,10	0.91	0
2	GLY	G	202	-	4,4,4	1.10	1 (25%)	3,4,4	2.13	2 (66%)
2	GLY	B	202	-	4,4,4	1.00	0	3,4,4	1.76	1 (33%)
2	GLY	J	209	-	4,4,4	1.17	1 (25%)	3,4,4	1.45	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
2	GLY	P	203	-	4,4,4	1.07	1 (25%)	3,4,4	2.35	2 (66%)
2	GLY	G	201	-	4,4,4	1.27	1 (25%)	3,4,4	1.23	0
4	MPD	J	211	-	7,7,7	0.35	0	9,10,10	0.55	0
2	GLY	A	201	-	4,4,4	1.02	0	3,4,4	1.54	1 (33%)
4	MPD	N	209	-	7,7,7	0.25	0	9,10,10	0.94	0
2	GLY	M	206	-	4,4,4	1.28	1 (25%)	3,4,4	1.93	1 (33%)
2	GLY	J	205	-	4,4,4	1.31	1 (25%)	3,4,4	1.84	1 (33%)
2	GLY	N	201	-	4,4,4	1.17	1 (25%)	3,4,4	1.31	0
2	GLY	O	201	-	4,4,4	0.95	0	3,4,4	0.80	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
2	GLY	D	201	-	-	2/2/2/2	-
2	GLY	P	201	-	-	2/2/2/2	-
2	GLY	M	201	-	-	2/2/2/2	-
2	GLY	K	202	-	-	2/2/2/2	-
2	GLY	J	207	-	-	0/2/2/2	-
2	GLY	M	203	-	-	2/2/2/2	-
2	GLY	B	201	-	-	2/2/2/2	-
4	MPD	J	210	-	-	3/5/5/5	-
2	GLY	N	203	-	-	0/2/2/2	-
2	GLY	I	201	-	-	2/2/2/2	-
2	GLY	J	202	-	-	2/2/2/2	-
2	GLY	C	201	-	-	2/2/2/2	-
2	GLY	H	202	-	-	0/2/2/2	-
2	GLY	H	201	-	-	2/2/2/2	-
2	GLY	A	202	-	-	0/2/2/2	-
2	GLY	N	204	-	-	0/2/2/2	-
2	GLY	E	202	-	-	2/2/2/2	-
2	GLY	J	206	-	-	0/2/2/2	-
2	GLY	E	204	-	-	0/2/2/2	-
2	GLY	D	204	-	-	2/2/2/2	-
4	MPD	M	210	-	-	2/5/5/5	-
2	GLY	J	201	-	-	2/2/2/2	-

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	GLY	E	201	-	-	2/2/2/2	-
2	GLY	E	203	-	-	2/2/2/2	-
2	GLY	F	202	-	-	2/2/2/2	-
2	GLY	H	203	-	-	2/2/2/2	-
2	GLY	N	207	-	-	2/2/2/2	-
2	GLY	N	208	-	-	0/2/2/2	-
2	GLY	N	202	-	-	2/2/2/2	-
2	GLY	I	203	-	-	2/2/2/2	-
2	GLY	H	204	-	-	2/2/2/2	-
2	GLY	L	202	-	-	0/2/2/2	-
2	GLY	D	203	-	-	2/2/2/2	-
2	GLY	N	206	-	-	2/2/2/2	-
2	GLY	B	203	-	-	1/2/2/2	-
2	GLY	J	204	-	-	2/2/2/2	-
2	GLY	K	201	-	-	2/2/2/2	-
2	GLY	J	208	-	-	2/2/2/2	-
4	MPD	G	203	-	-	0/5/5/5	-
2	GLY	L	201	-	-	0/2/2/2	-
2	GLY	J	203	-	-	0/2/2/2	-
2	GLY	N	205	-	-	2/2/2/2	-
2	GLY	P	202	-	-	2/2/2/2	-
2	GLY	K	203	-	-	2/2/2/2	-
2	GLY	I	202	-	-	2/2/2/2	-
2	GLY	O	202	-	-	0/2/2/2	-
2	GLY	F	201	-	-	0/2/2/2	-
2	GLY	M	205	-	-	2/2/2/2	-
2	GLY	M	204	-	-	0/2/2/2	-
2	GLY	O	204	-	-	2/2/2/2	-
4	MPD	F	203	-	-	3/5/5/5	-
2	GLY	D	202	-	-	0/2/2/2	-
2	GLY	O	203	-	-	0/2/2/2	-
2	GLY	M	202	-	-	2/2/2/2	-
4	MPD	D	205	-	-	0/5/5/5	-
2	GLY	G	202	-	-	2/2/2/2	-
2	GLY	B	202	-	-	2/2/2/2	-
2	GLY	J	209	-	-	0/2/2/2	-
2	GLY	P	203	-	-	2/2/2/2	-

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	GLY	G	201	-	-	1/2/2/2	-
4	MPD	J	211	-	-	2/5/5/5	-
2	GLY	A	201	-	-	2/2/2/2	-
4	MPD	N	209	-	-	2/5/5/5	-
2	GLY	M	206	-	-	2/2/2/2	-
2	GLY	J	205	-	-	2/2/2/2	-
2	GLY	N	201	-	-	2/2/2/2	-
2	GLY	O	201	-	-	2/2/2/2	-

All (33) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	202	GLY	OXT-C	-2.56	1.22	1.30
2	J	205	GLY	OXT-C	-2.55	1.22	1.30
2	M	206	GLY	OXT-C	-2.48	1.22	1.30
2	O	204	GLY	OXT-C	-2.46	1.22	1.30
2	H	204	GLY	OXT-C	-2.44	1.22	1.30
2	F	201	GLY	OXT-C	-2.39	1.22	1.30
2	O	203	GLY	OXT-C	-2.37	1.22	1.30
2	L	201	GLY	OXT-C	-2.30	1.23	1.30
2	D	204	GLY	OXT-C	-2.30	1.23	1.30
2	L	202	GLY	OXT-C	-2.26	1.23	1.30
2	G	201	GLY	OXT-C	-2.26	1.23	1.30
2	J	208	GLY	OXT-C	-2.26	1.23	1.30
2	J	203	GLY	OXT-C	-2.25	1.23	1.30
2	P	202	GLY	OXT-C	-2.24	1.23	1.30
2	N	204	GLY	OXT-C	-2.22	1.23	1.30
2	N	208	GLY	OXT-C	-2.21	1.23	1.30
2	E	203	GLY	OXT-C	-2.20	1.23	1.30
2	J	209	GLY	OXT-C	-2.19	1.23	1.30
2	B	201	GLY	OXT-C	-2.18	1.23	1.30
2	E	201	GLY	OXT-C	-2.17	1.23	1.30
2	H	202	GLY	OXT-C	-2.16	1.23	1.30
2	N	201	GLY	OXT-C	-2.15	1.23	1.30
2	M	202	GLY	OXT-C	-2.14	1.23	1.30
2	G	202	GLY	OXT-C	-2.13	1.23	1.30
2	H	203	GLY	OXT-C	-2.12	1.23	1.30
2	N	206	GLY	OXT-C	-2.11	1.23	1.30
2	F	202	GLY	OXT-C	-2.11	1.23	1.30
2	N	202	GLY	OXT-C	-2.11	1.23	1.30
2	P	203	GLY	OXT-C	-2.10	1.23	1.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	I	202	GLY	OXT-C	-2.04	1.23	1.30
2	N	207	GLY	OXT-C	-2.04	1.23	1.30
2	B	203	GLY	OXT-C	-2.04	1.23	1.30
2	J	206	GLY	OXT-C	-2.03	1.23	1.30

All (61) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	E	204	GLY	OXT-C-O	-3.82	113.79	123.30
2	E	204	GLY	OXT-C-CA	3.50	127.39	113.45
2	I	202	GLY	OXT-C-O	-3.48	114.62	123.30
2	J	208	GLY	OXT-C-O	-3.35	114.95	123.30
2	A	202	GLY	OXT-C-O	-3.31	115.04	123.30
2	M	204	GLY	OXT-C-O	-3.29	115.09	123.30
2	P	203	GLY	OXT-C-O	-3.03	115.75	123.30
2	D	204	GLY	OXT-C-O	-3.01	115.80	123.30
2	O	202	GLY	OXT-C-O	-3.01	115.81	123.30
2	P	202	GLY	OXT-C-O	-2.97	115.89	123.30
2	L	202	GLY	OXT-C-O	-2.96	115.92	123.30
2	D	201	GLY	OXT-C-O	-2.93	115.99	123.30
2	M	202	GLY	OXT-C-CA	2.87	124.87	113.45
2	M	206	GLY	OXT-C-O	-2.85	116.18	123.30
2	B	201	GLY	OXT-C-O	-2.84	116.22	123.30
2	D	201	GLY	OXT-C-CA	2.83	124.73	113.45
2	N	208	GLY	OXT-C-O	-2.83	116.25	123.30
2	A	202	GLY	OXT-C-CA	2.80	124.58	113.45
2	G	202	GLY	OXT-C-O	-2.78	116.36	123.30
2	L	201	GLY	OXT-C-O	-2.77	116.40	123.30
2	P	201	GLY	OXT-C-O	-2.76	116.41	123.30
2	J	205	GLY	OXT-C-O	-2.72	116.52	123.30
2	P	203	GLY	OXT-C-CA	2.66	124.05	113.45
2	N	205	GLY	OXT-C-CA	2.63	123.92	113.45
2	N	205	GLY	OXT-C-O	-2.60	116.81	123.30
2	K	203	GLY	OXT-C-O	-2.53	117.00	123.30
2	D	203	GLY	OXT-C-CA	2.52	123.49	113.45
2	L	202	GLY	OXT-C-CA	2.52	123.49	113.45
2	J	203	GLY	OXT-C-O	-2.51	117.05	123.30
2	O	202	GLY	OXT-C-CA	2.41	123.06	113.45
2	H	203	GLY	OXT-C-O	-2.40	117.31	123.30
2	G	202	GLY	OXT-C-CA	2.40	122.98	113.45
2	M	202	GLY	OXT-C-O	-2.39	117.33	123.30
2	L	201	GLY	OXT-C-CA	2.39	122.96	113.45

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	M	201	GLY	OXT-C-CA	2.36	122.85	113.45
2	B	202	GLY	OXT-C-O	-2.36	117.42	123.30
2	E	201	GLY	OXT-C-O	-2.36	117.42	123.30
2	N	207	GLY	OXT-C-O	-2.32	117.51	123.30
2	O	204	GLY	OXT-C-O	-2.31	117.54	123.30
2	D	202	GLY	OXT-C-O	-2.31	117.55	123.30
2	M	205	GLY	OXT-C-O	-2.28	117.60	123.30
2	J	208	GLY	OXT-C-CA	2.28	122.51	113.45
2	M	201	GLY	OXT-C-O	-2.24	117.71	123.30
2	H	201	GLY	OXT-C-O	-2.24	117.72	123.30
2	J	204	GLY	OXT-C-CA	2.23	122.34	113.45
2	P	201	GLY	OXT-C-CA	2.23	122.33	113.45
2	K	201	GLY	OXT-C-CA	2.22	122.30	113.45
2	I	202	GLY	OXT-C-CA	2.21	122.23	113.45
2	H	201	GLY	OXT-C-CA	2.19	122.15	113.45
2	D	204	GLY	OXT-C-CA	2.18	122.14	113.45
2	K	203	GLY	OXT-C-CA	2.16	122.06	113.45
2	H	203	GLY	OXT-C-CA	2.16	122.05	113.45
2	E	202	GLY	OXT-C-CA	2.13	121.94	113.45
2	A	201	GLY	OXT-C-O	-2.13	117.99	123.30
2	J	204	GLY	OXT-C-O	-2.12	118.02	123.30
2	M	203	GLY	OXT-C-CA	2.10	121.79	113.45
2	J	202	GLY	OXT-C-CA	2.04	121.56	113.45
2	H	202	GLY	OXT-C-O	-2.03	118.24	123.30
2	K	202	GLY	OXT-C-O	-2.02	118.28	123.30
2	B	203	GLY	OXT-C-O	-2.01	118.28	123.30
2	K	202	GLY	OXT-C-CA	2.00	121.42	113.45

There are no chirality outliers.

All (96) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	201	GLY	O-C-CA-N
2	B	201	GLY	OXT-C-CA-N
2	C	201	GLY	O-C-CA-N
2	D	201	GLY	O-C-CA-N
2	D	204	GLY	OXT-C-CA-N
2	E	203	GLY	O-C-CA-N
2	E	203	GLY	OXT-C-CA-N
2	F	202	GLY	O-C-CA-N
2	F	202	GLY	OXT-C-CA-N
2	H	201	GLY	O-C-CA-N

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
2	H	201	GLY	OXT-C-CA-N
2	H	203	GLY	O-C-CA-N
2	H	203	GLY	OXT-C-CA-N
2	I	202	GLY	O-C-CA-N
2	J	201	GLY	O-C-CA-N
2	J	201	GLY	OXT-C-CA-N
2	J	202	GLY	O-C-CA-N
2	J	202	GLY	OXT-C-CA-N
2	J	205	GLY	O-C-CA-N
2	J	205	GLY	OXT-C-CA-N
2	J	208	GLY	O-C-CA-N
2	J	208	GLY	OXT-C-CA-N
2	K	201	GLY	O-C-CA-N
2	K	201	GLY	OXT-C-CA-N
2	K	202	GLY	O-C-CA-N
2	K	202	GLY	OXT-C-CA-N
2	K	203	GLY	O-C-CA-N
2	M	205	GLY	OXT-C-CA-N
2	M	206	GLY	O-C-CA-N
2	M	206	GLY	OXT-C-CA-N
2	N	201	GLY	O-C-CA-N
2	N	201	GLY	OXT-C-CA-N
2	N	202	GLY	O-C-CA-N
2	N	202	GLY	OXT-C-CA-N
2	N	205	GLY	OXT-C-CA-N
2	N	206	GLY	O-C-CA-N
2	N	206	GLY	OXT-C-CA-N
2	N	207	GLY	OXT-C-CA-N
2	O	201	GLY	O-C-CA-N
2	O	201	GLY	OXT-C-CA-N
2	O	204	GLY	O-C-CA-N
2	O	204	GLY	OXT-C-CA-N
2	P	202	GLY	O-C-CA-N
2	P	202	GLY	OXT-C-CA-N
4	F	203	MPD	C1-C2-C3-C4
4	F	203	MPD	O2-C2-C3-C4
4	J	210	MPD	C1-C2-C3-C4
4	J	210	MPD	O2-C2-C3-C4
2	B	202	GLY	O-C-CA-N
2	D	203	GLY	O-C-CA-N
2	D	204	GLY	O-C-CA-N
2	G	202	GLY	O-C-CA-N

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
2	H	204	GLY	O-C-CA-N
2	I	203	GLY	O-C-CA-N
2	M	205	GLY	O-C-CA-N
2	N	205	GLY	O-C-CA-N
2	N	207	GLY	O-C-CA-N
2	P	201	GLY	O-C-CA-N
2	P	203	GLY	O-C-CA-N
2	A	201	GLY	OXT-C-CA-N
2	B	202	GLY	OXT-C-CA-N
2	C	201	GLY	OXT-C-CA-N
2	D	201	GLY	OXT-C-CA-N
2	D	203	GLY	OXT-C-CA-N
2	E	201	GLY	OXT-C-CA-N
2	E	202	GLY	OXT-C-CA-N
2	G	202	GLY	OXT-C-CA-N
2	H	204	GLY	OXT-C-CA-N
2	I	201	GLY	OXT-C-CA-N
2	I	202	GLY	OXT-C-CA-N
2	I	203	GLY	OXT-C-CA-N
2	K	203	GLY	OXT-C-CA-N
2	M	201	GLY	OXT-C-CA-N
2	M	203	GLY	OXT-C-CA-N
2	P	201	GLY	OXT-C-CA-N
2	P	203	GLY	OXT-C-CA-N
2	B	201	GLY	O-C-CA-N
2	E	201	GLY	O-C-CA-N
2	E	202	GLY	O-C-CA-N
2	I	201	GLY	O-C-CA-N
2	M	203	GLY	O-C-CA-N
2	J	204	GLY	OXT-C-CA-N
2	M	202	GLY	OXT-C-CA-N
4	J	211	MPD	O2-C2-C3-C4
2	M	201	GLY	O-C-CA-N
4	M	210	MPD	C2-C3-C4-C5
4	J	210	MPD	CM-C2-C3-C4
4	J	211	MPD	CM-C2-C3-C4
2	G	201	GLY	O-C-CA-N
4	F	203	MPD	C2-C3-C4-C5
4	N	209	MPD	C2-C3-C4-C5
2	B	203	GLY	O-C-CA-N
2	J	204	GLY	O-C-CA-N
2	M	202	GLY	O-C-CA-N

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
4	M	210	MPD	C2-C3-C4-O4
4	N	209	MPD	C2-C3-C4-O4

There are no ring outliers.

10 monomers are involved in 21 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	J	207	GLY	1	0
4	J	210	MPD	1	0
2	C	201	GLY	1	0
2	E	202	GLY	3	0
2	D	204	GLY	1	0
2	M	204	GLY	1	0
4	F	203	MPD	8	0
4	D	205	MPD	1	0
2	G	201	GLY	3	0
4	J	211	MPD	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 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	91/94 (96%)	-0.27	3 (3%) 46 43	24, 46, 92, 114	0
1	B	91/94 (96%)	0.22	8 (8%) 10 7	28, 47, 127, 183	0
1	C	91/94 (96%)	0.05	8 (8%) 10 7	25, 47, 125, 144	0
1	D	91/94 (96%)	-0.05	5 (5%) 25 22	27, 44, 107, 135	0
1	E	91/94 (96%)	-0.07	5 (5%) 25 22	25, 41, 116, 168	0
1	F	91/94 (96%)	0.04	5 (5%) 25 22	25, 42, 110, 131	0
1	G	91/94 (96%)	-0.27	2 (2%) 62 58	23, 42, 83, 119	0
1	H	91/94 (96%)	0.16	8 (8%) 10 7	25, 39, 127, 197	0
1	I	94/94 (100%)	-0.50	0 100 100	24, 41, 59, 80	0
1	J	91/94 (96%)	-0.48	1 (1%) 80 78	30, 42, 66, 72	0
1	K	91/94 (96%)	-0.46	0 100 100	30, 43, 58, 78	0
1	L	91/94 (96%)	-0.43	0 100 100	30, 42, 62, 79	0
1	M	94/94 (100%)	-0.57	0 100 100	25, 38, 54, 76	0
1	N	91/94 (96%)	-0.60	0 100 100	26, 39, 52, 56	0
1	O	91/94 (96%)	-0.48	0 100 100	28, 41, 58, 61	0
1	P	91/94 (96%)	-0.55	0 100 100	25, 37, 50, 60	0
All	All	1462/1504 (97%)	-0.27	45 (3%) 49 45	23, 41, 96, 197	0

All (45) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	109	ASN	12.6
1	H	109	ASN	10.8
1	E	25	GLN	8.5
1	G	112	PRO	7.9
1	C	112	PRO	7.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	F	23	GLU	6.4
1	B	106	ILE	6.1
1	F	112	PRO	5.5
1	E	112	PRO	5.4
1	H	100	ASN	5.1
1	A	112	PRO	4.9
1	C	25	GLN	4.8
1	H	108	SER	4.8
1	H	106	ILE	4.4
1	F	109	ASN	4.1
1	D	25	GLN	4.0
1	A	111	VAL	3.2
1	H	107	LEU	3.2
1	D	27	LEU	3.1
1	D	23	GLU	3.0
1	B	104	PRO	3.0
1	D	109	ASN	2.9
1	F	106	ILE	2.9
1	C	23	GLU	2.9
1	B	103	LEU	2.8
1	C	26	VAL	2.6
1	H	103	LEU	2.6
1	C	108	SER	2.6
1	B	112	PRO	2.6
1	E	23	GLU	2.6
1	B	111	VAL	2.6
1	C	111	VAL	2.5
1	C	24	PHE	2.4
1	E	111	VAL	2.3
1	G	111	VAL	2.3
1	A	25	GLN	2.2
1	E	27	LEU	2.2
1	H	111	VAL	2.2
1	H	110	VAL	2.1
1	B	95	HIS	2.1
1	F	25	GLN	2.1
1	D	112	PRO	2.1
1	B	108	SER	2.1
1	J	71	GLN	2.0
1	C	27	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, 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
2	GLY	I	201	5/5	0.65	0.25	66,69,75,79	0
2	GLY	J	207	5/5	0.72	0.26	55,63,69,70	0
2	GLY	N	207	5/5	0.73	0.21	55,58,65,77	0
4	MPD	D	205	8/8	0.73	0.39	50,58,60,62	0
2	GLY	M	202	5/5	0.74	0.28	62,63,64,71	0
2	GLY	O	202	5/5	0.76	0.26	47,48,54,56	0
2	GLY	H	203	5/5	0.76	0.27	57,61,68,69	0
2	GLY	H	204	5/5	0.77	0.23	72,79,83,84	0
2	GLY	J	208	5/5	0.78	0.21	54,55,57,61	0
2	GLY	G	202	5/5	0.78	0.23	55,62,63,71	0
2	GLY	M	206	5/5	0.78	0.26	70,70,72,74	0
2	GLY	L	202	5/5	0.79	0.24	49,52,55,55	0
2	GLY	J	203	5/5	0.79	0.20	58,64,66,72	0
2	GLY	P	201	5/5	0.80	0.28	65,67,72,78	0
2	GLY	J	209	5/5	0.82	0.22	63,64,73,81	0
2	GLY	P	202	5/5	0.82	0.18	42,47,49,54	0
2	GLY	I	202	5/5	0.82	0.21	51,53,58,58	0
2	GLY	D	203	5/5	0.83	0.24	47,47,50,52	0
2	GLY	J	201	5/5	0.84	0.17	49,53,55,60	0
2	GLY	B	201	5/5	0.86	0.23	51,57,61,61	0
2	GLY	M	201	5/5	0.86	0.14	59,61,69,71	0
2	GLY	F	202	5/5	0.86	0.24	58,62,70,71	0
2	GLY	M	204	5/5	0.86	0.16	35,37,42,47	0
2	GLY	D	201	5/5	0.86	0.17	60,62,65,66	0
4	MPD	G	203	8/8	0.86	0.22	62,70,73,76	0
2	GLY	A	201	5/5	0.87	0.22	61,68,71,71	0
2	GLY	J	204	5/5	0.88	0.20	48,52,54,56	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
2	GLY	O	201	5/5	0.88	0.19	51,59,62,65	0
2	GLY	K	203	5/5	0.88	0.16	64,68,70,72	0
2	GLY	O	204	5/5	0.88	0.18	53,53,56,61	0
2	GLY	L	201	5/5	0.88	0.18	55,60,64,66	0
2	GLY	J	205	5/5	0.88	0.12	65,66,71,72	0
2	GLY	N	203	5/5	0.88	0.15	42,48,52,55	0
2	GLY	N	206	5/5	0.88	0.15	49,50,64,69	0
2	GLY	E	204	5/5	0.89	0.16	28,30,33,34	0
2	GLY	N	202	5/5	0.89	0.17	58,58,60,64	0
2	GLY	D	204	5/5	0.89	0.14	47,49,51,55	0
2	GLY	M	205	5/5	0.90	0.14	49,52,57,59	0
2	GLY	B	203	5/5	0.90	0.17	68,72,74,76	0
2	GLY	O	203	5/5	0.90	0.23	67,67,71,72	0
2	GLY	N	208	5/5	0.90	0.26	58,63,65,66	0
2	GLY	J	206	5/5	0.91	0.16	52,62,68,69	0
2	GLY	J	202	5/5	0.91	0.12	48,59,64,66	0
2	GLY	D	202	5/5	0.91	0.13	48,49,55,61	0
2	GLY	F	201	5/5	0.91	0.20	44,53,58,61	0
2	GLY	E	203	5/5	0.91	0.18	54,54,58,58	0
4	MPD	M	210	8/8	0.91	0.20	42,51,61,76	0
2	GLY	N	201	5/5	0.92	0.17	57,58,59,60	0
2	GLY	I	203	5/5	0.92	0.14	53,56,59,61	0
3	K	A	205	1/1	0.92	0.10	21,21,21,21	0
2	GLY	H	201	5/5	0.93	0.12	47,54,60,65	0
3	K	I	206	1/1	0.93	0.16	24,24,24,24	0
2	GLY	G	201	5/5	0.93	0.12	48,49,55,60	0
4	MPD	F	203	8/8	0.93	0.18	61,65,66,69	0
2	GLY	A	202	5/5	0.93	0.14	48,53,61,70	0
2	GLY	K	201	5/5	0.93	0.17	44,50,55,56	0
4	MPD	N	209	8/8	0.93	0.18	50,57,65,67	0
2	GLY	K	202	5/5	0.94	0.20	61,62,65,67	0
2	GLY	B	202	5/5	0.94	0.14	46,48,53,55	0
2	GLY	N	204	5/5	0.94	0.18	52,52,61,67	0
2	GLY	N	205	5/5	0.94	0.15	37,41,46,48	0
2	GLY	E	201	5/5	0.95	0.12	37,39,44,45	0
2	GLY	P	203	5/5	0.95	0.12	52,56,59,60	0
2	GLY	M	203	5/5	0.95	0.13	60,63,67,69	0
4	MPD	J	210	8/8	0.95	0.18	41,49,52,55	0
2	GLY	C	201	5/5	0.95	0.14	28,38,43,48	0
3	K	M	209	1/1	0.95	0.15	15,15,15,15	0
2	GLY	E	202	5/5	0.96	0.16	49,54,57,67	0
4	MPD	J	211	8/8	0.96	0.12	43,50,51,52	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
2	GLY	H	202	5/5	0.97	0.13	40,43,45,57	0
3	K	E	206	1/1	0.98	0.08	22,22,22,22	0
3	K	E	207	1/1	0.98	0.09	20,20,20,20	0
3	K	I	204	1/1	0.98	0.08	30,30,30,30	0
3	K	A	204	1/1	0.98	0.05	23,23,23,23	0
3	K	A	203	1/1	0.98	0.11	34,34,34,34	0
3	K	E	205	1/1	0.98	0.09	24,24,24,24	0
3	K	I	205	1/1	0.99	0.13	27,27,27,27	0
3	K	M	207	1/1	0.99	0.06	21,21,21,21	0
3	K	M	208	1/1	1.00	0.13	21,21,21,21	0

6.5 Other polymers [i](#)

There are no such residues in this entry.