

# wwPDB X-ray Structure Validation Summary Report (i)

#### Sep 2, 2021 – 02:04 PM EDT

PDB ID	:	7MPV
Title	:	CmcC from Type II Cut MCP
Authors	:	Ochoa, J.M.; Mijares, O.; Sawaya, M.R.; Yeates, T.O.
Deposited on		
Resolution	:	2.29  Å(reported)

This is a wwPDB X-ray Structure Validation Summary 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 following versions of software and data (see references (1)) were used in the production of this report:

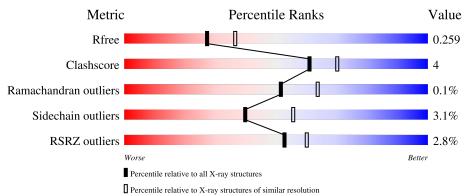
MolProbity		
Xtriage (Phenix)	:	1.13
$\mathrm{EDS}$	:	2.23.1
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber $(2001)$
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.23.1

# 1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:  $X\text{-}RAY \, DIFFRACTION$ 

The reported resolution of this entry is 2.29 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	$egin{array}{c} { m Whole \ archive} \ (\#{ m Entries}) \end{array}$	${f Similar\ resolution}\ (\#{ m Entries,\ resolution\ range}({ m \AA}))$
$R_{free}$	130704	5042 (2.30-2.30)
Clashscore	141614	5643 (2.30-2.30)
Ramachandran outliers	138981	5575 (2.30-2.30)
Sidechain outliers	138945	5575 (2.30-2.30)
RSRZ outliers	127900	4938 (2.30-2.30)

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	А	99	80%		6%	14%
1	В	99	2% <b>7</b> 9%		10%	11%
1	С	99	2% 68%	13%		19%
1	D	99	79%		10%	11%
1	Е	99	6% 75%		15%	10%



Mol	Chain	Length	Quality of chain		
1	F	99	86%		6% 8%
1	G	99	4% 80%		13% 7%
1	Н	99	2% 71%	13%	• 15%
1	Ι	99	4%	11%	18%
1	J	99	5%	8%	• 15%
1	К	99	2% 74%	11%	15%
1	L	99	<sup>2%</sup> 74%	11%	• 14%



# 2 Entry composition (i)

There are 2 unique types of molecules in this entry. The entry contains 7399 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.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
1	А	85	Total	С	Ν	Ο	S	0	0	0
1	Л	85	590	364	106	116	4	0	0	0
1	В	88	Total	С	Ν	Ο	S	0	0	0
1	D	00	623	385	111	122	5	0	0	0
1	С	80	Total	С	Ν	Ο	$\mathbf{S}$	0	0	0
T	U	00	551	340	99	108	4	0	0	0
1	D	88	Total	С	Ν	Ο	$\mathbf{S}$	0	0	0
		00	619	380	110	125	4	0	0	0
1	Е	89	Total	С	Ν	Ο	$\mathbf{S}$	0	0	0
		05	624	383	111	125	5	0		0
1	F	91	Total	С	Ν	Ο	$\mathbf{S}$	0	0	0
1	Ľ	51	656	402	123	126	5		0	
1	G	92	Total	С	Ν	Ο	$\mathbf{S}$	0	0	0
1	u	52	667	410	125	127	5	0	0	
1	Н	84	Total	С	Ν	Ο	S	0	0	0
1	11	04	591	364	104	119	4	0	0	0
1	Ι	81	Total	С	Ν	Ο	$\mathbf{S}$	0	0	0
1	T	01	571	349	104	114	4	0	0	0
1	J	84	Total	С	Ν	Ο	S	0	0	0
	J	04	579	358	102	115	4	0	0	0
1	K	84	Total	С	Ν	0	S	0	0	0
		04	594	365	107	118	4	0		0
1	L	85	Total	С	Ν	0	S	0	0	0
		00	602	371	109	118	4	0	0	0

• Molecule 1 is a protein called BMC domain-containing protein.

There are 96 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
А	-6	MET	-	initiating methionine	UNP Q8G9V7
А	-5	HIS	-	expression tag	UNP Q8G9V7
А	-4	HIS	-	expression tag	UNP Q8G9V7
А	-3	HIS	-	expression tag	UNP Q8G9V7
А	-2	HIS	-	expression tag	UNP Q8G9V7



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Chain	Residue	Modelled	Actual	Comment	Reference
А	-1	HIS	-	expression tag	UNP Q8G9V7
А	0	HIS	-	expression tag	UNP Q8G9V7
А	25	ALA	LYS	engineered mutation	UNP Q8G9V7
В	-6	MET	-	initiating methionine	UNP Q8G9V7
В	-5	HIS	-	expression tag	UNP Q8G9V7
В	-4	HIS	-	expression tag	UNP Q8G9V7
В	-3	HIS	_	expression tag	UNP Q8G9V7
В	-2	HIS	-	expression tag	UNP Q8G9V7
В	-1	HIS	-	expression tag	UNP Q8G9V7
В	0	HIS	-	expression tag	UNP Q8G9V7
В	25	ALA	LYS	engineered mutation	UNP Q8G9V7
С	-6	MET	-	initiating methionine	UNP Q8G9V7
С	-5	HIS	-	expression tag	UNP Q8G9V7
С	-4	HIS	-	expression tag	UNP Q8G9V7
С	-3	HIS	-	expression tag	UNP Q8G9V7
С	-2	HIS	-	expression tag	UNP Q8G9V7
С	-1	HIS	-	expression tag	UNP Q8G9V7
С	0	HIS	-	expression tag	UNP Q8G9V7
С	25	ALA	LYS	engineered mutation	UNP Q8G9V7
D	-6	MET	-	initiating methionine	UNP Q8G9V7
D	-5	HIS	-	expression tag	UNP Q8G9V7
D	-4	HIS	-	expression tag	UNP Q8G9V7
D	-3	HIS	-	expression tag	UNP Q8G9V7
D	-2	HIS	-	expression tag	UNP Q8G9V7
D	-1	HIS	-	expression tag	UNP Q8G9V7
D	0	HIS	-	expression tag	UNP Q8G9V7
D	25	ALA	LYS	engineered mutation	UNP Q8G9V7
Е	-6	MET	-	initiating methionine	UNP Q8G9V7
Е	-5	HIS	-	expression tag	UNP Q8G9V7
Е	-4	HIS	-	expression tag	UNP Q8G9V7
Е	-3	HIS	-	expression tag	UNP Q8G9V7
Е	-2	HIS	-	expression tag	UNP Q8G9V7
Е	-1	HIS	-	expression tag	UNP Q8G9V7
Е	0	HIS	-	expression tag	UNP Q8G9V7
Е	25	ALA	LYS	engineered mutation	UNP Q8G9V7
F	-6	MET	-	initiating methionine	UNP Q8G9V7
F	-5	HIS	-	expression tag	UNP Q8G9V7
F	-4	HIS	-	expression tag	UNP Q8G9V7
F	-3	HIS	-	expression tag	UNP Q8G9V7
F	-2	HIS	-	expression tag	UNP Q8G9V7
F	-1	HIS	-	expression tag	UNP Q8G9V7
F	0	HIS	-	expression tag	UNP Q8G9V7



Continu Chain	Residue	Modelled	Actual	Comment	Reference
F	25	ALA	LYS	engineered mutation	UNP Q8G9V7
G	-6	MET	_	initiating methionine	UNP Q8G9V7
G	-5	HIS	_	expression tag	UNP Q8G9V7
G	-4	HIS	-	expression tag	UNP Q8G9V7
G	-3	HIS	-	expression tag	UNP Q8G9V7
G	-2	HIS	-	expression tag	UNP Q8G9V7
G	-1	HIS	-	expression tag	UNP Q8G9V7
G	0	HIS	_	expression tag	UNP Q8G9V7
G	25	ALA	LYS	engineered mutation	UNP Q8G9V7
Н	-6	MET	-	initiating methionine	UNP Q8G9V7
Н	-5	HIS	-	expression tag	UNP Q8G9V7
Н	-4	HIS	-	expression tag	UNP Q8G9V7
Н	-3	HIS	-	expression tag	UNP Q8G9V7
Н	-2	HIS	-	expression tag	UNP Q8G9V7
Н	-1	HIS	-	expression tag	UNP Q8G9V7
Н	0	HIS	-	expression tag	UNP Q8G9V7
Н	25	ALA	LYS	engineered mutation	UNP Q8G9V7
Ι	-6	MET	-	initiating methionine	UNP Q8G9V7
Ι	-5	HIS	-	expression tag	UNP Q8G9V7
Ι	-4	HIS	-	expression tag	UNP Q8G9V7
Ι	-3	HIS	-	expression tag	UNP Q8G9V7
Ι	-2	HIS	-	expression tag	UNP Q8G9V7
Ι	-1	HIS	-	expression tag	UNP Q8G9V7
Ι	0	HIS	_	expression tag	UNP Q8G9V7
Ι	25	ALA	LYS	engineered mutation	UNP Q8G9V7
J	-6	MET	-	initiating methionine	UNP Q8G9V7
J	-5	HIS	-	expression tag	UNP Q8G9V7
J	-4	HIS	-	expression tag	UNP Q8G9V7
J	-3	HIS	-	expression tag	UNP Q8G9V7
J	-2	HIS	-	expression tag	UNP Q8G9V7
J	-1	HIS	-	expression tag	UNP Q8G9V7
J	0	HIS	-	expression tag	UNP Q8G9V7
J	25	ALA	LYS	engineered mutation	UNP Q8G9V7
K	-6	MET	-	initiating methionine	UNP Q8G9V7
K	-5	HIS	-	expression tag	UNP Q8G9V7
K	-4	HIS	-	expression tag	UNP Q8G9V7
K	-3	HIS	-	expression tag	UNP Q8G9V7
K	-2	HIS	-	expression tag	UNP Q8G9V7
K	-1	HIS	-	expression tag	UNP Q8G9V7
K	0	HIS	-	expression tag	UNP Q8G9V7
K	25	ALA	LYS	engineered mutation	UNP Q8G9V7
L	-6	MET	_	initiating methionine	UNP Q8G9V7



Chain	Residue	Modelled	Actual	Comment	Reference
L	-5	HIS	-	expression tag	UNP Q8G9V7
L	-4	HIS	-	expression tag	UNP Q8G9V7
L	-3	HIS	-	expression tag	UNP Q8G9V7
L	-2	HIS	-	expression tag	UNP Q8G9V7
L	-1	HIS	-	expression tag	UNP Q8G9V7
L	0	HIS	-	expression tag	UNP Q8G9V7
L	25	ALA	LYS	engineered mutation	UNP Q8G9V7

• Molecule 2 is water.

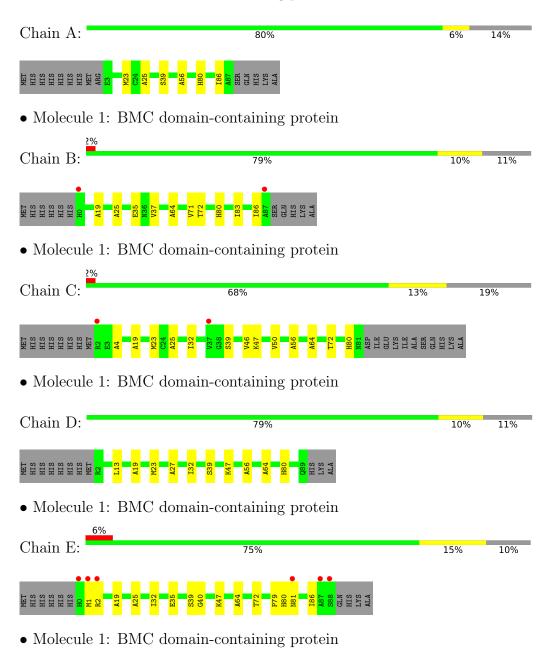
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
2	А	10	Total         O           10         10	0	0
2	В	9	Total O 9 9	0	0
2	С	5	Total O 5 5	0	0
2	D	16	Total         O           16         16	0	0
2	Е	14	Total         O           14         14	0	0
2	F	37	Total         O           37         37	0	0
2	G	10	Total         O           10         10	0	0
2	Н	12	Total         O           12         12	0	0
2	Ι	6	Total O 6 6	0	0
2	J	1	Total O 1 1	0	0
2	K	7	Total O 7 7	0	0
2	L	5	Total O 5 5	0	0

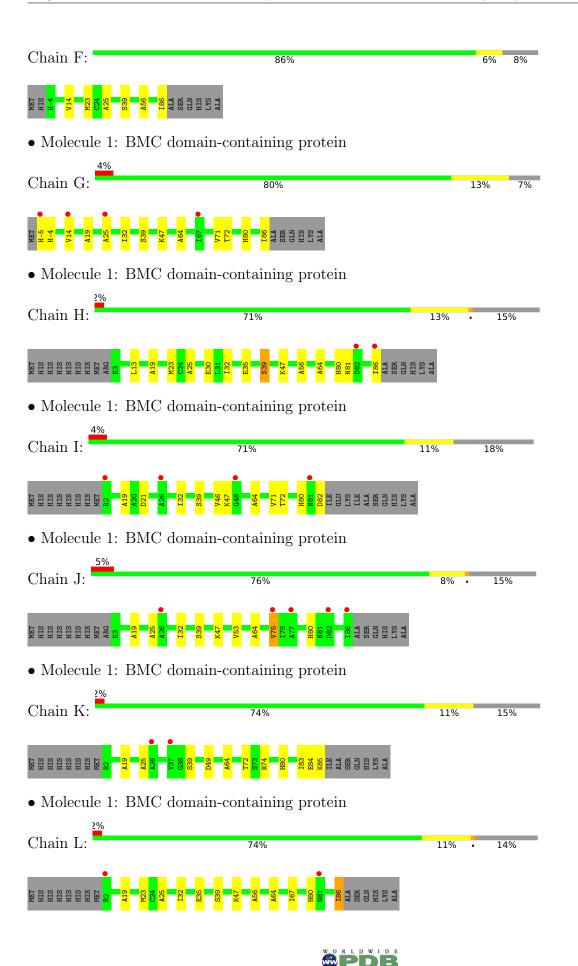


## 3 Residue-property plots (i)

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: BMC domain-containing protein





## 4 Data and refinement statistics (i)

Property	Value	Source	
Space group	P 1	Depositor	
Cell constants	50.60Å 56.29Å 92.03Å	Depositor	
a, b, c, $\alpha$ , $\beta$ , $\gamma$	$96.31^{\circ}$ $90.08^{\circ}$ $98.55^{\circ}$	Depositor	
Resolution (Å)	91.46 - 2.29	Depositor	
Resolution (A)	91.46 - 2.29	EDS	
% Data completeness	93.2 (91.46-2.29)	Depositor	
(in resolution range)	93.3 (91.46-2.29)	EDS	
R <sub>merge</sub>	0.08	Depositor	
$R_{sym}$	(Not available)	Depositor	
$< I/\sigma(I) > 1$	$1.46 (at 2.29 \text{\AA})$	Xtriage	
Refinement program	BUSTER	Depositor	
D D.	0.233 , $0.269$	Depositor	
$R, R_{free}$	0.225 , $0.259$	DCC	
$R_{free}$ test set	4179 reflections $(10.00%)$	wwPDB-VP	
Wilson B-factor $(Å^2)$	43.1	Xtriage	
Anisotropy	0.177	Xtriage	
Bulk solvent $k_{sol}(e/Å^3), B_{sol}(Å^2)$	0.32 , $47.5$	EDS	
L-test for twinning <sup>2</sup>	$ < L >=0.52, < L^2>=0.35$	Xtriage	
Estimated twinning fraction	No twinning to report.	Xtriage	
$F_o, F_c$ correlation	0.95	EDS	
Total number of atoms	7399	wwPDB-VP	
Average B, all atoms $(Å^2)$	70.0	wwPDB-VP	

Xtriage's analysis on translational NCS is as follows: The largest off-origin peak in the Patterson function is 17.08% of the height of the origin peak. No significant pseudotranslation is detected.

<sup>&</sup>lt;sup>2</sup>Theoretical 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.



<sup>&</sup>lt;sup>1</sup>Intensities estimated from amplitudes.

# 5 Model quality (i)

### 5.1 Standard geometry (i)

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
	Ullaili	RMSZ	# Z  > 5	RMSZ	# Z  > 5
1	А	0.27	0/592	0.48	0/802
1	В	0.27	0/626	0.49	0/847
1	С	0.28	0/553	0.48	0/750
1	D	0.29	0/621	0.48	0/841
1	Е	0.30	0/627	0.49	0/850
1	F	0.32	0/663	0.49	0/899
1	G	0.27	0/675	0.47	0/914
1	Н	0.27	0/593	0.48	0/804
1	Ι	0.26	0/573	0.46	0/776
1	J	0.26	0/581	0.46	0/788
1	Κ	0.24	0/596	0.46	0/806
1	L	0.25	0/604	0.47	0/817
All	All	0.27	0/7304	0.48	0/9894

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

### 5.2 Too-close contacts (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	А	590	0	599	5	0
1	В	623	0	634	8	0
1	С	551	0	558	8	0
1	D	619	0	627	6	0



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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	Е	624	0	627	10	0
1	F	656	0	647	4	0
1	G	667	0	663	11	0
1	Н	591	0	598	11	0
1	Ι	571	0	579	7	0
1	J	579	0	583	5	0
1	Κ	594	0	605	7	0
1	L	602	0	618	8	0
2	А	10	0	0	0	0
2	В	9	0	0	0	0
2	С	5	0	0	1	0
2	D	16	0	0	0	0
2	Ε	14	0	0	1	0
2	F	37	0	0	0	0
2	G	10	0	0	0	0
2	Н	12	0	0	0	0
2	Ι	6	0	0	0	0
2	J	1	0	0	0	0
2	Κ	7	0	0	0	0
2	L	5	0	0	1	0
All	All	7399	0	7338	65	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.

The worst 5 of 65 close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	tom-1 Atom-2 Interato distance		Clash overlap (Å)
1:G:25:ALA:HB2	1:I:80:HIS:CE1	2.23	0.73
1:K:80:HIS:NE2	1:L:25:ALA:HB2	2.03	0.72
1:C:4:ALA:HB2	1:C:50:VAL:HG22	1.71	0.71
1:E:80:HIS:NE2	1:F:25:ALA:HB2	2.07	0.69
1:B:80:HIS:CE1	1:E:25:ALA:HB2	2.28	0.69

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	Perce	ntiles
1	А	83/99~(84%)	82 (99%)	1 (1%)	0	100	100
1	В	86/99~(87%)	85~(99%)	1 (1%)	0	100	100
1	С	78/99~(79%)	77~(99%)	1 (1%)	0	100	100
1	D	86/99~(87%)	85~(99%)	1 (1%)	0	100	100
1	Е	87/99~(88%)	86 (99%)	1 (1%)	0	100	100
1	F	89/99~(90%)	88~(99%)	1 (1%)	0	100	100
1	G	90/99~(91%)	89~(99%)	1 (1%)	0	100	100
1	Н	82/99~(83%)	81 (99%)	1 (1%)	0	100	100
1	Ι	79/99~(80%)	78~(99%)	1 (1%)	0	100	100
1	J	82/99~(83%)	81 (99%)	1 (1%)	0	100	100
1	Κ	82/99~(83%)	80 (98%)	1 (1%)	1 (1%)	13	14
1	L	83/99~(84%)	82 (99%)	1 (1%)	0	100	100
All	All	1007/1188~(85%)	994 (99%)	12~(1%)	1 (0%)	51	64

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	Κ	83	ILE

#### 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	Analysed Rotameric Outliers		Percentiles
1	А	57/73~(78%)	55~(96%)	2(4%)	36 50
1	В	61/73~(84%)	60~(98%)	1 (2%)	62 78
1	С	53/73~(73%)	51 (96%)	2(4%)	33 47
1	D	62/73~(85%)	61 (98%)	1 (2%)	62 78
1	Ε	62/73~(85%)	59~(95%)	3~(5%)	25 36
1	F	65/73~(89%)	64 (98%)	1 (2%)	65 79
1	G	67/73~(92%)	66~(98%)	1 (2%)	65 79
1	Н	59/73~(81%)	57~(97%)	2(3%)	37 51
1	Ι	57/73~(78%)	54 (95%)	3~(5%)	22 31
1	J	56/73~(77%)	54 (96%)	2(4%)	35 49
1	Κ	59/73~(81%)	57 (97%)	2(3%)	37 51
1	L	60/73~(82%)	58~(97%)	2(3%)	38 53
All	All	718/876~(82%)	696~(97%)	22 (3%)	40 55

5 of 22 residues with a non-rotameric side chain are listed below:

Mol	Chain	$\mathbf{Res}$	Type
1	Ι	46	VAL
1	J	75	VAL
1	J	39	SER
1	Κ	39	SER
1	Е	2	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (1) such sidechains are listed below:

Mol	Chain	Res	Type
1	С	36	ASN

#### 5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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



#### 5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

### 5.6 Ligand geometry (i)

There are no ligands in this entry.

#### 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,  $95^{th}$  percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	$\langle RSRZ \rangle$	#RSRZ>2	$OWAB(Å^2)$	Q<0.9
1	А	85/99~(85%)	0.24	0 100 100	51, 65, 87, 94	0
1	В	88/99~(88%)	0.18	2 (2%) 60 67	55, 72, 82, 93	0
1	С	80/99~(80%)	0.33	2 (2%) 57 64	51, 65, 79, 82	0
1	D	88/99~(88%)	0.21	0 100 100	44, 57, 73, 84	0
1	Е	89/99~(89%)	0.38	6 (6%) 17 23	47, 62, 89, 94	0
1	F	91/99~(91%)	0.10	0 100 100	35, 51, 66, 69	0
1	G	92/99~(92%)	0.34	4 (4%) 35 42	53, 69, 85, 89	0
1	Н	84/99~(84%)	0.14	2 (2%) 59 66	52, 63, 88, 96	0
1	Ι	81/99~(81%)	0.47	4 (4%) 29 36	66, 81, 97, 104	0
1	J	84/99~(84%)	0.73	5 (5%) 21 28	66, 92, 107, 109	0
1	K	84/99~(84%)	0.39	2 (2%) 59 66	61, 81, 97, 104	0
1	L	85/99~(85%)	0.29	2 (2%) 59 66	62, 79, 95, 98	0
All	All	1031/1188 (86%)	0.31	29 (2%) 53 60	35, 68, 96, 109	0

The worst 5 of 29 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	Ε	1	MET	4.7
1	Е	88	SER	4.1
1	Κ	26	ALA	4.1
1	G	-5	HIS	3.5
1	В	87	ALA	3.4

### 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)

There are no ligands in this entry.

### 6.5 Other polymers (i)

There are no such residues in this entry.

