



# Full wwPDB X-ray Structure Validation Report ⓘ

May 14, 2020 – 12:26 pm BST

PDB ID : 6V36  
Title : K2P2.1(TREK-1)I110D apo channel structure  
Authors : Pope, L.; Lolicato, M.; Minor, D.L.  
Deposited on : 2019-11-25  
Resolution : 3.40 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](mailto:validation@mail.wwpdb.org)

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

---

The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

MolProbity : 4.02b-467  
Mogul : 1.8.5 (274361), CSD as541be (2020)  
Xtriage (Phenix) : 1.13  
EDS : 2.11  
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) : 2.11

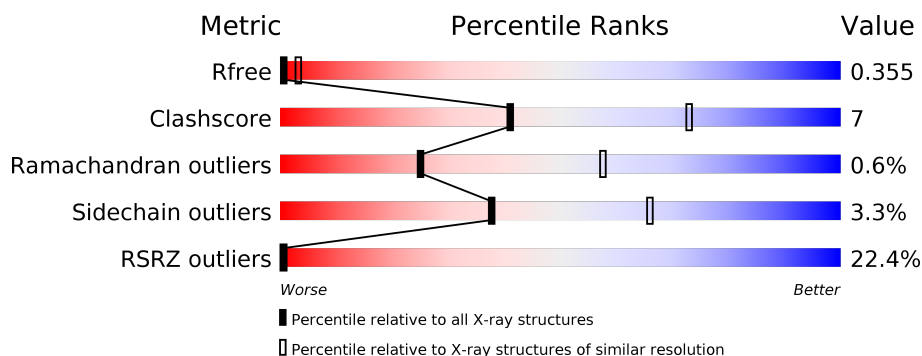
# 1 Overall quality at a glance ⓘ

The following experimental techniques were used to determine the structure:

## *X-RAY DIFFRACTION*

The reported resolution of this entry is 3.40 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	1026 (3.48-3.32)
Clashscore	141614	1055 (3.48-3.32)
Ramachandran outliers	138981	1038 (3.48-3.32)
Sidechain outliers	138945	1038 (3.48-3.32)
RSRZ outliers	127900	2173 (3.50-3.30)

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 on the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 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	312	<div> <div>18%</div> <div>63%</div> <div>17%</div> <div>•</div> <div>18%</div> </div>
1	B	312	<div> <div>19%</div> <div>68%</div> <div>14%</div> <div>•</div> <div>16%</div> </div>

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	CD	A	401	-	-	-	X
2	CD	B	402	-	-	-	X
4	UND	B	404	-	-	-	X
5	K	A	405	-	-	-	X
5	K	B	405	-	-	-	X

## 2 Entry composition [i](#)

There are 6 unique types of molecules in this entry. The entry contains 4100 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.

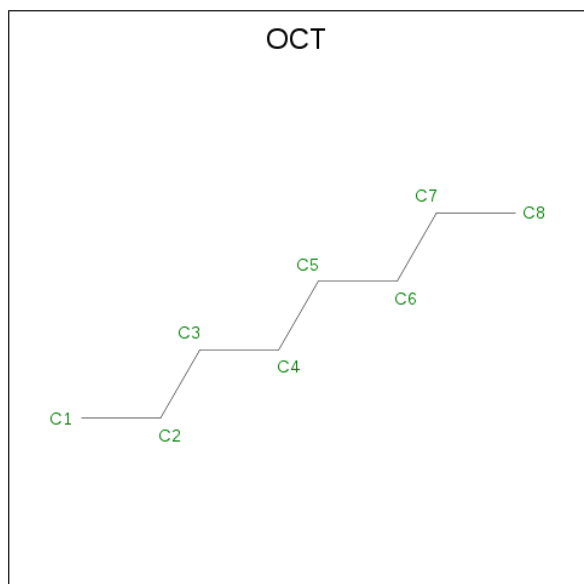
- Molecule 1 is a protein called Potassium channel subfamily K member 2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	255	Total	C	N	O	S	0	0	0
			1998	1336	316	342	4			
1	B	262	Total	C	N	O	S	0	1	0
			2044	1364	324	351	5			

- Molecule 2 is CADMIUM ION (three-letter code: CD) (formula: Cd).

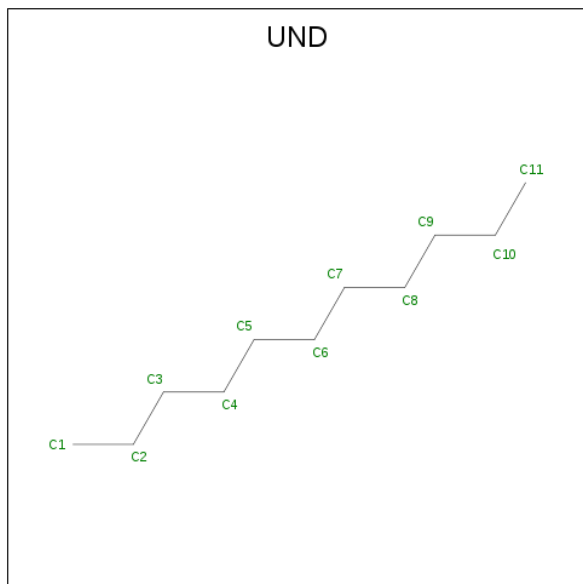
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	B	2	Total	Cd	0	0
			2	2		
2	A	1	Total	Cd	0	0
			1	1		

- Molecule 3 is N-OCTANE (three-letter code: OCT) (formula: C<sub>8</sub>H<sub>18</sub>).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	A	1	Total C 8 8	0	0
3	A	1	Total C 8 8	0	0
3	B	1	Total C 8 8	0	0

- Molecule 4 is UNDECANE (three-letter code: UND) (formula:  $C_{11}H_{24}$ ).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	A	1	Total C 11 11	0	0
4	B	1	Total C 11 11	0	0

- Molecule 5 is POTASSIUM ION (three-letter code: K) (formula: K).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	B	1	Total K 1 1	0	0
5	A	5	Total K 5 5	0	0

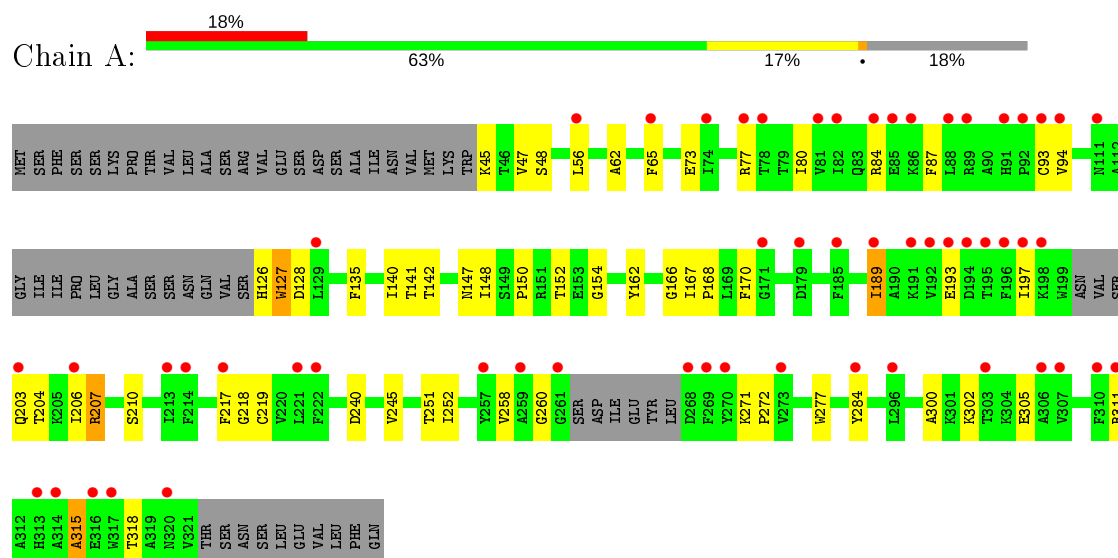
- Molecule 6 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
6	A	1	Total 1	O 1	0	0
6	B	2	Total 2	O 2	0	0

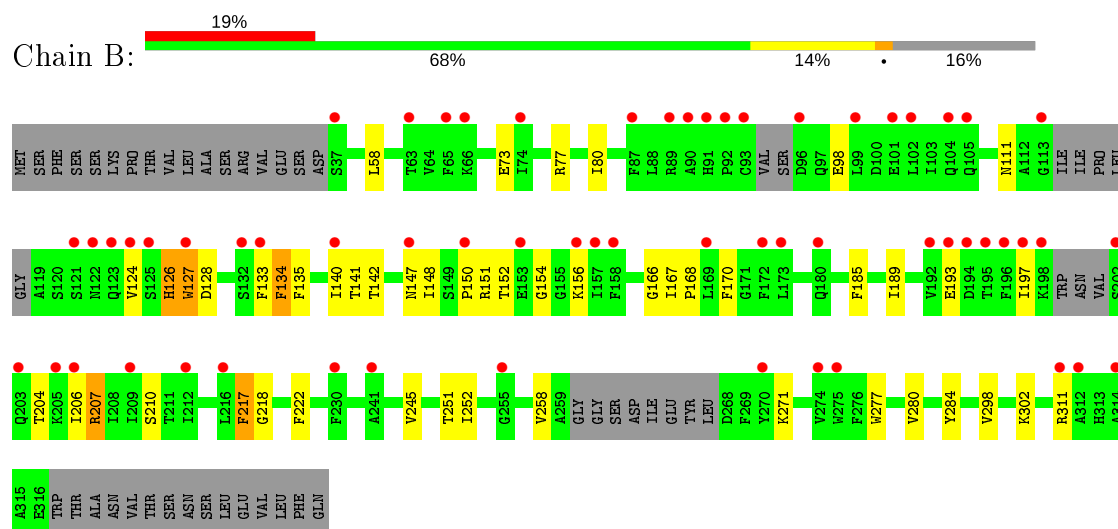
### 3 Residue-property plots [i](#)

These plots are drawn for all protein, RNA and DNA 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 subfamily K member 2



- Molecule 1: Potassium channel subfamily K member 2



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	68.19Å 120.40Å 128.35Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	14.98 – 3.40 46.74 – 3.40	Depositor EDS
% Data completeness (in resolution range)	96.9 (14.98-3.40) 99.8 (46.74-3.40)	Depositor EDS
$R_{merge}$	(Not available)	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.10 (at 3.40Å)	Xtriage
Refinement program	PHENIX 1.17.1 _3660	Depositor
R, $R_{free}$	0.286 , 0.318 0.320 , 0.355	Depositor DCC
$R_{free}$ test set	742 reflections (4.91%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	184.9	Xtriage
Anisotropy	0.235	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.28 , 180.2	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.45$ , $\langle L^2 \rangle = 0.28$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
$F_o, F_c$ correlation	0.86	EDS
Total number of atoms	4100	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	218.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 4.42% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

<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.



## 5 Model quality

### 5.1 Standard geometry

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

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	0.30	0/2046	0.55	1/2779 (0.0%)
1	B	0.29	0/2093	0.62	2/2838 (0.1%)
All	All	0.30	0/4139	0.59	3/5617 (0.1%)

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	A	0	1
1	B	0	1
All	All	0	2

There are no bond length outliers.

All (3) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	207	ARG	NE-CZ-NH1	12.52	126.56	120.30
1	B	207	ARG	NE-CZ-NH2	-10.99	114.81	120.30
1	A	207	ARG	NE-CZ-NH1	-5.44	117.58	120.30

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	315	ALA	Peptide
1	B	98	GLU	Peptide

## 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	1998	0	2046	36	0
1	B	2044	0	2097	33	0
2	A	1	0	0	0	0
2	B	2	0	0	0	0
3	A	16	0	36	0	0
3	B	8	0	18	0	0
4	A	11	0	24	1	0
4	B	11	0	24	0	0
5	A	5	0	0	0	0
5	B	1	0	0	0	0
6	A	1	0	0	0	0
6	B	2	0	0	0	0
All	All	4100	0	4245	59	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 7.

All (59) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:258:VAL:HG12	1:A:260:GLY:H	1.45	0.81
1:B:111:ASN:OD1	1:B:151:ARG:NH2	2.13	0.81
1:A:189:ILE:HD11	1:A:210:SER:HB2	1.63	0.79
1:B:197:ILE:HD13	1:B:206:ILE:HD12	1.70	0.73
1:A:126:HIS:O	1:A:128:ASP:N	2.24	0.70
1:A:240:ASP:OD1	1:B:156:LYS:NZ	2.25	0.69
1:B:189:ILE:HD11	1:B:210:SER:HB2	1.74	0.68
1:B:207:ARG:O	1:B:210:SER:OG	2.13	0.67
1:A:142:THR:HA	1:B:252:ILE:HG12	1.81	0.62
1:A:93:CYS:SG	1:A:94:VAL:N	2.72	0.62
1:B:126:HIS:O	1:B:128:ASP:N	2.33	0.61
1:A:207:ARG:O	1:A:210:SER:OG	2.13	0.61
1:A:73:GLU:OE2	1:A:77:ARG:NH2	2.35	0.60
1:A:252:ILE:HG12	1:B:142:THR:HA	1.83	0.59
1:A:127:TRP:HB2	1:B:73:GLU:OE1	2.05	0.57

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:111:ASN:O	1:B:151:ARG:NH2	2.36	0.56
1:A:193:GLU:O	1:A:197:ILE:HG12	2.07	0.54
1:A:167:ILE:HD11	1:B:252:ILE:HD11	1.88	0.54
1:B:73:GLU:OE2	1:B:77:ARG:NH2	2.41	0.53
1:A:45:LYS:HD2	1:A:48:SER:HB3	1.91	0.53
1:A:315:ALA:HA	1:A:318:THR:H	1.73	0.52
1:B:147:ASN:ND2	1:B:258:VAL:HG11	2.25	0.52
1:A:65:PHE:HB3	1:B:127:TRP:CZ3	2.45	0.52
1:B:152:THR:HG22	1:B:154:GLY:H	1.75	0.51
1:A:147:ASN:ND2	1:A:258:VAL:HG11	2.25	0.51
1:B:218:GLY:HA3	1:B:284:TYR:CE1	2.46	0.51
1:B:185:PHE:CZ	1:B:189:ILE:HD13	2.45	0.50
1:A:152:THR:HG22	1:A:154:GLY:H	1.76	0.50
1:B:193:GLU:O	1:B:197:ILE:HG12	2.12	0.50
1:A:87:PHE:CE2	1:A:94:VAL:HG11	2.47	0.48
1:A:218:GLY:HA3	1:A:284:TYR:CE1	2.48	0.48
1:B:135:PHE:CZ	1:B:150:PRO:HD3	2.49	0.48
1:A:162:TYR:OH	1:B:58:LEU:HA	2.14	0.47
1:B:147:ASN:OD1	1:B:148:ILE:N	2.47	0.47
1:A:141:THR:HG22	1:A:170:PHE:CZ	2.49	0.47
1:A:147:ASN:OD1	1:A:148:ILE:N	2.48	0.47
1:B:141:THR:HG22	1:B:170:PHE:CZ	2.49	0.47
1:A:135:PHE:CZ	1:A:150:PRO:HD3	2.49	0.47
1:A:271:LYS:HG2	1:A:272:PRO:HD3	1.97	0.45
1:B:245:VAL:HG13	1:B:277:TRP:HZ2	1.81	0.45
1:A:203:GLN:HA	1:A:206:ILE:HG13	1.98	0.45
1:A:245:VAL:HG13	1:A:277:TRP:HZ2	1.81	0.45
1:A:45:LYS:C	1:A:47:VAL:H	2.21	0.44
1:B:134[B]:PHE:CD1	1:B:271:LYS:HE2	2.53	0.44
1:B:140:ILE:HG22	1:B:166:GLY:HA3	2.00	0.44
1:B:133:PHE:HD2	1:B:271:LYS:NZ	2.16	0.44
1:A:271:LYS:CG	1:A:272:PRO:HD3	2.48	0.43
1:A:140:ILE:HG22	1:A:166:GLY:HA3	2.00	0.43
1:A:167:ILE:HB	1:A:168:PRO:HD3	2.01	0.43
1:A:62:ALA:HB2	1:B:133:PHE:HA	2.01	0.43
1:A:77:ARG:NH1	1:B:124:VAL:O	2.52	0.43
1:B:298:VAL:O	1:B:302:LYS:HG2	2.19	0.43
1:A:300:ALA:HB1	4:A:404:UND:H112	2.00	0.43
1:A:302:LYS:O	1:A:305:GLU:HG2	2.20	0.42
1:B:167:ILE:HB	1:B:168:PRO:HD3	2.00	0.42
1:A:311:ARG:HD3	1:A:311:ARG:HA	1.85	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:140:ILE:HD13	1:B:58:LEU:HD21	2.03	0.41
1:B:222:PHE:CE1	1:B:280:VAL:HG12	2.56	0.41
1:B:217:PHE:HA	1:B:217:PHE:HD1	1.74	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	247/312 (79%)	234 (95%)	12 (5%)	1 (0%)	34	67
1	B	253/312 (81%)	240 (95%)	11 (4%)	2 (1%)	19	51
All	All	500/624 (80%)	474 (95%)	23 (5%)	3 (1%)	25	57

All (3) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	127	TRP
1	B	127	TRP
1	B	126	HIS

### 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.

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	208/260 (80%)	200 (96%)	8 (4%)	33	61
1	B	214/260 (82%)	207 (97%)	7 (3%)	38	66
All	All	422/520 (81%)	407 (96%)	15 (4%)	38	63

All (15) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	56	LEU
1	A	80	ILE
1	A	84	ARG
1	A	189	ILE
1	A	204	THR
1	A	217	PHE
1	A	219	CYS
1	A	251	THR
1	B	80	ILE
1	B	134[A]	PHE
1	B	134[B]	PHE
1	B	204	THR
1	B	217	PHE
1	B	251	THR
1	B	311	ARG

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

### 5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

## 5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

## 5.6 Ligand geometry

Of 14 ligands modelled in this entry, 9 are monoatomic - leaving 5 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	OCT	A	403	-	7,7,7	0.31	0	6,6,6	0.73	0
3	OCT	B	403	-	7,7,7	0.32	0	6,6,6	0.73	0
3	OCT	A	402	-	7,7,7	0.33	0	6,6,6	0.69	0
4	UND	A	404	-	10,10,10	0.32	0	9,9,9	0.79	0
4	UND	B	404	-	10,10,10	0.31	0	9,9,9	0.82	0

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	OCT	A	403	-	-	2/5/5/5	-
3	OCT	B	403	-	-	2/5/5/5	-
3	OCT	A	402	-	-	3/5/5/5	-
4	UND	A	404	-	-	1/8/8/8	-
4	UND	B	404	-	-	0/8/8/8	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (8) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	A	403	OCT	C3-C4-C5-C6
3	B	403	OCT	C2-C3-C4-C5
3	B	403	OCT	C1-C2-C3-C4
3	A	403	OCT	C2-C3-C4-C5
3	A	402	OCT	C5-C6-C7-C8

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms
4	A	404	UND	C4-C5-C6-C7
3	A	402	OCT	C4-C5-C6-C7
3	A	402	OCT	C3-C4-C5-C6

There are no ring outliers.

1 monomer is involved in 1 short contact:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	A	404	UND	1	0

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

## 6 Fit of model and data

### 6.1 Protein, DNA and RNA chains

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
1	A	255/312 (81%)	1.42	56 (21%) <span>0</span> <span>1</span>	145, 215, 289, 327	0
1	B	262/312 (83%)	1.23	60 (22%) <span>0</span> <span>1</span>	148, 213, 287, 309	0
All	All	517/624 (82%)	1.32	116 (22%) <span>0</span> <span>1</span>	145, 214, 289, 327	0

All (116) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	270	TYR	13.3
1	B	196	PHE	13.0
1	A	203	GLN	12.8
1	A	94	VAL	9.8
1	A	269	PHE	9.4
1	A	92	PRO	8.2
1	B	312	ALA	7.6
1	A	82	ILE	7.2
1	A	314	ALA	6.9
1	B	202	SER	6.7
1	A	310	PHE	6.5
1	A	88	LEU	6.3
1	A	81	VAL	6.1
1	B	66	LYS	6.0
1	A	317	TRP	6.0
1	A	196	PHE	6.0
1	B	105	GLN	5.9
1	B	87	PHE	5.9
1	B	203	GLN	5.8
1	B	270	TYR	5.7
1	B	102	LEU	5.7
1	B	192	VAL	5.5
1	A	192	VAL	5.5
1	B	91	HIS	5.5

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
1	A	307	VAL	5.5
1	B	193	GLU	5.4
1	A	78	THR	5.2
1	A	316	GLU	5.2
1	A	193	GLU	5.1
1	B	197	ILE	5.1
1	A	197	ILE	5.0
1	B	195	THR	5.0
1	B	99	LEU	4.8
1	A	129	LEU	4.7
1	B	123	GLN	4.7
1	A	194	ASP	4.6
1	A	206	ILE	4.6
1	A	303	THR	4.6
1	A	311	ARG	4.5
1	A	85	GLU	4.4
1	B	90	ALA	4.4
1	B	209	ILE	4.4
1	B	89	ARG	4.3
1	B	314	ALA	4.3
1	A	320	ASN	4.2
1	A	214	PHE	4.2
1	B	113	GLY	4.1
1	B	122	ASN	4.0
1	A	93	CYS	4.0
1	A	77	ARG	4.0
1	B	206	ILE	4.0
1	B	124	VAL	3.8
1	A	221	LEU	3.8
1	B	133	PHE	3.8
1	B	132	SER	3.8
1	A	257	TYR	3.7
1	A	306	ALA	3.7
1	B	104	GLN	3.6
1	A	91	HIS	3.4
1	B	101	GLU	3.4
1	B	198	LYS	3.3
1	B	93	CYS	3.3
1	B	65	PHE	3.2
1	B	96	ASP	3.2
1	B	157	ILE	3.1
1	A	185	PHE	3.1

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	B	205	LYS	3.1
1	A	222	PHE	3.0
1	B	194	ASP	3.0
1	A	74	ILE	3.0
1	B	311	ARG	3.0
1	B	169	LEU	2.9
1	B	153	GLU	2.9
1	B	274	VAL	2.8
1	A	217	PHE	2.8
1	A	195	THR	2.8
1	B	63	THR	2.8
1	A	313	HIS	2.8
1	A	284	TYR	2.8
1	B	156	LYS	2.8
1	A	111	ASN	2.7
1	B	216	LEU	2.7
1	B	150	PRO	2.7
1	B	37	SER	2.7
1	A	261	GLY	2.7
1	B	230	PHE	2.7
1	A	89	ARG	2.6
1	A	56	LEU	2.6
1	A	179	ASP	2.6
1	B	241	ALA	2.5
1	B	180	GLN	2.5
1	A	268	ASP	2.5
1	A	86	LYS	2.5
1	B	125	SER	2.5
1	B	147	ASN	2.5
1	B	127	TRP	2.5
1	A	171	GLY	2.4
1	B	255	GLY	2.4
1	B	92	PRO	2.3
1	B	121	SER	2.3
1	A	259	ALA	2.3
1	A	65	PHE	2.3
1	A	191	LYS	2.3
1	B	275	TRP	2.2
1	A	189	ILE	2.2
1	B	212	ILE	2.2
1	A	213	ILE	2.2
1	B	158	PHE	2.1

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
1	A	273	VAL	2.1
1	B	74	ILE	2.1
1	A	84	ARG	2.1
1	B	173	LEU	2.1
1	B	172	PHE	2.1
1	A	198	LYS	2.1
1	B	140	ILE	2.1
1	A	296	LEU	2.0

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

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

## 6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

## 6.4 Ligands ⓘ

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
2	CD	B	402	1/1	-0.07	0.97	250,250,250,250	1
2	CD	A	401	1/1	0.00	0.42	459,459,459,459	0
5	K	A	405	1/1	0.04	2.32	236,236,236,236	0
4	UND	B	404	11/11	0.38	0.72	161,203,240,241	0
5	K	B	405	1/1	0.67	2.58	198,198,198,198	0
4	UND	A	404	11/11	0.73	0.38	116,162,180,182	0
5	K	A	407	1/1	0.77	0.32	177,177,177,177	0
5	K	A	408	1/1	0.78	0.30	197,197,197,197	0
3	OCT	A	403	8/8	0.84	0.64	152,169,206,214	0
2	CD	B	401	1/1	0.90	0.15	222,222,222,222	0
3	OCT	B	403	8/8	0.92	0.59	135,155,190,194	0
3	OCT	A	402	8/8	0.93	0.30	149,164,179,188	0
5	K	A	409	1/1	0.95	0.29	119,119,119,119	1
5	K	A	406	1/1	0.97	0.45	213,213,213,213	0

## 6.5 Other polymers [i](#)

There are no such residues in this entry.