



# Full wwPDB X-ray Structure Validation Report ⓘ

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PDB ID : 3I3N  
Title : Crystal structure of the BTB-BACK domains of human KLHL11  
Authors : Murray, J.W.; Cooper, C.D.O.; Krojer, T.; Mahajan, P.; Salah, E.; Keates, T.; Savitsky, P.; Pike, A.C.W.; Roos, A.; Muniz, J.; von Delft, F.; Bountra, C.; Arrowsmith, C.H.; Weigelt, J.; Edwards, A.; Knapp, S.; Bullock, A.; Structural Genomics Consortium (SGC)  
Deposited on : 2009-06-30  
Resolution : 2.60 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at [validation@mail.wwpdb.org](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 types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity : 4.02b-467  
Mogul : 2022.3.0, CSD as543be (2022)  
Xtriage (Phenix) : 1.20.1  
EDS : 3.0  
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)  
CCP4 : 9.0.003 (Gargrove)  
Density-Fitness : 1.0.11  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.39

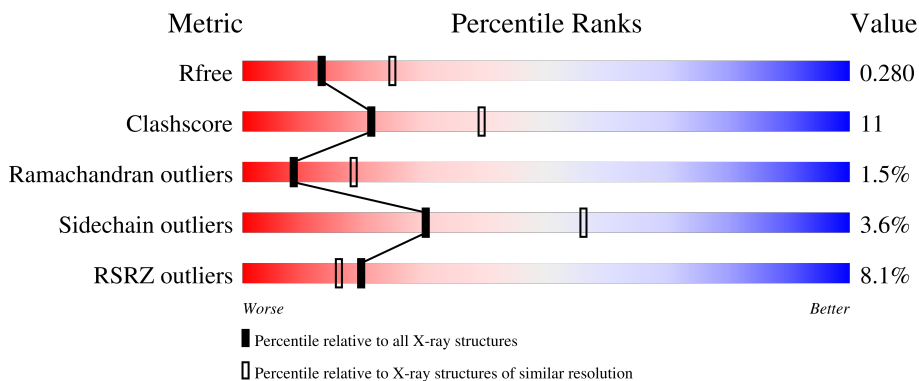
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 2.60 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
$R_{free}$	164625	3775 (2.60-2.60)
Clashscore	180529	4181 (2.60-2.60)
Ramachandran outliers	177936	4129 (2.60-2.60)
Sidechain outliers	177891	4129 (2.60-2.60)
RSRZ outliers	164620	3775 (2.60-2.60)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 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	279	
1	B	279	

## 2 Entry composition

There are 4 unique types of molecules in this entry. The entry contains 4450 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 Kelch-like protein 11.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
			Total	C	N	O	S	Se			
1	A	262	2169	1378	382	396	7	6	0	0	0
1	B	267	2195	1389	389	404	7	6	0	0	0

There are 10 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-4	TYR	-	expression tag	UNP Q9NVR0
A	-3	PHE	-	expression tag	UNP Q9NVR0
A	-2	GLN	-	expression tag	UNP Q9NVR0
A	-1	SER	-	expression tag	UNP Q9NVR0
A	0	MSE	-	expression tag	UNP Q9NVR0
B	-4	TYR	-	expression tag	UNP Q9NVR0
B	-3	PHE	-	expression tag	UNP Q9NVR0
B	-2	GLN	-	expression tag	UNP Q9NVR0
B	-1	SER	-	expression tag	UNP Q9NVR0
B	0	MSE	-	expression tag	UNP Q9NVR0

- Molecule 2 is THIOCYANATE ION (three-letter code: SCN) (formula: CNS).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf	
2	A	1	Total	C	N	S	0	0
			3	1	1	1		

- Molecule 3 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

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

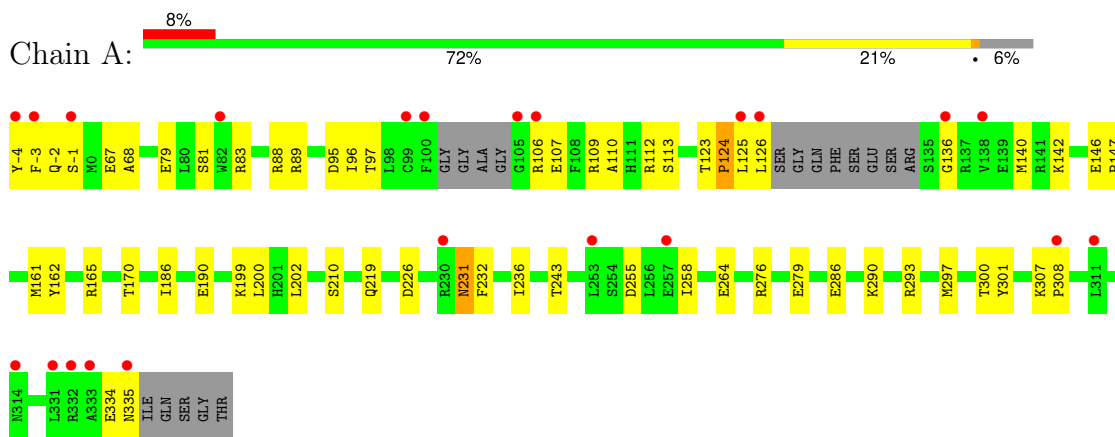
- Molecule 4 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	42	Total	O	0	0
			42	42		
4	B	38	Total	O	0	0
			38	38		

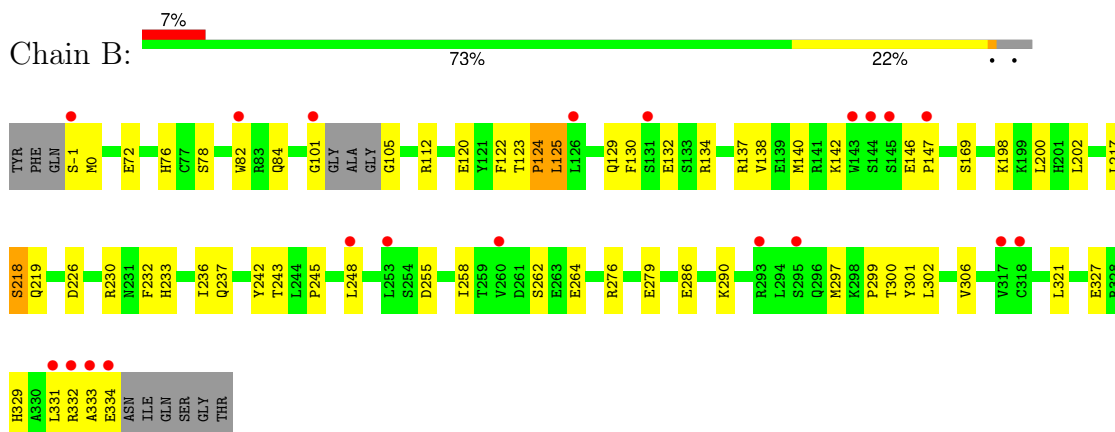
### 3 Residue-property plots [i](#)

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: Kelch-like protein 11



- Molecule 1: Kelch-like protein 11



## 4 Data and refinement statistics i

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	41.09Å 68.88Å 136.83Å 90.00° 97.44° 90.00°	Depositor
Resolution (Å)	26.33 – 2.60 26.33 – 2.60	Depositor EDS
% Data completeness (in resolution range)	99.5 (26.33-2.60) 99.4 (26.33-2.60)	Depositor EDS
$R_{merge}$	0.12	Depositor
$R_{sym}$	0.12	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.37 (at 2.24Å)	Xtrriage
Refinement program	CNS 1.1	Depositor
R, $R_{free}$	0.260 , 0.286 0.251 , 0.280	Depositor DCC
$R_{free}$ test set	1206 reflections (5.15%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	47.5	Xtrriage
Anisotropy	0.259	Xtrriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.32 , 58.1	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.49$ , $\langle L^2 \rangle = 0.32$	Xtrriage
Estimated twinning fraction	0.039 for h,-k,-h-l	Xtrriage
$F_o, F_c$ correlation	0.92	EDS
Total number of atoms	4450	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	67.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 6.22% 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 [i](#)

### 5.1 Standard geometry [i](#)

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

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	0.43	0/2208	0.61	1/2966 (0.0%)
1	B	0.44	0/2234	0.61	0/3000
All	All	0.43	0/4442	0.61	1/5966 (0.0%)

There are no bond length outliers.

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	136	GLY	N-CA-C	6.21	128.62	113.10

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	A	2169	0	2144	51	0
1	B	2195	0	2170	51	0
2	A	3	0	0	0	0
3	A	1	0	0	0	0
3	B	2	0	0	0	0
4	A	42	0	0	3	0
4	B	38	0	0	0	0
All	All	4450	0	4314	94	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 11.

All (94) 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:264:GLU:HA	1:A:297:MSE:HE3	1.34	1.07
1:B:332:ARG:C	1:B:334:GLU:H	1.67	0.94
1:A:264:GLU:HA	1:A:297:MSE:CE	2.09	0.80
1:B:264:GLU:HA	1:B:297:MSE:HE3	1.65	0.78
1:B:332:ARG:C	1:B:334:GLU:N	2.39	0.76
1:A:232:PHE:O	1:A:236:ILE:HG13	1.88	0.74
1:B:232:PHE:CE2	1:B:236:ILE:HD11	2.23	0.74
1:A:109:ARG:HH11	1:A:109:ARG:HG2	1.53	0.72
1:B:122:PHE:O	1:B:125:LEU:HG	1.91	0.71
1:B:232:PHE:CD2	1:B:236:ILE:HD11	2.27	0.70
1:A:264:GLU:HG3	1:A:297:MSE:HE2	1.73	0.69
1:A:146:GLU:HB2	1:A:147:PRO:HD3	1.75	0.69
1:B:112:ARG:NH1	1:B:125:LEU:HD13	2.10	0.67
1:B:146:GLU:HB2	1:B:147:PRO:HD3	1.78	0.65
1:B:130:PHE:HD2	1:B:138:VAL:HG11	1.61	0.65
1:A:106:ARG:HH11	1:A:106:ARG:HG3	1.61	0.64
1:B:132:GLU:HA	1:B:137:ARG:O	1.98	0.62
1:B:112:ARG:HH11	1:B:125:LEU:HD13	1.65	0.60
1:A:293:ARG:HH11	1:A:293:ARG:HG3	1.67	0.59
1:A:276:ARG:HH11	1:A:276:ARG:HG2	1.68	0.58
1:B:332:ARG:O	1:B:334:GLU:N	2.36	0.58
1:A:142:LYS:HD3	1:A:146:GLU:OE2	2.04	0.58
1:A:140:MSE:HA	1:A:140:MSE:HE2	1.86	0.57
1:A:123:THR:N	1:A:124:PRO:HD2	2.20	0.56
1:B:101:GLY:C	1:B:105:GLY:HA3	2.25	0.56
1:B:236:ILE:HG23	1:B:242:TYR:OH	2.06	0.56
1:B:276:ARG:HH11	1:B:276:ARG:HG2	1.70	0.56
1:A:293:ARG:HG3	1:A:293:ARG:NH1	2.22	0.55
1:B:130:PHE:CD2	1:B:138:VAL:HG11	2.41	0.54
1:A:165:ARG:HG2	1:B:72:GLU:HG3	1.89	0.54
1:B:125:LEU:C	1:B:125:LEU:HD12	2.26	0.54
1:A:109:ARG:HG2	1:A:109:ARG:NH1	2.23	0.54
1:B:123:THR:HB	1:B:124:PRO:HD3	1.91	0.53
1:B:130:PHE:HD2	1:B:138:VAL:CG1	2.22	0.53
1:A:95:ASP:OD2	1:A:112:ARG:HD3	2.09	0.52
1:A:231:ASN:N	1:A:231:ASN:HD22	2.08	0.52
1:B:140:MSE:HA	1:B:140:MSE:HE2	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:123:THR:N	1:B:124:PRO:CD	2.73	0.52
1:B:232:PHE:HE2	1:B:236:ILE:HD11	1.73	0.52
1:B:297:MSE:HE2	1:B:301:TYR:CD2	2.46	0.51
1:A:126:LEU:C	1:A:126:LEU:HD12	2.31	0.51
1:B:286:GLU:O	1:B:290:LYS:HG3	2.11	0.50
1:B:142:LYS:HD3	1:B:146:GLU:OE2	2.10	0.50
1:A:335:ASN:HA	4:A:45:HOH:O	2.11	0.50
1:A:106:ARG:HH11	1:A:106:ARG:CG	2.22	0.50
1:A:106:ARG:HG2	1:A:107:GLU:N	2.26	0.50
1:A:67:GLU:O	1:B:169:SER:HB2	2.13	0.49
1:B:243:THR:HG22	1:B:276:ARG:HH12	1.77	0.49
1:B:255:ASP:HB3	1:B:258:ILE:HG23	1.94	0.49
1:B:245:PRO:HD2	1:B:248:LEU:HD12	1.94	0.48
1:A:124:PRO:C	1:A:125:LEU:HD12	2.34	0.48
1:A:79:GLU:O	1:A:83:ARG:HG3	2.14	0.48
1:A:88:ARG:HD3	1:A:162:TYR:CZ	2.48	0.48
1:A:186:ILE:O	1:A:190:GLU:HG3	2.13	0.48
1:A:276:ARG:HG2	1:A:276:ARG:NH1	2.29	0.47
1:A:-4:TYR:HD2	1:A:-3:PHE:H	1.63	0.47
1:A:334:GLU:O	1:A:335:ASN:ND2	2.48	0.46
1:A:96:ILE:HG22	1:A:110:ALA:O	2.15	0.45
1:B:120:GLU:O	1:B:124:PRO:HD3	2.17	0.45
1:B:233:HIS:O	1:B:237:GLN:OE1	2.34	0.45
1:B:217:LEU:O	1:B:218:SER:C	2.54	0.45
1:B:276:ARG:HG2	1:B:276:ARG:NH1	2.32	0.45
1:B:327:GLU:O	1:B:331:LEU:HG	2.17	0.45
1:A:-3:PHE:C	1:A:-1:SER:H	2.21	0.44
1:B:262:SER:HB2	1:B:264:GLU:OE2	2.17	0.44
1:A:334:GLU:O	1:A:335:ASN:CB	2.65	0.44
1:A:293:ARG:NH2	4:A:347:HOH:O	2.49	0.44
1:B:329:HIS:O	1:B:332:ARG:HG2	2.18	0.43
1:B:78:SER:O	1:B:82:TRP:HD1	2.01	0.43
1:A:297:MSE:HE2	1:A:301:TYR:CD2	2.54	0.43
1:A:106:ARG:CG	1:A:106:ARG:NH1	2.79	0.43
1:B:297:MSE:HE2	1:B:301:TYR:HD2	1.83	0.43
1:A:96:ILE:HG12	1:A:97:THR:N	2.33	0.43
1:B:302:LEU:O	1:B:306:VAL:HB	2.19	0.42
1:A:161:MSE:O	1:B:76:HIS:CE1	2.72	0.42
1:A:231:ASN:N	1:A:231:ASN:ND2	2.67	0.42
1:A:243:THR:HG22	1:A:276:ARG:HH12	1.85	0.42
1:B:302:LEU:HD23	1:B:306:VAL:HG21	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:255:ASP:HB3	1:A:258:ILE:HG23	2.03	0.41
1:A:68:ALA:HA	1:B:169:SER:HA	2.02	0.41
1:A:199:LYS:NZ	1:B:-1:SER:HA	2.36	0.41
1:A:307:LYS:HB3	1:A:308:PRO:HD3	2.01	0.41
1:B:112:ARG:HH11	1:B:125:LEU:CD1	2.32	0.41
1:B:230:ARG:HH11	1:B:230:ARG:HG2	1.86	0.41
1:A:-3:PHE:CZ	1:B:198:LYS:HE3	2.56	0.41
1:A:89:ARG:HG2	1:A:89:ARG:HH11	1.86	0.41
1:A:199:LYS:HZ2	1:B:-1:SER:C	2.23	0.41
1:A:286:GLU:O	1:A:290:LYS:HG3	2.20	0.41
1:A:293:ARG:NH1	4:A:347:HOH:O	2.53	0.41
1:B:124:PRO:O	1:B:129:GLN:HB2	2.21	0.41
1:B:321:LEU:HD23	1:B:321:LEU:HA	1.95	0.41
1:A:113:SER:OG	1:B:84:GLN:NE2	2.46	0.40
1:A:88:ARG:HD3	1:A:162:TYR:CE1	2.56	0.40
1:A:96:ILE:HG12	1:A:97:THR:H	1.86	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	256/279 (92%)	239 (93%)	13 (5%)	4 (2%)	8 17
1	B	263/279 (94%)	243 (92%)	16 (6%)	4 (2%)	8 18
All	All	519/558 (93%)	482 (93%)	29 (6%)	8 (2%)	8 18

All (8) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	-2	GLN
1	A	202	LEU

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Mol	Chain	Res	Type
1	B	202	LEU
1	B	279	GLU
1	B	333	ALA
1	A	279	GLU
1	A	124	PRO
1	B	124	PRO

### 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	237/242 (98%)	229 (97%)	8 (3%)	32	58
1	B	240/242 (99%)	231 (96%)	9 (4%)	28	54
All	All	477/484 (99%)	460 (96%)	17 (4%)	30	56

All (17) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	81	SER
1	A	170	THR
1	A	200	LEU
1	A	210	SER
1	A	219	GLN
1	A	226	ASP
1	A	231	ASN
1	A	300	THR
1	B	0	MSE
1	B	125	LEU
1	B	134	ARG
1	B	200	LEU
1	B	218	SER
1	B	219	GLN
1	B	226	ASP
1	B	299	PRO
1	B	300	THR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (8) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	84	GLN
1	A	231	ASN
1	A	237	GLN
1	A	275	GLN
1	A	335	ASN
1	B	84	GLN
1	B	129	GLN
1	B	275	GLN

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

### 5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

### 5.6 Ligand geometry [i](#)

Of 4 ligands modelled in this entry, 3 are monoatomic - leaving 1 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	SCN	A	6788	-	1,2,2	0.75	0	0,1,1	-	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

## 5.7 Other polymers

There are no such residues in this entry.

## 5.8 Polymer linkage issues

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	256/279 (91%)	0.71	22 (8%) 18 15	29, 67, 99, 111	0
1	B	261/279 (93%)	0.67	20 (7%) 21 17	23, 68, 97, 111	0
All	All	517/558 (92%)	0.69	42 (8%) 19 16	23, 68, 98, 111	0

All (42) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	333	ALA	4.3
1	B	126	LEU	3.8
1	B	82	TRP	3.7
1	B	147	PRO	3.4
1	A	-3	PHE	3.2
1	A	125	LEU	3.1
1	A	106	ARG	3.1
1	A	126	LEU	3.1
1	B	145	SER	3.0
1	A	138	VAL	3.0
1	B	253	LEU	2.8
1	B	295	SER	2.7
1	A	105	GLY	2.7
1	B	143	TRP	2.6
1	A	136	GLY	2.6
1	A	99	CYS	2.6
1	B	332	ARG	2.6
1	B	101	GLY	2.6
1	A	333	ALA	2.4
1	A	331	LEU	2.3
1	B	331	LEU	2.3
1	B	131	SER	2.3
1	A	253	LEU	2.3
1	A	-4	TYR	2.3

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Mol	Chain	Res	Type	RSRZ
1	B	293	ARG	2.3
1	B	260	VAL	2.2
1	A	82	TRP	2.2
1	A	332	ARG	2.2
1	A	308	PRO	2.2
1	A	100	PHE	2.2
1	B	334	GLU	2.1
1	A	335	ASN	2.1
1	B	248	LEU	2.1
1	B	318	CYS	2.1
1	B	144	SER	2.1
1	B	317	VAL	2.1
1	A	314	ASN	2.1
1	A	230	ARG	2.1
1	B	-1	SER	2.0
1	A	311	LEU	2.0
1	A	257	GLU	2.0
1	A	-1	SER	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, 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( $\text{\AA}^2$ )	Q<0.9
3	CL	A	2	1/1	0.81	0.11	80,80,80,80	0
2	SCN	A	6788	3/3	0.88	0.16	49,49,51,53	0
3	CL	B	1	1/1	0.93	0.11	83,83,83,83	0
3	CL	B	3	1/1	0.96	0.09	74,74,74,74	0

## 6.5 Other polymers [i](#)

There are no such residues in this entry.