W O R L D W I D E
wwPDB
PROTEIN DATA BANK

wwPDB X-ray Structure Validation Summary Report (i)

Nov 19, 2023 – 09:34 PM JST

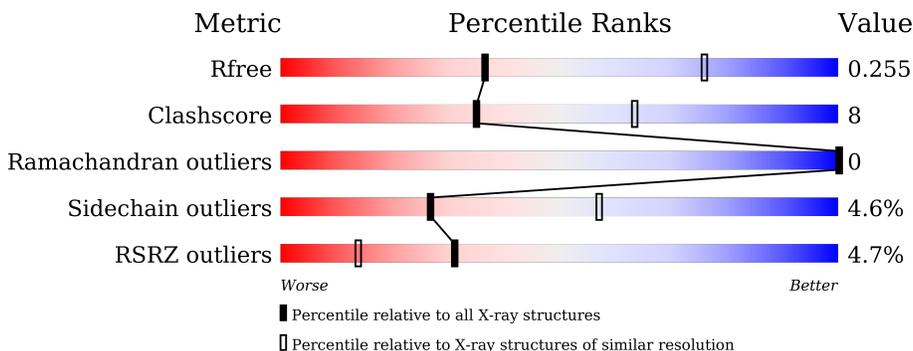|		
PDB ID	:	7BV6
Title	:	Crystal structure of the autophagic STX17/SNAP29/VAMP8 SNARE complex
Authors	:	Li, Y.; Pan, L.F.
Deposited on	:	2020-04-09
Resolution	:	3.05 Å(reported)

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 3.05 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	Percentile Ranks	Value
Rfree		0.255
Clashscore		8
Ramachandran outliers		0
Sidechain outliers		4.6%
RSRZ outliers		4.7%

Worse — *Better*

▮ Percentile relative to all X-ray structures

▯ Percentile relative to X-ray structures of similar resolution

Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R$_{free}$	130704	1754 (3.10-3.02)
Clashscore	141614	1864 (3.10-3.02)
Ramachandran outliers	138981	1794 (3.10-3.02)
Sidechain outliers	138945	1793 (3.10-3.02)
RSRZ outliers	127900	1713 (3.10-3.02)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	68	78% 19% •
1	E	68	.% / 82% 13% •
1	I	68	.% / 84% 13% •
1	M	68	9% / 69% 28% •
1	Q	68	12% / 68% 22% 10%
1	U	68	3% / 82% 15% •

Continued from previous page...

Mol	Chain	Length	Quality of chain
2	B	87	2% 52% 18% 30%
2	F	87	% 60% 9% 30%
2	J	87	53% 15% 32%
2	N	87	6% 63% 6% 31%
2	R	87	5% 47% 16% 37%
2	V	87	5% 56% 10% 31%
3	C	91	62% 16% 21%
3	G	91	66% 15% 19%
3	K	91	4% 62% 18% 20%
3	O	91	5% 59% 21% 20%
3	S	91	15% 68% 12% 19%
3	W	91	7% 62% 16% 21%
4	D	68	74% 24%
4	H	68	65% 35%
4	L	68	69% 26%
4	P	68	4% 66% 29%
4	T	68	7% 75% 21%
4	X	68	6% 82% 10%

2 Entry composition ⓘ

There are 4 unique types of molecules in this entry. The entry contains 12345 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 Vesicle-associated membrane protein 8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	66	Total	C	N	O	S	0	0	0
			547	336	106	104	1			
1	E	65	Total	C	N	O	S	0	0	0
			537	331	102	103	1			
1	I	66	Total	C	N	O	S	0	0	0
			537	330	102	104	1			
1	M	66	Total	C	N	O	S	0	0	0
			528	322	101	104	1			
1	Q	61	Total	C	N	O	S	0	0	0
			491	297	96	97	1			
1	U	66	Total	C	N	O	S	0	0	0
			539	330	104	104	1			

- Molecule 2 is a protein called Syntaxin-17.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
2	B	61	Total	C	N	O	0	0	0
			459	285	75	99			
2	F	61	Total	C	N	O	0	0	0
			454	282	74	98			
2	J	59	Total	C	N	O	0	0	0
			441	272	72	97			
2	N	60	Total	C	N	O	0	0	0
			438	271	73	94			
2	R	55	Total	C	N	O	0	0	0
			413	255	67	91			
2	V	60	Total	C	N	O	0	0	0
			457	284	74	99			

- Molecule 3 is a protein called Synaptosomal-associated protein 29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	72	Total 548	C 333	N 100	O 112	S 3	0	0	0
3	G	74	Total 560	C 342	N 102	O 113	S 3	0	0	0
3	K	73	Total 554	C 337	N 99	O 115	S 3	0	0	0
3	O	73	Total 555	C 336	N 103	O 113	S 3	0	0	0
3	S	74	Total 565	C 343	N 104	O 115	S 3	0	0	0
3	W	72	Total 541	C 329	N 97	O 112	S 3	0	0	0

- Molecule 4 is a protein called Synaptosomal-associated protein 29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	67	Total 531	C 328	N 95	O 106	S 2	0	0	0
4	H	68	Total 539	C 332	N 95	O 110	S 2	0	0	0
4	L	67	Total 532	C 328	N 95	O 107	S 2	0	0	0
4	P	65	Total 525	C 323	N 94	O 106	S 2	0	0	0
4	T	67	Total 536	C 329	N 97	O 108	S 2	0	0	0
4	X	65	Total 518	C 319	N 93	O 104	S 2	0	0	0

3 Residue-property plots ⓘ

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: Vesicle-associated membrane protein 8

Chain A:

• Molecule 1: Vesicle-associated membrane protein 8

Chain E:

• Molecule 1: Vesicle-associated membrane protein 8

Chain I:

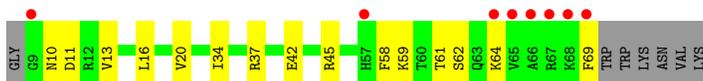• Molecule 1: Vesicle-associated membrane protein 8

Chain M:

• Molecule 1: Vesicle-associated membrane protein 8

Chain Q:

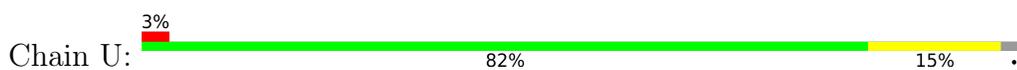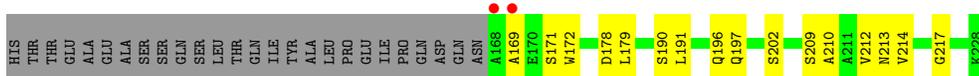• Molecule 1: Vesicle-associated membrane protein 8

Chain U:

3%

82%   15%

GLY G9 N10 D11 R12 E32 H43 L44 R45 N46 K47 T48 T54 S62 W71 K72 N73 V74 LYS

• Molecule 2: Syntaxin-17

Chain B:

2%

52%   18%   30%

HIS THR THR GLU ALA GLU ALA SER SER GLN SER LEU THR GLN ILE TYR ALA LEU PRO GLU ILE PRO GLN ASP GLN ASN A168 A169 E170 S171 W172 D178 L179 S190 L191 Q196 Q197 S202 S209 A210 A211 V212 N213 V214 G217 K228

• Molecule 2: Syntaxin-17

Chain F:

%

60%   9%   30%

HIS THR THR GLU ALA GLU ALA SER SER GLN SER LEU THR GLN ILE TYR ALA LEU PRO GLU ILE PRO GLN ASP GLN ASN A168 A169 E170 S171 T174 D178 S190 L191 Q196 I203 Y227 K228

• Molecule 2: Syntaxin-17

Chain J:

53%   15%   32%

HIS THR THR GLU ALA GLU ALA SER SER GLN SER LEU THR GLN ILE TYR ALA LEU PRO GLU ILE PRO GLN ASP GLN ASN A168 A169 E170 S171 T174 D178 E181 S190 N194 K199 I203 A204 D205 A210 V214 N220 K226 TYR LYS

• Molecule 2: Syntaxin-17

Chain N:

6%

63%   6%   31%

HIS THR THR GLU ALA GLU ALA SER SER GLN SER LEU THR GLN ILE TYR ALA LEU PRO GLU ILE PRO GLN ASP GLN ASN A168 A169 E170 S171 D178 L191 Q197 I203 L221 G222 Y227 LYS

• Molecule 2: Syntaxin-17

Chain R:

5%

47%   16%   37%

HIS THR THR GLU ALA GLU ALA SER SER GLN SER LEU THR GLN ILE TYR ALA LEU PRO GLU ILE PRO GLN ASP GLN ASN A168 A169 W172 D178 E181 S190 V193 N194 S195 Q196 K199 V212 E215 E216 G217 L221 G222 LYS ALA ALA LYS TYR LYS

• Molecule 2: Syntaxin-17

Chain V:

5%

56%   10%   31%

HIS THR THR GLU ALA GLU ALA SER SER GLN SER LEU THR GLN ILE TYR ALA LEU PRO GLU ILE PRO GLN ASP GLN ASN A168 A169 L191 L192 V193 N194 S195 Q196 S202 I203 A204 N208 S209 V212 G217 L221 A224 Y227 LYS

• Molecule 3: Synaptosomal-associated protein 29

Chain C:

• Molecule 3: Synaptosomal-associated protein 29

Chain G:

• Molecule 3: Synaptosomal-associated protein 29
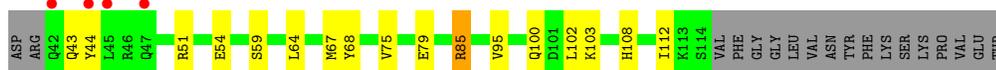
Chain K:
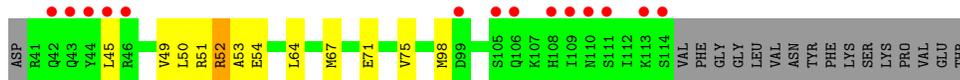

• Molecule 3: Synaptosomal-associated protein 29

Chain O:

• Molecule 3: Synaptosomal-associated protein 29

Chain S:

• Molecule 3: Synaptosomal-associated protein 29

Chain W:

• Molecule 4: Synaptosomal-associated protein 29

Chain D:

• Molecule 4: Synaptosomal-associated protein 29

Chain H:

• Molecule 4: Synaptosomal-associated protein 29

Chain L:
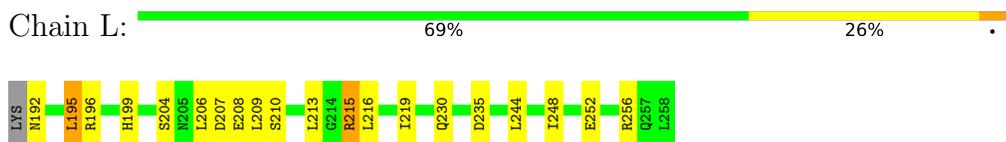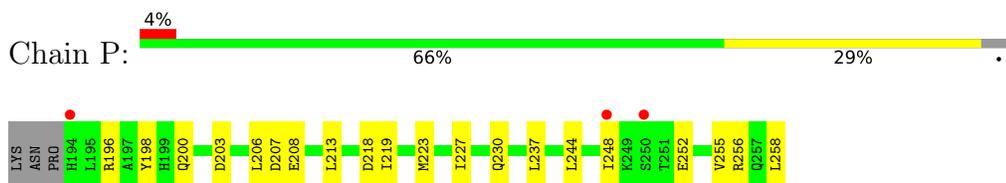

• Molecule 4: Synaptosomal-associated protein 29

Chain P:

• Molecule 4: Synaptosomal-associated protein 29

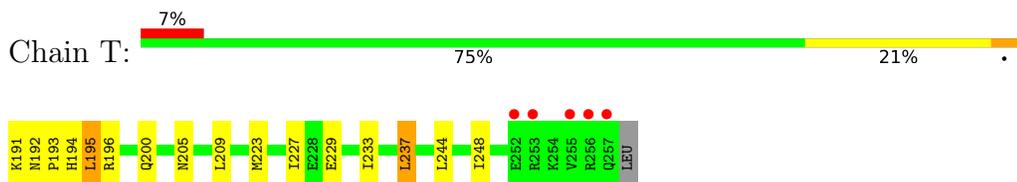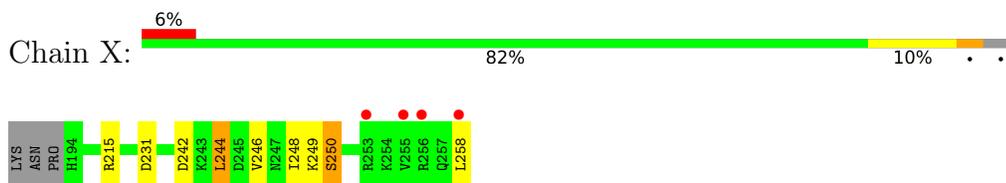Chain T:

• Molecule 4: Synaptosomal-associated protein 29

Chain X:

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 2	Depositor
Cell constants a, b, c, α, β, γ	143.98Å 196.00Å 76.14Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.00 – 3.05 49.00 – 3.05	Depositor EDS
% Data completeness (in resolution range)	99.8 (49.00-3.05) 99.9 (49.00-3.05)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.00 (at 3.07Å)	Xtriage
Refinement program	PHENIX 1.17.1_3660	Depositor
R, R_{free}	0.175 , 0.255 0.176 , 0.255	Depositor DCC
R_{free} test set	2088 reflections (4.99%)	wwPDB-VP
Wilson B-factor (Å^2)	55.3	Xtriage
Anisotropy	0.363	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.33 , 55.2	EDS
L-test for twinning[2]	$< |L| > = 0.48$, $< L^2 > = 0.31$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	12345	wwPDB-VP
Average B, all atoms (Å^2)	62.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.88% of the height of the origin peak. No significant pseudotranslation is detected.*

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[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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	0.49	0/554	0.61	0/743
1	E	0.48	0/544	0.54	0/731
1	I	0.47	0/544	0.54	0/732
1	M	0.40	0/533	0.55	0/716
1	Q	0.39	0/494	0.54	0/660
1	U	0.43	0/546	0.54	0/735
2	B	0.44	0/463	0.59	0/627
2	F	0.44	0/458	0.58	0/623
2	J	0.45	0/444	0.58	0/603
2	N	0.47	0/441	0.54	0/600
2	R	0.44	0/416	0.57	0/566
2	V	0.44	0/461	0.61	0/625
3	C	0.47	0/549	0.60	0/733
3	G	0.47	0/562	0.59	0/752
3	K	0.43	0/556	0.60	0/744
3	O	0.47	0/556	0.58	0/743
3	S	0.43	0/567	0.60	1/758 (0.1%)
3	W	0.46	0/542	0.55	0/725
4	D	0.44	0/534	0.68	0/715
4	H	0.42	0/542	0.64	0/726
4	L	0.40	0/535	0.59	0/716
4	P	0.43	0/527	0.61	0/703
4	T	0.40	0/539	0.55	0/722
4	X	0.38	0/520	0.62	1/695 (0.1%)
All	All	0.44	0/12427	0.58	2/16693 (0.0%)

There are no bond length outliers.

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	S	50	LEU	CA-CB-CG	5.31	127.51	115.30
4	X	244	LEU	CB-CG-CD2	5.23	119.89	111.00

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	547	0	543	11	0
1	E	537	0	529	9	0
1	I	537	0	521	8	0
1	M	528	0	513	16	0
1	Q	491	0	489	14	0
1	U	539	0	521	8	0
2	B	459	0	442	16	0
2	F	454	0	431	7	0
2	J	441	0	424	8	0
2	N	438	0	418	6	0
2	R	413	0	395	17	0
2	V	457	0	444	9	0
3	C	548	0	553	15	0
3	G	560	0	555	17	0
3	K	554	0	543	21	0
3	O	555	0	555	15	0
3	S	565	0	558	6	0
3	W	541	0	537	12	0
4	D	531	0	539	15	0
4	H	539	0	542	18	0
4	L	532	0	539	22	0
4	P	525	0	538	16	0
4	T	536	0	542	11	0
4	X	518	0	528	10	0
All	All	12345	0	12199	202	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 8.

The worst 5 of 202 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)
3:K:67:MET:HE1	4:L:216:LEU:HD12	1.45	0.98
3:K:67:MET:CE	4:L:216:LEU:HD12	1.98	0.91
3:K:67:MET:CE	4:L:216:LEU:CD1	2.55	0.83
3:K:95:VAL:HG13	4:L:244:LEU:HD12	1.64	0.78
3:G:95:VAL:HG13	4:H:244:LEU:HD12	1.66	0.77

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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	64/68 (94%)	62 (97%)	2 (3%)	0	100	100
1	E	63/68 (93%)	62 (98%)	1 (2%)	0	100	100
1	I	64/68 (94%)	60 (94%)	4 (6%)	0	100	100
1	M	64/68 (94%)	62 (97%)	2 (3%)	0	100	100
1	Q	59/68 (87%)	58 (98%)	1 (2%)	0	100	100
1	U	64/68 (94%)	64 (100%)	0	0	100	100
2	B	59/87 (68%)	58 (98%)	1 (2%)	0	100	100
2	F	59/87 (68%)	57 (97%)	2 (3%)	0	100	100
2	J	57/87 (66%)	56 (98%)	1 (2%)	0	100	100
2	N	58/87 (67%)	55 (95%)	3 (5%)	0	100	100
2	R	53/87 (61%)	51 (96%)	2 (4%)	0	100	100
2	V	58/87 (67%)	57 (98%)	1 (2%)	0	100	100
3	C	70/91 (77%)	67 (96%)	3 (4%)	0	100	100
3	G	72/91 (79%)	72 (100%)	0	0	100	100
3	K	71/91 (78%)	71 (100%)	0	0	100	100
3	O	71/91 (78%)	68 (96%)	3 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	S	72/91 (79%)	71 (99%)	1 (1%)	0	100	100
3	W	70/91 (77%)	69 (99%)	1 (1%)	0	100	100
4	D	65/68 (96%)	64 (98%)	1 (2%)	0	100	100
4	H	66/68 (97%)	63 (96%)	3 (4%)	0	100	100
4	L	65/68 (96%)	63 (97%)	2 (3%)	0	100	100
4	P	63/68 (93%)	63 (100%)	0	0	100	100
4	T	65/68 (96%)	63 (97%)	2 (3%)	0	100	100
4	X	63/68 (93%)	62 (98%)	1 (2%)	0	100	100
All	All	1535/1884 (82%)	1498 (98%)	37 (2%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2   Protein sidechains ⓘ

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	60/61 (98%)	60 (100%)	0	100	100
1	E	59/61 (97%)	57 (97%)	2 (3%)	37	67
1	I	58/61 (95%)	58 (100%)	0	100	100
1	M	57/61 (93%)	53 (93%)	4 (7%)	15	41
1	Q	54/61 (88%)	52 (96%)	2 (4%)	34	64
1	U	58/61 (95%)	55 (95%)	3 (5%)	23	52
2	B	49/74 (66%)	47 (96%)	2 (4%)	30	61
2	F	48/74 (65%)	45 (94%)	3 (6%)	18	45
2	J	48/74 (65%)	44 (92%)	4 (8%)	11	35
2	N	46/74 (62%)	45 (98%)	1 (2%)	52	76
2	R	46/74 (62%)	46 (100%)	0	100	100
2	V	50/74 (68%)	48 (96%)	2 (4%)	31	62
3	C	59/80 (74%)	57 (97%)	2 (3%)	37	67

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	G	58/80 (72%)	57 (98%)	1 (2%)	60	82
3	K	58/80 (72%)	54 (93%)	4 (7%)	15	42
3	O	59/80 (74%)	56 (95%)	3 (5%)	24	53
3	S	59/80 (74%)	57 (97%)	2 (3%)	37	67
3	W	57/80 (71%)	53 (93%)	4 (7%)	15	41
4	D	59/63 (94%)	56 (95%)	3 (5%)	24	53
4	H	60/63 (95%)	56 (93%)	4 (7%)	16	43
4	L	59/63 (94%)	54 (92%)	5 (8%)	10	34
4	P	59/63 (94%)	53 (90%)	6 (10%)	7	24
4	T	60/63 (95%)	58 (97%)	2 (3%)	38	67
4	X	58/63 (92%)	56 (97%)	2 (3%)	37	67
All	All	1338/1668 (80%)	1277 (95%)	61 (5%)	27	57

5 of 61 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	L	235	ASP
3	W	45	LEU
3	O	46	ARG
2	V	208	ASN
4	X	231	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (3) such sidechains are listed below:

Mol	Chain	Res	Type
3	C	84	GLN
2	F	184	GLN
2	R	197	GLN

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 monosaccharides in this entry.

5.6 Ligand geometry ⓘ

There are no ligands in this entry.

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, 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	66/68 (97%)	-0.20	0	100	100	25, 47, 97, 129	0
1	E	65/68 (95%)	-0.40	1 (1%)	73	51	25, 50, 90, 124	0
1	I	66/68 (97%)	-0.12	1 (1%)	73	51	28, 52, 147, 184	0
1	M	66/68 (97%)	-0.02	6 (9%)	9	3	27, 59, 123, 147	0
1	Q	61/68 (89%)	0.16	8 (13%)	3	1	30, 69, 144, 185	0
1	U	66/68 (97%)	-0.04	2 (3%)	50	25	25, 62, 112, 153	0
2	B	61/87 (70%)	-0.17	2 (3%)	46	23	24, 38, 83, 148	0
2	F	61/87 (70%)	-0.20	1 (1%)	72	49	27, 42, 97, 177	0
2	J	59/87 (67%)	-0.02	0	100	100	25, 46, 121, 124	0
2	N	60/87 (68%)	0.10	5 (8%)	11	4	24, 47, 127, 180	0
2	R	55/87 (63%)	0.13	4 (7%)	15	5	29, 54, 133, 182	0
2	V	60/87 (68%)	0.01	4 (6%)	17	7	29, 50, 116, 151	0
3	C	72/91 (79%)	-0.14	0	100	100	29, 44, 98, 137	0
3	G	74/91 (81%)	-0.32	0	100	100	27, 44, 94, 106	0
3	K	73/91 (80%)	0.22	4 (5%)	25	10	26, 52, 124, 171	0
3	O	73/91 (80%)	0.18	5 (6%)	17	6	24, 53, 137, 157	0
3	S	74/91 (81%)	0.53	14 (18%)	1	0	30, 57, 156, 170	0
3	W	72/91 (79%)	0.09	6 (8%)	11	4	31, 52, 117, 133	0
4	D	67/68 (98%)	-0.42	0	100	100	28, 46, 74, 106	0
4	H	68/68 (100%)	-0.23	0	100	100	31, 49, 83, 114	0
4	L	67/68 (98%)	-0.11	0	100	100	29, 51, 109, 140	0
4	P	65/68 (95%)	0.06	3 (4%)	32	15	28, 55, 115, 137	0
4	T	67/68 (98%)	0.15	5 (7%)	14	5	28, 54, 124, 152	0
4	X	65/68 (95%)	0.09	4 (6%)	20	8	31, 59, 109, 132	0

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Mol	Chain	Analysed	\<RSRZ\>	#RSRZ>2		OWAB(Å²)	Q<0.9
All	All	1583/1884 (84%)	-0.03	75 (4%) 31	14	24, 51, 126, 185	0

The worst 5 of 75 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
3	K	44	TYR	5.7
2	B	168	ALA	5.5
2	N	169	ALA	5.3
3	O	44	TYR	4.7
2	R	168	ALA	4.2

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 monosaccharides in this entry.

6.4 Ligands ⓘ

There are no ligands in this entry.

6.5 Other polymers ⓘ

There are no such residues in this entry.