



# Full wwPDB X-ray Structure Validation Report ⓘ

Sep 29, 2020 – 08:02 PM EDT

PDB ID : 3KYS  
Title : Crystal structure of human YAP and TEAD complex  
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Deposited on : 2009-12-07  
Resolution : 2.80 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.

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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 : 1.8.5 (274361), CSD as541be (2020)  
Xtrriage (Phenix) : 1.13  
EDS : 2.14.6  
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) : 2.14.6

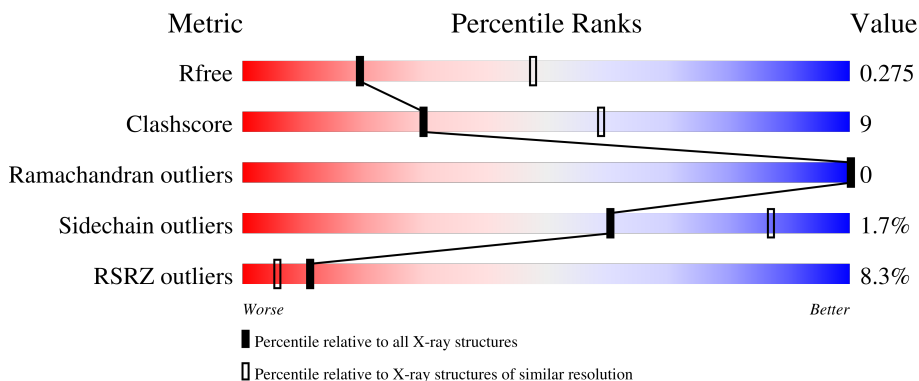
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 2.80 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	3140 (2.80-2.80)
Clashscore	141614	3569 (2.80-2.80)
Ramachandran outliers	138981	3498 (2.80-2.80)
Sidechain outliers	138945	3500 (2.80-2.80)
RSRZ outliers	127900	3078 (2.80-2.80)

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	219	 10% 75% 20% 5%
1	C	219	 6% 74% 21% . .
2	B	125	 6% 32% 8% 60%
2	D	125	 % 29% 10% 61%

## 2 Entry composition

There are 3 unique types of molecules in this entry. The entry contains 4286 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 Transcriptional enhancer factor TEF-1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	208	1712	1098	288	314	12	0	0	0
1	C	211	1736	1113	294	317	12	0	0	0

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	193	MET	-	expression tag	UNP P28347
C	193	MET	-	expression tag	UNP P28347

- Molecule 2 is a protein called 65 kDa Yes-associated protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	B	50	395	250	71	72	2	0	0	0
2	D	49	391	248	70	71	2	0	0	0

There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	47	SER	-	expression tag	UNP P46937
B	48	HIS	-	expression tag	UNP P46937
B	49	MET	-	expression tag	UNP P46937
D	47	SER	-	expression tag	UNP P46937
D	48	HIS	-	expression tag	UNP P46937
D	49	MET	-	expression tag	UNP P46937

- Molecule 3 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	A	8	Total O 8 8	0	0
3	B	8	Total O 8 8	0	0
3	C	27	Total O 27 27	0	0
3	D	9	Total O 9 9	0	0



SER  
PRO  
ALA  
SER  
LEU  
GLN  
LEU  
GLY  
VAL  
SER  
PRO  
GLY  
THR  
LEU  
THR  
PRO  
THR  
GLY  
VAL  
SER  
GLY  
PRO  
ALA  
ALA  
THR  
PRO  
THR  
ALA  
GLN  
HIS  
LEU  
ARG  
GLN  
SER  
SER  
PHE  
GLU  
ILE  
PRO  
ASP  
ASP  
VAL

## 4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	44.64Å 110.50Å 165.69Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	40.16 – 2.80 40.16 – 2.80	Depositor EDS
% Data completeness (in resolution range)	97.8 (40.16-2.80) 97.9 (40.16-2.80)	Depositor EDS
$R_{merge}$	0.06	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	5.50 (at 2.81Å)	Xtrriage
Refinement program	PHENIX 1.18.2_3874	Depositor
R, $R_{free}$	0.228 , 0.266 0.240 , 0.275	Depositor DCC
$R_{free}$ test set	1052 reflections (5.13%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	63.2	Xtrriage
Anisotropy	0.623	Xtrriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.34 , 50.8	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.50$ , $\langle L^2 \rangle = 0.34$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
$F_o, F_c$ correlation	0.93	EDS
Total number of atoms	4286	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	71.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 12.37% 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: P1L

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	0.54	0/1725	0.62	0/2321
1	C	0.50	0/1749	0.68	0/2353
2	B	0.51	0/405	0.77	0/550
2	D	0.49	1/401 (0.2%)	0.68	0/545
All	All	0.52	1/4280 (0.0%)	0.66	0/5769

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	81	PRO	C-N	-5.14	1.22	1.34

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	A	1712	0	1688	32	0
1	C	1736	0	1717	36	0
2	B	395	0	394	11	0
2	D	391	0	391	8	0
3	A	8	0	0	0	0
3	B	8	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	C	27	0	0	1	0
3	D	9	0	0	1	0
All	All	4286	0	4190	79	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 9.

All (79) 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:C:203:LEU:HD22	1:C:388:MET:HE1	1.58	0.85
1:A:210:LEU:HD11	1:A:289:ALA:HB1	1.63	0.81
1:C:402:GLN:HB3	2:D:99:PRO:HD2	1.65	0.78
1:C:253:GLU:OE1	1:C:253:GLU:HA	1.86	0.74
1:C:250:LYS:NZ	1:C:368:GLU:O	2.21	0.71
2:B:58:ARG:NH1	2:B:60:ASP:OD1	2.23	0.71
1:A:312:CYS:HA	1:A:317:GLN:HA	1.74	0.69
1:A:398:GLU:CD	1:A:398:GLU:H	2.00	0.65
1:A:226:HIS:HB2	1:A:229:HIS:CE1	2.32	0.64
1:C:283:ILE:HG22	1:C:285:ASP:OD1	1.98	0.64
1:A:196:ILE:HD12	1:A:405:ILE:HG21	1.81	0.62
2:B:70:ASN:HB2	2:B:74:ASN:OD1	2.00	0.61
1:A:299:SER:HB3	1:A:336:TYR:HE1	1.66	0.61
1:C:311:VAL:HG22	1:C:319:VAL:HB	1.84	0.60
1:A:205:GLU:HB3	1:A:296:GLN:HB3	1.84	0.59
1:A:353:LYS:NZ	2:B:65:LEU:HD23	2.18	0.58
1:C:363:MET:HE2	1:C:394:VAL:HG21	1.87	0.57
1:C:254:LYS:N	1:C:254:LYS:HD2	2.20	0.56
2:D:60:ASP:HB2	2:D:63:THR:OG1	2.05	0.56
1:C:274:LYS:HE3	1:C:393:GLU:HB2	1.88	0.56
2:D:70:ASN:HB2	2:D:74:ASN:OD1	2.05	0.56
1:C:327:ALA:HB1	1:C:334:PHE:HB3	1.88	0.55
1:C:194:ARG:NH1	1:C:195:SER:O	2.39	0.55
1:A:327:ALA:HB1	1:A:334:PHE:HB3	1.87	0.55
1:A:212:GLN:HE22	1:A:283:ILE:HA	1.73	0.54
2:D:84:VAL:O	2:D:89:ARG:NH1	2.40	0.53
2:B:53:GLN:O	2:B:53:GLN:HG2	2.08	0.52
1:C:306:THR:HB	1:C:377:THR:HG23	1.92	0.52
1:A:342:PRO:HG2	2:B:53:GLN:HE22	1.73	0.52
1:C:249:ASP:OD1	1:C:250:LYS:HG3	2.09	0.52
1:A:344:P1L:H223	1:A:344:P1L:H171	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:268:ASN:ND2	3:C:506:HOH:O	2.42	0.52
1:C:343:MET:HG2	1:C:344:P1L:H102	1.93	0.51
1:C:318:VAL:HG11	1:C:346:TYR:CE2	2.46	0.51
2:D:70:ASN:HA	2:D:73:MET:HB2	1.93	0.50
1:C:276:TRP:HB3	1:C:395:SER:HB2	1.92	0.50
1:C:309:THR:HG21	1:C:344:P1L:H112	1.95	0.49
2:B:86:MET:HA	2:B:89:ARG:HD2	1.93	0.49
1:A:214:ARG:HA	1:A:287:ALA:HB2	1.93	0.49
2:D:58:ARG:NH2	3:D:201:HOH:O	2.45	0.49
1:C:359:GLU:HB2	1:C:362:MET:HE2	1.94	0.48
1:A:321:LYS:HD2	2:B:53:GLN:CD	2.34	0.48
1:A:254:LYS:O	1:A:257:GLY:N	2.47	0.48
2:D:55:VAL:HG12	2:D:57:VAL:HG23	1.96	0.48
1:A:196:ILE:CD1	1:A:405:ILE:HD13	2.45	0.47
1:A:211:GLU:CD	1:A:340:ARG:HH12	2.17	0.47
1:C:344:P1L:H	1:C:344:P1L:H9C1	1.80	0.47
1:C:276:TRP:HA	1:C:393:GLU:O	2.14	0.47
1:C:211:GLU:OE2	1:C:219:TYR:OH	2.27	0.47
1:A:251:PHE:CZ	1:A:389:ALA:HB1	2.51	0.46
1:C:249:ASP:OD2	2:D:89:ARG:NH2	2.43	0.46
1:A:222:HIS:CD2	1:A:281:CYS:HB3	2.51	0.46
1:A:298:GLU:HG2	1:A:335:VAL:HG22	1.98	0.45
1:A:276:TRP:HB3	1:A:395:SER:HB2	1.98	0.45
1:C:244:ILE:HG12	1:C:248:TYR:CE2	2.52	0.44
1:C:344:P1L:H172	1:C:344:P1L:H141	1.42	0.44
1:A:336:TYR:CD1	1:A:336:TYR:N	2.86	0.44
1:C:211:GLU:CD	1:C:340:ARG:HH12	2.21	0.44
1:C:254:LYS:HD2	1:C:254:LYS:H	1.82	0.44
1:A:262:PHE:HE2	1:A:410:LYS:HB2	1.83	0.44
2:B:74:ASN:OD1	2:B:74:ASN:N	2.51	0.43
1:C:247:ILE:HD13	1:C:247:ILE:HA	1.78	0.43
1:C:397:SER:OG	1:C:398:GLU:N	2.51	0.43
1:C:336:TYR:CD1	1:C:336:TYR:N	2.86	0.43
1:C:343:MET:HB3	1:C:343:MET:HE2	1.85	0.43
1:A:293:VAL:HG21	1:A:344:P1L:H111	2.00	0.43
1:C:364:ASN:OD1	1:C:394:VAL:N	2.53	0.42
1:A:318:VAL:HA	2:B:58:ARG:HE	1.85	0.42
1:A:343:MET:HE3	1:A:347:MET:HB3	2.02	0.41
1:C:325:GLU:HG3	1:C:336:TYR:HB3	2.01	0.41
2:B:53:GLN:O	2:B:53:GLN:CG	2.64	0.41
1:A:344:P1L:H172	1:A:344:P1L:H141	1.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:215:ASP:HB2	1:C:216:PRO:HD2	2.03	0.41
1:A:215:ASP:HB2	1:C:399:HIS:HA	2.03	0.40
1:A:344:P1L:H131	1:A:347:MET:HG3	2.03	0.40
1:A:353:LYS:HZ2	2:B:65:LEU:HD23	1.84	0.40
1:C:312:CYS:HB2	1:C:371:THR:OG1	2.21	0.40
1:A:196:ILE:CD1	1:A:405:ILE:HG21	2.47	0.40
1:A:210:LEU:CD1	1:A:289:ALA:HB1	2.43	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	203/219 (93%)	191 (94%)	12 (6%)	0	100	100
1	C	206/219 (94%)	200 (97%)	6 (3%)	0	100	100
2	B	48/125 (38%)	46 (96%)	2 (4%)	0	100	100
2	D	47/125 (38%)	44 (94%)	3 (6%)	0	100	100
All	All	504/688 (73%)	481 (95%)	23 (5%)	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	188/198 (95%)	186 (99%)	2 (1%)	73	92
1	C	190/198 (96%)	187 (98%)	3 (2%)	62	88
2	B	45/103 (44%)	43 (96%)	2 (4%)	28	61
2	D	45/103 (44%)	44 (98%)	1 (2%)	52	83
All	All	468/602 (78%)	460 (98%)	8 (2%)	60	87

All (8) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	201	LEU
1	A	331	ASN
2	B	52	HIS
2	B	54	ILE
1	C	322	VAL
1	C	325	GLU
1	C	397	SER
2	D	87	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (7) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	212	GLN
1	A	213	GLN
1	A	399	HIS
1	A	402	GLN
1	C	317	GLN
1	C	402	GLN
2	D	53	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](#)

2 non-standard protein/DNA/RNA residues are modelled in this entry.

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
1	P1L	C	344	1	21,22,23	0.38	0	18,23,25	0.19	0
1	P1L	A	344	1	21,22,23	0.36	0	18,23,25	0.20	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
1	P1L	C	344	1	-	16/20/22/24	-
1	P1L	A	344	1	-	13/20/22/24	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (29) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	C	344	P1L	N-CA-CB-SG
1	C	344	P1L	C-CA-CB-SG
1	C	344	P1L	C7-C8-C9-C10
1	A	344	P1L	N-CA-CB-SG
1	A	344	P1L	C-CA-CB-SG
1	C	344	P1L	C10-C11-C12-C13
1	C	344	P1L	C14-C15-C16-C17
1	A	344	P1L	C12-C13-C14-C15
1	A	344	P1L	C14-C15-C16-C17
1	C	344	P1L	C17-C18-C19-C20
1	A	344	P1L	C11-C10-C9-C8
1	C	344	P1L	C13-C14-C15-C16
1	C	344	P1L	C15-C16-C17-C18
1	C	344	P1L	C18-C19-C20-C21
1	A	344	P1L	C17-C18-C19-C20
1	A	344	P1L	C15-C16-C17-C18
1	C	344	P1L	C11-C12-C13-C14
1	A	344	P1L	C9-C10-C11-C12

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Mol	Chain	Res	Type	Atoms
1	A	344	P1L	C19-C20-C21-C22
1	C	344	P1L	O7-C7-SG-CB
1	C	344	P1L	SG-C7-C8-C9
1	C	344	P1L	O7-C7-C8-C9
1	C	344	P1L	C8-C7-SG-CB
1	A	344	P1L	C16-C17-C18-C19
1	A	344	P1L	C18-C19-C20-C21
1	A	344	P1L	C7-C8-C9-C10
1	A	344	P1L	C11-C12-C13-C14
1	C	344	P1L	C12-C13-C14-C15
1	C	344	P1L	C11-C10-C9-C8

There are no ring outliers.

2 monomers are involved in 8 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	C	344	P1L	4	0
1	A	344	P1L	4	0

## 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

### 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	207/219 (94%)	0.53	22 (10%) <b>6</b> <b>3</b>	35, 65, 113, 163	0
1	C	210/219 (95%)	0.12	13 (6%) <b>20</b> <b>13</b>	30, 60, 107, 148	0
2	B	50/125 (40%)	0.51	7 (14%) <b>2</b> <b>1</b>	45, 83, 135, 139	0
2	D	49/125 (39%)	0.22	1 (2%) <b>65</b> <b>56</b>	45, 75, 116, 123	0
All	All	516/688 (75%)	0.33	43 (8%) <b>11</b> <b>6</b>	30, 66, 123, 163	0

All (43) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	C	399	HIS	10.1
1	A	331	ASN	9.7
1	A	399	HIS	7.3
1	A	286	ASP	5.4
1	A	333	ARG	4.9
1	C	255	LYS	4.3
1	A	284	GLN	4.1
1	A	287	ALA	4.1
1	A	213	GLN	3.8
1	A	249	ASP	3.7
2	B	100	GLU	3.7
1	C	396	ASN	3.7
1	C	286	ASP	3.4
1	C	287	ALA	3.3
1	C	400	GLY	3.3
2	B	77	THR	3.2
2	D	77	THR	3.2
1	C	411	ASP	3.1
1	A	330	GLU	3.1
1	A	329	PHE	3.1
1	C	401	ALA	3.1

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Mol	Chain	Res	Type	RSRZ
2	B	73	MET	3.1
1	C	264	LYS	3.0
1	A	315	GLY	2.8
1	A	253	GLU	2.8
1	A	264	LYS	2.7
1	A	289	ALA	2.7
1	A	328	ARG	2.6
2	B	76	LYS	2.5
1	A	303	MET	2.5
1	C	326	TYR	2.5
1	A	265	GLY	2.4
1	C	284	GLN	2.4
2	B	61	SER	2.4
1	A	285	ASP	2.3
1	A	398	GLU	2.3
1	A	252	PRO	2.3
2	B	70	ASN	2.2
2	B	59	GLY	2.2
1	A	312	CYS	2.1
1	A	335	VAL	2.1
1	C	238	LEU	2.1
1	C	285	ASP	2.1

## 6.2 Non-standard residues in protein, DNA, RNA chains [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(Å <sup>2</sup> )	Q<0.9
1	P1L	A	344	23/24	0.81	0.34	52,79,111,124	0
1	P1L	C	344	23/24	0.89	0.28	48,61,97,148	0

## 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.