



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 13, 2017 – 01:51 am GMT

PDB ID : 2Q4P
Title : Ensemble refinement of the crystal structure of protein from Mus musculus Mm.29898
Authors : Levin, E.J.; Kondrashov, D.A.; Wesenberg, G.E.; Phillips Jr., G.N.; Center for Eukaryotic Structural Genomics (CESG)
Deposited on : 2007-05-31
Resolution : 2.32 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

A user guide is available at

<http://wwpdb.org/validation/2016/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
Xtriage (Phenix)	:	1.9-1692
EDS	:	trunk28620
Percentile statistics	:	20161228.v01 (using entries in the PDB archive December 28th 2016)
Refmac	:	5.8.0135
CCP4	:	6.5.0
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	recalc28949

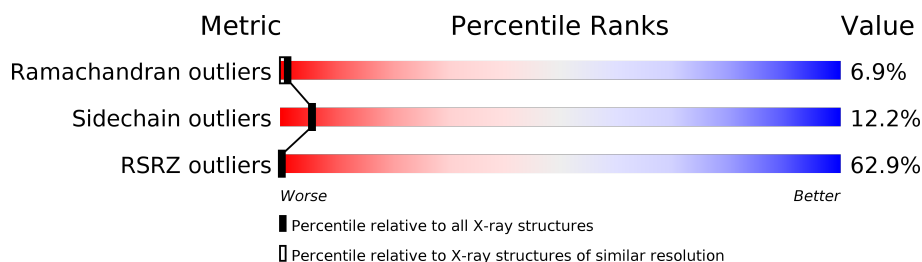
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.32 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))
Ramachandran outliers	110173	5386 (2.34-2.30)
Sidechain outliers	110143	5385 (2.34-2.30)
RSRZ outliers	101464	4814 (2.34-2.30)

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 on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. 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	1-A	170	<div> <div>46%</div> <div> <div>55%</div> <div>11%</div> <div>•</div> <div>34%</div> </div> </div>
1	1-B	170	<div> <div>46%</div> <div> <div>56%</div> <div>8%</div> <div>36%</div> </div> </div>
1	10-A	170	<div> <div>46%</div> <div> <div>55%</div> <div>9%</div> <div>•</div> <div>34%</div> </div> </div>
1	10-B	170	<div> <div>46%</div> <div> <div>54%</div> <div>10%</div> <div>36%</div> </div> </div>
1	11-A	170	<div> <div>46%</div> <div> <div>49%</div> <div>16%</div> <div>•</div> <div>34%</div> </div> </div>
1	11-B	170	<div> <div>46%</div> <div> <div>57%</div> <div>6%</div> <div>•</div> <div>36%</div> </div> </div>
1	12-A	170	<div> <div>46%</div> <div> <div>54%</div> <div>11%</div> <div>•</div> <div>34%</div> </div> </div>
1	12-B	170	<div> <div>46%</div> <div> <div>50%</div> <div>14%</div> <div>•</div> <div>36%</div> </div> </div>

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Mol	Chain	Length	Quality of chain
1	13-A	170	<div>46%</div> <div>52%14%34%</div>
1	13-B	170	<div>46%</div> <div>46%15%36%</div>
1	14-A	170	<div>46%</div> <div>49%16%34%</div>
1	14-B	170	<div>46%</div> <div>45%16%36%</div>
1	15-A	170	<div>46%</div> <div>52%14%34%</div>
1	15-B	170	<div>46%</div> <div>46%16%36%</div>
1	16-A	170	<div>46%</div> <div>46%15%5%34%</div>
1	16-B	170	<div>46%</div> <div>41%21%36%</div>
1	2-A	170	<div>46%</div> <div>55%11%34%</div>
1	2-B	170	<div>46%</div> <div>54%9%36%</div>
1	3-A	170	<div>46%</div> <div>59%6%34%</div>
1	3-B	170	<div>46%</div> <div>58%6%36%</div>
1	4-A	170	<div>46%</div> <div>58%8%34%</div>
1	4-B	170	<div>46%</div> <div>53%10%36%</div>
1	5-A	170	<div>46%</div> <div>58%8%34%</div>
1	5-B	170	<div>46%</div> <div>54%9%36%</div>
1	6-A	170	<div>46%</div> <div>58%8%34%</div>
1	6-B	170	<div>46%</div> <div>53%11%36%</div>
1	7-A	170	<div>46%</div> <div>58%7%34%</div>
1	7-B	170	<div>46%</div> <div>53%10%36%</div>
1	8-A	170	<div>46%</div> <div>59%8%34%</div>
1	8-B	170	<div>46%</div> <div>52%11%36%</div>
1	9-A	170	<div>46%</div> <div>54%11%34%</div>
1	9-B	170	<div>46%</div> <div>57%6%36%</div>

2 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 29392 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 Protein RS21-C6.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	1-A	113	Total	C	N	O	S	Se	0	0	0
			922	589	163	168	1	1			
1	2-A	113	Total	C	N	O	S	Se	0	0	0
			922	589	163	168	1	1			
1	3-A	113	Total	C	N	O	S	Se	0	0	0
			922	589	163	168	1	1			
1	4-A	113	Total	C	N	O	S	Se	0	0	0
			922	589	163	168	1	1			
1	5-A	113	Total	C	N	O	S	Se	0	0	0
			922	589	163	168	1	1			
1	6-A	113	Total	C	N	O	S	Se	0	0	0
			922	589	163	168	1	1			
1	7-A	113	Total	C	N	O	S	Se	0	0	0
			922	589	163	168	1	1			
1	8-A	113	Total	C	N	O	S	Se	0	0	0
			922	589	163	168	1	1			
1	9-A	113	Total	C	N	O	S	Se	0	0	0
			922	589	163	168	1	1			
1	10-A	113	Total	C	N	O	S	Se	0	0	0
			922	589	163	168	1	1			
1	11-A	113	Total	C	N	O	S	Se	0	0	0
			922	589	163	168	1	1			
1	12-A	113	Total	C	N	O	S	Se	0	0	0
			922	589	163	168	1	1			
1	13-A	113	Total	C	N	O	S	Se	0	0	0
			922	589	163	168	1	1			
1	14-A	113	Total	C	N	O	S	Se	0	0	0
			922	589	163	168	1	1			
1	15-A	113	Total	C	N	O	S	Se	0	0	0
			922	589	163	168	1	1			
1	16-A	113	Total	C	N	O	S	Se	0	0	0
			922	589	163	168	1	1			

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Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	1-B	109	Total	C	N	O	S	Se	0	0	0
			891	569	157	163	1	1			
1	2-B	109	Total	C	N	O	S	Se	0	0	0
			891	569	157	163	1	1			
1	3-B	109	Total	C	N	O	S	Se	0	0	0
			891	569	157	163	1	1			
1	4-B	109	Total	C	N	O	S	Se	0	0	0
			891	569	157	163	1	1			
1	5-B	109	Total	C	N	O	S	Se	0	0	0
			891	569	157	163	1	1			
1	6-B	109	Total	C	N	O	S	Se	0	0	0
			891	569	157	163	1	1			
1	7-B	109	Total	C	N	O	S	Se	0	0	0
			891	569	157	163	1	1			
1	8-B	109	Total	C	N	O	S	Se	0	0	0
			891	569	157	163	1	1			
1	9-B	109	Total	C	N	O	S	Se	0	0	0
			891	569	157	163	1	1			
1	10-B	109	Total	C	N	O	S	Se	0	0	0
			891	569	157	163	1	1			
1	11-B	109	Total	C	N	O	S	Se	0	0	0
			891	569	157	163	1	1			
1	12-B	109	Total	C	N	O	S	Se	0	0	0
			891	569	157	163	1	1			
1	13-B	109	Total	C	N	O	S	Se	0	0	0
			891	569	157	163	1	1			
1	14-B	109	Total	C	N	O	S	Se	0	0	0
			891	569	157	163	1	1			
1	15-B	109	Total	C	N	O	S	Se	0	0	0
			891	569	157	163	1	1			
1	16-B	109	Total	C	N	O	S	Se	0	0	0
			891	569	157	163	1	1			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	1	MSE	MET	MODIFIED RESIDUE	UNP Q9QY93
A	122	MSE	MET	MODIFIED RESIDUE	UNP Q9QY93
B	1	MSE	MET	MODIFIED RESIDUE	UNP Q9QY93
B	122	MSE	MET	MODIFIED RESIDUE	UNP Q9QY93

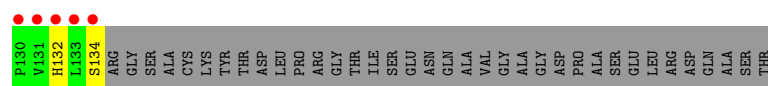
- Molecule 2 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
2	1-A	12	Total O 12 12	0	0
2	2-A	11	Total O 11 11	0	0
2	3-A	12	Total O 12 12	0	0
2	4-A	11	Total O 11 11	0	0
2	5-A	12	Total O 12 12	0	0
2	6-A	11	Total O 11 11	0	0
2	7-A	12	Total O 12 12	0	0
2	8-A	13	Total O 13 13	0	0
2	9-A	11	Total O 11 11	0	0
2	10-A	10	Total O 10 10	0	0
2	11-A	12	Total O 12 12	0	0
2	12-A	12	Total O 12 12	0	0
2	13-A	13	Total O 13 13	0	0
2	14-A	12	Total O 12 12	0	0
2	15-A	12	Total O 12 12	0	0
2	16-A	13	Total O 13 13	0	0
2	1-B	12	Total O 12 12	0	0
2	2-B	13	Total O 13 13	0	0
2	3-B	12	Total O 12 12	0	0
2	4-B	13	Total O 13 13	0	0
2	5-B	12	Total O 12 12	0	0
2	6-B	13	Total O 13 13	0	0

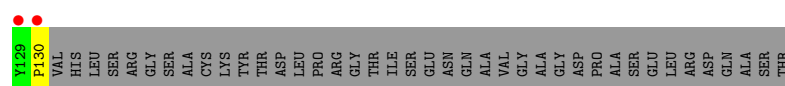
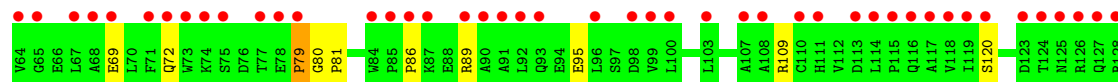
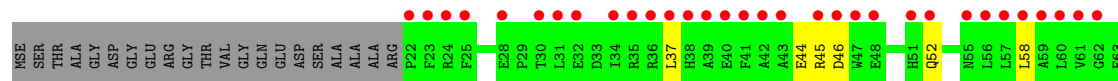
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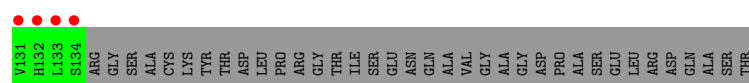
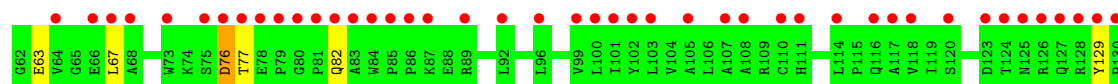
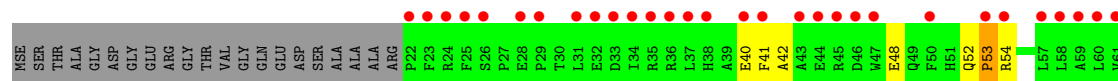
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	7-B	12	Total 12	O 12	0	0
2	8-B	11	Total 11	O 11	0	0
2	9-B	13	Total 13	O 13	0	0
2	10-B	14	Total 14	O 14	0	0
2	11-B	12	Total 12	O 12	0	0
2	12-B	12	Total 12	O 12	0	0
2	13-B	11	Total 11	O 11	0	0
2	14-B	12	Total 12	O 12	0	0
2	15-B	12	Total 12	O 12	0	0
2	16-B	11	Total 11	O 11	0	0



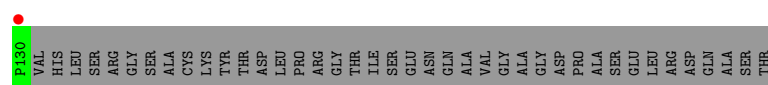
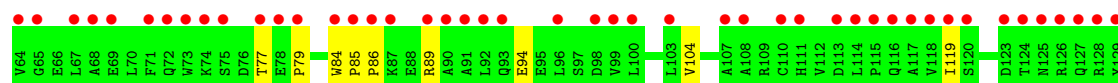
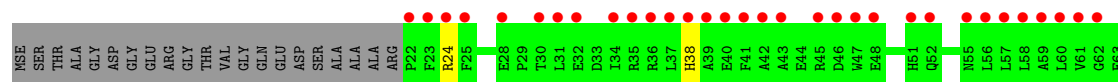
● Molecule 1: Protein RS21-C6



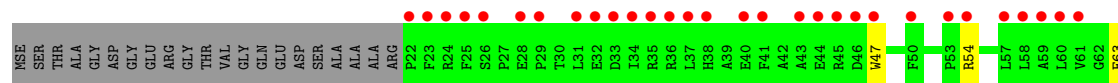
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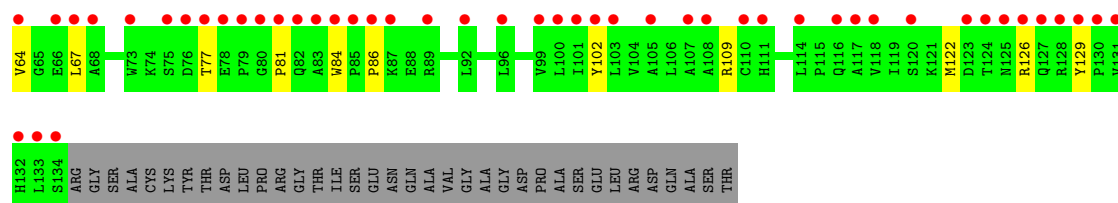


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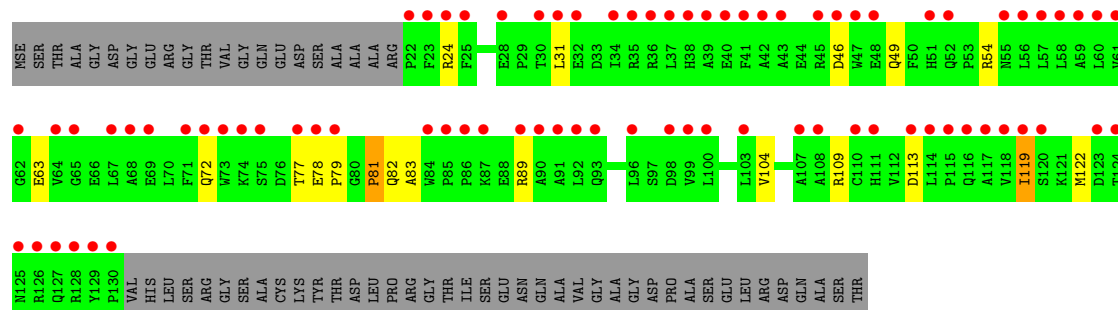


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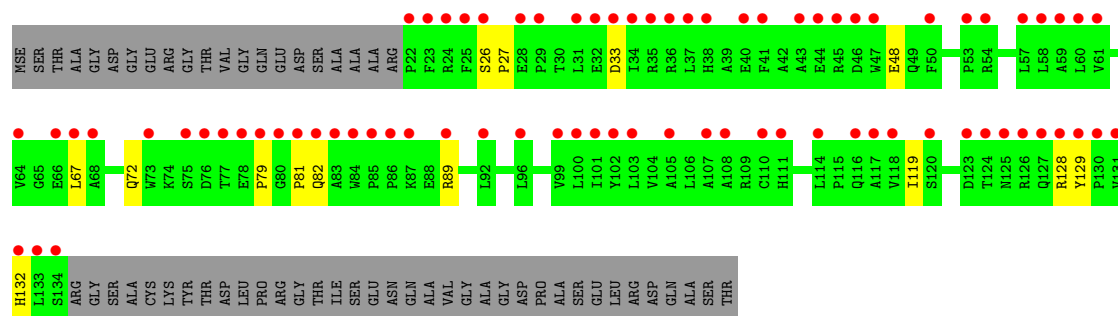




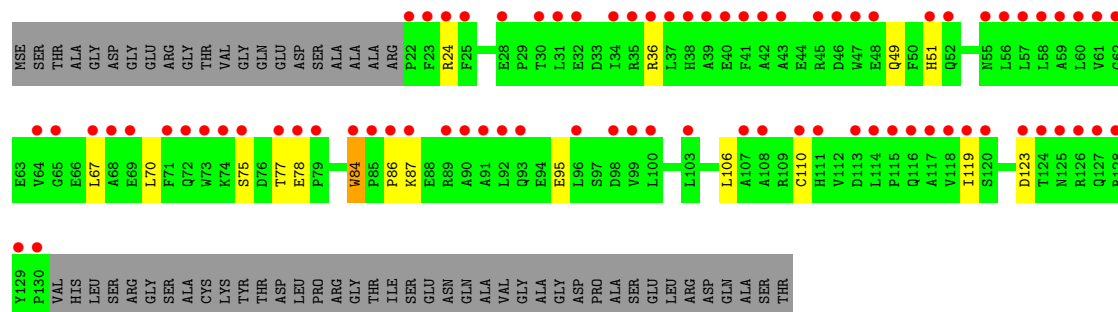
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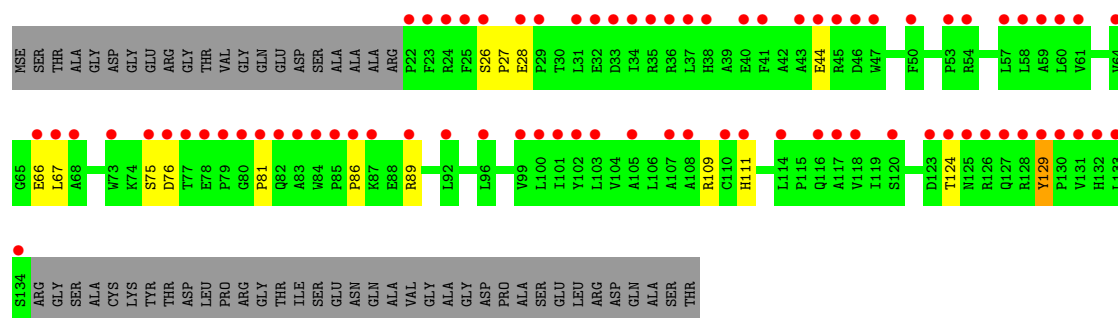


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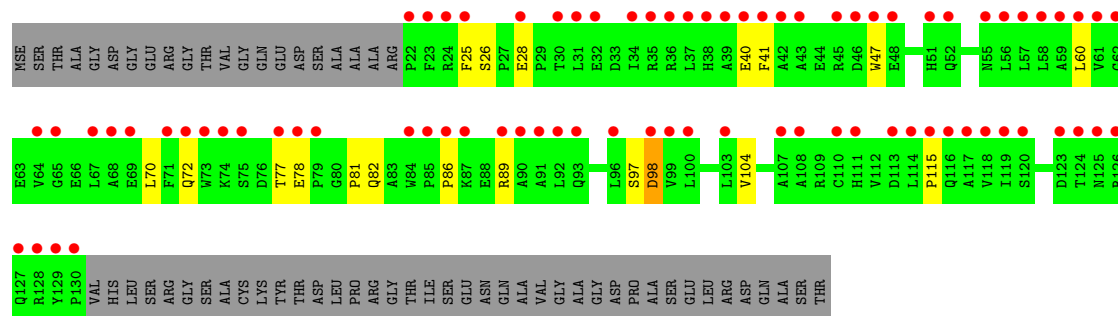


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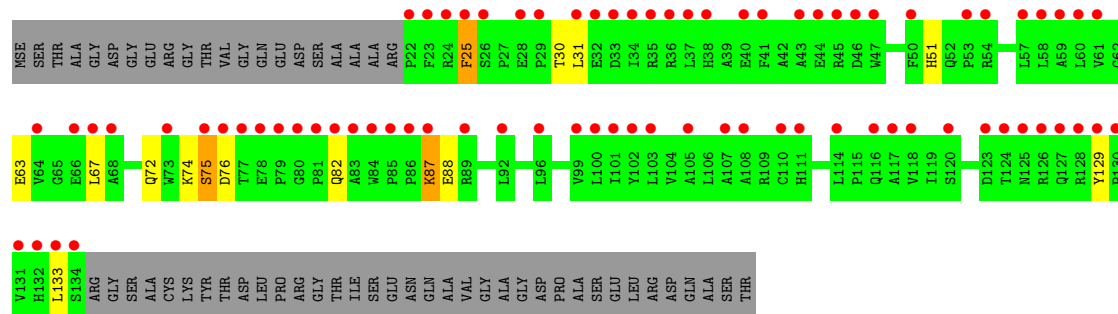




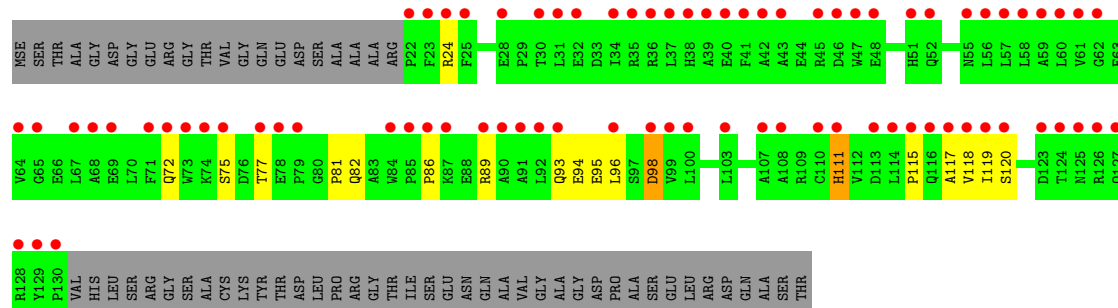
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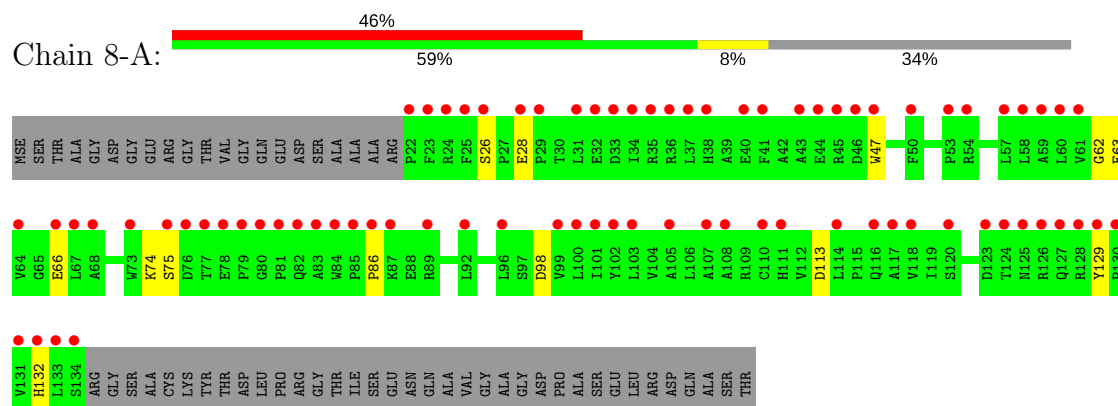


• Molecule 1: Protein RS21-C6



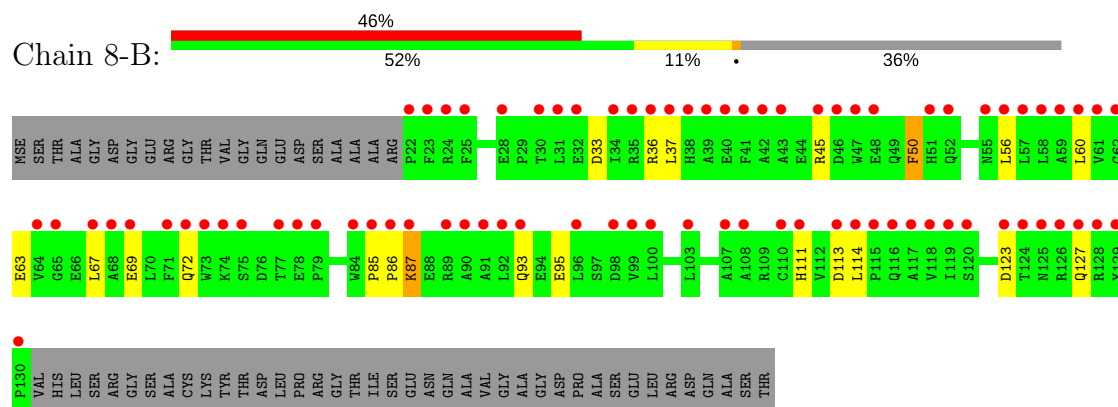
- Molecule 1: Protein RS21-C6

Chain 8-A:



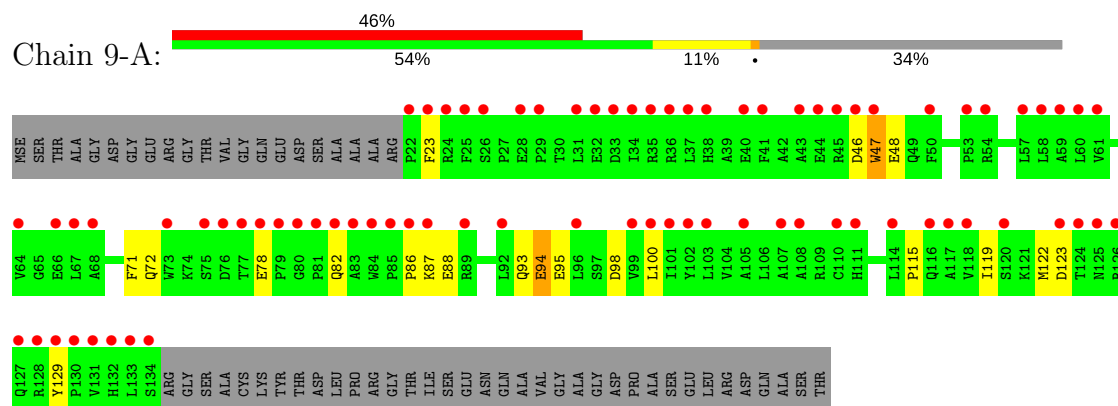
- Molecule 1: Protein RS21-C6

Chain 8-B:



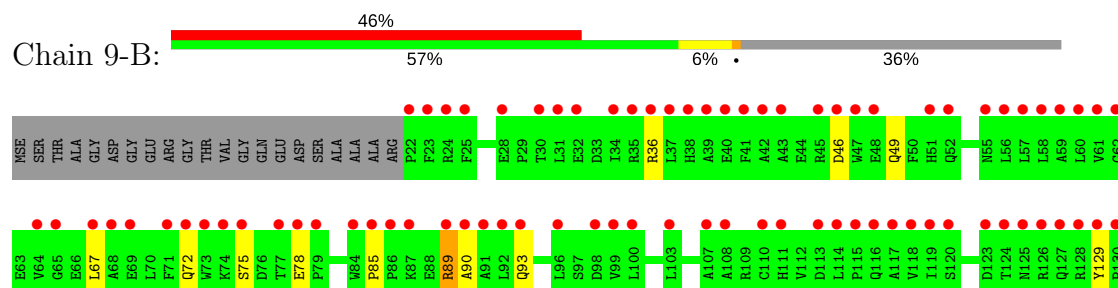
- Molecule 1: Protein RS21-C6

Chain 9-A:



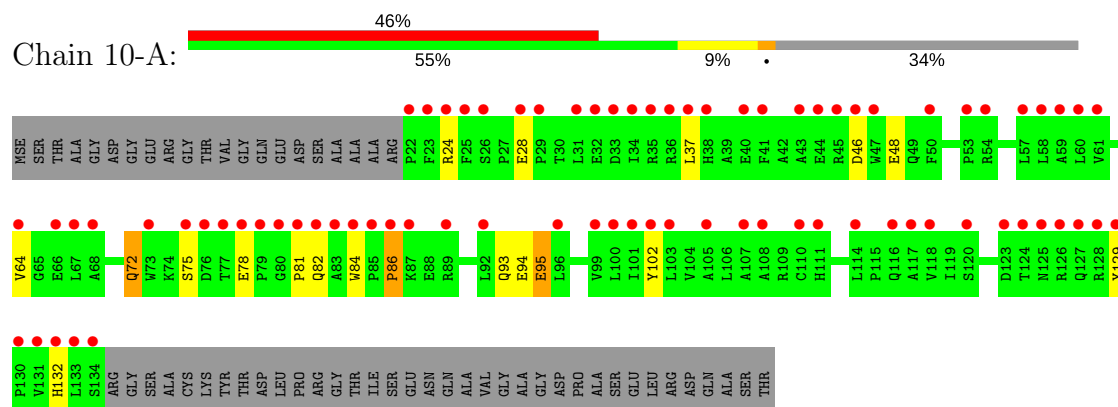
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Chain 9-B:

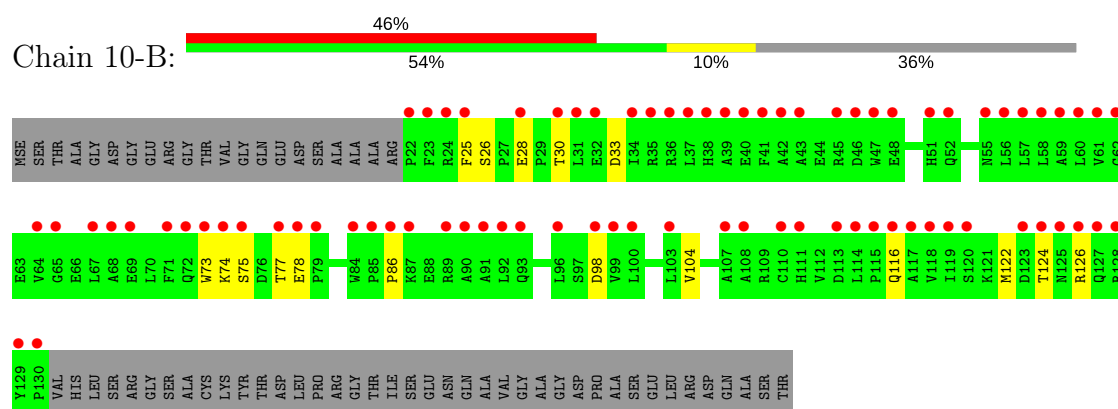


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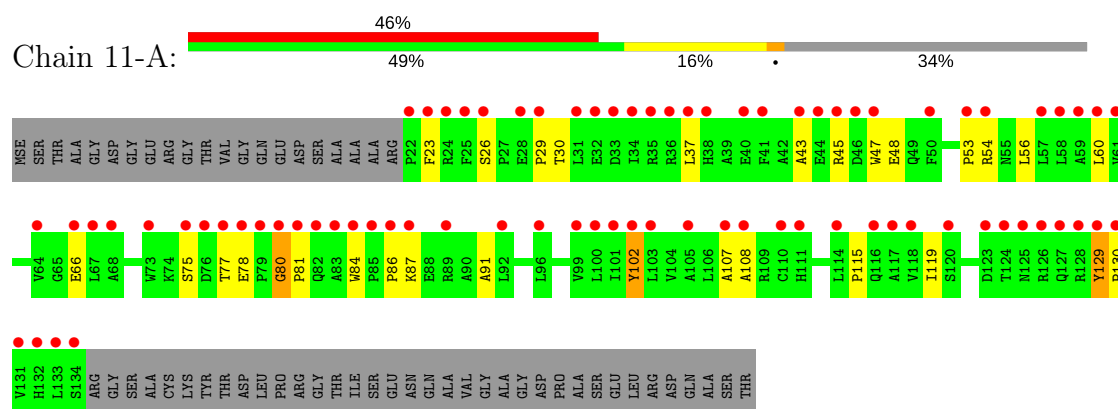
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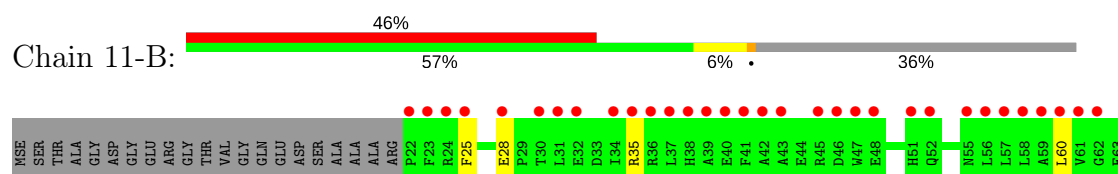
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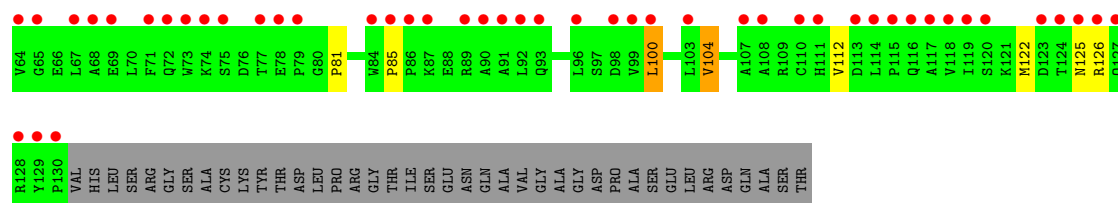


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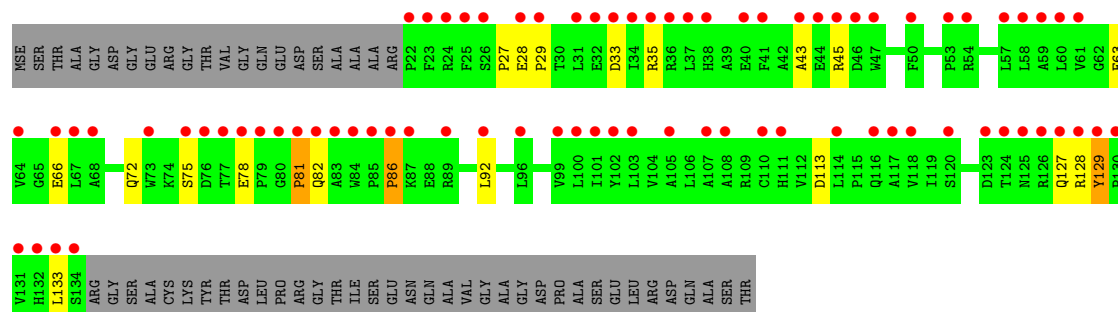


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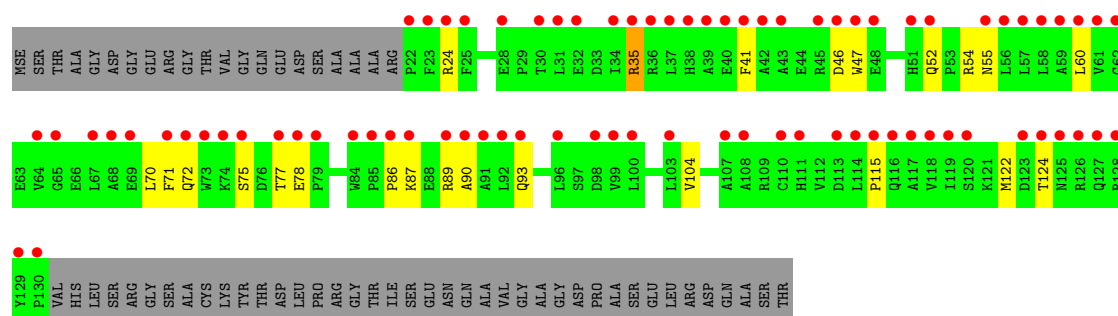




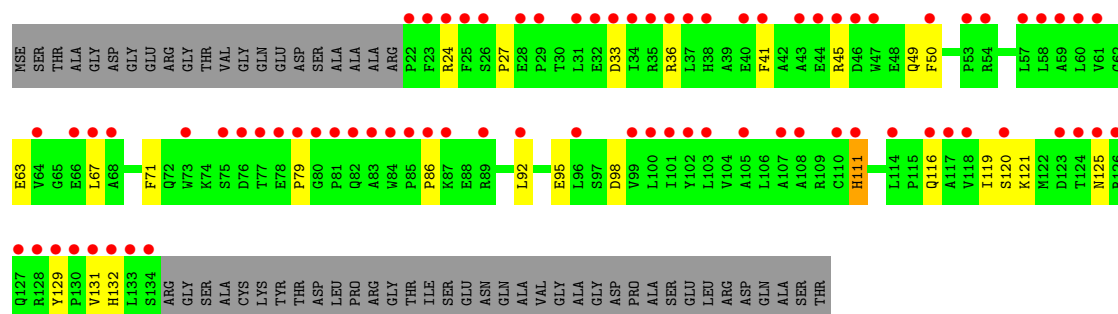
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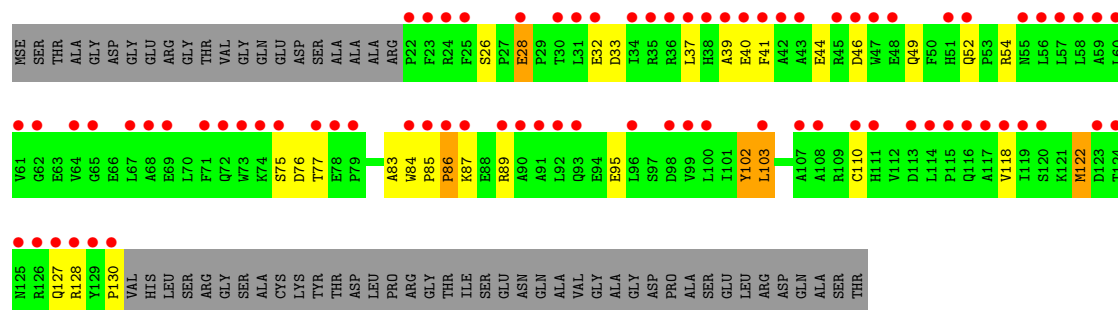


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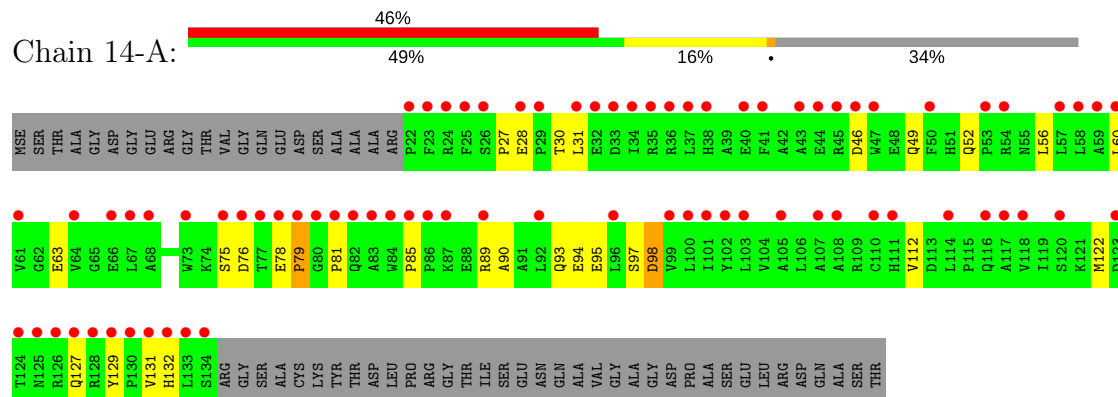


• Molecule 1: Protein RS21-C6

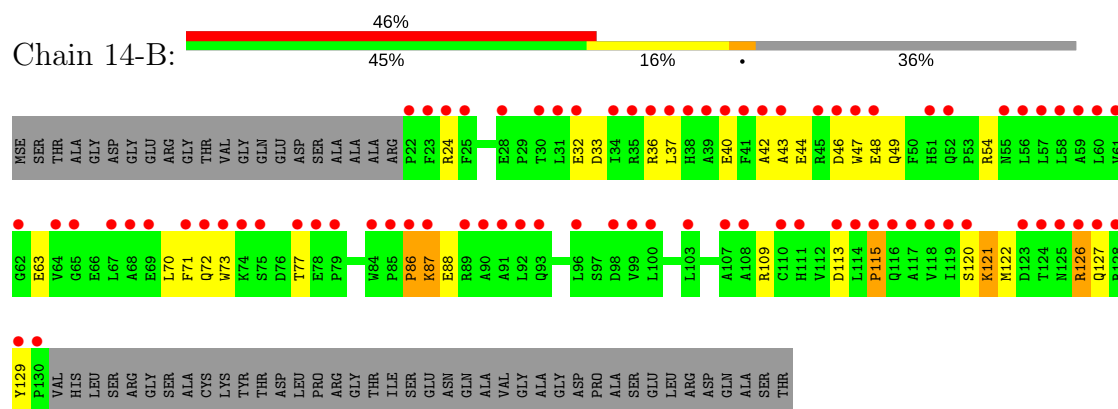




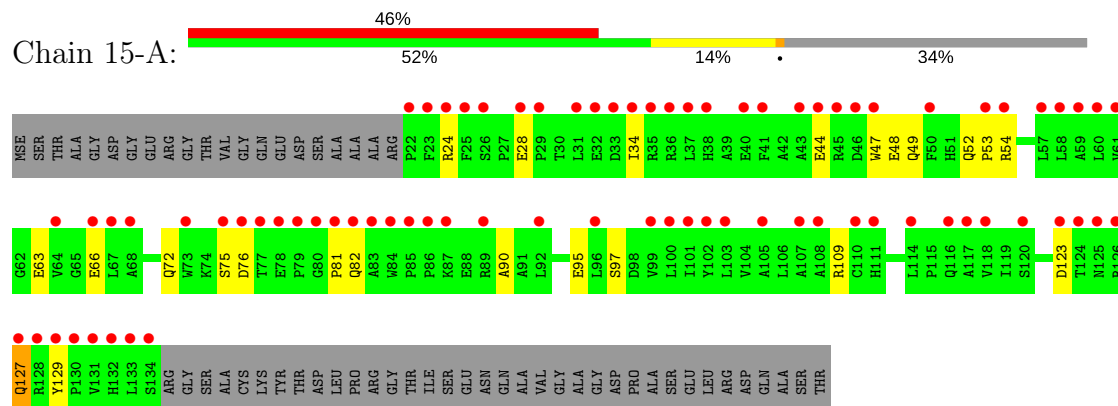
• Molecule 1: Protein RS21-C6



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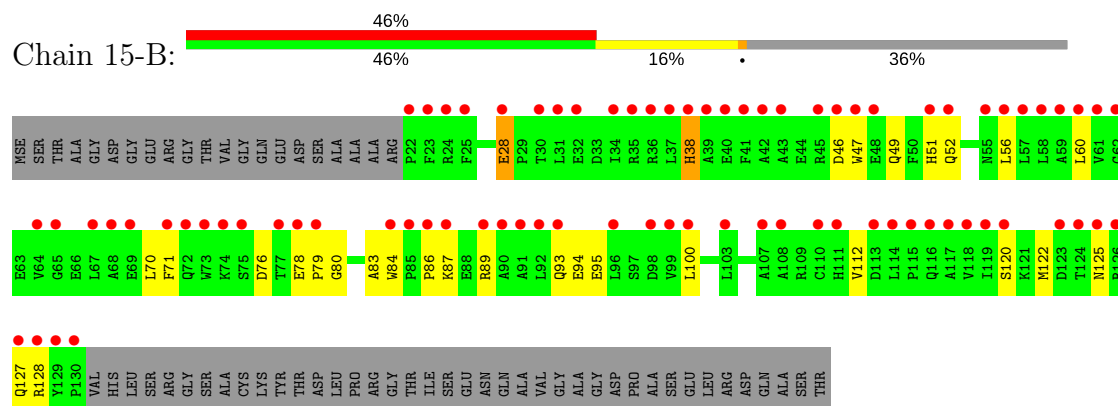


• Molecule 1: Protein RS21-C6



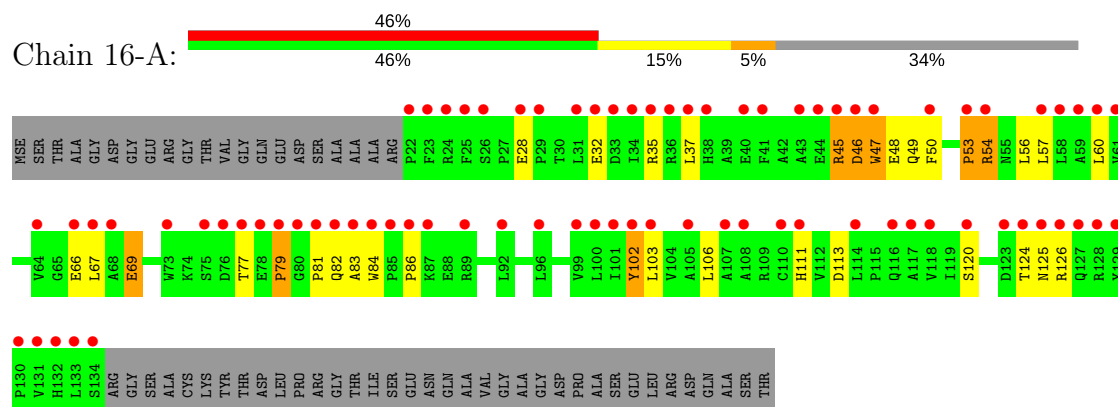
• Molecule 1: Protein RS21-C6

Chain 15-B:



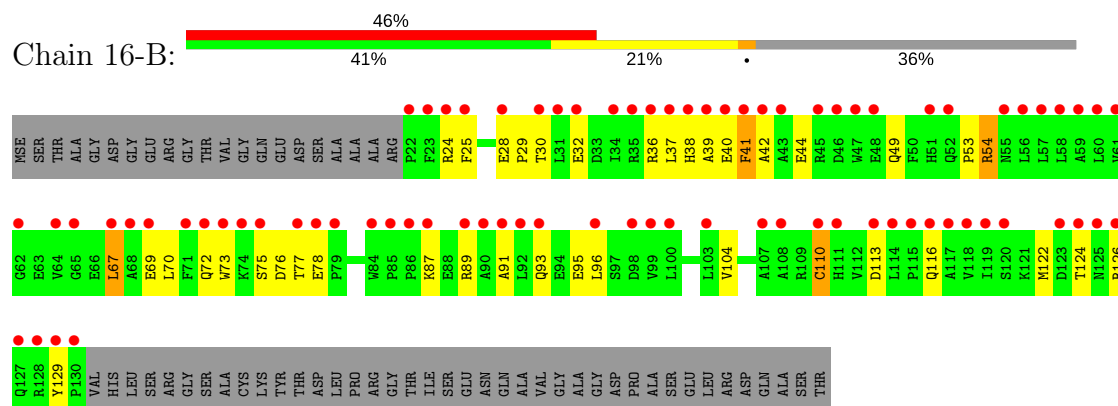
• Molecule 1: Protein RS21-C6

Chain 16-A:



• Molecule 1: Protein RS21-C6

Chain 16-B:



4 Data and refinement statistics

Property	Value	Source
Space group	P 65 2 2	Depositor
Cell constants a, b, c, α , β , γ	73.54Å 73.54Å 236.08Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	37.93 – 2.32 43.29 – 2.32	Depositor EDS
% Data completeness (in resolution range)	98.3 (37.93-2.32) 98.5 (43.29-2.32)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.69 (at 2.32Å)	Xtriage
Refinement program	CNS 1.1	Depositor
R, R_{free}	0.138 , 0.233 (Not available) , (Not available)	Depositor DCC
R_{free} test set	NotAvailable	DCC
Wilson B-factor (Å ²)	55.5	Xtriage
Anisotropy	0.134	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.40 , 652.5	EDS
L-test for twinning ²	$\langle L \rangle = 0.49$, $\langle L^2 \rangle = 0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.93	EDS
Total number of atoms	29392	wwPDB-VP
Average B, all atoms (Å ²)	46.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.77% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical 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 ⓘ

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	1-A	0.83	0/947	1.09	1/1288 (0.1%)
1	1-B	0.93	0/915	1.02	2/1244 (0.2%)
1	2-A	0.92	0/947	1.08	2/1288 (0.2%)
1	2-B	0.94	1/915 (0.1%)	1.01	1/1244 (0.1%)
1	3-A	0.87	0/947	0.94	0/1288
1	3-B	0.99	0/915	0.95	0/1244
1	4-A	0.94	0/947	0.98	0/1288
1	4-B	1.01	0/915	1.11	3/1244 (0.2%)
1	5-A	0.89	0/947	0.91	0/1288
1	5-B	0.93	1/915 (0.1%)	0.98	3/1244 (0.2%)
1	6-A	0.87	0/947	0.98	0/1288
1	6-B	1.05	2/915 (0.2%)	1.11	4/1244 (0.3%)
1	7-A	0.90	0/947	0.99	2/1288 (0.2%)
1	7-B	0.92	0/915	0.98	1/1244 (0.1%)
1	8-A	0.86	0/947	0.99	1/1288 (0.1%)
1	8-B	0.99	2/915 (0.2%)	1.09	2/1244 (0.2%)
1	9-A	0.94	2/947 (0.2%)	0.98	0/1288
1	9-B	0.90	0/915	0.94	1/1244 (0.1%)
1	10-A	0.93	1/947 (0.1%)	1.01	2/1288 (0.2%)
1	10-B	0.98	0/915	1.04	4/1244 (0.3%)
1	11-A	0.95	1/947 (0.1%)	1.12	7/1288 (0.5%)
1	11-B	0.99	1/915 (0.1%)	1.22	4/1244 (0.3%)
1	12-A	0.96	1/947 (0.1%)	1.02	2/1288 (0.2%)
1	12-B	0.91	1/915 (0.1%)	1.07	3/1244 (0.2%)
1	13-A	1.05	0/947	1.15	2/1288 (0.2%)
1	13-B	1.28	5/915 (0.5%)	1.26	7/1244 (0.6%)
1	14-A	1.05	1/947 (0.1%)	1.23	4/1288 (0.3%)
1	14-B	1.10	2/915 (0.2%)	1.13	3/1244 (0.2%)
1	15-A	0.98	1/947 (0.1%)	1.10	2/1288 (0.2%)
1	15-B	1.16	2/915 (0.2%)	1.16	4/1244 (0.3%)
1	16-A	1.11	2/947 (0.2%)	1.31	10/1288 (0.8%)
1	16-B	1.39	9/915 (1.0%)	1.41	13/1244 (1.0%)
All	All	0.99	35/29792 (0.1%)	1.08	90/40512 (0.2%)

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	5-B	0	1
1	9-A	0	1
1	11-A	0	1
1	12-A	0	1
1	13-B	0	2
1	16-A	0	1
1	16-B	0	1
All	All	0	8

All (35) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	16-B	42	ALA	CA-CB	13.50	1.80	1.52
1	16-B	28	GLU	CD-OE1	-8.05	1.16	1.25
1	16-B	28	GLU	CG-CD	7.98	1.64	1.51
1	13-B	39	ALA	CA-CB	-7.26	1.37	1.52
1	14-A	94	GLU	CG-CD	7.26	1.62	1.51
1	9-A	78	GLU	CG-CD	7.16	1.62	1.51
1	12-A	113	ASP	CB-CG	7.02	1.66	1.51
1	16-B	69	GLU	CG-CD	6.97	1.62	1.51
1	16-B	69	GLU	CB-CG	6.86	1.65	1.52
1	13-B	102	TYR	CD2-CE2	6.27	1.48	1.39
1	14-B	47	TRP	CG-CD1	5.94	1.45	1.36
1	16-B	104	VAL	CB-CG1	-5.85	1.40	1.52
1	5-B	36	ARG	CG-CD	5.78	1.66	1.51
1	15-B	28	GLU	CG-CD	5.64	1.60	1.51
1	15-B	47	TRP	CG-CD1	5.61	1.44	1.36
1	11-A	102	TYR	CD1-CE1	5.59	1.47	1.39
1	13-B	28	GLU	CG-CD	5.57	1.60	1.51
1	16-A	69	GLU	CG-CD	5.47	1.60	1.51
1	15-A	109	ARG	CZ-NH2	5.46	1.40	1.33
1	16-B	28	GLU	CB-CG	5.42	1.62	1.52
1	13-B	44	GLU	CB-CG	5.42	1.62	1.52
1	6-B	41	PHE	CE2-CZ	5.41	1.47	1.37
1	13-B	102	TYR	CZ-OH	5.35	1.47	1.37
1	8-B	69	GLU	CG-CD	5.33	1.59	1.51
1	2-B	69	GLU	CG-CD	5.25	1.59	1.51
1	14-B	73	TRP	CE3-CZ3	5.25	1.47	1.38
1	8-B	33	ASP	CB-CG	5.24	1.62	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	16-A	32	GLU	CG-CD	5.23	1.59	1.51
1	10-A	95	GLU	CG-CD	5.18	1.59	1.51
1	12-B	47	TRP	CB-CG	-5.18	1.41	1.50
1	16-B	40	GLU	CB-CG	-5.17	1.42	1.52
1	16-B	104	VAL	CA-CB	5.16	1.65	1.54
1	9-A	94	GLU	CG-CD	5.06	1.59	1.51
1	11-B	104	VAL	CA-CB	5.05	1.65	1.54
1	6-B	47	TRP	CG-CD1	5.01	1.43	1.36

All (90) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	11-B	35	ARG	NE-CZ-NH1	15.25	127.92	120.30
1	11-B	35	ARG	NE-CZ-NH2	-14.82	112.89	120.30
1	12-B	35	ARG	NE-CZ-NH2	-10.14	115.23	120.30
1	6-B	89	ARG	NE-CZ-NH1	8.72	124.66	120.30
1	5-B	36	ARG	NE-CZ-NH1	8.12	124.36	120.30
1	12-B	35	ARG	NE-CZ-NH1	8.12	124.36	120.30
1	5-B	67	LEU	CA-CB-CG	7.83	133.32	115.30
1	11-A	56	LEU	CA-CB-CG	7.65	132.90	115.30
1	13-B	54	ARG	NE-CZ-NH1	7.51	124.06	120.30
1	6-B	89	ARG	NE-CZ-NH2	-7.46	116.57	120.30
1	16-A	37	LEU	CA-CB-CG	-7.19	98.76	115.30
1	8-B	56	LEU	CA-CB-CG	7.17	131.79	115.30
1	7-A	31	LEU	N-CA-C	-7.14	91.72	111.00
1	15-A	109	ARG	NE-CZ-NH1	-7.13	116.73	120.30
1	11-A	37	LEU	CA-CB-CG	-7.03	99.14	115.30
1	2-A	38	HIS	N-CA-C	-7.00	92.11	111.00
1	16-B	39	ALA	C-N-CA	6.99	139.19	121.70
1	8-A	113	ASP	CB-CG-OD1	-6.96	112.04	118.30
1	4-B	109	ARG	NE-CZ-NH1	-6.89	116.86	120.30
1	12-B	46	ASP	CB-CG-OD1	6.89	124.50	118.30
1	7-A	31	LEU	CA-CB-CG	6.87	131.10	115.30
1	13-B	54	ARG	NE-CZ-NH2	-6.86	116.87	120.30
1	1-B	28	GLU	N-CA-C	-6.76	92.76	111.00
1	16-B	39	ALA	CA-C-N	-6.74	102.38	117.20
1	10-B	30	THR	N-CA-C	-6.67	92.99	111.00
1	16-A	47	TRP	N-CA-C	6.66	128.97	111.00
1	10-B	26	SER	C-N-CD	-6.65	105.96	120.60
1	14-B	54	ARG	NE-CZ-NH2	-6.62	116.99	120.30
1	16-A	45	ARG	NE-CZ-NH2	6.59	123.60	120.30
1	16-B	91	ALA	N-CA-C	-6.45	93.60	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	15-A	54	ARG	NE-CZ-NH1	6.43	123.52	120.30
1	13-B	49	GLN	N-CA-C	-6.40	93.73	111.00
1	16-B	39	ALA	N-CA-C	6.39	128.25	111.00
1	10-A	24	ARG	NE-CZ-NH2	-6.38	117.11	120.30
1	14-B	109	ARG	NE-CZ-NH1	-6.36	117.12	120.30
1	5-B	36	ARG	NE-CZ-NH2	-6.32	117.14	120.30
1	13-B	130	PRO	N-CA-C	6.30	128.48	112.10
1	11-B	100	LEU	CA-CB-CG	6.24	129.64	115.30
1	6-B	26	SER	C-N-CD	-6.18	107.00	120.60
1	13-A	36	ARG	NE-CZ-NH1	-6.16	117.22	120.30
1	10-B	26	SER	C-N-CA	6.14	147.77	122.00
1	16-A	103	LEU	CA-CB-CG	-6.07	101.34	115.30
1	16-A	54	ARG	NE-CZ-NH1	6.05	123.33	120.30
1	2-B	109	ARG	NE-CZ-NH1	-5.98	117.31	120.30
1	16-A	45	ARG	CG-CD-NE	5.93	124.24	111.80
1	12-A	43	ALA	N-CA-C	-5.92	95.02	111.00
1	16-B	110	CYS	CA-CB-SG	-5.90	103.38	114.00
1	16-B	36	ARG	NE-CZ-NH2	-5.88	117.36	120.30
1	9-B	67	LEU	CA-CB-CG	5.84	128.73	115.30
1	14-A	49	GLN	N-CA-C	-5.84	95.24	111.00
1	1-B	25	PHE	N-CA-C	-5.83	95.26	111.00
1	12-A	113	ASP	CB-CG-OD2	5.76	123.48	118.30
1	16-B	39	ALA	O-C-N	5.69	131.80	122.70
1	2-A	33	ASP	CB-CG-OD1	5.67	123.41	118.30
1	14-A	76	ASP	CB-CG-OD1	5.62	123.36	118.30
1	16-A	113	ASP	N-CA-C	-5.61	95.85	111.00
1	11-A	80	GLY	N-CA-C	5.61	127.12	113.10
1	13-B	103	LEU	CA-CB-CG	-5.55	102.53	115.30
1	16-B	70	LEU	CB-CG-CD1	-5.55	101.57	111.00
1	13-A	36	ARG	NE-CZ-NH2	5.54	123.07	120.30
1	16-A	46	ASP	CB-CG-OD2	5.52	123.27	118.30
1	11-A	84	TRP	N-CA-C	-5.45	96.29	111.00
1	11-A	45	ARG	NE-CZ-NH1	-5.44	117.58	120.30
1	16-B	70	LEU	C-N-CA	-5.42	108.14	121.70
1	16-B	96	LEU	CA-CB-CG	-5.39	102.90	115.30
1	16-B	69	GLU	OE1-CD-OE2	-5.36	116.86	123.30
1	16-B	25	PHE	CB-CA-C	-5.36	99.68	110.40
1	14-B	36	ARG	NE-CZ-NH2	-5.35	117.62	120.30
1	11-A	102	TYR	CA-CB-CG	5.33	123.53	113.40
1	13-B	26	SER	N-CA-C	-5.29	96.72	111.00
1	16-A	46	ASP	CB-CG-OD1	-5.28	113.55	118.30
1	11-B	112	VAL	N-CA-C	-5.26	96.81	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	14-A	131	VAL	CB-CA-C	-5.25	101.42	111.40
1	15-B	56	LEU	CA-CB-CG	-5.24	103.24	115.30
1	1-A	56	LEU	CA-CB-CG	5.23	127.32	115.30
1	7-B	98	ASP	CB-CG-OD1	5.20	122.98	118.30
1	13-B	122	MSE	N-CA-C	-5.20	96.96	111.00
1	15-B	112	VAL	CB-CA-C	-5.19	101.54	111.40
1	8-B	36	ARG	NE-CZ-NH1	5.17	122.88	120.30
1	10-A	37	LEU	CA-CB-CG	-5.17	103.42	115.30
1	4-B	31	LEU	N-CA-C	-5.16	97.08	111.00
1	15-B	70	LEU	CA-CB-CG	5.14	127.12	115.30
1	15-B	38	HIS	N-CA-C	5.14	124.87	111.00
1	16-B	38	HIS	N-CA-C	5.13	124.87	111.00
1	14-A	112	VAL	N-CA-C	-5.06	97.35	111.00
1	4-B	119	ILE	N-CA-C	-5.04	97.41	111.00
1	16-A	46	ASP	CB-CA-C	5.04	120.47	110.40
1	6-B	98	ASP	CB-CG-OD1	5.03	122.83	118.30
1	10-B	30	THR	CB-CA-C	-5.01	98.06	111.60
1	11-A	60	LEU	CA-CB-CG	5.01	126.83	115.30

There are no chirality outliers.

All (8) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	11-A	102	TYR	Sidechain
1	12-A	129	TYR	Sidechain
1	13-B	102	TYR	Sidechain
1	13-B	41	PHE	Sidechain
1	16-A	102	TYR	Sidechain
1	16-B	41	PHE	Sidechain
1	5-B	51	HIS	Sidechain
1	9-A	71	PHE	Sidechain

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	1-A	922	0	901	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1-B	891	0	869	0	0
1	2-A	922	0	901	0	0
1	2-B	891	0	869	0	0
1	3-A	922	0	901	0	0
1	3-B	891	0	869	0	0
1	4-A	922	0	901	0	0
1	4-B	891	0	869	0	0
1	5-A	922	0	901	0	0
1	5-B	891	0	869	0	0
1	6-A	922	0	901	0	0
1	6-B	891	0	869	0	0
1	7-A	922	0	901	0	0
1	7-B	891	0	869	0	0
1	8-A	922	0	901	0	0
1	8-B	891	0	869	0	0
1	9-A	922	0	901	0	0
1	9-B	891	0	869	0	0
1	10-A	922	0	901	0	0
1	10-B	891	0	869	0	0
1	11-A	922	0	901	0	0
1	11-B	891	0	869	0	0
1	12-A	922	0	901	0	0
1	12-B	891	0	869	0	0
1	13-A	922	0	901	0	0
1	13-B	891	0	869	0	0
1	14-A	922	0	901	0	0
1	14-B	891	0	869	0	0
1	15-A	922	0	901	0	0
1	15-B	891	0	869	0	0
1	16-A	922	0	901	0	0
1	16-B	891	0	869	0	0
2	1-A	12	0	0	0	0
2	1-B	12	0	0	0	0
2	2-A	11	0	0	0	0
2	2-B	13	0	0	0	0
2	3-A	12	0	0	0	0
2	3-B	12	0	0	0	0
2	4-A	11	0	0	0	0
2	4-B	13	0	0	0	0
2	5-A	12	0	0	0	0
2	5-B	12	0	0	0	0
2	6-A	11	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	6-B	13	0	0	0	0
2	7-A	12	0	0	0	0
2	7-B	12	0	0	0	0
2	8-A	13	0	0	0	0
2	8-B	11	0	0	0	0
2	9-A	11	0	0	0	0
2	9-B	13	0	0	0	0
2	10-A	10	0	0	0	0
2	10-B	14	0	0	0	0
2	11-A	12	0	0	0	0
2	11-B	12	0	0	0	0
2	12-A	12	0	0	0	0
2	12-B	12	0	0	0	0
2	13-A	13	0	0	0	0
2	13-B	11	0	0	0	0
2	14-A	12	0	0	0	0
2	14-B	12	0	0	0	0
2	15-A	12	0	0	0	0
2	15-B	12	0	0	0	0
2	16-A	13	0	0	0	0
2	16-B	11	0	0	0	0
All	All	29392	0	28320	0	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). Clashscore could not be calculated for this entry.

There are no clashes within the asymmetric unit.

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	1-A	111/170 (65%)	83 (75%)	23 (21%)	5 (4%)	3 1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	1-B	107/170 (63%)	83 (78%)	22 (21%)	2 (2%)	9	7
1	2-A	111/170 (65%)	89 (80%)	18 (16%)	4 (4%)	4	2
1	2-B	107/170 (63%)	90 (84%)	10 (9%)	7 (6%)	1	0
1	3-A	111/170 (65%)	97 (87%)	9 (8%)	5 (4%)	3	1
1	3-B	107/170 (63%)	98 (92%)	6 (6%)	3 (3%)	6	3
1	4-A	111/170 (65%)	92 (83%)	14 (13%)	5 (4%)	3	1
1	4-B	107/170 (63%)	85 (79%)	14 (13%)	8 (8%)	1	0
1	5-A	111/170 (65%)	95 (86%)	12 (11%)	4 (4%)	4	2
1	5-B	107/170 (63%)	98 (92%)	6 (6%)	3 (3%)	6	3
1	6-A	111/170 (65%)	91 (82%)	13 (12%)	7 (6%)	1	0
1	6-B	107/170 (63%)	85 (79%)	16 (15%)	6 (6%)	2	1
1	7-A	111/170 (65%)	85 (77%)	18 (16%)	8 (7%)	1	0
1	7-B	107/170 (63%)	85 (79%)	10 (9%)	12 (11%)	0	0
1	8-A	111/170 (65%)	96 (86%)	12 (11%)	3 (3%)	6	4
1	8-B	107/170 (63%)	80 (75%)	18 (17%)	9 (8%)	1	0
1	9-A	111/170 (65%)	80 (72%)	22 (20%)	9 (8%)	1	0
1	9-B	107/170 (63%)	92 (86%)	11 (10%)	4 (4%)	4	2
1	10-A	111/170 (65%)	90 (81%)	16 (14%)	5 (4%)	3	1
1	10-B	107/170 (63%)	85 (79%)	15 (14%)	7 (6%)	1	0
1	11-A	111/170 (65%)	79 (71%)	17 (15%)	15 (14%)	0	0
1	11-B	107/170 (63%)	87 (81%)	14 (13%)	6 (6%)	2	1
1	12-A	111/170 (65%)	82 (74%)	19 (17%)	10 (9%)	1	0
1	12-B	107/170 (63%)	75 (70%)	22 (21%)	10 (9%)	1	0
1	13-A	111/170 (65%)	85 (77%)	19 (17%)	7 (6%)	1	0
1	13-B	107/170 (63%)	82 (77%)	16 (15%)	9 (8%)	1	0
1	14-A	111/170 (65%)	77 (69%)	21 (19%)	13 (12%)	0	0
1	14-B	107/170 (63%)	81 (76%)	14 (13%)	12 (11%)	0	0
1	15-A	111/170 (65%)	80 (72%)	20 (18%)	11 (10%)	1	0
1	15-B	107/170 (63%)	84 (78%)	16 (15%)	7 (6%)	1	0
1	16-A	111/170 (65%)	75 (68%)	23 (21%)	13 (12%)	0	0
1	16-B	107/170 (63%)	76 (71%)	19 (18%)	12 (11%)	0	0

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
All	All	3488/5440 (64%)	2742 (79%)	505 (14%)	241 (7%)	1	0

All (241) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	1-A	78	GLU
1	1-A	128	ARG
1	1-B	86	PRO
1	2-A	81	PRO
1	2-B	72	GLN
1	2-B	81	PRO
1	2-B	86	PRO
1	3-A	41	PHE
1	4-A	47	TRP
1	4-B	72	GLN
1	4-B	79	PRO
1	4-B	81	PRO
1	5-A	26	SER
1	5-B	78	GLU
1	5-B	86	PRO
1	6-A	27	PRO
1	6-A	76	ASP
1	6-A	111	HIS
1	6-A	124	THR
1	6-A	129	TYR
1	6-B	72	GLN
1	6-B	82	GLN
1	6-B	86	PRO
1	7-A	30	THR
1	7-A	74	LYS
1	7-A	88	GLU
1	7-B	75	SER
1	7-B	81	PRO
1	7-B	95	GLU
1	7-B	96	LEU
1	7-B	111	HIS
1	7-B	118	VAL
1	7-B	119	ILE
1	7-B	120	SER
1	8-B	72	GLN
1	8-B	85	PRO
1	8-B	86	PRO

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Mol	Chain	Res	Type
1	8-B	87	LYS
1	8-B	111	HIS
1	9-A	23	PHE
1	9-A	47	TRP
1	9-A	82	GLN
1	9-A	93	GLN
1	9-A	94	GLU
1	9-B	72	GLN
1	10-A	72	GLN
1	10-A	81	PRO
1	10-A	86	PRO
1	10-B	25	PHE
1	10-B	78	GLU
1	10-B	122	MSE
1	11-A	23	PHE
1	11-A	47	TRP
1	11-A	48	GLU
1	11-A	80	GLY
1	11-A	107	ALA
1	12-A	81	PRO
1	12-B	72	GLN
1	12-B	75	SER
1	12-B	86	PRO
1	12-B	87	LYS
1	13-A	49	GLN
1	13-A	111	HIS
1	13-B	76	ASP
1	13-B	83	ALA
1	13-B	110	CYS
1	14-A	30	THR
1	14-A	78	GLU
1	14-A	81	PRO
1	14-A	97	SER
1	14-A	98	ASP
1	14-B	42	ALA
1	14-B	43	ALA
1	14-B	70	LEU
1	14-B	121	LYS
1	14-B	126	ARG
1	14-B	129	TYR
1	15-A	28	GLU
1	15-A	47	TRP

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Mol	Chain	Res	Type
1	15-A	48	GLU
1	15-A	75	SER
1	15-A	76	ASP
1	15-A	81	PRO
1	15-A	90	ALA
1	15-B	86	PRO
1	15-B	87	LYS
1	16-A	49	GLN
1	16-A	53	PRO
1	16-A	54	ARG
1	16-A	69	GLU
1	16-A	81	PRO
1	16-A	82	GLN
1	16-A	83	ALA
1	16-A	111	HIS
1	16-B	24	ARG
1	16-B	30	THR
1	16-B	129	TYR
1	1-A	119	ILE
1	1-A	127	GLN
1	2-A	47	TRP
1	4-B	78	GLU
1	4-B	83	ALA
1	6-B	81	PRO
1	7-A	87	LYS
1	7-B	117	ALA
1	8-A	47	TRP
1	8-A	62	GLY
1	8-B	37	LEU
1	9-A	87	LYS
1	9-B	89	ARG
1	10-B	74	LYS
1	10-B	86	PRO
1	11-A	81	PRO
1	11-A	87	LYS
1	11-A	108	ALA
1	11-B	25	PHE
1	11-B	85	PRO
1	12-A	45	ARG
1	12-A	86	PRO
1	12-A	127	GLN
1	12-A	128	ARG

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Mol	Chain	Res	Type
1	12-B	41	PHE
1	12-B	122	MSE
1	13-A	50	PHE
1	13-B	127	GLN
1	14-A	132	HIS
1	14-B	120	SER
1	15-A	72	GLN
1	15-B	46	ASP
1	15-B	80	GLY
1	15-B	83	ALA
1	16-B	53	PRO
1	16-B	54	ARG
1	16-B	72	GLN
1	16-B	113	ASP
1	1-A	79	PRO
1	1-B	87	LYS
1	2-B	80	GLY
1	3-A	76	ASP
1	4-A	77	THR
1	4-A	81	PRO
1	4-B	46	ASP
1	5-A	132	HIS
1	6-B	25	PHE
1	7-A	75	SER
1	7-A	76	ASP
1	7-B	94	GLU
1	8-B	50	PHE
1	9-A	88	GLU
1	9-B	85	PRO
1	9-B	90	ALA
1	10-A	84	TRP
1	11-A	75	SER
1	11-B	81	PRO
1	12-A	72	GLN
1	12-B	90	ALA
1	13-A	27	PRO
1	14-A	79	PRO
1	14-A	95	GLU
1	14-A	127	GLN
1	14-B	46	ASP
1	14-B	87	LYS
1	15-B	79	PRO

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Mol	Chain	Res	Type
1	16-A	45	ARG
1	16-A	47	TRP
1	16-A	57	LEU
1	16-B	67	LEU
1	16-B	89	ARG
1	2-A	60	LEU
1	2-B	45	ARG
1	2-B	58	LEU
1	3-A	40	GLU
1	3-B	85	PRO
1	4-B	77	THR
1	4-B	113	ASP
1	6-B	70	LEU
1	7-A	25	PHE
1	7-B	72	GLN
1	7-B	115	PRO
1	8-B	45	ARG
1	10-B	28	GLU
1	10-B	77	THR
1	11-A	43	ALA
1	11-A	86	PRO
1	13-B	46	ASP
1	13-B	85	PRO
1	14-A	75	SER
1	14-A	90	ALA
1	14-B	88	GLU
1	14-B	115	PRO
1	15-A	53	PRO
1	15-A	97	SER
1	16-B	76	ASP
1	2-A	53	PRO
1	2-B	79	PRO
1	3-A	42	ALA
1	3-B	84	TRP
1	3-B	86	PRO
1	4-A	84	TRP
1	4-A	126	ARG
1	7-A	72	GLN
1	10-A	93	GLN
1	11-A	91	ALA
1	11-A	115	PRO
1	12-A	27	PRO

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Mol	Chain	Res	Type
1	12-A	82	GLN
1	12-B	115	PRO
1	14-A	27	PRO
1	14-A	56	LEU
1	14-B	86	PRO
1	15-A	127	GLN
1	16-B	87	LYS
1	16-B	95	GLU
1	5-A	27	PRO
1	11-B	125	ASN
1	11-B	126	ARG
1	12-A	133	LEU
1	12-B	55	ASN
1	12-B	78	GLU
1	13-A	131	VAL
1	13-B	33	ASP
1	13-B	84	TRP
1	13-B	86	PRO
1	15-B	84	TRP
1	3-A	53	PRO
1	6-A	81	PRO
1	8-A	86	PRO
1	13-A	119	ILE
1	5-A	81	PRO
1	6-A	86	PRO
1	8-B	114	LEU
1	9-A	86	PRO
1	9-A	115	PRO
1	11-A	53	PRO
1	16-A	79	PRO
1	12-A	78	GLU
1	16-A	86	PRO
1	11-A	129	TYR
1	11-B	28	GLU
1	13-A	79	PRO
1	5-B	84	TRP

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	1-A	98/136 (72%)	83 (85%)	15 (15%)	3	3
1	1-B	94/136 (69%)	84 (89%)	10 (11%)	8	8
1	2-A	98/136 (72%)	83 (85%)	15 (15%)	3	3
1	2-B	94/136 (69%)	85 (90%)	9 (10%)	10	11
1	3-A	98/136 (72%)	88 (90%)	10 (10%)	8	10
1	3-B	94/136 (69%)	86 (92%)	8 (8%)	12	15
1	4-A	98/136 (72%)	89 (91%)	9 (9%)	11	12
1	4-B	94/136 (69%)	84 (89%)	10 (11%)	8	8
1	5-A	98/136 (72%)	88 (90%)	10 (10%)	8	10
1	5-B	94/136 (69%)	82 (87%)	12 (13%)	5	5
1	6-A	98/136 (72%)	89 (91%)	9 (9%)	11	12
1	6-B	94/136 (69%)	85 (90%)	9 (10%)	10	11
1	7-A	98/136 (72%)	89 (91%)	9 (9%)	11	12
1	7-B	94/136 (69%)	86 (92%)	8 (8%)	12	15
1	8-A	98/136 (72%)	89 (91%)	9 (9%)	11	12
1	8-B	94/136 (69%)	84 (89%)	10 (11%)	8	8
1	9-A	98/136 (72%)	87 (89%)	11 (11%)	7	7
1	9-B	94/136 (69%)	86 (92%)	8 (8%)	12	15
1	10-A	98/136 (72%)	84 (86%)	14 (14%)	4	3
1	10-B	94/136 (69%)	86 (92%)	8 (8%)	12	15
1	11-A	98/136 (72%)	88 (90%)	10 (10%)	8	10
1	11-B	94/136 (69%)	90 (96%)	4 (4%)	33	45
1	12-A	98/136 (72%)	87 (89%)	11 (11%)	7	7
1	12-B	94/136 (69%)	82 (87%)	12 (13%)	5	5
1	13-A	98/136 (72%)	80 (82%)	18 (18%)	2	1
1	13-B	94/136 (69%)	79 (84%)	15 (16%)	3	2
1	14-A	98/136 (72%)	85 (87%)	13 (13%)	4	4
1	14-B	94/136 (69%)	74 (79%)	20 (21%)	1	1
1	15-A	98/136 (72%)	86 (88%)	12 (12%)	6	5
1	15-B	94/136 (69%)	75 (80%)	19 (20%)	1	1

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	16-A	98/136 (72%)	79 (81%)	19 (19%)	1	1
1	16-B	94/136 (69%)	76 (81%)	18 (19%)	2	1
All	All	3072/4352 (71%)	2698 (88%)	374 (12%)	6	5

All (374) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	1-A	23	PHE
1	1-A	28	GLU
1	1-A	31	LEU
1	1-A	41	PHE
1	1-A	44	GLU
1	1-A	52	GLN
1	1-A	63	GLU
1	1-A	70	LEU
1	1-A	79	PRO
1	1-A	81	PRO
1	1-A	82	GLN
1	1-A	85	PRO
1	1-A	92	LEU
1	1-A	121	LYS
1	1-A	129	TYR
1	1-B	24	ARG
1	1-B	35	ARG
1	1-B	36	ARG
1	1-B	37	LEU
1	1-B	40	GLU
1	1-B	52	GLN
1	1-B	77	THR
1	1-B	104	VAL
1	1-B	114	LEU
1	1-B	123	ASP
1	2-A	28	GLU
1	2-A	38	HIS
1	2-A	51	HIS
1	2-A	63	GLU
1	2-A	67	LEU
1	2-A	75	SER
1	2-A	77	THR
1	2-A	78	GLU
1	2-A	89	ARG

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Mol	Chain	Res	Type
1	2-A	97	SER
1	2-A	120	SER
1	2-A	121	LYS
1	2-A	122	MSE
1	2-A	132	HIS
1	2-A	134	SER
1	2-B	37	LEU
1	2-B	44	GLU
1	2-B	46	ASP
1	2-B	52	GLN
1	2-B	79	PRO
1	2-B	89	ARG
1	2-B	95	GLU
1	2-B	120	SER
1	2-B	130	PRO
1	3-A	48	GLU
1	3-A	52	GLN
1	3-A	53	PRO
1	3-A	54	ARG
1	3-A	63	GLU
1	3-A	67	LEU
1	3-A	76	ASP
1	3-A	77	THR
1	3-A	82	GLN
1	3-A	129	TYR
1	3-B	24	ARG
1	3-B	38	HIS
1	3-B	77	THR
1	3-B	79	PRO
1	3-B	89	ARG
1	3-B	94	GLU
1	3-B	104	VAL
1	3-B	119	ILE
1	4-A	54	ARG
1	4-A	63	GLU
1	4-A	64	VAL
1	4-A	67	LEU
1	4-A	86	PRO
1	4-A	102	TYR
1	4-A	109	ARG
1	4-A	122	MSE
1	4-A	129	TYR

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Mol	Chain	Res	Type
1	4-B	24	ARG
1	4-B	49	GLN
1	4-B	54	ARG
1	4-B	63	GLU
1	4-B	81	PRO
1	4-B	82	GLN
1	4-B	89	ARG
1	4-B	104	VAL
1	4-B	119	ILE
1	4-B	122	MSE
1	5-A	33	ASP
1	5-A	48	GLU
1	5-A	67	LEU
1	5-A	72	GLN
1	5-A	79	PRO
1	5-A	82	GLN
1	5-A	89	ARG
1	5-A	119	ILE
1	5-A	128	ARG
1	5-A	129	TYR
1	5-B	24	ARG
1	5-B	49	GLN
1	5-B	70	LEU
1	5-B	75	SER
1	5-B	77	THR
1	5-B	84	TRP
1	5-B	87	LYS
1	5-B	95	GLU
1	5-B	106	LEU
1	5-B	110	CYS
1	5-B	119	ILE
1	5-B	123	ASP
1	6-A	26	SER
1	6-A	28	GLU
1	6-A	44	GLU
1	6-A	66	GLU
1	6-A	67	LEU
1	6-A	75	SER
1	6-A	89	ARG
1	6-A	109	ARG
1	6-A	129	TYR
1	6-B	28	GLU

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Mol	Chain	Res	Type
1	6-B	40	GLU
1	6-B	60	LEU
1	6-B	77	THR
1	6-B	78	GLU
1	6-B	97	SER
1	6-B	98	ASP
1	6-B	104	VAL
1	6-B	115	PRO
1	7-A	25	PHE
1	7-A	51	HIS
1	7-A	63	GLU
1	7-A	67	LEU
1	7-A	75	SER
1	7-A	82	GLN
1	7-A	87	LYS
1	7-A	129	TYR
1	7-A	133	LEU
1	7-B	24	ARG
1	7-B	77	THR
1	7-B	82	GLN
1	7-B	86	PRO
1	7-B	89	ARG
1	7-B	93	GLN
1	7-B	98	ASP
1	7-B	111	HIS
1	8-A	26	SER
1	8-A	28	GLU
1	8-A	63	GLU
1	8-A	66	GLU
1	8-A	74	LYS
1	8-A	75	SER
1	8-A	98	ASP
1	8-A	129	TYR
1	8-A	132	HIS
1	8-B	50	PHE
1	8-B	60	LEU
1	8-B	63	GLU
1	8-B	67	LEU
1	8-B	87	LYS
1	8-B	93	GLN
1	8-B	95	GLU
1	8-B	113	ASP

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Mol	Chain	Res	Type
1	8-B	123	ASP
1	8-B	127	GLN
1	9-A	46	ASP
1	9-A	47	TRP
1	9-A	48	GLU
1	9-A	72	GLN
1	9-A	95	GLU
1	9-A	98	ASP
1	9-A	100	LEU
1	9-A	119	ILE
1	9-A	122	MSE
1	9-A	123	ASP
1	9-A	129	TYR
1	9-B	36	ARG
1	9-B	46	ASP
1	9-B	49	GLN
1	9-B	75	SER
1	9-B	78	GLU
1	9-B	89	ARG
1	9-B	93	GLN
1	9-B	129	TYR
1	10-A	28	GLU
1	10-A	46	ASP
1	10-A	48	GLU
1	10-A	64	VAL
1	10-A	72	GLN
1	10-A	75	SER
1	10-A	78	GLU
1	10-A	82	GLN
1	10-A	86	PRO
1	10-A	94	GLU
1	10-A	95	GLU
1	10-A	102	TYR
1	10-A	129	TYR
1	10-A	132	HIS
1	10-B	33	ASP
1	10-B	73	TRP
1	10-B	75	SER
1	10-B	98	ASP
1	10-B	104	VAL
1	10-B	116	GLN
1	10-B	124	THR

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Mol	Chain	Res	Type
1	10-B	126	ARG
1	11-A	26	SER
1	11-A	29	PRO
1	11-A	30	THR
1	11-A	54	ARG
1	11-A	66	GLU
1	11-A	77	THR
1	11-A	78	GLU
1	11-A	119	ILE
1	11-A	129	TYR
1	11-A	130	PRO
1	11-B	60	LEU
1	11-B	100	LEU
1	11-B	104	VAL
1	11-B	122	MSE
1	12-A	28	GLU
1	12-A	29	PRO
1	12-A	33	ASP
1	12-A	35	ARG
1	12-A	63	GLU
1	12-A	66	GLU
1	12-A	75	SER
1	12-A	81	PRO
1	12-A	86	PRO
1	12-A	92	LEU
1	12-A	129	TYR
1	12-B	24	ARG
1	12-B	35	ARG
1	12-B	52	GLN
1	12-B	54	ARG
1	12-B	60	LEU
1	12-B	70	LEU
1	12-B	71	PHE
1	12-B	77	THR
1	12-B	89	ARG
1	12-B	93	GLN
1	12-B	104	VAL
1	12-B	124	THR
1	13-A	24	ARG
1	13-A	33	ASP
1	13-A	41	PHE
1	13-A	45	ARG

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Mol	Chain	Res	Type
1	13-A	63	GLU
1	13-A	67	LEU
1	13-A	71	PHE
1	13-A	86	PRO
1	13-A	92	LEU
1	13-A	95	GLU
1	13-A	98	ASP
1	13-A	111	HIS
1	13-A	116	GLN
1	13-A	120	SER
1	13-A	121	LYS
1	13-A	125	ASN
1	13-A	129	TYR
1	13-A	132	HIS
1	13-B	28	GLU
1	13-B	32	GLU
1	13-B	37	LEU
1	13-B	40	GLU
1	13-B	52	GLN
1	13-B	75	SER
1	13-B	77	THR
1	13-B	86	PRO
1	13-B	87	LYS
1	13-B	89	ARG
1	13-B	95	GLU
1	13-B	103	LEU
1	13-B	118	VAL
1	13-B	122	MSE
1	13-B	128	ARG
1	14-A	28	GLU
1	14-A	31	LEU
1	14-A	46	ASP
1	14-A	52	GLN
1	14-A	60	LEU
1	14-A	63	GLU
1	14-A	79	PRO
1	14-A	85	PRO
1	14-A	89	ARG
1	14-A	93	GLN
1	14-A	98	ASP
1	14-A	122	MSE
1	14-A	129	TYR

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Mol	Chain	Res	Type
1	14-B	24	ARG
1	14-B	32	GLU
1	14-B	33	ASP
1	14-B	37	LEU
1	14-B	40	GLU
1	14-B	44	GLU
1	14-B	48	GLU
1	14-B	49	GLN
1	14-B	63	GLU
1	14-B	71	PHE
1	14-B	72	GLN
1	14-B	77	THR
1	14-B	86	PRO
1	14-B	87	LYS
1	14-B	113	ASP
1	14-B	115	PRO
1	14-B	121	LYS
1	14-B	122	MSE
1	14-B	126	ARG
1	14-B	127	GLN
1	15-A	24	ARG
1	15-A	34	ILE
1	15-A	44	GLU
1	15-A	49	GLN
1	15-A	52	GLN
1	15-A	63	GLU
1	15-A	66	GLU
1	15-A	82	GLN
1	15-A	95	GLU
1	15-A	123	ASP
1	15-A	127	GLN
1	15-A	129	TYR
1	15-B	28	GLU
1	15-B	38	HIS
1	15-B	49	GLN
1	15-B	51	HIS
1	15-B	52	GLN
1	15-B	60	LEU
1	15-B	71	PHE
1	15-B	76	ASP
1	15-B	78	GLU
1	15-B	89	ARG

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Mol	Chain	Res	Type
1	15-B	93	GLN
1	15-B	94	GLU
1	15-B	95	GLU
1	15-B	100	LEU
1	15-B	120	SER
1	15-B	122	MSE
1	15-B	125	ASN
1	15-B	127	GLN
1	15-B	128	ARG
1	16-A	28	GLU
1	16-A	35	ARG
1	16-A	46	ASP
1	16-A	48	GLU
1	16-A	50	PHE
1	16-A	53	PRO
1	16-A	56	LEU
1	16-A	60	LEU
1	16-A	66	GLU
1	16-A	67	LEU
1	16-A	77	THR
1	16-A	79	PRO
1	16-A	84	TRP
1	16-A	102	TYR
1	16-A	106	LEU
1	16-A	120	SER
1	16-A	124	THR
1	16-A	125	ASN
1	16-A	126	ARG
1	16-B	29	PRO
1	16-B	32	GLU
1	16-B	37	LEU
1	16-B	41	PHE
1	16-B	44	GLU
1	16-B	49	GLN
1	16-B	54	ARG
1	16-B	67	LEU
1	16-B	73	TRP
1	16-B	75	SER
1	16-B	77	THR
1	16-B	78	GLU
1	16-B	93	GLN
1	16-B	110	CYS

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Mol	Chain	Res	Type
1	16-B	116	GLN
1	16-B	122	MSE
1	16-B	124	THR
1	16-B	126	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (114) such sidechains are listed below:

Mol	Chain	Res	Type
1	1-A	93	GLN
1	1-A	127	GLN
1	1-B	93	GLN
1	2-A	38	HIS
1	2-A	52	GLN
1	2-A	55	ASN
1	2-A	82	GLN
1	2-A	93	GLN
1	2-B	52	GLN
1	2-B	72	GLN
1	2-B	125	ASN
1	3-A	38	HIS
1	3-A	93	GLN
1	3-A	111	HIS
1	3-A	127	GLN
1	3-A	132	HIS
1	3-B	49	GLN
1	3-B	52	GLN
1	3-B	111	HIS
1	4-A	93	GLN
1	4-A	127	GLN
1	4-B	38	HIS
1	4-B	72	GLN
1	4-B	82	GLN
1	4-B	93	GLN
1	4-B	111	HIS
1	5-B	55	ASN
1	5-B	93	GLN
1	5-B	111	HIS
1	5-B	116	GLN
1	5-B	125	ASN
1	5-B	127	GLN
1	6-A	49	GLN
1	6-A	82	GLN

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Mol	Chain	Res	Type
1	6-A	93	GLN
1	6-A	127	GLN
1	6-B	38	HIS
1	6-B	82	GLN
1	6-B	93	GLN
1	6-B	127	GLN
1	7-A	49	GLN
1	7-A	111	HIS
1	7-A	116	GLN
1	7-A	127	GLN
1	7-B	49	GLN
1	7-B	52	GLN
1	7-B	82	GLN
1	7-B	111	HIS
1	8-A	55	ASN
1	8-A	111	HIS
1	8-B	38	HIS
1	8-B	51	HIS
1	8-B	82	GLN
1	8-B	93	GLN
1	8-B	127	GLN
1	9-A	72	GLN
1	9-A	111	HIS
1	9-B	52	GLN
1	9-B	125	ASN
1	10-A	38	HIS
1	10-A	127	GLN
1	10-B	93	GLN
1	10-B	116	GLN
1	10-B	125	ASN
1	10-B	127	GLN
1	11-A	55	ASN
1	11-A	72	GLN
1	11-A	93	GLN
1	11-A	127	GLN
1	11-B	38	HIS
1	11-B	93	GLN
1	11-B	111	HIS
1	11-B	116	GLN
1	11-B	125	ASN
1	12-A	55	ASN
1	12-A	82	GLN

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Mol	Chain	Res	Type
1	12-A	111	HIS
1	12-B	51	HIS
1	12-B	52	GLN
1	12-B	82	GLN
1	12-B	93	GLN
1	12-B	116	GLN
1	12-B	125	ASN
1	13-A	38	HIS
1	13-A	52	GLN
1	13-A	55	ASN
1	13-A	72	GLN
1	13-A	93	GLN
1	13-A	111	HIS
1	13-B	51	HIS
1	13-B	52	GLN
1	13-B	55	ASN
1	13-B	111	HIS
1	14-A	55	ASN
1	14-A	93	GLN
1	14-A	116	GLN
1	14-A	127	GLN
1	14-B	38	HIS
1	14-B	51	HIS
1	14-B	52	GLN
1	14-B	93	GLN
1	15-A	49	GLN
1	15-A	52	GLN
1	15-A	72	GLN
1	15-A	127	GLN
1	15-B	38	HIS
1	15-B	52	GLN
1	15-B	111	HIS
1	15-B	127	GLN
1	16-A	51	HIS
1	16-A	52	GLN
1	16-A	111	HIS
1	16-B	72	GLN
1	16-B	93	GLN

5.3.3 RNA ⓘ

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 carbohydrates 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, 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	1-A	112/170 (65%)	3.94	78 (69%) 0 0	34, 44, 58, 65	112 (100%)
1	1-B	108/170 (63%)	3.80	79 (73%) 0 0	23, 43, 58, 65	108 (100%)
1	2-A	112/170 (65%)	3.94	78 (69%) 0 0	34, 44, 58, 65	112 (100%)
1	2-B	108/170 (63%)	3.80	79 (73%) 0 0	23, 43, 58, 65	108 (100%)
1	3-A	112/170 (65%)	3.94	78 (69%) 0 0	34, 44, 58, 65	112 (100%)
1	3-B	108/170 (63%)	3.80	79 (73%) 0 0	23, 43, 58, 65	108 (100%)
1	4-A	112/170 (65%)	3.94	78 (69%) 0 0	34, 44, 58, 65	112 (100%)
1	4-B	108/170 (63%)	3.80	79 (73%) 0 0	23, 43, 58, 65	108 (100%)
1	5-A	112/170 (65%)	3.94	78 (69%) 0 0	34, 44, 58, 65	112 (100%)
1	5-B	108/170 (63%)	3.80	79 (73%) 0 0	23, 43, 58, 65	108 (100%)
1	6-A	112/170 (65%)	3.94	78 (69%) 0 0	34, 44, 58, 65	112 (100%)
1	6-B	108/170 (63%)	3.80	79 (73%) 0 0	23, 43, 58, 65	108 (100%)
1	7-A	112/170 (65%)	3.94	78 (69%) 0 0	34, 44, 58, 65	112 (100%)
1	7-B	108/170 (63%)	3.80	79 (73%) 0 0	23, 43, 58, 65	108 (100%)
1	8-A	112/170 (65%)	3.94	78 (69%) 0 0	34, 44, 58, 65	112 (100%)
1	8-B	108/170 (63%)	3.80	79 (73%) 0 0	23, 43, 58, 65	108 (100%)
1	9-A	112/170 (65%)	3.94	78 (69%) 0 0	34, 44, 58, 65	112 (100%)
1	9-B	108/170 (63%)	3.80	79 (73%) 0 0	23, 43, 58, 65	108 (100%)
1	10-A	112/170 (65%)	3.94	78 (69%) 0 0	34, 44, 58, 65	112 (100%)
1	10-B	108/170 (63%)	3.80	79 (73%) 0 0	23, 43, 58, 65	108 (100%)
1	11-A	112/170 (65%)	3.94	78 (69%) 0 0	34, 44, 58, 65	112 (100%)
1	11-B	108/170 (63%)	3.80	79 (73%) 0 0	23, 43, 58, 65	108 (100%)
1	12-A	112/170 (65%)	3.94	78 (69%) 0 0	34, 44, 58, 65	112 (100%)
1	12-B	108/170 (63%)	3.80	79 (73%) 0 0	23, 43, 58, 65	108 (100%)

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	13-A	112/170 (65%)	3.94	78 (69%) 0 0	34, 44, 58, 65	112 (100%)
1	13-B	108/170 (63%)	3.80	79 (73%) 0 0	23, 43, 58, 65	108 (100%)
1	14-A	112/170 (65%)	3.94	78 (69%) 0 0	34, 44, 58, 65	112 (100%)
1	14-B	108/170 (63%)	3.80	79 (73%) 0 0	23, 43, 58, 65	108 (100%)
1	15-A	112/170 (65%)	3.94	78 (69%) 0 0	34, 44, 58, 65	112 (100%)
1	15-B	108/170 (63%)	3.80	79 (73%) 0 0	23, 43, 58, 65	108 (100%)
1	16-A	112/170 (65%)	3.94	78 (69%) 0 0	34, 44, 58, 65	112 (100%)
1	16-B	108/170 (63%)	3.80	79 (73%) 0 0	23, 43, 58, 65	108 (100%)
All	All	3520/5440 (64%)	3.88	2512 (71%) 0 0	23, 44, 59, 65	3520 (100%)

All (2512) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	1-A	22	PRO	21.7
1	2-A	22	PRO	21.7
1	3-A	22	PRO	21.7
1	4-A	22	PRO	21.7
1	5-A	22	PRO	21.7
1	6-A	22	PRO	21.7
1	7-A	22	PRO	21.7
1	8-A	22	PRO	21.7
1	9-A	22	PRO	21.7
1	10-A	22	PRO	21.7
1	11-A	22	PRO	21.7
1	12-A	22	PRO	21.7
1	13-A	22	PRO	21.7
1	14-A	22	PRO	21.7
1	15-A	22	PRO	21.7
1	16-A	22	PRO	21.7
1	1-A	84	TRP	16.0
1	2-A	84	TRP	16.0
1	3-A	84	TRP	16.0
1	4-A	84	TRP	16.0
1	5-A	84	TRP	16.0
1	6-A	84	TRP	16.0
1	7-A	84	TRP	16.0
1	8-A	84	TRP	16.0
1	9-A	84	TRP	16.0
1	10-A	84	TRP	16.0

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Mol	Chain	Res	Type	RSRZ
1	11-A	84	TRP	16.0
1	12-A	84	TRP	16.0
1	13-A	84	TRP	16.0
1	14-A	84	TRP	16.0
1	15-A	84	TRP	16.0
1	16-A	84	TRP	16.0
1	1-A	80	GLY	15.8
1	2-A	80	GLY	15.8
1	3-A	80	GLY	15.8
1	4-A	80	GLY	15.8
1	5-A	80	GLY	15.8
1	6-A	80	GLY	15.8
1	7-A	80	GLY	15.8
1	8-A	80	GLY	15.8
1	9-A	80	GLY	15.8
1	10-A	80	GLY	15.8
1	11-A	80	GLY	15.8
1	12-A	80	GLY	15.8
1	13-A	80	GLY	15.8
1	14-A	80	GLY	15.8
1	15-A	80	GLY	15.8
1	16-A	80	GLY	15.8
1	1-A	83	ALA	14.2
1	2-A	83	ALA	14.2
1	3-A	83	ALA	14.2
1	4-A	83	ALA	14.2
1	5-A	83	ALA	14.2
1	6-A	83	ALA	14.2
1	7-A	83	ALA	14.2
1	8-A	83	ALA	14.2
1	9-A	83	ALA	14.2
1	10-A	83	ALA	14.2
1	11-A	83	ALA	14.2
1	12-A	83	ALA	14.2
1	13-A	83	ALA	14.2
1	14-A	83	ALA	14.2
1	15-A	83	ALA	14.2
1	16-A	83	ALA	14.2
1	1-B	129	TYR	13.8
1	2-B	129	TYR	13.8
1	3-B	129	TYR	13.8
1	4-B	129	TYR	13.8

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Mol	Chain	Res	Type	RSRZ
1	5-B	129	TYR	13.8
1	6-B	129	TYR	13.8
1	7-B	129	TYR	13.8
1	8-B	129	TYR	13.8
1	9-B	129	TYR	13.8
1	10-B	129	TYR	13.8
1	11-B	129	TYR	13.8
1	12-B	129	TYR	13.8
1	13-B	129	TYR	13.8
1	14-B	129	TYR	13.8
1	15-B	129	TYR	13.8
1	16-B	129	TYR	13.8
1	1-A	77	THR	13.2
1	2-A	77	THR	13.2
1	3-A	77	THR	13.2
1	4-A	77	THR	13.2
1	5-A	77	THR	13.2
1	6-A	77	THR	13.2
1	7-A	77	THR	13.2
1	8-A	77	THR	13.2
1	9-A	77	THR	13.2
1	10-A	77	THR	13.2
1	11-A	77	THR	13.2
1	12-A	77	THR	13.2
1	13-A	77	THR	13.2
1	14-A	77	THR	13.2
1	15-A	77	THR	13.2
1	16-A	77	THR	13.2
1	1-B	42	ALA	12.2
1	2-B	42	ALA	12.2
1	3-B	42	ALA	12.2
1	4-B	42	ALA	12.2
1	5-B	42	ALA	12.2
1	6-B	42	ALA	12.2
1	7-B	42	ALA	12.2
1	8-B	42	ALA	12.2
1	9-B	42	ALA	12.2
1	10-B	42	ALA	12.2
1	11-B	42	ALA	12.2
1	12-B	42	ALA	12.2
1	13-B	42	ALA	12.2
1	14-B	42	ALA	12.2

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Mol	Chain	Res	Type	RSRZ
1	15-B	42	ALA	12.2
1	16-B	42	ALA	12.2
1	1-B	128	ARG	12.0
1	2-B	128	ARG	12.0
1	3-B	128	ARG	12.0
1	4-B	128	ARG	12.0
1	5-B	128	ARG	12.0
1	6-B	128	ARG	12.0
1	7-B	128	ARG	12.0
1	8-B	128	ARG	12.0
1	9-B	128	ARG	12.0
1	10-B	128	ARG	12.0
1	11-B	128	ARG	12.0
1	12-B	128	ARG	12.0
1	13-B	128	ARG	12.0
1	14-B	128	ARG	12.0
1	15-B	128	ARG	12.0
1	16-B	128	ARG	12.0
1	1-A	82	GLN	9.9
1	2-A	82	GLN	9.9
1	3-A	82	GLN	9.9
1	4-A	82	GLN	9.9
1	5-A	82	GLN	9.9
1	6-A	82	GLN	9.9
1	7-A	82	GLN	9.9
1	8-A	82	GLN	9.9
1	9-A	82	GLN	9.9
1	10-A	82	GLN	9.9
1	11-A	82	GLN	9.9
1	12-A	82	GLN	9.9
1	13-A	82	GLN	9.9
1	14-A	82	GLN	9.9
1	15-A	82	GLN	9.9
1	16-A	82	GLN	9.9
1	1-B	43	ALA	9.9
1	2-B	43	ALA	9.9
1	3-B	43	ALA	9.9
1	4-B	43	ALA	9.9
1	5-B	43	ALA	9.9
1	6-B	43	ALA	9.9
1	7-B	43	ALA	9.9
1	8-B	43	ALA	9.9

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Mol	Chain	Res	Type	RSRZ
1	9-B	43	ALA	9.9
1	10-B	43	ALA	9.9
1	11-B	43	ALA	9.9
1	12-B	43	ALA	9.9
1	13-B	43	ALA	9.9
1	14-B	43	ALA	9.9
1	15-B	43	ALA	9.9
1	16-B	43	ALA	9.9
1	1-B	47	TRP	9.7
1	2-B	47	TRP	9.7
1	3-B	47	TRP	9.7
1	4-B	47	TRP	9.7
1	5-B	47	TRP	9.7
1	6-B	47	TRP	9.7
1	7-B	47	TRP	9.7
1	8-B	47	TRP	9.7
1	9-B	47	TRP	9.7
1	10-B	47	TRP	9.7
1	11-B	47	TRP	9.7
1	12-B	47	TRP	9.7
1	13-B	47	TRP	9.7
1	14-B	47	TRP	9.7
1	15-B	47	TRP	9.7
1	16-B	47	TRP	9.7
1	1-A	128	ARG	9.3
1	2-A	128	ARG	9.3
1	3-A	128	ARG	9.3
1	4-A	128	ARG	9.3
1	5-A	128	ARG	9.3
1	6-A	128	ARG	9.3
1	7-A	128	ARG	9.3
1	8-A	128	ARG	9.3
1	9-A	128	ARG	9.3
1	10-A	128	ARG	9.3
1	11-A	128	ARG	9.3
1	12-A	128	ARG	9.3
1	13-A	128	ARG	9.3
1	14-A	128	ARG	9.3
1	15-A	128	ARG	9.3
1	16-A	128	ARG	9.3
1	1-B	124	THR	8.8
1	2-B	124	THR	8.8

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Mol	Chain	Res	Type	RSRZ
1	3-B	124	THR	8.8
1	4-B	124	THR	8.8
1	5-B	124	THR	8.8
1	6-B	124	THR	8.8
1	7-B	124	THR	8.8
1	8-B	124	THR	8.8
1	9-B	124	THR	8.8
1	10-B	124	THR	8.8
1	11-B	124	THR	8.8
1	12-B	124	THR	8.8
1	13-B	124	THR	8.8
1	14-B	124	THR	8.8
1	15-B	124	THR	8.8
1	16-B	124	THR	8.8
1	1-A	129	TYR	8.7
1	2-A	129	TYR	8.7
1	3-A	129	TYR	8.7
1	4-A	129	TYR	8.7
1	5-A	129	TYR	8.7
1	6-A	129	TYR	8.7
1	7-A	129	TYR	8.7
1	8-A	129	TYR	8.7
1	9-A	129	TYR	8.7
1	10-A	129	TYR	8.7
1	11-A	129	TYR	8.7
1	12-A	129	TYR	8.7
1	13-A	129	TYR	8.7
1	14-A	129	TYR	8.7
1	15-A	129	TYR	8.7
1	16-A	129	TYR	8.7
1	1-B	86	PRO	8.3
1	2-B	86	PRO	8.3
1	3-B	86	PRO	8.3
1	4-B	86	PRO	8.3
1	5-B	86	PRO	8.3
1	6-B	86	PRO	8.3
1	7-B	86	PRO	8.3
1	8-B	86	PRO	8.3
1	9-B	86	PRO	8.3
1	10-B	86	PRO	8.3
1	11-B	86	PRO	8.3
1	12-B	86	PRO	8.3

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Mol	Chain	Res	Type	RSRZ
1	13-B	86	PRO	8.3
1	14-B	86	PRO	8.3
1	15-B	86	PRO	8.3
1	16-B	86	PRO	8.3
1	1-B	130	PRO	8.2
1	2-B	130	PRO	8.2
1	3-B	130	PRO	8.2
1	4-B	130	PRO	8.2
1	5-B	130	PRO	8.2
1	6-B	130	PRO	8.2
1	7-B	130	PRO	8.2
1	8-B	130	PRO	8.2
1	9-B	130	PRO	8.2
1	10-B	130	PRO	8.2
1	11-B	130	PRO	8.2
1	12-B	130	PRO	8.2
1	13-B	130	PRO	8.2
1	14-B	130	PRO	8.2
1	15-B	130	PRO	8.2
1	16-B	130	PRO	8.2
1	1-A	41	PHE	8.0
1	2-A	41	PHE	8.0
1	3-A	41	PHE	8.0
1	4-A	41	PHE	8.0
1	5-A	41	PHE	8.0
1	6-A	41	PHE	8.0
1	7-A	41	PHE	8.0
1	8-A	41	PHE	8.0
1	9-A	41	PHE	8.0
1	10-A	41	PHE	8.0
1	11-A	41	PHE	8.0
1	12-A	41	PHE	8.0
1	13-A	41	PHE	8.0
1	14-A	41	PHE	8.0
1	15-A	41	PHE	8.0
1	16-A	41	PHE	8.0
1	1-A	79	PRO	8.0
1	2-A	79	PRO	8.0
1	3-A	79	PRO	8.0
1	4-A	79	PRO	8.0
1	5-A	79	PRO	8.0
1	6-A	79	PRO	8.0

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Mol	Chain	Res	Type	RSRZ
1	7-A	79	PRO	8.0
1	8-A	79	PRO	8.0
1	9-A	79	PRO	8.0
1	10-A	79	PRO	8.0
1	11-A	79	PRO	8.0
1	12-A	79	PRO	8.0
1	13-A	79	PRO	8.0
1	14-A	79	PRO	8.0
1	15-A	79	PRO	8.0
1	16-A	79	PRO	8.0
1	1-A	125	ASN	7.9
1	2-A	125	ASN	7.9
1	3-A	125	ASN	7.9
1	4-A	125	ASN	7.9
1	5-A	125	ASN	7.9
1	6-A	125	ASN	7.9
1	7-A	125	ASN	7.9
1	8-A	125	ASN	7.9
1	9-A	125	ASN	7.9
1	10-A	125	ASN	7.9
1	11-A	125	ASN	7.9
1	12-A	125	ASN	7.9
1	13-A	125	ASN	7.9
1	14-A	125	ASN	7.9
1	15-A	125	ASN	7.9
1	16-A	125	ASN	7.9
1	1-B	123	ASP	7.8
1	2-B	123	ASP	7.8
1	3-B	123	ASP	7.8
1	4-B	123	ASP	7.8
1	5-B	123	ASP	7.8
1	6-B	123	ASP	7.8
1	7-B	123	ASP	7.8
1	8-B	123	ASP	7.8
1	9-B	123	ASP	7.8
1	10-B	123	ASP	7.8
1	11-B	123	ASP	7.8
1	12-B	123	ASP	7.8
1	13-B	123	ASP	7.8
1	14-B	123	ASP	7.8
1	15-B	123	ASP	7.8
1	16-B	123	ASP	7.8

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Mol	Chain	Res	Type	RSRZ
1	1-A	47	TRP	7.6
1	2-A	47	TRP	7.6
1	3-A	47	TRP	7.6
1	4-A	47	TRP	7.6
1	5-A	47	TRP	7.6
1	6-A	47	TRP	7.6
1	7-A	47	TRP	7.6
1	8-A	47	TRP	7.6
1	9-A	47	TRP	7.6
1	10-A	47	TRP	7.6
1	11-A	47	TRP	7.6
1	12-A	47	TRP	7.6
1	13-A	47	TRP	7.6
1	14-A	47	TRP	7.6
1	15-A	47	TRP	7.6
1	16-A	47	TRP	7.6
1	1-A	33	ASP	7.5
1	2-A	33	ASP	7.5
1	3-A	33	ASP	7.5
1	4-A	33	ASP	7.5
1	5-A	33	ASP	7.5
1	6-A	33	ASP	7.5
1	7-A	33	ASP	7.5
1	8-A	33	ASP	7.5
1	9-A	33	ASP	7.5
1	10-A	33	ASP	7.5
1	11-A	33	ASP	7.5
1	12-A	33	ASP	7.5
1	13-A	33	ASP	7.5
1	14-A	33	ASP	7.5
1	15-A	33	ASP	7.5
1	16-A	33	ASP	7.5
1	1-B	45	ARG	7.3
1	2-B	45	ARG	7.3
1	3-B	45	ARG	7.3
1	4-B	45	ARG	7.3
1	5-B	45	ARG	7.3
1	6-B	45	ARG	7.3
1	7-B	45	ARG	7.3
1	8-B	45	ARG	7.3
1	9-B	45	ARG	7.3
1	10-B	45	ARG	7.3

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Mol	Chain	Res	Type	RSRZ
1	11-B	45	ARG	7.3
1	12-B	45	ARG	7.3
1	13-B	45	ARG	7.3
1	14-B	45	ARG	7.3
1	15-B	45	ARG	7.3
1	16-B	45	ARG	7.3
1	1-A	111	HIS	7.3
1	2-A	111	HIS	7.3
1	3-A	111	HIS	7.3
1	4-A	111	HIS	7.3
1	5-A	111	HIS	7.3
1	6-A	111	HIS	7.3
1	7-A	111	HIS	7.3
1	8-A	111	HIS	7.3
1	9-A	111	HIS	7.3
1	10-A	111	HIS	7.3
1	11-A	111	HIS	7.3
1	12-A	111	HIS	7.3
1	13-A	111	HIS	7.3
1	14-A	111	HIS	7.3
1	15-A	111	HIS	7.3
1	16-A	111	HIS	7.3
1	1-B	67	LEU	7.1
1	2-B	67	LEU	7.1
1	3-B	67	LEU	7.1
1	4-B	67	LEU	7.1
1	5-B	67	LEU	7.1
1	6-B	67	LEU	7.1
1	7-B	67	LEU	7.1
1	8-B	67	LEU	7.1
1	9-B	67	LEU	7.1
1	10-B	67	LEU	7.1
1	11-B	67	LEU	7.1
1	12-B	67	LEU	7.1
1	13-B	67	LEU	7.1
1	14-B	67	LEU	7.1
1	15-B	67	LEU	7.1
1	16-B	67	LEU	7.1
1	1-A	34	ILE	7.1
1	2-A	34	ILE	7.1
1	3-A	34	ILE	7.1
1	4-A	34	ILE	7.1

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Mol	Chain	Res	Type	RSRZ
1	5-A	34	ILE	7.1
1	6-A	34	ILE	7.1
1	7-A	34	ILE	7.1
1	8-A	34	ILE	7.1
1	9-A	34	ILE	7.1
1	10-A	34	ILE	7.1
1	11-A	34	ILE	7.1
1	12-A	34	ILE	7.1
1	13-A	34	ILE	7.1
1	14-A	34	ILE	7.1
1	15-A	34	ILE	7.1
1	16-A	34	ILE	7.1
1	1-B	90	ALA	6.9
1	2-B	90	ALA	6.9
1	3-B	90	ALA	6.9
1	4-B	90	ALA	6.9
1	5-B	90	ALA	6.9
1	6-B	90	ALA	6.9
1	7-B	90	ALA	6.9
1	8-B	90	ALA	6.9
1	9-B	90	ALA	6.9
1	10-B	90	ALA	6.9
1	11-B	90	ALA	6.9
1	12-B	90	ALA	6.9
1	13-B	90	ALA	6.9
1	14-B	90	ALA	6.9
1	15-B	90	ALA	6.9
1	16-B	90	ALA	6.9
1	1-B	61	VAL	6.7
1	2-B	61	VAL	6.7
1	3-B	61	VAL	6.7
1	4-B	61	VAL	6.7
1	5-B	61	VAL	6.7
1	6-B	61	VAL	6.7
1	7-B	61	VAL	6.7
1	8-B	61	VAL	6.7
1	9-B	61	VAL	6.7
1	10-B	61	VAL	6.7
1	11-B	61	VAL	6.7
1	12-B	61	VAL	6.7
1	13-B	61	VAL	6.7
1	14-B	61	VAL	6.7

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Mol	Chain	Res	Type	RSRZ
1	15-B	61	VAL	6.7
1	16-B	61	VAL	6.7
1	1-B	126	ARG	6.6
1	2-B	126	ARG	6.6
1	3-B	126	ARG	6.6
1	4-B	126	ARG	6.6
1	5-B	126	ARG	6.6
1	6-B	126	ARG	6.6
1	7-B	126	ARG	6.6
1	8-B	126	ARG	6.6
1	9-B	126	ARG	6.6
1	10-B	126	ARG	6.6
1	11-B	126	ARG	6.6
1	12-B	126	ARG	6.6
1	13-B	126	ARG	6.6
1	14-B	126	ARG	6.6
1	15-B	126	ARG	6.6
1	16-B	126	ARG	6.6
1	1-A	87	LYS	6.5
1	2-A	87	LYS	6.5
1	3-A	87	LYS	6.5
1	4-A	87	LYS	6.5
1	5-A	87	LYS	6.5
1	6-A	87	LYS	6.5
1	7-A	87	LYS	6.5
1	8-A	87	LYS	6.5
1	9-A	87	LYS	6.5
1	10-A	87	LYS	6.5
1	11-A	87	LYS	6.5
1	12-A	87	LYS	6.5
1	13-A	87	LYS	6.5
1	14-A	87	LYS	6.5
1	15-A	87	LYS	6.5
1	16-A	87	LYS	6.5
1	1-B	79	PRO	6.5
1	2-B	79	PRO	6.5
1	3-B	79	PRO	6.5
1	4-B	79	PRO	6.5
1	5-B	79	PRO	6.5
1	6-B	79	PRO	6.5
1	7-B	79	PRO	6.5
1	8-B	79	PRO	6.5

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Mol	Chain	Res	Type	RSRZ
1	9-B	79	PRO	6.5
1	10-B	79	PRO	6.5
1	11-B	79	PRO	6.5
1	12-B	79	PRO	6.5
1	13-B	79	PRO	6.5
1	14-B	79	PRO	6.5
1	15-B	79	PRO	6.5
1	16-B	79	PRO	6.5
1	1-A	57	LEU	6.5
1	2-A	57	LEU	6.5
1	3-A	57	LEU	6.5
1	4-A	57	LEU	6.5
1	5-A	57	LEU	6.5
1	6-A	57	LEU	6.5
1	7-A	57	LEU	6.5
1	8-A	57	LEU	6.5
1	9-A	57	LEU	6.5
1	10-A	57	LEU	6.5
1	11-A	57	LEU	6.5
1	12-A	57	LEU	6.5
1	13-A	57	LEU	6.5
1	14-A	57	LEU	6.5
1	15-A	57	LEU	6.5
1	16-A	57	LEU	6.5
1	1-B	125	ASN	6.4
1	2-B	125	ASN	6.4
1	3-B	125	ASN	6.4
1	4-B	125	ASN	6.4
1	5-B	125	ASN	6.4
1	6-B	125	ASN	6.4
1	7-B	125	ASN	6.4
1	8-B	125	ASN	6.4
1	9-B	125	ASN	6.4
1	10-B	125	ASN	6.4
1	11-B	125	ASN	6.4
1	12-B	125	ASN	6.4
1	13-B	125	ASN	6.4
1	14-B	125	ASN	6.4
1	15-B	125	ASN	6.4
1	16-B	125	ASN	6.4
1	1-A	60	LEU	6.4
1	2-A	60	LEU	6.4

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Mol	Chain	Res	Type	RSRZ
1	3-A	60	LEU	6.4
1	4-A	60	LEU	6.4
1	5-A	60	LEU	6.4
1	6-A	60	LEU	6.4
1	7-A	60	LEU	6.4
1	8-A	60	LEU	6.4
1	9-A	60	LEU	6.4
1	10-A	60	LEU	6.4
1	11-A	60	LEU	6.4
1	12-A	60	LEU	6.4
1	13-A	60	LEU	6.4
1	14-A	60	LEU	6.4
1	15-A	60	LEU	6.4
1	16-A	60	LEU	6.4
1	1-A	81	PRO	6.3
1	2-A	81	PRO	6.3
1	3-A	81	PRO	6.3
1	4-A	81	PRO	6.3
1	5-A	81	PRO	6.3
1	6-A	81	PRO	6.3
1	7-A	81	PRO	6.3
1	8-A	81	PRO	6.3
1	9-A	81	PRO	6.3
1	10-A	81	PRO	6.3
1	11-A	81	PRO	6.3
1	12-A	81	PRO	6.3
1	13-A	81	PRO	6.3
1	14-A	81	PRO	6.3
1	15-A	81	PRO	6.3
1	16-A	81	PRO	6.3
1	1-B	120	SER	6.2
1	2-B	120	SER	6.2
1	3-B	120	SER	6.2
1	4-B	120	SER	6.2
1	5-B	120	SER	6.2
1	6-B	120	SER	6.2
1	7-B	120	SER	6.2
1	8-B	120	SER	6.2
1	9-B	120	SER	6.2
1	10-B	120	SER	6.2
1	11-B	120	SER	6.2
1	12-B	120	SER	6.2

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Mol	Chain	Res	Type	RSRZ
1	13-B	120	SER	6.2
1	14-B	120	SER	6.2
1	15-B	120	SER	6.2
1	16-B	120	SER	6.2
1	1-A	134	SER	6.1
1	2-A	134	SER	6.1
1	3-A	134	SER	6.1
1	4-A	134	SER	6.1
1	5-A	134	SER	6.1
1	6-A	134	SER	6.1
1	7-A	134	SER	6.1
1	8-A	134	SER	6.1
1	9-A	134	SER	6.1
1	10-A	134	SER	6.1
1	11-A	134	SER	6.1
1	12-A	134	SER	6.1
1	13-A	134	SER	6.1
1	14-A	134	SER	6.1
1	15-A	134	SER	6.1
1	16-A	134	SER	6.1
1	1-A	66	GLU	6.0
1	2-A	66	GLU	6.0
1	3-A	66	GLU	6.0
1	4-A	66	GLU	6.0
1	5-A	66	GLU	6.0
1	6-A	66	GLU	6.0
1	7-A	66	GLU	6.0
1	8-A	66	GLU	6.0
1	9-A	66	GLU	6.0
1	10-A	66	GLU	6.0
1	11-A	66	GLU	6.0
1	12-A	66	GLU	6.0
1	13-A	66	GLU	6.0
1	14-A	66	GLU	6.0
1	15-A	66	GLU	6.0
1	16-A	66	GLU	6.0
1	1-A	61	VAL	6.0
1	2-A	61	VAL	6.0
1	3-A	61	VAL	6.0
1	4-A	61	VAL	6.0
1	5-A	61	VAL	6.0
1	6-A	61	VAL	6.0

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Mol	Chain	Res	Type	RSRZ
1	7-A	61	VAL	6.0
1	8-A	61	VAL	6.0
1	9-A	61	VAL	6.0
1	10-A	61	VAL	6.0
1	11-A	61	VAL	6.0
1	12-A	61	VAL	6.0
1	13-A	61	VAL	6.0
1	14-A	61	VAL	6.0
1	15-A	61	VAL	6.0
1	16-A	61	VAL	6.0
1	1-B	31	LEU	5.9
1	2-B	31	LEU	5.9
1	3-B	31	LEU	5.9
1	4-B	31	LEU	5.9
1	5-B	31	LEU	5.9
1	6-B	31	LEU	5.9
1	7-B	31	LEU	5.9
1	8-B	31	LEU	5.9
1	9-B	31	LEU	5.9
1	10-B	31	LEU	5.9
1	11-B	31	LEU	5.9
1	12-B	31	LEU	5.9
1	13-B	31	LEU	5.9
1	14-B	31	LEU	5.9
1	15-B	31	LEU	5.9
1	16-B	31	LEU	5.9
1	1-B	113	ASP	5.8
1	2-B	113	ASP	5.8
1	3-B	113	ASP	5.8
1	4-B	113	ASP	5.8
1	5-B	113	ASP	5.8
1	6-B	113	ASP	5.8
1	7-B	113	ASP	5.8
1	8-B	113	ASP	5.8
1	9-B	113	ASP	5.8
1	10-B	113	ASP	5.8
1	11-B	113	ASP	5.8
1	12-B	113	ASP	5.8
1	13-B	113	ASP	5.8
1	14-B	113	ASP	5.8
1	15-B	113	ASP	5.8
1	16-B	113	ASP	5.8

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Mol	Chain	Res	Type	RSRZ
1	1-A	126	ARG	5.7
1	2-A	126	ARG	5.7
1	3-A	126	ARG	5.7
1	4-A	126	ARG	5.7
1	5-A	126	ARG	5.7
1	6-A	126	ARG	5.7
1	7-A	126	ARG	5.7
1	8-A	126	ARG	5.7
1	9-A	126	ARG	5.7
1	10-A	126	ARG	5.7
1	11-A	126	ARG	5.7
1	12-A	126	ARG	5.7
1	13-A	126	ARG	5.7
1	14-A	126	ARG	5.7
1	15-A	126	ARG	5.7
1	16-A	126	ARG	5.7
1	1-A	43	ALA	5.6
1	2-A	43	ALA	5.6
1	3-A	43	ALA	5.6
1	4-A	43	ALA	5.6
1	5-A	43	ALA	5.6
1	6-A	43	ALA	5.6
1	7-A	43	ALA	5.6
1	8-A	43	ALA	5.6
1	9-A	43	ALA	5.6
1	10-A	43	ALA	5.6
1	11-A	43	ALA	5.6
1	12-A	43	ALA	5.6
1	13-A	43	ALA	5.6
1	14-A	43	ALA	5.6
1	15-A	43	ALA	5.6
1	16-A	43	ALA	5.6
1	1-A	130	PRO	5.5
1	2-A	130	PRO	5.5
1	3-A	130	PRO	5.5
1	4-A	130	PRO	5.5
1	5-A	130	PRO	5.5
1	6-A	130	PRO	5.5
1	7-A	130	PRO	5.5
1	8-A	130	PRO	5.5
1	9-A	130	PRO	5.5
1	10-A	130	PRO	5.5

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Mol	Chain	Res	Type	RSRZ
1	11-A	130	PRO	5.5
1	12-A	130	PRO	5.5
1	13-A	130	PRO	5.5
1	14-A	130	PRO	5.5
1	15-A	130	PRO	5.5
1	16-A	130	PRO	5.5
1	1-B	108	ALA	5.4
1	2-B	108	ALA	5.4
1	3-B	108	ALA	5.4
1	4-B	108	ALA	5.4
1	5-B	108	ALA	5.4
1	6-B	108	ALA	5.4
1	7-B	108	ALA	5.4
1	8-B	108	ALA	5.4
1	9-B	108	ALA	5.4
1	10-B	108	ALA	5.4
1	11-B	108	ALA	5.4
1	12-B	108	ALA	5.4
1	13-B	108	ALA	5.4
1	14-B	108	ALA	5.4
1	15-B	108	ALA	5.4
1	16-B	108	ALA	5.4
1	1-A	64	VAL	5.3
1	2-A	64	VAL	5.3
1	3-A	64	VAL	5.3
1	4-A	64	VAL	5.3
1	5-A	64	VAL	5.3
1	6-A	64	VAL	5.3
1	7-A	64	VAL	5.3
1	8-A	64	VAL	5.3
1	9-A	64	VAL	5.3
1	10-A	64	VAL	5.3
1	11-A	64	VAL	5.3
1	12-A	64	VAL	5.3
1	13-A	64	VAL	5.3
1	14-A	64	VAL	5.3
1	15-A	64	VAL	5.3
1	16-A	64	VAL	5.3
1	1-A	86	PRO	5.3
1	2-A	86	PRO	5.3
1	3-A	86	PRO	5.3
1	4-A	86	PRO	5.3

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Mol	Chain	Res	Type	RSRZ
1	5-A	86	PRO	5.3
1	6-A	86	PRO	5.3
1	7-A	86	PRO	5.3
1	8-A	86	PRO	5.3
1	9-A	86	PRO	5.3
1	10-A	86	PRO	5.3
1	11-A	86	PRO	5.3
1	12-A	86	PRO	5.3
1	13-A	86	PRO	5.3
1	14-A	86	PRO	5.3
1	15-A	86	PRO	5.3
1	16-A	86	PRO	5.3
1	1-B	48	GLU	5.3
1	2-B	48	GLU	5.3
1	3-B	48	GLU	5.3
1	4-B	48	GLU	5.3
1	5-B	48	GLU	5.3
1	6-B	48	GLU	5.3
1	7-B	48	GLU	5.3
1	8-B	48	GLU	5.3
1	9-B	48	GLU	5.3
1	10-B	48	GLU	5.3
1	11-B	48	GLU	5.3
1	12-B	48	GLU	5.3
1	13-B	48	GLU	5.3
1	14-B	48	GLU	5.3
1	15-B	48	GLU	5.3
1	16-B	48	GLU	5.3
1	1-B	127	GLN	5.3
1	2-B	127	GLN	5.3
1	3-B	127	GLN	5.3
1	4-B	127	GLN	5.3
1	5-B	127	GLN	5.3
1	6-B	127	GLN	5.3
1	7-B	127	GLN	5.3
1	8-B	127	GLN	5.3
1	9-B	127	GLN	5.3
1	10-B	127	GLN	5.3
1	11-B	127	GLN	5.3
1	12-B	127	GLN	5.3
1	13-B	127	GLN	5.3
1	14-B	127	GLN	5.3

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Mol	Chain	Res	Type	RSRZ
1	15-B	127	GLN	5.3
1	16-B	127	GLN	5.3
1	1-B	35	ARG	5.3
1	2-B	35	ARG	5.3
1	3-B	35	ARG	5.3
1	4-B	35	ARG	5.3
1	5-B	35	ARG	5.3
1	6-B	35	ARG	5.3
1	7-B	35	ARG	5.3
1	8-B	35	ARG	5.3
1	9-B	35	ARG	5.3
1	10-B	35	ARG	5.3
1	11-B	35	ARG	5.3
1	12-B	35	ARG	5.3
1	13-B	35	ARG	5.3
1	14-B	35	ARG	5.3
1	15-B	35	ARG	5.3
1	16-B	35	ARG	5.3
1	1-B	75	SER	5.2
1	2-B	75	SER	5.2
1	3-B	75	SER	5.2
1	4-B	75	SER	5.2
1	5-B	75	SER	5.2
1	6-B	75	SER	5.2
1	7-B	75	SER	5.2
1	8-B	75	SER	5.2
1	9-B	75	SER	5.2
1	10-B	75	SER	5.2
1	11-B	75	SER	5.2
1	12-B	75	SER	5.2
1	13-B	75	SER	5.2
1	14-B	75	SER	5.2
1	15-B	75	SER	5.2
1	16-B	75	SER	5.2
1	1-A	44	GLU	5.1
1	2-A	44	GLU	5.1
1	3-A	44	GLU	5.1
1	4-A	44	GLU	5.1
1	5-A	44	GLU	5.1
1	6-A	44	GLU	5.1
1	7-A	44	GLU	5.1
1	8-A	44	GLU	5.1

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Mol	Chain	Res	Type	RSRZ
1	9-A	44	GLU	5.1
1	10-A	44	GLU	5.1
1	11-A	44	GLU	5.1
1	12-A	44	GLU	5.1
1	13-A	44	GLU	5.1
1	14-A	44	GLU	5.1
1	15-A	44	GLU	5.1
1	16-A	44	GLU	5.1
1	1-B	116	GLN	5.1
1	2-B	116	GLN	5.1
1	3-B	116	GLN	5.1
1	4-B	116	GLN	5.1
1	5-B	116	GLN	5.1
1	6-B	116	GLN	5.1
1	7-B	116	GLN	5.1
1	8-B	116	GLN	5.1
1	9-B	116	GLN	5.1
1	10-B	116	GLN	5.1
1	11-B	116	GLN	5.1
1	12-B	116	GLN	5.1
1	13-B	116	GLN	5.1
1	14-B	116	GLN	5.1
1	15-B	116	GLN	5.1
1	16-B	116	GLN	5.1
1	1-A	23	PHE	5.0
1	2-A	23	PHE	5.0
1	3-A	23	PHE	5.0
1	4-A	23	PHE	5.0
1	5-A	23	PHE	5.0
1	6-A	23	PHE	5.0
1	7-A	23	PHE	5.0
1	8-A	23	PHE	5.0
1	9-A	23	PHE	5.0
1	10-A	23	PHE	5.0
1	11-A	23	PHE	5.0
1	12-A	23	PHE	5.0
1	13-A	23	PHE	5.0
1	14-A	23	PHE	5.0
1	15-A	23	PHE	5.0
1	16-A	23	PHE	5.0
1	1-B	64	VAL	5.0
1	2-B	64	VAL	5.0

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Mol	Chain	Res	Type	RSRZ
1	3-B	64	VAL	5.0
1	4-B	64	VAL	5.0
1	5-B	64	VAL	5.0
1	6-B	64	VAL	5.0
1	7-B	64	VAL	5.0
1	8-B	64	VAL	5.0
1	9-B	64	VAL	5.0
1	10-B	64	VAL	5.0
1	11-B	64	VAL	5.0
1	12-B	64	VAL	5.0
1	13-B	64	VAL	5.0
1	14-B	64	VAL	5.0
1	15-B	64	VAL	5.0
1	16-B	64	VAL	5.0
1	1-B	36	ARG	5.0
1	2-B	36	ARG	5.0
1	3-B	36	ARG	5.0
1	4-B	36	ARG	5.0
1	5-B	36	ARG	5.0
1	6-B	36	ARG	5.0
1	7-B	36	ARG	5.0
1	8-B	36	ARG	5.0
1	9-B	36	ARG	5.0
1	10-B	36	ARG	5.0
1	11-B	36	ARG	5.0
1	12-B	36	ARG	5.0
1	13-B	36	ARG	5.0
1	14-B	36	ARG	5.0
1	15-B	36	ARG	5.0
1	16-B	36	ARG	5.0
1	1-A	25	PHE	4.8
1	2-A	25	PHE	4.8
1	3-A	25	PHE	4.8
1	4-A	25	PHE	4.8
1	5-A	25	PHE	4.8
1	6-A	25	PHE	4.8
1	7-A	25	PHE	4.8
1	8-A	25	PHE	4.8
1	9-A	25	PHE	4.8
1	10-A	25	PHE	4.8
1	11-A	25	PHE	4.8
1	12-A	25	PHE	4.8

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Mol	Chain	Res	Type	RSRZ
1	13-A	25	PHE	4.8
1	14-A	25	PHE	4.8
1	15-A	25	PHE	4.8
1	16-A	25	PHE	4.8
1	1-B	57	LEU	4.8
1	2-B	57	LEU	4.8
1	3-B	57	LEU	4.8
1	4-B	57	LEU	4.8
1	5-B	57	LEU	4.8
1	6-B	57	LEU	4.8
1	7-B	57	LEU	4.8
1	8-B	57	LEU	4.8
1	9-B	57	LEU	4.8
1	10-B	57	LEU	4.8
1	11-B	57	LEU	4.8
1	12-B	57	LEU	4.8
1	13-B	57	LEU	4.8
1	14-B	57	LEU	4.8
1	15-B	57	LEU	4.8
1	16-B	57	LEU	4.8
1	1-B	84	TRP	4.7
1	2-B	84	TRP	4.7
1	3-B	84	TRP	4.7
1	4-B	84	TRP	4.7
1	5-B	84	TRP	4.7
1	6-B	84	TRP	4.7
1	7-B	84	TRP	4.7
1	8-B	84	TRP	4.7
1	9-B	84	TRP	4.7
1	10-B	84	TRP	4.7
1	11-B	84	TRP	4.7
1	12-B	84	TRP	4.7
1	13-B	84	TRP	4.7
1	14-B	84	TRP	4.7
1	15-B	84	TRP	4.7
1	16-B	84	TRP	4.7
1	1-A	24	ARG	4.7
1	2-A	24	ARG	4.7
1	3-A	24	ARG	4.7
1	4-A	24	ARG	4.7
1	5-A	24	ARG	4.7
1	6-A	24	ARG	4.7

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Mol	Chain	Res	Type	RSRZ
1	7-A	24	ARG	4.7
1	8-A	24	ARG	4.7
1	9-A	24	ARG	4.7
1	10-A	24	ARG	4.7
1	11-A	24	ARG	4.7
1	12-A	24	ARG	4.7
1	13-A	24	ARG	4.7
1	14-A	24	ARG	4.7
1	15-A	24	ARG	4.7
1	16-A	24	ARG	4.7
1	1-A	58	LEU	4.6
1	2-A	58	LEU	4.6
1	3-A	58	LEU	4.6
1	4-A	58	LEU	4.6
1	5-A	58	LEU	4.6
1	6-A	58	LEU	4.6
1	7-A	58	LEU	4.6
1	8-A	58	LEU	4.6
1	9-A	58	LEU	4.6
1	10-A	58	LEU	4.6
1	11-A	58	LEU	4.6
1	12-A	58	LEU	4.6
1	13-A	58	LEU	4.6
1	14-A	58	LEU	4.6
1	15-A	58	LEU	4.6
1	16-A	58	LEU	4.6
1	1-B	60	LEU	4.6
1	2-B	60	LEU	4.6
1	3-B	60	LEU	4.6
1	4-B	60	LEU	4.6
1	5-B	60	LEU	4.6
1	6-B	60	LEU	4.6
1	7-B	60	LEU	4.6
1	8-B	60	LEU	4.6
1	9-B	60	LEU	4.6
1	10-B	60	LEU	4.6
1	11-B	60	LEU	4.6
1	12-B	60	LEU	4.6
1	13-B	60	LEU	4.6
1	14-B	60	LEU	4.6
1	15-B	60	LEU	4.6
1	16-B	60	LEU	4.6

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Mol	Chain	Res	Type	RSRZ
1	1-A	124	THR	4.6
1	2-A	124	THR	4.6
1	3-A	124	THR	4.6
1	4-A	124	THR	4.6
1	5-A	124	THR	4.6
1	6-A	124	THR	4.6
1	7-A	124	THR	4.6
1	8-A	124	THR	4.6
1	9-A	124	THR	4.6
1	10-A	124	THR	4.6
1	11-A	124	THR	4.6
1	12-A	124	THR	4.6
1	13-A	124	THR	4.6
1	14-A	124	THR	4.6
1	15-A	124	THR	4.6
1	16-A	124	THR	4.6
1	1-B	71	PHE	4.5
1	2-B	71	PHE	4.5
1	3-B	71	PHE	4.5
1	4-B	71	PHE	4.5
1	5-B	71	PHE	4.5
1	6-B	71	PHE	4.5
1	7-B	71	PHE	4.5
1	8-B	71	PHE	4.5
1	9-B	71	PHE	4.5
1	10-B	71	PHE	4.5
1	11-B	71	PHE	4.5
1	12-B	71	PHE	4.5
1	13-B	71	PHE	4.5
1	14-B	71	PHE	4.5
1	15-B	71	PHE	4.5
1	16-B	71	PHE	4.5
1	1-B	37	LEU	4.5
1	2-B	37	LEU	4.5
1	3-B	37	LEU	4.5
1	4-B	37	LEU	4.5
1	5-B	37	LEU	4.5
1	6-B	37	LEU	4.5
1	7-B	37	LEU	4.5
1	8-B	37	LEU	4.5
1	9-B	37	LEU	4.5
1	10-B	37	LEU	4.5

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Mol	Chain	Res	Type	RSRZ
1	11-B	37	LEU	4.5
1	12-B	37	LEU	4.5
1	13-B	37	LEU	4.5
1	14-B	37	LEU	4.5
1	15-B	37	LEU	4.5
1	16-B	37	LEU	4.5
1	1-A	73	TRP	4.5
1	2-A	73	TRP	4.5
1	3-A	73	TRP	4.5
1	4-A	73	TRP	4.5
1	5-A	73	TRP	4.5
1	6-A	73	TRP	4.5
1	7-A	73	TRP	4.5
1	8-A	73	TRP	4.5
1	9-A	73	TRP	4.5
1	10-A	73	TRP	4.5
1	11-A	73	TRP	4.5
1	12-A	73	TRP	4.5
1	13-A	73	TRP	4.5
1	14-A	73	TRP	4.5
1	15-A	73	TRP	4.5
1	16-A	73	TRP	4.5
1	1-B	39	ALA	4.4
1	2-B	39	ALA	4.4
1	3-B	39	ALA	4.4
1	4-B	39	ALA	4.4
1	5-B	39	ALA	4.4
1	6-B	39	ALA	4.4
1	7-B	39	ALA	4.4
1	8-B	39	ALA	4.4
1	9-B	39	ALA	4.4
1	10-B	39	ALA	4.4
1	11-B	39	ALA	4.4
1	12-B	39	ALA	4.4
1	13-B	39	ALA	4.4
1	14-B	39	ALA	4.4
1	15-B	39	ALA	4.4
1	16-B	39	ALA	4.4
1	1-B	77	THR	4.4
1	2-B	77	THR	4.4
1	3-B	77	THR	4.4
1	4-B	77	THR	4.4

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Mol	Chain	Res	Type	RSRZ
1	5-B	77	THR	4.4
1	6-B	77	THR	4.4
1	7-B	77	THR	4.4
1	8-B	77	THR	4.4
1	9-B	77	THR	4.4
1	10-B	77	THR	4.4
1	11-B	77	THR	4.4
1	12-B	77	THR	4.4
1	13-B	77	THR	4.4
1	14-B	77	THR	4.4
1	15-B	77	THR	4.4
1	16-B	77	THR	4.4
1	1-A	36	ARG	4.4
1	2-A	36	ARG	4.4
1	3-A	36	ARG	4.4
1	4-A	36	ARG	4.4
1	5-A	36	ARG	4.4
1	6-A	36	ARG	4.4
1	7-A	36	ARG	4.4
1	8-A	36	ARG	4.4
1	9-A	36	ARG	4.4
1	10-A	36	ARG	4.4
1	11-A	36	ARG	4.4
1	12-A	36	ARG	4.4
1	13-A	36	ARG	4.4
1	14-A	36	ARG	4.4
1	15-A	36	ARG	4.4
1	16-A	36	ARG	4.4
1	1-B	98	ASP	4.3
1	2-B	98	ASP	4.3
1	3-B	98	ASP	4.3
1	4-B	98	ASP	4.3
1	5-B	98	ASP	4.3
1	6-B	98	ASP	4.3
1	7-B	98	ASP	4.3
1	8-B	98	ASP	4.3
1	9-B	98	ASP	4.3
1	10-B	98	ASP	4.3
1	11-B	98	ASP	4.3
1	12-B	98	ASP	4.3
1	13-B	98	ASP	4.3
1	14-B	98	ASP	4.3

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Mol	Chain	Res	Type	RSRZ
1	15-B	98	ASP	4.3
1	16-B	98	ASP	4.3
1	1-A	45	ARG	4.3
1	2-A	45	ARG	4.3
1	3-A	45	ARG	4.3
1	4-A	45	ARG	4.3
1	5-A	45	ARG	4.3
1	6-A	45	ARG	4.3
1	7-A	45	ARG	4.3
1	8-A	45	ARG	4.3
1	9-A	45	ARG	4.3
1	10-A	45	ARG	4.3
1	11-A	45	ARG	4.3
1	12-A	45	ARG	4.3
1	13-A	45	ARG	4.3
1	14-A	45	ARG	4.3
1	15-A	45	ARG	4.3
1	16-A	45	ARG	4.3
1	1-B	99	VAL	4.3
1	2-B	99	VAL	4.3
1	3-B	99	VAL	4.3
1	4-B	99	VAL	4.3
1	5-B	99	VAL	4.3
1	6-B	99	VAL	4.3
1	7-B	99	VAL	4.3
1	8-B	99	VAL	4.3
1	9-B	99	VAL	4.3
1	10-B	99	VAL	4.3
1	11-B	99	VAL	4.3
1	12-B	99	VAL	4.3
1	13-B	99	VAL	4.3
1	14-B	99	VAL	4.3
1	15-B	99	VAL	4.3
1	16-B	99	VAL	4.3
1	1-B	41	PHE	4.1
1	2-B	41	PHE	4.1
1	3-B	41	PHE	4.1
1	4-B	41	PHE	4.1
1	5-B	41	PHE	4.1
1	6-B	41	PHE	4.1
1	7-B	41	PHE	4.1
1	8-B	41	PHE	4.1

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Mol	Chain	Res	Type	RSRZ
1	9-B	41	PHE	4.1
1	10-B	41	PHE	4.1
1	11-B	41	PHE	4.1
1	12-B	41	PHE	4.1
1	13-B	41	PHE	4.1
1	14-B	41	PHE	4.1
1	15-B	41	PHE	4.1
1	16-B	41	PHE	4.1
1	1-A	99	VAL	4.1
1	2-A	99	VAL	4.1
1	3-A	99	VAL	4.1
1	4-A	99	VAL	4.1
1	5-A	99	VAL	4.1
1	6-A	99	VAL	4.1
1	7-A	99	VAL	4.1
1	8-A	99	VAL	4.1
1	9-A	99	VAL	4.1
1	10-A	99	VAL	4.1
1	11-A	99	VAL	4.1
1	12-A	99	VAL	4.1
1	13-A	99	VAL	4.1
1	14-A	99	VAL	4.1
1	15-A	99	VAL	4.1
1	16-A	99	VAL	4.1
1	1-B	34	ILE	4.1
1	2-B	34	ILE	4.1
1	3-B	34	ILE	4.1
1	4-B	34	ILE	4.1
1	5-B	34	ILE	4.1
1	6-B	34	ILE	4.1
1	7-B	34	ILE	4.1
1	8-B	34	ILE	4.1
1	9-B	34	ILE	4.1
1	10-B	34	ILE	4.1
1	11-B	34	ILE	4.1
1	12-B	34	ILE	4.1
1	13-B	34	ILE	4.1
1	14-B	34	ILE	4.1
1	15-B	34	ILE	4.1
1	16-B	34	ILE	4.1
1	1-B	38	HIS	4.1
1	2-B	38	HIS	4.1

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Mol	Chain	Res	Type	RSRZ
1	3-B	38	HIS	4.1
1	4-B	38	HIS	4.1
1	5-B	38	HIS	4.1
1	6-B	38	HIS	4.1
1	7-B	38	HIS	4.1
1	8-B	38	HIS	4.1
1	9-B	38	HIS	4.1
1	10-B	38	HIS	4.1
1	11-B	38	HIS	4.1
1	12-B	38	HIS	4.1
1	13-B	38	HIS	4.1
1	14-B	38	HIS	4.1
1	15-B	38	HIS	4.1
1	16-B	38	HIS	4.1
1	1-A	67	LEU	4.1
1	2-A	67	LEU	4.1
1	3-A	67	LEU	4.1
1	4-A	67	LEU	4.1
1	5-A	67	LEU	4.1
1	6-A	67	LEU	4.1
1	7-A	67	LEU	4.1
1	8-A	67	LEU	4.1
1	9-A	67	LEU	4.1
1	10-A	67	LEU	4.1
1	11-A	67	LEU	4.1
1	12-A	67	LEU	4.1
1	13-A	67	LEU	4.1
1	14-A	67	LEU	4.1
1	15-A	67	LEU	4.1
1	16-A	67	LEU	4.1
1	1-A	53	PRO	4.1
1	2-A	53	PRO	4.1
1	3-A	53	PRO	4.1
1	4-A	53	PRO	4.1
1	5-A	53	PRO	4.1
1	6-A	53	PRO	4.1
1	7-A	53	PRO	4.1
1	8-A	53	PRO	4.1
1	9-A	53	PRO	4.1
1	10-A	53	PRO	4.1
1	11-A	53	PRO	4.1
1	12-A	53	PRO	4.1

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Mol	Chain	Res	Type	RSRZ
1	13-A	53	PRO	4.1
1	14-A	53	PRO	4.1
1	15-A	53	PRO	4.1
1	16-A	53	PRO	4.1
1	1-B	87	LYS	4.1
1	2-B	87	LYS	4.1
1	3-B	87	LYS	4.1
1	4-B	87	LYS	4.1
1	5-B	87	LYS	4.1
1	6-B	87	LYS	4.1
1	7-B	87	LYS	4.1
1	8-B	87	LYS	4.1
1	9-B	87	LYS	4.1
1	10-B	87	LYS	4.1
1	11-B	87	LYS	4.1
1	12-B	87	LYS	4.1
1	13-B	87	LYS	4.1
1	14-B	87	LYS	4.1
1	15-B	87	LYS	4.1
1	16-B	87	LYS	4.1
1	1-B	115	PRO	4.1
1	2-B	115	PRO	4.1
1	3-B	115	PRO	4.1
1	4-B	115	PRO	4.1
1	5-B	115	PRO	4.1
1	6-B	115	PRO	4.1
1	7-B	115	PRO	4.1
1	8-B	115	PRO	4.1
1	9-B	115	PRO	4.1
1	10-B	115	PRO	4.1
1	11-B	115	PRO	4.1
1	12-B	115	PRO	4.1
1	13-B	115	PRO	4.1
1	14-B	115	PRO	4.1
1	15-B	115	PRO	4.1
1	16-B	115	PRO	4.1
1	1-B	91	ALA	4.0
1	1-B	117	ALA	4.0
1	2-B	91	ALA	4.0
1	2-B	117	ALA	4.0
1	3-B	91	ALA	4.0
1	3-B	117	ALA	4.0

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Mol	Chain	Res	Type	RSRZ
1	4-B	91	ALA	4.0
1	4-B	117	ALA	4.0
1	5-B	91	ALA	4.0
1	5-B	117	ALA	4.0
1	6-B	91	ALA	4.0
1	6-B	117	ALA	4.0
1	7-B	91	ALA	4.0
1	7-B	117	ALA	4.0
1	8-B	91	ALA	4.0
1	8-B	117	ALA	4.0
1	9-B	91	ALA	4.0
1	9-B	117	ALA	4.0
1	10-B	91	ALA	4.0
1	10-B	117	ALA	4.0
1	11-B	91	ALA	4.0
1	11-B	117	ALA	4.0
1	12-B	91	ALA	4.0
1	12-B	117	ALA	4.0
1	13-B	91	ALA	4.0
1	13-B	117	ALA	4.0
1	14-B	91	ALA	4.0
1	14-B	117	ALA	4.0
1	15-B	91	ALA	4.0
1	15-B	117	ALA	4.0
1	16-B	91	ALA	4.0
1	16-B	117	ALA	4.0
1	1-B	85	PRO	3.9
1	2-B	85	PRO	3.9
1	3-B	85	PRO	3.9
1	4-B	85	PRO	3.9
1	5-B	85	PRO	3.9
1	6-B	85	PRO	3.9
1	7-B	85	PRO	3.9
1	8-B	85	PRO	3.9
1	9-B	85	PRO	3.9
1	10-B	85	PRO	3.9
1	11-B	85	PRO	3.9
1	12-B	85	PRO	3.9
1	13-B	85	PRO	3.9
1	14-B	85	PRO	3.9
1	15-B	85	PRO	3.9
1	16-B	85	PRO	3.9

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Mol	Chain	Res	Type	RSRZ
1	1-B	110	CYS	3.9
1	2-B	110	CYS	3.9
1	3-B	110	CYS	3.9
1	4-B	110	CYS	3.9
1	5-B	110	CYS	3.9
1	6-B	110	CYS	3.9
1	7-B	110	CYS	3.9
1	8-B	110	CYS	3.9
1	9-B	110	CYS	3.9
1	10-B	110	CYS	3.9
1	11-B	110	CYS	3.9
1	12-B	110	CYS	3.9
1	13-B	110	CYS	3.9
1	14-B	110	CYS	3.9
1	15-B	110	CYS	3.9
1	16-B	110	CYS	3.9
1	1-A	38	HIS	3.9
1	2-A	38	HIS	3.9
1	3-A	38	HIS	3.9
1	4-A	38	HIS	3.9
1	5-A	38	HIS	3.9
1	6-A	38	HIS	3.9
1	7-A	38	HIS	3.9
1	8-A	38	HIS	3.9
1	9-A	38	HIS	3.9
1	10-A	38	HIS	3.9
1	11-A	38	HIS	3.9
1	12-A	38	HIS	3.9
1	13-A	38	HIS	3.9
1	14-A	38	HIS	3.9
1	15-A	38	HIS	3.9
1	16-A	38	HIS	3.9
1	1-B	46	ASP	3.9
1	2-B	46	ASP	3.9
1	3-B	46	ASP	3.9
1	4-B	46	ASP	3.9
1	5-B	46	ASP	3.9
1	6-B	46	ASP	3.9
1	7-B	46	ASP	3.9
1	8-B	46	ASP	3.9
1	9-B	46	ASP	3.9
1	10-B	46	ASP	3.9

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Mol	Chain	Res	Type	RSRZ
1	11-B	46	ASP	3.9
1	12-B	46	ASP	3.9
1	13-B	46	ASP	3.9
1	14-B	46	ASP	3.9
1	15-B	46	ASP	3.9
1	16-B	46	ASP	3.9
1	1-B	96	LEU	3.8
1	2-B	96	LEU	3.8
1	3-B	96	LEU	3.8
1	4-B	96	LEU	3.8
1	5-B	96	LEU	3.8
1	6-B	96	LEU	3.8
1	7-B	96	LEU	3.8
1	8-B	96	LEU	3.8
1	9-B	96	LEU	3.8
1	10-B	96	LEU	3.8
1	11-B	96	LEU	3.8
1	12-B	96	LEU	3.8
1	13-B	96	LEU	3.8
1	14-B	96	LEU	3.8
1	15-B	96	LEU	3.8
1	16-B	96	LEU	3.8
1	1-B	25	PHE	3.8
1	2-B	25	PHE	3.8
1	3-B	25	PHE	3.8
1	4-B	25	PHE	3.8
1	5-B	25	PHE	3.8
1	6-B	25	PHE	3.8
1	7-B	25	PHE	3.8
1	8-B	25	PHE	3.8
1	9-B	25	PHE	3.8
1	10-B	25	PHE	3.8
1	11-B	25	PHE	3.8
1	12-B	25	PHE	3.8
1	13-B	25	PHE	3.8
1	14-B	25	PHE	3.8
1	15-B	25	PHE	3.8
1	16-B	25	PHE	3.8
1	1-A	50	PHE	3.7
1	2-A	50	PHE	3.7
1	3-A	50	PHE	3.7
1	4-A	50	PHE	3.7

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Mol	Chain	Res	Type	RSRZ
1	5-A	50	PHE	3.7
1	6-A	50	PHE	3.7
1	7-A	50	PHE	3.7
1	8-A	50	PHE	3.7
1	9-A	50	PHE	3.7
1	10-A	50	PHE	3.7
1	11-A	50	PHE	3.7
1	12-A	50	PHE	3.7
1	13-A	50	PHE	3.7
1	14-A	50	PHE	3.7
1	15-A	50	PHE	3.7
1	16-A	50	PHE	3.7
1	1-A	85	PRO	3.7
1	2-A	85	PRO	3.7
1	3-A	85	PRO	3.7
1	4-A	85	PRO	3.7
1	5-A	85	PRO	3.7
1	6-A	85	PRO	3.7
1	7-A	85	PRO	3.7
1	8-A	85	PRO	3.7
1	9-A	85	PRO	3.7
1	10-A	85	PRO	3.7
1	11-A	85	PRO	3.7
1	12-A	85	PRO	3.7
1	13-A	85	PRO	3.7
1	14-A	85	PRO	3.7
1	15-A	85	PRO	3.7
1	16-A	85	PRO	3.7
1	1-A	123	ASP	3.7
1	2-A	123	ASP	3.7
1	3-A	123	ASP	3.7
1	4-A	123	ASP	3.7
1	5-A	123	ASP	3.7
1	6-A	123	ASP	3.7
1	7-A	123	ASP	3.7
1	8-A	123	ASP	3.7
1	9-A	123	ASP	3.7
1	10-A	123	ASP	3.7
1	11-A	123	ASP	3.7
1	12-A	123	ASP	3.7
1	13-A	123	ASP	3.7
1	14-A	123	ASP	3.7

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Mol	Chain	Res	Type	RSRZ
1	15-A	123	ASP	3.7
1	16-A	123	ASP	3.7
1	1-A	127	GLN	3.6
1	2-A	127	GLN	3.6
1	3-A	127	GLN	3.6
1	4-A	127	GLN	3.6
1	5-A	127	GLN	3.6
1	6-A	127	GLN	3.6
1	7-A	127	GLN	3.6
1	8-A	127	GLN	3.6
1	9-A	127	GLN	3.6
1	10-A	127	GLN	3.6
1	11-A	127	GLN	3.6
1	12-A	127	GLN	3.6
1	13-A	127	GLN	3.6
1	14-A	127	GLN	3.6
1	15-A	127	GLN	3.6
1	16-A	127	GLN	3.6
1	1-B	89	ARG	3.6
1	2-B	89	ARG	3.6
1	3-B	89	ARG	3.6
1	4-B	89	ARG	3.6
1	5-B	89	ARG	3.6
1	6-B	89	ARG	3.6
1	7-B	89	ARG	3.6
1	8-B	89	ARG	3.6
1	9-B	89	ARG	3.6
1	10-B	89	ARG	3.6
1	11-B	89	ARG	3.6
1	12-B	89	ARG	3.6
1	13-B	89	ARG	3.6
1	14-B	89	ARG	3.6
1	15-B	89	ARG	3.6
1	16-B	89	ARG	3.6
1	1-B	72	GLN	3.5
1	2-B	72	GLN	3.5
1	3-B	72	GLN	3.5
1	4-B	72	GLN	3.5
1	5-B	72	GLN	3.5
1	6-B	72	GLN	3.5
1	7-B	72	GLN	3.5
1	8-B	72	GLN	3.5

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Mol	Chain	Res	Type	RSRZ
1	9-B	72	GLN	3.5
1	10-B	72	GLN	3.5
1	11-B	72	GLN	3.5
1	12-B	72	GLN	3.5
1	13-B	72	GLN	3.5
1	14-B	72	GLN	3.5
1	15-B	72	GLN	3.5
1	16-B	72	GLN	3.5
1	1-A	132	HIS	3.5
1	2-A	132	HIS	3.5
1	3-A	132	HIS	3.5
1	4-A	132	HIS	3.5
1	5-A	132	HIS	3.5
1	6-A	132	HIS	3.5
1	7-A	132	HIS	3.5
1	8-A	132	HIS	3.5
1	9-A	132	HIS	3.5
1	10-A	132	HIS	3.5
1	11-A	132	HIS	3.5
1	12-A	132	HIS	3.5
1	13-A	132	HIS	3.5
1	14-A	132	HIS	3.5
1	15-A	132	HIS	3.5
1	16-A	132	HIS	3.5
1	1-B	28	GLU	3.5
1	2-B	28	GLU	3.5
1	3-B	28	GLU	3.5
1	4-B	28	GLU	3.5
1	5-B	28	GLU	3.5
1	6-B	28	GLU	3.5
1	7-B	28	GLU	3.5
1	8-B	28	GLU	3.5
1	9-B	28	GLU	3.5
1	10-B	28	GLU	3.5
1	11-B	28	GLU	3.5
1	12-B	28	GLU	3.5
1	13-B	28	GLU	3.5
1	14-B	28	GLU	3.5
1	15-B	28	GLU	3.5
1	16-B	28	GLU	3.5
1	1-A	133	LEU	3.4
1	1-B	58	LEU	3.4

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Mol	Chain	Res	Type	RSRZ
1	2-A	133	LEU	3.4
1	2-B	58	LEU	3.4
1	3-A	133	LEU	3.4
1	3-B	58	LEU	3.4
1	4-A	133	LEU	3.4
1	4-B	58	LEU	3.4
1	5-A	133	LEU	3.4
1	5-B	58	LEU	3.4
1	6-A	133	LEU	3.4
1	6-B	58	LEU	3.4
1	7-A	133	LEU	3.4
1	7-B	58	LEU	3.4
1	8-A	133	LEU	3.4
1	8-B	58	LEU	3.4
1	9-A	133	LEU	3.4
1	9-B	58	LEU	3.4
1	10-A	133	LEU	3.4
1	10-B	58	LEU	3.4
1	11-A	133	LEU	3.4
1	11-B	58	LEU	3.4
1	12-A	133	LEU	3.4
1	12-B	58	LEU	3.4
1	13-A	133	LEU	3.4
1	13-B	58	LEU	3.4
1	14-A	133	LEU	3.4
1	14-B	58	LEU	3.4
1	15-A	133	LEU	3.4
1	15-B	58	LEU	3.4
1	16-A	133	LEU	3.4
1	16-B	58	LEU	3.4
1	1-B	30	THR	3.4
1	2-B	30	THR	3.4
1	3-B	30	THR	3.4
1	4-B	30	THR	3.4
1	5-B	30	THR	3.4
1	6-B	30	THR	3.4
1	7-B	30	THR	3.4
1	8-B	30	THR	3.4
1	9-B	30	THR	3.4
1	10-B	30	THR	3.4
1	11-B	30	THR	3.4
1	12-B	30	THR	3.4

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Mol	Chain	Res	Type	RSRZ
1	13-B	30	THR	3.4
1	14-B	30	THR	3.4
1	15-B	30	THR	3.4
1	16-B	30	THR	3.4
1	1-B	22	PRO	3.4
1	2-B	22	PRO	3.4
1	3-B	22	PRO	3.4
1	4-B	22	PRO	3.4
1	5-B	22	PRO	3.4
1	6-B	22	PRO	3.4
1	7-B	22	PRO	3.4
1	8-B	22	PRO	3.4
1	9-B	22	PRO	3.4
1	10-B	22	PRO	3.4
1	11-B	22	PRO	3.4
1	12-B	22	PRO	3.4
1	13-B	22	PRO	3.4
1	14-B	22	PRO	3.4
1	15-B	22	PRO	3.4
1	16-B	22	PRO	3.4
1	1-A	120	SER	3.3
1	2-A	120	SER	3.3
1	3-A	120	SER	3.3
1	4-A	120	SER	3.3
1	5-A	120	SER	3.3
1	6-A	120	SER	3.3
1	7-A	120	SER	3.3
1	8-A	120	SER	3.3
1	9-A	120	SER	3.3
1	10-A	120	SER	3.3
1	11-A	120	SER	3.3
1	12-A	120	SER	3.3
1	13-A	120	SER	3.3
1	14-A	120	SER	3.3
1	15-A	120	SER	3.3
1	16-A	120	SER	3.3
1	1-B	32	GLU	3.3
1	2-B	32	GLU	3.3
1	3-B	32	GLU	3.3
1	4-B	32	GLU	3.3
1	5-B	32	GLU	3.3
1	6-B	32	GLU	3.3

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Mol	Chain	Res	Type	RSRZ
1	7-B	32	GLU	3.3
1	8-B	32	GLU	3.3
1	9-B	32	GLU	3.3
1	10-B	32	GLU	3.3
1	11-B	32	GLU	3.3
1	12-B	32	GLU	3.3
1	13-B	32	GLU	3.3
1	14-B	32	GLU	3.3
1	15-B	32	GLU	3.3
1	16-B	32	GLU	3.3
1	1-B	52	GLN	3.3
1	2-B	52	GLN	3.3
1	3-B	52	GLN	3.3
1	4-B	52	GLN	3.3
1	5-B	52	GLN	3.3
1	6-B	52	GLN	3.3
1	7-B	52	GLN	3.3
1	8-B	52	GLN	3.3
1	9-B	52	GLN	3.3
1	10-B	52	GLN	3.3
1	11-B	52	GLN	3.3
1	12-B	52	GLN	3.3
1	13-B	52	GLN	3.3
1	14-B	52	GLN	3.3
1	15-B	52	GLN	3.3
1	16-B	52	GLN	3.3
1	1-A	110	CYS	3.2
1	2-A	110	CYS	3.2
1	3-A	110	CYS	3.2
1	4-A	110	CYS	3.2
1	5-A	110	CYS	3.2
1	6-A	110	CYS	3.2
1	7-A	110	CYS	3.2
1	8-A	110	CYS	3.2
1	9-A	110	CYS	3.2
1	10-A	110	CYS	3.2
1	11-A	110	CYS	3.2
1	12-A	110	CYS	3.2
1	13-A	110	CYS	3.2
1	14-A	110	CYS	3.2
1	15-A	110	CYS	3.2
1	16-A	110	CYS	3.2

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Mol	Chain	Res	Type	RSRZ
1	1-B	40	GLU	3.2
1	2-B	40	GLU	3.2
1	3-B	40	GLU	3.2
1	4-B	40	GLU	3.2
1	5-B	40	GLU	3.2
1	6-B	40	GLU	3.2
1	7-B	40	GLU	3.2
1	8-B	40	GLU	3.2
1	9-B	40	GLU	3.2
1	10-B	40	GLU	3.2
1	11-B	40	GLU	3.2
1	12-B	40	GLU	3.2
1	13-B	40	GLU	3.2
1	14-B	40	GLU	3.2
1	15-B	40	GLU	3.2
1	16-B	40	GLU	3.2
1	1-B	111	HIS	3.2
1	2-B	111	HIS	3.2
1	3-B	111	HIS	3.2
1	4-B	111	HIS	3.2
1	5-B	111	HIS	3.2
1	6-B	111	HIS	3.2
1	7-B	111	HIS	3.2
1	8-B	111	HIS	3.2
1	9-B	111	HIS	3.2
1	10-B	111	HIS	3.2
1	11-B	111	HIS	3.2
1	12-B	111	HIS	3.2
1	13-B	111	HIS	3.2
1	14-B	111	HIS	3.2
1	15-B	111	HIS	3.2
1	16-B	111	HIS	3.2
1	1-A	76	ASP	3.2
1	2-A	76	ASP	3.2
1	3-A	76	ASP	3.2
1	4-A	76	ASP	3.2
1	5-A	76	ASP	3.2
1	6-A	76	ASP	3.2
1	7-A	76	ASP	3.2
1	8-A	76	ASP	3.2
1	9-A	76	ASP	3.2
1	10-A	76	ASP	3.2

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Mol	Chain	Res	Type	RSRZ
1	11-A	76	ASP	3.2
1	12-A	76	ASP	3.2
1	13-A	76	ASP	3.2
1	14-A	76	ASP	3.2
1	15-A	76	ASP	3.2
1	16-A	76	ASP	3.2
1	1-A	29	PRO	3.1
1	2-A	29	PRO	3.1
1	3-A	29	PRO	3.1
1	4-A	29	PRO	3.1
1	5-A	29	PRO	3.1
1	6-A	29	PRO	3.1
1	7-A	29	PRO	3.1
1	8-A	29	PRO	3.1
1	9-A	29	PRO	3.1
1	10-A	29	PRO	3.1
1	11-A	29	PRO	3.1
1	12-A	29	PRO	3.1
1	13-A	29	PRO	3.1
1	14-A	29	PRO	3.1
1	15-A	29	PRO	3.1
1	16-A	29	PRO	3.1
1	1-A	31	LEU	3.1
1	2-A	31	LEU	3.1
1	3-A	31	LEU	3.1
1	4-A	31	LEU	3.1
1	5-A	31	LEU	3.1
1	6-A	31	LEU	3.1
1	7-A	31	LEU	3.1
1	8-A	31	LEU	3.1
1	9-A	31	LEU	3.1
1	10-A	31	LEU	3.1
1	11-A	31	LEU	3.1
1	12-A	31	LEU	3.1
1	13-A	31	LEU	3.1
1	14-A	31	LEU	3.1
1	15-A	31	LEU	3.1
1	16-A	31	LEU	3.1
1	1-A	89	ARG	3.1
1	2-A	89	ARG	3.1
1	3-A	89	ARG	3.1
1	4-A	89	ARG	3.1

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Mol	Chain	Res	Type	RSRZ
1	5-A	89	ARG	3.1
1	6-A	89	ARG	3.1
1	7-A	89	ARG	3.1
1	8-A	89	ARG	3.1
1	9-A	89	ARG	3.1
1	10-A	89	ARG	3.1
1	11-A	89	ARG	3.1
1	12-A	89	ARG	3.1
1	13-A	89	ARG	3.1
1	14-A	89	ARG	3.1
1	15-A	89	ARG	3.1
1	16-A	89	ARG	3.1
1	1-A	103	LEU	3.0
1	2-A	103	LEU	3.0
1	3-A	103	LEU	3.0
1	4-A	103	LEU	3.0
1	5-A	103	LEU	3.0
1	6-A	103	LEU	3.0
1	7-A	103	LEU	3.0
1	8-A	103	LEU	3.0
1	9-A	103	LEU	3.0
1	10-A	103	LEU	3.0
1	11-A	103	LEU	3.0
1	12-A	103	LEU	3.0
1	13-A	103	LEU	3.0
1	14-A	103	LEU	3.0
1	15-A	103	LEU	3.0
1	16-A	103	LEU	3.0
1	1-A	78	GLU	3.0
1	2-A	78	GLU	3.0
1	3-A	78	GLU	3.0
1	4-A	78	GLU	3.0
1	5-A	78	GLU	3.0
1	6-A	78	GLU	3.0
1	7-A	78	GLU	3.0
1	8-A	78	GLU	3.0
1	9-A	78	GLU	3.0
1	10-A	78	GLU	3.0
1	11-A	78	GLU	3.0
1	12-A	78	GLU	3.0
1	13-A	78	GLU	3.0
1	14-A	78	GLU	3.0

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Mol	Chain	Res	Type	RSRZ
1	15-A	78	GLU	3.0
1	16-A	78	GLU	3.0
1	1-A	118	VAL	3.0
1	2-A	118	VAL	3.0
1	3-A	118	VAL	3.0
1	4-A	118	VAL	3.0
1	5-A	118	VAL	3.0
1	6-A	118	VAL	3.0
1	7-A	118	VAL	3.0
1	8-A	118	VAL	3.0
1	9-A	118	VAL	3.0
1	10-A	118	VAL	3.0
1	11-A	118	VAL	3.0
1	12-A	118	VAL	3.0
1	13-A	118	VAL	3.0
1	14-A	118	VAL	3.0
1	15-A	118	VAL	3.0
1	16-A	118	VAL	3.0
1	1-B	69	GLU	3.0
1	2-B	69	GLU	3.0
1	3-B	69	GLU	3.0
1	4-B	69	GLU	3.0
1	5-B	69	GLU	3.0
1	6-B	69	GLU	3.0
1	7-B	69	GLU	3.0
1	8-B	69	GLU	3.0
1	9-B	69	GLU	3.0
1	10-B	69	GLU	3.0
1	11-B	69	GLU	3.0
1	12-B	69	GLU	3.0
1	13-B	69	GLU	3.0
1	14-B	69	GLU	3.0
1	15-B	69	GLU	3.0
1	16-B	69	GLU	3.0
1	1-B	56	LEU	2.9
1	2-B	56	LEU	2.9
1	3-B	56	LEU	2.9
1	4-B	56	LEU	2.9
1	5-B	56	LEU	2.9
1	6-B	56	LEU	2.9
1	7-B	56	LEU	2.9
1	8-B	56	LEU	2.9

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Mol	Chain	Res	Type	RSRZ
1	9-B	56	LEU	2.9
1	10-B	56	LEU	2.9
1	11-B	56	LEU	2.9
1	12-B	56	LEU	2.9
1	13-B	56	LEU	2.9
1	14-B	56	LEU	2.9
1	15-B	56	LEU	2.9
1	16-B	56	LEU	2.9
1	1-A	75	SER	2.9
1	2-A	75	SER	2.9
1	3-A	75	SER	2.9
1	4-A	75	SER	2.9
1	5-A	75	SER	2.9
1	6-A	75	SER	2.9
1	7-A	75	SER	2.9
1	8-A	75	SER	2.9
1	9-A	75	SER	2.9
1	10-A	75	SER	2.9
1	11-A	75	SER	2.9
1	12-A	75	SER	2.9
1	13-A	75	SER	2.9
1	14-A	75	SER	2.9
1	15-A	75	SER	2.9
1	16-A	75	SER	2.9
1	1-B	119	ILE	2.9
1	2-B	119	ILE	2.9
1	3-B	119	ILE	2.9
1	4-B	119	ILE	2.9
1	5-B	119	ILE	2.9
1	6-B	119	ILE	2.9
1	7-B	119	ILE	2.9
1	8-B	119	ILE	2.9
1	9-B	119	ILE	2.9
1	10-B	119	ILE	2.9
1	11-B	119	ILE	2.9
1	12-B	119	ILE	2.9
1	13-B	119	ILE	2.9
1	14-B	119	ILE	2.9
1	15-B	119	ILE	2.9
1	16-B	119	ILE	2.9
1	1-B	23	PHE	2.9
1	2-B	23	PHE	2.9

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Mol	Chain	Res	Type	RSRZ
1	3-B	23	PHE	2.9
1	4-B	23	PHE	2.9
1	5-B	23	PHE	2.9
1	6-B	23	PHE	2.9
1	7-B	23	PHE	2.9
1	8-B	23	PHE	2.9
1	9-B	23	PHE	2.9
1	10-B	23	PHE	2.9
1	11-B	23	PHE	2.9
1	12-B	23	PHE	2.9
1	13-B	23	PHE	2.9
1	14-B	23	PHE	2.9
1	15-B	23	PHE	2.9
1	16-B	23	PHE	2.9
1	1-A	105	ALA	2.9
1	1-B	68	ALA	2.9
1	2-A	105	ALA	2.9
1	2-B	68	ALA	2.9
1	3-A	105	ALA	2.9
1	3-B	68	ALA	2.9
1	4-A	105	ALA	2.9
1	4-B	68	ALA	2.9
1	5-A	105	ALA	2.9
1	5-B	68	ALA	2.9
1	6-A	105	ALA	2.9
1	6-B	68	ALA	2.9
1	7-A	105	ALA	2.9
1	7-B	68	ALA	2.9
1	8-A	105	ALA	2.9
1	8-B	68	ALA	2.9
1	9-A	105	ALA	2.9
1	9-B	68	ALA	2.9
1	10-A	105	ALA	2.9
1	10-B	68	ALA	2.9
1	11-A	105	ALA	2.9
1	11-B	68	ALA	2.9
1	12-A	105	ALA	2.9
1	12-B	68	ALA	2.9
1	13-A	105	ALA	2.9
1	13-B	68	ALA	2.9
1	14-A	105	ALA	2.9
1	14-B	68	ALA	2.9

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Mol	Chain	Res	Type	RSRZ
1	15-A	105	ALA	2.9
1	15-B	68	ALA	2.9
1	16-A	105	ALA	2.9
1	16-B	68	ALA	2.9
1	1-B	65	GLY	2.9
1	2-B	65	GLY	2.9
1	3-B	65	GLY	2.9
1	4-B	65	GLY	2.9
1	5-B	65	GLY	2.9
1	6-B	65	GLY	2.9
1	7-B	65	GLY	2.9
1	8-B	65	GLY	2.9
1	9-B	65	GLY	2.9
1	10-B	65	GLY	2.9
1	11-B	65	GLY	2.9
1	12-B	65	GLY	2.9
1	13-B	65	GLY	2.9
1	14-B	65	GLY	2.9
1	15-B	65	GLY	2.9
1	16-B	65	GLY	2.9
1	1-B	24	ARG	2.9
1	2-B	24	ARG	2.9
1	3-B	24	ARG	2.9
1	4-B	24	ARG	2.9
1	5-B	24	ARG	2.9
1	6-B	24	ARG	2.9
1	7-B	24	ARG	2.9
1	8-B	24	ARG	2.9
1	9-B	24	ARG	2.9
1	10-B	24	ARG	2.9
1	11-B	24	ARG	2.9
1	12-B	24	ARG	2.9
1	13-B	24	ARG	2.9
1	14-B	24	ARG	2.9
1	15-B	24	ARG	2.9
1	16-B	24	ARG	2.9
1	1-A	102	TYR	2.8
1	2-A	102	TYR	2.8
1	3-A	102	TYR	2.8
1	4-A	102	TYR	2.8
1	5-A	102	TYR	2.8
1	6-A	102	TYR	2.8

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Mol	Chain	Res	Type	RSRZ
1	7-A	102	TYR	2.8
1	8-A	102	TYR	2.8
1	9-A	102	TYR	2.8
1	10-A	102	TYR	2.8
1	11-A	102	TYR	2.8
1	12-A	102	TYR	2.8
1	13-A	102	TYR	2.8
1	14-A	102	TYR	2.8
1	15-A	102	TYR	2.8
1	16-A	102	TYR	2.8
1	1-A	117	ALA	2.8
1	2-A	117	ALA	2.8
1	3-A	117	ALA	2.8
1	4-A	117	ALA	2.8
1	5-A	117	ALA	2.8
1	6-A	117	ALA	2.8
1	7-A	117	ALA	2.8
1	8-A	117	ALA	2.8
1	9-A	117	ALA	2.8
1	10-A	117	ALA	2.8
1	11-A	117	ALA	2.8
1	12-A	117	ALA	2.8
1	13-A	117	ALA	2.8
1	14-A	117	ALA	2.8
1	15-A	117	ALA	2.8
1	16-A	117	ALA	2.8
1	1-A	116	GLN	2.7
1	1-B	103	LEU	2.7
1	1-B	114	LEU	2.7
1	2-A	116	GLN	2.7
1	2-B	103	LEU	2.7
1	2-B	114	LEU	2.7
1	3-A	116	GLN	2.7
1	3-B	103	LEU	2.7
1	3-B	114	LEU	2.7
1	4-A	116	GLN	2.7
1	4-B	103	LEU	2.7
1	4-B	114	LEU	2.7
1	5-A	116	GLN	2.7
1	5-B	103	LEU	2.7
1	5-B	114	LEU	2.7
1	6-A	116	GLN	2.7

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Mol	Chain	Res	Type	RSRZ
1	6-B	103	LEU	2.7
1	6-B	114	LEU	2.7
1	7-A	116	GLN	2.7
1	7-B	103	LEU	2.7
1	7-B	114	LEU	2.7
1	8-A	116	GLN	2.7
1	8-B	103	LEU	2.7
1	8-B	114	LEU	2.7
1	9-A	116	GLN	2.7
1	9-B	103	LEU	2.7
1	9-B	114	LEU	2.7
1	10-A	116	GLN	2.7
1	10-B	103	LEU	2.7
1	10-B	114	LEU	2.7
1	11-A	116	GLN	2.7
1	11-B	103	LEU	2.7
1	11-B	114	LEU	2.7
1	12-A	116	GLN	2.7
1	12-B	103	LEU	2.7
1	12-B	114	LEU	2.7
1	13-A	116	GLN	2.7
1	13-B	103	LEU	2.7
1	13-B	114	LEU	2.7
1	14-A	116	GLN	2.7
1	14-B	103	LEU	2.7
1	14-B	114	LEU	2.7
1	15-A	116	GLN	2.7
1	15-B	103	LEU	2.7
1	15-B	114	LEU	2.7
1	16-A	116	GLN	2.7
1	16-B	103	LEU	2.7
1	16-B	114	LEU	2.7
1	1-A	35	ARG	2.7
1	2-A	35	ARG	2.7
1	3-A	35	ARG	2.7
1	4-A	35	ARG	2.7
1	5-A	35	ARG	2.7
1	6-A	35	ARG	2.7
1	7-A	35	ARG	2.7
1	8-A	35	ARG	2.7
1	9-A	35	ARG	2.7
1	10-A	35	ARG	2.7

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Mol	Chain	Res	Type	RSRZ
1	11-A	35	ARG	2.7
1	12-A	35	ARG	2.7
1	13-A	35	ARG	2.7
1	14-A	35	ARG	2.7
1	15-A	35	ARG	2.7
1	16-A	35	ARG	2.7
1	1-B	78	GLU	2.7
1	2-B	78	GLU	2.7
1	3-B	78	GLU	2.7
1	4-B	78	GLU	2.7
1	5-B	78	GLU	2.7
1	6-B	78	GLU	2.7
1	7-B	78	GLU	2.7
1	8-B	78	GLU	2.7
1	9-B	78	GLU	2.7
1	10-B	78	GLU	2.7
1	11-B	78	GLU	2.7
1	12-B	78	GLU	2.7
1	13-B	78	GLU	2.7
1	14-B	78	GLU	2.7
1	15-B	78	GLU	2.7
1	16-B	78	GLU	2.7
1	1-B	73	TRP	2.7
1	2-B	73	TRP	2.7
1	3-B	73	TRP	2.7
1	4-B	73	TRP	2.7
1	5-B	73	TRP	2.7
1	6-B	73	TRP	2.7
1	7-B	73	TRP	2.7
1	8-B	73	TRP	2.7
1	9-B	73	TRP	2.7
1	10-B	73	TRP	2.7
1	11-B	73	TRP	2.7
1	12-B	73	TRP	2.7
1	13-B	73	TRP	2.7
1	14-B	73	TRP	2.7
1	15-B	73	TRP	2.7
1	16-B	73	TRP	2.7
1	1-A	131	VAL	2.7
1	2-A	131	VAL	2.7
1	3-A	131	VAL	2.7
1	4-A	131	VAL	2.7

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Mol	Chain	Res	Type	RSRZ
1	5-A	131	VAL	2.7
1	6-A	131	VAL	2.7
1	7-A	131	VAL	2.7
1	8-A	131	VAL	2.7
1	9-A	131	VAL	2.7
1	10-A	131	VAL	2.7
1	11-A	131	VAL	2.7
1	12-A	131	VAL	2.7
1	13-A	131	VAL	2.7
1	14-A	131	VAL	2.7
1	15-A	131	VAL	2.7
1	16-A	131	VAL	2.7
1	1-B	93	GLN	2.6
1	2-B	93	GLN	2.6
1	3-B	93	GLN	2.6
1	4-B	93	GLN	2.6
1	5-B	93	GLN	2.6
1	6-B	93	GLN	2.6
1	7-B	93	GLN	2.6
1	8-B	93	GLN	2.6
1	9-B	93	GLN	2.6
1	10-B	93	GLN	2.6
1	11-B	93	GLN	2.6
1	12-B	93	GLN	2.6
1	13-B	93	GLN	2.6
1	14-B	93	GLN	2.6
1	15-B	93	GLN	2.6
1	16-B	93	GLN	2.6
1	1-A	92	LEU	2.6
1	2-A	92	LEU	2.6
1	3-A	92	LEU	2.6
1	4-A	92	LEU	2.6
1	5-A	92	LEU	2.6
1	6-A	92	LEU	2.6
1	7-A	92	LEU	2.6
1	8-A	92	LEU	2.6
1	9-A	92	LEU	2.6
1	10-A	92	LEU	2.6
1	11-A	92	LEU	2.6
1	12-A	92	LEU	2.6
1	13-A	92	LEU	2.6
1	14-A	92	LEU	2.6

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Mol	Chain	Res	Type	RSRZ
1	15-A	92	LEU	2.6
1	16-A	92	LEU	2.6
1	1-A	32	GLU	2.6
1	2-A	32	GLU	2.6
1	3-A	32	GLU	2.6
1	4-A	32	GLU	2.6
1	5-A	32	GLU	2.6
1	6-A	32	GLU	2.6
1	7-A	32	GLU	2.6
1	8-A	32	GLU	2.6
1	9-A	32	GLU	2.6
1	10-A	32	GLU	2.6
1	11-A	32	GLU	2.6
1	12-A	32	GLU	2.6
1	13-A	32	GLU	2.6
1	14-A	32	GLU	2.6
1	15-A	32	GLU	2.6
1	16-A	32	GLU	2.6
1	1-A	101	ILE	2.5
1	2-A	101	ILE	2.5
1	3-A	101	ILE	2.5
1	4-A	101	ILE	2.5
1	5-A	101	ILE	2.5
1	6-A	101	ILE	2.5
1	7-A	101	ILE	2.5
1	8-A	101	ILE	2.5
1	9-A	101	ILE	2.5
1	10-A	101	ILE	2.5
1	11-A	101	ILE	2.5
1	12-A	101	ILE	2.5
1	13-A	101	ILE	2.5
1	14-A	101	ILE	2.5
1	15-A	101	ILE	2.5
1	16-A	101	ILE	2.5
1	1-A	26	SER	2.5
1	2-A	26	SER	2.5
1	3-A	26	SER	2.5
1	4-A	26	SER	2.5
1	5-A	26	SER	2.5
1	6-A	26	SER	2.5
1	7-A	26	SER	2.5
1	8-A	26	SER	2.5

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Mol	Chain	Res	Type	RSRZ
1	9-A	26	SER	2.5
1	10-A	26	SER	2.5
1	11-A	26	SER	2.5
1	12-A	26	SER	2.5
1	13-A	26	SER	2.5
1	14-A	26	SER	2.5
1	15-A	26	SER	2.5
1	16-A	26	SER	2.5
1	1-B	100	LEU	2.5
1	2-B	100	LEU	2.5
1	3-B	100	LEU	2.5
1	4-B	100	LEU	2.5
1	5-B	100	LEU	2.5
1	6-B	100	LEU	2.5
1	7-B	100	LEU	2.5
1	8-B	100	LEU	2.5
1	9-B	100	LEU	2.5
1	10-B	100	LEU	2.5
1	11-B	100	LEU	2.5
1	12-B	100	LEU	2.5
1	13-B	100	LEU	2.5
1	14-B	100	LEU	2.5
1	15-B	100	LEU	2.5
1	16-B	100	LEU	2.5
1	1-A	59	ALA	2.5
1	2-A	59	ALA	2.5
1	3-A	59	ALA	2.5
1	4-A	59	ALA	2.5
1	5-A	59	ALA	2.5
1	6-A	59	ALA	2.5
1	7-A	59	ALA	2.5
1	8-A	59	ALA	2.5
1	9-A	59	ALA	2.5
1	10-A	59	ALA	2.5
1	11-A	59	ALA	2.5
1	12-A	59	ALA	2.5
1	13-A	59	ALA	2.5
1	14-A	59	ALA	2.5
1	15-A	59	ALA	2.5
1	16-A	59	ALA	2.5
1	1-A	28	GLU	2.4
1	2-A	28	GLU	2.4

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Mol	Chain	Res	Type	RSRZ
1	3-A	28	GLU	2.4
1	4-A	28	GLU	2.4
1	5-A	28	GLU	2.4
1	6-A	28	GLU	2.4
1	7-A	28	GLU	2.4
1	8-A	28	GLU	2.4
1	9-A	28	GLU	2.4
1	10-A	28	GLU	2.4
1	11-A	28	GLU	2.4
1	12-A	28	GLU	2.4
1	13-A	28	GLU	2.4
1	14-A	28	GLU	2.4
1	15-A	28	GLU	2.4
1	16-A	28	GLU	2.4
1	1-A	46	ASP	2.4
1	2-A	46	ASP	2.4
1	3-A	46	ASP	2.4
1	4-A	46	ASP	2.4
1	5-A	46	ASP	2.4
1	6-A	46	ASP	2.4
1	7-A	46	ASP	2.4
1	8-A	46	ASP	2.4
1	9-A	46	ASP	2.4
1	10-A	46	ASP	2.4
1	11-A	46	ASP	2.4
1	12-A	46	ASP	2.4
1	13-A	46	ASP	2.4
1	14-A	46	ASP	2.4
1	15-A	46	ASP	2.4
1	16-A	46	ASP	2.4
1	1-A	40	GLU	2.4
1	2-A	40	GLU	2.4
1	3-A	40	GLU	2.4
1	4-A	40	GLU	2.4
1	5-A	40	GLU	2.4
1	6-A	40	GLU	2.4
1	7-A	40	GLU	2.4
1	8-A	40	GLU	2.4
1	9-A	40	GLU	2.4
1	10-A	40	GLU	2.4
1	11-A	40	GLU	2.4
1	12-A	40	GLU	2.4

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Mol	Chain	Res	Type	RSRZ
1	13-A	40	GLU	2.4
1	14-A	40	GLU	2.4
1	15-A	40	GLU	2.4
1	16-A	40	GLU	2.4
1	1-A	114	LEU	2.4
1	2-A	114	LEU	2.4
1	3-A	114	LEU	2.4
1	4-A	114	LEU	2.4
1	5-A	114	LEU	2.4
1	6-A	114	LEU	2.4
1	7-A	114	LEU	2.4
1	8-A	114	LEU	2.4
1	9-A	114	LEU	2.4
1	10-A	114	LEU	2.4
1	11-A	114	LEU	2.4
1	12-A	114	LEU	2.4
1	13-A	114	LEU	2.4
1	14-A	114	LEU	2.4
1	15-A	114	LEU	2.4
1	16-A	114	LEU	2.4
1	1-B	118	VAL	2.4
1	2-B	118	VAL	2.4
1	3-B	118	VAL	2.4
1	4-B	118	VAL	2.4
1	5-B	118	VAL	2.4
1	6-B	118	VAL	2.4
1	7-B	118	VAL	2.4
1	8-B	118	VAL	2.4
1	9-B	118	VAL	2.4
1	10-B	118	VAL	2.4
1	11-B	118	VAL	2.4
1	12-B	118	VAL	2.4
1	13-B	118	VAL	2.4
1	14-B	118	VAL	2.4
1	15-B	118	VAL	2.4
1	16-B	118	VAL	2.4
1	1-A	37	LEU	2.4
1	1-A	96	LEU	2.4
1	2-A	37	LEU	2.4
1	2-A	96	LEU	2.4
1	3-A	37	LEU	2.4
1	3-A	96	LEU	2.4

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Mol	Chain	Res	Type	RSRZ
1	4-A	37	LEU	2.4
1	4-A	96	LEU	2.4
1	5-A	37	LEU	2.4
1	5-A	96	LEU	2.4
1	6-A	37	LEU	2.4
1	6-A	96	LEU	2.4
1	7-A	37	LEU	2.4
1	7-A	96	LEU	2.4
1	8-A	37	LEU	2.4
1	8-A	96	LEU	2.4
1	9-A	37	LEU	2.4
1	9-A	96	LEU	2.4
1	10-A	37	LEU	2.4
1	10-A	96	LEU	2.4
1	11-A	37	LEU	2.4
1	11-A	96	LEU	2.4
1	12-A	37	LEU	2.4
1	12-A	96	LEU	2.4
1	13-A	37	LEU	2.4
1	13-A	96	LEU	2.4
1	14-A	37	LEU	2.4
1	14-A	96	LEU	2.4
1	15-A	37	LEU	2.4
1	15-A	96	LEU	2.4
1	16-A	37	LEU	2.4
1	16-A	96	LEU	2.4
1	1-A	68	ALA	2.4
1	2-A	68	ALA	2.4
1	3-A	68	ALA	2.4
1	4-A	68	ALA	2.4
1	5-A	68	ALA	2.4
1	6-A	68	ALA	2.4
1	7-A	68	ALA	2.4
1	8-A	68	ALA	2.4
1	9-A	68	ALA	2.4
1	10-A	68	ALA	2.4
1	11-A	68	ALA	2.4
1	12-A	68	ALA	2.4
1	13-A	68	ALA	2.4
1	14-A	68	ALA	2.4
1	15-A	68	ALA	2.4
1	16-A	68	ALA	2.4

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Mol	Chain	Res	Type	RSRZ
1	1-A	100	LEU	2.3
1	2-A	100	LEU	2.3
1	3-A	100	LEU	2.3
1	4-A	100	LEU	2.3
1	5-A	100	LEU	2.3
1	6-A	100	LEU	2.3
1	7-A	100	LEU	2.3
1	8-A	100	LEU	2.3
1	9-A	100	LEU	2.3
1	10-A	100	LEU	2.3
1	11-A	100	LEU	2.3
1	12-A	100	LEU	2.3
1	13-A	100	LEU	2.3
1	14-A	100	LEU	2.3
1	15-A	100	LEU	2.3
1	16-A	100	LEU	2.3
1	1-B	107	ALA	2.3
1	2-B	107	ALA	2.3
1	3-B	107	ALA	2.3
1	4-B	107	ALA	2.3
1	5-B	107	ALA	2.3
1	6-B	107	ALA	2.3
1	7-B	107	ALA	2.3
1	8-B	107	ALA	2.3
1	9-B	107	ALA	2.3
1	10-B	107	ALA	2.3
1	11-B	107	ALA	2.3
1	12-B	107	ALA	2.3
1	13-B	107	ALA	2.3
1	14-B	107	ALA	2.3
1	15-B	107	ALA	2.3
1	16-B	107	ALA	2.3
1	1-B	51	HIS	2.2
1	2-B	51	HIS	2.2
1	3-B	51	HIS	2.2
1	4-B	51	HIS	2.2
1	5-B	51	HIS	2.2
1	6-B	51	HIS	2.2
1	7-B	51	HIS	2.2
1	8-B	51	HIS	2.2
1	9-B	51	HIS	2.2
1	10-B	51	HIS	2.2

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Mol	Chain	Res	Type	RSRZ
1	11-B	51	HIS	2.2
1	12-B	51	HIS	2.2
1	13-B	51	HIS	2.2
1	14-B	51	HIS	2.2
1	15-B	51	HIS	2.2
1	16-B	51	HIS	2.2
1	1-A	54	ARG	2.2
1	2-A	54	ARG	2.2
1	3-A	54	ARG	2.2
1	4-A	54	ARG	2.2
1	5-A	54	ARG	2.2
1	6-A	54	ARG	2.2
1	7-A	54	ARG	2.2
1	8-A	54	ARG	2.2
1	9-A	54	ARG	2.2
1	10-A	54	ARG	2.2
1	11-A	54	ARG	2.2
1	12-A	54	ARG	2.2
1	13-A	54	ARG	2.2
1	14-A	54	ARG	2.2
1	15-A	54	ARG	2.2
1	16-A	54	ARG	2.2
1	1-A	107	ALA	2.2
1	2-A	107	ALA	2.2
1	3-A	107	ALA	2.2
1	4-A	107	ALA	2.2
1	5-A	107	ALA	2.2
1	6-A	107	ALA	2.2
1	7-A	107	ALA	2.2
1	8-A	107	ALA	2.2
1	9-A	107	ALA	2.2
1	10-A	107	ALA	2.2
1	11-A	107	ALA	2.2
1	12-A	107	ALA	2.2
1	13-A	107	ALA	2.2
1	14-A	107	ALA	2.2
1	15-A	107	ALA	2.2
1	16-A	107	ALA	2.2
1	1-B	92	LEU	2.2
1	2-B	92	LEU	2.2
1	3-B	92	LEU	2.2
1	4-B	92	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
1	5-B	92	LEU	2.2
1	6-B	92	LEU	2.2
1	7-B	92	LEU	2.2
1	8-B	92	LEU	2.2
1	9-B	92	LEU	2.2
1	10-B	92	LEU	2.2
1	11-B	92	LEU	2.2
1	12-B	92	LEU	2.2
1	13-B	92	LEU	2.2
1	14-B	92	LEU	2.2
1	15-B	92	LEU	2.2
1	16-B	92	LEU	2.2
1	1-B	55	ASN	2.2
1	2-B	55	ASN	2.2
1	3-B	55	ASN	2.2
1	4-B	55	ASN	2.2
1	5-B	55	ASN	2.2
1	6-B	55	ASN	2.2
1	7-B	55	ASN	2.2
1	8-B	55	ASN	2.2
1	9-B	55	ASN	2.2
1	10-B	55	ASN	2.2
1	11-B	55	ASN	2.2
1	12-B	55	ASN	2.2
1	13-B	55	ASN	2.2
1	14-B	55	ASN	2.2
1	15-B	55	ASN	2.2
1	16-B	55	ASN	2.2
1	1-B	59	ALA	2.1
1	2-B	59	ALA	2.1
1	3-B	59	ALA	2.1
1	4-B	59	ALA	2.1
1	5-B	59	ALA	2.1
1	6-B	59	ALA	2.1
1	7-B	59	ALA	2.1
1	8-B	59	ALA	2.1
1	9-B	59	ALA	2.1
1	10-B	59	ALA	2.1
1	11-B	59	ALA	2.1
1	12-B	59	ALA	2.1
1	13-B	59	ALA	2.1
1	14-B	59	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
1	15-B	59	ALA	2.1
1	16-B	59	ALA	2.1
1	1-B	62	GLY	2.1
1	1-B	74	LYS	2.1
1	2-B	62	GLY	2.1
1	2-B	74	LYS	2.1
1	3-B	62	GLY	2.1
1	3-B	74	LYS	2.1
1	4-B	62	GLY	2.1
1	4-B	74	LYS	2.1
1	5-B	62	GLY	2.1
1	5-B	74	LYS	2.1
1	6-B	62	GLY	2.1
1	6-B	74	LYS	2.1
1	7-B	62	GLY	2.1
1	7-B	74	LYS	2.1
1	8-B	62	GLY	2.1
1	8-B	74	LYS	2.1
1	9-B	62	GLY	2.1
1	9-B	74	LYS	2.1
1	10-B	62	GLY	2.1
1	10-B	74	LYS	2.1
1	11-B	62	GLY	2.1
1	11-B	74	LYS	2.1
1	12-B	62	GLY	2.1
1	12-B	74	LYS	2.1
1	13-B	62	GLY	2.1
1	13-B	74	LYS	2.1
1	14-B	62	GLY	2.1
1	14-B	74	LYS	2.1
1	15-B	62	GLY	2.1
1	15-B	74	LYS	2.1
1	16-B	62	GLY	2.1
1	16-B	74	LYS	2.1
1	1-A	108	ALA	2.0
1	2-A	108	ALA	2.0
1	3-A	108	ALA	2.0
1	4-A	108	ALA	2.0
1	5-A	108	ALA	2.0
1	6-A	108	ALA	2.0
1	7-A	108	ALA	2.0
1	8-A	108	ALA	2.0

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Mol	Chain	Res	Type	RSRZ
1	9-A	108	ALA	2.0
1	10-A	108	ALA	2.0
1	11-A	108	ALA	2.0
1	12-A	108	ALA	2.0
1	13-A	108	ALA	2.0
1	14-A	108	ALA	2.0
1	15-A	108	ALA	2.0
1	16-A	108	ALA	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 carbohydrates 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.