

wwPDB X-ray Structure Validation Summary Report (i)

Sep 26, 2023 – 01:30 AM EDT

PDB ID	:	5VYC
Title	:	Crystal structure of the human 40S ribosomal subunit in complex with DENR-
		MCT-1.
Authors	:	Lomakin, I.B.; Stolboushkina, E.A.; Vaidya, A.T.; Garber, M.B.; Dmitriev,
		S.E.; Steitz, T.A.
Deposited on	:	2017-05-24
Resolution	:	6.00 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org A user guide is available at https://www.wwpdb.org/validation/2017/XrayValidationReportHelp with specific help available everywhere you see the (i) symbol.

The types of validation reports are described at http://www.wwpdb.org/validation/2017/FAQs#types.

The following versions of software and data (see references (1)) were used in the production of this report:

MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.13
EDS	:	2.35.1
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.35.1

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure: $X\text{-}RAY \, DIFFRACTION$

The reported resolution of this entry is 6.00 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	$egin{array}{c} { m Whole \ archive} \ (\#{ m Entries}) \end{array}$	${f Similar\ resolution}\ (\#{ m Entries,\ resolution\ range}({ m \AA}))$
R _{free}	130704	1000 (8.00-3.88)
Ramachandran outliers	138981	1016 (8.00-3.86)
Sidechain outliers	138945	1017 (8.00-3.82)
RSRZ outliers	127900	1015 (8.20-3.78)
RNA backbone	3102	1076 (8.70-3.00)

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

Mol	Chain	Length	Quality of chain	
			3%	
1	T1	145	94%	5%•
			% ■	
1	T2	145	94%	5%•
			%	
1	T3	145	93%	6% •
			6%	
1	Τ4	145	94%	5%•
			3%	
1	Τ5	145	94%	5% ·



Chain Length Quality of chain Mol 2% T6. . 1 14594% 2U111982% 6% 13% 8% 2U211982% 6% 13% 9% 2U311982% 6% 13% 24% 2U411982% 6% 13% 20% 2U511982% 6% 13% 15% 2U611982% 6% 13% 8% V13 83 94% 6% V23 83 6% 94% 2% V33 83 6% 94% 5% 3 V483 94% 6% 2% V583 3 94% 6% 6% 3 V683 94% 6% 20% X14 14390% 9% • 6% X21434 90% 9% • 6% 4 X3143. 90% 9% 7% X44 14390% 9% • 18% X54 14390% 9% • 20% X6 1439% • 4 90% 9% 5115a179% 12% • 7% .% 5a211579% • 7% 12% 12% 5a311579% 12% • 7% 7% 5a411579% 11% • 7% 23% 5a511579% 7% 11% • 23% 5a6115• 7% 79% 12%

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Mol	Chain	Length	Quality of chain		
			30%		
6	c1	69	84%	9%	7%
			14%		
6	c2	69	86%	7%	7%
			9%		
6	c3	69	86%	7%	7%
			4%		
6	c4	69	86%	7%	7%
-			7%		
6	c5	69	84%	9%	7%
0	0	60	3%		
6	c6	69	86%	7%	7%
7	11	FC			
1	<u>aı</u>	06	95%		5%
7	40	56	0.5%		50/
1	u2		95%		5%
7	d3	56			E 9/
1	40		5%		J 70
7	d4	56	95%		5%
•			18%		5,0
7	d5	56	95%		5%
			11%		
7	d6	56	95%		5%
			3%		
8	f1	156	41% 5% 54%	_	
			3%		
8	f2	156	41% 5% 54%		
0	60	150	6%		_
8	13	156	40% 5% • 54%		
0	£4	150			
0	14	100	40% 6% 54%		
8	f5	156			
0	10	150	40% 6% 54%		
8	f6	156	40% 6% 54%		
0	10	100	7%		
9	g1	317	93%		6% •
	0		6%		
9	g2	317	93%		5%•
			7%		
9	g3	317	94%		5%•
			6%		_
9	g4	317	93%		6%•
	~	015	5%		
9	gb	317	93%		5%•
	-0	917	5%		
9	go	517	93%		6% •
10	C^{1}	<u> </u>	720/	2464	
10		293	•	24%	



Chain Length Quality of chain Mol 3% C210 293 72% 24% • 10C329372% • 24% 3% 10 C429372% 24% • 10% C510 29372% 24% • 7% 10 C629372% 24% • .% 11 G12497% • 5% 88% 2% G211 2497% • 5% 88% 5% G311 2497% • 5% 88% 10% G424911 6% • 5% 88% 8% 11 G524988% 7% • 5% 6% 11 G624988% 7% • 5% 3% 12J1 19490% 5% 5% 6% 12J21945% 5% 90% 5% 12J319490% 5% 5% 6% 12J41945% 5% 90% 10% 12J51945% 5% 90% 3% 12J619490% 5% 5% 13% 13M11326% • 7% 86% 2% 13M213286% 6% • 7% 8% 13M313286% 7% • 7% 11% 13M41326% • 7% 86% 6% 13M513286% 6% • 7% 6% M6131326% • 7% 86% 3% N11415110% • 89% 3% N2141517% •• 91%



Chain Length Quality of chain Mol 3% N3 1415189% 10% • 2% N41415190% 9% • 3% 14N5151• 89% 10% 2% N61415190% 9% • 14% 15O115183% 9% 7% 15% 15O215183% 9% 7% 23% 15O315183% 9% 7% 18% O4151517% 83% 9% 21% O5151157% 83% 9% 5% 15O61517% 83% 9% 3% . . 16W113095% .% W2. . 1613095% 11% 16W3 1305%• 95% 26% W4. . 1613095% .% W5. . 1613095% 3% . . 16W6 13095% 5% ••• 17Y1 13395% 8% Y2• • 1713395% 10% Y3. . 1713395% 7% • • Y41713395% 8% . . 17Y513395% 9% Y6. . 1713395% 9% 18 $\mathbf{Z1}$ 12554% 6% 40% 11% Z21251854% 6% 40% 5% Z318 12554% 6% 40%

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Chain Length Quality of chain Mol 5% $\mathbf{Z4}$ 18 12554% 6% 40% 19% Z51812554% 6% 40% 14% 18 Z612554% 6% 40% 13% 19b184 86% 12% •• 19b284 5%• 94% 6% 19b384 94% . .. 11% 19b484 11% •• 87% 5% b57% • 1984 92% 7% 84 ... 19b696% 3% 20e11336% 38% 56% 7% 20e213337% 5% • 56% 8% 20e313338% 5%• 56% 8% 20133e435% 8% • 56% 5% 20e513335% 56% 8% 5% 20133e65%• 56% 38% 3% 21i1 186956% 37% 7% 2% 21i2 1869 56% 37% 7% 2% 21i3 186956% 37% 7% 3% 21i41869 7% 56% 37% 2% 21i5 186956% 37% 7% 3% 21i6 186956% 7% 37% 7% 22295A172% 25% • 3% 22A229572% 25% • 4% 29522A3 • 72% 25% 22295A425% 72%

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Mol	Chain	Length	Quality of chain		
00	٨٣	005	10%		
22	Ab	295	72% •	25%	
22	A6	295		25%	
22	D1	201	7%		
23	BI	264		19%	
23	B2	264	78%	19%	
			5%		
23	B3	264	78%	19%	
23	B4	264	78%	10%	
		201	2%	1970	
23	B5	264		19%	
93	R6	264	700/	100/	
20	D0	204	78% ·	19%	
24	D1	243	86%	7%	7%
24	Da	949	5%		
24		240	85%	8%	7%
24	D3	243	86%	7%	7%
0.4	D 4	0.49	27%		
24	D4	243	9%	7%	7%
24	D5	243	86%	7%	7%
24	Da	2.12	12%		
24	D6	243	86%	7%	7%
25	E1	263	94%		5%
			14%		
25	E2	263	94%		5%
25	E3	263	94%		5%
	20	_00	7%		
25	E4	263	94%		5%
25	E5	263	17%		50/
20	L 0	200	14%		
25	E6	263	94%		5%
26	F 1	204	16%	00/	C 0(
20	I I	204	85%	9%	6%
26	F2	204	85%	9%	6%
96	Бэ	20.4	15%		
20	ГЗ	204	85%	9%	6%
26	F4	204	85%	9%	6%
0.0		26.4	29%		
26	FЪ	204	85%	9%	6%



Quality of chain Chain Length Mol 10% F626204 85% 6% 9% 13% 27H119488% 9% • 3% 27H2194• 90% 7% 19% H32719490% 8% • 9% 27H419486% 10% • • 12% 27H519489% 8% • 3% 27H619490% 7%• 17% 28I1 2086% • 93% 9% I2208 286% • 93% 5% 28I3 2086% • 93% 8% 28I42086% • 93% 27% 28I520893% 6% • 25% 28I620893% 6% • 15% 29K116556% 41% . 5% K22916556% 41% • 2% 29K316556% 41% . 4% 29K416556% 41% • % K52916556% 41% • 8% 29K616556% 41% • 23% 30 L11586% • • 89% 18% 30 L21587% •• 89% 25% 30 L37% •• 15889% 26% 30 L415889% 7% • • 18% L530 1587% •• 89% 23% L630 1586% • • 89%



Mol	Chain	Length	Quality of chain			
31	P1	145	73% 12%		•	14%
0.1	Do	1.45	3%			
31	P2	145	70% 15% 9%		•	14%
31	P3	145	74% 129	%	•	14%
31	P4	145	% 70% 15%		•	14%
31	P5	145	70% 15%		•	14%
31	P6	145	<mark>6%</mark> 73% 12%		•	14%
32	01	146	7%			80/
02	Q1	110	12%			0 /0
32	Q2	146	92%			8%
32	Q3	146	92%			8%
32	Q4	146	92%			8%
32	Q5	146	<u>6%</u> 92%	_		8%
32	Q6	146	92%			8%
33	R1	135	4% 87%			10% ••
33	R2	135	3% 85%		9	% • •
			7%			,0
33	R3	135	87%			10% ••
33	R4	135	87%			9% ••
33	R5	135	87%			8% ••
33	R6	135	85%	_		12% ••
34	S1	152	89%		_	5% 6%
34	S2	152	89%			5% 6%
34	S3	152	5%			5% 6%
		150	21%			270 370
34	S4	152	89%			5% 6%
34	S5	152	89%			5% 6%
34	S6	152	89%			5% 6%
35	j1	25	68%	329	6	



Mol	Chain	Length	Quality of chain							
35	j2	25	68%	32%						
35	j3	25	68%	32%						
35	j4	25	4% 72%	28%						
35	j5	25	68%	32%						
35	j6	25	68%	32%						
36	k1	181	4% 96'	% · ·						
36	k2	181	95%	6 · ·						
36	k3	181	97	% •••						
36	k4	181	<u>6%</u> 96'	% ·						
36	k5	181	96	% •••						
36	k6	181	4% 97	% •••						
37	l1	198	29% 10% ·	60%						
37	12	198	29% 10% ·	60%						
37	13	198	29% 10% ·	60%						
37	14	198	11% 29% 10% •	60%						
37	15	198	29% 10% ·	60%						
37	16	198	4% 29% 10% •	60%						



2 Entry composition (i)

There are 38 unique types of molecules in this entry. The entry contains 470574 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.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
1	1 T1	1/12	Total	С	Ν	Ο	\mathbf{S}	0	0	0
1	11	140	1112	697	214	198	3	0	0	0
1	ТЭ	1/12	Total	С	Ν	0	S	0	0	0
1	12	140	1112	697	214	198	3	0	0	0
1	Т?	T3 143	Total	С	Ν	0	S	0	0	0
1	10		1112	697	214	198	3	0	0	0
1	Т4	14 149	Total	С	Ν	0	S	0	0	0
1	14	140	1112	697	214	198	3	0	0	0
1	Τ5	1/12	Total	С	Ν	0	S	0	0	0
	145	1112	697	214	198	3	0	0	0	
1	1 T6	T6 143	Total	С	Ν	0	S	0	0	0
			1112	697	214	198	3		U	U

• Molecule 1 is a protein called 40S ribosomal protein S19.

• Molecule 2 is a protein called 40S ribosomal protein S20.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
2	I⊺1	104	Total	С	Ν	Ο	\mathbf{S}	0	0	0
	01	104	821	514	155	148	4	0	0	0
2	115	104	Total	С	Ν	Ο	\mathbf{S}	0	0	0
2	02	104	821	514	155	148	4	0		0
2	113	104	Total	С	Ν	0	S	0	0	0
	03	104	821	514	155	148	4		0	0
2	II4	4 104	Total	С	Ν	Ο	S	0	0	0
	04		821	514	155	148	4		0	0
9	ЦĘ	104	Total	С	Ν	Ο	S	0	0	0
	0.5	104	821	514	155	148	4	0	0	0
2	ЦG	104	Total	С	Ν	0	S	0	0	0
	00	104	821	514	155	148	4	0	0	0

• Molecule 3 is a protein called 40S ribosomal protein S21.



Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
3	2 V1	0.2	Total	С	Ν	0	S	0	0	0
5	V I	00	636	393	117	121	5	0	0	0
2	V9	\$3	Total	С	Ν	0	S	0	0	0
5	V Z	00	636	393	117	121	5	0		0
3	V3	73 83	Total	С	Ν	0	S	0	0	0
5	v o		636	393	117	121	5		0	0
2	V4	4 83	Total	С	Ν	0	S	0	0	0
5	V 4		636	393	117	121	5	0	0	0
3	V5	83	Total	С	Ν	0	S	0	0	0
- 3 - V 3	00	636	393	117	121	5	0	0	0	
2	Ve	02	Total	С	Ν	Ο	S	0	0	0
	83	636	393	117	121	5	0	U	U	

• Molecule 4 is a protein called 40S ribosomal protein S23.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
4	V 1	1.4.1	Total	С	Ν	0	S	0	0	0
4	$\Lambda 1$	141	1098	693	219	183	3	0	0	0
4	X9	1.4.1	Total	С	Ν	0	S	0	0	0
4	ΛL	141	1098	693	219	183	3	0		0
4	V 3	X3 141	Total	С	Ν	0	S	0	0	0
4	AJ		1098	693	219	183	3	0	0	0
4	X4	1 1 1 1	Total	С	Ν	0	S	0	0	0
4	$\Lambda 4$	141	1098	693	219	183	3	0	0	0
4	V5	1.4.1	Total	С	Ν	0	S	0	0	0
	A.J	141	1098	693	219	183	3	0	0	0
4 X6	V6	1.4.1	Total	С	Ν	0	S	0	0	0
	141	1098	693	219	183	3			U	

• Molecule 5 is a protein called 40S ribosomal protein S26.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
5		107	Total	С	Ν	0	S	0	0	0
0	aı	107	847	528	176	138	5	0	0	0
5		107	Total	С	Ν	0	S	0	0	0
0	az	107	847	528	176	138	5	0	0	0
5	.3	107	Total	С	Ν	0	S	0	0	0
0	ao	107	847	528	176	138	5	0	0	0
5		107	Total	С	Ν	0	S	0	0	0
0	a4	107	847	528	176	138	5	0	0	0
5	.5	107	Total	С	Ν	0	S	0	0	0
0	ao	107	847	528	176	138	5	0	0	0
5	26	107	Total	С	Ν	0	S	0	0	0
0	a0	107	847	528	176	138	5		0	U



Mol	Chain	Residues		Ate	oms			ZeroOcc	AltConf	Trace
6	e1	64	Total	С	Ν	Ο	S	0	0	0
0	C1	04	506	308	102	94	2	0	0	0
6	റി	64	Total	С	Ν	Ο	S	0	0	0
0	CZ	04	506	308	102	94	2	0	0	0
6	63	64	Total	С	Ν	Ο	S	0	0	0
0	0	04	506	308	102	94	2	0	0	0
6	e4	64	Total	С	Ν	Ο	S	0	0	0
0	04	04	506	308	102	94	2	0	0	0
6		64	Total	С	Ν	Ο	S	0	0	0
0	00	04	506	308	102	94	2	0	0	0
6	66	64	Total	С	Ν	Ο	S	0	0	0
0	CO	04	506	308	102	94	2	0	0	

• Molecule 6 is a protein called 40S ribosomal protein S28.

• Molecule 7 is a protein called 40S ribosomal protein S29.

Mol	Chain	Residues		Ato	\mathbf{ms}			ZeroOcc	AltConf	Trace
7	d1	53	Total	С	Ν	Ο	S	0	0	0
1	uı		445	278	90	72	5	0	0	0
7	49	53	Total	С	Ν	Ο	S	0	0	0
1	uz		445	278	90	72	5	0	0	0
7	43	53	Total	С	Ν	Ο	\mathbf{S}	0	0	0
1	цэ		445	278	90	72	5	0	0	0
7	d4	53	Total	С	Ν	Ο	\mathbf{S}	0	0	0
1	U4		445	278	90	72	5	0	0	0
7	45	52	Total	С	Ν	Ο	S	0	0	0
1	d0		445	278	90	72	5	0	0	0
7	46	53	Total	С	Ν	Ο	S	0	0	0
1	uu	00	445	278	90	72	5	0	U	0

• Molecule 8 is a protein called Ribosomal protein S27a.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
8	f1	79	Total	С	Ν	Ο	S	0	0	0
0	11	12	585	366	114	97	8	0	0	0
8	f9	79	Total	С	Ν	Ο	\mathbf{S}	0	0	0
0	12	12	585	366	114	97	8	0	0	0
8	f3	79	Total	С	Ν	Ο	\mathbf{S}	0	0	0
0	10	12	585	366	114	97	8	0	0	0
8	fA	72	Total	С	Ν	Ο	S	0	0	0
0	14	12	585	366	114	97	8	0	0	0
0	f5	79	Total	С	Ν	Ο	S	0	0	0
0	10	12	585	366	114	97	8	0	0	0



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Mol	Chain	Residues		Ate	oms			ZeroOcc	AltConf	Trace
8	f6	72	Total 585	C 366	N 114	O 97	S 8	0	0	0

• Molecule 9 is a protein called Receptor of activated protein C kinase 1.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
0	g1	212	Total	С	Ν	0	S	0	0	0
9	gı	515	2436	1535	424	465	12	0	0	0
Q	r 2	313	Total	С	Ν	Ο	\mathbf{S}	0	0	0
3	g2	515	2436	1535	424	465	12	0	0	0
Q	a.3	313	Total	С	Ν	Ο	\mathbf{S}	0	0	0
9	go	515	2436	1535	424	465	12	0	0	0
0	σA	212	Total	С	Ν	Ο	S	0	0	0
3	84	515	2436	1535	424	465	12	0	0	0
0	съ	212	Total	С	Ν	0	S	0	0	0
9	go	515	2436	1535	424	465	12	0	0	0
0	сб	212	Total	С	Ν	Ο	S	0	0	0
9	go	515	2436	1535	424	465	12	0	0	

• Molecule 10 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
10	C1	222	Total	С	Ν	0	S	0	0	0
10			1725	1115	298	302	10	0	0	0
10	Co	222	Total	С	Ν	0	S	0	0	0
10			1725	1115	298	302	10	0	0	0
10	C3	222	Total	С	Ν	0	S	0	0	0
10	0.5		1725	1115	298	302	10	0	0	0
10	C4	222	Total	С	Ν	0	S	0	0	0
10	04		1725	1115	298	302	10	0	0	0
10	C5	222	Total	С	Ν	Ο	\mathbf{S}	0	0	0
10	0.5		1725	1115	298	302	10	0	0	0
10	CG	222	Total	С	Ν	0	S	0	0	0
10			1725	1115	298	302	10	0		0

• Molecule 11 is a protein called 40S ribosomal protein S6.

Mol	Chain	Residues		Ate	oms			ZeroOcc	AltConf	Trace
11	G1	237	Total	С	Ν	0	S	0	0	0
11	01	201	1923	1200	387	329	7	Ŭ	0	Ŭ
11	Co	027	Total	С	Ν	0	\mathbf{S}	0	0	0
	62	231	1923	1200	387	329	7		0	



Mol	Chain	Residues		Ate	oms			ZeroOcc	AltConf	Trace
11	Ca	227	Total	С	Ν	0	S	0	0	0
11	63	231	1923	1200	387	329	7	0	0	0
11	C4	227	Total	С	Ν	0	S	0	0	0
11	G4	231	1923	1200	387	329	7	0	0	0
11	CE	027	Total	С	Ν	0	S	0	0	0
11	69	231	1923	1200	387	329	7	0	0	0
11	Ce	027	Total	С	Ν	0	S	0	0	0
11	GÜ	231	1923	1200	387	329	$\overline{7}$	0	U	U

• Molecule 12 is a protein called 40S ribosomal protein S9.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
19	T1	185	Total	С	Ν	Ο	S	0	0	0
12	91	100	1525	969	306	248	2	0	0	0
19	19	185	Total	С	Ν	Ο	\mathbf{S}	0	0	0
12	52	165	1525	969	306	248	2	0	0	0
19	I3	185	Total	С	Ν	Ο	S	0	0	0
12	10	165	1525	969	306	248	2	0	0	0
19	14	185	Total	С	Ν	0	S	0	0	0
12	14	165	1525	969	306	248	2	0	0	0
19	15	185	Total	С	Ν	0	S	0	0	0
12	10	165	1525	969	306	248	2	0	0	0
19	16	185	Total	С	Ν	0	S	0	0	0
12	50	100	1525	969	306	248	2	0	0	0

• Molecule 13 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
12	M1	192	Total	С	Ν	0	S	0	0	0
10	1/11	123	953	598	169	177	9	0	0	0
12	Мэ	192	Total	С	Ν	0	S	0	0	0
10	IVI Z	123	953	598	169	177	9	0	0	0
12	MS	192	Total	С	Ν	0	S	0	0	0
10	INI O	123	953	598	169	177	9	0	0	0
12	M4	192	Total	С	Ν	0	S	0	0	0
10	1014	123	953	598	169	177	9	0	0	0
12	M5	192	Total	С	Ν	0	S	0	0	0
10	IN10	123	953	598	169	177	9	0	0	0
12	Мб	192	Total	С	Ν	0	S	0	0	0
10	1010	120	953	598	169	177	9			U

• Molecule 14 is a protein called 40S ribosomal protein S13.



Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
14	N1	150	Total	С	Ν	0	S	0	0	0
14	111	150	1208	773	229	205	1	0	0	0
14	NO	150	Total	С	Ν	0	S	0	0	0
14	112	150	1208	773	229	205	1	0	0	0
14	N3	150	Total	С	Ν	0	S	0	0	0
14	110	150	1208	773	229	205	1	0	0	0
14	N4	150	Total	С	Ν	0	S	0	0	0
14	114	150	1208	773	229	205	1	0	0	0
14	N5	150	Total	С	Ν	0	S	0	0	0
14	110	150	1208	773	229	205	1	0	0	0
14	NG	150	Total	С	Ν	Ο	S	0	0	0
14	110	130	1208	773	229	205	1			U

• Molecule 15 is a protein called 40S ribosomal protein S14.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
15	01	140	Total	С	Ν	0	S	0	0	0
10	01	140	1049	642	204	197	6	0	0	0
15	02	140	Total	С	Ν	0	S	0	0	0
10	02	140	1049	642	204	197	6		0	0
15	$\bigcirc 2$	140	Total	С	Ν	0	S	0	0	0
10	05	140	1049	642	204	197	6	0	0	0
15	04	140	Total	С	Ν	0	S	0	0	0
10	04	140	1049	642	204	197	6	0	0	0
15	05	140	Total	С	Ν	0	\mathbf{S}	0	0	0
10	05	140	1049	642	204	197	6	0	0	0
15	06	140	Total	С	Ν	0	S	0	0	0
10	00	140	1049	642	204	197	6		0	U

• Molecule 16 is a protein called 40S ribosomal protein S15a.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
16	W1	120	Total	С	Ν	0	S	0	0	0
10	VV 1	129	1034	659	193	176	6	0	0	0
16	WO	120	Total	С	Ν	0	S	0	0	0
10	VV Z	129	1034	659	193	176	6		0	0
16	W3	120	Total	С	Ν	0	S	0	0	0
10	11.0	129	1034	659	193	176	6	0	0	0
16	W/A	120	Total	С	Ν	0	S	0	0	0
10	VV 4	129	1034	659	193	176	6	0	0	0
16	WE	120	Total	С	Ν	0	S	0	0	0
10	VV 0	129	1034	659	193	176	6	0	0	0
16	We	120	Total	С	Ν	Ο	S	0	0	0
10	VV U	129	1034	659	193	176	6			U



Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
17	V1	191	Total	С	Ν	0	S	0	0	0
11	11	131	1065	673	209	178	5	0	0	0
17	V9	121	Total	С	Ν	0	S	0	0	0
11	1 2	131	1065	673	209	178	5		0	0
17	V2	121	Total	С	Ν	0	S	0	0	0
11	10	131	1065	673	209	178	5	0	0	0
17	V4	121	Total	С	Ν	0	S	0	0	0
11	14	131	1065	673	209	178	5	0	0	0
17	V5	121	Total	С	Ν	0	S	0	0	0
11	10	131	1065	673	209	178	5	0	0	0
17	V6	121	Total	С	Ν	0	S	0	0	0
11	10	101	1065	673	209	178	5	U	0	U

• Molecule 17 is a protein called 40S ribosomal protein S24.

• Molecule 18 is a protein called 40S ribosomal protein S25.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
18	Z1	75	Total 598	C 382	N 111	0 104	S 1	0	0	0
18	Z2	75	Total 598	C 382	N 111	0 104	S 1	0	0	0
18	Z3	75	Total 598	C 382	N 111	0 104	S 1	0	0	0
18	Z4	75	Total 598	C 382	N 111	0 104	S 1	0	0	0
18	Z5	75	Total 598	C 382	N 111	0 104	S 1	0	0	0
18	Z6	75	Total 598	C 382	N 111	0 104	S 1	0	0	0

• Molecule 19 is a protein called 40S ribosomal protein S27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	h1	83	Total	С	Ν	0	S	0	0	0
19	01	00	651	408	121	115	7	0	0	0
10	h9	02	Total	С	Ν	0	S	0	0	0
19	02	00	651	408	121	115	7	0	0	0
10	h3	83	Total	С	Ν	0	S	0	0	0
19	00	00	651	408	121	115	7	0		0
10	h4	83	Total	С	Ν	0	S	0	0	0
19	04	00	651	408	121	115	7	0	0	0
10	h5	\$3	Total	С	Ν	0	S	0	0	0
19	60	83	651	408	121	115	7		0	U



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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf	Trace		
19	b6	83	Total 651	C 408	N 121	0 115	${ m S} 7$	0	0	0

• Molecule 20 is a protein called 40S ribosomal protein S30.

Mol	Chain	Residues		Ate	oms			ZeroOcc	AltConf	Trace
20	01	58	Total	С	Ν	Ο	S	0	0	0
20	er		459	284	100	74	1	0	0	0
20	09	58	Total	С	Ν	Ο	S	0	0	0
20	ez		459	284	100	74	1	0	0	0
20	03	58	Total	С	Ν	Ο	S	0	0	0
20	60		459	284	100	74	1	0	0	0
20	04	58	Total	С	Ν	Ο	S	0	0	0
20	64		459	284	100	74	1	0	0	0
20	05	59	Total	С	Ν	Ο	S	0	0	0
20	60		459	284	100	74	1	0	0	0
20	06	59	Total	С	Ν	Ο	S	0	0	0
20	eo	50	459	284	100	74	1	0	0	

There are 210 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
e1	-48	ALA	-	insertion	UNP E9PR30
e1	-47	HIS	-	insertion	UNP E9PR30
e1	-46	VAL	-	insertion	UNP E9PR30
e1	-45	ALA	-	insertion	UNP E9PR30
e1	-44	SER	-	insertion	UNP E9PR30
e1	-43	LEU	-	insertion	UNP E9PR30
e1	-42	GLU	-	insertion	UNP E9PR30
e1	-41	GLY	-	insertion	UNP E9PR30
e1	-40	ILE	-	insertion	UNP E9PR30
e1	-39	ALA	-	insertion	UNP E9PR30
e1	-38	PRO	-	insertion	UNP E9PR30
e1	-37	GLU	-	insertion	UNP E9PR30
e1	-36	ASP	-	insertion	UNP E9PR30
e1	-35	GLN	-	insertion	UNP E9PR30
e1	-34	VAL	-	insertion	UNP E9PR30
e1	-33	VAL	-	insertion	UNP E9PR30
e1	-32	LEU	-	insertion	UNP E9PR30
e1	-31	LEU	-	insertion	UNP E9PR30
e1	-30	ALA	-	insertion	UNP E9PR30
e1	-29	GLY	-	insertion	UNP E9PR30



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Chain	Residue	Modelled	Actual	Comment	Reference
e1	-28	ALA	-	insertion	UNP E9PR30
e1	-27	PRO	-	insertion	UNP E9PR30
e1	-26	LEU	-	insertion	UNP E9PR30
e1	-25	GLU	-	insertion	UNP E9PR30
e1	-24	ASP	-	insertion	UNP E9PR30
e1	-23	GLU	-	insertion	UNP E9PR30
e1	-22	ALA	-	insertion	UNP E9PR30
e1	-21	THR	-	insertion	UNP E9PR30
e1	-20	LEU	-	insertion	UNP E9PR30
e1	-19	GLY	-	insertion	UNP E9PR30
e1	-18	GLN	-	insertion	UNP E9PR30
e1	-17	CYS	-	insertion	UNP E9PR30
e1	-16	GLY	-	insertion	UNP E9PR30
e1	-15	VAL	-	insertion	UNP E9PR30
e1	-14	GLU	-	insertion	UNP E9PR30
e2	-48	ALA	-	insertion	UNP E9PR30
e2	-47	HIS	-	insertion	UNP E9PR30
e2	-46	VAL	-	insertion	UNP E9PR30
e2	-45	ALA	-	insertion	UNP E9PR30
e2	-44	SER	-	insertion	UNP E9PR30
e2	-43	LEU	-	insertion	UNP E9PR30
e2	-42	GLU	-	insertion	UNP E9PR30
e2	-41	GLY	-	insertion	UNP E9PR30
e2	-40	ILE	-	insertion	UNP E9PR30
e2	-39	ALA	-	insertion	UNP E9PR30
e2	-38	PRO	-	insertion	UNP E9PR30
e2	-37	GLU	-	insertion	UNP E9PR30
e2	-36	ASP	-	insertion	UNP E9PR30
e2	-35	GLN	-	insertion	UNP E9PR30
e2	-34	VAL	-	insertion	UNP E9PR30
e2	-33	VAL	-	insertion	UNP E9PR30
e2	-32	LEU	-	insertion	UNP E9PR30
e2	-31	LEU	-	insertion	UNP E9PR30
e2	-30	ALA	-	insertion	UNP E9PR30
e2	-29	GLY	-	insertion	UNP E9PR30
e2	-28	ALA	-	insertion	UNP E9PR30
e2	-27	PRO	-	insertion	UNP E9PR30
e2	-26	LEU	-	insertion	UNP E9PR30
e2	-25	GLU	-	insertion	UNP E9PR30
e2	-24	ASP	-	insertion	UNP E9PR30
e2	-23	GLU	-	insertion	UNP E9PR30
e2	-22	ALA	-	insertion	UNP E9PR30



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Chain	Residue	Modelled	Actual	Comment	Reference
e2	-21	THR	-	insertion	UNP E9PR30
e2	-20	LEU	-	insertion	UNP E9PR30
e2	-19	GLY	-	insertion	UNP E9PR30
e2	-18	GLN	-	insertion	UNP E9PR30
e2	-17	CYS	-	insertion	UNP E9PR30
e2	-16	GLY	-	insertion	UNP E9PR30
e2	-15	VAL	-	insertion	UNP E9PR30
e2	-14	GLU	-	insertion	UNP E9PR30
e3	-48	ALA	-	insertion	UNP E9PR30
e3	-47	HIS	-	insertion	UNP E9PR30
e3	-46	VAL	-	insertion	UNP E9PR30
e3	-45	ALA	-	insertion	UNP E9PR30
e3	-44	SER	-	insertion	UNP E9PR30
e3	-43	LEU	-	insertion	UNP E9PR30
e3	-42	GLU	-	insertion	UNP E9PR30
e3	-41	GLY	-	insertion	UNP E9PR30
e3	-40	ILE	-	insertion	UNP E9PR30
e3	-39	ALA	-	insertion	UNP E9PR30
e3	-38	PRO	-	insertion	UNP E9PR30
e3	-37	GLU	-	insertion	UNP E9PR30
e3	-36	ASP	-	insertion	UNP E9PR30
e3	-35	GLN	-	insertion	UNP E9PR30
e3	-34	VAL	-	insertion	UNP E9PR30
e3	-33	VAL	-	insertion	UNP E9PR30
e3	-32	LEU	-	insertion	UNP E9PR30
e3	-31	LEU	-	insertion	UNP E9PR30
e3	-30	ALA	-	insertion	UNP E9PR30
e3	-29	GLY	-	insertion	UNP E9PR30
e3	-28	ALA	-	insertion	UNP E9PR30
e3	-27	PRO	-	insertion	UNP E9PR30
e3	-26	LEU	-	insertion	UNP E9PR30
e3	-25	GLU	-	insertion	UNP E9PR30
e3	-24	ASP	-	insertion	UNP E9PR30
e3	-23	GLU	-	insertion	UNP E9PR30
e3	-22	ALA	-	insertion	UNP E9PR30
e3	-21	THR	-	insertion	UNP E9PR30
e3	-20	LEU	-	insertion	UNP E9PR30
e3	-19	GLY	-	insertion	UNP E9PR30
e3	-18	GLN		insertion	UNP E9PR30
e3	-17	CYS	-	insertion	UNP E9PR30
e3	-16	GLY	-	insertion	UNP E9PR30
e3	-15	VAL	-	insertion	UNP E9PR30



Chain Residue Modelled		Actual	Comment	Reference	
e3	-14	GLU	-	insertion	UNP E9PR30
e4	-48	ALA	_	insertion	UNP E9PR30
e4	-47	HIS	_	insertion	UNP E9PR30
	-46	VAL	_	insertion	UNP E9PR30
e4	-45	ALA	_	insertion	UNP E9PR30
e4	-44	SEB	_	insertion	UNP E9PR30
		LEU	_	insertion	UNP E9PR30
e4	-42	GLU	_	insertion	UNP E9PR30
	-/1	GLU	_	insertion	UNP E9PR30
e4	-40	ILE	_	insertion	UNP E9PR30
<u></u>	-40		_	insertion	UNP E9PR30
<u></u>	-38	PRO	_	insertion	UNP E9PR30
04	37	GLU	_	insertion	UNP E0PR30
04	-51		-	insertion	UNP E0PR30
e4	-50	CLN	-	insertion	UNP E0PR30
e4	-55	UAI UAI	-	insertion	UNI E91 R30
e4	-04	VAL	-	insertion	UNF E9F R50
e4		VAL LEU	-	insertion	UNF E9F R30
e4	-32		-	insertion	UNP E9PR30
e4	-31		-	insertion	UNP E9PR30
<u>e4</u>	-30	ALA	-	insertion	UNP E9PR30
e4	-29	GLY	-	insertion	UNP E9PR30
e4	-28	ALA	-	insertion	UNP E9PR30
e4	-27	PRO	-	insertion	UNP E9PR30
e4	-20	LEU	-	insertion	UNP E9PR30
e4	-25	GLU	-	insertion	UNP E9PR30
e4	-24	ASP	-	insertion	UNP E9PR30
e4	-23	GLU	-	insertion	UNP E9PR30
e4	-22	ALA	-	insertion	UNP E9PR30
e4	-21	THR	-	insertion	UNP E9PR30
e4	-20	LEU	-	insertion	UNP E9PR30
e4	-19	GLY	-	insertion	UNP E9PR30
e4	-18	GLN	-	insertion	UNP E9PR30
e4	-17	CYS	-	insertion	UNP E9PR30
e4	-16	GLY	-	insertion	UNP E9PR30
e4	-15	VAL	-	insertion	UNP E9PR30
e4	-14	GLU	-	insertion	UNP E9PR30
e5	-48	ALA	-	insertion	UNP E9PR30
e5	-47	HIS	-	insertion	UNP E9PR30
e5	-46	VAL	-	insertion	UNP E9PR30
e5	-45	ALA	-	insertion	UNP E9PR30
e5	-44	SER	-	insertion	UNP E9PR30
e5	-43	LEU	-	insertion	UNP E9PR30



Concentraca from pro		bious page				
	Chain	Residue	Modelled	Actual	Comment	Reference
	e5	-42	GLU	-	insertion	UNP E9PR30
	e5	-41	GLY	-	insertion	UNP E9PR30
	e5	-40	ILE	-	insertion	UNP E9PR30
	e5	-39	ALA	-	insertion	UNP E9PR30
	e5	-38	PRO	-	insertion	UNP E9PR30
	e5	-37	GLU	-	insertion	UNP E9PR30
	e5	-36	ASP	-	insertion	UNP E9PR30
	e5	-35	GLN	-	insertion	UNP E9PR30
	e5	-34	VAL	-	insertion	UNP E9PR30
	e5	-33	VAL	-	insertion	UNP E9PR30
	e5	-32	LEU	-	insertion	UNP E9PR30
	e5	-31	LEU	-	insertion	UNP E9PR30
	e5	-30	ALA	-	insertion	UNP E9PR30
	e5	-29	GLY	-	insertion	UNP E9PR30
	e5	-28	ALA	-	insertion	UNP E9PR30
	e5	-27	PRO	_	insertion	UNP E9PR30
	e5	-26	LEU	-	insertion	UNP E9PR30
	e5	-25	GLU	-	insertion	UNP E9PR30
	e5	-24	ASP	_	insertion	UNP E9PR30
	e5	-23	GLU	_	insertion	UNP E9PR30
	e5	-22	ALA	-	insertion	UNP E9PR30
	e5	-21	THR	_	insertion	UNP E9PR30
	e5	-20	LEU	-	insertion	UNP E9PR30
	e5	-19	GLY	-	insertion	UNP E9PR30
	e5	-18	GLN	_	insertion	UNP E9PR30
	e5	-17	CYS	-	insertion	UNP E9PR30
	e5	-16	GLY	_	insertion	UNP E9PR30
	e5	-15	VAL	_	insertion	UNP E9PR30
	e5	-14	GLU	-	insertion	UNP E9PR30
	e6	-48	ALA	-	insertion	UNP E9PR30
	e6	-47	HIS	-	insertion	UNP E9PR30
	e6	-46	VAL	_	insertion	UNP E9PR30
	e6	-45	ALA	-	insertion	UNP E9PR30
	e6	-44	SER	_	insertion	UNP E9PR30
	e6	-43	LEU	-	insertion	UNP E9PR30
	e6	-42	GLU	-	insertion	UNP E9PR30
	e6	-41	GLY	_	insertion	UNP E9PR30
	e6	-40	ILE	-	insertion	UNP E9PR30
	e6	-39	ALA	-	insertion	UNP E9PR30
	e6	-38	PRO	-	insertion	UNP E9PR30
	e6	-37	GLU	-	insertion	UNP E9PR30
	e6	-36	ASP	-	insertion	UNP E9PR30
		1	1	1	1	1



Chain	Residue	Modelled	Actual	Comment	Reference
e6	-35	GLN	-	insertion	UNP E9PR30
e6	-34	VAL	-	insertion	UNP E9PR30
e6	-33	VAL	-	insertion	UNP E9PR30
e6	-32	LEU	-	insertion	UNP E9PR30
e6	-31	LEU	-	insertion	UNP E9PR30
e6	-30	ALA	-	insertion	UNP E9PR30
e6	-29	GLY	-	insertion	UNP E9PR30
e6	-28	ALA	-	insertion	UNP E9PR30
e6	-27	PRO	-	insertion	UNP E9PR30
e6	-26	LEU	-	insertion	UNP E9PR30
e6	-25	GLU	-	insertion	UNP E9PR30
e6	-24	ASP	-	insertion	UNP E9PR30
e6	-23	GLU	-	insertion	UNP E9PR30
e6	-22	ALA	-	insertion	UNP E9PR30
e6	-21	THR	-	insertion	UNP E9PR30
e6	-20	LEU	-	insertion	UNP E9PR30
e6	-19	GLY	-	insertion	UNP E9PR30
e6	-18	GLN	-	insertion	UNP E9PR30
e6	-17	CYS	-	insertion	UNP E9PR30
e6	-16	GLY	-	insertion	UNP E9PR30
e6	-15	VAL	-	insertion	UNP E9PR30
e6	-14	GLU	-	insertion	UNP E9PR30

• Molecule 21 is a RNA chain called Human 18S ribosomal RNA.

Mol	Chain	Residues		I	Atoms			ZeroOcc	AltConf	Trace
21	;1	1749	Total	С	Ν	Ο	Р	0	0	0
21	11	1742	36900	16458	6595	12106	1741	0	0	0
21	;9	1749	Total	С	Ν	Ο	Р	0	0	0
21	12	1742	36900	16458	6595	12106	1741	0	0	0
91	;3	1749	Total	С	Ν	Ο	Р	0	Ο	0
21	10	1142	36900	16458	6595	12106	1741	0	0	0
91	i4	1749	Total	С	Ν	О	Р	0	0	0
21	14	1142	36900	16458	6595	12106	1741	0	0	0
21	i5	1749	Total	С	Ν	Ο	Р	0	Ο	0
21	10	1142	36900	16458	6595	12106	1741	0	0	0
21	i6	1749	Total	$\overline{\mathrm{C}}$	N	Ō	Р	0	0	0
	10	1142	36900	16458	6595	12106	1741	0	0	0

There are 30 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
i1	582	С	U	conflict	GB 36162
			y P		n next page

Chain	Residue	Modelled	Actual	Comment	Reference
i1	583	С	А	conflict	GB 36162
i1	584	G	А	conflict	GB 36162
i1	798	А	G	conflict	GB 36162
i1	1095	U	С	conflict	GB 36162
i2	582	С	U	conflict	GB 36162
i2	583	С	А	conflict	GB 36162
i2	584	G	А	conflict	GB 36162
i2	798	А	G	conflict	GB 36162
i2	1095	U	С	conflict	GB 36162
i3	582	С	U	conflict	GB 36162
i3	583	С	А	conflict	GB 36162
i3	584	G	А	conflict	GB 36162
i3	798	А	G	conflict	GB 36162
i3	1095	U	С	conflict	GB 36162
i4	582	С	U	conflict	GB 36162
i4	583	С	А	conflict	GB 36162
i4	584	G	А	conflict	GB 36162
i4	798	А	G	conflict	GB 36162
i4	1095	U	С	conflict	GB 36162
i5	582	С	U	conflict	GB 36162
i5	583	С	А	conflict	GB 36162
i5	584	G	А	conflict	GB 36162
i5	798	А	G	conflict	GB 36162
i5	1095	U	С	conflict	GB 36162
i6	582	С	U	conflict	GB 36162
i6	583	С	А	conflict	GB 36162
i6	584	G	А	conflict	GB 36162
i6	798	A	G	conflict	GB 36162
i6	1095	U	С	conflict	GB 36162

• Molecule 22 is a protein called 40S ribosomal protein SA.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
22	Δ.1	222	Total	С	Ν	0	\mathbf{S}	0	0	0
			1747	1109	306	324	8	0	0	0
22	1.2	222	Total	С	Ν	0	S	0	0	0
	A2		1747	1109	306	324	8	0	0	0
22	Λ 3	222	Total	С	Ν	0	S	0	0	0
	AJ		1747	1109	306	324	8	0	0	0
22	Δ.4	222	Total	С	Ν	0	S	0	0	0
	A4		1747	1109	306	324	8	0	0	0
22	Δ.5	222	Total	С	Ν	0	S	0	0	0
	по		1747	1109	306	324	8		0	





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Mol	Chain	Residues		At	oms		ZeroOcc	AltConf	Trace	
22	A6	222	Total 1747	C 1109	N 306	O 324	S 8	0	0	0

• Molecule 23 is a protein called 40S ribosomal protein S3a.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
23	R1	914	Total	С	Ν	Ο	\mathbf{S}	0	Ο	0
23	DI	214	1738	1103	310	311	14	0	0	0
23	B9	914	Total	С	Ν	Ο	\mathbf{S}	0	0	0
20	D_{2}	214	1738	1103	310	311	14	0	0	0
93	B3	914	Total	С	Ν	0	S	0	0	0
20	D0	214	1738	1103	310	311	14	0	0	0
93	B4	914	Total	С	Ν	0	S	0	0	0
20	D4	214	1738	1103	310	311	14	0	0	0
93	D2	214	Total	С	Ν	0	S	0	0	0
23	D0	214	1738	1103	310	311	14	0	0	0
92	P6	214	Total	С	Ν	0	S	0	0	0
20	D0	214	1738	1103	310	311	14	0	0	U

• Molecule 24 is a protein called 40S ribosomal protein S3.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
24	D1	227	Total	С	Ν	0	\mathbf{S}	0	0	0
			1765	1125	317	315	8	Ŭ	Ŭ	Ŭ
24	<u>р</u> 9	227	Total	\mathbf{C}	Ν	Ο	\mathbf{S}	0	0	0
24		221	1765	1125	317	315	8	0	0	0
24	D2	227	Total	С	Ν	0	S	0	0	0
24	D3	221	1765	1125	317	315	8	0	0	0
24	D4	227	Total	С	Ν	Ο	\mathbf{S}	0	0	0
24	D4	221	1765	1125	317	315	8	0	0	0
24	DE	227	Total	С	Ν	0	S	0	0	0
24	D3	221	1765	1125	317	315	8	0	0	0
24	De	227	Total	С	Ν	0	S	0	0	0
	D0	221	1765	1125	317	315	8		U	

• Molecule 25 is a protein called 40S ribosomal protein S4, X isoform.

Mol	Chain	Residues		Ate	oms			ZeroOcc	AltConf	Trace
25	E1	262	Total	C 1394	N 386	0 358	S 8	0	0	0
			Z070 Total	$\frac{1524}{C}$	 	300	0			
25	E2	262	2076	1324	1N 386	358	5 8	0	0	0



Mol	Chain	Residues		Ate	oms			ZeroOcc	AltConf	Trace
25	\mathbf{F}_{2}	262	Total	С	Ν	Ο	S	0	0	0
20	Ľэ	202	2076	1324	386	358	8	0	0	0
25	F1	262	Total	С	Ν	Ο	S	0	0	0
20	£4	202	2076	1324	386	358	8	0	0	0
25	٣ĸ	262	Total	С	Ν	0	S	0	0	0
20	E9	202	2076	1324	386	358	8	0	0	0
25	F6	262	Total	С	Ν	0	S	0	0	0
20	EO	202	2076	1324	386	358	8	0	U	U

• Molecule 26 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
26	F 1	101	Total	С	Ν	0	S	0	0	0
20	I I	191	1509	943	286	273	7	0	0	0
26	ГЭ	101	Total	С	Ν	0	S	0	0	0
20	$\Gamma \Sigma$	191	1509	943	286	273	7	0	0	0
26	F3	101	Total	С	Ν	0	S	0	0	0
20	гэ	191	1509	943	286	273	7	0	0	0
26	F4	101	Total	С	Ν	0	S	0	0	0
20	1'4	191	1509	943	286	273	7	0	0	0
26	F 5	101	Total	С	Ν	0	S	0	0	0
20	г 5	191	1509	943	286	273	7	0	0	0
26	F6	101	Total	С	Ν	0	S	0	0	0
20	1.0	131	1509	943	286	273	7	0	0	0

• Molecule 27 is a protein called 40S ribosomal protein S7.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
27	Ц1	180	Total	С	Ν	Ο	S	0	0	0
21	111	169	1521	969	280	271	1	0	0	0
97	ЦЭ	180	Total	С	Ν	0	S	0	0	0
21	112	169	1521	969	280	271	1	0	0	0
97	Ц2	180	Total	С	Ν	0	S	0	0	0
21	115	169	1521	969	280	271	1	0	0	0
97	ЦЛ	180	Total	С	Ν	0	S	0	0	0
21	114	169	1521	969	280	271	1	0	0	0
97	ЦΣ	180	Total	С	Ν	0	S	0	0	0
21	115	169	1521	969	280	271	1	0	0	0
27	Не	180	Total	С	Ν	Ο	S	0	0	0
	110	109	1521	969	280	271	1		0	U

• Molecule 28 is a protein called 40S ribosomal protein S8.



Mol	Chain	Residues		Ate	oms			ZeroOcc	AltConf	Trace
28	T1	206	Total	С	Ν	0	S	0	0	0
20	11	200	1686	1058	332	291	5	0	0	0
28	19	206	Total	С	Ν	0	S	0	0	0
20	12	200	1686	1058	332	291	5	0	0	0
28	IS	206	Total	С	Ν	0	S	0	0	0
20	10	200	1686	1058	332	291	5	0	0	0
28	I4	206	Total	С	Ν	0	S	0	0	0
20	14	200	1686	1058	332	291	5	0	0	0
28	15	206	Total	С	Ν	0	S	0	0	0
20	10	200	1686	1058	332	291	5	0	0	0
20	IG	206	Total	С	Ν	Ο	S	0	0	0
20	10	200	1686	1058	332	291	5		0	U

• Molecule 29 is a protein called 40S ribosomal protein S10.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
20	K1	98	Total	С	Ν	Ο	S	0	0	Ο
25	171	50	827	539	148	134	6	0	0	0
20	KO	08	Total	С	Ν	Ο	\mathbf{S}	0	0	0
23	112	30	827	539	148	134	6	0	0	0
20	K3	08	Total	С	Ν	0	S	0	0	0
29	179	90	827	539	148	134	6	0	0	0
20	K4	08	Total	С	Ν	0	S	0	0	0
29	174	90	827	539	148	134	6	0	0	0
20	K2	08	Total	С	Ν	0	S	0	0	0
29	КЭ	90	827	539	148	134	6	0	0	0
20	Ke	08	Total	С	Ν	0	S	0	0	0
29	IX0	90	827	539	148	134	6			U

• Molecule 30 is a protein called 40S ribosomal protein S11.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
30	L1	153	Total	C	N	0	S	0	0	0
			1247	793	234	214	6			
30	1.2	153	Total	\mathbf{C}	Ν	Ο	\mathbf{S}	0	0	0
50		100	1247	793	234	214	6	0	0	0
30	13	153	Total	С	Ν	Ο	\mathbf{S}	0	0	0
50	ЦЭ	100	1247	793	234	214	6	0	0	0
20	ТЛ	152	Total	С	Ν	Ο	S	0	0	0
30	L4	100	1247	793	234	214	6	0	0	0
20	T 5	152	Total	С	Ν	0	S	0	0	0
30	ЦЭ	100	1247	793	234	214	6	0	0	0
20	IG	152	Total	С	Ν	0	S	0	0	0
00		100	1247	793	234	214	6		0	U



Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
21	D1	195	Total	С	Ν	0	S	0	0	0
51	11	120	1033	656	196	174	7	0	0	0
21	Do	195	Total	С	Ν	0	S	0	0	0
51	1 2	120	1033	656	196	174	7	0	0	0
21	D2	195	Total	С	Ν	0	S	0	0	0
51	10	120	1033	656	196	174	7	0	0	0
21	D/	195	Total	С	Ν	0	S	0	0	0
51	14	120	1033	656	196	174	7	0	0	0
21	D5	195	Total	С	Ν	0	S	0	0	0
51	1.0	120	1033	656	196	174	7	0	0	0
21	DG	195	Total	С	Ν	0	S	0	0	0
51	10	120	1033	656	196	174	7		0	U

• Molecule 31 is a protein called 40S ribosomal protein S15.

• Molecule 32 is a protein called 40S ribosomal protein S16.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
20	01	146	Total	С	Ν	0	S	0	0	0
32	Q1	140	1158	736	218	200	4	0	0	0
20	$\cap 2$	146	Total	С	Ν	0	S	0	0	0
32	Q2	140	1158	736	218	200	4	0	0	0
20	$\bigcirc 3$	146	Total	С	Ν	0	S	0	0	0
32	QЭ	140	1158	736	218	200	4	0	0	0
20	04	146	Total	С	Ν	0	S	0	0	0
32	Q4	140	1158	736	218	200	4	0	0	0
20	05	146	Total	С	Ν	Ο	S	0	0	0
32	Q0	140	1158	736	218	200	4	0	0	0
20	06	146	Total	С	Ν	Ο	S	0	0	0
52	સુહ	140	1158	736	218	200	4		0	0

• Molecule 33 is a protein called 40S ribosomal protein S17.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
22	P1	139	Total	С	Ν	0	S	0	0	0
55	101	132	1072	673	199	195	5	0	0	0
22	P0	139	Total	С	Ν	0	S	0	0	0
55	112	132	1072	673	199	195	5	0	0	0
22	D3	139	Total	С	Ν	0	S	0	0	0
55	105	132	1072	673	199	195	5	0	0	0
22	R4	129	Total	С	Ν	0	S	0	0	0
55	104	132	1072	673	199	195	5	0	0	0
22	DE	120	Total	С	Ν	0	S	0	0	0
<u> </u>	103	132	1072	673	199	195	5			U



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Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
33	R6	132	Total 1072	C 673	N 199	O 195	${ m S}{ m 5}$	0	0	0

• Molecule 34 is a protein called 40S ribosomal protein S18.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
34	S 1	1/13	Total	С	Ν	0	S	0	0	0
- 54	51	140	1184	743	240	200	1	0	0	0
34	52	1/13	Total	С	Ν	Ο	\mathbf{S}	0	0	0
- 54	52	140	1184	743	240	200	1	0	0	0
3/	S 3	1/13	Total	С	Ν	Ο	\mathbf{S}	0	0	0
- 04	55	140	1184	743	240	200	1	0	0	0
34	S 4	1/13	Total	С	Ν	Ο	S	0	0	0
- 54	54	140	1184	743	240	200	1	0	0	0
24	СF	1/12	Total	С	Ν	Ο	S	0	0	0
- 54	55	140	1184	743	240	200	1	0	0	0
34	SG	1/13	Total	С	Ν	Ο	S	0	0	0
04	00	140	1184	743	240	200	1			0

• Molecule 35 is a protein called 60S ribosomal protein L41.

Mol	Chain	Residues		Atc	\mathbf{ms}			ZeroOcc	AltConf	Trace
35	;1	25	Total	С	Ν	Ο	S	0	0	0
- 55	JI	20	239	145	64	27	3	0	0	0
35	;9	25	Total	С	Ν	Ο	S	0	0	0
- 55	JZ	20	239	145	64	27	3	0	0	0
35	;3	25	Total	С	Ν	Ο	S	0	0	0
- 55	10	20	239	145	64	27	3	0	0	0
35	i 4	25	Total	С	Ν	Ο	\mathbf{S}	0	0	0
- 55	J4	20	239	145	64	27	3	0	0	0
35	;5	25	Total	С	Ν	Ο	\mathbf{S}	0	0	0
- 55	10	20	239	145	64	27	3	0	0	0
35	iß	25	Total	С	Ν	Ο	S	0	0	0
00	JO	20	239	145	64	27	3		0	0

• Molecule 36 is a protein called Malignant T-cell-amplified sequence 1.

Mol	Chain	Residues		\mathbf{A}	toms			ZeroOcc	AltConf	Trace
36	k1	181	Total	С	Ν	0	S	0	0	0
00	N1	101	1421	926	234	250	11	0	0	0
26	1-9	191	Total	С	Ν	0	\mathbf{S}	0	0	0
- 30	KZ	101	1421	926	234	250	11	0	0	0



Mol	Chain	Residues		At	toms			ZeroOcc	AltConf	Trace
26	1-2	191	Total	С	Ν	0	\mathbf{S}	0	0	0
- 50	кэ	101	1421	926	234	250	11	0	0	0
36	l-1	181	Total	С	Ν	0	S	0	0	0
- 50	K4	101	1421	926	234	250	11	0	0	0
26	<u>l</u> -5	191	Total	С	Ν	0	S	0	0	0
- 50	кJ	101	1421	926	234	250	11	0	0	0
26	1-6	191	Total	С	Ν	0	S	0	0	0
- 50	ко	101	1421	926	234	250	11	0	U	U

• Molecule 37 is a protein called Density-regulated protein.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
37	11	70	Total	С	Ν	0	S	0	0	0
51	11	19	629	400	102	125	2	0	0	0
27	10	70	Total	С	Ν	0	S	0	0	0
51	12	19	629	400	102	125	2	0	0	0
27	12	70	Total	С	Ν	0	S	0	0	0
51	10	19	629	400	102	125	2	0	0	0
27	14	70	Total	С	Ν	0	S	0	0	0
51	14	19	629	400	102	125	2	0	0	0
27	15	70	Total	С	Ν	0	S	0	0	0
51	10	19	629	400	102	125	2	0	0	0
37	16	70	Total	С	Ν	0	S	0	0	0
51	10	19	629	400	102	125	2			U

• Molecule 38 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
38	f1	1	Total Zn 1 1	0	0
38	f2	1	Total Zn 1 1	0	0
38	f3	1	Total Zn 1 1	0	0
38	f4	1	Total Zn 1 1	0	0
38	f5	1	Total Zn 1 1	0	0
38	f6	1	Total Zn 1 1	0	0



3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density (RSRZ > 2). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Chain T1: 5%• 94% • Molecule 1: 40S ribosomal protein S19 Chain T2: 94% 5%・ • Molecule 1: 40S ribosomal protein S19 Chain T3: 93% 6% • • Molecule 1: 40S ribosomal protein S19 Chain T4: 5%・ 94% • Molecule 1: 40S ribosomal protein S19 Chain T5: 5% • 94%
- Molecule 1: 40S ribosomal protein S19

• Molecule 1: 40S ribosomal protein S19





• Molecule 2: 40S ribosomal protein S20













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• Molecule 7: 40S ribosomal protein S29



Chain d2:		95%		5%
MET GLY HIS Q4 D56				
• Molecule 7: 4	40S ribosomal pre	otein S29		
Chain d3:	20%	95%		5%
MET GLY HIS Q4 P11 N37 R44 R44 Q45	Y46 A47 K48 K48 T50 G51 F52 F52 T53 D56			
• Molecule 7: 4	40S ribosomal pre	otein S29		
Chain d4:		95%		5%
MET GLY HIS Q4 G51 F52 I53 D56				
• Molecule 7: 4	40S ribosomal pre	otein S29		
Chain d5:	18%	95%		5%
MET GLY GLY HLS F44 F43 F44 K47 K445 K445 K445 K445 K445	150 651 152 153 155 155 155			
• Molecule 7: 4	40S ribosomal pre	otein S29		
Chain d6:	%	95%		5%
MET GLY HIS H1S 44 844 844 848 150 150 651	F52 D566			
• Molecule 8: I	Ribosomal protei	n S27a		
Chain f1:	41%	5%	54%	
MET GLN TLE PHE VAL LYS THR LEU CLY CLY	THR ILE THR LEU GLU GLU PRO SER ASP THR ILE	GLU ASN VAL LYS LYS ALA LYS GLN GLN GLV GLV GLV	TLE PRO PRO GLN GLN GLN GLN CLEU LEU CLEU CLY GLN CLU	ASP GLY ARG THR LEU SER ASP TYR ASN
ILE GLN CLN CLV CLV CLV CLV SER THR THR THR THR TEU VAL	ARG LEU ARG GLY GLY ALA ALA N78 N12 N21 N21 N21 N21 N21 N21 N21 N21 N21	H93 K94 K96 K96 K96 K97 K99 K100 L100 M111	K113 K116 R116 C149 PHE PHE PR0 GLU GLU ASP LYS	
• Molecule 8: I	Ribosomal protei	n S27a		
Chain f2:	41%	5%	54%	
MET GLN TLE PHE VAL LYS THR LEU CLY	THR ILE THR LEU GLU GLU CAL PRO PRO SER ASP THR ILE	GLU ASN VAL LYS LYS ALA LYS TLE GLN GLN GLU GLY	TLE PRO PRO GLN GLN GLN GLN TLE TLE TLE CLN CLN CLN CLN CLU	ASP GLY ARG THR LEU SER ASP TYR ASN





• Molecule 9: Receptor of activated protein C kinase 1



• Molecule 9: Receptor of activated protein C kinase 1





 \bullet Molecule 9: Receptor of activated protein C kinase 1





• Molecule 9: Receptor of activated protein C kinase 1



• Molecule 9: Receptor of activated protein C kinase 1











 \bullet Molecule 11: 40S ribosomal protein S6







5	1 7	V	0
0	v	I	U







• Molecule 14: 40S ribosomal protein S13









 \bullet Molecule 16: 40S ribosomal protein S15a



5	ľΥ	С
\mathbf{v}	т.	\sim

$Ch_{a} = W_{A}$
Unam w 4:
MET N2 N2 N3 N4 N4 N1 N1 N1 N4 N4 N4 N4 N4 N4 N4 N4 N4 N4 N4 N4 N4
• Molecule 16: 40S ribosomal protein S15a
Chain W5: 95% · ·
NET NG NG NG NG N111 N111 F130
• Molecule 16: 40S ribosomal protein S15a
Chain W6:
MET N3 N4 N4 N4 N4 N4 N4 N4 N4 N4 N4 N4 N4 N4
\bullet Molecule 17: 40S ribosomal protein S24
Chain Y1: 95%
MET NAET 751 751 751 751 7117 7117 7115 7119 7119
• Molecule 17: 40S ribosomal protein S24
Chain Y2: 95%
NET NET 134 151 151 151 151 151 151 151 151 151 15
• Molecule 17: 40S ribosomal protein S24
Chain Y3: 95% · ·
NET NET 134 134 155 155 155 155 155 155 155 155 155 15
• Molecule 17: 40S ribosomal protein S24
Chain Y4: 95% · ·
MET NAET 13 14 15 15 15 15 15 15 15 15 15 15



• Molecule 17: 40S ribosor	mal protein S24		
Chain Y5:	95%		
MET M2 D3 125 125 126 151 752 753 6119 6119 6119 6126	K128 K130 P131 K132 GLU		
• Molecule 17: 40S ribosor	mal protein S24		
Chain Y6:	95%		
MET N2 D3 Q22 Q22 T54 T54 T54 D53 D53 C73 C73 C73 C73 C73 D53 C73 C73 C73 C73 C73 C73 C73 C73 C73 C7	K100 G119 K129 K130 F131 K132 GLU		
• Molecule 18: 40S ribosor	nal protein S25		
Chain Z1:	54%	6%	40%
MET PRO PRO LYS LYS LYS LYS LYS LYS LYS ALA ALA ALA ALA LYS LYS SER LYS SER	ASP PRO VAL VAL ASN ASN ASN CYS GLY GLY GLY CYS LYS LYS LYS LYS LYS LYS	TRP TRP LYS LYS GLY CVAL VAL R41 A2 K43 C43 K43 C43 K43 C45	L49 L67 R85 L88 L88 L88 C89 S93 S93 S93 C95 C95 C95 C95 C196 C196 C196 C196 C196 C196 C196 C196
K98 L995 Q106 V107 V107 V108 T110 T110 G115 G115 G115 ALA ALA ALA ALA ALA ALA ALA	ASP		
• Molecule 18: 40S ribosor	mal protein S25		
Chain Z2:	54%	6%	40%
MET PRO PRO LYS LYS ASP ASP LYS LYS LYS ALA ASP CYS LYS SER LYS SER LYS SER	LTS ASP PRO VAL VAL ASN ASP CTS GLY CTS CTS LTS LTS LTS LTS	TRP SER LYS GLY VAL B41 D42 L49 L49	168 R85 188 188 833 833 833 833 833 833 833 833
S101 V107 V108 V108 V108 V108 C110 A110 A114 A12 A12 A12 A12 A12 A12 A12 A12 A12 A12	АЦА		
• Molecule 18: 40S ribosor	mal protein S25		
Chain Z3:	54%	6%	40%
MET PRO PRO LYPS LYPS ASP LYPS LYPS LYPS ALA ASP ALA ALA ALA ALA CYPS CYPS ALA	ASP ASP PRO VAL VAL KSN SER ASP CVS CVS CVS LVS LVS LVS LVS LVS	TRP SER LYS CLYS CLYS VAL M41 L49 KS2	R85 L68 (188 (189 197 197 1108 197 1108 197
T110 N112 N112 C115 C17 C17 ALA ALA ALA ALA ALA ALA ALA ALA			

• Molecule 18: 40S ribosomal protein S25









• Molecule 19: 40S ribosomal protein S27





MET GLN LEU PHE VAL ARG ALA GLN GLU CLU LEU HIS THR	GLU VAL THR GLY GLV GLU THR VAL ALA	GLN ILE LYS LYS ALA HIS VAL ALA SER LEU GLU GLY ILE	ALA PRO GLU GLU VAL VAL VAL LEU LEU LEU ALA GLY ALA	LEU GLU ASP GLU ALA THR LEU GLY GLY CYS GLY VAL CYS GLY CYS GLY CYS GLY CYS GLY CYS GLY CYS GLY CYS GLY CYS CYS CYS CYS CYS CYS CYS CYS CYS CY
		_ <u>•••••••••</u> •		
ALA LEU THR THR THR THR CLU CLU ALA ALA ALA CLU CLU	GLY LYS CV G14 G15 G15	129 746 746 748 748 749 650 650 650 650 650 853 859		
• Molecule 20: 40)S ribosomal	protein S30		
8%				
Chain e4:	35%	8% •	56%	
MET GLN CLU LEU PHE ARG ALA ALA ALA CLU CLU LEU HIS THR	GLU VAL THR GLV GLV GLV CLN VAL ALA	GLN TLE LYS ALA ALA ALA ALA SER VAL ALA SER CLU GLU GLU GLU	ALA PRO GLU ASP GLN VAL LEU LLEU LLEU ALA ALA ALA ALA PRO	LEU GLU ASP GLU ALA ALA ALA CLU CVS GLY GLN VAL CVS GLV CVS GLV CVS
			•• ••	
ALA LEU THR LEU GLU ALA ALA ALA ALA CLY GLY	GLY LYS V2 H3 S5 S5 K11 K11	V12 R13 G14 Q15 T29 V46 P47 F49 F49 F49 F49 F49	K K51 K K52 K K53 K K53 K K53 K K53 K K53 K K53 K K53 K K53 K K51 K K51 K K51 K K51 K K51 K K51 K K51 K K52 K K53 K K53	
• Molecule 20, 40)S ribosomal	protoin S20		
• Molecule 20: 40	J5 ribosomai	protein 550		
Chain e5:	35%	8%	56%	
MET GLN LLEU PHE ALA ALA GLU GLU CLU LEU HHS PHE	GLU GLU GLY GLN GLU GLU ALA ALA	GLN ILE LYS ALA ALA ALA ALA SER LEU GLU GLU ILE	ALA PRO GLU ASP GLN VAL LEU LEU ALA ALA PRO	LEU GLU ASP ALA ALA ALA CLU GLV CYS GLY VAL CYS
ALA LLEU THR THR LEU GLU VAL ALA ALA ARG GLY MET MET MET CIU	GLY LYS V2 H13 GG4 S5 L6 A7 A7	G14 T29 K33 R34 R40 R40 V45 V45	K 51 K 52 S 59 S 59 S 50 S 50 S 50 S 50 S 50 S 50 S 50 S 50	
• Molecule 20: 40)S ribosomal	protein S30		
Chain e6:	38%	5% •	56%	
LET LEU ALL LLU LLU LLU LLU LLU LLU LLU LLU LL	LA LIN	LLN LLE AL AL LLA LLA LLA LLU LLU LLU LLU	LA RD SP SLU AL AL EU EU LA RLY RLY RD RD	EU LLU SP LLU LLA LLV LLV LLV LLV LLV LLV LLV LLV LLV
Z O L L P A A O O L H H A	.0>+000+>4	OH J A H Y A O J O O H	A U O A O > > H H A O A U	10404110000000
ADKKDDJA>0HD>				
AL LE AL AR AR AR AR AR AR AR AR AR AR AR AR AR		KS S S S S S S S S S S S S S S S S S S		
• Molecule 21: H	uman 18S ril	oosomal RNA		
Chain i1:	56%		37%	7%
	50,0		57.70	,,,,
U1 A2 C3 C3 C4 C4 C17 C17 A25 A25 A25	031 031 032 033 641 043 0443 0443	A45 A46 G52 G56 G56 G56 G62 G62 A64 A64 C67	A68 C69 G70 G71 C72 C73 C73 G75 G74 G75 A77 C78 A79 A79	A83 A84 C98 A99 A99 A103 C114 G114 G114 G112 C127
0132 0133 0137 0137 0133 0133 0133 0134 0142 0142 0142 0143 0144	U148 3153 3155 3155 3155 3156 3156 7160 7161	C162 0163 5167 5167 1172 1172 1172 1175	2178 2179 2186 2186 2186 2186 2186 2188 2188 2188	2192 2201 2201 2202 2202 2211 2211 2214
2216 2216 2226 2226 2226		50 4 0000505050		



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A363 A364	C369	A371	G385 C386	<mark>C387</mark> U388	<mark>C391</mark>	C400 A401	C402	G407	A408 C409	G410 G411	G412 G413		041/ A418	U423	A426	C429	G434	6436 6436	6438 6438	C441	A448	A449 C450	G451 G452			A464 A465	G466	A468	A469	A473
G474	6482	0400 U488 A489	C492	A493 C494		C503 C503	GEO5	G506 G507	A516	C517	U524	A528	A523 U530	C532 A533 A533	6534 6534 6535	A536	U538	0540 U540	0341 U542	G544 G544	A545 G546	G547 C548	C550 C550	U551	USSG	U557 G558	(1559 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	A561	0563 G563	US66
A574	A576 A576	U581 C582	<mark>C583</mark> G584	C585 G586	4587 G588 G580	A590 11591	C592	C593	U596	A604 A605	G606 11607	C608	G613	C621	0627 0628	A629	U631	A634	C638	A643	G644	U651	A655 G656	U657	Ceeo	UGGG		A670	A671 A672 G673	C674
		G684 A685	U686 C687	U689 U689	G691	A693 G694	C695	G696 G697	с С	5 5	0 U U) ප (5 D C	000	5 C C) ()	ალ -	ع ت ر	500	A G	ບບ	A C	ບບ	: 5 1 1 1	0 0	C730 • G731 •	U732	C734 C734	C736 C736 C737	C738
C739 C	201	G7 44 C7 45	C746 U747	C7 48 U7 49	G751 G751	C753	, U (ບບ	ບບ	D C	o ŋ ₹	: D 0	9 C E	005	o ∩ ⊲	: U C		5 4 0	• D (n e	ບບ	ი ი	C785 G786	G787	6189	C791	C792	A794	A795 G796 C797	A7 98
0080	A810 A811	A011 A812 A813	<mark>U814</mark> U815	A818	(1821 11822	U823	A830	C834	C835 G836	A837 G838	C839 C840	6841 6841	C042 C843	A847 11848		ARAD		0000 (367 •	4600 A869 4670	AS / O	G873 G874	A875 C876	C877 G878	C879	<mark>G881</mark>	U882 U883	C884		0889 U889	G891
U892 U893	6894 6895 11806	• 7980 • 7891	0060 C900	G901 G902	A903 A904	G907 4908	6909	A913	U914	U917 U918	A919 A920			G934	<mark>0939</mark>	0943	(952	U954	6956 6956	6958	<mark>G961</mark>	A962 A963	A964 U965	TIGED	6060 6970	G971 A972	C973	6978 0018	C979 A980 A981	
A990 U892 G991 U893	A992 G895 G895 G896 G896 G896 G896 G896 G896 G896 G896		U1002 C900	A1008 G902	U1016 A903	G907 [11022 A908	A1023 G909	A1027 A913	A1028 U914 G1029	0917 01041	A1042 A919 A1043 A920	G1044	A1052	C1057 C934	61059 U939	01061 U943	G1068	G1000 0953 0954 0954 0954	G1070 G956	01081 A957 A957 A957 A957 A957 A957 A957 A958 A958 A958 A958 A958 A958 A958 A958	A1083 A1084 G961	C1085 A962 G1086 A963	A1087 A964 U1088 U965			A1113 G971 U1114 A972	U1115 C973	C1117 G978	C1118 C9/9 A1119 A980 II1120 A981	
G1126 A990 U892 0891 0893 0000 0893 0000 0893 0000 0893 0000 0893 0000 0893 0000 0893 00000 00000 00000 00000 00000 00000 0000	G1134 A992 G894 G895 C	C1139 C399 U397	A1148 U1002 U1099 C900	A1150 A1008 G902 G902	C1153 A903 U1154 U1016 A904	U1156 C907 C907 C907 C907 C907 C907 C907 C908 C908 C908 C908 C908 C908 C908 C908	41023 G909	G1166 A1027 A913	A1170 A1028 U914 G1171 G1029	U1172 0917 0917 0918 0918	G1175 A1042 A919 G1043 A920	C1180 G1044			A1195 G1059 U939 A1195 A1060	G1198 U1061 U943	A1208 G952 G952			C1215 01081 A957 C1216 A1082 G958	A1217 A1083 A1084 G961	G1224 C1085 A962 G1086 A963	C1231 A1087 A964 U1088 U965	U1238 111-238 71110	A1240 4110 6970	A1241 A1113 G971 U1242 U1114 A972	U1115 C973	01249 01117 6978	A1250 C1118 C979 A1251 A1119 A980 C1959 11120 A981	A1253
G1126 A990 U892 G1266 C C C G1266 C C C	6125/ 611.04 A992 6894 611.04 A992 6895 611.04 A1258 A1358 A	A1260 C1139 A320 C000 C	C1264 A1148 U899 A1265 A1149 U1002 C900	A1150 A1901 G901 C1268 A1008 G902	G1269 C1153 A903 G1270 U1154 U1016 A904 •	(1) 27 (1) 2907 (1) 2907 (1) 2907 (1) 2907 (1) 2907 (1) 2907 (1) 2907 (1) 2907 (1) 2908 (1) 2	G1275 A1023 G909	A1276 G1166 A1027 A913 A1027 A913	41170 A1028 U914 G1280 G1171 G1029	G1281 U1172 G1041 U917 G1041 U918	C1283 G1175 A1042 A919 A1284 G1175 A1042 A919 A1284 A920	C1180 G1044 C125	V1288 A101 A1052 C300	G1290 C1057 G934 A1304 A1104 A1164 A1164	01292 A1195 G1059 U939 A1195 A1195 G1059 U939 A1106 A1166	G1294 G1198 U1061 U943	11250 A1208 A1208 G952	(129) (1298 (1212 (1200 (2955 (1298 (1298 (1298 (1296)	11239 0.1213 0.1700 A.900 11300 A.1214 0.000 11300 A.1214 0.000	41.901 0.1215 0.1081 4957 61.302 0.1216 41.082 69 <u>58</u>	C1303 A1217 A1083 U1304 A1084 G961	C1305 G1224 C1085 A962 U1306 A963	U1307 C1231 A1087 A964 U1308 U1088 U965	C1309 U1238 C1309 U1238 C1310 U1238 C1309 C1309 C1309 C11328 C1310 C1328 C1310 C1328 C1310	C1311 A1240 G131 G970	G1312 A1241 A1113 G971 A1313 U1242 U1114 A972	U1314 U1115 C973	01216 01249 0117 0978 01316 01249 0117 0978	C1317 A1250 C1118 C979 C1318 A1251 A1119 A980 C1950 H1110 A981	G1321 A1253
G1322 01323 G1256 A990 U892 01323 G1256 A990 U893 0 01325 G1256 A991 U893 0	1.324 0.1267 0.1134 A922 0.894 0.995 0.13258 0.13258 0.13258 0.13258 0.13258 0.1325 0.1355 0.	C1331 A1260 C139 A200 U897 0 A1332 A1260 C139 C139 C139 0 A1332 A1332 C139 C139 C139 0	C1264 A1148 0899 C1337 A1265 A1149 U1002 C900	Alise Alise Gao1 01341 01268 1008 6902	U1342 01269 01103 A903 U1343 01270 U1154 U1016 A904 •	C1363 C1374 C1374 C1374 C1907	G1275 G1275 G1023 G909	U1371 A1276 G1166 U1372 A913 U1372 C1277 A913	C1373 C1373 A1170 A1028 U914 C1373 C1329 C1171 C1029	A1378 G1281 U1172 U1172 U117 A1 282 U117 G1041 U1918	A1383 C1283 G1175 A1042 A919 A1284 A1284 G1175 A1042 A919 A1284 A1284 A920	G1393 C1180 G1044 C130	A1396 U1288 A1.01 A1.05 U330 U1288 U1285 U	(1398 (1200 01200 01200 01007 (1007 0004 0100 0100 0100 0100 0100 0100	U1404 01292 A1195 01059 U939 A1405 01292 A1195 01059 U939 A1405	Image: Construction Constr	U1408 U1296 A1208 A1208 0952 0952 0952 0952 0952 0952 0955	Alters U1291 G1292 G1212 U1000 U964 01410 G1298 G1212 U1000 U964 01410 G1209 G1212 U1055 U1055	U1411 A1295 U1215 U10170 A900 01412 U1300 A1214 0066 0966	41415 A1301 C1215 01081 A957 A1414 G1302 C1216 A1082 G958	C1415 C1303 A1217 A1083 C1303 C1304 C1416 U1304 G961	C1417 C1305 G1224 C1085 A962 C1418 U1306 A1306 A963	C1419 U1307 C1231 A1087 A964 C1420 U1308 U1308 U965	C1309 U1238	G1424 C1311 A1240 G1970 G970	G1425 G1312 A1241 A1113 G971 U1426 A1313 U1242 U1114 A972	C1427 U1314 U1314 C973	C1316 C1349 C1349 C1117 G978	01431 01317 1 A1220 0118 09/9 01432 01318 1 A1251 0119 4980 01433 01318 0 A1251 01190 4881	C1434 C1321 A1253
C1435 C1322 G1126 A990 U892 C1436 U1323 01266 1091 0892 C1436 U1323 01266 1091 0892	C145/ G1224 0125/ G1124 A922 0394 0395 041488 1438 01258 01128 0495 041488 01258 011358 000000000000000000000000000000000000	U142 C1331 A1260 C1139 0097 0097 0097 0097 0097 0097 0097 00	A1448 C1284 A148 U899 G1449 C1337 A1265 A1149 U1002 C900	A1150 A1150 G901 C1453 C1341 C1268 A1008 C902	A1464 U1342 U1269 C1153 A903 A1465 U1343 G1270 U1164 U1016 A904 O C1056 C1071 111455 U1016	U1457 C1363 01216 01156 0207 C1458 01363 0174 01156 0207 C1458 011784 01157 4008		U1462 U1371 A1276 G1166 A1372 U1463 A1372 C1277 A913	C1464 C1373 A1170 A1028 U914 G1280 G1171 G1029	C1468 A1378 G1281 U1172 U917 A1282 A1282 G1041 U918	C1471 A1383 C1283 G1175 A1042 A199 C1477 A1384 G1042 A990	01112 01180 01044 01173 01393 01044 01175 01044 0000	41414 41306 41301	U1477 0 01290 01200 01000 0934 U1477 0 01398 01290 0100 0067 05934 01001 01104 01398	A1480 U1404 C1292 A1195 G1059 U939 C1481 A1405 G1059 U939 C1487 A1405 A156 A1660	unit unit <th< td=""><td>11107 11206 11206 11202 11102 1102</td><td>A140/ A1409 U128/ U280 U980 01488 01410 01298 01212 U964 11000 01410 11000 01012 01664</td><td>A1403 U411 A1239 U1213 U2070 A300 G1490 C1412 U1300 A1214 0066 A1214 01300 A1214 0066</td><td>C1493 A1414 C1302 C1216 A1082 C958</td><td>U1494 C1415 C1303 A1217 A1083 G1495 C1416 U1304 C961 A1084 C961</td><td>U1496 C1417 C1305 G1224 C1085 A962 G1497 C1418 U1306 A963 A963</td><td>A1498 C1419 U1307 C1231 A1087 A964 01420 U1308 U1308 U1088 U965</td><td>U1505 C1309 U1238 A1506 C1403 111 910 U1238 C11410 111060</td><td>G1507 • G1424 C1311 A1240 G970</td><td>A1508 G1425 • G1312 A1241 A1113 G971 U1509 U1426 A1313 U1242 U1114 A972</td><td>G1510 C1427 U1314 C973 HELL 01400 HELE C973</td><td>01011 01420 01010 01240 01110 01512 01216 01249 01117 0978</td><td>C1513 G1431 C1317 ● A1250 C1118 C9/9 G1514 U1432 C1318 ● A1251 A1119 A980 C1515 C1433 C1318 ● A1251 A1119 A881</td><td>C1434 G1321 A1253</td></th<>	11107 11206 11206 11202 11102 1102	A140/ A1409 U128/ U280 U980 01488 01410 01298 01212 U964 11000 01410 11000 01012 01664	A1403 U411 A1239 U1213 U2070 A300 G1490 C1412 U1300 A1214 0066 A1214 01300 A1214 0066	C1493 A1414 C1302 C1216 A1082 C958	U1494 C1415 C1303 A1217 A1083 G1495 C1416 U1304 C961 A1084 C961	U1496 C1417 C1305 G1224 C1085 A962 G1497 C1418 U1306 A963 A963	A1498 C1419 U1307 C1231 A1087 A964 01420 U1308 U1308 U1088 U965	U1505 C1309 U1238 A1506 C1403 111 910 U1238 C11410 111060	G1507 • G1424 C1311 A1240 G970	A1508 G1425 • G1312 A1241 A1113 G971 U1509 U1426 A1313 U1242 U1114 A972	G1510 C1427 U1314 C973 HELL 01400 HELE C973	01011 01420 01010 01240 01110 01512 01216 01249 01117 0978	C1513 G1431 C1317 ● A1250 C1118 C9/9 G1514 U1432 C1318 ● A1251 A1119 A980 C1515 C1433 C1318 ● A1251 A1119 A881	C1434 G1321 A1253



A1614 C1742 A1614 G1744 U1622 G1747 U1622 G1747 U1622 G1747 U1622 G1747 U1622 G1749 U1624 C1781 U1625 G1749 U1625 G1749 U1626 G1759 C1636 G1759 C1636 G1759 C1636 G1759 G1639 G1759 G1644 G1759 G1644 G1759 G1644 G1759 G1644 G1759 G1644 G1759 G1654 G1759 G1656 G1779 G1656 G1836 U1652</t

C1865 U1868 A1869









U361 C362 A364 A364 C369 G370	6385 C386 C388 U388	C391 C400 A401	C402 6407 A408 C409	6410 6411 6412 6413	0417 4418 0423 4426	C429 G434 A435 G435 G437 C437	C441 C441 A448 A449 C450 C450	6452 C459 A464 A465 G467 A468 A468 A469 A469
C472 A473 C474 C482 C482 U487	A489 A489 A493 A493	0495 C502 C503 G504	G505 G506 G507 A516	C517 A528 A529 U530	4531 C532 C533 C534 G535 A536 C535	C537 U538 C539 U540 U541 U542 C543	4545 4546 4547 4547 4548 4550 4551	U556 U557 0558 0559 A560 A560 A561 U562 0563 U562
A574 A575 A576 U581 C582	6584 C585 6586 A587 G588 G588	6589 A590 U591 C592 C593	U596 A604 A605	G606 U607 C608 G613	C621 U627 A628 A629	0631 0634 A634 A643 G644	0651 4655 9656 0657 0657	U666 A670 A670 A671 A671 A672 G673 C674 U675
A679 6683 6684 6684 6685 0686 0686 0687	0690 (690 (691 (692 (692 (692)	G694 C695 G696 G697 G698	00000	o o o o c	5 U U U U U U <	< ଓ ଓ ଓ ଓ < ଓ ଅ) U ≪ U U U U U U	C7.30 17.31 07.34 07.34 07.35 07.35 07.35 07.39 07.39 07.39
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A810 A811 A812 A813 A813 U815 A815	6821 U822 U823	A830 C834 C835 G836	A837 G838 C839 C840 G841	C842 C843 A847 U848	G852 C853 A864 A865 A865 A865	0000 0867 0868 0869 0869 0869 0873 0873	8875 C876 C877 C877 C879 C879 G880 G881	U882 U885 C884 U885 U885 U885 U885 U888 U888 U889 U889
U893 6894 0895 U897 U899 U899 C909	6901 6902 A903 A904	6907 A908 6909 A913	U914 U917 U918 A919	A920 C930 G933	1939 1939 1943	6952 U954 A955 G956 G956 G958	6961 4962 4963 4964 1965	4971 6972 6978 6978 6979 A980 A990 A990
A992 A996 G999 U1002	A1008 U1016 U1017	U1022 A1023 A1027 A1028	G1029 G1041 A1042 G1043	61044 A1052 C1057	41058 61059 01060 1061 A1062 61068	G1076 G1076 U1081 A1082 A1083	C1085 G1086 A1087 U1088 G1110	A1115 U1116 U1115 C1117 C1117 C1118 A1119 U1120 G1126 G1126
G1134 C1138 C1139 C1139 A1148 A1149 A1150	C1153 C1153 U1154 U1155 U1156	G1157 G1166 A1170	G1171 U1172 G1175	C1180 A1181 U1186	A1195 A1195 G1198 A1208	G1212 C1213 A1214 C1215 C1215 C1216 A1217	G1224 C1231 U1238 U1239 A1240	11242 11242 11248 11248 11248 11251 11253 11253 11253 11253
61257 A1258 A1259 A1260 C1264 A1265	C1268 G1269 G1270 C1271	61274 61275 A1276 C1277	G1280 G1281 A1282 C1283 A1284	A1287 U1288 U1289 G1290	A1291 C1292 G1294 A1295 U1296 U1296	1237 1298 11300 11301 11302 21303 21303	1305 1306 1306 1307 1308 1308 1310 1311 1311	11312 11314 11316 11316 11316 11318 11321 11321 11323
G1324 G1330 C1331 A1332 A1332 C1337	C1341 U1342 U1343 C1363	01364 01371 01372 01373 01373	A1378 A1382 A1383	61393 41396 U1397	61396 11404 1406 61406 11407 11407	A1400 A1400 C1410 C1411 C1411 C1413 A1414 A1414 C1415	C1416 C1417 C1417 C1418 C1419 C1420 C1423 C1423	G1424 G1425 U1426 U1426 G1428 G1432 G1433 G1433 G1433 G1433 G1433 G1433 G1433
C1436 C1324 C1437 C1337 A1438 C1330 A1438 C1331 U1442 A1332 A1448 C1337	C1341 C1453 A1454 A1455 A1455 C1343 C1456 C1363	0.1457 01364 0.1458 01371 0.1463 01372 0.1464 01373	C1468 A1378 C1471 A1382 C1472 A1383	C1473 A1474 C1393 C1475 A1396 A1477 A1396 U1477 U1397	A1480 C1481 C1481 A1405 A1405 A1405 A1405 H1407 H1407	C1488 A1495 C1488 C1410 G1490 G1412 G1493 G1412 C1493 G1413 C1493 G1413 C1493 G1413 C1493 G1413 C1493 G1413 C1413 G1413 C1413 G1413 C1413 G1413 C1413 G1413	U1496 C1416 C 01497 C1417 U 01498 C1417 U 01498 C1418 U 01498 C1418 U 01505 C1419 U 01505 C1412 U 01507 C1423 U 01507 C1423 U	N1005 G1424 U1509 G1426 01510 U1426 01511 G1426 01512 G1426 01513 G1426 01514 G1426 01512 G1426 01512 G1426 01512 G1428 01513 G1431 016515 G1433 016515 G1433 01652 G1433 01520 G1433 01521 G1433
A1522 C1436 G1324 C1523 C1437 G1320 C1524 A1438 G1300 C1525 U1442 C1311 C1525 U1442 A1332 C1525 U1442 A1332 C1527 A1448 C1331 C1527 A1448 C1337 A1448 A1438 C1337	CI532 1 CI341 A1533 0.1453 0.1342 A1534 1454 0.1342 CI554 A1454 0.1343 U1555 A1455 0.1466 CI556 A1455 0.1363	A1537 01457 01464 C1538 01458 01364 01539 1 01371 01540 01463 01372 C1464 C1373	U1543 C1468 A1378 C1544 C1468 A1378 A1545 C1471 A1382 G1546 C1471 A1383	G1550 G1473 U1551 A1474 G1393 G1552 01476 6 C1553 A1476 1396 C1554 U1397 01397 C1554 U1477 01397	U1005 A1556 A1480 C1557 C1558 A1484 A1405 A1405 A1446 A1405 A1446 A1405	A1360 A1490 A1490 A1569 C1488 A1409 G1570 A1488 C1410 G1573 G1490 G1411 C1573 G1490 G1412 C1575 C1493 G1412 C1575 C1493 G1413 C1575 C1493 G1413	A1579 U1496 C1416 C A1580 U1496 C1416 C A1581 A1498 C1417 U C1581 A1498 C1418 U U1585 U1506 C1419 U U1585 U1506 C1429 U U1586 A1506 C1429 U U1586 A1506 C1429 U U1505 C1429 C1429 U U1506 C1429 U U	A1568 A1506 C1424 A1589 V1500 C1425 A C1598 U1510 C1427 A U1599 C1512 C1427 A U1599 C1512 C1427 A C1600 C1512 C1427 A C1600 C1512 C1428 A C1600 C1512 C1438 A C1603 C1512 C1434 A C1603 C1515 C1433 A A1614 C1520 C1433 A A1614 C1521 C1433 A



2 61744 3 61744 6 61745 6 61745 6 61745 6 61745 6 61745 6 61745 6 61745 6 61755 6 61756 6 61756 6 61776 6 61776 6 61776 6 61776 6 61776 6 61776 6 61776 6 61776 6 61776 6 61776 6 61776 6 61814 1882 61813 6 61813 1881 61814 1883 61826 61836 61838 01838 01838 01838 01838 01838 01838 01838 01838









-	A360 U361	C362	A363 A36A	- -	C369	A371		6386 C386	C387	U388	C391		C400	C402	CA07	440/ A408	C409	G410 G411	G412	G413	C417	A418	114.03		A426	C429	G434	A435	G436 G437	G438	C441		A448 A449	C450	G451 G452		C459	A464	A465 G466	G467 A468
A469	C472	A473	G474	G482	11/07	0400 U488	A489	C492	A493	C494	0430	C502	CE03	G505	G506		A516	C517		A525	A 520	A529	U530 4531	C532	A533 G534	G535	A536 C537	U538	C539 U540	U541	0542 C543	G544	A545 G546	G547	C548 C549	CEEO	U551	U556	0557 G558	G559 A560
-	G563	U566	AE 7A	A575	A576	U581	C582	G584	C585	G586	A58/ G588	G589	A590 115.01	C592	C593	U596		A604 A605	G606	U607		G613	CB01		0627 4628	A629	U630 U631	-	A634	A643	1044	U651	A655	G656	U657	Ceeo	U666		A669 A670	A671 A672
G673	0675 0675		A679	G683	G684 A 205	U686	C687	0689 U689	G690	G691	4692 A693	G694	C695	6697	0698	ט ט	G	5 5	0 13	υ:	<u>ں</u> د	0	5 0	00	5 5	Ð	A G	5	ບບ	Å	5 0	р.	C A	0 0	5 5	U U	C730	U732	C733 C734	C735 C736
G737	C738 C739	U	C II	n	G744	C746	U747	0749 U749	C750	G751	G753	5 1	υι	0 0	υι	מכ	C	5 ⊲	n	5 0	n c	0:	0 11	Å	5 5	n	G A	IJ	D U	n	0 0	o a	G C785	G786	G787 G788	G789	C790 C791		A794 A795	<mark>6796</mark> C797
A7 98	U7 99 U800		A810 A811	A812	A813	U815	40 10	A010	G821	U822	1823	<mark>4830</mark>		C835	G836	Ro3/ G838	<mark>C839</mark>	C840 C841	C842	<mark>C843</mark>	A847	<mark>U848</mark>			A864 A865		A869 A870		G873 G874	A875	C876 C877	<mark>G878</mark>	6880	G881	U882 U883		U887 U888	U889	0890 G891	U892 U893
894	895 896	897	898	006	901 000	903	90 4	0 07	806	606	913	914	17	918	919	921 •		930	93 <mark>3</mark>	93 <u>4</u>	<mark>930</mark>		943	952	953 954	955	956 957	958	961	962 262	964 964	965	9 <mark>7</mark> 0	971	972 973		978 979	080	981	990 991
ë	ö ö	B		5 Ŭ	88	. W	AS	ë	A:	ö	AS	ň		5 B	A	4 8		ຍັ 	ë	ë	Б		5	ë 	U H	A	S A	ë	ö	AS	A	ö			C A		8 C	A	A	GG AS
A992	A996		666D	U1002	V 1000	ODDT W	U1016		U1022	A1023	A1027	A1028	G1029	G1041	A1042	G1043 G1044		A1052	C1057	A1058	41059 A1060	U1061		G1068	G1076		U1081 A1082	A1083	A1084 C1085	G1086	A108/ U1088		01110	A1113	U1114 U1115	C1116	C1117 C1118	A1119	01120	G1126
G1134	C1138	C1139	A11/8	A1149	A1150	C1 153	U1154	01155 U1156	G1157	00110		A1170	61171 11172	4 1110	G1175	C1180	A1181	111 186	00110	A1194	CATT	G1198	41208	A1209	G1210 G1211	G1212	C1213 A1214	C1215	C1216 A1217		61224	C1231	01238	U1239	A1240 A1241	U1242	111 248	C1249	A1250 A1251	C1252 A1253
-	G1256 G1257	A1258	A1259 A1260	00714	C1264	00714	C1268	G1270	C1271	7 0 7 7	G1275 G1275	A1276	C1277	G1280	G1281	A1 202 C1 283	A1284	A1 287	01288	U1289	61 290 A1 291	C1292	A1293 C1294	A1295	U1296 111297	G1298	A1299 U1300	A1301	G1302 C1303	U1304	01305 01306	U1307	01308 C1309	U1310	C1311 61312	A1313	U1314 U1315	C1316	C1317 G1318	G1321
31322	11323 11324		31330 1331	A1332	1007		21341	11342 11343		C1363		J1371	J1372		A1378	A1383		11393	41396	11397		11404	41405 1406	J1407	01408 01409	31410	31411 21412	31413	41414 C1415	<mark>01416</mark>		C1419		3 <mark>1423</mark>	31424 31425	J1426	01427 11428		1431 11432	<mark>31433</mark> 31434
35	36	38		2	48	D H	53	0 4 55	56	57 57	QQ	63 63	64	88	-	17 72	73	75 75	20 20	<u>-11</u>	80	81	84		88	68	<mark>06</mark>	<u>8</u> 3	94 95	96	28 88 88	ļ	<mark>م ا</mark>	07	80 80	10	1 5	13	15	50
C14.	C14: C14:	A14.	111		A14		C14(A14. A141	G14	U14:	614.	U14	C14	C14		C14 C14	G14	A14	A141	U14	A148	G14	4145		A14, C148	A14	G14:	C14	014: 0145	U14	G14. A149			G150	A150 U150	G15.	015 015	C15	G15 G15	G15
C1521	A1522 C1523	G1524	C1525 C1526	C1527	A1 501	C1532	A1533	01535 01535	G1536	A1537	01538 01539	G1540	111 EAS	C1544	A1545	07070	G1550	01551 01552	C1553	C1554	01555 A1556	C1557	C1 558	G1567	C1568 A1569	G1570	G1573	C1574	G1575	A1579	A1580 C1581		01585 01586	G1587	A1588 A1589		G1598 U1599	G1600	G1603	A1614
-	U1621 U1622	A1623	U1624	C1626	C1 636	A1637	G1638	41639 A1640		C1644	G1648		A1651	U1653	G1654	00010	C1660	A1661 II1662	A1663	A1664	C0015	A1679	G1680	G1686	C1687 C1688	C1689	U1690	U1694	A1695 C1696	A1697	C1 09 8	U1714	A1719	U1720	01721 61722		U1729 U1730		A1735 G1736	G1737

































• Molecule 26: 40S ribosomal protein S5 15% Chain F3: 85% 9% 6% MET THR GLU GLU GLU ALA ALA \bullet Molecule 26: 40S ribosomal protein S5 14% Chain F4: 85% 9% 6% MET TTHR GLU GLU GLU GLU GLU GLU ALA ALA ALA ALA ALA ALA • Molecule 26: 40S ribosomal protein S5 29% Chain F5: 85% 6% 9% MET THR GLU GLU GLU GLU GLU THR ALA ALA ALA PRO • Molecule 26: 40S ribosomal protein S5 10% Chain F6: 85% 9% 6% MET THR GLU TRP GLU THR ALA ALA ALA PRO ALA ALA VAL • Molecule 27: 40S ribosomal protein S7 13% Chain H1: 88% 9%









• Molecule 29: 40S ribosomal protein S10








SER SER ARG PHE ILEU LEU LYS









• Molecule 34: 40S ribosomal protein S18



Chain S5:	89%	5% 69	6
MET SER L3 SER L3 L3 F4 F7 F7 F14 N19 M19 M71	Kilf Kilf H125 F126 F126 C129 C129 C129 C129 C143 C143 C144 C12 C128 C144 C144 C144 C144 C144 C144 C144 C14		
• Molecule 34: 40S r	ibosomal protein S18		
Chain S6:	89%	5% 69	6
MET SER 13 15 15 15 16 115 130 149 130	ISO M71 M71 M71 M71 K115 K115 K115 K115 T115 G143 G143 G143 G144 G143 G144 C145 C145 C145 C145 C145 C145 C145 C	2	
• Molecule 35: 60S r	ibosomal protein L41		
Chain j1:	68%	32%	-
M1 R2 K4 W5 W5 M10 R11 R11 R11 R11 R19 M20 R21	2 2 2		
• Molecule 35: 60S r	ibosomal protein L41		
Chain j2:	68%	32%	-
M1 R2 A3 A3 A3 M1 W5 M10 R11 K16 K19 M20 M20 R21	22 22		
• Molecule 35: 60S r	ibosomal protein L41		
Chain j3:	68%	32%	-
M1 R2 A3 K4 W5 W5 M10 M10 K11 K16 K16 K19 M20 R21			
• Molecule 35: 60S r	ibosomal protein L41		
Chain j4:	72%	28%	-
M1 K4 W5 M10 M10 M110 M20 M20 M20 M20 M20 M20	8 22 A 22 A 25 5 5		
• Molecule 35: 60S r	ibosomal protein L41		
Chain j5:	68%	32%	-
M1 R2 A3 K4 K4 W5 W6 M10 K11 K11 K16 K16 K19 M20 M21	22 22		
• Molecule 35: 60S r	ibosomal protein L41		

R L D W I D E PDB TEIN DATA BANK

Chain j6:	68%	32%
M1 R2 K4 W5 W5 M10 R11 R11	K19 K21 K25 K25	
• Molecule 36:	Malignant T-cell-amplified sequence 1	
Chain k1:	96%	
M1 161 161 162 163 163 193 193	495 497 1102 1111 1111 1111 1111 1111 1111 111	
• Molecule 36:	Malignant T-cell-amplified sequence 1	
Chain k2:	95%	• •
M1 192 193 194 195 195 195 1167 1167	K176 K176 K177 K178	
• Molecule 36:	Malignant T-cell-amplified sequence 1	
Chain k3:	97%	• •
M1 095 0144 1168 1168 1169 1170 N171	1180 K181	
• Molecule 36:	Malignant T-cell-amplified sequence 1	
Chain k4:	96%	•
M1 192 192 192 191 1111 1111 1111 1111	C1 44 E1 55 K1 57 K1 57 K1 59 F1 64 F1 65 F1 65 F1 65 F1 65 F1 65 F1 65 F1 75 F1 65 F1 75 F1 65 F1 75 F1 65 F1 75 F1 65 F1 75 F1 65 F1 75 F1 75	
• Molecule 36:	Malignant T-cell-amplified sequence 1	
Chain k5:	96%	•••
M1 L40 I43 M44 L62 L62 L62 L62 C65	43 1111 1111 1111 1111 1111 1116 1116 1116 1116 1116 1116 1116 1116 1116 1116 1116 1116 1116 1116 1116 1116 11111 11111 11111 11111 11111 11111 11111 11111 11111 11111	
• Molecule 36:	Malignant T-cell-amplified sequence 1	
Chain k6:	97%	•••
M1 192 193 194 195 195 1102 1102 1102	V105 N109 N109 N109 N109 N109 N109 N109 N109	

• Molecule 37: Density-regulated protein



Chain l1:	29%	10% •	60%
MET ALA ALA ASP ASP ILE SER SER SER SER SER SER	ALA ASP CYS CYS GLY ASP PRO ASP ASN SER ALA	LEVS ASP ALA ASP ALA ASP TSP ALA ASP ASP ASP CSS CSS SSR SSR SSR SSR SSR SSR	PR0 GLU THR GLU TTR CVS GLU TTR PR0 ASP ASP CVS CVS CVS GLN TRP TRP CVS GLN CVS GLN CVS GLN CVS CVS CVS CVS CVS CVS CVS CVS CVS CVS
			••••
PHE PRO ASN ASN GLU PHE ALA LLV LLVS LLVS LLVS VAL	ALU SER PRO PRO GLN GLN GLN GLN GLY SER SER	GLN GLN GLN GLN GLN GLN GLN CLU CLU CLV CLU CLV CLV CLV CLV CLV CLV CLV CLV CLV CLV	CLY CLY CLN CLN CLN CLN CLN CLN CLN CLN CLN CLN
K125 C132 D139 D139 Q150 K151	1122 1123 1154 1154 1155 1167 1175 1175 1175 1175	E1 84 V1 85 D1 86 D1 86 D1 87 D1 86 D1 87 D1 87 D1 86 D1 87 D1 86 D1 86 D1 87 D1 86 D1 87 D1 86 D1 86 D1 87 D1 86 D1 87 D1 86 D1 87 D1 86 D1 87 D1 87 D1 86 D1 87 D1 86 D1 87 D1 87	
• Molecule 37:	Density-regula	ated protein	
Chain 12:	29%	10% •	60%
MET ALA ALA ALA ASP ILE SER SER SER SER SER SER	ALA CYS CYS CYS CYS CYS GLY GLY ASP PRO ASR SER SER	LEU ASP ALA ALA ALA ASP TYR ASP TYR CYS CYS GLY CYS SER CYS SER LEU	PR0 GLU GLU CVS CVS CVS CVS CVS ASP ASP ASP ASP CVS ASP CVS CVS CVS CVS CVS CVS CVS CVS CVS CVS
PHE PRO ASN GLU GLU CLU LEU THR THR THR	ALU ASN PRO PRO CLY GLU GLU GLU GLU TLE SER SER	GLV GLY GLN THR GLN GLV GLU GLU GLU GLU CVS GLU GLV GLV GLV GLV GLV GLV	GLY ARG GLN GLN GLN CLN CLN CLNS CLNS CLNS CLNS CLNS CLNS
1125 1139 1140 1140	2 2 2 3 3 7 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		20 00
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ASS CALLER CALLE	LT LT
Molecule 37:	: Density-regula	ated protein	
• Molecule 37: Chain 13:	Density-regula	ated protein	60%
• Molecule 37: Chain 13:	29%		PR0 THR GUU TTR TTR TTR MET MET MET ASP ASP ASS ASS ASS ASS ASS ASS ASS ASS
Molecule 37: 109 Chain 13: E Y Y Y Y Y Y	Density-regula Density-regula 29% 29% Start S		dLY PRO ANG THR PRO ANG THR 0LN 0LN 0LN 0LN 0LN 0LN 0LN 0LN 0LN 0LN
Molecule 37: Molecule 37: Chain 13: We shall be shall b	Mill Mill <th< td=""><td>1175 1176 1176 1176 10% • 10% • 10% • 10% • 10% • 10% • 10% • 10% • 10% • 10% • 10% • 10% • 10% • 10% • 10% • 10% • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180</td><td>LEU GLY ARG CI PRO GLY CI MRG CI THR VAL CI MRG CI THR UVL CI MRG CI MRG CI MRG CI MRG LYS CI MRG CI MRG CI MRG LYS CI MRG CI MRG LYS MRG CI MRG LYS MRG CI MRG THR ARG CI MRG MI11 CI MRG</td></th<>	1175 1176 1176 1176 10% • 10% • 10% • 10% • 10% • 10% • 10% • 10% • 10% • 10% • 10% • 10% • 10% • 10% • 10% • 10% • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180 • 1180	LEU GLY ARG CI PRO GLY CI MRG CI THR VAL CI MRG CI THR UVL CI MRG CI MRG CI MRG CI MRG LYS CI MRG CI MRG CI MRG LYS CI MRG CI MRG LYS MRG CI MRG LYS MRG CI MRG THR ARG CI MRG MI11 CI MRG
Molecule 37: 109 Chain 13: W Y Y Y Y H H H H H H H H H H H H H	29% 2		LEU GLY PRO GLY ARG CUN GLN VAL CLN VAL CLN VAL CLN UVAL GLN VAL GLN V
Molecule 37: 109 Chain 13: E	29% 29%	ated protein 10% • Stated protein 10% •	900 60.7 60.7 60.7 60.7 70.0 60.7 70.0 60.7 70.0 60.7 70.0 7
 Molecule 37: 109 Chain 13: X X X X X X X X X X X X X X X X X X X	29% 29%		PR0 LLBU CL17 PR0 TTRR 0.017 0.017 0.017 TTRR 0.017 0.017 0.017 TTRR 0.017 0.017 0.017 MRT 0.017 0.017 0.017 MRT 0.017 0.017 0.017 MRT 0.017 0.017 0.014 MRT 0.011 0.017 0.014 MRT 0.011 0.014 0.014 MRT 0.014 0.014







4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants	334.67Å 597.13Å 336.50Å	Deneriter
a, b, c, α , β , γ	90.00° 120.29° 90.00°	Depositor
Bosolution (Å)	116.93 - 6.00	Depositor
Resolution (A)	116.93 - 5.00	EDS
% Data completeness	99.3 (116.93-6.00)	Depositor
(in resolution range)	$80.5\ (116.93-5.00)$	EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) > 1$	$1.00 (at 5.12 \text{\AA})$	Xtriage
Refinement program	PHENIX 1.8.2_1309	Depositor
D D	0.323 , 0.321	Depositor
κ, κ_{free}	0.322 , 0.319	DCC
R_{free} test set	19868 reflections (5.04%)	wwPDB-VP
Wilson B-factor $(Å^2)$	278.9	Xtriage
Anisotropy	0.061	Xtriage
Bulk solvent $k_{sol}(e/Å^3), B_{sol}(Å^2)$	0.21 , -31.6	EDS
L-test for $twinning^2$	$< L > = 0.33, < L^2 > = 0.17$	Xtriage
	0.094 for -h-l,k,h	
	0.094 for l,k,-h-l	
Estimated twinning fraction	0.099 for l,-k,h	Xtriage
	0.097 for h,-k,-h-l	
	0.118 for -h-l,-k,l	
F_o, F_c correlation	0.92	EDS
Total number of atoms	470574	wwPDB-VP
Average B, all atoms $(Å^2)$	204.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: The largest off-origin peak in the Patterson function is 1.47% of the height of the origin peak. No significant pseudotranslation is detected.

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.



¹Intensities estimated from amplitudes.

5 Model quality (i)

5.1 Standard geometry (i)

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

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	
	Unam	RMSZ	# Z > 5	RMSZ	# Z > 5
1	T1	0.26	0/1131	0.48	0/1515
1	Τ2	0.26	0/1131	0.48	0/1515
1	Τ3	0.26	0/1131	0.48	0/1515
1	T4	0.26	0/1131	0.48	0/1515
1	T5	0.26	0/1131	0.48	0/1515
1	T6	0.26	0/1131	0.48	0/1515
2	U1	0.29	0/831	0.55	0/1115
2	U2	0.29	0/831	0.55	0/1115
2	U3	0.29	0/831	0.56	0/1115
2	U4	0.28	0/831	0.56	0/1115
2	U5	0.29	0/831	0.56	0/1115
2	U6	0.29	0/831	0.56	0/1115
3	V1	0.27	0/643	0.44	0/860
3	V2	0.27	0/643	0.45	0/860
3	V3	0.27	0/643	0.45	0/860
3	V4	0.27	0/643	0.45	0/860
3	V5	0.26	0/643	0.45	0/860
3	V6	0.27	0/643	0.45	0/860
4	X1	0.30	0/1116	0.48	0/1490
4	X2	0.30	0/1116	0.48	0/1490
4	X3	0.30	0/1116	0.47	0/1490
4	X4	0.30	0/1116	0.48	0/1490
4	X5	0.30	0/1116	0.48	0/1490
4	X6	0.30	0/1116	0.48	0/1490
5	a1	0.49	0/863	0.65	3/1159~(0.3%)
5	a2	0.50	0/863	0.65	3/1159~(0.3%)
5	a3	0.49	0/863	0.65	3/1159~(0.3%)
5	a4	0.50	0/863	0.65	3/1159~(0.3%)
5	a5	0.50	0/863	0.65	3/1159~(0.3%)
5	a6	0.49	0/863	0.65	3/1159~(0.3%)
6	c1	0.26	0/508	0.51	0/680
6	c2	0.26	0/508	0.51	0/680



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261	G 1 ·	Bond lengths		Bond angles		
Mol	Chain	RMSZ	# Z > 5	RMSZ	# Z > 5	
6	c3	0.27	0/508	0.51	0/680	
6	c4	0.27	0/508	0.51	0/680	
6	c5	0.26	0/508	0.51	0/680	
6	c6	0.26	0/508	0.51	0/680	
7	d1	0.27	0/455	0.42	0/603	
7	d2	0.27	0/455	0.42	0/603	
7	d3	0.27	0/455	0.42	0/603	
7	d4	0.27	0/455	0.42	0/603	
7	d5	0.27	0/455	0.42	0/603	
7	d6	0.28	0/455	0.42	0/603	
8	f1	0.27	0/595	0.43	0/785	
8	f2	0.27	0/595	0.43	0/785	
8	f3	0.27	0/595	0.43	0/785	
8	f4	0.27	0/595	0.43	0/785	
8	f5	0.26	0/595	0.43	0/785	
8	f6	0.27	0/595	0.43	0/785	
9	g1	0.25	0/2493	0.50	0/3394	
9	g2	0.25	0/2493	0.50	0/3394	
9	g3	0.25	0/2493	0.50	0/3394	
9	g4	0.25	0/2493	0.50	0/3394	
9	g5	0.25	0/2493	0.50	0/3394	
9	g6	0.25	0/2493	0.50	0/3394	
10	C1	0.29	0/1762	0.48	0/2381	
10	C2	0.29	0/1762	0.48	0/2381	
10	C3	0.29	0/1762	0.48	0/2381	
10	C4	0.29	0/1762	0.48	0/2381	
10	C5	0.29	0/1762	0.48	0/2381	
10	C6	0.29	0/1762	0.48	0/2381	
11	G1	0.26	0/1946	0.49	0/2590	
11	G2	0.26	0/1946	0.49	0/2590	
11	G3	0.26	0/1946	0.49	0/2590	
11	G4	0.26	0/1946	0.49	0/2590	
11	G5	0.26	0/1946	0.49	0/2590	
11	G6	0.26	0/1946	0.49	0/2590	
12	J1	0.27	0/1550	0.47	$0/2\overline{069}$	
12	J2	0.27	$\overline{0/1550}$	0.47	0/2069	
12	J3	0.27	0/1550	0.47	0/2069	
12	J4	0.27	0/1550	0.48	$\overline{0/2069}$	
12	J5	0.27	0/1550	0.48	0/2069	
12	J6	0.27	0/1550	0.48	$0/2\overline{069}$	
13	M1	0.33	$0/96\overline{3}$	0.49	$0\overline{/1291}$	
13	M2	0.33	0/963	0.49	0/1291	
13	M3	0.33	0/963	0.48	0/1291	



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	<u> </u>	Bond lengths		Bond angles		
IVI01	Chain	RMSZ	# Z > 5	RMSZ	# Z > 5	
13	M4	0.33	0/963	0.49	0/1291	
13	M5	0.33	0/963	0.49	0/1291	
13	M6	0.33	0/963	0.49	0/1291	
14	N1	0.30	0/1232	0.47	0/1656	
14	N2	0.30	0/1232	0.47	0/1656	
14	N3	0.29	0/1232	0.46	0/1656	
14	N4	0.30	0/1232	0.47	0/1656	
14	N5	0.29	0/1232	0.46	0/1656	
14	N6	0.29	0/1232	0.47	0/1656	
15	01	0.30	0/1062	0.58	1/1425~(0.1%)	
15	O2	0.30	0/1062	0.58	1/1425~(0.1%)	
15	O3	0.30	0/1062	0.58	1/1425 (0.1%)	
15	O4	0.30	0/1062	0.58	1/1425~(0.1%)	
15	O5	0.30	0/1062	0.58	1/1425~(0.1%)	
15	O6	0.30	0/1062	0.58	1/1425~(0.1%)	
16	W1	0.30	0/1051	0.52	0/1406	
16	W2	0.30	0/1051	0.52	0/1406	
16	W3	0.30	0/1051	0.52	0/1406	
16	W4	0.30	0/1051	0.52	0/1406	
16	W5	0.30	0/1051	0.52	0/1406	
16	W6	0.30	0/1051	0.52	0/1406	
17	Y1	0.27	0/1083	0.47	0/1438	
17	Y2	0.27	0/1083	0.47	0/1438	
17	Y3	0.27	0/1083	0.47	0/1438	
17	Y4	0.27	0/1083	0.47	0/1438	
17	Y5	0.27	0/1083	0.47	0/1438	
17	Y6	0.26	0/1083	0.47	0/1438	
18	Z1	0.26	0/604	0.55	0/810	
18	Z2	0.27	0/604	0.55	0/810	
18	Z3	0.26	0/604	0.55	0/810	
18	Z4	0.26	0/604	0.55	0/810	
18	Z5	0.26	0/604	0.55	0/810	
18	Z6	0.27	0/604	0.55	0/810	
19	b1	0.27	0/665	0.66	1/891~(0.1%)	
19	b2	0.28	0/665	0.51	0/891	
19	b3	0.28	0/665	0.51	0/891	
19	b4	0.27	0/665	0.71	1/891~(0.1%)	
19	b5	0.28	0/665	0.51	0/891	
19	b6	0.28	0/665	0.51	0/891	
20	e1	0.25	0/465	0.86	1/612~(0.2%)	
20	e2	0.33	0/465	0.48	1/612~(0.2%)	
20	e3	0.33	0/465	0.50	1/612~(0.2%)	
$2\overline{0}$	e4	0.32	$0/\overline{465}$	0.47	1/612 (0.2%)	



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	CI ·	Bond lengths		Bond angles		
NIOI	Chain	RMSZ	# Z > 5	RMSZ	# Z > 5	
20	e5	0.24	0/465	0.40	0/612	
20	e6	0.33	0/465	0.50	1/612~(0.2%)	
21	i1	0.37	1/41243 (0.0%)	0.78	14/64257 (0.0%)	
21	i2	0.37	0/41242	0.77	11/64253 (0.0%)	
21	i3	0.38	0/41242	0.77	9/64253 (0.0%)	
21	i4	0.39	1/41243 (0.0%)	0.78	14/64257 (0.0%)	
21	i5	0.44	1/41243 (0.0%)	0.78	14/64257 (0.0%)	
21	i6	0.42	1/41243 (0.0%)	0.78	15/64257 (0.0%)	
22	A1	0.26	0/1784	0.49	0/2424	
22	A2	0.26	0/1784	0.48	0/2424	
22	A3	0.27	0/1784	0.49	0/2424	
22	A4	0.26	0/1784	0.49	0/2424	
22	A5	0.27	0/1784	0.49	0/2424	
22	A6	0.27	0/1784	0.49	0/2424	
23	B1	0.29	0/1765	0.52	0/2362	
23	B2	0.29	0/1765	0.53	0/2362	
23	B3	0.29	0/1765	0.53	0/2362	
23	B4	0.29	0/1765	0.53	0/2362	
23	B5	0.29	0/1765	0.53	0/2362	
23	B6	0.29	0/1765	0.52	0/2362	
24	D1	0.27	0/1793	0.49	0/2414	
24	D2	0.27	0/1793	0.49	0/2414	
24	D3	0.27	0/1793	0.50	0/2414	
24	D4	0.27	0/1793	0.50	0/2414	
24	D5	0.27	0/1793	0.50	0/2414	
24	D6	0.28	0/1793	0.50	0/2414	
25	E1	0.27	0/2118	0.53	1/2849~(0.0%)	
25	E2	0.27	0/2118	0.53	1/2849~(0.0%)	
25	E3	0.27	0/2118	0.53	1/2849~(0.0%)	
25	E4	0.27	0/2118	0.53	1/2849~(0.0%)	
25	E5	0.27	0/2118	0.53	1/2849~(0.0%)	
25	E6	0.27	0/2118	0.53	1/2849~(0.0%)	
26	F1	0.28	0/1531	0.50	0/2059	
26	F2	0.28	0/1531	0.50	0/2059	
26	F3	0.28	0/1531	0.50	0/2059	
26	F4	0.28	0/1531	0.50	0/2059	
26	F5	0.28	0/1531	0.50	0/2059	
26	F6	0.27	0/1531	0.50	0/2059	
27	H1	$0.2\overline{7}$	$0/154\overline{4}$	0.50	0/2068	
27	H2	0.27	0/1544	0.50	0/2068	
27	H3	$0.2\overline{7}$	$0/154\overline{4}$	$0.5\overline{0}$	0/2068	
27	H4	0.27	0/1544	0.50	0/2068	
27	H5	0.27	0/1544	0.51	0/2068	



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	<u> </u>	Bo	ond lengths	Bond angles	
NIOI	Chain	RMSZ	# Z > 5	RMSZ	# Z > 5
27	H6	0.26	0/1544	0.50	0/2068
28	I1	0.28	0/1715	0.48	0/2287
28	I2	0.28	0/1715	0.49	0/2287
28	I3	0.28	0/1715	0.48	0/2287
28	I4	0.28	0/1715	0.48	0/2287
28	I5	0.28	0/1715	0.49	0/2287
28	I6	0.28	0/1715	0.48	0/2287
29	K1	0.27	0/851	0.49	0/1147
29	K2	0.28	0/851	0.49	0/1147
29	K3	0.28	0/851	0.49	0/1147
29	K4	0.28	0/851	0.49	0/1147
29	K5	0.28	0/851	0.49	0/1147
29	K6	0.28	0/851	0.49	0/1147
30	L1	0.30	0/1268	0.51	1/1696~(0.1%)
30	L2	0.30	0/1268	0.51	1/1696 (0.1%)
30	L3	0.30	0/1268	0.51	1/1696~(0.1%)
30	L4	0.30	0/1268	0.51	1/1696~(0.1%)
30	L5	0.30	0/1268	0.51	1/1696 (0.1%)
30	L6	0.30	0/1268	0.51	1/1696 (0.1%)
31	P1	0.28	0/1053	0.44	1/1406 (0.1%)
31	P2	0.28	0/1053	0.44	$1/1406 \ (0.1\%)$
31	P3	0.28	0/1053	0.44	1/1406~(0.1%)
31	P4	0.28	0/1053	0.44	1/1406~(0.1%)
31	P5	0.27	0/1053	0.44	1/1406~(0.1%)
31	P6	0.28	0/1053	0.44	1/1406~(0.1%)
32	Q1	0.33	0/1177	0.50	0/1575
32	Q2	0.33	0/1177	0.50	0/1575
32	Q3	0.33	0/1177	0.51	0/1575
32	Q4	0.33	0/1177	0.51	0/1575
32	Q5	0.33	0/1177	0.50	0/1575
32	Q6	0.33	0/1177	0.51	0/1575
33	R1	0.27	0/1086	0.56	0/1457
33	R2	0.27	0/1086	0.56	0/1457
33	R3	0.27	0/1086	0.56	0/1457
33	R4	0.27	0/1086	0.55	0/1457
33	R5	0.27	0/1086	0.56	0/1457
33	R6	0.27	0/1086	0.56	0/1457
34	S1	0.36	0/1202	0.52	$\overline{1/1610}$ (0.1%)
34	S2	0.36	0/1202	0.52	$1/16\overline{10}\ (0.1\%)$
34	S3	0.36	0/1202	0.52	1/1610~(0.1%)
34	S4	0.36	0/1202	0.52	$\overline{1/1610}$ (0.1%)
34	S5	0.36	0/1202	0.53	$1/1610 \ (0.1\%)$
34	$\mathbf{S6}$	0.36	$0/1\overline{202}$	0.52	1/1610 (0.1%)



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Mal	Chain	Bo	ond lengths	I	Bond angles
	Ullalli	RMSZ	# Z > 5	RMSZ	# Z > 5
35	j1	0.19	0/240	0.27	0/305
35	j2	0.19	0/240	0.26	0/305
35	j3	0.20	0/240	0.26	0/305
35	j4	0.19	0/240	0.26	0/305
35	j5	0.20	0/240	0.26	0/305
35	j6	0.20	0/240	0.27	0/305
36	k1	0.57	0/1455	0.60	1/1968~(0.1%)
36	k2	0.67	2/1455~(0.1%)	0.78	6/1968~(0.3%)
36	k3	0.59	0/1455	1.24	3/1968~(0.2%)
36	k4	0.58	0/1455	0.54	0/1968
36	k5	0.60	1/1455~(0.1%)	0.86	3/1968~(0.2%)
36	k6	0.58	0/1455	0.55	0/1968
37	l1	0.40	0/638	0.72	4/859~(0.5%)
37	12	0.40	0/638	0.72	4/859~(0.5%)
37	13	0.40	0/638	0.71	4/859~(0.5%)
37	l4	0.40	0/638	0.71	4/859~(0.5%)
37	15	0.40	0/638	0.72	$\overline{4/859}~(0.5\%)$
37	16	0.40	0/638	0.72	4/859~(0.5%)
All	All	0.35	7/500884~(0.0%)	0.67	169/725470~(0.0%)

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
33	R1	0	1
33	R2	0	1
33	R3	0	1
33	R4	0	1
33	R5	0	1
36	k2	0	1
36	k3	0	2
36	k5	0	1
All	All	0	9

The worst 5 of 7 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	$\operatorname{Ideal}(\operatorname{\AA})$
21	i5	1689	С	O3'-P	44.78	2.14	1.61
21	i6	1689	С	O3'-P	38.40	2.07	1.61
21	i4	1689	С	O3'-P	25.06	1.91	1.61



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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	k2	92	LEU	C-N	11.28	1.55	1.34
36	k2	93	PRO	C-N	6.37	1.48	1.34

The worst 5 of 169 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	$Observed(^{o})$	$Ideal(^{o})$
36	k3	180	TYR	O-C-N	-37.78	62.25	122.70
21	i1	1689	С	P-O3'-C3'	-30.42	83.20	119.70
36	k5	167	ILE	O-C-N	-26.56	80.21	122.70
36	k3	180	TYR	CA-C-N	25.08	172.38	117.20
21	i4	1689	С	P-O3'-C3'	-25.00	89.69	119.70

There are no chirality outliers.

5 of 9 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
33	R1	69	ILE	Peptide
33	R2	69	ILE	Peptide
33	R3	69	ILE	Peptide
33	R4	69	ILE	Peptide
33	R5	69	ILE	Peptide

5.2 Too-close contacts (i)

Due to software issues we are unable to calculate clashes - this section is therefore empty.

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	Perc	entiles
1	T1	141/145~(97%)	119 (84%)	15 (11%)	7 (5%)	2	20
1	Τ2	141/145~(97%)	119 (84%)	15 (11%)	7 (5%)	2	20



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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Perc	entiles
1	T3	141/145~(97%)	119 (84%)	16 (11%)	6 (4%)	2	22
1	T4	141/145~(97%)	119 (84%)	16 (11%)	6 (4%)	2	22
1	T5	141/145~(97%)	119 (84%)	15 (11%)	7 (5%)	2	20
1	T6	141/145~(97%)	119 (84%)	16 (11%)	6 (4%)	2	22
2	U1	102/119~(86%)	84 (82%)	12 (12%)	6 (6%)	1	17
2	U2	102/119~(86%)	84 (82%)	12 (12%)	6 (6%)	1	17
2	U3	102/119~(86%)	84 (82%)	12 (12%)	6 (6%)	1	17
2	U4	102/119~(86%)	84 (82%)	12 (12%)	6 (6%)	1	17
2	U5	102/119~(86%)	84 (82%)	12 (12%)	6 (6%)	1	17
2	U6	102/119~(86%)	84 (82%)	12 (12%)	6 (6%)	1	17
3	V1	81/83~(98%)	65 (80%)	11 (14%)	5 (6%)	1	16
3	V2	81/83~(98%)	66 (82%)	10 (12%)	5 (6%)	1	16
3	V3	81/83~(98%)	65 (80%)	11 (14%)	5 (6%)	1	16
3	V4	81/83~(98%)	65 (80%)	11 (14%)	5 (6%)	1	16
3	V5	81/83~(98%)	65 (80%)	11 (14%)	5 (6%)	1	16
3	V6	81/83~(98%)	65 (80%)	11 (14%)	5 (6%)	1	16
4	X1	139/143~(97%)	114 (82%)	12 (9%)	13 (9%)	0	10
4	X2	139/143~(97%)	114 (82%)	12 (9%)	13 (9%)	0	10
4	X3	139/143~(97%)	114 (82%)	12 (9%)	13 (9%)	0	10
4	X4	139/143~(97%)	114 (82%)	12 (9%)	13 (9%)	0	10
4	X5	139/143~(97%)	114 (82%)	12 (9%)	13 (9%)	0	10
4	X6	139/143~(97%)	114 (82%)	12 (9%)	13 (9%)	0	10
5	al	105/115~(91%)	73 (70%)	19 (18%)	13 (12%)	0	5
5	a2	105/115~(91%)	73 (70%)	19 (18%)	13 (12%)	0	5
5	a3	105/115~(91%)	73 (70%)	19 (18%)	13 (12%)	0	5
5	a4	105/115~(91%)	73 (70%)	19 (18%)	13 (12%)	0	5
5	a5	105/115~(91%)	73 (70%)	19 (18%)	13 (12%)	0	5
5	a6	105/115~(91%)	73 (70%)	19 (18%)	13 (12%)	0	5
6	c1	62/69~(90%)	47 (76%)	9 (14%)	6 (10%)	0	9
6	c2	62/69~(90%)	47 (76%)	10 (16%)	5 (8%)	1	12
6	c3	62/69~(90%)	47 (76%)	10 (16%)	5 (8%)	1	12



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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Perce	entiles
6	c4	62/69~(90%)	47 (76%)	10 (16%)	5 (8%)	1	12
6	c5	62/69~(90%)	47 (76%)	9 (14%)	6 (10%)	0	9
6	c6	62/69~(90%)	47 (76%)	10~(16%)	5(8%)	1	12
7	d1	51/56~(91%)	44 (86%)	7 (14%)	0	100	100
7	d2	51/56~(91%)	44 (86%)	7 (14%)	0	100	100
7	d3	51/56~(91%)	44 (86%)	7 (14%)	0	100	100
7	d4	51/56~(91%)	44 (86%)	7 (14%)	0	100	100
7	d5	51/56~(91%)	44 (86%)	7 (14%)	0	100	100
7	d6	51/56~(91%)	44 (86%)	7 (14%)	0	100	100
8	f1	70/156~(45%)	56 (80%)	10 (14%)	4 (6%)	1	18
8	f2	70/156~(45%)	56 (80%)	10 (14%)	4 (6%)	1	18
8	f3	70/156~(45%)	56 (80%)	10 (14%)	4 (6%)	1	18
8	f4	70/156~(45%)	57 (81%)	9 (13%)	4 (6%)	1	18
8	f5	70/156~(45%)	56 (80%)	10 (14%)	4 (6%)	1	18
8	f6	70/156~(45%)	55 (79%)	11 (16%)	4 (6%)	1	18
9	g1	311/317~(98%)	237 (76%)	58 (19%)	16 (5%)	2	19
9	g2	311/317~(98%)	236 (76%)	59 (19%)	16 (5%)	2	19
9	g3	311/317~(98%)	236 (76%)	59 (19%)	16 (5%)	2	19
9	g4	311/317~(98%)	237 (76%)	58 (19%)	16 (5%)	2	19
9	g5	311/317~(98%)	237 (76%)	58 (19%)	16 (5%)	2	19
9	g6	311/317~(98%)	236 (76%)	59~(19%)	16 (5%)	2	19
10	C1	220/293~(75%)	182 (83%)	27 (12%)	11 (5%)	2	20
10	C2	220/293~(75%)	181 (82%)	28 (13%)	11 (5%)	2	20
10	C3	220/293~(75%)	182 (83%)	27~(12%)	11 (5%)	2	20
10	C4	220/293~(75%)	182 (83%)	27 (12%)	11 (5%)	2	20
10	C5	220/293~(75%)	182 (83%)	27 (12%)	11 (5%)	2	20
10	C6	220/293~(75%)	182 (83%)	27 (12%)	11 (5%)	2	20
11	G1	$\overline{235/249}~(94\%)$	194 (83%)	25 (11%)	16 (7%)	1	15
11	G2	235/249~(94%)	195 (83%)	24 (10%)	16 (7%)	1	15
11	G3	235/249~(94%)	194 (83%)	25 (11%)	16 (7%)	1	15
11	G4	235/249~(94%)	194 (83%)	26 (11%)	15 (6%)	1	16



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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Perc	entiles
11	G5	235/249~(94%)	194 (83%)	25~(11%)	16 (7%)	1	15
11	G6	235/249~(94%)	194 (83%)	25~(11%)	16 (7%)	1	15
12	J1	183/194~(94%)	157~(86%)	16 (9%)	10 (6%)	2	19
12	J2	183/194~(94%)	157 (86%)	16 (9%)	10 (6%)	2	19
12	J3	183/194~(94%)	157~(86%)	16 (9%)	10 (6%)	2	19
12	J4	183/194~(94%)	157 (86%)	16 (9%)	10 (6%)	2	19
12	J5	183/194~(94%)	157 (86%)	16 (9%)	10 (6%)	2	19
12	J6	183/194~(94%)	157 (86%)	16 (9%)	10 (6%)	2	19
13	M1	121/132~(92%)	111 (92%)	8 (7%)	2 (2%)	9	42
13	M2	121/132~(92%)	111 (92%)	8 (7%)	2 (2%)	9	42
13	M3	121/132~(92%)	111 (92%)	8 (7%)	2 (2%)	9	42
13	M4	121/132~(92%)	111 (92%)	8 (7%)	2 (2%)	9	42
13	M5	121/132~(92%)	111 (92%)	8 (7%)	2 (2%)	9	42
13	M6	121/132~(92%)	111 (92%)	8 (7%)	2 (2%)	9	42
14	N1	148/151~(98%)	125 (84%)	14 (10%)	9 (6%)	1	16
14	N2	148/151~(98%)	125 (84%)	14 (10%)	9 (6%)	1	16
14	N3	148/151~(98%)	124 (84%)	15 (10%)	9 (6%)	1	16
14	N4	148/151~(98%)	125 (84%)	14 (10%)	9 (6%)	1	16
14	N5	148/151~(98%)	124 (84%)	15 (10%)	9 (6%)	1	16
14	N6	148/151~(98%)	125 (84%)	13 (9%)	10 (7%)	1	15
15	O1	138/151~(91%)	101 (73%)	24 (17%)	13 (9%)	0	10
15	O2	138/151~(91%)	101 (73%)	24 (17%)	13 (9%)	0	10
15	O3	138/151~(91%)	101 (73%)	24 (17%)	13 (9%)	0	10
15	O4	138/151~(91%)	101 (73%)	24 (17%)	13 (9%)	0	10
15	O5	138/151~(91%)	101 (73%)	24 (17%)	13 (9%)	0	10
15	O6	138/151~(91%)	101 (73%)	24 (17%)	13 (9%)	0	10
16	W1	127/130~(98%)	109 (86%)	13 (10%)	5 (4%)	3	23
16	W2	$\overline{127/130}\ (98\%)$	109 (86%)	13 (10%)	5 (4%)	3	23
16	W3	127/130~(98%)	108 (85%)	13 (10%)	6 (5%)	2	21
16	W4	127/130~(98%)	109 (86%)	13 (10%)	5 (4%)	3	23
16	W5	127/130~(98%)	109 (86%)	13 (10%)	5 (4%)	3	23



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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Perc	entiles
16	W6	127/130~(98%)	109 (86%)	13 (10%)	5(4%)	3	23
17	Y1	129/133~(97%)	108 (84%)	16 (12%)	5(4%)	3	23
17	Y2	129/133~(97%)	109 (84%)	15~(12%)	5(4%)	3	23
17	Y3	129/133~(97%)	109 (84%)	15~(12%)	5 (4%)	3	23
17	Y4	129/133~(97%)	109 (84%)	15~(12%)	5 (4%)	3	23
17	Y5	129/133~(97%)	109 (84%)	15~(12%)	5 (4%)	3	23
17	Y6	129/133~(97%)	108 (84%)	16 (12%)	5 (4%)	3	23
18	Z1	73/125~(58%)	54 (74%)	15 (20%)	4 (6%)	2	19
18	Z2	73/125~(58%)	54 (74%)	15 (20%)	4 (6%)	2	19
18	Z3	73/125~(58%)	54 (74%)	15 (20%)	4 (6%)	2	19
18	Z4	73/125~(58%)	54 (74%)	15~(20%)	4 (6%)	2	19
18	Z5	73/125~(58%)	54 (74%)	15 (20%)	4 (6%)	2	19
18	Z6	73/125~(58%)	54 (74%)	15 (20%)	4 (6%)	2	19
19	b1	81/84~(96%)	64 (79%)	12~(15%)	5~(6%)	1	16
19	b2	81/84~(96%)	67 (83%)	12~(15%)	2 (2%)	5	32
19	b3	81/84~(96%)	67~(83%)	11 (14%)	3 (4%)	3	25
19	b4	81/84~(96%)	65~(80%)	11 (14%)	5~(6%)	1	16
19	b5	81/84~(96%)	67~(83%)	10 (12%)	4(5%)	2	20
19	b6	81/84~(96%)	67~(83%)	12~(15%)	2(2%)	5	32
20	e1	56/133~(42%)	41 (73%)	11 (20%)	4 (7%)	1	14
20	e2	56/133~(42%)	37~(66%)	12 (21%)	7 (12%)	0	5
20	e3	56/133~(42%)	38~(68%)	12 (21%)	6 (11%)	0	8
20	e4	56/133~(42%)	35~(62%)	15~(27%)	6 (11%)	0	8
20	e5	56/133~(42%)	38~(68%)	11 (20%)	7 (12%)	0	5
20	e6	56/133~(42%)	38~(68%)	12 (21%)	6 (11%)	0	8
22	A1	220/295~(75%)	181 (82%)	31 (14%)	8 (4%)	3	25
22	A2	220/295~(75%)	180 (82%)	32 (14%)	8 (4%)	3	25
22	A3	220/295~(75%)	181 (82%)	31 (14%)	8 (4%)	3	25
22	A4	220/295~(75%)	181 (82%)	31 (14%)	8 (4%)	3	25
22	A5	220/295~(75%)	181 (82%)	31 (14%)	8 (4%)	3	25
22	A6	220/295~(75%)	181 (82%)	31 (14%)	8 (4%)	3	25



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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Perc	entiles
23	B1	212/264~(80%)	174 (82%)	31~(15%)	7 (3%)	4	26
23	B2	212/264~(80%)	174 (82%)	29~(14%)	9 (4%)	3	22
23	B3	212/264~(80%)	174 (82%)	30~(14%)	8 (4%)	3	24
23	B4	212/264~(80%)	174 (82%)	30 (14%)	8 (4%)	3	24
23	B5	212/264~(80%)	174 (82%)	30~(14%)	8 (4%)	3	24
23	B6	212/264~(80%)	174 (82%)	31~(15%)	7 (3%)	4	26
24	D1	225/243~(93%)	183 (81%)	24 (11%)	18 (8%)	1	12
24	D2	225/243~(93%)	183 (81%)	24 (11%)	18 (8%)	1	12
24	D3	225/243~(93%)	183 (81%)	24 (11%)	18 (8%)	1	12
24	D4	225/243~(93%)	183 (81%)	24 (11%)	18 (8%)	1	12
24	D5	225/243~(93%)	183 (81%)	24 (11%)	18 (8%)	1	12
24	D6	225/243~(93%)	183 (81%)	24 (11%)	18 (8%)	1	12
25	E1	260/263~(99%)	215 (83%)	30 (12%)	15 (6%)	1	17
25	E2	260/263~(99%)	215 (83%)	30 (12%)	15 (6%)	1	17
25	E3	260/263~(99%)	215 (83%)	30 (12%)	15 (6%)	1	17
25	E4	260/263~(99%)	215 (83%)	30 (12%)	15 (6%)	1	17
25	E5	260/263~(99%)	215 (83%)	30 (12%)	15 (6%)	1	17
25	E6	260/263~(99%)	215 (83%)	30 (12%)	15 (6%)	1	17
26	F1	189/204~(93%)	144 (76%)	30 (16%)	15 (8%)	1	12
26	F2	189/204~(93%)	144 (76%)	30 (16%)	15 (8%)	1	12
26	F3	189/204~(93%)	144 (76%)	30 (16%)	15 (8%)	1	12
26	F4	189/204~(93%)	144 (76%)	30 (16%)	15 (8%)	1	12
26	F5	189/204~(93%)	144 (76%)	30 (16%)	15 (8%)	1	12
26	F6	189/204~(93%)	144 (76%)	30 (16%)	15 (8%)	1	12
27	H1	187/194~(96%)	145 (78%)	28 (15%)	14 (8%)	1	13
27	H2	187/194~(96%)	145 (78%)	28 (15%)	14 (8%)	1	13
27	H3	187/194~(96%)	145 (78%)	28 (15%)	14 (8%)	1	13
27	H4	$\overline{187/194}\ (96\%)$	146 (78%)	27 (14%)	14 (8%)	1	13
27	H5	187/194~(96%)	146 (78%)	27 (14%)	14 (8%)	1	13
27	H6	187/194 (96%)	146 (78%)	27 (14%)	14 (8%)	1	13
28	I1	204/208~(98%)	168 (82%)	24 (12%)	12 (6%)	1	17



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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Perc	entil	es
28	I2	204/208~(98%)	168 (82%)	24~(12%)	12~(6%)	1	17	
28	I3	204/208~(98%)	168~(82%)	24~(12%)	12 (6%)	1	17	
28	I4	204/208~(98%)	168 (82%)	24~(12%)	12~(6%)	1	17	
28	I5	204/208~(98%)	168 (82%)	24 (12%)	12 (6%)	1	17	
28	I6	204/208~(98%)	168 (82%)	24 (12%)	12 (6%)	1	17	
29	K1	96/165~(58%)	76 (79%)	15 (16%)	5 (5%)	2	19	
29	K2	96/165~(58%)	76~(79%)	15 (16%)	5 (5%)	2	19	
29	K3	96/165~(58%)	76 (79%)	15 (16%)	5 (5%)	2	19	
29	K4	96/165~(58%)	76 (79%)	15 (16%)	5 (5%)	2	19	
29	K5	96/165~(58%)	76 (79%)	15 (16%)	5 (5%)	2	19	
29	K6	96/165~(58%)	76 (79%)	15 (16%)	5 (5%)	2	19	
30	L1	151/158~(96%)	129 (85%)	11 (7%)	11 (7%)	1	13	
30	L2	151/158~(96%)	125~(83%)	15~(10%)	11 (7%)	1	13	
30	L3	151/158~(96%)	128~(85%)	14 (9%)	9 (6%)	1	16	
30	L4	151/158~(96%)	127~(84%)	13 (9%)	11 (7%)	1	13	
30	L5	151/158~(96%)	128 (85%)	14 (9%)	9 (6%)	1	16	
30	L6	151/158~(96%)	126~(83%)	15~(10%)	10 (7%)	1	15	
31	P1	123/145~(85%)	111 (90%)	6~(5%)	6 (5%)	2	20	
31	P2	123/145~(85%)	111~(90%)	6~(5%)	6 (5%)	2	20	
31	P3	123/145~(85%)	108 (88%)	11 (9%)	4 (3%)	4	26	
31	P4	123/145~(85%)	111 (90%)	6 (5%)	6 (5%)	2	20	
31	P5	123/145~(85%)	112 (91%)	6~(5%)	5(4%)	3	22	
31	P6	123/145~(85%)	111~(90%)	6~(5%)	6 (5%)	2	20	
32	Q1	144/146~(99%)	112 (78%)	22~(15%)	10 (7%)	1	14	
32	Q2	144/146~(99%)	112 (78%)	22~(15%)	10 (7%)	1	14	
32	Q3	144/146~(99%)	112 (78%)	22~(15%)	10 (7%)	1	14	
32	Q4	144/146~(99%)	112 (78%)	22~(15%)	10 (7%)	1	14	
32	Q5	144/146~(99%)	112 (78%)	22 (15%)	10 (7%)	1	14	
32	Q6	144/146~(99%)	112 (78%)	22~(15%)	10 (7%)	1	14	
33	R1	130/135~(96%)	94 (72%)	25 (19%)	11 (8%)	1	11	
33	R2	130/135~(96%)	95 (73%)	22 (17%)	13 (10%)	0	9	



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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Perce	entiles
33	R3	130/135~(96%)	95~(73%)	24 (18%)	11 (8%)	1	11
33	R4	130/135~(96%)	97~(75%)	23~(18%)	10 (8%)	1	13
33	R5	130/135~(96%)	93~(72%)	26 (20%)	11 (8%)	1	11
33	R6	130/135~(96%)	93 (72%)	27 (21%)	10 (8%)	1	13
34	S1	141/152~(93%)	135 (96%)	6 (4%)	0	100	100
34	S2	141/152~(93%)	135 (96%)	6 (4%)	0	100	100
34	S3	141/152~(93%)	135 (96%)	6 (4%)	0	100	100
34	S4	141/152~(93%)	135 (96%)	6 (4%)	0	100	100
34	S5	141/152~(93%)	135 (96%)	6 (4%)	0	100	100
34	S6	141/152~(93%)	135 (96%)	6 (4%)	0	100	100
35	j1	23/25~(92%)	23 (100%)	0	0	100	100
35	j2	23/25~(92%)	23 (100%)	0	0	100	100
35	j3	23/25~(92%)	23 (100%)	0	0	100	100
35	j4	23/25~(92%)	23 (100%)	0	0	100	100
35	j5	23/25~(92%)	23 (100%)	0	0	100	100
35	j6	23/25~(92%)	23~(100%)	0	0	100	100
36	k1	179/181~(99%)	162 (90%)	13 (7%)	4(2%)	6	35
36	k2	179/181~(99%)	161 (90%)	16 (9%)	2(1%)	14	52
36	k3	179/181~(99%)	164 (92%)	14 (8%)	1 (1%)	25	66
36	k4	179/181~(99%)	160 (89%)	17 (10%)	2(1%)	14	52
36	k5	179/181~(99%)	164 (92%)	13 (7%)	2 (1%)	14	52
36	k6	179/181~(99%)	164 (92%)	13 (7%)	2 (1%)	14	52
37	l1	77/198~(39%)	44 (57%)	24 (31%)	9 (12%)	0	6
37	12	77/198~(39%)	44 (57%)	24 (31%)	9 (12%)	0	6
37	13	77/198~(39%)	44 (57%)	24 (31%)	9 (12%)	0	6
37	l4	77/198~(39%)	44 (57%)	24 (31%)	9 (12%)	0	6
37	15	77/198~(39%)	44 (57%)	24 (31%)	9 (12%)	0	6
37	16	77/198~(39%)	44 (57%)	24 (31%)	9 (12%)	0	6
All	All	$30\overline{804/35724}\ (86\%)$	25074 (81%)	3953 (13%)	1777 (6%)	1	17

 $5~{\rm of}~1777$ Ramachandran outliers are listed below:



Mol	Chain	Res	Type
1	T1	4	VAL
2	U1	50	VAL
2	U1	103	SER
2	U1	107	GLU
2	U1	116	ILE

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent side chain 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 side chain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	T1	113/115~(98%)	113 (100%)	0	100	100
1	Τ2	113/115~(98%)	113 (100%)	0	100	100
1	Т3	113/115~(98%)	113 (100%)	0	100	100
1	T4	113/115~(98%)	113 (100%)	0	100	100
1	T5	113/115~(98%)	113 (100%)	0	100	100
1	Т6	113/115~(98%)	113 (100%)	0	100	100
2	U1	94/107~(88%)	93 (99%)	1 (1%)	73	84
2	U2	94/107~(88%)	93 (99%)	1 (1%)	73	84
2	U3	94/107~(88%)	93 (99%)	1 (1%)	73	84
2	U4	94/107~(88%)	93 (99%)	1 (1%)	73	84
2	U5	94/107~(88%)	93 (99%)	1 (1%)	73	84
2	U6	94/107~(88%)	93~(99%)	1 (1%)	73	84
3	V1	67/67~(100%)	67 (100%)	0	100	100
3	V2	67/67~(100%)	67~(100%)	0	100	100
3	V3	67/67~(100%)	67~(100%)	0	100	100
3	V4	67/67~(100%)	67 (100%)	0	100	100
3	V5	67/67~(100%)	67 (100%)	0	100	100
3	V6	$6\overline{7/67}~(100\%)$	67 (100%)	0	100	100
4	X1	113/115~(98%)	113 (100%)	0	100	100
4	X2	113/115~(98%)	113 (100%)	0	100	100



Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	X3	113/115~(98%)	113 (100%)	0	100	100
4	X4	113/115~(98%)	113 (100%)	0	100	100
4	X5	113/115~(98%)	113 (100%)	0	100	100
4	X6	113/115~(98%)	113 (100%)	0	100	100
5	a1	90/98~(92%)	88 (98%)	2 (2%)	52	71
5	a2	90/98~(92%)	88 (98%)	2 (2%)	52	71
5	a3	90/98~(92%)	88 (98%)	2 (2%)	52	71
5	a4	90/98~(92%)	87 (97%)	3 (3%)	38	61
5	a5	90/98~(92%)	87 (97%)	3 (3%)	38	61
5	a6	90/98~(92%)	88 (98%)	2 (2%)	52	71
6	c1	57/62~(92%)	57 (100%)	0	100	100
6	c2	57/62~(92%)	57 (100%)	0	100	100
6	c3	57/62~(92%)	57 (100%)	0	100	100
6	c4	57/62~(92%)	57 (100%)	0	100	100
6	c5	57/62~(92%)	57 (100%)	0	100	100
6	c6	57/62~(92%)	57 (100%)	0	100	100
7	d1	47/49~(96%)	47 (100%)	0	100	100
7	d2	47/49~(96%)	47 (100%)	0	100	100
7	d3	47/49~(96%)	47 (100%)	0	100	100
7	d4	47/49~(96%)	47 (100%)	0	100	100
7	d5	47/49~(96%)	47 (100%)	0	100	100
7	d6	47/49~(96%)	47 (100%)	0	100	100
8	f1	65/140~(46%)	61 (94%)	4 (6%)	18	43
8	f2	65/140~(46%)	61 (94%)	4 (6%)	18	43
8	f3	65/140~(46%)	60 (92%)	5 (8%)	13	37
8	f4	65/140~(46%)	59 (91%)	6 (9%)	9	29
8	f5	65/140~(46%)	60 (92%)	5 (8%)	13	37
8	f6	65/140~(46%)	60 (92%)	5 (8%)	13	37
9	g1	272/275~(99%)	272 (100%)	0	100	100
9	g2	272/275~(99%)	272 (100%)	0	100	100
9	g3	272/275~(99%)	272 (100%)	0	100	100



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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	g4	272/275~(99%)	272 (100%)	0	100	100
9	g5	272/275~(99%)	272 (100%)	0	100	100
9	$\mathbf{g6}$	272/275~(99%)	272 (100%)	0	100	100
10	C1	188/225~(84%)	186 (99%)	2 (1%)	73	84
10	C2	188/225~(84%)	186 (99%)	2 (1%)	73	84
10	C3	188/225~(84%)	186 (99%)	2 (1%)	73	84
10	C4	188/225~(84%)	186 (99%)	2 (1%)	73	84
10	C5	188/225~(84%)	186 (99%)	2 (1%)	73	84
10	C6	188/225~(84%)	186 (99%)	2 (1%)	73	84
11	G1	207/218~(95%)	202 (98%)	5 (2%)	49	69
11	G2	207/218~(95%)	202 (98%)	5 (2%)	49	69
11	G3	207/218~(95%)	202 (98%)	5 (2%)	49	69
11	G4	207/218~(95%)	202 (98%)	5 (2%)	49	69
11	G5	207/218~(95%)	202 (98%)	5 (2%)	49	69
11	G6	207/218~(95%)	202 (98%)	5 (2%)	49	69
12	J1	161/168~(96%)	161 (100%)	0	100	100
12	J2	161/168~(96%)	161 (100%)	0	100	100
12	J3	161/168~(96%)	161 (100%)	0	100	100
12	J4	161/168~(96%)	161 (100%)	0	100	100
12	J5	161/168~(96%)	161 (100%)	0	100	100
12	J6	161/168~(96%)	161 (100%)	0	100	100
13	M1	104/108~(96%)	96 (92%)	8 (8%)	13	37
13	M2	104/108~(96%)	96 (92%)	8 (8%)	13	37
13	M3	104/108~(96%)	96 (92%)	8 (8%)	13	37
13	M4	$\overline{104/108~(96\%)}$	96 (92%)	8 (8%)	13	37
13	M5	104/108~(96%)	96 (92%)	8 (8%)	13	37
13	M6	$104/\overline{108}~(96\%)$	96 (92%)	8 (8%)	13	37
14	N1	130/131~(99%)	127 (98%)	3 (2%)	50	71
14	N2	$\overline{130/131}\ (99\%)$	127 (98%)	3 (2%)	50	71
14	N3	$\overline{130/131} \ (99\%)$	124 (95%)	6 (5%)	27	52
14	N4	$130/\overline{131}\ (99\%)$	127 (98%)	3(2%)	50	71



Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
14	N5	130/131~(99%)	124~(95%)	6~(5%)	27	52
14	N6	130/131~(99%)	127 (98%)	3 (2%)	50	71
15	O1	110/119~(92%)	110 (100%)	0	100	100
15	O2	110/119~(92%)	110 (100%)	0	100	100
15	O3	110/119~(92%)	110 (100%)	0	100	100
15	O4	110/119~(92%)	110 (100%)	0	100	100
15	O5	110/119~(92%)	110 (100%)	0	100	100
15	O6	110/119~(92%)	110 (100%)	0	100	100
16	W1	112/113~(99%)	112 (100%)	0	100	100
16	W2	112/113~(99%)	112 (100%)	0	100	100
16	W3	112/113~(99%)	112 (100%)	0	100	100
16	W4	112/113~(99%)	112 (100%)	0	100	100
16	W5	112/113~(99%)	112 (100%)	0	100	100
16	W6	112/113~(99%)	112 (100%)	0	100	100
17	Y1	113/115~(98%)	113 (100%)	0	100	100
17	Y2	113/115~(98%)	113 (100%)	0	100	100
17	Y3	113/115~(98%)	113 (100%)	0	100	100
17	Y4	113/115~(98%)	113 (100%)	0	100	100
17	Y5	113/115~(98%)	113 (100%)	0	100	100
17	Y6	113/115~(98%)	113 (100%)	0	100	100
18	Z1	66/103~(64%)	63~(96%)	3 (4%)	27	52
18	Z2	66/103~(64%)	63~(96%)	3 (4%)	27	52
18	Z3	66/103~(64%)	63~(96%)	3 (4%)	27	52
18	Z4	66/103~(64%)	63~(96%)	3 (4%)	27	52
18	Z5	66/103~(64%)	63~(96%)	3 (4%)	27	52
18	Z6	66/103~(64%)	63~(96%)	3 (4%)	27	52
19	b1	75/76~(99%)	75 (100%)	0	100	100
19	b2	75/76~(99%)	75 (100%)	0	100	100
19	b3	75/76~(99%)	75 (100%)	0	100	100
19	b4	75/76~(99%)	74 (99%)	1 (1%)	69	82
19	b5	75/76~(99%)	75 (100%)	0	100	100

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 Mol
 Chain
 Analysed



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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
19	b6	75/76~(99%)	75~(100%)	0	100	100
20	e1	47/104~(45%)	44 (94%)	3~(6%)	17	42
20	e2	47/104~(45%)	44 (94%)	3 (6%)	17	42
20	e3	47/104~(45%)	45 (96%)	2 (4%)	29	54
20	e4	47/104 (45%)	42 (89%)	5 (11%)	6	24
20	e5	47/104~(45%)	43 (92%)	4 (8%)	10	33
20	e6	47/104~(45%)	45 (96%)	2 (4%)	29	54
22	A1	184/243~(76%)	183 (100%)	1 (0%)	88	93
22	A2	184/243~(76%)	183 (100%)	1 (0%)	88	93
22	A3	184/243~(76%)	183 (100%)	1 (0%)	88	93
22	A4	184/243~(76%)	183 (100%)	1 (0%)	88	93
22	A5	184/243~(76%)	183 (100%)	1 (0%)	88	93
22	A6	184/243~(76%)	183 (100%)	1 (0%)	88	93
23	B1	195/231~(84%)	195 (100%)	0	100	100
23	B2	195/231~(84%)	195 (100%)	0	100	100
23	B3	195/231~(84%)	195 (100%)	0	100	100
23	B4	195/231~(84%)	195 (100%)	0	100	100
23	B5	195/231~(84%)	195 (100%)	0	100	100
23	B6	195/231~(84%)	195 (100%)	0	100	100
24	D1	190/202~(94%)	190 (100%)	0	100	100
24	D2	190/202~(94%)	190 (100%)	0	100	100
24	D3	190/202~(94%)	190 (100%)	0	100	100
24	D4	190/202~(94%)	190 (100%)	0	100	100
24	D5	190/202~(94%)	190 (100%)	0	100	100
24	D6	190/202~(94%)	190 (100%)	0	100	100
25	E1	224/225~(100%)	224 (100%)	0	100	100
25	E2	224/225~(100%)	224 (100%)	0	100	100
25	E3	224/225~(100%)	224 (100%)	0	100	100
25	E4	224/225~(100%)	224 (100%)	0	100	100
25	E5	224/225~(100%)	224 (100%)	0	100	100
25	E6	224/225~(100%)	224 (100%)	0	100	100



Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
26	F1	161/170~(95%)	158~(98%)	3(2%)	57	75
26	F2	161/170~(95%)	158 (98%)	3 (2%)	57	75
26	F3	161/170~(95%)	158 (98%)	3 (2%)	57	75
26	F4	161/170~(95%)	158 (98%)	3 (2%)	57	75
26	F5	161/170~(95%)	158 (98%)	3 (2%)	57	75
26	F6	161/170~(95%)	158 (98%)	3 (2%)	57	75
27	H1	169/174~(97%)	169 (100%)	0	100	100
27	H2	169/174~(97%)	169 (100%)	0	100	100
27	H3	169/174~(97%)	169 (100%)	0	100	100
27	H4	169/174~(97%)	167~(99%)	2 (1%)	71	84
27	H5	169/174~(97%)	169 (100%)	0	100	100
27	H6	169/174~(97%)	169 (100%)	0	100	100
28	I1	178/180~(99%)	178 (100%)	0	100	100
28	I2	178/180~(99%)	178 (100%)	0	100	100
28	I3	178/180~(99%)	177 (99%)	1 (1%)	86	92
28	I4	178/180~(99%)	178 (100%)	0	100	100
28	I5	178/180~(99%)	178 (100%)	0	100	100
28	I6	178/180~(99%)	178 (100%)	0	100	100
29	K1	89/136~(65%)	89 (100%)	0	100	100
29	K2	89/136~(65%)	89 (100%)	0	100	100
29	K3	89/136~(65%)	89 (100%)	0	100	100
29	K4	89/136~(65%)	89 (100%)	0	100	100
29	K5	89/136~(65%)	89 (100%)	0	100	100
29	K6	89/136~(65%)	89 (100%)	0	100	100
30	L1	137/142~(96%)	135~(98%)	2 (2%)	65	80
30	L2	137/142~(96%)	134 (98%)	3 (2%)	52	71
30	L3	$\overline{137/142}\ (96\%)$	134 (98%)	3 (2%)	52	71
30	L4	$\overline{137/142}\ (96\%)$	134 (98%)	3 (2%)	52	71
30	L5	137/142~(96%)	134 (98%)	3 (2%)	52	71
30	L6	137/142~(96%)	134 (98%)	3 (2%)	52	71
31	P1	$112/130~(\overline{86\%})$	98~(88%)	14 (12%)	4	19



$\frac{Conti}{Mol}$	nued from Chain	n previous page Analysed	Rotameric	Outliers	Percentiles	
31	P2	112/130 (86%)	95 (85%)	17 (15%)	3	15
31	P3	112/130 (86%)	98 (88%)	14 (12%)	4	19
31	P4	112/130~(86%)	95 (85%)	17 (15%)	3	15
31	P5	112/130 (86%)	94 (84%)	18 (16%)	2	13
31	P6	112/130~(86%)	99 (88%)	13 (12%)	5	21
32	Q1	121/121~(100%)	120 (99%)	1 (1%)	81	89
32	Q2	121/121~(100%)	120 (99%)	1 (1%)	81	89
32	Q3	121/121~(100%)	120 (99%)	1 (1%)	81	89
32	Q4	121/121 (100%)	120 (99%)	1 (1%)	81	89
32	Q5	121/121~(100%)	120 (99%)	1 (1%)	81	89
32	Q6	121/121 (100%)	120 (99%)	1 (1%)	81	89
33	R1	120/122~(98%)	115 (96%)	5 (4%)	30	54
33	R2	120/122~(98%)	113 (94%)	7 (6%)	20	45
33	R3	120/122~(98%)	115 (96%)	5 (4%)	30	54
33	R4	120/122~(98%)	113 (94%)	7 (6%)	20	45
33	R5	120/122~(98%)	115 (96%)	5 (4%)	30	54
33	R6	120/122~(98%)	113 (94%)	7 (6%)	20	45
34	S1	124/132~(94%)	118 (95%)	6 (5%)	25	51
34	S2	124/132~(94%)	118 (95%)	6 (5%)	25	51
34	S3	124/132~(94%)	118 (95%)	6 (5%)	25	51
34	S4	124/132~(94%)	118 (95%)	6 (5%)	25	51
34	S5	124/132~(94%)	118 (95%)	6 (5%)	25	51
34	S6	124/132~(94%)	118 (95%)	6 (5%)	25	51
35	j1	24/24~(100%)	16 (67%)	8 (33%)	0	2
35	j2	24/24~(100%)	16 (67%)	8 (33%)	0	2
35	j3	24/24~(100%)	16 (67%)	8 (33%)	0	2
35	j4	24/24~(100%)	17 (71%)	7 (29%)	0	2
35	j5	24/24~(100%)	16 (67%)	8 (33%)	0	2
35	j6	24/24~(100%)	16 (67%)	8 (33%)	0	2
36	k1	152/159~(96%)	149 (98%)	3 (2%)	55	74
36	k2	152/159~(96%)	147 (97%)	5 (3%)	38	61

Mol	Chain	Analysed	Rotameric	Outliers	Perce	entiles
36	k3	152/159~(96%)	148 (97%)	4(3%)	46	67
36	k4	152/159~(96%)	146 (96%)	6 (4%)	32	56
36	k5	152/159~(96%)	149 (98%)	3~(2%)	55	74
36	k6	152/159~(96%)	147~(97%)	5(3%)	38	61
37	l1	69/168~(41%)	58~(84%)	11 (16%)	2	14
37	12	69/168~(41%)	58~(84%)	11 (16%)	2	14
37	13	69/168~(41%)	58~(84%)	11 (16%)	2	14
37	l4	69/168~(41%)	58 (84%)	11 (16%)	2	14
37	15	69/168~(41%)	58~(84%)	11 (16%)	2	14
37	16	69/168~(41%)	58 (84%)	11 (16%)	2	14
All	All	26880/30402~(88%)	26325~(98%)	555 (2%)	53	72

5 of 555 residues with a non-rotameric sidechain are listed below:

Mol	Chain	\mathbf{Res}	Type
36	k1	95	GLN
36	k4	144	CYS
35	j6	21	ARG
37	13	186	ASP
31	P3	44	ARG

Sometimes side chains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 297 such side chains are listed below:

Mol	Chain	Res	Type
4	X6	63	ASN
36	k4	16	GLN
10	C6	115	GLN
27	H6	76	GLN
9	g3	188	HIS

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
21	i1	1716/1869~(91%)	685~(39%)	0
21	i2	1715/1869~(91%)	687 (40%)	0
21	i3	1715/1869~(91%)	683~(39%)	0



001000	continued from proceede pagem						
Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers			
21	i4	1716/1869~(91%)	684 (39%)	0			
21	i5	1716/1869~(91%)	683~(39%)	0			
21	i6	1716/1869~(91%)	683~(39%)	0			
All	All	10294/11214~(91%)	4105 (39%)	0			

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5 of 4105 RNA backbone outliers are listed below:

Mol	Chain	Res	Type
21	i1	2	А
21	i1	3	С
21	i1	4	С
21	i1	9	U
21	i1	17	С

There are no RNA pucker outliers to report.

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 monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 6 ligands modelled in this entry, 6 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers (i)

There are no such residues in this entry.



5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
21	i2	1
21	i3	1
21	i5	1
21	i6	1
21	i4	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	i2	1689:C	O3'	1690:U	Р	2.39
1	i3	1689:C	O3'	1690:U	Р	2.27
1	i5	1689:C	O3'	1690:U	Р	2.14
1	i6	1689:C	O3'	1690:U	Р	2.07
1	i4	1689:C	O3'	1690:U	Р	1.91



6 Fit of model and data (i)

6.1 Protein, DNA and RNA chains (i)

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} 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	$\langle RSRZ \rangle$	#RSRZ>2	$OWAB(Å^2)$	Q<0.9
1	Τ1	143/145~(98%)	-0.54	4 (2%) 53 46	166, 196, 227, 240	0
1	T2	143/145~(98%)	-0.44	2 (1%) 75 66	164, 191, 211, 219	0
1	Т3	143/145~(98%)	-0.22	2 (1%) 75 66	235, 251, 270, 279	0
1	T4	143/145~(98%)	-0.20	9 (6%) 20 19	302, 349, 376, 382	0
1	T5	143/145~(98%)	-0.20	4 (2%) 53 46	182, 217, 239, 247	0
1	T6	143/145~(98%)	-0.43	3 (2%) 63 56	177, 203, 220, 229	0
2	U1	104/119~(87%)	-0.38	0 100 100	155, 178, 205, 213	0
2	U2	104/119~(87%)	0.28	10 (9%) 8 10	153, 168, 189, 197	0
2	U3	104/119~(87%)	0.18	11 (10%) 6 8	222, 235, 250, 257	0
2	U4	104/119~(87%)	0.98	29~(27%) 0 2	241, 266, 296, 311	0
2	U5	104/119~(87%)	1.25	24 (23%) 0 2	173, 200, 224, 233	0
2	U6	104/119~(87%)	0.51	18 (17%) 1 4	168, 180, 196, 203	0
3	V1	83/83~(100%)	0.37	7 (8%) 11 13	134, 163, 202, 215	0
3	V2	83/83~(100%)	-0.28	0 100 100	128, 151, 181, 191	0
3	V3	83/83~(100%)	-0.04	2 (2%) 59 52	169, 194, 239, 250	0
3	V4	83/83~(100%)	-0.14	4 (4%) 30 29	161, 194, 236, 248	0
3	V5	83/83~(100%)	-0.11	2 (2%) 59 52	162, 193, 232, 245	0
3	V6	83/83~(100%)	0.12	5 (6%) 21 21	153, 179, 211, 222	0
4	X1	141/143~(98%)	0.74	29 (20%) 1 3	112, 126, 143, 151	0
4	X2	141/143~(98%)	0.11	9 (6%) 19 18	116, 130, 146, 153	0
4	X3	141/143~(98%)	0.15	9 (6%) 19 18	131, 151, 176, 187	0
4	X4	141/143~(98%)	0.27	10 (7%) 16 16	129, 166, 204, 218	0
4	X5	141/143~(98%)	0.76	26 (18%) 1 3	137, 151, 168, 180	0
4	X6	$141/14\overline{3}$ (98%)	0.64	28~(19%) 1 3	138, 152, 169, 180	0



Mol	Chain	Analysed	<rsrz></rsrz>	$\# RSRZ {>}2$	$\mathbf{OWAB}(\mathrm{\AA}^2)$	Q<0.9
5	a1	107/115~(93%)	0.18	10 (9%) 8 11	111, 122, 148, 157	0
5	a2	107/115~(93%)	-0.34	1 (0%) 84 77	113, 123, 149, 155	0
5	a3	107/115~(93%)	0.57	14 (13%) 3 7	144, 161, 211, 220	0
5	a4	107/115~(93%)	0.24	8 (7%) 14 15	136,154,197,204	0
5	a5	107/115~(93%)	1.31	27 (25%) 0 2	135, 144, 180, 188	0
5	a6	107/115~(93%)	1.02	27 (25%) 0 2	133, 141, 171, 176	0
6	c1	64/69~(92%)	1.21	21 (32%) 0 2	182, 206, 232, 243	0
6	c2	64/69~(92%)	0.66	10 (15%) 2 4	191, 213, 235, 252	0
6	c3	64/69~(92%)	0.58	6 (9%) 8 11	209, 217, 229, 241	0
6	c4	64/69~(92%)	-0.03	3 (4%) 31 30	237, 252, 280, 296	0
6	c5	64/69~(92%)	0.53	5 (7%) 13 14	187, 203, 217, 222	0
6	c6	64/69~(92%)	-0.31	2 (3%) 49 42	196, 216, 234, 238	0
7	d1	53/56~(94%)	-0.35	0 100 100	156, 160, 181, 189	0
7	d2	53/56~(94%)	-0.31	0 100 100	154, 156, 172, 179	0
7	d3	53/56~(94%)	0.93	11 (20%) 1 3	217, 249, 308, 321	0
7	d4	53/56~(94%)	-0.19	3 (5%) 23 23	244, 285, 361, 375	0
7	d5	53/56~(94%)	0.37	10 (18%) 1 3	175, 179, 191, 197	0
7	d6	53/56~(94%)	-0.02	6 (11%) 5 8	169, 171, 191, 199	0
8	f1	72/156~(46%)	0.04	4 (5%) 24 24	179, 218, 268, 285	0
8	f2	72/156~(46%)	-0.06	4 (5%) 24 24	174, 207, 248, 257	0
8	f3	72/156~(46%)	0.20	10 (13%) 2 6	282, 365, 385, 393	0
8	f4	72/156~(46%)	-0.48	1 (1%) 75 66	317, 397, 425, 435	0
8	f5	72/156~(46%)	0.09	8 (11%) 5 8	182, 223, 255, 263	0
8	f6	72/156~(46%)	0.21	6 (8%) 11 13	185, 229, 268, 282	0
9	g1	313/317~(98%)	0.06	21 (6%) 17 17	191, 230, 269, 290	0
9	g2	313/317~(98%)	-0.04	20 (6%) 19 18	175, 207, 237, 248	0
9	g3	313/317~(98%)	0.02	22 (7%) 16 16	208, 228, 248, 255	0
9	g4	$\overline{313/317}\ (98\%)$	-0.11	18 (5%) 23 23	223, 250, 276, 286	0
9	g5	313/317~(98%)	0.07	15 (4%) 30 29	204, 232, 260, 267	0
9	g6	313/317~(98%)	-0.16	15 (4%) 30 29	191, 224, 256, 271	0
10	C1	222/293~(75%)	0.16	15 (6%) 17 17	117, 147, 182, 192	0



Mol	Chain	Analysed	<rsrz></rsrz>	# RSRZ > 2	$\mathbf{OWAB}(\mathbf{\AA}^2)$	Q<0.9
10	C2	222/293~(75%)	-0.08	8 (3%) 42 38	118, 140, 168, 176	0
10	C3	222/293~(75%)	-0.44	1 (0%) 91 86	145, 179, 221, 235	0
10	C4	222/293~(75%)	-0.19	8 (3%) 42 38	144, 186, 226, 241	0
10	C5	222/293~(75%)	0.31	29~(13%) 3 7	144, 176, 211, 221	0
10	C6	222/293~(75%)	0.25	21 (9%) 8 10	141, 166, 194, 203	0
11	G1	237/249~(95%)	-0.43	2 (0%) 86 79	160, 218, 269, 295	0
11	G2	237/249~(95%)	-0.30	6 (2%) 57 50	168, 228, 256, 271	0
11	G3	237/249~(95%)	-0.20	12 (5%) 28 27	166, 225, 250, 256	0
11	G4	237/249~(95%)	0.07	24 (10%) 7 9	174, 239, 267, 288	0
11	G5	237/249~(95%)	-0.19	19 (8%) 12 14	209, 290, 320, 341	0
11	G6	237/249~(95%)	-0.05	16 (6%) 17 17	212, 290, 318, 339	0
12	J1	185/194~(95%)	-0.30	5 (2%) 54 47	129, 171, 222, 262	0
12	J2	185/194~(95%)	-0.05	12 (6%) 18 18	128, 162, 204, 236	0
12	J3	185/194~(95%)	-0.20	10 (5%) 25 26	157, 197, 258, 306	0
12	J4	185/194~(95%)	-0.06	11 (5%) 22 22	164, 213, 300, 317	0
12	J5	185/194~(95%)	0.17	20 (10%) 5 8	158, 209, 259, 296	0
12	J6	185/194~(95%)	-0.35	6 (3%) 47 41	154, 195, 238, 271	0
13	M1	123/132~(93%)	0.42	17 (13%) 2 6	215, 248, 278, 291	0
13	M2	123/132~(93%)	-0.23	3 (2%) 59 52	201, 226, 255, 268	0
13	M3	123/132~(93%)	0.13	11 (8%) 9 12	339, 364, 377, 381	0
13	M4	123/132~(93%)	0.34	15 (12%) 4 8	369, 398, 417, 422	0
13	M5	123/132~(93%)	-0.06	8 (6%) 18 18	217, 237, 257, 269	0
13	M6	123/132~(93%)	-0.04	8 (6%) 18 18	212, 236, 257, 268	0
14	N1	150/151~(99%)	-0.08	4 (2%) 54 47	130, 172, 211, 221	0
14	N2	150/151~(99%)	-0.13	5 (3%) 46 40	124, 158, 185, 191	0
14	N3	150/151~(99%)	-0.17	5 (3%) 46 40	144, 166, 206, 219	0
14	N4	150/151~(99%)	-0.24	3 (2%) 65 58	138, 166, 208, 222	0
14	N5	150/151~(99%)	-0.32	5 (3%) 46 40	148, 182, 217, 230	0
14	N6	150/151~(99%)	-0.39	3 (2%) 65 58	144, 178, 207, 216	0
15	O1	140/151~(92%)	0.73	21 (15%) 2 5	121, 151, 185, 197	0
15	O2	140/151~(92%)	0.60	22 (15%) 2 4	$1\overline{24}, 154, 181, 195$	0



Mol	Chain	Analysed	$\langle RSRZ \rangle$	#RSRZ>2	$OWAB(Å^2)$	Q<0.9
15	O3	140/151~(92%)	1.16	34 (24%) 0 2	150, 202, 247, 260	0
15	O4	140/151~(92%)	0.73	27~(19%) 1 3	147, 199, 237, 259	0
15	O5	140/151~(92%)	0.76	32 (22%) 0 2	139, 177, 213, 227	0
15	O6	140/151~(92%)	-0.11	8 (5%) 23 23	138, 169, 197, 211	0
16	W1	129/130~(99%)	0.02	4 (3%) 49 42	132, 149, 167, 175	0
16	W2	129/130~(99%)	0.07	1 (0%) 86 79	127, 141, 155, 162	0
16	W3	129/130~(99%)	0.69	14 (10%) 5 8	146, 165, 180, 186	0
16	W4	129/130~(99%)	1.11	34 (26%) 0 2	140, 162, 178, 187	0
16	W5	129/130~(99%)	-0.25	1 (0%) 86 79	156, 178, 195, 207	0
16	W6	129/130~(99%)	0.05	4 (3%) 49 42	152, 169, 184, 194	0
17	Y1	131/133~(98%)	-0.35	6 (4%) 32 30	159, 196, 223, 237	0
17	Y2	131/133~(98%)	-0.22	11 (8%) 11 13	164, 191, 214, 225	0
17	Y3	131/133~(98%)	0.05	13 (9%) 7 10	180, 220, 252, 267	0
17	Y4	131/133~(98%)	-0.11	9 (6%) 16 16	191, 239, 278, 300	0
17	Y5	131/133~(98%)	0.16	10 (7%) 13 15	210, 252, 285, 302	0
17	Y6	131/133~(98%)	0.16	12 (9%) 9 11	208, 239, 266, 280	0
18	Z1	75/125~(60%)	0.60	11 (14%) 2 5	196, 226, 255, 258	0
18	Z2	75/125~(60%)	0.71	14 (18%) 1 3	191, 228, 254, 264	0
18	Z3	75/125~(60%)	-0.07	6 (8%) 12 14	241, 264, 288, 300	0
18	Z4	75/125~(60%)	-0.11	6 (8%) 12 14	325, 359, 372, 379	0
18	Z5	75/125~(60%)	1.62	24 (32%) 0 2	205, 223, 244, 248	0
18	Z6	75/125~(60%)	1.13	18 (24%) 0 2	195, 217, 236, 244	0
19	b1	83/84~(98%)	0.62	11 (13%) 3 6	146, 177, 216, 229	0
19	b2	83/84~(98%)	-0.34	0 100 100	136, 156, 185, 194	0
19	b3	83/84~(98%)	0.03	5 (6%) 21 21	166, 192, 221, 235	0
19	b4	83/84~(98%)	0.01	9 (10%) 5 8	157, 182, 219, 236	0
19	b5	83/84~(98%)	0.20	4 (4%) 30 29	169, 191, 221, 235	0
19	b6	83/84~(98%)	0.41	6 (7%) 15 16	160, 179, 207, 219	0
20	e1	58/133 (43%)	0.10	4 (6%) 16 16	134, 160, 176, 179	0
20	e2	58/133~(43%)	0.33	9 (15%) 2 4	143, 155, 166, 168	0
20	e3	58/133 (43%)	0.48	10 (17%) 1 4	163, 198, 215, 218	0


Mol	Chain	Analysed	$\langle RSRZ \rangle$	#RSRZ>2	$\mathbf{OWAB}(\mathbf{A}^2)$	Q<0.9
20	e4	58/133~(43%)	0.41	10 (17%) 1 4	199, 226, 246, 253	0
20	e5	58/133~(43%)	0.14	7(12%) 4 8	154, 186, 202, 204	0
20	e6	58/133~(43%)	0.01	7(12%) 4 8	158, 181, 191, 194	0
21	i1	1742/1869~(93%)	0.10	49 (2%) 53 46	110, 170, 323, 428	0
21	i2	1742/1869~(93%)	0.01	34 (1%) 65 58	113, 169, 301, 421	0
21	i3	1742/1869~(93%)	-0.05	37 (2%) 63 56	130, 200, 353, 478	0
21	i4	1742/1869~(93%)	0.07	59 (3%) 45 40	128, 212, 362, 457	0
21	i5	1742/1869~(93%)	-0.00	36 (2%) 63 56	133, 191, 362, 430	0
21	i6	1742/1869~(93%)	0.09	62 (3%) 42 38	132, 188, 335, 417	0
22	A1	222/295~(75%)	0.28	20 (9%) 9 11	134, 159, 193, 212	0
22	A2	222/295~(75%)	-0.11	8 (3%) 42 38	128, 149, 178, 190	0
22	A3	222/295~(75%)	-0.04	13 (5%) 22 22	172, 206, 247, 272	0
22	A4	222/295~(75%)	-0.52	0 100 100	161, 197, 237, 252	0
22	A5	222/295~(75%)	0.26	29 (13%) 3 7	162, 191, 229, 245	0
22	A6	222/295~(75%)	0.02	11 (4%) 28 28	154, 177, 211, 222	0
23	B1	214/264~(81%)	0.24	19 (8%) 9 12	127, 168, 205, 214	0
23	B2	214/264~(81%)	0.18	23 (10%) 6 9	124, 157, 193, 204	0
23	B3	214/264~(81%)	-0.02	13 (6%) 21 20	166, 208, 248, 254	0
23	B4	214/264~(81%)	0.33	19 (8%) 9 12	151, 197, 248, 262	0
23	B5	214/264~(81%)	-0.35	5 (2%) 60 53	150, 186, 220, 228	0
23	B6	214/264~(81%)	-0.42	1 (0%) 91 86	144, 172, 204, 210	0
24	D1	227/243~(93%)	0.20	13 (5%) 23 23	159, 173, 203, 250	0
24	D2	227/243~(93%)	-0.07	13 (5%) 23 23	156, 173, 205, 233	0
24	D3	227/243~(93%)	0.72	35 (15%) 2 5	211, 244, 269, 286	0
24	D4	227/243~(93%)	1.26	65 (28%) 0 2	217, 260, 298, 310	0
24	D5	227/243~(93%)	0.27	23 (10%) 7 9	180, 191, 221, 254	0
24	D6	227/243~(93%)	0.42	29 (12%) 3 7	171, 184, 221, 250	0
25	E1	262/263~(99%)	0.72	40 (15%) 2 5	149, 195, 227, 236	0
25	E2	262/263~(99%)	0.59	38 (14%) 2 5	151, 188, 219, 227	0
25	E3	262/263~(99%)	-0.23	6 (2%) 60 53	154, 197, 221, 238	0
25	E4	262/263~(99%)	0.10	18 (6%) 16 16	158, 209, 239, 261	0

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Mol	Chain	Analysed	<RSRZ $>$	$\# RSRZ {>}2$	$\mathbf{OWAB}(\mathbf{\AA}^2)$	Q<0.9
25	E5	262/263~(99%)	0.72	44 (16%) 1 4	190, 242, 280, 296	0
25	E6	262/263~(99%)	0.59	37 (14%) 2 6	189, 232, 270, 280	0
26	F1	191/204~(93%)	0.81	33 (17%) 1 4	175, 204, 228, 236	0
26	F2	191/204~(93%)	0.70	27 (14%) 2 6	172, 203, 224, 232	0
26	F3	191/204~(93%)	0.51	30 (15%) 2 4	209, 229, 245, 255	0
26	F4	191/204 (93%)	0.28	29 (15%) 2 5	242, 289, 324, 338	0
26	F5	191/204~(93%)	1.38	59 (30%) 0 2	185, 201, 218, 223	0
26	F6	191/204~(93%)	0.30	20 (10%) 6 9	180, 203, 216, 221	0
27	H1	189/194~(97%)	0.40	26 (13%) 2 6	173, 225, 287, 300	0
27	H2	189/194~(97%)	-0.16	5 (2%) 56 49	156, 196, 245, 258	0
27	H3	189/194~(97%)	0.58	36 (19%) 1 3	172, 222, 267, 278	0
27	H4	189/194~(97%)	0.22	17 (8%) 9 11	176, 228, 290, 303	0
27	H5	189/194~(97%)	0.35	24 (12%) 3 7	196, 242, 297, 312	0
27	H6	189/194~(97%)	-0.31	5 (2%) 56 49	183, 227, 279, 291	0
28	I1	206/208~(99%)	0.71	35 (16%) 1 4	135, 223, 315, 326	0
28	I2	206/208~(99%)	0.18	19 (9%) 9 11	139, 220, 301, 318	0
28	I3	206/208~(99%)	-0.09	10 (4%) 29 28	136, 188, 250, 272	0
28	I4	206/208~(99%)	0.07	17 (8%) 11 13	139, 204, 286, 313	0
28	I5	206/208~(99%)	1.03	56 (27%) 0 2	163, 250, 344, 364	0
28	I6	206/208~(99%)	1.06	53 (25%) 0 2	166, 255, 345, 361	0
29	K1	98/165~(59%)	1.14	24 (24%) 0 2	164, 190, 213, 221	0
29	K2	98/165~(59%)	0.19	8 (8%) 11 13	159, 181, 202, 210	0
29	K3	98/165~(59%)	-0.00	4 (4%) 37 34	255, 297, 324, 332	0
29	K4	98/165~(59%)	-0.11	7 (7%) 16 16	283, 331, 365, 374	0
29	K5	98/165~(59%)	-0.23	1 (1%) 82 75	182, 201, 219, 224	0
29	K6	98/165~(59%)	0.27	14 (14%) 2 5	174, 192, 204, 210	0
30	L1	153/158~(96%)	0.92	36 (23%) 0 2	124, 177, 257, 284	0
30	L2	153/158~(96%)	1.04	29 (18%) 1 3	124, 169, 239, 265	0
30	L3	153/158~(96%)	1.27	40 (26%) 0 2	138, 161, 209, 227	0
30	L4	153/158~(96%)	1.20	41 (26%) 0 2	136, 167, 234, 258	0
30	L5	153/158~(96%)	0.70	28 (18%) 1 3	152, 202, 272, 302	0

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Mol	Chain	Analysed	<rsrz></rsrz>	# RSRZ > 2	$\mathbf{OWAB}(\mathrm{\AA}^2)$	Q<0.9
30	L6	153/158~(96%)	1.24	36~(23%) 0 2	150, 200, 273, 303	0
31	P1	125/145~(86%)	-0.27	4 (3%) 47 41	174, 193, 217, 230	0
31	P2	125/145~(86%)	-0.33	4 (3%) 47 41	174, 193, 222, 231	0
31	P3	125/145~(86%)	0.03	13 (10%) 6 9	265, 327, 365, 374	0
31	P4	125/145~(86%)	-0.33	2 (1%) 72 64	306, 383, 399, 409	0
31	P5	125/145~(86%)	-0.31	0 100 100	182, 204, 223, 228	0
31	P6	125/145~(86%)	-0.07	9 (7%) 15 16	187, 212, 240, 251	0
32	Q1	146/146~(100%)	0.01	10 (6%) 17 17	156, 200, 232, 265	0
32	Q2	146/146~(100%)	0.56	17 (11%) 4 8	156, 182, 200, 218	0
32	Q3	146/146~(100%)	-0.04	11 (7%) 14 15	212, 223, 233, 243	0
32	Q4	146/146~(100%)	0.31	18 (12%) 4 8	249, 279, 311, 317	0
32	Q5	146/146~(100%)	0.01	9 (6%) 20 20	174, 209, 233, 258	0
32	Q6	146/146~(100%)	0.45	15 (10%) 6 9	170, 194, 210, 229	0
33	R1	132/135~(97%)	-0.13	5 (3%) 40 36	127, 177, 194, 200	0
33	R2	132/135~(97%)	-0.26	4 (3%) 50 43	124, 171, 196, 202	0
33	R3	132/135~(97%)	0.06	10 (7%) 13 15	171, 211, 240, 249	0
33	R4	132/135~(97%)	-0.03	6 (4%) 33 31	154, 216, 227, 235	0
33	R5	132/135~(97%)	0.56	22 (16%) 1 4	153, 202, 220, 228	0
33	R6	132/135~(97%)	0.62	25 (18%) 1 3	146, 196, 217, 224	0
34	S1	143/152~(94%)	0.54	21 (14%) 2 5	171, 201, 229, 247	0
34	S2	143/152~(94%)	0.25	18 (12%) 3 7	172, 210, 240, 258	0
34	S3	143/152~(94%)	-0.31	8 (5%) 24 24	268, 296, 323, 339	0
34	S4	143/152~(94%)	0.92	32 (22%) 0 2	321, 375, 385, 388	0
34	S5	143/152~(94%)	-0.12	12 (8%) 11 13	181, 213, 234, 246	0
34	S6	143/152~(94%)	0.28	17 (11%) 4 8	183, 215, 233, 243	0
35	j1	25/25~(100%)	0.21	0 100 100	113, 121, 137, 140	0
35	j2	25/25~(100%)	-0.13	0 100 100	119, 127, 143, 146	0
35	j3	25/25~(100%)	-0.56	0 100 100	137, 141, 145, 149	0
35	j4	25/25~(100%)	-0.26	1 (4%) 38 34	139, 147, 157, 163	0
35	j5	25/25~(100%)	-0.89	0 100 100	133, 138, 152, 153	0
35	j6	25/25~(100%)	-0.11	0 100 100	134, 141, 155, 157	0

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Mol	Chain	Analysed	$<$ RSRZ $>$	# RSRZ > 2	$\mathbf{OWAB}(\mathbf{\AA}^2)$	Q<0.9
36	k1	181/181~(100%)	-0.04	8 (4%) 34 32	146, 198, 267, 284	0
36	k2	181/181 (100%)	-0.41	0 100 100	147, 195, 253, 268	0
36	k3	181/181 (100%)	-0.54	0 100 100	158, 205, 256, 270	0
36	k4	181/181~(100%)	-0.12	10 (5%) 25 25	168, 233, 302, 315	0
36	k5	181/181~(100%)	0.26	14 (7%) 13 14	157, 199, 256, 270	0
36	k6	181/181~(100%)	-0.06	8 (4%) 34 32	155, 193, 242, 252	0
37	l1	79/198~(39%)	0.63	10 (12%) 3 7	174, 212, 268, 279	0
37	12	79/198~(39%)	0.74	13~(16%) 1 4	185, 206, 233, 240	0
37	13	79/198~(39%)	0.70	19 (24%) 0 2	237, 298, 351, 357	0
37	l4	79/198~(39%)	1.21	22~(27%) 0 2	237, 274, 309, 327	0
37	15	79/198~(39%)	0.13	6 (7%) 13 15	199, 234, 288, 302	0
37	16	79/198~(39%)	0.36	8 (10%) 7 9	185, 220, 273, 287	0
All	All	41688/46938 (88%)	0.15	3270 (7%) 13 14	110, 198, 315, 478	0

The worst 5 of 3270 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
30	L6	28	THR	20.9
32	Q5	2	PRO	19.7
21	i6	788	G	18.8
5	a4	105	GLY	18.4
15	01	12	GLU	18.0

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

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

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum,



Mol	Type	Chain	\mathbf{Res}	Atoms	RSCC	\mathbf{RSR}	$B-factors(A^2)$	Q < 0.9
38	ZN	f5	500	1/1	0.34	0.07	80,80,80,80	0
38	ZN	f4	500	1/1	0.59	0.10	80,80,80,80	0
38	ZN	f6	500	1/1	0.72	0.07	80,80,80,80	0
38	ZN	f2	500	1/1	0.84	0.12	80,80,80,80	0
38	ZN	f3	500	1/1	0.91	0.12	80,80,80,80	0
38	ZN	f1	500	1/1	0.98	0.13	80,80,80,80	0

median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

6.5 Other polymers (i)

There are no such residues in this entry.

