



Full wwPDB X-ray Structure Validation Report ⓘ

Apr 25, 2026 – 08:51 PM EDT

PDB ID : 4V98 / pdb_00004v98
Title : The 8S snRNP Assembly Intermediate
Authors : Grimm, C.; Pelz, J.P.; Schindelin, H.; Diederichs, K.; Kuper, J.; Kisker, C.
Deposited on : 2012-05-15
Resolution : 3.10 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

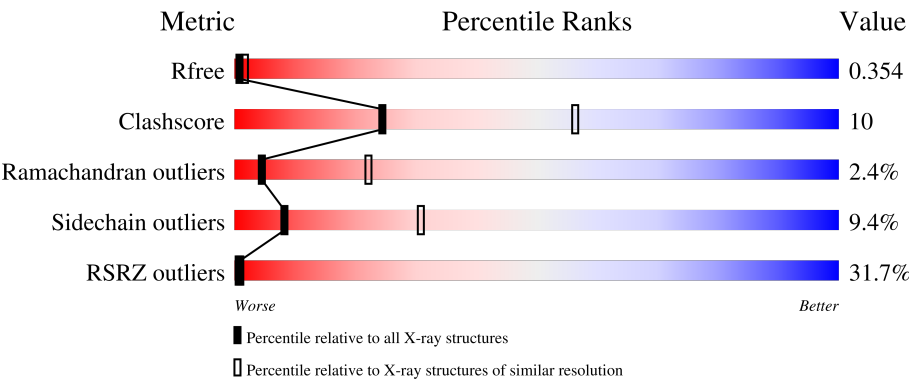
MolProbity : 4-5-2 with Phenix2.0
Mogul : 2022.3.0, CSD as543be (2022)
Xtriage (Phenix) : 2.0
EDS : 3.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4 : 9.0.010 (Gargrove)
Density-Fitness : 1.0.12
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.10 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1456 (3.10-3.10)
Clashscore	190562	1539 (3.10-3.10)
Ramachandran outliers	187476	1467 (3.10-3.10)
Sidechain outliers	187428	1467 (3.10-3.10)
RSRZ outliers	180081	1456 (3.10-3.10)

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 $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	AA	119	
1	AI	119	
1	AQ	119	
1	AY	119	
1	Ag	119	

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Mol	Chain	Length	Quality of chain
1	Ao	119	
1	Aw	119	
1	BA	119	
1	BI	119	
1	BQ	119	
1	BY	119	
1	Bg	119	
1	Bo	119	
1	Bw	119	
1	CA	119	
1	CI	119	
1	CQ	119	
1	CY	119	
1	Cg	119	
1	Co	119	
2	AB	118	
2	AJ	118	
2	AR	118	
2	AZ	118	
2	Ah	118	
2	Ap	118	
2	Ax	118	
2	BB	118	
2	BJ	118	
2	BR	118	

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Mol	Chain	Length	Quality of chain
2	BZ	118	
2	Bh	118	
2	Bp	118	
2	Bx	118	
2	CB	118	
2	CJ	118	
2	CR	118	
2	CZ	118	
2	Ch	118	
2	Cp	118	
3	AC	92	
3	AK	92	
3	AS	92	
3	Aa	92	
3	Ai	92	
3	Aq	92	
3	Ay	92	
3	BC	92	
3	BK	92	
3	BS	92	
3	Ba	92	
3	Bi	92	
3	Bq	92	
3	By	92	
3	CC	92	

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Mol	Chain	Length	Quality of chain
3	CK	92	
3	CS	92	
3	Ca	92	
3	Ci	92	
3	Cq	92	
4	AD	86	
4	AL	86	
4	AT	86	
4	Ab	86	
4	Aj	86	
4	Ar	86	
4	Az	86	
4	BD	86	
4	BL	86	
4	BT	86	
4	Bb	86	
4	Bj	86	
4	Br	86	
4	Bz	86	
4	CD	86	
4	CL	86	
4	CT	86	
4	Cb	86	
4	Cj	86	
4	Cr	86	

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Mol	Chain	Length	Quality of chain
5	A1	124	
5	AE	124	
5	AM	124	
5	AU	124	
5	Ac	124	
5	Ak	124	
5	As	124	
5	B1	124	
5	BE	124	
5	BM	124	
5	BU	124	
5	Bc	124	
5	Bk	124	
5	Bs	124	
5	CE	124	
5	CM	124	
5	CU	124	
5	Cc	124	
5	Ck	124	
5	Cs	124	
6	A2	247	
6	AF	247	
6	AN	247	
6	AV	247	
6	Ad	247	

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Mol	Chain	Length	Quality of chain
6	Al	247	
6	At	247	
6	B2	247	
6	BF	247	
6	BN	247	
6	BV	247	
6	Bd	247	
6	Bl	247	
6	Bt	247	
6	CF	247	
6	CN	247	
6	CV	247	
6	Cd	247	
6	Cl	247	
6	Ct	247	
7	A3	186	
7	AG	186	
7	AO	186	
7	AW	186	
7	Ae	186	
7	Am	186	
7	Au	186	
7	B3	186	
7	BG	186	
7	BO	186	

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Mol	Chain	Length	Quality of chain
7	BW	186	
7	Be	186	
7	Bm	186	
7	Bu	186	
7	CG	186	
7	CO	186	
7	CW	186	
7	Ce	186	
7	Cm	186	
7	Cu	186	
8	A4	76	
8	AH	76	
8	AP	76	
8	AX	76	
8	Af	76	
8	An	76	
8	Av	76	
8	B4	76	
8	BH	76	
8	BP	76	
8	BX	76	
8	Bf	76	
8	Bn	76	
8	Bv	76	
8	CH	76	

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Mol	Chain	Length	Quality of chain
8	CP	76	41% 74% 17% 8%
8	CX	76	37% 74% 17% 8%
8	Cf	76	24% 75% 16% 8%
8	Cn	76	63% 72% 18% 8%
8	Cv	76	57% 74% 17% 8%

2 Entry composition

There are 9 unique types of molecules in this entry. The entry contains 121990 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called Small nuclear ribonucleoprotein Sm D1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AI	82	Total	C	N	O	S	0	0	0
			648	413	113	119	3			
1	AA	82	Total	C	N	O	S	0	0	0
			648	413	113	119	3			
1	AQ	82	Total	C	N	O	S	0	0	0
			648	413	113	119	3			
1	AY	82	Total	C	N	O	S	0	0	0
			648	413	113	119	3			
1	Ag	82	Total	C	N	O	S	0	0	0
			648	413	113	119	3			
1	Ao	82	Total	C	N	O	S	0	0	0
			648	413	113	119	3			
1	Aw	82	Total	C	N	O	S	0	0	0
			648	413	113	119	3			
1	BA	82	Total	C	N	O	S	0	0	0
			648	413	113	119	3			
1	BI	82	Total	C	N	O	S	0	0	0
			648	413	113	119	3			
1	BQ	82	Total	C	N	O	S	0	0	0
			648	413	113	119	3			
1	BY	82	Total	C	N	O	S	0	0	0
			648	413	113	119	3			
1	Bg	82	Total	C	N	O	S	0	0	0
			648	413	113	119	3			
1	Bo	82	Total	C	N	O	S	0	0	0
			648	413	113	119	3			
1	Bw	82	Total	C	N	O	S	0	0	0
			648	413	113	119	3			
1	CA	82	Total	C	N	O	S	0	0	0
			648	413	113	119	3			
1	CI	82	Total	C	N	O	S	0	0	0
			648	413	113	119	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	CQ	82	Total	C	N	O	S	0	0	0
			648	413	113	119	3			
1	CY	82	Total	C	N	O	S	0	0	0
			648	413	113	119	3			
1	Cg	82	Total	C	N	O	S	0	0	0
			648	413	113	119	3			
1	Co	82	Total	C	N	O	S	0	0	0
			648	413	113	119	3			

- Molecule 2 is a protein called Small nuclear ribonucleoprotein Sm D2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AJ	100	Total	C	N	O	S	0	0	0
			807	505	146	150	6			
2	AB	100	Total	C	N	O	S	0	0	0
			807	505	146	150	6			
2	AR	100	Total	C	N	O	S	0	0	0
			807	505	146	150	6			
2	AZ	100	Total	C	N	O	S	0	0	0
			807	505	146	150	6			
2	Ah	100	Total	C	N	O	S	0	0	0
			807	505	146	150	6			
2	Ap	100	Total	C	N	O	S	0	0	0
			807	505	146	150	6			
2	Ax	100	Total	C	N	O	S	0	0	0
			807	505	146	150	6			
2	BB	100	Total	C	N	O	S	0	0	0
			807	505	146	150	6			
2	BJ	100	Total	C	N	O	S	0	0	0
			807	505	146	150	6			
2	BR	100	Total	C	N	O	S	0	0	0
			807	505	146	150	6			
2	BZ	100	Total	C	N	O	S	0	0	0
			807	505	146	150	6			
2	Bh	100	Total	C	N	O	S	0	0	0
			807	505	146	150	6			
2	Bp	100	Total	C	N	O	S	0	0	0
			807	505	146	150	6			
2	Bx	100	Total	C	N	O	S	0	0	0
			807	505	146	150	6			
2	CB	100	Total	C	N	O	S	0	0	0
			807	505	146	150	6			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	CJ	100	Total	C	N	O	S	0	0	0
			807	505	146	150	6			
2	CR	100	Total	C	N	O	S	0	0	0
			807	505	146	150	6			
2	CZ	100	Total	C	N	O	S	0	0	0
			807	505	146	150	6			
2	Ch	100	Total	C	N	O	S	0	0	0
			807	505	146	150	6			
2	Cp	100	Total	C	N	O	S	0	0	0
			807	505	146	150	6			

- Molecule 3 is a protein called Small nuclear ribonucleoprotein E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AK	77	Total	C	N	O	S	0	0	0
			638	405	113	115	5			
3	AC	77	Total	C	N	O	S	0	0	0
			638	405	113	115	5			
3	AS	77	Total	C	N	O	S	0	0	0
			638	405	113	115	5			
3	Aa	77	Total	C	N	O	S	0	0	0
			638	405	113	115	5			
3	Ai	77	Total	C	N	O	S	0	0	0
			638	405	113	115	5			
3	Aq	77	Total	C	N	O	S	0	0	0
			638	405	113	115	5			
3	Ay	77	Total	C	N	O	S	0	0	0
			638	405	113	115	5			
3	BC	77	Total	C	N	O	S	0	0	0
			638	405	113	115	5			
3	BK	77	Total	C	N	O	S	0	0	0
			638	405	113	115	5			
3	BS	77	Total	C	N	O	S	0	0	0
			638	405	113	115	5			
3	Ba	77	Total	C	N	O	S	0	0	0
			638	405	113	115	5			
3	Bi	77	Total	C	N	O	S	0	0	0
			638	405	113	115	5			
3	Bq	77	Total	C	N	O	S	0	0	0
			638	405	113	115	5			
3	By	77	Total	C	N	O	S	0	0	0
			638	405	113	115	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	CC	77	Total 638	C 405	N 113	O 115	S 5	0	0	0
3	CK	77	Total 638	C 405	N 113	O 115	S 5	0	0	0
3	CS	77	Total 638	C 405	N 113	O 115	S 5	0	0	0
3	Ca	77	Total 638	C 405	N 113	O 115	S 5	0	0	0
3	Ci	77	Total 638	C 405	N 113	O 115	S 5	0	0	0
3	Cq	77	Total 638	C 405	N 113	O 115	S 5	0	0	0

- Molecule 4 is a protein called Small nuclear ribonucleoprotein F.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AL	71	Total 556	C 358	N 92	O 101	S 5	0	0	0
4	AD	71	Total 556	C 358	N 92	O 101	S 5	0	0	0
4	AT	71	Total 556	C 358	N 92	O 101	S 5	0	0	0
4	Ab	71	Total 556	C 358	N 92	O 101	S 5	0	0	0
4	Aj	71	Total 556	C 358	N 92	O 101	S 5	0	0	0
4	Ar	71	Total 556	C 358	N 92	O 101	S 5	0	0	0
4	Az	71	Total 556	C 358	N 92	O 101	S 5	0	0	0
4	BD	71	Total 556	C 358	N 92	O 101	S 5	0	0	0
4	BL	71	Total 556	C 358	N 92	O 101	S 5	0	0	0
4	BT	71	Total 556	C 358	N 92	O 101	S 5	0	0	0
4	Bb	71	Total 556	C 358	N 92	O 101	S 5	0	0	0
4	Bj	71	Total 556	C 358	N 92	O 101	S 5	0	0	0
4	Br	71	Total 556	C 358	N 92	O 101	S 5	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	Bz	71	Total	C	N	O	S	0	0	0
			556	358	92	101	5			
4	CD	71	Total	C	N	O	S	0	0	0
			556	358	92	101	5			
4	CL	71	Total	C	N	O	S	0	0	0
			556	358	92	101	5			
4	CT	71	Total	C	N	O	S	0	0	0
			556	358	92	101	5			
4	Cb	71	Total	C	N	O	S	0	0	0
			556	358	92	101	5			
4	Cj	71	Total	C	N	O	S	0	0	0
			556	358	92	101	5			
4	Cr	71	Total	C	N	O	S	0	0	0
			556	358	92	101	5			

- Molecule 5 is a protein called LD23602p.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
5	AM	17	Total	C	N	O	0	0	0
			133	85	19	29			
5	AE	17	Total	C	N	O	0	0	0
			133	85	19	29			
5	AU	17	Total	C	N	O	0	0	0
			133	85	19	29			
5	Ac	17	Total	C	N	O	0	0	0
			133	85	19	29			
5	Ak	17	Total	C	N	O	0	0	0
			133	85	19	29			
5	As	17	Total	C	N	O	0	0	0
			133	85	19	29			
5	A1	17	Total	C	N	O	0	0	0
			133	85	19	29			
5	BE	17	Total	C	N	O	0	0	0
			133	85	19	29			
5	BM	17	Total	C	N	O	0	0	0
			133	85	19	29			
5	BU	17	Total	C	N	O	0	0	0
			133	85	19	29			
5	Bc	17	Total	C	N	O	0	0	0
			133	85	19	29			
5	Bk	17	Total	C	N	O	0	0	0
			133	85	19	29			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
5	Bs	17	Total	C	N	O	0	0	0
			133	85	19	29			
5	B1	17	Total	C	N	O	0	0	0
			133	85	19	29			
5	CE	17	Total	C	N	O	0	0	0
			133	85	19	29			
5	CM	17	Total	C	N	O	0	0	0
			133	85	19	29			
5	CU	17	Total	C	N	O	0	0	0
			133	85	19	29			
5	Cc	17	Total	C	N	O	0	0	0
			133	85	19	29			
5	Ck	17	Total	C	N	O	0	0	0
			133	85	19	29			
5	Cs	17	Total	C	N	O	0	0	0
			133	85	19	29			

There are 40 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AM	6991	GLY	-	expression tag	UNP Q9VV74
AM	6992	ALA	-	expression tag	UNP Q9VV74
AE	6991	GLY	-	expression tag	UNP Q9VV74
AE	6992	ALA	-	expression tag	UNP Q9VV74
AU	6991	GLY	-	expression tag	UNP Q9VV74
AU	6992	ALA	-	expression tag	UNP Q9VV74
Ac	6991	GLY	-	expression tag	UNP Q9VV74
Ac	6992	ALA	-	expression tag	UNP Q9VV74
Ak	6991	GLY	-	expression tag	UNP Q9VV74
Ak	6992	ALA	-	expression tag	UNP Q9VV74
As	6991	GLY	-	expression tag	UNP Q9VV74
As	6992	ALA	-	expression tag	UNP Q9VV74
A1	6991	GLY	-	expression tag	UNP Q9VV74
A1	6992	ALA	-	expression tag	UNP Q9VV74
BE	6991	GLY	-	expression tag	UNP Q9VV74
BE	6992	ALA	-	expression tag	UNP Q9VV74
BM	6991	GLY	-	expression tag	UNP Q9VV74
BM	6992	ALA	-	expression tag	UNP Q9VV74
BU	6991	GLY	-	expression tag	UNP Q9VV74
BU	6992	ALA	-	expression tag	UNP Q9VV74
Bc	6991	GLY	-	expression tag	UNP Q9VV74
Bc	6992	ALA	-	expression tag	UNP Q9VV74
Bk	6991	GLY	-	expression tag	UNP Q9VV74

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Chain	Residue	Modelled	Actual	Comment	Reference
Bk	6992	ALA	-	expression tag	UNP Q9VV74
Bs	6991	GLY	-	expression tag	UNP Q9VV74
Bs	6992	ALA	-	expression tag	UNP Q9VV74
B1	6991	GLY	-	expression tag	UNP Q9VV74
B1	6992	ALA	-	expression tag	UNP Q9VV74
CE	6991	GLY	-	expression tag	UNP Q9VV74
CE	6992	ALA	-	expression tag	UNP Q9VV74
CM	6991	GLY	-	expression tag	UNP Q9VV74
CM	6992	ALA	-	expression tag	UNP Q9VV74
CU	6991	GLY	-	expression tag	UNP Q9VV74
CU	6992	ALA	-	expression tag	UNP Q9VV74
Cc	6991	GLY	-	expression tag	UNP Q9VV74
Cc	6992	ALA	-	expression tag	UNP Q9VV74
Ck	6991	GLY	-	expression tag	UNP Q9VV74
Ck	6992	ALA	-	expression tag	UNP Q9VV74
Cs	6991	GLY	-	expression tag	UNP Q9VV74
Cs	6992	ALA	-	expression tag	UNP Q9VV74

- Molecule 6 is a protein called CG10419.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AN	216	Total	C	N	O	S	0	0	0
			1787	1138	309	331	9			
6	AF	216	Total	C	N	O	S	0	0	0
			1787	1138	309	331	9			
6	AV	216	Total	C	N	O	S	0	0	0
			1787	1138	309	331	9			
6	Ad	216	Total	C	N	O	S	0	0	0
			1787	1138	309	331	9			
6	Al	216	Total	C	N	O	S	0	0	0
			1787	1138	309	331	9			
6	At	216	Total	C	N	O	S	0	0	0
			1787	1138	309	331	9			
6	A2	216	Total	C	N	O	S	0	0	0
			1787	1138	309	331	9			
6	BF	216	Total	C	N	O	S	0	0	0
			1787	1138	309	331	9			
6	BN	216	Total	C	N	O	S	0	0	0
			1787	1138	309	331	9			
6	BV	216	Total	C	N	O	S	0	0	0
			1787	1138	309	331	9			
6	Bd	216	Total	C	N	O	S	0	0	0
			1787	1138	309	331	9			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	B1	216	Total	C	N	O	S	0	0	0
			1787	1138	309	331	9			
6	Bt	216	Total	C	N	O	S	0	0	0
			1787	1138	309	331	9			
6	B2	216	Total	C	N	O	S	0	0	0
			1787	1138	309	331	9			
6	CF	216	Total	C	N	O	S	0	0	0
			1787	1138	309	331	9			
6	CN	216	Total	C	N	O	S	0	0	0
			1787	1138	309	331	9			
6	CV	216	Total	C	N	O	S	0	0	0
			1787	1138	309	331	9			
6	Cd	216	Total	C	N	O	S	0	0	0
			1787	1138	309	331	9			
6	Cl	216	Total	C	N	O	S	0	0	0
			1787	1138	309	331	9			
6	Ct	216	Total	C	N	O	S	0	0	0
			1787	1138	309	331	9			

There are 40 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AN	7969	GLY	-	expression tag	UNP Q9V VX0
AN	7970	ALA	-	expression tag	UNP Q9V VX0
AF	7969	GLY	-	expression tag	UNP Q9V VX0
AF	7970	ALA	-	expression tag	UNP Q9V VX0
AV	7969	GLY	-	expression tag	UNP Q9V VX0
AV	7970	ALA	-	expression tag	UNP Q9V VX0
Ad	7969	GLY	-	expression tag	UNP Q9V VX0
Ad	7970	ALA	-	expression tag	UNP Q9V VX0
Al	7969	GLY	-	expression tag	UNP Q9V VX0
Al	7970	ALA	-	expression tag	UNP Q9V VX0
At	7969	GLY	-	expression tag	UNP Q9V VX0
At	7970	ALA	-	expression tag	UNP Q9V VX0
A2	7969	GLY	-	expression tag	UNP Q9V VX0
A2	7970	ALA	-	expression tag	UNP Q9V VX0
BF	7969	GLY	-	expression tag	UNP Q9V VX0
BF	7970	ALA	-	expression tag	UNP Q9V VX0
BN	7969	GLY	-	expression tag	UNP Q9V VX0
BN	7970	ALA	-	expression tag	UNP Q9V VX0
BV	7969	GLY	-	expression tag	UNP Q9V VX0
BV	7970	ALA	-	expression tag	UNP Q9V VX0
Bd	7969	GLY	-	expression tag	UNP Q9V VX0

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Chain	Residue	Modelled	Actual	Comment	Reference
Bd	7970	ALA	-	expression tag	UNP Q9V VX0
Bl	7969	GLY	-	expression tag	UNP Q9V VX0
Bl	7970	ALA	-	expression tag	UNP Q9V VX0
Bt	7969	GLY	-	expression tag	UNP Q9V VX0
Bt	7970	ALA	-	expression tag	UNP Q9V VX0
B2	7969	GLY	-	expression tag	UNP Q9V VX0
B2	7970	ALA	-	expression tag	UNP Q9V VX0
CF	7969	GLY	-	expression tag	UNP Q9V VX0
CF	7970	ALA	-	expression tag	UNP Q9V VX0
CN	7969	GLY	-	expression tag	UNP Q9V VX0
CN	7970	ALA	-	expression tag	UNP Q9V VX0
CV	7969	GLY	-	expression tag	UNP Q9V VX0
CV	7970	ALA	-	expression tag	UNP Q9V VX0
Cd	7969	GLY	-	expression tag	UNP Q9V VX0
Cd	7970	ALA	-	expression tag	UNP Q9V VX0
Cl	7969	GLY	-	expression tag	UNP Q9V VX0
Cl	7970	ALA	-	expression tag	UNP Q9V VX0
Ct	7969	GLY	-	expression tag	UNP Q9V VX0
Ct	7970	ALA	-	expression tag	UNP Q9V VX0

- Molecule 7 is a protein called Icln.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AO	127	Total	C	N	O	S	0	0	0
			984	626	161	188	9			
7	AG	127	Total	C	N	O	S	0	0	0
			984	626	161	188	9			
7	AW	127	Total	C	N	O	S	0	0	0
			984	626	161	188	9			
7	Ae	127	Total	C	N	O	S	0	0	0
			984	626	161	188	9			
7	Am	127	Total	C	N	O	S	0	0	0
			984	626	161	188	9			
7	Au	127	Total	C	N	O	S	0	0	0
			984	626	161	188	9			
7	A3	127	Total	C	N	O	S	0	0	0
			984	626	161	188	9			
7	BG	127	Total	C	N	O	S	0	0	0
			984	626	161	188	9			
7	BO	127	Total	C	N	O	S	0	0	0
			984	626	161	188	9			
7	BW	127	Total	C	N	O	S	0	0	0
			984	626	161	188	9			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	Be	127	Total	C	N	O	S	0	0	0
			984	626	161	188	9			
7	Bm	127	Total	C	N	O	S	0	0	0
			984	626	161	188	9			
7	Bu	127	Total	C	N	O	S	0	0	0
			984	626	161	188	9			
7	B3	127	Total	C	N	O	S	0	0	0
			984	626	161	188	9			
7	CG	127	Total	C	N	O	S	0	0	0
			984	626	161	188	9			
7	CO	127	Total	C	N	O	S	0	0	0
			984	626	161	188	9			
7	CW	127	Total	C	N	O	S	0	0	0
			984	626	161	188	9			
7	Ce	127	Total	C	N	O	S	0	0	0
			984	626	161	188	9			
7	Cm	127	Total	C	N	O	S	0	0	0
			984	626	161	188	9			
7	Cu	127	Total	C	N	O	S	0	0	0
			984	626	161	188	9			

There are 120 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AO	6180	HIS	-	expression tag	UNP Q9U3W1
AO	6181	HIS	-	expression tag	UNP Q9U3W1
AO	6182	HIS	-	expression tag	UNP Q9U3W1
AO	6183	HIS	-	expression tag	UNP Q9U3W1
AO	6184	HIS	-	expression tag	UNP Q9U3W1
AO	6185	HIS	-	expression tag	UNP Q9U3W1
AG	6180	HIS	-	expression tag	UNP Q9U3W1
AG	6181	HIS	-	expression tag	UNP Q9U3W1
AG	6182	HIS	-	expression tag	UNP Q9U3W1
AG	6183	HIS	-	expression tag	UNP Q9U3W1
AG	6184	HIS	-	expression tag	UNP Q9U3W1
AG	6185	HIS	-	expression tag	UNP Q9U3W1
AW	6180	HIS	-	expression tag	UNP Q9U3W1
AW	6181	HIS	-	expression tag	UNP Q9U3W1
AW	6182	HIS	-	expression tag	UNP Q9U3W1
AW	6183	HIS	-	expression tag	UNP Q9U3W1
AW	6184	HIS	-	expression tag	UNP Q9U3W1
AW	6185	HIS	-	expression tag	UNP Q9U3W1
Ae	6180	HIS	-	expression tag	UNP Q9U3W1

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Chain	Residue	Modelled	Actual	Comment	Reference
Ae	6181	HIS	-	expression tag	UNP Q9U3W1
Ae	6182	HIS	-	expression tag	UNP Q9U3W1
Ae	6183	HIS	-	expression tag	UNP Q9U3W1
Ae	6184	HIS	-	expression tag	UNP Q9U3W1
Ae	6185	HIS	-	expression tag	UNP Q9U3W1
Am	6180	HIS	-	expression tag	UNP Q9U3W1
Am	6181	HIS	-	expression tag	UNP Q9U3W1
Am	6182	HIS	-	expression tag	UNP Q9U3W1
Am	6183	HIS	-	expression tag	UNP Q9U3W1
Am	6184	HIS	-	expression tag	UNP Q9U3W1
Am	6185	HIS	-	expression tag	UNP Q9U3W1
Au	6180	HIS	-	expression tag	UNP Q9U3W1
Au	6181	HIS	-	expression tag	UNP Q9U3W1
Au	6182	HIS	-	expression tag	UNP Q9U3W1
Au	6183	HIS	-	expression tag	UNP Q9U3W1
Au	6184	HIS	-	expression tag	UNP Q9U3W1
Au	6185	HIS	-	expression tag	UNP Q9U3W1
A3	6180	HIS	-	expression tag	UNP Q9U3W1
A3	6181	HIS	-	expression tag	UNP Q9U3W1
A3	6182	HIS	-	expression tag	UNP Q9U3W1
A3	6183	HIS	-	expression tag	UNP Q9U3W1
A3	6184	HIS	-	expression tag	UNP Q9U3W1
A3	6185	HIS	-	expression tag	UNP Q9U3W1
BG	6180	HIS	-	expression tag	UNP Q9U3W1
BG	6181	HIS	-	expression tag	UNP Q9U3W1
BG	6182	HIS	-	expression tag	UNP Q9U3W1
BG	6183	HIS	-	expression tag	UNP Q9U3W1
BG	6184	HIS	-	expression tag	UNP Q9U3W1
BG	6185	HIS	-	expression tag	UNP Q9U3W1
BO	6180	HIS	-	expression tag	UNP Q9U3W1
BO	6181	HIS	-	expression tag	UNP Q9U3W1
BO	6182	HIS	-	expression tag	UNP Q9U3W1
BO	6183	HIS	-	expression tag	UNP Q9U3W1
BO	6184	HIS	-	expression tag	UNP Q9U3W1
BO	6185	HIS	-	expression tag	UNP Q9U3W1
BW	6180	HIS	-	expression tag	UNP Q9U3W1
BW	6181	HIS	-	expression tag	UNP Q9U3W1
BW	6182	HIS	-	expression tag	UNP Q9U3W1
BW	6183	HIS	-	expression tag	UNP Q9U3W1
BW	6184	HIS	-	expression tag	UNP Q9U3W1
BW	6185	HIS	-	expression tag	UNP Q9U3W1
Be	6180	HIS	-	expression tag	UNP Q9U3W1

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Chain	Residue	Modelled	Actual	Comment	Reference
Be	6181	HIS	-	expression tag	UNP Q9U3W1
Be	6182	HIS	-	expression tag	UNP Q9U3W1
Be	6183	HIS	-	expression tag	UNP Q9U3W1
Be	6184	HIS	-	expression tag	UNP Q9U3W1
Be	6185	HIS	-	expression tag	UNP Q9U3W1
Bm	6180	HIS	-	expression tag	UNP Q9U3W1
Bm	6181	HIS	-	expression tag	UNP Q9U3W1
Bm	6182	HIS	-	expression tag	UNP Q9U3W1
Bm	6183	HIS	-	expression tag	UNP Q9U3W1
Bm	6184	HIS	-	expression tag	UNP Q9U3W1
Bm	6185	HIS	-	expression tag	UNP Q9U3W1
Bu	6180	HIS	-	expression tag	UNP Q9U3W1
Bu	6181	HIS	-	expression tag	UNP Q9U3W1
Bu	6182	HIS	-	expression tag	UNP Q9U3W1
Bu	6183	HIS	-	expression tag	UNP Q9U3W1
Bu	6184	HIS	-	expression tag	UNP Q9U3W1
Bu	6185	HIS	-	expression tag	UNP Q9U3W1
B3	6180	HIS	-	expression tag	UNP Q9U3W1
B3	6181	HIS	-	expression tag	UNP Q9U3W1
B3	6182	HIS	-	expression tag	UNP Q9U3W1
B3	6183	HIS	-	expression tag	UNP Q9U3W1
B3	6184	HIS	-	expression tag	UNP Q9U3W1
B3	6185	HIS	-	expression tag	UNP Q9U3W1
CG	6180	HIS	-	expression tag	UNP Q9U3W1
CG	6181	HIS	-	expression tag	UNP Q9U3W1
CG	6182	HIS	-	expression tag	UNP Q9U3W1
CG	6183	HIS	-	expression tag	UNP Q9U3W1
CG	6184	HIS	-	expression tag	UNP Q9U3W1
CG	6185	HIS	-	expression tag	UNP Q9U3W1
CO	6180	HIS	-	expression tag	UNP Q9U3W1
CO	6181	HIS	-	expression tag	UNP Q9U3W1
CO	6182	HIS	-	expression tag	UNP Q9U3W1
CO	6183	HIS	-	expression tag	UNP Q9U3W1
CO	6184	HIS	-	expression tag	UNP Q9U3W1
CO	6185	HIS	-	expression tag	UNP Q9U3W1
CW	6180	HIS	-	expression tag	UNP Q9U3W1
CW	6181	HIS	-	expression tag	UNP Q9U3W1
CW	6182	HIS	-	expression tag	UNP Q9U3W1
CW	6183	HIS	-	expression tag	UNP Q9U3W1
CW	6184	HIS	-	expression tag	UNP Q9U3W1
CW	6185	HIS	-	expression tag	UNP Q9U3W1
Ce	6180	HIS	-	expression tag	UNP Q9U3W1

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Chain	Residue	Modelled	Actual	Comment	Reference
Ce	6181	HIS	-	expression tag	UNP Q9U3W1
Ce	6182	HIS	-	expression tag	UNP Q9U3W1
Ce	6183	HIS	-	expression tag	UNP Q9U3W1
Ce	6184	HIS	-	expression tag	UNP Q9U3W1
Ce	6185	HIS	-	expression tag	UNP Q9U3W1
Cm	6180	HIS	-	expression tag	UNP Q9U3W1
Cm	6181	HIS	-	expression tag	UNP Q9U3W1
Cm	6182	HIS	-	expression tag	UNP Q9U3W1
Cm	6183	HIS	-	expression tag	UNP Q9U3W1
Cm	6184	HIS	-	expression tag	UNP Q9U3W1
Cm	6185	HIS	-	expression tag	UNP Q9U3W1
Cu	6180	HIS	-	expression tag	UNP Q9U3W1
Cu	6181	HIS	-	expression tag	UNP Q9U3W1
Cu	6182	HIS	-	expression tag	UNP Q9U3W1
Cu	6183	HIS	-	expression tag	UNP Q9U3W1
Cu	6184	HIS	-	expression tag	UNP Q9U3W1
Cu	6185	HIS	-	expression tag	UNP Q9U3W1

- Molecule 8 is a protein called Small nuclear ribonucleoprotein G.

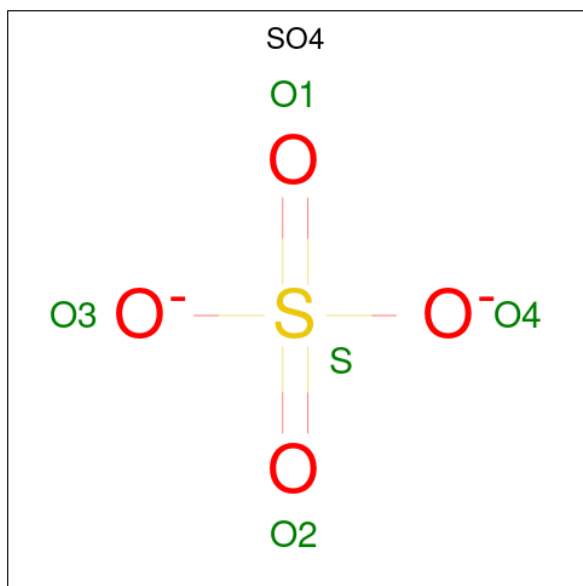
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AP	70	Total	C	N	O	S	0	0	0
			544	344	96	98	6			
8	AH	70	Total	C	N	O	S	0	0	0
			544	344	96	98	6			
8	AX	70	Total	C	N	O	S	0	0	0
			544	344	96	98	6			
8	Af	70	Total	C	N	O	S	0	0	0
			544	344	96	98	6			
8	An	70	Total	C	N	O	S	0	0	0
			544	344	96	98	6			
8	Av	70	Total	C	N	O	S	0	0	0
			544	344	96	98	6			
8	A4	70	Total	C	N	O	S	0	0	0
			544	344	96	98	6			
8	BH	70	Total	C	N	O	S	0	0	0
			544	344	96	98	6			
8	BP	70	Total	C	N	O	S	0	0	0
			544	344	96	98	6			
8	BX	70	Total	C	N	O	S	0	0	0
			544	344	96	98	6			
8	Bf	70	Total	C	N	O	S	0	0	0
			544	344	96	98	6			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	Bn	70	Total	C	N	O	S	0	0	0
			544	344	96	98	6			
8	Bv	70	Total	C	N	O	S	0	0	0
			544	344	96	98	6			
8	B4	70	Total	C	N	O	S	0	0	0
			544	344	96	98	6			
8	CH	70	Total	C	N	O	S	0	0	0
			544	344	96	98	6			
8	CP	70	Total	C	N	O	S	0	0	0
			544	344	96	98	6			
8	CX	70	Total	C	N	O	S	0	0	0
			544	344	96	98	6			
8	Cf	70	Total	C	N	O	S	0	0	0
			544	344	96	98	6			
8	Cn	70	Total	C	N	O	S	0	0	0
			544	344	96	98	6			
8	Cv	70	Total	C	N	O	S	0	0	0
			544	344	96	98	6			

- Molecule 9 is SULFATE ION (CCD ID: SO4) (formula: O₄S).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
9	Ad	1	Total	O	S	0	0
			5	4	1		
9	At	1	Total	O	S	0	0
			5	4	1		

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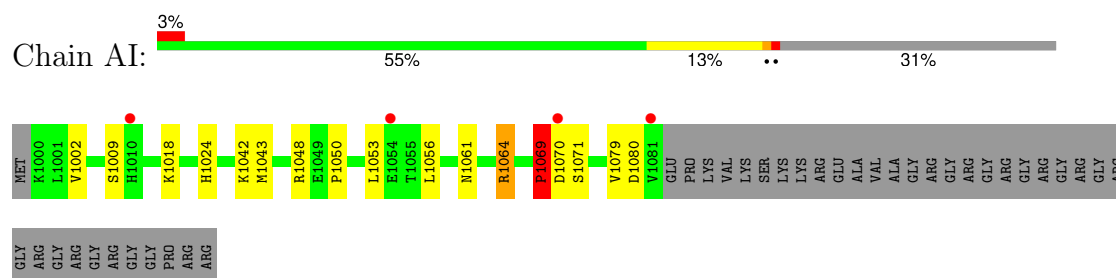
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
9	A2	1	Total	O	S	0	0
			5	4	1		
9	BF	1	Total	O	S	0	0
			5	4	1		
9	BV	1	Total	O	S	0	0
			5	4	1		
9	Bd	1	Total	O	S	0	0
			5	4	1		
9	Bt	1	Total	O	S	0	0
			5	4	1		
9	B2	1	Total	O	S	0	0
			5	4	1		
9	CF	1	Total	O	S	0	0
			5	4	1		
9	Cl	1	Total	O	S	0	0
			5	4	1		

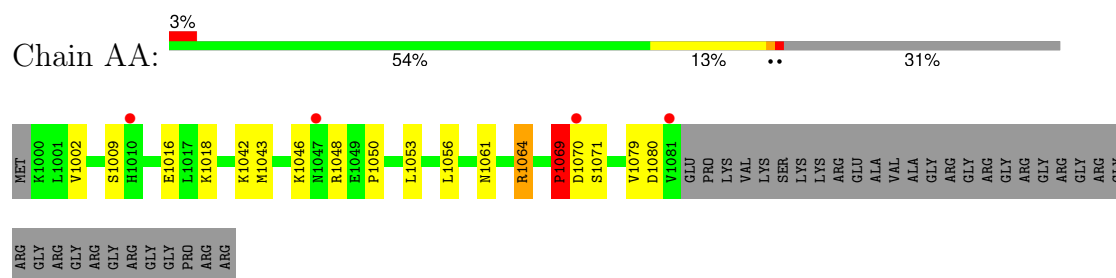
3 Residue-property plots [i](#)

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

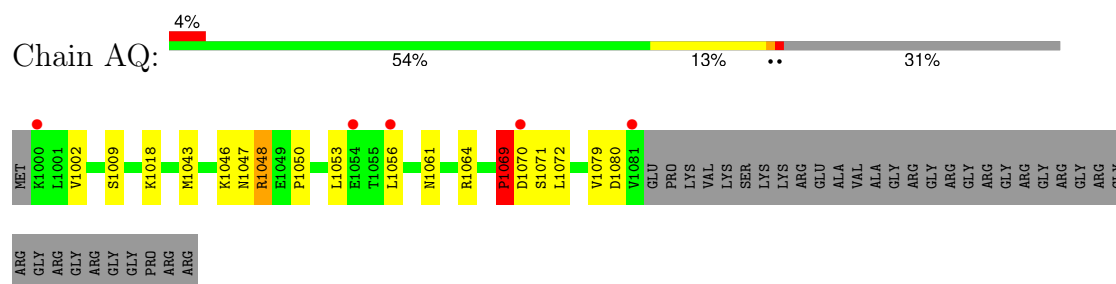
- Molecule 1: Small nuclear ribonucleoprotein Sm D1



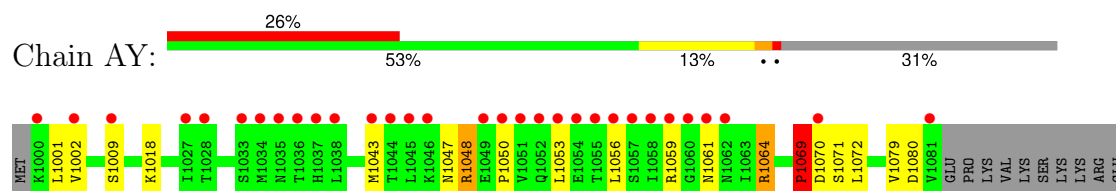
- Molecule 1: Small nuclear ribonucleoprotein Sm D1

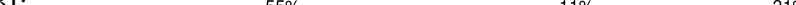


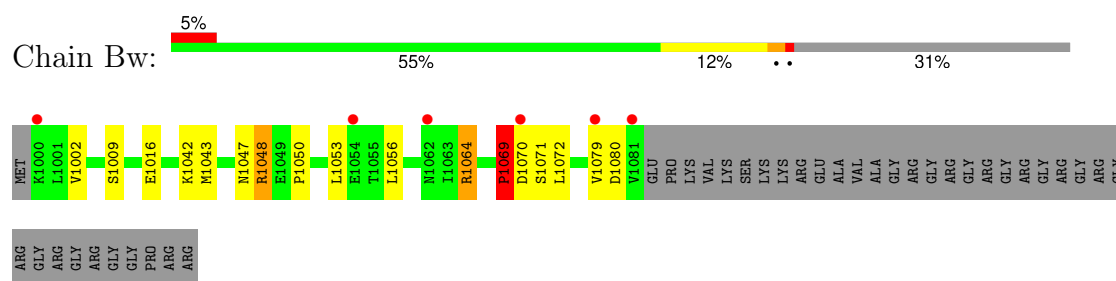
- Molecule 1: Small nuclear ribonucleoprotein Sm D1



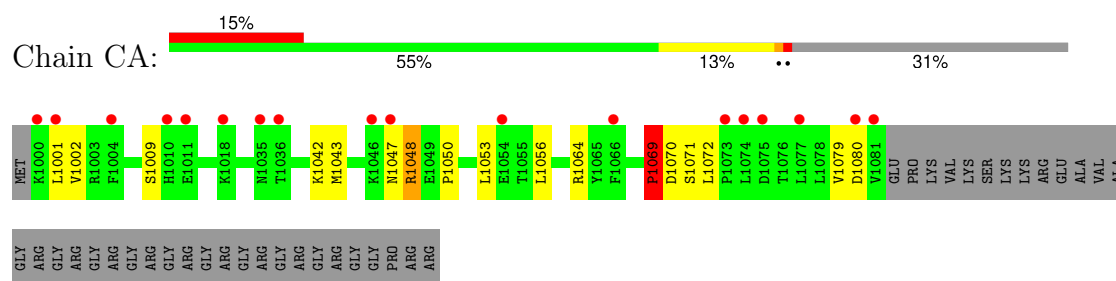
- Molecule 1: Small nuclear ribonucleoprotein Sm D1



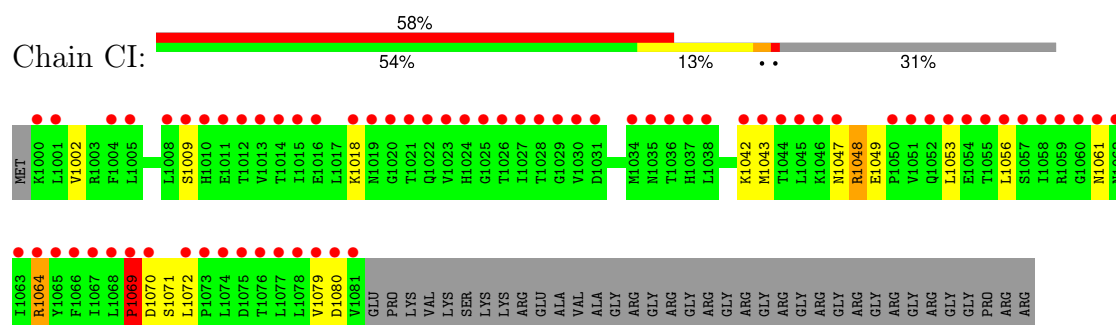
Chain BI: 



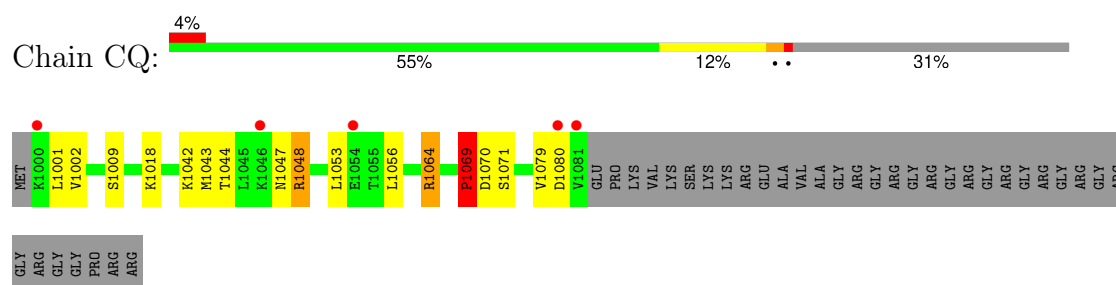
- Molecule 1: Small nuclear ribonucleoprotein Sm D1



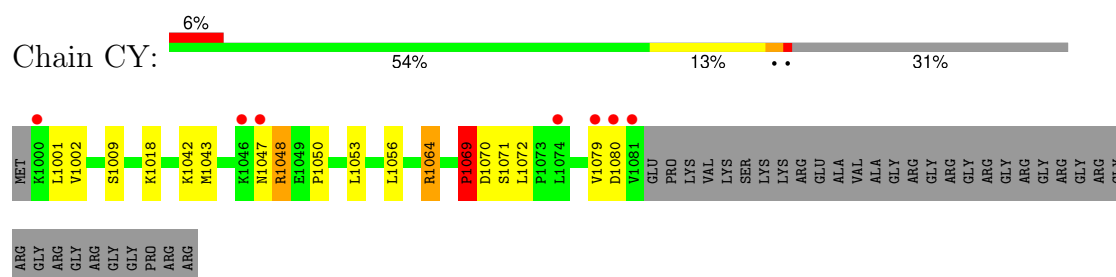
- Molecule 1: Small nuclear ribonucleoprotein Sm D1



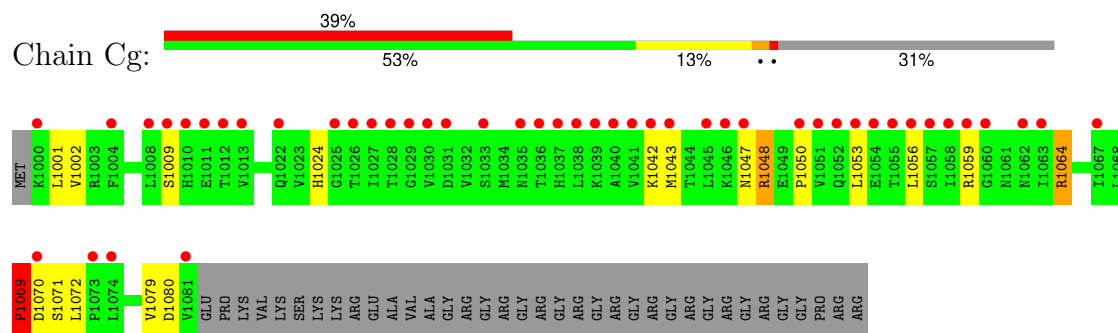
- Molecule 1: Small nuclear ribonucleoprotein Sm D1



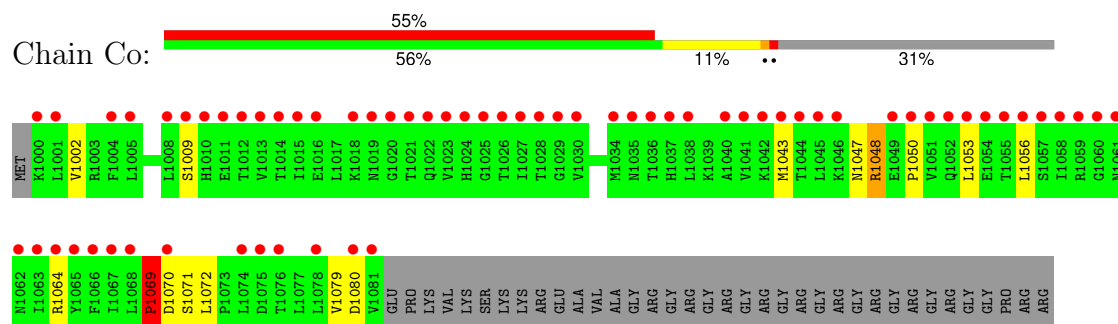
- Molecule 1: Small nuclear ribonucleoprotein Sm D1



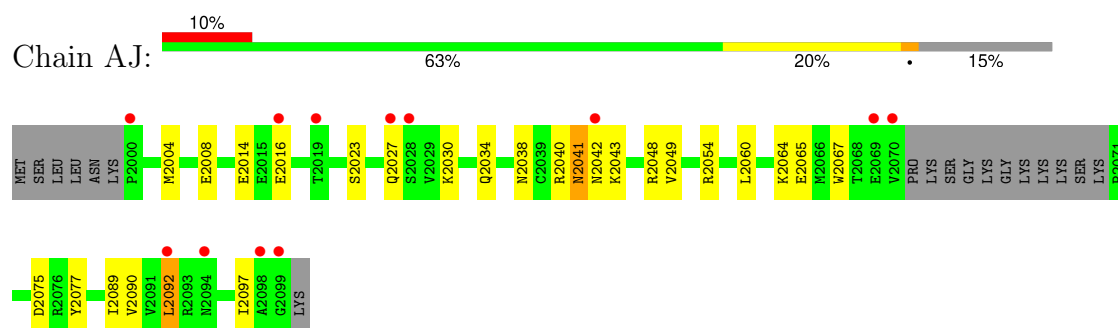
- Molecule 1: Small nuclear ribonucleoprotein Sm D1



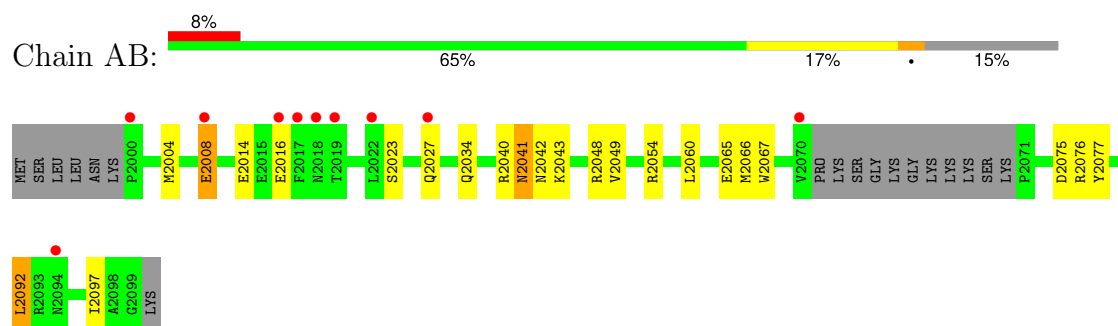
- Molecule 1: Small nuclear ribonucleoprotein Sm D1



- Molecule 2: Small nuclear ribonucleoprotein Sm D2

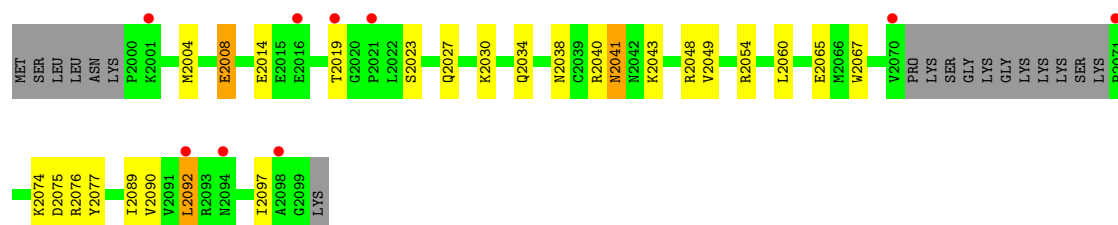


- Molecule 2: Small nuclear ribonucleoprotein Sm D2

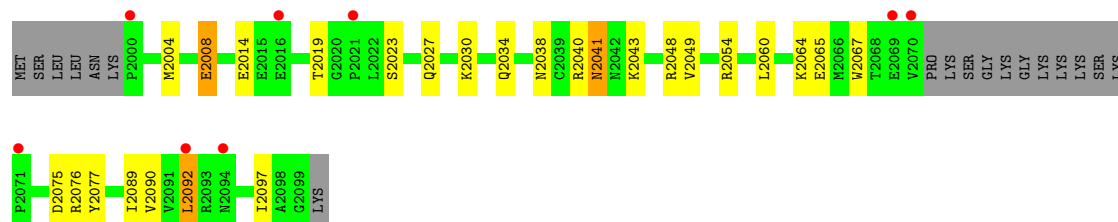


- Molecule 2: Small nuclear ribonucleoprotein Sm D2

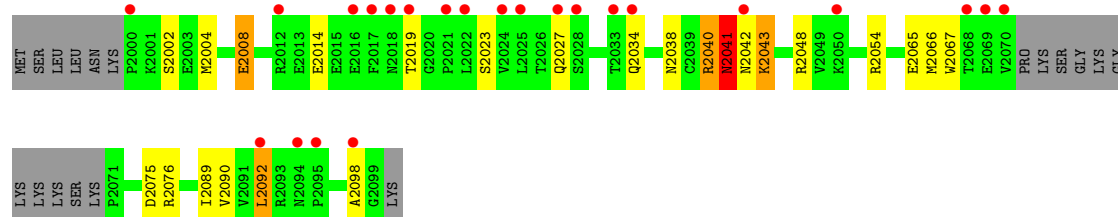




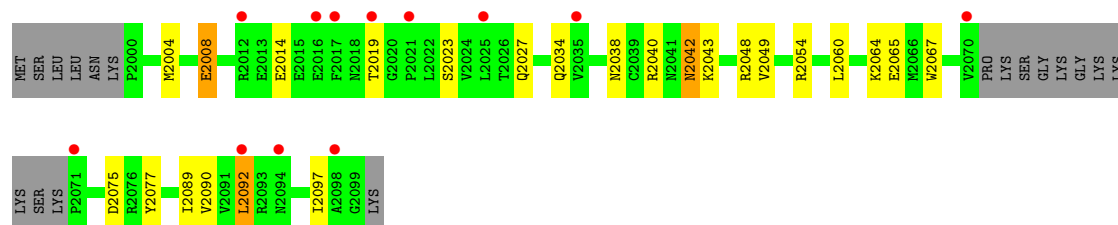
• Molecule 2: Small nuclear ribonucleoprotein Sm D2



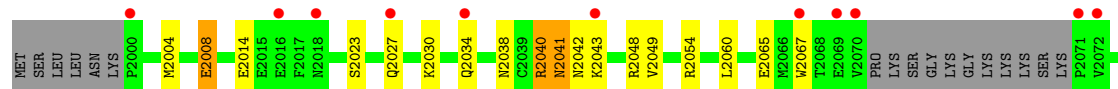
• Molecule 2: Small nuclear ribonucleoprotein Sm D2

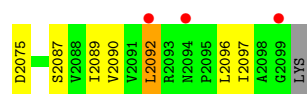


• Molecule 2: Small nuclear ribonucleoprotein Sm D2

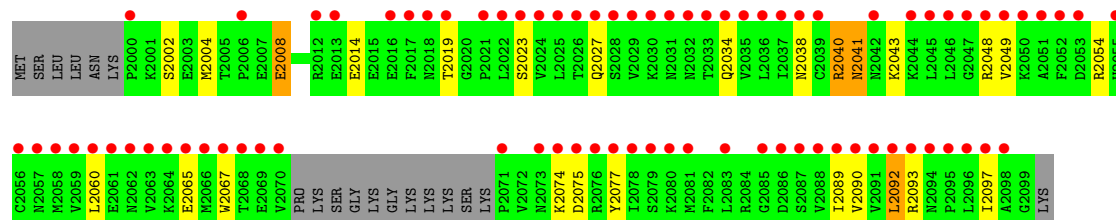


• Molecule 2: Small nuclear ribonucleoprotein Sm D2

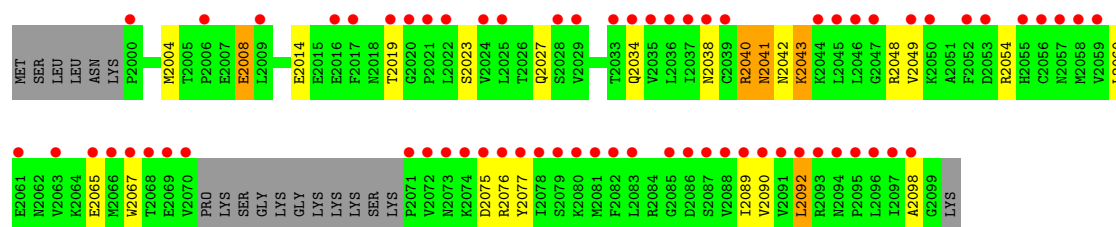




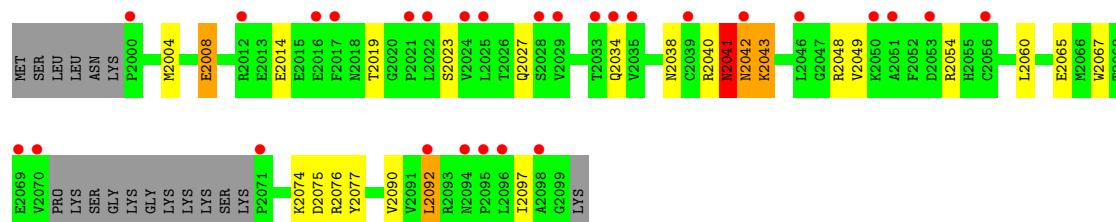
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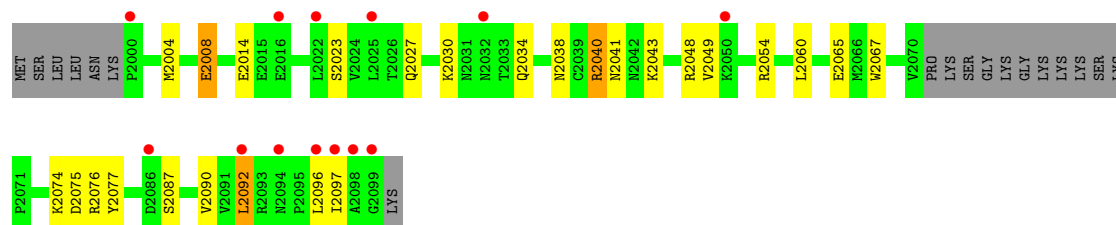
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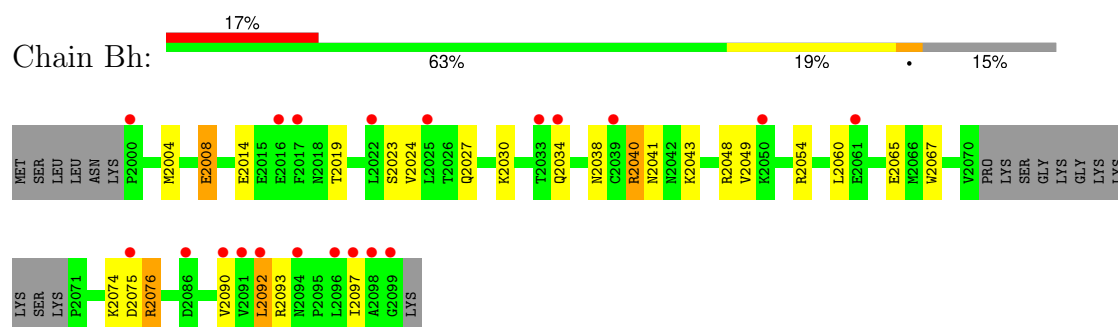
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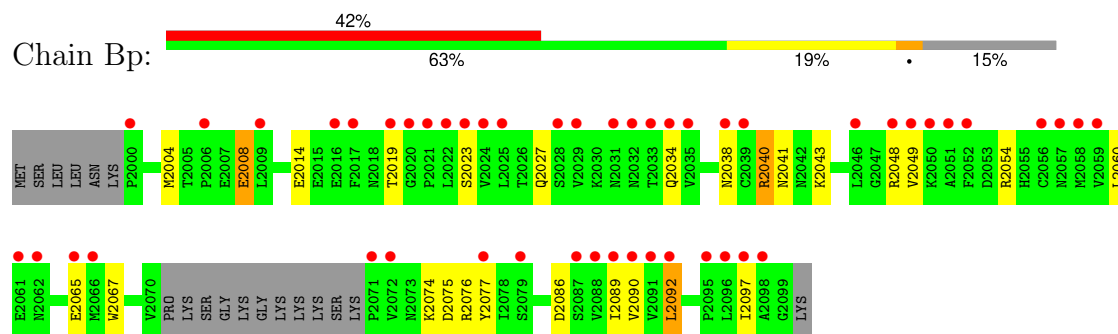
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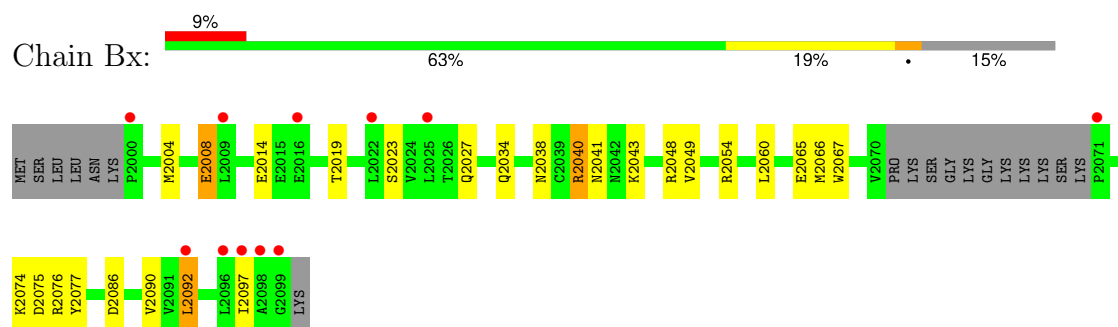
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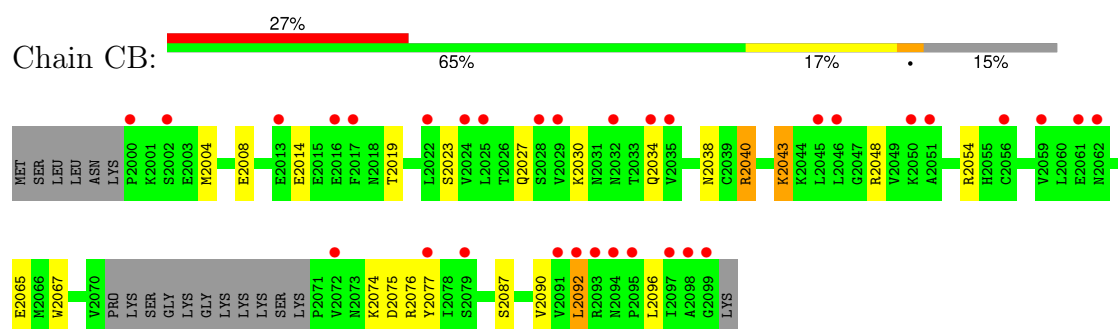
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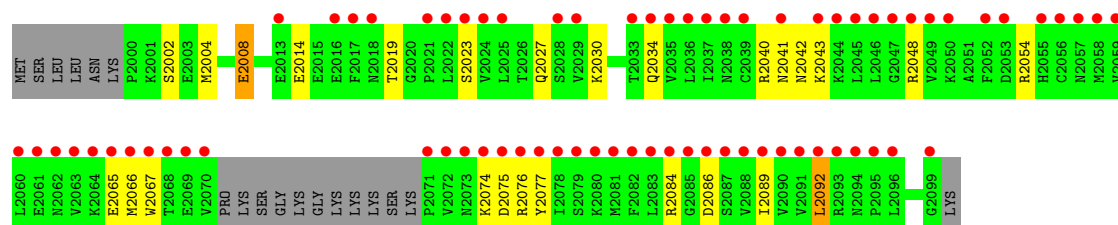


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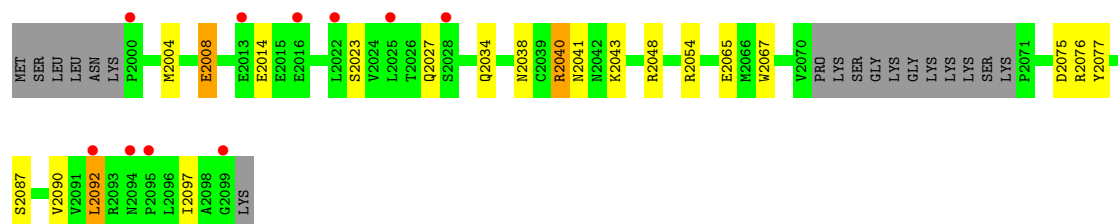


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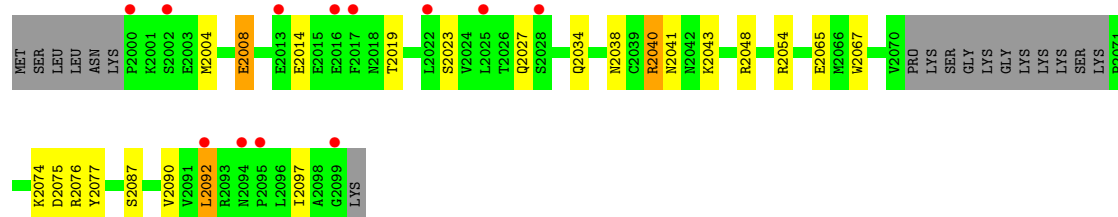




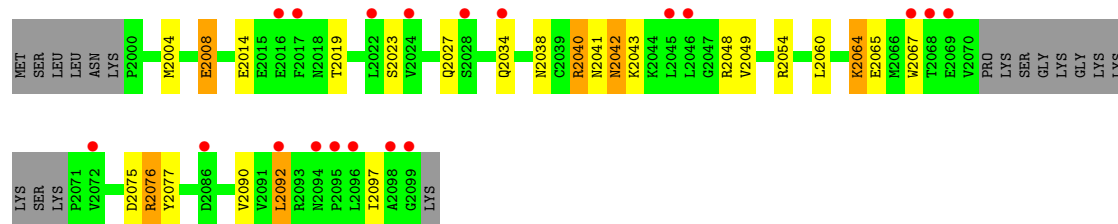
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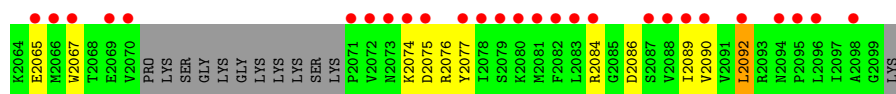


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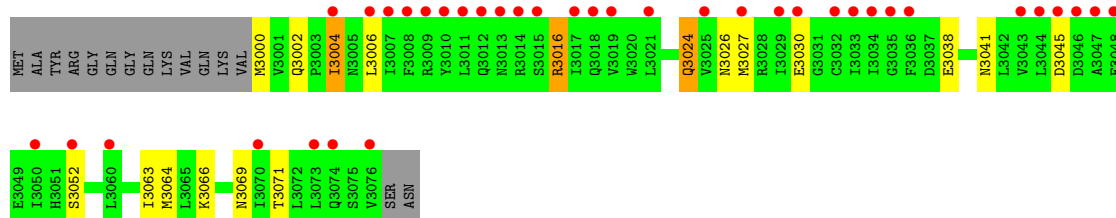
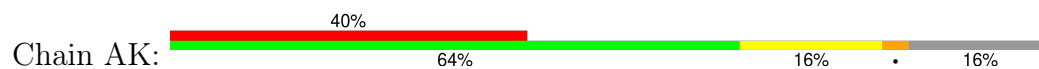


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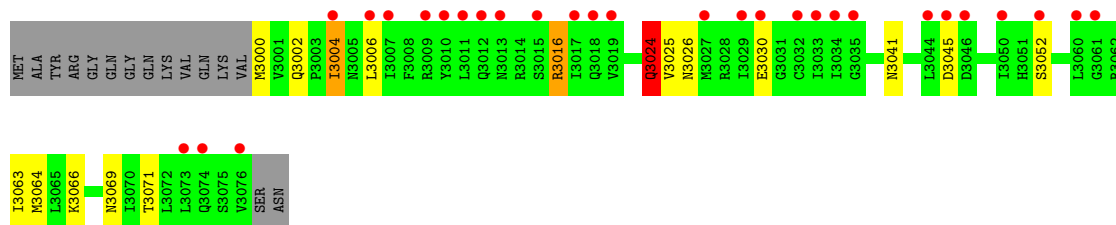




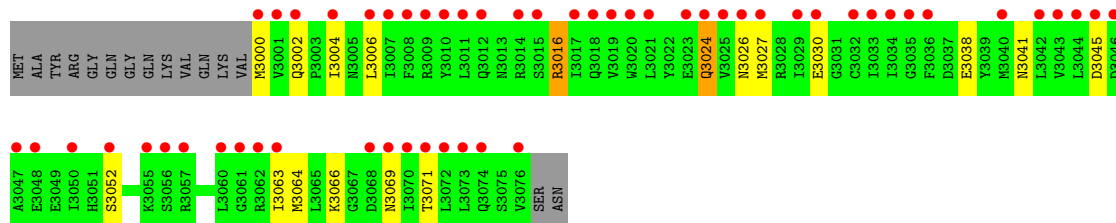
- Molecule 3: Small nuclear ribonucleoprotein E



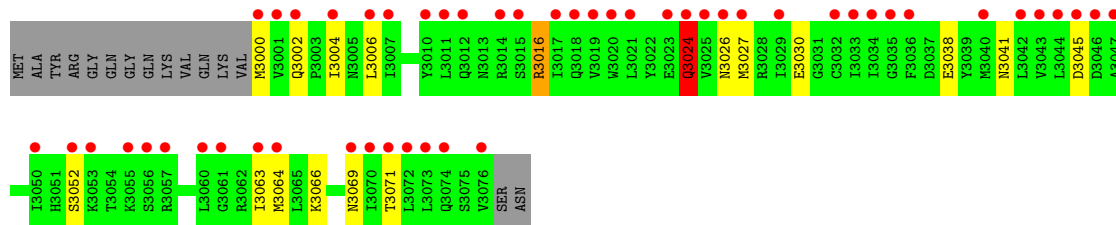
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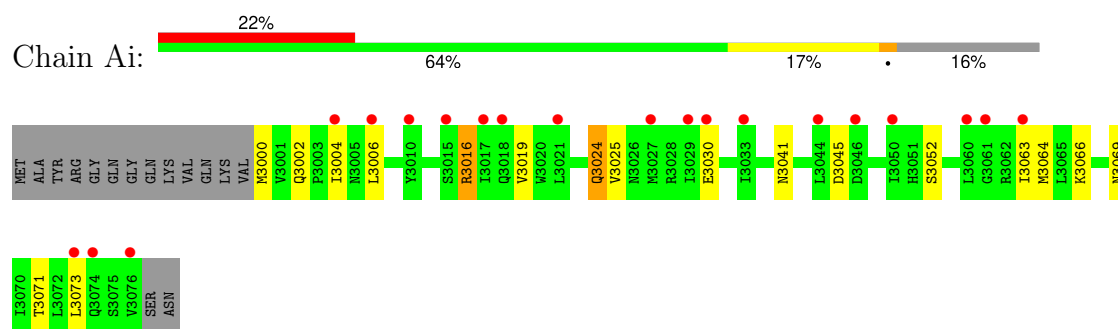
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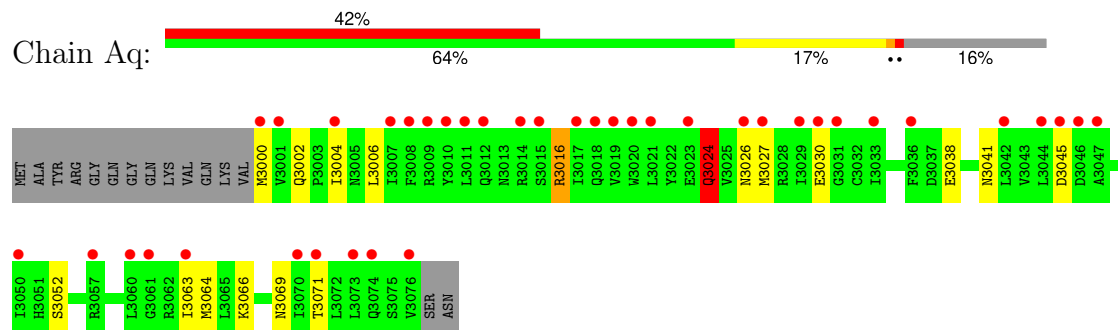
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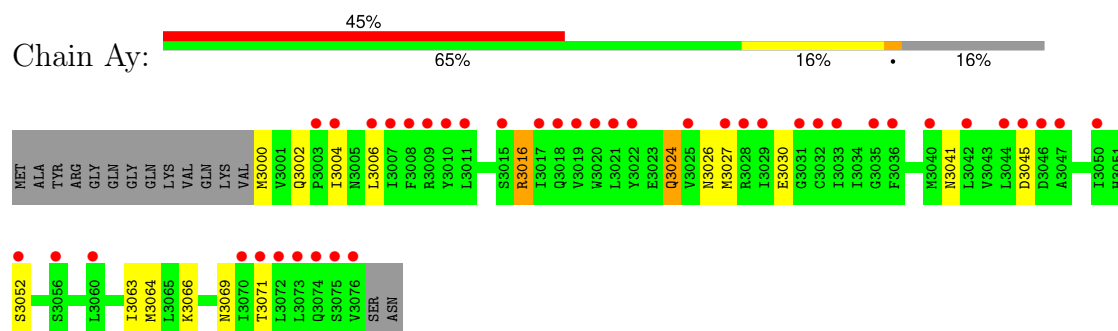
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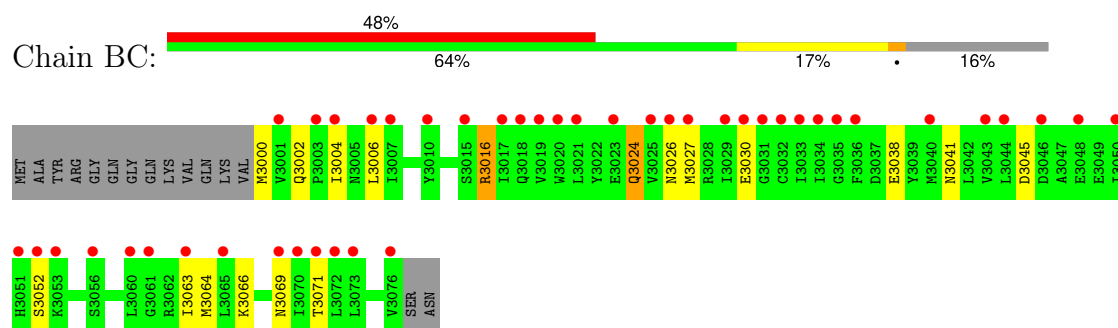
- Molecule 3: Small nuclear ribonucleoprotein E



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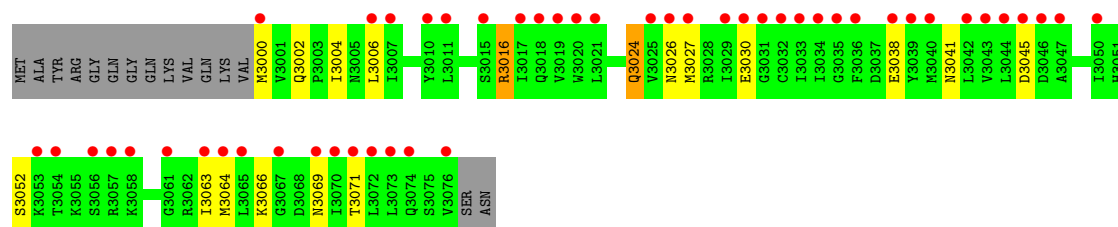


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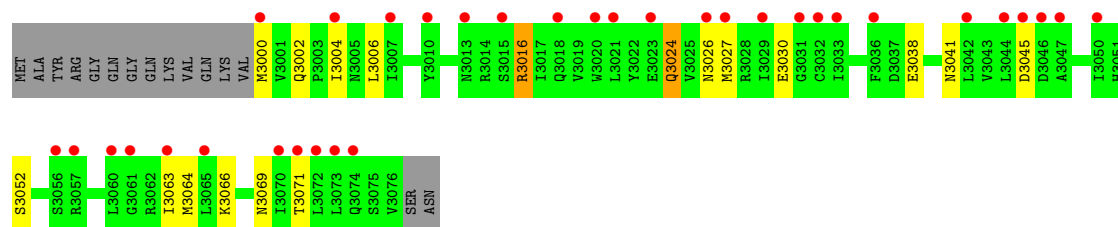
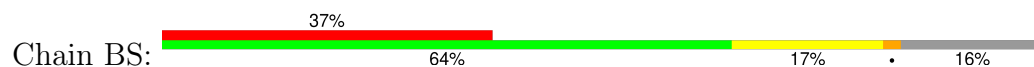


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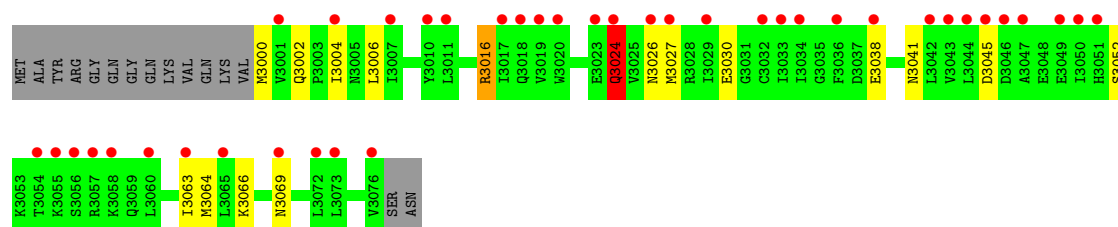




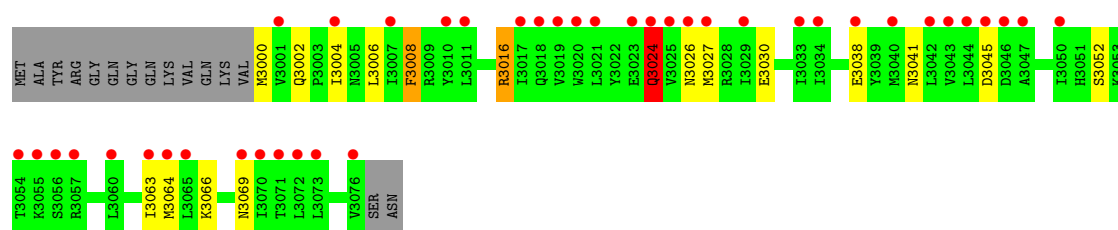
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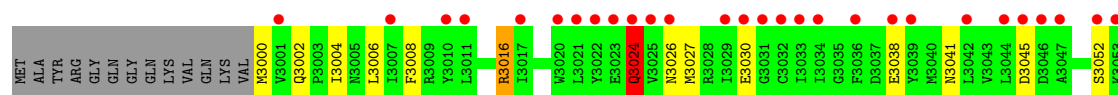
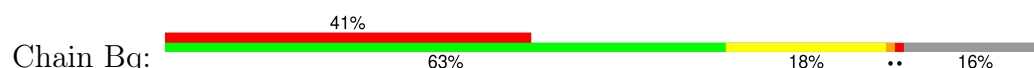
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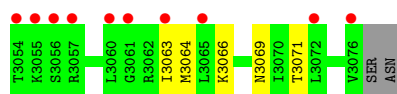


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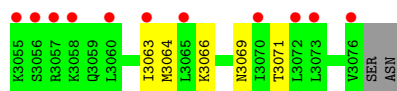
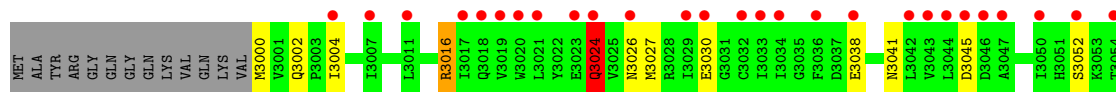
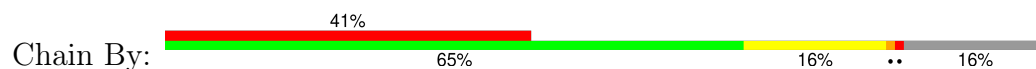


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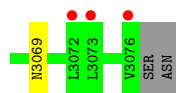
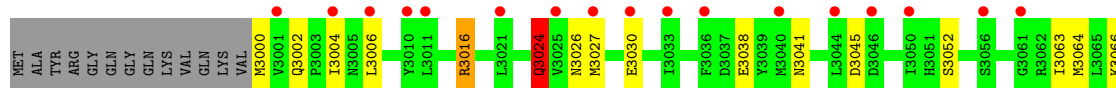




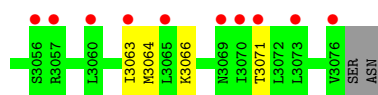
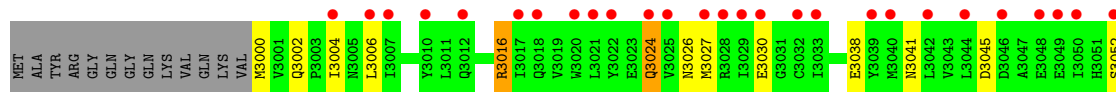
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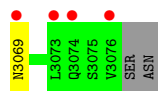
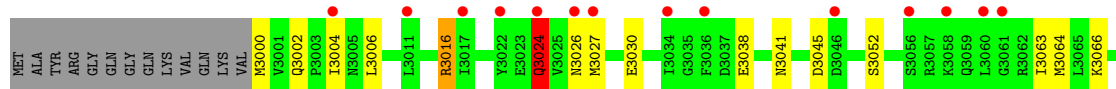
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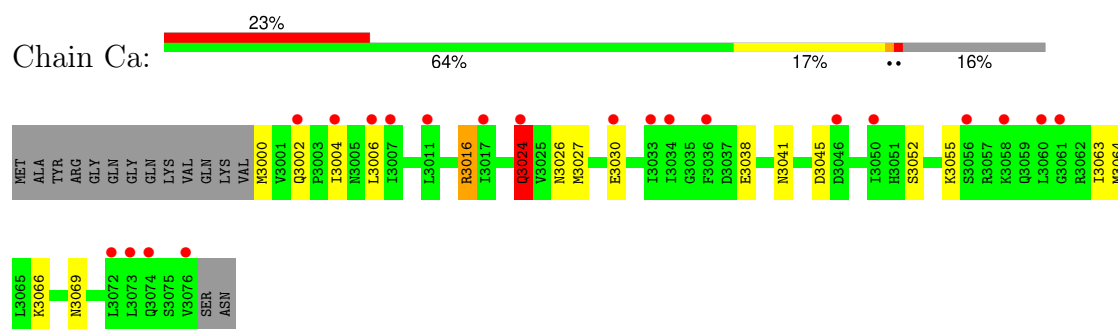
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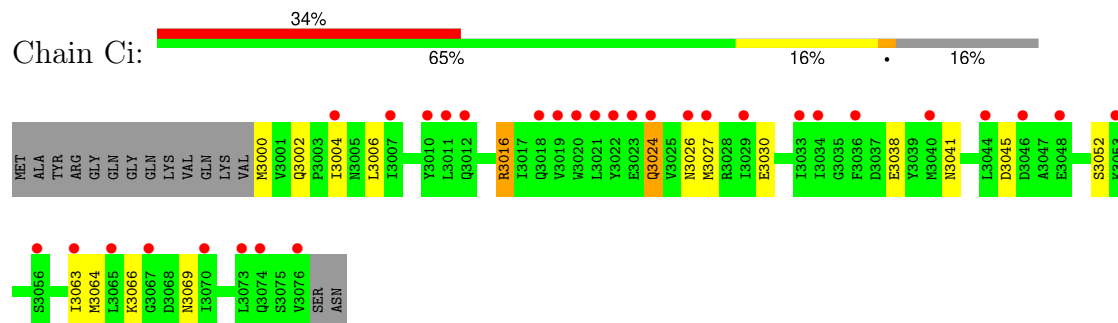
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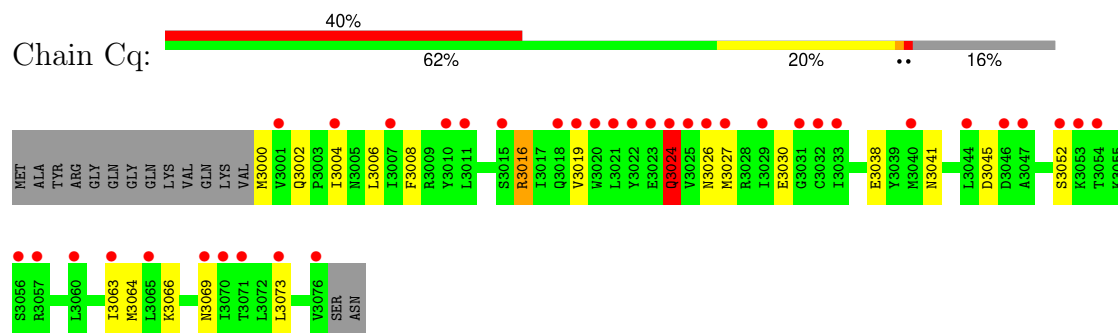
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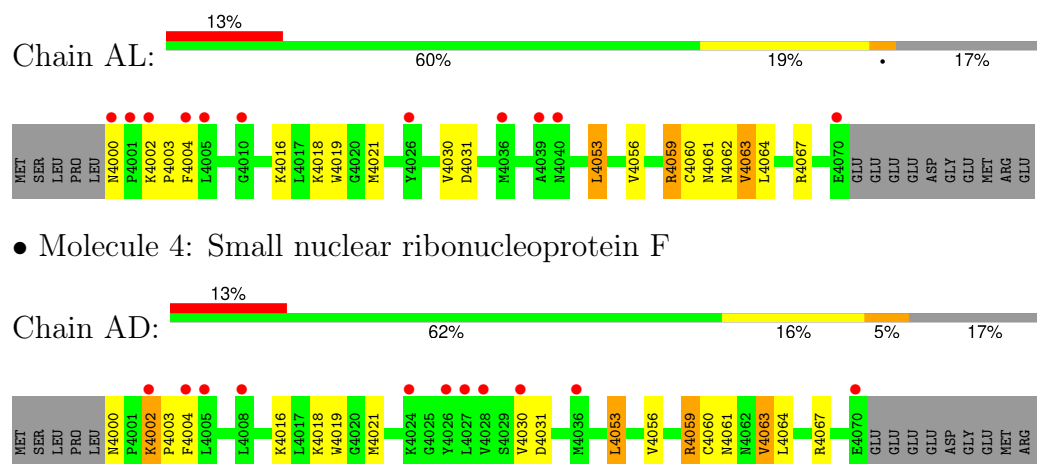
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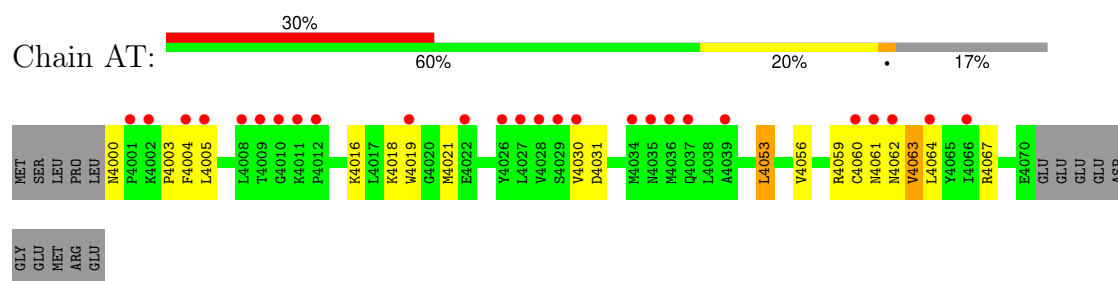


- Molecule 4: Small nuclear ribonucleoprotein F

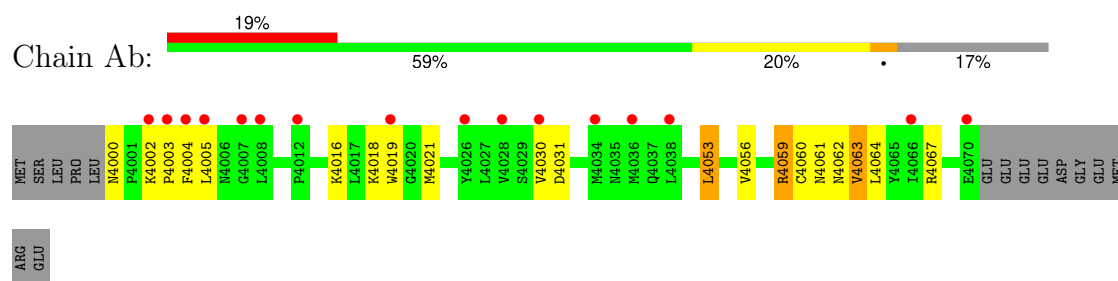


- Molecule 4: Small nuclear ribonucleoprotein F

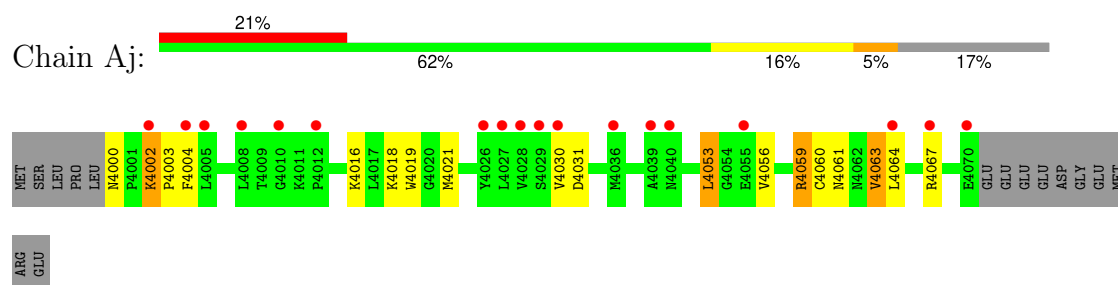
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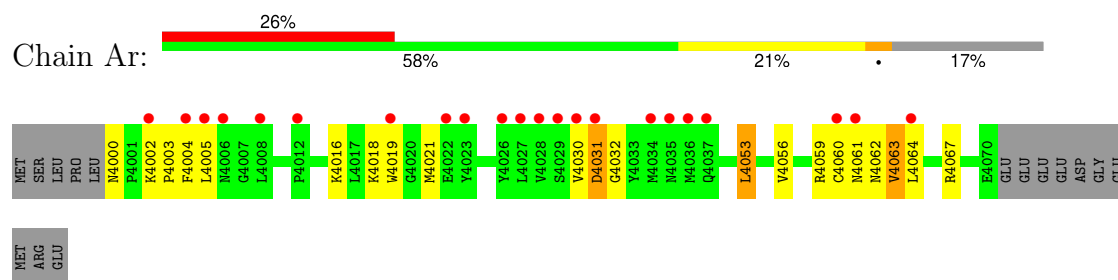
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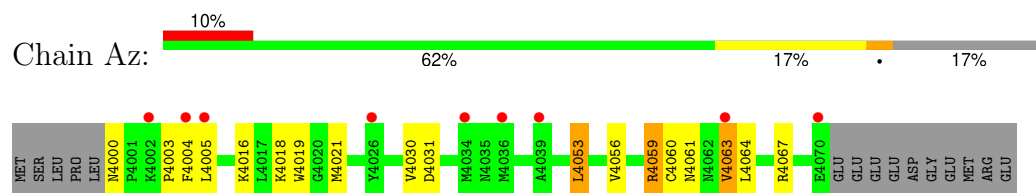
- Molecule 4: Small nuclear ribonucleoprotein F



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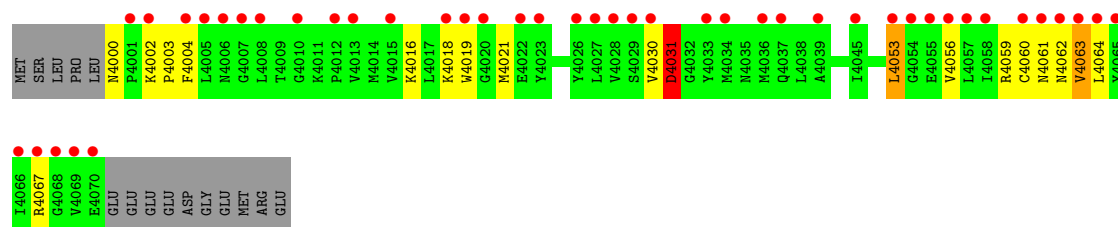


- Molecule 4: Small nuclear ribonucleoprotein F

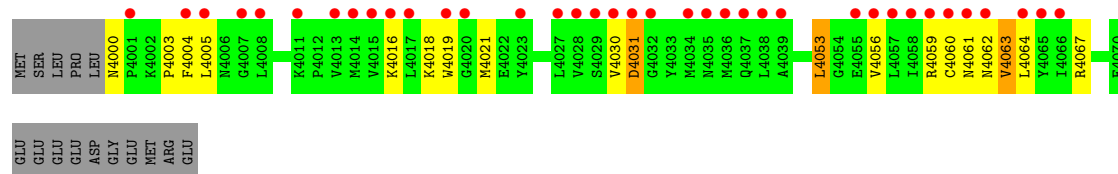
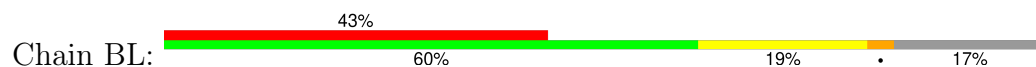


- Molecule 4: Small nuclear ribonucleoprotein F

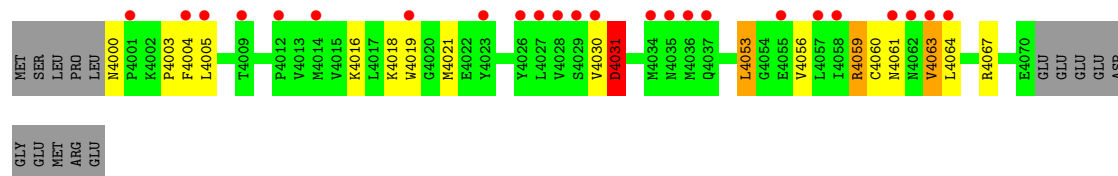




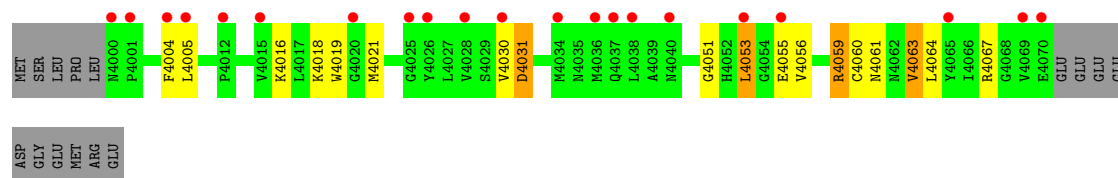
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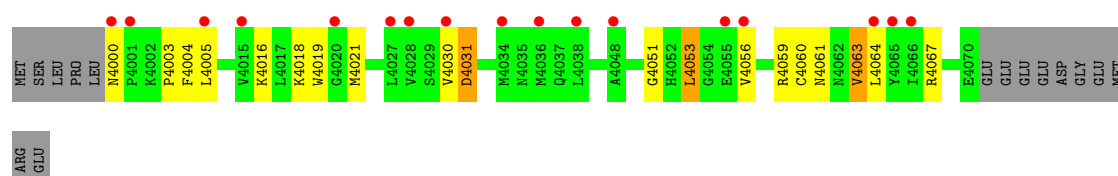
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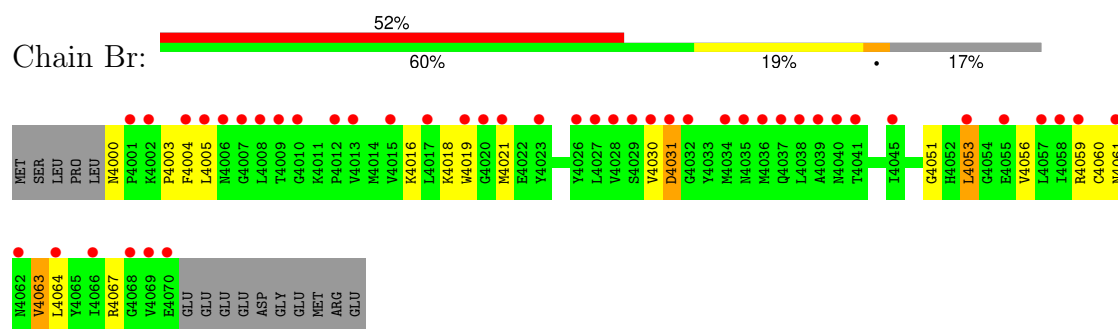
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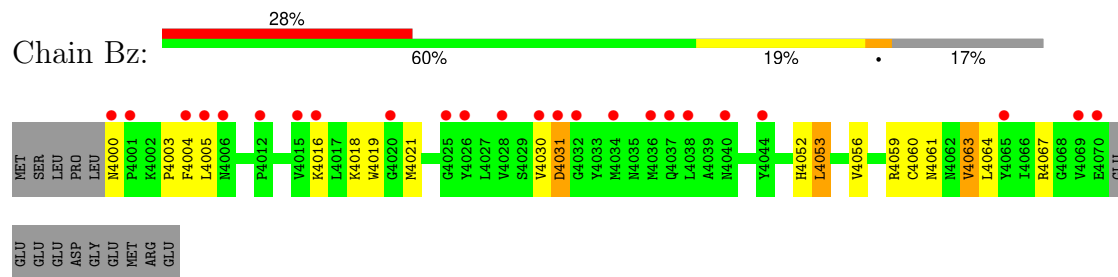
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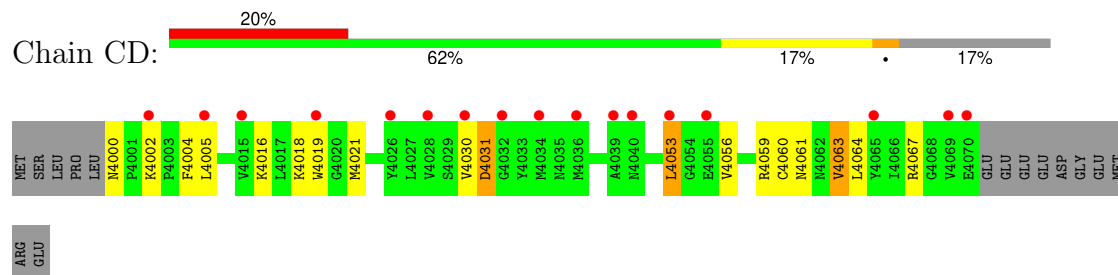
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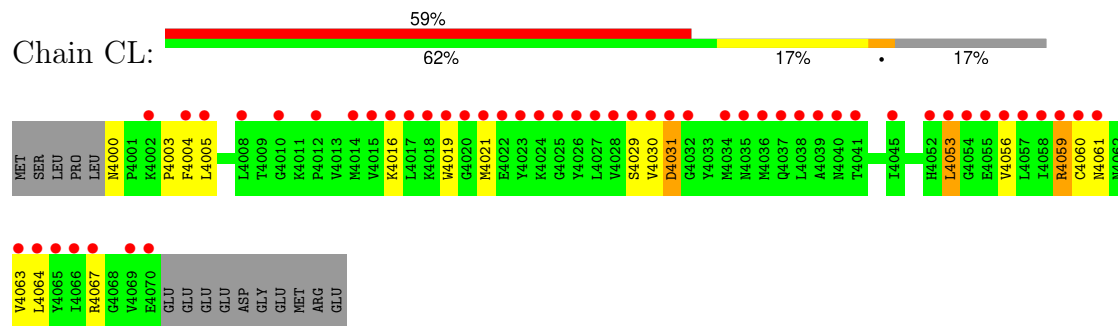
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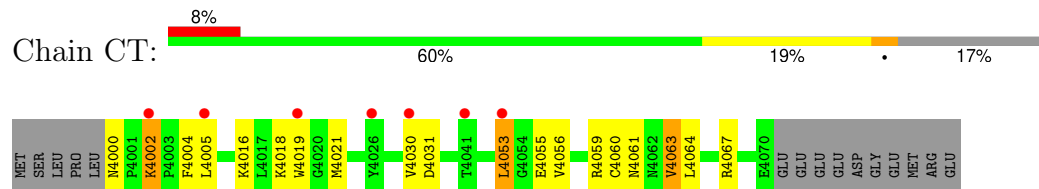
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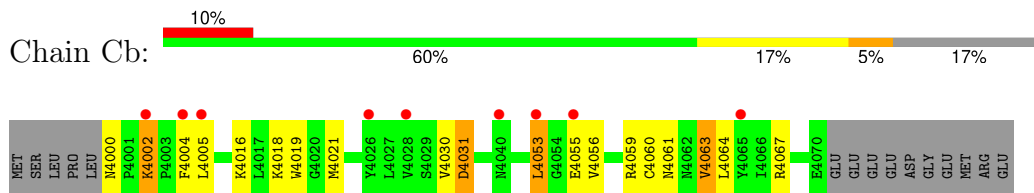
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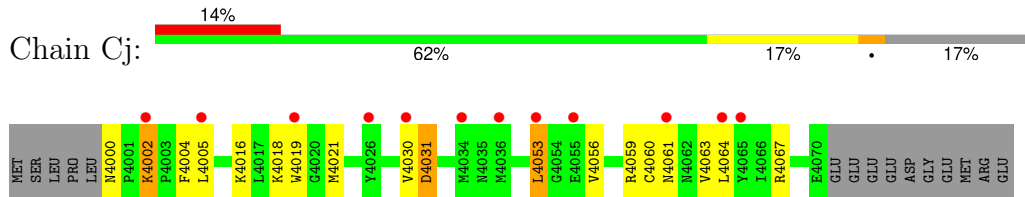
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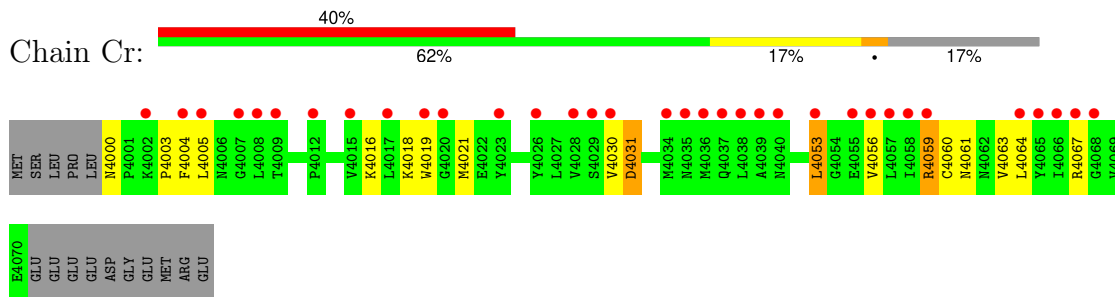
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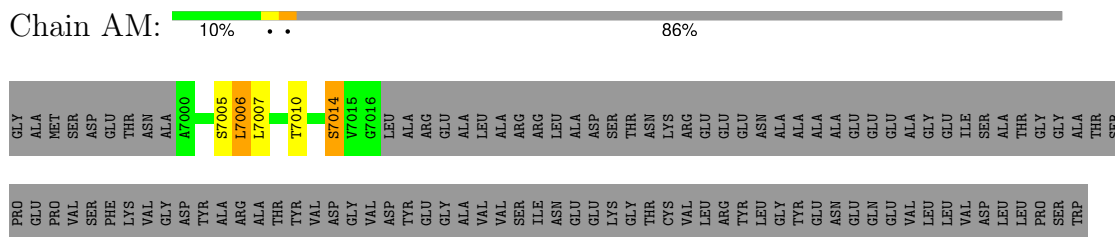
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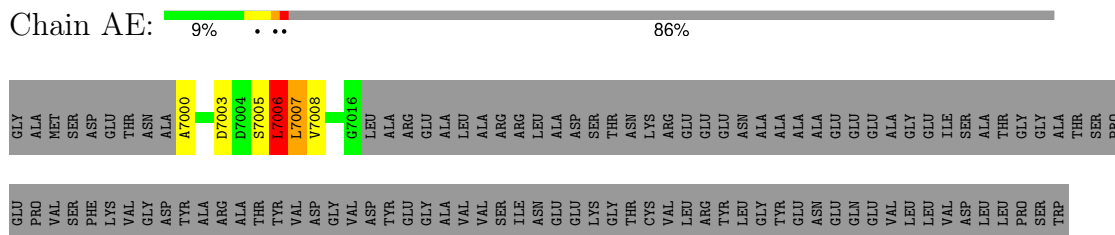
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- Molecule 5: LD23602p

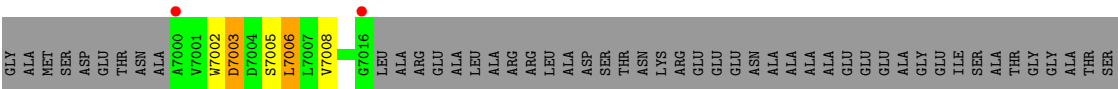


- Molecule 5: LD23602p



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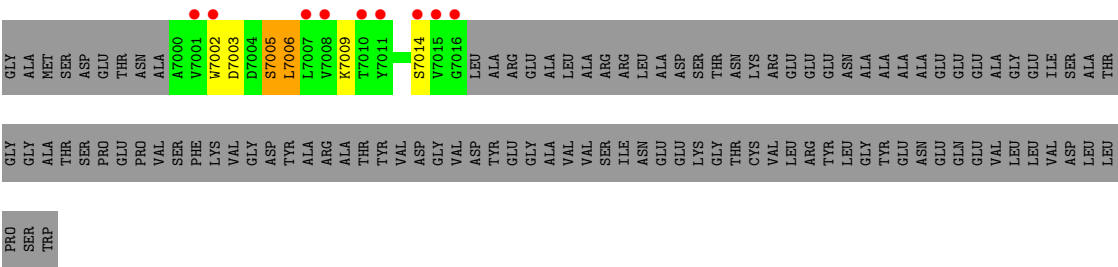


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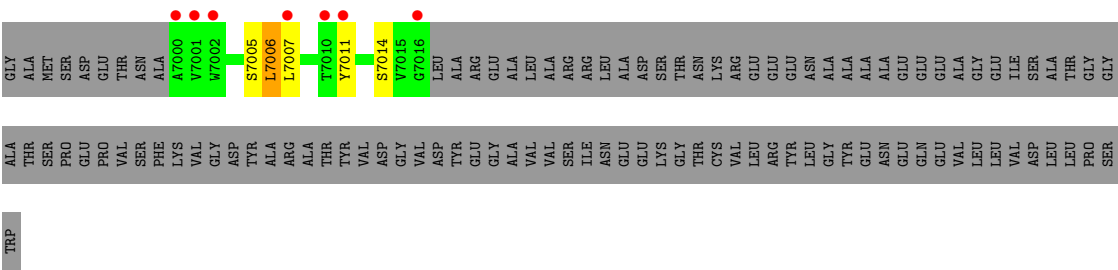


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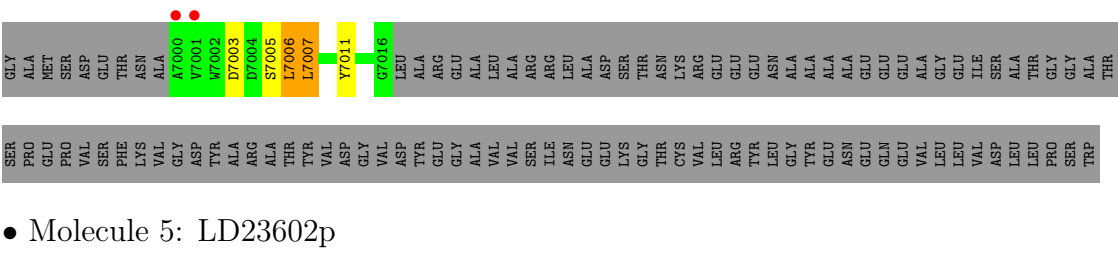




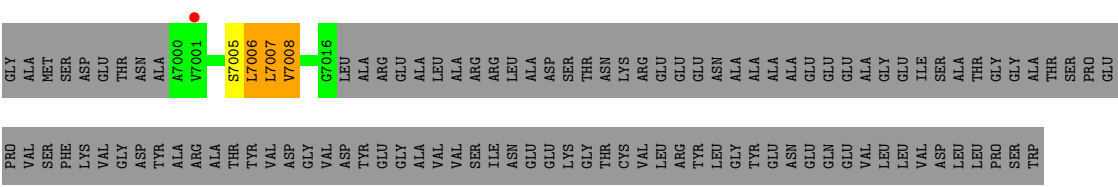
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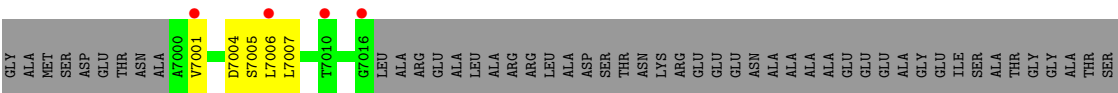
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PRO	GLU	GLY	PRO	PRO	VAL	SER	SER	PHE	LYS	VAL	GLY	ASP	TYR	ALA	ARG	ALA	THR	THR	VAL	ASP	GLY	VAL	ASP	GLU	GLY	GLU	GLY	VAL	VAL	VAL	SER	SER	ILE	ASN	GLU	GLY	LYS	THR	THR	THR	VAL	LEU	ARG	TYR	TYR	GLY	GLY	GLY	TYR	ASN	GLU	GLN	GLU	VAL	VAL	LEU	LEU	VAL	ASP	LEU	LEU	PRO	SER	TRP
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● Molecule 5: LD23602p



GLY	ALA	MET	SER	ASP	GLU	THR	ASN	ALA	A7000	V7001	S7005	L7006	L7007	V7008	K7009	T7010	G7016	LEU	ALA	ARG	GLY	ALA	LEU	VAL	ALA	ARG	ILE	ASN	GLU	ASP	LYS	THR	THR	CYS	VAL	ARG	GLU	GLU	TYR	GLY	ASN	GLU	GLU	GLN	GLU	GLU	ALA	ALA	GLY	GLY	ILE	ASP	LEU	ALA	THR	GLY	ALA	THR	SER
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PRO	GLU	PRO	VAL	SER	PHE	LYS	VAL	GLY	ASP	TYR	ALA	ARG	ALA	THR	TYR	VAL	ASP	GLY	VAL	ASP	LEU	ASP	TYR	VAL	VAL	VAL	SER	ILE	ASN	GLU	LYS	THR	THR	CYS	VAL	LEU	ARG	TYR	GLY	ASN	GLU	GLU	GLN	GLU	GLU	VAL	VAL	LEU	VAL	ASP	LEU	LEU	PRO	SER	TRP
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● Molecule 5: LD23602p



GLY	ALA	MET	SER	ASP	GLU	THR	ASN	ALA	A7000	V7001	W7002	D7003	L7006	L7007	Y7011	D7012	G7016	LEU	ALA	ARG	GLY	ALA	LEU	VAL	ALA	ARG	ILE	ASN	GLU	ASP	LYS	THR	THR	CYS	VAL	ARG	GLU	GLU	TYR	GLY	ASN	GLU	GLU	GLN	GLU	GLU	ALA	ALA	GLY	GLY	ILE	SER	THR	GLY	GLY	ALA	THR	PRO	SER	TRP
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SER	PRO	GLU	PRO	VAL	SER	PHE	LYS	VAL	GLY	TYR	ALA	ARG	ALA	THR	VAL	ASP	GLY	VAL	ASP	LEU	ASP	TYR	VAL	VAL	VAL	VAL	SER	ILE	ASN	GLU	LYS	THR	THR	CYS	VAL	LEU	ARG	TYR	GLY	ASN	GLU	GLU	GLN	GLU	GLU	VAL	VAL	LEU	VAL	ASP	LEU	LEU	PRO	SER	TRP
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● Molecule 5: LD23602p



GLY	ALA	MET	SER	ASP	GLU	THR	ASN	ALA	A7000	V7001	W7002	D7003	L7006	L7007	G7016	LEU	ALA	ARG	GLY	ALA	LEU	VAL	ALA	ARG	ILE	ASN	GLU	ASP	LYS	THR	THR	CYS	VAL	ARG	GLU	GLU	TYR	GLY	ASN	GLU	GLU	GLN	GLU	GLU	VAL	VAL	LEU	LEU	VAL	ASP	LEU	LEU	PRO	SER	TRP
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PRO	VAL	SER	PHE	LYS	VAL	GLY	ASP	TYR	THR	ALA	ARG	ALA	THR	VAL	ASP	GLY	VAL	ASP	TYR	GLU	GLY	ALA	VAL	VAL	SER	ILE	ASN	GLU	LYS	GLY	THR	THR	CYS	VAL	ARG	TYR	LEU	ASN	GLY	ASN	GLU	GLN	GLU	VAL	VAL	LEU	LEU	VAL	ASP	LEU	LEU	PRO	SER	TRP
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● Molecule 5: LD23602p



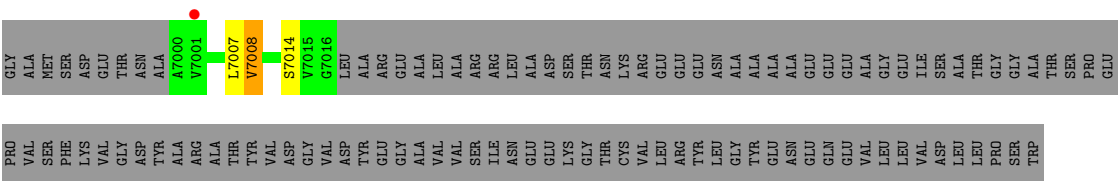
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ALA	THR	SER	PRO	GLU	PRO	VAL	SER	PHE	LYS	VAL	GLY	ASP	TYR	ALA	ARG	ALA	THR	THR	TYR	VAL	ASP	GLY	VAL	TYR	GLU	GLY	VAL	VAL	SER	ILE	ASN	GLU	LYS	THR	THR	CYS	VAL	ARG	GLY	ASN	GLU	GLU	GLN	GLU	VAL	VAL	LEU	LEU	GLY	GLY	ILE	ASP	LEU	LEU	PRO	SER
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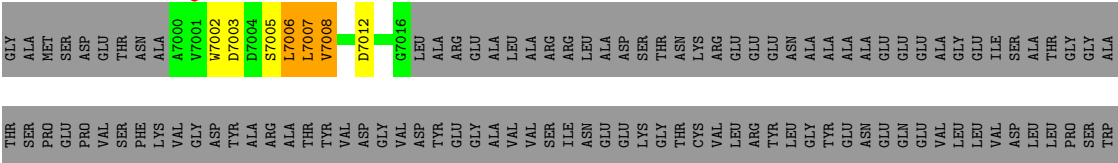
TRP

● Molecule 5: LD23602p

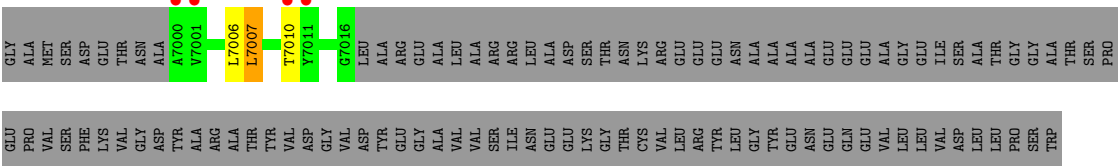




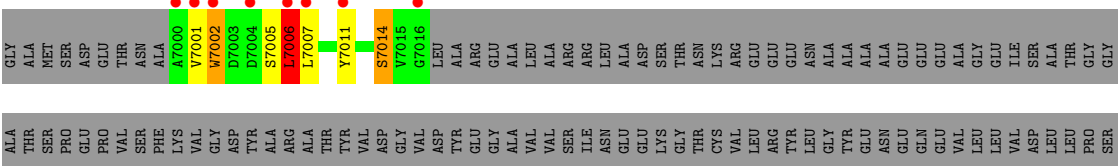
• Molecule 5: LD23602p



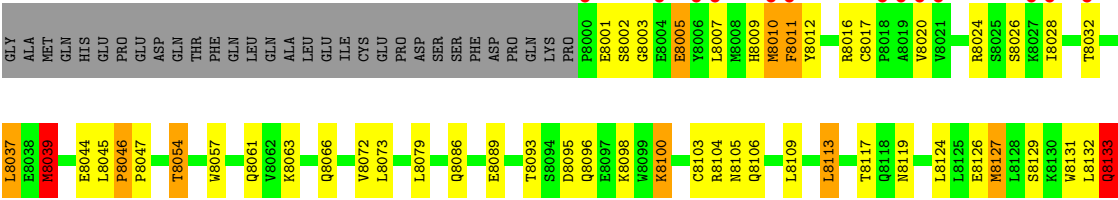
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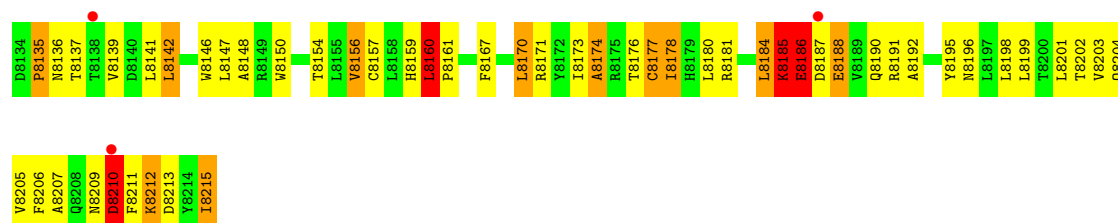


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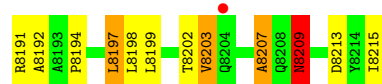
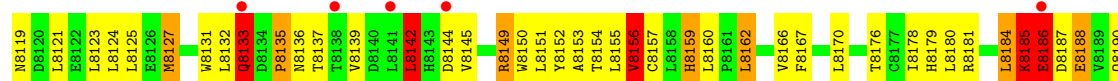
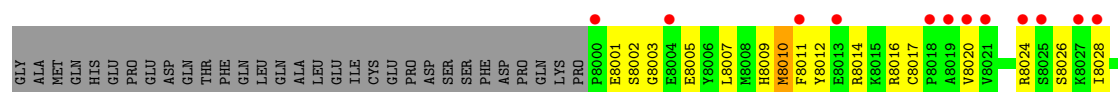


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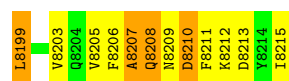
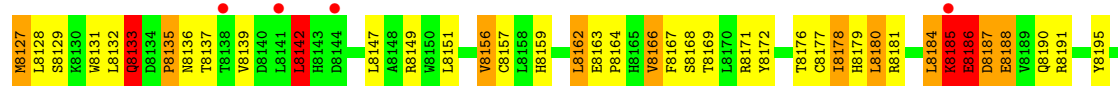
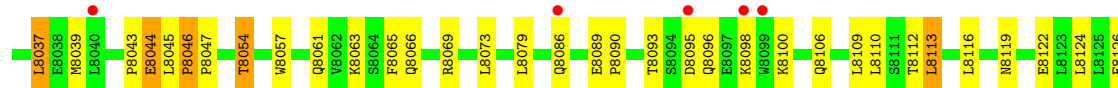




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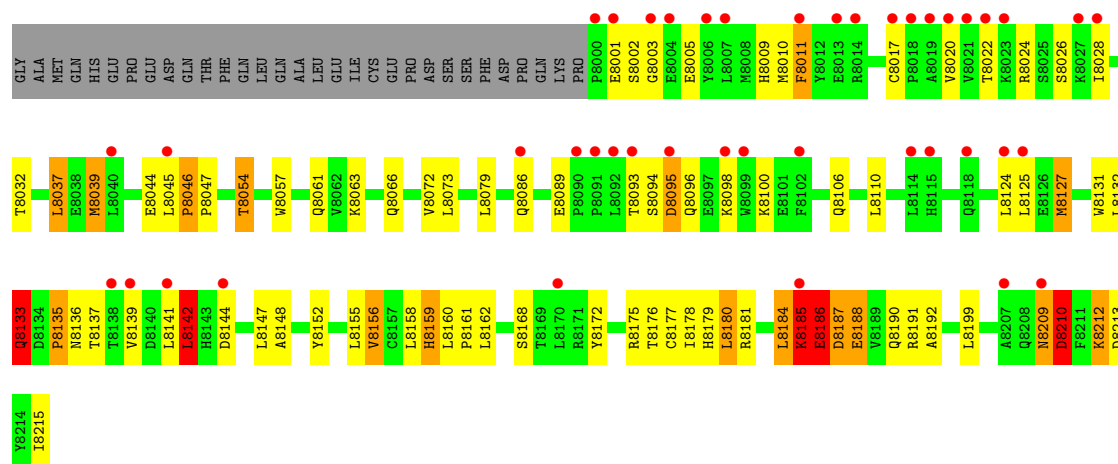


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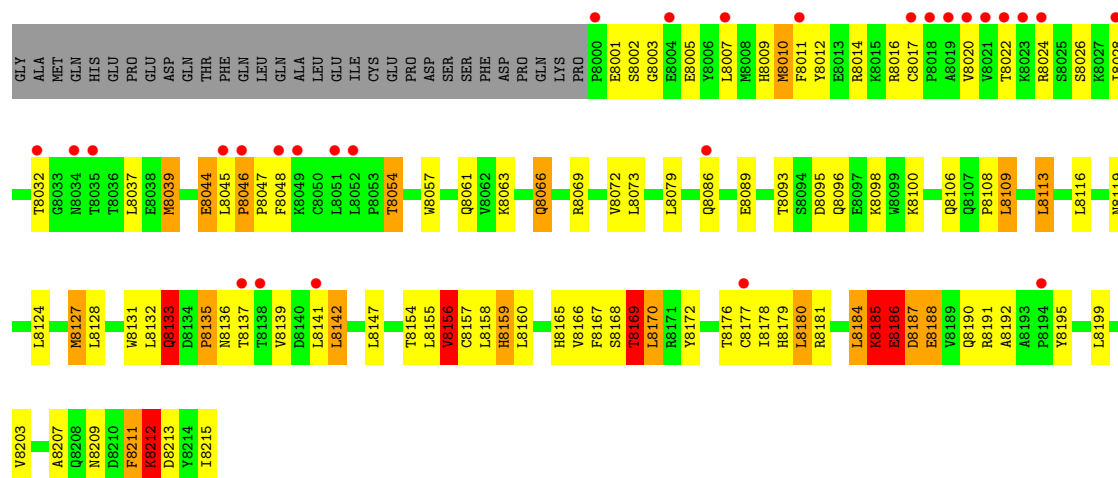


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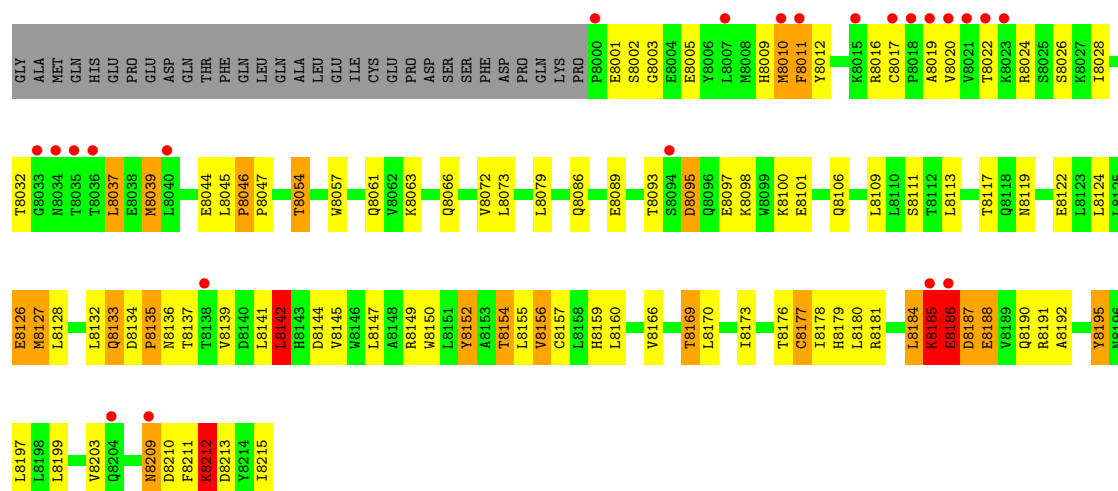




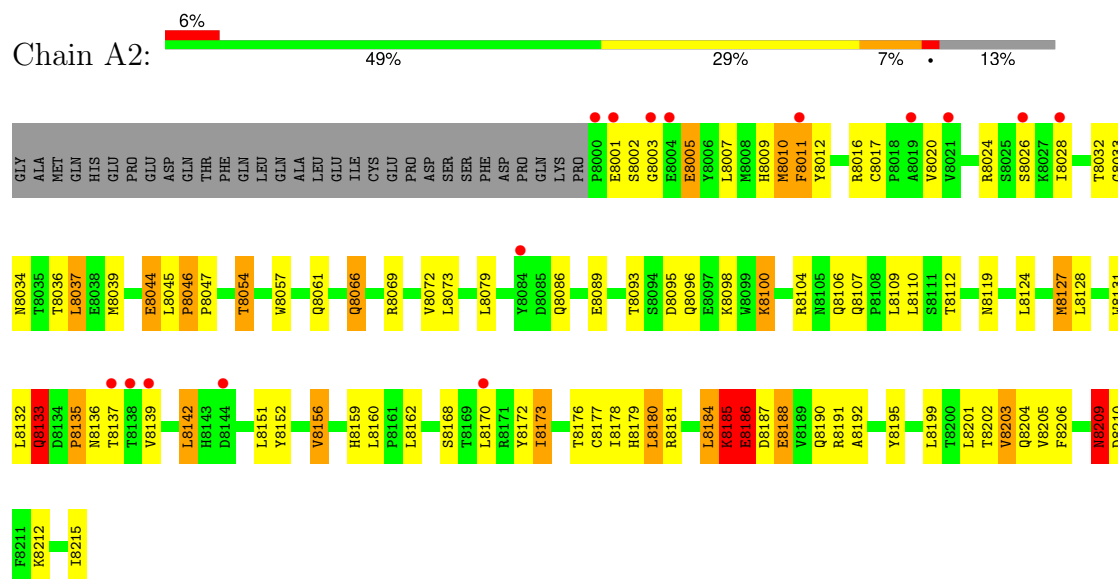
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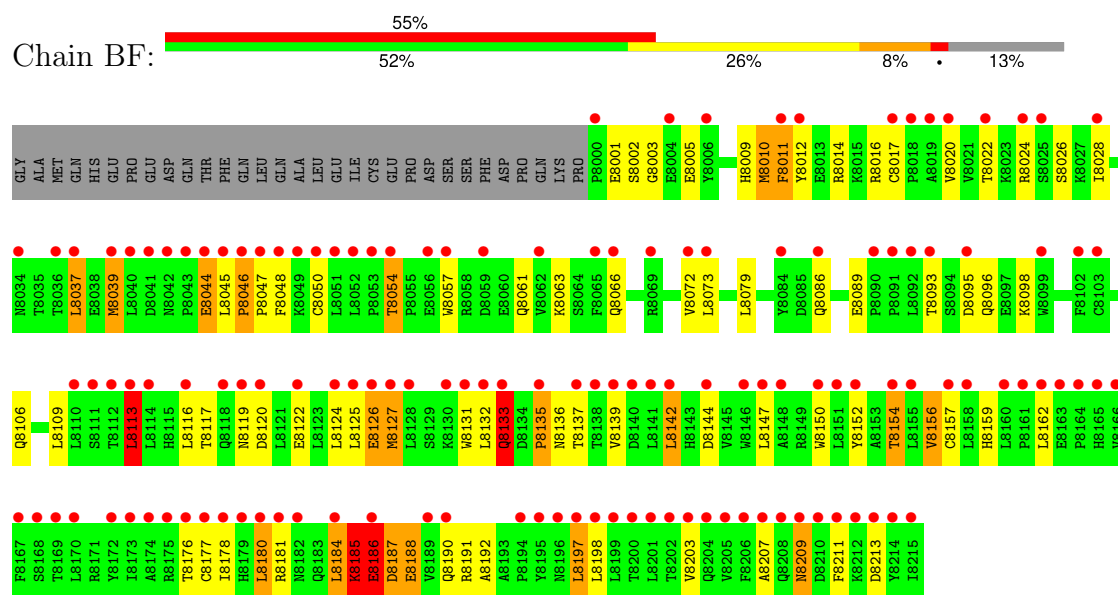
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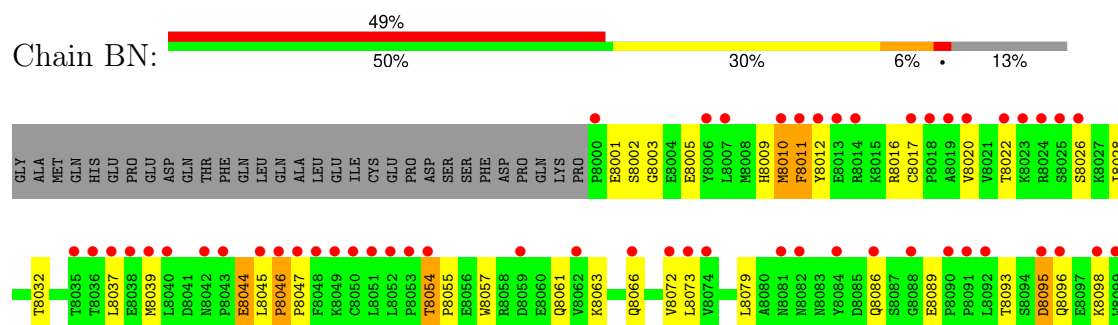
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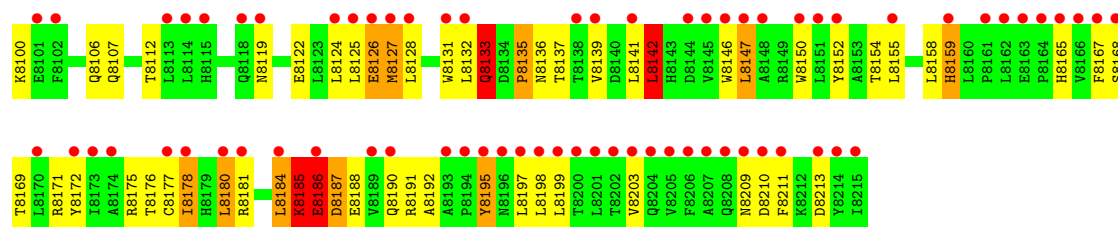


• Molecule 6: CG10419

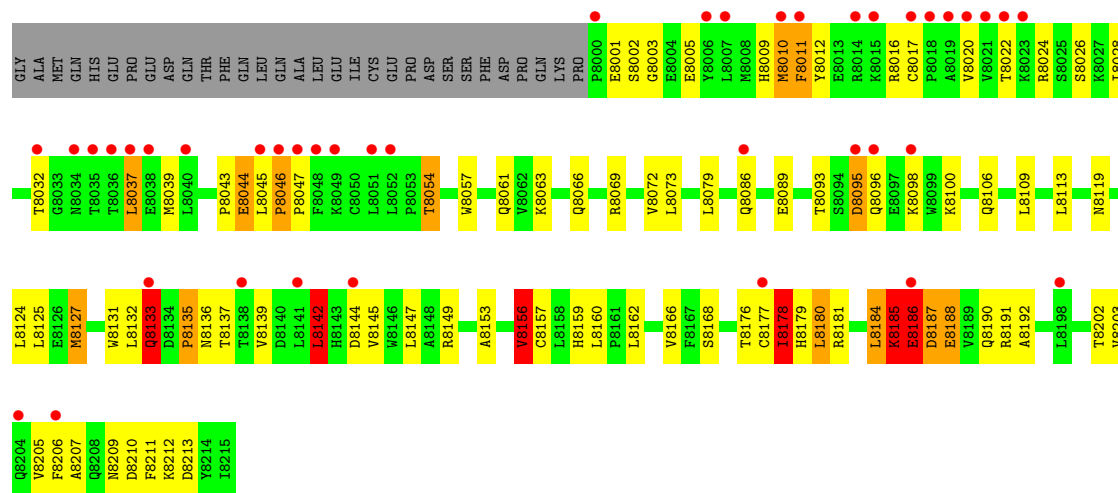


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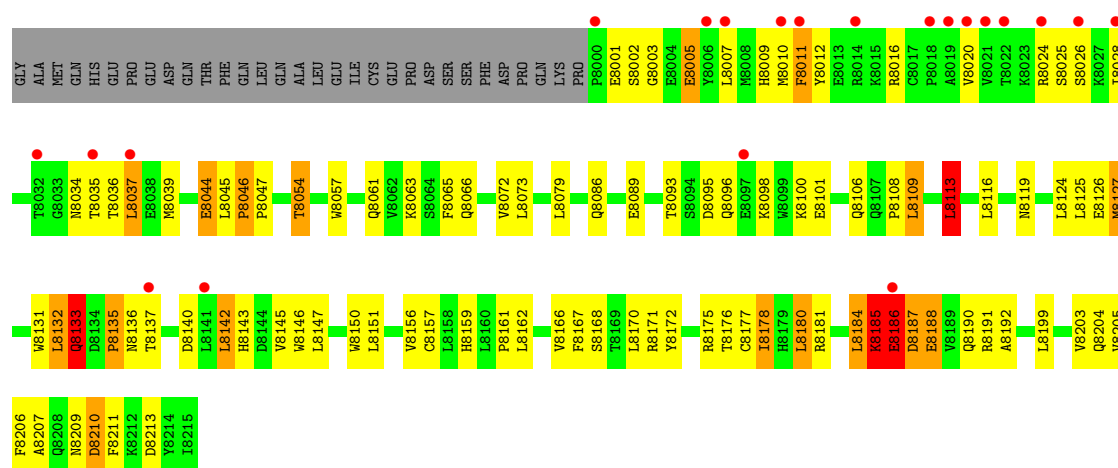




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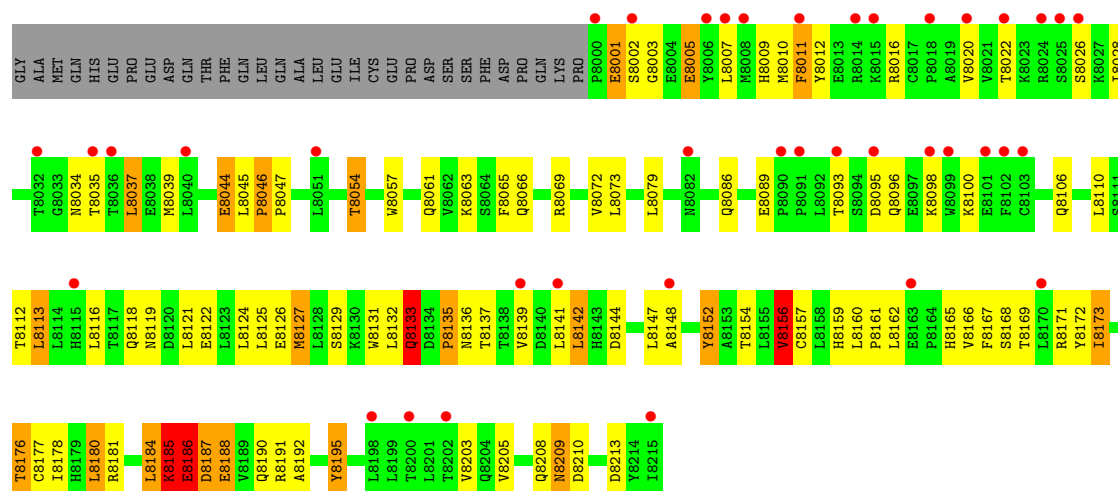


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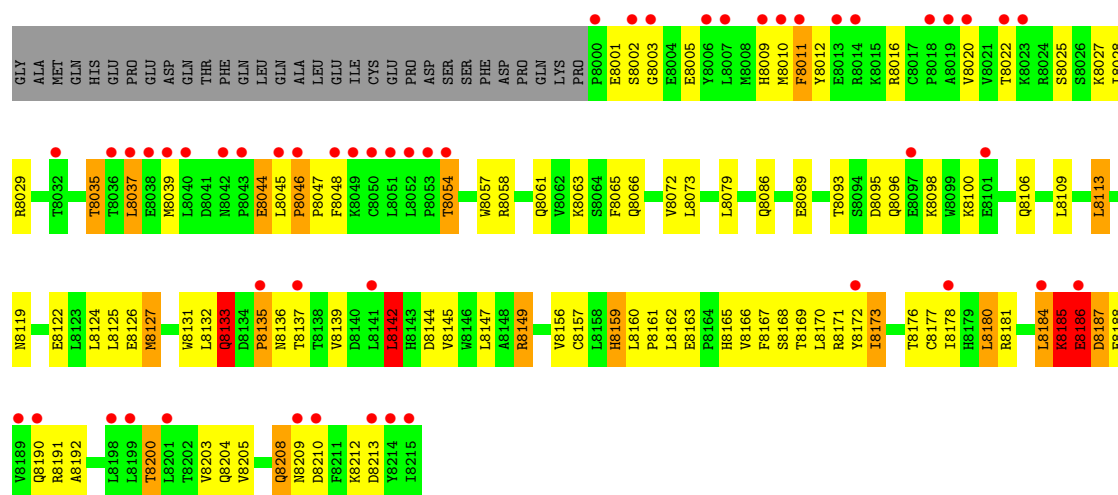


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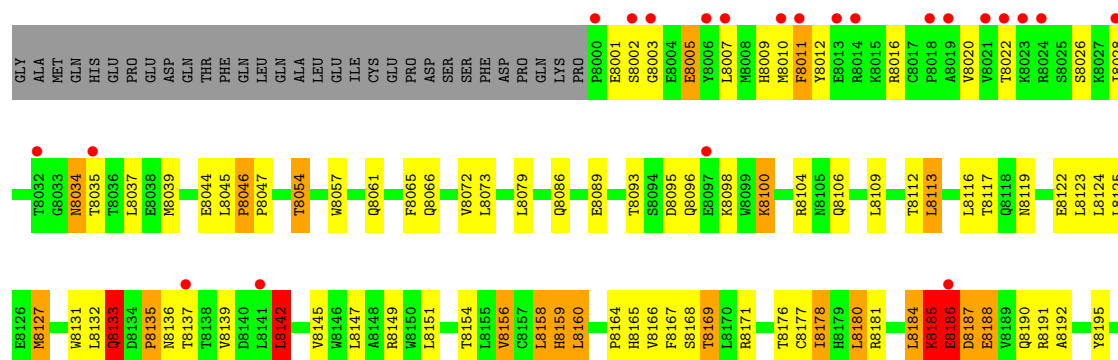




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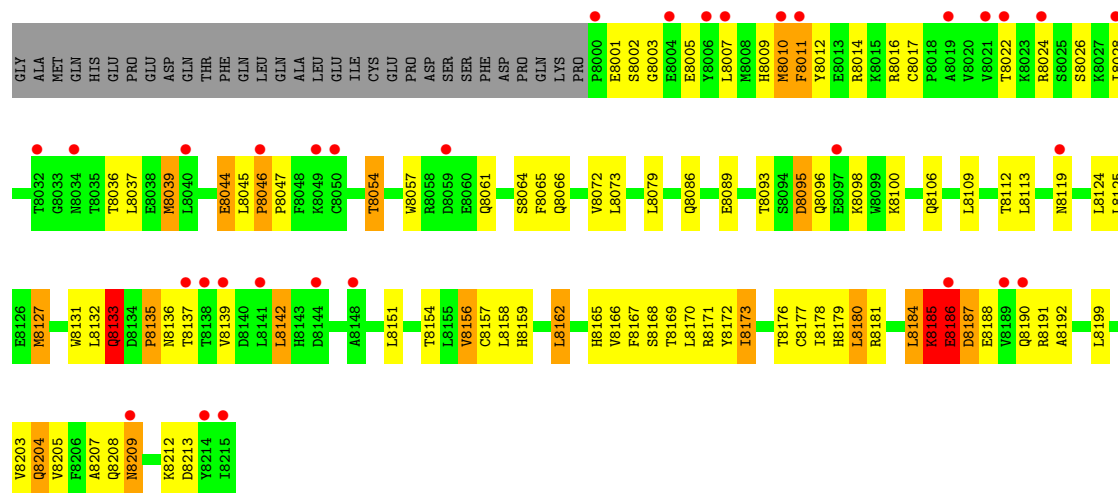


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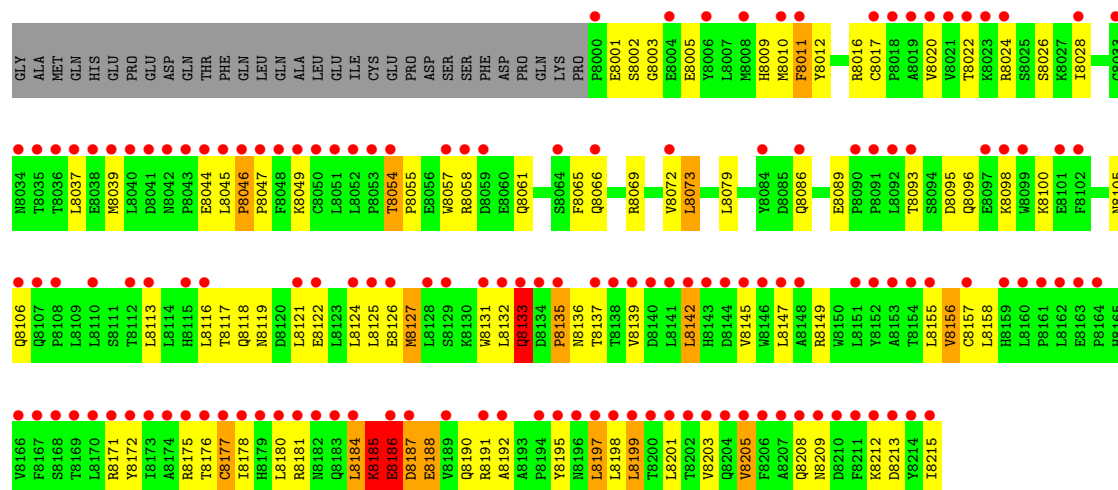




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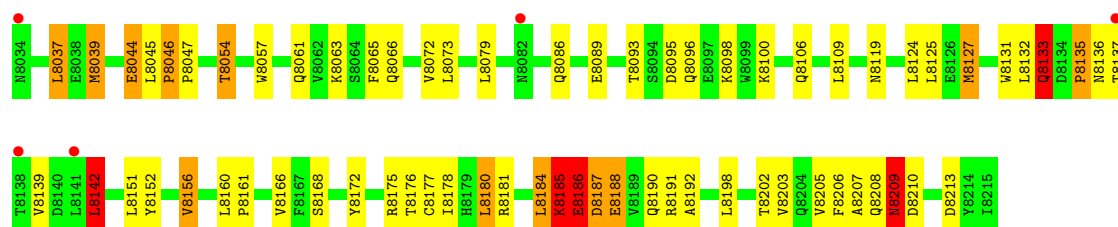


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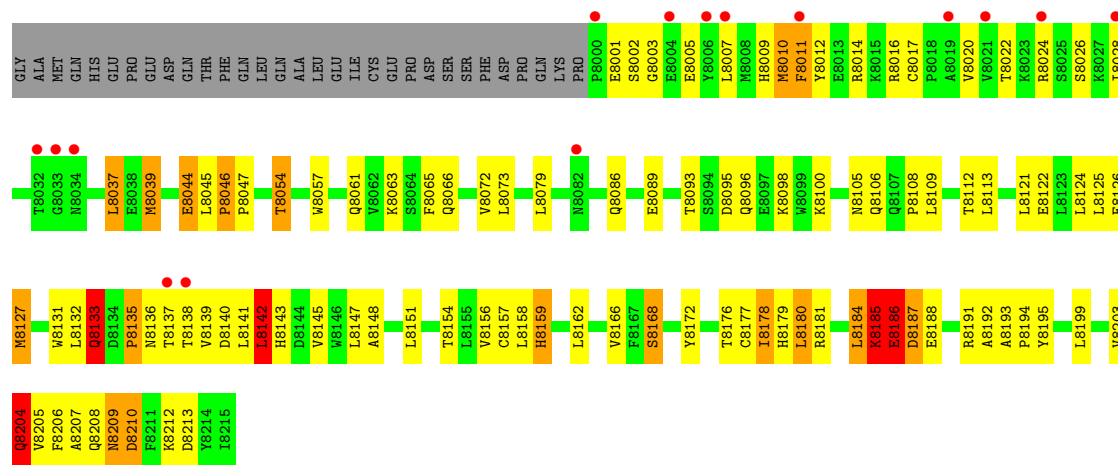


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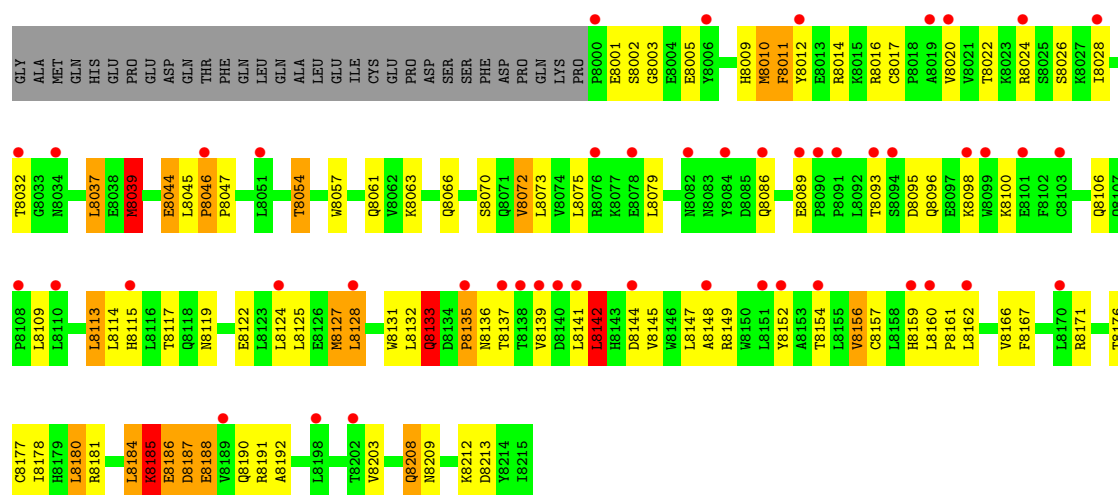




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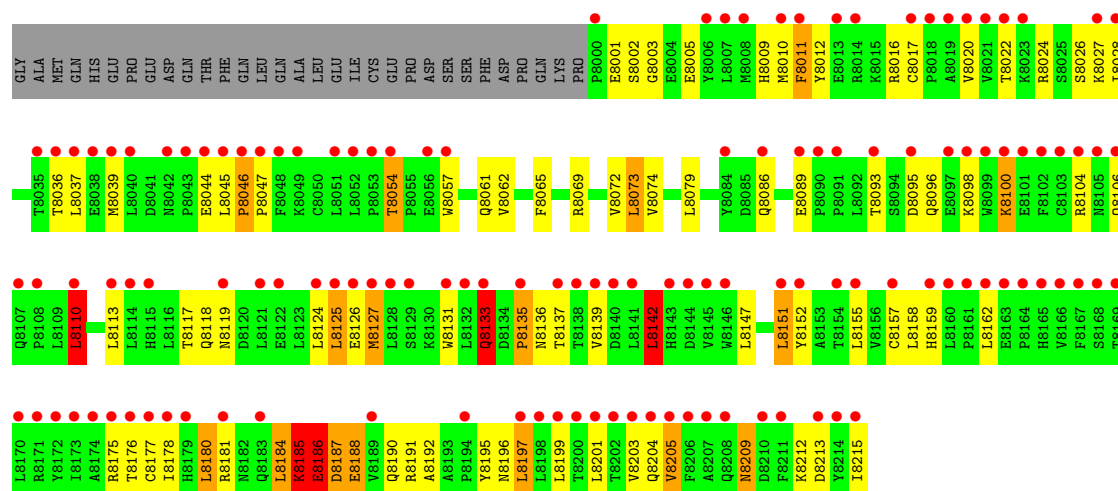


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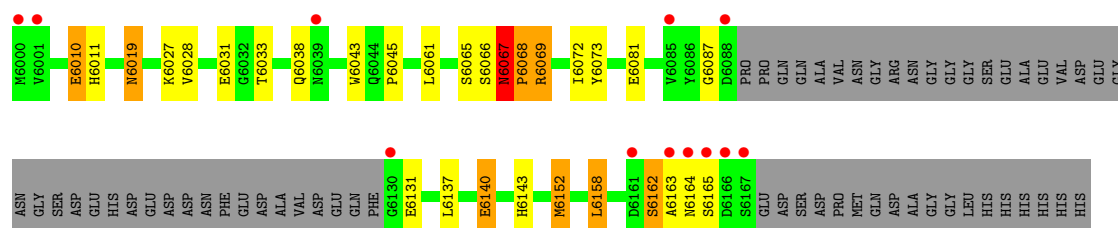


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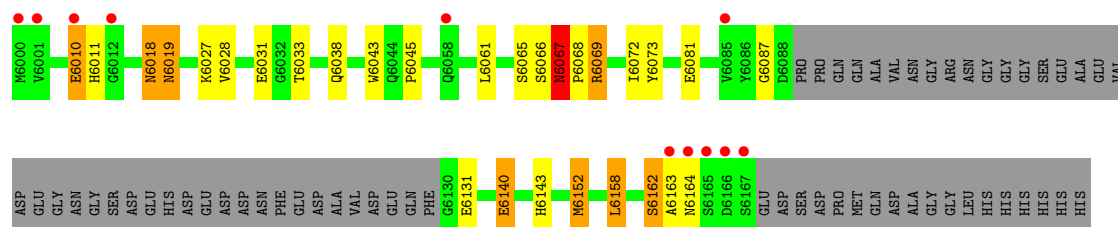




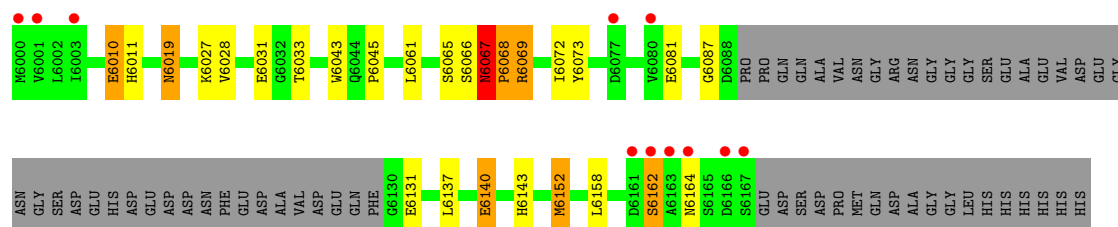
• Molecule 7: Ichn



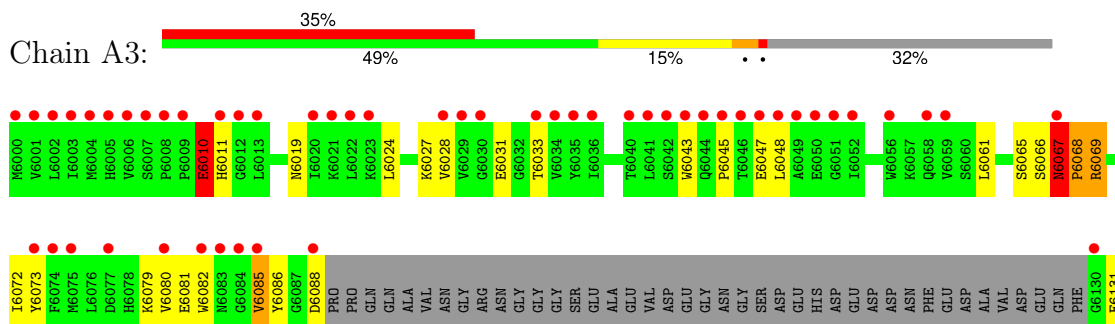
• Molecule 7: Ichn

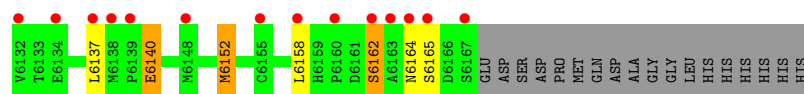


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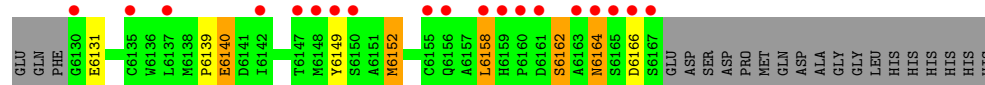
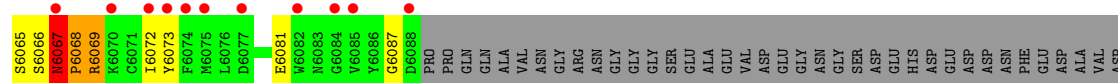
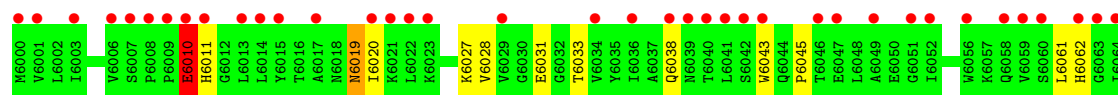
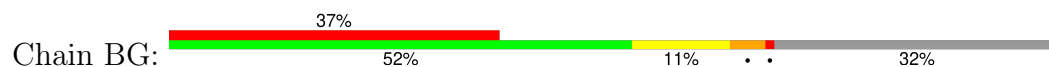


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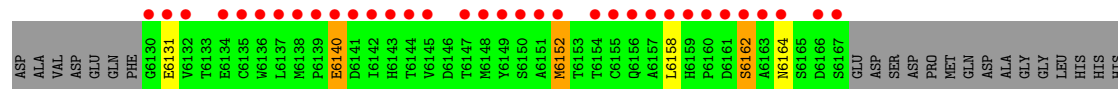
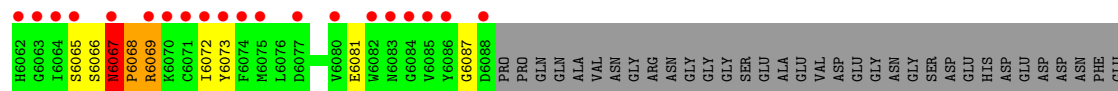
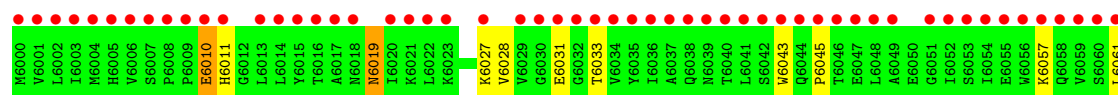




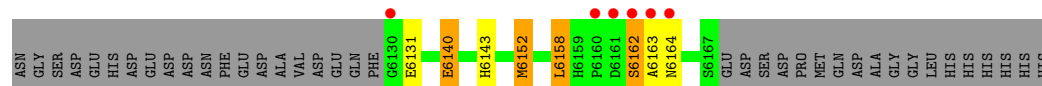
• Molecule 7: Ichn



• Molecule 7: Ichn



• Molecule 7: Ichn



• Molecule 7: Ichn





Chain CG:

5% 52% 12% 32%

Category	Percentage
Red	5%
Green	52%
Yellow	12%
Grey	32%

Chain CO:

39% 53% 11% 1% 32%

Chain CW:

7% 52% 12% 32%

Chain Cc:

HIS	HIS	ALA	GLU	VAL	ASP	GLU	GLY	ASN	SER	ASP	GLU	HIS	ASP	GLU	ASP	ASN	PHE	GLU	ASP	ALA	VAL	ASP	GLU	GLN	PHE	E6130	E6131	E6132	E6140	H6143	M6152	L6158	S6162	A6163	M6164	S6165	S6166	S6167	GLU	ASP	SER	ASP	PRO	GLN	ALA	VAL	ASN	GLY	ARG	ASN	GLY	GLY	SER	GLU
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Chain Cu:

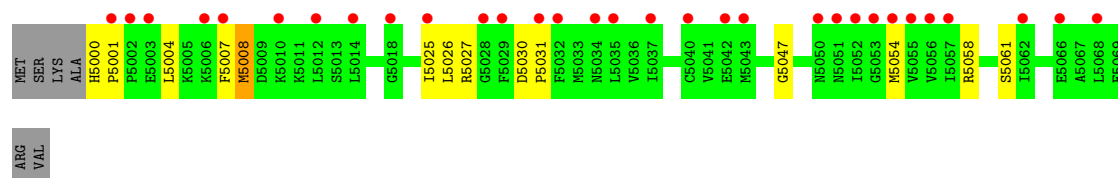
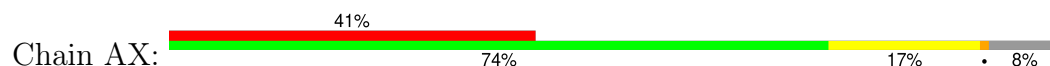
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GLN	66139
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GLN	66142
ASP	66143
GLU	66144
GLN	66145
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GLU	66147
ASP	66148
GLU	66149
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GLU	

Chain AP:

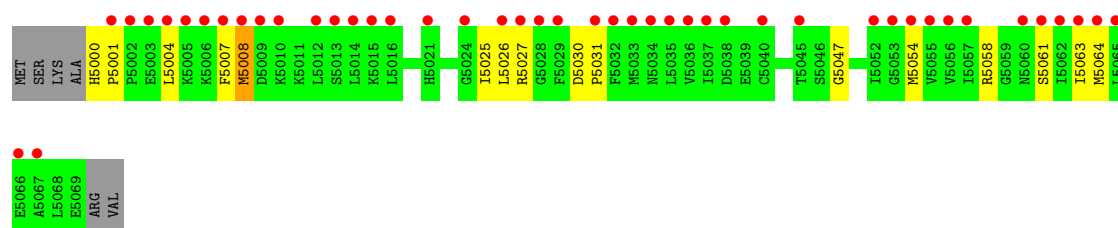
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SER	Grey	0%
LYS	Grey	0%
ALA	Grey	0%
H5000	Yellow	0%
P5001	Yellow	0%
P5002	Red	0%
P5003	Red	0%
L5004	Yellow	0%
K5005	Yellow	0%
K5006	Yellow	0%
F5007	Red	0%
M5008	Orange	0%
D5009	Orange	0%
K5010	Red	0%
I5025	Green	0%
L5026	Green	0%
R5027	Green	0%
D5030	Green	0%
P5031	Green	0%
F5032	Red	0%
I5037	Red	0%
A5044	Red	0%
N5051	Red	0%
L5052	Red	0%
G5053	Red	0%
M5054	Red	0%
V5055	Red	0%
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M5064	Yellow	0%
E5069	Red	0%
ARG	Grey	0%
VAL	Grey	0%

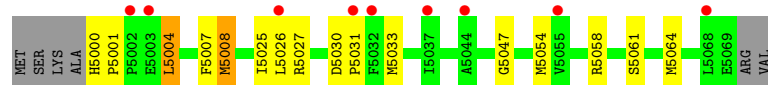
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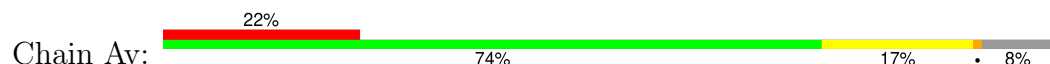
Chain Af:



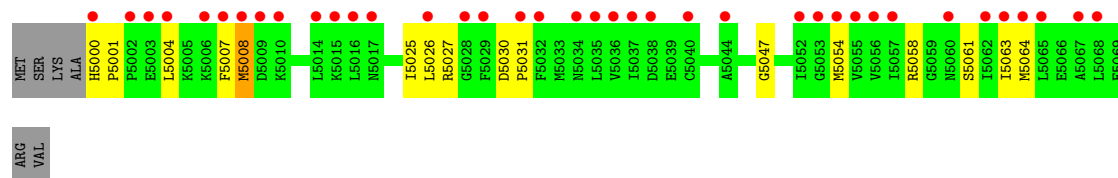
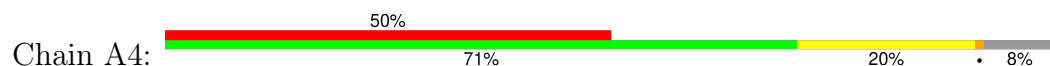
Chain An:



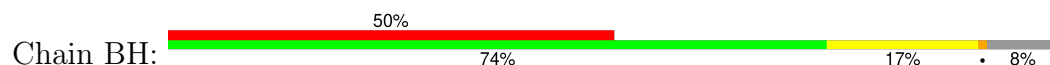
Chain Av:

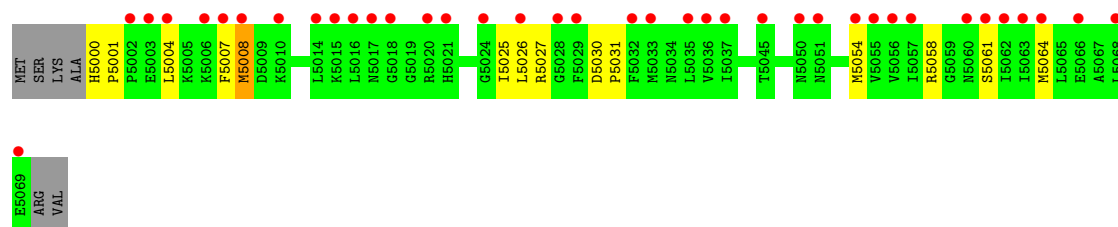


Chain A4:

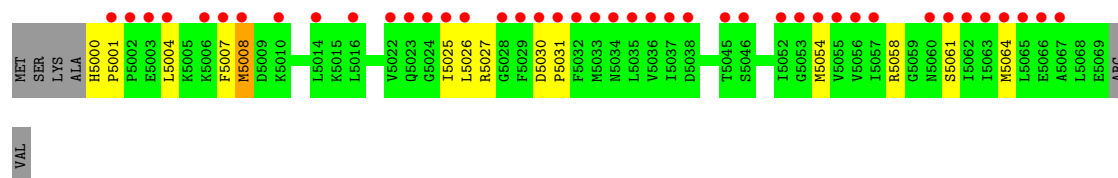
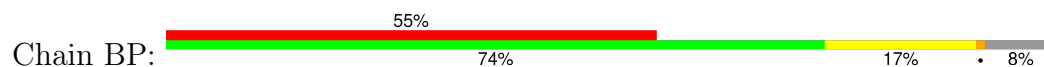


Chain BH:

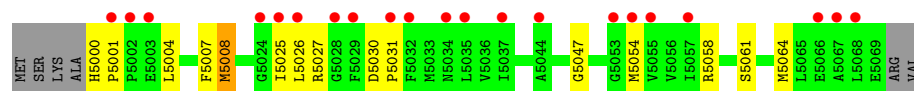
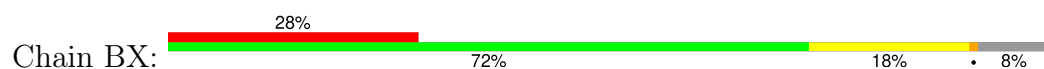




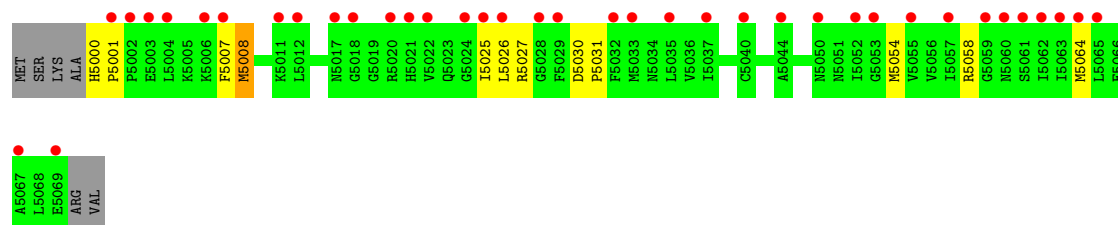
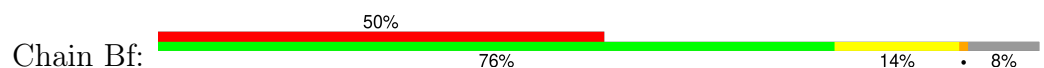
• Molecule 8: Small nuclear ribonucleoprotein G



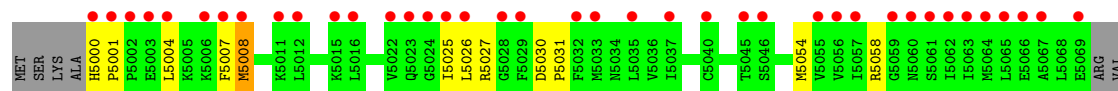
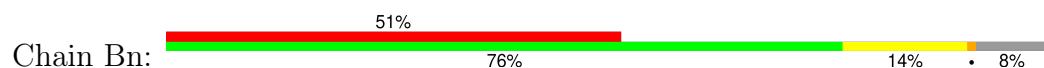
• Molecule 8: Small nuclear ribonucleoprotein G



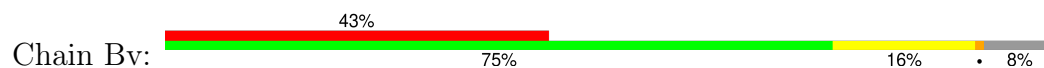
• Molecule 8: Small nuclear ribonucleoprotein G

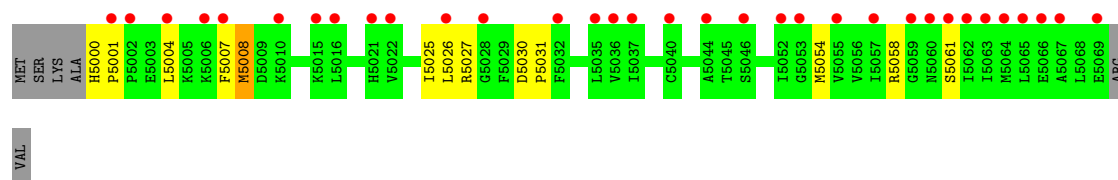


• Molecule 8: Small nuclear ribonucleoprotein G



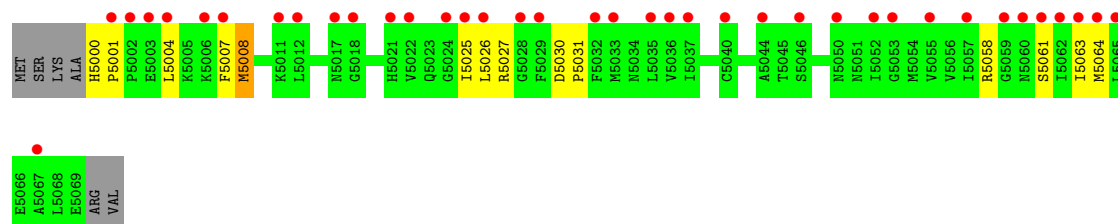
• Molecule 8: Small nuclear ribonucleoprotein G





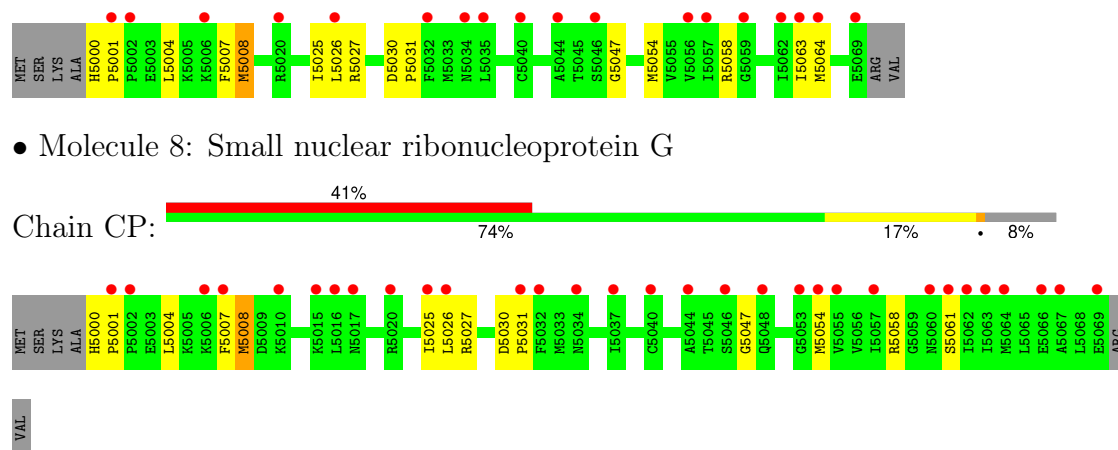
• Molecule 8: Small nuclear ribonucleoprotein G

Chain B4:



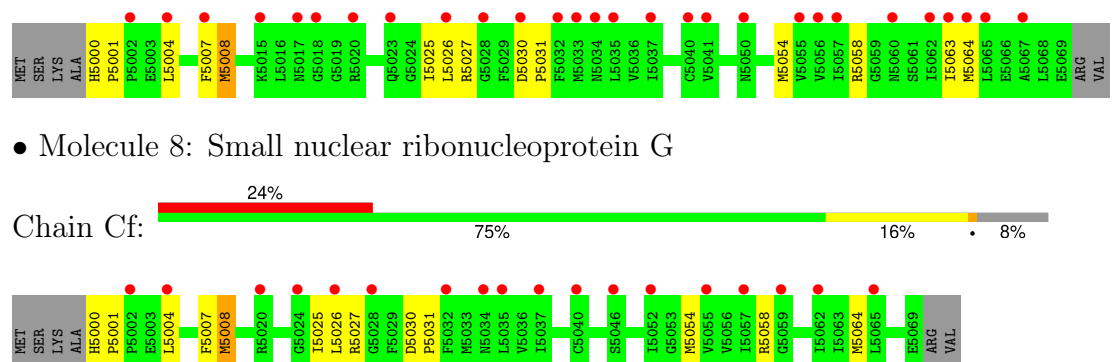
• Molecule 8: Small nuclear ribonucleoprotein G

Chain CH:



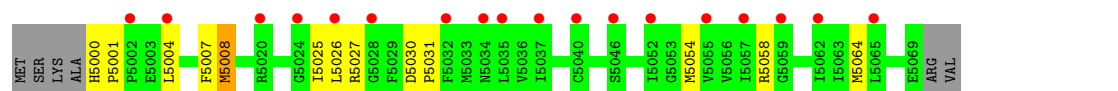
• Molecule 8: Small nuclear ribonucleoprotein G

Chain CX:

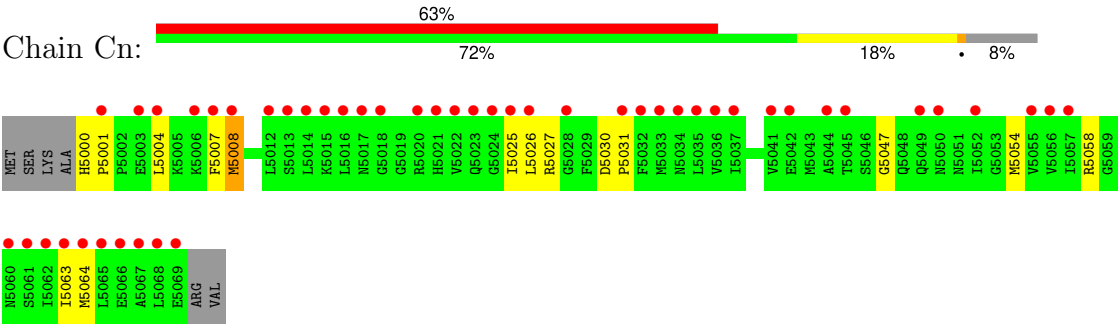


• Molecule 8: Small nuclear ribonucleoprotein G

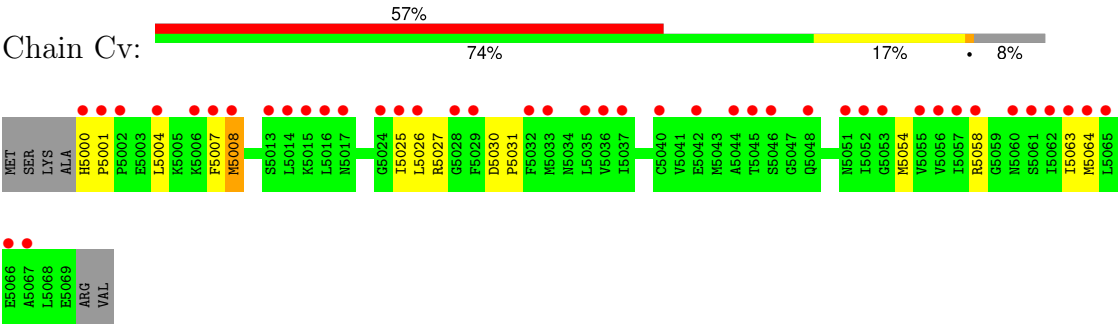
Chain Cf:



• Molecule 8: Small nuclear ribonucleoprotein G



• Molecule 8: Small nuclear ribonucleoprotein G



4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α , β , γ	150.93Å 356.81Å 230.75Å 90.00° 97.31° 90.00°	Depositor
Resolution (Å)	59.47 – 3.10 59.47 – 3.10	Depositor EDS
% Data completeness (in resolution range)	64.6 (59.47-3.10) 64.6 (59.47-3.10)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.04	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.37 (at 3.13Å)	Xtriage
Refinement program	BUSTER 2.10.0	Depositor
R, R_{free}	0.232 , 0.256 0.348 , 0.354	Depositor DCC
R_{free} test set	2901 reflections (1.03%)	wwPDB-VP
Wilson B-factor (Å ²)	49.1	Xtriage
Anisotropy	0.038	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.32 , 109.8	EDS
L-test for twinning ²	$\langle L \rangle = 0.39$, $\langle L^2 \rangle = 0.22$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.90	EDS
Total number of atoms	121990	wwPDB-VP
Average B, all atoms (Å ²)	110.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The analyses of the Patterson function reveals a significant off-origin peak that is 77.30 % of the origin peak, indicating pseudo-translational symmetry. The chance of finding a peak of this or larger height randomly in a structure without pseudo-translational symmetry is equal to 8.7504e-07. The detected translational NCS is most likely also responsible for the elevated intensity ratio.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: SO4

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z > 5$	RMSZ	# $ Z > 5$
1	AA	0.80	0/656	1.17	4/888 (0.5%)
1	AI	0.80	0/656	1.16	3/888 (0.3%)
1	AQ	0.77	0/656	1.16	3/888 (0.3%)
1	AY	0.77	0/656	1.16	3/888 (0.3%)
1	Ag	0.77	0/656	1.15	2/888 (0.2%)
1	Ao	0.80	0/656	1.16	2/888 (0.2%)
1	Aw	0.75	0/656	1.16	4/888 (0.5%)
1	BA	0.70	0/656	1.13	1/888 (0.1%)
1	BI	0.73	0/656	1.12	1/888 (0.1%)
1	BQ	0.73	0/656	1.13	2/888 (0.2%)
1	BY	0.78	0/656	1.15	3/888 (0.3%)
1	Bg	0.75	0/656	1.15	4/888 (0.5%)
1	Bo	0.76	0/656	1.14	3/888 (0.3%)
1	Bw	0.80	0/656	1.16	4/888 (0.5%)
1	CA	0.75	0/656	1.14	3/888 (0.3%)
1	CI	0.74	0/656	1.12	3/888 (0.3%)
1	CQ	0.77	0/656	1.14	3/888 (0.3%)
1	CY	0.83	0/656	1.15	3/888 (0.3%)
1	Cg	0.72	0/656	1.13	3/888 (0.3%)
1	Co	0.72	0/656	1.12	3/888 (0.3%)
2	AB	0.82	1/817 (0.1%)	1.17	3/1096 (0.3%)
2	AJ	0.81	0/817	1.17	1/1096 (0.1%)
2	AR	0.77	0/817	1.17	3/1096 (0.3%)
2	AZ	0.76	0/817	1.20	3/1096 (0.3%)
2	Ah	0.76	1/817 (0.1%)	1.17	3/1096 (0.3%)
2	Ap	0.76	0/817	1.16	2/1096 (0.2%)
2	Ax	0.77	0/817	1.21	3/1096 (0.3%)
2	BB	0.73	0/817	1.14	3/1096 (0.3%)
2	BJ	0.74	0/817	1.19	3/1096 (0.3%)
2	BR	0.74	0/817	1.18	3/1096 (0.3%)
2	BZ	0.81	0/817	1.22	2/1096 (0.2%)
2	Bh	0.77	0/817	1.21	2/1096 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
2	Bp	0.75	0/817	1.19	3/1096 (0.3%)
2	Bx	0.79	0/817	1.21	3/1096 (0.3%)
2	CB	0.75	0/817	1.18	0/1096
2	CJ	0.74	1/817 (0.1%)	1.15	2/1096 (0.2%)
2	CR	0.75	0/817	1.18	2/1096 (0.2%)
2	CZ	0.77	0/817	1.18	2/1096 (0.2%)
2	Ch	0.75	0/817	1.18	4/1096 (0.4%)
2	Cp	0.75	0/817	1.20	4/1096 (0.4%)
3	AC	0.65	0/646	1.18	7/867 (0.8%)
3	AK	0.68	0/646	1.22	4/867 (0.5%)
3	AS	0.66	0/646	1.21	3/867 (0.3%)
3	Aa	0.61	0/646	1.20	3/867 (0.3%)
3	Ai	0.63	0/646	1.19	6/867 (0.7%)
3	Aq	0.64	0/646	1.20	3/867 (0.3%)
3	Ay	0.63	0/646	1.20	3/867 (0.3%)
3	BC	0.63	0/646	1.20	3/867 (0.3%)
3	BK	0.60	0/646	1.18	3/867 (0.3%)
3	BS	0.61	0/646	1.19	3/867 (0.3%)
3	Ba	0.62	0/646	1.20	3/867 (0.3%)
3	Bi	0.60	0/646	1.20	4/867 (0.5%)
3	Bq	0.58	0/646	1.19	4/867 (0.5%)
3	By	0.68	0/646	1.21	3/867 (0.3%)
3	CC	0.62	0/646	1.19	3/867 (0.3%)
3	CK	0.60	0/646	1.19	3/867 (0.3%)
3	CS	0.62	0/646	1.20	3/867 (0.3%)
3	Ca	0.63	0/646	1.19	3/867 (0.3%)
3	Ci	0.61	0/646	1.19	3/867 (0.3%)
3	Cq	0.58	0/646	1.20	4/867 (0.5%)
4	AD	0.58	0/567	0.99	2/765 (0.3%)
4	AL	0.58	0/567	0.98	2/765 (0.3%)
4	AT	0.60	0/567	0.98	0/765
4	Ab	0.61	0/567	1.00	2/765 (0.3%)
4	Aj	0.58	0/567	0.98	2/765 (0.3%)
4	Ar	0.59	0/567	1.03	1/765 (0.1%)
4	Az	0.57	0/567	0.98	2/765 (0.3%)
4	BD	0.58	0/567	0.99	1/765 (0.1%)
4	BL	0.56	0/567	1.01	1/765 (0.1%)
4	BT	0.57	0/567	1.00	3/765 (0.4%)
4	Bb	0.60	0/567	1.05	4/765 (0.5%)
4	Bj	0.60	0/567	1.04	2/765 (0.3%)
4	Br	0.57	0/567	1.00	1/765 (0.1%)
4	Bz	0.60	0/567	1.01	1/765 (0.1%)
4	CD	0.59	0/567	1.06	1/765 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
4	CL	0.56	0/567	1.00	3/765 (0.4%)
4	CT	0.58	0/567	0.99	0/765
4	Cb	0.60	0/567	1.04	2/765 (0.3%)
4	Cj	0.58	0/567	1.00	1/765 (0.1%)
4	Cr	0.57	0/567	1.00	3/765 (0.4%)
5	A1	1.11	0/135	1.75	0/184
5	AE	0.95	0/135	1.72	3/184 (1.6%)
5	AM	1.08	0/135	1.77	0/184
5	AU	0.96	0/135	1.72	2/184 (1.1%)
5	Ac	1.11	0/135	1.93	3/184 (1.6%)
5	Ak	1.06	0/135	1.72	1/184 (0.5%)
5	As	0.93	0/135	1.75	3/184 (1.6%)
5	B1	1.01	0/135	1.88	5/184 (2.7%)
5	BE	0.99	0/135	1.57	0/184
5	BM	1.03	0/135	1.71	0/184
5	BU	0.94	0/135	1.74	4/184 (2.2%)
5	Bc	1.02	0/135	1.76	1/184 (0.5%)
5	Bk	1.08	0/135	1.67	1/184 (0.5%)
5	Bs	0.99	0/135	1.84	8/184 (4.3%)
5	CE	1.11	0/135	1.87	2/184 (1.1%)
5	CM	1.06	0/135	1.77	2/184 (1.1%)
5	CU	1.10	0/135	1.76	1/184 (0.5%)
5	Cc	1.13	0/135	1.85	2/184 (1.1%)
5	Ck	1.08	0/135	1.73	0/184
5	Cs	1.03	0/135	1.76	0/184
6	A2	0.92	0/1830	1.70	25/2489 (1.0%)
6	AF	0.95	0/1830	1.69	27/2489 (1.1%)
6	AN	0.98	0/1830	1.68	30/2489 (1.2%)
6	AV	0.92	0/1830	1.66	29/2489 (1.2%)
6	Ad	0.88	0/1830	1.65	25/2489 (1.0%)
6	Al	0.96	0/1830	1.71	30/2489 (1.2%)
6	At	0.96	0/1830	1.66	29/2489 (1.2%)
6	B2	0.93	1/1830 (0.1%)	1.66	23/2489 (0.9%)
6	BF	0.86	0/1830	1.66	24/2489 (1.0%)
6	BN	0.88	0/1830	1.63	20/2489 (0.8%)
6	BV	0.87	0/1830	1.66	29/2489 (1.2%)
6	Bd	0.91	0/1830	1.68	24/2489 (1.0%)
6	Bl	0.89	0/1830	1.65	31/2489 (1.2%)
6	Bt	0.91	0/1830	1.66	23/2489 (0.9%)
6	CF	0.89	0/1830	1.66	25/2489 (1.0%)
6	CN	0.86	0/1830	1.64	25/2489 (1.0%)
6	CV	0.89	0/1830	1.64	20/2489 (0.8%)
6	Cd	0.91	0/1830	1.70	32/2489 (1.3%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
6	Cl	0.89	0/1830	1.67	25/2489 (1.0%)
6	Ct	0.89	0/1830	1.68	21/2489 (0.8%)
7	A3	0.76	1/1008 (0.1%)	1.18	6/1373 (0.4%)
7	AG	0.89	1/1008 (0.1%)	1.19	7/1373 (0.5%)
7	AO	0.87	1/1008 (0.1%)	1.17	9/1373 (0.7%)
7	AW	0.85	1/1008 (0.1%)	1.17	7/1373 (0.5%)
7	Ae	0.76	1/1008 (0.1%)	1.15	9/1373 (0.7%)
7	Am	0.91	1/1008 (0.1%)	1.19	7/1373 (0.5%)
7	Au	0.87	1/1008 (0.1%)	1.17	7/1373 (0.5%)
7	B3	0.85	0/1008	1.19	7/1373 (0.5%)
7	BG	0.83	1/1008 (0.1%)	1.17	7/1373 (0.5%)
7	BO	0.82	1/1008 (0.1%)	1.20	7/1373 (0.5%)
7	BW	0.86	1/1008 (0.1%)	1.17	8/1373 (0.6%)
7	Be	0.90	2/1008 (0.2%)	1.18	6/1373 (0.4%)
7	Bm	0.81	0/1008	1.16	6/1373 (0.4%)
7	Bu	0.83	1/1008 (0.1%)	1.19	10/1373 (0.7%)
7	CG	0.86	0/1008	1.18	7/1373 (0.5%)
7	CO	0.79	0/1008	1.17	7/1373 (0.5%)
7	CW	0.88	1/1008 (0.1%)	1.19	6/1373 (0.4%)
7	Ce	0.92	1/1008 (0.1%)	1.20	6/1373 (0.4%)
7	Cm	0.80	0/1008	1.17	6/1373 (0.4%)
7	Cu	0.79	0/1008	1.17	9/1373 (0.7%)
8	A4	0.64	0/551	1.11	3/737 (0.4%)
8	AH	0.68	0/551	1.14	2/737 (0.3%)
8	AP	0.69	0/551	1.14	3/737 (0.4%)
8	AX	0.68	0/551	1.12	3/737 (0.4%)
8	Af	0.63	0/551	1.11	3/737 (0.4%)
8	An	0.69	0/551	1.14	3/737 (0.4%)
8	Av	0.67	0/551	1.12	3/737 (0.4%)
8	B4	0.71	0/551	1.13	2/737 (0.3%)
8	BH	0.64	0/551	1.13	2/737 (0.3%)
8	BP	0.67	0/551	1.11	2/737 (0.3%)
8	BX	0.65	0/551	1.10	3/737 (0.4%)
8	Bf	0.68	0/551	1.13	1/737 (0.1%)
8	Bn	0.65	0/551	1.13	2/737 (0.3%)
8	Bv	0.66	0/551	1.12	2/737 (0.3%)
8	CH	0.71	0/551	1.13	3/737 (0.4%)
8	CP	0.66	0/551	1.11	3/737 (0.4%)
8	CX	0.71	0/551	1.13	2/737 (0.3%)
8	Cf	0.70	0/551	1.13	2/737 (0.3%)
8	Cn	0.64	0/551	1.12	3/737 (0.4%)
8	Cv	0.63	0/551	1.12	2/737 (0.3%)
All	All	0.80	19/124200 (0.0%)	1.34	961/167980 (0.6%)

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
7	A3	0	1
7	AG	0	1
7	AO	0	1
7	AW	0	1
7	Ae	0	1
7	Am	0	1
7	Au	0	1
7	B3	0	1
7	BG	0	1
7	BO	0	1
7	BW	0	1
7	Be	0	1
7	Bm	0	1
7	Bu	0	1
7	CG	0	1
7	CO	0	1
7	CW	0	1
7	Ce	0	1
7	Cm	0	1
7	Cu	0	1
All	All	0	20

All (19) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	BO	6152	MET	SD-CE	-7.26	1.61	1.79
7	Ce	6152	MET	SD-CE	-6.75	1.62	1.79
7	Au	6152	MET	SD-CE	-6.63	1.62	1.79
7	BW	6152	MET	SD-CE	-6.51	1.63	1.79
7	AG	6152	MET	SD-CE	-6.41	1.63	1.79
7	Be	6152	MET	SD-CE	-6.39	1.63	1.79
7	CW	6152	MET	SD-CE	-6.10	1.64	1.79
2	Ah	2066	MET	SD-CE	5.93	1.94	1.79
7	AO	6152	MET	SD-CE	-5.83	1.65	1.79
7	A3	6152	MET	SD-CE	-5.46	1.65	1.79
7	Be	6017	ALA	CA-C	-5.46	1.45	1.52
7	Ae	6152	MET	SD-CE	-5.44	1.66	1.79
7	BG	6152	MET	SD-CE	-5.41	1.66	1.79
2	CJ	2066	MET	SD-CE	5.38	1.93	1.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	Am	6152	MET	SD-CE	-5.31	1.66	1.79
7	AW	6152	MET	SD-CE	-5.19	1.66	1.79
2	AB	2066	MET	SD-CE	5.11	1.92	1.79
6	B2	8160	LEU	CA-CB	-5.06	1.47	1.53
7	Bu	6152	MET	SD-CE	-5.04	1.67	1.79

All (961) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	Ct	8178	ILE	N-CA-C	-12.68	99.20	110.74
3	Bq	3024	GLN	N-CA-C	11.34	127.24	112.72
3	Ay	3024	GLN	N-CA-C	10.95	126.79	112.12
3	AK	3024	GLN	N-CA-C	10.92	126.76	112.12
3	CK	3024	GLN	N-CA-C	10.91	126.75	112.12
3	By	3024	GLN	N-CA-C	10.90	126.73	112.12
3	BC	3024	GLN	N-CA-C	10.88	126.70	112.12
3	AS	3024	GLN	N-CA-C	10.85	126.66	112.12
3	Aa	3024	GLN	N-CA-C	10.84	126.64	112.12
3	BK	3024	GLN	N-CA-C	10.84	126.59	112.72
3	CC	3024	GLN	N-CA-C	10.84	126.64	112.12
3	Aq	3024	GLN	N-CA-C	10.83	126.64	112.12
3	BS	3024	GLN	N-CA-C	10.80	126.59	112.12
3	Cq	3024	GLN	N-CA-C	10.78	126.56	112.12
3	Ba	3024	GLN	N-CA-C	10.76	126.54	112.12
3	Ca	3024	GLN	N-CA-C	10.65	126.39	112.12
3	CS	3024	GLN	N-CA-C	10.65	126.39	112.12
3	Bi	3024	GLN	N-CA-C	10.56	126.27	112.12
3	Ci	3024	GLN	N-CA-C	10.51	126.20	112.12
3	Ai	3024	GLN	N-CA-C	10.36	126.77	111.02
6	Cd	8208	GLN	CA-C-N	10.36	134.58	120.38
6	Cd	8208	GLN	C-N-CA	10.36	134.58	120.38
6	BV	8178	ILE	N-CA-C	-10.02	101.00	110.42
6	A2	8178	ILE	N-CA-C	-9.97	101.67	110.74
6	A2	8210	ASP	N-CA-C	-9.91	98.67	112.45
6	AN	8185	LYS	CA-C-N	9.89	139.50	121.70
6	AN	8185	LYS	C-N-CA	9.89	139.50	121.70
6	AF	8185	LYS	CA-C-N	9.86	139.44	121.70
6	AF	8185	LYS	C-N-CA	9.86	139.44	121.70
6	BF	8178	ILE	N-CA-C	-9.86	101.16	110.42
6	A2	8185	LYS	CA-C-N	9.84	139.40	121.70
6	A2	8185	LYS	C-N-CA	9.84	139.40	121.70
6	A2	8045	LEU	N-CA-C	9.83	127.14	113.57

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	Bd	8185	LYS	CA-C-N	9.81	139.36	121.70
6	Bd	8185	LYS	C-N-CA	9.81	139.36	121.70
6	Cl	8045	LEU	N-CA-C	9.81	127.10	113.57
6	Cd	8185	LYS	CA-C-N	9.80	139.34	121.70
6	Cd	8185	LYS	C-N-CA	9.80	139.34	121.70
6	AV	8045	LEU	N-CA-C	9.79	127.08	113.57
6	Al	8045	LEU	N-CA-C	9.78	127.06	113.57
6	CV	8045	LEU	N-CA-C	9.78	127.06	113.57
6	BN	8045	LEU	N-CA-C	9.74	127.02	113.57
6	Cd	8045	LEU	N-CA-C	9.74	127.01	113.57
6	Ct	8185	LYS	CA-C-N	9.74	139.22	121.70
6	Ct	8185	LYS	C-N-CA	9.74	139.22	121.70
6	Cl	8185	LYS	CA-C-N	9.73	139.22	121.70
6	Cl	8185	LYS	C-N-CA	9.73	139.22	121.70
6	Al	8185	LYS	CA-C-N	9.73	139.21	121.70
6	Al	8185	LYS	C-N-CA	9.73	139.21	121.70
6	At	8185	LYS	CA-C-N	9.73	139.22	121.70
6	At	8185	LYS	C-N-CA	9.73	139.22	121.70
6	BF	8185	LYS	CA-C-N	9.72	139.19	121.70
6	BF	8185	LYS	C-N-CA	9.72	139.19	121.70
6	Bd	8045	LEU	N-CA-C	9.72	126.98	113.57
6	CV	8185	LYS	CA-C-N	9.71	139.18	121.70
6	CV	8185	LYS	C-N-CA	9.71	139.18	121.70
6	BN	8185	LYS	CA-C-N	9.71	139.17	121.70
6	BN	8185	LYS	C-N-CA	9.71	139.17	121.70
6	B2	8185	LYS	CA-C-N	9.70	139.16	121.70
6	B2	8185	LYS	C-N-CA	9.70	139.16	121.70
6	AV	8185	LYS	CA-C-N	9.70	139.16	121.70
6	AV	8185	LYS	C-N-CA	9.70	139.16	121.70
6	Ad	8185	LYS	CA-C-N	9.69	139.15	121.70
6	Ad	8185	LYS	C-N-CA	9.69	139.15	121.70
6	BF	8045	LEU	N-CA-C	9.69	126.94	113.57
6	CF	8185	LYS	CA-C-N	9.68	139.12	121.70
6	CF	8185	LYS	C-N-CA	9.68	139.12	121.70
6	AV	8178	ILE	N-CA-C	-9.67	100.92	110.30
6	Bl	8185	LYS	CA-C-N	9.66	139.08	121.70
6	Bl	8185	LYS	C-N-CA	9.66	139.08	121.70
6	BN	8178	ILE	N-CA-C	-9.65	101.35	110.42
6	BV	8045	LEU	N-CA-C	9.65	126.88	113.57
6	CN	8185	LYS	CA-C-N	9.65	139.07	121.70
6	CN	8185	LYS	C-N-CA	9.65	139.07	121.70
6	Bt	8185	LYS	CA-C-N	9.63	139.04	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	Bt	8185	LYS	C-N-CA	9.63	139.04	121.70
6	AN	8178	ILE	N-CA-C	-9.62	100.97	110.30
6	CF	8045	LEU	N-CA-C	9.62	126.85	113.57
6	Cl	8011	PHE	CA-CB-CG	9.62	123.42	113.80
6	BV	8185	LYS	CA-C-N	9.61	139.00	121.70
6	BV	8185	LYS	C-N-CA	9.61	139.00	121.70
6	Bl	8045	LEU	N-CA-C	9.55	126.75	113.57
6	CV	8011	PHE	CA-CB-CG	9.52	123.32	113.80
6	BF	8011	PHE	CA-CB-CG	9.52	123.32	113.80
6	AN	8011	PHE	CA-CB-CG	9.52	123.31	113.80
6	BV	8011	PHE	CA-CB-CG	9.50	123.30	113.80
6	At	8011	PHE	CA-CB-CG	9.49	123.29	113.80
6	Bt	8045	LEU	N-CA-C	9.48	126.66	113.57
6	Ad	8011	PHE	CA-CB-CG	9.47	123.28	113.80
6	BN	8011	PHE	CA-CB-CG	9.47	123.27	113.80
6	AV	8011	PHE	CA-CB-CG	9.45	123.25	113.80
6	AF	8045	LEU	N-CA-C	9.45	126.61	113.57
6	Bt	8011	PHE	CA-CB-CG	9.43	123.23	113.80
6	Al	8178	ILE	N-CA-C	-9.42	101.57	110.42
6	Bl	8011	PHE	CA-CB-CG	9.41	123.22	113.80
6	Cd	8011	PHE	CA-CB-CG	9.40	123.20	113.80
6	Ad	8178	ILE	N-CA-C	-9.40	101.58	110.42
6	CF	8011	PHE	CA-CB-CG	9.39	123.19	113.80
6	Ct	8011	PHE	CA-CB-CG	9.36	123.16	113.80
6	Bd	8011	PHE	CA-CB-CG	9.35	123.14	113.80
6	A2	8011	PHE	CA-CB-CG	9.34	123.14	113.80
6	Al	8011	PHE	CA-CB-CG	9.32	123.12	113.80
6	CF	8178	ILE	N-CA-C	-9.32	101.66	110.42
6	AV	8136	ASN	CA-C-N	9.28	134.04	120.87
6	AV	8136	ASN	C-N-CA	9.28	134.04	120.87
6	AF	8011	PHE	CA-CB-CG	9.24	123.04	113.80
6	Cd	8178	ILE	N-CA-C	-9.23	101.74	110.42
6	B2	8011	PHE	CA-CB-CG	9.21	123.01	113.80
6	CN	8011	PHE	CA-CB-CG	9.20	123.00	113.80
6	B2	8136	ASN	CA-C-N	9.12	133.82	120.87
6	B2	8136	ASN	C-N-CA	9.12	133.82	120.87
6	AF	8136	ASN	CA-C-N	9.12	133.82	120.87
6	AF	8136	ASN	C-N-CA	9.12	133.82	120.87
6	Al	8136	ASN	CA-C-N	9.10	133.80	120.87
6	Al	8136	ASN	C-N-CA	9.10	133.80	120.87
6	BV	8136	ASN	CA-C-N	9.10	133.79	120.87
6	BV	8136	ASN	C-N-CA	9.10	133.79	120.87

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	At	8136	ASN	CA-C-N	9.09	133.77	120.87
6	At	8136	ASN	C-N-CA	9.09	133.77	120.87
6	Bt	8178	ILE	N-CA-C	-9.07	101.89	110.42
6	B2	8178	ILE	N-CA-C	-9.07	101.89	110.42
6	Ad	8136	ASN	CA-C-N	9.07	133.75	120.87
6	Ad	8136	ASN	C-N-CA	9.07	133.75	120.87
6	Cd	8206	PHE	CA-CB-CG	-9.04	104.77	113.80
6	Bd	8136	ASN	CA-C-N	9.02	133.68	120.87
6	Bd	8136	ASN	C-N-CA	9.02	133.68	120.87
6	B2	8045	LEU	N-CA-C	8.99	125.95	113.45
6	Bd	8178	ILE	N-CA-C	-8.99	101.97	110.42
6	Bl	8136	ASN	CA-C-N	8.97	133.60	120.87
6	Bl	8136	ASN	C-N-CA	8.97	133.60	120.87
6	Cd	8136	ASN	CA-C-N	8.94	133.56	120.87
6	Cd	8136	ASN	C-N-CA	8.94	133.56	120.87
6	Bt	8136	ASN	CA-C-N	8.91	133.53	120.87
6	Bt	8136	ASN	C-N-CA	8.91	133.53	120.87
6	BN	8136	ASN	CA-C-N	8.91	133.52	120.87
6	BN	8136	ASN	C-N-CA	8.91	133.52	120.87
6	CN	8136	ASN	CA-C-N	8.89	133.49	120.87
6	CN	8136	ASN	C-N-CA	8.89	133.49	120.87
6	BF	8136	ASN	CA-C-N	8.89	133.49	120.87
6	BF	8136	ASN	C-N-CA	8.89	133.49	120.87
6	Ct	8136	ASN	CA-C-N	8.88	133.48	120.87
6	Ct	8136	ASN	C-N-CA	8.88	133.48	120.87
6	CV	8178	ILE	N-CA-C	-8.84	102.11	110.42
6	Bl	8178	ILE	N-CA-C	-8.84	102.11	110.42
6	Cl	8178	ILE	N-CA-C	-8.84	102.11	110.42
6	Cl	8136	ASN	CA-C-N	8.81	133.38	120.87
6	Cl	8136	ASN	C-N-CA	8.81	133.38	120.87
6	CN	8178	ILE	N-CA-C	-8.81	101.76	110.30
6	CF	8136	ASN	CA-C-N	8.81	133.38	120.87
6	CF	8136	ASN	C-N-CA	8.81	133.38	120.87
6	CV	8136	ASN	CA-C-N	8.74	133.28	120.87
6	CV	8136	ASN	C-N-CA	8.74	133.28	120.87
4	CD	4031	ASP	CA-CB-CG	8.72	121.32	112.60
6	AN	8045	LEU	N-CA-C	8.53	128.66	109.81
6	AN	8136	ASN	CA-C-N	8.52	133.60	121.42
6	AN	8136	ASN	C-N-CA	8.52	133.60	121.42
6	A2	8136	ASN	CA-C-N	8.42	133.46	121.42
6	A2	8136	ASN	C-N-CA	8.42	133.46	121.42
6	Cd	8142	LEU	N-CA-C	-8.39	102.21	111.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	BV	8205	VAL	N-CA-C	8.13	118.18	110.30
4	Ar	4031	ASP	CA-CB-CG	8.11	120.71	112.60
6	Al	8156	VAL	N-CA-CB	8.03	119.94	110.55
6	CN	8045	LEU	N-CA-C	7.95	127.38	109.81
5	Cc	7008	VAL	N-CA-C	-7.87	103.19	110.82
6	Cd	8157	CYS	N-CA-C	7.82	119.89	111.36
6	Ct	8045	LEU	N-CA-C	7.81	127.07	109.81
1	CY	1069	PRO	N-CA-C	7.80	128.54	112.47
6	AV	8113	LEU	N-CA-C	7.77	120.43	111.11
6	At	8045	LEU	N-CA-C	7.77	126.97	109.81
6	Bl	8113	LEU	N-CA-C	7.76	119.53	111.14
1	CQ	1069	PRO	N-CA-C	7.75	128.44	112.47
1	Bg	1069	PRO	N-CA-C	7.74	128.42	112.47
6	B2	8044	GLU	CA-C-N	7.74	130.80	120.58
6	B2	8044	GLU	C-N-CA	7.74	130.80	120.58
1	BY	1069	PRO	N-CA-C	7.71	128.34	112.47
6	Cl	8113	LEU	N-CA-C	7.70	121.16	111.69
1	Ao	1069	PRO	N-CA-C	7.69	128.32	112.47
6	Al	8156	VAL	CA-C-N	7.68	131.46	120.79
6	Al	8156	VAL	C-N-CA	7.68	131.46	120.79
1	Bw	1069	PRO	N-CA-C	7.68	128.28	112.47
6	Ad	8045	LEU	N-CA-C	7.65	126.72	109.81
6	AV	8166	VAL	N-CA-C	-7.62	103.26	110.42
1	AA	1069	PRO	N-CA-C	7.61	128.14	112.47
8	BX	5001	PRO	N-CA-C	7.58	119.95	110.70
1	Bo	1069	PRO	N-CA-C	7.53	127.97	112.47
1	CA	1069	PRO	N-CA-C	7.53	127.97	112.47
1	BI	1069	PRO	N-CA-C	7.51	127.95	112.47
4	BL	4031	ASP	CA-CB-CG	7.51	120.11	112.60
6	BV	8156	VAL	CA-C-N	7.51	131.34	120.38
6	BV	8156	VAL	C-N-CA	7.51	131.34	120.38
8	Bf	5001	PRO	N-CA-C	7.48	119.83	110.70
1	BQ	1069	PRO	N-CA-C	7.48	127.88	112.47
8	BP	5001	PRO	N-CA-C	7.47	119.82	110.70
1	AI	1069	PRO	N-CA-C	7.47	127.86	112.47
6	Cl	8114	LEU	CA-C-N	7.47	131.04	120.28
6	Cl	8114	LEU	C-N-CA	7.47	131.04	120.28
1	AQ	1069	PRO	N-CA-C	7.46	127.84	112.47
8	An	5001	PRO	N-CA-C	7.45	119.79	110.70
6	Bd	8204	GLN	N-CA-C	7.44	119.47	111.36
6	Cd	8204	GLN	N-CA-C	7.44	119.47	111.36
6	AF	8178	ILE	N-CA-C	-7.44	103.09	110.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Cg	1069	PRO	N-CA-C	7.44	127.79	112.47
6	Cd	8209	ASN	N-CA-C	7.42	120.31	111.33
1	AY	1069	PRO	N-CA-C	7.41	127.72	112.47
1	Co	1069	PRO	N-CA-C	7.40	127.71	112.47
8	Av	5001	PRO	N-CA-C	7.40	119.72	110.70
1	Ag	1069	PRO	N-CA-C	7.39	127.69	112.47
6	CV	8206	PHE	CA-CB-CG	-7.38	106.42	113.80
1	BA	1069	PRO	N-CA-C	7.37	127.65	112.47
6	Bd	8142	LEU	N-CA-C	-7.37	102.95	112.23
6	Cd	8135	PRO	N-CA-C	-7.36	99.39	111.68
6	AF	8209	ASN	CA-CB-CG	7.35	119.95	112.60
8	AX	5001	PRO	N-CA-C	7.35	119.66	110.70
8	AH	5001	PRO	N-CA-C	7.33	119.64	110.70
8	A4	5001	PRO	N-CA-C	7.33	119.64	110.70
6	AV	8135	PRO	N-CA-C	-7.32	99.45	111.68
6	B2	8135	PRO	N-CA-C	-7.30	99.49	111.68
8	CP	5001	PRO	N-CA-C	7.29	119.60	110.70
8	Bn	5001	PRO	N-CA-C	7.29	119.59	110.70
6	BV	8135	PRO	N-CA-C	-7.29	99.51	111.68
8	AP	5001	PRO	N-CA-C	7.28	119.58	110.70
6	Ad	8135	PRO	N-CA-C	-7.28	99.53	111.68
7	BW	6010	GLU	CB-CG-CD	7.27	124.96	112.60
7	Ce	6010	GLU	CB-CG-CD	7.26	124.95	112.60
6	CF	8044	GLU	CA-C-N	7.25	128.69	120.06
6	CF	8044	GLU	C-N-CA	7.25	128.69	120.06
3	AC	3024	GLN	N-CA-C	7.25	126.24	110.80
6	A2	8209	ASN	CA-CB-CG	7.25	119.84	112.60
6	At	8212	LYS	CA-C-N	7.24	130.95	120.38
6	At	8212	LYS	C-N-CA	7.24	130.95	120.38
6	CF	8135	PRO	N-CA-C	-7.24	99.60	111.68
6	CN	8135	PRO	N-CA-C	-7.22	99.62	111.68
6	Bd	8135	PRO	N-CA-C	-7.22	99.62	111.68
6	Bd	8113	LEU	N-CA-C	7.22	118.80	111.07
6	BF	8135	PRO	N-CA-C	-7.22	99.63	111.68
8	Bv	5001	PRO	N-CA-C	7.21	119.49	110.70
6	Al	8135	PRO	N-CA-C	-7.21	99.64	111.68
6	Bt	8135	PRO	N-CA-C	-7.20	99.66	111.68
8	BH	5001	PRO	N-CA-C	7.20	119.48	110.70
8	Cv	5001	PRO	N-CA-C	7.19	119.47	110.70
1	Aw	1069	PRO	N-CA-C	7.19	127.28	112.47
6	CN	8142	LEU	N-CA-C	-7.17	102.87	111.69
6	AN	8135	PRO	N-CA-C	-7.16	99.73	111.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	AF	8135	PRO	N-CA-C	-7.16	99.73	111.68
6	BN	8135	PRO	N-CA-C	-7.16	99.73	111.68
6	Bt	8044	GLU	CA-C-N	7.14	128.56	120.06
6	Bt	8044	GLU	C-N-CA	7.14	128.56	120.06
6	CV	8135	PRO	N-CA-C	-7.14	99.75	111.68
6	Cl	8135	PRO	N-CA-C	-7.12	99.78	111.68
6	At	8135	PRO	N-CA-C	-7.12	99.80	111.68
6	Bl	8135	PRO	N-CA-C	-7.09	99.83	111.68
6	Bl	8044	GLU	CA-C-N	7.08	128.49	120.06
6	Bl	8044	GLU	C-N-CA	7.08	128.49	120.06
8	Af	5001	PRO	N-CA-C	7.07	119.32	110.70
6	A2	8135	PRO	N-CA-C	-7.03	99.94	111.68
6	Cd	8044	GLU	CA-C-N	7.02	128.42	120.06
6	Cd	8044	GLU	C-N-CA	7.02	128.42	120.06
6	Al	8044	GLU	CA-C-N	7.01	128.40	120.06
6	Al	8044	GLU	C-N-CA	7.01	128.40	120.06
8	Cn	5001	PRO	N-CA-C	7.01	119.25	110.70
7	AW	6010	GLU	CB-CG-CD	7.00	124.50	112.60
8	CX	5001	PRO	N-CA-C	6.99	119.23	110.70
7	AG	6019	ASN	CA-CB-CG	6.99	119.59	112.60
2	BR	2041	ASN	CA-CB-CG	6.99	119.58	112.60
8	B4	5001	PRO	N-CA-C	6.95	119.17	110.70
4	Bb	4031	ASP	CA-CB-CG	6.94	119.54	112.60
6	CV	8209	ASN	CA-CB-CG	6.94	119.54	112.60
6	Ct	8209	ASN	CA-CB-CG	6.93	119.53	112.60
7	AG	6010	GLU	CB-CG-CD	6.93	124.38	112.60
2	Ax	2041	ASN	CA-CB-CG	6.92	119.52	112.60
8	CH	5001	PRO	N-CA-C	6.92	119.14	110.70
7	Be	6010	GLU	CB-CG-CD	6.91	124.35	112.60
8	Cf	5001	PRO	N-CA-C	6.91	119.13	110.70
6	At	8178	ILE	N-CA-C	-6.88	103.63	110.30
6	BN	8044	GLU	CA-C-N	6.87	128.24	120.06
6	BN	8044	GLU	C-N-CA	6.87	128.24	120.06
4	Cb	4031	ASP	N-CA-CB	-6.87	100.75	111.05
1	CA	1080	ASP	N-CA-C	6.85	118.84	109.11
6	BF	8044	GLU	CA-C-N	6.85	128.21	120.06
6	BF	8044	GLU	C-N-CA	6.85	128.21	120.06
7	Au	6010	GLU	CB-CG-CD	6.83	124.22	112.60
6	CN	8113	LEU	N-CA-C	6.83	118.73	111.28
7	B3	6010	GLU	CB-CG-CD	6.82	124.19	112.60
7	Am	6010	GLU	CB-CG-CD	6.81	124.17	112.60
6	At	8157	CYS	N-CA-C	6.80	121.33	112.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	Bu	6010	GLU	CB-CG-CD	6.80	124.16	112.60
6	Ct	8135	PRO	N-CA-C	-6.79	99.71	111.32
6	Bl	8157	CYS	N-CA-C	6.77	120.64	112.38
1	CY	1080	ASP	N-CA-C	6.75	118.69	109.11
6	AF	8198	LEU	CA-C-N	6.74	129.20	120.44
6	AF	8198	LEU	C-N-CA	6.74	129.20	120.44
4	Br	4031	ASP	CA-CB-CG	6.74	119.34	112.60
6	AF	8044	GLU	CA-C-N	6.73	128.07	120.06
6	AF	8044	GLU	C-N-CA	6.73	128.07	120.06
6	BV	8044	GLU	CA-C-N	6.72	128.05	120.06
6	BV	8044	GLU	C-N-CA	6.72	128.05	120.06
6	AF	8156	VAL	N-CA-CB	6.68	118.37	110.55
7	AO	6010	GLU	CB-CG-CD	6.67	123.94	112.60
4	Cr	4031	ASP	CA-CB-CG	6.67	119.27	112.60
6	At	8142	LEU	N-CA-C	-6.66	103.19	112.45
4	Bj	4031	ASP	CA-CB-CG	6.65	119.25	112.60
6	Bt	8142	LEU	N-CA-C	-6.65	103.52	111.69
6	CF	8157	CYS	N-CA-C	6.63	120.58	112.23
6	B2	8156	VAL	N-CA-CB	6.62	117.86	110.51
6	AN	8142	LEU	N-CA-C	-6.61	103.56	111.69
6	CV	8044	GLU	CA-C-N	6.61	127.93	120.06
6	CV	8044	GLU	C-N-CA	6.61	127.93	120.06
6	Ct	8157	CYS	N-CA-C	6.60	118.17	110.97
4	Cb	4031	ASP	CA-CB-CG	6.60	119.20	112.60
7	CG	6010	GLU	CB-CG-CD	6.59	123.81	112.60
7	CW	6010	GLU	CB-CG-CD	6.59	123.80	112.60
6	B2	8112	THR	N-CA-C	-6.59	104.28	112.72
1	CI	1080	ASP	N-CA-C	6.58	118.46	109.11
1	CI	1069	PRO	N-CA-C	6.57	126.01	112.47
6	B2	8142	LEU	N-CA-C	-6.56	103.62	111.69
6	AN	8113	LEU	N-CA-C	6.56	119.26	111.33
6	CF	8142	LEU	N-CA-C	-6.55	103.63	111.69
7	BO	6010	GLU	CB-CG-CD	6.55	123.74	112.60
1	CQ	1080	ASP	N-CA-C	6.55	118.41	109.11
6	AN	8105	ASN	N-CA-C	6.54	120.47	112.23
7	BO	6019	ASN	CA-CB-CG	6.54	119.14	112.60
6	Cl	8044	GLU	CA-C-N	6.53	127.83	120.06
6	Cl	8044	GLU	C-N-CA	6.53	127.83	120.06
7	BG	6010	GLU	CB-CG-CD	6.51	123.66	112.60
7	Cu	6010	GLU	CB-CG-CD	6.50	123.66	112.60
6	AV	8044	GLU	CA-C-N	6.50	127.80	120.06
6	AV	8044	GLU	C-N-CA	6.50	127.80	120.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	CN	8178	ILE	N-CA-CB	6.49	117.69	110.62
6	AF	8142	LEU	N-CA-C	-6.47	103.72	111.69
6	Bd	8157	CYS	N-CA-C	6.45	120.89	112.89
7	B3	6069	ARG	N-CA-C	6.44	119.68	109.50
6	CF	8113	LEU	N-CA-C	6.43	117.95	111.07
6	Cl	8142	LEU	N-CA-C	-6.42	103.79	111.69
7	Be	6069	ARG	N-CA-C	6.42	119.64	109.50
6	BV	8142	LEU	N-CA-C	-6.42	103.80	111.69
6	CV	8142	LEU	N-CA-C	-6.39	103.83	111.69
7	Ce	6069	ARG	N-CA-C	6.38	119.58	109.50
3	Cq	3008	PHE	CA-CB-CG	6.38	120.18	113.80
6	AF	8157	CYS	N-CA-C	6.38	124.38	110.80
6	At	8126	GLU	CB-CG-CD	6.37	123.44	112.60
6	AV	8142	LEU	N-CA-C	-6.36	103.87	111.69
6	A2	8142	LEU	N-CA-C	-6.36	103.87	111.69
7	Ae	6010	GLU	CB-CG-CD	6.35	123.40	112.60
4	Bb	4031	ASP	N-CA-CB	-6.35	101.52	111.05
4	Bj	4031	ASP	N-CA-CB	-6.34	101.55	111.05
6	BV	8113	LEU	N-CA-C	6.33	118.17	111.28
6	Bd	8044	GLU	CA-C-N	6.33	127.59	120.06
6	Bd	8044	GLU	C-N-CA	6.33	127.59	120.06
6	BV	8156	VAL	N-CA-CB	6.32	117.51	110.62
7	Bu	6069	ARG	N-CA-C	6.32	119.48	109.50
7	CW	6069	ARG	N-CA-C	6.31	119.47	109.50
7	Au	6069	ARG	N-CA-C	6.31	119.47	109.50
6	AN	8174	ALA	CA-C-N	6.31	129.06	120.54
6	AN	8174	ALA	C-N-CA	6.31	129.06	120.54
8	BH	5004	LEU	N-CA-C	-6.30	105.63	113.38
7	CO	6068	PRO	CA-C-N	6.29	132.43	122.62
7	CO	6068	PRO	C-N-CA	6.29	132.43	122.62
6	Ct	8142	LEU	N-CA-C	-6.28	104.36	111.14
7	A3	6010	GLU	CB-CG-CD	6.27	123.27	112.60
2	Ah	2041	ASN	CA-CB-CG	6.27	118.87	112.60
7	CG	6069	ARG	N-CA-C	6.27	119.41	109.50
8	An	5004	LEU	N-CA-C	-6.25	105.69	113.38
7	A3	6069	ARG	N-CA-C	6.25	119.37	109.50
7	CO	6010	GLU	CB-CG-CD	6.24	123.21	112.60
7	Ae	6069	ARG	N-CA-C	6.24	119.36	109.50
6	Ct	8178	ILE	N-CA-CB	6.23	118.12	110.64
1	AA	1016	GLU	CB-CG-CD	6.23	123.19	112.60
7	AW	6069	ARG	N-CA-C	6.22	119.33	109.50
6	Cl	8208	GLN	N-CA-C	-6.22	100.94	109.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	BO	6069	ARG	N-CA-C	6.21	119.31	109.50
7	AO	6069	ARG	N-CA-C	6.21	119.31	109.50
6	BV	8212	LYS	CA-C-N	6.21	129.22	120.28
6	BV	8212	LYS	C-N-CA	6.21	129.22	120.28
7	Cm	6069	ARG	N-CA-C	6.21	119.30	109.50
6	CV	8166	VAL	N-CA-C	-6.20	104.29	110.30
6	Ad	8142	LEU	N-CA-C	-6.20	104.07	111.69
7	Bu	6019	ASN	CA-CB-CG	6.20	118.80	112.60
1	Aw	1080	ASP	N-CA-C	6.20	117.91	109.11
6	BV	8063	LYS	CA-C-N	6.17	128.84	120.38
6	BV	8063	LYS	C-N-CA	6.17	128.84	120.38
2	AJ	2041	ASN	CA-CB-CG	6.17	118.77	112.60
1	Bw	1080	ASP	N-CA-C	6.16	117.86	109.11
8	AP	5004	LEU	N-CA-C	-6.16	105.81	113.38
3	Ca	3041	ASN	N-CA-C	-6.16	101.16	110.28
6	Cd	8113	LEU	N-CA-C	6.15	118.78	111.33
6	BF	8142	LEU	N-CA-C	-6.15	104.12	111.69
6	Bd	8206	PHE	CA-CB-CG	-6.15	107.65	113.80
6	Cd	8063	LYS	CA-C-N	6.14	128.80	120.38
6	Cd	8063	LYS	C-N-CA	6.14	128.80	120.38
7	BW	6069	ARG	N-CA-C	6.14	119.20	109.50
3	Ci	3041	ASN	N-CA-C	-6.14	101.20	110.28
6	A2	8173	ILE	N-CA-C	-6.13	104.76	110.53
7	CO	6069	ARG	N-CA-C	6.13	119.19	109.50
7	Am	6069	ARG	N-CA-C	6.13	119.18	109.50
3	Ay	3041	ASN	N-CA-C	-6.13	101.21	110.28
6	Ct	8205	VAL	N-CA-C	6.13	116.79	110.36
3	AK	3041	ASN	N-CA-C	-6.12	101.22	110.28
6	Al	8142	LEU	N-CA-C	-6.12	104.16	111.69
3	Ba	3041	ASN	N-CA-C	-6.12	101.21	110.28
7	BO	6057	LYS	CB-CG-CD	6.12	125.37	111.30
6	Bd	8063	LYS	CA-C-N	6.12	128.76	120.38
6	Bd	8063	LYS	C-N-CA	6.12	128.76	120.38
6	A2	8204	GLN	N-CA-C	6.12	117.74	111.14
1	Cg	1080	ASP	N-CA-C	6.11	117.78	109.11
8	BP	5004	LEU	N-CA-C	-6.10	105.88	113.38
3	CS	3041	ASN	N-CA-C	-6.09	101.27	110.28
7	BG	6069	ARG	N-CA-C	6.09	119.12	109.50
7	BO	6068	PRO	CA-C-N	6.08	132.11	122.62
7	BO	6068	PRO	C-N-CA	6.08	132.11	122.62
3	CC	3041	ASN	N-CA-C	-6.08	101.28	110.28
6	Bl	8142	LEU	N-CA-C	-6.08	104.22	111.69

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	By	3041	ASN	N-CA-C	-6.08	101.29	110.28
7	AG	6069	ARG	N-CA-C	6.07	119.10	109.50
7	Bu	6068	PRO	CA-C-N	6.07	132.09	122.62
7	Bu	6068	PRO	C-N-CA	6.07	132.09	122.62
3	AC	3041	ASN	N-CA-C	-6.07	101.30	110.28
3	Aa	3041	ASN	N-CA-C	-6.07	101.30	110.28
7	Ae	6019	ASN	CA-CB-CG	6.07	118.67	112.60
7	Bm	6069	ARG	N-CA-C	6.07	119.09	109.50
3	AS	3041	ASN	N-CA-C	-6.06	101.31	110.28
7	Bm	6010	GLU	CB-CG-CD	6.06	122.91	112.60
3	BS	3041	ASN	N-CA-C	-6.06	101.31	110.28
3	BC	3041	ASN	N-CA-C	-6.05	101.32	110.28
7	Cm	6010	GLU	CB-CG-CD	6.05	122.88	112.60
3	Cq	3041	ASN	N-CA-C	-6.05	101.33	110.28
7	CG	6068	PRO	CA-C-N	6.04	132.05	122.62
7	CG	6068	PRO	C-N-CA	6.04	132.05	122.62
6	Al	8157	CYS	N-CA-C	6.04	118.39	111.02
6	BF	8209	ASN	CA-CB-CG	6.04	118.64	112.60
8	AH	5004	LEU	N-CA-C	-6.04	105.95	113.38
6	BN	8063	LYS	CA-C-N	6.04	128.65	120.38
6	BN	8063	LYS	C-N-CA	6.04	128.65	120.38
3	Ai	3041	ASN	N-CA-C	-6.03	101.35	110.28
3	Bi	3041	ASN	N-CA-C	-6.03	101.35	110.28
8	BX	5004	LEU	N-CA-C	-6.03	105.96	113.38
6	Al	8113	LEU	N-CA-C	6.02	118.80	111.82
3	Aq	3041	ASN	N-CA-C	-6.02	101.37	110.28
3	CK	3041	ASN	N-CA-C	-6.02	101.37	110.28
8	A4	5004	LEU	N-CA-C	-6.02	105.98	113.38
6	CV	8063	LYS	CA-C-N	6.02	128.62	120.38
6	CV	8063	LYS	C-N-CA	6.02	128.62	120.38
6	BF	8120	ASP	CA-CB-CG	6.01	118.61	112.60
6	AN	8156	VAL	CA-C-N	6.01	128.65	120.54
6	AN	8156	VAL	C-N-CA	6.01	128.65	120.54
6	Ad	8063	LYS	CA-C-N	6.01	128.61	120.38
6	Ad	8063	LYS	C-N-CA	6.01	128.61	120.38
6	Bt	8113	LEU	N-CA-C	6.00	118.34	111.02
3	Bq	3041	ASN	N-CA-C	-6.00	101.40	110.28
6	B2	8005	GLU	N-CA-C	5.99	118.58	111.33
6	BN	8142	LEU	N-CA-C	-5.99	104.33	111.69
8	AX	5004	LEU	N-CA-C	-5.98	106.02	113.38
7	Ae	6028	VAL	N-CA-C	-5.98	98.95	107.98
3	BK	3041	ASN	N-CA-C	-5.98	101.43	110.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	Cj	4031	ASP	CA-CB-CG	5.98	118.58	112.60
6	A2	8044	GLU	CA-C-N	5.96	127.15	120.06
6	A2	8044	GLU	C-N-CA	5.96	127.15	120.06
1	BY	1080	ASP	N-CA-C	5.96	117.57	109.11
5	Bk	7004	ASP	CA-CB-CG	5.96	118.56	112.60
8	Av	5004	LEU	N-CA-C	-5.95	106.06	113.38
6	B2	8206	PHE	CA-CB-CG	-5.95	107.85	113.80
7	Cu	6068	PRO	CA-C-N	5.95	131.91	122.62
7	Cu	6068	PRO	C-N-CA	5.95	131.91	122.62
7	CG	6019	ASN	CA-CB-CG	5.95	118.55	112.60
2	BJ	2041	ASN	CA-CB-CG	5.93	118.53	112.60
5	As	7003	ASP	CA-C-N	5.92	128.81	120.28
5	As	7003	ASP	C-N-CA	5.92	128.81	120.28
7	Be	6068	PRO	CA-C-N	5.91	131.85	122.62
7	Be	6068	PRO	C-N-CA	5.91	131.85	122.62
7	Cu	6069	ARG	N-CA-C	5.90	118.83	109.50
3	Bq	3052	SER	N-CA-C	5.90	117.72	111.28
7	Cm	6068	PRO	CA-C-N	5.90	131.82	122.62
7	Cm	6068	PRO	C-N-CA	5.90	131.82	122.62
7	Ae	6068	PRO	CA-C-N	5.89	131.81	122.62
7	Ae	6068	PRO	C-N-CA	5.89	131.81	122.62
7	CW	6068	PRO	CA-C-N	5.89	131.81	122.62
7	CW	6068	PRO	C-N-CA	5.89	131.81	122.62
6	CF	8199	LEU	CA-C-N	5.89	128.17	120.28
6	CF	8199	LEU	C-N-CA	5.89	128.17	120.28
7	A3	6028	VAL	N-CA-C	-5.88	99.10	107.98
6	Bl	8176	THR	CB-CA-C	5.88	120.18	110.90
6	BN	8112	THR	CA-C-N	5.87	128.07	120.44
6	BN	8112	THR	C-N-CA	5.87	128.07	120.44
6	Bl	8172	TYR	CA-C-N	5.86	128.74	120.42
6	Bl	8172	TYR	C-N-CA	5.86	128.74	120.42
6	CF	8173	ILE	N-CA-C	-5.86	105.03	110.53
6	Bd	8005	GLU	N-CA-C	5.85	118.41	111.33
6	A2	8005	GLU	N-CA-C	5.85	118.41	111.33
7	CO	6019	ASN	CA-CB-CG	5.85	118.45	112.60
7	BG	6028	VAL	N-CA-C	-5.84	99.17	107.98
5	Ak	7008	VAL	N-CA-C	-5.81	104.67	111.00
3	Cq	3052	SER	N-CA-C	5.81	117.61	111.28
1	Bw	1080	ASP	CA-CB-CG	5.81	118.41	112.60
3	By	3052	SER	N-CA-C	5.81	117.61	111.28
6	AV	8205	VAL	N-CA-C	5.81	115.93	110.30
6	AN	8063	LYS	CA-C-N	5.80	128.33	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	AN	8063	LYS	C-N-CA	5.80	128.33	120.38
6	BV	8157	CYS	N-CA-C	5.80	119.17	111.75
6	B2	8204	GLN	N-CA-C	5.80	118.47	111.40
7	B3	6068	PRO	CA-C-N	5.80	131.66	122.62
7	B3	6068	PRO	C-N-CA	5.80	131.66	122.62
6	Ad	8095	ASP	N-CA-C	5.79	118.33	111.33
6	AV	8208	GLN	CA-C-N	5.79	129.94	120.63
6	AV	8208	GLN	C-N-CA	5.79	129.94	120.63
3	Ba	3052	SER	N-CA-C	5.78	117.58	111.28
5	B1	7006	LEU	CA-C-N	5.78	128.30	120.38
5	B1	7006	LEU	C-N-CA	5.78	128.30	120.38
4	BT	4031	ASP	CA-CB-CG	5.78	118.38	112.60
6	Al	8063	LYS	CA-C-N	5.78	128.29	120.38
6	Al	8063	LYS	C-N-CA	5.78	128.29	120.38
3	CC	3052	SER	N-CA-C	5.77	117.57	111.28
1	CY	1080	ASP	CA-CB-CG	5.77	118.37	112.60
5	Bc	7008	VAL	N-CA-C	-5.76	105.23	110.82
6	At	8144	ASP	CA-C-N	5.76	128.65	120.53
6	At	8144	ASP	C-N-CA	5.76	128.65	120.53
3	Aa	3052	SER	N-CA-C	5.76	117.56	111.28
1	Bo	1080	ASP	CA-CB-CG	5.76	118.36	112.60
8	CP	5004	LEU	N-CA-C	-5.76	106.30	113.38
7	AG	6143	HIS	CA-CB-CG	-5.75	108.05	113.80
6	BF	8063	LYS	CA-C-N	5.74	128.24	120.38
6	BF	8063	LYS	C-N-CA	5.74	128.24	120.38
6	Cl	8063	LYS	CA-C-N	5.74	128.24	120.38
6	Cl	8063	LYS	C-N-CA	5.74	128.24	120.38
7	CG	6028	VAL	N-CA-C	-5.74	99.32	107.98
7	BO	6028	VAL	N-CA-C	-5.73	99.32	107.98
8	CH	5004	LEU	N-CA-C	-5.73	106.33	113.38
6	Cl	8157	CYS	N-CA-C	5.72	117.60	111.36
5	Ac	7012	ASP	CA-CB-CG	5.72	118.32	112.60
7	Bm	6068	PRO	CA-C-N	5.72	131.54	122.62
7	Bm	6068	PRO	C-N-CA	5.72	131.54	122.62
6	At	8063	LYS	CA-C-N	5.72	129.40	120.82
6	At	8063	LYS	C-N-CA	5.72	129.40	120.82
1	CA	1080	ASP	CA-CB-CG	5.71	118.31	112.60
5	CE	7006	LEU	CA-C-N	5.70	127.92	120.28
5	CE	7006	LEU	C-N-CA	5.70	127.92	120.28
6	Ct	8151	LEU	CA-C-N	5.70	127.85	120.44
6	Ct	8151	LEU	C-N-CA	5.70	127.85	120.44
8	Cn	5004	LEU	N-CA-C	-5.70	106.37	113.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AS	3052	SER	N-CA-C	5.69	117.49	111.28
3	BS	3052	SER	N-CA-C	5.69	117.48	111.28
3	CK	3052	SER	N-CA-C	5.69	117.48	111.28
7	Cu	6028	VAL	N-CA-C	-5.69	99.39	107.98
7	Ce	6028	VAL	N-CA-C	-5.69	99.39	107.98
7	A3	6068	PRO	CA-C-N	5.68	131.49	122.62
7	A3	6068	PRO	C-N-CA	5.68	131.49	122.62
1	AI	1080	ASP	CA-CB-CG	5.68	118.28	112.60
7	BW	6028	VAL	N-CA-C	-5.68	99.40	107.98
3	AC	3052	SER	N-CA-C	5.68	117.47	111.28
1	BY	1080	ASP	CA-CB-CG	5.67	118.28	112.60
6	AN	8017	CYS	N-CA-C	5.67	117.91	110.08
7	BG	6068	PRO	CA-C-N	5.67	131.47	122.62
7	BG	6068	PRO	C-N-CA	5.67	131.47	122.62
2	AR	2041	ASN	CA-CB-CG	5.67	118.27	112.60
3	AK	3052	SER	N-CA-C	5.67	117.46	111.28
3	Ay	3052	SER	N-CA-C	5.66	117.45	111.28
7	AW	6068	PRO	CA-C-N	5.66	131.45	122.62
7	AW	6068	PRO	C-N-CA	5.66	131.45	122.62
7	AO	6028	VAL	N-CA-C	-5.66	99.44	107.98
5	CU	7008	VAL	N-CA-C	-5.65	105.34	110.82
6	AN	8210	ASP	CA-CB-CG	5.65	118.25	112.60
7	BG	6019	ASN	CA-CB-CG	5.65	118.25	112.60
7	BW	6068	PRO	CA-C-N	5.65	131.43	122.62
7	BW	6068	PRO	C-N-CA	5.65	131.43	122.62
6	CN	8208	GLN	N-CA-C	-5.65	103.68	111.81
6	Cd	8147	LEU	CA-C-N	5.65	128.16	120.54
6	Cd	8147	LEU	C-N-CA	5.65	128.16	120.54
7	AG	6028	VAL	N-CA-C	-5.64	99.47	107.98
7	Au	6028	VAL	N-CA-C	-5.63	99.47	107.98
3	Ca	3052	SER	N-CA-C	5.63	117.42	111.28
6	AN	8039	MET	N-CA-C	5.63	118.58	109.40
3	BC	3052	SER	N-CA-C	5.63	117.41	111.28
7	AO	6019	ASN	CA-CB-CG	5.62	118.22	112.60
7	CW	6028	VAL	N-CA-C	-5.61	99.50	107.98
3	Aq	3052	SER	N-CA-C	5.61	117.39	111.28
8	Af	5004	LEU	N-CA-C	-5.60	106.49	113.38
6	A2	8017	CYS	N-CA-C	5.60	117.81	110.08
1	Bo	1080	ASP	N-CA-C	5.59	117.05	109.11
6	AN	8156	VAL	N-CA-CB	5.59	117.09	110.55
1	AQ	1080	ASP	CA-CB-CG	5.59	118.19	112.60
6	Al	8211	PHE	N-CA-C	-5.59	107.71	114.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	Bs	7008	VAL	CA-C-N	5.59	128.09	120.54
5	Bs	7008	VAL	C-N-CA	5.59	128.09	120.54
3	BK	3052	SER	N-CA-C	5.59	117.37	111.28
1	Aw	1080	ASP	CA-CB-CG	5.58	118.18	112.60
6	Ct	8110	LEU	CA-C-N	5.58	128.07	120.54
6	Ct	8110	LEU	C-N-CA	5.58	128.07	120.54
6	Bl	8063	LYS	CA-C-N	5.57	128.01	120.38
6	Bl	8063	LYS	C-N-CA	5.57	128.01	120.38
2	Cp	2042	ASN	CA-CB-CG	5.57	118.17	112.60
6	BF	8157	CYS	N-CA-C	5.57	118.28	111.82
3	Bi	3008	PHE	CA-CB-CG	5.57	119.37	113.80
3	Bi	3052	SER	N-CA-C	5.56	117.34	111.28
2	Ch	2042	ASN	CA-C-N	5.56	128.99	120.82
2	Ch	2042	ASN	C-N-CA	5.56	128.99	120.82
6	Cd	8017	CYS	N-CA-C	5.56	117.75	110.08
6	AV	8017	CYS	N-CA-C	5.55	117.75	110.08
6	Bt	8208	GLN	N-CA-C	-5.55	103.94	111.55
8	Cf	5004	LEU	N-CA-C	-5.55	106.56	113.38
6	Cl	8017	CYS	N-CA-C	5.55	117.73	110.08
8	Cv	5004	LEU	N-CA-C	-5.55	106.56	113.38
6	AF	8017	CYS	N-CA-C	5.54	117.72	110.08
6	CN	8017	CYS	N-CA-C	5.53	117.72	110.08
6	AN	8170	LEU	N-CA-C	-5.53	106.58	113.55
6	CV	8017	CYS	N-CA-C	5.53	117.71	110.08
6	AN	8157	CYS	N-CA-C	5.52	117.74	111.11
7	Au	6068	PRO	CA-C-N	5.52	131.23	122.62
7	Au	6068	PRO	C-N-CA	5.52	131.23	122.62
8	B4	5004	LEU	N-CA-C	-5.52	106.55	113.28
1	Bg	1080	ASP	CA-CB-CG	5.51	118.11	112.60
6	B2	8122	GLU	CA-C-N	5.51	127.66	120.28
6	B2	8122	GLU	C-N-CA	5.51	127.66	120.28
7	AO	6143	HIS	CA-CB-CG	-5.50	108.30	113.80
7	Am	6028	VAL	N-CA-C	-5.50	99.68	107.98
6	CF	8187	ASP	N-CA-C	-5.49	106.36	112.57
7	AW	6143	HIS	CA-CB-CG	-5.49	108.31	113.80
7	B3	6143	HIS	CA-CB-CG	-5.49	108.31	113.80
6	BF	8113	LEU	N-CA-C	5.49	116.94	111.07
6	CN	8208	GLN	CA-C-N	5.49	129.46	120.63
6	CN	8208	GLN	C-N-CA	5.49	129.46	120.63
6	Al	8017	CYS	N-CA-C	5.49	117.65	110.08
6	Bt	8200	THR	N-CA-C	-5.49	105.20	111.07
7	Ce	6068	PRO	CA-C-N	5.48	131.17	122.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	Ce	6068	PRO	C-N-CA	5.48	131.17	122.62
5	Bs	7006	LEU	CA-C-N	5.48	127.62	120.28
5	Bs	7006	LEU	C-N-CA	5.48	127.62	120.28
7	Am	6143	HIS	CA-CB-CG	-5.48	108.32	113.80
7	BW	6143	HIS	CA-CB-CG	-5.48	108.32	113.80
2	AB	2041	ASN	CA-CB-CG	5.47	118.07	112.60
7	Au	6019	ASN	CA-CB-CG	5.46	118.06	112.60
7	Bu	6028	VAL	N-CA-C	-5.46	99.73	107.98
6	A2	8110	LEU	N-CA-C	5.46	117.94	111.33
6	Bd	8166	VAL	N-CA-C	-5.46	105.05	111.00
5	Bs	7005	SER	CA-C-N	5.46	131.97	121.54
5	Bs	7005	SER	C-N-CA	5.46	131.97	121.54
6	BV	8187	ASP	N-CA-C	-5.46	106.41	112.57
6	CF	8017	CYS	N-CA-C	5.45	117.60	110.08
6	Ct	8187	ASP	N-CA-C	-5.45	106.41	112.57
6	Bt	8063	LYS	CA-C-N	5.45	127.89	120.54
6	Bt	8063	LYS	C-N-CA	5.45	127.89	120.54
7	B3	6028	VAL	N-CA-C	-5.45	99.76	107.98
6	AV	8129	SER	CA-C-N	5.44	128.12	120.28
6	AV	8129	SER	C-N-CA	5.44	128.12	120.28
6	AN	8160	LEU	N-CA-C	5.44	118.43	110.10
7	AW	6028	VAL	N-CA-C	-5.44	99.24	107.73
6	Ad	8017	CYS	N-CA-C	5.44	117.59	110.08
8	CX	5004	LEU	N-CA-C	-5.44	106.69	113.38
3	Ci	3052	SER	N-CA-C	5.43	117.20	111.28
3	Bq	3008	PHE	CA-CB-CG	5.42	119.22	113.80
6	Cl	8072	VAL	CA-C-N	5.42	127.86	120.54
6	Cl	8072	VAL	C-N-CA	5.42	127.86	120.54
6	CN	8205	VAL	N-CA-C	5.42	115.62	110.53
3	Ai	3052	SER	N-CA-C	5.41	117.18	111.28
4	BD	4031	ASP	CA-CB-CG	5.41	118.01	112.60
6	B2	8160	LEU	N-CA-C	5.41	118.14	110.40
6	CN	8118	GLN	N-CA-C	-5.41	105.39	111.28
6	Ad	8212	LYS	CA-C-N	5.40	128.05	120.28
6	Ad	8212	LYS	C-N-CA	5.40	128.05	120.28
6	Al	8212	LYS	CA-C-N	5.40	128.05	120.28
6	Al	8212	LYS	C-N-CA	5.40	128.05	120.28
6	BF	8048	PHE	CA-CB-CG	5.38	119.19	113.80
6	A2	8179	HIS	CA-C-N	5.38	127.81	120.54
6	A2	8179	HIS	C-N-CA	5.38	127.81	120.54
6	At	8017	CYS	N-CA-C	5.37	117.50	110.08
6	Cd	8112	THR	CA-C-N	5.37	127.73	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	Cd	8112	THR	C-N-CA	5.37	127.73	120.38
7	Au	6143	HIS	CA-CB-CG	-5.37	108.43	113.80
3	CS	3052	SER	N-CA-C	5.37	117.13	111.28
6	Bl	8173	ILE	N-CA-C	-5.36	105.30	110.72
6	CF	8156	VAL	N-CA-CB	5.36	117.83	110.54
2	AZ	2041	ASN	CA-CB-CG	5.36	117.96	112.60
6	A2	8112	THR	CA-C-N	5.36	127.46	120.28
6	A2	8112	THR	C-N-CA	5.36	127.46	120.28
1	Bg	1080	ASP	N-CA-C	5.36	116.72	109.11
4	CL	4031	ASP	N-CA-CB	-5.36	103.01	111.05
7	CG	6143	HIS	CA-CB-CG	-5.36	108.44	113.80
6	BF	8017	CYS	N-CA-C	5.36	117.47	110.08
1	AI	1080	ASP	N-CA-C	5.35	116.71	109.11
5	BU	7011	TYR	CA-C-N	5.35	127.44	120.28
5	BU	7011	TYR	C-N-CA	5.35	127.44	120.28
6	AN	8045	LEU	CA-C-O	-5.35	112.84	120.16
6	Al	8169	THR	CB-CA-C	5.34	119.94	110.85
7	Bm	6028	VAL	N-CA-C	-5.34	99.39	107.73
7	CO	6028	VAL	N-CA-C	-5.34	99.40	107.73
1	Aw	1016	GLU	CB-CG-CD	5.33	121.67	112.60
7	Am	6068	PRO	CA-C-N	5.33	130.94	122.62
7	Am	6068	PRO	C-N-CA	5.33	130.94	122.62
6	BF	8187	ASP	N-CA-C	-5.33	106.54	112.57
5	Cc	7012	ASP	CA-CB-CG	5.33	117.93	112.60
1	CQ	1080	ASP	CA-CB-CG	5.33	117.93	112.60
1	CI	1080	ASP	CA-CB-CG	5.33	117.93	112.60
3	AC	3025	VAL	N-CA-CB	5.33	120.02	111.23
6	BV	8206	PHE	CA-CB-CG	-5.32	108.48	113.80
6	AV	8157	CYS	N-CA-C	5.32	119.26	112.87
6	Bl	8156	VAL	N-CA-CB	5.32	116.42	110.51
6	BN	8187	ASP	N-CA-C	-5.32	106.56	112.57
7	Ce	6143	HIS	CA-CB-CG	-5.32	108.48	113.80
6	Ct	8017	CYS	N-CA-C	5.31	117.41	110.08
7	Cm	6028	VAL	N-CA-C	-5.30	99.45	107.73
6	CN	8187	ASP	N-CA-C	-5.30	106.58	112.57
6	A2	8206	PHE	CA-CB-CG	-5.30	108.50	113.80
7	Am	6019	ASN	CA-CB-CG	5.30	117.90	112.60
6	At	8179	HIS	CA-C-N	5.29	127.69	120.54
6	At	8179	HIS	C-N-CA	5.29	127.69	120.54
6	CV	8039	MET	N-CA-C	5.29	118.03	109.40
6	AF	8063	LYS	CA-C-N	5.29	127.69	120.54
6	AF	8063	LYS	C-N-CA	5.29	127.69	120.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	At	8187	ASP	N-CA-C	-5.29	106.59	112.57
6	Bl	8005	GLU	N-CA-C	5.29	117.74	111.33
6	CN	8199	LEU	CA-C-N	5.29	127.32	120.44
6	CN	8199	LEU	C-N-CA	5.29	127.32	120.44
8	AP	5047	GLY	N-CA-C	-5.29	108.78	115.08
6	Cl	8039	MET	N-CA-C	5.29	118.02	109.40
2	Cp	2041	ASN	CA-CB-CG	5.29	117.89	112.60
6	BV	8017	CYS	N-CA-C	5.29	117.38	110.08
1	AY	1080	ASP	CA-CB-CG	5.29	117.89	112.60
6	CV	8187	ASP	N-CA-C	-5.28	106.60	112.57
6	Cl	8187	ASP	N-CA-C	-5.28	106.61	112.57
6	AV	8063	LYS	CA-C-N	5.27	127.66	120.54
6	AV	8063	LYS	C-N-CA	5.27	127.66	120.54
6	Cd	8187	ASP	N-CA-C	-5.27	106.61	112.57
4	Bz	4031	ASP	CA-CB-CG	5.27	117.87	112.60
6	CF	8039	MET	N-CA-C	5.27	117.99	109.40
6	Cd	8187	ASP	CA-CB-CG	5.27	117.87	112.60
7	AO	6068	PRO	CA-C-N	5.27	130.84	122.62
7	AO	6068	PRO	C-N-CA	5.27	130.84	122.62
6	AV	8179	HIS	CA-C-N	5.26	127.64	120.54
6	AV	8179	HIS	C-N-CA	5.26	127.64	120.54
2	Bx	2086	ASP	CA-CB-CG	5.26	117.86	112.60
6	Bl	8112	THR	CA-C-N	5.26	127.59	120.44
6	Bl	8112	THR	C-N-CA	5.26	127.59	120.44
6	Cd	8179	HIS	CA-C-N	5.26	127.64	120.54
6	Cd	8179	HIS	C-N-CA	5.26	127.64	120.54
6	B2	8113	LEU	N-CA-C	5.25	116.69	111.07
5	CM	7005	SER	CA-C-N	5.25	131.57	121.54
5	CM	7005	SER	C-N-CA	5.25	131.57	121.54
7	CO	6143	HIS	CA-CB-CG	-5.25	108.55	113.80
5	BU	7003	ASP	CA-C-N	5.25	127.83	120.28
5	BU	7003	ASP	C-N-CA	5.25	127.83	120.28
5	B1	7012	ASP	CA-CB-CG	5.25	117.84	112.60
3	AC	3024	GLN	CA-C-N	5.24	131.41	121.97
3	AC	3024	GLN	C-N-CA	5.24	131.41	121.97
6	Ad	8210	ASP	N-CA-C	-5.24	106.04	112.90
6	Bd	8132	LEU	CA-C-N	5.24	131.54	121.54
6	Bd	8132	LEU	C-N-CA	5.24	131.54	121.54
6	Bt	8187	ASP	N-CA-C	-5.24	106.65	112.57
7	Bm	6019	ASN	CA-CB-CG	5.23	117.83	112.60
6	CN	8157	CYS	N-CA-C	5.23	117.72	111.71
6	At	8209	ASN	CA-CB-CG	5.23	117.83	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B1	7011	TYR	CA-C-N	5.23	127.59	120.54
5	B1	7011	TYR	C-N-CA	5.23	127.59	120.54
5	Ac	7003	ASP	CA-C-N	5.22	127.80	120.28
5	Ac	7003	ASP	C-N-CA	5.22	127.80	120.28
5	As	7012	ASP	CA-CB-CG	5.22	117.82	112.60
6	Bl	8187	ASP	N-CA-C	-5.22	106.67	112.57
7	AO	6163	ALA	CA-C-N	5.22	131.51	121.54
7	AO	6163	ALA	C-N-CA	5.22	131.51	121.54
8	Bv	5004	LEU	N-CA-C	-5.21	106.97	113.38
7	Bu	6143	HIS	CA-CB-CG	-5.20	108.60	113.80
5	Bs	7007	LEU	CA-C-N	5.20	127.06	120.72
5	Bs	7007	LEU	C-N-CA	5.20	127.06	120.72
6	Ad	8045	LEU	CA-C-O	-5.20	113.04	120.16
2	CR	2008	GLU	CA-C-N	5.19	128.19	120.31
2	CR	2008	GLU	C-N-CA	5.19	128.19	120.31
6	Bl	8152	TYR	CA-C-N	5.19	129.44	121.19
6	Bl	8152	TYR	C-N-CA	5.19	129.44	121.19
6	CF	8095	ASP	N-CA-C	5.18	117.67	111.71
7	CW	6143	HIS	CA-CB-CG	-5.18	108.62	113.80
6	Al	8128	LEU	CA-C-N	5.18	127.17	120.44
6	Al	8128	LEU	C-N-CA	5.18	127.17	120.44
6	Al	8179	HIS	CA-C-N	5.17	127.53	120.54
6	Al	8179	HIS	C-N-CA	5.17	127.53	120.54
1	Co	1080	ASP	CA-CB-CG	5.17	117.77	112.60
3	AK	3004	ILE	CB-CG1-CD1	5.17	124.65	113.80
2	BB	2008	GLU	CA-C-N	5.16	128.16	120.31
2	BB	2008	GLU	C-N-CA	5.16	128.16	120.31
2	AZ	2008	GLU	CA-C-N	5.16	128.16	120.31
2	AZ	2008	GLU	C-N-CA	5.16	128.16	120.31
6	Ad	8155	LEU	N-CA-C	5.16	116.90	111.28
6	At	8095	ASP	N-CA-C	5.16	118.35	111.75
6	At	8169	THR	CB-CA-C	5.16	119.62	110.85
1	AA	1080	ASP	N-CA-C	5.16	116.43	109.11
6	CF	8179	HIS	CA-C-N	5.16	127.50	120.54
6	CF	8179	HIS	C-N-CA	5.16	127.50	120.54
6	AN	8005	GLU	N-CA-C	5.16	117.57	111.33
6	AF	8166	VAL	N-CA-C	-5.15	104.87	110.23
8	An	5047	GLY	N-CA-C	-5.15	108.95	115.08
6	Ad	8156	VAL	CA-C-N	5.15	127.44	120.44
6	Ad	8156	VAL	C-N-CA	5.15	127.44	120.44
6	Bt	8157	CYS	N-CA-C	5.15	118.72	112.23
7	Ae	6054	ILE	N-CA-C	5.14	115.26	107.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	BB	2041	ASN	CA-CB-CG	5.14	117.74	112.60
6	BN	8017	CYS	N-CA-C	5.14	117.18	110.08
8	Cn	5047	GLY	N-CA-C	-5.14	108.96	115.08
4	Bb	4059	ARG	CA-C-N	5.14	128.53	120.82
4	Bb	4059	ARG	C-N-CA	5.14	128.53	120.82
6	Cd	8105	ASN	N-CA-C	5.14	119.68	113.41
2	Cp	2008	GLU	CA-C-N	5.14	128.12	120.31
2	Cp	2008	GLU	C-N-CA	5.14	128.12	120.31
6	Ad	8144	ASP	CA-C-N	5.14	127.77	120.53
6	Ad	8144	ASP	C-N-CA	5.14	127.77	120.53
7	B3	6164	ASN	N-CA-C	5.13	121.74	110.80
6	Bd	8210	ASP	CA-CB-CG	5.13	117.73	112.60
2	Ch	2008	GLU	CA-C-N	5.13	128.11	120.31
2	Ch	2008	GLU	C-N-CA	5.13	128.11	120.31
4	Az	4059	ARG	CA-C-N	5.13	128.51	120.82
4	Az	4059	ARG	C-N-CA	5.13	128.51	120.82
6	CN	8212	LYS	CA-C-N	5.13	127.15	120.28
6	CN	8212	LYS	C-N-CA	5.13	127.15	120.28
6	AN	8173	ILE	N-CA-C	-5.13	105.71	110.53
1	Co	1080	ASP	N-CA-C	5.12	116.38	109.11
2	Ap	2008	GLU	CA-C-N	5.12	128.09	120.31
2	Ap	2008	GLU	C-N-CA	5.12	128.09	120.31
2	BJ	2008	GLU	CA-C-N	5.12	128.09	120.31
2	BJ	2008	GLU	C-N-CA	5.12	128.09	120.31
7	Cu	6143	HIS	CA-CB-CG	-5.12	108.68	113.80
7	Cu	6163	ALA	CA-C-N	5.12	131.32	121.54
7	Cu	6163	ALA	C-N-CA	5.12	131.32	121.54
6	AF	8144	ASP	CA-C-N	5.12	127.75	120.53
6	AF	8144	ASP	C-N-CA	5.12	127.75	120.53
6	AV	8110	LEU	CA-C-N	5.12	127.39	120.38
6	AV	8110	LEU	C-N-CA	5.12	127.39	120.38
6	Ad	8187	ASP	N-CA-C	-5.12	106.79	112.57
1	Ao	1080	ASP	CA-CB-CG	5.12	117.72	112.60
6	Bl	8144	ASP	CA-C-N	5.12	127.75	120.53
6	Bl	8144	ASP	C-N-CA	5.12	127.75	120.53
7	Bu	6163	ALA	CA-C-N	5.12	131.32	121.54
7	Bu	6163	ALA	C-N-CA	5.12	131.32	121.54
7	AW	6019	ASN	CA-CB-CG	5.12	117.72	112.60
6	Al	8039	MET	N-CA-C	5.12	117.74	109.40
6	Bd	8187	ASP	N-CA-C	-5.12	106.79	112.57
6	Bl	8210	ASP	CA-CB-CG	5.11	117.71	112.60
2	BZ	2008	GLU	CA-C-N	5.11	128.08	120.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	BZ	2008	GLU	C-N-CA	5.11	128.08	120.31
4	Cr	4059	ARG	CA-C-N	5.11	128.49	120.82
4	Cr	4059	ARG	C-N-CA	5.11	128.49	120.82
6	At	8152	TYR	CA-C-N	5.11	127.44	120.54
6	At	8152	TYR	C-N-CA	5.11	127.44	120.54
5	AU	7003	ASP	CA-C-N	5.11	127.64	120.28
5	AU	7003	ASP	C-N-CA	5.11	127.64	120.28
6	B2	8187	ASP	N-CA-C	-5.11	106.80	112.57
4	AL	4059	ARG	CA-C-N	5.11	128.48	120.82
4	AL	4059	ARG	C-N-CA	5.11	128.48	120.82
6	BF	8144	ASP	CA-C-N	5.10	127.72	120.53
6	BF	8144	ASP	C-N-CA	5.10	127.72	120.53
6	Bt	8144	ASP	CA-C-N	5.10	127.72	120.53
6	Bt	8144	ASP	C-N-CA	5.10	127.72	120.53
6	BF	8156	VAL	N-CA-CB	5.10	116.17	110.51
6	AV	8187	ASP	N-CA-C	-5.10	106.81	112.57
6	B2	8187	ASP	CA-CB-CG	5.09	117.69	112.60
6	CV	8185	LYS	CA-C-O	-5.09	113.22	120.51
6	AF	8048	PHE	CA-CB-CG	5.09	118.89	113.80
7	Be	6028	VAL	N-CA-C	-5.09	99.80	107.73
1	Bw	1016	GLU	CB-CG-CD	5.09	121.25	112.60
6	Cd	8039	MET	N-CA-C	5.08	117.69	109.40
6	Al	8048	PHE	CA-CB-CG	5.08	118.88	113.80
8	Av	5047	GLY	N-CA-C	-5.08	109.03	115.08
6	Bt	8048	PHE	CA-CB-CG	5.08	118.88	113.80
7	Ae	6163	ALA	CA-C-N	5.08	131.24	121.54
7	Ae	6163	ALA	C-N-CA	5.08	131.24	121.54
8	CH	5047	GLY	N-CA-C	-5.08	109.04	115.08
2	CZ	2008	GLU	CA-C-N	5.08	128.03	120.31
2	CZ	2008	GLU	C-N-CA	5.08	128.03	120.31
1	BQ	1080	ASP	CA-CB-CG	5.08	117.67	112.60
8	Bn	5004	LEU	N-CA-C	-5.08	107.09	113.28
4	CL	4059	ARG	CA-C-N	5.08	128.43	120.82
4	CL	4059	ARG	C-N-CA	5.08	128.43	120.82
6	Bt	8187	ASP	CA-CB-CG	5.07	117.67	112.60
6	Cd	8138	THR	CB-CA-C	5.07	120.20	111.68
3	Ai	3024	GLN	CA-C-N	5.07	131.10	121.97
3	Ai	3024	GLN	C-N-CA	5.07	131.10	121.97
6	BV	8144	ASP	CA-C-N	5.07	127.68	120.53
6	BV	8144	ASP	C-N-CA	5.07	127.68	120.53
1	Cg	1080	ASP	CA-CB-CG	5.07	117.67	112.60
2	CJ	2008	GLU	CA-C-N	5.07	128.02	120.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	CJ	2008	GLU	C-N-CA	5.07	128.02	120.31
6	Ct	8196	ASN	CA-C-N	5.07	127.33	120.44
6	Ct	8196	ASN	C-N-CA	5.07	127.33	120.44
8	CP	5047	GLY	N-CA-C	-5.07	109.05	115.08
2	AB	2008	GLU	CA-C-N	5.07	128.01	120.31
2	AB	2008	GLU	C-N-CA	5.07	128.01	120.31
8	AX	5047	GLY	N-CA-C	-5.07	109.05	115.08
2	Ah	2008	GLU	CA-C-N	5.06	128.01	120.31
2	Ah	2008	GLU	C-N-CA	5.06	128.01	120.31
6	At	8134	ASP	N-CA-C	5.06	121.00	109.81
7	Bu	6054	ILE	N-CA-C	5.06	115.20	108.11
7	Cu	6018	ASN	CA-CB-CG	5.06	117.66	112.60
6	A2	8033	GLY	CA-C-N	5.06	131.21	121.54
6	A2	8033	GLY	C-N-CA	5.06	131.21	121.54
2	BR	2008	GLU	CA-C-N	5.06	128.00	120.31
2	BR	2008	GLU	C-N-CA	5.06	128.00	120.31
2	Bh	2008	GLU	CA-C-N	5.06	128.01	120.31
2	Bh	2008	GLU	C-N-CA	5.06	128.01	120.31
6	AN	8206	PHE	CA-CB-CG	-5.06	108.74	113.80
2	Bx	2008	GLU	CA-C-N	5.06	128.00	120.31
2	Bx	2008	GLU	C-N-CA	5.06	128.00	120.31
7	Be	6143	HIS	CA-CB-CG	-5.05	108.75	113.80
4	AD	4059	ARG	CA-C-N	5.05	128.40	120.82
4	AD	4059	ARG	C-N-CA	5.05	128.40	120.82
6	AF	8179	HIS	CA-C-N	5.05	127.36	120.54
6	AF	8179	HIS	C-N-CA	5.05	127.36	120.54
2	AR	2008	GLU	CA-C-N	5.05	127.99	120.31
2	AR	2008	GLU	C-N-CA	5.05	127.99	120.31
6	CN	8187	ASP	CA-CB-CG	5.05	117.65	112.60
7	Cm	6143	HIS	CA-CB-CG	-5.05	108.75	113.80
1	AQ	1080	ASP	N-CA-C	5.05	116.28	109.11
2	Bp	2086	ASP	CA-CB-CG	5.05	117.65	112.60
6	CF	8204	GLN	N-CA-C	5.05	117.75	111.24
4	Aj	4059	ARG	CA-C-N	5.05	128.39	120.82
4	Aj	4059	ARG	C-N-CA	5.05	128.39	120.82
6	Bt	8173	ILE	N-CA-C	-5.05	105.78	110.53
6	Ad	8179	HIS	CA-C-N	5.04	127.35	120.54
6	Ad	8179	HIS	C-N-CA	5.04	127.35	120.54
6	BF	8039	MET	N-CA-C	5.04	117.62	109.40
2	Ax	2008	GLU	CA-C-N	5.04	127.97	120.31
2	Ax	2008	GLU	C-N-CA	5.04	127.97	120.31
5	AE	7000	ALA	CA-C-N	5.04	131.04	121.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	AE	7000	ALA	C-N-CA	5.04	131.04	121.97
6	BV	8179	HIS	CA-C-N	5.04	127.34	120.54
6	BV	8179	HIS	C-N-CA	5.04	127.34	120.54
5	AE	7008	VAL	N-CA-C	-5.04	105.51	111.00
6	BN	8055	PRO	CA-C-N	5.04	127.03	120.28
6	BN	8055	PRO	C-N-CA	5.04	127.03	120.28
6	CF	8187	ASP	CA-CB-CG	5.03	117.63	112.60
6	Cl	8144	ASP	CA-C-N	5.03	127.63	120.53
6	Cl	8144	ASP	C-N-CA	5.03	127.63	120.53
1	Bg	1016	GLU	CB-CG-CD	5.03	121.15	112.60
1	AA	1080	ASP	CA-CB-CG	5.03	117.63	112.60
6	AN	8129	SER	CA-C-N	5.03	127.52	120.28
6	AN	8129	SER	C-N-CA	5.03	127.52	120.28
6	At	8128	LEU	CA-C-N	5.03	126.98	120.44
6	At	8128	LEU	C-N-CA	5.03	126.98	120.44
8	A4	5047	GLY	N-CA-C	-5.03	109.10	115.08
1	AY	1080	ASP	N-CA-C	5.03	116.25	109.11
7	A3	6085	VAL	N-CA-CB	5.02	119.52	111.23
3	Ai	3025	VAL	N-CA-CB	5.02	119.52	111.23
6	CN	8105	ASN	N-CA-C	5.02	119.54	113.41
7	BW	6163	ALA	CA-C-N	5.02	131.13	121.54
7	BW	6163	ALA	C-N-CA	5.02	131.13	121.54
8	BX	5047	GLY	N-CA-C	-5.02	109.10	115.08
6	Bd	8126	GLU	CB-CG-CD	5.02	121.14	112.60
2	Bp	2008	GLU	CA-C-N	5.02	127.94	120.31
2	Bp	2008	GLU	C-N-CA	5.02	127.94	120.31
4	Ab	4059	ARG	CA-C-N	5.02	128.35	120.82
4	Ab	4059	ARG	C-N-CA	5.02	128.35	120.82
7	BG	6164	ASN	N-CA-C	5.02	121.49	110.80
6	BN	8095	ASP	N-CA-C	5.02	117.48	111.71
4	BT	4059	ARG	CA-C-N	5.02	128.35	120.82
4	BT	4059	ARG	C-N-CA	5.02	128.35	120.82
8	Af	5047	GLY	N-CA-C	-5.02	109.11	115.08
6	BV	8095	ASP	N-CA-C	5.01	118.17	111.75
6	AF	8082	ASN	CA-C-N	5.01	129.53	122.46
6	AF	8082	ASN	C-N-CA	5.01	129.53	122.46
6	Al	8187	ASP	N-CA-C	-5.01	106.91	112.57
6	AV	8112	THR	CA-C-N	5.01	127.30	120.54
6	AV	8112	THR	C-N-CA	5.01	127.30	120.54
6	Bl	8129	SER	CA-C-N	5.01	127.49	120.28
6	Bl	8129	SER	C-N-CA	5.01	127.49	120.28
6	B2	8035	THR	N-CA-C	-5.01	106.95	113.16

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AC	3004	ILE	CB-CG1-CD1	5.01	124.31	113.80
7	AG	6163	ALA	CA-C-N	5.01	131.10	121.54
7	AG	6163	ALA	C-N-CA	5.01	131.10	121.54
1	Ag	1080	ASP	CA-CB-CG	5.00	117.61	112.60

There are no chirality outliers.

All (20) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
7	A3	6067	ASN	Mainchain
7	AG	6067	ASN	Mainchain
7	AO	6067	ASN	Mainchain
7	AW	6067	ASN	Mainchain
7	Ae	6067	ASN	Mainchain
7	Am	6067	ASN	Mainchain
7	Au	6067	ASN	Mainchain
7	B3	6067	ASN	Mainchain
7	BG	6067	ASN	Mainchain
7	BO	6067	ASN	Mainchain
7	BW	6067	ASN	Mainchain
7	Be	6067	ASN	Mainchain
7	Bm	6067	ASN	Mainchain
7	Bu	6067	ASN	Mainchain
7	CG	6067	ASN	Mainchain
7	CO	6067	ASN	Mainchain
7	CW	6067	ASN	Mainchain
7	Ce	6067	ASN	Mainchain
7	Cm	6067	ASN	Mainchain
7	Cu	6067	ASN	Mainchain

5.2 Too-close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	648	0	690	7	0
1	AI	648	0	690	11	0
1	AQ	648	0	690	11	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AY	648	0	690	12	0
1	Ag	648	0	690	10	0
1	Ao	648	0	690	12	0
1	Aw	648	0	690	10	0
1	BA	648	0	690	11	0
1	BI	648	0	690	10	0
1	BQ	648	0	690	12	0
1	BY	648	0	690	11	0
1	Bg	648	0	690	11	0
1	Bo	648	0	690	10	0
1	Bw	648	0	690	9	0
1	CA	648	0	690	9	0
1	CI	648	0	690	11	0
1	CQ	648	0	690	11	0
1	CY	648	0	690	12	0
1	Cg	648	0	690	12	0
1	Co	648	0	690	10	0
2	AB	807	0	833	15	0
2	AJ	807	0	833	21	0
2	AR	807	0	833	20	0
2	AZ	807	0	833	19	0
2	Ah	807	0	833	17	0
2	Ap	807	0	833	16	0
2	Ax	807	0	833	17	0
2	BB	807	0	833	20	0
2	BJ	807	0	833	17	0
2	BR	807	0	833	17	0
2	BZ	807	0	833	18	0
2	Bh	807	0	833	18	0
2	Bp	807	0	833	21	0
2	Bx	807	0	833	17	0
2	CB	807	0	833	17	0
2	CJ	807	0	833	19	0
2	CR	807	0	833	16	0
2	CZ	807	0	833	18	0
2	Ch	807	0	833	22	0
2	Cp	807	0	833	20	0
3	AC	638	0	657	14	0
3	AK	638	0	657	16	0
3	AS	638	0	657	16	0
3	Aa	638	0	657	15	0
3	Ai	638	0	657	13	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	Aq	638	0	657	17	0
3	Ay	638	0	657	16	0
3	BC	638	0	657	15	0
3	BK	638	0	657	17	0
3	BS	638	0	657	16	0
3	Ba	638	0	657	16	0
3	Bi	638	0	657	17	0
3	Bq	638	0	657	17	0
3	By	638	0	657	15	0
3	CC	638	0	657	14	0
3	CK	638	0	657	14	0
3	CS	638	0	657	14	0
3	Ca	638	0	657	15	0
3	Ci	638	0	657	14	0
3	Cq	638	0	657	16	0
4	AD	556	0	561	16	0
4	AL	556	0	561	17	0
4	AT	556	0	561	17	0
4	Ab	556	0	561	17	0
4	Aj	556	0	561	19	0
4	Ar	556	0	561	17	0
4	Az	556	0	561	16	0
4	BD	556	0	561	18	0
4	BL	556	0	561	17	0
4	BT	556	0	561	15	0
4	Bb	556	0	561	17	0
4	Bj	556	0	561	17	0
4	Br	556	0	561	18	0
4	Bz	556	0	561	16	0
4	CD	556	0	561	14	0
4	CL	556	0	561	15	0
4	CT	556	0	561	16	0
4	Cb	556	0	561	16	0
4	Cj	556	0	561	17	0
4	Cr	556	0	561	14	0
5	A1	133	0	123	0	0
5	AE	133	0	123	2	0
5	AM	133	0	123	2	0
5	AU	133	0	123	2	0
5	Ac	133	0	123	1	0
5	Ak	133	0	123	4	0
5	As	133	0	123	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	B1	133	0	123	1	0
5	BE	133	0	123	2	0
5	BM	133	0	123	2	0
5	BU	133	0	123	1	0
5	Bc	133	0	123	2	0
5	Bk	133	0	123	0	0
5	Bs	133	0	123	0	0
5	CE	133	0	123	1	0
5	CM	133	0	123	2	0
5	CU	133	0	123	0	0
5	Cc	133	0	123	3	0
5	Ck	133	0	123	1	0
5	Cs	133	0	123	3	0
6	A2	1787	0	1779	46	0
6	AF	1787	0	1779	53	0
6	AN	1787	0	1779	61	0
6	AV	1787	0	1779	58	0
6	Ad	1787	0	1779	42	0
6	Al	1787	0	1779	48	0
6	At	1787	0	1779	52	0
6	B2	1787	0	1779	52	0
6	BF	1787	0	1779	47	0
6	BN	1787	0	1779	52	0
6	BV	1787	0	1779	47	0
6	Bd	1787	0	1779	51	0
6	Bl	1787	0	1779	51	0
6	Bt	1787	0	1779	53	0
6	CF	1787	0	1779	48	0
6	CN	1787	0	1779	52	0
6	CV	1787	0	1779	41	0
6	Cd	1787	0	1779	53	0
6	Cl	1787	0	1779	49	0
6	Ct	1787	0	1779	48	0
7	A3	984	0	943	27	0
7	AG	984	0	943	26	0
7	AO	984	0	943	24	0
7	AW	984	0	943	21	0
7	Ae	984	0	943	24	0
7	Am	984	0	943	25	0
7	Au	984	0	943	21	0
7	B3	984	0	943	25	0
7	BG	984	0	943	27	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
7	BO	984	0	943	24	0
7	BW	984	0	943	21	0
7	Be	984	0	943	24	0
7	Bm	984	0	943	23	0
7	Bu	984	0	943	25	0
7	CG	984	0	943	25	0
7	CO	984	0	943	23	0
7	CW	984	0	943	26	0
7	Ce	984	0	943	24	0
7	Cm	984	0	943	26	0
7	Cu	984	0	943	28	0
8	A4	544	0	563	9	0
8	AH	544	0	563	8	0
8	AP	544	0	563	9	0
8	AX	544	0	563	8	0
8	Af	544	0	563	9	0
8	An	544	0	563	10	0
8	Av	544	0	563	8	0
8	B4	544	0	563	7	0
8	BH	544	0	563	9	0
8	BP	544	0	563	10	0
8	BX	544	0	563	8	0
8	Bf	544	0	563	8	0
8	Bn	544	0	563	7	0
8	Bv	544	0	563	8	0
8	CH	544	0	563	9	0
8	CP	544	0	563	8	0
8	CX	544	0	563	8	0
8	Cf	544	0	563	9	0
8	Cn	544	0	563	10	0
8	Cv	544	0	563	8	0
9	A2	5	0	0	0	0
9	Ad	5	0	0	0	0
9	At	5	0	0	0	0
9	B2	5	0	0	0	0
9	BF	5	0	0	0	0
9	BV	5	0	0	0	0
9	Bd	5	0	0	0	0
9	Bt	5	0	0	0	0
9	CF	5	0	0	0	0
9	Cl	5	0	0	0	0
All	All	121990	0	122980	2413	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 10.

All (2413) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:BZ:2092:LEU:HD23	4:Bb:4056:VAL:HG22	1.48	0.94
2:AR:2043:LYS:HG2	2:AR:2067:TRP:HB3	1.49	0.94
3:Ci:3066:LYS:HG3	4:Cj:4063:VAL:HG13	1.46	0.94
2:Bx:2092:LEU:HD23	4:Bz:4056:VAL:HG22	1.49	0.93
3:Bq:3024:GLN:HE22	3:Bq:3027:MET:HE2	1.34	0.93
2:Bp:2092:LEU:HD23	4:Br:4056:VAL:HG22	1.50	0.93
2:Bh:2092:LEU:HD23	4:Bj:4056:VAL:HG22	1.50	0.92
2:Cp:2092:LEU:HD23	4:Cr:4056:VAL:HG22	1.51	0.92
2:AZ:2092:LEU:HD23	4:Ab:4056:VAL:HG22	1.51	0.92
7:AO:6067:ASN:HB2	7:AO:6068:PRO:HD3	1.49	0.92
2:AR:2092:LEU:HD23	4:AT:4056:VAL:HG22	1.51	0.91
7:CG:6067:ASN:HB2	7:CG:6068:PRO:HD3	1.50	0.91
2:AB:2092:LEU:HD23	4:AD:4056:VAL:HG22	1.51	0.91
2:Ap:2092:LEU:HD23	4:Ar:4056:VAL:HG22	1.51	0.91
2:BR:2092:LEU:HD23	4:BT:4056:VAL:HG22	1.51	0.91
2:CB:2092:LEU:HD23	4:CD:4056:VAL:HG22	1.51	0.91
2:CZ:2092:LEU:HD23	4:Cb:4056:VAL:HG22	1.51	0.91
2:Ch:2092:LEU:HD23	4:Cj:4056:VAL:HG22	1.51	0.90
7:Be:6067:ASN:HB2	7:Be:6068:PRO:HD3	1.50	0.90
7:Am:6067:ASN:HB2	7:Am:6068:PRO:HD3	1.50	0.90
7:Ce:6067:ASN:HB2	7:Ce:6068:PRO:HD3	1.50	0.90
2:AJ:2092:LEU:HD23	4:AL:4056:VAL:HG22	1.52	0.90
7:AG:6067:ASN:HB2	7:AG:6068:PRO:HD3	1.50	0.90
2:BJ:2092:LEU:HD23	4:BL:4056:VAL:HG22	1.52	0.90
2:CJ:2092:LEU:HD23	4:CL:4056:VAL:HG22	1.52	0.90
7:Au:6067:ASN:HB2	7:Au:6068:PRO:HD3	1.50	0.90
2:Ax:2092:LEU:HD23	4:Az:4056:VAL:HG22	1.53	0.90
2:CR:2092:LEU:HD23	4:CT:4056:VAL:HG22	1.51	0.90
7:Bu:6067:ASN:HB2	7:Bu:6068:PRO:HD3	1.52	0.90
7:AW:6067:ASN:HB2	7:AW:6068:PRO:HD3	1.51	0.89
2:Ah:2092:LEU:HD23	4:Aj:4056:VAL:HG22	1.52	0.89
7:CO:6067:ASN:HB2	7:CO:6068:PRO:HD3	1.51	0.89
7:Ae:6067:ASN:HB2	7:Ae:6068:PRO:HD3	1.53	0.89
7:B3:6067:ASN:HB2	7:B3:6068:PRO:HD3	1.52	0.89
7:CW:6067:ASN:HB2	7:CW:6068:PRO:HD3	1.52	0.89
7:A3:6067:ASN:HB2	7:A3:6068:PRO:HD3	1.53	0.89
7:BO:6081:GLU:H	8:BP:5064:MET:HE1	1.39	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:BW:6067:ASN:HB2	7:BW:6068:PRO:HD3	1.53	0.88
7:Cu:6067:ASN:HB2	7:Cu:6068:PRO:HD3	1.52	0.88
7:Cm:6067:ASN:HB2	7:Cm:6068:PRO:HD3	1.53	0.88
7:Bm:6067:ASN:HB2	7:Bm:6068:PRO:HD3	1.52	0.88
7:BG:6067:ASN:HB2	7:BG:6068:PRO:HD3	1.53	0.88
2:BB:2092:LEU:HD23	4:BD:4056:VAL:HG22	1.53	0.87
7:BO:6067:ASN:HB2	7:BO:6068:PRO:HD3	1.54	0.87
3:Cq:3066:LYS:HG3	4:Cr:4063:VAL:HG13	1.54	0.87
2:Ch:2043:LYS:HG2	2:Ch:2067:TRP:HB3	1.57	0.87
6:Bt:8203:VAL:HG13	6:Bt:8209:ASN:HA	1.55	0.85
4:CL:4060:CYS:O	4:CL:4063:VAL:HG12	1.76	0.85
2:Bp:2040:ARG:HE	4:Br:4019:TRP:HZ2	1.22	0.85
3:BK:3024:GLN:HE22	3:BK:3027:MET:HE2	1.42	0.85
6:Bt:8133:GLN:HG3	6:Bt:8176:THR:HG21	1.56	0.85
3:BC:3024:GLN:HE22	3:BC:3027:MET:HE2	1.41	0.84
7:Be:6067:ASN:HB2	7:Be:6068:PRO:CD	2.07	0.84
7:CG:6067:ASN:HB2	7:CG:6068:PRO:CD	2.07	0.84
2:BR:2043:LYS:HG2	2:BR:2067:TRP:HB3	1.59	0.84
7:Ce:6067:ASN:HB2	7:Ce:6068:PRO:CD	2.08	0.84
7:Cu:6021:LYS:HG2	7:Cu:6031:GLU:HG2	1.58	0.84
3:AK:3024:GLN:HE22	3:AK:3027:MET:HE2	1.41	0.84
6:CV:8185:LYS:H	6:CV:8187:ASP:HB2	1.43	0.84
7:AO:6067:ASN:HB2	7:AO:6068:PRO:CD	2.07	0.84
3:CK:3024:GLN:HE22	3:CK:3027:MET:HE2	1.42	0.84
6:B2:8203:VAL:HG13	6:B2:8209:ASN:HA	1.59	0.83
7:Bu:6067:ASN:HB2	7:Bu:6068:PRO:CD	2.08	0.83
7:B3:6067:ASN:HB2	7:B3:6068:PRO:CD	2.08	0.83
3:By:3024:GLN:HE22	3:By:3027:MET:HE2	1.41	0.83
6:Cd:8185:LYS:H	6:Cd:8187:ASP:HB2	1.43	0.83
7:CO:6067:ASN:HB2	7:CO:6068:PRO:CD	2.08	0.83
7:Au:6067:ASN:HB2	7:Au:6068:PRO:CD	2.08	0.83
7:AG:6067:ASN:HB2	7:AG:6068:PRO:CD	2.08	0.83
7:Am:6067:ASN:HB2	7:Am:6068:PRO:CD	2.08	0.83
6:At:8185:LYS:H	6:At:8187:ASP:HB2	1.43	0.83
6:Cl:8185:LYS:H	6:Cl:8187:ASP:HB2	1.44	0.83
3:Cq:3024:GLN:HE22	3:Cq:3027:MET:HE2	1.43	0.83
6:AF:8185:LYS:H	6:AF:8187:ASP:HB2	1.44	0.83
3:Ay:3024:GLN:HE22	3:Ay:3027:MET:HE2	1.42	0.83
3:Ba:3024:GLN:HE22	3:Ba:3027:MET:HE2	1.42	0.83
3:CC:3024:GLN:HE22	3:CC:3027:MET:HE2	1.42	0.83
7:CW:6067:ASN:HB2	7:CW:6068:PRO:CD	2.09	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:Ae:6067:ASN:HB2	7:Ae:6068:PRO:CD	2.08	0.82
3:Aq:3024:GLN:HE22	3:Aq:3027:MET:HE2	1.44	0.82
7:Cu:6021:LYS:CG	7:Cu:6031:GLU:HG2	2.09	0.82
7:Cu:6067:ASN:HB2	7:Cu:6068:PRO:CD	2.09	0.82
6:AV:8185:LYS:H	6:AV:8187:ASP:HB2	1.44	0.82
3:Bi:3024:GLN:HE22	3:Bi:3027:MET:HE2	1.43	0.82
3:CK:3066:LYS:HG3	4:CL:4063:VAL:HG13	1.61	0.82
6:Ct:8185:LYS:H	6:Ct:8187:ASP:HB2	1.45	0.82
2:Ah:2043:LYS:HG2	2:Ah:2067:TRP:HB3	1.62	0.82
7:Bm:6067:ASN:HB2	7:Bm:6068:PRO:CD	2.09	0.82
3:Aa:3024:GLN:HE22	3:Aa:3027:MET:HE2	1.43	0.82
6:CF:8185:LYS:H	6:CF:8187:ASP:HB2	1.44	0.82
6:Bl:8185:LYS:H	6:Bl:8187:ASP:HB2	1.43	0.82
3:Ci:3024:GLN:HE22	3:Ci:3027:MET:HE2	1.43	0.82
6:Ad:8185:LYS:H	6:Ad:8187:ASP:HB2	1.44	0.82
6:Al:8185:LYS:H	6:Al:8187:ASP:HB2	1.43	0.82
3:Ca:3024:GLN:HE22	3:Ca:3027:MET:HE2	1.43	0.82
7:Cm:6067:ASN:HB2	7:Cm:6068:PRO:CD	2.09	0.82
7:AW:6067:ASN:HB2	7:AW:6068:PRO:CD	2.09	0.82
7:A3:6067:ASN:HB2	7:A3:6068:PRO:CD	2.09	0.81
3:AS:3024:GLN:HE22	3:AS:3027:MET:HE2	1.43	0.81
7:BW:6067:ASN:HB2	7:BW:6068:PRO:CD	2.09	0.81
6:BF:8185:LYS:H	6:BF:8187:ASP:HB2	1.44	0.81
3:BS:3024:GLN:HE22	3:BS:3027:MET:HE2	1.43	0.81
6:BV:8185:LYS:H	6:BV:8187:ASP:HB2	1.44	0.81
6:B2:8159:HIS:HB2	1:Bw:1050:PRO:HG3	1.62	0.81
6:CN:8185:LYS:H	6:CN:8187:ASP:HB2	1.46	0.81
6:AN:8185:LYS:H	6:AN:8187:ASP:HB2	1.45	0.81
7:BO:6067:ASN:HB2	7:BO:6068:PRO:CD	2.10	0.81
6:Bd:8185:LYS:H	6:Bd:8187:ASP:HB2	1.44	0.81
3:CS:3024:GLN:HE22	3:CS:3027:MET:HE2	1.43	0.81
7:BG:6067:ASN:HB2	7:BG:6068:PRO:CD	2.11	0.81
2:BJ:2043:LYS:HG2	2:BJ:2067:TRP:HB3	1.62	0.81
6:Bt:8185:LYS:H	6:Bt:8187:ASP:HB2	1.44	0.81
2:AB:2077:TYR:CE2	6:AF:8209:ASN:HB2	2.16	0.80
6:A2:8185:LYS:H	6:A2:8187:ASP:HB2	1.45	0.80
7:Ce:6067:ASN:CB	7:Ce:6068:PRO:HD3	2.11	0.80
6:B2:8185:LYS:H	6:B2:8187:ASP:HB2	1.45	0.80
2:CZ:2077:TYR:CE2	6:Cd:8209:ASN:HB2	2.16	0.80
4:Cr:4060:CYS:O	4:Cr:4063:VAL:HG12	1.82	0.80
6:BN:8185:LYS:H	6:BN:8187:ASP:HB2	1.45	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:6067:ASN:CB	7:CG:6068:PRO:HD3	2.12	0.80
6:Cl:8167:PHE:O	6:Cl:8171:ARG:HG3	1.81	0.79
7:AG:6067:ASN:CB	7:AG:6068:PRO:HD3	2.12	0.79
1:Aw:1064:ARG:HD3	2:Ax:2041:ASN:HB3	1.64	0.79
7:CW:6067:ASN:CB	7:CW:6068:PRO:HD3	2.13	0.79
7:B3:6067:ASN:CB	7:B3:6068:PRO:HD3	2.12	0.79
6:At:8145:VAL:HG22	6:At:8149:ARG:HD2	1.64	0.78
7:Au:6067:ASN:CB	7:Au:6068:PRO:HD3	2.13	0.78
2:AZ:2040:ARG:HE	4:Ab:4019:TRP:HZ2	1.26	0.78
4:Bz:4060:CYS:O	4:Bz:4063:VAL:HG12	1.83	0.78
7:Am:6067:ASN:CB	7:Am:6068:PRO:HD3	2.12	0.78
7:AO:6067:ASN:CB	7:AO:6068:PRO:HD3	2.12	0.78
2:BB:2043:LYS:HG2	2:BB:2067:TRP:HB3	1.66	0.78
7:Bu:6067:ASN:CB	7:Bu:6068:PRO:HD3	2.13	0.78
7:AW:6067:ASN:CB	7:AW:6068:PRO:HD3	2.12	0.78
7:CO:6067:ASN:CB	7:CO:6068:PRO:HD3	2.14	0.78
7:Be:6067:ASN:CB	7:Be:6068:PRO:HD3	2.13	0.78
7:Cm:6067:ASN:CB	7:Cm:6068:PRO:HD3	2.15	0.77
7:Cu:6067:ASN:CB	7:Cu:6068:PRO:HD3	2.15	0.77
6:BN:8177:CYS:HB2	6:BN:8195:TYR:HB3	1.67	0.77
6:B2:8011:PHE:HE1	3:By:3038:GLU:HB3	1.49	0.76
6:Ct:8142:LEU:HG	6:Ct:8191:ARG:HA	1.66	0.76
7:Bm:6067:ASN:CB	7:Bm:6068:PRO:HD3	2.15	0.76
7:BO:6072:ILE:CG2	7:BO:6152:MET:HE1	2.16	0.76
7:Ae:6067:ASN:CB	7:Ae:6068:PRO:HD3	2.15	0.76
7:BG:6067:ASN:CB	7:BG:6068:PRO:HD3	2.14	0.75
7:BW:6067:ASN:CB	7:BW:6068:PRO:HD3	2.15	0.75
6:Cl:8203:VAL:HG13	6:Cl:8209:ASN:HA	1.69	0.75
6:Bd:8203:VAL:O	6:Bd:8207:ALA:HA	1.87	0.75
7:A3:6067:ASN:CB	7:A3:6068:PRO:HD3	2.16	0.75
4:BD:4060:CYS:O	4:BD:4063:VAL:HG12	1.87	0.74
7:BO:6067:ASN:CB	7:BO:6068:PRO:HD3	2.16	0.74
6:CN:8133:GLN:HG3	6:CN:8176:THR:HG21	1.70	0.74
3:By:3000:MET:HE2	3:By:3002:GLN:HE22	1.51	0.74
4:Aj:4060:CYS:O	4:Aj:4063:VAL:HG12	1.88	0.73
4:Cj:4060:CYS:O	4:Cj:4063:VAL:HG12	1.88	0.73
6:CF:8203:VAL:HG13	6:CF:8209:ASN:HA	1.71	0.73
4:Ar:4060:CYS:O	4:Ar:4063:VAL:HG12	1.89	0.72
1:BQ:1050:PRO:HG3	6:BV:8159:HIS:CB	2.19	0.72
6:B2:8209:ASN:HB2	2:Bx:2077:TYR:CE2	2.24	0.72
1:BI:1056:LEU:HD11	7:BO:6061:LEU:HD13	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BT:4060:CYS:O	4:BT:4063:VAL:HG12	1.88	0.72
4:AT:4060:CYS:O	4:AT:4063:VAL:HG12	1.89	0.72
6:B2:8142:LEU:HG	6:B2:8191:ARG:HA	1.71	0.72
2:AZ:2043:LYS:HG2	2:AZ:2067:TRP:HB3	1.72	0.72
1:BA:1056:LEU:HD11	7:BG:6061:LEU:HD13	1.71	0.72
7:Ce:6068:PRO:HD2	7:Ce:6069:ARG:H	1.54	0.72
4:CT:4060:CYS:O	4:CT:4063:VAL:HG12	1.89	0.72
6:AV:8203:VAL:HG13	6:AV:8209:ASN:HA	1.72	0.71
3:Ba:3038:GLU:HB3	6:Bd:8011:PHE:HE1	1.55	0.71
2:Bp:2043:LYS:HG2	2:Bp:2067:TRP:HB3	1.72	0.71
6:B2:8184:LEU:HD22	6:B2:8192:ALA:HB2	1.71	0.71
1:AQ:1050:PRO:HG3	6:AV:8159:HIS:HB2	1.72	0.71
1:BQ:1056:LEU:HD11	7:BW:6061:LEU:HD13	1.71	0.71
6:B2:8011:PHE:CE1	3:By:3038:GLU:HB3	2.25	0.71
4:Cb:4060:CYS:O	4:Cb:4063:VAL:HG12	1.89	0.71
6:AV:8167:PHE:O	6:AV:8171:ARG:HG3	1.90	0.71
4:BL:4060:CYS:O	4:BL:4063:VAL:HG12	1.90	0.71
6:AN:8209:ASN:C	6:AN:8211:PHE:H	1.99	0.71
4:Az:4060:CYS:O	4:Az:4063:VAL:HG12	1.90	0.71
1:Bw:1064:ARG:HD3	2:Bx:2041:ASN:HB3	1.72	0.71
4:CD:4060:CYS:O	4:CD:4063:VAL:HG12	1.90	0.71
7:Au:6068:PRO:HD2	7:Au:6069:ARG:H	1.56	0.70
6:BN:8142:LEU:HG	6:BN:8191:ARG:HA	1.72	0.70
6:Bl:8142:LEU:HG	6:Bl:8191:ARG:HA	1.73	0.70
4:Bb:4060:CYS:O	4:Bb:4063:VAL:HG12	1.91	0.70
4:Ab:4060:CYS:O	4:Ab:4063:VAL:HG12	1.91	0.70
1:Ao:1056:LEU:HD11	7:Au:6061:LEU:HD13	1.73	0.70
1:Bg:1064:ARG:HD3	2:Bh:2041:ASN:HB3	1.74	0.70
6:Cd:8184:LEU:HD22	6:Cd:8192:ALA:HB2	1.74	0.70
7:AG:6068:PRO:HD2	7:AG:6069:ARG:H	1.57	0.70
4:Br:4060:CYS:O	4:Br:4063:VAL:HG12	1.90	0.70
1:AQ:1056:LEU:HD11	7:AW:6061:LEU:HD13	1.73	0.70
6:Bd:8142:LEU:HG	6:Bd:8191:ARG:HA	1.73	0.70
1:AA:1056:LEU:HD11	7:AG:6061:LEU:HD13	1.74	0.70
1:AY:1056:LEU:HD11	7:Ae:6061:LEU:HD13	1.73	0.70
1:Ag:1056:LEU:HD11	7:Am:6061:LEU:HD13	1.72	0.70
7:A3:6061:LEU:HD13	1:Aw:1056:LEU:HD11	1.73	0.70
6:A2:8142:LEU:HG	6:A2:8191:ARG:HA	1.74	0.70
1:AI:1050:PRO:HG3	6:AN:8159:HIS:CB	2.22	0.69
1:Ag:1050:PRO:HG3	6:Al:8159:HIS:HB2	1.72	0.69
7:CG:6068:PRO:HD2	7:CG:6069:ARG:H	1.56	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:BJ:2040:ARG:HE	4:BL:4019:TRP:HZ2	1.38	0.69
2:BJ:2077:TYR:CE2	6:BN:8209:ASN:HB2	2.27	0.69
1:BQ:1050:PRO:HG3	6:BV:8159:HIS:HB3	1.73	0.69
1:CI:1056:LEU:HD11	7:CO:6061:LEU:HD13	1.75	0.69
2:Bh:2040:ARG:HE	4:Bj:4019:TRP:HZ2	1.41	0.69
4:Bj:4060:CYS:O	4:Bj:4063:VAL:HG12	1.92	0.69
6:Cl:8142:LEU:HG	6:Cl:8191:ARG:HA	1.72	0.69
1:AI:1056:LEU:HD11	7:AO:6061:LEU:HD13	1.73	0.69
1:Cg:1056:LEU:HD11	7:Cm:6061:LEU:HD13	1.75	0.69
6:Bl:8177:CYS:HB2	6:Bl:8195:TYR:HB3	1.73	0.69
7:CW:6068:PRO:HD2	7:CW:6069:ARG:H	1.57	0.69
5:BM:7014:SER:HB3	6:BN:8197:LEU:HD11	1.74	0.69
1:BY:1064:ARG:HD3	2:BZ:2041:ASN:HB3	1.73	0.69
6:AN:8142:LEU:HG	6:AN:8191:ARG:HA	1.75	0.69
3:Ba:3038:GLU:HB3	6:Bd:8011:PHE:CE1	2.28	0.69
6:BF:8142:LEU:HG	6:BF:8191:ARG:HA	1.74	0.69
2:CR:2043:LYS:HG2	2:CR:2067:TRP:HB3	1.75	0.69
5:Cc:7008:VAL:HG12	6:Cd:8108:PRO:HD2	1.75	0.68
7:AO:6068:PRO:HD2	7:AO:6069:ARG:H	1.56	0.68
6:Bt:8142:LEU:HG	6:Bt:8191:ARG:HA	1.75	0.68
6:CN:8142:LEU:HG	6:CN:8191:ARG:HA	1.75	0.68
7:B3:6068:PRO:HD2	7:B3:6069:ARG:H	1.58	0.68
7:Am:6068:PRO:HD2	7:Am:6069:ARG:H	1.57	0.68
5:CM:7014:SER:HB3	6:CN:8197:LEU:HD11	1.74	0.68
6:CN:8184:LEU:HD22	6:CN:8192:ALA:HB2	1.75	0.68
1:CQ:1056:LEU:HD11	7:CW:6061:LEU:HD13	1.76	0.68
6:AF:8160:LEU:HD12	6:AF:8160:LEU:H	1.58	0.68
2:CB:2043:LYS:HG2	2:CB:2067:TRP:HB3	1.74	0.68
6:Cl:8124:LEU:HA	6:Cl:8127:MET:HE2	1.75	0.68
6:Al:8142:LEU:HG	6:Al:8191:ARG:HA	1.74	0.68
1:CA:1056:LEU:HD11	7:CG:6061:LEU:HD13	1.76	0.68
3:CK:3016:ARG:HE	3:CK:3030:GLU:HG2	1.58	0.68
6:CV:8142:LEU:HG	6:CV:8191:ARG:HA	1.75	0.67
7:AW:6068:PRO:HD2	7:AW:6069:ARG:H	1.57	0.67
6:BV:8142:LEU:HG	6:BV:8191:ARG:HA	1.75	0.67
7:Be:6068:PRO:HD2	7:Be:6069:ARG:H	1.58	0.67
6:Cd:8154:THR:O	6:Cd:8158:LEU:HG	1.94	0.67
1:Co:1056:LEU:HD11	7:Cu:6061:LEU:HD13	1.76	0.67
7:BW:6068:PRO:HD2	7:BW:6069:ARG:H	1.58	0.67
3:AC:3016:ARG:HE	3:AC:3030:GLU:HG2	1.59	0.67
4:AD:4060:CYS:O	4:AD:4063:VAL:HG12	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:8145:VAL:HG22	6:AF:8149:ARG:HD2	1.77	0.67
1:CY:1056:LEU:HD11	7:Ce:6061:LEU:HD13	1.76	0.67
3:Cq:3016:ARG:NE	3:Cq:3030:GLU:HG2	2.10	0.67
1:Bg:1056:LEU:HD11	7:Bm:6061:LEU:HD13	1.77	0.67
6:CF:8142:LEU:HG	6:CF:8191:ARG:HA	1.75	0.67
3:CK:3016:ARG:NE	3:CK:3030:GLU:HG2	2.09	0.67
7:BO:6068:PRO:HD2	7:BO:6069:ARG:H	1.59	0.67
7:CO:6068:PRO:HD2	7:CO:6069:ARG:H	1.60	0.67
3:Cq:3016:ARG:HE	3:Cq:3030:GLU:HG2	1.59	0.67
3:Bi:3016:ARG:NE	3:Bi:3030:GLU:HG2	2.10	0.67
3:Bq:3016:ARG:NE	3:Bq:3030:GLU:HG2	2.10	0.67
2:Cp:2043:LYS:HG2	2:Cp:2067:TRP:HB3	1.76	0.67
3:AK:3016:ARG:HE	3:AK:3030:GLU:HG2	1.58	0.66
6:AN:8178:ILE:HG13	6:AN:8199:LEU:HD21	1.77	0.66
6:AF:8142:LEU:HG	6:AF:8191:ARG:HA	1.76	0.66
6:At:8142:LEU:HG	6:At:8191:ARG:HA	1.76	0.66
3:Ay:3016:ARG:HE	3:Ay:3030:GLU:HG2	1.58	0.66
3:BK:3066:LYS:HG3	4:BL:4063:VAL:HG13	1.77	0.66
3:Ba:3016:ARG:NE	3:Ba:3030:GLU:HG2	2.11	0.66
7:Bu:6068:PRO:HD2	7:Bu:6069:ARG:H	1.59	0.66
3:Bq:3024:GLN:NE2	3:Bq:3027:MET:HE2	2.09	0.66
7:Cm:6068:PRO:HD2	7:Cm:6069:ARG:H	1.60	0.66
6:Ad:8142:LEU:HG	6:Ad:8191:ARG:HA	1.76	0.66
6:Bd:8132:LEU:O	6:Bd:8135:PRO:HD3	1.96	0.66
1:Bo:1056:LEU:HD11	7:Bu:6061:LEU:HD13	1.78	0.66
1:Ao:1050:PRO:HG3	6:At:8159:HIS:HB2	1.78	0.66
7:Bm:6068:PRO:HD2	7:Bm:6069:ARG:H	1.59	0.66
6:B2:8124:LEU:HA	6:B2:8127:MET:HE2	1.75	0.66
3:CC:3016:ARG:HE	3:CC:3030:GLU:HG2	1.61	0.66
7:Ae:6068:PRO:HD2	7:Ae:6069:ARG:H	1.59	0.66
7:BG:6068:PRO:HD2	7:BG:6069:ARG:H	1.59	0.66
1:AY:1064:ARG:HD3	2:AZ:2041:ASN:HB3	1.77	0.66
1:BY:1056:LEU:HD11	7:Be:6061:LEU:HD13	1.78	0.66
2:CB:2040:ARG:HE	4:CD:4019:TRP:HZ2	1.44	0.66
7:Ce:6067:ASN:CB	7:Ce:6068:PRO:CD	2.72	0.66
3:Ci:3016:ARG:NE	3:Ci:3030:GLU:HG2	2.11	0.66
3:AC:3016:ARG:NE	3:AC:3030:GLU:HG2	2.10	0.66
6:A2:8152:TYR:O	6:A2:8156:VAL:HG12	1.95	0.66
6:Bl:8133:GLN:HG3	6:Bl:8176:THR:HG21	1.78	0.66
3:Bq:3016:ARG:HE	3:Bq:3030:GLU:HG2	1.60	0.66
2:Bx:2040:ARG:HE	4:Bz:4019:TRP:HZ2	1.42	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:3016:ARG:NE	3:CC:3030:GLU:HG2	2.11	0.66
6:CV:8203:VAL:O	6:CV:8207:ALA:HA	1.96	0.66
3:Ay:3016:ARG:NE	3:Ay:3030:GLU:HG2	2.09	0.66
3:Cl:3016:ARG:HE	3:Cl:3030:GLU:HG2	1.61	0.66
3:Aa:3016:ARG:HE	3:Aa:3030:GLU:HG2	1.60	0.65
3:BK:3016:ARG:NE	3:BK:3030:GLU:HG2	2.11	0.65
3:CS:3016:ARG:NE	3:CS:3030:GLU:HG2	2.12	0.65
3:AK:3016:ARG:NE	3:AK:3030:GLU:HG2	2.10	0.65
3:BC:3016:ARG:HE	3:BC:3030:GLU:HG2	1.60	0.65
3:BC:3016:ARG:NE	3:BC:3030:GLU:HG2	2.10	0.65
2:Ch:2075:ASP:O	6:Cl:8171:ARG:HD3	1.96	0.65
7:Au:6069:ARG:NH2	7:Au:6140:GLU:O	2.30	0.65
3:CS:3016:ARG:HE	3:CS:3030:GLU:HG2	1.62	0.65
1:AA:1050:PRO:HG3	6:AF:8159:HIS:HB2	1.78	0.65
7:Am:6067:ASN:CB	7:Am:6068:PRO:CD	2.72	0.65
3:BK:3016:ARG:HE	3:BK:3030:GLU:HG2	1.60	0.65
3:BS:3016:ARG:NE	3:BS:3030:GLU:HG2	2.11	0.65
3:Bi:3016:ARG:HE	3:Bi:3030:GLU:HG2	1.60	0.65
3:Aa:3016:ARG:NE	3:Aa:3030:GLU:HG2	2.11	0.65
3:Aa:3066:LYS:HG3	4:Ab:4063:VAL:HG13	1.79	0.65
7:B3:6061:LEU:HD13	1:Bw:1056:LEU:HD11	1.79	0.65
7:AO:6067:ASN:CB	7:AO:6068:PRO:CD	2.73	0.65
3:BS:3066:LYS:HG3	4:BT:4063:VAL:HG13	1.79	0.65
3:Aq:3016:ARG:NE	3:Aq:3030:GLU:HG2	2.11	0.65
7:BW:6069:ARG:NH2	7:BW:6140:GLU:O	2.30	0.65
3:Ba:3016:ARG:HE	3:Ba:3030:GLU:HG2	1.60	0.65
3:Ai:3016:ARG:NE	3:Ai:3030:GLU:HG2	2.11	0.65
3:Aq:3016:ARG:HE	3:Aq:3030:GLU:HG2	1.61	0.65
7:BO:6072:ILE:HG21	7:BO:6152:MET:HE1	1.79	0.65
6:B2:8154:THR:O	6:B2:8158:LEU:HG	1.97	0.65
3:By:3016:ARG:NE	3:By:3030:GLU:HG2	2.12	0.65
3:AS:3016:ARG:HE	3:AS:3030:GLU:HG2	1.61	0.64
3:AS:3066:LYS:HG3	4:AT:4063:VAL:HG13	1.79	0.64
3:Ca:3016:ARG:NE	3:Ca:3030:GLU:HG2	2.12	0.64
7:AG:6069:ARG:NH2	7:AG:6140:GLU:O	2.31	0.64
7:A3:6068:PRO:HD2	7:A3:6069:ARG:H	1.60	0.64
6:BV:8160:LEU:HG	6:BV:8162:LEU:HD13	1.79	0.64
7:Cm:6149:TYR:HA	7:Cm:6152:MET:HE2	1.78	0.64
6:Ct:8177:CYS:HA	6:Ct:8180:LEU:HB2	1.78	0.64
7:B3:6067:ASN:CB	7:B3:6068:PRO:CD	2.72	0.64
2:CB:2077:TYR:CE2	6:CF:8209:ASN:HB2	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:BO:6072:ILE:HG23	7:BO:6152:MET:HE1	1.78	0.64
7:Cu:6068:PRO:HD2	7:Cu:6069:ARG:H	1.62	0.64
7:AW:6067:ASN:CB	7:AW:6068:PRO:CD	2.73	0.64
1:Ag:1064:ARG:HD3	2:Ah:2041:ASN:HB3	1.79	0.64
3:BS:3016:ARG:HE	3:BS:3030:GLU:HG2	1.61	0.64
3:Bq:3066:LYS:HG3	4:Br:4063:VAL:HG13	1.79	0.64
3:Ca:3016:ARG:HE	3:Ca:3030:GLU:HG2	1.63	0.64
3:AS:3016:ARG:NE	3:AS:3030:GLU:HG2	2.11	0.64
6:Ad:8124:LEU:HA	6:Ad:8127:MET:HE2	1.79	0.64
3:Ai:3016:ARG:HE	3:Ai:3030:GLU:HG2	1.60	0.64
1:BQ:1064:ARG:HD3	2:BR:2041:ASN:HB3	1.79	0.64
4:AL:4060:CYS:O	4:AL:4063:VAL:HG12	1.97	0.64
1:AA:1064:ARG:HD3	2:AB:2041:ASN:HB3	1.79	0.64
7:Cu:6067:ASN:CB	7:Cu:6068:PRO:CD	2.75	0.64
2:AJ:2043:LYS:HG2	2:AJ:2067:TRP:HB3	1.80	0.64
6:At:8177:CYS:HB2	6:At:8195:TYR:HB3	1.80	0.64
6:BF:8203:VAL:HG13	6:BF:8209:ASN:HA	1.79	0.64
7:AG:6067:ASN:CB	7:AG:6068:PRO:CD	2.72	0.64
6:A2:8159:HIS:HB2	1:Aw:1050:PRO:HG3	1.80	0.64
7:Bu:6067:ASN:CB	7:Bu:6068:PRO:CD	2.73	0.64
3:Ay:3066:LYS:HG3	4:Az:4063:VAL:HG13	1.80	0.63
7:Be:6067:ASN:CB	7:Be:6068:PRO:CD	2.73	0.63
7:Ae:6067:ASN:CB	7:Ae:6068:PRO:CD	2.74	0.63
4:AT:4031:ASP:HA	6:AV:8020:VAL:HG22	1.79	0.63
3:Bi:3066:LYS:HG3	4:Bj:4063:VAL:HG13	1.80	0.63
6:AV:8142:LEU:HG	6:AV:8191:ARG:HA	1.80	0.63
2:BZ:2040:ARG:HE	4:Bb:4019:TRP:HZ2	1.46	0.63
3:CC:3066:LYS:HG3	4:CD:4063:VAL:HG13	1.80	0.63
6:AV:8164:PRO:HA	6:AV:8167:PHE:HD1	1.63	0.63
3:Aq:3066:LYS:HG3	4:Ar:4063:VAL:HG13	1.80	0.63
6:A2:8199:LEU:O	6:A2:8203:VAL:HG23	1.99	0.63
3:BC:3066:LYS:HG3	4:BD:4063:VAL:HG13	1.79	0.63
8:BP:5030:ASP:HB2	8:BP:5031:PRO:CD	2.29	0.63
8:BX:5030:ASP:HB2	8:BX:5031:PRO:CD	2.29	0.63
8:BH:5030:ASP:HB2	8:BH:5031:PRO:CD	2.29	0.63
1:BI:1050:PRO:HG3	6:BN:8159:HIS:HB2	1.80	0.63
3:Ba:3066:LYS:HG3	4:Bb:4063:VAL:HG13	1.81	0.63
7:AW:6069:ARG:NH2	7:AW:6140:GLU:O	2.31	0.63
7:BG:6067:ASN:CB	7:BG:6068:PRO:CD	2.75	0.63
6:Ct:8124:LEU:HA	6:Ct:8127:MET:HE2	1.80	0.63
6:AF:8203:VAL:O	6:AF:8207:ALA:HA	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AU:6067:ASN:CB	7:AU:6068:PRO:CD	2.73	0.62
6:BD:8133:GLN:HG3	6:BD:8176:THR:HG21	1.80	0.62
7:AM:6069:ARG:NH2	7:AM:6140:GLU:O	2.32	0.62
7:A3:6067:ASN:CB	7:A3:6068:PRO:CD	2.76	0.62
7:BW:6067:ASN:CB	7:BW:6068:PRO:CD	2.75	0.62
2:Bh:2076:ARG:HG3	6:Bl:8167:PHE:HB3	1.81	0.62
8:A4:5030:ASP:HB2	8:A4:5031:PRO:CD	2.29	0.62
2:BB:2040:ARG:HE	4:BD:4019:TRP:HZ2	1.45	0.62
6:Bl:8203:VAL:HG13	6:Bl:8209:ASN:HA	1.81	0.62
2:CZ:2043:LYS:HG2	2:CZ:2067:TRP:HB3	1.81	0.62
1:AI:1050:PRO:HG3	6:AN:8159:HIS:HB3	1.79	0.62
1:AI:1064:ARG:HD3	2:AJ:2041:ASN:HB3	1.81	0.62
6:AN:8177:CYS:HB2	6:AN:8195:TYR:HB3	1.80	0.62
3:AI:3066:LYS:HG3	4:AJ:4063:VAL:HG13	1.81	0.62
6:BD:8124:LEU:HA	6:BD:8127:MET:HE2	1.80	0.62
3:By:3000:MET:HE2	3:By:3002:GLN:NE2	2.14	0.62
6:CV:8152:TYR:O	6:CV:8156:VAL:HG12	1.99	0.62
6:CD:8203:VAL:O	6:CD:8207:ALA:HA	2.00	0.62
8:AV:5030:ASP:HB2	8:AV:5031:PRO:CD	2.29	0.62
3:BC:3000:MET:CE	3:BC:3002:GLN:HE22	2.13	0.62
3:By:3024:GLN:NE2	3:By:3027:MET:HE2	2.13	0.62
5:Cs:7014:SER:HB3	6:Ct:8197:LEU:HD11	1.80	0.62
7:Bm:6067:ASN:CB	7:Bm:6068:PRO:CD	2.75	0.62
3:By:3016:ARG:HE	3:By:3030:GLU:HG2	1.63	0.62
3:CS:3000:MET:CE	3:CS:3002:GLN:HE22	2.12	0.62
6:CD:8124:LEU:HA	6:CD:8127:MET:HE2	1.81	0.62
3:AI:3000:MET:CE	3:AI:3002:GLN:HE22	2.13	0.62
8:AN:5030:ASP:HB2	8:AN:5031:PRO:CD	2.29	0.62
7:Ae:6069:ARG:NH2	7:Ae:6140:GLU:O	2.33	0.62
6:Al:8165:HIS:O	6:Al:8169:THR:HG23	2.00	0.62
3:By:3066:LYS:HG3	4:Bz:4063:VAL:HG13	1.82	0.62
3:CK:3000:MET:CE	3:CK:3002:GLN:HE22	2.13	0.62
2:AX:2043:LYS:HG2	2:AX:2067:TRP:HB3	1.82	0.61
3:AY:3000:MET:CE	3:AY:3002:GLN:HE22	2.13	0.61
6:Cl:8070:SER:HA	6:Cl:8073:LEU:HD12	1.81	0.61
3:AK:3000:MET:CE	3:AK:3002:GLN:HE22	2.13	0.61
8:AH:5030:ASP:HB2	8:AH:5031:PRO:CD	2.30	0.61
6:BD:8209:ASN:C	6:BD:8211:PHE:H	2.08	0.61
7:Ce:6069:ARG:NH2	7:Ce:6140:GLU:O	2.34	0.61
3:AC:3000:MET:CE	3:AC:3002:GLN:HE22	2.13	0.61
2:Ah:2040:ARG:HE	4:AJ:4019:TRP:HZ2	1.45	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:BO:6069:ARG:NH2	7:BO:6140:GLU:O	2.33	0.61
6:Bt:8124:LEU:HA	6:Bt:8127:MET:HE2	1.81	0.61
3:CC:3000:MET:CE	3:CC:3002:GLN:HE22	2.13	0.61
3:Ca:3000:MET:CE	3:Ca:3002:GLN:HE22	2.13	0.61
3:Ba:3024:GLN:NE2	3:Ba:3027:MET:HE2	2.14	0.61
3:CC:3024:GLN:NE2	3:CC:3027:MET:HE2	2.14	0.61
4:CT:4031:ASP:HA	6:CV:8020:VAL:HG22	1.82	0.61
6:CV:8124:LEU:HA	6:CV:8127:MET:HE2	1.81	0.61
3:Ci:3000:MET:CE	3:Ci:3002:GLN:HE22	2.13	0.61
3:AK:3024:GLN:NE2	3:AK:3027:MET:HE2	2.13	0.61
8:AP:5030:ASP:HB2	8:AP:5031:PRO:CD	2.30	0.61
7:BO:6067:ASN:CB	7:BO:6068:PRO:CD	2.76	0.61
1:AQ:1050:PRO:HG3	6:AV:8159:HIS:CB	2.30	0.61
2:BB:2077:TYR:CE2	6:BF:8209:ASN:HB2	2.35	0.61
7:CW:6069:ARG:NH2	7:CW:6140:GLU:O	2.34	0.61
3:Cq:3000:MET:CE	3:Cq:3002:GLN:HE22	2.14	0.61
1:Bo:1050:PRO:HG3	6:Bt:8159:HIS:HB2	1.82	0.61
7:CG:6069:ARG:NH2	7:CG:6140:GLU:O	2.34	0.61
3:Ay:3024:GLN:NE2	3:Ay:3027:MET:HE2	2.14	0.61
8:CH:5030:ASP:HB2	8:CH:5031:PRO:CD	2.30	0.61
8:CX:5030:ASP:HB2	8:CX:5031:PRO:CD	2.30	0.61
8:Cn:5030:ASP:HB2	8:Cn:5031:PRO:CD	2.30	0.61
6:AV:8128:LEU:HD22	6:AV:8151:LEU:HG	1.82	0.61
8:AX:5030:ASP:HB2	8:AX:5031:PRO:CD	2.30	0.61
3:Aq:3000:MET:CE	3:Aq:3002:GLN:HE22	2.14	0.61
6:BV:8124:LEU:HA	6:BV:8127:MET:HE2	1.82	0.61
2:CJ:2077:TYR:CE2	6:CN:8209:ASN:HB2	2.36	0.61
8:CP:5030:ASP:HB2	8:CP:5031:PRO:CD	2.30	0.61
3:CS:3000:MET:HE2	3:CS:3002:GLN:HE22	1.66	0.61
2:Ch:2043:LYS:CG	2:Ch:2067:TRP:HB3	2.31	0.61
3:Ci:3000:MET:HE2	3:Ci:3002:GLN:HE22	1.66	0.61
7:AO:6069:ARG:NH2	7:AO:6140:GLU:O	2.34	0.60
8:Af:5030:ASP:HB2	8:Af:5031:PRO:CD	2.30	0.60
7:BG:6069:ARG:NH2	7:BG:6140:GLU:O	2.34	0.60
8:Bv:5030:ASP:HB2	8:Bv:5031:PRO:CD	2.31	0.60
3:Ca:3024:GLN:NE2	3:Ca:3027:MET:HE2	2.14	0.60
3:Aa:3024:GLN:NE2	3:Aa:3027:MET:HE2	2.15	0.60
7:A3:6069:ARG:NH2	7:A3:6140:GLU:O	2.34	0.60
3:BS:3000:MET:CE	3:BS:3002:GLN:HE22	2.14	0.60
4:Br:4051:GLY:HA2	6:Bt:8035:THR:HG21	1.83	0.60
6:Bt:8167:PHE:O	6:Bt:8171:ARG:HG3	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Ci:3024:GLN:NE2	3:Ci:3027:MET:HE2	2.14	0.60
7:AG:6018:ASN:HD22	7:AG:6019:ASN:HB2	1.66	0.60
3:AS:3000:MET:CE	3:AS:3002:GLN:HE22	2.14	0.60
8:Bn:5030:ASP:HB2	8:Bn:5031:PRO:CD	2.31	0.60
3:CC:3000:MET:HE2	3:CC:3002:GLN:HE22	1.66	0.60
3:Ca:3000:MET:HE2	3:Ca:3002:GLN:HE22	1.67	0.60
3:Ca:3066:LYS:HG3	4:Cb:4063:VAL:HG13	1.83	0.60
8:Cf:5030:ASP:HB2	8:Cf:5031:PRO:CD	2.30	0.60
6:AV:8124:LEU:HA	6:AV:8127:MET:HE2	1.82	0.60
6:Ad:8168:SER:O	6:Ad:8172:TYR:HD2	1.85	0.60
3:BC:3000:MET:HE2	3:BC:3002:GLN:HE22	1.66	0.60
8:Bf:5030:ASP:HB2	8:Bf:5031:PRO:CD	2.31	0.60
3:CS:3024:GLN:NE2	3:CS:3027:MET:HE2	2.15	0.60
3:CS:3066:LYS:HG3	4:CT:4063:VAL:HG13	1.83	0.60
7:Ce:6068:PRO:CD	7:Ce:6069:ARG:H	2.13	0.60
3:AK:3000:MET:HE2	3:AK:3002:GLN:HE22	1.66	0.60
6:Cl:8122:GLU:HG2	6:Cl:8166:VAL:HG21	1.83	0.60
6:AN:8146:TRP:O	6:AN:8150:TRP:HD1	1.85	0.60
3:BK:3000:MET:CE	3:BK:3002:GLN:HE22	2.15	0.60
6:B2:8203:VAL:O	6:B2:8207:ALA:HA	2.01	0.60
3:Cq:3000:MET:HE2	3:Cq:3002:GLN:HE22	1.66	0.60
3:Aa:3000:MET:CE	3:Aa:3002:GLN:HE22	2.15	0.60
3:Ai:3000:MET:HE2	3:Ai:3002:GLN:HE22	1.66	0.60
3:BC:3024:GLN:NE2	3:BC:3027:MET:HE2	2.13	0.60
3:Bi:3024:GLN:NE2	3:Bi:3027:MET:HE2	2.15	0.60
6:B2:8209:ASN:HB2	2:Bx:2077:TYR:HE2	1.62	0.60
6:CN:8065:PHE:CE2	6:CN:8205:VAL:HG11	2.37	0.60
7:CW:6067:ASN:CB	7:CW:6068:PRO:CD	2.74	0.60
7:Cm:6081:GLU:HA	7:Cm:6087:GLY:HA3	1.84	0.60
6:BN:8124:LEU:HA	6:BN:8127:MET:HE2	1.83	0.60
6:AF:8152:TYR:O	6:AF:8156:VAL:HG12	2.01	0.60
1:BI:1064:ARG:HD3	2:BJ:2041:ASN:HB3	1.84	0.60
7:Bu:6069:ARG:NH2	7:Bu:6140:GLU:O	2.35	0.60
7:CG:6067:ASN:CB	7:CG:6068:PRO:CD	2.73	0.60
2:AR:2043:LYS:HG2	2:AR:2067:TRP:CB	2.28	0.60
3:Ay:3000:MET:HE2	3:Ay:3002:GLN:HE22	1.67	0.60
1:Bg:1050:PRO:HG3	6:Bl:8159:HIS:HB3	1.84	0.60
1:Bo:1042:LYS:HB3	6:Bt:8161:PRO:HD3	1.84	0.60
6:B2:8133:GLN:HG3	6:B2:8176:THR:HG21	1.83	0.60
3:AS:3000:MET:HE2	3:AS:3002:GLN:HE22	1.67	0.59
3:AS:3024:GLN:NE2	3:AS:3027:MET:HE2	2.16	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AU:6068:PRO:CD	7:AU:6069:ARG:H	2.14	0.59
7:BE:6069:ARG:NH2	7:BE:6140:GLU:O	2.35	0.59
7:CE:6081:GLU:HB2	8:CF:5064:MET:HE1	1.84	0.59
7:CM:6069:ARG:NH2	7:CM:6140:GLU:O	2.35	0.59
8:CV:5030:ASP:HB2	8:CV:5031:PRO:CD	2.31	0.59
6:AN:8167:PHE:O	6:AN:8171:ARG:HG3	2.03	0.59
1:A0:1050:PRO:HG3	6:AT:8159:HIS:CB	2.33	0.59
1:BI:1048:ARG:HG3	1:BI:1048:ARG:HH11	1.66	0.59
7:CM:6062:HIS:CD2	7:CM:6152:MET:HE3	2.37	0.59
3:CK:3000:MET:HE2	3:CK:3002:GLN:HE22	1.67	0.59
7:CU:6021:LYS:HG3	7:CU:6031:GLU:HG2	1.83	0.59
3:BS:3000:MET:HE2	3:BS:3002:GLN:HE22	1.67	0.59
6:BD:8172:TYR:HA	6:BD:8175:ARG:HD2	1.84	0.59
3:BQ:3000:MET:CE	3:BQ:3002:GLN:HE22	2.16	0.59
6:AN:8124:LEU:HA	6:AN:8127:MET:HE2	1.83	0.59
1:AW:1069:PRO:O	1:AW:1071:SER:N	2.34	0.59
7:B3:6069:ARG:NH2	7:B3:6140:GLU:O	2.36	0.59
2:CZ:2077:TYR:HE2	6:CD:8209:ASN:HB2	1.67	0.59
1:AY:1069:PRO:O	1:AY:1071:SER:N	2.33	0.59
3:AQ:3000:MET:HE2	3:AQ:3002:GLN:HE22	1.66	0.59
6:A2:8020:VAL:HG22	4:AZ:4031:ASP:HA	1.84	0.59
3:BK:3000:MET:HE2	3:BK:3002:GLN:HE22	1.67	0.59
3:BS:3024:GLN:NE2	3:BS:3027:MET:HE2	2.16	0.59
6:BT:8065:PHE:CE2	6:BT:8205:VAL:HG11	2.37	0.59
3:CK:3024:GLN:NE2	3:CK:3027:MET:HE2	2.14	0.59
7:CO:6067:ASN:CB	7:CO:6068:PRO:CD	2.74	0.59
7:B3:6068:PRO:CD	7:B3:6069:ARG:H	2.15	0.59
7:CG:6068:PRO:CD	7:CG:6069:ARG:H	2.14	0.59
6:CN:8054:THR:HG23	6:CN:8057:TRP:CB	2.33	0.59
7:BM:6069:ARG:NH2	7:BM:6140:GLU:O	2.36	0.59
1:CG:1050:PRO:HG3	6:CL:8159:HIS:HB2	1.85	0.59
6:AV:8209:ASN:C	6:AV:8211:PHE:H	2.11	0.59
1:BG:1050:PRO:HG3	6:BL:8159:HIS:CB	2.32	0.59
7:CU:6069:ARG:NH2	7:CU:6140:GLU:O	2.36	0.59
3:AA:3000:MET:HE2	3:AA:3002:GLN:HE22	1.68	0.59
2:CZ:2040:ARG:HE	4:CB:4019:TRP:HZ2	1.50	0.59
1:CO:1069:PRO:O	1:CO:1071:SER:N	2.34	0.59
1:AI:1024:HIS:HB3	6:AN:8161:PRO:HD3	1.85	0.58
4:AB:4031:ASP:HA	6:AD:8020:VAL:HG22	1.85	0.58
6:BF:8124:LEU:HA	6:BF:8127:MET:HE2	1.84	0.58
3:BI:3000:MET:CE	3:BI:3002:GLN:HE22	2.16	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Bl:8124:LEU:HA	6:Bl:8127:MET:HE2	1.83	0.58
1:CY:1048:ARG:HG3	1:CY:1048:ARG:HH11	1.66	0.58
6:AV:8177:CYS:HA	6:AV:8180:LEU:HB2	1.85	0.58
3:Bq:3000:MET:HE2	3:Bq:3002:GLN:HE22	1.68	0.58
1:Bw:1048:ARG:HH11	1:Bw:1048:ARG:HG3	1.68	0.58
7:CO:6069:ARG:NH2	7:CO:6140:GLU:O	2.36	0.58
6:Cd:8065:PHE:CE2	6:Cd:8205:VAL:HG11	2.38	0.58
3:AC:3000:MET:HE2	3:AC:3002:GLN:HE22	1.67	0.58
7:CW:6068:PRO:CD	7:CW:6069:ARG:H	2.15	0.58
7:Cm:6067:ASN:CB	7:Cm:6068:PRO:CD	2.75	0.58
2:BJ:2004:MET:HE2	2:BJ:2008:GLU:HB3	1.85	0.58
7:Bm:6149:TYR:HA	7:Bm:6152:MET:HE2	1.83	0.58
7:AO:6068:PRO:CD	7:AO:6069:ARG:H	2.14	0.58
1:BY:1048:ARG:HH11	1:BY:1048:ARG:HG3	1.68	0.58
3:Ba:3000:MET:CE	3:Ba:3002:GLN:HE22	2.16	0.58
3:BK:3024:GLN:NE2	3:BK:3027:MET:HE2	2.15	0.58
7:Be:6068:PRO:CD	7:Be:6069:ARG:H	2.16	0.58
6:Bl:8165:HIS:CE1	6:Bl:8166:VAL:HG23	2.37	0.58
2:AB:2040:ARG:C	2:AB:2042:ASN:H	2.11	0.58
6:CF:8124:LEU:HA	6:CF:8127:MET:HE2	1.85	0.58
7:Am:6066:SER:HA	7:Am:6069:ARG:O	2.04	0.58
1:Ao:1048:ARG:HH11	1:Ao:1048:ARG:HG3	1.68	0.58
2:BZ:2004:MET:HE2	2:BZ:2008:GLU:HB3	1.85	0.58
6:AN:8095:ASP:HB3	6:AN:8098:LYS:HB2	1.86	0.58
6:AN:8133:GLN:HG3	6:AN:8176:THR:HG21	1.85	0.58
2:Bh:2004:MET:HE2	2:Bh:2008:GLU:HB3	1.85	0.58
2:Bp:2004:MET:HE2	2:Bp:2008:GLU:HB3	1.85	0.58
5:Bc:7008:VAL:HG12	6:Bd:8108:PRO:HD2	1.85	0.58
6:Cd:8142:LEU:HG	6:Cd:8191:ARG:HA	1.86	0.58
6:Ct:8133:GLN:HG3	6:Ct:8176:THR:HG21	1.85	0.58
7:Am:6068:PRO:CD	7:Am:6069:ARG:H	2.15	0.57
3:Bi:3000:MET:HE2	3:Bi:3002:GLN:HE22	1.69	0.57
2:Bp:2040:ARG:NE	4:Br:4019:TRP:CZ2	2.72	0.57
7:Bu:6068:PRO:CD	7:Bu:6069:ARG:H	2.16	0.57
2:CR:2004:MET:HE2	2:CR:2008:GLU:HB3	1.86	0.57
7:AW:6068:PRO:CD	7:AW:6069:ARG:H	2.14	0.57
7:BW:6068:PRO:CD	7:BW:6069:ARG:H	2.15	0.57
1:Cg:1064:ARG:HD3	2:Ch:2041:ASN:HB3	1.84	0.57
6:Ct:8095:ASP:HB3	6:Ct:8098:LYS:HB2	1.86	0.57
1:Ag:1048:ARG:HH11	1:Ag:1048:ARG:HG3	1.69	0.57
2:Ap:2004:MET:HE2	2:Ap:2008:GLU:HB3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:BF:8150:TRP:O	6:BF:8154:THR:OG1	2.23	0.57
7:Bm:6068:PRO:CD	7:Bm:6069:ARG:H	2.17	0.57
2:Bx:2004:MET:HE2	2:Bx:2008:GLU:HB3	1.86	0.57
2:CJ:2004:MET:HE2	2:CJ:2008:GLU:HB3	1.85	0.57
2:CZ:2004:MET:HE2	2:CZ:2008:GLU:HB3	1.86	0.57
2:Cp:2004:MET:HE2	2:Cp:2008:GLU:HB3	1.86	0.57
6:AN:8100:LYS:HD3	6:AN:8104:ARG:CZ	2.34	0.57
6:At:8152:TYR:O	6:At:8156:VAL:HG12	2.04	0.57
6:Bd:8203:VAL:HG13	6:Bd:8209:ASN:HA	1.85	0.57
3:Cq:3024:GLN:NE2	3:Cq:3027:MET:HE2	2.17	0.57
6:AF:8095:ASP:HB3	6:AF:8098:LYS:HB2	1.87	0.57
8:B4:5008:MET:O	8:B4:5026:LEU:HB3	2.05	0.57
2:Ch:2043:LYS:HG2	2:Ch:2067:TRP:CB	2.32	0.57
1:AI:1069:PRO:O	1:AI:1071:SER:N	2.36	0.57
1:AQ:1069:PRO:O	1:AQ:1071:SER:N	2.36	0.57
6:Al:8124:LEU:HA	6:Al:8127:MET:HE2	1.85	0.57
1:BQ:1069:PRO:O	1:BQ:1071:SER:N	2.35	0.57
6:Bt:8095:ASP:HB3	6:Bt:8098:LYS:HB2	1.87	0.57
3:AK:3066:LYS:HG3	4:AL:4063:VAL:HG13	1.86	0.57
6:AV:8203:VAL:O	6:AV:8207:ALA:HA	2.05	0.57
6:A2:8095:ASP:HB3	6:A2:8098:LYS:HB2	1.87	0.57
3:Aq:3024:GLN:NE2	3:Aq:3027:MET:HE2	2.16	0.57
6:Bd:8095:ASP:HB3	6:Bd:8098:LYS:HB2	1.87	0.57
6:Bl:8095:ASP:HB3	6:Bl:8098:LYS:HB2	1.87	0.57
6:B2:8065:PHE:CE2	6:B2:8205:VAL:HG11	2.40	0.57
1:BA:1048:ARG:HG3	1:BA:1048:ARG:HH11	1.70	0.57
3:Ba:3000:MET:HE2	3:Ba:3002:GLN:HE22	1.69	0.57
1:Bo:1048:ARG:HH11	1:Bo:1048:ARG:HG3	1.69	0.57
7:BO:6068:PRO:CD	7:BO:6069:ARG:H	2.16	0.57
6:B2:8095:ASP:HB3	6:B2:8098:LYS:HB2	1.87	0.57
7:Cu:6066:SER:HA	7:Cu:6069:ARG:O	2.04	0.57
6:At:8135:PRO:C	6:At:8137:THR:H	2.13	0.56
6:CF:8133:GLN:HG3	6:CF:8176:THR:HG21	1.87	0.56
1:CQ:1048:ARG:HH11	1:CQ:1048:ARG:HG3	1.70	0.56
2:CR:2040:ARG:HE	4:CT:4019:TRP:HZ2	1.51	0.56
2:Ch:2004:MET:HE2	2:Ch:2008:GLU:HB3	1.86	0.56
3:AC:3066:LYS:HG3	4:AD:4063:VAL:HG13	1.87	0.56
1:BA:1050:PRO:HG3	6:BF:8159:HIS:HB2	1.86	0.56
7:BG:6068:PRO:CD	7:BG:6069:ARG:H	2.16	0.56
1:BQ:1048:ARG:HH11	1:BQ:1048:ARG:HG3	1.70	0.56
6:BV:8095:ASP:HB3	6:BV:8098:LYS:HB2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1069:PRO:O	1:CA:1071:SER:N	2.35	0.56
1:Cg:1069:PRO:O	1:Cg:1071:SER:N	2.36	0.56
6:AF:8135:PRO:C	6:AF:8137:THR:H	2.13	0.56
6:Al:8095:ASP:HB3	6:Al:8098:LYS:HB2	1.87	0.56
1:BY:1050:PRO:HG3	6:Bd:8159:HIS:HB2	1.87	0.56
2:BZ:2077:TYR:CD1	6:Bd:8210:ASP:HB3	2.40	0.56
7:Be:6066:SER:HA	7:Be:6069:ARG:O	2.05	0.56
1:Bo:1064:ARG:HD3	2:Bp:2041:ASN:HB3	1.87	0.56
1:Bo:1069:PRO:O	1:Bo:1071:SER:N	2.34	0.56
2:Bp:2077:TYR:CD1	6:Bt:8210:ASP:HB3	2.41	0.56
7:Bu:6066:SER:HA	7:Bu:6069:ARG:O	2.05	0.56
6:CN:8095:ASP:HB3	6:CN:8098:LYS:HB2	1.87	0.56
1:CY:1069:PRO:O	1:CY:1071:SER:N	2.35	0.56
1:Ag:1069:PRO:O	1:Ag:1071:SER:N	2.36	0.56
6:At:8095:ASP:HB3	6:At:8098:LYS:HB2	1.88	0.56
1:Bg:1048:ARG:HH11	1:Bg:1048:ARG:HG3	1.70	0.56
7:Bm:6066:SER:HA	7:Bm:6069:ARG:O	2.05	0.56
2:AB:2004:MET:HE2	2:AB:2008:GLU:HB3	1.88	0.56
6:AF:8199:LEU:O	6:AF:8203:VAL:HG23	2.05	0.56
1:BA:1043:MET:HE1	7:BG:6073:TYR:CE2	2.41	0.56
1:CA:1048:ARG:HH11	1:CA:1048:ARG:HG3	1.69	0.56
2:CB:2004:MET:HE2	2:CB:2008:GLU:HB3	1.87	0.56
1:CQ:1069:PRO:O	1:CQ:1071:SER:N	2.36	0.56
4:Cj:4031:ASP:HA	6:Cl:8020:VAL:HG22	1.87	0.56
6:AN:8135:PRO:C	6:AN:8137:THR:H	2.12	0.56
7:AO:6066:SER:HA	7:AO:6069:ARG:O	2.06	0.56
2:Ah:2040:ARG:C	2:Ah:2042:ASN:H	2.13	0.56
6:BF:8095:ASP:HB3	6:BF:8098:LYS:HB2	1.88	0.56
6:BN:8095:ASP:HB3	6:BN:8098:LYS:HB2	1.88	0.56
2:BZ:2097:ILE:HG22	6:Bd:8037:LEU:HB3	1.88	0.56
6:AV:8135:PRO:C	6:AV:8137:THR:H	2.13	0.56
2:BR:2004:MET:HE2	2:BR:2008:GLU:HB3	1.86	0.56
6:Cd:8095:ASP:HB3	6:Cd:8098:LYS:HB2	1.88	0.56
1:Cg:1048:ARG:HG3	1:Cg:1048:ARG:HH11	1.71	0.56
2:Ch:2064:LYS:HE2	6:Cl:8039:MET:HE1	1.87	0.56
1:Co:1048:ARG:HG3	1:Co:1048:ARG:HH11	1.70	0.56
1:AQ:1048:ARG:HH11	1:AQ:1048:ARG:HG3	1.70	0.56
6:AV:8095:ASP:HB3	6:AV:8098:LYS:HB2	1.88	0.56
6:A2:8168:SER:O	6:A2:8172:TYR:HD2	1.89	0.56
7:A3:6066:SER:HA	7:A3:6069:ARG:O	2.06	0.56
1:Aw:1048:ARG:HG3	1:Aw:1048:ARG:HH11	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:8095:ASP:HB3	6:CF:8098:LYS:HB2	1.88	0.56
1:Co:1050:PRO:HG3	6:Ct:8159:HIS:HB2	1.88	0.56
2:AR:2004:MET:HE2	2:AR:2008:GLU:HB3	1.87	0.56
2:AZ:2064:LYS:HE3	2:AZ:2075:ASP:OD2	2.06	0.56
2:Ap:2097:ILE:HG22	6:At:8037:LEU:HB3	1.88	0.56
4:Ar:4031:ASP:HA	6:At:8020:VAL:HG22	1.88	0.56
7:BG:6066:SER:HA	7:BG:6069:ARG:O	2.06	0.56
7:Cm:6066:SER:HA	7:Cm:6069:ARG:O	2.05	0.56
7:Ae:6068:PRO:CD	7:Ae:6069:ARG:H	2.16	0.55
2:Ax:2004:MET:HE2	2:Ax:2008:GLU:HB3	1.86	0.55
6:BN:8155:LEU:HA	6:BN:8158:LEU:HD12	1.87	0.55
6:CF:8167:PHE:O	6:CF:8171:ARG:HG3	2.06	0.55
6:Ct:8135:PRO:C	6:Ct:8137:THR:H	2.14	0.55
8:Cv:5008:MET:O	8:Cv:5026:LEU:HB3	2.06	0.55
7:AG:6066:SER:HA	7:AG:6069:ARG:O	2.06	0.55
6:AV:8188:GLU:CD	6:AV:8190:GLN:HB2	2.31	0.55
6:A2:8007:LEU:HD22	3:Ay:3004:ILE:HD12	1.88	0.55
7:B3:6081:GLU:HB2	8:B4:5064:MET:HE1	1.89	0.55
1:CI:1048:ARG:HH11	1:CI:1048:ARG:HG3	1.71	0.55
4:CL:4031:ASP:HA	6:CN:8020:VAL:HG22	1.88	0.55
6:CN:8124:LEU:HA	6:CN:8127:MET:HE2	1.88	0.55
6:CV:8095:ASP:HB3	6:CV:8098:LYS:HB2	1.88	0.55
6:CV:8203:VAL:HG13	6:CV:8209:ASN:HA	1.87	0.55
6:AF:8181:ARG:O	6:AF:8184:LEU:HB2	2.06	0.55
6:Ad:8135:PRO:C	6:Ad:8137:THR:H	2.13	0.55
1:Ao:1069:PRO:O	1:Ao:1071:SER:N	2.36	0.55
7:A3:6073:TYR:CE2	1:Aw:1043:MET:HE1	2.41	0.55
8:Bf:5008:MET:O	8:Bf:5026:LEU:HB3	2.06	0.55
2:AR:2097:ILE:HG22	6:AV:8037:LEU:HB3	1.88	0.55
7:A3:6068:PRO:CD	7:A3:6069:ARG:H	2.17	0.55
2:BR:2040:ARG:C	2:BR:2042:ASN:H	2.14	0.55
8:Bv:5008:MET:O	8:Bv:5026:LEU:HB3	2.06	0.55
7:Ae:6066:SER:HA	7:Ae:6069:ARG:O	2.06	0.55
8:Cn:5008:MET:O	8:Cn:5026:LEU:HB3	2.07	0.55
6:Ad:8095:ASP:HB3	6:Ad:8098:LYS:HB2	1.89	0.55
8:Af:5008:MET:O	8:Af:5026:LEU:HB3	2.07	0.55
8:A4:5008:MET:O	8:A4:5026:LEU:HB3	2.07	0.55
2:Bp:2075:ASP:O	6:Bt:8171:ARG:HD3	2.07	0.55
2:CR:2097:ILE:HG22	6:CV:8037:LEU:HB3	1.88	0.55
6:Ad:8133:GLN:HG3	6:Ad:8176:THR:HG21	1.88	0.55
8:CP:5008:MET:O	8:CP:5026:LEU:HB3	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:Cu:6068:PRO:CD	7:Cu:6069:ARG:H	2.19	0.55
1:Al:1043:MET:HE1	7:AO:6073:TYR:CE2	2.41	0.55
2:AZ:2004:MET:HE2	2:AZ:2008:GLU:HB3	1.88	0.55
1:BA:1069:PRO:O	1:BA:1071:SER:N	2.38	0.55
8:BH:5008:MET:O	8:BH:5026:LEU:HB3	2.07	0.55
7:BO:6066:SER:HA	7:BO:6069:ARG:O	2.06	0.55
6:Bd:8167:PHE:O	6:Bd:8171:ARG:HG3	2.07	0.55
1:AQ:1064:ARG:HD3	2:AR:2041:ASN:HB3	1.89	0.55
6:BN:8141:LEU:HD12	6:BN:8195:TYR:CD1	2.42	0.55
1:BY:1069:PRO:O	1:BY:1071:SER:N	2.36	0.55
2:Bp:2023:SER:O	2:Bp:2027:GLN:HG3	2.07	0.55
6:CV:8133:GLN:HG3	6:CV:8176:THR:HG21	1.89	0.55
6:Cl:8184:LEU:HD22	6:Cl:8192:ALA:HB2	1.88	0.55
7:AG:6068:PRO:CD	7:AG:6069:ARG:H	2.14	0.55
2:Ah:2004:MET:HE2	2:Ah:2008:GLU:HB3	1.88	0.55
6:A2:8135:PRO:C	6:A2:8137:THR:H	2.13	0.55
2:BB:2004:MET:HE2	2:BB:2008:GLU:HB3	1.88	0.55
7:B3:6066:SER:HA	7:B3:6069:ARG:O	2.07	0.55
3:By:3000:MET:CE	3:By:3002:GLN:HE22	2.17	0.55
6:CN:8049:LYS:H	7:Cm:6084:GLY:HA3	1.72	0.55
7:CO:6066:SER:HA	7:CO:6069:ARG:O	2.06	0.55
6:AN:8160:LEU:HD23	6:AN:8161:PRO:HA	1.89	0.54
7:Au:6066:SER:HA	7:Au:6069:ARG:O	2.07	0.54
7:BW:6066:SER:HA	7:BW:6069:ARG:O	2.07	0.54
8:Bn:5008:MET:O	8:Bn:5026:LEU:HB3	2.07	0.54
1:CY:1064:ARG:HD3	2:CZ:2041:ASN:HB3	1.89	0.54
1:AA:1069:PRO:O	1:AA:1071:SER:N	2.37	0.54
6:Ad:8046:PRO:HB2	6:Ad:8047:PRO:HD2	1.89	0.54
1:BI:1048:ARG:HG3	1:BI:1048:ARG:NH1	2.21	0.54
3:Bq:3038:GLU:HB3	6:Bt:8011:PHE:HE1	1.72	0.54
6:Cl:8095:ASP:HB3	6:Cl:8098:LYS:HB2	1.89	0.54
2:Ah:2023:SER:O	2:Ah:2027:GLN:HG3	2.07	0.54
1:Bg:1069:PRO:O	1:Bg:1071:SER:N	2.37	0.54
6:CN:8135:PRO:C	6:CN:8137:THR:H	2.15	0.54
2:Cp:2065:GLU:O	2:Cp:2075:ASP:HA	2.07	0.54
6:AN:8181:ARG:HA	6:AN:8184:LEU:CD1	2.37	0.54
6:Al:8188:GLU:CD	6:Al:8190:GLN:HB2	2.33	0.54
8:BP:5008:MET:O	8:BP:5026:LEU:HB3	2.08	0.54
6:CF:8135:PRO:C	6:CF:8137:THR:H	2.16	0.54
7:CW:6066:SER:HA	7:CW:6069:ARG:O	2.07	0.54
6:Cd:8133:GLN:HG3	6:Cd:8176:THR:HG21	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Aj:4031:ASP:HA	6:Al:8020:VAL:HG22	1.89	0.54
8:An:5008:MET:O	8:An:5026:LEU:HB3	2.07	0.54
6:A2:8199:LEU:HB2	6:A2:8215:ILE:HD13	1.89	0.54
6:BF:8184:LEU:HD22	6:BF:8192:ALA:HB2	1.88	0.54
2:BJ:2023:SER:O	2:BJ:2027:GLN:HG3	2.08	0.54
6:BV:8135:PRO:C	6:BV:8137:THR:H	2.13	0.54
3:Bi:3038:GLU:HB3	6:Bl:8011:PHE:HE1	1.72	0.54
8:B4:5030:ASP:HB2	8:B4:5031:PRO:CD	2.36	0.54
6:Cd:8122:GLU:HG2	6:Cd:8166:VAL:HG21	1.89	0.54
6:AV:8113:LEU:HD13	6:AV:8116:LEU:HD12	1.90	0.54
6:B2:8046:PRO:HB2	6:B2:8047:PRO:HD2	1.90	0.54
7:CG:6066:SER:HA	7:CG:6069:ARG:O	2.07	0.54
7:Cm:6078:HIS:CD2	8:Cn:5063:ILE:HG23	2.43	0.54
6:AN:8054:THR:HG23	6:AN:8057:TRP:HB2	1.90	0.54
6:Al:8133:GLN:HG3	6:Al:8176:THR:HG21	1.89	0.54
7:Am:6072:ILE:HG23	7:Am:6152:MET:HE1	1.89	0.54
8:Av:5008:MET:O	8:Av:5026:LEU:HB3	2.08	0.54
2:CJ:2040:ARG:C	2:CJ:2042:ASN:H	2.15	0.54
8:CX:5008:MET:O	8:CX:5026:LEU:HB3	2.08	0.54
4:Br:4031:ASP:HA	6:Bt:8020:VAL:HG22	1.89	0.54
7:CG:6072:ILE:HG23	7:CG:6152:MET:HE1	1.89	0.54
2:AJ:2097:ILE:HG22	6:AN:8037:LEU:HB3	1.90	0.54
6:AV:8168:SER:O	6:AV:8172:TYR:HD2	1.91	0.54
6:Al:8135:PRO:C	6:Al:8137:THR:H	2.15	0.54
7:A3:6081:GLU:OE1	7:A3:6088:ASP:HB2	2.07	0.54
2:BB:2023:SER:O	2:BB:2027:GLN:HG3	2.08	0.54
6:BN:8133:GLN:HG3	6:BN:8176:THR:HG21	1.88	0.54
8:CH:5008:MET:O	8:CH:5026:LEU:HB3	2.08	0.54
6:CV:8135:PRO:C	6:CV:8137:THR:H	2.16	0.54
4:Ab:4019:TRP:HB2	4:Ab:4021:MET:SD	2.48	0.54
6:A2:8184:LEU:HD22	6:A2:8192:ALA:HB2	1.88	0.54
1:Bw:1069:PRO:O	1:Bw:1071:SER:N	2.37	0.54
8:Cf:5008:MET:O	8:Cf:5026:LEU:HB3	2.08	0.54
7:AW:6072:ILE:HG23	7:AW:6152:MET:HE1	1.89	0.53
6:Ad:8172:TYR:HA	6:Ad:8175:ARG:HD2	1.91	0.53
7:BG:6062:HIS:CD2	7:BG:6152:MET:HE3	2.43	0.53
2:BR:2023:SER:O	2:BR:2027:GLN:HG3	2.08	0.53
2:Bp:2065:GLU:O	2:Bp:2075:ASP:HA	2.08	0.53
2:Cp:2023:SER:O	2:Cp:2027:GLN:HG3	2.08	0.53
6:AF:8188:GLU:CD	6:AF:8190:GLN:HB2	2.33	0.53
6:Al:8209:ASN:C	6:Al:8211:PHE:H	2.16	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A2:8037:LEU:HB3	2:Ax:2097:ILE:HG22	1.90	0.53
2:BB:2027:GLN:OE1	2:BB:2093:ARG:HD3	2.09	0.53
1:BI:1069:PRO:O	1:BI:1071:SER:N	2.37	0.53
6:BV:8209:ASN:C	6:BV:8211:PHE:H	2.15	0.53
7:BW:6072:ILE:HG23	7:BW:6152:MET:HE1	1.89	0.53
6:Bd:8046:PRO:HB2	6:Bd:8047:PRO:HD2	1.90	0.53
2:CJ:2040:ARG:HE	4:CL:4019:TRP:HZ2	1.54	0.53
2:AJ:2004:MET:HE2	2:AJ:2008:GLU:HB3	1.89	0.53
1:AA:1043:MET:HE1	7:AG:6073:TYR:CE2	2.43	0.53
7:AW:6066:SER:HA	7:AW:6069:ARG:O	2.08	0.53
8:AX:5008:MET:O	8:AX:5026:LEU:HB3	2.08	0.53
6:Ad:8054:THR:HG23	6:Ad:8057:TRP:HB2	1.90	0.53
4:BD:4031:ASP:HA	6:BF:8020:VAL:HG22	1.90	0.53
2:CJ:2065:GLU:O	2:CJ:2075:ASP:HA	2.08	0.53
6:Ct:8184:LEU:HD22	6:Ct:8192:ALA:HB2	1.89	0.53
6:AV:8046:PRO:HB2	6:AV:8047:PRO:HD2	1.90	0.53
2:AZ:2097:ILE:HG22	6:Ad:8037:LEU:HB3	1.90	0.53
6:B2:8203:VAL:CG1	6:B2:8209:ASN:HA	2.33	0.53
6:Cl:8135:PRO:C	6:Cl:8137:THR:H	2.17	0.53
6:AF:8046:PRO:HB2	6:AF:8047:PRO:HD2	1.89	0.53
2:AR:2040:ARG:HE	4:AT:4019:TRP:HZ2	1.56	0.53
6:At:8133:GLN:HG3	6:At:8176:THR:HG21	1.90	0.53
4:BL:4031:ASP:HA	6:BN:8020:VAL:HG22	1.90	0.53
6:A2:8133:GLN:HG3	6:A2:8176:THR:HG21	1.90	0.53
6:Cd:8135:PRO:C	6:Cd:8137:THR:H	2.17	0.53
2:AJ:2077:TYR:CD1	6:AN:8210:ASP:HB3	2.43	0.53
1:AY:1043:MET:HE1	7:Ae:6073:TYR:CE2	2.43	0.53
1:BY:1053:LEU:CD2	7:Be:6065:SER:HB2	2.37	0.53
7:Bu:6072:ILE:HG23	7:Bu:6152:MET:HE1	1.90	0.53
2:CR:2034:GLN:HG2	2:CR:2048:ARG:HG3	1.90	0.53
6:CV:8185:LYS:N	6:CV:8187:ASP:HB2	2.20	0.53
1:CY:1048:ARG:HG3	1:CY:1048:ARG:NH1	2.24	0.53
6:AV:8054:THR:HG23	6:AV:8057:TRP:HB2	1.90	0.53
6:A2:8054:THR:HG23	6:A2:8057:TRP:HB2	1.91	0.53
2:Ax:2023:SER:O	2:Ax:2027:GLN:HG3	2.09	0.53
8:BX:5008:MET:O	8:BX:5026:LEU:HB3	2.08	0.53
2:Bx:2023:SER:O	2:Bx:2027:GLN:HG3	2.09	0.53
2:CB:2034:GLN:HG2	2:CB:2048:ARG:HG3	1.91	0.53
1:CQ:1064:ARG:HD3	2:CR:2041:ASN:HB3	1.90	0.53
4:BT:4031:ASP:HA	6:BV:8020:VAL:HG22	1.91	0.53
6:Bl:8185:LYS:N	6:Bl:8187:ASP:HB2	2.20	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Bt:8046:PRO:HB2	6:Bt:8047:PRO:HD2	1.91	0.53
1:CI:1069:PRO:O	1:CI:1071:SER:N	2.39	0.53
2:CJ:2034:GLN:HG2	2:CJ:2048:ARG:HG3	1.91	0.53
6:Cd:8131:TRP:O	6:Cd:8135:PRO:HG3	2.09	0.53
2:AJ:2023:SER:O	2:AJ:2027:GLN:HG3	2.09	0.53
6:AF:8184:LEU:HD22	6:AF:8192:ALA:HB2	1.90	0.53
4:AT:4019:TRP:HB2	4:AT:4021:MET:SD	2.49	0.53
6:AV:8171:ARG:NH1	6:AV:8208:GLN:OE1	2.40	0.53
6:Al:8046:PRO:HB2	6:Al:8047:PRO:HD2	1.91	0.53
6:BF:8046:PRO:HB2	6:BF:8047:PRO:HD2	1.91	0.53
6:BV:8153:ALA:O	6:BV:8156:VAL:HG13	2.09	0.53
6:BV:8203:VAL:HG13	6:BV:8209:ASN:HA	1.90	0.53
2:AJ:2064:LYS:HE2	6:AN:8039:MET:HE1	1.90	0.52
2:AZ:2023:SER:O	2:AZ:2027:GLN:HG3	2.09	0.52
6:At:8188:GLU:CD	6:At:8190:GLN:HB2	2.34	0.52
7:A3:6047:GLU:HA	6:BF:8054:THR:HB	1.91	0.52
2:BZ:2023:SER:O	2:BZ:2027:GLN:HG3	2.09	0.52
6:Bd:8184:LEU:HD22	6:Bd:8192:ALA:HB2	1.90	0.52
2:Bh:2023:SER:O	2:Bh:2027:GLN:HG3	2.09	0.52
2:Bh:2097:ILE:HG22	6:Bl:8037:LEU:HB3	1.91	0.52
2:CJ:2077:TYR:HE2	6:CN:8209:ASN:HB2	1.73	0.52
7:Ce:6066:SER:HA	7:Ce:6069:ARG:O	2.09	0.52
7:Ae:6072:ILE:HG23	7:Ae:6152:MET:HE1	1.90	0.52
6:At:8054:THR:HG23	6:At:8057:TRP:HB2	1.89	0.52
6:A2:8046:PRO:HB2	6:A2:8047:PRO:HD2	1.91	0.52
6:BF:8133:GLN:HG3	6:BF:8176:THR:HG21	1.90	0.52
2:CJ:2023:SER:O	2:CJ:2027:GLN:HG3	2.08	0.52
3:CS:3000:MET:HE2	3:CS:3002:GLN:NE2	2.24	0.52
6:CV:8184:LEU:HD22	6:CV:8192:ALA:HB2	1.90	0.52
8:AP:5008:MET:O	8:AP:5026:LEU:HB3	2.09	0.52
6:AF:8054:THR:HG23	6:AF:8057:TRP:HB2	1.89	0.52
8:AH:5008:MET:O	8:AH:5026:LEU:HB3	2.09	0.52
5:AU:7005:SER:O	5:AU:7008:VAL:HG22	2.10	0.52
2:Ah:2034:GLN:HG2	2:Ah:2048:ARG:HG3	1.91	0.52
2:BB:2065:GLU:O	2:BB:2075:ASP:HA	2.08	0.52
1:CA:1043:MET:HE1	7:CG:6073:TYR:CE2	2.45	0.52
2:CB:2065:GLU:O	2:CB:2075:ASP:HA	2.08	0.52
2:CZ:2034:GLN:HG2	2:CZ:2048:ARG:HG3	1.91	0.52
2:Ch:2097:ILE:HG22	6:Cl:8037:LEU:HB3	1.91	0.52
3:BK:3024:GLN:NE2	3:BK:3027:MET:HB3	2.25	0.52
6:BN:8165:HIS:O	6:BN:8169:THR:HG23	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:BR:2043:LYS:HG2	2:BR:2067:TRP:CB	2.33	0.52
6:CF:8131:TRP:O	6:CF:8135:PRO:HG3	2.10	0.52
3:CI:3000:MET:HE2	3:CI:3002:GLN:NE2	2.24	0.52
7:B3:6072:ILE:HG23	7:B3:6152:MET:HE1	1.90	0.52
3:Ca:3000:MET:HE2	3:Ca:3002:GLN:NE2	2.24	0.52
3:Cq:3000:MET:HE2	3:Cq:3002:GLN:NE2	2.25	0.52
1:Ag:1043:MET:HE1	7:Am:6073:TYR:CE2	2.44	0.52
6:At:8046:PRO:HB2	6:At:8047:PRO:HD2	1.90	0.52
2:BB:2034:GLN:HG2	2:BB:2048:ARG:HG3	1.91	0.52
6:BN:8184:LEU:HD22	6:BN:8192:ALA:HB2	1.90	0.52
6:CN:8155:LEU:HA	6:CN:8158:LEU:HD12	1.92	0.52
2:Ch:2065:GLU:O	2:Ch:2075:ASP:HA	2.08	0.52
7:Cu:6072:ILE:HG23	7:Cu:6152:MET:HE1	1.90	0.52
3:AK:3000:MET:HE2	3:AK:3002:GLN:NE2	2.24	0.52
4:AL:4019:TRP:HB2	4:AL:4021:MET:SD	2.50	0.52
7:A3:6072:ILE:HG23	7:A3:6152:MET:HE1	1.91	0.52
2:Ax:2034:GLN:HG2	2:Ax:2048:ARG:HG3	1.92	0.52
2:BJ:2065:GLU:O	2:BJ:2075:ASP:HA	2.09	0.52
6:BN:8203:VAL:HG13	6:BN:8209:ASN:HA	1.92	0.52
6:CF:8170:LEU:HA	6:CF:8173:ILE:HD12	1.91	0.52
6:CF:8188:GLU:CD	6:CF:8190:GLN:HB2	2.35	0.52
7:Ce:6072:ILE:HG23	7:Ce:6152:MET:HE1	1.91	0.52
1:Ao:1048:ARG:HG3	1:Ao:1048:ARG:NH1	2.24	0.52
3:Ay:3000:MET:HE2	3:Ay:3002:GLN:NE2	2.24	0.52
6:BV:8188:GLU:CD	6:BV:8190:GLN:HB2	2.35	0.52
6:CN:8054:THR:HG23	6:CN:8057:TRP:HB3	1.92	0.52
6:CN:8145:VAL:HG22	6:CN:8149:ARG:HD2	1.92	0.52
6:AN:8046:PRO:HB2	6:AN:8047:PRO:HD2	1.92	0.52
6:AN:8181:ARG:O	6:AN:8184:LEU:HB2	2.09	0.52
4:Az:4019:TRP:HB2	4:Az:4021:MET:SD	2.50	0.52
6:BV:8054:THR:HG23	6:BV:8057:TRP:HB2	1.91	0.52
6:Bd:8185:LYS:N	6:Bd:8187:ASP:HB2	2.21	0.52
6:Bl:8135:PRO:C	6:Bl:8137:THR:H	2.16	0.52
6:B2:8135:PRO:C	6:B2:8137:THR:H	2.16	0.52
6:B2:8185:LYS:N	6:B2:8187:ASP:HB2	2.22	0.52
3:CC:3000:MET:HE2	3:CC:3002:GLN:NE2	2.24	0.52
6:CN:8054:THR:HG23	6:CN:8057:TRP:HB2	1.92	0.52
1:CY:1050:PRO:HG3	6:Cd:8159:HIS:HB2	1.92	0.52
6:Cl:8125:LEU:HA	6:Cl:8128:LEU:HD12	1.92	0.52
2:Cp:2043:LYS:CG	2:Cp:2067:TRP:HB3	2.40	0.52
2:AJ:2034:GLN:HG2	2:AJ:2048:ARG:HG3	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:2023:SER:O	2:AB:2027:GLN:HG3	2.09	0.52
3:AI:3000:MET:HE2	3:AI:3002:GLN:NE2	2.24	0.52
6:AI:8199:LEU:HB2	6:AI:8215:ILE:HD13	1.91	0.52
6:A2:8044:GLU:OE1	6:A2:8044:GLU:HA	2.10	0.52
6:BF:8188:GLU:CD	6:BF:8190:GLN:HB2	2.35	0.52
2:BZ:2096:LEU:HB3	6:Bd:8036:THR:HG22	1.91	0.52
6:Bt:8200:THR:O	6:Bt:8204:GLN:HB2	2.10	0.52
6:CF:8185:LYS:N	6:CF:8187:ASP:HB2	2.21	0.52
1:CI:1049:GLU:OE2	6:CN:8117:THR:HB	2.10	0.52
3:CK:3000:MET:HE2	3:CK:3002:GLN:NE2	2.25	0.52
5:AE:7005:SER:O	5:AE:7007:LEU:N	2.43	0.51
7:A3:6048:LEU:HD22	6:BF:8050:CYS:HA	1.92	0.51
1:BI:1043:MET:HE1	7:BO:6073:TYR:CE2	2.45	0.51
6:BN:8135:PRO:C	6:BN:8137:THR:H	2.16	0.51
6:Bd:8177:CYS:HA	6:Bd:8180:LEU:HB2	1.91	0.51
6:Bt:8135:PRO:C	6:Bt:8137:THR:H	2.16	0.51
2:Bx:2065:GLU:O	2:Bx:2075:ASP:HA	2.10	0.51
7:CG:6081:GLU:O	8:CH:5064:MET:HE1	2.10	0.51
4:Cb:4019:TRP:HB2	4:Cb:4021:MET:SD	2.51	0.51
6:AF:8124:LEU:HA	6:AF:8127:MET:HE2	1.93	0.51
6:AI:8184:LEU:HD22	6:AI:8192:ALA:HB2	1.90	0.51
2:BR:2034:GLN:HG2	2:BR:2048:ARG:HG3	1.93	0.51
2:BZ:2092:LEU:HD22	4:Bb:4053:LEU:HG	1.92	0.51
2:Bp:2097:ILE:HG22	6:Bt:8037:LEU:HB3	1.92	0.51
7:CG:6072:ILE:CG2	7:CG:6152:MET:HE1	2.40	0.51
6:CN:8199:LEU:HB2	6:CN:8215:ILE:HD13	1.91	0.51
6:Cd:8143:HIS:C	6:Cd:8145:VAL:H	2.17	0.51
6:AN:8131:TRP:O	6:AN:8135:PRO:HG3	2.10	0.51
6:AF:8072:VAL:HG13	6:AF:8114:LEU:HD21	1.91	0.51
2:AR:2023:SER:O	2:AR:2027:GLN:HG3	2.10	0.51
6:At:8211:PHE:O	6:At:8212:LYS:C	2.54	0.51
7:Au:6072:ILE:HG23	7:Au:6152:MET:HE1	1.91	0.51
6:BF:8135:PRO:C	6:BF:8137:THR:H	2.17	0.51
2:Bh:2092:LEU:HD22	4:Bj:4053:LEU:HG	1.93	0.51
2:CB:2096:LEU:HB3	6:CF:8036:THR:HG22	1.91	0.51
6:CF:8184:LEU:HD22	6:CF:8192:ALA:HB2	1.91	0.51
6:CN:8046:PRO:HB2	6:CN:8047:PRO:HD2	1.91	0.51
2:Ch:2023:SER:O	2:Ch:2027:GLN:HG3	2.09	0.51
6:Ad:8188:GLU:CD	6:Ad:8190:GLN:HB2	2.36	0.51
2:Bh:2065:GLU:O	2:Bh:2075:ASP:HA	2.10	0.51
6:CN:8203:VAL:HG13	6:CN:8209:ASN:HA	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Ch:2034:GLN:HG2	2:Ch:2048:ARG:HG3	1.92	0.51
6:At:8199:LEU:HB2	6:At:8215:ILE:HD13	1.92	0.51
6:A2:8128:LEU:HD22	6:A2:8151:LEU:HG	1.93	0.51
6:Bd:8140:ASP:HB3	6:Bd:8143:HIS:HB3	1.92	0.51
2:CJ:2075:ASP:O	6:CN:8171:ARG:HD3	2.11	0.51
3:Cq:3063:ILE:HG22	4:Cr:4067:ARG:HB3	1.93	0.51
2:AB:2034:GLN:HG2	2:AB:2048:ARG:HG3	1.92	0.51
3:Aq:3063:ILE:HG22	4:Ar:4067:ARG:HB3	1.93	0.51
3:BC:3000:MET:HE2	3:BC:3002:GLN:NE2	2.24	0.51
6:Bt:8184:LEU:HD22	6:Bt:8192:ALA:HB2	1.91	0.51
6:B2:8171:ARG:HD3	2:Bx:2075:ASP:O	2.11	0.51
4:CD:4019:TRP:HB2	4:CD:4021:MET:SD	2.51	0.51
4:CT:4019:TRP:HB2	4:CT:4021:MET:SD	2.51	0.51
2:CZ:2097:ILE:HG22	6:Cd:8037:LEU:HB3	1.92	0.51
6:AN:8188:GLU:CD	6:AN:8190:GLN:HB2	2.36	0.51
3:AC:3000:MET:HE2	3:AC:3002:GLN:NE2	2.25	0.51
3:AS:3000:MET:HE2	3:AS:3002:GLN:NE2	2.25	0.51
4:BD:4019:TRP:HB2	4:BD:4021:MET:SD	2.51	0.51
2:BR:2074:LYS:HD3	6:BV:8168:SER:OG	2.11	0.51
3:BS:3000:MET:HE2	3:BS:3002:GLN:NE2	2.25	0.51
7:Bm:6081:GLU:HA	7:Bm:6087:GLY:HA3	1.93	0.51
2:Bp:2040:ARG:NE	4:Br:4019:TRP:HZ2	1.99	0.51
2:CZ:2043:LYS:HE2	2:CZ:2067:TRP:CD2	2.46	0.51
4:Ar:4019:TRP:HB2	4:Ar:4021:MET:SD	2.50	0.51
2:BB:2097:ILE:HG22	6:BF:8037:LEU:HB3	1.93	0.51
6:BV:8203:VAL:HG22	6:BV:8211:PHE:HB2	1.92	0.51
2:BZ:2065:GLU:O	2:BZ:2075:ASP:HA	2.11	0.51
3:Bi:3063:ILE:HG22	4:Bj:4067:ARG:HB3	1.92	0.51
2:Bx:2034:GLN:HG2	2:Bx:2048:ARG:HG3	1.92	0.51
1:CA:1048:ARG:HG3	1:CA:1048:ARG:NH1	2.26	0.51
6:CF:8054:THR:HG23	6:CF:8057:TRP:HB2	1.93	0.51
8:Cv:5063:ILE:HG22	8:Cv:5064:MET:HG3	1.93	0.51
7:AO:6043:TRP:CZ3	7:AO:6045:PRO:HG3	2.46	0.51
5:Ak:7011:TYR:O	5:Ak:7015:VAL:HG22	2.10	0.51
3:Aq:3000:MET:HE2	3:Aq:3002:GLN:NE2	2.25	0.51
3:BC:3063:ILE:HG22	4:BD:4067:ARG:HB3	1.93	0.51
6:BV:8133:GLN:HG3	6:BV:8176:THR:HG21	1.92	0.51
2:Bp:2034:GLN:HG2	2:Bp:2048:ARG:HG3	1.92	0.51
6:CF:8162:LEU:HD23	6:CF:8166:VAL:HB	1.92	0.51
6:Cd:8046:PRO:HB2	6:Cd:8047:PRO:HD2	1.91	0.51
3:Ci:3063:ILE:HG22	4:Cj:4067:ARG:HB3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Cl:8054:THR:HG23	6:Cl:8057:TRP:HB2	1.92	0.51
2:AB:2043:LYS:HD3	2:AB:2067:TRP:CE3	2.46	0.51
6:Bl:8131:TRP:O	6:Bl:8135:PRO:HG3	2.11	0.51
1:Bw:1048:ARG:HG3	1:Bw:1048:ARG:NH1	2.26	0.51
6:Cd:8054:THR:HG23	6:Cd:8057:TRP:HB2	1.93	0.51
3:Cq:3038:GLU:HB3	6:Ct:8011:PHE:HE1	1.75	0.51
7:AG:6043:TRP:CZ3	7:AG:6045:PRO:HG3	2.46	0.50
2:AR:2077:TYR:CD1	6:AV:8210:ASP:HB3	2.46	0.50
3:Aa:3000:MET:HE2	3:Aa:3002:GLN:NE2	2.26	0.50
2:Ap:2023:SER:O	2:Ap:2027:GLN:HG3	2.10	0.50
6:BV:8046:PRO:HB2	6:BV:8047:PRO:HD2	1.92	0.50
6:BV:8177:CYS:HA	6:BV:8180:LEU:HB2	1.92	0.50
6:Bt:8177:CYS:HA	6:Bt:8180:LEU:HB2	1.92	0.50
7:CO:6072:ILE:HG23	7:CO:6152:MET:HE1	1.92	0.50
1:CQ:1053:LEU:CD2	7:CW:6065:SER:HB2	2.41	0.50
6:CV:8046:PRO:HB2	6:CV:8047:PRO:HD2	1.91	0.50
1:Cg:1043:MET:HE1	7:Cm:6073:TYR:CE2	2.47	0.50
6:Cl:8046:PRO:HB2	6:Cl:8047:PRO:HD2	1.92	0.50
6:Ct:8046:PRO:HB2	6:Ct:8047:PRO:HD2	1.92	0.50
6:Ct:8054:THR:HG23	6:Ct:8057:TRP:HB2	1.92	0.50
7:AO:6072:ILE:HG23	7:AO:6152:MET:HE1	1.92	0.50
6:Al:8054:THR:HG23	6:Al:8057:TRP:HB2	1.92	0.50
2:BJ:2034:GLN:HG2	2:BJ:2048:ARG:HG3	1.93	0.50
3:Bi:3000:MET:HE2	3:Bi:3002:GLN:NE2	2.27	0.50
4:Bz:4019:TRP:HB2	4:Bz:4021:MET:SD	2.51	0.50
2:CB:2075:ASP:O	6:CF:8171:ARG:HD3	2.12	0.50
2:CR:2023:SER:O	2:CR:2027:GLN:HG3	2.10	0.50
2:AR:2092:LEU:HD22	4:AT:4053:LEU:HG	1.93	0.50
2:AZ:2065:GLU:O	2:AZ:2075:ASP:HA	2.11	0.50
1:Ao:1043:MET:HE1	7:Au:6073:TYR:CE2	2.47	0.50
2:Ap:2092:LEU:HD22	4:Ar:4053:LEU:HG	1.94	0.50
3:BK:3063:ILE:HG22	4:BL:4067:ARG:HB3	1.93	0.50
3:Ba:3063:ILE:HG22	4:Bb:4067:ARG:HB3	1.93	0.50
3:Bq:3063:ILE:HG22	4:Br:4067:ARG:HB3	1.93	0.50
6:CF:8177:CYS:HA	6:CF:8180:LEU:HB2	1.93	0.50
6:AN:8184:LEU:HD22	6:AN:8192:ALA:HB2	1.91	0.50
3:AS:3063:ILE:HG22	4:AT:4067:ARG:HB3	1.93	0.50
1:AY:1048:ARG:HH11	1:AY:1048:ARG:HG3	1.76	0.50
2:Ah:2040:ARG:NH1	7:Am:6166:ASP:O	2.43	0.50
3:BK:3000:MET:HE2	3:BK:3002:GLN:NE2	2.25	0.50
6:BV:8145:VAL:HG22	6:BV:8149:ARG:HD2	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BY:1048:ARG:HG3	1:BY:1048:ARG:NH1	2.26	0.50
6:Bt:8188:GLU:CD	6:Bt:8190:GLN:HB2	2.36	0.50
4:AL:4002:LYS:HB2	4:AL:4003:PRO:HD3	1.93	0.50
4:AD:4019:TRP:HB2	4:AD:4021:MET:SD	2.50	0.50
2:AZ:2040:ARG:HA	2:AZ:2089:ILE:HD11	1.93	0.50
6:Ad:8177:CYS:HA	6:Ad:8180:LEU:HB2	1.92	0.50
6:A2:8177:CYS:HB2	6:A2:8195:TYR:HD1	1.76	0.50
2:Ax:2065:GLU:O	2:Ax:2075:ASP:HA	2.11	0.50
6:Bd:8135:PRO:C	6:Bd:8137:THR:H	2.18	0.50
3:Bq:3000:MET:HE2	3:Bq:3002:GLN:NE2	2.27	0.50
2:CB:2023:SER:O	2:CB:2027:GLN:HG3	2.10	0.50
3:CC:3063:ILE:HG22	4:CD:4067:ARG:HB3	1.93	0.50
7:Ce:6072:ILE:CG2	7:Ce:6152:MET:HE1	2.41	0.50
1:Co:1048:ARG:HG3	1:Co:1048:ARG:NH1	2.26	0.50
2:Cp:2034:GLN:HG2	2:Cp:2048:ARG:HG3	1.93	0.50
3:AC:3063:ILE:HG22	4:AD:4067:ARG:HB3	1.94	0.50
6:AV:8177:CYS:HB2	6:AV:8195:TYR:HB3	1.94	0.50
2:BR:2097:ILE:HG22	6:BV:8037:LEU:HB3	1.93	0.50
6:Bl:8177:CYS:HA	6:Bl:8180:LEU:HB2	1.92	0.50
6:B2:8177:CYS:HA	6:B2:8180:LEU:HB2	1.93	0.50
3:CK:3063:ILE:HG22	4:CL:4067:ARG:HB3	1.93	0.50
6:Ct:8177:CYS:HB2	6:Ct:8195:TYR:HD1	1.77	0.50
2:AR:2074:LYS:HD3	6:AV:8168:SER:OG	2.11	0.50
2:AZ:2019:THR:O	6:Ad:8022:THR:HG21	2.11	0.50
6:Ad:8044:GLU:OE1	6:Ad:8044:GLU:HA	2.12	0.50
6:Ad:8160:LEU:HA	6:Ad:8161:PRO:C	2.36	0.50
2:Ah:2065:GLU:O	2:Ah:2075:ASP:HA	2.11	0.50
2:BB:2040:ARG:NH1	7:BG:6166:ASP:O	2.44	0.50
3:By:3063:ILE:HG22	4:Bz:4067:ARG:HB3	1.93	0.50
6:CN:8184:LEU:HD23	6:CN:8187:ASP:HB3	1.94	0.50
2:CR:2065:GLU:O	2:CR:2075:ASP:HA	2.10	0.50
3:CS:3063:ILE:HG22	4:CT:4067:ARG:HB3	1.93	0.50
6:Cl:8171:ARG:NH1	6:Cl:8208:GLN:OE1	2.44	0.50
7:AG:6072:ILE:HG23	7:AG:6152:MET:HE1	1.94	0.50
3:Aa:3063:ILE:HG22	4:Ab:4067:ARG:HB3	1.93	0.50
4:Aj:4019:TRP:HB2	4:Aj:4021:MET:SD	2.52	0.50
7:Am:6081:GLU:O	8:An:5064:MET:HE1	2.12	0.50
4:BL:4019:TRP:HB2	4:BL:4021:MET:SD	2.52	0.50
6:BN:8131:TRP:O	6:BN:8135:PRO:HG3	2.12	0.50
3:BS:3063:ILE:HG22	4:BT:4067:ARG:HB3	1.93	0.50
6:BV:8184:LEU:HD22	6:BV:8192:ALA:HB2	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:BZ:2034:GLN:HG2	2:BZ:2048:ARG:HG3	1.93	0.50
3:Ba:3000:MET:HE2	3:Ba:3002:GLN:NE2	2.27	0.50
6:Bd:8131:TRP:O	6:Bd:8135:PRO:HG3	2.11	0.50
6:Bl:8184:LEU:HD22	6:Bl:8192:ALA:HB2	1.93	0.50
1:Bo:1048:ARG:HG3	1:Bo:1048:ARG:NH1	2.27	0.50
2:BR:2065:GLU:O	2:BR:2075:ASP:HA	2.11	0.50
4:BT:4019:TRP:HB2	4:BT:4021:MET:SD	2.52	0.50
6:BV:8131:TRP:O	6:BV:8135:PRO:HG3	2.12	0.50
7:BW:6072:ILE:CG2	7:BW:6152:MET:HE1	2.41	0.50
4:Br:4019:TRP:HB2	4:Br:4021:MET:SD	2.52	0.50
1:CY:1018:LYS:HA	1:CY:1064:ARG:HD2	1.93	0.50
3:Ca:3063:ILE:HG22	4:Cb:4067:ARG:HB3	1.93	0.50
1:Cg:1024:HIS:HB3	6:Cl:8161:PRO:HD3	1.94	0.50
2:AJ:2040:ARG:HA	2:AJ:2089:ILE:HD11	1.93	0.49
2:AJ:2065:GLU:O	2:AJ:2075:ASP:HA	2.12	0.49
1:AA:1053:LEU:CD2	7:AG:6065:SER:HB2	2.42	0.49
6:AV:8065:PHE:CE1	6:AV:8156:VAL:HG12	2.47	0.49
6:Ad:8184:LEU:HD22	6:Ad:8192:ALA:HB2	1.93	0.49
2:BJ:2043:LYS:HG2	2:BJ:2067:TRP:CB	2.37	0.49
7:Bu:6066:SER:O	7:Bu:6067:ASN:O	2.30	0.49
6:B2:8131:TRP:O	6:B2:8135:PRO:HG3	2.11	0.49
6:CF:8046:PRO:HB2	6:CF:8047:PRO:HD2	1.92	0.49
7:CG:6081:GLU:HA	7:CG:6087:GLY:HA3	1.94	0.49
5:Cc:7005:SER:O	5:Cc:7007:LEU:N	2.45	0.49
4:Cr:4031:ASP:HA	6:Ct:8020:VAL:HG22	1.94	0.49
3:Ai:3063:ILE:HG22	4:Aj:4067:ARG:HB3	1.94	0.49
6:Al:8044:GLU:HA	6:Al:8044:GLU:OE1	2.12	0.49
6:Bd:8188:GLU:CD	6:Bd:8190:GLN:HB2	2.37	0.49
1:Bg:1048:ARG:HG3	1:Bg:1048:ARG:NH1	2.27	0.49
2:Bh:2034:GLN:HG2	2:Bh:2048:ARG:HG3	1.94	0.49
6:Bt:8054:THR:HG23	6:Bt:8057:TRP:HB2	1.93	0.49
1:CY:1043:MET:HE1	7:Ce:6073:TYR:CE2	2.48	0.49
4:Cj:4019:TRP:HB2	4:Cj:4021:MET:SD	2.52	0.49
2:Cp:2092:LEU:HD22	4:Cr:4053:LEU:HG	1.95	0.49
7:AG:6018:ASN:HD22	7:AG:6018:ASN:C	2.21	0.49
7:Ae:6043:TRP:CZ3	7:Ae:6045:PRO:HG3	2.47	0.49
6:A2:8131:TRP:O	6:A2:8135:PRO:HG3	2.12	0.49
6:A2:8177:CYS:HA	6:A2:8180:LEU:HB2	1.93	0.49
7:A3:6043:TRP:CZ3	7:A3:6045:PRO:HG3	2.47	0.49
3:Ay:3063:ILE:HG22	4:Az:4067:ARG:HB3	1.94	0.49
6:Bl:8054:THR:HG23	6:Bl:8057:TRP:HB2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:B3:6081:GLU:HA	7:B3:6087:GLY:HA3	1.94	0.49
7:CO:6072:ILE:CG2	7:CO:6152:MET:HE1	2.42	0.49
2:CZ:2023:SER:O	2:CZ:2027:GLN:HG3	2.11	0.49
6:Cd:8177:CYS:HA	6:Cd:8180:LEU:HB2	1.94	0.49
1:Cg:1053:LEU:CD2	7:Cm:6065:SER:HB2	2.42	0.49
7:Cu:6081:GLU:HA	7:Cu:6087:GLY:HA3	1.95	0.49
2:AZ:2034:GLN:HG2	2:AZ:2048:ARG:HG3	1.94	0.49
1:Ag:1053:LEU:CD2	7:Am:6065:SER:HB2	2.42	0.49
5:BE:7005:SER:HB3	5:BE:7009:LYS:HG3	1.93	0.49
7:BG:6072:ILE:HG23	7:BG:6152:MET:HE1	1.93	0.49
7:B3:6066:SER:O	7:B3:6067:ASN:O	2.30	0.49
2:Cp:2077:TYR:CE2	6:Ct:8209:ASN:HB2	2.48	0.49
7:Cu:6072:ILE:CG2	7:Cu:6152:MET:HE1	2.42	0.49
2:Ap:2019:THR:O	6:At:8022:THR:HG21	2.13	0.49
7:Au:6066:SER:O	7:Au:6067:ASN:O	2.31	0.49
6:BN:8046:PRO:HB2	6:BN:8047:PRO:HD2	1.94	0.49
4:Bb:4019:TRP:HB2	4:Bb:4021:MET:SD	2.52	0.49
6:Bd:8054:THR:HG23	6:Bd:8057:TRP:HB2	1.94	0.49
7:Be:6065:SER:OG	7:Be:6066:SER:N	2.46	0.49
7:Be:6066:SER:O	7:Be:6067:ASN:O	2.31	0.49
2:Bp:2092:LEU:HD22	4:Br:4053:LEU:HG	1.94	0.49
6:B2:8188:GLU:CD	6:B2:8190:GLN:HB2	2.37	0.49
1:CI:1048:ARG:HG3	1:CI:1048:ARG:NH1	2.27	0.49
7:CO:6081:GLU:HA	7:CO:6087:GLY:HA3	1.95	0.49
6:CV:8131:TRP:O	6:CV:8135:PRO:HG3	2.13	0.49
1:CY:1053:LEU:CD2	7:Ce:6065:SER:HB2	2.43	0.49
6:AN:8181:ARG:HA	6:AN:8184:LEU:HD12	1.95	0.49
3:AS:3038:GLU:HB3	6:AV:8011:PHE:HE1	1.78	0.49
6:AV:8131:TRP:O	6:AV:8135:PRO:HG3	2.13	0.49
1:Ag:1064:ARG:NH2	2:Ah:2040:ARG:HB3	2.28	0.49
6:BF:8131:TRP:O	6:BF:8135:PRO:HG3	2.12	0.49
2:BZ:2043:LYS:HG2	2:BZ:2067:TRP:HB3	1.95	0.49
7:Be:6081:GLU:HA	7:Be:6087:GLY:HA3	1.95	0.49
2:Bh:2075:ASP:O	6:Bl:8171:ARG:HD3	2.12	0.49
1:Bo:1043:MET:HE1	7:Bu:6073:TYR:CE2	2.47	0.49
6:Bt:8145:VAL:HG22	6:Bt:8149:ARG:HG3	1.93	0.49
2:Bx:2092:LEU:HD22	4:Bz:4053:LEU:HG	1.95	0.49
2:CJ:2092:LEU:HD22	4:CL:4053:LEU:HG	1.95	0.49
6:Cl:8133:GLN:HG3	6:Cl:8176:THR:HG21	1.95	0.49
3:AK:3063:ILE:HG22	4:AL:4067:ARG:HB3	1.94	0.49
6:AN:8044:GLU:OE1	6:AN:8044:GLU:HA	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AV:8181:ARG:O	6:AV:8184:LEU:HB2	2.13	0.49
1:Ag:1048:ARG:HG3	1:Ag:1048:ARG:NH1	2.26	0.49
5:Ak:7005:SER:HB3	5:Ak:7008:VAL:HG22	1.94	0.49
6:Al:8131:TRP:O	6:Al:8135:PRO:HG3	2.13	0.49
2:Ap:2034:GLN:HG2	2:Ap:2048:ARG:HG3	1.94	0.49
6:A2:8132:LEU:O	6:A2:8135:PRO:HD3	2.13	0.49
7:BW:6066:SER:O	7:BW:6067:ASN:O	2.31	0.49
7:Be:6072:ILE:HG23	7:Be:6152:MET:HE1	1.93	0.49
6:Bl:8046:PRO:HB2	6:Bl:8047:PRO:HD2	1.94	0.49
2:AB:2065:GLU:O	2:AB:2075:ASP:HA	2.11	0.49
7:AW:6072:ILE:CG2	7:AW:6152:MET:HE1	2.42	0.49
6:Ad:8131:TRP:O	6:Ad:8135:PRO:HG3	2.13	0.49
6:Al:8181:ARG:O	6:Al:8184:LEU:HB2	2.13	0.49
7:BG:6081:GLU:O	8:BH:5064:MET:HE1	2.13	0.49
1:BQ:1053:LEU:CD2	7:BW:6065:SER:HB2	2.43	0.49
1:CQ:1048:ARG:HG3	1:CQ:1048:ARG:NH1	2.27	0.49
7:Ce:6081:GLU:O	8:Cf:5064:MET:HE1	2.13	0.49
6:Ct:8188:GLU:CD	6:Ct:8190:GLN:HB2	2.38	0.49
1:Al:1050:PRO:HG3	6:AN:8159:HIS:HB2	1.93	0.49
7:AO:6081:GLU:HA	7:AO:6087:GLY:HA3	1.95	0.49
6:AV:8209:ASN:HB3	6:AV:8212:LYS:HE3	1.95	0.49
7:AW:6081:GLU:HA	7:AW:6087:GLY:HA3	1.95	0.49
1:AY:1050:PRO:HG3	6:Ad:8159:HIS:HB2	1.93	0.49
7:Am:6043:TRP:CZ3	7:Am:6045:PRO:HG3	2.48	0.49
2:Ap:2065:GLU:O	2:Ap:2075:ASP:HA	2.12	0.49
6:At:8184:LEU:HD22	6:At:8192:ALA:HB2	1.94	0.49
6:BF:8203:VAL:O	6:BF:8207:ALA:HA	2.13	0.49
6:BN:8188:GLU:CD	6:BN:8190:GLN:HB2	2.38	0.49
1:BQ:1048:ARG:HG3	1:BQ:1048:ARG:NH1	2.27	0.49
2:CJ:2040:ARG:HA	2:CJ:2089:ILE:HD11	1.94	0.49
6:CV:8188:GLU:CD	6:CV:8190:GLN:HB2	2.38	0.49
5:As:7004:ASP:OD2	6:At:8111:SER:HB3	2.13	0.49
6:A2:8181:ARG:O	6:A2:8184:LEU:HB2	2.13	0.49
4:Az:4016:LYS:HG2	4:Az:4064:LEU:HD23	1.95	0.49
6:CN:8177:CYS:HA	6:CN:8180:LEU:HB2	1.95	0.49
6:CV:8054:THR:HG23	6:CV:8057:TRP:HB2	1.94	0.49
2:AR:2034:GLN:HG2	2:AR:2048:ARG:HG3	1.95	0.48
3:Aa:3038:GLU:HB3	6:Ad:8011:PHE:HE1	1.78	0.48
4:Ab:4016:LYS:HG2	4:Ab:4064:LEU:HD23	1.95	0.48
1:BA:1048:ARG:HG3	1:BA:1048:ARG:NH1	2.26	0.48
6:BN:8054:THR:HG23	6:BN:8057:TRP:HB2	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:BR:2077:TYR:CD1	6:BV:8210:ASP:HB3	2.47	0.48
7:CO:6068:PRO:CD	7:CO:6069:ARG:H	2.17	0.48
7:Cm:6068:PRO:CD	7:Cm:6069:ARG:H	2.17	0.48
2:Cp:2040:ARG:HA	2:Cp:2089:ILE:HD11	1.95	0.48
6:AF:8108:PRO:HB2	6:AF:8153:ALA:CB	2.43	0.48
6:AF:8131:TRP:O	6:AF:8135:PRO:HG3	2.13	0.48
2:AR:2065:GLU:O	2:AR:2075:ASP:HA	2.12	0.48
7:AW:6043:TRP:CZ3	7:AW:6045:PRO:HG3	2.48	0.48
7:Ae:6081:GLU:HA	7:Ae:6087:GLY:HA3	1.95	0.48
1:Ao:1053:LEU:CD2	7:Au:6065:SER:HB2	2.43	0.48
7:Au:6072:ILE:CG2	7:Au:6152:MET:HE1	2.43	0.48
7:A3:6165:SER:C	2:Ax:2040:ARG:HH22	2.22	0.48
2:BJ:2092:LEU:HD22	4:BL:4053:LEU:HG	1.95	0.48
7:CW:6072:ILE:HG23	7:CW:6152:MET:HE1	1.94	0.48
6:Cl:8132:LEU:O	6:Cl:8135:PRO:HD3	2.13	0.48
6:Cl:8188:GLU:CD	6:Cl:8190:GLN:HB2	2.38	0.48
1:BA:1064:ARG:HD3	2:BB:2041:ASN:HB3	1.95	0.48
4:BD:4000:ASN:ND2	6:BF:8010:MET:HB2	2.27	0.48
3:BK:3038:GLU:HB3	6:BN:8011:PHE:HE1	1.78	0.48
7:BO:6081:GLU:HA	7:BO:6087:GLY:HA3	1.95	0.48
6:Ct:8197:LEU:O	6:Ct:8201:LEU:HG	2.13	0.48
6:AV:8199:LEU:HB2	6:AV:8215:ILE:HD13	1.95	0.48
2:Ah:2043:LYS:HG2	2:Ah:2067:TRP:CB	2.39	0.48
7:A3:6082:TRP:N	7:A3:6086:TYR:O	2.38	0.48
6:BV:8044:GLU:OE1	6:BV:8044:GLU:HA	2.13	0.48
4:Bj:4019:TRP:HB2	4:Bj:4021:MET:SD	2.53	0.48
7:B3:6043:TRP:CZ3	7:B3:6045:PRO:HG3	2.48	0.48
6:CV:8132:LEU:O	6:CV:8135:PRO:HD3	2.14	0.48
7:Ce:6081:GLU:HA	7:Ce:6087:GLY:HA3	1.96	0.48
1:AI:1053:LEU:CD2	7:AO:6065:SER:HB2	2.44	0.48
6:AV:8188:GLU:OE2	6:AV:8190:GLN:HB2	2.11	0.48
2:AZ:2092:LEU:HD22	4:Ab:4053:LEU:HG	1.95	0.48
6:At:8181:ARG:O	6:At:8184:LEU:HB2	2.14	0.48
6:BF:8044:GLU:OE1	6:BF:8044:GLU:HA	2.13	0.48
3:Bq:3038:GLU:HB3	6:Bt:8011:PHE:CE1	2.48	0.48
7:Bu:6081:GLU:HA	7:Bu:6087:GLY:HA3	1.96	0.48
6:AF:8132:LEU:O	6:AF:8135:PRO:HD3	2.14	0.48
6:Ad:8132:LEU:O	6:Ad:8135:PRO:HD3	2.14	0.48
1:Ao:1042:LYS:HD3	1:Ao:1052:GLN:HG3	1.94	0.48
7:BO:6043:TRP:CZ3	7:BO:6045:PRO:HG3	2.48	0.48
6:Bt:8168:SER:O	6:Bt:8172:TYR:HD2	1.97	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CN:8131:TRP:O	6:CN:8135:PRO:HG3	2.14	0.48
6:AN:8209:ASN:C	6:AN:8211:PHE:N	2.69	0.48
5:AE:7003:ASP:O	5:AE:7006:LEU:HB2	2.13	0.48
6:At:8122:GLU:HG2	6:At:8166:VAL:HG21	1.96	0.48
6:BF:8054:THR:HG23	6:BF:8057:TRP:HB2	1.95	0.48
6:BF:8113:LEU:HD13	6:BF:8116:LEU:HD12	1.96	0.48
7:BG:6043:TRP:CZ3	7:BG:6045:PRO:HG3	2.49	0.48
8:BX:5030:ASP:HB2	8:BX:5031:PRO:HD2	1.96	0.48
6:Bl:8132:LEU:O	6:Bl:8135:PRO:HD3	2.14	0.48
1:Cl:1043:MET:HE1	7:CO:6073:TYR:CE2	2.49	0.48
6:AF:8044:GLU:OE1	6:AF:8044:GLU:HA	2.13	0.48
6:AF:8185:LYS:N	6:AF:8187:ASP:HB2	2.21	0.48
6:AV:8133:GLN:HG3	6:AV:8176:THR:HG21	1.96	0.48
5:Ac:7011:TYR:O	5:Ac:7015:VAL:HG22	2.14	0.48
6:At:8185:LYS:N	6:At:8187:ASP:HB2	2.21	0.48
6:A2:8188:GLU:CD	6:A2:8190:GLN:HB2	2.39	0.48
1:Bg:1053:LEU:CD2	7:Bm:6065:SER:HB2	2.43	0.48
7:Bu:6072:ILE:CG2	7:Bu:6152:MET:HE1	2.43	0.48
7:Cm:6066:SER:O	7:Cm:6067:ASN:O	2.31	0.48
6:Ct:8125:LEU:HD13	6:Ct:8158:LEU:HD11	1.96	0.48
6:Ct:8131:TRP:O	6:Ct:8135:PRO:HG3	2.14	0.48
6:Ct:8181:ARG:O	6:Ct:8184:LEU:HB2	2.14	0.48
4:AL:4016:LYS:HG2	4:AL:4064:LEU:HD23	1.96	0.48
6:At:8124:LEU:HA	6:At:8127:MET:HE2	1.96	0.48
7:A3:6065:SER:HB2	1:Aw:1053:LEU:CD2	2.44	0.48
1:Aw:1048:ARG:HG3	1:Aw:1048:ARG:NH1	2.27	0.48
2:Ax:2040:ARG:HB2	2:Ax:2087:SER:O	2.14	0.48
7:BO:6081:GLU:N	8:BP:5064:MET:HE1	2.19	0.48
7:Bm:6066:SER:O	7:Bm:6067:ASN:O	2.32	0.48
6:B2:8054:THR:HG23	6:B2:8057:TRP:HB2	1.95	0.48
6:B2:8132:LEU:O	6:B2:8135:PRO:HD3	2.14	0.48
6:B2:8184:LEU:HD23	6:B2:8187:ASP:HB3	1.95	0.48
1:CA:1053:LEU:CD2	7:CG:6065:SER:HB2	2.44	0.48
6:Cd:8181:ARG:O	6:Cd:8184:LEU:HB2	2.14	0.48
6:AF:8160:LEU:HA	6:AF:8162:LEU:HD13	1.96	0.48
1:AY:1053:LEU:CD2	7:Ae:6065:SER:HB2	2.44	0.48
6:At:8044:GLU:OE1	6:At:8044:GLU:HA	2.14	0.48
4:BD:4016:LYS:HG2	4:BD:4064:LEU:HD23	1.96	0.48
6:Bd:8178:ILE:HG13	6:Bd:8199:LEU:HD21	1.96	0.48
7:CO:6066:SER:O	7:CO:6067:ASN:O	2.32	0.48
4:CT:4000:ASN:ND2	6:CV:8010:MET:HB2	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Cg:1048:ARG:HG3	1:Cg:1048:ARG:NH1	2.28	0.48
2:Ch:2040:ARG:NH1	7:Cm:6166:ASP:O	2.46	0.48
6:Cl:8131:TRP:O	6:Cl:8135:PRO:HG3	2.14	0.48
6:Ct:8044:GLU:OE1	6:Ct:8044:GLU:HA	2.14	0.48
4:Aj:4016:LYS:HG2	4:Aj:4064:LEU:HD23	1.96	0.47
4:Bb:4030:VAL:HG12	4:Bb:4031:ASP:N	2.29	0.47
7:B3:6072:ILE:CG2	7:B3:6152:MET:HE1	2.43	0.47
6:CF:8168:SER:HA	6:CF:8171:ARG:HD3	1.96	0.47
1:CI:1053:LEU:CD2	7:CO:6065:SER:HB2	2.43	0.47
6:Cd:8132:LEU:O	6:Cd:8135:PRO:HD3	2.14	0.47
1:AQ:1048:ARG:HG3	1:AQ:1048:ARG:NH1	2.27	0.47
6:BF:8177:CYS:HA	6:BF:8180:LEU:HB2	1.95	0.47
2:BR:2092:LEU:HD22	4:BT:4053:LEU:HG	1.96	0.47
7:BW:6043:TRP:CZ3	7:BW:6045:PRO:HG3	2.49	0.47
6:Bl:8152:TYR:O	6:Bl:8156:VAL:HG12	2.14	0.47
6:Bt:8184:LEU:HD23	6:Bt:8187:ASP:HB3	1.96	0.47
6:B2:8181:ARG:O	6:B2:8184:LEU:HB2	2.14	0.47
6:CV:8177:CYS:HA	6:CV:8180:LEU:HB2	1.96	0.47
6:Cd:8178:ILE:HG13	6:Cd:8199:LEU:HD21	1.96	0.47
4:AT:4016:LYS:HG2	4:AT:4064:LEU:HD23	1.96	0.47
2:Ap:2064:LYS:HE3	2:Ap:2075:ASP:OD2	2.13	0.47
6:At:8170:LEU:HA	6:At:8173:ILE:HD12	1.96	0.47
2:BB:2043:LYS:HG2	2:BB:2067:TRP:CB	2.39	0.47
3:Bi:3006:LEU:HD11	8:Bn:5054:MET:HG2	1.95	0.47
6:Bt:8181:ARG:O	6:Bt:8184:LEU:HB2	2.14	0.47
4:CD:4000:ASN:ND2	6:CF:8010:MET:HB2	2.30	0.47
7:CW:6081:GLU:HA	7:CW:6087:GLY:HA3	1.97	0.47
7:Ce:6066:SER:O	7:Ce:6067:ASN:O	2.32	0.47
1:Co:1053:LEU:CD2	7:Cu:6065:SER:HB2	2.44	0.47
4:Cr:4019:TRP:HB2	4:Cr:4021:MET:SD	2.54	0.47
6:Ct:8069:ARG:O	6:Ct:8073:LEU:HD12	2.14	0.47
6:AN:8201:LEU:HD22	6:AN:8205:VAL:HG21	1.95	0.47
7:Ae:6072:ILE:CG2	7:Ae:6152:MET:HE1	2.44	0.47
6:BF:8209:ASN:C	6:BF:8211:PHE:H	2.21	0.47
6:BN:8177:CYS:HA	6:BN:8180:LEU:HB2	1.95	0.47
1:Bo:1053:LEU:CD2	7:Bu:6065:SER:HB2	2.43	0.47
6:CF:8168:SER:O	6:CF:8172:TYR:HD2	1.96	0.47
4:AD:4016:LYS:HG2	4:AD:4064:LEU:HD23	1.97	0.47
6:Al:8132:LEU:O	6:Al:8135:PRO:HD3	2.15	0.47
7:Am:6072:ILE:CG2	7:Am:6152:MET:HE1	2.43	0.47
8:An:5030:ASP:HB2	8:An:5031:PRO:HD2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Ar:4016:LYS:HG2	4:Ar:4064:LEU:HD23	1.97	0.47
7:A3:6072:ILE:CG2	7:A3:6152:MET:HE1	2.44	0.47
6:BV:8181:ARG:O	6:BV:8184:LEU:HB2	2.15	0.47
6:Bd:8181:ARG:O	6:Bd:8184:LEU:HB2	2.14	0.47
3:Bq:3024:GLN:NE2	3:Bq:3027:MET:HB3	2.30	0.47
6:Bt:8160:LEU:HD12	6:Bt:8160:LEU:N	2.30	0.47
6:Cl:8177:CYS:HA	6:Cl:8180:LEU:HB2	1.96	0.47
7:Cu:6043:TRP:CZ3	7:Cu:6045:PRO:HG3	2.49	0.47
7:Au:6043:TRP:CZ3	7:Au:6045:PRO:HG3	2.49	0.47
2:BB:2092:LEU:HD22	4:BD:4053:LEU:HG	1.97	0.47
8:BH:5030:ASP:HB2	8:BH:5031:PRO:HD2	1.97	0.47
6:BN:8044:GLU:OE1	6:BN:8044:GLU:HA	2.15	0.47
6:CF:8132:LEU:O	6:CF:8135:PRO:HD3	2.15	0.47
6:CV:8065:PHE:CE2	6:CV:8205:VAL:HG11	2.50	0.47
4:Cb:4000:ASN:ND2	6:Cd:8010:MET:HB2	2.30	0.47
2:AJ:2040:ARG:C	2:AJ:2042:ASN:H	2.22	0.47
3:AK:3064:MET:HB2	4:AL:4004:PHE:CD2	2.50	0.47
7:AO:6068:PRO:CD	7:AO:6069:ARG:N	2.78	0.47
8:AP:5030:ASP:HB2	8:AP:5031:PRO:HD2	1.97	0.47
6:AF:8181:ARG:HA	6:AF:8184:LEU:CD1	2.45	0.47
6:AF:8194:PRO:O	6:AF:8197:LEU:HB3	2.14	0.47
1:AQ:1053:LEU:CD2	7:AW:6065:SER:HB2	2.45	0.47
6:Ad:8152:TYR:O	6:Ad:8156:VAL:HG12	2.15	0.47
3:Ai:3064:MET:HB2	4:Aj:4004:PHE:CD2	2.50	0.47
8:A4:5030:ASP:HB2	8:A4:5031:PRO:HD2	1.97	0.47
6:BN:8167:PHE:O	6:BN:8171:ARG:HG3	2.14	0.47
3:BS:3038:GLU:HB3	6:BV:8011:PHE:HE1	1.80	0.47
6:Bl:8184:LEU:HD23	6:Bl:8187:ASP:HB3	1.96	0.47
7:Bm:6062:HIS:CD2	7:Bm:6152:MET:HE3	2.49	0.47
6:B2:8034:ASN:HA	4:Bz:4052:HIS:HB2	1.97	0.47
7:B3:6065:SER:HB2	1:Bw:1053:LEU:CD2	2.44	0.47
2:CB:2092:LEU:HD22	4:CD:4053:LEU:HG	1.97	0.47
6:Cd:8002:SER:H	6:Cd:8005:GLU:HB2	1.80	0.47
6:Ct:8184:LEU:HD23	6:Ct:8187:ASP:HB3	1.97	0.47
6:AN:8132:LEU:O	6:AN:8135:PRO:HD3	2.15	0.47
7:AG:6081:GLU:HA	7:AG:6087:GLY:HA3	1.97	0.47
4:BL:4016:LYS:HG2	4:BL:4064:LEU:HD23	1.97	0.47
1:BQ:1043:MET:HE1	7:BW:6073:TYR:CE2	2.49	0.47
6:Bl:8007:LEU:HG	6:Bl:8011:PHE:CE1	2.48	0.47
4:Cj:4000:ASN:ND2	6:Cl:8010:MET:HB2	2.30	0.47
1:AI:1064:ARG:NH2	2:AJ:2040:ARG:HB3	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:6081:GLU:O	8:AH:5064:MET:HE1	2.15	0.47
1:AQ:1043:MET:HE1	7:AW:6073:TYR:CE2	2.49	0.47
7:A3:6066:SER:O	7:A3:6067:ASN:O	2.33	0.47
6:Bl:8181:ARG:O	6:Bl:8184:LEU:HB2	2.15	0.47
6:CF:8181:ARG:O	6:CF:8184:LEU:HB2	2.15	0.47
6:CN:8044:GLU:HA	6:CN:8044:GLU:OE1	2.15	0.47
6:CV:8044:GLU:OE1	6:CV:8044:GLU:HA	2.15	0.47
7:Ce:6068:PRO:CD	7:Ce:6069:ARG:N	2.78	0.47
3:AC:3064:MET:HB2	4:AD:4004:PHE:CD2	2.50	0.47
6:AV:8066:GLN:HE22	6:AV:8069:ARG:HH11	1.63	0.47
6:AV:8185:LYS:N	6:AV:8187:ASP:HB2	2.22	0.47
7:AW:6066:SER:O	7:AW:6067:ASN:O	2.33	0.47
6:Ad:8181:ARG:O	6:Ad:8184:LEU:HB2	2.15	0.47
3:BC:3064:MET:HB2	4:BD:4004:PHE:CD2	2.50	0.47
6:BF:8181:ARG:O	6:BF:8184:LEU:HB2	2.15	0.47
1:BI:1053:LEU:CD2	7:BO:6065:SER:HB2	2.45	0.47
6:BN:8184:LEU:HD23	6:BN:8187:ASP:HB3	1.96	0.47
6:CF:8002:SER:H	6:CF:8005:GLU:HB2	1.80	0.47
6:CV:8002:SER:H	6:CV:8005:GLU:HB2	1.80	0.47
6:Cd:8184:LEU:HD23	6:Cd:8187:ASP:HB3	1.97	0.47
6:Cl:8184:LEU:HD23	6:Cl:8187:ASP:HB3	1.97	0.47
6:AN:8141:LEU:HD22	6:AN:8148:ALA:HB2	1.96	0.46
2:AR:2077:TYR:CE2	6:AV:8209:ASN:HB2	2.50	0.46
3:Aq:3064:MET:HB2	4:Ar:4004:PHE:CD2	2.50	0.46
3:BS:3064:MET:HB2	4:BT:4004:PHE:CD2	2.50	0.46
4:BT:4016:LYS:HG2	4:BT:4064:LEU:HD23	1.97	0.46
7:BW:6081:GLU:HA	7:BW:6087:GLY:HA3	1.97	0.46
6:Bd:8065:PHE:CE2	6:Bd:8205:VAL:HG11	2.49	0.46
4:CL:4019:TRP:HB2	4:CL:4021:MET:SD	2.55	0.46
6:CN:8132:LEU:O	6:CN:8135:PRO:HD3	2.15	0.46
3:Ca:3064:MET:HB2	4:Cb:4004:PHE:CD2	2.49	0.46
4:Cb:4031:ASP:HA	6:Cd:8020:VAL:HG22	1.97	0.46
4:Ab:4059:ARG:HD3	4:Ab:4061:ASN:OD1	2.15	0.46
6:Al:8177:CYS:HA	6:Al:8180:LEU:HB2	1.95	0.46
7:A3:6024:LEU:HD13	7:A3:6080:VAL:HG11	1.97	0.46
3:Ay:3064:MET:HB2	4:Az:4004:PHE:CD2	2.50	0.46
7:BG:6081:GLU:HA	7:BG:6087:GLY:HA3	1.97	0.46
6:BN:8181:ARG:O	6:BN:8184:LEU:HB2	2.15	0.46
3:Bq:3006:LEU:HD11	8:Bv:5054:MET:HG2	1.96	0.46
3:CK:3064:MET:HB2	4:CL:4004:PHE:CD2	2.50	0.46
1:CQ:1043:MET:HE1	7:CW:6073:TYR:CE2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CS:3064:MET:HB2	4:CT:4004:PHE:CD2	2.49	0.46
7:CW:6066:SER:O	7:CW:6067:ASN:O	2.33	0.46
2:CZ:2065:GLU:O	2:CZ:2075:ASP:HA	2.14	0.46
4:Cb:4016:LYS:HG2	4:Cb:4064:LEU:HD23	1.96	0.46
6:Cd:8185:LYS:N	6:Cd:8187:ASP:HB2	2.21	0.46
6:Cl:8152:TYR:O	6:Cl:8156:VAL:HG12	2.15	0.46
6:Cl:8185:LYS:N	6:Cl:8187:ASP:HB2	2.21	0.46
5:Cs:7006:LEU:HB3	6:Ct:8110:LEU:HD21	1.97	0.46
1:AY:1059:ARG:NH2	7:Ae:6159:HIS:O	2.46	0.46
6:BF:8184:LEU:HD23	6:BF:8187:ASP:HB3	1.96	0.46
3:Ba:3006:LEU:HD11	8:Bf:5054:MET:HG2	1.97	0.46
3:Bi:3064:MET:HB2	4:Bj:4004:PHE:CD2	2.50	0.46
6:Bl:8168:SER:HA	6:Bl:8171:ARG:HD3	1.96	0.46
3:CC:3064:MET:HB2	4:CD:4004:PHE:CD2	2.50	0.46
6:CF:8184:LEU:HD23	6:CF:8187:ASP:HB3	1.97	0.46
7:CO:6043:TRP:CZ3	7:CO:6045:PRO:HG3	2.50	0.46
4:CT:4016:LYS:HG2	4:CT:4064:LEU:HD23	1.96	0.46
2:Ch:2038:ASN:HB2	2:Ch:2090:VAL:HG22	1.98	0.46
6:Cl:8044:GLU:OE1	6:Cl:8044:GLU:HA	2.14	0.46
6:AN:8002:SER:H	6:AN:8005:GLU:HB2	1.80	0.46
6:AF:8002:SER:H	6:AF:8005:GLU:HB2	1.80	0.46
4:Ar:4031:ASP:OD2	4:Ar:4032:GLY:N	2.48	0.46
8:Av:5030:ASP:HB2	8:Av:5031:PRO:HD2	1.97	0.46
6:A2:8127:MET:HE3	6:A2:8131:TRP:CH2	2.50	0.46
3:BK:3064:MET:HB2	4:BL:4004:PHE:CD2	2.51	0.46
5:BU:7005:SER:O	5:BU:7007:LEU:N	2.48	0.46
6:Bd:8184:LEU:HD23	6:Bd:8187:ASP:HB3	1.97	0.46
3:By:3064:MET:HB2	4:Bz:4004:PHE:CD2	2.50	0.46
6:CF:8171:ARG:NH1	6:CF:8208:GLN:OE1	2.49	0.46
6:Cl:8002:SER:H	6:Cl:8005:GLU:HB2	1.80	0.46
2:AZ:2077:TYR:CE2	6:Ad:8209:ASN:HB2	2.51	0.46
7:Am:6081:GLU:HA	7:Am:6087:GLY:HA3	1.98	0.46
7:Au:6081:GLU:HA	7:Au:6087:GLY:HA3	1.98	0.46
6:BF:8152:TYR:HD1	6:BF:8197:LEU:HD21	1.80	0.46
6:BN:8209:ASN:C	6:BN:8211:PHE:H	2.24	0.46
1:BY:1024:HIS:HB2	6:Bd:8161:PRO:HB3	1.97	0.46
7:Be:6043:TRP:CZ3	7:Be:6045:PRO:HG3	2.50	0.46
6:Bt:8131:TRP:O	6:Bt:8135:PRO:HG3	2.14	0.46
7:CG:6065:SER:OG	7:CG:6066:SER:N	2.48	0.46
3:Cq:3064:MET:HB2	4:Cr:4004:PHE:CD2	2.51	0.46
4:AT:4059:ARG:HD3	4:AT:4061:ASN:OD1	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Aa:3064:MET:HB2	4:Ab:4004:PHE:CD2	2.51	0.46
6:Ad:8185:LYS:N	6:Ad:8187:ASP:HB2	2.22	0.46
6:Al:8002:SER:H	6:Al:8005:GLU:HB2	1.81	0.46
6:At:8203:VAL:HG22	6:At:8211:PHE:HB2	1.98	0.46
6:BN:8195:TYR:HA	6:BN:8198:LEU:HD12	1.97	0.46
7:BO:6066:SER:O	7:BO:6067:ASN:O	2.34	0.46
2:Bh:2040:ARG:NE	4:Bj:4019:TRP:CZ2	2.83	0.46
6:Bl:8002:SER:H	6:Bl:8005:GLU:HB2	1.80	0.46
2:CB:2040:ARG:HB2	2:CB:2087:SER:O	2.16	0.46
7:CG:6043:TRP:CZ3	7:CG:6045:PRO:HG3	2.51	0.46
6:CN:8127:MET:HG2	6:CN:8131:TRP:CZ2	2.51	0.46
2:Ch:2092:LEU:HD22	4:Cj:4053:LEU:HG	1.98	0.46
4:Cj:4016:LYS:HG2	4:Cj:4064:LEU:HD23	1.97	0.46
6:Cl:8181:ARG:O	6:Cl:8184:LEU:HB2	2.16	0.46
6:AV:8044:GLU:OE1	6:AV:8044:GLU:HA	2.15	0.46
6:At:8184:LEU:HD23	6:At:8187:ASP:HB3	1.98	0.46
6:BN:8203:VAL:HG22	6:BN:8211:PHE:HB2	1.98	0.46
7:CG:6068:PRO:CD	7:CG:6069:ARG:N	2.79	0.46
2:CR:2038:ASN:HB2	2:CR:2090:VAL:HG22	1.98	0.46
3:Ca:3006:LEU:HD11	8:Cf:5054:MET:HG2	1.98	0.46
2:AJ:2092:LEU:HD22	4:AL:4053:LEU:HG	1.97	0.46
6:AF:8127:MET:HG2	6:AF:8131:TRP:CZ2	2.51	0.46
8:AX:5030:ASP:HB2	8:AX:5031:PRO:HD2	1.98	0.46
7:Ae:6066:SER:O	7:Ae:6067:ASN:O	2.34	0.46
6:Al:8185:LYS:N	6:Al:8187:ASP:HB2	2.21	0.46
6:At:8132:LEU:O	6:At:8135:PRO:HD3	2.16	0.46
6:BF:8002:SER:H	6:BF:8005:GLU:HB2	1.80	0.46
6:BV:8086:GLN:O	6:BV:8089:GLU:HB2	2.15	0.46
3:Ba:3064:MET:HB2	4:Bb:4004:PHE:CD2	2.50	0.46
3:CC:3038:GLU:HB3	6:CF:8011:PHE:HE1	1.81	0.46
4:CD:4016:LYS:HG2	4:CD:4064:LEU:HD23	1.97	0.46
6:CV:8184:LEU:HD23	6:CV:8187:ASP:HB3	1.98	0.46
2:AJ:2043:LYS:HD3	2:AJ:2067:TRP:CE3	2.51	0.46
7:AO:6072:ILE:CG2	7:AO:6152:MET:HE1	2.45	0.46
7:AG:6068:PRO:CD	7:AG:6069:ARG:N	2.78	0.46
7:AG:6072:ILE:CG2	7:AG:6152:MET:HE1	2.46	0.46
7:AW:6068:PRO:CD	7:AW:6069:ARG:N	2.79	0.46
6:Ad:8141:LEU:HD22	6:Ad:8148:ALA:HB2	1.97	0.46
3:Aq:3038:GLU:HB3	6:At:8011:PHE:HE1	1.81	0.46
6:At:8150:TRP:O	6:At:8154:THR:OG1	2.33	0.46
6:A2:8002:SER:H	6:A2:8005:GLU:HB2	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:BV:8185:LYS:N	6:BV:8187:ASP:HB2	2.22	0.46
6:CF:8203:VAL:O	6:CF:8207:ALA:HA	2.15	0.46
7:CG:6066:SER:O	7:CG:6067:ASN:O	2.34	0.46
6:CV:8181:ARG:O	6:CV:8184:LEU:HB2	2.16	0.46
7:CW:6068:PRO:CD	7:CW:6069:ARG:N	2.79	0.46
6:Cd:8184:LEU:HD21	6:Cd:8191:ARG:HB3	1.97	0.46
4:Cr:4059:ARG:HD3	4:Cr:4061:ASN:OD1	2.16	0.46
6:AN:8203:VAL:HG22	6:AN:8211:PHE:HB2	1.97	0.46
2:AB:2092:LEU:HD22	4:AD:4053:LEU:HG	1.98	0.46
8:AH:5030:ASP:HB2	8:AH:5031:PRO:HD2	1.97	0.46
3:AS:3064:MET:HB2	4:AT:4004:PHE:CD2	2.51	0.46
6:AV:8002:SER:H	6:AV:8005:GLU:HB2	1.81	0.46
6:Ad:8002:SER:H	6:Ad:8005:GLU:HB2	1.81	0.46
2:Ah:2092:LEU:HD22	4:Aj:4053:LEU:HG	1.98	0.46
2:Ah:2092:LEU:CD2	4:Aj:4056:VAL:HG22	2.37	0.46
6:BV:8184:LEU:HD23	6:BV:8187:ASP:HB3	1.97	0.46
4:Br:4059:ARG:HD3	4:Br:4061:ASN:OD1	2.16	0.46
6:Bt:8132:LEU:O	6:Bt:8135:PRO:HD3	2.16	0.46
7:Bu:6043:TRP:CZ3	7:Bu:6045:PRO:HG3	2.51	0.46
2:CZ:2038:ASN:HB2	2:CZ:2090:VAL:HG22	1.98	0.46
4:Cr:4016:LYS:HG2	4:Cr:4064:LEU:HD23	1.98	0.46
6:Ct:8185:LYS:N	6:Ct:8187:ASP:HB2	2.22	0.46
6:AN:8185:LYS:N	6:AN:8187:ASP:HB2	2.22	0.45
6:AF:8184:LEU:HD23	6:AF:8187:ASP:HB3	1.98	0.45
6:AV:8132:LEU:O	6:AV:8135:PRO:HD3	2.16	0.45
6:BN:8168:SER:HA	6:BN:8171:ARG:HD3	1.99	0.45
4:Bb:4051:GLY:HA2	6:Bd:8035:THR:HG21	1.98	0.45
3:Bq:3064:MET:HB2	4:Br:4004:PHE:CD2	2.51	0.45
6:Bt:8162:LEU:HD23	6:Bt:8166:VAL:HG11	1.97	0.45
3:CS:3038:GLU:HB3	6:CV:8011:PHE:HE1	1.82	0.45
1:Co:1043:MET:HE1	7:Cu:6073:TYR:CE2	2.51	0.45
1:Co:1050:PRO:HG3	6:Ct:8159:HIS:CB	2.46	0.45
7:Cu:6066:SER:O	7:Cu:6067:ASN:O	2.34	0.45
6:AN:8184:LEU:HD23	6:AN:8187:ASP:HB3	1.98	0.45
3:AC:3024:GLN:HE21	3:AC:3024:GLN:HB2	1.56	0.45
7:Am:6068:PRO:CD	7:Am:6069:ARG:N	2.79	0.45
7:BO:6065:SER:OG	7:BO:6066:SER:N	2.49	0.45
7:Bm:6043:TRP:CZ3	7:Bm:6045:PRO:HG3	2.50	0.45
4:Br:4016:LYS:HG2	4:Br:4064:LEU:HD23	1.98	0.45
7:B3:6000:MET:HG3	7:B3:6002:LEU:HD13	1.98	0.45
7:B3:6065:SER:OG	7:B3:6066:SER:N	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:8086:GLN:O	6:CF:8089:GLU:HB2	2.16	0.45
6:CN:8181:ARG:O	6:CN:8184:LEU:HB2	2.17	0.45
3:CS:3000:MET:CE	3:CS:3002:GLN:NE2	2.79	0.45
6:AN:8146:TRP:O	6:AN:8150:TRP:CD1	2.67	0.45
8:Af:5030:ASP:HB2	8:Af:5031:PRO:HD2	1.99	0.45
3:Ai:3000:MET:CE	3:Ai:3002:GLN:NE2	2.80	0.45
6:Al:8127:MET:HG2	6:Al:8131:TRP:CZ2	2.51	0.45
4:Ar:4000:ASN:ND2	6:At:8010:MET:HB2	2.31	0.45
6:A2:8007:LEU:HG	6:A2:8011:PHE:CE1	2.52	0.45
2:Ax:2040:ARG:HE	4:Az:4019:TRP:HZ2	1.64	0.45
2:Ax:2040:ARG:HA	2:Ax:2089:ILE:HD11	1.97	0.45
6:BF:8185:LYS:N	6:BF:8187:ASP:HB2	2.22	0.45
7:BW:6068:PRO:CD	7:BW:6069:ARG:N	2.79	0.45
6:B2:8145:VAL:HG22	6:B2:8149:ARG:HD2	1.98	0.45
6:CF:8184:LEU:HD21	6:CF:8191:ARG:HB3	1.98	0.45
4:CL:4016:LYS:HG2	4:CL:4064:LEU:HD23	1.98	0.45
2:CR:2092:LEU:HD22	4:CT:4053:LEU:HG	1.98	0.45
3:CS:3006:LEU:HD11	8:CX:5054:MET:HG2	1.98	0.45
3:Ci:3038:GLU:HB3	6:Cl:8011:PHE:HE1	1.82	0.45
3:Cq:3006:LEU:HD11	8:Cv:5054:MET:HG2	1.97	0.45
3:AK:3000:MET:CE	3:AK:3002:GLN:NE2	2.80	0.45
4:AL:4059:ARG:HD3	4:AL:4061:ASN:OD1	2.16	0.45
6:Ad:8184:LEU:HD23	6:Ad:8187:ASP:HB3	1.97	0.45
4:Aj:4000:ASN:ND2	6:Al:8010:MET:HB2	2.32	0.45
6:Al:8188:GLU:OE2	6:Al:8190:GLN:HB2	2.17	0.45
6:A2:8066:GLN:HE22	6:A2:8205:VAL:HG13	1.82	0.45
2:Bh:2024:VAL:HG13	2:Bh:2093:ARG:HB3	1.99	0.45
2:CB:2038:ASN:HB2	2:CB:2090:VAL:HG22	1.98	0.45
3:CC:3006:LEU:HD11	8:CH:5054:MET:HG2	1.98	0.45
6:CN:8197:LEU:O	6:CN:8201:LEU:HG	2.16	0.45
3:Ca:3038:GLU:HB3	6:Cd:8011:PHE:HE1	1.82	0.45
7:Cm:6043:TRP:CZ3	7:Cm:6045:PRO:HG3	2.51	0.45
6:Al:8184:LEU:HD23	6:Al:8187:ASP:HB3	1.97	0.45
7:Am:6000:MET:HG3	7:Am:6002:LEU:CD1	2.47	0.45
6:At:8002:SER:H	6:At:8005:GLU:HB2	1.81	0.45
6:At:8086:GLN:O	6:At:8089:GLU:HB2	2.16	0.45
3:Ay:3000:MET:CE	3:Ay:3002:GLN:NE2	2.80	0.45
2:BJ:2077:TYR:CD1	6:BN:8210:ASP:HB3	2.51	0.45
4:BT:4059:ARG:HD3	4:BT:4061:ASN:OD1	2.16	0.45
1:CQ:1064:ARG:HH22	7:CW:6167:SER:C	2.24	0.45
7:CW:6043:TRP:CZ3	7:CW:6045:PRO:HG3	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CW:6072:ILE:CG2	7:CW:6152:MET:HE1	2.46	0.45
8:CX:5030:ASP:HB2	8:CX:5031:PRO:HD2	1.97	0.45
6:Cd:8121:LEU:HB3	6:Cd:8158:LEU:HD23	1.98	0.45
7:Ce:6043:TRP:CZ3	7:Ce:6045:PRO:HG3	2.51	0.45
6:AF:8133:GLN:HG3	6:AF:8176:THR:HG21	1.97	0.45
7:AG:6066:SER:O	7:AG:6067:ASN:O	2.35	0.45
6:Al:8211:PHE:O	6:Al:8212:LYS:C	2.59	0.45
7:Am:6065:SER:OG	7:Am:6066:SER:N	2.50	0.45
6:A2:8185:LYS:N	6:A2:8187:ASP:HB2	2.22	0.45
4:Az:4059:ARG:HD3	4:Az:4061:ASN:OD1	2.16	0.45
6:BN:8185:LYS:N	6:BN:8187:ASP:HB2	2.22	0.45
8:BP:5030:ASP:HB2	8:BP:5031:PRO:HD2	1.97	0.45
6:BV:8002:SER:H	6:BV:8005:GLU:HB2	1.82	0.45
4:Bj:4059:ARG:HD3	4:Bj:4061:ASN:OD1	2.16	0.45
6:Bt:8002:SER:H	6:Bt:8005:GLU:HB2	1.81	0.45
6:B2:8002:SER:H	6:B2:8005:GLU:HB2	1.81	0.45
6:B2:8209:ASN:HD22	6:B2:8212:LYS:HE3	1.82	0.45
8:CH:5030:ASP:HB2	8:CH:5031:PRO:HD2	1.97	0.45
2:CZ:2074:LYS:HD3	6:Cd:8168:SER:OG	2.15	0.45
3:Ci:3064:MET:HB2	4:Cj:4004:PHE:CD2	2.51	0.45
8:Cn:5030:ASP:HB2	8:Cn:5031:PRO:HD2	1.98	0.45
2:Cp:2075:ASP:CG	6:Ct:8175:ARG:HH22	2.24	0.45
2:Cp:2084:ARG:NH2	2:Cp:2086:ASP:OD2	2.49	0.45
4:AT:4000:ASN:ND2	6:AV:8010:MET:HB2	2.32	0.45
6:Al:8113:LEU:HD13	6:Al:8116:LEU:HD12	1.98	0.45
6:A2:8010:MET:HB2	4:Az:4000:ASN:ND2	2.32	0.45
4:BL:4059:ARG:HD3	4:BL:4061:ASN:OD1	2.16	0.45
6:BN:8172:TYR:HA	6:BN:8175:ARG:HD2	1.98	0.45
1:BQ:1050:PRO:HG3	6:BV:8159:HIS:HB2	1.96	0.45
4:Bb:4016:LYS:HG2	4:Bb:4064:LEU:HD23	1.99	0.45
7:Be:6072:ILE:CG2	7:Be:6152:MET:HE1	2.46	0.45
7:B3:6073:TYR:CE2	1:Bw:1043:MET:HE1	2.51	0.45
6:CF:8065:PHE:CE2	6:CF:8205:VAL:HG11	2.52	0.45
6:CN:8086:GLN:O	6:CN:8089:GLU:HB2	2.16	0.45
6:CN:8185:LYS:N	6:CN:8187:ASP:HB2	2.23	0.45
7:CW:6065:SER:OG	7:CW:6066:SER:N	2.49	0.45
1:CY:1018:LYS:HD3	1:CY:1064:ARG:NH2	2.31	0.45
3:Ca:3000:MET:CE	3:Ca:3002:GLN:NE2	2.80	0.45
6:Cd:8193:ALA:N	6:Cd:8194:PRO:HD2	2.31	0.45
6:AN:8174:ALA:HB2	6:AN:8202:THR:HG21	1.97	0.45
7:AO:6066:SER:O	7:AO:6067:ASN:O	2.35	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Aj:4061:ASN:HB2	7:Am:6165:SER:CB	2.47	0.45
3:BK:3069:ASN:OD1	4:BL:4018:LYS:HG2	2.17	0.45
2:Bp:2038:ASN:HB2	2:Bp:2090:VAL:HG22	1.98	0.45
6:CN:8195:TYR:HA	6:CN:8198:LEU:HD12	1.99	0.45
7:Ae:6061:LEU:C	7:Ae:6061:LEU:HD12	2.42	0.45
6:Al:8086:GLN:O	6:Al:8089:GLU:HB2	2.16	0.45
6:A2:8069:ARG:HA	6:A2:8156:VAL:HG23	1.99	0.45
6:BN:8002:SER:H	6:BN:8005:GLU:HB2	1.81	0.45
6:BN:8132:LEU:O	6:BN:8135:PRO:HD3	2.17	0.45
4:Bb:4059:ARG:HD3	4:Bb:4061:ASN:OD1	2.17	0.45
6:Bd:8109:LEU:H	6:Bd:8109:LEU:HG	1.50	0.45
2:CB:2043:LYS:HE2	2:CB:2067:TRP:CD2	2.51	0.45
6:CF:8127:MET:HG2	6:CF:8131:TRP:CZ2	2.52	0.45
3:CK:3006:LEU:HD11	8:CP:5054:MET:HG2	1.98	0.45
2:CR:2092:LEU:CD2	4:CT:4056:VAL:HG22	2.37	0.45
2:CZ:2092:LEU:HD22	4:Cb:4053:LEU:HG	1.99	0.45
8:Cf:5030:ASP:HB2	8:Cf:5031:PRO:HD2	1.97	0.45
7:Cm:6080:VAL:HG13	8:Cn:5064:MET:HE1	1.99	0.45
6:A2:8184:LEU:HD23	6:A2:8187:ASP:HB3	1.98	0.45
4:BT:4000:ASN:ND2	6:BV:8010:MET:HB2	2.31	0.45
7:BW:6065:SER:OG	7:BW:6066:SER:N	2.50	0.45
3:Bi:3038:GLU:HB3	6:Bl:8011:PHE:CE1	2.50	0.45
8:B4:5025:ILE:HG21	8:B4:5027:ARG:CZ	2.47	0.45
3:CK:3038:GLU:HB3	6:CN:8011:PHE:HE1	1.82	0.45
3:Ci:3006:LEU:HD11	8:Cn:5054:MET:HG2	1.99	0.45
6:Ct:8127:MET:HG2	6:Ct:8131:TRP:CZ2	2.52	0.45
6:AN:8211:PHE:O	6:AN:8213:ASP:N	2.50	0.44
6:AF:8181:ARG:HA	6:AF:8184:LEU:HD12	1.99	0.44
6:AV:8178:ILE:HG13	6:AV:8199:LEU:HD21	1.99	0.44
2:Ap:2043:LYS:HG2	2:Ap:2067:TRP:HB3	1.99	0.44
4:Ar:4059:ARG:HD3	4:Ar:4061:ASN:OD1	2.16	0.44
7:A3:6061:LEU:C	7:A3:6061:LEU:HD12	2.42	0.44
4:Bj:4016:LYS:HG2	4:Bj:4064:LEU:HD23	1.99	0.44
6:Bl:8044:GLU:OE1	6:Bl:8044:GLU:HA	2.17	0.44
7:Ce:6065:SER:OG	7:Ce:6066:SER:N	2.49	0.44
2:Ch:2092:LEU:CD2	4:Cj:4056:VAL:HG22	2.37	0.44
6:Ct:8086:GLN:O	6:Ct:8089:GLU:HB2	2.17	0.44
6:Ct:8135:PRO:C	6:Ct:8137:THR:N	2.75	0.44
7:AO:6065:SER:OG	7:AO:6066:SER:N	2.50	0.44
2:AB:2092:LEU:CD2	4:AD:4056:VAL:HG22	2.36	0.44
6:AF:8049:LYS:HG3	7:CG:6084:GLY:HA3	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:6065:SER:OG	7:AG:6066:SER:N	2.50	0.44
3:BS:3006:LEU:HD11	8:BX:5054:MET:HG2	1.99	0.44
7:Be:6068:PRO:HD2	7:Be:6069:ARG:N	2.30	0.44
5:CM:7007:LEU:HD11	6:CN:8156:VAL:HG21	2.00	0.44
3:CI:3000:MET:CE	3:CI:3002:GLN:NE2	2.80	0.44
8:Cn:5025:ILE:HG21	8:Cn:5027:ARG:CZ	2.48	0.44
6:Ct:8002:SER:H	6:Ct:8005:GLU:HB2	1.82	0.44
3:Aa:3069:ASN:OD1	4:Ab:4018:LYS:HG2	2.18	0.44
8:Af:5025:ILE:HG21	8:Af:5027:ARG:CZ	2.48	0.44
7:BG:6068:PRO:HD2	7:BG:6069:ARG:N	2.31	0.44
6:BV:8135:PRO:C	6:BV:8137:THR:N	2.75	0.44
2:BZ:2038:ASN:HB2	2:BZ:2090:VAL:HG22	1.98	0.44
2:BZ:2040:ARG:HB2	2:BZ:2087:SER:O	2.18	0.44
2:Bx:2043:LYS:HG2	2:Bx:2067:TRP:HB3	1.98	0.44
6:CN:8002:SER:H	6:CN:8005:GLU:HB2	1.82	0.44
6:AF:8155:LEU:HD21	6:AF:8170:LEU:HD13	1.99	0.44
3:AS:3069:ASN:OD1	4:AT:4018:LYS:HG2	2.18	0.44
4:Aj:4059:ARG:HD3	4:Aj:4061:ASN:OD1	2.17	0.44
7:Au:6068:PRO:CD	7:Au:6069:ARG:N	2.79	0.44
7:A3:6068:PRO:CD	7:A3:6069:ARG:N	2.81	0.44
2:Ax:2092:LEU:HD22	4:Az:4053:LEU:HG	1.99	0.44
3:BC:3006:LEU:HD11	8:BH:5054:MET:HG2	2.00	0.44
7:BG:6068:PRO:CD	7:BG:6069:ARG:N	2.80	0.44
3:BK:3006:LEU:HD11	8:BP:5054:MET:HG2	1.99	0.44
6:Bd:8086:GLN:O	6:Bd:8089:GLU:HB2	2.17	0.44
8:Bf:5025:ILE:HG21	8:Bf:5027:ARG:CZ	2.48	0.44
6:B2:8195:TYR:HA	6:B2:8198:LEU:HD12	1.99	0.44
7:B3:6068:PRO:HD2	7:B3:6069:ARG:N	2.30	0.44
4:Bz:4016:LYS:HG2	4:Bz:4064:LEU:HD23	2.00	0.44
3:CC:3000:MET:CE	3:CC:3002:GLN:NE2	2.80	0.44
8:CP:5030:ASP:HB2	8:CP:5031:PRO:HD2	1.97	0.44
6:Cd:8086:GLN:O	6:Cd:8089:GLU:HB2	2.17	0.44
6:Cd:8127:MET:HG2	6:Cd:8131:TRP:CZ2	2.53	0.44
6:Cl:8127:MET:HG2	6:Cl:8131:TRP:CZ2	2.53	0.44
7:AG:6061:LEU:C	7:AG:6061:LEU:HD12	2.43	0.44
6:AV:8122:GLU:O	6:AV:8126:GLU:HG2	2.17	0.44
6:A2:8036:THR:HG22	2:Ax:2096:LEU:HD23	1.99	0.44
6:A2:8160:LEU:H	6:A2:8160:LEU:HD12	1.82	0.44
7:A3:6065:SER:OG	7:A3:6066:SER:N	2.50	0.44
6:BF:8132:LEU:O	6:BF:8135:PRO:HD3	2.18	0.44
8:BH:5025:ILE:HG21	8:BH:5027:ARG:CZ	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:BV:8132:LEU:O	6:BV:8135:PRO:HD3	2.18	0.44
4:Bb:4031:ASP:HA	6:Bd:8020:VAL:HG22	1.99	0.44
6:Bl:8127:MET:HG2	6:Bl:8131:TRP:CZ2	2.52	0.44
6:Bt:8170:LEU:HA	6:Bt:8173:ILE:HD12	1.98	0.44
7:Ae:6065:SER:OG	7:Ae:6066:SER:N	2.50	0.44
7:Ae:6068:PRO:CD	7:Ae:6069:ARG:N	2.81	0.44
7:Am:6066:SER:O	7:Am:6067:ASN:O	2.36	0.44
6:A2:8170:LEU:HA	6:A2:8173:ILE:HD12	2.00	0.44
2:BB:2038:ASN:HB2	2:BB:2090:VAL:HG22	1.99	0.44
3:BC:3038:GLU:HB3	6:BF:8011:PHE:HE1	1.83	0.44
6:BN:8146:TRP:O	6:BN:8150:TRP:HB2	2.16	0.44
1:BY:1064:ARG:NH2	2:BZ:2040:ARG:HB3	2.33	0.44
7:Bm:6065:SER:OG	7:Bm:6066:SER:N	2.50	0.44
6:Bt:8086:GLN:O	6:Bt:8089:GLU:HB2	2.17	0.44
6:Bt:8185:LYS:N	6:Bt:8187:ASP:HB2	2.22	0.44
8:Bv:5025:ILE:HG21	8:Bv:5027:ARG:CZ	2.48	0.44
6:CF:8135:PRO:C	6:CF:8137:THR:N	2.75	0.44
2:CJ:2019:THR:O	6:CN:8022:THR:HG21	2.17	0.44
6:Cd:8140:ASP:HB3	6:Cd:8143:HIS:HB3	1.99	0.44
6:Cd:8141:LEU:HD12	6:Cd:8195:TYR:CE1	2.52	0.44
4:Cj:4002:LYS:HG3	6:Cl:8014:ARG:HB3	2.00	0.44
6:Cl:8141:LEU:HD22	6:Cl:8148:ALA:HB2	2.00	0.44
7:Au:6061:LEU:C	7:Au:6061:LEU:HD12	2.43	0.44
7:Au:6065:SER:OG	7:Au:6066:SER:N	2.50	0.44
4:Az:4030:VAL:HG12	4:Az:4031:ASP:N	2.33	0.44
4:BL:4000:ASN:ND2	6:BN:8010:MET:HB2	2.32	0.44
6:BV:8184:LEU:HD21	6:BV:8191:ARG:HB3	2.00	0.44
7:Bm:6068:PRO:HD2	7:Bm:6069:ARG:N	2.31	0.44
2:Bx:2038:ASN:HB2	2:Bx:2090:VAL:HG22	1.99	0.44
4:CL:4029:SER:HB2	6:CN:8022:THR:HG22	2.00	0.44
6:CN:8188:GLU:CD	6:CN:8190:GLN:HB2	2.43	0.44
7:CO:6038:GLN:HG2	7:CO:6158:LEU:HD23	2.00	0.44
2:CR:2043:LYS:HG2	2:CR:2067:TRP:CB	2.46	0.44
8:Cv:5025:ILE:HG21	8:Cv:5027:ARG:CZ	2.48	0.44
6:AN:8086:GLN:O	6:AN:8089:GLU:HB2	2.17	0.44
6:AN:8167:PHE:O	6:AN:8170:LEU:HB3	2.18	0.44
6:AF:8086:GLN:O	6:AF:8089:GLU:HB2	2.17	0.44
3:AS:3006:LEU:HD11	8:AX:5054:MET:HG2	2.00	0.44
2:AZ:2040:ARG:NE	4:Ab:4019:TRP:CZ2	2.78	0.44
3:Aa:3006:LEU:HD11	8:Af:5054:MET:HG2	2.00	0.44
6:Ad:8046:PRO:HB2	6:Ad:8047:PRO:CD	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Ai:3006:LEU:HD11	8:An:5054:MET:HG2	2.00	0.44
4:Aj:4002:LYS:HG3	6:Al:8014:ARG:CB	2.48	0.44
8:An:5025:ILE:HG21	8:An:5027:ARG:CZ	2.48	0.44
8:A4:5025:ILE:HG21	8:A4:5027:ARG:CZ	2.48	0.44
6:BN:8135:PRO:C	6:BN:8137:THR:N	2.76	0.44
7:BO:6068:PRO:CD	7:BO:6069:ARG:N	2.80	0.44
8:Bf:5030:ASP:HB2	8:Bf:5031:PRO:HD2	1.98	0.44
7:Bm:6061:LEU:HD12	7:Bm:6061:LEU:C	2.43	0.44
4:CD:4059:ARG:HD3	4:CD:4061:ASN:OD1	2.18	0.44
6:CV:8135:PRO:C	6:CV:8137:THR:N	2.76	0.44
8:CX:5025:ILE:HG21	8:CX:5027:ARG:CZ	2.48	0.44
7:Cu:6038:GLN:HG2	7:Cu:6158:LEU:HD23	2.00	0.44
4:AD:4000:ASN:ND2	6:AF:8010:MET:HB2	2.33	0.44
6:AF:8108:PRO:HB3	6:AF:8150:TRP:CD2	2.53	0.44
6:AF:8118:GLN:HA	6:AF:8121:LEU:HD12	1.99	0.44
6:AV:8184:LEU:HD21	6:AV:8191:ARG:HB3	2.00	0.44
6:Ad:8005:GLU:O	6:Ad:8009:HIS:ND1	2.51	0.44
3:Aq:3006:LEU:HD11	8:Av:5054:MET:HG2	1.99	0.44
1:BA:1053:LEU:CD2	7:BG:6065:SER:HB2	2.48	0.44
4:Bb:4030:VAL:HG12	4:Bb:4031:ASP:H	1.83	0.44
6:Bd:8007:LEU:HG	6:Bd:8011:PHE:CE1	2.53	0.44
6:Bd:8113:LEU:HA	6:Bd:8116:LEU:HD12	2.00	0.44
2:Bh:2038:ASN:HB2	2:Bh:2090:VAL:HG22	1.99	0.44
4:Bj:4030:VAL:HG12	4:Bj:4031:ASP:N	2.33	0.44
7:B3:6068:PRO:CD	7:B3:6069:ARG:N	2.79	0.44
6:CN:8135:PRO:C	6:CN:8137:THR:N	2.76	0.44
6:AN:8209:ASN:HB3	6:AN:8212:LYS:HE3	1.99	0.43
4:AD:4002:LYS:HG3	6:AF:8014:ARG:CB	2.48	0.43
3:AS:3000:MET:CE	3:AS:3002:GLN:NE2	2.81	0.43
6:Ad:8127:MET:HG2	6:Ad:8131:TRP:CZ2	2.53	0.43
6:Ad:8135:PRO:C	6:Ad:8137:THR:N	2.75	0.43
2:Ax:2043:LYS:HG2	2:Ax:2067:TRP:CB	2.46	0.43
6:BF:8086:GLN:O	6:BF:8089:GLU:HB2	2.18	0.43
2:BJ:2038:ASN:HB2	2:BJ:2090:VAL:HG22	1.99	0.43
4:BL:4005:LEU:HD23	4:BL:4030:VAL:HG11	2.00	0.43
1:BY:1043:MET:HE1	7:Be:6073:TYR:CE2	2.52	0.43
6:Bd:8005:GLU:O	6:Bd:8009:HIS:ND1	2.51	0.43
7:Be:6068:PRO:CD	7:Be:6069:ARG:N	2.80	0.43
1:Bg:1024:HIS:HB3	6:Bl:8161:PRO:HD3	2.00	0.43
8:Bn:5025:ILE:HG21	8:Bn:5027:ARG:CZ	2.48	0.43
3:CK:3000:MET:CE	3:CK:3002:GLN:NE2	2.80	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CL:4059:ARG:HD3	4:CL:4061:ASN:OD1	2.18	0.43
6:CV:8086:GLN:O	6:CV:8089:GLU:HB2	2.18	0.43
6:CV:8127:MET:HG2	6:CV:8131:TRP:CZ2	2.53	0.43
7:Cm:6038:GLN:HG2	7:Cm:6158:LEU:HD23	2.00	0.43
4:Cr:4005:LEU:HD23	4:Cr:4030:VAL:HG11	1.99	0.43
3:AK:3071:THR:HG23	8:AP:5061:SER:HB3	2.00	0.43
7:AO:6061:LEU:C	7:AO:6061:LEU:HD12	2.43	0.43
6:AF:8135:PRO:C	6:AF:8137:THR:N	2.76	0.43
2:AR:2049:VAL:HA	2:AR:2060:LEU:HD23	2.01	0.43
2:AZ:2049:VAL:HA	2:AZ:2060:LEU:HD23	2.00	0.43
6:BF:8127:MET:HG2	6:BF:8131:TRP:CZ2	2.53	0.43
6:BV:8188:GLU:OE2	6:BV:8190:GLN:HB2	2.18	0.43
3:Bq:3069:ASN:OD1	4:Br:4018:LYS:HG2	2.18	0.43
6:Bt:8184:LEU:HD21	6:Bt:8191:ARG:HB3	2.00	0.43
6:CV:8184:LEU:HD21	6:CV:8191:ARG:HB3	1.99	0.43
8:Cf:5025:ILE:HG21	8:Cf:5027:ARG:CZ	2.49	0.43
3:Cq:3038:GLU:HB3	6:Ct:8011:PHE:CE1	2.51	0.43
6:AF:8203:VAL:HG13	6:AF:8209:ASN:HA	2.00	0.43
6:AV:8184:LEU:HD23	6:AV:8187:ASP:HB3	1.99	0.43
7:AW:6061:LEU:C	7:AW:6061:LEU:HD12	2.43	0.43
7:BG:6065:SER:OG	7:BG:6066:SER:N	2.51	0.43
8:BP:5025:ILE:HG21	8:BP:5027:ARG:CZ	2.49	0.43
3:BS:3069:ASN:OD1	4:BT:4018:LYS:HG2	2.19	0.43
6:Bd:8044:GLU:OE1	6:Bd:8044:GLU:HA	2.19	0.43
6:Bt:8171:ARG:NH1	6:Bt:8208:GLN:OE1	2.51	0.43
8:CH:5025:ILE:HG21	8:CH:5027:ARG:CZ	2.49	0.43
7:CO:6068:PRO:CD	7:CO:6069:ARG:N	2.81	0.43
8:CP:5025:ILE:HG21	8:CP:5027:ARG:CZ	2.49	0.43
7:CW:6078:HIS:CD2	8:CX:5063:ILE:HG23	2.53	0.43
2:CZ:2019:THR:O	6:Cd:8022:THR:HG21	2.18	0.43
6:Cd:8044:GLU:OE1	6:Cd:8044:GLU:HA	2.17	0.43
7:Cm:6068:PRO:CD	7:Cm:6069:ARG:N	2.81	0.43
2:Cp:2038:ASN:HB2	2:Cp:2090:VAL:HG22	1.99	0.43
4:AL:4031:ASP:HA	6:AN:8020:VAL:HG22	2.01	0.43
6:AN:8160:LEU:HA	6:AN:8161:PRO:C	2.43	0.43
2:AB:2077:TYR:HE2	6:AF:8209:ASN:HB2	1.71	0.43
4:AD:4059:ARG:HD3	4:AD:4061:ASN:OD1	2.17	0.43
6:AF:8046:PRO:HB2	6:AF:8047:PRO:CD	2.48	0.43
4:AT:4030:VAL:HG12	4:AT:4031:ASP:N	2.34	0.43
8:AX:5025:ILE:HG21	8:AX:5027:ARG:CZ	2.49	0.43
1:AY:1018:LYS:HE2	1:AY:1061:ASN:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Ap:2038:ASN:HB2	2:Ap:2090:VAL:HG22	2.00	0.43
6:At:8095:ASP:C	6:At:8097:GLU:H	2.27	0.43
6:At:8135:PRO:C	6:At:8137:THR:N	2.75	0.43
4:Az:4005:LEU:HD23	4:Az:4030:VAL:HG11	2.00	0.43
3:BC:3069:ASN:OD1	4:BD:4018:LYS:HG2	2.19	0.43
4:BD:4059:ARG:HD3	4:BD:4061:ASN:OD1	2.17	0.43
7:BG:6066:SER:O	7:BG:6067:ASN:O	2.37	0.43
4:BT:4030:VAL:HG12	4:BT:4031:ASP:N	2.34	0.43
6:Bl:8141:LEU:HD22	6:Bl:8148:ALA:HB2	1.99	0.43
6:B2:8005:GLU:O	6:B2:8009:HIS:ND1	2.52	0.43
6:B2:8086:GLN:O	6:B2:8089:GLU:HB2	2.18	0.43
6:Ct:8203:VAL:HG13	6:Ct:8209:ASN:HA	1.99	0.43
7:Cu:6021:LYS:HG2	7:Cu:6031:GLU:CG	2.40	0.43
6:AN:8127:MET:HG2	6:AN:8131:TRP:CZ2	2.53	0.43
8:AP:5025:ILE:HG21	8:AP:5027:ARG:CZ	2.49	0.43
6:BN:8127:MET:HG2	6:BN:8131:TRP:CZ2	2.53	0.43
2:BR:2043:LYS:CG	2:BR:2067:TRP:HB3	2.40	0.43
6:Bl:8118:GLN:HA	6:Bl:8121:LEU:HD12	2.01	0.43
7:Bu:6068:PRO:HD2	7:Bu:6069:ARG:N	2.32	0.43
7:B3:6000:MET:HG3	7:B3:6002:LEU:CD1	2.48	0.43
1:CI:1064:ARG:HD3	2:CJ:2041:ASN:HB3	2.00	0.43
3:AC:3006:LEU:HD11	8:AH:5054:MET:HG2	2.00	0.43
6:AV:8206:PHE:O	6:AV:8208:GLN:HG2	2.19	0.43
6:Ad:8184:LEU:HD21	6:Ad:8191:ARG:HB3	2.00	0.43
8:A4:5054:MET:HG2	3:Ay:3006:LEU:HD11	2.01	0.43
7:BO:6061:LEU:C	7:BO:6061:LEU:HD12	2.44	0.43
6:BV:8127:MET:HG2	6:BV:8131:TRP:CZ2	2.53	0.43
8:BX:5025:ILE:HG21	8:BX:5027:ARG:CZ	2.49	0.43
4:Bj:4005:LEU:HD23	4:Bj:4030:VAL:HG11	2.01	0.43
7:Bm:6068:PRO:CD	7:Bm:6069:ARG:N	2.80	0.43
6:Cd:8135:PRO:C	6:Cd:8137:THR:N	2.76	0.43
2:Cp:2075:ASP:OD1	6:Ct:8175:ARG:NH2	2.48	0.43
3:Cq:3000:MET:CE	3:Cq:3002:GLN:NE2	2.81	0.43
3:AS:3038:GLU:HB3	6:AV:8011:PHE:CE1	2.53	0.43
6:AV:8086:GLN:O	6:AV:8089:GLU:HB2	2.18	0.43
6:AV:8135:PRO:C	6:AV:8137:THR:N	2.75	0.43
4:Ab:4030:VAL:HG12	4:Ab:4031:ASP:N	2.34	0.43
2:Ah:2038:ASN:HB2	2:Ah:2090:VAL:HG22	2.00	0.43
6:Al:8203:VAL:HG22	6:Al:8211:PHE:HB2	2.01	0.43
7:BG:6061:LEU:C	7:BG:6061:LEU:HD12	2.44	0.43
7:BO:6072:ILE:HG21	7:BO:6152:MET:CE	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Bd:8127:MET:HG2	6:Bd:8131:TRP:CZ2	2.53	0.43
6:Bd:8209:ASN:C	6:Bd:8211:PHE:N	2.77	0.43
7:Bu:6061:LEU:C	7:Bu:6061:LEU:HD12	2.44	0.43
6:B2:8046:PRO:HB2	6:B2:8047:PRO:CD	2.49	0.43
6:B2:8127:MET:HG2	6:B2:8131:TRP:CZ2	2.54	0.43
1:Cl:1064:ARG:NH2	2:CJ:2040:ARG:HB3	2.34	0.43
6:CN:8121:LEU:HD13	6:CN:8158:LEU:HA	1.99	0.43
6:Cl:8145:VAL:HG22	6:Cl:8149:ARG:HD2	2.01	0.43
6:Ct:8065:PHE:CE2	6:Ct:8205:VAL:HG11	2.53	0.43
7:Cu:6068:PRO:CD	7:Cu:6069:ARG:N	2.82	0.43
8:AP:5008:MET:O	8:AP:5026:LEU:O	2.37	0.43
6:AV:8005:GLU:O	6:AV:8009:HIS:ND1	2.52	0.43
6:AV:8127:MET:HG2	6:AV:8131:TRP:CZ2	2.53	0.43
1:AY:1048:ARG:HG3	1:AY:1048:ARG:NH1	2.32	0.43
6:Al:8066:GLN:NE2	6:Al:8069:ARG:HH11	2.16	0.43
6:At:8188:GLU:OE2	6:At:8190:GLN:HB2	2.18	0.43
4:BD:4030:VAL:HG12	4:BD:4031:ASP:N	2.34	0.43
2:BR:2019:THR:O	6:BV:8022:THR:HG21	2.19	0.43
3:Bi:3069:ASN:OD1	4:Bj:4018:LYS:HG2	2.19	0.43
6:CF:8188:GLU:OE1	6:CF:8190:GLN:HB2	2.19	0.43
6:CV:8172:TYR:HA	6:CV:8175:ARG:HD2	2.01	0.43
4:Cb:4030:VAL:HG12	4:Cb:4031:ASP:N	2.33	0.43
7:Cm:6065:SER:OG	7:Cm:6066:SER:N	2.51	0.43
3:AK:3038:GLU:HB3	6:AN:8011:PHE:HE1	1.84	0.43
6:AF:8188:GLU:OE2	6:AF:8190:GLN:HB2	2.18	0.43
8:AH:5008:MET:O	8:AH:5026:LEU:O	2.37	0.43
8:AH:5025:ILE:HG21	8:AH:5027:ARG:CZ	2.49	0.43
8:A4:5061:SER:HB3	3:Ay:3071:THR:HG23	2.01	0.43
4:Bb:4005:LEU:HD23	4:Bb:4030:VAL:HG11	2.01	0.43
6:Bl:8135:PRO:C	6:Bl:8137:THR:N	2.76	0.43
7:Bu:6068:PRO:CD	7:Bu:6069:ARG:N	2.81	0.43
6:B2:8135:PRO:C	6:B2:8137:THR:N	2.76	0.43
1:Cl:1069:PRO:HD2	1:Cl:1072:LEU:HD22	2.01	0.43
4:CT:4002:LYS:HG3	6:CV:8014:ARG:HB3	2.01	0.43
4:Cb:4059:ARG:HD3	4:Cb:4061:ASN:OD1	2.18	0.43
6:Cl:8135:PRO:C	6:Cl:8137:THR:N	2.76	0.43
3:AK:3069:ASN:OD1	4:AL:4018:LYS:HG2	2.19	0.43
6:AN:8135:PRO:C	6:AN:8137:THR:N	2.75	0.43
4:AD:4030:VAL:HG12	4:AD:4031:ASP:N	2.33	0.43
2:AR:2019:THR:O	6:AV:8022:THR:HG21	2.19	0.43
8:Af:5063:ILE:HG22	8:Af:5064:MET:HG3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:Av:5025:ILE:HG21	8:Av:5027:ARG:CZ	2.49	0.43
6:A2:8005:GLU:O	6:A2:8009:HIS:ND1	2.52	0.43
3:Ay:3069:ASN:OD1	4:Az:4018:LYS:HG2	2.19	0.43
6:BF:8152:TYR:CD1	6:BF:8197:LEU:HD21	2.54	0.43
2:BJ:2019:THR:O	6:BN:8022:THR:HG21	2.19	0.43
3:BK:3038:GLU:HB3	6:BN:8011:PHE:CE1	2.54	0.43
2:BR:2038:ASN:HB2	2:BR:2090:VAL:HG22	2.00	0.43
6:Bt:8025:SER:HB3	6:Bt:8029:ARG:HH11	1.83	0.43
6:B2:8165:HIS:O	6:B2:8169:THR:HG23	2.19	0.43
7:CO:6065:SER:OG	7:CO:6066:SER:N	2.52	0.43
6:Cd:8172:TYR:O	6:Cd:8176:THR:HG23	2.19	0.43
6:Ct:8184:LEU:HD21	6:Ct:8191:ARG:HB3	2.00	0.43
7:Cu:6061:LEU:C	7:Cu:6061:LEU:HD12	2.44	0.43
1:Ag:1018:LYS:HE2	1:Ag:1061:ASN:O	2.19	0.42
4:Aj:4030:VAL:HG12	4:Aj:4031:ASP:N	2.34	0.42
5:Ak:7008:VAL:HG12	6:Al:8108:PRO:HD2	2.00	0.42
1:Ao:1018:LYS:HE2	1:Ao:1061:ASN:O	2.18	0.42
8:A4:5008:MET:O	8:A4:5026:LEU:O	2.37	0.42
6:BF:8122:GLU:O	6:BF:8126:GLU:HG2	2.19	0.42
6:BV:8005:GLU:O	6:BV:8009:HIS:ND1	2.52	0.42
6:Bt:8127:MET:HG2	6:Bt:8131:TRP:CZ2	2.54	0.42
7:Bu:6066:SER:HA	7:Bu:6069:ARG:C	2.44	0.42
2:CJ:2075:ASP:OD1	6:CN:8175:ARG:NH2	2.52	0.42
6:CN:8005:GLU:O	6:CN:8009:HIS:ND1	2.52	0.42
3:Cq:3069:ASN:OD1	4:Cr:4018:LYS:HG2	2.19	0.42
8:Cv:5030:ASP:HB2	8:Cv:5031:PRO:HD2	2.00	0.42
2:AJ:2040:ARG:HH22	7:AO:6165:SER:C	2.27	0.42
4:AT:4000:ASN:O	4:AT:4003:PRO:HD2	2.19	0.42
6:Ad:8054:THR:HG23	6:Ad:8057:TRP:CB	2.49	0.42
6:A2:8201:LEU:O	6:A2:8202:THR:C	2.61	0.42
6:Bd:8046:PRO:HB2	6:Bd:8047:PRO:CD	2.50	0.42
1:Bg:1043:MET:HE1	7:Bm:6073:TYR:CE2	2.54	0.42
4:Bj:4031:ASP:HA	6:Bl:8020:VAL:HG22	1.99	0.42
6:Bt:8135:PRO:C	6:Bt:8137:THR:N	2.76	0.42
6:B2:8159:HIS:ND1	6:B2:8159:HIS:N	2.67	0.42
1:CA:1001:LEU:HD23	1:CA:1001:LEU:HA	1.83	0.42
2:CB:2019:THR:O	6:CF:8022:THR:HG21	2.19	0.42
6:CN:8055:PRO:HA	6:CN:8058:ARG:HB2	2.02	0.42
4:Cb:4005:LEU:HD23	4:Cb:4030:VAL:HG11	2.01	0.42
6:Cd:8005:GLU:O	6:Cd:8009:HIS:ND1	2.52	0.42
4:AL:4030:VAL:HG12	4:AL:4031:ASP:N	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:6068:PRO:HD2	7:AG:6069:ARG:N	2.29	0.42
8:An:5008:MET:O	8:An:5026:LEU:O	2.37	0.42
6:At:8177:CYS:CB	6:At:8195:TYR:HB3	2.47	0.42
6:At:8184:LEU:HD21	6:At:8191:ARG:HB3	2.01	0.42
6:A2:8086:GLN:O	6:A2:8089:GLU:HB2	2.18	0.42
6:BN:8086:GLN:O	6:BN:8089:GLU:HB2	2.18	0.42
1:BQ:1018:LYS:HE2	1:BQ:1061:ASN:O	2.19	0.42
8:Bf:5007:PHE:O	8:Bf:5008:MET:C	2.62	0.42
2:Bp:2077:TYR:CE2	6:Bt:8209:ASN:HB2	2.54	0.42
6:Bt:8044:GLU:OE1	6:Bt:8044:GLU:HA	2.19	0.42
6:B2:8022:THR:HG21	2:Bx:2019:THR:O	2.19	0.42
6:CF:8005:GLU:O	6:CF:8009:HIS:ND1	2.52	0.42
7:CG:6038:GLN:HG2	7:CG:6158:LEU:HD23	2.01	0.42
1:CQ:1018:LYS:HA	1:CQ:1064:ARG:HD2	2.02	0.42
2:CR:2043:LYS:HE2	2:CR:2067:TRP:CD2	2.54	0.42
4:CT:4059:ARG:HD3	4:CT:4061:ASN:OD1	2.19	0.42
6:CV:8005:GLU:O	6:CV:8009:HIS:ND1	2.52	0.42
7:Cm:6061:LEU:C	7:Cm:6061:LEU:HD12	2.44	0.42
7:AG:6018:ASN:ND2	7:AG:6019:ASN:HB2	2.31	0.42
7:Ae:6038:GLN:HG2	7:Ae:6158:LEU:HD23	2.00	0.42
6:Al:8141:LEU:HD12	6:Al:8195:TYR:CD1	2.54	0.42
5:As:7005:SER:O	5:As:7007:LEU:N	2.52	0.42
6:A2:8046:PRO:HB2	6:A2:8047:PRO:CD	2.50	0.42
1:BA:1064:ARG:NH2	2:BB:2040:ARG:HB3	2.35	0.42
6:BV:8203:VAL:O	6:BV:8207:ALA:HA	2.19	0.42
6:Bt:8209:ASN:HD22	6:Bt:8212:LYS:HE3	1.85	0.42
7:Bu:6038:GLN:HG2	7:Bu:6158:LEU:HD23	2.01	0.42
4:CL:4005:LEU:HD23	4:CL:4030:VAL:HG11	2.01	0.42
2:CR:2040:ARG:HB2	2:CR:2087:SER:O	2.20	0.42
7:Cu:6065:SER:OG	7:Cu:6066:SER:N	2.52	0.42
6:AN:8046:PRO:HB2	6:AN:8047:PRO:CD	2.50	0.42
3:AC:3000:MET:CE	3:AC:3002:GLN:NE2	2.80	0.42
6:AF:8188:GLU:OE1	6:AF:8190:GLN:HB2	2.19	0.42
4:Aj:4002:LYS:HG3	6:Al:8014:ARG:HB3	2.01	0.42
4:BD:4002:LYS:HG3	6:BF:8014:ARG:CB	2.50	0.42
6:BF:8005:GLU:O	6:BF:8009:HIS:ND1	2.52	0.42
8:BH:5008:MET:O	8:BH:5026:LEU:O	2.38	0.42
6:Bl:8086:GLN:O	6:Bl:8089:GLU:HB2	2.19	0.42
8:Bn:5030:ASP:HB2	8:Bn:5031:PRO:HD2	1.99	0.42
4:Br:4005:LEU:HD23	4:Br:4030:VAL:HG11	2.01	0.42
6:Bt:8046:PRO:HB2	6:Bt:8047:PRO:CD	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:B2:8020:VAL:HG22	4:Bz:4031:ASP:HA	2.00	0.42
6:CF:8185:LYS:HB2	6:CF:8186:GLU:C	2.44	0.42
4:Cj:4030:VAL:O	6:Cl:8020:VAL:HG13	2.19	0.42
5:Ck:7007:LEU:HD11	6:Cl:8156:VAL:HG11	2.02	0.42
6:Cl:8005:GLU:O	6:Cl:8009:HIS:ND1	2.52	0.42
8:Cv:5007:PHE:O	8:Cv:5008:MET:C	2.62	0.42
6:AN:8012:TYR:O	6:AN:8016:ARG:HG2	2.20	0.42
7:AO:6066:SER:HA	7:AO:6069:ARG:C	2.44	0.42
1:AY:1001:LEU:HD23	1:AY:1001:LEU:HA	1.86	0.42
4:Ab:4005:LEU:HD23	4:Ab:4030:VAL:HG11	2.02	0.42
6:Al:8046:PRO:HB2	6:Al:8047:PRO:CD	2.50	0.42
7:Am:6061:LEU:C	7:Am:6061:LEU:HD12	2.45	0.42
2:Ap:2040:ARG:C	2:Ap:2042:ASN:H	2.26	0.42
2:Ap:2049:VAL:HA	2:Ap:2060:LEU:HD23	2.02	0.42
3:BC:3000:MET:CE	3:BC:3002:GLN:NE2	2.80	0.42
6:BF:8188:GLU:OE1	6:BF:8190:GLN:HB2	2.19	0.42
4:BL:4030:VAL:HG12	4:BL:4031:ASP:N	2.35	0.42
3:Ba:3069:ASN:OD1	4:Bb:4018:LYS:HG2	2.20	0.42
6:Bd:8002:SER:H	6:Bd:8005:GLU:HB2	1.84	0.42
7:Bm:6066:SER:HA	7:Bm:6069:ARG:C	2.45	0.42
8:Bn:5007:PHE:O	8:Bn:5008:MET:C	2.62	0.42
6:B2:8171:ARG:NH1	6:B2:8208:GLN:OE1	2.52	0.42
6:CN:8185:LYS:HB2	6:CN:8186:GLU:C	2.44	0.42
7:CO:6072:ILE:HB	7:CO:6137:LEU:HB2	2.00	0.42
7:Ce:6061:LEU:C	7:Ce:6061:LEU:HD12	2.45	0.42
7:Ce:6068:PRO:HD2	7:Ce:6069:ARG:N	2.28	0.42
7:Cu:6066:SER:HA	7:Cu:6069:ARG:C	2.44	0.42
3:AK:3006:LEU:HD11	8:AP:5054:MET:HG2	2.02	0.42
6:AN:8005:GLU:O	6:AN:8009:HIS:ND1	2.53	0.42
2:AB:2016:GLU:OE1	6:AF:8020:VAL:HG11	2.19	0.42
7:AW:6065:SER:OG	7:AW:6066:SER:N	2.52	0.42
3:Aa:3038:GLU:HB3	6:Ad:8011:PHE:CE1	2.54	0.42
6:Al:8188:GLU:OE1	6:Al:8190:GLN:HB2	2.19	0.42
3:Aq:3069:ASN:OD1	4:Ar:4018:LYS:HG2	2.19	0.42
6:At:8141:LEU:HD12	6:At:8195:TYR:CD1	2.54	0.42
8:Av:5008:MET:O	8:Av:5026:LEU:O	2.38	0.42
6:A2:8124:LEU:HD12	6:A2:8127:MET:CE	2.49	0.42
7:BO:6066:SER:HA	7:BO:6069:ARG:C	2.45	0.42
6:BV:8043:PRO:HB2	6:BV:8178:ILE:HG21	2.01	0.42
7:Be:6061:LEU:C	7:Be:6061:LEU:HD12	2.44	0.42
6:Bl:8069:ARG:HA	6:Bl:8156:VAL:HG23	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Bt:8005:GLU:O	6:Bt:8009:HIS:ND1	2.52	0.42
6:Bt:8058:ARG:HD2	6:Bt:8204:GLN:OE1	2.20	0.42
6:B2:8113:LEU:HA	6:B2:8116:LEU:HD12	2.00	0.42
7:B3:6061:LEU:C	7:B3:6061:LEU:HD12	2.45	0.42
4:Bz:4005:LEU:HD23	4:Bz:4030:VAL:HG11	2.02	0.42
4:CL:4030:VAL:HG12	4:CL:4031:ASP:N	2.35	0.42
7:Ce:6078:HIS:HA	7:Ce:6131:GLU:O	2.20	0.42
1:Co:1069:PRO:HD2	1:Co:1072:LEU:HD22	2.02	0.42
4:AL:4000:ASN:O	4:AL:4003:PRO:HD2	2.20	0.42
6:AN:8141:LEU:HD12	6:AN:8195:TYR:CD1	2.54	0.42
4:AT:4005:LEU:HD23	4:AT:4030:VAL:HG11	2.02	0.42
6:AV:8046:PRO:HB2	6:AV:8047:PRO:CD	2.50	0.42
8:AX:5008:MET:O	8:AX:5026:LEU:O	2.38	0.42
8:Af:5008:MET:O	8:Af:5026:LEU:O	2.38	0.42
3:Ai:3069:ASN:OD1	4:Aj:4018:LYS:HG2	2.20	0.42
3:Ai:3071:THR:HG23	8:An:5061:SER:HB3	2.02	0.42
2:Ap:2077:TYR:CD1	6:At:8210:ASP:HB3	2.55	0.42
6:At:8177:CYS:HB3	6:At:8195:TYR:HD1	1.85	0.42
7:BG:6066:SER:HA	7:BG:6069:ARG:C	2.45	0.42
6:BN:8012:TYR:O	6:BN:8016:ARG:HG2	2.20	0.42
4:BT:4005:LEU:HD23	4:BT:4030:VAL:HG11	2.02	0.42
2:Bh:2019:THR:O	6:Bl:8022:THR:HG21	2.20	0.42
3:Bi:3000:MET:CE	3:Bi:3002:GLN:NE2	2.83	0.42
6:Bl:8005:GLU:O	6:Bl:8009:HIS:ND1	2.52	0.42
6:Bl:8160:LEU:HA	6:Bl:8161:PRO:C	2.44	0.42
8:Bv:5007:PHE:O	8:Bv:5008:MET:C	2.62	0.42
5:B1:7002:TRP:HB2	5:B1:7003:ASP:H	1.60	0.42
8:B4:5007:PHE:O	8:B4:5008:MET:C	2.62	0.42
3:By:3069:ASN:OD1	4:Bz:4018:LYS:HG2	2.20	0.42
6:CF:8044:GLU:OE1	6:CF:8044:GLU:HA	2.18	0.42
1:AI:1018:LYS:HE2	1:AI:1061:ASN:O	2.20	0.42
3:AC:3069:ASN:OD1	4:AD:4018:LYS:HG2	2.19	0.42
3:AC:3071:THR:HG23	8:AH:5061:SER:HB3	2.01	0.42
6:AV:8185:LYS:HB2	6:AV:8186:GLU:C	2.45	0.42
6:AV:8209:ASN:C	6:AV:8211:PHE:N	2.77	0.42
7:Am:6066:SER:HA	7:Am:6069:ARG:C	2.44	0.42
6:At:8005:GLU:O	6:At:8009:HIS:ND1	2.52	0.42
7:Au:6068:PRO:HD2	7:Au:6069:ARG:N	2.30	0.42
3:BC:3071:THR:HG23	8:BH:5061:SER:HB3	2.02	0.42
6:BN:8005:GLU:O	6:BN:8009:HIS:ND1	2.53	0.42
3:BS:3038:GLU:HB3	6:BV:8011:PHE:CE1	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Bd:8135:PRO:C	6:Bd:8137:THR:N	2.77	0.42
6:Bl:8065:PHE:CE2	6:Bl:8205:VAL:HG11	2.54	0.42
8:Bn:5008:MET:O	8:Bn:5026:LEU:O	2.38	0.42
6:Bt:8012:TYR:O	6:Bt:8016:ARG:HG2	2.20	0.42
6:B2:8012:TYR:O	6:B2:8016:ARG:HG2	2.20	0.42
2:CJ:2043:LYS:HD3	2:CJ:2067:TRP:CD2	2.55	0.42
4:Cj:4059:ARG:HD3	4:Cj:4061:ASN:OD1	2.19	0.42
6:Ct:8005:GLU:O	6:Ct:8009:HIS:ND1	2.52	0.42
6:Ad:8086:GLN:O	6:Ad:8089:GLU:HB2	2.19	0.42
6:At:8046:PRO:HB2	6:At:8047:PRO:CD	2.50	0.42
6:A2:8185:LYS:HB2	6:A2:8186:GLU:C	2.45	0.42
7:BG:6149:TYR:HA	7:BG:6152:MET:HE2	2.02	0.42
3:BS:3071:THR:HG23	8:BX:5061:SER:HB3	2.02	0.42
8:BX:5008:MET:O	8:BX:5026:LEU:O	2.38	0.42
8:Bf:5008:MET:O	8:Bf:5026:LEU:O	2.38	0.42
6:Bl:8171:ARG:NH1	6:Bl:8208:GLN:OE1	2.52	0.42
7:Bu:6065:SER:OG	7:Bu:6066:SER:N	2.53	0.42
6:CF:8154:THR:O	6:CF:8158:LEU:HG	2.20	0.42
8:CX:5007:PHE:O	8:CX:5008:MET:C	2.62	0.42
2:Ch:2064:LYS:HE3	2:Ch:2075:ASP:OD2	2.20	0.42
1:Co:1064:ARG:HH11	2:Cp:2041:ASN:HB3	1.85	0.42
2:Cp:2067:TRP:CE2	2:Cp:2074:LYS:HB2	2.55	0.42
2:AB:2040:ARG:C	2:AB:2042:ASN:N	2.78	0.41
6:AF:8012:TYR:O	6:AF:8016:ARG:HG2	2.20	0.41
6:AF:8071:GLN:O	6:AF:8074:VAL:HB	2.20	0.41
4:Ab:4000:ASN:O	4:Ab:4003:PRO:HD2	2.20	0.41
6:Al:8005:GLU:O	6:Al:8009:HIS:ND1	2.53	0.41
6:Al:8168:SER:O	6:Al:8172:TYR:HD2	2.03	0.41
6:At:8012:TYR:O	6:At:8016:ARG:HG2	2.20	0.41
8:A4:5063:ILE:HG22	8:A4:5064:MET:HG3	2.02	0.41
6:BN:8178:ILE:HG13	6:BN:8199:LEU:HD21	2.02	0.41
1:BQ:1069:PRO:HD2	1:BQ:1072:LEU:HD22	2.02	0.41
6:BV:8012:TYR:O	6:BV:8016:ARG:HG2	2.20	0.41
3:Ba:3000:MET:CE	3:Ba:3002:GLN:NE2	2.83	0.41
6:Bd:8146:TRP:O	6:Bd:8150:TRP:HD1	2.03	0.41
7:Be:6066:SER:HA	7:Be:6069:ARG:C	2.45	0.41
1:CA:1069:PRO:HD2	1:CA:1072:LEU:HD22	2.02	0.41
2:CB:2067:TRP:CE2	2:CB:2074:LYS:HB2	2.55	0.41
6:CF:8012:TYR:O	6:CF:8016:ARG:HG2	2.20	0.41
3:CK:3071:THR:HG23	8:CP:5061:SER:HB3	2.01	0.41
7:CW:6061:LEU:C	7:CW:6061:LEU:HD12	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:Cf:5007:PHE:O	8:Cf:5008:MET:C	2.62	0.41
1:Cg:1001:LEU:HD23	1:Cg:1001:LEU:HA	1.85	0.41
1:Cg:1059:ARG:NH2	7:Cm:6159:HIS:O	2.51	0.41
8:Cn:5064:MET:HE3	8:Cn:5064:MET:HB2	1.86	0.41
6:Ct:8046:PRO:HB2	6:Ct:8047:PRO:CD	2.50	0.41
7:AW:6072:ILE:HB	7:AW:6137:LEU:HB2	2.03	0.41
6:Ad:8185:LYS:HB2	6:Ad:8186:GLU:C	2.45	0.41
6:A2:8100:LYS:HD3	6:A2:8104:ARG:CZ	2.50	0.41
7:A3:6066:SER:HA	7:A3:6069:ARG:C	2.45	0.41
7:A3:6072:ILE:HB	7:A3:6137:LEU:HB2	2.03	0.41
6:BF:8046:PRO:HB2	6:BF:8047:PRO:CD	2.50	0.41
2:BJ:2049:VAL:HA	2:BJ:2060:LEU:HD23	2.03	0.41
8:BP:5008:MET:O	8:BP:5026:LEU:O	2.38	0.41
2:Bh:2049:VAL:HA	2:Bh:2060:LEU:HD23	2.02	0.41
4:Br:4030:VAL:HG12	4:Br:4031:ASP:N	2.36	0.41
8:Bv:5030:ASP:HB2	8:Bv:5031:PRO:HD2	2.00	0.41
6:B2:8168:SER:HA	6:B2:8171:ARG:HD3	2.01	0.41
4:Bz:4030:VAL:HG12	4:Bz:4031:ASP:N	2.36	0.41
3:CC:3069:ASN:OD1	4:CD:4018:LYS:HG2	2.18	0.41
2:CZ:2040:ARG:HB2	2:CZ:2087:SER:O	2.20	0.41
6:Cd:8141:LEU:HD12	6:Cd:8195:TYR:CD1	2.55	0.41
2:Cp:2043:LYS:HD3	2:Cp:2065:GLU:OE2	2.20	0.41
4:Cr:4030:VAL:HG12	4:Cr:4031:ASP:N	2.35	0.41
6:AN:8007:LEU:HG	6:AN:8011:PHE:CE1	2.55	0.41
6:AN:8196:ASN:HA	6:AN:8215:ILE:HD11	2.02	0.41
2:AR:2038:ASN:HB2	2:AR:2090:VAL:HG22	2.01	0.41
1:AY:1069:PRO:HD2	1:AY:1072:LEU:HD22	2.02	0.41
2:AZ:2038:ASN:HB2	2:AZ:2090:VAL:HG22	2.01	0.41
6:Al:8135:PRO:C	6:Al:8137:THR:N	2.76	0.41
7:Am:6038:GLN:HG2	7:Am:6158:LEU:HD23	2.02	0.41
6:At:8054:THR:HG23	6:At:8057:TRP:CB	2.49	0.41
6:At:8209:ASN:HB3	6:At:8212:LYS:HE3	2.01	0.41
2:Ax:2038:ASN:HB2	2:Ax:2090:VAL:HG22	2.01	0.41
2:Ax:2049:VAL:HA	2:Ax:2060:LEU:HD23	2.02	0.41
4:BD:4002:LYS:HG3	6:BF:8014:ARG:HB3	2.01	0.41
3:BK:3000:MET:CE	3:BK:3002:GLN:NE2	2.82	0.41
7:Be:6000:MET:HG3	7:Be:6002:LEU:HD13	2.03	0.41
3:Bi:3008:PHE:CZ	6:Bl:8001:GLU:HB2	2.56	0.41
2:Bp:2040:ARG:HA	2:Bp:2089:ILE:HD11	2.03	0.41
6:B2:8167:PHE:O	6:B2:8171:ARG:HG3	2.20	0.41
7:B3:6066:SER:HA	7:B3:6069:ARG:C	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CN:8046:PRO:HB2	6:CN:8047:PRO:CD	2.50	0.41
6:CN:8172:TYR:CD2	6:CN:8175:ARG:NH1	2.88	0.41
6:Cd:8148:ALA:HA	6:Cd:8151:LEU:HD12	2.02	0.41
6:Cd:8185:LYS:HB2	6:Cd:8186:GLU:C	2.45	0.41
6:Cl:8086:GLN:O	6:Cl:8089:GLU:HB2	2.20	0.41
7:Cm:6066:SER:HA	7:Cm:6069:ARG:C	2.45	0.41
7:AG:6066:SER:HA	7:AG:6069:ARG:C	2.45	0.41
2:AR:2040:ARG:HA	2:AR:2089:ILE:HD11	2.02	0.41
6:A2:8135:PRO:C	6:A2:8137:THR:N	2.75	0.41
7:BG:6010:GLU:CD	7:BG:6010:GLU:C	2.89	0.41
2:BJ:2077:TYR:HE2	6:BN:8209:ASN:HB2	1.80	0.41
7:Be:6081:GLU:HB2	8:Bf:5064:MET:HE1	2.02	0.41
2:Bh:2043:LYS:HG2	2:Bh:2067:TRP:HB3	2.03	0.41
4:Br:4000:ASN:O	4:Br:4003:PRO:HD2	2.21	0.41
8:CH:5007:PHE:O	8:CH:5008:MET:C	2.62	0.41
7:CO:6061:LEU:C	7:CO:6061:LEU:HD12	2.45	0.41
1:CQ:1001:LEU:HD23	1:CQ:1001:LEU:HA	1.85	0.41
6:CV:8188:GLU:OE1	6:CV:8190:GLN:HB2	2.20	0.41
6:Cd:8012:TYR:O	6:Cd:8016:ARG:HG2	2.21	0.41
8:Cn:5007:PHE:O	8:Cn:5008:MET:C	2.62	0.41
6:Ct:8012:TYR:O	6:Ct:8016:ARG:HG2	2.20	0.41
6:Ct:8185:LYS:HB2	6:Ct:8186:GLU:C	2.45	0.41
7:Cu:6072:ILE:HB	7:Cu:6137:LEU:HB2	2.01	0.41
8:Cv:5008:MET:O	8:Cv:5026:LEU:O	2.37	0.41
2:AJ:2049:VAL:HA	2:AJ:2060:LEU:HD23	2.03	0.41
6:AN:8188:GLU:OE2	6:AN:8190:GLN:HB2	2.20	0.41
6:AN:8203:VAL:O	6:AN:8207:ALA:HA	2.21	0.41
4:AD:4000:ASN:O	4:AD:4003:PRO:HD2	2.20	0.41
6:AF:8005:GLU:O	6:AF:8009:HIS:ND1	2.53	0.41
6:Ad:8188:GLU:OE2	6:Ad:8190:GLN:HB2	2.21	0.41
2:Ah:2019:THR:O	6:Al:8022:THR:HG21	2.21	0.41
4:Ar:4030:VAL:HG12	4:Ar:4031:ASP:N	2.35	0.41
6:At:8188:GLU:OE1	6:At:8190:GLN:HB2	2.20	0.41
1:Aw:1018:LYS:HE2	1:Aw:1061:ASN:O	2.20	0.41
6:BN:8122:GLU:O	6:BN:8126:GLU:HG2	2.20	0.41
6:Bd:8185:LYS:HB2	6:Bd:8186:GLU:C	2.45	0.41
6:Bl:8185:LYS:HB2	6:Bl:8186:GLU:C	2.45	0.41
1:Bo:1069:PRO:HD2	1:Bo:1072:LEU:HD22	2.02	0.41
2:Bp:2019:THR:O	6:Bt:8022:THR:HG21	2.21	0.41
2:Bp:2043:LYS:HG2	2:Bp:2067:TRP:CB	2.47	0.41
2:Bp:2067:TRP:CE2	2:Bp:2074:LYS:HB2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Bq:3000:MET:CE	3:Bq:3002:GLN:NE2	2.83	0.41
6:Bt:8185:LYS:HB2	6:Bt:8186:GLU:C	2.45	0.41
2:Bx:2049:VAL:HA	2:Bx:2060:LEU:HD23	2.02	0.41
2:Bx:2067:TRP:CE2	2:Bx:2074:LYS:HB2	2.56	0.41
7:CG:6072:ILE:HB	7:CG:6137:LEU:HB2	2.02	0.41
8:CP:5007:PHE:O	8:CP:5008:MET:C	2.63	0.41
7:CW:6078:HIS:HA	7:CW:6131:GLU:O	2.20	0.41
6:AN:8185:LYS:HB2	6:AN:8186:GLU:C	2.45	0.41
2:AB:2049:VAL:HA	2:AB:2060:LEU:HD23	2.03	0.41
2:AZ:2064:LYS:HE2	6:Ad:8039:MET:HE1	2.02	0.41
3:Aa:3071:THR:HG23	8:Af:5061:SER:HB3	2.03	0.41
2:Ap:2064:LYS:HE2	6:At:8039:MET:HE1	2.01	0.41
6:At:8155:LEU:HD21	6:At:8170:LEU:HD13	2.02	0.41
1:BA:1069:PRO:HD2	1:BA:1072:LEU:HD22	2.02	0.41
2:BR:2049:VAL:HA	2:BR:2060:LEU:HD23	2.03	0.41
2:Bp:2049:VAL:HA	2:Bp:2060:LEU:HD23	2.03	0.41
6:B2:8184:LEU:HD21	6:B2:8191:ARG:HB3	2.03	0.41
1:Bw:1069:PRO:HD2	1:Bw:1072:LEU:HD22	2.02	0.41
4:Bz:4059:ARG:HD3	4:Bz:4061:ASN:OD1	2.21	0.41
1:CA:1050:PRO:HG3	6:CF:8159:HIS:HB2	2.03	0.41
8:CH:5063:ILE:HG22	8:CH:5064:MET:HG3	2.03	0.41
6:CN:8122:GLU:O	6:CN:8126:GLU:HG2	2.21	0.41
6:CN:8184:LEU:HD21	6:CN:8191:ARG:HB3	2.02	0.41
4:CT:4005:LEU:HD23	4:CT:4030:VAL:HG11	2.02	0.41
6:CV:8012:TYR:O	6:CV:8016:ARG:HG2	2.21	0.41
6:CV:8168:SER:O	6:CV:8172:TYR:HD2	2.03	0.41
2:CZ:2077:TYR:CD1	6:Cd:8210:ASP:HB3	2.56	0.41
6:Cl:8184:LEU:HD21	6:Cl:8191:ARG:HB3	2.02	0.41
6:Cl:8188:GLU:OE1	6:Cl:8190:GLN:HB2	2.20	0.41
7:Ae:6066:SER:HA	7:Ae:6069:ARG:C	2.45	0.41
6:Al:8184:LEU:HD21	6:Al:8191:ARG:HB3	2.02	0.41
6:BF:8184:LEU:HD21	6:BF:8191:ARG:HB3	2.03	0.41
2:BJ:2089:ILE:HA	4:BL:4062:ASN:ND2	2.36	0.41
4:BT:4000:ASN:O	4:BT:4003:PRO:HD2	2.21	0.41
7:BW:6061:LEU:C	7:BW:6061:LEU:HD12	2.46	0.41
3:Bq:3071:THR:HG23	8:Bv:5061:SER:HB3	2.03	0.41
6:Bt:8188:GLU:OE1	6:Bt:8190:GLN:HB2	2.20	0.41
7:Bu:6072:ILE:HB	7:Bu:6137:LEU:HB2	2.03	0.41
6:B2:8185:LYS:HB2	6:B2:8186:GLU:C	2.46	0.41
7:CO:6066:SER:HA	7:CO:6069:ARG:C	2.45	0.41
1:CY:1069:PRO:HD2	1:CY:1072:LEU:HD22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Cd:8204:GLN:HE21	6:Cd:8204:GLN:HB3	1.76	0.41
2:Ch:2019:THR:O	6:Cl:8022:THR:HG21	2.20	0.41
2:Cp:2049:VAL:HA	2:Cp:2060:LEU:HD23	2.02	0.41
6:Ct:8209:ASN:O	6:Ct:8212:LYS:HB2	2.21	0.41
2:Aj:2038:ASN:HB2	2:Aj:2090:VAL:HG22	2.01	0.41
6:AN:8201:LEU:CD2	6:AN:8205:VAL:HG21	2.50	0.41
6:AF:8185:LYS:HB2	6:AF:8186:GLU:C	2.45	0.41
6:Al:8012:TYR:O	6:Al:8016:ARG:HG2	2.21	0.41
6:Al:8167:PHE:HA	6:Al:8170:LEU:HD23	2.03	0.41
6:Al:8185:LYS:HB2	6:Al:8186:GLU:C	2.45	0.41
3:Aq:3000:MET:CE	3:Aq:3002:GLN:NE2	2.81	0.41
4:Ar:4000:ASN:O	4:Ar:4003:PRO:HD2	2.21	0.41
8:A4:5007:PHE:O	8:A4:5008:MET:C	2.63	0.41
8:BH:5007:PHE:O	8:BH:5008:MET:C	2.63	0.41
4:BL:4000:ASN:O	4:BL:4003:PRO:HD2	2.21	0.41
6:BN:8184:LEU:HD21	6:BN:8191:ARG:HB3	2.03	0.41
2:Bh:2067:TRP:CE2	2:Bh:2074:LYS:HB2	2.56	0.41
8:Bv:5008:MET:O	8:Bv:5026:LEU:O	2.38	0.41
4:CD:4005:LEU:HD23	4:CD:4030:VAL:HG11	2.03	0.41
1:CI:1018:LYS:HE2	1:CI:1061:ASN:O	2.21	0.41
6:CV:8185:LYS:HB2	6:CV:8186:GLU:C	2.46	0.41
6:CV:8202:THR:HG22	6:CV:8208:GLN:HB2	2.02	0.41
7:CW:6066:SER:HA	7:CW:6069:ARG:C	2.45	0.41
3:Ca:3055:LYS:HD3	3:Ca:3055:LYS:HA	1.96	0.41
6:Cd:8141:LEU:HD22	6:Cd:8148:ALA:HB2	2.03	0.41
2:Ch:2040:ARG:HE	4:Cj:4019:TRP:HZ2	1.69	0.41
6:Cl:8012:TYR:O	6:Cl:8016:ARG:HG2	2.21	0.41
6:Ct:8199:LEU:HB2	6:Ct:8215:ILE:HD13	2.02	0.41
2:Aj:2092:LEU:CD2	4:AL:4056:VAL:HG22	2.38	0.41
4:AL:4000:ASN:ND2	6:AN:8010:MET:HB2	2.36	0.41
5:AM:7005:SER:O	5:AM:7007:LEU:N	2.53	0.41
7:AO:6038:GLN:HG2	7:AO:6158:LEU:HD23	2.02	0.41
1:AA:1018:LYS:HE2	1:AA:1061:ASN:O	2.21	0.41
6:AF:8054:THR:HG23	6:AF:8057:TRP:CB	2.50	0.41
6:AF:8100:LYS:HD3	6:AF:8104:ARG:CZ	2.51	0.41
6:AV:8054:THR:HG23	6:AV:8057:TRP:CB	2.51	0.41
6:Ad:8199:LEU:HB2	6:Ad:8215:ILE:HD13	2.03	0.41
4:Aj:4000:ASN:O	4:Aj:4003:PRO:HD2	2.21	0.41
5:Ak:7007:LEU:HD11	6:Al:8156:VAL:HG21	2.03	0.41
8:An:5004:LEU:HD11	8:An:5033:MET:HE1	2.02	0.41
3:Aq:3038:GLU:HB3	6:At:8011:PHE:CE1	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Aq:3071:THR:HG23	8:Av:5061:SER:HB3	2.03	0.41
7:Au:6000:MET:HG3	7:Au:6002:LEU:CD1	2.50	0.41
6:A2:8209:ASN:HB3	6:A2:8212:LYS:HE3	2.03	0.41
2:BB:2019:THR:O	6:BF:8022:THR:HG21	2.21	0.41
5:BM:7011:TYR:HB2	6:BN:8152:TYR:CD2	2.55	0.41
6:BN:8128:LEU:HD23	6:BN:8147:LEU:HD23	2.02	0.41
8:BP:5007:PHE:O	8:BP:5008:MET:C	2.63	0.41
7:BW:6066:SER:HA	7:BW:6069:ARG:C	2.46	0.41
2:BZ:2040:ARG:NE	4:Bb:4019:TRP:CZ2	2.86	0.41
6:Bd:8012:TYR:O	6:Bd:8016:ARG:HG2	2.21	0.41
6:Bl:8012:TYR:O	6:Bl:8016:ARG:HG2	2.21	0.41
6:Bl:8113:LEU:HD13	6:Bl:8116:LEU:HD12	2.02	0.41
6:Bl:8188:GLU:CD	6:Bl:8190:GLN:HB2	2.46	0.41
7:Bm:6038:GLN:HG2	7:Bm:6158:LEU:HD23	2.03	0.41
8:B4:5061:SER:HB3	3:By:3071:THR:HG23	2.03	0.41
3:By:3016:ARG:CD	3:By:3030:GLU:HG2	2.51	0.41
4:Bz:4000:ASN:O	4:Bz:4003:PRO:HD2	2.21	0.41
4:CD:4002:LYS:HG3	6:CF:8014:ARG:HB3	2.03	0.41
6:CF:8209:ASN:O	6:CF:8212:LYS:HB2	2.21	0.41
7:CG:6061:LEU:C	7:CG:6061:LEU:HD12	2.46	0.41
7:CG:6068:PRO:HD2	7:CG:6069:ARG:N	2.29	0.41
6:CN:8012:TYR:O	6:CN:8016:ARG:HG2	2.21	0.41
7:CW:6062:HIS:CD2	7:CW:6152:MET:HE3	2.55	0.41
3:Ca:3069:ASN:OD1	4:Cb:4018:LYS:HG2	2.19	0.41
4:Cb:4002:LYS:HG3	6:Cd:8014:ARG:HB3	2.03	0.41
5:Cc:7002:TRP:HB2	5:Cc:7003:ASP:H	1.67	0.41
1:Cg:1069:PRO:HD2	1:Cg:1072:LEU:HD22	2.03	0.41
2:Cp:2041:ASN:OD1	2:Cp:2043:LYS:HB2	2.19	0.41
6:Ct:8151:LEU:O	6:Ct:8155:LEU:HG	2.21	0.41
5:AM:7010:THR:O	5:AM:7014:SER:HB2	2.21	0.41
6:AF:8162:LEU:HB2	6:AF:8167:PHE:CE1	2.56	0.41
3:AS:3071:THR:HG23	8:AX:5061:SER:HB3	2.03	0.41
7:Ae:6010:GLU:CD	7:Ae:6010:GLU:C	2.89	0.41
6:Al:8109:LEU:H	6:Al:8109:LEU:HG	1.60	0.41
1:Ao:1002:VAL:O	1:Ao:1006:MET:HG3	2.21	0.41
1:Ao:1069:PRO:HD2	1:Ao:1072:LEU:HD22	2.03	0.41
6:A2:8184:LEU:HD21	6:A2:8191:ARG:HB3	2.03	0.41
1:Aw:1069:PRO:HD2	1:Aw:1072:LEU:HD22	2.03	0.41
2:BB:2049:VAL:HA	2:BB:2060:LEU:HD23	2.03	0.41
8:BX:5007:PHE:O	8:BX:5008:MET:C	2.63	0.41
5:Bc:7005:SER:O	5:Bc:7007:LEU:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:B2:8100:LYS:HD3	6:B2:8104:ARG:CZ	2.51	0.41
6:B2:8188:GLU:OE1	6:B2:8190:GLN:HB2	2.20	0.41
6:CF:8007:LEU:HG	6:CF:8011:PHE:CE1	2.55	0.41
8:CH:5007:PHE:O	8:CH:5008:MET:O	2.39	0.41
2:CJ:2084:ARG:NH2	2:CJ:2086:ASP:OD2	2.54	0.41
6:CN:8069:ARG:O	6:CN:8073:LEU:HD12	2.20	0.41
8:CP:5008:MET:O	8:CP:5026:LEU:O	2.38	0.41
6:Cd:8007:LEU:HG	6:Cd:8011:PHE:CE1	2.55	0.41
2:Ch:2049:VAL:HA	2:Ch:2060:LEU:HD23	2.02	0.41
4:Cr:4000:ASN:O	4:Cr:4003:PRO:HD2	2.21	0.41
6:Ct:8054:THR:HG23	6:Ct:8057:TRP:CB	2.51	0.41
7:AO:6081:GLU:O	8:AP:5064:MET:HE1	2.22	0.40
3:AC:3016:ARG:CD	3:AC:3030:GLU:HG2	2.52	0.40
2:AZ:2089:ILE:HA	4:Ab:4062:ASN:ND2	2.36	0.40
2:Ah:2040:ARG:HA	2:Ah:2089:ILE:HD11	2.03	0.40
6:Al:8155:LEU:HA	6:Al:8158:LEU:HD12	2.03	0.40
4:Ar:4005:LEU:HD23	4:Ar:4030:VAL:HG11	2.02	0.40
4:Az:4000:ASN:O	4:Az:4003:PRO:HD2	2.22	0.40
4:BD:4000:ASN:O	4:BD:4003:PRO:HD2	2.21	0.40
1:BI:1018:LYS:HE2	1:BI:1061:ASN:O	2.21	0.40
1:BI:1069:PRO:HD2	1:BI:1072:LEU:HD22	2.03	0.40
6:BN:8185:LYS:HB2	6:BN:8186:GLU:C	2.45	0.40
2:BZ:2074:LYS:HD3	6:Bd:8168:SER:OG	2.21	0.40
6:Bl:8122:GLU:O	6:Bl:8126:GLU:HG2	2.22	0.40
7:Bm:6072:ILE:HB	7:Bm:6137:LEU:HB2	2.02	0.40
6:B2:8178:ILE:HG13	6:B2:8199:LEU:HD21	2.03	0.40
2:CJ:2067:TRP:CE2	2:CJ:2074:LYS:HB2	2.56	0.40
4:CL:4000:ASN:O	4:CL:4003:PRO:HD2	2.21	0.40
2:Ch:2076:ARG:HG3	6:Cl:8167:PHE:HB3	2.02	0.40
3:AK:3016:ARG:CD	3:AK:3030:GLU:HG2	2.51	0.40
7:AO:6072:ILE:HB	7:AO:6137:LEU:HB2	2.04	0.40
7:AG:6038:GLN:HG2	7:AG:6158:LEU:HD23	2.04	0.40
1:AQ:1069:PRO:HD2	1:AQ:1072:LEU:HD22	2.04	0.40
6:AV:8090:PRO:HG3	6:CF:8112:THR:HG23	2.03	0.40
7:AW:6066:SER:HA	7:AW:6069:ARG:C	2.46	0.40
6:Ad:8210:ASP:OD1	6:Ad:8210:ASP:N	2.48	0.40
8:Af:5007:PHE:O	8:Af:5008:MET:C	2.63	0.40
3:Aq:3016:ARG:CD	3:Aq:3030:GLU:HG2	2.52	0.40
6:BF:8135:PRO:C	6:BF:8137:THR:N	2.77	0.40
6:BF:8185:LYS:HB2	6:BF:8186:GLU:C	2.45	0.40
6:BN:8188:GLU:OE1	6:BN:8190:GLN:HB2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BS:3000:MET:CE	3:BS:3002:GLN:NE2	2.81	0.40
6:BV:8162:LEU:HG	6:BV:8166:VAL:HG11	2.03	0.40
3:Ba:3016:ARG:CD	3:Ba:3030:GLU:HG2	2.51	0.40
7:Bu:6000:MET:HG3	7:Bu:6002:LEU:CD1	2.51	0.40
8:B4:5063:ILE:HG22	8:B4:5064:MET:HG3	2.04	0.40
7:CG:6066:SER:HA	7:CG:6069:ARG:C	2.46	0.40
7:CO:6010:GLU:CD	7:CO:6010:GLU:C	2.89	0.40
1:CQ:1044:THR:OG1	6:CV:8161:PRO:HD2	2.22	0.40
6:CV:8007:LEU:HG	6:CV:8011:PHE:CE1	2.55	0.40
7:CW:6068:PRO:HD2	7:CW:6069:ARG:N	2.29	0.40
1:CY:1001:LEU:HD23	1:CY:1001:LEU:HA	1.86	0.40
2:Ch:2077:TYR:CE2	6:Cl:8209:ASN:HB2	2.56	0.40
8:Cn:5008:MET:O	8:Cn:5026:LEU:O	2.38	0.40
2:Cp:2019:THR:O	6:Ct:8022:THR:HG21	2.21	0.40
7:Cu:6000:MET:HG3	7:Cu:6002:LEU:CD1	2.51	0.40
2:AJ:2016:GLU:OE1	6:AN:8020:VAL:HG11	2.21	0.40
6:AN:8215:ILE:HD12	6:AN:8215:ILE:HA	1.93	0.40
8:AP:5007:PHE:O	8:AP:5008:MET:C	2.64	0.40
2:AR:2089:ILE:HA	4:AT:4062:ASN:ND2	2.36	0.40
5:AU:7002:TRP:HB2	5:AU:7003:ASP:H	1.66	0.40
8:An:5007:PHE:O	8:An:5008:MET:C	2.63	0.40
2:Ap:2089:ILE:HA	4:Ar:4062:ASN:ND2	2.37	0.40
6:At:8185:LYS:HB2	6:At:8186:GLU:C	2.46	0.40
7:A3:6010:GLU:CD	7:A3:6010:GLU:C	2.90	0.40
6:BF:8012:TYR:O	6:BF:8016:ARG:HG2	2.22	0.40
7:BG:6038:GLN:HG2	7:BG:6158:LEU:HD23	2.03	0.40
7:BW:6038:GLN:HG2	7:BW:6158:LEU:HD23	2.02	0.40
1:BY:1069:PRO:HD2	1:BY:1072:LEU:HD22	2.03	0.40
6:Bd:8184:LEU:HD21	6:Bd:8191:ARG:HB3	2.04	0.40
7:Be:6078:HIS:HA	7:Be:6131:GLU:O	2.21	0.40
1:Bg:1069:PRO:HD2	1:Bg:1072:LEU:HD22	2.03	0.40
4:Bj:4051:GLY:HA2	6:Bl:8035:THR:HG21	2.02	0.40
6:B2:8210:ASP:HB3	2:Bx:2077:TYR:CD1	2.57	0.40
6:CF:8188:GLU:OE2	6:CF:8190:GLN:HB2	2.21	0.40
3:CS:3069:ASN:OD1	4:CT:4018:LYS:HG2	2.20	0.40
8:CX:5008:MET:O	8:CX:5026:LEU:O	2.38	0.40
8:Cf:5007:PHE:O	8:Cf:5008:MET:O	2.40	0.40
3:Ci:3069:ASN:OD1	4:Cj:4018:LYS:HG2	2.20	0.40
6:Cl:8160:LEU:HA	6:Cl:8161:PRO:C	2.46	0.40
6:Ct:8100:LYS:HD3	6:Ct:8104:ARG:CZ	2.52	0.40
7:Cu:6078:HIS:HA	7:Cu:6131:GLU:O	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AJ:2089:ILE:HA	4:AL:4062:ASN:ND2	2.37	0.40
4:AD:4002:LYS:HG3	6:AF:8014:ARG:HB3	2.02	0.40
6:AV:8162:LEU:HG	6:AV:8166:VAL:HG11	2.04	0.40
7:Ae:6072:ILE:HB	7:Ae:6137:LEU:HB2	2.04	0.40
3:Ai:3019:VAL:HG22	3:Ai:3073:LEU:CD2	2.52	0.40
8:Av:5007:PHE:O	8:Av:5008:MET:C	2.63	0.40
6:A2:8012:TYR:O	6:A2:8016:ARG:HG2	2.21	0.40
2:BB:2067:TRP:CE2	2:BB:2074:LYS:HB2	2.56	0.40
6:BF:8188:GLU:OE2	6:BF:8190:GLN:HB2	2.22	0.40
7:BG:6020:ILE:CD1	7:BG:6139:PRO:HB3	2.52	0.40
3:BK:3071:THR:HG23	8:BP:5061:SER:HB3	2.04	0.40
6:BV:8185:LYS:HB2	6:BV:8186:GLU:C	2.46	0.40
3:Bi:3016:ARG:CD	3:Bi:3030:GLU:HG2	2.51	0.40
6:Bl:8167:PHE:O	6:Bl:8171:ARG:HG3	2.21	0.40
6:Bt:8122:GLU:O	6:Bt:8126:GLU:HG2	2.22	0.40
6:Bt:8163:GLU:HB3	6:Bt:8165:HIS:CD2	2.57	0.40
7:B3:6072:ILE:HB	7:B3:6137:LEU:HB2	2.03	0.40
2:CB:2043:LYS:H	2:CB:2043:LYS:HG3	1.72	0.40
5:CE:7002:TRP:HB2	5:CE:7003:ASP:H	1.68	0.40
7:Ce:6038:GLN:HG2	7:Ce:6158:LEU:HD23	2.04	0.40
4:Cj:4005:LEU:HD23	4:Cj:4030:VAL:HG11	2.03	0.40
1:AQ:1018:LYS:HE2	1:AQ:1061:ASN:O	2.22	0.40
2:AR:2067:TRP:CE2	2:AR:2074:LYS:HB2	2.56	0.40
6:AV:8043:PRO:HB2	6:AV:8178:ILE:HG21	2.03	0.40
8:AX:5007:PHE:O	8:AX:5008:MET:C	2.63	0.40
3:Ay:3016:ARG:CD	3:Ay:3030:GLU:HG2	2.51	0.40
1:BA:1018:LYS:HE2	1:BA:1061:ASN:O	2.21	0.40
2:BB:2089:ILE:HA	4:BD:4062:ASN:ND2	2.37	0.40
5:BE:7002:TRP:HB2	5:BE:7003:ASP:H	1.67	0.40
6:BV:8069:ARG:NH2	6:BV:8160:LEU:HD11	2.37	0.40
2:BZ:2049:VAL:HA	2:BZ:2060:LEU:HD23	2.03	0.40
6:Bd:8188:GLU:OE1	6:Bd:8190:GLN:HB2	2.21	0.40
4:Bj:4000:ASN:O	4:Bj:4003:PRO:HD2	2.22	0.40
7:Bu:6078:HIS:HA	7:Bu:6131:GLU:O	2.21	0.40
2:CR:2077:TYR:CD1	6:CV:8210:ASP:HB3	2.57	0.40
7:CW:6072:ILE:HB	7:CW:6137:LEU:HB2	2.03	0.40
6:Cd:8046:PRO:HB2	6:Cd:8047:PRO:CD	2.51	0.40
3:Cq:3019:VAL:HG22	3:Cq:3073:LEU:CD2	2.52	0.40
5:Cs:7011:TYR:HB2	6:Ct:8152:TYR:CD2	2.57	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	AA	80/119 (67%)	76 (95%)	2 (2%)	2 (2%)	4	21
1	AI	80/119 (67%)	76 (95%)	2 (2%)	2 (2%)	4	21
1	AQ	80/119 (67%)	76 (95%)	2 (2%)	2 (2%)	4	21
1	AY	80/119 (67%)	76 (95%)	2 (2%)	2 (2%)	4	21
1	Ag	80/119 (67%)	76 (95%)	2 (2%)	2 (2%)	4	21
1	Ao	80/119 (67%)	77 (96%)	1 (1%)	2 (2%)	4	21
1	Aw	80/119 (67%)	77 (96%)	1 (1%)	2 (2%)	4	21
1	BA	80/119 (67%)	76 (95%)	2 (2%)	2 (2%)	4	21
1	BI	80/119 (67%)	77 (96%)	1 (1%)	2 (2%)	4	21
1	BQ	80/119 (67%)	76 (95%)	2 (2%)	2 (2%)	4	21
1	BY	80/119 (67%)	76 (95%)	2 (2%)	2 (2%)	4	21
1	Bg	80/119 (67%)	76 (95%)	2 (2%)	2 (2%)	4	21
1	Bo	80/119 (67%)	76 (95%)	2 (2%)	2 (2%)	4	21
1	Bw	80/119 (67%)	76 (95%)	2 (2%)	2 (2%)	4	21
1	CA	80/119 (67%)	76 (95%)	2 (2%)	2 (2%)	4	21
1	CI	80/119 (67%)	76 (95%)	2 (2%)	2 (2%)	4	21
1	CQ	80/119 (67%)	76 (95%)	2 (2%)	2 (2%)	4	21
1	CY	80/119 (67%)	76 (95%)	2 (2%)	2 (2%)	4	21
1	Cg	80/119 (67%)	76 (95%)	2 (2%)	2 (2%)	4	21
1	Co	80/119 (67%)	76 (95%)	2 (2%)	2 (2%)	4	21
2	AB	96/118 (81%)	92 (96%)	4 (4%)	0	100	100
2	AJ	96/118 (81%)	90 (94%)	6 (6%)	0	100	100
2	AR	96/118 (81%)	91 (95%)	5 (5%)	0	100	100
2	AZ	96/118 (81%)	92 (96%)	4 (4%)	0	100	100
2	Ah	96/118 (81%)	90 (94%)	3 (3%)	3 (3%)	3	18

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	Ap	96/118 (81%)	91 (95%)	5 (5%)	0	100	100
2	Ax	96/118 (81%)	92 (96%)	3 (3%)	1 (1%)	12	41
2	BB	96/118 (81%)	90 (94%)	6 (6%)	0	100	100
2	BJ	96/118 (81%)	90 (94%)	4 (4%)	2 (2%)	5	25
2	BR	96/118 (81%)	90 (94%)	4 (4%)	2 (2%)	5	25
2	BZ	96/118 (81%)	91 (95%)	5 (5%)	0	100	100
2	Bh	96/118 (81%)	90 (94%)	6 (6%)	0	100	100
2	Bp	96/118 (81%)	91 (95%)	5 (5%)	0	100	100
2	Bx	96/118 (81%)	90 (94%)	6 (6%)	0	100	100
2	CB	96/118 (81%)	90 (94%)	5 (5%)	1 (1%)	12	41
2	CJ	96/118 (81%)	89 (93%)	7 (7%)	0	100	100
2	CR	96/118 (81%)	90 (94%)	6 (6%)	0	100	100
2	CZ	96/118 (81%)	90 (94%)	6 (6%)	0	100	100
2	Ch	96/118 (81%)	91 (95%)	5 (5%)	0	100	100
2	Cp	96/118 (81%)	89 (93%)	7 (7%)	0	100	100
3	AC	75/92 (82%)	73 (97%)	2 (3%)	0	100	100
3	AK	75/92 (82%)	73 (97%)	2 (3%)	0	100	100
3	AS	75/92 (82%)	73 (97%)	2 (3%)	0	100	100
3	Aa	75/92 (82%)	73 (97%)	2 (3%)	0	100	100
3	Ai	75/92 (82%)	73 (97%)	2 (3%)	0	100	100
3	Aq	75/92 (82%)	73 (97%)	2 (3%)	0	100	100
3	Ay	75/92 (82%)	73 (97%)	2 (3%)	0	100	100
3	BC	75/92 (82%)	73 (97%)	2 (3%)	0	100	100
3	BK	75/92 (82%)	74 (99%)	1 (1%)	0	100	100
3	BS	75/92 (82%)	73 (97%)	2 (3%)	0	100	100
3	Ba	75/92 (82%)	73 (97%)	2 (3%)	0	100	100
3	Bi	75/92 (82%)	73 (97%)	2 (3%)	0	100	100
3	Bq	75/92 (82%)	74 (99%)	1 (1%)	0	100	100
3	By	75/92 (82%)	73 (97%)	2 (3%)	0	100	100
3	CC	75/92 (82%)	73 (97%)	2 (3%)	0	100	100
3	CK	75/92 (82%)	73 (97%)	2 (3%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	CS	75/92 (82%)	73 (97%)	2 (3%)	0	100	100
3	Ca	75/92 (82%)	73 (97%)	2 (3%)	0	100	100
3	Ci	75/92 (82%)	73 (97%)	2 (3%)	0	100	100
3	Cq	75/92 (82%)	73 (97%)	2 (3%)	0	100	100
4	AD	69/86 (80%)	66 (96%)	3 (4%)	0	100	100
4	AL	69/86 (80%)	66 (96%)	3 (4%)	0	100	100
4	AT	69/86 (80%)	67 (97%)	2 (3%)	0	100	100
4	Ab	69/86 (80%)	66 (96%)	3 (4%)	0	100	100
4	Aj	69/86 (80%)	67 (97%)	2 (3%)	0	100	100
4	Ar	69/86 (80%)	66 (96%)	3 (4%)	0	100	100
4	Az	69/86 (80%)	66 (96%)	3 (4%)	0	100	100
4	BD	69/86 (80%)	67 (97%)	2 (3%)	0	100	100
4	BL	69/86 (80%)	67 (97%)	2 (3%)	0	100	100
4	BT	69/86 (80%)	66 (96%)	3 (4%)	0	100	100
4	Bb	69/86 (80%)	66 (96%)	3 (4%)	0	100	100
4	Bj	69/86 (80%)	66 (96%)	3 (4%)	0	100	100
4	Br	69/86 (80%)	66 (96%)	3 (4%)	0	100	100
4	Bz	69/86 (80%)	66 (96%)	3 (4%)	0	100	100
4	CD	69/86 (80%)	66 (96%)	3 (4%)	0	100	100
4	CL	69/86 (80%)	66 (96%)	3 (4%)	0	100	100
4	CT	69/86 (80%)	66 (96%)	3 (4%)	0	100	100
4	Cb	69/86 (80%)	66 (96%)	3 (4%)	0	100	100
4	Cj	69/86 (80%)	66 (96%)	3 (4%)	0	100	100
4	Cr	69/86 (80%)	66 (96%)	3 (4%)	0	100	100
5	A1	15/124 (12%)	11 (73%)	3 (20%)	1 (7%)	1	6
5	AE	15/124 (12%)	11 (73%)	3 (20%)	1 (7%)	1	6
5	AM	15/124 (12%)	11 (73%)	3 (20%)	1 (7%)	1	6
5	AU	15/124 (12%)	11 (73%)	3 (20%)	1 (7%)	1	6
5	Ac	15/124 (12%)	9 (60%)	5 (33%)	1 (7%)	1	6
5	Ak	15/124 (12%)	10 (67%)	4 (27%)	1 (7%)	1	6
5	As	15/124 (12%)	11 (73%)	3 (20%)	1 (7%)	1	6

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
5	B1	15/124 (12%)	10 (67%)	3 (20%)	2 (13%)	0	1
5	BE	15/124 (12%)	11 (73%)	3 (20%)	1 (7%)	1	6
5	BM	15/124 (12%)	11 (73%)	3 (20%)	1 (7%)	1	6
5	BU	15/124 (12%)	11 (73%)	3 (20%)	1 (7%)	1	6
5	Bc	15/124 (12%)	10 (67%)	4 (27%)	1 (7%)	1	6
5	Bk	15/124 (12%)	11 (73%)	3 (20%)	1 (7%)	1	6
5	Bs	15/124 (12%)	10 (67%)	4 (27%)	1 (7%)	1	6
5	CE	15/124 (12%)	10 (67%)	4 (27%)	1 (7%)	1	6
5	CM	15/124 (12%)	11 (73%)	3 (20%)	1 (7%)	1	6
5	CU	15/124 (12%)	10 (67%)	5 (33%)	0	100	100
5	Cc	15/124 (12%)	9 (60%)	5 (33%)	1 (7%)	1	6
5	Ck	15/124 (12%)	11 (73%)	3 (20%)	1 (7%)	1	6
5	Cs	15/124 (12%)	10 (67%)	2 (13%)	3 (20%)	0	0
6	A2	214/247 (87%)	187 (87%)	17 (8%)	10 (5%)	2	11
6	AF	214/247 (87%)	182 (85%)	22 (10%)	10 (5%)	2	11
6	AN	214/247 (87%)	174 (81%)	31 (14%)	9 (4%)	2	13
6	AV	214/247 (87%)	182 (85%)	21 (10%)	11 (5%)	1	10
6	Ad	214/247 (87%)	183 (86%)	20 (9%)	11 (5%)	1	10
6	Al	214/247 (87%)	183 (86%)	21 (10%)	10 (5%)	2	11
6	At	214/247 (87%)	182 (85%)	21 (10%)	11 (5%)	1	10
6	B2	214/247 (87%)	179 (84%)	23 (11%)	12 (6%)	1	8
6	BF	214/247 (87%)	186 (87%)	20 (9%)	8 (4%)	2	15
6	BN	214/247 (87%)	185 (86%)	22 (10%)	7 (3%)	3	17
6	BV	214/247 (87%)	186 (87%)	20 (9%)	8 (4%)	2	15
6	Bd	214/247 (87%)	185 (86%)	19 (9%)	10 (5%)	2	11
6	Bl	214/247 (87%)	186 (87%)	18 (8%)	10 (5%)	2	11
6	Bt	214/247 (87%)	181 (85%)	27 (13%)	6 (3%)	4	20
6	CF	214/247 (87%)	187 (87%)	19 (9%)	8 (4%)	2	15
6	CN	214/247 (87%)	186 (87%)	20 (9%)	8 (4%)	2	15
6	CV	214/247 (87%)	182 (85%)	24 (11%)	8 (4%)	2	15
6	Cd	214/247 (87%)	185 (86%)	19 (9%)	10 (5%)	2	11

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
6	Cl	214/247 (87%)	186 (87%)	19 (9%)	9 (4%)	2	13
6	Ct	214/247 (87%)	178 (83%)	26 (12%)	10 (5%)	2	11
7	A3	123/186 (66%)	114 (93%)	5 (4%)	4 (3%)	3	17
7	AG	123/186 (66%)	114 (93%)	5 (4%)	4 (3%)	3	17
7	AO	123/186 (66%)	114 (93%)	5 (4%)	4 (3%)	3	17
7	AW	123/186 (66%)	114 (93%)	5 (4%)	4 (3%)	3	17
7	Ae	123/186 (66%)	114 (93%)	5 (4%)	4 (3%)	3	17
7	Am	123/186 (66%)	114 (93%)	5 (4%)	4 (3%)	3	17
7	Au	123/186 (66%)	114 (93%)	5 (4%)	4 (3%)	3	17
7	B3	123/186 (66%)	114 (93%)	6 (5%)	3 (2%)	4	22
7	BG	123/186 (66%)	114 (93%)	5 (4%)	4 (3%)	3	17
7	BO	123/186 (66%)	115 (94%)	4 (3%)	4 (3%)	3	17
7	BW	123/186 (66%)	114 (93%)	5 (4%)	4 (3%)	3	17
7	Be	123/186 (66%)	114 (93%)	6 (5%)	3 (2%)	4	22
7	Bm	123/186 (66%)	114 (93%)	6 (5%)	3 (2%)	4	22
7	Bu	123/186 (66%)	114 (93%)	5 (4%)	4 (3%)	3	17
7	CG	123/186 (66%)	114 (93%)	5 (4%)	4 (3%)	3	17
7	CO	123/186 (66%)	114 (93%)	5 (4%)	4 (3%)	3	17
7	CW	123/186 (66%)	114 (93%)	5 (4%)	4 (3%)	3	17
7	Ce	123/186 (66%)	114 (93%)	5 (4%)	4 (3%)	3	17
7	Cm	123/186 (66%)	114 (93%)	6 (5%)	3 (2%)	4	22
7	Cu	123/186 (66%)	114 (93%)	5 (4%)	4 (3%)	3	17
8	A4	68/76 (90%)	64 (94%)	3 (4%)	1 (2%)	8	32
8	AH	68/76 (90%)	64 (94%)	3 (4%)	1 (2%)	8	32
8	AP	68/76 (90%)	64 (94%)	3 (4%)	1 (2%)	8	32
8	AX	68/76 (90%)	64 (94%)	3 (4%)	1 (2%)	8	32
8	Af	68/76 (90%)	64 (94%)	3 (4%)	1 (2%)	8	32
8	An	68/76 (90%)	64 (94%)	3 (4%)	1 (2%)	8	32
8	Av	68/76 (90%)	64 (94%)	3 (4%)	1 (2%)	8	32
8	B4	68/76 (90%)	64 (94%)	3 (4%)	1 (2%)	8	32
8	BH	68/76 (90%)	64 (94%)	3 (4%)	1 (2%)	8	32

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
8	BP	68/76 (90%)	64 (94%)	3 (4%)	1 (2%)	8	32
8	BX	68/76 (90%)	64 (94%)	3 (4%)	1 (2%)	8	32
8	Bf	68/76 (90%)	64 (94%)	3 (4%)	1 (2%)	8	32
8	Bn	68/76 (90%)	64 (94%)	3 (4%)	1 (2%)	8	32
8	Bv	68/76 (90%)	64 (94%)	3 (4%)	1 (2%)	8	32
8	CH	68/76 (90%)	64 (94%)	3 (4%)	1 (2%)	8	32
8	CP	68/76 (90%)	64 (94%)	3 (4%)	1 (2%)	8	32
8	CX	68/76 (90%)	64 (94%)	3 (4%)	1 (2%)	8	32
8	Cf	68/76 (90%)	64 (94%)	3 (4%)	1 (2%)	8	32
8	Cn	68/76 (90%)	64 (94%)	3 (4%)	1 (2%)	8	32
8	Cv	68/76 (90%)	64 (94%)	3 (4%)	1 (2%)	8	32
All	All	14800/20960 (71%)	13553 (92%)	894 (6%)	353 (2%)	4	22

All (353) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	AM	7006	LEU
6	AN	8028	ILE
6	AN	8185	LYS
6	AN	8186	GLU
6	AN	8212	LYS
7	AO	6162	SER
8	AP	5008	MET
5	AE	7006	LEU
6	AF	8028	ILE
6	AF	8185	LYS
6	AF	8186	GLU
7	AG	6162	SER
8	AH	5008	MET
5	AU	7006	LEU
6	AV	8028	ILE
6	AV	8185	LYS
6	AV	8186	GLU
7	AW	6011	HIS
8	AX	5008	MET
5	Ac	7006	LEU
6	Ad	8028	ILE
6	Ad	8185	LYS

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Mol	Chain	Res	Type
6	Ad	8209	ASN
7	Ae	6011	HIS
8	Af	5008	MET
5	Ak	7006	LEU
6	Al	8028	ILE
6	Al	8185	LYS
6	Al	8186	GLU
7	Am	6011	HIS
8	An	5008	MET
5	As	7006	LEU
6	At	8028	ILE
6	At	8185	LYS
6	At	8186	GLU
6	At	8212	LYS
7	Au	6011	HIS
8	Av	5008	MET
5	A1	7006	LEU
6	A2	8028	ILE
6	A2	8185	LYS
8	A4	5008	MET
2	Ax	2042	ASN
5	BE	7006	LEU
6	BF	8185	LYS
7	BG	6011	HIS
8	BH	5008	MET
5	BM	7006	LEU
6	BN	8028	ILE
6	BN	8185	LYS
7	BO	6164	ASN
8	BP	5008	MET
5	BU	7006	LEU
6	BV	8028	ILE
6	BV	8185	LYS
7	BW	6011	HIS
8	BX	5008	MET
5	Bc	7006	LEU
6	Bd	8133	GLN
6	Bd	8185	LYS
6	Bd	8186	GLU
8	Bf	5008	MET
6	Bl	8034	ASN
6	Bl	8185	LYS

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Mol	Chain	Res	Type
8	Bn	5008	MET
5	Bs	7006	LEU
6	Bt	8185	LYS
6	Bt	8186	GLU
8	Bv	5008	MET
5	B1	7006	LEU
6	B2	8133	GLN
6	B2	8185	LYS
6	B2	8186	GLU
8	B4	5008	MET
5	CE	7006	LEU
6	CF	8185	LYS
6	CF	8186	GLU
8	CH	5008	MET
5	CM	7006	LEU
6	CN	8028	ILE
6	CN	8185	LYS
8	CP	5008	MET
6	CV	8185	LYS
6	CV	8186	GLU
8	CX	5008	MET
5	Cc	7006	LEU
6	Cd	8185	LYS
6	Cd	8186	GLU
7	Ce	6011	HIS
8	Cf	5008	MET
5	Ck	7006	LEU
6	Cl	8185	LYS
6	Cl	8186	GLU
7	Cm	6011	HIS
8	Cn	5008	MET
5	Cs	7002	TRP
5	Cs	7006	LEU
8	Cv	5008	MET
1	AI	1070	ASP
6	AN	8133	GLN
7	AO	6011	HIS
1	AA	1070	ASP
6	AF	8133	GLN
6	AF	8207	ALA
7	AG	6011	HIS
1	AQ	1070	ASP

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Mol	Chain	Res	Type
6	AV	8026	SER
6	AV	8133	GLN
6	AV	8207	ALA
7	AW	6162	SER
1	AY	1070	ASP
6	Ad	8026	SER
6	Ad	8133	GLN
6	Ad	8186	GLU
7	Ae	6162	SER
1	Ag	1070	ASP
6	Al	8133	GLN
7	Am	6162	SER
7	Am	6164	ASN
1	Ao	1070	ASP
6	At	8026	SER
6	At	8133	GLN
7	Au	6162	SER
6	A2	8026	SER
6	A2	8133	GLN
6	A2	8186	GLU
6	A2	8209	ASN
7	A3	6011	HIS
7	A3	6162	SER
1	Aw	1070	ASP
1	BA	1070	ASP
6	BF	8026	SER
6	BF	8028	ILE
6	BF	8133	GLN
6	BF	8186	GLU
7	BG	6162	SER
1	BI	1070	ASP
2	BJ	2043	LYS
6	BN	8133	GLN
6	BN	8186	GLU
7	BO	6011	HIS
7	BO	6162	SER
1	BQ	1070	ASP
6	BV	8133	GLN
6	BV	8186	GLU
7	BW	6162	SER
1	BY	1070	ASP
6	Bd	8028	ILE

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Mol	Chain	Res	Type
6	Bd	8034	ASN
7	Be	6011	HIS
1	Bg	1070	ASP
6	Bl	8028	ILE
6	Bl	8133	GLN
6	Bl	8186	GLU
7	Bm	6011	HIS
7	Bm	6162	SER
1	Bo	1070	ASP
6	Bt	8028	ILE
6	Bt	8133	GLN
7	Bu	6011	HIS
7	Bu	6162	SER
6	B2	8028	ILE
6	B2	8158	LEU
7	B3	6011	HIS
7	B3	6162	SER
1	Bw	1070	ASP
1	CA	1070	ASP
2	CB	2043	LYS
6	CF	8026	SER
6	CF	8028	ILE
6	CF	8133	GLN
7	CG	6011	HIS
7	CG	6162	SER
6	CN	8026	SER
6	CN	8133	GLN
6	CN	8186	GLU
7	CO	6011	HIS
7	CO	6162	SER
7	CO	6164	ASN
1	CQ	1070	ASP
6	CV	8028	ILE
6	CV	8133	GLN
7	CW	6011	HIS
7	CW	6162	SER
1	CY	1070	ASP
6	Cd	8028	ILE
6	Cd	8133	GLN
7	Ce	6162	SER
1	Cg	1070	ASP
6	Cl	8028	ILE

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Mol	Chain	Res	Type
6	Cl	8133	GLN
6	Cl	8212	LYS
7	Cm	6162	SER
1	Co	1070	ASP
6	Ct	8028	ILE
6	Ct	8185	LYS
6	Ct	8186	GLU
7	Cu	6011	HIS
7	Cu	6162	SER
7	Cu	6164	ASN
6	AN	8003	GLY
6	AN	8026	SER
6	AF	8026	SER
6	Ad	8158	LEU
6	Al	8026	SER
6	Al	8212	LYS
6	At	8113	LEU
7	A3	6164	ASN
6	BV	8026	SER
6	Bd	8026	SER
7	Be	6162	SER
6	Bl	8026	SER
6	Bl	8209	ASN
6	B2	8026	SER
6	B2	8034	ASN
6	CF	8209	ASN
6	CV	8026	SER
6	Cd	8026	SER
6	Cd	8212	LYS
6	Cl	8026	SER
5	Cs	7001	VAL
6	Ct	8026	SER
6	Ct	8133	GLN
6	AF	8046	PRO
6	AF	8209	ASN
7	AG	6164	ASN
6	AV	8019	ALA
6	AV	8046	PRO
7	AW	6164	ASN
6	Ad	8003	GLY
6	Ad	8046	PRO
6	Ad	8110	LEU

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Mol	Chain	Res	Type
7	Ae	6164	ASN
2	Ah	2098	ALA
6	Al	8003	GLY
6	Al	8207	ALA
6	At	8046	PRO
7	Au	6067	ASN
7	Au	6164	ASN
6	A2	8003	GLY
6	A2	8034	ASN
6	BF	8003	GLY
7	BG	6164	ASN
2	BJ	2098	ALA
6	BN	8003	GLY
2	BR	2041	ASN
6	BV	8003	GLY
7	BW	6164	ASN
6	Bd	8046	PRO
7	Be	6067	ASN
6	Bt	8046	PRO
7	Bu	6067	ASN
5	B1	7003	ASP
6	B2	8046	PRO
7	B3	6067	ASN
7	CG	6067	ASN
7	CG	6164	ASN
1	CI	1069	PRO
1	CI	1070	ASP
7	CO	6067	ASN
7	CW	6067	ASN
7	Ce	6067	ASN
7	Ce	6164	ASN
7	Cm	6067	ASN
6	Ct	8036	THR
6	Ct	8046	PRO
6	AN	8188	GLU
7	AO	6067	ASN
7	AO	6164	ASN
6	AF	8003	GLY
6	AF	8188	GLU
7	AG	6067	ASN
6	AV	8003	GLY
6	AV	8188	GLU

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Mol	Chain	Res	Type
7	AW	6067	ASN
6	Ad	8188	GLU
7	Ae	6067	ASN
2	Ah	2041	ASN
2	Ah	2043	LYS
6	Al	8188	GLU
7	Am	6067	ASN
6	At	8003	GLY
6	At	8019	ALA
6	A2	8188	GLU
7	A3	6067	ASN
1	BA	1069	PRO
7	BG	6067	ASN
1	BI	1069	PRO
6	BN	8026	SER
6	BN	8046	PRO
7	BO	6067	ASN
2	BR	2043	LYS
7	BW	6067	ASN
6	Bd	8025	SER
6	Bl	8003	GLY
7	Bm	6067	ASN
6	Bt	8003	GLY
7	Bu	6164	ASN
6	B2	8207	ALA
1	CA	1069	PRO
6	CN	8003	GLY
6	CN	8046	PRO
7	CW	6164	ASN
6	Cd	8210	ASP
6	Cl	8003	GLY
6	Cl	8188	GLU
7	Cu	6067	ASN
1	AI	1069	PRO
6	AN	8046	PRO
1	AA	1069	PRO
1	AQ	1069	PRO
6	AV	8210	ASP
1	Ao	1069	PRO
6	At	8188	GLU
1	Aw	1069	PRO
6	BF	8188	GLU

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Mol	Chain	Res	Type
1	BQ	1069	PRO
6	BV	8046	PRO
6	BV	8188	GLU
6	Bd	8003	GLY
6	Bd	8188	GLU
6	Bl	8188	GLU
6	B2	8188	GLU
6	CF	8003	GLY
6	CN	8188	GLU
1	CQ	1069	PRO
6	CV	8003	GLY
6	CV	8188	GLU
1	CY	1069	PRO
6	Cd	8188	GLU
1	Cg	1069	PRO
6	Ct	8003	GLY
6	Ct	8188	GLU
6	Ct	8204	GLN
1	AY	1069	PRO
1	Ag	1069	PRO
6	BF	8046	PRO
1	BY	1069	PRO
1	Bo	1069	PRO
6	B2	8164	PRO
1	Bw	1069	PRO
6	CF	8046	PRO
6	Cd	8003	GLY
6	Cd	8046	PRO
1	Co	1069	PRO
6	Al	8046	PRO
1	Bg	1069	PRO
6	A2	8046	PRO
6	Cl	8046	PRO
6	Bl	8046	PRO
6	B2	8003	GLY
6	CV	8046	PRO
5	Bk	7001	VAL

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar

resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	AA	77/101 (76%)	70 (91%)	7 (9%)	9	32
1	AI	77/101 (76%)	71 (92%)	6 (8%)	11	38
1	AQ	77/101 (76%)	71 (92%)	6 (8%)	11	38
1	AY	77/101 (76%)	71 (92%)	6 (8%)	11	38
1	Ag	77/101 (76%)	70 (91%)	7 (9%)	9	32
1	Ao	77/101 (76%)	72 (94%)	5 (6%)	15	44
1	Aw	77/101 (76%)	72 (94%)	5 (6%)	15	44
1	BA	77/101 (76%)	71 (92%)	6 (8%)	11	38
1	BI	77/101 (76%)	71 (92%)	6 (8%)	11	38
1	BQ	77/101 (76%)	72 (94%)	5 (6%)	15	44
1	BY	77/101 (76%)	70 (91%)	7 (9%)	9	32
1	Bg	77/101 (76%)	71 (92%)	6 (8%)	11	38
1	Bo	77/101 (76%)	70 (91%)	7 (9%)	9	32
1	Bw	77/101 (76%)	70 (91%)	7 (9%)	9	32
1	CA	77/101 (76%)	70 (91%)	7 (9%)	9	32
1	CI	77/101 (76%)	70 (91%)	7 (9%)	9	32
1	CQ	77/101 (76%)	70 (91%)	7 (9%)	9	32
1	CY	77/101 (76%)	70 (91%)	7 (9%)	9	32
1	Cg	77/101 (76%)	70 (91%)	7 (9%)	9	32
1	Co	77/101 (76%)	72 (94%)	5 (6%)	15	44
2	AB	94/110 (86%)	89 (95%)	5 (5%)	20	51
2	AJ	94/110 (86%)	90 (96%)	4 (4%)	26	57
2	AR	94/110 (86%)	89 (95%)	5 (5%)	20	51
2	AZ	94/110 (86%)	89 (95%)	5 (5%)	20	51
2	Ah	94/110 (86%)	88 (94%)	6 (6%)	16	44
2	Ap	94/110 (86%)	90 (96%)	4 (4%)	26	57
2	Ax	94/110 (86%)	89 (95%)	5 (5%)	20	51
2	BB	94/110 (86%)	89 (95%)	5 (5%)	20	51
2	BJ	94/110 (86%)	88 (94%)	6 (6%)	16	44

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	BR	94/110 (86%)	89 (95%)	5 (5%)	20	51
2	BZ	94/110 (86%)	88 (94%)	6 (6%)	16	44
2	Bh	94/110 (86%)	88 (94%)	6 (6%)	16	44
2	Bp	94/110 (86%)	89 (95%)	5 (5%)	20	51
2	Bx	94/110 (86%)	87 (93%)	7 (7%)	13	40
2	CB	94/110 (86%)	88 (94%)	6 (6%)	16	44
2	CJ	94/110 (86%)	88 (94%)	6 (6%)	16	44
2	CR	94/110 (86%)	89 (95%)	5 (5%)	20	51
2	CZ	94/110 (86%)	89 (95%)	5 (5%)	20	51
2	Ch	94/110 (86%)	87 (93%)	7 (7%)	13	40
2	Cp	94/110 (86%)	87 (93%)	7 (7%)	13	40
3	AC	72/84 (86%)	67 (93%)	5 (7%)	14	41
3	AK	72/84 (86%)	68 (94%)	4 (6%)	19	49
3	AS	72/84 (86%)	68 (94%)	4 (6%)	19	49
3	Aa	72/84 (86%)	67 (93%)	5 (7%)	14	41
3	Ai	72/84 (86%)	68 (94%)	4 (6%)	19	49
3	Aq	72/84 (86%)	67 (93%)	5 (7%)	14	41
3	Ay	72/84 (86%)	69 (96%)	3 (4%)	26	58
3	BC	72/84 (86%)	68 (94%)	4 (6%)	19	49
3	BK	72/84 (86%)	68 (94%)	4 (6%)	19	49
3	BS	72/84 (86%)	68 (94%)	4 (6%)	19	49
3	Ba	72/84 (86%)	67 (93%)	5 (7%)	14	41
3	Bi	72/84 (86%)	67 (93%)	5 (7%)	14	41
3	Bq	72/84 (86%)	67 (93%)	5 (7%)	14	41
3	By	72/84 (86%)	67 (93%)	5 (7%)	14	41
3	CC	72/84 (86%)	67 (93%)	5 (7%)	14	41
3	CK	72/84 (86%)	68 (94%)	4 (6%)	19	49
3	CS	72/84 (86%)	67 (93%)	5 (7%)	14	41
3	Ca	72/84 (86%)	67 (93%)	5 (7%)	14	41
3	Ci	72/84 (86%)	68 (94%)	4 (6%)	19	49
3	Cq	72/84 (86%)	67 (93%)	5 (7%)	14	41

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	AD	60/74 (81%)	57 (95%)	3 (5%)	22	53
4	AL	60/74 (81%)	58 (97%)	2 (3%)	33	63
4	AT	60/74 (81%)	58 (97%)	2 (3%)	33	63
4	Ab	60/74 (81%)	57 (95%)	3 (5%)	22	53
4	Aj	60/74 (81%)	57 (95%)	3 (5%)	22	53
4	Ar	60/74 (81%)	57 (95%)	3 (5%)	22	53
4	Az	60/74 (81%)	58 (97%)	2 (3%)	33	63
4	BD	60/74 (81%)	57 (95%)	3 (5%)	22	53
4	BL	60/74 (81%)	58 (97%)	2 (3%)	33	63
4	BT	60/74 (81%)	57 (95%)	3 (5%)	22	53
4	Bb	60/74 (81%)	57 (95%)	3 (5%)	22	53
4	Bj	60/74 (81%)	58 (97%)	2 (3%)	33	63
4	Br	60/74 (81%)	58 (97%)	2 (3%)	33	63
4	Bz	60/74 (81%)	58 (97%)	2 (3%)	33	63
4	CD	60/74 (81%)	57 (95%)	3 (5%)	22	53
4	CL	60/74 (81%)	59 (98%)	1 (2%)	53	74
4	CT	60/74 (81%)	56 (93%)	4 (7%)	15	43
4	Cb	60/74 (81%)	56 (93%)	4 (7%)	15	43
4	Cj	60/74 (81%)	58 (97%)	2 (3%)	33	63
4	Cr	60/74 (81%)	59 (98%)	1 (2%)	53	74
5	A1	15/97 (16%)	11 (73%)	4 (27%)	0	2
5	AE	15/97 (16%)	13 (87%)	2 (13%)	4	17
5	AM	15/97 (16%)	13 (87%)	2 (13%)	4	17
5	AU	15/97 (16%)	14 (93%)	1 (7%)	15	43
5	Ac	15/97 (16%)	13 (87%)	2 (13%)	4	17
5	Ak	15/97 (16%)	13 (87%)	2 (13%)	4	17
5	As	15/97 (16%)	13 (87%)	2 (13%)	4	17
5	B1	15/97 (16%)	14 (93%)	1 (7%)	15	43
5	BE	15/97 (16%)	12 (80%)	3 (20%)	1	6
5	BM	15/97 (16%)	12 (80%)	3 (20%)	1	6
5	BU	15/97 (16%)	13 (87%)	2 (13%)	4	17

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
5	Bc	15/97 (16%)	13 (87%)	2 (13%)	4	17
5	Bk	15/97 (16%)	12 (80%)	3 (20%)	1	6
5	Bs	15/97 (16%)	14 (93%)	1 (7%)	15	43
5	CE	15/97 (16%)	13 (87%)	2 (13%)	4	17
5	CM	15/97 (16%)	13 (87%)	2 (13%)	4	17
5	CU	15/97 (16%)	12 (80%)	3 (20%)	1	6
5	Cc	15/97 (16%)	13 (87%)	2 (13%)	4	17
5	Ck	15/97 (16%)	13 (87%)	2 (13%)	4	17
5	Cs	15/97 (16%)	10 (67%)	5 (33%)	0	0
6	A2	203/231 (88%)	174 (86%)	29 (14%)	3	14
6	AF	203/231 (88%)	164 (81%)	39 (19%)	1	7
6	AN	203/231 (88%)	166 (82%)	37 (18%)	2	8
6	AV	203/231 (88%)	171 (84%)	32 (16%)	2	12
6	Ad	203/231 (88%)	172 (85%)	31 (15%)	3	12
6	Al	203/231 (88%)	169 (83%)	34 (17%)	2	10
6	At	203/231 (88%)	167 (82%)	36 (18%)	2	9
6	B2	203/231 (88%)	165 (81%)	38 (19%)	1	7
6	BF	203/231 (88%)	170 (84%)	33 (16%)	2	11
6	BN	203/231 (88%)	172 (85%)	31 (15%)	3	12
6	BV	203/231 (88%)	172 (85%)	31 (15%)	3	12
6	Bd	203/231 (88%)	171 (84%)	32 (16%)	2	12
6	Bl	203/231 (88%)	172 (85%)	31 (15%)	3	12
6	Bt	203/231 (88%)	170 (84%)	33 (16%)	2	11
6	CF	203/231 (88%)	171 (84%)	32 (16%)	2	12
6	CN	203/231 (88%)	175 (86%)	28 (14%)	3	15
6	CV	203/231 (88%)	172 (85%)	31 (15%)	3	12
6	Cd	203/231 (88%)	172 (85%)	31 (15%)	3	12
6	Cl	203/231 (88%)	169 (83%)	34 (17%)	2	10
6	Ct	203/231 (88%)	168 (83%)	35 (17%)	2	10
7	A3	108/159 (68%)	97 (90%)	11 (10%)	7	28
7	AG	108/159 (68%)	99 (92%)	9 (8%)	10	35

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
7	AO	108/159 (68%)	99 (92%)	9 (8%)	10	35
7	AW	108/159 (68%)	99 (92%)	9 (8%)	10	35
7	Ae	108/159 (68%)	99 (92%)	9 (8%)	10	35
7	Am	108/159 (68%)	99 (92%)	9 (8%)	10	35
7	Au	108/159 (68%)	99 (92%)	9 (8%)	10	35
7	B3	108/159 (68%)	98 (91%)	10 (9%)	8	31
7	BG	108/159 (68%)	99 (92%)	9 (8%)	10	35
7	BO	108/159 (68%)	99 (92%)	9 (8%)	10	35
7	BW	108/159 (68%)	99 (92%)	9 (8%)	10	35
7	Be	108/159 (68%)	100 (93%)	8 (7%)	13	40
7	Bm	108/159 (68%)	100 (93%)	8 (7%)	13	40
7	Bu	108/159 (68%)	100 (93%)	8 (7%)	13	40
7	CG	108/159 (68%)	98 (91%)	10 (9%)	8	31
7	CO	108/159 (68%)	99 (92%)	9 (8%)	10	35
7	CW	108/159 (68%)	99 (92%)	9 (8%)	10	35
7	Ce	108/159 (68%)	98 (91%)	10 (9%)	8	31
7	Cm	108/159 (68%)	99 (92%)	9 (8%)	10	35
7	Cu	108/159 (68%)	100 (93%)	8 (7%)	13	40
8	A4	61/66 (92%)	59 (97%)	2 (3%)	33	63
8	AH	61/66 (92%)	59 (97%)	2 (3%)	33	63
8	AP	61/66 (92%)	59 (97%)	2 (3%)	33	63
8	AX	61/66 (92%)	59 (97%)	2 (3%)	33	63
8	Af	61/66 (92%)	59 (97%)	2 (3%)	33	63
8	An	61/66 (92%)	59 (97%)	2 (3%)	33	63
8	Av	61/66 (92%)	59 (97%)	2 (3%)	33	63
8	B4	61/66 (92%)	59 (97%)	2 (3%)	33	63
8	BH	61/66 (92%)	59 (97%)	2 (3%)	33	63
8	BP	61/66 (92%)	59 (97%)	2 (3%)	33	63
8	BX	61/66 (92%)	58 (95%)	3 (5%)	22	53
8	Bf	61/66 (92%)	59 (97%)	2 (3%)	33	63
8	Bn	61/66 (92%)	59 (97%)	2 (3%)	33	63

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
8	Bv	61/66 (92%)	59 (97%)	2 (3%)	33	63
8	CH	61/66 (92%)	59 (97%)	2 (3%)	33	63
8	CP	61/66 (92%)	59 (97%)	2 (3%)	33	63
8	CX	61/66 (92%)	58 (95%)	3 (5%)	22	53
8	Cf	61/66 (92%)	59 (97%)	2 (3%)	33	63
8	Cn	61/66 (92%)	59 (97%)	2 (3%)	33	63
8	Cv	61/66 (92%)	59 (97%)	2 (3%)	33	63
All	All	13800/18440 (75%)	12497 (91%)	1303 (9%)	8	31

All (1303) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	AI	1002	VAL
1	AI	1009	SER
1	AI	1042	LYS
1	AI	1048	ARG
1	AI	1064	ARG
1	AI	1079	VAL
2	AJ	2014	GLU
2	AJ	2030	LYS
2	AJ	2054	ARG
2	AJ	2092	LEU
3	AK	3004	ILE
3	AK	3016	ARG
3	AK	3026	ASN
3	AK	3045	ASP
4	AL	4053	LEU
4	AL	4063	VAL
5	AM	7006	LEU
5	AM	7014	SER
6	AN	8001	GLU
6	AN	8010	MET
6	AN	8024	ARG
6	AN	8032	THR
6	AN	8037	LEU
6	AN	8039	MET
6	AN	8054	THR
6	AN	8061	GLN
6	AN	8066	GLN
6	AN	8072	VAL

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Mol	Chain	Res	Type
6	AN	8073	LEU
6	AN	8079	LEU
6	AN	8093	THR
6	AN	8096	GLN
6	AN	8100	LYS
6	AN	8103	CYS
6	AN	8106	GLN
6	AN	8109	LEU
6	AN	8113	LEU
6	AN	8117	THR
6	AN	8119	ASN
6	AN	8126	GLU
6	AN	8127	MET
6	AN	8133	GLN
6	AN	8139	VAL
6	AN	8147	LEU
6	AN	8154	THR
6	AN	8156	VAL
6	AN	8160	LEU
6	AN	8177	CYS
6	AN	8180	LEU
6	AN	8184	LEU
6	AN	8186	GLU
6	AN	8198	LEU
6	AN	8204	GLN
6	AN	8210	ASP
6	AN	8215	ILE
7	AO	6010	GLU
7	AO	6019	ASN
7	AO	6027	LYS
7	AO	6031	GLU
7	AO	6033	THR
7	AO	6131	GLU
7	AO	6140	GLU
7	AO	6158	LEU
7	AO	6162	SER
8	AP	5000	HIS
8	AP	5058	ARG
1	AA	1002	VAL
1	AA	1009	SER
1	AA	1042	LYS
1	AA	1046	LYS

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Mol	Chain	Res	Type
1	AA	1048	ARG
1	AA	1064	ARG
1	AA	1079	VAL
2	AB	2014	GLU
2	AB	2054	ARG
2	AB	2076	ARG
2	AB	2092	LEU
2	AB	2097	ILE
3	AC	3004	ILE
3	AC	3016	ARG
3	AC	3024	GLN
3	AC	3026	ASN
3	AC	3045	ASP
4	AD	4002	LYS
4	AD	4053	LEU
4	AD	4063	VAL
5	AE	7006	LEU
5	AE	7007	LEU
6	AF	8001	GLU
6	AF	8007	LEU
6	AF	8010	MET
6	AF	8024	ARG
6	AF	8032	THR
6	AF	8037	LEU
6	AF	8039	MET
6	AF	8054	THR
6	AF	8061	GLN
6	AF	8074	VAL
6	AF	8075	LEU
6	AF	8077	LYS
6	AF	8093	THR
6	AF	8096	GLN
6	AF	8100	LYS
6	AF	8106	GLN
6	AF	8109	LEU
6	AF	8111	SER
6	AF	8119	ASN
6	AF	8123	LEU
6	AF	8125	LEU
6	AF	8127	MET
6	AF	8133	GLN
6	AF	8139	VAL

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Mol	Chain	Res	Type
6	AF	8142	LEU
6	AF	8149	ARG
6	AF	8151	LEU
6	AF	8154	THR
6	AF	8156	VAL
6	AF	8159	HIS
6	AF	8162	LEU
6	AF	8180	LEU
6	AF	8184	LEU
6	AF	8186	GLU
6	AF	8197	LEU
6	AF	8202	THR
6	AF	8203	VAL
6	AF	8213	ASP
6	AF	8215	ILE
7	AG	6010	GLU
7	AG	6018	ASN
7	AG	6027	LYS
7	AG	6031	GLU
7	AG	6033	THR
7	AG	6131	GLU
7	AG	6140	GLU
7	AG	6158	LEU
7	AG	6162	SER
8	AH	5000	HIS
8	AH	5058	ARG
1	AQ	1002	VAL
1	AQ	1009	SER
1	AQ	1046	LYS
1	AQ	1047	ASN
1	AQ	1048	ARG
1	AQ	1079	VAL
2	AR	2014	GLU
2	AR	2030	LYS
2	AR	2054	ARG
2	AR	2076	ARG
2	AR	2092	LEU
3	AS	3004	ILE
3	AS	3016	ARG
3	AS	3026	ASN
3	AS	3045	ASP
4	AT	4053	LEU

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Mol	Chain	Res	Type
4	AT	4063	VAL
5	AU	7006	LEU
6	AV	8001	GLU
6	AV	8007	LEU
6	AV	8010	MET
6	AV	8024	ARG
6	AV	8032	THR
6	AV	8037	LEU
6	AV	8039	MET
6	AV	8054	THR
6	AV	8061	GLN
6	AV	8073	LEU
6	AV	8079	LEU
6	AV	8093	THR
6	AV	8096	GLN
6	AV	8100	LYS
6	AV	8106	GLN
6	AV	8109	LEU
6	AV	8119	ASN
6	AV	8127	MET
6	AV	8133	GLN
6	AV	8139	VAL
6	AV	8142	LEU
6	AV	8147	LEU
6	AV	8149	ARG
6	AV	8156	VAL
6	AV	8162	LEU
6	AV	8163	GLU
6	AV	8169	THR
6	AV	8180	LEU
6	AV	8184	LEU
6	AV	8186	GLU
6	AV	8199	LEU
6	AV	8213	ASP
7	AW	6010	GLU
7	AW	6019	ASN
7	AW	6027	LYS
7	AW	6031	GLU
7	AW	6033	THR
7	AW	6131	GLU
7	AW	6140	GLU
7	AW	6158	LEU

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Mol	Chain	Res	Type
7	AW	6162	SER
8	AX	5000	HIS
8	AX	5058	ARG
1	AY	1002	VAL
1	AY	1009	SER
1	AY	1047	ASN
1	AY	1048	ARG
1	AY	1064	ARG
1	AY	1079	VAL
2	AZ	2014	GLU
2	AZ	2030	LYS
2	AZ	2054	ARG
2	AZ	2076	ARG
2	AZ	2092	LEU
3	Aa	3004	ILE
3	Aa	3016	ARG
3	Aa	3024	GLN
3	Aa	3026	ASN
3	Aa	3045	ASP
4	Ab	4002	LYS
4	Ab	4053	LEU
4	Ab	4063	VAL
5	Ac	7006	LEU
5	Ac	7007	LEU
6	Ad	8001	GLU
6	Ad	8010	MET
6	Ad	8024	ARG
6	Ad	8032	THR
6	Ad	8037	LEU
6	Ad	8039	MET
6	Ad	8054	THR
6	Ad	8061	GLN
6	Ad	8066	GLN
6	Ad	8072	VAL
6	Ad	8073	LEU
6	Ad	8079	LEU
6	Ad	8093	THR
6	Ad	8094	SER
6	Ad	8096	GLN
6	Ad	8100	LYS
6	Ad	8106	GLN
6	Ad	8125	LEU

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Mol	Chain	Res	Type
6	Ad	8127	MET
6	Ad	8133	GLN
6	Ad	8139	VAL
6	Ad	8142	LEU
6	Ad	8147	LEU
6	Ad	8159	HIS
6	Ad	8162	LEU
6	Ad	8180	LEU
6	Ad	8184	LEU
6	Ad	8186	GLU
6	Ad	8210	ASP
6	Ad	8212	LYS
6	Ad	8213	ASP
7	Ae	6010	GLU
7	Ae	6019	ASN
7	Ae	6027	LYS
7	Ae	6031	GLU
7	Ae	6033	THR
7	Ae	6131	GLU
7	Ae	6140	GLU
7	Ae	6158	LEU
7	Ae	6162	SER
8	Af	5000	HIS
8	Af	5058	ARG
1	Ag	1002	VAL
1	Ag	1009	SER
1	Ag	1022	GLN
1	Ag	1042	LYS
1	Ag	1048	ARG
1	Ag	1064	ARG
1	Ag	1079	VAL
2	Ah	2002	SER
2	Ah	2014	GLU
2	Ah	2040	ARG
2	Ah	2054	ARG
2	Ah	2076	ARG
2	Ah	2092	LEU
3	Ai	3004	ILE
3	Ai	3016	ARG
3	Ai	3024	GLN
3	Ai	3045	ASP
4	Aj	4002	LYS

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Mol	Chain	Res	Type
4	Aj	4053	LEU
4	Aj	4063	VAL
5	Ak	7006	LEU
5	Ak	7008	VAL
6	Al	8001	GLU
6	Al	8007	LEU
6	Al	8010	MET
6	Al	8024	ARG
6	Al	8032	THR
6	Al	8037	LEU
6	Al	8039	MET
6	Al	8054	THR
6	Al	8061	GLN
6	Al	8066	GLN
6	Al	8072	VAL
6	Al	8073	LEU
6	Al	8079	LEU
6	Al	8093	THR
6	Al	8096	GLN
6	Al	8100	LYS
6	Al	8106	GLN
6	Al	8109	LEU
6	Al	8119	ASN
6	Al	8127	MET
6	Al	8133	GLN
6	Al	8139	VAL
6	Al	8147	LEU
6	Al	8154	THR
6	Al	8156	VAL
6	Al	8159	HIS
6	Al	8160	LEU
6	Al	8166	VAL
6	Al	8169	THR
6	Al	8170	LEU
6	Al	8180	LEU
6	Al	8184	LEU
6	Al	8186	GLU
6	Al	8213	ASP
7	Am	6010	GLU
7	Am	6019	ASN
7	Am	6027	LYS
7	Am	6031	GLU

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Mol	Chain	Res	Type
7	Am	6033	THR
7	Am	6131	GLU
7	Am	6140	GLU
7	Am	6158	LEU
7	Am	6162	SER
8	An	5000	HIS
8	An	5058	ARG
1	Ao	1002	VAL
1	Ao	1009	SER
1	Ao	1047	ASN
1	Ao	1048	ARG
1	Ao	1079	VAL
2	Ap	2014	GLU
2	Ap	2042	ASN
2	Ap	2054	ARG
2	Ap	2092	LEU
3	Aq	3004	ILE
3	Aq	3016	ARG
3	Aq	3024	GLN
3	Aq	3026	ASN
3	Aq	3045	ASP
4	Ar	4002	LYS
4	Ar	4053	LEU
4	Ar	4063	VAL
5	As	7006	LEU
5	As	7007	LEU
6	At	8001	GLU
6	At	8010	MET
6	At	8024	ARG
6	At	8032	THR
6	At	8037	LEU
6	At	8039	MET
6	At	8054	THR
6	At	8061	GLN
6	At	8066	GLN
6	At	8072	VAL
6	At	8073	LEU
6	At	8079	LEU
6	At	8093	THR
6	At	8100	LYS
6	At	8101	GLU
6	At	8106	GLN

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Mol	Chain	Res	Type
6	At	8109	LEU
6	At	8117	THR
6	At	8119	ASN
6	At	8126	GLU
6	At	8127	MET
6	At	8139	VAL
6	At	8142	LEU
6	At	8147	LEU
6	At	8154	THR
6	At	8156	VAL
6	At	8160	LEU
6	At	8169	THR
6	At	8177	CYS
6	At	8180	LEU
6	At	8184	LEU
6	At	8186	GLU
6	At	8195	TYR
6	At	8197	LEU
6	At	8212	LYS
6	At	8213	ASP
7	Au	6010	GLU
7	Au	6019	ASN
7	Au	6027	LYS
7	Au	6031	GLU
7	Au	6033	THR
7	Au	6131	GLU
7	Au	6140	GLU
7	Au	6158	LEU
7	Au	6162	SER
8	Av	5000	HIS
8	Av	5058	ARG
5	A1	7006	LEU
5	A1	7007	LEU
5	A1	7008	VAL
5	A1	7014	SER
6	A2	8001	GLU
6	A2	8010	MET
6	A2	8024	ARG
6	A2	8032	THR
6	A2	8037	LEU
6	A2	8039	MET
6	A2	8054	THR

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Mol	Chain	Res	Type
6	A2	8061	GLN
6	A2	8066	GLN
6	A2	8072	VAL
6	A2	8073	LEU
6	A2	8079	LEU
6	A2	8093	THR
6	A2	8096	GLN
6	A2	8100	LYS
6	A2	8106	GLN
6	A2	8107	GLN
6	A2	8109	LEU
6	A2	8119	ASN
6	A2	8127	MET
6	A2	8133	GLN
6	A2	8139	VAL
6	A2	8156	VAL
6	A2	8162	LEU
6	A2	8180	LEU
6	A2	8184	LEU
6	A2	8186	GLU
6	A2	8203	VAL
6	A2	8209	ASN
7	A3	6010	GLU
7	A3	6019	ASN
7	A3	6027	LYS
7	A3	6031	GLU
7	A3	6033	THR
7	A3	6079	LYS
7	A3	6085	VAL
7	A3	6131	GLU
7	A3	6140	GLU
7	A3	6158	LEU
7	A3	6162	SER
8	A4	5000	HIS
8	A4	5058	ARG
1	Aw	1002	VAL
1	Aw	1009	SER
1	Aw	1048	ARG
1	Aw	1064	ARG
1	Aw	1079	VAL
2	Ax	2014	GLU
2	Ax	2030	LYS

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Mol	Chain	Res	Type
2	Ax	2040	ARG
2	Ax	2054	ARG
2	Ax	2092	LEU
3	Ay	3016	ARG
3	Ay	3026	ASN
3	Ay	3045	ASP
4	Az	4053	LEU
4	Az	4063	VAL
1	BA	1002	VAL
1	BA	1009	SER
1	BA	1047	ASN
1	BA	1048	ARG
1	BA	1064	ARG
1	BA	1079	VAL
2	BB	2002	SER
2	BB	2014	GLU
2	BB	2040	ARG
2	BB	2054	ARG
2	BB	2092	LEU
3	BC	3004	ILE
3	BC	3016	ARG
3	BC	3026	ASN
3	BC	3045	ASP
4	BD	4031	ASP
4	BD	4053	LEU
4	BD	4063	VAL
5	BE	7005	SER
5	BE	7006	LEU
5	BE	7014	SER
6	BF	8001	GLU
6	BF	8010	MET
6	BF	8024	ARG
6	BF	8037	LEU
6	BF	8039	MET
6	BF	8054	THR
6	BF	8061	GLN
6	BF	8066	GLN
6	BF	8072	VAL
6	BF	8073	LEU
6	BF	8079	LEU
6	BF	8093	THR
6	BF	8096	GLN

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Mol	Chain	Res	Type
6	BF	8106	GLN
6	BF	8109	LEU
6	BF	8113	LEU
6	BF	8117	THR
6	BF	8119	ASN
6	BF	8125	LEU
6	BF	8126	GLU
6	BF	8127	MET
6	BF	8133	GLN
6	BF	8139	VAL
6	BF	8147	LEU
6	BF	8154	THR
6	BF	8156	VAL
6	BF	8162	LEU
6	BF	8180	LEU
6	BF	8184	LEU
6	BF	8186	GLU
6	BF	8197	LEU
6	BF	8198	LEU
6	BF	8213	ASP
7	BG	6010	GLU
7	BG	6019	ASN
7	BG	6027	LYS
7	BG	6031	GLU
7	BG	6033	THR
7	BG	6131	GLU
7	BG	6140	GLU
7	BG	6158	LEU
7	BG	6162	SER
8	BH	5000	HIS
8	BH	5058	ARG
1	BI	1002	VAL
1	BI	1009	SER
1	BI	1047	ASN
1	BI	1048	ARG
1	BI	1064	ARG
1	BI	1079	VAL
2	BJ	2014	GLU
2	BJ	2040	ARG
2	BJ	2042	ASN
2	BJ	2054	ARG
2	BJ	2076	ARG

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Mol	Chain	Res	Type
2	BJ	2092	LEU
3	BK	3004	ILE
3	BK	3016	ARG
3	BK	3026	ASN
3	BK	3045	ASP
4	BL	4053	LEU
4	BL	4063	VAL
5	BM	7005	SER
5	BM	7006	LEU
5	BM	7007	LEU
6	BN	8001	GLU
6	BN	8010	MET
6	BN	8032	THR
6	BN	8037	LEU
6	BN	8039	MET
6	BN	8054	THR
6	BN	8061	GLN
6	BN	8066	GLN
6	BN	8072	VAL
6	BN	8073	LEU
6	BN	8079	LEU
6	BN	8093	THR
6	BN	8096	GLN
6	BN	8100	LYS
6	BN	8106	GLN
6	BN	8107	GLN
6	BN	8119	ASN
6	BN	8125	LEU
6	BN	8126	GLU
6	BN	8127	MET
6	BN	8133	GLN
6	BN	8139	VAL
6	BN	8142	LEU
6	BN	8147	LEU
6	BN	8154	THR
6	BN	8159	HIS
6	BN	8180	LEU
6	BN	8184	LEU
6	BN	8186	GLU
6	BN	8195	TYR
6	BN	8213	ASP
7	BO	6010	GLU

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Mol	Chain	Res	Type
7	BO	6019	ASN
7	BO	6027	LYS
7	BO	6031	GLU
7	BO	6033	THR
7	BO	6131	GLU
7	BO	6140	GLU
7	BO	6158	LEU
7	BO	6162	SER
8	BP	5000	HIS
8	BP	5058	ARG
1	BQ	1002	VAL
1	BQ	1009	SER
1	BQ	1047	ASN
1	BQ	1048	ARG
1	BQ	1079	VAL
2	BR	2014	GLU
2	BR	2042	ASN
2	BR	2054	ARG
2	BR	2076	ARG
2	BR	2092	LEU
3	BS	3004	ILE
3	BS	3016	ARG
3	BS	3026	ASN
3	BS	3045	ASP
4	BT	4031	ASP
4	BT	4053	LEU
4	BT	4063	VAL
5	BU	7006	LEU
5	BU	7007	LEU
6	BV	8001	GLU
6	BV	8010	MET
6	BV	8024	ARG
6	BV	8032	THR
6	BV	8037	LEU
6	BV	8039	MET
6	BV	8054	THR
6	BV	8061	GLN
6	BV	8066	GLN
6	BV	8072	VAL
6	BV	8073	LEU
6	BV	8079	LEU
6	BV	8093	THR

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Mol	Chain	Res	Type
6	BV	8096	GLN
6	BV	8100	LYS
6	BV	8106	GLN
6	BV	8109	LEU
6	BV	8119	ASN
6	BV	8125	LEU
6	BV	8127	MET
6	BV	8133	GLN
6	BV	8139	VAL
6	BV	8142	LEU
6	BV	8147	LEU
6	BV	8156	VAL
6	BV	8178	ILE
6	BV	8180	LEU
6	BV	8184	LEU
6	BV	8186	GLU
6	BV	8202	THR
6	BV	8213	ASP
7	BW	6010	GLU
7	BW	6019	ASN
7	BW	6027	LYS
7	BW	6031	GLU
7	BW	6033	THR
7	BW	6131	GLU
7	BW	6140	GLU
7	BW	6158	LEU
7	BW	6162	SER
8	BX	5000	HIS
8	BX	5058	ARG
8	BX	5064	MET
1	BY	1002	VAL
1	BY	1009	SER
1	BY	1042	LYS
1	BY	1047	ASN
1	BY	1048	ARG
1	BY	1064	ARG
1	BY	1079	VAL
2	BZ	2014	GLU
2	BZ	2030	LYS
2	BZ	2040	ARG
2	BZ	2054	ARG
2	BZ	2076	ARG

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Mol	Chain	Res	Type
2	BZ	2092	LEU
3	Ba	3004	ILE
3	Ba	3016	ARG
3	Ba	3024	GLN
3	Ba	3026	ASN
3	Ba	3045	ASP
4	Bb	4053	LEU
4	Bb	4055	GLU
4	Bb	4063	VAL
5	Bc	7006	LEU
5	Bc	7007	LEU
6	Bd	8001	GLU
6	Bd	8010	MET
6	Bd	8024	ARG
6	Bd	8037	LEU
6	Bd	8039	MET
6	Bd	8054	THR
6	Bd	8061	GLN
6	Bd	8066	GLN
6	Bd	8072	VAL
6	Bd	8073	LEU
6	Bd	8079	LEU
6	Bd	8093	THR
6	Bd	8096	GLN
6	Bd	8100	LYS
6	Bd	8101	GLU
6	Bd	8106	GLN
6	Bd	8109	LEU
6	Bd	8113	LEU
6	Bd	8119	ASN
6	Bd	8125	LEU
6	Bd	8127	MET
6	Bd	8133	GLN
6	Bd	8145	VAL
6	Bd	8147	LEU
6	Bd	8151	LEU
6	Bd	8156	VAL
6	Bd	8162	LEU
6	Bd	8170	LEU
6	Bd	8180	LEU
6	Bd	8184	LEU
6	Bd	8186	GLU

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Mol	Chain	Res	Type
6	Bd	8213	ASP
7	Be	6010	GLU
7	Be	6027	LYS
7	Be	6031	GLU
7	Be	6033	THR
7	Be	6131	GLU
7	Be	6140	GLU
7	Be	6158	LEU
7	Be	6162	SER
8	Bf	5000	HIS
8	Bf	5058	ARG
1	Bg	1002	VAL
1	Bg	1009	SER
1	Bg	1047	ASN
1	Bg	1048	ARG
1	Bg	1064	ARG
1	Bg	1079	VAL
2	Bh	2014	GLU
2	Bh	2030	LYS
2	Bh	2040	ARG
2	Bh	2054	ARG
2	Bh	2076	ARG
2	Bh	2092	LEU
3	Bi	3004	ILE
3	Bi	3016	ARG
3	Bi	3024	GLN
3	Bi	3026	ASN
3	Bi	3045	ASP
4	Bj	4053	LEU
4	Bj	4063	VAL
5	Bk	7005	SER
5	Bk	7006	LEU
5	Bk	7007	LEU
6	Bl	8001	GLU
6	Bl	8010	MET
6	Bl	8037	LEU
6	Bl	8039	MET
6	Bl	8054	THR
6	Bl	8061	GLN
6	Bl	8066	GLN
6	Bl	8072	VAL
6	Bl	8073	LEU

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Mol	Chain	Res	Type
6	B1	8079	LEU
6	B1	8093	THR
6	B1	8096	GLN
6	B1	8100	LYS
6	B1	8106	GLN
6	B1	8110	LEU
6	B1	8119	ASN
6	B1	8125	LEU
6	B1	8127	MET
6	B1	8133	GLN
6	B1	8139	VAL
6	B1	8147	LEU
6	B1	8154	THR
6	B1	8156	VAL
6	B1	8162	LEU
6	B1	8169	THR
6	B1	8173	ILE
6	B1	8180	LEU
6	B1	8184	LEU
6	B1	8186	GLU
6	B1	8195	TYR
6	B1	8213	ASP
7	Bm	6010	GLU
7	Bm	6027	LYS
7	Bm	6031	GLU
7	Bm	6033	THR
7	Bm	6131	GLU
7	Bm	6140	GLU
7	Bm	6158	LEU
7	Bm	6162	SER
8	Bn	5000	HIS
8	Bn	5058	ARG
1	Bo	1002	VAL
1	Bo	1009	SER
1	Bo	1042	LYS
1	Bo	1048	ARG
1	Bo	1049	GLU
1	Bo	1064	ARG
1	Bo	1079	VAL
2	Bp	2014	GLU
2	Bp	2040	ARG
2	Bp	2054	ARG

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Mol	Chain	Res	Type
2	Bp	2076	ARG
2	Bp	2092	LEU
3	Bq	3004	ILE
3	Bq	3016	ARG
3	Bq	3024	GLN
3	Bq	3026	ASN
3	Bq	3045	ASP
4	Br	4053	LEU
4	Br	4063	VAL
5	Bs	7005	SER
6	Bt	8001	GLU
6	Bt	8010	MET
6	Bt	8027	LYS
6	Bt	8035	THR
6	Bt	8037	LEU
6	Bt	8039	MET
6	Bt	8054	THR
6	Bt	8061	GLN
6	Bt	8066	GLN
6	Bt	8072	VAL
6	Bt	8073	LEU
6	Bt	8079	LEU
6	Bt	8093	THR
6	Bt	8096	GLN
6	Bt	8100	LYS
6	Bt	8106	GLN
6	Bt	8109	LEU
6	Bt	8113	LEU
6	Bt	8119	ASN
6	Bt	8125	LEU
6	Bt	8127	MET
6	Bt	8133	GLN
6	Bt	8139	VAL
6	Bt	8142	LEU
6	Bt	8147	LEU
6	Bt	8149	ARG
6	Bt	8156	VAL
6	Bt	8159	HIS
6	Bt	8169	THR
6	Bt	8180	LEU
6	Bt	8184	LEU
6	Bt	8186	GLU

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Mol	Chain	Res	Type
6	Bt	8213	ASP
7	Bu	6010	GLU
7	Bu	6027	LYS
7	Bu	6031	GLU
7	Bu	6033	THR
7	Bu	6131	GLU
7	Bu	6140	GLU
7	Bu	6158	LEU
7	Bu	6162	SER
8	Bv	5000	HIS
8	Bv	5058	ARG
5	B1	7007	LEU
6	B2	8001	GLU
6	B2	8007	LEU
6	B2	8010	MET
6	B2	8037	LEU
6	B2	8039	MET
6	B2	8054	THR
6	B2	8061	GLN
6	B2	8066	GLN
6	B2	8072	VAL
6	B2	8073	LEU
6	B2	8079	LEU
6	B2	8093	THR
6	B2	8096	GLN
6	B2	8100	LYS
6	B2	8106	GLN
6	B2	8109	LEU
6	B2	8117	THR
6	B2	8119	ASN
6	B2	8123	LEU
6	B2	8125	LEU
6	B2	8127	MET
6	B2	8133	GLN
6	B2	8139	VAL
6	B2	8142	LEU
6	B2	8147	LEU
6	B2	8151	LEU
6	B2	8156	VAL
6	B2	8159	HIS
6	B2	8160	LEU
6	B2	8166	VAL

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Mol	Chain	Res	Type
6	B2	8169	THR
6	B2	8180	LEU
6	B2	8184	LEU
6	B2	8186	GLU
6	B2	8198	LEU
6	B2	8202	THR
6	B2	8203	VAL
6	B2	8213	ASP
7	B3	6010	GLU
7	B3	6019	ASN
7	B3	6027	LYS
7	B3	6031	GLU
7	B3	6033	THR
7	B3	6047	GLU
7	B3	6131	GLU
7	B3	6140	GLU
7	B3	6158	LEU
7	B3	6162	SER
8	B4	5000	HIS
8	B4	5058	ARG
1	Bw	1002	VAL
1	Bw	1009	SER
1	Bw	1042	LYS
1	Bw	1047	ASN
1	Bw	1048	ARG
1	Bw	1064	ARG
1	Bw	1079	VAL
2	Bx	2014	GLU
2	Bx	2040	ARG
2	Bx	2054	ARG
2	Bx	2066	MET
2	Bx	2076	ARG
2	Bx	2092	LEU
2	Bx	2097	ILE
3	By	3004	ILE
3	By	3016	ARG
3	By	3024	GLN
3	By	3026	ASN
3	By	3045	ASP
4	Bz	4053	LEU
4	Bz	4063	VAL
1	CA	1002	VAL

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Mol	Chain	Res	Type
1	CA	1009	SER
1	CA	1042	LYS
1	CA	1047	ASN
1	CA	1048	ARG
1	CA	1064	ARG
1	CA	1079	VAL
2	CB	2014	GLU
2	CB	2030	LYS
2	CB	2040	ARG
2	CB	2054	ARG
2	CB	2076	ARG
2	CB	2092	LEU
3	CC	3004	ILE
3	CC	3016	ARG
3	CC	3024	GLN
3	CC	3026	ASN
3	CC	3045	ASP
4	CD	4031	ASP
4	CD	4053	LEU
4	CD	4063	VAL
5	CE	7006	LEU
5	CE	7007	LEU
6	CF	8001	GLU
6	CF	8010	MET
6	CF	8024	ARG
6	CF	8037	LEU
6	CF	8039	MET
6	CF	8054	THR
6	CF	8061	GLN
6	CF	8064	SER
6	CF	8066	GLN
6	CF	8072	VAL
6	CF	8073	LEU
6	CF	8079	LEU
6	CF	8093	THR
6	CF	8096	GLN
6	CF	8100	LYS
6	CF	8106	GLN
6	CF	8109	LEU
6	CF	8119	ASN
6	CF	8125	LEU
6	CF	8127	MET

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Mol	Chain	Res	Type
6	CF	8133	GLN
6	CF	8139	VAL
6	CF	8151	LEU
6	CF	8156	VAL
6	CF	8162	LEU
6	CF	8165	HIS
6	CF	8169	THR
6	CF	8180	LEU
6	CF	8184	LEU
6	CF	8186	GLU
6	CF	8204	GLN
6	CF	8213	ASP
7	CG	6010	GLU
7	CG	6019	ASN
7	CG	6027	LYS
7	CG	6031	GLU
7	CG	6033	THR
7	CG	6047	GLU
7	CG	6131	GLU
7	CG	6140	GLU
7	CG	6158	LEU
7	CG	6162	SER
8	CH	5000	HIS
8	CH	5058	ARG
1	CI	1002	VAL
1	CI	1009	SER
1	CI	1042	LYS
1	CI	1047	ASN
1	CI	1048	ARG
1	CI	1064	ARG
1	CI	1079	VAL
2	CJ	2002	SER
2	CJ	2014	GLU
2	CJ	2030	LYS
2	CJ	2054	ARG
2	CJ	2076	ARG
2	CJ	2092	LEU
3	CK	3004	ILE
3	CK	3016	ARG
3	CK	3026	ASN
3	CK	3045	ASP
4	CL	4053	LEU

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Mol	Chain	Res	Type
5	CM	7006	LEU
5	CM	7007	LEU
6	CN	8001	GLU
6	CN	8010	MET
6	CN	8024	ARG
6	CN	8037	LEU
6	CN	8039	MET
6	CN	8054	THR
6	CN	8061	GLN
6	CN	8066	GLN
6	CN	8072	VAL
6	CN	8073	LEU
6	CN	8079	LEU
6	CN	8093	THR
6	CN	8096	GLN
6	CN	8100	LYS
6	CN	8106	GLN
6	CN	8116	LEU
6	CN	8119	ASN
6	CN	8125	LEU
6	CN	8127	MET
6	CN	8133	GLN
6	CN	8139	VAL
6	CN	8147	LEU
6	CN	8156	VAL
6	CN	8177	CYS
6	CN	8184	LEU
6	CN	8186	GLU
6	CN	8197	LEU
6	CN	8213	ASP
7	CO	6010	GLU
7	CO	6019	ASN
7	CO	6027	LYS
7	CO	6031	GLU
7	CO	6033	THR
7	CO	6131	GLU
7	CO	6140	GLU
7	CO	6158	LEU
7	CO	6162	SER
8	CP	5000	HIS
8	CP	5058	ARG
1	CQ	1002	VAL

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Mol	Chain	Res	Type
1	CQ	1009	SER
1	CQ	1042	LYS
1	CQ	1047	ASN
1	CQ	1048	ARG
1	CQ	1064	ARG
1	CQ	1079	VAL
2	CR	2014	GLU
2	CR	2040	ARG
2	CR	2054	ARG
2	CR	2076	ARG
2	CR	2092	LEU
3	CS	3004	ILE
3	CS	3016	ARG
3	CS	3024	GLN
3	CS	3026	ASN
3	CS	3045	ASP
4	CT	4002	LYS
4	CT	4053	LEU
4	CT	4055	GLU
4	CT	4063	VAL
5	CU	7007	LEU
5	CU	7008	VAL
5	CU	7014	SER
6	CV	8001	GLU
6	CV	8010	MET
6	CV	8024	ARG
6	CV	8037	LEU
6	CV	8039	MET
6	CV	8054	THR
6	CV	8061	GLN
6	CV	8066	GLN
6	CV	8072	VAL
6	CV	8073	LEU
6	CV	8079	LEU
6	CV	8093	THR
6	CV	8096	GLN
6	CV	8100	LYS
6	CV	8106	GLN
6	CV	8109	LEU
6	CV	8119	ASN
6	CV	8125	LEU
6	CV	8127	MET

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Mol	Chain	Res	Type
6	CV	8133	GLN
6	CV	8139	VAL
6	CV	8142	LEU
6	CV	8151	LEU
6	CV	8156	VAL
6	CV	8160	LEU
6	CV	8180	LEU
6	CV	8184	LEU
6	CV	8186	GLU
6	CV	8198	LEU
6	CV	8209	ASN
6	CV	8213	ASP
7	CW	6010	GLU
7	CW	6019	ASN
7	CW	6027	LYS
7	CW	6031	GLU
7	CW	6033	THR
7	CW	6131	GLU
7	CW	6140	GLU
7	CW	6158	LEU
7	CW	6162	SER
8	CX	5000	HIS
8	CX	5058	ARG
8	CX	5064	MET
1	CY	1002	VAL
1	CY	1009	SER
1	CY	1042	LYS
1	CY	1047	ASN
1	CY	1048	ARG
1	CY	1064	ARG
1	CY	1079	VAL
2	CZ	2014	GLU
2	CZ	2040	ARG
2	CZ	2054	ARG
2	CZ	2076	ARG
2	CZ	2092	LEU
3	Ca	3004	ILE
3	Ca	3016	ARG
3	Ca	3024	GLN
3	Ca	3026	ASN
3	Ca	3045	ASP
4	Cb	4002	LYS

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Mol	Chain	Res	Type
4	Cb	4053	LEU
4	Cb	4055	GLU
4	Cb	4063	VAL
5	Cc	7006	LEU
5	Cc	7007	LEU
6	Cd	8001	GLU
6	Cd	8010	MET
6	Cd	8024	ARG
6	Cd	8037	LEU
6	Cd	8039	MET
6	Cd	8054	THR
6	Cd	8061	GLN
6	Cd	8066	GLN
6	Cd	8072	VAL
6	Cd	8073	LEU
6	Cd	8079	LEU
6	Cd	8093	THR
6	Cd	8096	GLN
6	Cd	8100	LYS
6	Cd	8106	GLN
6	Cd	8109	LEU
6	Cd	8125	LEU
6	Cd	8126	GLU
6	Cd	8127	MET
6	Cd	8133	GLN
6	Cd	8139	VAL
6	Cd	8142	LEU
6	Cd	8156	VAL
6	Cd	8159	HIS
6	Cd	8162	LEU
6	Cd	8168	SER
6	Cd	8180	LEU
6	Cd	8184	LEU
6	Cd	8186	GLU
6	Cd	8204	GLN
6	Cd	8213	ASP
7	Ce	6010	GLU
7	Ce	6019	ASN
7	Ce	6027	LYS
7	Ce	6031	GLU
7	Ce	6033	THR
7	Ce	6047	GLU

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Mol	Chain	Res	Type
7	Ce	6131	GLU
7	Ce	6140	GLU
7	Ce	6158	LEU
7	Ce	6162	SER
8	Cf	5000	HIS
8	Cf	5058	ARG
1	Cg	1002	VAL
1	Cg	1009	SER
1	Cg	1042	LYS
1	Cg	1047	ASN
1	Cg	1048	ARG
1	Cg	1064	ARG
1	Cg	1079	VAL
2	Ch	2014	GLU
2	Ch	2040	ARG
2	Ch	2042	ASN
2	Ch	2054	ARG
2	Ch	2064	LYS
2	Ch	2076	ARG
2	Ch	2092	LEU
3	Ci	3004	ILE
3	Ci	3016	ARG
3	Ci	3026	ASN
3	Ci	3045	ASP
4	Cj	4002	LYS
4	Cj	4053	LEU
5	Ck	7007	LEU
5	Ck	7010	THR
6	Cl	8001	GLU
6	Cl	8010	MET
6	Cl	8024	ARG
6	Cl	8032	THR
6	Cl	8037	LEU
6	Cl	8039	MET
6	Cl	8054	THR
6	Cl	8061	GLN
6	Cl	8066	GLN
6	Cl	8072	VAL
6	Cl	8075	LEU
6	Cl	8079	LEU
6	Cl	8093	THR
6	Cl	8096	GLN

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Mol	Chain	Res	Type
6	Cl	8100	LYS
6	Cl	8106	GLN
6	Cl	8109	LEU
6	Cl	8113	LEU
6	Cl	8115	HIS
6	Cl	8117	THR
6	Cl	8119	ASN
6	Cl	8127	MET
6	Cl	8128	LEU
6	Cl	8133	GLN
6	Cl	8139	VAL
6	Cl	8142	LEU
6	Cl	8147	LEU
6	Cl	8154	THR
6	Cl	8156	VAL
6	Cl	8162	LEU
6	Cl	8180	LEU
6	Cl	8184	LEU
6	Cl	8186	GLU
6	Cl	8213	ASP
7	Cm	6010	GLU
7	Cm	6019	ASN
7	Cm	6027	LYS
7	Cm	6033	THR
7	Cm	6079	LYS
7	Cm	6131	GLU
7	Cm	6140	GLU
7	Cm	6158	LEU
7	Cm	6162	SER
8	Cn	5000	HIS
8	Cn	5058	ARG
1	Co	1002	VAL
1	Co	1009	SER
1	Co	1047	ASN
1	Co	1048	ARG
1	Co	1079	VAL
2	Cp	2014	GLU
2	Cp	2030	LYS
2	Cp	2039	CYS
2	Cp	2042	ASN
2	Cp	2054	ARG
2	Cp	2076	ARG

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Mol	Chain	Res	Type
2	Cp	2092	LEU
3	Cq	3004	ILE
3	Cq	3016	ARG
3	Cq	3024	GLN
3	Cq	3026	ASN
3	Cq	3045	ASP
4	Cr	4053	LEU
5	Cs	7002	TRP
5	Cs	7005	SER
5	Cs	7006	LEU
5	Cs	7007	LEU
5	Cs	7014	SER
6	Ct	8001	GLU
6	Ct	8010	MET
6	Ct	8024	ARG
6	Ct	8027	LYS
6	Ct	8037	LEU
6	Ct	8039	MET
6	Ct	8054	THR
6	Ct	8061	GLN
6	Ct	8062	VAL
6	Ct	8072	VAL
6	Ct	8073	LEU
6	Ct	8074	VAL
6	Ct	8079	LEU
6	Ct	8093	THR
6	Ct	8096	GLN
6	Ct	8100	LYS
6	Ct	8106	GLN
6	Ct	8110	LEU
6	Ct	8113	LEU
6	Ct	8117	THR
6	Ct	8118	GLN
6	Ct	8119	ASN
6	Ct	8125	LEU
6	Ct	8126	GLU
6	Ct	8127	MET
6	Ct	8133	GLN
6	Ct	8139	VAL
6	Ct	8142	LEU
6	Ct	8147	LEU
6	Ct	8162	LEU

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Mol	Chain	Res	Type
6	Ct	8180	LEU
6	Ct	8184	LEU
6	Ct	8186	GLU
6	Ct	8197	LEU
6	Ct	8213	ASP
7	Cu	6010	GLU
7	Cu	6019	ASN
7	Cu	6027	LYS
7	Cu	6033	THR
7	Cu	6131	GLU
7	Cu	6140	GLU
7	Cu	6158	LEU
7	Cu	6162	SER
8	Cv	5000	HIS
8	Cv	5058	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (254) such sidechains are listed below:

Mol	Chain	Res	Type
1	AI	1047	ASN
2	AJ	2031	ASN
3	AK	3002	GLN
3	AK	3024	GLN
6	AN	8071	GLN
6	AN	8086	GLN
6	AN	8096	GLN
6	AN	8106	GLN
6	AN	8115	HIS
7	AO	6156	GLN
1	AA	1047	ASN
2	AB	2031	ASN
3	AC	3002	GLN
3	AC	3024	GLN
3	AC	3059	GLN
6	AF	8071	GLN
6	AF	8081	ASN
6	AF	8086	GLN
6	AF	8096	GLN
6	AF	8106	GLN
6	AF	8115	HIS
6	AF	8119	ASN
7	AG	6018	ASN

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Mol	Chain	Res	Type
7	AG	6156	GLN
1	AQ	1047	ASN
2	AR	2031	ASN
2	AR	2094	ASN
3	AS	3002	GLN
3	AS	3024	GLN
3	AS	3059	GLN
6	AV	8066	GLN
6	AV	8071	GLN
6	AV	8086	GLN
6	AV	8096	GLN
6	AV	8107	GLN
6	AV	8165	HIS
6	AV	8190	GLN
7	AW	6156	GLN
8	AX	5048	GLN
1	AY	1022	GLN
1	AY	1047	ASN
2	AZ	2031	ASN
2	AZ	2094	ASN
3	Aa	3002	GLN
3	Aa	3024	GLN
3	Aa	3059	GLN
6	Ad	8071	GLN
6	Ad	8096	GLN
7	Ae	6156	GLN
8	Af	5048	GLN
1	Ag	1022	GLN
1	Ag	1047	ASN
2	Ah	2031	ASN
2	Ah	2041	ASN
3	Ai	3002	GLN
3	Ai	3059	GLN
6	Al	8066	GLN
6	Al	8071	GLN
6	Al	8086	GLN
6	Al	8096	GLN
6	Al	8106	GLN
6	Al	8115	HIS
6	Al	8209	ASN
7	Am	6156	GLN
1	Ao	1022	GLN

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Mol	Chain	Res	Type
1	Ao	1047	ASN
2	Ap	2031	ASN
3	Aq	3002	GLN
3	Aq	3024	GLN
3	Aq	3059	GLN
6	At	8071	GLN
6	At	8086	GLN
6	At	8096	GLN
6	At	8115	HIS
6	At	8165	HIS
6	At	8204	GLN
7	Au	6156	GLN
6	A2	8066	GLN
6	A2	8071	GLN
6	A2	8086	GLN
6	A2	8096	GLN
6	A2	8106	GLN
6	A2	8115	HIS
7	A3	6019	ASN
7	A3	6156	GLN
1	Aw	1047	ASN
2	Ax	2031	ASN
3	Ay	3002	GLN
3	Ay	3024	GLN
4	Az	4052	HIS
1	BA	1047	ASN
2	BB	2031	ASN
3	BC	3002	GLN
3	BC	3024	GLN
6	BF	8071	GLN
6	BF	8086	GLN
6	BF	8096	GLN
6	BF	8106	GLN
6	BF	8115	HIS
6	BF	8119	ASN
7	BG	6156	GLN
1	BI	1010	HIS
1	BI	1047	ASN
2	BJ	2031	ASN
2	BJ	2041	ASN
2	BJ	2094	ASN
3	BK	3002	GLN

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Mol	Chain	Res	Type
3	BK	3024	GLN
6	BN	8071	GLN
6	BN	8086	GLN
6	BN	8096	GLN
6	BN	8209	ASN
7	BO	6156	GLN
1	BQ	1047	ASN
2	BR	2031	ASN
2	BR	2094	ASN
3	BS	3002	GLN
3	BS	3024	GLN
3	BS	3059	GLN
6	BV	8066	GLN
6	BV	8071	GLN
6	BV	8086	GLN
6	BV	8096	GLN
6	BV	8106	GLN
6	BV	8115	HIS
6	BV	8159	HIS
6	BV	8209	ASN
7	BW	6156	GLN
1	BY	1047	ASN
2	BZ	2031	ASN
2	BZ	2094	ASN
3	Ba	3002	GLN
3	Ba	3024	GLN
3	Ba	3059	GLN
6	Bd	8071	GLN
6	Bd	8086	GLN
6	Bd	8096	GLN
6	Bd	8115	HIS
7	Be	6018	ASN
7	Be	6156	GLN
1	Bg	1022	GLN
1	Bg	1047	ASN
2	Bh	2031	ASN
3	Bi	3002	GLN
3	Bi	3024	GLN
6	Bl	8034	ASN
6	Bl	8071	GLN
6	Bl	8086	GLN
6	Bl	8096	GLN

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Mol	Chain	Res	Type
6	Bl	8106	GLN
6	Bl	8115	HIS
6	Bl	8165	HIS
7	Bm	6019	ASN
7	Bm	6156	GLN
1	Bo	1047	ASN
2	Bp	2031	ASN
2	Bp	2094	ASN
3	Bq	3002	GLN
3	Bq	3024	GLN
6	Bt	8034	ASN
6	Bt	8071	GLN
6	Bt	8086	GLN
6	Bt	8096	GLN
6	Bt	8107	GLN
6	Bt	8115	HIS
6	Bt	8165	HIS
6	Bt	8209	ASN
7	Bu	6156	GLN
6	B2	8034	ASN
6	B2	8071	GLN
6	B2	8086	GLN
6	B2	8096	GLN
6	B2	8115	HIS
6	B2	8209	ASN
7	B3	6019	ASN
7	B3	6156	GLN
2	Bx	2031	ASN
3	By	3002	GLN
3	By	3024	GLN
3	By	3059	GLN
1	CA	1047	ASN
2	CB	2031	ASN
2	CB	2094	ASN
3	CC	3002	GLN
3	CC	3024	GLN
6	CF	8071	GLN
6	CF	8086	GLN
6	CF	8096	GLN
6	CF	8159	HIS
7	CG	6019	ASN
7	CG	6156	GLN

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Mol	Chain	Res	Type
8	CH	5048	GLN
1	CI	1047	ASN
2	CJ	2031	ASN
3	CK	3002	GLN
3	CK	3024	GLN
6	CN	8066	GLN
6	CN	8071	GLN
6	CN	8096	GLN
6	CN	8106	GLN
6	CN	8209	ASN
7	CO	6156	GLN
1	CQ	1047	ASN
2	CR	2031	ASN
2	CR	2094	ASN
3	CS	3002	GLN
3	CS	3024	GLN
6	CV	8071	GLN
6	CV	8081	ASN
6	CV	8086	GLN
6	CV	8096	GLN
6	CV	8106	GLN
6	CV	8115	HIS
7	CW	6019	ASN
7	CW	6156	GLN
8	CX	5048	GLN
1	CY	1047	ASN
2	CZ	2031	ASN
3	Ca	3002	GLN
3	Ca	3024	GLN
6	Cd	8071	GLN
6	Cd	8096	GLN
6	Cd	8115	HIS
6	Cd	8119	ASN
6	Cd	8209	ASN
7	Ce	6156	GLN
8	Cf	5048	GLN
1	Cg	1022	GLN
1	Cg	1047	ASN
2	Ch	2031	ASN
2	Ch	2094	ASN
3	Ci	3002	GLN
3	Ci	3024	GLN

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Mol	Chain	Res	Type
6	Cl	8096	GLN
6	Cl	8106	GLN
6	Cl	8165	HIS
7	Cm	6058	GLN
7	Cm	6156	GLN
1	Co	1010	HIS
1	Co	1022	GLN
1	Co	1047	ASN
2	Cp	2031	ASN
2	Cp	2042	ASN
3	Cq	3002	GLN
3	Cq	3024	GLN
4	Cr	4052	HIS
6	Ct	8034	ASN
6	Ct	8071	GLN
6	Ct	8086	GLN
6	Ct	8096	GLN
6	Ct	8106	GLN
6	Ct	8115	HIS
6	Ct	8165	HIS
7	Cu	6156	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

10 ligands are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The

Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
9	SO4	Bt	8301	-	4,4,4	0.19	0	6,6,6	0.34	0
9	SO4	BV	8301	-	4,4,4	0.27	0	6,6,6	0.41	0
9	SO4	B2	8301	-	4,4,4	0.36	0	6,6,6	0.33	0
9	SO4	Bd	8301	-	4,4,4	0.35	0	6,6,6	0.40	0
9	SO4	Ad	8301	-	4,4,4	0.38	0	6,6,6	0.28	0
9	SO4	BF	8301	-	4,4,4	0.19	0	6,6,6	0.28	0
9	SO4	A2	8301	-	4,4,4	0.22	0	6,6,6	0.40	0
9	SO4	At	8301	-	4,4,4	0.44	0	6,6,6	0.57	0
9	SO4	Cl	8301	-	4,4,4	0.42	0	6,6,6	0.25	0
9	SO4	CF	8301	-	4,4,4	0.38	0	6,6,6	0.37	0

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](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	AA	82/119 (68%)	0.46	4 (4%) 35 18	16, 44, 80, 155	0
1	AI	82/119 (68%)	0.38	4 (4%) 35 18	17, 41, 83, 141	0
1	AQ	82/119 (68%)	0.49	5 (6%) 27 15	26, 48, 92, 145	0
1	AY	82/119 (68%)	1.93	31 (37%) 1 0	48, 76, 117, 154	0
1	Ag	82/119 (68%)	0.70	6 (7%) 21 11	14, 47, 94, 167	0
1	Ao	82/119 (68%)	0.44	4 (4%) 35 18	18, 43, 87, 158	0
1	Aw	82/119 (68%)	1.81	30 (36%) 1 0	48, 76, 115, 154	0
1	BA	82/119 (68%)	3.10	75 (91%) 0 0	69, 92, 131, 175	0
1	BI	82/119 (68%)	3.25	72 (87%) 0 0	66, 92, 127, 175	0
1	BQ	82/119 (68%)	1.03	11 (13%) 7 4	34, 60, 107, 179	0
1	BY	82/119 (68%)	0.80	9 (10%) 10 5	25, 54, 88, 130	0
1	Bg	82/119 (68%)	2.19	45 (54%) 0 0	58, 81, 117, 151	0
1	Bo	82/119 (68%)	1.59	27 (32%) 1 0	41, 68, 117, 164	0
1	Bw	82/119 (68%)	0.76	6 (7%) 21 11	24, 53, 90, 142	0
1	CA	82/119 (68%)	1.36	18 (21%) 2 1	36, 64, 105, 132	0
1	CI	82/119 (68%)	3.05	69 (84%) 0 0	61, 86, 127, 164	0
1	CQ	82/119 (68%)	0.60	5 (6%) 27 15	29, 54, 88, 136	0
1	CY	82/119 (68%)	0.69	7 (8%) 16 9	17, 47, 88, 130	0
1	Cg	82/119 (68%)	2.27	47 (57%) 0 0	52, 82, 119, 162	0
1	Co	82/119 (68%)	3.00	65 (79%) 0 0	64, 88, 130, 168	0
2	AB	100/118 (84%)	0.92	10 (10%) 12 6	19, 63, 168, 181	0
2	AJ	100/118 (84%)	0.86	12 (12%) 9 5	20, 63, 167, 179	0
2	AR	100/118 (84%)	0.92	9 (9%) 15 8	29, 69, 190, 201	0
2	AZ	100/118 (84%)	1.10	8 (8%) 18 10	39, 82, 226, 242	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
2	Ah	100/118 (84%)	1.49	23 (23%)	2	1	44, 82, 207, 217	0
2	Ap	100/118 (84%)	1.07	12 (12%)	9	5	34, 72, 215, 219	0
2	Ax	100/118 (84%)	1.12	14 (14%)	6	4	31, 73, 210, 225	0
2	BB	100/118 (84%)	3.11	79 (79%)	0	0	87, 124, 220, 226	0
2	BJ	100/118 (84%)	2.59	68 (68%)	0	0	77, 113, 245, 255	0
2	BR	100/118 (84%)	1.64	28 (28%)	1	1	45, 94, 235, 237	0
2	BZ	100/118 (84%)	1.09	13 (13%)	7	4	37, 76, 216, 232	0
2	Bh	100/118 (84%)	1.43	20 (20%)	3	1	50, 90, 235, 253	0
2	Bp	100/118 (84%)	1.98	49 (49%)	0	0	56, 111, 242, 250	0
2	Bx	100/118 (84%)	1.03	11 (11%)	10	5	32, 75, 230, 243	0
2	CB	100/118 (84%)	1.71	32 (32%)	1	0	48, 92, 223, 238	0
2	CJ	100/118 (84%)	2.92	72 (72%)	0	0	79, 118, 224, 231	0
2	CR	100/118 (84%)	0.90	10 (10%)	12	6	35, 76, 183, 203	0
2	CZ	100/118 (84%)	0.88	12 (12%)	9	5	28, 72, 184, 205	0
2	Ch	100/118 (84%)	1.44	19 (19%)	3	1	55, 90, 212, 223	0
2	Cp	100/118 (84%)	2.29	56 (56%)	0	0	67, 112, 233, 247	0
3	AC	77/92 (83%)	1.69	29 (37%)	1	0	70, 120, 150, 162	0
3	AK	77/92 (83%)	2.02	37 (48%)	0	0	79, 125, 164, 170	0
3	AS	77/92 (83%)	2.70	55 (71%)	0	0	128, 181, 261, 265	0
3	Aa	77/92 (83%)	2.46	51 (66%)	0	0	134, 199, 268, 274	0
3	Ai	77/92 (83%)	1.55	20 (25%)	1	1	86, 135, 164, 173	0
3	Aq	77/92 (83%)	2.23	39 (50%)	0	0	126, 179, 246, 254	0
3	Ay	77/92 (83%)	2.15	41 (53%)	0	0	87, 140, 220, 227	0
3	BC	77/92 (83%)	2.27	44 (57%)	0	0	128, 157, 177, 185	0
3	BK	77/92 (83%)	2.70	49 (63%)	0	0	177, 242, 280, 286	0
3	BS	77/92 (83%)	2.08	34 (44%)	0	0	148, 203, 244, 256	0
3	Ba	77/92 (83%)	2.38	40 (51%)	0	0	133, 188, 260, 264	0
3	Bi	77/92 (83%)	2.36	41 (53%)	0	0	144, 203, 278, 279	0
3	Bq	77/92 (83%)	2.22	38 (49%)	0	0	200, 257, 282, 293	0
3	By	77/92 (83%)	2.15	38 (49%)	0	0	143, 207, 268, 274	0
3	CC	77/92 (83%)	1.60	20 (25%)	1	1	107, 151, 185, 208	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
3	CK	77/92 (83%)	2.18	37 (48%)	0	0	131, 181, 212, 222	0
3	CS	77/92 (83%)	1.50	18 (23%)	2	1	81, 121, 161, 172	0
3	Ca	77/92 (83%)	1.42	21 (27%)	1	1	82, 122, 165, 177	0
3	Ci	77/92 (83%)	2.02	31 (40%)	0	0	107, 148, 200, 206	0
3	Cq	77/92 (83%)	2.02	37 (48%)	0	0	172, 241, 284, 286	0
4	AD	71/86 (82%)	1.24	11 (15%)	5	2	46, 93, 120, 142	0
4	AL	71/86 (82%)	1.17	11 (15%)	5	2	50, 89, 113, 143	0
4	AT	71/86 (82%)	1.69	26 (36%)	1	0	64, 115, 159, 182	0
4	Ab	71/86 (82%)	1.40	16 (22%)	2	1	73, 116, 166, 193	0
4	Aj	71/86 (82%)	1.59	18 (25%)	1	1	71, 125, 153, 185	0
4	Ar	71/86 (82%)	1.67	22 (30%)	1	1	66, 122, 172, 191	0
4	Az	71/86 (82%)	1.14	9 (12%)	8	4	60, 105, 133, 163	0
4	BD	71/86 (82%)	2.41	44 (61%)	0	0	104, 169, 199, 208	0
4	BL	71/86 (82%)	2.26	37 (52%)	0	0	118, 165, 251, 260	0
4	BT	71/86 (82%)	1.75	24 (33%)	1	0	98, 144, 212, 220	0
4	Bb	71/86 (82%)	1.66	21 (29%)	1	1	64, 121, 161, 193	0
4	Bj	71/86 (82%)	1.61	17 (23%)	2	1	80, 130, 174, 203	0
4	Br	71/86 (82%)	2.31	45 (63%)	0	0	118, 183, 264, 271	0
4	Bz	71/86 (82%)	1.57	24 (33%)	1	0	71, 128, 179, 219	0
4	CD	71/86 (82%)	1.67	17 (23%)	2	1	77, 126, 152, 195	0
4	CL	71/86 (82%)	2.86	51 (71%)	0	0	111, 166, 197, 201	0
4	CT	71/86 (82%)	1.11	7 (9%)	13	7	64, 101, 128, 156	0
4	Cb	71/86 (82%)	1.19	9 (12%)	8	4	60, 102, 128, 157	0
4	Cj	71/86 (82%)	1.30	12 (16%)	4	2	79, 117, 152, 178	0
4	Cr	71/86 (82%)	2.19	34 (47%)	0	0	111, 166, 244, 257	0
5	A1	17/124 (13%)	0.80	2 (11%)	9	5	73, 98, 162, 164	0
5	AE	17/124 (13%)	0.77	0	100	100	67, 81, 121, 128	0
5	AM	17/124 (13%)	0.78	0	100	100	64, 80, 131, 133	0
5	AU	17/124 (13%)	0.89	2 (11%)	9	5	58, 85, 120, 125	0
5	Ac	17/124 (13%)	0.90	2 (11%)	9	5	52, 86, 141, 144	0
5	Ak	17/124 (13%)	0.82	1 (5%)	28	15	63, 78, 125, 128	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
5	As	17/124 (13%)	0.75	3 (17%) 4 2	59, 76, 128, 128	0
5	B1	17/124 (13%)	0.81	1 (5%) 28 15	56, 69, 129, 130	0
5	BE	17/124 (13%)	2.00	9 (52%) 0 0	115, 129, 153, 167	0
5	BM	17/124 (13%)	1.66	7 (41%) 0 0	96, 109, 152, 152	0
5	BU	17/124 (13%)	0.82	2 (11%) 9 5	83, 94, 129, 132	0
5	Bc	17/124 (13%)	0.80	1 (5%) 28 15	60, 81, 133, 136	0
5	Bk	17/124 (13%)	1.51	4 (23%) 2 1	85, 98, 150, 153	0
5	Bs	17/124 (13%)	1.34	3 (17%) 4 2	81, 95, 149, 151	0
5	CE	17/124 (13%)	1.12	3 (17%) 4 2	77, 93, 139, 142	0
5	CM	17/124 (13%)	1.94	8 (47%) 0 0	111, 124, 163, 163	0
5	CU	17/124 (13%)	0.68	1 (5%) 28 15	54, 78, 134, 134	0
5	Cc	17/124 (13%)	0.89	1 (5%) 28 15	53, 72, 132, 134	0
5	Ck	17/124 (13%)	1.62	4 (23%) 2 1	79, 92, 156, 160	0
5	Cs	17/124 (13%)	1.71	8 (47%) 0 0	101, 114, 151, 152	0
6	A2	216/247 (87%)	0.64	15 (6%) 23 12	24, 73, 196, 212	0
6	AF	216/247 (87%)	0.74	21 (9%) 13 7	14, 56, 168, 208	0
6	AN	216/247 (87%)	0.65	16 (7%) 20 11	11, 54, 167, 187	0
6	AV	216/247 (87%)	0.75	23 (10%) 11 6	17, 59, 201, 226	0
6	Ad	216/247 (87%)	1.22	42 (19%) 3 1	27, 75, 214, 236	0
6	Al	216/247 (87%)	0.92	28 (12%) 7 4	16, 62, 189, 235	0
6	At	216/247 (87%)	0.78	23 (10%) 11 6	14, 55, 202, 219	0
6	B2	216/247 (87%)	0.88	22 (10%) 12 6	20, 58, 225, 240	0
6	BF	216/247 (87%)	2.51	136 (62%) 0 0	71, 108, 202, 230	0
6	BN	216/247 (87%)	2.29	122 (56%) 0 0	57, 99, 235, 247	0
6	BV	216/247 (87%)	1.19	41 (18%) 3 1	31, 78, 219, 245	0
6	Bd	216/247 (87%)	0.85	21 (9%) 13 7	24, 61, 215, 236	0
6	Bl	216/247 (87%)	1.31	39 (18%) 3 1	38, 78, 226, 246	0
6	Bt	216/247 (87%)	1.43	51 (23%) 2 1	41, 78, 233, 250	0
6	CF	216/247 (87%)	1.20	32 (14%) 5 3	35, 73, 195, 229	0
6	CN	216/247 (87%)	2.58	144 (66%) 0 0	64, 107, 196, 224	0
6	CV	216/247 (87%)	0.66	12 (5%) 30 16	23, 61, 175, 202	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
6	Cd	216/247 (87%)	0.71	15 (6%) 23 12	14, 55, 181, 211	0
6	Cl	216/247 (87%)	1.36	48 (22%) 2 1	32, 76, 204, 225	0
6	Ct	216/247 (87%)	2.37	129 (59%) 0 0	63, 103, 224, 240	0
7	A3	127/186 (68%)	2.25	66 (51%) 0 0	74, 126, 154, 172	0
7	AG	127/186 (68%)	0.80	11 (8%) 16 9	21, 47, 108, 144	0
7	AO	127/186 (68%)	0.94	12 (9%) 14 8	19, 58, 119, 143	0
7	AW	127/186 (68%)	0.88	11 (8%) 16 9	29, 60, 122, 152	0
7	Ae	127/186 (68%)	3.74	114 (89%) 0 0	78, 122, 162, 170	0
7	Am	127/186 (68%)	0.50	8 (6%) 26 14	13, 43, 110, 149	0
7	Au	127/186 (68%)	0.91	13 (10%) 12 6	20, 51, 122, 152	0
7	B3	127/186 (68%)	1.06	14 (11%) 10 5	31, 58, 113, 162	0
7	BG	127/186 (68%)	2.25	68 (53%) 0 0	51, 82, 135, 167	0
7	BO	127/186 (68%)	3.37	109 (85%) 0 0	73, 107, 149, 178	0
7	BW	127/186 (68%)	0.67	10 (7%) 18 10	28, 54, 115, 153	0
7	Be	127/186 (68%)	1.00	15 (11%) 9 5	33, 62, 120, 162	0
7	Bm	127/186 (68%)	3.31	107 (84%) 0 0	62, 110, 152, 178	0
7	Bu	127/186 (68%)	1.00	10 (7%) 18 10	34, 63, 122, 167	0
7	CG	127/186 (68%)	0.74	9 (7%) 22 12	22, 57, 116, 158	0
7	CO	127/186 (68%)	2.21	73 (57%) 0 0	55, 85, 133, 174	0
7	CW	127/186 (68%)	0.88	13 (10%) 12 6	23, 59, 126, 158	0
7	Ce	127/186 (68%)	0.78	14 (11%) 10 5	20, 53, 115, 158	0
7	Cm	127/186 (68%)	4.12	117 (92%) 0 0	67, 125, 157, 179	0
7	Cu	127/186 (68%)	2.81	91 (71%) 0 0	73, 100, 146, 174	0
8	A4	70/76 (92%)	2.55	38 (54%) 0 0	158, 202, 224, 228	0
8	AH	70/76 (92%)	1.37	14 (20%) 3 1	69, 116, 150, 158	0
8	AP	70/76 (92%)	1.96	32 (45%) 0 0	81, 137, 167, 178	0
8	AX	70/76 (92%)	2.08	31 (44%) 0 0	121, 196, 220, 225	0
8	Af	70/76 (92%)	2.62	45 (64%) 0 0	200, 237, 255, 258	0
8	An	70/76 (92%)	1.27	9 (12%) 7 4	67, 110, 152, 158	0
8	Av	70/76 (92%)	1.59	17 (24%) 2 1	109, 176, 200, 214	0
8	B4	70/76 (92%)	2.37	38 (54%) 0 0	176, 224, 253, 261	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
8	BH	70/76 (92%)	2.28	38 (54%)	0	0	102, 140, 170, 178	0
8	BP	70/76 (92%)	2.59	42 (60%)	0	0	180, 237, 261, 266	0
8	BX	70/76 (92%)	1.72	21 (30%)	1	1	114, 173, 192, 201	0
8	Bf	70/76 (92%)	2.35	38 (54%)	0	0	178, 226, 252, 255	0
8	Bn	70/76 (92%)	2.43	39 (55%)	0	0	221, 251, 273, 278	0
8	Bv	70/76 (92%)	2.19	33 (47%)	0	0	185, 237, 271, 277	0
8	CH	70/76 (92%)	1.57	18 (25%)	1	1	106, 144, 166, 172	0
8	CP	70/76 (92%)	2.11	31 (44%)	0	0	135, 167, 187, 206	0
8	CX	70/76 (92%)	1.80	28 (40%)	1	0	103, 135, 162, 171	0
8	Cf	70/76 (92%)	1.70	18 (25%)	1	1	97, 140, 160, 170	0
8	Cn	70/76 (92%)	2.81	48 (68%)	0	0	146, 178, 204, 210	0
8	Cv	70/76 (92%)	2.50	43 (61%)	0	0	231, 267, 287, 290	0
All	All	15200/20960 (72%)	1.59	4820 (31%)	1	1	11, 97, 231, 293	0

All (4820) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
7	BG	6164	ASN	11.1
7	BO	6164	ASN	10.0
3	BK	3044	LEU	9.6
7	Ae	6164	ASN	9.4
8	A4	5055	VAL	8.8
6	Bd	8011	PHE	8.5
8	BP	5055	VAL	8.4
7	Cm	6082	TRP	8.3
7	Bm	6164	ASN	8.2
2	BB	2016	GLU	8.0
3	BK	3033	ILE	7.8
4	Ar	4005	LEU	7.7
7	BW	6164	ASN	7.7
7	Cm	6072	ILE	7.5
7	Cu	6164	ASN	7.5
7	Cm	6029	VAL	7.4
2	Ah	2016	GLU	7.4
4	CL	4053	LEU	7.3
7	Cm	6077	ASP	7.3
6	BF	8051	LEU	7.3
7	Cm	6021	LYS	7.1

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Mol	Chain	Res	Type	RSRZ
3	AS	3033	ILE	7.0
7	Cm	6137	LEU	7.0
8	Af	5028	GLY	7.0
8	A4	5026	LEU	7.0
7	AW	6164	ASN	6.9
7	Cm	6164	ASN	6.9
7	Au	6164	ASN	6.9
4	CD	4055	GLU	6.9
7	Ae	6001	VAL	6.9
7	Bm	6029	VAL	6.8
4	CL	4055	GLU	6.8
7	Bm	6001	VAL	6.8
6	B2	8011	PHE	6.7
4	BT	4005	LEU	6.7
1	CI	1060	GLY	6.7
8	Af	5055	VAL	6.7
6	CN	8051	LEU	6.7
7	Ae	6137	LEU	6.7
1	Co	1060	GLY	6.7
7	Cm	6136	TRP	6.7
4	AT	4005	LEU	6.6
7	Am	6164	ASN	6.6
7	A3	6164	ASN	6.6
7	Ae	6046	THR	6.6
1	BA	1070	ASP	6.6
8	A4	5037	ILE	6.6
8	Cv	5026	LEU	6.5
2	CJ	2016	GLU	6.5
8	AP	5055	VAL	6.5
7	Cm	6065	SER	6.4
4	BL	4005	LEU	6.4
7	Cm	6060	SER	6.4
7	AO	6164	ASN	6.4
7	Cm	6138	MET	6.4
1	Co	1056	LEU	6.4
7	Cm	6047	GLU	6.4
7	Cm	6027	LYS	6.3
7	Ae	6014	LEU	6.3
7	CO	6164	ASN	6.3
2	BB	2094	ASN	6.3
7	Ae	6155	CYS	6.2
8	B4	5057	ILE	6.2

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Mol	Chain	Res	Type	RSRZ
1	BI	1056	LEU	6.2
7	Bm	6163	ALA	6.2
7	BO	6015	TYR	6.2
8	Cn	5037	ILE	6.2
6	BF	8049	LYS	6.2
7	Cm	6000	MET	6.2
7	Cu	6077	ASP	6.2
7	Ae	6052	ILE	6.1
7	Bm	6072	ILE	6.1
4	Aj	4005	LEU	6.1
1	BI	1036	THR	6.1
7	BO	6163	ALA	6.1
3	BS	3044	LEU	6.1
3	Bq	3044	LEU	6.1
7	Cm	6155	CYS	6.1
7	Ae	6015	TYR	6.1
7	Ae	6082	TRP	6.1
6	CN	8178	ILE	6.0
3	AS	3044	LEU	6.0
7	Bu	6164	ASN	6.0
1	Cg	1051	VAL	6.0
7	Cm	6147	THR	6.0
3	Bi	3004	ILE	6.0
6	BF	8214	TYR	6.0
4	BD	4005	LEU	6.0
2	Ax	2016	GLU	6.0
7	B3	6167	SER	6.0
7	CW	6164	ASN	6.0
1	CI	1051	VAL	5.9
7	Ae	6051	GLY	5.9
3	BK	3072	LEU	5.9
8	Bf	5004	LEU	5.9
7	Ae	6080	VAL	5.9
8	Bn	5064	MET	5.9
7	Be	6167	SER	5.9
7	Bm	6065	SER	5.9
7	Bm	6147	THR	5.9
3	Ba	3044	LEU	5.9
3	Bi	3044	LEU	5.9
7	BO	6042	SER	5.9
7	Cm	6063	GLY	5.9
7	Be	6163	ALA	5.9

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Mol	Chain	Res	Type	RSRZ
1	BI	1062	ASN	5.8
7	BO	6077	ASP	5.8
1	Co	1051	VAL	5.8
4	Cr	4030	VAL	5.8
7	Cm	6015	TYR	5.8
6	Bl	8011	PHE	5.8
7	CG	6164	ASN	5.8
8	BH	5055	VAL	5.8
3	Ba	3007	ILE	5.8
7	Ae	6163	ALA	5.8
2	BJ	2016	GLU	5.8
2	Ah	2094	ASN	5.8
1	Co	1054	GLU	5.8
6	BF	8052	LEU	5.8
7	Ae	6072	ILE	5.8
7	Bm	6063	GLY	5.8
7	Cm	6080	VAL	5.7
7	Ae	6049	ALA	5.7
7	CW	6163	ALA	5.7
6	BF	8141	LEU	5.7
7	Cm	6035	TYR	5.7
7	A3	6051	GLY	5.7
7	AW	6163	ALA	5.7
6	Bd	8007	LEU	5.7
7	Cm	6048	LEU	5.7
7	AG	6164	ASN	5.7
7	BG	6163	ALA	5.6
2	BB	2046	LEU	5.6
6	CN	8034	ASN	5.6
3	Bq	3033	ILE	5.6
4	Br	4032	GLY	5.6
7	AG	6163	ALA	5.6
7	A3	6030	GLY	5.6
7	A3	6163	ALA	5.6
7	Cu	6163	ALA	5.6
7	Bu	6167	SER	5.6
3	Aa	3033	ILE	5.6
6	CN	8049	LYS	5.6
7	Cm	6036	ILE	5.6
7	Au	6163	ALA	5.6
2	Bp	2025	LEU	5.6
3	By	3072	LEU	5.6

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Mol	Chain	Res	Type	RSRZ
6	B2	8007	LEU	5.6
7	Cm	6022	LEU	5.6
7	Cm	6086	TYR	5.6
7	Bm	6082	TRP	5.6
2	BB	2069	GLU	5.5
2	BB	2095	PRO	5.5
7	Cm	6001	VAL	5.5
2	BJ	2025	LEU	5.5
6	Ct	8214	TYR	5.5
1	AY	1056	LEU	5.5
2	CJ	2046	LEU	5.5
7	Bu	6163	ALA	5.5
6	BN	8091	PRO	5.5
7	Be	6164	ASN	5.5
7	B3	6164	ASN	5.5
7	Cm	6071	CYS	5.5
6	CN	8141	LEU	5.5
6	CF	8019	ALA	5.5
7	Cm	6074	PHE	5.5
7	Ae	6062	HIS	5.5
1	BA	1036	THR	5.5
7	BO	6147	THR	5.5
7	Ae	6034	VAL	5.5
2	BB	2034	GLN	5.5
6	CN	8201	LEU	5.4
2	BB	2035	VAL	5.4
2	CB	2016	GLU	5.4
6	BF	8046	PRO	5.4
2	CJ	2022	LEU	5.4
7	BO	6013	LEU	5.4
8	B4	5004	LEU	5.4
7	Cm	6020	ILE	5.4
8	Bf	5062	ILE	5.4
7	Cu	6080	VAL	5.4
8	Cn	5067	ALA	5.4
3	Aq	3033	ILE	5.4
7	Cm	6064	ILE	5.4
8	Cn	5063	ILE	5.4
3	Ba	3072	LEU	5.4
4	CL	4065	TYR	5.4
6	Ct	8141	LEU	5.4
2	BR	2025	LEU	5.4

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Mol	Chain	Res	Type	RSRZ
3	Ci	3073	LEU	5.4
1	BI	1004	PHE	5.4
3	BK	3073	LEU	5.3
7	Am	6163	ALA	5.3
7	Cu	6062	HIS	5.3
2	CJ	2047	GLY	5.3
8	A4	5057	ILE	5.3
2	BJ	2022	LEU	5.3
1	Co	1043	MET	5.3
7	Cm	6049	ALA	5.3
2	BB	2047	GLY	5.3
7	Cm	6030	GLY	5.3
8	A4	5028	GLY	5.3
2	AJ	2016	GLU	5.3
8	AX	5055	VAL	5.3
3	AS	3036	PHE	5.3
3	By	3007	ILE	5.3
4	AD	4005	LEU	5.3
2	CJ	2088	VAL	5.3
1	BI	1043	MET	5.3
8	BP	5064	MET	5.3
7	Ae	6086	TYR	5.3
8	Af	5035	LEU	5.2
8	CP	5026	LEU	5.2
7	Bm	6154	THR	5.2
2	Bh	2016	GLU	5.2
7	Cm	6073	TYR	5.2
7	Ae	6074	PHE	5.2
3	BC	3021	LEU	5.2
8	Bv	5026	LEU	5.2
7	Bm	6071	CYS	5.2
1	Co	1057	SER	5.2
7	BG	6167	SER	5.2
6	BF	8198	LEU	5.2
7	BO	6073	TYR	5.2
6	CN	8022	THR	5.2
3	Aa	3021	LEU	5.2
3	By	3044	LEU	5.2
1	CI	1025	GLY	5.2
7	Cm	6084	GLY	5.2
6	AN	8000	PRO	5.2
2	Cp	2088	VAL	5.2

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Mol	Chain	Res	Type	RSRZ
7	Bm	6167	SER	5.2
7	Ae	6061	LEU	5.2
2	BJ	2034	GLN	5.2
7	Ae	6043	TRP	5.2
2	Ch	2016	GLU	5.2
4	CL	4002	LYS	5.1
2	AB	2016	GLU	5.1
3	Aa	3007	ILE	5.1
7	AO	6163	ALA	5.1
7	CG	6163	ALA	5.1
1	CI	1004	PHE	5.1
8	AX	5028	GLY	5.1
7	Ae	6006	VAL	5.1
7	Bm	6080	VAL	5.1
8	Cn	5064	MET	5.1
3	Ba	3004	ILE	5.1
7	Ce	6163	ALA	5.1
3	AS	3021	LEU	5.1
3	BS	3033	ILE	5.1
2	Bx	2016	GLU	5.1
7	Bm	6155	CYS	5.1
7	Ae	6073	TYR	5.1
1	BA	1074	LEU	5.1
7	Ae	6013	LEU	5.1
3	Ay	3007	ILE	5.0
8	Bv	5062	ILE	5.0
7	Cm	6016	THR	5.0
7	Cu	6147	THR	5.0
6	CN	8214	TYR	5.0
4	Br	4005	LEU	5.0
6	Ct	8178	ILE	5.0
7	Ce	6164	ASN	5.0
6	BF	8053	PRO	5.0
6	BN	8214	TYR	5.0
7	Bm	6137	LEU	5.0
7	Ae	6003	ILE	5.0
7	CO	6072	ILE	5.0
1	BI	1053	LEU	5.0
7	BO	6137	LEU	5.0
2	BJ	2021	PRO	5.0
1	BI	1057	SER	5.0
8	Af	5057	ILE	5.0

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Mol	Chain	Res	Type	RSRZ
6	Cd	8011	PHE	5.0
7	Cm	6135	CYS	5.0
8	Bf	5060	ASN	5.0
4	BT	4030	VAL	5.0
7	Ae	6158	LEU	5.0
7	BO	6014	LEU	5.0
8	CH	5026	LEU	5.0
8	BP	5037	ILE	5.0
8	Bn	5062	ILE	5.0
7	CO	6001	VAL	5.0
2	CJ	2034	GLN	5.0
7	Cm	6044	GLN	5.0
7	Cm	6014	LEU	5.0
7	Ae	6020	ILE	4.9
7	Cu	6072	ILE	4.9
8	Bn	5037	ILE	4.9
6	BF	8167	PHE	4.9
2	CJ	2094	ASN	4.9
7	Ae	6148	MET	4.9
7	A3	6046	THR	4.9
7	Cu	6063	GLY	4.9
7	Cm	6052	ILE	4.9
7	BG	6000	MET	4.9
2	BB	2022	LEU	4.9
3	Aq	3073	LEU	4.9
3	BC	3063	ILE	4.9
8	CP	5063	ILE	4.9
6	CN	8046	PRO	4.9
7	BW	6163	ALA	4.9
6	CN	8211	PHE	4.9
7	Cu	6073	TYR	4.9
2	CJ	2069	GLU	4.9
7	Cm	6046	THR	4.9
6	CN	8050	CYS	4.9
7	BO	6072	ILE	4.9
7	Cm	6163	ALA	4.9
3	Bq	3036	PHE	4.9
2	BZ	2016	GLU	4.9
7	B3	6163	ALA	4.9
2	BB	2063	VAL	4.9
7	Cm	6028	VAL	4.9
6	Ct	8132	LEU	4.9

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Mol	Chain	Res	Type	RSRZ
8	A4	5035	LEU	4.9
8	B4	5026	LEU	4.9
1	CI	1011	GLU	4.8
3	CK	3004	ILE	4.8
6	BN	8178	ILE	4.8
6	BV	8011	PHE	4.8
6	Ct	8046	PRO	4.8
3	Aq	3044	LEU	4.8
7	A3	6022	LEU	4.8
7	Bm	6086	TYR	4.8
8	BH	5026	LEU	4.8
8	Cn	5004	LEU	4.8
1	Co	1025	GLY	4.8
6	B2	8014	ARG	4.8
6	CN	8144	ASP	4.8
7	Bm	6020	ILE	4.8
8	B4	5062	ILE	4.8
6	CN	8204	GLN	4.8
7	Cm	6043	TRP	4.8
1	Co	1019	ASN	4.8
6	Ad	8091	PRO	4.8
7	Ae	6059	VAL	4.8
6	BF	8050	CYS	4.8
7	BO	6020	ILE	4.8
8	Bf	5037	ILE	4.8
1	AY	1057	SER	4.8
1	BI	1055	THR	4.8
7	BO	6000	MET	4.8
8	BP	5028	GLY	4.8
3	Aq	3046	ASP	4.8
6	CN	8167	PHE	4.8
7	Cm	6041	LEU	4.8
8	AP	5002	PRO	4.8
1	BI	1065	TYR	4.8
6	BF	8178	ILE	4.8
2	BJ	2046	LEU	4.8
3	AC	3046	ASP	4.8
3	BK	3046	ASP	4.8
6	Cl	8091	PRO	4.8
8	Cn	5055	VAL	4.8
7	Ae	6042	SER	4.8
7	BO	6039	ASN	4.7

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Mol	Chain	Res	Type	RSRZ
3	Ba	3033	ILE	4.7
1	Bg	1054	GLU	4.7
2	BB	2050	LYS	4.7
2	CJ	2067	TRP	4.7
6	BN	8049	LYS	4.7
1	Aw	1055	THR	4.7
3	Ay	3004	ILE	4.7
7	Cm	6142	ILE	4.7
7	BO	6063	GLY	4.7
4	BD	4055	GLU	4.7
6	BV	8023	LYS	4.7
7	Bm	6021	LYS	4.7
7	BO	6001	VAL	4.7
6	BF	8194	PRO	4.7
7	Cm	6033	THR	4.7
8	AX	5057	ILE	4.7
1	BI	1035	ASN	4.7
7	Ae	6063	GLY	4.7
1	Cg	1056	LEU	4.7
3	Cq	3044	LEU	4.7
4	Ab	4005	LEU	4.7
1	CI	1054	GLU	4.7
6	CN	8203	VAL	4.7
7	B3	6130	GLY	4.7
6	Ct	8051	LEU	4.7
6	Ct	8211	PHE	4.7
8	Cn	5022	VAL	4.7
7	Cu	6156	GLN	4.7
7	Ae	6036	ILE	4.7
6	CN	8052	LEU	4.7
6	BN	8011	PHE	4.7
2	BJ	2035	VAL	4.7
1	BA	1056	LEU	4.6
2	Bp	2022	LEU	4.6
3	Aa	3044	LEU	4.6
7	BO	6022	LEU	4.6
8	Cv	5028	GLY	4.6
2	CJ	2077	TYR	4.6
7	Ae	6035	TYR	4.6
7	Bm	6049	ALA	4.6
7	Cm	6167	SER	4.6
8	Af	5064	MET	4.6

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Mol	Chain	Res	Type	RSRZ
6	CN	8053	PRO	4.6
7	Cm	6045	PRO	4.6
7	Ae	6029	VAL	4.6
7	BG	6001	VAL	4.6
1	BA	1011	GLU	4.6
2	CZ	2016	GLU	4.6
6	CV	8000	PRO	4.6
8	BP	5035	LEU	4.6
7	Ae	6053	SER	4.6
7	Cm	6139	PRO	4.6
1	Cg	1052	GLN	4.6
6	Ct	8131	TRP	4.6
4	Bz	4005	LEU	4.6
2	BB	2066	MET	4.6
4	BL	4036	MET	4.6
7	Ae	6000	MET	4.6
2	BJ	2050	LYS	4.6
2	AB	2094	ASN	4.6
6	Ct	8042	ASN	4.6
7	Bu	6130	GLY	4.6
8	Bn	5055	VAL	4.6
6	AV	8023	LYS	4.5
7	BO	6155	CYS	4.5
7	B3	6166	ASP	4.5
6	AF	8000	PRO	4.5
1	BI	1001	LEU	4.5
2	CJ	2079	SER	4.5
3	BS	3021	LEU	4.5
7	Ae	6044	GLN	4.5
7	Cm	6156	GLN	4.5
6	BF	8211	PHE	4.5
7	Cm	6070	LYS	4.5
7	Bm	6064	ILE	4.5
1	CI	1053	LEU	4.5
2	BR	2021	PRO	4.5
7	Bm	6047	GLU	4.5
7	Bm	6060	SER	4.5
4	Br	4036	MET	4.5
7	Ae	6147	THR	4.5
7	BO	6148	MET	4.5
7	Cm	6148	MET	4.5
3	BC	3033	ILE	4.5

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Mol	Chain	Res	Type	RSRZ
3	BK	3063	ILE	4.5
3	Ba	3017	ILE	4.5
7	Bm	6142	ILE	4.5
2	BB	2036	LEU	4.5
7	Ae	6048	LEU	4.5
7	Ae	6060	SER	4.5
7	BG	6042	SER	4.5
6	CN	8131	TRP	4.5
1	Co	1028	THR	4.5
6	CN	8181	ARG	4.5
6	CN	8215	ILE	4.5
1	BA	1065	TYR	4.5
2	CJ	2092	LEU	4.5
3	BK	3065	LEU	4.5
7	Ae	6022	LEU	4.5
8	Cn	5035	LEU	4.5
7	Ae	6045	PRO	4.5
7	BO	6059	VAL	4.5
7	CO	6000	MET	4.5
7	CO	6163	ALA	4.5
8	B4	5060	ASN	4.5
7	BO	6046	THR	4.5
8	Bf	5026	LEU	4.5
1	CI	1065	TYR	4.5
1	Cg	1054	GLU	4.5
3	Bi	3046	ASP	4.4
7	Cm	6152	MET	4.4
2	CJ	2038	ASN	4.4
1	Cg	1055	THR	4.4
1	Co	1055	THR	4.4
2	Bx	2025	LEU	4.4
4	BL	4064	LEU	4.4
6	BN	8051	LEU	4.4
7	A3	6035	TYR	4.4
7	Cm	6034	VAL	4.4
1	CI	1066	PHE	4.4
8	Bv	5007	PHE	4.4
6	Bt	8010	MET	4.4
2	Cp	2056	CYS	4.4
1	BI	1009	SER	4.4
4	CL	4029	SER	4.4
7	BO	6036	ILE	4.4

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Mol	Chain	Res	Type	RSRZ
6	At	8023	LYS	4.4
7	Cm	6023	LYS	4.4
4	Cr	4028	VAL	4.4
4	BL	4055	GLU	4.4
2	BB	2092	LEU	4.4
3	BK	3007	ILE	4.4
3	Bi	3065	LEU	4.4
3	By	3004	ILE	4.4
2	BJ	2094	ASN	4.4
7	Cm	6143	HIS	4.4
6	BF	8043	PRO	4.4
7	CO	6073	TYR	4.4
2	Cp	2024	VAL	4.4
4	CL	4030	VAL	4.4
7	Cm	6085	VAL	4.4
7	Cu	6029	VAL	4.4
1	AY	1054	GLU	4.4
1	BA	1004	PHE	4.4
1	CI	1001	LEU	4.4
7	Ae	6041	LEU	4.4
1	BI	1070	ASP	4.4
7	Ae	6135	CYS	4.4
6	BN	8006	TYR	4.4
8	A4	5002	PRO	4.4
4	CL	4034	MET	4.4
8	A4	5064	MET	4.4
2	BR	2016	GLU	4.4
7	BO	6017	ALA	4.4
3	Bq	3072	LEU	4.4
4	Cb	4005	LEU	4.4
7	Cm	6062	HIS	4.4
7	Bm	6144	THR	4.4
2	BB	2024	VAL	4.4
6	BV	8021	VAL	4.4
4	Aj	4026	TYR	4.4
7	Bm	6015	TYR	4.4
7	Cm	6134	GLU	4.3
2	CJ	2083	LEU	4.3
8	BH	5037	ILE	4.3
8	Cv	5062	ILE	4.3
7	A3	6043	TRP	4.3
2	CJ	2056	CYS	4.3

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Mol	Chain	Res	Type	RSRZ
7	Cm	6154	THR	4.3
2	BB	2021	PRO	4.3
7	A3	6139	PRO	4.3
1	Co	1062	ASN	4.3
2	BB	2077	TYR	4.3
7	BO	6074	PHE	4.3
8	Bn	5060	ASN	4.3
1	Aw	1060	GLY	4.3
1	BI	1060	GLY	4.3
1	Cg	1053	LEU	4.3
4	BD	4064	LEU	4.3
4	Bb	4005	LEU	4.3
6	CN	8132	LEU	4.3
7	Bm	6024	LEU	4.3
1	CI	1027	ILE	4.3
7	Cu	6130	GLY	4.3
6	BN	8204	GLN	4.3
7	CO	6062	HIS	4.3
7	Bm	6000	MET	4.3
8	Cv	5007	PHE	4.3
2	CJ	2023	SER	4.3
3	BC	3073	LEU	4.3
6	BF	8209	ASN	4.3
6	Bl	8007	LEU	4.3
6	Cd	8019	ALA	4.3
3	AS	3007	ILE	4.3
6	BF	8215	ILE	4.3
7	CO	6063	GLY	4.3
8	BP	5057	ILE	4.3
8	Bf	5055	VAL	4.3
4	CL	4036	MET	4.3
6	A2	8000	PRO	4.3
6	CN	8047	PRO	4.3
1	CI	1056	LEU	4.3
3	CK	3006	LEU	4.3
3	Bq	3063	ILE	4.3
8	Bf	5018	GLY	4.3
2	BB	2065	GLU	4.3
8	Cn	5066	GLU	4.3
1	Co	1052	GLN	4.3
4	Br	4030	VAL	4.3
7	BO	6021	LYS	4.3

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Mol	Chain	Res	Type	RSRZ
6	AN	8138	THR	4.3
7	Bm	6073	TYR	4.3
6	Ct	8144	ASP	4.3
7	BO	6053	SER	4.3
2	Cp	2016	GLU	4.3
7	Bm	6070	LYS	4.2
2	CJ	2066	MET	4.2
6	Ct	8198	LEU	4.2
7	Cu	6074	PHE	4.2
8	Bn	5032	PHE	4.2
8	Cf	5026	LEU	4.2
3	Aq	3029	ILE	4.2
7	Cm	6144	THR	4.2
4	BD	4065	TYR	4.2
2	BB	2018	ASN	4.2
3	AK	3046	ASP	4.2
7	BO	6047	GLU	4.2
7	Cu	6060	SER	4.2
2	CJ	2059	VAL	4.2
7	Ae	6085	VAL	4.2
7	Be	6001	VAL	4.2
8	CP	5055	VAL	4.2
2	BB	2076	ARG	4.2
3	Bi	3057	ARG	4.2
6	CF	8011	PHE	4.2
7	Ae	6143	HIS	4.2
1	Co	1027	ILE	4.2
1	Co	1058	ILE	4.2
8	Af	5037	ILE	4.2
1	CI	1012	THR	4.2
2	AZ	2094	ASN	4.2
7	CW	6167	SER	4.2
8	Cn	5015	LYS	4.2
4	CL	4015	VAL	4.2
6	At	8021	VAL	4.2
7	BO	6006	VAL	4.2
8	BH	5036	VAL	4.2
1	AY	1052	GLN	4.2
3	Ay	3074	GLN	4.2
6	BF	8208	GLN	4.2
7	BO	6156	GLN	4.2
7	BO	6041	LEU	4.2

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Mol	Chain	Res	Type	RSRZ
8	Cv	5064	MET	4.2
6	Bt	8011	PHE	4.2
6	Cd	8000	PRO	4.2
1	BI	1029	GLY	4.2
7	Cm	6040	THR	4.2
4	AT	4002	LYS	4.2
3	BS	3046	ASP	4.2
3	Bq	3045	ASP	4.2
3	Bq	3046	ASP	4.2
8	BX	5055	VAL	4.2
3	Ci	3027	MET	4.2
6	AF	8141	LEU	4.2
6	Cl	8000	PRO	4.2
7	Ae	6139	PRO	4.2
7	Cm	6003	ILE	4.2
7	Cu	6143	HIS	4.2
8	BH	5063	ILE	4.2
8	Bn	5063	ILE	4.2
2	Bp	2016	GLU	4.2
6	BN	8181	ARG	4.2
8	Cn	5056	VAL	4.2
2	CJ	2025	LEU	4.2
2	BB	2017	PHE	4.2
3	Aq	3036	PHE	4.2
8	Cn	5032	PHE	4.2
7	A3	6155	CYS	4.2
6	BV	8019	ALA	4.2
8	Bv	5057	ILE	4.2
2	CJ	2095	PRO	4.2
1	BA	1060	GLY	4.2
8	Bv	5028	GLY	4.2
4	CL	4026	TYR	4.2
4	BD	4030	VAL	4.1
1	BI	1005	LEU	4.1
6	BN	8052	LEU	4.1
6	Ct	8037	LEU	4.1
6	Ct	8045	LEU	4.1
7	Bm	6048	LEU	4.1
3	CK	3040	MET	4.1
6	BN	8206	PHE	4.1
6	CN	8208	GLN	4.1
2	BJ	2087	SER	4.1

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Mol	Chain	Res	Type	RSRZ
3	AS	3046	ASP	4.1
3	Ba	3029	ILE	4.1
4	BL	4058	ILE	4.1
8	Cf	5057	ILE	4.1
6	BF	8024	ARG	4.1
6	Cd	8024	ARG	4.1
7	BO	6016	THR	4.1
1	BI	1030	VAL	4.1
2	BB	2091	VAL	4.1
1	BA	1053	LEU	4.1
1	Co	1053	LEU	4.1
3	BC	3044	LEU	4.1
6	BF	8045	LEU	4.1
6	CV	8011	PHE	4.1
2	BB	2037	ILE	4.1
3	BK	3029	ILE	4.1
3	Bi	3033	ILE	4.1
7	A3	6003	ILE	4.1
1	CI	1035	ASN	4.1
6	At	8019	ALA	4.1
3	Ci	3020	TRP	4.1
6	CN	8043	PRO	4.1
6	Ct	8194	PRO	4.1
7	Cu	6065	SER	4.1
7	BO	6051	GLY	4.1
1	Co	1065	TYR	4.1
7	Cu	6061	LEU	4.1
8	Cv	5004	LEU	4.1
2	CJ	2017	PHE	4.1
6	CN	8206	PHE	4.1
6	Ad	8098	LYS	4.1
8	BH	5057	ILE	4.1
8	B4	5037	ILE	4.1
2	Bp	2034	GLN	4.1
6	CF	8024	ARG	4.1
6	CN	8045	LEU	4.1
6	CN	8125	LEU	4.1
6	Cd	8007	LEU	4.1
7	Ae	6071	CYS	4.1
6	BN	8022	THR	4.1
7	Bm	6138	MET	4.1
7	Ae	6047	GLU	4.1

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Mol	Chain	Res	Type	RSRZ
7	Ae	6050	GLU	4.1
8	Cf	5032	PHE	4.1
3	CK	3029	ILE	4.1
2	AJ	2094	ASN	4.1
2	BB	2038	ASN	4.1
1	BA	1008	LEU	4.1
1	BA	1030	VAL	4.1
2	BJ	2091	VAL	4.1
3	Ba	3065	LEU	4.1
4	CL	4056	VAL	4.1
7	Cm	6006	VAL	4.1
7	Bm	6135	CYS	4.1
8	B4	5040	CYS	4.1
4	Cj	4026	TYR	4.1
3	Ba	3063	ILE	4.1
6	BN	8048	PHE	4.1
8	BH	5032	PHE	4.1
7	BO	6008	PRO	4.1
1	Aw	1053	LEU	4.0
2	CJ	2091	VAL	4.0
3	CC	3006	LEU	4.0
3	CK	3044	LEU	4.0
4	AL	4005	LEU	4.0
4	CT	4005	LEU	4.0
8	Af	5056	VAL	4.0
7	Cu	6079	LYS	4.0
2	BB	2026	THR	4.0
4	BD	4023	TYR	4.0
6	BF	8138	THR	4.0
3	AS	3029	ILE	4.0
3	BC	3029	ILE	4.0
3	By	3063	ILE	4.0
4	Cr	4058	ILE	4.0
6	AF	8028	ILE	4.0
6	Ct	8102	PHE	4.0
8	A4	5003	GLU	4.0
7	BO	6049	ALA	4.0
7	CO	6156	GLN	4.0
6	Cl	8090	PRO	4.0
7	BO	6009	PRO	4.0
1	Bg	1056	LEU	4.0
3	BS	3073	LEU	4.0

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Mol	Chain	Res	Type	RSRZ
4	CL	4019	TRP	4.0
6	Ct	8146	TRP	4.0
8	BP	5026	LEU	4.0
8	B4	5018	GLY	4.0
7	Cu	6001	VAL	4.0
2	Ah	2018	ASN	4.0
1	AY	1043	MET	4.0
3	Bi	3056	SER	4.0
7	CO	6167	SER	4.0
6	BN	8215	ILE	4.0
7	Ae	6009	PRO	4.0
7	A3	6045	PRO	4.0
3	BC	3019	VAL	4.0
4	BT	4028	VAL	4.0
6	CN	8205	VAL	4.0
7	CO	6080	VAL	4.0
1	BA	1010	HIS	4.0
7	Ae	6056	TRP	4.0
2	Ax	2094	ASN	4.0
7	Cm	6083	ASN	4.0
3	AS	3045	ASP	4.0
3	Ci	3004	ILE	4.0
7	BO	6161	ASP	4.0
7	Cm	6042	SER	4.0
8	Bf	5057	ILE	4.0
8	Cv	5063	ILE	4.0
7	BO	6149	TYR	4.0
6	BF	8019	ALA	4.0
4	CL	4005	LEU	4.0
4	CL	4017	LEU	4.0
6	Ct	8052	LEU	4.0
7	BO	6160	PRO	4.0
7	Cu	6027	LYS	4.0
2	BJ	2066	MET	4.0
3	BK	3020	TRP	4.0
1	BA	1057	SER	4.0
7	Bm	6077	ASP	4.0
6	CN	8207	ALA	4.0
2	CR	2016	GLU	4.0
2	BB	2064	LYS	4.0
2	BB	2080	LYS	4.0
3	BK	3021	LEU	4.0

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Mol	Chain	Res	Type	RSRZ
6	BF	8199	LEU	4.0
6	CN	8162	LEU	4.0
4	Ar	4030	VAL	4.0
6	At	8000	PRO	4.0
6	BF	8091	PRO	4.0
8	Av	5031	PRO	4.0
7	BO	6130	GLY	4.0
1	BI	1058	ILE	4.0
3	CC	3036	PHE	4.0
8	A4	5007	PHE	4.0
8	BP	5062	ILE	4.0
8	Bf	5032	PHE	4.0
1	Bg	1035	ASN	4.0
8	Cv	5060	ASN	4.0
1	AY	1055	THR	4.0
1	BA	1055	THR	4.0
2	CJ	2065	GLU	4.0
7	Am	6165	SER	4.0
2	BB	2025	LEU	4.0
3	BK	3042	LEU	4.0
3	Bi	3073	LEU	4.0
8	A4	5006	LYS	4.0
3	AK	3074	GLN	3.9
6	Bd	8014	ARG	3.9
1	BA	1037	HIS	3.9
1	BI	1037	HIS	3.9
1	BI	1063	ILE	3.9
3	Bi	3029	ILE	3.9
6	Al	8028	ILE	3.9
6	CN	8102	PHE	3.9
8	CX	5032	PHE	3.9
1	Bg	1045	LEU	3.9
3	AS	3073	LEU	3.9
6	Bl	8170	LEU	3.9
7	Bm	6014	LEU	3.9
1	Bg	1051	VAL	3.9
6	Bt	8000	PRO	3.9
3	BK	3018	GLN	3.9
7	Bm	6156	GLN	3.9
7	BG	6155	CYS	3.9
7	Bm	6036	ILE	3.9
7	BO	6056	TRP	3.9

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Mol	Chain	Res	Type	RSRZ
8	B4	5007	PHE	3.9
6	Bt	8019	ALA	3.9
2	BR	2022	LEU	3.9
2	Cp	2025	LEU	3.9
3	Bi	3072	LEU	3.9
4	CD	4053	LEU	3.9
7	BO	6048	LEU	3.9
8	Bn	5026	LEU	3.9
2	Cp	2049	VAL	3.9
7	A3	6001	VAL	3.9
7	A3	6034	VAL	3.9
2	BB	2087	SER	3.9
7	BO	6167	SER	3.9
6	BF	8204	GLN	3.9
7	Bm	6003	ILE	3.9
1	Co	1004	PHE	3.9
7	BO	6062	HIS	3.9
7	Bm	6143	HIS	3.9
1	BI	1038	LEU	3.9
1	Aw	1051	VAL	3.9
6	Ct	8202	THR	3.9
8	Cv	5055	VAL	3.9
8	A4	5017	ASN	3.9
4	Br	4029	SER	3.9
6	Ad	8095	ASP	3.9
7	BO	6003	ILE	3.9
8	B4	5063	ILE	3.9
1	BI	1008	LEU	3.9
7	A3	6048	LEU	3.9
6	BF	8203	VAL	3.9
1	Bg	1036	THR	3.9
1	Bg	1055	THR	3.9
2	AZ	2016	GLU	3.9
3	Bi	3054	THR	3.9
6	CN	8054	THR	3.9
7	Ae	6004	MET	3.9
7	Bm	6148	MET	3.9
2	BJ	2037	ILE	3.9
6	CF	8049	LYS	3.9
7	BO	6142	ILE	3.9
7	Bm	6079	LYS	3.9
3	By	3036	PHE	3.9

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Mol	Chain	Res	Type	RSRZ
7	Bm	6074	PHE	3.9
7	A3	6005	HIS	3.9
6	BN	8131	TRP	3.9
7	Bm	6022	LEU	3.9
1	Aw	1081	VAL	3.8
5	Cc	7001	VAL	3.8
6	BF	8205	VAL	3.8
2	Ap	2016	GLU	3.8
2	BB	2061	GLU	3.8
4	CD	4065	TYR	3.8
6	CN	8154	THR	3.8
7	Bm	6033	THR	3.8
8	BH	5064	MET	3.8
7	Ae	6032	GLY	3.8
3	Bi	3007	ILE	3.8
3	By	3017	ILE	3.8
7	Ae	6039	ASN	3.8
8	A4	5063	ILE	3.8
1	BA	1009	SER	3.8
8	Cn	5007	PHE	3.8
3	Aq	3045	ASP	3.8
6	CN	8210	ASP	3.8
6	BF	8197	LEU	3.8
8	Bn	5004	LEU	3.8
8	Bv	5004	LEU	3.8
2	Cp	2067	TRP	3.8
6	B2	8019	ALA	3.8
6	CN	8174	ALA	3.8
1	BI	1002	VAL	3.8
6	Ct	8139	VAL	3.8
1	BA	1054	GLU	3.8
2	Ch	2069	GLU	3.8
1	CI	1028	THR	3.8
6	Ct	8054	THR	3.8
3	AS	3063	ILE	3.8
4	CL	4058	ILE	3.8
6	CF	8028	ILE	3.8
1	BA	1062	ASN	3.8
6	BN	8167	PHE	3.8
6	CN	8199	LEU	3.8
6	Ct	8170	LEU	3.8
3	Ba	3045	ASP	3.8

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Mol	Chain	Res	Type	RSRZ
6	BN	8144	ASP	3.8
7	Ae	6167	SER	3.8
1	BA	1002	VAL	3.8
1	BI	1013	VAL	3.8
1	CI	1081	VAL	3.8
1	Co	1013	VAL	3.8
4	CL	4063	VAL	3.8
6	CN	8166	VAL	3.8
7	BO	6034	VAL	3.8
1	Co	1034	MET	3.8
2	BJ	2074	LYS	3.8
2	Bh	2050	LYS	3.8
2	CJ	2050	LYS	3.8
4	BT	4036	MET	3.8
4	Br	4034	MET	3.8
7	Cu	6070	LYS	3.8
7	Cu	6015	TYR	3.8
1	BA	1058	ILE	3.8
8	Bv	5063	ILE	3.8
1	CI	1036	THR	3.8
2	BB	2019	THR	3.8
3	AS	3071	THR	3.8
6	CF	8022	THR	3.8
3	Aa	3036	PHE	3.8
4	CL	4004	PHE	3.8
6	BF	8206	PHE	3.8
8	B4	5032	PHE	3.8
6	BF	8181	ARG	3.8
8	Cn	5060	ASN	3.8
3	BK	3047	ALA	3.8
6	AF	8019	ALA	3.8
2	BB	2055	HIS	3.8
2	BB	2067	TRP	3.8
2	CJ	2024	VAL	3.8
4	Aj	4028	VAL	3.8
7	A3	6082	TRP	3.8
7	BO	6043	TRP	3.8
4	Ar	4036	MET	3.8
7	Cu	6075	MET	3.8
6	BF	8177	CYS	3.8
3	Aa	3073	LEU	3.8
7	CO	6074	PHE	3.8

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Mol	Chain	Res	Type	RSRZ
8	An	5032	PHE	3.8
8	BP	5032	PHE	3.8
8	Cn	5065	LEU	3.8
6	BN	8086	GLN	3.8
7	Cm	6018	ASN	3.8
1	Aw	1057	SER	3.8
2	CJ	2035	VAL	3.8
7	Ae	6150	SER	3.8
7	Bm	6027	LYS	3.8
7	Ae	6077	ASP	3.8
1	CI	1034	MET	3.8
7	Ae	6064	ILE	3.8
7	Cu	6064	ILE	3.8
2	CB	2025	LEU	3.8
2	CJ	2021	PRO	3.8
4	BD	4026	TYR	3.8
4	CT	4026	TYR	3.8
6	BF	8201	LEU	3.8
6	BN	8164	PRO	3.8
7	Cu	6134	GLU	3.8
3	Aq	3021	LEU	3.8
3	By	3065	LEU	3.8
6	CN	8198	LEU	3.8
7	BO	6061	LEU	3.8
7	BO	6158	LEU	3.8
1	Co	1036	THR	3.8
6	Al	8138	THR	3.8
6	CN	8202	THR	3.8
7	BO	6033	THR	3.8
2	BJ	2039	CYS	3.8
4	BL	4060	CYS	3.8
1	AY	1062	ASN	3.7
2	BR	2094	ASN	3.7
4	Aj	4030	VAL	3.7
7	AW	6001	VAL	3.7
7	B3	6132	VAL	3.7
1	BA	1027	ILE	3.7
3	Aa	3004	ILE	3.7
8	CP	5037	ILE	3.7
2	CJ	2036	LEU	3.7
4	Cr	4057	LEU	3.7
6	BN	8053	PRO	3.7

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Mol	Chain	Res	Type	RSRZ
6	BN	8198	LEU	3.7
6	Bt	8141	LEU	3.7
2	CB	2017	PHE	3.7
7	Cu	6144	THR	3.7
2	Bp	2050	LYS	3.7
2	Cp	2039	CYS	3.7
6	CN	8148	ALA	3.7
7	Ae	6017	ALA	3.7
3	Ci	3024	GLN	3.7
7	BO	6044	GLN	3.7
2	Cp	2073	ASN	3.7
6	CN	8042	ASN	3.7
2	Cp	2066	MET	3.7
3	Ba	3020	TRP	3.7
2	BJ	2089	ILE	3.7
1	Co	1070	ASP	3.7
3	BK	3045	ASP	3.7
3	CK	3046	ASP	3.7
3	Cq	3046	ASP	3.7
1	Co	1005	LEU	3.7
4	CD	4005	LEU	3.7
4	Ab	4012	PRO	3.7
6	Bt	8214	TYR	3.7
3	Ca	3076	VAL	3.7
5	CM	7001	VAL	3.7
7	BO	6029	VAL	3.7
7	Cm	6059	VAL	3.7
8	Bf	5040	CYS	3.7
2	CJ	2081	MET	3.7
1	CI	1019	ASN	3.7
8	Cn	5034	ASN	3.7
1	BI	1027	ILE	3.7
3	AK	3050	ILE	3.7
3	By	3020	TRP	3.7
3	AK	3060	LEU	3.7
6	Bt	8052	LEU	3.7
6	Ct	8124	LEU	3.7
8	B4	5035	LEU	3.7
8	CX	5004	LEU	3.7
4	Cr	4029	SER	3.7
8	CP	5046	SER	3.7
6	BF	8048	PHE	3.7

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Mol	Chain	Res	Type	RSRZ
6	Ct	8206	PHE	3.7
8	Bv	5032	PHE	3.7
6	BF	8047	PRO	3.7
6	Ct	8049	LYS	3.7
7	BO	6035	TYR	3.7
7	Cu	6031	GLU	3.7
6	Bd	8022	THR	3.7
6	Bl	8022	THR	3.7
1	Bg	1030	VAL	3.7
7	A3	6006	VAL	3.7
7	Cu	6059	VAL	3.7
3	BC	3007	ILE	3.7
8	Cv	5057	ILE	3.7
4	Ar	4061	ASN	3.7
6	BF	8034	ASN	3.7
6	BF	8146	TRP	3.7
6	CN	8170	LEU	3.7
7	CO	6022	LEU	3.7
3	AS	3035	GLY	3.7
3	BS	3031	GLY	3.7
7	Ae	6021	LYS	3.7
1	CI	1057	SER	3.7
1	BA	1031	ASP	3.7
6	Ct	8126	GLU	3.7
7	Am	6166	ASP	3.7
6	Al	8020	VAL	3.7
6	BN	8020	VAL	3.7
6	Bt	8189	VAL	3.7
6	CN	8039	MET	3.7
4	BL	4066	ILE	3.7
6	Ct	8215	ILE	3.7
7	Bm	6052	ILE	3.7
7	Bm	6130	GLY	3.7
1	BA	1073	PRO	3.6
4	Bb	4001	PRO	3.6
6	BN	8046	PRO	3.6
8	AH	5002	PRO	3.6
1	Aw	1054	GLU	3.6
7	Bm	6031	GLU	3.6
6	BF	8022	THR	3.6
1	Cg	1027	ILE	3.6
6	BF	8092	LEU	3.6

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Mol	Chain	Res	Type	RSRZ
6	CN	8180	LEU	3.6
8	Cn	5014	LEU	3.6
7	Ae	6005	HIS	3.6
6	Ct	8167	PHE	3.6
6	Ct	8177	CYS	3.6
8	BP	5060	ASN	3.6
1	BI	1050	PRO	3.6
6	BN	8090	PRO	3.6
7	A3	6008	PRO	3.6
8	CP	5002	PRO	3.6
2	AR	2016	GLU	3.6
2	CJ	2013	GLU	3.6
6	CV	8019	ALA	3.6
3	Ci	3056	SER	3.6
7	Au	6162	SER	3.6
7	BO	6134	GLU	3.6
7	Cm	6050	GLU	3.6
4	Cb	4026	TYR	3.6
1	BI	1034	MET	3.6
6	AV	8138	THR	3.6
6	BN	8010	MET	3.6
3	Aa	3011	LEU	3.6
3	BS	3029	ILE	3.6
6	BN	8141	LEU	3.6
8	CH	5057	ILE	3.6
3	Aq	3074	GLN	3.6
3	Bi	3024	GLN	3.6
6	Ct	8204	GLN	3.6
6	At	8011	PHE	3.6
8	Af	5032	PHE	3.6
4	CL	4020	GLY	3.6
7	Cu	6082	TRP	3.6
1	BI	1061	ASN	3.6
7	Bm	6067	ASN	3.6
2	BR	2024	VAL	3.6
2	CJ	2049	VAL	3.6
5	Bk	7001	VAL	3.6
7	CO	6132	VAL	3.6
8	Cn	5036	VAL	3.6
6	CN	8152	TYR	3.6
2	CJ	2058	MET	3.6
7	Au	6000	MET	3.6

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Mol	Chain	Res	Type	RSRZ
7	Ce	6167	SER	3.6
1	CI	1074	LEU	3.6
2	Cp	2046	LEU	3.6
4	AT	4027	LEU	3.6
6	AF	8138	THR	3.6
7	A3	6020	ILE	3.6
7	BO	6052	ILE	3.6
3	CS	3024	GLN	3.6
6	BF	8165	HIS	3.6
6	BF	8102	PHE	3.6
8	Bf	5029	PHE	3.6
8	Cv	5032	PHE	3.6
8	Cn	5024	GLY	3.6
7	Bm	6136	TRP	3.6
7	CO	6082	TRP	3.6
6	Al	8000	PRO	3.6
6	Ct	8047	PRO	3.6
3	Aa	3047	ALA	3.6
3	Bi	3019	VAL	3.6
5	BE	7015	VAL	3.6
5	Ck	7001	VAL	3.6
1	Aw	1035	ASN	3.6
2	BB	2057	ASN	3.6
3	Ci	3026	ASN	3.6
6	BF	8174	ALA	3.6
7	BO	6071	CYS	3.6
2	Ax	2069	GLU	3.6
1	BA	1067	ILE	3.6
1	Bg	1053	LEU	3.6
1	Cg	1046	LYS	3.6
2	BB	2045	LEU	3.6
2	Bh	2022	LEU	3.6
2	CJ	2064	LYS	3.6
4	AD	4026	TYR	3.6
4	BD	4036	MET	3.6
4	CL	4023	TYR	3.6
4	Cr	4002	LYS	3.6
7	Ae	6023	LYS	3.6
7	Ae	6152	MET	3.6
8	Af	5008	MET	3.6
8	Cn	5013	SER	3.6
2	CJ	2075	ASP	3.6

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Mol	Chain	Res	Type	RSRZ
3	Ca	3046	ASP	3.6
7	Ae	6016	THR	3.6
3	Ba	3024	GLN	3.6
7	BO	6082	TRP	3.6
1	AI	1081	VAL	3.6
1	Ag	1081	VAL	3.6
4	AT	4030	VAL	3.6
6	BN	8139	VAL	3.6
8	Af	5036	VAL	3.6
8	B4	5055	VAL	3.6
2	Cp	2081	MET	3.6
7	Ae	6057	LYS	3.6
7	BG	6039	ASN	3.6
3	BC	3006	LEU	3.6
7	Ae	6149	TYR	3.6
7	BO	6135	CYS	3.6
1	BI	1067	ILE	3.6
2	CJ	2037	ILE	3.6
8	Af	5062	ILE	3.6
6	BV	8022	THR	3.6
6	CN	8137	THR	3.6
1	AQ	1070	ASP	3.6
3	Ba	3046	ASP	3.6
6	BF	8144	ASP	3.6
7	Cm	6166	ASP	3.6
3	AS	3074	GLN	3.5
4	Cj	4030	VAL	3.5
6	CF	8000	PRO	3.5
7	BO	6080	VAL	3.5
7	Cm	6009	PRO	3.5
8	CP	5067	ALA	3.5
1	BI	1078	LEU	3.5
1	Co	1045	LEU	3.5
3	AS	3027	MET	3.5
3	Ay	3021	LEU	3.5
3	Bq	3065	LEU	3.5
6	BN	8199	LEU	3.5
6	BV	8052	LEU	3.5
7	BG	6137	LEU	3.5
7	Cu	6003	ILE	3.5
8	AP	5037	ILE	3.5
3	Ay	3010	TYR	3.5

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Mol	Chain	Res	Type	RSRZ
7	Cm	6149	TYR	3.5
8	A4	5060	ASN	3.5
8	Bv	5060	ASN	3.5
6	BF	8157	CYS	3.5
1	CI	1055	THR	3.5
3	Ba	3056	SER	3.5
7	BO	6060	SER	3.5
7	CG	6167	SER	3.5
1	BI	1052	GLN	3.5
7	CG	6166	ASP	3.5
4	Ab	4002	LYS	3.5
5	CU	7001	VAL	3.5
7	Cu	6132	VAL	3.5
6	Ct	8207	ALA	3.5
8	BX	5031	PRO	3.5
1	CI	1078	LEU	3.5
3	Ay	3044	LEU	3.5
6	BF	8162	LEU	3.5
6	CF	8007	LEU	3.5
7	BO	6004	MET	3.5
7	Cm	6004	MET	3.5
8	CP	5064	MET	3.5
8	Cn	5068	LEU	3.5
7	A3	6052	ILE	3.5
7	Cm	6054	ILE	3.5
1	BQ	1062	ASN	3.5
6	CN	8209	ASN	3.5
2	BJ	2076	ARG	3.5
2	BB	2056	CYS	3.5
7	Ae	6154	THR	3.5
8	Af	5029	PHE	3.5
7	A3	6167	SER	3.5
1	BY	1081	VAL	3.5
3	Ay	3046	ASP	3.5
3	By	3045	ASP	3.5
7	Ae	6084	GLY	3.5
7	Cm	6005	HIS	3.5
6	BN	8166	VAL	3.5
1	BA	1050	PRO	3.5
1	Co	1001	LEU	3.5
2	Cp	2083	LEU	3.5
6	Ad	8000	PRO	3.5

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Mol	Chain	Res	Type	RSRZ
6	Ct	8135	PRO	3.5
7	A3	6009	PRO	3.5
7	Cm	6024	LEU	3.5
8	CH	5002	PRO	3.5
8	Cv	5035	LEU	3.5
3	BS	3000	MET	3.5
7	Bm	6075	MET	3.5
7	CO	6075	MET	3.5
1	Co	1063	ILE	3.5
4	BD	4066	ILE	3.5
7	BG	6073	TYR	3.5
2	Ch	2094	ASN	3.5
7	Cu	6071	CYS	3.5
2	BR	2070	VAL	3.5
6	CN	8139	VAL	3.5
3	BC	3046	ASP	3.5
3	By	3046	ASP	3.5
6	AN	8019	ALA	3.5
7	Ae	6161	ASP	3.5
8	Bn	5067	ALA	3.5
2	Cp	2092	LEU	3.5
4	Bj	4036	MET	3.5
7	AG	6000	MET	3.5
7	Be	6000	MET	3.5
1	Bg	1027	ILE	3.5
1	CI	1063	ILE	3.5
3	Cq	3029	ILE	3.5
7	Cu	6052	ILE	3.5
7	Cu	6142	ILE	3.5
8	Bf	5025	ILE	3.5
2	Ah	2017	PHE	3.5
3	BK	3036	PHE	3.5
7	Cm	6079	LYS	3.5
6	Ct	8036	THR	3.5
1	BI	1025	GLY	3.5
1	CI	1022	GLN	3.5
7	Cm	6130	GLY	3.5
1	Aw	1038	LEU	3.5
2	Bp	2009	LEU	3.5
6	Al	8052	LEU	3.5
6	BF	8148	ALA	3.5
6	BN	8207	ALA	3.5

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Mol	Chain	Res	Type	RSRZ
6	Ct	8125	LEU	3.5
6	Ct	8201	LEU	3.5
7	BG	6022	LEU	3.5
7	Cu	6137	LEU	3.5
2	AZ	2071	PRO	3.5
7	CW	6000	MET	3.5
7	Cu	6045	PRO	3.5
8	Cv	5002	PRO	3.5
1	BA	1063	ILE	3.5
3	AK	3009	ARG	3.5
3	Aa	3029	ILE	3.5
3	Aq	3063	ILE	3.5
3	Cq	3004	ILE	3.5
6	CV	8024	ARG	3.5
6	Ct	8099	TRP	3.5
8	Cn	5057	ILE	3.5
2	BJ	2069	GLU	3.4
8	CP	5015	LYS	3.4
1	Co	1041	VAL	3.4
4	BL	4028	VAL	3.4
5	BE	7008	VAL	3.4
6	BV	8020	VAL	3.4
6	CN	8189	VAL	3.4
7	Cm	6145	VAL	3.4
1	CI	1029	GLY	3.4
5	BM	7016	GLY	3.4
7	BO	6032	GLY	3.4
7	Bm	6040	THR	3.4
7	Cm	6025	GLY	3.4
1	BA	1001	LEU	3.4
1	CI	1045	LEU	3.4
2	Bp	2046	LEU	3.4
2	CB	2092	LEU	3.4
3	Ci	3018	GLN	3.4
4	CL	4057	LEU	3.4
6	CN	8128	LEU	3.4
7	Bm	6041	LEU	3.4
8	Bf	5035	LEU	3.4
8	BH	5008	MET	3.4
1	AY	1058	ILE	3.4
1	Bg	1009	SER	3.4
4	BD	4058	ILE	3.4

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Mol	Chain	Res	Type	RSRZ
6	Ct	8168	SER	3.4
7	Ae	6007	SER	3.4
2	BB	2086	ASP	3.4
6	CN	8213	ASP	3.4
7	CO	6077	ASP	3.4
8	BP	5038	ASP	3.4
1	BI	1018	LYS	3.4
6	Ct	8098	LYS	3.4
1	CI	1030	VAL	3.4
1	BA	1025	GLY	3.4
1	CI	1005	LEU	3.4
1	CI	1072	LEU	3.4
2	BJ	2073	ASN	3.4
2	BJ	2085	GLY	3.4
6	BN	8007	LEU	3.4
7	Ae	6033	THR	3.4
8	Af	5060	ASN	3.4
4	CL	4039	ALA	3.4
8	Cn	5023	GLN	3.4
8	Cv	5037	ILE	3.4
6	Ad	8017	CYS	3.4
6	BV	8017	CYS	3.4
2	CB	2013	GLU	3.4
8	A4	5032	PHE	3.4
8	Bf	5007	PHE	3.4
1	AY	1051	VAL	3.4
2	CJ	2063	VAL	3.4
2	Bp	2096	LEU	3.4
2	CB	2022	LEU	3.4
2	CJ	2045	LEU	3.4
6	BN	8125	LEU	3.4
7	Cm	6076	LEU	3.4
8	Af	5014	LEU	3.4
7	Cm	6069	ARG	3.4
2	AB	2019	THR	3.4
4	BL	4034	MET	3.4
6	Ct	8022	THR	3.4
7	Ae	6075	MET	3.4
3	AS	3070	ILE	3.4
3	CC	3033	ILE	3.4
7	Ae	6156	GLN	3.4
7	A3	6044	GLN	3.4

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Mol	Chain	Res	Type	RSRZ
7	BO	6064	ILE	3.4
4	AT	4012	PRO	3.4
6	BN	8098	LYS	3.4
7	Cu	6021	LYS	3.4
3	Bq	3020	TRP	3.4
4	Br	4019	TRP	3.4
7	Bm	6162	SER	3.4
4	BL	4004	PHE	3.4
8	BX	5032	PHE	3.4
2	Bp	2024	VAL	3.4
2	Cp	2045	LEU	3.4
3	Ba	3073	LEU	3.4
4	BL	4030	VAL	3.4
4	Cr	4015	VAL	3.4
7	BG	6029	VAL	3.4
8	AP	5026	LEU	3.4
8	AX	5035	LEU	3.4
8	AX	5056	VAL	3.4
8	Af	5053	GLY	3.4
4	AT	4036	MET	3.4
6	B2	8010	MET	3.4
7	Cm	6075	MET	3.4
8	A4	5008	MET	3.4
4	CL	4041	THR	3.4
6	AN	8028	ILE	3.4
6	BF	8137	THR	3.4
6	CN	8028	ILE	3.4
1	Bg	1052	GLN	3.4
7	Ae	6133	THR	3.4
2	CJ	2043	LYS	3.4
4	Br	4001	PRO	3.4
6	BF	8042	ASN	3.4
6	BN	8209	ASN	3.4
7	BO	6070	LYS	3.4
3	Aq	3020	TRP	3.4
1	Bo	1004	PHE	3.4
2	BJ	2017	PHE	3.4
7	BO	6150	SER	3.4
1	Co	1075	ASP	3.4
6	Ct	8166	VAL	3.4
6	Ct	8181	ARG	3.4
7	BG	6059	VAL	3.4

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Mol	Chain	Res	Type	RSRZ
7	BG	6085	VAL	3.4
7	CO	6047	GLU	3.4
7	Cm	6081	GLU	3.4
7	Cu	6047	GLU	3.4
8	Bn	5065	LEU	3.4
7	Cu	6086	TYR	3.4
7	A3	6130	GLY	3.4
8	B4	5059	GLY	3.4
1	Aw	1036	THR	3.4
1	Cg	1026	THR	3.4
2	BR	2034	GLN	3.4
4	Ar	4012	PRO	3.4
4	Cr	4037	GLN	3.4
6	BN	8200	THR	3.4
6	B2	8022	THR	3.4
7	Ae	6144	THR	3.4
7	Bm	6062	HIS	3.4
8	Bn	5001	PRO	3.4
6	AV	8011	PHE	3.3
6	CN	8099	TRP	3.3
8	AP	5032	PHE	3.3
6	BV	8141	LEU	3.3
7	Ae	6024	LEU	3.3
2	CZ	2013	GLU	3.3
6	A2	8004	GLU	3.3
7	Ae	6132	VAL	3.3
7	Cm	6132	VAL	3.3
2	BB	2053	ASP	3.3
6	Ct	8213	ASP	3.3
4	CD	4026	TYR	3.3
1	Cg	1000	LYS	3.3
2	Cp	2050	LYS	3.3
6	Ad	8023	LYS	3.3
7	Ae	6138	MET	3.3
7	BG	6063	GLY	3.3
7	Bm	6023	LYS	3.3
7	CO	6079	LYS	3.3
8	Bn	5057	ILE	3.3
4	BD	4012	PRO	3.3
6	AV	8000	PRO	3.3
6	BF	8054	THR	3.3
7	BG	6009	PRO	3.3

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Mol	Chain	Res	Type	RSRZ
7	BG	6160	PRO	3.3
8	BP	5002	PRO	3.3
1	BA	1032	VAL	3.3
2	Ah	2022	LEU	3.3
2	Ax	2070	VAL	3.3
2	BB	2083	LEU	3.3
2	BJ	2088	VAL	3.3
2	CZ	2025	LEU	3.3
6	BN	8189	VAL	3.3
3	CS	3027	MET	3.3
3	Cq	3032	CYS	3.3
6	Al	8019	ALA	3.3
6	BN	8177	CYS	3.3
6	Bt	8049	LYS	3.3
1	BA	1029	GLY	3.3
2	BJ	2020	GLY	3.3
4	BD	4039	ALA	3.3
4	Cr	4034	MET	3.3
1	BI	1026	THR	3.3
1	CI	1010	HIS	3.3
2	Cp	2034	GLN	3.3
4	Bz	4001	PRO	3.3
6	BF	8000	PRO	3.3
6	Ct	8164	PRO	3.3
8	BP	5031	PRO	3.3
3	Bq	3054	THR	3.3
1	BA	1072	LEU	3.3
2	BB	2062	ASN	3.3
2	CJ	2018	ASN	3.3
3	Ay	3006	LEU	3.3
4	BL	4057	LEU	3.3
4	Cr	4017	LEU	3.3
6	Ct	8121	LEU	3.3
8	BP	5014	LEU	3.3
8	Bv	5035	LEU	3.3
6	Ct	8021	VAL	3.3
7	Ae	6027	LYS	3.3
1	CI	1020	GLY	3.3
1	CI	1058	ILE	3.3
3	AK	3007	ILE	3.3
3	Cq	3047	ALA	3.3
6	A2	8019	ALA	3.3

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Mol	Chain	Res	Type	RSRZ
7	Ae	6142	ILE	3.3
3	Ay	3022	TYR	3.3
7	AO	6166	ASP	3.3
7	AW	6161	ASP	3.3
8	Af	5001	PRO	3.3
1	AY	1036	THR	3.3
1	BI	1022	GLN	3.3
2	BB	2068	THR	3.3
2	BB	2093	ARG	3.3
7	BO	6144	THR	3.3
7	Cu	6046	THR	3.3
6	Bt	8007	LEU	3.3
6	CN	8124	LEU	3.3
6	Ct	8011	PHE	3.3
8	Bn	5035	LEU	3.3
1	BI	1051	VAL	3.3
2	BB	2088	VAL	3.3
5	Cs	7001	VAL	3.3
6	Al	8021	VAL	3.3
6	BF	8139	VAL	3.3
6	BN	8205	VAL	3.3
2	CR	2094	ASN	3.3
4	CL	4040	ASN	3.3
2	BB	2058	MET	3.3
2	BB	2081	MET	3.3
7	CG	6000	MET	3.3
6	CN	8173	ILE	3.3
7	BG	6020	ILE	3.3
7	Cm	6151	ALA	3.3
7	Cu	6036	ILE	3.3
4	BD	4054	GLY	3.3
3	Bi	3045	ASP	3.3
6	CN	8177	CYS	3.3
4	Cr	4012	PRO	3.3
6	Ad	8090	PRO	3.3
7	Bm	6009	PRO	3.3
1	CI	1077	LEU	3.3
1	Co	1012	THR	3.3
3	Bi	3018	GLN	3.3
7	Ae	6058	GLN	3.3
2	BR	2017	PHE	3.3
6	Ad	8011	PHE	3.3

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Mol	Chain	Res	Type	RSRZ
7	CO	6137	LEU	3.3
8	Bn	5029	PHE	3.3
1	BA	1000	LYS	3.3
2	BJ	2072	VAL	3.3
2	CJ	2070	VAL	3.3
6	B2	8021	VAL	3.3
8	Af	5015	LYS	3.3
8	Cn	5017	ASN	3.3
1	Bg	1043	MET	3.3
3	AK	3027	MET	3.3
8	BP	5033	MET	3.3
2	Bp	2097	ILE	3.3
3	AC	3050	ILE	3.3
3	AS	3047	ALA	3.3
6	Bt	8186	GLU	3.3
6	CN	8019	ALA	3.3
7	Ae	6054	ILE	3.3
8	A4	5062	ILE	3.3
2	Ch	2099	GLY	3.3
2	Cp	2047	GLY	3.3
7	BO	6030	GLY	3.3
5	CM	7011	TYR	3.2
5	Ck	7011	TYR	3.2
6	CN	8195	TYR	3.2
6	Cl	8084	TYR	3.2
6	Ct	8014	ARG	3.2
7	Bm	6035	TYR	3.2
1	Cg	1057	SER	3.2
1	AY	1038	LEU	3.2
1	BQ	1070	ASP	3.2
2	AR	2092	LEU	3.2
2	Ch	2092	LEU	3.2
3	Aa	3032	CYS	3.2
3	Bq	3032	CYS	3.2
6	BF	8059	ASP	3.2
6	BF	8124	LEU	3.2
6	BF	8125	LEU	3.2
7	A3	6013	LEU	3.2
7	BG	6158	LEU	3.2
3	Ca	3036	PHE	3.2
6	BF	8065	PHE	3.2
6	BF	8086	GLN	3.2

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Mol	Chain	Res	Type	RSRZ
6	BN	8102	PHE	3.2
6	Bl	8098	LYS	3.2
7	BO	6038	GLN	3.2
2	BB	2049	VAL	3.2
3	Ba	3054	THR	3.2
3	CK	3076	VAL	3.2
7	BG	6046	THR	3.2
7	Bm	6028	VAL	3.2
3	Aq	3000	MET	3.2
4	Cr	4036	MET	3.2
2	BJ	2038	ASN	3.2
2	CJ	2057	ASN	3.2
6	BN	8019	ALA	3.2
6	BN	8174	ALA	3.2
6	Bt	8215	ILE	3.2
4	Cr	4020	GLY	3.2
8	BP	5003	GLU	3.2
4	Cr	4023	TYR	3.2
1	BI	1000	LYS	3.2
2	BJ	2095	PRO	3.2
2	BZ	2025	LEU	3.2
2	Cp	2022	LEU	3.2
6	BN	8023	LYS	3.2
6	BN	8092	LEU	3.2
6	BV	8000	PRO	3.2
7	AG	6165	SER	3.2
7	Cu	6022	LEU	3.2
7	Cu	6160	PRO	3.2
1	BA	1013	VAL	3.2
1	BA	1052	GLN	3.2
1	BI	1010	HIS	3.2
2	BB	2070	VAL	3.2
3	BC	3018	GLN	3.2
3	Bq	3001	VAL	3.2
7	CW	6166	ASP	3.2
2	AR	2019	THR	3.2
1	BA	1043	MET	3.2
3	Aq	3027	MET	3.2
4	Bz	4034	MET	3.2
7	BO	6075	MET	3.2
3	AS	3020	TRP	3.2
3	Bi	3020	TRP	3.2

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Mol	Chain	Res	Type	RSRZ
7	Cm	6017	ALA	3.2
7	Cm	6056	TRP	3.2
8	Af	5067	ALA	3.2
1	BI	1059	ARG	3.2
2	Bh	2094	ASN	3.2
6	BN	8038	GLU	3.2
6	CF	8034	ASN	3.2
7	Ae	6134	GLU	3.2
7	Cm	6039	ASN	3.2
7	Cm	6067	ASN	3.2
8	Cn	5020	ARG	3.2
3	CK	3022	TYR	3.2
6	BF	8195	TYR	3.2
7	A3	6002	LEU	3.2
7	Bm	6002	LEU	3.2
7	CO	6027	LYS	3.2
7	Cm	6061	LEU	3.2
6	Ad	8018	PRO	3.2
1	AA	1081	VAL	3.2
1	AY	1081	VAL	3.2
1	CY	1081	VAL	3.2
2	Bp	2049	VAL	3.2
3	AS	3019	VAL	3.2
3	Aq	3015	SER	3.2
3	Bq	3056	SER	3.2
4	Br	4028	VAL	3.2
6	CN	8048	PHE	3.2
8	BP	5007	PHE	3.2
8	Cv	5036	VAL	3.2
1	AY	1028	THR	3.2
1	Bo	1075	ASP	3.2
1	Cg	1036	THR	3.2
1	Co	1026	THR	3.2
3	Aa	3046	ASP	3.2
3	BK	3032	CYS	3.2
7	CO	6166	ASP	3.2
3	AS	3050	ILE	3.2
3	BC	3050	ILE	3.2
6	Cd	8028	ILE	3.2
7	Cu	6000	MET	3.2
2	BB	2085	GLY	3.2
7	Ae	6030	GLY	3.2

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Mol	Chain	Res	Type	RSRZ
7	BG	6130	GLY	3.2
7	Cm	6051	GLY	3.2
8	B4	5028	GLY	3.2
7	Bm	6134	GLU	3.2
2	Cp	2042	ASN	3.2
7	Cu	6023	LYS	3.2
8	A4	5015	LYS	3.2
8	CP	5017	ASN	3.2
3	AS	3011	LEU	3.2
3	Ci	3021	LEU	3.2
4	Br	4038	LEU	3.2
6	Ad	8007	LEU	3.2
3	Cq	3010	TYR	3.2
4	BL	4065	TYR	3.2
6	AN	8018	PRO	3.2
1	Bg	1081	VAL	3.2
1	Bw	1081	VAL	3.2
2	Cp	2090	VAL	3.2
4	CL	4028	VAL	3.2
6	CN	8020	VAL	3.2
6	CN	8021	VAL	3.2
7	A3	6074	PHE	3.2
3	AC	3074	GLN	3.2
3	CK	3052	SER	3.2
6	BN	8190	GLN	3.2
7	BG	6058	GLN	3.2
7	CO	6065	SER	3.2
1	AY	1027	ILE	3.2
3	Bi	3017	ILE	3.2
3	By	3029	ILE	3.2
3	CS	3017	ILE	3.2
7	Bm	6046	THR	3.2
7	Ae	6146	ASP	3.2
7	Bm	6069	ARG	3.2
7	Cu	6141	ASP	3.2
2	BZ	2099	GLY	3.2
2	Bx	2099	GLY	3.2
7	Ae	6070	LYS	3.2
7	Bm	6043	TRP	3.2
3	Ba	3060	LEU	3.2
3	Bq	3030	GLU	3.2
3	CK	3030	GLU	3.2

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Mol	Chain	Res	Type	RSRZ
6	Al	8045	LEU	3.2
6	CN	8126	GLU	3.2
7	BO	6055	GLU	3.2
2	Cp	2094	ASN	3.2
2	CJ	2072	VAL	3.2
4	Br	4015	VAL	3.2
6	BF	8161	PRO	3.2
6	CF	8046	PRO	3.2
6	CF	8189	VAL	3.2
8	AX	5032	PHE	3.2
8	BP	5036	VAL	3.2
8	BX	5001	PRO	3.2
1	Bg	1057	SER	3.2
2	AB	2027	GLN	3.2
3	AK	3018	GLN	3.2
3	Aa	3024	GLN	3.2
3	Aq	3007	ILE	3.2
3	Cq	3024	GLN	3.2
3	Cq	3057	ARG	3.2
6	Ct	8143	HIS	3.2
3	Cq	3063	ILE	3.2
4	Bb	4034	MET	3.2
6	Ad	8086	GLN	3.2
6	BF	8168	SER	3.2
7	Cu	6148	MET	3.2
6	Al	8022	THR	3.2
7	Ae	6151	ALA	3.2
1	CI	1018	LYS	3.1
4	CL	4025	GLY	3.1
7	Be	6130	GLY	3.1
1	Aw	1056	LEU	3.1
1	BA	1005	LEU	3.1
6	Ad	8092	LEU	3.1
8	A4	5016	LEU	3.1
1	BA	1016	GLU	3.1
2	BJ	2065	GLU	3.1
6	BF	8004	GLU	3.1
1	Cg	1035	ASN	3.1
1	Co	1035	ASN	3.1
1	Co	1066	PHE	3.1
2	BJ	2052	PHE	3.1
2	CJ	2052	PHE	3.1

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Mol	Chain	Res	Type	RSRZ
2	CJ	2062	ASN	3.1
2	CJ	2090	VAL	3.1
2	Cp	2038	ASN	3.1
3	Ci	3019	VAL	3.1
5	BU	7001	VAL	3.1
5	B1	7001	VAL	3.1
6	B1	8082	ASN	3.1
6	Cd	8034	ASN	3.1
8	AX	5029	PHE	3.1
8	Bn	5007	PHE	3.1
8	Bv	5036	VAL	3.1
2	Ap	2021	PRO	3.1
8	Cn	5031	PRO	3.1
1	Cg	1043	MET	3.1
2	BB	2089	ILE	3.1
2	CJ	2078	ILE	3.1
3	By	3033	ILE	3.1
3	Cq	3007	ILE	3.1
6	CN	8115	HIS	3.1
7	AW	6000	MET	3.1
7	A3	6011	HIS	3.1
3	Aa	3074	GLN	3.1
2	Cp	2087	SER	3.1
3	AK	3015	SER	3.1
6	Bt	8022	THR	3.1
7	A3	6042	SER	3.1
7	BG	6165	SER	3.1
7	Bm	6133	THR	3.1
7	Cm	6007	SER	3.1
1	BI	1031	ASP	3.1
1	Bo	1001	LEU	3.1
1	CI	1008	LEU	3.1
1	CI	1075	ASP	3.1
3	CK	3042	LEU	3.1
4	Az	4005	LEU	3.1
6	BN	8151	LEU	3.1
6	Ct	8095	ASP	3.1
7	Bm	6146	ASP	3.1
8	A4	5068	LEU	3.1
8	BP	5016	LEU	3.1
8	BP	5065	LEU	3.1
8	Cn	5016	LEU	3.1

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Mol	Chain	Res	Type	RSRZ
3	BS	3020	TRP	3.1
2	Cp	2069	GLU	3.1
4	Br	4055	GLU	3.1
6	Ct	8038	GLU	3.1
1	Bo	1081	VAL	3.1
5	CM	7015	VAL	3.1
4	CL	4061	ASN	3.1
6	Al	8034	ASN	3.1
6	BV	8018	PRO	3.1
6	Cd	8006	TYR	3.1
6	Ct	8104	ARG	3.1
6	BN	8039	MET	3.1
7	BG	6052	ILE	3.1
8	Af	5063	ILE	3.1
8	Bf	5064	MET	3.1
1	Co	1042	LYS	3.1
7	Ae	6011	HIS	3.1
7	CO	6070	LYS	3.1
1	CI	1052	GLN	3.1
2	AJ	2027	GLN	3.1
1	AY	1053	LEU	3.1
1	Bg	1026	THR	3.1
1	Co	1021	THR	3.1
1	Co	1044	THR	3.1
2	BJ	2096	LEU	3.1
2	Bx	2022	LEU	3.1
3	Ai	3060	LEU	3.1
4	Ar	4027	LEU	3.1
6	BV	8138	THR	3.1
4	Aj	4010	GLY	3.1
3	CC	3046	ASP	3.1
6	BN	8095	ASP	3.1
7	CW	6088	ASP	3.1
1	BQ	1081	VAL	3.1
1	CI	1023	VAL	3.1
1	CQ	1081	VAL	3.1
2	CJ	2039	CYS	3.1
4	Bb	4030	VAL	3.1
4	Cr	4056	VAL	3.1
6	Ct	8020	VAL	3.1
7	BO	6132	VAL	3.1
8	BH	5007	PHE	3.1

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Mol	Chain	Res	Type	RSRZ
6	Bl	8091	PRO	3.1
6	CN	8000	PRO	3.1
6	CN	8194	PRO	3.1
7	Bm	6139	PRO	3.1
6	Ct	8152	TYR	3.1
7	BG	6149	TYR	3.1
1	BA	1047	ASN	3.1
2	BB	2078	ILE	3.1
3	AS	3000	MET	3.1
3	AS	3017	ILE	3.1
3	BK	3069	ASN	3.1
8	Cn	5050	ASN	3.1
8	Cn	5062	ILE	3.1
6	Ad	8115	HIS	3.1
3	AS	3018	GLN	3.1
7	Cm	6058	GLN	3.1
1	BI	1074	LEU	3.1
4	BD	4057	LEU	3.1
5	BE	7007	LEU	3.1
6	Al	8141	LEU	3.1
6	BF	8132	LEU	3.1
6	CN	8113	LEU	3.1
6	Ct	8128	LEU	3.1
7	Ae	6076	LEU	3.1
2	AJ	2019	THR	3.1
6	BF	8200	THR	3.1
6	CN	8200	THR	3.1
8	AX	5053	GLY	3.1
2	BB	2028	SER	3.1
1	Bg	1059	ARG	3.1
1	BQ	1004	PHE	3.1
2	BJ	2024	VAL	3.1
2	Cp	2072	VAL	3.1
3	AS	3023	GLU	3.1
3	By	3057	ARG	3.1
3	Ci	3023	GLU	3.1
4	Ab	4028	VAL	3.1
4	Cr	4019	TRP	3.1
6	Bd	8024	ARG	3.1
6	Bl	8139	VAL	3.1
6	CN	8146	TRP	3.1
7	BG	6166	ASP	3.1

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Mol	Chain	Res	Type	RSRZ
7	Bm	6140	GLU	3.1
8	CX	5055	VAL	3.1
8	Cv	5066	GLU	3.1
1	CI	1073	PRO	3.1
6	At	8017	CYS	3.1
8	Bn	5002	PRO	3.1
2	CJ	2089	ILE	3.1
3	Ay	3027	MET	3.1
5	BE	7011	TYR	3.1
8	BX	5057	ILE	3.1
8	Bn	5025	ILE	3.1
8	B4	5052	ILE	3.1
7	Ae	6083	ASN	3.1
6	Ad	8019	ALA	3.1
1	Co	1022	GLN	3.1
2	Ch	2022	LEU	3.1
3	AC	3060	LEU	3.1
3	BK	3074	GLN	3.1
3	CK	3021	LEU	3.1
4	Br	4037	GLN	3.1
6	BN	8208	GLN	3.1
6	Bt	8045	LEU	3.1
6	CN	8155	LEU	3.1
8	Cn	5026	LEU	3.1
1	BI	1014	THR	3.1
2	Ah	2019	THR	3.1
3	Aa	3071	THR	3.1
7	BO	6084	GLY	3.1
4	BD	4067	ARG	3.1
1	Ao	1081	VAL	3.1
2	Ah	2028	SER	3.1
3	AC	3076	VAL	3.1
3	AS	3001	VAL	3.1
3	CC	3076	VAL	3.1
4	BD	4056	VAL	3.1
4	Bj	4030	VAL	3.1
5	Bs	7001	VAL	3.1
6	BN	8072	VAL	3.1
7	Ce	6132	VAL	3.1
7	Cm	6150	SER	3.1
8	B4	5061	SER	3.1
1	BI	1066	PHE	3.1

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Mol	Chain	Res	Type	RSRZ
6	BN	8211	PHE	3.1
2	Cp	2043	LYS	3.1
3	Aa	3055	LYS	3.1
7	Cm	6140	GLU	3.1
7	Cu	6057	LYS	3.1
2	Cp	2095	PRO	3.1
3	BC	3027	MET	3.1
3	CK	3050	ILE	3.1
6	BF	8028	ILE	3.1
6	BV	8046	PRO	3.1
7	Ae	6160	PRO	3.1
7	CO	6020	ILE	3.1
8	Bn	5033	MET	3.1
8	CX	5057	ILE	3.1
3	Ci	3022	TYR	3.1
4	AL	4026	TYR	3.1
4	Cr	4065	TYR	3.1
4	Cr	4039	ALA	3.0
6	BN	8042	ASN	3.0
6	Cl	8198	LEU	3.0
8	AP	5044	ALA	3.0
8	Af	5012	LEU	3.0
1	Bg	1037	HIS	3.0
1	Co	1024	HIS	3.0
3	Cq	3018	GLN	3.0
2	CJ	2085	GLY	3.0
3	Ba	3057	ARG	3.0
5	Cs	7016	GLY	3.0
7	CO	6130	GLY	3.0
7	Cm	6032	GLY	3.0
1	BA	1012	THR	3.0
1	BI	1028	THR	3.0
6	BN	8035	THR	3.0
8	BP	5056	VAL	3.0
1	BA	1046	LYS	3.0
6	Al	8023	LYS	3.0
8	AH	5032	PHE	3.0
2	CB	2028	SER	3.0
4	Cj	4019	TRP	3.0
6	BF	8122	GLU	3.0
6	BN	8168	SER	3.0
6	Ct	8101	GLU	3.0

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Mol	Chain	Res	Type	RSRZ
7	A3	6050	GLU	3.0
3	AK	3004	ILE	3.0
3	AK	3033	ILE	3.0
3	CK	3033	ILE	3.0
6	BV	8010	MET	3.0
6	Bd	8000	PRO	3.0
6	Bl	8215	ILE	3.0
6	Ct	8000	PRO	3.0
7	Am	6000	MET	3.0
7	CO	6142	ILE	3.0
8	Bv	5064	MET	3.0
1	AY	1070	ASP	3.0
3	AK	3045	ASP	3.0
3	Ai	3046	ASP	3.0
7	BG	6077	ASP	3.0
7	Ce	6166	ASP	3.0
4	AT	4026	TYR	3.0
6	BF	8006	TYR	3.0
3	Ay	3073	LEU	3.0
3	CC	3072	LEU	3.0
6	Ct	8019	ALA	3.0
8	Cv	5065	LEU	3.0
6	Ct	8086	GLN	3.0
6	Ct	8208	GLN	3.0
8	BP	5024	GLY	3.0
1	CI	1044	THR	3.0
1	Co	1081	VAL	3.0
2	Cp	2070	VAL	3.0
4	AD	4002	LYS	3.0
7	BO	6040	THR	3.0
3	Ay	3036	PHE	3.0
1	Aw	1034	MET	3.0
6	Ct	8039	MET	3.0
7	CO	6131	GLU	3.0
8	BH	5066	GLU	3.0
3	Aa	3063	ILE	3.0
3	BK	3034	ILE	3.0
8	CX	5037	ILE	3.0
6	BF	8164	PRO	3.0
1	Ag	1070	ASP	3.0
4	BD	4053	LEU	3.0
4	BL	4038	LEU	3.0

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Mol	Chain	Res	Type	RSRZ
4	CL	4038	LEU	3.0
4	Cr	4008	LEU	3.0
3	AK	3010	TYR	3.0
3	AC	3010	TYR	3.0
3	BK	3010	TYR	3.0
6	Cl	8006	TYR	3.0
6	Ct	8172	TYR	3.0
1	BA	1064	ARG	3.0
3	CK	3028	ARG	3.0
2	Bp	2056	CYS	3.0
2	CJ	2055	HIS	3.0
1	Bo	1029	GLY	3.0
1	Co	1029	GLY	3.0
2	BB	2074	LYS	3.0
3	Aq	3018	GLN	3.0
3	Bq	3031	GLY	3.0
3	Ci	3074	GLN	3.0
7	Bm	6039	ASN	3.0
7	Bm	6084	GLY	3.0
1	AQ	1081	VAL	3.0
2	BJ	2059	VAL	3.0
4	Ar	4028	VAL	3.0
8	A4	5036	VAL	3.0
1	BI	1012	THR	3.0
6	BN	8036	THR	3.0
7	Ae	6040	THR	3.0
3	CK	3020	TRP	3.0
3	Ca	3017	ILE	3.0
7	Bm	6054	ILE	3.0
7	B3	6000	MET	3.0
7	CO	6064	ILE	3.0
6	CN	8161	PRO	3.0
2	Bp	2092	LEU	3.0
4	BD	4029	SER	3.0
6	At	8007	LEU	3.0
6	BF	8116	LEU	3.0
6	BF	8142	LEU	3.0
1	BI	1040	ALA	3.0
2	CJ	2048	ARG	3.0
3	Bq	3057	ARG	3.0
5	BM	7011	TYR	3.0
7	BO	6069	ARG	3.0

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Mol	Chain	Res	Type	RSRZ
7	Cu	6146	ASP	3.0
1	Co	1046	LYS	3.0
2	CJ	2074	LYS	3.0
6	BF	8189	VAL	3.0
6	CN	8157	CYS	3.0
7	Bm	6025	GLY	3.0
7	Bm	6044	GLN	3.0
8	BX	5028	GLY	3.0
2	BB	2059	VAL	3.0
2	BJ	2070	VAL	3.0
2	BR	2035	VAL	3.0
3	Ba	3019	VAL	3.0
5	Bc	7001	VAL	3.0
2	BB	2032	ASN	3.0
3	AK	3013	ASN	3.0
8	Af	5007	PHE	3.0
6	BF	8202	THR	3.0
1	BI	1015	ILE	3.0
3	Ay	3033	ILE	3.0
3	CK	3027	MET	3.0
4	Br	4058	ILE	3.0
7	A3	6000	MET	3.0
7	Cu	6054	ILE	3.0
8	BH	5033	MET	3.0
8	BP	5063	ILE	3.0
8	Bv	5037	ILE	3.0
2	Bp	2061	GLU	3.0
3	Bi	3021	LEU	3.0
4	BL	4019	TRP	3.0
6	BF	8163	GLU	3.0
6	Bt	8038	GLU	3.0
7	BO	6140	GLU	3.0
2	CB	2000	PRO	3.0
6	Ct	8108	PRO	3.0
7	Bm	6045	PRO	3.0
8	AX	5001	PRO	3.0
8	Af	5031	PRO	3.0
8	CX	5026	LEU	3.0
3	AS	3014	ARG	3.0
3	Aa	3014	ARG	3.0
8	CP	5020	ARG	3.0
2	Bh	2098	ALA	3.0

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Mol	Chain	Res	Type	RSRZ
2	Bp	2098	ALA	3.0
3	AS	3015	SER	3.0
3	BS	3047	ALA	3.0
8	Bv	5044	ALA	3.0
8	Cv	5067	ALA	3.0
1	AY	1046	LYS	3.0
4	BD	4002	LYS	3.0
4	Bz	4026	TYR	3.0
7	A3	6021	LYS	3.0
7	A3	6073	TYR	3.0
7	Cu	6149	TYR	3.0
6	BF	8120	ASP	3.0
1	BA	1041	VAL	3.0
1	BA	1051	VAL	3.0
2	AJ	2070	VAL	3.0
2	Bp	2072	VAL	3.0
2	CB	2024	VAL	3.0
3	Ca	3061	GLY	3.0
5	Bs	7016	GLY	3.0
6	BF	8166	VAL	3.0
7	BO	6143	HIS	3.0
7	Cu	6145	VAL	3.0
8	AP	5028	GLY	3.0
8	Bv	5040	CYS	3.0
8	CP	5032	PHE	3.0
1	Co	1061	ASN	3.0
2	Ap	2094	ASN	3.0
1	Bg	1058	ILE	3.0
1	CI	1043	MET	3.0
1	CI	1076	THR	3.0
3	AS	3004	ILE	3.0
3	Ay	3070	ILE	3.0
3	CK	3007	ILE	3.0
3	CK	3063	ILE	3.0
5	CM	7010	THR	3.0
7	BO	6154	THR	3.0
8	Av	5057	ILE	3.0
8	Bf	5033	MET	3.0
8	B4	5025	ILE	3.0
8	CP	5062	ILE	3.0
8	Cn	5033	MET	3.0
6	BN	8132	LEU	2.9

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Mol	Chain	Res	Type	RSRZ
6	BV	8007	LEU	2.9
6	Bt	8051	LEU	2.9
6	CN	8110	LEU	2.9
6	Ct	8162	LEU	2.9
8	AP	5068	LEU	2.9
8	Af	5026	LEU	2.9
8	BH	5068	LEU	2.9
8	CP	5016	LEU	2.9
1	BI	1054	GLU	2.9
1	CA	1011	GLU	2.9
2	Ax	2071	PRO	2.9
2	BJ	2067	TRP	2.9
2	Bh	2000	PRO	2.9
4	Cr	4055	GLU	2.9
6	BN	8146	TRP	2.9
8	An	5002	PRO	2.9
7	A3	6049	ALA	2.9
7	Bm	6017	ALA	2.9
3	Aa	3010	TYR	2.9
3	By	3056	SER	2.9
4	AT	4029	SER	2.9
6	BF	8012	TYR	2.9
6	CN	8006	TYR	2.9
7	AW	6167	SER	2.9
7	BG	6015	TYR	2.9
7	BO	6086	TYR	2.9
7	Bm	6150	SER	2.9
7	Cm	6053	SER	2.9
2	AB	2070	VAL	2.9
3	Aa	3001	VAL	2.9
2	CJ	2053	ASP	2.9
3	Aa	3045	ASP	2.9
3	Cq	3031	GLY	2.9
6	AV	8095	ASP	2.9
6	Ad	8003	GLY	2.9
6	Ct	8189	VAL	2.9
6	BN	8210	ASP	2.9
7	Ae	6159	HIS	2.9
7	BO	6166	ASP	2.9
2	BB	2027	GLN	2.9
3	By	3024	GLN	2.9
7	AG	6058	GLN	2.9

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Mol	Chain	Res	Type	RSRZ
3	Aa	3027	MET	2.9
3	Ai	3029	ILE	2.9
4	Aj	4036	MET	2.9
7	Cu	6138	MET	2.9
8	An	5037	ILE	2.9
8	CH	5063	ILE	2.9
1	Co	1008	LEU	2.9
4	BL	4062	ASN	2.9
4	Br	4057	LEU	2.9
6	BF	8113	LEU	2.9
6	CN	8182	ASN	2.9
6	BV	8035	THR	2.9
6	Cl	8024	ARG	2.9
7	A3	6137	LEU	2.9
7	Cu	6076	LEU	2.9
7	Cu	6155	CYS	2.9
8	AX	5051	ASN	2.9
8	Cf	5040	CYS	2.9
3	Ay	3020	TRP	2.9
4	BT	4012	PRO	2.9
4	Bj	4001	PRO	2.9
6	Bt	8046	PRO	2.9
6	CN	8044	GLU	2.9
6	CN	8090	PRO	2.9
6	Cl	8099	TRP	2.9
8	Bn	5003	GLU	2.9
8	CP	5001	PRO	2.9
3	BK	3015	SER	2.9
6	CN	8172	TYR	2.9
4	Bj	4020	GLY	2.9
4	Bz	4032	GLY	2.9
6	CN	8033	GLY	2.9
7	BG	6084	GLY	2.9
8	Cn	5028	GLY	2.9
6	BF	8210	ASP	2.9
6	BN	8096	GLN	2.9
7	Cm	6088	ASP	2.9
7	Cu	6166	ASP	2.9
3	Ay	3029	ILE	2.9
3	BK	3000	MET	2.9
4	Ar	4034	MET	2.9
1	CI	1068	LEU	2.9

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Mol	Chain	Res	Type	RSRZ
2	BZ	2022	LEU	2.9
3	AS	3060	LEU	2.9
3	By	3060	LEU	2.9
4	CL	4067	ARG	2.9
4	Cr	4005	LEU	2.9
6	AF	8052	LEU	2.9
6	BN	8155	LEU	2.9
6	CN	8040	LEU	2.9
1	Co	1076	THR	2.9
2	BJ	2057	ASN	2.9
3	Ay	3071	THR	2.9
6	Al	8049	LYS	2.9
6	At	8138	THR	2.9
6	Cl	8098	LYS	2.9
8	Cv	5006	LYS	2.9
2	CJ	2071	PRO	2.9
2	Cp	2021	PRO	2.9
6	B2	8000	PRO	2.9
3	Aa	3020	TRP	2.9
4	Br	4039	ALA	2.9
7	BG	6056	TRP	2.9
1	BI	1041	VAL	2.9
3	Aa	3025	VAL	2.9
3	Ay	3025	VAL	2.9
4	Bj	4015	VAL	2.9
4	Cr	4026	TYR	2.9
7	Bu	6001	VAL	2.9
7	CW	6001	VAL	2.9
8	AH	5055	VAL	2.9
5	BE	7014	SER	2.9
6	Al	8011	PHE	2.9
6	CN	8168	SER	2.9
7	BO	6007	SER	2.9
3	BK	3057	ARG	2.9
8	AX	5062	ILE	2.9
8	Bf	5063	ILE	2.9
3	CS	3074	GLN	2.9
4	CL	4064	LEU	2.9
6	Al	8051	LEU	2.9
6	Bt	8040	LEU	2.9
6	CN	8160	LEU	2.9
7	Cm	6158	LEU	2.9

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Mol	Chain	Res	Type	RSRZ
3	AC	3045	ASP	2.9
7	BO	6023	LYS	2.9
1	BA	1028	THR	2.9
1	BI	1044	THR	2.9
1	CI	1026	THR	2.9
2	BJ	2019	THR	2.9
2	Ah	2000	PRO	2.9
2	BZ	2094	ASN	2.9
2	CZ	2000	PRO	2.9
4	AT	4061	ASN	2.9
6	Bt	8137	THR	2.9
6	CN	8138	THR	2.9
7	CO	6144	THR	2.9
7	CO	6147	THR	2.9
3	AS	3032	CYS	2.9
3	Bq	3038	GLU	2.9
6	BN	8050	CYS	2.9
6	BN	8148	ALA	2.9
6	Cl	8019	ALA	2.9
7	BO	6010	GLU	2.9
7	BO	6139	PRO	2.9
6	AV	8017	CYS	2.9
3	AK	3076	VAL	2.9
3	AS	3025	VAL	2.9
6	BF	8062	VAL	2.9
7	Bu	6080	VAL	2.9
1	Cg	1029	GLY	2.9
3	Bq	3010	TYR	2.9
4	Bb	4004	PHE	2.9
7	CW	6130	GLY	2.9
8	BH	5028	GLY	2.9
8	Bn	5059	GLY	2.9
6	CN	8024	ARG	2.9
1	BA	1071	SER	2.9
1	BI	1045	LEU	2.9
2	BR	2028	SER	2.9
2	CJ	2087	SER	2.9
2	CZ	2028	SER	2.9
3	AK	3044	LEU	2.9
3	Aa	3060	LEU	2.9
3	Ai	3015	SER	2.9
3	Ay	3050	ILE	2.9

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Mol	Chain	Res	Type	RSRZ
3	BS	3007	ILE	2.9
3	BS	3015	SER	2.9
3	Bi	3063	ILE	2.9
3	CK	3056	SER	2.9
3	Ba	3055	LYS	2.9
3	CS	3060	LEU	2.9
3	Ci	3011	LEU	2.9
3	Cq	3033	ILE	2.9
6	BF	8040	LEU	2.9
7	AO	6000	MET	2.9
7	BG	6003	ILE	2.9
7	Cu	6020	ILE	2.9
8	A4	5004	LEU	2.9
8	BP	5004	LEU	2.9
8	Bf	5061	SER	2.9
8	Cn	5008	MET	2.9
8	Bv	5006	LYS	2.9
8	Cv	5016	LEU	2.9
3	AC	3012	GLN	2.9
3	CK	3018	GLN	2.9
6	BF	8190	GLN	2.9
3	BS	3045	ASP	2.9
6	BN	8059	ASP	2.9
6	Bt	8213	ASP	2.9
7	BW	6161	ASP	2.9
6	BN	8054	THR	2.9
6	BN	8194	PRO	2.9
1	BI	1016	GLU	2.9
1	BI	1019	ASN	2.9
2	BB	2031	ASN	2.9
3	AS	3030	GLU	2.9
3	Bi	3069	ASN	2.9
7	BO	6067	ASN	2.9
8	CX	5050	ASN	2.9
6	BF	8099	TRP	2.9
6	BN	8099	TRP	2.9
1	Cg	1030	VAL	2.9
1	Cg	1081	VAL	2.9
2	AR	2070	VAL	2.9
2	Bp	2029	VAL	2.9
2	CB	2035	VAL	2.9
3	BC	3001	VAL	2.9

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Mol	Chain	Res	Type	RSRZ
7	CO	6029	VAL	2.9
2	BJ	2077	TYR	2.9
3	BK	3031	GLY	2.9
6	B2	8003	GLY	2.9
6	CN	8171	ARG	2.9
7	Au	6130	GLY	2.9
7	Bm	6030	GLY	2.9
1	BA	1017	LEU	2.9
2	BR	2050	LYS	2.9
3	AS	3072	LEU	2.9
4	CL	4014	MET	2.9
4	Cj	4005	LEU	2.9
5	BM	7007	LEU	2.9
6	Ct	8040	LEU	2.9
6	Ct	8151	LEU	2.9
7	Bu	6000	MET	2.9
7	Cm	6002	LEU	2.9
8	Bf	5052	ILE	2.9
8	Cf	5037	ILE	2.9
1	Co	1037	HIS	2.8
1	BA	1022	GLN	2.8
1	Co	1009	SER	2.8
2	Cp	2079	SER	2.8
6	BF	8118	GLN	2.8
6	Ct	8133	GLN	2.8
8	Bv	5061	SER	2.8
2	BZ	2098	ALA	2.8
3	Ci	3046	ASP	2.8
7	Ce	6088	ASP	2.8
2	BJ	2068	THR	2.8
2	Bx	2000	PRO	2.8
6	B2	8018	PRO	2.8
3	Ba	3038	GLU	2.8
4	Cj	4055	GLU	2.8
7	Bm	6050	GLU	2.8
8	Af	5003	GLU	2.8
8	BP	5066	GLU	2.8
1	BI	1081	VAL	2.8
2	Ax	2067	TRP	2.8
4	Bb	4028	VAL	2.8
6	BF	8072	VAL	2.8
7	Ae	6136	TRP	2.8

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Mol	Chain	Res	Type	RSRZ
7	Bm	6056	TRP	2.8
4	BD	4060	CYS	2.8
1	Bo	1060	GLY	2.8
2	Ah	2025	LEU	2.8
2	CB	2046	LEU	2.8
3	AK	3021	LEU	2.8
3	AK	3036	PHE	2.8
3	AC	3073	LEU	2.8
3	Aa	3035	GLY	2.8
3	BC	3036	PHE	2.8
4	AL	4004	PHE	2.8
4	Az	4004	PHE	2.8
6	Ct	8023	LYS	2.8
3	Bi	3010	TYR	2.8
3	CS	3004	ILE	2.8
6	AV	8007	LEU	2.8
8	Af	5065	LEU	2.8
8	Bf	5028	GLY	2.8
4	Bj	4034	MET	2.8
8	CP	5057	ILE	2.8
8	Cv	5025	ILE	2.8
1	CI	1037	HIS	2.8
7	BO	6159	HIS	2.8
1	CI	1009	SER	2.8
7	Cm	6038	GLN	2.8
7	BO	6045	PRO	2.8
2	BJ	2053	ASP	2.8
2	Cp	2075	ASP	2.8
1	Bo	1030	VAL	2.8
1	CA	1054	GLU	2.8
3	BK	3054	THR	2.8
7	AG	6166	ASP	2.8
2	BB	2048	ARG	2.8
3	AS	3043	VAL	2.8
3	CK	3048	GLU	2.8
4	AT	4028	VAL	2.8
5	BE	7001	VAL	2.8
6	AV	8021	VAL	2.8
6	CF	8139	VAL	2.8
7	Bm	6034	VAL	2.8
7	Cm	6031	GLU	2.8
8	Bn	5066	GLU	2.8

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Mol	Chain	Res	Type	RSRZ
2	BZ	2032	ASN	2.8
4	CL	4035	ASN	2.8
1	AY	1045	LEU	2.8
2	Ap	2025	LEU	2.8
2	BJ	2083	LEU	2.8
3	Ay	3017	ILE	2.8
3	CC	3073	LEU	2.8
4	Ab	4004	PHE	2.8
4	Bj	4064	LEU	2.8
4	Cb	4053	LEU	2.8
6	BV	8045	LEU	2.8
8	Cn	5012	LEU	2.8
7	Cu	6135	CYS	2.8
8	Cv	5040	CYS	2.8
8	Cn	5021	HIS	2.8
2	BB	2079	SER	2.8
3	AS	3056	SER	2.8
8	CH	5046	SER	2.8
1	AY	1059	ARG	2.8
1	BI	1073	PRO	2.8
2	Bp	2095	PRO	2.8
4	BL	4001	PRO	2.8
6	AF	8018	PRO	2.8
6	BF	8175	ARG	2.8
6	BN	8018	PRO	2.8
6	CN	8175	ARG	2.8
8	AX	5031	PRO	2.8
8	Av	5002	PRO	2.8
2	BR	2029	VAL	2.8
3	CK	3025	VAL	2.8
6	AF	8020	VAL	2.8
6	BF	8020	VAL	2.8
6	BV	8036	THR	2.8
6	Bl	8020	VAL	2.8
7	A3	6059	VAL	2.8
1	BY	1054	GLU	2.8
1	CI	1016	GLU	2.8
1	CI	1031	ASP	2.8
2	CJ	2086	ASP	2.8
6	Bt	8097	GLU	2.8
6	CN	8101	GLU	2.8
7	Cm	6133	THR	2.8

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Mol	Chain	Res	Type	RSRZ
8	Af	5005	LYS	2.8
8	BH	5006	LYS	2.8
8	Bn	5006	LYS	2.8
1	BA	1068	LEU	2.8
1	Cg	1038	LEU	2.8
3	Bq	3021	LEU	2.8
3	Cq	3065	LEU	2.8
4	AT	4019	TRP	2.8
1	Aw	1027	ILE	2.8
1	BA	1015	ILE	2.8
2	Bp	2017	PHE	2.8
4	AT	4004	PHE	2.8
4	Cr	4038	LEU	2.8
6	BF	8155	LEU	2.8
6	BN	8162	LEU	2.8
6	CN	8116	LEU	2.8
7	Cu	6048	LEU	2.8
8	An	5026	LEU	2.8
3	AS	3034	ILE	2.8
6	BN	8173	ILE	2.8
6	Bt	8039	MET	2.8
6	CN	8010	MET	2.8
6	Cl	8028	ILE	2.8
8	BP	5025	ILE	2.8
3	AS	3010	TYR	2.8
3	Aq	3010	TYR	2.8
4	BL	4023	TYR	2.8
7	CO	6086	TYR	2.8
2	Bp	2039	CYS	2.8
6	Ct	8159	HIS	2.8
6	BF	8133	GLN	2.8
7	BO	6037	ALA	2.8
1	CI	1042	LYS	2.8
1	Cg	1050	PRO	2.8
2	BB	2023	SER	2.8
3	Bq	3076	VAL	2.8
3	CS	3056	SER	2.8
4	BL	4015	VAL	2.8
4	CD	4030	VAL	2.8
6	CN	8091	PRO	2.8
6	CN	8145	VAL	2.8
6	Ct	8053	PRO	2.8

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Mol	Chain	Res	Type	RSRZ
7	A3	6085	VAL	2.8
8	AP	5010	LYS	2.8
8	A4	5056	VAL	2.8
8	B4	5006	LYS	2.8
1	BA	1038	LEU	2.8
1	BI	1077	LEU	2.8
1	Co	1011	GLU	2.8
2	Ch	2096	LEU	2.8
4	Br	4017	LEU	2.8
4	Bz	4038	LEU	2.8
6	CF	8141	LEU	2.8
6	CN	8035	THR	2.8
6	Ct	8138	THR	2.8
7	Bm	6081	GLU	2.8
7	CO	6050	GLU	2.8
8	BX	5035	LEU	2.8
8	Cn	5042	GLU	2.8
1	CI	1070	ASP	2.8
3	AK	3017	ILE	2.8
3	BK	3070	ILE	2.8
3	CS	3046	ASP	2.8
4	BL	4031	ASP	2.8
6	Bd	8010	MET	2.8
6	CV	8028	ILE	2.8
7	BW	6077	ASP	2.8
7	Cu	6043	TRP	2.8
1	Bg	1029	GLY	2.8
3	BS	3061	GLY	2.8
3	Bi	3040	MET	2.8
4	BD	4034	MET	2.8
7	A3	6004	MET	2.8
8	AH	5037	ILE	2.8
7	BG	6051	GLY	2.8
8	BP	5008	MET	2.8
8	Cv	5053	GLY	2.8
1	Cg	1062	ASN	2.8
4	Br	4035	ASN	2.8
7	Cm	6019	ASN	2.8
4	Ar	4026	TYR	2.8
4	Bj	4065	TYR	2.8
4	Br	4023	TYR	2.8
8	Af	5021	HIS	2.8

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Mol	Chain	Res	Type	RSRZ
2	CJ	2076	ARG	2.8
3	Ay	3028	ARG	2.8
3	BS	3074	GLN	2.8
3	Ba	3018	GLN	2.8
3	Bq	3024	GLN	2.8
6	Ad	8118	GLN	2.8
6	CF	8190	GLN	2.8
6	CN	8192	ALA	2.8
8	CP	5044	ALA	2.8
1	BA	1069	PRO	2.8
1	Co	1030	VAL	2.8
2	CB	2072	VAL	2.8
2	Cp	2059	VAL	2.8
4	CD	4028	VAL	2.8
6	BN	8047	PRO	2.8
7	Bm	6059	VAL	2.8
8	BP	5001	PRO	2.8
8	Bv	5001	PRO	2.8
1	CI	1038	LEU	2.8
3	CK	3065	LEU	2.8
4	Br	4027	LEU	2.8
7	CO	6048	LEU	2.8
8	BH	5014	LEU	2.8
1	AY	1044	THR	2.8
1	BA	1076	THR	2.8
2	BJ	2097	ILE	2.8
2	Bp	2019	THR	2.8
3	Aa	3023	GLU	2.8
3	BS	3063	ILE	2.8
3	Ba	3036	PHE	2.7
3	Bq	3007	ILE	2.8
3	CC	3004	ILE	2.8
3	Cq	3054	THR	2.8
6	CF	8138	THR	2.8
6	Cd	8138	THR	2.8
7	BG	6147	THR	2.8
8	Cn	5045	THR	2.8
3	Ci	3040	MET	2.7
4	CD	4019	TRP	2.7
7	Cu	6136	TRP	2.7
6	BF	8095	ASP	2.7
1	Bg	1062	ASN	2.7

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Mol	Chain	Res	Type	RSRZ
2	AJ	2042	ASN	2.7
2	Cp	2057	ASN	2.7
4	Cr	4040	ASN	2.7
8	BP	5034	ASN	2.7
3	Bq	3022	TYR	2.7
1	BA	1059	ARG	2.7
7	CO	6143	HIS	2.7
1	Bg	1000	LYS	2.7
2	BZ	2050	LYS	2.7
2	Bp	2051	ALA	2.7
4	AL	4002	LYS	2.7
6	BF	8207	ALA	2.7
3	BC	3032	CYS	2.7
1	BI	1032	VAL	2.7
3	AK	3019	VAL	2.7
3	BK	3019	VAL	2.7
5	BM	7001	VAL	2.7
6	Ct	8205	VAL	2.7
7	B3	6080	VAL	2.7
1	Co	1050	PRO	2.7
2	AR	2071	PRO	2.7
6	Ct	8043	PRO	2.7
2	BJ	2092	LEU	2.7
2	Bh	2092	LEU	2.7
2	Cp	2009	LEU	2.7
3	Ai	3073	LEU	2.7
4	Bj	4005	LEU	2.7
6	BN	8128	LEU	2.7
6	BN	8201	LEU	2.7
6	CN	8092	LEU	2.7
6	Ct	8007	LEU	2.7
7	Au	6002	LEU	2.7
8	BH	5035	LEU	2.7
2	BB	2052	PHE	2.7
3	Aa	3056	SER	2.7
1	BA	1014	THR	2.7
3	BK	3030	GLU	2.7
6	BF	8169	THR	2.7
6	BN	8163	GLU	2.7
6	Bt	8002	SER	2.7
6	CF	8010	MET	2.7
7	AO	6165	SER	2.7

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Mol	Chain	Res	Type	RSRZ
7	AW	6162	SER	2.7
7	B3	6162	SER	2.7
7	CO	6060	SER	2.7
8	Af	5013	SER	2.7
8	Cv	5046	SER	2.7
6	Ad	8138	THR	2.7
1	Co	1020	GLY	2.7
8	Af	5024	GLY	2.7
5	CM	7004	ASP	2.7
6	Ct	8175	ARG	2.7
1	BA	1018	LYS	2.7
2	CJ	2080	LYS	2.7
3	AC	3013	ASN	2.7
3	Bi	3026	ASN	2.7
3	Bq	3026	ASN	2.7
6	BF	8196	ASN	2.7
6	Bt	8023	LYS	2.7
6	CF	8006	TYR	2.7
8	Cf	5034	ASN	2.7
2	Cp	2098	ALA	2.7
6	Cl	8159	HIS	2.7
6	Ct	8179	HIS	2.7
7	Cu	6159	HIS	2.7
1	CI	1013	VAL	2.7
3	AC	3018	GLN	2.7
3	Bq	3025	VAL	2.7
3	CC	3025	VAL	2.7
4	BD	4028	VAL	2.7
4	Bz	4028	VAL	2.7
6	Cd	8021	VAL	2.7
8	Av	5055	VAL	2.7
1	CA	1074	LEU	2.7
4	Ar	4064	LEU	2.7
4	BD	4027	LEU	2.7
4	Br	4064	LEU	2.7
5	Bk	7006	LEU	2.7
6	BF	8158	LEU	2.7
6	BN	8161	PRO	2.7
6	CN	8108	PRO	2.7
6	Ct	8160	LEU	2.7
6	Ct	8199	LEU	2.7
7	B3	6048	LEU	2.7

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Mol	Chain	Res	Type	RSRZ
8	Bv	5002	PRO	2.7
2	Cp	2089	ILE	2.7
3	AC	3004	ILE	2.7
3	Aq	3004	ILE	2.7
3	BS	3027	MET	2.7
4	BT	4004	PHE	2.7
4	CL	4066	ILE	2.7
4	Bb	4036	MET	2.7
4	Cb	4004	PHE	2.7
6	BF	8011	PHE	2.7
6	CN	8011	PHE	2.7
8	AX	5052	ILE	2.7
7	BO	6152	MET	2.7
8	BP	5054	MET	2.7
3	Ci	3048	GLU	2.7
6	CN	8097	GLU	2.7
6	CN	8186	GLU	2.7
3	Cq	3052	SER	2.7
6	Ct	8129	SER	2.7
7	AO	6167	SER	2.7
7	AG	6167	SER	2.7
8	Bn	5045	THR	2.7
3	AS	3009	ARG	2.7
1	Bg	1075	ASP	2.7
7	AO	6161	ASP	2.7
4	Cj	4065	TYR	2.7
1	AY	1035	ASN	2.7
1	Aw	1062	ASN	2.7
1	BA	1035	ASN	2.7
1	CI	1062	ASN	2.7
5	CM	7000	ALA	2.7
7	BO	6011	HIS	2.7
8	BP	5067	ALA	2.7
1	BI	1079	VAL	2.7
3	BK	3043	VAL	2.7
6	AV	8020	VAL	2.7
7	BW	6001	VAL	2.7
7	B3	6001	VAL	2.7
7	Cu	6006	VAL	2.7
8	BH	5056	VAL	2.7
2	BR	2096	LEU	2.7
2	Bh	2096	LEU	2.7

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Mol	Chain	Res	Type	RSRZ
6	Ct	8155	LEU	2.7
2	CB	2034	GLN	2.7
3	Ai	3018	GLN	2.7
6	AF	8204	GLN	2.7
6	BF	8090	PRO	2.7
6	BV	8047	PRO	2.7
2	Bx	2097	ILE	2.7
1	BA	1034	MET	2.7
4	Ab	4036	MET	2.7
4	Ar	4004	PHE	2.7
6	A2	8011	PHE	2.7
7	BO	6054	ILE	2.7
7	BG	6135	CYS	2.7
7	BO	6138	MET	2.7
1	Bo	1054	GLU	2.7
1	Bw	1054	GLU	2.7
1	Cg	1028	THR	2.7
1	Cg	1059	ARG	2.7
3	AS	3061	GLY	2.7
4	Br	4010	GLY	2.7
4	Bz	4025	GLY	2.7
8	BP	5053	GLY	2.7
8	Bf	5059	GLY	2.7
8	B4	5053	GLY	2.7
8	CP	5069	GLU	2.7
4	Aj	4002	LYS	2.7
4	Br	4041	THR	2.7
6	Al	8024	ARG	2.7
1	Cg	1033	SER	2.7
4	CL	4024	LYS	2.7
6	Bd	8032	THR	2.7
6	Bd	8137	THR	2.7
7	A3	6033	THR	2.7
7	Cu	6016	THR	2.7
8	CP	5010	LYS	2.7
8	Cv	5061	SER	2.7
1	CY	1080	ASP	2.7
1	Cg	1040	ALA	2.7
3	BC	3010	TYR	2.7
4	CD	4039	ALA	2.7
8	Cn	5044	ALA	2.7
2	AR	2094	ASN	2.7

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Mol	Chain	Res	Type	RSRZ
2	CJ	2041	ASN	2.7
3	AK	3073	LEU	2.7
3	BS	3042	LEU	2.7
3	By	3073	LEU	2.7
4	BL	4061	ASN	2.7
4	BT	4027	LEU	2.7
4	Cr	4064	LEU	2.7
6	BN	8045	LEU	2.7
6	BN	8203	VAL	2.7
7	AO	6001	VAL	2.7
7	BG	6013	LEU	2.7
8	An	5055	VAL	2.7
8	CX	5056	VAL	2.7
8	CX	5060	ASN	2.7
2	Ah	2027	GLN	2.7
2	Bh	2097	ILE	2.7
3	Ai	3063	ILE	2.7
3	BK	3017	ILE	2.7
3	Ci	3033	ILE	2.7
6	Bt	8018	PRO	2.7
6	Bt	8190	GLN	2.7
7	BG	6156	GLN	2.7
7	Cm	6008	PRO	2.7
8	BH	5002	PRO	2.7
8	Cv	5048	GLN	2.7
6	Ct	8048	PHE	2.7
7	Bm	6152	MET	2.7
1	Cg	1042	LYS	2.7
3	AK	3030	GLU	2.7
3	Ai	3030	GLU	2.7
3	Ai	3061	GLY	2.7
3	BC	3061	GLY	2.7
3	By	3023	GLU	2.7
3	By	3055	LYS	2.7
4	Ab	4070	GLU	2.7
4	BD	4022	GLU	2.7
4	BL	4011	LYS	2.7
6	Ct	8097	GLU	2.7
7	Cu	6030	GLY	2.7
7	Cu	6032	GLY	2.7
7	Cu	6050	GLU	2.7
8	Af	5040	CYS	2.7

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Mol	Chain	Res	Type	RSRZ
2	BB	2033	THR	2.7
6	Bl	8032	THR	2.7
6	Ct	8200	THR	2.7
6	Ad	8099	TRP	2.7
6	Ct	8057	TRP	2.7
4	BT	4029	SER	2.7
4	Aj	4039	ALA	2.7
2	BJ	2090	VAL	2.7
3	BC	3072	LEU	2.7
4	BD	4013	VAL	2.7
4	BD	4015	VAL	2.7
6	AN	8007	LEU	2.7
6	Ad	8006	TYR	2.7
6	A2	8139	VAL	2.7
6	Ct	8084	TYR	2.7
6	Ct	8145	VAL	2.7
7	Ae	6028	VAL	2.7
8	AX	5012	LEU	2.7
8	Af	5016	LEU	2.7
1	Cg	1010	HIS	2.7
6	CN	8179	HIS	2.7
8	A4	5009	ASP	2.7
4	Bb	4000	ASN	2.7
1	CI	1067	ILE	2.6
1	Cg	1073	PRO	2.6
6	Ct	8010	MET	2.6
6	Ct	8106	GLN	2.6
7	Ae	6008	PRO	2.6
7	A3	6160	PRO	2.6
2	Bh	2017	PHE	2.6
4	AD	4004	PHE	2.6
6	BF	8039	MET	2.6
6	Bl	8024	ARG	2.6
6	Bt	8048	PHE	2.6
7	BO	6058	GLN	2.6
8	AP	5008	MET	2.6
4	CL	4059	ARG	2.6
1	BI	1007	LYS	2.6
1	BQ	1000	LYS	2.6
4	CL	4018	LYS	2.6
8	Cv	5015	LYS	2.6
2	AJ	2099	GLY	2.6

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Mol	Chain	Res	Type	RSRZ
2	Cp	2065	GLU	2.6
3	BC	3031	GLY	2.6
4	Aj	4070	GLU	2.6
8	AH	5053	GLY	2.6
8	AH	5069	GLU	2.6
6	B2	8032	THR	2.6
7	CO	6071	CYS	2.6
8	AX	5040	CYS	2.6
1	Aw	1002	VAL	2.6
1	BA	1077	LEU	2.6
1	BI	1017	LEU	2.6
1	Co	1038	LEU	2.6
2	Bx	2009	LEU	2.6
3	Cq	3060	LEU	2.6
4	Bb	4069	VAL	2.6
4	Br	4008	LEU	2.6
4	CT	4053	LEU	2.6
5	CE	7001	VAL	2.6
6	Al	8007	LEU	2.6
6	Bt	8201	LEU	2.6
6	CF	8021	VAL	2.6
6	Cl	8051	LEU	2.6
7	BG	6014	LEU	2.6
7	Bm	6076	LEU	2.6
7	Bm	6145	VAL	2.6
2	CB	2077	TYR	2.6
6	CN	8084	TYR	2.6
6	Ct	8006	TYR	2.6
3	AK	3029	ILE	2.6
3	Aa	3017	ILE	2.6
3	Bi	3070	ILE	2.6
7	Ae	6141	ASP	2.6
7	Be	6166	ASP	2.6
1	BI	1064	ARG	2.6
2	AJ	2000	PRO	2.6
2	BJ	2082	PHE	2.6
2	BJ	2093	ARG	2.6
3	Bi	3027	MET	2.6
4	Az	4002	LYS	2.6
4	BD	4061	ASN	2.6
4	BT	4061	ASN	2.6
6	BF	8119	ASN	2.6

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Mol	Chain	Res	Type	RSRZ
6	BV	8049	LYS	2.6
6	Bt	8042	ASN	2.6
6	Cd	8082	ASN	2.6
7	BW	6000	MET	2.6
7	Cu	6044	GLN	2.6
8	B4	5017	ASN	2.6
8	CX	5034	ASN	2.6
5	Bk	7016	GLY	2.6
2	BR	2069	GLU	2.6
6	Ad	8013	GLU	2.6
7	BO	6031	GLU	2.6
8	B4	5003	GLU	2.6
1	BA	1044	THR	2.6
1	Co	1014	THR	2.6
6	BN	8202	THR	2.6
7	Bm	6016	THR	2.6
2	BB	2090	VAL	2.6
2	Bh	2025	LEU	2.6
3	BC	3020	TRP	2.6
3	Ba	3076	VAL	2.6
3	By	3042	LEU	2.6
3	Cq	3011	LEU	2.6
4	AL	4039	ALA	2.6
4	BT	4057	LEU	2.6
6	BN	8180	LEU	2.6
6	BN	8184	LEU	2.6
6	BV	8051	LEU	2.6
6	Bl	8141	LEU	2.6
6	CF	8040	LEU	2.6
7	Cu	6056	TRP	2.6
6	Ad	8139	VAL	2.6
7	Bm	6085	VAL	2.6
7	CO	6006	VAL	2.6
7	Cm	6157	ALA	2.6
8	Bv	5016	LEU	2.6
8	CH	5035	LEU	2.6
8	Cf	5004	LEU	2.6
3	BK	3056	SER	2.6
7	CO	6165	SER	2.6
7	Cu	6167	SER	2.6
3	Ai	3010	TYR	2.6
3	CK	3010	TYR	2.6

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Mol	Chain	Res	Type	RSRZ
1	BI	1046	LYS	2.6
1	Cg	1039	LYS	2.6
1	Co	1018	LYS	2.6
2	Cp	2037	ILE	2.6
3	Aa	3034	ILE	2.6
3	Ay	3009	ARG	2.6
3	BC	3004	ILE	2.6
3	Ci	3029	ILE	2.6
6	AF	8024	ARG	2.6
1	CA	1004	PHE	2.6
1	CI	1069	PRO	2.6
2	BJ	2071	PRO	2.6
3	BS	3036	PHE	2.6
4	Br	4012	PRO	2.6
6	Ad	8102	PHE	2.6
6	Ct	8018	PRO	2.6
8	Af	5033	MET	2.6
8	Av	5001	PRO	2.6
8	Bf	5001	PRO	2.6
3	Aa	3002	GLN	2.6
4	CL	4031	ASP	2.6
6	BV	8086	GLN	2.6
7	Ae	6088	ASP	2.6
7	Cm	6026	ASP	2.6
3	BK	3026	ASN	2.6
6	Ct	8105	ASN	2.6
8	BH	5060	ASN	2.6
2	CZ	2099	GLY	2.6
3	AC	3035	GLY	2.6
6	Cd	8033	GLY	2.6
1	AY	1049	GLU	2.6
3	BC	3030	GLU	2.6
3	By	3038	GLU	2.6
1	Aw	1028	THR	2.6
1	Bg	1008	LEU	2.6
2	Ch	2045	LEU	2.6
2	BB	2051	ALA	2.6
2	Bx	2098	ALA	2.6
2	CB	2059	VAL	2.6
3	Aq	3001	VAL	2.6
5	Bk	7010	THR	2.6
6	AF	8021	VAL	2.6

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Mol	Chain	Res	Type	RSRZ
6	B2	8137	THR	2.6
7	BG	6017	ALA	2.6
8	CH	5056	VAL	2.6
4	CL	4060	CYS	2.6
6	BV	8177	CYS	2.6
1	BA	1039	LYS	2.6
3	BC	3034	ILE	2.6
4	Ar	4002	LYS	2.6
6	B2	8024	ARG	2.6
2	BJ	2055	HIS	2.6
2	Cp	2077	TYR	2.6
3	CC	3056	SER	2.6
3	Ci	3010	TYR	2.6
4	BT	4058	ILE	2.6
7	BO	6057	LYS	2.6
8	Af	5006	LYS	2.6
8	CP	5006	LYS	2.6
6	BF	8172	TYR	2.6
6	Bd	8026	SER	2.6
6	CV	8006	TYR	2.6
8	Bv	5046	SER	2.6
2	Bp	2066	MET	2.6
2	CB	2095	PRO	2.6
4	BD	4004	PHE	2.6
7	CO	6148	MET	2.6
8	AP	5064	MET	2.6
8	Av	5032	PHE	2.6
8	B4	5029	PHE	2.6
8	CX	5064	MET	2.6
6	AV	8018	PRO	2.6
6	Al	8018	PRO	2.6
6	Bt	8043	PRO	2.6
2	BR	2053	ASP	2.6
7	AO	6088	ASP	2.6
7	Au	6058	GLN	2.6
7	CO	6161	ASP	2.6
2	CJ	2073	ASN	2.6
3	AS	3026	ASN	2.6
3	BK	3061	GLY	2.6
3	CS	3061	GLY	2.6
4	BL	4032	GLY	2.6
4	Br	4040	ASN	2.6

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Mol	Chain	Res	Type	RSRZ
6	Cl	8034	ASN	2.6
6	Cl	8082	ASN	2.6
7	BG	6067	ASN	2.6
7	BO	6018	ASN	2.6
8	AP	5034	ASN	2.6
8	Av	5051	ASN	2.6
1	BA	1078	LEU	2.6
1	Cg	1011	GLU	2.6
2	Bx	2096	LEU	2.6
2	CR	2092	LEU	2.6
3	BK	3011	LEU	2.6
4	AT	4008	LEU	2.6
4	AT	4064	LEU	2.6
6	AV	8141	LEU	2.6
6	BF	8151	LEU	2.6
6	CN	8151	LEU	2.6
7	BG	6041	LEU	2.6
7	Ce	6048	LEU	2.6
7	Cu	6014	LEU	2.6
7	Cu	6041	LEU	2.6
8	Bf	5065	LEU	2.6
1	BA	1081	VAL	2.6
3	Aq	3047	ALA	2.6
4	CD	4069	VAL	2.6
7	Ae	6157	ALA	2.6
7	Au	6001	VAL	2.6
2	CJ	2084	ARG	2.6
3	Aq	3071	THR	2.6
4	BD	4019	TRP	2.6
4	Cr	4009	THR	2.6
6	A2	8138	THR	2.6
6	BF	8131	TRP	2.6
6	Cl	8093	THR	2.6
6	AN	8027	LYS	2.6
7	BG	6070	LYS	2.6
7	CO	6021	LYS	2.6
3	Ai	3050	ILE	2.6
3	BS	3004	ILE	2.6
3	CK	3032	CYS	2.6
6	Ct	8017	CYS	2.6
7	BG	6072	ILE	2.6
7	CO	6135	CYS	2.6

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Mol	Chain	Res	Type	RSRZ
8	AP	5057	ILE	2.6
2	BJ	2028	SER	2.6
4	Cr	4004	PHE	2.6
6	AN	8011	PHE	2.6
6	BN	8115	HIS	2.6
6	BN	8195	TYR	2.6
6	B2	8002	SER	2.6
7	Bm	6160	PRO	2.6
2	Ah	2034	GLN	2.6
3	AS	3024	GLN	2.6
2	BJ	2047	GLY	2.6
4	Br	4006	ASN	2.6
6	AF	8144	ASP	2.6
8	Bf	5053	GLY	2.6
8	B4	5024	GLY	2.6
1	Bo	1056	LEU	2.6
2	BR	2046	LEU	2.6
2	BZ	2096	LEU	2.6
3	Bi	3060	LEU	2.6
5	Cs	7007	LEU	2.6
6	BN	8037	LEU	2.6
6	BN	8073	LEU	2.6
8	AP	5004	LEU	2.6
2	Bp	2065	GLU	2.6
7	Cu	6081	GLU	2.6
2	Ah	2024	VAL	2.6
2	BJ	2049	VAL	2.6
3	AS	3076	VAL	2.6
3	Bq	3047	ALA	2.6
4	Bj	4028	VAL	2.6
6	Ad	8020	VAL	2.6
2	BJ	2080	LYS	2.6
4	Cj	4002	LYS	2.6
5	Ac	7000	ALA	2.6
6	Bd	8019	ALA	2.6
6	Ct	8174	ALA	2.6
7	Bm	6132	VAL	2.6
7	CO	6059	VAL	2.6
7	BG	6021	LYS	2.6
8	AH	5044	ALA	2.6
2	Ap	2019	THR	2.6
3	BS	3071	THR	2.6

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Mol	Chain	Res	Type	RSRZ
5	BM	7010	THR	2.6
6	Al	8035	THR	2.6
3	Aa	3070	ILE	2.5
8	AP	5054	MET	2.5
7	BG	6074	PHE	2.5
8	Av	5029	PHE	2.5
1	Bg	1010	HIS	2.5
2	BR	2039	CYS	2.5
2	CB	2056	CYS	2.5
3	CC	3010	TYR	2.5
3	Cq	3022	TYR	2.5
4	Ar	4023	TYR	2.5
6	BN	8165	HIS	2.5
6	CN	8143	HIS	2.5
7	Bm	6149	TYR	2.5
6	Cl	8108	PRO	2.5
2	CR	2028	SER	2.5
8	Cf	5046	SER	2.5
3	Aa	3018	GLN	2.5
3	BK	3035	GLY	2.5
4	BL	4037	GLN	2.5
6	BN	8118	GLN	2.5
1	BQ	1074	LEU	2.5
2	Ax	2092	LEU	2.5
2	CZ	2092	LEU	2.5
3	Aa	3042	LEU	2.5
3	Ba	3011	LEU	2.5
3	Ba	3042	LEU	2.5
4	Aj	4027	LEU	2.5
6	Ad	8125	LEU	2.5
7	Bm	6013	LEU	2.5
1	Cg	1031	ASP	2.5
1	Cg	1070	ASP	2.5
1	CQ	1054	GLU	2.5
2	Bh	2091	VAL	2.5
3	Ay	3045	ASP	2.5
3	Ay	3076	VAL	2.5
3	CS	3076	VAL	2.5
3	Ci	3076	VAL	2.5
4	Az	4070	GLU	2.5
4	BD	4069	VAL	2.5
4	Br	4002	LYS	2.5

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Mol	Chain	Res	Type	RSRZ
6	BV	8014	ARG	2.5
6	CV	8034	ASN	2.5
6	BN	8013	GLU	2.5
6	CN	8004	GLU	2.5
6	Ct	8027	LYS	2.5
7	CO	6146	ASP	2.5
7	CW	6077	ASP	2.5
7	Cu	6161	ASP	2.5
8	A4	5034	ASN	2.5
7	A3	6047	GLU	2.5
8	AP	5003	GLU	2.5
8	Bv	5022	VAL	2.5
5	Ck	7000	ALA	2.5
7	BG	6049	ALA	2.5
1	BA	1026	THR	2.5
3	Bq	3029	ILE	2.5
7	BG	6082	TRP	2.5
7	CO	6136	TRP	2.5
8	BH	5045	THR	2.5
1	Aw	1043	MET	2.5
2	Bp	2058	MET	2.5
3	Ay	3040	MET	2.5
7	BG	6075	MET	2.5
2	Ap	2017	PHE	2.5
3	Ay	3008	PHE	2.5
1	AY	1037	HIS	2.5
3	BK	3039	TYR	2.5
6	CN	8135	PRO	2.5
6	CN	8159	HIS	2.5
6	Ct	8165	HIS	2.5
7	BG	6008	PRO	2.5
7	CO	6155	CYS	2.5
1	Aw	1052	GLN	2.5
1	BI	1068	LEU	2.5
1	Bg	1001	LEU	2.5
2	CJ	2060	LEU	2.5
3	Aa	3052	SER	2.5
3	BK	3006	LEU	2.5
3	BS	3072	LEU	2.5
3	CK	3012	GLN	2.5
3	CS	3073	LEU	2.5
6	BN	8124	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
6	CN	8037	LEU	2.5
6	Cl	8160	LEU	2.5
7	A3	6007	SER	2.5
4	BT	4037	GLN	2.5
8	AP	5053	GLY	2.5
8	BH	5004	LEU	2.5
8	CX	5023	GLN	2.5
1	Aw	1000	LYS	2.5
3	Bi	3055	LYS	2.5
4	Cr	4059	ARG	2.5
7	Ae	6079	LYS	2.5
3	Bi	3076	VAL	2.5
4	Bz	4069	VAL	2.5
6	Ct	8203	VAL	2.5
7	AO	6085	VAL	2.5
7	CO	6085	VAL	2.5
7	Ce	6001	VAL	2.5
8	Bn	5056	VAL	2.5
8	Cv	5056	VAL	2.5
1	BI	1049	GLU	2.5
1	Co	1040	ALA	2.5
3	Ba	3023	GLU	2.5
3	CS	3069	ASN	2.5
3	Cq	3026	ASN	2.5
4	Cr	4035	ASN	2.5
5	CE	7000	ALA	2.5
6	B2	8186	GLU	2.5
6	Ct	8210	ASP	2.5
7	AW	6077	ASP	2.5
7	BG	6010	GLU	2.5
1	Co	1015	ILE	2.5
2	Ah	2068	THR	2.5
3	CK	3071	THR	2.5
4	Ab	4019	TRP	2.5
5	BM	7002	TRP	2.5
6	At	8036	THR	2.5
6	CV	8138	THR	2.5
1	CA	1010	HIS	2.5
2	BR	2071	PRO	2.5
2	BZ	2000	PRO	2.5
2	CR	2095	PRO	2.5
6	Bd	8006	TYR	2.5

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Mol	Chain	Res	Type	RSRZ
6	B2	8006	TYR	2.5
8	Cf	5002	PRO	2.5
1	Bg	1038	LEU	2.5
1	Co	1064	ARG	2.5
2	Ap	2092	LEU	2.5
2	CR	2022	LEU	2.5
2	CZ	2022	LEU	2.5
4	Aj	4064	LEU	2.5
6	BV	8098	LYS	2.5
6	CN	8147	LEU	2.5
7	Ae	6002	LEU	2.5
7	Bm	6061	LEU	2.5
2	Ax	2099	GLY	2.5
2	Bh	2099	GLY	2.5
3	Aq	3061	GLY	2.5
2	Bp	2079	SER	2.5
2	CJ	2028	SER	2.5
3	Bq	3052	SER	2.5
7	BG	6007	SER	2.5
7	BG	6060	SER	2.5
8	Bn	5046	SER	2.5
2	Bp	2090	VAL	2.5
3	Aq	3019	VAL	2.5
3	Ba	3043	VAL	2.5
7	BG	6034	VAL	2.5
8	B4	5022	VAL	2.5
3	BK	3038	GLU	2.5
3	Bi	3023	GLU	2.5
4	Bb	4070	GLU	2.5
6	AF	8004	GLU	2.5
6	Ct	8089	GLU	2.5
8	Bf	5003	GLU	2.5
2	BJ	2075	ASP	2.5
3	AC	3017	ILE	2.5
3	Bq	3017	ILE	2.5
3	Bq	3034	ILE	2.5
3	By	3034	ILE	2.5
4	CL	4045	ILE	2.5
4	Cj	4061	ASN	2.5
6	BF	8182	ASN	2.5
7	BG	6088	ASP	2.5
7	Bu	6077	ASP	2.5

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Mol	Chain	Res	Type	RSRZ
7	Cu	6088	ASP	2.5
8	Bf	5017	ASN	2.5
2	Ch	2067	TRP	2.5
6	BF	8112	THR	2.5
6	Ct	8154	THR	2.5
8	BP	5029	PHE	2.5
1	Aw	1050	PRO	2.5
2	Bp	2071	PRO	2.5
2	Cp	2000	PRO	2.5
2	BR	2012	ARG	2.5
3	AS	3055	LYS	2.5
3	CK	3039	TYR	2.5
6	BF	8135	PRO	2.5
6	BN	8043	PRO	2.5
6	BN	8113	LEU	2.5
6	BN	8152	TYR	2.5
6	Bl	8006	TYR	2.5
6	Bl	8090	PRO	2.5
3	Ci	3053	LYS	2.5
4	Aj	4067	ARG	2.5
6	Bl	8051	LEU	2.5
6	Bt	8006	TYR	2.5
6	Cl	8162	LEU	2.5
6	Cl	8170	LEU	2.5
6	Ct	8197	LEU	2.5
7	A3	6158	LEU	2.5
7	Bm	6158	LEU	2.5
7	Cu	6024	LEU	2.5
8	AX	5068	LEU	2.5
7	Bm	6032	GLY	2.5
8	Bn	5028	GLY	2.5
1	Ag	1079	VAL	2.5
2	BJ	2063	VAL	2.5
3	AS	3012	GLN	2.5
3	Aa	3043	VAL	2.5
3	By	3076	VAL	2.5
3	Cq	3001	VAL	2.5
4	BL	4013	VAL	2.5
5	As	7001	VAL	2.5
6	CN	8086	GLN	2.5
7	A3	6058	GLN	2.5
2	BR	2098	ALA	2.5

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Mol	Chain	Res	Type	RSRZ
2	Bp	2028	SER	2.5
2	Bp	2087	SER	2.5
3	BS	3032	CYS	2.5
7	Ae	6037	ALA	2.5
7	Cu	6053	SER	2.5
1	Co	1067	ILE	2.5
2	BZ	2097	ILE	2.5
2	CB	2061	GLU	2.5
3	Aq	3050	ILE	2.5
4	AL	4070	GLU	2.5
4	BT	4055	GLU	2.5
6	AV	8013	GLU	2.5
6	BF	8056	GLU	2.5
6	Bl	8163	GLU	2.5
6	Ct	8028	ILE	2.5
7	Ae	6055	GLU	2.5
7	BG	6047	GLU	2.5
8	Cn	5025	ILE	2.5
3	AC	3027	MET	2.5
4	Az	4036	MET	2.5
4	BL	4014	MET	2.5
4	Cj	4034	MET	2.5
7	Ce	6000	MET	2.5
1	Bo	1035	ASN	2.5
2	CB	2062	ASN	2.5
2	CZ	2017	PHE	2.5
4	Bj	4000	ASN	2.5
6	AF	8034	ASN	2.5
6	CN	8187	ASP	2.5
7	A3	6083	ASN	2.5
8	BH	5050	ASN	2.5
2	CJ	2033	THR	2.5
5	Ck	7010	THR	2.5
6	Cl	8137	THR	2.5
1	BI	1039	LYS	2.5
1	CA	1046	LYS	2.5
1	Co	1059	ARG	2.5
1	Co	1074	LEU	2.5
2	AB	2000	PRO	2.5
2	AZ	2021	PRO	2.5
2	Ah	2092	LEU	2.5
2	CB	2093	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
3	Bq	3055	LYS	2.5
6	AV	8098	LYS	2.5
6	Ad	8027	LYS	2.5
8	CX	5015	LYS	2.5
2	BB	2071	PRO	2.5
2	BJ	2045	LEU	2.5
3	AK	3006	LEU	2.5
3	Bq	3042	LEU	2.5
3	CK	3073	LEU	2.5
3	Ca	3060	LEU	2.5
4	AT	4001	PRO	2.5
4	Aj	4012	PRO	2.5
6	BF	8184	LEU	2.5
6	BN	8040	LEU	2.5
7	BW	6160	PRO	2.5
6	BF	8152	TYR	2.5
8	BX	5053	GLY	2.5
1	BA	1023	VAL	2.5
2	Bp	2059	VAL	2.5
4	Ab	4030	VAL	2.5
4	CL	4069	VAL	2.5
7	CO	6145	VAL	2.5
1	Bo	1052	GLN	2.5
2	Bh	2034	GLN	2.5
3	BS	3018	GLN	2.5
4	CL	4037	GLN	2.5
1	Cg	1009	SER	2.4
2	BJ	2056	CYS	2.4
2	Bp	2089	ILE	2.4
3	AC	3029	ILE	2.4
3	Ay	3015	SER	2.4
3	BC	3070	ILE	2.4
3	BK	3050	ILE	2.4
3	CK	3070	ILE	2.4
7	A3	6036	ILE	2.4
7	A3	6165	SER	2.4
7	BO	6162	SER	2.4
8	A4	5040	CYS	2.4
1	BA	1049	GLU	2.4
3	Ai	3027	MET	2.4
4	AD	4070	GLU	2.4
6	Al	8004	GLU	2.4

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Mol	Chain	Res	Type	RSRZ
6	Cl	8089	GLU	2.4
7	Cu	6152	MET	2.4
8	Cv	5029	PHE	2.4
1	BY	1080	ASP	2.4
1	Bo	1062	ASN	2.4
1	Co	1080	ASP	2.4
2	BJ	2086	ASP	2.4
2	Bp	2031	ASN	2.4
2	Bp	2057	ASN	2.4
2	CB	2094	ASN	2.4
3	Cq	3053	LYS	2.4
6	BN	8119	ASN	2.4
6	Cl	8076	ARG	2.4
7	BO	6136	TRP	2.4
8	AP	5009	ASP	2.4
8	A4	5010	LYS	2.4
2	BJ	2009	LEU	2.4
2	BZ	2092	LEU	2.4
2	CR	2025	LEU	2.4
3	BS	3060	LEU	2.4
4	Ab	4008	LEU	2.4
5	BE	7010	THR	2.4
6	Ad	8093	THR	2.4
6	At	8040	LEU	2.4
6	Bt	8037	LEU	2.4
6	Bt	8198	LEU	2.4
6	CN	8184	LEU	2.4
6	Cl	8202	THR	2.4
8	B4	5012	LEU	2.4
2	BB	2000	PRO	2.4
3	BC	3003	PRO	2.4
4	BD	4001	PRO	2.4
8	B4	5002	PRO	2.4
1	Co	1010	HIS	2.4
6	Ct	8115	HIS	2.4
8	Bn	5000	HIS	2.4
1	Cg	1041	VAL	2.4
3	BK	3076	VAL	2.4
4	Br	4013	VAL	2.4
3	Aq	3012	GLN	2.4
3	Bi	3047	ALA	2.4
5	Cs	7000	ALA	2.4

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Mol	Chain	Res	Type	RSRZ
6	BN	8193	ALA	2.4
6	Bl	8148	ALA	2.4
6	CN	8133	GLN	2.4
8	Bf	5067	ALA	2.4
8	Bv	5067	ALA	2.4
3	BC	3017	ILE	2.4
3	BS	3070	ILE	2.4
3	Ba	3034	ILE	2.4
8	CP	5025	ILE	2.4
8	CX	5063	ILE	2.4
4	CD	4036	MET	2.4
6	BF	8127	MET	2.4
7	CO	6138	MET	2.4
1	AY	1009	SER	2.4
2	AJ	2069	GLU	2.4
2	BB	2013	GLU	2.4
2	CJ	2061	GLU	2.4
3	Aq	3023	GLU	2.4
3	Ay	3056	SER	2.4
3	Ba	3049	GLU	2.4
4	CD	4070	GLU	2.4
6	Al	8017	CYS	2.4
6	BF	8186	GLU	2.4
6	Bl	8002	SER	2.4
6	CF	8186	GLU	2.4
7	Be	6162	SER	2.4
8	BP	5061	SER	2.4
8	CP	5061	SER	2.4
8	Cv	5042	GLU	2.4
1	CA	1000	LYS	2.4
3	AS	3008	PHE	2.4
3	Aq	3009	ARG	2.4
3	BC	3053	LYS	2.4
6	At	8185	LYS	2.4
6	Bl	8014	ARG	2.4
6	CN	8023	LYS	2.4
8	AX	5010	LYS	2.4
8	Af	5027	ARG	2.4
8	BP	5006	LYS	2.4
2	AZ	2092	LEU	2.4
3	Ai	3044	LEU	2.4
3	Aq	3060	LEU	2.4

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Mol	Chain	Res	Type	RSRZ
3	Bi	3011	LEU	2.4
3	Bq	3011	LEU	2.4
4	BL	4017	LEU	2.4
5	CM	7006	LEU	2.4
6	Ad	8114	LEU	2.4
6	BF	8037	LEU	2.4
8	CX	5035	LEU	2.4
1	AY	1061	ASN	2.4
1	CI	1021	THR	2.4
1	Cg	1047	ASN	2.4
2	AB	2018	ASN	2.4
2	BR	2033	THR	2.4
2	Bh	2033	THR	2.4
3	AS	3069	ASN	2.4
6	BF	8093	THR	2.4
6	Bl	8099	TRP	2.4
6	CF	8209	ASN	2.4
6	CN	8134	ASP	2.4
6	Cl	8138	THR	2.4
6	Ct	8093	THR	2.4
6	Ct	8137	THR	2.4
7	Bm	6083	ASN	2.4
6	Ct	8140	ASP	2.4
8	Af	5009	ASP	2.4
1	AY	1050	PRO	2.4
1	CA	1073	PRO	2.4
1	CI	1050	PRO	2.4
2	AR	2021	PRO	2.4
1	Bo	1079	VAL	2.4
2	Ap	2070	VAL	2.4
3	CS	3022	TYR	2.4
6	BN	8084	TYR	2.4
6	Bt	8003	GLY	2.4
7	BG	6062	HIS	2.4
7	BO	6005	HIS	2.4
7	BO	6085	VAL	2.4
8	BP	5022	VAL	2.4
8	Bn	5024	GLY	2.4
8	Bv	5053	GLY	2.4
8	CH	5059	GLY	2.4
8	CX	5018	GLY	2.4
3	Ba	3050	ILE	2.4

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Mol	Chain	Res	Type	RSRZ
6	AV	8019	ALA	2.4
6	A2	8028	ILE	2.4
7	BO	6157	ALA	2.4
8	Bf	5044	ALA	2.4
6	BV	8133	GLN	2.4
6	Cl	8086	GLN	2.4
8	AX	5043	MET	2.4
8	Bf	5011	LYS	2.4
2	Bp	2052	PHE	2.4
3	BC	3048	GLU	2.4
3	Ci	3036	PHE	2.4
4	Br	4004	PHE	2.4
4	CL	4022	GLU	2.4
6	BF	8126	GLU	2.4
7	Ae	6031	GLU	2.4
8	CH	5032	PHE	2.4
3	Aa	3015	SER	2.4
6	CN	8129	SER	2.4
3	AC	3044	LEU	2.4
3	CC	3011	LEU	2.4
3	Ci	3065	LEU	2.4
8	CP	5040	CYS	2.4
3	BC	3026	ASN	2.4
3	By	3054	THR	2.4
3	Cq	3071	THR	2.4
6	Al	8194	PRO	2.4
6	At	8022	THR	2.4
6	Bt	8053	PRO	2.4
6	Bt	8054	THR	2.4
6	CN	8057	TRP	2.4
4	Ar	4035	ASN	2.4
4	Bz	4000	ASN	2.4
8	AX	5050	ASN	2.4
8	BH	5017	ASN	2.4
8	CP	5060	ASN	2.4
1	AY	1002	VAL	2.4
1	Ag	1080	ASP	2.4
1	Ao	1070	ASP	2.4
1	CQ	1080	ASP	2.4
1	Co	1023	VAL	2.4
2	AZ	2070	VAL	2.4
3	AK	3043	VAL	2.4

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Mol	Chain	Res	Type	RSRZ
3	BK	3025	VAL	2.4
4	Bb	4015	VAL	2.4
4	Br	4069	VAL	2.4
6	At	8020	VAL	2.4
6	BF	8041	ASP	2.4
6	CN	8072	VAL	2.4
7	BG	6006	VAL	2.4
7	Bm	6006	VAL	2.4
7	Bu	6166	ASP	2.4
8	AP	5056	VAL	2.4
1	Cg	1060	GLY	2.4
2	CR	2099	GLY	2.4
4	Bb	4026	TYR	2.4
4	Cb	4065	TYR	2.4
7	AG	6012	GLY	2.4
7	A3	6012	GLY	2.4
8	Av	5053	GLY	2.4
8	Cf	5059	GLY	2.4
3	Ca	3004	ILE	2.4
6	CN	8153	ALA	2.4
7	BG	6036	ILE	2.4
8	BH	5062	ILE	2.4
8	BX	5037	ILE	2.4
8	BX	5067	ALA	2.4
2	BJ	2081	MET	2.4
3	Aa	3057	ARG	2.4
7	BG	6023	LYS	2.4
2	Ch	2017	PHE	2.4
4	Aj	4004	PHE	2.4
6	AF	8011	PHE	2.4
8	A4	5029	PHE	2.4
1	BQ	1001	LEU	2.4
1	BQ	1078	LEU	2.4
2	BB	2096	LEU	2.4
2	BJ	2061	GLU	2.4
3	AC	3006	LEU	2.4
3	BS	3023	GLU	2.4
3	Bq	3023	GLU	2.4
3	CC	3030	GLU	2.4
3	Cq	3021	LEU	2.4
6	Bd	8141	LEU	2.4
6	CN	8038	GLU	2.4

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Mol	Chain	Res	Type	RSRZ
6	CN	8197	LEU	2.4
7	BO	6131	GLU	2.4
7	CO	6031	GLU	2.4
7	CO	6134	GLU	2.4
8	AX	5014	LEU	2.4
8	B4	5065	LEU	2.4
3	AC	3052	SER	2.4
6	BN	8026	SER	2.4
7	Ce	6162	SER	2.4
7	Cm	6165	SER	2.4
8	AP	5046	SER	2.4
8	Cn	5061	SER	2.4
1	BI	1076	THR	2.4
1	Bo	1051	VAL	2.4
2	BJ	2000	PRO	2.4
4	Ar	4019	TRP	2.4
3	BC	3076	VAL	2.4
3	Ba	3001	VAL	2.4
4	BT	4001	PRO	2.4
4	CT	4030	VAL	2.4
6	At	8018	PRO	2.4
6	BV	8032	THR	2.4
6	CF	8137	THR	2.4
6	CN	8169	THR	2.4
6	Cl	8046	PRO	2.4
2	Bp	2062	ASN	2.4
2	CB	2032	ASN	2.4
1	CI	1024	HIS	2.4
3	AK	3035	GLY	2.4
3	Aa	3026	ASN	2.4
4	CL	4032	GLY	2.4
6	BN	8082	ASN	2.4
8	BH	5051	ASN	2.4
3	Ba	3010	TYR	2.4
4	Az	4026	TYR	2.4
4	Bz	4065	TYR	2.4
5	Cs	7004	ASP	2.4
6	Bl	8095	ASP	2.4
1	Cg	1058	ILE	2.4
8	CX	5067	ALA	2.4
1	Aw	1018	LYS	2.4
1	Bg	1046	LYS	2.4

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Mol	Chain	Res	Type	RSRZ
2	BB	2044	LYS	2.4
2	Cp	2074	LYS	2.4
8	BH	5010	LYS	2.4
8	Bf	5006	LYS	2.4
1	Aw	1059	ARG	2.4
3	AS	3057	ARG	2.4
3	BK	3040	MET	2.4
3	Ba	3027	MET	2.4
4	Bz	4036	MET	2.4
4	CL	4021	MET	2.4
4	Cj	4036	MET	2.4
6	AV	8010	MET	2.4
6	Ad	8014	ARG	2.4
6	At	8010	MET	2.4
6	Bt	8014	ARG	2.4
6	Ct	8171	ARG	2.4
7	BG	6148	MET	2.4
8	BH	5054	MET	2.4
1	BA	1045	LEU	2.4
1	Co	1078	LEU	2.4
3	AS	3006	LEU	2.4
3	AS	3042	LEU	2.4
6	BF	8180	LEU	2.4
8	Af	5004	LEU	2.4
3	Bi	3038	GLU	2.4
4	AT	4022	GLU	2.4
8	AP	5069	GLU	2.4
3	BC	3052	SER	2.4
3	Cq	3015	SER	2.4
7	Bm	6165	SER	2.4
2	Ah	2070	VAL	2.4
2	Ax	2000	PRO	2.4
2	CJ	2029	VAL	2.4
2	Ch	2072	VAL	2.4
3	Aa	3076	VAL	2.4
3	Ay	3003	PRO	2.4
3	Cq	3020	TRP	2.4
3	Cq	3025	VAL	2.4
3	Cq	3076	VAL	2.4
4	BD	4063	VAL	2.4
6	AN	8020	VAL	2.4
6	Al	8046	PRO	2.4

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Mol	Chain	Res	Type	RSRZ
6	BF	8150	TRP	2.4
6	Bt	8050	CYS	2.4
6	CN	8164	PRO	2.4
1	Bg	1028	THR	2.3
3	CC	3061	GLY	2.3
4	BD	4010	GLY	2.3
4	Cr	4007	GLY	2.3
5	Ac	7016	GLY	2.3
6	CV	8137	THR	2.3
6	Cd	8137	THR	2.3
8	Bf	5024	GLY	2.3
8	Cf	5024	GLY	2.3
8	Cf	5028	GLY	2.3
1	Bg	1061	ASN	2.3
1	CY	1000	LYS	2.3
1	Cg	1037	HIS	2.3
2	AJ	2098	ALA	2.3
2	Cp	2044	LYS	2.3
3	Aa	3053	LYS	2.3
4	AL	4000	ASN	2.3
3	BS	3010	TYR	2.3
3	BS	3057	ARG	2.3
4	AT	4066	ILE	2.3
4	Ab	4026	TYR	2.3
4	Br	4066	ILE	2.3
4	Cr	4066	ILE	2.3
6	BN	8172	TYR	2.3
6	Bt	8178	ILE	2.3
6	Ct	8100	LYS	2.3
7	A3	6067	ASN	2.3
8	BX	5034	ASN	2.3
8	Cv	5051	ASN	2.3
1	BA	1075	ASP	2.3
1	BI	1075	ASP	2.3
1	BQ	1075	ASP	2.3
6	BN	8213	ASP	2.3
6	CN	8041	ASP	2.3
7	AW	6166	ASP	2.3
7	Au	6077	ASP	2.3
7	A3	6077	ASP	2.3
7	CG	6088	ASP	2.3
8	BH	5020	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
8	CH	5020	ARG	2.3
3	AS	3040	MET	2.3
3	Aa	3000	MET	2.3
4	BT	4034	MET	2.3
8	B4	5033	MET	2.3
1	BA	1066	PHE	2.3
2	Ax	2027	GLN	2.3
2	CB	2045	LEU	2.3
2	Cp	2052	PHE	2.3
3	AK	3012	GLN	2.3
3	By	3021	LEU	2.3
3	CK	3024	GLN	2.3
4	BL	4027	LEU	2.3
4	Bz	4004	PHE	2.3
6	Ad	8045	LEU	2.3
6	BF	8114	LEU	2.3
6	BF	8147	LEU	2.3
6	Cl	8124	LEU	2.3
7	Cm	6013	LEU	2.3
8	BH	5029	PHE	2.3
1	Ao	1054	GLU	2.3
1	Bo	1011	GLU	2.3
4	Aj	4055	GLU	2.3
4	Ar	4022	GLU	2.3
6	CF	8097	GLU	2.3
6	Cd	8004	GLU	2.3
6	Cl	8078	GLU	2.3
8	Bv	5066	GLU	2.3
3	Aa	3019	VAL	2.3
4	AD	4030	VAL	2.3
4	Bz	4030	VAL	2.3
6	BN	8145	VAL	2.3
7	BO	6145	VAL	2.3
7	Be	6132	VAL	2.3
2	BR	2095	PRO	2.3
4	CL	4012	PRO	2.3
6	Bd	8018	PRO	2.3
6	Bl	8000	PRO	2.3
7	CO	6045	PRO	2.3
8	AX	5002	PRO	2.3
1	AQ	1000	LYS	2.3
1	BY	1000	LYS	2.3

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Mol	Chain	Res	Type	RSRZ
2	CB	2099	GLY	2.3
2	Cp	2080	LYS	2.3
4	BL	4007	GLY	2.3
4	Bb	4025	GLY	2.3
6	CN	8098	LYS	2.3
8	Av	5028	GLY	2.3
2	BJ	2078	ILE	2.3
2	CB	2097	ILE	2.3
1	Ag	1010	HIS	2.3
1	Bo	1010	HIS	2.3
3	AK	3047	ALA	2.3
3	Aq	3070	ILE	2.3
6	Ct	8173	ILE	2.3
7	Be	6049	ALA	2.3
8	AP	5062	ILE	2.3
8	Af	5052	ILE	2.3
8	Cv	5045	THR	2.3
7	BG	6159	HIS	2.3
1	BA	1019	ASN	2.3
1	CA	1047	ASN	2.3
3	Cq	3040	MET	2.3
3	Cq	3069	ASN	2.3
4	Ar	4006	ASN	2.3
4	BL	4035	ASN	2.3
4	CD	4040	ASN	2.3
6	Cl	8152	TYR	2.3
7	CW	6067	ASN	2.3
8	CH	5034	ASN	2.3
8	Cv	5008	MET	2.3
8	Cv	5017	ASN	2.3
1	Bw	1070	ASP	2.3
1	CA	1080	ASP	2.3
2	BB	2075	ASP	2.3
4	Bz	4031	ASP	2.3
7	BO	6141	ASP	2.3
1	Cg	1045	LEU	2.3
2	AB	2022	LEU	2.3
2	BB	2060	LEU	2.3
3	Aa	3006	LEU	2.3
3	Ay	3072	LEU	2.3
3	BC	3065	LEU	2.3
6	Ad	8124	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
6	Cl	8151	LEU	2.3
1	Cg	1022	GLN	2.3
6	CN	8183	GLN	2.3
7	Am	6058	GLN	2.3
8	CP	5007	PHE	2.3
1	BI	1011	GLU	2.3
4	CL	4070	GLU	2.3
8	Cn	5003	GLU	2.3
2	Bp	2035	VAL	2.3
2	Cp	2035	VAL	2.3
4	BT	4063	VAL	2.3
7	Am	6085	VAL	2.3
7	A3	6080	VAL	2.3
6	BV	8015	LYS	2.3
8	Bn	5011	LYS	2.3
2	Bx	2071	PRO	2.3
2	CJ	2093	ARG	2.3
2	Ch	2095	PRO	2.3
3	AK	3014	ARG	2.3
6	Ct	8161	PRO	2.3
8	Cf	5020	ARG	2.3
1	Aw	1063	ILE	2.3
1	Cg	1067	ILE	2.3
2	CJ	2099	GLY	2.3
2	Ch	2028	SER	2.3
3	AK	3070	ILE	2.3
3	Ai	3004	ILE	2.3
3	Ay	3031	GLY	2.3
3	Ci	3063	ILE	2.3
1	Bg	1012	THR	2.3
5	As	7000	ALA	2.3
5	Bs	7010	THR	2.3
5	CM	7014	SER	2.3
8	AP	5025	ILE	2.3
8	Af	5061	SER	2.3
8	An	5044	ALA	2.3
8	A4	5044	ALA	2.3
8	BP	5046	SER	2.3
8	Bv	5052	ILE	2.3
6	BF	8036	THR	2.3
7	Cu	6154	THR	2.3
8	B4	5046	SER	2.3

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Mol	Chain	Res	Type	RSRZ
1	AA	1010	HIS	2.3
3	Cq	3027	MET	2.3
4	AT	4034	MET	2.3
8	CH	5064	MET	2.3
8	Cv	5033	MET	2.3
4	Br	4026	TYR	2.3
1	Bo	1019	ASN	2.3
1	CY	1074	LEU	2.3
1	Cg	1008	LEU	2.3
3	Ai	3021	LEU	2.3
3	BC	3060	LEU	2.3
3	Ba	3026	ASN	2.3
3	CC	3044	LEU	2.3
3	CK	3060	LEU	2.3
3	Ci	3044	LEU	2.3
4	AL	4040	ASN	2.3
6	Ad	8040	LEU	2.3
6	BN	8170	LEU	2.3
6	CN	8196	ASN	2.3
8	Bf	5050	ASN	2.3
6	BV	8206	PHE	2.3
1	BY	1070	ASP	2.3
6	CN	8059	ASP	2.3
4	Bz	4037	GLN	2.3
6	CN	8106	GLN	2.3
8	CP	5048	GLN	2.3
3	By	3030	GLU	2.3
6	BN	8186	GLU	2.3
7	Ce	6047	GLU	2.3
8	BX	5066	GLU	2.3
1	Ag	1000	LYS	2.3
1	Aw	1046	LYS	2.3
6	Ad	8185	LYS	2.3
6	Bd	8021	VAL	2.3
7	CG	6001	VAL	2.3
7	Cu	6034	VAL	2.3
8	Bf	5022	VAL	2.3
8	Cn	5041	VAL	2.3
3	CK	3057	ARG	2.3
6	BF	8069	ARG	2.3
7	B3	6069	ARG	2.3
1	Cg	1063	ILE	2.3

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Mol	Chain	Res	Type	RSRZ
2	Cp	2071	PRO	2.3
3	Ai	3033	ILE	2.3
4	Bz	4012	PRO	2.3
6	CN	8018	PRO	2.3
6	Ct	8090	PRO	2.3
8	CX	5002	PRO	2.3
5	AU	7016	GLY	2.3
8	BH	5024	GLY	2.3
8	Cn	5018	GLY	2.3
2	Ap	2098	ALA	2.3
4	Bj	4048	ALA	2.3
2	BJ	2079	SER	2.3
3	BC	3015	SER	2.3
6	AV	8022	THR	2.3
6	BN	8127	MET	2.3
6	BN	8138	THR	2.3
7	A3	6075	MET	2.3
3	Aq	3042	LEU	2.3
4	AD	4008	LEU	2.3
4	Bb	4038	LEU	2.3
6	Bl	8115	HIS	2.3
8	Bv	5065	LEU	2.3
8	B4	5021	HIS	2.3
8	Cf	5035	LEU	2.3
2	Bp	2038	ASN	2.3
6	Ct	8157	CYS	2.3
8	AP	5060	ASN	2.3
8	AH	5051	ASN	2.3
8	CP	5034	ASN	2.3
2	Ax	2034	GLN	2.3
2	Ch	2086	ASP	2.3
6	AF	8133	GLN	2.3
7	Bm	6166	ASP	2.3
7	Cu	6058	GLN	2.3
8	A4	5038	ASP	2.3
1	CQ	1046	LYS	2.3
3	Ba	3058	LYS	2.3
4	CL	4016	LYS	2.3
7	CO	6023	LYS	2.3
8	AH	5010	LYS	2.3
8	BH	5015	LYS	2.3
2	CB	2029	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
2	Cp	2063	VAL	2.3
3	AK	3048	GLU	2.3
3	AC	3030	GLU	2.3
5	Ak	7001	VAL	2.3
6	Bd	8097	GLU	2.3
6	B2	8097	GLU	2.3
6	CF	8004	GLU	2.3
7	Cm	6131	GLU	2.3
1	Bo	1073	PRO	2.3
3	By	3050	ILE	2.3
6	BN	8000	PRO	2.3
6	Ct	8091	PRO	2.3
8	AX	5037	ILE	2.3
8	BX	5002	PRO	2.3
2	BR	2051	ALA	2.3
3	Ba	3047	ALA	2.3
7	AO	6130	GLY	2.3
7	BO	6151	ALA	2.3
7	Ce	6130	GLY	2.3
3	CC	3040	MET	2.3
1	CA	1036	THR	2.3
1	Co	1068	LEU	2.3
2	CJ	2096	LEU	2.3
3	BS	3065	LEU	2.3
6	BV	8040	LEU	2.3
6	Bt	8032	THR	2.3
6	CF	8032	THR	2.3
6	Cl	8141	LEU	2.3
6	Ct	8176	THR	2.3
8	An	5068	LEU	2.3
8	A4	5000	HIS	2.3
8	BH	5021	HIS	2.3
1	Bg	1066	PHE	2.3
2	Cp	2017	PHE	2.3
3	AK	3052	SER	2.3
4	Aj	4029	SER	2.3
7	Ae	6162	SER	2.3
7	BO	6065	SER	2.3
8	BH	5061	SER	2.3
4	BD	4033	TYR	2.3
4	Bb	4065	TYR	2.3
5	Cs	7011	TYR	2.3

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Mol	Chain	Res	Type	RSRZ
6	BN	8012	TYR	2.3
1	Bo	1000	LYS	2.3
6	BF	8212	LYS	2.3
6	Bt	8209	ASN	2.3
6	B2	8023	LYS	2.3
6	CV	8082	ASN	2.3
7	BO	6083	ASN	2.3
2	Ah	2012	ARG	2.3
4	Ar	4037	GLN	2.3
6	BN	8024	ARG	2.3
8	CX	5020	ARG	2.3
1	CI	1079	VAL	2.3
3	Bi	3043	VAL	2.3
4	Cb	4028	VAL	2.3
6	BN	8074	VAL	2.3
7	A3	6029	VAL	2.3
8	AH	5009	ASP	2.3
8	Af	5038	ASP	2.3
8	B4	5036	VAL	2.3
2	Cp	2013	GLU	2.2
3	BC	3023	GLU	2.2
4	Bj	4055	GLU	2.2
6	Bt	8101	GLU	2.2
8	BH	5069	GLU	2.2
8	CP	5066	GLU	2.2
8	Cn	5069	GLU	2.2
1	Aw	1058	ILE	2.2
2	Cp	2078	ILE	2.2
3	AK	3034	ILE	2.2
3	Aa	3050	ILE	2.2
3	Ca	3050	ILE	2.2
4	BD	4045	ILE	2.2
1	AY	1060	GLY	2.2
2	Ah	2021	PRO	2.2
2	Ap	2071	PRO	2.2
4	Br	4021	MET	2.2
4	CL	4054	GLY	2.2
7	Ae	6130	GLY	2.2
7	A3	6084	GLY	2.2
7	Cu	6009	PRO	2.2
5	AU	7000	ALA	2.2
7	Cu	6087	GLY	2.2

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Mol	Chain	Res	Type	RSRZ
8	B4	5044	ALA	2.2
4	Bb	4053	LEU	2.2
4	Cr	4053	LEU	2.2
6	Ad	8170	LEU	2.2
6	CN	8121	LEU	2.2
7	CO	6061	LEU	2.2
8	BH	5016	LEU	2.2
8	Bf	5012	LEU	2.2
2	BJ	2033	THR	2.2
4	BT	4009	THR	2.2
6	BF	8179	HIS	2.2
6	Bl	8036	THR	2.2
6	Bt	8009	HIS	2.2
6	CN	8036	THR	2.2
6	Ct	8035	THR	2.2
7	Cm	6011	HIS	2.2
8	BX	5029	PHE	2.2
1	Bo	1009	SER	2.2
1	Bo	1065	TYR	2.2
3	BK	3053	LYS	2.2
3	Bq	3039	TYR	2.2
3	Ca	3056	SER	2.2
4	AT	4011	LYS	2.2
4	BL	4029	SER	2.2
6	Cl	8012	TYR	2.2
7	Cu	6035	TYR	2.2
2	Bp	2048	ARG	2.2
2	Ap	2035	VAL	2.2
2	Ax	2072	VAL	2.2
2	Bp	2032	ASN	2.2
3	BS	3026	ASN	2.2
3	By	3026	ASN	2.2
4	Az	4063	VAL	2.2
4	CD	4015	VAL	2.2
6	BN	8196	ASN	2.2
6	Cl	8139	VAL	2.2
7	Bm	6019	ASN	2.2
8	Cn	5049	GLN	2.2
1	Bg	1049	GLU	2.2
2	AZ	2069	GLU	2.2
3	AS	3068	ASP	2.2
3	Cq	3023	GLU	2.2

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Mol	Chain	Res	Type	RSRZ
4	Br	4070	GLU	2.2
6	AN	8210	ASP	2.2
6	Ad	8001	GLU	2.2
6	BF	8213	ASP	2.2
6	BV	8186	GLU	2.2
6	CF	8059	ASP	2.2
6	Ct	8044	GLU	2.2
6	Ct	8122	GLU	2.2
7	CO	6081	GLU	2.2
7	CO	6140	GLU	2.2
7	CW	6131	GLU	2.2
8	Bv	5069	GLU	2.2
8	CH	5069	GLU	2.2
1	CI	1015	ILE	2.2
3	Ci	3007	ILE	2.2
6	BF	8173	ILE	2.2
8	Cf	5052	ILE	2.2
8	Cv	5052	ILE	2.2
2	BB	2098	ALA	2.2
2	CZ	2095	PRO	2.2
2	BR	2092	LEU	2.2
3	Aa	3061	GLY	2.2
3	Ca	3073	LEU	2.2
3	Cq	3073	LEU	2.2
4	AD	4036	MET	2.2
4	CD	4034	MET	2.2
4	CL	4027	LEU	2.2
6	AV	8003	GLY	2.2
6	Bl	8198	LEU	2.2
6	CF	8148	ALA	2.2
7	CO	6084	GLY	2.2
8	B4	5001	PRO	2.2
8	Cv	5001	PRO	2.2
6	Ct	8114	LEU	2.2
8	CX	5065	LEU	2.2
6	BF	8057	TRP	2.2
1	BI	1042	LYS	2.2
1	Co	1000	LYS	2.2
2	CJ	2044	LYS	2.2
3	AK	3008	PHE	2.2
3	BK	3071	THR	2.2
4	BD	4018	LYS	2.2

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Mol	Chain	Res	Type	RSRZ
6	AV	8185	LYS	2.2
6	Bl	8102	PHE	2.2
6	Bt	8036	THR	2.2
7	BG	6011	HIS	2.2
7	CO	6016	THR	2.2
1	CI	1064	ARG	2.2
2	Ap	2012	ARG	2.2
3	AC	3009	ARG	2.2
6	Bl	8025	SER	2.2
2	BJ	2029	VAL	2.2
2	Bp	2088	VAL	2.2
2	Bp	2091	VAL	2.2
3	Ay	3019	VAL	2.2
3	Bi	3001	VAL	2.2
7	A3	6132	VAL	2.2
1	Bg	1022	GLN	2.2
6	BN	8066	GLN	2.2
6	BV	8096	GLN	2.2
1	Bw	1062	ASN	2.2
1	CI	1061	ASN	2.2
3	BC	3069	ASN	2.2
6	BV	8034	ASN	2.2
8	B4	5050	ASN	2.2
2	CR	2013	GLU	2.2
3	Bi	3050	ILE	2.2
6	Bt	8013	GLU	2.2
6	Ct	8163	GLU	2.2
7	CG	6050	GLU	2.2
7	CO	6052	ILE	2.2
8	AX	5066	GLU	2.2
8	BH	5003	GLU	2.2
8	Bf	5069	GLU	2.2
8	Bn	5040	CYS	2.2
1	BQ	1056	LEU	2.2
1	Bg	1070	ASP	2.2
1	Bo	1080	ASP	2.2
1	CI	1080	ASP	2.2
2	CB	2098	ALA	2.2
2	Ch	2046	LEU	2.2
3	Aa	3040	MET	2.2
3	Ay	3011	LEU	2.2
3	Ay	3035	GLY	2.2

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Mol	Chain	Res	Type	RSRZ
4	Ar	4008	LEU	2.2
4	Bj	4027	LEU	2.2
6	AN	8187	ASP	2.2
6	AV	8144	ASP	2.2
6	BF	8128	LEU	2.2
6	BN	8197	LEU	2.2
6	Bd	8037	LEU	2.2
6	Cl	8144	ASP	2.2
6	Ct	8127	MET	2.2
7	Au	6161	ASP	2.2
4	Br	4068	GLY	2.2
5	BE	7016	GLY	2.2
7	BW	6130	GLY	2.2
7	Bu	6075	MET	2.2
7	CO	6030	GLY	2.2
8	AP	5031	PRO	2.2
8	AH	5054	MET	2.2
8	Av	5067	ALA	2.2
8	Av	5068	LEU	2.2
8	A4	5054	MET	2.2
8	BX	5026	LEU	2.2
8	BX	5054	MET	2.2
8	Bn	5008	MET	2.2
8	Cv	5044	ALA	2.2
2	CB	2050	LYS	2.2
4	BL	4016	LYS	2.2
8	Af	5010	LYS	2.2
4	Br	4059	ARG	2.2
6	AV	8099	TRP	2.2
7	CO	6056	TRP	2.2
8	AX	5007	PHE	2.2
6	CN	8058	ARG	2.2
8	Cv	5058	ARG	2.2
3	BC	3071	THR	2.2
6	CN	8176	THR	2.2
6	AN	8006	TYR	2.2
1	CA	1081	VAL	2.2
3	Cq	3019	VAL	2.2
7	AG	6085	VAL	2.2
7	BW	6080	VAL	2.2
7	Be	6080	VAL	2.2
8	Bv	5055	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
4	Ar	4029	SER	2.2
6	Bl	8026	SER	2.2
7	A3	6162	SER	2.2
7	BW	6162	SER	2.2
7	Bm	6053	SER	2.2
8	Bn	5061	SER	2.2
3	AS	3002	GLN	2.2
7	Ae	6038	GLN	2.2
8	AP	5049	GLN	2.2
3	Ca	3034	ILE	2.2
8	Cf	5062	ILE	2.2
1	CY	1047	ASN	2.2
2	BB	2042	ASN	2.2
1	Bg	1077	LEU	2.2
2	BJ	2036	LEU	2.2
2	Bh	2061	GLU	2.2
3	AK	3011	LEU	2.2
3	CS	3011	LEU	2.2
4	Bb	4055	GLU	2.2
6	BF	8110	LEU	2.2
6	BN	8126	GLU	2.2
6	BV	8038	GLU	2.2
6	Bd	8186	GLU	2.2
6	B2	8141	LEU	2.2
6	CN	8142	LEU	2.2
7	Ae	6140	GLU	2.2
7	CO	6067	ASN	2.2
7	Cm	6055	GLU	2.2
8	AX	5042	GLU	2.2
8	Af	5034	ASN	2.2
6	AV	8040	LEU	2.2
2	BR	2000	PRO	2.2
2	Bp	2020	GLY	2.2
3	Ba	3032	CYS	2.2
3	By	3047	ALA	2.2
7	A3	6148	MET	2.2
3	Ci	3067	GLY	2.2
4	Bb	4012	PRO	2.2
6	Al	8177	CYS	2.2
6	Bt	8135	PRO	2.2
6	CF	8050	CYS	2.2
6	CN	8017	CYS	2.2

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Mol	Chain	Res	Type	RSRZ
6	CV	8033	GLY	2.2
7	Ae	6025	GLY	2.2
7	Am	6130	GLY	2.2
7	Bm	6068	PRO	2.2
7	Bm	6157	ALA	2.2
7	Cm	6087	GLY	2.2
8	Af	5002	PRO	2.2
8	A4	5031	PRO	2.2
8	B4	5067	ALA	2.2
8	CX	5028	GLY	2.2
1	AY	1000	LYS	2.2
1	BI	1080	ASP	2.2
1	Bw	1000	LYS	2.2
6	AF	8027	LYS	2.2
6	BF	8130	LYS	2.2
7	A3	6088	ASP	2.2
7	B3	6077	ASP	2.2
8	AP	5006	LYS	2.2
1	CA	1066	PHE	2.2
4	BL	4059	ARG	2.2
3	Bi	3071	THR	2.2
4	AT	4009	THR	2.2
6	Ad	8022	THR	2.2
6	Bl	8093	THR	2.2
6	CN	8112	THR	2.2
7	Cm	6153	THR	2.2
8	Bv	5021	HIS	2.2
1	Bg	1002	VAL	2.2
3	AK	3025	VAL	2.2
3	Ai	3076	VAL	2.2
4	BL	4056	VAL	2.2
6	BN	8062	VAL	2.2
6	Bd	8020	VAL	2.2
7	CO	6149	TYR	2.2
1	BA	1033	SER	2.2
1	BQ	1058	ILE	2.2
2	Bp	2023	SER	2.2
3	AC	3007	ILE	2.2
3	By	3018	GLN	2.2
3	CK	3017	ILE	2.2
6	At	8094	SER	2.2
6	BV	8204	GLN	2.2

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Mol	Chain	Res	Type	RSRZ
6	Bd	8028	ILE	2.2
7	Ae	6065	SER	2.2
7	Au	6003	ILE	2.2
8	BP	5023	GLN	2.2
8	Bn	5023	GLN	2.2
8	Cv	5013	SER	2.2
3	Ay	3042	LEU	2.2
4	BD	4008	LEU	2.2
6	BF	8160	LEU	2.2
6	Ct	8113	LEU	2.2
7	BO	6002	LEU	2.2
8	Bn	5016	LEU	2.2
1	BA	1040	ALA	2.2
1	CA	1035	ASN	2.2
1	Co	1049	GLU	2.2
3	Aa	3064	MET	2.2
3	CC	3027	MET	2.2
6	BF	8044	GLU	2.2
6	Ct	8008	MET	2.2
2	Ax	2018	ASN	2.2
2	BB	2030	LYS	2.2
2	CB	2051	ALA	2.2
2	CZ	2094	ASN	2.2
2	Ch	2098	ALA	2.2
3	Ba	3069	ASN	2.2
3	By	3058	LYS	2.2
3	CK	3069	ASN	2.2
3	CS	3026	ASN	2.2
3	CS	3058	LYS	2.2
4	BD	4062	ASN	2.2
4	BL	4039	ALA	2.2
4	Bb	4040	ASN	2.2
4	Cb	4040	ASN	2.2
6	BN	8081	ASN	2.2
7	Bm	6151	ALA	2.2
7	CO	6057	LYS	2.2
8	BX	5044	ALA	2.2
1	Aw	1025	GLY	2.2
2	BJ	2006	PRO	2.2
4	Ab	4003	PRO	2.2
4	Bb	4020	GLY	2.2
6	Bl	8018	PRO	2.2

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Mol	Chain	Res	Type	RSRZ
7	Ae	6012	GLY	2.2
7	Cm	6160	PRO	2.2
7	Cu	6025	GLY	2.2
8	A4	5053	GLY	2.2
8	Cn	5001	PRO	2.2
1	CA	1075	ASP	2.2
4	Ar	4060	CYS	2.2
2	CJ	2082	PHE	2.2
3	CS	3036	PHE	2.2
4	Br	4031	ASP	2.2
6	Bl	8103	CYS	2.2
6	Cl	8140	ASP	2.2
6	Ct	8103	CYS	2.2
8	CX	5040	CYS	2.2
6	BN	8150	TRP	2.2
8	Bf	5021	HIS	2.2
2	Ch	2068	THR	2.1
6	Al	8032	THR	2.1
6	Cl	8020	VAL	2.1
6	Ct	8169	THR	2.1
7	AG	6001	VAL	2.1
7	BG	6040	THR	2.1
8	BP	5045	THR	2.1
8	Cf	5055	VAL	2.1
4	BT	4026	TYR	2.1
7	CO	6015	TYR	2.1
2	BB	2097	ILE	2.1
6	B2	8028	ILE	2.1
7	BG	6064	ILE	2.1
8	BP	5052	ILE	2.1
1	Bo	1074	LEU	2.1
1	CA	1001	LEU	2.1
2	AJ	2092	LEU	2.1
3	Bi	3042	LEU	2.1
3	CC	3021	LEU	2.1
3	Ca	3011	LEU	2.1
3	Ci	3012	GLN	2.1
4	Aj	4008	LEU	2.1
4	BL	4008	LEU	2.1
6	A2	8170	LEU	2.1
6	BF	8066	GLN	2.1
6	BV	8198	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
6	CN	8107	GLN	2.1
8	AP	5035	LEU	2.1
8	AH	5026	LEU	2.1
8	A4	5065	LEU	2.1
1	CI	1000	LYS	2.1
2	BJ	2058	MET	2.1
3	Ay	3075	SER	2.1
3	BS	3056	SER	2.1
3	Bq	3053	LYS	2.1
3	By	3052	SER	2.1
4	Cb	4002	LYS	2.1
6	A2	8026	SER	2.1
6	Bl	8008	MET	2.1
6	CN	8212	LYS	2.1
7	Au	6057	LYS	2.1
8	Af	5054	MET	2.1
8	B4	5011	LYS	2.1
8	CX	5033	MET	2.1
8	Cn	5006	LYS	2.1
1	Aw	1011	GLU	2.1
1	Co	1016	GLU	2.1
5	BM	7000	ALA	2.1
1	BI	1069	PRO	2.1
2	BB	2012	ARG	2.1
3	Aq	3014	ARG	2.1
3	Aq	3030	GLU	2.1
6	AF	8186	GLU	2.1
4	AL	4010	GLY	2.1
4	Ab	4007	GLY	2.1
4	BD	4020	GLY	2.1
4	CL	4010	GLY	2.1
5	As	7016	GLY	2.1
8	Cv	5024	GLY	2.1
1	Bg	1047	ASN	2.1
2	BR	2042	ASN	2.1
3	Aq	3026	ASN	2.1
4	AT	4062	ASN	2.1
4	Bz	4040	ASN	2.1
6	Ct	8119	ASN	2.1
8	AP	5051	ASN	2.1
2	AB	2017	PHE	2.1
1	AA	1070	ASP	2.1

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Mol	Chain	Res	Type	RSRZ
2	Bh	2075	ASP	2.1
3	Ay	3032	CYS	2.1
4	Ar	4031	ASP	2.1
6	BN	8017	CYS	2.1
6	Cl	8103	CYS	2.1
8	CX	5030	ASP	2.1
1	Bg	1024	HIS	2.1
1	Bw	1079	VAL	2.1
1	Cg	1013	VAL	2.1
3	AC	3019	VAL	2.1
3	CC	3001	VAL	2.1
7	A3	6028	VAL	2.1
7	A3	6056	TRP	2.1
4	CL	4052	HIS	2.1
6	Cl	8115	HIS	2.1
6	BF	8154	THR	2.1
6	BF	8176	THR	2.1
1	Bo	1027	ILE	2.1
3	Bi	3034	ILE	2.1
7	AW	6003	ILE	2.1
1	Bg	1074	LEU	2.1
1	CQ	1000	LYS	2.1
2	Ax	2043	LYS	2.1
3	Bq	3060	LEU	2.1
4	BT	4064	LEU	2.1
4	CD	4002	LYS	2.1
6	BF	8170	LEU	2.1
6	CV	8141	LEU	2.1
6	Ct	8110	LEU	2.1
7	CO	6076	LEU	2.1
8	Bn	5015	LYS	2.1
8	Bv	5010	LYS	2.1
8	CH	5006	LYS	2.1
3	Ay	3018	GLN	2.1
4	Bb	4037	GLN	2.1
6	At	8204	GLN	2.1
7	Cu	6038	GLN	2.1
8	CP	5054	MET	2.1
2	Ah	2098	ALA	2.1
2	BJ	2098	ALA	2.1
5	BU	7000	ALA	2.1
6	BN	8014	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
1	AQ	1054	GLU	2.1
2	AZ	2000	PRO	2.1
2	Bp	2000	PRO	2.1
3	AS	3048	GLU	2.1
3	Bq	3061	GLY	2.1
3	Cq	3056	SER	2.1
4	Bz	4070	GLU	2.1
5	CE	7016	GLY	2.1
6	A2	8003	GLY	2.1
6	BN	8088	GLY	2.1
6	Ct	8013	GLU	2.1
6	Ct	8056	GLU	2.1
7	CO	6066	SER	2.1
7	CW	6162	SER	2.1
7	Cu	6150	SER	2.1
8	AX	5003	GLU	2.1
8	AX	5018	GLY	2.1
8	CP	5053	GLY	2.1
1	Bg	1004	PHE	2.1
2	BB	2073	ASN	2.1
4	BT	4062	ASN	2.1
6	Al	8048	PHE	2.1
6	At	8209	ASN	2.1
1	Aw	1041	VAL	2.1
1	Aw	1070	ASP	2.1
3	AK	3032	CYS	2.1
6	AN	8021	VAL	2.1
6	Ad	8021	VAL	2.1
6	BV	8144	ASP	2.1
7	BO	6088	ASP	2.1
7	CW	6082	TRP	2.1
8	BP	5030	ASP	2.1
8	CX	5041	VAL	2.1
1	AQ	1056	LEU	2.1
1	CA	1018	LYS	2.1
1	Cg	1074	LEU	2.1
3	Aq	3011	LEU	2.1
3	Ay	3060	LEU	2.1
3	BS	3050	ILE	2.1
3	Ca	3007	ILE	2.1
3	Ca	3072	LEU	2.1
4	AD	4024	LYS	2.1

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Mol	Chain	Res	Type	RSRZ
4	Bj	4038	LEU	2.1
6	Ad	8141	LEU	2.1
6	A2	8137	THR	2.1
6	B2	8035	THR	2.1
7	A3	6041	LEU	2.1
7	B3	6046	THR	2.1
7	Cu	6013	LEU	2.1
8	BX	5025	ILE	2.1
8	Cf	5065	LEU	2.1
3	BC	3040	MET	2.1
4	Az	4034	MET	2.1
8	Av	5054	MET	2.1
4	AT	4037	GLN	2.1
6	AV	8086	GLN	2.1
6	CN	8066	GLN	2.1
7	Cu	6157	ALA	2.1
1	Cg	1025	GLY	2.1
4	AL	4001	PRO	2.1
4	BD	4007	GLY	2.1
4	Bz	4020	GLY	2.1
4	CD	4032	GLY	2.1
6	BF	8018	PRO	2.1
6	CN	8163	GLU	2.1
6	Cl	8101	GLU	2.1
7	Ae	6081	GLU	2.1
7	CG	6130	GLY	2.1
7	CO	6025	GLY	2.1
8	AP	5024	GLY	2.1
8	AH	5003	GLU	2.1
8	BX	5003	GLU	2.1
8	BX	5024	GLY	2.1
8	Bv	5059	GLY	2.1
3	AC	3015	SER	2.1
6	AF	8025	SER	2.1
6	BF	8111	SER	2.1
6	BN	8025	SER	2.1
6	CN	8064	SER	2.1
2	Cp	2041	ASN	2.1
4	Aj	4040	ASN	2.1
1	BY	1030	VAL	2.1
2	Ch	2024	VAL	2.1
3	By	3043	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
5	A1	7001	VAL	2.1
6	Bt	8020	VAL	2.1
7	Ae	6145	VAL	2.1
1	AI	1010	HIS	2.1
1	Bg	1080	ASP	2.1
3	Ba	3051	HIS	2.1
4	BT	4019	TRP	2.1
5	BE	7002	TRP	2.1
6	BN	8159	HIS	2.1
7	Be	6077	ASP	2.1
7	CO	6041	LEU	2.1
7	Cm	6078	HIS	2.1
8	AH	5006	LYS	2.1
1	CA	1077	LEU	2.1
2	Cp	2096	LEU	2.1
3	AC	3011	LEU	2.1
3	CS	3034	ILE	2.1
3	Ca	3006	LEU	2.1
4	Cj	4053	LEU	2.1
5	Cs	7006	LEU	2.1
6	Bt	8199	LEU	2.1
8	AX	5025	ILE	2.1
8	A4	5052	ILE	2.1
8	Bn	5012	LEU	2.1
8	CH	5062	ILE	2.1
8	Cn	5052	ILE	2.1
8	Cv	5014	LEU	2.1
4	CT	4041	THR	2.1
6	Bd	8035	THR	2.1
6	Bl	8200	THR	2.1
8	Bf	5020	ARG	2.1
2	Cp	2058	MET	2.1
4	Ab	4034	MET	2.1
6	Bt	8172	TYR	2.1
4	Az	4039	ALA	2.1
7	Cu	6017	ALA	2.1
8	A4	5067	ALA	2.1
2	Ch	2034	GLN	2.1
4	BD	4037	GLN	2.1
6	AF	8086	GLN	2.1
6	Ct	8183	GLN	2.1
7	BG	6038	GLN	2.1

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Mol	Chain	Res	Type	RSRZ
7	Bm	6058	GLN	2.1
3	BK	3067	GLY	2.1
4	AT	4010	GLY	2.1
6	At	8033	GLY	2.1
2	BB	2006	PRO	2.1
2	CR	2000	PRO	2.1
3	Aq	3008	PHE	2.1
3	CK	3049	GLU	2.1
3	Ca	3030	GLU	2.1
6	AF	8013	GLU	2.1
6	BV	8048	PHE	2.1
6	B2	8013	GLU	2.1
7	Ce	6050	GLU	2.1
8	Af	5066	GLU	2.1
8	Bf	5002	PRO	2.1
8	Bn	5069	GLU	2.1
8	CP	5031	PRO	2.1
2	AJ	2028	SER	2.1
6	Cl	8094	SER	2.1
7	Ae	6165	SER	2.1
1	BA	1079	VAL	2.1
3	By	3019	VAL	2.1
8	Bn	5022	VAL	2.1
1	AA	1047	ASN	2.1
1	CY	1046	LYS	2.1
2	BJ	2044	LYS	2.1
3	Aa	3069	ASN	2.1
3	BK	3058	LYS	2.1
3	Ca	3058	LYS	2.1
4	AT	4035	ASN	2.1
4	BT	4035	ASN	2.1
4	CT	4002	LYS	2.1
6	Ad	8209	ASN	2.1
6	Bl	8015	LYS	2.1
7	A3	6023	LYS	2.1
7	Bm	6018	ASN	2.1
1	BY	1001	LEU	2.1
3	AC	3033	ILE	2.1
3	Aa	3072	LEU	2.1
3	Ai	3017	ILE	2.1
3	Ci	3070	ILE	2.1
3	Cq	3070	ILE	2.1

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Mol	Chain	Res	Type	RSRZ
4	Br	4045	ILE	2.1
6	BF	8073	LEU	2.1
7	BG	6043	TRP	2.1
1	BA	1080	ASP	2.1
1	Bo	1070	ASP	2.1
1	CI	1014	THR	2.1
2	Ah	2033	THR	2.1
2	BB	2039	CYS	2.1
2	Bh	2039	CYS	2.1
2	Bp	2033	THR	2.1
4	AT	4060	CYS	2.1
6	AN	8010	MET	2.1
6	CF	8144	ASP	2.1
7	Cm	6146	ASP	2.1
6	Al	8137	THR	2.1
6	At	8035	THR	2.1
6	Bl	8202	THR	2.1
6	Cd	8032	THR	2.1
7	A3	6040	THR	2.1
8	AP	5043	MET	2.1
8	Af	5045	THR	2.1
8	B4	5064	MET	2.1
4	Bz	4044	TYR	2.1
7	Be	6086	TYR	2.1
4	AT	4039	ALA	2.1
4	BL	4020	GLY	2.1
4	Br	4007	GLY	2.1
2	AB	2008	GLU	2.1
2	Ah	2095	PRO	2.1
2	Bp	2006	PRO	2.1
2	Bp	2021	PRO	2.1
6	Ad	8004	GLU	2.1
6	BN	8101	GLU	2.1
6	CN	8122	GLU	2.1
7	A3	6134	GLU	2.1
7	Be	6131	GLU	2.1
7	Bm	6055	GLU	2.1
8	An	5031	PRO	2.1
2	BB	2029	VAL	2.0
2	Bh	2090	VAL	2.0
3	Aq	3076	VAL	2.0
3	BC	3025	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
3	BC	3043	VAL	2.0
3	Bi	3025	VAL	2.0
4	AD	4028	VAL	2.0
4	Bj	4056	VAL	2.0
4	Bz	4015	VAL	2.0
6	At	8015	LYS	2.0
7	AW	6080	VAL	2.0
1	AY	1033	SER	2.0
2	CB	2002	SER	2.0
2	CB	2079	SER	2.0
3	AS	3052	SER	2.0
3	Ay	3052	SER	2.0
3	BC	3056	SER	2.0
6	BF	8025	SER	2.0
7	Be	6065	SER	2.0
1	Aw	1048	ARG	2.0
1	BA	1061	ASN	2.0
1	BY	1035	ASN	2.0
1	Bo	1045	LEU	2.0
1	CI	1047	ASN	2.0
3	AC	3034	ILE	2.0
3	AS	3062	ARG	2.0
3	Aq	3017	ILE	2.0
3	Aq	3057	ARG	2.0
3	BS	3013	ASN	2.0
3	By	3070	ILE	2.0
3	Ca	3033	ILE	2.0
4	BD	4006	ASN	2.0
4	Bj	4066	ILE	2.0
4	Br	4061	ASN	2.0
4	Br	4062	ASN	2.0
4	Bz	4006	ASN	2.0
4	CL	4008	LEU	2.0
4	Cr	4067	ARG	2.0
6	Ad	8028	ILE	2.0
6	BV	8037	LEU	2.0
6	CF	8119	ASN	2.0
8	Av	5052	ILE	2.0
8	A4	5014	LEU	2.0
8	BX	5068	LEU	2.0
8	CX	5017	ASN	2.0
5	Cs	7002	TRP	2.0

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Mol	Chain	Res	Type	RSRZ
3	BK	3027	MET	2.0
3	BK	3064	MET	2.0
3	Bi	3064	MET	2.0
4	AL	4036	MET	2.0
4	BT	4014	MET	2.0
6	CN	8008	MET	2.0
8	AX	5054	MET	2.0
8	Cv	5000	HIS	2.0
1	AI	1070	ASP	2.0
1	Cg	1012	THR	2.0
2	BZ	2086	ASP	2.0
2	CJ	2068	THR	2.0
3	Ay	3047	ALA	2.0
6	AN	8032	THR	2.0
6	Ad	8144	ASP	2.0
6	Ad	8207	ALA	2.0
6	A2	8144	ASP	2.0
6	BF	8084	TYR	2.0
6	BV	8006	TYR	2.0
6	BV	8095	ASP	2.0
6	Bl	8035	THR	2.0
6	Bt	8210	ASP	2.0
6	CN	8093	THR	2.0
6	Cl	8032	THR	2.0
6	Cl	8154	THR	2.0
7	BG	6161	ASP	2.0
7	Bm	6141	ASP	2.0
7	Bm	6161	ASP	2.0
7	CO	6088	ASP	2.0
7	Ce	6040	THR	2.0
7	Cu	6033	THR	2.0
3	AC	3032	CYS	2.0
3	By	3032	CYS	2.0
6	BF	8017	CYS	2.0
6	BF	8103	CYS	2.0
8	CH	5040	CYS	2.0
1	Cg	1004	PHE	2.0
2	Cp	2082	PHE	2.0
3	AC	3061	GLY	2.0
3	Aq	3031	GLY	2.0
3	Ca	3002	GLN	2.0
4	BD	4068	GLY	2.0

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Mol	Chain	Res	Type	RSRZ
4	Cr	4068	GLY	2.0
6	Al	8086	GLN	2.0
6	Ct	8107	GLN	2.0
8	CH	5001	PRO	2.0
8	CX	5007	PHE	2.0
1	AI	1054	GLU	2.0
1	BA	1007	LYS	2.0
1	CI	1046	LYS	2.0
2	AR	2001	LYS	2.0
2	Ah	2069	GLU	2.0
4	Bz	4016	LYS	2.0
6	AN	8004	GLU	2.0
6	At	8186	GLU	2.0
7	Au	6079	LYS	2.0
7	BO	6027	LYS	2.0
8	AX	5006	LYS	2.0
8	Av	5066	GLU	2.0
1	BI	1023	VAL	2.0
2	CB	2091	VAL	2.0
6	A2	8021	VAL	2.0
1	CI	1059	ARG	2.0
2	Bx	2092	LEU	2.0
4	Br	4053	LEU	2.0
4	Cj	4064	LEU	2.0
6	BN	8147	LEU	2.0
6	Bt	8184	LEU	2.0
6	Cl	8110	LEU	2.0
7	CO	6024	LEU	2.0
1	BY	1009	SER	2.0
1	Bg	1067	ILE	2.0
2	CZ	2002	SER	2.0
3	Ci	3034	ILE	2.0
7	BG	6150	SER	2.0
1	AY	1034	MET	2.0
2	Ah	2042	ASN	2.0
6	At	8034	ASN	2.0
7	AO	6039	ASN	2.0
7	A3	6138	MET	2.0
8	AX	5034	ASN	2.0
3	BC	3051	HIS	2.0
4	CT	4019	TRP	2.0
8	Av	5043	MET	2.0

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Mol	Chain	Res	Type	RSRZ
1	Bo	1076	THR	2.0
2	AR	2098	ALA	2.0
2	Bp	2077	TYR	2.0
4	BT	4023	TYR	2.0
4	Br	4009	THR	2.0
6	Cl	8148	ALA	2.0
8	CH	5044	ALA	2.0
6	A2	8084	TYR	2.0
6	CF	8214	TYR	2.0
1	Ao	1080	ASP	2.0
2	Bh	2086	ASP	2.0
6	BF	8140	ASP	2.0
6	CN	8140	ASP	2.0
8	AP	5038	ASP	2.0
1	Bg	1060	GLY	2.0
1	Bg	1073	PRO	2.0
2	Ah	2050	LYS	2.0
2	BR	2056	CYS	2.0
3	BC	3035	GLY	2.0
4	Br	4020	GLY	2.0
5	A1	7016	GLY	2.0
8	BH	5018	GLY	2.0
3	Aa	3012	GLN	2.0
3	Ai	3074	GLN	2.0
3	Ca	3024	GLN	2.0
3	Ca	3074	GLN	2.0
6	AV	8027	LYS	2.0
6	Cl	8135	PRO	2.0
8	BP	5010	LYS	2.0
8	Bv	5015	LYS	2.0
1	CY	1079	VAL	2.0
4	BD	4070	GLU	2.0
4	Cb	4055	GLU	2.0
6	A2	8001	GLU	2.0
6	Bl	8101	GLU	2.0
7	AG	6010	GLU	2.0
6	CN	8191	ARG	2.0
6	Cl	8189	VAL	2.0
8	An	5003	GLU	2.0
8	Av	5003	GLU	2.0
2	Cp	2084	ARG	2.0
3	Ai	3006	LEU	2.0

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Mol	Chain	Res	Type	RSRZ
3	By	3011	LEU	2.0
4	AD	4027	LEU	2.0
4	Ab	4038	LEU	2.0
6	BN	8114	LEU	2.0
6	Bl	8040	LEU	2.0
6	Cl	8128	LEU	2.0
3	CC	3050	ILE	2.0
4	Ab	4066	ILE	2.0
6	CF	8215	ILE	2.0
7	BG	6142	ILE	2.0
8	CX	5062	ILE	2.0

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

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

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q<0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
9	SO4	Cl	8301	5/5	0.54	0.17	129,131,132,132	0
9	SO4	Ad	8301	5/5	0.56	0.17	137,139,139,140	0
9	SO4	BF	8301	5/5	0.60	0.20	129,129,130,131	0
9	SO4	At	8301	5/5	0.67	0.18	92,93,96,99	0
9	SO4	Bt	8301	5/5	0.69	0.19	111,113,114,115	0
9	SO4	A2	8301	5/5	0.69	0.18	150,150,150,151	0
9	SO4	Bd	8301	5/5	0.74	0.17	108,108,109,112	0
9	SO4	BV	8301	5/5	0.77	0.18	111,113,114,116	0
9	SO4	CF	8301	5/5	0.79	0.15	100,103,104,106	0
9	SO4	B2	8301	5/5	0.82	0.16	97,99,99,103	0

6.5 Other polymers [i](#)

There are no such residues in this entry.