



Full wwPDB EM Validation Report ⓘ

Nov 20, 2022 – 11:11 pm GMT

PDB ID : 4CTF
EMDB ID : EMD-2389
Title : The limits of structural plasticity in a picornavirus capsid revealed by a massively expanded equine rhinitis A virus particle
Authors : Bakker, S.E.; Gropelli, E.; Pearson, A.R.; Stockley, P.G.; Rowlands, D.J.; Ranson, N.A.
Deposited on : 2014-03-13
Resolution : 17.00 Å (reported)
Based on initial model : 2WFF

This is a Full wwPDB EM 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/EMValidationReportHelp>

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:

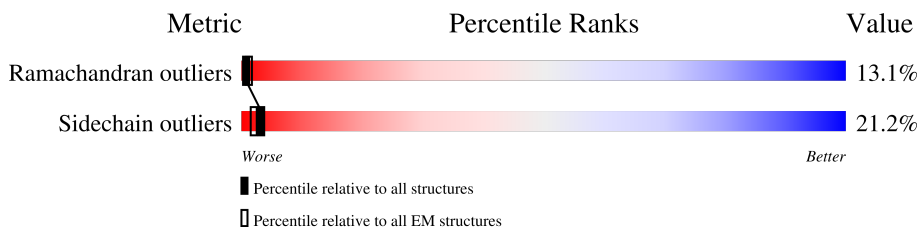
EMDB validation analysis : 0.0.1.dev43
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.31.2

1 Overall quality at a glance

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 17.00 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the 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 EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A0	246	
1	A1	246	
1	A2	246	
1	A3	246	
1	A4	246	
1	A5	246	
1	A6	246	
1	A7	246	
1	A8	246	

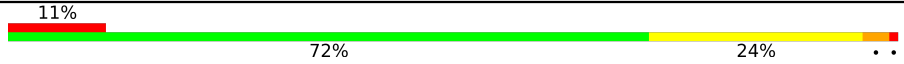

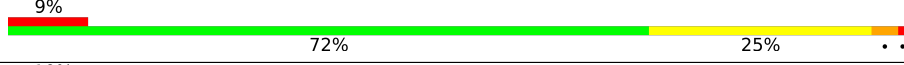

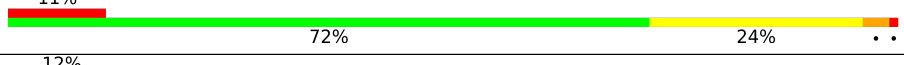
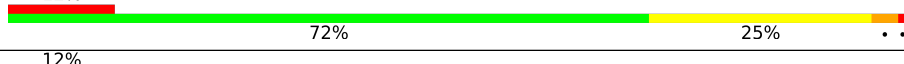
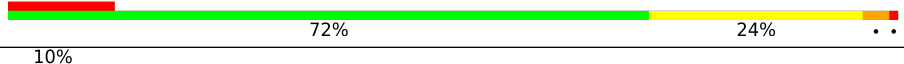

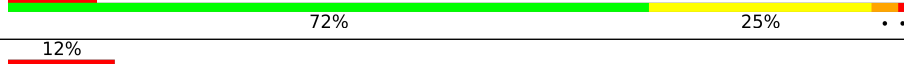


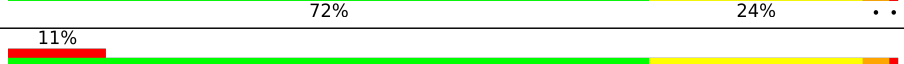
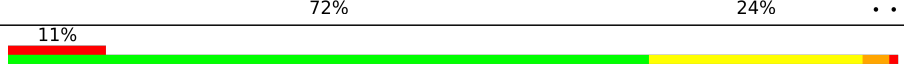
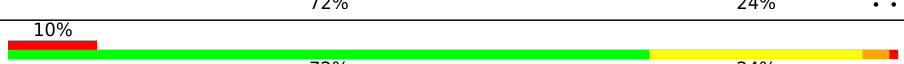

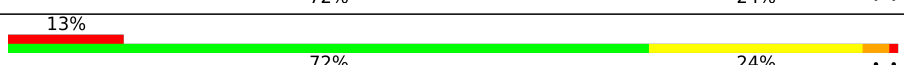
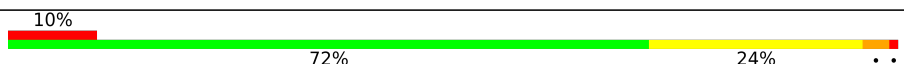
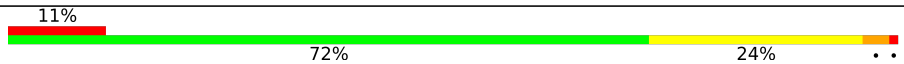
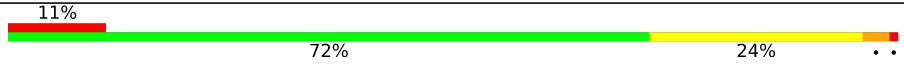


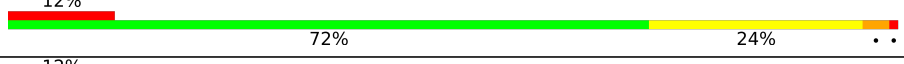
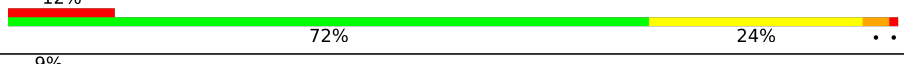


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Mol	Chain	Length	Quality of chain	
1	A9	246	13%	72% 24% ..
1	AA	246	13%	72% 24% ..
1	AB	246	13%	72% 24% ..
1	AC	246	12%	72% 24% ..
1	AD	246	12%	72% 24% ..
1	AE	246	13%	72% 25% ..
1	AF	246	13%	72% 24% ..
1	AG	246	11%	72% 24% ..
1	AH	246	12%	72% 25% ..
1	AI	246	11%	72% 25% ..
1	AJ	246	12%	72% 24% ..
1	AK	246	10%	72% 24% ..
1	AL	246	10%	72% 24% ..
1	AM	246	11%	72% 25% ..
1	AN	246	13%	72% 24% ..
1	AO	246	12%	72% 25% ..
1	AP	246	10%	72% 24% ..
1	AQ	246	10%	72% 24% ..
1	AR	246	11%	72% 24% ..
1	AS	246	12%	72% 24% ..
1	AT	246	11%	72% 25% ..
1	AU	246	11%	72% 24% ..
1	AV	246	12%	72% 24% ..
1	AW	246	11%	72% 24% ..
1	AX	246	11%	72% 24% ..

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Mol	Chain	Length	Quality of chain
1	AY	246	
1	AZ	246	
1	Aa	246	
1	Ab	246	
1	Ac	246	
1	Ad	246	
1	Ae	246	
1	Af	246	
1	Ag	246	
1	Ah	246	
1	Ai	246	
1	Aj	246	
1	Ak	246	
1	Al	246	
1	Am	246	
1	An	246	
1	Ao	246	
1	BA	246	
1	BB	246	
1	BC	246	
1	BD	246	
1	BE	246	
1	BF	246	
1	BG	246	
1	BH	246	

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Mol	Chain	Length	Quality of chain
1	BI	246	
2	C0	230	
2	C1	230	
2	C2	230	
2	C3	230	
2	C4	230	
2	C5	230	
2	C6	230	
2	C7	230	
2	C8	230	
2	C9	230	
2	CA	230	
2	CB	230	
2	CC	230	
2	CD	230	
2	CE	230	
2	CF	230	
2	CG	230	
2	CH	230	
2	CI	230	
2	CJ	230	
2	CK	230	
2	CL	230	
2	CM	230	
2	CN	230	

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Mol	Chain	Length	Quality of chain
2	CO	230	
2	CP	230	
2	CQ	230	
2	CR	230	
2	CS	230	
2	CT	230	
2	CU	230	
2	CV	230	
2	CW	230	
2	CX	230	
2	CY	230	
2	CZ	230	
2	Ca	230	
2	Cb	230	
2	Cc	230	
2	Cd	230	
2	Ce	230	
2	Cf	230	
2	Cg	230	
2	Ch	230	
2	Ci	230	
2	Cj	230	
2	Ck	230	
2	Cl	230	
2	Cm	230	

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Mol	Chain	Length	Quality of chain
2	Cn	230	
2	Co	230	
2	Cp	230	
2	Cq	230	
2	Cr	230	
2	Cs	230	
2	Ct	230	
2	Cu	230	
2	Cv	230	
2	Cw	230	
2	Cx	230	
3	D0	226	
3	D1	226	
3	D2	226	
3	D3	226	
3	D4	226	
3	D5	226	
3	D6	226	
3	D7	226	
3	D8	226	
3	D9	226	
3	DA	226	
3	DB	226	
3	DC	226	
3	DD	226	

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Mol	Chain	Length	Quality of chain		
3	DE	226	15%	69%	29%
3	DF	226	15%	69%	29%
3	DG	226	11%	69%	29%
3	DH	226	12%	69%	29%
3	DI	226	12%	69%	29%
3	DJ	226	15%	69%	29%
3	DK	226	11%	69%	29%
3	DL	226	8%	69%	29%
3	DM	226	8%	69%	29%
3	DN	226	9%	69%	29%
3	DO	226	10%	69%	29%
3	DP	226	10%	69%	29%
3	DQ	226	10%	69%	29%
3	DR	226	9%	70%	28%
3	DS	226	9%	69%	29%
3	DT	226	10%	69%	29%
3	DU	226	10%	69%	29%
3	DV	226	14%	69%	29%
3	DW	226	15%	69%	29%
3	DX	226	10%	69%	29%
3	DY	226	8%	69%	29%
3	DZ	226	8%	69%	29%
3	Da	226	9%	69%	29%
3	Db	226	9%	69%	29%
3	Dc	226	9%	69%	29%





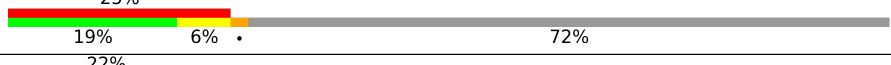

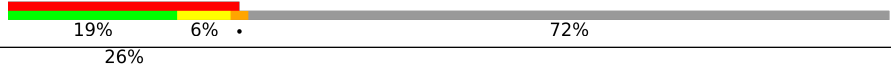







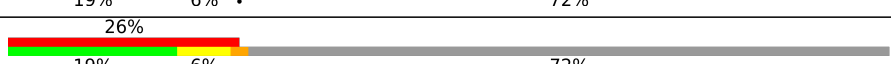


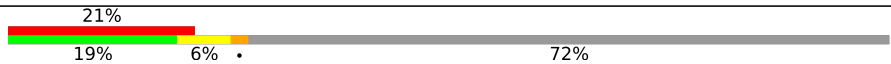







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Mol	Chain	Length	Quality of chain
3	Dd	226	11% 69% 29%
3	De	226	12% 69% 29%
3	Df	226	12% 69% 29%
3	Dg	226	9% 69% 29%
3	Dh	226	9% 69% 29%
3	Di	226	10% 69% 29%
3	Dj	226	8% 70% 28%
3	Dk	226	9% 69% 29%
3	Dl	226	12% 69% 29%
3	Dm	226	11% 69% 29%
3	Dn	226	11% 69% 29%
3	Do	226	8% 69% 29%
3	Dp	226	10% 69% 29%
3	Dq	226	12% 70% 28%
3	Dr	226	10% 69% 29%
3	Ds	226	10% 69% 29%
3	EA	226	12% 69% 29%
3	EB	226	11% 69% 29%
3	EC	226	9% 69% 29%
3	ED	226	9% 69% 29%
3	EE	226	10% 69% 29%
4	F0	80	21% 19% 6% 72%
4	F1	80	22% 19% 6% 72%
4	F2	80	24% 19% 6% 72%
4	F3	80	22% 19% 6% 72%

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Mol	Chain	Length	Quality of chain
4	F4	80	
4	F5	80	
4	F6	80	
4	F7	80	
4	F8	80	
4	F9	80	
4	FA	80	
4	FB	80	
4	FC	80	
4	FD	80	
4	FE	80	
4	FF	80	
4	FG	80	
4	FH	80	
4	FI	80	
4	FJ	80	
4	FK	80	
4	FL	80	
4	FM	80	
4	FN	80	
4	FO	80	
4	FP	80	
4	FQ	80	
4	FR	80	
4	FS	80	







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Mol	Chain	Length	Quality of chain
4	FT	80	 20% 19% 6% 72%
4	FU	80	 24% 19% 6% 72%
4	FV	80	 25% 19% 6% 72%
4	FW	80	 26% 19% 6% 72%
4	FX	80	 25% 19% 6% 72%
4	FY	80	 24% 19% 6% 72%
4	FZ	80	 22% 19% 6% 72%
4	Fa	80	 22% 19% 6% 72%
4	Fb	80	 22% 19% 6% 72%
4	Fc	80	 24% 19% 6% 72%
4	Fd	80	 22% 19% 6% 72%
4	Fe	80	 25% 19% 6% 72%
4	Ff	80	 24% 19% 6% 72%
4	Fg	80	 24% 19% 6% 72%
4	Fh	80	 22% 19% 6% 72%
4	Fi	80	 24% 19% 6% 72%
4	Fj	80	 24% 19% 6% 72%
4	Fk	80	 24% 19% 6% 72%
4	Fl	80	 24% 19% 6% 72%
4	Fm	80	 25% 19% 6% 72%
4	Fn	80	 24% 19% 6% 72%
4	Fo	80	 22% 19% 6% 72%
4	Fp	80	 22% 19% 6% 72%
4	Fq	80	 24% 19% 6% 72%
4	Fr	80	 24% 19% 6% 72%

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Mol	Chain	Length	Quality of chain
4	Fs	80	 22% 19% 6% • 72%
4	Ft	80	 24% 19% 6% • 72%
4	Fu	80	 24% 19% 6% • 72%
4	Fv	80	 24% 19% 6% • 72%
4	Fw	80	 22% 19% 6% • 72%
4	Fx	80	 24% 19% 6% • 72%

2 Entry composition [i](#)

There are 4 unique types of molecules in this entry. The entry contains 321060 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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 VP1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A0	246	1929	1240	329	352	8	0	0
1	A1	246	1929	1240	329	352	8	0	0
1	A2	246	1929	1240	329	352	8	0	0
1	A3	246	1929	1240	329	352	8	0	0
1	A4	246	1929	1240	329	352	8	0	0
1	A5	246	1929	1240	329	352	8	0	0
1	A6	246	1929	1240	329	352	8	0	0
1	A7	246	1929	1240	329	352	8	0	0
1	A8	246	1929	1240	329	352	8	0	0
1	A9	246	1929	1240	329	352	8	0	0
1	AA	246	1929	1240	329	352	8	0	0
1	AB	246	1929	1240	329	352	8	0	0
1	AC	246	1929	1240	329	352	8	0	0
1	AD	246	1929	1240	329	352	8	0	0
1	AE	246	1929	1240	329	352	8	0	0
1	AF	246	1929	1240	329	352	8	0	0
1	AG	246	1929	1240	329	352	8	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	AH	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	AI	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	AJ	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	AK	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	AL	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	AM	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	AN	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	AO	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	AP	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	AQ	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	AR	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	AS	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	AT	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	AU	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	AV	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	AW	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	AX	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	AY	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	AZ	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	Aa	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	Ab	246	Total 1929	C 1240	N 329	O 352	S 8	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	Ac	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	Ad	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	Ae	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	Af	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	Ag	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	Ah	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	Ai	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	Aj	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	Ak	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	Al	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	Am	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	An	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	Ao	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	BA	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	BB	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	BC	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	BD	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	BE	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	BF	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	BG	246	Total 1929	C 1240	N 329	O 352	S 8	0	0
1	BH	246	Total 1929	C 1240	N 329	O 352	S 8	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	BI	246	1929	1240	329	352	8	0	0

- Molecule 2 is a protein called EQUINE RHINITIS A VIRUS.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	C0	198	1537	986	261	286	4	0	0
2	C1	198	1537	986	261	286	4	0	0
2	C2	198	1537	986	261	286	4	0	0
2	C3	198	1537	986	261	286	4	0	0
2	C4	198	1537	986	261	286	4	0	0
2	C5	198	1537	986	261	286	4	0	0
2	C6	198	1537	986	261	286	4	0	0
2	C7	198	1537	986	261	286	4	0	0
2	C8	198	1537	986	261	286	4	0	0
2	C9	198	1537	986	261	286	4	0	0
2	CA	198	1537	986	261	286	4	0	0
2	CB	198	1537	986	261	286	4	0	0
2	CC	198	1537	986	261	286	4	0	0
2	CD	198	1537	986	261	286	4	0	0
2	CE	198	1537	986	261	286	4	0	0
2	CF	198	1537	986	261	286	4	0	0
2	CG	198	1537	986	261	286	4	0	0
2	CH	198	1537	986	261	286	4	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	CI	198	1537	986	261	286	4	0	0
2	CJ	198	1537	986	261	286	4	0	0
2	CK	198	1537	986	261	286	4	0	0
2	CL	198	1537	986	261	286	4	0	0
2	CM	198	1537	986	261	286	4	0	0
2	CN	198	1537	986	261	286	4	0	0
2	CO	198	1537	986	261	286	4	0	0
2	CP	198	1537	986	261	286	4	0	0
2	CQ	198	1537	986	261	286	4	0	0
2	CR	198	1537	986	261	286	4	0	0
2	CS	198	1537	986	261	286	4	0	0
2	CT	198	1537	986	261	286	4	0	0
2	CU	198	1537	986	261	286	4	0	0
2	CV	198	1537	986	261	286	4	0	0
2	CW	198	1537	986	261	286	4	0	0
2	CX	198	1537	986	261	286	4	0	0
2	CY	198	1537	986	261	286	4	0	0
2	CZ	198	1537	986	261	286	4	0	0
2	Ca	198	1537	986	261	286	4	0	0
2	Cb	198	1537	986	261	286	4	0	0
2	Cc	198	1537	986	261	286	4	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	Cd	198	1537	986	261	286	4	0	0
2	Ce	198	1537	986	261	286	4	0	0
2	Cf	198	1537	986	261	286	4	0	0
2	Cg	198	1537	986	261	286	4	0	0
2	Ch	198	1537	986	261	286	4	0	0
2	Ci	198	1537	986	261	286	4	0	0
2	Cj	198	1537	986	261	286	4	0	0
2	Ck	198	1537	986	261	286	4	0	0
2	Cl	198	1537	986	261	286	4	0	0
2	Cm	198	1537	986	261	286	4	0	0
2	Cn	198	1537	986	261	286	4	0	0
2	Co	198	1537	986	261	286	4	0	0
2	Cp	198	1537	986	261	286	4	0	0
2	Cq	198	1537	986	261	286	4	0	0
2	Cr	198	1537	986	261	286	4	0	0
2	Cs	198	1537	986	261	286	4	0	0
2	Ct	198	1537	986	261	286	4	0	0
2	Cu	198	1537	986	261	286	4	0	0
2	Cv	198	1537	986	261	286	4	0	0
2	Cw	198	1537	986	261	286	4	0	0
2	Cx	198	1537	986	261	286	4	0	0

There are 60 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C0	85	SER	GLY	conflict	UNP Q91B42
C1	85	SER	GLY	conflict	UNP Q91B42
C2	85	SER	GLY	conflict	UNP Q91B42
C3	85	SER	GLY	conflict	UNP Q91B42
C4	85	SER	GLY	conflict	UNP Q91B42
C5	85	SER	GLY	conflict	UNP Q91B42
C6	85	SER	GLY	conflict	UNP Q91B42
C7	85	SER	GLY	conflict	UNP Q91B42
C8	85	SER	GLY	conflict	UNP Q91B42
C9	85	SER	GLY	conflict	UNP Q91B42
CA	85	SER	GLY	conflict	UNP Q91B42
CB	85	SER	GLY	conflict	UNP Q91B42
CC	85	SER	GLY	conflict	UNP Q91B42
CD	85	SER	GLY	conflict	UNP Q91B42
CE	85	SER	GLY	conflict	UNP Q91B42
CF	85	SER	GLY	conflict	UNP Q91B42
CG	85	SER	GLY	conflict	UNP Q91B42
CH	85	SER	GLY	conflict	UNP Q91B42
CI	85	SER	GLY	conflict	UNP Q91B42
CJ	85	SER	GLY	conflict	UNP Q91B42
CK	85	SER	GLY	conflict	UNP Q91B42
CL	85	SER	GLY	conflict	UNP Q91B42
CM	85	SER	GLY	conflict	UNP Q91B42
CN	85	SER	GLY	conflict	UNP Q91B42
CO	85	SER	GLY	conflict	UNP Q91B42
CP	85	SER	GLY	conflict	UNP Q91B42
CQ	85	SER	GLY	conflict	UNP Q91B42
CR	85	SER	GLY	conflict	UNP Q91B42
CS	85	SER	GLY	conflict	UNP Q91B42
CT	85	SER	GLY	conflict	UNP Q91B42
CU	85	SER	GLY	conflict	UNP Q91B42
CV	85	SER	GLY	conflict	UNP Q91B42
CW	85	SER	GLY	conflict	UNP Q91B42
CX	85	SER	GLY	conflict	UNP Q91B42
CY	85	SER	GLY	conflict	UNP Q91B42
CZ	85	SER	GLY	conflict	UNP Q91B42
Ca	85	SER	GLY	conflict	UNP Q91B42
Cb	85	SER	GLY	conflict	UNP Q91B42
Cc	85	SER	GLY	conflict	UNP Q91B42
Cd	85	SER	GLY	conflict	UNP Q91B42
Ce	85	SER	GLY	conflict	UNP Q91B42
Cf	85	SER	GLY	conflict	UNP Q91B42

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Chain	Residue	Modelled	Actual	Comment	Reference
Cg	85	SER	GLY	conflict	UNP Q91B42
Ch	85	SER	GLY	conflict	UNP Q91B42
Ci	85	SER	GLY	conflict	UNP Q91B42
Cj	85	SER	GLY	conflict	UNP Q91B42
Ck	85	SER	GLY	conflict	UNP Q91B42
Cl	85	SER	GLY	conflict	UNP Q91B42
Cm	85	SER	GLY	conflict	UNP Q91B42
Cn	85	SER	GLY	conflict	UNP Q91B42
Co	85	SER	GLY	conflict	UNP Q91B42
Cp	85	SER	GLY	conflict	UNP Q91B42
Cq	85	SER	GLY	conflict	UNP Q91B42
Cr	85	SER	GLY	conflict	UNP Q91B42
Cs	85	SER	GLY	conflict	UNP Q91B42
Ct	85	SER	GLY	conflict	UNP Q91B42
Cu	85	SER	GLY	conflict	UNP Q91B42
Cv	85	SER	GLY	conflict	UNP Q91B42
Cw	85	SER	GLY	conflict	UNP Q91B42
Cx	85	SER	GLY	conflict	UNP Q91B42

- Molecule 3 is a protein called P1.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	D0	226	Total	C	N	O	S	0	0
			1719	1107	280	326	6		
3	D1	226	Total	C	N	O	S	0	0
			1719	1107	280	326	6		
3	D2	226	Total	C	N	O	S	0	0
			1719	1107	280	326	6		
3	D3	226	Total	C	N	O	S	0	0
			1719	1107	280	326	6		
3	D4	226	Total	C	N	O	S	0	0
			1719	1107	280	326	6		
3	D5	226	Total	C	N	O	S	0	0
			1719	1107	280	326	6		
3	D6	226	Total	C	N	O	S	0	0
			1719	1107	280	326	6		
3	D7	226	Total	C	N	O	S	0	0
			1719	1107	280	326	6		
3	D8	226	Total	C	N	O	S	0	0
			1719	1107	280	326	6		
3	D9	226	Total	C	N	O	S	0	0
			1719	1107	280	326	6		

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	DA	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DB	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DC	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DD	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DE	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DF	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DG	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DH	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DI	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DJ	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DK	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DL	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DM	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DN	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DO	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DP	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DQ	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DR	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DS	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DT	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DU	226	Total 1719	C 1107	N 280	O 326	S 6	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	DV	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DW	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DX	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DY	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	DZ	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	Da	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	Db	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	Dc	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	Dd	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	De	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	Df	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	Dg	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	Dh	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	Di	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	Dj	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	Dk	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	Dl	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	Dm	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	Dn	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	Do	226	Total 1719	C 1107	N 280	O 326	S 6	0	0
3	Dp	226	Total 1719	C 1107	N 280	O 326	S 6	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
3	Dq	226	Total	C	N	O	S	0	0
			1719	1107	280	326	6		
3	Dr	226	Total	C	N	O	S	0	0
			1719	1107	280	326	6		
3	Ds	226	Total	C	N	O	S	0	0
			1719	1107	280	326	6		
3	EA	226	Total	C	N	O	S	0	0
			1719	1107	280	326	6		
3	EB	226	Total	C	N	O	S	0	0
			1719	1107	280	326	6		
3	EC	226	Total	C	N	O	S	0	0
			1719	1107	280	326	6		
3	ED	226	Total	C	N	O	S	0	0
			1719	1107	280	326	6		
3	EE	226	Total	C	N	O	S	0	0
			1719	1107	280	326	6		

- Molecule 4 is a protein called P1.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	F0	22	Total	C	N	O	S	0	1
			166	101	29	35	1		
4	F1	22	Total	C	N	O	S	0	1
			166	101	29	35	1		
4	F2	22	Total	C	N	O	S	0	1
			166	101	29	35	1		
4	F3	22	Total	C	N	O	S	0	1
			166	101	29	35	1		
4	F4	22	Total	C	N	O	S	0	1
			166	101	29	35	1		
4	F5	22	Total	C	N	O	S	0	1
			166	101	29	35	1		
4	F6	22	Total	C	N	O	S	0	1
			166	101	29	35	1		
4	F7	22	Total	C	N	O	S	0	1
			166	101	29	35	1		
4	F8	22	Total	C	N	O	S	0	1
			166	101	29	35	1		
4	F9	22	Total	C	N	O	S	0	1
			166	101	29	35	1		
4	FA	22	Total	C	N	O	S	0	1
			166	101	29	35	1		

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	FB	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FC	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FD	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FE	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FF	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FG	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FH	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FI	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FJ	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FK	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FL	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FM	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FN	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FO	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FP	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FQ	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FR	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FS	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FT	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FU	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FV	22	Total 166	C 101	N 29	O 35	S 1	0	1

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	FW	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FX	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FY	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	FZ	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Fa	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Fb	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Fc	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Fd	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Fe	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Ff	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Fg	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Fh	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Fi	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Fj	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Fk	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Fl	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Fm	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Fn	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Fo	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Fp	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Fq	22	Total 166	C 101	N 29	O 35	S 1	0	1

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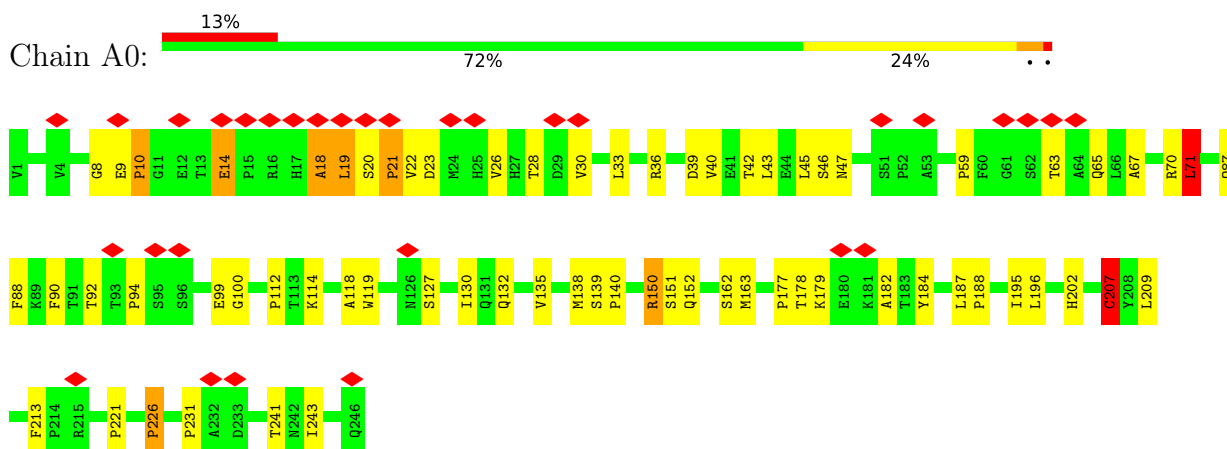
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Mol	Chain	Residues	Atoms					AltConf	Trace
4	Fr	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Fs	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Ft	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Fu	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Fv	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Fw	22	Total 166	C 101	N 29	O 35	S 1	0	1
4	Fx	22	Total 166	C 101	N 29	O 35	S 1	0	1

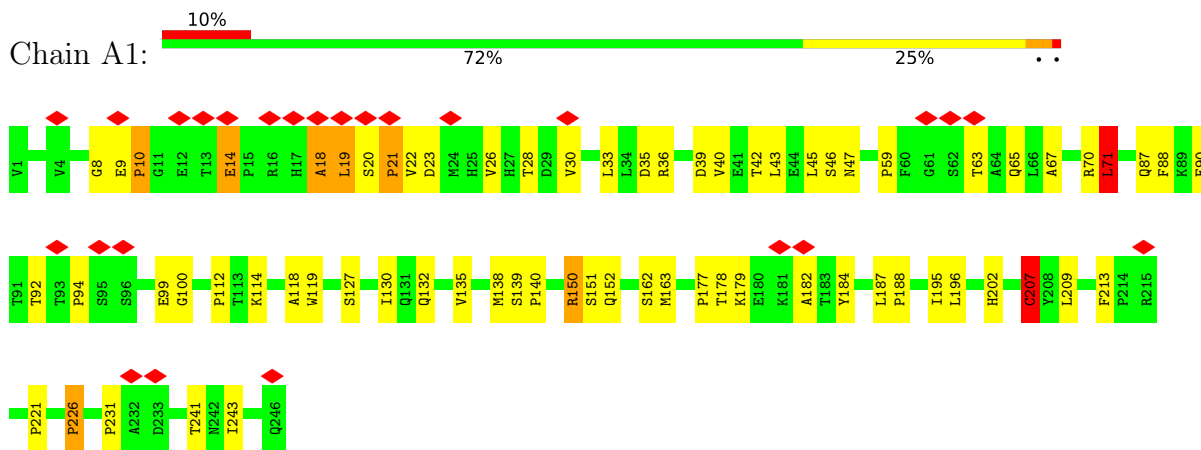
3 Residue-property plots [i](#)

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 atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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.

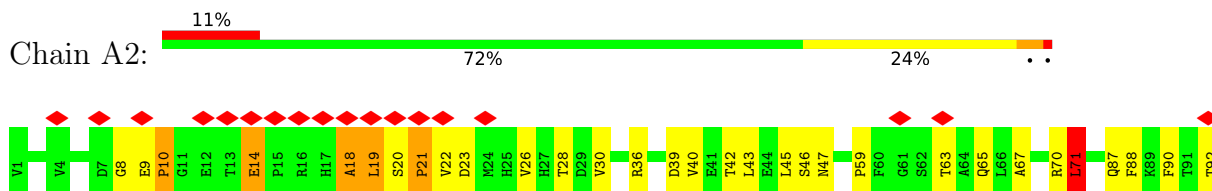
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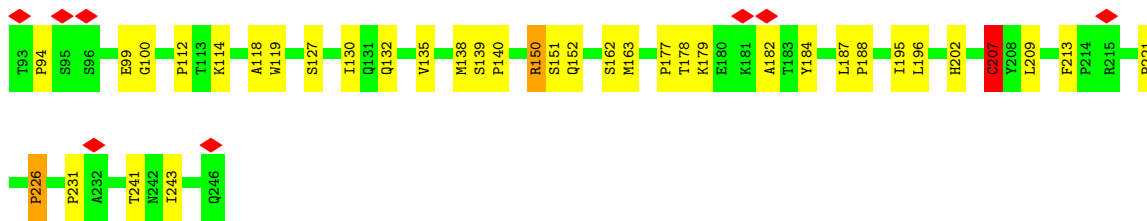


- Molecule 1: VP1

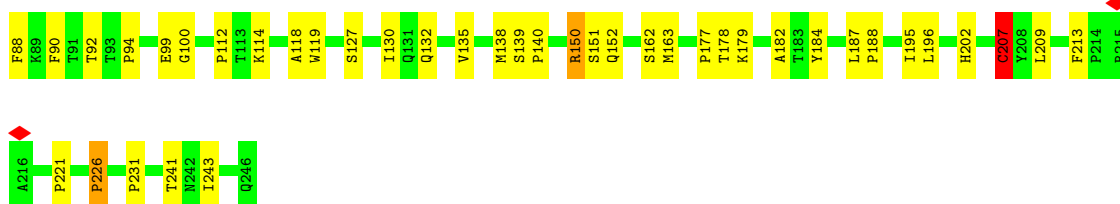
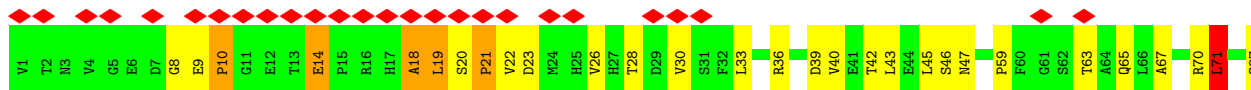
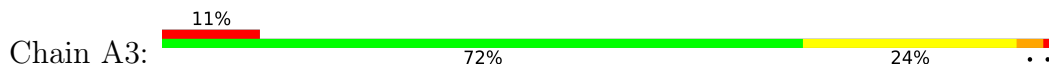


- Molecule 1: VP1

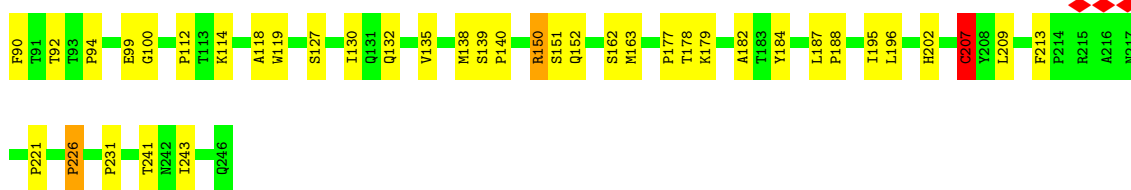
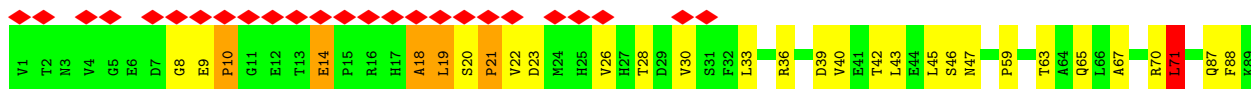




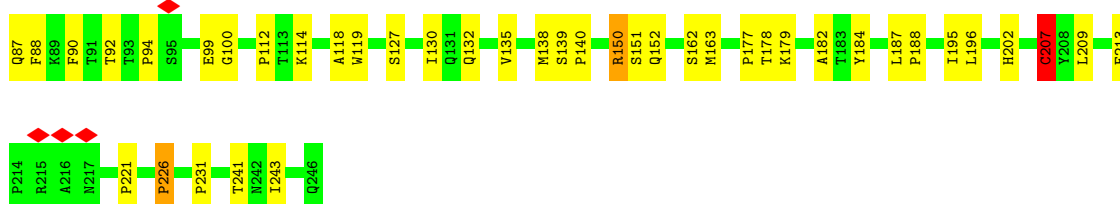
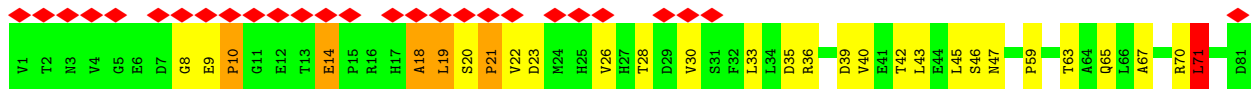
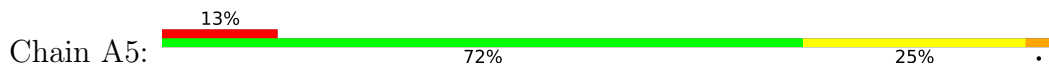
• Molecule 1: VP1



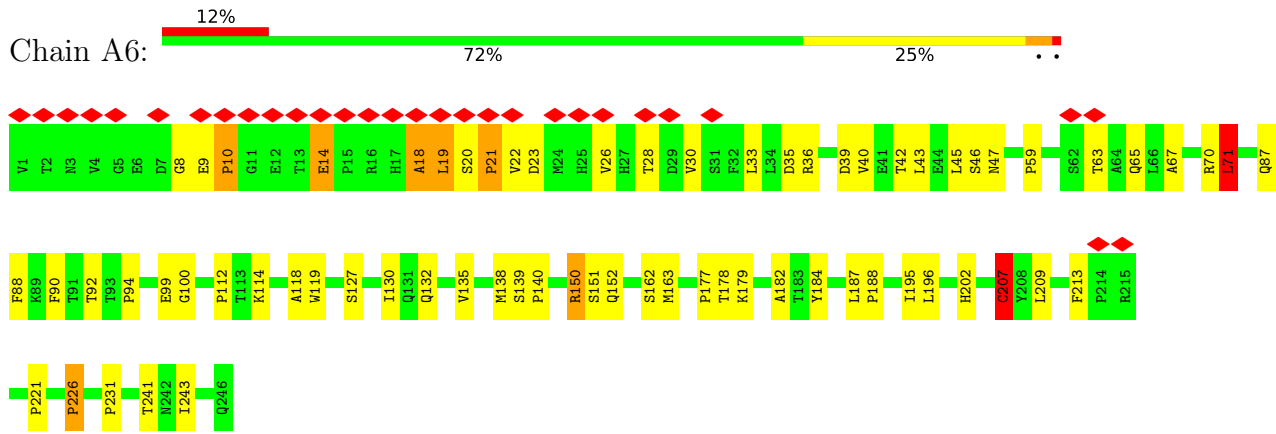
• Molecule 1: VP1



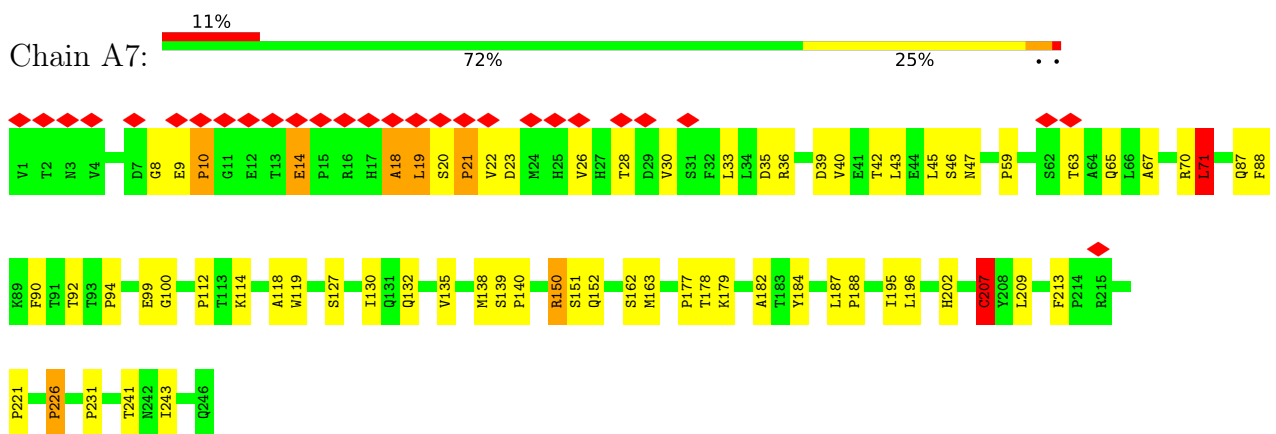
• Molecule 1: VP1



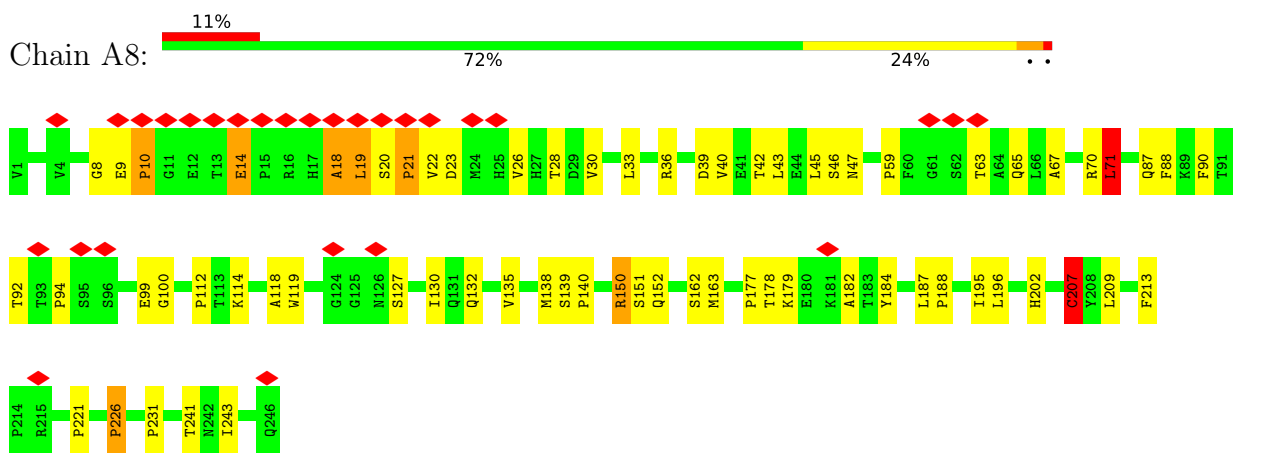
• Molecule 1: VP1



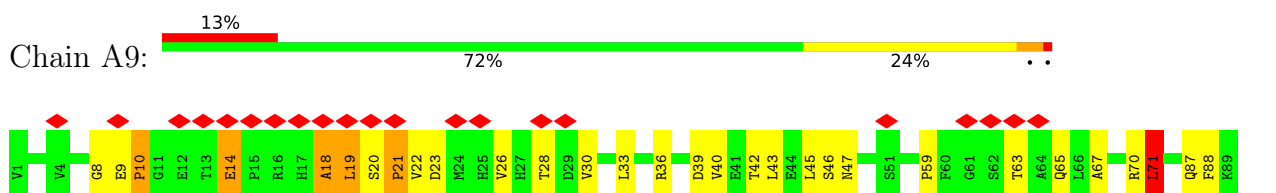
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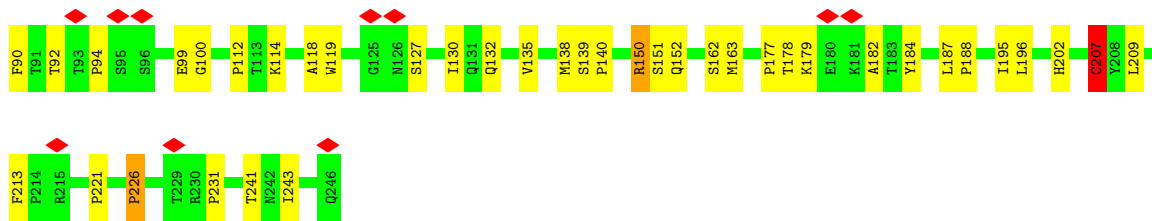


• Molecule 1: VP1

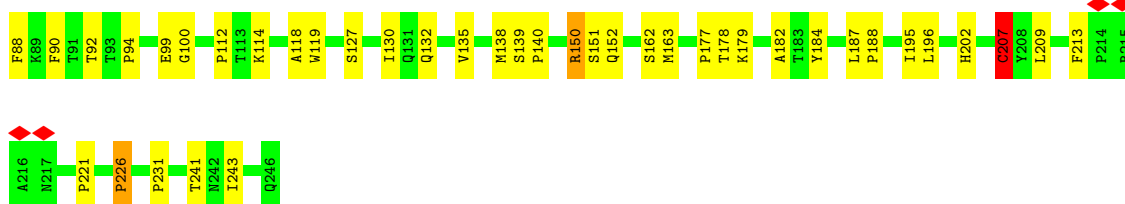
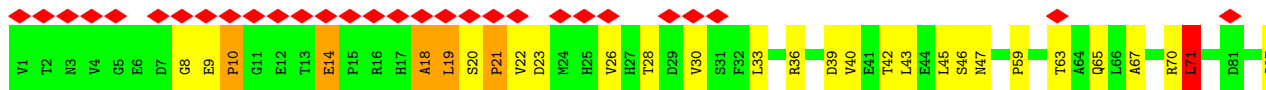
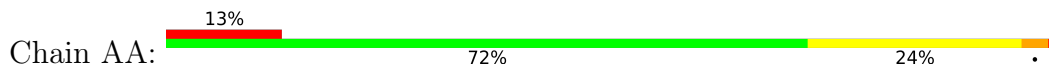


• Molecule 1: VP1

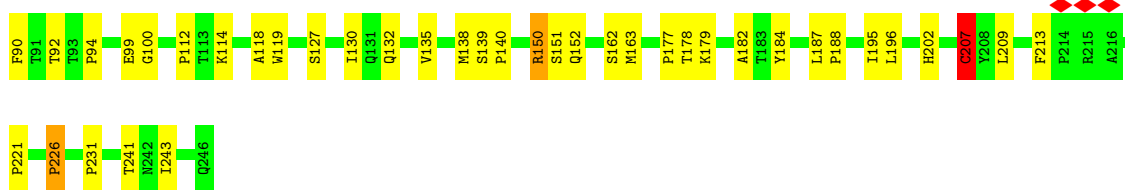
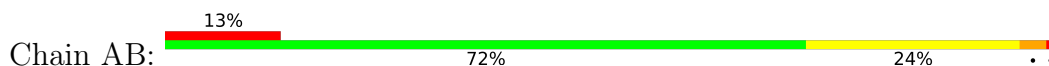




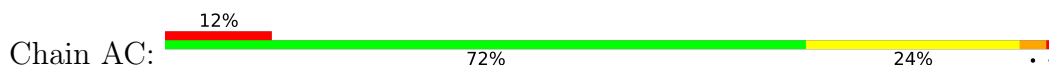
• Molecule 1: VP1



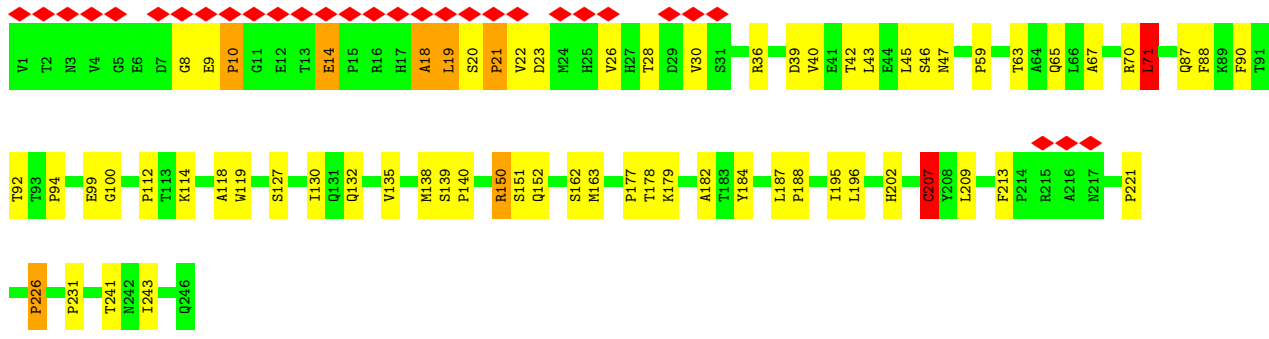
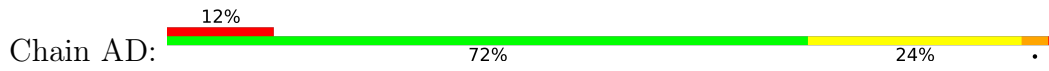
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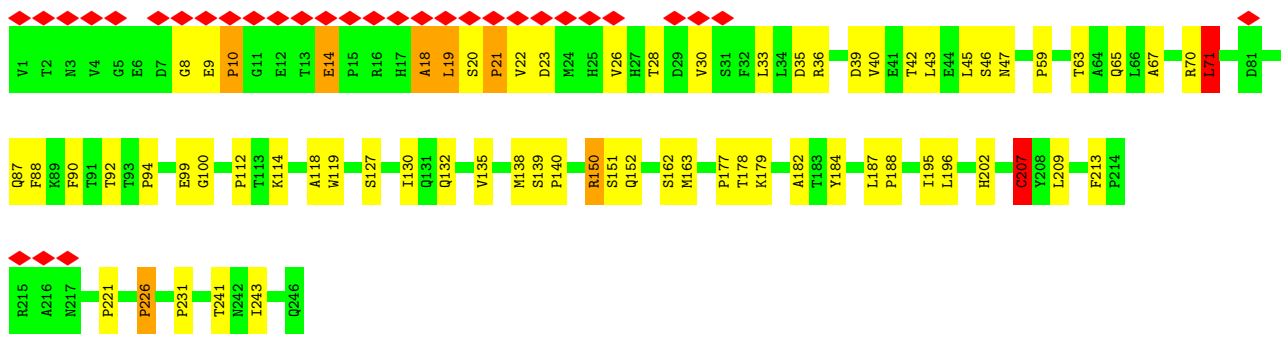
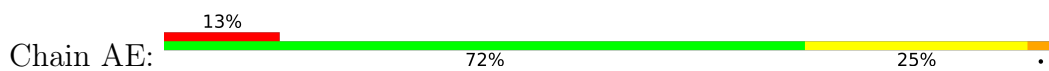
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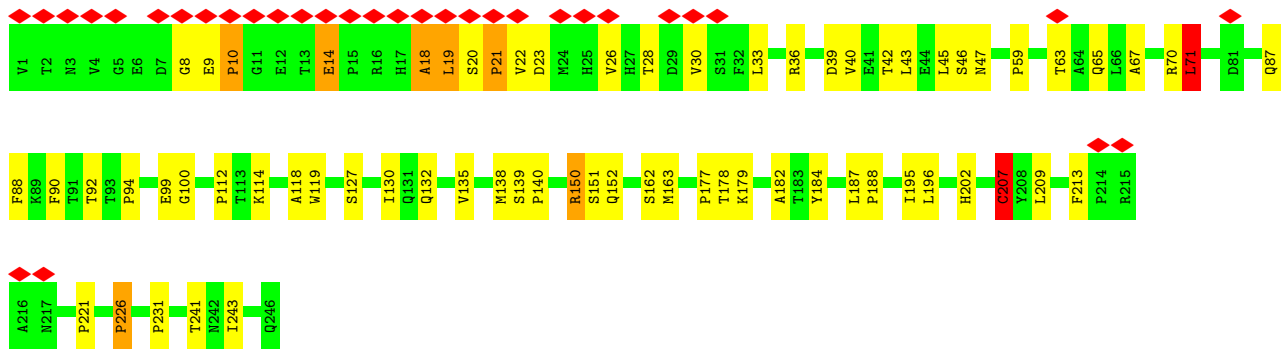
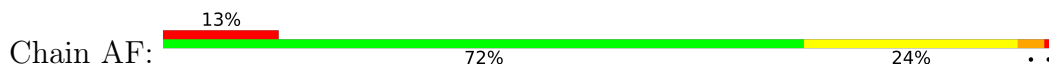
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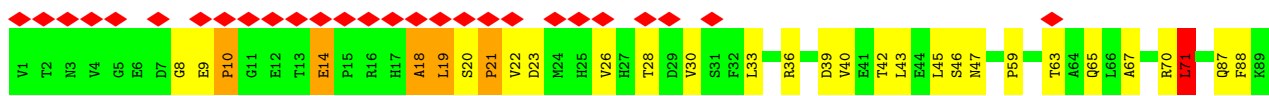
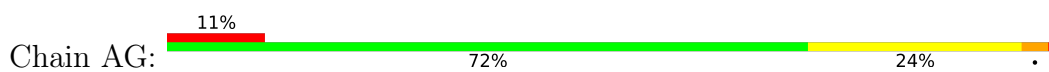
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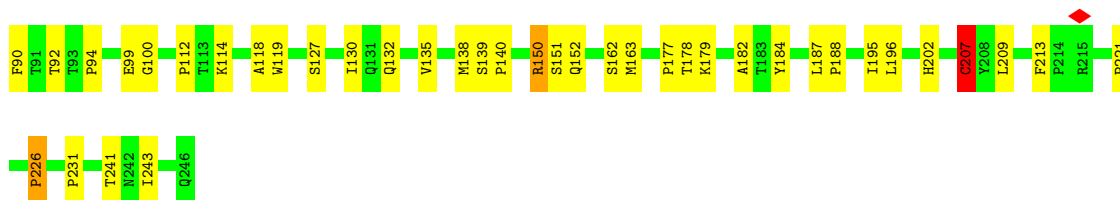


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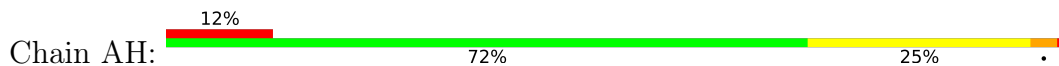


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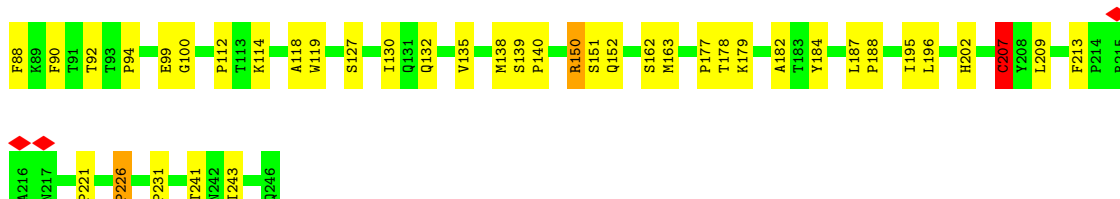
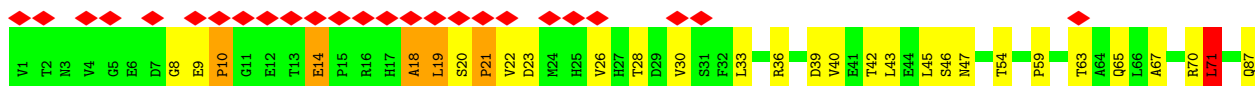




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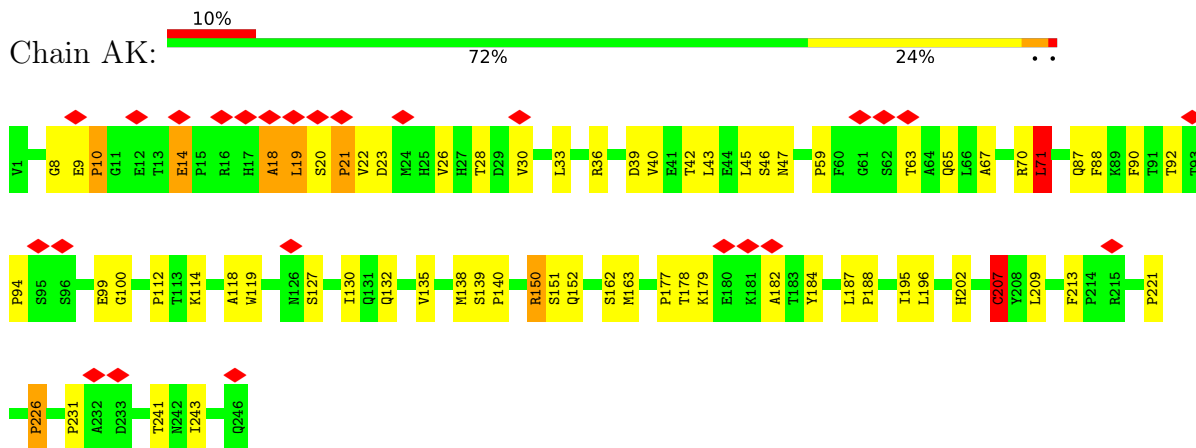
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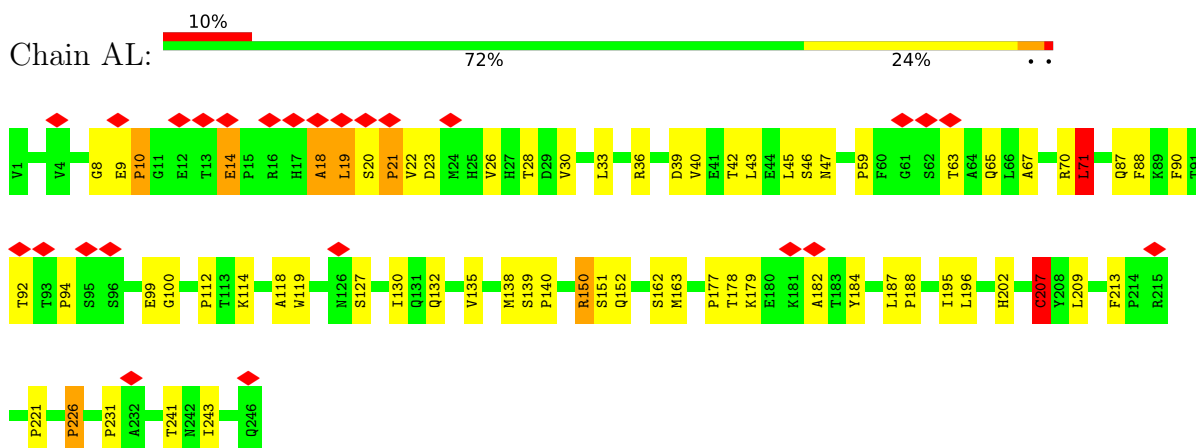
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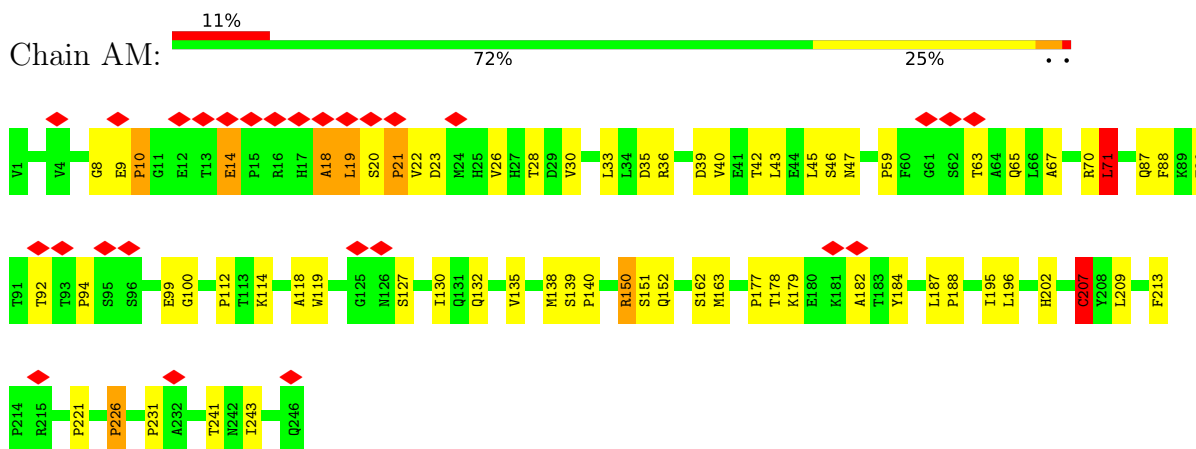
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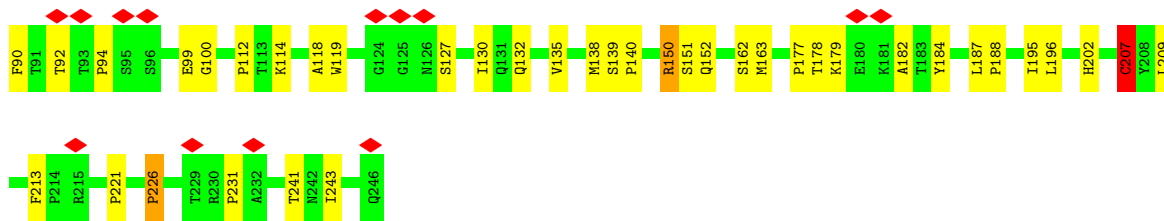


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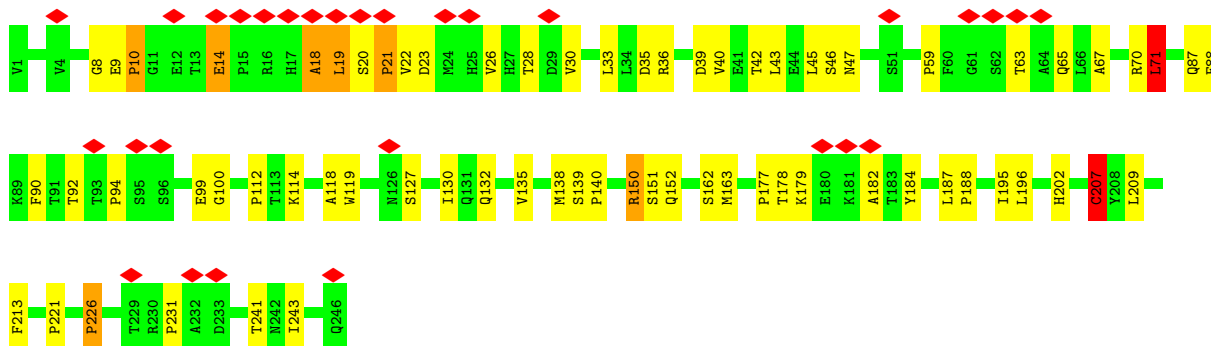
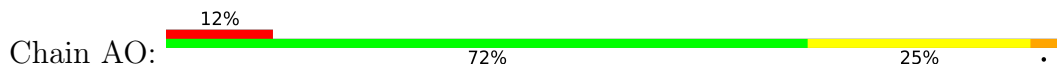


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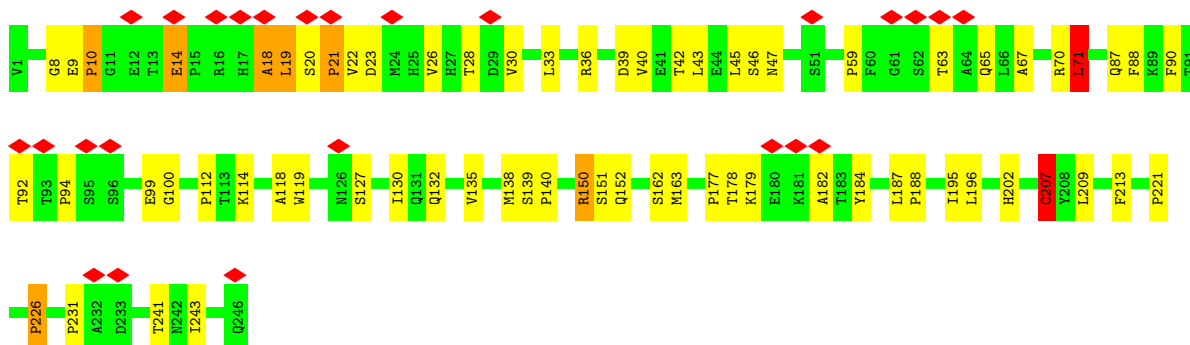
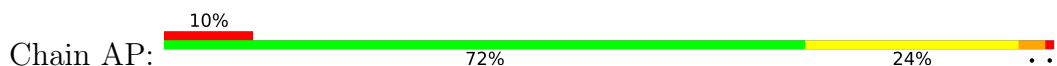




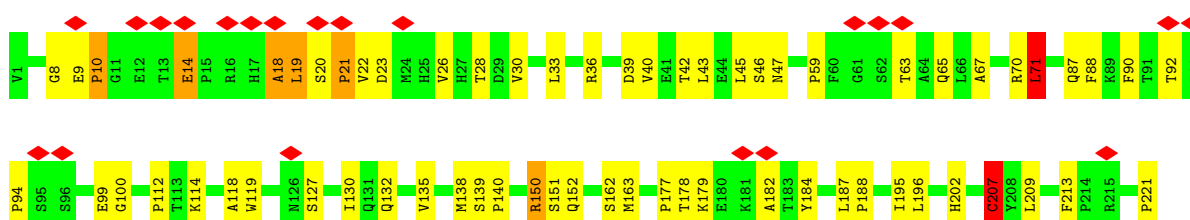
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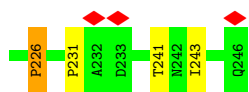


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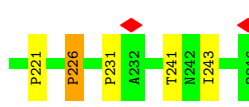
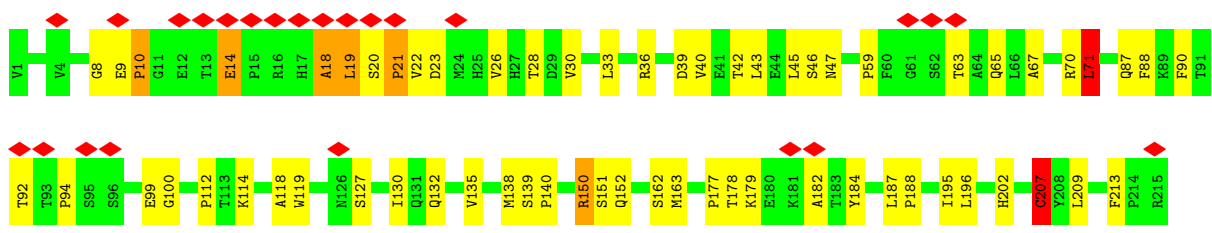
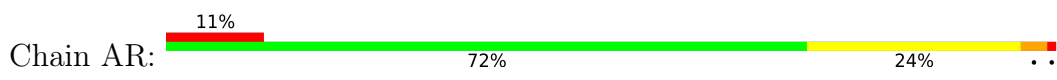


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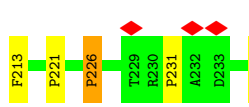
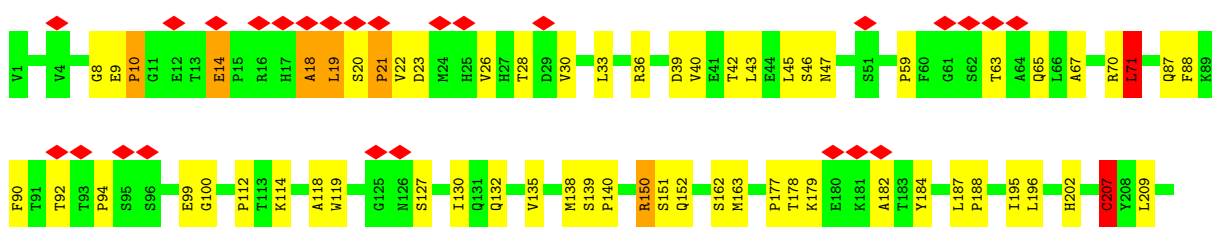
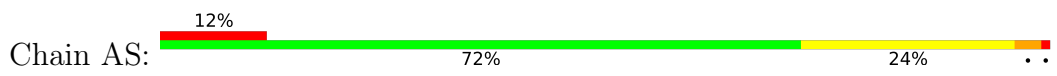




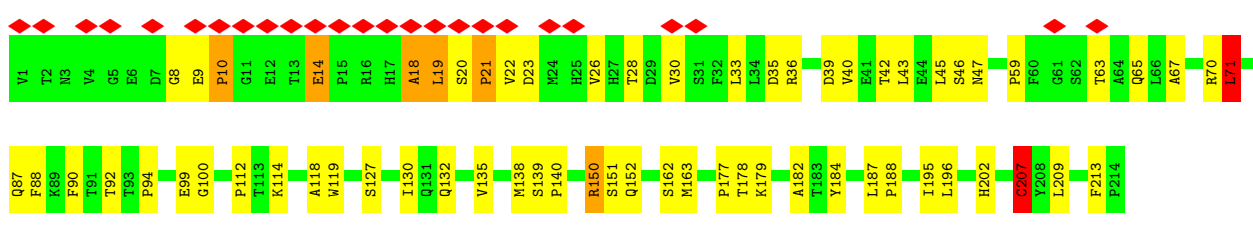
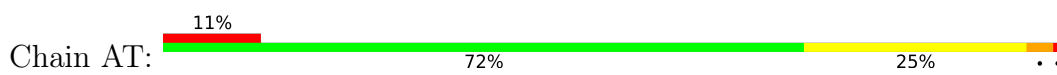
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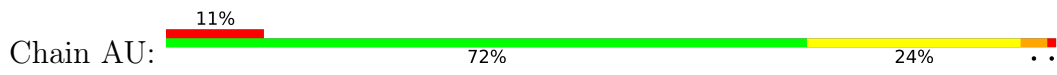
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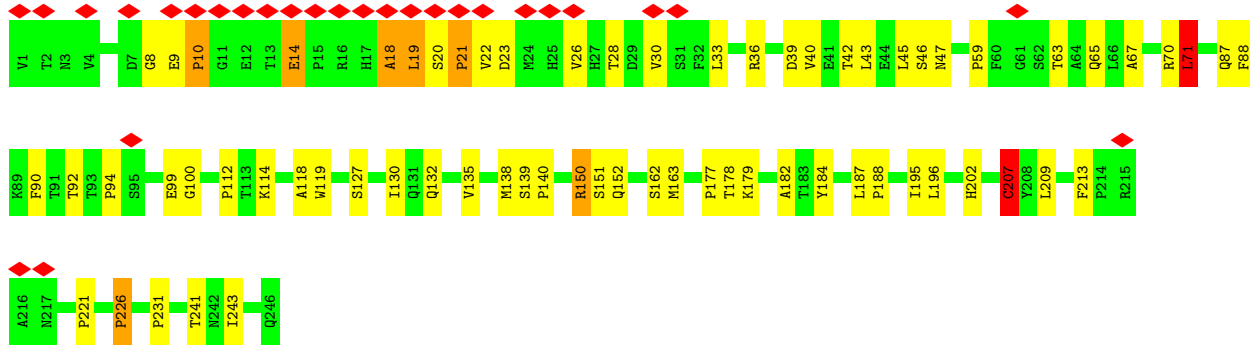


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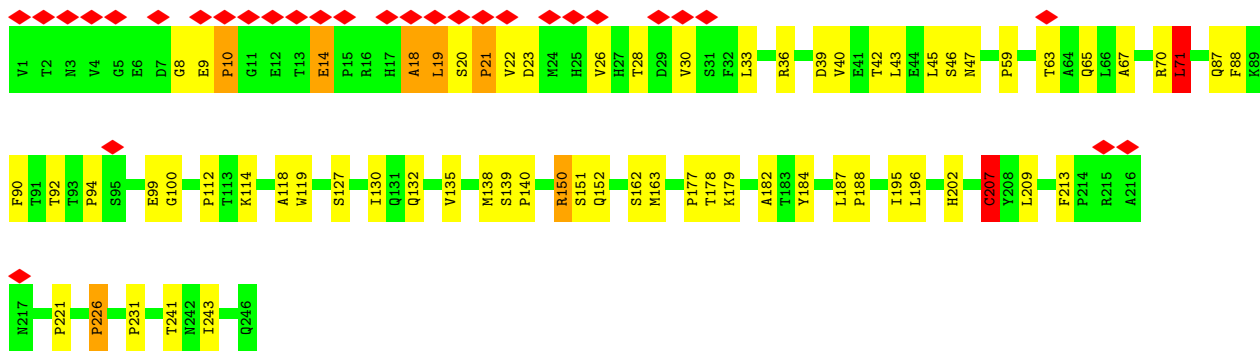
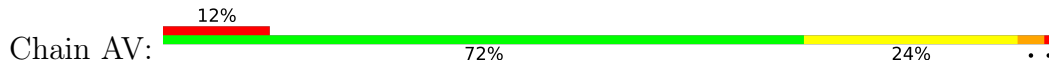


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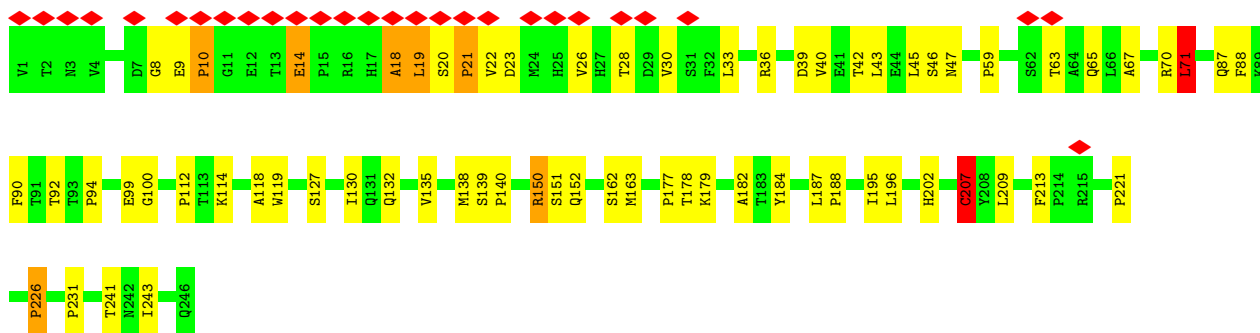
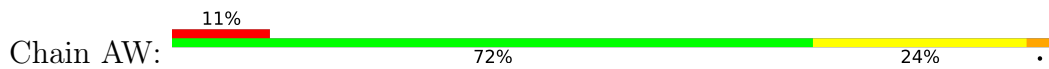




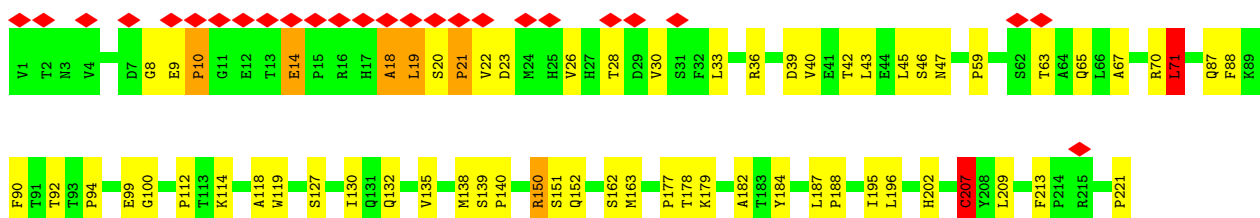
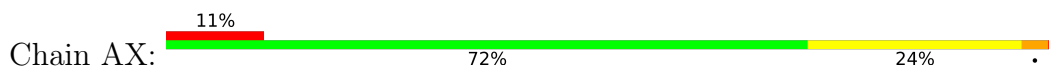
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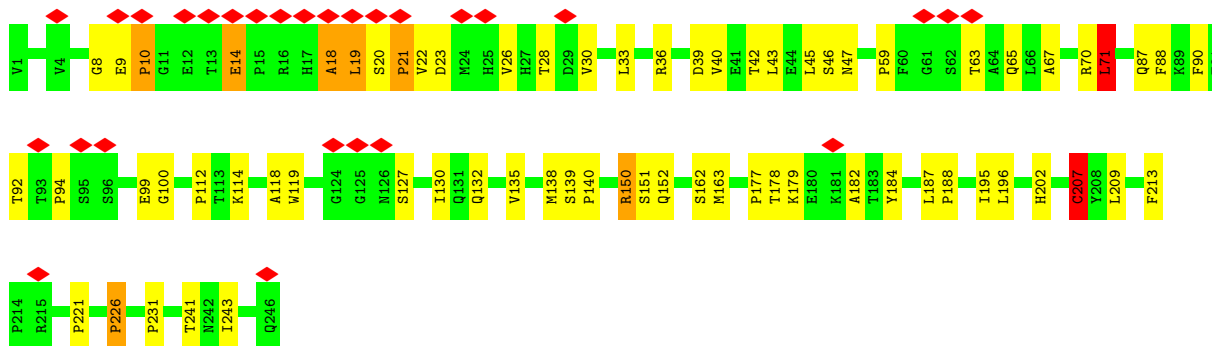
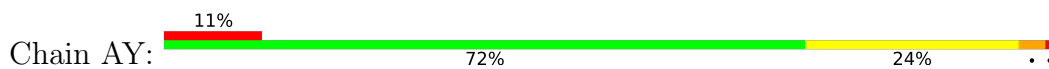


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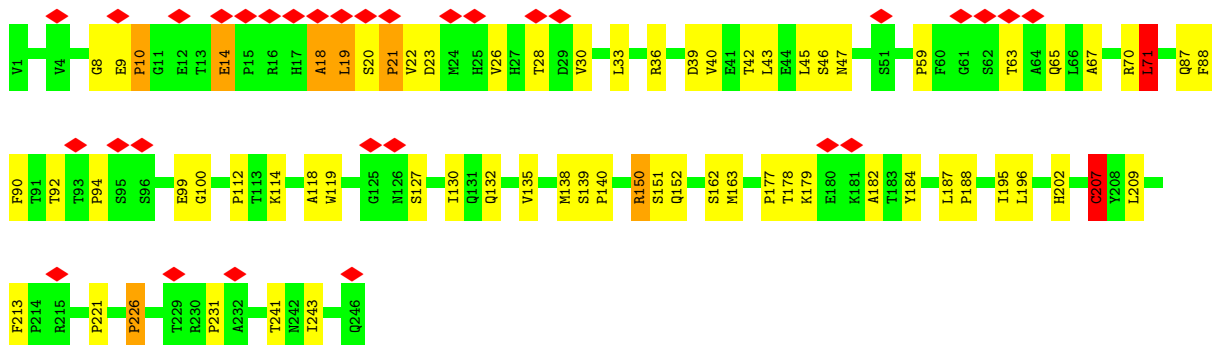
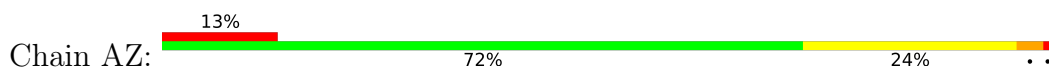




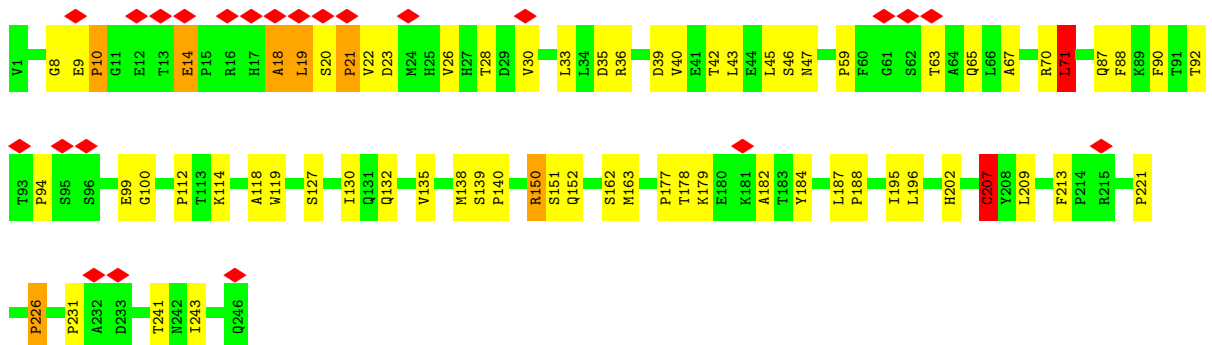
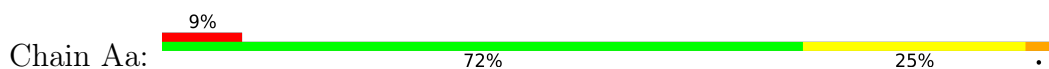
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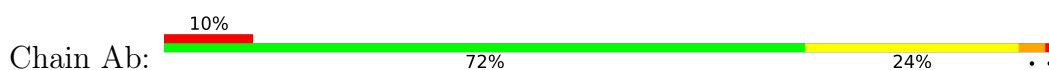
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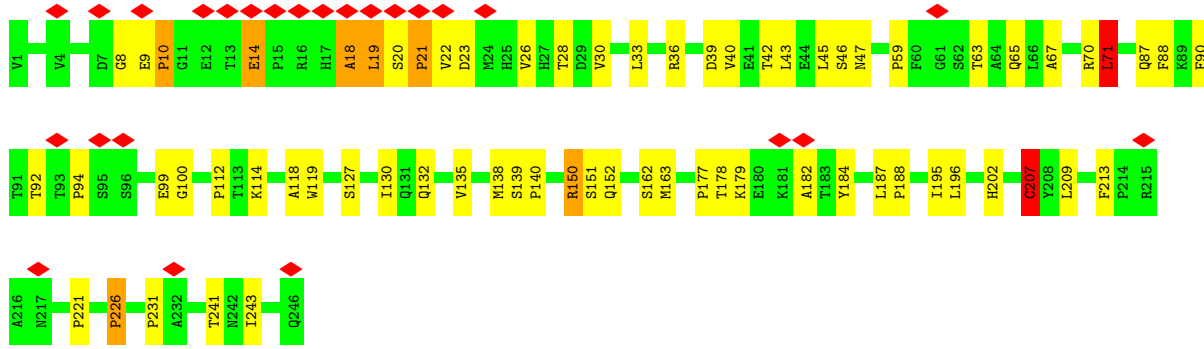


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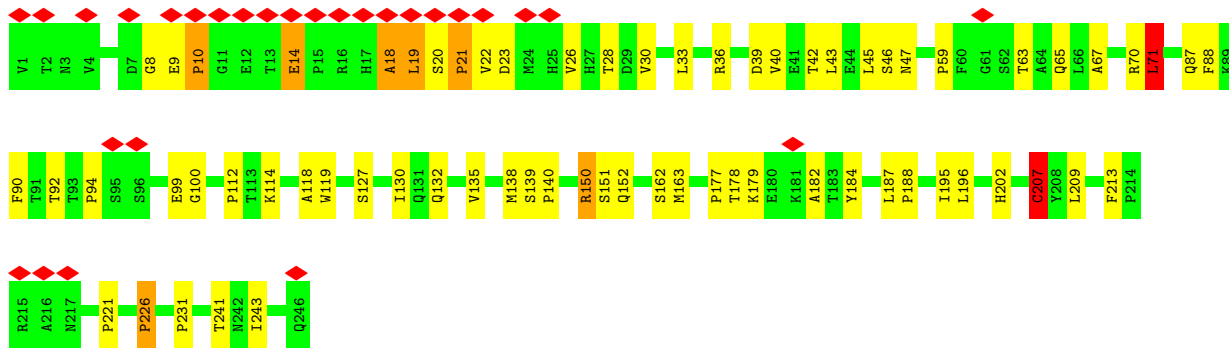
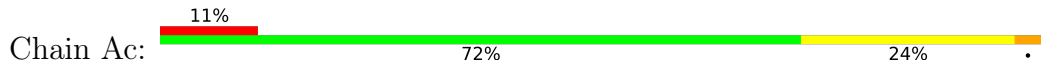


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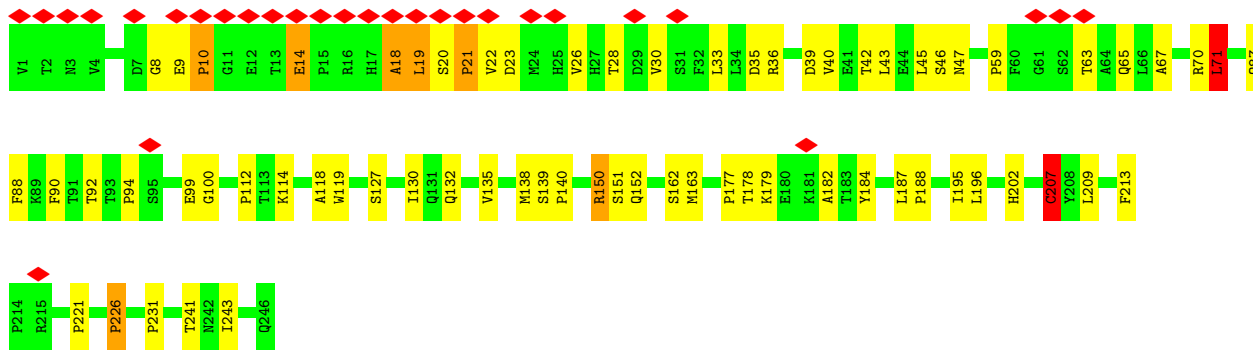
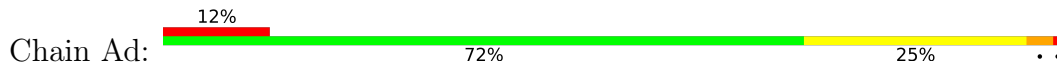




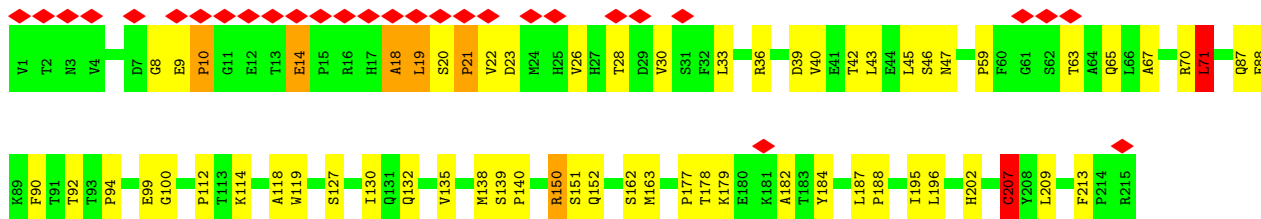
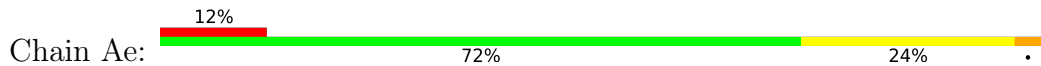
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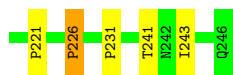
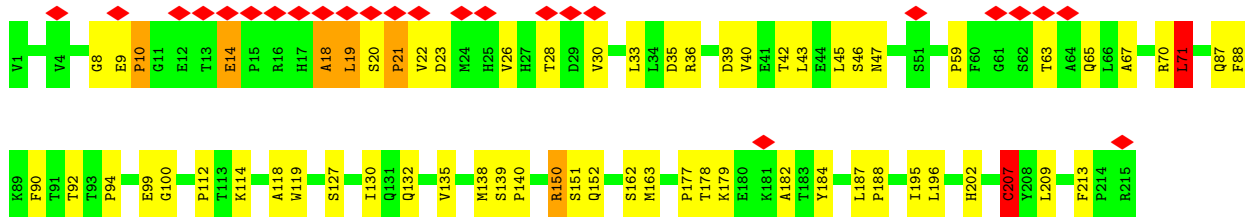
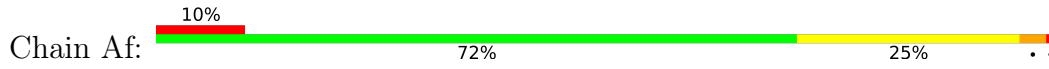


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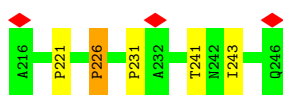
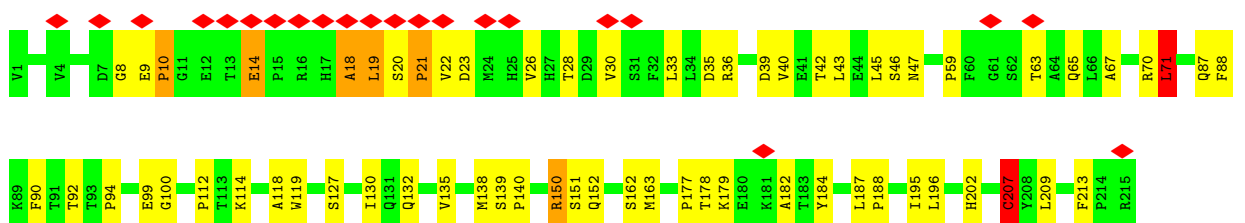
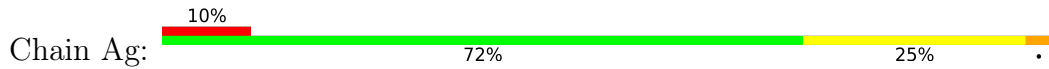




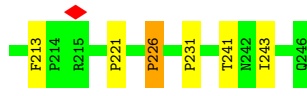
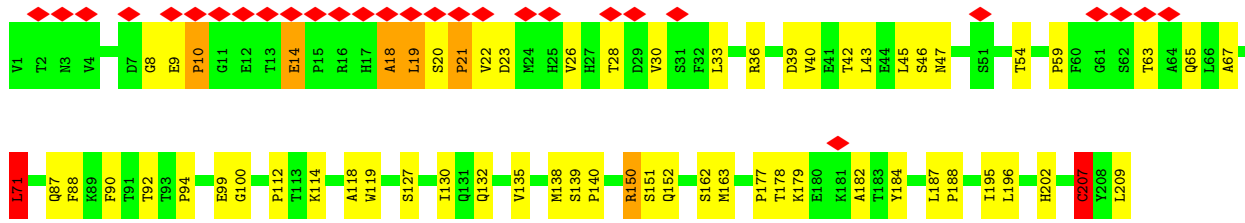
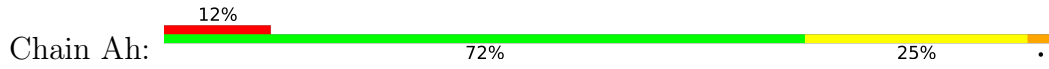
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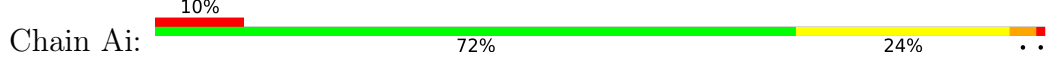
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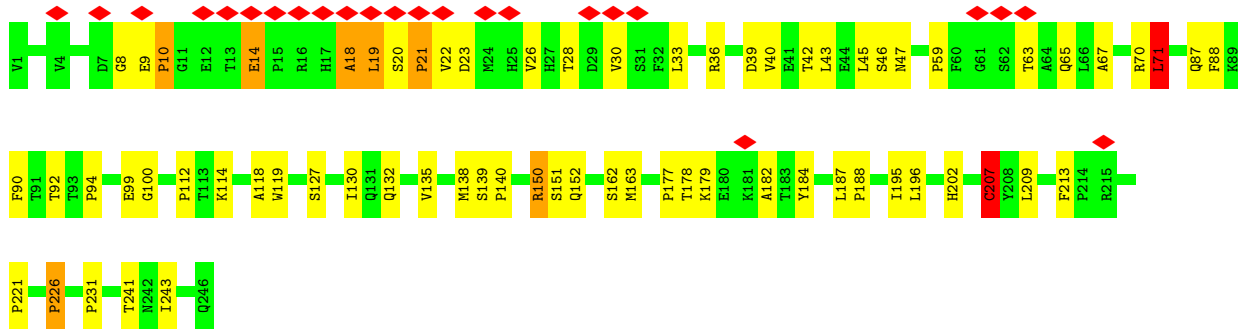


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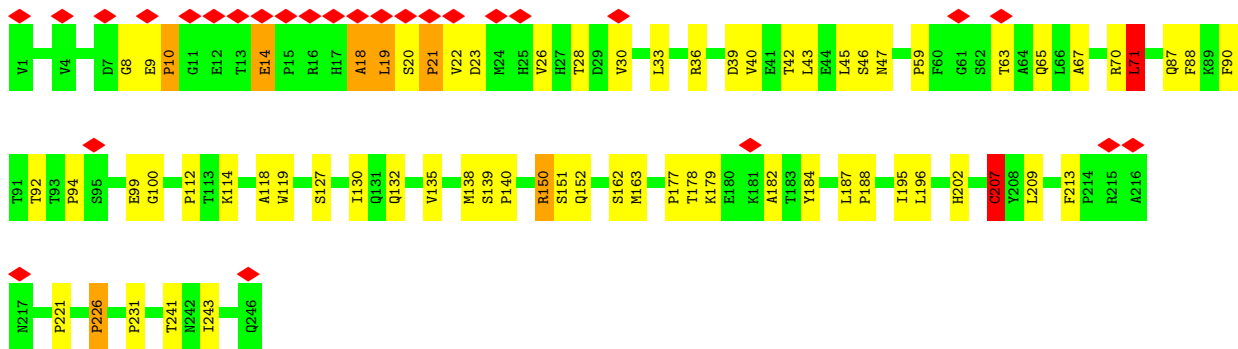
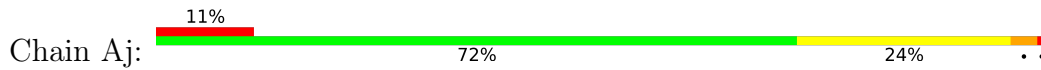


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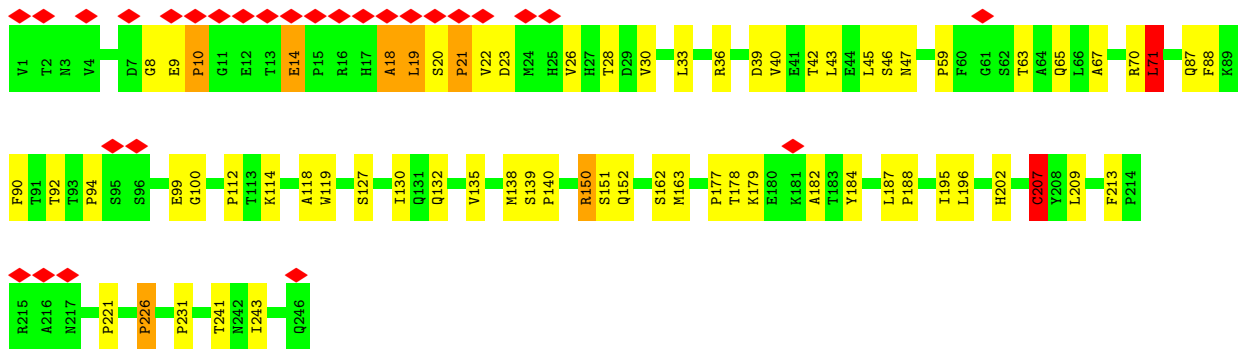
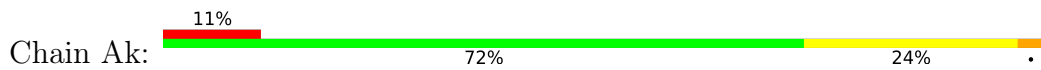




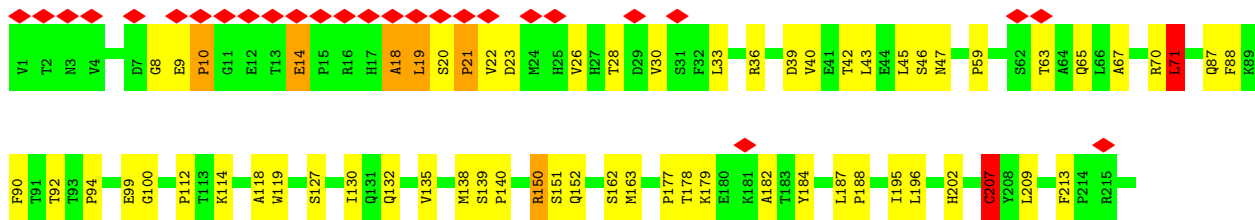
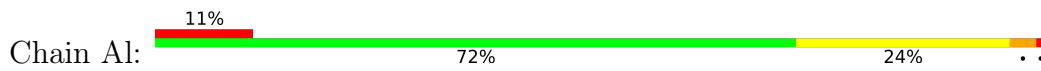
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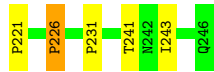


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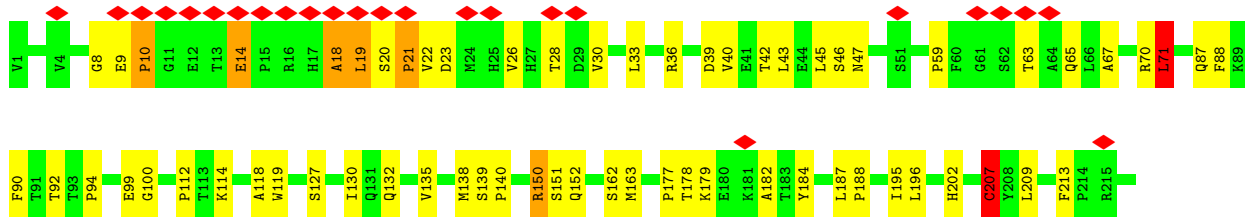
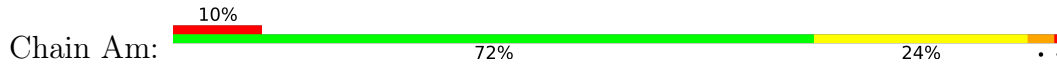


• Molecule 1: VP1

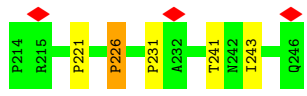
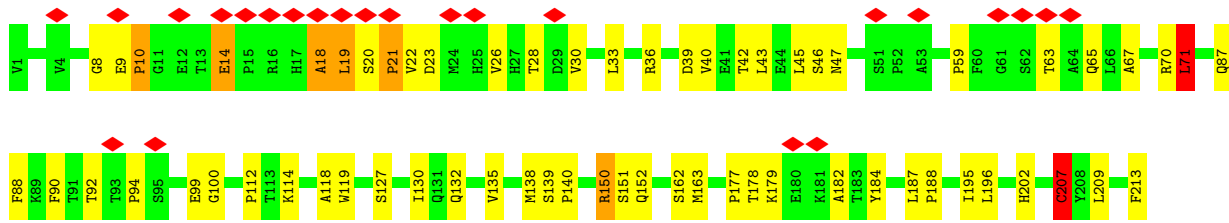
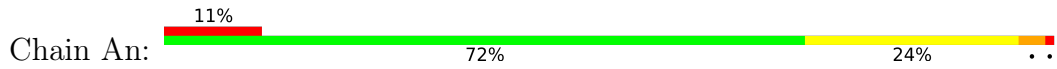




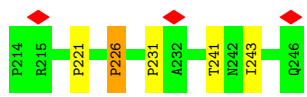
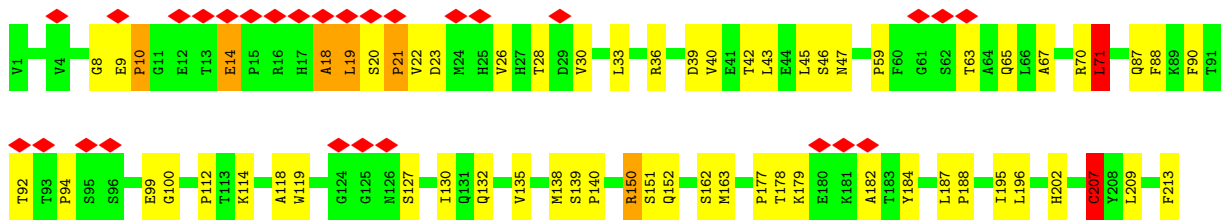
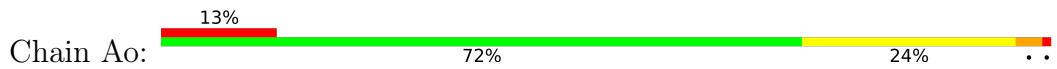
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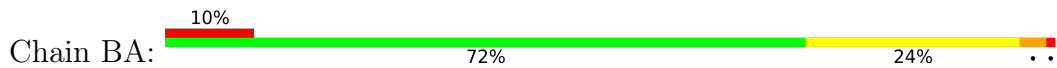
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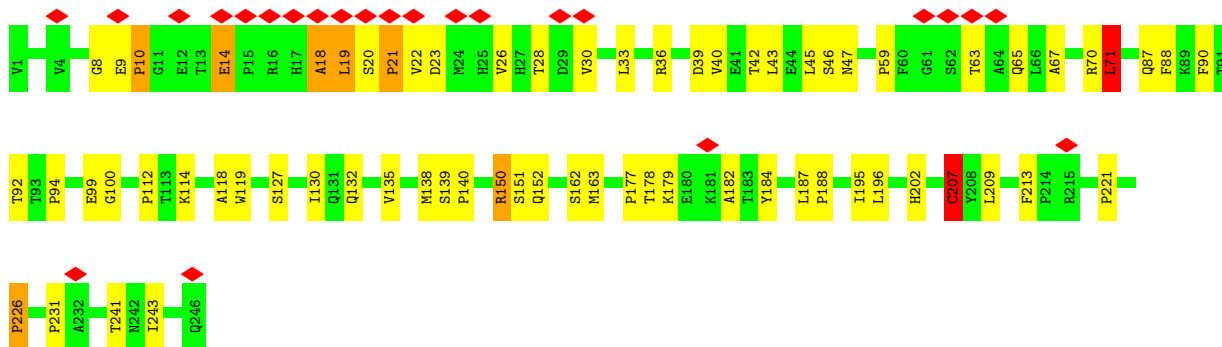


• Molecule 1: VP1

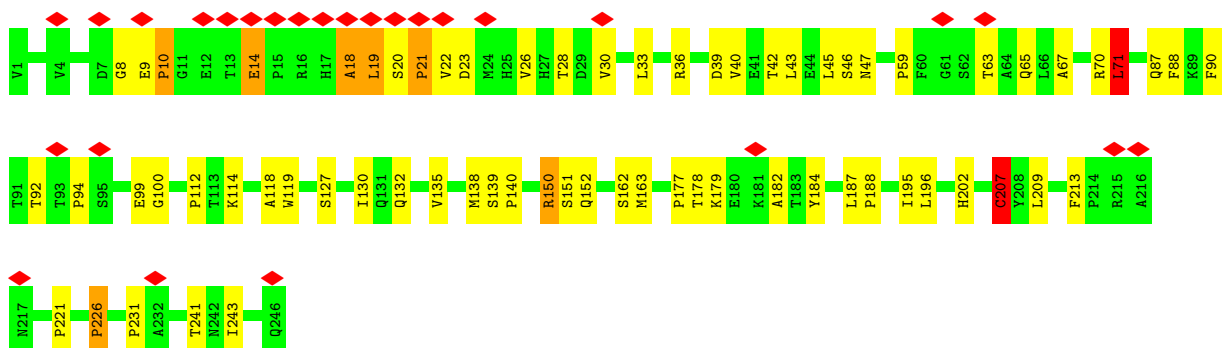
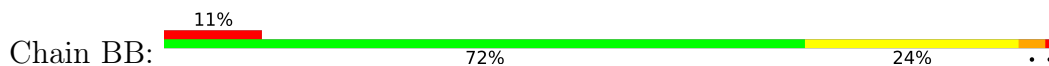


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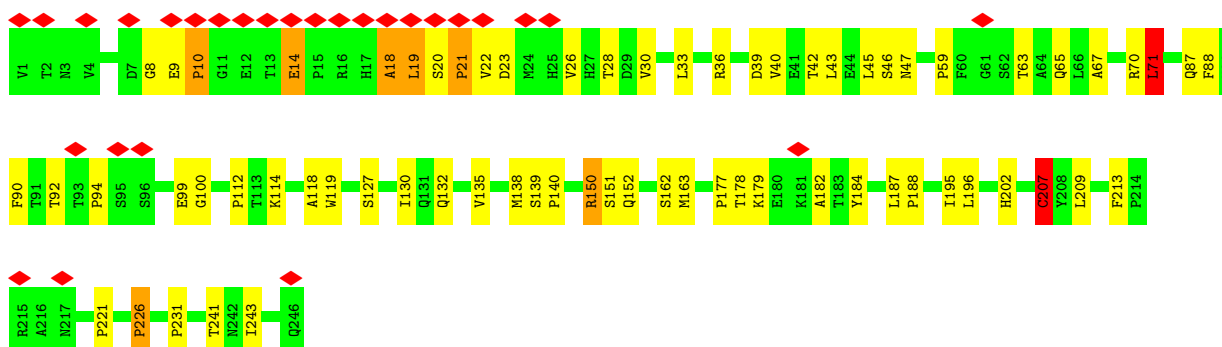
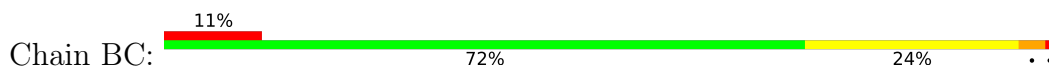




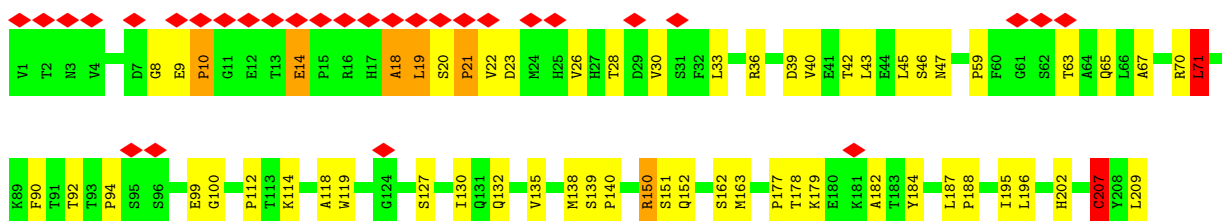
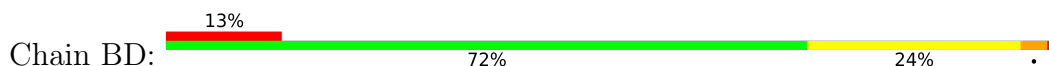
• Molecule 1: VP1



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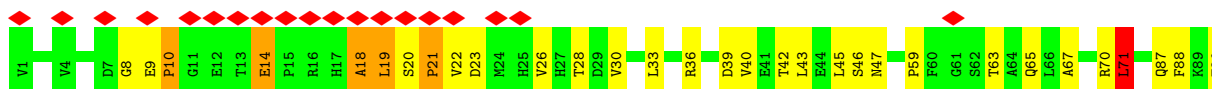
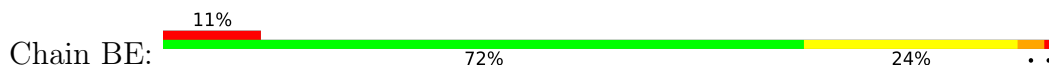


• Molecule 1: VP1

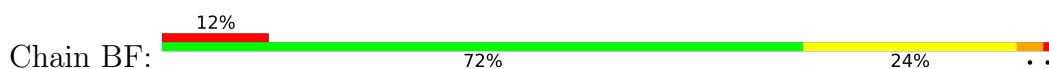




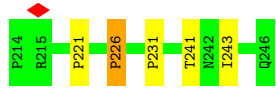
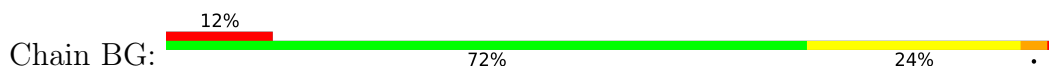
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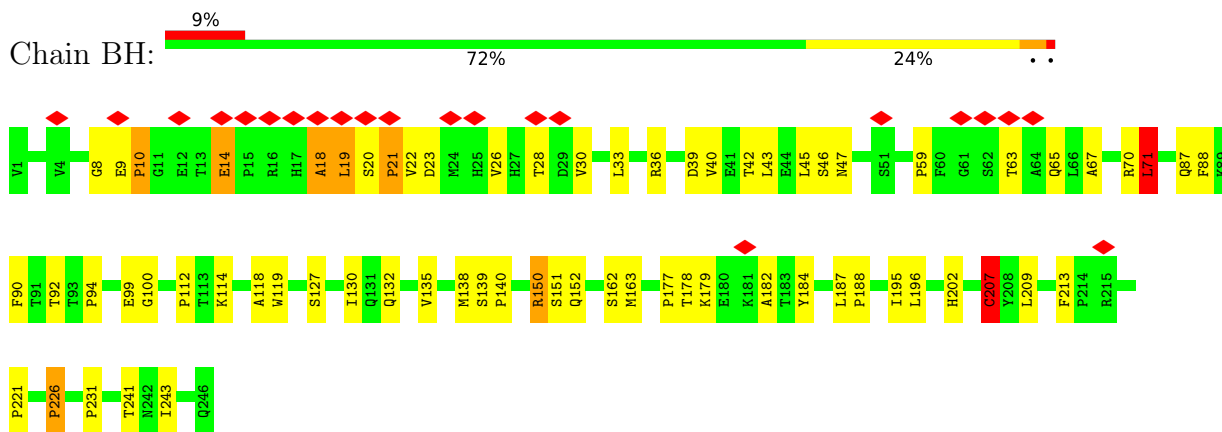
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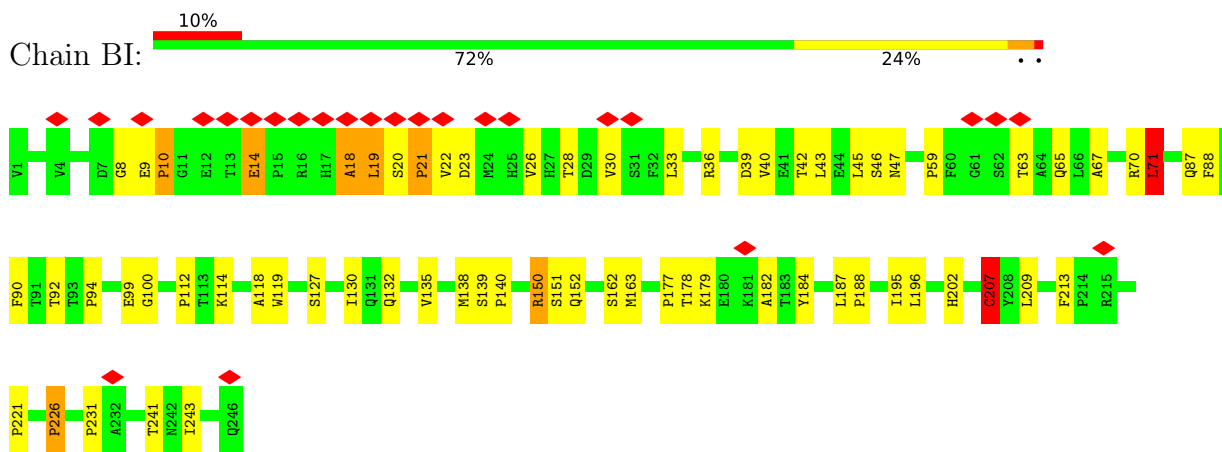
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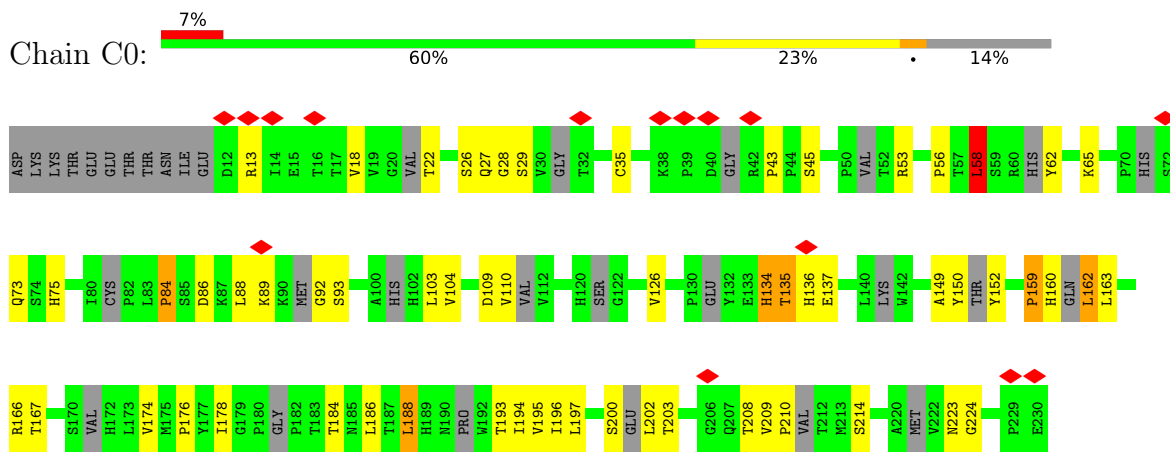
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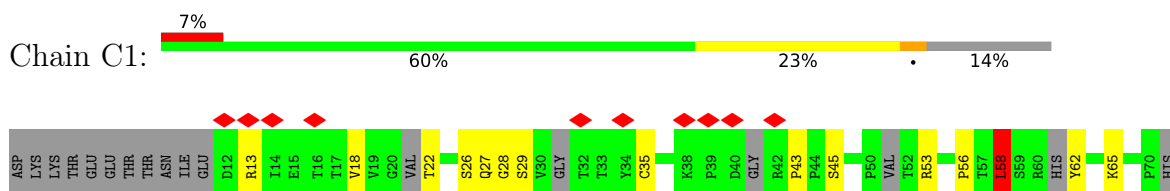
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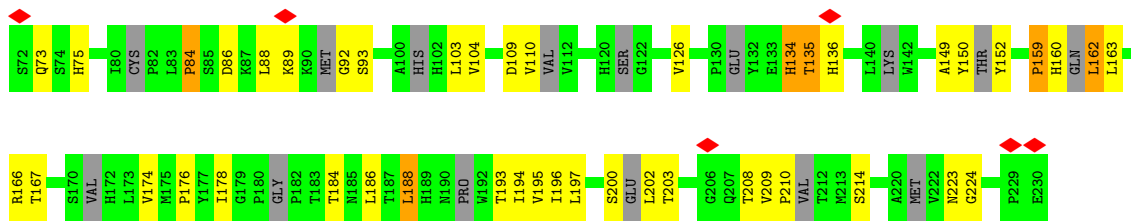


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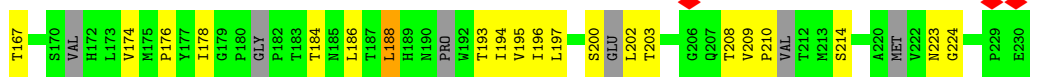
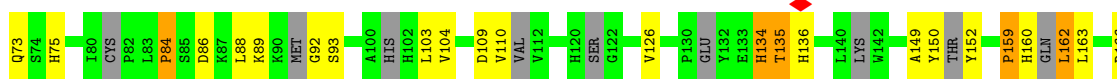


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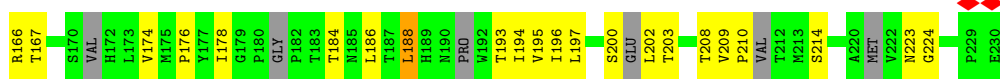
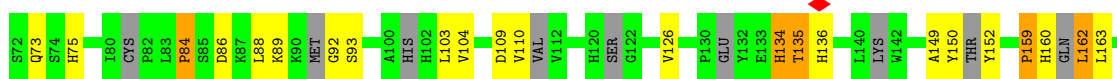
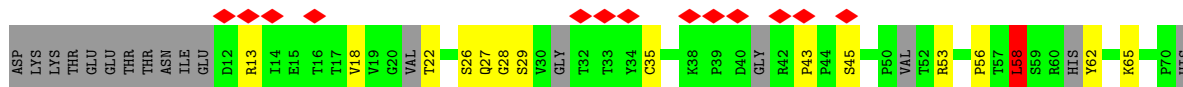




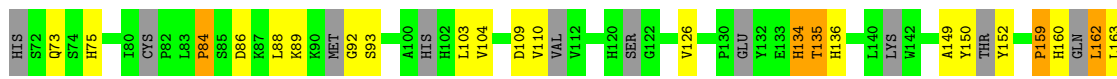
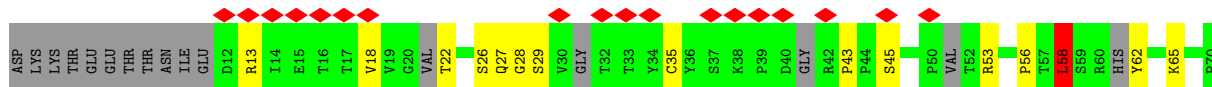
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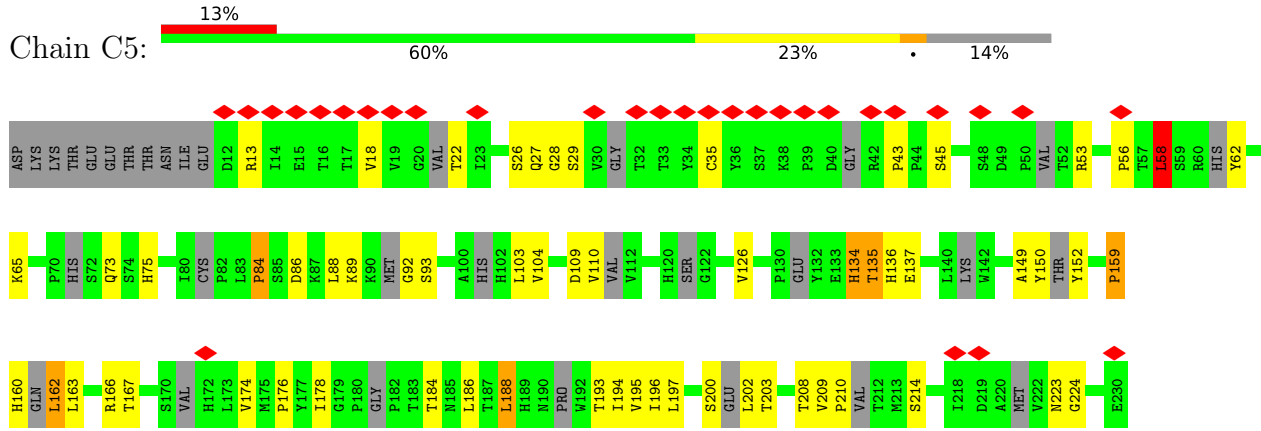
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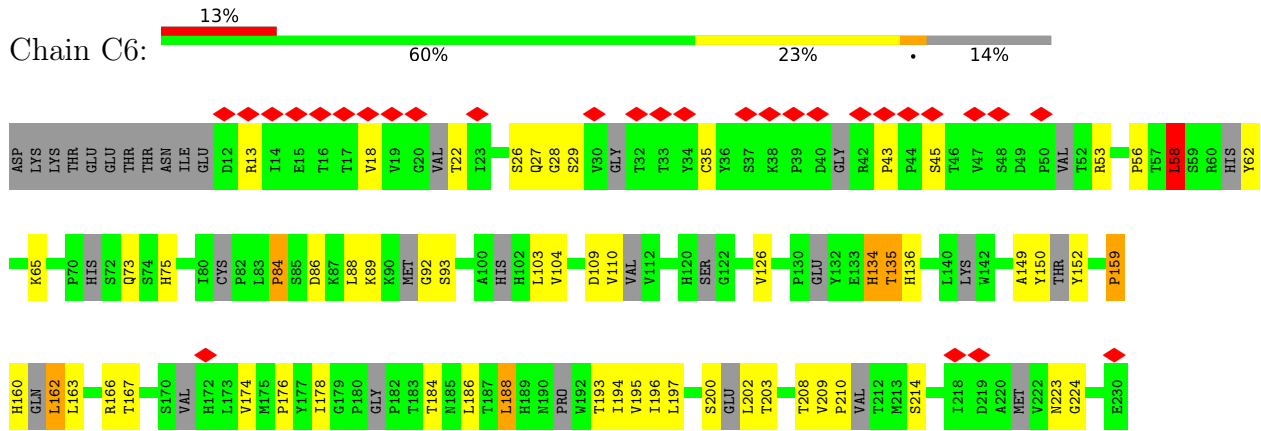
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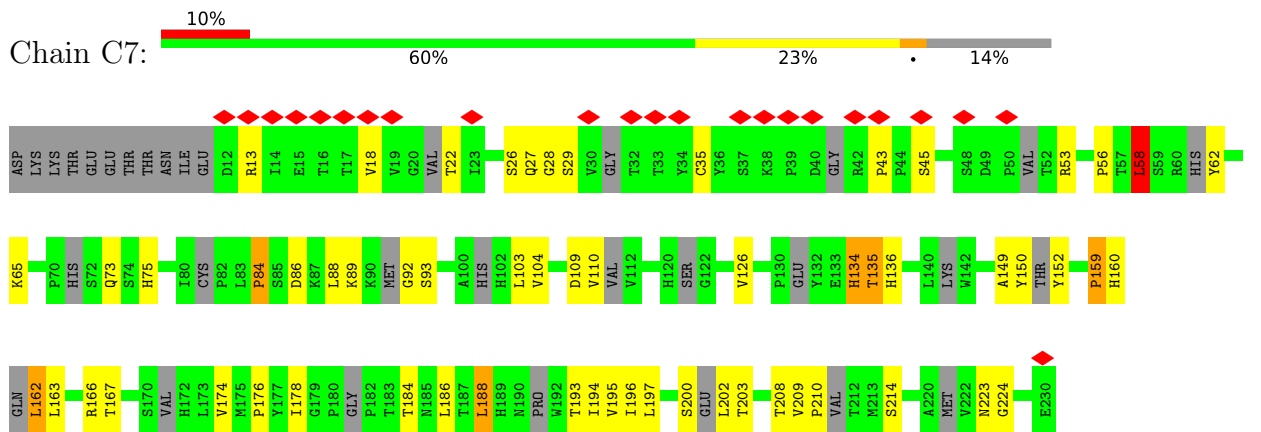
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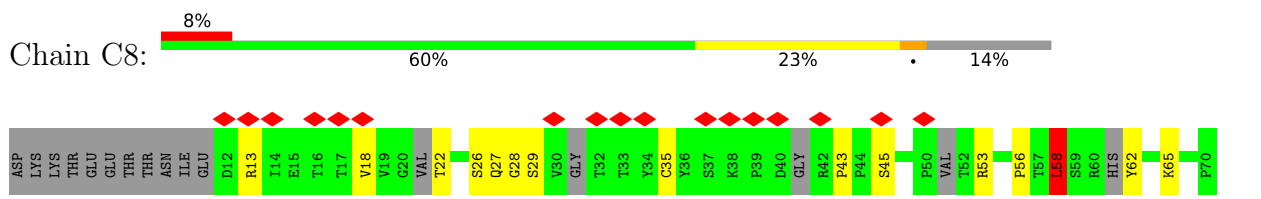
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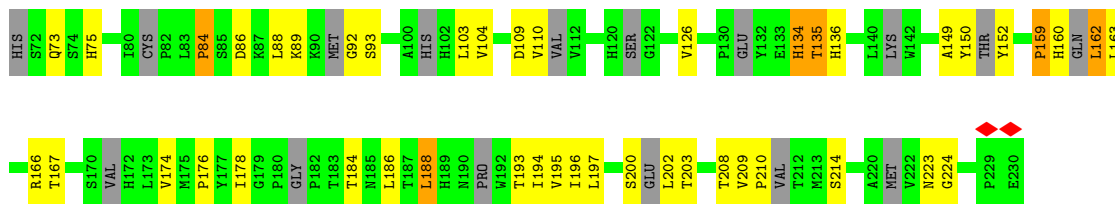


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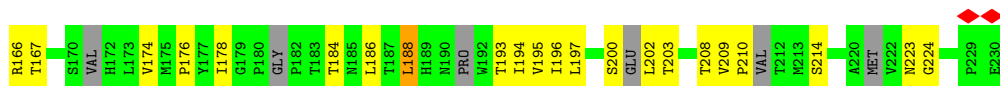
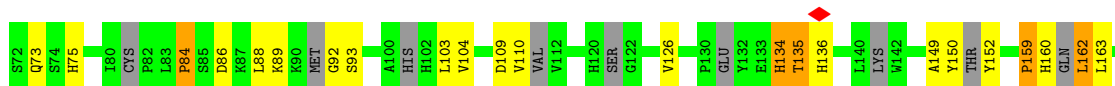
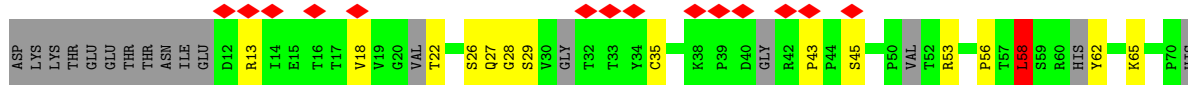


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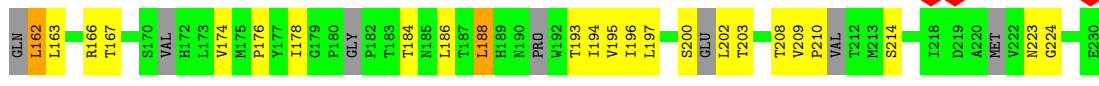
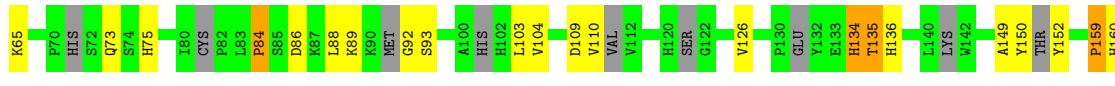
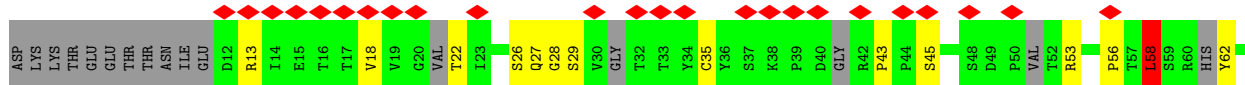




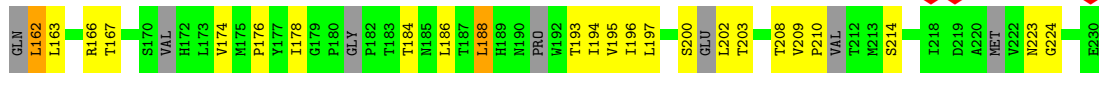
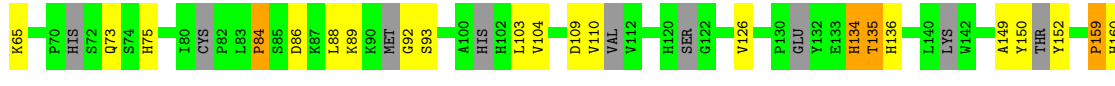
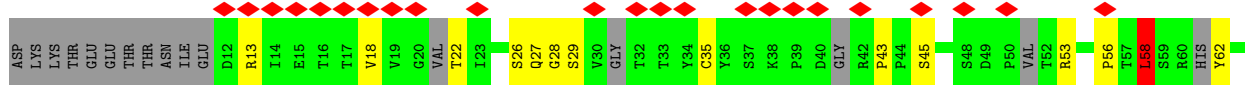
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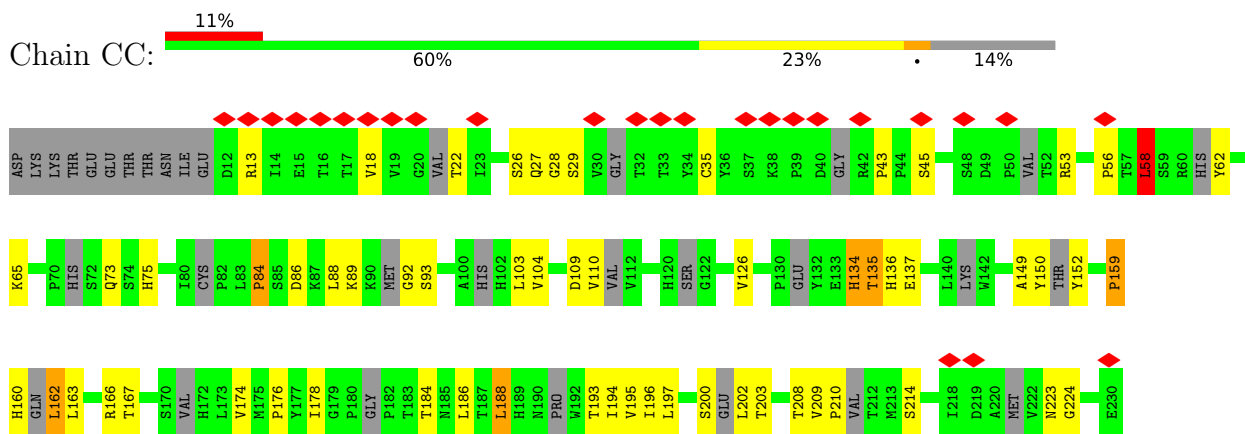
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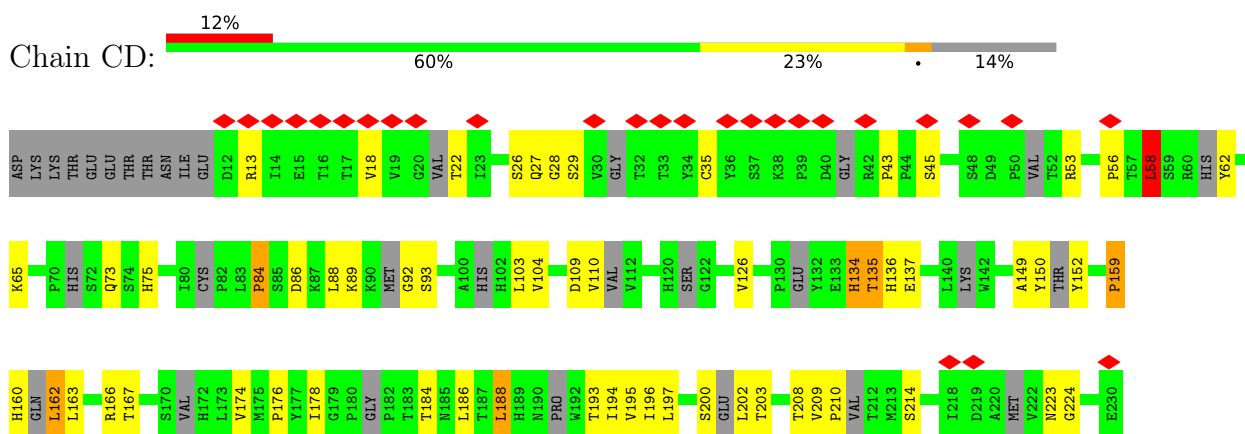
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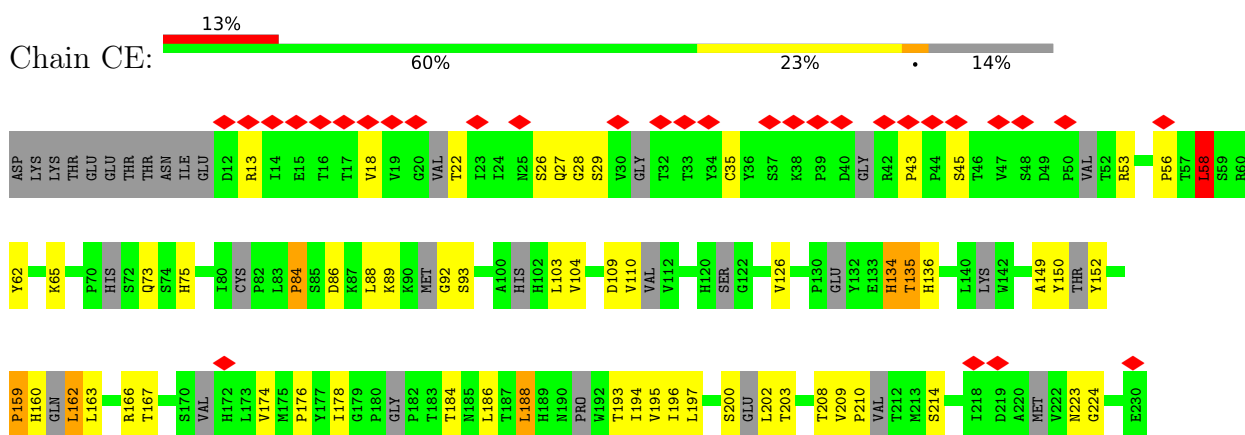
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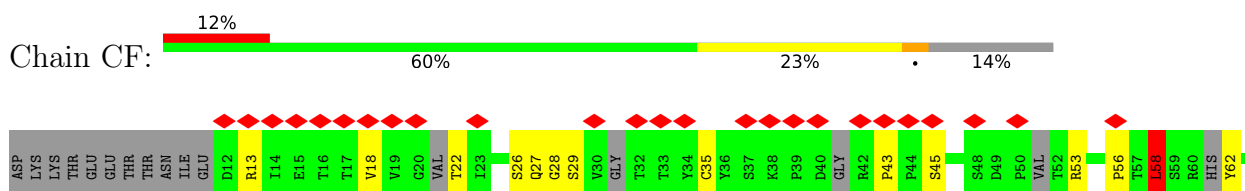
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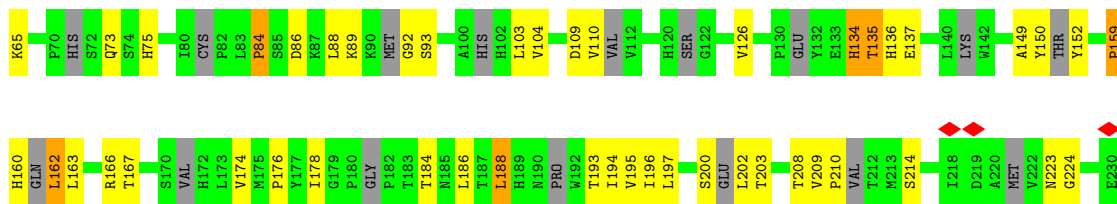


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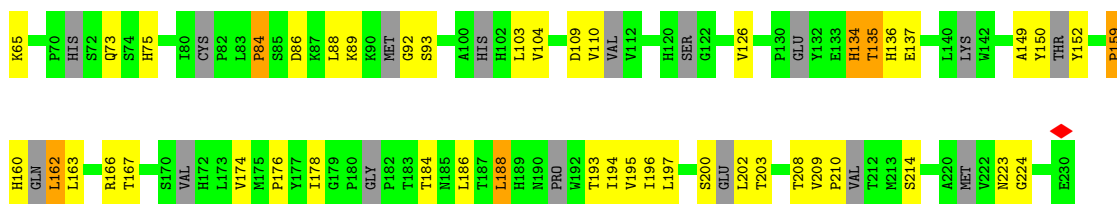
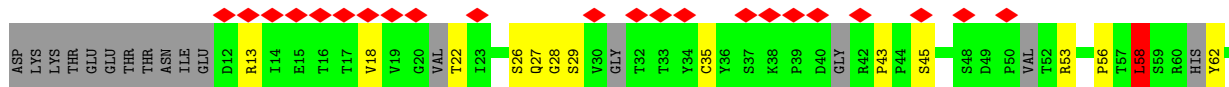


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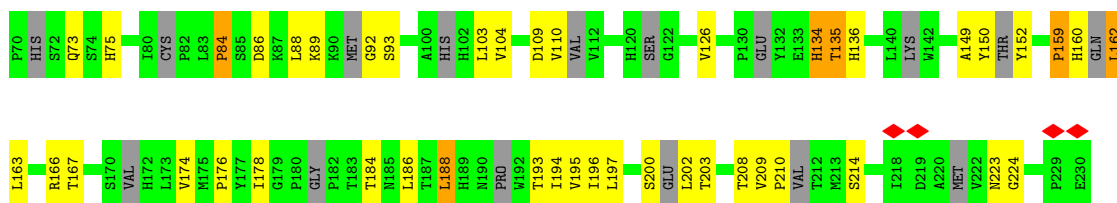
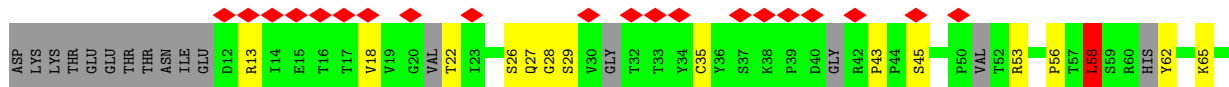




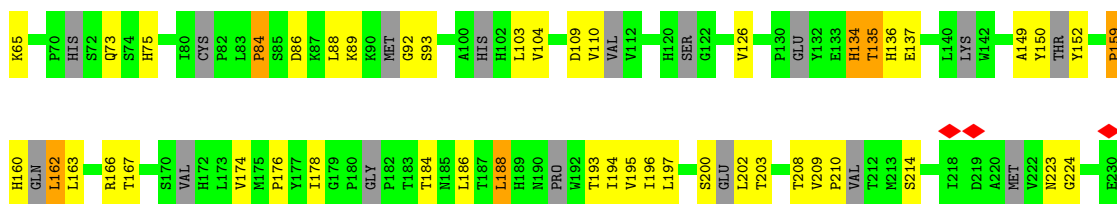
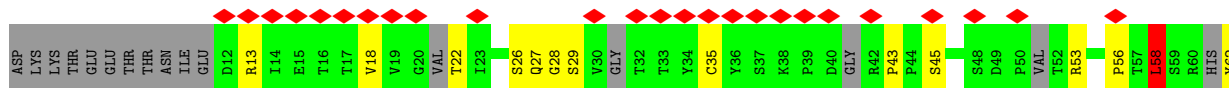
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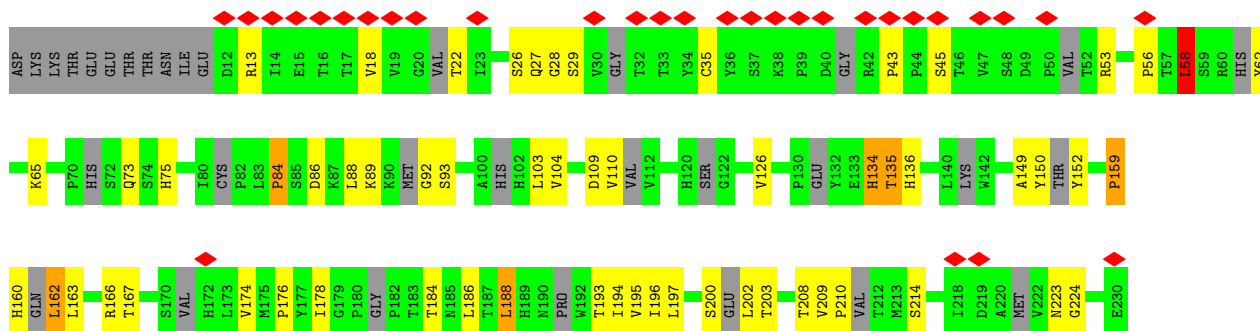
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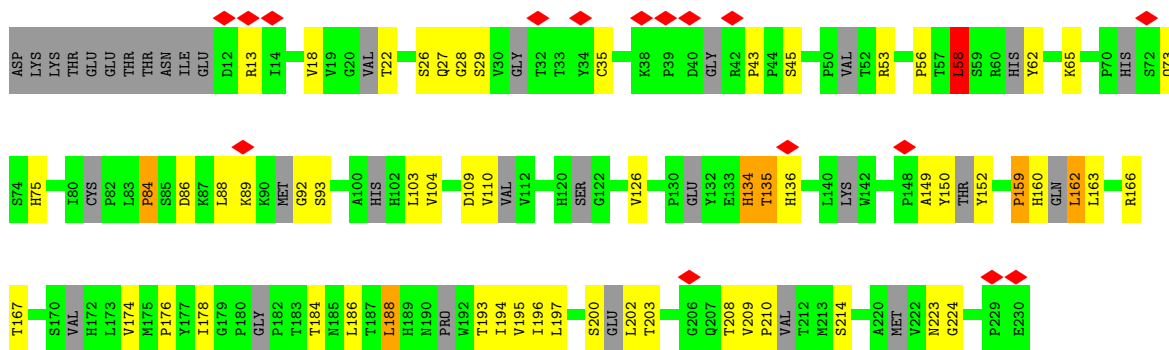
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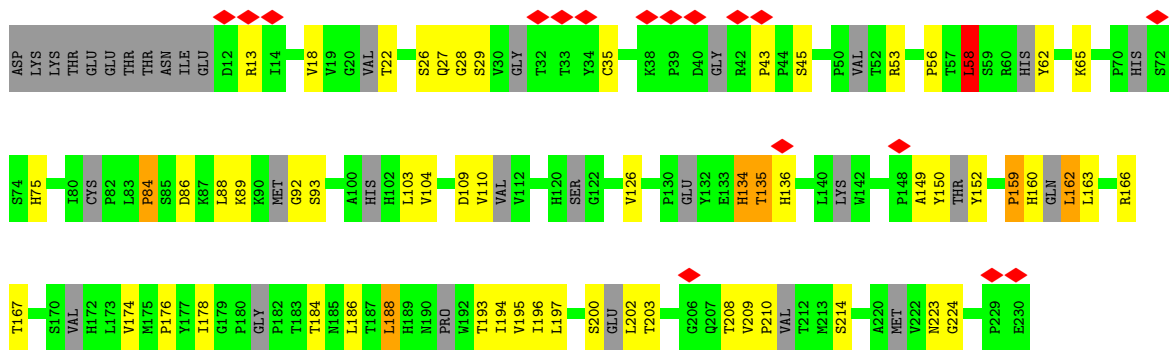
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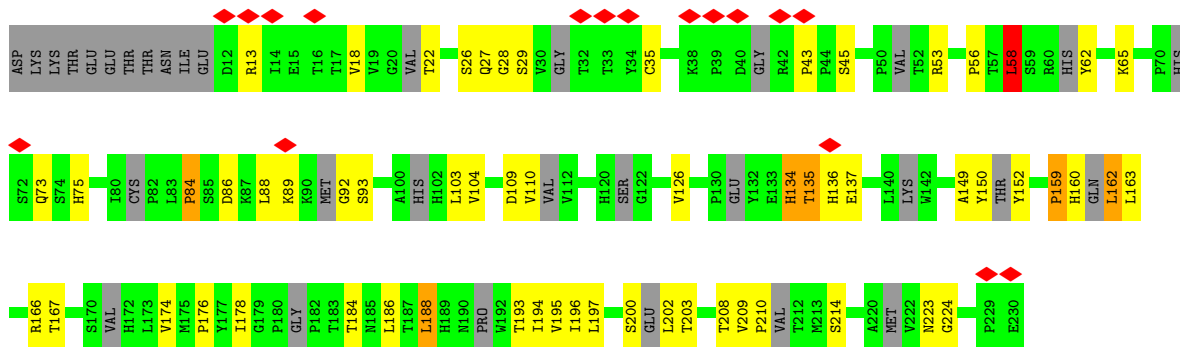


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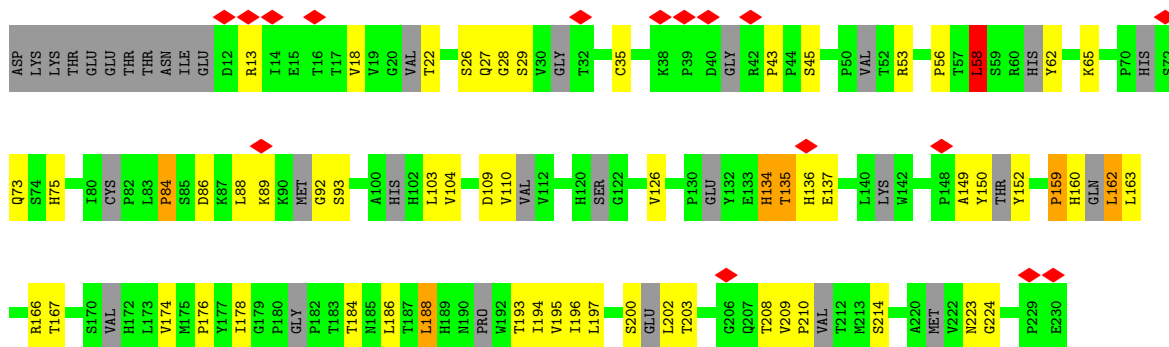


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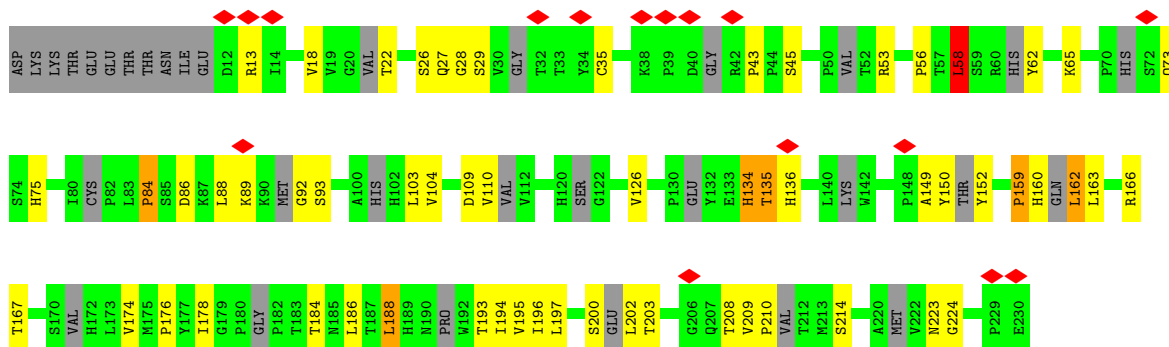




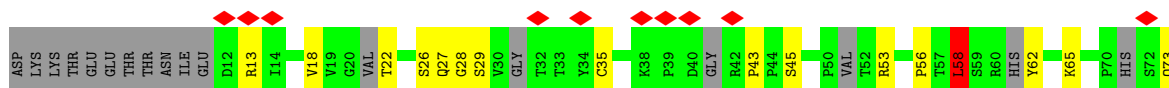
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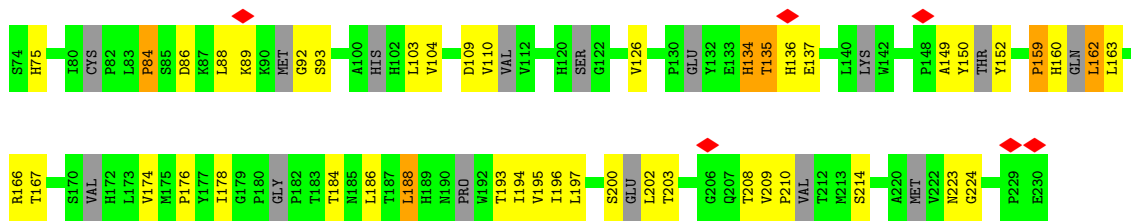


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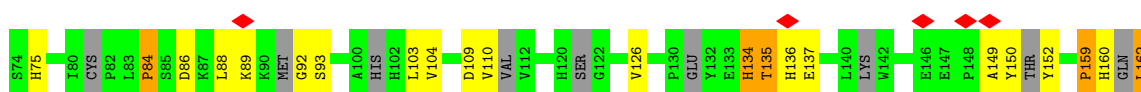
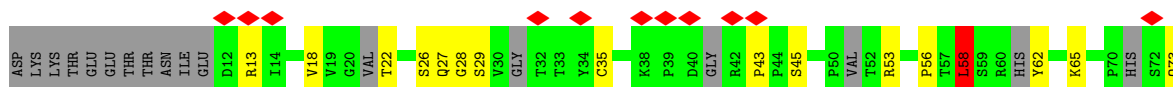


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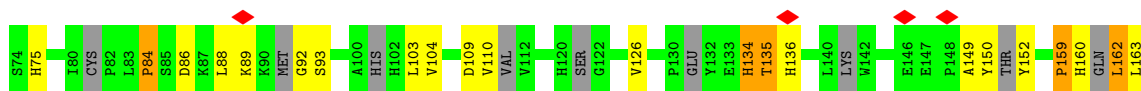
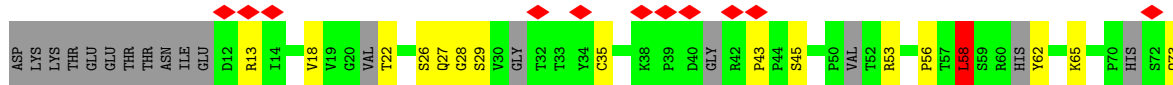




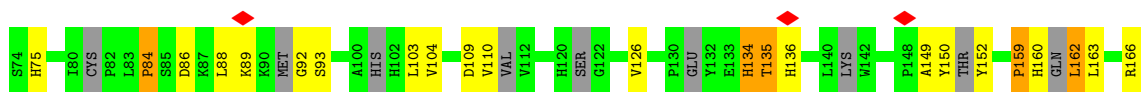
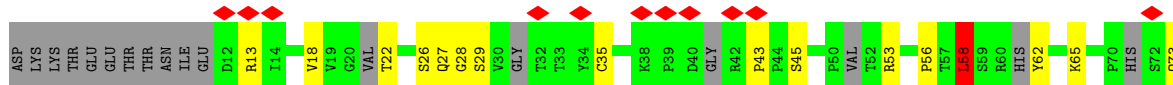
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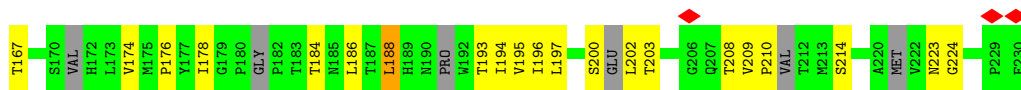


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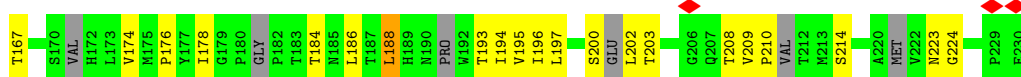
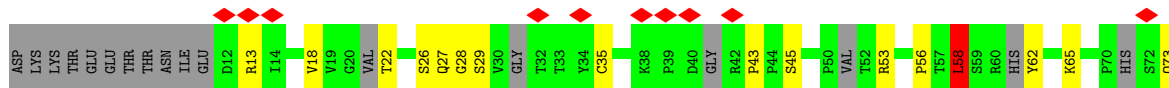


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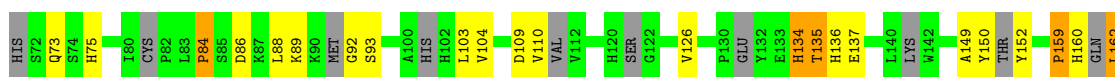
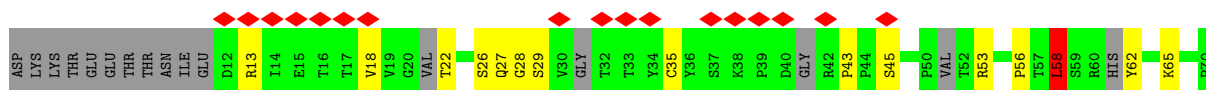




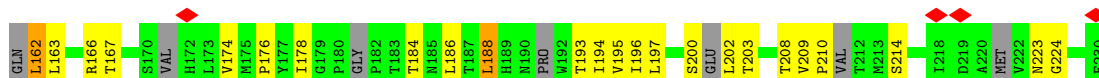
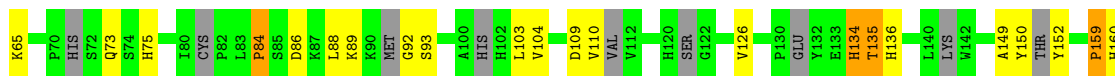
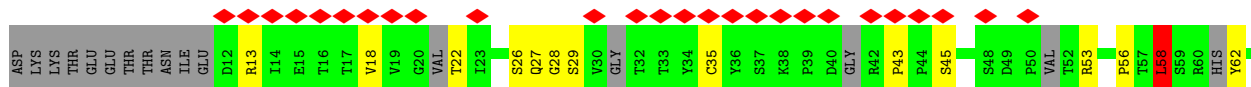
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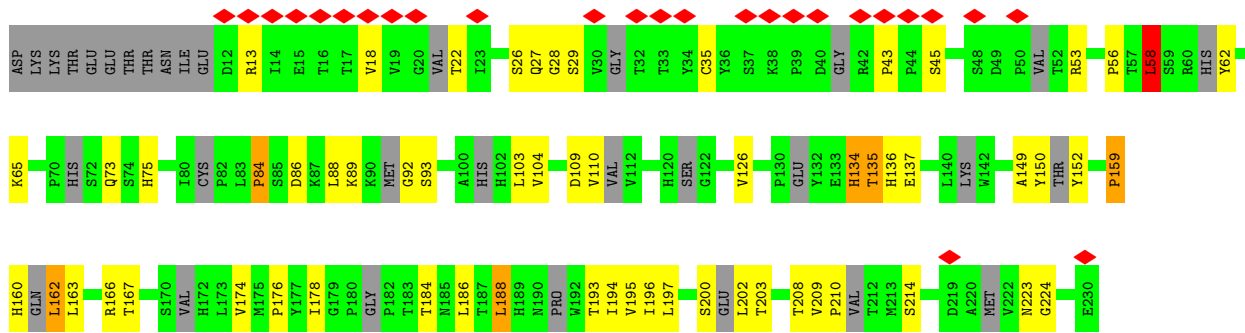


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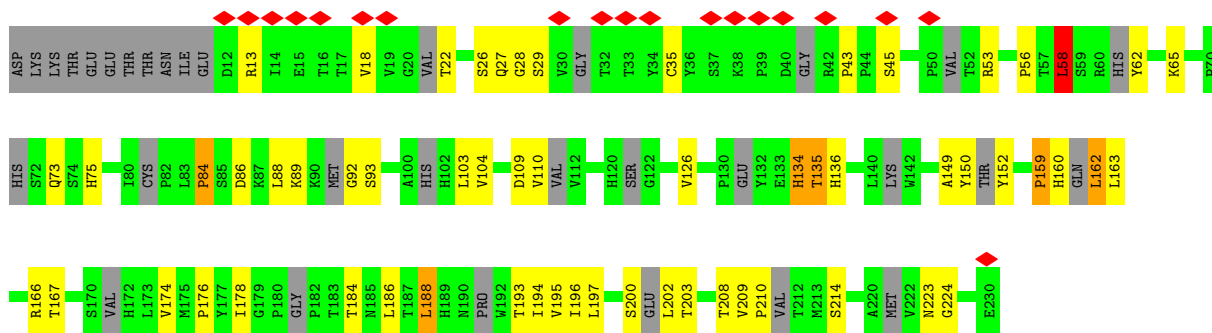


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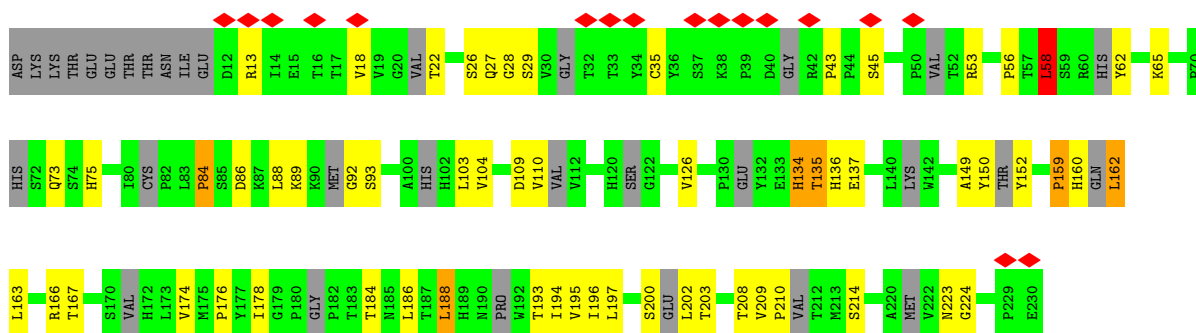




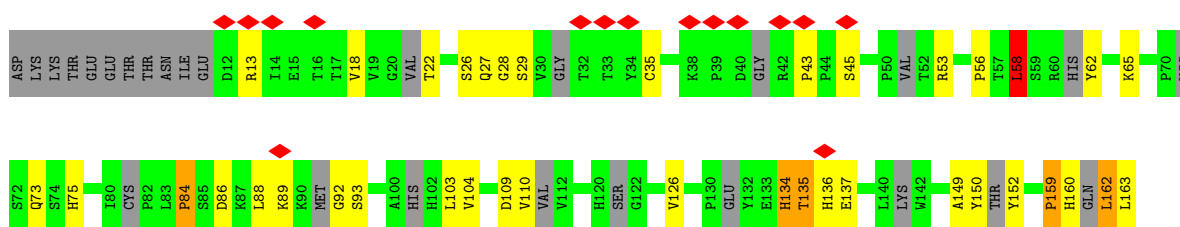
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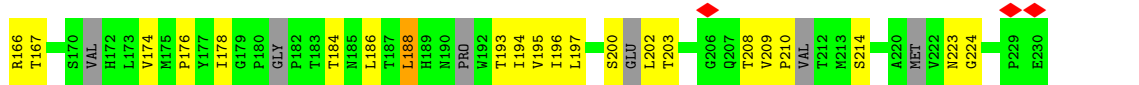
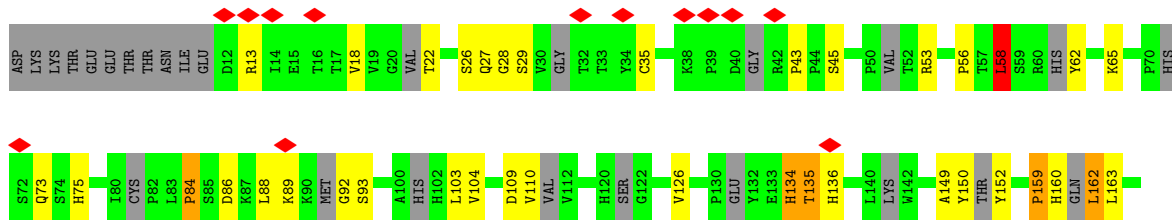


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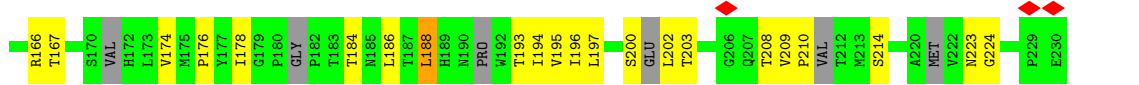
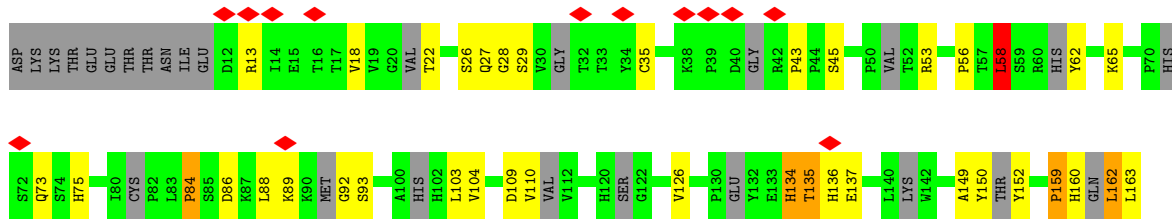




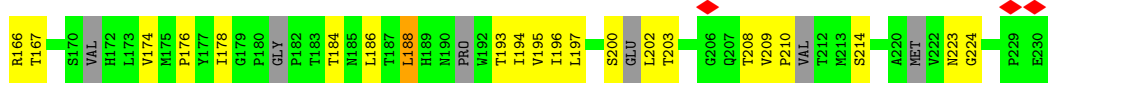
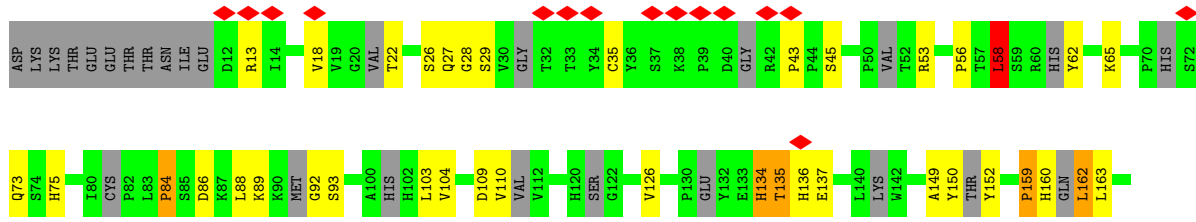
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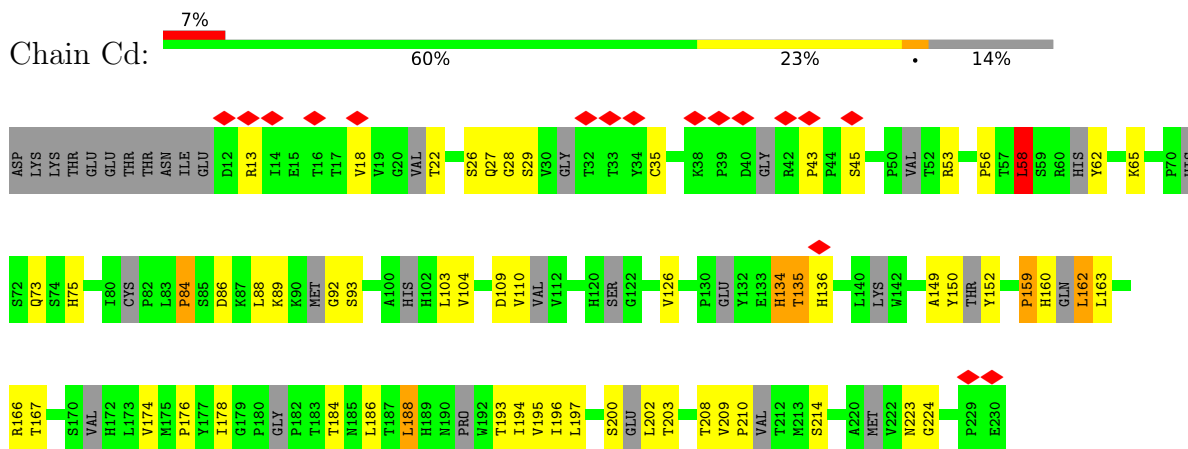
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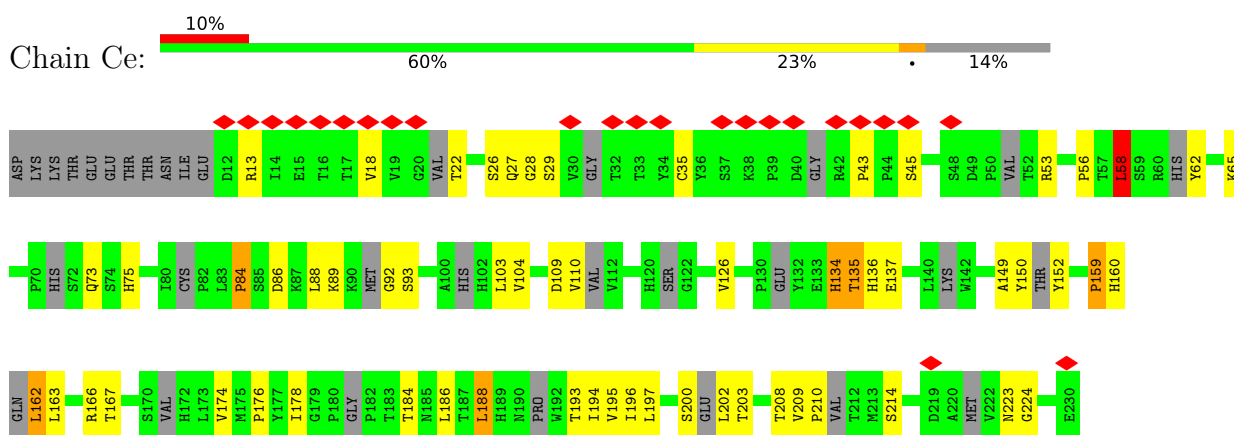
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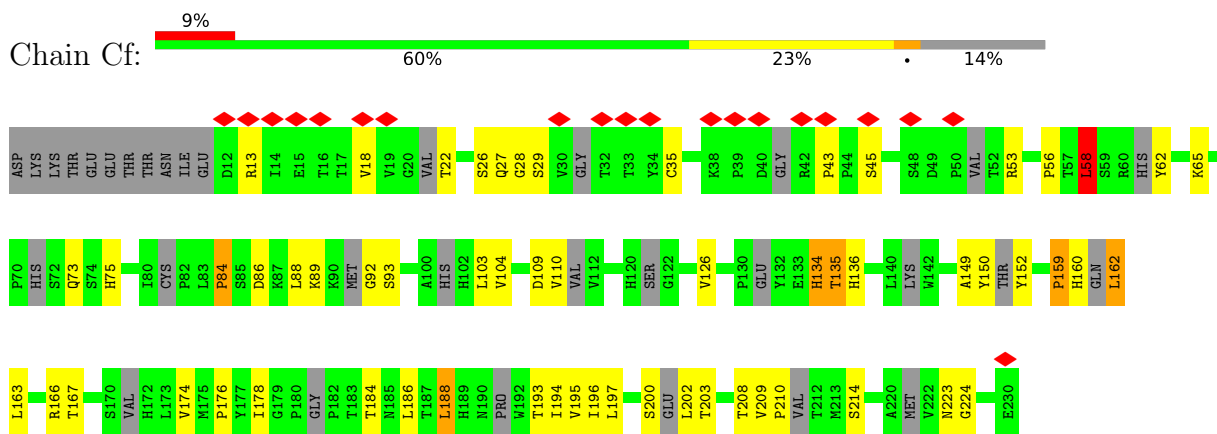
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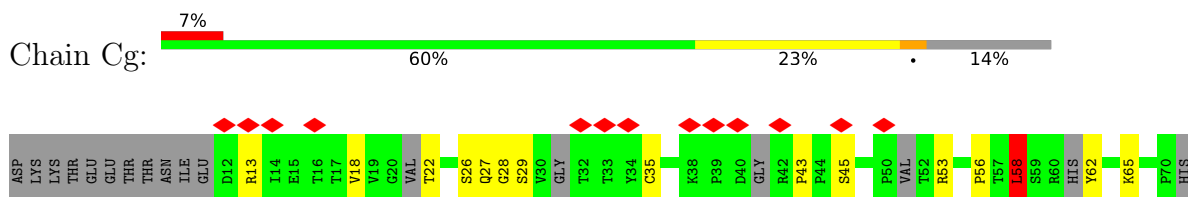
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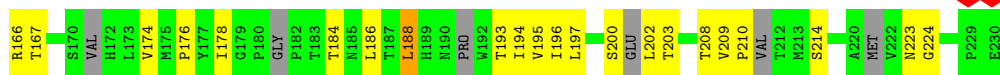
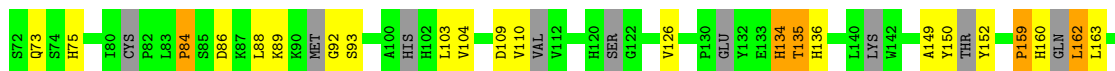


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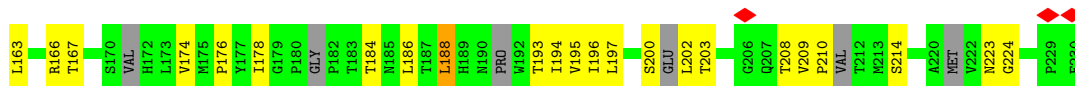
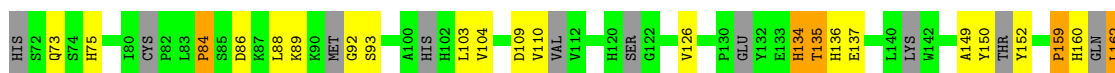


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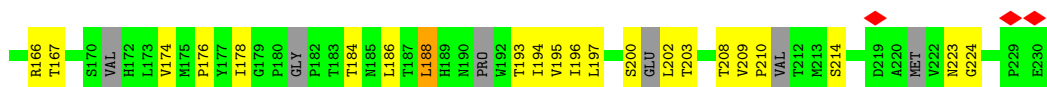
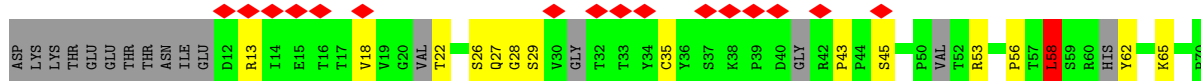




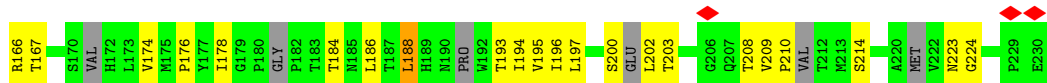
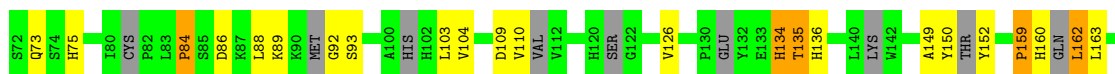
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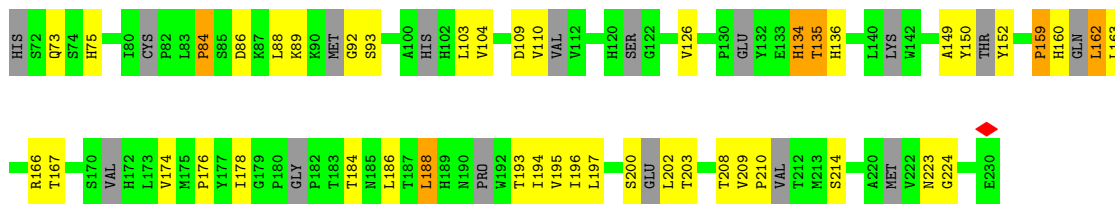


• Molecule 2: EQUINE RHINITIS A VIRUS

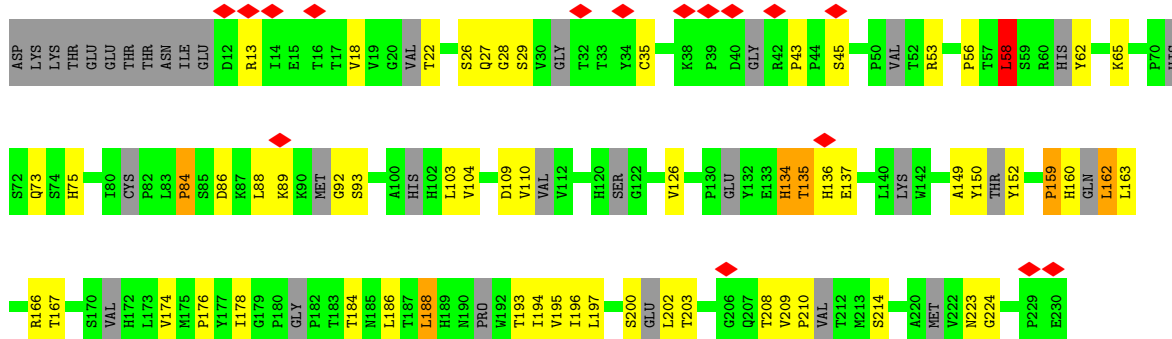


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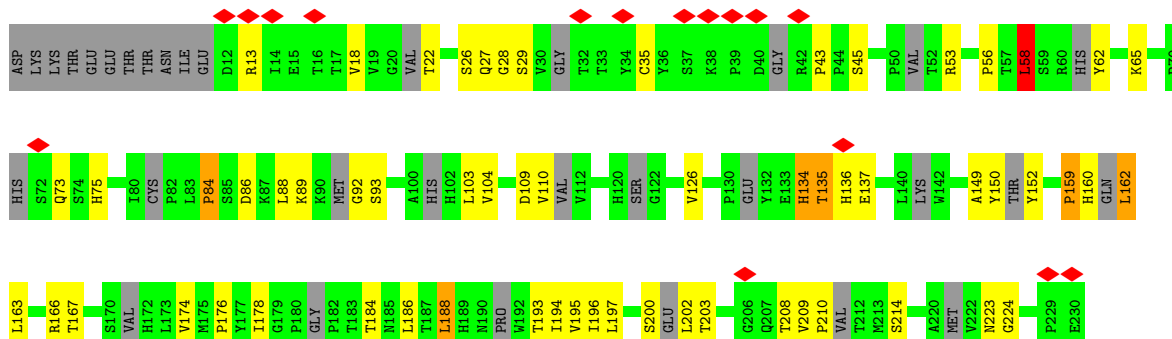




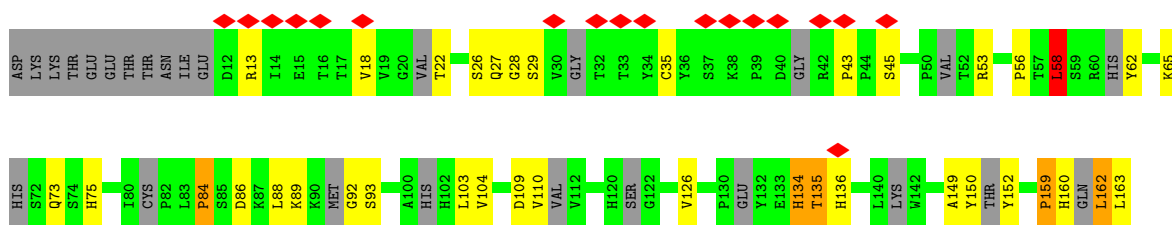
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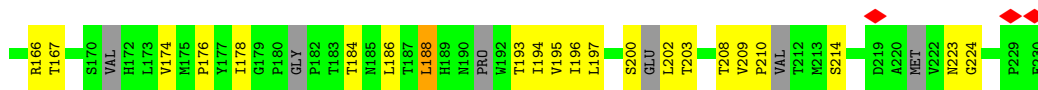


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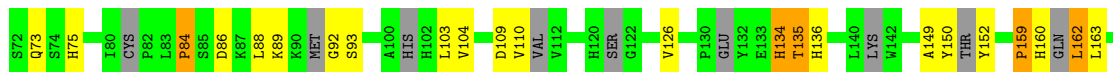


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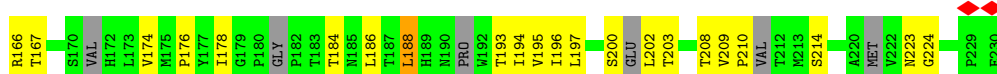
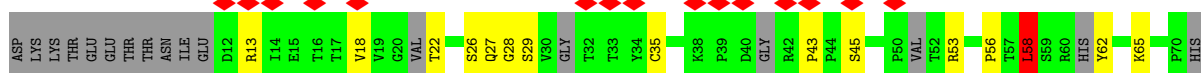




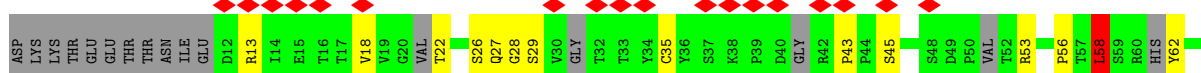
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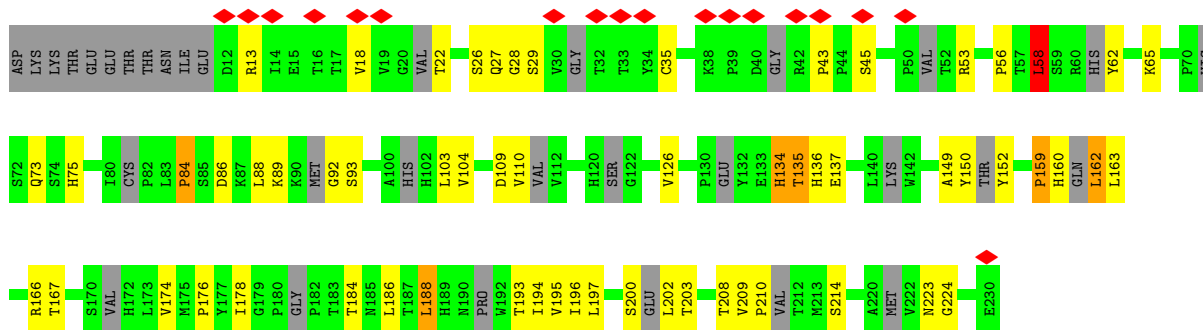


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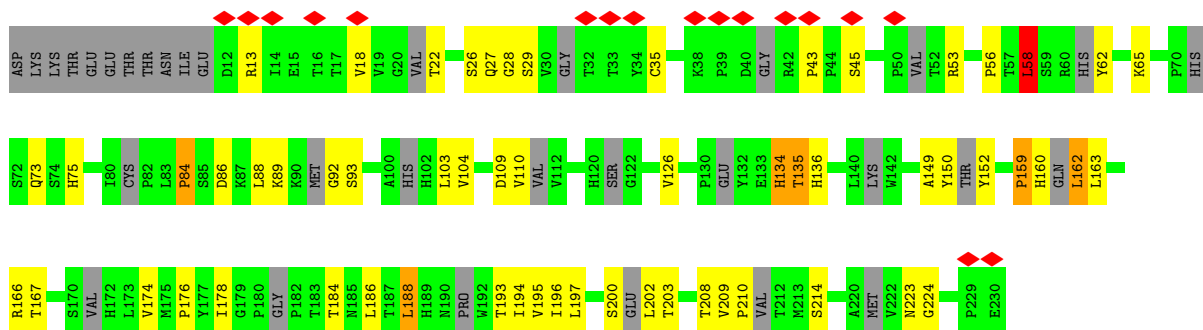


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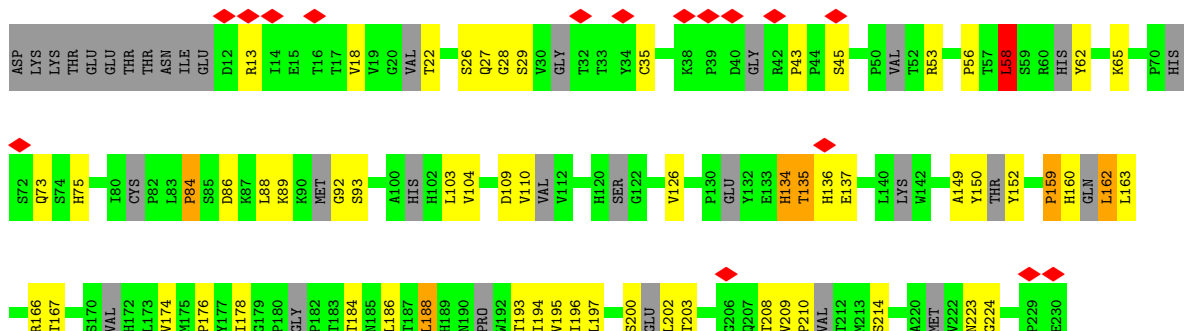




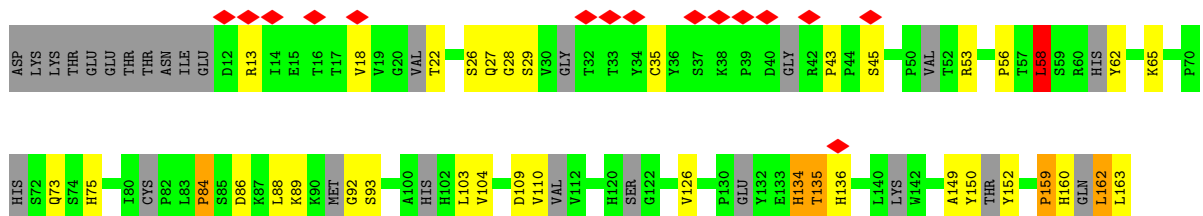
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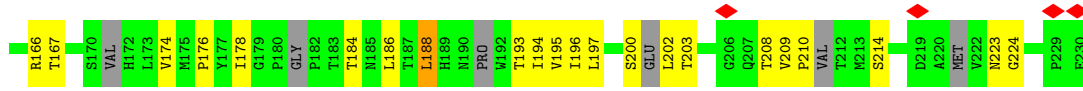


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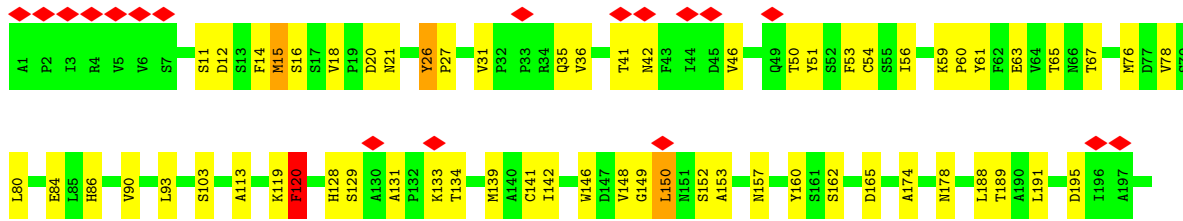
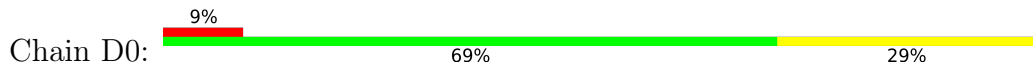


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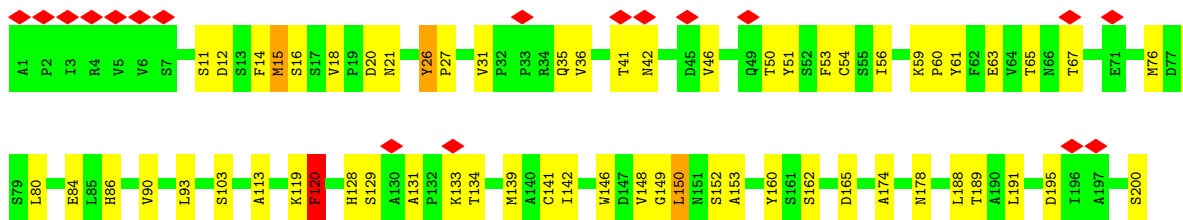
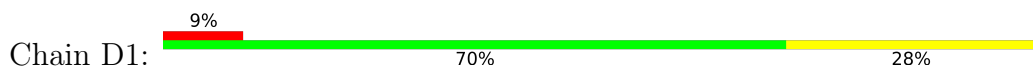




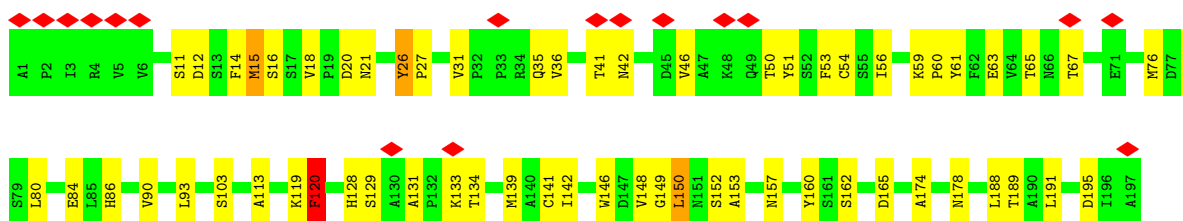
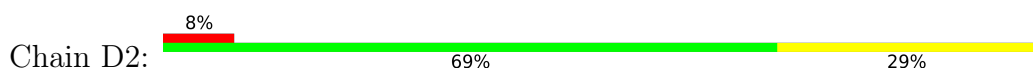
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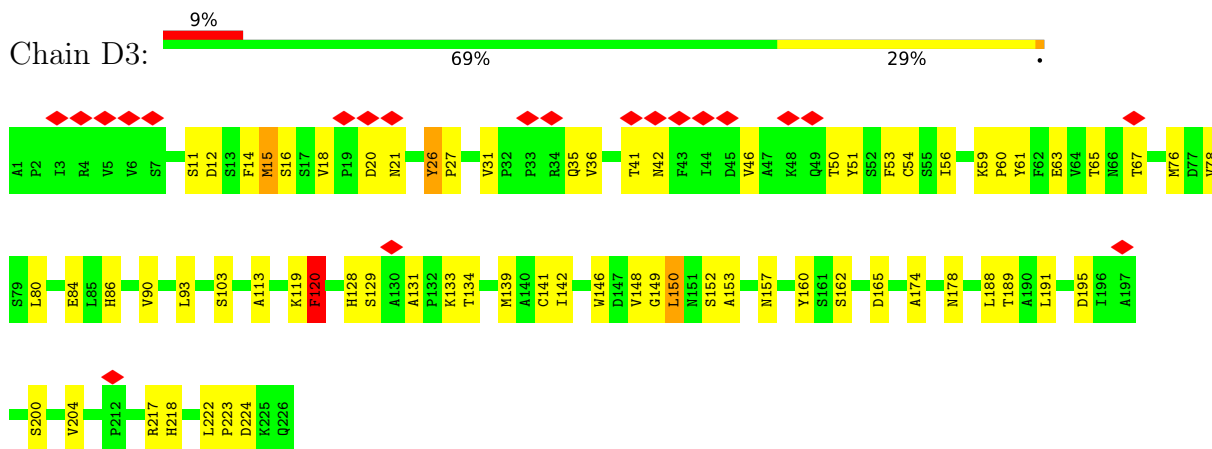
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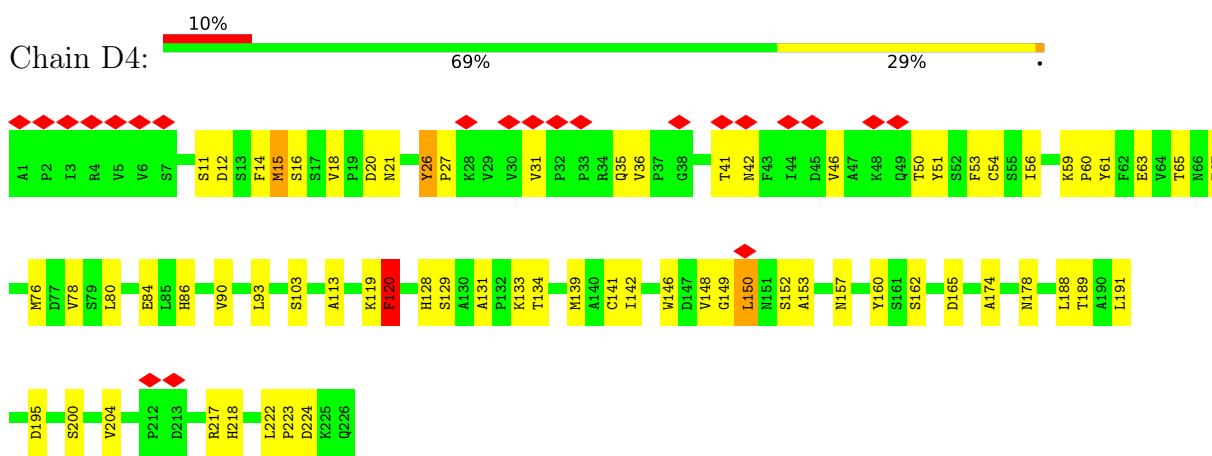
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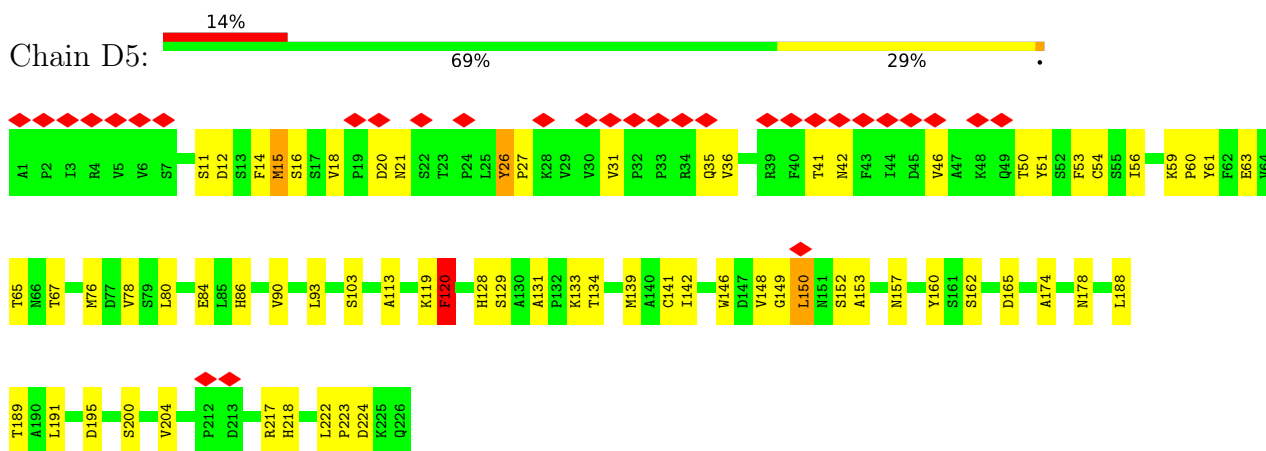
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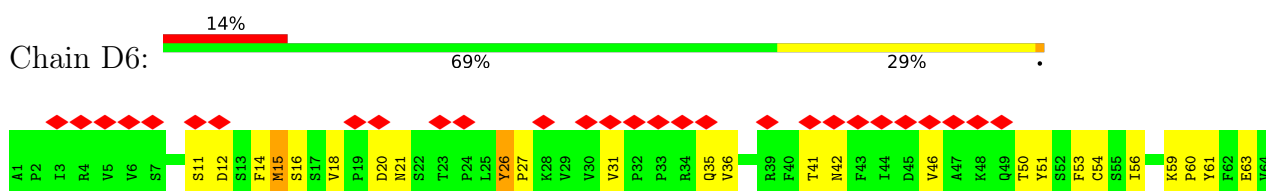
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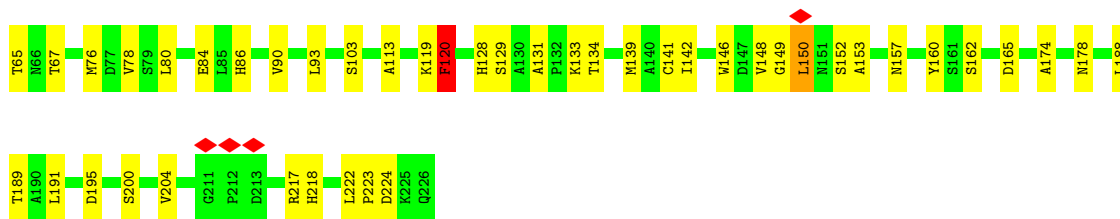


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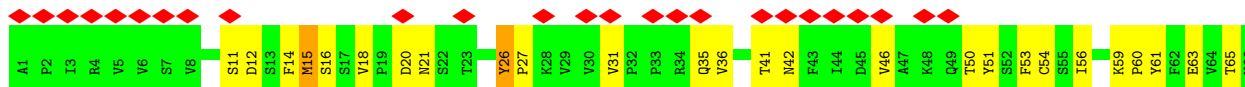
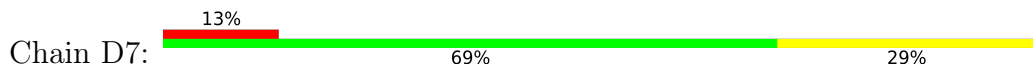


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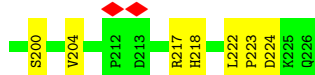




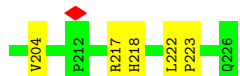
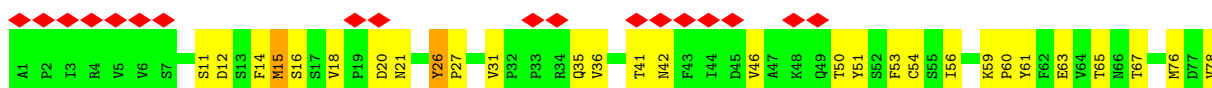
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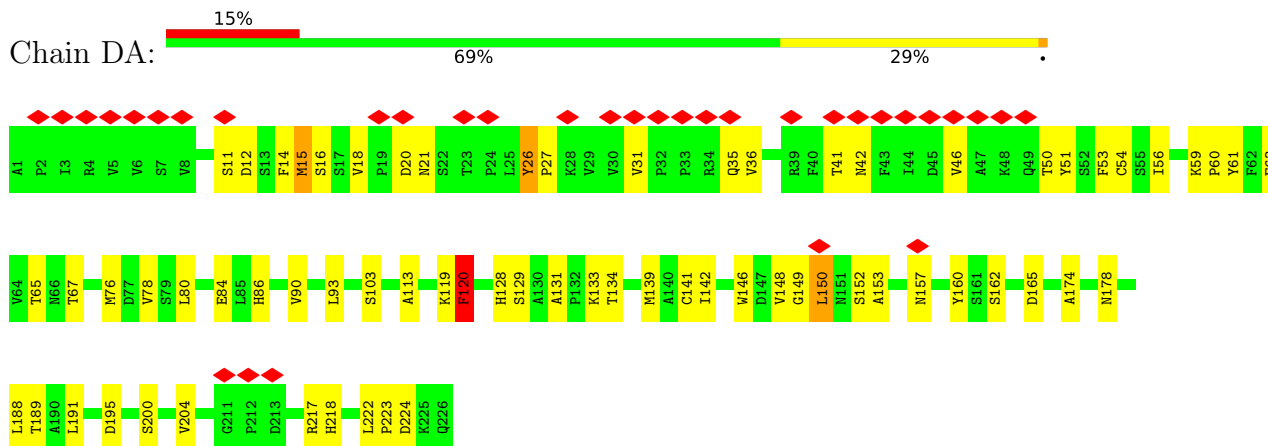
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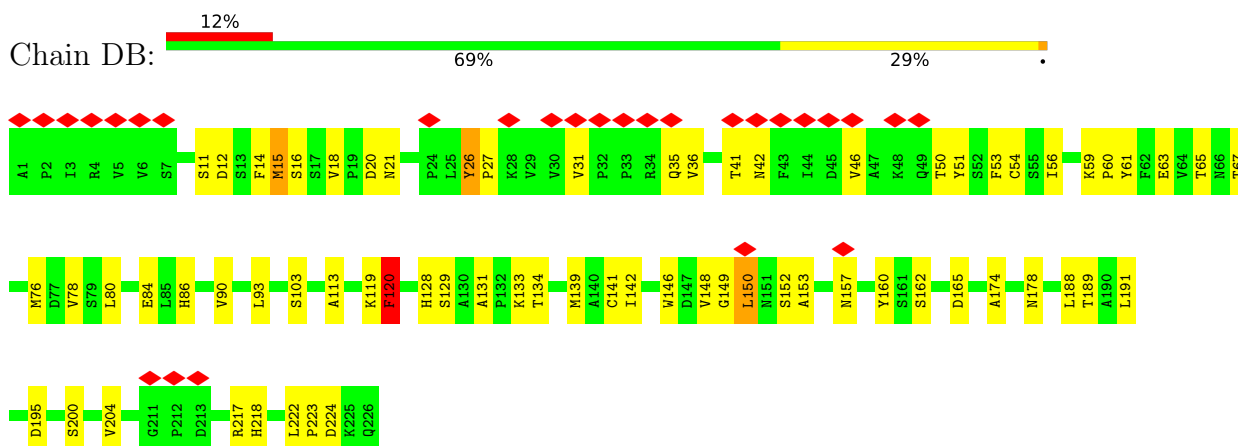
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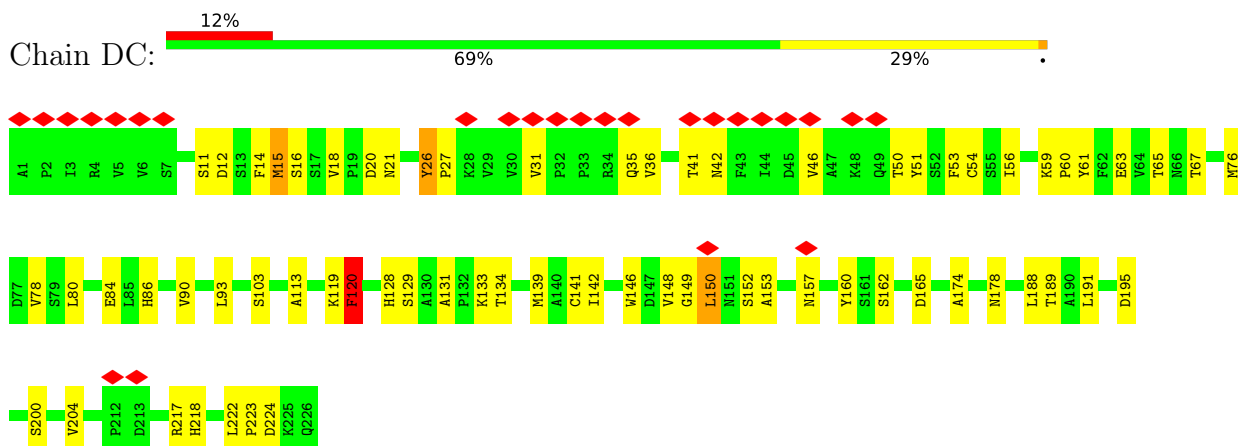
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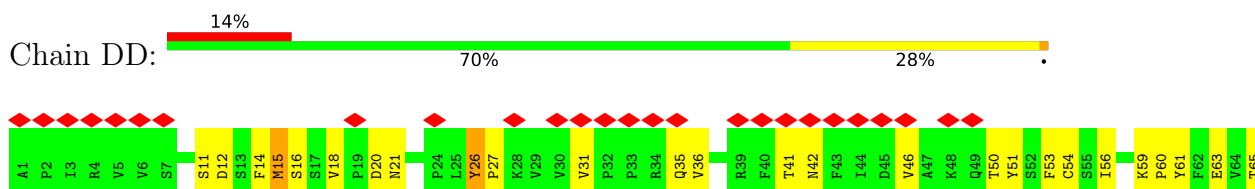
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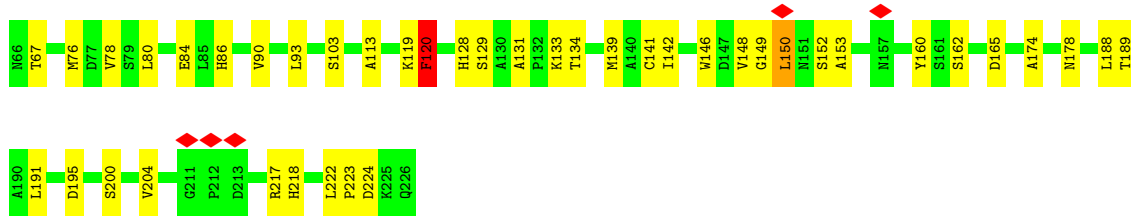


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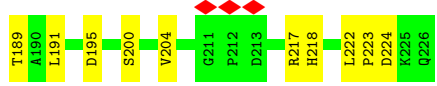
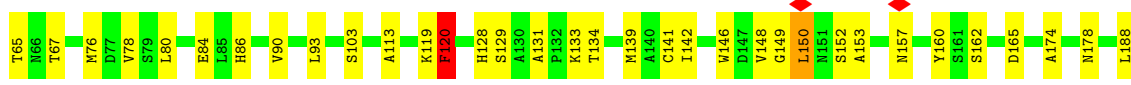
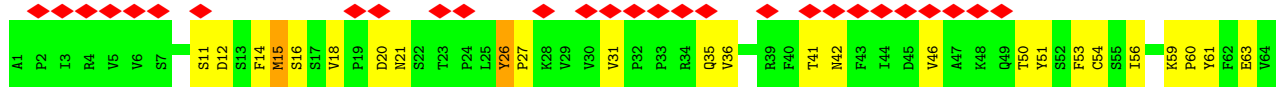


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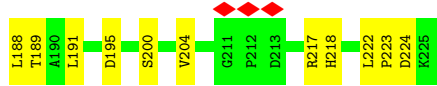
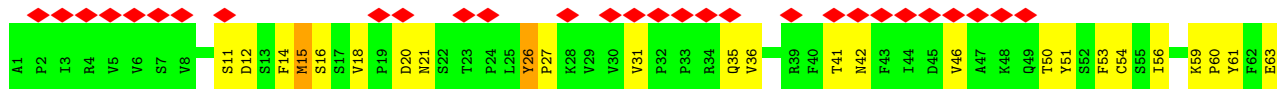
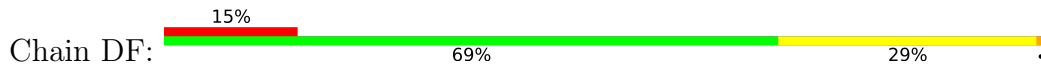




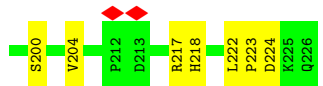
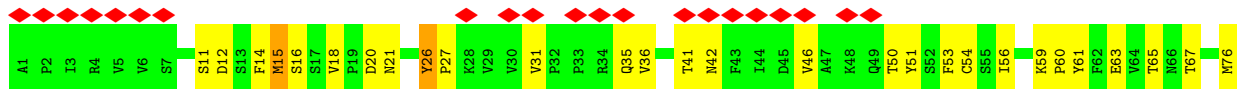
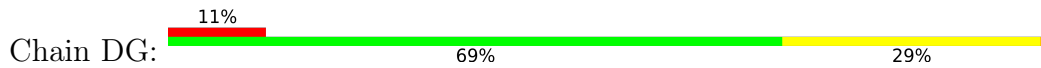
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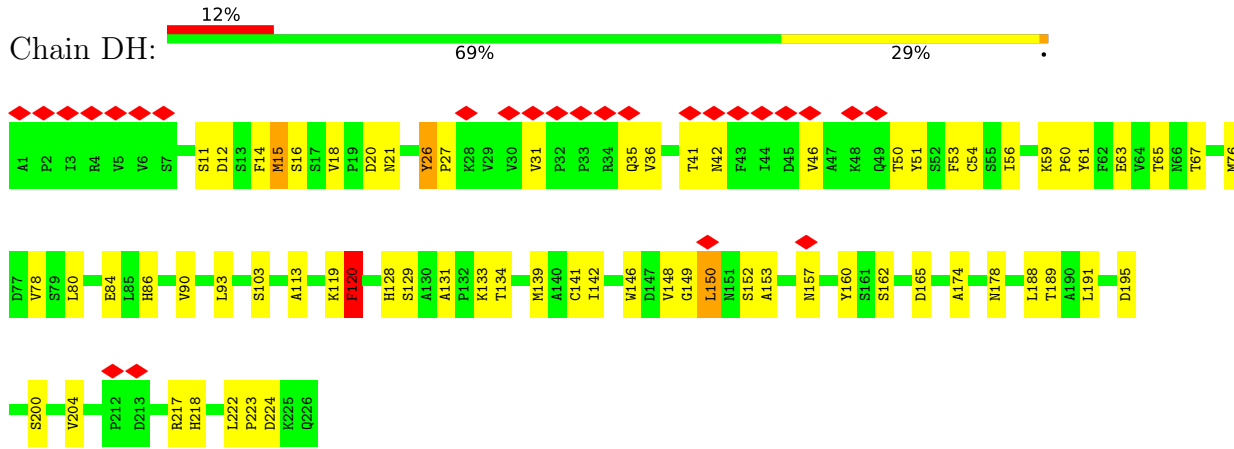
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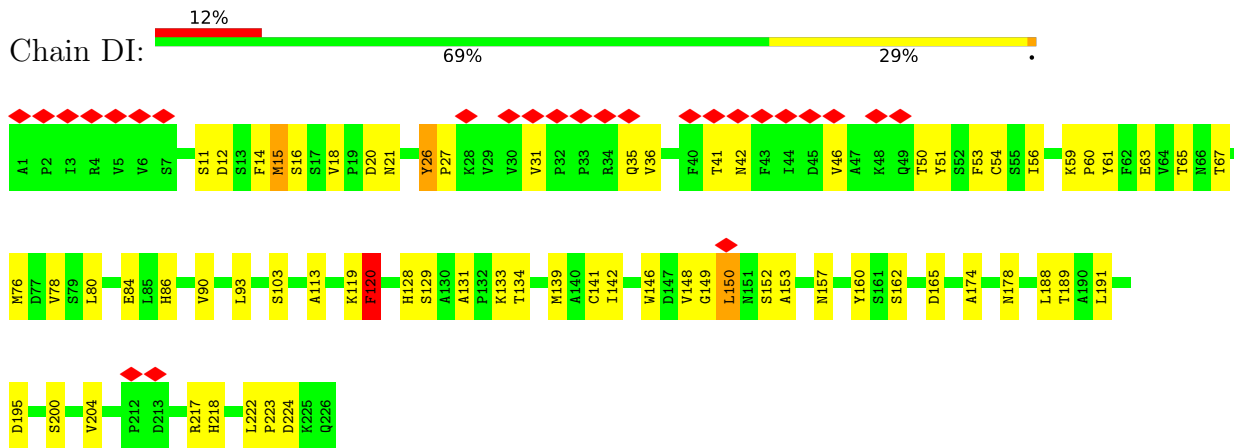
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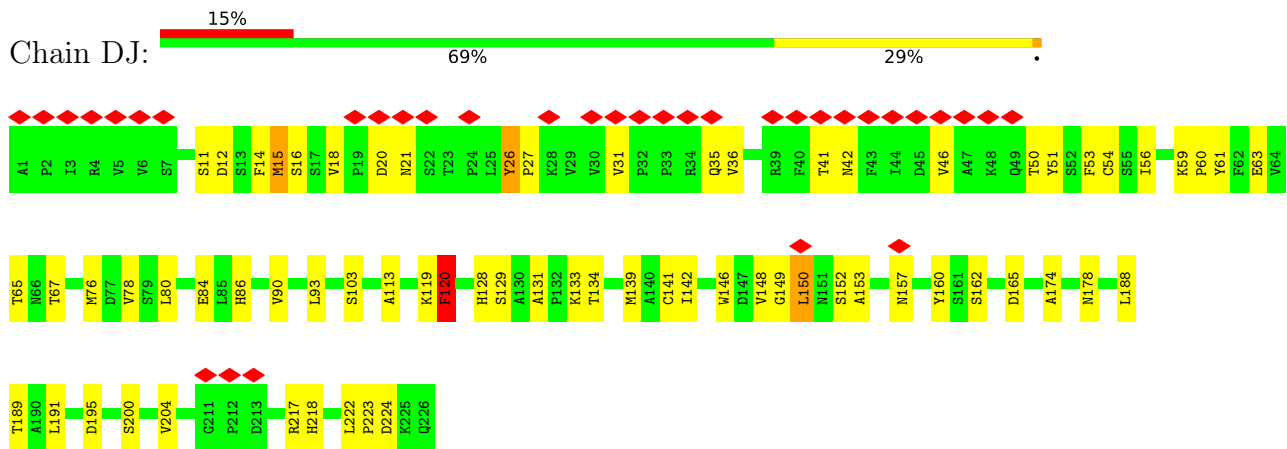
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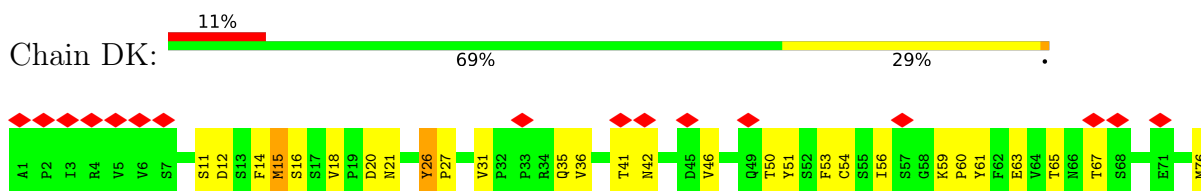
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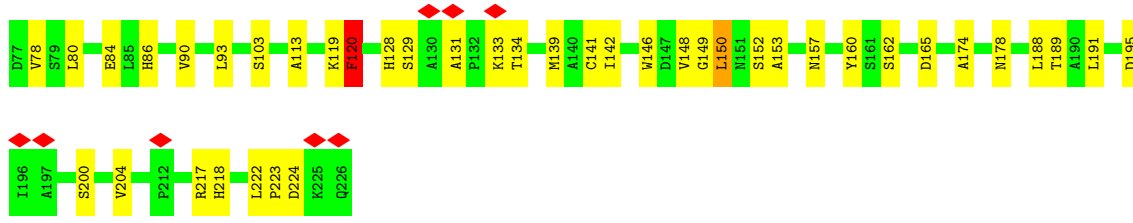


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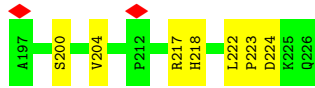
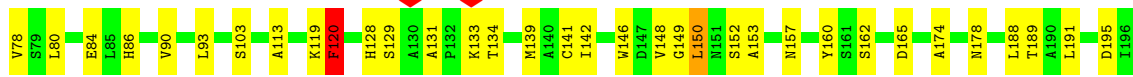
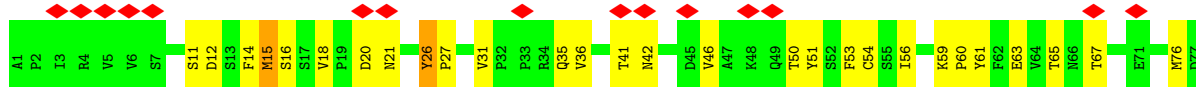
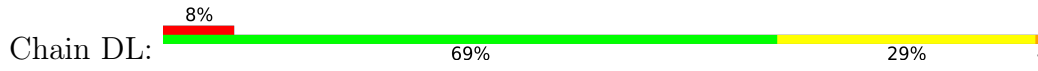


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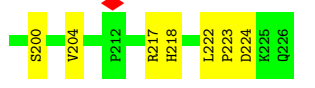
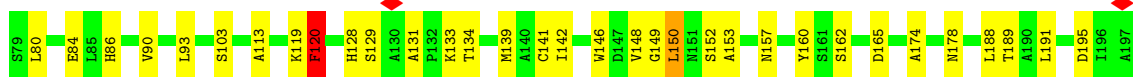
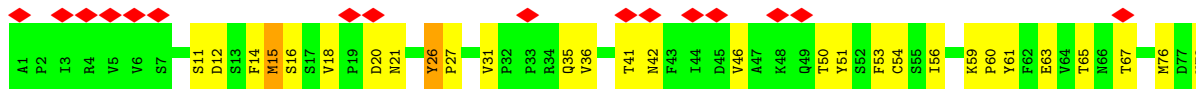
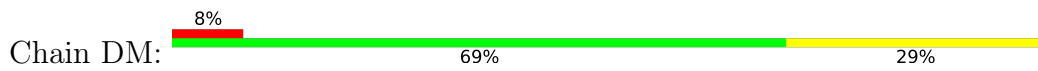




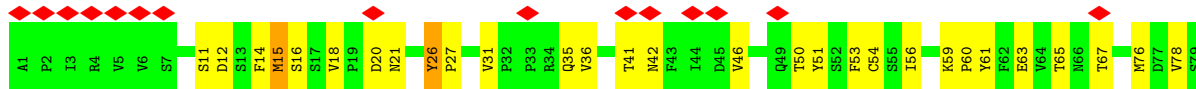
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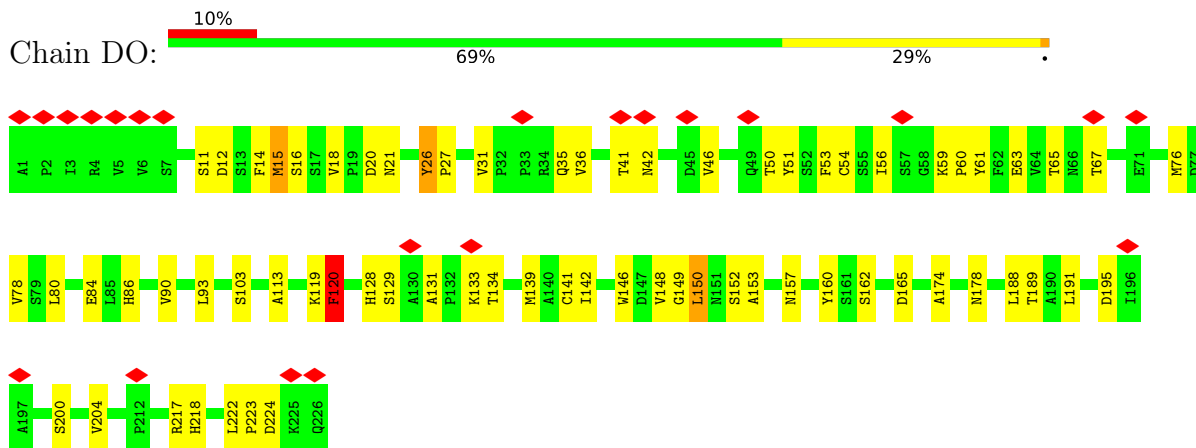
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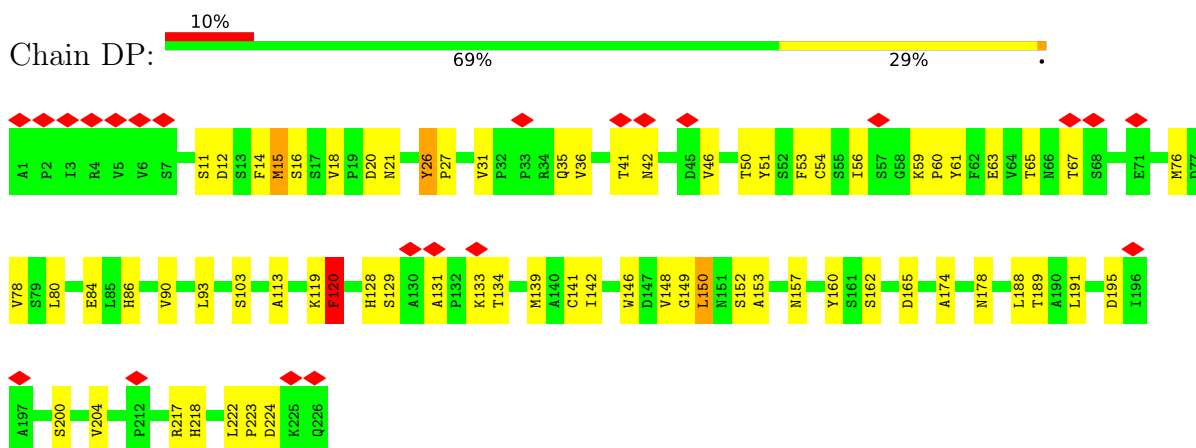
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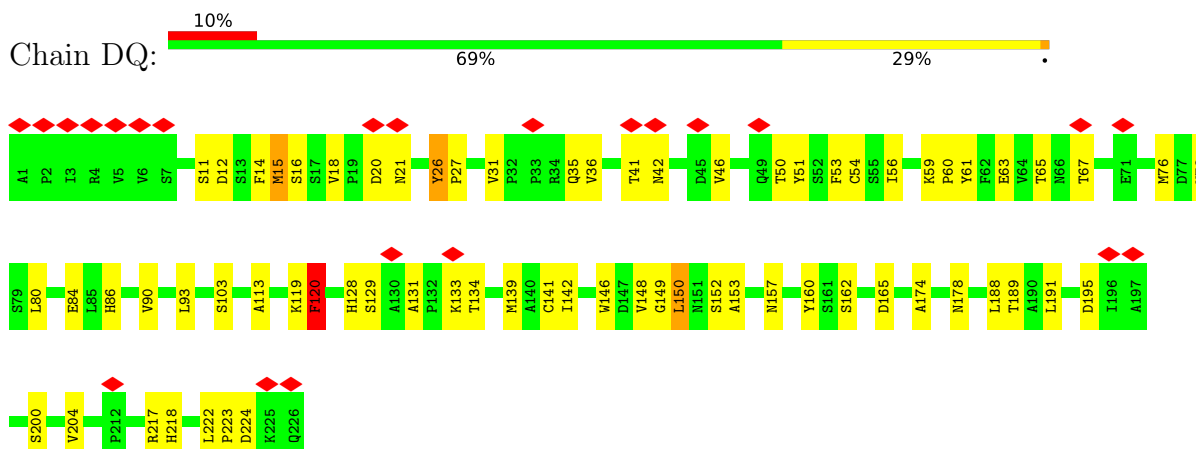
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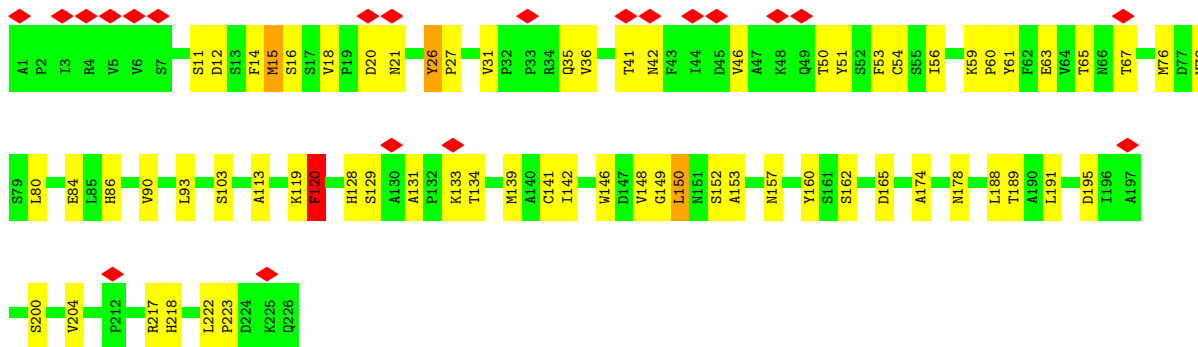


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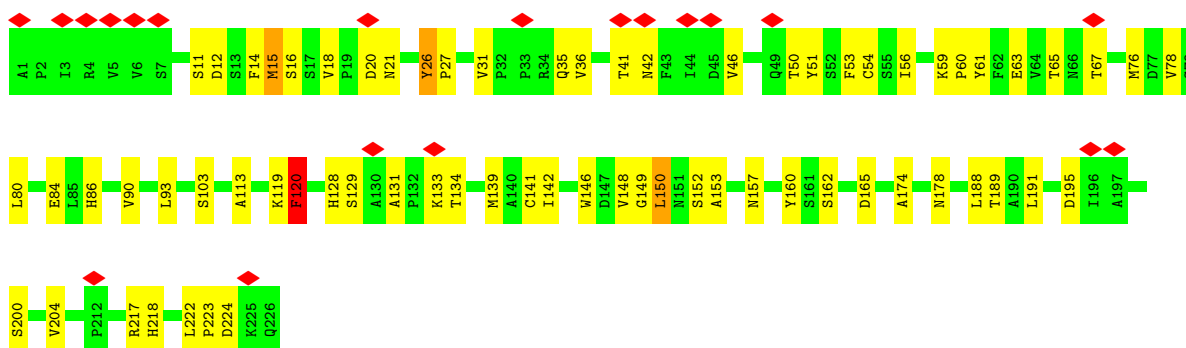


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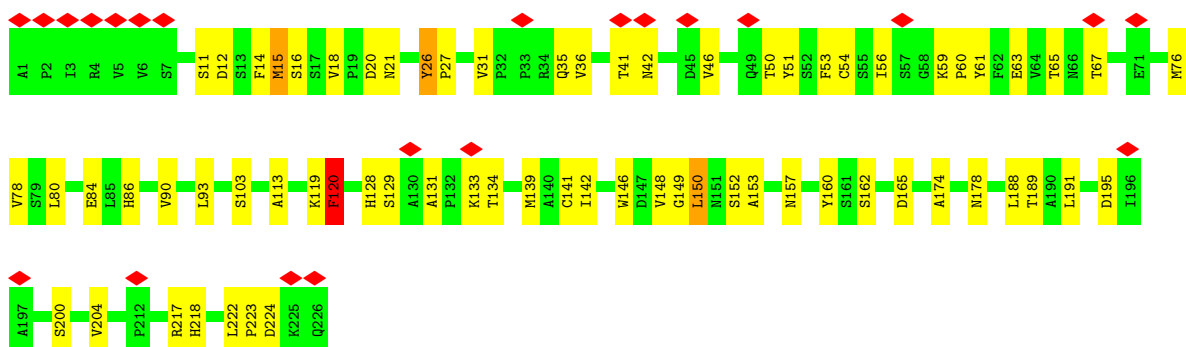




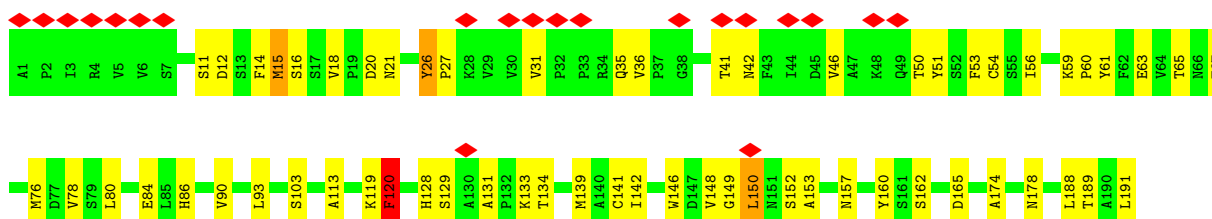
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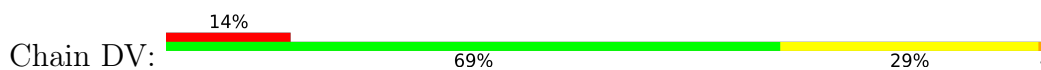


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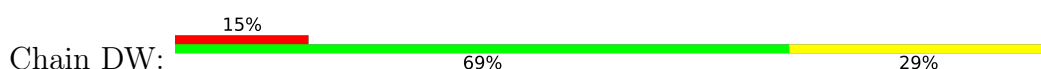




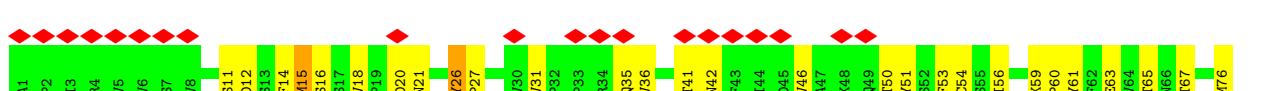
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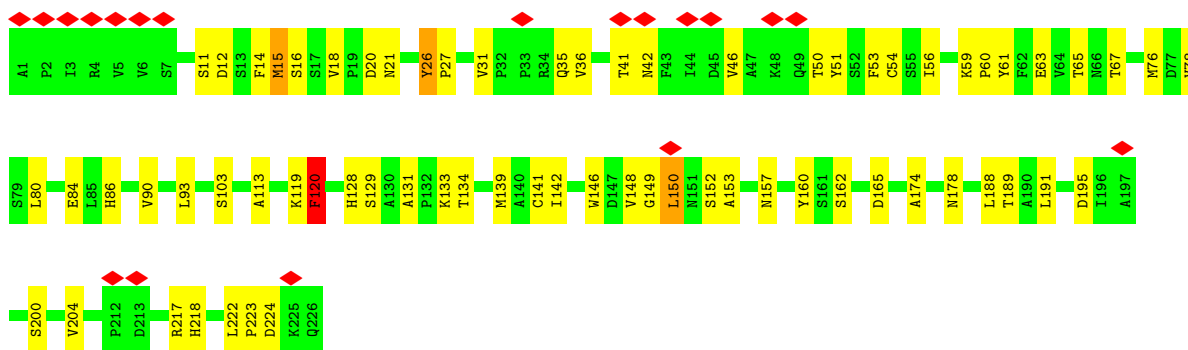
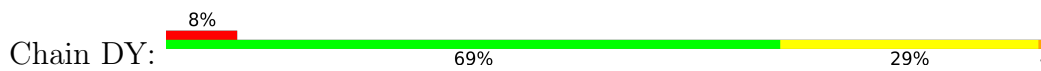
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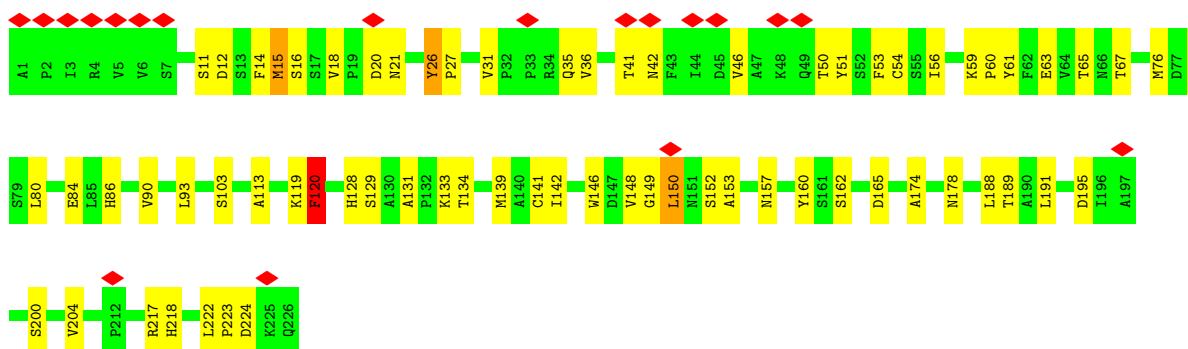
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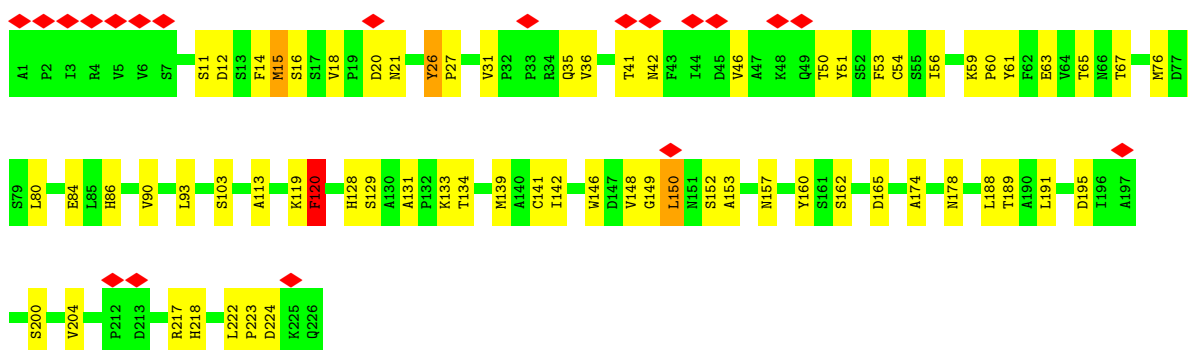
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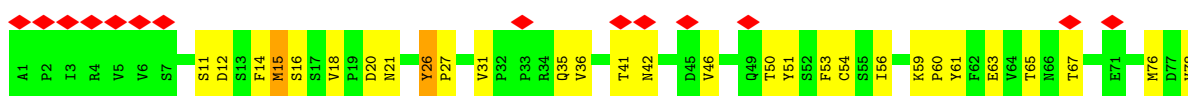
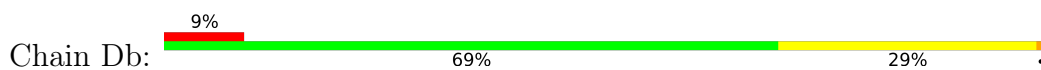
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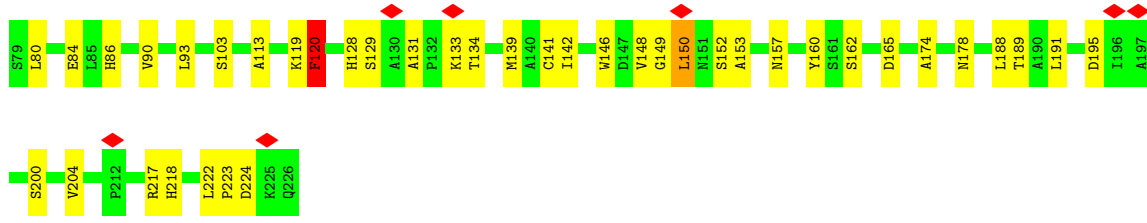


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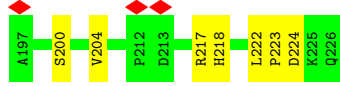
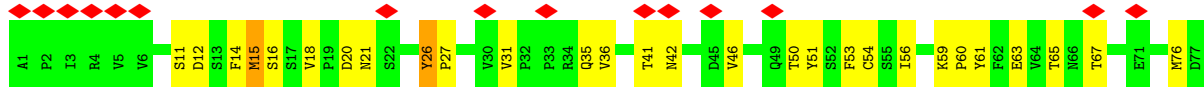
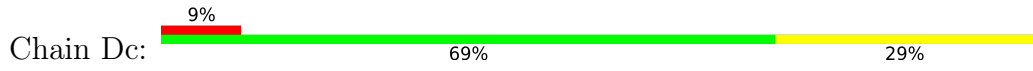


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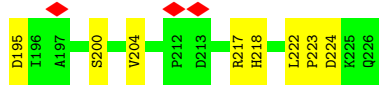
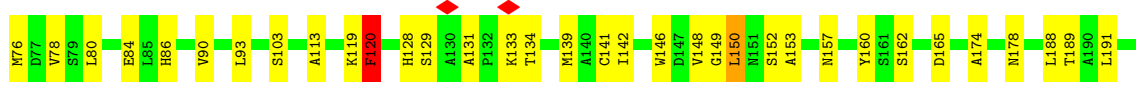
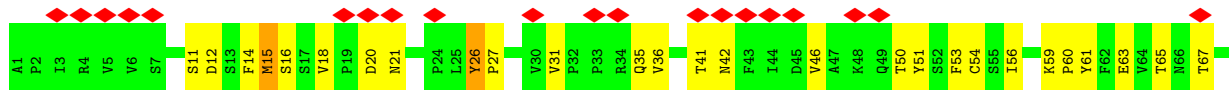
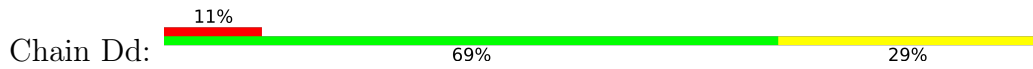




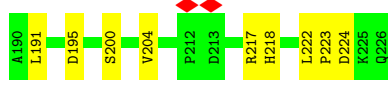
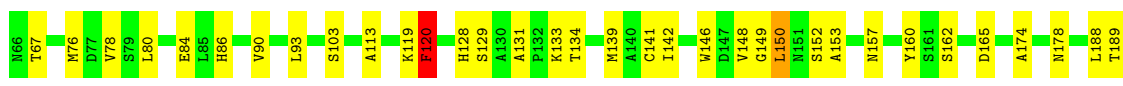
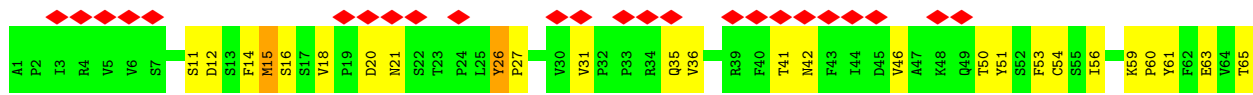
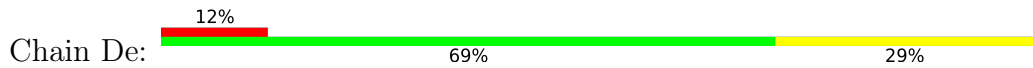
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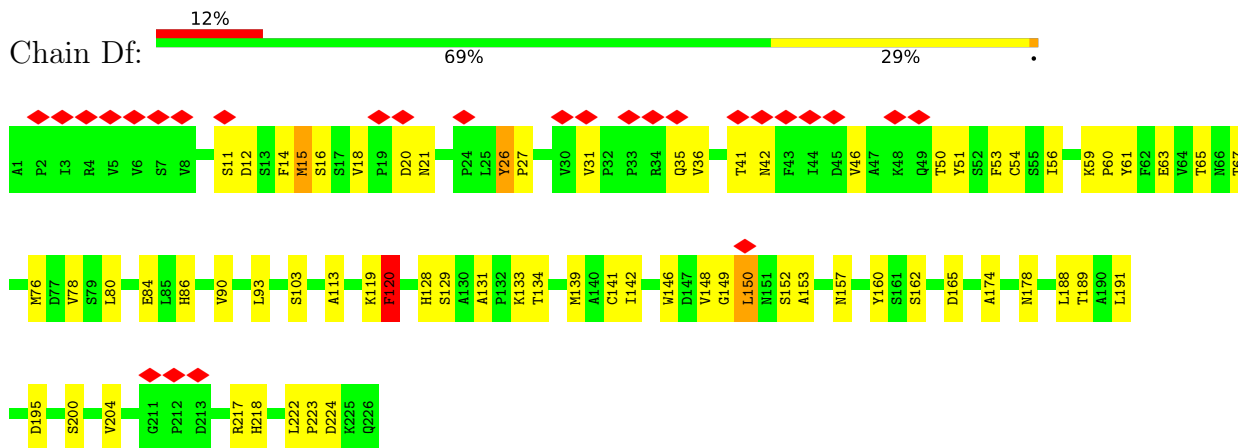
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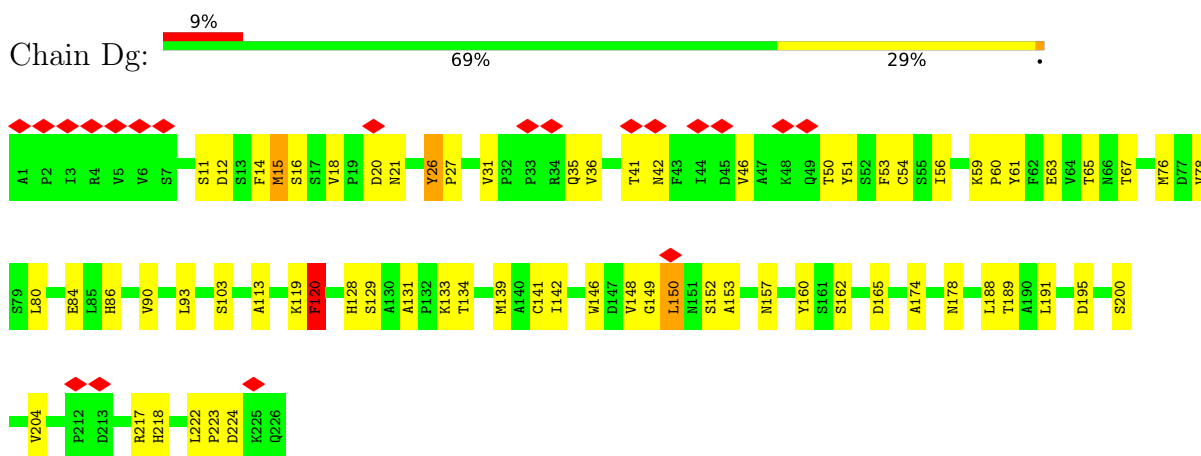
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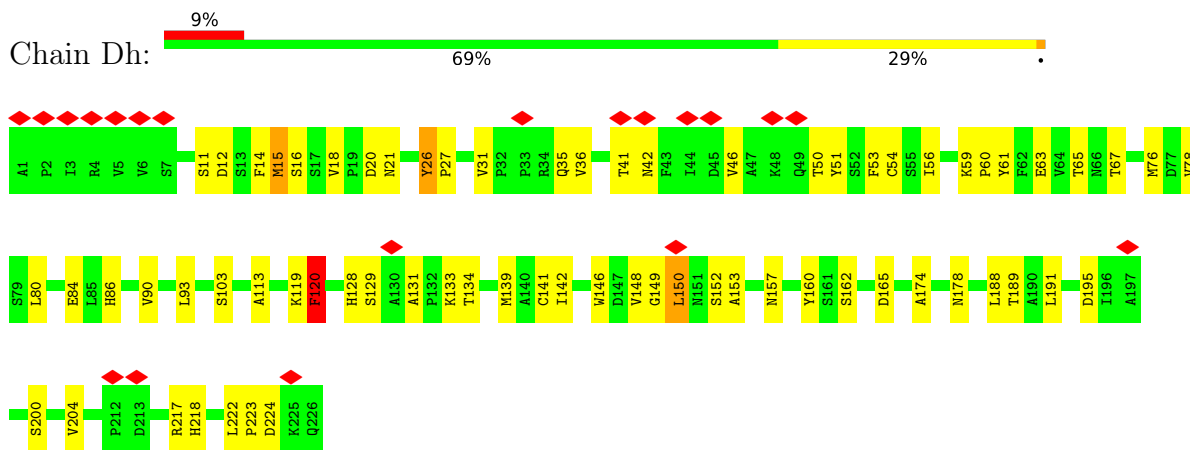
• Molecule 3: P1



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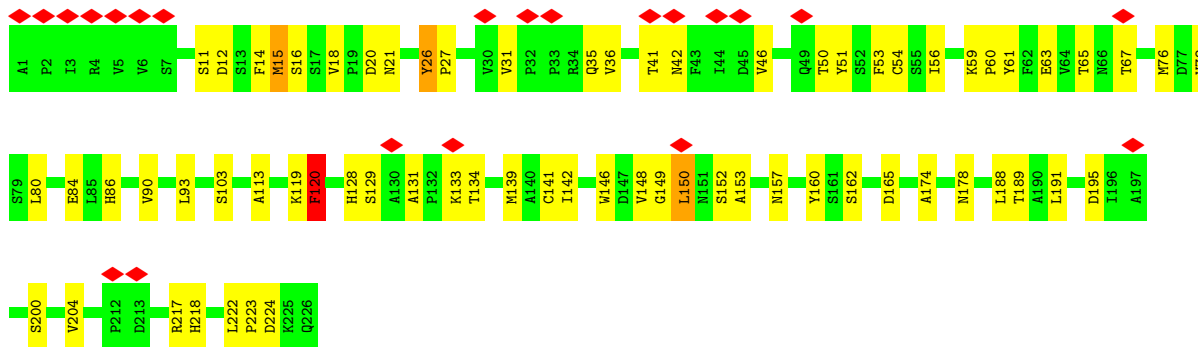


• Molecule 3: P1

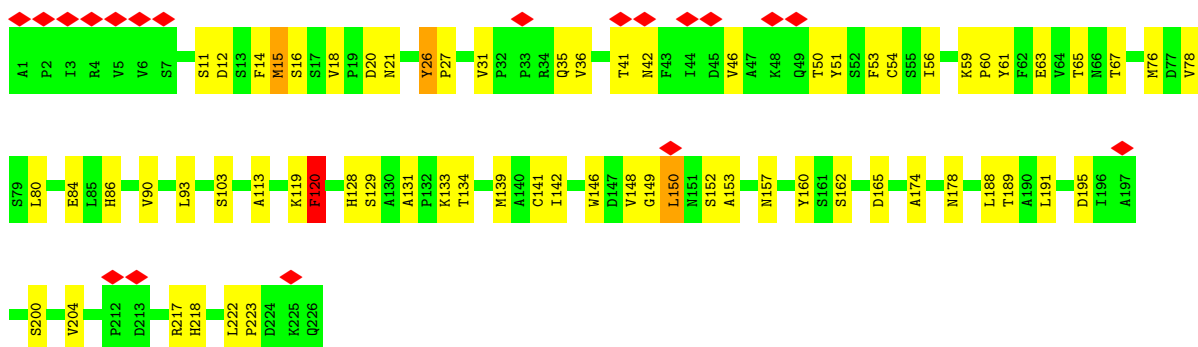


• Molecule 3: P1

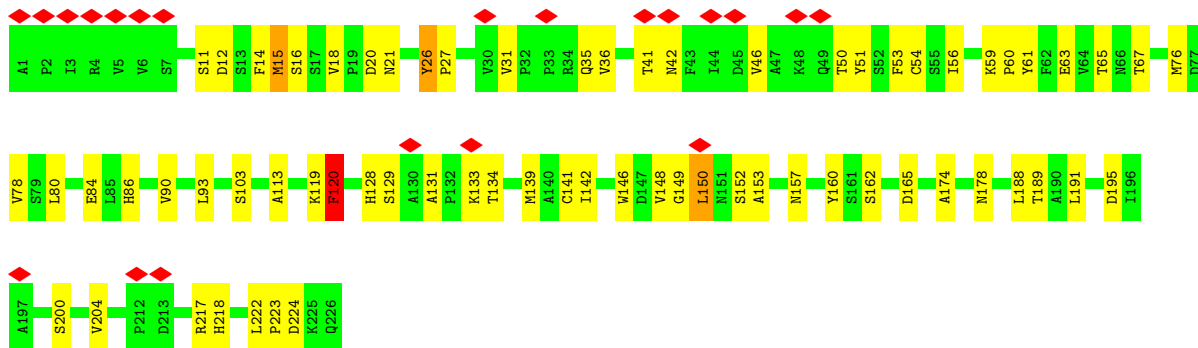




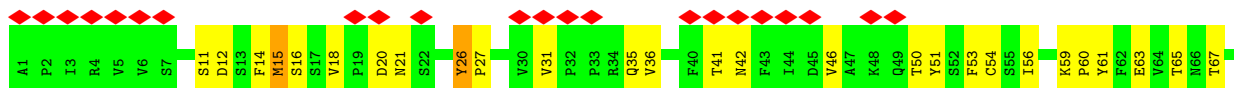
• Molecule 3: P1

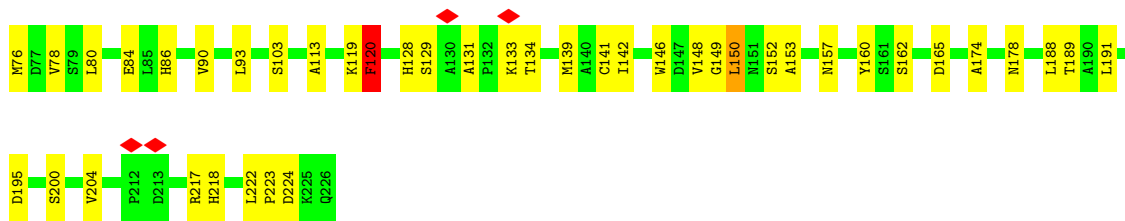


• Molecule 3: P1

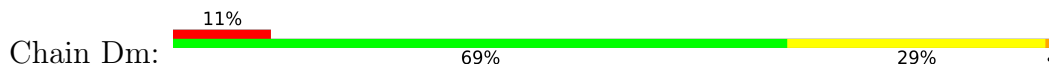


• Molecule 3: P1

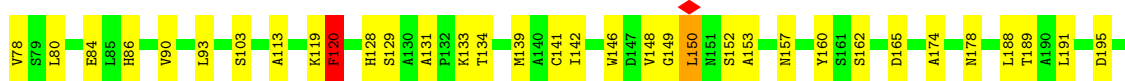
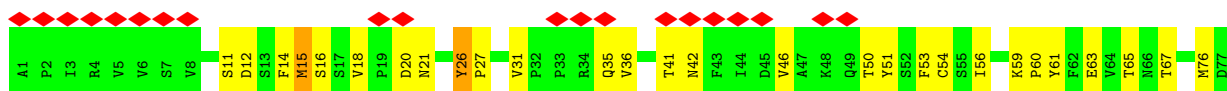
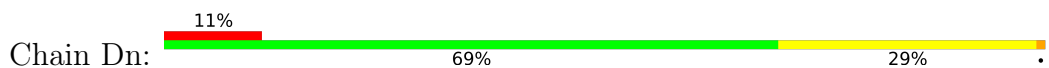




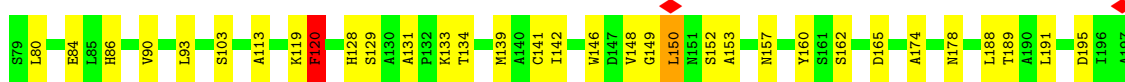
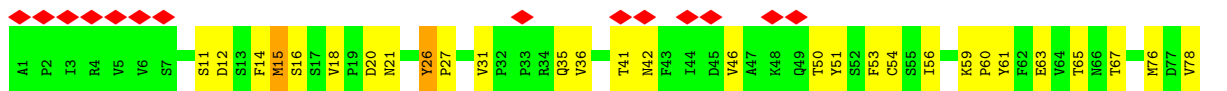
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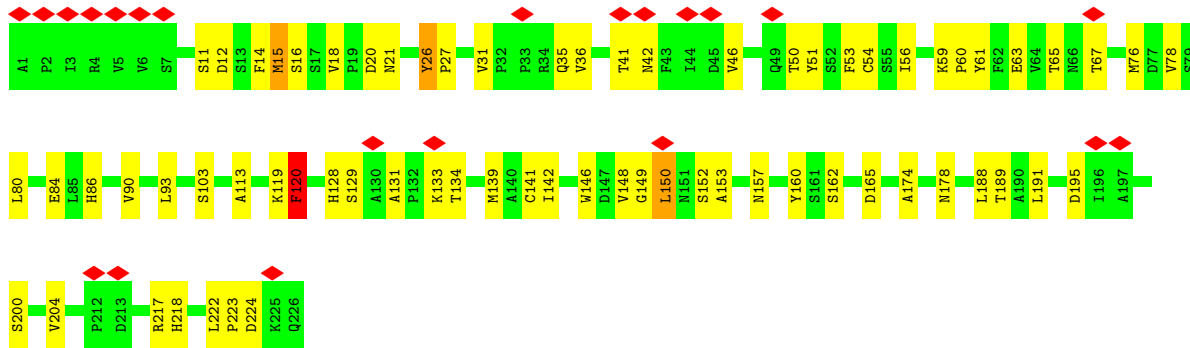
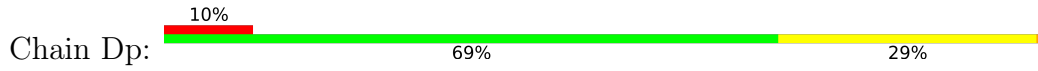
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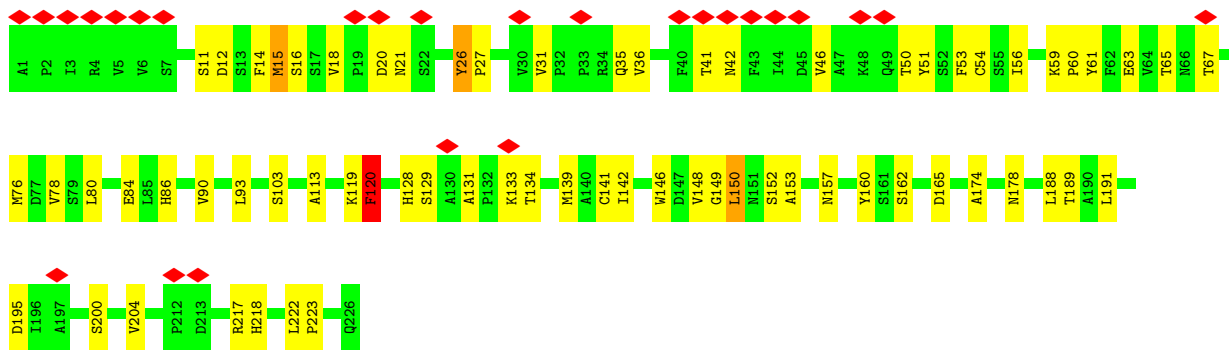
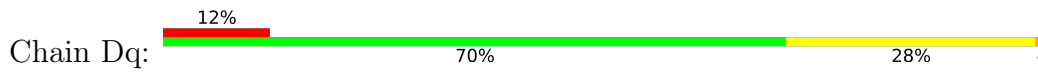
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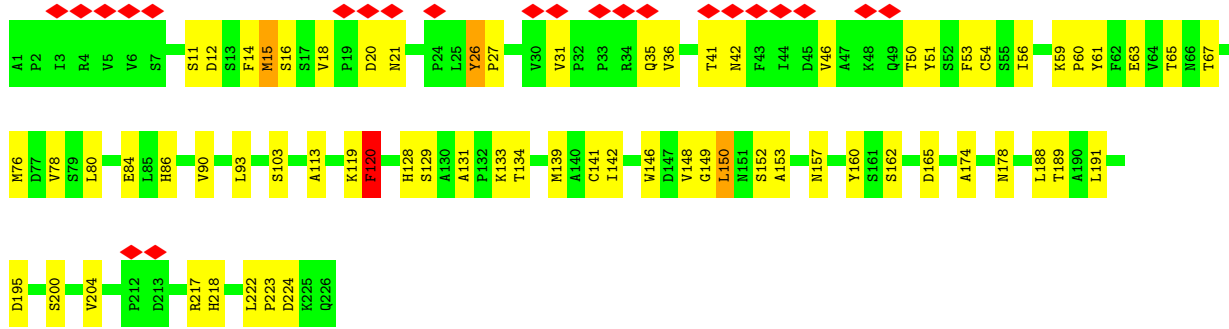
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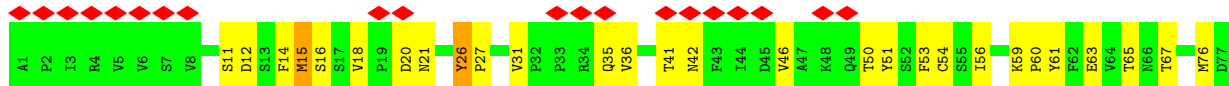
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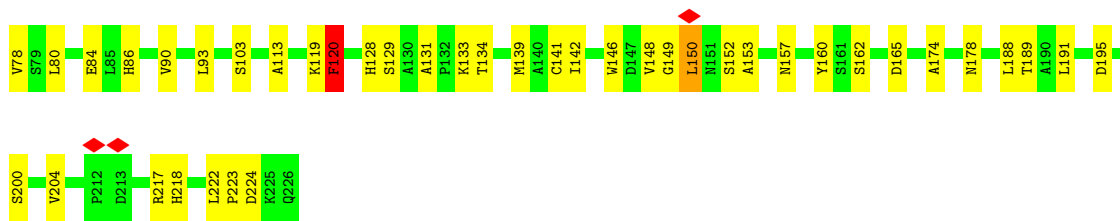


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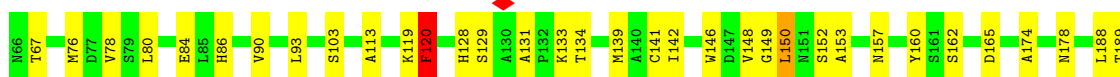


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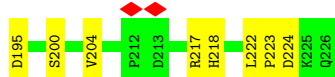




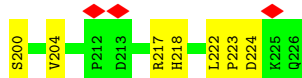
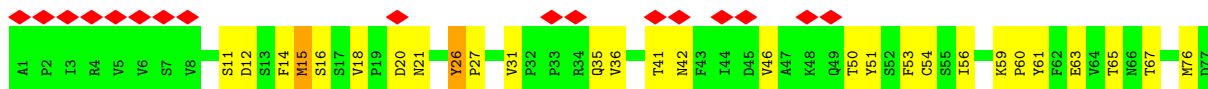
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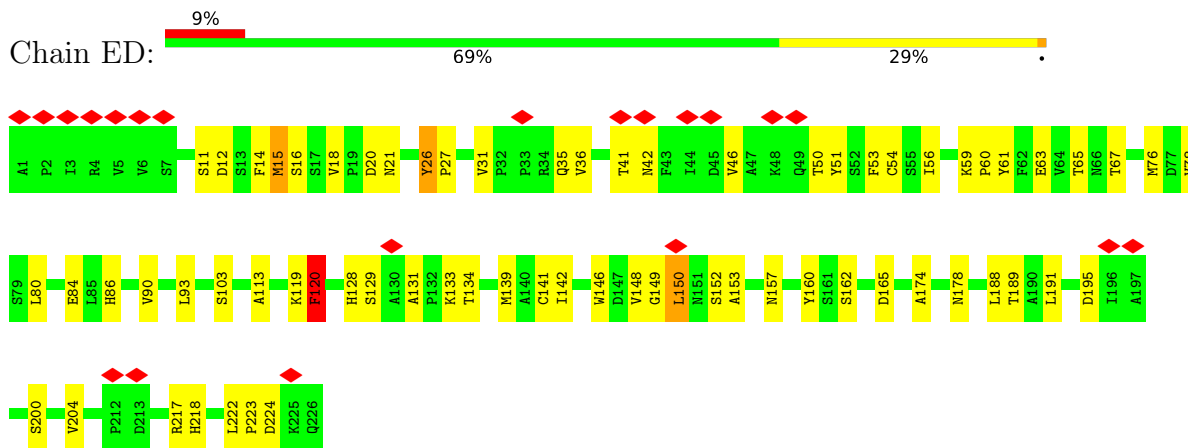
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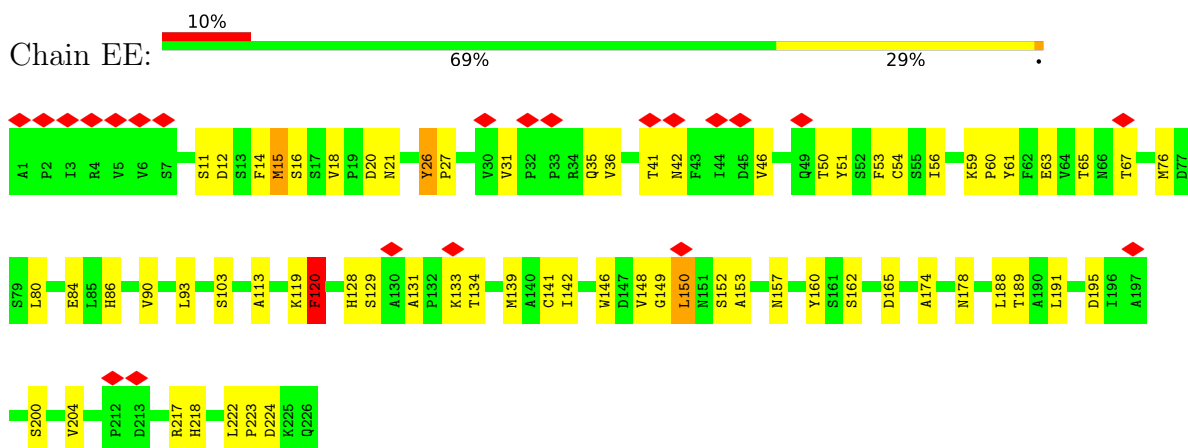
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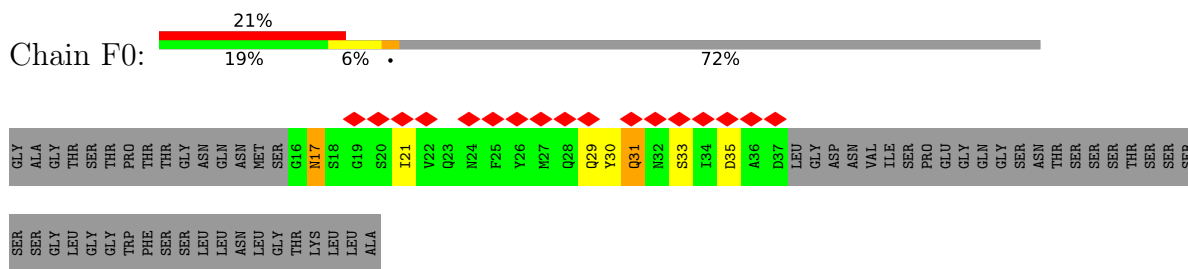
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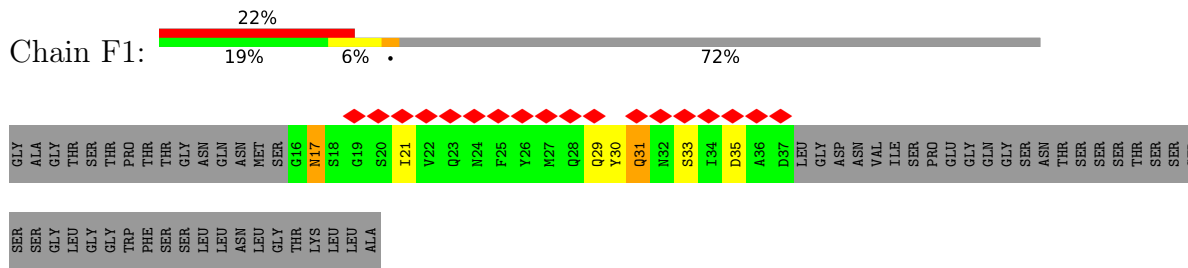
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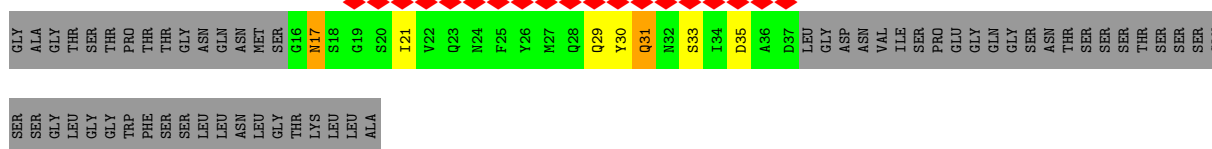
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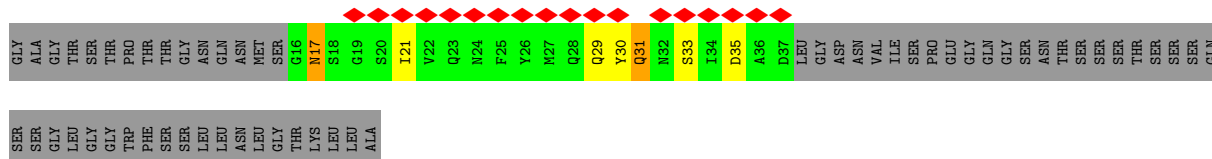
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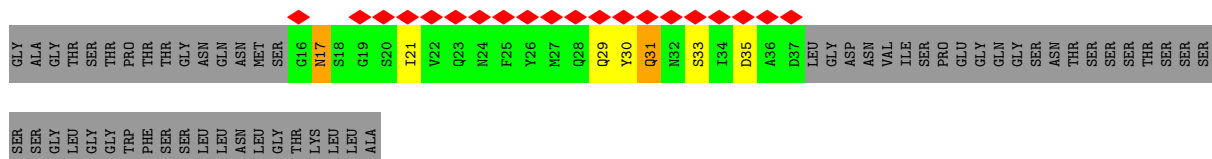
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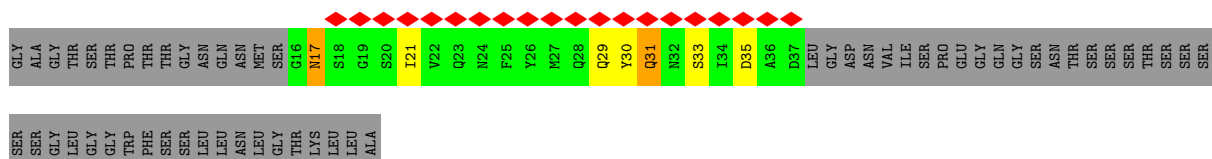
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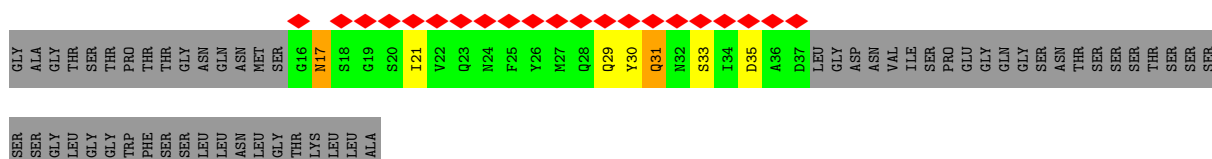
• Molecule 4: P1



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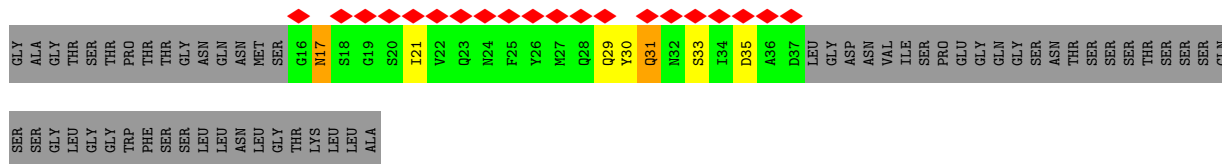


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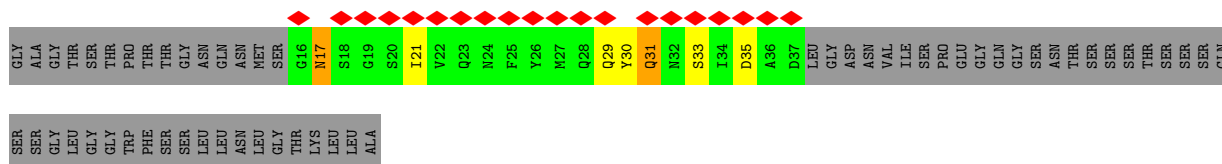


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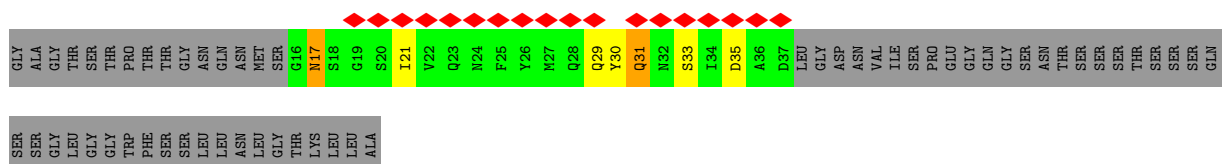




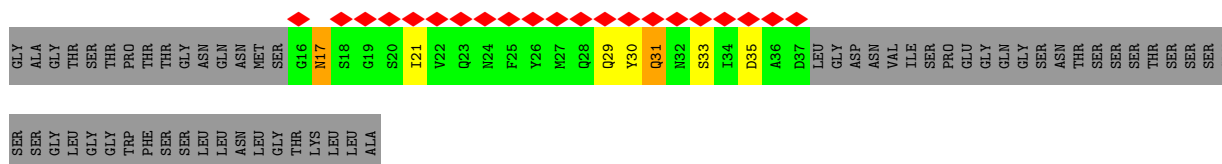
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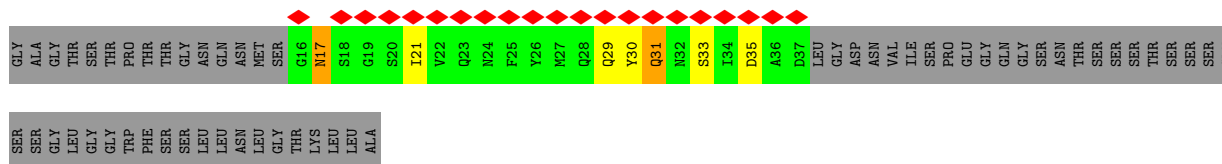
• Molecule 4: P1



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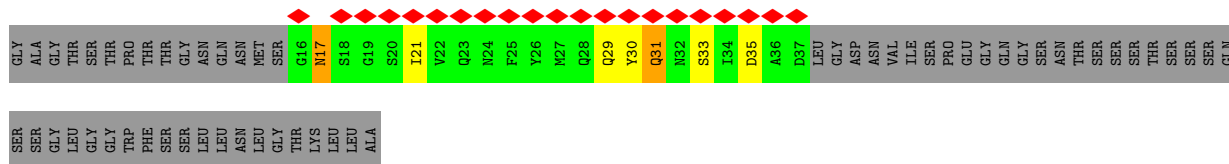


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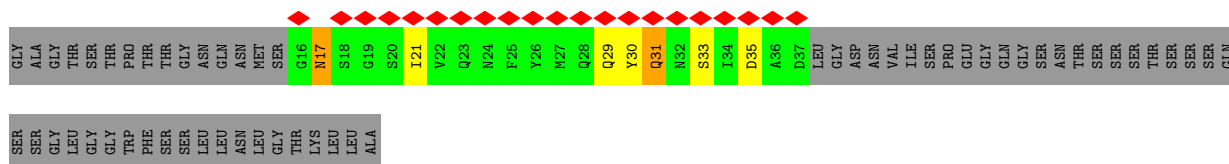


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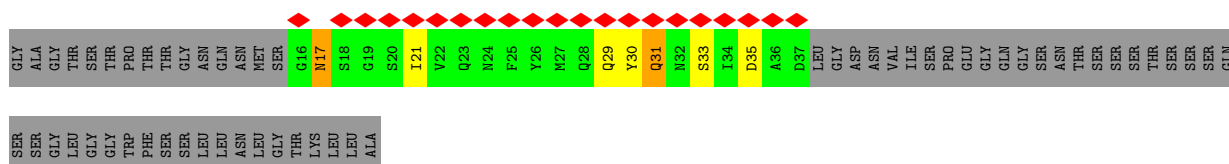




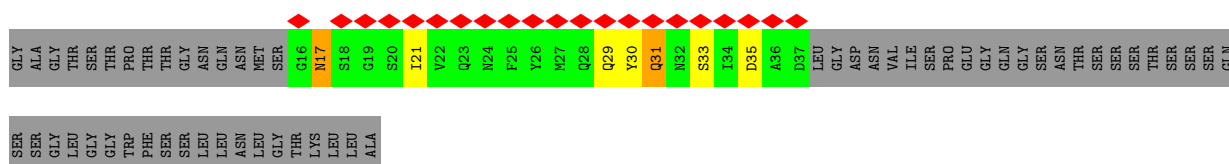
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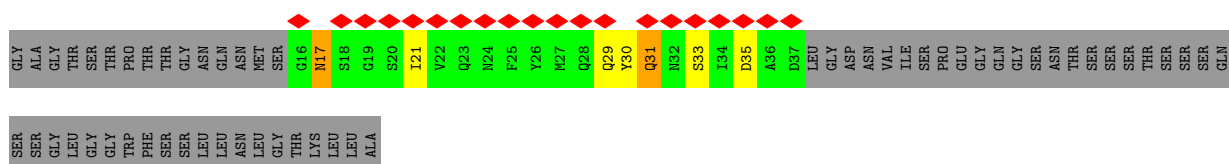
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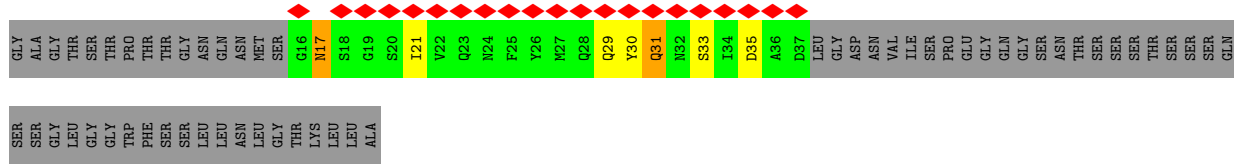


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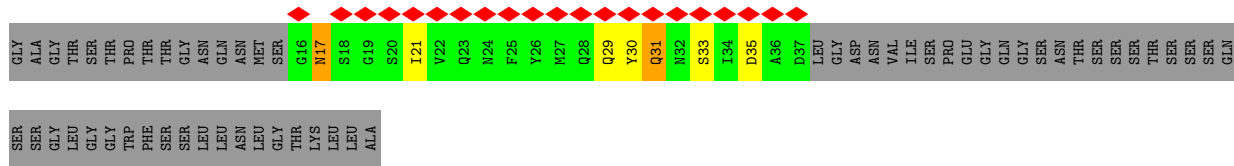


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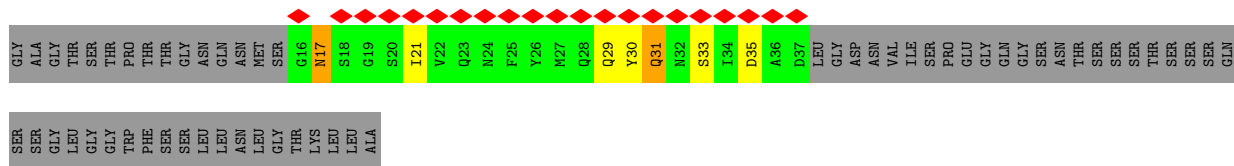




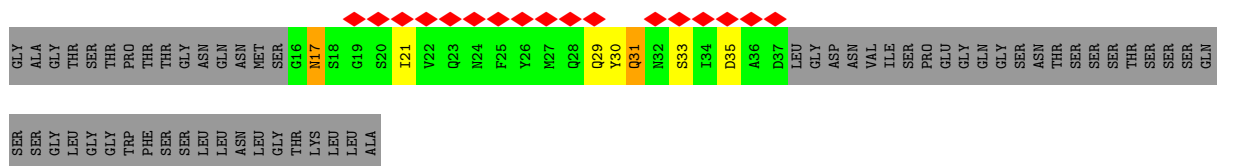
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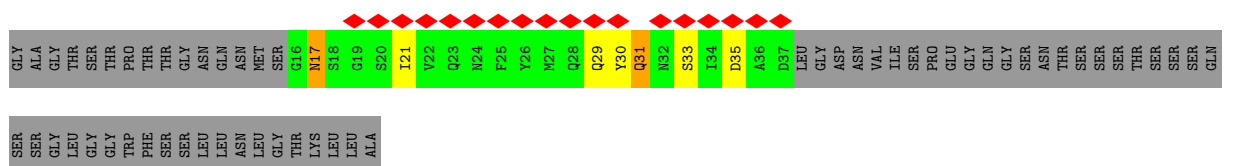
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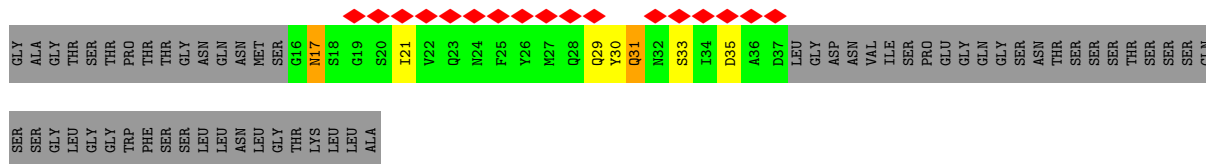


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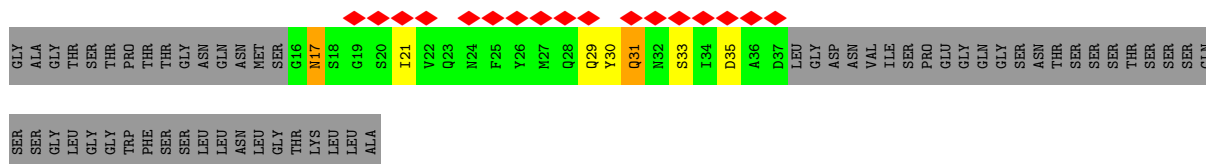


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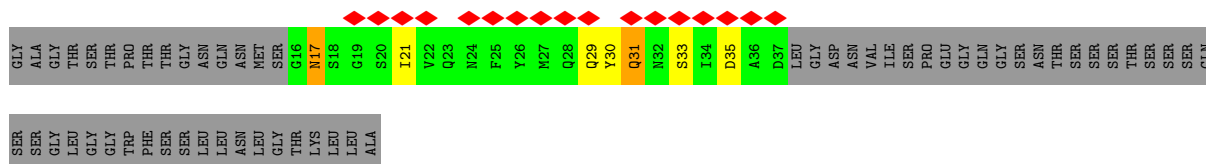




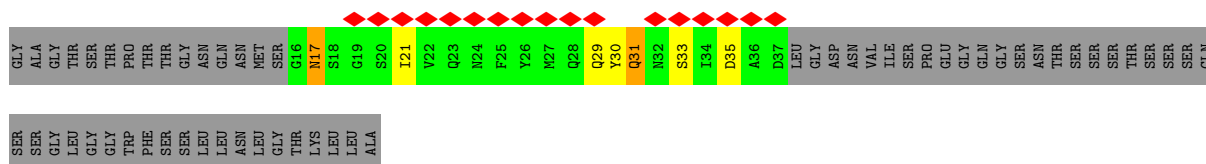
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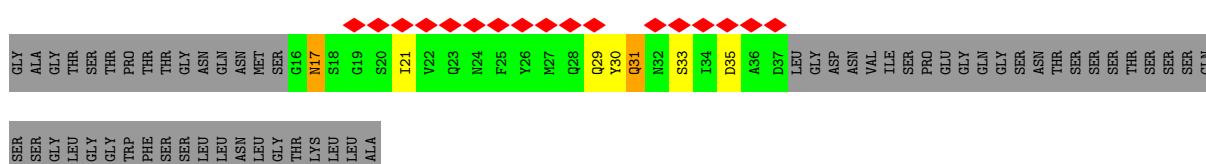
• Molecule 4: P1



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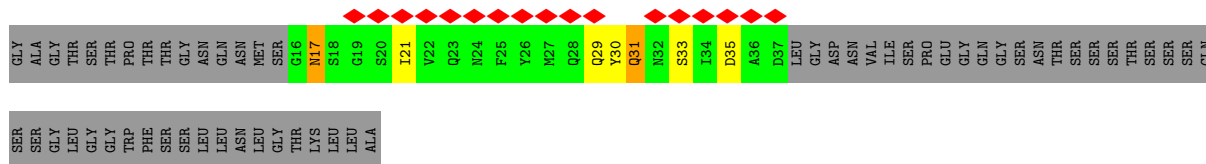


• Molecule 4: P1

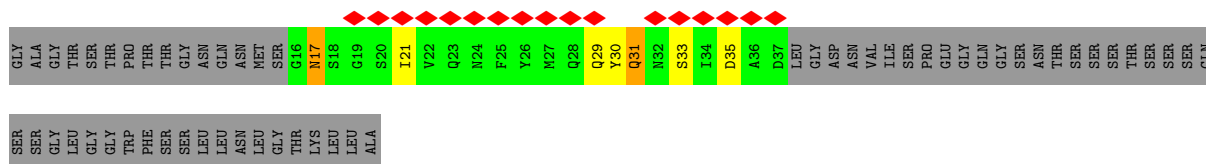


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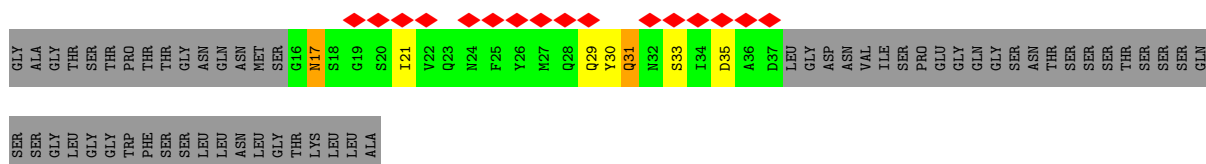




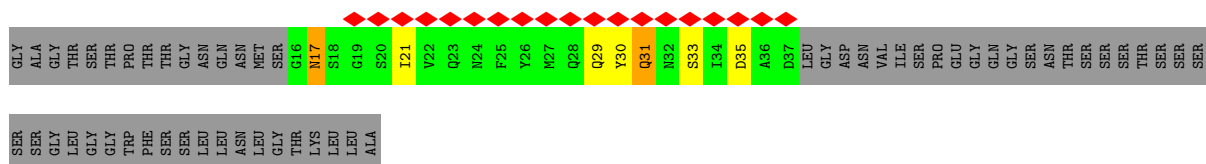
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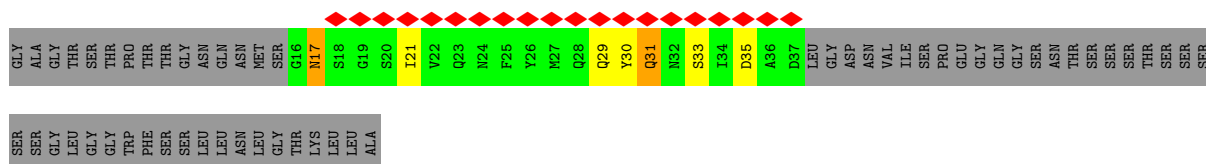
• Molecule 4: P1



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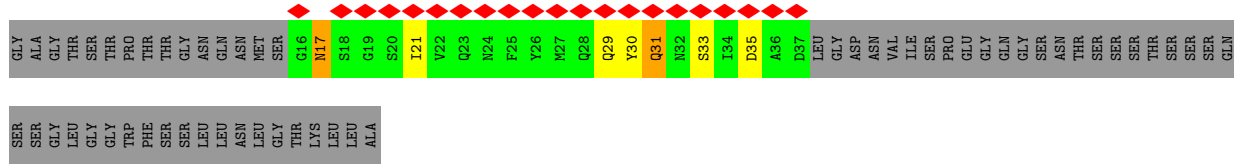


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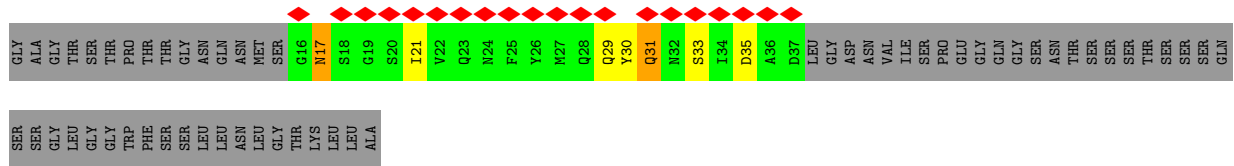


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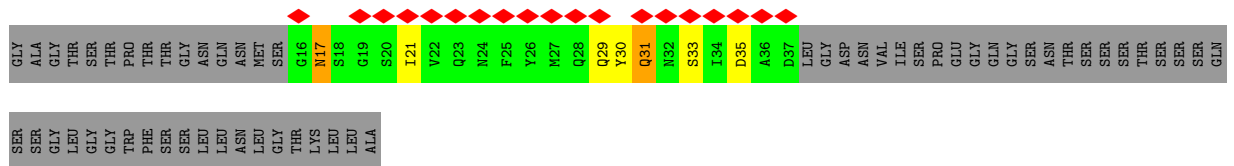




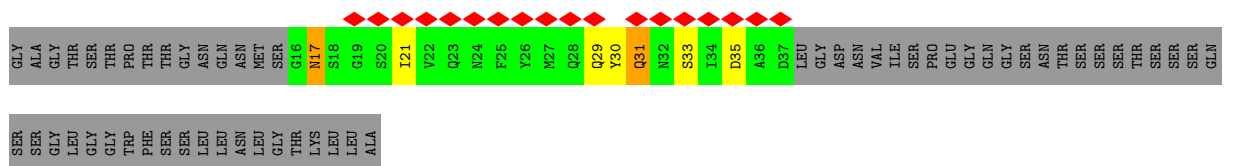
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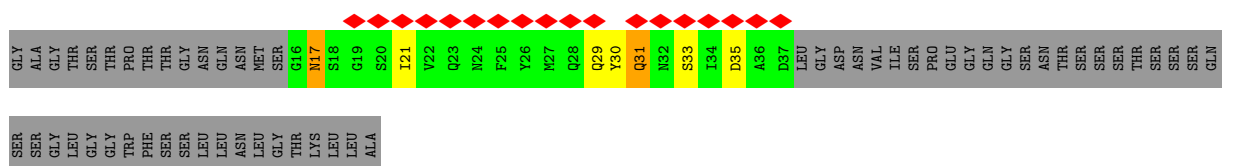
• Molecule 4: P1



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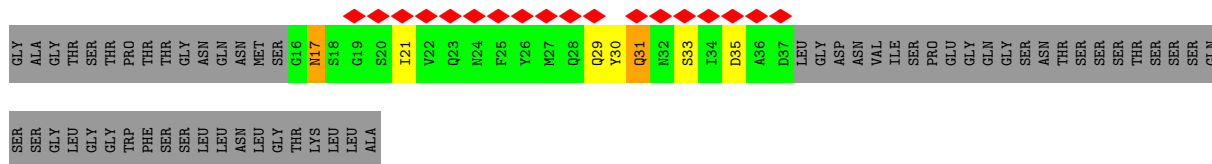


• Molecule 4: P1

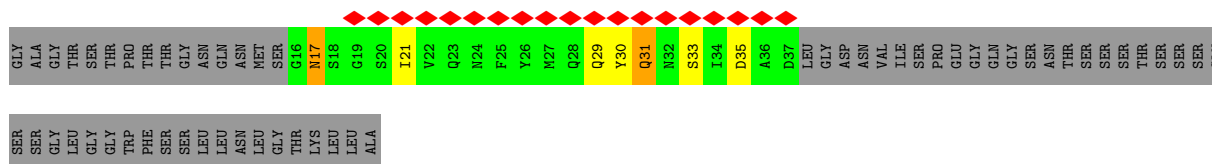


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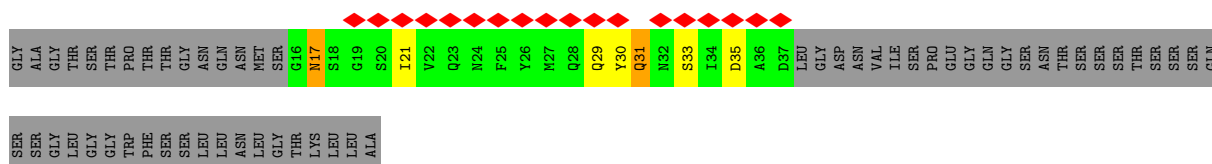




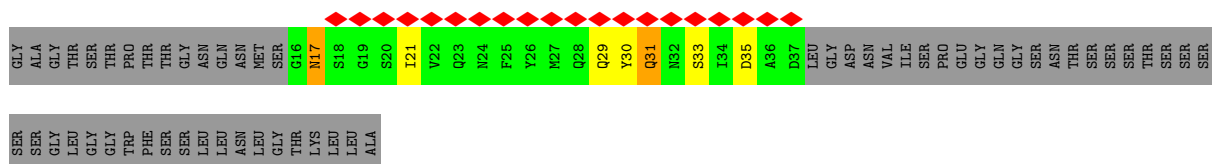
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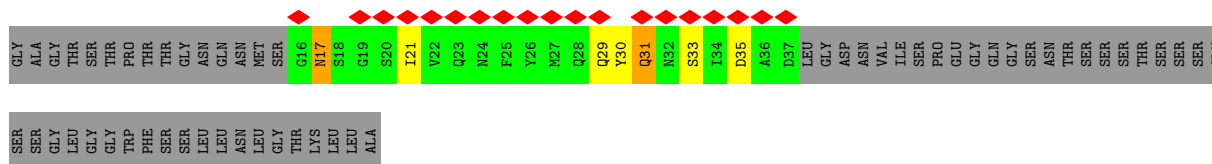
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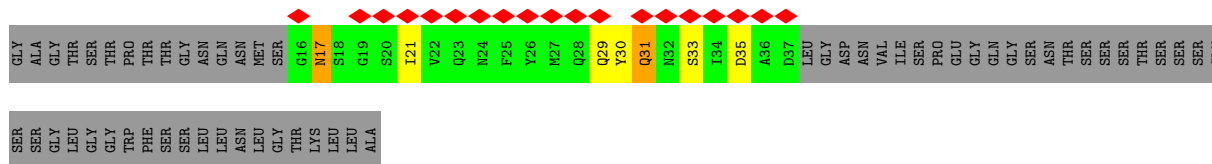


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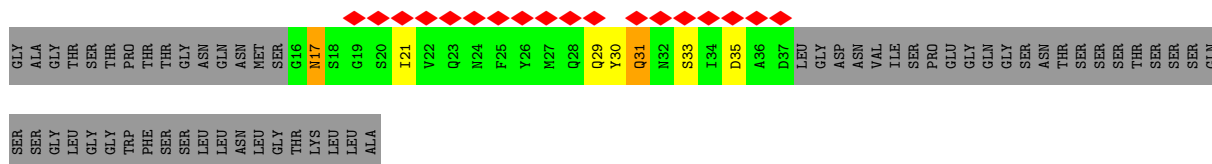


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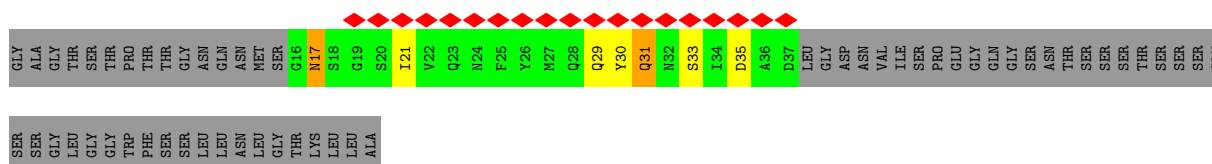




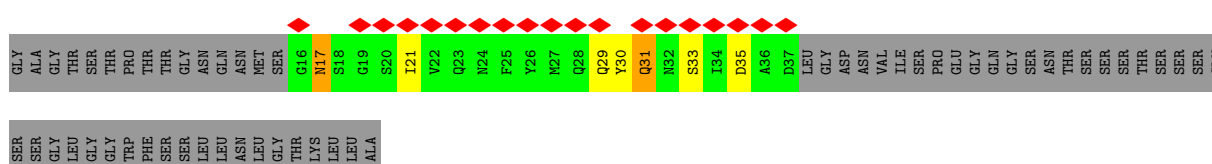
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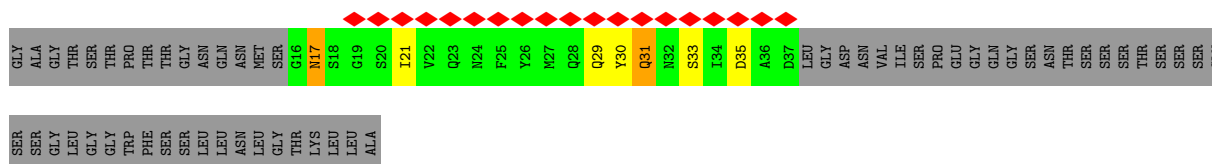
• Molecule 4: P1



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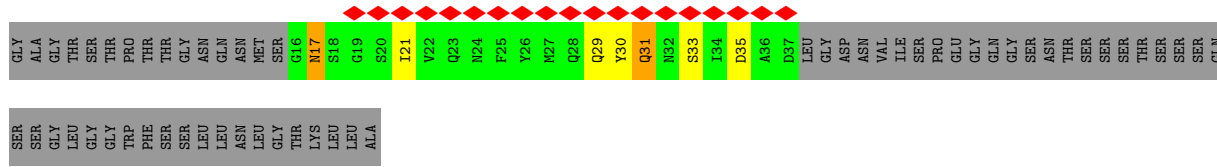


• Molecule 4: P1

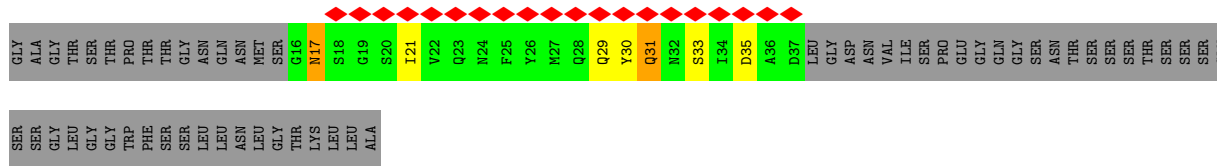


• Molecule 4: P1

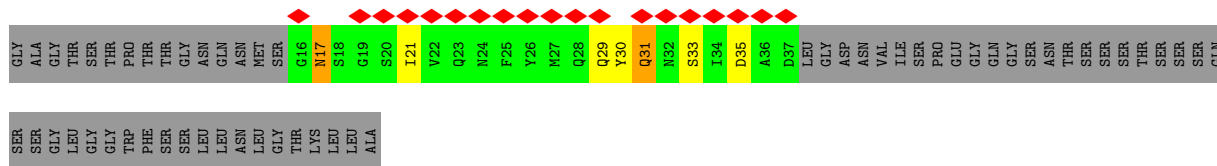




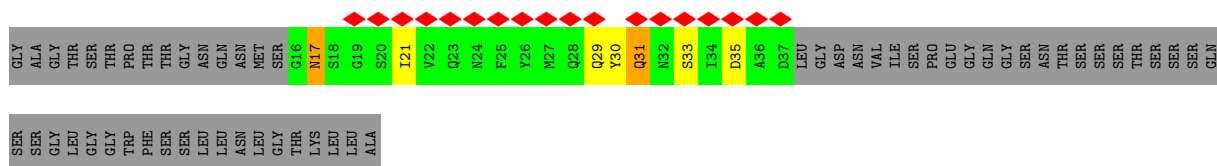
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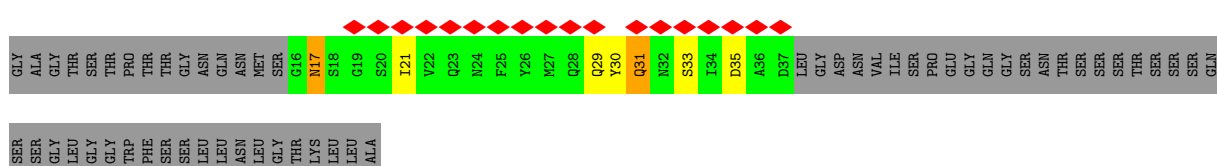
• Molecule 4: P1



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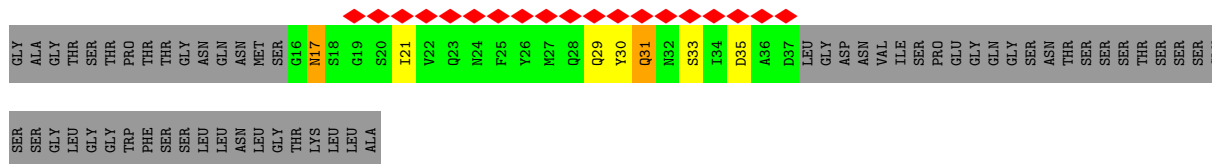


• Molecule 4: P1

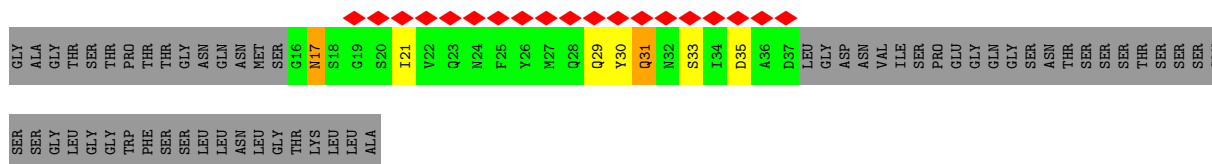


• Molecule 4: P1

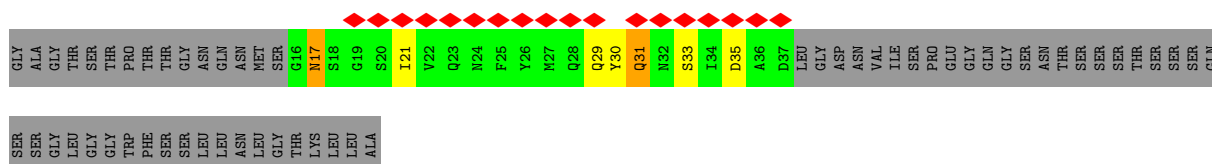




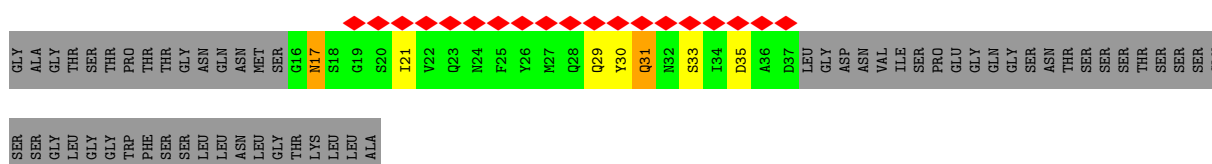
• Molecule 4: P1



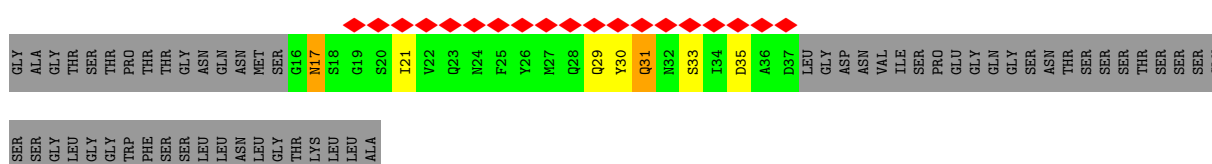
• Molecule 4: P1



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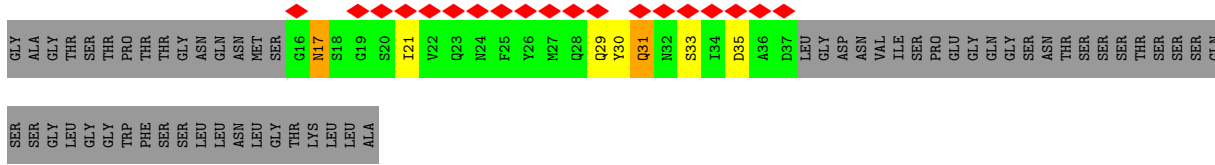


• Molecule 4: P1

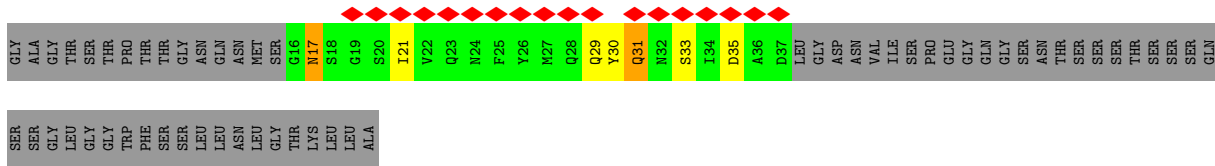


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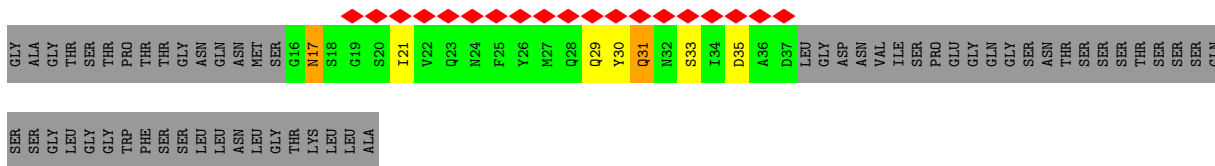




• Molecule 4: P1



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4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, I	Depositor
Number of particles used	260	Depositor
Resolution determination method	Not provided	
CTF correction method	PHASE FLIPPING, EACH PARTICLE	Depositor
Microscope	FEI TECNAI F20	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/\text{\AA}^2$)	15	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	87209	Depositor
Image detector	GATAN ULTRASCAN 4000 (4k x 4k)	Depositor
Maximum map value	5.000	Depositor
Minimum map value	-4.614	Depositor
Average map value	0.058	Depositor
Map value standard deviation	1.018	Depositor
Recommended contour level	0.5	Depositor
Map size (\AA)	412.80002, 412.80002, 412.80002	wwPDB
Map dimensions	240, 240, 240	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (\AA)	1.72, 1.72, 1.72	Depositor

5 Model quality i

5.1 Standard geometry i

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	A0	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	A1	0.84	1/1993 (0.1%)	1.07	7/2721 (0.3%)
1	A2	0.84	1/1993 (0.1%)	1.07	5/2721 (0.2%)
1	A3	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	A4	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	A5	0.84	1/1993 (0.1%)	1.07	7/2721 (0.3%)
1	A6	0.84	1/1993 (0.1%)	1.07	7/2721 (0.3%)
1	A7	0.84	1/1993 (0.1%)	1.07	7/2721 (0.3%)
1	A8	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	A9	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	AA	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	AB	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	AC	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	AD	0.84	1/1993 (0.1%)	1.07	5/2721 (0.2%)
1	AE	0.84	1/1993 (0.1%)	1.07	7/2721 (0.3%)
1	AF	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	AG	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	AH	0.84	1/1993 (0.1%)	1.07	7/2721 (0.3%)
1	AI	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	AJ	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	AK	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	AL	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	AM	0.84	1/1993 (0.1%)	1.07	7/2721 (0.3%)
1	AN	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	AO	0.84	1/1993 (0.1%)	1.07	7/2721 (0.3%)
1	AP	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	AQ	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	AR	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	AS	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	AT	0.84	1/1993 (0.1%)	1.07	7/2721 (0.3%)
1	AU	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	AV	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	AW	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	AX	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	AY	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	AZ	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	Aa	0.84	1/1993 (0.1%)	1.07	7/2721 (0.3%)
1	Ab	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	Ac	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	Ad	0.84	1/1993 (0.1%)	1.07	7/2721 (0.3%)
1	Ae	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	Af	0.84	1/1993 (0.1%)	1.07	7/2721 (0.3%)
1	Ag	0.84	1/1993 (0.1%)	1.07	7/2721 (0.3%)
1	Ah	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	Ai	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	Aj	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	Ak	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	Al	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	Am	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	An	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	Ao	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	BA	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	BB	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	BC	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	BD	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	BE	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	BF	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	BG	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	BH	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
1	BI	0.84	1/1993 (0.1%)	1.07	6/2721 (0.2%)
2	C0	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	C1	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	C2	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	C3	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	C4	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	C5	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	C6	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	C7	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	C8	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	C9	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	CA	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	CB	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	CC	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	CD	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	CE	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	CF	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	CG	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
2	CH	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	CI	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	CJ	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	CK	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	CL	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	CM	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	CN	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	CO	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	CP	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	CQ	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	CR	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	CS	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	CT	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	CU	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	CV	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	CW	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	CX	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	CY	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	CZ	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	Ca	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	Cb	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	Cc	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	Cd	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	Ce	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	Cf	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	Cg	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	Ch	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	Ci	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	Cj	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	Ck	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	Cl	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	Cm	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	Cn	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	Co	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	Cp	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	Cq	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	Cr	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	Cs	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)
2	Ct	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	Cu	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	Cv	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	Cw	0.86	1/1566 (0.1%)	1.17	8/2117 (0.4%)
2	Cx	0.86	1/1566 (0.1%)	1.18	8/2117 (0.4%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
3	D0	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	D1	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	D2	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	D3	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	D4	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	D5	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	D6	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	D7	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	D8	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	D9	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DA	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DB	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DC	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DD	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DE	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DF	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DG	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DH	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DI	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DJ	0.87	5/1769 (0.3%)	1.13	7/2420 (0.3%)
3	DK	0.86	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DL	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DM	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DN	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DO	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DP	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DQ	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DR	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DS	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DT	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DU	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DV	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DW	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DX	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DY	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	DZ	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	Da	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	Db	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	Dc	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	Dd	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	De	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	Df	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	Dg	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
3	Dh	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	Di	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	Dj	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	Dk	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	Dl	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	Dm	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	Dn	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	Do	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	Dp	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	Dq	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	Dr	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	Ds	0.86	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	EA	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	EB	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	EC	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	ED	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
3	EE	0.87	5/1769 (0.3%)	1.12	7/2420 (0.3%)
4	F0	0.78	0/168	1.03	0/226
4	F1	0.78	0/168	1.03	0/226
4	F2	0.78	0/168	1.03	0/226
4	F3	0.78	0/168	1.03	0/226
4	F4	0.78	0/168	1.03	0/226
4	F5	0.78	0/168	1.03	0/226
4	F6	0.77	0/168	1.03	0/226
4	F7	0.78	0/168	1.03	0/226
4	F8	0.78	0/168	1.03	0/226
4	F9	0.78	0/168	1.03	0/226
4	FA	0.78	0/168	1.03	0/226
4	FB	0.78	0/168	1.03	0/226
4	FC	0.78	0/168	1.03	0/226
4	FD	0.78	0/168	1.03	0/226
4	FE	0.78	0/168	1.03	0/226
4	FF	0.78	0/168	1.03	0/226
4	FG	0.78	0/168	1.03	0/226
4	FH	0.78	0/168	1.03	0/226
4	FI	0.78	0/168	1.03	0/226
4	FJ	0.78	0/168	1.03	0/226
4	FK	0.78	0/168	1.03	0/226
4	FL	0.78	0/168	1.03	0/226
4	FM	0.78	0/168	1.03	0/226
4	FN	0.78	0/168	1.03	0/226
4	FO	0.78	0/168	1.03	0/226
4	FP	0.78	0/168	1.03	0/226

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
4	FQ	0.78	0/168	1.03	0/226
4	FR	0.78	0/168	1.03	0/226
4	FS	0.77	0/168	1.03	0/226
4	FT	0.78	0/168	1.03	0/226
4	FU	0.78	0/168	1.03	0/226
4	FV	0.78	0/168	1.03	0/226
4	FW	0.78	0/168	1.03	0/226
4	FX	0.78	0/168	1.03	0/226
4	FY	0.78	0/168	1.03	0/226
4	FZ	0.77	0/168	1.03	0/226
4	Fa	0.78	0/168	1.03	0/226
4	Fb	0.78	0/168	1.03	0/226
4	Fc	0.78	0/168	1.03	0/226
4	Fd	0.77	0/168	1.03	0/226
4	Fe	0.78	0/168	1.03	0/226
4	Ff	0.78	0/168	1.03	0/226
4	Fg	0.78	0/168	1.03	0/226
4	Fh	0.78	0/168	1.03	0/226
4	Fi	0.78	0/168	1.03	0/226
4	Fj	0.78	0/168	1.03	0/226
4	Fk	0.78	0/168	1.03	0/226
4	Fl	0.78	0/168	1.03	0/226
4	Fm	0.78	0/168	1.03	0/226
4	Fn	0.77	0/168	1.03	0/226
4	Fo	0.78	0/168	1.03	0/226
4	Fp	0.78	0/168	1.03	0/226
4	Fq	0.78	0/168	1.03	0/226
4	Fr	0.78	0/168	1.03	0/226
4	Fs	0.78	0/168	1.03	0/226
4	Ft	0.78	0/168	1.03	0/226
4	Fu	0.78	0/168	1.03	0/226
4	Fv	0.78	0/168	1.03	0/226
4	Fw	0.78	0/168	1.03	0/226
4	Fx	0.78	0/168	1.03	0/226
All	All	0.85	420/329760 (0.1%)	1.12	1271/449040 (0.3%)

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
3	D0	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
3	D1	0	2
3	D2	0	2
3	D3	0	2
3	D4	0	2
3	D5	0	2
3	D6	0	2
3	D7	0	2
3	D8	0	2
3	D9	0	2
3	DA	0	2
3	DB	0	2
3	DC	0	2
3	DD	0	2
3	DE	0	2
3	DF	0	2
3	DG	0	2
3	DH	0	2
3	DI	0	2
3	DJ	0	2
3	DK	0	2
3	DL	0	2
3	DM	0	2
3	DN	0	2
3	DO	0	2
3	DP	0	2
3	DQ	0	2
3	DR	0	2
3	DS	0	2
3	DT	0	2
3	DU	0	2
3	DV	0	2
3	DW	0	2
3	DX	0	2
3	DY	0	2
3	DZ	0	2
3	Da	0	2
3	Db	0	2
3	Dc	0	2
3	Dd	0	2
3	De	0	2
3	Df	0	2
3	Dg	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
3	Dh	0	2
3	Di	0	2
3	Dj	0	2
3	Dk	0	2
3	Dl	0	2
3	Dm	0	2
3	Dn	0	2
3	Do	0	2
3	Dp	0	2
3	Dq	0	2
3	Dr	0	2
3	Ds	0	2
3	EA	0	2
3	EB	0	2
3	EC	0	2
3	ED	0	2
3	EE	0	2
All	All	0	120

All (420) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	DO	119	LYS	CE-NZ	7.44	1.67	1.49
3	DS	119	LYS	CE-NZ	7.43	1.67	1.49
3	DG	119	LYS	CE-NZ	7.42	1.67	1.49
3	D3	119	LYS	CE-NZ	7.42	1.67	1.49
3	Dr	119	LYS	CE-NZ	7.42	1.67	1.49
3	Da	119	LYS	CE-NZ	7.41	1.67	1.49
3	EE	119	LYS	CE-NZ	7.41	1.67	1.49
3	DM	119	LYS	CE-NZ	7.41	1.67	1.49
3	DW	119	LYS	CE-NZ	7.41	1.67	1.49
3	DY	119	LYS	CE-NZ	7.41	1.67	1.49
3	Dl	119	LYS	CE-NZ	7.41	1.67	1.49
3	Dg	119	LYS	CE-NZ	7.40	1.67	1.49
3	DF	119	LYS	CE-NZ	7.40	1.67	1.49
3	DU	119	LYS	CE-NZ	7.40	1.67	1.49
3	DV	119	LYS	CE-NZ	7.40	1.67	1.49
3	Dn	119	LYS	CE-NZ	7.40	1.67	1.49
3	DR	119	LYS	CE-NZ	7.40	1.67	1.49
3	DZ	119	LYS	CE-NZ	7.40	1.67	1.49
3	ED	119	LYS	CE-NZ	7.40	1.67	1.49
3	D1	119	LYS	CE-NZ	7.39	1.67	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	DI	119	LYS	CE-NZ	7.39	1.67	1.49
3	D8	119	LYS	CE-NZ	7.39	1.67	1.49
3	DB	119	LYS	CE-NZ	7.39	1.67	1.49
3	DK	119	LYS	CE-NZ	7.39	1.67	1.49
3	De	119	LYS	CE-NZ	7.39	1.67	1.49
3	EC	119	LYS	CE-NZ	7.39	1.67	1.49
3	DE	119	LYS	CE-NZ	7.39	1.67	1.49
3	Db	119	LYS	CE-NZ	7.39	1.67	1.49
3	Dk	119	LYS	CE-NZ	7.39	1.67	1.49
3	Dc	119	LYS	CE-NZ	7.39	1.67	1.49
3	DA	119	LYS	CE-NZ	7.39	1.67	1.49
3	Di	119	LYS	CE-NZ	7.39	1.67	1.49
3	D7	119	LYS	CE-NZ	7.38	1.67	1.49
3	Dd	119	LYS	CE-NZ	7.38	1.67	1.49
3	Dp	119	LYS	CE-NZ	7.38	1.67	1.49
3	DD	119	LYS	CE-NZ	7.38	1.67	1.49
3	DX	119	LYS	CE-NZ	7.38	1.67	1.49
3	Do	119	LYS	CE-NZ	7.38	1.67	1.49
3	Dj	119	LYS	CE-NZ	7.38	1.67	1.49
3	D5	119	LYS	CE-NZ	7.37	1.67	1.49
3	Dm	119	LYS	CE-NZ	7.37	1.67	1.49
3	D9	119	LYS	CE-NZ	7.37	1.67	1.49
3	D0	119	LYS	CE-NZ	7.37	1.67	1.49
3	D2	119	LYS	CE-NZ	7.37	1.67	1.49
3	D4	119	LYS	CE-NZ	7.37	1.67	1.49
3	D6	119	LYS	CE-NZ	7.37	1.67	1.49
3	DQ	119	LYS	CE-NZ	7.37	1.67	1.49
3	DC	119	LYS	CE-NZ	7.37	1.67	1.49
3	EB	119	LYS	CE-NZ	7.37	1.67	1.49
3	Dh	119	LYS	CE-NZ	7.36	1.67	1.49
3	EA	119	LYS	CE-NZ	7.36	1.67	1.49
3	DJ	119	LYS	CE-NZ	7.36	1.67	1.49
3	DN	119	LYS	CE-NZ	7.36	1.67	1.49
3	DP	119	LYS	CE-NZ	7.35	1.67	1.49
3	Ds	119	LYS	CE-NZ	7.35	1.67	1.49
3	DL	119	LYS	CE-NZ	7.35	1.67	1.49
3	DT	119	LYS	CE-NZ	7.34	1.67	1.49
3	Dq	119	LYS	CE-NZ	7.34	1.67	1.49
3	Df	119	LYS	CE-NZ	7.33	1.67	1.49
3	DH	119	LYS	CE-NZ	7.33	1.67	1.49
3	D9	120	PHE	N-CA	6.38	1.59	1.46
3	DZ	120	PHE	N-CA	6.37	1.59	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	Da	120	PHE	N-CA	6.37	1.59	1.46
3	DY	120	PHE	N-CA	6.36	1.59	1.46
3	D2	120	PHE	N-CA	6.36	1.59	1.46
3	DT	120	PHE	N-CA	6.36	1.59	1.46
3	DF	120	PHE	N-CA	6.36	1.59	1.46
3	D4	120	PHE	N-CA	6.35	1.59	1.46
3	D5	120	PHE	N-CA	6.35	1.59	1.46
3	DV	120	PHE	N-CA	6.35	1.59	1.46
3	D3	120	PHE	N-CA	6.35	1.59	1.46
3	DB	120	PHE	N-CA	6.35	1.59	1.46
3	DR	120	PHE	N-CA	6.35	1.59	1.46
3	De	120	PHE	N-CA	6.35	1.59	1.46
3	Df	120	PHE	N-CA	6.34	1.59	1.46
3	Dp	120	PHE	N-CA	6.34	1.59	1.46
3	DQ	120	PHE	N-CA	6.34	1.59	1.46
3	DS	120	PHE	N-CA	6.34	1.59	1.46
3	Dj	120	PHE	N-CA	6.34	1.59	1.46
3	DL	120	PHE	N-CA	6.34	1.59	1.46
3	Dl	120	PHE	N-CA	6.34	1.59	1.46
3	EA	120	PHE	N-CA	6.34	1.59	1.46
3	D7	120	PHE	N-CA	6.33	1.59	1.46
3	DX	120	PHE	N-CA	6.33	1.59	1.46
3	ED	120	PHE	N-CA	6.33	1.59	1.46
3	D8	120	PHE	N-CA	6.33	1.59	1.46
3	Do	120	PHE	N-CA	6.33	1.59	1.46
3	DD	120	PHE	N-CA	6.33	1.59	1.46
3	DO	120	PHE	N-CA	6.33	1.59	1.46
3	Dg	120	PHE	N-CA	6.33	1.59	1.46
3	DH	120	PHE	N-CA	6.32	1.58	1.46
3	DM	120	PHE	N-CA	6.32	1.58	1.46
3	D0	120	PHE	N-CA	6.32	1.58	1.46
3	DA	120	PHE	N-CA	6.32	1.58	1.46
3	DP	120	PHE	N-CA	6.32	1.58	1.46
3	DI	120	PHE	N-CA	6.31	1.58	1.46
3	DN	120	PHE	N-CA	6.31	1.58	1.46
3	DU	120	PHE	N-CA	6.31	1.58	1.46
3	D1	120	PHE	N-CA	6.30	1.58	1.46
3	EC	120	PHE	N-CA	6.30	1.58	1.46
3	DG	120	PHE	N-CA	6.30	1.58	1.46
3	Dk	120	PHE	N-CA	6.30	1.58	1.46
3	Dn	120	PHE	N-CA	6.30	1.58	1.46
3	D6	120	PHE	N-CA	6.30	1.58	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	DK	120	PHE	N-CA	6.30	1.58	1.46
3	Dd	120	PHE	N-CA	6.30	1.58	1.46
3	Dr	120	PHE	N-CA	6.30	1.58	1.46
3	Ds	120	PHE	N-CA	6.30	1.58	1.46
3	EB	120	PHE	N-CA	6.30	1.58	1.46
3	Dm	120	PHE	N-CA	6.30	1.58	1.46
3	Dh	120	PHE	N-CA	6.30	1.58	1.46
3	EE	120	PHE	N-CA	6.30	1.58	1.46
3	Di	120	PHE	N-CA	6.29	1.58	1.46
3	DE	120	PHE	N-CA	6.29	1.58	1.46
3	DW	120	PHE	N-CA	6.29	1.58	1.46
3	Dc	120	PHE	N-CA	6.29	1.58	1.46
3	Db	120	PHE	N-CA	6.29	1.58	1.46
3	DC	120	PHE	N-CA	6.28	1.58	1.46
3	DJ	120	PHE	N-CA	6.28	1.58	1.46
3	Dq	120	PHE	N-CA	6.27	1.58	1.46
3	DR	141	CYS	CB-SG	-5.94	1.72	1.81
3	DX	141	CYS	CB-SG	-5.94	1.72	1.81
3	Dh	141	CYS	CB-SG	-5.93	1.72	1.81
3	DI	141	CYS	CB-SG	-5.93	1.72	1.81
3	Ds	141	CYS	CB-SG	-5.92	1.72	1.81
3	D6	141	CYS	CB-SG	-5.92	1.72	1.81
3	DT	141	CYS	CB-SG	-5.92	1.72	1.81
3	DN	141	CYS	CB-SG	-5.92	1.72	1.81
3	ED	141	CYS	CB-SG	-5.92	1.72	1.81
3	DM	141	CYS	CB-SG	-5.92	1.72	1.81
3	D4	141	CYS	CB-SG	-5.91	1.72	1.81
3	DP	141	CYS	CB-SG	-5.91	1.72	1.81
3	EA	141	CYS	CB-SG	-5.91	1.72	1.81
3	D8	141	CYS	CB-SG	-5.90	1.72	1.81
3	Df	141	CYS	CB-SG	-5.90	1.72	1.81
3	Dq	141	CYS	CB-SG	-5.90	1.72	1.81
3	DG	141	CYS	CB-SG	-5.90	1.72	1.81
3	DZ	141	CYS	CB-SG	-5.90	1.72	1.81
3	De	141	CYS	CB-SG	-5.90	1.72	1.81
3	Dm	141	CYS	CB-SG	-5.90	1.72	1.81
3	DI	141	CYS	CB-SG	-5.89	1.72	1.81
3	DW	141	CYS	CB-SG	-5.89	1.72	1.81
3	Dj	141	CYS	CB-SG	-5.89	1.72	1.81
3	Dk	141	CYS	CB-SG	-5.89	1.72	1.81
3	EC	141	CYS	CB-SG	-5.89	1.72	1.81
3	EE	141	CYS	CB-SG	-5.89	1.72	1.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	DS	141	CYS	CB-SG	-5.89	1.72	1.81
3	DU	141	CYS	CB-SG	-5.89	1.72	1.81
3	D5	141	CYS	CB-SG	-5.88	1.72	1.81
3	DO	141	CYS	CB-SG	-5.88	1.72	1.81
3	DQ	141	CYS	CB-SG	-5.88	1.72	1.81
3	D7	141	CYS	CB-SG	-5.88	1.72	1.81
3	D9	141	CYS	CB-SG	-5.88	1.72	1.81
3	Dr	141	CYS	CB-SG	-5.88	1.72	1.81
3	D1	141	CYS	CB-SG	-5.87	1.72	1.81
3	DL	141	CYS	CB-SG	-5.87	1.72	1.81
3	Dc	141	CYS	CB-SG	-5.87	1.72	1.81
3	Do	141	CYS	CB-SG	-5.87	1.72	1.81
3	DV	141	CYS	CB-SG	-5.87	1.72	1.81
3	DD	141	CYS	CB-SG	-5.87	1.72	1.81
3	DH	141	CYS	CB-SG	-5.87	1.72	1.81
3	DK	141	CYS	CB-SG	-5.87	1.72	1.81
3	Dg	141	CYS	CB-SG	-5.87	1.72	1.81
3	Db	141	CYS	CB-SG	-5.86	1.72	1.81
3	EB	141	CYS	CB-SG	-5.86	1.72	1.81
3	D2	141	CYS	CB-SG	-5.86	1.72	1.81
3	DF	141	CYS	CB-SG	-5.86	1.72	1.81
3	DJ	141	CYS	CB-SG	-5.86	1.72	1.81
3	Dp	141	CYS	CB-SG	-5.86	1.72	1.81
3	Di	141	CYS	CB-SG	-5.85	1.72	1.81
3	D0	141	CYS	CB-SG	-5.85	1.72	1.81
3	DC	141	CYS	CB-SG	-5.85	1.72	1.81
3	DY	141	CYS	CB-SG	-5.84	1.72	1.81
3	Da	141	CYS	CB-SG	-5.84	1.72	1.81
3	DA	141	CYS	CB-SG	-5.83	1.72	1.81
3	Dd	141	CYS	CB-SG	-5.83	1.72	1.81
3	D3	141	CYS	CB-SG	-5.83	1.72	1.81
3	DE	141	CYS	CB-SG	-5.82	1.72	1.81
3	Dn	141	CYS	CB-SG	-5.82	1.72	1.81
3	DB	141	CYS	CB-SG	-5.81	1.72	1.81
3	Dr	12	ASP	CB-CG	5.65	1.63	1.51
3	D4	12	ASP	CB-CG	5.62	1.63	1.51
3	Dj	12	ASP	CB-CG	5.62	1.63	1.51
3	DT	12	ASP	CB-CG	5.61	1.63	1.51
3	De	12	ASP	CB-CG	5.61	1.63	1.51
3	D6	12	ASP	CB-CG	5.61	1.63	1.51
3	D8	12	ASP	CB-CG	5.61	1.63	1.51
3	DV	12	ASP	CB-CG	5.61	1.63	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	Dn	12	ASP	CB-CG	5.61	1.63	1.51
3	DJ	12	ASP	CB-CG	5.60	1.63	1.51
3	ED	12	ASP	CB-CG	5.60	1.63	1.51
3	DD	12	ASP	CB-CG	5.60	1.63	1.51
3	DI	12	ASP	CB-CG	5.60	1.63	1.51
3	D7	12	ASP	CB-CG	5.60	1.63	1.51
3	DW	12	ASP	CB-CG	5.59	1.63	1.51
3	DR	12	ASP	CB-CG	5.59	1.63	1.51
3	DK	12	ASP	CB-CG	5.59	1.63	1.51
3	Dh	12	ASP	CB-CG	5.59	1.63	1.51
3	Do	12	ASP	CB-CG	5.59	1.63	1.51
3	DN	12	ASP	CB-CG	5.59	1.63	1.51
3	DQ	12	ASP	CB-CG	5.59	1.63	1.51
3	DU	12	ASP	CB-CG	5.59	1.63	1.51
3	DY	12	ASP	CB-CG	5.59	1.63	1.51
3	DE	12	ASP	CB-CG	5.59	1.63	1.51
3	Di	12	ASP	CB-CG	5.59	1.63	1.51
3	Dk	12	ASP	CB-CG	5.58	1.63	1.51
3	D9	12	ASP	CB-CG	5.58	1.63	1.51
3	DS	12	ASP	CB-CG	5.58	1.63	1.51
3	D2	12	ASP	CB-CG	5.58	1.63	1.51
3	Dd	12	ASP	CB-CG	5.58	1.63	1.51
3	Dm	12	ASP	CB-CG	5.58	1.63	1.51
3	DX	12	ASP	CB-CG	5.58	1.63	1.51
3	D0	12	ASP	CB-CG	5.57	1.63	1.51
3	Ds	12	ASP	CB-CG	5.57	1.63	1.51
3	DM	12	ASP	CB-CG	5.57	1.63	1.51
3	EA	12	ASP	CB-CG	5.57	1.63	1.51
3	Df	12	ASP	CB-CG	5.57	1.63	1.51
3	DF	12	ASP	CB-CG	5.57	1.63	1.51
3	DL	12	ASP	CB-CG	5.57	1.63	1.51
3	Dp	12	ASP	CB-CG	5.56	1.63	1.51
3	EC	12	ASP	CB-CG	5.56	1.63	1.51
3	D1	12	ASP	CB-CG	5.55	1.63	1.51
3	DB	12	ASP	CB-CG	5.55	1.63	1.51
3	D3	12	ASP	CB-CG	5.55	1.63	1.51
3	DC	12	ASP	CB-CG	5.55	1.63	1.51
3	D5	12	ASP	CB-CG	5.55	1.63	1.51
3	Da	12	ASP	CB-CG	5.55	1.63	1.51
3	DG	12	ASP	CB-CG	5.55	1.63	1.51
3	DO	12	ASP	CB-CG	5.55	1.63	1.51
3	Dc	12	ASP	CB-CG	5.55	1.63	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	DH	12	ASP	CB-CG	5.55	1.63	1.51
3	Dq	12	ASP	CB-CG	5.55	1.63	1.51
3	DP	12	ASP	CB-CG	5.55	1.63	1.51
3	DZ	12	ASP	CB-CG	5.55	1.63	1.51
3	EB	12	ASP	CB-CG	5.55	1.63	1.51
3	Db	12	ASP	CB-CG	5.54	1.63	1.51
3	DA	12	ASP	CB-CG	5.54	1.63	1.51
3	Dg	12	ASP	CB-CG	5.54	1.63	1.51
3	EE	12	ASP	CB-CG	5.54	1.63	1.51
3	Dl	12	ASP	CB-CG	5.53	1.63	1.51
2	Cn	35	CYS	CB-SG	-5.37	1.73	1.81
2	CK	35	CYS	CB-SG	-5.33	1.73	1.81
2	CG	35	CYS	CB-SG	-5.33	1.73	1.81
2	CO	35	CYS	CB-SG	-5.33	1.73	1.81
2	C3	35	CYS	CB-SG	-5.33	1.73	1.81
2	C4	35	CYS	CB-SG	-5.32	1.73	1.81
2	CB	35	CYS	CB-SG	-5.32	1.73	1.81
2	CI	35	CYS	CB-SG	-5.32	1.73	1.81
2	CX	35	CYS	CB-SG	-5.31	1.73	1.81
2	Cu	35	CYS	CB-SG	-5.31	1.73	1.81
2	CY	35	CYS	CB-SG	-5.31	1.73	1.81
2	Ca	35	CYS	CB-SG	-5.31	1.73	1.81
2	Cm	35	CYS	CB-SG	-5.30	1.73	1.81
2	CA	35	CYS	CB-SG	-5.30	1.73	1.81
2	Ch	35	CYS	CB-SG	-5.30	1.73	1.81
2	Cl	35	CYS	CB-SG	-5.30	1.73	1.81
2	CN	35	CYS	CB-SG	-5.29	1.73	1.81
2	CT	35	CYS	CB-SG	-5.29	1.73	1.81
2	Cd	35	CYS	CB-SG	-5.29	1.73	1.81
2	CD	35	CYS	CB-SG	-5.29	1.73	1.81
2	Cq	35	CYS	CB-SG	-5.29	1.73	1.81
2	CQ	35	CYS	CB-SG	-5.29	1.73	1.81
2	Cg	35	CYS	CB-SG	-5.29	1.73	1.81
2	C1	35	CYS	CB-SG	-5.28	1.73	1.81
2	C5	35	CYS	CB-SG	-5.28	1.73	1.81
2	Cc	35	CYS	CB-SG	-5.28	1.73	1.81
2	Co	35	CYS	CB-SG	-5.28	1.73	1.81
2	CS	35	CYS	CB-SG	-5.28	1.73	1.81
2	Cx	35	CYS	CB-SG	-5.28	1.73	1.81
2	CW	35	CYS	CB-SG	-5.28	1.73	1.81
2	CH	35	CYS	CB-SG	-5.28	1.73	1.81
2	CP	35	CYS	CB-SG	-5.27	1.73	1.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	CM	35	CYS	CB-SG	-5.27	1.73	1.81
2	CC	35	CYS	CB-SG	-5.27	1.73	1.81
2	Ce	35	CYS	CB-SG	-5.27	1.73	1.81
2	Ct	35	CYS	CB-SG	-5.27	1.73	1.81
2	Cr	35	CYS	CB-SG	-5.27	1.73	1.81
2	C7	35	CYS	CB-SG	-5.26	1.73	1.81
2	CJ	35	CYS	CB-SG	-5.26	1.73	1.81
2	Cp	35	CYS	CB-SG	-5.26	1.73	1.81
2	C9	35	CYS	CB-SG	-5.26	1.73	1.81
2	CE	35	CYS	CB-SG	-5.26	1.73	1.81
2	C2	35	CYS	CB-SG	-5.26	1.73	1.81
2	C6	35	CYS	CB-SG	-5.26	1.73	1.81
2	Cv	35	CYS	CB-SG	-5.26	1.73	1.81
2	C8	35	CYS	CB-SG	-5.25	1.73	1.81
2	Cf	35	CYS	CB-SG	-5.25	1.73	1.81
2	CL	35	CYS	CB-SG	-5.25	1.73	1.81
2	CR	35	CYS	CB-SG	-5.25	1.73	1.81
2	Cj	35	CYS	CB-SG	-5.25	1.73	1.81
2	Cs	35	CYS	CB-SG	-5.25	1.73	1.81
2	Cw	35	CYS	CB-SG	-5.25	1.73	1.81
2	Ck	35	CYS	CB-SG	-5.24	1.73	1.81
2	CZ	35	CYS	CB-SG	-5.24	1.73	1.81
2	Cb	35	CYS	CB-SG	-5.24	1.73	1.81
1	BD	207	CYS	CB-SG	-5.23	1.73	1.81
2	Ci	35	CYS	CB-SG	-5.23	1.73	1.81
2	CU	35	CYS	CB-SG	-5.23	1.73	1.81
2	CV	35	CYS	CB-SG	-5.23	1.73	1.81
1	BA	207	CYS	CB-SG	-5.21	1.73	1.81
1	AF	207	CYS	CB-SG	-5.20	1.73	1.81
1	AN	207	CYS	CB-SG	-5.20	1.73	1.81
2	CF	35	CYS	CB-SG	-5.20	1.73	1.81
1	AW	207	CYS	CB-SG	-5.20	1.73	1.81
2	C0	35	CYS	CB-SG	-5.20	1.73	1.81
1	A7	207	CYS	CB-SG	-5.19	1.73	1.81
1	BE	207	CYS	CB-SG	-5.19	1.73	1.81
1	Ad	207	CYS	CB-SG	-5.19	1.73	1.81
1	AR	207	CYS	CB-SG	-5.18	1.73	1.81
1	AV	207	CYS	CB-SG	-5.18	1.73	1.81
1	Ah	207	CYS	CB-SG	-5.18	1.73	1.81
1	AG	207	CYS	CB-SG	-5.18	1.73	1.81
1	A5	207	CYS	CB-SG	-5.17	1.73	1.81
1	An	207	CYS	CB-SG	-5.17	1.73	1.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AQ	207	CYS	CB-SG	-5.17	1.73	1.81
1	AI	207	CYS	CB-SG	-5.16	1.73	1.81
1	AT	207	CYS	CB-SG	-5.16	1.73	1.81
1	A8	207	CYS	CB-SG	-5.16	1.73	1.81
1	AJ	207	CYS	CB-SG	-5.15	1.73	1.81
1	A3	207	CYS	CB-SG	-5.15	1.73	1.81
1	AD	207	CYS	CB-SG	-5.15	1.73	1.81
1	AX	207	CYS	CB-SG	-5.15	1.73	1.81
1	AP	207	CYS	CB-SG	-5.15	1.73	1.81
1	AU	207	CYS	CB-SG	-5.15	1.73	1.81
1	BF	207	CYS	CB-SG	-5.15	1.73	1.81
1	AZ	207	CYS	CB-SG	-5.14	1.73	1.81
1	Ac	207	CYS	CB-SG	-5.14	1.73	1.81
1	Ae	207	CYS	CB-SG	-5.14	1.73	1.81
1	Ai	207	CYS	CB-SG	-5.14	1.73	1.81
1	BB	207	CYS	CB-SG	-5.13	1.73	1.81
1	A0	207	CYS	CB-SG	-5.13	1.73	1.81
1	A4	207	CYS	CB-SG	-5.13	1.73	1.81
3	Dq	119	LYS	CD-CE	5.13	1.64	1.51
1	Al	207	CYS	CB-SG	-5.13	1.73	1.81
1	AL	207	CYS	CB-SG	-5.13	1.73	1.81
1	Ab	207	CYS	CB-SG	-5.13	1.73	1.81
1	Aa	207	CYS	CB-SG	-5.12	1.73	1.81
1	BH	207	CYS	CB-SG	-5.12	1.73	1.81
1	AO	207	CYS	CB-SG	-5.12	1.73	1.81
1	BC	207	CYS	CB-SG	-5.12	1.73	1.81
1	BI	207	CYS	CB-SG	-5.12	1.73	1.81
3	D8	119	LYS	CD-CE	5.12	1.64	1.51
1	AY	207	CYS	CB-SG	-5.12	1.73	1.81
1	AS	207	CYS	CB-SG	-5.12	1.73	1.81
1	Am	207	CYS	CB-SG	-5.12	1.73	1.81
1	A1	207	CYS	CB-SG	-5.11	1.73	1.81
1	AM	207	CYS	CB-SG	-5.11	1.73	1.81
1	Ag	207	CYS	CB-SG	-5.11	1.73	1.81
1	Ao	207	CYS	CB-SG	-5.11	1.73	1.81
1	BG	207	CYS	CB-SG	-5.11	1.73	1.81
3	De	119	LYS	CD-CE	5.11	1.64	1.51
1	A6	207	CYS	CB-SG	-5.11	1.73	1.81
3	D2	119	LYS	CD-CE	5.11	1.64	1.51
1	AA	207	CYS	CB-SG	-5.11	1.73	1.81
1	AC	207	CYS	CB-SG	-5.11	1.73	1.81
1	Af	207	CYS	CB-SG	-5.11	1.73	1.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	D7	119	LYS	CD-CE	5.11	1.64	1.51
3	EB	119	LYS	CD-CE	5.11	1.64	1.51
1	Ak	207	CYS	CB-SG	-5.10	1.73	1.81
3	DH	119	LYS	CD-CE	5.10	1.64	1.51
3	Dj	119	LYS	CD-CE	5.10	1.64	1.51
3	D9	119	LYS	CD-CE	5.10	1.64	1.51
1	AH	207	CYS	CB-SG	-5.10	1.73	1.81
1	AK	207	CYS	CB-SG	-5.10	1.73	1.81
1	Aj	207	CYS	CB-SG	-5.10	1.73	1.81
3	DQ	119	LYS	CD-CE	5.10	1.64	1.51
3	Dd	119	LYS	CD-CE	5.10	1.64	1.51
3	EC	119	LYS	CD-CE	5.10	1.64	1.51
1	A2	207	CYS	CB-SG	-5.09	1.73	1.81
3	DA	119	LYS	CD-CE	5.09	1.64	1.51
3	Di	119	LYS	CD-CE	5.09	1.64	1.51
3	D4	119	LYS	CD-CE	5.09	1.64	1.51
3	DN	119	LYS	CD-CE	5.09	1.64	1.51
3	Ds	119	LYS	CD-CE	5.09	1.64	1.51
1	A9	207	CYS	CB-SG	-5.09	1.73	1.81
3	DI	119	LYS	CD-CE	5.09	1.64	1.51
3	DP	119	LYS	CD-CE	5.09	1.64	1.51
3	Df	119	LYS	CD-CE	5.09	1.64	1.51
3	ED	119	LYS	CD-CE	5.09	1.64	1.51
3	D5	119	LYS	CD-CE	5.09	1.64	1.51
3	DB	119	LYS	CD-CE	5.08	1.64	1.51
3	DC	119	LYS	CD-CE	5.08	1.64	1.51
3	DD	119	LYS	CD-CE	5.08	1.64	1.51
3	Dr	119	LYS	CD-CE	5.08	1.64	1.51
1	AB	207	CYS	CB-SG	-5.08	1.73	1.81
3	D1	119	LYS	CD-CE	5.08	1.64	1.51
3	DZ	119	LYS	CD-CE	5.08	1.64	1.51
3	DT	119	LYS	CD-CE	5.08	1.64	1.51
3	DV	119	LYS	CD-CE	5.08	1.64	1.51
3	Dn	119	LYS	CD-CE	5.08	1.64	1.51
1	AE	207	CYS	CB-SG	-5.07	1.73	1.81
3	DY	119	LYS	CD-CE	5.07	1.64	1.51
3	DM	119	LYS	CD-CE	5.07	1.64	1.51
3	DO	119	LYS	CD-CE	5.07	1.64	1.51
3	DW	119	LYS	CD-CE	5.07	1.64	1.51
3	D6	119	LYS	CD-CE	5.07	1.64	1.51
3	Dc	119	LYS	CD-CE	5.07	1.64	1.51
3	DX	119	LYS	CD-CE	5.07	1.64	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	DE	119	LYS	CD-CE	5.07	1.64	1.51
3	DF	119	LYS	CD-CE	5.07	1.64	1.51
3	Dh	119	LYS	CD-CE	5.07	1.64	1.51
3	DJ	119	LYS	CD-CE	5.06	1.64	1.51
3	DR	119	LYS	CD-CE	5.06	1.64	1.51
3	D0	119	LYS	CD-CE	5.06	1.64	1.51
3	Dp	119	LYS	CD-CE	5.06	1.64	1.51
3	D3	119	LYS	CD-CE	5.06	1.63	1.51
3	Dg	119	LYS	CD-CE	5.06	1.63	1.51
3	DL	119	LYS	CD-CE	5.06	1.63	1.51
3	Da	119	LYS	CD-CE	5.06	1.63	1.51
3	DK	119	LYS	CD-CE	5.05	1.63	1.51
3	EE	119	LYS	CD-CE	5.05	1.63	1.51
3	EA	119	LYS	CD-CE	5.05	1.63	1.51
3	DU	119	LYS	CD-CE	5.05	1.63	1.51
3	Dm	119	LYS	CD-CE	5.05	1.63	1.51
3	Dl	119	LYS	CD-CE	5.05	1.63	1.51
3	DS	119	LYS	CD-CE	5.04	1.63	1.51
3	Dk	119	LYS	CD-CE	5.04	1.63	1.51
3	Do	119	LYS	CD-CE	5.04	1.63	1.51
3	Db	119	LYS	CD-CE	5.03	1.63	1.51
3	DG	119	LYS	CD-CE	5.02	1.63	1.51

All (1271) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	Cx	58	LEU	CA-CB-CG	9.46	137.05	115.30
2	C2	58	LEU	CA-CB-CG	9.45	137.04	115.30
2	CB	58	LEU	CA-CB-CG	9.46	137.05	115.30
2	Cn	58	LEU	CA-CB-CG	9.45	137.04	115.30
2	CC	58	LEU	CA-CB-CG	9.45	137.03	115.30
2	Ck	58	LEU	CA-CB-CG	9.45	137.03	115.30
2	CD	58	LEU	CA-CB-CG	9.44	137.02	115.30
2	C3	58	LEU	CA-CB-CG	9.44	137.01	115.30
2	Cb	58	LEU	CA-CB-CG	9.44	137.02	115.30
2	Cv	58	LEU	CA-CB-CG	9.44	137.02	115.30
2	Cl	58	LEU	CA-CB-CG	9.44	137.01	115.30
2	CF	58	LEU	CA-CB-CG	9.44	137.01	115.30
2	CG	58	LEU	CA-CB-CG	9.44	137.01	115.30
2	Cm	58	LEU	CA-CB-CG	9.44	137.01	115.30
2	C1	58	LEU	CA-CB-CG	9.44	137.00	115.30
2	C4	58	LEU	CA-CB-CG	9.44	137.00	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	Cd	58	LEU	CA-CB-CG	9.44	137.00	115.30
2	Ch	58	LEU	CA-CB-CG	9.44	137.00	115.30
2	CH	58	LEU	CA-CB-CG	9.43	137.00	115.30
2	CI	58	LEU	CA-CB-CG	9.43	137.00	115.30
2	CP	58	LEU	CA-CB-CG	9.43	137.00	115.30
2	Ct	58	LEU	CA-CB-CG	9.43	137.00	115.30
2	C7	58	LEU	CA-CB-CG	9.43	136.99	115.30
2	CW	58	LEU	CA-CB-CG	9.43	136.99	115.30
2	CX	58	LEU	CA-CB-CG	9.43	137.00	115.30
2	Cf	58	LEU	CA-CB-CG	9.43	137.00	115.30
2	CL	58	LEU	CA-CB-CG	9.43	136.99	115.30
2	CM	58	LEU	CA-CB-CG	9.43	136.99	115.30
2	CZ	58	LEU	CA-CB-CG	9.43	136.99	115.30
2	CA	58	LEU	CA-CB-CG	9.43	136.98	115.30
2	Ci	58	LEU	CA-CB-CG	9.43	136.99	115.30
2	Cr	58	LEU	CA-CB-CG	9.43	136.98	115.30
2	C9	58	LEU	CA-CB-CG	9.43	136.98	115.30
2	Cg	58	LEU	CA-CB-CG	9.43	136.98	115.30
2	C8	58	LEU	CA-CB-CG	9.43	136.98	115.30
2	CE	58	LEU	CA-CB-CG	9.43	136.98	115.30
2	CK	58	LEU	CA-CB-CG	9.43	136.98	115.30
2	CV	58	LEU	CA-CB-CG	9.43	136.98	115.30
2	Ca	58	LEU	CA-CB-CG	9.43	136.98	115.30
2	Cq	58	LEU	CA-CB-CG	9.43	136.98	115.30
2	CQ	58	LEU	CA-CB-CG	9.42	136.98	115.30
2	C5	58	LEU	CA-CB-CG	9.42	136.97	115.30
2	Co	58	LEU	CA-CB-CG	9.42	136.97	115.30
2	C6	58	LEU	CA-CB-CG	9.42	136.97	115.30
2	CJ	58	LEU	CA-CB-CG	9.42	136.97	115.30
2	CY	58	LEU	CA-CB-CG	9.42	136.97	115.30
2	CR	58	LEU	CA-CB-CG	9.42	136.96	115.30
2	CS	58	LEU	CA-CB-CG	9.42	136.96	115.30
2	Ce	58	LEU	CA-CB-CG	9.42	136.96	115.30
2	Cs	58	LEU	CA-CB-CG	9.42	136.96	115.30
2	C0	58	LEU	CA-CB-CG	9.41	136.95	115.30
2	CO	58	LEU	CA-CB-CG	9.41	136.95	115.30
2	Cp	58	LEU	CA-CB-CG	9.41	136.95	115.30
2	Cc	58	LEU	CA-CB-CG	9.41	136.94	115.30
2	CN	58	LEU	CA-CB-CG	9.41	136.94	115.30
2	CT	58	LEU	CA-CB-CG	9.41	136.94	115.30
2	Cu	58	LEU	CA-CB-CG	9.41	136.94	115.30
2	Cj	58	LEU	CA-CB-CG	9.40	136.93	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	CU	58	LEU	CA-CB-CG	9.40	136.93	115.30
2	Cw	58	LEU	CA-CB-CG	9.40	136.93	115.30
3	Dm	149	GLY	N-CA-C	-9.04	90.51	113.10
3	EC	149	GLY	N-CA-C	-9.03	90.52	113.10
3	DH	149	GLY	N-CA-C	-9.03	90.53	113.10
3	DK	149	GLY	N-CA-C	-9.03	90.54	113.10
3	Dr	149	GLY	N-CA-C	-9.03	90.54	113.10
3	EE	149	GLY	N-CA-C	-9.03	90.53	113.10
3	DU	149	GLY	N-CA-C	-9.02	90.55	113.10
3	De	149	GLY	N-CA-C	-9.02	90.54	113.10
3	Da	149	GLY	N-CA-C	-9.02	90.55	113.10
3	D6	149	GLY	N-CA-C	-9.02	90.56	113.10
3	D8	149	GLY	N-CA-C	-9.02	90.56	113.10
3	DT	149	GLY	N-CA-C	-9.02	90.56	113.10
3	Dk	149	GLY	N-CA-C	-9.02	90.56	113.10
3	Dq	149	GLY	N-CA-C	-9.02	90.56	113.10
3	DI	149	GLY	N-CA-C	-9.01	90.56	113.10
3	Db	149	GLY	N-CA-C	-9.01	90.57	113.10
3	Dh	149	GLY	N-CA-C	-9.01	90.57	113.10
3	DA	149	GLY	N-CA-C	-9.01	90.58	113.10
3	DP	149	GLY	N-CA-C	-9.01	90.58	113.10
3	DS	149	GLY	N-CA-C	-9.01	90.58	113.10
3	DZ	149	GLY	N-CA-C	-9.01	90.58	113.10
3	Di	149	GLY	N-CA-C	-9.01	90.58	113.10
3	ED	149	GLY	N-CA-C	-9.01	90.58	113.10
3	D1	149	GLY	N-CA-C	-9.01	90.58	113.10
3	DY	149	GLY	N-CA-C	-9.01	90.58	113.10
3	Dn	149	GLY	N-CA-C	-9.01	90.58	113.10
3	D3	149	GLY	N-CA-C	-9.01	90.59	113.10
3	D9	149	GLY	N-CA-C	-9.01	90.58	113.10
3	Dc	149	GLY	N-CA-C	-9.01	90.59	113.10
3	Dg	149	GLY	N-CA-C	-9.01	90.58	113.10
3	Dp	149	GLY	N-CA-C	-9.01	90.59	113.10
3	DJ	149	GLY	N-CA-C	-9.00	90.59	113.10
3	DN	149	GLY	N-CA-C	-9.00	90.59	113.10
3	DR	149	GLY	N-CA-C	-9.00	90.59	113.10
3	EA	149	GLY	N-CA-C	-9.00	90.59	113.10
3	D0	149	GLY	N-CA-C	-9.00	90.60	113.10
3	D2	149	GLY	N-CA-C	-9.00	90.60	113.10
3	D4	149	GLY	N-CA-C	-9.00	90.60	113.10
3	DB	149	GLY	N-CA-C	-9.00	90.60	113.10
3	DQ	149	GLY	N-CA-C	-9.00	90.60	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	DV	149	GLY	N-CA-C	-9.00	90.60	113.10
3	DW	149	GLY	N-CA-C	-9.00	90.60	113.10
3	DX	149	GLY	N-CA-C	-9.00	90.60	113.10
3	Df	149	GLY	N-CA-C	-9.00	90.60	113.10
3	Ds	149	GLY	N-CA-C	-9.00	90.60	113.10
3	Dd	149	GLY	N-CA-C	-9.00	90.61	113.10
3	Dj	149	GLY	N-CA-C	-9.00	90.61	113.10
3	Dl	149	GLY	N-CA-C	-9.00	90.61	113.10
3	EB	149	GLY	N-CA-C	-9.00	90.61	113.10
3	DD	149	GLY	N-CA-C	-9.00	90.61	113.10
3	DE	149	GLY	N-CA-C	-9.00	90.61	113.10
3	DF	149	GLY	N-CA-C	-9.00	90.61	113.10
3	DG	149	GLY	N-CA-C	-9.00	90.61	113.10
3	D7	149	GLY	N-CA-C	-8.99	90.62	113.10
3	DO	149	GLY	N-CA-C	-8.99	90.61	113.10
3	D _o	149	GLY	N-CA-C	-8.99	90.62	113.10
3	DC	149	GLY	N-CA-C	-8.99	90.64	113.10
3	DL	149	GLY	N-CA-C	-8.99	90.63	113.10
3	DM	149	GLY	N-CA-C	-8.99	90.63	113.10
3	D5	149	GLY	N-CA-C	-8.97	90.67	113.10
3	Dq	120	PHE	CB-CA-C	-8.36	93.67	110.40
3	DT	120	PHE	CB-CA-C	-8.35	93.70	110.40
3	Ds	120	PHE	CB-CA-C	-8.35	93.70	110.40
3	EA	120	PHE	CB-CA-C	-8.35	93.70	110.40
3	DI	120	PHE	CB-CA-C	-8.35	93.70	110.40
3	DW	120	PHE	CB-CA-C	-8.35	93.70	110.40
3	Dd	120	PHE	CB-CA-C	-8.35	93.70	110.40
3	Di	120	PHE	CB-CA-C	-8.35	93.70	110.40
3	ED	120	PHE	CB-CA-C	-8.35	93.70	110.40
3	Dc	120	PHE	CB-CA-C	-8.35	93.71	110.40
3	Dn	120	PHE	CB-CA-C	-8.35	93.71	110.40
3	Dr	120	PHE	CB-CA-C	-8.35	93.71	110.40
3	EC	120	PHE	CB-CA-C	-8.35	93.71	110.40
3	DK	120	PHE	CB-CA-C	-8.34	93.72	110.40
3	D5	120	PHE	CB-CA-C	-8.34	93.72	110.40
3	D7	120	PHE	CB-CA-C	-8.34	93.73	110.40
3	DE	120	PHE	CB-CA-C	-8.34	93.72	110.40
3	DO	120	PHE	CB-CA-C	-8.34	93.73	110.40
3	D9	120	PHE	CB-CA-C	-8.34	93.73	110.40
3	DD	120	PHE	CB-CA-C	-8.34	93.73	110.40
3	DR	120	PHE	CB-CA-C	-8.34	93.73	110.40
3	DS	120	PHE	CB-CA-C	-8.34	93.73	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	DU	120	PHE	CB-CA-C	-8.34	93.73	110.40
3	DY	120	PHE	CB-CA-C	-8.34	93.73	110.40
3	EB	120	PHE	CB-CA-C	-8.34	93.73	110.40
3	D8	120	PHE	CB-CA-C	-8.33	93.73	110.40
3	DQ	120	PHE	CB-CA-C	-8.33	93.74	110.40
3	DC	120	PHE	CB-CA-C	-8.33	93.74	110.40
3	DG	120	PHE	CB-CA-C	-8.33	93.74	110.40
3	DH	120	PHE	CB-CA-C	-8.33	93.75	110.40
3	Dg	120	PHE	CB-CA-C	-8.33	93.75	110.40
3	DI	120	PHE	CB-CA-C	-8.33	93.75	110.40
3	DF	120	PHE	CB-CA-C	-8.32	93.75	110.40
3	DJ	120	PHE	CB-CA-C	-8.32	93.75	110.40
3	DP	120	PHE	CB-CA-C	-8.32	93.75	110.40
3	DZ	120	PHE	CB-CA-C	-8.32	93.75	110.40
3	De	120	PHE	CB-CA-C	-8.32	93.75	110.40
3	EE	120	PHE	CB-CA-C	-8.32	93.75	110.40
3	Da	120	PHE	CB-CA-C	-8.32	93.76	110.40
3	Dh	120	PHE	CB-CA-C	-8.32	93.75	110.40
3	D1	120	PHE	CB-CA-C	-8.32	93.76	110.40
3	D3	120	PHE	CB-CA-C	-8.32	93.76	110.40
3	D6	120	PHE	CB-CA-C	-8.32	93.76	110.40
3	Dm	120	PHE	CB-CA-C	-8.32	93.76	110.40
3	Dj	120	PHE	CB-CA-C	-8.32	93.76	110.40
3	Dk	120	PHE	CB-CA-C	-8.32	93.76	110.40
3	DB	120	PHE	CB-CA-C	-8.32	93.77	110.40
3	DX	120	PHE	CB-CA-C	-8.32	93.77	110.40
3	DA	120	PHE	CB-CA-C	-8.31	93.77	110.40
3	DM	120	PHE	CB-CA-C	-8.31	93.77	110.40
3	Do	120	PHE	CB-CA-C	-8.31	93.77	110.40
3	Dp	120	PHE	CB-CA-C	-8.31	93.78	110.40
3	D0	120	PHE	CB-CA-C	-8.31	93.78	110.40
3	DN	120	PHE	CB-CA-C	-8.31	93.78	110.40
3	Db	120	PHE	CB-CA-C	-8.31	93.78	110.40
3	Df	120	PHE	CB-CA-C	-8.30	93.79	110.40
3	D4	120	PHE	CB-CA-C	-8.30	93.80	110.40
3	D2	120	PHE	CB-CA-C	-8.30	93.80	110.40
3	DV	120	PHE	CB-CA-C	-8.30	93.80	110.40
3	DL	120	PHE	CB-CA-C	-8.30	93.80	110.40
3	DD	119	LYS	CD-CE-NZ	7.56	129.09	111.70
3	DJ	119	LYS	CD-CE-NZ	7.56	129.09	111.70
3	DC	119	LYS	CD-CE-NZ	7.55	129.07	111.70
3	DT	119	LYS	CD-CE-NZ	7.55	129.07	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D5	119	LYS	CD-CE-NZ	7.55	129.07	111.70
3	Db	119	LYS	CD-CE-NZ	7.55	129.06	111.70
3	Dd	119	LYS	CD-CE-NZ	7.55	129.06	111.70
3	Df	119	LYS	CD-CE-NZ	7.55	129.06	111.70
3	DK	119	LYS	CD-CE-NZ	7.55	129.06	111.70
3	Dq	119	LYS	CD-CE-NZ	7.54	129.05	111.70
3	Dl	119	LYS	CD-CE-NZ	7.54	129.05	111.70
3	DN	119	LYS	CD-CE-NZ	7.54	129.05	111.70
3	Do	119	LYS	CD-CE-NZ	7.54	129.05	111.70
3	Dp	119	LYS	CD-CE-NZ	7.54	129.05	111.70
3	DG	119	LYS	CD-CE-NZ	7.54	129.05	111.70
3	DP	119	LYS	CD-CE-NZ	7.54	129.04	111.70
3	DV	119	LYS	CD-CE-NZ	7.54	129.04	111.70
3	DZ	119	LYS	CD-CE-NZ	7.54	129.04	111.70
3	DB	119	LYS	CD-CE-NZ	7.54	129.04	111.70
3	DI	119	LYS	CD-CE-NZ	7.54	129.04	111.70
3	D2	119	LYS	CD-CE-NZ	7.54	129.04	111.70
3	D6	119	LYS	CD-CE-NZ	7.54	129.04	111.70
3	Dg	119	LYS	CD-CE-NZ	7.54	129.04	111.70
3	Dk	119	LYS	CD-CE-NZ	7.54	129.04	111.70
3	Dl	119	LYS	CD-CE-NZ	7.54	129.04	111.70
3	Dm	119	LYS	CD-CE-NZ	7.54	129.04	111.70
3	D4	119	LYS	CD-CE-NZ	7.54	129.04	111.70
3	DL	119	LYS	CD-CE-NZ	7.54	129.03	111.70
3	D0	119	LYS	CD-CE-NZ	7.53	129.03	111.70
3	D7	119	LYS	CD-CE-NZ	7.53	129.03	111.70
3	DE	119	LYS	CD-CE-NZ	7.53	129.03	111.70
3	DF	119	LYS	CD-CE-NZ	7.53	129.03	111.70
3	D9	119	LYS	CD-CE-NZ	7.53	129.02	111.70
3	EB	119	LYS	CD-CE-NZ	7.53	129.02	111.70
3	DQ	119	LYS	CD-CE-NZ	7.53	129.02	111.70
3	DU	119	LYS	CD-CE-NZ	7.53	129.02	111.70
3	DX	119	LYS	CD-CE-NZ	7.53	129.02	111.70
3	Dc	119	LYS	CD-CE-NZ	7.53	129.02	111.70
3	ED	119	LYS	CD-CE-NZ	7.53	129.02	111.70
3	Dh	119	LYS	CD-CE-NZ	7.53	129.02	111.70
3	DA	119	LYS	CD-CE-NZ	7.53	129.01	111.70
3	Di	119	LYS	CD-CE-NZ	7.53	129.01	111.70
3	DO	119	LYS	CD-CE-NZ	7.53	129.01	111.70
3	Dr	119	LYS	CD-CE-NZ	7.53	129.01	111.70
3	EA	119	LYS	CD-CE-NZ	7.53	129.01	111.70
3	Ds	119	LYS	CD-CE-NZ	7.52	129.01	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	DM	119	LYS	CD-CE-NZ	7.52	129.00	111.70
3	DS	119	LYS	CD-CE-NZ	7.52	129.00	111.70
3	DY	119	LYS	CD-CE-NZ	7.52	129.00	111.70
3	D3	119	LYS	CD-CE-NZ	7.52	129.00	111.70
3	DH	119	LYS	CD-CE-NZ	7.52	129.00	111.70
3	EC	119	LYS	CD-CE-NZ	7.52	129.00	111.70
3	DW	119	LYS	CD-CE-NZ	7.52	128.99	111.70
3	DR	119	LYS	CD-CE-NZ	7.51	128.98	111.70
3	Dn	119	LYS	CD-CE-NZ	7.51	128.98	111.70
3	Da	119	LYS	CD-CE-NZ	7.51	128.97	111.70
3	EE	119	LYS	CD-CE-NZ	7.51	128.97	111.70
3	D8	119	LYS	CD-CE-NZ	7.51	128.97	111.70
3	De	119	LYS	CD-CE-NZ	7.51	128.97	111.70
3	Dj	119	LYS	CD-CE-NZ	7.50	128.95	111.70
2	CL	92	GLY	N-CA-C	7.44	131.69	113.10
2	CS	92	GLY	N-CA-C	7.42	131.65	113.10
2	CG	92	GLY	N-CA-C	7.42	131.65	113.10
2	Cv	92	GLY	N-CA-C	7.42	131.64	113.10
2	CF	92	GLY	N-CA-C	7.42	131.64	113.10
2	Cg	92	GLY	N-CA-C	7.42	131.64	113.10
2	C1	92	GLY	N-CA-C	7.41	131.63	113.10
2	CO	92	GLY	N-CA-C	7.41	131.63	113.10
2	C3	92	GLY	N-CA-C	7.41	131.63	113.10
2	C4	92	GLY	N-CA-C	7.41	131.63	113.10
2	Ce	92	GLY	N-CA-C	7.41	131.63	113.10
2	C7	92	GLY	N-CA-C	7.41	131.62	113.10
2	Ca	92	GLY	N-CA-C	7.41	131.62	113.10
2	CE	92	GLY	N-CA-C	7.41	131.62	113.10
2	CZ	92	GLY	N-CA-C	7.41	131.62	113.10
2	Ch	92	GLY	N-CA-C	7.41	131.62	113.10
2	C5	92	GLY	N-CA-C	7.41	131.61	113.10
2	C6	92	GLY	N-CA-C	7.41	131.61	113.10
2	CC	92	GLY	N-CA-C	7.40	131.61	113.10
2	CD	92	GLY	N-CA-C	7.40	131.61	113.10
2	CX	92	GLY	N-CA-C	7.40	131.61	113.10
2	Cn	92	GLY	N-CA-C	7.40	131.61	113.10
2	Co	92	GLY	N-CA-C	7.40	131.61	113.10
2	Cp	92	GLY	N-CA-C	7.40	131.61	113.10
2	Cb	92	GLY	N-CA-C	7.40	131.60	113.10
2	Cd	92	GLY	N-CA-C	7.40	131.60	113.10
2	Cj	92	GLY	N-CA-C	7.40	131.60	113.10
2	Cr	92	GLY	N-CA-C	7.40	131.60	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	CA	92	GLY	N-CA-C	7.40	131.60	113.10
2	CT	92	GLY	N-CA-C	7.40	131.59	113.10
2	CU	92	GLY	N-CA-C	7.40	131.59	113.10
2	Ci	92	GLY	N-CA-C	7.40	131.59	113.10
2	Cu	92	GLY	N-CA-C	7.40	131.59	113.10
2	CJ	92	GLY	N-CA-C	7.40	131.59	113.10
2	CM	92	GLY	N-CA-C	7.40	131.59	113.10
2	C2	92	GLY	N-CA-C	7.39	131.59	113.10
2	CN	92	GLY	N-CA-C	7.39	131.59	113.10
2	CW	92	GLY	N-CA-C	7.39	131.59	113.10
2	CP	92	GLY	N-CA-C	7.39	131.58	113.10
2	CQ	92	GLY	N-CA-C	7.39	131.58	113.10
2	Ck	92	GLY	N-CA-C	7.39	131.58	113.10
2	Cm	92	GLY	N-CA-C	7.39	131.58	113.10
2	C8	92	GLY	N-CA-C	7.39	131.58	113.10
2	CR	92	GLY	N-CA-C	7.39	131.57	113.10
2	Cq	92	GLY	N-CA-C	7.39	131.57	113.10
2	Ct	92	GLY	N-CA-C	7.39	131.57	113.10
2	C0	92	GLY	N-CA-C	7.39	131.57	113.10
2	Cc	92	GLY	N-CA-C	7.39	131.57	113.10
2	CB	92	GLY	N-CA-C	7.39	131.57	113.10
2	CH	92	GLY	N-CA-C	7.39	131.56	113.10
2	CK	92	GLY	N-CA-C	7.39	131.56	113.10
2	CV	92	GLY	N-CA-C	7.39	131.57	113.10
2	CY	92	GLY	N-CA-C	7.39	131.56	113.10
2	Cf	92	GLY	N-CA-C	7.39	131.57	113.10
2	Cs	92	GLY	N-CA-C	7.39	131.56	113.10
2	Cl	92	GLY	N-CA-C	7.38	131.56	113.10
2	C9	92	GLY	N-CA-C	7.38	131.55	113.10
2	Cx	92	GLY	N-CA-C	7.38	131.54	113.10
2	CI	92	GLY	N-CA-C	7.38	131.54	113.10
2	Cw	92	GLY	N-CA-C	7.37	131.53	113.10
2	CD	188	LEU	CA-CB-CG	7.02	131.45	115.30
2	C9	188	LEU	CA-CB-CG	7.01	131.43	115.30
2	CB	188	LEU	CA-CB-CG	7.01	131.43	115.30
2	CL	188	LEU	CA-CB-CG	7.01	131.43	115.30
2	CU	188	LEU	CA-CB-CG	7.01	131.43	115.30
2	Cf	188	LEU	CA-CB-CG	7.01	131.43	115.30
2	Ch	188	LEU	CA-CB-CG	7.01	131.43	115.30
2	Cp	188	LEU	CA-CB-CG	7.01	131.43	115.30
2	C7	188	LEU	CA-CB-CG	7.00	131.41	115.30
2	CT	188	LEU	CA-CB-CG	7.00	131.41	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	CW	188	LEU	CA-CB-CG	7.00	131.41	115.30
2	Cs	188	LEU	CA-CB-CG	7.00	131.41	115.30
2	Ct	188	LEU	CA-CB-CG	7.00	131.41	115.30
2	CG	188	LEU	CA-CB-CG	7.00	131.41	115.30
2	CY	188	LEU	CA-CB-CG	7.00	131.40	115.30
2	Cw	188	LEU	CA-CB-CG	7.00	131.40	115.30
2	Ce	188	LEU	CA-CB-CG	7.00	131.40	115.30
2	C2	188	LEU	CA-CB-CG	7.00	131.39	115.30
2	CI	188	LEU	CA-CB-CG	7.00	131.39	115.30
2	Cb	188	LEU	CA-CB-CG	7.00	131.39	115.30
2	CJ	188	LEU	CA-CB-CG	6.99	131.38	115.30
2	Cc	188	LEU	CA-CB-CG	6.99	131.39	115.30
2	C3	188	LEU	CA-CB-CG	6.99	131.38	115.30
2	CE	188	LEU	CA-CB-CG	6.99	131.38	115.30
2	CQ	188	LEU	CA-CB-CG	6.99	131.38	115.30
2	Co	188	LEU	CA-CB-CG	6.99	131.38	115.30
2	C8	188	LEU	CA-CB-CG	6.99	131.38	115.30
2	Ci	188	LEU	CA-CB-CG	6.99	131.38	115.30
2	Cj	188	LEU	CA-CB-CG	6.99	131.38	115.30
2	Cl	188	LEU	CA-CB-CG	6.99	131.38	115.30
2	Cv	188	LEU	CA-CB-CG	6.99	131.38	115.30
2	C0	188	LEU	CA-CB-CG	6.99	131.37	115.30
2	Cu	188	LEU	CA-CB-CG	6.99	131.37	115.30
2	CN	188	LEU	CA-CB-CG	6.99	131.37	115.30
2	CF	188	LEU	CA-CB-CG	6.99	131.37	115.30
2	CH	188	LEU	CA-CB-CG	6.99	131.37	115.30
2	CP	188	LEU	CA-CB-CG	6.99	131.37	115.30
2	CS	188	LEU	CA-CB-CG	6.99	131.37	115.30
2	Cd	188	LEU	CA-CB-CG	6.99	131.37	115.30
2	Cq	188	LEU	CA-CB-CG	6.99	131.37	115.30
2	C5	188	LEU	CA-CB-CG	6.98	131.36	115.30
2	CX	188	LEU	CA-CB-CG	6.98	131.36	115.30
2	Ck	188	LEU	CA-CB-CG	6.98	131.36	115.30
2	CZ	188	LEU	CA-CB-CG	6.98	131.36	115.30
2	Ca	188	LEU	CA-CB-CG	6.98	131.36	115.30
2	C4	188	LEU	CA-CB-CG	6.98	131.35	115.30
2	C6	188	LEU	CA-CB-CG	6.98	131.35	115.30
2	CC	188	LEU	CA-CB-CG	6.98	131.35	115.30
2	C1	188	LEU	CA-CB-CG	6.98	131.35	115.30
2	CA	188	LEU	CA-CB-CG	6.98	131.35	115.30
2	Cx	188	LEU	CA-CB-CG	6.98	131.35	115.30
2	Cm	188	LEU	CA-CB-CG	6.97	131.34	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	CM	188	LEU	CA-CB-CG	6.97	131.34	115.30
2	Cr	188	LEU	CA-CB-CG	6.97	131.34	115.30
2	Cn	188	LEU	CA-CB-CG	6.97	131.33	115.30
2	CK	188	LEU	CA-CB-CG	6.96	131.32	115.30
2	Cg	188	LEU	CA-CB-CG	6.96	131.31	115.30
2	CO	188	LEU	CA-CB-CG	6.95	131.29	115.30
2	CR	188	LEU	CA-CB-CG	6.95	131.29	115.30
2	CV	188	LEU	CA-CB-CG	6.95	131.29	115.30
2	CF	162	LEU	CA-CB-CG	6.72	130.77	115.30
2	CV	162	LEU	CA-CB-CG	6.72	130.75	115.30
2	CC	162	LEU	CA-CB-CG	6.71	130.72	115.30
2	Cr	162	LEU	CA-CB-CG	6.71	130.72	115.30
2	CD	162	LEU	CA-CB-CG	6.70	130.71	115.30
2	C8	162	LEU	CA-CB-CG	6.70	130.70	115.30
2	Cl	162	LEU	CA-CB-CG	6.70	130.71	115.30
2	Cf	162	LEU	CA-CB-CG	6.70	130.70	115.30
2	Cw	162	LEU	CA-CB-CG	6.70	130.70	115.30
2	C9	162	LEU	CA-CB-CG	6.70	130.70	115.30
2	CA	162	LEU	CA-CB-CG	6.69	130.69	115.30
2	CG	162	LEU	CA-CB-CG	6.69	130.69	115.30
2	CP	162	LEU	CA-CB-CG	6.69	130.69	115.30
2	Cc	162	LEU	CA-CB-CG	6.69	130.69	115.30
2	C6	162	LEU	CA-CB-CG	6.69	130.69	115.30
2	CI	162	LEU	CA-CB-CG	6.69	130.69	115.30
2	Cv	162	LEU	CA-CB-CG	6.69	130.69	115.30
2	CH	162	LEU	CA-CB-CG	6.69	130.69	115.30
2	CQ	162	LEU	CA-CB-CG	6.69	130.68	115.30
2	C0	162	LEU	CA-CB-CG	6.69	130.68	115.30
2	CJ	162	LEU	CA-CB-CG	6.69	130.68	115.30
2	CW	162	LEU	CA-CB-CG	6.69	130.68	115.30
2	Cj	162	LEU	CA-CB-CG	6.69	130.68	115.30
2	Cx	162	LEU	CA-CB-CG	6.69	130.68	115.30
2	Cp	162	LEU	CA-CB-CG	6.69	130.68	115.30
2	Ce	162	LEU	CA-CB-CG	6.68	130.68	115.30
2	CL	162	LEU	CA-CB-CG	6.68	130.67	115.30
2	Co	162	LEU	CA-CB-CG	6.68	130.67	115.30
2	Cm	162	LEU	CA-CB-CG	6.68	130.66	115.30
2	C5	162	LEU	CA-CB-CG	6.68	130.65	115.30
2	CM	162	LEU	CA-CB-CG	6.68	130.65	115.30
2	Cn	162	LEU	CA-CB-CG	6.68	130.66	115.30
2	CN	162	LEU	CA-CB-CG	6.67	130.65	115.30
2	CR	162	LEU	CA-CB-CG	6.67	130.65	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	CU	162	LEU	CA-CB-CG	6.67	130.65	115.30
2	CK	162	LEU	CA-CB-CG	6.67	130.65	115.30
2	Cb	162	LEU	CA-CB-CG	6.67	130.65	115.30
2	Cs	162	LEU	CA-CB-CG	6.67	130.65	115.30
2	C2	162	LEU	CA-CB-CG	6.67	130.64	115.30
2	CB	162	LEU	CA-CB-CG	6.67	130.64	115.30
2	CS	162	LEU	CA-CB-CG	6.67	130.64	115.30
2	Ch	162	LEU	CA-CB-CG	6.67	130.64	115.30
2	Ct	162	LEU	CA-CB-CG	6.67	130.64	115.30
2	C4	162	LEU	CA-CB-CG	6.67	130.63	115.30
2	C7	162	LEU	CA-CB-CG	6.67	130.63	115.30
2	CO	162	LEU	CA-CB-CG	6.67	130.63	115.30
2	CY	162	LEU	CA-CB-CG	6.67	130.63	115.30
2	Ck	162	LEU	CA-CB-CG	6.67	130.63	115.30
2	Cu	162	LEU	CA-CB-CG	6.67	130.63	115.30
2	CZ	162	LEU	CA-CB-CG	6.67	130.63	115.30
2	CE	162	LEU	CA-CB-CG	6.66	130.63	115.30
2	Ci	162	LEU	CA-CB-CG	6.66	130.63	115.30
2	Ca	162	LEU	CA-CB-CG	6.66	130.62	115.30
2	Cg	162	LEU	CA-CB-CG	6.66	130.62	115.30
2	Cd	162	LEU	CA-CB-CG	6.66	130.61	115.30
2	C1	162	LEU	CA-CB-CG	6.66	130.61	115.30
2	CX	162	LEU	CA-CB-CG	6.66	130.61	115.30
2	Cq	162	LEU	CA-CB-CG	6.65	130.60	115.30
2	CT	162	LEU	CA-CB-CG	6.65	130.60	115.30
2	C3	162	LEU	CA-CB-CG	6.65	130.60	115.30
3	DY	119	LYS	CB-CA-C	6.54	123.48	110.40
3	DP	119	LYS	CB-CA-C	6.54	123.48	110.40
3	DE	119	LYS	CB-CA-C	6.54	123.48	110.40
3	DQ	119	LYS	CB-CA-C	6.54	123.48	110.40
3	EA	119	LYS	CB-CA-C	6.54	123.48	110.40
3	EC	119	LYS	CB-CA-C	6.54	123.48	110.40
3	DT	119	LYS	CB-CA-C	6.54	123.47	110.40
3	DW	119	LYS	CB-CA-C	6.54	123.47	110.40
3	DA	119	LYS	CB-CA-C	6.53	123.47	110.40
3	DV	119	LYS	CB-CA-C	6.53	123.47	110.40
3	Db	119	LYS	CB-CA-C	6.53	123.47	110.40
3	Di	119	LYS	CB-CA-C	6.53	123.47	110.40
3	Dr	119	LYS	CB-CA-C	6.53	123.47	110.40
3	DR	119	LYS	CB-CA-C	6.53	123.46	110.40
3	EE	119	LYS	CB-CA-C	6.53	123.46	110.40
3	D8	119	LYS	CB-CA-C	6.53	123.46	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	De	119	LYS	CB-CA-C	6.53	123.46	110.40
3	Dq	119	LYS	CB-CA-C	6.53	123.46	110.40
3	DC	119	LYS	CB-CA-C	6.53	123.46	110.40
3	Dh	119	LYS	CB-CA-C	6.53	123.46	110.40
3	D3	119	LYS	CB-CA-C	6.53	123.46	110.40
3	Do	119	LYS	CB-CA-C	6.53	123.45	110.40
3	Dp	119	LYS	CB-CA-C	6.53	123.45	110.40
3	DL	119	LYS	CB-CA-C	6.53	123.45	110.40
3	Dk	119	LYS	CB-CA-C	6.52	123.45	110.40
3	Dl	119	LYS	CB-CA-C	6.52	123.44	110.40
3	D1	119	LYS	CB-CA-C	6.52	123.44	110.40
3	DB	119	LYS	CB-CA-C	6.52	123.44	110.40
3	DM	119	LYS	CB-CA-C	6.52	123.44	110.40
3	D0	119	LYS	CB-CA-C	6.52	123.44	110.40
3	D5	119	LYS	CB-CA-C	6.52	123.44	110.40
3	DS	119	LYS	CB-CA-C	6.52	123.43	110.40
3	Dc	119	LYS	CB-CA-C	6.52	123.44	110.40
3	EB	119	LYS	CB-CA-C	6.52	123.44	110.40
3	DZ	119	LYS	CB-CA-C	6.51	123.43	110.40
3	D6	119	LYS	CB-CA-C	6.51	123.42	110.40
3	D7	119	LYS	CB-CA-C	6.51	123.42	110.40
3	Da	119	LYS	CB-CA-C	6.51	123.42	110.40
3	Dj	119	LYS	CB-CA-C	6.51	123.42	110.40
3	ED	119	LYS	CB-CA-C	6.51	123.42	110.40
3	DN	119	LYS	CB-CA-C	6.51	123.42	110.40
3	Df	119	LYS	CB-CA-C	6.51	123.42	110.40
3	Dg	119	LYS	CB-CA-C	6.51	123.42	110.40
3	Ds	119	LYS	CB-CA-C	6.51	123.42	110.40
3	DD	119	LYS	CB-CA-C	6.51	123.41	110.40
3	DK	119	LYS	CB-CA-C	6.51	123.41	110.40
3	DU	119	LYS	CB-CA-C	6.51	123.42	110.40
3	D2	119	LYS	CB-CA-C	6.50	123.41	110.40
3	DF	119	LYS	CB-CA-C	6.50	123.41	110.40
3	DJ	119	LYS	CB-CA-C	6.50	123.41	110.40
3	DO	119	LYS	CB-CA-C	6.50	123.41	110.40
3	Dm	119	LYS	CB-CA-C	6.50	123.41	110.40
3	Dn	119	LYS	CB-CA-C	6.50	123.41	110.40
3	Dd	119	LYS	CB-CA-C	6.50	123.41	110.40
3	DI	119	LYS	CB-CA-C	6.50	123.39	110.40
3	D9	119	LYS	CB-CA-C	6.49	123.39	110.40
3	DX	119	LYS	CB-CA-C	6.49	123.39	110.40
3	DH	119	LYS	CB-CA-C	6.49	123.38	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	DG	119	LYS	CB-CA-C	6.49	123.38	110.40
3	D4	119	LYS	CB-CA-C	6.49	123.37	110.40
1	Af	71	LEU	CA-CB-CG	6.49	130.22	115.30
1	AF	71	LEU	CA-CB-CG	6.48	130.20	115.30
1	Aj	71	LEU	CA-CB-CG	6.47	130.19	115.30
1	AO	71	LEU	CA-CB-CG	6.47	130.18	115.30
1	A8	71	LEU	CA-CB-CG	6.47	130.18	115.30
1	AC	71	LEU	CA-CB-CG	6.47	130.18	115.30
1	AI	71	LEU	CA-CB-CG	6.46	130.17	115.30
1	AU	71	LEU	CA-CB-CG	6.46	130.17	115.30
1	AJ	71	LEU	CA-CB-CG	6.46	130.16	115.30
1	BI	71	LEU	CA-CB-CG	6.46	130.16	115.30
1	BB	71	LEU	CA-CB-CG	6.46	130.16	115.30
1	BH	71	LEU	CA-CB-CG	6.46	130.16	115.30
1	AE	71	LEU	CA-CB-CG	6.46	130.15	115.30
1	Aa	71	LEU	CA-CB-CG	6.46	130.15	115.30
1	Am	71	LEU	CA-CB-CG	6.46	130.15	115.30
1	Ah	71	LEU	CA-CB-CG	6.45	130.14	115.30
1	AG	71	LEU	CA-CB-CG	6.45	130.14	115.30
1	AL	71	LEU	CA-CB-CG	6.45	130.14	115.30
1	AT	71	LEU	CA-CB-CG	6.45	130.14	115.30
1	AQ	71	LEU	CA-CB-CG	6.45	130.13	115.30
1	Ai	71	LEU	CA-CB-CG	6.45	130.13	115.30
1	BG	71	LEU	CA-CB-CG	6.45	130.13	115.30
1	A1	71	LEU	CA-CB-CG	6.45	130.13	115.30
1	A5	71	LEU	CA-CB-CG	6.45	130.13	115.30
1	AM	71	LEU	CA-CB-CG	6.45	130.12	115.30
1	Ad	71	LEU	CA-CB-CG	6.45	130.13	115.30
1	BA	71	LEU	CA-CB-CG	6.45	130.12	115.30
1	A3	71	LEU	CA-CB-CG	6.44	130.12	115.30
1	AN	71	LEU	CA-CB-CG	6.44	130.12	115.30
1	AP	71	LEU	CA-CB-CG	6.44	130.12	115.30
1	AW	71	LEU	CA-CB-CG	6.44	130.12	115.30
1	BE	71	LEU	CA-CB-CG	6.44	130.12	115.30
1	A0	71	LEU	CA-CB-CG	6.44	130.11	115.30
1	AH	71	LEU	CA-CB-CG	6.44	130.11	115.30
1	AR	71	LEU	CA-CB-CG	6.44	130.11	115.30
1	Ao	71	LEU	CA-CB-CG	6.44	130.11	115.30
1	BF	71	LEU	CA-CB-CG	6.44	130.11	115.30
1	A9	71	LEU	CA-CB-CG	6.44	130.11	115.30
1	AA	71	LEU	CA-CB-CG	6.44	130.10	115.30
1	AK	71	LEU	CA-CB-CG	6.44	130.10	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	BD	71	LEU	CA-CB-CG	6.44	130.10	115.30
1	A4	71	LEU	CA-CB-CG	6.43	130.10	115.30
1	A7	71	LEU	CA-CB-CG	6.43	130.10	115.30
1	AX	71	LEU	CA-CB-CG	6.43	130.10	115.30
1	An	71	LEU	CA-CB-CG	6.43	130.10	115.30
1	BC	71	LEU	CA-CB-CG	6.43	130.10	115.30
1	A6	71	LEU	CA-CB-CG	6.43	130.09	115.30
1	AZ	71	LEU	CA-CB-CG	6.43	130.09	115.30
1	Ab	71	LEU	CA-CB-CG	6.43	130.09	115.30
1	Al	71	LEU	CA-CB-CG	6.43	130.10	115.30
1	AV	71	LEU	CA-CB-CG	6.43	130.09	115.30
1	AB	71	LEU	CA-CB-CG	6.43	130.09	115.30
1	AY	71	LEU	CA-CB-CG	6.43	130.09	115.30
1	Ac	71	LEU	CA-CB-CG	6.43	130.09	115.30
1	Ak	71	LEU	CA-CB-CG	6.42	130.08	115.30
1	AS	71	LEU	CA-CB-CG	6.42	130.07	115.30
1	Ae	71	LEU	CA-CB-CG	6.42	130.07	115.30
1	A2	71	LEU	CA-CB-CG	6.42	130.06	115.30
1	AD	71	LEU	CA-CB-CG	6.41	130.05	115.30
1	Ag	71	LEU	CA-CB-CG	6.41	130.04	115.30
3	DH	120	PHE	CB-CG-CD2	-6.14	116.50	120.80
1	Ao	70	ARG	N-CA-C	-6.13	94.44	111.00
1	A3	70	ARG	N-CA-C	-6.13	94.46	111.00
1	A2	70	ARG	N-CA-C	-6.13	94.46	111.00
1	AE	70	ARG	N-CA-C	-6.13	94.46	111.00
1	Af	70	ARG	N-CA-C	-6.13	94.46	111.00
1	AU	70	ARG	N-CA-C	-6.12	94.46	111.00
1	AP	70	ARG	N-CA-C	-6.12	94.47	111.00
1	AY	70	ARG	N-CA-C	-6.12	94.47	111.00
1	An	70	ARG	N-CA-C	-6.12	94.47	111.00
1	AF	70	ARG	N-CA-C	-6.12	94.47	111.00
1	AI	70	ARG	N-CA-C	-6.12	94.48	111.00
1	AK	70	ARG	N-CA-C	-6.12	94.49	111.00
1	AV	70	ARG	N-CA-C	-6.12	94.49	111.00
1	Ac	70	ARG	N-CA-C	-6.12	94.49	111.00
1	Am	70	ARG	N-CA-C	-6.12	94.49	111.00
1	AA	70	ARG	N-CA-C	-6.11	94.50	111.00
1	AW	70	ARG	N-CA-C	-6.11	94.49	111.00
1	AS	70	ARG	N-CA-C	-6.11	94.50	111.00
1	Ak	70	ARG	N-CA-C	-6.11	94.50	111.00
1	AL	70	ARG	N-CA-C	-6.11	94.50	111.00
1	AN	70	ARG	N-CA-C	-6.11	94.50	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AQ	70	ARG	N-CA-C	-6.11	94.50	111.00
1	AX	70	ARG	N-CA-C	-6.11	94.50	111.00
1	BI	70	ARG	N-CA-C	-6.11	94.50	111.00
1	Aj	70	ARG	N-CA-C	-6.11	94.51	111.00
1	BD	70	ARG	N-CA-C	-6.11	94.51	111.00
1	AZ	70	ARG	N-CA-C	-6.11	94.51	111.00
1	BB	70	ARG	N-CA-C	-6.11	94.51	111.00
1	BG	70	ARG	N-CA-C	-6.11	94.51	111.00
3	D7	120	PHE	CB-CG-CD2	-6.11	116.53	120.80
1	A6	70	ARG	N-CA-C	-6.11	94.52	111.00
1	AJ	70	ARG	N-CA-C	-6.11	94.52	111.00
1	Ai	70	ARG	N-CA-C	-6.11	94.51	111.00
1	AT	70	ARG	N-CA-C	-6.10	94.52	111.00
1	Aa	70	ARG	N-CA-C	-6.10	94.52	111.00
1	Ab	70	ARG	N-CA-C	-6.10	94.52	111.00
1	A4	70	ARG	N-CA-C	-6.10	94.53	111.00
1	AR	70	ARG	N-CA-C	-6.10	94.52	111.00
1	Ae	70	ARG	N-CA-C	-6.10	94.52	111.00
1	A7	70	ARG	N-CA-C	-6.10	94.53	111.00
1	AH	70	ARG	N-CA-C	-6.10	94.53	111.00
1	AM	70	ARG	N-CA-C	-6.10	94.53	111.00
1	A0	70	ARG	N-CA-C	-6.10	94.53	111.00
1	A1	70	ARG	N-CA-C	-6.10	94.53	111.00
1	A5	70	ARG	N-CA-C	-6.10	94.53	111.00
1	A9	70	ARG	N-CA-C	-6.10	94.53	111.00
1	Ad	70	ARG	N-CA-C	-6.10	94.53	111.00
1	AB	70	ARG	N-CA-C	-6.10	94.54	111.00
1	Al	70	ARG	N-CA-C	-6.10	94.54	111.00
1	BA	70	ARG	N-CA-C	-6.10	94.53	111.00
1	BC	70	ARG	N-CA-C	-6.10	94.54	111.00
1	BE	70	ARG	N-CA-C	-6.10	94.54	111.00
1	BF	70	ARG	N-CA-C	-6.10	94.54	111.00
1	Ag	70	ARG	N-CA-C	-6.10	94.54	111.00
1	AC	70	ARG	N-CA-C	-6.09	94.55	111.00
1	AG	70	ARG	N-CA-C	-6.09	94.55	111.00
1	AD	70	ARG	N-CA-C	-6.09	94.56	111.00
1	Ah	70	ARG	N-CA-C	-6.09	94.56	111.00
1	AO	70	ARG	N-CA-C	-6.09	94.56	111.00
1	BH	70	ARG	N-CA-C	-6.09	94.57	111.00
1	A8	70	ARG	N-CA-C	-6.08	94.57	111.00
3	DY	120	PHE	CB-CG-CD2	-6.08	116.54	120.80
3	EE	120	PHE	CB-CG-CD2	-6.08	116.54	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	DB	120	PHE	CB-CG-CD2	-6.08	116.54	120.80
3	D3	120	PHE	CB-CG-CD2	-6.06	116.56	120.80
3	ED	120	PHE	CB-CG-CD2	-6.06	116.56	120.80
3	DJ	120	PHE	CB-CG-CD2	-6.06	116.56	120.80
3	Dh	120	PHE	CB-CG-CD2	-6.05	116.56	120.80
3	DZ	120	PHE	CB-CG-CD2	-6.05	116.57	120.80
3	DX	120	PHE	CB-CG-CD2	-6.05	116.57	120.80
3	D0	120	PHE	CB-CG-CD2	-6.04	116.57	120.80
3	Dp	120	PHE	CB-CG-CD2	-6.03	116.58	120.80
3	Df	120	PHE	CB-CG-CD2	-6.03	116.58	120.80
3	DI	120	PHE	CB-CG-CD2	-6.02	116.58	120.80
3	DE	120	PHE	CB-CG-CD2	-6.01	116.59	120.80
3	DK	120	PHE	CB-CG-CD2	-6.01	116.59	120.80
3	D1	120	PHE	CB-CG-CD2	-6.01	116.59	120.80
3	DP	120	PHE	CB-CG-CD2	-6.01	116.59	120.80
3	EB	120	PHE	CB-CG-CD2	-6.01	116.59	120.80
3	Dr	120	PHE	CB-CG-CD2	-6.01	116.59	120.80
3	DT	120	PHE	CB-CG-CD2	-6.00	116.60	120.80
3	D2	120	PHE	CB-CG-CD2	-6.00	116.60	120.80
3	DM	120	PHE	CB-CG-CD2	-6.00	116.60	120.80
3	Dc	120	PHE	CB-CG-CD2	-5.99	116.61	120.80
3	Dn	120	PHE	CB-CG-CD2	-5.99	116.61	120.80
3	D4	120	PHE	CB-CG-CD2	-5.99	116.61	120.80
3	D8	120	PHE	CB-CG-CD2	-5.99	116.61	120.80
3	DU	120	PHE	CB-CG-CD2	-5.99	116.61	120.80
3	Dg	120	PHE	CB-CG-CD2	-5.99	116.61	120.80
3	Dj	120	PHE	CB-CG-CD2	-5.98	116.61	120.80
3	D5	120	PHE	CB-CG-CD2	-5.97	116.62	120.80
3	Da	120	PHE	CB-CG-CD2	-5.97	116.62	120.80
3	EA	120	PHE	CB-CG-CD2	-5.97	116.62	120.80
3	DA	120	PHE	CB-CG-CD2	-5.97	116.62	120.80
3	DL	120	PHE	CB-CG-CD2	-5.97	116.62	120.80
3	Dk	120	PHE	CB-CG-CD2	-5.97	116.62	120.80
3	Do	120	PHE	CB-CG-CD2	-5.97	116.62	120.80
3	DR	120	PHE	CB-CG-CD2	-5.97	116.62	120.80
3	Di	120	PHE	CB-CG-CD2	-5.97	116.62	120.80
3	D6	120	PHE	CB-CG-CD2	-5.97	116.62	120.80
3	DC	120	PHE	CB-CG-CD2	-5.97	116.62	120.80
3	DF	120	PHE	CB-CG-CD2	-5.96	116.63	120.80
3	DV	120	PHE	CB-CG-CD2	-5.96	116.63	120.80
3	DW	120	PHE	CB-CG-CD2	-5.96	116.63	120.80
3	D9	120	PHE	CB-CG-CD2	-5.95	116.64	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	Db	120	PHE	CB-CG-CD2	-5.95	116.64	120.80
3	Dd	120	PHE	CB-CG-CD2	-5.94	116.64	120.80
3	DQ	120	PHE	CB-CG-CD2	-5.94	116.64	120.80
3	Dq	120	PHE	CB-CG-CD2	-5.94	116.64	120.80
3	DS	120	PHE	CB-CG-CD2	-5.93	116.65	120.80
3	Dm	120	PHE	CB-CG-CD2	-5.93	116.65	120.80
3	DO	120	PHE	CB-CG-CD2	-5.93	116.65	120.80
3	Dl	120	PHE	CB-CG-CD2	-5.93	116.65	120.80
3	DD	120	PHE	CB-CG-CD2	-5.93	116.65	120.80
3	DN	120	PHE	CB-CG-CD2	-5.93	116.65	120.80
3	EC	120	PHE	CB-CG-CD2	-5.93	116.65	120.80
3	DG	120	PHE	CB-CG-CD2	-5.92	116.65	120.80
3	De	120	PHE	CB-CG-CD2	-5.92	116.66	120.80
3	Ds	120	PHE	CB-CG-CD2	-5.91	116.66	120.80
3	DX	119	LYS	CB-CG-CD	5.85	126.81	111.60
3	D0	119	LYS	CB-CG-CD	5.84	126.79	111.60
3	DG	119	LYS	CB-CG-CD	5.84	126.79	111.60
3	DO	119	LYS	CB-CG-CD	5.84	126.79	111.60
3	Db	119	LYS	CB-CG-CD	5.84	126.78	111.60
3	Dp	119	LYS	CB-CG-CD	5.84	126.77	111.60
3	Dq	119	LYS	CB-CG-CD	5.84	126.77	111.60
3	DS	119	LYS	CB-CG-CD	5.83	126.76	111.60
3	Dj	119	LYS	CB-CG-CD	5.83	126.76	111.60
3	D5	119	LYS	CB-CG-CD	5.83	126.76	111.60
3	DP	119	LYS	CB-CG-CD	5.83	126.75	111.60
3	De	119	LYS	CB-CG-CD	5.83	126.75	111.60
3	Dk	119	LYS	CB-CG-CD	5.83	126.75	111.60
3	Do	119	LYS	CB-CG-CD	5.83	126.76	111.60
3	D4	119	LYS	CB-CG-CD	5.83	126.75	111.60
3	DJ	119	LYS	CB-CG-CD	5.83	126.75	111.60
3	DQ	119	LYS	CB-CG-CD	5.83	126.75	111.60
3	DC	119	LYS	CB-CG-CD	5.83	126.75	111.60
3	DU	119	LYS	CB-CG-CD	5.82	126.74	111.60
3	Dc	119	LYS	CB-CG-CD	5.82	126.74	111.60
3	EE	119	LYS	CB-CG-CD	5.82	126.74	111.60
3	D7	119	LYS	CB-CG-CD	5.82	126.74	111.60
3	DN	119	LYS	CB-CG-CD	5.82	126.74	111.60
3	D6	119	LYS	CB-CG-CD	5.82	126.73	111.60
3	Df	119	LYS	CB-CG-CD	5.82	126.73	111.60
3	Dn	119	LYS	CB-CG-CD	5.82	126.73	111.60
3	EA	119	LYS	CB-CG-CD	5.82	126.72	111.60
3	DD	119	LYS	CB-CG-CD	5.82	126.72	111.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	DE	119	LYS	CB-CG-CD	5.82	126.72	111.60
3	DK	119	LYS	CB-CG-CD	5.82	126.72	111.60
3	DT	119	LYS	CB-CG-CD	5.82	126.72	111.60
3	D3	119	LYS	CB-CG-CD	5.81	126.71	111.60
3	DI	119	LYS	CB-CG-CD	5.81	126.71	111.60
3	Dm	119	LYS	CB-CG-CD	5.81	126.71	111.60
3	Ds	119	LYS	CB-CG-CD	5.81	126.71	111.60
3	D1	119	LYS	CB-CG-CD	5.81	126.71	111.60
3	DV	119	LYS	CB-CG-CD	5.81	126.71	111.60
3	Dd	119	LYS	CB-CG-CD	5.81	126.71	111.60
3	Dh	119	LYS	CB-CG-CD	5.81	126.71	111.60
3	D9	119	LYS	CB-CG-CD	5.81	126.70	111.60
3	DA	119	LYS	CB-CG-CD	5.81	126.71	111.60
3	DB	119	LYS	CB-CG-CD	5.81	126.70	111.60
3	DH	119	LYS	CB-CG-CD	5.81	126.71	111.60
3	DY	119	LYS	CB-CG-CD	5.81	126.70	111.60
3	DM	119	LYS	CB-CG-CD	5.81	126.70	111.60
3	DW	119	LYS	CB-CG-CD	5.81	126.70	111.60
3	ED	119	LYS	CB-CG-CD	5.81	126.70	111.60
3	DL	119	LYS	CB-CG-CD	5.81	126.70	111.60
3	DZ	119	LYS	CB-CG-CD	5.81	126.69	111.60
3	Dr	119	LYS	CB-CG-CD	5.81	126.69	111.60
3	D2	119	LYS	CB-CG-CD	5.80	126.69	111.60
3	DF	119	LYS	CB-CG-CD	5.80	126.69	111.60
3	DR	119	LYS	CB-CG-CD	5.80	126.69	111.60
3	Dg	119	LYS	CB-CG-CD	5.80	126.69	111.60
3	Di	119	LYS	CB-CG-CD	5.80	126.69	111.60
3	EC	119	LYS	CB-CG-CD	5.80	126.69	111.60
3	Da	119	LYS	CB-CG-CD	5.80	126.68	111.60
3	EB	119	LYS	CB-CG-CD	5.80	126.68	111.60
3	DI	119	LYS	CB-CG-CD	5.80	126.68	111.60
3	D8	119	LYS	CB-CG-CD	5.79	126.66	111.60
1	Am	18	ALA	N-CA-C	5.56	126.02	111.00
1	Ab	18	ALA	N-CA-C	5.56	126.01	111.00
1	Ad	18	ALA	N-CA-C	5.56	126.00	111.00
1	BE	18	ALA	N-CA-C	5.56	126.00	111.00
1	BI	18	ALA	N-CA-C	5.55	125.99	111.00
1	AR	18	ALA	N-CA-C	5.55	125.99	111.00
3	DX	119	LYS	CA-C-N	5.55	129.41	117.20
3	DZ	119	LYS	CA-C-N	5.55	129.41	117.20
3	D1	119	LYS	CA-C-N	5.55	129.41	117.20
1	A1	18	ALA	N-CA-C	5.55	125.98	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ai	18	ALA	N-CA-C	5.55	125.98	111.00
3	DE	119	LYS	CA-C-N	5.55	129.41	117.20
1	AC	18	ALA	N-CA-C	5.55	125.98	111.00
1	Ag	18	ALA	N-CA-C	5.55	125.98	111.00
3	D4	119	LYS	CA-C-N	5.54	129.40	117.20
1	AD	18	ALA	N-CA-C	5.54	125.97	111.00
1	AS	18	ALA	N-CA-C	5.54	125.97	111.00
3	Dq	119	LYS	CA-C-N	5.54	129.39	117.20
3	EE	119	LYS	CA-C-N	5.54	129.39	117.20
1	AU	18	ALA	N-CA-C	5.54	125.96	111.00
1	AY	18	ALA	N-CA-C	5.54	125.96	111.00
1	BC	18	ALA	N-CA-C	5.54	125.96	111.00
3	DV	119	LYS	CA-C-N	5.54	129.39	117.20
1	Ac	18	ALA	N-CA-C	5.54	125.95	111.00
1	Af	18	ALA	N-CA-C	5.54	125.95	111.00
1	Al	18	ALA	N-CA-C	5.54	125.95	111.00
1	An	18	ALA	N-CA-C	5.54	125.96	111.00
1	BG	18	ALA	N-CA-C	5.54	125.95	111.00
3	D3	119	LYS	CA-C-N	5.54	129.38	117.20
3	D6	119	LYS	CA-C-N	5.54	129.38	117.20
3	DI	119	LYS	CA-C-N	5.54	129.39	117.20
1	AI	18	ALA	N-CA-C	5.54	125.95	111.00
1	BH	18	ALA	N-CA-C	5.54	125.95	111.00
3	Dm	119	LYS	CA-C-N	5.54	129.38	117.20
1	AM	18	ALA	N-CA-C	5.54	125.94	111.00
1	AX	18	ALA	N-CA-C	5.54	125.95	111.00
3	DA	119	LYS	CA-C-N	5.54	129.38	117.20
3	DB	119	LYS	CA-C-N	5.54	129.38	117.20
3	DK	119	LYS	CA-C-N	5.54	129.38	117.20
3	Dc	119	LYS	CA-C-N	5.54	129.38	117.20
1	A2	18	ALA	N-CA-C	5.53	125.94	111.00
1	A8	18	ALA	N-CA-C	5.53	125.94	111.00
1	AH	18	ALA	N-CA-C	5.53	125.94	111.00
1	AJ	18	ALA	N-CA-C	5.53	125.94	111.00
3	DG	119	LYS	CA-C-N	5.53	129.38	117.20
1	AG	18	ALA	N-CA-C	5.53	125.94	111.00
2	CM	62	TYR	N-CA-C	-5.53	96.06	111.00
2	CP	62	TYR	N-CA-C	-5.53	96.06	111.00
1	A6	18	ALA	N-CA-C	5.53	125.93	111.00
1	Aj	18	ALA	N-CA-C	5.53	125.94	111.00
1	BA	18	ALA	N-CA-C	5.53	125.93	111.00
1	BF	18	ALA	N-CA-C	5.53	125.93	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C5	62	TYR	N-CA-C	-5.53	96.07	111.00
3	DH	119	LYS	CA-C-N	5.53	129.37	117.20
3	Dh	119	LYS	CA-C-N	5.53	129.37	117.20
3	DJ	119	LYS	CA-C-N	5.53	129.37	117.20
3	Ds	119	LYS	CA-C-N	5.53	129.36	117.20
1	A0	18	ALA	N-CA-C	5.53	125.92	111.00
1	A5	18	ALA	N-CA-C	5.53	125.93	111.00
1	A7	18	ALA	N-CA-C	5.53	125.92	111.00
1	AQ	18	ALA	N-CA-C	5.53	125.93	111.00
1	AV	18	ALA	N-CA-C	5.53	125.92	111.00
1	AZ	18	ALA	N-CA-C	5.53	125.92	111.00
3	DN	119	LYS	CA-C-N	5.53	129.36	117.20
3	Dj	119	LYS	CA-C-N	5.53	129.36	117.20
1	A4	18	ALA	N-CA-C	5.53	125.92	111.00
1	AF	18	ALA	N-CA-C	5.53	125.92	111.00
1	AP	18	ALA	N-CA-C	5.53	125.92	111.00
1	AW	18	ALA	N-CA-C	5.53	125.92	111.00
1	BB	18	ALA	N-CA-C	5.53	125.92	111.00
3	DM	119	LYS	CA-C-N	5.53	129.35	117.20
1	AO	18	ALA	N-CA-C	5.52	125.91	111.00
2	C2	62	TYR	N-CA-C	-5.52	96.09	111.00
2	C6	62	TYR	N-CA-C	-5.52	96.08	111.00
3	DW	119	LYS	CA-C-N	5.52	129.35	117.20
1	Aa	18	ALA	N-CA-C	5.52	125.91	111.00
1	BD	18	ALA	N-CA-C	5.52	125.91	111.00
2	C4	62	TYR	N-CA-C	-5.52	96.09	111.00
2	CQ	62	TYR	N-CA-C	-5.52	96.09	111.00
3	DL	119	LYS	CA-C-N	5.52	129.35	117.20
3	Dk	119	LYS	CA-C-N	5.52	129.35	117.20
3	Dn	119	LYS	CA-C-N	5.52	129.35	117.20
3	EB	119	LYS	CA-C-N	5.52	129.35	117.20
3	Do	119	LYS	CA-C-N	5.52	129.34	117.20
1	AT	18	ALA	N-CA-C	5.52	125.91	111.00
1	Ak	18	ALA	N-CA-C	5.52	125.90	111.00
2	C7	62	TYR	N-CA-C	-5.52	96.10	111.00
2	C8	62	TYR	N-CA-C	-5.52	96.10	111.00
2	CV	62	TYR	N-CA-C	-5.52	96.10	111.00
2	Ck	62	TYR	N-CA-C	-5.52	96.10	111.00
3	D9	119	LYS	CA-C-N	5.52	129.34	117.20
3	EA	119	LYS	CA-C-N	5.52	129.34	117.20
1	AA	18	ALA	N-CA-C	5.52	125.90	111.00
1	AL	18	ALA	N-CA-C	5.52	125.90	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	Ct	62	TYR	N-CA-C	-5.52	96.10	111.00
3	Df	119	LYS	CA-C-N	5.52	129.34	117.20
3	Dl	119	LYS	CA-C-N	5.52	129.34	117.20
1	AB	18	ALA	N-CA-C	5.52	125.89	111.00
1	AN	18	ALA	N-CA-C	5.52	125.89	111.00
3	D0	119	LYS	CA-C-N	5.52	129.34	117.20
3	D2	119	LYS	CA-C-N	5.52	129.34	117.20
3	De	119	LYS	CA-C-N	5.52	129.34	117.20
1	AE	18	ALA	N-CA-C	5.51	125.89	111.00
2	Co	62	TYR	N-CA-C	-5.51	96.11	111.00
3	D7	119	LYS	CA-C-N	5.51	129.33	117.20
3	DQ	119	LYS	CA-C-N	5.51	129.33	117.20
3	Da	119	LYS	CA-C-N	5.51	129.33	117.20
3	Dd	119	LYS	CA-C-N	5.51	129.33	117.20
3	Di	119	LYS	CA-C-N	5.51	129.33	117.20
3	Dr	119	LYS	CA-C-N	5.51	129.33	117.20
1	Ao	18	ALA	N-CA-C	5.51	125.89	111.00
2	CE	62	TYR	N-CA-C	-5.51	96.11	111.00
2	CW	62	TYR	N-CA-C	-5.51	96.11	111.00
1	A3	18	ALA	N-CA-C	5.51	125.88	111.00
1	Ae	18	ALA	N-CA-C	5.51	125.88	111.00
2	CA	62	TYR	N-CA-C	-5.51	96.12	111.00
2	CC	62	TYR	N-CA-C	-5.51	96.12	111.00
2	CD	62	TYR	N-CA-C	-5.51	96.12	111.00
2	CX	62	TYR	N-CA-C	-5.51	96.12	111.00
2	Cl	62	TYR	N-CA-C	-5.51	96.12	111.00
2	Cu	62	TYR	N-CA-C	-5.51	96.12	111.00
2	Cx	62	TYR	N-CA-C	-5.51	96.12	111.00
3	DD	119	LYS	CA-C-N	5.51	129.32	117.20
3	Dg	119	LYS	CA-C-N	5.51	129.32	117.20
1	A9	18	ALA	N-CA-C	5.51	125.88	111.00
1	AK	18	ALA	N-CA-C	5.51	125.87	111.00
2	CI	62	TYR	N-CA-C	-5.51	96.12	111.00
2	CJ	62	TYR	N-CA-C	-5.51	96.13	111.00
2	Cc	62	TYR	N-CA-C	-5.51	96.13	111.00
2	Ci	62	TYR	N-CA-C	-5.51	96.13	111.00
2	Cm	62	TYR	N-CA-C	-5.51	96.13	111.00
2	CR	62	TYR	N-CA-C	-5.51	96.13	111.00
2	CS	62	TYR	N-CA-C	-5.51	96.13	111.00
2	Cf	62	TYR	N-CA-C	-5.51	96.13	111.00
2	Cw	62	TYR	N-CA-C	-5.51	96.13	111.00
3	DP	119	LYS	CA-C-N	5.51	129.31	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	DS	119	LYS	CA-C-N	5.51	129.31	117.20
2	C0	62	TYR	N-CA-C	-5.50	96.14	111.00
2	Ce	62	TYR	N-CA-C	-5.50	96.14	111.00
3	Db	119	LYS	CA-C-N	5.50	129.31	117.20
2	Cd	62	TYR	N-CA-C	-5.50	96.14	111.00
3	DT	119	LYS	CA-C-N	5.50	129.31	117.20
1	Ah	18	ALA	N-CA-C	5.50	125.85	111.00
2	CN	62	TYR	N-CA-C	-5.50	96.14	111.00
2	CO	62	TYR	N-CA-C	-5.50	96.14	111.00
2	Ca	62	TYR	N-CA-C	-5.50	96.15	111.00
2	Cq	62	TYR	N-CA-C	-5.50	96.14	111.00
3	D5	119	LYS	CA-C-N	5.50	129.30	117.20
3	DC	119	LYS	CA-C-N	5.50	129.30	117.20
3	DU	119	LYS	CA-C-N	5.50	129.30	117.20
2	CB	62	TYR	N-CA-C	-5.50	96.15	111.00
3	DO	119	LYS	CA-C-N	5.50	129.30	117.20
2	CG	62	TYR	N-CA-C	-5.50	96.15	111.00
2	CY	62	TYR	N-CA-C	-5.50	96.16	111.00
2	Cb	62	TYR	N-CA-C	-5.50	96.16	111.00
2	Cg	62	TYR	N-CA-C	-5.50	96.15	111.00
2	Cv	62	TYR	N-CA-C	-5.50	96.16	111.00
3	DF	119	LYS	CA-C-N	5.50	129.30	117.20
3	EC	119	LYS	CA-C-N	5.50	129.30	117.20
2	CK	62	TYR	N-CA-C	-5.50	96.16	111.00
2	Ch	62	TYR	N-CA-C	-5.50	96.16	111.00
2	Cr	62	TYR	N-CA-C	-5.50	96.16	111.00
3	Dp	119	LYS	CA-C-N	5.50	129.29	117.20
2	CF	62	TYR	N-CA-C	-5.50	96.16	111.00
2	C3	62	TYR	N-CA-C	-5.49	96.17	111.00
2	CU	62	TYR	N-CA-C	-5.49	96.17	111.00
2	Cn	62	TYR	N-CA-C	-5.49	96.17	111.00
3	D8	119	LYS	CA-C-N	5.49	129.29	117.20
3	DY	119	LYS	CA-C-N	5.49	129.29	117.20
2	C9	62	TYR	N-CA-C	-5.49	96.18	111.00
2	CT	62	TYR	N-CA-C	-5.49	96.18	111.00
2	Cp	62	TYR	N-CA-C	-5.49	96.17	111.00
2	C1	62	TYR	N-CA-C	-5.49	96.18	111.00
2	CH	62	TYR	N-CA-C	-5.49	96.18	111.00
2	CL	62	TYR	N-CA-C	-5.49	96.18	111.00
2	Cj	62	TYR	N-CA-C	-5.49	96.18	111.00
3	DR	119	LYS	CA-C-N	5.49	129.28	117.20
2	Cs	62	TYR	N-CA-C	-5.49	96.19	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	CZ	62	TYR	N-CA-C	-5.48	96.19	111.00
3	ED	119	LYS	CA-C-N	5.48	129.26	117.20
1	BG	207	CYS	N-CA-C	5.44	125.70	111.00
1	An	207	CYS	N-CA-C	5.44	125.69	111.00
1	Af	207	CYS	N-CA-C	5.43	125.67	111.00
1	AI	207	CYS	N-CA-C	5.43	125.66	111.00
1	Aj	207	CYS	N-CA-C	5.43	125.65	111.00
1	BE	207	CYS	N-CA-C	5.43	125.65	111.00
1	AP	207	CYS	N-CA-C	5.42	125.65	111.00
1	AS	207	CYS	N-CA-C	5.42	125.65	111.00
1	A4	207	CYS	N-CA-C	5.42	125.64	111.00
1	AK	207	CYS	N-CA-C	5.42	125.64	111.00
1	AT	207	CYS	N-CA-C	5.42	125.63	111.00
1	AQ	207	CYS	N-CA-C	5.42	125.63	111.00
1	AR	207	CYS	N-CA-C	5.42	125.62	111.00
1	Aa	207	CYS	N-CA-C	5.42	125.62	111.00
1	AD	207	CYS	N-CA-C	5.42	125.62	111.00
1	AJ	207	CYS	N-CA-C	5.41	125.62	111.00
1	Ab	207	CYS	N-CA-C	5.41	125.62	111.00
1	Al	207	CYS	N-CA-C	5.41	125.62	111.00
1	AB	207	CYS	N-CA-C	5.41	125.61	111.00
1	A6	207	CYS	N-CA-C	5.41	125.61	111.00
1	AF	207	CYS	N-CA-C	5.41	125.61	111.00
1	Ae	207	CYS	N-CA-C	5.41	125.61	111.00
1	A2	207	CYS	N-CA-C	5.41	125.60	111.00
1	AG	207	CYS	N-CA-C	5.41	125.61	111.00
1	AW	207	CYS	N-CA-C	5.41	125.60	111.00
1	A5	207	CYS	N-CA-C	5.41	125.60	111.00
1	Ao	207	CYS	N-CA-C	5.41	125.60	111.00
1	BF	207	CYS	N-CA-C	5.41	125.60	111.00
1	A3	207	CYS	N-CA-C	5.41	125.59	111.00
1	A7	207	CYS	N-CA-C	5.41	125.60	111.00
1	A8	207	CYS	N-CA-C	5.41	125.59	111.00
1	AN	207	CYS	N-CA-C	5.41	125.59	111.00
1	AO	207	CYS	N-CA-C	5.41	125.59	111.00
1	Ac	207	CYS	N-CA-C	5.41	125.60	111.00
1	BA	207	CYS	N-CA-C	5.40	125.59	111.00
1	BD	207	CYS	N-CA-C	5.40	125.59	111.00
1	A9	207	CYS	N-CA-C	5.40	125.59	111.00
1	AX	207	CYS	N-CA-C	5.40	125.58	111.00
1	Ad	207	CYS	N-CA-C	5.40	125.59	111.00
1	BB	207	CYS	N-CA-C	5.40	125.59	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AM	207	CYS	N-CA-C	5.40	125.58	111.00
1	AY	207	CYS	N-CA-C	5.40	125.58	111.00
1	Ak	207	CYS	N-CA-C	5.40	125.58	111.00
1	AL	207	CYS	N-CA-C	5.40	125.58	111.00
1	AV	207	CYS	N-CA-C	5.40	125.57	111.00
1	AA	207	CYS	N-CA-C	5.40	125.57	111.00
1	AC	207	CYS	N-CA-C	5.40	125.57	111.00
1	AE	207	CYS	N-CA-C	5.40	125.57	111.00
1	AU	207	CYS	N-CA-C	5.39	125.56	111.00
1	AZ	207	CYS	N-CA-C	5.39	125.56	111.00
1	Ai	207	CYS	N-CA-C	5.39	125.57	111.00
1	A0	207	CYS	N-CA-C	5.39	125.56	111.00
1	BC	207	CYS	N-CA-C	5.39	125.55	111.00
1	Am	207	CYS	N-CA-C	5.39	125.54	111.00
1	Ag	207	CYS	N-CA-C	5.38	125.54	111.00
1	BI	207	CYS	N-CA-C	5.38	125.53	111.00
1	A1	207	CYS	N-CA-C	5.38	125.53	111.00
1	Ah	207	CYS	N-CA-C	5.38	125.52	111.00
1	BH	207	CYS	N-CA-C	5.38	125.52	111.00
1	AH	207	CYS	N-CA-C	5.37	125.50	111.00
1	Ag	139	SER	C-N-CD	-5.30	108.94	120.60
1	BE	139	SER	C-N-CD	-5.28	108.98	120.60
2	CZ	65	LYS	N-CA-C	-5.28	96.75	111.00
1	A7	139	SER	C-N-CD	-5.28	109.00	120.60
1	A0	139	SER	C-N-CD	-5.27	109.00	120.60
2	CC	65	LYS	N-CA-C	-5.27	96.76	111.00
1	AV	139	SER	C-N-CD	-5.27	109.00	120.60
2	CT	65	LYS	N-CA-C	-5.27	96.76	111.00
2	Cp	65	LYS	N-CA-C	-5.27	96.77	111.00
1	AP	139	SER	C-N-CD	-5.27	109.01	120.60
1	BG	139	SER	C-N-CD	-5.27	109.01	120.60
2	C7	65	LYS	N-CA-C	-5.27	96.77	111.00
2	CA	65	LYS	N-CA-C	-5.27	96.77	111.00
2	CJ	65	LYS	N-CA-C	-5.27	96.77	111.00
2	CS	65	LYS	N-CA-C	-5.27	96.78	111.00
1	AG	139	SER	C-N-CD	-5.27	109.01	120.60
2	C2	65	LYS	N-CA-C	-5.27	96.78	111.00
2	C3	65	LYS	N-CA-C	-5.27	96.78	111.00
2	CD	65	LYS	N-CA-C	-5.27	96.78	111.00
2	CE	65	LYS	N-CA-C	-5.27	96.78	111.00
2	Cf	65	LYS	N-CA-C	-5.27	96.78	111.00
2	Cs	65	LYS	N-CA-C	-5.27	96.78	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AU	139	SER	C-N-CD	-5.27	109.01	120.60
1	BF	139	SER	C-N-CD	-5.26	109.02	120.60
2	C9	65	LYS	N-CA-C	-5.26	96.79	111.00
2	CW	65	LYS	N-CA-C	-5.26	96.78	111.00
2	Ci	65	LYS	N-CA-C	-5.26	96.78	111.00
1	AI	139	SER	C-N-CD	-5.26	109.02	120.60
2	Ck	65	LYS	N-CA-C	-5.26	96.79	111.00
1	A4	139	SER	C-N-CD	-5.26	109.02	120.60
2	CG	65	LYS	N-CA-C	-5.26	96.80	111.00
2	CH	65	LYS	N-CA-C	-5.26	96.80	111.00
2	CO	65	LYS	N-CA-C	-5.26	96.80	111.00
2	Cg	65	LYS	N-CA-C	-5.26	96.79	111.00
2	Cv	65	LYS	N-CA-C	-5.26	96.79	111.00
1	A6	139	SER	C-N-CD	-5.26	109.03	120.60
1	AB	139	SER	C-N-CD	-5.26	109.03	120.60
1	AN	139	SER	C-N-CD	-5.26	109.03	120.60
2	Co	65	LYS	N-CA-C	-5.26	96.80	111.00
2	Cx	65	LYS	N-CA-C	-5.26	96.80	111.00
1	AJ	139	SER	C-N-CD	-5.26	109.03	120.60
1	AK	139	SER	C-N-CD	-5.26	109.03	120.60
2	C5	65	LYS	N-CA-C	-5.26	96.80	111.00
2	CM	65	LYS	N-CA-C	-5.26	96.80	111.00
1	AD	139	SER	C-N-CD	-5.26	109.03	120.60
1	Al	139	SER	C-N-CD	-5.26	109.03	120.60
2	C0	65	LYS	N-CA-C	-5.26	96.81	111.00
2	CX	65	LYS	N-CA-C	-5.26	96.81	111.00
2	Ct	65	LYS	N-CA-C	-5.26	96.81	111.00
1	AX	139	SER	C-N-CD	-5.25	109.04	120.60
1	Aj	139	SER	C-N-CD	-5.25	109.04	120.60
1	BC	139	SER	C-N-CD	-5.25	109.04	120.60
2	C1	65	LYS	N-CA-C	-5.25	96.81	111.00
2	CF	65	LYS	N-CA-C	-5.25	96.81	111.00
2	CI	65	LYS	N-CA-C	-5.25	96.81	111.00
2	CU	65	LYS	N-CA-C	-5.25	96.81	111.00
2	Cb	65	LYS	N-CA-C	-5.25	96.81	111.00
1	A8	139	SER	C-N-CD	-5.25	109.04	120.60
1	AA	139	SER	C-N-CD	-5.25	109.04	120.60
1	AO	139	SER	C-N-CD	-5.25	109.04	120.60
1	Ak	139	SER	C-N-CD	-5.25	109.04	120.60
2	C6	65	LYS	N-CA-C	-5.25	96.81	111.00
2	CK	65	LYS	N-CA-C	-5.25	96.82	111.00
2	Cm	65	LYS	N-CA-C	-5.25	96.82	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AH	139	SER	C-N-CD	-5.25	109.05	120.60
1	AT	139	SER	C-N-CD	-5.25	109.05	120.60
1	BD	139	SER	C-N-CD	-5.25	109.05	120.60
2	CR	65	LYS	N-CA-C	-5.25	96.82	111.00
2	Cc	65	LYS	N-CA-C	-5.25	96.82	111.00
2	Cr	65	LYS	N-CA-C	-5.25	96.82	111.00
2	Cw	65	LYS	N-CA-C	-5.25	96.82	111.00
1	AY	139	SER	C-N-CD	-5.25	109.05	120.60
1	BA	139	SER	C-N-CD	-5.25	109.05	120.60
2	C4	65	LYS	N-CA-C	-5.25	96.83	111.00
2	C8	65	LYS	N-CA-C	-5.25	96.83	111.00
2	CB	65	LYS	N-CA-C	-5.25	96.83	111.00
1	AS	139	SER	C-N-CD	-5.25	109.05	120.60
1	Ac	139	SER	C-N-CD	-5.25	109.06	120.60
2	CL	65	LYS	N-CA-C	-5.25	96.83	111.00
2	CV	65	LYS	N-CA-C	-5.25	96.83	111.00
2	Cd	65	LYS	N-CA-C	-5.25	96.83	111.00
1	AE	139	SER	C-N-CD	-5.25	109.06	120.60
1	AR	139	SER	C-N-CD	-5.25	109.06	120.60
1	BB	139	SER	C-N-CD	-5.25	109.06	120.60
2	CQ	65	LYS	N-CA-C	-5.25	96.83	111.00
2	Cl	65	LYS	N-CA-C	-5.25	96.83	111.00
2	Cq	65	LYS	N-CA-C	-5.25	96.84	111.00
1	A3	139	SER	C-N-CD	-5.25	109.06	120.60
1	An	139	SER	C-N-CD	-5.25	109.06	120.60
1	Ao	139	SER	C-N-CD	-5.25	109.06	120.60
2	CP	65	LYS	N-CA-C	-5.25	96.84	111.00
2	Cj	65	LYS	N-CA-C	-5.25	96.84	111.00
1	Ad	139	SER	C-N-CD	-5.24	109.06	120.60
2	CN	65	LYS	N-CA-C	-5.24	96.84	111.00
2	Cu	65	LYS	N-CA-C	-5.24	96.84	111.00
1	AW	139	SER	C-N-CD	-5.24	109.07	120.60
2	Ch	65	LYS	N-CA-C	-5.24	96.85	111.00
1	BI	139	SER	C-N-CD	-5.24	109.07	120.60
2	Ce	65	LYS	N-CA-C	-5.24	96.85	111.00
2	Cn	65	LYS	N-CA-C	-5.24	96.85	111.00
1	AC	139	SER	C-N-CD	-5.24	109.08	120.60
1	AQ	139	SER	C-N-CD	-5.24	109.08	120.60
1	AM	139	SER	C-N-CD	-5.24	109.08	120.60
1	AF	139	SER	C-N-CD	-5.24	109.08	120.60
1	Af	139	SER	C-N-CD	-5.24	109.08	120.60
1	Am	139	SER	C-N-CD	-5.24	109.08	120.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	CY	65	LYS	N-CA-C	-5.24	96.86	111.00
2	Ca	65	LYS	N-CA-C	-5.24	96.86	111.00
1	Ae	139	SER	C-N-CD	-5.23	109.08	120.60
1	AZ	139	SER	C-N-CD	-5.23	109.09	120.60
1	A5	139	SER	C-N-CD	-5.23	109.09	120.60
1	A9	139	SER	C-N-CD	-5.23	109.09	120.60
1	Aa	139	SER	C-N-CD	-5.23	109.09	120.60
1	BH	139	SER	C-N-CD	-5.23	109.10	120.60
1	Ah	139	SER	C-N-CD	-5.23	109.10	120.60
1	Ai	139	SER	C-N-CD	-5.23	109.10	120.60
1	AL	139	SER	C-N-CD	-5.23	109.10	120.60
1	Ab	139	SER	C-N-CD	-5.22	109.11	120.60
1	A2	139	SER	C-N-CD	-5.21	109.14	120.60
1	A1	139	SER	C-N-CD	-5.21	109.15	120.60
2	Ct	163	LEU	CA-CB-CG	5.15	127.14	115.30
2	CR	163	LEU	CA-CB-CG	5.15	127.14	115.30
2	CC	163	LEU	CA-CB-CG	5.15	127.14	115.30
2	CQ	163	LEU	CA-CB-CG	5.15	127.14	115.30
2	CT	163	LEU	CA-CB-CG	5.15	127.14	115.30
2	CJ	163	LEU	CA-CB-CG	5.15	127.14	115.30
2	Cc	163	LEU	CA-CB-CG	5.15	127.14	115.30
2	CX	163	LEU	CA-CB-CG	5.14	127.13	115.30
2	CK	163	LEU	CA-CB-CG	5.14	127.13	115.30
2	Cn	163	LEU	CA-CB-CG	5.14	127.13	115.30
2	Ch	163	LEU	CA-CB-CG	5.14	127.12	115.30
2	CF	163	LEU	CA-CB-CG	5.14	127.12	115.30
2	CO	163	LEU	CA-CB-CG	5.14	127.12	115.30
2	Cl	163	LEU	CA-CB-CG	5.14	127.12	115.30
2	Cs	163	LEU	CA-CB-CG	5.14	127.12	115.30
2	C4	163	LEU	CA-CB-CG	5.14	127.12	115.30
2	CV	163	LEU	CA-CB-CG	5.14	127.11	115.30
2	Cv	163	LEU	CA-CB-CG	5.14	127.12	115.30
2	Cp	163	LEU	CA-CB-CG	5.13	127.11	115.30
2	CP	163	LEU	CA-CB-CG	5.13	127.10	115.30
2	Cb	163	LEU	CA-CB-CG	5.13	127.10	115.30
2	Ck	163	LEU	CA-CB-CG	5.13	127.10	115.30
2	Cu	163	LEU	CA-CB-CG	5.13	127.10	115.30
2	C9	163	LEU	CA-CB-CG	5.13	127.10	115.30
2	C2	163	LEU	CA-CB-CG	5.13	127.09	115.30
2	C5	163	LEU	CA-CB-CG	5.13	127.10	115.30
2	Cx	163	LEU	CA-CB-CG	5.13	127.09	115.30
2	CA	163	LEU	CA-CB-CG	5.12	127.09	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	CL	163	LEU	CA-CB-CG	5.12	127.09	115.30
2	C1	163	LEU	CA-CB-CG	5.12	127.08	115.30
2	CU	163	LEU	CA-CB-CG	5.12	127.08	115.30
2	CY	163	LEU	CA-CB-CG	5.12	127.08	115.30
2	CZ	163	LEU	CA-CB-CG	5.12	127.08	115.30
2	Ce	163	LEU	CA-CB-CG	5.12	127.09	115.30
2	Cj	163	LEU	CA-CB-CG	5.12	127.09	115.30
2	Cm	163	LEU	CA-CB-CG	5.12	127.08	115.30
2	Cw	163	LEU	CA-CB-CG	5.12	127.08	115.30
2	Cr	163	LEU	CA-CB-CG	5.12	127.08	115.30
2	Cf	163	LEU	CA-CB-CG	5.12	127.08	115.30
2	Ci	163	LEU	CA-CB-CG	5.12	127.08	115.30
2	C7	163	LEU	CA-CB-CG	5.12	127.07	115.30
2	Cg	163	LEU	CA-CB-CG	5.12	127.07	115.30
2	C6	163	LEU	CA-CB-CG	5.12	127.07	115.30
2	CD	163	LEU	CA-CB-CG	5.12	127.06	115.30
2	CE	163	LEU	CA-CB-CG	5.12	127.07	115.30
2	CG	163	LEU	CA-CB-CG	5.11	127.06	115.30
2	CN	163	LEU	CA-CB-CG	5.11	127.06	115.30
2	CS	163	LEU	CA-CB-CG	5.11	127.06	115.30
2	CW	163	LEU	CA-CB-CG	5.11	127.06	115.30
2	CH	163	LEU	CA-CB-CG	5.11	127.06	115.30
2	CM	163	LEU	CA-CB-CG	5.11	127.06	115.30
2	Co	163	LEU	CA-CB-CG	5.11	127.06	115.30
2	C8	163	LEU	CA-CB-CG	5.11	127.06	115.30
2	Ca	163	LEU	CA-CB-CG	5.11	127.05	115.30
2	C0	163	LEU	CA-CB-CG	5.11	127.05	115.30
2	CB	163	LEU	CA-CB-CG	5.11	127.05	115.30
2	Cd	163	LEU	CA-CB-CG	5.11	127.04	115.30
2	Cq	163	LEU	CA-CB-CG	5.10	127.04	115.30
2	CI	163	LEU	CA-CB-CG	5.10	127.04	115.30
2	C3	163	LEU	CA-CB-CG	5.10	127.03	115.30
2	CM	109	ASP	N-CA-C	-5.08	97.28	111.00
1	AH	35	ASP	CB-CG-OD1	5.07	122.86	118.30
2	Cm	109	ASP	N-CA-C	-5.07	97.31	111.00
2	Cb	109	ASP	N-CA-C	-5.07	97.32	111.00
2	Cs	109	ASP	N-CA-C	-5.07	97.32	111.00
1	Aj	33	LEU	CA-CB-CG	5.07	126.95	115.30
1	A6	33	LEU	CA-CB-CG	5.06	126.94	115.30
2	C0	109	ASP	N-CA-C	-5.06	97.33	111.00
2	C1	109	ASP	N-CA-C	-5.06	97.33	111.00
2	CP	109	ASP	N-CA-C	-5.06	97.33	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	Cp	109	ASP	N-CA-C	-5.06	97.33	111.00
1	Am	33	LEU	CA-CB-CG	5.06	126.94	115.30
2	CH	109	ASP	N-CA-C	-5.06	97.34	111.00
1	Ad	33	LEU	CA-CB-CG	5.06	126.94	115.30
2	Cq	109	ASP	N-CA-C	-5.06	97.34	111.00
1	AB	33	LEU	CA-CB-CG	5.06	126.93	115.30
2	CJ	109	ASP	N-CA-C	-5.06	97.34	111.00
2	CT	109	ASP	N-CA-C	-5.06	97.34	111.00
2	Cc	109	ASP	N-CA-C	-5.06	97.34	111.00
2	Cn	109	ASP	N-CA-C	-5.06	97.35	111.00
2	Co	109	ASP	N-CA-C	-5.06	97.34	111.00
1	BG	33	LEU	CA-CB-CG	5.06	126.93	115.30
2	Cj	109	ASP	N-CA-C	-5.06	97.35	111.00
2	C7	109	ASP	N-CA-C	-5.05	97.35	111.00
2	CV	109	ASP	N-CA-C	-5.05	97.35	111.00
2	Cl	109	ASP	N-CA-C	-5.05	97.35	111.00
2	Cw	109	ASP	N-CA-C	-5.05	97.35	111.00
1	A4	33	LEU	CA-CB-CG	5.05	126.92	115.30
1	A6	35	ASP	CB-CG-OD1	5.05	122.85	118.30
1	AG	33	LEU	CA-CB-CG	5.05	126.92	115.30
2	Ca	109	ASP	N-CA-C	-5.05	97.36	111.00
2	Cf	109	ASP	N-CA-C	-5.05	97.36	111.00
1	AI	33	LEU	CA-CB-CG	5.05	126.92	115.30
2	C3	109	ASP	N-CA-C	-5.05	97.36	111.00
2	C9	109	ASP	N-CA-C	-5.05	97.36	111.00
2	Ct	109	ASP	N-CA-C	-5.05	97.36	111.00
2	CA	109	ASP	N-CA-C	-5.05	97.37	111.00
2	CL	109	ASP	N-CA-C	-5.05	97.37	111.00
2	CU	109	ASP	N-CA-C	-5.05	97.36	111.00
2	Cv	109	ASP	N-CA-C	-5.05	97.37	111.00
2	CC	109	ASP	N-CA-C	-5.05	97.37	111.00
2	CW	109	ASP	N-CA-C	-5.05	97.37	111.00
1	AY	33	LEU	CA-CB-CG	5.05	126.91	115.30
1	Ao	33	LEU	CA-CB-CG	5.05	126.91	115.30
2	CQ	109	ASP	N-CA-C	-5.05	97.38	111.00
2	Ch	109	ASP	N-CA-C	-5.05	97.38	111.00
1	AH	33	LEU	CA-CB-CG	5.04	126.90	115.30
1	AN	33	LEU	CA-CB-CG	5.04	126.90	115.30
1	AP	33	LEU	CA-CB-CG	5.04	126.90	115.30
2	CE	109	ASP	N-CA-C	-5.04	97.38	111.00
2	CF	109	ASP	N-CA-C	-5.04	97.38	111.00
1	AU	33	LEU	CA-CB-CG	5.04	126.90	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Al	33	LEU	CA-CB-CG	5.04	126.90	115.30
1	BF	33	LEU	CA-CB-CG	5.04	126.90	115.30
2	C2	109	ASP	N-CA-C	-5.04	97.38	111.00
2	C5	109	ASP	N-CA-C	-5.04	97.38	111.00
2	C8	109	ASP	N-CA-C	-5.04	97.38	111.00
2	CN	109	ASP	N-CA-C	-5.04	97.38	111.00
2	Cx	109	ASP	N-CA-C	-5.04	97.38	111.00
1	A0	33	LEU	CA-CB-CG	5.04	126.90	115.30
2	CD	109	ASP	N-CA-C	-5.04	97.39	111.00
2	CK	109	ASP	N-CA-C	-5.04	97.39	111.00
2	CZ	109	ASP	N-CA-C	-5.04	97.39	111.00
2	Cg	109	ASP	N-CA-C	-5.04	97.39	111.00
2	Cr	109	ASP	N-CA-C	-5.04	97.39	111.00
1	A7	33	LEU	CA-CB-CG	5.04	126.89	115.30
2	C4	109	ASP	N-CA-C	-5.04	97.39	111.00
2	Cu	109	ASP	N-CA-C	-5.04	97.39	111.00
1	AM	35	ASP	CB-CG-OD1	5.04	122.83	118.30
1	BB	33	LEU	CA-CB-CG	5.04	126.89	115.30
1	AA	33	LEU	CA-CB-CG	5.04	126.89	115.30
1	AF	33	LEU	CA-CB-CG	5.04	126.88	115.30
1	Ab	33	LEU	CA-CB-CG	5.04	126.89	115.30
2	CY	109	ASP	N-CA-C	-5.04	97.40	111.00
1	A3	33	LEU	CA-CB-CG	5.04	126.88	115.30
1	AL	33	LEU	CA-CB-CG	5.04	126.88	115.30
1	AW	33	LEU	CA-CB-CG	5.04	126.88	115.30
2	CG	109	ASP	N-CA-C	-5.04	97.41	111.00
2	CX	109	ASP	N-CA-C	-5.04	97.41	111.00
2	Ck	109	ASP	N-CA-C	-5.04	97.41	111.00
1	AZ	33	LEU	CA-CB-CG	5.03	126.88	115.30
1	Ac	33	LEU	CA-CB-CG	5.03	126.88	115.30
1	Ah	33	LEU	CA-CB-CG	5.03	126.88	115.30
1	An	33	LEU	CA-CB-CG	5.03	126.88	115.30
1	BH	33	LEU	CA-CB-CG	5.03	126.88	115.30
1	BI	33	LEU	CA-CB-CG	5.03	126.88	115.30
2	C6	109	ASP	N-CA-C	-5.03	97.41	111.00
2	CO	109	ASP	N-CA-C	-5.03	97.41	111.00
2	CR	109	ASP	N-CA-C	-5.03	97.41	111.00
1	AJ	33	LEU	CA-CB-CG	5.03	126.87	115.30
1	AK	33	LEU	CA-CB-CG	5.03	126.88	115.30
2	CS	109	ASP	N-CA-C	-5.03	97.41	111.00
1	A9	33	LEU	CA-CB-CG	5.03	126.87	115.30
1	AT	35	ASP	CB-CG-OD1	5.03	122.83	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ai	33	LEU	CA-CB-CG	5.03	126.87	115.30
2	CB	109	ASP	N-CA-C	-5.03	97.42	111.00
2	CI	109	ASP	N-CA-C	-5.03	97.42	111.00
2	Cd	109	ASP	N-CA-C	-5.03	97.42	111.00
1	A5	33	LEU	CA-CB-CG	5.03	126.87	115.30
1	Ak	33	LEU	CA-CB-CG	5.03	126.87	115.30
1	BD	33	LEU	CA-CB-CG	5.03	126.87	115.30
1	AO	33	LEU	CA-CB-CG	5.03	126.86	115.30
1	Af	35	ASP	CB-CG-OD1	5.03	122.83	118.30
1	BE	33	LEU	CA-CB-CG	5.03	126.86	115.30
1	A1	33	LEU	CA-CB-CG	5.03	126.86	115.30
1	AQ	33	LEU	CA-CB-CG	5.03	126.86	115.30
1	AV	33	LEU	CA-CB-CG	5.03	126.86	115.30
1	BA	33	LEU	CA-CB-CG	5.03	126.86	115.30
2	Ce	109	ASP	N-CA-C	-5.03	97.43	111.00
1	A8	33	LEU	CA-CB-CG	5.02	126.86	115.30
1	AM	33	LEU	CA-CB-CG	5.02	126.85	115.30
1	Ag	33	LEU	CA-CB-CG	5.02	126.85	115.30
1	Ae	33	LEU	CA-CB-CG	5.02	126.85	115.30
1	Af	33	LEU	CA-CB-CG	5.02	126.84	115.30
2	Ci	109	ASP	N-CA-C	-5.02	97.46	111.00
1	A7	35	ASP	CB-CG-OD1	5.01	122.81	118.30
1	AC	33	LEU	CA-CB-CG	5.01	126.83	115.30
1	AT	33	LEU	CA-CB-CG	5.01	126.83	115.30
1	BC	33	LEU	CA-CB-CG	5.01	126.83	115.30
1	AE	35	ASP	CB-CG-OD1	5.01	122.81	118.30
1	AO	35	ASP	CB-CG-OD1	5.01	122.81	118.30
1	AS	33	LEU	CA-CB-CG	5.01	126.83	115.30
1	Aa	35	ASP	CB-CG-OD1	5.01	122.81	118.30
1	Ad	35	ASP	CB-CG-OD1	5.01	122.81	118.30
1	AX	33	LEU	CA-CB-CG	5.01	126.82	115.30
1	Aa	33	LEU	CA-CB-CG	5.01	126.82	115.30
1	AR	33	LEU	CA-CB-CG	5.01	126.82	115.30
1	AE	33	LEU	CA-CB-CG	5.01	126.82	115.30
1	A1	35	ASP	CB-CG-OD1	5.00	122.80	118.30
1	A5	35	ASP	CB-CG-OD1	5.00	122.80	118.30
1	Ag	35	ASP	CB-CG-OD1	5.00	122.80	118.30

There are no chirality outliers.

All (120) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	D0	26	TYR	Sidechain
3	D0	53	PHE	Sidechain
3	D1	26	TYR	Sidechain
3	D1	53	PHE	Sidechain
3	D2	26	TYR	Sidechain
3	D2	53	PHE	Sidechain
3	D3	26	TYR	Sidechain
3	D3	53	PHE	Sidechain
3	D4	26	TYR	Sidechain
3	D4	53	PHE	Sidechain
3	D5	26	TYR	Sidechain
3	D5	53	PHE	Sidechain
3	D6	26	TYR	Sidechain
3	D6	53	PHE	Sidechain
3	D7	26	TYR	Sidechain
3	D7	53	PHE	Sidechain
3	D8	26	TYR	Sidechain
3	D8	53	PHE	Sidechain
3	D9	26	TYR	Sidechain
3	D9	53	PHE	Sidechain
3	DA	26	TYR	Sidechain
3	DA	53	PHE	Sidechain
3	DB	26	TYR	Sidechain
3	DB	53	PHE	Sidechain
3	DC	26	TYR	Sidechain
3	DC	53	PHE	Sidechain
3	DD	26	TYR	Sidechain
3	DD	53	PHE	Sidechain
3	DE	26	TYR	Sidechain
3	DE	53	PHE	Sidechain
3	DF	26	TYR	Sidechain
3	DF	53	PHE	Sidechain
3	DG	26	TYR	Sidechain
3	DG	53	PHE	Sidechain
3	DH	26	TYR	Sidechain
3	DH	53	PHE	Sidechain
3	DI	26	TYR	Sidechain
3	DI	53	PHE	Sidechain
3	DJ	26	TYR	Sidechain
3	DJ	53	PHE	Sidechain
3	DK	26	TYR	Sidechain
3	DK	53	PHE	Sidechain
3	DL	26	TYR	Sidechain

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Mol	Chain	Res	Type	Group
3	DL	53	PHE	Sidechain
3	DM	26	TYR	Sidechain
3	DM	53	PHE	Sidechain
3	DN	26	TYR	Sidechain
3	DN	53	PHE	Sidechain
3	DO	26	TYR	Sidechain
3	DO	53	PHE	Sidechain
3	DP	26	TYR	Sidechain
3	DP	53	PHE	Sidechain
3	DQ	26	TYR	Sidechain
3	DQ	53	PHE	Sidechain
3	DR	26	TYR	Sidechain
3	DR	53	PHE	Sidechain
3	DS	26	TYR	Sidechain
3	DS	53	PHE	Sidechain
3	DT	26	TYR	Sidechain
3	DT	53	PHE	Sidechain
3	DU	26	TYR	Sidechain
3	DU	53	PHE	Sidechain
3	DV	26	TYR	Sidechain
3	DV	53	PHE	Sidechain
3	DW	26	TYR	Sidechain
3	DW	53	PHE	Sidechain
3	DX	26	TYR	Sidechain
3	DX	53	PHE	Sidechain
3	DY	26	TYR	Sidechain
3	DY	53	PHE	Sidechain
3	DZ	26	TYR	Sidechain
3	DZ	53	PHE	Sidechain
3	Da	26	TYR	Sidechain
3	Da	53	PHE	Sidechain
3	Db	26	TYR	Sidechain
3	Db	53	PHE	Sidechain
3	Dc	26	TYR	Sidechain
3	Dc	53	PHE	Sidechain
3	Dd	26	TYR	Sidechain
3	Dd	53	PHE	Sidechain
3	De	26	TYR	Sidechain
3	De	53	PHE	Sidechain
3	Df	26	TYR	Sidechain
3	Df	53	PHE	Sidechain
3	Dg	26	TYR	Sidechain

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Mol	Chain	Res	Type	Group
3	Dg	53	PHE	Sidechain
3	Dh	26	TYR	Sidechain
3	Dh	53	PHE	Sidechain
3	Di	26	TYR	Sidechain
3	Di	53	PHE	Sidechain
3	Dj	26	TYR	Sidechain
3	Dj	53	PHE	Sidechain
3	Dk	26	TYR	Sidechain
3	Dk	53	PHE	Sidechain
3	Dl	26	TYR	Sidechain
3	Dl	53	PHE	Sidechain
3	Dm	26	TYR	Sidechain
3	Dm	53	PHE	Sidechain
3	Dn	26	TYR	Sidechain
3	Dn	53	PHE	Sidechain
3	Do	26	TYR	Sidechain
3	Do	53	PHE	Sidechain
3	Dp	26	TYR	Sidechain
3	Dp	53	PHE	Sidechain
3	Dq	26	TYR	Sidechain
3	Dq	53	PHE	Sidechain
3	Dr	26	TYR	Sidechain
3	Dr	53	PHE	Sidechain
3	Ds	26	TYR	Sidechain
3	Ds	53	PHE	Sidechain
3	EA	26	TYR	Sidechain
3	EA	53	PHE	Sidechain
3	EB	26	TYR	Sidechain
3	EB	53	PHE	Sidechain
3	EC	26	TYR	Sidechain
3	EC	53	PHE	Sidechain
3	ED	26	TYR	Sidechain
3	ED	53	PHE	Sidechain
3	EE	26	TYR	Sidechain
3	EE	53	PHE	Sidechain

5.2 Too-close contacts [i](#)

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

5.3 Torsion angles

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 PDB entries followed by that with respect to all EM entries.

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	A0	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	A1	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	A2	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	A3	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	A4	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	A5	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	A6	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	A7	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	A8	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	A9	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	AA	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	AB	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	AC	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	AD	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	AE	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	AF	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	AG	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	AH	244/246 (99%)	144 (59%)	60 (25%)	40 (16%)	0	3
1	AI	244/246 (99%)	144 (59%)	60 (25%)	40 (16%)	0	3
1	AJ	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	AK	244/246 (99%)	144 (59%)	60 (25%)	40 (16%)	0	3
1	AL	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	AM	244/246 (99%)	144 (59%)	60 (25%)	40 (16%)	0	3
1	AN	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	AO	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	AP	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	AQ	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	AR	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	AS	244/246 (99%)	144 (59%)	60 (25%)	40 (16%)	0	3
1	AT	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	AU	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	AV	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	AW	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	AX	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	AY	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	AZ	244/246 (99%)	144 (59%)	60 (25%)	40 (16%)	0	3
1	Aa	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	Ab	244/246 (99%)	144 (59%)	60 (25%)	40 (16%)	0	3
1	Ac	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	Ad	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	Ae	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	Af	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	Ag	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	Ah	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	Ai	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	Aj	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	Ak	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	Al	244/246 (99%)	144 (59%)	60 (25%)	40 (16%)	0	3
1	Am	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	An	244/246 (99%)	144 (59%)	60 (25%)	40 (16%)	0	3
1	Ao	244/246 (99%)	144 (59%)	60 (25%)	40 (16%)	0	3
1	BA	244/246 (99%)	144 (59%)	60 (25%)	40 (16%)	0	3
1	BB	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	BC	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	BD	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	BE	244/246 (99%)	144 (59%)	60 (25%)	40 (16%)	0	3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	BF	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	BG	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	BH	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
1	BI	244/246 (99%)	145 (59%)	59 (24%)	40 (16%)	0	3
2	C0	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	C1	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	C2	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	C3	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	C4	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	C5	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	C6	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	C7	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	C8	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	C9	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CA	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CB	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CC	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CD	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CE	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CF	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CG	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CH	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CI	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CJ	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CK	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CL	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CM	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CN	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CO	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CP	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CQ	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	CR	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CS	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CT	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CU	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CV	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CW	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CX	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CY	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	CZ	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Ca	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Cb	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Cc	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Cd	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Ce	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Cf	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Cg	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Ch	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Ci	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Cj	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Ck	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Cl	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Cm	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Cn	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Co	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Cp	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Cq	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Cr	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Cs	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Ct	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Cu	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Cv	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	Cw	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
2	Cx	154/230 (67%)	104 (68%)	33 (21%)	17 (11%)	0	7
3	D0	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	D1	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	D2	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	D3	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	D4	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	D5	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	D6	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	D7	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	D8	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	D9	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	DA	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	DB	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	DC	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	DD	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	DE	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	DF	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	DG	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	DH	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	DI	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	DJ	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	DK	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	DL	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	DM	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	DN	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	DO	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	DP	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	DQ	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	DR	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	DS	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	DT	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	DU	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	DV	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	DW	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	DX	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	DY	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	DZ	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	Da	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	Db	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	Dc	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	Dd	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	De	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	Df	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	Dg	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	Dh	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	Di	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	Dj	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	Dk	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	Dl	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	Dm	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	Dn	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	Do	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	Dp	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	Dq	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	Dr	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	Ds	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	EA	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	EB	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	EC	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8
3	ED	224/226 (99%)	156 (70%)	45 (20%)	23 (10%)	0	8
3	EE	224/226 (99%)	155 (69%)	46 (20%)	23 (10%)	0	8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	F0	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	F1	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	F2	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	F3	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	F4	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	F5	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	F6	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	F7	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	F8	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	F9	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FA	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FB	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FC	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FD	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FE	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FF	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FG	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FH	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FI	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FJ	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FK	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FL	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FM	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FN	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FO	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FP	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FQ	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FR	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FS	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FT	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FU	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	FV	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FW	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FX	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FY	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	FZ	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fa	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fb	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fc	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fd	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fe	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Ff	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fg	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fh	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fi	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fj	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fk	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fl	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fm	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fn	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fo	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fp	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fq	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fr	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fs	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Ft	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fu	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fv	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fw	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
4	Fx	20/80 (25%)	9 (45%)	7 (35%)	4 (20%)	0	2
All	All	38520/46920 (82%)	24801 (64%)	8679 (22%)	5040 (13%)	1	5

All (5040) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A0	10	PRO
1	A0	18	ALA
1	A0	22	VAL
1	A0	26	VAL
1	A0	63	THR
1	A0	67	ALA
1	A0	127	SER
1	A0	135	VAL
1	A0	162	SER
1	A0	179	LYS
1	A0	182	ALA
1	A0	226	PRO
1	A0	243	ILE
1	A1	10	PRO
1	A1	18	ALA
1	A1	22	VAL
1	A1	26	VAL
1	A1	63	THR
1	A1	67	ALA
1	A1	127	SER
1	A1	135	VAL
1	A1	162	SER
1	A1	179	LYS
1	A1	182	ALA
1	A1	226	PRO
1	A1	243	ILE
1	A2	10	PRO
1	A2	18	ALA
1	A2	22	VAL
1	A2	26	VAL
1	A2	63	THR
1	A2	67	ALA
1	A2	127	SER
1	A2	135	VAL
1	A2	162	SER
1	A2	179	LYS
1	A2	182	ALA
1	A2	226	PRO
1	A2	243	ILE
1	A3	10	PRO
1	A3	18	ALA
1	A3	22	VAL
1	A3	26	VAL

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Mol	Chain	Res	Type
1	A3	63	THR
1	A3	67	ALA
1	A3	127	SER
1	A3	135	VAL
1	A3	162	SER
1	A3	179	LYS
1	A3	182	ALA
1	A3	226	PRO
1	A3	243	ILE
1	A4	10	PRO
1	A4	18	ALA
1	A4	22	VAL
1	A4	26	VAL
1	A4	63	THR
1	A4	67	ALA
1	A4	127	SER
1	A4	135	VAL
1	A4	162	SER
1	A4	179	LYS
1	A4	182	ALA
1	A4	226	PRO
1	A4	243	ILE
1	A5	10	PRO
1	A5	18	ALA
1	A5	22	VAL
1	A5	26	VAL
1	A5	63	THR
1	A5	67	ALA
1	A5	127	SER
1	A5	135	VAL
1	A5	162	SER
1	A5	179	LYS
1	A5	182	ALA
1	A5	226	PRO
1	A5	243	ILE
1	A6	10	PRO
1	A6	18	ALA
1	A6	22	VAL
1	A6	26	VAL
1	A6	63	THR
1	A6	67	ALA
1	A6	127	SER

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Mol	Chain	Res	Type
1	A6	135	VAL
1	A6	162	SER
1	A6	179	LYS
1	A6	182	ALA
1	A6	226	PRO
1	A6	243	ILE
1	A7	10	PRO
1	A7	18	ALA
1	A7	22	VAL
1	A7	26	VAL
1	A7	63	THR
1	A7	67	ALA
1	A7	127	SER
1	A7	135	VAL
1	A7	162	SER
1	A7	179	LYS
1	A7	182	ALA
1	A7	226	PRO
1	A7	243	ILE
1	A8	10	PRO
1	A8	18	ALA
1	A8	22	VAL
1	A8	26	VAL
1	A8	63	THR
1	A8	67	ALA
1	A8	127	SER
1	A8	135	VAL
1	A8	162	SER
1	A8	179	LYS
1	A8	182	ALA
1	A8	226	PRO
1	A8	243	ILE
1	A9	10	PRO
1	A9	18	ALA
1	A9	22	VAL
1	A9	26	VAL
1	A9	63	THR
1	A9	67	ALA
1	A9	127	SER
1	A9	135	VAL
1	A9	162	SER
1	A9	179	LYS

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Mol	Chain	Res	Type
1	A9	182	ALA
1	A9	226	PRO
1	A9	243	ILE
1	AA	10	PRO
1	AA	18	ALA
1	AA	22	VAL
1	AA	26	VAL
1	AA	63	THR
1	AA	67	ALA
1	AA	127	SER
1	AA	135	VAL
1	AA	162	SER
1	AA	179	LYS
1	AA	182	ALA
1	AA	226	PRO
1	AA	243	ILE
1	AB	10	PRO
1	AB	18	ALA
1	AB	22	VAL
1	AB	26	VAL
1	AB	63	THR
1	AB	67	ALA
1	AB	127	SER
1	AB	135	VAL
1	AB	162	SER
1	AB	179	LYS
1	AB	182	ALA
1	AB	226	PRO
1	AB	243	ILE
1	AC	10	PRO
1	AC	18	ALA
1	AC	22	VAL
1	AC	26	VAL
1	AC	63	THR
1	AC	67	ALA
1	AC	127	SER
1	AC	135	VAL
1	AC	162	SER
1	AC	179	LYS
1	AC	182	ALA
1	AC	226	PRO
1	AC	243	ILE

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Mol	Chain	Res	Type
1	AD	10	PRO
1	AD	18	ALA
1	AD	22	VAL
1	AD	26	VAL
1	AD	63	THR
1	AD	67	ALA
1	AD	127	SER
1	AD	135	VAL
1	AD	162	SER
1	AD	179	LYS
1	AD	182	ALA
1	AD	226	PRO
1	AD	243	ILE
1	AE	10	PRO
1	AE	18	ALA
1	AE	22	VAL
1	AE	26	VAL
1	AE	63	THR
1	AE	67	ALA
1	AE	127	SER
1	AE	135	VAL
1	AE	162	SER
1	AE	179	LYS
1	AE	182	ALA
1	AE	226	PRO
1	AE	243	ILE
1	AF	10	PRO
1	AF	18	ALA
1	AF	22	VAL
1	AF	26	VAL
1	AF	63	THR
1	AF	67	ALA
1	AF	127	SER
1	AF	135	VAL
1	AF	162	SER
1	AF	179	LYS
1	AF	182	ALA
1	AF	226	PRO
1	AF	243	ILE
1	AG	10	PRO
1	AG	18	ALA
1	AG	22	VAL

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Mol	Chain	Res	Type
1	AG	26	VAL
1	AG	63	THR
1	AG	67	ALA
1	AG	127	SER
1	AG	135	VAL
1	AG	162	SER
1	AG	179	LYS
1	AG	182	ALA
1	AG	226	PRO
1	AG	243	ILE
1	AH	10	PRO
1	AH	18	ALA
1	AH	22	VAL
1	AH	26	VAL
1	AH	63	THR
1	AH	67	ALA
1	AH	127	SER
1	AH	135	VAL
1	AH	162	SER
1	AH	179	LYS
1	AH	182	ALA
1	AH	226	PRO
1	AH	243	ILE
1	AI	10	PRO
1	AI	18	ALA
1	AI	22	VAL
1	AI	26	VAL
1	AI	63	THR
1	AI	67	ALA
1	AI	127	SER
1	AI	135	VAL
1	AI	162	SER
1	AI	179	LYS
1	AI	182	ALA
1	AI	226	PRO
1	AI	243	ILE
1	AJ	10	PRO
1	AJ	18	ALA
1	AJ	22	VAL
1	AJ	26	VAL
1	AJ	63	THR
1	AJ	67	ALA

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Mol	Chain	Res	Type
1	AJ	127	SER
1	AJ	135	VAL
1	AJ	162	SER
1	AJ	179	LYS
1	AJ	182	ALA
1	AJ	226	PRO
1	AJ	243	ILE
1	AK	10	PRO
1	AK	18	ALA
1	AK	22	VAL
1	AK	26	VAL
1	AK	63	THR
1	AK	67	ALA
1	AK	127	SER
1	AK	135	VAL
1	AK	162	SER
1	AK	179	LYS
1	AK	182	ALA
1	AK	226	PRO
1	AK	243	ILE
1	AL	10	PRO
1	AL	18	ALA
1	AL	22	VAL
1	AL	26	VAL
1	AL	63	THR
1	AL	67	ALA
1	AL	127	SER
1	AL	135	VAL
1	AL	162	SER
1	AL	179	LYS
1	AL	182	ALA
1	AL	226	PRO
1	AL	243	ILE
1	AM	10	PRO
1	AM	18	ALA
1	AM	22	VAL
1	AM	26	VAL
1	AM	63	THR
1	AM	67	ALA
1	AM	127	SER
1	AM	135	VAL
1	AM	162	SER

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Mol	Chain	Res	Type
1	AM	179	LYS
1	AM	182	ALA
1	AM	226	PRO
1	AM	243	ILE
1	AN	10	PRO
1	AN	18	ALA
1	AN	22	VAL
1	AN	26	VAL
1	AN	63	THR
1	AN	67	ALA
1	AN	127	SER
1	AN	135	VAL
1	AN	162	SER
1	AN	179	LYS
1	AN	182	ALA
1	AN	226	PRO
1	AN	243	ILE
1	AO	10	PRO
1	AO	18	ALA
1	AO	22	VAL
1	AO	26	VAL
1	AO	63	THR
1	AO	67	ALA
1	AO	127	SER
1	AO	135	VAL
1	AO	162	SER
1	AO	179	LYS
1	AO	182	ALA
1	AO	226	PRO
1	AO	243	ILE
1	AP	10	PRO
1	AP	18	ALA
1	AP	22	VAL
1	AP	26	VAL
1	AP	63	THR
1	AP	67	ALA
1	AP	127	SER
1	AP	135	VAL
1	AP	162	SER
1	AP	179	LYS
1	AP	182	ALA
1	AP	226	PRO

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Mol	Chain	Res	Type
1	AP	243	ILE
1	AQ	10	PRO
1	AQ	18	ALA
1	AQ	22	VAL
1	AQ	26	VAL
1	AQ	63	THR
1	AQ	67	ALA
1	AQ	127	SER
1	AQ	135	VAL
1	AQ	162	SER
1	AQ	179	LYS
1	AQ	182	ALA
1	AQ	226	PRO
1	AQ	243	ILE
1	AR	10	PRO
1	AR	18	ALA
1	AR	22	VAL
1	AR	26	VAL
1	AR	63	THR
1	AR	67	ALA
1	AR	127	SER
1	AR	135	VAL
1	AR	162	SER
1	AR	179	LYS
1	AR	182	ALA
1	AR	226	PRO
1	AR	243	ILE
1	AS	10	PRO
1	AS	18	ALA
1	AS	22	VAL
1	AS	26	VAL
1	AS	63	THR
1	AS	67	ALA
1	AS	127	SER
1	AS	135	VAL
1	AS	162	SER
1	AS	179	LYS
1	AS	182	ALA
1	AS	226	PRO
1	AS	243	ILE
1	AT	10	PRO
1	AT	18	ALA

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Mol	Chain	Res	Type
1	AT	22	VAL
1	AT	26	VAL
1	AT	63	THR
1	AT	67	ALA
1	AT	127	SER
1	AT	135	VAL
1	AT	162	SER
1	AT	179	LYS
1	AT	182	ALA
1	AT	226	PRO
1	AT	243	ILE
1	AU	10	PRO
1	AU	18	ALA
1	AU	22	VAL
1	AU	26	VAL
1	AU	63	THR
1	AU	67	ALA
1	AU	127	SER
1	AU	135	VAL
1	AU	162	SER
1	AU	179	LYS
1	AU	182	ALA
1	AU	226	PRO
1	AU	243	ILE
1	AV	10	PRO
1	AV	18	ALA
1	AV	22	VAL
1	AV	26	VAL
1	AV	63	THR
1	AV	67	ALA
1	AV	127	SER
1	AV	135	VAL
1	AV	162	SER
1	AV	179	LYS
1	AV	182	ALA
1	AV	226	PRO
1	AV	243	ILE
1	AW	10	PRO
1	AW	18	ALA
1	AW	22	VAL
1	AW	26	VAL
1	AW	63	THR

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Mol	Chain	Res	Type
1	AW	67	ALA
1	AW	127	SER
1	AW	135	VAL
1	AW	162	SER
1	AW	179	LYS
1	AW	182	ALA
1	AW	226	PRO
1	AW	243	ILE
1	AX	10	PRO
1	AX	18	ALA
1	AX	22	VAL
1	AX	26	VAL
1	AX	63	THR
1	AX	67	ALA
1	AX	127	SER
1	AX	135	VAL
1	AX	162	SER
1	AX	179	LYS
1	AX	182	ALA
1	AX	226	PRO
1	AX	243	ILE
1	AY	10	PRO
1	AY	18	ALA
1	AY	22	VAL
1	AY	26	VAL
1	AY	63	THR
1	AY	67	ALA
1	AY	127	SER
1	AY	135	VAL
1	AY	162	SER
1	AY	179	LYS
1	AY	182	ALA
1	AY	226	PRO
1	AY	243	ILE
1	AZ	10	PRO
1	AZ	18	ALA
1	AZ	22	VAL
1	AZ	26	VAL
1	AZ	63	THR
1	AZ	67	ALA
1	AZ	127	SER
1	AZ	135	VAL

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Mol	Chain	Res	Type
1	AZ	162	SER
1	AZ	179	LYS
1	AZ	182	ALA
1	AZ	226	PRO
1	AZ	243	ILE
1	Aa	10	PRO
1	Aa	18	ALA
1	Aa	22	VAL
1	Aa	26	VAL
1	Aa	63	THR
1	Aa	67	ALA
1	Aa	127	SER
1	Aa	135	VAL
1	Aa	162	SER
1	Aa	179	LYS
1	Aa	182	ALA
1	Aa	226	PRO
1	Aa	243	ILE
1	Ab	10	PRO
1	Ab	18	ALA
1	Ab	22	VAL
1	Ab	26	VAL
1	Ab	63	THR
1	Ab	67	ALA
1	Ab	127	SER
1	Ab	135	VAL
1	Ab	162	SER
1	Ab	179	LYS
1	Ab	182	ALA
1	Ab	226	PRO
1	Ab	243	ILE
1	Ac	10	PRO
1	Ac	18	ALA
1	Ac	22	VAL
1	Ac	26	VAL
1	Ac	63	THR
1	Ac	67	ALA
1	Ac	127	SER
1	Ac	135	VAL
1	Ac	162	SER
1	Ac	179	LYS
1	Ac	182	ALA

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Mol	Chain	Res	Type
1	Ac	226	PRO
1	Ac	243	ILE
1	Ad	10	PRO
1	Ad	18	ALA
1	Ad	22	VAL
1	Ad	26	VAL
1	Ad	63	THR
1	Ad	67	ALA
1	Ad	127	SER
1	Ad	135	VAL
1	Ad	162	SER
1	Ad	179	LYS
1	Ad	182	ALA
1	Ad	226	PRO
1	Ad	243	ILE
1	Ae	10	PRO
1	Ae	18	ALA
1	Ae	22	VAL
1	Ae	26	VAL
1	Ae	63	THR
1	Ae	67	ALA
1	Ae	127	SER
1	Ae	135	VAL
1	Ae	162	SER
1	Ae	179	LYS
1	Ae	182	ALA
1	Ae	226	PRO
1	Ae	243	ILE
1	Af	10	PRO
1	Af	18	ALA
1	Af	22	VAL
1	Af	26	VAL
1	Af	63	THR
1	Af	67	ALA
1	Af	127	SER
1	Af	135	VAL
1	Af	162	SER
1	Af	179	LYS
1	Af	182	ALA
1	Af	226	PRO
1	Af	243	ILE
1	Ag	10	PRO

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Mol	Chain	Res	Type
1	Ag	18	ALA
1	Ag	22	VAL
1	Ag	26	VAL
1	Ag	63	THR
1	Ag	67	ALA
1	Ag	127	SER
1	Ag	135	VAL
1	Ag	162	SER
1	Ag	179	LYS
1	Ag	182	ALA
1	Ag	226	PRO
1	Ag	243	ILE
1	Ah	10	PRO
1	Ah	18	ALA
1	Ah	22	VAL
1	Ah	26	VAL
1	Ah	63	THR
1	Ah	67	ALA
1	Ah	127	SER
1	Ah	135	VAL
1	Ah	162	SER
1	Ah	179	LYS
1	Ah	182	ALA
1	Ah	226	PRO
1	Ah	243	ILE
1	Ai	10	PRO
1	Ai	18	ALA
1	Ai	22	VAL
1	Ai	26	VAL
1	Ai	63	THR
1	Ai	67	ALA
1	Ai	127	SER
1	Ai	135	VAL
1	Ai	162	SER
1	Ai	179	LYS
1	Ai	182	ALA
1	Ai	226	PRO
1	Ai	243	ILE
1	Aj	10	PRO
1	Aj	18	ALA
1	Aj	22	VAL
1	Aj	26	VAL

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Mol	Chain	Res	Type
1	Aj	63	THR
1	Aj	67	ALA
1	Aj	127	SER
1	Aj	135	VAL
1	Aj	162	SER
1	Aj	179	LYS
1	Aj	182	ALA
1	Aj	226	PRO
1	Aj	243	ILE
1	Ak	10	PRO
1	Ak	18	ALA
1	Ak	22	VAL
1	Ak	26	VAL
1	Ak	63	THR
1	Ak	67	ALA
1	Ak	127	SER
1	Ak	135	VAL
1	Ak	162	SER
1	Ak	179	LYS
1	Ak	182	ALA
1	Ak	226	PRO
1	Ak	243	ILE
1	Al	10	PRO
1	Al	18	ALA
1	Al	22	VAL
1	Al	26	VAL
1	Al	63	THR
1	Al	67	ALA
1	Al	127	SER
1	Al	135	VAL
1	Al	162	SER
1	Al	179	LYS
1	Al	182	ALA
1	Al	226	PRO
1	Al	243	ILE
1	Am	10	PRO
1	Am	18	ALA
1	Am	22	VAL
1	Am	26	VAL
1	Am	63	THR
1	Am	67	ALA
1	Am	127	SER

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Mol	Chain	Res	Type
1	Am	135	VAL
1	Am	162	SER
1	Am	179	LYS
1	Am	182	ALA
1	Am	226	PRO
1	Am	243	ILE
1	An	10	PRO
1	An	18	ALA
1	An	22	VAL
1	An	26	VAL
1	An	63	THR
1	An	67	ALA
1	An	127	SER
1	An	135	VAL
1	An	162	SER
1	An	179	LYS
1	An	182	ALA
1	An	226	PRO
1	An	243	ILE
1	Ao	10	PRO
1	Ao	18	ALA
1	Ao	22	VAL
1	Ao	26	VAL
1	Ao	63	THR
1	Ao	67	ALA
1	Ao	127	SER
1	Ao	135	VAL
1	Ao	162	SER
1	Ao	179	LYS
1	Ao	182	ALA
1	Ao	226	PRO
1	Ao	243	ILE
1	BA	10	PRO
1	BA	18	ALA
1	BA	22	VAL
1	BA	26	VAL
1	BA	63	THR
1	BA	67	ALA
1	BA	127	SER
1	BA	135	VAL
1	BA	162	SER
1	BA	179	LYS

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Mol	Chain	Res	Type
1	BA	182	ALA
1	BA	226	PRO
1	BA	243	ILE
1	BB	10	PRO
1	BB	18	ALA
1	BB	22	VAL
1	BB	26	VAL
1	BB	63	THR
1	BB	67	ALA
1	BB	127	SER
1	BB	135	VAL
1	BB	162	SER
1	BB	179	LYS
1	BB	182	ALA
1	BB	226	PRO
1	BB	243	ILE
1	BC	10	PRO
1	BC	18	ALA
1	BC	22	VAL
1	BC	26	VAL
1	BC	63	THR
1	BC	67	ALA
1	BC	127	SER
1	BC	135	VAL
1	BC	162	SER
1	BC	179	LYS
1	BC	182	ALA
1	BC	226	PRO
1	BC	243	ILE
1	BD	10	PRO
1	BD	18	ALA
1	BD	22	VAL
1	BD	26	VAL
1	BD	63	THR
1	BD	67	ALA
1	BD	127	SER
1	BD	135	VAL
1	BD	162	SER
1	BD	179	LYS
1	BD	182	ALA
1	BD	226	PRO
1	BD	243	ILE

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Mol	Chain	Res	Type
1	BE	10	PRO
1	BE	18	ALA
1	BE	22	VAL
1	BE	26	VAL
1	BE	63	THR
1	BE	67	ALA
1	BE	127	SER
1	BE	135	VAL
1	BE	162	SER
1	BE	179	LYS
1	BE	182	ALA
1	BE	226	PRO
1	BE	243	ILE
1	BF	10	PRO
1	BF	18	ALA
1	BF	22	VAL
1	BF	26	VAL
1	BF	63	THR
1	BF	67	ALA
1	BF	127	SER
1	BF	135	VAL
1	BF	162	SER
1	BF	179	LYS
1	BF	182	ALA
1	BF	226	PRO
1	BF	243	ILE
1	BG	10	PRO
1	BG	18	ALA
1	BG	22	VAL
1	BG	26	VAL
1	BG	63	THR
1	BG	67	ALA
1	BG	127	SER
1	BG	135	VAL
1	BG	162	SER
1	BG	179	LYS
1	BG	182	ALA
1	BG	226	PRO
1	BG	243	ILE
1	BH	10	PRO
1	BH	18	ALA
1	BH	22	VAL

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Mol	Chain	Res	Type
1	BH	26	VAL
1	BH	63	THR
1	BH	67	ALA
1	BH	127	SER
1	BH	135	VAL
1	BH	162	SER
1	BH	179	LYS
1	BH	182	ALA
1	BH	226	PRO
1	BH	243	ILE
1	BI	10	PRO
1	BI	18	ALA
1	BI	22	VAL
1	BI	26	VAL
1	BI	63	THR
1	BI	67	ALA
1	BI	127	SER
1	BI	135	VAL
1	BI	162	SER
1	BI	179	LYS
1	BI	182	ALA
1	BI	226	PRO
1	BI	243	ILE
2	C0	27	GLN
2	C0	136	HIS
2	C0	208	THR
2	C0	209	VAL
2	C0	224	GLY
2	C1	27	GLN
2	C1	136	HIS
2	C1	208	THR
2	C1	209	VAL
2	C1	224	GLY
2	C2	27	GLN
2	C2	136	HIS
2	C2	208	THR
2	C2	209	VAL
2	C2	224	GLY
2	C3	27	GLN
2	C3	136	HIS
2	C3	208	THR
2	C3	209	VAL

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Mol	Chain	Res	Type
2	C3	224	GLY
2	C4	27	GLN
2	C4	136	HIS
2	C4	208	THR
2	C4	209	VAL
2	C4	224	GLY
2	C5	27	GLN
2	C5	136	HIS
2	C5	208	THR
2	C5	209	VAL
2	C5	224	GLY
2	C6	27	GLN
2	C6	136	HIS
2	C6	208	THR
2	C6	209	VAL
2	C6	224	GLY
2	C7	27	GLN
2	C7	136	HIS
2	C7	208	THR
2	C7	209	VAL
2	C7	224	GLY
2	C8	27	GLN
2	C8	136	HIS
2	C8	208	THR
2	C8	209	VAL
2	C8	224	GLY
2	C9	27	GLN
2	C9	136	HIS
2	C9	208	THR
2	C9	209	VAL
2	C9	224	GLY
2	CA	27	GLN
2	CA	136	HIS
2	CA	208	THR
2	CA	209	VAL
2	CA	224	GLY
2	CB	27	GLN
2	CB	136	HIS
2	CB	208	THR
2	CB	209	VAL
2	CB	224	GLY
2	CC	27	GLN

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Mol	Chain	Res	Type
2	CC	136	HIS
2	CC	208	THR
2	CC	209	VAL
2	CC	224	GLY
2	CD	27	GLN
2	CD	136	HIS
2	CD	208	THR
2	CD	209	VAL
2	CD	224	GLY
2	CE	27	GLN
2	CE	136	HIS
2	CE	208	THR
2	CE	209	VAL
2	CE	224	GLY
2	CF	27	GLN
2	CF	136	HIS
2	CF	208	THR
2	CF	209	VAL
2	CF	224	GLY
2	CG	27	GLN
2	CG	136	HIS
2	CG	208	THR
2	CG	209	VAL
2	CG	224	GLY
2	CH	27	GLN
2	CH	136	HIS
2	CH	208	THR
2	CH	209	VAL
2	CH	224	GLY
2	CI	27	GLN
2	CI	136	HIS
2	CI	208	THR
2	CI	209	VAL
2	CI	224	GLY
2	CJ	27	GLN
2	CJ	136	HIS
2	CJ	208	THR
2	CJ	209	VAL
2	CJ	224	GLY
2	CK	27	GLN
2	CK	136	HIS
2	CK	208	THR

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Mol	Chain	Res	Type
2	CK	209	VAL
2	CK	224	GLY
2	CL	27	GLN
2	CL	136	HIS
2	CL	208	THR
2	CL	209	VAL
2	CL	224	GLY
2	CM	27	GLN
2	CM	136	HIS
2	CM	208	THR
2	CM	209	VAL
2	CM	224	GLY
2	CN	27	GLN
2	CN	136	HIS
2	CN	208	THR
2	CN	209	VAL
2	CN	224	GLY
2	CO	27	GLN
2	CO	136	HIS
2	CO	208	THR
2	CO	209	VAL
2	CO	224	GLY
2	CP	27	GLN
2	CP	136	HIS
2	CP	208	THR
2	CP	209	VAL
2	CP	224	GLY
2	CQ	27	GLN
2	CQ	136	HIS
2	CQ	208	THR
2	CQ	209	VAL
2	CQ	224	GLY
2	CR	27	GLN
2	CR	136	HIS
2	CR	208	THR
2	CR	209	VAL
2	CR	224	GLY
2	CS	27	GLN
2	CS	136	HIS
2	CS	208	THR
2	CS	209	VAL
2	CS	224	GLY

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Mol	Chain	Res	Type
2	CT	27	GLN
2	CT	136	HIS
2	CT	208	THR
2	CT	209	VAL
2	CT	224	GLY
2	CU	27	GLN
2	CU	136	HIS
2	CU	208	THR
2	CU	209	VAL
2	CU	224	GLY
2	CV	27	GLN
2	CV	136	HIS
2	CV	208	THR
2	CV	209	VAL
2	CV	224	GLY
2	CW	27	GLN
2	CW	136	HIS
2	CW	208	THR
2	CW	209	VAL
2	CW	224	GLY
2	CX	27	GLN
2	CX	136	HIS
2	CX	208	THR
2	CX	209	VAL
2	CX	224	GLY
2	CY	27	GLN
2	CY	136	HIS
2	CY	208	THR
2	CY	209	VAL
2	CY	224	GLY
2	CZ	27	GLN
2	CZ	136	HIS
2	CZ	208	THR
2	CZ	209	VAL
2	CZ	224	GLY
2	Ca	27	GLN
2	Ca	136	HIS
2	Ca	208	THR
2	Ca	209	VAL
2	Ca	224	GLY
2	Cb	27	GLN
2	Cb	136	HIS

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Mol	Chain	Res	Type
2	Cb	208	THR
2	Cb	209	VAL
2	Cb	224	GLY
2	Cc	27	GLN
2	Cc	136	HIS
2	Cc	208	THR
2	Cc	209	VAL
2	Cc	224	GLY
2	Cd	27	GLN
2	Cd	136	HIS
2	Cd	208	THR
2	Cd	209	VAL
2	Cd	224	GLY
2	Ce	27	GLN
2	Ce	136	HIS
2	Ce	208	THR
2	Ce	209	VAL
2	Ce	224	GLY
2	Cf	27	GLN
2	Cf	136	HIS
2	Cf	208	THR
2	Cf	209	VAL
2	Cf	224	GLY
2	Cg	27	GLN
2	Cg	136	HIS
2	Cg	208	THR
2	Cg	209	VAL
2	Cg	224	GLY
2	Ch	27	GLN
2	Ch	136	HIS
2	Ch	208	THR
2	Ch	209	VAL
2	Ch	224	GLY
2	Ci	27	GLN
2	Ci	136	HIS
2	Ci	208	THR
2	Ci	209	VAL
2	Ci	224	GLY
2	Cj	27	GLN
2	Cj	136	HIS
2	Cj	208	THR
2	Cj	209	VAL

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Mol	Chain	Res	Type
2	Cj	224	GLY
2	Ck	27	GLN
2	Ck	136	HIS
2	Ck	208	THR
2	Ck	209	VAL
2	Ck	224	GLY
2	Cl	27	GLN
2	Cl	136	HIS
2	Cl	208	THR
2	Cl	209	VAL
2	Cl	224	GLY
2	Cm	27	GLN
2	Cm	136	HIS
2	Cm	208	THR
2	Cm	209	VAL
2	Cm	224	GLY
2	Cn	27	GLN
2	Cn	136	HIS
2	Cn	208	THR
2	Cn	209	VAL
2	Cn	224	GLY
2	Co	27	GLN
2	Co	136	HIS
2	Co	208	THR
2	Co	209	VAL
2	Co	224	GLY
2	Cp	27	GLN
2	Cp	136	HIS
2	Cp	208	THR
2	Cp	209	VAL
2	Cp	224	GLY
2	Cq	27	GLN
2	Cq	136	HIS
2	Cq	208	THR
2	Cq	209	VAL
2	Cq	224	GLY
2	Cr	27	GLN
2	Cr	136	HIS
2	Cr	208	THR
2	Cr	209	VAL
2	Cr	224	GLY
2	Cs	27	GLN

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Mol	Chain	Res	Type
2	Cs	136	HIS
2	Cs	208	THR
2	Cs	209	VAL
2	Cs	224	GLY
2	Ct	27	GLN
2	Ct	136	HIS
2	Ct	208	THR
2	Ct	209	VAL
2	Ct	224	GLY
2	Cu	27	GLN
2	Cu	136	HIS
2	Cu	208	THR
2	Cu	209	VAL
2	Cu	224	GLY
2	Cv	27	GLN
2	Cv	136	HIS
2	Cv	208	THR
2	Cv	209	VAL
2	Cv	224	GLY
2	Cw	27	GLN
2	Cw	136	HIS
2	Cw	208	THR
2	Cw	209	VAL
2	Cw	224	GLY
2	Cx	27	GLN
2	Cx	136	HIS
2	Cx	208	THR
2	Cx	209	VAL
2	Cx	224	GLY
3	D0	20	ASP
3	D0	21	ASN
3	D0	27	PRO
3	D0	78	VAL
3	D0	80	LEU
3	D0	120	PHE
3	D0	153	ALA
3	D0	191	LEU
3	D1	20	ASP
3	D1	21	ASN
3	D1	27	PRO
3	D1	78	VAL
3	D1	80	LEU

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Mol	Chain	Res	Type
3	D1	120	PHE
3	D1	153	ALA
3	D1	191	LEU
3	D2	20	ASP
3	D2	21	ASN
3	D2	27	PRO
3	D2	78	VAL
3	D2	80	LEU
3	D2	120	PHE
3	D2	153	ALA
3	D2	191	LEU
3	D3	20	ASP
3	D3	21	ASN
3	D3	27	PRO
3	D3	78	VAL
3	D3	80	LEU
3	D3	120	PHE
3	D3	153	ALA
3	D3	191	LEU
3	D4	20	ASP
3	D4	21	ASN
3	D4	27	PRO
3	D4	78	VAL
3	D4	80	LEU
3	D4	120	PHE
3	D4	153	ALA
3	D4	191	LEU
3	D5	20	ASP
3	D5	21	ASN
3	D5	27	PRO
3	D5	78	VAL
3	D5	80	LEU
3	D5	120	PHE
3	D5	153	ALA
3	D5	191	LEU
3	D6	20	ASP
3	D6	21	ASN
3	D6	27	PRO
3	D6	78	VAL
3	D6	80	LEU
3	D6	120	PHE
3	D6	153	ALA

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Mol	Chain	Res	Type
3	D6	191	LEU
3	D7	20	ASP
3	D7	21	ASN
3	D7	27	PRO
3	D7	78	VAL
3	D7	80	LEU
3	D7	120	PHE
3	D7	153	ALA
3	D7	191	LEU
3	D8	20	ASP
3	D8	21	ASN
3	D8	27	PRO
3	D8	78	VAL
3	D8	80	LEU
3	D8	120	PHE
3	D8	153	ALA
3	D8	191	LEU
3	D9	20	ASP
3	D9	21	ASN
3	D9	27	PRO
3	D9	78	VAL
3	D9	80	LEU
3	D9	120	PHE
3	D9	153	ALA
3	D9	191	LEU
3	DA	20	ASP
3	DA	21	ASN
3	DA	27	PRO
3	DA	78	VAL
3	DA	80	LEU
3	DA	120	PHE
3	DA	153	ALA
3	DA	191	LEU
3	DB	20	ASP
3	DB	21	ASN
3	DB	27	PRO
3	DB	78	VAL
3	DB	80	LEU
3	DB	120	PHE
3	DB	153	ALA
3	DB	191	LEU
3	DC	20	ASP

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Mol	Chain	Res	Type
3	DC	21	ASN
3	DC	27	PRO
3	DC	78	VAL
3	DC	80	LEU
3	DC	120	PHE
3	DC	153	ALA
3	DC	191	LEU
3	DD	20	ASP
3	DD	21	ASN
3	DD	27	PRO
3	DD	78	VAL
3	DD	80	LEU
3	DD	120	PHE
3	DD	153	ALA
3	DD	191	LEU
3	DE	20	ASP
3	DE	21	ASN
3	DE	27	PRO
3	DE	78	VAL
3	DE	80	LEU
3	DE	120	PHE
3	DE	153	ALA
3	DE	191	LEU
3	DF	20	ASP
3	DF	21	ASN
3	DF	27	PRO
3	DF	78	VAL
3	DF	80	LEU
3	DF	120	PHE
3	DF	153	ALA
3	DF	191	LEU
3	DG	20	ASP
3	DG	21	ASN
3	DG	27	PRO
3	DG	78	VAL
3	DG	80	LEU
3	DG	120	PHE
3	DG	153	ALA
3	DG	191	LEU
3	DH	20	ASP
3	DH	21	ASN
3	DH	27	PRO

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Mol	Chain	Res	Type
3	DH	78	VAL
3	DH	80	LEU
3	DH	120	PHE
3	DH	153	ALA
3	DH	191	LEU
3	DI	20	ASP
3	DI	21	ASN
3	DI	27	PRO
3	DI	78	VAL
3	DI	80	LEU
3	DI	120	PHE
3	DI	153	ALA
3	DI	191	LEU
3	DJ	20	ASP
3	DJ	21	ASN
3	DJ	27	PRO
3	DJ	78	VAL
3	DJ	80	LEU
3	DJ	120	PHE
3	DJ	153	ALA
3	DJ	191	LEU
3	DK	20	ASP
3	DK	21	ASN
3	DK	27	PRO
3	DK	78	VAL
3	DK	80	LEU
3	DK	120	PHE
3	DK	153	ALA
3	DK	191	LEU
3	DL	20	ASP
3	DL	21	ASN
3	DL	27	PRO
3	DL	78	VAL
3	DL	80	LEU
3	DL	120	PHE
3	DL	153	ALA
3	DL	191	LEU
3	DM	20	ASP
3	DM	21	ASN
3	DM	27	PRO
3	DM	78	VAL
3	DM	80	LEU

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Mol	Chain	Res	Type
3	DM	120	PHE
3	DM	153	ALA
3	DM	191	LEU
3	DN	20	ASP
3	DN	21	ASN
3	DN	27	PRO
3	DN	78	VAL
3	DN	80	LEU
3	DN	120	PHE
3	DN	153	ALA
3	DN	191	LEU
3	DO	20	ASP
3	DO	21	ASN
3	DO	27	PRO
3	DO	78	VAL
3	DO	80	LEU
3	DO	120	PHE
3	DO	153	ALA
3	DO	191	LEU
3	DP	20	ASP
3	DP	21	ASN
3	DP	27	PRO
3	DP	78	VAL
3	DP	80	LEU
3	DP	120	PHE
3	DP	153	ALA
3	DP	191	LEU
3	DQ	20	ASP
3	DQ	21	ASN
3	DQ	27	PRO
3	DQ	78	VAL
3	DQ	80	LEU
3	DQ	120	PHE
3	DQ	153	ALA
3	DQ	191	LEU
3	DR	20	ASP
3	DR	21	ASN
3	DR	27	PRO
3	DR	78	VAL
3	DR	80	LEU
3	DR	120	PHE
3	DR	153	ALA

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Mol	Chain	Res	Type
3	DR	191	LEU
3	DS	20	ASP
3	DS	21	ASN
3	DS	27	PRO
3	DS	78	VAL
3	DS	80	LEU
3	DS	120	PHE
3	DS	153	ALA
3	DS	191	LEU
3	DT	20	ASP
3	DT	21	ASN
3	DT	27	PRO
3	DT	78	VAL
3	DT	80	LEU
3	DT	120	PHE
3	DT	153	ALA
3	DT	191	LEU
3	DU	20	ASP
3	DU	21	ASN
3	DU	27	PRO
3	DU	78	VAL
3	DU	80	LEU
3	DU	120	PHE
3	DU	153	ALA
3	DU	191	LEU
3	DV	20	ASP
3	DV	21	ASN
3	DV	27	PRO
3	DV	78	VAL
3	DV	80	LEU
3	DV	120	PHE
3	DV	153	ALA
3	DV	191	LEU
3	DW	20	ASP
3	DW	21	ASN
3	DW	27	PRO
3	DW	78	VAL
3	DW	80	LEU
3	DW	120	PHE
3	DW	153	ALA
3	DW	191	LEU
3	DX	20	ASP

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Mol	Chain	Res	Type
3	DX	21	ASN
3	DX	27	PRO
3	DX	78	VAL
3	DX	80	LEU
3	DX	120	PHE
3	DX	153	ALA
3	DX	191	LEU
3	DY	20	ASP
3	DY	21	ASN
3	DY	27	PRO
3	DY	78	VAL
3	DY	80	LEU
3	DY	120	PHE
3	DY	153	ALA
3	DY	191	LEU
3	DZ	20	ASP
3	DZ	21	ASN
3	DZ	27	PRO
3	DZ	78	VAL
3	DZ	80	LEU
3	DZ	120	PHE
3	DZ	153	ALA
3	DZ	191	LEU
3	Da	20	ASP
3	Da	21	ASN
3	Da	27	PRO
3	Da	78	VAL
3	Da	80	LEU
3	Da	120	PHE
3	Da	153	ALA
3	Da	191	LEU
3	Db	20	ASP
3	Db	21	ASN
3	Db	27	PRO
3	Db	78	VAL
3	Db	80	LEU
3	Db	120	PHE
3	Db	153	ALA
3	Db	191	LEU
3	Dc	20	ASP
3	Dc	21	ASN
3	Dc	27	PRO

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Mol	Chain	Res	Type
3	Dc	78	VAL
3	Dc	80	LEU
3	Dc	120	PHE
3	Dc	153	ALA
3	Dc	191	LEU
3	Dd	20	ASP
3	Dd	21	ASN
3	Dd	27	PRO
3	Dd	78	VAL
3	Dd	80	LEU
3	Dd	120	PHE
3	Dd	153	ALA
3	Dd	191	LEU
3	De	20	ASP
3	De	21	ASN
3	De	27	PRO
3	De	78	VAL
3	De	80	LEU
3	De	120	PHE
3	De	153	ALA
3	De	191	LEU
3	Df	20	ASP
3	Df	21	ASN
3	Df	27	PRO
3	Df	78	VAL
3	Df	80	LEU
3	Df	120	PHE
3	Df	153	ALA
3	Df	191	LEU
3	Dg	20	ASP
3	Dg	21	ASN
3	Dg	27	PRO
3	Dg	78	VAL
3	Dg	80	LEU
3	Dg	120	PHE
3	Dg	153	ALA
3	Dg	191	LEU
3	Dh	20	ASP
3	Dh	21	ASN
3	Dh	27	PRO
3	Dh	78	VAL
3	Dh	80	LEU

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Mol	Chain	Res	Type
3	Dh	120	PHE
3	Dh	153	ALA
3	Dh	191	LEU
3	Di	20	ASP
3	Di	21	ASN
3	Di	27	PRO
3	Di	78	VAL
3	Di	80	LEU
3	Di	120	PHE
3	Di	153	ALA
3	Di	191	LEU
3	Dj	20	ASP
3	Dj	21	ASN
3	Dj	27	PRO
3	Dj	78	VAL
3	Dj	80	LEU
3	Dj	120	PHE
3	Dj	153	ALA
3	Dj	191	LEU
3	Dk	20	ASP
3	Dk	21	ASN
3	Dk	27	PRO
3	Dk	78	VAL
3	Dk	80	LEU
3	Dk	120	PHE
3	Dk	153	ALA
3	Dk	191	LEU
3	Dl	20	ASP
3	Dl	21	ASN
3	Dl	27	PRO
3	Dl	78	VAL
3	Dl	80	LEU
3	Dl	120	PHE
3	Dl	153	ALA
3	Dl	191	LEU
3	Dm	20	ASP
3	Dm	21	ASN
3	Dm	27	PRO
3	Dm	78	VAL
3	Dm	80	LEU
3	Dm	120	PHE
3	Dm	153	ALA

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Mol	Chain	Res	Type
3	Dm	191	LEU
3	Dn	20	ASP
3	Dn	21	ASN
3	Dn	27	PRO
3	Dn	78	VAL
3	Dn	80	LEU
3	Dn	120	PHE
3	Dn	153	ALA
3	Dn	191	LEU
3	Do	20	ASP
3	Do	21	ASN
3	Do	27	PRO
3	Do	78	VAL
3	Do	80	LEU
3	Do	120	PHE
3	Do	153	ALA
3	Do	191	LEU
3	Dp	20	ASP
3	Dp	21	ASN
3	Dp	27	PRO
3	Dp	78	VAL
3	Dp	80	LEU
3	Dp	120	PHE
3	Dp	153	ALA
3	Dp	191	LEU
3	Dq	20	ASP
3	Dq	21	ASN
3	Dq	27	PRO
3	Dq	78	VAL
3	Dq	80	LEU
3	Dq	120	PHE
3	Dq	153	ALA
3	Dq	191	LEU
3	Dr	20	ASP
3	Dr	21	ASN
3	Dr	27	PRO
3	Dr	78	VAL
3	Dr	80	LEU
3	Dr	120	PHE
3	Dr	153	ALA
3	Dr	191	LEU
3	Ds	20	ASP

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Mol	Chain	Res	Type
3	Ds	21	ASN
3	Ds	27	PRO
3	Ds	78	VAL
3	Ds	80	LEU
3	Ds	120	PHE
3	Ds	153	ALA
3	Ds	191	LEU
3	EA	20	ASP
3	EA	21	ASN
3	EA	27	PRO
3	EA	78	VAL
3	EA	80	LEU
3	EA	120	PHE
3	EA	153	ALA
3	EA	191	LEU
3	EB	20	ASP
3	EB	21	ASN
3	EB	27	PRO
3	EB	78	VAL
3	EB	80	LEU
3	EB	120	PHE
3	EB	153	ALA
3	EB	191	LEU
3	EC	20	ASP
3	EC	21	ASN
3	EC	27	PRO
3	EC	78	VAL
3	EC	80	LEU
3	EC	120	PHE
3	EC	153	ALA
3	EC	191	LEU
3	ED	20	ASP
3	ED	21	ASN
3	ED	27	PRO
3	ED	78	VAL
3	ED	80	LEU
3	ED	120	PHE
3	ED	153	ALA
3	ED	191	LEU
3	EE	20	ASP
3	EE	21	ASN
3	EE	27	PRO

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Mol	Chain	Res	Type
3	EE	78	VAL
3	EE	80	LEU
3	EE	120	PHE
3	EE	153	ALA
3	EE	191	LEU
4	F0	17	ASN
4	F1	17	ASN
4	F2	17	ASN
4	F3	17	ASN
4	F4	17	ASN
4	F5	17	ASN
4	F6	17	ASN
4	F7	17	ASN
4	F8	17	ASN
4	F9	17	ASN
4	FA	17	ASN
4	FB	17	ASN
4	FC	17	ASN
4	FD	17	ASN
4	FE	17	ASN
4	FF	17	ASN
4	FG	17	ASN
4	FH	17	ASN
4	FI	17	ASN
4	FJ	17	ASN
4	FK	17	ASN
4	FL	17	ASN
4	FM	17	ASN
4	FN	17	ASN
4	FO	17	ASN
4	FP	17	ASN
4	FQ	17	ASN
4	FR	17	ASN
4	FS	17	ASN
4	FT	17	ASN
4	FU	17	ASN
4	FV	17	ASN
4	FW	17	ASN
4	FX	17	ASN
4	FY	17	ASN
4	FZ	17	ASN
4	Fa	17	ASN

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Mol	Chain	Res	Type
4	Fb	17	ASN
4	Fc	17	ASN
4	Fd	17	ASN
4	Fe	17	ASN
4	Ff	17	ASN
4	Fg	17	ASN
4	Fh	17	ASN
4	Fi	17	ASN
4	Fj	17	ASN
4	Fk	17	ASN
4	Fl	17	ASN
4	Fm	17	ASN
4	Fn	17	ASN
4	Fo	17	ASN
4	Fp	17	ASN
4	Fq	17	ASN
4	Fr	17	ASN
4	Fs	17	ASN
4	Ft	17	ASN
4	Fu	17	ASN
4	Fv	17	ASN
4	Fw	17	ASN
4	Fx	17	ASN
1	A0	42	THR
1	A0	71	LEU
1	A0	88	PHE
1	A0	99	GLU
1	A0	100	GLY
1	A0	114	LYS
1	A0	118	ALA
1	A0	140	PRO
1	A0	150	ARG
1	A0	151	SER
1	A0	207	CYS
1	A1	42	THR
1	A1	71	LEU
1	A1	88	PHE
1	A1	99	GLU
1	A1	100	GLY
1	A1	114	LYS
1	A1	118	ALA
1	A1	140	PRO

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Mol	Chain	Res	Type
1	A1	150	ARG
1	A1	151	SER
1	A1	207	CYS
1	A2	21	PRO
1	A2	42	THR
1	A2	71	LEU
1	A2	88	PHE
1	A2	99	GLU
1	A2	100	GLY
1	A2	114	LYS
1	A2	118	ALA
1	A2	140	PRO
1	A2	150	ARG
1	A2	151	SER
1	A2	207	CYS
1	A3	21	PRO
1	A3	42	THR
1	A3	71	LEU
1	A3	88	PHE
1	A3	99	GLU
1	A3	100	GLY
1	A3	114	LYS
1	A3	118	ALA
1	A3	140	PRO
1	A3	150	ARG
1	A3	151	SER
1	A3	207	CYS
1	A4	21	PRO
1	A4	42	THR
1	A4	71	LEU
1	A4	88	PHE
1	A4	99	GLU
1	A4	100	GLY
1	A4	114	LYS
1	A4	118	ALA
1	A4	140	PRO
1	A4	150	ARG
1	A4	151	SER
1	A4	207	CYS
1	A5	21	PRO
1	A5	42	THR
1	A5	71	LEU

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Mol	Chain	Res	Type
1	A5	88	PHE
1	A5	99	GLU
1	A5	100	GLY
1	A5	114	LYS
1	A5	118	ALA
1	A5	140	PRO
1	A5	150	ARG
1	A5	151	SER
1	A5	207	CYS
1	A6	21	PRO
1	A6	42	THR
1	A6	71	LEU
1	A6	88	PHE
1	A6	99	GLU
1	A6	100	GLY
1	A6	114	LYS
1	A6	118	ALA
1	A6	140	PRO
1	A6	150	ARG
1	A6	151	SER
1	A6	207	CYS
1	A7	42	THR
1	A7	71	LEU
1	A7	88	PHE
1	A7	99	GLU
1	A7	100	GLY
1	A7	114	LYS
1	A7	118	ALA
1	A7	140	PRO
1	A7	150	ARG
1	A7	151	SER
1	A7	207	CYS
1	A8	21	PRO
1	A8	42	THR
1	A8	71	LEU
1	A8	88	PHE
1	A8	99	GLU
1	A8	100	GLY
1	A8	114	LYS
1	A8	118	ALA
1	A8	140	PRO
1	A8	150	ARG

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Mol	Chain	Res	Type
1	A8	151	SER
1	A8	207	CYS
1	A9	42	THR
1	A9	71	LEU
1	A9	88	PHE
1	A9	99	GLU
1	A9	100	GLY
1	A9	114	LYS
1	A9	118	ALA
1	A9	140	PRO
1	A9	150	ARG
1	A9	151	SER
1	A9	207	CYS
1	AA	21	PRO
1	AA	42	THR
1	AA	71	LEU
1	AA	88	PHE
1	AA	99	GLU
1	AA	100	GLY
1	AA	114	LYS
1	AA	118	ALA
1	AA	140	PRO
1	AA	150	ARG
1	AA	151	SER
1	AA	207	CYS
1	AB	21	PRO
1	AB	42	THR
1	AB	71	LEU
1	AB	88	PHE
1	AB	99	GLU
1	AB	100	GLY
1	AB	114	LYS
1	AB	118	ALA
1	AB	140	PRO
1	AB	150	ARG
1	AB	151	SER
1	AB	207	CYS
1	AC	21	PRO
1	AC	42	THR
1	AC	71	LEU
1	AC	88	PHE
1	AC	99	GLU

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Mol	Chain	Res	Type
1	AC	100	GLY
1	AC	114	LYS
1	AC	118	ALA
1	AC	140	PRO
1	AC	150	ARG
1	AC	151	SER
1	AC	207	CYS
1	AD	21	PRO
1	AD	42	THR
1	AD	71	LEU
1	AD	88	PHE
1	AD	99	GLU
1	AD	100	GLY
1	AD	114	LYS
1	AD	118	ALA
1	AD	140	PRO
1	AD	150	ARG
1	AD	151	SER
1	AD	207	CYS
1	AE	42	THR
1	AE	71	LEU
1	AE	88	PHE
1	AE	99	GLU
1	AE	100	GLY
1	AE	114	LYS
1	AE	118	ALA
1	AE	140	PRO
1	AE	150	ARG
1	AE	151	SER
1	AE	207	CYS
1	AF	42	THR
1	AF	71	LEU
1	AF	88	PHE
1	AF	99	GLU
1	AF	100	GLY
1	AF	114	LYS
1	AF	118	ALA
1	AF	140	PRO
1	AF	150	ARG
1	AF	151	SER
1	AF	207	CYS
1	AG	21	PRO

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Mol	Chain	Res	Type
1	AG	42	THR
1	AG	71	LEU
1	AG	88	PHE
1	AG	99	GLU
1	AG	100	GLY
1	AG	114	LYS
1	AG	118	ALA
1	AG	140	PRO
1	AG	150	ARG
1	AG	151	SER
1	AG	207	CYS
1	AH	42	THR
1	AH	71	LEU
1	AH	88	PHE
1	AH	99	GLU
1	AH	100	GLY
1	AH	114	LYS
1	AH	118	ALA
1	AH	140	PRO
1	AH	150	ARG
1	AH	151	SER
1	AH	207	CYS
1	AI	42	THR
1	AI	71	LEU
1	AI	88	PHE
1	AI	99	GLU
1	AI	100	GLY
1	AI	114	LYS
1	AI	118	ALA
1	AI	140	PRO
1	AI	150	ARG
1	AI	151	SER
1	AI	207	CYS
1	AJ	42	THR
1	AJ	71	LEU
1	AJ	88	PHE
1	AJ	99	GLU
1	AJ	100	GLY
1	AJ	114	LYS
1	AJ	118	ALA
1	AJ	140	PRO
1	AJ	150	ARG

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Mol	Chain	Res	Type
1	AJ	151	SER
1	AJ	207	CYS
1	AK	42	THR
1	AK	71	LEU
1	AK	88	PHE
1	AK	99	GLU
1	AK	100	GLY
1	AK	114	LYS
1	AK	118	ALA
1	AK	140	PRO
1	AK	150	ARG
1	AK	151	SER
1	AK	207	CYS
1	AL	42	THR
1	AL	71	LEU
1	AL	88	PHE
1	AL	99	GLU
1	AL	100	GLY
1	AL	114	LYS
1	AL	118	ALA
1	AL	140	PRO
1	AL	150	ARG
1	AL	151	SER
1	AL	207	CYS
1	AM	42	THR
1	AM	71	LEU
1	AM	88	PHE
1	AM	99	GLU
1	AM	100	GLY
1	AM	114	LYS
1	AM	118	ALA
1	AM	140	PRO
1	AM	150	ARG
1	AM	151	SER
1	AM	207	CYS
1	AN	42	THR
1	AN	71	LEU
1	AN	88	PHE
1	AN	99	GLU
1	AN	100	GLY
1	AN	114	LYS
1	AN	118	ALA

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Mol	Chain	Res	Type
1	AN	140	PRO
1	AN	150	ARG
1	AN	151	SER
1	AN	207	CYS
1	AO	42	THR
1	AO	71	LEU
1	AO	88	PHE
1	AO	99	GLU
1	AO	100	GLY
1	AO	114	LYS
1	AO	118	ALA
1	AO	140	PRO
1	AO	150	ARG
1	AO	151	SER
1	AO	207	CYS
1	AP	21	PRO
1	AP	42	THR
1	AP	71	LEU
1	AP	88	PHE
1	AP	99	GLU
1	AP	100	GLY
1	AP	114	LYS
1	AP	118	ALA
1	AP	140	PRO
1	AP	150	ARG
1	AP	151	SER
1	AP	207	CYS
1	AQ	21	PRO
1	AQ	42	THR
1	AQ	71	LEU
1	AQ	88	PHE
1	AQ	99	GLU
1	AQ	100	GLY
1	AQ	114	LYS
1	AQ	118	ALA
1	AQ	140	PRO
1	AQ	150	ARG
1	AQ	151	SER
1	AQ	207	CYS
1	AR	21	PRO
1	AR	42	THR
1	AR	71	LEU

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Mol	Chain	Res	Type
1	AR	88	PHE
1	AR	99	GLU
1	AR	100	GLY
1	AR	114	LYS
1	AR	118	ALA
1	AR	140	PRO
1	AR	150	ARG
1	AR	151	SER
1	AR	207	CYS
1	AS	21	PRO
1	AS	42	THR
1	AS	71	LEU
1	AS	88	PHE
1	AS	99	GLU
1	AS	100	GLY
1	AS	114	LYS
1	AS	118	ALA
1	AS	140	PRO
1	AS	150	ARG
1	AS	151	SER
1	AS	207	CYS
1	AT	21	PRO
1	AT	42	THR
1	AT	71	LEU
1	AT	88	PHE
1	AT	99	GLU
1	AT	100	GLY
1	AT	114	LYS
1	AT	118	ALA
1	AT	140	PRO
1	AT	150	ARG
1	AT	151	SER
1	AT	207	CYS
1	AU	21	PRO
1	AU	42	THR
1	AU	71	LEU
1	AU	88	PHE
1	AU	99	GLU
1	AU	100	GLY
1	AU	114	LYS
1	AU	118	ALA
1	AU	140	PRO

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Mol	Chain	Res	Type
1	AU	150	ARG
1	AU	151	SER
1	AU	207	CYS
1	AV	21	PRO
1	AV	42	THR
1	AV	71	LEU
1	AV	88	PHE
1	AV	99	GLU
1	AV	100	GLY
1	AV	114	LYS
1	AV	118	ALA
1	AV	140	PRO
1	AV	150	ARG
1	AV	151	SER
1	AV	207	CYS
1	AW	42	THR
1	AW	71	LEU
1	AW	88	PHE
1	AW	99	GLU
1	AW	100	GLY
1	AW	114	LYS
1	AW	118	ALA
1	AW	140	PRO
1	AW	150	ARG
1	AW	151	SER
1	AW	207	CYS
1	AX	21	PRO
1	AX	42	THR
1	AX	71	LEU
1	AX	88	PHE
1	AX	99	GLU
1	AX	100	GLY
1	AX	114	LYS
1	AX	118	ALA
1	AX	140	PRO
1	AX	150	ARG
1	AX	151	SER
1	AX	207	CYS
1	AY	42	THR
1	AY	71	LEU
1	AY	88	PHE
1	AY	99	GLU

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Mol	Chain	Res	Type
1	AY	100	GLY
1	AY	114	LYS
1	AY	118	ALA
1	AY	140	PRO
1	AY	150	ARG
1	AY	151	SER
1	AY	207	CYS
1	AZ	42	THR
1	AZ	71	LEU
1	AZ	88	PHE
1	AZ	99	GLU
1	AZ	100	GLY
1	AZ	114	LYS
1	AZ	118	ALA
1	AZ	140	PRO
1	AZ	150	ARG
1	AZ	151	SER
1	AZ	207	CYS
1	Aa	21	PRO
1	Aa	42	THR
1	Aa	71	LEU
1	Aa	88	PHE
1	Aa	99	GLU
1	Aa	100	GLY
1	Aa	114	LYS
1	Aa	118	ALA
1	Aa	140	PRO
1	Aa	150	ARG
1	Aa	151	SER
1	Aa	207	CYS
1	Ab	21	PRO
1	Ab	42	THR
1	Ab	71	LEU
1	Ab	88	PHE
1	Ab	99	GLU
1	Ab	100	GLY
1	Ab	114	LYS
1	Ab	118	ALA
1	Ab	140	PRO
1	Ab	150	ARG
1	Ab	151	SER
1	Ab	207	CYS

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Mol	Chain	Res	Type
1	Ac	42	THR
1	Ac	71	LEU
1	Ac	88	PHE
1	Ac	99	GLU
1	Ac	100	GLY
1	Ac	114	LYS
1	Ac	118	ALA
1	Ac	140	PRO
1	Ac	150	ARG
1	Ac	151	SER
1	Ac	207	CYS
1	Ad	21	PRO
1	Ad	42	THR
1	Ad	71	LEU
1	Ad	88	PHE
1	Ad	99	GLU
1	Ad	100	GLY
1	Ad	114	LYS
1	Ad	118	ALA
1	Ad	140	PRO
1	Ad	150	ARG
1	Ad	151	SER
1	Ad	207	CYS
1	Ae	42	THR
1	Ae	71	LEU
1	Ae	88	PHE
1	Ae	99	GLU
1	Ae	100	GLY
1	Ae	114	LYS
1	Ae	118	ALA
1	Ae	140	PRO
1	Ae	150	ARG
1	Ae	151	SER
1	Ae	207	CYS
1	Af	42	THR
1	Af	71	LEU
1	Af	88	PHE
1	Af	99	GLU
1	Af	100	GLY
1	Af	114	LYS
1	Af	118	ALA
1	Af	140	PRO

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Mol	Chain	Res	Type
1	Af	150	ARG
1	Af	151	SER
1	Af	207	CYS
1	Ag	21	PRO
1	Ag	42	THR
1	Ag	71	LEU
1	Ag	88	PHE
1	Ag	99	GLU
1	Ag	100	GLY
1	Ag	114	LYS
1	Ag	118	ALA
1	Ag	140	PRO
1	Ag	150	ARG
1	Ag	151	SER
1	Ag	207	CYS
1	Ah	21	PRO
1	Ah	42	THR
1	Ah	71	LEU
1	Ah	88	PHE
1	Ah	99	GLU
1	Ah	100	GLY
1	Ah	114	LYS
1	Ah	118	ALA
1	Ah	140	PRO
1	Ah	150	ARG
1	Ah	151	SER
1	Ah	207	CYS
1	Ai	42	THR
1	Ai	71	LEU
1	Ai	88	PHE
1	Ai	99	GLU
1	Ai	100	GLY
1	Ai	114	LYS
1	Ai	118	ALA
1	Ai	140	PRO
1	Ai	150	ARG
1	Ai	151	SER
1	Ai	207	CYS
1	Aj	42	THR
1	Aj	71	LEU
1	Aj	88	PHE
1	Aj	99	GLU

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Mol	Chain	Res	Type
1	Aj	100	GLY
1	Aj	114	LYS
1	Aj	118	ALA
1	Aj	140	PRO
1	Aj	150	ARG
1	Aj	151	SER
1	Aj	207	CYS
1	Ak	21	PRO
1	Ak	42	THR
1	Ak	71	LEU
1	Ak	88	PHE
1	Ak	99	GLU
1	Ak	100	GLY
1	Ak	114	LYS
1	Ak	118	ALA
1	Ak	140	PRO
1	Ak	150	ARG
1	Ak	151	SER
1	Ak	207	CYS
1	Al	42	THR
1	Al	71	LEU
1	Al	88	PHE
1	Al	99	GLU
1	Al	100	GLY
1	Al	114	LYS
1	Al	118	ALA
1	Al	140	PRO
1	Al	150	ARG
1	Al	151	SER
1	Al	207	CYS
1	Am	42	THR
1	Am	71	LEU
1	Am	88	PHE
1	Am	99	GLU
1	Am	100	GLY
1	Am	114	LYS
1	Am	118	ALA
1	Am	140	PRO
1	Am	150	ARG
1	Am	151	SER
1	Am	207	CYS
1	An	21	PRO

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Mol	Chain	Res	Type
1	An	42	THR
1	An	71	LEU
1	An	88	PHE
1	An	99	GLU
1	An	100	GLY
1	An	114	LYS
1	An	118	ALA
1	An	140	PRO
1	An	150	ARG
1	An	151	SER
1	An	207	CYS
1	Ao	21	PRO
1	Ao	42	THR
1	Ao	71	LEU
1	Ao	88	PHE
1	Ao	99	GLU
1	Ao	100	GLY
1	Ao	114	LYS
1	Ao	118	ALA
1	Ao	140	PRO
1	Ao	150	ARG
1	Ao	151	SER
1	Ao	207	CYS
1	BA	42	THR
1	BA	71	LEU
1	BA	88	PHE
1	BA	99	GLU
1	BA	100	GLY
1	BA	114	LYS
1	BA	118	ALA
1	BA	140	PRO
1	BA	150	ARG
1	BA	151	SER
1	BA	207	CYS
1	BB	42	THR
1	BB	71	LEU
1	BB	88	PHE
1	BB	99	GLU
1	BB	100	GLY
1	BB	114	LYS
1	BB	118	ALA
1	BB	140	PRO

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Mol	Chain	Res	Type
1	BB	150	ARG
1	BB	151	SER
1	BB	207	CYS
1	BC	21	PRO
1	BC	42	THR
1	BC	71	LEU
1	BC	88	PHE
1	BC	99	GLU
1	BC	100	GLY
1	BC	114	LYS
1	BC	118	ALA
1	BC	140	PRO
1	BC	150	ARG
1	BC	151	SER
1	BC	207	CYS
1	BD	21	PRO
1	BD	42	THR
1	BD	71	LEU
1	BD	88	PHE
1	BD	99	GLU
1	BD	100	GLY
1	BD	114	LYS
1	BD	118	ALA
1	BD	140	PRO
1	BD	150	ARG
1	BD	151	SER
1	BD	207	CYS
1	BE	21	PRO
1	BE	42	THR
1	BE	71	LEU
1	BE	88	PHE
1	BE	99	GLU
1	BE	100	GLY
1	BE	114	LYS
1	BE	118	ALA
1	BE	140	PRO
1	BE	150	ARG
1	BE	151	SER
1	BE	207	CYS
1	BF	21	PRO
1	BF	42	THR
1	BF	71	LEU

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Mol	Chain	Res	Type
1	BF	88	PHE
1	BF	99	GLU
1	BF	100	GLY
1	BF	114	LYS
1	BF	118	ALA
1	BF	140	PRO
1	BF	150	ARG
1	BF	151	SER
1	BF	207	CYS
1	BG	21	PRO
1	BG	42	THR
1	BG	71	LEU
1	BG	88	PHE
1	BG	99	GLU
1	BG	100	GLY
1	BG	114	LYS
1	BG	118	ALA
1	BG	140	PRO
1	BG	150	ARG
1	BG	151	SER
1	BG	207	CYS
1	BH	21	PRO
1	BH	42	THR
1	BH	71	LEU
1	BH	88	PHE
1	BH	99	GLU
1	BH	100	GLY
1	BH	114	LYS
1	BH	118	ALA
1	BH	140	PRO
1	BH	150	ARG
1	BH	151	SER
1	BH	207	CYS
1	BI	42	THR
1	BI	71	LEU
1	BI	88	PHE
1	BI	99	GLU
1	BI	100	GLY
1	BI	114	LYS
1	BI	118	ALA
1	BI	140	PRO
1	BI	150	ARG

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Mol	Chain	Res	Type
1	BI	151	SER
1	BI	207	CYS
2	C0	28	GLY
2	C0	43	PRO
2	C0	134	HIS
2	C0	135	THR
2	C1	28	GLY
2	C1	43	PRO
2	C1	134	HIS
2	C1	135	THR
2	C2	28	GLY
2	C2	43	PRO
2	C2	134	HIS
2	C2	135	THR
2	C3	28	GLY
2	C3	43	PRO
2	C3	134	HIS
2	C3	135	THR
2	C4	28	GLY
2	C4	43	PRO
2	C4	134	HIS
2	C4	135	THR
2	C5	28	GLY
2	C5	43	PRO
2	C5	134	HIS
2	C5	135	THR
2	C6	28	GLY
2	C6	43	PRO
2	C6	134	HIS
2	C6	135	THR
2	C7	28	GLY
2	C7	43	PRO
2	C7	134	HIS
2	C7	135	THR
2	C8	28	GLY
2	C8	43	PRO
2	C8	134	HIS
2	C8	135	THR
2	C9	28	GLY
2	C9	43	PRO
2	C9	134	HIS
2	C9	135	THR

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Mol	Chain	Res	Type
2	CA	28	GLY
2	CA	43	PRO
2	CA	134	HIS
2	CA	135	THR
2	CB	28	GLY
2	CB	43	PRO
2	CB	134	HIS
2	CB	135	THR
2	CC	28	GLY
2	CC	43	PRO
2	CC	134	HIS
2	CC	135	THR
2	CD	28	GLY
2	CD	43	PRO
2	CD	134	HIS
2	CD	135	THR
2	CE	28	GLY
2	CE	43	PRO
2	CE	134	HIS
2	CE	135	THR
2	CF	28	GLY
2	CF	43	PRO
2	CF	134	HIS
2	CF	135	THR
2	CG	28	GLY
2	CG	43	PRO
2	CG	134	HIS
2	CG	135	THR
2	CH	28	GLY
2	CH	43	PRO
2	CH	134	HIS
2	CH	135	THR
2	CI	28	GLY
2	CI	43	PRO
2	CI	134	HIS
2	CI	135	THR
2	CJ	28	GLY
2	CJ	43	PRO
2	CJ	134	HIS
2	CJ	135	THR
2	CK	28	GLY
2	CK	43	PRO

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Mol	Chain	Res	Type
2	CK	134	HIS
2	CK	135	THR
2	CL	28	GLY
2	CL	43	PRO
2	CL	134	HIS
2	CL	135	THR
2	CM	28	GLY
2	CM	43	PRO
2	CM	134	HIS
2	CM	135	THR
2	CN	28	GLY
2	CN	43	PRO
2	CN	134	HIS
2	CN	135	THR
2	CO	28	GLY
2	CO	43	PRO
2	CO	134	HIS
2	CO	135	THR
2	CP	28	GLY
2	CP	43	PRO
2	CP	134	HIS
2	CP	135	THR
2	CQ	28	GLY
2	CQ	43	PRO
2	CQ	134	HIS
2	CQ	135	THR
2	CR	28	GLY
2	CR	43	PRO
2	CR	134	HIS
2	CR	135	THR
2	CS	28	GLY
2	CS	43	PRO
2	CS	134	HIS
2	CS	135	THR
2	CT	28	GLY
2	CT	43	PRO
2	CT	134	HIS
2	CT	135	THR
2	CU	28	GLY
2	CU	43	PRO
2	CU	134	HIS
2	CU	135	THR

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Mol	Chain	Res	Type
2	CV	28	GLY
2	CV	43	PRO
2	CV	134	HIS
2	CV	135	THR
2	CW	28	GLY
2	CW	43	PRO
2	CW	134	HIS
2	CW	135	THR
2	CX	28	GLY
2	CX	43	PRO
2	CX	134	HIS
2	CX	135	THR
2	CY	28	GLY
2	CY	43	PRO
2	CY	134	HIS
2	CY	135	THR
2	CZ	28	GLY
2	CZ	43	PRO
2	CZ	134	HIS
2	CZ	135	THR
2	Ca	28	GLY
2	Ca	43	PRO
2	Ca	134	HIS
2	Ca	135	THR
2	Cb	28	GLY
2	Cb	43	PRO
2	Cb	134	HIS
2	Cb	135	THR
2	Cc	28	GLY
2	Cc	43	PRO
2	Cc	134	HIS
2	Cc	135	THR
2	Cd	28	GLY
2	Cd	43	PRO
2	Cd	134	HIS
2	Cd	135	THR
2	Ce	28	GLY
2	Ce	43	PRO
2	Ce	134	HIS
2	Ce	135	THR
2	Cf	28	GLY
2	Cf	43	PRO

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Mol	Chain	Res	Type
2	Cf	134	HIS
2	Cf	135	THR
2	Cg	28	GLY
2	Cg	43	PRO
2	Cg	134	HIS
2	Cg	135	THR
2	Ch	28	GLY
2	Ch	43	PRO
2	Ch	134	HIS
2	Ch	135	THR
2	Ci	28	GLY
2	Ci	43	PRO
2	Ci	134	HIS
2	Ci	135	THR
2	Cj	28	GLY
2	Cj	43	PRO
2	Cj	134	HIS
2	Cj	135	THR
2	Ck	28	GLY
2	Ck	43	PRO
2	Ck	134	HIS
2	Ck	135	THR
2	Cl	28	GLY
2	Cl	43	PRO
2	Cl	134	HIS
2	Cl	135	THR
2	Cm	28	GLY
2	Cm	43	PRO
2	Cm	134	HIS
2	Cm	135	THR
2	Cn	28	GLY
2	Cn	43	PRO
2	Cn	134	HIS
2	Cn	135	THR
2	Co	28	GLY
2	Co	43	PRO
2	Co	134	HIS
2	Co	135	THR
2	Cp	28	GLY
2	Cp	43	PRO
2	Cp	134	HIS
2	Cp	135	THR

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Mol	Chain	Res	Type
2	Cq	28	GLY
2	Cq	43	PRO
2	Cq	134	HIS
2	Cq	135	THR
2	Cr	28	GLY
2	Cr	43	PRO
2	Cr	134	HIS
2	Cr	135	THR
2	Cs	28	GLY
2	Cs	43	PRO
2	Cs	134	HIS
2	Cs	135	THR
2	Ct	28	GLY
2	Ct	43	PRO
2	Ct	134	HIS
2	Ct	135	THR
2	Cu	28	GLY
2	Cu	43	PRO
2	Cu	134	HIS
2	Cu	135	THR
2	Cv	28	GLY
2	Cv	43	PRO
2	Cv	134	HIS
2	Cv	135	THR
2	Cw	28	GLY
2	Cw	43	PRO
2	Cw	134	HIS
2	Cw	135	THR
2	Cx	28	GLY
2	Cx	43	PRO
2	Cx	134	HIS
2	Cx	135	THR
3	D0	14	PHE
3	D0	15	MET
3	D0	113	ALA
3	D0	128	HIS
3	D0	129	SER
3	D0	150	LEU
3	D0	152	SER
3	D1	14	PHE
3	D1	15	MET
3	D1	113	ALA

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Mol	Chain	Res	Type
3	D1	128	HIS
3	D1	129	SER
3	D1	150	LEU
3	D1	152	SER
3	D2	14	PHE
3	D2	15	MET
3	D2	113	ALA
3	D2	128	HIS
3	D2	129	SER
3	D2	150	LEU
3	D2	152	SER
3	D3	14	PHE
3	D3	15	MET
3	D3	113	ALA
3	D3	128	HIS
3	D3	129	SER
3	D3	150	LEU
3	D3	152	SER
3	D4	14	PHE
3	D4	15	MET
3	D4	113	ALA
3	D4	128	HIS
3	D4	129	SER
3	D4	150	LEU
3	D4	152	SER
3	D5	14	PHE
3	D5	15	MET
3	D5	113	ALA
3	D5	128	HIS
3	D5	129	SER
3	D5	150	LEU
3	D5	152	SER
3	D6	14	PHE
3	D6	15	MET
3	D6	113	ALA
3	D6	128	HIS
3	D6	129	SER
3	D6	150	LEU
3	D6	152	SER
3	D7	14	PHE
3	D7	15	MET
3	D7	113	ALA

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Mol	Chain	Res	Type
3	D7	128	HIS
3	D7	129	SER
3	D7	150	LEU
3	D7	152	SER
3	D8	14	PHE
3	D8	15	MET
3	D8	113	ALA
3	D8	128	HIS
3	D8	129	SER
3	D8	150	LEU
3	D8	152	SER
3	D9	14	PHE
3	D9	15	MET
3	D9	113	ALA
3	D9	128	HIS
3	D9	129	SER
3	D9	150	LEU
3	D9	152	SER
3	DA	14	PHE
3	DA	15	MET
3	DA	113	ALA
3	DA	128	HIS
3	DA	129	SER
3	DA	150	LEU
3	DA	152	SER
3	DB	14	PHE
3	DB	15	MET
3	DB	113	ALA
3	DB	128	HIS
3	DB	129	SER
3	DB	150	LEU
3	DB	152	SER
3	DC	14	PHE
3	DC	15	MET
3	DC	113	ALA
3	DC	128	HIS
3	DC	129	SER
3	DC	150	LEU
3	DC	152	SER
3	DD	14	PHE
3	DD	15	MET
3	DD	113	ALA

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Mol	Chain	Res	Type
3	DD	128	HIS
3	DD	129	SER
3	DD	150	LEU
3	DD	152	SER
3	DE	14	PHE
3	DE	15	MET
3	DE	113	ALA
3	DE	128	HIS
3	DE	129	SER
3	DE	150	LEU
3	DE	152	SER
3	DF	14	PHE
3	DF	15	MET
3	DF	113	ALA
3	DF	128	HIS
3	DF	129	SER
3	DF	150	LEU
3	DF	152	SER
3	DG	14	PHE
3	DG	15	MET
3	DG	113	ALA
3	DG	128	HIS
3	DG	129	SER
3	DG	150	LEU
3	DG	152	SER
3	DH	14	PHE
3	DH	15	MET
3	DH	113	ALA
3	DH	128	HIS
3	DH	129	SER
3	DH	150	LEU
3	DH	152	SER
3	DI	14	PHE
3	DI	15	MET
3	DI	113	ALA
3	DI	128	HIS
3	DI	129	SER
3	DI	150	LEU
3	DI	152	SER
3	DJ	14	PHE
3	DJ	15	MET
3	DJ	113	ALA

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Mol	Chain	Res	Type
3	DJ	128	HIS
3	DJ	129	SER
3	DJ	150	LEU
3	DJ	152	SER
3	DK	14	PHE
3	DK	15	MET
3	DK	113	ALA
3	DK	128	HIS
3	DK	129	SER
3	DK	150	LEU
3	DK	152	SER
3	DL	14	PHE
3	DL	15	MET
3	DL	113	ALA
3	DL	128	HIS
3	DL	129	SER
3	DL	150	LEU
3	DL	152	SER
3	DM	14	PHE
3	DM	15	MET
3	DM	113	ALA
3	DM	128	HIS
3	DM	129	SER
3	DM	150	LEU
3	DM	152	SER
3	DN	14	PHE
3	DN	15	MET
3	DN	113	ALA
3	DN	128	HIS
3	DN	129	SER
3	DN	150	LEU
3	DN	152	SER
3	DO	14	PHE
3	DO	15	MET
3	DO	113	ALA
3	DO	128	HIS
3	DO	129	SER
3	DO	150	LEU
3	DO	152	SER
3	DP	14	PHE
3	DP	15	MET
3	DP	113	ALA

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Mol	Chain	Res	Type
3	DP	128	HIS
3	DP	129	SER
3	DP	150	LEU
3	DP	152	SER
3	DQ	14	PHE
3	DQ	15	MET
3	DQ	113	ALA
3	DQ	128	HIS
3	DQ	129	SER
3	DQ	150	LEU
3	DQ	152	SER
3	DR	14	PHE
3	DR	15	MET
3	DR	113	ALA
3	DR	128	HIS
3	DR	129	SER
3	DR	150	LEU
3	DR	152	SER
3	DS	14	PHE
3	DS	15	MET
3	DS	113	ALA
3	DS	128	HIS
3	DS	129	SER
3	DS	150	LEU
3	DS	152	SER
3	DT	14	PHE
3	DT	15	MET
3	DT	113	ALA
3	DT	128	HIS
3	DT	129	SER
3	DT	150	LEU
3	DT	152	SER
3	DU	14	PHE
3	DU	15	MET
3	DU	113	ALA
3	DU	128	HIS
3	DU	129	SER
3	DU	150	LEU
3	DU	152	SER
3	DV	14	PHE
3	DV	15	MET
3	DV	113	ALA

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Mol	Chain	Res	Type
3	DV	128	HIS
3	DV	129	SER
3	DV	150	LEU
3	DV	152	SER
3	DW	14	PHE
3	DW	15	MET
3	DW	113	ALA
3	DW	128	HIS
3	DW	129	SER
3	DW	150	LEU
3	DW	152	SER
3	DX	14	PHE
3	DX	15	MET
3	DX	113	ALA
3	DX	128	HIS
3	DX	129	SER
3	DX	150	LEU
3	DX	152	SER
3	DY	14	PHE
3	DY	15	MET
3	DY	113	ALA
3	DY	128	HIS
3	DY	129	SER
3	DY	150	LEU
3	DY	152	SER
3	DZ	14	PHE
3	DZ	15	MET
3	DZ	113	ALA
3	DZ	128	HIS
3	DZ	129	SER
3	DZ	150	LEU
3	DZ	152	SER
3	Da	14	PHE
3	Da	15	MET
3	Da	113	ALA
3	Da	128	HIS
3	Da	129	SER
3	Da	150	LEU
3	Da	152	SER
3	Db	14	PHE
3	Db	15	MET
3	Db	113	ALA

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Mol	Chain	Res	Type
3	Db	128	HIS
3	Db	129	SER
3	Db	150	LEU
3	Db	152	SER
3	Dc	14	PHE
3	Dc	15	MET
3	Dc	113	ALA
3	Dc	128	HIS
3	Dc	129	SER
3	Dc	150	LEU
3	Dc	152	SER
3	Dd	14	PHE
3	Dd	15	MET
3	Dd	113	ALA
3	Dd	128	HIS
3	Dd	129	SER
3	Dd	150	LEU
3	Dd	152	SER
3	De	14	PHE
3	De	15	MET
3	De	113	ALA
3	De	128	HIS
3	De	129	SER
3	De	150	LEU
3	De	152	SER
3	Df	14	PHE
3	Df	15	MET
3	Df	113	ALA
3	Df	128	HIS
3	Df	129	SER
3	Df	150	LEU
3	Df	152	SER
3	Dg	14	PHE
3	Dg	15	MET
3	Dg	113	ALA
3	Dg	128	HIS
3	Dg	129	SER
3	Dg	150	LEU
3	Dg	152	SER
3	Dh	14	PHE
3	Dh	15	MET
3	Dh	113	ALA

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Mol	Chain	Res	Type
3	Dh	128	HIS
3	Dh	129	SER
3	Dh	150	LEU
3	Dh	152	SER
3	Di	14	PHE
3	Di	15	MET
3	Di	113	ALA
3	Di	128	HIS
3	Di	129	SER
3	Di	150	LEU
3	Di	152	SER
3	Dj	14	PHE
3	Dj	15	MET
3	Dj	113	ALA
3	Dj	128	HIS
3	Dj	129	SER
3	Dj	150	LEU
3	Dj	152	SER
3	Dk	14	PHE
3	Dk	15	MET
3	Dk	113	ALA
3	Dk	128	HIS
3	Dk	129	SER
3	Dk	150	LEU
3	Dk	152	SER
3	Dl	14	PHE
3	Dl	15	MET
3	Dl	113	ALA
3	Dl	128	HIS
3	Dl	129	SER
3	Dl	150	LEU
3	Dl	152	SER
3	Dm	14	PHE
3	Dm	15	MET
3	Dm	113	ALA
3	Dm	128	HIS
3	Dm	129	SER
3	Dm	150	LEU
3	Dm	152	SER
3	Dn	14	PHE
3	Dn	15	MET
3	Dn	113	ALA

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Mol	Chain	Res	Type
3	Dn	128	HIS
3	Dn	129	SER
3	Dn	150	LEU
3	Dn	152	SER
3	Do	14	PHE
3	Do	15	MET
3	Do	113	ALA
3	Do	128	HIS
3	Do	129	SER
3	Do	150	LEU
3	Do	152	SER
3	Dp	14	PHE
3	Dp	15	MET
3	Dp	113	ALA
3	Dp	128	HIS
3	Dp	129	SER
3	Dp	150	LEU
3	Dp	152	SER
3	Dq	14	PHE
3	Dq	15	MET
3	Dq	113	ALA
3	Dq	128	HIS
3	Dq	129	SER
3	Dq	150	LEU
3	Dq	152	SER
3	Dr	14	PHE
3	Dr	15	MET
3	Dr	113	ALA
3	Dr	128	HIS
3	Dr	129	SER
3	Dr	150	LEU
3	Dr	152	SER
3	Ds	14	PHE
3	Ds	15	MET
3	Ds	113	ALA
3	Ds	128	HIS
3	Ds	129	SER
3	Ds	150	LEU
3	Ds	152	SER
3	EA	14	PHE
3	EA	15	MET
3	EA	113	ALA

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Mol	Chain	Res	Type
3	EA	128	HIS
3	EA	129	SER
3	EA	150	LEU
3	EA	152	SER
3	EB	14	PHE
3	EB	15	MET
3	EB	113	ALA
3	EB	128	HIS
3	EB	129	SER
3	EB	150	LEU
3	EB	152	SER
3	EC	14	PHE
3	EC	15	MET
3	EC	113	ALA
3	EC	128	HIS
3	EC	129	SER
3	EC	150	LEU
3	EC	152	SER
3	ED	14	PHE
3	ED	15	MET
3	ED	113	ALA
3	ED	128	HIS
3	ED	129	SER
3	ED	150	LEU
3	ED	152	SER
3	EE	14	PHE
3	EE	15	MET
3	EE	113	ALA
3	EE	128	HIS
3	EE	129	SER
3	EE	150	LEU
3	EE	152	SER
4	F0	31	GLN
4	F1	31	GLN
4	F2	31	GLN
4	F3	31	GLN
4	F4	31	GLN
4	F5	31	GLN
4	F6	31	GLN
4	F7	31	GLN
4	F8	31	GLN
4	F9	31	GLN

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Mol	Chain	Res	Type
4	FA	31	GLN
4	FB	31	GLN
4	FC	31	GLN
4	FD	31	GLN
4	FE	31	GLN
4	FF	31	GLN
4	FG	31	GLN
4	FH	31	GLN
4	FI	31	GLN
4	FJ	31	GLN
4	FK	31	GLN
4	FL	31	GLN
4	FM	31	GLN
4	FN	31	GLN
4	FO	31	GLN
4	FP	31	GLN
4	FQ	31	GLN
4	FR	31	GLN
4	FS	31	GLN
4	FT	31	GLN
4	FU	31	GLN
4	FV	31	GLN
4	FW	31	GLN
4	FX	31	GLN
4	FY	31	GLN
4	FZ	31	GLN
4	Fa	31	GLN
4	Fb	31	GLN
4	Fc	31	GLN
4	Fd	31	GLN
4	Fe	31	GLN
4	Ff	31	GLN
4	Fg	31	GLN
4	Fh	31	GLN
4	Fi	31	GLN
4	Fj	31	GLN
4	Fk	31	GLN
4	Fl	31	GLN
4	Fm	31	GLN
4	Fn	31	GLN
4	Fo	31	GLN
4	Fp	31	GLN

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Mol	Chain	Res	Type
4	Fq	31	GLN
4	Fr	31	GLN
4	Fs	31	GLN
4	Ft	31	GLN
4	Fu	31	GLN
4	Fv	31	GLN
4	Fw	31	GLN
4	Fx	31	GLN
1	A0	21	PRO
1	A0	94	PRO
1	A0	152	GLN
1	A0	184	TYR
1	A0	187	LEU
1	A0	213	PHE
1	A0	231	PRO
1	A1	21	PRO
1	A1	94	PRO
1	A1	152	GLN
1	A1	184	TYR
1	A1	187	LEU
1	A1	213	PHE
1	A1	231	PRO
1	A2	94	PRO
1	A2	152	GLN
1	A2	184	TYR
1	A2	187	LEU
1	A2	213	PHE
1	A2	231	PRO
1	A3	94	PRO
1	A3	152	GLN
1	A3	184	TYR
1	A3	187	LEU
1	A3	213	PHE
1	A3	231	PRO
1	A4	94	PRO
1	A4	152	GLN
1	A4	184	TYR
1	A4	187	LEU
1	A4	213	PHE
1	A4	231	PRO
1	A5	94	PRO
1	A5	152	GLN

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Mol	Chain	Res	Type
1	A5	184	TYR
1	A5	187	LEU
1	A5	213	PHE
1	A5	231	PRO
1	A6	94	PRO
1	A6	152	GLN
1	A6	184	TYR
1	A6	187	LEU
1	A6	213	PHE
1	A6	231	PRO
1	A7	21	PRO
1	A7	94	PRO
1	A7	152	GLN
1	A7	184	TYR
1	A7	187	LEU
1	A7	213	PHE
1	A7	231	PRO
1	A8	94	PRO
1	A8	152	GLN
1	A8	184	TYR
1	A8	187	LEU
1	A8	213	PHE
1	A8	231	PRO
1	A9	21	PRO
1	A9	94	PRO
1	A9	152	GLN
1	A9	184	TYR
1	A9	187	LEU
1	A9	213	PHE
1	A9	231	PRO
1	AA	94	PRO
1	AA	152	GLN
1	AA	184	TYR
1	AA	187	LEU
1	AA	213	PHE
1	AA	231	PRO
1	AB	94	PRO
1	AB	152	GLN
1	AB	184	TYR
1	AB	187	LEU
1	AB	213	PHE
1	AB	231	PRO

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Mol	Chain	Res	Type
1	AC	94	PRO
1	AC	152	GLN
1	AC	184	TYR
1	AC	187	LEU
1	AC	213	PHE
1	AC	231	PRO
1	AD	94	PRO
1	AD	152	GLN
1	AD	184	TYR
1	AD	187	LEU
1	AD	213	PHE
1	AD	231	PRO
1	AE	21	PRO
1	AE	94	PRO
1	AE	152	GLN
1	AE	184	TYR
1	AE	187	LEU
1	AE	213	PHE
1	AE	231	PRO
1	AF	21	PRO
1	AF	94	PRO
1	AF	152	GLN
1	AF	184	TYR
1	AF	187	LEU
1	AF	213	PHE
1	AF	231	PRO
1	AG	94	PRO
1	AG	152	GLN
1	AG	184	TYR
1	AG	187	LEU
1	AG	213	PHE
1	AG	231	PRO
1	AH	21	PRO
1	AH	94	PRO
1	AH	152	GLN
1	AH	184	TYR
1	AH	187	LEU
1	AH	213	PHE
1	AH	231	PRO
1	AI	21	PRO
1	AI	94	PRO
1	AI	152	GLN

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Mol	Chain	Res	Type
1	AI	184	TYR
1	AI	187	LEU
1	AI	213	PHE
1	AI	231	PRO
1	AJ	21	PRO
1	AJ	94	PRO
1	AJ	152	GLN
1	AJ	184	TYR
1	AJ	187	LEU
1	AJ	213	PHE
1	AJ	231	PRO
1	AK	21	PRO
1	AK	94	PRO
1	AK	152	GLN
1	AK	184	TYR
1	AK	187	LEU
1	AK	213	PHE
1	AK	231	PRO
1	AL	21	PRO
1	AL	94	PRO
1	AL	152	GLN
1	AL	184	TYR
1	AL	187	LEU
1	AL	213	PHE
1	AL	231	PRO
1	AM	21	PRO
1	AM	94	PRO
1	AM	152	GLN
1	AM	184	TYR
1	AM	187	LEU
1	AM	213	PHE
1	AM	231	PRO
1	AN	21	PRO
1	AN	94	PRO
1	AN	152	GLN
1	AN	184	TYR
1	AN	187	LEU
1	AN	213	PHE
1	AN	231	PRO
1	AO	21	PRO
1	AO	94	PRO
1	AO	152	GLN

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Mol	Chain	Res	Type
1	AO	184	TYR
1	AO	187	LEU
1	AO	213	PHE
1	AO	231	PRO
1	AP	94	PRO
1	AP	152	GLN
1	AP	184	TYR
1	AP	187	LEU
1	AP	213	PHE
1	AP	231	PRO
1	AQ	94	PRO
1	AQ	152	GLN
1	AQ	184	TYR
1	AQ	187	LEU
1	AQ	213	PHE
1	AQ	231	PRO
1	AR	94	PRO
1	AR	152	GLN
1	AR	184	TYR
1	AR	187	LEU
1	AR	213	PHE
1	AR	231	PRO
1	AS	94	PRO
1	AS	152	GLN
1	AS	184	TYR
1	AS	187	LEU
1	AS	213	PHE
1	AS	231	PRO
1	AT	94	PRO
1	AT	152	GLN
1	AT	184	TYR
1	AT	187	LEU
1	AT	213	PHE
1	AT	231	PRO
1	AU	94	PRO
1	AU	152	GLN
1	AU	184	TYR
1	AU	187	LEU
1	AU	213	PHE
1	AU	231	PRO
1	AV	94	PRO
1	AV	152	GLN

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Mol	Chain	Res	Type
1	AV	184	TYR
1	AV	187	LEU
1	AV	213	PHE
1	AV	231	PRO
1	AW	21	PRO
1	AW	94	PRO
1	AW	152	GLN
1	AW	184	TYR
1	AW	187	LEU
1	AW	213	PHE
1	AW	231	PRO
1	AX	94	PRO
1	AX	152	GLN
1	AX	184	TYR
1	AX	187	LEU
1	AX	213	PHE
1	AX	231	PRO
1	AY	21	PRO
1	AY	94	PRO
1	AY	152	GLN
1	AY	184	TYR
1	AY	187	LEU
1	AY	213	PHE
1	AY	231	PRO
1	AZ	21	PRO
1	AZ	94	PRO
1	AZ	152	GLN
1	AZ	184	TYR
1	AZ	187	LEU
1	AZ	213	PHE
1	AZ	231	PRO
1	Aa	94	PRO
1	Aa	152	GLN
1	Aa	184	TYR
1	Aa	187	LEU
1	Aa	213	PHE
1	Aa	231	PRO
1	Ab	94	PRO
1	Ab	152	GLN
1	Ab	184	TYR
1	Ab	187	LEU
1	Ab	213	PHE

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Mol	Chain	Res	Type
1	Ab	231	PRO
1	Ac	21	PRO
1	Ac	94	PRO
1	Ac	152	GLN
1	Ac	184	TYR
1	Ac	187	LEU
1	Ac	213	PHE
1	Ac	231	PRO
1	Ad	94	PRO
1	Ad	152	GLN
1	Ad	184	TYR
1	Ad	187	LEU
1	Ad	213	PHE
1	Ad	231	PRO
1	Ae	21	PRO
1	Ae	94	PRO
1	Ae	152	GLN
1	Ae	184	TYR
1	Ae	187	LEU
1	Ae	213	PHE
1	Ae	231	PRO
1	Af	21	PRO
1	Af	94	PRO
1	Af	152	GLN
1	Af	184	TYR
1	Af	187	LEU
1	Af	213	PHE
1	Af	231	PRO
1	Ag	94	PRO
1	Ag	152	GLN
1	Ag	184	TYR
1	Ag	187	LEU
1	Ag	213	PHE
1	Ag	231	PRO
1	Ah	94	PRO
1	Ah	152	GLN
1	Ah	184	TYR
1	Ah	187	LEU
1	Ah	213	PHE
1	Ah	231	PRO
1	Ai	21	PRO
1	Ai	94	PRO

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Mol	Chain	Res	Type
1	Ai	152	GLN
1	Ai	184	TYR
1	Ai	187	LEU
1	Ai	213	PHE
1	Ai	231	PRO
1	Aj	21	PRO
1	Aj	94	PRO
1	Aj	152	GLN
1	Aj	184	TYR
1	Aj	187	LEU
1	Aj	213	PHE
1	Aj	231	PRO
1	Ak	94	PRO
1	Ak	152	GLN
1	Ak	184	TYR
1	Ak	187	LEU
1	Ak	213	PHE
1	Ak	231	PRO
1	Al	21	PRO
1	Al	94	PRO
1	Al	152	GLN
1	Al	184	TYR
1	Al	187	LEU
1	Al	213	PHE
1	Al	231	PRO
1	Am	21	PRO
1	Am	94	PRO
1	Am	152	GLN
1	Am	184	TYR
1	Am	187	LEU
1	Am	213	PHE
1	Am	231	PRO
1	An	94	PRO
1	An	152	GLN
1	An	184	TYR
1	An	187	LEU
1	An	213	PHE
1	An	231	PRO
1	Ao	94	PRO
1	Ao	152	GLN
1	Ao	184	TYR
1	Ao	187	LEU

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Mol	Chain	Res	Type
1	Ao	213	PHE
1	Ao	231	PRO
1	BA	21	PRO
1	BA	94	PRO
1	BA	152	GLN
1	BA	184	TYR
1	BA	187	LEU
1	BA	213	PHE
1	BA	231	PRO
1	BB	21	PRO
1	BB	94	PRO
1	BB	152	GLN
1	BB	184	TYR
1	BB	187	LEU
1	BB	213	PHE
1	BB	231	PRO
1	BC	94	PRO
1	BC	152	GLN
1	BC	184	TYR
1	BC	187	LEU
1	BC	213	PHE
1	BC	231	PRO
1	BD	94	PRO
1	BD	152	GLN
1	BD	184	TYR
1	BD	187	LEU
1	BD	213	PHE
1	BD	231	PRO
1	BE	94	PRO
1	BE	152	GLN
1	BE	184	TYR
1	BE	187	LEU
1	BE	213	PHE
1	BE	231	PRO
1	BF	94	PRO
1	BF	152	GLN
1	BF	184	TYR
1	BF	187	LEU
1	BF	213	PHE
1	BF	231	PRO
1	BG	94	PRO
1	BG	152	GLN

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Mol	Chain	Res	Type
1	BG	184	TYR
1	BG	187	LEU
1	BG	213	PHE
1	BG	231	PRO
1	BH	94	PRO
1	BH	152	GLN
1	BH	184	TYR
1	BH	187	LEU
1	BH	213	PHE
1	BH	231	PRO
1	BI	21	PRO
1	BI	94	PRO
1	BI	152	GLN
1	BI	184	TYR
1	BI	187	LEU
1	BI	213	PHE
1	BI	231	PRO
2	C0	26	SER
2	C0	89	LYS
2	C0	159	PRO
2	C1	26	SER
2	C1	89	LYS
2	C1	159	PRO
2	C2	26	SER
2	C2	89	LYS
2	C2	159	PRO
2	C3	26	SER
2	C3	159	PRO
2	C4	26	SER
2	C4	89	LYS
2	C4	159	PRO
2	C5	26	SER
2	C5	89	LYS
2	C5	159	PRO
2	C6	26	SER
2	C6	89	LYS
2	C6	159	PRO
2	C7	26	SER
2	C7	89	LYS
2	C7	159	PRO
2	C8	26	SER
2	C8	89	LYS

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Mol	Chain	Res	Type
2	C8	159	PRO
2	C9	26	SER
2	C9	89	LYS
2	C9	159	PRO
2	CA	26	SER
2	CA	89	LYS
2	CA	159	PRO
2	CB	26	SER
2	CB	89	LYS
2	CB	159	PRO
2	CC	26	SER
2	CC	89	LYS
2	CC	159	PRO
2	CD	26	SER
2	CD	89	LYS
2	CD	159	PRO
2	CE	26	SER
2	CE	89	LYS
2	CE	159	PRO
2	CF	26	SER
2	CF	89	LYS
2	CF	159	PRO
2	CG	26	SER
2	CG	89	LYS
2	CG	159	PRO
2	CH	26	SER
2	CH	89	LYS
2	CH	159	PRO
2	CI	26	SER
2	CI	89	LYS
2	CI	159	PRO
2	CJ	26	SER
2	CJ	159	PRO
2	CK	26	SER
2	CK	89	LYS
2	CK	159	PRO
2	CL	26	SER
2	CL	89	LYS
2	CL	159	PRO
2	CM	26	SER
2	CM	89	LYS
2	CM	159	PRO

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Mol	Chain	Res	Type
2	CN	26	SER
2	CN	89	LYS
2	CN	159	PRO
2	CO	26	SER
2	CO	89	LYS
2	CO	159	PRO
2	CP	26	SER
2	CP	89	LYS
2	CP	159	PRO
2	CQ	26	SER
2	CQ	89	LYS
2	CQ	159	PRO
2	CR	26	SER
2	CR	89	LYS
2	CR	159	PRO
2	CS	26	SER
2	CS	89	LYS
2	CS	159	PRO
2	CT	26	SER
2	CT	89	LYS
2	CT	159	PRO
2	CU	26	SER
2	CU	89	LYS
2	CU	159	PRO
2	CV	26	SER
2	CV	89	LYS
2	CV	159	PRO
2	CW	26	SER
2	CW	89	LYS
2	CW	159	PRO
2	CX	26	SER
2	CX	89	LYS
2	CX	159	PRO
2	CY	26	SER
2	CY	89	LYS
2	CY	159	PRO
2	CZ	26	SER
2	CZ	89	LYS
2	CZ	159	PRO
2	Ca	26	SER
2	Ca	89	LYS
2	Ca	159	PRO

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Mol	Chain	Res	Type
2	Cb	26	SER
2	Cb	89	LYS
2	Cb	159	PRO
2	Cc	26	SER
2	Cc	89	LYS
2	Cc	159	PRO
2	Cd	26	SER
2	Cd	89	LYS
2	Cd	159	PRO
2	Ce	26	SER
2	Ce	89	LYS
2	Ce	159	PRO
2	Cf	26	SER
2	Cf	89	LYS
2	Cf	159	PRO
2	Cg	26	SER
2	Cg	89	LYS
2	Cg	159	PRO
2	Ch	26	SER
2	Ch	89	LYS
2	Ch	159	PRO
2	Ci	26	SER
2	Ci	89	LYS
2	Ci	159	PRO
2	Cj	26	SER
2	Cj	89	LYS
2	Cj	159	PRO
2	Ck	26	SER
2	Ck	89	LYS
2	Ck	159	PRO
2	Cl	26	SER
2	Cl	89	LYS
2	Cl	159	PRO
2	Cm	26	SER
2	Cm	89	LYS
2	Cm	159	PRO
2	Cn	26	SER
2	Cn	89	LYS
2	Cn	159	PRO
2	Co	26	SER
2	Co	89	LYS
2	Co	159	PRO

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Mol	Chain	Res	Type
2	Cp	26	SER
2	Cp	89	LYS
2	Cp	159	PRO
2	Cq	26	SER
2	Cq	89	LYS
2	Cq	159	PRO
2	Cr	26	SER
2	Cr	89	LYS
2	Cr	159	PRO
2	Cs	26	SER
2	Cs	89	LYS
2	Cs	159	PRO
2	Ct	26	SER
2	Ct	89	LYS
2	Ct	159	PRO
2	Cu	26	SER
2	Cu	89	LYS
2	Cu	159	PRO
2	Cv	26	SER
2	Cv	89	LYS
2	Cv	159	PRO
2	Cw	26	SER
2	Cw	89	LYS
2	Cw	159	PRO
2	Cx	26	SER
2	Cx	89	LYS
2	Cx	159	PRO
3	D0	60	PRO
3	D0	174	ALA
3	D0	223	PRO
3	D1	60	PRO
3	D1	174	ALA
3	D1	223	PRO
3	D2	60	PRO
3	D2	174	ALA
3	D2	223	PRO
3	D3	60	PRO
3	D3	174	ALA
3	D3	223	PRO
3	D4	60	PRO
3	D4	174	ALA
3	D4	223	PRO

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Mol	Chain	Res	Type
3	D5	60	PRO
3	D5	174	ALA
3	D5	223	PRO
3	D6	60	PRO
3	D6	174	ALA
3	D6	223	PRO
3	D7	60	PRO
3	D7	174	ALA
3	D7	223	PRO
3	D8	60	PRO
3	D8	174	ALA
3	D8	223	PRO
3	D9	60	PRO
3	D9	174	ALA
3	D9	223	PRO
3	DA	60	PRO
3	DA	174	ALA
3	DA	223	PRO
3	DB	60	PRO
3	DB	174	ALA
3	DB	223	PRO
3	DC	60	PRO
3	DC	174	ALA
3	DC	223	PRO
3	DD	60	PRO
3	DD	174	ALA
3	DD	223	PRO
3	DE	60	PRO
3	DE	174	ALA
3	DE	223	PRO
3	DF	60	PRO
3	DF	174	ALA
3	DF	223	PRO
3	DG	60	PRO
3	DG	174	ALA
3	DG	223	PRO
3	DH	60	PRO
3	DH	174	ALA
3	DH	223	PRO
3	DI	60	PRO
3	DI	174	ALA
3	DI	223	PRO

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Mol	Chain	Res	Type
3	DJ	60	PRO
3	DJ	174	ALA
3	DJ	223	PRO
3	DK	60	PRO
3	DK	174	ALA
3	DK	223	PRO
3	DL	60	PRO
3	DL	174	ALA
3	DL	223	PRO
3	DM	60	PRO
3	DM	174	ALA
3	DM	223	PRO
3	DN	60	PRO
3	DN	174	ALA
3	DN	223	PRO
3	DO	60	PRO
3	DO	174	ALA
3	DO	223	PRO
3	DP	60	PRO
3	DP	174	ALA
3	DP	223	PRO
3	DQ	60	PRO
3	DQ	174	ALA
3	DQ	223	PRO
3	DR	60	PRO
3	DR	174	ALA
3	DR	223	PRO
3	DS	60	PRO
3	DS	174	ALA
3	DS	223	PRO
3	DT	60	PRO
3	DT	174	ALA
3	DT	223	PRO
3	DU	60	PRO
3	DU	174	ALA
3	DU	223	PRO
3	DV	60	PRO
3	DV	174	ALA
3	DV	223	PRO
3	DW	60	PRO
3	DW	174	ALA
3	DW	223	PRO

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Mol	Chain	Res	Type
3	DX	60	PRO
3	DX	174	ALA
3	DX	223	PRO
3	DY	60	PRO
3	DY	174	ALA
3	DY	223	PRO
3	DZ	60	PRO
3	DZ	174	ALA
3	DZ	223	PRO
3	Da	60	PRO
3	Da	174	ALA
3	Da	223	PRO
3	Db	60	PRO
3	Db	174	ALA
3	Db	223	PRO
3	Dc	60	PRO
3	Dc	174	ALA
3	Dc	223	PRO
3	Dd	60	PRO
3	Dd	174	ALA
3	Dd	223	PRO
3	De	60	PRO
3	De	174	ALA
3	De	223	PRO
3	Df	60	PRO
3	Df	174	ALA
3	Df	223	PRO
3	Dg	60	PRO
3	Dg	174	ALA
3	Dg	223	PRO
3	Dh	60	PRO
3	Dh	174	ALA
3	Dh	223	PRO
3	Di	60	PRO
3	Di	174	ALA
3	Di	223	PRO
3	Dj	60	PRO
3	Dj	174	ALA
3	Dj	223	PRO
3	Dk	60	PRO
3	Dk	174	ALA
3	Dk	223	PRO

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Mol	Chain	Res	Type
3	Dl	60	PRO
3	Dl	174	ALA
3	Dl	223	PRO
3	Dm	60	PRO
3	Dm	174	ALA
3	Dm	223	PRO
3	Dn	60	PRO
3	Dn	174	ALA
3	Dn	223	PRO
3	Do	60	PRO
3	Do	174	ALA
3	Do	223	PRO
3	Dp	60	PRO
3	Dp	174	ALA
3	Dp	223	PRO
3	Dq	60	PRO
3	Dq	174	ALA
3	Dq	223	PRO
3	Dr	60	PRO
3	Dr	174	ALA
3	Dr	223	PRO
3	Ds	60	PRO
3	Ds	174	ALA
3	Ds	223	PRO
3	EA	60	PRO
3	EA	174	ALA
3	EA	223	PRO
3	EB	60	PRO
3	EB	174	ALA
3	EB	223	PRO
3	EC	60	PRO
3	EC	174	ALA
3	EC	223	PRO
3	ED	60	PRO
3	ED	174	ALA
3	ED	223	PRO
3	EE	60	PRO
3	EE	174	ALA
3	EE	223	PRO
4	F0	29	GLN
4	F1	29	GLN
4	F2	29	GLN

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Mol	Chain	Res	Type
4	F3	29	GLN
4	F4	29	GLN
4	F5	29	GLN
4	F6	29	GLN
4	F7	29	GLN
4	F8	29	GLN
4	F9	29	GLN
4	FA	29	GLN
4	FB	29	GLN
4	FC	29	GLN
4	FD	29	GLN
4	FE	29	GLN
4	FF	29	GLN
4	FG	29	GLN
4	FH	29	GLN
4	FI	29	GLN
4	FJ	29	GLN
4	FK	29	GLN
4	FL	29	GLN
4	FM	29	GLN
4	FN	29	GLN
4	FO	29	GLN
4	FP	29	GLN
4	FQ	29	GLN
4	FR	29	GLN
4	FS	29	GLN
4	FT	29	GLN
4	FU	29	GLN
4	FV	29	GLN
4	FW	29	GLN
4	FX	29	GLN
4	FY	29	GLN
4	FZ	29	GLN
4	Fa	29	GLN
4	Fb	29	GLN
4	Fc	29	GLN
4	Fd	29	GLN
4	Fe	29	GLN
4	Ff	29	GLN
4	Fg	29	GLN
4	Fh	29	GLN
4	Fi	29	GLN

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Mol	Chain	Res	Type
4	Fj	29	GLN
4	Fk	29	GLN
4	Fl	29	GLN
4	Fm	29	GLN
4	Fn	29	GLN
4	Fo	29	GLN
4	Fp	29	GLN
4	Fq	29	GLN
4	Fr	29	GLN
4	Fs	29	GLN
4	Ft	29	GLN
4	Fu	29	GLN
4	Fv	29	GLN
4	Fw	29	GLN
4	Fx	29	GLN
1	A0	9	GLU
1	A0	65	GLN
1	A1	9	GLU
1	A1	65	GLN
1	A2	9	GLU
1	A2	65	GLN
1	A3	9	GLU
1	A3	65	GLN
1	A4	9	GLU
1	A4	65	GLN
1	A5	9	GLU
1	A5	65	GLN
1	A6	9	GLU
1	A6	65	GLN
1	A7	9	GLU
1	A7	65	GLN
1	A8	9	GLU
1	A8	65	GLN
1	A9	9	GLU
1	A9	65	GLN
1	AA	9	GLU
1	AA	65	GLN
1	AB	9	GLU
1	AB	65	GLN
1	AC	9	GLU
1	AC	65	GLN
1	AD	9	GLU

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Mol	Chain	Res	Type
1	AD	65	GLN
1	AE	9	GLU
1	AE	65	GLN
1	AF	9	GLU
1	AF	65	GLN
1	AG	9	GLU
1	AG	65	GLN
1	AH	9	GLU
1	AH	65	GLN
1	AI	9	GLU
1	AI	65	GLN
1	AJ	9	GLU
1	AK	9	GLU
1	AK	65	GLN
1	AL	9	GLU
1	AL	65	GLN
1	AM	9	GLU
1	AM	65	GLN
1	AN	9	GLU
1	AN	65	GLN
1	AO	9	GLU
1	AO	65	GLN
1	AP	9	GLU
1	AP	65	GLN
1	AQ	9	GLU
1	AQ	65	GLN
1	AR	9	GLU
1	AR	65	GLN
1	AS	9	GLU
1	AS	65	GLN
1	AT	9	GLU
1	AT	65	GLN
1	AU	9	GLU
1	AU	65	GLN
1	AV	9	GLU
1	AV	65	GLN
1	AW	9	GLU
1	AW	65	GLN
1	AX	9	GLU
1	AX	65	GLN
1	AY	9	GLU
1	AY	65	GLN

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Mol	Chain	Res	Type
1	AZ	9	GLU
1	AZ	65	GLN
1	Aa	9	GLU
1	Aa	65	GLN
1	Ab	9	GLU
1	Ab	65	GLN
1	Ac	9	GLU
1	Ac	65	GLN
1	Ad	9	GLU
1	Ad	65	GLN
1	Ae	9	GLU
1	Ae	65	GLN
1	Af	9	GLU
1	Af	65	GLN
1	Ag	9	GLU
1	Ag	65	GLN
1	Ah	9	GLU
1	Ah	65	GLN
1	Ai	9	GLU
1	Ai	65	GLN
1	Aj	9	GLU
1	Aj	65	GLN
1	Ak	9	GLU
1	Ak	65	GLN
1	Al	9	GLU
1	Al	65	GLN
1	Am	9	GLU
1	Am	65	GLN
1	An	9	GLU
1	An	65	GLN
1	Ao	9	GLU
1	BA	9	GLU
1	BA	65	GLN
1	BB	9	GLU
1	BB	65	GLN
1	BC	9	GLU
1	BC	65	GLN
1	BD	9	GLU
1	BD	65	GLN
1	BE	9	GLU
1	BE	65	GLN
1	BF	9	GLU

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Mol	Chain	Res	Type
1	BF	65	GLN
1	BG	9	GLU
1	BG	65	GLN
1	BH	9	GLU
1	BH	65	GLN
1	BI	9	GLU
1	BI	65	GLN
2	C0	58	LEU
2	C0	86	ASP
2	C0	149	ALA
2	C1	58	LEU
2	C1	86	ASP
2	C1	149	ALA
2	C2	58	LEU
2	C2	86	ASP
2	C2	149	ALA
2	C3	58	LEU
2	C3	86	ASP
2	C3	89	LYS
2	C3	149	ALA
2	C4	58	LEU
2	C4	86	ASP
2	C4	149	ALA
2	C5	58	LEU
2	C5	86	ASP
2	C5	149	ALA
2	C6	58	LEU
2	C6	86	ASP
2	C6	149	ALA
2	C7	58	LEU
2	C7	86	ASP
2	C7	149	ALA
2	C8	58	LEU
2	C8	86	ASP
2	C8	149	ALA
2	C9	58	LEU
2	C9	86	ASP
2	C9	149	ALA
2	CA	58	LEU
2	CA	86	ASP
2	CA	149	ALA
2	CB	58	LEU

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Mol	Chain	Res	Type
2	CB	86	ASP
2	CB	149	ALA
2	CC	58	LEU
2	CC	86	ASP
2	CC	149	ALA
2	CD	58	LEU
2	CD	86	ASP
2	CD	149	ALA
2	CE	58	LEU
2	CE	86	ASP
2	CE	149	ALA
2	CF	58	LEU
2	CF	86	ASP
2	CF	149	ALA
2	CG	58	LEU
2	CG	86	ASP
2	CG	149	ALA
2	CH	58	LEU
2	CH	86	ASP
2	CH	149	ALA
2	CI	58	LEU
2	CI	86	ASP
2	CI	149	ALA
2	CJ	58	LEU
2	CJ	86	ASP
2	CJ	89	LYS
2	CJ	149	ALA
2	CK	58	LEU
2	CK	86	ASP
2	CK	149	ALA
2	CL	58	LEU
2	CL	86	ASP
2	CL	149	ALA
2	CM	58	LEU
2	CM	86	ASP
2	CM	149	ALA
2	CN	58	LEU
2	CN	86	ASP
2	CN	149	ALA
2	CO	58	LEU
2	CO	86	ASP
2	CO	149	ALA

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Mol	Chain	Res	Type
2	CP	58	LEU
2	CP	86	ASP
2	CP	149	ALA
2	CQ	58	LEU
2	CQ	86	ASP
2	CQ	149	ALA
2	CR	58	LEU
2	CR	86	ASP
2	CR	149	ALA
2	CS	58	LEU
2	CS	86	ASP
2	CS	149	ALA
2	CT	58	LEU
2	CT	86	ASP
2	CT	149	ALA
2	CU	58	LEU
2	CU	86	ASP
2	CU	149	ALA
2	CV	58	LEU
2	CV	86	ASP
2	CV	149	ALA
2	CW	58	LEU
2	CW	86	ASP
2	CW	149	ALA
2	CX	58	LEU
2	CX	86	ASP
2	CX	149	ALA
2	CY	58	LEU
2	CY	86	ASP
2	CY	149	ALA
2	CZ	58	LEU
2	CZ	86	ASP
2	CZ	149	ALA
2	Ca	58	LEU
2	Ca	86	ASP
2	Ca	149	ALA
2	Cb	58	LEU
2	Cb	86	ASP
2	Cb	149	ALA
2	Cc	58	LEU
2	Cc	86	ASP
2	Cc	149	ALA

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Mol	Chain	Res	Type
2	Cd	58	LEU
2	Cd	86	ASP
2	Cd	149	ALA
2	Ce	58	LEU
2	Ce	86	ASP
2	Ce	149	ALA
2	Cf	58	LEU
2	Cf	86	ASP
2	Cf	149	ALA
2	Cg	58	LEU
2	Cg	86	ASP
2	Cg	149	ALA
2	Ch	58	LEU
2	Ch	86	ASP
2	Ch	149	ALA
2	Ci	58	LEU
2	Ci	86	ASP
2	Ci	149	ALA
2	Cj	58	LEU
2	Cj	86	ASP
2	Cj	149	ALA
2	Ck	58	LEU
2	Ck	86	ASP
2	Ck	149	ALA
2	Cl	58	LEU
2	Cl	86	ASP
2	Cl	149	ALA
2	Cm	58	LEU
2	Cm	86	ASP
2	Cm	149	ALA
2	Cn	58	LEU
2	Cn	86	ASP
2	Cn	149	ALA
2	Co	58	LEU
2	Co	86	ASP
2	Co	149	ALA
2	Cp	58	LEU
2	Cp	86	ASP
2	Cp	149	ALA
2	Cq	58	LEU
2	Cq	86	ASP
2	Cq	149	ALA

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Mol	Chain	Res	Type
2	Cr	58	LEU
2	Cr	86	ASP
2	Cr	149	ALA
2	Cs	58	LEU
2	Cs	86	ASP
2	Cs	149	ALA
2	Ct	58	LEU
2	Ct	86	ASP
2	Ct	149	ALA
2	Cu	58	LEU
2	Cu	86	ASP
2	Cu	149	ALA
2	Cv	58	LEU
2	Cv	86	ASP
2	Cv	149	ALA
2	Cw	58	LEU
2	Cw	86	ASP
2	Cw	149	ALA
2	Cx	58	LEU
2	Cx	86	ASP
2	Cx	149	ALA
3	D0	11	SER
3	D0	200	SER
3	D0	218	HIS
3	D1	11	SER
3	D1	200	SER
3	D1	218	HIS
3	D2	11	SER
3	D2	200	SER
3	D2	218	HIS
3	D3	11	SER
3	D3	200	SER
3	D3	218	HIS
3	D4	11	SER
3	D4	200	SER
3	D4	218	HIS
3	D5	11	SER
3	D5	200	SER
3	D5	218	HIS
3	D6	11	SER
3	D6	200	SER
3	D6	218	HIS

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Mol	Chain	Res	Type
3	D7	11	SER
3	D7	200	SER
3	D7	218	HIS
3	D8	11	SER
3	D8	200	SER
3	D8	218	HIS
3	D9	11	SER
3	D9	200	SER
3	D9	218	HIS
3	DA	11	SER
3	DA	200	SER
3	DA	218	HIS
3	DB	11	SER
3	DB	200	SER
3	DB	218	HIS
3	DC	11	SER
3	DC	200	SER
3	DC	218	HIS
3	DD	11	SER
3	DD	200	SER
3	DD	218	HIS
3	DE	11	SER
3	DE	200	SER
3	DE	218	HIS
3	DF	11	SER
3	DF	200	SER
3	DF	218	HIS
3	DG	11	SER
3	DG	200	SER
3	DG	218	HIS
3	DH	11	SER
3	DH	200	SER
3	DH	218	HIS
3	DI	11	SER
3	DI	200	SER
3	DI	218	HIS
3	DJ	11	SER
3	DJ	200	SER
3	DJ	218	HIS
3	DK	11	SER
3	DK	200	SER
3	DK	218	HIS

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Mol	Chain	Res	Type
3	DL	11	SER
3	DL	200	SER
3	DL	218	HIS
3	DM	11	SER
3	DM	200	SER
3	DM	218	HIS
3	DN	11	SER
3	DN	200	SER
3	DN	218	HIS
3	DO	11	SER
3	DO	200	SER
3	DO	218	HIS
3	DP	11	SER
3	DP	200	SER
3	DP	218	HIS
3	DQ	11	SER
3	DQ	200	SER
3	DQ	218	HIS
3	DR	11	SER
3	DR	200	SER
3	DR	218	HIS
3	DS	11	SER
3	DS	200	SER
3	DS	218	HIS
3	DT	11	SER
3	DT	200	SER
3	DT	218	HIS
3	DU	11	SER
3	DU	200	SER
3	DU	218	HIS
3	DV	11	SER
3	DV	200	SER
3	DV	218	HIS
3	DW	11	SER
3	DW	200	SER
3	DW	218	HIS
3	DX	11	SER
3	DX	200	SER
3	DX	218	HIS
3	DY	11	SER
3	DY	200	SER
3	DY	218	HIS

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Mol	Chain	Res	Type
3	DZ	11	SER
3	DZ	200	SER
3	DZ	218	HIS
3	Da	11	SER
3	Da	200	SER
3	Da	218	HIS
3	Db	11	SER
3	Db	200	SER
3	Db	218	HIS
3	Dc	11	SER
3	Dc	200	SER
3	Dc	218	HIS
3	Dd	11	SER
3	Dd	200	SER
3	Dd	218	HIS
3	De	11	SER
3	De	200	SER
3	De	218	HIS
3	Df	11	SER
3	Df	200	SER
3	Df	218	HIS
3	Dg	11	SER
3	Dg	200	SER
3	Dg	218	HIS
3	Dh	11	SER
3	Dh	200	SER
3	Dh	218	HIS
3	Di	11	SER
3	Di	200	SER
3	Di	218	HIS
3	Dj	11	SER
3	Dj	200	SER
3	Dj	218	HIS
3	Dk	11	SER
3	Dk	200	SER
3	Dk	218	HIS
3	Dl	11	SER
3	Dl	200	SER
3	Dl	218	HIS
3	Dm	11	SER
3	Dm	200	SER
3	Dm	218	HIS

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Mol	Chain	Res	Type
3	Dn	11	SER
3	Dn	200	SER
3	Dn	218	HIS
3	Do	11	SER
3	Do	200	SER
3	Do	218	HIS
3	Dp	11	SER
3	Dp	200	SER
3	Dp	218	HIS
3	Dq	11	SER
3	Dq	200	SER
3	Dq	218	HIS
3	Dr	11	SER
3	Dr	200	SER
3	Dr	218	HIS
3	Ds	11	SER
3	Ds	200	SER
3	Ds	218	HIS
3	EA	11	SER
3	EA	200	SER
3	EA	218	HIS
3	EB	11	SER
3	EB	200	SER
3	EB	218	HIS
3	EC	11	SER
3	EC	200	SER
3	EC	218	HIS
3	ED	11	SER
3	ED	200	SER
3	ED	218	HIS
3	EE	11	SER
3	EE	200	SER
3	EE	218	HIS
1	A0	8	GLY
1	A0	14	GLU
1	A0	19	LEU
1	A0	112	PRO
1	A1	8	GLY
1	A1	14	GLU
1	A1	19	LEU
1	A1	112	PRO
1	A2	8	GLY

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Mol	Chain	Res	Type
1	A2	14	GLU
1	A2	19	LEU
1	A2	112	PRO
1	A3	8	GLY
1	A3	14	GLU
1	A3	19	LEU
1	A3	112	PRO
1	A4	8	GLY
1	A4	14	GLU
1	A4	19	LEU
1	A4	112	PRO
1	A5	8	GLY
1	A5	14	GLU
1	A5	19	LEU
1	A5	112	PRO
1	A6	8	GLY
1	A6	14	GLU
1	A6	19	LEU
1	A6	112	PRO
1	A7	8	GLY
1	A7	14	GLU
1	A7	19	LEU
1	A7	112	PRO
1	A8	8	GLY
1	A8	14	GLU
1	A8	19	LEU
1	A8	112	PRO
1	A9	8	GLY
1	A9	14	GLU
1	A9	19	LEU
1	A9	112	PRO
1	AA	8	GLY
1	AA	14	GLU
1	AA	19	LEU
1	AA	112	PRO
1	AB	8	GLY
1	AB	14	GLU
1	AB	19	LEU
1	AB	112	PRO
1	AC	8	GLY
1	AC	14	GLU
1	AC	19	LEU

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Mol	Chain	Res	Type
1	AC	112	PRO
1	AD	8	GLY
1	AD	14	GLU
1	AD	19	LEU
1	AD	112	PRO
1	AE	8	GLY
1	AE	14	GLU
1	AE	19	LEU
1	AE	112	PRO
1	AF	8	GLY
1	AF	14	GLU
1	AF	19	LEU
1	AF	112	PRO
1	AG	8	GLY
1	AG	14	GLU
1	AG	19	LEU
1	AG	112	PRO
1	AH	8	GLY
1	AH	14	GLU
1	AH	19	LEU
1	AH	112	PRO
1	AI	8	GLY
1	AI	14	GLU
1	AI	19	LEU
1	AI	112	PRO
1	AJ	8	GLY
1	AJ	14	GLU
1	AJ	19	LEU
1	AJ	65	GLN
1	AJ	112	PRO
1	AK	8	GLY
1	AK	14	GLU
1	AK	19	LEU
1	AK	112	PRO
1	AL	8	GLY
1	AL	14	GLU
1	AL	19	LEU
1	AL	112	PRO
1	AM	8	GLY
1	AM	14	GLU
1	AM	19	LEU
1	AM	112	PRO

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Mol	Chain	Res	Type
1	AN	8	GLY
1	AN	14	GLU
1	AN	19	LEU
1	AN	112	PRO
1	AO	8	GLY
1	AO	14	GLU
1	AO	19	LEU
1	AO	112	PRO
1	AP	8	GLY
1	AP	14	GLU
1	AP	19	LEU
1	AP	112	PRO
1	AQ	8	GLY
1	AQ	14	GLU
1	AQ	19	LEU
1	AQ	112	PRO
1	AR	8	GLY
1	AR	14	GLU
1	AR	19	LEU
1	AR	112	PRO
1	AS	8	GLY
1	AS	14	GLU
1	AS	19	LEU
1	AS	112	PRO
1	AT	8	GLY
1	AT	14	GLU
1	AT	19	LEU
1	AT	112	PRO
1	AU	8	GLY
1	AU	14	GLU
1	AU	19	LEU
1	AU	112	PRO
1	AV	8	GLY
1	AV	14	GLU
1	AV	19	LEU
1	AV	112	PRO
1	AW	8	GLY
1	AW	14	GLU
1	AW	19	LEU
1	AW	112	PRO
1	AX	8	GLY
1	AX	14	GLU

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Mol	Chain	Res	Type
1	AX	19	LEU
1	AX	112	PRO
1	AY	8	GLY
1	AY	14	GLU
1	AY	19	LEU
1	AY	112	PRO
1	AZ	8	GLY
1	AZ	14	GLU
1	AZ	19	LEU
1	AZ	112	PRO
1	Aa	8	GLY
1	Aa	14	GLU
1	Aa	19	LEU
1	Aa	112	PRO
1	Ab	8	GLY
1	Ab	14	GLU
1	Ab	19	LEU
1	Ab	112	PRO
1	Ac	8	GLY
1	Ac	14	GLU
1	Ac	19	LEU
1	Ac	112	PRO
1	Ad	8	GLY
1	Ad	14	GLU
1	Ad	19	LEU
1	Ad	112	PRO
1	Ae	8	GLY
1	Ae	14	GLU
1	Ae	19	LEU
1	Ae	112	PRO
1	Af	8	GLY
1	Af	14	GLU
1	Af	19	LEU
1	Af	112	PRO
1	Ag	8	GLY
1	Ag	14	GLU
1	Ag	19	LEU
1	Ag	112	PRO
1	Ah	8	GLY
1	Ah	14	GLU
1	Ah	19	LEU
1	Ah	112	PRO

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Mol	Chain	Res	Type
1	Ai	8	GLY
1	Ai	14	GLU
1	Ai	19	LEU
1	Ai	112	PRO
1	Aj	8	GLY
1	Aj	14	GLU
1	Aj	19	LEU
1	Aj	112	PRO
1	Ak	8	GLY
1	Ak	14	GLU
1	Ak	19	LEU
1	Ak	112	PRO
1	Al	8	GLY
1	Al	14	GLU
1	Al	19	LEU
1	Al	112	PRO
1	Am	8	GLY
1	Am	14	GLU
1	Am	19	LEU
1	Am	112	PRO
1	An	8	GLY
1	An	14	GLU
1	An	19	LEU
1	An	112	PRO
1	Ao	8	GLY
1	Ao	14	GLU
1	Ao	19	LEU
1	Ao	65	GLN
1	Ao	112	PRO
1	BA	8	GLY
1	BA	14	GLU
1	BA	19	LEU
1	BA	112	PRO
1	BB	8	GLY
1	BB	14	GLU
1	BB	19	LEU
1	BB	112	PRO
1	BC	8	GLY
1	BC	14	GLU
1	BC	19	LEU
1	BC	112	PRO
1	BD	8	GLY

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Mol	Chain	Res	Type
1	BD	14	GLU
1	BD	19	LEU
1	BD	112	PRO
1	BE	8	GLY
1	BE	14	GLU
1	BE	19	LEU
1	BE	112	PRO
1	BF	8	GLY
1	BF	14	GLU
1	BF	19	LEU
1	BF	112	PRO
1	BG	8	GLY
1	BG	14	GLU
1	BG	19	LEU
1	BG	112	PRO
1	BH	8	GLY
1	BH	14	GLU
1	BH	19	LEU
1	BH	112	PRO
1	BI	8	GLY
1	BI	14	GLU
1	BI	19	LEU
1	BI	112	PRO
3	D0	61	TYR
3	D0	131	ALA
3	D1	61	TYR
3	D1	131	ALA
3	D2	61	TYR
3	D2	131	ALA
3	D3	61	TYR
3	D3	131	ALA
3	D4	61	TYR
3	D4	131	ALA
3	D5	61	TYR
3	D5	131	ALA
3	D6	61	TYR
3	D6	131	ALA
3	D7	61	TYR
3	D7	131	ALA
3	D8	61	TYR
3	D8	131	ALA
3	D9	61	TYR

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Mol	Chain	Res	Type
3	D9	131	ALA
3	DA	61	TYR
3	DA	131	ALA
3	DB	131	ALA
3	DC	61	TYR
3	DC	131	ALA
3	DD	61	TYR
3	DD	131	ALA
3	DE	61	TYR
3	DE	131	ALA
3	DF	61	TYR
3	DF	131	ALA
3	DG	61	TYR
3	DG	131	ALA
3	DH	61	TYR
3	DH	131	ALA
3	DI	61	TYR
3	DI	131	ALA
3	DJ	61	TYR
3	DJ	131	ALA
3	DK	61	TYR
3	DK	131	ALA
3	DL	61	TYR
3	DL	131	ALA
3	DM	61	TYR
3	DM	131	ALA
3	DN	61	TYR
3	DN	131	ALA
3	DO	131	ALA
3	DP	61	TYR
3	DP	131	ALA
3	DQ	61	TYR
3	DQ	131	ALA
3	DR	61	TYR
3	DR	131	ALA
3	DS	61	TYR
3	DS	131	ALA
3	DT	61	TYR
3	DT	131	ALA
3	DU	61	TYR
3	DU	131	ALA
3	DV	61	TYR

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Mol	Chain	Res	Type
3	DV	131	ALA
3	DW	61	TYR
3	DW	131	ALA
3	DX	61	TYR
3	DX	131	ALA
3	DY	61	TYR
3	DY	131	ALA
3	DZ	61	TYR
3	DZ	131	ALA
3	Da	61	TYR
3	Da	131	ALA
3	Db	61	TYR
3	Db	131	ALA
3	Dc	61	TYR
3	Dc	131	ALA
3	Dd	61	TYR
3	Dd	131	ALA
3	De	61	TYR
3	De	131	ALA
3	Df	61	TYR
3	Df	131	ALA
3	Dg	61	TYR
3	Dg	131	ALA
3	Dh	61	TYR
3	Dh	131	ALA
3	Di	61	TYR
3	Di	131	ALA
3	Dj	61	TYR
3	Dj	131	ALA
3	Dk	61	TYR
3	Dk	131	ALA
3	Dl	61	TYR
3	Dl	131	ALA
3	Dm	61	TYR
3	Dm	131	ALA
3	Dn	61	TYR
3	Dn	131	ALA
3	Do	61	TYR
3	Do	131	ALA
3	Dp	61	TYR
3	Dp	131	ALA
3	Dq	61	TYR

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Mol	Chain	Res	Type
3	Dq	131	ALA
3	Dr	61	TYR
3	Dr	131	ALA
3	Ds	61	TYR
3	Ds	131	ALA
3	EA	61	TYR
3	EA	131	ALA
3	EB	61	TYR
3	EB	131	ALA
3	EC	61	TYR
3	EC	131	ALA
3	ED	61	TYR
3	ED	131	ALA
3	EE	61	TYR
3	EE	131	ALA
1	A0	188	PRO
1	A0	221	PRO
1	A1	188	PRO
1	A1	221	PRO
1	A2	188	PRO
1	A2	221	PRO
1	A3	188	PRO
1	A3	221	PRO
1	A4	188	PRO
1	A4	221	PRO
1	A5	188	PRO
1	A5	221	PRO
1	A6	188	PRO
1	A6	221	PRO
1	A7	188	PRO
1	A7	221	PRO
1	A8	188	PRO
1	A8	221	PRO
1	A9	188	PRO
1	A9	221	PRO
1	AA	188	PRO
1	AA	221	PRO
1	AB	188	PRO
1	AB	221	PRO
1	AC	188	PRO
1	AC	221	PRO
1	AD	188	PRO

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Mol	Chain	Res	Type
1	AD	221	PRO
1	AE	188	PRO
1	AF	188	PRO
1	AF	221	PRO
1	AG	188	PRO
1	AG	221	PRO
1	AH	188	PRO
1	AH	221	PRO
1	AI	188	PRO
1	AI	221	PRO
1	AJ	188	PRO
1	AJ	221	PRO
1	AK	188	PRO
1	AK	221	PRO
1	AL	188	PRO
1	AL	221	PRO
1	AM	188	PRO
1	AM	221	PRO
1	AN	188	PRO
1	AN	221	PRO
1	AO	188	PRO
1	AO	221	PRO
1	AP	188	PRO
1	AP	221	PRO
1	AQ	188	PRO
1	AQ	221	PRO
1	AR	188	PRO
1	AR	221	PRO
1	AS	188	PRO
1	AS	221	PRO
1	AT	188	PRO
1	AT	221	PRO
1	AU	188	PRO
1	AU	221	PRO
1	AV	188	PRO
1	AV	221	PRO
1	AW	188	PRO
1	AX	188	PRO
1	AX	221	PRO
1	AY	188	PRO
1	AY	221	PRO
1	AZ	188	PRO

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Mol	Chain	Res	Type
1	AZ	221	PRO
1	Aa	188	PRO
1	Aa	221	PRO
1	Ab	188	PRO
1	Ab	221	PRO
1	Ac	188	PRO
1	Ac	221	PRO
1	Ad	188	PRO
1	Ad	221	PRO
1	Ae	188	PRO
1	Ae	221	PRO
1	Af	188	PRO
1	Af	221	PRO
1	Ag	188	PRO
1	Ag	221	PRO
1	Ah	188	PRO
1	Ah	221	PRO
1	Ai	188	PRO
1	Ai	221	PRO
1	Aj	188	PRO
1	Aj	221	PRO
1	Ak	188	PRO
1	Ak	221	PRO
1	Al	188	PRO
1	Am	188	PRO
1	Am	221	PRO
1	An	188	PRO
1	An	221	PRO
1	Ao	188	PRO
1	Ao	221	PRO
1	BA	188	PRO
1	BA	221	PRO
1	BB	188	PRO
1	BB	221	PRO
1	BC	188	PRO
1	BC	221	PRO
1	BD	188	PRO
1	BD	221	PRO
1	BE	188	PRO
1	BE	221	PRO
1	BF	188	PRO
1	BF	221	PRO

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Mol	Chain	Res	Type
1	BG	188	PRO
1	BG	221	PRO
1	BH	188	PRO
1	BH	221	PRO
1	BI	188	PRO
1	BI	221	PRO
2	CF	196	ILE
2	CI	196	ILE
2	CU	196	ILE
2	Ce	196	ILE
3	DB	61	TYR
3	DO	61	TYR
1	AE	221	PRO
1	AW	221	PRO
1	AI	221	PRO
2	C0	196	ILE
2	C1	196	ILE
2	C2	196	ILE
2	C3	196	ILE
2	C4	196	ILE
2	C5	196	ILE
2	C6	196	ILE
2	C7	196	ILE
2	C8	196	ILE
2	C9	196	ILE
2	CA	196	ILE
2	CB	196	ILE
2	CC	196	ILE
2	CD	196	ILE
2	CE	196	ILE
2	CG	196	ILE
2	CH	196	ILE
2	CJ	196	ILE
2	CK	196	ILE
2	CL	196	ILE
2	CM	196	ILE
2	CN	196	ILE
2	CO	196	ILE
2	CP	196	ILE
2	CQ	196	ILE
2	CR	196	ILE
2	CS	196	ILE

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Mol	Chain	Res	Type
2	CT	196	ILE
2	CV	196	ILE
2	CW	196	ILE
2	CX	196	ILE
2	CY	196	ILE
2	CZ	196	ILE
2	Ca	196	ILE
2	Cb	196	ILE
2	Cc	196	ILE
2	Cd	196	ILE
2	Cf	196	ILE
2	Cg	196	ILE
2	Ch	196	ILE
2	Ci	196	ILE
2	Cj	196	ILE
2	Ck	196	ILE
2	Cl	196	ILE
2	Cm	196	ILE
2	Cn	196	ILE
2	Co	196	ILE
2	Cp	196	ILE
2	Cq	196	ILE
2	Cr	196	ILE
2	Cs	196	ILE
2	Ct	196	ILE
2	Cu	196	ILE
2	Cv	196	ILE
2	Cw	196	ILE
2	Cx	196	ILE
4	F0	21	ILE
4	F1	21	ILE
4	F2	21	ILE
4	F3	21	ILE
4	F4	21	ILE
4	F5	21	ILE
4	F6	21	ILE
4	F7	21	ILE
4	F8	21	ILE
4	F9	21	ILE
4	FA	21	ILE
4	FB	21	ILE
4	FC	21	ILE

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Mol	Chain	Res	Type
4	FD	21	ILE
4	FE	21	ILE
4	FF	21	ILE
4	FG	21	ILE
4	FH	21	ILE
4	FI	21	ILE
4	FJ	21	ILE
4	FK	21	ILE
4	FL	21	ILE
4	FM	21	ILE
4	FN	21	ILE
4	FO	21	ILE
4	FP	21	ILE
4	FQ	21	ILE
4	FR	21	ILE
4	FS	21	ILE
4	FT	21	ILE
4	FU	21	ILE
4	FV	21	ILE
4	FW	21	ILE
4	FX	21	ILE
4	FY	21	ILE
4	FZ	21	ILE
4	Fa	21	ILE
4	Fb	21	ILE
4	Fc	21	ILE
4	Fd	21	ILE
4	Fe	21	ILE
4	Ff	21	ILE
4	Fg	21	ILE
4	Fh	21	ILE
4	Fi	21	ILE
4	Fj	21	ILE
4	Fk	21	ILE
4	Fl	21	ILE
4	Fm	21	ILE
4	Fn	21	ILE
4	Fo	21	ILE
4	Fp	21	ILE
4	Fq	21	ILE
4	Fr	21	ILE
4	Fs	21	ILE

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Mol	Chain	Res	Type
4	Ft	21	ILE
4	Fu	21	ILE
4	Fv	21	ILE
4	Fw	21	ILE
4	Fx	21	ILE
1	A9	30	VAL
1	AB	30	VAL
1	AC	30	VAL
1	AN	30	VAL
1	AT	30	VAL
1	AY	30	VAL
1	Aa	30	VAL
1	Ac	30	VAL
1	Ah	30	VAL
1	Aj	30	VAL
1	BB	30	VAL
1	BC	30	VAL
1	BG	30	VAL
1	A0	30	VAL
1	A1	30	VAL
1	A2	30	VAL
1	A3	30	VAL
1	A4	30	VAL
1	A5	30	VAL
1	A6	30	VAL
1	A7	30	VAL
1	A8	30	VAL
1	AA	30	VAL
1	AD	30	VAL
1	AE	30	VAL
1	AF	30	VAL
1	AG	30	VAL
1	AH	30	VAL
1	AI	30	VAL
1	AJ	30	VAL
1	AK	30	VAL
1	AL	30	VAL
1	AM	30	VAL
1	AO	30	VAL
1	AP	30	VAL
1	AQ	30	VAL
1	AR	30	VAL

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Mol	Chain	Res	Type
1	AS	30	VAL
1	AU	30	VAL
1	AV	30	VAL
1	AW	30	VAL
1	AX	30	VAL
1	AZ	30	VAL
1	Ab	30	VAL
1	Ad	30	VAL
1	Ae	30	VAL
1	Af	30	VAL
1	Ag	30	VAL
1	Ai	30	VAL
1	Ak	30	VAL
1	Al	30	VAL
1	Am	30	VAL
1	An	30	VAL
1	Ao	30	VAL
1	BA	30	VAL
1	BD	30	VAL
1	BE	30	VAL
1	BF	30	VAL
1	BH	30	VAL
1	BI	30	VAL
2	C0	84	PRO
2	C1	84	PRO
2	C2	84	PRO
2	C3	84	PRO
2	C4	84	PRO
2	C5	84	PRO
2	C6	84	PRO
2	C7	84	PRO
2	C8	84	PRO
2	C9	84	PRO
2	CA	84	PRO
2	CB	84	PRO
2	CC	84	PRO
2	CD	84	PRO
2	CE	84	PRO
2	CF	84	PRO
2	CG	84	PRO
2	CH	84	PRO
2	CI	84	PRO

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Mol	Chain	Res	Type
2	CJ	84	PRO
2	CK	84	PRO
2	CL	84	PRO
2	CM	84	PRO
2	CN	84	PRO
2	CO	84	PRO
2	CP	84	PRO
2	CQ	84	PRO
2	CR	84	PRO
2	CS	84	PRO
2	CT	84	PRO
2	CU	84	PRO
2	CV	84	PRO
2	CW	84	PRO
2	CX	84	PRO
2	CY	84	PRO
2	CZ	84	PRO
2	Ca	84	PRO
2	Cb	84	PRO
2	Cc	84	PRO
2	Cd	84	PRO
2	Ce	84	PRO
2	Cf	84	PRO
2	Cg	84	PRO
2	Ch	84	PRO
2	Ci	84	PRO
2	Cj	84	PRO
2	Ck	84	PRO
2	Cl	84	PRO
2	Cm	84	PRO
2	Cn	84	PRO
2	Co	84	PRO
2	Cp	84	PRO
2	Cq	84	PRO
2	Cr	84	PRO
2	Cs	84	PRO
2	Ct	84	PRO
2	Cu	84	PRO
2	Cv	84	PRO
2	Cw	84	PRO
2	Cx	84	PRO

5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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	A0	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	A1	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	A2	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	A3	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	A4	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	A5	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	A6	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	A7	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	A8	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	A9	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AA	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AB	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AC	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AD	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AE	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AF	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AG	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AH	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AI	208/208 (100%)	173 (83%)	35 (17%)	2	12
1	AJ	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AK	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AL	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AM	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AN	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AO	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AP	208/208 (100%)	174 (84%)	34 (16%)	2	13

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	AQ	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AR	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AS	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AT	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AU	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AV	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AW	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AX	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AY	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	AZ	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	Aa	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	Ab	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	Ac	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	Ad	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	Ae	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	Af	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	Ag	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	Ah	208/208 (100%)	173 (83%)	35 (17%)	2	12
1	Ai	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	Aj	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	Ak	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	Al	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	Am	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	An	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	Ao	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	BA	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	BB	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	BC	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	BD	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	BE	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	BF	208/208 (100%)	174 (84%)	34 (16%)	2	13

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	BG	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	BH	208/208 (100%)	174 (84%)	34 (16%)	2	13
1	BI	208/208 (100%)	174 (84%)	34 (16%)	2	13
2	C0	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	C1	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	C2	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	C3	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	C4	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	C5	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	C6	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	C7	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	C8	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	C9	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	CA	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	CB	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	CC	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	CD	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	CE	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	CF	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	CG	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	CH	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	CI	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	CJ	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	CK	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	CL	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	CM	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	CN	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	CO	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	CP	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	CQ	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	CR	175/204 (86%)	133 (76%)	42 (24%)	0	4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	CS	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	CT	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	CU	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	CV	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	CW	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	CX	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	CY	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	CZ	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	Ca	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	Cb	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	Cc	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	Cd	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	Ce	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	Cf	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	Cg	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	Ch	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	Ci	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	Cj	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	Ck	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	Cl	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	Cm	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	Cn	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	Co	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	Cp	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	Cq	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	Cr	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	Cs	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	Ct	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	Cu	175/204 (86%)	132 (75%)	43 (25%)	0	3
2	Cv	175/204 (86%)	133 (76%)	42 (24%)	0	4
2	Cw	175/204 (86%)	132 (75%)	43 (25%)	0	3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	Cx	175/204 (86%)	133 (76%)	42 (24%)	0	4
3	D0	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	D1	190/190 (100%)	147 (77%)	43 (23%)	1	5
3	D2	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	D3	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	D4	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	D5	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	D6	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	D7	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	D8	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	D9	190/190 (100%)	147 (77%)	43 (23%)	1	5
3	DA	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DB	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DC	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DD	190/190 (100%)	147 (77%)	43 (23%)	1	5
3	DE	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DF	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DG	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DH	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DI	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DJ	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DK	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DL	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DM	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DN	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DO	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DP	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DQ	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DR	190/190 (100%)	147 (77%)	43 (23%)	1	5
3	DS	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DT	190/190 (100%)	146 (77%)	44 (23%)	1	4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	DU	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DV	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DW	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DX	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DY	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	DZ	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	Da	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	Db	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	Dc	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	Dd	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	De	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	Df	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	Dg	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	Dh	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	Di	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	Dj	190/190 (100%)	147 (77%)	43 (23%)	1	5
3	Dk	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	Dl	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	Dm	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	Dn	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	Do	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	Dp	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	Dq	190/190 (100%)	147 (77%)	43 (23%)	1	5
3	Dr	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	Ds	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	EA	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	EB	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	EC	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	ED	190/190 (100%)	146 (77%)	44 (23%)	1	4
3	EE	190/190 (100%)	146 (77%)	44 (23%)	1	4
4	F0	18/65 (28%)	13 (72%)	5 (28%)	0	3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	F1	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	F2	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	F3	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	F4	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	F5	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	F6	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	F7	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	F8	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	F9	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FA	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FB	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FC	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FD	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FE	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FF	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FG	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FH	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FI	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FJ	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FK	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FL	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FM	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FN	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FO	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FP	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FQ	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FR	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FS	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FT	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FU	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FV	18/65 (28%)	13 (72%)	5 (28%)	0	3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	FW	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FX	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FY	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	FZ	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fa	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fb	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fc	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fd	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fe	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Ff	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fg	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fh	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fi	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fj	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fk	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fl	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fm	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fn	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fo	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fp	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fq	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fr	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fs	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Ft	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fu	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fv	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fw	18/65 (28%)	13 (72%)	5 (28%)	0	3
4	Fx	18/65 (28%)	13 (72%)	5 (28%)	0	3
All	All	35460/40020 (89%)	27939 (79%)	7521 (21%)	3	6

All (7521) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A0	10	PRO
1	A0	14	GLU
1	A0	19	LEU
1	A0	20	SER
1	A0	21	PRO
1	A0	23	ASP
1	A0	28	THR
1	A0	36	ARG
1	A0	39	ASP
1	A0	40	VAL
1	A0	43	LEU
1	A0	45	LEU
1	A0	46	SER
1	A0	47	ASN
1	A0	59	PRO
1	A0	71	LEU
1	A0	87	GLN
1	A0	90	PHE
1	A0	92	THR
1	A0	119	TRP
1	A0	130	ILE
1	A0	132	GLN
1	A0	138	MET
1	A0	150	ARG
1	A0	163	MET
1	A0	177	PRO
1	A0	178	THR
1	A0	195	ILE
1	A0	196	LEU
1	A0	202	HIS
1	A0	207	CYS
1	A0	209	LEU
1	A0	226	PRO
1	A0	241	THR
1	A1	10	PRO
1	A1	14	GLU
1	A1	19	LEU
1	A1	20	SER
1	A1	21	PRO
1	A1	23	ASP
1	A1	28	THR
1	A1	36	ARG
1	A1	39	ASP

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Mol	Chain	Res	Type
1	A1	40	VAL
1	A1	43	LEU
1	A1	45	LEU
1	A1	46	SER
1	A1	47	ASN
1	A1	59	PRO
1	A1	71	LEU
1	A1	87	GLN
1	A1	90	PHE
1	A1	92	THR
1	A1	119	TRP
1	A1	130	ILE
1	A1	132	GLN
1	A1	138	MET
1	A1	150	ARG
1	A1	163	MET
1	A1	177	PRO
1	A1	178	THR
1	A1	195	ILE
1	A1	196	LEU
1	A1	202	HIS
1	A1	207	CYS
1	A1	209	LEU
1	A1	226	PRO
1	A1	241	THR
1	A2	10	PRO
1	A2	14	GLU
1	A2	19	LEU
1	A2	20	SER
1	A2	21	PRO
1	A2	23	ASP
1	A2	28	THR
1	A2	36	ARG
1	A2	39	ASP
1	A2	40	VAL
1	A2	43	LEU
1	A2	45	LEU
1	A2	46	SER
1	A2	47	ASN
1	A2	59	PRO
1	A2	71	LEU
1	A2	87	GLN

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Mol	Chain	Res	Type
1	A2	90	PHE
1	A2	92	THR
1	A2	119	TRP
1	A2	130	ILE
1	A2	132	GLN
1	A2	138	MET
1	A2	150	ARG
1	A2	163	MET
1	A2	177	PRO
1	A2	178	THR
1	A2	195	ILE
1	A2	196	LEU
1	A2	202	HIS
1	A2	207	CYS
1	A2	209	LEU
1	A2	226	PRO
1	A2	241	THR
1	A3	10	PRO
1	A3	14	GLU
1	A3	19	LEU
1	A3	20	SER
1	A3	21	PRO
1	A3	23	ASP
1	A3	28	THR
1	A3	36	ARG
1	A3	39	ASP
1	A3	40	VAL
1	A3	43	LEU
1	A3	45	LEU
1	A3	46	SER
1	A3	47	ASN
1	A3	59	PRO
1	A3	71	LEU
1	A3	87	GLN
1	A3	90	PHE
1	A3	92	THR
1	A3	119	TRP
1	A3	130	ILE
1	A3	132	GLN
1	A3	138	MET
1	A3	150	ARG
1	A3	163	MET

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Mol	Chain	Res	Type
1	A3	177	PRO
1	A3	178	THR
1	A3	195	ILE
1	A3	196	LEU
1	A3	202	HIS
1	A3	207	CYS
1	A3	209	LEU
1	A3	226	PRO
1	A3	241	THR
1	A4	10	PRO
1	A4	14	GLU
1	A4	19	LEU
1	A4	20	SER
1	A4	21	PRO
1	A4	23	ASP
1	A4	28	THR
1	A4	36	ARG
1	A4	39	ASP
1	A4	40	VAL
1	A4	43	LEU
1	A4	45	LEU
1	A4	46	SER
1	A4	47	ASN
1	A4	59	PRO
1	A4	71	LEU
1	A4	87	GLN
1	A4	90	PHE
1	A4	92	THR
1	A4	119	TRP
1	A4	130	ILE
1	A4	132	GLN
1	A4	138	MET
1	A4	150	ARG
1	A4	163	MET
1	A4	177	PRO
1	A4	178	THR
1	A4	195	ILE
1	A4	196	LEU
1	A4	202	HIS
1	A4	207	CYS
1	A4	209	LEU
1	A4	226	PRO

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Mol	Chain	Res	Type
1	A4	241	THR
1	A5	10	PRO
1	A5	14	GLU
1	A5	19	LEU
1	A5	20	SER
1	A5	21	PRO
1	A5	23	ASP
1	A5	28	THR
1	A5	36	ARG
1	A5	39	ASP
1	A5	40	VAL
1	A5	43	LEU
1	A5	45	LEU
1	A5	46	SER
1	A5	47	ASN
1	A5	59	PRO
1	A5	71	LEU
1	A5	87	GLN
1	A5	90	PHE
1	A5	92	THR
1	A5	119	TRP
1	A5	130	ILE
1	A5	132	GLN
1	A5	138	MET
1	A5	150	ARG
1	A5	163	MET
1	A5	177	PRO
1	A5	178	THR
1	A5	195	ILE
1	A5	196	LEU
1	A5	202	HIS
1	A5	207	CYS
1	A5	209	LEU
1	A5	226	PRO
1	A5	241	THR
1	A6	10	PRO
1	A6	14	GLU
1	A6	19	LEU
1	A6	20	SER
1	A6	21	PRO
1	A6	23	ASP
1	A6	28	THR

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Mol	Chain	Res	Type
1	A6	36	ARG
1	A6	39	ASP
1	A6	40	VAL
1	A6	43	LEU
1	A6	45	LEU
1	A6	46	SER
1	A6	47	ASN
1	A6	59	PRO
1	A6	71	LEU
1	A6	87	GLN
1	A6	90	PHE
1	A6	92	THR
1	A6	119	TRP
1	A6	130	ILE
1	A6	132	GLN
1	A6	138	MET
1	A6	150	ARG
1	A6	163	MET
1	A6	177	PRO
1	A6	178	THR
1	A6	195	ILE
1	A6	196	LEU
1	A6	202	HIS
1	A6	207	CYS
1	A6	209	LEU
1	A6	226	PRO
1	A6	241	THR
1	A7	10	PRO
1	A7	14	GLU
1	A7	19	LEU
1	A7	20	SER
1	A7	21	PRO
1	A7	23	ASP
1	A7	28	THR
1	A7	36	ARG
1	A7	39	ASP
1	A7	40	VAL
1	A7	43	LEU
1	A7	45	LEU
1	A7	46	SER
1	A7	47	ASN
1	A7	59	PRO

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Mol	Chain	Res	Type
1	A7	71	LEU
1	A7	87	GLN
1	A7	90	PHE
1	A7	92	THR
1	A7	119	TRP
1	A7	130	ILE
1	A7	132	GLN
1	A7	138	MET
1	A7	150	ARG
1	A7	163	MET
1	A7	177	PRO
1	A7	178	THR
1	A7	195	ILE
1	A7	196	LEU
1	A7	202	HIS
1	A7	207	CYS
1	A7	209	LEU
1	A7	226	PRO
1	A7	241	THR
1	A8	10	PRO
1	A8	14	GLU
1	A8	19	LEU
1	A8	20	SER
1	A8	21	PRO
1	A8	23	ASP
1	A8	28	THR
1	A8	36	ARG
1	A8	39	ASP
1	A8	40	VAL
1	A8	43	LEU
1	A8	45	LEU
1	A8	46	SER
1	A8	47	ASN
1	A8	59	PRO
1	A8	71	LEU
1	A8	87	GLN
1	A8	90	PHE
1	A8	92	THR
1	A8	119	TRP
1	A8	130	ILE
1	A8	132	GLN
1	A8	138	MET

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Mol	Chain	Res	Type
1	A8	150	ARG
1	A8	163	MET
1	A8	177	PRO
1	A8	178	THR
1	A8	195	ILE
1	A8	196	LEU
1	A8	202	HIS
1	A8	207	CYS
1	A8	209	LEU
1	A8	226	PRO
1	A8	241	THR
1	A9	10	PRO
1	A9	14	GLU
1	A9	19	LEU
1	A9	20	SER
1	A9	21	PRO
1	A9	23	ASP
1	A9	28	THR
1	A9	36	ARG
1	A9	39	ASP
1	A9	40	VAL
1	A9	43	LEU
1	A9	45	LEU
1	A9	46	SER
1	A9	47	ASN
1	A9	59	PRO
1	A9	71	LEU
1	A9	87	GLN
1	A9	90	PHE
1	A9	92	THR
1	A9	119	TRP
1	A9	130	ILE
1	A9	132	GLN
1	A9	138	MET
1	A9	150	ARG
1	A9	163	MET
1	A9	177	PRO
1	A9	178	THR
1	A9	195	ILE
1	A9	196	LEU
1	A9	202	HIS
1	A9	207	CYS

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Mol	Chain	Res	Type
1	A9	209	LEU
1	A9	226	PRO
1	A9	241	THR
1	AA	10	PRO
1	AA	14	GLU
1	AA	19	LEU
1	AA	20	SER
1	AA	21	PRO
1	AA	23	ASP
1	AA	28	THR
1	AA	36	ARG
1	AA	39	ASP
1	AA	40	VAL
1	AA	43	LEU
1	AA	45	LEU
1	AA	46	SER
1	AA	47	ASN
1	AA	59	PRO
1	AA	71	LEU
1	AA	87	GLN
1	AA	90	PHE
1	AA	92	THR
1	AA	119	TRP
1	AA	130	ILE
1	AA	132	GLN
1	AA	138	MET
1	AA	150	ARG
1	AA	163	MET
1	AA	177	PRO
1	AA	178	THR
1	AA	195	ILE
1	AA	196	LEU
1	AA	202	HIS
1	AA	207	CYS
1	AA	209	LEU
1	AA	226	PRO
1	AA	241	THR
1	AB	10	PRO
1	AB	14	GLU
1	AB	19	LEU
1	AB	20	SER
1	AB	21	PRO

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Mol	Chain	Res	Type
1	AB	23	ASP
1	AB	28	THR
1	AB	36	ARG
1	AB	39	ASP
1	AB	40	VAL
1	AB	43	LEU
1	AB	45	LEU
1	AB	46	SER
1	AB	47	ASN
1	AB	59	PRO
1	AB	71	LEU
1	AB	87	GLN
1	AB	90	PHE
1	AB	92	THR
1	AB	119	TRP
1	AB	130	ILE
1	AB	132	GLN
1	AB	138	MET
1	AB	150	ARG
1	AB	163	MET
1	AB	177	PRO
1	AB	178	THR
1	AB	195	ILE
1	AB	196	LEU
1	AB	202	HIS
1	AB	207	CYS
1	AB	209	LEU
1	AB	226	PRO
1	AB	241	THR
1	AC	10	PRO
1	AC	14	GLU
1	AC	19	LEU
1	AC	20	SER
1	AC	21	PRO
1	AC	23	ASP
1	AC	28	THR
1	AC	36	ARG
1	AC	39	ASP
1	AC	40	VAL
1	AC	43	LEU
1	AC	45	LEU
1	AC	46	SER

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Mol	Chain	Res	Type
1	AC	47	ASN
1	AC	59	PRO
1	AC	71	LEU
1	AC	87	GLN
1	AC	90	PHE
1	AC	92	THR
1	AC	119	TRP
1	AC	130	ILE
1	AC	132	GLN
1	AC	138	MET
1	AC	150	ARG
1	AC	163	MET
1	AC	177	PRO
1	AC	178	THR
1	AC	195	ILE
1	AC	196	LEU
1	AC	202	HIS
1	AC	207	CYS
1	AC	209	LEU
1	AC	226	PRO
1	AC	241	THR
1	AD	10	PRO
1	AD	14	GLU
1	AD	19	LEU
1	AD	20	SER
1	AD	21	PRO
1	AD	23	ASP
1	AD	28	THR
1	AD	36	ARG
1	AD	39	ASP
1	AD	40	VAL
1	AD	43	LEU
1	AD	45	LEU
1	AD	46	SER
1	AD	47	ASN
1	AD	59	PRO
1	AD	71	LEU
1	AD	87	GLN
1	AD	90	PHE
1	AD	92	THR
1	AD	119	TRP
1	AD	130	ILE

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Mol	Chain	Res	Type
1	AD	132	GLN
1	AD	138	MET
1	AD	150	ARG
1	AD	163	MET
1	AD	177	PRO
1	AD	178	THR
1	AD	195	ILE
1	AD	196	LEU
1	AD	202	HIS
1	AD	207	CYS
1	AD	209	LEU
1	AD	226	PRO
1	AD	241	THR
1	AE	10	PRO
1	AE	14	GLU
1	AE	19	LEU
1	AE	20	SER
1	AE	21	PRO
1	AE	23	ASP
1	AE	28	THR
1	AE	36	ARG
1	AE	39	ASP
1	AE	40	VAL
1	AE	43	LEU
1	AE	45	LEU
1	AE	46	SER
1	AE	47	ASN
1	AE	59	PRO
1	AE	71	LEU
1	AE	87	GLN
1	AE	90	PHE
1	AE	92	THR
1	AE	119	TRP
1	AE	130	ILE
1	AE	132	GLN
1	AE	138	MET
1	AE	150	ARG
1	AE	163	MET
1	AE	177	PRO
1	AE	178	THR
1	AE	195	ILE
1	AE	196	LEU

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Mol	Chain	Res	Type
1	AE	202	HIS
1	AE	207	CYS
1	AE	209	LEU
1	AE	226	PRO
1	AE	241	THR
1	AF	10	PRO
1	AF	14	GLU
1	AF	19	LEU
1	AF	20	SER
1	AF	21	PRO
1	AF	23	ASP
1	AF	28	THR
1	AF	36	ARG
1	AF	39	ASP
1	AF	40	VAL
1	AF	43	LEU
1	AF	45	LEU
1	AF	46	SER
1	AF	47	ASN
1	AF	59	PRO
1	AF	71	LEU
1	AF	87	GLN
1	AF	90	PHE
1	AF	92	THR
1	AF	119	TRP
1	AF	130	ILE
1	AF	132	GLN
1	AF	138	MET
1	AF	150	ARG
1	AF	163	MET
1	AF	177	PRO
1	AF	178	THR
1	AF	195	ILE
1	AF	196	LEU
1	AF	202	HIS
1	AF	207	CYS
1	AF	209	LEU
1	AF	226	PRO
1	AF	241	THR
1	AG	10	PRO
1	AG	14	GLU
1	AG	19	LEU

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Mol	Chain	Res	Type
1	AG	20	SER
1	AG	21	PRO
1	AG	23	ASP
1	AG	28	THR
1	AG	36	ARG
1	AG	39	ASP
1	AG	40	VAL
1	AG	43	LEU
1	AG	45	LEU
1	AG	46	SER
1	AG	47	ASN
1	AG	59	PRO
1	AG	71	LEU
1	AG	87	GLN
1	AG	90	PHE
1	AG	92	THR
1	AG	119	TRP
1	AG	130	ILE
1	AG	132	GLN
1	AG	138	MET
1	AG	150	ARG
1	AG	163	MET
1	AG	177	PRO
1	AG	178	THR
1	AG	195	ILE
1	AG	196	LEU
1	AG	202	HIS
1	AG	207	CYS
1	AG	209	LEU
1	AG	226	PRO
1	AG	241	THR
1	AH	10	PRO
1	AH	14	GLU
1	AH	19	LEU
1	AH	20	SER
1	AH	21	PRO
1	AH	23	ASP
1	AH	28	THR
1	AH	36	ARG
1	AH	39	ASP
1	AH	40	VAL
1	AH	43	LEU

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Mol	Chain	Res	Type
1	AH	45	LEU
1	AH	46	SER
1	AH	47	ASN
1	AH	59	PRO
1	AH	71	LEU
1	AH	87	GLN
1	AH	90	PHE
1	AH	92	THR
1	AH	119	TRP
1	AH	130	ILE
1	AH	132	GLN
1	AH	138	MET
1	AH	150	ARG
1	AH	163	MET
1	AH	177	PRO
1	AH	178	THR
1	AH	195	ILE
1	AH	196	LEU
1	AH	202	HIS
1	AH	207	CYS
1	AH	209	LEU
1	AH	226	PRO
1	AH	241	THR
1	AI	10	PRO
1	AI	14	GLU
1	AI	19	LEU
1	AI	20	SER
1	AI	21	PRO
1	AI	23	ASP
1	AI	28	THR
1	AI	36	ARG
1	AI	39	ASP
1	AI	40	VAL
1	AI	43	LEU
1	AI	45	LEU
1	AI	46	SER
1	AI	47	ASN
1	AI	54	THR
1	AI	59	PRO
1	AI	71	LEU
1	AI	87	GLN
1	AI	90	PHE

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Mol	Chain	Res	Type
1	AI	92	THR
1	AI	119	TRP
1	AI	130	ILE
1	AI	132	GLN
1	AI	138	MET
1	AI	150	ARG
1	AI	163	MET
1	AI	177	PRO
1	AI	178	THR
1	AI	195	ILE
1	AI	196	LEU
1	AI	202	HIS
1	AI	207	CYS
1	AI	209	LEU
1	AI	226	PRO
1	AI	241	THR
1	AJ	10	PRO
1	AJ	14	GLU
1	AJ	19	LEU
1	AJ	20	SER
1	AJ	21	PRO
1	AJ	23	ASP
1	AJ	28	THR
1	AJ	36	ARG
1	AJ	39	ASP
1	AJ	40	VAL
1	AJ	43	LEU
1	AJ	45	LEU
1	AJ	46	SER
1	AJ	47	ASN
1	AJ	59	PRO
1	AJ	71	LEU
1	AJ	87	GLN
1	AJ	90	PHE
1	AJ	92	THR
1	AJ	119	TRP
1	AJ	130	ILE
1	AJ	132	GLN
1	AJ	138	MET
1	AJ	150	ARG
1	AJ	163	MET
1	AJ	177	PRO

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Mol	Chain	Res	Type
1	AJ	178	THR
1	AJ	195	ILE
1	AJ	196	LEU
1	AJ	202	HIS
1	AJ	207	CYS
1	AJ	209	LEU
1	AJ	226	PRO
1	AJ	241	THR
1	AK	10	PRO
1	AK	14	GLU
1	AK	19	LEU
1	AK	20	SER
1	AK	21	PRO
1	AK	23	ASP
1	AK	28	THR
1	AK	36	ARG
1	AK	39	ASP
1	AK	40	VAL
1	AK	43	LEU
1	AK	45	LEU
1	AK	46	SER
1	AK	47	ASN
1	AK	59	PRO
1	AK	71	LEU
1	AK	87	GLN
1	AK	90	PHE
1	AK	92	THR
1	AK	119	TRP
1	AK	130	ILE
1	AK	132	GLN
1	AK	138	MET
1	AK	150	ARG
1	AK	163	MET
1	AK	177	PRO
1	AK	178	THR
1	AK	195	ILE
1	AK	196	LEU
1	AK	202	HIS
1	AK	207	CYS
1	AK	209	LEU
1	AK	226	PRO
1	AK	241	THR

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Mol	Chain	Res	Type
1	AL	10	PRO
1	AL	14	GLU
1	AL	19	LEU
1	AL	20	SER
1	AL	21	PRO
1	AL	23	ASP
1	AL	28	THR
1	AL	36	ARG
1	AL	39	ASP
1	AL	40	VAL
1	AL	43	LEU
1	AL	45	LEU
1	AL	46	SER
1	AL	47	ASN
1	AL	59	PRO
1	AL	71	LEU
1	AL	87	GLN
1	AL	90	PHE
1	AL	92	THR
1	AL	119	TRP
1	AL	130	ILE
1	AL	132	GLN
1	AL	138	MET
1	AL	150	ARG
1	AL	163	MET
1	AL	177	PRO
1	AL	178	THR
1	AL	195	ILE
1	AL	196	LEU
1	AL	202	HIS
1	AL	207	CYS
1	AL	209	LEU
1	AL	226	PRO
1	AL	241	THR
1	AM	10	PRO
1	AM	14	GLU
1	AM	19	LEU
1	AM	20	SER
1	AM	21	PRO
1	AM	23	ASP
1	AM	28	THR
1	AM	36	ARG

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Mol	Chain	Res	Type
1	AM	39	ASP
1	AM	40	VAL
1	AM	43	LEU
1	AM	45	LEU
1	AM	46	SER
1	AM	47	ASN
1	AM	59	PRO
1	AM	71	LEU
1	AM	87	GLN
1	AM	90	PHE
1	AM	92	THR
1	AM	119	TRP
1	AM	130	ILE
1	AM	132	GLN
1	AM	138	MET
1	AM	150	ARG
1	AM	163	MET
1	AM	177	PRO
1	AM	178	THR
1	AM	195	ILE
1	AM	196	LEU
1	AM	202	HIS
1	AM	207	CYS
1	AM	209	LEU
1	AM	226	PRO
1	AM	241	THR
1	AN	10	PRO
1	AN	14	GLU
1	AN	19	LEU
1	AN	20	SER
1	AN	21	PRO
1	AN	23	ASP
1	AN	28	THR
1	AN	36	ARG
1	AN	39	ASP
1	AN	40	VAL
1	AN	43	LEU
1	AN	45	LEU
1	AN	46	SER
1	AN	47	ASN
1	AN	59	PRO
1	AN	71	LEU

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Mol	Chain	Res	Type
1	AN	87	GLN
1	AN	90	PHE
1	AN	92	THR
1	AN	119	TRP
1	AN	130	ILE
1	AN	132	GLN
1	AN	138	MET
1	AN	150	ARG
1	AN	163	MET
1	AN	177	PRO
1	AN	178	THR
1	AN	195	ILE
1	AN	196	LEU
1	AN	202	HIS
1	AN	207	CYS
1	AN	209	LEU
1	AN	226	PRO
1	AN	241	THR
1	AO	10	PRO
1	AO	14	GLU
1	AO	19	LEU
1	AO	20	SER
1	AO	21	PRO
1	AO	23	ASP
1	AO	28	THR
1	AO	36	ARG
1	AO	39	ASP
1	AO	40	VAL
1	AO	43	LEU
1	AO	45	LEU
1	AO	46	SER
1	AO	47	ASN
1	AO	59	PRO
1	AO	71	LEU
1	AO	87	GLN
1	AO	90	PHE
1	AO	92	THR
1	AO	119	TRP
1	AO	130	ILE
1	AO	132	GLN
1	AO	138	MET
1	AO	150	ARG

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Mol	Chain	Res	Type
1	AO	163	MET
1	AO	177	PRO
1	AO	178	THR
1	AO	195	ILE
1	AO	196	LEU
1	AO	202	HIS
1	AO	207	CYS
1	AO	209	LEU
1	AO	226	PRO
1	AO	241	THR
1	AP	10	PRO
1	AP	14	GLU
1	AP	19	LEU
1	AP	20	SER
1	AP	21	PRO
1	AP	23	ASP
1	AP	28	THR
1	AP	36	ARG
1	AP	39	ASP
1	AP	40	VAL
1	AP	43	LEU
1	AP	45	LEU
1	AP	46	SER
1	AP	47	ASN
1	AP	59	PRO
1	AP	71	LEU
1	AP	87	GLN
1	AP	90	PHE
1	AP	92	THR
1	AP	119	TRP
1	AP	130	ILE
1	AP	132	GLN
1	AP	138	MET
1	AP	150	ARG
1	AP	163	MET
1	AP	177	PRO
1	AP	178	THR
1	AP	195	ILE
1	AP	196	LEU
1	AP	202	HIS
1	AP	207	CYS
1	AP	209	LEU

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Mol	Chain	Res	Type
1	AP	226	PRO
1	AP	241	THR
1	AQ	10	PRO
1	AQ	14	GLU
1	AQ	19	LEU
1	AQ	20	SER
1	AQ	21	PRO
1	AQ	23	ASP
1	AQ	28	THR
1	AQ	36	ARG
1	AQ	39	ASP
1	AQ	40	VAL
1	AQ	43	LEU
1	AQ	45	LEU
1	AQ	46	SER
1	AQ	47	ASN
1	AQ	59	PRO
1	AQ	71	LEU
1	AQ	87	GLN
1	AQ	90	PHE
1	AQ	92	THR
1	AQ	119	TRP
1	AQ	130	ILE
1	AQ	132	GLN
1	AQ	138	MET
1	AQ	150	ARG
1	AQ	163	MET
1	AQ	177	PRO
1	AQ	178	THR
1	AQ	195	ILE
1	AQ	196	LEU
1	AQ	202	HIS
1	AQ	207	CYS
1	AQ	209	LEU
1	AQ	226	PRO
1	AQ	241	THR
1	AR	10	PRO
1	AR	14	GLU
1	AR	19	LEU
1	AR	20	SER
1	AR	21	PRO
1	AR	23	ASP

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Mol	Chain	Res	Type
1	AR	28	THR
1	AR	36	ARG
1	AR	39	ASP
1	AR	40	VAL
1	AR	43	LEU
1	AR	45	LEU
1	AR	46	SER
1	AR	47	ASN
1	AR	59	PRO
1	AR	71	LEU
1	AR	87	GLN
1	AR	90	PHE
1	AR	92	THR
1	AR	119	TRP
1	AR	130	ILE
1	AR	132	GLN
1	AR	138	MET
1	AR	150	ARG
1	AR	163	MET
1	AR	177	PRO
1	AR	178	THR
1	AR	195	ILE
1	AR	196	LEU
1	AR	202	HIS
1	AR	207	CYS
1	AR	209	LEU
1	AR	226	PRO
1	AR	241	THR
1	AS	10	PRO
1	AS	14	GLU
1	AS	19	LEU
1	AS	20	SER
1	AS	21	PRO
1	AS	23	ASP
1	AS	28	THR
1	AS	36	ARG
1	AS	39	ASP
1	AS	40	VAL
1	AS	43	LEU
1	AS	45	LEU
1	AS	46	SER
1	AS	47	ASN

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Mol	Chain	Res	Type
1	AS	59	PRO
1	AS	71	LEU
1	AS	87	GLN
1	AS	90	PHE
1	AS	92	THR
1	AS	119	TRP
1	AS	130	ILE
1	AS	132	GLN
1	AS	138	MET
1	AS	150	ARG
1	AS	163	MET
1	AS	177	PRO
1	AS	178	THR
1	AS	195	ILE
1	AS	196	LEU
1	AS	202	HIS
1	AS	207	CYS
1	AS	209	LEU
1	AS	226	PRO
1	AS	241	THR
1	AT	10	PRO
1	AT	14	GLU
1	AT	19	LEU
1	AT	20	SER
1	AT	21	PRO
1	AT	23	ASP
1	AT	28	THR
1	AT	36	ARG
1	AT	39	ASP
1	AT	40	VAL
1	AT	43	LEU
1	AT	45	LEU
1	AT	46	SER
1	AT	47	ASN
1	AT	59	PRO
1	AT	71	LEU
1	AT	87	GLN
1	AT	90	PHE
1	AT	92	THR
1	AT	119	TRP
1	AT	130	ILE
1	AT	132	GLN

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Mol	Chain	Res	Type
1	AT	138	MET
1	AT	150	ARG
1	AT	163	MET
1	AT	177	PRO
1	AT	178	THR
1	AT	195	ILE
1	AT	196	LEU
1	AT	202	HIS
1	AT	207	CYS
1	AT	209	LEU
1	AT	226	PRO
1	AT	241	THR
1	AU	10	PRO
1	AU	14	GLU
1	AU	19	LEU
1	AU	20	SER
1	AU	21	PRO
1	AU	23	ASP
1	AU	28	THR
1	AU	36	ARG
1	AU	39	ASP
1	AU	40	VAL
1	AU	43	LEU
1	AU	45	LEU
1	AU	46	SER
1	AU	47	ASN
1	AU	59	PRO
1	AU	71	LEU
1	AU	87	GLN
1	AU	90	PHE
1	AU	92	THR
1	AU	119	TRP
1	AU	130	ILE
1	AU	132	GLN
1	AU	138	MET
1	AU	150	ARG
1	AU	163	MET
1	AU	177	PRO
1	AU	178	THR
1	AU	195	ILE
1	AU	196	LEU
1	AU	202	HIS

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Mol	Chain	Res	Type
1	AU	207	CYS
1	AU	209	LEU
1	AU	226	PRO
1	AU	241	THR
1	AV	10	PRO
1	AV	14	GLU
1	AV	19	LEU
1	AV	20	SER
1	AV	21	PRO
1	AV	23	ASP
1	AV	28	THR
1	AV	36	ARG
1	AV	39	ASP
1	AV	40	VAL
1	AV	43	LEU
1	AV	45	LEU
1	AV	46	SER
1	AV	47	ASN
1	AV	59	PRO
1	AV	71	LEU
1	AV	87	GLN
1	AV	90	PHE
1	AV	92	THR
1	AV	119	TRP
1	AV	130	ILE
1	AV	132	GLN
1	AV	138	MET
1	AV	150	ARG
1	AV	163	MET
1	AV	177	PRO
1	AV	178	THR
1	AV	195	ILE
1	AV	196	LEU
1	AV	202	HIS
1	AV	207	CYS
1	AV	209	LEU
1	AV	226	PRO
1	AV	241	THR
1	AW	10	PRO
1	AW	14	GLU
1	AW	19	LEU
1	AW	20	SER

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Mol	Chain	Res	Type
1	AW	21	PRO
1	AW	23	ASP
1	AW	28	THR
1	AW	36	ARG
1	AW	39	ASP
1	AW	40	VAL
1	AW	43	LEU
1	AW	45	LEU
1	AW	46	SER
1	AW	47	ASN
1	AW	59	PRO
1	AW	71	LEU
1	AW	87	GLN
1	AW	90	PHE
1	AW	92	THR
1	AW	119	TRP
1	AW	130	ILE
1	AW	132	GLN
1	AW	138	MET
1	AW	150	ARG
1	AW	163	MET
1	AW	177	PRO
1	AW	178	THR
1	AW	195	ILE
1	AW	196	LEU
1	AW	202	HIS
1	AW	207	CYS
1	AW	209	LEU
1	AW	226	PRO
1	AW	241	THR
1	AX	10	PRO
1	AX	14	GLU
1	AX	19	LEU
1	AX	20	SER
1	AX	21	PRO
1	AX	23	ASP
1	AX	28	THR
1	AX	36	ARG
1	AX	39	ASP
1	AX	40	VAL
1	AX	43	LEU
1	AX	45	LEU

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Mol	Chain	Res	Type
1	AX	46	SER
1	AX	47	ASN
1	AX	59	PRO
1	AX	71	LEU
1	AX	87	GLN
1	AX	90	PHE
1	AX	92	THR
1	AX	119	TRP
1	AX	130	ILE
1	AX	132	GLN
1	AX	138	MET
1	AX	150	ARG
1	AX	163	MET
1	AX	177	PRO
1	AX	178	THR
1	AX	195	ILE
1	AX	196	LEU
1	AX	202	HIS
1	AX	207	CYS
1	AX	209	LEU
1	AX	226	PRO
1	AX	241	THR
1	AY	10	PRO
1	AY	14	GLU
1	AY	19	LEU
1	AY	20	SER
1	AY	21	PRO
1	AY	23	ASP
1	AY	28	THR
1	AY	36	ARG
1	AY	39	ASP
1	AY	40	VAL
1	AY	43	LEU
1	AY	45	LEU
1	AY	46	SER
1	AY	47	ASN
1	AY	59	PRO
1	AY	71	LEU
1	AY	87	GLN
1	AY	90	PHE
1	AY	92	THR
1	AY	119	TRP

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Mol	Chain	Res	Type
1	AY	130	ILE
1	AY	132	GLN
1	AY	138	MET
1	AY	150	ARG
1	AY	163	MET
1	AY	177	PRO
1	AY	178	THR
1	AY	195	ILE
1	AY	196	LEU
1	AY	202	HIS
1	AY	207	CYS
1	AY	209	LEU
1	AY	226	PRO
1	AY	241	THR
1	AZ	10	PRO
1	AZ	14	GLU
1	AZ	19	LEU
1	AZ	20	SER
1	AZ	21	PRO
1	AZ	23	ASP
1	AZ	28	THR
1	AZ	36	ARG
1	AZ	39	ASP
1	AZ	40	VAL
1	AZ	43	LEU
1	AZ	45	LEU
1	AZ	46	SER
1	AZ	47	ASN
1	AZ	59	PRO
1	AZ	71	LEU
1	AZ	87	GLN
1	AZ	90	PHE
1	AZ	92	THR
1	AZ	119	TRP
1	AZ	130	ILE
1	AZ	132	GLN
1	AZ	138	MET
1	AZ	150	ARG
1	AZ	163	MET
1	AZ	177	PRO
1	AZ	178	THR
1	AZ	195	ILE

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Mol	Chain	Res	Type
1	AZ	196	LEU
1	AZ	202	HIS
1	AZ	207	CYS
1	AZ	209	LEU
1	AZ	226	PRO
1	AZ	241	THR
1	Aa	10	PRO
1	Aa	14	GLU
1	Aa	19	LEU
1	Aa	20	SER
1	Aa	21	PRO
1	Aa	23	ASP
1	Aa	28	THR
1	Aa	36	ARG
1	Aa	39	ASP
1	Aa	40	VAL
1	Aa	43	LEU
1	Aa	45	LEU
1	Aa	46	SER
1	Aa	47	ASN
1	Aa	59	PRO
1	Aa	71	LEU
1	Aa	87	GLN
1	Aa	90	PHE
1	Aa	92	THR
1	Aa	119	TRP
1	Aa	130	ILE
1	Aa	132	GLN
1	Aa	138	MET
1	Aa	150	ARG
1	Aa	163	MET
1	Aa	177	PRO
1	Aa	178	THR
1	Aa	195	ILE
1	Aa	196	LEU
1	Aa	202	HIS
1	Aa	207	CYS
1	Aa	209	LEU
1	Aa	226	PRO
1	Aa	241	THR
1	Ab	10	PRO
1	Ab	14	GLU

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Mol	Chain	Res	Type
1	Ab	19	LEU
1	Ab	20	SER
1	Ab	21	PRO
1	Ab	23	ASP
1	Ab	28	THR
1	Ab	36	ARG
1	Ab	39	ASP
1	Ab	40	VAL
1	Ab	43	LEU
1	Ab	45	LEU
1	Ab	46	SER
1	Ab	47	ASN
1	Ab	59	PRO
1	Ab	71	LEU
1	Ab	87	GLN
1	Ab	90	PHE
1	Ab	92	THR
1	Ab	119	TRP
1	Ab	130	ILE
1	Ab	132	GLN
1	Ab	138	MET
1	Ab	150	ARG
1	Ab	163	MET
1	Ab	177	PRO
1	Ab	178	THR
1	Ab	195	ILE
1	Ab	196	LEU
1	Ab	202	HIS
1	Ab	207	CYS
1	Ab	209	LEU
1	Ab	226	PRO
1	Ab	241	THR
1	Ac	10	PRO
1	Ac	14	GLU
1	Ac	19	LEU
1	Ac	20	SER
1	Ac	21	PRO
1	Ac	23	ASP
1	Ac	28	THR
1	Ac	36	ARG
1	Ac	39	ASP
1	Ac	40	VAL

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Mol	Chain	Res	Type
1	Ac	43	LEU
1	Ac	45	LEU
1	Ac	46	SER
1	Ac	47	ASN
1	Ac	59	PRO
1	Ac	71	LEU
1	Ac	87	GLN
1	Ac	90	PHE
1	Ac	92	THR
1	Ac	119	TRP
1	Ac	130	ILE
1	Ac	132	GLN
1	Ac	138	MET
1	Ac	150	ARG
1	Ac	163	MET
1	Ac	177	PRO
1	Ac	178	THR
1	Ac	195	ILE
1	Ac	196	LEU
1	Ac	202	HIS
1	Ac	207	CYS
1	Ac	209	LEU
1	Ac	226	PRO
1	Ac	241	THR
1	Ad	10	PRO
1	Ad	14	GLU
1	Ad	19	LEU
1	Ad	20	SER
1	Ad	21	PRO
1	Ad	23	ASP
1	Ad	28	THR
1	Ad	36	ARG
1	Ad	39	ASP
1	Ad	40	VAL
1	Ad	43	LEU
1	Ad	45	LEU
1	Ad	46	SER
1	Ad	47	ASN
1	Ad	59	PRO
1	Ad	71	LEU
1	Ad	87	GLN
1	Ad	90	PHE

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Mol	Chain	Res	Type
1	Ad	92	THR
1	Ad	119	TRP
1	Ad	130	ILE
1	Ad	132	GLN
1	Ad	138	MET
1	Ad	150	ARG
1	Ad	163	MET
1	Ad	177	PRO
1	Ad	178	THR
1	Ad	195	ILE
1	Ad	196	LEU
1	Ad	202	HIS
1	Ad	207	CYS
1	Ad	209	LEU
1	Ad	226	PRO
1	Ad	241	THR
1	Ae	10	PRO
1	Ae	14	GLU
1	Ae	19	LEU
1	Ae	20	SER
1	Ae	21	PRO
1	Ae	23	ASP
1	Ae	28	THR
1	Ae	36	ARG
1	Ae	39	ASP
1	Ae	40	VAL
1	Ae	43	LEU
1	Ae	45	LEU
1	Ae	46	SER
1	Ae	47	ASN
1	Ae	59	PRO
1	Ae	71	LEU
1	Ae	87	GLN
1	Ae	90	PHE
1	Ae	92	THR
1	Ae	119	TRP
1	Ae	130	ILE
1	Ae	132	GLN
1	Ae	138	MET
1	Ae	150	ARG
1	Ae	163	MET
1	Ae	177	PRO

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Mol	Chain	Res	Type
1	Ae	178	THR
1	Ae	195	ILE
1	Ae	196	LEU
1	Ae	202	HIS
1	Ae	207	CYS
1	Ae	209	LEU
1	Ae	226	PRO
1	Ae	241	THR
1	Af	10	PRO
1	Af	14	GLU
1	Af	19	LEU
1	Af	20	SER
1	Af	21	PRO
1	Af	23	ASP
1	Af	28	THR
1	Af	36	ARG
1	Af	39	ASP
1	Af	40	VAL
1	Af	43	LEU
1	Af	45	LEU
1	Af	46	SER
1	Af	47	ASN
1	Af	59	PRO
1	Af	71	LEU
1	Af	87	GLN
1	Af	90	PHE
1	Af	92	THR
1	Af	119	TRP
1	Af	130	ILE
1	Af	132	GLN
1	Af	138	MET
1	Af	150	ARG
1	Af	163	MET
1	Af	177	PRO
1	Af	178	THR
1	Af	195	ILE
1	Af	196	LEU
1	Af	202	HIS
1	Af	207	CYS
1	Af	209	LEU
1	Af	226	PRO
1	Af	241	THR

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Mol	Chain	Res	Type
1	Ag	10	PRO
1	Ag	14	GLU
1	Ag	19	LEU
1	Ag	20	SER
1	Ag	21	PRO
1	Ag	23	ASP
1	Ag	28	THR
1	Ag	36	ARG
1	Ag	39	ASP
1	Ag	40	VAL
1	Ag	43	LEU
1	Ag	45	LEU
1	Ag	46	SER
1	Ag	47	ASN
1	Ag	59	PRO
1	Ag	71	LEU
1	Ag	87	GLN
1	Ag	90	PHE
1	Ag	92	THR
1	Ag	119	TRP
1	Ag	130	ILE
1	Ag	132	GLN
1	Ag	138	MET
1	Ag	150	ARG
1	Ag	163	MET
1	Ag	177	PRO
1	Ag	178	THR
1	Ag	195	ILE
1	Ag	196	LEU
1	Ag	202	HIS
1	Ag	207	CYS
1	Ag	209	LEU
1	Ag	226	PRO
1	Ag	241	THR
1	Ah	10	PRO
1	Ah	14	GLU
1	Ah	19	LEU
1	Ah	20	SER
1	Ah	21	PRO
1	Ah	23	ASP
1	Ah	28	THR
1	Ah	36	ARG

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Mol	Chain	Res	Type
1	Ah	39	ASP
1	Ah	40	VAL
1	Ah	43	LEU
1	Ah	45	LEU
1	Ah	46	SER
1	Ah	47	ASN
1	Ah	54	THR
1	Ah	59	PRO
1	Ah	71	LEU
1	Ah	87	GLN
1	Ah	90	PHE
1	Ah	92	THR
1	Ah	119	TRP
1	Ah	130	ILE
1	Ah	132	GLN
1	Ah	138	MET
1	Ah	150	ARG
1	Ah	163	MET
1	Ah	177	PRO
1	Ah	178	THR
1	Ah	195	ILE
1	Ah	196	LEU
1	Ah	202	HIS
1	Ah	207	CYS
1	Ah	209	LEU
1	Ah	226	PRO
1	Ah	241	THR
1	Ai	10	PRO
1	Ai	14	GLU
1	Ai	19	LEU
1	Ai	20	SER
1	Ai	21	PRO
1	Ai	23	ASP
1	Ai	28	THR
1	Ai	36	ARG
1	Ai	39	ASP
1	Ai	40	VAL
1	Ai	43	LEU
1	Ai	45	LEU
1	Ai	46	SER
1	Ai	47	ASN
1	Ai	59	PRO

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Mol	Chain	Res	Type
1	Ai	71	LEU
1	Ai	87	GLN
1	Ai	90	PHE
1	Ai	92	THR
1	Ai	119	TRP
1	Ai	130	ILE
1	Ai	132	GLN
1	Ai	138	MET
1	Ai	150	ARG
1	Ai	163	MET
1	Ai	177	PRO
1	Ai	178	THR
1	Ai	195	ILE
1	Ai	196	LEU
1	Ai	202	HIS
1	Ai	207	CYS
1	Ai	209	LEU
1	Ai	226	PRO
1	Ai	241	THR
1	Aj	10	PRO
1	Aj	14	GLU
1	Aj	19	LEU
1	Aj	20	SER
1	Aj	21	PRO
1	Aj	23	ASP
1	Aj	28	THR
1	Aj	36	ARG
1	Aj	39	ASP
1	Aj	40	VAL
1	Aj	43	LEU
1	Aj	45	LEU
1	Aj	46	SER
1	Aj	47	ASN
1	Aj	59	PRO
1	Aj	71	LEU
1	Aj	87	GLN
1	Aj	90	PHE
1	Aj	92	THR
1	Aj	119	TRP
1	Aj	130	ILE
1	Aj	132	GLN
1	Aj	138	MET

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Mol	Chain	Res	Type
1	Aj	150	ARG
1	Aj	163	MET
1	Aj	177	PRO
1	Aj	178	THR
1	Aj	195	ILE
1	Aj	196	LEU
1	Aj	202	HIS
1	Aj	207	CYS
1	Aj	209	LEU
1	Aj	226	PRO
1	Aj	241	THR
1	Ak	10	PRO
1	Ak	14	GLU
1	Ak	19	LEU
1	Ak	20	SER
1	Ak	21	PRO
1	Ak	23	ASP
1	Ak	28	THR
1	Ak	36	ARG
1	Ak	39	ASP
1	Ak	40	VAL
1	Ak	43	LEU
1	Ak	45	LEU
1	Ak	46	SER
1	Ak	47	ASN
1	Ak	59	PRO
1	Ak	71	LEU
1	Ak	87	GLN
1	Ak	90	PHE
1	Ak	92	THR
1	Ak	119	TRP
1	Ak	130	ILE
1	Ak	132	GLN
1	Ak	138	MET
1	Ak	150	ARG
1	Ak	163	MET
1	Ak	177	PRO
1	Ak	178	THR
1	Ak	195	ILE
1	Ak	196	LEU
1	Ak	202	HIS
1	Ak	207	CYS

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Mol	Chain	Res	Type
1	Ak	209	LEU
1	Ak	226	PRO
1	Ak	241	THR
1	Al	10	PRO
1	Al	14	GLU
1	Al	19	LEU
1	Al	20	SER
1	Al	21	PRO
1	Al	23	ASP
1	Al	28	THR
1	Al	36	ARG
1	Al	39	ASP
1	Al	40	VAL
1	Al	43	LEU
1	Al	45	LEU
1	Al	46	SER
1	Al	47	ASN
1	Al	59	PRO
1	Al	71	LEU
1	Al	87	GLN
1	Al	90	PHE
1	Al	92	THR
1	Al	119	TRP
1	Al	130	ILE
1	Al	132	GLN
1	Al	138	MET
1	Al	150	ARG
1	Al	163	MET
1	Al	177	PRO
1	Al	178	THR
1	Al	195	ILE
1	Al	196	LEU
1	Al	202	HIS
1	Al	207	CYS
1	Al	209	LEU
1	Al	226	PRO
1	Al	241	THR
1	Am	10	PRO
1	Am	14	GLU
1	Am	19	LEU
1	Am	20	SER
1	Am	21	PRO

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Mol	Chain	Res	Type
1	Am	23	ASP
1	Am	28	THR
1	Am	36	ARG
1	Am	39	ASP
1	Am	40	VAL
1	Am	43	LEU
1	Am	45	LEU
1	Am	46	SER
1	Am	47	ASN
1	Am	59	PRO
1	Am	71	LEU
1	Am	87	GLN
1	Am	90	PHE
1	Am	92	THR
1	Am	119	TRP
1	Am	130	ILE
1	Am	132	GLN
1	Am	138	MET
1	Am	150	ARG
1	Am	163	MET
1	Am	177	PRO
1	Am	178	THR
1	Am	195	ILE
1	Am	196	LEU
1	Am	202	HIS
1	Am	207	CYS
1	Am	209	LEU
1	Am	226	PRO
1	Am	241	THR
1	An	10	PRO
1	An	14	GLU
1	An	19	LEU
1	An	20	SER
1	An	21	PRO
1	An	23	ASP
1	An	28	THR
1	An	36	ARG
1	An	39	ASP
1	An	40	VAL
1	An	43	LEU
1	An	45	LEU
1	An	46	SER

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Mol	Chain	Res	Type
1	An	47	ASN
1	An	59	PRO
1	An	71	LEU
1	An	87	GLN
1	An	90	PHE
1	An	92	THR
1	An	119	TRP
1	An	130	ILE
1	An	132	GLN
1	An	138	MET
1	An	150	ARG
1	An	163	MET
1	An	177	PRO
1	An	178	THR
1	An	195	ILE
1	An	196	LEU
1	An	202	HIS
1	An	207	CYS
1	An	209	LEU
1	An	226	PRO
1	An	241	THR
1	Ao	10	PRO
1	Ao	14	GLU
1	Ao	19	LEU
1	Ao	20	SER
1	Ao	21	PRO
1	Ao	23	ASP
1	Ao	28	THR
1	Ao	36	ARG
1	Ao	39	ASP
1	Ao	40	VAL
1	Ao	43	LEU
1	Ao	45	LEU
1	Ao	46	SER
1	Ao	47	ASN
1	Ao	59	PRO
1	Ao	71	LEU
1	Ao	87	GLN
1	Ao	90	PHE
1	Ao	92	THR
1	Ao	119	TRP
1	Ao	130	ILE

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Mol	Chain	Res	Type
1	Ao	132	GLN
1	Ao	138	MET
1	Ao	150	ARG
1	Ao	163	MET
1	Ao	177	PRO
1	Ao	178	THR
1	Ao	195	ILE
1	Ao	196	LEU
1	Ao	202	HIS
1	Ao	207	CYS
1	Ao	209	LEU
1	Ao	226	PRO
1	Ao	241	THR
1	BA	10	PRO
1	BA	14	GLU
1	BA	19	LEU
1	BA	20	SER
1	BA	21	PRO
1	BA	23	ASP
1	BA	28	THR
1	BA	36	ARG
1	BA	39	ASP
1	BA	40	VAL
1	BA	43	LEU
1	BA	45	LEU
1	BA	46	SER
1	BA	47	ASN
1	BA	59	PRO
1	BA	71	LEU
1	BA	87	GLN
1	BA	90	PHE
1	BA	92	THR
1	BA	119	TRP
1	BA	130	ILE
1	BA	132	GLN
1	BA	138	MET
1	BA	150	ARG
1	BA	163	MET
1	BA	177	PRO
1	BA	178	THR
1	BA	195	ILE
1	BA	196	LEU

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Mol	Chain	Res	Type
1	BA	202	HIS
1	BA	207	CYS
1	BA	209	LEU
1	BA	226	PRO
1	BA	241	THR
1	BB	10	PRO
1	BB	14	GLU
1	BB	19	LEU
1	BB	20	SER
1	BB	21	PRO
1	BB	23	ASP
1	BB	28	THR
1	BB	36	ARG
1	BB	39	ASP
1	BB	40	VAL
1	BB	43	LEU
1	BB	45	LEU
1	BB	46	SER
1	BB	47	ASN
1	BB	59	PRO
1	BB	71	LEU
1	BB	87	GLN
1	BB	90	PHE
1	BB	92	THR
1	BB	119	TRP
1	BB	130	ILE
1	BB	132	GLN
1	BB	138	MET
1	BB	150	ARG
1	BB	163	MET
1	BB	177	PRO
1	BB	178	THR
1	BB	195	ILE
1	BB	196	LEU
1	BB	202	HIS
1	BB	207	CYS
1	BB	209	LEU
1	BB	226	PRO
1	BB	241	THR
1	BC	10	PRO
1	BC	14	GLU
1	BC	19	LEU

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Mol	Chain	Res	Type
1	BC	20	SER
1	BC	21	PRO
1	BC	23	ASP
1	BC	28	THR
1	BC	36	ARG
1	BC	39	ASP
1	BC	40	VAL
1	BC	43	LEU
1	BC	45	LEU
1	BC	46	SER
1	BC	47	ASN
1	BC	59	PRO
1	BC	71	LEU
1	BC	87	GLN
1	BC	90	PHE
1	BC	92	THR
1	BC	119	TRP
1	BC	130	ILE
1	BC	132	GLN
1	BC	138	MET
1	BC	150	ARG
1	BC	163	MET
1	BC	177	PRO
1	BC	178	THR
1	BC	195	ILE
1	BC	196	LEU
1	BC	202	HIS
1	BC	207	CYS
1	BC	209	LEU
1	BC	226	PRO
1	BC	241	THR
1	BD	10	PRO
1	BD	14	GLU
1	BD	19	LEU
1	BD	20	SER
1	BD	21	PRO
1	BD	23	ASP
1	BD	28	THR
1	BD	36	ARG
1	BD	39	ASP
1	BD	40	VAL
1	BD	43	LEU

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Mol	Chain	Res	Type
1	BD	45	LEU
1	BD	46	SER
1	BD	47	ASN
1	BD	59	PRO
1	BD	71	LEU
1	BD	87	GLN
1	BD	90	PHE
1	BD	92	THR
1	BD	119	TRP
1	BD	130	ILE
1	BD	132	GLN
1	BD	138	MET
1	BD	150	ARG
1	BD	163	MET
1	BD	177	PRO
1	BD	178	THR
1	BD	195	ILE
1	BD	196	LEU
1	BD	202	HIS
1	BD	207	CYS
1	BD	209	LEU
1	BD	226	PRO
1	BD	241	THR
1	BE	10	PRO
1	BE	14	GLU
1	BE	19	LEU
1	BE	20	SER
1	BE	21	PRO
1	BE	23	ASP
1	BE	28	THR
1	BE	36	ARG
1	BE	39	ASP
1	BE	40	VAL
1	BE	43	LEU
1	BE	45	LEU
1	BE	46	SER
1	BE	47	ASN
1	BE	59	PRO
1	BE	71	LEU
1	BE	87	GLN
1	BE	90	PHE
1	BE	92	THR

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Mol	Chain	Res	Type
1	BE	119	TRP
1	BE	130	ILE
1	BE	132	GLN
1	BE	138	MET
1	BE	150	ARG
1	BE	163	MET
1	BE	177	PRO
1	BE	178	THR
1	BE	195	ILE
1	BE	196	LEU
1	BE	202	HIS
1	BE	207	CYS
1	BE	209	LEU
1	BE	226	PRO
1	BE	241	THR
1	BF	10	PRO
1	BF	14	GLU
1	BF	19	LEU
1	BF	20	SER
1	BF	21	PRO
1	BF	23	ASP
1	BF	28	THR
1	BF	36	ARG
1	BF	39	ASP
1	BF	40	VAL
1	BF	43	LEU
1	BF	45	LEU
1	BF	46	SER
1	BF	47	ASN
1	BF	59	PRO
1	BF	71	LEU
1	BF	87	GLN
1	BF	90	PHE
1	BF	92	THR
1	BF	119	TRP
1	BF	130	ILE
1	BF	132	GLN
1	BF	138	MET
1	BF	150	ARG
1	BF	163	MET
1	BF	177	PRO
1	BF	178	THR

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Mol	Chain	Res	Type
1	BF	195	ILE
1	BF	196	LEU
1	BF	202	HIS
1	BF	207	CYS
1	BF	209	LEU
1	BF	226	PRO
1	BF	241	THR
1	BG	10	PRO
1	BG	14	GLU
1	BG	19	LEU
1	BG	20	SER
1	BG	21	PRO
1	BG	23	ASP
1	BG	28	THR
1	BG	36	ARG
1	BG	39	ASP
1	BG	40	VAL
1	BG	43	LEU
1	BG	45	LEU
1	BG	46	SER
1	BG	47	ASN
1	BG	59	PRO
1	BG	71	LEU
1	BG	87	GLN
1	BG	90	PHE
1	BG	92	THR
1	BG	119	TRP
1	BG	130	ILE
1	BG	132	GLN
1	BG	138	MET
1	BG	150	ARG
1	BG	163	MET
1	BG	177	PRO
1	BG	178	THR
1	BG	195	ILE
1	BG	196	LEU
1	BG	202	HIS
1	BG	207	CYS
1	BG	209	LEU
1	BG	226	PRO
1	BG	241	THR
1	BH	10	PRO

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Mol	Chain	Res	Type
1	BH	14	GLU
1	BH	19	LEU
1	BH	20	SER
1	BH	21	PRO
1	BH	23	ASP
1	BH	28	THR
1	BH	36	ARG
1	BH	39	ASP
1	BH	40	VAL
1	BH	43	LEU
1	BH	45	LEU
1	BH	46	SER
1	BH	47	ASN
1	BH	59	PRO
1	BH	71	LEU
1	BH	87	GLN
1	BH	90	PHE
1	BH	92	THR
1	BH	119	TRP
1	BH	130	ILE
1	BH	132	GLN
1	BH	138	MET
1	BH	150	ARG
1	BH	163	MET
1	BH	177	PRO
1	BH	178	THR
1	BH	195	ILE
1	BH	196	LEU
1	BH	202	HIS
1	BH	207	CYS
1	BH	209	LEU
1	BH	226	PRO
1	BH	241	THR
1	BI	10	PRO
1	BI	14	GLU
1	BI	19	LEU
1	BI	20	SER
1	BI	21	PRO
1	BI	23	ASP
1	BI	28	THR
1	BI	36	ARG
1	BI	39	ASP

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Mol	Chain	Res	Type
1	BI	40	VAL
1	BI	43	LEU
1	BI	45	LEU
1	BI	46	SER
1	BI	47	ASN
1	BI	59	PRO
1	BI	71	LEU
1	BI	87	GLN
1	BI	90	PHE
1	BI	92	THR
1	BI	119	TRP
1	BI	130	ILE
1	BI	132	GLN
1	BI	138	MET
1	BI	150	ARG
1	BI	163	MET
1	BI	177	PRO
1	BI	178	THR
1	BI	195	ILE
1	BI	196	LEU
1	BI	202	HIS
1	BI	207	CYS
1	BI	209	LEU
1	BI	226	PRO
1	BI	241	THR
2	C0	13	ARG
2	C0	18	VAL
2	C0	22	THR
2	C0	29	SER
2	C0	45	SER
2	C0	53	ARG
2	C0	56	PRO
2	C0	58	LEU
2	C0	73	GLN
2	C0	75	HIS
2	C0	84	PRO
2	C0	88	LEU
2	C0	93	SER
2	C0	103	LEU
2	C0	104	VAL
2	C0	110	VAL
2	C0	126	VAL

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Mol	Chain	Res	Type
2	C0	134	HIS
2	C0	135	THR
2	C0	137	GLU
2	C0	150	TYR
2	C0	152	TYR
2	C0	159	PRO
2	C0	160	HIS
2	C0	162	LEU
2	C0	166	ARG
2	C0	167	THR
2	C0	174	VAL
2	C0	176	PRO
2	C0	178	ILE
2	C0	184	THR
2	C0	186	LEU
2	C0	188	LEU
2	C0	193	THR
2	C0	194	ILE
2	C0	195	VAL
2	C0	197	LEU
2	C0	200	SER
2	C0	202	LEU
2	C0	203	THR
2	C0	210	PRO
2	C0	214	SER
2	C0	223	ASN
2	C1	13	ARG
2	C1	18	VAL
2	C1	22	THR
2	C1	29	SER
2	C1	45	SER
2	C1	53	ARG
2	C1	56	PRO
2	C1	58	LEU
2	C1	73	GLN
2	C1	75	HIS
2	C1	84	PRO
2	C1	88	LEU
2	C1	93	SER
2	C1	103	LEU
2	C1	104	VAL
2	C1	110	VAL

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Mol	Chain	Res	Type
2	C1	126	VAL
2	C1	134	HIS
2	C1	135	THR
2	C1	150	TYR
2	C1	152	TYR
2	C1	159	PRO
2	C1	160	HIS
2	C1	162	LEU
2	C1	166	ARG
2	C1	167	THR
2	C1	174	VAL
2	C1	176	PRO
2	C1	178	ILE
2	C1	184	THR
2	C1	186	LEU
2	C1	188	LEU
2	C1	193	THR
2	C1	194	ILE
2	C1	195	VAL
2	C1	197	LEU
2	C1	200	SER
2	C1	202	LEU
2	C1	203	THR
2	C1	210	PRO
2	C1	214	SER
2	C1	223	ASN
2	C2	13	ARG
2	C2	18	VAL
2	C2	22	THR
2	C2	29	SER
2	C2	45	SER
2	C2	53	ARG
2	C2	56	PRO
2	C2	58	LEU
2	C2	73	GLN
2	C2	75	HIS
2	C2	84	PRO
2	C2	88	LEU
2	C2	93	SER
2	C2	103	LEU
2	C2	104	VAL
2	C2	110	VAL

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Mol	Chain	Res	Type
2	C2	126	VAL
2	C2	134	HIS
2	C2	135	THR
2	C2	150	TYR
2	C2	152	TYR
2	C2	159	PRO
2	C2	160	HIS
2	C2	162	LEU
2	C2	166	ARG
2	C2	167	THR
2	C2	174	VAL
2	C2	176	PRO
2	C2	178	ILE
2	C2	184	THR
2	C2	186	LEU
2	C2	188	LEU
2	C2	193	THR
2	C2	194	ILE
2	C2	195	VAL
2	C2	197	LEU
2	C2	200	SER
2	C2	202	LEU
2	C2	203	THR
2	C2	210	PRO
2	C2	214	SER
2	C2	223	ASN
2	C3	13	ARG
2	C3	18	VAL
2	C3	22	THR
2	C3	29	SER
2	C3	45	SER
2	C3	53	ARG
2	C3	56	PRO
2	C3	58	LEU
2	C3	73	GLN
2	C3	75	HIS
2	C3	84	PRO
2	C3	88	LEU
2	C3	93	SER
2	C3	103	LEU
2	C3	104	VAL
2	C3	110	VAL

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Mol	Chain	Res	Type
2	C3	126	VAL
2	C3	134	HIS
2	C3	135	THR
2	C3	150	TYR
2	C3	152	TYR
2	C3	159	PRO
2	C3	160	HIS
2	C3	162	LEU
2	C3	166	ARG
2	C3	167	THR
2	C3	174	VAL
2	C3	176	PRO
2	C3	178	ILE
2	C3	184	THR
2	C3	186	LEU
2	C3	188	LEU
2	C3	193	THR
2	C3	194	ILE
2	C3	195	VAL
2	C3	197	LEU
2	C3	200	SER
2	C3	202	LEU
2	C3	203	THR
2	C3	210	PRO
2	C3	214	SER
2	C3	223	ASN
2	C4	13	ARG
2	C4	18	VAL
2	C4	22	THR
2	C4	29	SER
2	C4	45	SER
2	C4	53	ARG
2	C4	56	PRO
2	C4	58	LEU
2	C4	73	GLN
2	C4	75	HIS
2	C4	84	PRO
2	C4	88	LEU
2	C4	93	SER
2	C4	103	LEU
2	C4	104	VAL
2	C4	110	VAL

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Mol	Chain	Res	Type
2	C4	126	VAL
2	C4	134	HIS
2	C4	135	THR
2	C4	150	TYR
2	C4	152	TYR
2	C4	159	PRO
2	C4	160	HIS
2	C4	162	LEU
2	C4	166	ARG
2	C4	167	THR
2	C4	174	VAL
2	C4	176	PRO
2	C4	178	ILE
2	C4	184	THR
2	C4	186	LEU
2	C4	188	LEU
2	C4	193	THR
2	C4	194	ILE
2	C4	195	VAL
2	C4	197	LEU
2	C4	200	SER
2	C4	202	LEU
2	C4	203	THR
2	C4	210	PRO
2	C4	214	SER
2	C4	223	ASN
2	C5	13	ARG
2	C5	18	VAL
2	C5	22	THR
2	C5	29	SER
2	C5	45	SER
2	C5	53	ARG
2	C5	56	PRO
2	C5	58	LEU
2	C5	73	GLN
2	C5	75	HIS
2	C5	84	PRO
2	C5	88	LEU
2	C5	93	SER
2	C5	103	LEU
2	C5	104	VAL
2	C5	110	VAL

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Mol	Chain	Res	Type
2	C5	126	VAL
2	C5	134	HIS
2	C5	135	THR
2	C5	137	GLU
2	C5	150	TYR
2	C5	152	TYR
2	C5	159	PRO
2	C5	160	HIS
2	C5	162	LEU
2	C5	166	ARG
2	C5	167	THR
2	C5	174	VAL
2	C5	176	PRO
2	C5	178	ILE
2	C5	184	THR
2	C5	186	LEU
2	C5	188	LEU
2	C5	193	THR
2	C5	194	ILE
2	C5	195	VAL
2	C5	197	LEU
2	C5	200	SER
2	C5	202	LEU
2	C5	203	THR
2	C5	210	PRO
2	C5	214	SER
2	C5	223	ASN
2	C6	13	ARG
2	C6	18	VAL
2	C6	22	THR
2	C6	29	SER
2	C6	45	SER
2	C6	53	ARG
2	C6	56	PRO
2	C6	58	LEU
2	C6	73	GLN
2	C6	75	HIS
2	C6	84	PRO
2	C6	88	LEU
2	C6	93	SER
2	C6	103	LEU
2	C6	104	VAL

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Mol	Chain	Res	Type
2	C6	110	VAL
2	C6	126	VAL
2	C6	134	HIS
2	C6	135	THR
2	C6	150	TYR
2	C6	152	TYR
2	C6	159	PRO
2	C6	160	HIS
2	C6	162	LEU
2	C6	166	ARG
2	C6	167	THR
2	C6	174	VAL
2	C6	176	PRO
2	C6	178	ILE
2	C6	184	THR
2	C6	186	LEU
2	C6	188	LEU
2	C6	193	THR
2	C6	194	ILE
2	C6	195	VAL
2	C6	197	LEU
2	C6	200	SER
2	C6	202	LEU
2	C6	203	THR
2	C6	210	PRO
2	C6	214	SER
2	C6	223	ASN
2	C7	13	ARG
2	C7	18	VAL
2	C7	22	THR
2	C7	29	SER
2	C7	45	SER
2	C7	53	ARG
2	C7	56	PRO
2	C7	58	LEU
2	C7	73	GLN
2	C7	75	HIS
2	C7	84	PRO
2	C7	88	LEU
2	C7	93	SER
2	C7	103	LEU
2	C7	104	VAL

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Mol	Chain	Res	Type
2	C7	110	VAL
2	C7	126	VAL
2	C7	134	HIS
2	C7	135	THR
2	C7	150	TYR
2	C7	152	TYR
2	C7	159	PRO
2	C7	160	HIS
2	C7	162	LEU
2	C7	166	ARG
2	C7	167	THR
2	C7	174	VAL
2	C7	176	PRO
2	C7	178	ILE
2	C7	184	THR
2	C7	186	LEU
2	C7	188	LEU
2	C7	193	THR
2	C7	194	ILE
2	C7	195	VAL
2	C7	197	LEU
2	C7	200	SER
2	C7	202	LEU
2	C7	203	THR
2	C7	210	PRO
2	C7	214	SER
2	C7	223	ASN
2	C8	13	ARG
2	C8	18	VAL
2	C8	22	THR
2	C8	29	SER
2	C8	45	SER
2	C8	53	ARG
2	C8	56	PRO
2	C8	58	LEU
2	C8	73	GLN
2	C8	75	HIS
2	C8	84	PRO
2	C8	88	LEU
2	C8	93	SER
2	C8	103	LEU
2	C8	104	VAL

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Mol	Chain	Res	Type
2	C8	110	VAL
2	C8	126	VAL
2	C8	134	HIS
2	C8	135	THR
2	C8	150	TYR
2	C8	152	TYR
2	C8	159	PRO
2	C8	160	HIS
2	C8	162	LEU
2	C8	166	ARG
2	C8	167	THR
2	C8	174	VAL
2	C8	176	PRO
2	C8	178	ILE
2	C8	184	THR
2	C8	186	LEU
2	C8	188	LEU
2	C8	193	THR
2	C8	194	ILE
2	C8	195	VAL
2	C8	197	LEU
2	C8	200	SER
2	C8	202	LEU
2	C8	203	THR
2	C8	210	PRO
2	C8	214	SER
2	C8	223	ASN
2	C9	13	ARG
2	C9	18	VAL
2	C9	22	THR
2	C9	29	SER
2	C9	45	SER
2	C9	53	ARG
2	C9	56	PRO
2	C9	58	LEU
2	C9	73	GLN
2	C9	75	HIS
2	C9	84	PRO
2	C9	88	LEU
2	C9	93	SER
2	C9	103	LEU
2	C9	104	VAL

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Mol	Chain	Res	Type
2	C9	110	VAL
2	C9	126	VAL
2	C9	134	HIS
2	C9	135	THR
2	C9	150	TYR
2	C9	152	TYR
2	C9	159	PRO
2	C9	160	HIS
2	C9	162	LEU
2	C9	166	ARG
2	C9	167	THR
2	C9	174	VAL
2	C9	176	PRO
2	C9	178	ILE
2	C9	184	THR
2	C9	186	LEU
2	C9	188	LEU
2	C9	193	THR
2	C9	194	ILE
2	C9	195	VAL
2	C9	197	LEU
2	C9	200	SER
2	C9	202	LEU
2	C9	203	THR
2	C9	210	PRO
2	C9	214	SER
2	C9	223	ASN
2	CA	13	ARG
2	CA	18	VAL
2	CA	22	THR
2	CA	29	SER
2	CA	45	SER
2	CA	53	ARG
2	CA	56	PRO
2	CA	58	LEU
2	CA	73	GLN
2	CA	75	HIS
2	CA	84	PRO
2	CA	88	LEU
2	CA	93	SER
2	CA	103	LEU
2	CA	104	VAL

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Mol	Chain	Res	Type
2	CA	110	VAL
2	CA	126	VAL
2	CA	134	HIS
2	CA	135	THR
2	CA	150	TYR
2	CA	152	TYR
2	CA	159	PRO
2	CA	160	HIS
2	CA	162	LEU
2	CA	166	ARG
2	CA	167	THR
2	CA	174	VAL
2	CA	176	PRO
2	CA	178	ILE
2	CA	184	THR
2	CA	186	LEU
2	CA	188	LEU
2	CA	193	THR
2	CA	194	ILE
2	CA	195	VAL
2	CA	197	LEU
2	CA	200	SER
2	CA	202	LEU
2	CA	203	THR
2	CA	210	PRO
2	CA	214	SER
2	CA	223	ASN
2	CB	13	ARG
2	CB	18	VAL
2	CB	22	THR
2	CB	29	SER
2	CB	45	SER
2	CB	53	ARG
2	CB	56	PRO
2	CB	58	LEU
2	CB	73	GLN
2	CB	75	HIS
2	CB	84	PRO
2	CB	88	LEU
2	CB	93	SER
2	CB	103	LEU
2	CB	104	VAL

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Mol	Chain	Res	Type
2	CB	110	VAL
2	CB	126	VAL
2	CB	134	HIS
2	CB	135	THR
2	CB	150	TYR
2	CB	152	TYR
2	CB	159	PRO
2	CB	160	HIS
2	CB	162	LEU
2	CB	166	ARG
2	CB	167	THR
2	CB	174	VAL
2	CB	176	PRO
2	CB	178	ILE
2	CB	184	THR
2	CB	186	LEU
2	CB	188	LEU
2	CB	193	THR
2	CB	194	ILE
2	CB	195	VAL
2	CB	197	LEU
2	CB	200	SER
2	CB	202	LEU
2	CB	203	THR
2	CB	210	PRO
2	CB	214	SER
2	CB	223	ASN
2	CC	13	ARG
2	CC	18	VAL
2	CC	22	THR
2	CC	29	SER
2	CC	45	SER
2	CC	53	ARG
2	CC	56	PRO
2	CC	58	LEU
2	CC	73	GLN
2	CC	75	HIS
2	CC	84	PRO
2	CC	88	LEU
2	CC	93	SER
2	CC	103	LEU
2	CC	104	VAL

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Mol	Chain	Res	Type
2	CC	110	VAL
2	CC	126	VAL
2	CC	134	HIS
2	CC	135	THR
2	CC	137	GLU
2	CC	150	TYR
2	CC	152	TYR
2	CC	159	PRO
2	CC	160	HIS
2	CC	162	LEU
2	CC	166	ARG
2	CC	167	THR
2	CC	174	VAL
2	CC	176	PRO
2	CC	178	ILE
2	CC	184	THR
2	CC	186	LEU
2	CC	188	LEU
2	CC	193	THR
2	CC	194	ILE
2	CC	195	VAL
2	CC	197	LEU
2	CC	200	SER
2	CC	202	LEU
2	CC	203	THR
2	CC	210	PRO
2	CC	214	SER
2	CC	223	ASN
2	CD	13	ARG
2	CD	18	VAL
2	CD	22	THR
2	CD	29	SER
2	CD	45	SER
2	CD	53	ARG
2	CD	56	PRO
2	CD	58	LEU
2	CD	73	GLN
2	CD	75	HIS
2	CD	84	PRO
2	CD	88	LEU
2	CD	93	SER
2	CD	103	LEU

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Mol	Chain	Res	Type
2	CD	104	VAL
2	CD	110	VAL
2	CD	126	VAL
2	CD	134	HIS
2	CD	135	THR
2	CD	137	GLU
2	CD	150	TYR
2	CD	152	TYR
2	CD	159	PRO
2	CD	160	HIS
2	CD	162	LEU
2	CD	166	ARG
2	CD	167	THR
2	CD	174	VAL
2	CD	176	PRO
2	CD	178	ILE
2	CD	184	THR
2	CD	186	LEU
2	CD	188	LEU
2	CD	193	THR
2	CD	194	ILE
2	CD	195	VAL
2	CD	197	LEU
2	CD	200	SER
2	CD	202	LEU
2	CD	203	THR
2	CD	210	PRO
2	CD	214	SER
2	CD	223	ASN
2	CE	13	ARG
2	CE	18	VAL
2	CE	22	THR
2	CE	29	SER
2	CE	45	SER
2	CE	53	ARG
2	CE	56	PRO
2	CE	58	LEU
2	CE	73	GLN
2	CE	75	HIS
2	CE	84	PRO
2	CE	88	LEU
2	CE	93	SER

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Mol	Chain	Res	Type
2	CE	103	LEU
2	CE	104	VAL
2	CE	110	VAL
2	CE	126	VAL
2	CE	134	HIS
2	CE	135	THR
2	CE	150	TYR
2	CE	152	TYR
2	CE	159	PRO
2	CE	160	HIS
2	CE	162	LEU
2	CE	166	ARG
2	CE	167	THR
2	CE	174	VAL
2	CE	176	PRO
2	CE	178	ILE
2	CE	184	THR
2	CE	186	LEU
2	CE	188	LEU
2	CE	193	THR
2	CE	194	ILE
2	CE	195	VAL
2	CE	197	LEU
2	CE	200	SER
2	CE	202	LEU
2	CE	203	THR
2	CE	210	PRO
2	CE	214	SER
2	CE	223	ASN
2	CF	13	ARG
2	CF	18	VAL
2	CF	22	THR
2	CF	29	SER
2	CF	45	SER
2	CF	53	ARG
2	CF	56	PRO
2	CF	58	LEU
2	CF	73	GLN
2	CF	75	HIS
2	CF	84	PRO
2	CF	88	LEU
2	CF	93	SER

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Mol	Chain	Res	Type
2	CF	103	LEU
2	CF	104	VAL
2	CF	110	VAL
2	CF	126	VAL
2	CF	134	HIS
2	CF	135	THR
2	CF	137	GLU
2	CF	150	TYR
2	CF	152	TYR
2	CF	159	PRO
2	CF	160	HIS
2	CF	162	LEU
2	CF	166	ARG
2	CF	167	THR
2	CF	174	VAL
2	CF	176	PRO
2	CF	178	ILE
2	CF	184	THR
2	CF	186	LEU
2	CF	188	LEU
2	CF	193	THR
2	CF	194	ILE
2	CF	195	VAL
2	CF	197	LEU
2	CF	200	SER
2	CF	202	LEU
2	CF	203	THR
2	CF	210	PRO
2	CF	214	SER
2	CF	223	ASN
2	CG	13	ARG
2	CG	18	VAL
2	CG	22	THR
2	CG	29	SER
2	CG	45	SER
2	CG	53	ARG
2	CG	56	PRO
2	CG	58	LEU
2	CG	73	GLN
2	CG	75	HIS
2	CG	84	PRO
2	CG	88	LEU

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Mol	Chain	Res	Type
2	CG	93	SER
2	CG	103	LEU
2	CG	104	VAL
2	CG	110	VAL
2	CG	126	VAL
2	CG	134	HIS
2	CG	135	THR
2	CG	137	GLU
2	CG	150	TYR
2	CG	152	TYR
2	CG	159	PRO
2	CG	160	HIS
2	CG	162	LEU
2	CG	166	ARG
2	CG	167	THR
2	CG	174	VAL
2	CG	176	PRO
2	CG	178	ILE
2	CG	184	THR
2	CG	186	LEU
2	CG	188	LEU
2	CG	193	THR
2	CG	194	ILE
2	CG	195	VAL
2	CG	197	LEU
2	CG	200	SER
2	CG	202	LEU
2	CG	203	THR
2	CG	210	PRO
2	CG	214	SER
2	CG	223	ASN
2	CH	13	ARG
2	CH	18	VAL
2	CH	22	THR
2	CH	29	SER
2	CH	45	SER
2	CH	53	ARG
2	CH	56	PRO
2	CH	58	LEU
2	CH	73	GLN
2	CH	75	HIS
2	CH	84	PRO

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Mol	Chain	Res	Type
2	CH	88	LEU
2	CH	93	SER
2	CH	103	LEU
2	CH	104	VAL
2	CH	110	VAL
2	CH	126	VAL
2	CH	134	HIS
2	CH	135	THR
2	CH	150	TYR
2	CH	152	TYR
2	CH	159	PRO
2	CH	160	HIS
2	CH	162	LEU
2	CH	166	ARG
2	CH	167	THR
2	CH	174	VAL
2	CH	176	PRO
2	CH	178	ILE
2	CH	184	THR
2	CH	186	LEU
2	CH	188	LEU
2	CH	193	THR
2	CH	194	ILE
2	CH	195	VAL
2	CH	197	LEU
2	CH	200	SER
2	CH	202	LEU
2	CH	203	THR
2	CH	210	PRO
2	CH	214	SER
2	CH	223	ASN
2	CI	13	ARG
2	CI	18	VAL
2	CI	22	THR
2	CI	29	SER
2	CI	45	SER
2	CI	53	ARG
2	CI	56	PRO
2	CI	58	LEU
2	CI	73	GLN
2	CI	75	HIS
2	CI	84	PRO

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Mol	Chain	Res	Type
2	CI	88	LEU
2	CI	93	SER
2	CI	103	LEU
2	CI	104	VAL
2	CI	110	VAL
2	CI	126	VAL
2	CI	134	HIS
2	CI	135	THR
2	CI	137	GLU
2	CI	150	TYR
2	CI	152	TYR
2	CI	159	PRO
2	CI	160	HIS
2	CI	162	LEU
2	CI	166	ARG
2	CI	167	THR
2	CI	174	VAL
2	CI	176	PRO
2	CI	178	ILE
2	CI	184	THR
2	CI	186	LEU
2	CI	188	LEU
2	CI	193	THR
2	CI	194	ILE
2	CI	195	VAL
2	CI	197	LEU
2	CI	200	SER
2	CI	202	LEU
2	CI	203	THR
2	CI	210	PRO
2	CI	214	SER
2	CI	223	ASN
2	CJ	13	ARG
2	CJ	18	VAL
2	CJ	22	THR
2	CJ	29	SER
2	CJ	45	SER
2	CJ	53	ARG
2	CJ	56	PRO
2	CJ	58	LEU
2	CJ	73	GLN
2	CJ	75	HIS

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Mol	Chain	Res	Type
2	CJ	84	PRO
2	CJ	88	LEU
2	CJ	93	SER
2	CJ	103	LEU
2	CJ	104	VAL
2	CJ	110	VAL
2	CJ	126	VAL
2	CJ	134	HIS
2	CJ	135	THR
2	CJ	150	TYR
2	CJ	152	TYR
2	CJ	159	PRO
2	CJ	160	HIS
2	CJ	162	LEU
2	CJ	166	ARG
2	CJ	167	THR
2	CJ	174	VAL
2	CJ	176	PRO
2	CJ	178	ILE
2	CJ	184	THR
2	CJ	186	LEU
2	CJ	188	LEU
2	CJ	193	THR
2	CJ	194	ILE
2	CJ	195	VAL
2	CJ	197	LEU
2	CJ	200	SER
2	CJ	202	LEU
2	CJ	203	THR
2	CJ	210	PRO
2	CJ	214	SER
2	CJ	223	ASN
2	CK	13	ARG
2	CK	18	VAL
2	CK	22	THR
2	CK	29	SER
2	CK	45	SER
2	CK	53	ARG
2	CK	56	PRO
2	CK	58	LEU
2	CK	73	GLN
2	CK	75	HIS

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Mol	Chain	Res	Type
2	CK	84	PRO
2	CK	88	LEU
2	CK	93	SER
2	CK	103	LEU
2	CK	104	VAL
2	CK	110	VAL
2	CK	126	VAL
2	CK	134	HIS
2	CK	135	THR
2	CK	150	TYR
2	CK	152	TYR
2	CK	159	PRO
2	CK	160	HIS
2	CK	162	LEU
2	CK	166	ARG
2	CK	167	THR
2	CK	174	VAL
2	CK	176	PRO
2	CK	178	ILE
2	CK	184	THR
2	CK	186	LEU
2	CK	188	LEU
2	CK	193	THR
2	CK	194	ILE
2	CK	195	VAL
2	CK	197	LEU
2	CK	200	SER
2	CK	202	LEU
2	CK	203	THR
2	CK	210	PRO
2	CK	214	SER
2	CK	223	ASN
2	CL	13	ARG
2	CL	18	VAL
2	CL	22	THR
2	CL	29	SER
2	CL	45	SER
2	CL	53	ARG
2	CL	56	PRO
2	CL	58	LEU
2	CL	73	GLN
2	CL	75	HIS

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Mol	Chain	Res	Type
2	CL	84	PRO
2	CL	88	LEU
2	CL	93	SER
2	CL	103	LEU
2	CL	104	VAL
2	CL	110	VAL
2	CL	126	VAL
2	CL	134	HIS
2	CL	135	THR
2	CL	150	TYR
2	CL	152	TYR
2	CL	159	PRO
2	CL	160	HIS
2	CL	162	LEU
2	CL	166	ARG
2	CL	167	THR
2	CL	174	VAL
2	CL	176	PRO
2	CL	178	ILE
2	CL	184	THR
2	CL	186	LEU
2	CL	188	LEU
2	CL	193	THR
2	CL	194	ILE
2	CL	195	VAL
2	CL	197	LEU
2	CL	200	SER
2	CL	202	LEU
2	CL	203	THR
2	CL	210	PRO
2	CL	214	SER
2	CL	223	ASN
2	CM	13	ARG
2	CM	18	VAL
2	CM	22	THR
2	CM	29	SER
2	CM	45	SER
2	CM	53	ARG
2	CM	56	PRO
2	CM	58	LEU
2	CM	73	GLN
2	CM	75	HIS

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Mol	Chain	Res	Type
2	CM	84	PRO
2	CM	88	LEU
2	CM	93	SER
2	CM	103	LEU
2	CM	104	VAL
2	CM	110	VAL
2	CM	126	VAL
2	CM	134	HIS
2	CM	135	THR
2	CM	137	GLU
2	CM	150	TYR
2	CM	152	TYR
2	CM	159	PRO
2	CM	160	HIS
2	CM	162	LEU
2	CM	166	ARG
2	CM	167	THR
2	CM	174	VAL
2	CM	176	PRO
2	CM	178	ILE
2	CM	184	THR
2	CM	186	LEU
2	CM	188	LEU
2	CM	193	THR
2	CM	194	ILE
2	CM	195	VAL
2	CM	197	LEU
2	CM	200	SER
2	CM	202	LEU
2	CM	203	THR
2	CM	210	PRO
2	CM	214	SER
2	CM	223	ASN
2	CN	13	ARG
2	CN	18	VAL
2	CN	22	THR
2	CN	29	SER
2	CN	45	SER
2	CN	53	ARG
2	CN	56	PRO
2	CN	58	LEU
2	CN	73	GLN

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Mol	Chain	Res	Type
2	CN	75	HIS
2	CN	84	PRO
2	CN	88	LEU
2	CN	93	SER
2	CN	103	LEU
2	CN	104	VAL
2	CN	110	VAL
2	CN	126	VAL
2	CN	134	HIS
2	CN	135	THR
2	CN	137	GLU
2	CN	150	TYR
2	CN	152	TYR
2	CN	159	PRO
2	CN	160	HIS
2	CN	162	LEU
2	CN	166	ARG
2	CN	167	THR
2	CN	174	VAL
2	CN	176	PRO
2	CN	178	ILE
2	CN	184	THR
2	CN	186	LEU
2	CN	188	LEU
2	CN	193	THR
2	CN	194	ILE
2	CN	195	VAL
2	CN	197	LEU
2	CN	200	SER
2	CN	202	LEU
2	CN	203	THR
2	CN	210	PRO
2	CN	214	SER
2	CN	223	ASN
2	CO	13	ARG
2	CO	18	VAL
2	CO	22	THR
2	CO	29	SER
2	CO	45	SER
2	CO	53	ARG
2	CO	56	PRO
2	CO	58	LEU

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Mol	Chain	Res	Type
2	CO	73	GLN
2	CO	75	HIS
2	CO	84	PRO
2	CO	88	LEU
2	CO	93	SER
2	CO	103	LEU
2	CO	104	VAL
2	CO	110	VAL
2	CO	126	VAL
2	CO	134	HIS
2	CO	135	THR
2	CO	150	TYR
2	CO	152	TYR
2	CO	159	PRO
2	CO	160	HIS
2	CO	162	LEU
2	CO	166	ARG
2	CO	167	THR
2	CO	174	VAL
2	CO	176	PRO
2	CO	178	ILE
2	CO	184	THR
2	CO	186	LEU
2	CO	188	LEU
2	CO	193	THR
2	CO	194	ILE
2	CO	195	VAL
2	CO	197	LEU
2	CO	200	SER
2	CO	202	LEU
2	CO	203	THR
2	CO	210	PRO
2	CO	214	SER
2	CO	223	ASN
2	CP	13	ARG
2	CP	18	VAL
2	CP	22	THR
2	CP	29	SER
2	CP	45	SER
2	CP	53	ARG
2	CP	56	PRO
2	CP	58	LEU

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Mol	Chain	Res	Type
2	CP	73	GLN
2	CP	75	HIS
2	CP	84	PRO
2	CP	88	LEU
2	CP	93	SER
2	CP	103	LEU
2	CP	104	VAL
2	CP	110	VAL
2	CP	126	VAL
2	CP	134	HIS
2	CP	135	THR
2	CP	137	GLU
2	CP	150	TYR
2	CP	152	TYR
2	CP	159	PRO
2	CP	160	HIS
2	CP	162	LEU
2	CP	166	ARG
2	CP	167	THR
2	CP	174	VAL
2	CP	176	PRO
2	CP	178	ILE
2	CP	184	THR
2	CP	186	LEU
2	CP	188	LEU
2	CP	193	THR
2	CP	194	ILE
2	CP	195	VAL
2	CP	197	LEU
2	CP	200	SER
2	CP	202	LEU
2	CP	203	THR
2	CP	210	PRO
2	CP	214	SER
2	CP	223	ASN
2	CQ	13	ARG
2	CQ	18	VAL
2	CQ	22	THR
2	CQ	29	SER
2	CQ	45	SER
2	CQ	53	ARG
2	CQ	56	PRO

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Mol	Chain	Res	Type
2	CQ	58	LEU
2	CQ	73	GLN
2	CQ	75	HIS
2	CQ	84	PRO
2	CQ	88	LEU
2	CQ	93	SER
2	CQ	103	LEU
2	CQ	104	VAL
2	CQ	110	VAL
2	CQ	126	VAL
2	CQ	134	HIS
2	CQ	135	THR
2	CQ	137	GLU
2	CQ	150	TYR
2	CQ	152	TYR
2	CQ	159	PRO
2	CQ	160	HIS
2	CQ	162	LEU
2	CQ	166	ARG
2	CQ	167	THR
2	CQ	174	VAL
2	CQ	176	PRO
2	CQ	178	ILE
2	CQ	184	THR
2	CQ	186	LEU
2	CQ	188	LEU
2	CQ	193	THR
2	CQ	194	ILE
2	CQ	195	VAL
2	CQ	197	LEU
2	CQ	200	SER
2	CQ	202	LEU
2	CQ	203	THR
2	CQ	210	PRO
2	CQ	214	SER
2	CQ	223	ASN
2	CR	13	ARG
2	CR	18	VAL
2	CR	22	THR
2	CR	29	SER
2	CR	45	SER
2	CR	53	ARG

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Mol	Chain	Res	Type
2	CR	56	PRO
2	CR	58	LEU
2	CR	73	GLN
2	CR	75	HIS
2	CR	84	PRO
2	CR	88	LEU
2	CR	93	SER
2	CR	103	LEU
2	CR	104	VAL
2	CR	110	VAL
2	CR	126	VAL
2	CR	134	HIS
2	CR	135	THR
2	CR	150	TYR
2	CR	152	TYR
2	CR	159	PRO
2	CR	160	HIS
2	CR	162	LEU
2	CR	166	ARG
2	CR	167	THR
2	CR	174	VAL
2	CR	176	PRO
2	CR	178	ILE
2	CR	184	THR
2	CR	186	LEU
2	CR	188	LEU
2	CR	193	THR
2	CR	194	ILE
2	CR	195	VAL
2	CR	197	LEU
2	CR	200	SER
2	CR	202	LEU
2	CR	203	THR
2	CR	210	PRO
2	CR	214	SER
2	CR	223	ASN
2	CS	13	ARG
2	CS	18	VAL
2	CS	22	THR
2	CS	29	SER
2	CS	45	SER
2	CS	53	ARG

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Mol	Chain	Res	Type
2	CS	56	PRO
2	CS	58	LEU
2	CS	73	GLN
2	CS	75	HIS
2	CS	84	PRO
2	CS	88	LEU
2	CS	93	SER
2	CS	103	LEU
2	CS	104	VAL
2	CS	110	VAL
2	CS	126	VAL
2	CS	134	HIS
2	CS	135	THR
2	CS	150	TYR
2	CS	152	TYR
2	CS	159	PRO
2	CS	160	HIS
2	CS	162	LEU
2	CS	166	ARG
2	CS	167	THR
2	CS	174	VAL
2	CS	176	PRO
2	CS	178	ILE
2	CS	184	THR
2	CS	186	LEU
2	CS	188	LEU
2	CS	193	THR
2	CS	194	ILE
2	CS	195	VAL
2	CS	197	LEU
2	CS	200	SER
2	CS	202	LEU
2	CS	203	THR
2	CS	210	PRO
2	CS	214	SER
2	CS	223	ASN
2	CT	13	ARG
2	CT	18	VAL
2	CT	22	THR
2	CT	29	SER
2	CT	45	SER
2	CT	53	ARG

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Mol	Chain	Res	Type
2	CT	56	PRO
2	CT	58	LEU
2	CT	73	GLN
2	CT	75	HIS
2	CT	84	PRO
2	CT	88	LEU
2	CT	93	SER
2	CT	103	LEU
2	CT	104	VAL
2	CT	110	VAL
2	CT	126	VAL
2	CT	134	HIS
2	CT	135	THR
2	CT	150	TYR
2	CT	152	TYR
2	CT	159	PRO
2	CT	160	HIS
2	CT	162	LEU
2	CT	166	ARG
2	CT	167	THR
2	CT	174	VAL
2	CT	176	PRO
2	CT	178	ILE
2	CT	184	THR
2	CT	186	LEU
2	CT	188	LEU
2	CT	193	THR
2	CT	194	ILE
2	CT	195	VAL
2	CT	197	LEU
2	CT	200	SER
2	CT	202	LEU
2	CT	203	THR
2	CT	210	PRO
2	CT	214	SER
2	CT	223	ASN
2	CU	13	ARG
2	CU	18	VAL
2	CU	22	THR
2	CU	29	SER
2	CU	45	SER
2	CU	53	ARG

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Mol	Chain	Res	Type
2	CU	56	PRO
2	CU	58	LEU
2	CU	73	GLN
2	CU	75	HIS
2	CU	84	PRO
2	CU	88	LEU
2	CU	93	SER
2	CU	103	LEU
2	CU	104	VAL
2	CU	110	VAL
2	CU	126	VAL
2	CU	134	HIS
2	CU	135	THR
2	CU	137	GLU
2	CU	150	TYR
2	CU	152	TYR
2	CU	159	PRO
2	CU	160	HIS
2	CU	162	LEU
2	CU	166	ARG
2	CU	167	THR
2	CU	174	VAL
2	CU	176	PRO
2	CU	178	ILE
2	CU	184	THR
2	CU	186	LEU
2	CU	188	LEU
2	CU	193	THR
2	CU	194	ILE
2	CU	195	VAL
2	CU	197	LEU
2	CU	200	SER
2	CU	202	LEU
2	CU	203	THR
2	CU	210	PRO
2	CU	214	SER
2	CU	223	ASN
2	CV	13	ARG
2	CV	18	VAL
2	CV	22	THR
2	CV	29	SER
2	CV	45	SER

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Mol	Chain	Res	Type
2	CV	53	ARG
2	CV	56	PRO
2	CV	58	LEU
2	CV	73	GLN
2	CV	75	HIS
2	CV	84	PRO
2	CV	88	LEU
2	CV	93	SER
2	CV	103	LEU
2	CV	104	VAL
2	CV	110	VAL
2	CV	126	VAL
2	CV	134	HIS
2	CV	135	THR
2	CV	150	TYR
2	CV	152	TYR
2	CV	159	PRO
2	CV	160	HIS
2	CV	162	LEU
2	CV	166	ARG
2	CV	167	THR
2	CV	174	VAL
2	CV	176	PRO
2	CV	178	ILE
2	CV	184	THR
2	CV	186	LEU
2	CV	188	LEU
2	CV	193	THR
2	CV	194	ILE
2	CV	195	VAL
2	CV	197	LEU
2	CV	200	SER
2	CV	202	LEU
2	CV	203	THR
2	CV	210	PRO
2	CV	214	SER
2	CV	223	ASN
2	CW	13	ARG
2	CW	18	VAL
2	CW	22	THR
2	CW	29	SER
2	CW	45	SER

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Mol	Chain	Res	Type
2	CW	53	ARG
2	CW	56	PRO
2	CW	58	LEU
2	CW	73	GLN
2	CW	75	HIS
2	CW	84	PRO
2	CW	88	LEU
2	CW	93	SER
2	CW	103	LEU
2	CW	104	VAL
2	CW	110	VAL
2	CW	126	VAL
2	CW	134	HIS
2	CW	135	THR
2	CW	137	GLU
2	CW	150	TYR
2	CW	152	TYR
2	CW	159	PRO
2	CW	160	HIS
2	CW	162	LEU
2	CW	166	ARG
2	CW	167	THR
2	CW	174	VAL
2	CW	176	PRO
2	CW	178	ILE
2	CW	184	THR
2	CW	186	LEU
2	CW	188	LEU
2	CW	193	THR
2	CW	194	ILE
2	CW	195	VAL
2	CW	197	LEU
2	CW	200	SER
2	CW	202	LEU
2	CW	203	THR
2	CW	210	PRO
2	CW	214	SER
2	CW	223	ASN
2	CX	13	ARG
2	CX	18	VAL
2	CX	22	THR
2	CX	29	SER

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Mol	Chain	Res	Type
2	CX	45	SER
2	CX	53	ARG
2	CX	56	PRO
2	CX	58	LEU
2	CX	73	GLN
2	CX	75	HIS
2	CX	84	PRO
2	CX	88	LEU
2	CX	93	SER
2	CX	103	LEU
2	CX	104	VAL
2	CX	110	VAL
2	CX	126	VAL
2	CX	134	HIS
2	CX	135	THR
2	CX	150	TYR
2	CX	152	TYR
2	CX	159	PRO
2	CX	160	HIS
2	CX	162	LEU
2	CX	166	ARG
2	CX	167	THR
2	CX	174	VAL
2	CX	176	PRO
2	CX	178	ILE
2	CX	184	THR
2	CX	186	LEU
2	CX	188	LEU
2	CX	193	THR
2	CX	194	ILE
2	CX	195	VAL
2	CX	197	LEU
2	CX	200	SER
2	CX	202	LEU
2	CX	203	THR
2	CX	210	PRO
2	CX	214	SER
2	CX	223	ASN
2	CY	13	ARG
2	CY	18	VAL
2	CY	22	THR
2	CY	29	SER

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Mol	Chain	Res	Type
2	CY	45	SER
2	CY	53	ARG
2	CY	56	PRO
2	CY	58	LEU
2	CY	73	GLN
2	CY	75	HIS
2	CY	84	PRO
2	CY	88	LEU
2	CY	93	SER
2	CY	103	LEU
2	CY	104	VAL
2	CY	110	VAL
2	CY	126	VAL
2	CY	134	HIS
2	CY	135	THR
2	CY	137	GLU
2	CY	150	TYR
2	CY	152	TYR
2	CY	159	PRO
2	CY	160	HIS
2	CY	162	LEU
2	CY	166	ARG
2	CY	167	THR
2	CY	174	VAL
2	CY	176	PRO
2	CY	178	ILE
2	CY	184	THR
2	CY	186	LEU
2	CY	188	LEU
2	CY	193	THR
2	CY	194	ILE
2	CY	195	VAL
2	CY	197	LEU
2	CY	200	SER
2	CY	202	LEU
2	CY	203	THR
2	CY	210	PRO
2	CY	214	SER
2	CY	223	ASN
2	CZ	13	ARG
2	CZ	18	VAL
2	CZ	22	THR

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Mol	Chain	Res	Type
2	CZ	29	SER
2	CZ	45	SER
2	CZ	53	ARG
2	CZ	56	PRO
2	CZ	58	LEU
2	CZ	73	GLN
2	CZ	75	HIS
2	CZ	84	PRO
2	CZ	88	LEU
2	CZ	93	SER
2	CZ	103	LEU
2	CZ	104	VAL
2	CZ	110	VAL
2	CZ	126	VAL
2	CZ	134	HIS
2	CZ	135	THR
2	CZ	137	GLU
2	CZ	150	TYR
2	CZ	152	TYR
2	CZ	159	PRO
2	CZ	160	HIS
2	CZ	162	LEU
2	CZ	166	ARG
2	CZ	167	THR
2	CZ	174	VAL
2	CZ	176	PRO
2	CZ	178	ILE
2	CZ	184	THR
2	CZ	186	LEU
2	CZ	188	LEU
2	CZ	193	THR
2	CZ	194	ILE
2	CZ	195	VAL
2	CZ	197	LEU
2	CZ	200	SER
2	CZ	202	LEU
2	CZ	203	THR
2	CZ	210	PRO
2	CZ	214	SER
2	CZ	223	ASN
2	Ca	13	ARG
2	Ca	18	VAL

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Mol	Chain	Res	Type
2	Ca	22	THR
2	Ca	29	SER
2	Ca	45	SER
2	Ca	53	ARG
2	Ca	56	PRO
2	Ca	58	LEU
2	Ca	73	GLN
2	Ca	75	HIS
2	Ca	84	PRO
2	Ca	88	LEU
2	Ca	93	SER
2	Ca	103	LEU
2	Ca	104	VAL
2	Ca	110	VAL
2	Ca	126	VAL
2	Ca	134	HIS
2	Ca	135	THR
2	Ca	150	TYR
2	Ca	152	TYR
2	Ca	159	PRO
2	Ca	160	HIS
2	Ca	162	LEU
2	Ca	166	ARG
2	Ca	167	THR
2	Ca	174	VAL
2	Ca	176	PRO
2	Ca	178	ILE
2	Ca	184	THR
2	Ca	186	LEU
2	Ca	188	LEU
2	Ca	193	THR
2	Ca	194	ILE
2	Ca	195	VAL
2	Ca	197	LEU
2	Ca	200	SER
2	Ca	202	LEU
2	Ca	203	THR
2	Ca	210	PRO
2	Ca	214	SER
2	Ca	223	ASN
2	Cb	13	ARG
2	Cb	18	VAL

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Mol	Chain	Res	Type
2	Cb	22	THR
2	Cb	29	SER
2	Cb	45	SER
2	Cb	53	ARG
2	Cb	56	PRO
2	Cb	58	LEU
2	Cb	73	GLN
2	Cb	75	HIS
2	Cb	84	PRO
2	Cb	88	LEU
2	Cb	93	SER
2	Cb	103	LEU
2	Cb	104	VAL
2	Cb	110	VAL
2	Cb	126	VAL
2	Cb	134	HIS
2	Cb	135	THR
2	Cb	137	GLU
2	Cb	150	TYR
2	Cb	152	TYR
2	Cb	159	PRO
2	Cb	160	HIS
2	Cb	162	LEU
2	Cb	166	ARG
2	Cb	167	THR
2	Cb	174	VAL
2	Cb	176	PRO
2	Cb	178	ILE
2	Cb	184	THR
2	Cb	186	LEU
2	Cb	188	LEU
2	Cb	193	THR
2	Cb	194	ILE
2	Cb	195	VAL
2	Cb	197	LEU
2	Cb	200	SER
2	Cb	202	LEU
2	Cb	203	THR
2	Cb	210	PRO
2	Cb	214	SER
2	Cb	223	ASN
2	Cc	13	ARG

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Mol	Chain	Res	Type
2	Cc	18	VAL
2	Cc	22	THR
2	Cc	29	SER
2	Cc	45	SER
2	Cc	53	ARG
2	Cc	56	PRO
2	Cc	58	LEU
2	Cc	73	GLN
2	Cc	75	HIS
2	Cc	84	PRO
2	Cc	88	LEU
2	Cc	93	SER
2	Cc	103	LEU
2	Cc	104	VAL
2	Cc	110	VAL
2	Cc	126	VAL
2	Cc	134	HIS
2	Cc	135	THR
2	Cc	137	GLU
2	Cc	150	TYR
2	Cc	152	TYR
2	Cc	159	PRO
2	Cc	160	HIS
2	Cc	162	LEU
2	Cc	166	ARG
2	Cc	167	THR
2	Cc	174	VAL
2	Cc	176	PRO
2	Cc	178	ILE
2	Cc	184	THR
2	Cc	186	LEU
2	Cc	188	LEU
2	Cc	193	THR
2	Cc	194	ILE
2	Cc	195	VAL
2	Cc	197	LEU
2	Cc	200	SER
2	Cc	202	LEU
2	Cc	203	THR
2	Cc	210	PRO
2	Cc	214	SER
2	Cc	223	ASN

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Mol	Chain	Res	Type
2	Cd	13	ARG
2	Cd	18	VAL
2	Cd	22	THR
2	Cd	29	SER
2	Cd	45	SER
2	Cd	53	ARG
2	Cd	56	PRO
2	Cd	58	LEU
2	Cd	73	GLN
2	Cd	75	HIS
2	Cd	84	PRO
2	Cd	88	LEU
2	Cd	93	SER
2	Cd	103	LEU
2	Cd	104	VAL
2	Cd	110	VAL
2	Cd	126	VAL
2	Cd	134	HIS
2	Cd	135	THR
2	Cd	150	TYR
2	Cd	152	TYR
2	Cd	159	PRO
2	Cd	160	HIS
2	Cd	162	LEU
2	Cd	166	ARG
2	Cd	167	THR
2	Cd	174	VAL
2	Cd	176	PRO
2	Cd	178	ILE
2	Cd	184	THR
2	Cd	186	LEU
2	Cd	188	LEU
2	Cd	193	THR
2	Cd	194	ILE
2	Cd	195	VAL
2	Cd	197	LEU
2	Cd	200	SER
2	Cd	202	LEU
2	Cd	203	THR
2	Cd	210	PRO
2	Cd	214	SER
2	Cd	223	ASN

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Mol	Chain	Res	Type
2	Ce	13	ARG
2	Ce	18	VAL
2	Ce	22	THR
2	Ce	29	SER
2	Ce	45	SER
2	Ce	53	ARG
2	Ce	56	PRO
2	Ce	58	LEU
2	Ce	73	GLN
2	Ce	75	HIS
2	Ce	84	PRO
2	Ce	88	LEU
2	Ce	93	SER
2	Ce	103	LEU
2	Ce	104	VAL
2	Ce	110	VAL
2	Ce	126	VAL
2	Ce	134	HIS
2	Ce	135	THR
2	Ce	137	GLU
2	Ce	150	TYR
2	Ce	152	TYR
2	Ce	159	PRO
2	Ce	160	HIS
2	Ce	162	LEU
2	Ce	166	ARG
2	Ce	167	THR
2	Ce	174	VAL
2	Ce	176	PRO
2	Ce	178	ILE
2	Ce	184	THR
2	Ce	186	LEU
2	Ce	188	LEU
2	Ce	193	THR
2	Ce	194	ILE
2	Ce	195	VAL
2	Ce	197	LEU
2	Ce	200	SER
2	Ce	202	LEU
2	Ce	203	THR
2	Ce	210	PRO
2	Ce	214	SER

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Mol	Chain	Res	Type
2	Ce	223	ASN
2	Cf	13	ARG
2	Cf	18	VAL
2	Cf	22	THR
2	Cf	29	SER
2	Cf	45	SER
2	Cf	53	ARG
2	Cf	56	PRO
2	Cf	58	LEU
2	Cf	73	GLN
2	Cf	75	HIS
2	Cf	84	PRO
2	Cf	88	LEU
2	Cf	93	SER
2	Cf	103	LEU
2	Cf	104	VAL
2	Cf	110	VAL
2	Cf	126	VAL
2	Cf	134	HIS
2	Cf	135	THR
2	Cf	150	TYR
2	Cf	152	TYR
2	Cf	159	PRO
2	Cf	160	HIS
2	Cf	162	LEU
2	Cf	166	ARG
2	Cf	167	THR
2	Cf	174	VAL
2	Cf	176	PRO
2	Cf	178	ILE
2	Cf	184	THR
2	Cf	186	LEU
2	Cf	188	LEU
2	Cf	193	THR
2	Cf	194	ILE
2	Cf	195	VAL
2	Cf	197	LEU
2	Cf	200	SER
2	Cf	202	LEU
2	Cf	203	THR
2	Cf	210	PRO
2	Cf	214	SER

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Mol	Chain	Res	Type
2	Cf	223	ASN
2	Cg	13	ARG
2	Cg	18	VAL
2	Cg	22	THR
2	Cg	29	SER
2	Cg	45	SER
2	Cg	53	ARG
2	Cg	56	PRO
2	Cg	58	LEU
2	Cg	73	GLN
2	Cg	75	HIS
2	Cg	84	PRO
2	Cg	88	LEU
2	Cg	93	SER
2	Cg	103	LEU
2	Cg	104	VAL
2	Cg	110	VAL
2	Cg	126	VAL
2	Cg	134	HIS
2	Cg	135	THR
2	Cg	150	TYR
2	Cg	152	TYR
2	Cg	159	PRO
2	Cg	160	HIS
2	Cg	162	LEU
2	Cg	166	ARG
2	Cg	167	THR
2	Cg	174	VAL
2	Cg	176	PRO
2	Cg	178	ILE
2	Cg	184	THR
2	Cg	186	LEU
2	Cg	188	LEU
2	Cg	193	THR
2	Cg	194	ILE
2	Cg	195	VAL
2	Cg	197	LEU
2	Cg	200	SER
2	Cg	202	LEU
2	Cg	203	THR
2	Cg	210	PRO
2	Cg	214	SER

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Mol	Chain	Res	Type
2	Cg	223	ASN
2	Ch	13	ARG
2	Ch	18	VAL
2	Ch	22	THR
2	Ch	29	SER
2	Ch	45	SER
2	Ch	53	ARG
2	Ch	56	PRO
2	Ch	58	LEU
2	Ch	73	GLN
2	Ch	75	HIS
2	Ch	84	PRO
2	Ch	88	LEU
2	Ch	93	SER
2	Ch	103	LEU
2	Ch	104	VAL
2	Ch	110	VAL
2	Ch	126	VAL
2	Ch	134	HIS
2	Ch	135	THR
2	Ch	137	GLU
2	Ch	150	TYR
2	Ch	152	TYR
2	Ch	159	PRO
2	Ch	160	HIS
2	Ch	162	LEU
2	Ch	166	ARG
2	Ch	167	THR
2	Ch	174	VAL
2	Ch	176	PRO
2	Ch	178	ILE
2	Ch	184	THR
2	Ch	186	LEU
2	Ch	188	LEU
2	Ch	193	THR
2	Ch	194	ILE
2	Ch	195	VAL
2	Ch	197	LEU
2	Ch	200	SER
2	Ch	202	LEU
2	Ch	203	THR
2	Ch	210	PRO

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Mol	Chain	Res	Type
2	Ch	214	SER
2	Ch	223	ASN
2	Ci	13	ARG
2	Ci	18	VAL
2	Ci	22	THR
2	Ci	29	SER
2	Ci	45	SER
2	Ci	53	ARG
2	Ci	56	PRO
2	Ci	58	LEU
2	Ci	73	GLN
2	Ci	75	HIS
2	Ci	84	PRO
2	Ci	88	LEU
2	Ci	93	SER
2	Ci	103	LEU
2	Ci	104	VAL
2	Ci	110	VAL
2	Ci	126	VAL
2	Ci	134	HIS
2	Ci	135	THR
2	Ci	150	TYR
2	Ci	152	TYR
2	Ci	159	PRO
2	Ci	160	HIS
2	Ci	162	LEU
2	Ci	166	ARG
2	Ci	167	THR
2	Ci	174	VAL
2	Ci	176	PRO
2	Ci	178	ILE
2	Ci	184	THR
2	Ci	186	LEU
2	Ci	188	LEU
2	Ci	193	THR
2	Ci	194	ILE
2	Ci	195	VAL
2	Ci	197	LEU
2	Ci	200	SER
2	Ci	202	LEU
2	Ci	203	THR
2	Ci	210	PRO

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Mol	Chain	Res	Type
2	Ci	214	SER
2	Ci	223	ASN
2	Cj	13	ARG
2	Cj	18	VAL
2	Cj	22	THR
2	Cj	29	SER
2	Cj	45	SER
2	Cj	53	ARG
2	Cj	56	PRO
2	Cj	58	LEU
2	Cj	73	GLN
2	Cj	75	HIS
2	Cj	84	PRO
2	Cj	88	LEU
2	Cj	93	SER
2	Cj	103	LEU
2	Cj	104	VAL
2	Cj	110	VAL
2	Cj	126	VAL
2	Cj	134	HIS
2	Cj	135	THR
2	Cj	150	TYR
2	Cj	152	TYR
2	Cj	159	PRO
2	Cj	160	HIS
2	Cj	162	LEU
2	Cj	166	ARG
2	Cj	167	THR
2	Cj	174	VAL
2	Cj	176	PRO
2	Cj	178	ILE
2	Cj	184	THR
2	Cj	186	LEU
2	Cj	188	LEU
2	Cj	193	THR
2	Cj	194	ILE
2	Cj	195	VAL
2	Cj	197	LEU
2	Cj	200	SER
2	Cj	202	LEU
2	Cj	203	THR
2	Cj	210	PRO

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Mol	Chain	Res	Type
2	Cj	214	SER
2	Cj	223	ASN
2	Ck	13	ARG
2	Ck	18	VAL
2	Ck	22	THR
2	Ck	29	SER
2	Ck	45	SER
2	Ck	53	ARG
2	Ck	56	PRO
2	Ck	58	LEU
2	Ck	73	GLN
2	Ck	75	HIS
2	Ck	84	PRO
2	Ck	88	LEU
2	Ck	93	SER
2	Ck	103	LEU
2	Ck	104	VAL
2	Ck	110	VAL
2	Ck	126	VAL
2	Ck	134	HIS
2	Ck	135	THR
2	Ck	150	TYR
2	Ck	152	TYR
2	Ck	159	PRO
2	Ck	160	HIS
2	Ck	162	LEU
2	Ck	166	ARG
2	Ck	167	THR
2	Ck	174	VAL
2	Ck	176	PRO
2	Ck	178	ILE
2	Ck	184	THR
2	Ck	186	LEU
2	Ck	188	LEU
2	Ck	193	THR
2	Ck	194	ILE
2	Ck	195	VAL
2	Ck	197	LEU
2	Ck	200	SER
2	Ck	202	LEU
2	Ck	203	THR
2	Ck	210	PRO

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Mol	Chain	Res	Type
2	Ck	214	SER
2	Ck	223	ASN
2	Cl	13	ARG
2	Cl	18	VAL
2	Cl	22	THR
2	Cl	29	SER
2	Cl	45	SER
2	Cl	53	ARG
2	Cl	56	PRO
2	Cl	58	LEU
2	Cl	73	GLN
2	Cl	75	HIS
2	Cl	84	PRO
2	Cl	88	LEU
2	Cl	93	SER
2	Cl	103	LEU
2	Cl	104	VAL
2	Cl	110	VAL
2	Cl	126	VAL
2	Cl	134	HIS
2	Cl	135	THR
2	Cl	150	TYR
2	Cl	152	TYR
2	Cl	159	PRO
2	Cl	160	HIS
2	Cl	162	LEU
2	Cl	166	ARG
2	Cl	167	THR
2	Cl	174	VAL
2	Cl	176	PRO
2	Cl	178	ILE
2	Cl	184	THR
2	Cl	186	LEU
2	Cl	188	LEU
2	Cl	193	THR
2	Cl	194	ILE
2	Cl	195	VAL
2	Cl	197	LEU
2	Cl	200	SER
2	Cl	202	LEU
2	Cl	203	THR
2	Cl	210	PRO

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Mol	Chain	Res	Type
2	Cl	214	SER
2	Cl	223	ASN
2	Cm	13	ARG
2	Cm	18	VAL
2	Cm	22	THR
2	Cm	29	SER
2	Cm	45	SER
2	Cm	53	ARG
2	Cm	56	PRO
2	Cm	58	LEU
2	Cm	73	GLN
2	Cm	75	HIS
2	Cm	84	PRO
2	Cm	88	LEU
2	Cm	93	SER
2	Cm	103	LEU
2	Cm	104	VAL
2	Cm	110	VAL
2	Cm	126	VAL
2	Cm	134	HIS
2	Cm	135	THR
2	Cm	137	GLU
2	Cm	150	TYR
2	Cm	152	TYR
2	Cm	159	PRO
2	Cm	160	HIS
2	Cm	162	LEU
2	Cm	166	ARG
2	Cm	167	THR
2	Cm	174	VAL
2	Cm	176	PRO
2	Cm	178	ILE
2	Cm	184	THR
2	Cm	186	LEU
2	Cm	188	LEU
2	Cm	193	THR
2	Cm	194	ILE
2	Cm	195	VAL
2	Cm	197	LEU
2	Cm	200	SER
2	Cm	202	LEU
2	Cm	203	THR

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Mol	Chain	Res	Type
2	Cm	210	PRO
2	Cm	214	SER
2	Cm	223	ASN
2	Cn	13	ARG
2	Cn	18	VAL
2	Cn	22	THR
2	Cn	29	SER
2	Cn	45	SER
2	Cn	53	ARG
2	Cn	56	PRO
2	Cn	58	LEU
2	Cn	73	GLN
2	Cn	75	HIS
2	Cn	84	PRO
2	Cn	88	LEU
2	Cn	93	SER
2	Cn	103	LEU
2	Cn	104	VAL
2	Cn	110	VAL
2	Cn	126	VAL
2	Cn	134	HIS
2	Cn	135	THR
2	Cn	150	TYR
2	Cn	152	TYR
2	Cn	159	PRO
2	Cn	160	HIS
2	Cn	162	LEU
2	Cn	166	ARG
2	Cn	167	THR
2	Cn	174	VAL
2	Cn	176	PRO
2	Cn	178	ILE
2	Cn	184	THR
2	Cn	186	LEU
2	Cn	188	LEU
2	Cn	193	THR
2	Cn	194	ILE
2	Cn	195	VAL
2	Cn	197	LEU
2	Cn	200	SER
2	Cn	202	LEU
2	Cn	203	THR

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Mol	Chain	Res	Type
2	Cn	210	PRO
2	Cn	214	SER
2	Cn	223	ASN
2	Co	13	ARG
2	Co	18	VAL
2	Co	22	THR
2	Co	29	SER
2	Co	45	SER
2	Co	53	ARG
2	Co	56	PRO
2	Co	58	LEU
2	Co	73	GLN
2	Co	75	HIS
2	Co	84	PRO
2	Co	88	LEU
2	Co	93	SER
2	Co	103	LEU
2	Co	104	VAL
2	Co	110	VAL
2	Co	126	VAL
2	Co	134	HIS
2	Co	135	THR
2	Co	137	GLU
2	Co	150	TYR
2	Co	152	TYR
2	Co	159	PRO
2	Co	160	HIS
2	Co	162	LEU
2	Co	166	ARG
2	Co	167	THR
2	Co	174	VAL
2	Co	176	PRO
2	Co	178	ILE
2	Co	184	THR
2	Co	186	LEU
2	Co	188	LEU
2	Co	193	THR
2	Co	194	ILE
2	Co	195	VAL
2	Co	197	LEU
2	Co	200	SER
2	Co	202	LEU

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Mol	Chain	Res	Type
2	Co	203	THR
2	Co	210	PRO
2	Co	214	SER
2	Co	223	ASN
2	Cp	13	ARG
2	Cp	18	VAL
2	Cp	22	THR
2	Cp	29	SER
2	Cp	45	SER
2	Cp	53	ARG
2	Cp	56	PRO
2	Cp	58	LEU
2	Cp	73	GLN
2	Cp	75	HIS
2	Cp	84	PRO
2	Cp	88	LEU
2	Cp	93	SER
2	Cp	103	LEU
2	Cp	104	VAL
2	Cp	110	VAL
2	Cp	126	VAL
2	Cp	134	HIS
2	Cp	135	THR
2	Cp	137	GLU
2	Cp	150	TYR
2	Cp	152	TYR
2	Cp	159	PRO
2	Cp	160	HIS
2	Cp	162	LEU
2	Cp	166	ARG
2	Cp	167	THR
2	Cp	174	VAL
2	Cp	176	PRO
2	Cp	178	ILE
2	Cp	184	THR
2	Cp	186	LEU
2	Cp	188	LEU
2	Cp	193	THR
2	Cp	194	ILE
2	Cp	195	VAL
2	Cp	197	LEU
2	Cp	200	SER

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Mol	Chain	Res	Type
2	Cp	202	LEU
2	Cp	203	THR
2	Cp	210	PRO
2	Cp	214	SER
2	Cp	223	ASN
2	Cq	13	ARG
2	Cq	18	VAL
2	Cq	22	THR
2	Cq	29	SER
2	Cq	45	SER
2	Cq	53	ARG
2	Cq	56	PRO
2	Cq	58	LEU
2	Cq	73	GLN
2	Cq	75	HIS
2	Cq	84	PRO
2	Cq	88	LEU
2	Cq	93	SER
2	Cq	103	LEU
2	Cq	104	VAL
2	Cq	110	VAL
2	Cq	126	VAL
2	Cq	134	HIS
2	Cq	135	THR
2	Cq	150	TYR
2	Cq	152	TYR
2	Cq	159	PRO
2	Cq	160	HIS
2	Cq	162	LEU
2	Cq	166	ARG
2	Cq	167	THR
2	Cq	174	VAL
2	Cq	176	PRO
2	Cq	178	ILE
2	Cq	184	THR
2	Cq	186	LEU
2	Cq	188	LEU
2	Cq	193	THR
2	Cq	194	ILE
2	Cq	195	VAL
2	Cq	197	LEU
2	Cq	200	SER

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Mol	Chain	Res	Type
2	Cq	202	LEU
2	Cq	203	THR
2	Cq	210	PRO
2	Cq	214	SER
2	Cq	223	ASN
2	Cr	13	ARG
2	Cr	18	VAL
2	Cr	22	THR
2	Cr	29	SER
2	Cr	45	SER
2	Cr	53	ARG
2	Cr	56	PRO
2	Cr	58	LEU
2	Cr	73	GLN
2	Cr	75	HIS
2	Cr	84	PRO
2	Cr	88	LEU
2	Cr	93	SER
2	Cr	103	LEU
2	Cr	104	VAL
2	Cr	110	VAL
2	Cr	126	VAL
2	Cr	134	HIS
2	Cr	135	THR
2	Cr	150	TYR
2	Cr	152	TYR
2	Cr	159	PRO
2	Cr	160	HIS
2	Cr	162	LEU
2	Cr	166	ARG
2	Cr	167	THR
2	Cr	174	VAL
2	Cr	176	PRO
2	Cr	178	ILE
2	Cr	184	THR
2	Cr	186	LEU
2	Cr	188	LEU
2	Cr	193	THR
2	Cr	194	ILE
2	Cr	195	VAL
2	Cr	197	LEU
2	Cr	200	SER

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Mol	Chain	Res	Type
2	Cr	202	LEU
2	Cr	203	THR
2	Cr	210	PRO
2	Cr	214	SER
2	Cr	223	ASN
2	Cs	13	ARG
2	Cs	18	VAL
2	Cs	22	THR
2	Cs	29	SER
2	Cs	45	SER
2	Cs	53	ARG
2	Cs	56	PRO
2	Cs	58	LEU
2	Cs	73	GLN
2	Cs	75	HIS
2	Cs	84	PRO
2	Cs	88	LEU
2	Cs	93	SER
2	Cs	103	LEU
2	Cs	104	VAL
2	Cs	110	VAL
2	Cs	126	VAL
2	Cs	134	HIS
2	Cs	135	THR
2	Cs	150	TYR
2	Cs	152	TYR
2	Cs	159	PRO
2	Cs	160	HIS
2	Cs	162	LEU
2	Cs	166	ARG
2	Cs	167	THR
2	Cs	174	VAL
2	Cs	176	PRO
2	Cs	178	ILE
2	Cs	184	THR
2	Cs	186	LEU
2	Cs	188	LEU
2	Cs	193	THR
2	Cs	194	ILE
2	Cs	195	VAL
2	Cs	197	LEU
2	Cs	200	SER

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Mol	Chain	Res	Type
2	Cs	202	LEU
2	Cs	203	THR
2	Cs	210	PRO
2	Cs	214	SER
2	Cs	223	ASN
2	Ct	13	ARG
2	Ct	18	VAL
2	Ct	22	THR
2	Ct	29	SER
2	Ct	45	SER
2	Ct	53	ARG
2	Ct	56	PRO
2	Ct	58	LEU
2	Ct	73	GLN
2	Ct	75	HIS
2	Ct	84	PRO
2	Ct	88	LEU
2	Ct	93	SER
2	Ct	103	LEU
2	Ct	104	VAL
2	Ct	110	VAL
2	Ct	126	VAL
2	Ct	134	HIS
2	Ct	135	THR
2	Ct	137	GLU
2	Ct	150	TYR
2	Ct	152	TYR
2	Ct	159	PRO
2	Ct	160	HIS
2	Ct	162	LEU
2	Ct	166	ARG
2	Ct	167	THR
2	Ct	174	VAL
2	Ct	176	PRO
2	Ct	178	ILE
2	Ct	184	THR
2	Ct	186	LEU
2	Ct	188	LEU
2	Ct	193	THR
2	Ct	194	ILE
2	Ct	195	VAL
2	Ct	197	LEU

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Mol	Chain	Res	Type
2	Ct	200	SER
2	Ct	202	LEU
2	Ct	203	THR
2	Ct	210	PRO
2	Ct	214	SER
2	Ct	223	ASN
2	Cu	13	ARG
2	Cu	18	VAL
2	Cu	22	THR
2	Cu	29	SER
2	Cu	45	SER
2	Cu	53	ARG
2	Cu	56	PRO
2	Cu	58	LEU
2	Cu	73	GLN
2	Cu	75	HIS
2	Cu	84	PRO
2	Cu	88	LEU
2	Cu	93	SER
2	Cu	103	LEU
2	Cu	104	VAL
2	Cu	110	VAL
2	Cu	126	VAL
2	Cu	134	HIS
2	Cu	135	THR
2	Cu	137	GLU
2	Cu	150	TYR
2	Cu	152	TYR
2	Cu	159	PRO
2	Cu	160	HIS
2	Cu	162	LEU
2	Cu	166	ARG
2	Cu	167	THR
2	Cu	174	VAL
2	Cu	176	PRO
2	Cu	178	ILE
2	Cu	184	THR
2	Cu	186	LEU
2	Cu	188	LEU
2	Cu	193	THR
2	Cu	194	ILE
2	Cu	195	VAL

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Mol	Chain	Res	Type
2	Cu	197	LEU
2	Cu	200	SER
2	Cu	202	LEU
2	Cu	203	THR
2	Cu	210	PRO
2	Cu	214	SER
2	Cu	223	ASN
2	Cv	13	ARG
2	Cv	18	VAL
2	Cv	22	THR
2	Cv	29	SER
2	Cv	45	SER
2	Cv	53	ARG
2	Cv	56	PRO
2	Cv	58	LEU
2	Cv	73	GLN
2	Cv	75	HIS
2	Cv	84	PRO
2	Cv	88	LEU
2	Cv	93	SER
2	Cv	103	LEU
2	Cv	104	VAL
2	Cv	110	VAL
2	Cv	126	VAL
2	Cv	134	HIS
2	Cv	135	THR
2	Cv	150	TYR
2	Cv	152	TYR
2	Cv	159	PRO
2	Cv	160	HIS
2	Cv	162	LEU
2	Cv	166	ARG
2	Cv	167	THR
2	Cv	174	VAL
2	Cv	176	PRO
2	Cv	178	ILE
2	Cv	184	THR
2	Cv	186	LEU
2	Cv	188	LEU
2	Cv	193	THR
2	Cv	194	ILE
2	Cv	195	VAL

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Mol	Chain	Res	Type
2	Cv	197	LEU
2	Cv	200	SER
2	Cv	202	LEU
2	Cv	203	THR
2	Cv	210	PRO
2	Cv	214	SER
2	Cv	223	ASN
2	Cw	13	ARG
2	Cw	18	VAL
2	Cw	22	THR
2	Cw	29	SER
2	Cw	45	SER
2	Cw	53	ARG
2	Cw	56	PRO
2	Cw	58	LEU
2	Cw	73	GLN
2	Cw	75	HIS
2	Cw	84	PRO
2	Cw	88	LEU
2	Cw	93	SER
2	Cw	103	LEU
2	Cw	104	VAL
2	Cw	110	VAL
2	Cw	126	VAL
2	Cw	134	HIS
2	Cw	135	THR
2	Cw	137	GLU
2	Cw	150	TYR
2	Cw	152	TYR
2	Cw	159	PRO
2	Cw	160	HIS
2	Cw	162	LEU
2	Cw	166	ARG
2	Cw	167	THR
2	Cw	174	VAL
2	Cw	176	PRO
2	Cw	178	ILE
2	Cw	184	THR
2	Cw	186	LEU
2	Cw	188	LEU
2	Cw	193	THR
2	Cw	194	ILE

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Mol	Chain	Res	Type
2	Cw	195	VAL
2	Cw	197	LEU
2	Cw	200	SER
2	Cw	202	LEU
2	Cw	203	THR
2	Cw	210	PRO
2	Cw	214	SER
2	Cw	223	ASN
2	Cx	13	ARG
2	Cx	18	VAL
2	Cx	22	THR
2	Cx	29	SER
2	Cx	45	SER
2	Cx	53	ARG
2	Cx	56	PRO
2	Cx	58	LEU
2	Cx	73	GLN
2	Cx	75	HIS
2	Cx	84	PRO
2	Cx	88	LEU
2	Cx	93	SER
2	Cx	103	LEU
2	Cx	104	VAL
2	Cx	110	VAL
2	Cx	126	VAL
2	Cx	134	HIS
2	Cx	135	THR
2	Cx	150	TYR
2	Cx	152	TYR
2	Cx	159	PRO
2	Cx	160	HIS
2	Cx	162	LEU
2	Cx	166	ARG
2	Cx	167	THR
2	Cx	174	VAL
2	Cx	176	PRO
2	Cx	178	ILE
2	Cx	184	THR
2	Cx	186	LEU
2	Cx	188	LEU
2	Cx	193	THR
2	Cx	194	ILE

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Mol	Chain	Res	Type
2	Cx	195	VAL
2	Cx	197	LEU
2	Cx	200	SER
2	Cx	202	LEU
2	Cx	203	THR
2	Cx	210	PRO
2	Cx	214	SER
2	Cx	223	ASN
3	D0	15	MET
3	D0	16	SER
3	D0	18	VAL
3	D0	26	TYR
3	D0	31	VAL
3	D0	35	GLN
3	D0	36	VAL
3	D0	41	THR
3	D0	42	ASN
3	D0	46	VAL
3	D0	50	THR
3	D0	51	TYR
3	D0	54	CYS
3	D0	56	ILE
3	D0	59	LYS
3	D0	63	GLU
3	D0	65	THR
3	D0	67	THR
3	D0	76	MET
3	D0	84	GLU
3	D0	86	HIS
3	D0	90	VAL
3	D0	93	LEU
3	D0	103	SER
3	D0	120	PHE
3	D0	133	LYS
3	D0	134	THR
3	D0	139	MET
3	D0	142	ILE
3	D0	146	TRP
3	D0	148	VAL
3	D0	150	LEU
3	D0	157	ASN
3	D0	160	TYR

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Mol	Chain	Res	Type
3	D0	162	SER
3	D0	165	ASP
3	D0	178	ASN
3	D0	188	LEU
3	D0	189	THR
3	D0	195	ASP
3	D0	204	VAL
3	D0	217	ARG
3	D0	222	LEU
3	D0	224	ASP
3	D1	15	MET
3	D1	16	SER
3	D1	18	VAL
3	D1	26	TYR
3	D1	31	VAL
3	D1	35	GLN
3	D1	36	VAL
3	D1	41	THR
3	D1	42	ASN
3	D1	46	VAL
3	D1	50	THR
3	D1	51	TYR
3	D1	54	CYS
3	D1	56	ILE
3	D1	59	LYS
3	D1	63	GLU
3	D1	65	THR
3	D1	67	THR
3	D1	76	MET
3	D1	84	GLU
3	D1	86	HIS
3	D1	90	VAL
3	D1	93	LEU
3	D1	103	SER
3	D1	120	PHE
3	D1	133	LYS
3	D1	134	THR
3	D1	139	MET
3	D1	142	ILE
3	D1	146	TRP
3	D1	148	VAL
3	D1	150	LEU

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Mol	Chain	Res	Type
3	D1	160	TYR
3	D1	162	SER
3	D1	165	ASP
3	D1	178	ASN
3	D1	188	LEU
3	D1	189	THR
3	D1	195	ASP
3	D1	204	VAL
3	D1	217	ARG
3	D1	222	LEU
3	D1	224	ASP
3	D2	15	MET
3	D2	16	SER
3	D2	18	VAL
3	D2	26	TYR
3	D2	31	VAL
3	D2	35	GLN
3	D2	36	VAL
3	D2	41	THR
3	D2	42	ASN
3	D2	46	VAL
3	D2	50	THR
3	D2	51	TYR
3	D2	54	CYS
3	D2	56	ILE
3	D2	59	LYS
3	D2	63	GLU
3	D2	65	THR
3	D2	67	THR
3	D2	76	MET
3	D2	84	GLU
3	D2	86	HIS
3	D2	90	VAL
3	D2	93	LEU
3	D2	103	SER
3	D2	120	PHE
3	D2	133	LYS
3	D2	134	THR
3	D2	139	MET
3	D2	142	ILE
3	D2	146	TRP
3	D2	148	VAL

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Mol	Chain	Res	Type
3	D2	150	LEU
3	D2	157	ASN
3	D2	160	TYR
3	D2	162	SER
3	D2	165	ASP
3	D2	178	ASN
3	D2	188	LEU
3	D2	189	THR
3	D2	195	ASP
3	D2	204	VAL
3	D2	217	ARG
3	D2	222	LEU
3	D2	224	ASP
3	D3	15	MET
3	D3	16	SER
3	D3	18	VAL
3	D3	26	TYR
3	D3	31	VAL
3	D3	35	GLN
3	D3	36	VAL
3	D3	41	THR
3	D3	42	ASN
3	D3	46	VAL
3	D3	50	THR
3	D3	51	TYR
3	D3	54	CYS
3	D3	56	ILE
3	D3	59	LYS
3	D3	63	GLU
3	D3	65	THR
3	D3	67	THR
3	D3	76	MET
3	D3	84	GLU
3	D3	86	HIS
3	D3	90	VAL
3	D3	93	LEU
3	D3	103	SER
3	D3	120	PHE
3	D3	133	LYS
3	D3	134	THR
3	D3	139	MET
3	D3	142	ILE

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Mol	Chain	Res	Type
3	D3	146	TRP
3	D3	148	VAL
3	D3	150	LEU
3	D3	157	ASN
3	D3	160	TYR
3	D3	162	SER
3	D3	165	ASP
3	D3	178	ASN
3	D3	188	LEU
3	D3	189	THR
3	D3	195	ASP
3	D3	204	VAL
3	D3	217	ARG
3	D3	222	LEU
3	D3	224	ASP
3	D4	15	MET
3	D4	16	SER
3	D4	18	VAL
3	D4	26	TYR
3	D4	31	VAL
3	D4	35	GLN
3	D4	36	VAL
3	D4	41	THR
3	D4	42	ASN
3	D4	46	VAL
3	D4	50	THR
3	D4	51	TYR
3	D4	54	CYS
3	D4	56	ILE
3	D4	59	LYS
3	D4	63	GLU
3	D4	65	THR
3	D4	67	THR
3	D4	76	MET
3	D4	84	GLU
3	D4	86	HIS
3	D4	90	VAL
3	D4	93	LEU
3	D4	103	SER
3	D4	120	PHE
3	D4	133	LYS
3	D4	134	THR

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Mol	Chain	Res	Type
3	D4	139	MET
3	D4	142	ILE
3	D4	146	TRP
3	D4	148	VAL
3	D4	150	LEU
3	D4	157	ASN
3	D4	160	TYR
3	D4	162	SER
3	D4	165	ASP
3	D4	178	ASN
3	D4	188	LEU
3	D4	189	THR
3	D4	195	ASP
3	D4	204	VAL
3	D4	217	ARG
3	D4	222	LEU
3	D4	224	ASP
3	D5	15	MET
3	D5	16	SER
3	D5	18	VAL
3	D5	26	TYR
3	D5	31	VAL
3	D5	35	GLN
3	D5	36	VAL
3	D5	41	THR
3	D5	42	ASN
3	D5	46	VAL
3	D5	50	THR
3	D5	51	TYR
3	D5	54	CYS
3	D5	56	ILE
3	D5	59	LYS
3	D5	63	GLU
3	D5	65	THR
3	D5	67	THR
3	D5	76	MET
3	D5	84	GLU
3	D5	86	HIS
3	D5	90	VAL
3	D5	93	LEU
3	D5	103	SER
3	D5	120	PHE

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Mol	Chain	Res	Type
3	D5	133	LYS
3	D5	134	THR
3	D5	139	MET
3	D5	142	ILE
3	D5	146	TRP
3	D5	148	VAL
3	D5	150	LEU
3	D5	157	ASN
3	D5	160	TYR
3	D5	162	SER
3	D5	165	ASP
3	D5	178	ASN
3	D5	188	LEU
3	D5	189	THR
3	D5	195	ASP
3	D5	204	VAL
3	D5	217	ARG
3	D5	222	LEU
3	D5	224	ASP
3	D6	15	MET
3	D6	16	SER
3	D6	18	VAL
3	D6	26	TYR
3	D6	31	VAL
3	D6	35	GLN
3	D6	36	VAL
3	D6	41	THR
3	D6	42	ASN
3	D6	46	VAL
3	D6	50	THR
3	D6	51	TYR
3	D6	54	CYS
3	D6	56	ILE
3	D6	59	LYS
3	D6	63	GLU
3	D6	65	THR
3	D6	67	THR
3	D6	76	MET
3	D6	84	GLU
3	D6	86	HIS
3	D6	90	VAL
3	D6	93	LEU

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Mol	Chain	Res	Type
3	D6	103	SER
3	D6	120	PHE
3	D6	133	LYS
3	D6	134	THR
3	D6	139	MET
3	D6	142	ILE
3	D6	146	TRP
3	D6	148	VAL
3	D6	150	LEU
3	D6	157	ASN
3	D6	160	TYR
3	D6	162	SER
3	D6	165	ASP
3	D6	178	ASN
3	D6	188	LEU
3	D6	189	THR
3	D6	195	ASP
3	D6	204	VAL
3	D6	217	ARG
3	D6	222	LEU
3	D6	224	ASP
3	D7	15	MET
3	D7	16	SER
3	D7	18	VAL
3	D7	26	TYR
3	D7	31	VAL
3	D7	35	GLN
3	D7	36	VAL
3	D7	41	THR
3	D7	42	ASN
3	D7	46	VAL
3	D7	50	THR
3	D7	51	TYR
3	D7	54	CYS
3	D7	56	ILE
3	D7	59	LYS
3	D7	63	GLU
3	D7	65	THR
3	D7	67	THR
3	D7	76	MET
3	D7	84	GLU
3	D7	86	HIS

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Mol	Chain	Res	Type
3	D7	90	VAL
3	D7	93	LEU
3	D7	103	SER
3	D7	120	PHE
3	D7	133	LYS
3	D7	134	THR
3	D7	139	MET
3	D7	142	ILE
3	D7	146	TRP
3	D7	148	VAL
3	D7	150	LEU
3	D7	157	ASN
3	D7	160	TYR
3	D7	162	SER
3	D7	165	ASP
3	D7	178	ASN
3	D7	188	LEU
3	D7	189	THR
3	D7	195	ASP
3	D7	204	VAL
3	D7	217	ARG
3	D7	222	LEU
3	D7	224	ASP
3	D8	15	MET
3	D8	16	SER
3	D8	18	VAL
3	D8	26	TYR
3	D8	31	VAL
3	D8	35	GLN
3	D8	36	VAL
3	D8	41	THR
3	D8	42	ASN
3	D8	46	VAL
3	D8	50	THR
3	D8	51	TYR
3	D8	54	CYS
3	D8	56	ILE
3	D8	59	LYS
3	D8	63	GLU
3	D8	65	THR
3	D8	67	THR
3	D8	76	MET

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Mol	Chain	Res	Type
3	D8	84	GLU
3	D8	86	HIS
3	D8	90	VAL
3	D8	93	LEU
3	D8	103	SER
3	D8	120	PHE
3	D8	133	LYS
3	D8	134	THR
3	D8	139	MET
3	D8	142	ILE
3	D8	146	TRP
3	D8	148	VAL
3	D8	150	LEU
3	D8	157	ASN
3	D8	160	TYR
3	D8	162	SER
3	D8	165	ASP
3	D8	178	ASN
3	D8	188	LEU
3	D8	189	THR
3	D8	195	ASP
3	D8	204	VAL
3	D8	217	ARG
3	D8	222	LEU
3	D8	224	ASP
3	D9	15	MET
3	D9	16	SER
3	D9	18	VAL
3	D9	26	TYR
3	D9	31	VAL
3	D9	35	GLN
3	D9	36	VAL
3	D9	41	THR
3	D9	42	ASN
3	D9	46	VAL
3	D9	50	THR
3	D9	51	TYR
3	D9	54	CYS
3	D9	56	ILE
3	D9	59	LYS
3	D9	63	GLU
3	D9	65	THR

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Mol	Chain	Res	Type
3	D9	67	THR
3	D9	76	MET
3	D9	84	GLU
3	D9	86	HIS
3	D9	90	VAL
3	D9	93	LEU
3	D9	103	SER
3	D9	120	PHE
3	D9	133	LYS
3	D9	134	THR
3	D9	139	MET
3	D9	142	ILE
3	D9	146	TRP
3	D9	148	VAL
3	D9	150	LEU
3	D9	157	ASN
3	D9	160	TYR
3	D9	162	SER
3	D9	165	ASP
3	D9	178	ASN
3	D9	188	LEU
3	D9	189	THR
3	D9	195	ASP
3	D9	204	VAL
3	D9	217	ARG
3	D9	222	LEU
3	DA	15	MET
3	DA	16	SER
3	DA	18	VAL
3	DA	26	TYR
3	DA	31	VAL
3	DA	35	GLN
3	DA	36	VAL
3	DA	41	THR
3	DA	42	ASN
3	DA	46	VAL
3	DA	50	THR
3	DA	51	TYR
3	DA	54	CYS
3	DA	56	ILE
3	DA	59	LYS
3	DA	63	GLU

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Mol	Chain	Res	Type
3	DA	65	THR
3	DA	67	THR
3	DA	76	MET
3	DA	84	GLU
3	DA	86	HIS
3	DA	90	VAL
3	DA	93	LEU
3	DA	103	SER
3	DA	120	PHE
3	DA	133	LYS
3	DA	134	THR
3	DA	139	MET
3	DA	142	ILE
3	DA	146	TRP
3	DA	148	VAL
3	DA	150	LEU
3	DA	157	ASN
3	DA	160	TYR
3	DA	162	SER
3	DA	165	ASP
3	DA	178	ASN
3	DA	188	LEU
3	DA	189	THR
3	DA	195	ASP
3	DA	204	VAL
3	DA	217	ARG
3	DA	222	LEU
3	DA	224	ASP
3	DB	15	MET
3	DB	16	SER
3	DB	18	VAL
3	DB	26	TYR
3	DB	31	VAL
3	DB	35	GLN
3	DB	36	VAL
3	DB	41	THR
3	DB	42	ASN
3	DB	46	VAL
3	DB	50	THR
3	DB	51	TYR
3	DB	54	CYS
3	DB	56	ILE

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Mol	Chain	Res	Type
3	DB	59	LYS
3	DB	63	GLU
3	DB	65	THR
3	DB	67	THR
3	DB	76	MET
3	DB	84	GLU
3	DB	86	HIS
3	DB	90	VAL
3	DB	93	LEU
3	DB	103	SER
3	DB	120	PHE
3	DB	133	LYS
3	DB	134	THR
3	DB	139	MET
3	DB	142	ILE
3	DB	146	TRP
3	DB	148	VAL
3	DB	150	LEU
3	DB	157	ASN
3	DB	160	TYR
3	DB	162	SER
3	DB	165	ASP
3	DB	178	ASN
3	DB	188	LEU
3	DB	189	THR
3	DB	195	ASP
3	DB	204	VAL
3	DB	217	ARG
3	DB	222	LEU
3	DB	224	ASP
3	DC	15	MET
3	DC	16	SER
3	DC	18	VAL
3	DC	26	TYR
3	DC	31	VAL
3	DC	35	GLN
3	DC	36	VAL
3	DC	41	THR
3	DC	42	ASN
3	DC	46	VAL
3	DC	50	THR
3	DC	51	TYR

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Mol	Chain	Res	Type
3	DC	54	CYS
3	DC	56	ILE
3	DC	59	LYS
3	DC	63	GLU
3	DC	65	THR
3	DC	67	THR
3	DC	76	MET
3	DC	84	GLU
3	DC	86	HIS
3	DC	90	VAL
3	DC	93	LEU
3	DC	103	SER
3	DC	120	PHE
3	DC	133	LYS
3	DC	134	THR
3	DC	139	MET
3	DC	142	ILE
3	DC	146	TRP
3	DC	148	VAL
3	DC	150	LEU
3	DC	157	ASN
3	DC	160	TYR
3	DC	162	SER
3	DC	165	ASP
3	DC	178	ASN
3	DC	188	LEU
3	DC	189	THR
3	DC	195	ASP
3	DC	204	VAL
3	DC	217	ARG
3	DC	222	LEU
3	DC	224	ASP
3	DD	15	MET
3	DD	16	SER
3	DD	18	VAL
3	DD	26	TYR
3	DD	31	VAL
3	DD	35	GLN
3	DD	36	VAL
3	DD	41	THR
3	DD	42	ASN
3	DD	46	VAL

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Mol	Chain	Res	Type
3	DD	50	THR
3	DD	51	TYR
3	DD	54	CYS
3	DD	56	ILE
3	DD	59	LYS
3	DD	63	GLU
3	DD	65	THR
3	DD	67	THR
3	DD	76	MET
3	DD	84	GLU
3	DD	86	HIS
3	DD	90	VAL
3	DD	93	LEU
3	DD	103	SER
3	DD	120	PHE
3	DD	133	LYS
3	DD	134	THR
3	DD	139	MET
3	DD	142	ILE
3	DD	146	TRP
3	DD	148	VAL
3	DD	150	LEU
3	DD	160	TYR
3	DD	162	SER
3	DD	165	ASP
3	DD	178	ASN
3	DD	188	LEU
3	DD	189	THR
3	DD	195	ASP
3	DD	204	VAL
3	DD	217	ARG
3	DD	222	LEU
3	DD	224	ASP
3	DE	15	MET
3	DE	16	SER
3	DE	18	VAL
3	DE	26	TYR
3	DE	31	VAL
3	DE	35	GLN
3	DE	36	VAL
3	DE	41	THR
3	DE	42	ASN

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Mol	Chain	Res	Type
3	DE	46	VAL
3	DE	50	THR
3	DE	51	TYR
3	DE	54	CYS
3	DE	56	ILE
3	DE	59	LYS
3	DE	63	GLU
3	DE	65	THR
3	DE	67	THR
3	DE	76	MET
3	DE	84	GLU
3	DE	86	HIS
3	DE	90	VAL
3	DE	93	LEU
3	DE	103	SER
3	DE	120	PHE
3	DE	133	LYS
3	DE	134	THR
3	DE	139	MET
3	DE	142	ILE
3	DE	146	TRP
3	DE	148	VAL
3	DE	150	LEU
3	DE	157	ASN
3	DE	160	TYR
3	DE	162	SER
3	DE	165	ASP
3	DE	178	ASN
3	DE	188	LEU
3	DE	189	THR
3	DE	195	ASP
3	DE	204	VAL
3	DE	217	ARG
3	DE	222	LEU
3	DE	224	ASP
3	DF	15	MET
3	DF	16	SER
3	DF	18	VAL
3	DF	26	TYR
3	DF	31	VAL
3	DF	35	GLN
3	DF	36	VAL

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Mol	Chain	Res	Type
3	DF	41	THR
3	DF	42	ASN
3	DF	46	VAL
3	DF	50	THR
3	DF	51	TYR
3	DF	54	CYS
3	DF	56	ILE
3	DF	59	LYS
3	DF	63	GLU
3	DF	65	THR
3	DF	67	THR
3	DF	76	MET
3	DF	84	GLU
3	DF	86	HIS
3	DF	90	VAL
3	DF	93	LEU
3	DF	103	SER
3	DF	120	PHE
3	DF	133	LYS
3	DF	134	THR
3	DF	139	MET
3	DF	142	ILE
3	DF	146	TRP
3	DF	148	VAL
3	DF	150	LEU
3	DF	157	ASN
3	DF	160	TYR
3	DF	162	SER
3	DF	165	ASP
3	DF	178	ASN
3	DF	188	LEU
3	DF	189	THR
3	DF	195	ASP
3	DF	204	VAL
3	DF	217	ARG
3	DF	222	LEU
3	DF	224	ASP
3	DG	15	MET
3	DG	16	SER
3	DG	18	VAL
3	DG	26	TYR
3	DG	31	VAL

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Mol	Chain	Res	Type
3	DG	35	GLN
3	DG	36	VAL
3	DG	41	THR
3	DG	42	ASN
3	DG	46	VAL
3	DG	50	THR
3	DG	51	TYR
3	DG	54	CYS
3	DG	56	ILE
3	DG	59	LYS
3	DG	63	GLU
3	DG	65	THR
3	DG	67	THR
3	DG	76	MET
3	DG	84	GLU
3	DG	86	HIS
3	DG	90	VAL
3	DG	93	LEU
3	DG	103	SER
3	DG	120	PHE
3	DG	133	LYS
3	DG	134	THR
3	DG	139	MET
3	DG	142	ILE
3	DG	146	TRP
3	DG	148	VAL
3	DG	150	LEU
3	DG	157	ASN
3	DG	160	TYR
3	DG	162	SER
3	DG	165	ASP
3	DG	178	ASN
3	DG	188	LEU
3	DG	189	THR
3	DG	195	ASP
3	DG	204	VAL
3	DG	217	ARG
3	DG	222	LEU
3	DG	224	ASP
3	DH	15	MET
3	DH	16	SER
3	DH	18	VAL

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Mol	Chain	Res	Type
3	DH	26	TYR
3	DH	31	VAL
3	DH	35	GLN
3	DH	36	VAL
3	DH	41	THR
3	DH	42	ASN
3	DH	46	VAL
3	DH	50	THR
3	DH	51	TYR
3	DH	54	CYS
3	DH	56	ILE
3	DH	59	LYS
3	DH	63	GLU
3	DH	65	THR
3	DH	67	THR
3	DH	76	MET
3	DH	84	GLU
3	DH	86	HIS
3	DH	90	VAL
3	DH	93	LEU
3	DH	103	SER
3	DH	120	PHE
3	DH	133	LYS
3	DH	134	THR
3	DH	139	MET
3	DH	142	ILE
3	DH	146	TRP
3	DH	148	VAL
3	DH	150	LEU
3	DH	157	ASN
3	DH	160	TYR
3	DH	162	SER
3	DH	165	ASP
3	DH	178	ASN
3	DH	188	LEU
3	DH	189	THR
3	DH	195	ASP
3	DH	204	VAL
3	DH	217	ARG
3	DH	222	LEU
3	DH	224	ASP
3	DI	15	MET

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Mol	Chain	Res	Type
3	DI	16	SER
3	DI	18	VAL
3	DI	26	TYR
3	DI	31	VAL
3	DI	35	GLN
3	DI	36	VAL
3	DI	41	THR
3	DI	42	ASN
3	DI	46	VAL
3	DI	50	THR
3	DI	51	TYR
3	DI	54	CYS
3	DI	56	ILE
3	DI	59	LYS
3	DI	63	GLU
3	DI	65	THR
3	DI	67	THR
3	DI	76	MET
3	DI	84	GLU
3	DI	86	HIS
3	DI	90	VAL
3	DI	93	LEU
3	DI	103	SER
3	DI	120	PHE
3	DI	133	LYS
3	DI	134	THR
3	DI	139	MET
3	DI	142	ILE
3	DI	146	TRP
3	DI	148	VAL
3	DI	150	LEU
3	DI	157	ASN
3	DI	160	TYR
3	DI	162	SER
3	DI	165	ASP
3	DI	178	ASN
3	DI	188	LEU
3	DI	189	THR
3	DI	195	ASP
3	DI	204	VAL
3	DI	217	ARG
3	DI	222	LEU

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Mol	Chain	Res	Type
3	DI	224	ASP
3	DJ	15	MET
3	DJ	16	SER
3	DJ	18	VAL
3	DJ	26	TYR
3	DJ	31	VAL
3	DJ	35	GLN
3	DJ	36	VAL
3	DJ	41	THR
3	DJ	42	ASN
3	DJ	46	VAL
3	DJ	50	THR
3	DJ	51	TYR
3	DJ	54	CYS
3	DJ	56	ILE
3	DJ	59	LYS
3	DJ	63	GLU
3	DJ	65	THR
3	DJ	67	THR
3	DJ	76	MET
3	DJ	84	GLU
3	DJ	86	HIS
3	DJ	90	VAL
3	DJ	93	LEU
3	DJ	103	SER
3	DJ	120	PHE
3	DJ	133	LYS
3	DJ	134	THR
3	DJ	139	MET
3	DJ	142	ILE
3	DJ	146	TRP
3	DJ	148	VAL
3	DJ	150	LEU
3	DJ	157	ASN
3	DJ	160	TYR
3	DJ	162	SER
3	DJ	165	ASP
3	DJ	178	ASN
3	DJ	188	LEU
3	DJ	189	THR
3	DJ	195	ASP
3	DJ	204	VAL

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Mol	Chain	Res	Type
3	DJ	217	ARG
3	DJ	222	LEU
3	DJ	224	ASP
3	DK	15	MET
3	DK	16	SER
3	DK	18	VAL
3	DK	26	TYR
3	DK	31	VAL
3	DK	35	GLN
3	DK	36	VAL
3	DK	41	THR
3	DK	42	ASN
3	DK	46	VAL
3	DK	50	THR
3	DK	51	TYR
3	DK	54	CYS
3	DK	56	ILE
3	DK	59	LYS
3	DK	63	GLU
3	DK	65	THR
3	DK	67	THR
3	DK	76	MET
3	DK	84	GLU
3	DK	86	HIS
3	DK	90	VAL
3	DK	93	LEU
3	DK	103	SER
3	DK	120	PHE
3	DK	133	LYS
3	DK	134	THR
3	DK	139	MET
3	DK	142	ILE
3	DK	146	TRP
3	DK	148	VAL
3	DK	150	LEU
3	DK	157	ASN
3	DK	160	TYR
3	DK	162	SER
3	DK	165	ASP
3	DK	178	ASN
3	DK	188	LEU
3	DK	189	THR

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Mol	Chain	Res	Type
3	DK	195	ASP
3	DK	204	VAL
3	DK	217	ARG
3	DK	222	LEU
3	DK	224	ASP
3	DL	15	MET
3	DL	16	SER
3	DL	18	VAL
3	DL	26	TYR
3	DL	31	VAL
3	DL	35	GLN
3	DL	36	VAL
3	DL	41	THR
3	DL	42	ASN
3	DL	46	VAL
3	DL	50	THR
3	DL	51	TYR
3	DL	54	CYS
3	DL	56	ILE
3	DL	59	LYS
3	DL	63	GLU
3	DL	65	THR
3	DL	67	THR
3	DL	76	MET
3	DL	84	GLU
3	DL	86	HIS
3	DL	90	VAL
3	DL	93	LEU
3	DL	103	SER
3	DL	120	PHE
3	DL	133	LYS
3	DL	134	THR
3	DL	139	MET
3	DL	142	ILE
3	DL	146	TRP
3	DL	148	VAL
3	DL	150	LEU
3	DL	157	ASN
3	DL	160	TYR
3	DL	162	SER
3	DL	165	ASP
3	DL	178	ASN

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Mol	Chain	Res	Type
3	DL	188	LEU
3	DL	189	THR
3	DL	195	ASP
3	DL	204	VAL
3	DL	217	ARG
3	DL	222	LEU
3	DL	224	ASP
3	DM	15	MET
3	DM	16	SER
3	DM	18	VAL
3	DM	26	TYR
3	DM	31	VAL
3	DM	35	GLN
3	DM	36	VAL
3	DM	41	THR
3	DM	42	ASN
3	DM	46	VAL
3	DM	50	THR
3	DM	51	TYR
3	DM	54	CYS
3	DM	56	ILE
3	DM	59	LYS
3	DM	63	GLU
3	DM	65	THR
3	DM	67	THR
3	DM	76	MET
3	DM	84	GLU
3	DM	86	HIS
3	DM	90	VAL
3	DM	93	LEU
3	DM	103	SER
3	DM	120	PHE
3	DM	133	LYS
3	DM	134	THR
3	DM	139	MET
3	DM	142	ILE
3	DM	146	TRP
3	DM	148	VAL
3	DM	150	LEU
3	DM	157	ASN
3	DM	160	TYR
3	DM	162	SER

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Mol	Chain	Res	Type
3	DM	165	ASP
3	DM	178	ASN
3	DM	188	LEU
3	DM	189	THR
3	DM	195	ASP
3	DM	204	VAL
3	DM	217	ARG
3	DM	222	LEU
3	DM	224	ASP
3	DN	15	MET
3	DN	16	SER
3	DN	18	VAL
3	DN	26	TYR
3	DN	31	VAL
3	DN	35	GLN
3	DN	36	VAL
3	DN	41	THR
3	DN	42	ASN
3	DN	46	VAL
3	DN	50	THR
3	DN	51	TYR
3	DN	54	CYS
3	DN	56	ILE
3	DN	59	LYS
3	DN	63	GLU
3	DN	65	THR
3	DN	67	THR
3	DN	76	MET
3	DN	84	GLU
3	DN	86	HIS
3	DN	90	VAL
3	DN	93	LEU
3	DN	103	SER
3	DN	120	PHE
3	DN	133	LYS
3	DN	134	THR
3	DN	139	MET
3	DN	142	ILE
3	DN	146	TRP
3	DN	148	VAL
3	DN	150	LEU
3	DN	157	ASN

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Mol	Chain	Res	Type
3	DN	160	TYR
3	DN	162	SER
3	DN	165	ASP
3	DN	178	ASN
3	DN	188	LEU
3	DN	189	THR
3	DN	195	ASP
3	DN	204	VAL
3	DN	217	ARG
3	DN	222	LEU
3	DN	224	ASP
3	DO	15	MET
3	DO	16	SER
3	DO	18	VAL
3	DO	26	TYR
3	DO	31	VAL
3	DO	35	GLN
3	DO	36	VAL
3	DO	41	THR
3	DO	42	ASN
3	DO	46	VAL
3	DO	50	THR
3	DO	51	TYR
3	DO	54	CYS
3	DO	56	ILE
3	DO	59	LYS
3	DO	63	GLU
3	DO	65	THR
3	DO	67	THR
3	DO	76	MET
3	DO	84	GLU
3	DO	86	HIS
3	DO	90	VAL
3	DO	93	LEU
3	DO	103	SER
3	DO	120	PHE
3	DO	133	LYS
3	DO	134	THR
3	DO	139	MET
3	DO	142	ILE
3	DO	146	TRP
3	DO	148	VAL

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Mol	Chain	Res	Type
3	DO	150	LEU
3	DO	157	ASN
3	DO	160	TYR
3	DO	162	SER
3	DO	165	ASP
3	DO	178	ASN
3	DO	188	LEU
3	DO	189	THR
3	DO	195	ASP
3	DO	204	VAL
3	DO	217	ARG
3	DO	222	LEU
3	DO	224	ASP
3	DP	15	MET
3	DP	16	SER
3	DP	18	VAL
3	DP	26	TYR
3	DP	31	VAL
3	DP	35	GLN
3	DP	36	VAL
3	DP	41	THR
3	DP	42	ASN
3	DP	46	VAL
3	DP	50	THR
3	DP	51	TYR
3	DP	54	CYS
3	DP	56	ILE
3	DP	59	LYS
3	DP	63	GLU
3	DP	65	THR
3	DP	67	THR
3	DP	76	MET
3	DP	84	GLU
3	DP	86	HIS
3	DP	90	VAL
3	DP	93	LEU
3	DP	103	SER
3	DP	120	PHE
3	DP	133	LYS
3	DP	134	THR
3	DP	139	MET
3	DP	142	ILE

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Mol	Chain	Res	Type
3	DP	146	TRP
3	DP	148	VAL
3	DP	150	LEU
3	DP	157	ASN
3	DP	160	TYR
3	DP	162	SER
3	DP	165	ASP
3	DP	178	ASN
3	DP	188	LEU
3	DP	189	THR
3	DP	195	ASP
3	DP	204	VAL
3	DP	217	ARG
3	DP	222	LEU
3	DP	224	ASP
3	DQ	15	MET
3	DQ	16	SER
3	DQ	18	VAL
3	DQ	26	TYR
3	DQ	31	VAL
3	DQ	35	GLN
3	DQ	36	VAL
3	DQ	41	THR
3	DQ	42	ASN
3	DQ	46	VAL
3	DQ	50	THR
3	DQ	51	TYR
3	DQ	54	CYS
3	DQ	56	ILE
3	DQ	59	LYS
3	DQ	63	GLU
3	DQ	65	THR
3	DQ	67	THR
3	DQ	76	MET
3	DQ	84	GLU
3	DQ	86	HIS
3	DQ	90	VAL
3	DQ	93	LEU
3	DQ	103	SER
3	DQ	120	PHE
3	DQ	133	LYS
3	DQ	134	THR

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Mol	Chain	Res	Type
3	DQ	139	MET
3	DQ	142	ILE
3	DQ	146	TRP
3	DQ	148	VAL
3	DQ	150	LEU
3	DQ	157	ASN
3	DQ	160	TYR
3	DQ	162	SER
3	DQ	165	ASP
3	DQ	178	ASN
3	DQ	188	LEU
3	DQ	189	THR
3	DQ	195	ASP
3	DQ	204	VAL
3	DQ	217	ARG
3	DQ	222	LEU
3	DQ	224	ASP
3	DR	15	MET
3	DR	16	SER
3	DR	18	VAL
3	DR	26	TYR
3	DR	31	VAL
3	DR	35	GLN
3	DR	36	VAL
3	DR	41	THR
3	DR	42	ASN
3	DR	46	VAL
3	DR	50	THR
3	DR	51	TYR
3	DR	54	CYS
3	DR	56	ILE
3	DR	59	LYS
3	DR	63	GLU
3	DR	65	THR
3	DR	67	THR
3	DR	76	MET
3	DR	84	GLU
3	DR	86	HIS
3	DR	90	VAL
3	DR	93	LEU
3	DR	103	SER
3	DR	120	PHE

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Mol	Chain	Res	Type
3	DR	133	LYS
3	DR	134	THR
3	DR	139	MET
3	DR	142	ILE
3	DR	146	TRP
3	DR	148	VAL
3	DR	150	LEU
3	DR	157	ASN
3	DR	160	TYR
3	DR	162	SER
3	DR	165	ASP
3	DR	178	ASN
3	DR	188	LEU
3	DR	189	THR
3	DR	195	ASP
3	DR	204	VAL
3	DR	217	ARG
3	DR	222	LEU
3	DS	15	MET
3	DS	16	SER
3	DS	18	VAL
3	DS	26	TYR
3	DS	31	VAL
3	DS	35	GLN
3	DS	36	VAL
3	DS	41	THR
3	DS	42	ASN
3	DS	46	VAL
3	DS	50	THR
3	DS	51	TYR
3	DS	54	CYS
3	DS	56	ILE
3	DS	59	LYS
3	DS	63	GLU
3	DS	65	THR
3	DS	67	THR
3	DS	76	MET
3	DS	84	GLU
3	DS	86	HIS
3	DS	90	VAL
3	DS	93	LEU
3	DS	103	SER

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Mol	Chain	Res	Type
3	DS	120	PHE
3	DS	133	LYS
3	DS	134	THR
3	DS	139	MET
3	DS	142	ILE
3	DS	146	TRP
3	DS	148	VAL
3	DS	150	LEU
3	DS	157	ASN
3	DS	160	TYR
3	DS	162	SER
3	DS	165	ASP
3	DS	178	ASN
3	DS	188	LEU
3	DS	189	THR
3	DS	195	ASP
3	DS	204	VAL
3	DS	217	ARG
3	DS	222	LEU
3	DS	224	ASP
3	DT	15	MET
3	DT	16	SER
3	DT	18	VAL
3	DT	26	TYR
3	DT	31	VAL
3	DT	35	GLN
3	DT	36	VAL
3	DT	41	THR
3	DT	42	ASN
3	DT	46	VAL
3	DT	50	THR
3	DT	51	TYR
3	DT	54	CYS
3	DT	56	ILE
3	DT	59	LYS
3	DT	63	GLU
3	DT	65	THR
3	DT	67	THR
3	DT	76	MET
3	DT	84	GLU
3	DT	86	HIS
3	DT	90	VAL

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Mol	Chain	Res	Type
3	DT	93	LEU
3	DT	103	SER
3	DT	120	PHE
3	DT	133	LYS
3	DT	134	THR
3	DT	139	MET
3	DT	142	ILE
3	DT	146	TRP
3	DT	148	VAL
3	DT	150	LEU
3	DT	157	ASN
3	DT	160	TYR
3	DT	162	SER
3	DT	165	ASP
3	DT	178	ASN
3	DT	188	LEU
3	DT	189	THR
3	DT	195	ASP
3	DT	204	VAL
3	DT	217	ARG
3	DT	222	LEU
3	DT	224	ASP
3	DU	15	MET
3	DU	16	SER
3	DU	18	VAL
3	DU	26	TYR
3	DU	31	VAL
3	DU	35	GLN
3	DU	36	VAL
3	DU	41	THR
3	DU	42	ASN
3	DU	46	VAL
3	DU	50	THR
3	DU	51	TYR
3	DU	54	CYS
3	DU	56	ILE
3	DU	59	LYS
3	DU	63	GLU
3	DU	65	THR
3	DU	67	THR
3	DU	76	MET
3	DU	84	GLU

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Mol	Chain	Res	Type
3	DU	86	HIS
3	DU	90	VAL
3	DU	93	LEU
3	DU	103	SER
3	DU	120	PHE
3	DU	133	LYS
3	DU	134	THR
3	DU	139	MET
3	DU	142	ILE
3	DU	146	TRP
3	DU	148	VAL
3	DU	150	LEU
3	DU	157	ASN
3	DU	160	TYR
3	DU	162	SER
3	DU	165	ASP
3	DU	178	ASN
3	DU	188	LEU
3	DU	189	THR
3	DU	195	ASP
3	DU	204	VAL
3	DU	217	ARG
3	DU	222	LEU
3	DU	224	ASP
3	DV	15	MET
3	DV	16	SER
3	DV	18	VAL
3	DV	26	TYR
3	DV	31	VAL
3	DV	35	GLN
3	DV	36	VAL
3	DV	41	THR
3	DV	42	ASN
3	DV	46	VAL
3	DV	50	THR
3	DV	51	TYR
3	DV	54	CYS
3	DV	56	ILE
3	DV	59	LYS
3	DV	63	GLU
3	DV	65	THR
3	DV	67	THR

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Mol	Chain	Res	Type
3	DV	76	MET
3	DV	84	GLU
3	DV	86	HIS
3	DV	90	VAL
3	DV	93	LEU
3	DV	103	SER
3	DV	120	PHE
3	DV	133	LYS
3	DV	134	THR
3	DV	139	MET
3	DV	142	ILE
3	DV	146	TRP
3	DV	148	VAL
3	DV	150	LEU
3	DV	157	ASN
3	DV	160	TYR
3	DV	162	SER
3	DV	165	ASP
3	DV	178	ASN
3	DV	188	LEU
3	DV	189	THR
3	DV	195	ASP
3	DV	204	VAL
3	DV	217	ARG
3	DV	222	LEU
3	DV	224	ASP
3	DW	15	MET
3	DW	16	SER
3	DW	18	VAL
3	DW	26	TYR
3	DW	31	VAL
3	DW	35	GLN
3	DW	36	VAL
3	DW	41	THR
3	DW	42	ASN
3	DW	46	VAL
3	DW	50	THR
3	DW	51	TYR
3	DW	54	CYS
3	DW	56	ILE
3	DW	59	LYS
3	DW	63	GLU

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Mol	Chain	Res	Type
3	DW	65	THR
3	DW	67	THR
3	DW	76	MET
3	DW	84	GLU
3	DW	86	HIS
3	DW	90	VAL
3	DW	93	LEU
3	DW	103	SER
3	DW	120	PHE
3	DW	133	LYS
3	DW	134	THR
3	DW	139	MET
3	DW	142	ILE
3	DW	146	TRP
3	DW	148	VAL
3	DW	150	LEU
3	DW	157	ASN
3	DW	160	TYR
3	DW	162	SER
3	DW	165	ASP
3	DW	178	ASN
3	DW	188	LEU
3	DW	189	THR
3	DW	195	ASP
3	DW	204	VAL
3	DW	217	ARG
3	DW	222	LEU
3	DW	224	ASP
3	DX	15	MET
3	DX	16	SER
3	DX	18	VAL
3	DX	26	TYR
3	DX	31	VAL
3	DX	35	GLN
3	DX	36	VAL
3	DX	41	THR
3	DX	42	ASN
3	DX	46	VAL
3	DX	50	THR
3	DX	51	TYR
3	DX	54	CYS
3	DX	56	ILE

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Mol	Chain	Res	Type
3	DX	59	LYS
3	DX	63	GLU
3	DX	65	THR
3	DX	67	THR
3	DX	76	MET
3	DX	84	GLU
3	DX	86	HIS
3	DX	90	VAL
3	DX	93	LEU
3	DX	103	SER
3	DX	120	PHE
3	DX	133	LYS
3	DX	134	THR
3	DX	139	MET
3	DX	142	ILE
3	DX	146	TRP
3	DX	148	VAL
3	DX	150	LEU
3	DX	157	ASN
3	DX	160	TYR
3	DX	162	SER
3	DX	165	ASP
3	DX	178	ASN
3	DX	188	LEU
3	DX	189	THR
3	DX	195	ASP
3	DX	204	VAL
3	DX	217	ARG
3	DX	222	LEU
3	DX	224	ASP
3	DY	15	MET
3	DY	16	SER
3	DY	18	VAL
3	DY	26	TYR
3	DY	31	VAL
3	DY	35	GLN
3	DY	36	VAL
3	DY	41	THR
3	DY	42	ASN
3	DY	46	VAL
3	DY	50	THR
3	DY	51	TYR

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Mol	Chain	Res	Type
3	DY	54	CYS
3	DY	56	ILE
3	DY	59	LYS
3	DY	63	GLU
3	DY	65	THR
3	DY	67	THR
3	DY	76	MET
3	DY	84	GLU
3	DY	86	HIS
3	DY	90	VAL
3	DY	93	LEU
3	DY	103	SER
3	DY	120	PHE
3	DY	133	LYS
3	DY	134	THR
3	DY	139	MET
3	DY	142	ILE
3	DY	146	TRP
3	DY	148	VAL
3	DY	150	LEU
3	DY	157	ASN
3	DY	160	TYR
3	DY	162	SER
3	DY	165	ASP
3	DY	178	ASN
3	DY	188	LEU
3	DY	189	THR
3	DY	195	ASP
3	DY	204	VAL
3	DY	217	ARG
3	DY	222	LEU
3	DY	224	ASP
3	DZ	15	MET
3	DZ	16	SER
3	DZ	18	VAL
3	DZ	26	TYR
3	DZ	31	VAL
3	DZ	35	GLN
3	DZ	36	VAL
3	DZ	41	THR
3	DZ	42	ASN
3	DZ	46	VAL

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Mol	Chain	Res	Type
3	DZ	50	THR
3	DZ	51	TYR
3	DZ	54	CYS
3	DZ	56	ILE
3	DZ	59	LYS
3	DZ	63	GLU
3	DZ	65	THR
3	DZ	67	THR
3	DZ	76	MET
3	DZ	84	GLU
3	DZ	86	HIS
3	DZ	90	VAL
3	DZ	93	LEU
3	DZ	103	SER
3	DZ	120	PHE
3	DZ	133	LYS
3	DZ	134	THR
3	DZ	139	MET
3	DZ	142	ILE
3	DZ	146	TRP
3	DZ	148	VAL
3	DZ	150	LEU
3	DZ	157	ASN
3	DZ	160	TYR
3	DZ	162	SER
3	DZ	165	ASP
3	DZ	178	ASN
3	DZ	188	LEU
3	DZ	189	THR
3	DZ	195	ASP
3	DZ	204	VAL
3	DZ	217	ARG
3	DZ	222	LEU
3	DZ	224	ASP
3	Da	15	MET
3	Da	16	SER
3	Da	18	VAL
3	Da	26	TYR
3	Da	31	VAL
3	Da	35	GLN
3	Da	36	VAL
3	Da	41	THR

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Mol	Chain	Res	Type
3	Da	42	ASN
3	Da	46	VAL
3	Da	50	THR
3	Da	51	TYR
3	Da	54	CYS
3	Da	56	ILE
3	Da	59	LYS
3	Da	63	GLU
3	Da	65	THR
3	Da	67	THR
3	Da	76	MET
3	Da	84	GLU
3	Da	86	HIS
3	Da	90	VAL
3	Da	93	LEU
3	Da	103	SER
3	Da	120	PHE
3	Da	133	LYS
3	Da	134	THR
3	Da	139	MET
3	Da	142	ILE
3	Da	146	TRP
3	Da	148	VAL
3	Da	150	LEU
3	Da	157	ASN
3	Da	160	TYR
3	Da	162	SER
3	Da	165	ASP
3	Da	178	ASN
3	Da	188	LEU
3	Da	189	THR
3	Da	195	ASP
3	Da	204	VAL
3	Da	217	ARG
3	Da	222	LEU
3	Da	224	ASP
3	Db	15	MET
3	Db	16	SER
3	Db	18	VAL
3	Db	26	TYR
3	Db	31	VAL
3	Db	35	GLN

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Mol	Chain	Res	Type
3	Db	36	VAL
3	Db	41	THR
3	Db	42	ASN
3	Db	46	VAL
3	Db	50	THR
3	Db	51	TYR
3	Db	54	CYS
3	Db	56	ILE
3	Db	59	LYS
3	Db	63	GLU
3	Db	65	THR
3	Db	67	THR
3	Db	76	MET
3	Db	84	GLU
3	Db	86	HIS
3	Db	90	VAL
3	Db	93	LEU
3	Db	103	SER
3	Db	120	PHE
3	Db	133	LYS
3	Db	134	THR
3	Db	139	MET
3	Db	142	ILE
3	Db	146	TRP
3	Db	148	VAL
3	Db	150	LEU
3	Db	157	ASN
3	Db	160	TYR
3	Db	162	SER
3	Db	165	ASP
3	Db	178	ASN
3	Db	188	LEU
3	Db	189	THR
3	Db	195	ASP
3	Db	204	VAL
3	Db	217	ARG
3	Db	222	LEU
3	Db	224	ASP
3	Dc	15	MET
3	Dc	16	SER
3	Dc	18	VAL
3	Dc	26	TYR

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Mol	Chain	Res	Type
3	Dc	31	VAL
3	Dc	35	GLN
3	Dc	36	VAL
3	Dc	41	THR
3	Dc	42	ASN
3	Dc	46	VAL
3	Dc	50	THR
3	Dc	51	TYR
3	Dc	54	CYS
3	Dc	56	ILE
3	Dc	59	LYS
3	Dc	63	GLU
3	Dc	65	THR
3	Dc	67	THR
3	Dc	76	MET
3	Dc	84	GLU
3	Dc	86	HIS
3	Dc	90	VAL
3	Dc	93	LEU
3	Dc	103	SER
3	Dc	120	PHE
3	Dc	133	LYS
3	Dc	134	THR
3	Dc	139	MET
3	Dc	142	ILE
3	Dc	146	TRP
3	Dc	148	VAL
3	Dc	150	LEU
3	Dc	157	ASN
3	Dc	160	TYR
3	Dc	162	SER
3	Dc	165	ASP
3	Dc	178	ASN
3	Dc	188	LEU
3	Dc	189	THR
3	Dc	195	ASP
3	Dc	204	VAL
3	Dc	217	ARG
3	Dc	222	LEU
3	Dc	224	ASP
3	Dd	15	MET
3	Dd	16	SER

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Mol	Chain	Res	Type
3	Dd	18	VAL
3	Dd	26	TYR
3	Dd	31	VAL
3	Dd	35	GLN
3	Dd	36	VAL
3	Dd	41	THR
3	Dd	42	ASN
3	Dd	46	VAL
3	Dd	50	THR
3	Dd	51	TYR
3	Dd	54	CYS
3	Dd	56	ILE
3	Dd	59	LYS
3	Dd	63	GLU
3	Dd	65	THR
3	Dd	67	THR
3	Dd	76	MET
3	Dd	84	GLU
3	Dd	86	HIS
3	Dd	90	VAL
3	Dd	93	LEU
3	Dd	103	SER
3	Dd	120	PHE
3	Dd	133	LYS
3	Dd	134	THR
3	Dd	139	MET
3	Dd	142	ILE
3	Dd	146	TRP
3	Dd	148	VAL
3	Dd	150	LEU
3	Dd	157	ASN
3	Dd	160	TYR
3	Dd	162	SER
3	Dd	165	ASP
3	Dd	178	ASN
3	Dd	188	LEU
3	Dd	189	THR
3	Dd	195	ASP
3	Dd	204	VAL
3	Dd	217	ARG
3	Dd	222	LEU
3	Dd	224	ASP

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Mol	Chain	Res	Type
3	De	15	MET
3	De	16	SER
3	De	18	VAL
3	De	26	TYR
3	De	31	VAL
3	De	35	GLN
3	De	36	VAL
3	De	41	THR
3	De	42	ASN
3	De	46	VAL
3	De	50	THR
3	De	51	TYR
3	De	54	CYS
3	De	56	ILE
3	De	59	LYS
3	De	63	GLU
3	De	65	THR
3	De	67	THR
3	De	76	MET
3	De	84	GLU
3	De	86	HIS
3	De	90	VAL
3	De	93	LEU
3	De	103	SER
3	De	120	PHE
3	De	133	LYS
3	De	134	THR
3	De	139	MET
3	De	142	ILE
3	De	146	TRP
3	De	148	VAL
3	De	150	LEU
3	De	157	ASN
3	De	160	TYR
3	De	162	SER
3	De	165	ASP
3	De	178	ASN
3	De	188	LEU
3	De	189	THR
3	De	195	ASP
3	De	204	VAL
3	De	217	ARG

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Mol	Chain	Res	Type
3	De	222	LEU
3	De	224	ASP
3	Df	15	MET
3	Df	16	SER
3	Df	18	VAL
3	Df	26	TYR
3	Df	31	VAL
3	Df	35	GLN
3	Df	36	VAL
3	Df	41	THR
3	Df	42	ASN
3	Df	46	VAL
3	Df	50	THR
3	Df	51	TYR
3	Df	54	CYS
3	Df	56	ILE
3	Df	59	LYS
3	Df	63	GLU
3	Df	65	THR
3	Df	67	THR
3	Df	76	MET
3	Df	84	GLU
3	Df	86	HIS
3	Df	90	VAL
3	Df	93	LEU
3	Df	103	SER
3	Df	120	PHE
3	Df	133	LYS
3	Df	134	THR
3	Df	139	MET
3	Df	142	ILE
3	Df	146	TRP
3	Df	148	VAL
3	Df	150	LEU
3	Df	157	ASN
3	Df	160	TYR
3	Df	162	SER
3	Df	165	ASP
3	Df	178	ASN
3	Df	188	LEU
3	Df	189	THR
3	Df	195	ASP

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Mol	Chain	Res	Type
3	Df	204	VAL
3	Df	217	ARG
3	Df	222	LEU
3	Df	224	ASP
3	Dg	15	MET
3	Dg	16	SER
3	Dg	18	VAL
3	Dg	26	TYR
3	Dg	31	VAL
3	Dg	35	GLN
3	Dg	36	VAL
3	Dg	41	THR
3	Dg	42	ASN
3	Dg	46	VAL
3	Dg	50	THR
3	Dg	51	TYR
3	Dg	54	CYS
3	Dg	56	ILE
3	Dg	59	LYS
3	Dg	63	GLU
3	Dg	65	THR
3	Dg	67	THR
3	Dg	76	MET
3	Dg	84	GLU
3	Dg	86	HIS
3	Dg	90	VAL
3	Dg	93	LEU
3	Dg	103	SER
3	Dg	120	PHE
3	Dg	133	LYS
3	Dg	134	THR
3	Dg	139	MET
3	Dg	142	ILE
3	Dg	146	TRP
3	Dg	148	VAL
3	Dg	150	LEU
3	Dg	157	ASN
3	Dg	160	TYR
3	Dg	162	SER
3	Dg	165	ASP
3	Dg	178	ASN
3	Dg	188	LEU

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Mol	Chain	Res	Type
3	Dg	189	THR
3	Dg	195	ASP
3	Dg	204	VAL
3	Dg	217	ARG
3	Dg	222	LEU
3	Dg	224	ASP
3	Dh	15	MET
3	Dh	16	SER
3	Dh	18	VAL
3	Dh	26	TYR
3	Dh	31	VAL
3	Dh	35	GLN
3	Dh	36	VAL
3	Dh	41	THR
3	Dh	42	ASN
3	Dh	46	VAL
3	Dh	50	THR
3	Dh	51	TYR
3	Dh	54	CYS
3	Dh	56	ILE
3	Dh	59	LYS
3	Dh	63	GLU
3	Dh	65	THR
3	Dh	67	THR
3	Dh	76	MET
3	Dh	84	GLU
3	Dh	86	HIS
3	Dh	90	VAL
3	Dh	93	LEU
3	Dh	103	SER
3	Dh	120	PHE
3	Dh	133	LYS
3	Dh	134	THR
3	Dh	139	MET
3	Dh	142	ILE
3	Dh	146	TRP
3	Dh	148	VAL
3	Dh	150	LEU
3	Dh	157	ASN
3	Dh	160	TYR
3	Dh	162	SER
3	Dh	165	ASP

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Mol	Chain	Res	Type
3	Dh	178	ASN
3	Dh	188	LEU
3	Dh	189	THR
3	Dh	195	ASP
3	Dh	204	VAL
3	Dh	217	ARG
3	Dh	222	LEU
3	Dh	224	ASP
3	Di	15	MET
3	Di	16	SER
3	Di	18	VAL
3	Di	26	TYR
3	Di	31	VAL
3	Di	35	GLN
3	Di	36	VAL
3	Di	41	THR
3	Di	42	ASN
3	Di	46	VAL
3	Di	50	THR
3	Di	51	TYR
3	Di	54	CYS
3	Di	56	ILE
3	Di	59	LYS
3	Di	63	GLU
3	Di	65	THR
3	Di	67	THR
3	Di	76	MET
3	Di	84	GLU
3	Di	86	HIS
3	Di	90	VAL
3	Di	93	LEU
3	Di	103	SER
3	Di	120	PHE
3	Di	133	LYS
3	Di	134	THR
3	Di	139	MET
3	Di	142	ILE
3	Di	146	TRP
3	Di	148	VAL
3	Di	150	LEU
3	Di	157	ASN
3	Di	160	TYR

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Mol	Chain	Res	Type
3	Di	162	SER
3	Di	165	ASP
3	Di	178	ASN
3	Di	188	LEU
3	Di	189	THR
3	Di	195	ASP
3	Di	204	VAL
3	Di	217	ARG
3	Di	222	LEU
3	Di	224	ASP
3	Dj	15	MET
3	Dj	16	SER
3	Dj	18	VAL
3	Dj	26	TYR
3	Dj	31	VAL
3	Dj	35	GLN
3	Dj	36	VAL
3	Dj	41	THR
3	Dj	42	ASN
3	Dj	46	VAL
3	Dj	50	THR
3	Dj	51	TYR
3	Dj	54	CYS
3	Dj	56	ILE
3	Dj	59	LYS
3	Dj	63	GLU
3	Dj	65	THR
3	Dj	67	THR
3	Dj	76	MET
3	Dj	84	GLU
3	Dj	86	HIS
3	Dj	90	VAL
3	Dj	93	LEU
3	Dj	103	SER
3	Dj	120	PHE
3	Dj	133	LYS
3	Dj	134	THR
3	Dj	139	MET
3	Dj	142	ILE
3	Dj	146	TRP
3	Dj	148	VAL
3	Dj	150	LEU

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Mol	Chain	Res	Type
3	Dj	157	ASN
3	Dj	160	TYR
3	Dj	162	SER
3	Dj	165	ASP
3	Dj	178	ASN
3	Dj	188	LEU
3	Dj	189	THR
3	Dj	195	ASP
3	Dj	204	VAL
3	Dj	217	ARG
3	Dj	222	LEU
3	Dk	15	MET
3	Dk	16	SER
3	Dk	18	VAL
3	Dk	26	TYR
3	Dk	31	VAL
3	Dk	35	GLN
3	Dk	36	VAL
3	Dk	41	THR
3	Dk	42	ASN
3	Dk	46	VAL
3	Dk	50	THR
3	Dk	51	TYR
3	Dk	54	CYS
3	Dk	56	ILE
3	Dk	59	LYS
3	Dk	63	GLU
3	Dk	65	THR
3	Dk	67	THR
3	Dk	76	MET
3	Dk	84	GLU
3	Dk	86	HIS
3	Dk	90	VAL
3	Dk	93	LEU
3	Dk	103	SER
3	Dk	120	PHE
3	Dk	133	LYS
3	Dk	134	THR
3	Dk	139	MET
3	Dk	142	ILE
3	Dk	146	TRP
3	Dk	148	VAL

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Mol	Chain	Res	Type
3	Dk	150	LEU
3	Dk	157	ASN
3	Dk	160	TYR
3	Dk	162	SER
3	Dk	165	ASP
3	Dk	178	ASN
3	Dk	188	LEU
3	Dk	189	THR
3	Dk	195	ASP
3	Dk	204	VAL
3	Dk	217	ARG
3	Dk	222	LEU
3	Dk	224	ASP
3	Dl	15	MET
3	Dl	16	SER
3	Dl	18	VAL
3	Dl	26	TYR
3	Dl	31	VAL
3	Dl	35	GLN
3	Dl	36	VAL
3	Dl	41	THR
3	Dl	42	ASN
3	Dl	46	VAL
3	Dl	50	THR
3	Dl	51	TYR
3	Dl	54	CYS
3	Dl	56	ILE
3	Dl	59	LYS
3	Dl	63	GLU
3	Dl	65	THR
3	Dl	67	THR
3	Dl	76	MET
3	Dl	84	GLU
3	Dl	86	HIS
3	Dl	90	VAL
3	Dl	93	LEU
3	Dl	103	SER
3	Dl	120	PHE
3	Dl	133	LYS
3	Dl	134	THR
3	Dl	139	MET
3	Dl	142	ILE

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Mol	Chain	Res	Type
3	Dl	146	TRP
3	Dl	148	VAL
3	Dl	150	LEU
3	Dl	157	ASN
3	Dl	160	TYR
3	Dl	162	SER
3	Dl	165	ASP
3	Dl	178	ASN
3	Dl	188	LEU
3	Dl	189	THR
3	Dl	195	ASP
3	Dl	204	VAL
3	Dl	217	ARG
3	Dl	222	LEU
3	Dl	224	ASP
3	Dm	15	MET
3	Dm	16	SER
3	Dm	18	VAL
3	Dm	26	TYR
3	Dm	31	VAL
3	Dm	35	GLN
3	Dm	36	VAL
3	Dm	41	THR
3	Dm	42	ASN
3	Dm	46	VAL
3	Dm	50	THR
3	Dm	51	TYR
3	Dm	54	CYS
3	Dm	56	ILE
3	Dm	59	LYS
3	Dm	63	GLU
3	Dm	65	THR
3	Dm	67	THR
3	Dm	76	MET
3	Dm	84	GLU
3	Dm	86	HIS
3	Dm	90	VAL
3	Dm	93	LEU
3	Dm	103	SER
3	Dm	120	PHE
3	Dm	133	LYS
3	Dm	134	THR

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Mol	Chain	Res	Type
3	Dm	139	MET
3	Dm	142	ILE
3	Dm	146	TRP
3	Dm	148	VAL
3	Dm	150	LEU
3	Dm	157	ASN
3	Dm	160	TYR
3	Dm	162	SER
3	Dm	165	ASP
3	Dm	178	ASN
3	Dm	188	LEU
3	Dm	189	THR
3	Dm	195	ASP
3	Dm	204	VAL
3	Dm	217	ARG
3	Dm	222	LEU
3	Dm	224	ASP
3	Dn	15	MET
3	Dn	16	SER
3	Dn	18	VAL
3	Dn	26	TYR
3	Dn	31	VAL
3	Dn	35	GLN
3	Dn	36	VAL
3	Dn	41	THR
3	Dn	42	ASN
3	Dn	46	VAL
3	Dn	50	THR
3	Dn	51	TYR
3	Dn	54	CYS
3	Dn	56	ILE
3	Dn	59	LYS
3	Dn	63	GLU
3	Dn	65	THR
3	Dn	67	THR
3	Dn	76	MET
3	Dn	84	GLU
3	Dn	86	HIS
3	Dn	90	VAL
3	Dn	93	LEU
3	Dn	103	SER
3	Dn	120	PHE

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Mol	Chain	Res	Type
3	Dn	133	LYS
3	Dn	134	THR
3	Dn	139	MET
3	Dn	142	ILE
3	Dn	146	TRP
3	Dn	148	VAL
3	Dn	150	LEU
3	Dn	157	ASN
3	Dn	160	TYR
3	Dn	162	SER
3	Dn	165	ASP
3	Dn	178	ASN
3	Dn	188	LEU
3	Dn	189	THR
3	Dn	195	ASP
3	Dn	204	VAL
3	Dn	217	ARG
3	Dn	222	LEU
3	Dn	224	ASP
3	Do	15	MET
3	Do	16	SER
3	Do	18	VAL
3	Do	26	TYR
3	Do	31	VAL
3	Do	35	GLN
3	Do	36	VAL
3	Do	41	THR
3	Do	42	ASN
3	Do	46	VAL
3	Do	50	THR
3	Do	51	TYR
3	Do	54	CYS
3	Do	56	ILE
3	Do	59	LYS
3	Do	63	GLU
3	Do	65	THR
3	Do	67	THR
3	Do	76	MET
3	Do	84	GLU
3	Do	86	HIS
3	Do	90	VAL
3	Do	93	LEU

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Mol	Chain	Res	Type
3	Do	103	SER
3	Do	120	PHE
3	Do	133	LYS
3	Do	134	THR
3	Do	139	MET
3	Do	142	ILE
3	Do	146	TRP
3	Do	148	VAL
3	Do	150	LEU
3	Do	157	ASN
3	Do	160	TYR
3	Do	162	SER
3	Do	165	ASP
3	Do	178	ASN
3	Do	188	LEU
3	Do	189	THR
3	Do	195	ASP
3	Do	204	VAL
3	Do	217	ARG
3	Do	222	LEU
3	Do	224	ASP
3	Dp	15	MET
3	Dp	16	SER
3	Dp	18	VAL
3	Dp	26	TYR
3	Dp	31	VAL
3	Dp	35	GLN
3	Dp	36	VAL
3	Dp	41	THR
3	Dp	42	ASN
3	Dp	46	VAL
3	Dp	50	THR
3	Dp	51	TYR
3	Dp	54	CYS
3	Dp	56	ILE
3	Dp	59	LYS
3	Dp	63	GLU
3	Dp	65	THR
3	Dp	67	THR
3	Dp	76	MET
3	Dp	84	GLU
3	Dp	86	HIS

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Mol	Chain	Res	Type
3	Dp	90	VAL
3	Dp	93	LEU
3	Dp	103	SER
3	Dp	120	PHE
3	Dp	133	LYS
3	Dp	134	THR
3	Dp	139	MET
3	Dp	142	ILE
3	Dp	146	TRP
3	Dp	148	VAL
3	Dp	150	LEU
3	Dp	157	ASN
3	Dp	160	TYR
3	Dp	162	SER
3	Dp	165	ASP
3	Dp	178	ASN
3	Dp	188	LEU
3	Dp	189	THR
3	Dp	195	ASP
3	Dp	204	VAL
3	Dp	217	ARG
3	Dp	222	LEU
3	Dp	224	ASP
3	Dq	15	MET
3	Dq	16	SER
3	Dq	18	VAL
3	Dq	26	TYR
3	Dq	31	VAL
3	Dq	35	GLN
3	Dq	36	VAL
3	Dq	41	THR
3	Dq	42	ASN
3	Dq	46	VAL
3	Dq	50	THR
3	Dq	51	TYR
3	Dq	54	CYS
3	Dq	56	ILE
3	Dq	59	LYS
3	Dq	63	GLU
3	Dq	65	THR
3	Dq	67	THR
3	Dq	76	MET

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Mol	Chain	Res	Type
3	Dq	84	GLU
3	Dq	86	HIS
3	Dq	90	VAL
3	Dq	93	LEU
3	Dq	103	SER
3	Dq	120	PHE
3	Dq	133	LYS
3	Dq	134	THR
3	Dq	139	MET
3	Dq	142	ILE
3	Dq	146	TRP
3	Dq	148	VAL
3	Dq	150	LEU
3	Dq	157	ASN
3	Dq	160	TYR
3	Dq	162	SER
3	Dq	165	ASP
3	Dq	178	ASN
3	Dq	188	LEU
3	Dq	189	THR
3	Dq	195	ASP
3	Dq	204	VAL
3	Dq	217	ARG
3	Dq	222	LEU
3	Dr	15	MET
3	Dr	16	SER
3	Dr	18	VAL
3	Dr	26	TYR
3	Dr	31	VAL
3	Dr	35	GLN
3	Dr	36	VAL
3	Dr	41	THR
3	Dr	42	ASN
3	Dr	46	VAL
3	Dr	50	THR
3	Dr	51	TYR
3	Dr	54	CYS
3	Dr	56	ILE
3	Dr	59	LYS
3	Dr	63	GLU
3	Dr	65	THR
3	Dr	67	THR

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Mol	Chain	Res	Type
3	Dr	76	MET
3	Dr	84	GLU
3	Dr	86	HIS
3	Dr	90	VAL
3	Dr	93	LEU
3	Dr	103	SER
3	Dr	120	PHE
3	Dr	133	LYS
3	Dr	134	THR
3	Dr	139	MET
3	Dr	142	ILE
3	Dr	146	TRP
3	Dr	148	VAL
3	Dr	150	LEU
3	Dr	157	ASN
3	Dr	160	TYR
3	Dr	162	SER
3	Dr	165	ASP
3	Dr	178	ASN
3	Dr	188	LEU
3	Dr	189	THR
3	Dr	195	ASP
3	Dr	204	VAL
3	Dr	217	ARG
3	Dr	222	LEU
3	Dr	224	ASP
3	Ds	15	MET
3	Ds	16	SER
3	Ds	18	VAL
3	Ds	26	TYR
3	Ds	31	VAL
3	Ds	35	GLN
3	Ds	36	VAL
3	Ds	41	THR
3	Ds	42	ASN
3	Ds	46	VAL
3	Ds	50	THR
3	Ds	51	TYR
3	Ds	54	CYS
3	Ds	56	ILE
3	Ds	59	LYS
3	Ds	63	GLU

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Mol	Chain	Res	Type
3	Ds	65	THR
3	Ds	67	THR
3	Ds	76	MET
3	Ds	84	GLU
3	Ds	86	HIS
3	Ds	90	VAL
3	Ds	93	LEU
3	Ds	103	SER
3	Ds	120	PHE
3	Ds	133	LYS
3	Ds	134	THR
3	Ds	139	MET
3	Ds	142	ILE
3	Ds	146	TRP
3	Ds	148	VAL
3	Ds	150	LEU
3	Ds	157	ASN
3	Ds	160	TYR
3	Ds	162	SER
3	Ds	165	ASP
3	Ds	178	ASN
3	Ds	188	LEU
3	Ds	189	THR
3	Ds	195	ASP
3	Ds	204	VAL
3	Ds	217	ARG
3	Ds	222	LEU
3	Ds	224	ASP
3	EA	15	MET
3	EA	16	SER
3	EA	18	VAL
3	EA	26	TYR
3	EA	31	VAL
3	EA	35	GLN
3	EA	36	VAL
3	EA	41	THR
3	EA	42	ASN
3	EA	46	VAL
3	EA	50	THR
3	EA	51	TYR
3	EA	54	CYS
3	EA	56	ILE

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Mol	Chain	Res	Type
3	EA	59	LYS
3	EA	63	GLU
3	EA	65	THR
3	EA	67	THR
3	EA	76	MET
3	EA	84	GLU
3	EA	86	HIS
3	EA	90	VAL
3	EA	93	LEU
3	EA	103	SER
3	EA	120	PHE
3	EA	133	LYS
3	EA	134	THR
3	EA	139	MET
3	EA	142	ILE
3	EA	146	TRP
3	EA	148	VAL
3	EA	150	LEU
3	EA	157	ASN
3	EA	160	TYR
3	EA	162	SER
3	EA	165	ASP
3	EA	178	ASN
3	EA	188	LEU
3	EA	189	THR
3	EA	195	ASP
3	EA	204	VAL
3	EA	217	ARG
3	EA	222	LEU
3	EA	224	ASP
3	EB	15	MET
3	EB	16	SER
3	EB	18	VAL
3	EB	26	TYR
3	EB	31	VAL
3	EB	35	GLN
3	EB	36	VAL
3	EB	41	THR
3	EB	42	ASN
3	EB	46	VAL
3	EB	50	THR
3	EB	51	TYR

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Mol	Chain	Res	Type
3	EB	54	CYS
3	EB	56	ILE
3	EB	59	LYS
3	EB	63	GLU
3	EB	65	THR
3	EB	67	THR
3	EB	76	MET
3	EB	84	GLU
3	EB	86	HIS
3	EB	90	VAL
3	EB	93	LEU
3	EB	103	SER
3	EB	120	PHE
3	EB	133	LYS
3	EB	134	THR
3	EB	139	MET
3	EB	142	ILE
3	EB	146	TRP
3	EB	148	VAL
3	EB	150	LEU
3	EB	157	ASN
3	EB	160	TYR
3	EB	162	SER
3	EB	165	ASP
3	EB	178	ASN
3	EB	188	LEU
3	EB	189	THR
3	EB	195	ASP
3	EB	204	VAL
3	EB	217	ARG
3	EB	222	LEU
3	EB	224	ASP
3	EC	15	MET
3	EC	16	SER
3	EC	18	VAL
3	EC	26	TYR
3	EC	31	VAL
3	EC	35	GLN
3	EC	36	VAL
3	EC	41	THR
3	EC	42	ASN
3	EC	46	VAL

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Mol	Chain	Res	Type
3	EC	50	THR
3	EC	51	TYR
3	EC	54	CYS
3	EC	56	ILE
3	EC	59	LYS
3	EC	63	GLU
3	EC	65	THR
3	EC	67	THR
3	EC	76	MET
3	EC	84	GLU
3	EC	86	HIS
3	EC	90	VAL
3	EC	93	LEU
3	EC	103	SER
3	EC	120	PHE
3	EC	133	LYS
3	EC	134	THR
3	EC	139	MET
3	EC	142	ILE
3	EC	146	TRP
3	EC	148	VAL
3	EC	150	LEU
3	EC	157	ASN
3	EC	160	TYR
3	EC	162	SER
3	EC	165	ASP
3	EC	178	ASN
3	EC	188	LEU
3	EC	189	THR
3	EC	195	ASP
3	EC	204	VAL
3	EC	217	ARG
3	EC	222	LEU
3	EC	224	ASP
3	ED	15	MET
3	ED	16	SER
3	ED	18	VAL
3	ED	26	TYR
3	ED	31	VAL
3	ED	35	GLN
3	ED	36	VAL
3	ED	41	THR

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Mol	Chain	Res	Type
3	ED	42	ASN
3	ED	46	VAL
3	ED	50	THR
3	ED	51	TYR
3	ED	54	CYS
3	ED	56	ILE
3	ED	59	LYS
3	ED	63	GLU
3	ED	65	THR
3	ED	67	THR
3	ED	76	MET
3	ED	84	GLU
3	ED	86	HIS
3	ED	90	VAL
3	ED	93	LEU
3	ED	103	SER
3	ED	120	PHE
3	ED	133	LYS
3	ED	134	THR
3	ED	139	MET
3	ED	142	ILE
3	ED	146	TRP
3	ED	148	VAL
3	ED	150	LEU
3	ED	157	ASN
3	ED	160	TYR
3	ED	162	SER
3	ED	165	ASP
3	ED	178	ASN
3	ED	188	LEU
3	ED	189	THR
3	ED	195	ASP
3	ED	204	VAL
3	ED	217	ARG
3	ED	222	LEU
3	ED	224	ASP
3	EE	15	MET
3	EE	16	SER
3	EE	18	VAL
3	EE	26	TYR
3	EE	31	VAL
3	EE	35	GLN

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Mol	Chain	Res	Type
3	EE	36	VAL
3	EE	41	THR
3	EE	42	ASN
3	EE	46	VAL
3	EE	50	THR
3	EE	51	TYR
3	EE	54	CYS
3	EE	56	ILE
3	EE	59	LYS
3	EE	63	GLU
3	EE	65	THR
3	EE	67	THR
3	EE	76	MET
3	EE	84	GLU
3	EE	86	HIS
3	EE	90	VAL
3	EE	93	LEU
3	EE	103	SER
3	EE	120	PHE
3	EE	133	LYS
3	EE	134	THR
3	EE	139	MET
3	EE	142	ILE
3	EE	146	TRP
3	EE	148	VAL
3	EE	150	LEU
3	EE	157	ASN
3	EE	160	TYR
3	EE	162	SER
3	EE	165	ASP
3	EE	178	ASN
3	EE	188	LEU
3	EE	189	THR
3	EE	195	ASP
3	EE	204	VAL
3	EE	217	ARG
3	EE	222	LEU
3	EE	224	ASP
4	F0	17	ASN
4	F0	30	TYR
4	F0	31	GLN
4	F0	33	SER

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Mol	Chain	Res	Type
4	F0	35	ASP
4	F1	17	ASN
4	F1	30	TYR
4	F1	31	GLN
4	F1	33	SER
4	F1	35	ASP
4	F2	17	ASN
4	F2	30	TYR
4	F2	31	GLN
4	F2	33	SER
4	F2	35	ASP
4	F3	17	ASN
4	F3	30	TYR
4	F3	31	GLN
4	F3	33	SER
4	F3	35	ASP
4	F4	17	ASN
4	F4	30	TYR
4	F4	31	GLN
4	F4	33	SER
4	F4	35	ASP
4	F5	17	ASN
4	F5	30	TYR
4	F5	31	GLN
4	F5	33	SER
4	F5	35	ASP
4	F6	17	ASN
4	F6	30	TYR
4	F6	31	GLN
4	F6	33	SER
4	F6	35	ASP
4	F7	17	ASN
4	F7	30	TYR
4	F7	31	GLN
4	F7	33	SER
4	F7	35	ASP
4	F8	17	ASN
4	F8	30	TYR
4	F8	31	GLN
4	F8	33	SER
4	F8	35	ASP
4	F9	17	ASN

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Mol	Chain	Res	Type
4	F9	30	TYR
4	F9	31	GLN
4	F9	33	SER
4	F9	35	ASP
4	FA	17	ASN
4	FA	30	TYR
4	FA	31	GLN
4	FA	33	SER
4	FA	35	ASP
4	FB	17	ASN
4	FB	30	TYR
4	FB	31	GLN
4	FB	33	SER
4	FB	35	ASP
4	FC	17	ASN
4	FC	30	TYR
4	FC	31	GLN
4	FC	33	SER
4	FC	35	ASP
4	FD	17	ASN
4	FD	30	TYR
4	FD	31	GLN
4	FD	33	SER
4	FD	35	ASP
4	FE	17	ASN
4	FE	30	TYR
4	FE	31	GLN
4	FE	33	SER
4	FE	35	ASP
4	FF	17	ASN
4	FF	30	TYR
4	FF	31	GLN
4	FF	33	SER
4	FF	35	ASP
4	FG	17	ASN
4	FG	30	TYR
4	FG	31	GLN
4	FG	33	SER
4	FG	35	ASP
4	FH	17	ASN
4	FH	30	TYR
4	FH	31	GLN

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Mol	Chain	Res	Type
4	FH	33	SER
4	FH	35	ASP
4	FI	17	ASN
4	FI	30	TYR
4	FI	31	GLN
4	FI	33	SER
4	FI	35	ASP
4	FJ	17	ASN
4	FJ	30	TYR
4	FJ	31	GLN
4	FJ	33	SER
4	FJ	35	ASP
4	FK	17	ASN
4	FK	30	TYR
4	FK	31	GLN
4	FK	33	SER
4	FK	35	ASP
4	FL	17	ASN
4	FL	30	TYR
4	FL	31	GLN
4	FL	33	SER
4	FL	35	ASP
4	FM	17	ASN
4	FM	30	TYR
4	FM	31	GLN
4	FM	33	SER
4	FM	35	ASP
4	FN	17	ASN
4	FN	30	TYR
4	FN	31	GLN
4	FN	33	SER
4	FN	35	ASP
4	FO	17	ASN
4	FO	30	TYR
4	FO	31	GLN
4	FO	33	SER
4	FO	35	ASP
4	FP	17	ASN
4	FP	30	TYR
4	FP	31	GLN
4	FP	33	SER
4	FP	35	ASP

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Mol	Chain	Res	Type
4	FQ	17	ASN
4	FQ	30	TYR
4	FQ	31	GLN
4	FQ	33	SER
4	FQ	35	ASP
4	FR	17	ASN
4	FR	30	TYR
4	FR	31	GLN
4	FR	33	SER
4	FR	35	ASP
4	FS	17	ASN
4	FS	30	TYR
4	FS	31	GLN
4	FS	33	SER
4	FS	35	ASP
4	FT	17	ASN
4	FT	30	TYR
4	FT	31	GLN
4	FT	33	SER
4	FT	35	ASP
4	FU	17	ASN
4	FU	30	TYR
4	FU	31	GLN
4	FU	33	SER
4	FU	35	ASP
4	FV	17	ASN
4	FV	30	TYR
4	FV	31	GLN
4	FV	33	SER
4	FV	35	ASP
4	FW	17	ASN
4	FW	30	TYR
4	FW	31	GLN
4	FW	33	SER
4	FW	35	ASP
4	FX	17	ASN
4	FX	30	TYR
4	FX	31	GLN
4	FX	33	SER
4	FX	35	ASP
4	FY	17	ASN
4	FY	30	TYR

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Mol	Chain	Res	Type
4	FY	31	GLN
4	FY	33	SER
4	FY	35	ASP
4	FZ	17	ASN
4	FZ	30	TYR
4	FZ	31	GLN
4	FZ	33	SER
4	FZ	35	ASP
4	Fa	17	ASN
4	Fa	30	TYR
4	Fa	31	GLN
4	Fa	33	SER
4	Fa	35	ASP
4	Fb	17	ASN
4	Fb	30	TYR
4	Fb	31	GLN
4	Fb	33	SER
4	Fb	35	ASP
4	Fc	17	ASN
4	Fc	30	TYR
4	Fc	31	GLN
4	Fc	33	SER
4	Fc	35	ASP
4	Fd	17	ASN
4	Fd	30	TYR
4	Fd	31	GLN
4	Fd	33	SER
4	Fd	35	ASP
4	Fe	17	ASN
4	Fe	30	TYR
4	Fe	31	GLN
4	Fe	33	SER
4	Fe	35	ASP
4	Ff	17	ASN
4	Ff	30	TYR
4	Ff	31	GLN
4	Ff	33	SER
4	Ff	35	ASP
4	Fg	17	ASN
4	Fg	30	TYR
4	Fg	31	GLN
4	Fg	33	SER

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Mol	Chain	Res	Type
4	Fg	35	ASP
4	Fh	17	ASN
4	Fh	30	TYR
4	Fh	31	GLN
4	Fh	33	SER
4	Fh	35	ASP
4	Fi	17	ASN
4	Fi	30	TYR
4	Fi	31	GLN
4	Fi	33	SER
4	Fi	35	ASP
4	Fj	17	ASN
4	Fj	30	TYR
4	Fj	31	GLN
4	Fj	33	SER
4	Fj	35	ASP
4	Fk	17	ASN
4	Fk	30	TYR
4	Fk	31	GLN
4	Fk	33	SER
4	Fk	35	ASP
4	Fl	17	ASN
4	Fl	30	TYR
4	Fl	31	GLN
4	Fl	33	SER
4	Fl	35	ASP
4	Fm	17	ASN
4	Fm	30	TYR
4	Fm	31	GLN
4	Fm	33	SER
4	Fm	35	ASP
4	Fn	17	ASN
4	Fn	30	TYR
4	Fn	31	GLN
4	Fn	33	SER
4	Fn	35	ASP
4	Fo	17	ASN
4	Fo	30	TYR
4	Fo	31	GLN
4	Fo	33	SER
4	Fo	35	ASP
4	Fp	17	ASN

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Mol	Chain	Res	Type
4	Fp	30	TYR
4	Fp	31	GLN
4	Fp	33	SER
4	Fp	35	ASP
4	Fq	17	ASN
4	Fq	30	TYR
4	Fq	31	GLN
4	Fq	33	SER
4	Fq	35	ASP
4	Fr	17	ASN
4	Fr	30	TYR
4	Fr	31	GLN
4	Fr	33	SER
4	Fr	35	ASP
4	Fs	17	ASN
4	Fs	30	TYR
4	Fs	31	GLN
4	Fs	33	SER
4	Fs	35	ASP
4	Ft	17	ASN
4	Ft	30	TYR
4	Ft	31	GLN
4	Ft	33	SER
4	Ft	35	ASP
4	Fu	17	ASN
4	Fu	30	TYR
4	Fu	31	GLN
4	Fu	33	SER
4	Fu	35	ASP
4	Fv	17	ASN
4	Fv	30	TYR
4	Fv	31	GLN
4	Fv	33	SER
4	Fv	35	ASP
4	Fw	17	ASN
4	Fw	30	TYR
4	Fw	31	GLN
4	Fw	33	SER
4	Fw	35	ASP
4	Fx	17	ASN
4	Fx	30	TYR
4	Fx	31	GLN

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Mol	Chain	Res	Type
4	Fx	33	SER
4	Fx	35	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (1352) such sidechains are listed below:

Mol	Chain	Res	Type
1	A0	27	HIS
1	A0	47	ASN
1	A0	73	ASN
1	A0	87	GLN
1	A0	152	GLN
1	A0	191	HIS
1	A0	202	HIS
1	A0	242	ASN
1	A1	27	HIS
1	A1	47	ASN
1	A1	73	ASN
1	A1	87	GLN
1	A1	152	GLN
1	A1	191	HIS
1	A1	202	HIS
1	A1	242	ASN
1	A2	27	HIS
1	A2	47	ASN
1	A2	73	ASN
1	A2	87	GLN
1	A2	152	GLN
1	A2	191	HIS
1	A2	202	HIS
1	A2	242	ASN
1	A3	27	HIS
1	A3	47	ASN
1	A3	73	ASN
1	A3	152	GLN
1	A3	191	HIS
1	A3	202	HIS
1	A3	242	ASN
1	A4	27	HIS
1	A4	47	ASN
1	A4	73	ASN
1	A4	87	GLN
1	A4	152	GLN

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Mol	Chain	Res	Type
1	A4	191	HIS
1	A4	202	HIS
1	A4	242	ASN
1	A5	27	HIS
1	A5	47	ASN
1	A5	73	ASN
1	A5	152	GLN
1	A5	191	HIS
1	A5	202	HIS
1	A5	242	ASN
1	A6	27	HIS
1	A6	47	ASN
1	A6	73	ASN
1	A6	87	GLN
1	A6	152	GLN
1	A6	191	HIS
1	A6	202	HIS
1	A6	242	ASN
1	A7	27	HIS
1	A7	47	ASN
1	A7	73	ASN
1	A7	87	GLN
1	A7	152	GLN
1	A7	191	HIS
1	A7	202	HIS
1	A7	242	ASN
1	A8	27	HIS
1	A8	47	ASN
1	A8	73	ASN
1	A8	152	GLN
1	A8	191	HIS
1	A8	202	HIS
1	A8	242	ASN
1	A9	27	HIS
1	A9	47	ASN
1	A9	73	ASN
1	A9	152	GLN
1	A9	191	HIS
1	A9	202	HIS
1	A9	242	ASN
1	AA	27	HIS
1	AA	47	ASN

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Mol	Chain	Res	Type
1	AA	73	ASN
1	AA	87	GLN
1	AA	152	GLN
1	AA	191	HIS
1	AA	202	HIS
1	AA	242	ASN
1	AB	27	HIS
1	AB	47	ASN
1	AB	73	ASN
1	AB	87	GLN
1	AB	152	GLN
1	AB	191	HIS
1	AB	202	HIS
1	AB	242	ASN
1	AC	27	HIS
1	AC	47	ASN
1	AC	73	ASN
1	AC	87	GLN
1	AC	152	GLN
1	AC	191	HIS
1	AC	202	HIS
1	AC	242	ASN
1	AD	27	HIS
1	AD	47	ASN
1	AD	73	ASN
1	AD	152	GLN
1	AD	191	HIS
1	AD	202	HIS
1	AD	242	ASN
1	AE	27	HIS
1	AE	47	ASN
1	AE	73	ASN
1	AE	152	GLN
1	AE	191	HIS
1	AE	202	HIS
1	AE	242	ASN
1	AF	27	HIS
1	AF	47	ASN
1	AF	73	ASN
1	AF	152	GLN
1	AF	191	HIS
1	AF	202	HIS

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Mol	Chain	Res	Type
1	AF	242	ASN
1	AG	27	HIS
1	AG	47	ASN
1	AG	73	ASN
1	AG	152	GLN
1	AG	191	HIS
1	AG	202	HIS
1	AG	242	ASN
1	AH	27	HIS
1	AH	47	ASN
1	AH	73	ASN
1	AH	152	GLN
1	AH	191	HIS
1	AH	202	HIS
1	AH	242	ASN
1	AI	27	HIS
1	AI	47	ASN
1	AI	73	ASN
1	AI	87	GLN
1	AI	152	GLN
1	AI	191	HIS
1	AI	202	HIS
1	AI	242	ASN
1	AJ	27	HIS
1	AJ	47	ASN
1	AJ	73	ASN
1	AJ	152	GLN
1	AJ	202	HIS
1	AJ	242	ASN
1	AK	27	HIS
1	AK	47	ASN
1	AK	73	ASN
1	AK	152	GLN
1	AK	191	HIS
1	AK	202	HIS
1	AK	242	ASN
1	AL	27	HIS
1	AL	47	ASN
1	AL	73	ASN
1	AL	87	GLN
1	AL	152	GLN
1	AL	191	HIS

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Mol	Chain	Res	Type
1	AL	202	HIS
1	AL	242	ASN
1	AM	27	HIS
1	AM	47	ASN
1	AM	73	ASN
1	AM	152	GLN
1	AM	191	HIS
1	AM	202	HIS
1	AM	242	ASN
1	AN	27	HIS
1	AN	47	ASN
1	AN	73	ASN
1	AN	152	GLN
1	AN	191	HIS
1	AN	202	HIS
1	AN	242	ASN
1	AO	27	HIS
1	AO	47	ASN
1	AO	73	ASN
1	AO	87	GLN
1	AO	152	GLN
1	AO	191	HIS
1	AO	202	HIS
1	AO	242	ASN
1	AP	27	HIS
1	AP	47	ASN
1	AP	73	ASN
1	AP	87	GLN
1	AP	152	GLN
1	AP	191	HIS
1	AP	202	HIS
1	AP	242	ASN
1	AQ	27	HIS
1	AQ	47	ASN
1	AQ	73	ASN
1	AQ	152	GLN
1	AQ	191	HIS
1	AQ	202	HIS
1	AQ	242	ASN
1	AR	27	HIS
1	AR	47	ASN
1	AR	73	ASN

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Mol	Chain	Res	Type
1	AR	152	GLN
1	AR	191	HIS
1	AR	202	HIS
1	AR	242	ASN
1	AS	27	HIS
1	AS	47	ASN
1	AS	73	ASN
1	AS	152	GLN
1	AS	191	HIS
1	AS	202	HIS
1	AS	242	ASN
1	AT	27	HIS
1	AT	47	ASN
1	AT	73	ASN
1	AT	152	GLN
1	AT	191	HIS
1	AT	202	HIS
1	AT	242	ASN
1	AU	27	HIS
1	AU	47	ASN
1	AU	73	ASN
1	AU	87	GLN
1	AU	152	GLN
1	AU	191	HIS
1	AU	202	HIS
1	AU	242	ASN
1	AV	27	HIS
1	AV	47	ASN
1	AV	73	ASN
1	AV	152	GLN
1	AV	191	HIS
1	AV	202	HIS
1	AV	242	ASN
1	AW	27	HIS
1	AW	47	ASN
1	AW	73	ASN
1	AW	152	GLN
1	AW	191	HIS
1	AW	202	HIS
1	AW	242	ASN
1	AX	27	HIS
1	AX	47	ASN

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Mol	Chain	Res	Type
1	AX	73	ASN
1	AX	87	GLN
1	AX	152	GLN
1	AX	191	HIS
1	AX	202	HIS
1	AX	242	ASN
1	AY	27	HIS
1	AY	47	ASN
1	AY	73	ASN
1	AY	87	GLN
1	AY	152	GLN
1	AY	191	HIS
1	AY	202	HIS
1	AY	242	ASN
1	AZ	27	HIS
1	AZ	47	ASN
1	AZ	73	ASN
1	AZ	152	GLN
1	AZ	191	HIS
1	AZ	202	HIS
1	AZ	242	ASN
1	Aa	27	HIS
1	Aa	47	ASN
1	Aa	73	ASN
1	Aa	152	GLN
1	Aa	191	HIS
1	Aa	202	HIS
1	Aa	242	ASN
1	Ab	27	HIS
1	Ab	47	ASN
1	Ab	73	ASN
1	Ab	152	GLN
1	Ab	191	HIS
1	Ab	202	HIS
1	Ab	242	ASN
1	Ac	27	HIS
1	Ac	47	ASN
1	Ac	73	ASN
1	Ac	87	GLN
1	Ac	152	GLN
1	Ac	191	HIS
1	Ac	202	HIS

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Mol	Chain	Res	Type
1	Ac	242	ASN
1	Ad	27	HIS
1	Ad	47	ASN
1	Ad	73	ASN
1	Ad	152	GLN
1	Ad	191	HIS
1	Ad	202	HIS
1	Ad	242	ASN
1	Ae	27	HIS
1	Ae	47	ASN
1	Ae	73	ASN
1	Ae	152	GLN
1	Ae	202	HIS
1	Ae	242	ASN
1	Af	27	HIS
1	Af	47	ASN
1	Af	73	ASN
1	Af	152	GLN
1	Af	191	HIS
1	Af	202	HIS
1	Af	242	ASN
1	Ag	27	HIS
1	Ag	47	ASN
1	Ag	73	ASN
1	Ag	152	GLN
1	Ag	191	HIS
1	Ag	202	HIS
1	Ag	242	ASN
1	Ah	27	HIS
1	Ah	47	ASN
1	Ah	73	ASN
1	Ah	152	GLN
1	Ah	191	HIS
1	Ah	202	HIS
1	Ah	242	ASN
1	Ai	27	HIS
1	Ai	47	ASN
1	Ai	73	ASN
1	Ai	87	GLN
1	Ai	152	GLN
1	Ai	191	HIS
1	Ai	202	HIS

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Mol	Chain	Res	Type
1	Ai	242	ASN
1	Aj	27	HIS
1	Aj	47	ASN
1	Aj	73	ASN
1	Aj	152	GLN
1	Aj	202	HIS
1	Aj	242	ASN
1	Ak	27	HIS
1	Ak	47	ASN
1	Ak	73	ASN
1	Ak	152	GLN
1	Ak	191	HIS
1	Ak	202	HIS
1	Ak	242	ASN
1	Al	27	HIS
1	Al	47	ASN
1	Al	73	ASN
1	Al	152	GLN
1	Al	191	HIS
1	Al	202	HIS
1	Al	242	ASN
1	Am	27	HIS
1	Am	47	ASN
1	Am	73	ASN
1	Am	152	GLN
1	Am	191	HIS
1	Am	202	HIS
1	Am	242	ASN
1	An	27	HIS
1	An	47	ASN
1	An	73	ASN
1	An	87	GLN
1	An	152	GLN
1	An	191	HIS
1	An	202	HIS
1	An	242	ASN
1	Ao	27	HIS
1	Ao	47	ASN
1	Ao	73	ASN
1	Ao	87	GLN
1	Ao	152	GLN
1	Ao	191	HIS

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Mol	Chain	Res	Type
1	Ao	202	HIS
1	Ao	242	ASN
1	BA	27	HIS
1	BA	47	ASN
1	BA	73	ASN
1	BA	87	GLN
1	BA	152	GLN
1	BA	191	HIS
1	BA	202	HIS
1	BA	242	ASN
1	BB	27	HIS
1	BB	47	ASN
1	BB	73	ASN
1	BB	87	GLN
1	BB	152	GLN
1	BB	191	HIS
1	BB	202	HIS
1	BB	242	ASN
1	BC	27	HIS
1	BC	47	ASN
1	BC	73	ASN
1	BC	87	GLN
1	BC	152	GLN
1	BC	191	HIS
1	BC	202	HIS
1	BC	242	ASN
1	BD	27	HIS
1	BD	47	ASN
1	BD	73	ASN
1	BD	152	GLN
1	BD	191	HIS
1	BD	202	HIS
1	BD	242	ASN
1	BE	27	HIS
1	BE	47	ASN
1	BE	73	ASN
1	BE	152	GLN
1	BE	191	HIS
1	BE	202	HIS
1	BE	242	ASN
1	BF	27	HIS
1	BF	47	ASN

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Mol	Chain	Res	Type
1	BF	73	ASN
1	BF	152	GLN
1	BF	202	HIS
1	BF	242	ASN
1	BG	27	HIS
1	BG	47	ASN
1	BG	73	ASN
1	BG	87	GLN
1	BG	152	GLN
1	BG	191	HIS
1	BG	202	HIS
1	BG	242	ASN
1	BH	27	HIS
1	BH	47	ASN
1	BH	73	ASN
1	BH	152	GLN
1	BH	191	HIS
1	BH	202	HIS
1	BH	242	ASN
1	BI	27	HIS
1	BI	47	ASN
1	BI	73	ASN
1	BI	87	GLN
1	BI	152	GLN
1	BI	191	HIS
1	BI	202	HIS
1	BI	242	ASN
2	C0	73	GLN
2	C0	95	HIS
2	C0	134	HIS
2	C0	189	HIS
2	C0	223	ASN
2	C1	73	GLN
2	C1	95	HIS
2	C1	134	HIS
2	C1	136	HIS
2	C1	153	GLN
2	C1	189	HIS
2	C1	223	ASN
2	C2	73	GLN
2	C2	95	HIS
2	C2	134	HIS

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Mol	Chain	Res	Type
2	C2	153	GLN
2	C2	189	HIS
2	C2	223	ASN
2	C3	73	GLN
2	C3	95	HIS
2	C3	134	HIS
2	C3	136	HIS
2	C3	153	GLN
2	C3	189	HIS
2	C3	223	ASN
2	C4	73	GLN
2	C4	95	HIS
2	C4	134	HIS
2	C4	136	HIS
2	C4	189	HIS
2	C4	223	ASN
2	C5	73	GLN
2	C5	95	HIS
2	C5	134	HIS
2	C5	136	HIS
2	C5	153	GLN
2	C5	189	HIS
2	C5	223	ASN
2	C6	73	GLN
2	C6	95	HIS
2	C6	134	HIS
2	C6	136	HIS
2	C6	153	GLN
2	C6	189	HIS
2	C6	223	ASN
2	C7	73	GLN
2	C7	95	HIS
2	C7	134	HIS
2	C7	153	GLN
2	C7	189	HIS
2	C7	223	ASN
2	C8	73	GLN
2	C8	95	HIS
2	C8	134	HIS
2	C8	153	GLN
2	C8	189	HIS
2	C8	223	ASN

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Mol	Chain	Res	Type
2	C9	73	GLN
2	C9	95	HIS
2	C9	134	HIS
2	C9	153	GLN
2	C9	189	HIS
2	C9	223	ASN
2	CA	73	GLN
2	CA	95	HIS
2	CA	134	HIS
2	CA	136	HIS
2	CA	153	GLN
2	CA	189	HIS
2	CA	223	ASN
2	CB	73	GLN
2	CB	95	HIS
2	CB	134	HIS
2	CB	136	HIS
2	CB	189	HIS
2	CB	223	ASN
2	CC	73	GLN
2	CC	95	HIS
2	CC	134	HIS
2	CC	136	HIS
2	CC	153	GLN
2	CC	189	HIS
2	CC	223	ASN
2	CD	73	GLN
2	CD	95	HIS
2	CD	134	HIS
2	CD	136	HIS
2	CD	153	GLN
2	CD	189	HIS
2	CD	223	ASN
2	CE	73	GLN
2	CE	95	HIS
2	CE	134	HIS
2	CE	136	HIS
2	CE	153	GLN
2	CE	189	HIS
2	CE	223	ASN
2	CF	73	GLN
2	CF	95	HIS

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Mol	Chain	Res	Type
2	CF	134	HIS
2	CF	136	HIS
2	CF	189	HIS
2	CF	223	ASN
2	CG	73	GLN
2	CG	95	HIS
2	CG	134	HIS
2	CG	136	HIS
2	CG	153	GLN
2	CG	189	HIS
2	CG	223	ASN
2	CH	73	GLN
2	CH	95	HIS
2	CH	134	HIS
2	CH	136	HIS
2	CH	153	GLN
2	CH	189	HIS
2	CH	223	ASN
2	CI	73	GLN
2	CI	95	HIS
2	CI	134	HIS
2	CI	136	HIS
2	CI	189	HIS
2	CI	223	ASN
2	CJ	73	GLN
2	CJ	95	HIS
2	CJ	134	HIS
2	CJ	136	HIS
2	CJ	189	HIS
2	CJ	223	ASN
2	CK	73	GLN
2	CK	95	HIS
2	CK	134	HIS
2	CK	136	HIS
2	CK	189	HIS
2	CK	223	ASN
2	CL	73	GLN
2	CL	95	HIS
2	CL	134	HIS
2	CL	136	HIS
2	CL	153	GLN
2	CL	189	HIS

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Mol	Chain	Res	Type
2	CL	223	ASN
2	CM	73	GLN
2	CM	95	HIS
2	CM	134	HIS
2	CM	153	GLN
2	CM	189	HIS
2	CM	223	ASN
2	CN	73	GLN
2	CN	95	HIS
2	CN	134	HIS
2	CN	136	HIS
2	CN	153	GLN
2	CN	189	HIS
2	CN	223	ASN
2	CO	73	GLN
2	CO	95	HIS
2	CO	134	HIS
2	CO	153	GLN
2	CO	189	HIS
2	CO	223	ASN
2	CP	73	GLN
2	CP	95	HIS
2	CP	134	HIS
2	CP	136	HIS
2	CP	153	GLN
2	CP	189	HIS
2	CP	223	ASN
2	CQ	73	GLN
2	CQ	95	HIS
2	CQ	134	HIS
2	CQ	136	HIS
2	CQ	153	GLN
2	CQ	189	HIS
2	CQ	223	ASN
2	CR	73	GLN
2	CR	95	HIS
2	CR	134	HIS
2	CR	153	GLN
2	CR	189	HIS
2	CR	223	ASN
2	CS	73	GLN
2	CS	95	HIS

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Mol	Chain	Res	Type
2	CS	134	HIS
2	CS	136	HIS
2	CS	153	GLN
2	CS	189	HIS
2	CS	223	ASN
2	CT	73	GLN
2	CT	95	HIS
2	CT	134	HIS
2	CT	136	HIS
2	CT	189	HIS
2	CT	223	ASN
2	CU	73	GLN
2	CU	95	HIS
2	CU	134	HIS
2	CU	136	HIS
2	CU	153	GLN
2	CU	189	HIS
2	CU	223	ASN
2	CV	73	GLN
2	CV	95	HIS
2	CV	134	HIS
2	CV	136	HIS
2	CV	153	GLN
2	CV	189	HIS
2	CV	223	ASN
2	CW	73	GLN
2	CW	95	HIS
2	CW	134	HIS
2	CW	136	HIS
2	CW	189	HIS
2	CW	223	ASN
2	CX	73	GLN
2	CX	95	HIS
2	CX	134	HIS
2	CX	136	HIS
2	CX	153	GLN
2	CX	189	HIS
2	CX	223	ASN
2	CY	73	GLN
2	CY	95	HIS
2	CY	134	HIS
2	CY	136	HIS

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Mol	Chain	Res	Type
2	CY	153	GLN
2	CY	189	HIS
2	CY	223	ASN
2	CZ	73	GLN
2	CZ	95	HIS
2	CZ	134	HIS
2	CZ	136	HIS
2	CZ	153	GLN
2	CZ	189	HIS
2	CZ	223	ASN
2	Ca	73	GLN
2	Ca	95	HIS
2	Ca	134	HIS
2	Ca	136	HIS
2	Ca	153	GLN
2	Ca	189	HIS
2	Ca	223	ASN
2	Cb	73	GLN
2	Cb	95	HIS
2	Cb	134	HIS
2	Cb	136	HIS
2	Cb	153	GLN
2	Cb	189	HIS
2	Cb	223	ASN
2	Cc	73	GLN
2	Cc	95	HIS
2	Cc	134	HIS
2	Cc	136	HIS
2	Cc	153	GLN
2	Cc	189	HIS
2	Cc	223	ASN
2	Cd	73	GLN
2	Cd	95	HIS
2	Cd	134	HIS
2	Cd	136	HIS
2	Cd	153	GLN
2	Cd	189	HIS
2	Cd	223	ASN
2	Ce	73	GLN
2	Ce	95	HIS
2	Ce	134	HIS
2	Ce	136	HIS

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Mol	Chain	Res	Type
2	Ce	153	GLN
2	Ce	189	HIS
2	Ce	223	ASN
2	Cf	73	GLN
2	Cf	95	HIS
2	Cf	134	HIS
2	Cf	153	GLN
2	Cf	189	HIS
2	Cf	223	ASN
2	Cg	73	GLN
2	Cg	95	HIS
2	Cg	134	HIS
2	Cg	136	HIS
2	Cg	153	GLN
2	Cg	189	HIS
2	Cg	223	ASN
2	Ch	73	GLN
2	Ch	95	HIS
2	Ch	134	HIS
2	Ch	136	HIS
2	Ch	153	GLN
2	Ch	189	HIS
2	Ch	223	ASN
2	Ci	73	GLN
2	Ci	95	HIS
2	Ci	134	HIS
2	Ci	136	HIS
2	Ci	153	GLN
2	Ci	189	HIS
2	Ci	223	ASN
2	Cj	73	GLN
2	Cj	95	HIS
2	Cj	134	HIS
2	Cj	136	HIS
2	Cj	153	GLN
2	Cj	189	HIS
2	Cj	223	ASN
2	Ck	73	GLN
2	Ck	95	HIS
2	Ck	134	HIS
2	Ck	136	HIS
2	Ck	189	HIS

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Mol	Chain	Res	Type
2	Ck	223	ASN
2	Cl	73	GLN
2	Cl	95	HIS
2	Cl	134	HIS
2	Cl	136	HIS
2	Cl	153	GLN
2	Cl	189	HIS
2	Cl	223	ASN
2	Cm	73	GLN
2	Cm	95	HIS
2	Cm	134	HIS
2	Cm	189	HIS
2	Cm	223	ASN
2	Cn	73	GLN
2	Cn	95	HIS
2	Cn	134	HIS
2	Cn	189	HIS
2	Cn	223	ASN
2	Co	73	GLN
2	Co	95	HIS
2	Co	134	HIS
2	Co	136	HIS
2	Co	189	HIS
2	Co	223	ASN
2	Cp	73	GLN
2	Cp	95	HIS
2	Cp	134	HIS
2	Cp	136	HIS
2	Cp	153	GLN
2	Cp	189	HIS
2	Cp	223	ASN
2	Cq	73	GLN
2	Cq	95	HIS
2	Cq	134	HIS
2	Cq	136	HIS
2	Cq	153	GLN
2	Cq	189	HIS
2	Cq	223	ASN
2	Cr	73	GLN
2	Cr	95	HIS
2	Cr	134	HIS
2	Cr	136	HIS

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Mol	Chain	Res	Type
2	Cr	153	GLN
2	Cr	189	HIS
2	Cr	223	ASN
2	Cs	73	GLN
2	Cs	95	HIS
2	Cs	134	HIS
2	Cs	136	HIS
2	Cs	153	GLN
2	Cs	189	HIS
2	Cs	223	ASN
2	Ct	73	GLN
2	Ct	95	HIS
2	Ct	134	HIS
2	Ct	136	HIS
2	Ct	153	GLN
2	Ct	189	HIS
2	Ct	223	ASN
2	Cu	73	GLN
2	Cu	95	HIS
2	Cu	134	HIS
2	Cu	136	HIS
2	Cu	189	HIS
2	Cu	223	ASN
2	Cv	73	GLN
2	Cv	95	HIS
2	Cv	134	HIS
2	Cv	136	HIS
2	Cv	153	GLN
2	Cv	189	HIS
2	Cv	223	ASN
2	Cw	73	GLN
2	Cw	95	HIS
2	Cw	134	HIS
2	Cw	136	HIS
2	Cw	189	HIS
2	Cw	223	ASN
2	Cx	73	GLN
2	Cx	95	HIS
2	Cx	134	HIS
2	Cx	136	HIS
2	Cx	153	GLN
2	Cx	189	HIS

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Mol	Chain	Res	Type
2	Cx	223	ASN
3	D0	42	ASN
3	D0	49	GLN
3	D0	178	ASN
3	D0	218	HIS
3	D0	226	GLN
3	D1	42	ASN
3	D1	49	GLN
3	D1	178	ASN
3	D1	218	HIS
3	D1	226	GLN
3	D2	42	ASN
3	D2	49	GLN
3	D2	178	ASN
3	D2	218	HIS
3	D2	226	GLN
3	D3	42	ASN
3	D3	49	GLN
3	D3	178	ASN
3	D3	218	HIS
3	D3	226	GLN
3	D4	42	ASN
3	D4	49	GLN
3	D4	178	ASN
3	D4	218	HIS
3	D4	226	GLN
3	D5	42	ASN
3	D5	49	GLN
3	D5	178	ASN
3	D5	218	HIS
3	D5	226	GLN
3	D6	42	ASN
3	D6	49	GLN
3	D6	178	ASN
3	D6	218	HIS
3	D6	226	GLN
3	D7	42	ASN
3	D7	49	GLN
3	D7	178	ASN
3	D7	218	HIS
3	D7	226	GLN
3	D8	42	ASN

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Mol	Chain	Res	Type
3	D8	49	GLN
3	D8	178	ASN
3	D8	218	HIS
3	D8	226	GLN
3	D9	42	ASN
3	D9	49	GLN
3	D9	178	ASN
3	D9	218	HIS
3	D9	226	GLN
3	DA	42	ASN
3	DA	49	GLN
3	DA	178	ASN
3	DA	218	HIS
3	DA	226	GLN
3	DB	42	ASN
3	DB	49	GLN
3	DB	178	ASN
3	DB	218	HIS
3	DB	226	GLN
3	DC	42	ASN
3	DC	49	GLN
3	DC	218	HIS
3	DC	226	GLN
3	DD	42	ASN
3	DD	49	GLN
3	DD	178	ASN
3	DD	218	HIS
3	DD	226	GLN
3	DE	42	ASN
3	DE	49	GLN
3	DE	178	ASN
3	DE	218	HIS
3	DE	226	GLN
3	DF	42	ASN
3	DF	49	GLN
3	DF	218	HIS
3	DF	226	GLN
3	DG	42	ASN
3	DG	49	GLN
3	DG	178	ASN
3	DG	218	HIS
3	DG	226	GLN

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Mol	Chain	Res	Type
3	DH	42	ASN
3	DH	49	GLN
3	DH	178	ASN
3	DH	218	HIS
3	DH	226	GLN
3	DI	42	ASN
3	DI	49	GLN
3	DI	178	ASN
3	DI	218	HIS
3	DI	226	GLN
3	DJ	42	ASN
3	DJ	49	GLN
3	DJ	178	ASN
3	DJ	218	HIS
3	DJ	226	GLN
3	DK	42	ASN
3	DK	49	GLN
3	DK	218	HIS
3	DK	226	GLN
3	DL	42	ASN
3	DL	49	GLN
3	DL	178	ASN
3	DL	218	HIS
3	DL	226	GLN
3	DM	42	ASN
3	DM	49	GLN
3	DM	178	ASN
3	DM	218	HIS
3	DM	226	GLN
3	DN	42	ASN
3	DN	49	GLN
3	DN	178	ASN
3	DN	218	HIS
3	DN	226	GLN
3	DO	42	ASN
3	DO	49	GLN
3	DO	218	HIS
3	DO	226	GLN
3	DP	42	ASN
3	DP	49	GLN
3	DP	178	ASN
3	DP	218	HIS

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Mol	Chain	Res	Type
3	DP	226	GLN
3	DQ	42	ASN
3	DQ	49	GLN
3	DQ	178	ASN
3	DQ	218	HIS
3	DQ	226	GLN
3	DR	42	ASN
3	DR	49	GLN
3	DR	178	ASN
3	DR	218	HIS
3	DR	226	GLN
3	DS	42	ASN
3	DS	49	GLN
3	DS	178	ASN
3	DS	218	HIS
3	DS	226	GLN
3	DT	42	ASN
3	DT	49	GLN
3	DT	178	ASN
3	DT	218	HIS
3	DT	226	GLN
3	DU	42	ASN
3	DU	49	GLN
3	DU	178	ASN
3	DU	218	HIS
3	DU	226	GLN
3	DV	42	ASN
3	DV	49	GLN
3	DV	178	ASN
3	DV	218	HIS
3	DV	226	GLN
3	DW	42	ASN
3	DW	49	GLN
3	DW	178	ASN
3	DW	218	HIS
3	DW	226	GLN
3	DX	42	ASN
3	DX	49	GLN
3	DX	178	ASN
3	DX	218	HIS
3	DX	226	GLN
3	DY	42	ASN

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Mol	Chain	Res	Type
3	DY	49	GLN
3	DY	178	ASN
3	DY	218	HIS
3	DY	226	GLN
3	DZ	42	ASN
3	DZ	49	GLN
3	DZ	178	ASN
3	DZ	218	HIS
3	DZ	226	GLN
3	Da	42	ASN
3	Da	49	GLN
3	Da	178	ASN
3	Da	218	HIS
3	Da	226	GLN
3	Db	42	ASN
3	Db	49	GLN
3	Db	178	ASN
3	Db	218	HIS
3	Db	226	GLN
3	Dc	42	ASN
3	Dc	49	GLN
3	Dc	178	ASN
3	Dc	218	HIS
3	Dc	226	GLN
3	Dd	42	ASN
3	Dd	49	GLN
3	Dd	178	ASN
3	Dd	218	HIS
3	Dd	226	GLN
3	De	42	ASN
3	De	49	GLN
3	De	178	ASN
3	De	218	HIS
3	De	226	GLN
3	Df	42	ASN
3	Df	49	GLN
3	Df	178	ASN
3	Df	218	HIS
3	Df	226	GLN
3	Dg	42	ASN
3	Dg	49	GLN
3	Dg	178	ASN

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Mol	Chain	Res	Type
3	Dg	218	HIS
3	Dg	226	GLN
3	Dh	42	ASN
3	Dh	49	GLN
3	Dh	178	ASN
3	Dh	218	HIS
3	Dh	226	GLN
3	Di	42	ASN
3	Di	49	GLN
3	Di	178	ASN
3	Di	218	HIS
3	Di	226	GLN
3	Dj	42	ASN
3	Dj	49	GLN
3	Dj	178	ASN
3	Dj	218	HIS
3	Dj	226	GLN
3	Dk	42	ASN
3	Dk	49	GLN
3	Dk	178	ASN
3	Dk	218	HIS
3	Dk	226	GLN
3	Dl	42	ASN
3	Dl	49	GLN
3	Dl	178	ASN
3	Dl	218	HIS
3	Dl	226	GLN
3	Dm	42	ASN
3	Dm	49	GLN
3	Dm	178	ASN
3	Dm	218	HIS
3	Dm	226	GLN
3	Dn	42	ASN
3	Dn	49	GLN
3	Dn	178	ASN
3	Dn	218	HIS
3	Dn	226	GLN
3	Do	42	ASN
3	Do	49	GLN
3	Do	178	ASN
3	Do	218	HIS
3	Do	226	GLN

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Mol	Chain	Res	Type
3	Dp	42	ASN
3	Dp	49	GLN
3	Dp	178	ASN
3	Dp	218	HIS
3	Dp	226	GLN
3	Dq	42	ASN
3	Dq	49	GLN
3	Dq	178	ASN
3	Dq	218	HIS
3	Dq	226	GLN
3	Dr	42	ASN
3	Dr	49	GLN
3	Dr	178	ASN
3	Dr	218	HIS
3	Dr	226	GLN
3	Ds	42	ASN
3	Ds	49	GLN
3	Ds	178	ASN
3	Ds	218	HIS
3	Ds	226	GLN
3	EA	42	ASN
3	EA	49	GLN
3	EA	178	ASN
3	EA	218	HIS
3	EA	226	GLN
3	EB	42	ASN
3	EB	49	GLN
3	EB	218	HIS
3	EB	226	GLN
3	EC	42	ASN
3	EC	49	GLN
3	EC	178	ASN
3	EC	218	HIS
3	EC	226	GLN
3	ED	42	ASN
3	ED	49	GLN
3	ED	218	HIS
3	ED	226	GLN
3	EE	42	ASN
3	EE	49	GLN
3	EE	178	ASN
3	EE	218	HIS

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Mol	Chain	Res	Type
3	EE	226	GLN
4	F0	17	ASN
4	F0	23	GLN
4	F0	24	ASN
4	F0	31	GLN
4	F1	17	ASN
4	F1	23	GLN
4	F1	24	ASN
4	F1	31	GLN
4	F2	17	ASN
4	F2	23	GLN
4	F2	24	ASN
4	F2	31	GLN
4	F3	17	ASN
4	F3	23	GLN
4	F3	24	ASN
4	F3	31	GLN
4	F4	17	ASN
4	F4	23	GLN
4	F4	24	ASN
4	F4	31	GLN
4	F5	17	ASN
4	F5	24	ASN
4	F5	31	GLN
4	F6	17	ASN
4	F6	24	ASN
4	F6	31	GLN
4	F7	17	ASN
4	F7	23	GLN
4	F7	24	ASN
4	F7	31	GLN
4	F8	17	ASN
4	F8	24	ASN
4	F8	31	GLN
4	F9	17	ASN
4	F9	23	GLN
4	F9	24	ASN
4	F9	31	GLN
4	FA	17	ASN
4	FA	23	GLN
4	FA	24	ASN
4	FA	31	GLN

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Mol	Chain	Res	Type
4	FB	17	ASN
4	FB	23	GLN
4	FB	24	ASN
4	FB	31	GLN
4	FC	17	ASN
4	FC	23	GLN
4	FC	24	ASN
4	FC	31	GLN
4	FD	17	ASN
4	FD	23	GLN
4	FD	24	ASN
4	FD	31	GLN
4	FE	17	ASN
4	FE	23	GLN
4	FE	24	ASN
4	FE	31	GLN
4	FF	17	ASN
4	FF	23	GLN
4	FF	24	ASN
4	FF	31	GLN
4	FG	17	ASN
4	FG	23	GLN
4	FG	24	ASN
4	FG	31	GLN
4	FH	17	ASN
4	FH	23	GLN
4	FH	24	ASN
4	FH	31	GLN
4	FI	17	ASN
4	FI	23	GLN
4	FI	24	ASN
4	FI	31	GLN
4	FJ	17	ASN
4	FJ	23	GLN
4	FJ	24	ASN
4	FJ	31	GLN
4	FK	17	ASN
4	FK	24	ASN
4	FK	31	GLN
4	FL	17	ASN
4	FL	23	GLN
4	FL	24	ASN

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Mol	Chain	Res	Type
4	FL	31	GLN
4	FM	17	ASN
4	FM	24	ASN
4	FM	31	GLN
4	FN	17	ASN
4	FN	23	GLN
4	FN	24	ASN
4	FN	31	GLN
4	FO	17	ASN
4	FO	23	GLN
4	FO	24	ASN
4	FO	31	GLN
4	FP	17	ASN
4	FP	23	GLN
4	FP	24	ASN
4	FP	31	GLN
4	FQ	17	ASN
4	FQ	23	GLN
4	FQ	24	ASN
4	FQ	31	GLN
4	FR	17	ASN
4	FR	23	GLN
4	FR	24	ASN
4	FR	31	GLN
4	FS	17	ASN
4	FS	23	GLN
4	FS	24	ASN
4	FS	31	GLN
4	FT	17	ASN
4	FT	23	GLN
4	FT	24	ASN
4	FT	31	GLN
4	FU	17	ASN
4	FU	24	ASN
4	FU	31	GLN
4	FV	17	ASN
4	FV	23	GLN
4	FV	24	ASN
4	FV	31	GLN
4	FW	17	ASN
4	FW	23	GLN
4	FW	24	ASN

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Mol	Chain	Res	Type
4	FW	31	GLN
4	FX	17	ASN
4	FX	23	GLN
4	FX	24	ASN
4	FX	31	GLN
4	FY	17	ASN
4	FY	24	ASN
4	FY	31	GLN
4	FZ	17	ASN
4	FZ	23	GLN
4	FZ	24	ASN
4	FZ	31	GLN
4	Fa	17	ASN
4	Fa	24	ASN
4	Fa	31	GLN
4	Fb	17	ASN
4	Fb	23	GLN
4	Fb	24	ASN
4	Fb	31	GLN
4	Fc	17	ASN
4	Fc	24	ASN
4	Fc	31	GLN
4	Fd	17	ASN
4	Fd	23	GLN
4	Fd	24	ASN
4	Fd	31	GLN
4	Fe	17	ASN
4	Fe	23	GLN
4	Fe	24	ASN
4	Fe	31	GLN
4	Ff	17	ASN
4	Ff	24	ASN
4	Ff	31	GLN
4	Fg	17	ASN
4	Fg	24	ASN
4	Fg	31	GLN
4	Fh	17	ASN
4	Fh	24	ASN
4	Fh	31	GLN
4	Fi	17	ASN
4	Fi	24	ASN
4	Fi	31	GLN

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Mol	Chain	Res	Type
4	Fj	17	ASN
4	Fj	23	GLN
4	Fj	24	ASN
4	Fj	31	GLN
4	Fk	17	ASN
4	Fk	23	GLN
4	Fk	24	ASN
4	Fk	31	GLN
4	Fl	17	ASN
4	Fl	23	GLN
4	Fl	24	ASN
4	Fl	31	GLN
4	Fm	17	ASN
4	Fm	24	ASN
4	Fm	31	GLN
4	Fn	17	ASN
4	Fn	24	ASN
4	Fn	31	GLN
4	Fo	17	ASN
4	Fo	24	ASN
4	Fo	31	GLN
4	Fp	17	ASN
4	Fp	23	GLN
4	Fp	24	ASN
4	Fp	31	GLN
4	Fq	17	ASN
4	Fq	23	GLN
4	Fq	24	ASN
4	Fq	31	GLN
4	Fr	17	ASN
4	Fr	23	GLN
4	Fr	24	ASN
4	Fr	31	GLN
4	Fs	17	ASN
4	Fs	24	ASN
4	Fs	31	GLN
4	Ft	17	ASN
4	Ft	23	GLN
4	Ft	24	ASN
4	Ft	31	GLN
4	Fu	17	ASN
4	Fu	23	GLN

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Mol	Chain	Res	Type
4	Fu	24	ASN
4	Fu	31	GLN
4	Fv	17	ASN
4	Fv	23	GLN
4	Fv	24	ASN
4	Fv	31	GLN
4	Fw	17	ASN
4	Fw	23	GLN
4	Fw	24	ASN
4	Fw	31	GLN
4	Fx	17	ASN
4	Fx	23	GLN
4	Fx	24	ASN
4	Fx	31	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 monosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

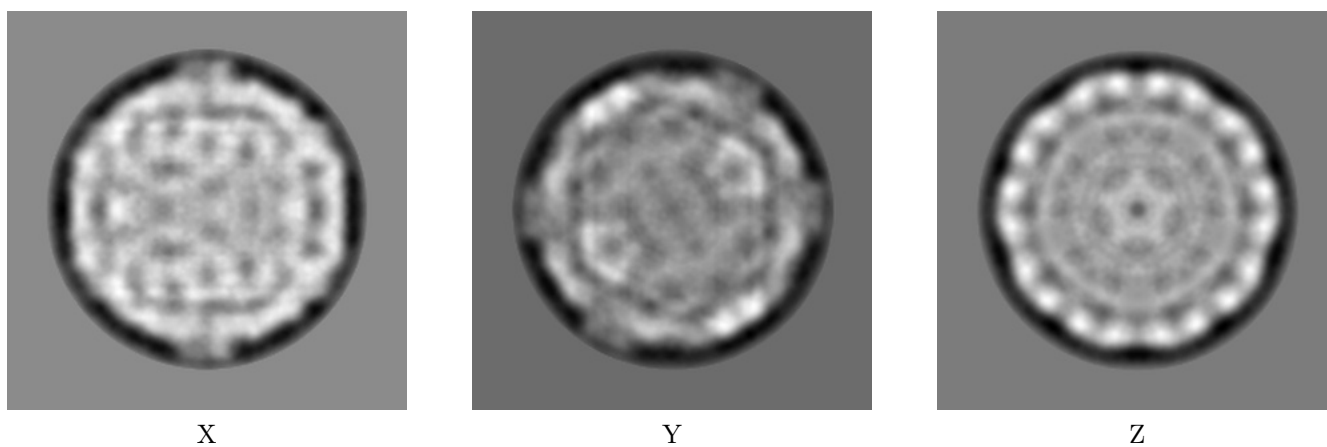
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-2389. These allow visual inspection of the internal detail of the map and identification of artifacts.

No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

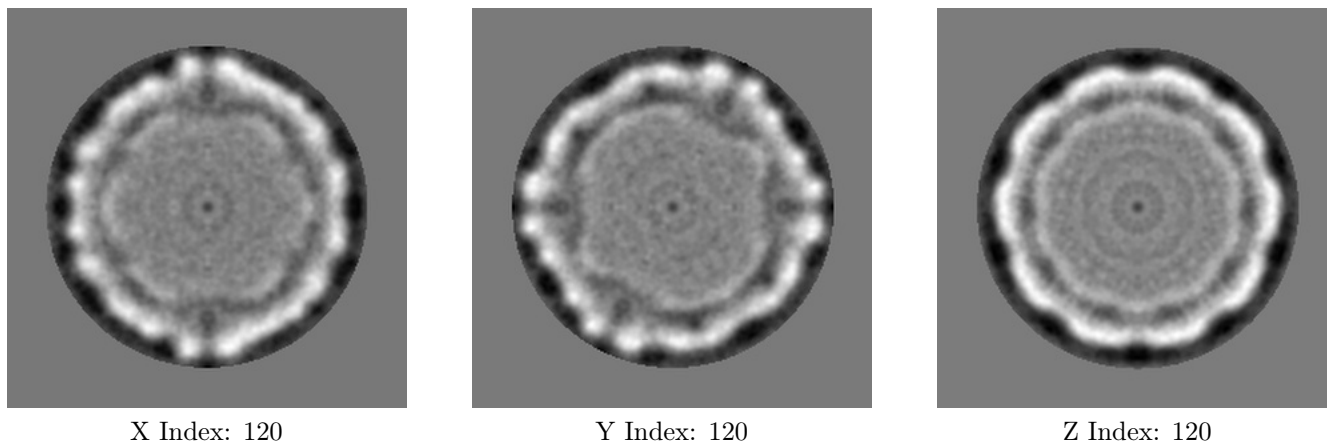
6.1.1 Primary map



The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

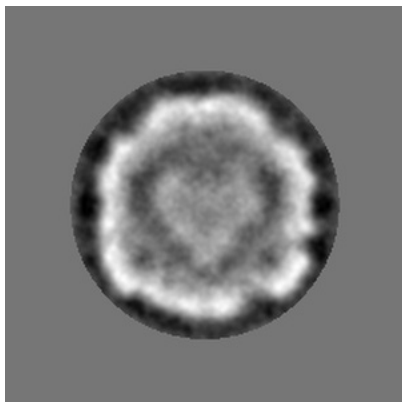
6.2.1 Primary map



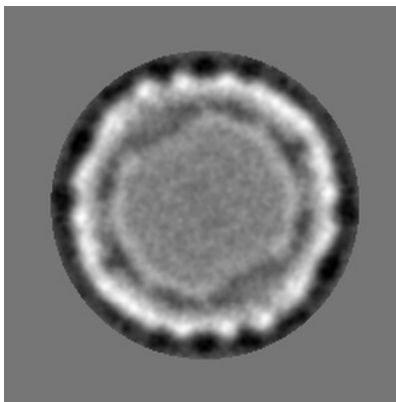
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

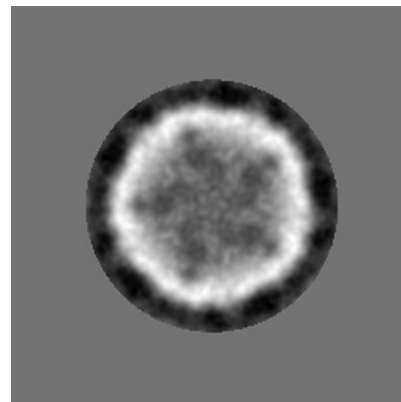
6.3.1 Primary map



X Index: 173



Y Index: 92

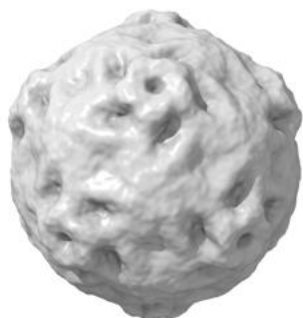


Z Index: 180

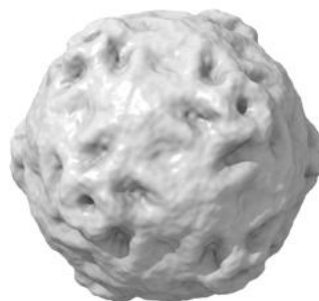
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal surface views [i](#)

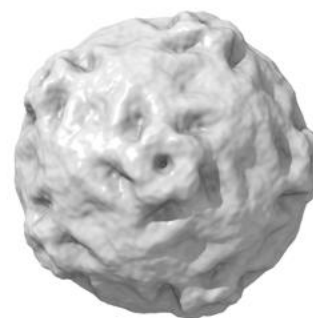
6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.5. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

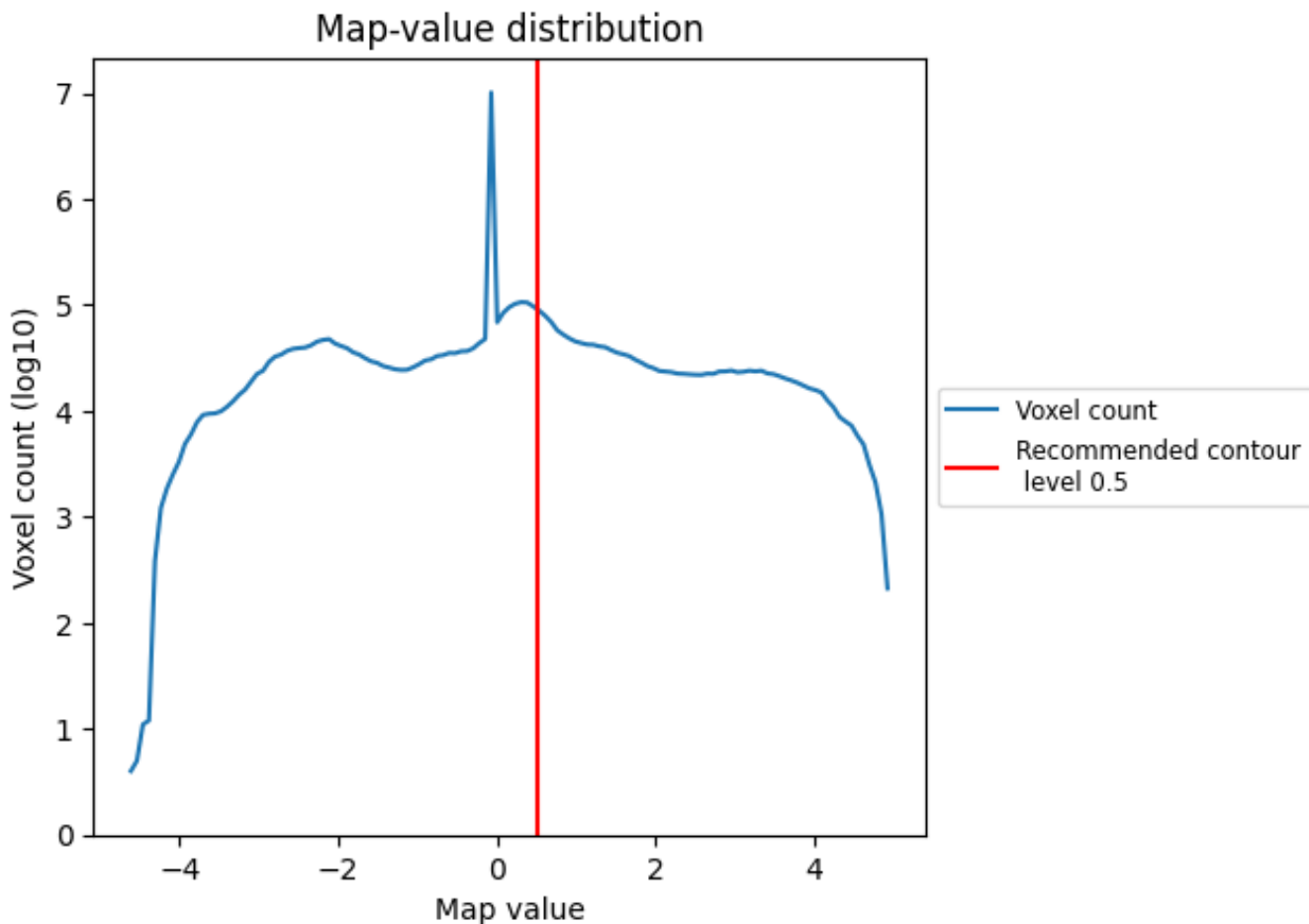
6.5 Mask visualisation

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

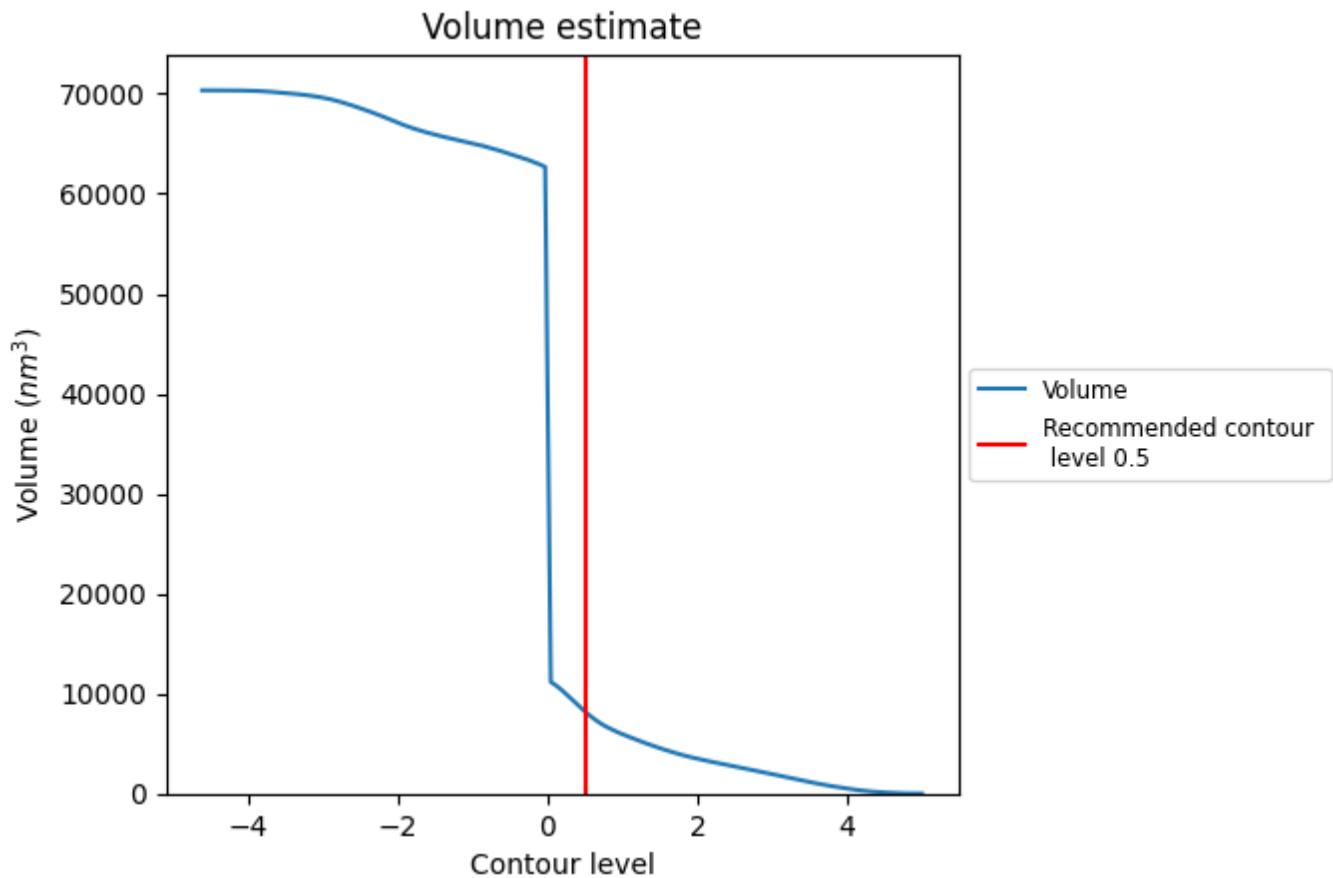
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

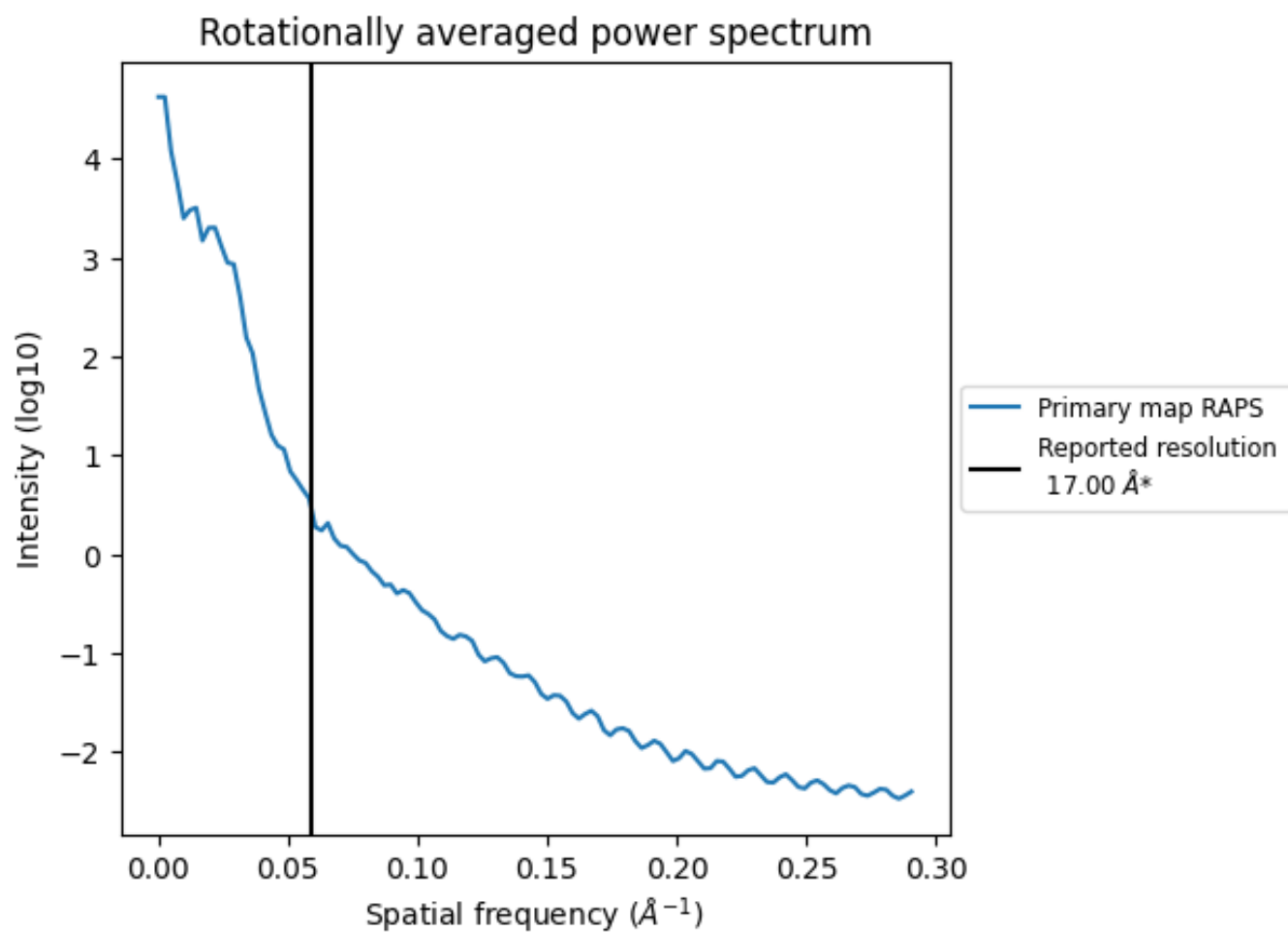
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 8201 nm³; this corresponds to an approximate mass of 7408 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum [i](#)



*Reported resolution corresponds to spatial frequency of 0.059 Å⁻¹

8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit [i](#)

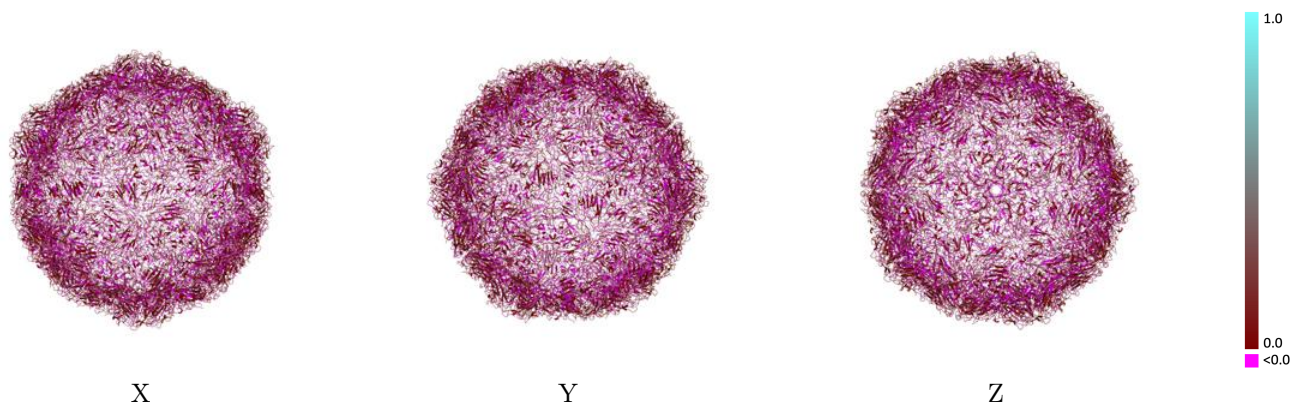
This section contains information regarding the fit between EMDB map EMD-2389 and PDB model 4CTF. Per-residue inclusion information can be found in section 3 on page 27.

9.1 Map-model overlay [i](#)



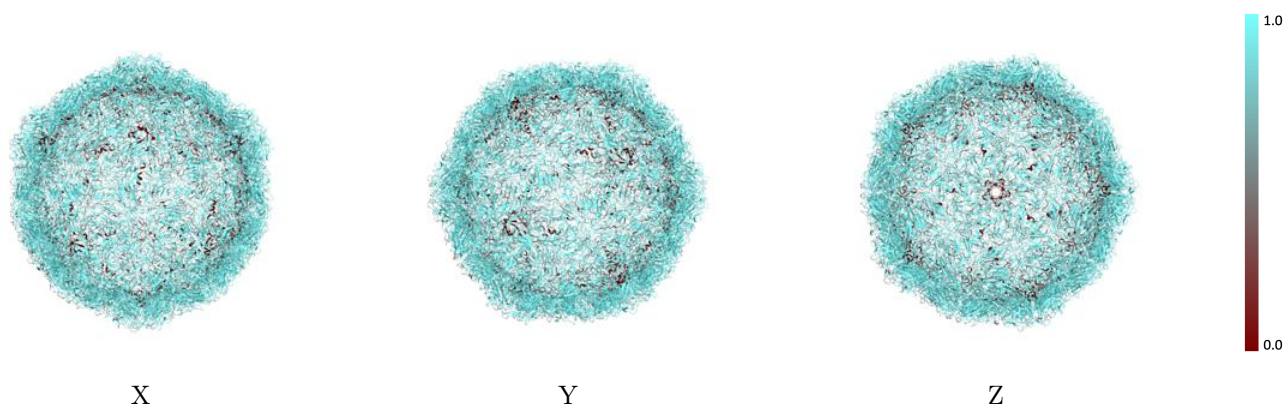
The images above show the 3D surface view of the map at the recommended contour level 0.5 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [\(i\)](#)



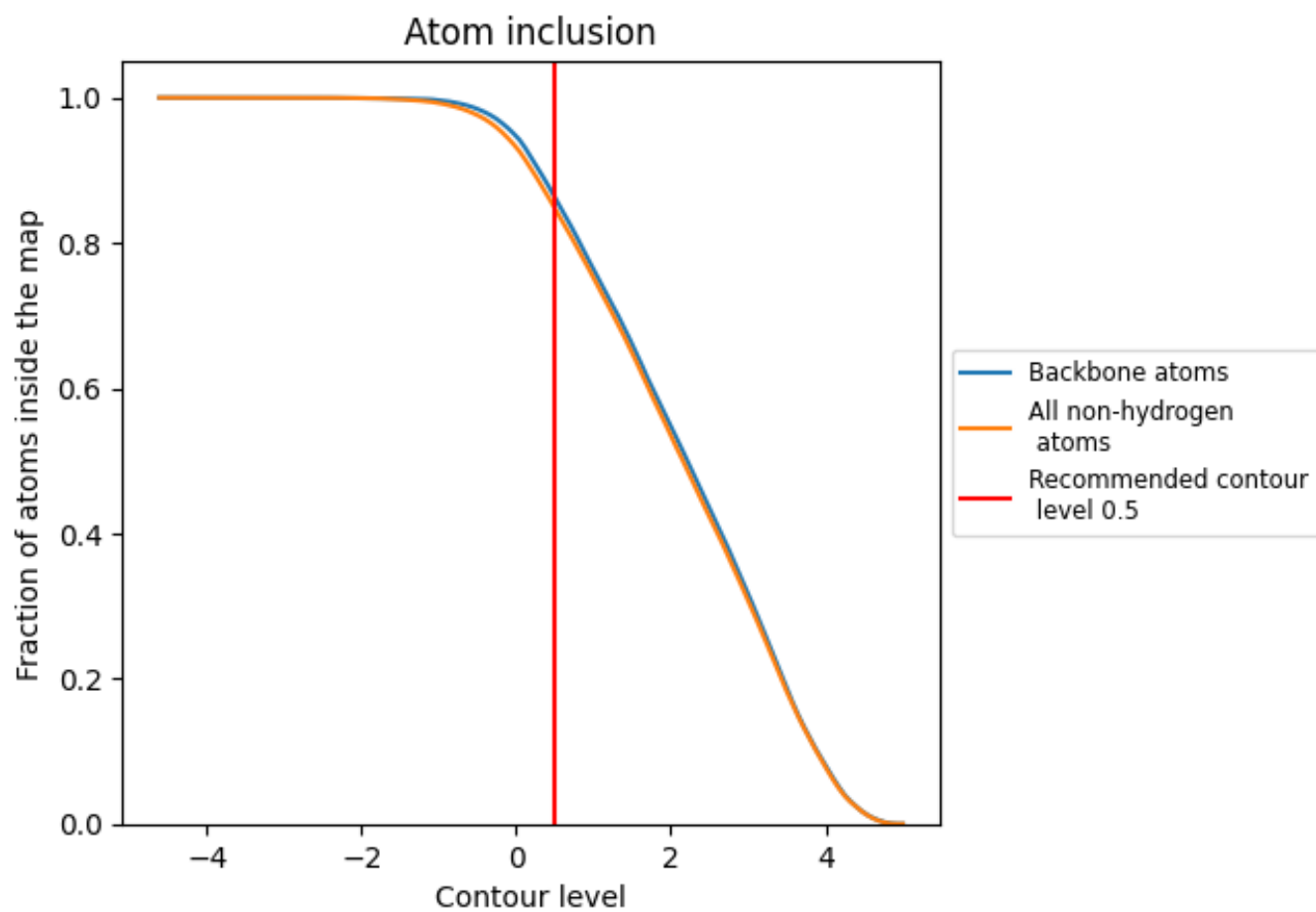
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [\(i\)](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.5).







































































9.4 Atom inclusion [i](#)



At the recommended contour level, 86% of all backbone atoms, 85% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary





















































































The table lists the average atom inclusion at the recommended contour level (0.5) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8474	 0.0420
A0	 0.8689	 0.0380
A1	 0.8837	 0.0400
A2	 0.8810	 0.0490
A3	 0.8747	 0.0440
A4	 0.8794	 0.0440
A5	 0.8704	 0.0450
A6	 0.8678	 0.0470
A7	 0.8699	 0.0480
A8	 0.8726	 0.0450
A9	 0.8609	 0.0430
AA	 0.8641	 0.0470
AB	 0.8657	 0.0490
AC	 0.8710	 0.0460
AD	 0.8720	 0.0450
AE	 0.8683	 0.0430
AF	 0.8667	 0.0490
AG	 0.8678	 0.0490
AH	 0.8731	 0.0480
AI	 0.8763	 0.0450
AJ	 0.8699	 0.0440
AK	 0.8752	 0.0370
AL	 0.8837	 0.0420
AM	 0.8757	 0.0460
AN	 0.8604	 0.0450
AO	 0.8572	 0.0400
AP	 0.8673	 0.0390
AQ	 0.8784	 0.0410
AR	 0.8773	 0.0430
AS	 0.8609	 0.0390
AT	 0.8789	 0.0430
AU	 0.8784	 0.0440
AV	 0.8710	 0.0480
AW	 0.8662	 0.0500
AX	 0.8715	 0.0490























































































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Chain	Atom inclusion	Q-score
AY	 0.8715	 0.0490
AZ	 0.8588	 0.0440
Aa	 0.8821	 0.0340
Ab	 0.8815	 0.0440
Ac	 0.8805	 0.0450
Ad	 0.8720	 0.0500
Ae	 0.8620	 0.0490
Af	 0.8736	 0.0450
Ag	 0.8884	 0.0370
Ah	 0.8657	 0.0440
Ai	 0.8815	 0.0370
Aj	 0.8863	 0.0400
Ak	 0.8773	 0.0430
Al	 0.8689	 0.0470
Am	 0.8630	 0.0430
An	 0.8673	 0.0390
Ao	 0.8636	 0.0420
BA	 0.8773	 0.0400
BB	 0.8879	 0.0400
BC	 0.8805	 0.0470
BD	 0.8652	 0.0460
BE	 0.8852	 0.0430
BF	 0.8773	 0.0510
BG	 0.8620	 0.0450
BH	 0.8715	 0.0420
BI	 0.8815	 0.0370
C0	 0.8871	 0.0510
C1	 0.8825	 0.0460
C2	 0.8766	 0.0390
C3	 0.8785	 0.0420
C4	 0.8620	 0.0260
C5	 0.8376	 0.0260
C6	 0.8337	 0.0250
C7	 0.8581	 0.0300
C8	 0.8746	 0.0310
C9	 0.8865	 0.0320
CA	 0.8356	 0.0320
CB	 0.8475	 0.0320
CC	 0.8416	 0.0280
CD	 0.8310	 0.0290
CE	 0.8251	 0.0340
CF	 0.8356	 0.0310





















































































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Chain	Atom inclusion	Q-score
CG	 0.8601	 0.0340
CH	 0.8568	 0.0330
CI	 0.8383	 0.0330
CJ	 0.8284	 0.0320
CK	 0.8818	 0.0350
CL	 0.8825	 0.0330
CM	 0.8865	 0.0420
CN	 0.8871	 0.0470
CO	 0.8838	 0.0440
CP	 0.8772	 0.0450
CQ	 0.8825	 0.0400
CR	 0.8838	 0.0400
CS	 0.8818	 0.0410
CT	 0.8818	 0.0480
CU	 0.8594	 0.0400
CV	 0.8376	 0.0390
CW	 0.8422	 0.0340
CX	 0.8726	 0.0380
CY	 0.8832	 0.0420
CZ	 0.8851	 0.0420
Ca	 0.8898	 0.0390
Cb	 0.8845	 0.0360
Cc	 0.8766	 0.0290
Cd	 0.8693	 0.0320
Ce	 0.8528	 0.0330
Cf	 0.8726	 0.0370
Cg	 0.8904	 0.0460
Ch	 0.8865	 0.0420
Ci	 0.8680	 0.0320
Cj	 0.8898	 0.0330
Ck	 0.8779	 0.0280
Cl	 0.8541	 0.0280
Cm	 0.8554	 0.0290
Cn	 0.8752	 0.0290
Co	 0.8891	 0.0440
Cp	 0.8832	 0.0400
Cq	 0.8640	 0.0370
Cr	 0.8733	 0.0370
Cs	 0.8851	 0.0360
Ct	 0.8607	 0.0320
Cu	 0.8779	 0.0300
Cv	 0.8871	 0.0350





















































































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Chain	Atom inclusion	Q-score
Cw	 0.8917	 0.0370
Cx	 0.8759	 0.0320
D0	 0.8956	 0.0580
D1	 0.8850	 0.0540
D2	 0.8749	 0.0520
D3	 0.8808	 0.0550
D4	 0.8661	 0.0450
D5	 0.8466	 0.0450
D6	 0.8360	 0.0380
D7	 0.8460	 0.0370
D8	 0.8673	 0.0440
D9	 0.8838	 0.0410
DA	 0.8354	 0.0400
DB	 0.8478	 0.0430
DC	 0.8501	 0.0450
DD	 0.8383	 0.0450
DE	 0.8301	 0.0420
DF	 0.8354	 0.0400
DG	 0.8519	 0.0470
DH	 0.8584	 0.0490
DI	 0.8519	 0.0500
DJ	 0.8348	 0.0460
DK	 0.8802	 0.0450
DL	 0.8814	 0.0420
DM	 0.8867	 0.0480
DN	 0.8897	 0.0480
DO	 0.8891	 0.0530
DP	 0.8844	 0.0460
DQ	 0.8826	 0.0490
DR	 0.8844	 0.0450
DS	 0.8885	 0.0460
DT	 0.8909	 0.0480
DU	 0.8631	 0.0580
DV	 0.8496	 0.0540
DW	 0.8389	 0.0460
DX	 0.8608	 0.0510
DY	 0.8773	 0.0570
DZ	 0.8861	 0.0540
Da	 0.8909	 0.0460
Db	 0.8879	 0.0470
Dc	 0.8767	 0.0430
Dd	 0.8743	 0.0440

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Chain	Atom inclusion	Q-score
De	 0.8608	 0.0500
Df	 0.8608	 0.0460
Dg	 0.8814	 0.0570
Dh	 0.8826	 0.0580
Di	 0.8743	 0.0510
Dj	 0.8873	 0.0460
Dk	 0.8808	 0.0450
Dl	 0.8661	 0.0470
Dm	 0.8608	 0.0440
Dn	 0.8667	 0.0400
Do	 0.8879	 0.0530
Dp	 0.8791	 0.0540
Dq	 0.8690	 0.0570
Dr	 0.8720	 0.0510
Ds	 0.8749	 0.0490
EA	 0.8690	 0.0480
EB	 0.8702	 0.0450
EC	 0.8814	 0.0460
ED	 0.8873	 0.0500
EE	 0.8773	 0.0470
F0	 0.2439	 0.0530
F1	 0.1829	 0.0540
F2	 0.1280	 0.0430
F3	 0.1463	 0.0410
F4	 0.0793	 0.0260
F5	 0.0732	 0.0130
F6	 0.0610	 0.0040
F7	 0.0976	 -0.0020
F8	 0.0915	 -0.0120
F9	 0.1707	 0.0090
FA	 0.0610	 0.0150
FB	 0.0671	 0.0140
FC	 0.0671	 0.0140
FD	 0.0549	 0.0250
FE	 0.0488	 0.0240
FF	 0.0671	 0.0040
FG	 0.0915	 0.0040
FH	 0.0732	 0.0240
FI	 0.0610	 0.0310
FJ	 0.0549	 0.0240
FK	 0.1768	 0.0400
FL	 0.1646	 0.0370

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Chain	Atom inclusion	Q-score
FM	■ 0.1951	■ 0.0380
FN	■ 0.2439	■ 0.0400
FO	■ 0.2500	■ 0.0560
FP	■ 0.2134	■ 0.0620
FQ	■ 0.1707	■ 0.0470
FR	■ 0.2073	■ 0.0390
FS	■ 0.2500	■ 0.0350
FT	■ 0.2622	■ 0.0450
FU	■ 0.0854	■ 0.0530
FV	■ 0.0732	■ 0.0130
FW	■ 0.0793	■ 0.0250
FX	■ 0.1098	■ 0.0150
FY	■ 0.1037	■ 0.0280
FZ	■ 0.1890	■ 0.0370
Fa	■ 0.2195	■ 0.0290
Fb	■ 0.1890	■ 0.0470
Fc	■ 0.1280	■ 0.0290
Fd	■ 0.1341	■ 0.0130
Fe	■ 0.0976	■ 0.0170
Ff	■ 0.1220	■ 0.0210
Fg	■ 0.1524	■ 0.0250
Fh	■ 0.1402	■ 0.0480
Fi	■ 0.0915	■ 0.0280
Fj	■ 0.1341	■ 0.0210
Fk	■ 0.1159	■ 0.0320
Fl	■ 0.0976	■ 0.0030
Fm	■ 0.0976	■ 0.0050
Fn	■ 0.1585	■ 0.0150
Fo	■ 0.1951	■ 0.0430
Fp	■ 0.1341	■ 0.0620
Fq	■ 0.1098	■ 0.0310
Fr	■ 0.1159	■ 0.0200
Fs	■ 0.1646	■ 0.0170
Ft	■ 0.1098	■ 0.0120
Fu	■ 0.1098	■ 0.0030
Fv	■ 0.1646	■ 0.0100
Fw	■ 0.1524	■ 0.0400
Fx	■ 0.1159	■ 0.0370