Full wwPDB EM Validation Report ⓘ

Dec 22, 2022 – 02:08 am GMT

PDB ID	:	7Z4B
EMDB ID	:	EMD-14492
Title	:	Bacteriophage SU10 virion (C1)
Authors	:	Siborova, M.; Fuzik, T.; Prochazkova, M.; Novacek, J.; Plevka, P.
Deposited on	:	2022-03-03
Resolution	:	7.40 Å(reported)

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:

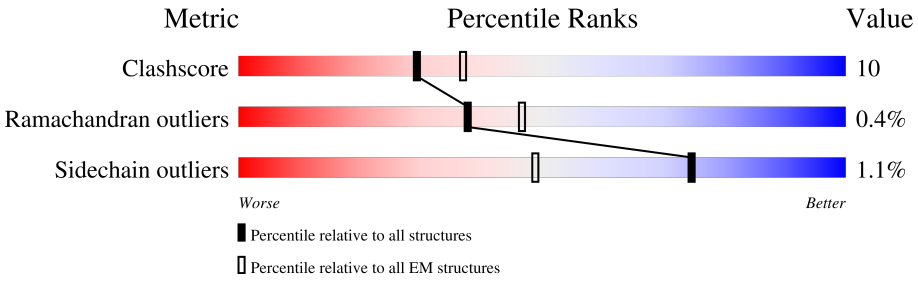
EMDB validation analysis	:	0.0.1.dev43
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.3

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 7.40 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)
Clashscore	158937	4297
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 <=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	AA	352	25% 86% 12% ••
1	AB	352	26% 88% 10% •
1	AC	352	21% 83% 14% •
1	AD	352	28% 87% 11% •
1	AE	352	28% 87% 12% •
1	AF	352	29% 86% 12% •
1	AG	352	30% 86% 13% ••
1	AH	352	29% 88% 10% •

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Mol	Chain	Length	Quality of chain
1	AI	352	28% 89% 9%
1	AJ	352	29% 88% 10%
1	AK	352	30% 81% 17%
1	AL	352	28% 90% 9%
1	AM	352	24% 76% 21%
1	AN	352	24% 87% 11%
1	AO	352	25% 84% 14%
1	AP	352	37% 72% 26%
1	AQ	352	28% 86% 13%
1	AR	352	28% 86% 12%
1	AS	352	32% 80% 18%
1	AT	352	28% 87% 11%
1	AU	352	28% 86% 12%
1	AV	352	28% 86% 13%
1	AW	352	30% 82% 16%
1	AX	352	27% 88% 11%
1	AY	352	49% 87% 11%
1	AZ	352	41% 88% 11%
1	BA	352	44% 83% 15%
1	BB	352	34% 86% 12%
1	BC	352	29% 87% 11%
1	BD	352	29% 88% 11%
1	BE	352	30% 85% 14%
1	BF	352	69% 86% 13%
1	BG	352	35% 89% 9%

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Mol	Chain	Length	Quality of chain
1	BH	352	32% 89% 10%
1	BI	352	49% 72% 26%
1	BJ	352	37% 89% 9%
1	BK	352	25% 78% 20%
1	BL	352	54% 86% 12%
1	BM	352	38% 83% 14%
1	BN	352	32% 78% 20%
1	BO	352	40% 86% 13%
1	BP	352	30% 86% 12%
1	BQ	352	41% 86% 13%
1	BR	352	45% 86% 12%
1	BS	352	30% 87% 11%
1	BT	352	33% 86% 12%
1	BU	352	56% 80% 18%
1	BV	352	28% 87% 11%
1	BW	352	30% 82% 16%
1	BX	352	23% 79% 20%
1	BY	352	22% 81% 17%
1	BZ	352	21% 84% 14%
1	CA	352	22% 80% 17%
1	CB	352	22% 84% 14%
1	CC	352	23% 86% 12%
1	CD	352	26% 82% 15%
1	CE	352	21% 80% 18%
1	CF	352	28% 84% 14%

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Mol	Chain	Length	Quality of chain
1	CG	352	34% 82% 16%
1	CH	352	24% 88% 10%
1	CI	352	24% 86% 12%
1	CJ	352	24% 87% 12%
1	CK	352	37% 83% 16%
1	CL	352	32% 79% 18%
1	CM	352	19% 85% 13%
1	CN	352	32% 78% 19%
1	CO	352	35% 81% 16%
1	CP	352	34% 84% 14%
1	CQ	352	19% 81% 17%
1	CR	352	37% 83% 15%
1	CS	352	37% 73% 26%
1	CT	352	24% 85% 13%
1	CU	352	17% 79% 19%
1	CV	352	30% 84% 15%
1	CW	352	41% 78% 21%
1	CX	352	21% 90% 9%
1	CY	352	31% 83% 16%
1	CZ	352	34% 77% 22%
1	DA	352	36% 82% 16%
1	DB	352	49% 80% 19%
1	DC	352	47% 83% 15%
1	DD	352	42% 72% 25%
1	DE	352	41% 84% 14%

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Mol	Chain	Length	Quality of chain
1	DF	352	39% 82% 16%
1	DG	352	38% 82% 16%
1	DH	352	35% 80% 18%
1	DI	352	41% 88% 11%
1	DJ	352	32% 81% 17%
1	DK	352	46% 82% 16%
1	DL	352	30% 86% 13%
1	DM	352	36% 82% 16%
1	DN	352	33% 84% 15%
1	DO	352	33% 84% 14%
1	DP	352	34% 78% 20%
1	DQ	352	49% 86% 13%
2	DR	267	97% 85% 13%
2	DS	267	96% 87% 10%
2	DT	267	96% 87% 9%
3	DU	250	81% 38% 45% 5% 11%
3	DV	250	84% 34% 47% 6% 11%
4	DW	1005	88% 71% 18% 9%
5	DX	786	10% 5% 89%
5	DY	786	10% 90%
5	DZ	786	9% 5% 91%
6	EA	322	95% 89% 7%
6	EB	322	96% 91% 7%
6	EC	322	98% 89% 8%
7	ED	747	77% 55% 22% 19%

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Mol	Chain	Length	Quality of chain
7	EE	747	

2 Entry composition (i)

There are 7 unique types of molecules in this entry. The entry contains 284597 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 Major head protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	AA	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	AB	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	AC	344	Total	C	N	O	S	0	0
			2663	1671	466	516	10		
1	AD	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	AE	346	Total	C	N	O	S	0	0
			2677	1680	468	519	10		
1	AF	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		
1	AG	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	AH	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	AI	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	AJ	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	AK	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	AL	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	AM	344	Total	C	N	O	S	0	0
			2663	1671	466	516	10		
1	AN	344	Total	C	N	O	S	0	0
			2663	1671	466	516	10		
1	AO	344	Total	C	N	O	S	0	0
			2663	1671	466	516	10		
1	AP	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	AQ	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	AR	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	AS	346	Total	C	N	O	S	0	0
			2677	1680	468	519	10		
1	AT	346	Total	C	N	O	S	0	0
			2677	1680	468	519	10		
1	AU	346	Total	C	N	O	S	0	0
			2677	1680	468	519	10		
1	AV	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		
1	AW	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		
1	AX	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		
1	AY	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	AZ	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	BA	344	Total	C	N	O	S	0	0
			2663	1671	466	516	10		
1	BB	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	BC	346	Total	C	N	O	S	0	0
			2677	1680	468	519	10		
1	BD	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		
1	BE	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	BF	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	BG	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	BH	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	BI	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	BJ	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	BK	344	Total	C	N	O	S	0	0
			2663	1671	466	516	10		
1	BL	344	Total	C	N	O	S	0	0
			2663	1671	466	516	10		

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	BM	344	Total	C	N	O	S	0	0
			2663	1671	466	516	10		
1	BN	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	BO	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	BP	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	BQ	346	Total	C	N	O	S	0	0
			2677	1680	468	519	10		
1	BR	346	Total	C	N	O	S	0	0
			2677	1680	468	519	10		
1	BS	346	Total	C	N	O	S	0	0
			2677	1680	468	519	10		
1	BT	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		
1	BU	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		
1	BV	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		
1	BW	345	Total	C	N	O	S	0	0
			2672	1676	467	519	10		
1	BX	346	Total	C	N	O	S	0	0
			2677	1680	468	519	10		
1	BY	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	BZ	345	Total	C	N	O	S	0	0
			2670	1675	467	518	10		
1	CA	346	Total	C	N	O	S	0	0
			2677	1680	468	519	10		
1	CB	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		
1	CC	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	CD	343	Total	C	N	O	S	0	0
			2657	1668	465	514	10		
1	CE	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		
1	CF	342	Total	C	N	O	S	0	0
			2644	1656	464	514	10		
1	CG	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	CH	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	CI	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		
1	CJ	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	CK	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	CL	343	Total	C	N	O	S	0	0
			2654	1665	464	515	10		
1	CM	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		
1	CN	342	Total	C	N	O	S	0	0
			2644	1656	464	514	10		
1	CO	341	Total	C	N	O	S	0	0
			2637	1651	463	513	10		
1	CP	345	Total	C	N	O	S	0	0
			2668	1674	466	518	10		
1	CQ	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		
1	CR	345	Total	C	N	O	S	0	0
			2670	1675	467	518	10		
1	CS	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	CT	346	Total	C	N	O	S	0	0
			2677	1680	468	519	10		
1	CU	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		
1	CV	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	CW	346	Total	C	N	O	S	0	0
			2677	1680	468	519	10		
1	CX	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		
1	CY	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	CZ	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	DA	346	Total	C	N	O	S	0	0
			2677	1680	468	519	10		
1	DB	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	DC	345	Total	C	N	O	S	0	0
			2670	1675	467	518	10		
1	DD	346	Total	C	N	O	S	0	0
			2677	1680	468	519	10		
1	DE	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		
1	DF	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	DG	343	Total	C	N	O	S	0	0
			2657	1668	465	514	10		
1	DH	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		
1	DI	347	Total	C	N	O	S	0	0
			2685	1684	470	521	10		
1	DJ	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		
1	DK	343	Total	C	N	O	S	0	0
			2654	1665	464	515	10		
1	DL	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		
1	DM	345	Total	C	N	O	S	0	0
			2668	1674	466	518	10		
1	DN	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		
1	DO	346	Total	C	N	O	S	0	0
			2677	1680	468	519	10		
1	DP	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		
1	DQ	346	Total	C	N	O	S	0	0
			2676	1678	468	520	10		

- Molecule 2 is a protein called Putative structural protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	DR	263	Total	C	N	O	S	0	0
			1420	809	289	317	5		
2	DS	263	Total	C	N	O	S	0	0
			1424	812	289	317	6		
2	DT	263	Total	C	N	O	S	0	0
			1424	812	289	317	6		

- Molecule 3 is a protein called Adaptor.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	DU	222	Total	C	N	O	S	0	0
			1813	1171	292	345	5		
3	DV	222	Total	C	N	O	S	0	0
			1813	1171	292	345	5		

- Molecule 4 is a protein called Surface protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	DW	910	Total	C	N	O	S	0	0
			7063	4465	1178	1404	16		

- Molecule 5 is a protein called Putative tail fiber.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	DX	87	Total	C	N	O	S	0	0
			683	430	112	139	2		
5	DY	80	Total	C	N	O	S	0	0
			628	397	102	127	2		
5	DZ	68	Total	C	N	O	S	0	0
			545	347	87	109	2		

- Molecule 6 is a protein called Putative tail tip fiber protein.

Mol	Chain	Residues	Atoms				AltConf	Trace
6	EA	322	Total	C	N	O	0	0
			1289	644	322	323		
6	EB	322	Total	C	N	O	0	0
			1289	644	322	323		
6	EC	322	Total	C	N	O	0	0
			1289	644	322	323		

- Molecule 7 is a protein called Portal protein.

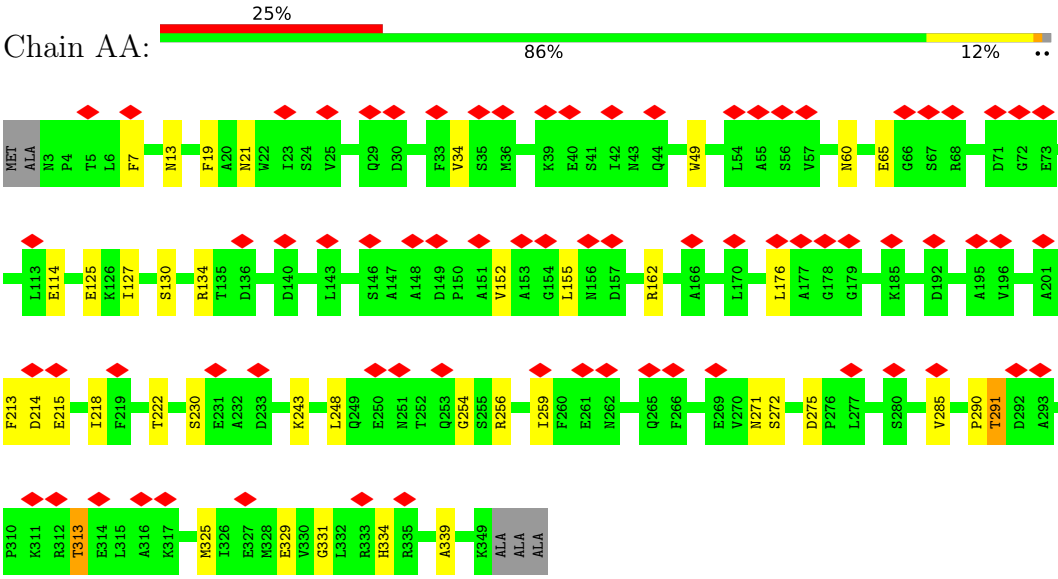
Mol	Chain	Residues	Atoms					AltConf	Trace
7	ED	604	Total	C	N	O	S	0	0
			4838	3038	835	942	23		
7	EE	604	Total	C	N	O	S	0	0
			4838	3038	835	942	23		

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.

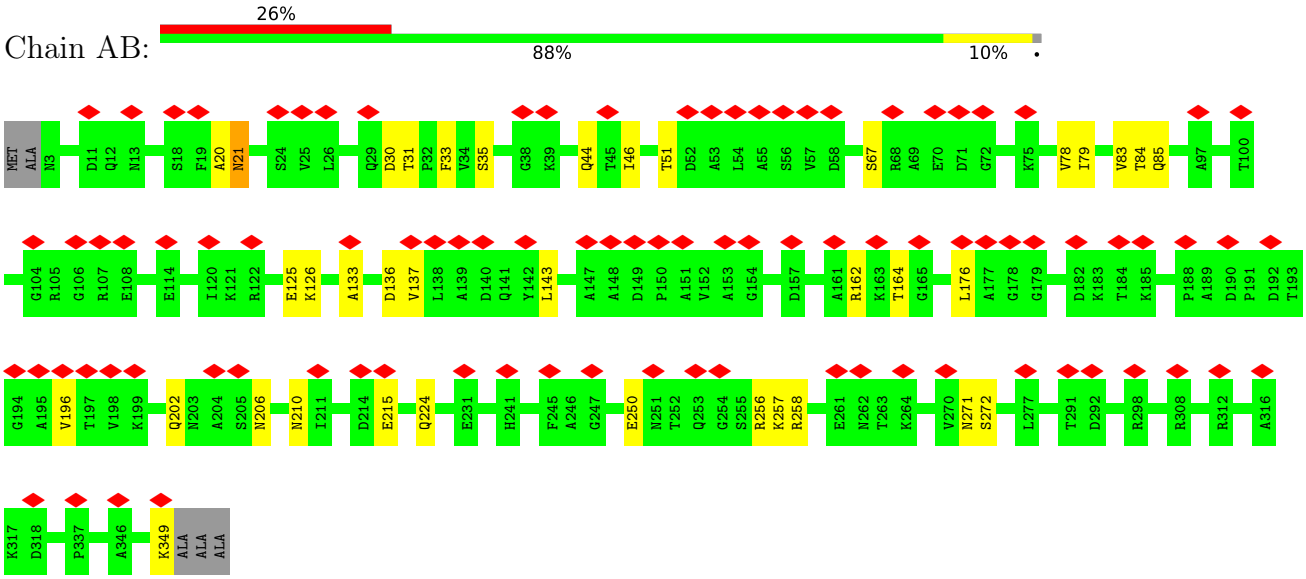
• Molecule 1: Major head protein

Chain AA:



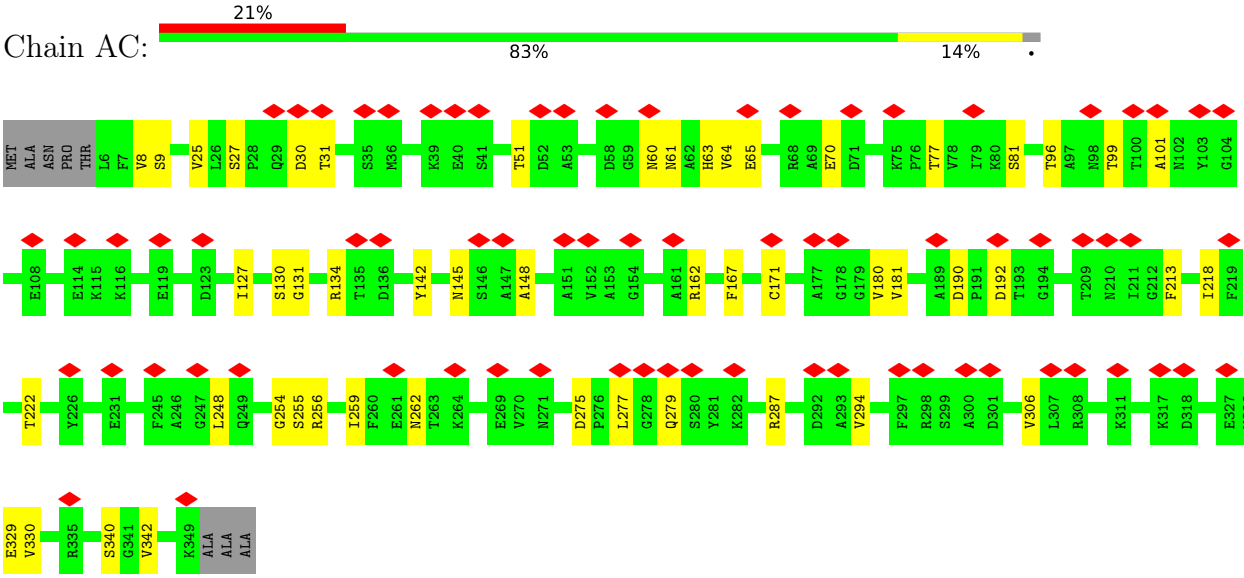
• Molecule 1: Major head protein

Chain AB:



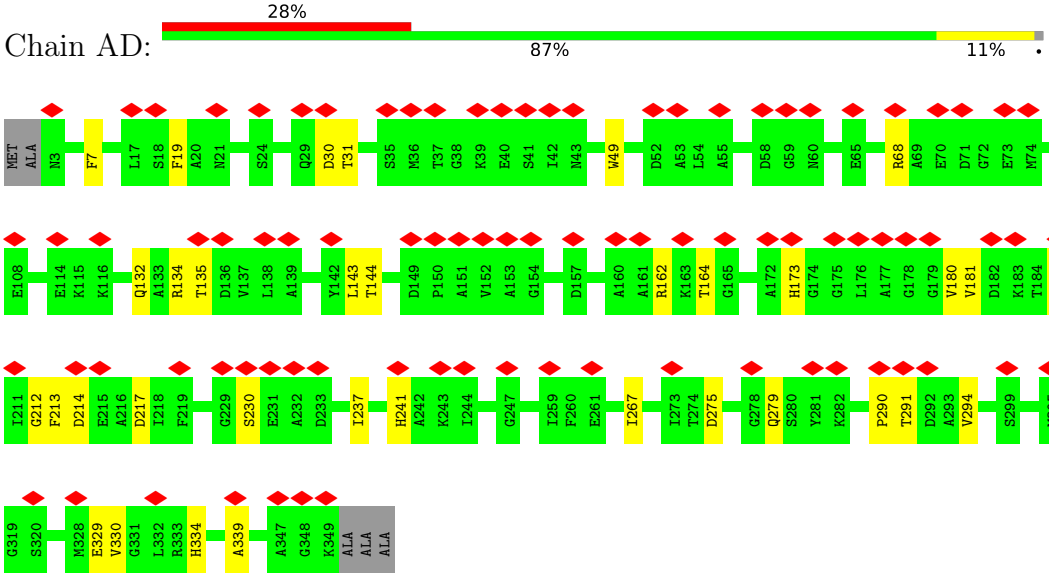
• Molecule 1: Major head protein

Chain AC:



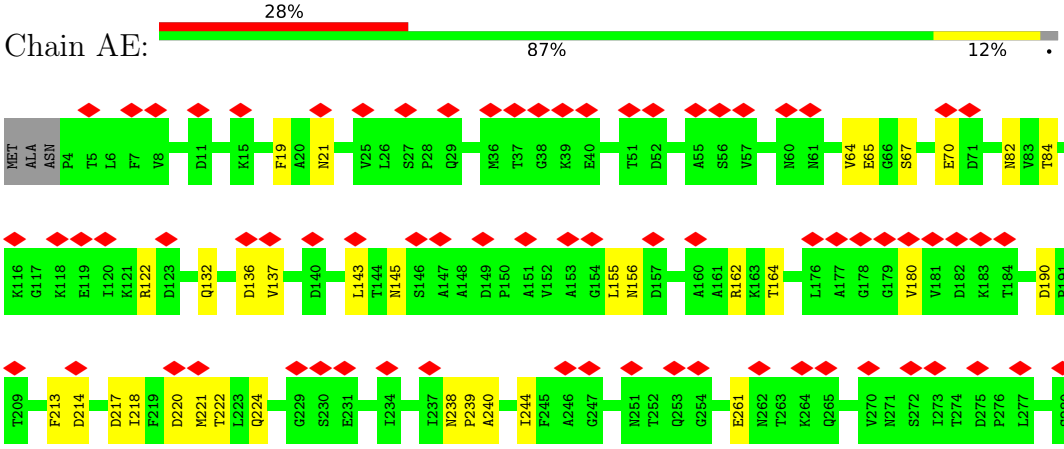
• Molecule 1: Major head protein

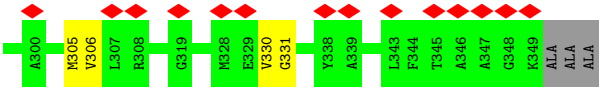
Chain AD:



• Molecule 1: Major head protein

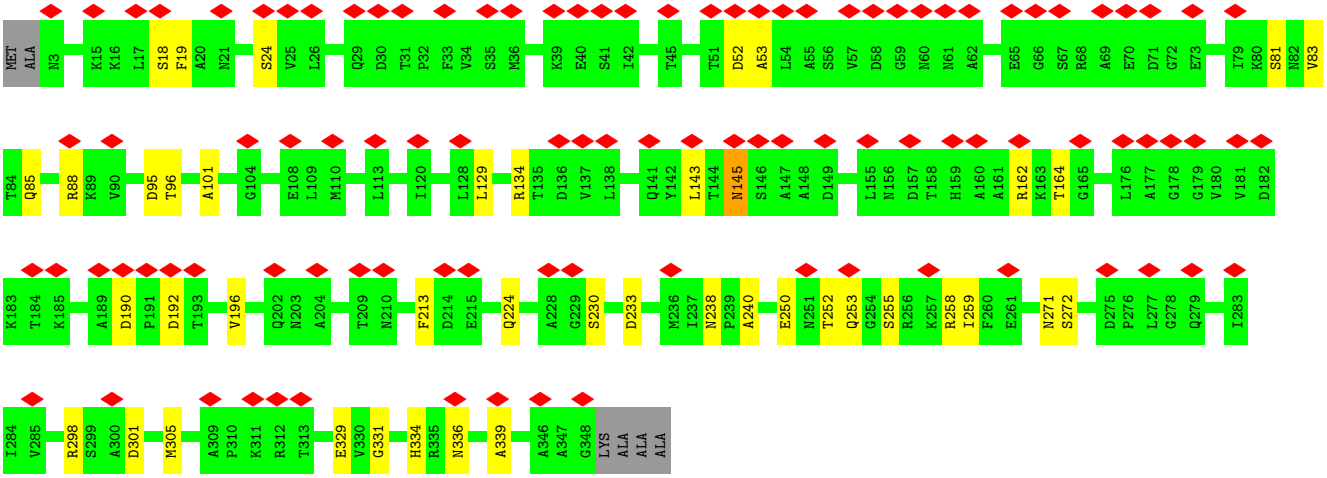
Chain AE:





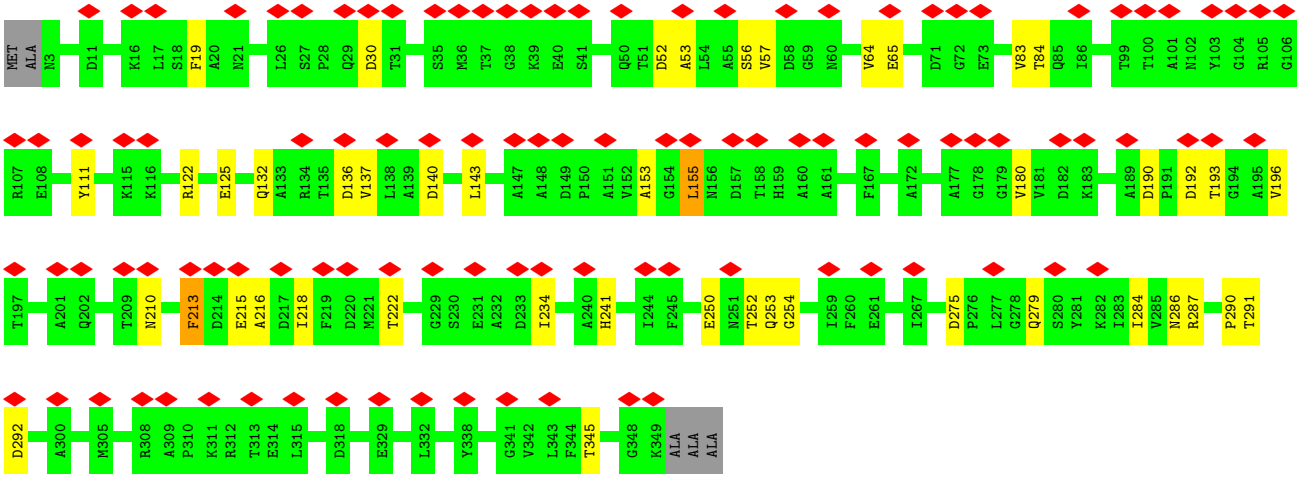
• Molecule 1: Major head protein

Chain AF:



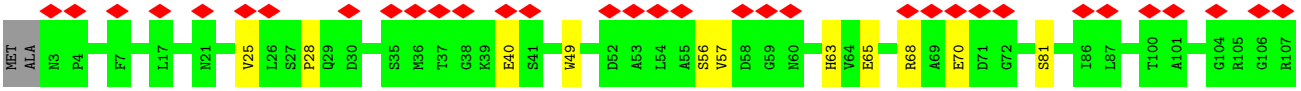
• Molecule 1: Major head protein

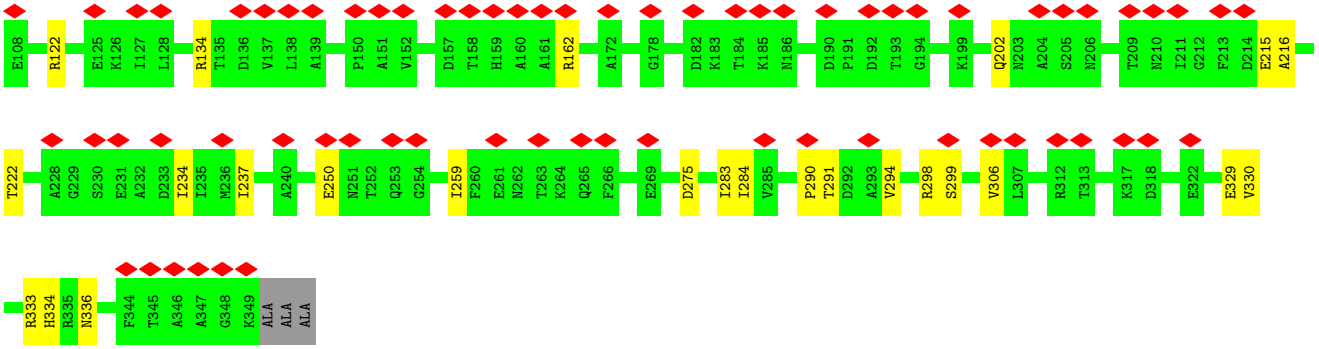
Chain AG:



• Molecule 1: Major head protein

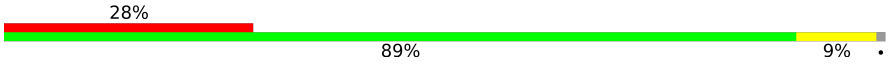
Chain AH:

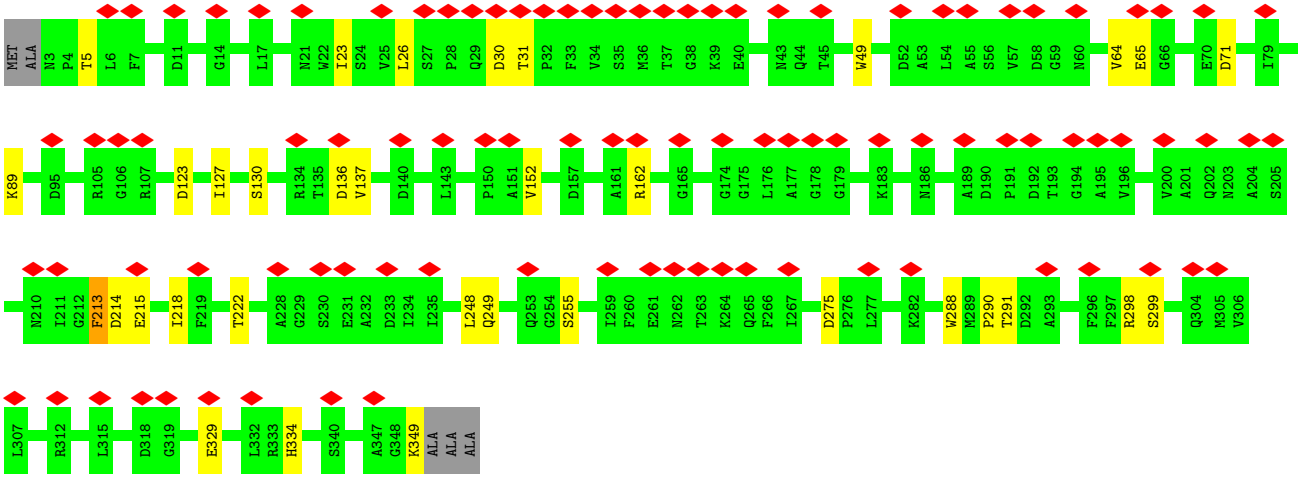




• Molecule 1: Major head protein

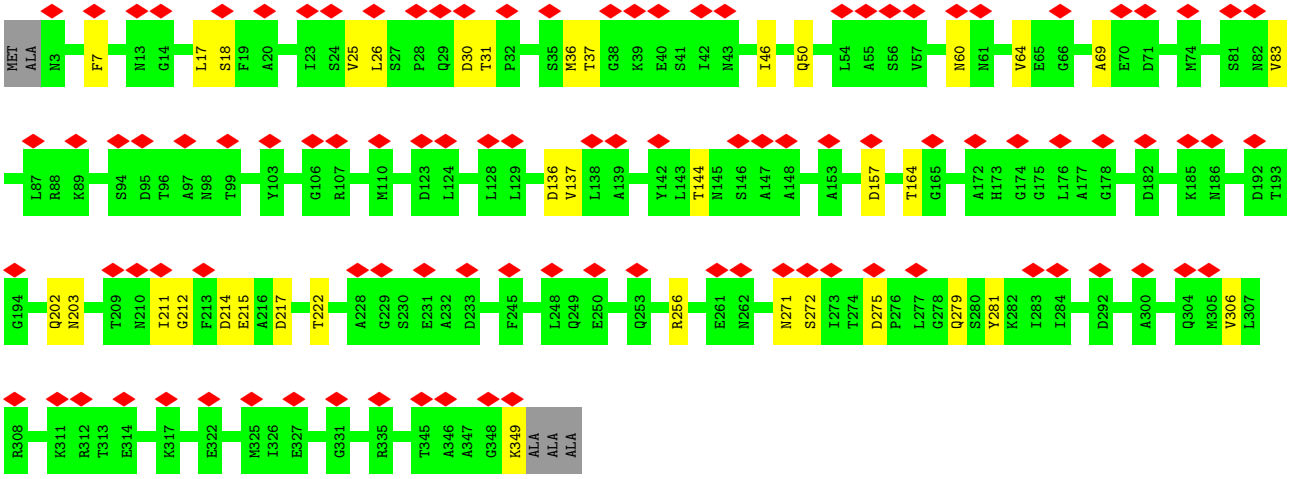
Chain AI:





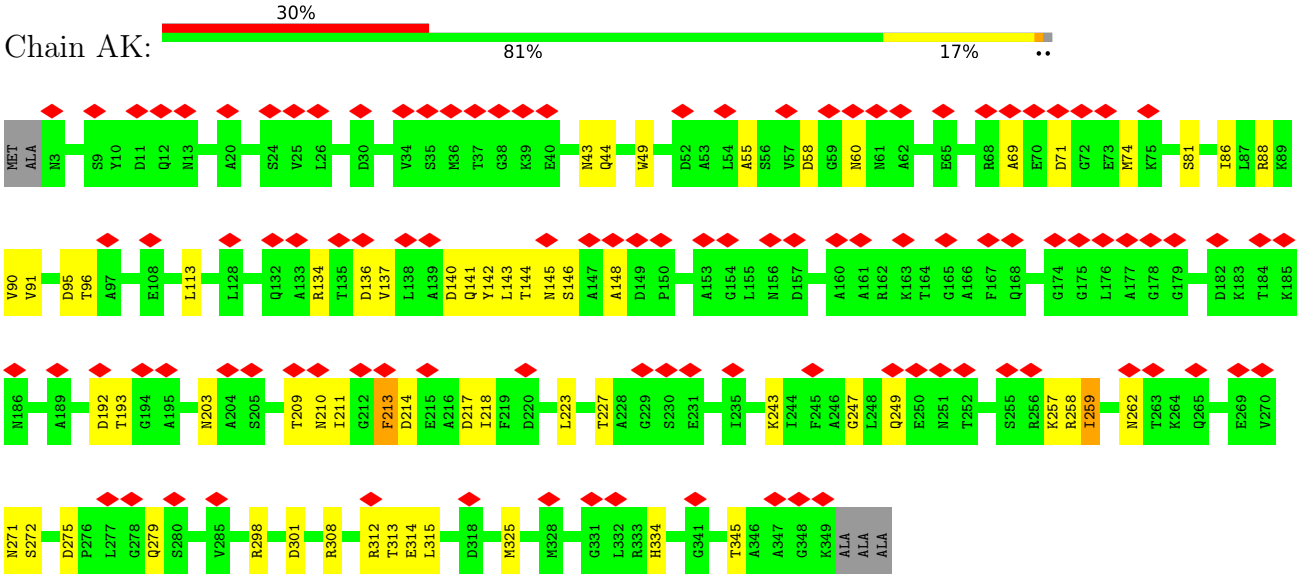
• Molecule 1: Major head protein

Chain AJ:



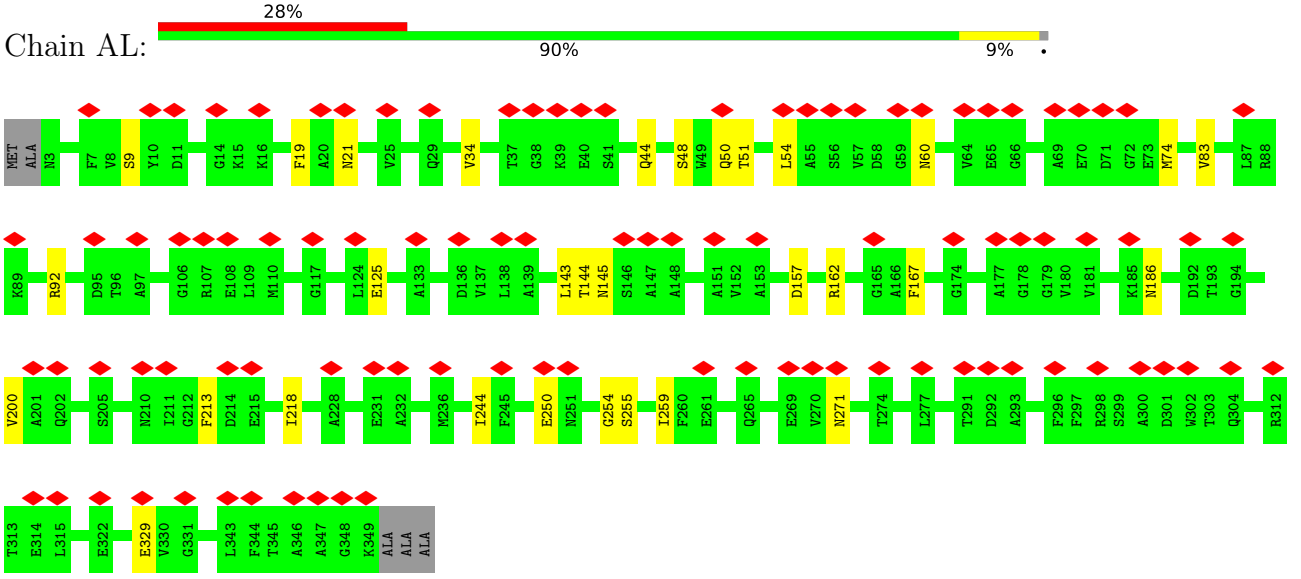
• Molecule 1: Major head protein

Chain AK:



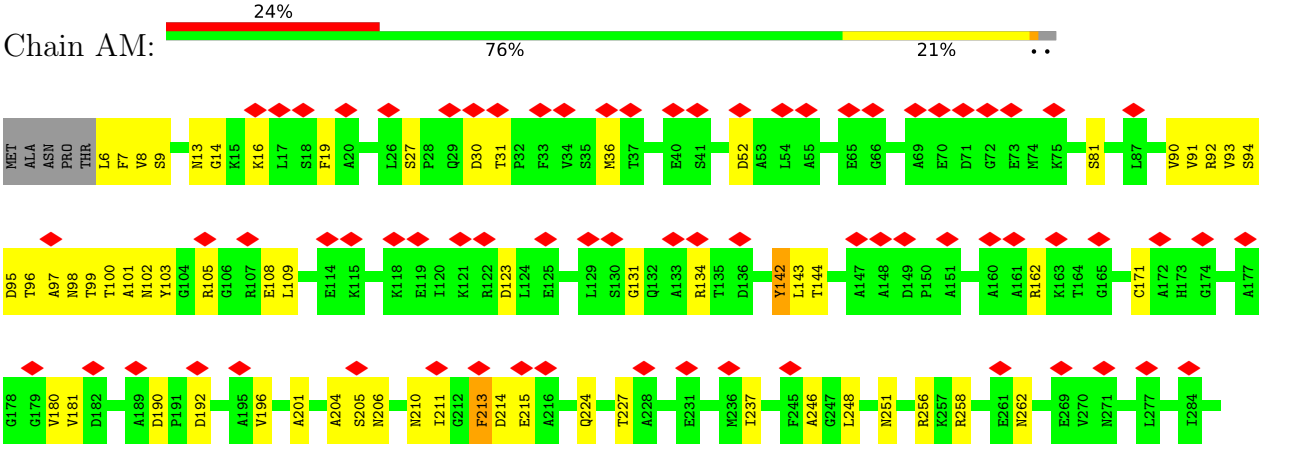
• Molecule 1: Major head protein

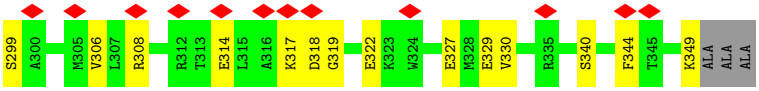
Chain AL:



• Molecule 1: Major head protein

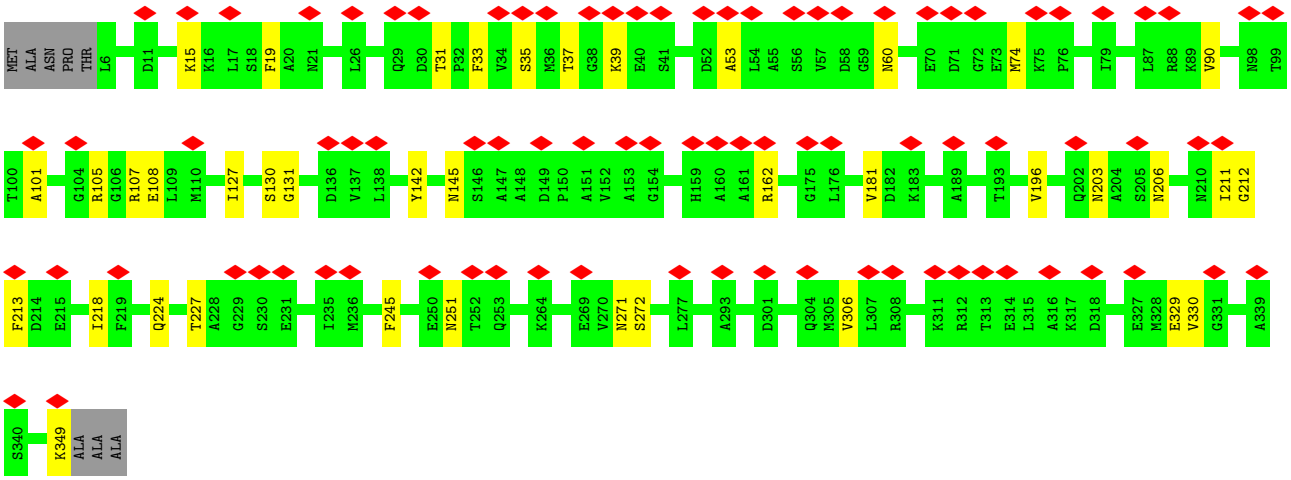
Chain AM:





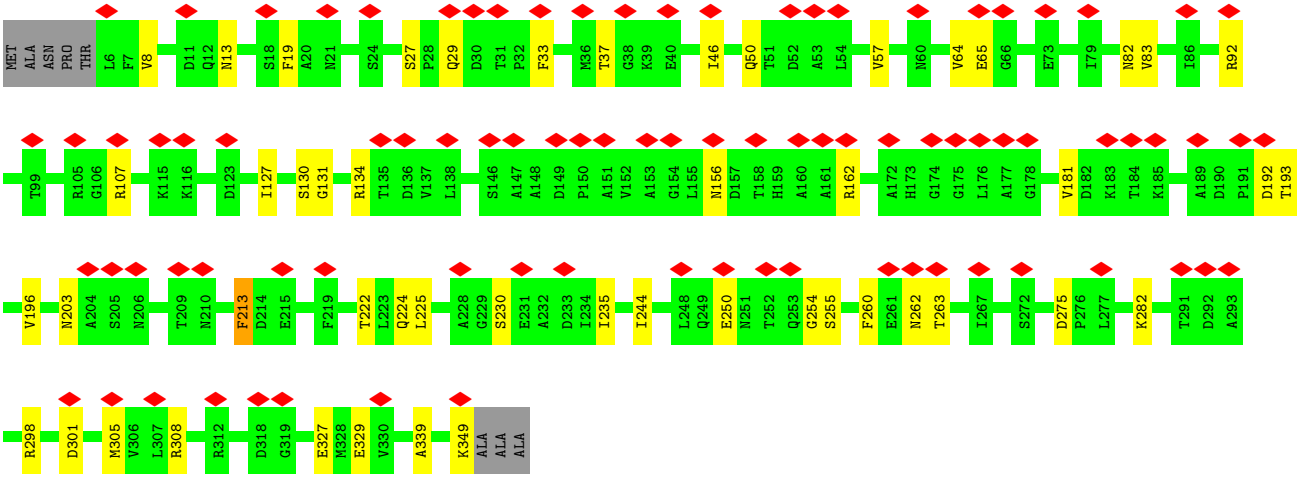
• Molecule 1: Major head protein

Chain AN:



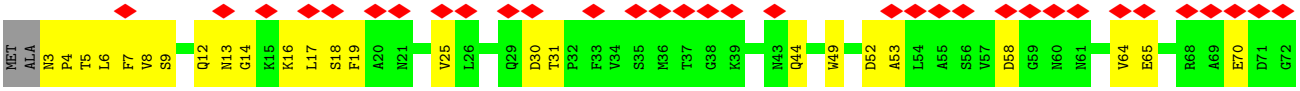
• Molecule 1: Major head protein

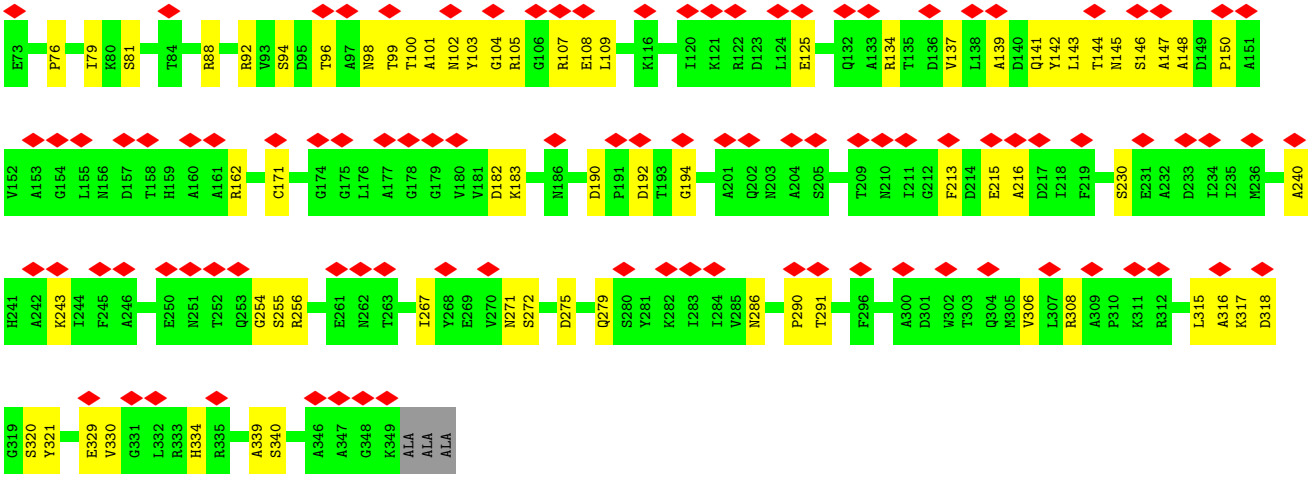
Chain AO:



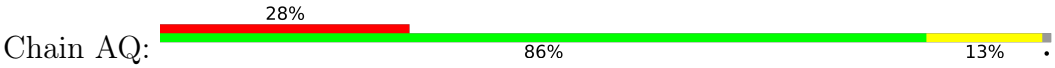
• Molecule 1: Major head protein

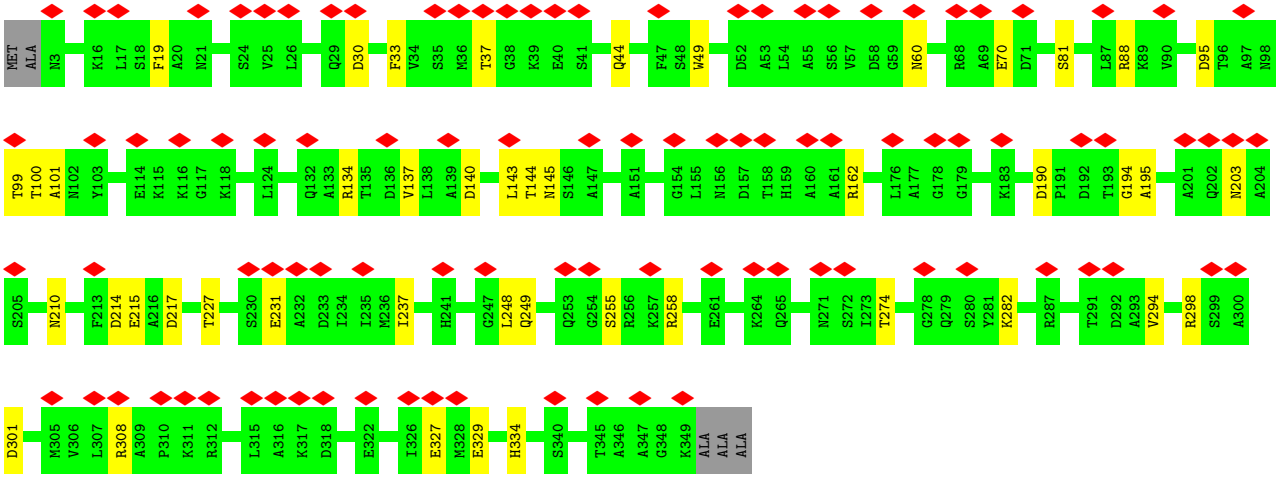
Chain AP:



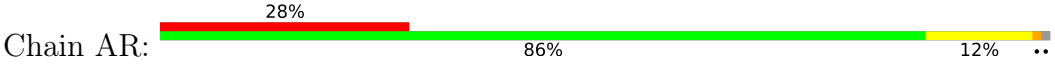


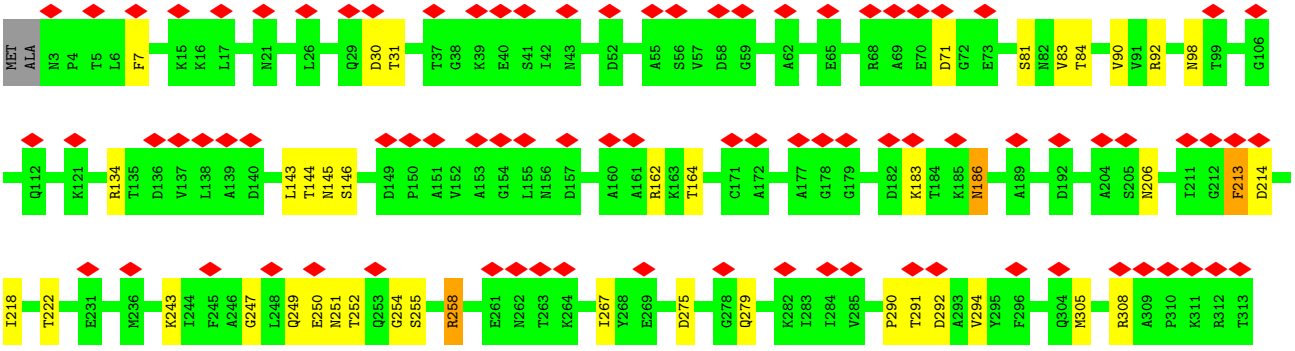
• Molecule 1: Major head protein

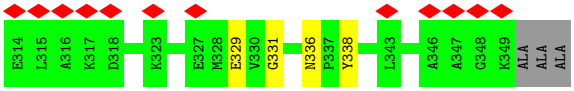




• Molecule 1: Major head protein

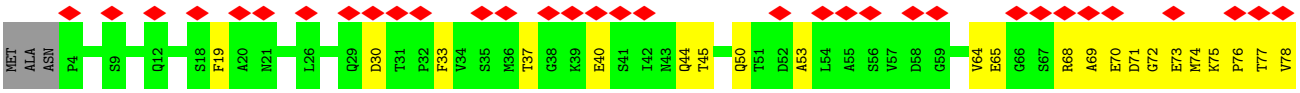


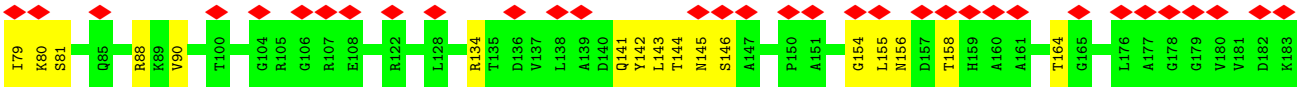


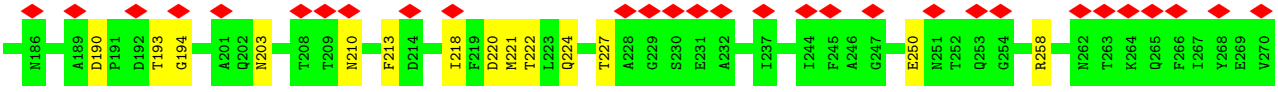


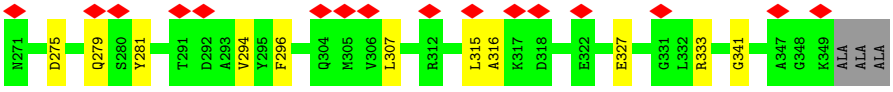
• Molecule 1: Major head protein

Chain AS:



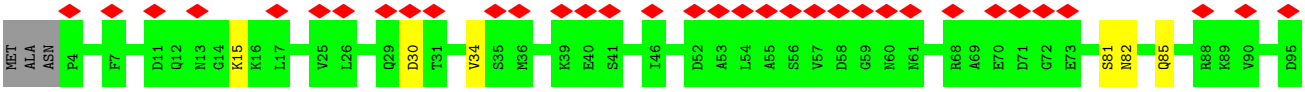


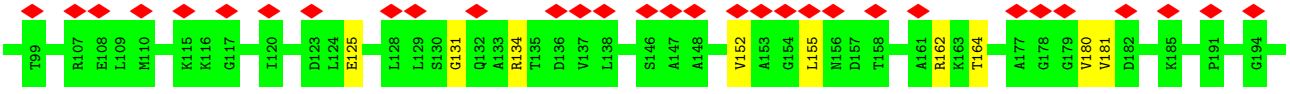


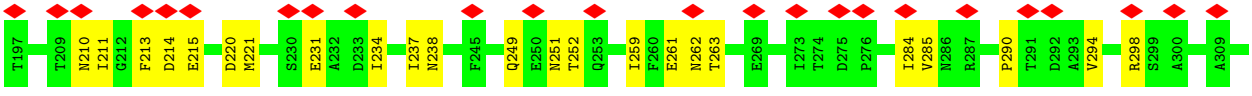


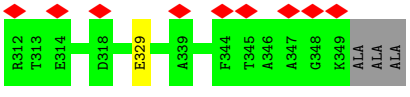
• Molecule 1: Major head protein

Chain AT:



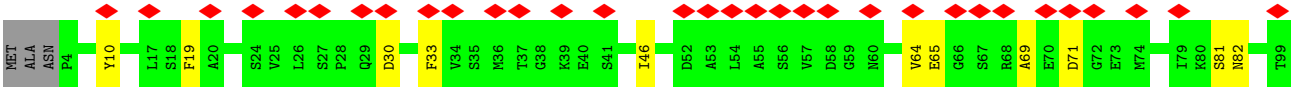


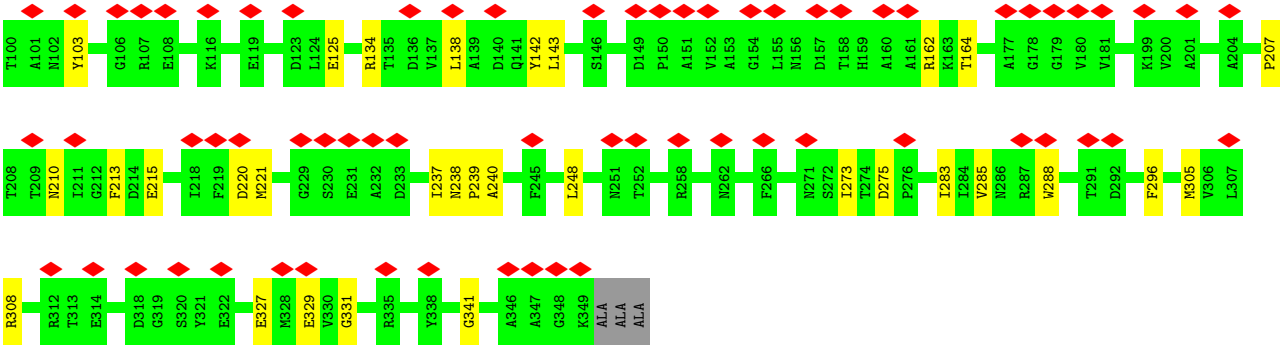




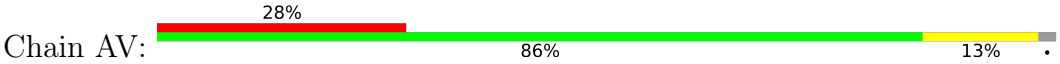
• Molecule 1: Major head protein

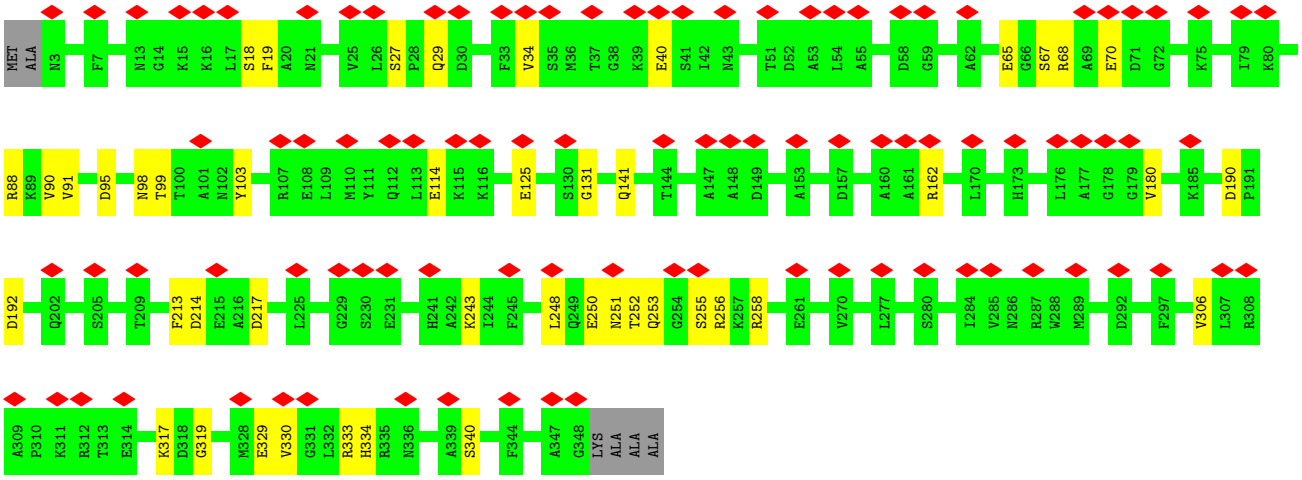
Chain AU:



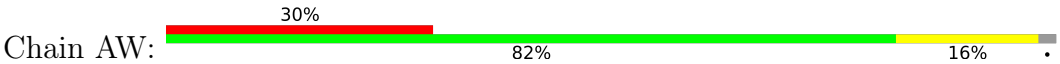


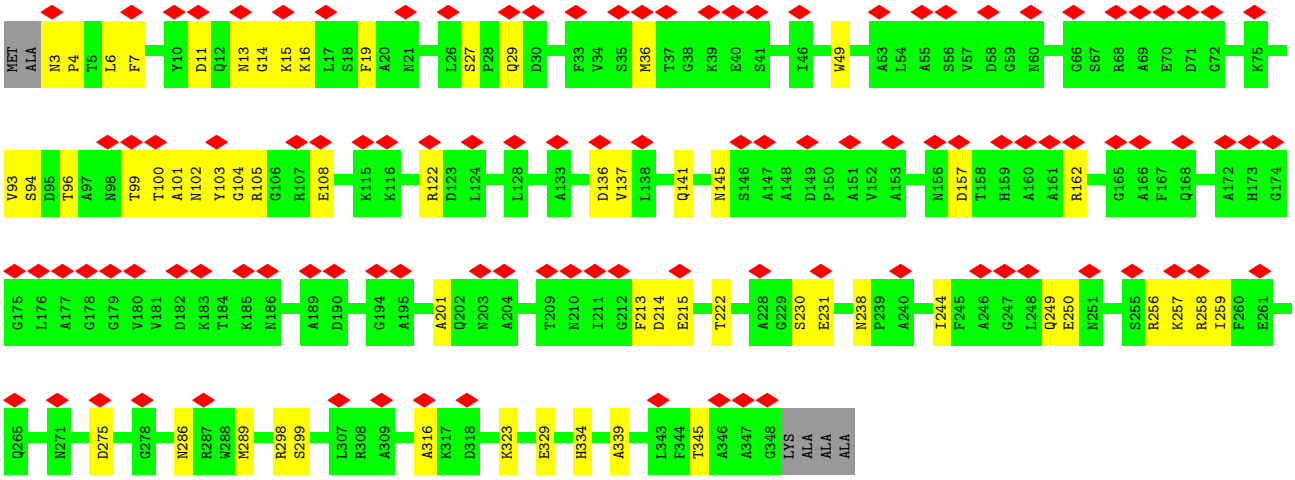
• Molecule 1: Major head protein





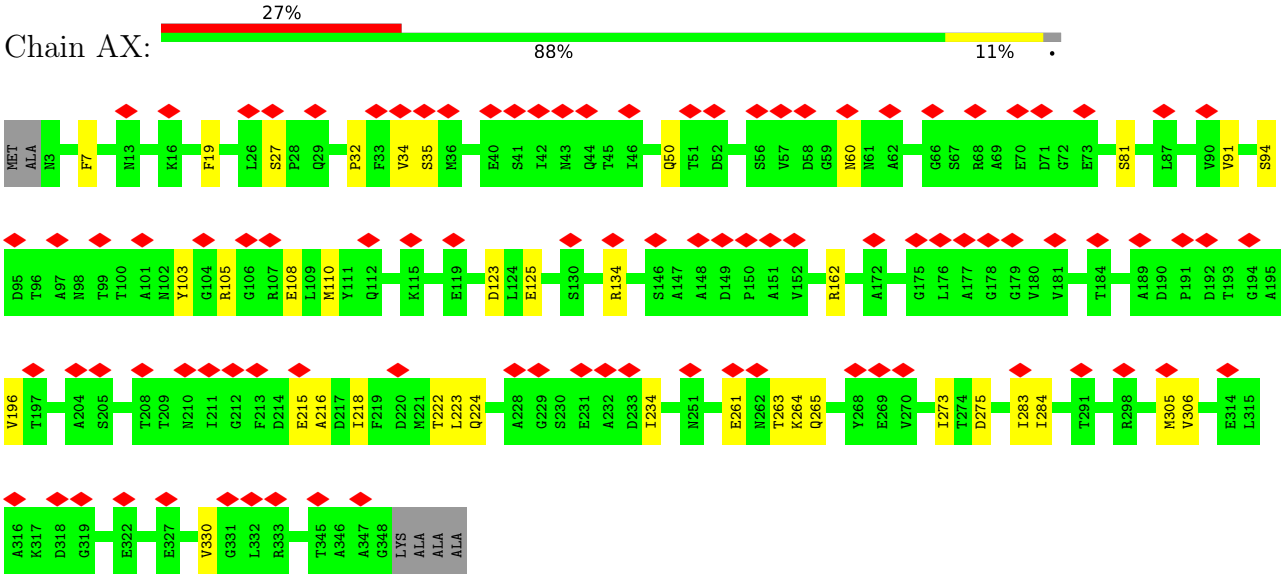
• Molecule 1: Major head protein





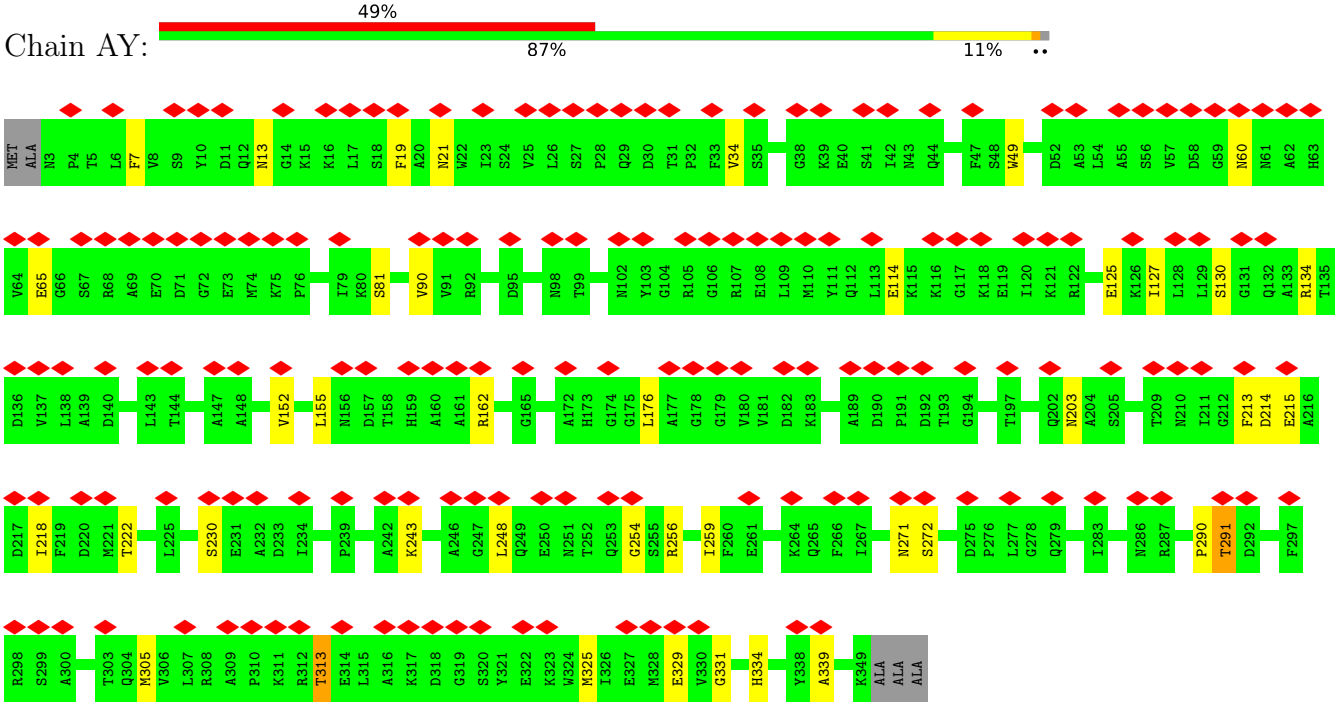
• Molecule 1: Major head protein

Chain AX:



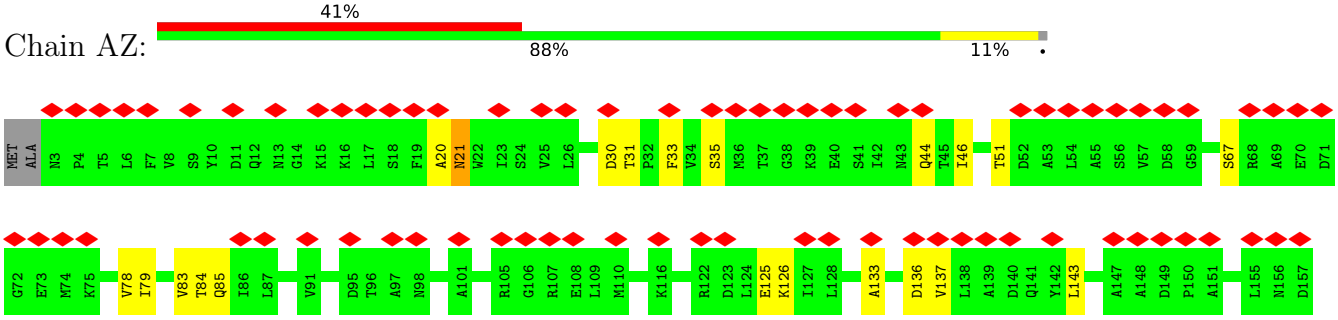
• Molecule 1: Major head protein

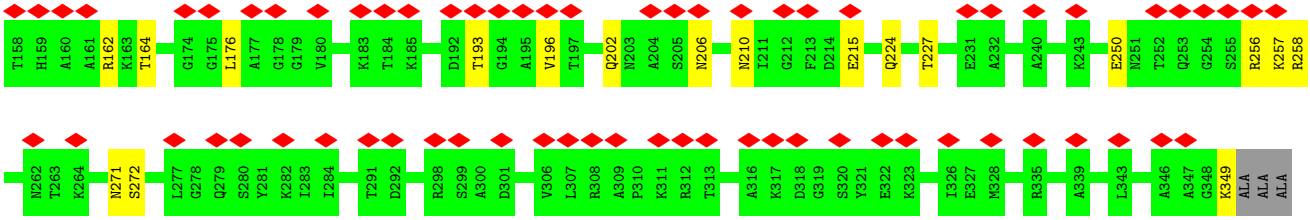
Chain AY:



• Molecule 1: Major head protein

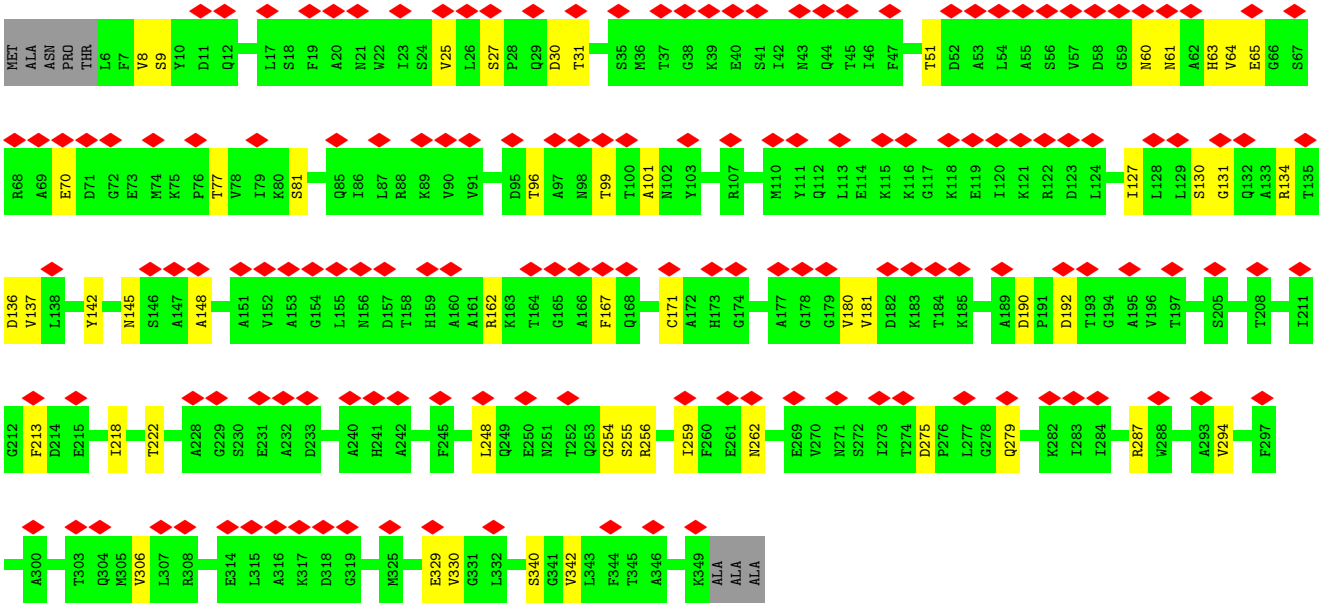
Chain AZ:





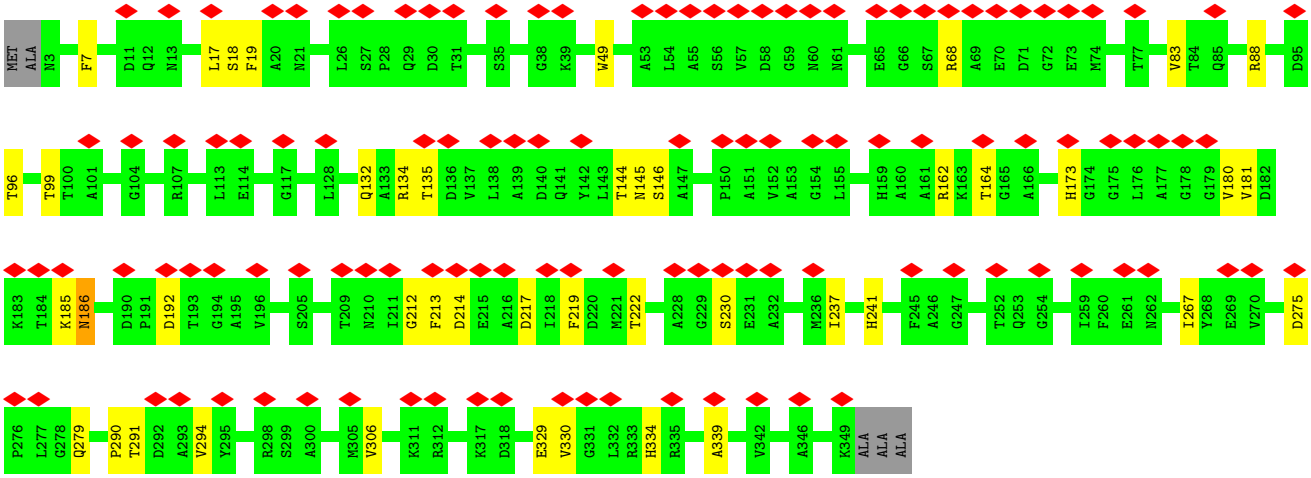
• Molecule 1: Major head protein

Chain BA:



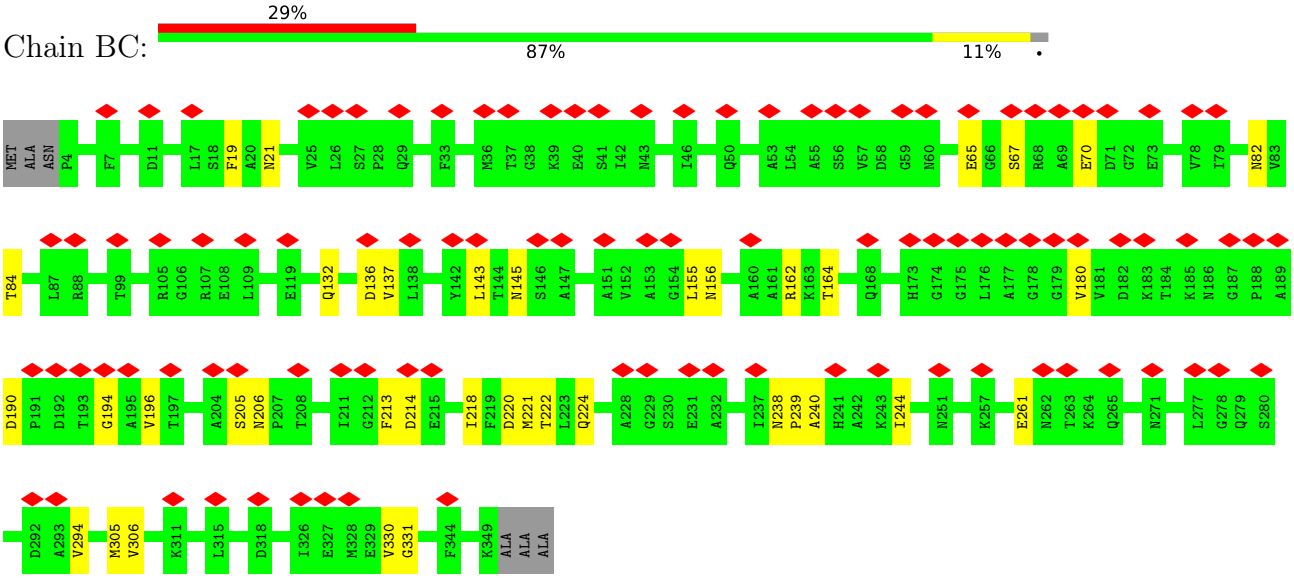
• Molecule 1: Major head protein

Chain BB:



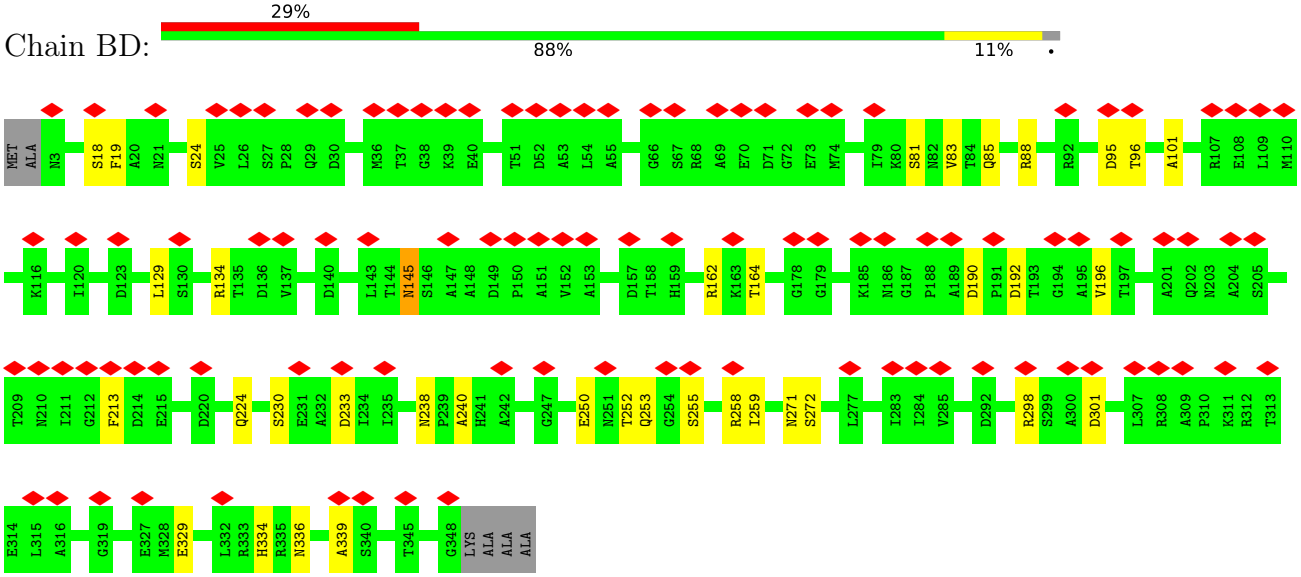
• Molecule 1: Major head protein

Chain BC:



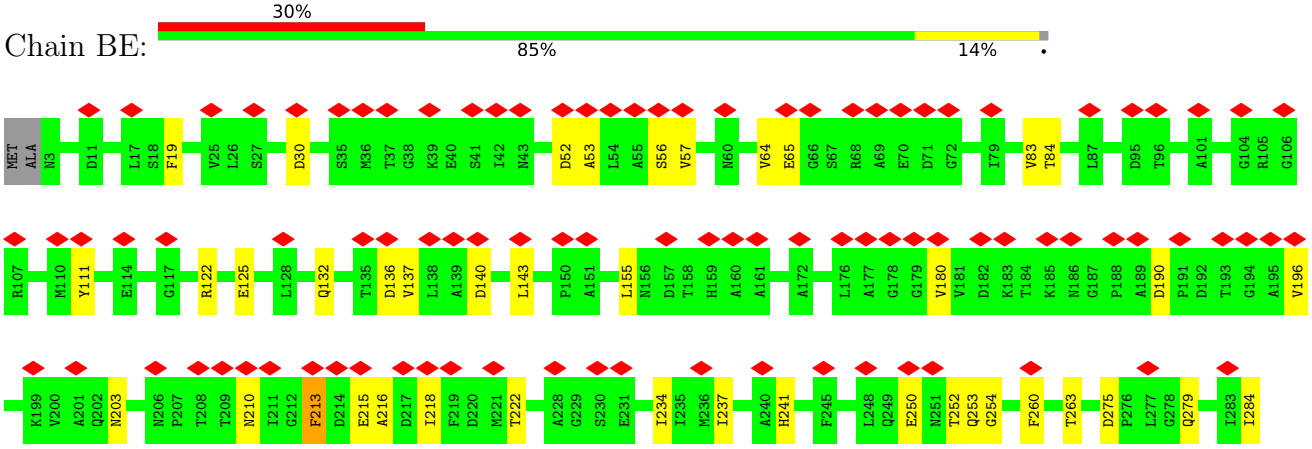
• Molecule 1: Major head protein

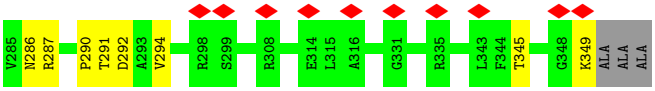
Chain BD:



• Molecule 1: Major head protein

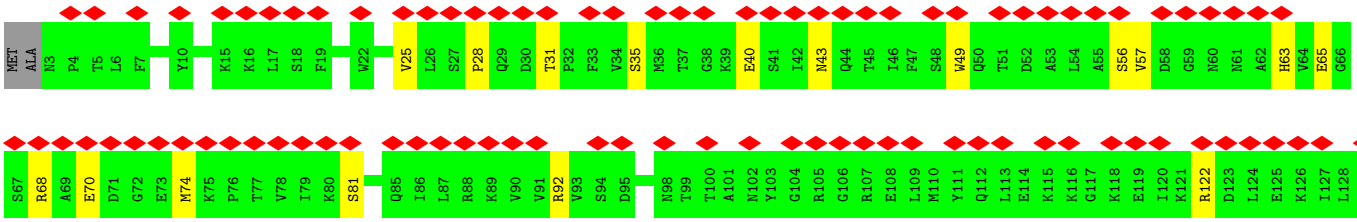
Chain BE:





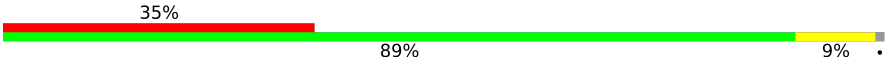
• Molecule 1: Major head protein

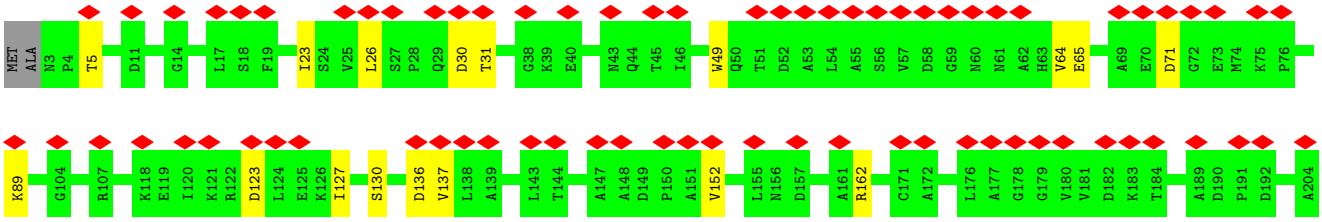
Chain BF:



• Molecule 1: Major head protein

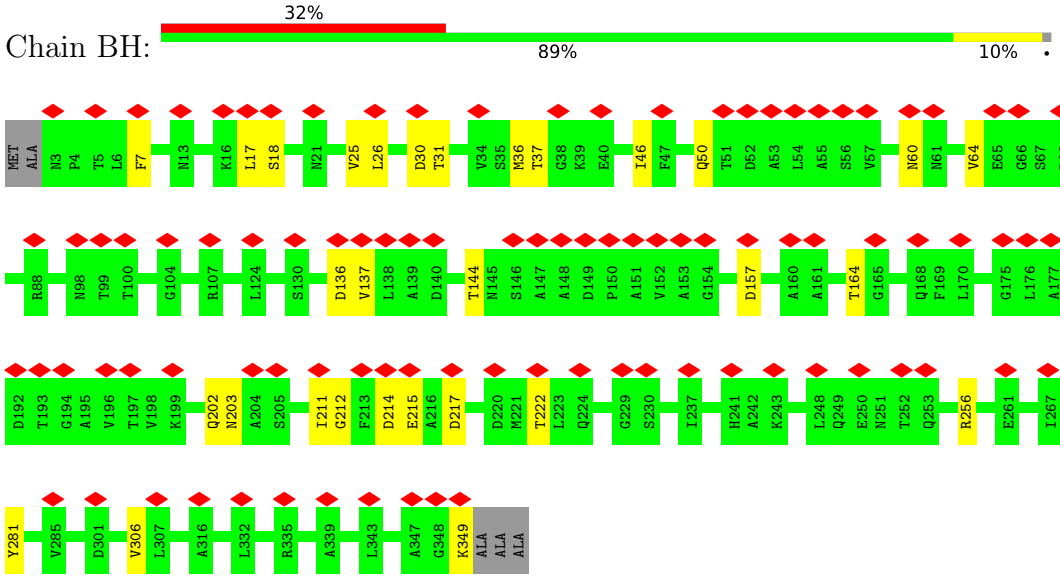
Chain BG:





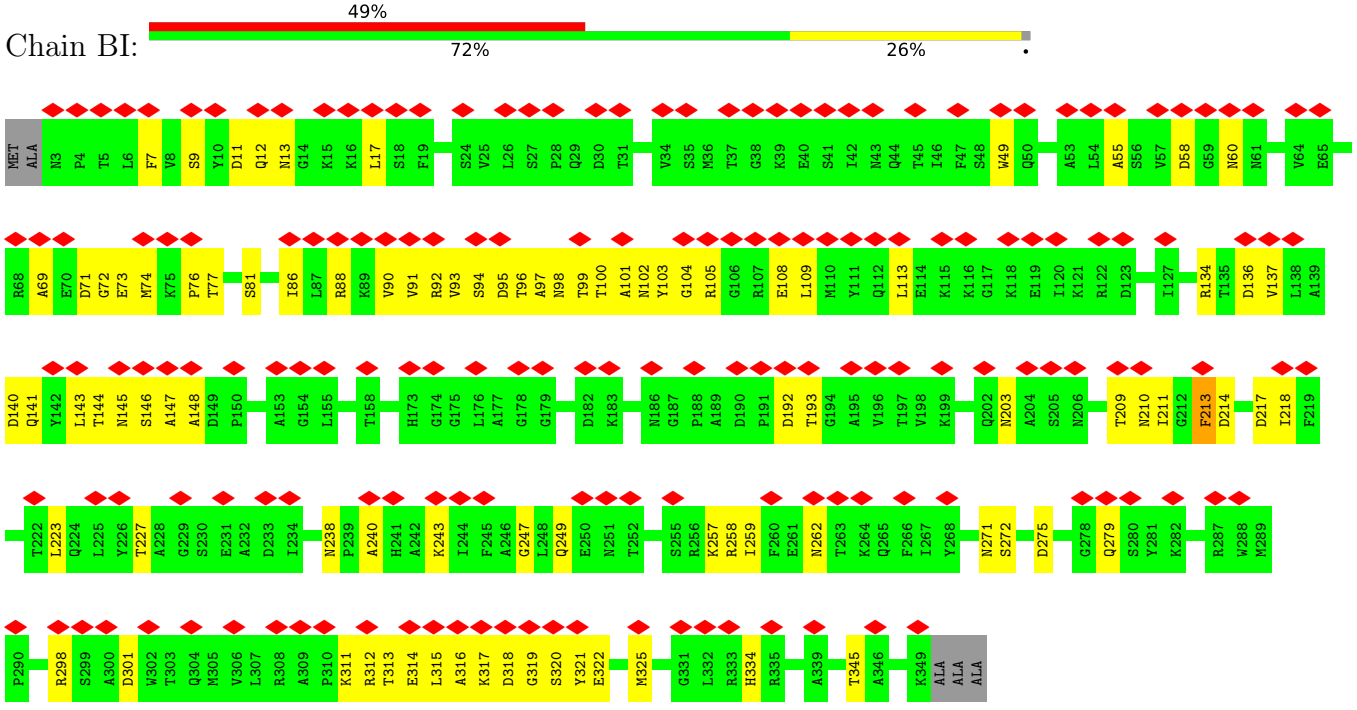
• Molecule 1: Major head protein

Chain BH:



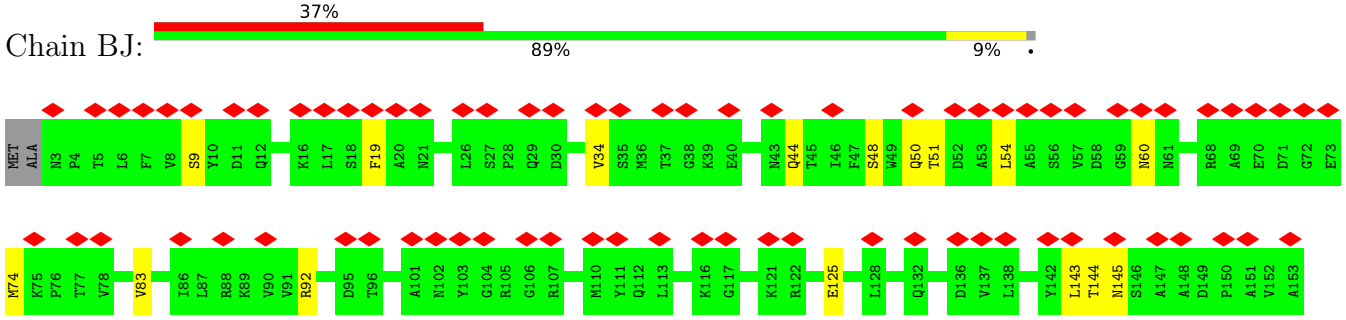
• Molecule 1: Major head protein

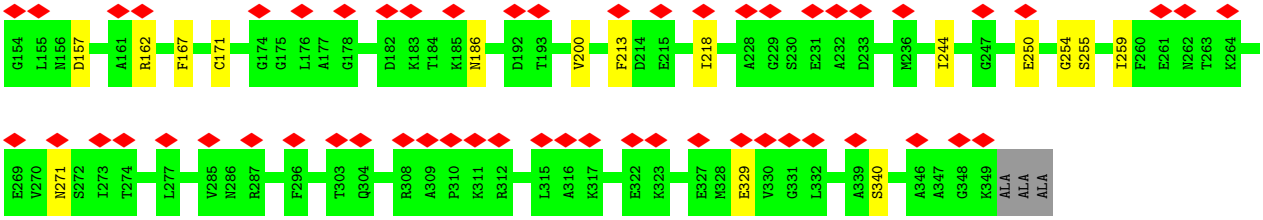
Chain BI:



• Molecule 1: Major head protein

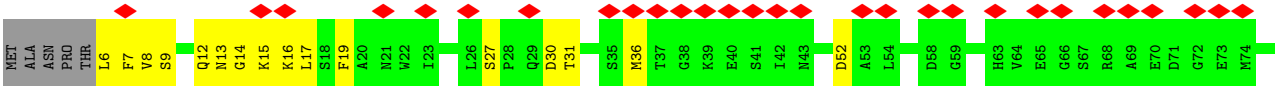
Chain BJ:

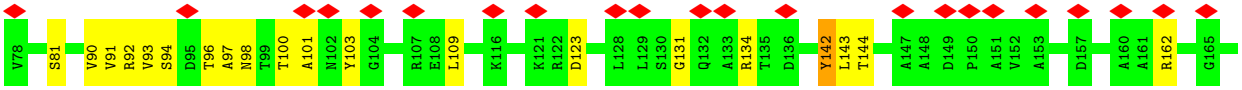


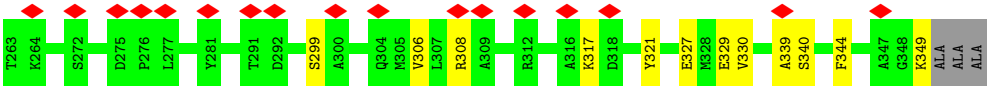


• Molecule 1: Major head protein

Chain BK:

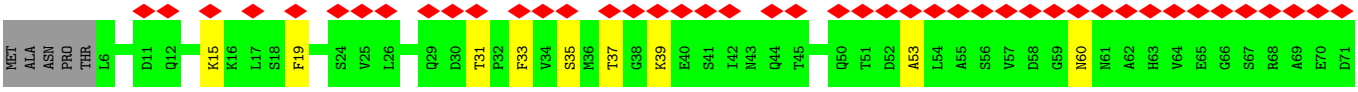


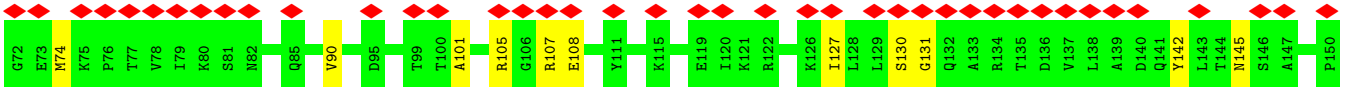


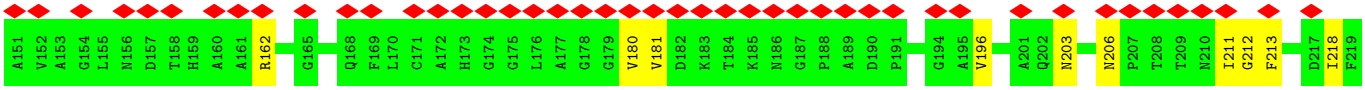


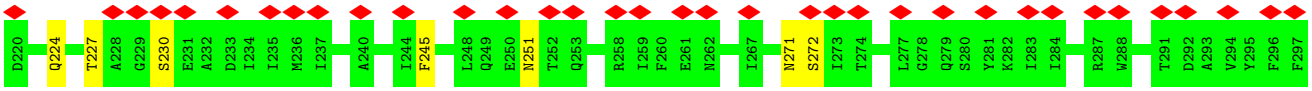
• Molecule 1: Major head protein

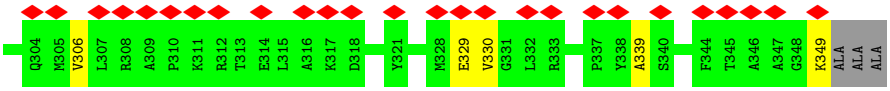
Chain BL:





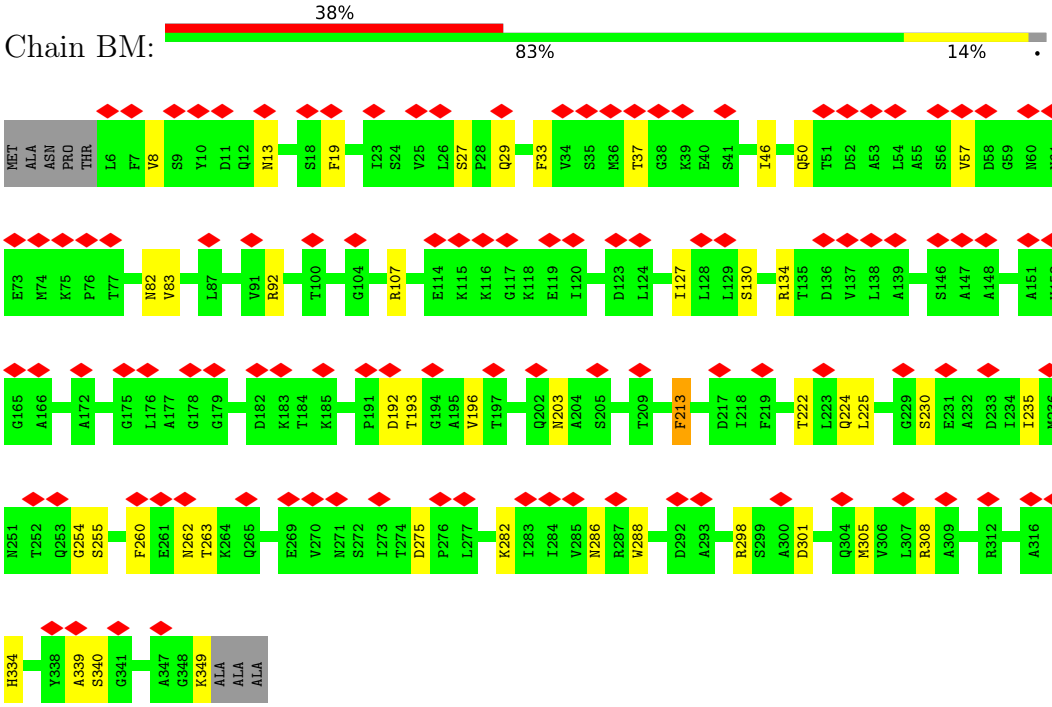






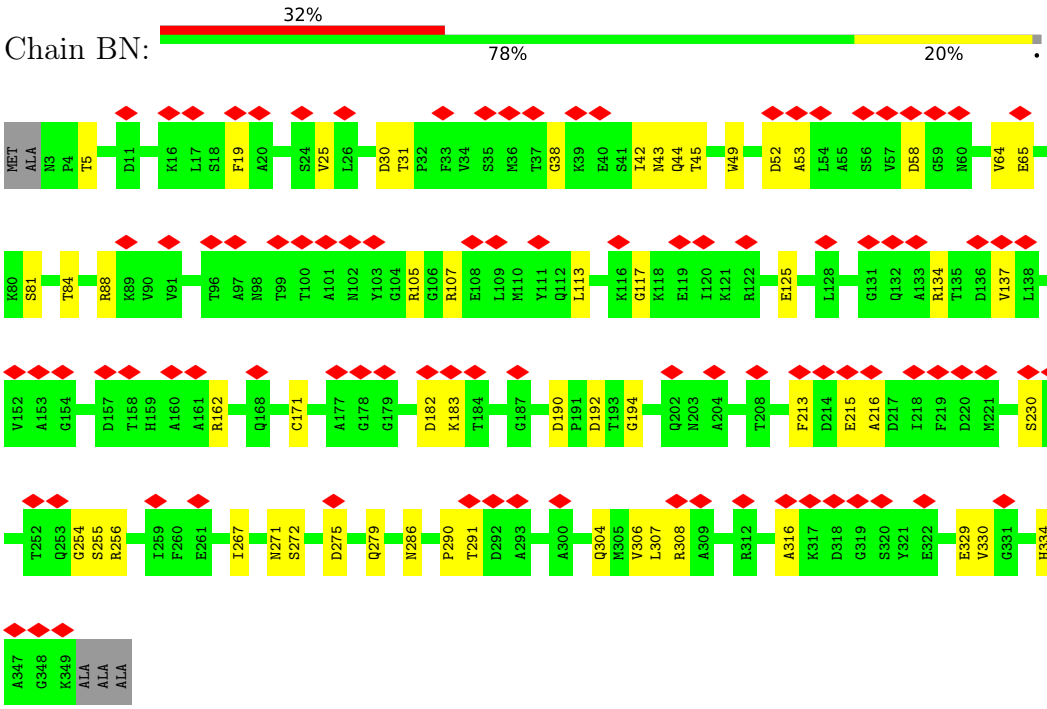
• Molecule 1: Major head protein

Chain BM:



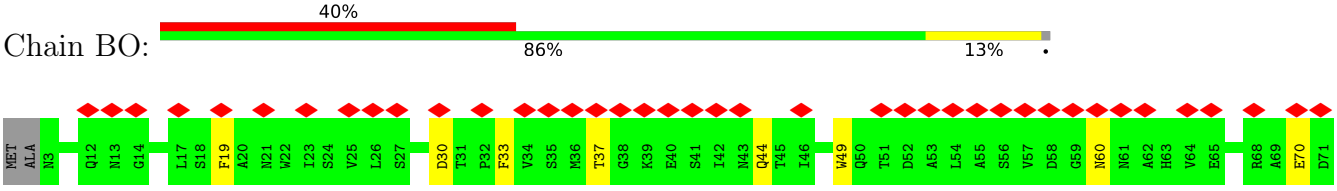
• Molecule 1: Major head protein

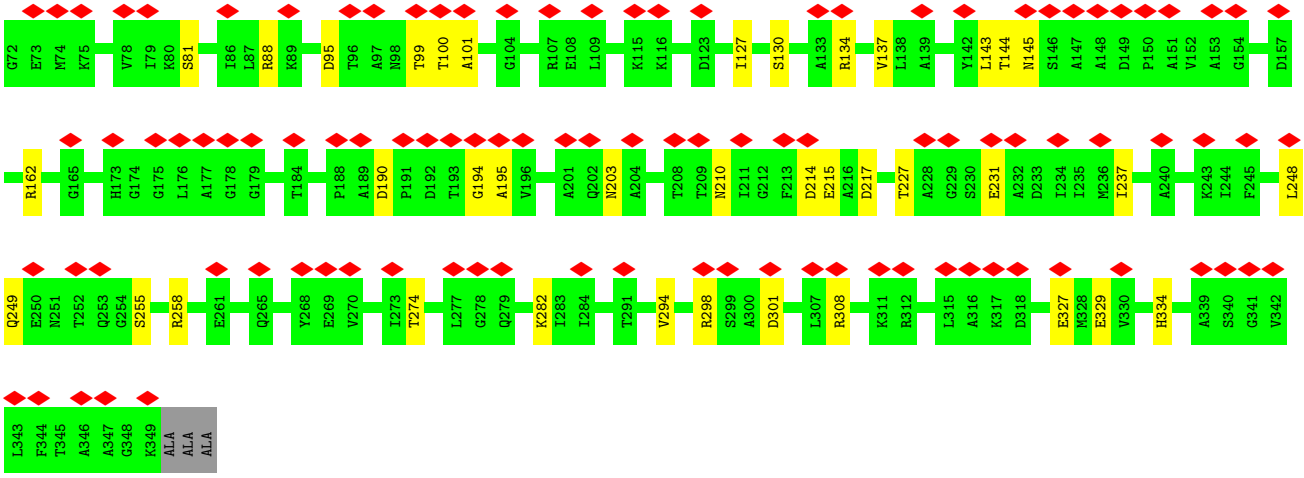
Chain BN:



• Molecule 1: Major head protein

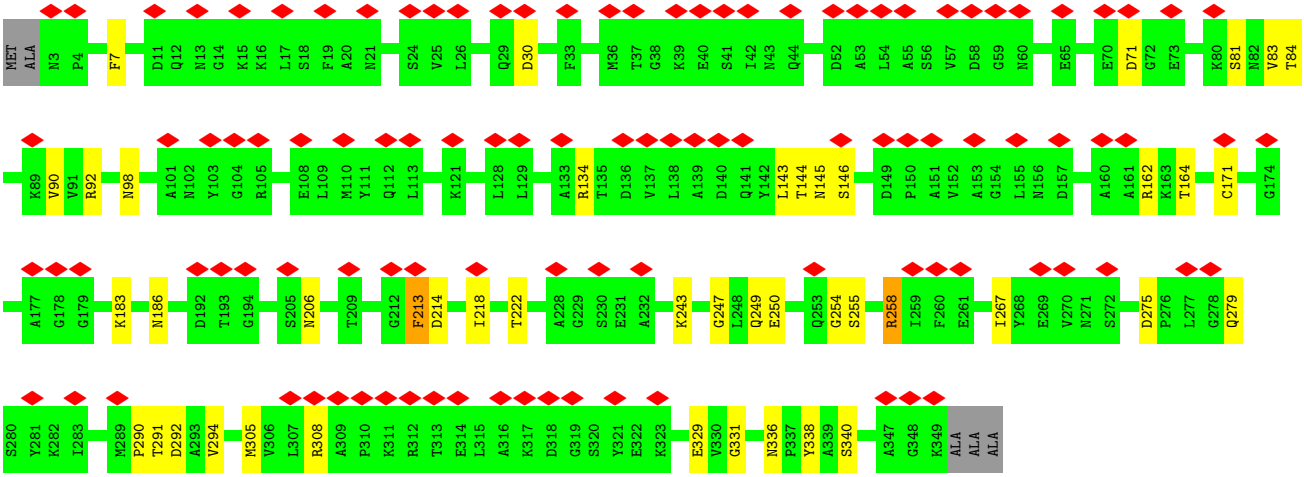
Chain BO:





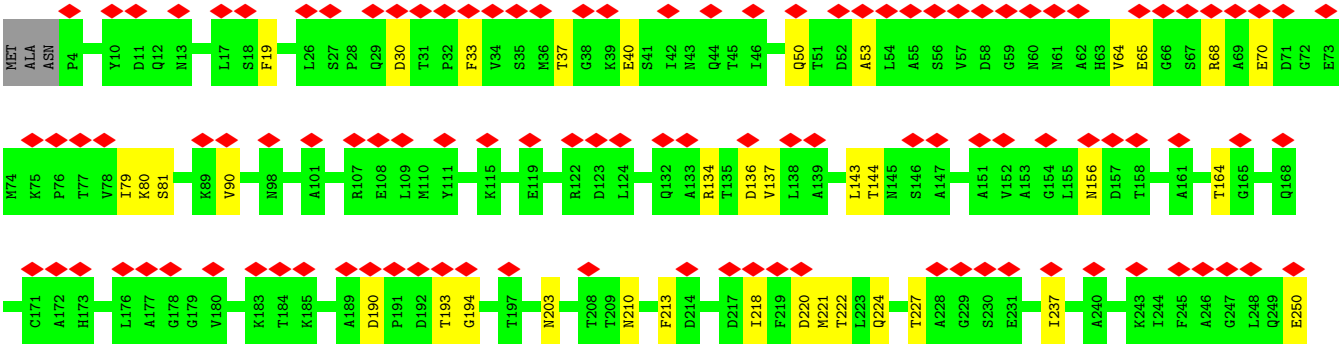
• Molecule 1: Major head protein

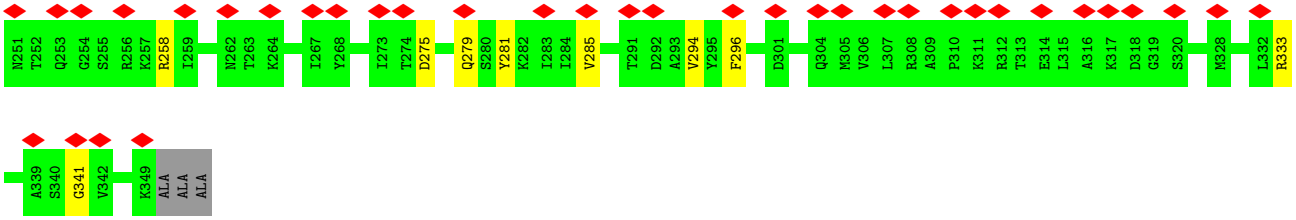
Chain BP:



• Molecule 1: Major head protein

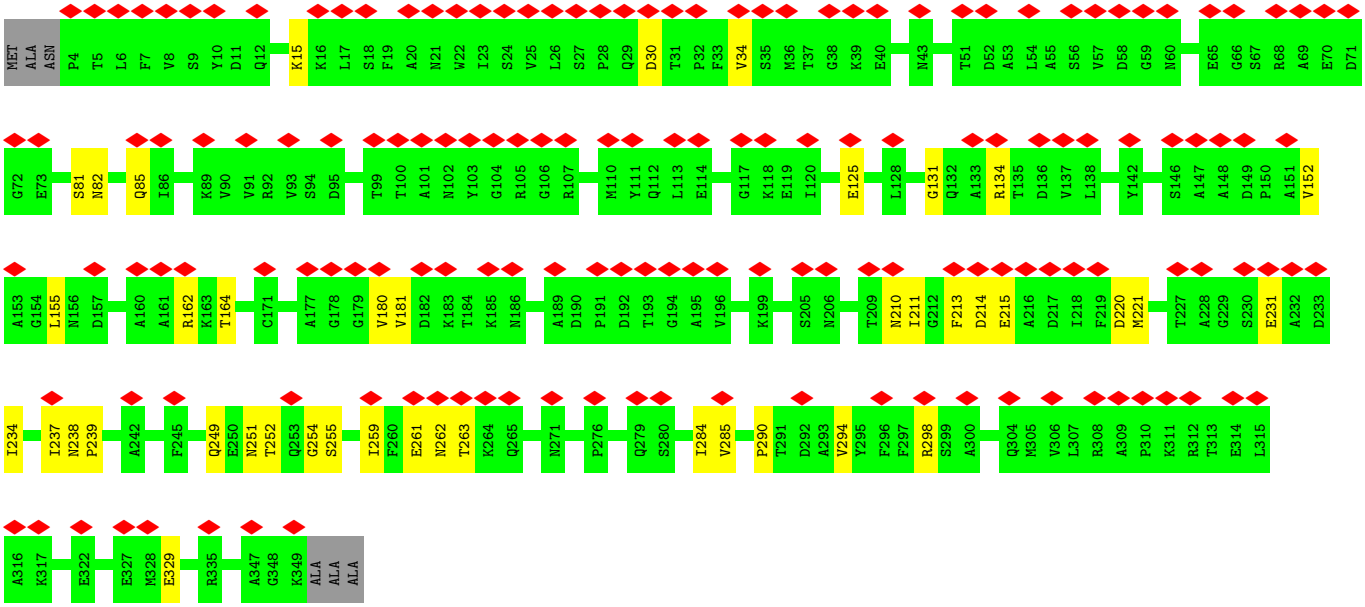
Chain BQ:





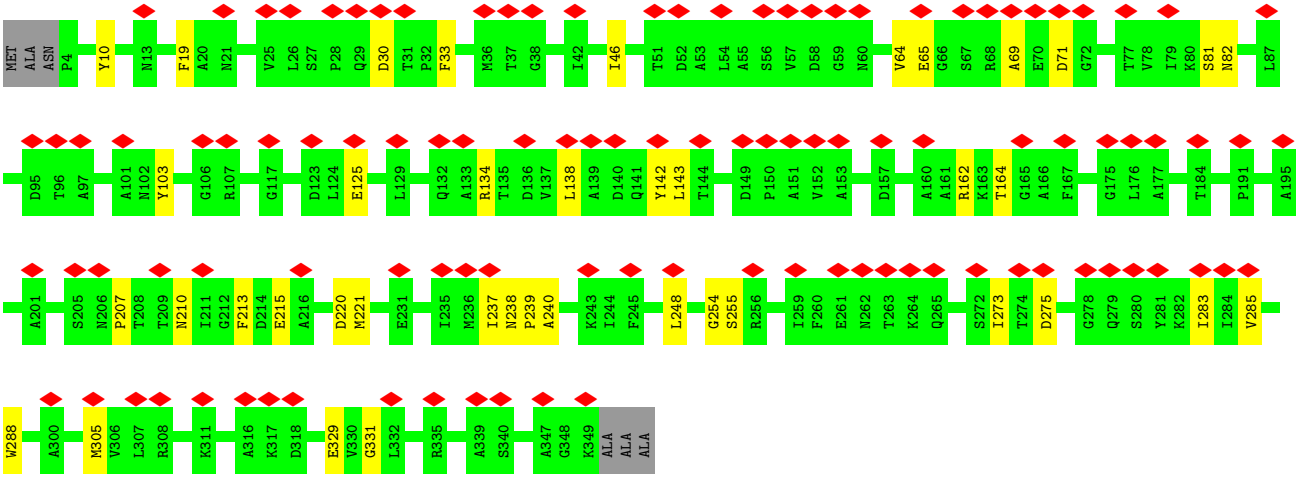
• Molecule 1: Major head protein

Chain BR:



• Molecule 1: Major head protein

Chain BS:



• Molecule 1: Major head protein

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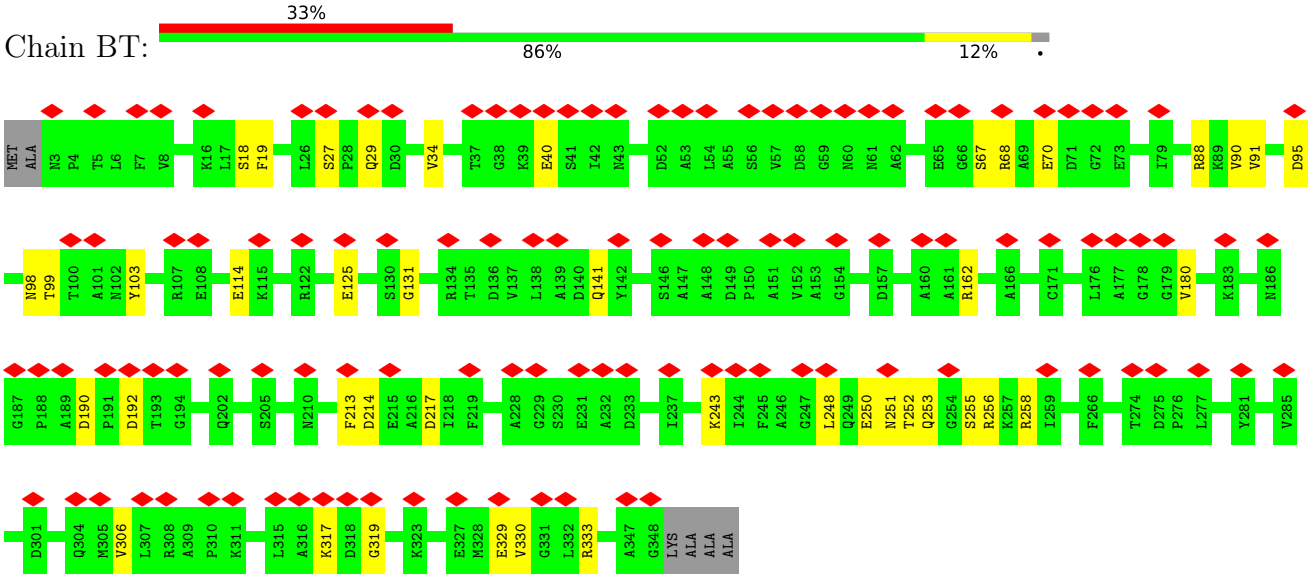
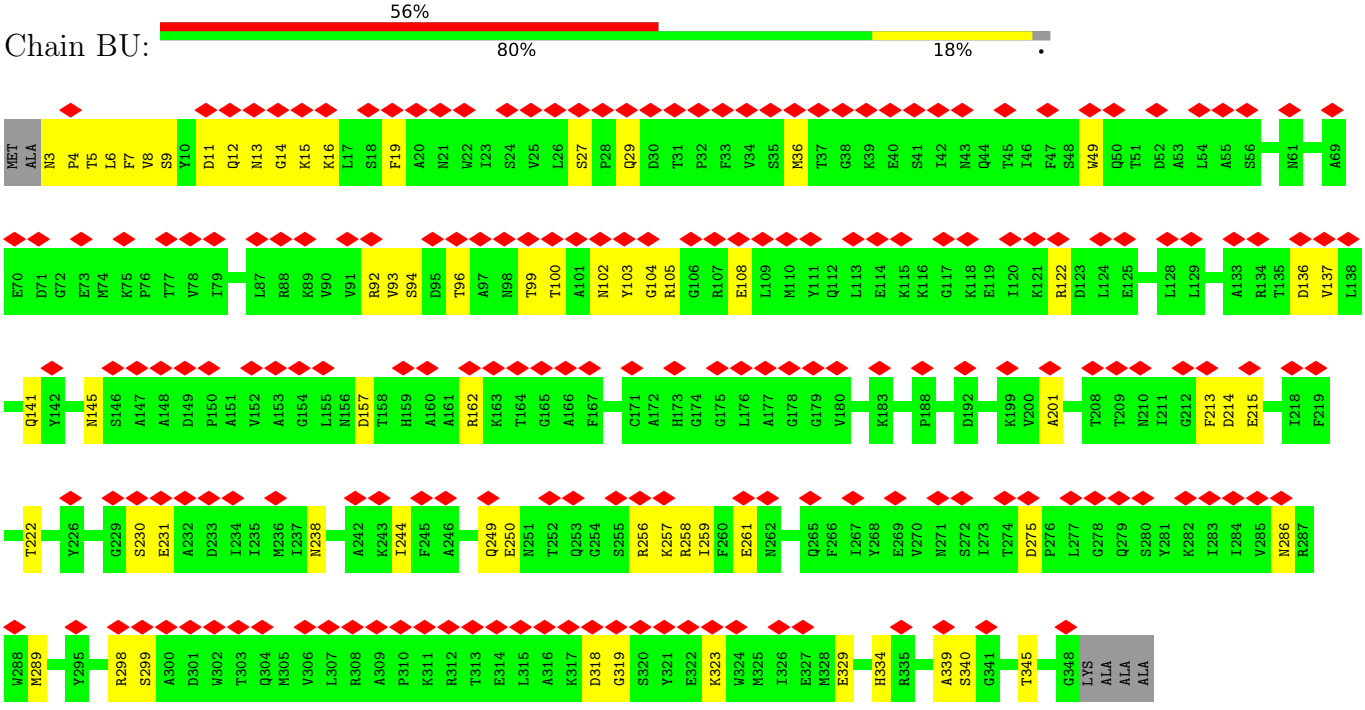


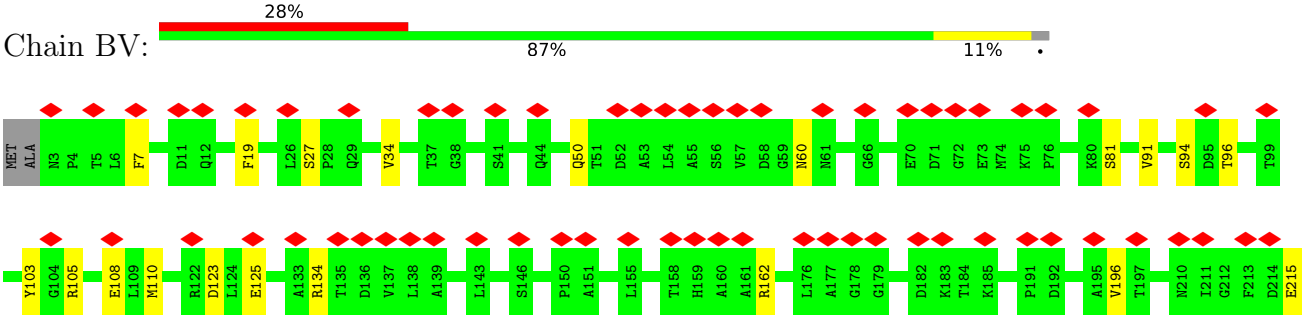
• Molecule 1: Major head protein

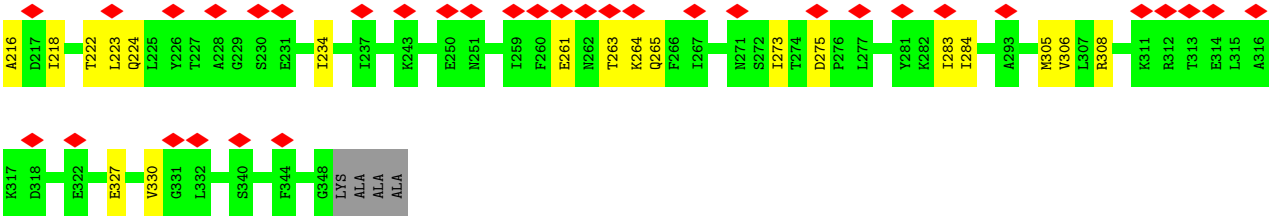
Chain BU:



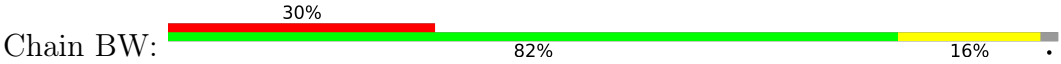
• Molecule 1: Major head protein

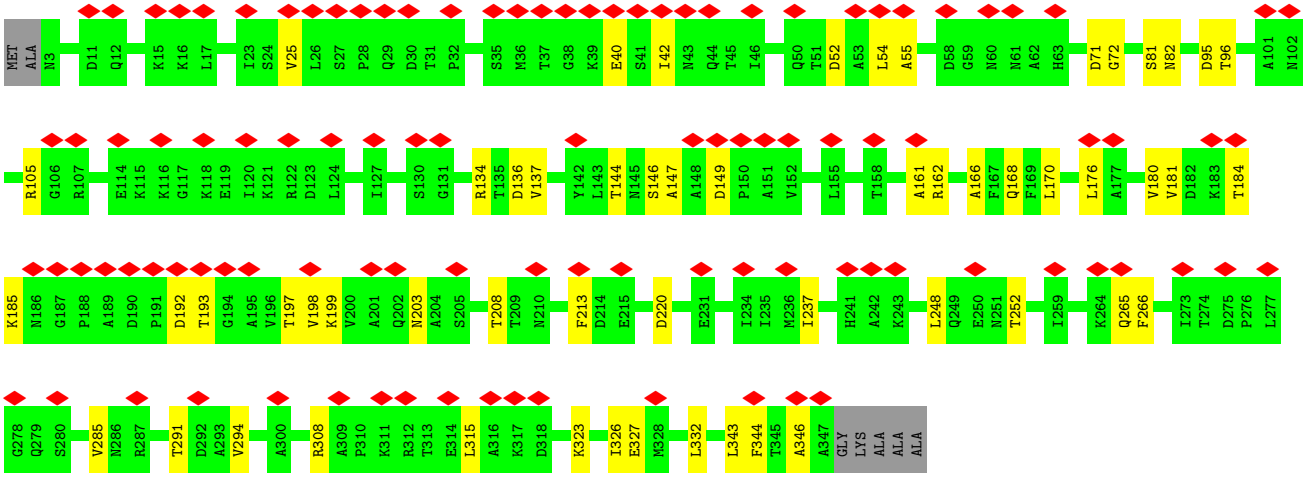
Chain BV:



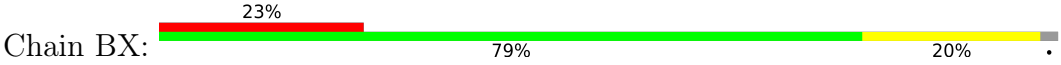


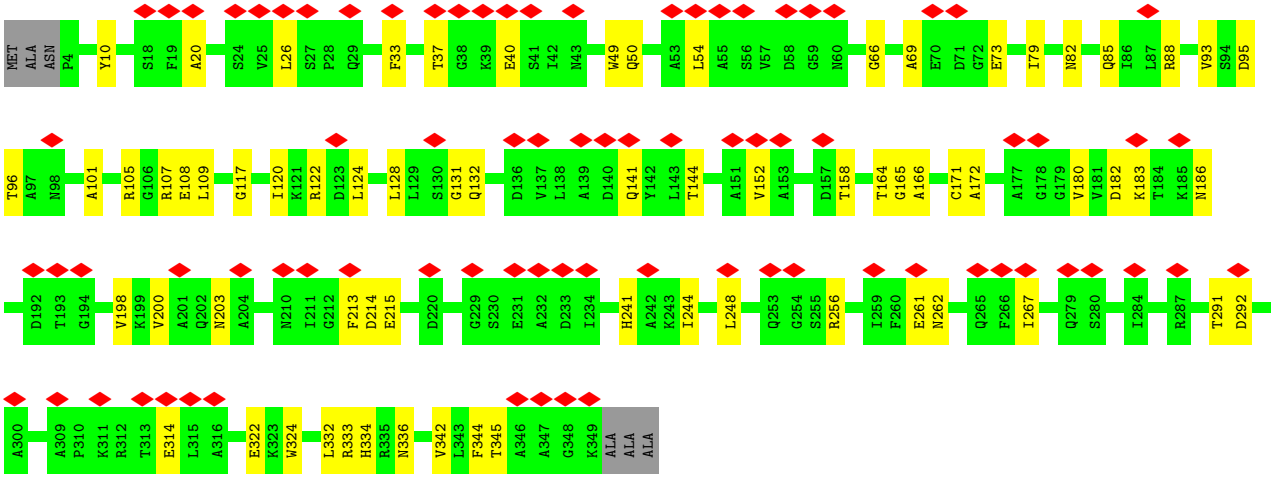
• Molecule 1: Major head protein



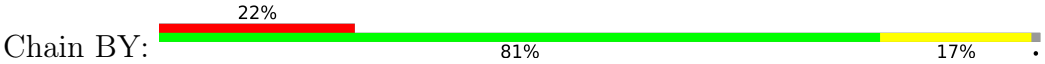


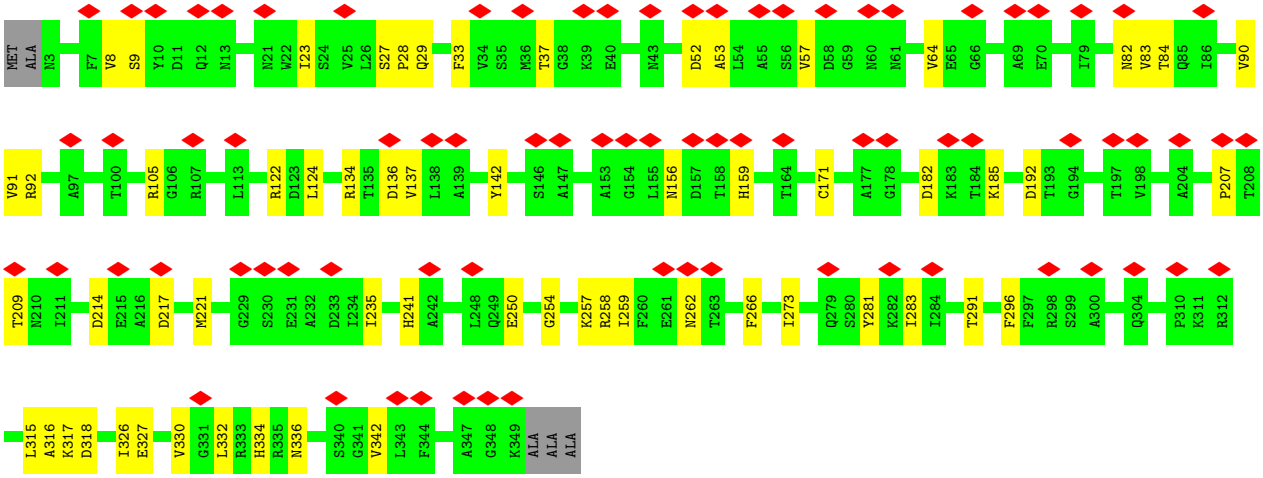
• Molecule 1: Major head protein





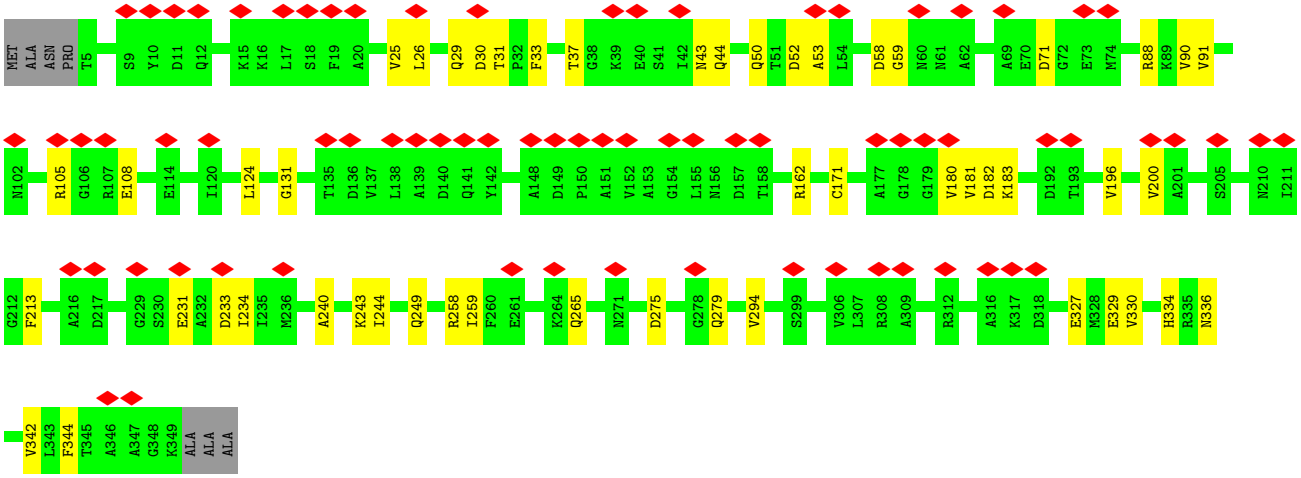
• Molecule 1: Major head protein





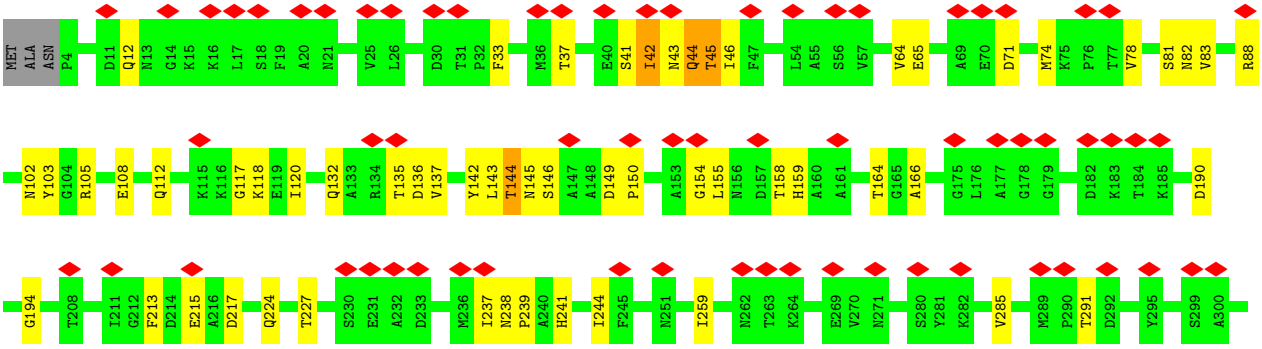
• Molecule 1: Major head protein

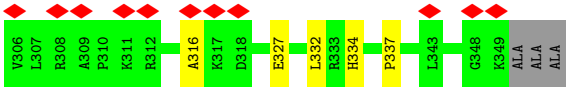
Chain BZ:



• Molecule 1: Major head protein

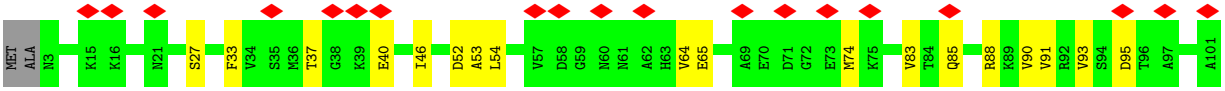
Chain CA:

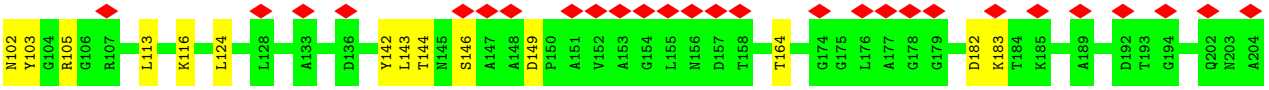


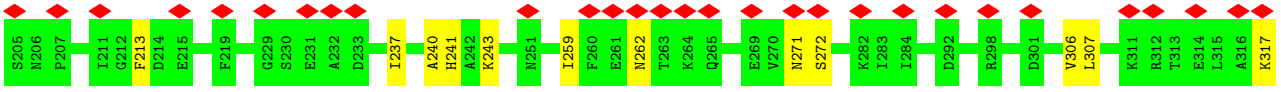


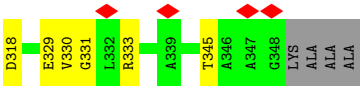
• Molecule 1: Major head protein

Chain CB:



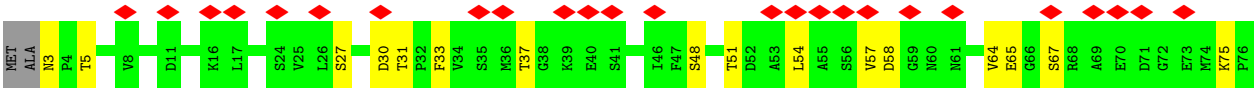


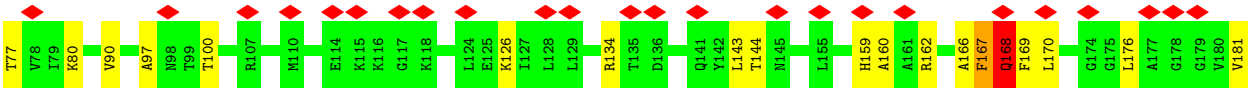


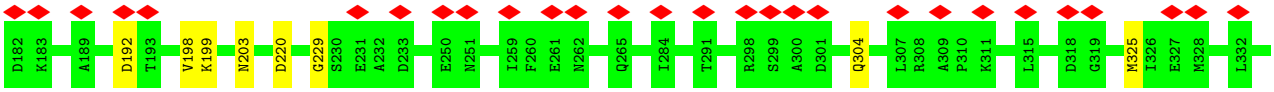


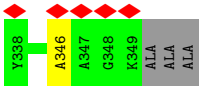
• Molecule 1: Major head protein

Chain CC:



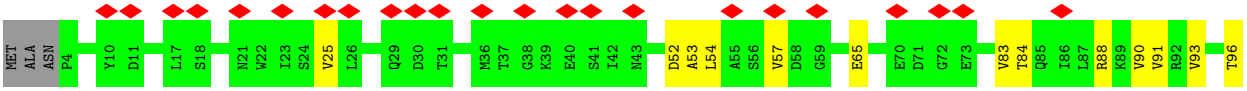


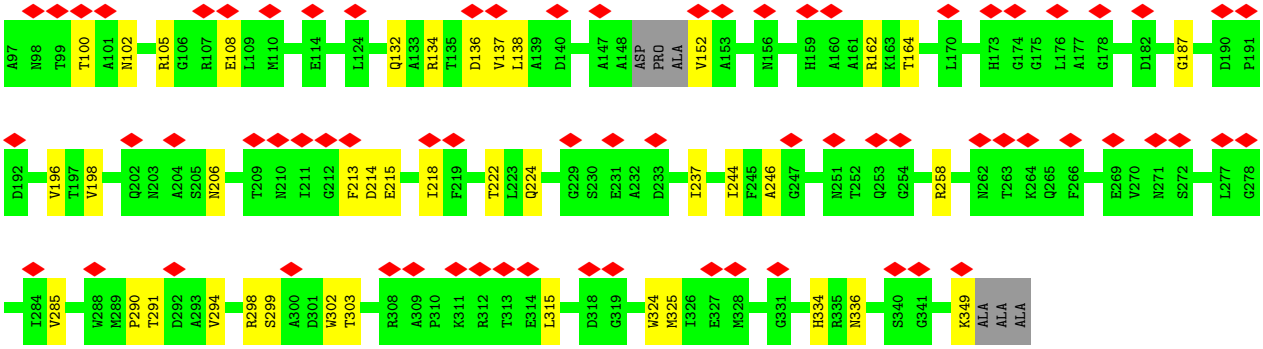




• Molecule 1: Major head protein

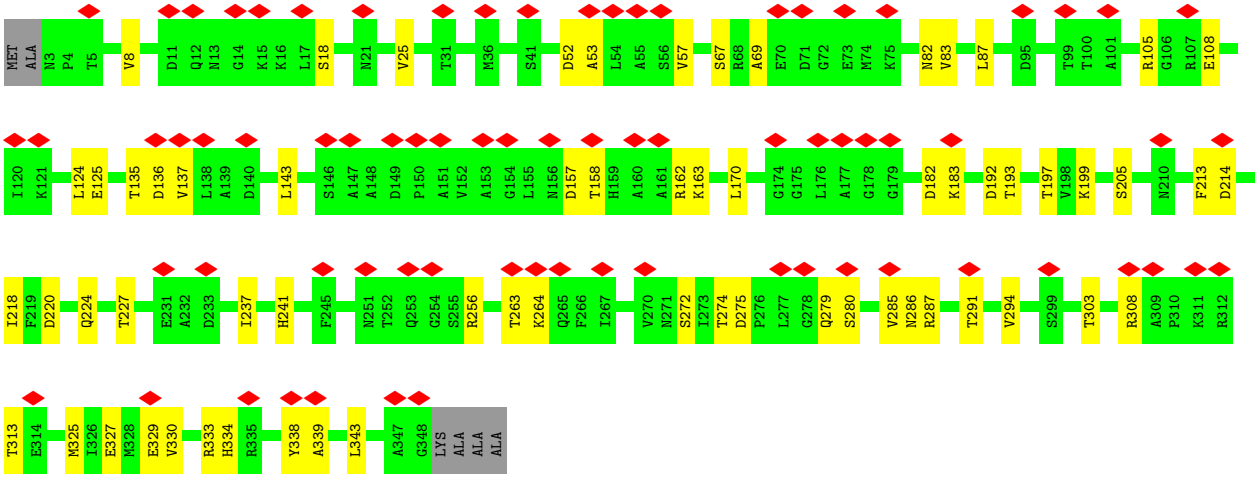
Chain CD:





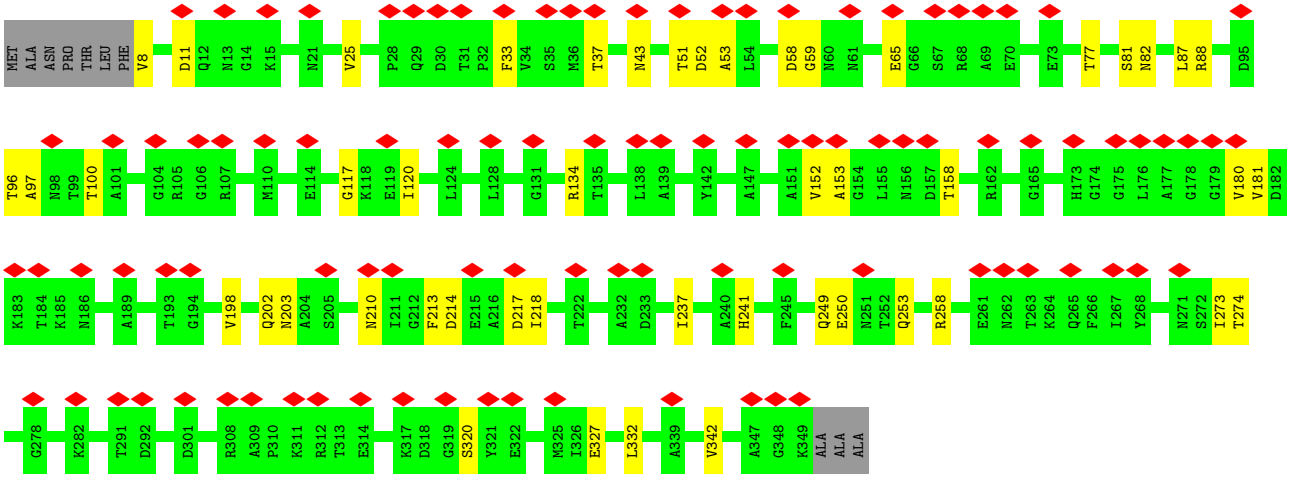
• Molecule 1: Major head protein

Chain CE:



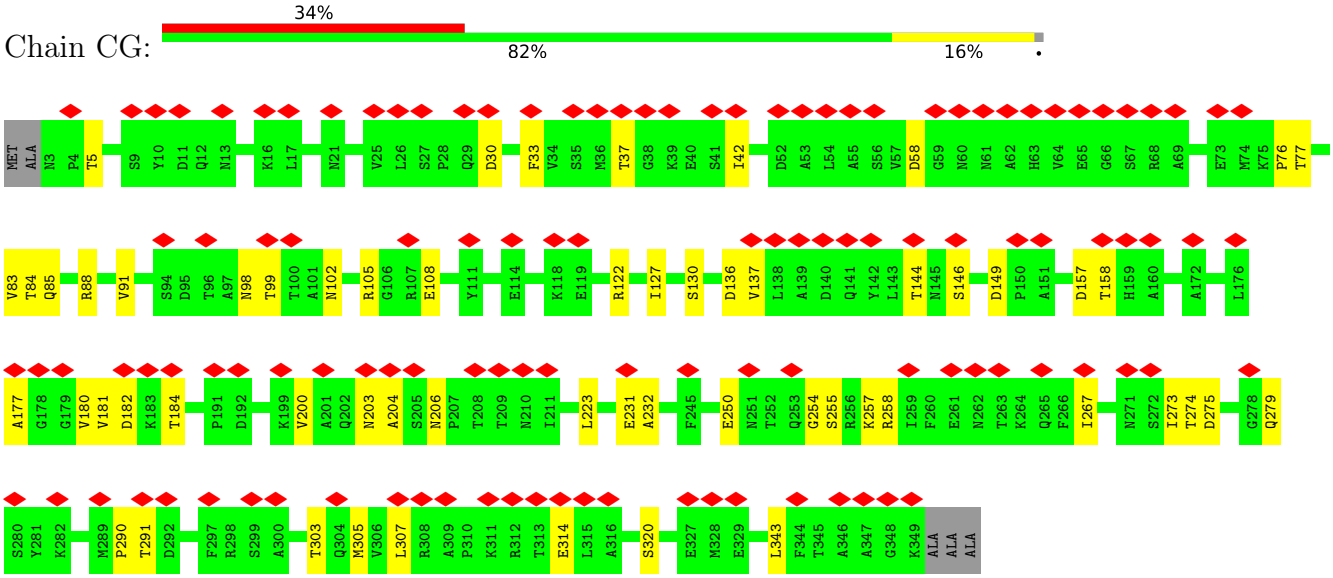
• Molecule 1: Major head protein

Chain CF:



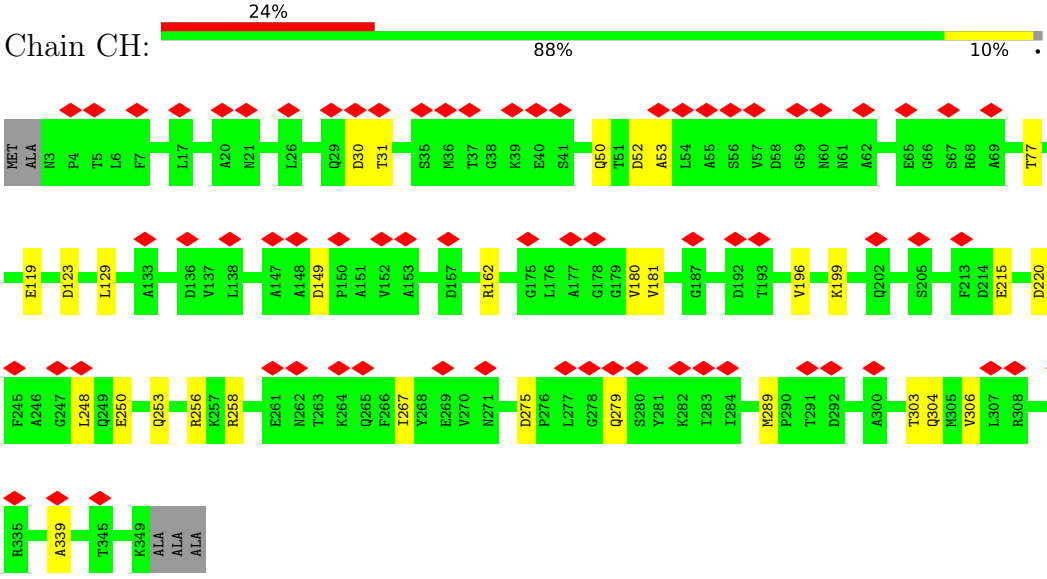
• Molecule 1: Major head protein

Chain CG:



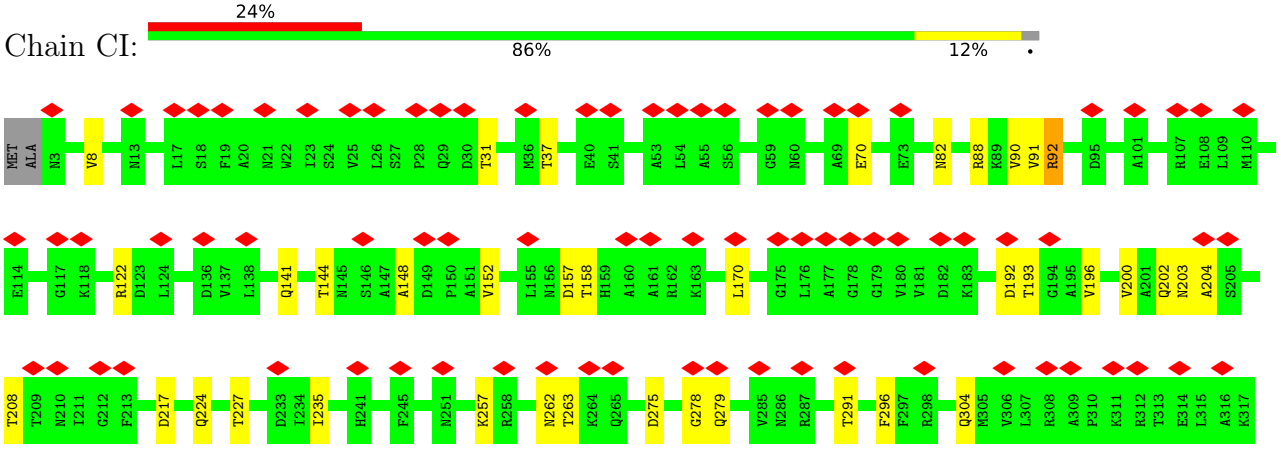
• Molecule 1: Major head protein

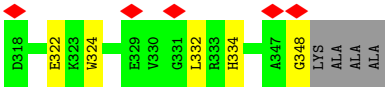
Chain CH:



• Molecule 1: Major head protein

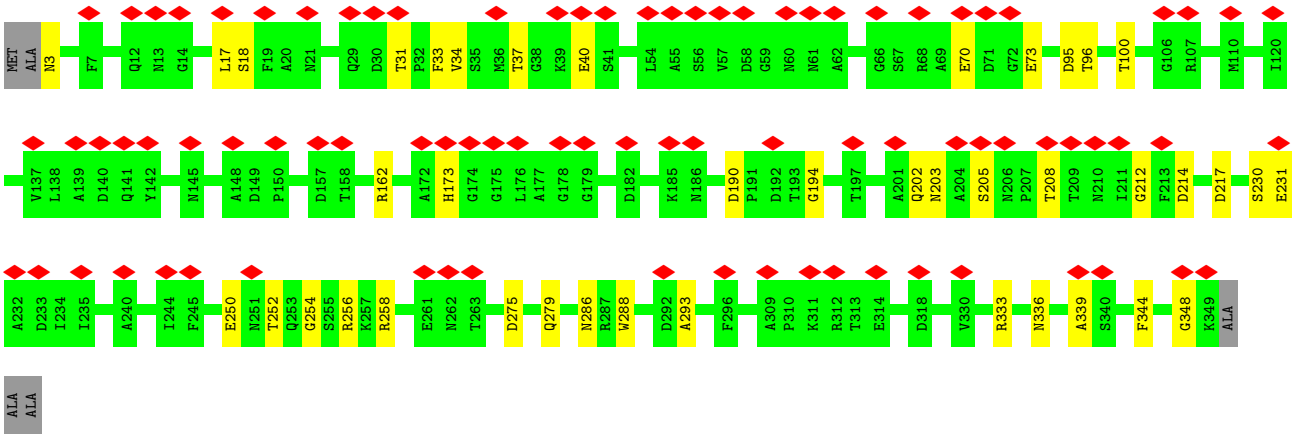
Chain CI:





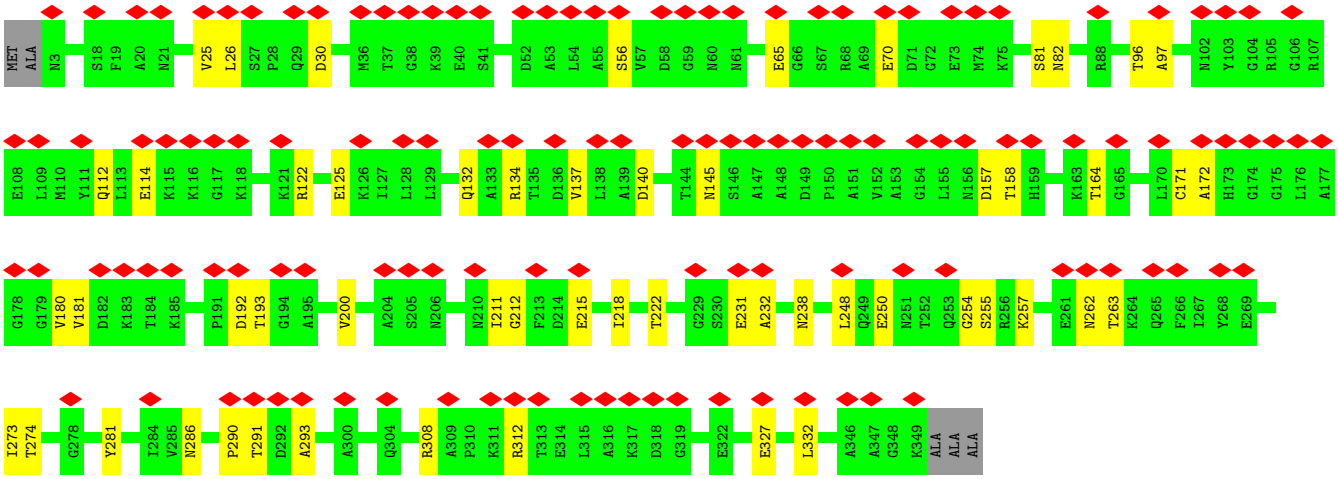
• Molecule 1: Major head protein

Chain CJ:



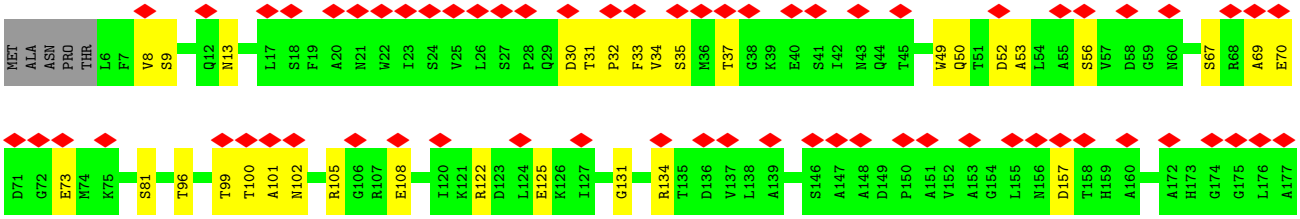
• Molecule 1: Major head protein

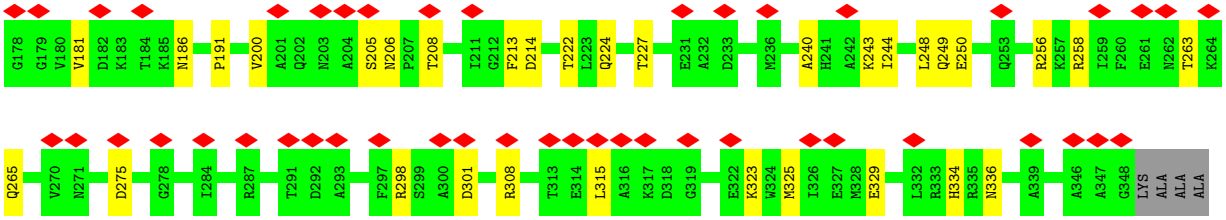
Chain CK:



• Molecule 1: Major head protein

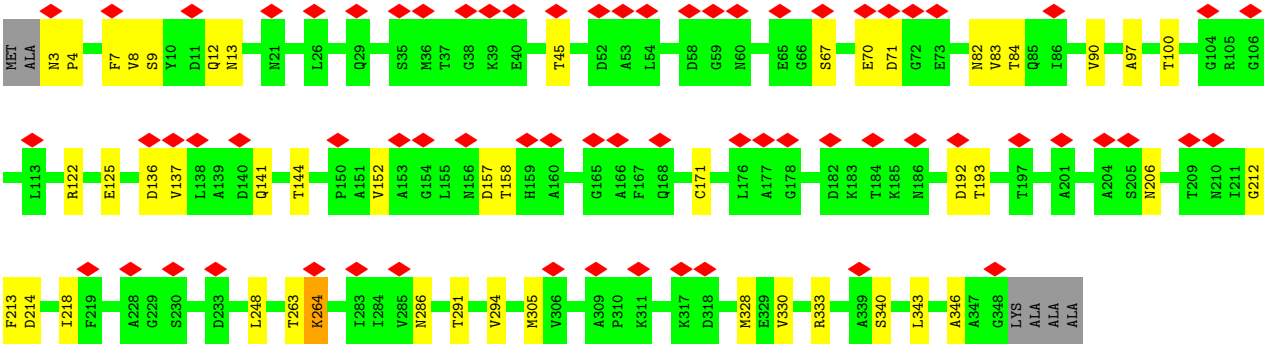
Chain CL:





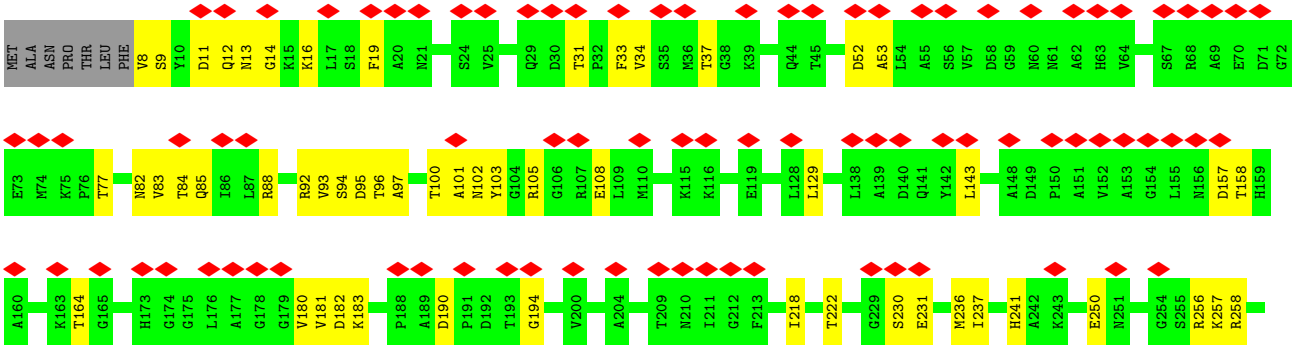
• Molecule 1: Major head protein

Chain CM:



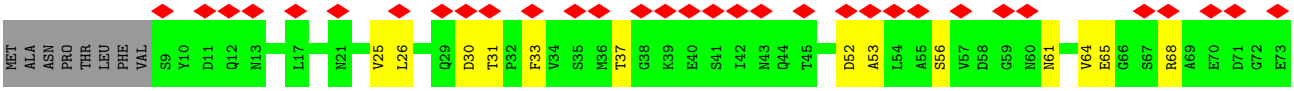
• Molecule 1: Major head protein

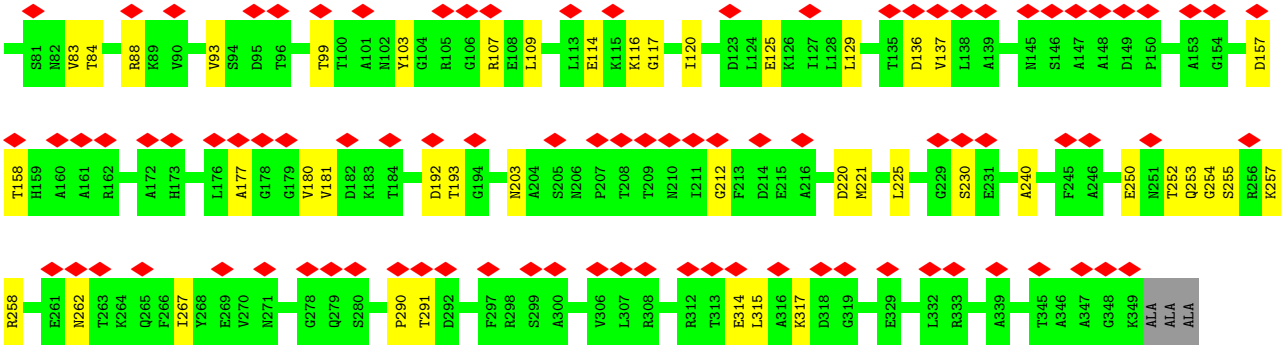
Chain CN:



• Molecule 1: Major head protein

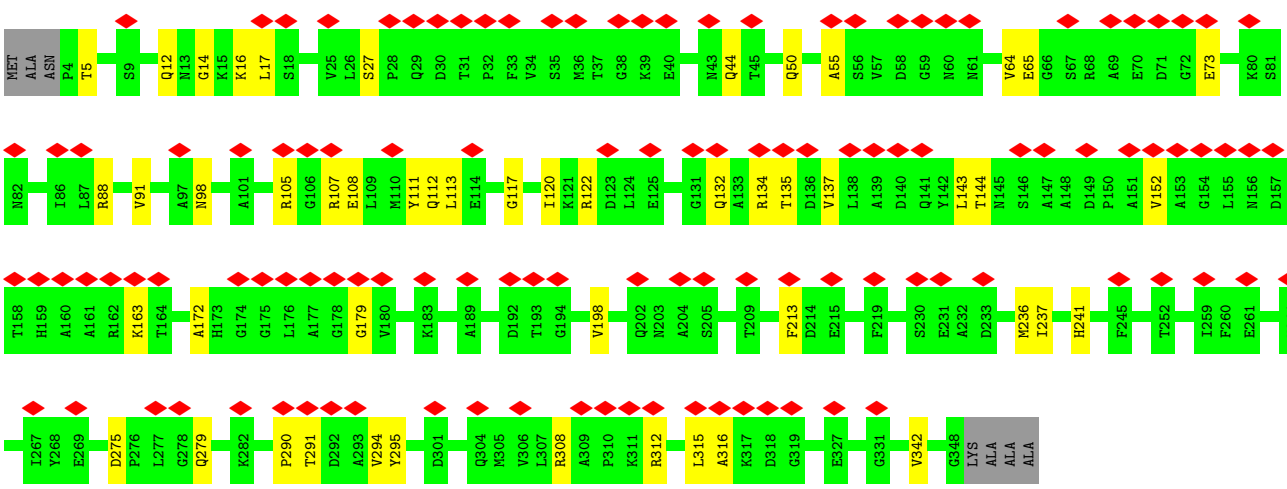
Chain CO:





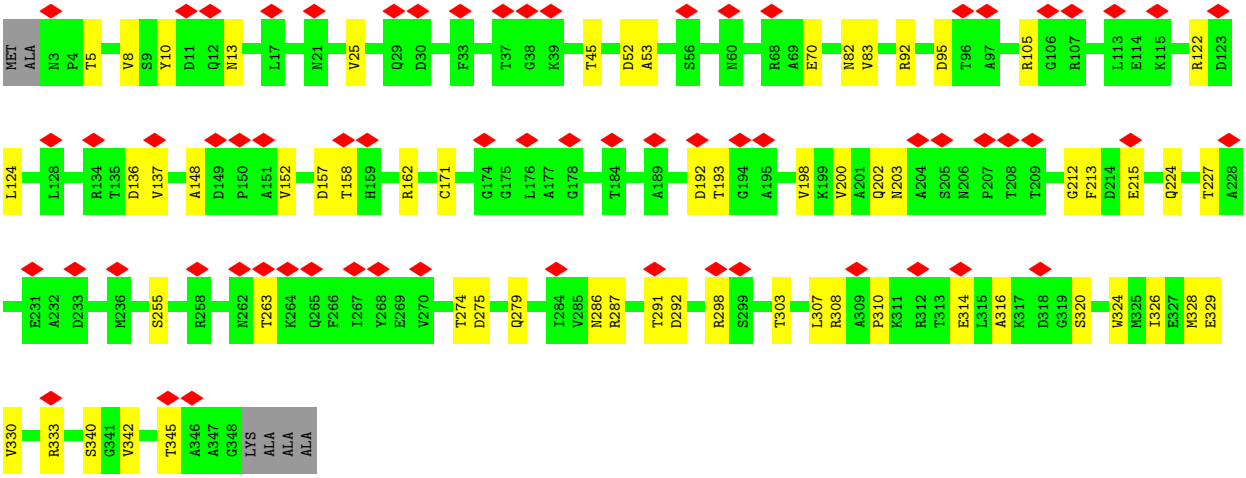
• Molecule 1: Major head protein

Chain CP:



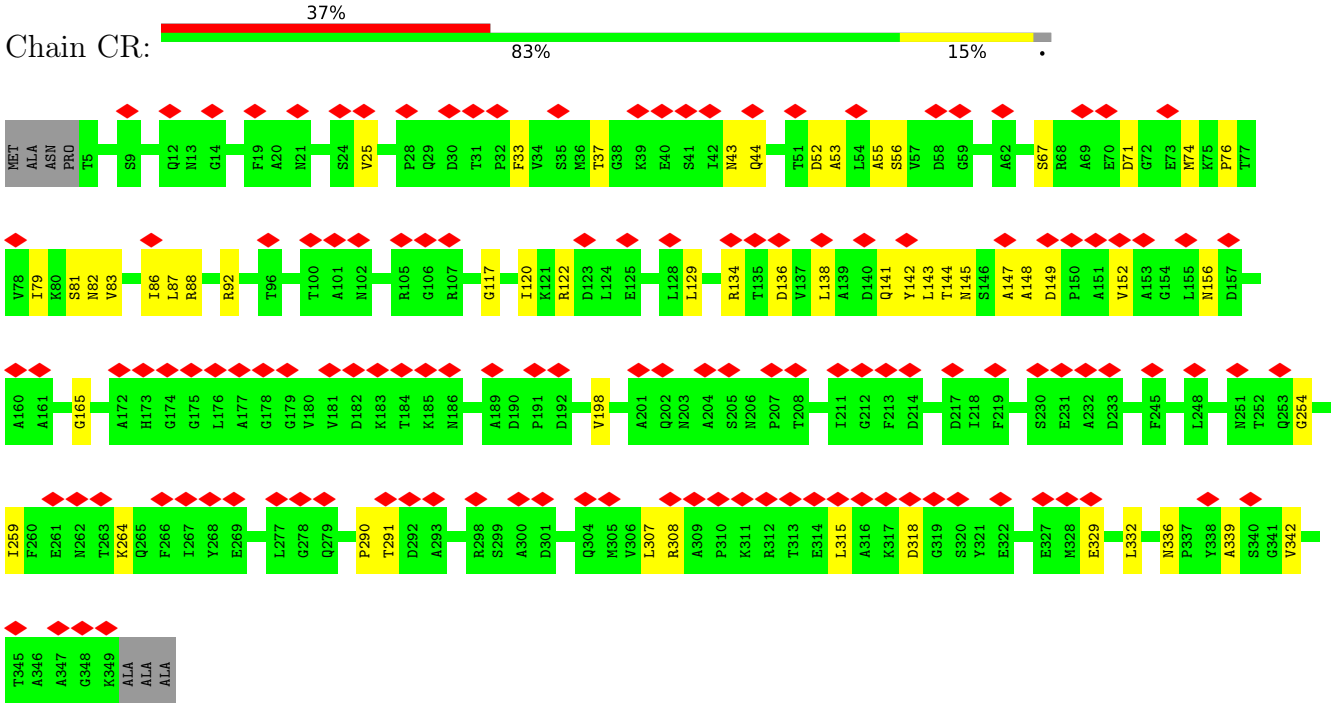
• Molecule 1: Major head protein

Chain CQ:



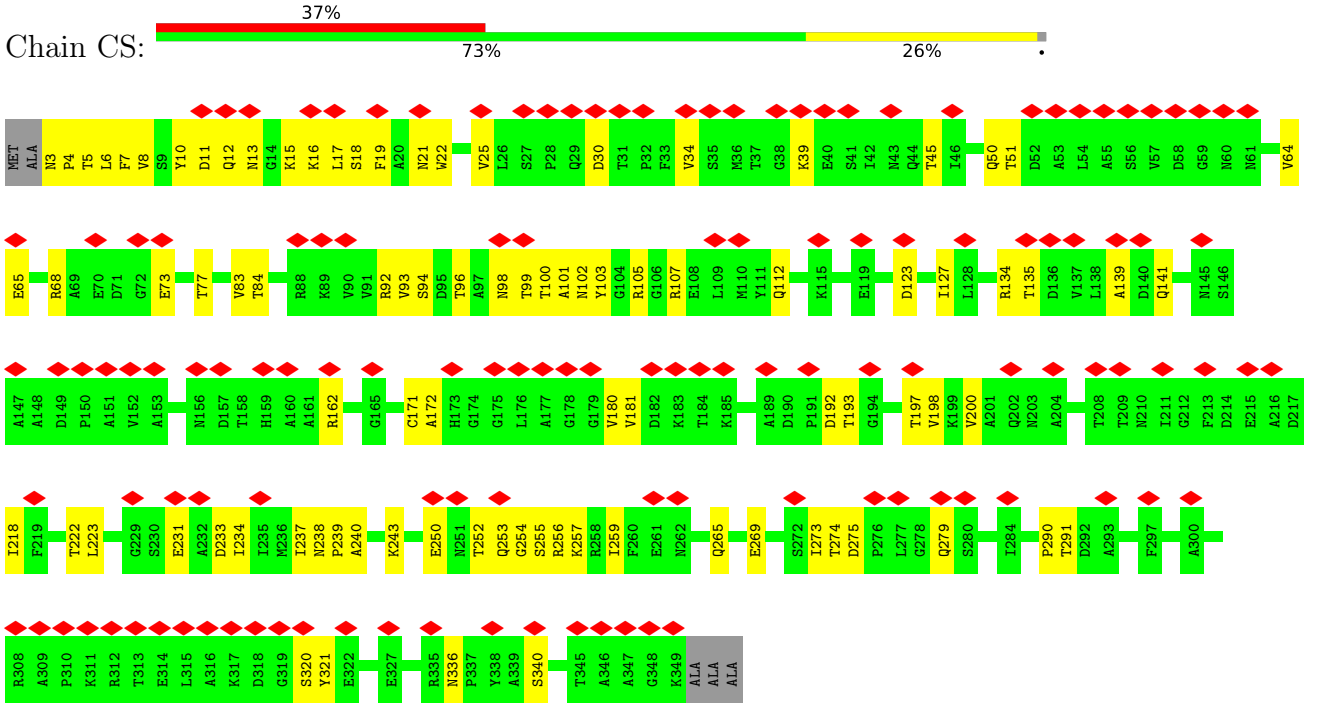
• Molecule 1: Major head protein

Chain CR:



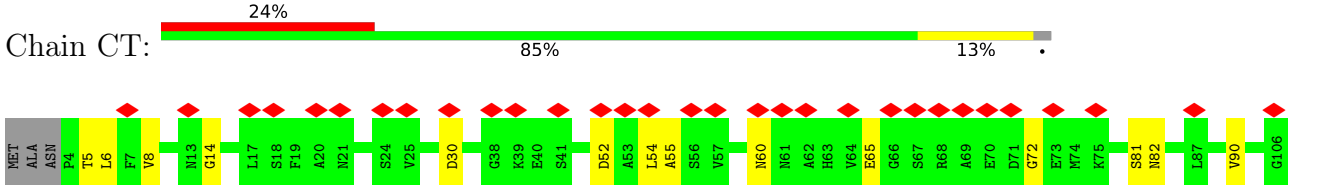
• Molecule 1: Major head protein

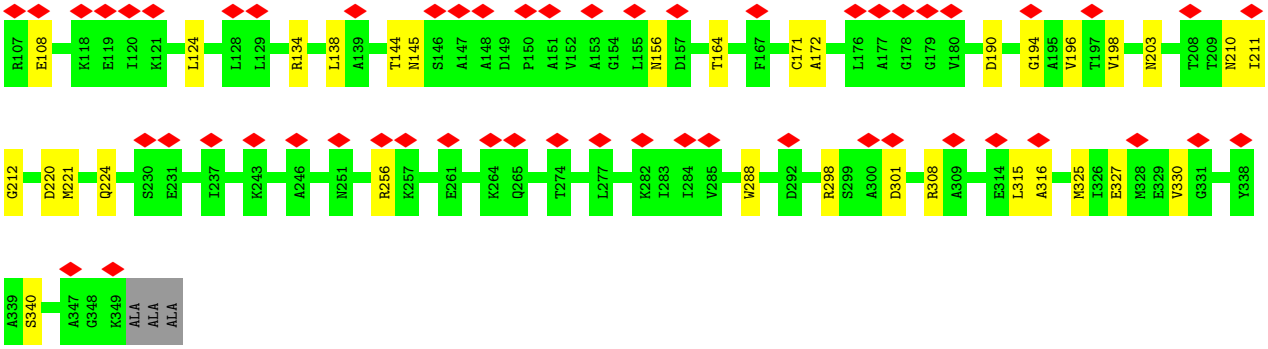
Chain CS:



• Molecule 1: Major head protein

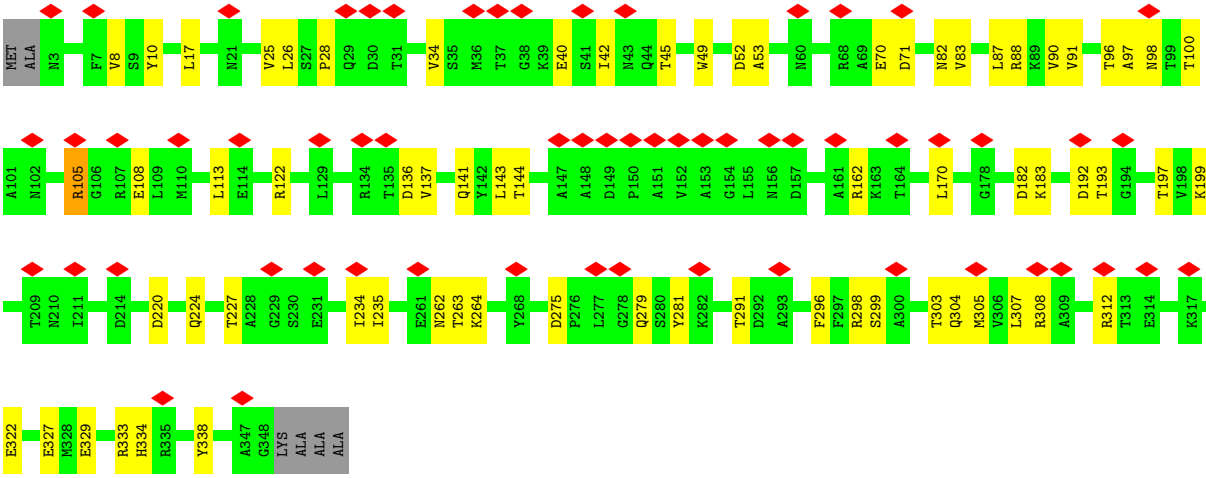
Chain CT:





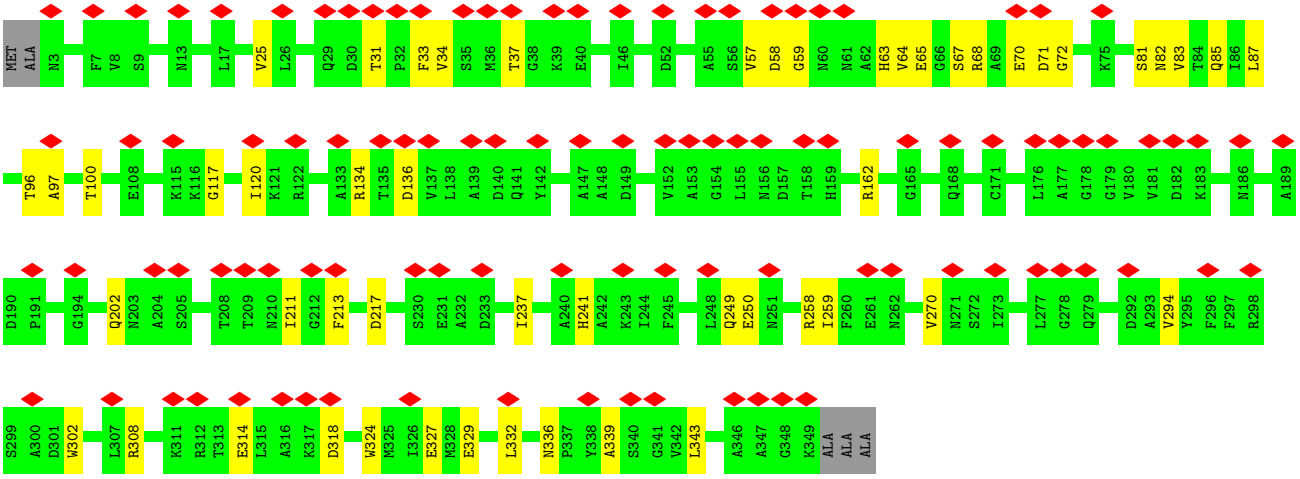
• Molecule 1: Major head protein

Chain CU:



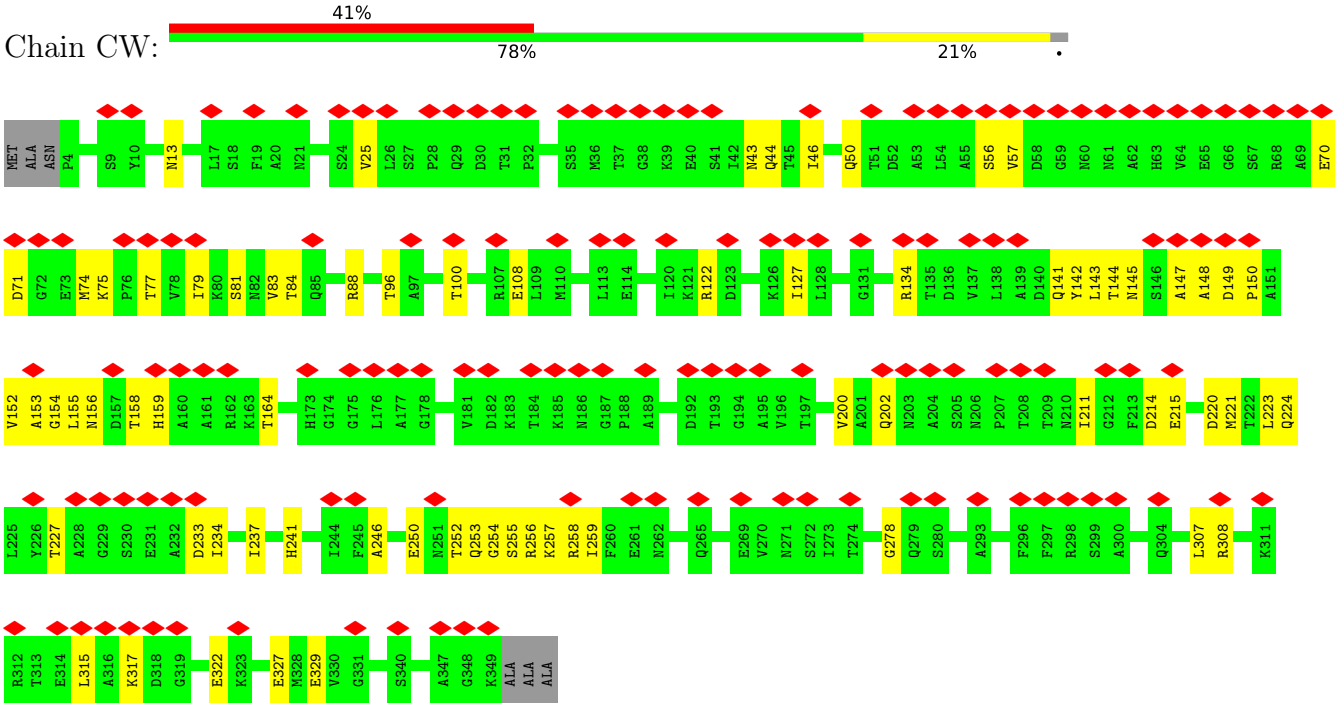
• Molecule 1: Major head protein

Chain CV:



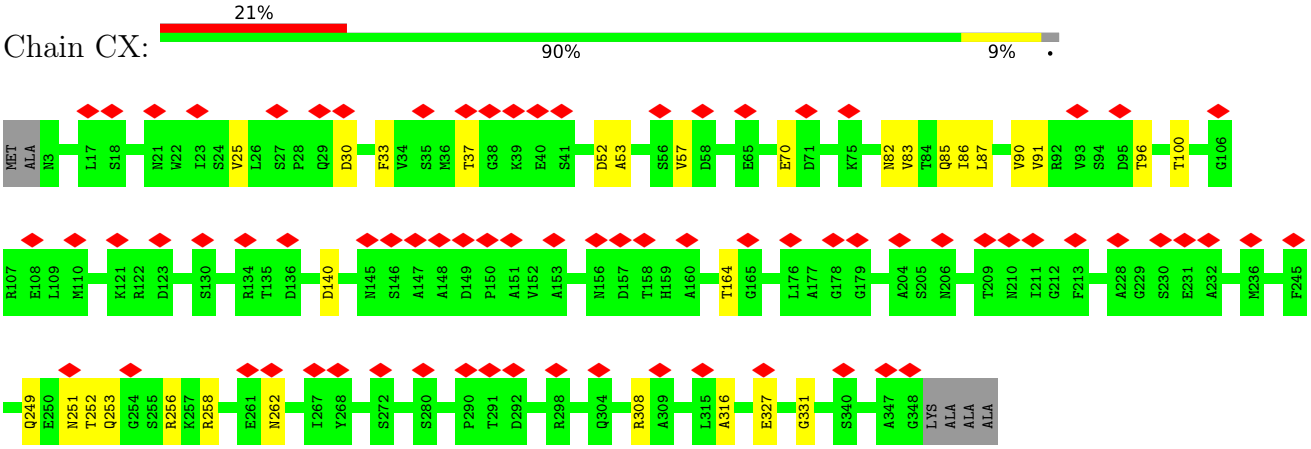
• Molecule 1: Major head protein

Chain CW:



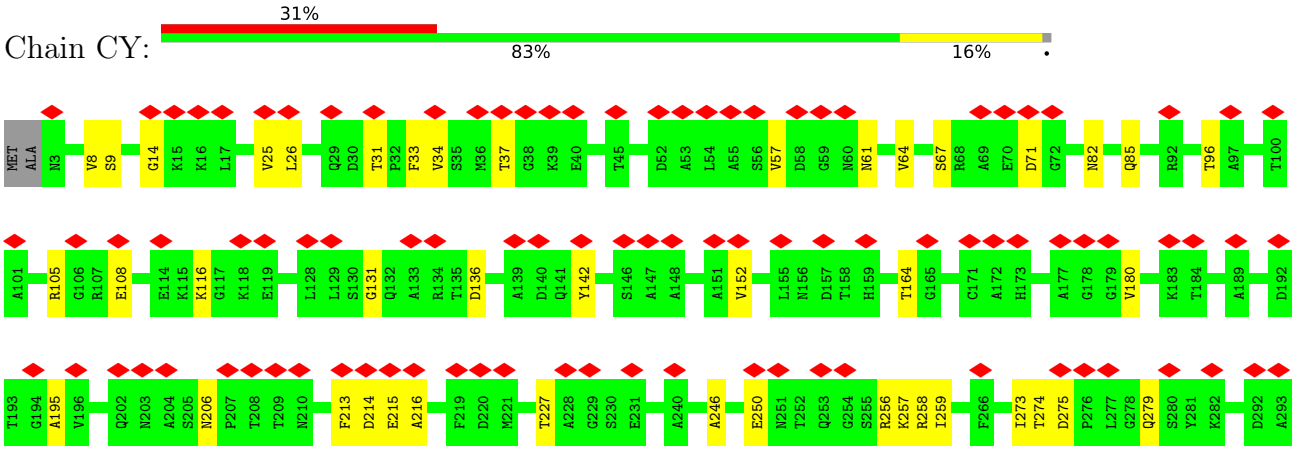
• Molecule 1: Major head protein

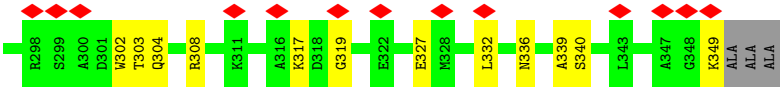
Chain CX:



• Molecule 1: Major head protein

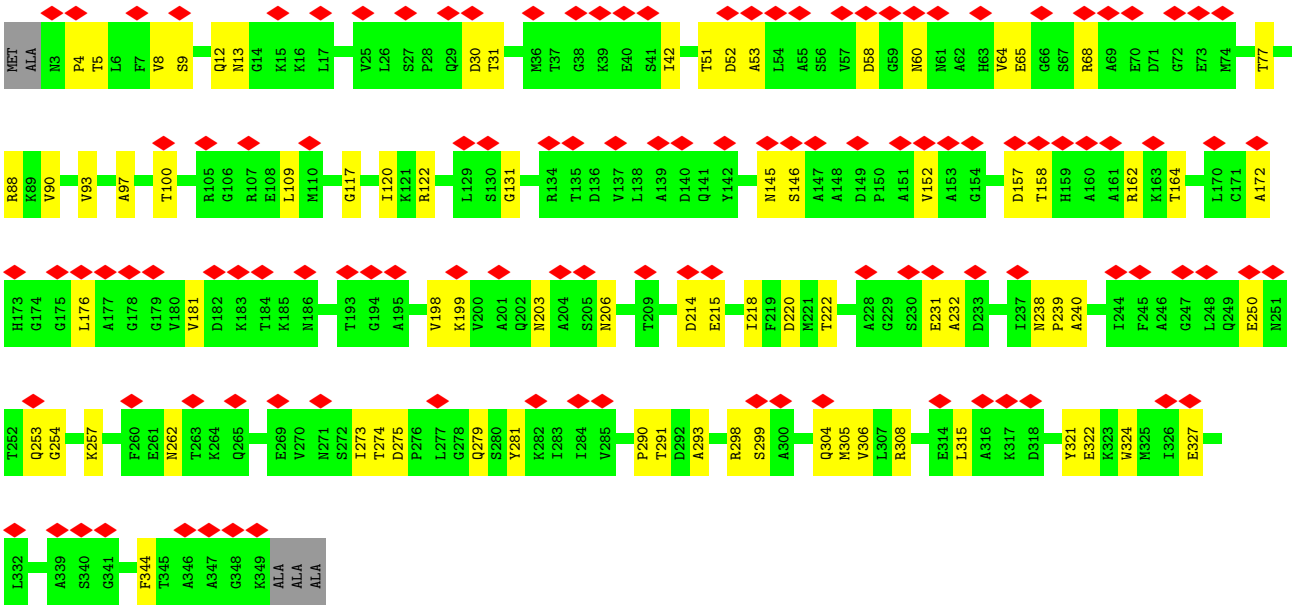
Chain CY:





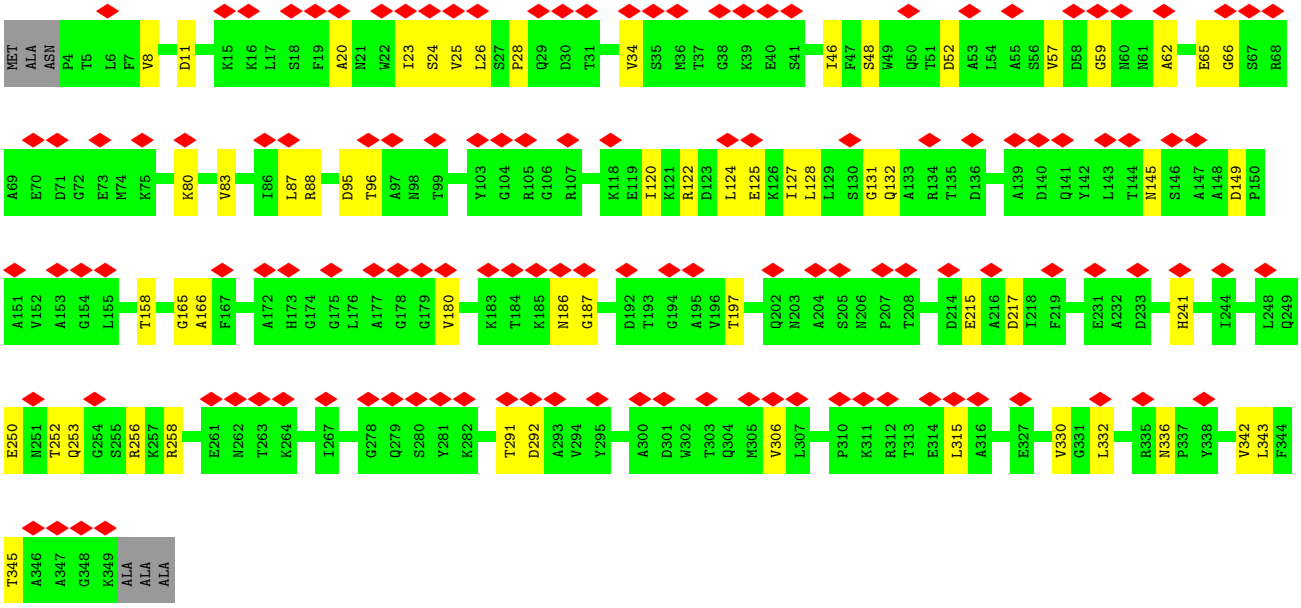
• Molecule 1: Major head protein

Chain CZ:



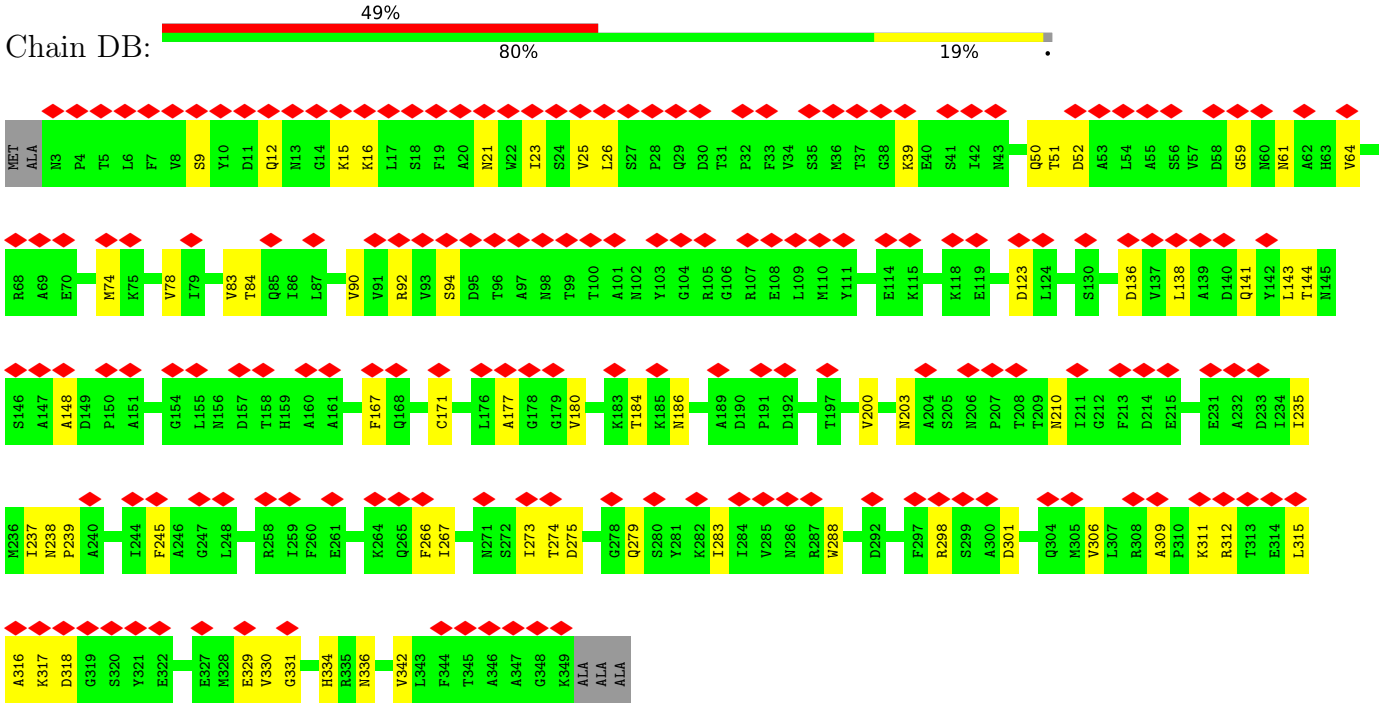
• Molecule 1: Major head protein

Chain DA:



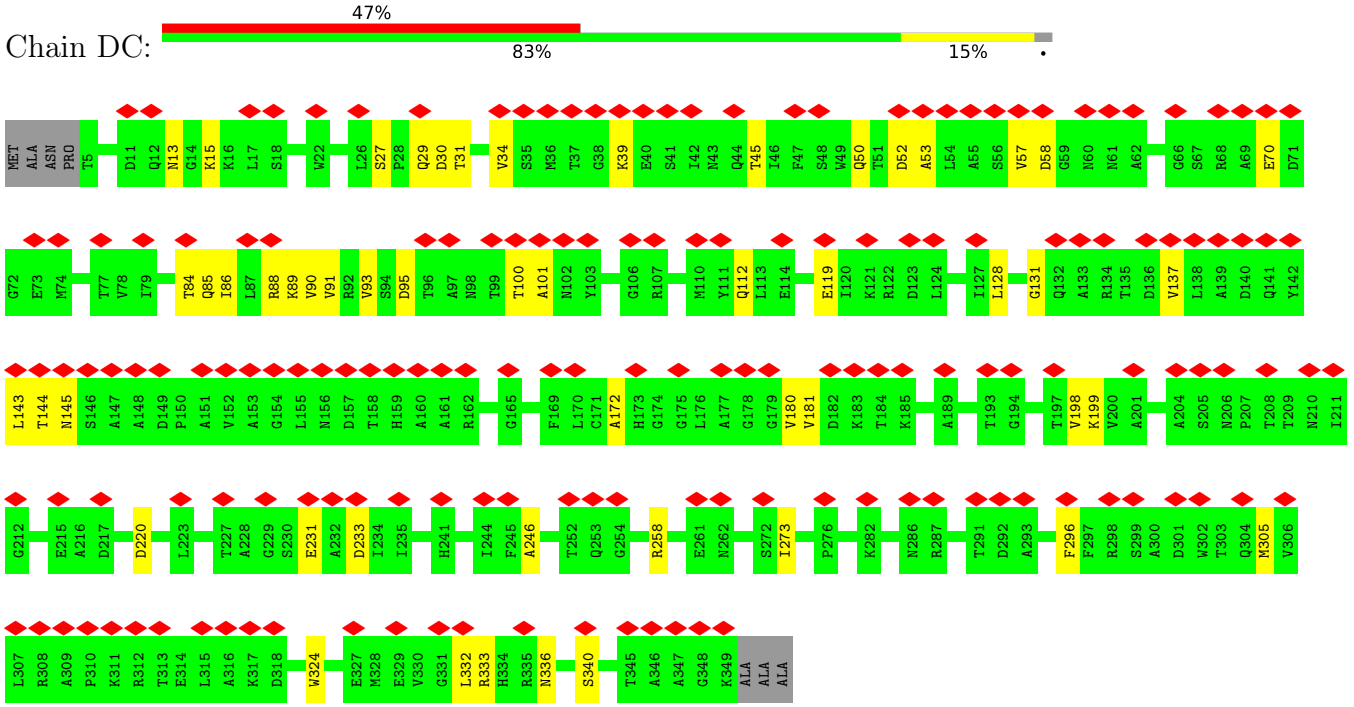
• Molecule 1: Major head protein

Chain DB:



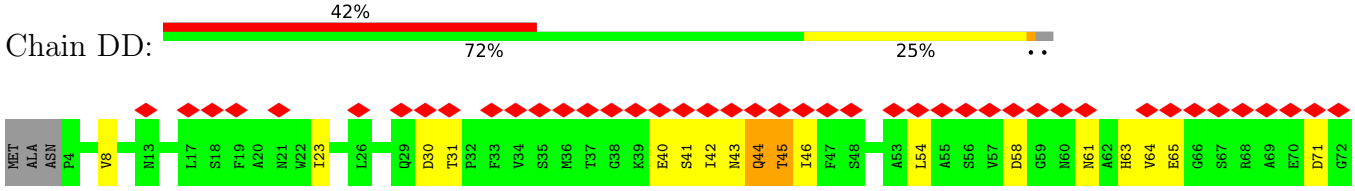
• Molecule 1: Major head protein

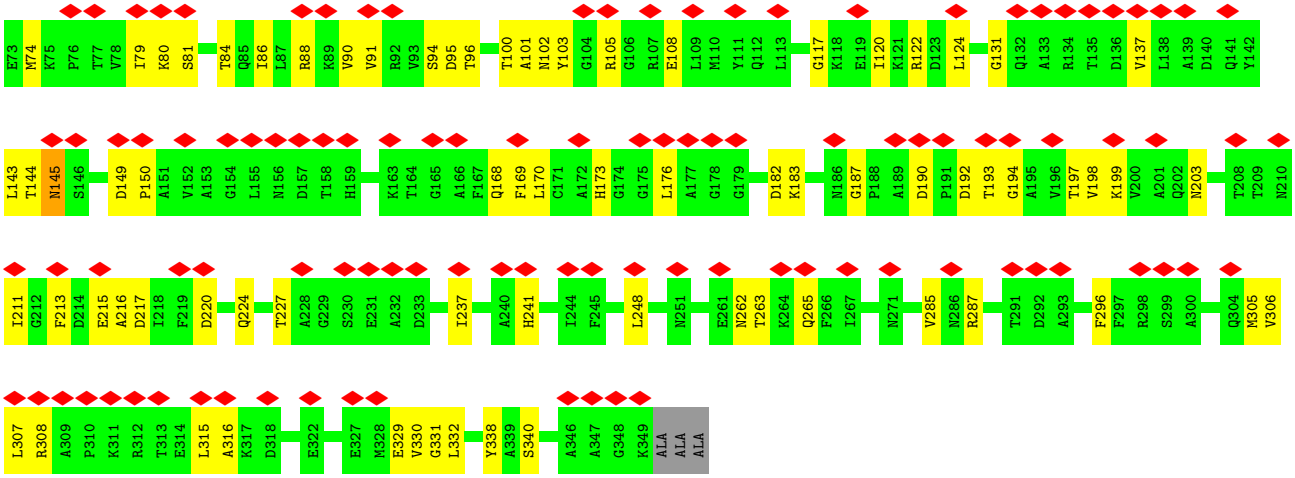
Chain DC:



• Molecule 1: Major head protein

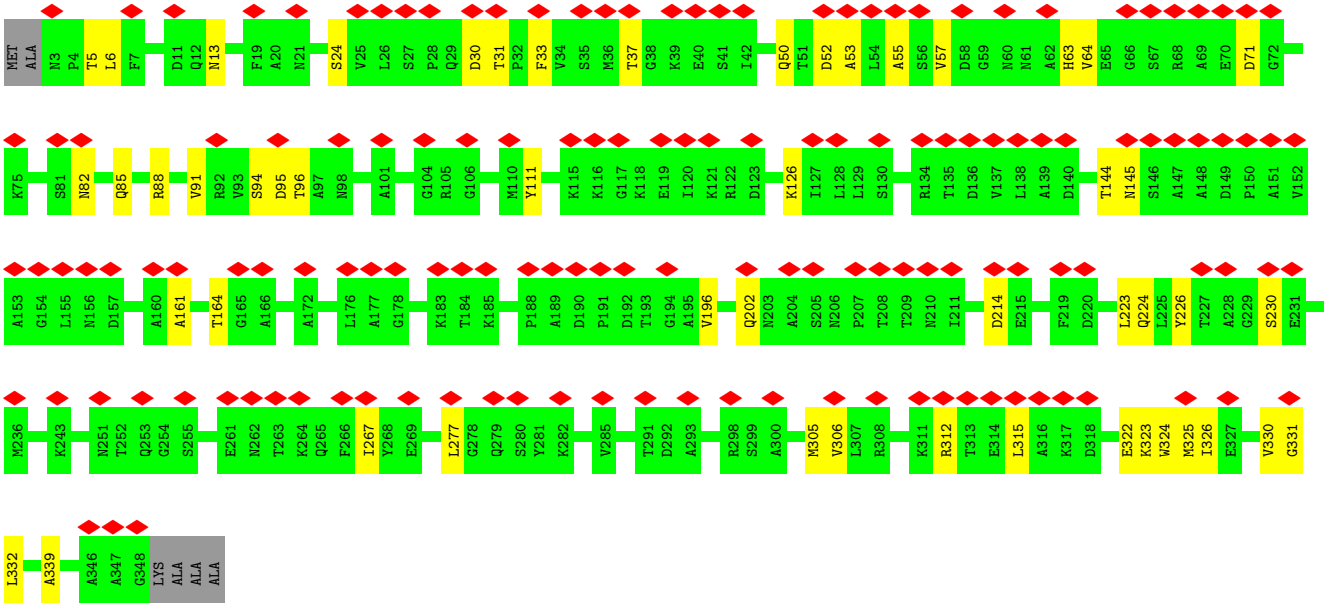
Chain DD:





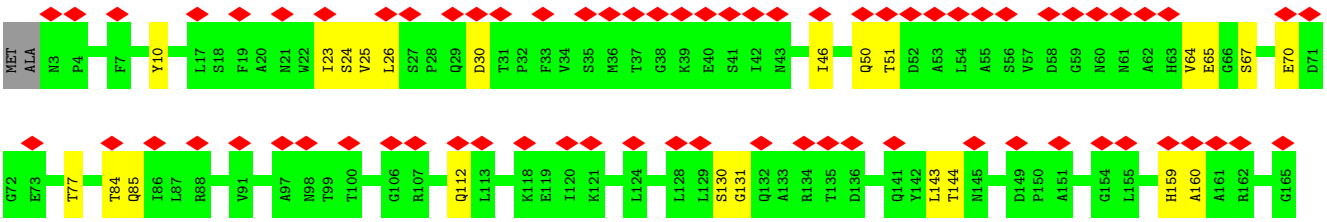
• Molecule 1: Major head protein

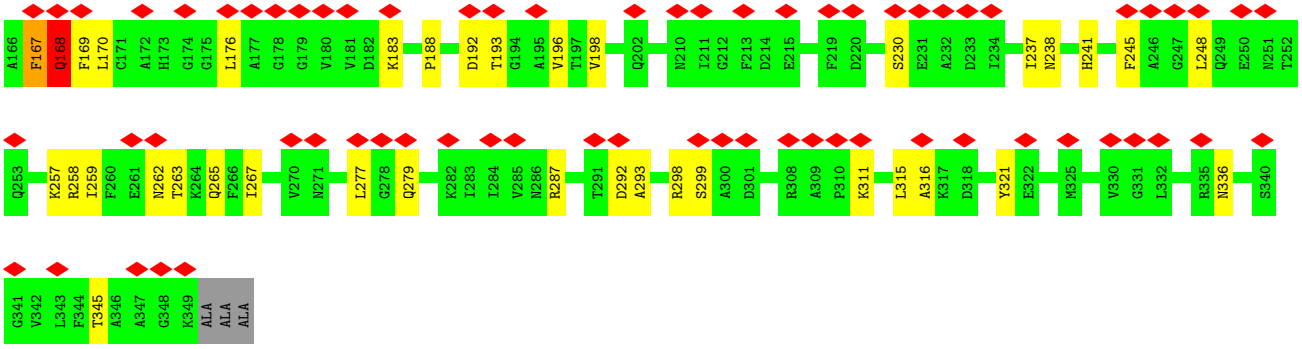
Chain DE:



• Molecule 1: Major head protein

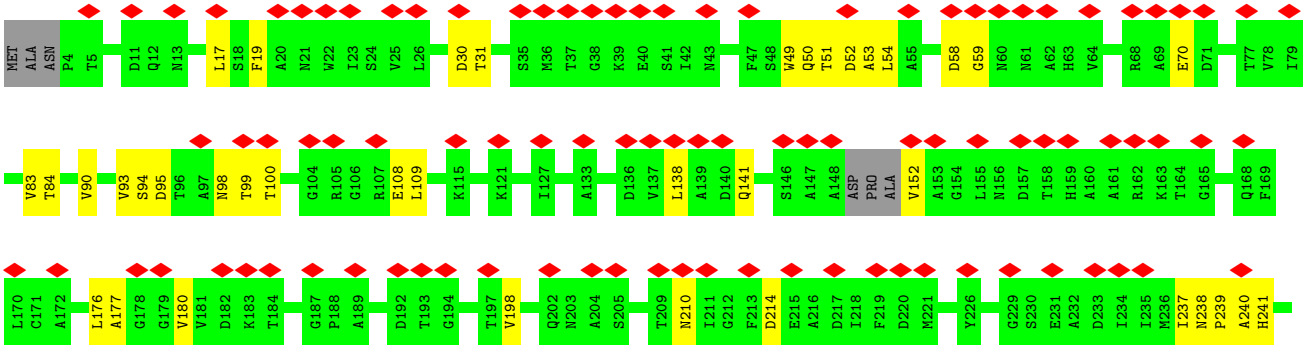
Chain DF:





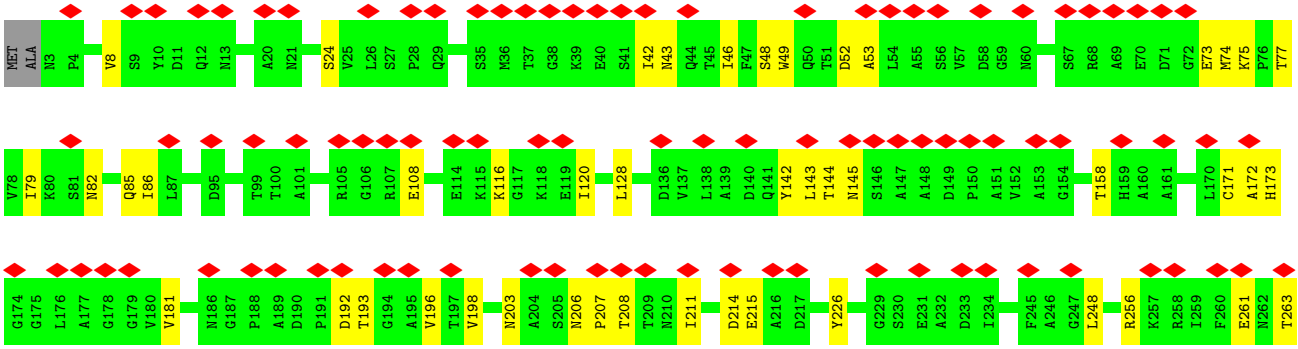
• Molecule 1: Major head protein

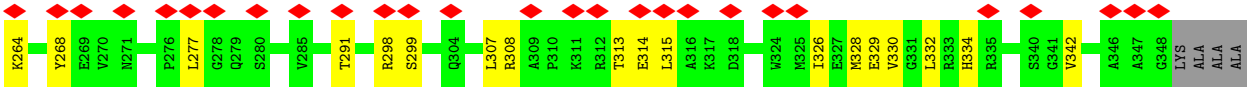
Chain DG:



• Molecule 1: Major head protein

Chain DH:



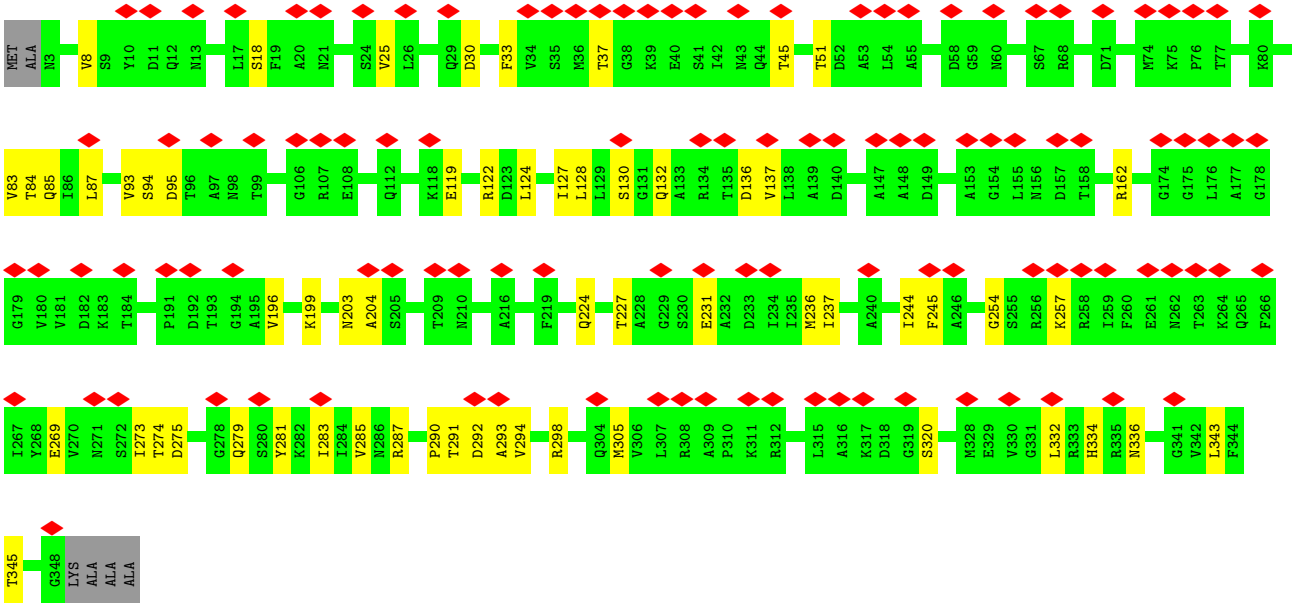


• Molecule 1: Major head protein

Chain DI:

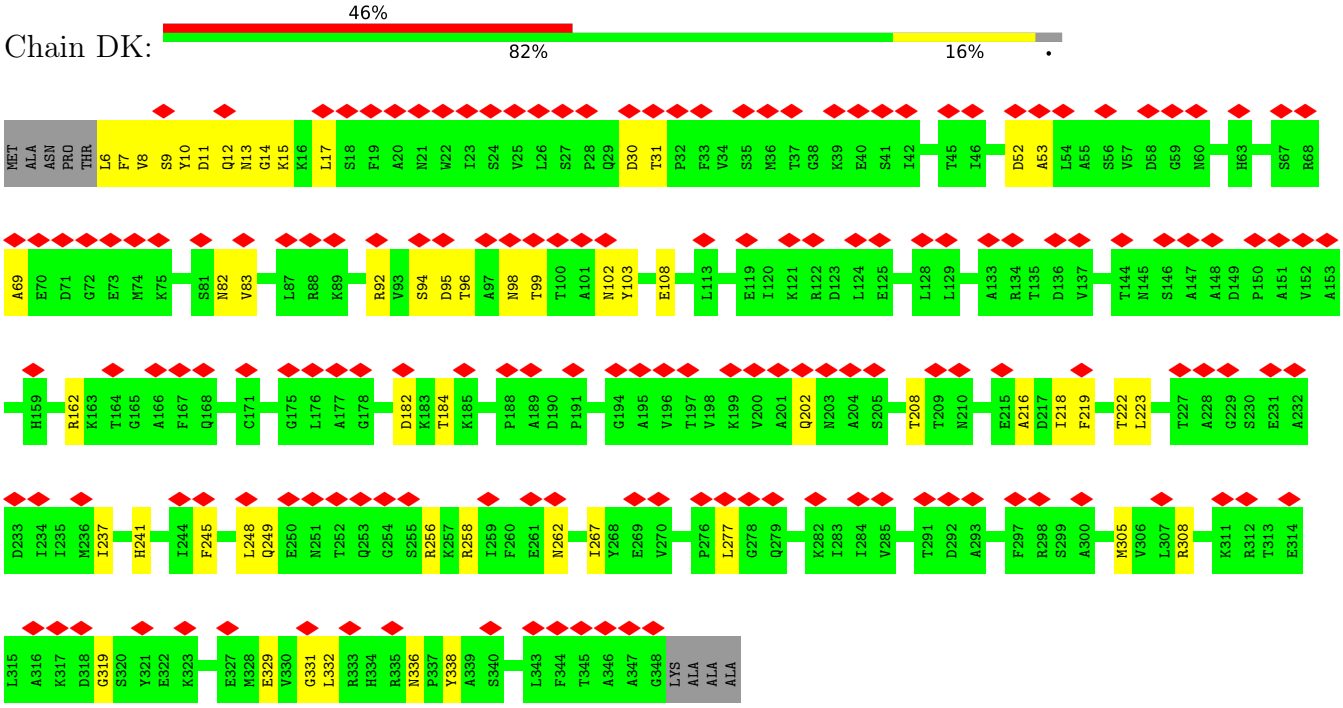
• Molecule 1: Major head protein

Chain DJ:



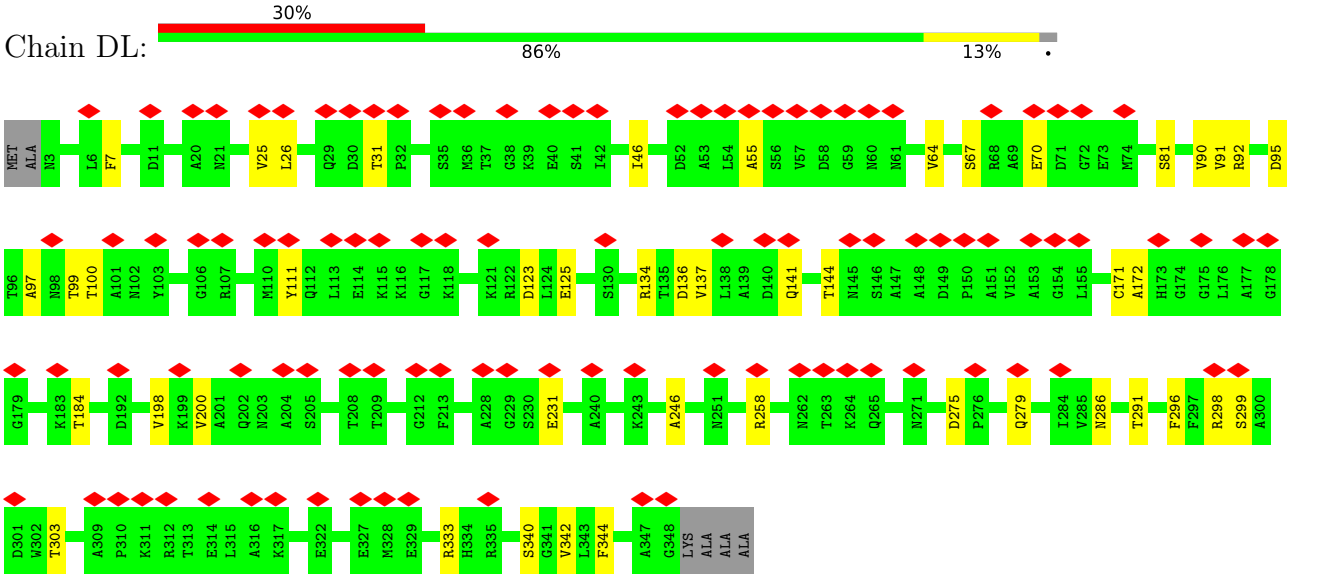
• Molecule 1: Major head protein

Chain DK:



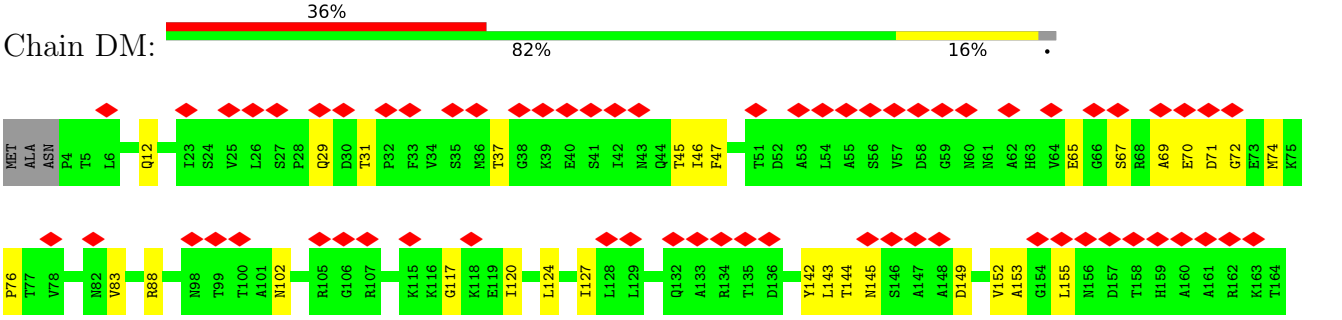
• Molecule 1: Major head protein

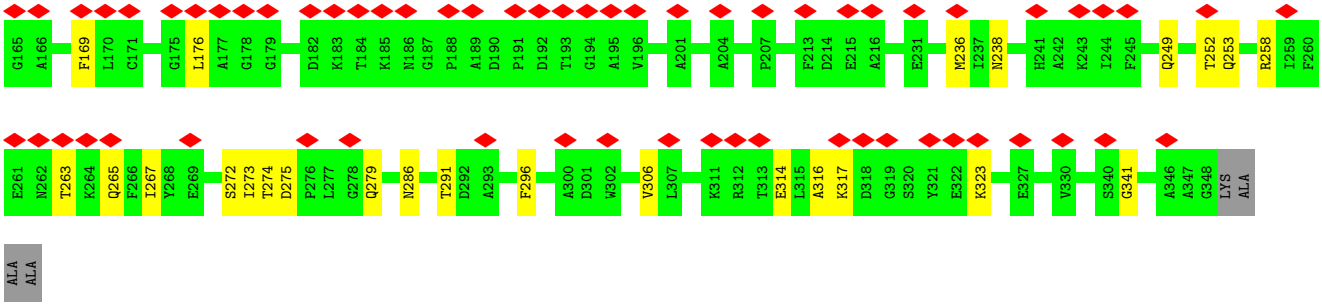
Chain DL:



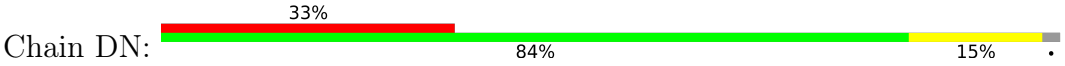
• Molecule 1: Major head protein

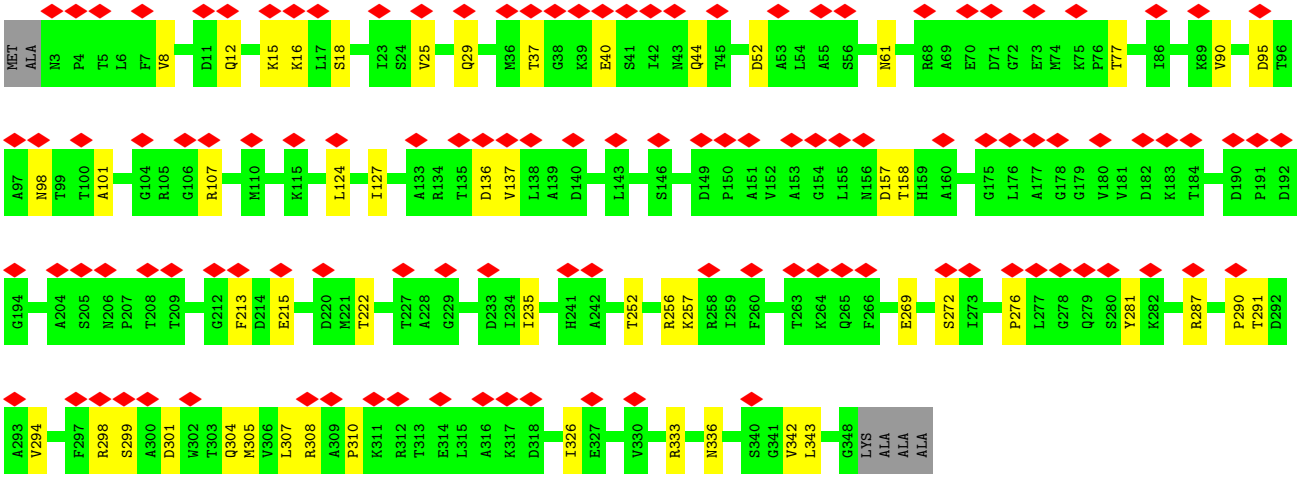
Chain DM:



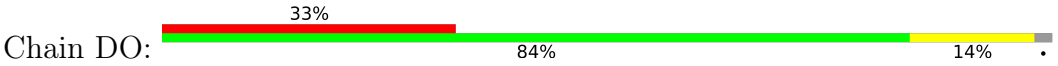


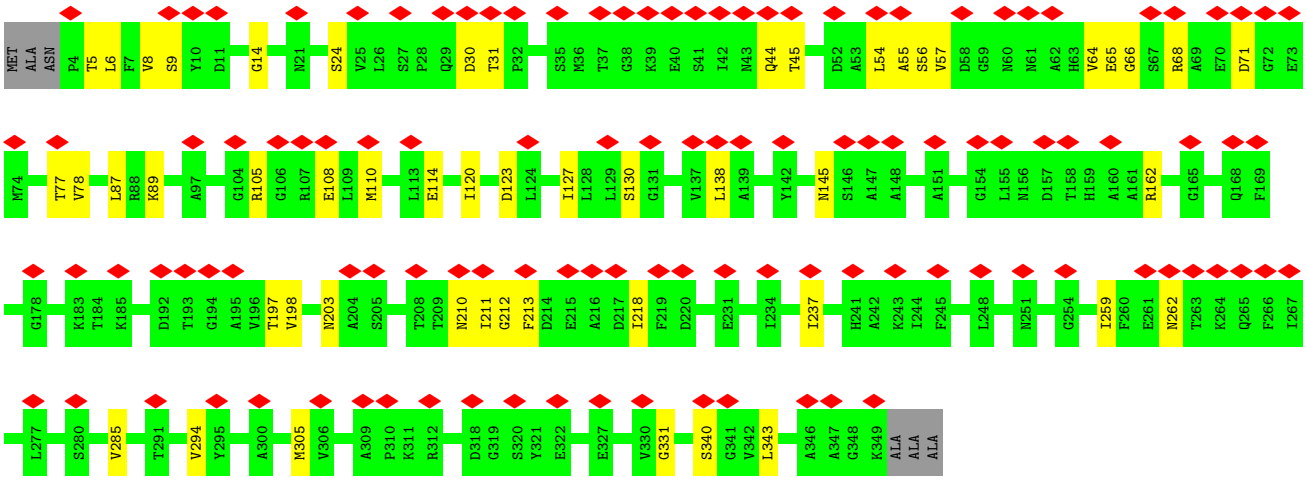
• Molecule 1: Major head protein



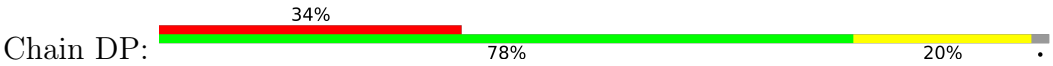


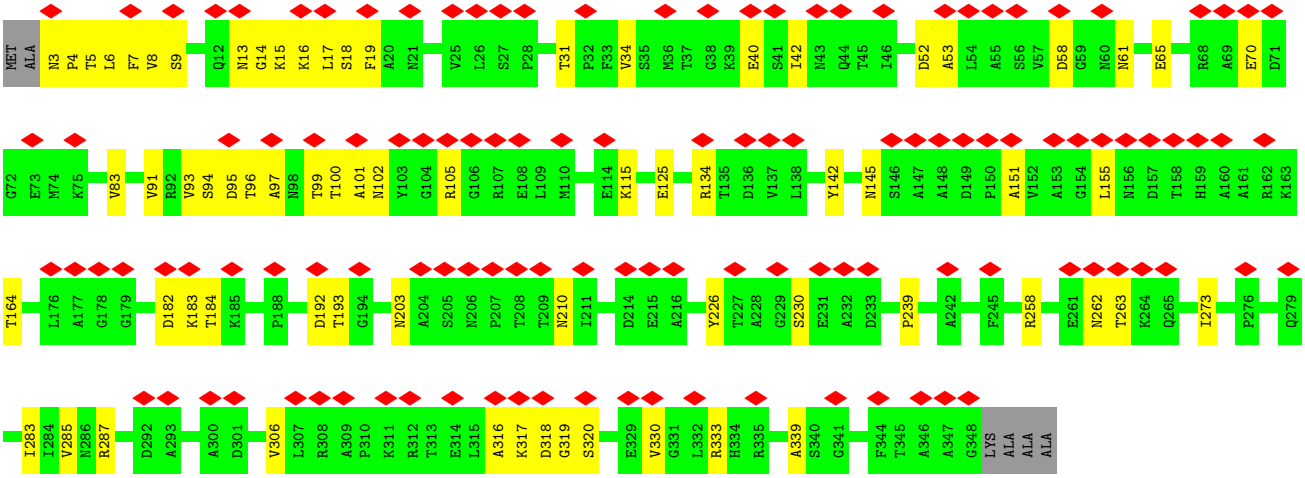
• Molecule 1: Major head protein





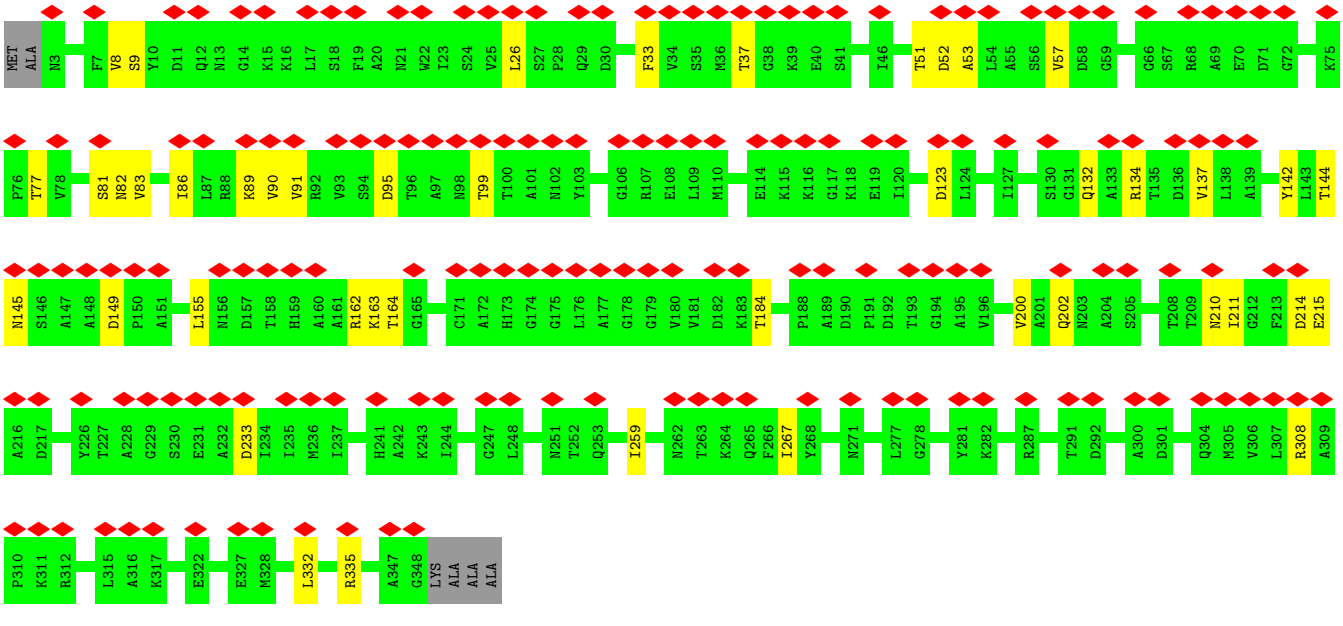
• Molecule 1: Major head protein





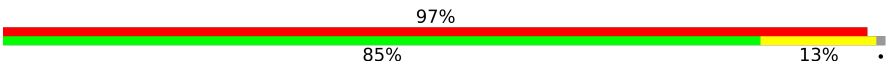
• Molecule 1: Major head protein

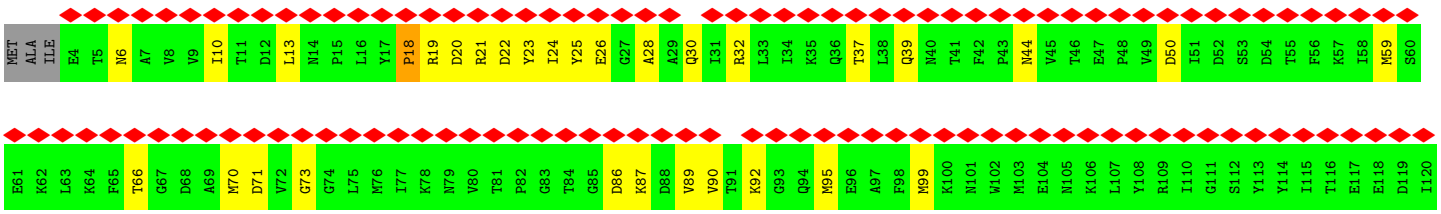
Chain DQ:

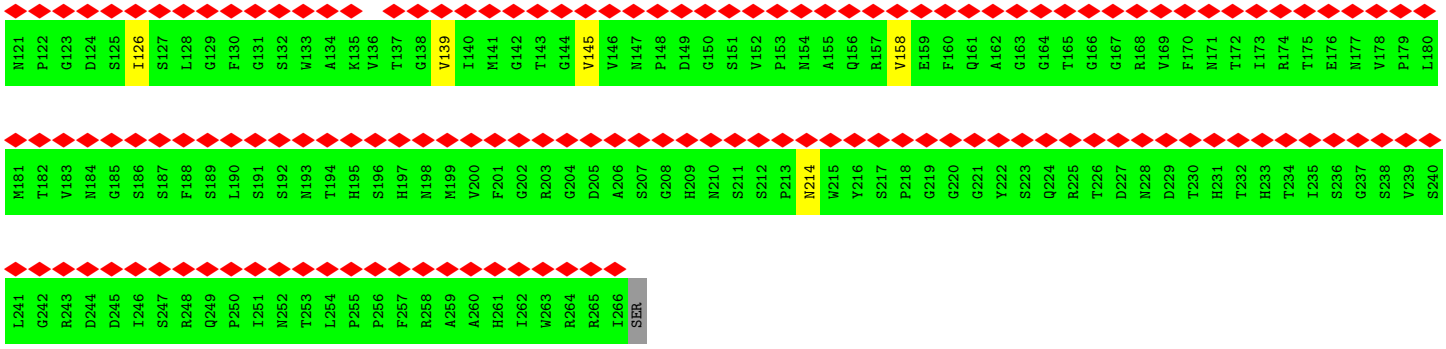


• Molecule 2: Putative structural protein

Chain DR:

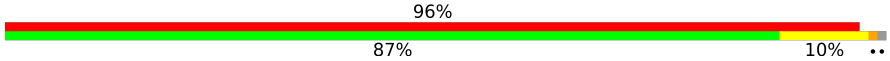


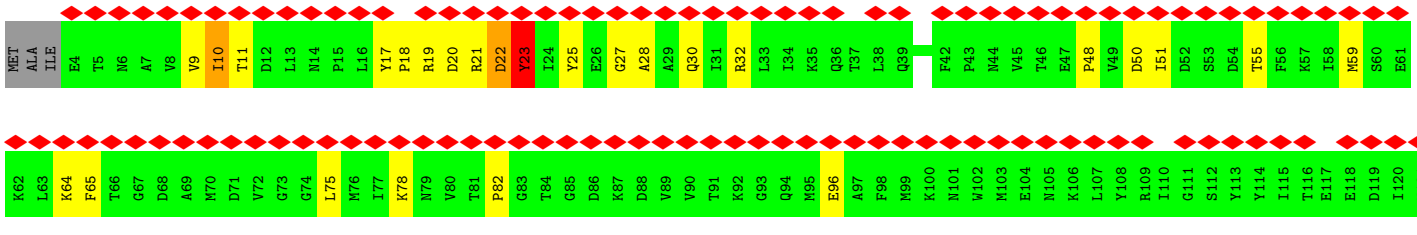




• Molecule 2: Putative structural protein

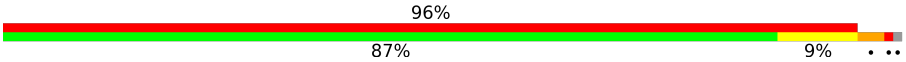
Chain DS:

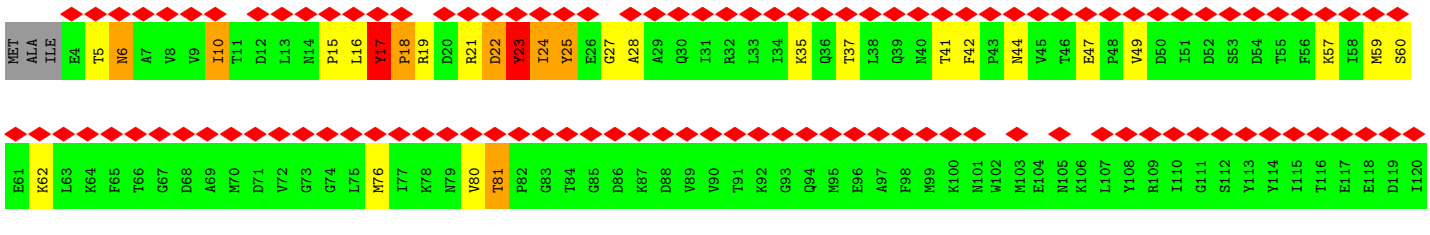


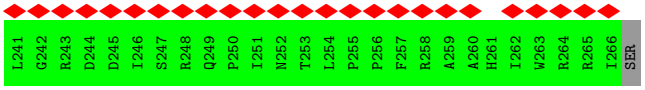


• Molecule 2: Putative structural protein

Chain DT:

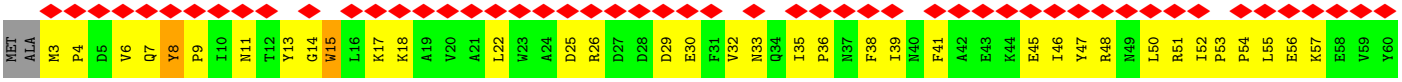


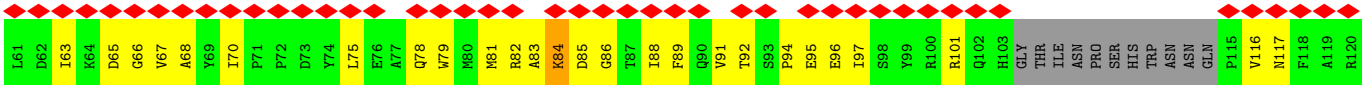


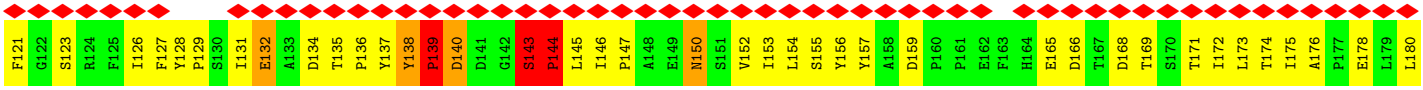


• Molecule 3: Adaptor

Chain DU:

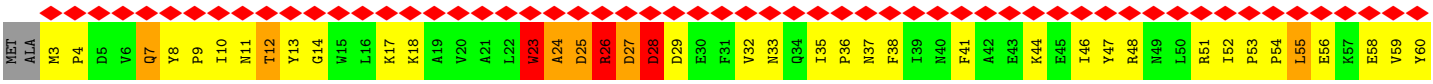


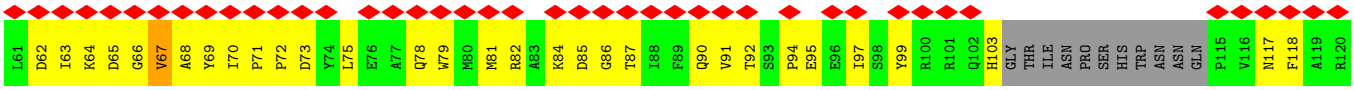


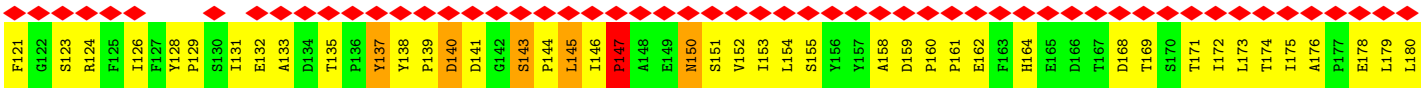


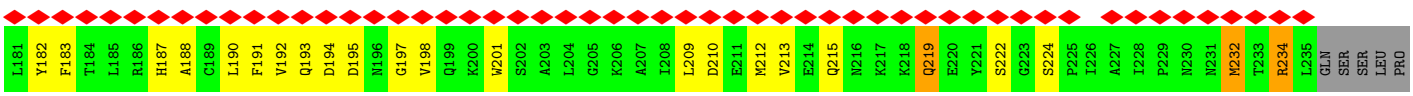
• Molecule 3: Adaptor

Chain DV:



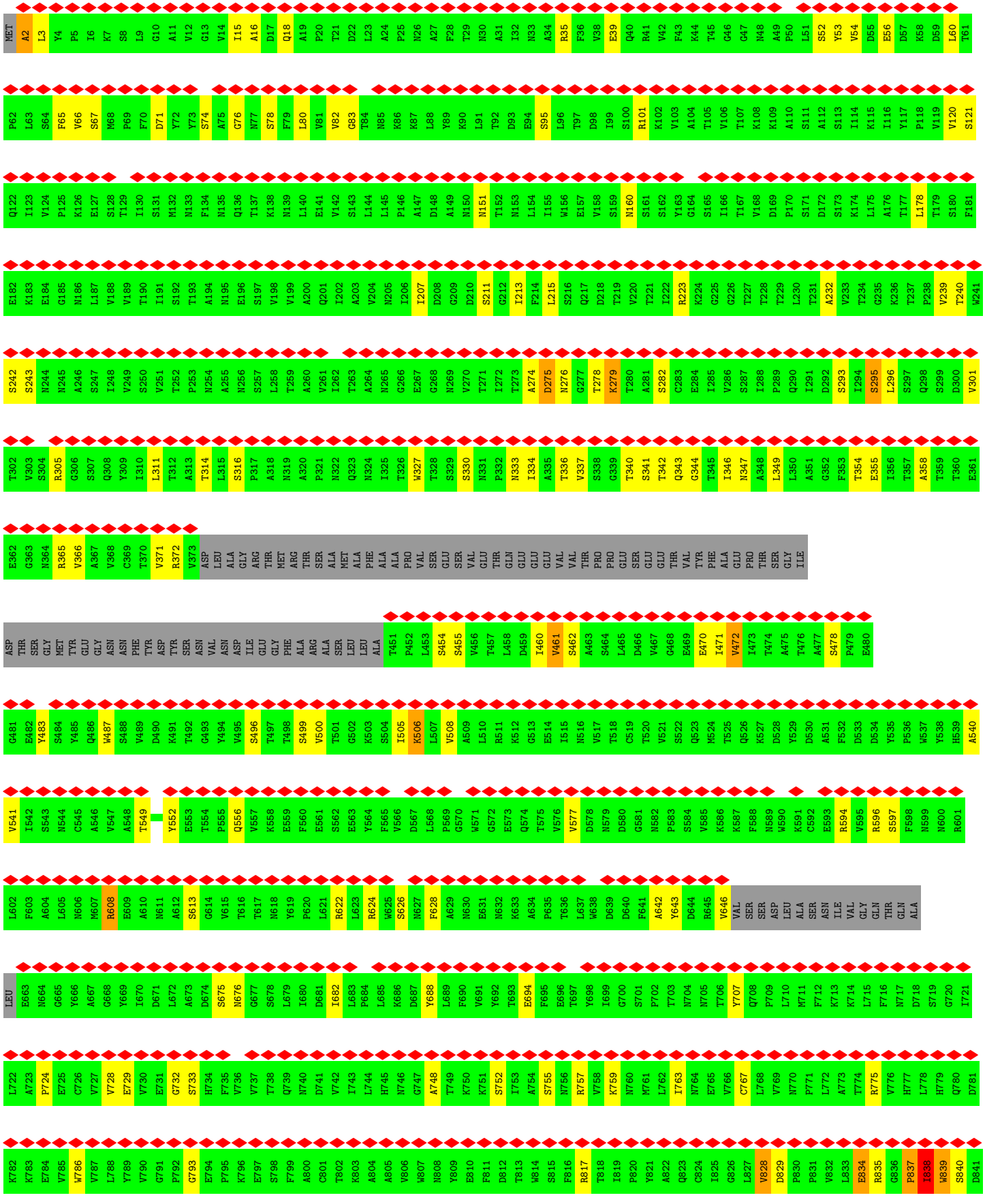






• Molecule 4: Surface protein

Chain DW: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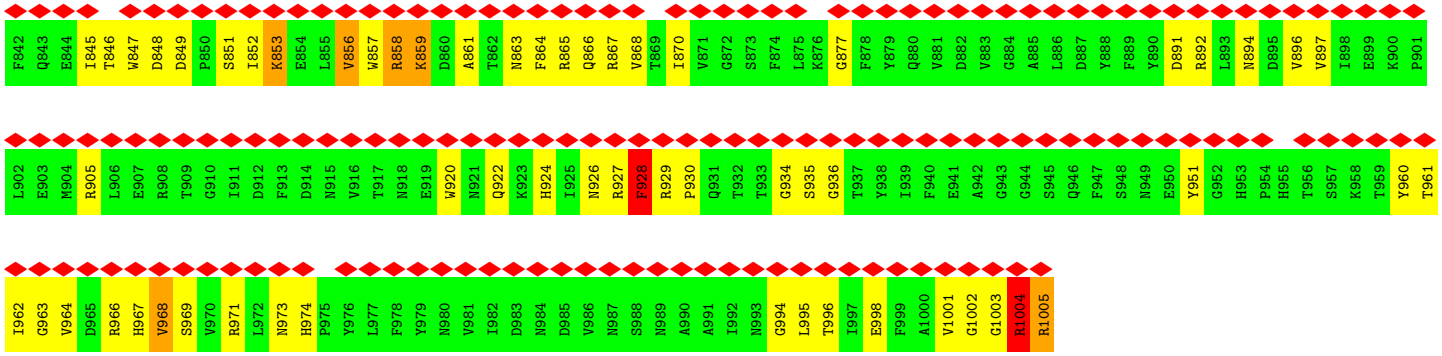
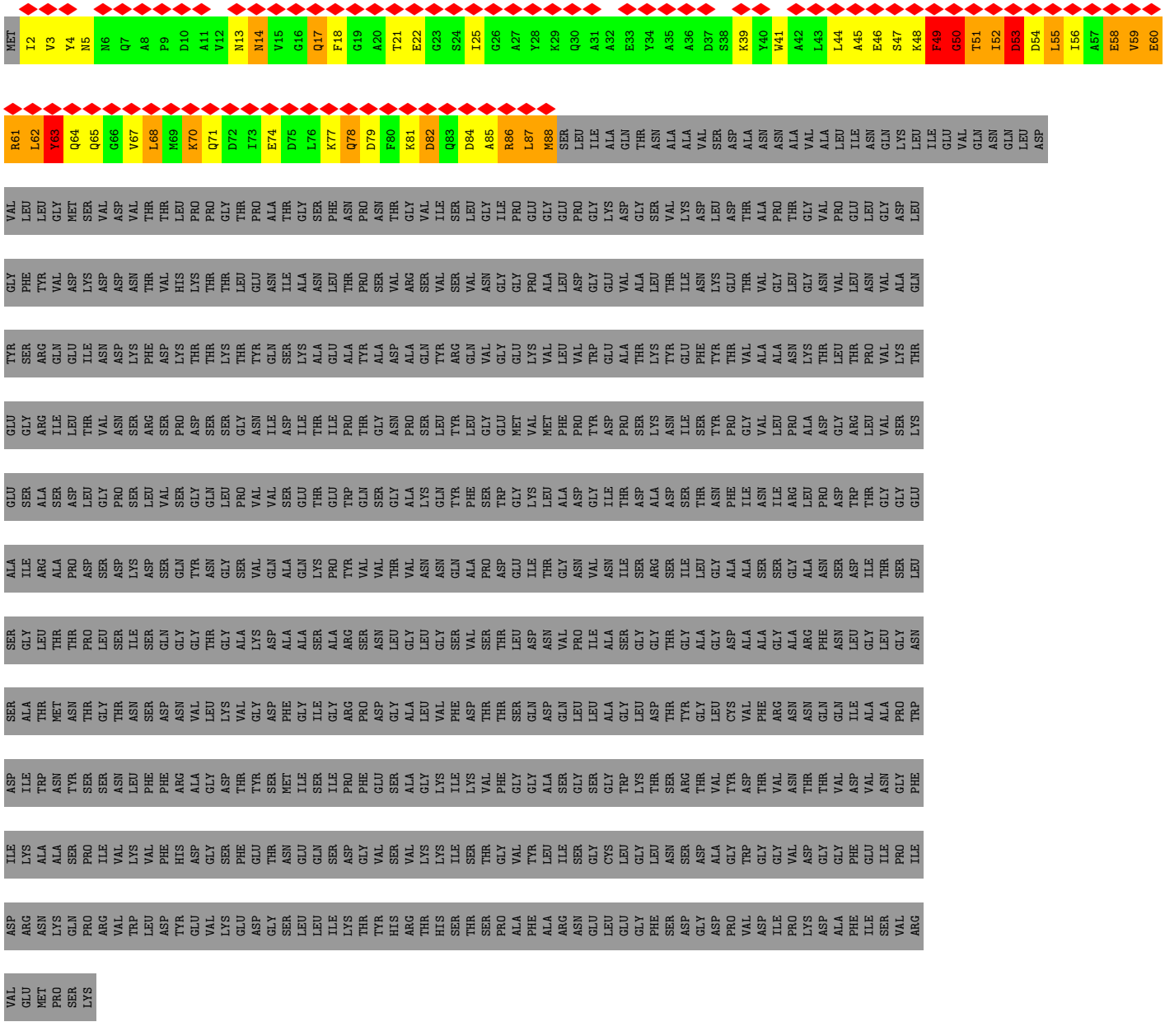
P62 L63 S64 F65 V66 S67 M68 P69 F70 D71 Y72 Y73 S74 A75 G76 N77 S78 F79 L80 V81 V82 G83 T84 N85 K86 K87 L88 Y89 K90 L91 T92 D93 E94 S95 L96 T97 D98 I99 S100 R101 K102 V103 A104 T105 V106 T107 K108 K109 A110 S111 A112 S113 I114 K115 I116 Y117 P118 V119 V120 S121
Q122 I123 V124 P125 K126 E127 S128 T129 I130 S131 M132 N133 F134 N135 Q136 T137 K138 N139 L140 E141 V142 S143 L144 L145 P146 A147 D148 A149 N150 N151 T152 N153 L154 I155 W156 E157 V158 S159 N160 S161 S162 Y163 G164 S165 I166 T167 V168 D169 P170 S171 D172 S173 K174 L175 A176 T177 L178 T179 S180 F181
E182 K183 E184 G185 N186 L187 V188 V189 T190 I191 S192 T193 A194 N195 E196 S197 V198 V199 A200 Q201 I202 A203 V204 N205 I206 I207 D208 G209 D210 S211 G212 I213 F214 L215 S216 Q217 D218 T219 V220 T221 I222 R223 K224 G225 G226 T227 T228 T229 L230 T231 A232 V233 T234 G235 K236 T237 P238 V239 T240 W241
S242 S243 N244 N245 A246 S247 I248 V249 S250 V251 T252 P253 N254 A255 N256 S257 L258 T259 A260 V261 I262 T263 A264 N265 G266 E267 C268 N269 V270 T271 I272 T273 A274 D275 N276 G277 T278 K279 T280 A281 S282 C283 E284 I285 V286 S287 I288 P289 Q290 I291 D292 S293 I294 S295 L296 S297 Q298 S299 D300 V301
T302 V303 S304 R305 G306 S307 Q308 Y309 I310 L311 T312 A313 T314 L315 S316 P317 A318 N319 A320 P321 N322 Q323 N324 I325 T326 W327 T328 S329 S330 N331 P332 N333 I334 A335 T336 V337 S338 G339 T340 S341 T342 Q343 G344 T345 I346 N347 A348 L349 L350 A351 G352 F353 T354 E355 I356 T357 A358 T359 T360 E361
E362 G363 N364 R365 V366 A367 V368 C369 T370 V371 R372 V373 ASP LEU ALA GLY ARG THR MET ARG THR SER ALA MET ALA PHE ALA ALA PRO VAL SER GLU SER VAL GLU THR GLN GLU GLU GLU VAL VAL THR PRO PRO GLU SER GLU GLU THR VAL TYR PHE ALA GLU PRO THR SER GLY ILE
ASP THR SER GLY MET TYR GLU GLY ASN ASN PHE TYR ASP TYR SER ASN VAL ASN ASP ILE GLU GLY PHE ALA ARG ALA SER LEU LEU ALA T451 P452 L453 S454 S455 V456 T457 L458 D459 I460 V461 S462 A463 S464 L465 D466 V467 G468 E469 E470 I471 V472 I473 T474 A475 T476 A477 S478 P479 E480
G481 E482 Y483 S484 Y485 Q486 W487 S488 V489 D490 K491 T492 G493 Y494 V495 S496 T497 T498 S499 V500 T501 G502 K503 S504 I505 K506 L507 V508 A509 L510 R511 K512 G513 E514 I515 N516 V517 T518 C519 T520 V521 S522 Q523 M524 T525 Q526 K527 D528 Y529 D530 A531 F532 D533 D534 Y535 P536 W537 Y538 H539 A540
V541 I542 S543 N544 C545 A546 V547 A548 T549 Y552 E553 T554 P555 Q556 V557 K558 E559 F560 E561 S562 E563 Y564 F565 V566 D567 L568 P569 G570 W571 G572 E573 Q574 T575 V576 V577 D578 N579 D580 G581 N582 P583 S584 V585 K586 K587 F588 N589 W590 K591 C592 E593 R594 V595 R596 S597 F598 N599 N600 R601
L602 F603 A604 L605 N606 M607 R608 E609 A610 N611 A612 S613 G614 V615 T616 T617 N618 Y619 P620 L621 R622 L623 R624 W625 S626 N627 F628 A629 N630 E631 N632 K633 A634 P635 T636 L637 W638 D639 D640 F641 A642 Y643 D644 R645 V646 VAL SER SER ASP LEU ALA SER ASN ILE VAL GLY GLN THR GLN ALA
LEU E663 N664 G665 Y666 A667 G668 Y669 I670 D671 L672 A673 D674 S675 N676 G677 S678 L679 I680 D681 I682 L683 P684 L685 K686 D687 Y688 L689 F690 V691 Y692 T693 E694 F695 E696 T697 Y698 I699 G700 S701 P702 T703 N704 N705 T706 Y707 Q708 P709 L710 M711 F712 K713 K714 L715 F716 N717 D718 S719 G720 I721
L722 A723 P724 E725 C726 V727 V728 E729 V730 E731 G732 S733 H734 F735 V736 V737 T738 Q739 N740 D741 V742 I743 L744 H745 N746 G747 A748 T749 K750 K751 S752 I753 A754 S755 N756 R757 V758 K759 N760 M761 L762 I763 N764 E765 V766 C767 L768 V769 N770 P771 L772 A773 T774 R775 V776 H777 L778 H779 Q780 D781
K782 K783 E784 V785 W786 V787 L788 Y789 V790 G791 P792 G793 E794 P795 K796 E797 S798 F799 A800 C801 T802 K803 A804 A805 V806 W807 N808 Y809 E810 F811 D812 T813 W814 S815 F816 R817 T818 I819 P820 Y821 A822 Q823 C824 I825 G826 L827 V828 D829 P830 P831 V832 L833 E834 R835 G836 P837 I838 W839 S840 D841

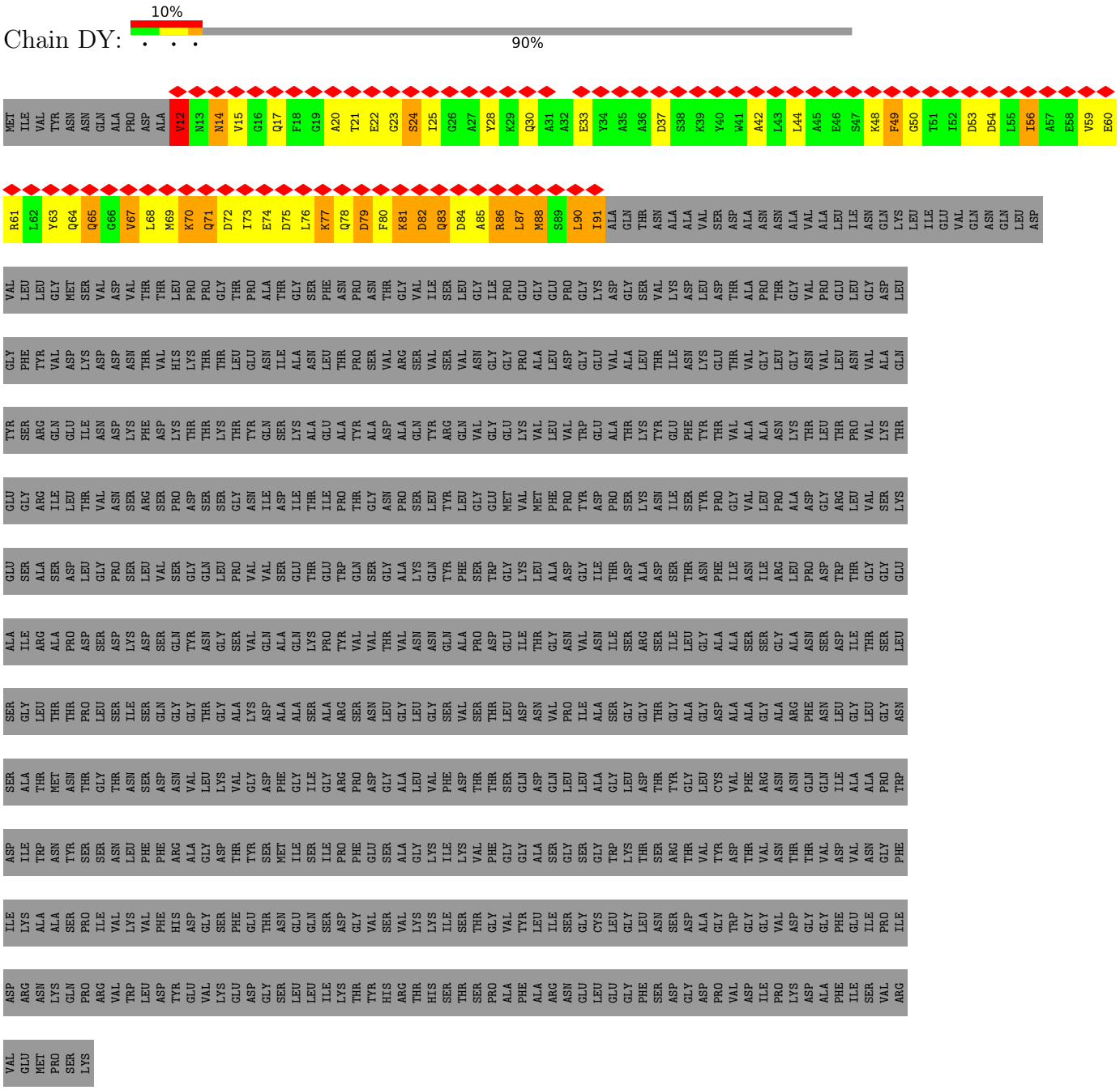


- Molecule 5: Putative tail fiber



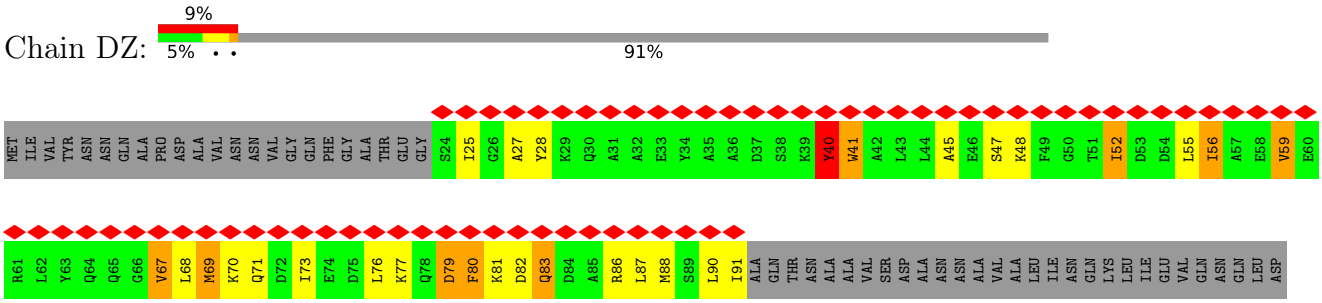
• Molecule 5: Putative tail fiber

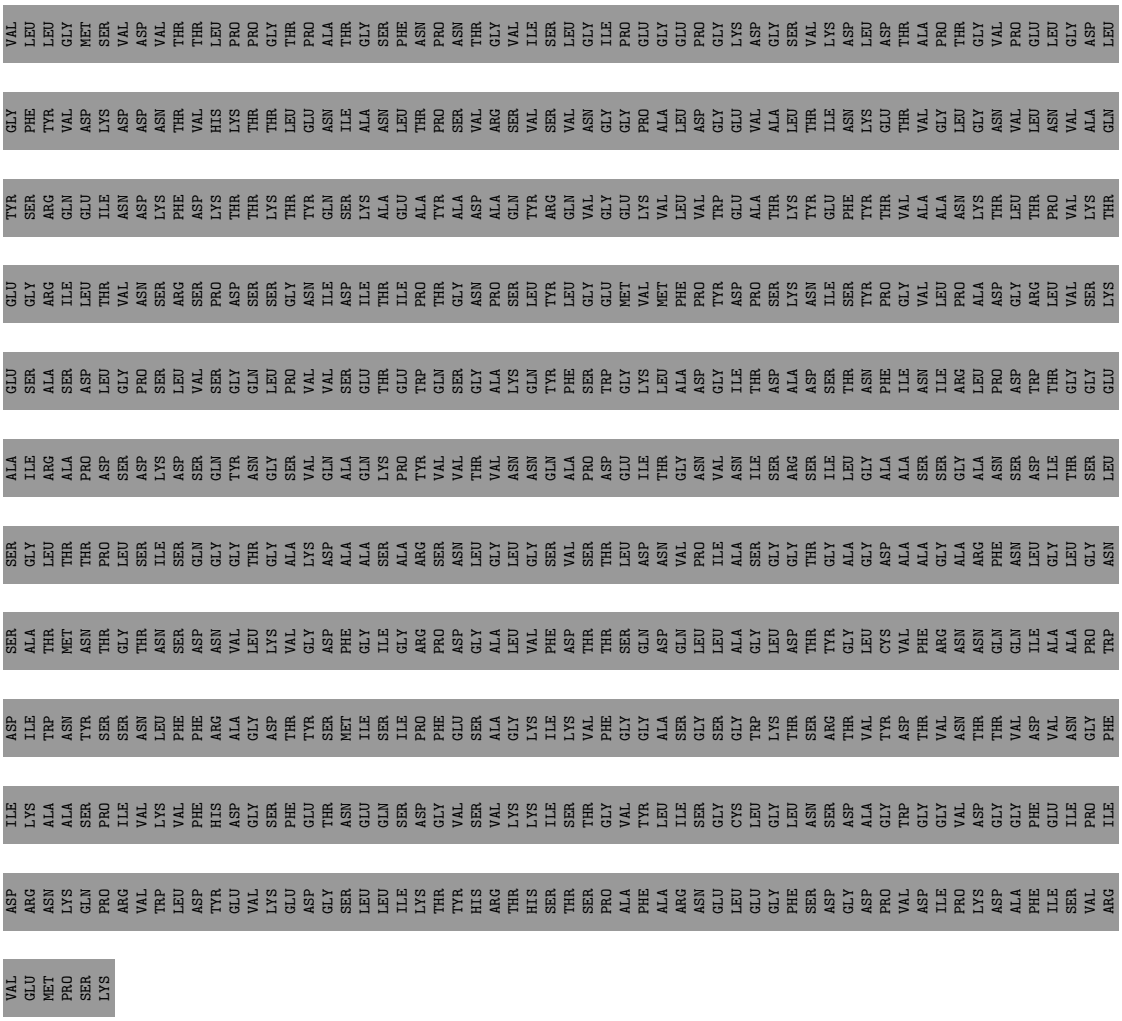
Chain DY:



• Molecule 5: Putative tail fiber

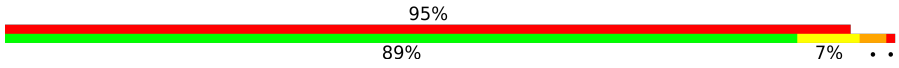
Chain DZ:

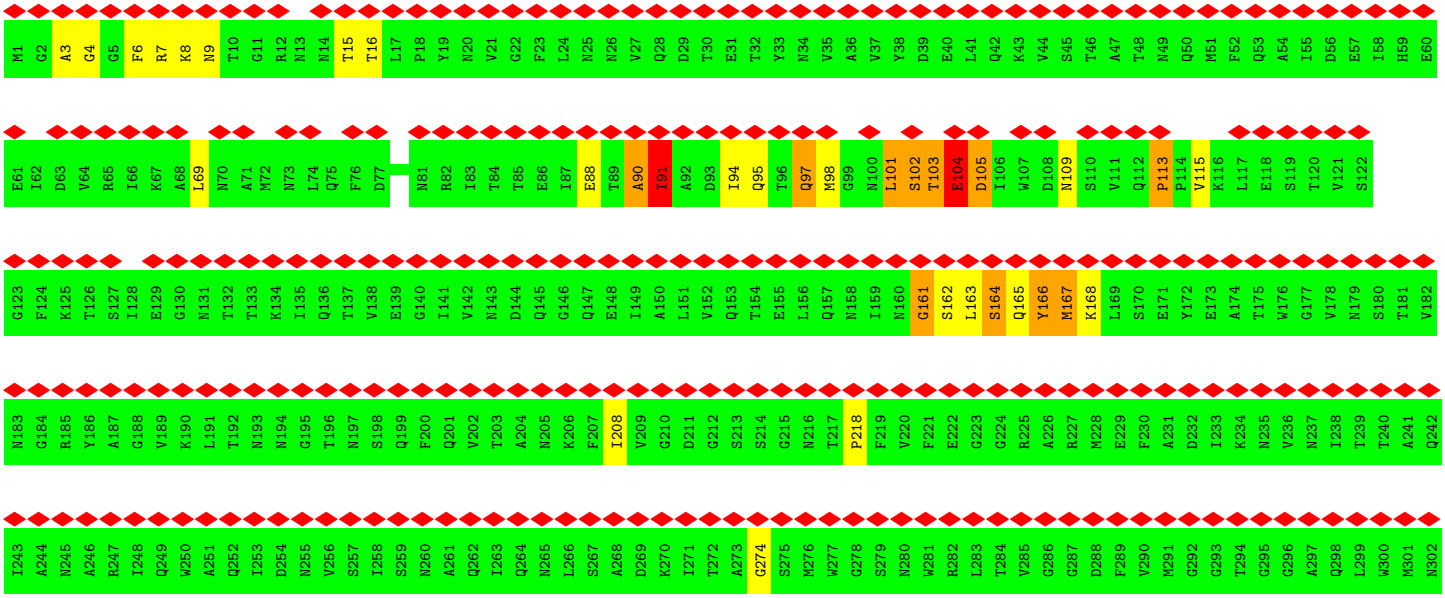


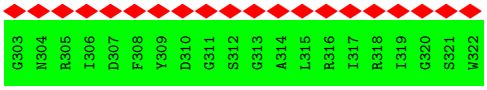


• Molecule 6: Putative tail tip fiber protein

Chain EA:

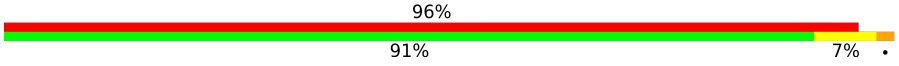


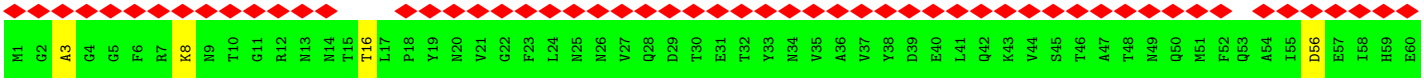


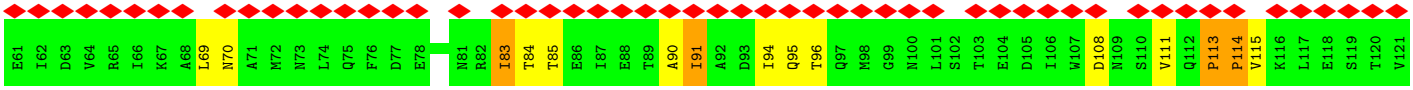


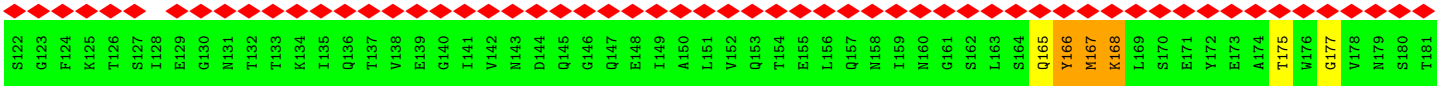
• Molecule 6: Putative tail tip fiber protein

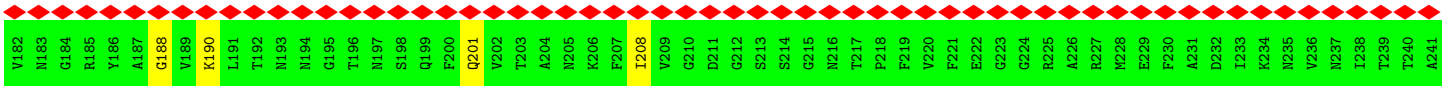
Chain EB:

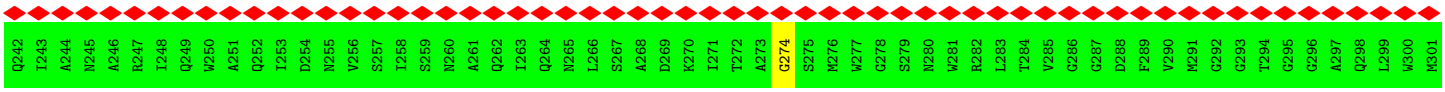


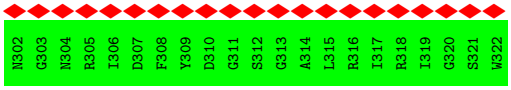






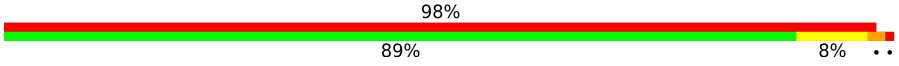


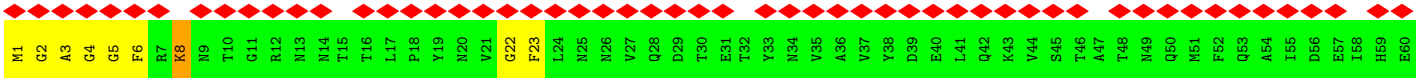


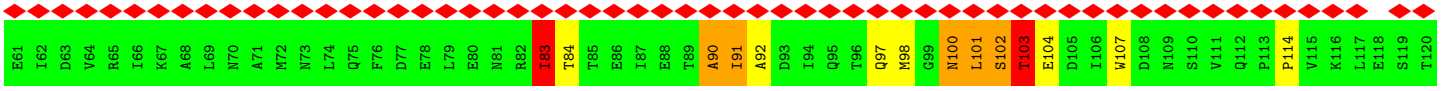


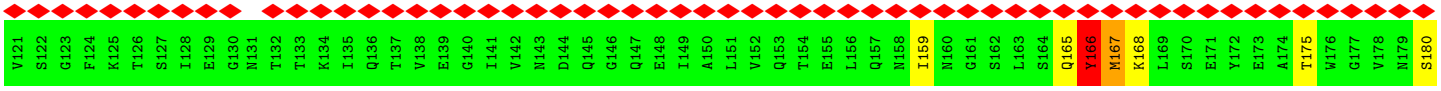
• Molecule 6: Putative tail tip fiber protein

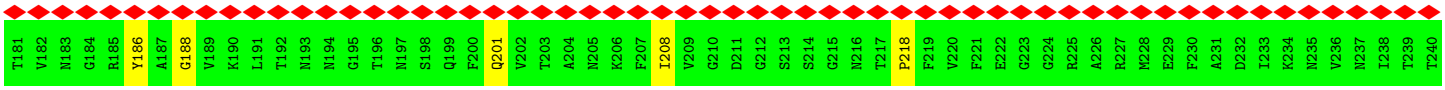
Chain EC:

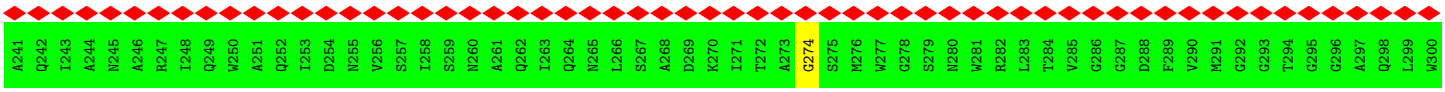


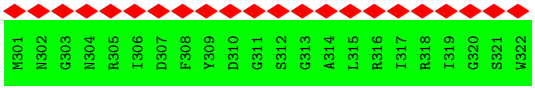






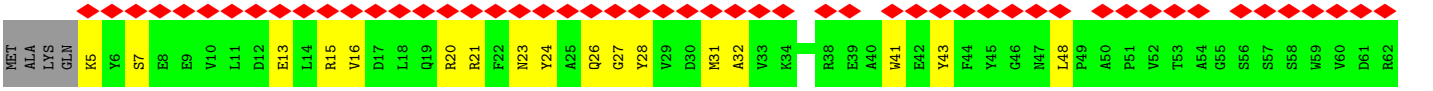


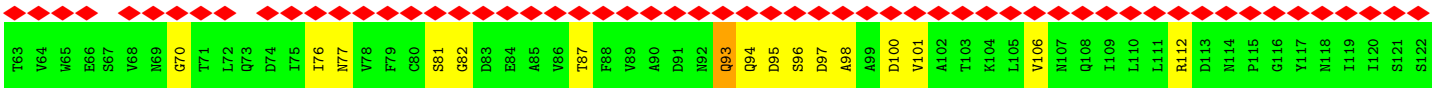


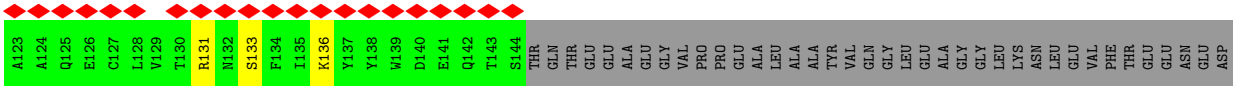


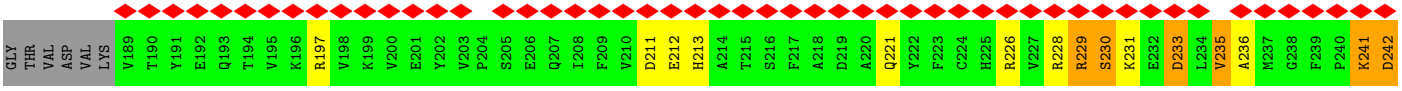
• Molecule 7: Portal protein

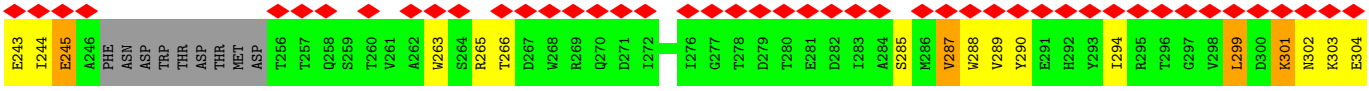
Chain ED:

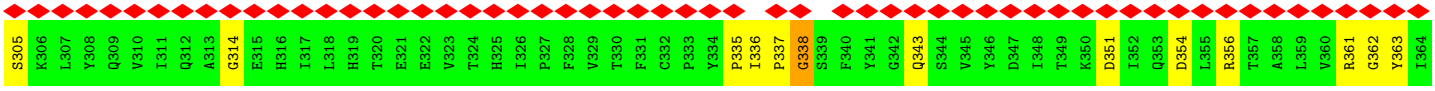


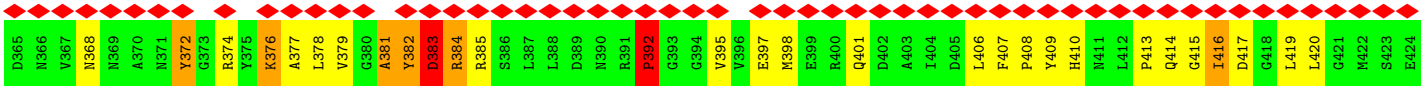


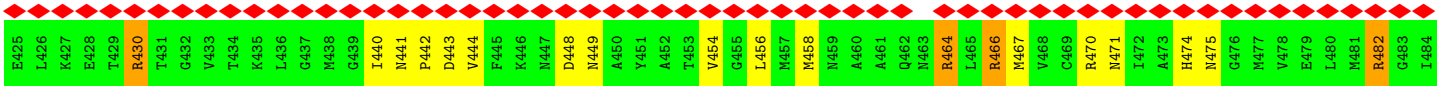


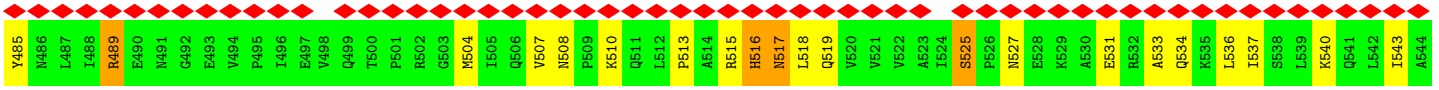


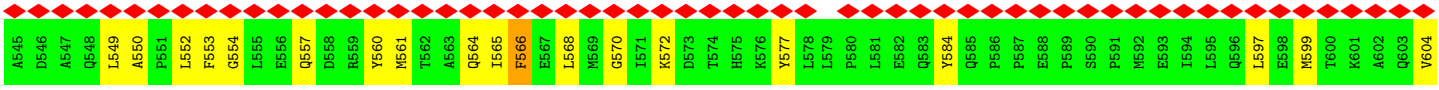


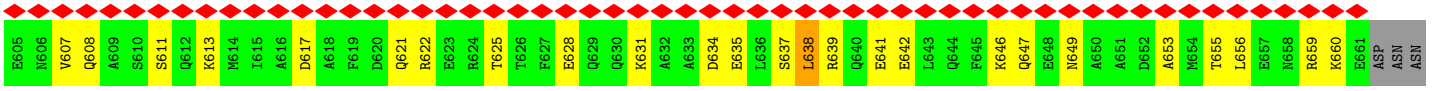






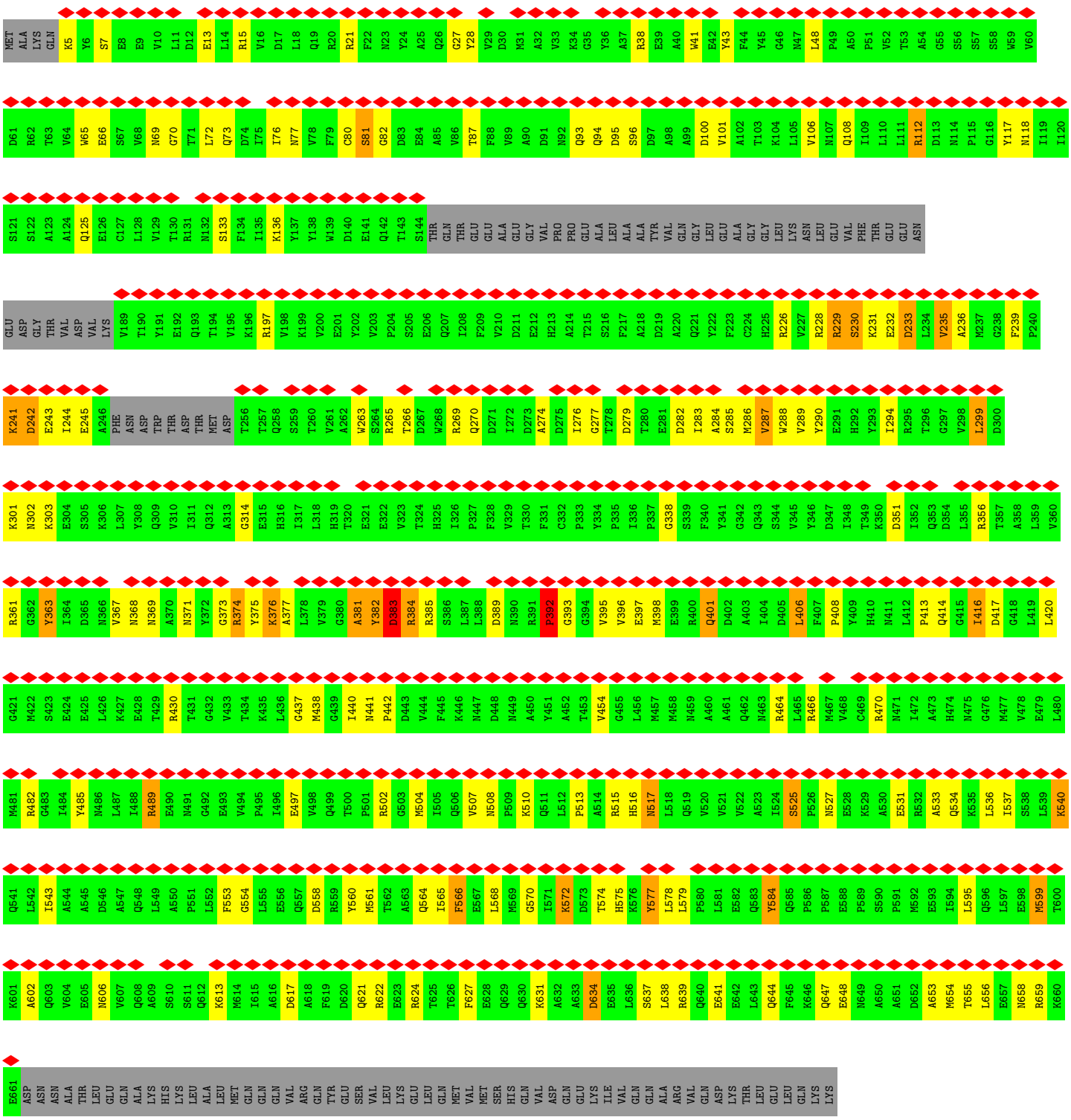






• Molecule 7: Portal protein

Chain EE:



GLU
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GLY
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ARG
LEU
GLY
SER
LYS
LYS

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	9418	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	49	Depositor
Minimum defocus (nm)	1200	Depositor
Maximum defocus (nm)	2700	Depositor
Magnification	59000	Depositor
Image detector	FEI FALCON III (4k x 4k)	Depositor
Maximum map value	0.130	Depositor
Minimum map value	-0.075	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.005	Depositor
Recommended contour level	0.04	Depositor
Map size (Å)	1788.48, 1788.48, 1788.48	wwPDB
Map dimensions	1296, 1296, 1296	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.38, 1.38, 1.38	Depositor

5 Model quality

5.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|>5$	RMSZ	#$\|Z\|>5$
1	AA	0.25	0/2736	0.43	0/3706
1	AB	0.24	0/2736	0.41	0/3706
1	AC	0.25	0/2713	0.42	0/3673
1	AD	0.25	0/2736	0.43	0/3706
1	AE	0.25	0/2728	0.43	0/3694
1	AF	0.24	0/2727	0.41	0/3695
1	AG	0.25	0/2736	0.44	0/3706
1	AH	0.24	0/2736	0.43	0/3706
1	AI	0.25	0/2736	0.44	0/3706
1	AJ	0.24	0/2736	0.42	0/3706
1	AK	0.24	0/2736	0.42	0/3706
1	AL	0.25	0/2736	0.43	0/3706
1	AM	0.25	0/2713	0.43	0/3673
1	AN	0.25	0/2713	0.42	0/3673
1	AO	0.25	0/2713	0.42	0/3673
1	AP	0.24	0/2736	0.43	0/3706
1	AQ	0.25	0/2736	0.42	0/3706
1	AR	0.25	0/2736	0.42	0/3706
1	AS	0.24	0/2728	0.43	0/3694
1	AT	0.24	0/2728	0.44	0/3694
1	AU	0.25	0/2728	0.44	0/3694
1	AV	0.25	0/2727	0.42	0/3695
1	AW	0.24	0/2727	0.42	0/3695
1	AX	0.24	0/2727	0.42	0/3695
1	AY	0.25	0/2736	0.43	0/3706
1	AZ	0.24	0/2736	0.42	0/3706
1	BA	0.25	0/2713	0.42	0/3673
1	BB	0.25	0/2736	0.43	0/3706
1	BC	0.25	0/2728	0.43	0/3694
1	BD	0.24	0/2727	0.41	0/3695
1	BE	0.25	0/2736	0.44	0/3706
1	BF	0.24	0/2736	0.43	0/3706
1	BG	0.25	0/2736	0.44	0/3706
1	BH	0.24	0/2736	0.42	0/3706

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
1	BI	0.24	0/2736	0.42	0/3706
1	BJ	0.25	0/2736	0.43	0/3706
1	BK	0.25	0/2713	0.43	0/3673
1	BL	0.25	0/2713	0.42	0/3673
1	BM	0.25	0/2713	0.42	0/3673
1	BN	0.25	0/2736	0.43	0/3706
1	BO	0.25	0/2736	0.42	0/3706
1	BP	0.25	0/2736	0.42	0/3706
1	BQ	0.24	0/2728	0.43	0/3694
1	BR	0.24	0/2728	0.44	0/3694
1	BS	0.25	0/2728	0.44	0/3694
1	BT	0.25	0/2727	0.42	0/3695
1	BU	0.24	0/2727	0.42	0/3695
1	BV	0.24	0/2727	0.42	0/3695
1	BW	0.25	0/2723	0.44	0/3690
1	BX	0.24	0/2728	0.44	0/3694
1	BY	0.25	0/2736	0.43	0/3706
1	BZ	0.25	0/2720	0.43	0/3683
1	CA	0.24	0/2728	0.45	0/3694
1	CB	0.25	0/2727	0.44	0/3695
1	CC	0.24	0/2736	0.46	0/3706
1	CD	0.25	0/2706	0.45	0/3661
1	CE	0.25	0/2727	0.44	0/3695
1	CF	0.25	0/2693	0.43	0/3646
1	CG	0.25	0/2736	0.45	0/3706
1	CH	0.24	0/2736	0.42	0/3706
1	CI	0.25	0/2727	0.45	0/3695
1	CJ	0.25	0/2736	0.44	0/3706
1	CK	0.24	0/2736	0.44	0/3706
1	CL	0.25	0/2704	0.43	0/3662
1	CM	0.25	0/2727	0.45	0/3695
1	CN	0.25	0/2693	0.44	0/3646
1	CO	0.25	0/2686	0.45	0/3636
1	CP	0.25	0/2719	0.43	0/3683
1	CQ	0.25	0/2727	0.44	0/3695
1	CR	0.25	0/2720	0.44	0/3683
1	CS	0.25	0/2736	0.43	0/3706
1	CT	0.25	0/2728	0.42	0/3694
1	CU	0.25	0/2727	0.45	0/3695
1	CV	0.25	0/2736	0.43	0/3706
1	CW	0.25	0/2728	0.45	0/3694
1	CX	0.25	0/2727	0.43	0/3695
1	CY	0.25	0/2736	0.44	0/3706

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
1	CZ	0.25	0/2736	0.46	0/3706
1	DA	0.25	0/2728	0.44	0/3694
1	DB	0.25	0/2736	0.44	0/3706
1	DC	0.25	0/2720	0.44	0/3683
1	DD	0.25	0/2728	0.44	0/3694
1	DE	0.25	0/2727	0.44	0/3695
1	DF	0.25	0/2736	0.45	0/3706
1	DG	0.25	0/2706	0.45	0/3661
1	DH	0.25	0/2727	0.44	0/3695
1	DI	0.25	0/2736	0.43	0/3706
1	DJ	0.25	0/2727	0.45	0/3695
1	DK	0.25	0/2704	0.43	0/3662
1	DL	0.25	0/2727	0.44	0/3695
1	DM	0.24	0/2719	0.43	0/3683
1	DN	0.25	0/2727	0.44	0/3695
1	DO	0.25	0/2728	0.43	0/3694
1	DP	0.25	0/2727	0.44	0/3695
1	DQ	0.25	0/2727	0.42	0/3695
2	DR	0.26	0/1431	0.51	0/1867
2	DS	0.36	2/1435 (0.1%)	0.92	7/1872 (0.4%)
2	DT	0.28	0/1435	0.66	3/1872 (0.2%)
3	DU	0.89	0/1866	0.78	4/2545 (0.2%)
3	DV	1.10	11/1866 (0.6%)	1.48	27/2545 (1.1%)
4	DW	1.49	138/7215 (1.9%)	1.30	54/9852 (0.5%)
5	DX	0.67	1/693 (0.1%)	0.95	4/935 (0.4%)
5	DY	0.64	0/635	0.80	1/852 (0.1%)
5	DZ	0.97	1/552 (0.2%)	1.02	3/741 (0.4%)
6	EA	1.16	18/1288 (1.4%)	1.35	21/1607 (1.3%)
6	EB	0.69	0/1288	0.94	1/1607 (0.1%)
6	EC	0.95	6/1288 (0.5%)	1.12	11/1607 (0.7%)
7	ED	1.28	45/4930 (0.9%)	1.27	35/6682 (0.5%)
7	EE	1.28	46/4930 (0.9%)	1.26	37/6682 (0.6%)
All	All	0.44	268/289915 (0.1%)	0.56	208/392151 (0.1%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand.A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	AF	0	1
1	BD	0	1

Continued on next page...

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Mol	Chain	#Chirality outliers	#Planarity outliers
1	CA	0	1
1	CC	0	2
1	DF	0	2
2	DT	0	1
3	DU	0	1
3	DV	1	6
4	DW	0	2
5	DX	0	2
5	DZ	0	1
6	EA	0	5
6	EB	0	7
6	EC	0	11
7	ED	0	1
All	All	1	44

All (268) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	DZ	41	TRP	C-O	15.14	1.52	1.23
6	EA	102	SER	C-O	14.54	1.50	1.23
6	EC	101	LEU	C-O	13.22	1.48	1.23
3	DV	28	ASP	C-O	-11.08	1.02	1.23
6	EA	101	LEU	C-O	10.11	1.42	1.23
4	DW	868	VAL	CB-CG1	-9.86	1.32	1.52
3	DV	24	ALA	C-O	-9.77	1.04	1.23
4	DW	968	VAL	CB-CG2	-9.38	1.33	1.52
6	EC	100	ASN	C-O	9.24	1.41	1.23
4	DW	968	VAL	CB-CG1	-8.82	1.34	1.52
4	DW	897	VAL	CB-CG1	-8.70	1.34	1.52
4	DW	596	ARG	CZ-NH1	-8.67	1.21	1.33
4	DW	828	VAL	CB-CG1	-8.64	1.34	1.52
6	EA	165	GLN	N-CA	8.47	1.63	1.46
3	DV	26	ARG	C-O	-8.43	1.07	1.23
4	DW	596	ARG	CZ-NH2	-8.43	1.22	1.33
4	DW	966	ARG	CZ-NH2	-8.30	1.22	1.33
4	DW	594	ARG	CZ-NH2	-8.22	1.22	1.33
4	DW	966	ARG	CZ-NH1	-8.22	1.22	1.33
4	DW	867	ARG	CZ-NH1	-8.19	1.22	1.33
3	DV	27	ASP	C-O	-8.15	1.07	1.23
7	EE	413	PRO	C-O	8.13	1.39	1.23
4	DW	867	ARG	CZ-NH2	-8.07	1.22	1.33
4	DW	929	ARG	CZ-NH2	-8.03	1.22	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	ED	413	PRO	C-O	8.03	1.39	1.23
4	DW	929	ARG	CZ-NH1	-8.03	1.22	1.33
4	DW	868	VAL	CB-CG2	-7.94	1.36	1.52
4	DW	1005	ARG	CZ-NH1	-7.91	1.22	1.33
6	EA	167	MET	N-CA	7.87	1.62	1.46
4	DW	1004	ARG	CZ-NH2	-7.87	1.22	1.33
7	EE	229	ARG	CZ-NH1	-7.82	1.22	1.33
7	EE	489	ARG	CZ-NH2	-7.78	1.23	1.33
4	DW	927	ARG	CZ-NH1	-7.75	1.23	1.33
7	EE	515	ARG	CZ-NH2	-7.75	1.23	1.33
7	ED	489	ARG	CZ-NH2	-7.74	1.23	1.33
7	ED	489	ARG	CZ-NH1	-7.71	1.23	1.33
7	ED	229	ARG	CZ-NH1	-7.70	1.23	1.33
4	DW	82	VAL	CB-CG1	-7.70	1.36	1.52
7	ED	229	ARG	CZ-NH2	-7.69	1.23	1.33
4	DW	1004	ARG	CZ-NH1	-7.69	1.23	1.33
4	DW	82	VAL	CB-CG2	-7.67	1.36	1.52
7	EE	229	ARG	CZ-NH2	-7.67	1.23	1.33
7	ED	515	ARG	CZ-NH2	-7.66	1.23	1.33
4	DW	541	VAL	CB-CG2	-7.65	1.36	1.52
4	DW	594	ARG	CZ-NH1	-7.65	1.23	1.33
4	DW	865	ARG	CZ-NH1	-7.58	1.23	1.33
4	DW	461	VAL	CB-CG1	-7.57	1.36	1.52
7	ED	639	ARG	CZ-NH2	-7.56	1.23	1.33
7	ED	515	ARG	CZ-NH1	-7.55	1.23	1.33
4	DW	508	VAL	CB-CG2	-7.54	1.37	1.52
7	EE	489	ARG	CZ-NH1	-7.53	1.23	1.33
7	EE	515	ARG	CZ-NH1	-7.53	1.23	1.33
7	EE	639	ARG	CZ-NH2	-7.52	1.23	1.33
4	DW	835	ARG	CZ-NH2	-7.51	1.23	1.33
3	DV	25	ASP	CA-C	-7.47	1.33	1.52
7	ED	112	ARG	CZ-NH2	-7.44	1.23	1.33
7	EE	639	ARG	CZ-NH1	-7.44	1.23	1.33
4	DW	728	VAL	CB-CG1	-7.43	1.37	1.52
3	DV	24	ALA	CA-CB	-7.43	1.36	1.52
7	ED	639	ARG	CZ-NH1	-7.41	1.23	1.33
7	EE	112	ARG	CZ-NH2	-7.40	1.23	1.33
4	DW	835	ARG	CZ-NH1	-7.35	1.23	1.33
4	DW	927	ARG	CZ-NH2	-7.27	1.23	1.33
4	DW	365	ARG	CZ-NH2	-7.26	1.23	1.33
4	DW	508	VAL	CB-CG1	-7.26	1.37	1.52
4	DW	1005	ARG	CZ-NH2	-7.24	1.23	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	EE	112	ARG	CZ-NH1	-7.21	1.23	1.33
3	DV	28	ASP	CA-C	-7.19	1.34	1.52
7	ED	112	ARG	CZ-NH1	-7.16	1.23	1.33
4	DW	541	VAL	CB-CG1	-7.11	1.38	1.52
4	DW	472	VAL	CB-CG1	-7.10	1.38	1.52
4	DW	365	ARG	CZ-NH1	-7.02	1.24	1.33
3	DV	25	ASP	C-O	-7.01	1.10	1.23
4	DW	688	TYR	CD1-CE1	-6.96	1.28	1.39
4	DW	54	VAL	CB-CG1	-6.94	1.38	1.52
4	DW	897	VAL	CB-CG2	-6.93	1.38	1.52
4	DW	728	VAL	CB-CG2	-6.92	1.38	1.52
4	DW	828	VAL	CB-CG2	-6.92	1.38	1.52
4	DW	688	TYR	CD2-CE2	-6.82	1.29	1.39
4	DW	66	VAL	CB-CG2	-6.82	1.38	1.52
4	DW	2	ALA	CA-CB	-6.80	1.38	1.52
6	EC	107	TRP	N-CA	6.78	1.59	1.46
6	EA	168	LYS	N-CA	6.76	1.59	1.46
4	DW	472	VAL	CB-CG2	-6.74	1.38	1.52
4	DW	960	TYR	CD2-CE2	-6.74	1.29	1.39
6	EA	163	LEU	N-CA	6.73	1.59	1.46
4	DW	461	VAL	CB-CG2	-6.73	1.38	1.52
4	DW	858	ARG	CZ-NH1	-6.68	1.24	1.33
4	DW	960	TYR	CD1-CE1	-6.60	1.29	1.39
6	EA	166	TYR	N-CA	6.49	1.59	1.46
4	DW	53	TYR	CD1-CE1	-6.49	1.29	1.39
4	DW	66	VAL	CB-CG1	-6.48	1.39	1.52
4	DW	53	TYR	CD2-CE2	-6.39	1.29	1.39
4	DW	935	SER	CA-CB	-6.38	1.43	1.52
6	EC	167	MET	N-CA	6.37	1.59	1.46
7	EE	289	VAL	CB-CG1	-6.35	1.39	1.52
7	ED	289	VAL	CB-CG1	-6.34	1.39	1.52
4	DW	865	ARG	CZ-NH2	-6.31	1.24	1.33
6	EA	164	SER	N-CA	6.29	1.58	1.46
4	DW	643	TYR	CD2-CE2	-6.25	1.29	1.39
6	EA	164	SER	C-N	6.24	1.48	1.34
4	DW	858	ARG	CZ-NH2	-6.23	1.25	1.33
7	EE	287	VAL	CB-CG2	-6.18	1.39	1.52
7	ED	287	VAL	CB-CG2	-6.18	1.39	1.52
4	DW	733	SER	CB-OG	-6.16	1.34	1.42
7	ED	106	VAL	CB-CG2	-6.16	1.40	1.52
4	DW	54	VAL	CB-CG2	-6.16	1.40	1.52
7	EE	106	VAL	CB-CG2	-6.15	1.40	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	DW	964	VAL	CB-CG2	-6.14	1.40	1.52
4	DW	643	TYR	CD1-CE1	-6.12	1.30	1.39
7	EE	560	TYR	CD2-CE2	-6.09	1.30	1.39
6	EA	165	GLN	CA-C	6.08	1.68	1.52
7	ED	485	TYR	CD1-CE1	-6.05	1.30	1.39
7	EE	560	TYR	CD1-CE1	-6.05	1.30	1.39
4	DW	76	GLY	N-CA	-6.03	1.37	1.46
7	ED	560	TYR	CD2-CE2	-6.02	1.30	1.39
7	EE	485	TYR	CD1-CE1	-5.99	1.30	1.39
6	EC	166	TYR	N-CA	5.99	1.58	1.46
7	ED	560	TYR	CD1-CE1	-5.99	1.30	1.39
7	ED	577	TYR	CD1-CE1	-5.99	1.30	1.39
7	EE	106	VAL	CB-CG1	-5.99	1.40	1.52
7	EE	289	VAL	CB-CG2	-5.98	1.40	1.52
7	EE	577	TYR	CD1-CE1	-5.98	1.30	1.39
7	ED	289	VAL	CB-CG2	-5.97	1.40	1.52
7	EE	314	GLY	N-CA	-5.97	1.37	1.46
7	EE	70	GLY	C-O	5.95	1.33	1.23
4	DW	934	GLY	N-CA	-5.95	1.37	1.46
7	ED	106	VAL	CB-CG1	-5.94	1.40	1.52
4	DW	964	VAL	CB-CG1	-5.93	1.40	1.52
4	DW	1001	VAL	CB-CG1	-5.93	1.40	1.52
4	DW	963	GLY	N-CA	-5.93	1.37	1.46
7	EE	577	TYR	CD2-CE2	-5.92	1.30	1.39
4	DW	732	GLY	N-CA	-5.91	1.37	1.46
4	DW	729	GLU	CB-CG	-5.90	1.41	1.52
6	EA	162	SER	N-CA	5.90	1.58	1.46
7	ED	314	GLY	N-CA	-5.88	1.37	1.46
7	ED	70	GLY	C-O	5.88	1.33	1.23
7	EE	287	VAL	CB-CG1	-5.85	1.40	1.52
4	DW	597	SER	CB-OG	-5.84	1.34	1.42
4	DW	994	GLY	N-CA	-5.82	1.37	1.46
4	DW	920	TRP	CD1-NE1	-5.82	1.28	1.38
4	DW	793	GLY	N-CA	-5.81	1.37	1.46
2	DS	23	TYR	CG-CD1	-5.81	1.31	1.39
4	DW	1001	VAL	CB-CG2	-5.81	1.40	1.52
4	DW	759	LYS	CE-NZ	-5.79	1.34	1.49
4	DW	928	PHE	CD2-CE2	-5.78	1.27	1.39
4	DW	1002	GLY	N-CA	-5.78	1.37	1.46
4	DW	935	SER	CB-OG	-5.78	1.34	1.42
7	ED	287	VAL	CB-CG1	-5.77	1.40	1.52
7	ED	485	TYR	CD2-CE2	-5.77	1.30	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	DW	626	SER	CB-OG	-5.76	1.34	1.42
7	EE	485	TYR	CD2-CE2	-5.76	1.30	1.39
3	DV	28	ASP	C-N	-5.75	1.20	1.34
7	ED	577	TYR	CD2-CE2	-5.72	1.30	1.39
4	DW	896	VAL	CB-CG1	-5.68	1.41	1.52
4	DW	752	SER	CB-OG	-5.66	1.34	1.42
4	DW	936	GLY	N-CA	-5.66	1.37	1.46
4	DW	856	VAL	CB-CG2	-5.65	1.41	1.52
6	EA	91	ILE	C-O	5.65	1.34	1.23
6	EA	165	GLN	C-N	5.64	1.47	1.34
7	EE	554	GLY	N-CA	-5.64	1.37	1.46
7	EE	82	GLY	N-CA	-5.64	1.37	1.46
7	ED	554	GLY	N-CA	-5.64	1.37	1.46
7	ED	82	GLY	N-CA	-5.64	1.37	1.46
4	DW	628	PHE	CD2-CE2	-5.63	1.27	1.39
7	ED	235	VAL	CB-CG2	-5.62	1.41	1.52
4	DW	998	GLU	CB-CG	-5.59	1.41	1.52
4	DW	211	SER	CB-OG	-5.58	1.34	1.42
7	EE	235	VAL	CB-CG2	-5.58	1.41	1.52
7	ED	301	LYS	CE-NZ	-5.57	1.35	1.49
7	EE	338	GLY	N-CA	-5.56	1.37	1.46
4	DW	1003	GLY	N-CA	-5.56	1.37	1.46
4	DW	74	SER	CB-OG	-5.56	1.35	1.42
4	DW	877	GLY	N-CA	-5.55	1.37	1.46
7	EE	285	SER	CB-OG	-5.55	1.35	1.42
4	DW	293	SER	CB-OG	-5.55	1.35	1.42
7	EE	301	LYS	CE-NZ	-5.54	1.35	1.49
7	ED	338	GLY	N-CA	-5.53	1.37	1.46
4	DW	316	SER	CB-OG	-5.53	1.35	1.42
7	ED	81	SER	CB-OG	-5.53	1.35	1.42
4	DW	628	PHE	CD1-CE1	-5.53	1.28	1.39
4	DW	83	GLY	N-CA	-5.51	1.37	1.46
6	EA	88	GLU	C-O	5.49	1.33	1.23
4	DW	15	ILE	CB-CG2	-5.49	1.35	1.52
7	ED	285	SER	CB-OG	-5.49	1.35	1.42
3	DV	25	ASP	CB-CG	5.49	1.63	1.51
7	EE	231	LYS	CE-NZ	-5.48	1.35	1.49
4	DW	920	TRP	CZ3-CH2	-5.48	1.31	1.40
6	EA	95	GLN	C-O	5.47	1.33	1.23
4	DW	597	SER	CA-CB	-5.47	1.44	1.52
4	DW	853	LYS	CE-NZ	-5.46	1.35	1.49
7	EE	81	SER	CB-OG	-5.46	1.35	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	ED	231	LYS	CE-NZ	-5.45	1.35	1.49
4	DW	834	GLU	CB-CG	-5.44	1.41	1.52
4	DW	454	SER	CB-OG	-5.42	1.35	1.42
7	ED	101	VAL	CB-CG2	-5.42	1.41	1.52
4	DW	920	TRP	CE3-CZ3	-5.42	1.29	1.38
4	DW	763	ILE	CB-CG2	-5.41	1.36	1.52
7	EE	101	VAL	CB-CG2	-5.40	1.41	1.52
4	DW	455	SER	CB-OG	-5.39	1.35	1.42
4	DW	755	SER	CB-OG	-5.38	1.35	1.42
4	DW	478	SER	CB-OG	-5.38	1.35	1.42
7	ED	368	ASN	C-O	5.37	1.33	1.23
4	DW	95	SER	CB-OG	-5.36	1.35	1.42
7	EE	235	VAL	CB-CG1	-5.36	1.41	1.52
4	DW	626	SER	CA-CB	-5.35	1.45	1.52
4	DW	78	SER	CB-OG	-5.35	1.35	1.42
4	DW	496	SER	CB-OG	-5.34	1.35	1.42
7	ED	5	LYS	CE-NZ	-5.34	1.35	1.49
4	DW	56	GLU	CB-CG	-5.34	1.42	1.52
7	EE	5	LYS	CE-NZ	-5.32	1.35	1.49
4	DW	279	LYS	CE-NZ	-5.32	1.35	1.49
7	ED	235	VAL	CB-CG1	-5.31	1.41	1.52
4	DW	67	SER	CB-OG	-5.30	1.35	1.42
4	DW	282	SER	CB-OG	-5.30	1.35	1.42
2	DS	22	ASP	C-N	-5.29	1.21	1.34
4	DW	242	SER	CB-OG	-5.29	1.35	1.42
7	ED	634	ASP	C-O	5.28	1.33	1.23
4	DW	499	SER	CB-OG	-5.28	1.35	1.42
7	EE	368	ASN	C-O	5.28	1.33	1.23
7	EE	510	LYS	CE-NZ	-5.28	1.35	1.49
4	DW	52	SER	CB-OG	-5.27	1.35	1.42
7	ED	7	SER	CB-OG	-5.27	1.35	1.42
7	ED	510	LYS	CE-NZ	-5.27	1.35	1.49
4	DW	462	SER	CB-OG	-5.27	1.35	1.42
4	DW	506	LYS	CE-NZ	-5.27	1.35	1.49
4	DW	366	VAL	CB-CG1	-5.27	1.41	1.52
4	DW	861	ALA	CA-CB	-5.26	1.41	1.52
4	DW	496	SER	CA-CB	-5.25	1.45	1.52
7	EE	7	SER	CB-OG	-5.25	1.35	1.42
4	DW	896	VAL	CB-CG2	-5.24	1.41	1.52
4	DW	928	PHE	CE1-CZ	-5.24	1.27	1.37
4	DW	596	ARG	CD-NE	-5.23	1.37	1.46
7	EE	525	SER	CB-OG	-5.22	1.35	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	EE	634	ASP	C-O	5.22	1.33	1.23
7	ED	572	LYS	CE-NZ	-5.21	1.36	1.49
4	DW	243	SER	CB-OG	-5.20	1.35	1.42
4	DW	295	SER	CA-CB	-5.20	1.45	1.52
7	ED	230	SER	CB-OG	-5.20	1.35	1.42
7	EE	572	LYS	CE-NZ	-5.19	1.36	1.49
4	DW	470	GLU	CB-CG	-5.18	1.42	1.52
7	ED	525	SER	CB-OG	-5.18	1.35	1.42
4	DW	927	ARG	CD-NE	-5.18	1.37	1.46
4	DW	16	ALA	CA-CB	-5.17	1.41	1.52
4	DW	962	ILE	CB-CG2	-5.17	1.36	1.52
5	DX	50	GLY	C-O	5.16	1.31	1.23
4	DW	646	VAL	CB-CG1	-5.15	1.42	1.52
4	DW	594	ARG	CD-NE	-5.13	1.37	1.46
4	DW	859	LYS	CE-NZ	-5.12	1.36	1.49
4	DW	867	ARG	CD-NE	-5.12	1.37	1.46
3	DV	24	ALA	CA-C	-5.11	1.39	1.52
4	DW	928	PHE	CE2-CZ	-5.11	1.27	1.37
7	ED	241	LYS	CE-NZ	-5.10	1.36	1.49
7	EE	230	SER	CB-OG	-5.10	1.35	1.42
6	EA	167	MET	C-N	5.10	1.45	1.34
4	DW	596	ARG	CB-CG	-5.08	1.38	1.52
7	EE	241	LYS	CE-NZ	-5.08	1.36	1.49
4	DW	930	PRO	N-CD	-5.07	1.40	1.47
7	EE	531	GLU	CB-CG	-5.07	1.42	1.52
6	EA	161	GLY	C-N	5.06	1.45	1.34
4	DW	675	SER	CB-OG	-5.05	1.35	1.42
4	DW	646	VAL	CB-CG2	-5.05	1.42	1.52
6	EC	83	ILE	C-O	5.05	1.32	1.23
7	EE	540	LYS	CE-NZ	-5.05	1.36	1.49
4	DW	471	ILE	CB-CG2	-5.05	1.37	1.52
7	ED	531	GLU	CB-CG	-5.03	1.42	1.52
4	DW	682	ILE	CB-CG2	-5.03	1.37	1.52
6	EA	166	TYR	C-N	5.03	1.45	1.34

All (208) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	DV	24	ALA	CB-CA-C	-27.15	69.38	110.10
3	DV	27	ASP	CB-CA-C	-26.89	56.61	110.40
3	DV	26	ARG	CB-CA-C	-26.87	56.66	110.40
2	DS	23	TYR	CB-CG-CD1	-22.54	107.48	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	DV	28	ASP	CB-CA-C	-19.23	71.94	110.40
5	DZ	40	TYR	O-C-N	-18.90	92.46	122.70
6	EA	165	GLN	N-CA-C	-17.34	64.17	111.00
2	DS	23	TYR	CB-CG-CD2	15.77	130.46	121.00
3	DV	26	ARG	CG-CD-NE	15.29	143.90	111.80
3	DV	26	ARG	CA-CB-CG	-12.82	85.20	113.40
2	DT	17	TYR	C-N-CD	-11.71	94.84	120.60
3	DV	28	ASP	N-CA-C	-11.03	81.21	111.00
3	DV	24	ALA	CA-C-O	-10.45	98.15	120.10
3	DV	25	ASP	N-CA-CB	9.89	128.41	110.60
3	DV	147	PRO	N-CA-CB	-9.60	91.78	103.30
6	EA	167	MET	N-CA-C	9.54	136.75	111.00
5	DX	63	TYR	CB-CA-C	9.52	129.43	110.40
6	EC	103	THR	CA-C-N	-9.42	96.47	117.20
2	DS	22	ASP	C-N-CA	-9.37	98.27	121.70
2	DS	23	TYR	CA-C-N	-9.31	96.72	117.20
4	DW	865	ARG	NE-CZ-NH2	9.18	124.89	120.30
6	EA	104	GLU	CA-C-N	-8.98	97.45	117.20
4	DW	892	ARG	NE-CZ-NH1	8.53	124.56	120.30
6	EC	107	TRP	N-CA-C	8.49	133.94	111.00
5	DX	49	PHE	CA-C-N	8.36	132.92	116.20
6	EA	165	GLN	CA-C-N	8.14	135.12	117.20
3	DU	139	PRO	N-CA-CB	-8.13	93.54	103.30
5	DX	49	PHE	CA-C-O	-8.10	103.09	120.10
3	DV	23	TRP	CA-C-N	-8.05	99.48	117.20
6	EB	114	PRO	N-CA-C	-8.05	91.17	112.10
2	DS	23	TYR	C-N-CA	-7.99	101.72	121.70
3	DU	144	PRO	N-CA-CB	-7.89	93.83	103.30
4	DW	223	ARG	NE-CZ-NH1	7.81	124.20	120.30
3	DV	26	ARG	N-CA-C	7.79	132.04	111.00
3	DV	25	ASP	CB-CG-OD2	7.74	125.27	118.30
7	EE	392	PRO	N-CA-CB	-7.52	94.28	103.30
2	DS	23	TYR	N-CA-CB	7.52	124.13	110.60
7	ED	392	PRO	N-CA-CB	-7.44	94.37	103.30
4	DW	1004	ARG	CD-NE-CZ	7.41	133.98	123.60
7	ED	466	ARG	NE-CZ-NH2	7.40	124.00	120.30
7	EE	466	ARG	NE-CZ-NH2	7.37	123.98	120.30
5	DX	48	LYS	O-C-N	7.34	134.45	122.70
4	DW	929	ARG	CD-NE-CZ	7.29	133.81	123.60
6	EA	101	LEU	O-C-N	7.27	134.34	122.70
3	DU	139	PRO	CA-N-CD	-7.22	101.39	111.50
7	ED	197	ARG	NE-CZ-NH1	7.22	123.91	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	EA	101	LEU	CA-C-O	-7.19	105.00	120.10
3	DV	25	ASP	N-CA-C	7.16	130.34	111.00
4	DW	865	ARG	NE-CZ-NH1	-7.13	116.73	120.30
7	EE	197	ARG	NE-CZ-NH1	7.13	123.86	120.30
4	DW	971	ARG	NE-CZ-NH1	7.07	123.83	120.30
4	DW	35	ARG	NE-CZ-NH1	7.07	123.83	120.30
4	DW	1005	ARG	CD-NE-CZ	6.96	133.34	123.60
7	ED	482	ARG	NE-CZ-NH2	6.95	123.77	120.30
7	EE	464	ARG	NE-CZ-NH2	6.93	123.77	120.30
5	DY	12	VAL	CG1-CB-CG2	6.92	121.97	110.90
4	DW	594	ARG	NE-CZ-NH2	-6.89	116.86	120.30
7	EE	361	ARG	NE-CZ-NH2	6.88	123.74	120.30
7	EE	482	ARG	NE-CZ-NH2	6.86	123.73	120.30
7	ED	464	ARG	NE-CZ-NH2	6.79	123.70	120.30
3	DU	139	PRO	N-CA-C	6.78	129.74	112.10
4	DW	928	PHE	CB-CG-CD2	6.78	125.55	120.80
4	DW	858	ARG	NE-CZ-NH1	-6.75	116.93	120.30
6	EA	113	PRO	N-CA-C	6.74	129.63	112.10
7	ED	361	ARG	NE-CZ-NH2	6.71	123.65	120.30
4	DW	594	ARG	NE-CZ-NH1	6.67	123.64	120.30
7	ED	112	ARG	CD-NE-CZ	6.64	132.90	123.60
4	DW	624	ARG	NE-CZ-NH2	6.60	123.60	120.30
3	DV	27	ASP	N-CA-CB	-6.59	98.73	110.60
6	EA	164	SER	CA-C-O	-6.59	106.26	120.10
3	DV	24	ALA	CA-C-N	6.58	131.68	117.20
6	EC	100	ASN	O-C-N	6.57	133.22	122.70
7	ED	639	ARG	CD-NE-CZ	6.57	132.80	123.60
7	EE	112	ARG	CD-NE-CZ	6.53	132.75	123.60
6	EA	103	THR	N-CA-C	-6.49	93.48	111.00
7	EE	639	ARG	CD-NE-CZ	6.49	132.68	123.60
7	EE	553	PHE	CB-CG-CD2	6.48	125.34	120.80
4	DW	865	ARG	CD-NE-CZ	6.45	132.63	123.60
4	DW	757	ARG	NE-CZ-NH1	6.45	123.52	120.30
6	EA	104	GLU	C-N-CA	-6.44	105.61	121.70
4	DW	905	ARG	NE-CZ-NH1	6.43	123.52	120.30
4	DW	858	ARG	CD-NE-CZ	6.41	132.57	123.60
4	DW	960	TYR	CB-CG-CD2	6.34	124.80	121.00
7	EE	485	TYR	CB-CG-CD2	6.34	124.80	121.00
7	ED	485	TYR	CB-CG-CD2	6.33	124.80	121.00
7	ED	553	PHE	CB-CG-CD2	6.28	125.19	120.80
6	EA	164	SER	CA-C-N	6.25	130.96	117.20
4	DW	817	ARG	NE-CZ-NH1	6.25	123.42	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	DW	966	ARG	CD-NE-CZ	6.24	132.33	123.60
4	DW	622	ARG	NE-CZ-NH2	6.23	123.41	120.30
7	ED	228	ARG	NE-CZ-NH2	6.22	123.41	120.30
2	DT	23	TYR	CB-CA-C	6.22	122.83	110.40
3	DV	28	ASP	CA-CB-CG	6.19	127.02	113.40
7	EE	566	PHE	CB-CG-CD2	6.16	125.11	120.80
7	EE	228	ARG	NE-CZ-NH2	6.11	123.36	120.30
4	DW	835	ARG	CD-NE-CZ	6.11	132.15	123.60
7	ED	566	PHE	CB-CG-CD2	6.10	125.07	120.80
7	ED	356	ARG	NE-CZ-NH2	6.09	123.35	120.30
3	DV	25	ASP	OD1-CG-OD2	-6.08	111.75	123.30
4	DW	596	ARG	NE-CZ-NH2	-6.02	117.29	120.30
6	EC	165	GLN	N-CA-C	-6.02	94.76	111.00
4	DW	608	ARG	NE-CZ-NH2	6.01	123.31	120.30
3	DV	28	ASP	C-N-CA	6.01	136.73	121.70
7	EE	112	ARG	NE-CZ-NH2	-6.01	117.30	120.30
7	EE	15	ARG	NE-CZ-NH2	6.00	123.30	120.30
4	DW	53	TYR	CB-CG-CD1	5.99	124.60	121.00
4	DW	867	ARG	CD-NE-CZ	5.99	131.99	123.60
7	ED	15	ARG	NE-CZ-NH2	5.99	123.29	120.30
7	ED	112	ARG	NE-CZ-NH2	-5.98	117.31	120.30
3	DV	25	ASP	CA-C-N	-5.98	104.04	117.20
7	EE	229	ARG	NE-CZ-NH2	-5.98	117.31	120.30
7	EE	356	ARG	NE-CZ-NH2	5.98	123.29	120.30
4	DW	688	TYR	CB-CG-CD2	5.98	124.59	121.00
7	ED	229	ARG	NE-CZ-NH2	-5.95	117.32	120.30
6	EC	102	SER	N-CA-C	-5.90	95.06	111.00
3	DV	137	TYR	CB-CA-C	5.87	122.15	110.40
4	DW	867	ARG	NE-CZ-NH1	-5.85	117.38	120.30
6	EC	100	ASN	CA-C-O	-5.84	107.83	120.10
4	DW	74	SER	N-CA-CB	5.83	119.24	110.50
7	EE	489	ARG	NE-CZ-NH1	-5.83	117.39	120.30
3	DV	28	ASP	CA-C-O	-5.81	107.90	120.10
7	ED	489	ARG	NE-CZ-NH1	-5.80	117.40	120.30
4	DW	835	ARG	NE-CZ-NH1	-5.79	117.40	120.30
4	DW	18	GLN	CA-CB-CG	5.79	126.13	113.40
6	EA	166	TYR	N-CA-C	5.79	126.63	111.00
6	EC	168	LYS	C-N-CA	5.78	136.14	121.70
6	EA	163	LEU	N-CA-C	5.77	126.59	111.00
3	DV	24	ALA	N-CA-CB	5.74	118.14	110.10
4	DW	865	ARG	CG-CD-NE	5.74	123.85	111.80
6	EA	69	LEU	O-C-N	-5.74	113.52	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	DV	23	TRP	C-N-CA	-5.73	107.39	121.70
4	DW	775	ARG	NE-CZ-NH2	5.68	123.14	120.30
4	DW	767	CYS	CA-CB-SG	5.66	124.19	114.00
4	DW	835	ARG	NE-CZ-NH2	5.66	123.13	120.30
2	DT	22	ASP	CB-CA-C	-5.64	99.12	110.40
6	EC	166	TYR	N-CA-C	5.63	126.21	111.00
7	ED	112	ARG	NE-CZ-NH1	5.62	123.11	120.30
7	ED	440	ILE	C-N-CA	5.61	135.73	121.70
7	EE	440	ILE	C-N-CA	5.59	135.69	121.70
4	DW	101	ARG	NE-CZ-NH1	5.59	123.10	120.30
4	DW	365	ARG	NE-CZ-NH1	-5.59	117.50	120.30
4	DW	80	LEU	CA-CB-CG	5.59	128.15	115.30
6	EA	105	ASP	CA-C-N	5.58	129.47	117.20
3	DV	24	ALA	C-N-CA	5.57	135.63	121.70
7	EE	112	ARG	NE-CZ-NH1	5.56	123.08	120.30
4	DW	1005	ARG	NE-CZ-NH1	-5.53	117.54	120.30
4	DW	835	ARG	CA-CB-CG	5.51	125.52	113.40
7	EE	577	TYR	CB-CG-CD2	5.48	124.29	121.00
7	ED	639	ARG	NE-CZ-NH1	-5.48	117.56	120.30
7	ED	489	ARG	CA-CB-CG	5.46	125.42	113.40
7	EE	392	PRO	N-CA-C	5.46	126.30	112.10
7	ED	577	TYR	CB-CG-CD2	5.46	124.27	121.00
7	ED	639	ARG	CG-CD-NE	5.45	123.25	111.80
4	DW	859	LYS	CA-CB-CG	5.45	125.39	113.40
6	EA	168	LYS	C-N-CA	5.44	135.31	121.70
6	EC	103	THR	C-N-CA	-5.44	108.09	121.70
4	DW	60	LEU	CA-CB-CG	5.44	127.82	115.30
7	ED	265	ARG	NE-CZ-NH1	5.43	123.02	120.30
6	EA	166	TYR	CA-C-O	-5.42	108.72	120.10
7	EE	489	ARG	CA-CB-CG	5.42	125.31	113.40
7	ED	392	PRO	N-CA-C	5.41	126.17	112.10
2	DS	23	TYR	CA-C-O	5.41	131.46	120.10
3	DV	25	ASP	O-C-N	5.41	131.36	122.70
7	EE	639	ARG	CG-CD-NE	5.40	123.14	111.80
4	DW	596	ARG	NE-CZ-NH1	5.39	122.99	120.30
7	ED	561	MET	CA-CB-CG	5.36	122.41	113.30
4	DW	643	TYR	CB-CG-CD2	5.35	124.21	121.00
5	DZ	41	TRP	N-CA-CB	-5.34	100.98	110.60
4	DW	929	ARG	CA-CB-CG	5.31	125.08	113.40
7	ED	639	ARG	NE-CZ-NH2	5.29	122.94	120.30
7	EE	561	MET	CA-CB-CG	5.28	122.28	113.30
7	EE	639	ARG	NE-CZ-NH1	-5.27	117.66	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	EA	162	SER	CA-C-N	5.27	128.78	117.20
7	ED	229	ARG	NE-CZ-NH1	5.24	122.92	120.30
4	DW	835	ARG	CG-CD-NE	5.24	122.80	111.80
7	EE	229	ARG	NE-CZ-NH1	5.23	122.92	120.30
7	EE	525	SER	N-CA-CB	5.23	118.34	110.50
7	ED	242	ASP	CB-CG-OD2	5.22	123.00	118.30
4	DW	540	ALA	N-CA-CB	5.21	117.40	110.10
7	EE	639	ARG	NE-CZ-NH2	5.21	122.90	120.30
7	EE	265	ARG	NE-CZ-NH1	5.20	122.90	120.30
4	DW	867	ARG	NE-CZ-NH2	5.20	122.90	120.30
4	DW	858	ARG	NE-CZ-NH2	5.20	122.90	120.30
4	DW	275	ASP	CB-CG-OD2	5.20	122.98	118.30
7	ED	285	SER	N-CA-CB	5.18	118.27	110.50
7	EE	285	SER	N-CA-CB	5.17	118.26	110.50
4	DW	1005	ARG	NE-CZ-NH2	5.16	122.88	120.30
6	EC	165	GLN	CA-C-N	5.16	128.54	117.20
6	EA	161	GLY	O-C-N	-5.14	114.48	122.70
7	ED	525	SER	N-CA-CB	5.14	118.21	110.50
7	EE	242	ASP	CB-CG-OD2	5.13	122.92	118.30
5	DZ	40	TYR	CA-C-N	5.12	128.46	117.20
7	EE	515	ARG	NE-CZ-NH1	-5.11	117.75	120.30
6	EC	166	TYR	C-N-CA	5.11	134.46	121.70
7	ED	515	ARG	CD-NE-CZ	5.09	130.72	123.60
6	EA	168	LYS	N-CA-C	5.09	124.73	111.00
4	DW	927	ARG	CA-CB-CG	5.08	124.58	113.40
7	EE	489	ARG	NE-CZ-NH2	5.07	122.84	120.30
7	ED	372	TYR	CA-C-N	5.07	126.34	116.20
4	DW	927	ARG	CD-NE-CZ	5.07	130.69	123.60
7	ED	515	ARG	NE-CZ-NH1	-5.05	117.78	120.30
7	EE	383	ASP	N-CA-CB	5.05	119.69	110.60
3	DV	150	ASN	N-CA-CB	5.04	119.67	110.60
7	EE	515	ARG	CD-NE-CZ	5.03	130.65	123.60
7	EE	374	ARG	NE-CZ-NH2	5.03	122.81	120.30
7	ED	383	ASP	N-CA-CB	5.02	119.64	110.60
6	EA	165	GLN	O-C-N	-5.01	114.68	122.70
7	EE	470	ARG	NE-CZ-NH2	5.00	122.80	120.30

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
3	DV	25	ASP	CA

All (44) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AF	213	PHE	Peptide
1	BD	213	PHE	Peptide
1	CA	144	THR	Peptide
1	CC	167	PHE	Peptide
1	CC	168	GLN	Peptide
1	DF	167	PHE	Peptide
1	DF	168	GLN	Peptide
2	DT	17	TYR	Peptide
3	DU	192	VAL	Peptide
3	DV	23	TRP	Mainchain
3	DV	24	ALA	Peptide,Mainchain
3	DV	25	ASP	Mainchain
3	DV	26	ARG	Mainchain
3	DV	28	ASP	Mainchain
4	DW	483	TYR	Sidechain
4	DW	694	GLU	Peptide
5	DX	49	PHE	Mainchain
5	DX	87	LEU	Mainchain
5	DZ	40	TYR	Mainchain
6	EA	15	THR	Peptide
6	EA	161	GLY	Mainchain
6	EA	208	ILE	Peptide
6	EA	218	PRO	Peptide
6	EA	6	PHE	Peptide
6	EB	175	THR	Peptide
6	EB	177	GLY	Peptide
6	EB	188	GLY	Peptide
6	EB	190	LYS	Peptide
6	EB	201	GLN	Peptide
6	EB	208	ILE	Peptide
6	EB	8	LYS	Peptide
6	EC	1	MET	Peptide
6	EC	103	THR	Mainchain
6	EC	166	TYR	Peptide
6	EC	175	THR	Peptide
6	EC	186	TYR	Peptide
6	EC	188	GLY	Peptide
6	EC	201	GLN	Peptide
6	EC	208	ILE	Peptide
6	EC	218	PRO	Peptide
6	EC	6	PHE	Peptide
6	EC	8	LYS	Peptide

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Mol	Chain	Res	Type	Group
7	ED	638	LEU	Mainchain

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	2685	0	2651	29	0
1	AB	2685	0	2651	24	0
1	AC	2663	0	2631	33	0
1	AD	2685	0	2651	26	0
1	AE	2677	0	2646	26	0
1	AF	2676	0	2638	26	0
1	AG	2685	0	2651	27	0
1	AH	2685	0	2651	29	0
1	AI	2685	0	2651	23	0
1	AJ	2685	0	2651	23	0
1	AK	2685	0	2645	88	0
1	AL	2685	0	2651	23	0
1	AM	2663	0	2625	169	0
1	AN	2663	0	2631	26	0
1	AO	2663	0	2631	32	0
1	AP	2685	0	2626	376	0
1	AQ	2685	0	2651	26	0
1	AR	2685	0	2651	30	0
1	AS	2677	0	2641	155	0
1	AT	2677	0	2646	25	0
1	AU	2677	0	2646	26	0
1	AV	2676	0	2638	33	0
1	AW	2676	0	2619	212	0
1	AX	2676	0	2638	23	0
1	AY	2685	0	2651	27	0
1	AZ	2685	0	2651	26	0
1	BA	2663	0	2631	34	0
1	BB	2685	0	2651	27	0
1	BC	2677	0	2646	25	0
1	BD	2676	0	2638	23	0
1	BE	2685	0	2651	28	0
1	BF	2685	0	2651	52	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	BG	2685	0	2651	24	0
1	BH	2685	0	2651	22	0
1	BI	2685	0	2629	426	0
1	BJ	2685	0	2651	22	0
1	BK	2663	0	2622	168	0
1	BL	2663	0	2631	29	0
1	BM	2663	0	2631	31	0
1	BN	2685	0	2642	145	0
1	BO	2685	0	2651	26	0
1	BP	2685	0	2651	28	0
1	BQ	2677	0	2646	31	0
1	BR	2677	0	2646	27	0
1	BS	2677	0	2646	25	0
1	BT	2676	0	2638	29	0
1	BU	2676	0	2622	275	0
1	BV	2676	0	2638	24	0
1	BW	2672	0	2635	40	0
1	BX	2677	0	2646	53	0
1	BY	2685	0	2651	41	0
1	BZ	2670	0	2638	34	0
1	CA	2677	0	2646	45	0
1	CB	2676	0	2638	40	0
1	CC	2685	0	2651	33	0
1	CD	2657	0	2629	39	0
1	CE	2676	0	2638	45	0
1	CF	2644	0	2611	34	0
1	CG	2685	0	2651	38	0
1	CH	2685	0	2651	22	0
1	CI	2676	0	2638	28	0
1	CJ	2685	0	2651	26	0
1	CK	2685	0	2651	41	0
1	CL	2654	0	2618	41	0
1	CM	2676	0	2638	31	0
1	CN	2644	0	2608	118	0
1	CO	2637	0	2602	39	0
1	CP	2668	0	2633	37	0
1	CQ	2676	0	2638	43	0
1	CR	2670	0	2631	139	0
1	CS	2685	0	2642	275	0
1	CT	2677	0	2646	34	0
1	CU	2676	0	2638	48	0
1	CV	2685	0	2647	48	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	CW	2677	0	2629	165	0
1	CX	2676	0	2638	22	0
1	CY	2685	0	2651	37	0
1	CZ	2685	0	2647	95	0
1	DA	2677	0	2646	36	0
1	DB	2685	0	2649	117	0
1	DC	2670	0	2636	72	0
1	DD	2677	0	2646	68	0
1	DE	2676	0	2638	42	0
1	DF	2685	0	2651	44	0
1	DG	2657	0	2629	37	0
1	DH	2676	0	2634	172	0
1	DI	2685	0	2651	28	0
1	DJ	2676	0	2638	38	0
1	DK	2654	0	2606	204	0
1	DL	2676	0	2638	30	0
1	DM	2668	0	2633	104	0
1	DN	2676	0	2638	38	0
1	DO	2677	0	2642	53	0
1	DP	2676	0	2623	296	0
1	DQ	2676	0	2638	30	0
2	DR	1420	0	954	74	0
2	DS	1424	0	965	40	0
2	DT	1424	0	965	36	0
3	DU	1813	0	1736	191	0
3	DV	1813	0	1738	300	0
4	DW	7063	0	6881	199	0
5	DX	683	0	653	167	0
5	DY	628	0	610	132	0
5	DZ	545	0	536	116	0
6	EA	1289	0	384	10	0
6	EB	1289	0	384	10	0
6	EC	1289	0	384	18	0
7	ED	4838	0	4692	509	0
7	EE	4838	0	4692	462	0
All	All	284597	0	276368	5691	0

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

All (5691) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BI:96:THR:HB	1:DM:152:VAL:CG2	1.26	1.63
1:AW:16:LYS:HG3	1:BK:103:TYR:CD2	1.21	1.62
1:AP:320:SER:CB	1:CZ:65:GLU:CG	1.74	1.62
1:BI:92:ARG:CZ	1:DK:6:LEU:HD23	1.20	1.62
1:AP:79:ILE:HD13	1:CR:147:ALA:CB	1.15	1.61
1:BI:147:ALA:HA	1:DH:79:ILE:CG2	1.19	1.61
1:BU:14:GLY:CA	1:DP:102:ASN:HD21	1.09	1.61
1:AP:96:THR:CG2	1:CZ:65:GLU:H	1.05	1.60
1:BI:103:TYR:CA	1:DK:15:LYS:HB2	1.19	1.59
4:DW:748:ALA:CB	6:EC:23:PHE:H	1.03	1.59
1:AW:7:PHE:CE1	1:BK:97:ALA:HB1	1.36	1.58
1:AK:145:ASN:ND2	1:BN:145:ASN:CB	1.67	1.58
1:AW:16:LYS:CA	1:BK:103:TYR:HE2	1.16	1.56
1:BI:147:ALA:CA	1:DH:79:ILE:HG21	1.27	1.56
1:AP:144:THR:CG2	1:CR:141:GLN:HG3	1.16	1.56
1:BI:144:THR:CG2	1:DH:143:LEU:HD23	1.28	1.55
1:AM:97:ALA:CB	1:CN:9:SER:HB2	1.28	1.55
1:DB:16:LYS:HG2	3:DV:234:ARG:CD	1.13	1.55
1:AP:92:ARG:NH2	1:CS:5:THR:CB	1.68	1.54
1:AW:16:LYS:HA	1:BK:103:TYR:CE2	1.43	1.53
7:ED:379:VAL:CG2	7:EE:398:MET:CG	1.79	1.53
1:DB:16:LYS:CG	3:DV:234:ARG:CD	1.81	1.53
1:BI:92:ARG:CZ	1:DK:6:LEU:CD2	1.85	1.53
2:DR:20:ASP:C	4:DW:856:VAL:HG11	1.24	1.53
1:AP:79:ILE:CD1	1:CR:147:ALA:HB1	1.32	1.52
1:AP:144:THR:HG21	1:CR:141:GLN:CG	1.07	1.52
1:BI:145:ASN:CA	1:DP:19:PHE:CE2	1.79	1.52
1:BI:7:PHE:CZ	1:DK:92:ARG:HD3	1.44	1.52
1:AW:16:LYS:CA	1:BK:103:TYR:CE2	1.90	1.51
1:BI:7:PHE:CD2	1:DK:92:ARG:HD2	1.43	1.51
7:ED:628:GLU:CG	7:EE:627:PHE:CE2	1.77	1.51
1:BI:145:ASN:HA	1:DP:19:PHE:CE2	0.97	1.50
1:BU:5:THR:N	1:DH:74:MET:CB	1.69	1.50
1:BI:145:ASN:CA	1:DP:19:PHE:CZ	1.76	1.50
1:AM:103:TYR:CD2	1:CN:16:LYS:HG2	1.42	1.50
1:BU:94:SER:CB	1:DP:8:VAL:HA	1.35	1.50
1:BI:315:LEU:HD22	1:DP:318:ASP:CG	1.28	1.49
1:AP:8:VAL:CB	1:CS:96:THR:HG21	1.05	1.49
7:ED:628:GLU:CG	7:EE:627:PHE:CD2	1.76	1.49
7:ED:131:ARG:CZ	7:EE:269:ARG:HH12	1.24	1.49
1:BI:96:THR:CB	1:DM:152:VAL:HG21	1.05	1.49
1:BI:105:ARG:N	1:DK:14:GLY:CA	1.72	1.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:ED:379:VAL:HG21	7:EE:398:MET:CG	1.01	1.48
1:BU:4:PRO:HA	1:DH:74:MET:CB	1.38	1.48
7:ED:625:THR:CG2	7:EE:624:ARG:HH22	1.25	1.48
1:BU:94:SER:HB2	1:DP:8:VAL:CA	1.07	1.48
1:AP:8:VAL:HB	1:CS:96:THR:CG2	1.39	1.47
3:DU:26:ARG:HG2	4:DW:973:ASN:CG	1.21	1.47
3:DU:26:ARG:HG2	4:DW:973:ASN:ND2	1.28	1.47
1:BU:4:PRO:CA	1:DH:74:MET:HB2	1.39	1.47
1:AS:73:GLU:HG3	1:CS:3:ASN:C	1.19	1.47
1:BI:147:ALA:C	1:DH:79:ILE:HG13	1.31	1.47
1:DB:312:ARG:HH11	7:ED:31:MET:CE	1.27	1.47
1:BI:103:TYR:HA	1:DK:15:LYS:CB	1.00	1.47
1:AW:16:LYS:CG	1:BK:103:TYR:CD2	1.96	1.46
1:AM:7:PHE:CZ	1:CN:108:GLU:OE2	1.68	1.46
7:ED:430:ARG:HG2	7:EE:66:GLU:CG	1.41	1.46
1:BI:147:ALA:HA	1:DH:79:ILE:CB	1.44	1.45
1:BI:92:ARG:NE	1:DK:6:LEU:HD23	1.28	1.45
7:ED:131:ARG:NH2	7:EE:269:ARG:HH12	1.10	1.45
1:BI:96:THR:CG2	1:DM:152:VAL:HG11	1.43	1.45
1:BI:145:ASN:HA	1:DP:19:PHE:CZ	0.94	1.45
1:DB:16:LYS:CG	3:DV:234:ARG:HD3	1.41	1.45
1:BI:147:ALA:H	1:DH:143:LEU:CD1	1.25	1.45
1:BU:92:ARG:CG	1:DP:6:LEU:HA	1.46	1.44
7:ED:410:HIS:HA	7:EE:406:LEU:CD1	1.45	1.44
1:AW:99:THR:HA	1:BN:308:ARG:CG	1.48	1.44
5:DX:85:ALA:HB2	5:DZ:88:MET:CE	1.45	1.43
1:AP:79:ILE:CD1	1:CR:147:ALA:CB	1.88	1.43
1:AP:104:GLY:O	1:CS:15:LYS:CG	1.63	1.43
7:ED:466:ARG:NH1	7:EE:77:ASN:HD22	1.17	1.43
1:BI:148:ALA:N	1:DH:79:ILE:HG13	1.32	1.42
4:DW:707:TYR:HE1	6:EB:56:ASP:CA	1.33	1.42
5:DX:85:ALA:CB	5:DZ:88:MET:SD	2.08	1.42
1:BI:147:ALA:N	1:DH:143:LEU:HD11	1.10	1.42
1:AM:101:ALA:N	1:CR:44:GLN:HE22	1.04	1.41
1:DB:39:LYS:CD	7:ED:16:VAL:HG13	1.49	1.41
5:DX:61:ARG:HD3	5:DY:63:TYR:CE2	1.55	1.41
1:AW:13:ASN:CB	1:BN:77:THR:OG1	1.68	1.41
7:ED:410:HIS:HE2	7:EE:373:GLY:C	1.18	1.41
1:AP:320:SER:HB2	1:CZ:65:GLU:CG	0.95	1.41
2:DR:20:ASP:C	4:DW:856:VAL:CG1	1.88	1.41
1:AK:145:ASN:ND2	1:BN:145:ASN:CG	1.71	1.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AW:7:PHE:CD1	1:BK:97:ALA:CB	2.04	1.41
7:ED:649:ASN:ND2	7:EE:648:GLU:CG	1.73	1.40
1:AM:101:ALA:H	1:CR:44:GLN:NE2	1.15	1.40
1:BU:3:ASN:ND2	1:DH:75:LYS:CG	1.77	1.40
1:BU:14:GLY:HA3	1:DP:102:ASN:ND2	1.18	1.40
7:ED:338:GLY:HA3	7:EE:263:TRP:CZ2	1.56	1.40
1:BI:322:GLU:O	1:DK:7:PHE:CB	1.66	1.40
1:AW:6:LEU:CD1	1:BK:92:ARG:HH11	1.35	1.39
1:AP:8:VAL:CB	1:CS:96:THR:CG2	1.95	1.39
1:BU:5:THR:N	1:DH:74:MET:HB3	1.09	1.39
1:BI:144:THR:HG23	1:DH:143:LEU:CD2	1.52	1.38
2:DR:21:ARG:N	4:DW:856:VAL:HG11	1.35	1.38
7:ED:21:ARG:NH2	7:ED:294:ILE:HD11	1.38	1.38
1:AM:317:LYS:C	1:CV:68:ARG:HE	1.05	1.37
1:AP:92:ARG:CZ	1:CS:6:LEU:N	1.74	1.37
1:AW:7:PHE:CD1	1:BK:97:ALA:HB3	1.57	1.37
1:AW:14:GLY:C	1:BK:103:TYR:CE1	1.98	1.37
7:ED:301:LYS:CD	7:EE:283:ILE:HG22	1.35	1.37
1:AP:145:ASN:OD1	1:CR:145:ASN:ND2	1.58	1.37
7:ED:660:LYS:HE3	7:EE:658:ASN:CB	1.55	1.37
1:AW:7:PHE:CE1	1:BK:97:ALA:CB	2.05	1.37
1:AP:13:ASN:N	1:CS:105:ARG:HH12	1.17	1.36
1:AW:6:LEU:CD2	1:BK:92:ARG:NH1	1.85	1.36
1:BI:92:ARG:NH2	1:DK:6:LEU:CD2	1.86	1.36
1:AW:99:THR:CA	1:BN:308:ARG:HG3	1.55	1.36
1:BI:96:THR:CB	1:DM:152:VAL:CG2	1.85	1.35
7:ED:467:MET:CE	7:EE:72:LEU:HD23	1.53	1.35
1:BI:72:GLY:N	1:DP:4:PRO:O	1.59	1.35
1:BI:95:ASP:O	1:DK:10:TYR:CD1	1.80	1.35
1:BI:13:ASN:HB2	1:DM:76:PRO:CG	1.55	1.35
1:AM:6:LEU:N	1:CR:74:MET:HG2	1.40	1.35
1:AW:108:GLU:OE2	1:BK:12:GLN:HG2	1.26	1.35
7:ED:552:LEU:HD21	7:EE:578:LEU:C	1.45	1.35
7:EE:21:ARG:NH2	7:EE:294:ILE:HD11	1.38	1.35
1:AP:5:THR:CG2	1:CW:74:MET:HB2	1.39	1.35
5:DX:68:LEU:HD21	5:DY:70:LYS:NZ	1.37	1.35
7:ED:516:HIS:HB3	7:EE:108:GLN:NE2	1.05	1.34
7:ED:372:TYR:CE2	7:EE:392:PRO:HD3	1.62	1.34
1:BI:95:ASP:O	1:DK:10:TYR:CG	1.80	1.34
1:BU:92:ARG:O	1:DP:7:PHE:CB	1.74	1.34
1:DB:39:LYS:HB3	7:ED:16:VAL:CG1	1.56	1.34

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DU:26:ARG:CG	4:DW:973:ASN:OD1	1.73	1.34
4:DW:748:ALA:CB	6:EC:23:PHE:N	1.87	1.33
7:ED:337:PRO:HD3	7:EE:125:GLN:NE2	1.42	1.33
7:ED:379:VAL:CG2	7:EE:398:MET:CB	2.06	1.33
1:BU:103:TYR:O	1:DP:16:LYS:CG	1.75	1.33
1:AW:16:LYS:HG3	1:BK:103:TYR:CE2	1.62	1.33
1:BI:74:MET:CE	1:DP:4:PRO:HB3	1.57	1.33
1:BI:103:TYR:N	1:DK:15:LYS:HG3	1.41	1.33
7:ED:625:THR:HG22	7:EE:624:ARG:NH2	1.43	1.33
1:AP:96:THR:CG2	1:CZ:65:GLU:N	1.88	1.32
7:ED:410:HIS:CA	7:EE:406:LEU:HD11	1.56	1.32
4:DW:311:LEU:CD1	4:DW:372:ARG:HH21	1.43	1.32
1:BU:318:ASP:HA	1:DH:314:GLU:O	1.20	1.32
1:DC:144:THR:HA	3:DV:85:ASP:CB	1.44	1.32
1:AS:65:GLU:CB	1:CN:320:SER:OG	1.77	1.32
1:AW:100:THR:CG2	1:BN:84:THR:HG21	1.57	1.32
7:ED:301:LYS:CG	7:EE:283:ILE:HG22	1.59	1.32
1:BI:96:THR:OG1	1:DM:152:VAL:HG21	1.24	1.31
7:ED:131:ARG:NH2	7:EE:269:ARG:NH1	1.77	1.31
7:ED:305:SER:CB	7:EE:284:ALA:HB2	1.58	1.31
7:ED:466:ARG:NH1	7:EE:77:ASN:ND2	1.73	1.31
1:DB:39:LYS:CB	7:ED:16:VAL:HG11	1.60	1.31
2:DR:24:ILE:HG21	4:DW:857:TRP:CD1	1.63	1.31
7:ED:410:HIS:CD2	7:EE:373:GLY:CA	2.12	1.31
7:ED:516:HIS:CB	7:EE:108:GLN:NE2	1.92	1.31
7:ED:131:ARG:CZ	7:EE:269:ARG:NH1	1.92	1.31
5:DX:74:GLU:OE2	5:DZ:81:LYS:HE2	1.25	1.31
1:AP:17:LEU:CD2	1:CW:145:ASN:CB	1.95	1.30
1:AS:78:VAL:N	1:CW:149:ASP:O	1.64	1.30
3:DV:162:GLU:OE1	5:DX:14:ASN:CG	1.68	1.30
5:DX:59:VAL:HG12	5:DX:63:TYR:OH	1.27	1.30
1:AP:320:SER:CB	1:CZ:65:GLU:HG2	1.42	1.29
1:AP:104:GLY:CA	1:CS:15:LYS:HG3	1.49	1.29
1:BU:94:SER:CB	1:DP:8:VAL:CA	1.96	1.29
1:AW:99:THR:OG1	1:BN:308:ARG:HD3	1.31	1.29
5:DX:85:ALA:CB	5:DZ:88:MET:CE	2.09	1.29
1:AM:100:THR:HG21	1:CN:11:ASP:OD1	1.17	1.28
1:BI:74:MET:CE	1:DP:4:PRO:CB	2.10	1.28
5:DX:85:ALA:HB2	5:DZ:88:MET:SD	1.69	1.28
1:AS:145:ASN:ND2	1:CW:145:ASN:HD21	1.28	1.28
4:DW:707:TYR:CE1	6:EB:56:ASP:CA	2.17	1.28

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:ED:304:GLU:HA	7:EE:232:GLU:OE1	1.17	1.28
1:AP:144:THR:O	1:CR:142:TYR:HA	1.28	1.28
1:BI:76:PRO:C	1:DP:13:ASN:HD21	1.00	1.28
4:DW:311:LEU:HD12	4:DW:372:ARG:NH2	1.47	1.28
7:ED:552:LEU:CD2	7:EE:579:LEU:O	1.82	1.28
1:AM:319:GLY:O	1:CV:68:ARG:CD	1.79	1.27
1:AP:8:VAL:HA	1:CS:96:THR:OG1	1.15	1.27
1:DB:39:LYS:CG	7:ED:16:VAL:HG13	1.64	1.27
1:BU:13:ASN:N	1:DP:105:ARG:HH12	1.29	1.27
1:BI:92:ARG:CG	1:DK:6:LEU:HB2	1.52	1.27
1:BI:147:ALA:CA	1:DH:79:ILE:HG13	1.65	1.27
1:BU:5:THR:N	1:DH:74:MET:CA	1.96	1.26
1:AS:143:LEU:O	1:CW:143:LEU:HD23	1.34	1.26
1:BI:315:LEU:CD2	1:DP:318:ASP:CG	2.04	1.26
1:BU:92:ARG:O	1:DP:7:PHE:HB3	1.11	1.26
1:AM:103:TYR:HD2	1:CN:16:LYS:CG	1.47	1.26
7:ED:628:GLU:OE2	7:EE:627:PHE:CE1	1.87	1.25
3:DU:26:ARG:CG	4:DW:973:ASN:CG	2.03	1.25
1:AP:92:ARG:NH2	1:CS:5:THR:HB	0.94	1.25
1:AW:102:ASN:O	1:BN:43:ASN:HB2	1.31	1.25
7:ED:552:LEU:CD2	7:EE:579:LEU:N	1.79	1.25
7:ED:607:VAL:HG13	7:EE:606:ASN:OD1	1.35	1.25
7:ED:456:LEU:CB	7:EE:438:MET:HE3	1.66	1.25
1:AM:97:ALA:HB2	1:CN:9:SER:CB	1.66	1.24
1:AP:3:ASN:O	1:CW:74:MET:HG3	1.28	1.24
1:BU:14:GLY:CA	1:DP:102:ASN:ND2	1.77	1.24
7:ED:20:ARG:HH22	7:EE:279:ASP:CB	1.49	1.24
1:AK:142:TYR:HB2	1:BN:146:SER:OG	1.38	1.24
1:AP:108:GLU:CB	1:CS:7:PHE:CE1	2.19	1.24
1:BI:148:ALA:N	1:DH:79:ILE:CG1	1.99	1.24
1:AP:3:ASN:C	1:CW:75:LYS:HG2	1.57	1.24
1:AP:141:GLN:NE2	1:CR:143:LEU:CB	1.92	1.24
3:DU:26:ARG:HG3	4:DW:922:GLN:OE1	1.33	1.24
1:AM:6:LEU:HD12	1:CN:92:ARG:NH1	1.53	1.24
7:ED:410:HIS:NE2	7:EE:373:GLY:C	1.88	1.24
1:BI:7:PHE:CG	1:DK:92:ARG:HD2	1.39	1.23
1:BI:147:ALA:N	1:DH:143:LEU:CD1	1.90	1.23
1:BI:147:ALA:N	1:DH:79:ILE:HG21	1.48	1.23
1:BU:12:GLN:HB2	1:DP:97:ALA:CA	1.68	1.23
1:BU:12:GLN:CB	1:DP:97:ALA:HA	1.66	1.23
7:ED:456:LEU:HG	7:EE:438:MET:CE	1.68	1.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AW:102:ASN:O	1:BN:43:ASN:CB	1.86	1.23
1:AP:4:PRO:N	1:CW:75:LYS:HG2	1.43	1.23
1:AP:105:ARG:CB	1:CS:12:GLN:HG2	1.68	1.23
1:BI:322:GLU:O	1:DK:7:PHE:CG	1.91	1.23
1:DB:312:ARG:NH1	7:ED:31:MET:SD	2.11	1.23
1:AS:73:GLU:CG	1:CS:3:ASN:C	2.06	1.23
1:BU:92:ARG:C	1:DP:6:LEU:O	1.77	1.23
5:DY:81:LYS:HA	5:DZ:80:PHE:CZ	1.74	1.23
7:ED:625:THR:CG2	7:EE:624:ARG:NH2	2.00	1.23
1:AP:103:TYR:O	1:CS:16:LYS:CD	1.85	1.23
1:BI:7:PHE:CG	1:DK:92:ARG:CD	2.18	1.23
3:DV:69:TYR:CD1	5:DY:33:GLU:OE2	1.90	1.23
1:BI:92:ARG:CD	1:DK:6:LEU:HB2	1.67	1.22
1:BI:104:GLY:N	1:DK:13:ASN:O	1.70	1.22
7:ED:20:ARG:NH2	7:EE:279:ASP:HB2	1.51	1.22
7:ED:131:ARG:CD	7:EE:269:ARG:HH22	1.51	1.22
1:AM:97:ALA:CB	1:CN:9:SER:CB	2.14	1.22
1:AW:14:GLY:C	1:BK:103:TYR:HE1	1.32	1.22
3:DV:54:PRO:O	5:DY:21:THR:HA	1.14	1.22
7:ED:550:ALA:C	7:EE:584:TYR:OH	1.75	1.22
1:AP:145:ASN:CG	1:CR:145:ASN:ND2	1.78	1.22
1:AS:73:GLU:HG3	1:CS:3:ASN:O	1.37	1.22
1:AS:73:GLU:CD	1:CS:4:PRO:CA	1.96	1.21
1:AS:143:LEU:C	1:CW:142:TYR:O	1.66	1.21
1:AW:105:ARG:CD	1:BK:15:LYS:HG3	1.63	1.21
1:BI:320:SER:O	1:DM:153:ALA:CB	1.88	1.21
7:ED:301:LYS:HD2	7:EE:283:ILE:CG2	1.64	1.21
1:AP:4:PRO:CA	1:CW:75:LYS:HG2	1.68	1.21
1:BI:74:MET:HE3	1:DP:4:PRO:CB	1.69	1.21
7:ED:467:MET:HE1	7:EE:72:LEU:CD2	1.69	1.21
7:ED:635:GLU:HG3	7:EE:634:ASP:OD2	1.31	1.21
1:AP:320:SER:HB2	1:CZ:65:GLU:CD	1.57	1.21
1:BI:109:LEU:HB2	1:DK:9:SER:OG	1.41	1.21
1:DB:312:ARG:NH1	7:ED:31:MET:CE	2.01	1.21
1:BI:322:GLU:O	1:DK:7:PHE:HB3	1.03	1.21
7:ED:301:LYS:O	7:EE:283:ILE:HG21	1.37	1.21
1:AP:7:PHE:CZ	1:CW:75:LYS:HG3	1.75	1.20
1:AW:13:ASN:HB2	1:BN:77:THR:OG1	1.09	1.20
1:BI:102:ASN:ND2	1:DK:11:ASP:O	1.74	1.20
3:DU:26:ARG:CA	4:DW:973:ASN:OD1	1.87	1.20
1:AM:92:ARG:NH1	1:CR:156:ASN:ND2	1.89	1.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BI:315:LEU:CD2	1:DP:318:ASP:OD2	1.89	1.20
2:DS:23:TYR:HA	4:DW:845:ILE:O	1.36	1.20
5:DY:81:LYS:HB3	5:DY:82:ASP:N	1.57	1.20
7:ED:305:SER:OG	7:EE:284:ALA:HB2	1.40	1.20
1:AP:144:THR:CB	1:CR:141:GLN:HG3	1.69	1.20
1:BI:7:PHE:CE1	1:DK:92:ARG:CD	2.14	1.20
1:BI:143:LEU:C	1:DP:17:LEU:HD11	1.59	1.20
1:BI:315:LEU:HD22	1:DP:318:ASP:OD2	1.04	1.20
2:DS:20:ASP:HB3	4:DW:848:ASP:OD2	1.40	1.20
7:ED:430:ARG:CG	7:EE:66:GLU:HG2	1.70	1.20
1:BI:73:GLU:OE2	1:DP:4:PRO:HD3	1.40	1.20
1:BU:8:VAL:HG23	1:DP:96:THR:OG1	1.42	1.20
1:AW:99:THR:OG1	1:BN:308:ARG:CD	1.90	1.19
1:DB:16:LYS:CG	3:DV:234:ARG:HD2	1.52	1.19
7:ED:337:PRO:CD	7:EE:125:GLN:HE21	1.55	1.19
1:AP:103:TYR:O	1:CS:16:LYS:HD3	1.37	1.19
1:BI:322:GLU:O	1:DK:7:PHE:CD2	1.94	1.19
1:BU:3:ASN:HD22	1:DH:75:LYS:CG	1.36	1.19
1:BU:99:THR:CB	1:DH:307:LEU:HD23	1.70	1.19
7:ED:301:LYS:HG3	7:EE:283:ILE:CB	1.69	1.19
7:EE:21:ARG:NH2	7:EE:294:ILE:CD1	2.04	1.19
1:BI:7:PHE:CZ	1:DK:92:ARG:CD	2.26	1.19
1:BI:147:ALA:CA	1:DH:79:ILE:CB	2.18	1.19
1:BI:322:GLU:HB3	1:DK:7:PHE:O	1.36	1.19
3:DU:138:TYR:CD1	3:DU:145:LEU:HD22	1.77	1.19
1:AW:6:LEU:HD13	1:BK:92:ARG:NE	1.57	1.19
1:BI:72:GLY:C	1:DP:4:PRO:O	1.81	1.19
1:BI:317:LYS:NZ	1:DO:65:GLU:HG3	1.58	1.19
7:ED:660:LYS:CE	7:EE:658:ASN:HB3	1.70	1.19
7:ED:456:LEU:CG	7:EE:438:MET:HE1	1.71	1.18
7:ED:467:MET:CE	7:EE:72:LEU:CD2	2.20	1.18
1:AM:6:LEU:CD1	1:CN:92:ARG:HH11	1.56	1.18
1:BI:147:ALA:HA	1:DH:79:ILE:CG1	1.73	1.18
1:BU:99:THR:HB	1:DH:307:LEU:CD2	1.73	1.18
3:DV:124:ARG:HH12	5:DZ:28:TYR:HB2	1.03	1.18
7:ED:607:VAL:CG1	7:EE:606:ASN:OD1	1.91	1.18
7:ED:21:ARG:NH2	7:ED:294:ILE:CD1	2.04	1.18
1:BI:76:PRO:C	1:DP:13:ASN:ND2	1.83	1.18
1:AM:7:PHE:CE2	1:CN:108:GLU:OE2	1.96	1.17
1:AP:5:THR:CG2	1:CW:74:MET:CB	2.16	1.17
1:AW:6:LEU:CD1	1:BK:92:ARG:NH1	2.06	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DU:26:ARG:CG	4:DW:973:ASN:ND2	2.05	1.17
1:AP:144:THR:HG21	1:CR:141:GLN:CD	1.64	1.17
5:DX:46:GLU:O	5:DX:50:GLY:N	1.76	1.17
1:AP:108:GLU:HB2	1:CS:7:PHE:CZ	1.78	1.17
1:AW:7:PHE:CB	1:BK:93:VAL:HG13	1.73	1.17
1:BI:7:PHE:CD2	1:DK:92:ARG:CD	2.28	1.17
7:ED:552:LEU:HD22	7:EE:579:LEU:O	1.39	1.17
1:AM:100:THR:HB	1:CR:44:GLN:OE1	1.40	1.17
1:AS:65:GLU:HB3	1:CN:320:SER:OG	0.99	1.17
7:ED:410:HIS:NE2	7:EE:373:GLY:CA	2.07	1.17
1:AP:6:LEU:CD2	1:CS:93:VAL:O	1.90	1.17
1:AW:100:THR:HG22	1:BN:84:THR:CG2	1.72	1.17
1:DC:144:THR:CA	3:DV:85:ASP:CB	2.16	1.17
1:BI:147:ALA:CB	1:DH:79:ILE:HB	1.72	1.16
4:DW:239:VAL:HG13	4:DW:275:ASP:OD1	1.40	1.16
1:AK:308:ARG:NH2	1:BK:96:THR:OG1	1.77	1.16
3:DV:175:ILE:HG13	5:DY:14:ASN:O	1.01	1.16
7:ED:301:LYS:CD	7:EE:283:ILE:CG2	2.01	1.16
1:AW:14:GLY:CA	1:BK:103:TYR:HE1	1.58	1.16
1:BI:92:ARG:HD2	1:DK:6:LEU:CB	1.74	1.16
1:BU:4:PRO:C	1:DH:74:MET:HA	1.66	1.16
7:ED:93:GLN:HG3	7:EE:574:THR:HG23	1.21	1.16
1:AP:108:GLU:HB2	1:CS:7:PHE:CE1	1.79	1.16
3:DV:26:ARG:NH2	3:DV:27:ASP:HB2	1.60	1.16
1:AS:315:LEU:HA	1:CS:320:SER:OG	1.44	1.15
1:BF:74:MET:CE	1:DK:6:LEU:HG	1.75	1.15
1:AH:65:GLU:HG3	1:BK:96:THR:OG1	1.37	1.15
1:BI:320:SER:HB3	1:DM:153:ALA:HB2	1.18	1.15
1:BI:322:GLU:HG3	1:DK:7:PHE:CD2	1.80	1.15
1:AP:4:PRO:N	1:CW:75:LYS:CG	2.01	1.15
3:DV:73:ASP:CB	5:DY:24:SER:OG	1.92	1.15
3:DV:124:ARG:HH12	5:DZ:28:TYR:CB	1.59	1.15
1:AP:104:GLY:HA3	1:CS:15:LYS:CG	1.71	1.15
1:AW:6:LEU:HD21	1:BK:92:ARG:NH1	1.54	1.15
1:BI:74:MET:SD	1:DP:7:PHE:HB2	1.86	1.15
1:BI:147:ALA:CA	1:DH:79:ILE:CG1	2.25	1.15
7:ED:221:GLN:HE21	7:EE:286:MET:CE	1.60	1.15
7:ED:379:VAL:HG23	7:EE:398:MET:HA	1.23	1.15
1:BI:146:SER:O	1:DH:79:ILE:CG2	1.95	1.15
1:BI:147:ALA:CA	1:DH:79:ILE:CG2	1.96	1.15
1:AM:92:ARG:HH11	1:CR:156:ASN:ND2	1.44	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AP:17:LEU:HD22	1:CW:145:ASN:HB3	1.27	1.14
1:AM:97:ALA:HB1	1:CN:9:SER:HB2	1.20	1.14
1:AP:8:VAL:CA	1:CS:96:THR:HG21	1.75	1.14
1:AP:103:TYR:O	1:CS:16:LYS:CG	1.93	1.14
1:AW:14:GLY:CA	1:BK:103:TYR:CE1	2.29	1.14
3:DV:162:GLU:OE1	5:DX:14:ASN:ND2	1.79	1.14
1:DB:39:LYS:HD3	7:ED:16:VAL:CG1	1.77	1.14
5:DX:85:ALA:HB2	5:DZ:88:MET:HE1	1.16	1.14
1:BI:92:ARG:CD	1:DK:6:LEU:HD23	1.76	1.14
3:DU:153:ILE:CD1	5:DZ:27:ALA:HA	1.76	1.14
1:AS:73:GLU:OE1	1:CS:4:PRO:CB	1.87	1.14
3:DV:175:ILE:CG1	5:DY:14:ASN:O	1.96	1.14
7:ED:649:ASN:ND2	7:EE:648:GLU:HG2	1.45	1.14
1:BI:92:ARG:NH2	1:DK:6:LEU:HD23	1.46	1.13
7:ED:221:GLN:HE21	7:EE:286:MET:HE1	1.11	1.13
1:AM:16:LYS:HG2	1:CN:103:TYR:N	1.59	1.13
1:AP:104:GLY:CA	1:CS:15:LYS:CG	2.08	1.13
1:BF:74:MET:CE	1:DK:6:LEU:CD1	2.25	1.13
1:BI:7:PHE:CE1	1:DK:92:ARG:HD3	1.68	1.13
1:BU:12:GLN:HB2	1:DP:97:ALA:HA	1.13	1.13
1:BU:99:THR:OG1	1:DH:308:ARG:HA	1.37	1.13
5:DY:74:GLU:HB2	5:DZ:69:MET:HE1	1.25	1.13
1:BI:102:ASN:HD21	1:DK:11:ASP:C	1.51	1.13
1:DB:311:LYS:HZ2	7:ED:26:GLN:NE2	1.47	1.13
3:DV:145:LEU:HB3	5:DX:4:TYR:OH	1.45	1.13
7:ED:301:LYS:HG3	7:EE:283:ILE:HB	1.20	1.13
1:AM:97:ALA:HB2	1:CN:9:SER:CA	1.79	1.13
1:BI:95:ASP:O	1:DK:10:TYR:CD2	2.02	1.13
1:BI:7:PHE:CE2	1:DK:92:ARG:CD	2.32	1.12
1:BU:5:THR:HA	1:DH:73:GLU:O	1.49	1.12
7:ED:372:TYR:CD2	7:EE:392:PRO:HD3	1.84	1.12
7:ED:470:ARG:HH22	7:EE:80:CYS:C	1.50	1.12
1:AW:100:THR:OG1	1:BN:45:THR:HA	1.50	1.12
1:BI:100:THR:O	1:DK:12:GLN:NE2	1.81	1.12
1:BI:103:TYR:CA	1:DK:15:LYS:CG	2.17	1.12
1:BU:11:ASP:H	1:DP:96:THR:CB	1.56	1.12
1:DB:16:LYS:HG3	3:DV:234:ARG:CD	1.79	1.12
7:ED:131:ARG:NE	7:EE:269:ARG:HH22	1.45	1.12
1:BI:13:ASN:HB2	1:DM:76:PRO:HG3	1.22	1.12
2:DS:23:TYR:HD1	4:DW:845:ILE:O	1.29	1.12
5:DX:60:GLU:HG3	5:DX:61:ARG:NH1	1.61	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AW:108:GLU:HB2	1:BK:7:PHE:CE2	1.85	1.12
1:BU:5:THR:CA	1:DH:73:GLU:O	1.96	1.12
1:BU:92:ARG:CB	1:DP:6:LEU:HA	1.79	1.12
3:DU:54:PRO:HD3	5:DX:17:GLN:HB2	1.19	1.12
1:AK:148:ALA:HA	1:BN:143:LEU:HD12	1.28	1.11
1:AP:4:PRO:O	1:CS:92:ARG:NH1	1.83	1.11
1:AP:321:TYR:HE2	1:CZ:68:ARG:HG2	1.04	1.11
1:BI:145:ASN:N	1:DP:17:LEU:CD1	2.13	1.11
1:BI:145:ASN:CB	1:DP:19:PHE:CE2	2.32	1.11
7:ED:379:VAL:CG2	7:EE:398:MET:HG2	1.80	1.11
7:ED:642:GLU:OE2	7:EE:644:GLN:OE1	1.65	1.11
1:BI:72:GLY:CA	1:DP:4:PRO:O	1.96	1.11
1:BU:6:LEU:H	1:DH:74:MET:HE2	1.16	1.11
1:BU:92:ARG:HB3	1:DP:6:LEU:CA	1.79	1.11
7:ED:338:GLY:HA3	7:EE:263:TRP:CH2	1.84	1.11
1:BI:105:ARG:HG2	1:DK:13:ASN:C	1.71	1.11
1:BI:322:GLU:CB	1:DK:7:PHE:O	1.99	1.11
3:DU:153:ILE:HD12	5:DZ:27:ALA:HB2	1.33	1.11
1:BI:145:ASN:N	1:DP:17:LEU:HD13	1.50	1.10
1:AM:103:TYR:CD2	1:CN:16:LYS:CG	2.28	1.10
1:AP:320:SER:CA	1:CZ:65:GLU:CD	2.15	1.10
1:DB:312:ARG:HE	7:ED:31:MET:HE1	1.01	1.10
3:DV:215:GLN:OE1	5:DY:15:VAL:HG11	1.51	1.10
4:DW:748:ALA:HB3	6:EC:23:PHE:H	1.05	1.10
5:DX:74:GLU:OE2	5:DZ:81:LYS:CE	1.98	1.10
7:ED:379:VAL:CG2	7:EE:398:MET:HG3	1.52	1.10
7:ED:379:VAL:HG23	7:EE:398:MET:CA	1.79	1.10
1:AW:6:LEU:HD11	1:BK:92:ARG:HH11	1.05	1.10
3:DU:174:THR:O	5:DX:14:ASN:OD1	1.67	1.10
1:AP:92:ARG:NH1	1:CS:6:LEU:H	1.50	1.10
1:AP:320:SER:HB3	1:CZ:65:GLU:HG2	1.23	1.10
1:BI:103:TYR:HA	1:DK:15:LYS:CG	1.80	1.10
1:BI:103:TYR:N	1:DK:15:LYS:CG	2.14	1.10
5:DX:51:THR:HG23	5:DX:55:LEU:CD1	1.82	1.10
7:ED:93:GLN:CG	7:EE:574:THR:HG23	1.67	1.10
7:ED:550:ALA:O	7:EE:584:TYR:OH	1.70	1.10
1:AW:6:LEU:HD13	1:BK:92:ARG:HE	1.10	1.09
1:AW:105:ARG:HD3	1:BK:15:LYS:HG3	1.18	1.09
1:BU:4:PRO:C	1:DH:74:MET:CB	2.19	1.09
5:DY:88:MET:O	5:DY:91:ILE:HG22	1.49	1.09
1:AM:317:LYS:C	1:CV:68:ARG:NE	1.82	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BF:74:MET:HE1	1:DK:6:LEU:CD1	1.83	1.09
1:DC:145:ASN:O	3:DV:85:ASP:O	1.69	1.09
7:ED:410:HIS:CD2	7:EE:373:GLY:HA2	1.87	1.09
1:AP:17:LEU:HD21	1:CW:145:ASN:CB	1.69	1.09
1:AP:141:GLN:NE2	1:CR:143:LEU:HB3	1.11	1.09
1:AW:7:PHE:CD1	1:BK:97:ALA:HB1	1.79	1.09
1:BU:12:GLN:HG3	1:DP:97:ALA:HB1	1.28	1.09
7:ED:410:HIS:CG	7:EE:406:LEU:HD11	1.72	1.09
1:BU:319:GLY:HA2	1:DH:313:THR:CG2	1.83	1.09
3:DU:192:VAL:HG23	4:DW:1004:ARG:C	1.72	1.09
3:DV:215:GLN:OE1	5:DY:15:VAL:CG1	2.00	1.09
5:DX:51:THR:HG23	5:DX:55:LEU:HD12	1.14	1.09
1:AM:105:ARG:NH1	1:CN:13:ASN:O	1.85	1.08
1:AP:17:LEU:HD22	1:CW:145:ASN:CB	1.75	1.08
1:AW:7:PHE:CG	1:BK:93:VAL:HG13	1.86	1.08
1:DC:144:THR:C	3:DV:85:ASP:HA	1.72	1.08
1:AS:44:GLN:HE21	1:CS:102:ASN:HA	1.03	1.08
1:AS:73:GLU:CG	1:CS:4:PRO:N	2.13	1.08
1:BI:95:ASP:O	1:DK:10:TYR:CE1	2.06	1.08
1:BI:105:ARG:N	1:DK:14:GLY:HA2	0.84	1.08
1:BU:92:ARG:NH1	1:DP:5:THR:HG23	1.66	1.08
1:AP:5:THR:HG21	1:CW:74:MET:HB2	1.10	1.08
1:BI:72:GLY:O	1:DP:4:PRO:O	1.60	1.08
1:DB:39:LYS:O	7:ED:16:VAL:HG21	1.54	1.08
2:DR:21:ARG:CD	4:DW:859:LYS:HG3	1.83	1.08
2:DS:23:TYR:CD1	4:DW:845:ILE:O	2.06	1.08
1:AK:142:TYR:CB	1:BN:146:SER:OG	2.01	1.08
1:AP:108:GLU:C	1:CS:7:PHE:HE1	1.56	1.08
1:BI:7:PHE:CE2	1:DK:92:ARG:HD3	1.88	1.08
1:BI:74:MET:HE2	1:DP:4:PRO:CB	1.79	1.08
7:ED:20:ARG:HD2	7:EE:277:GLY:O	1.54	1.08
7:ED:410:HIS:CB	7:EE:406:LEU:HD11	1.83	1.08
7:ED:456:LEU:HB3	7:EE:438:MET:HE3	1.27	1.08
1:AW:100:THR:CG2	1:BN:84:THR:CG2	2.27	1.08
1:DB:312:ARG:NE	7:ED:31:MET:HE1	1.67	1.08
1:AM:7:PHE:HB3	1:CN:93:VAL:HG12	1.07	1.07
1:AP:17:LEU:HD21	1:CW:145:ASN:ND2	1.51	1.07
1:BI:146:SER:C	1:DH:79:ILE:HG21	1.73	1.07
1:BU:3:ASN:HB3	1:DP:115:LYS:HZ1	1.16	1.07
1:BU:92:ARG:HG2	1:DP:6:LEU:HA	1.26	1.07
7:ED:97:ASP:OD1	7:EE:575:HIS:NE2	1.87	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BF:74:MET:HE1	1:DK:6:LEU:CG	1.83	1.07
1:BI:13:ASN:CB	1:DM:76:PRO:HG3	1.83	1.07
3:DV:124:ARG:NH1	5:DZ:28:TYR:HB2	1.69	1.07
7:ED:410:HIS:CA	7:EE:406:LEU:CD1	2.24	1.07
1:AM:101:ALA:N	1:CR:44:GLN:NE2	1.82	1.07
1:AS:73:GLU:HG3	1:CS:4:PRO:N	1.68	1.07
7:ED:625:THR:HG22	7:EE:624:ARG:CZ	1.85	1.07
1:AP:6:LEU:HD22	1:CS:93:VAL:O	1.33	1.07
1:BI:109:LEU:HD11	1:DK:7:PHE:CE1	1.90	1.07
1:BU:4:PRO:CA	1:DH:74:MET:CB	2.09	1.07
1:AP:8:VAL:CA	1:CS:96:THR:OG1	2.02	1.07
1:AP:321:TYR:CE2	1:CZ:68:ARG:HG2	1.89	1.07
1:AW:7:PHE:HB3	1:BK:93:VAL:HG13	1.29	1.07
1:BU:99:THR:HB	1:DH:307:LEU:HD23	1.07	1.07
5:DY:81:LYS:HA	5:DZ:80:PHE:HZ	0.95	1.07
1:BI:147:ALA:HB1	1:DH:79:ILE:HB	1.36	1.06
7:ED:212:GLU:OE2	7:EE:270:GLN:CG	2.03	1.06
7:ED:338:GLY:CA	7:EE:263:TRP:CZ2	2.36	1.06
1:AP:4:PRO:N	1:CW:74:MET:SD	2.28	1.06
1:AP:13:ASN:N	1:CS:105:ARG:NH1	2.03	1.06
1:AS:315:LEU:CA	1:CS:320:SER:OG	2.04	1.06
1:AW:108:GLU:CB	1:BK:7:PHE:CE2	2.29	1.06
1:BU:3:ASN:CB	1:DP:115:LYS:NZ	2.17	1.06
1:DB:39:LYS:HD3	7:ED:16:VAL:HG13	1.19	1.06
7:ED:419:LEU:HD23	7:EE:363:TYR:CE1	1.89	1.06
1:AP:8:VAL:HA	1:CS:96:THR:CB	1.85	1.06
1:BU:3:ASN:ND2	1:DH:75:LYS:HG2	0.96	1.06
1:BU:11:ASP:H	1:DP:96:THR:HB	0.94	1.06
3:DU:26:ARG:CG	4:DW:922:GLN:OE1	2.04	1.06
7:ED:410:HIS:CD2	7:EE:373:GLY:HA3	1.85	1.06
1:AP:96:THR:HG23	1:CZ:65:GLU:CB	1.85	1.06
7:ED:557:GLN:HE22	7:EE:579:LEU:N	1.52	1.06
1:AM:100:THR:CG2	1:CN:11:ASP:OD1	2.03	1.06
1:BI:322:GLU:HG3	1:DK:7:PHE:HD2	1.09	1.06
4:DW:748:ALA:HB1	6:EC:23:PHE:H	1.20	1.06
7:ED:212:GLU:OE2	7:EE:270:GLN:HG3	1.56	1.06
7:ED:625:THR:HG23	7:EE:624:ARG:HH22	1.19	1.06
1:AP:3:ASN:O	1:CW:74:MET:CG	2.04	1.05
1:AP:144:THR:CG2	1:CR:141:GLN:NE2	2.19	1.05
1:AW:101:ALA:H	1:BN:42:ILE:HG13	1.20	1.05
1:DB:39:LYS:CG	7:ED:16:VAL:CG1	2.33	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DU:26:ARG:CD	4:DW:973:ASN:OD1	2.04	1.05
7:ED:131:ARG:HD3	7:EE:269:ARG:HH22	1.18	1.05
1:AW:14:GLY:O	1:BK:103:TYR:CE1	2.09	1.05
3:DU:153:ILE:CD1	5:DZ:27:ALA:CA	2.33	1.05
3:DV:26:ARG:NH2	3:DV:27:ASP:CB	2.19	1.05
3:DV:159:ASP:OD2	5:DY:25:ILE:CG1	2.04	1.05
7:ED:552:LEU:HD21	7:EE:579:LEU:N	1.26	1.05
1:AP:8:VAL:HG12	1:CS:96:THR:HG23	1.33	1.05
1:AP:108:GLU:C	1:CS:7:PHE:CE1	2.29	1.05
1:BI:92:ARG:CZ	1:DK:6:LEU:HD21	1.84	1.05
7:ED:410:HIS:NE2	7:EE:373:GLY:HA2	1.70	1.05
1:AM:108:GLU:CD	1:CN:12:GLN:HE22	1.57	1.05
1:AS:44:GLN:NE2	1:CS:102:ASN:HA	1.71	1.05
1:BI:144:THR:CG2	1:DH:143:LEU:CD2	2.21	1.05
1:DB:311:LYS:HZ2	7:ED:26:GLN:CD	1.59	1.05
1:DC:144:THR:CA	3:DV:85:ASP:CA	2.33	1.05
3:DV:175:ILE:HD11	5:DY:15:VAL:HA	1.34	1.05
7:ED:456:LEU:CG	7:EE:438:MET:CE	2.30	1.05
1:AP:9:SER:N	1:CS:96:THR:HB	1.71	1.05
1:BU:92:ARG:CG	1:DP:6:LEU:CA	2.35	1.05
1:DB:39:LYS:CB	7:ED:16:VAL:CG1	2.25	1.05
2:DR:24:ILE:HG21	4:DW:857:TRP:HD1	0.89	1.05
7:ED:557:GLN:NE2	7:EE:579:LEU:HB2	1.72	1.05
1:AM:97:ALA:HB2	1:CN:9:SER:HB2	1.13	1.04
1:AW:105:ARG:CD	1:BK:15:LYS:CG	2.35	1.04
4:DW:748:ALA:HB2	6:EC:23:PHE:H	1.21	1.04
1:BI:103:TYR:CA	1:DK:15:LYS:CB	1.90	1.04
1:BU:8:VAL:HG12	1:DP:95:ASP:CB	1.86	1.04
1:DB:312:ARG:HH11	7:ED:31:MET:HE3	1.21	1.04
7:ED:419:LEU:CD2	7:EE:363:TYR:CE1	2.39	1.04
1:AP:17:LEU:CD2	1:CW:145:ASN:HB3	1.75	1.04
1:AS:78:VAL:H	1:CW:149:ASP:C	1.59	1.04
1:AW:16:LYS:N	1:BK:103:TYR:CE2	2.11	1.04
1:BI:317:LYS:HB3	1:DO:68:ARG:HE	0.95	1.04
3:DV:124:ARG:NH1	5:DZ:28:TYR:CB	2.17	1.04
1:AP:103:TYR:O	1:CS:16:LYS:HG2	1.57	1.04
1:AP:105:ARG:HB2	1:CS:12:GLN:HG2	1.05	1.04
1:BI:319:GLY:HA2	1:DO:66:GLY:O	1.54	1.04
5:DX:59:VAL:CG1	5:DX:63:TYR:OH	2.05	1.04
1:AW:16:LYS:CB	1:BK:103:TYR:CE2	2.41	1.04
1:BI:320:SER:O	1:DM:153:ALA:HB3	1.55	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BU:92:ARG:HG2	1:DP:6:LEU:CA	1.88	1.04
3:DV:54:PRO:HD3	5:DY:17:GLN:HB3	1.39	1.04
1:BI:102:ASN:ND2	1:DK:11:ASP:C	2.10	1.03
1:BI:109:LEU:HD11	1:DK:7:PHE:CZ	1.93	1.03
1:BI:147:ALA:CB	1:DH:79:ILE:CB	2.36	1.03
1:BU:14:GLY:HA2	1:DP:102:ASN:ND2	1.67	1.03
1:AK:145:ASN:ND2	1:BN:145:ASN:HB3	1.40	1.03
7:ED:304:GLU:CA	7:EE:232:GLU:OE1	2.05	1.03
1:AM:101:ALA:CA	1:CR:44:GLN:HE22	1.71	1.03
1:AW:13:ASN:OD1	1:BN:76:PRO:HB2	1.57	1.03
1:BU:3:ASN:CB	1:DP:115:LYS:HZ1	1.71	1.03
1:BU:8:VAL:HG12	1:DP:95:ASP:HB3	1.35	1.03
3:DU:153:ILE:CD1	5:DZ:27:ALA:CB	2.36	1.03
7:ED:305:SER:HB3	7:EE:284:ALA:HB2	1.36	1.03
7:ED:516:HIS:CB	7:EE:108:GLN:HE21	1.56	1.03
7:ED:552:LEU:CD2	7:EE:578:LEU:C	2.15	1.03
1:AP:144:THR:CG2	1:CR:141:GLN:CG	1.91	1.03
1:AS:44:GLN:HG2	1:CS:101:ALA:C	1.79	1.03
1:BI:96:THR:HB	1:DM:152:VAL:CB	1.88	1.03
5:DX:51:THR:CG2	5:DX:55:LEU:HD12	1.88	1.03
7:ED:458:MET:C	7:EE:438:MET:HA	1.54	1.03
1:AK:74:MET:HB2	1:BK:6:LEU:C	1.76	1.03
1:AP:92:ARG:NH2	1:CS:6:LEU:N	2.05	1.03
1:AP:144:THR:CG2	1:CR:141:GLN:CD	2.24	1.03
1:BI:146:SER:O	1:DH:79:ILE:HG22	1.52	1.03
3:DV:26:ARG:HH21	3:DV:27:ASP:CB	1.71	1.03
5:DX:60:GLU:HG3	5:DX:61:ARG:HH11	0.89	1.03
1:AP:17:LEU:CD2	1:CW:145:ASN:HB2	1.81	1.02
1:AP:144:THR:HG23	1:CR:141:GLN:NE2	1.73	1.02
1:BI:96:THR:HB	1:DM:152:VAL:HG22	1.40	1.02
1:AK:143:LEU:HD22	1:BN:145:ASN:OD1	1.57	1.02
1:AP:13:ASN:HB3	1:CW:77:THR:O	1.55	1.02
1:AP:92:ARG:CZ	1:CS:6:LEU:H	1.53	1.02
1:AS:145:ASN:HD22	1:CW:145:ASN:ND2	1.57	1.02
1:AW:16:LYS:HG3	1:BK:103:TYR:CG	1.92	1.02
1:BU:318:ASP:CA	1:DH:314:GLU:O	2.06	1.02
7:ED:456:LEU:CB	7:EE:438:MET:CE	2.38	1.02
7:ED:604:VAL:CG2	7:EE:599:MET:HA	1.90	1.02
1:AK:142:TYR:C	1:BN:144:THR:HA	1.80	1.02
1:AM:16:LYS:NZ	1:CN:19:PHE:CD2	2.27	1.02
1:AP:96:THR:HG21	1:CZ:65:GLU:N	1.62	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AW:94:SER:OG	1:BQ:65:GLU:OE2	1.78	1.02
1:BI:96:THR:CG2	1:DM:152:VAL:CG1	2.37	1.02
1:BU:9:SER:O	1:DP:96:THR:O	1.77	1.02
1:BU:319:GLY:HA2	1:DH:313:THR:HG23	1.39	1.02
1:DB:39:LYS:CD	7:ED:16:VAL:CG1	2.36	1.02
2:DR:24:ILE:CG2	4:DW:857:TRP:CD1	2.41	1.02
1:BI:96:THR:HG21	1:DM:152:VAL:CG1	1.88	1.02
7:ED:301:LYS:HG3	7:EE:283:ILE:CG2	1.87	1.02
7:ED:470:ARG:NH2	7:EE:80:CYS:C	2.11	1.02
1:BF:74:MET:CE	1:DK:6:LEU:CG	2.35	1.02
1:BI:17:LEU:CD1	1:DM:144:THR:N	2.20	1.02
7:ED:97:ASP:OD2	7:EE:575:HIS:CE1	2.12	1.02
1:AP:104:GLY:HA3	1:CS:15:LYS:HG3	1.32	1.01
1:BI:143:LEU:O	1:DP:17:LEU:HD11	1.59	1.01
7:ED:131:ARG:NH1	7:EE:269:ARG:HH12	1.57	1.01
7:ED:628:GLU:OE2	7:EE:627:PHE:CZ	0.67	1.01
1:AP:141:GLN:HE22	1:CR:143:LEU:HB3	1.20	1.01
1:BU:103:TYR:CE1	1:DP:16:LYS:HB3	1.94	1.01
1:BU:13:ASN:HB2	1:DP:105:ARG:CZ	1.83	1.01
1:BU:318:ASP:O	1:DH:315:LEU:CD2	2.08	1.01
5:DX:86:ARG:HE	5:DX:86:ARG:N	1.57	1.01
7:ED:557:GLN:HE22	7:EE:579:LEU:CA	1.73	1.01
1:BI:148:ALA:H	1:DH:79:ILE:CG1	1.67	1.01
1:BU:8:VAL:CG2	1:DP:96:THR:OG1	2.08	1.01
1:BU:92:ARG:O	1:DP:6:LEU:O	1.76	1.01
1:DB:312:ARG:NH1	7:ED:31:MET:HE3	1.75	1.01
7:ED:338:GLY:CA	7:EE:263:TRP:HZ2	1.73	1.01
7:ED:482:ARG:HH11	7:EE:112:ARG:HA	1.20	1.01
1:AM:14:GLY:H	1:CN:105:ARG:NH1	1.58	1.01
1:BI:317:LYS:CB	1:DO:68:ARG:HE	1.72	1.01
1:AP:8:VAL:CG1	1:CS:96:THR:CG2	2.38	1.00
1:AP:17:LEU:HD21	1:CW:145:ASN:HB2	1.35	1.00
1:BI:108:GLU:CB	1:DK:11:ASP:OD1	1.96	1.00
1:BI:109:LEU:HD11	1:DK:7:PHE:CD1	1.96	1.00
3:DU:26:ARG:CB	4:DW:973:ASN:OD1	2.10	1.00
3:DU:138:TYR:CD1	3:DU:145:LEU:CD2	2.43	1.00
3:DV:60:TYR:HE1	5:DX:2:ILE:C	1.62	1.00
3:DV:159:ASP:OD2	5:DY:25:ILE:HG13	1.57	1.00
7:ED:131:ARG:HD3	7:EE:269:ARG:NH2	1.75	1.00
7:ED:408:PRO:O	7:EE:375:TYR:HE1	1.44	1.00
1:BI:317:LYS:HB3	1:DO:68:ARG:NE	1.57	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BU:3:ASN:CG	1:DP:115:LYS:NZ	2.13	1.00
1:DB:312:ARG:HE	7:ED:31:MET:CE	1.75	1.00
3:DU:83:ALA:O	5:DZ:25:ILE:CB	2.09	1.00
3:DV:44:LYS:NZ	5:DX:14:ASN:OD1	1.93	1.00
7:ED:338:GLY:C	7:EE:263:TRP:HZ2	1.65	1.00
1:AS:146:SER:O	1:CW:79:ILE:CG1	2.04	1.00
1:BF:74:MET:HE1	1:DK:6:LEU:HD12	1.42	1.00
2:DS:22:ASP:OD2	4:DW:847:TRP:NE1	1.73	1.00
7:ED:21:ARG:HH22	7:ED:294:ILE:HD11	1.18	1.00
7:ED:482:ARG:NH1	7:EE:112:ARG:HA	1.75	1.00
1:AK:145:ASN:ND2	1:BN:145:ASN:ND2	2.09	1.00
1:AP:104:GLY:O	1:CS:15:LYS:HG2	1.10	1.00
7:EE:21:ARG:HH22	7:EE:294:ILE:CG1	1.75	1.00
3:DV:26:ARG:NH2	3:DV:27:ASP:CG	2.15	1.00
1:AP:96:THR:HG21	1:CZ:65:GLU:H	0.86	0.99
1:AW:7:PHE:HD1	1:BK:97:ALA:HB3	0.83	0.99
1:BI:13:ASN:CB	1:DM:76:PRO:CG	2.38	0.99
1:BU:7:PHE:CZ	1:DP:97:ALA:HB3	1.96	0.99
5:DX:85:ALA:HB1	5:DX:86:ARG:NH2	1.77	0.99
1:BI:96:THR:OG1	1:DM:152:VAL:CG2	1.99	0.99
1:BI:102:ASN:C	1:DK:15:LYS:HG3	1.83	0.99
1:BU:92:ARG:HB2	1:DP:5:THR:O	1.62	0.99
7:ED:235:VAL:HG21	7:ED:243:GLU:OE2	1.62	0.99
1:BI:322:GLU:CG	1:DK:7:PHE:O	2.08	0.99
1:AP:107:ARG:O	1:CS:13:ASN:OD1	1.81	0.99
7:ED:21:ARG:HH22	7:ED:294:ILE:CG1	1.75	0.99
1:AP:4:PRO:HA	1:CW:75:LYS:HG2	1.45	0.99
4:DW:707:TYR:CE1	6:EB:56:ASP:C	2.34	0.99
1:AP:144:THR:OG1	1:CR:141:GLN:HB2	1.62	0.99
4:DW:311:LEU:HD12	4:DW:372:ARG:HH21	0.82	0.99
5:DX:61:ARG:HD3	5:DY:63:TYR:CZ	1.96	0.99
5:DX:61:ARG:CD	5:DY:63:TYR:CE2	2.46	0.99
7:ED:378:LEU:HD21	7:EE:401:GLN:HB2	1.45	0.99
1:AP:94:SER:O	1:CS:7:PHE:CD2	2.16	0.99
1:BU:12:GLN:HG3	1:DP:97:ALA:CB	1.92	0.99
3:DV:54:PRO:O	5:DY:21:THR:CA	2.10	0.99
1:AW:101:ALA:H	1:BN:42:ILE:CG1	1.75	0.98
7:ED:32:ALA:HB1	7:EE:269:ARG:HB3	1.44	0.98
1:AW:16:LYS:CG	1:BK:103:TYR:CE2	2.32	0.98
1:BI:93:VAL:CB	1:DK:8:VAL:N	2.10	0.98
7:EE:235:VAL:HG21	7:EE:243:GLU:OE2	1.62	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:143:LEU:N	1:CW:144:THR:N	2.11	0.98
3:DU:153:ILE:HD11	5:DZ:27:ALA:HA	1.40	0.98
1:AP:105:ARG:HB2	1:CS:12:GLN:CG	1.91	0.98
1:BI:147:ALA:C	1:DH:79:ILE:CG1	2.28	0.98
1:DC:144:THR:HA	3:DV:85:ASP:HB2	1.01	0.98
7:ED:93:GLN:CG	7:EE:574:THR:CG2	2.31	0.98
7:ED:301:LYS:CG	7:EE:283:ILE:CG2	2.28	0.98
1:AW:6:LEU:CG	1:BK:92:ARG:HH11	1.75	0.98
1:BU:103:TYR:O	1:DP:16:LYS:HG3	0.80	0.98
7:ED:21:ARG:HH22	7:ED:294:ILE:CD1	1.66	0.98
7:EE:21:ARG:HH22	7:EE:294:ILE:CD1	1.66	0.98
1:AP:7:PHE:HA	1:CS:92:ARG:NH1	1.79	0.98
1:AS:44:GLN:HG2	1:CS:101:ALA:O	1.63	0.98
1:BI:92:ARG:HD2	1:DK:6:LEU:HB2	1.34	0.98
1:AM:6:LEU:N	1:CR:74:MET:CG	2.26	0.98
1:BI:7:PHE:CE2	1:DK:92:ARG:HD2	1.97	0.98
3:DV:69:TYR:HD1	5:DY:33:GLU:OE2	1.28	0.98
7:ED:660:LYS:HE3	7:EE:658:ASN:HB3	0.98	0.98
1:AP:96:THR:HG23	1:CZ:65:GLU:H	1.29	0.98
1:BU:92:ARG:NE	1:DP:5:THR:O	1.95	0.98
3:DV:60:TYR:HD1	5:DX:3:VAL:O	1.45	0.98
1:AK:143:LEU:N	1:BN:146:SER:H	1.48	0.97
1:AS:44:GLN:HE21	1:CS:102:ASN:CA	1.75	0.97
1:AW:6:LEU:CD1	1:BK:92:ARG:HE	1.77	0.97
1:BI:320:SER:CB	1:DM:153:ALA:HB2	1.92	0.97
3:DU:153:ILE:CD1	5:DZ:27:ALA:HB2	1.92	0.97
7:ED:470:ARG:HH22	7:EE:81:SER:N	1.61	0.97
1:BF:74:MET:HE3	1:DK:6:LEU:CD1	1.92	0.97
1:DC:144:THR:HA	3:DV:85:ASP:CA	1.95	0.97
7:ED:131:ARG:CD	7:EE:269:ARG:NH2	2.27	0.97
1:AW:6:LEU:HD22	1:BK:92:ARG:NH1	1.75	0.97
7:ED:628:GLU:HG3	7:EE:627:PHE:CD2	1.97	0.97
1:BI:96:THR:CB	1:DM:152:VAL:HG11	1.93	0.97
3:DU:26:ARG:HG3	4:DW:922:GLN:CD	1.83	0.97
3:DV:193:GLN:HE22	4:DW:924:HIS:CG	1.83	0.97
5:DY:81:LYS:CA	5:DZ:80:PHE:HZ	1.77	0.97
1:AM:99:THR:HG21	1:CR:308:ARG:HD2	1.46	0.97
1:AS:145:ASN:ND2	1:CW:145:ASN:ND2	2.12	0.97
1:BI:145:ASN:C	1:DP:19:PHE:CZ	2.37	0.97
4:DW:748:ALA:HB3	6:EC:23:PHE:N	1.62	0.97
7:ED:372:TYR:HE2	7:EE:392:PRO:HD3	1.23	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:76:PRO:HB3	1:CS:10:TYR:O	1.64	0.97
1:AW:7:PHE:HB2	1:BK:93:VAL:HG22	1.44	0.97
1:AW:6:LEU:HD21	1:BK:92:ARG:HH12	1.17	0.97
3:DU:83:ALA:O	5:DZ:25:ILE:HB	1.63	0.97
3:DV:72:PRO:N	5:DY:30:GLN:HE22	1.62	0.96
1:AP:144:THR:O	1:CR:142:TYR:CA	2.13	0.96
3:DU:153:ILE:HD11	5:DZ:27:ALA:CB	1.95	0.96
3:DV:60:TYR:CE1	5:DX:2:ILE:C	2.39	0.96
1:BF:65:GLU:OE1	1:DP:95:ASP:O	1.82	0.96
5:DX:68:LEU:CD2	5:DY:70:LYS:NZ	2.27	0.96
1:AK:142:TYR:N	1:BN:144:THR:HA	1.80	0.96
1:AS:146:SER:O	1:CW:79:ILE:HG13	1.64	0.96
1:BI:73:GLU:CD	1:DP:4:PRO:HD3	1.78	0.96
1:DB:311:LYS:NZ	7:ED:26:GLN:NE2	2.12	0.96
4:DW:215:LEU:HD23	4:DW:232:ALA:HA	1.47	0.96
1:AW:6:LEU:HD13	1:BK:92:ARG:CZ	1.95	0.96
1:BI:96:THR:HB	1:DM:152:VAL:CG1	1.95	0.96
1:AP:79:ILE:HD13	1:CR:147:ALA:HB2	1.00	0.96
1:BU:11:ASP:N	1:DP:96:THR:HB	1.80	0.96
1:BU:4:PRO:C	1:DH:74:MET:CA	2.27	0.96
1:AK:143:LEU:N	1:BN:144:THR:CA	2.19	0.96
1:AP:5:THR:HG23	1:CW:74:MET:CB	1.95	0.96
1:BU:103:TYR:OH	1:DP:16:LYS:O	1.83	0.96
1:AW:14:GLY:HA2	1:BK:103:TYR:CE1	1.98	0.96
1:BI:92:ARG:CD	1:DK:6:LEU:CB	2.38	0.96
3:DU:153:ILE:HD11	5:DZ:27:ALA:CA	1.96	0.96
1:AM:97:ALA:H	1:CN:8:VAL:N	1.62	0.95
1:AS:315:LEU:C	1:CS:320:SER:OG	2.03	0.95
1:AW:100:THR:OG1	1:BN:45:THR:CA	2.14	0.95
1:BU:4:PRO:CA	1:DH:74:MET:CA	2.44	0.95
1:BU:13:ASN:N	1:DP:105:ARG:NH1	2.14	0.95
1:BI:73:GLU:OE2	1:DP:3:ASN:HA	1.64	0.95
1:BI:143:LEU:HB2	1:DH:145:ASN:N	1.74	0.95
7:ED:301:LYS:HD2	7:EE:283:ILE:HG22	0.96	0.95
1:AP:8:VAL:CA	1:CS:96:THR:CG2	2.37	0.95
7:ED:409:TYR:HA	7:EE:375:TYR:OH	1.66	0.95
1:BI:96:THR:HG21	1:DM:152:VAL:HG11	0.96	0.95
1:BU:16:LYS:HE3	1:DP:102:ASN:CG	1.44	0.95
3:DU:26:ARG:HA	4:DW:973:ASN:OD1	1.65	0.95
5:DX:74:GLU:CB	5:DZ:77:LYS:HE2	1.96	0.95
1:BI:96:THR:CA	1:DM:152:VAL:HG21	1.96	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BI:92:ARG:CG	1:DK:6:LEU:CB	2.45	0.95
1:BU:15:LYS:HG2	1:DP:100:THR:HG21	1.48	0.95
7:ED:131:ARG:CZ	7:EE:269:ARG:CZ	2.44	0.95
1:DB:16:LYS:HG2	3:DV:234:ARG:HD2	0.98	0.95
3:DV:145:LEU:CB	5:DX:4:TYR:OH	2.14	0.95
2:DR:20:ASP:O	4:DW:856:VAL:CG1	2.15	0.95
1:AP:7:PHE:O	1:CS:94:SER:OG	1.84	0.94
1:AP:8:VAL:CG1	1:CS:96:THR:HG23	1.97	0.94
1:AW:100:THR:HB	1:BN:44:GLN:O	1.67	0.94
1:DC:144:THR:O	3:DV:85:ASP:HA	1.64	0.94
3:DV:193:GLN:NE2	4:DW:924:HIS:CG	2.35	0.94
1:BU:92:ARG:CD	1:DP:6:LEU:HA	1.94	0.94
7:ED:338:GLY:O	7:EE:263:TRP:HZ2	1.49	0.94
7:EE:21:ARG:HH22	7:EE:294:ILE:HD11	1.18	0.94
1:AM:7:PHE:CB	1:CN:93:VAL:HG12	1.97	0.94
1:BI:99:THR:N	1:DK:10:TYR:HA	1.80	0.94
1:BI:145:ASN:H	1:DP:17:LEU:HD13	1.15	0.94
3:DV:175:ILE:CD1	5:DY:15:VAL:HA	1.96	0.94
4:DW:748:ALA:HB3	6:EC:23:PHE:CA	1.98	0.94
1:AP:108:GLU:CB	1:CS:7:PHE:HE1	1.71	0.94
7:ED:379:VAL:HG21	7:EE:398:MET:CB	1.81	0.94
7:ED:410:HIS:NE2	7:EE:373:GLY:O	2.00	0.94
1:BI:109:LEU:HD11	1:DK:7:PHE:CE2	2.03	0.94
1:AM:14:GLY:N	1:CN:105:ARG:NH1	2.14	0.94
1:AP:147:ALA:O	1:CR:143:LEU:HA	1.64	0.94
1:AS:75:LYS:HA	1:CW:152:VAL:HG23	1.48	0.94
1:AS:143:LEU:O	1:CW:142:TYR:O	1.86	0.94
1:BI:108:GLU:HB2	1:DK:11:ASP:OD1	1.16	0.94
7:ED:131:ARG:HH22	7:EE:269:ARG:HH12	1.15	0.94
1:BU:13:ASN:H	1:DP:105:ARG:HH12	1.12	0.94
3:DV:60:TYR:CE1	5:DX:2:ILE:N	2.36	0.94
7:ED:131:ARG:NE	7:EE:269:ARG:NH2	2.14	0.94
1:AM:319:GLY:O	1:CV:68:ARG:HD3	0.99	0.94
1:AP:320:SER:HA	1:CZ:65:GLU:OE2	1.68	0.94
2:DR:21:ARG:HD2	4:DW:859:LYS:HG3	1.47	0.94
7:ED:131:ARG:NH1	7:EE:269:ARG:NH1	2.12	0.94
7:ED:379:VAL:HG23	7:EE:398:MET:CG	1.93	0.94
1:BI:315:LEU:HD22	1:DP:318:ASP:OD1	1.68	0.93
1:BU:92:ARG:HB3	1:DP:6:LEU:C	1.87	0.93
1:BU:13:ASN:HB3	1:DH:77:THR:OG1	1.67	0.93
1:BI:96:THR:N	1:DK:8:VAL:CG1	2.31	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DB:74:MET:SD	1:DF:112:GLN:NE2	2.42	0.93
7:ED:466:ARG:HH12	7:EE:77:ASN:ND2	1.48	0.93
1:AP:17:LEU:CD2	1:CW:145:ASN:ND2	2.15	0.93
1:AS:143:LEU:CB	1:CW:142:TYR:O	2.11	0.93
1:AW:108:GLU:OE2	1:BK:12:GLN:CG	2.16	0.93
1:AC:51:THR:O	1:AC:77:THR:OG1	1.86	0.93
1:AS:45:THR:HG22	1:CS:99:THR:HB	1.48	0.93
1:BI:77:THR:N	1:DP:13:ASN:HD21	1.67	0.93
3:DV:73:ASP:HB3	5:DY:24:SER:OG	1.68	0.93
1:AM:7:PHE:HB2	1:CR:74:MET:SD	2.08	0.93
1:BI:148:ALA:H	1:DH:79:ILE:HG12	1.30	0.93
5:DX:82:ASP:O	5:DX:86:ARG:HG2	1.69	0.93
7:ED:131:ARG:CZ	7:EE:269:ARG:HH22	1.82	0.93
1:AP:92:ARG:NH2	1:CS:5:THR:CA	2.31	0.92
1:AS:72:GLY:C	1:CS:3:ASN:O	2.08	0.92
1:BI:96:THR:CB	1:DM:152:VAL:CG1	2.47	0.92
3:DU:26:ARG:NE	4:DW:973:ASN:OD1	2.02	0.92
5:DX:85:ALA:HB3	5:DZ:88:MET:SD	2.07	0.92
7:ED:419:LEU:HD21	7:EE:363:TYR:CD1	2.04	0.92
7:ED:518:LEU:N	7:EE:112:ARG:NH2	2.12	0.92
1:AP:7:PHE:HA	1:CS:92:ARG:HH12	1.32	0.92
1:BA:51:THR:O	1:BA:77:THR:OG1	1.86	0.92
1:BU:3:ASN:HB3	1:DP:115:LYS:NZ	1.80	0.92
1:BU:94:SER:CA	1:DP:8:VAL:HA	1.99	0.92
5:DX:74:GLU:CG	5:DZ:77:LYS:HE2	1.98	0.92
1:AM:6:LEU:HD13	1:CR:71:ASP:HB2	1.49	0.92
1:BF:74:MET:CE	1:DK:6:LEU:HD12	1.95	0.92
7:ED:470:ARG:NH1	7:EE:80:CYS:O	1.96	0.92
1:AP:79:ILE:HD12	1:CR:147:ALA:HB1	1.48	0.92
3:DU:54:PRO:HD3	5:DX:17:GLN:CB	1.99	0.92
7:ED:301:LYS:O	7:EE:283:ILE:CG2	2.16	0.92
7:ED:470:ARG:CZ	7:EE:80:CYS:O	2.16	0.92
1:BU:3:ASN:CG	1:DP:115:LYS:HZ2	1.70	0.92
1:BU:13:ASN:CA	1:DP:105:ARG:HH12	1.81	0.92
1:AW:7:PHE:CE1	1:BK:97:ALA:O	2.23	0.92
1:BI:144:THR:HG22	1:DH:143:LEU:HD23	1.49	0.92
3:DV:60:TYR:CZ	5:DX:2:ILE:N	2.37	0.92
5:DY:88:MET:O	5:DY:91:ILE:CG2	2.16	0.92
1:AP:17:LEU:HD21	1:CW:145:ASN:HD22	1.11	0.92
1:AS:73:GLU:OE1	1:CS:4:PRO:HB3	1.02	0.92
7:ED:456:LEU:HB3	7:EE:438:MET:CE	1.99	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AH:65:GLU:CG	1:BK:96:THR:OG1	2.17	0.92
1:AM:93:VAL:HG12	1:CN:8:VAL:HG22	1.50	0.92
1:BU:4:PRO:HA	1:DH:74:MET:CA	1.99	0.92
3:DU:26:ARG:CG	4:DW:973:ASN:HD21	1.77	0.92
1:AM:6:LEU:CD1	1:CN:92:ARG:NH1	2.22	0.92
1:BU:3:ASN:ND2	1:DH:53:ALA:O	2.02	0.92
1:BU:14:GLY:HA3	1:DP:102:ASN:CG	1.91	0.92
2:DR:23:TYR:CD1	4:DW:853:LYS:O	2.23	0.91
3:DU:26:ARG:N	4:DW:973:ASN:OD1	2.02	0.91
1:AP:8:VAL:CG1	1:CS:96:THR:HG21	1.99	0.91
1:AP:13:ASN:H	1:CS:105:ARG:HH12	1.18	0.91
1:AW:7:PHE:HD1	1:BK:97:ALA:CB	1.62	0.91
7:ED:131:ARG:CZ	7:EE:269:ARG:NH2	2.33	0.91
7:ED:410:HIS:HA	7:EE:406:LEU:HD11	1.12	0.91
1:AM:92:ARG:HH11	1:CR:156:ASN:HD21	1.02	0.91
1:AW:4:PRO:HD3	1:BN:76:PRO:HA	1.52	0.91
1:AW:16:LYS:HD2	1:BK:101:ALA:O	1.70	0.91
1:BF:43:ASN:OD1	1:DK:103:TYR:CD1	2.24	0.91
7:ED:660:LYS:HE3	7:EE:658:ASN:HB2	1.53	0.91
1:AW:101:ALA:N	1:BN:42:ILE:HG13	1.84	0.91
1:AP:108:GLU:HB3	1:CS:7:PHE:CE1	2.03	0.91
3:DU:174:THR:O	5:DX:14:ASN:CG	2.08	0.91
7:ED:628:GLU:OE2	7:EE:627:PHE:HZ	1.32	0.91
7:ED:649:ASN:HD22	7:EE:648:GLU:HG2	1.29	0.91
1:AP:4:PRO:CA	1:CW:75:LYS:CG	2.37	0.91
1:AS:144:THR:HB	1:CW:141:GLN:O	1.70	0.91
1:BU:92:ARG:CB	1:DP:6:LEU:CA	2.41	0.91
3:DV:139:PRO:HB2	5:DX:39:LYS:HD2	1.52	0.91
1:BU:12:GLN:CG	1:DP:97:ALA:CB	2.48	0.91
1:AP:108:GLU:HG2	1:CS:11:ASP:C	1.91	0.91
5:DX:60:GLU:CG	5:DX:61:ARG:HH11	1.82	0.91
1:AM:16:LYS:NZ	1:CN:19:PHE:CB	2.33	0.90
1:BI:145:ASN:CA	1:DP:19:PHE:HZ	1.83	0.90
1:BU:5:THR:N	1:DH:74:MET:HA	1.80	0.90
7:ED:410:HIS:HD2	7:EE:373:GLY:HA3	1.35	0.90
1:BI:103:TYR:HA	1:DK:15:LYS:HB3	1.51	0.90
1:CL:206:ASN:ND2	1:CL:214:ASP:OD2	2.04	0.90
3:DU:235:LEU:HD11	7:ED:354:ASP:HB3	1.51	0.90
7:ED:604:VAL:HG21	7:EE:599:MET:HA	1.44	0.90
1:AP:96:THR:HG22	1:CZ:65:GLU:H	1.34	0.90
3:DV:175:ILE:HD11	5:DY:15:VAL:CA	2.00	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:ED:379:VAL:CG2	7:EE:398:MET:HB2	1.99	0.90
1:AP:320:SER:CA	1:CZ:65:GLU:OE2	2.18	0.90
7:ED:95:ASP:O	7:EE:572:LYS:NZ	2.04	0.90
7:ED:456:LEU:C	7:EE:438:MET:HE3	1.91	0.90
7:ED:374:ARG:NH2	7:EE:389:ASP:O	2.05	0.90
1:AP:92:ARG:CZ	1:CW:156:ASN:OD1	2.19	0.90
1:AP:141:GLN:HE21	1:CR:143:LEU:HB3	1.33	0.90
1:AW:14:GLY:C	1:BK:103:TYR:CZ	2.45	0.90
7:ED:628:GLU:CB	7:EE:627:PHE:CE2	2.54	0.90
1:BI:11:ASP:HB3	1:DK:94:SER:HB3	1.52	0.90
1:BU:7:PHE:CZ	1:DP:97:ALA:CB	2.54	0.90
3:DU:153:ILE:HD12	5:DZ:27:ALA:CB	1.98	0.90
5:DX:59:VAL:HG12	5:DX:63:TYR:CZ	2.06	0.90
5:DX:61:ARG:HD3	5:DY:63:TYR:CD2	2.05	0.90
1:AH:65:GLU:HG3	1:BK:96:THR:HG1	1.30	0.90
1:BU:19:PHE:CE2	1:DP:16:LYS:NZ	2.38	0.90
1:AS:78:VAL:N	1:CW:149:ASP:C	2.18	0.90
1:DC:144:THR:C	3:DV:85:ASP:CA	2.34	0.90
1:AP:9:SER:H	1:CS:96:THR:HB	1.32	0.89
1:AP:79:ILE:HD12	1:CR:147:ALA:CB	1.99	0.89
4:DW:355:GLU:OE2	4:DW:371:VAL:HG22	1.71	0.89
1:AP:4:PRO:HA	1:CW:75:LYS:CG	2.00	0.89
1:AP:321:TYR:HE2	1:CZ:68:ARG:CG	1.85	0.89
1:CD:96:THR:O	1:CD:100:THR:OG1	1.91	0.89
3:DU:178:GLU:OE1	3:DU:178:GLU:N	2.06	0.89
1:AK:143:LEU:N	1:BN:144:THR:HA	1.83	0.89
1:BI:311:LYS:HG3	1:DP:317:LYS:HZ1	1.35	0.89
7:ED:379:VAL:CG2	7:EE:398:MET:HA	2.03	0.89
1:BU:6:LEU:N	1:DH:74:MET:HE2	1.88	0.89
1:BU:92:ARG:HE	1:DP:5:THR:C	1.76	0.89
1:BI:92:ARG:HD2	1:DK:6:LEU:CD2	2.03	0.89
1:BI:103:TYR:CE1	1:DM:145:ASN:OD1	2.25	0.89
1:BI:109:LEU:HD11	1:DK:7:PHE:CG	2.07	0.89
1:BI:320:SER:HB3	1:DM:153:ALA:CB	2.02	0.89
1:BU:105:ARG:CD	1:DP:15:LYS:HA	1.74	0.89
7:ED:221:GLN:NE2	7:EE:286:MET:CE	2.34	0.89
5:DX:85:ALA:HB1	5:DZ:88:MET:CE	2.01	0.89
1:AW:6:LEU:HD11	1:BK:92:ARG:NH1	1.79	0.89
1:BI:322:GLU:CG	1:DK:7:PHE:HD2	1.85	0.89
7:ED:430:ARG:CG	7:EE:66:GLU:CG	2.37	0.89
1:AS:45:THR:CG2	1:CS:99:THR:HB	2.01	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BI:92:ARG:HD2	1:DK:6:LEU:N	1.87	0.89
1:BI:92:ARG:HG3	1:DK:6:LEU:HB2	1.54	0.89
1:BI:321:TYR:O	1:DK:6:LEU:O	1.89	0.89
1:AP:105:ARG:CB	1:CS:12:GLN:CG	2.49	0.89
1:AP:105:ARG:HG2	1:CS:15:LYS:HB3	1.55	0.89
1:AW:102:ASN:C	1:BN:43:ASN:HB2	1.90	0.89
1:DK:258:ARG:NH1	1:DK:267:ILE:O	2.06	0.89
3:DV:178:GLU:OE1	3:DV:178:GLU:N	2.06	0.89
1:AM:6:LEU:HD13	1:CR:71:ASP:CB	2.03	0.88
1:AP:96:THR:CG2	1:CZ:65:GLU:CB	2.51	0.88
1:AW:7:PHE:HB3	1:BK:93:VAL:CG1	2.01	0.88
1:BU:318:ASP:O	1:DH:315:LEU:HD23	1.71	0.88
1:CS:93:VAL:O	1:CS:321:TYR:OH	1.90	0.88
3:DU:192:VAL:HG23	4:DW:1004:ARG:CA	2.02	0.88
1:AK:146:SER:HB2	1:BN:141:GLN:H	1.36	0.88
1:AP:12:GLN:C	1:CS:105:ARG:HH12	1.77	0.88
1:BU:5:THR:OG1	1:DH:74:MET:CE	2.20	0.88
2:DR:21:ARG:NH1	4:DW:858:ARG:O	1.83	0.88
7:ED:305:SER:CB	7:EE:284:ALA:CB	2.50	0.88
1:AP:92:ARG:NH2	1:CS:5:THR:C	2.26	0.88
1:BI:13:ASN:HB2	1:DM:76:PRO:CB	2.03	0.88
3:DU:26:ARG:N	4:DW:973:ASN:CG	2.27	0.88
7:ED:97:ASP:OD1	7:EE:575:HIS:CE1	2.26	0.88
3:DV:26:ARG:HH21	3:DV:27:ASP:HB2	1.22	0.88
7:ED:301:LYS:CG	7:EE:283:ILE:CB	2.37	0.88
7:ED:305:SER:OG	7:EE:284:ALA:CB	2.21	0.88
1:BI:92:ARG:CD	1:DK:6:LEU:CD2	2.49	0.88
1:BI:315:LEU:CD2	1:DP:318:ASP:OD1	2.17	0.88
3:DU:83:ALA:O	5:DZ:25:ILE:HG13	1.73	0.88
1:AS:65:GLU:HB3	1:CN:320:SER:HG	1.10	0.88
1:BI:72:GLY:CA	1:DP:3:ASN:ND2	2.37	0.88
1:BI:109:LEU:HD11	1:DK:7:PHE:CD2	2.09	0.88
1:BI:317:LYS:NZ	1:DO:65:GLU:CG	2.35	0.88
2:DR:20:ASP:C	4:DW:856:VAL:HG12	1.93	0.88
7:ED:372:TYR:CD2	7:EE:392:PRO:CD	2.57	0.88
1:AM:16:LYS:NZ	1:CN:19:PHE:CG	2.42	0.88
1:AM:16:LYS:HZ2	1:CN:19:PHE:CB	1.87	0.88
1:AP:320:SER:CB	1:CZ:65:GLU:CD	2.17	0.88
1:BI:95:ASP:O	1:DK:10:TYR:CE2	2.26	0.88
3:DU:154:LEU:HD21	3:DU:156:TYR:HB3	1.56	0.88
1:DA:306:VAL:HG22	1:DA:330:VAL:HG12	1.56	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DV:73:ASP:HB2	5:DY:24:SER:OG	1.69	0.88
1:BI:95:ASP:O	1:DK:10:TYR:CZ	2.27	0.87
1:BU:12:GLN:CG	1:DP:97:ALA:HA	1.99	0.87
1:AP:4:PRO:O	1:CW:74:MET:HG2	1.68	0.87
1:AP:92:ARG:NH2	1:CS:5:THR:CG2	2.38	0.87
1:AW:16:LYS:CD	1:BK:101:ALA:O	2.22	0.87
2:DR:20:ASP:O	4:DW:856:VAL:HB	1.75	0.87
3:DU:230:ASN:ND2	7:EE:369:ASN:OD1	2.06	0.87
5:DX:60:GLU:OE2	5:DX:64:GLN:HG3	1.74	0.87
5:DX:68:LEU:HD21	5:DY:70:LYS:HZ2	1.36	0.87
1:AS:143:LEU:H	1:CW:144:THR:N	1.69	0.87
5:DY:81:LYS:CB	5:DY:82:ASP:N	2.38	0.87
7:ED:516:HIS:CA	7:EE:108:GLN:HE21	1.86	0.87
1:AS:143:LEU:HB2	1:CW:142:TYR:O	1.72	0.87
5:DX:59:VAL:HG12	5:DX:63:TYR:HH	1.39	0.87
1:AP:96:THR:HG22	1:CZ:65:GLU:N	1.89	0.87
1:AW:7:PHE:HE1	1:BK:97:ALA:CB	1.64	0.87
1:BI:320:SER:CB	1:DM:153:ALA:CB	2.53	0.87
1:AM:101:ALA:CA	1:CR:44:GLN:NE2	2.33	0.87
1:AP:96:THR:HG23	1:CZ:65:GLU:HB3	1.54	0.87
1:AP:108:GLU:CG	1:CS:12:GLN:HA	1.61	0.87
1:AW:102:ASN:O	1:BN:43:ASN:HB3	1.72	0.87
3:DV:29:ASP:O	3:DV:33:ASN:ND2	2.08	0.87
7:ED:20:ARG:HH22	7:EE:279:ASP:HB2	0.72	0.87
7:ED:221:GLN:NE2	7:EE:286:MET:HE1	1.90	0.87
1:AP:3:ASN:C	1:CW:74:MET:SD	2.53	0.86
1:AW:6:LEU:CG	1:BK:92:ARG:NH1	2.37	0.86
1:BF:74:MET:HE3	1:DK:6:LEU:HD11	1.55	0.86
7:ED:410:HIS:HA	7:EE:406:LEU:HD12	1.57	0.86
1:AM:7:PHE:CE2	1:CN:108:GLU:CD	2.48	0.86
1:AP:8:VAL:CA	1:CS:96:THR:CB	2.49	0.86
1:AS:145:ASN:HD22	1:CW:145:ASN:HD21	0.86	0.86
1:BI:145:ASN:HB3	1:DP:19:PHE:CE2	2.07	0.86
1:BU:12:GLN:CG	1:DP:97:ALA:HB1	2.05	0.86
3:DU:138:TYR:HD1	3:DU:145:LEU:CD2	1.88	0.86
1:AM:100:THR:CB	1:CR:44:GLN:OE1	2.24	0.86
1:AP:7:PHE:HZ	1:CW:75:LYS:HG3	1.33	0.86
1:CZ:51:THR:O	1:CZ:77:THR:OG1	1.94	0.86
1:AK:145:ASN:CG	1:BN:145:ASN:HB3	1.95	0.86
1:AW:105:ARG:HD2	1:BK:15:LYS:CG	2.01	0.86
1:BX:88:ARG:NH1	1:CC:64:VAL:O	2.09	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DB:16:LYS:HG2	3:DV:234:ARG:HD3	1.00	0.86
5:DX:60:GLU:CG	5:DX:61:ARG:NH1	2.37	0.86
7:ED:516:HIS:CA	7:EE:108:GLN:NE2	2.38	0.86
1:BU:19:PHE:HE2	1:DP:16:LYS:HZ3	1.20	0.86
7:ED:97:ASP:CG	7:EE:575:HIS:CE1	2.49	0.86
1:AP:92:ARG:NH1	1:CW:156:ASN:OD1	2.09	0.86
1:DB:312:ARG:CZ	7:ED:31:MET:CE	2.52	0.86
7:ED:374:ARG:NH1	7:EE:389:ASP:O	2.00	0.86
7:ED:470:ARG:C	7:EE:117:TYR:OH	2.13	0.86
1:BI:141:GLN:HA	1:DH:143:LEU:O	1.74	0.86
1:BU:3:ASN:OD1	1:DP:115:LYS:NZ	2.06	0.86
1:AM:16:LYS:CG	1:CN:103:TYR:N	2.19	0.86
1:BI:92:ARG:HA	1:DK:7:PHE:HB2	1.55	0.86
1:BI:144:THR:O	1:DP:19:PHE:CZ	2.29	0.86
1:BI:146:SER:C	1:DH:143:LEU:HD11	1.96	0.86
1:BU:7:PHE:CE2	1:DP:97:ALA:HB3	2.09	0.86
3:DV:124:ARG:NH1	5:DZ:28:TYR:CD2	2.44	0.86
1:AP:12:GLN:HE22	1:CS:102:ASN:ND2	1.73	0.86
1:BI:96:THR:CB	1:DM:152:VAL:CB	2.49	0.86
1:BI:103:TYR:C	1:DK:15:LYS:HB2	1.95	0.86
1:BU:8:VAL:HG23	1:DP:96:THR:CB	2.05	0.86
1:AK:145:ASN:OD1	1:BN:142:TYR:CA	1.92	0.85
1:BI:143:LEU:O	1:DP:17:LEU:CD1	2.24	0.85
1:BU:8:VAL:HG22	1:DP:94:SER:HB3	1.56	0.85
1:BI:9:SER:OG	1:DK:95:ASP:CA	2.21	0.85
1:BU:318:ASP:O	1:DH:315:LEU:HD21	1.72	0.85
3:DV:60:TYR:CD1	5:DX:3:VAL:O	2.28	0.85
1:AW:7:PHE:CE1	1:BK:97:ALA:C	2.49	0.85
1:CC:51:THR:O	1:CC:77:THR:OG1	1.94	0.85
5:DZ:88:MET:HA	5:DZ:91:ILE:HD12	1.57	0.85
7:ED:372:TYR:CE2	7:EE:392:PRO:CD	2.56	0.85
7:ED:552:LEU:CD2	7:EE:579:LEU:C	2.31	0.85
7:ED:646:LYS:CA	7:EE:644:GLN:HE22	1.89	0.85
1:BI:145:ASN:N	1:DP:19:PHE:CZ	2.43	0.85
1:BU:12:GLN:CG	1:DP:97:ALA:CA	2.54	0.85
1:AP:8:VAL:CG1	1:CS:94:SER:OG	2.24	0.85
7:ED:94:GLN:HG2	7:EE:497:GLU:OE1	1.74	0.85
7:ED:430:ARG:HG2	7:EE:66:GLU:HG2	0.87	0.85
1:AM:6:LEU:HD12	1:CN:92:ARG:HH11	0.70	0.85
1:AW:7:PHE:HE1	1:BK:97:ALA:HB1	1.06	0.85
7:ED:516:HIS:HB3	7:EE:108:GLN:HE21	1.04	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AP:144:THR:CG2	1:CR:141:GLN:HE21	1.87	0.85
1:BI:109:LEU:CD1	1:DK:7:PHE:CG	2.59	0.85
1:BI:74:MET:HE2	1:DP:4:PRO:CA	2.05	0.85
1:BI:77:THR:N	1:DP:13:ASN:ND2	2.21	0.85
7:ED:338:GLY:O	7:EE:263:TRP:CZ2	2.30	0.85
7:ED:466:ARG:HH11	7:EE:77:ASN:ND2	1.52	0.85
1:AK:142:TYR:O	1:BN:143:LEU:O	1.93	0.85
1:BI:145:ASN:O	1:DP:19:PHE:CE1	2.30	0.85
1:CG:250:GLU:OE1	1:CG:258:ARG:NH2	2.09	0.85
5:DX:68:LEU:HD21	5:DY:70:LYS:HZ1	1.04	0.85
1:AM:97:ALA:HB2	1:CN:9:SER:N	1.91	0.84
1:BI:317:LYS:CB	1:DO:68:ARG:NE	2.24	0.84
1:BX:88:ARG:NH2	1:CC:67:SER:O	2.09	0.84
3:DU:195:ASP:O	3:DU:198:VAL:N	2.09	0.84
7:ED:408:PRO:O	7:EE:375:TYR:CE1	2.30	0.84
1:AW:14:GLY:O	1:BK:103:TYR:HE1	1.49	0.84
1:BI:92:ARG:NH2	1:DK:6:LEU:HD22	1.87	0.84
1:BU:16:LYS:HB2	1:DP:101:ALA:CB	2.05	0.84
1:AK:143:LEU:HD12	1:BN:147:ALA:O	1.77	0.84
7:ED:458:MET:C	7:EE:438:MET:CA	2.41	0.84
1:BU:12:GLN:CB	1:DP:97:ALA:CA	2.41	0.84
1:BU:92:ARG:CB	1:DP:5:THR:O	2.25	0.84
3:DU:83:ALA:O	5:DZ:25:ILE:CG1	2.26	0.84
1:AP:8:VAL:HG12	1:CS:96:THR:CG2	2.05	0.84
1:AS:73:GLU:N	1:CS:3:ASN:O	2.10	0.84
1:BU:93:VAL:HA	1:DP:7:PHE:O	1.77	0.84
5:DX:85:ALA:HB1	5:DZ:91:ILE:HD13	1.52	0.84
7:ED:456:LEU:HG	7:EE:438:MET:HE1	0.87	0.84
7:ED:646:LYS:HB2	7:EE:644:GLN:NE2	1.93	0.84
3:DU:26:ARG:CB	4:DW:973:ASN:HD21	1.90	0.84
7:ED:97:ASP:CG	7:EE:575:HIS:NE2	2.30	0.84
7:ED:466:ARG:HH11	7:EE:77:ASN:HD22	0.87	0.84
1:DB:312:ARG:NE	7:ED:31:MET:CE	2.36	0.84
1:BF:43:ASN:OD1	1:DK:103:TYR:HD1	1.60	0.84
7:ED:235:VAL:CG2	7:ED:243:GLU:OE2	2.26	0.84
1:AP:144:THR:HG21	1:CR:141:GLN:HG2	1.55	0.84
1:AS:75:LYS:O	1:CW:153:ALA:HB2	1.77	0.84
5:DY:71:GLN:HA	5:DY:74:GLU:HB3	1.59	0.84
7:ED:475:ASN:OD1	7:EE:118:ASN:OD1	1.96	0.84
7:ED:552:LEU:HD21	7:EE:579:LEU:C	1.84	0.84
1:BI:17:LEU:HD11	1:DM:144:THR:N	1.64	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DU:191:PHE:O	4:DW:1005:ARG:NE	1.94	0.83
1:AM:16:LYS:HZ2	1:CN:19:PHE:HB2	1.42	0.83
3:DU:26:ARG:CD	4:DW:922:GLN:OE1	2.26	0.83
3:DV:59:VAL:HA	5:DX:3:VAL:HG23	1.60	0.83
1:AS:143:LEU:CA	1:CW:142:TYR:O	2.26	0.83
1:BU:6:LEU:HD12	1:DP:93:VAL:O	1.78	0.83
3:DV:124:ARG:HH12	5:DZ:28:TYR:CA	1.90	0.83
7:ED:456:LEU:CA	7:EE:438:MET:HE3	2.06	0.83
7:EE:235:VAL:CG2	7:EE:243:GLU:OE2	2.25	0.83
1:AW:4:PRO:HD3	1:BN:76:PRO:CA	2.08	0.83
1:CJ:250:GLU:OE1	1:CJ:258:ARG:NH2	2.12	0.83
3:DU:26:ARG:HG2	4:DW:973:ASN:OD1	1.51	0.83
1:AW:16:LYS:HG2	1:BK:103:TYR:CD2	2.13	0.83
1:AW:105:ARG:NE	1:BK:13:ASN:C	2.28	0.83
3:DV:58:GLU:O	5:DX:3:VAL:HG22	1.79	0.83
1:AP:79:ILE:HD11	1:CR:147:ALA:HB1	1.54	0.83
1:AS:73:GLU:CG	1:CS:4:PRO:CA	2.55	0.83
1:BI:12:GLN:C	1:DK:96:THR:HG21	1.98	0.83
1:BU:92:ARG:NE	1:DP:6:LEU:CA	2.41	0.83
1:BU:94:SER:CB	1:DP:8:VAL:C	2.47	0.83
2:DR:21:ARG:N	4:DW:856:VAL:CG1	2.24	0.83
1:AW:6:LEU:CD1	1:BK:92:ARG:CZ	2.55	0.83
1:CZ:308:ARG:NH1	1:CZ:327:GLU:OE1	2.12	0.83
1:DD:102:ASN:ND2	1:DO:14:GLY:O	2.12	0.83
1:AW:99:THR:OG1	1:BN:308:ARG:HD2	1.79	0.82
1:BU:92:ARG:NE	1:DP:6:LEU:HA	1.87	0.82
7:ED:374:ARG:CZ	7:EE:389:ASP:O	2.25	0.82
7:ED:379:VAL:CG2	7:EE:398:MET:CA	2.48	0.82
1:AP:9:SER:N	1:CS:96:THR:CB	2.42	0.82
3:DV:60:TYR:CE1	5:DX:2:ILE:CA	2.62	0.82
7:ED:97:ASP:OD1	7:EE:572:LYS:HD3	1.79	0.82
1:BI:74:MET:HE2	1:DP:4:PRO:C	1.99	0.82
3:DV:124:ARG:NH1	5:DZ:28:TYR:CA	2.42	0.82
1:AP:8:VAL:CA	1:CS:96:THR:HG1	1.83	0.82
1:AP:144:THR:HG22	1:CR:138:LEU:HD22	1.61	0.82
1:CN:257:LYS:NZ	1:CR:254:GLY:O	2.11	0.82
3:DV:44:LYS:NZ	5:DX:14:ASN:CG	2.32	0.82
7:ED:467:MET:HE3	7:EE:72:LEU:HG	1.60	0.82
1:CO:252:THR:OG1	1:CO:255:SER:O	1.98	0.82
3:DV:124:ARG:CZ	5:DZ:28:TYR:HD2	1.91	0.82
1:AH:68:ARG:HB3	1:BK:321:TYR:OH	1.79	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AP:8:VAL:HA	1:CS:96:THR:CG2	2.05	0.82
1:AS:44:GLN:CG	1:CS:101:ALA:O	2.28	0.82
1:BI:311:LYS:HG3	1:DP:317:LYS:NZ	1.94	0.82
1:DB:39:LYS:C	7:ED:16:VAL:HG21	2.00	0.82
4:DW:748:ALA:HB2	6:EC:23:PHE:N	1.83	0.82
5:DX:74:GLU:HB2	5:DZ:77:LYS:HE2	1.59	0.82
1:AM:7:PHE:CE1	1:CN:108:GLU:OE2	2.32	0.82
1:AP:162:ARG:NH1	1:AP:329:GLU:OE2	2.12	0.82
1:BI:109:LEU:CD1	1:DK:7:PHE:CD1	2.62	0.82
2:DR:20:ASP:CA	4:DW:856:VAL:HG11	2.09	0.82
1:AP:92:ARG:NH1	1:CS:6:LEU:N	2.13	0.82
1:BI:74:MET:HE3	1:DP:4:PRO:HB3	0.83	0.82
1:BI:92:ARG:NE	1:DK:6:LEU:CD2	2.11	0.82
1:BU:94:SER:N	1:DP:7:PHE:O	2.13	0.82
2:DS:20:ASP:CB	4:DW:848:ASP:OD2	2.26	0.82
5:DX:60:GLU:OE2	5:DX:61:ARG:NH1	2.13	0.82
7:ED:458:MET:O	7:EE:438:MET:HA	1.78	0.82
1:CW:254:GLY:O	1:CW:257:LYS:NZ	2.12	0.82
3:DV:14:GLY:O	3:DV:18:LYS:NZ	2.12	0.82
7:ED:131:ARG:NH2	7:EE:269:ARG:CZ	2.42	0.82
1:BN:5:THR:O	1:BQ:156:ASN:ND2	2.12	0.82
1:DF:238:ASN:ND2	1:DF:293:ALA:O	2.13	0.82
1:BI:145:ASN:CA	1:DP:19:PHE:HE2	1.88	0.81
3:DV:12:THR:HG21	3:DV:168:ASP:O	1.80	0.81
5:DX:86:ARG:HE	5:DX:86:ARG:CA	1.93	0.81
1:BU:8:VAL:CG1	1:DP:95:ASP:HB3	2.09	0.81
1:DF:183:LYS:NZ	1:DF:292:ASP:OD2	2.13	0.81
3:DV:175:ILE:HG13	5:DY:14:ASN:C	2.01	0.81
7:ED:557:GLN:HE22	7:EE:579:LEU:CB	1.91	0.81
1:AP:16:LYS:HZ1	1:CS:19:PHE:HD2	1.27	0.81
3:DV:162:GLU:OE1	5:DX:14:ASN:CB	2.28	0.81
5:DY:84:ASP:HA	5:DY:87:LEU:HB3	1.61	0.81
1:AP:3:ASN:N	1:CW:56:SER:HG	1.79	0.81
1:AP:104:GLY:O	1:CS:15:LYS:HG3	1.58	0.81
1:BP:308:ARG:NH2	1:BT:99:THR:O	2.14	0.81
1:DA:215:GLU:OE2	1:DA:256:ARG:NH2	2.14	0.81
1:AP:16:LYS:NZ	1:CS:19:PHE:CD2	2.48	0.81
7:ED:458:MET:O	7:EE:438:MET:N	2.12	0.81
1:AP:16:LYS:NZ	1:CS:19:PHE:HD2	1.77	0.81
1:AP:96:THR:CG2	1:CZ:65:GLU:HB2	2.11	0.81
1:BI:74:MET:CE	1:DP:4:PRO:HB2	2.10	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DU:26:ARG:HD2	4:DW:922:GLN:OE1	1.80	0.81
1:AR:308:ARG:NH2	1:AV:99:THR:O	2.14	0.81
1:BI:143:LEU:C	1:DP:17:LEU:CD1	2.48	0.81
1:BN:162:ARG:NH1	1:BN:329:GLU:OE2	2.12	0.81
1:DE:196:VAL:O	1:DE:224:GLN:NE2	2.14	0.81
7:ED:458:MET:O	7:EE:438:MET:CA	2.28	0.81
1:AP:144:THR:O	1:CR:141:GLN:O	1.88	0.81
1:AW:213:PHE:O	1:AW:215:GLU:HG3	1.80	0.81
1:BI:319:GLY:CA	1:DO:66:GLY:O	2.29	0.81
1:DB:16:LYS:CB	3:DV:234:ARG:HD3	2.10	0.81
1:AW:16:LYS:HD3	1:BK:101:ALA:C	2.02	0.81
1:BI:322:GLU:C	1:DK:7:PHE:HB3	1.99	0.81
1:BU:94:SER:HB2	1:DP:8:VAL:C	2.00	0.81
4:DW:239:VAL:CG1	4:DW:275:ASP:OD1	2.27	0.81
5:DX:86:ARG:N	5:DX:86:ARG:NE	2.28	0.81
1:AP:5:THR:O	1:AS:156:ASN:ND2	2.12	0.80
1:AP:107:ARG:O	1:CS:13:ASN:CG	2.19	0.80
1:AW:100:THR:OG1	1:BN:45:THR:N	2.14	0.80
1:CS:51:THR:O	1:CS:77:THR:OG1	1.97	0.80
1:DC:144:THR:CA	3:DV:85:ASP:HA	2.04	0.80
1:AM:103:TYR:HD2	1:CN:16:LYS:CD	1.95	0.80
1:AP:320:SER:N	1:CZ:65:GLU:O	2.02	0.80
1:AW:6:LEU:CD2	1:BK:92:ARG:HH12	1.74	0.80
1:BI:74:MET:HE2	1:DP:4:PRO:HB2	1.62	0.80
1:BI:144:THR:HA	1:DH:143:LEU:CB	2.11	0.80
1:DC:89:LYS:NZ	1:DC:119:GLU:OE1	2.14	0.80
1:DQ:200:VAL:O	1:DQ:202:GLN:NE2	2.13	0.80
1:AQ:249:GLN:OE1	1:AQ:258:ARG:NH2	2.14	0.80
3:DV:72:PRO:CD	5:DY:30:GLN:HE22	1.94	0.80
3:DV:193:GLN:HE22	4:DW:924:HIS:CD2	1.99	0.80
1:AP:8:VAL:HG12	1:CS:94:SER:OG	1.81	0.80
1:BI:103:TYR:HE1	1:DM:145:ASN:OD1	1.62	0.80
1:CG:122:ARG:NH2	1:CO:56:SER:OG	2.15	0.80
1:CO:203:ASN:ND2	1:CO:212:GLY:O	2.14	0.80
1:AP:4:PRO:O	1:CW:74:MET:CG	2.20	0.80
1:AP:8:VAL:HA	1:CS:96:THR:HG1	0.88	0.80
1:BU:9:SER:C	1:DP:96:THR:O	2.13	0.80
7:ED:419:LEU:HD21	7:EE:363:TYR:CE1	2.15	0.80
1:AE:82:ASN:ND2	1:AE:164:THR:O	2.14	0.80
1:AW:4:PRO:CD	1:BN:75:LYS:O	2.28	0.80
1:BO:249:GLN:OE1	1:BO:258:ARG:NH2	2.14	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:DR:20:ASP:CA	4:DW:856:VAL:CG1	2.60	0.80
3:DV:58:GLU:O	5:DX:3:VAL:CG2	2.30	0.80
1:AM:101:ALA:O	1:CR:44:GLN:NE2	2.15	0.80
1:BI:105:ARG:HG2	1:DK:14:GLY:N	1.96	0.80
1:BU:19:PHE:HE2	1:DP:16:LYS:NZ	1.76	0.80
1:BU:213:PHE:O	1:BU:215:GLU:HG3	1.80	0.80
1:CJ:203:ASN:ND2	1:CJ:212:GLY:O	2.15	0.80
1:CG:254:GLY:O	1:CG:257:LYS:NZ	2.14	0.80
1:AP:99:THR:OG1	1:CW:329:GLU:OE1	1.99	0.80
1:AW:14:GLY:HA2	1:BK:103:TYR:HE1	1.38	0.80
1:BC:82:ASN:ND2	1:BC:164:THR:O	2.14	0.80
7:ED:379:VAL:HG22	7:EE:398:MET:HB2	1.64	0.80
7:ED:456:LEU:C	7:EE:438:MET:CE	2.50	0.80
7:ED:557:GLN:NE2	7:EE:579:LEU:CB	2.44	0.80
1:AK:145:ASN:HB3	1:BK:17:LEU:CD1	2.11	0.79
1:AP:105:ARG:HG2	1:CS:15:LYS:CB	2.11	0.79
1:AP:147:ALA:O	1:CR:143:LEU:CA	2.29	0.79
1:AW:105:ARG:NE	1:BK:14:GLY:N	2.27	0.79
7:ED:419:LEU:CD2	7:EE:363:TYR:CD1	2.63	0.79
1:CE:199:LYS:NZ	1:CE:220:ASP:OD2	2.15	0.79
1:DB:311:LYS:NZ	7:ED:26:GLN:HE22	1.75	0.79
1:BU:5:THR:OG1	1:DH:74:MET:HE3	1.80	0.79
1:BU:13:ASN:CA	1:DP:105:ARG:NH1	2.41	0.79
1:BU:103:TYR:CZ	1:DP:16:LYS:HB3	2.18	0.79
1:CB:143:LEU:O	1:CB:144:THR:HG22	1.82	0.79
1:DB:311:LYS:HD2	7:ED:26:GLN:OE1	1.83	0.79
1:DD:203:ASN:ND2	1:DD:213:PHE:O	2.15	0.79
1:DF:230:SER:O	1:DF:298:ARG:NH2	2.15	0.79
1:AP:315:LEU:HG	1:CN:318:ASP:HA	1.64	0.79
1:CN:77:THR:O	1:CW:13:ASN:ND2	2.15	0.79
2:DR:21:ARG:HD3	4:DW:859:LYS:HG3	1.61	0.79
1:AP:108:GLU:CA	1:CS:7:PHE:HE1	1.94	0.79
1:AP:141:GLN:O	1:CR:145:ASN:C	1.96	0.79
1:AS:44:GLN:HG2	1:CS:101:ALA:N	1.97	0.79
1:BI:146:SER:C	1:DH:79:ILE:CG2	2.44	0.79
1:BU:14:GLY:CA	1:DP:102:ASN:CG	2.48	0.79
2:DS:23:TYR:CD2	2:DS:25:TYR:HE1	2.00	0.79
1:AS:73:GLU:HG2	1:CS:3:ASN:CG	2.02	0.79
1:BI:72:GLY:HA2	1:DP:3:ASN:ND2	1.98	0.79
7:ED:456:LEU:O	7:EE:438:MET:CE	2.30	0.79
1:DB:16:LYS:CD	3:DV:234:ARG:HD2	2.12	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AP:105:ARG:HB3	1:CS:13:ASN:N	1.86	0.79
1:BF:162:ARG:NH1	1:BF:329:GLU:OE2	2.16	0.79
1:CQ:171:CYS:SG	1:CQ:340:SER:OG	2.41	0.79
1:DM:252:THR:OG1	1:DM:253:GLN:NE2	2.15	0.79
7:ED:410:HIS:CG	7:EE:406:LEU:CD1	2.51	0.79
1:AM:101:ALA:HB3	1:CR:44:GLN:HE21	1.48	0.79
1:AS:81:SER:O	1:AS:134:ARG:NH2	2.16	0.79
1:AS:143:LEU:H	1:CW:144:THR:H	1.27	0.79
1:DC:13:ASN:OD1	1:DC:15:LYS:NZ	2.16	0.79
5:DX:68:LEU:HD21	5:DY:70:LYS:CE	2.12	0.79
1:AP:12:GLN:NE2	1:CS:102:ASN:HD22	1.79	0.79
1:AP:144:THR:CB	1:CR:141:GLN:CG	2.40	0.79
1:AW:7:PHE:HE1	1:BK:97:ALA:CA	1.95	0.79
1:DA:292:ASP:OD1	1:DA:345:THR:OG1	2.00	0.79
1:AW:94:SER:OG	1:BQ:65:GLU:CD	2.21	0.78
1:CP:135:THR:OG1	1:CP:163:LYS:O	2.00	0.78
1:DC:88:ARG:NH1	1:DD:64:VAL:O	2.16	0.78
7:ED:660:LYS:NZ	7:EE:658:ASN:O	2.13	0.78
1:BB:237:ILE:HD13	1:BB:294:VAL:HG22	1.65	0.78
1:CU:308:ARG:NH1	1:CU:329:GLU:OE2	2.16	0.78
1:AP:103:TYR:C	1:CS:16:LYS:HD3	2.04	0.78
1:BI:17:LEU:HD11	1:DM:143:LEU:C	2.03	0.78
1:BU:15:LYS:HA	1:DP:100:THR:HB	1.65	0.78
1:AD:237:ILE:HD13	1:AD:294:VAL:HG22	1.65	0.78
1:AK:145:ASN:ND2	1:BN:145:ASN:HB2	1.93	0.78
1:AW:6:LEU:CD1	1:BK:92:ARG:NE	2.38	0.78
1:BU:92:ARG:O	1:DP:7:PHE:HB2	1.83	0.78
1:BU:99:THR:HB	1:DH:307:LEU:CG	2.13	0.78
1:DM:249:GLN:OE1	1:DM:258:ARG:NH1	2.17	0.78
5:DX:85:ALA:CB	5:DX:86:ARG:NH2	2.46	0.78
7:ED:305:SER:HB3	7:EE:284:ALA:CB	2.13	0.78
1:AH:162:ARG:NH1	1:AH:329:GLU:OE2	2.16	0.78
1:AM:14:GLY:CA	1:CN:105:ARG:HH11	1.95	0.78
1:AP:12:GLN:NE2	1:CS:102:ASN:ND2	2.31	0.78
1:DB:39:LYS:HG2	7:ED:16:VAL:HG13	1.64	0.78
5:DX:85:ALA:CB	5:DZ:88:MET:HE1	1.93	0.78
5:DY:67:VAL:HA	5:DY:70:LYS:HB3	1.65	0.78
6:EA:102:SER:O	6:EA:103:THR:C	2.22	0.78
7:ED:336:ILE:HA	7:EE:125:GLN:NE2	1.99	0.78
7:ED:557:GLN:OE1	7:EE:578:LEU:HA	1.83	0.78
7:EE:21:ARG:NH2	7:EE:294:ILE:CG1	2.43	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AP:148:ALA:C	1:CR:143:LEU:HA	2.04	0.78
3:DV:44:LYS:HZ3	5:DX:14:ASN:HB3	1.48	0.78
1:AP:320:SER:C	1:CZ:65:GLU:OE2	2.13	0.78
1:AW:16:LYS:CG	1:BK:103:TYR:HD2	1.95	0.78
1:AY:230:SER:OG	1:AY:339:ALA:O	2.02	0.78
1:AY:313:THR:OG1	1:AY:325:MET:O	2.01	0.78
1:BI:147:ALA:CB	1:DH:79:ILE:CG2	2.62	0.78
1:DC:143:LEU:O	3:DV:84:LYS:HE2	1.82	0.78
1:DL:111:TYR:OH	1:DN:52:ASP:OD2	2.02	0.78
1:AP:105:ARG:HA	1:CS:13:ASN:O	1.44	0.78
1:BO:95:ASP:O	1:BO:99:THR:OG1	2.01	0.78
1:BQ:81:SER:O	1:BQ:134:ARG:NH2	2.16	0.78
1:AH:222:THR:OG1	1:AH:275:ASP:OD2	2.02	0.78
1:AW:14:GLY:O	1:BK:103:TYR:CZ	2.36	0.78
1:CZ:254:GLY:O	1:CZ:257:LYS:NZ	2.16	0.78
1:DK:102:ASN:ND2	1:DK:108:GLU:OE1	2.17	0.78
1:AA:313:THR:OG1	1:AA:325:MET:O	2.01	0.77
1:AM:99:THR:HG21	1:CR:308:ARG:CD	2.14	0.77
1:AP:144:THR:OG1	1:CR:141:GLN:CB	2.32	0.77
1:AS:143:LEU:CD2	1:CW:142:TYR:HA	1.78	0.77
1:BS:207:PRO:O	1:BS:210:ASN:ND2	2.17	0.77
7:ED:543:ILE:HD11	7:EE:578:LEU:HD21	1.64	0.77
7:ED:628:GLU:HG2	7:EE:627:PHE:CD2	2.15	0.77
1:AP:108:GLU:CA	1:CS:7:PHE:CE1	2.67	0.77
1:BX:292:ASP:OD1	1:BX:345:THR:OG1	2.01	0.77
7:ED:557:GLN:NE2	7:EE:579:LEU:N	2.30	0.77
7:ED:635:GLU:CG	7:EE:634:ASP:OD2	2.24	0.77
1:BI:105:ARG:N	1:DK:14:GLY:N	2.31	0.77
1:BU:92:ARG:NE	1:DP:5:THR:C	2.34	0.77
2:DS:23:TYR:H	4:DW:846:THR:HA	1.49	0.77
7:ED:660:LYS:CD	7:EE:658:ASN:HB3	2.14	0.77
1:AA:230:SER:OG	1:AA:339:ALA:O	2.02	0.77
1:AK:74:MET:HB2	1:BK:6:LEU:O	1.83	0.77
1:AK:142:TYR:CA	1:BN:144:THR:HA	2.13	0.77
1:AW:6:LEU:HD13	1:BK:92:ARG:NH1	1.97	0.77
3:DV:162:GLU:CD	5:DX:14:ASN:ND2	2.37	0.77
7:ED:131:ARG:HH22	7:EE:269:ARG:NH1	1.74	0.77
7:ED:379:VAL:HG22	7:EE:398:MET:CB	2.13	0.77
1:AM:7:PHE:CZ	1:CN:108:GLU:CD	2.58	0.77
1:AM:103:TYR:HD2	1:CN:16:LYS:HG2	0.78	0.77
3:DV:159:ASP:OD2	5:DY:25:ILE:HG12	1.83	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:ED:213:HIS:NE2	7:EE:274:ALA:O	2.17	0.77
1:AK:258:ARG:O	1:AW:257:LYS:NZ	2.18	0.77
1:BH:203:ASN:HA	1:BH:214:ASP:HB2	1.65	0.77
1:DC:100:THR:HG22	1:DC:101:ALA:H	1.50	0.77
3:DV:175:ILE:CG1	5:DY:15:VAL:HA	2.15	0.77
7:ED:362:GLY:CA	7:EE:371:ASN:HD21	1.97	0.77
1:AP:141:GLN:HE22	1:CR:143:LEU:CB	1.81	0.77
1:BM:162:ARG:NH1	1:BM:329:GLU:OE2	2.18	0.77
7:ED:625:THR:HG22	7:EE:624:ARG:NH1	1.98	0.77
1:AJ:203:ASN:HA	1:AJ:214:ASP:HB2	1.65	0.77
1:AK:148:ALA:HA	1:BN:143:LEU:CD1	2.10	0.77
1:AS:143:LEU:HD22	1:CW:142:TYR:HA	1.66	0.77
1:AW:99:THR:CB	1:BN:308:ARG:HD3	2.15	0.77
1:BU:5:THR:OG1	1:DH:74:MET:HE2	1.84	0.77
3:DU:83:ALA:HB1	5:DZ:25:ILE:O	1.85	0.77
7:ED:335:PRO:O	7:EE:125:GLN:NE2	2.17	0.77
1:AH:65:GLU:HG2	1:BK:94:SER:OG	1.85	0.77
1:BU:13:ASN:CB	1:DH:77:THR:OG1	2.32	0.77
1:CX:249:GLN:OE1	1:CX:258:ARG:NH1	2.18	0.77
1:DO:105:ARG:NH2	1:DO:108:GLU:OE1	2.18	0.77
5:DY:80:PHE:HA	5:DY:83:GLN:HB3	1.67	0.77
7:ED:410:HIS:CD2	7:EE:373:GLY:O	2.37	0.77
1:AP:96:THR:HG21	1:CZ:64:VAL:CG1	2.15	0.76
1:AZ:20:ALA:O	1:AZ:21:ASN:ND2	2.18	0.76
1:BF:222:THR:OG1	1:BF:275:ASP:OD2	2.02	0.76
1:BI:13:ASN:HB2	1:DM:76:PRO:HG2	1.63	0.76
1:BX:215:GLU:HA	1:BX:248:LEU:HD11	1.67	0.76
3:DU:26:ARG:NH2	4:DW:973:ASN:N	2.33	0.76
7:ED:213:HIS:CE1	7:EE:274:ALA:O	2.38	0.76
7:ED:221:GLN:HE22	7:EE:286:MET:HB2	1.49	0.76
7:ED:628:GLU:CG	7:EE:627:PHE:HD2	1.51	0.76
1:AS:75:LYS:O	1:CW:153:ALA:CB	2.33	0.76
1:BI:322:GLU:O	1:DK:7:PHE:HD2	1.64	0.76
1:BU:7:PHE:CD2	1:DP:93:VAL:HG12	2.19	0.76
1:BU:94:SER:HB2	1:DP:8:VAL:HA	0.82	0.76
5:DX:60:GLU:OE2	5:DX:64:GLN:CG	2.32	0.76
1:AU:207:PRO:O	1:AU:210:ASN:ND2	2.18	0.76
1:AW:100:THR:HG22	1:BN:84:THR:HG21	0.82	0.76
1:BI:144:THR:O	1:DP:19:PHE:CE2	2.38	0.76
1:CO:254:GLY:O	1:CO:257:LYS:NZ	2.18	0.76
3:DV:63:ILE:HG12	3:DV:133:ALA:HB3	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:DX:53:ASP:O	5:DX:54:ASP:C	2.23	0.76
7:ED:430:ARG:HG2	7:EE:66:GLU:CD	2.06	0.76
1:AK:71:ASP:OD2	1:BK:6:LEU:HD13	1.84	0.76
1:AP:94:SER:O	1:CS:7:PHE:HD2	1.67	0.76
1:BS:81:SER:O	1:BS:134:ARG:NH2	2.18	0.76
3:DV:192:VAL:HG23	4:DW:926:ASN:ND2	2.01	0.76
1:AD:88:ARG:NH2	1:AE:67:SER:O	2.19	0.76
1:AH:68:ARG:O	1:AK:88:ARG:NH2	2.19	0.76
1:AQ:95:ASP:O	1:AQ:99:THR:OG1	2.01	0.76
1:AS:75:LYS:O	1:CW:153:ALA:CA	2.19	0.76
1:AW:3:ASN:N	1:BN:75:LYS:CG	2.44	0.76
1:BI:109:LEU:CB	1:DK:9:SER:OG	2.30	0.76
1:CE:308:ARG:NH2	1:CE:327:GLU:OE1	2.19	0.76
2:DR:23:TYR:CE1	4:DW:853:LYS:HB3	2.21	0.76
7:ED:628:GLU:CD	7:EE:627:PHE:HE2	1.34	0.76
1:BU:12:GLN:HB2	1:DP:97:ALA:CB	2.16	0.76
4:DW:311:LEU:CD1	4:DW:372:ARG:NH2	2.23	0.76
1:AA:81:SER:O	1:AA:134:ARG:NH2	2.19	0.76
1:AW:14:GLY:O	1:BK:103:TYR:OH	2.04	0.76
1:BU:319:GLY:CA	1:DH:313:THR:HG23	2.16	0.76
3:DV:66:GLY:O	3:DV:68:ALA:N	2.19	0.76
7:ED:419:LEU:CD2	7:EE:363:TYR:CZ	2.69	0.76
1:BI:102:ASN:C	1:DK:15:LYS:CG	2.46	0.76
1:BI:322:GLU:HG3	1:DK:7:PHE:O	1.85	0.76
3:DU:26:ARG:HB2	4:DW:973:ASN:HD21	1.51	0.76
3:DU:83:ALA:CB	5:DZ:25:ILE:O	2.33	0.76
5:DX:85:ALA:HB1	5:DZ:88:MET:HE3	1.67	0.76
1:AG:222:THR:OG1	1:AG:275:ASP:OD2	2.04	0.76
1:AM:100:THR:HG21	1:CN:11:ASP:CG	2.06	0.76
1:AM:108:GLU:OE2	1:CN:12:GLN:NE2	2.19	0.76
1:AX:81:SER:O	1:AX:134:ARG:NH2	2.19	0.76
1:BF:68:ARG:O	1:BI:88:ARG:NH2	2.19	0.76
1:BV:81:SER:O	1:BV:134:ARG:NH2	2.19	0.76
5:DX:78:GLN:HE21	5:DX:78:GLN:HA	1.51	0.76
5:DX:74:GLU:CD	5:DZ:81:LYS:HE2	2.06	0.76
1:AO:162:ARG:NH1	1:AO:329:GLU:OE2	2.18	0.75
1:AY:81:SER:O	1:AY:134:ARG:NH2	2.19	0.75
1:CC:3:ASN:OD1	1:CC:5:THR:OG1	2.02	0.75
3:DU:54:PRO:CD	5:DX:17:GLN:HB2	2.11	0.75
1:AG:290:PRO:O	1:AG:291:THR:HG22	1.86	0.75
1:AM:95:ASP:OD2	1:CV:67:SER:HA	1.87	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AP:17:LEU:CD2	1:CW:145:ASN:HD22	1.88	0.75
1:AW:16:LYS:CB	1:BK:103:TYR:CD2	2.66	0.75
1:BI:92:ARG:HH21	1:DK:6:LEU:CD2	1.93	0.75
1:AM:97:ALA:N	1:CN:8:VAL:N	2.34	0.75
1:AP:12:GLN:O	1:CW:77:THR:HG21	1.76	0.75
1:AW:94:SER:CB	1:BQ:65:GLU:OE2	2.35	0.75
1:BU:12:GLN:OE1	1:DP:100:THR:OG1	2.04	0.75
1:CF:65:GLU:OE2	1:CJ:162:ARG:NH1	2.18	0.75
3:DV:56:GLU:OE2	3:DV:78:GLN:NE2	2.20	0.75
1:AP:144:THR:HG21	1:CR:141:GLN:NE2	1.91	0.75
1:BB:83:VAL:O	1:BB:164:THR:OG1	2.02	0.75
1:BB:88:ARG:NH2	1:BC:67:SER:O	2.19	0.75
1:DB:136:ASP:OD1	1:DF:10:TYR:OH	2.02	0.75
2:DT:17:TYR:O	2:DT:19:ARG:N	2.19	0.75
3:DU:210:ASP:OD1	3:DU:211:GLU:N	2.20	0.75
1:AB:20:ALA:O	1:AB:21:ASN:ND2	2.18	0.75
1:AK:143:LEU:CD2	1:BN:145:ASN:OD1	2.34	0.75
1:AP:320:SER:CA	1:CZ:65:GLU:CG	2.57	0.75
1:AU:81:SER:O	1:AU:134:ARG:NH2	2.18	0.75
1:BI:109:LEU:CD1	1:DK:7:PHE:CD2	2.69	0.75
1:BU:92:ARG:CB	1:DP:6:LEU:O	2.35	0.75
1:BU:96:THR:O	1:DH:307:LEU:HD21	1.86	0.75
7:ED:244:ILE:O	7:ED:244:ILE:HG22	1.87	0.75
7:ED:646:LYS:HA	7:EE:644:GLN:NE2	2.01	0.75
1:AF:162:ARG:NH1	1:AF:329:GLU:OE2	2.20	0.75
1:AS:73:GLU:CD	1:CS:4:PRO:HA	2.07	0.75
1:BI:92:ARG:HD2	1:DK:6:LEU:CA	2.16	0.75
1:BU:94:SER:N	1:DP:8:VAL:HA	2.01	0.75
1:DB:39:LYS:HB3	7:ED:16:VAL:HG11	0.78	0.75
3:DV:219:GLN:O	3:DV:222:SER:OG	2.03	0.75
5:DX:85:ALA:HB1	5:DZ:88:MET:SD	2.19	0.75
1:AW:100:THR:HG21	1:BN:84:THR:CG2	2.14	0.75
1:BF:74:MET:HE1	1:DK:6:LEU:HG	1.47	0.75
1:BU:93:VAL:HG13	1:DP:7:PHE:HD1	1.50	0.75
1:AK:146:SER:CB	1:BN:141:GLN:H	1.99	0.75
1:CX:308:ARG:NH1	1:CX:327:GLU:OE1	2.20	0.75
3:DV:26:ARG:HH22	3:DV:27:ASP:CG	1.88	0.75
7:ED:628:GLU:CB	7:EE:627:PHE:HE2	1.97	0.75
1:AP:3:ASN:C	1:CW:74:MET:HG3	2.06	0.74
1:BU:13:ASN:CB	1:DP:105:ARG:CZ	2.54	0.74
3:DV:72:PRO:N	5:DY:30:GLN:NE2	2.35	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:EC:100:ASN:O	6:EC:103:THR:CA	2.35	0.74
1:AP:94:SER:HB3	1:CS:8:VAL:HA	1.68	0.74
1:AW:16:LYS:CD	1:BK:101:ALA:C	2.56	0.74
1:BI:258:ARG:O	1:BU:257:LYS:NZ	2.18	0.74
5:DY:74:GLU:CB	5:DZ:69:MET:HE1	2.14	0.74
1:AP:98:ASN:ND2	1:CS:7:PHE:HE2	1.83	0.74
1:BI:73:GLU:OE2	1:DP:4:PRO:CD	2.30	0.74
1:BI:99:THR:HG22	1:DM:45:THR:HG21	1.68	0.74
1:BL:162:ARG:NH1	1:BL:329:GLU:OE2	2.19	0.74
1:BY:28:PRO:O	1:BY:122:ARG:NH2	2.21	0.74
1:CV:81:SER:O	1:CV:134:ARG:NH2	2.19	0.74
7:ED:410:HIS:HA	7:EE:406:LEU:HD13	1.67	0.74
7:ED:604:VAL:HG23	7:EE:599:MET:HA	1.66	0.74
1:AS:45:THR:CG2	1:CS:99:THR:CB	2.65	0.74
1:AW:7:PHE:CB	1:BK:93:VAL:CG1	2.59	0.74
1:AN:162:ARG:NH1	1:AN:329:GLU:OE2	2.19	0.74
1:AW:101:ALA:O	1:BN:42:ILE:HB	1.87	0.74
1:BE:290:PRO:O	1:BE:291:THR:HG22	1.87	0.74
1:DC:144:THR:N	3:DV:85:ASP:OD2	2.19	0.74
1:DD:143:LEU:O	1:DD:144:THR:OG1	2.05	0.74
5:DX:85:ALA:CB	5:DZ:91:ILE:HD13	2.16	0.74
1:BI:143:LEU:O	1:DH:143:LEU:HA	1.87	0.74
2:DR:23:TYR:CZ	4:DW:853:LYS:HB3	2.22	0.74
1:BD:162:ARG:NH1	1:BD:329:GLU:OE2	2.20	0.74
1:CP:12:GLN:O	1:CT:145:ASN:ND2	2.20	0.74
1:AS:145:ASN:N	1:CW:143:LEU:O	2.21	0.74
5:DY:73:ILE:HA	5:DY:76:LEU:HB2	1.68	0.74
1:AJ:202:GLN:O	1:AJ:349:LYS:NZ	2.21	0.74
1:AP:8:VAL:HG12	1:CS:94:SER:CB	2.18	0.74
3:DV:26:ARG:HG3	4:DW:969:SER:OG	1.86	0.74
7:ED:604:VAL:HG21	7:EE:599:MET:CA	2.15	0.74
1:AP:3:ASN:C	1:CW:74:MET:CG	2.56	0.74
1:AW:7:PHE:HE1	1:BK:97:ALA:C	1.91	0.74
1:DC:90:VAL:HG21	1:DD:71:ASP:HB2	1.70	0.74
7:ED:470:ARG:NH2	7:EE:81:SER:N	2.27	0.74
1:AW:7:PHE:HB3	1:BK:93:VAL:HA	1.68	0.73
1:BI:104:GLY:C	1:DK:14:GLY:HA2	1.99	0.73
1:BZ:90:VAL:HG21	1:CA:71:ASP:HB3	1.67	0.73
3:DV:95:GLU:OE1	3:DV:95:GLU:N	2.21	0.73
7:ED:467:MET:HG3	7:EE:76:ILE:CD1	2.17	0.73
7:ED:646:LYS:HB2	7:EE:644:GLN:HE22	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:50:GLN:HA	1:AS:79:ILE:HD13	1.70	0.73
1:BI:95:ASP:CB	1:DO:65:GLU:HB3	2.19	0.73
1:BU:4:PRO:CA	1:DH:74:MET:HA	2.13	0.73
1:CL:105:ARG:O	1:CP:50:GLN:NE2	2.21	0.73
1:DB:16:LYS:CE	3:DV:234:ARG:HD2	2.19	0.73
2:DR:25:TYR:CE2	4:DW:847:TRP:O	2.41	0.73
7:ED:516:HIS:HB3	7:EE:108:GLN:HE22	0.92	0.73
7:ED:552:LEU:HD21	7:EE:578:LEU:O	1.85	0.73
1:AM:6:LEU:CD1	1:CR:71:ASP:CB	2.66	0.73
1:AK:142:TYR:HB2	1:BN:146:SER:CB	2.18	0.73
1:AM:14:GLY:N	1:CN:105:ARG:HH12	1.84	0.73
1:AP:9:SER:H	1:CS:96:THR:CB	1.98	0.73
1:BH:202:GLN:O	1:BH:349:LYS:NZ	2.21	0.73
1:BR:81:SER:O	1:BR:134:ARG:NH2	2.22	0.73
1:BZ:249:GLN:OE1	1:BZ:258:ARG:NH1	2.21	0.73
3:DU:168:ASP:OD1	3:DU:169:THR:N	2.22	0.73
6:EC:101:LEU:O	6:EC:102:SER:C	2.26	0.73
7:ED:646:LYS:HA	7:EE:644:GLN:HE22	1.51	0.73
1:AP:108:GLU:CG	1:CS:11:ASP:O	2.36	0.73
1:BO:81:SER:O	1:BO:134:ARG:NH2	2.22	0.73
1:BU:12:GLN:CB	1:DP:97:ALA:CB	2.66	0.73
3:DV:192:VAL:HG23	4:DW:926:ASN:HD21	1.52	0.73
1:AK:81:SER:O	1:AK:134:ARG:NH2	2.22	0.73
1:AP:3:ASN:O	1:CW:75:LYS:HG2	1.88	0.73
1:AT:81:SER:O	1:AT:134:ARG:NH2	2.22	0.73
1:AW:100:THR:CB	1:BN:44:GLN:O	2.34	0.73
1:BG:162:ARG:NH1	1:BG:329:GLU:OE2	2.22	0.73
1:BI:96:THR:N	1:DK:8:VAL:HG11	2.03	0.73
1:BR:259:ILE:HD11	1:BU:259:ILE:HD13	1.71	0.73
5:DX:68:LEU:CD2	5:DY:70:LYS:HZ2	1.97	0.73
1:AS:65:GLU:CG	1:CN:320:SER:OG	2.36	0.73
1:AS:73:GLU:HG2	1:CS:3:ASN:CB	2.18	0.73
1:AW:100:THR:CB	1:BN:45:THR:HA	2.17	0.73
7:ED:376:LYS:CG	7:EE:397:GLU:HB2	2.18	0.73
7:ED:543:ILE:CD1	7:EE:578:LEU:HD21	2.19	0.73
1:AK:144:THR:O	1:BN:143:LEU:HD23	1.89	0.73
1:AP:145:ASN:OD1	1:CR:145:ASN:CG	2.17	0.73
1:AQ:81:SER:O	1:AQ:134:ARG:NH2	2.22	0.73
1:BM:260:PHE:O	1:BM:263:THR:OG1	2.07	0.73
1:BQ:50:GLN:HA	1:BQ:79:ILE:HD13	1.70	0.73
1:CP:105:ARG:NH1	1:CQ:13:ASN:O	2.21	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AM:96:THR:N	1:CN:8:VAL:N	2.37	0.73
1:AO:260:PHE:O	1:AO:263:THR:OG1	2.07	0.73
1:BU:13:ASN:H	1:DP:105:ARG:NH1	1.81	0.73
1:DD:95:ASP:OD2	1:DQ:308:ARG:NH2	2.22	0.73
3:DU:26:ARG:CB	4:DW:973:ASN:ND2	2.49	0.73
1:AM:93:VAL:HG12	1:CN:8:VAL:CG2	2.11	0.73
1:AM:215:GLU:HG3	1:AM:248:LEU:HD22	1.70	0.73
1:BU:99:THR:OG1	1:DH:308:ARG:CA	2.28	0.73
1:DP:58:ASP:O	1:DP:61:ASN:ND2	2.22	0.73
7:ED:221:GLN:HE21	7:EE:286:MET:HE2	1.51	0.73
1:AI:162:ARG:NH1	1:AI:329:GLU:OE2	2.22	0.72
1:AJ:46:ILE:O	1:AV:18:SER:OG	2.07	0.72
1:AW:99:THR:CA	1:BN:308:ARG:CG	2.37	0.72
1:BF:313:THR:HG21	1:DK:319:GLY:HA2	1.71	0.72
1:BI:144:THR:C	1:DP:19:PHE:CZ	2.63	0.72
1:CN:218:ILE:O	1:CN:222:THR:HG23	1.88	0.72
1:AP:12:GLN:HB3	1:CS:105:ARG:HH11	1.52	0.72
1:AP:96:THR:CG2	1:CZ:65:GLU:CA	2.66	0.72
3:DV:44:LYS:HZ1	5:DX:14:ASN:CG	1.86	0.72
6:EA:102:SER:C	6:EA:104:GLU:N	2.36	0.72
1:BK:215:GLU:HG3	1:BK:248:LEU:HD22	1.70	0.72
3:DU:153:ILE:HD12	5:DZ:27:ALA:CA	2.16	0.72
1:AS:144:THR:OG1	1:CW:142:TYR:C	2.28	0.72
1:AX:222:THR:OG1	1:AX:275:ASP:OD1	2.06	0.72
1:BI:81:SER:O	1:BI:134:ARG:NH2	2.22	0.72
3:DV:70:ILE:O	5:DY:30:GLN:CD	2.27	0.72
1:BU:16:LYS:CE	1:DP:102:ASN:CG	2.33	0.72
1:DC:144:THR:CA	3:DV:85:ASP:HB2	1.96	0.72
1:DF:30:ASP:OD2	1:DF:287:ARG:NH2	2.22	0.72
7:ED:419:LEU:HD21	7:EE:363:TYR:CG	2.24	0.72
7:ED:467:MET:HE1	7:EE:72:LEU:HD23	0.77	0.72
1:AS:75:LYS:HA	1:CW:152:VAL:CG2	2.20	0.72
1:BH:46:ILE:O	1:BT:18:SER:OG	2.07	0.72
1:BI:105:ARG:HG2	1:DK:13:ASN:CA	1.97	0.72
1:CH:306:VAL:HG22	1:CH:330:VAL:HG12	1.72	0.72
4:DW:330:SER:O	4:DW:354:THR:HG23	1.89	0.72
1:AG:252:THR:OG1	1:AG:254:GLY:O	2.03	0.72
1:BI:92:ARG:CD	1:DK:6:LEU:CG	2.68	0.72
2:DR:22:ASP:O	4:DW:856:VAL:HG22	1.90	0.72
5:DY:74:GLU:HB2	5:DZ:69:MET:CE	2.13	0.72
1:AD:83:VAL:O	1:AD:164:THR:OG1	2.02	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BU:12:GLN:CD	1:DP:100:THR:OG1	2.28	0.72
1:DP:273:ILE:HG22	1:DP:283:ILE:HD11	1.70	0.72
3:DU:195:ASP:OD1	3:DU:196:ASN:N	2.22	0.72
1:AP:12:GLN:C	1:CS:105:ARG:NH1	2.40	0.72
1:AW:7:PHE:CE1	1:BK:97:ALA:CA	2.72	0.72
1:CY:33:PHE:O	1:CY:37:THR:HG23	1.90	0.72
5:DX:13:ASN:ND2	5:DX:18:PHE:O	2.23	0.72
1:BE:222:THR:OG1	1:BE:275:ASP:OD2	2.04	0.72
1:BR:152:VAL:HG22	1:BR:155:LEU:HD12	1.71	0.72
1:CO:114:GLU:OE1	1:CO:114:GLU:N	2.22	0.72
1:CQ:192:ASP:OD1	1:CQ:193:THR:N	2.22	0.72
1:DB:312:ARG:CZ	7:ED:31:MET:HE1	2.18	0.72
7:ED:458:MET:O	7:EE:437:GLY:C	2.28	0.72
1:AC:81:SER:O	1:AC:134:ARG:NH2	2.23	0.71
1:BU:93:VAL:HG13	1:DP:7:PHE:CD1	2.25	0.71
7:ED:448:ASP:OD2	7:EE:441:ASN:ND2	2.20	0.71
1:AW:93:VAL:HG13	1:BK:7:PHE:HD2	1.55	0.71
1:BU:96:THR:HG1	1:DP:9:SER:CB	2.03	0.71
1:BW:237:ILE:HG22	1:BW:294:VAL:HG22	1.72	0.71
1:CK:134:ARG:NH1	1:CK:140:ASP:OD2	2.23	0.71
1:CP:237:ILE:HD13	1:CP:294:VAL:HG22	1.72	0.71
1:DF:143:LEU:O	1:DF:144:THR:OG1	2.07	0.71
2:DR:20:ASP:O	4:DW:856:VAL:CB	2.38	0.71
3:DU:143:SER:HB3	5:DZ:40:TYR:CE1	2.26	0.71
3:DV:60:TYR:CE1	5:DX:3:VAL:N	2.58	0.71
7:ED:466:ARG:NH1	7:EE:77:ASN:HD21	1.87	0.71
7:ED:649:ASN:ND2	7:EE:648:GLU:HG3	2.01	0.71
1:AT:152:VAL:HG22	1:AT:155:LEU:HD12	1.71	0.71
1:BD:101:ALA:O	1:BO:44:GLN:NE2	2.23	0.71
1:BI:275:ASP:OD1	1:BI:279:GLN:N	2.24	0.71
1:BN:81:SER:O	1:BN:134:ARG:NH2	2.23	0.71
1:BU:92:ARG:CB	1:DP:6:LEU:C	2.57	0.71
1:CM:212:GLY:N	1:CM:346:ALA:O	2.23	0.71
1:DC:29:GLN:N	1:DC:29:GLN:OE1	2.22	0.71
1:AF:101:ALA:O	1:AQ:44:GLN:NE2	2.23	0.71
1:BI:92:ARG:HD2	1:DK:6:LEU:CG	2.19	0.71
1:BU:8:VAL:HG22	1:DP:94:SER:CB	2.19	0.71
1:BZ:52:ASP:OD1	1:BZ:53:ALA:N	2.23	0.71
7:ED:628:GLU:CG	7:EE:627:PHE:HE2	1.54	0.71
1:AK:275:ASP:OD1	1:AK:279:GLN:N	2.24	0.71
1:AM:97:ALA:CB	1:CN:9:SER:N	2.53	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AO:127:ILE:O	1:AO:130:SER:OG	2.08	0.71
1:DB:16:LYS:HG3	3:DV:234:ARG:HD3	1.48	0.71
1:DB:51:THR:OG1	1:DF:24:SER:O	2.05	0.71
1:DB:312:ARG:HH22	7:ED:27:GLY:C	1.92	0.71
3:DV:59:VAL:HA	5:DX:3:VAL:CG2	2.20	0.71
1:AS:40:GLU:OE1	1:AS:333:ARG:NH1	2.23	0.71
1:BI:95:ASP:HB2	1:DO:65:GLU:HB3	1.72	0.71
1:BI:145:ASN:N	1:DP:17:LEU:HD12	2.05	0.71
1:CA:154:GLY:O	1:CA:159:HIS:NE2	2.24	0.71
1:CG:85:GLN:NE2	1:CO:61:ASN:O	2.23	0.71
7:ED:467:MET:HE3	7:EE:72:LEU:CG	2.19	0.71
7:ED:557:GLN:HE22	7:EE:579:LEU:H	1.37	0.71
1:AK:143:LEU:HD22	1:BN:145:ASN:CG	2.10	0.71
1:AM:93:VAL:CG1	1:CN:8:VAL:CG2	2.66	0.71
1:BI:74:MET:CE	1:DP:4:PRO:CA	2.65	0.71
1:BL:306:VAL:HG22	1:BL:330:VAL:HG22	1.72	0.71
1:BQ:40:GLU:OE1	1:BQ:333:ARG:NH1	2.23	0.71
1:CK:81:SER:O	1:CK:134:ARG:NH2	2.23	0.71
3:DU:56:GLU:OE2	3:DU:78:GLN:NE2	2.24	0.71
1:DB:16:LYS:HG3	3:DV:234:ARG:CG	2.20	0.71
1:DB:267:ILE:HD12	1:DF:262:ASN:HB3	1.72	0.71
6:EC:101:LEU:C	6:EC:103:THR:N	2.38	0.71
7:ED:467:MET:HG3	7:EE:76:ILE:HD11	1.72	0.71
1:AM:7:PHE:CE2	1:CN:108:GLU:CG	2.73	0.71
1:BA:81:SER:O	1:BA:134:ARG:NH2	2.23	0.71
1:CR:83:VAL:HG21	1:CR:136:ASP:HB3	1.73	0.71
7:ED:430:ARG:HG2	7:EE:66:GLU:HG3	1.64	0.71
1:AW:100:THR:OG1	1:BN:44:GLN:C	2.28	0.71
1:BT:114:GLU:N	1:BT:114:GLU:OE1	2.24	0.71
1:CC:143:LEU:O	1:CC:144:THR:OG1	2.05	0.71
1:AP:81:SER:O	1:AP:134:ARG:NH2	2.23	0.70
1:AV:114:GLU:OE1	1:AV:114:GLU:N	2.24	0.70
1:BE:190:ASP:OD2	1:BE:196:VAL:HG22	1.91	0.70
1:BI:13:ASN:CG	1:DM:76:PRO:HG3	2.11	0.70
1:BI:145:ASN:N	1:DH:143:LEU:HG	2.06	0.70
1:CE:192:ASP:OD1	1:CE:193:THR:N	2.24	0.70
1:AK:74:MET:CB	1:BK:6:LEU:C	2.54	0.70
1:AK:145:ASN:OD1	1:BN:142:TYR:HA	1.22	0.70
1:BI:94:SER:OG	1:DM:153:ALA:N	2.22	0.70
1:DA:217:ASP:HB3	1:DA:343:LEU:HD11	1.72	0.70
1:BI:13:ASN:N	1:DK:96:THR:HG21	2.06	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CW:253:GLN:OE1	1:CW:253:GLN:N	2.24	0.70
2:DS:23:TYR:HB2	2:DS:25:TYR:CD1	2.26	0.70
3:DU:137:TYR:CE2	3:DU:140:ASP:OD2	2.44	0.70
1:AA:254:GLY:O	1:AB:257:LYS:NZ	2.21	0.70
1:AT:259:ILE:HD11	1:AW:259:ILE:HD13	1.71	0.70
1:BU:92:ARG:O	1:DP:6:LEU:C	2.29	0.70
1:CI:192:ASP:OD1	1:CI:193:THR:N	2.23	0.70
1:CW:74:MET:SD	1:CW:75:LYS:NZ	2.62	0.70
1:DF:51:THR:O	1:DF:77:THR:OG1	2.08	0.70
7:ED:338:GLY:CA	7:EE:263:TRP:CH2	2.70	0.70
7:ED:642:GLU:OE1	7:EE:641:GLU:OE2	2.10	0.70
1:AY:203:ASN:HA	1:AY:214:ASP:HB2	1.73	0.70
1:BU:92:ARG:C	1:DP:7:PHE:HB3	2.08	0.70
1:CP:143:LEU:O	1:CP:144:THR:OG1	2.07	0.70
1:AA:203:ASN:HA	1:AA:214:ASP:HB2	1.73	0.70
1:AS:316:ALA:N	1:CS:320:SER:OG	2.24	0.70
1:BU:16:LYS:HB2	1:DP:101:ALA:HB3	1.73	0.70
1:CW:200:VAL:O	1:CW:202:GLN:NE2	2.25	0.70
5:DZ:87:LEU:HA	5:DZ:90:LEU:HD12	1.73	0.70
7:ED:646:LYS:CB	7:EE:644:GLN:HE22	2.02	0.70
1:AP:7:PHE:CZ	1:CW:75:LYS:CG	2.66	0.70
1:BP:83:VAL:O	1:BP:164:THR:OG1	2.06	0.70
2:DR:24:ILE:CB	4:DW:857:TRP:CD1	2.66	0.70
3:DV:175:ILE:HD11	5:DY:15:VAL:C	2.12	0.70
1:AG:190:ASP:OD2	1:AG:196:VAL:HG22	1.92	0.70
1:BE:252:THR:OG1	1:BE:254:GLY:O	2.03	0.70
1:BW:203:ASN:ND2	1:BW:346:ALA:O	2.25	0.70
3:DV:139:PRO:CB	5:DX:39:LYS:HD2	2.20	0.70
3:DV:158:ALA:HB1	5:DY:24:SER:HB2	1.74	0.70
1:AR:83:VAL:O	1:AR:164:THR:OG1	2.06	0.70
3:DU:192:VAL:CG2	4:DW:1004:ARG:N	2.55	0.70
4:DW:215:LEU:HD23	4:DW:232:ALA:CA	2.20	0.70
1:AN:306:VAL:HG22	1:AN:330:VAL:HG22	1.72	0.70
1:AW:6:LEU:CD2	1:BK:92:ARG:HH11	1.77	0.70
1:BI:144:THR:HA	1:DH:143:LEU:HG	1.73	0.70
1:BL:15:LYS:O	1:BO:145:ASN:ND2	2.25	0.70
2:DR:23:TYR:CE1	4:DW:853:LYS:C	2.65	0.70
3:DV:63:ILE:HA	3:DV:68:ALA:HB2	1.72	0.70
7:ED:372:TYR:HD2	7:EE:392:PRO:CD	2.05	0.70
1:AN:15:LYS:O	1:AQ:145:ASN:ND2	2.25	0.69
1:AV:251:ASN:O	1:AV:253:GLN:NE2	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DV:44:LYS:NZ	5:DX:14:ASN:CB	2.55	0.69
1:CU:192:ASP:OD1	1:CU:193:THR:N	2.25	0.69
1:DM:317:LYS:NZ	1:DP:316:ALA:O	2.24	0.69
7:ED:470:ARG:O	7:EE:117:TYR:CE2	2.45	0.69
1:BM:230:SER:OG	1:BM:339:ALA:O	2.09	0.69
1:DD:296:PHE:O	1:DD:340:SER:OG	2.09	0.69
1:DJ:130:SER:OG	1:DJ:132:GLN:OE1	2.09	0.69
7:ED:470:ARG:NH2	7:EE:80:CYS:O	2.21	0.69
1:CF:33:PHE:O	1:CF:37:THR:HG23	1.91	0.69
1:CU:105:ARG:NH1	1:CY:14:GLY:O	2.25	0.69
1:DB:245:PHE:CZ	1:DB:273:ILE:HD11	2.28	0.69
6:EA:101:LEU:O	6:EA:104:GLU:CA	2.41	0.69
1:AM:108:GLU:CD	1:CN:12:GLN:NE2	2.39	0.69
1:AO:230:SER:OG	1:AO:339:ALA:O	2.09	0.69
1:AT:238:ASN:ND2	1:AT:290:PRO:O	2.25	0.69
1:AW:99:THR:HA	1:BN:308:ARG:CD	2.21	0.69
1:AZ:250:GLU:OE1	1:AZ:258:ARG:NH2	2.26	0.69
1:BI:108:GLU:CA	1:DK:11:ASP:OD1	2.40	0.69
1:CK:56:SER:OG	1:CZ:122:ARG:NH1	2.25	0.69
1:CO:64:VAL:HG12	1:CO:65:GLU:H	1.56	0.69
2:DR:23:TYR:CE1	4:DW:853:LYS:CB	2.75	0.69
7:EE:241:LYS:O	7:EE:242:ASP:OD1	2.11	0.69
7:ED:378:LEU:CD2	7:EE:401:GLN:HE21	2.05	0.69
1:AK:43:ASN:O	1:BK:100:THR:HG22	1.93	0.69
1:AP:4:PRO:O	1:CS:92:ARG:CZ	2.41	0.69
1:AP:96:THR:HA	1:CW:308:ARG:HH22	1.57	0.69
1:AP:108:GLU:CG	1:CS:12:GLN:CA	2.43	0.69
1:AP:147:ALA:N	1:CR:142:TYR:O	2.25	0.69
1:BI:93:VAL:HB	1:DK:8:VAL:N	2.06	0.69
1:CW:81:SER:O	1:CW:134:ARG:NH2	2.26	0.69
1:DB:309:ALA:HB1	7:ED:23:ASN:OD1	1.93	0.69
1:DG:52:ASP:OD1	1:DG:53:ALA:N	2.25	0.69
4:DW:834:GLU:OE1	4:DW:834:GLU:N	2.24	0.69
7:ED:552:LEU:HD21	7:EE:579:LEU:O	1.84	0.69
1:BI:147:ALA:N	1:DH:143:LEU:HD13	2.04	0.69
1:DD:65:GLU:N	1:DD:65:GLU:OE1	2.26	0.69
3:DV:124:ARG:NH1	5:DZ:28:TYR:CG	2.60	0.69
1:AP:96:THR:HG23	1:CZ:65:GLU:N	1.90	0.69
1:BI:17:LEU:HD12	1:DM:144:THR:N	2.07	0.69
1:BI:144:THR:C	1:DP:19:PHE:HZ	1.95	0.69
1:BN:171:CYS:HG	1:BN:340:SER:HG	1.38	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BU:19:PHE:CD2	1:DP:16:LYS:NZ	2.59	0.69
1:DM:102:ASN:O	1:DN:16:LYS:NZ	2.23	0.69
3:DU:83:ALA:O	5:DZ:25:ILE:N	2.25	0.69
7:ED:241:LYS:O	7:ED:242:ASP:OD1	2.11	0.69
1:AM:16:LYS:HG2	1:CN:102:ASN:C	2.12	0.68
1:BP:162:ARG:NH1	1:BP:329:GLU:OE2	2.26	0.68
1:BU:8:VAL:HG12	1:DP:95:ASP:HB2	1.75	0.68
1:CA:102:ASN:OD1	1:CA:103:TYR:N	2.26	0.68
1:DJ:95:ASP:OD1	1:DJ:320:SER:OG	2.11	0.68
1:DQ:52:ASP:OD1	1:DQ:53:ALA:N	2.26	0.68
1:AM:6:LEU:CD1	1:CR:71:ASP:CG	2.62	0.68
1:AP:92:ARG:CB	1:CS:6:LEU:HA	2.23	0.68
1:AP:96:THR:HG21	1:CZ:64:VAL:HG13	1.75	0.68
1:AR:162:ARG:NH1	1:AR:329:GLU:OE2	2.26	0.68
1:BI:314:GLU:HG3	1:DM:316:ALA:HB1	1.75	0.68
1:BR:238:ASN:ND2	1:BR:290:PRO:O	2.26	0.68
1:DC:31:THR:O	1:DC:34:VAL:HG22	1.93	0.68
1:DC:199:LYS:NZ	1:DC:220:ASP:OD2	2.25	0.68
1:AP:320:SER:CA	1:CZ:65:GLU:HG2	2.20	0.68
1:AT:251:ASN:O	1:AT:252:THR:OG1	2.11	0.68
1:DJ:85:GLN:NE2	1:DJ:162:ARG:O	2.27	0.68
3:DV:44:LYS:HZ3	5:DX:14:ASN:CB	2.06	0.68
7:ED:430:ARG:NH1	7:EE:65:TRP:C	2.41	0.68
1:AM:92:ARG:NH1	1:CR:156:ASN:CG	2.46	0.68
1:AP:16:LYS:CE	1:CS:103:TYR:CB	2.42	0.68
1:AW:19:PHE:CD2	1:BK:16:LYS:CD	2.45	0.68
1:AW:99:THR:CA	1:BN:308:ARG:CD	2.71	0.68
1:BI:145:ASN:C	1:DP:19:PHE:CE1	2.67	0.68
1:AK:142:TYR:N	1:BN:144:THR:CA	2.52	0.68
1:AS:156:ASN:ND2	1:CS:92:ARG:HD3	2.08	0.68
1:BI:12:GLN:C	1:DK:96:THR:CG2	2.62	0.68
1:BI:143:LEU:HB3	1:DP:17:LEU:HD21	1.75	0.68
1:BI:144:THR:HA	1:DH:143:LEU:CG	2.23	0.68
1:BW:40:GLU:N	1:BW:40:GLU:OE1	2.27	0.68
7:ED:470:ARG:CZ	7:EE:80:CYS:C	2.56	0.68
1:AK:143:LEU:H	1:BN:146:SER:H	1.42	0.68
1:BI:71:ASP:C	1:DP:4:PRO:O	2.28	0.68
1:BT:251:ASN:O	1:BT:253:GLN:NE2	2.25	0.68
1:CA:155:LEU:O	1:CA:158:THR:OG1	2.12	0.68
2:DS:23:TYR:CD2	2:DS:25:TYR:CE1	2.82	0.68
1:AM:6:LEU:CD1	1:CR:71:ASP:HB2	2.21	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AW:14:GLY:HA2	1:BK:103:TYR:CD1	2.29	0.68
1:BF:306:VAL:HG12	1:BF:330:VAL:HG22	1.76	0.68
1:BU:6:LEU:H	1:DH:74:MET:CE	2.02	0.68
1:DN:15:LYS:O	1:DP:145:ASN:ND2	2.27	0.68
2:DR:26:GLU:O	2:DR:30:GLN:N	2.25	0.68
7:ED:21:ARG:NH2	7:ED:294:ILE:CG1	2.43	0.68
1:AK:145:ASN:HB3	1:BK:17:LEU:HD11	1.75	0.68
1:AM:92:ARG:HH12	1:CR:156:ASN:ND2	1.85	0.68
1:AP:8:VAL:HG13	1:CS:94:SER:OG	1.92	0.68
1:AP:105:ARG:HB3	1:CS:12:GLN:CG	2.24	0.68
1:BG:249:GLN:OE1	1:BG:249:GLN:N	2.27	0.68
1:BL:251:ASN:O	1:BO:255:SER:OG	2.12	0.68
1:BZ:88:ARG:NH2	1:BZ:327:GLU:OE1	2.26	0.68
1:DJ:292:ASP:OD1	1:DJ:345:THR:OG1	2.09	0.68
1:DM:143:LEU:O	1:DM:144:THR:OG1	2.11	0.68
3:DV:193:GLN:NE2	4:DW:924:HIS:CD2	2.60	0.68
4:DW:891:ASP:OD2	4:DW:894:ASN:ND2	2.26	0.68
1:AP:105:ARG:HB3	1:CS:12:GLN:HG2	1.73	0.68
1:BB:162:ARG:NH1	1:BB:329:GLU:OE2	2.27	0.68
1:BE:111:TYR:OH	1:BK:52:ASP:OD2	2.07	0.68
1:CZ:253:GLN:OE1	1:CZ:253:GLN:N	2.27	0.68
3:DU:171:THR:HB	5:DX:21:THR:HG21	1.76	0.68
1:AB:250:GLU:OE1	1:AB:258:ARG:NH2	2.26	0.68
1:AK:74:MET:N	1:BK:6:LEU:N	2.38	0.68
1:AM:123:ASP:OD1	1:AP:58:ASP:N	2.27	0.68
1:AP:96:THR:HG22	1:CZ:65:GLU:HB2	1.75	0.68
1:AS:76:PRO:CB	1:CS:10:TYR:O	2.41	0.68
1:CK:145:ASN:ND2	1:CZ:13:ASN:OD1	2.27	0.68
1:AI:249:GLN:N	1:AI:249:GLN:OE1	2.27	0.67
1:AK:146:SER:HB2	1:BN:141:GLN:N	2.08	0.67
1:AM:314:GLU:OE2	1:CR:315:LEU:HD22	1.94	0.67
1:AS:145:ASN:CG	1:CW:145:ASN:HD21	1.96	0.67
3:DV:168:ASP:OD1	3:DV:169:THR:N	2.27	0.67
7:ED:221:GLN:NE2	7:EE:286:MET:HE2	2.05	0.67
1:BI:147:ALA:HB1	1:DH:79:ILE:CB	2.15	0.67
1:BI:148:ALA:N	1:DH:79:ILE:HG12	1.93	0.67
1:BR:251:ASN:O	1:BR:252:THR:OG1	2.11	0.67
1:BU:14:GLY:N	1:DP:105:ARG:NH1	2.36	0.67
1:CM:305:MET:SD	1:CM:333:ARG:NH2	2.67	0.67
1:CQ:5:THR:OG1	1:CT:72:GLY:O	2.03	0.67
1:DJ:33:PHE:O	1:DJ:37:THR:OG1	2.05	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:DS:23:TYR:CA	4:DW:845:ILE:O	2.30	0.67
3:DU:171:THR:O	3:DU:174:THR:OG1	2.07	0.67
3:DV:44:LYS:NZ	5:DX:14:ASN:HB3	2.08	0.67
1:AJ:215:GLU:OE1	1:AJ:256:ARG:NH2	2.28	0.67
1:AK:143:LEU:O	1:BN:145:ASN:HB3	1.94	0.67
1:AM:322:GLU:N	1:CV:67:SER:CB	2.57	0.67
1:AP:108:GLU:CB	1:CS:7:PHE:CZ	2.59	0.67
1:BX:203:ASN:N	1:BX:214:ASP:OD2	2.27	0.67
1:CU:28:PRO:O	1:CU:122:ARG:NH2	2.27	0.67
1:DC:296:PHE:O	1:DC:340:SER:OG	2.04	0.67
1:DD:105:ARG:NH2	1:DD:108:GLU:OE1	2.27	0.67
5:DX:74:GLU:HG2	5:DZ:77:LYS:NZ	2.08	0.67
1:BI:143:LEU:HD22	1:DP:15:LYS:O	1.95	0.67
1:CJ:202:GLN:NE2	1:CJ:217:ASP:OD1	2.27	0.67
1:CS:192:ASP:OD1	1:CS:193:THR:N	2.28	0.67
5:DX:85:ALA:O	5:DZ:91:ILE:HG21	1.93	0.67
7:ED:338:GLY:C	7:EE:263:TRP:CZ2	2.56	0.67
7:ED:646:LYS:CB	7:EE:644:GLN:NE2	2.57	0.67
1:AH:81:SER:O	1:AH:134:ARG:NH2	2.28	0.67
1:AL:34:VAL:HG23	1:AL:125:GLU:OE1	1.95	0.67
1:AM:317:LYS:HG2	1:CV:68:ARG:CD	2.00	0.67
1:AS:45:THR:HG23	1:CS:99:THR:OG1	1.94	0.67
1:CA:143:LEU:O	1:CA:144:THR:OG1	2.12	0.67
1:CN:96:THR:O	1:CN:100:THR:HG23	1.93	0.67
1:AD:162:ARG:NH1	1:AD:329:GLU:OE2	2.27	0.67
1:AW:201:ALA:HB1	1:AW:214:ASP:HB3	1.77	0.67
1:BI:9:SER:OG	1:DK:95:ASP:C	2.32	0.67
1:BI:99:THR:CB	1:DK:10:TYR:CE2	2.54	0.67
1:BV:222:THR:OG1	1:BV:275:ASP:OD1	2.06	0.67
1:CL:81:SER:O	1:CL:134:ARG:NH2	2.28	0.67
1:DC:90:VAL:HG21	1:DD:71:ASP:CB	2.24	0.67
1:DE:202:GLN:NE2	1:DE:214:ASP:OD1	2.28	0.67
1:AN:251:ASN:O	1:AQ:255:SER:OG	2.12	0.67
1:BI:144:THR:HG22	1:DH:143:LEU:CD2	2.16	0.67
1:BU:14:GLY:HA3	1:DP:102:ASN:HD21	0.50	0.67
1:AM:81:SER:O	1:AM:134:ARG:NH2	2.28	0.67
2:DS:22:ASP:O	2:DS:23:TYR:CB	2.40	0.67
3:DU:138:TYR:CE1	3:DU:145:LEU:HD22	2.29	0.67
1:AP:230:SER:OG	1:AP:339:ALA:O	2.11	0.67
1:AW:162:ARG:NH1	1:AW:329:GLU:OE2	2.28	0.67
1:BJ:34:VAL:HG23	1:BJ:125:GLU:OE1	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BU:13:ASN:CG	1:DH:77:THR:OG1	2.34	0.67
1:BW:168:GLN:HB3	1:BW:180:VAL:HG21	1.77	0.67
1:CA:83:VAL:HG11	1:CA:164:THR:HA	1.76	0.67
2:DR:20:ASP:O	4:DW:856:VAL:HG12	1.92	0.67
6:EB:69:LEU:O	6:EB:70:ASN:C	2.31	0.67
1:AK:142:TYR:HB3	1:BN:146:SER:OG	1.95	0.67
1:AP:3:ASN:C	1:CW:75:LYS:CG	2.21	0.67
1:BD:83:VAL:O	1:BD:164:THR:HG22	1.95	0.67
1:BH:215:GLU:OE1	1:BH:256:ARG:NH2	2.28	0.67
1:CO:314:GLU:OE2	1:CO:317:LYS:N	2.28	0.67
1:CW:250:GLU:OE1	1:CW:258:ARG:NH2	2.25	0.67
7:ED:379:VAL:HG23	7:EE:398:MET:CB	1.95	0.67
1:AM:99:THR:CG2	1:CR:308:ARG:HD2	2.24	0.66
1:AO:222:THR:OG1	1:AO:275:ASP:OD2	2.07	0.66
1:BF:81:SER:O	1:BF:134:ARG:NH2	2.28	0.66
1:BK:81:SER:O	1:BK:134:ARG:NH2	2.28	0.66
5:DX:53:ASP:O	5:DX:54:ASP:O	2.14	0.66
1:AP:13:ASN:HB2	1:CS:105:ARG:HH22	1.60	0.66
1:BI:103:TYR:OH	1:DM:142:TYR:HA	1.95	0.66
1:BI:146:SER:O	1:DH:79:ILE:HG21	1.74	0.66
1:BJ:213:PHE:O	1:BJ:244:ILE:HG21	1.95	0.66
1:CT:144:THR:OG1	1:CU:143:LEU:O	2.09	0.66
7:ED:21:ARG:HH21	7:ED:294:ILE:CD1	2.05	0.66
7:ED:301:LYS:HD2	7:EE:283:ILE:HG23	1.74	0.66
7:ED:608:GLN:OE1	7:EE:602:ALA:HB1	1.95	0.66
1:AP:7:PHE:CA	1:CS:92:ARG:NH1	2.48	0.66
1:AP:94:SER:O	1:CS:7:PHE:HB3	1.95	0.66
1:AW:16:LYS:HA	1:BK:103:TYR:HE2	0.50	0.66
1:AZ:31:THR:O	1:AZ:35:SER:OG	2.09	0.66
1:CJ:3:ASN:ND2	1:CP:73:GLU:OE1	2.28	0.66
1:CK:82:ASN:ND2	1:CK:332:LEU:O	2.27	0.66
2:DR:19:ARG:NH2	2:DR:23:TYR:HB2	2.11	0.66
1:AP:92:ARG:NH2	1:CW:156:ASN:OD1	2.28	0.66
1:AP:108:GLU:HG2	1:CS:11:ASP:O	1.94	0.66
1:CD:52:ASP:OD1	1:CD:53:ALA:N	2.29	0.66
1:CO:33:PHE:O	1:CO:37:THR:HG23	1.95	0.66
3:DU:235:LEU:CD1	7:ED:354:ASP:HB3	2.25	0.66
1:AH:306:VAL:HG12	1:AH:330:VAL:HG22	1.76	0.66
1:AL:213:PHE:O	1:AL:244:ILE:HG21	1.95	0.66
1:BI:91:VAL:HG12	1:DK:7:PHE:HD1	1.60	0.66
1:BI:320:SER:HB2	1:DM:153:ALA:HB1	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BK:123:ASP:OD1	1:BN:58:ASP:N	2.27	0.66
3:DV:173:LEU:H	3:DV:173:LEU:HD22	1.60	0.66
1:AW:7:PHE:HB3	1:BK:93:VAL:CA	2.25	0.66
1:BI:72:GLY:C	1:DP:3:ASN:ND2	2.48	0.66
1:BU:94:SER:H	1:DP:8:VAL:HA	1.58	0.66
1:BU:162:ARG:NH1	1:BU:329:GLU:OE2	2.28	0.66
4:DW:240:THR:HB	4:DW:276:ASN:ND2	2.10	0.66
7:ED:337:PRO:HD3	7:EE:125:GLN:HE21	0.64	0.66
7:ED:467:MET:CE	7:EE:72:LEU:CG	2.73	0.66
7:ED:608:GLN:OE1	7:EE:602:ALA:CB	2.44	0.66
1:BI:99:THR:HB	1:DK:10:TYR:CE2	2.29	0.66
3:DV:173:LEU:HD22	3:DV:173:LEU:N	2.10	0.66
7:ED:458:MET:H	7:EE:438:MET:HE2	1.60	0.66
7:ED:628:GLU:OE2	7:EE:627:PHE:HE2	1.40	0.66
1:AK:249:GLN:NE2	1:AK:257:LYS:O	2.29	0.66
1:BI:96:THR:H	1:DM:152:VAL:CG2	2.09	0.66
1:BU:96:THR:HG1	1:DP:9:SER:HG	0.82	0.66
7:ED:379:VAL:HG23	7:EE:398:MET:HG2	1.61	0.66
7:ED:552:LEU:HD23	7:EE:578:LEU:C	2.13	0.66
7:ED:628:GLU:CD	7:EE:627:PHE:CE2	0.64	0.66
1:AK:141:GLN:O	1:AK:144:THR:OG1	2.13	0.66
1:AW:99:THR:HG22	1:BN:307:LEU:HB3	1.78	0.66
1:BF:290:PRO:O	1:BF:291:THR:OG1	2.13	0.66
1:CJ:33:PHE:O	1:CJ:37:THR:HG23	1.95	0.66
7:ED:336:ILE:HA	7:EE:125:GLN:HE22	1.60	0.66
1:AM:6:LEU:HD12	1:CR:71:ASP:CG	2.16	0.66
1:AW:7:PHE:CB	1:BK:93:VAL:HA	2.25	0.66
1:BW:136:ASP:OD1	1:BW:162:ARG:NH2	2.29	0.66
1:CT:171:CYS:SG	1:CT:340:SER:OG	2.52	0.66
3:DU:94:PRO:HA	3:DU:97:ILE:HG22	1.75	0.66
1:AB:67:SER:OG	1:AF:88:ARG:NH2	2.29	0.65
1:AM:7:PHE:HB3	1:CN:93:VAL:CG1	2.04	0.65
1:AM:14:GLY:H	1:CN:105:ARG:HH12	1.38	0.65
1:AP:96:THR:HG23	1:CZ:65:GLU:CA	2.25	0.65
1:BU:94:SER:HB3	1:DP:8:VAL:C	2.14	0.65
1:CK:222:THR:HG22	1:CK:281:TYR:CE2	2.31	0.65
1:CW:252:THR:OG1	1:CW:255:SER:O	2.04	0.65
3:DU:137:TYR:HE2	3:DU:140:ASP:OD2	1.79	0.65
5:DY:30:GLN:OE1	5:DY:30:GLN:N	2.29	0.65
6:EA:164:SER:C	6:EA:166:TYR:N	2.47	0.65
7:ED:301:LYS:CG	7:EE:283:ILE:HB	2.07	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:ED:343:GLN:NE2	7:EE:65:TRP:HE1	1.94	0.65
1:AC:162:ARG:NH1	1:AC:329:GLU:OE2	2.29	0.65
1:AF:83:VAL:O	1:AF:164:THR:HG22	1.95	0.65
1:BA:162:ARG:NH1	1:BA:329:GLU:OE2	2.29	0.65
1:BI:92:ARG:HH21	1:DK:6:LEU:HD23	1.53	0.65
1:AR:90:VAL:HG11	1:AU:69:ALA:CB	2.26	0.65
1:AY:305:MET:O	1:AY:331:GLY:N	2.29	0.65
1:BI:315:LEU:HD21	1:DP:318:ASP:OD1	1.93	0.65
1:CS:231:GLU:OE1	1:CS:231:GLU:N	2.30	0.65
1:DG:93:VAL:HG11	1:DG:109:LEU:HD13	1.77	0.65
3:DU:143:SER:CB	5:DZ:40:TYR:CZ	2.75	0.65
7:ED:458:MET:N	7:EE:438:MET:HE2	2.11	0.65
1:AP:104:GLY:HA2	1:CS:15:LYS:HG3	1.68	0.65
1:AS:75:LYS:CA	1:CW:152:VAL:HG23	2.19	0.65
1:AW:99:THR:CB	1:BN:308:ARG:CD	2.72	0.65
1:AW:100:THR:HB	1:BN:42:ILE:HD12	1.77	0.65
1:BI:102:ASN:ND2	1:DK:12:GLN:N	2.40	0.65
1:BP:90:VAL:HG11	1:BS:69:ALA:CB	2.26	0.65
1:BU:201:ALA:HB1	1:BU:214:ASP:HB3	1.77	0.65
4:DW:340:THR:O	4:DW:342:THR:N	2.29	0.65
7:ED:372:TYR:HE2	7:EE:392:PRO:CD	2.04	0.65
1:AA:305:MET:O	1:AA:331:GLY:N	2.29	0.65
1:AC:248:LEU:O	1:AC:256:ARG:NH2	2.30	0.65
1:BU:8:VAL:CG1	1:DP:95:ASP:CB	2.69	0.65
1:BU:8:VAL:CB	1:DP:96:THR:OG1	2.44	0.65
1:CA:143:LEU:N	1:CA:146:SER:OG	2.28	0.65
1:CF:214:ASP:O	1:CF:218:ILE:HD12	1.96	0.65
1:CS:17:LEU:HD22	1:CW:143:LEU:HD22	1.78	0.65
5:DZ:79:ASP:O	5:DZ:83:GLN:HG3	1.97	0.65
1:AI:213:PHE:HD1	1:AI:214:ASP:H	1.43	0.65
1:AP:108:GLU:HG3	1:CS:11:ASP:O	1.97	0.65
1:AP:146:SER:O	1:CR:79:ILE:HG21	1.96	0.65
1:AS:71:ASP:OD1	1:CS:4:PRO:CD	2.43	0.65
1:AS:146:SER:O	1:CW:79:ILE:CB	2.44	0.65
1:BA:248:LEU:O	1:BA:256:ARG:NH2	2.30	0.65
1:BU:100:THR:HG23	1:DH:307:LEU:HG	1.78	0.65
1:CP:91:VAL:HG21	1:CP:112:GLN:HB3	1.79	0.65
3:DV:192:VAL:CG2	4:DW:926:ASN:ND2	2.59	0.65
7:EE:21:ARG:NH2	7:EE:294:ILE:HG13	2.12	0.65
1:BJ:254:GLY:O	1:BJ:255:SER:OG	2.14	0.65
3:DU:143:SER:CB	5:DZ:40:TYR:CE1	2.75	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:EE:21:ARG:HH21	7:EE:294:ILE:CD1	2.05	0.65
7:EE:244:ILE:O	7:EE:244:ILE:HG22	1.95	0.65
1:BI:141:GLN:O	1:BI:144:THR:OG1	2.13	0.65
2:DR:23:TYR:HD1	4:DW:853:LYS:O	1.78	0.65
1:AZ:67:SER:OG	1:BD:88:ARG:NH2	2.29	0.65
1:BH:64:VAL:O	1:BT:88:ARG:NH1	2.30	0.65
1:BI:144:THR:CA	1:DH:143:LEU:HG	2.27	0.65
1:CE:182:ASP:OD1	1:CE:183:LYS:N	2.29	0.65
1:CM:213:PHE:CZ	1:CM:218:ILE:HD11	2.32	0.65
1:CS:254:GLY:O	1:CS:257:LYS:NZ	2.29	0.65
1:DB:39:LYS:HD3	7:ED:16:VAL:HG12	1.73	0.65
1:DG:54:LEU:HD13	1:DI:27:SER:OG	1.96	0.65
3:DU:193:GLN:OE1	3:DU:193:GLN:N	2.30	0.65
7:ED:517:ASN:C	7:EE:112:ARG:NH2	2.49	0.65
1:AS:73:GLU:CG	1:CS:3:ASN:O	2.30	0.65
1:BF:307:LEU:O	1:DK:99:THR:OG1	2.15	0.65
1:BI:145:ASN:N	1:DP:19:PHE:HZ	1.91	0.65
1:BJ:162:ARG:NH2	1:BJ:329:GLU:OE2	2.30	0.65
1:CK:218:ILE:O	1:CK:222:THR:HG23	1.96	0.65
1:DB:16:LYS:HE2	3:DV:234:ARG:HD2	1.76	0.65
1:AE:155:LEU:O	1:AE:156:ASN:ND2	2.30	0.64
1:AJ:64:VAL:O	1:AV:88:ARG:NH1	2.30	0.64
1:BU:94:SER:HB3	1:DP:9:SER:N	2.12	0.64
3:DV:26:ARG:HD3	4:DW:967:HIS:HE1	1.63	0.64
7:ED:301:LYS:CB	7:EE:283:ILE:HG22	2.25	0.64
1:AM:7:PHE:CE2	1:CN:108:GLU:HG2	2.32	0.64
1:AQ:190:ASP:O	1:AQ:194:GLY:N	2.30	0.64
1:AT:85:GLN:OE1	1:AT:164:THR:OG1	2.15	0.64
1:BM:222:THR:OG1	1:BM:275:ASP:OD2	2.07	0.64
1:BR:214:ASP:O	1:BR:215:GLU:HB2	1.97	0.64
1:BU:99:THR:OG1	1:DH:307:LEU:HD23	1.97	0.64
1:CD:88:ARG:NH2	1:CD:325:MET:SD	2.69	0.64
4:DW:858:ARG:NH1	4:DW:866:GLN:OE1	2.29	0.64
5:DX:61:ARG:CD	5:DY:63:TYR:CD2	2.75	0.64
7:ED:212:GLU:CD	7:EE:270:GLN:HG3	2.17	0.64
1:AP:144:THR:CB	1:CR:141:GLN:CB	2.76	0.64
1:BI:102:ASN:C	1:DK:13:ASN:C	2.56	0.64
1:CG:98:ASN:OD1	1:CG:99:THR:N	2.29	0.64
1:DP:230:SER:OG	1:DP:339:ALA:O	2.15	0.64
7:ED:21:ARG:NH2	7:ED:294:ILE:HG13	2.12	0.64
7:ED:628:GLU:C	7:EE:627:PHE:HE2	2.00	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AW:7:PHE:HE1	1:BK:97:ALA:O	1.74	0.64
1:BM:127:ILE:O	1:BM:130:SER:OG	2.08	0.64
1:BR:85:GLN:OE1	1:BR:164:THR:OG1	2.15	0.64
1:CC:48:SER:OG	1:CC:80:LYS:O	2.07	0.64
1:CK:254:GLY:O	1:CK:257:LYS:NZ	2.29	0.64
1:CS:252:THR:OG1	1:CS:255:SER:O	2.09	0.64
1:DB:237:ILE:CG2	1:DB:283:ILE:HD11	2.27	0.64
1:DC:39:LYS:O	7:EE:27:GLY:C	2.36	0.64
1:BZ:29:GLN:OE1	1:BZ:29:GLN:N	2.30	0.64
1:CN:182:ASP:OD1	1:CN:183:LYS:N	2.30	0.64
1:CO:99:THR:O	1:CO:107:ARG:NH1	2.30	0.64
1:DE:315:LEU:HD12	1:DE:323:LYS:HG2	1.79	0.64
1:DJ:275:ASP:OD1	1:DJ:279:GLN:N	2.31	0.64
1:DN:310:PRO:HB2	1:DN:326:ILE:HD11	1.80	0.64
2:DR:23:TYR:CZ	4:DW:853:LYS:CB	2.80	0.64
1:AL:162:ARG:NH2	1:AL:329:GLU:OE2	2.30	0.64
1:AP:98:ASN:ND2	1:CS:7:PHE:CE2	2.66	0.64
1:AS:44:GLN:HG2	1:CS:101:ALA:CA	2.27	0.64
1:BG:213:PHE:HD1	1:BG:214:ASP:H	1.43	0.64
1:CG:157:ASP:O	1:CG:158:THR:OG1	2.12	0.64
1:CZ:199:LYS:NZ	1:CZ:220:ASP:OD2	2.31	0.64
1:DD:211:ILE:O	1:DD:241:HIS:NE2	2.29	0.64
1:DL:296:PHE:O	1:DL:340:SER:OG	2.13	0.64
3:DU:137:TYR:HB3	3:DU:146:ILE:CG2	2.27	0.64
3:DU:172:ILE:O	3:DU:175:ILE:N	2.31	0.64
1:BI:9:SER:O	1:DK:94:SER:O	2.01	0.64
1:BL:127:ILE:O	1:BL:130:SER:OG	2.11	0.64
1:BU:92:ARG:CD	1:DP:5:THR:O	2.46	0.64
1:CI:88:ARG:NH1	1:CM:67:SER:OG	2.31	0.64
7:ED:362:GLY:HA3	7:EE:371:ASN:HD21	1.63	0.64
7:ED:382:TYR:OH	7:EE:396:VAL:HG22	1.97	0.64
1:BI:105:ARG:CG	1:DK:14:GLY:N	2.61	0.64
1:BU:3:ASN:CG	1:DP:115:LYS:HZ1	1.89	0.64
1:BU:12:GLN:NE2	1:DP:100:THR:OG1	2.31	0.64
1:BY:250:GLU:OE2	1:BY:258:ARG:NH2	2.31	0.64
1:CA:102:ASN:ND2	1:CT:14:GLY:O	2.30	0.64
1:CW:220:ASP:OD1	1:CW:221:MET:N	2.31	0.64
1:DB:298:ARG:NH2	1:DB:301:ASP:OD1	2.31	0.64
1:DF:26:LEU:HD12	1:DF:26:LEU:O	1.97	0.64
1:AS:141:GLN:HA	1:CW:141:GLN:HE21	1.63	0.64
1:AS:143:LEU:C	1:CW:143:LEU:HD23	2.15	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BI:320:SER:O	1:DM:153:ALA:HB1	1.95	0.64
1:BN:230:SER:OG	1:BN:339:ALA:O	2.11	0.64
1:BO:190:ASP:O	1:BO:194:GLY:N	2.30	0.64
1:CR:198:VAL:HG22	1:CR:342:VAL:HB	1.80	0.64
7:ED:98:ALA:H	7:EE:572:LYS:HZ1	1.44	0.64
7:ED:376:LYS:HG3	7:EE:397:GLU:HB2	1.79	0.64
1:BC:155:LEU:O	1:BC:156:ASN:ND2	2.31	0.64
1:BS:10:TYR:OH	1:BV:162:ARG:NH2	2.31	0.64
1:DL:123:ASP:OD2	1:DN:61:ASN:ND2	2.31	0.64
5:DX:70:LYS:C	5:DZ:77:LYS:HZ1	2.02	0.64
5:DZ:83:GLN:HA	5:DZ:86:ARG:HD2	1.80	0.64
1:AH:290:PRO:O	1:AH:291:THR:OG1	2.13	0.63
1:AP:144:THR:HG23	1:CR:141:GLN:HE21	1.53	0.63
1:CP:98:ASN:OD1	1:CP:107:ARG:NH1	2.30	0.63
1:DC:143:LEU:HG	3:DV:84:LYS:HZ3	1.61	0.63
2:DS:9:VAL:HG12	2:DS:10:ILE:HG12	1.79	0.63
7:ED:557:GLN:NE2	7:EE:579:LEU:CA	2.55	0.63
1:AS:73:GLU:CG	1:CS:4:PRO:HA	2.28	0.63
1:AS:213:PHE:HE2	1:AS:294:VAL:HG21	1.63	0.63
1:BF:65:GLU:OE2	1:DP:99:THR:HG21	1.98	0.63
1:BI:94:SER:OG	1:DM:152:VAL:HG23	1.97	0.63
1:BI:147:ALA:HB2	1:DH:79:ILE:HB	1.78	0.63
3:DU:153:ILE:HD13	5:DZ:27:ALA:HA	1.76	0.63
3:DV:153:ILE:CD1	5:DX:2:ILE:N	2.61	0.63
3:DV:175:ILE:HD11	5:DY:15:VAL:O	1.98	0.63
7:ED:516:HIS:CB	7:EE:108:GLN:HE22	1.77	0.63
1:AP:105:ARG:HG2	1:CS:15:LYS:CG	2.28	0.63
1:BI:249:GLN:NE2	1:BI:257:LYS:O	2.29	0.63
1:CU:52:ASP:OD1	1:CU:53:ALA:N	2.31	0.63
1:DB:312:ARG:NH1	7:ED:27:GLY:O	2.31	0.63
2:DR:87:LYS:NZ	2:DS:82:PRO:O	2.31	0.63
3:DV:153:ILE:HD11	5:DX:2:ILE:N	2.14	0.63
1:AB:44:GLN:NE2	1:AN:101:ALA:O	2.31	0.63
1:AF:298:ARG:NH1	1:AF:301:ASP:OD1	2.32	0.63
1:AP:105:ARG:CB	1:CS:13:ASN:C	2.33	0.63
1:AT:214:ASP:O	1:AT:215:GLU:HB2	1.97	0.63
1:AW:108:GLU:HB3	1:BK:7:PHE:CE2	2.33	0.63
1:BI:12:GLN:N	1:DK:94:SER:O	2.25	0.63
1:BI:92:ARG:HG3	1:DK:6:LEU:CB	2.23	0.63
1:BI:99:THR:HB	1:DK:10:TYR:CD2	2.34	0.63
1:BI:102:ASN:OD1	1:DK:12:GLN:N	2.18	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DD:199:LYS:NZ	1:DD:220:ASP:OD2	2.31	0.63
1:DL:81:SER:OG	1:DL:134:ARG:NH2	2.31	0.63
7:ED:470:ARG:O	7:EE:117:TYR:OH	2.17	0.63
1:AM:318:ASP:N	1:CV:68:ARG:NE	2.46	0.63
1:AP:108:GLU:CG	1:CS:11:ASP:C	2.65	0.63
1:AZ:44:GLN:NE2	1:BL:101:ALA:O	2.31	0.63
1:CA:105:ARG:NE	1:CA:108:GLU:OE1	2.30	0.63
1:CI:37:THR:OG1	1:CI:304:GLN:NE2	2.32	0.63
1:DD:315:LEU:HD23	1:DD:316:ALA:N	2.14	0.63
1:DO:262:ASN:HB3	1:DQ:267:ILE:HD12	1.81	0.63
1:BW:81:SER:O	1:BW:134:ARG:NH2	2.31	0.63
1:CI:224:GLN:O	1:CI:227:THR:OG1	2.15	0.63
7:ED:97:ASP:OD2	7:EE:575:HIS:NE2	2.29	0.63
1:AD:230:SER:OG	1:AD:339:ALA:O	2.17	0.63
1:AP:108:GLU:HG2	1:CS:12:GLN:N	2.13	0.63
1:BI:92:ARG:CA	1:DK:7:PHE:HB2	2.27	0.63
1:CG:255:SER:OG	1:CK:250:GLU:O	2.16	0.63
1:CQ:198:VAL:HG23	1:CQ:342:VAL:HB	1.81	0.63
1:DB:64:VAL:HG12	1:DF:160:ALA:HB1	1.81	0.63
3:DU:136:PRO:HG2	3:DU:138:TYR:CE2	2.32	0.63
1:AS:213:PHE:CE2	1:AS:294:VAL:HG21	2.34	0.63
1:BO:162:ARG:NH1	1:BO:329:GLU:OE2	2.32	0.63
1:BU:94:SER:HB3	1:DP:8:VAL:CA	2.19	0.63
1:CD:137:VAL:HG23	1:CD:138:LEU:HD12	1.81	0.63
1:CF:65:GLU:OE1	1:CF:65:GLU:N	2.32	0.63
1:CP:275:ASP:OD1	1:CP:279:GLN:N	2.32	0.63
2:DR:20:ASP:C	4:DW:856:VAL:CB	2.65	0.63
5:DX:74:GLU:CG	5:DZ:77:LYS:CE	2.73	0.63
7:ED:98:ALA:H	7:EE:572:LYS:NZ	1.97	0.63
1:AB:83:VAL:O	1:AB:164:THR:HG22	1.99	0.63
1:AM:206:ASN:O	1:AM:349:LYS:N	2.32	0.63
1:AS:78:VAL:HG23	1:CW:147:ALA:O	1.99	0.63
1:BI:144:THR:HG23	1:DH:143:LEU:CG	2.26	0.63
1:BK:206:ASN:O	1:BK:349:LYS:N	2.32	0.63
1:CK:222:THR:HG22	1:CK:281:TYR:HE2	1.63	0.63
1:DB:245:PHE:HZ	1:DB:273:ILE:HD11	1.64	0.63
1:DD:308:ARG:NE	1:DD:329:GLU:OE2	2.32	0.63
1:AW:136:ASP:OD1	1:AW:137:VAL:N	2.32	0.62
1:BG:222:THR:OG1	1:BG:275:ASP:OD1	2.08	0.62
1:CE:308:ARG:NH1	1:CE:329:GLU:OE2	2.32	0.62
1:CP:132:GLN:NE2	1:CT:60:ASN:OD1	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DB:123:ASP:OD1	1:DC:58:ASP:N	2.32	0.62
2:DR:21:ARG:CD	4:DW:859:LYS:CG	2.71	0.62
3:DV:72:PRO:HD3	5:DY:28:TYR:O	1.99	0.62
3:DV:124:ARG:NH1	5:DZ:28:TYR:HD2	1.88	0.62
3:DV:215:GLN:OE1	5:DY:15:VAL:HG12	1.93	0.62
1:AM:16:LYS:NZ	1:CN:19:PHE:HB3	2.14	0.62
1:AV:252:THR:HG1	1:AV:255:SER:HG	1.40	0.62
1:BD:298:ARG:NH1	1:BD:301:ASP:OD1	2.32	0.62
1:BQ:213:PHE:CE2	1:BQ:294:VAL:HG21	2.34	0.62
1:BQ:213:PHE:HE2	1:BQ:294:VAL:HG21	1.63	0.62
1:CD:105:ARG:NH2	1:CL:50:GLN:OE1	2.32	0.62
1:CD:334:HIS:NE2	1:CD:336:ASN:O	2.31	0.62
3:DV:32:VAL:HG23	3:DV:33:ASN:N	2.14	0.62
1:AM:322:GLU:N	1:CV:67:SER:HB2	1.95	0.62
1:BF:146:SER:N	1:DM:144:THR:OG1	2.33	0.62
1:BI:144:THR:HG23	1:DH:143:LEU:HD23	0.65	0.62
1:BU:92:ARG:HB3	1:DP:6:LEU:N	2.14	0.62
2:DS:17:TYR:HD2	2:DS:30:GLN:HE21	1.45	0.62
1:AB:31:THR:O	1:AB:35:SER:OG	2.09	0.62
1:BU:15:LYS:N	1:DP:102:ASN:OD1	2.32	0.62
1:DB:312:ARG:CZ	7:ED:31:MET:HE3	2.25	0.62
1:DC:143:LEU:HD23	3:DV:84:LYS:NZ	2.15	0.62
1:DE:95:ASP:O	1:DN:308:ARG:NH1	2.32	0.62
7:ED:470:ARG:O	7:EE:117:TYR:HE2	1.81	0.62
1:AF:145:ASN:O	1:AF:145:ASN:ND2	2.32	0.62
1:AL:254:GLY:O	1:AL:255:SER:OG	2.14	0.62
1:AM:171:CYS:HG	1:AM:340:SER:HG	1.32	0.62
1:AP:144:THR:CG2	1:CR:138:LEU:HD22	2.29	0.62
1:AS:80:LYS:HA	1:CW:147:ALA:HA	1.82	0.62
1:CC:33:PHE:O	1:CC:37:THR:HG23	1.98	0.62
1:CS:237:ILE:HG23	1:CS:238:ASN:H	1.65	0.62
1:DD:306:VAL:HG23	1:DD:330:VAL:HG12	1.82	0.62
3:DU:192:VAL:HG23	4:DW:1004:ARG:N	2.15	0.62
3:DV:73:ASP:OD2	5:DY:24:SER:OG	2.17	0.62
1:AP:144:THR:HB	1:CR:141:GLN:HG3	1.75	0.62
1:AQ:162:ARG:NH1	1:AQ:329:GLU:OE2	2.32	0.62
1:AY:254:GLY:O	1:AZ:257:LYS:NZ	2.21	0.62
1:AZ:83:VAL:O	1:AZ:164:THR:HG22	1.99	0.62
1:BD:145:ASN:ND2	1:BD:145:ASN:O	2.32	0.62
1:BU:105:ARG:HG3	1:DP:16:LYS:HD3	1.80	0.62
1:CF:52:ASP:OD1	1:CF:53:ALA:N	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DE:82:ASN:ND2	1:DE:332:LEU:O	2.33	0.62
3:DU:230:ASN:HD21	7:EE:369:ASN:CG	2.01	0.62
7:ED:628:GLU:OE2	7:EE:627:PHE:CE2	0.76	0.62
1:AD:275:ASP:OD1	1:AD:279:GLN:N	2.33	0.62
1:AU:10:TYR:OH	1:AX:162:ARG:NH2	2.31	0.62
1:CJ:230:SER:OG	1:CJ:339:ALA:O	2.10	0.62
2:DS:51:ILE:HD12	2:DT:44:ASN:HB2	1.82	0.62
3:DU:154:LEU:HD23	3:DU:154:LEU:C	2.20	0.62
7:ED:646:LYS:CA	7:EE:644:GLN:NE2	2.59	0.62
1:AA:222:THR:OG1	1:AA:275:ASP:OD2	2.11	0.62
1:AP:94:SER:O	1:CS:7:PHE:CG	2.53	0.62
1:AP:320:SER:C	1:CZ:65:GLU:O	2.22	0.62
1:BH:69:ALA:HB2	1:BT:90:VAL:HG11	1.82	0.62
1:BI:109:LEU:CD1	1:DK:7:PHE:CE1	2.76	0.62
1:BI:136:ASP:OD1	1:BI:137:VAL:N	2.32	0.62
5:DY:81:LYS:CA	5:DZ:80:PHE:CZ	2.64	0.62
1:AG:111:TYR:OH	1:AM:52:ASP:OD2	2.07	0.62
1:AK:136:ASP:OD1	1:AK:137:VAL:N	2.32	0.62
1:AM:16:LYS:HZ1	1:CN:19:PHE:HB3	1.65	0.62
1:AP:94:SER:O	1:CS:7:PHE:CB	2.48	0.62
1:AS:72:GLY:CA	1:CS:3:ASN:O	2.47	0.62
1:BU:136:ASP:OD1	1:BU:137:VAL:N	2.32	0.62
2:DR:23:TYR:CE1	4:DW:853:LYS:O	2.52	0.62
1:AS:71:ASP:CG	1:CS:4:PRO:CD	2.68	0.62
1:AW:7:PHE:CD1	1:BK:93:VAL:HG13	2.34	0.62
1:CU:40:GLU:OE1	1:CU:333:ARG:NH2	2.33	0.62
1:DA:241:HIS:NE2	1:DA:291:THR:O	2.33	0.62
1:DG:90:VAL:HG11	1:DK:69:ALA:HB2	1.80	0.62
1:DM:272:SER:O	1:DM:273:ILE:HD13	2.00	0.62
1:CT:90:VAL:HG11	1:CX:70:GLU:O	2.00	0.61
1:CV:314:GLU:OE2	1:CV:324:TRP:NE1	2.33	0.61
1:DA:252:THR:HG22	1:DA:253:GLN:H	1.65	0.61
1:DP:52:ASP:OD1	1:DP:53:ALA:N	2.33	0.61
1:AF:85:GLN:HB2	1:AF:164:THR:HG23	1.82	0.61
1:BI:73:GLU:OE2	1:DP:3:ASN:CA	2.44	0.61
1:BI:77:THR:O	1:DP:13:ASN:ND2	2.33	0.61
1:BI:99:THR:CB	1:DK:10:TYR:CD2	2.83	0.61
1:BU:92:ARG:O	1:DP:7:PHE:CA	2.46	0.61
1:BU:92:ARG:CA	1:DP:6:LEU:O	2.48	0.61
1:CH:196:VAL:N	1:CH:224:GLN:OE1	2.32	0.61
1:CK:96:THR:HG22	1:CK:97:ALA:H	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DD:80:LYS:O	1:DD:81:SER:OG	2.15	0.61
1:DJ:30:ASP:OD1	1:DJ:287:ARG:NH1	2.33	0.61
3:DV:73:ASP:CG	5:DY:24:SER:OG	2.38	0.61
1:AA:215:GLU:HB2	1:AA:248:LEU:HD12	1.83	0.61
1:AM:101:ALA:HB3	1:CR:44:GLN:NE2	2.14	0.61
1:AW:27:SER:O	1:AW:29:GLN:NE2	2.33	0.61
1:CL:99:THR:O	1:CL:100:THR:OG1	2.19	0.61
1:CQ:320:SER:OG	1:CT:327:GLU:OE2	2.04	0.61
1:CR:83:VAL:HG21	1:CR:136:ASP:CB	2.30	0.61
1:CY:317:LYS:NZ	1:CY:319:GLY:O	2.33	0.61
1:DP:203:ASN:ND2	1:DP:210:ASN:O	2.33	0.61
5:DX:64:GLN:O	5:DX:67:VAL:HG22	2.01	0.61
1:AN:127:ILE:O	1:AN:130:SER:OG	2.11	0.61
1:AP:94:SER:C	1:CS:7:PHE:HB3	2.20	0.61
1:AP:215:GLU:HG2	1:AP:216:ALA:H	1.65	0.61
1:BB:275:ASP:OD1	1:BB:279:GLN:N	2.33	0.61
1:CI:148:ALA:O	1:CI:152:VAL:HG22	2.00	0.61
1:CL:315:LEU:HD12	1:CL:323:LYS:HG2	1.81	0.61
1:AE:213:PHE:CE1	1:AE:294:VAL:HG21	2.36	0.61
1:AS:69:ALA:HB1	1:CS:5:THR:HG23	1.82	0.61
1:BK:171:CYS:SG	1:BK:340:SER:OG	2.51	0.61
1:BL:203:ASN:O	1:BL:349:LYS:NZ	2.31	0.61
1:BS:82:ASN:ND2	1:BS:164:THR:O	2.33	0.61
1:BU:103:TYR:CD1	1:DP:16:LYS:HB3	2.35	0.61
1:CD:137:VAL:HG23	1:CD:138:LEU:CD1	2.29	0.61
5:DZ:73:ILE:HA	5:DZ:76:LEU:HB2	1.81	0.61
1:AK:143:LEU:N	1:BN:146:SER:N	2.28	0.61
1:AW:99:THR:HA	1:BN:308:ARG:HG3	0.67	0.61
1:AY:215:GLU:HB2	1:AY:248:LEU:HD12	1.83	0.61
1:BI:320:SER:O	1:DM:153:ALA:HB2	1.93	0.61
1:BU:92:ARG:NH1	1:DP:5:THR:CG2	2.54	0.61
1:BW:308:ARG:NH2	1:BW:327:GLU:OE1	2.32	0.61
1:CN:157:ASP:O	1:CN:158:THR:OG1	2.15	0.61
1:DD:287:ARG:NH1	1:DE:226:TYR:O	2.34	0.61
1:DH:226:TYR:O	1:DP:287:ARG:NE	2.27	0.61
3:DV:26:ARG:HH21	3:DV:27:ASP:CG	1.92	0.61
1:CF:320:SER:OG	1:CK:65:GLU:O	2.19	0.61
1:CW:158:THR:O	1:CW:159:HIS:ND1	2.33	0.61
1:DK:92:ARG:HE	1:DM:74:MET:HE1	1.65	0.61
7:ED:93:GLN:OE1	7:EE:574:THR:HG21	1.81	0.61
1:CF:82:ASN:ND2	1:CF:332:LEU:O	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DU:7:GLN:OE1	3:DU:11:ASN:ND2	2.33	0.61
3:DU:192:VAL:CG2	4:DW:1004:ARG:CA	2.76	0.61
7:ED:516:HIS:HA	7:EE:108:GLN:HE21	1.64	0.61
1:AB:202:GLN:O	1:AB:349:LYS:NZ	2.32	0.61
1:BF:74:MET:HE2	1:DK:6:LEU:HG	1.74	0.61
1:BG:290:PRO:O	1:BG:291:THR:OG1	2.15	0.61
1:BI:322:GLU:C	1:DK:7:PHE:CD2	2.74	0.61
1:CY:8:VAL:HG13	1:CY:9:SER:H	1.65	0.61
1:CZ:176:LEU:CD2	1:CZ:181:VAL:HG13	2.30	0.61
2:DR:95:MET:SD	2:DR:99:MET:HG3	2.40	0.61
2:DS:23:TYR:HB2	2:DS:25:TYR:HD1	1.65	0.61
5:DY:78:GLN:O	5:DY:82:ASP:N	2.34	0.61
5:DY:91:ILE:HB	5:DZ:87:LEU:HD21	1.83	0.61
7:ED:516:HIS:C	7:EE:108:GLN:NE2	2.54	0.61
1:AW:14:GLY:C	1:BK:103:TYR:OH	2.34	0.61
1:BA:222:THR:HG22	1:BA:279:GLN:OE1	2.01	0.61
1:BF:146:SER:OG	1:DM:143:LEU:O	2.19	0.61
1:BY:254:GLY:O	1:BY:257:LYS:NZ	2.33	0.61
1:DI:305:MET:O	1:DI:331:GLY:N	2.34	0.61
3:DU:32:VAL:HG23	3:DU:33:ASN:N	2.16	0.61
3:DV:26:ARG:HD2	3:DV:27:ASP:N	2.15	0.61
5:DX:71:GLN:HA	5:DZ:77:LYS:NZ	2.16	0.61
1:AE:65:GLU:O	1:AX:94:SER:OG	2.18	0.60
1:AI:255:SER:OG	1:AL:250:GLU:OE2	2.18	0.60
1:AJ:69:ALA:HB2	1:AV:90:VAL:HG11	1.82	0.60
1:AN:31:THR:O	1:AN:35:SER:OG	2.12	0.60
1:AQ:203:ASN:HA	1:AQ:214:ASP:HB2	1.83	0.60
1:AR:92:ARG:NH2	1:AU:71:ASP:OD1	2.34	0.60
1:BC:65:GLU:O	1:BV:94:SER:OG	2.18	0.60
1:BI:320:SER:HB2	1:DM:153:ALA:CB	2.28	0.60
1:BU:27:SER:O	1:BU:29:GLN:NE2	2.33	0.60
2:DR:25:TYR:CZ	4:DW:847:TRP:O	2.54	0.60
2:DS:23:TYR:N	4:DW:846:THR:HA	2.15	0.60
3:DV:159:ASP:CG	5:DY:25:ILE:HG12	2.21	0.60
1:AM:215:GLU:HG3	1:AM:248:LEU:CD2	2.31	0.60
1:AM:314:GLU:OE2	1:CR:315:LEU:CD2	2.48	0.60
1:BI:144:THR:C	1:DH:143:LEU:HG	2.21	0.60
1:BI:319:GLY:N	1:DO:68:ARG:HD2	2.15	0.60
1:DB:39:LYS:CE	7:ED:16:VAL:HG13	2.30	0.60
1:DH:24:SER:O	1:DJ:51:THR:OG1	2.19	0.60
3:DV:58:GLU:C	5:DX:2:ILE:HG22	2.22	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BC:213:PHE:CE1	1:BC:294:VAL:HG21	2.36	0.60
1:BG:89:LYS:NZ	1:BG:123:ASP:OD2	2.34	0.60
1:BI:13:ASN:OD1	1:DM:76:PRO:HG3	2.01	0.60
1:CL:34:VAL:HG21	1:CL:125:GLU:OE1	2.01	0.60
1:CP:44:GLN:N	1:CP:44:GLN:OE1	2.33	0.60
1:CZ:42:ILE:HD12	1:CZ:305:MET:HB3	1.83	0.60
2:DT:19:ARG:HD2	2:DT:21:ARG:H	1.67	0.60
5:DY:84:ASP:HB2	5:DY:87:LEU:HD22	1.82	0.60
1:AK:143:LEU:CD2	1:BN:145:ASN:CG	2.66	0.60
1:AU:82:ASN:ND2	1:AU:164:THR:O	2.33	0.60
1:AZ:51:THR:OG1	1:BD:24:SER:O	2.09	0.60
1:BY:262:ASN:ND2	1:BZ:265:GLN:O	2.32	0.60
1:CB:146:SER:O	1:CB:149:ASP:N	2.30	0.60
1:CE:213:PHE:CD1	1:CE:218:ILE:HD11	2.37	0.60
1:CL:334:HIS:NE2	1:CL:336:ASN:O	2.34	0.60
1:CQ:213:PHE:CE1	1:CQ:345:THR:HG22	2.36	0.60
1:DE:6:LEU:HD21	1:DL:92:ARG:NH2	2.17	0.60
2:DS:19:ARG:HG3	2:DS:21:ARG:HG2	1.83	0.60
5:DX:67:VAL:HG11	5:DZ:70:LYS:HG2	1.83	0.60
1:AB:215:GLU:OE1	1:AB:256:ARG:NH2	2.35	0.60
1:AM:101:ALA:CB	1:CR:44:GLN:NE2	2.63	0.60
1:BE:52:ASP:OD1	1:BE:53:ALA:N	2.35	0.60
1:BK:215:GLU:HG3	1:BK:248:LEU:CD2	2.31	0.60
1:BU:96:THR:OG1	1:DP:9:SER:OG	1.79	0.60
1:CP:213:PHE:CE1	1:CP:294:VAL:HG21	2.36	0.60
1:DI:258:ARG:NH1	1:DI:267:ILE:O	2.34	0.60
7:ED:415:GLY:HA3	7:EE:367:VAL:HG22	1.84	0.60
7:ED:456:LEU:O	7:EE:438:MET:HE2	2.00	0.60
1:AB:85:GLN:HB2	1:AB:164:THR:HG23	1.84	0.60
1:AI:89:LYS:NZ	1:AI:123:ASP:OD2	2.34	0.60
1:AW:19:PHE:CD2	1:BK:16:LYS:HD3	2.33	0.60
1:BD:85:GLN:HB2	1:BD:164:THR:HG23	1.82	0.60
1:BO:203:ASN:HA	1:BO:214:ASP:HB2	1.83	0.60
1:CE:82:ASN:OD1	1:CE:83:VAL:N	2.34	0.60
1:CO:157:ASP:O	1:CO:158:THR:OG1	2.13	0.60
1:DQ:51:THR:O	1:DQ:77:THR:OG1	2.19	0.60
1:DQ:82:ASN:ND2	1:DQ:332:LEU:O	2.34	0.60
2:DT:57:LYS:O	2:DT:60:SER:OG	2.16	0.60
5:DX:85:ALA:HB1	5:DX:86:ARG:HH21	1.61	0.60
5:DX:86:ARG:NH1	5:DZ:87:LEU:HB3	2.16	0.60
5:DY:77:LYS:HA	5:DY:80:PHE:HB2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:EC:101:LEU:O	6:EC:103:THR:N	2.35	0.60
1:AT:82:ASN:ND2	1:AT:164:THR:O	2.35	0.60
1:BP:92:ARG:NH2	1:BS:71:ASP:OD1	2.34	0.60
1:BR:82:ASN:ND2	1:BR:164:THR:O	2.35	0.60
1:DG:84:THR:OG1	1:DG:329:GLU:OE2	2.10	0.60
2:DT:28:ALA:HB2	4:DW:857:TRP:CD2	2.37	0.60
4:DW:327:TRP:CZ3	4:DW:358:ALA:HB2	2.37	0.60
1:AN:203:ASN:O	1:AN:349:LYS:NZ	2.31	0.60
1:AW:16:LYS:HD3	1:BK:101:ALA:O	1.98	0.60
1:AW:316:ALA:HB1	1:BN:316:ALA:HB2	1.84	0.60
1:BE:213:PHE:CD1	1:BE:218:ILE:HD11	2.36	0.60
1:BI:13:ASN:CB	1:DM:76:PRO:HG2	2.27	0.60
1:BI:109:LEU:CD1	1:DK:7:PHE:CE2	2.83	0.60
1:BN:215:GLU:HG2	1:BN:216:ALA:H	1.65	0.60
1:BT:252:THR:OG1	1:BT:255:SER:OG	2.14	0.60
1:BU:96:THR:H	1:DH:308:ARG:NH1	2.00	0.60
1:CO:64:VAL:HG12	1:CO:65:GLU:N	2.17	0.60
1:DC:143:LEU:CD2	3:DV:84:LYS:NZ	2.65	0.60
1:DK:249:GLN:OE1	1:DK:258:ARG:NH2	2.34	0.60
1:AM:14:GLY:CA	1:CN:105:ARG:NH1	2.58	0.60
1:AS:78:VAL:C	1:CW:147:ALA:O	2.39	0.60
1:AW:100:THR:CG2	1:BN:45:THR:HA	2.32	0.60
1:BB:230:SER:OG	1:BB:339:ALA:O	2.17	0.60
1:CV:71:ASP:OD1	1:CV:72:GLY:N	2.35	0.60
1:DE:315:LEU:HD11	1:DE:325:MET:SD	2.42	0.60
1:DH:256:ARG:NH1	1:DJ:254:GLY:O	2.34	0.60
1:DP:182:ASP:OD1	1:DP:183:LYS:N	2.35	0.60
1:AP:92:ARG:NH1	1:CS:6:LEU:CA	2.51	0.60
1:DJ:18:SER:OG	1:DL:46:ILE:O	2.20	0.60
7:ED:131:ARG:NH2	7:EE:269:ARG:NH2	2.49	0.60
1:BG:136:ASP:OD1	1:BG:137:VAL:N	2.35	0.59
1:BI:145:ASN:OD1	1:DH:142:TYR:CE2	2.55	0.59
1:BT:27:SER:O	1:BT:29:GLN:NE2	2.35	0.59
1:DB:312:ARG:NH1	7:ED:31:MET:CG	2.65	0.59
1:DD:197:THR:HG21	1:DD:338:TYR:HA	1.83	0.59
5:DY:71:GLN:CA	5:DY:74:GLU:HB3	2.30	0.59
7:ED:244:ILE:O	7:ED:244:ILE:CG2	2.50	0.59
1:AG:213:PHE:CD1	1:AG:218:ILE:HD11	2.36	0.59
1:AP:44:GLN:NE2	1:CN:101:ALA:O	2.34	0.59
1:AS:145:ASN:HB3	1:CW:145:ASN:ND2	2.17	0.59
1:AS:190:ASP:O	1:AS:194:GLY:N	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BI:69:ALA:O	1:BU:323:LYS:NZ	2.26	0.59
1:BU:5:THR:CA	1:DH:73:GLU:C	2.40	0.59
1:CE:52:ASP:OD1	1:CE:53:ALA:N	2.35	0.59
1:CQ:70:GLU:OE1	1:CQ:70:GLU:N	2.35	0.59
1:CR:81:SER:O	1:CR:134:ARG:NH2	2.35	0.59
7:ED:430:ARG:CD	7:EE:66:GLU:HG2	2.30	0.59
1:CE:67:SER:OG	1:CU:88:ARG:NH1	2.33	0.59
1:CG:127:ILE:O	1:CG:130:SER:OG	2.16	0.59
1:CQ:82:ASN:OD1	1:CQ:83:VAL:N	2.34	0.59
1:CU:170:LEU:HD23	1:CU:334:HIS:HB2	1.83	0.59
1:DA:336:ASN:ND2	1:DE:24:SER:OG	2.36	0.59
1:DN:101:ALA:O	1:DO:44:GLN:NE2	2.35	0.59
1:DN:287:ARG:NH2	1:DP:226:TYR:O	2.35	0.59
5:DY:42:ALA:HB2	5:DZ:41:TRP:HB3	1.84	0.59
5:DZ:82:ASP:HB3	5:DZ:86:ARG:HH21	1.67	0.59
1:AM:100:THR:HG22	1:CR:44:GLN:HA	1.84	0.59
1:AV:27:SER:O	1:AV:29:GLN:NE2	2.35	0.59
1:AZ:85:GLN:HB2	1:AZ:164:THR:HG23	1.84	0.59
1:BD:252:THR:OG1	1:BD:255:SER:OG	2.20	0.59
1:BI:145:ASN:CB	1:DP:19:PHE:CD2	2.85	0.59
1:BU:100:THR:HG23	1:DH:307:LEU:CG	2.33	0.59
1:CU:322:GLU:N	1:CU:322:GLU:OE1	2.35	0.59
2:DR:95:MET:CE	2:DR:99:MET:HG3	2.32	0.59
3:DV:60:TYR:HD1	5:DX:3:VAL:C	2.04	0.59
5:DX:74:GLU:OE2	5:DZ:81:LYS:NZ	2.35	0.59
1:AM:16:LYS:NZ	1:CN:19:PHE:HD2	1.97	0.59
1:AP:79:ILE:CD1	1:CR:147:ALA:HB3	2.18	0.59
1:AP:144:THR:OG1	1:CR:141:GLN:CG	2.50	0.59
1:BQ:190:ASP:O	1:BQ:194:GLY:N	2.35	0.59
1:BZ:88:ARG:NH1	1:BZ:327:GLU:OE2	2.36	0.59
1:CD:54:LEU:HD12	1:CH:119:GLU:HG3	1.83	0.59
1:CJ:95:ASP:OD1	1:CP:308:ARG:NH2	2.36	0.59
1:CL:250:GLU:OE2	1:CL:258:ARG:NH2	2.35	0.59
1:CQ:215:GLU:OE1	1:CQ:215:GLU:N	2.36	0.59
1:CS:17:LEU:HD22	1:CW:143:LEU:CD2	2.31	0.59
1:DE:85:GLN:HB2	1:DE:164:THR:HG23	1.84	0.59
7:ED:378:LEU:HD21	7:EE:401:GLN:HE21	1.67	0.59
1:AF:252:THR:OG1	1:AF:255:SER:OG	2.20	0.59
1:AP:9:SER:H	1:CS:96:THR:CG2	2.14	0.59
1:AZ:215:GLU:OE1	1:AZ:256:ARG:NH2	2.35	0.59
1:BI:71:ASP:CA	1:DP:5:THR:OG1	2.25	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BI:322:GLU:CG	1:DK:7:PHE:CD2	2.67	0.59
1:CX:33:PHE:O	1:CX:37:THR:HG23	2.02	0.59
1:DB:237:ILE:HG22	1:DB:283:ILE:HD11	1.84	0.59
3:DU:8:TYR:O	3:DV:37:ASN:ND2	2.36	0.59
5:DY:71:GLN:HA	5:DY:74:GLU:CB	2.32	0.59
1:AI:23:ILE:HG23	1:AO:50:GLN:HB2	1.84	0.59
1:AK:142:TYR:C	1:BN:143:LEU:O	2.41	0.59
1:AP:109:LEU:N	1:CS:7:PHE:CE1	2.70	0.59
1:BK:162:ARG:NH1	1:BK:329:GLU:OE2	2.36	0.59
1:BU:105:ARG:NE	1:DP:14:GLY:O	2.34	0.59
1:BY:136:ASP:OD1	1:BY:137:VAL:N	2.35	0.59
1:AC:222:THR:HG22	1:AC:279:GLN:OE1	2.01	0.59
1:AE:84:THR:OG1	1:AE:162:ARG:NH1	2.36	0.59
1:AW:4:PRO:HD2	1:BN:75:LYS:O	2.01	0.59
1:BD:250:GLU:OE1	1:BD:258:ARG:NH2	2.35	0.59
1:BI:108:GLU:N	1:DK:11:ASP:OD1	2.34	0.59
1:BT:214:ASP:HB3	1:BT:217:ASP:HB2	1.83	0.59
1:DL:136:ASP:OD1	1:DL:137:VAL:N	2.36	0.59
1:DO:197:THR:HG23	1:DO:198:VAL:HG23	1.84	0.59
5:DY:81:LYS:CA	5:DY:82:ASP:N	2.66	0.59
7:ED:20:ARG:CZ	7:EE:279:ASP:HB2	2.29	0.59
1:AA:34:VAL:HG23	1:AA:125:GLU:OE1	2.03	0.59
1:AK:145:ASN:HB3	1:BK:17:LEU:HD13	1.84	0.59
1:BG:255:SER:OG	1:BJ:250:GLU:OE2	2.18	0.59
1:BU:94:SER:HB3	1:DP:8:VAL:HA	1.64	0.59
1:BW:82:ASN:ND2	1:BW:332:LEU:O	2.36	0.59
1:DF:192:ASP:OD1	1:DF:193:THR:N	2.35	0.59
1:DL:275:ASP:OD1	1:DL:279:GLN:N	2.36	0.59
1:AG:52:ASP:OD1	1:AG:53:ALA:N	2.34	0.59
1:AP:8:VAL:CG1	1:CS:94:SER:CB	2.79	0.59
1:AP:139:ALA:C	1:CR:144:THR:HG23	2.22	0.59
1:AS:74:MET:CB	1:CW:154:GLY:O	1.64	0.59
1:BC:84:THR:OG1	1:BC:162:ARG:NH1	2.36	0.59
1:BI:93:VAL:HG12	1:DK:6:LEU:HD13	1.84	0.59
1:BI:99:THR:HG22	1:DM:45:THR:CG2	2.32	0.59
1:BU:6:LEU:HB3	1:DH:74:MET:HE1	1.85	0.59
1:CA:190:ASP:O	1:CA:194:GLY:N	2.35	0.59
1:CY:206:ASN:O	1:CY:349:LYS:N	2.34	0.59
1:DC:143:LEU:HD23	3:DV:84:LYS:HZ1	1.67	0.59
1:DD:122:ARG:NH1	1:DE:55:ALA:O	2.36	0.59
7:ED:410:HIS:CD2	7:EE:373:GLY:C	2.52	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:ED:557:GLN:OE1	7:EE:578:LEU:CA	2.51	0.59
1:AY:34:VAL:HG23	1:AY:125:GLU:OE1	2.02	0.58
1:BI:103:TYR:OH	1:DM:142:TYR:CA	2.51	0.58
1:BI:146:SER:N	1:DH:143:LEU:CD1	2.65	0.58
1:BU:36:MET:O	1:BU:299:SER:OG	2.21	0.58
1:BU:318:ASP:C	1:DH:315:LEU:HD23	2.24	0.58
1:CD:298:ARG:O	1:CD:299:SER:OG	2.15	0.58
1:CW:25:VAL:HG12	1:CW:25:VAL:O	2.02	0.58
1:DI:254:GLY:O	1:DI:257:LYS:NZ	2.35	0.58
3:DU:29:ASP:HA	3:DU:32:VAL:HG22	1.85	0.58
3:DV:173:LEU:HD11	3:DV:180:LEU:HD12	1.85	0.58
7:ED:482:ARG:HH11	7:EE:112:ARG:CA	2.07	0.58
7:ED:518:LEU:N	7:EE:112:ARG:HH22	1.81	0.58
1:AP:105:ARG:HG2	1:CS:15:LYS:HG2	1.85	0.58
1:AS:73:GLU:HA	1:CS:3:ASN:OD1	2.04	0.58
1:BI:145:ASN:N	1:DP:19:PHE:CE2	2.66	0.58
1:BI:318:ASP:C	1:DO:68:ARG:HD2	2.21	0.58
1:BJ:186:ASN:OD1	1:BJ:200:VAL:HG23	2.03	0.58
1:DF:167:PHE:HA	1:DF:170:LEU:HA	1.86	0.58
1:DL:303:THR:OG1	1:DL:333:ARG:NH1	2.35	0.58
5:DX:63:TYR:HB2	5:DZ:70:LYS:HZ3	1.68	0.58
5:DX:74:GLU:HG3	5:DZ:77:LYS:HE2	1.83	0.58
1:AP:16:LYS:CE	1:CS:103:TYR:HB2	2.33	0.58
1:AV:214:ASP:HB3	1:AV:217:ASP:HB2	1.83	0.58
1:BE:132:GLN:HA	1:BE:180:VAL:HG12	1.85	0.58
1:BI:101:ALA:O	1:DK:15:LYS:HA	2.04	0.58
1:CD:237:ILE:HD13	1:CD:294:VAL:HG22	1.85	0.58
1:CP:163:LYS:NZ	1:CP:179:GLY:O	2.30	0.58
6:EC:90:ALA:O	6:EC:91:ILE:C	2.41	0.58
1:AF:250:GLU:OE1	1:AF:258:ARG:NH2	2.35	0.58
1:AW:100:THR:CG2	1:BN:84:THR:OG1	2.52	0.58
1:AZ:202:GLN:O	1:AZ:349:LYS:NZ	2.32	0.58
1:BI:95:ASP:C	1:DK:10:TYR:CG	2.66	0.58
1:CU:82:ASN:OD1	1:CU:83:VAL:N	2.37	0.58
1:CZ:304:GLN:O	1:CZ:306:VAL:HG13	2.03	0.58
4:DW:311:LEU:HD11	4:DW:372:ARG:HH21	1.54	0.58
5:DX:60:GLU:CD	5:DX:61:ARG:HH12	2.05	0.58
1:AJ:214:ASP:HB3	1:AJ:217:ASP:OD2	2.04	0.58
1:AP:4:PRO:CD	1:CW:74:MET:SD	2.91	0.58
1:AY:127:ILE:O	1:AY:130:SER:OG	2.12	0.58
1:BG:23:ILE:HG23	1:BM:50:GLN:HB2	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BG:298:ARG:O	1:BG:299:SER:OG	2.17	0.58
1:BI:144:THR:C	1:DP:17:LEU:CD1	2.71	0.58
1:CP:111:TYR:OH	1:CT:52:ASP:OD2	2.20	0.58
1:DL:25:VAL:O	1:DL:25:VAL:HG23	2.04	0.58
7:ED:32:ALA:HB1	7:EE:269:ARG:CB	2.28	0.58
1:AB:136:ASP:OD1	1:AB:137:VAL:N	2.36	0.58
1:AP:94:SER:HB3	1:CS:8:VAL:CA	2.33	0.58
1:AS:144:THR:C	1:CW:143:LEU:O	2.31	0.58
1:BR:162:ARG:NH1	1:BR:329:GLU:OE2	2.37	0.58
1:CA:78:VAL:O	1:CA:78:VAL:HG12	2.03	0.58
1:CD:246:ALA:O	1:CD:258:ARG:NH1	2.36	0.58
1:CH:250:GLU:OE2	1:CH:258:ARG:NH2	2.36	0.58
1:CM:157:ASP:O	1:CM:158:THR:OG1	2.16	0.58
1:CP:5:THR:OG1	1:CT:156:ASN:ND2	2.37	0.58
1:DB:16:LYS:HG2	3:DV:234:ARG:NE	2.07	0.58
1:DO:45:THR:OG1	1:DO:162:ARG:NH2	2.37	0.58
1:DQ:132:GLN:OE1	1:DQ:163:LYS:NZ	2.25	0.58
2:DR:39:GLN:NE2	2:DS:11:THR:O	2.37	0.58
7:ED:448:ASP:OD1	7:EE:441:ASN:OD1	2.22	0.58
1:AD:306:VAL:HG12	1:AD:330:VAL:HG12	1.86	0.58
1:AI:136:ASP:OD1	1:AI:137:VAL:N	2.35	0.58
1:AM:101:ALA:C	1:CR:44:GLN:NE2	2.56	0.58
1:AM:162:ARG:NH1	1:AM:329:GLU:OE2	2.36	0.58
1:AP:107:ARG:N	1:CS:13:ASN:OD1	2.35	0.58
1:AV:306:VAL:HG13	1:AV:330:VAL:HG12	1.86	0.58
1:AW:108:GLU:CD	1:BK:12:GLN:HG2	2.18	0.58
1:CM:70:GLU:OE1	1:CM:70:GLU:N	2.37	0.58
1:DA:131:GLY:HA3	1:DA:180:VAL:HG22	1.84	0.58
1:DD:262:ASN:C	1:DE:267:ILE:HD11	2.23	0.58
1:DE:144:THR:O	1:DE:145:ASN:ND2	2.37	0.58
1:DJ:122:ARG:NH1	1:DL:55:ALA:O	2.35	0.58
1:DO:89:LYS:HG2	1:DO:120:ILE:HD13	1.86	0.58
7:ED:362:GLY:HA3	7:EE:371:ASN:ND2	2.19	0.58
1:AS:144:THR:OG1	1:CW:142:TYR:O	2.22	0.58
1:AZ:136:ASP:OD1	1:AZ:137:VAL:N	2.36	0.58
1:BZ:30:ASP:O	1:BZ:31:THR:OG1	2.19	0.58
1:CA:44:GLN:HG2	1:CA:45:THR:H	1.68	0.58
1:CZ:218:ILE:O	1:CZ:222:THR:HG23	2.04	0.58
1:DM:88:ARG:NH1	1:DO:65:GLU:O	2.37	0.58
2:DR:73:GLY:O	2:DS:78:LYS:NZ	2.36	0.58
2:DT:23:TYR:O	2:DT:25:TYR:N	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:DY:67:VAL:HA	5:DY:70:LYS:CB	2.33	0.58
7:ED:379:VAL:HG21	7:EE:398:MET:HG3	0.58	0.58
1:BI:74:MET:HG3	1:DP:4:PRO:HB2	1.86	0.58
1:BI:92:ARG:HD2	1:DK:6:LEU:HD23	1.61	0.58
1:BI:146:SER:N	1:DH:143:LEU:HD11	2.19	0.58
1:CE:237:ILE:HG13	1:CE:285:VAL:HG12	1.85	0.58
3:DU:131:ILE:HG22	3:DU:132:GLU:H	1.69	0.58
1:AM:93:VAL:O	1:CN:8:VAL:HG11	2.03	0.58
1:AP:8:VAL:HB	1:CS:96:THR:HG21	0.58	0.58
1:AP:8:VAL:HG12	1:CS:94:SER:HB2	1.86	0.58
1:BI:103:TYR:OH	1:DM:143:LEU:N	2.37	0.58
1:BN:240:ALA:O	1:BN:243:LYS:NZ	2.36	0.58
1:BX:261:GLU:OE1	1:BX:262:ASN:N	2.37	0.58
1:CM:8:VAL:O	1:CM:9:SER:OG	2.19	0.58
1:CN:250:GLU:OE1	1:CN:258:ARG:NH2	2.35	0.58
1:CO:52:ASP:OD1	1:CO:53:ALA:N	2.37	0.58
1:DC:86:ILE:HD11	1:DD:63:HIS:O	2.04	0.58
1:DC:145:ASN:ND2	3:DV:85:ASP:CG	2.57	0.58
1:DH:128:LEU:HD22	1:DH:332:LEU:HD13	1.85	0.58
3:DV:78:GLN:OE1	3:DV:155:SER:OG	2.20	0.58
7:ED:430:ARG:CG	7:EE:66:GLU:CD	2.69	0.58
1:AP:108:GLU:O	1:CS:7:PHE:HE1	1.84	0.57
1:AS:45:THR:CG2	1:CS:99:THR:OG1	2.52	0.57
1:AW:7:PHE:HB2	1:BK:93:VAL:CG2	2.27	0.57
1:BU:92:ARG:HG2	1:DP:6:LEU:C	2.24	0.57
1:CL:30:ASP:O	1:CL:31:THR:OG1	2.19	0.57
1:CL:249:GLN:OE1	1:CL:258:ARG:NE	2.37	0.57
1:BU:92:ARG:CG	1:DP:6:LEU:O	2.52	0.57
1:BU:99:THR:HG1	1:DH:308:ARG:HA	1.63	0.57
1:BV:60:ASN:O	1:BV:60:ASN:ND2	2.37	0.57
1:CC:159:HIS:ND1	1:CC:159:HIS:O	2.37	0.57
1:DG:214:ASP:OD2	1:DG:244:ILE:HG22	2.04	0.57
1:DH:208:THR:O	1:DH:208:THR:HG22	2.05	0.57
2:DT:22:ASP:HA	4:DW:838:ILE:HG12	1.85	0.57
3:DU:26:ARG:H	4:DW:973:ASN:CG	2.03	0.57
5:DX:49:PHE:O	5:DX:50:GLY:C	2.41	0.57
1:AR:250:GLU:OE2	1:AR:258:ARG:NH2	2.36	0.57
1:CE:303:THR:OG1	1:CE:333:ARG:NH1	2.37	0.57
1:CE:329:GLU:OE2	1:CY:96:THR:OG1	2.16	0.57
1:CI:235:ILE:HG23	1:CI:296:PHE:CE1	2.39	0.57
1:CI:275:ASP:OD1	1:CI:279:GLN:N	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CW:83:VAL:HG22	1:CW:84:THR:H	1.70	0.57
3:DV:128:TYR:HB3	3:DV:129:PRO:HD3	1.87	0.57
7:ED:233:ASP:O	7:ED:236:ALA:HB3	2.04	0.57
7:ED:653:ALA:HA	7:ED:656:LEU:HD12	1.85	0.57
7:EE:233:ASP:O	7:EE:236:ALA:HB3	2.04	0.57
7:EE:653:ALA:HA	7:EE:656:LEU:HD12	1.85	0.57
1:AG:132:GLN:HA	1:AG:180:VAL:HG12	1.84	0.57
1:AL:186:ASN:OD1	1:AL:200:VAL:HG23	2.03	0.57
1:AP:240:ALA:O	1:AP:243:LYS:NZ	2.36	0.57
1:AT:162:ARG:NH1	1:AT:329:GLU:OE2	2.37	0.57
1:BH:214:ASP:HB3	1:BH:217:ASP:OD2	2.04	0.57
1:DC:39:LYS:O	7:EE:27:GLY:O	2.21	0.57
1:DE:71:ASP:OD2	1:DO:5:THR:HG21	2.03	0.57
3:DV:222:SER:O	3:DV:224:SER:N	2.37	0.57
5:DX:85:ALA:CB	5:DZ:88:MET:HE3	2.17	0.57
6:EA:90:ALA:O	6:EA:91:ILE:C	2.42	0.57
7:ED:625:THR:HG23	7:EE:624:ARG:NH2	1.93	0.57
1:AN:33:PHE:CE1	1:AN:37:THR:HG21	2.40	0.57
1:AN:105:ARG:NH2	1:AN:108:GLU:OE2	2.38	0.57
1:BI:96:THR:N	1:DM:152:VAL:HG21	2.19	0.57
1:BL:31:THR:O	1:BL:35:SER:OG	2.12	0.57
1:DH:198:VAL:HG12	1:DH:342:VAL:HG22	1.87	0.57
1:DQ:89:LYS:NZ	1:DQ:123:ASP:OD2	2.27	0.57
3:DV:145:LEU:CB	5:DX:4:TYR:CZ	2.84	0.57
5:DY:63:TYR:O	5:DY:67:VAL:HG22	2.05	0.57
5:DY:81:LYS:C	5:DY:85:ALA:H	2.07	0.57
7:ED:552:LEU:HD23	7:EE:579:LEU:N	2.08	0.57
1:AW:103:TYR:N	1:BN:44:GLN:HG2	1.95	0.57
1:BW:265:GLN:OE1	1:BW:266:PHE:CE2	2.58	0.57
1:BX:26:LEU:HD11	1:CC:229:GLY:O	2.05	0.57
1:DH:116:LYS:O	1:DH:120:ILE:HD12	2.05	0.57
1:DN:298:ARG:NE	1:DN:301:ASP:OD1	2.37	0.57
4:DW:327:TRP:CH2	4:DW:343:GLN:NE2	2.73	0.57
7:ED:94:GLN:N	7:ED:94:GLN:OE1	2.37	0.57
1:AB:51:THR:OG1	1:AF:24:SER:O	2.09	0.57
1:AL:54:LEU:HD12	1:AX:27:SER:HB2	1.87	0.57
1:AM:96:THR:H	1:CN:8:VAL:N	2.03	0.57
1:AP:4:PRO:O	1:CS:92:ARG:NE	2.37	0.57
1:AP:94:SER:OG	1:CZ:65:GLU:HB3	2.04	0.57
1:AS:222:THR:HB	1:AS:279:GLN:OE1	2.04	0.57
1:BJ:48:SER:OG	1:BJ:143:LEU:HD11	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BL:33:PHE:CE1	1:BL:37:THR:HG21	2.40	0.57
1:CA:224:GLN:O	1:CA:227:THR:OG1	2.22	0.57
1:CL:157:ASP:OD1	1:CZ:321:TYR:OH	2.21	0.57
1:DJ:231:GLU:OE2	1:DJ:298:ARG:NE	2.37	0.57
3:DU:138:TYR:CE1	3:DU:145:LEU:CD2	2.86	0.57
1:AL:74:MET:SD	1:AX:91:VAL:HG23	2.45	0.57
1:AM:319:GLY:O	1:CV:68:ARG:NE	2.35	0.57
1:AV:98:ASN:ND2	1:AV:98:ASN:O	2.38	0.57
1:AX:196:VAL:N	1:AX:224:GLN:OE1	2.38	0.57
1:BL:105:ARG:NH2	1:BL:108:GLU:OE2	2.38	0.57
1:BP:250:GLU:OE2	1:BP:258:ARG:NH2	2.36	0.57
1:BU:319:GLY:HA2	1:DH:313:THR:HG21	1.82	0.57
1:CK:132:GLN:NE2	1:CK:164:THR:O	2.38	0.57
1:CL:308:ARG:NH2	1:CL:329:GLU:OE1	2.38	0.57
1:CQ:314:GLU:OE1	1:CQ:324:TRP:NE1	2.38	0.57
1:DD:58:ASP:O	1:DD:61:ASN:ND2	2.37	0.57
1:DK:52:ASP:OD1	1:DK:53:ALA:N	2.37	0.57
4:DW:215:LEU:CD2	4:DW:232:ALA:HB2	2.35	0.57
7:ED:305:SER:OG	7:EE:284:ALA:CA	2.52	0.57
1:AH:237:ILE:CD1	1:AH:294:VAL:HG22	2.35	0.57
1:AK:308:ARG:NH2	1:BK:96:THR:HG1	2.00	0.57
1:AP:215:GLU:HG2	1:AP:216:ALA:N	2.20	0.57
1:AP:320:SER:HA	1:CZ:65:GLU:CD	2.10	0.57
1:AW:7:PHE:CG	1:BK:93:VAL:CG1	2.77	0.57
1:BF:237:ILE:CD1	1:BF:294:VAL:HG22	2.35	0.57
1:BN:215:GLU:HG2	1:BN:216:ALA:N	2.20	0.57
1:BQ:222:THR:HB	1:BQ:279:GLN:OE1	2.04	0.57
1:CB:240:ALA:O	1:CB:243:LYS:NZ	2.37	0.57
1:CE:157:ASP:O	1:CE:158:THR:OG1	2.15	0.57
1:CY:308:ARG:NH1	1:CY:327:GLU:OE1	2.37	0.57
1:CZ:222:THR:HG22	1:CZ:281:TYR:HE2	1.69	0.57
1:DM:65:GLU:N	1:DM:65:GLU:OE1	2.38	0.57
1:BF:40:GLU:OE1	1:BF:333:ARG:NH1	2.38	0.57
1:BI:11:ASP:N	1:DK:94:SER:O	2.38	0.57
1:BI:320:SER:OG	1:DO:64:VAL:HB	2.05	0.57
1:CO:253:GLN:OE1	1:CO:253:GLN:N	2.37	0.57
1:CW:122:ARG:NH2	1:CZ:58:ASP:OD1	2.37	0.57
1:DD:192:ASP:OD1	1:DD:193:THR:N	2.37	0.57
1:DG:334:HIS:NE2	1:DG:336:ASN:O	2.38	0.57
1:DP:8:VAL:O	1:DP:8:VAL:HG13	2.05	0.57
5:DX:74:GLU:HB2	5:DZ:77:LYS:CE	2.33	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:EA:164:SER:O	6:EA:166:TYR:N	2.38	0.57
7:EE:94:GLN:OE1	7:EE:94:GLN:N	2.37	0.57
1:AM:100:THR:CB	1:CN:11:ASP:OD1	2.54	0.56
1:AP:12:GLN:CA	1:CS:105:ARG:NH1	2.68	0.56
1:AP:150:PRO:HD3	1:CR:143:LEU:HB2	1.87	0.56
1:AW:15:LYS:N	1:BK:103:TYR:CZ	2.73	0.56
1:BB:306:VAL:HG12	1:BB:330:VAL:HG12	1.86	0.56
1:BI:144:THR:HA	1:DH:143:LEU:HB3	1.87	0.56
1:BZ:105:ARG:NH2	1:BZ:108:GLU:OE2	2.38	0.56
1:CZ:222:THR:HG22	1:CZ:281:TYR:CE2	2.39	0.56
1:DC:143:LEU:HG	3:DV:84:LYS:CE	2.35	0.56
1:DO:87:LEU:HB3	1:DO:120:ILE:HD11	1.86	0.56
1:DO:237:ILE:HG21	1:DO:285:VAL:HG22	1.87	0.56
3:DU:131:ILE:HG22	3:DU:132:GLU:N	2.19	0.56
1:AA:127:ILE:O	1:AA:130:SER:OG	2.12	0.56
1:AL:48:SER:OG	1:AL:143:LEU:HD11	2.05	0.56
1:AP:7:PHE:C	1:CS:92:ARG:NH2	2.58	0.56
1:AW:36:MET:O	1:AW:299:SER:OG	2.21	0.56
1:CL:208:THR:O	1:CL:208:THR:HG22	2.06	0.56
1:DA:66:GLY:O	1:DE:88:ARG:NH1	2.38	0.56
1:DA:158:THR:HG23	1:DA:158:THR:O	2.05	0.56
3:DV:44:LYS:HZ3	5:DX:14:ASN:CG	2.06	0.56
5:DX:51:THR:O	5:DX:52:ILE:C	2.43	0.56
5:DX:63:TYR:CB	5:DZ:70:LYS:HZ3	2.18	0.56
1:AG:241:HIS:NE2	1:AG:291:THR:O	2.37	0.56
1:AI:290:PRO:O	1:AI:291:THR:OG1	2.15	0.56
1:AM:14:GLY:HA3	1:CN:105:ARG:HH11	1.70	0.56
1:AM:103:TYR:HB3	1:CN:16:LYS:HE3	1.86	0.56
1:BI:314:GLU:HG3	1:DM:316:ALA:CB	2.35	0.56
1:BJ:74:MET:SD	1:BV:91:VAL:HG23	2.45	0.56
1:BT:306:VAL:HG13	1:BT:330:VAL:HG12	1.86	0.56
1:BU:104:GLY:HA3	1:DP:16:LYS:HE2	1.87	0.56
1:BX:95:ASP:O	1:BX:96:THR:OG1	2.16	0.56
1:CB:307:LEU:HD23	1:CB:329:GLU:CD	2.26	0.56
1:CT:6:LEU:O	1:CT:8:VAL:HG13	2.05	0.56
1:CY:25:VAL:O	1:CY:25:VAL:HG13	2.06	0.56
1:DB:312:ARG:NH2	7:ED:27:GLY:CA	2.68	0.56
1:DD:237:ILE:HG21	1:DD:285:VAL:HG22	1.87	0.56
1:DI:168:GLN:NE2	1:DI:295:TYR:OH	2.38	0.56
3:DU:174:THR:HG21	5:DX:22:GLU:H	1.69	0.56
4:DW:333:ASN:OD1	4:DW:349:LEU:HD11	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:DX:47:SER:O	5:DX:51:THR:N	2.38	0.56
6:EA:102:SER:O	6:EA:104:GLU:N	2.38	0.56
1:AK:69:ALA:O	1:AW:323:LYS:NZ	2.26	0.56
1:AS:79:ILE:O	1:CW:147:ALA:N	2.39	0.56
1:BB:88:ARG:NH2	1:BC:67:SER:OG	2.37	0.56
1:DC:91:VAL:HG12	1:DC:324:TRP:O	2.06	0.56
1:AI:298:ARG:O	1:AI:299:SER:OG	2.17	0.56
1:BI:92:ARG:NE	1:DK:6:LEU:CG	2.67	0.56
1:BI:96:THR:N	1:DM:152:VAL:CG2	2.68	0.56
1:BJ:54:LEU:HD12	1:BV:27:SER:HB2	1.87	0.56
1:BL:39:LYS:HD3	1:BL:306:VAL:HG21	1.87	0.56
1:BN:171:CYS:SG	1:BN:340:SER:OG	2.53	0.56
1:BX:49:TRP:NE1	1:BX:334:HIS:O	2.38	0.56
1:CK:114:GLU:OE2	1:CK:312:ARG:NH2	2.39	0.56
1:DD:23:ILE:HD11	1:DE:52:ASP:HB2	1.87	0.56
1:DE:52:ASP:OD1	1:DE:53:ALA:N	2.39	0.56
1:DF:258:ARG:NH1	1:DF:267:ILE:O	2.38	0.56
2:DT:17:TYR:C	2:DT:19:ARG:H	2.08	0.56
3:DU:230:ASN:ND2	7:EE:369:ASN:HD21	2.03	0.56
1:AE:220:ASP:OD1	1:AE:221:MET:N	2.39	0.56
1:BF:215:GLU:O	1:BF:215:GLU:HG2	2.06	0.56
1:BU:92:ARG:NE	1:DP:6:LEU:N	2.52	0.56
1:CD:290:PRO:O	1:CD:291:THR:HG22	2.05	0.56
1:CI:263:THR:O	1:CI:263:THR:HG22	2.06	0.56
1:CW:83:VAL:O	1:CW:164:THR:HG22	2.06	0.56
1:CY:246:ALA:O	1:CY:258:ARG:NH1	2.36	0.56
1:DB:59:GLY:O	1:DB:61:ASN:ND2	2.39	0.56
2:DR:50:ASP:HB3	2:DT:60:SER:HB3	1.88	0.56
3:DV:124:ARG:NH1	5:DZ:28:TYR:HA	2.19	0.56
1:AD:88:ARG:NH2	1:AE:67:SER:OG	2.37	0.56
1:AL:9:SER:OG	1:AO:65:GLU:OE1	2.23	0.56
1:AM:92:ARG:HH11	1:CR:156:ASN:CG	2.05	0.56
1:AM:103:TYR:CD2	1:CN:16:LYS:CD	2.81	0.56
1:AW:99:THR:N	1:BN:308:ARG:HG3	2.18	0.56
1:AX:60:ASN:ND2	1:AX:60:ASN:O	2.37	0.56
1:BU:5:THR:N	1:DH:74:MET:N	2.44	0.56
1:BU:5:THR:CB	1:DH:73:GLU:O	2.17	0.56
1:BU:92:ARG:HG2	1:DP:6:LEU:O	2.05	0.56
1:BW:252:THR:HG23	1:BW:252:THR:O	2.05	0.56
1:DB:312:ARG:HH11	7:ED:31:MET:CG	2.16	0.56
1:DE:33:PHE:O	1:DE:37:THR:OG1	2.24	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AM:97:ALA:HB2	1:CN:9:SER:C	2.25	0.56
1:AY:290:PRO:O	1:AY:291:THR:HG22	2.06	0.56
1:BI:96:THR:OG1	1:DM:152:VAL:CB	2.54	0.56
1:CR:86:ILE:HG21	1:CR:88:ARG:NH2	2.20	0.56
1:CU:8:VAL:HG13	1:CU:8:VAL:O	2.06	0.56
1:CV:202:GLN:N	1:CV:217:ASP:OD2	2.39	0.56
1:DB:39:LYS:HG2	7:ED:16:VAL:CG1	2.27	0.56
1:DK:82:ASN:ND2	1:DK:332:LEU:O	2.39	0.56
3:DV:72:PRO:HG2	5:DY:28:TYR:CE2	2.41	0.56
5:DX:60:GLU:CD	5:DX:61:ARG:NH1	2.58	0.56
1:AA:290:PRO:O	1:AA:291:THR:HG22	2.06	0.56
1:AH:215:GLU:HG2	1:AH:215:GLU:O	2.06	0.56
1:AP:79:ILE:CD1	1:CR:147:ALA:HB2	1.96	0.56
1:CE:8:VAL:HG13	1:CE:8:VAL:O	2.06	0.56
7:ED:467:MET:HG3	7:EE:76:ILE:HD13	1.87	0.56
1:AM:100:THR:HA	1:CR:43:ASN:O	2.05	0.56
1:AS:142:TYR:CG	1:CW:144:THR:O	2.58	0.56
1:AW:105:ARG:HD3	1:BK:15:LYS:CG	2.10	0.56
1:BA:190:ASP:OD1	1:BA:192:ASP:N	2.39	0.56
1:BD:253:GLN:N	1:BD:253:GLN:OE1	2.38	0.56
1:BE:241:HIS:NE2	1:BE:291:THR:O	2.37	0.56
1:BE:260:PHE:O	1:BE:263:THR:OG1	2.21	0.56
1:BI:94:SER:OG	1:DM:152:VAL:CG2	2.54	0.56
1:BJ:9:SER:OG	1:BM:65:GLU:OE1	2.23	0.56
1:BS:103:TYR:O	1:BV:50:GLN:NE2	2.39	0.56
1:BU:8:VAL:CB	1:DP:95:ASP:HB3	2.36	0.56
1:CF:153:ALA:O	1:CF:158:THR:HG21	2.05	0.56
1:CM:192:ASP:OD1	1:CM:193:THR:N	2.39	0.56
1:DB:312:ARG:NH2	7:ED:27:GLY:HA3	2.20	0.56
1:DD:215:GLU:O	1:DD:217:ASP:N	2.38	0.56
1:DE:144:THR:HG22	1:DE:145:ASN:HD22	1.70	0.56
6:EC:101:LEU:O	6:EC:103:THR:CA	2.54	0.56
7:EE:21:ARG:HH22	7:EE:294:ILE:HG13	1.63	0.56
1:AP:12:GLN:HE22	1:CS:102:ASN:HD22	1.42	0.55
1:AW:100:THR:CG2	1:BN:84:THR:CB	2.84	0.55
1:BG:127:ILE:O	1:BG:130:SER:OG	2.22	0.55
1:BT:98:ASN:O	1:BT:98:ASN:ND2	2.38	0.55
1:BU:7:PHE:CE1	1:DP:97:ALA:HB3	2.41	0.55
1:BU:11:ASP:N	1:DP:96:THR:CB	2.30	0.55
1:BW:147:ALA:O	1:BW:149:ASP:N	2.39	0.55
1:CQ:157:ASP:O	1:CQ:158:THR:OG1	2.19	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CS:238:ASN:ND2	1:CS:239:PRO:O	2.36	0.55
1:CX:83:VAL:O	1:CX:164:THR:HG22	2.06	0.55
1:DJ:196:VAL:HG23	1:DJ:196:VAL:O	2.06	0.55
1:DQ:210:ASN:OD1	1:DQ:211:ILE:N	2.39	0.55
3:DV:35:ILE:HA	3:DV:38:PHE:HD2	1.71	0.55
3:DV:71:PRO:HB3	5:DX:5:ASN:ND2	2.21	0.55
3:DV:73:ASP:CB	5:DY:24:SER:HG	2.17	0.55
5:DY:81:LYS:N	5:DY:82:ASP:N	2.54	0.55
1:AN:39:LYS:HD3	1:AN:306:VAL:HG21	1.87	0.55
1:AP:318:ASP:O	1:CZ:68:ARG:HA	2.06	0.55
1:BN:125:GLU:OE2	1:BN:286:ASN:ND2	2.39	0.55
1:CG:267:ILE:HD12	1:CK:262:ASN:HB3	1.88	0.55
1:CK:192:ASP:OD1	1:CK:193:THR:N	2.39	0.55
1:DB:21:ASN:OD1	7:EE:38:ARG:NH1	2.34	0.55
1:DO:138:LEU:HD23	1:DO:138:LEU:H	1.71	0.55
7:ED:211:ASP:HB2	7:EE:276:ILE:HG23	1.89	0.55
7:EE:383:ASP:O	7:EE:384:ARG:C	2.45	0.55
1:AC:190:ASP:OD1	1:AC:192:ASP:N	2.39	0.55
1:AK:145:ASN:CB	1:BN:142:TYR:O	2.40	0.55
1:AS:315:LEU:HA	1:CS:320:SER:CB	2.33	0.55
1:AW:4:PRO:HD3	1:BN:76:PRO:N	2.20	0.55
1:AW:6:LEU:HA	1:BK:92:ARG:O	2.06	0.55
1:BI:92:ARG:CD	1:DK:6:LEU:N	2.68	0.55
1:BI:93:VAL:HG12	1:DK:6:LEU:CD1	2.36	0.55
1:BN:275:ASP:OD1	1:BN:279:GLN:N	2.39	0.55
1:CQ:124:LEU:HD13	1:CQ:330:VAL:HG21	1.88	0.55
1:CV:63:HIS:NE2	1:CV:70:GLU:OE2	2.39	0.55
1:DC:143:LEU:HG	3:DV:84:LYS:HE2	1.86	0.55
5:DY:44:LEU:O	5:DY:48:LYS:HG3	2.06	0.55
6:EB:94:ILE:O	6:EB:95:GLN:C	2.45	0.55
1:AP:7:PHE:CE1	1:CW:75:LYS:O	2.59	0.55
1:AS:44:GLN:HE21	1:CS:102:ASN:N	2.04	0.55
1:BI:145:ASN:HB3	1:DP:19:PHE:HE2	1.68	0.55
1:BI:262:ASN:O	1:BI:262:ASN:ND2	2.40	0.55
1:BU:103:TYR:CZ	1:DP:16:LYS:O	2.58	0.55
1:BY:214:ASP:OD2	1:BY:217:ASP:N	2.39	0.55
1:BZ:200:VAL:HG12	1:BZ:344:PHE:HB2	1.88	0.55
1:CI:31:THR:HG23	1:CI:31:THR:O	2.06	0.55
1:DB:23:ILE:HG22	1:DC:50:GLN:HG3	1.88	0.55
5:DX:78:GLN:OE1	5:DZ:81:LYS:N	2.40	0.55
1:AH:40:GLU:OE1	1:AH:333:ARG:NH1	2.38	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AO:92:ARG:NH1	1:AR:71:ASP:OD2	2.40	0.55
1:BE:125:GLU:OE2	1:BE:286:ASN:ND2	2.38	0.55
1:BI:13:ASN:CG	1:DM:76:PRO:CG	2.72	0.55
1:BU:102:ASN:N	1:DH:43:ASN:HB3	2.21	0.55
1:CH:230:SER:OG	1:CH:339:ALA:O	2.13	0.55
1:CQ:45:THR:OG1	1:CQ:162:ARG:NH2	2.39	0.55
1:DC:131:GLY:O	1:DC:180:VAL:HG23	2.06	0.55
1:DG:108:GLU:OE1	1:DG:108:GLU:N	2.39	0.55
1:DN:290:PRO:O	1:DN:291:THR:OG1	2.21	0.55
2:DR:19:ARG:HD2	2:DR:22:ASP:HB2	1.89	0.55
3:DU:35:ILE:HA	3:DU:38:PHE:HD2	1.71	0.55
3:DV:72:PRO:CD	5:DY:28:TYR:O	2.54	0.55
1:AI:71:ASP:OD2	1:AL:92:ARG:NE	2.40	0.55
1:AO:262:ASN:OD1	1:AR:267:ILE:HD12	2.06	0.55
1:BC:220:ASP:OD1	1:BC:221:MET:N	2.39	0.55
1:BM:262:ASN:OD1	1:BP:267:ILE:HD12	2.06	0.55
1:BS:215:GLU:HG3	1:BS:248:LEU:CD2	2.37	0.55
1:DA:48:SER:OG	1:DA:80:LYS:O	2.19	0.55
1:DB:64:VAL:HG12	1:DF:160:ALA:CB	2.37	0.55
2:DR:25:TYR:OH	4:DW:848:ASP:HA	2.06	0.55
1:AI:127:ILE:O	1:AI:130:SER:OG	2.22	0.55
1:AK:44:GLN:NE2	1:BK:101:ALA:O	2.39	0.55
1:AP:3:ASN:N	1:CW:56:SER:OG	2.38	0.55
1:AP:8:VAL:C	1:CS:96:THR:CB	2.75	0.55
1:CB:33:PHE:O	1:CB:37:THR:HG23	2.06	0.55
1:CK:215:GLU:OE1	1:CK:248:LEU:HD13	2.07	0.55
1:DB:311:LYS:HZ1	7:ED:26:GLN:HE22	1.53	0.55
2:DR:25:TYR:CE1	4:DW:849:ASP:OD2	2.60	0.55
3:DV:44:LYS:NZ	3:DV:162:GLU:OE1	2.40	0.55
3:DV:59:VAL:CA	5:DX:3:VAL:HG23	2.34	0.55
1:AR:275:ASP:OD1	1:AR:279:GLN:N	2.39	0.55
1:BA:127:ILE:O	1:BA:130:SER:OG	2.16	0.55
1:BI:94:SER:CB	1:DM:153:ALA:H	2.19	0.55
1:BK:131:GLY:O	1:BK:181:VAL:HG23	2.07	0.55
1:BU:4:PRO:HA	1:DH:74:MET:HB2	0.61	0.55
1:BW:192:ASP:OD1	1:BW:193:THR:N	2.36	0.55
1:CE:57:VAL:HG21	1:CU:122:ARG:HE	1.72	0.55
1:CS:93:VAL:HG13	1:CS:321:TYR:OH	2.06	0.55
1:CU:303:THR:OG1	1:CU:333:ARG:NH1	2.40	0.55
1:CX:82:ASN:OD1	1:CX:83:VAL:N	2.39	0.55
1:DE:96:THR:OG1	1:DP:65:GLU:OE2	2.16	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DO:8:VAL:HG12	1:DO:9:SER:N	2.22	0.55
5:DX:84:ASP:HA	5:DX:87:LEU:HD12	1.87	0.55
7:ED:383:ASP:O	7:ED:384:ARG:C	2.44	0.55
1:AD:96:THR:O	1:AD:99:THR:OG1	2.25	0.55
1:AH:298:ARG:O	1:AH:299:SER:OG	2.16	0.55
1:AK:262:ASN:O	1:AK:262:ASN:ND2	2.40	0.55
1:AM:131:GLY:O	1:AM:181:VAL:HG23	2.07	0.55
1:BC:145:ASN:O	1:BC:145:ASN:ND2	2.40	0.55
1:CE:308:ARG:NH1	1:CY:96:THR:OG1	2.39	0.55
1:CF:202:GLN:N	1:CF:217:ASP:OD2	2.40	0.55
1:CI:196:VAL:HG23	1:CI:196:VAL:O	2.07	0.55
1:CS:134:ARG:O	1:CS:135:THR:OG1	2.17	0.55
1:CV:31:THR:HB	1:CV:34:VAL:HG12	1.89	0.55
1:DD:169:PHE:O	1:DD:173:HIS:ND1	2.39	0.55
1:AE:145:ASN:ND2	1:AE:145:ASN:O	2.40	0.55
1:AF:253:GLN:OE1	1:AF:253:GLN:N	2.38	0.55
1:AU:215:GLU:HG3	1:AU:248:LEU:CD2	2.37	0.55
1:BI:72:GLY:C	1:DP:3:ASN:CG	2.66	0.55
1:BI:145:ASN:CB	1:DP:19:PHE:HE2	2.13	0.55
1:CF:97:ALA:O	1:CF:100:THR:OG1	2.25	0.55
1:CT:203:ASN:ND2	1:CT:212:GLY:O	2.40	0.55
1:CY:195:ALA:HB2	1:CY:227:THR:HG23	1.89	0.55
1:CZ:206:ASN:ND2	1:CZ:215:GLU:OE2	2.40	0.55
1:DH:226:TYR:OH	1:DP:285:VAL:O	2.25	0.55
1:DN:257:LYS:O	1:DN:272:SER:OG	2.25	0.55
1:BC:206:ASN:OD1	1:BC:214:ASP:HB3	2.07	0.54
1:BL:74:MET:N	1:BL:74:MET:SD	2.80	0.54
1:BX:33:PHE:O	1:BX:37:THR:HG23	2.06	0.54
1:BY:64:VAL:HG13	1:CC:160:ALA:HA	1.89	0.54
1:BY:82:ASN:ND2	1:BY:332:LEU:O	2.36	0.54
1:CC:167:PHE:N	1:CC:169:PHE:O	2.35	0.54
1:CN:237:ILE:HD11	1:CN:241:HIS:CB	2.37	0.54
1:CR:264:LYS:O	1:CV:270:VAL:HG13	2.06	0.54
1:DB:144:THR:O	1:DB:148:ALA:N	2.40	0.54
1:DG:198:VAL:HG22	1:DG:342:VAL:HG12	1.89	0.54
1:DG:266:PHE:CE2	1:DK:248:LEU:HD23	2.42	0.54
3:DU:138:TYR:CD1	3:DU:145:LEU:HD21	2.35	0.54
1:AM:92:ARG:NH1	1:CR:156:ASN:HD21	1.70	0.54
1:AP:125:GLU:OE2	1:AP:286:ASN:ND2	2.39	0.54
1:BB:96:THR:O	1:BB:99:THR:OG1	2.25	0.54
1:BF:250:GLU:OE2	1:BL:251:ASN:ND2	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BI:91:VAL:CG1	1:DK:7:PHE:HD1	2.19	0.54
1:BU:93:VAL:CA	1:DP:7:PHE:O	2.53	0.54
1:CD:102:ASN:OD1	1:CD:105:ARG:NH1	2.41	0.54
1:CM:97:ALA:O	1:CM:100:THR:OG1	2.24	0.54
1:CW:50:GLN:N	1:CW:50:GLN:OE1	2.40	0.54
1:DH:192:ASP:OD1	1:DH:193:THR:N	2.41	0.54
1:DN:44:GLN:O	1:DN:307:LEU:HD21	2.07	0.54
3:DV:12:THR:CG2	3:DV:168:ASP:O	2.54	0.54
4:DW:240:THR:CB	4:DW:276:ASN:ND2	2.70	0.54
7:ED:299:LEU:HD22	7:ED:303:LYS:HG3	1.88	0.54
7:ED:419:LEU:HD21	7:EE:363:TYR:CD2	2.42	0.54
7:ED:517:ASN:C	7:EE:112:ARG:HH22	2.08	0.54
1:AP:275:ASP:OD1	1:AP:279:GLN:N	2.39	0.54
1:BI:320:SER:N	1:DO:66:GLY:O	2.40	0.54
1:BP:249:GLN:OE1	1:BP:249:GLN:N	2.41	0.54
1:BU:13:ASN:CB	1:DP:105:ARG:NH1	2.70	0.54
1:BX:85:GLN:HB2	1:BX:164:THR:HG23	1.89	0.54
3:DU:83:ALA:O	5:DZ:25:ILE:CA	2.56	0.54
3:DU:212:MET:SD	3:DV:48:ARG:HD3	2.47	0.54
5:DY:73:ILE:CA	5:DY:76:LEU:HB2	2.36	0.54
1:AM:7:PHE:N	1:CR:74:MET:SD	2.81	0.54
1:AR:249:GLN:OE1	1:AR:249:GLN:N	2.40	0.54
1:AS:73:GLU:HG2	1:CS:3:ASN:HB3	1.88	0.54
1:AS:213:PHE:HE1	1:AS:218:ILE:HD11	1.72	0.54
1:BI:140:ASP:O	1:DH:144:THR:HB	2.08	0.54
1:BQ:70:GLU:N	1:BQ:70:GLU:OE2	2.41	0.54
1:BQ:220:ASP:OD1	1:BQ:221:MET:N	2.40	0.54
1:BX:124:LEU:HD11	1:BX:128:LEU:HD11	1.89	0.54
1:CI:257:LYS:NZ	1:CI:278:GLY:O	2.37	0.54
1:CW:246:ALA:O	1:CW:258:ARG:NH1	2.39	0.54
1:DA:132:GLN:O	1:DA:166:ALA:N	2.40	0.54
1:DG:306:VAL:HG12	1:DG:330:VAL:HG12	1.87	0.54
5:DX:68:LEU:CD2	5:DY:70:LYS:CE	2.81	0.54
1:AF:196:VAL:N	1:AF:224:GLN:OE1	2.39	0.54
1:AJ:271:ASN:OD1	1:AJ:272:SER:N	2.41	0.54
1:AP:88:ARG:NH2	1:AS:64:VAL:O	2.39	0.54
1:AP:101:ALA:CB	1:CW:43:ASN:N	2.56	0.54
1:AP:108:GLU:HB3	1:CS:7:PHE:HE1	1.48	0.54
1:AS:143:LEU:HG	1:CW:144:THR:H	1.71	0.54
1:AS:220:ASP:OD1	1:AS:221:MET:N	2.40	0.54
1:AY:218:ILE:O	1:AY:222:THR:HG23	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BG:71:ASP:OD2	1:BJ:92:ARG:NE	2.40	0.54
1:BX:82:ASN:OD1	1:BX:165:GLY:N	2.41	0.54
1:CD:196:VAL:N	1:CD:224:GLN:OE1	2.39	0.54
1:CO:30:ASP:OD1	1:CO:31:THR:N	2.39	0.54
1:DB:171:CYS:SG	1:DB:342:VAL:HG23	2.46	0.54
1:DD:192:ASP:OD1	1:DD:193:THR:HG22	2.08	0.54
1:DG:49:TRP:NE1	1:DG:334:HIS:O	2.41	0.54
1:DH:108:GLU:N	1:DH:108:GLU:OE1	2.41	0.54
1:DJ:136:ASP:OD1	1:DJ:137:VAL:N	2.40	0.54
3:DU:195:ASP:O	3:DU:198:VAL:HB	2.07	0.54
1:AW:3:ASN:N	1:BN:75:LYS:HG3	2.20	0.54
1:BA:60:ASN:ND2	1:BA:60:ASN:O	2.41	0.54
1:BM:254:GLY:O	1:BM:255:SER:OG	2.15	0.54
1:BY:334:HIS:NE2	1:BY:336:ASN:O	2.41	0.54
1:CB:144:THR:HG23	1:CB:144:THR:O	2.08	0.54
1:CC:54:LEU:HD22	1:CC:75:LYS:HB3	1.89	0.54
1:CT:82:ASN:ND2	1:CT:164:THR:O	2.41	0.54
1:CZ:97:ALA:O	1:CZ:100:THR:OG1	2.25	0.54
7:ED:343:GLN:HE21	7:EE:65:TRP:HE1	1.54	0.54
1:AN:74:MET:N	1:AN:74:MET:SD	2.80	0.54
1:AO:254:GLY:O	1:AO:255:SER:OG	2.15	0.54
1:AP:99:THR:OG1	1:CW:307:LEU:HD22	1.91	0.54
1:AP:108:GLU:CG	1:CS:12:GLN:N	2.69	0.54
1:AS:70:GLU:N	1:AS:70:GLU:OE2	2.41	0.54
1:BD:196:VAL:N	1:BD:224:GLN:OE1	2.39	0.54
1:BM:92:ARG:NH1	1:BP:71:ASP:OD2	2.40	0.54
1:BT:317:LYS:NZ	1:BT:319:GLY:O	2.30	0.54
1:BU:318:ASP:HA	1:DH:315:LEU:HA	1.90	0.54
1:DI:83:VAL:HG11	1:DI:136:ASP:OD2	2.08	0.54
1:DO:6:LEU:O	1:DO:8:VAL:HG23	2.08	0.54
3:DU:89:PHE:CD1	3:DU:116:VAL:HG11	2.43	0.54
7:ED:419:LEU:HD21	7:EE:363:TYR:CZ	2.39	0.54
1:AP:13:ASN:HB2	1:CS:105:ARG:NH2	2.22	0.54
1:AW:3:ASN:N	1:BN:76:PRO:O	2.36	0.54
1:AW:7:PHE:HB3	1:BK:93:VAL:CB	2.37	0.54
1:BP:275:ASP:OD1	1:BP:279:GLN:N	2.39	0.54
1:BQ:143:LEU:HD12	1:BQ:144:THR:N	2.22	0.54
1:DH:291:THR:O	1:DH:291:THR:HG22	2.08	0.54
1:DQ:8:VAL:HG22	1:DQ:9:SER:H	1.73	0.54
3:DV:60:TYR:OH	5:DX:2:ILE:HA	2.07	0.54
3:DV:67:VAL:O	3:DV:68:ALA:C	2.46	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:EE:244:ILE:O	7:EE:244:ILE:CG2	2.55	0.54
1:AS:146:SER:O	1:CW:79:ILE:HB	2.08	0.54
1:AW:100:THR:HG21	1:BN:84:THR:OG1	2.07	0.54
1:AW:104:GLY:CA	1:BK:16:LYS:CE	2.54	0.54
1:AX:105:ARG:NH2	1:AX:108:GLU:OE2	2.41	0.54
1:BI:144:THR:HA	1:DH:143:LEU:CA	2.37	0.54
1:BI:316:ALA:HB2	1:DM:317:LYS:O	2.08	0.54
1:BQ:213:PHE:HE1	1:BQ:218:ILE:HD11	1.72	0.54
1:BU:4:PRO:HB2	1:DP:94:SER:OG	2.08	0.54
1:BV:196:VAL:N	1:BV:224:GLN:OE1	2.38	0.54
1:CP:64:VAL:HG12	1:CP:64:VAL:O	2.07	0.54
1:CT:124:LEU:HD13	1:CT:330:VAL:HG21	1.90	0.54
1:DP:306:VAL:HA	1:DP:330:VAL:HG12	1.89	0.54
1:AA:162:ARG:NH1	1:AA:329:GLU:OE2	2.41	0.54
1:AY:162:ARG:NH1	1:AY:329:GLU:OE2	2.40	0.54
1:BU:4:PRO:CB	1:DH:74:MET:HB2	2.28	0.54
1:CO:83:VAL:HG12	1:CO:84:THR:N	2.23	0.54
1:CV:97:ALA:O	1:CV:100:THR:OG1	2.26	0.54
1:DD:124:LEU:HD11	1:DD:330:VAL:CG2	2.38	0.54
1:DD:332:LEU:HD23	1:DD:332:LEU:H	1.73	0.54
3:DU:153:ILE:HD11	5:DZ:27:ALA:HB1	1.89	0.54
4:DW:849:ASP:O	4:DW:851:SER:N	2.41	0.54
5:DY:81:LYS:CB	5:DZ:80:PHE:HZ	2.20	0.54
7:ED:335:PRO:C	7:EE:125:GLN:HE22	2.10	0.54
1:AA:218:ILE:O	1:AA:222:THR:HG23	2.08	0.53
1:BF:144:THR:C	1:DM:144:THR:HB	2.28	0.53
1:BI:213:PHE:HB3	1:BI:345:THR:HG22	1.90	0.53
1:BI:214:ASP:HB3	1:BI:217:ASP:HB2	1.90	0.53
1:BN:88:ARG:NH2	1:BQ:64:VAL:O	2.39	0.53
1:BR:231:GLU:OE1	1:BR:298:ARG:NH1	2.41	0.53
1:BV:105:ARG:NH2	1:BV:108:GLU:OE2	2.41	0.53
1:BZ:171:CYS:SG	1:BZ:342:VAL:HG21	2.49	0.53
1:CA:118:LYS:HB2	1:CB:54:LEU:HD21	1.88	0.53
1:CV:249:GLN:OE1	1:CV:258:ARG:NH1	2.41	0.53
1:DL:64:VAL:O	1:DL:67:SER:OG	2.26	0.53
3:DU:126:ILE:HG22	3:DU:127:PHE:N	2.22	0.53
3:DV:138:TYR:O	3:DV:139:PRO:C	2.45	0.53
4:DW:213:ILE:HD11	4:DW:215:LEU:HD21	1.89	0.53
1:AE:206:ASN:OD1	1:AE:214:ASP:HB3	2.08	0.53
1:AH:250:GLU:OE2	1:AN:251:ASN:ND2	2.40	0.53
1:AP:4:PRO:O	1:CW:74:MET:HG3	2.03	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BI:145:ASN:O	1:DP:19:PHE:CD1	2.61	0.53
1:BU:12:GLN:CB	1:DP:97:ALA:HB2	2.39	0.53
1:BU:103:TYR:O	1:DP:16:LYS:CD	2.53	0.53
1:BX:82:ASN:ND2	1:BX:332:LEU:O	2.38	0.53
1:CE:275:ASP:OD1	1:CE:279:GLN:N	2.40	0.53
1:CF:87:LEU:HB2	1:CF:120:ILE:HD11	1.90	0.53
1:CG:99:THR:N	1:CG:108:GLU:OE2	2.42	0.53
1:CN:97:ALA:O	1:CN:100:THR:OG1	2.25	0.53
1:CU:70:GLU:N	1:CU:70:GLU:OE1	2.41	0.53
1:DB:311:LYS:CD	7:ED:26:GLN:OE1	2.55	0.53
1:DL:200:VAL:HG22	1:DL:344:PHE:HB2	1.89	0.53
2:DR:13:LEU:HD11	2:DR:37:THR:HG21	1.89	0.53
2:DS:23:TYR:CB	2:DS:25:TYR:HD1	2.22	0.53
5:DY:90:LEU:O	5:DY:91:ILE:O	2.27	0.53
1:AG:213:PHE:HB2	1:AG:218:ILE:HD11	1.90	0.53
1:AK:308:ARG:HH22	1:BK:96:THR:HG1	1.51	0.53
1:AQ:88:ARG:NH1	1:AQ:327:GLU:OE2	2.42	0.53
1:CA:44:GLN:O	1:CA:46:ILE:HG22	2.07	0.53
1:CJ:254:GLY:O	1:CY:257:LYS:NZ	2.38	0.53
3:DU:26:ARG:NE	4:DW:973:ASN:CG	2.62	0.53
7:EE:299:LEU:HD22	7:EE:303:LYS:HG3	1.88	0.53
1:AC:60:ASN:O	1:AC:60:ASN:ND2	2.41	0.53
1:AJ:30:ASP:O	1:AJ:31:THR:OG1	2.25	0.53
1:AP:105:ARG:NH1	1:AP:107:ARG:O	2.41	0.53
1:AS:44:GLN:NE2	1:CS:102:ASN:CA	2.51	0.53
1:BF:298:ARG:O	1:BF:299:SER:OG	2.16	0.53
1:BO:88:ARG:NH1	1:BO:327:GLU:OE2	2.42	0.53
1:BW:315:LEU:HD23	1:BY:318:ASP:OD2	2.08	0.53
1:CC:199:LYS:NZ	1:CC:220:ASP:OD2	2.38	0.53
1:CK:215:GLU:HG3	1:CK:248:LEU:HD13	1.90	0.53
1:CL:33:PHE:O	1:CL:37:THR:HG23	2.08	0.53
1:CU:182:ASP:OD1	1:CU:183:LYS:N	2.42	0.53
1:DD:224:GLN:O	1:DD:227:THR:OG1	2.26	0.53
1:DJ:269:GLU:OE1	1:DL:258:ARG:N	2.41	0.53
1:AM:97:ALA:HB3	1:CN:9:SER:HB2	1.66	0.53
1:BI:17:LEU:CD1	1:DM:143:LEU:C	2.68	0.53
1:BI:97:ALA:HB1	1:DK:11:ASP:N	2.24	0.53
1:BI:103:TYR:N	1:DK:13:ASN:O	2.42	0.53
1:BI:147:ALA:CA	1:DH:143:LEU:CD1	2.84	0.53
1:BN:105:ARG:NH1	1:BN:107:ARG:O	2.41	0.53
1:DH:214:ASP:OD1	1:DH:215:GLU:N	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DK:17:LEU:O	1:DK:17:LEU:HD23	2.08	0.53
2:DR:20:ASP:CA	4:DW:856:VAL:HG12	2.32	0.53
3:DV:195:ASP:O	3:DV:198:VAL:HB	2.08	0.53
1:BO:60:ASN:ND2	1:BO:60:ASN:O	2.41	0.53
1:BX:215:GLU:OE2	1:BX:256:ARG:NH1	2.41	0.53
1:CJ:208:THR:HG22	1:CJ:348:GLY:O	2.09	0.53
1:CL:122:ARG:NH1	1:CP:55:ALA:O	2.42	0.53
1:CT:288:TRP:CZ3	1:CX:57:VAL:HG11	2.44	0.53
1:CU:45:THR:OG1	1:CU:162:ARG:NH2	2.42	0.53
1:CY:275:ASP:OD1	1:CY:279:GLN:N	2.41	0.53
1:DG:70:GLU:O	1:DI:90:VAL:HG11	2.09	0.53
5:DX:67:VAL:O	5:DX:71:GLN:HG2	2.08	0.53
7:ED:212:GLU:OE2	7:EE:270:GLN:HG2	2.02	0.53
1:AK:213:PHE:HB3	1:AK:345:THR:HG22	1.91	0.53
1:AQ:60:ASN:O	1:AQ:60:ASN:ND2	2.41	0.53
1:AR:90:VAL:HG11	1:AU:69:ALA:HB2	1.91	0.53
1:BW:25:VAL:HG23	1:BW:25:VAL:O	2.09	0.53
1:BW:54:LEU:HD23	1:BW:55:ALA:O	2.09	0.53
1:BX:131:GLY:CA	1:BX:180:VAL:HG13	2.39	0.53
1:BX:241:HIS:NE2	1:BX:291:THR:O	2.40	0.53
1:CU:308:ARG:NH2	1:CU:327:GLU:OE1	2.41	0.53
3:DU:171:THR:HG23	3:DU:172:ILE:N	2.23	0.53
7:ED:376:LYS:NZ	7:ED:408:PRO:HD3	2.24	0.53
1:AS:73:GLU:CG	1:CS:3:ASN:CB	2.87	0.53
1:BB:290:PRO:O	1:BB:291:THR:HG22	2.09	0.53
1:CE:125:GLU:OE2	1:CE:286:ASN:ND2	2.42	0.53
1:CM:82:ASN:OD1	1:CM:83:VAL:N	2.38	0.53
1:CS:218:ILE:O	1:CS:222:THR:HG23	2.09	0.53
3:DU:83:ALA:HA	5:DZ:25:ILE:O	2.09	0.53
1:AD:290:PRO:O	1:AD:291:THR:HG22	2.09	0.53
1:AK:214:ASP:HB3	1:AK:217:ASP:HB2	1.90	0.53
1:AP:141:GLN:HE22	1:CR:143:LEU:H	1.57	0.53
1:AP:141:GLN:HB3	1:CR:143:LEU:O	1.95	0.53
1:AW:108:GLU:HB2	1:BK:7:PHE:HE2	1.63	0.53
1:BL:230:SER:OG	1:BL:339:ALA:O	2.17	0.53
1:BS:33:PHE:N	1:BS:125:GLU:OE2	2.42	0.53
1:BU:12:GLN:HB2	1:DP:97:ALA:N	2.21	0.53
1:BU:14:GLY:C	1:DP:102:ASN:OD1	2.47	0.53
1:BU:16:LYS:CD	1:DP:102:ASN:OD1	2.57	0.53
1:BU:93:VAL:HA	1:DP:7:PHE:HB3	1.90	0.53
1:BU:100:THR:HG23	1:DH:307:LEU:CB	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CF:237:ILE:HD11	1:CF:241:HIS:CB	2.38	0.53
1:CK:255:SER:OG	1:CZ:250:GLU:O	2.23	0.53
1:CL:298:ARG:NH1	1:CL:301:ASP:OD1	2.42	0.53
1:CN:237:ILE:HD11	1:CN:241:HIS:HB2	1.89	0.53
1:CO:258:ARG:NH2	1:CO:267:ILE:O	2.42	0.53
1:DL:298:ARG:O	1:DL:299:SER:OG	2.20	0.53
1:DN:157:ASP:O	1:DN:158:THR:OG1	2.22	0.53
2:DS:51:ILE:HD11	2:DT:42:PHE:HA	1.90	0.53
3:DU:83:ALA:CA	5:DZ:25:ILE:O	2.57	0.53
3:DV:29:ASP:HA	3:DV:32:VAL:HG22	1.91	0.53
1:AO:203:ASN:O	1:AO:349:LYS:NZ	2.40	0.53
1:AT:231:GLU:OE1	1:AT:298:ARG:NH1	2.41	0.53
1:BF:25:VAL:HG13	1:BL:53:ALA:HA	1.91	0.53
1:BL:33:PHE:HE1	1:BL:37:THR:HG21	1.73	0.53
1:BR:249:GLN:OE1	1:BR:249:GLN:N	2.42	0.53
1:CW:88:ARG:NE	1:CW:327:GLU:OE2	2.38	0.53
1:CY:31:THR:HB	1:CY:34:VAL:HG12	1.91	0.53
1:DB:16:LYS:HG3	3:DV:234:ARG:HG2	1.88	0.53
6:EA:102:SER:O	6:EA:104:GLU:CA	2.56	0.53
7:EE:376:LYS:NZ	7:EE:408:PRO:HD3	2.24	0.53
1:AG:125:GLU:OE2	1:AG:286:ASN:ND2	2.38	0.52
1:AU:33:PHE:N	1:AU:125:GLU:OE2	2.42	0.52
1:BH:144:THR:HG22	1:BP:144:THR:HA	1.91	0.52
1:BI:7:PHE:HZ	1:DM:69:ALA:HB1	1.74	0.52
1:CQ:224:GLN:O	1:CQ:227:THR:OG1	2.27	0.52
1:DA:186:ASN:OD1	1:DA:187:GLY:N	2.42	0.52
2:DT:21:ARG:O	4:DW:838:ILE:HG23	2.09	0.52
2:DT:59:MET:HA	2:DT:62:LYS:HG2	1.91	0.52
3:DV:32:VAL:O	3:DV:35:ILE:N	2.41	0.52
3:DV:55:LEU:C	3:DV:55:LEU:HD12	2.30	0.52
5:DX:71:GLN:HA	5:DZ:77:LYS:HE3	1.91	0.52
1:AP:92:ARG:CB	1:CS:6:LEU:CA	2.84	0.52
1:AV:317:LYS:NZ	1:AV:319:GLY:O	2.30	0.52
1:BU:231:GLU:OE1	1:BU:298:ARG:NH2	2.42	0.52
1:BX:69:ALA:HB1	1:CB:90:VAL:HG21	1.91	0.52
3:DV:60:TYR:CD1	5:DX:3:VAL:N	2.77	0.52
3:DV:71:PRO:HB3	5:DX:5:ASN:HD21	1.73	0.52
3:DV:158:ALA:CB	5:DY:24:SER:HB2	2.38	0.52
1:BI:298:ARG:NH1	1:BI:301:ASP:OD1	2.42	0.52
1:BT:95:ASP:O	1:BT:99:THR:OG1	2.28	0.52
1:BU:92:ARG:CZ	1:DP:6:LEU:N	2.70	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BV:215:GLU:O	1:BV:216:ALA:HB3	2.10	0.52
1:BZ:240:ALA:O	1:BZ:243:LYS:NZ	2.39	0.52
1:CA:237:ILE:HG22	1:CA:285:VAL:HA	1.91	0.52
1:CE:263:THR:HG22	1:CE:263:THR:O	2.10	0.52
1:CG:180:VAL:HG22	1:CG:181:VAL:H	1.74	0.52
1:CT:196:VAL:N	1:CT:224:GLN:OE1	2.42	0.52
1:CU:262:ASN:OD1	1:CU:263:THR:N	2.42	0.52
1:DE:13:ASN:ND2	1:DN:77:THR:O	2.43	0.52
2:DT:17:TYR:CG	2:DT:18:PRO:N	2.77	0.52
3:DV:175:ILE:CD1	5:DY:15:VAL:CA	2.70	0.52
7:ED:557:GLN:NE2	7:EE:579:LEU:H	1.97	0.52
1:AF:230:SER:OG	1:AF:339:ALA:O	2.22	0.52
1:AN:206:ASN:O	1:AN:349:LYS:N	2.43	0.52
1:AS:65:GLU:CA	1:CN:320:SER:OG	2.54	0.52
1:BI:17:LEU:H	1:DM:143:LEU:HD11	1.74	0.52
1:BU:96:THR:OG1	1:DP:9:SER:CB	2.53	0.52
1:BY:182:ASP:OD2	1:BY:185:LYS:NZ	2.40	0.52
1:CC:134:ARG:NH1	1:CC:168:GLN:OE1	2.43	0.52
1:CJ:205:SER:OG	1:CJ:214:ASP:OD2	2.28	0.52
1:CO:26:LEU:HD12	1:CS:336:ASN:HB3	1.90	0.52
1:CO:240:ALA:H	1:CS:223:LEU:HD11	1.75	0.52
1:CU:96:THR:HG22	1:CU:96:THR:O	2.10	0.52
1:DC:143:LEU:HB3	3:DV:84:LYS:CE	2.39	0.52
2:DS:32:ARG:NE	2:DT:15:PRO:O	2.37	0.52
3:DU:65:ASP:O	3:DU:67:VAL:HG13	2.10	0.52
5:DX:41:TRP:HB3	5:DZ:45:ALA:HB1	1.91	0.52
7:ED:244:ILE:O	7:ED:245:GLU:C	2.44	0.52
7:ED:611:SER:HB3	7:EE:606:ASN:ND2	2.25	0.52
7:EE:416:ILE:O	7:EE:417:ASP:C	2.46	0.52
1:BE:213:PHE:HB2	1:BE:218:ILE:HD11	1.91	0.52
1:BH:271:ASN:OD1	1:BH:272:SER:N	2.41	0.52
1:CM:213:PHE:CE1	1:CM:218:ILE:HD11	2.44	0.52
1:CP:236:MET:O	1:CP:294:VAL:HG13	2.10	0.52
1:DC:143:LEU:HB3	3:DV:84:LYS:HE3	1.90	0.52
1:DD:74:MET:N	1:DD:74:MET:SD	2.82	0.52
1:DG:298:ARG:O	1:DG:299:SER:OG	2.23	0.52
2:DT:80:VAL:O	2:DT:81:THR:OG1	2.23	0.52
3:DV:26:ARG:HD3	4:DW:967:HIS:CE1	2.43	0.52
1:AH:25:VAL:HG13	1:AN:53:ALA:HA	1.91	0.52
1:AS:44:GLN:CG	1:CS:101:ALA:N	2.65	0.52
1:BK:190:ASP:OD1	1:BK:192:ASP:N	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BL:206:ASN:O	1:BL:349:LYS:N	2.43	0.52
1:BU:222:THR:OG1	1:BU:275:ASP:OD1	2.12	0.52
1:CE:124:LEU:HD13	1:CE:330:VAL:HG21	1.91	0.52
1:CN:83:VAL:O	1:CN:164:THR:HG22	2.10	0.52
1:DH:298:ARG:O	1:DH:299:SER:OG	2.19	0.52
3:DV:55:LEU:HD12	3:DV:56:GLU:N	2.24	0.52
4:DW:748:ALA:HB2	6:EC:22:GLY:HA2	1.92	0.52
7:ED:628:GLU:HB3	7:EE:627:PHE:CE2	2.41	0.52
7:EE:239:PHE:CZ	7:EE:245:GLU:OE2	2.63	0.52
1:AV:190:ASP:OD1	1:AV:192:ASP:N	2.42	0.52
1:CS:250:GLU:OE2	1:CW:256:ARG:NH1	2.43	0.52
1:DD:94:SER:OG	1:DD:95:ASP:N	2.42	0.52
1:DI:187:GLY:N	1:DI:198:VAL:O	2.37	0.52
3:DU:3:MET:N	3:DU:4:PRO:CD	2.73	0.52
1:AK:298:ARG:NH1	1:AK:301:ASP:OD1	2.42	0.52
1:AP:92:ARG:NH2	1:CS:6:LEU:H	1.89	0.52
1:AU:220:ASP:OD1	1:AU:221:MET:N	2.43	0.52
1:BA:101:ALA:O	1:BJ:44:GLN:NE2	2.43	0.52
1:BL:224:GLN:O	1:BL:227:THR:OG1	2.26	0.52
1:BP:90:VAL:HG11	1:BS:69:ALA:HB2	1.91	0.52
1:BU:5:THR:N	1:DH:73:GLU:O	2.43	0.52
1:BX:186:ASN:OD1	1:BX:200:VAL:N	2.39	0.52
1:CF:198:VAL:HG22	1:CF:342:VAL:HB	1.92	0.52
1:DB:177:ALA:N	1:DB:180:VAL:O	2.39	0.52
1:DB:203:ASN:ND2	1:DB:210:ASN:O	2.43	0.52
3:DU:55:LEU:HD11	3:DU:157:TYR:HD2	1.74	0.52
1:AJ:144:THR:HG22	1:AR:144:THR:HA	1.91	0.52
1:AM:93:VAL:O	1:CN:8:VAL:CG1	2.53	0.52
1:AM:190:ASP:OD1	1:AM:192:ASP:N	2.43	0.52
1:AN:33:PHE:HE1	1:AN:37:THR:HG21	1.73	0.52
1:AT:249:GLN:N	1:AT:249:GLN:OE1	2.42	0.52
1:AV:213:PHE:O	1:AV:214:ASP:HB2	2.10	0.52
1:BT:190:ASP:OD1	1:BT:192:ASP:N	2.42	0.52
1:BU:5:THR:N	1:DH:73:GLU:C	2.63	0.52
1:CD:315:LEU:HD13	1:CD:324:TRP:HA	1.92	0.52
1:CG:33:PHE:O	1:CG:37:THR:HG23	2.09	0.52
1:CU:224:GLN:O	1:CU:227:THR:OG1	2.28	0.52
1:CU:263:THR:O	1:CU:263:THR:HG22	2.10	0.52
1:CV:82:ASN:ND2	1:CV:332:LEU:O	2.43	0.52
1:DG:138:LEU:HD13	1:DG:141:GLN:H	1.74	0.52
1:DI:306:VAL:HG12	1:DI:330:VAL:HG12	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DU:26:ARG:H	4:DW:973:ASN:ND2	2.07	0.52
3:DU:96:GLU:OE1	3:DU:97:ILE:N	2.43	0.52
3:DV:53:PRO:O	3:DV:55:LEU:N	2.43	0.52
1:AC:96:THR:O	1:AC:99:THR:OG1	2.28	0.52
1:AP:5:THR:HG21	1:CW:74:MET:CB	2.03	0.52
1:AP:316:ALA:HB2	1:CN:316:ALA:HB1	1.92	0.52
1:AP:321:TYR:CE2	1:CZ:68:ARG:NE	2.78	0.52
1:AW:105:ARG:CG	1:BK:15:LYS:HA	2.15	0.52
1:CA:88:ARG:NE	1:CA:327:GLU:OE1	2.38	0.52
1:CF:249:GLN:OE1	1:CF:258:ARG:NH1	2.43	0.52
1:CK:231:GLU:O	1:CK:232:ALA:HB3	2.10	0.52
1:DB:9:SER:O	1:DB:15:LYS:NZ	2.32	0.52
1:DJ:124:LEU:HA	1:DJ:127:ILE:HG22	1.91	0.52
3:DU:138:TYR:HD1	3:DU:145:LEU:HD21	1.70	0.52
1:AK:315:LEU:HD22	1:BK:317:LYS:HG2	1.92	0.51
1:AW:231:GLU:OE1	1:AW:298:ARG:NH2	2.42	0.51
1:CH:30:ASP:O	1:CH:31:THR:OG1	2.27	0.51
1:CT:5:THR:C	1:CT:6:LEU:HD23	2.30	0.51
1:DC:172:ALA:O	1:DC:198:VAL:HG21	2.10	0.51
1:DL:31:THR:HG22	1:DL:125:GLU:OE1	2.10	0.51
1:DQ:83:VAL:O	1:DQ:164:THR:HG22	2.10	0.51
3:DU:26:ARG:CB	4:DW:973:ASN:CG	2.63	0.51
3:DU:66:GLY:O	3:DU:127:PHE:N	2.43	0.51
5:DY:79:ASP:HA	5:DY:82:ASP:HB3	1.92	0.51
1:AK:145:ASN:OD1	1:BN:142:TYR:HD1	1.91	0.51
1:AP:321:TYR:CD2	1:CZ:68:ARG:NE	2.78	0.51
1:AS:154:GLY:C	1:CW:71:ASP:HA	2.31	0.51
1:AU:103:TYR:O	1:AX:50:GLN:NE2	2.39	0.51
1:BI:7:PHE:CZ	1:DM:69:ALA:O	2.64	0.51
1:BR:220:ASP:OD1	1:BR:221:MET:N	2.44	0.51
1:BU:3:ASN:CB	1:DP:115:LYS:HZ2	2.03	0.51
1:BX:132:GLN:OE1	1:BX:164:THR:N	2.43	0.51
1:BX:267:ILE:HD12	1:CB:262:ASN:HB3	1.90	0.51
1:DA:95:ASP:O	1:DA:96:THR:OG1	2.16	0.51
1:DD:170:LEU:HD12	1:DD:170:LEU:O	2.09	0.51
1:DL:291:THR:HG22	1:DL:291:THR:O	2.09	0.51
3:DU:230:ASN:ND2	7:EE:369:ASN:ND2	2.58	0.51
4:DW:301:VAL:CG2	4:DW:372:ARG:HG2	2.40	0.51
7:ED:372:TYR:CD2	7:EE:392:PRO:HG3	2.45	0.51
1:AI:215:GLU:HG2	1:AI:248:LEU:CD2	2.41	0.51
1:AN:142:TYR:O	1:AN:145:ASN:ND2	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AT:213:PHE:CZ	1:AT:294:VAL:HG21	2.46	0.51
1:AV:95:ASP:O	1:AV:99:THR:OG1	2.28	0.51
1:BS:220:ASP:OD1	1:BS:221:MET:N	2.43	0.51
1:BU:13:ASN:ND2	1:DH:77:THR:N	2.56	0.51
1:CE:197:THR:HG21	1:CE:338:TYR:HA	1.92	0.51
1:CG:290:PRO:O	1:CG:291:THR:HG22	2.10	0.51
1:CI:291:THR:O	1:CI:291:THR:HG22	2.09	0.51
1:CQ:307:LEU:HD22	1:CQ:329:GLU:OE1	2.10	0.51
1:AC:101:ALA:O	1:AL:44:GLN:NE2	2.43	0.51
1:AK:145:ASN:OD1	1:BN:142:TYR:CD1	2.63	0.51
1:AS:296:PHE:O	1:AS:341:GLY:N	2.40	0.51
1:AX:215:GLU:O	1:AX:216:ALA:HB3	2.10	0.51
1:BR:213:PHE:CZ	1:BR:294:VAL:HG21	2.46	0.51
1:BT:248:LEU:O	1:BT:256:ARG:NH2	2.43	0.51
1:CH:199:LYS:NZ	1:CH:220:ASP:OD2	2.39	0.51
1:CT:172:ALA:O	1:CT:198:VAL:HG21	2.11	0.51
1:DC:246:ALA:O	1:DC:258:ARG:NH1	2.42	0.51
3:DV:56:GLU:O	5:DY:21:THR:OG1	2.28	0.51
3:DV:70:ILE:HD12	3:DV:123:SER:HA	1.92	0.51
5:DY:12:VAL:HG13	5:DY:12:VAL:O	2.11	0.51
7:ED:458:MET:SD	7:EE:437:GLY:O	2.69	0.51
7:ED:507:VAL:O	7:ED:508:ASN:C	2.48	0.51
7:EE:507:VAL:O	7:EE:508:ASN:C	2.48	0.51
1:AS:74:MET:HB3	1:CW:154:GLY:O	1.58	0.51
1:AW:222:THR:OG1	1:AW:275:ASP:OD1	2.12	0.51
1:BE:234:ILE:HG23	1:BE:284:ILE:HD12	1.92	0.51
1:BG:215:GLU:HG2	1:BG:248:LEU:CD2	2.41	0.51
1:BW:161:ALA:O	1:BW:162:ARG:HG2	2.11	0.51
1:CY:8:VAL:HG13	1:CY:9:SER:N	2.26	0.51
1:DC:143:LEU:HG	3:DV:84:LYS:NZ	2.24	0.51
3:DV:131:ILE:HG22	3:DV:132:GLU:N	2.26	0.51
7:ED:625:THR:HG22	7:EE:624:ARG:HH12	1.73	0.51
7:ED:646:LYS:HB2	7:EE:644:GLN:CD	2.30	0.51
1:AO:192:ASP:OD1	1:AO:193:THR:N	2.44	0.51
1:AT:220:ASP:OD1	1:AT:221:MET:N	2.44	0.51
1:AY:256:ARG:NE	1:AZ:250:GLU:OE2	2.40	0.51
1:BI:74:MET:SD	1:DP:7:PHE:CB	2.80	0.51
1:BK:196:VAL:N	1:BK:224:GLN:OE1	2.43	0.51
1:BY:92:ARG:NH1	1:BZ:71:ASP:OD2	2.44	0.51
1:CG:203:ASN:OD1	1:CG:206:ASN:N	2.44	0.51
1:CL:49:TRP:NE1	1:CL:334:HIS:O	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DC:30:ASP:N	1:DC:30:ASP:OD1	2.42	0.51
3:DV:60:TYR:CZ	5:DX:2:ILE:CA	2.89	0.51
1:AP:7:PHE:CD2	1:CS:112:GLN:NE2	2.79	0.51
1:AS:154:GLY:O	1:CW:71:ASP:HA	2.10	0.51
1:AV:248:LEU:O	1:AV:256:ARG:NH2	2.43	0.51
1:BF:234:ILE:HG23	1:BF:284:ILE:HD12	1.93	0.51
1:BN:137:VAL:O	1:BN:137:VAL:HG22	2.11	0.51
1:BY:315:LEU:HG	1:BY:316:ALA:H	1.75	0.51
1:CO:250:GLU:OE2	1:CS:256:ARG:NH1	2.44	0.51
1:CQ:25:VAL:HG23	1:CQ:25:VAL:O	2.11	0.51
1:CV:82:ASN:OD1	1:CV:83:VAL:N	2.43	0.51
1:DK:248:LEU:O	1:DK:256:ARG:NH2	2.43	0.51
3:DU:137:TYR:HB3	3:DU:146:ILE:HG23	1.91	0.51
7:ED:372:TYR:CD2	7:EE:392:PRO:CG	2.94	0.51
1:AG:136:ASP:OD1	1:AG:137:VAL:N	2.44	0.51
1:AM:201:ALA:N	1:AM:344:PHE:O	2.43	0.51
1:AP:94:SER:HG	1:CZ:65:GLU:HB3	1.76	0.51
1:BF:65:GLU:OE2	1:DP:99:THR:CG2	2.59	0.51
1:BK:201:ALA:N	1:BK:344:PHE:O	2.43	0.51
1:BK:205:SER:OG	1:BK:214:ASP:OD1	2.26	0.51
1:BL:142:TYR:O	1:BL:145:ASN:ND2	2.43	0.51
1:BU:12:GLN:HB2	1:DP:97:ALA:HB2	1.93	0.51
1:CA:41:SER:OG	1:CA:42:ILE:N	2.44	0.51
1:CD:218:ILE:O	1:CD:222:THR:HG23	2.10	0.51
1:CQ:203:ASN:ND2	1:CQ:212:GLY:O	2.43	0.51
1:DD:187:GLY:H	1:DD:198:VAL:HG13	1.75	0.51
3:DU:224:SER:HB2	3:DV:90:GLN:HA	1.93	0.51
3:DV:53:PRO:N	3:DV:54:PRO:HD2	2.26	0.51
3:DV:192:VAL:CG2	4:DW:926:ASN:CG	2.79	0.51
7:ED:376:LYS:HG2	7:EE:397:GLU:HB2	1.91	0.51
1:AA:114:GLU:OE1	1:AA:114:GLU:N	2.44	0.51
1:AD:214:ASP:HB3	1:AD:217:ASP:OD1	2.11	0.51
1:AY:114:GLU:OE1	1:AY:114:GLU:N	2.44	0.51
1:BA:8:VAL:HG22	1:BA:9:SER:H	1.76	0.51
1:BI:71:ASP:N	1:DP:5:THR:OG1	2.44	0.51
1:BK:27:SER:OG	1:BN:192:ASP:OD2	2.29	0.51
1:BK:224:GLN:O	1:BK:227:THR:OG1	2.27	0.51
1:BW:184:THR:HG23	1:BW:185:LYS:H	1.75	0.51
1:CA:74:MET:SD	1:CA:74:MET:N	2.84	0.51
1:CG:149:ASP:N	1:CG:149:ASP:OD1	2.44	0.51
1:CH:253:GLN:NE2	1:CX:251:ASN:OD1	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DA:34:VAL:HG23	1:DA:125:GLU:OE1	2.11	0.51
1:DF:292:ASP:O	1:DF:345:THR:HG23	2.10	0.51
1:DJ:290:PRO:O	1:DJ:291:THR:OG1	2.22	0.51
2:DS:27:GLY:HA3	4:DW:847:TRP:HZ2	1.75	0.51
5:DY:70:LYS:O	5:DY:73:ILE:HG13	2.11	0.51
1:AC:8:VAL:HG22	1:AC:9:SER:H	1.76	0.51
1:AF:238:ASN:OD1	1:AF:240:ALA:N	2.39	0.51
1:AG:234:ILE:HG23	1:AG:284:ILE:HD12	1.92	0.51
1:AM:94:SER:OG	1:CV:65:GLU:HB2	2.10	0.51
1:AP:5:THR:HG23	1:CW:74:MET:CA	2.40	0.51
1:AP:6:LEU:HA	1:CS:93:VAL:HA	1.92	0.51
1:AP:92:ARG:HD3	1:CS:5:THR:HG22	1.93	0.51
1:AQ:214:ASP:HB3	1:AQ:217:ASP:OD2	2.11	0.51
1:AX:34:VAL:HG23	1:AX:125:GLU:OE1	2.11	0.51
1:BI:103:TYR:CZ	1:DM:145:ASN:OD1	2.62	0.51
1:BJ:50:GLN:NE2	1:BV:103:TYR:O	2.44	0.51
1:BU:7:PHE:CE2	1:DP:97:ALA:CB	2.85	0.51
1:BU:318:ASP:CA	1:DH:315:LEU:HD23	2.34	0.51
1:CG:83:VAL:HG12	1:CG:84:THR:N	2.26	0.51
1:DO:64:VAL:HG12	1:DO:65:GLU:H	1.76	0.51
2:DR:86:ASP:O	2:DR:89:VAL:HG23	2.11	0.51
3:DV:26:ARG:CD	4:DW:967:HIS:HE1	2.23	0.51
3:DV:71:PRO:C	5:DY:30:GLN:HE22	2.12	0.51
3:DV:72:PRO:CG	5:DY:28:TYR:CE2	2.93	0.51
3:DV:124:ARG:HH12	5:DZ:28:TYR:N	2.08	0.51
4:DW:828:VAL:HG22	4:DW:829:ASP:N	2.26	0.51
4:DW:863:ASN:OD1	4:DW:864:PHE:N	2.44	0.51
7:ED:98:ALA:N	7:EE:572:LYS:NZ	2.58	0.51
7:ED:336:ILE:CA	7:EE:125:GLN:NE2	2.72	0.51
7:ED:362:GLY:HA2	7:EE:371:ASN:HD21	1.75	0.51
7:ED:372:TYR:HD2	7:EE:392:PRO:CG	2.24	0.51
1:AC:27:SER:OG	1:AD:192:ASP:OD2	2.27	0.50
1:AW:3:ASN:N	1:BN:75:LYS:HG2	2.24	0.50
1:AW:105:ARG:HB2	1:BN:44:GLN:HE22	1.76	0.50
1:BA:306:VAL:HG13	1:BA:330:VAL:HG22	1.93	0.50
1:BI:95:ASP:C	1:DK:10:TYR:CE2	2.82	0.50
1:BI:144:THR:C	1:DP:19:PHE:CE2	2.84	0.50
1:BI:146:SER:CA	1:DH:143:LEU:HD11	2.40	0.50
1:BU:102:ASN:OD1	1:DP:18:SER:HB3	2.12	0.50
1:BW:315:LEU:HD22	1:BW:323:LYS:O	2.11	0.50
1:BY:27:SER:OG	1:BY:29:GLN:OE1	2.06	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CH:52:ASP:OD1	1:CH:53:ALA:N	2.45	0.50
1:CJ:40:GLU:OE1	1:CJ:333:ARG:NH1	2.44	0.50
1:CR:55:ALA:O	1:CR:56:SER:OG	2.25	0.50
1:CS:197:THR:HG23	1:CS:198:VAL:HG23	1.93	0.50
1:DB:312:ARG:NH2	7:ED:27:GLY:C	2.63	0.50
1:DC:143:LEU:CD2	3:DV:84:LYS:HZ3	2.22	0.50
1:DJ:203:ASN:OD1	1:DJ:204:ALA:N	2.43	0.50
1:DP:31:THR:OG1	1:DP:125:GLU:OE1	2.24	0.50
3:DV:188:ALA:O	3:DV:191:PHE:N	2.44	0.50
1:AB:143:LEU:HB3	1:AQ:144:THR:HG23	1.93	0.50
1:AM:93:VAL:CG1	1:CN:8:VAL:HG23	2.41	0.50
1:BB:214:ASP:HB3	1:BB:217:ASP:OD1	2.11	0.50
1:BD:190:ASP:OD1	1:BD:192:ASP:N	2.45	0.50
1:BI:7:PHE:HZ	1:DM:69:ALA:CB	2.23	0.50
1:BI:145:ASN:O	1:DH:48:SER:OG	2.29	0.50
1:BI:146:SER:H	1:DH:143:LEU:HD12	1.76	0.50
1:BO:49:TRP:NE1	1:BO:334:HIS:O	2.45	0.50
1:CE:135:THR:HG22	1:CE:163:LYS:HB2	1.93	0.50
1:CL:240:ALA:O	1:CL:243:LYS:NZ	2.44	0.50
1:CN:88:ARG:NH2	1:CR:67:SER:O	2.44	0.50
1:DF:168:GLN:NE2	1:DF:176:LEU:HD13	2.25	0.50
2:DT:28:ALA:HB2	4:DW:857:TRP:CE2	2.45	0.50
3:DU:53:PRO:N	3:DU:54:PRO:HD2	2.25	0.50
3:DV:60:TYR:N	5:DX:3:VAL:O	2.31	0.50
5:DX:71:GLN:HA	5:DZ:77:LYS:CE	2.41	0.50
7:ED:21:ARG:HH22	7:ED:294:ILE:HG13	1.63	0.50
1:AH:70:GLU:O	1:AK:90:VAL:HG11	2.11	0.50
1:AL:50:GLN:NE2	1:AX:103:TYR:O	2.44	0.50
1:AM:6:LEU:HD11	1:CN:92:ARG:NH1	2.20	0.50
1:AP:137:VAL:O	1:AP:137:VAL:HG22	2.11	0.50
1:AQ:49:TRP:NE1	1:AQ:334:HIS:O	2.45	0.50
1:AW:103:TYR:N	1:BN:44:GLN:CG	2.66	0.50
1:AZ:143:LEU:HB3	1:BO:144:THR:HG23	1.93	0.50
1:BI:103:TYR:C	1:DK:14:GLY:O	2.48	0.50
1:BI:145:ASN:HB3	1:DP:19:PHE:CD2	2.44	0.50
1:CF:58:ASP:OD1	1:CF:59:GLY:N	2.45	0.50
1:CL:224:GLN:O	1:CL:227:THR:OG1	2.30	0.50
1:CO:192:ASP:OD1	1:CO:193:THR:N	2.45	0.50
1:CW:214:ASP:O	1:CW:215:GLU:HG2	2.11	0.50
1:DE:144:THR:HG22	1:DE:145:ASN:ND2	2.26	0.50
1:DG:238:ASN:ND2	1:DG:289:MET:O	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DQ:95:ASP:O	1:DQ:99:THR:OG1	2.20	0.50
5:DY:80:PHE:CA	5:DY:83:GLN:HB3	2.40	0.50
1:AD:212:GLY:O	1:AD:213:PHE:HB2	2.12	0.50
1:AI:152:VAL:O	1:AI:152:VAL:HG12	2.11	0.50
1:AI:218:ILE:O	1:AI:222:THR:HG23	2.11	0.50
1:AP:96:THR:HG21	1:CZ:64:VAL:CA	2.41	0.50
1:AP:100:THR:HG22	1:CW:44:GLN:CG	2.40	0.50
1:AQ:137:VAL:O	1:AQ:137:VAL:HG13	2.12	0.50
1:BX:54:LEU:HD22	1:CB:27:SER:OG	2.11	0.50
1:BY:57:VAL:HG11	1:CC:126:LYS:HD3	1.93	0.50
1:CG:180:VAL:HG22	1:CG:181:VAL:N	2.26	0.50
1:CW:233:ASP:OD1	1:CW:234:ILE:N	2.44	0.50
1:CY:64:VAL:HG21	1:CY:67:SER:OG	2.11	0.50
1:CZ:131:GLY:O	1:CZ:181:VAL:HG21	2.12	0.50
3:DU:53:PRO:HD2	5:DX:17:GLN:OE1	2.10	0.50
5:DY:65:GLN:HG3	5:DY:68:LEU:HD12	1.94	0.50
1:AP:14:GLY:H	1:CS:105:ARG:CZ	2.23	0.50
1:AT:152:VAL:HG13	1:AT:155:LEU:HB2	1.94	0.50
1:BM:305:MET:N	1:BM:305:MET:SD	2.85	0.50
1:BO:137:VAL:HG13	1:BO:137:VAL:O	2.12	0.50
1:BP:81:SER:O	1:BP:134:ARG:NH2	2.45	0.50
1:BV:34:VAL:HG23	1:BV:125:GLU:OE1	2.11	0.50
1:CK:180:VAL:HG22	1:CK:181:VAL:H	1.77	0.50
1:CQ:286:ASN:OD1	1:CQ:287:ARG:N	2.44	0.50
1:CR:33:PHE:O	1:CR:37:THR:HG23	2.11	0.50
1:CU:275:ASP:OD1	1:CU:279:GLN:N	2.44	0.50
1:CV:25:VAL:O	1:CV:25:VAL:HG13	2.12	0.50
1:CV:96:THR:O	1:CV:100:THR:HG23	2.10	0.50
1:DA:52:ASP:OD2	1:DE:111:TYR:OH	2.27	0.50
1:DM:263:THR:HG22	1:DM:265:GLN:H	1.77	0.50
1:DQ:184:THR:O	1:DQ:184:THR:HG22	2.12	0.50
2:DR:21:ARG:CA	4:DW:856:VAL:HG11	2.33	0.50
3:DU:8:TYR:CD1	3:DV:36:PRO:HB2	2.46	0.50
3:DV:70:ILE:O	5:DY:30:GLN:NE2	2.45	0.50
7:ED:416:ILE:O	7:ED:417:ASP:C	2.46	0.50
7:ED:470:ARG:O	7:EE:117:TYR:CZ	2.65	0.50
7:EE:384:ARG:O	7:EE:385:ARG:C	2.49	0.50
1:AR:81:SER:O	1:AR:134:ARG:NH2	2.45	0.50
1:AW:7:PHE:CZ	1:BK:97:ALA:O	2.64	0.50
1:BI:105:ARG:CG	1:DK:13:ASN:CA	2.70	0.50
1:BM:27:SER:O	1:BM:29:GLN:NE2	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BM:192:ASP:OD1	1:BM:193:THR:N	2.44	0.50
1:BO:214:ASP:HB3	1:BO:217:ASP:OD2	2.11	0.50
1:BP:254:GLY:O	1:BP:255:SER:OG	2.28	0.50
1:BW:291:THR:O	1:BW:291:THR:HG22	2.11	0.50
1:CB:164:THR:HG21	1:CB:331:GLY:HA2	1.93	0.50
1:CJ:339:ALA:HB2	1:CY:26:LEU:HD12	1.93	0.50
1:CL:70:GLU:OE2	1:CL:70:GLU:N	2.39	0.50
1:CL:96:THR:HG22	1:CL:96:THR:O	2.12	0.50
1:CM:291:THR:HG22	1:CM:291:THR:O	2.12	0.50
1:CS:45:THR:OG1	1:CS:84:THR:OG1	2.25	0.50
1:CW:237:ILE:HD11	1:CW:241:HIS:HB3	1.92	0.50
1:DQ:233:ASP:OD1	1:DQ:233:ASP:N	2.44	0.50
3:DU:26:ARG:HE	4:DW:973:ASN:CG	2.02	0.50
3:DU:173:LEU:HD12	3:DU:173:LEU:N	2.27	0.50
3:DV:72:PRO:HD3	5:DY:30:GLN:HE22	1.77	0.50
5:DX:74:GLU:HG2	5:DZ:77:LYS:CE	2.42	0.50
6:EC:97:GLN:O	6:EC:98:MET:C	2.49	0.50
1:AB:196:VAL:N	1:AB:224:GLN:OE1	2.44	0.50
1:BB:212:GLY:O	1:BB:213:PHE:HB2	2.12	0.50
1:BG:152:VAL:HG12	1:BG:152:VAL:O	2.11	0.50
1:BO:231:GLU:OE1	1:BO:298:ARG:NH2	2.45	0.50
1:BR:152:VAL:HG13	1:BR:155:LEU:HB2	1.94	0.50
1:BY:64:VAL:O	1:BY:64:VAL:HG12	2.12	0.50
1:CE:25:VAL:HG23	1:CE:25:VAL:O	2.12	0.50
1:CG:144:THR:OG1	1:CG:146:SER:OG	2.24	0.50
1:CH:215:GLU:HB2	1:CH:248:LEU:HD21	1.94	0.50
1:CJ:73:GLU:O	1:CY:116:LYS:NZ	2.45	0.50
1:CR:25:VAL:HG13	1:CR:25:VAL:O	2.11	0.50
1:DD:137:VAL:O	1:DD:137:VAL:HG12	2.12	0.50
1:DM:323:LYS:NZ	1:DO:71:ASP:OD1	2.44	0.50
1:DN:136:ASP:OD1	1:DN:137:VAL:N	2.45	0.50
3:DU:35:ILE:HB	3:DU:36:PRO:HD3	1.93	0.50
3:DV:26:ARG:CG	4:DW:969:SER:OG	2.59	0.50
5:DX:86:ARG:HH12	5:DZ:87:LEU:C	2.14	0.50
7:ED:456:LEU:HD23	7:EE:438:MET:SD	2.52	0.50
1:AP:215:GLU:O	1:AP:216:ALA:HB3	2.12	0.50
1:AS:30:ASP:OD2	1:AS:30:ASP:N	2.45	0.50
1:AT:15:LYS:NZ	1:AW:141:GLN:O	2.32	0.50
1:BY:23:ILE:HG22	1:BZ:50:GLN:HG3	1.92	0.50
1:CF:87:LEU:CB	1:CF:120:ILE:HD11	2.41	0.50
1:CP:122:ARG:NH1	1:CT:55:ALA:O	2.39	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DP:83:VAL:O	1:DP:164:THR:OG1	2.18	0.50
2:DR:20:ASP:HA	4:DW:856:VAL:HG12	1.93	0.50
3:DV:175:ILE:CD1	5:DY:15:VAL:C	2.80	0.50
1:AM:27:SER:OG	1:AP:192:ASP:OD2	2.29	0.50
1:AM:205:SER:OG	1:AM:214:ASP:OD1	2.26	0.50
1:AP:13:ASN:H	1:CS:105:ARG:NH1	1.89	0.50
1:AP:13:ASN:CB	1:CS:105:ARG:HH22	2.25	0.50
1:AS:73:GLU:HG3	1:CS:4:PRO:CA	2.28	0.50
1:AW:101:ALA:H	1:BN:42:ILE:CB	2.23	0.50
1:BD:271:ASN:OD1	1:BD:272:SER:N	2.45	0.50
1:BF:144:THR:O	1:DM:144:THR:HB	2.12	0.50
1:BU:16:LYS:HE3	1:DP:102:ASN:OD1	2.03	0.50
1:BU:105:ARG:HD3	1:DP:15:LYS:HA	1.83	0.50
1:CA:149:ASP:N	1:CA:150:PRO:HD3	2.27	0.50
1:CH:50:GLN:NE2	1:CH:77:THR:OG1	2.45	0.50
1:CQ:255:SER:O	1:CQ:274:THR:HG21	2.12	0.50
3:DU:222:SER:OG	3:DU:223:GLY:N	2.44	0.50
6:EB:167:MET:O	6:EB:168:LYS:C	2.49	0.50
1:AB:30:ASP:O	1:AB:31:THR:OG1	2.28	0.49
1:AC:127:ILE:O	1:AC:130:SER:OG	2.16	0.49
1:AC:142:TYR:O	1:AC:145:ASN:ND2	2.45	0.49
1:AN:224:GLN:O	1:AN:227:THR:OG1	2.26	0.49
1:AO:8:VAL:HG23	1:AU:65:GLU:OE1	2.11	0.49
1:AP:102:ASN:O	1:CS:16:LYS:HB2	2.05	0.49
1:BF:308:ARG:HG2	1:DK:99:THR:HG21	1.94	0.49
1:BH:30:ASP:O	1:BH:31:THR:OG1	2.25	0.49
1:BI:99:THR:CB	1:DK:10:TYR:CG	2.76	0.49
1:BT:213:PHE:O	1:BT:214:ASP:HB2	2.10	0.49
1:BT:250:GLU:OE1	1:BT:258:ARG:NH2	2.43	0.49
1:BU:8:VAL:HB	1:DP:96:THR:OG1	2.12	0.49
1:BU:249:GLN:O	1:BU:256:ARG:NH1	2.45	0.49
1:CC:203:ASN:ND2	1:CC:346:ALA:O	2.42	0.49
1:CD:134:ARG:NE	1:CD:136:ASP:OD2	2.44	0.49
1:CK:30:ASP:OD1	1:CK:30:ASP:N	2.45	0.49
1:CM:90:VAL:HG11	1:CQ:70:GLU:O	2.12	0.49
1:CQ:291:THR:O	1:CQ:291:THR:HG22	2.11	0.49
1:DA:128:LEU:HB3	1:DA:332:LEU:HD11	1.93	0.49
1:DD:216:ALA:HB2	1:DD:248:LEU:HD21	1.93	0.49
1:DJ:257:LYS:NZ	1:DJ:274:THR:OG1	2.45	0.49
1:DO:305:MET:N	1:DO:331:GLY:O	2.44	0.49
2:DT:16:LEU:O	2:DT:18:PRO:HD3	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DV:3:MET:N	3:DV:4:PRO:CD	2.75	0.49
3:DV:175:ILE:HG23	3:DV:176:ALA:N	2.26	0.49
5:DX:52:ILE:HD11	5:DZ:56:ILE:HD12	1.93	0.49
1:AM:101:ALA:H	1:CR:44:GLN:CD	2.03	0.49
1:AM:317:LYS:O	1:CV:68:ARG:NE	2.15	0.49
1:AO:27:SER:O	1:AO:29:GLN:NE2	2.44	0.49
1:AW:249:GLN:O	1:AW:256:ARG:NH1	2.45	0.49
1:BE:136:ASP:OD1	1:BE:137:VAL:N	2.44	0.49
1:BF:70:GLU:O	1:BI:90:VAL:HG11	2.11	0.49
1:CG:200:VAL:HG21	1:CG:343:LEU:HA	1.94	0.49
1:CM:136:ASP:OD1	1:CM:137:VAL:N	2.46	0.49
1:CU:49:TRP:NE1	1:CU:334:HIS:O	2.46	0.49
1:DC:143:LEU:CG	3:DV:84:LYS:HZ3	2.23	0.49
1:DL:171:CYS:SG	1:DL:172:ALA:N	2.86	0.49
1:DN:8:VAL:HG13	1:DN:8:VAL:O	2.12	0.49
3:DU:52:ILE:HB	3:DU:53:PRO:HD2	1.94	0.49
3:DU:53:PRO:O	3:DU:55:LEU:N	2.45	0.49
5:DY:69:MET:HA	5:DY:72:ASP:HB2	1.94	0.49
7:ED:474:HIS:ND1	7:EE:117:TYR:CE2	2.45	0.49
1:AF:271:ASN:OD1	1:AF:272:SER:N	2.45	0.49
1:AH:234:ILE:HG23	1:AH:284:ILE:HD12	1.93	0.49
1:AM:16:LYS:HZ2	1:CN:19:PHE:HD2	1.53	0.49
1:AP:96:THR:HA	1:CW:308:ARG:NH2	2.25	0.49
1:BG:218:ILE:O	1:BG:222:THR:HG23	2.11	0.49
1:BM:8:VAL:HG23	1:BS:65:GLU:OE1	2.11	0.49
1:BN:190:ASP:O	1:BN:194:GLY:N	2.43	0.49
1:BN:215:GLU:O	1:BN:216:ALA:HB3	2.13	0.49
1:BX:172:ALA:O	1:BX:198:VAL:HG21	2.12	0.49
1:BY:317:LYS:HG2	1:BY:318:ASP:H	1.78	0.49
1:CB:46:ILE:HD13	1:CB:142:TYR:HD1	1.77	0.49
1:CC:167:PHE:CD2	1:CC:181:VAL:HG23	2.48	0.49
1:CN:190:ASP:O	1:CN:194:GLY:N	2.41	0.49
1:DI:97:ALA:O	1:DI:100:THR:OG1	2.30	0.49
1:DN:40:GLU:OE1	1:DN:333:ARG:NH1	2.45	0.49
3:DU:145:LEU:O	3:DU:146:ILE:C	2.50	0.49
5:DX:74:GLU:HG2	5:DZ:77:LYS:HZ1	1.75	0.49
7:EE:533:ALA:HB2	7:EE:568:LEU:HD12	1.95	0.49
1:AF:190:ASP:OD1	1:AF:192:ASP:N	2.45	0.49
1:AH:65:GLU:OE2	1:BK:97:ALA:N	2.45	0.49
1:AP:92:ARG:NH2	1:CS:5:THR:HG22	2.27	0.49
1:AP:148:ALA:CA	1:CR:143:LEU:HA	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AW:104:GLY:HA2	1:BK:16:LYS:CE	2.13	0.49
1:AZ:78:VAL:HG12	1:AZ:79:ILE:H	1.77	0.49
1:BG:30:ASP:O	1:BG:31:THR:OG1	2.28	0.49
1:BM:213:PHE:HB3	1:BM:244:ILE:HG21	1.95	0.49
1:CF:77:THR:O	1:CL:13:ASN:ND2	2.41	0.49
1:CQ:8:VAL:O	1:CQ:8:VAL:HG13	2.12	0.49
1:CW:158:THR:O	1:CW:158:THR:HG22	2.12	0.49
1:DB:334:HIS:NE2	1:DB:336:ASN:O	2.46	0.49
1:DC:143:LEU:C	3:DV:85:ASP:OD2	2.51	0.49
1:DD:190:ASP:O	1:DD:194:GLY:N	2.45	0.49
1:DL:141:GLN:O	1:DL:144:THR:HG22	2.13	0.49
2:DR:22:ASP:C	4:DW:856:VAL:HG22	2.31	0.49
3:DU:13:TYR:HE1	3:DU:17:LYS:HZ3	1.60	0.49
4:DW:215:LEU:HD21	4:DW:232:ALA:HB2	1.95	0.49
5:DY:81:LYS:HA	5:DZ:80:PHE:CE1	2.39	0.49
7:ED:384:ARG:O	7:ED:385:ARG:C	2.49	0.49
1:AO:305:MET:SD	1:AO:305:MET:N	2.85	0.49
1:AP:79:ILE:HD11	1:CN:13:ASN:HB2	1.94	0.49
1:AP:215:GLU:OE1	1:AP:256:ARG:NH2	2.41	0.49
1:AW:215:GLU:HG2	1:AW:244:ILE:HG23	1.94	0.49
1:BA:96:THR:O	1:BA:99:THR:OG1	2.28	0.49
1:BI:49:TRP:NE1	1:BI:334:HIS:O	2.46	0.49
1:BI:92:ARG:O	1:DK:6:LEU:CD1	2.27	0.49
1:BI:312:ARG:O	1:DP:317:LYS:NZ	2.45	0.49
1:BW:71:ASP:OD1	1:BW:72:GLY:N	2.43	0.49
1:CG:98:ASN:O	1:CG:99:THR:OG1	2.26	0.49
1:CH:129:LEU:HD13	1:CH:289:MET:HG2	1.94	0.49
1:CJ:275:ASP:OD1	1:CJ:279:GLN:N	2.42	0.49
1:CK:96:THR:O	1:CK:97:ALA:HB3	2.13	0.49
1:CL:315:LEU:HD11	1:CL:325:MET:HB2	1.93	0.49
1:CO:103:TYR:O	1:CS:50:GLN:NE2	2.45	0.49
1:CO:136:ASP:OD1	1:CO:137:VAL:N	2.43	0.49
1:CS:123:ASP:O	1:CS:127:ILE:HD12	2.12	0.49
1:CU:199:LYS:NZ	1:CU:220:ASP:OD2	2.25	0.49
1:DF:84:THR:HG22	1:DF:85:GLN:H	1.76	0.49
1:DJ:45:THR:OG1	1:DJ:162:ARG:NH2	2.46	0.49
2:DR:10:ILE:O	2:DR:10:ILE:HG22	2.12	0.49
5:DY:67:VAL:CA	5:DY:70:LYS:HB3	2.39	0.49
7:ED:336:ILE:CA	7:EE:125:GLN:HE22	2.24	0.49
1:AM:101:ALA:C	1:CR:44:GLN:HE22	2.12	0.49
1:AM:224:GLN:O	1:AM:227:THR:OG1	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AQ:231:GLU:OE1	1:AQ:298:ARG:NH2	2.45	0.49
1:AS:144:THR:CB	1:CW:142:TYR:C	2.78	0.49
1:AV:131:GLY:O	1:AV:180:VAL:HG23	2.12	0.49
1:AW:100:THR:HG21	1:BN:45:THR:HA	1.92	0.49
1:BT:131:GLY:O	1:BT:180:VAL:HG23	2.12	0.49
1:BW:144:THR:O	1:BW:146:SER:N	2.46	0.49
1:CB:105:ARG:NH2	1:CM:13:ASN:O	2.44	0.49
1:CL:52:ASP:OD1	1:CL:53:ALA:N	2.45	0.49
1:CM:206:ASN:ND2	1:CM:214:ASP:OD1	2.45	0.49
1:CO:116:LYS:NZ	1:CS:73:GLU:O	2.39	0.49
3:DU:91:VAL:O	3:DU:92:THR:HG23	2.13	0.49
3:DV:72:PRO:HG2	5:DY:28:TYR:CZ	2.47	0.49
3:DV:171:THR:HG23	3:DV:172:ILE:N	2.27	0.49
3:DV:193:GLN:OE1	3:DV:193:GLN:N	2.41	0.49
1:AK:223:LEU:O	1:AK:227:THR:OG1	2.24	0.49
1:AM:97:ALA:HB3	1:CN:9:SER:CB	2.32	0.49
1:AO:213:PHE:HB3	1:AO:244:ILE:HG21	1.95	0.49
1:BU:92:ARG:CB	1:DP:5:THR:C	2.81	0.49
1:CA:44:GLN:O	1:CA:46:ILE:N	2.45	0.49
1:CE:218:ILE:H	1:CE:218:ILE:HD12	1.78	0.49
1:CI:322:GLU:OE2	1:CI:324:TRP:NE1	2.45	0.49
1:CZ:157:ASP:O	1:CZ:158:THR:OG1	2.22	0.49
1:DG:50:GLN:O	1:DI:23:ILE:HD12	2.12	0.49
1:DH:46:ILE:O	1:DP:18:SER:OG	2.30	0.49
3:DU:172:ILE:O	3:DU:176:ALA:N	2.43	0.49
3:DU:230:ASN:ND2	7:EE:369:ASN:CG	2.63	0.49
4:DW:215:LEU:CD2	4:DW:232:ALA:CB	2.90	0.49
4:DW:334:ILE:HG13	4:DW:349:LEU:HD12	1.94	0.49
5:DX:86:ARG:HE	5:DX:86:ARG:HA	1.76	0.49
1:AC:306:VAL:HG13	1:AC:330:VAL:HG22	1.93	0.49
1:AP:76:PRO:HD3	1:CR:152:VAL:O	2.12	0.49
1:AP:79:ILE:HG21	1:CR:147:ALA:HB2	1.95	0.49
1:AT:30:ASP:N	1:AT:30:ASP:OD1	2.46	0.49
1:BB:49:TRP:NE1	1:BB:334:HIS:O	2.46	0.49
1:BU:3:ASN:CA	1:DP:115:LYS:NZ	2.74	0.49
1:BX:131:GLY:HA2	1:BX:180:VAL:HG13	1.95	0.49
1:BZ:233:ASP:C	1:BZ:234:ILE:HD12	2.33	0.49
1:CQ:213:PHE:HE1	1:CQ:345:THR:HG22	1.78	0.49
1:CU:42:ILE:HD13	1:CU:305:MET:SD	2.52	0.49
1:CV:213:PHE:CZ	1:CV:294:VAL:HG21	2.48	0.49
1:CW:211:ILE:HG23	1:CW:211:ILE:O	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CY:85:GLN:HB2	1:CY:164:THR:HG23	1.94	0.49
1:DI:82:ASN:ND2	1:DI:332:LEU:O	2.44	0.49
2:DR:13:LEU:HD23	2:DT:35:LYS:HE2	1.94	0.49
1:AD:132:GLN:HA	1:AD:180:VAL:HG12	1.94	0.49
1:AG:122:ARG:NH1	1:AM:192:ASP:OD1	2.46	0.49
1:AZ:196:VAL:N	1:AZ:224:GLN:OE1	2.44	0.49
1:BD:238:ASN:OD1	1:BD:240:ALA:N	2.39	0.49
1:BI:91:VAL:HG21	1:BI:113:LEU:HD23	1.95	0.49
1:BN:25:VAL:HG13	1:BQ:53:ALA:HB1	1.95	0.49
1:BN:254:GLY:O	1:BN:255:SER:OG	2.24	0.49
1:CJ:336:ASN:O	1:CJ:339:ALA:N	2.45	0.49
1:CO:125:GLU:OE2	1:CO:129:LEU:HD12	2.13	0.49
1:DD:30:ASP:O	1:DD:31:THR:OG1	2.27	0.49
1:DE:223:LEU:HA	1:DE:277:LEU:HD11	1.95	0.49
1:DK:223:LEU:HG	1:DK:277:LEU:HD11	1.95	0.49
1:DM:67:SER:OG	1:DM:70:GLU:OE2	2.27	0.49
1:DN:90:VAL:HG21	1:DP:70:GLU:O	2.13	0.49
4:DW:327:TRP:CZ2	4:DW:343:GLN:HG2	2.48	0.49
5:DX:52:ILE:HG22	5:DX:53:ASP:N	2.27	0.49
1:AB:206:ASN:ND2	1:AB:210:ASN:OD1	2.43	0.49
1:AK:49:TRP:NE1	1:AK:334:HIS:O	2.45	0.49
1:AP:18:SER:H	1:CS:103:TYR:HE1	1.60	0.49
1:AS:143:LEU:N	1:CW:143:LEU:C	2.65	0.49
1:AW:102:ASN:C	1:BN:43:ASN:CB	2.63	0.49
1:BA:27:SER:OG	1:BB:192:ASP:OD2	2.27	0.49
1:BA:142:TYR:O	1:BA:145:ASN:ND2	2.46	0.49
1:BI:192:ASP:OD1	1:BI:193:THR:N	2.44	0.49
1:BX:152:VAL:HG23	1:BX:152:VAL:O	2.13	0.49
1:BX:171:CYS:SG	1:BX:172:ALA:N	2.83	0.49
1:CC:176:LEU:HD23	1:CC:176:LEU:H	1.78	0.49
1:CE:224:GLN:O	1:CE:227:THR:OG1	2.29	0.49
1:CU:98:ASN:ND2	1:CU:108:GLU:OE1	2.42	0.49
1:DK:305:MET:O	1:DK:331:GLY:N	2.44	0.49
1:DO:64:VAL:HG12	1:DO:65:GLU:N	2.27	0.49
7:ED:24:TYR:CE2	7:EE:277:GLY:HA2	2.47	0.49
1:AD:49:TRP:NE1	1:AD:334:HIS:O	2.46	0.48
1:AM:36:MET:O	1:AM:299:SER:OG	2.31	0.48
1:BN:182:ASP:OD1	1:BN:183:LYS:N	2.46	0.48
1:BX:132:GLN:NE2	1:BX:164:THR:OG1	2.46	0.48
1:CC:304:GLN:OE1	1:CC:304:GLN:N	2.41	0.48
1:CD:132:GLN:NE2	1:CD:164:THR:O	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CE:105:ARG:NH2	1:CE:108:GLU:OE1	2.46	0.48
1:CJ:190:ASP:O	1:CJ:194:GLY:N	2.41	0.48
1:CS:269:GLU:OE2	1:CW:278:GLY:N	2.43	0.48
1:DK:11:ASP:OD1	1:DK:12:GLN:N	2.44	0.48
1:DK:237:ILE:HD11	1:DK:241:HIS:O	2.13	0.48
3:DU:131:ILE:HD13	3:DU:131:ILE:N	2.26	0.48
7:ED:628:GLU:HG2	7:EE:627:PHE:CE2	2.23	0.48
1:AP:108:GLU:O	1:CS:7:PHE:CE1	2.62	0.48
1:AV:250:GLU:OE1	1:AV:258:ARG:NH2	2.43	0.48
1:BF:234:ILE:CG2	1:BF:284:ILE:HD12	2.44	0.48
1:BI:148:ALA:HB2	1:DH:79:ILE:HD11	1.95	0.48
1:BQ:296:PHE:O	1:BQ:341:GLY:N	2.40	0.48
1:BS:305:MET:O	1:BS:331:GLY:N	2.45	0.48
1:BU:215:GLU:HG2	1:BU:244:ILE:HG23	1.94	0.48
1:BW:52:ASP:OD1	1:BW:52:ASP:N	2.46	0.48
1:BZ:33:PHE:O	1:BZ:37:THR:HG23	2.13	0.48
1:CK:112:GLN:OE1	1:CK:112:GLN:N	2.41	0.48
1:CQ:213:PHE:CD1	1:CQ:345:THR:HG22	2.48	0.48
1:CS:240:ALA:O	1:CS:243:LYS:NZ	2.45	0.48
1:CT:30:ASP:N	1:CT:30:ASP:OD1	2.46	0.48
1:DA:62:ALA:HB3	1:DE:161:ALA:HB1	1.95	0.48
1:DB:92:ARG:NH2	1:DB:94:SER:OG	2.45	0.48
1:DG:90:VAL:HG22	1:DG:325:MET:HB2	1.94	0.48
1:DI:196:VAL:HG23	1:DI:196:VAL:O	2.12	0.48
1:DJ:8:VAL:O	1:DJ:8:VAL:HG13	2.13	0.48
2:DS:23:TYR:CB	2:DS:25:TYR:CD1	2.96	0.48
1:AK:91:VAL:HG21	1:AK:113:LEU:HD23	1.95	0.48
1:AK:143:LEU:CD1	1:BN:147:ALA:O	2.50	0.48
1:AP:14:GLY:N	1:CS:105:ARG:NH1	2.61	0.48
1:AP:105:ARG:HB2	1:CS:12:GLN:CB	2.43	0.48
1:AP:182:ASP:OD1	1:AP:183:LYS:N	2.47	0.48
1:AP:271:ASN:OD1	1:AP:272:SER:N	2.46	0.48
1:BX:182:ASP:OD1	1:BX:183:LYS:N	2.46	0.48
1:BZ:180:VAL:HG22	1:BZ:181:VAL:N	2.28	0.48
1:BZ:196:VAL:O	1:BZ:196:VAL:HG22	2.13	0.48
1:BZ:334:HIS:NE2	1:BZ:336:ASN:O	2.46	0.48
1:CD:206:ASN:O	1:CD:349:LYS:N	2.45	0.48
1:CF:8:VAL:HG11	1:CW:108:GLU:OE2	2.12	0.48
1:CF:88:ARG:NH1	1:CF:327:GLU:OE2	2.42	0.48
1:CG:91:VAL:O	1:CG:91:VAL:HG12	2.13	0.48
1:CI:203:ASN:OD1	1:CI:348:GLY:N	2.45	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CN:33:PHE:O	1:CN:37:THR:HG23	2.14	0.48
1:CZ:172:ALA:HB3	1:CZ:198:VAL:HG23	1.95	0.48
3:DV:175:ILE:HA	5:DY:14:ASN:O	2.14	0.48
7:ED:32:ALA:O	7:EE:269:ARG:HG2	2.13	0.48
1:AB:78:VAL:HG12	1:AB:79:ILE:H	1.77	0.48
1:AI:30:ASP:O	1:AI:31:THR:OG1	2.28	0.48
1:AM:196:VAL:N	1:AM:224:GLN:OE1	2.43	0.48
1:AP:7:PHE:HD2	1:CS:112:GLN:NE2	2.11	0.48
1:BQ:203:ASN:ND2	1:BQ:210:ASN:OD1	2.47	0.48
1:CA:64:VAL:HG12	1:CA:65:GLU:N	2.28	0.48
1:CN:275:ASP:OD1	1:CN:279:GLN:N	2.46	0.48
1:CQ:92:ARG:NE	1:CU:71:ASP:OD1	2.46	0.48
1:CR:33:PHE:CD2	1:CR:129:LEU:HD21	2.48	0.48
1:CZ:93:VAL:HG21	1:CZ:109:LEU:HD13	1.95	0.48
1:DA:250:GLU:OE2	1:DA:258:ARG:NH1	2.46	0.48
1:DL:125:GLU:OE2	1:DL:286:ASN:ND2	2.45	0.48
1:DO:213:PHE:CD1	1:DO:218:ILE:HD11	2.48	0.48
1:DP:273:ILE:CG2	1:DP:283:ILE:HD11	2.42	0.48
6:EB:165:GLN:O	6:EB:166:TYR:C	2.51	0.48
1:AM:7:PHE:HE2	1:CN:108:GLU:HG2	1.75	0.48
1:AP:12:GLN:HB3	1:CS:105:ARG:NH1	2.26	0.48
1:AR:336:ASN:OD1	1:AR:338:TYR:N	2.43	0.48
1:AU:162:ARG:NH1	1:AU:329:GLU:OE2	2.47	0.48
1:BE:30:ASP:OD2	1:BE:287:ARG:NH2	2.45	0.48
1:BI:7:PHE:HZ	1:DM:69:ALA:O	1.96	0.48
1:BR:30:ASP:OD1	1:BR:30:ASP:N	2.46	0.48
1:BU:96:THR:O	1:DH:307:LEU:CD2	2.59	0.48
1:CA:135:THR:HG22	1:CA:135:THR:O	2.12	0.48
1:CI:82:ASN:ND2	1:CI:332:LEU:O	2.41	0.48
1:CK:308:ARG:NH2	1:CK:327:GLU:OE1	2.46	0.48
1:CQ:316:ALA:HB1	1:CT:316:ALA:HB2	1.94	0.48
1:CV:250:GLU:OE2	1:CY:256:ARG:NE	2.47	0.48
1:DK:262:ASN:HA	1:DM:267:ILE:HD11	1.95	0.48
3:DU:192:VAL:HG22	4:DW:1004:ARG:N	2.28	0.48
3:DV:32:VAL:CG2	3:DV:33:ASN:N	2.76	0.48
3:DV:171:THR:O	3:DV:174:THR:OG1	2.15	0.48
4:DW:837:PRO:O	4:DW:838:ILE:HG13	2.14	0.48
7:ED:625:THR:CG2	7:EE:624:ARG:HH12	2.27	0.48
1:AI:49:TRP:NE1	1:AI:334:HIS:O	2.47	0.48
1:AJ:50:GLN:NE2	1:AV:103:TYR:O	2.46	0.48
1:AP:141:GLN:HE22	1:CR:143:LEU:N	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:71:ASP:OD1	1:CS:4:PRO:HD3	2.12	0.48
1:AW:108:GLU:HB2	1:BK:7:PHE:CD2	2.43	0.48
1:BI:100:THR:H	1:DK:10:TYR:HA	1.79	0.48
1:BK:180:VAL:HG22	1:BK:181:VAL:H	1.79	0.48
1:BR:34:VAL:HG23	1:BR:125:GLU:OE1	2.13	0.48
1:BU:99:THR:HB	1:DH:307:LEU:HG	1.94	0.48
1:BZ:213:PHE:CD2	1:BZ:244:ILE:HG21	2.48	0.48
1:CR:87:LEU:CB	1:CR:120:ILE:HD11	2.43	0.48
1:CR:259:ILE:HD11	1:CV:259:ILE:HB	1.95	0.48
1:CV:213:PHE:HE1	1:CV:343:LEU:HD23	1.77	0.48
1:DB:235:ILE:O	1:DB:283:ILE:HD12	2.13	0.48
1:DB:317:LYS:O	1:DB:318:ASP:HB2	2.14	0.48
1:DC:180:VAL:HG22	1:DC:181:VAL:N	2.29	0.48
1:DL:95:ASP:O	1:DL:99:THR:OG1	2.30	0.48
1:DM:29:GLN:NE2	1:DM:31:THR:OG1	2.47	0.48
1:DN:235:ILE:HD11	1:DN:281:TYR:HD1	1.78	0.48
3:DU:195:ASP:O	3:DU:196:ASN:C	2.51	0.48
3:DV:94:PRO:HA	3:DV:97:ILE:HG22	1.94	0.48
7:ED:448:ASP:CG	7:EE:441:ASN:HD21	2.12	0.48
1:AA:60:ASN:O	1:AA:60:ASN:ND2	2.47	0.48
1:AH:234:ILE:CG2	1:AH:284:ILE:HD12	2.44	0.48
1:AM:102:ASN:HA	1:CN:14:GLY:O	2.12	0.48
1:AP:16:LYS:NZ	1:CS:103:TYR:HB2	2.29	0.48
1:BN:142:TYR:O	1:BN:145:ASN:ND2	2.44	0.48
1:CZ:88:ARG:NE	1:CZ:327:GLU:OE2	2.47	0.48
1:DB:312:ARG:NH1	7:ED:31:MET:HG3	2.28	0.48
1:DC:128:LEU:CD2	1:DC:332:LEU:HD21	2.43	0.48
1:DD:305:MET:N	1:DD:331:GLY:O	2.45	0.48
1:DG:275:ASP:OD1	1:DG:279:GLN:N	2.47	0.48
1:DQ:134:ARG:NE	1:DQ:142:TYR:OH	2.46	0.48
3:DV:137:TYR:HD1	5:DY:37:ASP:OD1	1.97	0.48
4:DW:295:SER:OG	4:DW:314:THR:OG1	2.18	0.48
5:DY:49:PHE:CD1	5:DZ:48:LYS:HB3	2.49	0.48
1:AH:202:GLN:NE2	1:AH:216:ALA:O	2.47	0.48
1:AN:90:VAL:HG11	1:AQ:70:GLU:O	2.14	0.48
1:AY:271:ASN:OD1	1:AY:272:SER:N	2.47	0.48
1:BH:50:GLN:NE2	1:BT:103:TYR:O	2.46	0.48
1:BX:10:TYR:OH	1:CC:162:ARG:NH2	2.47	0.48
1:CA:118:LYS:CB	1:CB:54:LEU:HD21	2.44	0.48
1:CB:182:ASP:OD1	1:CB:183:LYS:N	2.47	0.48
1:CD:137:VAL:HG22	1:CD:162:ARG:NH1	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DB:16:LYS:HB2	3:DV:234:ARG:HD3	1.95	0.48
2:DT:23:TYR:N	4:DW:838:ILE:HA	2.29	0.48
3:DV:124:ARG:CZ	5:DZ:28:TYR:CD2	2.79	0.48
7:ED:533:ALA:HB2	7:ED:568:LEU:HD12	1.95	0.48
1:AE:213:PHE:O	1:AE:244:ILE:HG21	2.14	0.48
1:AJ:136:ASP:OD1	1:AJ:137:VAL:N	2.46	0.48
1:AW:213:PHE:HD2	1:AW:244:ILE:HD13	1.79	0.48
1:BB:132:GLN:HA	1:BB:180:VAL:HG12	1.94	0.48
1:BV:263:THR:OG1	1:BV:265:GLN:O	2.31	0.48
1:BY:235:ILE:HG23	1:BY:296:PHE:CE1	2.49	0.48
1:DD:176:LEU:H	1:DD:176:LEU:HD23	1.78	0.48
1:DE:305:MET:O	1:DE:331:GLY:N	2.45	0.48
1:DH:211:ILE:O	1:DH:211:ILE:HG13	2.14	0.48
1:DJ:236:MET:O	1:DJ:294:VAL:HG23	2.13	0.48
1:DQ:81:SER:O	1:DQ:134:ARG:NH2	2.47	0.48
4:DW:305:ARG:HA	4:DW:347:ASN:OD1	2.13	0.48
4:DW:961:THR:HG23	4:DW:961:THR:O	2.14	0.48
1:AA:271:ASN:OD1	1:AA:272:SER:N	2.47	0.48
1:AP:144:THR:HG21	1:CR:141:GLN:HG3	0.70	0.48
1:AT:34:VAL:HG23	1:AT:125:GLU:OE1	2.14	0.48
1:BB:306:VAL:HG12	1:BB:330:VAL:CG1	2.43	0.48
1:BI:146:SER:C	1:DH:143:LEU:CD1	2.72	0.48
1:BZ:275:ASP:OD1	1:BZ:279:GLN:N	2.47	0.48
1:CD:152:VAL:O	1:CD:152:VAL:HG22	2.14	0.48
1:CF:152:VAL:HG12	1:CF:152:VAL:O	2.14	0.48
1:CS:45:THR:HG21	1:CS:162:ARG:HH12	1.79	0.48
5:DY:65:GLN:O	5:DY:68:LEU:HB2	2.14	0.48
7:ED:410:HIS:HE2	7:EE:374:ARG:N	1.99	0.48
7:ED:410:HIS:N	7:EE:406:LEU:CD1	2.76	0.48
1:AH:56:SER:OG	1:AH:57:VAL:N	2.47	0.47
1:AK:140:ASP:O	1:BN:144:THR:HG21	2.13	0.47
1:AS:203:ASN:ND2	1:AS:210:ASN:OD1	2.47	0.47
1:AZ:30:ASP:O	1:AZ:31:THR:OG1	2.27	0.47
1:BE:122:ARG:NH1	1:BK:192:ASP:OD1	2.46	0.47
1:BL:90:VAL:HG11	1:BO:70:GLU:O	2.14	0.47
1:BP:90:VAL:HG11	1:BS:69:ALA:HB1	1.96	0.47
1:BU:16:LYS:CE	1:DP:102:ASN:OD1	2.61	0.47
1:BU:92:ARG:HB3	1:DP:5:THR:C	2.35	0.47
1:CD:91:VAL:HG12	1:CD:324:TRP:HB2	1.95	0.47
1:CE:213:PHE:HD1	1:CE:218:ILE:HD11	1.78	0.47
1:CM:171:CYS:SG	1:CM:340:SER:OG	2.72	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CP:295:TYR:CD1	1:CP:342:VAL:HG22	2.49	0.47
1:CR:122:ARG:NH1	1:CV:57:VAL:HG13	2.29	0.47
1:DB:288:TRP:CZ3	1:DC:57:VAL:HG11	2.49	0.47
1:DM:12:GLN:O	1:DO:145:ASN:ND2	2.46	0.47
1:DP:184:THR:O	1:DP:184:THR:HG22	2.13	0.47
2:DR:66:THR:H	2:DR:70:MET:HE1	1.79	0.47
3:DV:52:ILE:HB	3:DV:53:PRO:CD	2.43	0.47
3:DV:94:PRO:HG3	3:DV:121:PHE:CE1	2.49	0.47
7:ED:467:MET:CE	7:EE:72:LEU:HD21	2.36	0.47
1:AF:95:ASP:OD2	1:AQ:308:ARG:NH1	2.47	0.47
1:AK:142:TYR:C	1:BN:144:THR:CA	2.60	0.47
1:AQ:30:ASP:OD2	1:AQ:30:ASP:N	2.47	0.47
1:AS:77:THR:C	1:CW:149:ASP:O	2.44	0.47
1:AS:79:ILE:HG13	1:CW:148:ALA:HB1	1.25	0.47
1:BD:95:ASP:OD2	1:BO:308:ARG:NH1	2.47	0.47
1:BW:199:LYS:NZ	1:BW:220:ASP:OD1	2.47	0.47
1:BX:73:GLU:O	1:CB:116:LYS:NZ	2.41	0.47
1:BX:342:VAL:HG11	1:BX:344:PHE:CE1	2.50	0.47
1:BY:156:ASN:OD1	1:CC:3:ASN:ND2	2.47	0.47
1:DH:158:THR:O	1:DH:158:THR:HG22	2.14	0.47
1:DH:261:GLU:N	1:DH:268:TYR:O	2.47	0.47
3:DU:70:ILE:HD12	3:DU:123:SER:C	2.35	0.47
3:DU:83:ALA:C	5:DZ:25:ILE:HB	2.32	0.47
6:EB:113:PRO:C	6:EB:115:VAL:N	2.63	0.47
7:ED:301:LYS:CA	7:EE:283:ILE:HG22	2.43	0.47
7:ED:407:PHE:HE1	7:EE:375:TYR:CZ	2.32	0.47
7:ED:471:ASN:N	7:EE:117:TYR:OH	2.47	0.47
1:AI:30:ASP:N	1:AI:30:ASP:OD1	2.47	0.47
1:AO:235:ILE:N	1:AO:282:LYS:O	2.45	0.47
1:AS:156:ASN:HD22	1:CS:92:ARG:HD3	1.76	0.47
1:AT:131:GLY:C	1:AT:180:VAL:HG23	2.34	0.47
1:AW:215:GLU:HG2	1:AW:244:ILE:CG2	2.45	0.47
1:AY:215:GLU:HB2	1:AY:248:LEU:CD1	2.44	0.47
1:BC:305:MET:O	1:BC:331:GLY:N	2.46	0.47
1:BN:49:TRP:NE1	1:BN:334:HIS:O	2.47	0.47
1:BN:271:ASN:OD1	1:BN:272:SER:N	2.47	0.47
1:BU:100:THR:HG23	1:DH:307:LEU:HA	1.96	0.47
1:BW:176:LEU:HD23	1:BW:176:LEU:O	2.14	0.47
1:CZ:8:VAL:HG12	1:CZ:9:SER:N	2.28	0.47
1:DA:252:THR:HG22	1:DA:253:GLN:N	2.30	0.47
1:DE:30:ASP:O	1:DE:31:THR:OG1	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DO:30:ASP:O	1:DO:31:THR:OG1	2.23	0.47
1:DO:197:THR:OG1	1:DO:340:SER:O	2.31	0.47
2:DR:21:ARG:HD3	4:DW:859:LYS:HA	1.95	0.47
2:DR:87:LYS:H	2:DR:87:LYS:HD2	1.79	0.47
5:DZ:67:VAL:HG12	5:DZ:68:LEU:N	2.29	0.47
1:AE:305:MET:O	1:AE:331:GLY:N	2.46	0.47
1:AP:13:ASN:CB	1:CW:77:THR:O	2.35	0.47
1:BB:88:ARG:NH2	1:BC:70:GLU:OE2	2.45	0.47
1:BP:83:VAL:HG22	1:BP:84:THR:H	1.79	0.47
1:BQ:224:GLN:O	1:BQ:227:THR:OG1	2.26	0.47
1:BU:215:GLU:HG2	1:BU:244:ILE:CG2	2.45	0.47
1:BX:334:HIS:NE2	1:BX:336:ASN:O	2.47	0.47
1:DM:37:THR:HG22	1:DM:37:THR:O	2.14	0.47
1:DN:305:MET:N	1:DN:305:MET:SD	2.88	0.47
1:DO:210:ASN:OD1	1:DO:211:ILE:N	2.47	0.47
3:DV:54:PRO:HA	5:DY:20:ALA:O	2.15	0.47
1:AD:306:VAL:HG12	1:AD:330:VAL:CG1	2.43	0.47
1:AI:222:THR:OG1	1:AI:275:ASP:OD1	2.08	0.47
1:BC:213:PHE:O	1:BC:244:ILE:HG21	2.14	0.47
1:BF:28:PRO:O	1:BF:122:ARG:NH2	2.47	0.47
1:BG:215:GLU:HG2	1:BG:248:LEU:HD22	1.97	0.47
1:BG:288:TRP:CZ3	1:BM:57:VAL:HG11	2.49	0.47
1:BH:157:ASP:OD1	1:BH:157:ASP:N	2.48	0.47
1:BI:109:LEU:HD13	1:DK:7:PHE:CD2	2.49	0.47
1:BU:14:GLY:CA	1:DP:102:ASN:OD1	2.63	0.47
1:CC:30:ASP:O	1:CC:31:THR:OG1	2.27	0.47
1:CC:97:ALA:O	1:CC:100:THR:OG1	2.32	0.47
1:CG:231:GLU:O	1:CG:232:ALA:HB3	2.13	0.47
1:CG:275:ASP:OD1	1:CG:279:GLN:N	2.48	0.47
1:CI:200:VAL:O	1:CI:200:VAL:HG13	2.14	0.47
1:CL:102:ASN:N	1:CL:108:GLU:OE1	2.46	0.47
1:DB:39:LYS:HG2	7:ED:16:VAL:HG22	1.95	0.47
1:DH:326:ILE:HG23	1:DH:326:ILE:O	2.14	0.47
1:DN:124:LEU:HA	1:DN:127:ILE:HG22	1.95	0.47
2:DR:87:LYS:HD2	2:DR:87:LYS:N	2.30	0.47
3:DU:45:GLU:HA	3:DU:48:ARG:NH1	2.29	0.47
5:DY:81:LYS:O	5:DY:85:ALA:N	2.40	0.47
7:ED:94:GLN:NE2	7:EE:502:ARG:HG3	2.28	0.47
1:AS:78:VAL:O	1:CW:147:ALA:O	2.33	0.47
1:AS:146:SER:C	1:CW:79:ILE:HB	2.35	0.47
1:AX:263:THR:OG1	1:AX:265:GLN:O	2.31	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BF:202:GLN:NE2	1:BF:216:ALA:O	2.47	0.47
1:BX:93:VAL:HG21	1:BX:109:LEU:HD23	1.95	0.47
1:BY:171:CYS:SG	1:BY:342:VAL:HG23	2.55	0.47
1:CZ:273:ILE:HG22	1:CZ:274:THR:N	2.30	0.47
1:DE:202:GLN:OE1	1:DE:202:GLN:N	2.46	0.47
1:DE:306:VAL:HG23	1:DE:306:VAL:O	2.14	0.47
5:DX:82:ASP:OD1	5:DX:82:ASP:N	2.48	0.47
5:DY:75:ASP:HA	5:DY:78:GLN:HB2	1.97	0.47
7:ED:397:GLU:O	7:ED:398:MET:C	2.52	0.47
1:AF:95:ASP:OD1	1:AF:96:THR:N	2.47	0.47
1:AO:308:ARG:NH1	1:AO:327:GLU:OE1	2.43	0.47
1:AP:25:VAL:HG13	1:AS:53:ALA:HB1	1.95	0.47
1:AR:90:VAL:HG11	1:AU:69:ALA:HB1	1.96	0.47
1:AS:142:TYR:O	1:CW:145:ASN:OD1	2.33	0.47
1:AY:60:ASN:O	1:AY:60:ASN:ND2	2.47	0.47
1:BD:95:ASP:OD1	1:BD:96:THR:N	2.47	0.47
1:BF:56:SER:OG	1:BF:57:VAL:N	2.47	0.47
1:BF:202:GLN:NE2	1:BF:215:GLU:HB2	2.29	0.47
1:BG:30:ASP:OD1	1:BG:30:ASP:N	2.48	0.47
1:BI:100:THR:OG1	1:DK:12:GLN:HB2	2.14	0.47
1:BI:144:THR:HA	1:DH:143:LEU:HA	1.97	0.47
1:BP:171:CYS:SG	1:BP:340:SER:OG	2.62	0.47
1:BU:100:THR:HG22	1:DH:42:ILE:H	1.18	0.47
1:BW:208:THR:HG22	1:BW:208:THR:O	2.15	0.47
1:CA:142:TYR:HA	1:CA:146:SER:HA	1.97	0.47
1:CB:83:VAL:O	1:CB:164:THR:HG22	2.14	0.47
1:CC:90:VAL:HG12	1:CC:325:MET:SD	2.55	0.47
1:CG:42:ILE:O	1:CG:307:LEU:HD12	2.15	0.47
1:CI:203:ASN:OD1	1:CI:204:ALA:N	2.46	0.47
1:CK:25:VAL:HG12	1:CK:26:LEU:N	2.30	0.47
1:CS:180:VAL:HG22	1:CS:181:VAL:N	2.30	0.47
1:CU:113:LEU:HD22	1:CU:312:ARG:HG2	1.96	0.47
1:CV:336:ASN:O	1:CV:339:ALA:N	2.43	0.47
1:CX:85:GLN:HB2	1:CX:164:THR:HG23	1.96	0.47
1:CZ:152:VAL:HG23	1:CZ:152:VAL:O	2.14	0.47
1:DB:83:VAL:HG12	1:DB:84:THR:N	2.30	0.47
1:DD:124:LEU:HD11	1:DD:330:VAL:HG21	1.96	0.47
1:DF:130:SER:OG	1:DF:131:GLY:N	2.47	0.47
1:DM:155:LEU:H	1:DM:155:LEU:HD23	1.80	0.47
1:DP:70:GLU:OE1	1:DP:70:GLU:N	2.47	0.47
2:DR:24:ILE:HB	4:DW:857:TRP:HE1	1.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DV:72:PRO:HG2	5:DY:28:TYR:CD2	2.49	0.47
5:DZ:79:ASP:O	5:DZ:83:GLN:CG	2.62	0.47
1:AA:215:GLU:HB2	1:AA:248:LEU:CD1	2.44	0.47
1:AP:306:VAL:HG12	1:AP:330:VAL:HG12	1.97	0.47
1:AW:16:LYS:CG	1:BK:103:TYR:CG	2.75	0.47
1:AW:145:ASN:O	1:AW:145:ASN:ND2	2.48	0.47
1:BI:55:ALA:O	1:BU:122:ARG:NH1	2.48	0.47
1:BI:146:SER:H	1:DH:143:LEU:CD1	2.27	0.47
1:BO:30:ASP:OD2	1:BO:30:ASP:N	2.47	0.47
1:BS:162:ARG:NH1	1:BS:329:GLU:OE2	2.47	0.47
1:CB:91:VAL:HG11	1:CB:113:LEU:HD12	1.96	0.47
1:CL:32:PRO:O	1:CL:35:SER:N	2.46	0.47
1:CQ:95:ASP:OD2	1:CT:308:ARG:NH2	2.48	0.47
1:CZ:176:LEU:HD23	1:CZ:181:VAL:HG13	1.95	0.47
1:DK:208:THR:O	1:DK:208:THR:HG22	2.15	0.47
1:DK:237:ILE:HD12	1:DK:245:PHE:CE2	2.49	0.47
3:DU:52:ILE:HB	3:DU:53:PRO:CD	2.45	0.47
3:DV:52:ILE:HB	3:DV:53:PRO:HD2	1.97	0.47
1:AI:288:TRP:CZ3	1:AO:57:VAL:HG11	2.49	0.47
1:AJ:25:VAL:HG13	1:AJ:26:LEU:N	2.30	0.47
1:AW:105:ARG:HD2	1:BK:15:LYS:HA	0.79	0.47
1:BA:180:VAL:HG22	1:BA:181:VAL:H	1.80	0.47
1:BH:36:MET:O	1:BH:37:THR:OG1	2.27	0.47
1:BI:76:PRO:HG3	1:DP:13:ASN:HB3	1.30	0.47
1:BI:144:THR:C	1:DP:17:LEU:HD12	2.34	0.47
1:BK:30:ASP:O	1:BK:31:THR:OG1	2.33	0.47
1:BL:196:VAL:N	1:BL:224:GLN:OE1	2.48	0.47
1:BL:211:ILE:HG22	1:BL:212:GLY:N	2.30	0.47
1:BR:131:GLY:C	1:BR:180:VAL:HG23	2.34	0.47
1:BW:184:THR:HG23	1:BW:185:LYS:N	2.30	0.47
1:CJ:231:GLU:OE1	1:CJ:231:GLU:N	2.48	0.47
1:CL:131:GLY:O	1:CL:181:VAL:HG23	2.15	0.47
1:CM:328:MET:HG2	1:CM:330:VAL:HG13	1.96	0.47
1:CV:318:ASP:OD1	1:CV:318:ASP:N	2.48	0.47
1:DC:45:THR:O	1:DC:84:THR:OG1	2.25	0.47
1:DD:42:ILE:HG22	1:DD:307:LEU:O	2.15	0.47
1:DD:64:VAL:HG12	1:DD:65:GLU:N	2.29	0.47
1:DJ:199:LYS:O	1:DJ:343:LEU:HD23	2.15	0.47
1:DO:9:SER:OG	1:DQ:162:ARG:NH1	2.47	0.47
5:DZ:88:MET:CA	5:DZ:91:ILE:HD12	2.37	0.47
6:EB:83:ILE:O	6:EB:84:THR:C	2.53	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AC:180:VAL:HG22	1:AC:181:VAL:H	1.80	0.47
1:AH:28:PRO:O	1:AH:122:ARG:NH2	2.47	0.47
1:AH:202:GLN:NE2	1:AH:215:GLU:HB2	2.29	0.47
1:AR:290:PRO:O	1:AR:291:THR:HG22	2.15	0.47
1:AU:305:MET:O	1:AU:331:GLY:N	2.45	0.47
1:CG:303:THR:OG1	1:CG:305:MET:SD	2.55	0.47
1:CV:85:GLN:NE2	1:CY:61:ASN:O	2.47	0.47
1:CV:136:ASP:OD2	1:CV:136:ASP:N	2.48	0.47
1:DH:52:ASP:OD1	1:DH:53:ALA:N	2.46	0.47
1:DI:168:GLN:OE1	1:DI:168:GLN:N	2.48	0.47
1:DQ:214:ASP:OD1	1:DQ:215:GLU:N	2.45	0.47
2:DR:214:ASN:H	2:DT:229:ASP:H	1.61	0.47
2:DS:28:ALA:HB1	2:DT:19:ARG:HH11	1.80	0.47
1:AK:55:ALA:O	1:AW:122:ARG:NH1	2.48	0.46
1:AM:180:VAL:HG22	1:AM:181:VAL:H	1.79	0.46
1:AS:141:GLN:NE2	1:CW:141:GLN:OE1	2.46	0.46
1:AW:7:PHE:CB	1:BK:93:VAL:CB	2.93	0.46
1:BC:190:ASP:O	1:BC:194:GLY:N	2.48	0.46
1:BH:222:THR:HG22	1:BH:281:TYR:CZ	2.50	0.46
1:BM:235:ILE:N	1:BM:282:LYS:O	2.45	0.46
1:BZ:124:LEU:HD13	1:BZ:330:VAL:HG21	1.97	0.46
1:CH:53:ALA:HA	1:CX:25:VAL:HG23	1.97	0.46
1:CI:235:ILE:HG23	1:CI:296:PHE:HE1	1.80	0.46
1:CO:290:PRO:O	1:CO:291:THR:HG22	2.15	0.46
1:CT:315:LEU:HD11	1:CT:325:MET:HB2	1.96	0.46
1:CU:235:ILE:HG23	1:CU:296:PHE:CE1	2.50	0.46
1:DA:46:ILE:HG12	1:DA:83:VAL:HG12	1.96	0.46
1:DK:30:ASP:O	1:DK:31:THR:OG1	2.32	0.46
1:DM:71:ASP:OD1	1:DM:72:GLY:N	2.48	0.46
2:DT:23:TYR:H	4:DW:838:ILE:HA	1.80	0.46
4:DW:334:ILE:HA	4:DW:349:LEU:HB2	1.97	0.46
4:DW:472:VAL:HG22	4:DW:506:LYS:HA	1.98	0.46
4:DW:845:ILE:HG22	4:DW:846:THR:N	2.30	0.46
7:ED:552:LEU:HD23	7:EE:578:LEU:CA	2.44	0.46
1:AI:215:GLU:HG2	1:AI:248:LEU:HD22	1.97	0.46
1:AJ:83:VAL:O	1:AJ:164:THR:HG22	2.15	0.46
1:BG:49:TRP:NE1	1:BG:334:HIS:O	2.47	0.46
1:BI:9:SER:HB3	1:DK:95:ASP:HA	1.43	0.46
1:BI:95:ASP:OD1	1:BI:96:THR:N	2.47	0.46
1:BU:145:ASN:O	1:BU:145:ASN:ND2	2.48	0.46
1:BW:213:PHE:CD1	1:BW:343:LEU:HD23	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CI:141:GLN:O	1:CI:144:THR:HG22	2.16	0.46
1:CI:157:ASP:O	1:CI:158:THR:OG1	2.26	0.46
1:CV:308:ARG:NH2	1:CV:327:GLU:OE2	2.48	0.46
1:CW:57:VAL:HG23	1:CW:57:VAL:O	2.16	0.46
1:DC:52:ASP:OD2	1:DC:53:ALA:N	2.48	0.46
1:DF:245:PHE:O	1:DF:248:LEU:HD22	2.15	0.46
1:DF:263:THR:HG22	1:DF:265:GLN:H	1.80	0.46
3:DU:8:TYR:HA	3:DV:37:ASN:ND2	2.30	0.46
5:DX:79:ASP:O	5:DX:82:ASP:OD1	2.34	0.46
7:EE:397:GLU:O	7:EE:398:MET:C	2.52	0.46
1:AP:49:TRP:NE1	1:AP:334:HIS:O	2.47	0.46
1:BH:83:VAL:O	1:BH:164:THR:HG22	2.15	0.46
1:BI:223:LEU:O	1:BI:227:THR:OG1	2.24	0.46
1:CE:170:LEU:HD23	1:CE:334:HIS:HB2	1.96	0.46
1:CE:313:THR:OG1	1:CE:325:MET:O	2.32	0.46
1:CG:30:ASP:OD2	1:CG:30:ASP:N	2.47	0.46
1:CK:25:VAL:HG12	1:CK:26:LEU:H	1.80	0.46
1:CN:9:SER:N	1:CV:65:GLU:OE1	2.48	0.46
1:CV:64:VAL:HG12	1:CV:65:GLU:N	2.30	0.46
1:CY:302:TRP:HE1	1:CY:340:SER:HG	1.64	0.46
1:DI:152:VAL:HG12	1:DI:159:HIS:CE1	2.51	0.46
1:DK:336:ASN:OD1	1:DK:338:TYR:N	2.48	0.46
3:DU:82:ARG:HA	3:DU:152:VAL:HA	1.97	0.46
7:ED:131:ARG:NH2	7:EE:269:ARG:HH22	2.06	0.46
7:ED:301:LYS:HE2	7:EE:282:ASP:OD1	2.16	0.46
7:ED:655:THR:O	7:ED:659:ARG:N	2.48	0.46
1:AK:95:ASP:OD1	1:AK:96:THR:N	2.47	0.46
1:AM:6:LEU:N	1:CR:74:MET:HE2	2.30	0.46
1:AO:213:PHE:CB	1:AO:244:ILE:HD13	2.46	0.46
1:AP:14:GLY:H	1:CS:105:ARG:NH1	2.12	0.46
1:AP:142:TYR:O	1:AP:145:ASN:ND2	2.44	0.46
1:AZ:133:ALA:HB1	1:AZ:176:LEU:HD22	1.97	0.46
1:BI:105:ARG:CA	1:DK:14:GLY:N	2.66	0.46
1:BI:243:LYS:O	1:BI:247:GLY:N	2.46	0.46
1:BU:8:VAL:HG23	1:DP:96:THR:HB	1.91	0.46
1:BX:54:LEU:HD22	1:CB:27:SER:CB	2.45	0.46
1:BZ:131:GLY:O	1:BZ:180:VAL:HG23	2.15	0.46
1:CB:213:PHE:CD1	1:CB:345:THR:HG22	2.50	0.46
1:CP:172:ALA:O	1:CP:198:VAL:HG21	2.14	0.46
1:CQ:52:ASP:OD1	1:CQ:53:ALA:N	2.41	0.46
1:CR:152:VAL:O	1:CR:152:VAL:HG22	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CS:64:VAL:HG12	1:CS:65:GLU:N	2.30	0.46
1:CS:259:ILE:HD12	1:CW:259:ILE:HD11	1.96	0.46
1:DG:54:LEU:HD13	1:DI:27:SER:CB	2.46	0.46
1:DI:236:MET:O	1:DI:294:VAL:HG13	2.15	0.46
2:DR:21:ARG:CD	4:DW:859:LYS:HA	2.37	0.46
2:DS:22:ASP:O	2:DS:23:TYR:HB2	2.13	0.46
3:DU:145:LEU:O	3:DU:147:PRO:N	2.48	0.46
4:DW:852:ILE:O	4:DW:852:ILE:HG13	2.15	0.46
7:ED:449:ASN:ND2	7:EE:441:ASN:OD1	2.49	0.46
1:AP:96:THR:HG21	1:CZ:64:VAL:HG12	1.96	0.46
1:AR:83:VAL:HG22	1:AR:84:THR:H	1.79	0.46
1:AU:30:ASP:OD1	1:AU:288:TRP:NE1	2.48	0.46
1:AV:65:GLU:HG3	1:CS:99:THR:HG21	1.98	0.46
1:AW:14:GLY:CA	1:BK:103:TYR:CD1	2.91	0.46
1:BH:25:VAL:HG13	1:BH:26:LEU:N	2.30	0.46
1:BN:290:PRO:O	1:BN:291:THR:HG22	2.16	0.46
1:BP:290:PRO:O	1:BP:291:THR:HG22	2.15	0.46
1:CB:85:GLN:HB2	1:CB:164:THR:HG23	1.98	0.46
1:CQ:303:THR:OG1	1:CQ:333:ARG:NH1	2.49	0.46
1:CV:58:ASP:OD1	1:CV:59:GLY:N	2.48	0.46
1:DB:238:ASN:OD1	1:DB:239:PRO:HD2	2.16	0.46
1:DN:213:PHE:CZ	1:DN:343:LEU:HD22	2.50	0.46
1:DP:192:ASP:OD1	1:DP:193:THR:N	2.48	0.46
2:DR:23:TYR:CZ	4:DW:853:LYS:HB2	2.50	0.46
2:DT:10:ILE:HG23	2:DT:37:THR:HB	1.98	0.46
3:DV:82:ARG:HA	3:DV:152:VAL:HA	1.97	0.46
7:EE:534:GLN:O	7:EE:537:ILE:HG13	2.16	0.46
1:AJ:36:MET:HG3	1:AJ:37:THR:HG23	1.98	0.46
1:AK:143:LEU:HD21	1:BN:146:SER:C	2.34	0.46
1:AY:259:ILE:HG23	1:BA:259:ILE:HG12	1.96	0.46
1:BL:60:ASN:ND2	1:BL:60:ASN:O	2.49	0.46
1:BM:334:HIS:HE2	1:BM:340:SER:HG	1.63	0.46
1:BP:143:LEU:H	1:BP:143:LEU:HD12	1.81	0.46
1:BS:30:ASP:OD1	1:BS:288:TRP:NE1	2.48	0.46
1:BT:67:SER:OG	1:BT:68:ARG:N	2.48	0.46
1:BU:213:PHE:HD2	1:BU:244:ILE:HD13	1.79	0.46
1:BZ:162:ARG:NH1	1:BZ:329:GLU:OE2	2.48	0.46
1:DA:88:ARG:NH2	1:DF:67:SER:O	2.49	0.46
1:DF:84:THR:HG22	1:DF:85:GLN:N	2.30	0.46
2:DT:27:GLY:HA3	4:DW:839:TRP:HZ2	1.80	0.46
4:DW:120:VAL:HG12	4:DW:121:SER:H	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:EE:229:ARG:O	7:EE:287:VAL:N	2.48	0.46
1:AA:259:ILE:HG23	1:AC:259:ILE:HG12	1.97	0.46
1:AD:88:ARG:NH2	1:AE:70:GLU:OE2	2.45	0.46
1:AD:237:ILE:HD11	1:AD:241:HIS:ND1	2.31	0.46
1:AJ:157:ASP:OD1	1:AJ:157:ASP:N	2.48	0.46
1:AJ:222:THR:HG22	1:AJ:281:TYR:CZ	2.50	0.46
1:AM:16:LYS:CG	1:CN:102:ASN:C	2.78	0.46
1:AN:211:ILE:HG22	1:AN:212:GLY:N	2.30	0.46
1:AO:196:VAL:N	1:AO:224:GLN:OE1	2.48	0.46
1:AP:5:THR:HA	1:CW:74:MET:HE3	1.32	0.46
1:AP:147:ALA:N	1:CR:142:TYR:HB3	2.31	0.46
1:AW:49:TRP:NE1	1:AW:334:HIS:O	2.48	0.46
1:AZ:206:ASN:ND2	1:AZ:210:ASN:OD1	2.43	0.46
1:BH:136:ASP:OD1	1:BH:137:VAL:N	2.47	0.46
1:BI:92:ARG:NH2	1:DK:6:LEU:HD21	2.04	0.46
1:BO:195:ALA:HB2	1:BO:227:THR:HG23	1.98	0.46
1:BT:252:THR:CB	1:BT:255:SER:HG	2.27	0.46
1:CM:294:VAL:HG22	1:CM:343:LEU:HB2	1.98	0.46
1:CS:200:VAL:O	1:CS:200:VAL:HG12	2.16	0.46
1:DB:84:THR:OG1	1:DB:329:GLU:OE2	2.21	0.46
1:DG:237:ILE:HD11	1:DG:241:HIS:HB3	1.98	0.46
1:DQ:149:ASP:OD2	1:DQ:149:ASP:N	2.49	0.46
4:DW:274:ALA:O	4:DW:275:ASP:HB2	2.16	0.46
4:DW:344:GLY:O	4:DW:346:ILE:HD12	2.16	0.46
7:ED:534:GLN:O	7:ED:537:ILE:HG13	2.16	0.46
1:AM:13:ASN:OD1	1:CR:76:PRO:HB2	2.16	0.46
1:AM:100:THR:CG2	1:CR:44:GLN:OE1	2.63	0.46
1:AP:18:SER:N	1:CS:103:TYR:HE1	2.13	0.46
1:AP:290:PRO:O	1:AP:291:THR:HG22	2.16	0.46
1:AU:238:ASN:O	1:AU:240:ALA:N	2.49	0.46
1:BQ:30:ASP:OD2	1:BQ:30:ASP:N	2.45	0.46
1:BY:105:ARG:NH1	1:BZ:50:GLN:OE1	2.48	0.46
1:CQ:263:THR:HG22	1:CQ:263:THR:O	2.16	0.46
1:CR:149:ASP:OD2	1:CR:149:ASP:N	2.49	0.46
1:CS:180:VAL:HG22	1:CS:181:VAL:H	1.81	0.46
1:CU:136:ASP:OD1	1:CU:137:VAL:N	2.49	0.46
1:DC:27:SER:HB3	1:DD:54:LEU:HD13	1.98	0.46
1:AL:213:PHE:HE2	1:AL:218:ILE:HA	1.81	0.46
1:AM:6:LEU:N	1:CR:74:MET:SD	2.88	0.46
1:AV:67:SER:OG	1:AV:68:ARG:N	2.48	0.46
1:AV:252:THR:CB	1:AV:255:SER:HG	2.27	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AW:230:SER:OG	1:AW:339:ALA:O	2.32	0.46
1:BT:214:ASP:HB2	1:BT:217:ASP:OD2	2.16	0.46
1:BU:49:TRP:NE1	1:BU:334:HIS:O	2.48	0.46
1:BU:214:ASP:OD2	1:BU:215:GLU:N	2.49	0.46
1:BW:237:ILE:HG13	1:BW:285:VAL:HG12	1.97	0.46
1:CI:170:LEU:HD23	1:CI:334:HIS:HB2	1.98	0.46
1:CO:93:VAL:HG21	1:CO:109:LEU:HD12	1.97	0.46
1:DD:182:ASP:OD1	1:DD:183:LYS:N	2.49	0.46
1:DN:98:ASN:OD1	1:DN:107:ARG:NH2	2.48	0.46
3:DU:188:ALA:O	3:DU:191:PHE:N	2.48	0.46
3:DV:146:ILE:O	3:DV:147:PRO:C	2.54	0.46
5:DX:74:GLU:CG	5:DZ:81:LYS:HE2	2.45	0.46
5:DY:65:GLN:HA	5:DY:68:LEU:HB2	1.98	0.46
5:DY:81:LYS:O	5:DY:85:ALA:CB	2.64	0.46
1:AG:52:ASP:OD2	1:AJ:25:VAL:HG23	2.16	0.46
1:AG:222:THR:HB	1:AG:279:GLN:OE1	2.16	0.46
1:AP:254:GLY:O	1:AP:255:SER:OG	2.24	0.46
1:AP:308:ARG:CZ	1:CN:95:ASP:OD2	2.64	0.46
1:AS:33:PHE:O	1:AS:37:THR:HG23	2.16	0.46
1:BA:254:GLY:O	1:BA:255:SER:OG	2.30	0.46
1:BH:36:MET:HG3	1:BH:37:THR:HG23	1.98	0.46
1:BI:101:ALA:O	1:DK:15:LYS:HG2	2.15	0.46
1:BJ:213:PHE:HE2	1:BJ:218:ILE:HA	1.81	0.46
1:CA:12:GLN:NE2	1:CT:108:GLU:OE2	2.49	0.46
1:CG:58:ASP:OD2	1:CK:122:ARG:NH1	2.44	0.46
1:CK:238:ASN:ND2	1:CK:293:ALA:O	2.49	0.46
1:CN:318:ASP:OD1	1:CN:318:ASP:N	2.49	0.46
1:DB:309:ALA:CB	7:ED:23:ASN:OD1	2.63	0.46
1:DF:168:GLN:O	1:DF:169:PHE:HB2	2.15	0.46
1:DG:30:ASP:O	1:DG:31:THR:OG1	2.32	0.46
2:DR:50:ASP:HB2	2:DT:59:MET:CE	2.45	0.46
3:DU:14:GLY:O	3:DU:18:LYS:NZ	2.44	0.46
3:DU:46:ILE:HG22	3:DU:47:TYR:N	2.31	0.46
3:DV:179:LEU:C	3:DV:179:LEU:HD23	2.36	0.46
7:ED:24:TYR:HD2	7:EE:277:GLY:HA3	1.81	0.46
7:EE:302:ASN:OD1	7:EE:303:LYS:N	2.49	0.46
1:AK:192:ASP:OD1	1:AK:193:THR:N	2.44	0.45
1:AK:271:ASN:OD1	1:AK:272:SER:N	2.49	0.45
1:AL:48:SER:OG	1:AL:143:LEU:HD21	2.16	0.45
1:AM:143:LEU:O	1:AM:144:THR:OG1	2.20	0.45
1:AO:298:ARG:NE	1:AO:301:ASP:OD2	2.43	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AP:16:LYS:HE2	1:CS:103:TYR:C	2.36	0.45
1:AV:162:ARG:NH1	1:AV:329:GLU:OE2	2.48	0.45
1:BQ:193:THR:HG21	1:BQ:227:THR:O	2.17	0.45
1:BX:158:THR:O	1:BX:158:THR:HG23	2.15	0.45
1:CA:112:GLN:NE2	1:CB:74:MET:SD	2.85	0.45
1:CN:88:ARG:NE	1:CN:327:GLU:OE2	2.49	0.45
1:CP:14:GLY:O	1:CQ:105:ARG:NH1	2.49	0.45
1:CU:197:THR:HG21	1:CU:338:TYR:HA	1.97	0.45
1:DA:28:PRO:O	1:DA:122:ARG:NH1	2.49	0.45
1:DA:127:ILE:O	1:DA:132:GLN:NE2	2.49	0.45
1:DD:315:LEU:HD23	1:DD:316:ALA:H	1.81	0.45
1:DH:206:ASN:OD1	1:DH:207:PRO:HD2	2.15	0.45
1:DO:294:VAL:N	1:DO:343:LEU:O	2.49	0.45
3:DU:197:GLY:O	3:DU:201:TRP:CD1	2.69	0.45
3:DV:160:PRO:HB3	5:DY:22:GLU:CD	2.36	0.45
5:DX:78:GLN:OE1	5:DZ:81:LYS:CA	2.64	0.45
7:ED:302:ASN:OD1	7:ED:303:LYS:N	2.49	0.45
1:AD:173:HIS:HB2	1:AD:181:VAL:HG13	1.99	0.45
1:AP:139:ALA:C	1:CR:144:THR:CG2	2.84	0.45
1:BC:238:ASN:O	1:BC:240:ALA:N	2.49	0.45
1:BJ:48:SER:OG	1:BJ:143:LEU:HD21	2.16	0.45
1:BL:213:PHE:CE2	1:BL:218:ILE:HD11	2.51	0.45
1:BM:298:ARG:NE	1:BM:301:ASP:OD2	2.43	0.45
1:BS:238:ASN:O	1:BS:240:ALA:N	2.49	0.45
1:BY:235:ILE:HD12	1:BY:281:TYR:HB3	1.98	0.45
1:CA:259:ILE:HD12	1:CB:259:ILE:HD11	1.97	0.45
1:CA:332:LEU:HD23	1:CA:332:LEU:H	1.81	0.45
1:CB:306:VAL:HG23	1:CB:306:VAL:O	2.16	0.45
1:CJ:70:GLU:OE2	1:CJ:70:GLU:N	2.50	0.45
1:CN:265:GLN:OE1	1:CN:265:GLN:N	2.48	0.45
1:CS:172:ALA:HB2	1:CS:198:VAL:HG21	1.97	0.45
1:DB:90:VAL:HG21	1:DC:70:GLU:O	2.16	0.45
1:DB:311:LYS:NZ	7:ED:26:GLN:OE1	2.43	0.45
1:DL:97:ALA:O	1:DL:100:THR:OG1	2.33	0.45
1:DN:272:SER:OG	1:DN:272:SER:O	2.35	0.45
2:DR:23:TYR:HE1	4:DW:853:LYS:C	2.16	0.45
2:DS:19:ARG:HG3	2:DS:21:ARG:CG	2.46	0.45
3:DV:26:ARG:HH21	3:DV:27:ASP:N	2.14	0.45
3:DV:73:ASP:OD2	5:DY:24:SER:CB	2.64	0.45
4:DW:968:VAL:O	4:DW:968:VAL:HG23	2.15	0.45
5:DX:44:LEU:O	5:DX:47:SER:HB2	2.14	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:ED:566:PHE:O	7:ED:570:GLY:N	2.49	0.45
1:AE:136:ASP:OD1	1:AE:137:VAL:N	2.50	0.45
1:AM:306:VAL:HA	1:AM:330:VAL:HG22	1.99	0.45
1:AS:71:ASP:CG	1:CS:4:PRO:HD2	2.36	0.45
1:AU:308:ARG:NH1	1:AU:327:GLU:OE1	2.45	0.45
1:AZ:271:ASN:OD1	1:AZ:272:SER:N	2.49	0.45
1:BE:222:THR:HB	1:BE:279:GLN:OE1	2.16	0.45
1:BF:65:GLU:CD	1:DP:95:ASP:O	2.51	0.45
1:BI:95:ASP:HB3	1:DO:65:GLU:HB3	1.96	0.45
1:BI:203:ASN:ND2	1:BI:211:ILE:O	2.50	0.45
1:BI:317:LYS:NZ	1:DO:65:GLU:CB	2.76	0.45
1:BO:215:GLU:HG2	1:BO:248:LEU:HD23	1.98	0.45
1:CA:215:GLU:O	1:CA:217:ASP:N	2.49	0.45
1:CE:263:THR:O	1:CE:264:LYS:HB3	2.16	0.45
1:CH:30:ASP:OD1	1:CH:30:ASP:N	2.49	0.45
1:CL:205:SER:O	1:CL:206:ASN:ND2	2.49	0.45
1:CN:82:ASN:ND2	1:CN:332:LEU:O	2.43	0.45
1:CO:180:VAL:HG12	1:CO:181:VAL:N	2.32	0.45
3:DU:15:TRP:HA	3:DU:18:LYS:NZ	2.31	0.45
3:DU:174:THR:O	5:DX:14:ASN:HA	2.15	0.45
3:DV:26:ARG:CD	4:DW:967:HIS:CE1	3.00	0.45
3:DV:35:ILE:HB	3:DV:36:PRO:HD3	1.99	0.45
3:DV:46:ILE:HG22	3:DV:47:TYR:N	2.30	0.45
5:DY:63:TYR:N	5:DY:63:TYR:CD1	2.83	0.45
7:EE:566:PHE:O	7:EE:570:GLY:N	2.49	0.45
1:AE:213:PHE:HE1	1:AE:294:VAL:HG21	1.82	0.45
1:AM:322:GLU:H	1:CV:67:SER:CB	2.28	0.45
1:AN:196:VAL:N	1:AN:224:GLN:OE1	2.48	0.45
1:AN:213:PHE:CE2	1:AN:218:ILE:HD11	2.51	0.45
1:AU:305:MET:N	1:AU:331:GLY:O	2.49	0.45
1:AY:213:PHE:HE2	1:AY:218:ILE:HD11	1.81	0.45
1:BI:271:ASN:OD1	1:BI:272:SER:N	2.49	0.45
1:BM:213:PHE:CB	1:BM:244:ILE:HD13	2.46	0.45
1:BX:66:GLY:O	1:CB:88:ARG:NH2	2.45	0.45
1:CB:143:LEU:O	1:CB:144:THR:CG2	2.61	0.45
1:CC:198:VAL:HG13	1:CC:198:VAL:O	2.17	0.45
1:CE:136:ASP:OD1	1:CE:137:VAL:N	2.49	0.45
1:CI:8:VAL:O	1:CI:8:VAL:HG13	2.16	0.45
1:CK:273:ILE:HG22	1:CK:274:THR:N	2.31	0.45
1:CP:113:LEU:HD21	1:CP:312:ARG:CD	2.46	0.45
1:CU:307:LEU:HD23	1:CU:329:GLU:OE1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DB:186:ASN:OD1	1:DB:200:VAL:HG23	2.15	0.45
1:DD:263:THR:HG22	1:DD:265:GLN:H	1.80	0.45
1:DO:127:ILE:O	1:DO:130:SER:OG	2.28	0.45
1:DQ:33:PHE:O	1:DQ:37:THR:OG1	2.28	0.45
3:DV:210:ASP:O	3:DV:213:VAL:HG22	2.16	0.45
7:ED:660:LYS:NZ	7:EE:658:ASN:C	2.68	0.45
1:AE:190:ASP:O	1:AE:194:GLY:N	2.48	0.45
1:AE:238:ASN:O	1:AE:240:ALA:N	2.49	0.45
1:AM:262:ASN:HB3	1:AP:267:ILE:HD12	1.98	0.45
1:AQ:195:ALA:HB2	1:AQ:227:THR:HG23	1.98	0.45
1:AS:145:ASN:CA	1:CW:143:LEU:O	2.64	0.45
1:BK:262:ASN:HB3	1:BN:267:ILE:HD12	1.99	0.45
1:BN:306:VAL:HG12	1:BN:330:VAL:HG12	1.97	0.45
1:CA:136:ASP:OD1	1:CA:137:VAL:N	2.49	0.45
1:CA:334:HIS:CD2	1:CA:337:PRO:HA	2.51	0.45
1:CC:143:LEU:C	1:CC:144:THR:HG1	2.11	0.45
1:CF:237:ILE:HD11	1:CF:241:HIS:HB2	1.98	0.45
1:CJ:173:HIS:ND1	1:CJ:173:HIS:O	2.49	0.45
1:CS:83:VAL:HG12	1:CS:84:THR:N	2.31	0.45
1:CS:240:ALA:HA	1:CW:223:LEU:HD11	1.97	0.45
1:DB:275:ASP:OD1	1:DB:279:GLN:N	2.41	0.45
1:DD:103:TYR:O	1:DE:50:GLN:NE2	2.48	0.45
1:DH:85:GLN:NE2	1:DH:86:ILE:O	2.50	0.45
1:DN:299:SER:O	1:DN:299:SER:OG	2.29	0.45
7:ED:374:ARG:HA	7:EE:393:GLY:HA2	1.98	0.45
7:ED:419:LEU:HD21	7:EE:363:TYR:CE2	2.52	0.45
7:EE:351:ASP:N	7:EE:351:ASP:OD1	2.48	0.45
1:AG:250:GLU:OE1	1:AM:256:ARG:NE	2.46	0.45
1:AQ:215:GLU:HG2	1:AQ:248:LEU:HD23	1.98	0.45
1:AW:96:THR:HG22	1:BN:308:ARG:NH2	2.32	0.45
1:BA:167:PHE:HE1	1:BA:342:VAL:HG22	1.82	0.45
1:BC:132:GLN:HA	1:BC:180:VAL:HG12	1.98	0.45
1:BE:215:GLU:O	1:BE:216:ALA:HB3	2.17	0.45
1:BI:103:TYR:HH	1:DM:142:TYR:HA	1.80	0.45
1:BU:238:ASN:ND2	1:BU:289:MET:O	2.50	0.45
1:BX:213:PHE:HD2	1:BX:244:ILE:HG21	1.82	0.45
1:CA:241:HIS:NE2	1:CA:291:THR:O	2.48	0.45
1:CO:117:GLY:O	1:CO:120:ILE:HG22	2.16	0.45
1:CP:16:LYS:C	1:CP:17:LEU:HD12	2.36	0.45
1:CY:131:GLY:O	1:CY:180:VAL:HG23	2.16	0.45
1:CZ:322:GLU:OE2	1:CZ:324:TRP:NE1	2.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DH:82:ASN:ND2	1:DH:332:LEU:O	2.41	0.45
1:DJ:305:MET:N	1:DJ:305:MET:SD	2.90	0.45
1:DN:222:THR:HG22	1:DN:281:TYR:HE1	1.82	0.45
3:DV:90:GLN:O	3:DV:117:ASN:HA	2.17	0.45
3:DV:219:GLN:NE2	3:DV:219:GLN:C	2.69	0.45
1:AA:213:PHE:HE2	1:AA:218:ILE:HD11	1.81	0.45
1:AB:133:ALA:HB1	1:AB:176:LEU:HD22	1.97	0.45
1:AG:253:GLN:OE1	1:AG:253:GLN:N	2.49	0.45
1:AK:145:ASN:CG	1:BN:142:TYR:O	2.55	0.45
1:AK:203:ASN:ND2	1:AK:211:ILE:O	2.50	0.45
1:AT:131:GLY:O	1:AT:181:VAL:HG23	2.17	0.45
1:BB:144:THR:HA	1:BJ:144:THR:HA	1.99	0.45
1:BB:237:ILE:HD11	1:BB:241:HIS:ND1	2.31	0.45
1:BF:43:ASN:HB3	1:DK:98:ASN:OD1	2.16	0.45
1:BK:204:ALA:O	1:BK:205:SER:OG	2.35	0.45
1:BQ:33:PHE:O	1:BQ:37:THR:HG23	2.16	0.45
1:BR:15:LYS:NZ	1:BU:141:GLN:O	2.32	0.45
1:CB:124:LEU:HD13	1:CB:330:VAL:HG21	1.97	0.45
1:CO:220:ASP:OD1	1:CO:221:MET:N	2.50	0.45
1:CP:27:SER:CB	1:CT:54:LEU:HD12	2.47	0.45
1:CX:140:ASP:C	1:CX:140:ASP:OD1	2.55	0.45
1:DO:77:THR:HG22	1:DO:78:VAL:N	2.32	0.45
3:DV:124:ARG:HH11	5:DZ:28:TYR:HA	1.80	0.45
5:DX:49:PHE:CE2	5:DZ:52:ILE:HD11	2.51	0.45
7:ED:20:ARG:NH2	7:EE:279:ASP:CB	2.33	0.45
1:AC:30:ASP:O	1:AC:31:THR:OG1	2.31	0.45
1:AC:254:GLY:O	1:AC:255:SER:OG	2.30	0.45
1:AJ:17:LEU:O	1:AJ:18:SER:OG	2.33	0.45
1:AK:243:LYS:O	1:AK:247:GLY:N	2.46	0.45
1:AP:139:ALA:O	1:CR:144:THR:OG1	2.35	0.45
1:AS:193:THR:HG21	1:AS:227:THR:O	2.17	0.45
1:CZ:157:ASP:N	1:CZ:157:ASP:OD2	2.49	0.45
1:DB:12:GLN:HE22	3:DV:234:ARG:HH22	1.65	0.45
1:DN:294:VAL:O	1:DN:342:VAL:HG13	2.17	0.45
5:DX:46:GLU:O	5:DX:50:GLY:CA	2.61	0.45
7:ED:100:ASP:N	7:ED:100:ASP:OD1	2.50	0.45
7:ED:378:LEU:HG	7:EE:401:GLN:NE2	2.32	0.45
7:ED:474:HIS:ND1	7:EE:117:TYR:CG	2.66	0.45
7:EE:377:ALA:HB3	7:EE:382:TYR:CE1	2.52	0.45
1:AD:144:THR:HA	1:AL:144:THR:HA	1.99	0.45
1:AM:96:THR:OG1	1:CR:308:ARG:NH2	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AM:204:ALA:O	1:AM:205:SER:OG	2.35	0.45
1:AR:143:LEU:H	1:AR:143:LEU:HD12	1.81	0.45
1:AV:334:HIS:NE2	1:AV:340:SER:OG	2.50	0.45
1:BE:52:ASP:OD2	1:BH:25:VAL:HG23	2.16	0.45
1:BI:103:TYR:HA	1:DK:15:LYS:HB2	0.45	0.45
1:BI:147:ALA:HB2	1:DH:79:ILE:CG2	2.43	0.45
1:BR:131:GLY:O	1:BR:181:VAL:HG23	2.17	0.45
1:BU:230:SER:OG	1:BU:339:ALA:O	2.31	0.45
1:CF:117:GLY:O	1:CF:120:ILE:HG22	2.17	0.45
1:CL:101:ALA:O	1:CL:102:ASN:HB2	2.17	0.45
1:CM:248:LEU:C	1:CM:248:LEU:HD23	2.37	0.45
1:CU:291:THR:HG22	1:CU:291:THR:O	2.17	0.45
1:CY:71:ASP:OD1	1:CY:71:ASP:N	2.49	0.45
1:CY:82:ASN:ND2	1:CY:332:LEU:O	2.50	0.45
1:CY:250:GLU:OE1	1:CY:258:ARG:NH2	2.49	0.45
1:DA:65:GLU:OE1	1:DD:8:VAL:HG12	2.15	0.45
1:DD:149:ASP:N	1:DD:150:PRO:CD	2.80	0.45
1:DG:176:LEU:HD12	1:DG:176:LEU:O	2.17	0.45
1:DJ:224:GLN:O	1:DJ:227:THR:OG1	2.30	0.45
3:DU:84:LYS:HD2	3:DU:85:ASP:HB2	1.97	0.45
3:DV:162:GLU:OE2	5:DX:14:ASN:ND2	2.49	0.45
5:DY:91:ILE:HG13	5:DZ:87:LEU:CD2	2.47	0.45
7:EE:381:ALA:O	7:EE:383:ASP:N	2.50	0.45
1:AC:213:PHE:CE2	1:AC:294:VAL:HG21	2.52	0.45
1:AG:215:GLU:O	1:AG:216:ALA:HB3	2.17	0.45
1:AL:271:ASN:N	1:AX:264:LYS:O	2.44	0.45
1:AP:190:ASP:O	1:AP:194:GLY:N	2.43	0.45
1:AW:101:ALA:H	1:BN:42:ILE:CD1	2.29	0.45
1:AW:214:ASP:OD2	1:AW:215:GLU:N	2.49	0.45
1:BT:91:VAL:O	1:BT:91:VAL:HG13	2.17	0.45
1:BT:162:ARG:NH1	1:BT:329:GLU:OE2	2.48	0.45
1:BZ:231:GLU:OE1	1:BZ:231:GLU:N	2.49	0.45
1:CD:214:ASP:OD1	1:CD:244:ILE:HG22	2.17	0.45
1:CF:25:VAL:O	1:CF:25:VAL:HG13	2.17	0.45
1:CO:314:GLU:C	1:CO:315:LEU:HD12	2.38	0.45
1:CR:318:ASP:OD2	1:CR:318:ASP:N	2.48	0.45
1:DC:15:LYS:NZ	1:DD:46:ILE:HD13	2.32	0.45
1:DC:91:VAL:HG23	1:DC:112:GLN:HG3	1.98	0.45
1:DE:330:VAL:HG12	1:DE:331:GLY:N	2.32	0.45
1:DH:46:ILE:HD12	1:DH:82:ASN:O	2.17	0.45
1:DM:236:MET:SD	1:DM:286:ASN:ND2	2.89	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DN:215:GLU:OE1	1:DN:215:GLU:N	2.50	0.45
2:DR:50:ASP:HB2	2:DT:59:MET:HE3	1.98	0.45
3:DV:70:ILE:HD12	3:DV:123:SER:C	2.37	0.45
7:ED:20:ARG:NH2	7:EE:279:ASP:CA	2.80	0.45
7:ED:381:ALA:O	7:ED:383:ASP:N	2.50	0.45
1:AN:60:ASN:O	1:AN:60:ASN:ND2	2.49	0.44
1:AP:7:PHE:HE1	1:CW:75:LYS:O	1.99	0.44
1:AP:99:THR:HB	1:CW:307:LEU:HD23	0.85	0.44
1:AV:214:ASP:HB2	1:AV:217:ASP:OD2	2.16	0.44
1:AW:157:ASP:OD1	1:AW:157:ASP:N	2.50	0.44
1:BK:98:ASN:OD1	1:BK:109:LEU:N	2.50	0.44
1:BL:271:ASN:OD1	1:BL:272:SER:N	2.51	0.44
1:BS:254:GLY:O	1:BS:255:SER:OG	2.28	0.44
1:BZ:182:ASP:OD1	1:BZ:183:LYS:N	2.51	0.44
1:CA:132:GLN:O	1:CA:166:ALA:N	2.48	0.44
1:CG:102:ASN:OD1	1:CG:105:ARG:NH2	2.49	0.44
1:CG:184:THR:O	1:CG:184:THR:HG22	2.17	0.44
1:CQ:10:TYR:OH	1:CU:162:ARG:NH1	2.49	0.44
1:CW:224:GLN:O	1:CW:227:THR:HG22	2.17	0.44
1:DA:197:THR:O	1:DA:342:VAL:N	2.41	0.44
1:DF:159:HIS:O	1:DF:159:HIS:ND1	2.46	0.44
1:DJ:128:LEU:HD11	1:DJ:332:LEU:HB2	1.99	0.44
1:DM:275:ASP:OD1	1:DM:279:GLN:N	2.50	0.44
2:DT:47:GLU:HG3	2:DT:49:VAL:HG13	1.99	0.44
3:DU:32:VAL:CG2	3:DU:33:ASN:N	2.80	0.44
3:DU:235:LEU:HD11	7:ED:354:ASP:CB	2.35	0.44
3:DV:193:GLN:NE2	4:DW:924:HIS:ND1	2.62	0.44
5:DY:59:VAL:HG13	5:DY:63:TYR:CZ	2.51	0.44
7:ED:97:ASP:CG	7:EE:575:HIS:HE2	1.97	0.44
7:ED:415:GLY:HA3	7:EE:367:VAL:CG2	2.45	0.44
1:AP:79:ILE:HD12	1:CR:147:ALA:HB3	1.90	0.44
1:AS:144:THR:CB	1:CW:141:GLN:O	2.54	0.44
1:AV:34:VAL:HG23	1:AV:125:GLU:OE1	2.17	0.44
1:BI:143:LEU:CA	1:DP:17:LEU:HD11	2.41	0.44
1:BX:122:ARG:NH1	1:CC:192:ASP:OD1	2.49	0.44
1:CF:43:ASN:OD1	1:CL:100:THR:OG1	2.30	0.44
1:CP:152:VAL:HG22	1:CP:152:VAL:O	2.17	0.44
1:DA:87:LEU:O	1:DA:120:ILE:HD11	2.17	0.44
1:DD:44:GLN:HG2	1:DD:45:THR:H	1.81	0.44
1:DE:63:HIS:ND1	1:DE:64:VAL:O	2.50	0.44
1:DG:237:ILE:HD11	1:DG:241:HIS:CB	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DH:171:CYS:SG	1:DH:172:ALA:N	2.91	0.44
1:DN:18:SER:HB2	1:DP:42:ILE:HD11	2.00	0.44
1:DP:151:ALA:O	1:DP:155:LEU:HD13	2.17	0.44
2:DR:26:GLU:O	2:DR:30:GLN:HG2	2.17	0.44
3:DU:204:LEU:HD13	3:DV:190:LEU:HD11	1.99	0.44
3:DU:210:ASP:OD1	3:DU:210:ASP:C	2.55	0.44
3:DV:118:PHE:HB2	3:DV:126:ILE:O	2.16	0.44
3:DV:173:LEU:H	3:DV:173:LEU:CD2	2.27	0.44
5:DX:63:TYR:O	5:DX:67:VAL:HG13	2.17	0.44
7:ED:448:ASP:CG	7:EE:441:ASN:ND2	2.70	0.44
7:EE:517:ASN:OD1	7:EE:517:ASN:N	2.49	0.44
1:AC:167:PHE:HE1	1:AC:342:VAL:HG22	1.82	0.44
1:AC:213:PHE:CE1	1:AC:218:ILE:HD11	2.52	0.44
1:AJ:36:MET:O	1:AJ:37:THR:OG1	2.27	0.44
1:AS:44:GLN:CG	1:CS:101:ALA:C	2.69	0.44
1:BA:213:PHE:CE1	1:BA:218:ILE:HD11	2.52	0.44
1:BA:213:PHE:CE2	1:BA:294:VAL:HG21	2.52	0.44
1:BX:101:ALA:HB2	1:BX:107:ARG:HB2	1.99	0.44
1:BY:57:VAL:HG11	1:CC:126:LYS:CD	2.46	0.44
1:CB:102:ASN:ND2	1:CM:12:GLN:OE1	2.47	0.44
1:CC:166:ALA:C	1:CC:167:PHE:CG	2.91	0.44
1:CD:137:VAL:C	1:CD:138:LEU:HD12	2.37	0.44
1:CD:214:ASP:O	1:CD:215:GLU:HG2	2.17	0.44
1:CE:294:VAL:HG22	1:CE:343:LEU:HB2	1.98	0.44
1:DD:262:ASN:CA	1:DE:267:ILE:HD11	2.47	0.44
1:DE:5:THR:O	1:DE:6:LEU:HD22	2.18	0.44
1:DF:198:VAL:HG13	1:DF:198:VAL:O	2.17	0.44
1:DF:298:ARG:HG2	1:DF:299:SER:H	1.82	0.44
3:DV:118:PHE:HA	3:DV:126:ILE:O	2.17	0.44
4:DW:215:LEU:CD2	4:DW:232:ALA:CA	2.94	0.44
7:ED:377:ALA:HB3	7:ED:382:TYR:CE1	2.52	0.44
1:AB:33:PHE:N	1:AB:125:GLU:OE2	2.48	0.44
1:AJ:306:VAL:HG23	1:AJ:306:VAL:O	2.18	0.44
1:AK:313:THR:OG1	1:AK:325:MET:O	2.36	0.44
1:BC:205:SER:O	1:BC:205:SER:OG	2.27	0.44
1:BC:261:GLU:HB2	1:BD:259:ILE:HD11	2.00	0.44
1:BI:105:ARG:N	1:DK:13:ASN:C	2.70	0.44
1:BX:50:GLN:NE2	1:CB:103:TYR:O	2.49	0.44
1:BX:95:ASP:OD1	1:BX:96:THR:N	2.45	0.44
1:BY:259:ILE:HD12	1:BZ:259:ILE:HD11	1.98	0.44
1:CD:302:TRP:O	1:CD:303:THR:HG23	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CF:273:ILE:HG22	1:CF:274:THR:N	2.32	0.44
1:CG:320:SER:O	1:CG:320:SER:OG	2.30	0.44
1:CW:96:THR:O	1:CW:100:THR:HG23	2.18	0.44
1:CZ:238:ASN:OD1	1:CZ:239:PRO:HD2	2.17	0.44
1:CZ:290:PRO:O	1:CZ:291:THR:HG22	2.17	0.44
1:DH:328:MET:HG3	1:DH:330:VAL:HG23	1.99	0.44
1:DI:237:ILE:HD11	1:DI:241:HIS:HB3	2.00	0.44
2:DR:25:TYR:HE1	4:DW:849:ASP:OD2	2.00	0.44
3:DU:30:GLU:OE2	4:DW:1005:ARG:HG2	2.17	0.44
3:DU:50:LEU:O	3:DU:51:ARG:NH1	2.37	0.44
3:DU:70:ILE:HD12	3:DU:123:SER:HA	1.98	0.44
3:DU:210:ASP:O	3:DU:213:VAL:HG22	2.17	0.44
3:DV:60:TYR:HD2	3:DV:151:SER:HG	1.64	0.44
3:DV:62:ASP:HB3	3:DV:135:THR:HG23	1.99	0.44
7:ED:464:ARG:N	7:EE:73:GLN:OE1	2.48	0.44
7:ED:525:SER:OG	7:ED:527:ASN:OD1	2.33	0.44
1:AB:271:ASN:OD1	1:AB:272:SER:N	2.49	0.44
1:AC:30:ASP:N	1:AC:30:ASP:OD1	2.50	0.44
1:AE:132:GLN:HA	1:AE:180:VAL:HG12	1.98	0.44
1:AE:306:VAL:HG13	1:AE:330:VAL:HG12	2.00	0.44
1:AP:100:THR:HG22	1:CW:44:GLN:HG3	1.99	0.44
1:AV:91:VAL:HG13	1:AV:91:VAL:O	2.17	0.44
1:BB:173:HIS:HB2	1:BB:181:VAL:HG13	1.99	0.44
1:BI:100:THR:CB	1:DK:12:GLN:HB2	2.48	0.44
1:BI:313:THR:OG1	1:BI:325:MET:O	2.36	0.44
1:BN:215:GLU:OE1	1:BN:256:ARG:NH2	2.41	0.44
1:BR:237:ILE:HG22	1:BR:285:VAL:HA	1.99	0.44
1:BZ:213:PHE:HE1	1:BZ:294:VAL:HG21	1.82	0.44
1:CA:81:SER:OG	1:CA:82:ASN:N	2.51	0.44
1:CE:162:ARG:NE	1:CU:10:TYR:OH	2.51	0.44
1:CN:52:ASP:OD1	1:CN:53:ALA:N	2.49	0.44
1:CS:171:CYS:SG	1:CS:340:SER:OG	2.76	0.44
1:CS:237:ILE:HG23	1:CS:238:ASN:N	2.30	0.44
1:CT:220:ASP:OD1	1:CT:221:MET:N	2.51	0.44
1:CW:317:LYS:NZ	1:CW:322:GLU:OE1	2.46	0.44
1:DA:8:VAL:HG13	1:DA:11:ASP:HB2	1.99	0.44
1:DB:311:LYS:NZ	7:ED:26:GLN:CD	2.46	0.44
1:DG:99:THR:HG22	1:DG:99:THR:O	2.18	0.44
1:DI:305:MET:N	1:DI:331:GLY:O	2.46	0.44
1:DK:218:ILE:O	1:DK:222:THR:HG23	2.17	0.44
1:DM:169:PHE:HE1	1:DM:176:LEU:HD11	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DM:296:PHE:O	1:DM:341:GLY:N	2.42	0.44
1:DO:123:ASP:OD1	1:DQ:57:VAL:HG13	2.17	0.44
1:DP:318:ASP:OD1	1:DP:319:GLY:N	2.50	0.44
1:DP:319:GLY:O	1:DP:320:SER:OG	2.27	0.44
3:DU:7:GLN:NE2	3:DU:15:TRP:CH2	2.86	0.44
4:DW:838:ILE:C	4:DW:840:SER:N	2.70	0.44
7:ED:351:ASP:OD1	7:ED:351:ASP:N	2.48	0.44
7:EE:43:TYR:CE1	7:EE:48:LEU:HD12	2.53	0.44
1:AM:30:ASP:O	1:AM:31:THR:OG1	2.33	0.44
1:AN:131:GLY:O	1:AN:181:VAL:HG23	2.17	0.44
1:AQ:301:ASP:O	1:AQ:334:HIS:ND1	2.49	0.44
1:AW:93:VAL:HG13	1:BK:7:PHE:CD2	2.45	0.44
1:BU:157:ASP:N	1:BU:157:ASP:OD1	2.50	0.44
1:BZ:30:ASP:OD1	1:BZ:30:ASP:N	2.50	0.44
1:CD:65:GLU:OE1	1:CH:162:ARG:NH1	2.51	0.44
1:CD:93:VAL:HG21	1:CD:108:GLU:O	2.18	0.44
1:CF:180:VAL:HG12	1:CF:181:VAL:N	2.33	0.44
1:CP:315:LEU:HG	1:CP:316:ALA:H	1.82	0.44
1:CY:136:ASP:OD2	1:CY:142:TYR:OH	2.34	0.44
1:CZ:52:ASP:OD1	1:CZ:53:ALA:N	2.50	0.44
1:DB:84:THR:HG22	1:DB:331:GLY:HA3	2.00	0.44
1:DB:266:PHE:HB3	1:DC:273:ILE:HG22	2.00	0.44
1:DC:143:LEU:CG	3:DV:84:LYS:CE	2.95	0.44
1:DC:305:MET:SD	1:DC:333:ARG:HB2	2.57	0.44
1:DD:100:THR:HG22	1:DD:101:ALA:N	2.31	0.44
1:DJ:237:ILE:HD11	1:DJ:285:VAL:HG22	1.98	0.44
1:DL:246:ALA:HB2	1:DN:276:PRO:HG3	2.00	0.44
1:DM:149:ASP:OD1	1:DM:149:ASP:N	2.51	0.44
1:DN:37:THR:OG1	1:DN:304:GLN:OE1	2.32	0.44
2:DR:28:ALA:HB1	2:DS:18:PRO:HB3	2.00	0.44
5:DY:84:ASP:CA	5:DY:87:LEU:HB3	2.40	0.44
7:ED:416:ILE:CG2	7:ED:417:ASP:N	2.81	0.44
1:AH:49:TRP:NE1	1:AH:334:HIS:O	2.51	0.44
1:AO:46:ILE:HG23	1:AO:82:ASN:O	2.18	0.44
1:AP:101:ALA:CB	1:CW:43:ASN:H	2.29	0.44
1:AP:108:GLU:CA	1:CS:7:PHE:CZ	2.98	0.44
1:AP:144:THR:O	1:CR:141:GLN:C	2.53	0.44
1:BM:203:ASN:O	1:BM:349:LYS:NZ	2.40	0.44
1:BP:183:LYS:NZ	1:BP:292:ASP:OD2	2.38	0.44
1:BS:305:MET:N	1:BS:331:GLY:O	2.49	0.44
1:BY:207:PRO:HG2	1:BY:209:THR:HG22	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CE:272:SER:HG	1:CE:280:SER:HG	1.61	0.44
1:CL:67:SER:O	1:CL:67:SER:OG	2.34	0.44
1:CS:273:ILE:HG22	1:CS:274:THR:N	2.32	0.44
1:CV:302:TRP:CE3	1:CV:332:LEU:HD21	2.52	0.44
1:DA:25:VAL:HG13	1:DA:26:LEU:N	2.33	0.44
1:DC:137:VAL:O	1:DC:137:VAL:HG12	2.18	0.44
1:DE:94:SER:OG	1:DL:7:PHE:O	2.25	0.44
2:DR:21:ARG:HD3	4:DW:859:LYS:CG	2.40	0.44
2:DS:32:ARG:NH2	2:DT:19:ARG:HB2	2.33	0.44
3:DV:52:ILE:HD12	3:DV:54:PRO:CG	2.47	0.44
3:DV:69:TYR:HE2	5:DZ:28:TYR:CE2	2.35	0.44
3:DV:197:GLY:O	3:DV:201:TRP:CD1	2.71	0.44
7:ED:489:ARG:NE	7:ED:513:PRO:O	2.51	0.44
7:EE:489:ARG:NE	7:EE:513:PRO:O	2.51	0.44
1:AI:5:THR:OG1	1:AO:156:ASN:OD1	2.36	0.44
1:AP:94:SER:O	1:CS:7:PHE:C	2.56	0.44
1:BE:253:GLN:OE1	1:BE:253:GLN:N	2.49	0.44
1:BP:336:ASN:OD1	1:BP:338:TYR:N	2.43	0.44
1:BT:34:VAL:HG23	1:BT:125:GLU:OE1	2.17	0.44
1:CJ:252:THR:OG1	1:CJ:256:ARG:O	2.36	0.44
1:CL:222:THR:HG21	1:CL:275:ASP:OD2	2.17	0.44
1:CP:237:ILE:HD11	1:CP:241:HIS:HB2	2.00	0.44
1:CQ:202:GLN:O	1:CQ:203:ASN:OD1	2.35	0.44
1:DB:306:VAL:HG22	1:DB:330:VAL:HG23	2.00	0.44
1:DF:188:PRO:O	1:DF:196:VAL:HG22	2.18	0.44
1:DJ:93:VAL:HG12	1:DJ:94:SER:N	2.32	0.44
1:DK:202:GLN:NE2	1:DK:216:ALA:O	2.51	0.44
1:DO:110:MET:O	1:DO:114:GLU:OE1	2.35	0.44
4:DW:858:ARG:HE	4:DW:859:LYS:N	2.16	0.44
5:DX:45:ALA:O	5:DX:46:GLU:C	2.55	0.44
5:DX:49:PHE:CE2	5:DY:49:PHE:HA	2.53	0.44
5:DX:85:ALA:HB3	5:DX:86:ARG:CZ	2.48	0.44
5:DX:88:MET:N	5:DX:88:MET:SD	2.90	0.44
1:AG:30:ASP:OD2	1:AG:287:ARG:NH2	2.45	0.44
1:AJ:275:ASP:OD1	1:AJ:279:GLN:N	2.43	0.44
1:AM:98:ASN:OD1	1:AM:109:LEU:N	2.50	0.44
1:AP:17:LEU:HD12	1:CS:17:LEU:HD11	2.00	0.44
1:AV:306:VAL:HG13	1:AV:330:VAL:CG1	2.47	0.44
1:AW:13:ASN:HB3	1:BN:77:THR:OG1	1.94	0.44
1:AW:15:LYS:N	1:BK:103:TYR:CE1	2.77	0.44
1:BA:30:ASP:OD1	1:BA:30:ASP:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BA:262:ASN:HB3	1:BB:267:ILE:HD12	2.00	0.44
1:BI:95:ASP:HA	1:DK:8:VAL:O	2.18	0.44
1:BI:320:SER:H	1:DO:66:GLY:C	2.20	0.44
1:BW:137:VAL:HG23	1:BW:137:VAL:O	2.18	0.44
1:BW:197:THR:O	1:BW:198:VAL:HG13	2.18	0.44
1:CH:149:ASP:OD1	1:CH:149:ASP:N	2.51	0.44
1:CQ:275:ASP:OD1	1:CQ:279:GLN:N	2.51	0.44
1:CQ:292:ASP:O	1:CQ:345:THR:HG23	2.18	0.44
1:CR:87:LEU:HB3	1:CR:120:ILE:HD11	2.00	0.44
1:CW:237:ILE:HD11	1:CW:241:HIS:CB	2.48	0.44
1:DF:64:VAL:HG12	1:DF:65:GLU:N	2.33	0.44
1:DI:237:ILE:HD11	1:DI:241:HIS:CB	2.48	0.44
1:DP:134:ARG:NH2	1:DP:142:TYR:OH	2.50	0.44
2:DT:23:TYR:HD1	2:DT:23:TYR:HA	1.46	0.44
3:DV:3:MET:N	3:DV:4:PRO:HD2	2.33	0.44
4:DW:838:ILE:HG23	4:DW:840:SER:H	1.83	0.44
7:ED:41:TRP:CD1	7:ED:266:THR:HG22	2.53	0.44
7:ED:229:ARG:O	7:ED:287:VAL:N	2.48	0.44
1:AF:305:MET:N	1:AF:331:GLY:O	2.51	0.43
1:AM:308:ARG:NH1	1:AM:327:GLU:OE1	2.51	0.43
1:AP:30:ASP:O	1:AP:31:THR:OG1	2.31	0.43
1:AS:142:TYR:CD2	1:CW:144:THR:O	2.71	0.43
1:AW:103:TYR:HB2	1:BK:16:LYS:HB3	1.82	0.43
1:BM:46:ILE:HG23	1:BM:82:ASN:O	2.18	0.43
1:BX:314:GLU:OE1	1:BX:324:TRP:NE1	2.50	0.43
1:BY:52:ASP:OD2	1:BY:53:ALA:N	2.46	0.43
1:CH:88:ARG:NE	1:CH:327:GLU:OE2	2.50	0.43
1:CL:56:SER:OG	1:CL:191:PRO:O	2.30	0.43
1:CN:143:LEU:H	1:CN:143:LEU:HD23	1.82	0.43
1:CQ:200:VAL:O	1:CQ:200:VAL:HG13	2.18	0.43
1:CS:290:PRO:O	1:CS:291:THR:HG22	2.18	0.43
1:DF:25:VAL:HG13	1:DF:25:VAL:O	2.17	0.43
2:DS:59:MET:HG3	2:DS:65:PHE:CE2	2.53	0.43
3:DU:187:HIS:O	3:DU:190:LEU:HB2	2.17	0.43
7:EE:525:SER:OG	7:EE:527:ASN:OD1	2.33	0.43
7:EE:564:GLN:O	7:EE:568:LEU:HG	2.18	0.43
1:AC:171:CYS:SG	1:AC:340:SER:OG	2.50	0.43
1:AE:261:GLU:HB2	1:AF:259:ILE:HD11	2.00	0.43
1:AG:140:ASP:HA	1:AG:143:LEU:HD12	2.00	0.43
1:AN:271:ASN:OD1	1:AN:272:SER:N	2.51	0.43
1:AP:4:PRO:C	1:CS:92:ARG:HE	2.09	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AP:9:SER:N	1:CS:96:THR:CG2	2.77	0.43
1:AS:141:GLN:HA	1:CW:141:GLN:NE2	2.30	0.43
1:AW:100:THR:HG21	1:BN:84:THR:HG23	1.96	0.43
1:BD:81:SER:O	1:BD:134:ARG:NH2	2.52	0.43
1:BF:63:HIS:O	1:BI:86:ILE:HD13	2.19	0.43
1:BK:90:VAL:HG11	1:BN:70:GLU:O	2.18	0.43
1:BL:131:GLY:O	1:BL:181:VAL:HG23	2.17	0.43
1:CO:262:ASN:ND2	1:CS:265:GLN:O	2.47	0.43
1:CV:87:LEU:CB	1:CV:120:ILE:HD11	2.48	0.43
1:CX:52:ASP:OD1	1:CX:53:ALA:N	2.50	0.43
1:CY:105:ARG:NH2	1:CY:108:GLU:OE1	2.51	0.43
1:DC:100:THR:HG22	1:DC:101:ALA:N	2.26	0.43
1:DE:91:VAL:HG13	1:DE:91:VAL:O	2.16	0.43
1:DF:167:PHE:O	1:DF:168:GLN:HB2	2.18	0.43
1:DJ:137:VAL:O	1:DJ:137:VAL:HG22	2.18	0.43
3:DV:62:ASP:OD1	3:DV:62:ASP:N	2.50	0.43
5:DX:63:TYR:HB2	5:DZ:70:LYS:NZ	2.33	0.43
7:ED:549:LEU:HD11	7:EE:558:ASP:OD2	2.18	0.43
7:ED:552:LEU:HG	7:EE:579:LEU:H	1.23	0.43
7:ED:564:GLN:O	7:ED:568:LEU:HG	2.18	0.43
7:EE:41:TRP:CD1	7:EE:266:THR:HG22	2.53	0.43
7:EE:100:ASP:OD1	7:EE:100:ASP:N	2.50	0.43
1:AX:234:ILE:HG23	1:AX:284:ILE:HD12	1.99	0.43
1:AY:21:ASN:O	1:AY:21:ASN:ND2	2.51	0.43
1:BD:230:SER:OG	1:BD:339:ALA:O	2.21	0.43
1:BE:250:GLU:OE1	1:BK:256:ARG:NE	2.46	0.43
1:BI:109:LEU:HD12	1:DK:7:PHE:CD1	2.50	0.43
1:CH:275:ASP:OD1	1:CH:279:GLN:N	2.38	0.43
1:CO:180:VAL:HG12	1:CO:181:VAL:H	1.82	0.43
1:DB:26:LEU:HD13	1:DC:336:ASN:HD22	1.84	0.43
1:DC:91:VAL:HG13	1:DC:91:VAL:O	2.18	0.43
1:DE:57:VAL:HG23	1:DE:57:VAL:O	2.18	0.43
1:DJ:334:HIS:ND1	1:DJ:336:ASN:O	2.51	0.43
2:DT:5:THR:O	2:DT:6:ASN:HB3	2.18	0.43
3:DU:165:GLU:OE1	3:DU:166:ASP:N	2.39	0.43
3:DV:81:MET:HB2	3:DV:87:THR:O	2.18	0.43
3:DV:128:TYR:CB	3:DV:129:PRO:HD3	2.48	0.43
7:ED:32:ALA:O	7:EE:269:ARG:CG	2.66	0.43
7:ED:32:ALA:CB	7:EE:269:ARG:HB3	2.31	0.43
7:ED:43:TYR:CE1	7:ED:48:LEU:HD12	2.53	0.43
7:ED:376:LYS:HZ3	7:ED:408:PRO:HD3	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:ED:638:LEU:O	7:ED:641:GLU:HB3	2.19	0.43
7:EE:655:THR:O	7:EE:659:ARG:N	2.48	0.43
1:AA:21:ASN:O	1:AA:21:ASN:ND2	2.51	0.43
1:AM:210:ASN:OD1	1:AM:211:ILE:N	2.52	0.43
1:AT:237:ILE:HG22	1:AT:285:VAL:HA	1.99	0.43
1:BG:5:THR:OG1	1:BM:156:ASN:OD1	2.36	0.43
1:BI:209:THR:OG1	1:BI:210:ASN:N	2.51	0.43
1:BK:306:VAL:HA	1:BK:330:VAL:HG22	1.99	0.43
1:BY:156:ASN:O	1:BY:159:HIS:NE2	2.51	0.43
1:BZ:43:ASN:OD1	1:BZ:44:GLN:N	2.50	0.43
1:CJ:96:THR:O	1:CJ:100:THR:HG23	2.19	0.43
1:CN:83:VAL:HG12	1:CN:84:THR:N	2.34	0.43
1:CP:290:PRO:O	1:CP:291:THR:HG22	2.18	0.43
1:CQ:136:ASP:OD1	1:CQ:137:VAL:N	2.51	0.43
1:CS:25:VAL:O	1:CS:25:VAL:HG13	2.18	0.43
1:CX:164:THR:HG21	1:CX:331:GLY:HA2	1.99	0.43
1:DB:52:ASP:HB3	1:DB:78:VAL:HG23	2.00	0.43
1:DF:257:LYS:NZ	1:DF:259:ILE:HD11	2.33	0.43
1:DK:83:VAL:HG21	1:DK:162:ARG:HG2	2.01	0.43
1:DL:184:THR:O	1:DL:184:THR:HG22	2.18	0.43
1:DO:259:ILE:HG21	1:DQ:259:ILE:HD13	2.00	0.43
1:DP:91:VAL:O	1:DP:91:VAL:HG13	2.18	0.43
3:DV:55:LEU:HB3	5:DY:22:GLU:OE2	2.18	0.43
3:DV:153:ILE:HD12	5:DX:2:ILE:N	2.32	0.43
7:ED:304:GLU:CB	7:EE:232:GLU:OE1	2.64	0.43
7:ED:430:ARG:NH2	7:EE:69:ASN:ND2	2.66	0.43
7:EE:416:ILE:CG2	7:EE:417:ASP:N	2.81	0.43
1:AA:65:GLU:OE1	1:AB:162:ARG:NH1	2.51	0.43
1:AC:131:GLY:O	1:AC:181:VAL:HG23	2.18	0.43
1:AC:262:ASN:HB3	1:AD:267:ILE:HD12	2.00	0.43
1:AG:56:SER:OG	1:AG:57:VAL:N	2.52	0.43
1:AO:64:VAL:HG12	1:AO:65:GLU:N	2.34	0.43
1:AP:7:PHE:CE2	1:CW:75:LYS:HD2	2.54	0.43
1:BH:306:VAL:HG23	1:BH:306:VAL:O	2.18	0.43
1:BI:92:ARG:NH1	1:DK:6:LEU:HD21	2.27	0.43
1:BI:109:LEU:HD21	1:DK:7:PHE:CZ	2.53	0.43
1:BK:91:VAL:HG13	1:BK:91:VAL:O	2.19	0.43
1:CA:237:ILE:HG21	1:CA:285:VAL:HG22	1.99	0.43
1:CD:96:THR:HG21	1:CD:108:GLU:OE2	2.18	0.43
1:CM:125:GLU:OE2	1:CM:286:ASN:ND2	2.48	0.43
1:CR:117:GLY:O	1:CR:120:ILE:HG22	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CV:162:ARG:NH1	1:CV:329:GLU:OE2	2.51	0.43
1:CW:147:ALA:HB1	1:CW:150:PRO:HG3	2.01	0.43
1:DI:31:THR:OG1	1:DI:31:THR:O	2.37	0.43
1:DI:64:VAL:O	1:DQ:86:ILE:HD11	2.18	0.43
1:DJ:83:VAL:HG12	1:DJ:84:THR:N	2.33	0.43
1:DK:267:ILE:HG22	1:DM:274:THR:HB	2.00	0.43
1:DL:26:LEU:HD22	1:DN:336:ASN:HB2	2.00	0.43
1:DO:24:SER:OG	1:DQ:335:ARG:O	2.24	0.43
1:DO:203:ASN:ND2	1:DO:212:GLY:O	2.52	0.43
1:DQ:90:VAL:HG12	1:DQ:91:VAL:N	2.33	0.43
2:DR:19:ARG:NE	2:DR:23:TYR:O	2.46	0.43
3:DV:79:TRP:CZ2	3:DV:155:SER:HB2	2.54	0.43
3:DV:143:SER:N	3:DV:144:PRO:CD	2.80	0.43
3:DV:191:PHE:CD1	3:DV:191:PHE:C	2.91	0.43
4:DW:838:ILE:O	4:DW:839:TRP:C	2.56	0.43
5:DY:73:ILE:O	5:DY:76:LEU:HB2	2.18	0.43
7:ED:94:GLN:HE21	7:EE:502:ARG:HG3	1.84	0.43
1:AS:79:ILE:HG22	1:AS:80:LYS:N	2.34	0.43
1:AV:252:THR:OG1	1:AV:255:SER:OG	2.14	0.43
1:BF:49:TRP:NE1	1:BF:334:HIS:O	2.51	0.43
1:BM:196:VAL:N	1:BM:224:GLN:OE1	2.49	0.43
1:BU:4:PRO:C	1:DH:74:MET:HB3	1.96	0.43
1:BU:8:VAL:H	1:DP:94:SER:HB2	1.54	0.43
1:BY:33:PHE:CZ	1:BY:37:THR:HG21	2.53	0.43
1:CF:96:THR:O	1:CF:100:THR:HG23	2.19	0.43
1:CH:267:ILE:HD13	1:CX:262:ASN:HA	2.01	0.43
1:CI:262:ASN:OD1	1:CI:263:THR:N	2.52	0.43
1:CJ:17:LEU:HG	1:CJ:18:SER:N	2.33	0.43
1:CY:152:VAL:O	1:CY:152:VAL:HG12	2.18	0.43
1:DA:124:LEU:HD11	1:DA:128:LEU:HD11	2.00	0.43
1:DC:84:THR:HG22	1:DC:85:GLN:N	2.34	0.43
1:DF:237:ILE:HD11	1:DF:241:HIS:HB3	1.99	0.43
1:DH:203:ASN:ND2	1:DH:203:ASN:O	2.52	0.43
1:DK:182:ASP:OD1	1:DK:184:THR:OG1	2.23	0.43
2:DR:59:MET:SD	2:DS:50:ASP:HB3	2.58	0.43
5:DY:49:PHE:HE1	5:DZ:52:ILE:HD12	1.84	0.43
1:AA:305:MET:N	1:AA:331:GLY:O	2.47	0.43
1:AK:209:THR:OG1	1:AK:210:ASN:N	2.51	0.43
1:AK:314:GLU:OE1	1:AK:314:GLU:HA	2.19	0.43
1:AM:91:VAL:O	1:AM:91:VAL:HG13	2.19	0.43
1:AR:254:GLY:O	1:AR:255:SER:OG	2.28	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BE:203:ASN:O	1:BE:349:LYS:NZ	2.48	0.43
1:BW:326:ILE:HG23	1:BW:326:ILE:O	2.19	0.43
1:BX:79:ILE:HD11	1:CM:13:ASN:HB3	2.00	0.43
1:CF:51:THR:O	1:CF:51:THR:HG23	2.19	0.43
1:CO:88:ARG:NH2	1:CS:68:ARG:O	2.52	0.43
1:CT:164:THR:O	1:CT:164:THR:HG22	2.18	0.43
1:DA:145:ASN:O	1:DA:149:ASP:N	2.46	0.43
1:DI:164:THR:HG22	1:DI:165:GLY:N	2.34	0.43
1:DN:310:PRO:CB	1:DN:326:ILE:HD11	2.46	0.43
2:DR:90:VAL:HG21	2:DS:96:GLU:HB3	2.01	0.43
3:DU:53:PRO:HA	3:DU:56:GLU:HG3	2.01	0.43
3:DU:88:ILE:HD13	3:DU:88:ILE:N	2.33	0.43
3:DV:73:ASP:HB3	5:DY:24:SER:HG	1.75	0.43
7:EE:638:LEU:O	7:EE:641:GLU:HB3	2.19	0.43
1:AD:134:ARG:O	1:AD:135:THR:OG1	2.32	0.43
1:AF:81:SER:O	1:AF:134:ARG:NH2	2.51	0.43
1:AK:213:PHE:HE1	1:AK:218:ILE:HD11	1.84	0.43
1:AP:4:PRO:HB3	1:CW:75:LYS:HD2	1.61	0.43
1:AS:224:GLN:O	1:AS:227:THR:OG1	2.26	0.43
1:BA:25:VAL:O	1:BA:25:VAL:HG13	2.19	0.43
1:BA:131:GLY:O	1:BA:181:VAL:HG23	2.18	0.43
1:BI:12:GLN:HB2	1:DK:96:THR:HG23	1.07	0.43
1:BI:314:GLU:HA	1:BI:314:GLU:OE1	2.19	0.43
1:BM:64:VAL:HG12	1:BM:65:GLU:N	2.33	0.43
1:BM:308:ARG:NH1	1:BM:327:GLU:OE1	2.43	0.43
1:BN:30:ASP:O	1:BN:31:THR:OG1	2.31	0.43
1:BT:306:VAL:HG13	1:BT:330:VAL:CG1	2.47	0.43
1:BW:42:ILE:HG23	1:BW:42:ILE:O	2.19	0.43
1:BZ:25:VAL:O	1:BZ:26:LEU:HD12	2.19	0.43
1:BZ:91:VAL:O	1:BZ:91:VAL:HG13	2.18	0.43
1:CM:45:THR:HG1	1:CM:84:THR:HG1	1.63	0.43
1:CQ:310:PRO:HB3	1:CQ:326:ILE:HD11	2.01	0.43
1:CV:211:ILE:O	1:CV:211:ILE:HG23	2.19	0.43
1:DI:186:ASN:OD1	1:DI:187:GLY:N	2.51	0.43
3:DU:171:THR:CB	5:DX:21:THR:HG21	2.45	0.43
3:DV:10:ILE:HG13	3:DV:10:ILE:O	2.19	0.43
4:DW:748:ALA:HB1	6:EC:23:PHE:N	1.95	0.43
5:DY:73:ILE:HA	5:DY:76:LEU:CB	2.44	0.43
5:DY:76:LEU:HD23	5:DY:76:LEU:HA	1.80	0.43
7:ED:305:SER:OG	7:EE:284:ALA:N	2.52	0.43
1:AP:317:LYS:H	1:CW:315:LEU:HB3	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:65:GLU:OE2	1:CN:94:SER:HB3	2.19	0.43
1:AW:105:ARG:HD2	1:BK:15:LYS:CB	1.80	0.43
1:BI:93:VAL:O	1:DK:6:LEU:O	2.35	0.43
1:BI:145:ASN:OD1	1:DH:142:TYR:HE2	1.99	0.43
1:BJ:271:ASN:N	1:BV:264:LYS:O	2.44	0.43
1:BK:36:MET:O	1:BK:299:SER:OG	2.31	0.43
1:CE:143:LEU:HD13	1:CU:17:LEU:HD22	1.99	0.43
1:CP:64:VAL:O	1:CP:65:GLU:HG3	2.18	0.43
1:CT:190:ASP:O	1:CT:194:GLY:N	2.45	0.43
1:CV:87:LEU:HB2	1:CV:120:ILE:HD11	2.01	0.43
1:CZ:315:LEU:N	1:CZ:315:LEU:HD12	2.34	0.43
1:DA:57:VAL:HG21	1:DE:126:LYS:HE3	2.01	0.43
1:DB:16:LYS:HE2	3:DV:234:ARG:HB2	2.01	0.43
1:DB:167:PHE:HE2	1:DB:342:VAL:HG22	1.83	0.43
1:DH:307:LEU:HD22	1:DH:329:GLU:OE1	2.19	0.43
2:DS:48:PRO:HB2	2:DT:41:THR:O	2.18	0.43
2:DS:55:THR:O	2:DS:59:MET:HB2	2.19	0.43
3:DV:99:TYR:CE1	3:DV:103:HIS:HB2	2.54	0.43
4:DW:65:PHE:CZ	4:DW:870:ILE:HG23	2.54	0.43
4:DW:355:GLU:OE2	4:DW:371:VAL:CG2	2.57	0.43
5:DX:52:ILE:HD11	5:DZ:56:ILE:CD1	2.49	0.43
7:ED:98:ALA:N	7:EE:572:LYS:HZ1	2.14	0.43
7:ED:467:MET:HE2	7:EE:72:LEU:CD2	2.33	0.43
1:AA:256:ARG:NE	1:AB:250:GLU:OE2	2.40	0.43
1:AH:63:HIS:O	1:AK:86:ILE:HD13	2.19	0.43
1:AM:7:PHE:CB	1:CR:74:MET:SD	2.95	0.43
1:AP:52:ASP:OD1	1:AP:53:ALA:N	2.52	0.43
1:AR:213:PHE:CE1	1:AR:294:VAL:HG22	2.54	0.43
1:AT:210:ASN:C	1:AT:211:ILE:HD13	2.40	0.43
1:BF:31:THR:O	1:BF:35:SER:OG	2.30	0.43
1:BG:64:VAL:HG12	1:BG:65:GLU:H	1.83	0.43
1:BK:308:ARG:NH1	1:BK:327:GLU:OE1	2.51	0.43
1:BS:46:ILE:HD13	1:BS:138:LEU:HD11	2.00	0.43
1:BU:318:ASP:HA	1:DH:314:GLU:C	2.20	0.43
1:CE:205:SER:OG	1:CE:214:ASP:OD2	2.37	0.43
1:DE:230:SER:OG	1:DE:339:ALA:O	2.30	0.43
1:DG:83:VAL:HG12	1:DG:84:THR:N	2.34	0.43
1:DH:8:VAL:O	1:DH:8:VAL:HG13	2.18	0.43
3:DV:26:ARG:HH21	3:DV:27:ASP:H	1.67	0.43
3:DV:59:VAL:CG1	3:DV:154:LEU:HB3	2.49	0.43
4:DW:275:ASP:HB3	4:DW:279:LYS:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:DW:355:GLU:CD	4:DW:371:VAL:HG22	2.39	0.43
5:DY:82:ASP:O	5:DY:86:ARG:HG2	2.19	0.43
7:ED:93:GLN:CG	7:EE:574:THR:HG21	2.25	0.43
1:AD:186:ASN:OD1	1:AD:186:ASN:N	2.52	0.42
1:AM:90:VAL:HG11	1:AP:70:GLU:O	2.18	0.42
1:AM:171:CYS:SG	1:AM:340:SER:OG	2.51	0.42
1:AP:16:LYS:NZ	1:CS:103:TYR:CB	2.80	0.42
1:AQ:214:ASP:O	1:AQ:217:ASP:N	2.34	0.42
1:AS:44:GLN:HB3	1:CS:100:THR:HG21	1.59	0.42
1:AS:307:LEU:HD11	1:CS:98:ASN:O	2.19	0.42
1:BE:56:SER:OG	1:BE:57:VAL:N	2.52	0.42
1:BH:17:LEU:O	1:BH:18:SER:OG	2.33	0.42
1:BI:72:GLY:N	1:DP:5:THR:HA	2.32	0.42
1:BI:91:VAL:HG12	1:DK:7:PHE:CD1	2.47	0.42
1:BU:96:THR:N	1:DH:308:ARG:NH1	2.63	0.42
1:BU:286:ASN:OD1	1:BU:289:MET:N	2.52	0.42
1:BX:132:GLN:O	1:BX:166:ALA:N	2.51	0.42
1:BY:83:VAL:HG12	1:BY:84:THR:N	2.34	0.42
1:BY:192:ASP:OD2	1:CC:27:SER:OG	2.27	0.42
1:CA:213:PHE:HB2	1:CA:244:ILE:HG21	2.00	0.42
1:CB:271:ASN:OD1	1:CB:272:SER:N	2.52	0.42
1:CF:81:SER:OG	1:CF:134:ARG:NH2	2.51	0.42
1:CR:52:ASP:OD1	1:CR:53:ALA:N	2.50	0.42
1:CS:275:ASP:OD1	1:CS:279:GLN:N	2.52	0.42
1:DB:273:ILE:HG22	1:DB:274:THR:N	2.33	0.42
1:DD:44:GLN:O	1:DD:46:ILE:N	2.52	0.42
1:DD:90:VAL:HG22	1:DD:91:VAL:N	2.34	0.42
1:DH:263:THR:O	1:DH:264:LYS:HB3	2.19	0.42
1:DJ:25:VAL:HG23	1:DJ:25:VAL:O	2.19	0.42
2:DT:22:ASP:HA	4:DW:838:ILE:HA	2.00	0.42
5:DX:63:TYR:CB	5:DZ:70:LYS:NZ	2.81	0.42
1:AE:218:ILE:O	1:AE:222:THR:HG23	2.19	0.42
1:AI:64:VAL:HG12	1:AI:65:GLU:H	1.83	0.42
1:AK:143:LEU:CD2	1:BN:146:SER:C	2.75	0.42
1:AM:6:LEU:N	1:CR:74:MET:CE	2.82	0.42
1:AP:96:THR:CG2	1:CZ:64:VAL:HG13	2.48	0.42
1:AW:238:ASN:ND2	1:AW:289:MET:O	2.50	0.42
1:AX:273:ILE:HD12	1:AX:283:ILE:HD11	2.00	0.42
1:BC:306:VAL:HG13	1:BC:330:VAL:HG12	2.00	0.42
1:BD:334:HIS:NE2	1:BD:336:ASN:O	2.53	0.42
1:BI:146:SER:CA	1:DH:143:LEU:CD1	2.97	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BK:143:LEU:O	1:BK:144:THR:OG1	2.20	0.42
1:BU:108:GLU:OE1	1:DP:7:PHE:CZ	2.71	0.42
1:BX:141:GLN:HG3	1:BX:144:THR:HG23	2.01	0.42
1:CE:241:HIS:NE2	1:CE:291:THR:O	2.52	0.42
1:CJ:293:ALA:HB2	1:CJ:344:PHE:HD1	1.84	0.42
1:CR:307:LEU:HD23	1:CR:329:GLU:OE1	2.19	0.42
1:CT:138:LEU:N	1:CT:138:LEU:HD12	2.33	0.42
1:CU:25:VAL:HG23	1:CU:25:VAL:O	2.19	0.42
1:CX:85:GLN:CB	1:CX:164:THR:HG23	2.49	0.42
1:CZ:275:ASP:OD1	1:CZ:279:GLN:N	2.48	0.42
1:DB:312:ARG:HH22	7:ED:27:GLY:CA	2.31	0.42
1:DF:70:GLU:N	1:DF:70:GLU:OE2	2.51	0.42
1:DG:58:ASP:OD1	1:DG:59:GLY:N	2.50	0.42
1:DL:198:VAL:HG12	1:DL:342:VAL:HG22	2.01	0.42
3:DV:59:VAL:CB	5:DX:3:VAL:HG23	2.49	0.42
4:DW:2:ALA:O	4:DW:3:LEU:HB3	2.19	0.42
4:DW:336:THR:HG22	4:DW:337:VAL:N	2.34	0.42
5:DX:60:GLU:OE2	5:DX:64:GLN:HG2	2.18	0.42
1:AA:90:VAL:HG11	1:AC:70:GLU:O	2.19	0.42
1:AG:153:ALA:O	1:AG:155:LEU:N	2.49	0.42
1:AI:64:VAL:HG11	1:AL:157:ASP:O	2.19	0.42
1:AO:64:VAL:HG12	1:AO:65:GLU:H	1.85	0.42
1:AV:40:GLU:OE1	1:AV:333:ARG:NH2	2.53	0.42
1:AY:65:GLU:OE1	1:AZ:162:ARG:NH1	2.51	0.42
1:BF:74:MET:HE1	1:DK:6:LEU:CB	2.46	0.42
1:BM:64:VAL:HG12	1:BM:65:GLU:H	1.85	0.42
1:BQ:250:GLU:OE2	1:BT:256:ARG:NH1	2.50	0.42
1:BS:237:ILE:HG22	1:BS:285:VAL:HA	2.01	0.42
1:BU:13:ASN:HB2	1:DP:105:ARG:NH1	2.26	0.42
1:BV:234:ILE:HG23	1:BV:284:ILE:HD12	1.99	0.42
1:BV:273:ILE:HD12	1:BV:283:ILE:HD11	2.00	0.42
1:BW:95:ASP:OD1	1:BW:96:THR:N	2.51	0.42
1:BX:107:ARG:NH1	1:BX:108:GLU:O	2.53	0.42
1:CC:64:VAL:HG12	1:CC:65:GLU:N	2.33	0.42
1:CG:177:ALA:HB2	1:CG:182:ASP:HB2	2.00	0.42
1:CK:290:PRO:O	1:CK:291:THR:HG22	2.19	0.42
1:CQ:308:ARG:HG2	1:CQ:329:GLU:HB2	2.02	0.42
1:CU:34:VAL:HG13	1:CU:304:GLN:HE22	1.84	0.42
1:CU:263:THR:O	1:CU:264:LYS:HB3	2.19	0.42
1:CV:33:PHE:O	1:CV:37:THR:HG23	2.19	0.42
1:CZ:4:PRO:O	1:CZ:5:THR:OG1	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DB:12:GLN:NE2	3:DV:234:ARG:NH2	2.67	0.42
1:DF:315:LEU:HD11	1:DF:321:TYR:CE1	2.54	0.42
1:DN:252:THR:O	1:DN:256:ARG:N	2.52	0.42
3:DV:209:LEU:O	3:DV:212:MET:HG3	2.19	0.42
7:ED:517:ASN:N	7:ED:517:ASN:OD1	2.49	0.42
7:EE:536:LEU:HB3	7:EE:565:ILE:HD11	2.01	0.42
1:AC:25:VAL:HG13	1:AC:25:VAL:O	2.19	0.42
1:AL:51:THR:O	1:AL:51:THR:OG1	2.33	0.42
1:AW:286:ASN:OD1	1:AW:289:MET:N	2.52	0.42
1:AY:152:VAL:O	1:AY:152:VAL:HG12	2.19	0.42
1:BI:12:GLN:HG2	1:DK:94:SER:O	2.19	0.42
1:BK:210:ASN:OD1	1:BK:211:ILE:N	2.52	0.42
1:BQ:79:ILE:HG22	1:BQ:80:LYS:N	2.34	0.42
1:BT:40:GLU:OE1	1:BT:333:ARG:NH2	2.52	0.42
1:BU:14:GLY:HA3	1:DP:102:ASN:OD1	2.17	0.42
1:BZ:58:ASP:OD1	1:BZ:59:GLY:N	2.52	0.42
1:CA:117:GLY:O	1:CA:120:ILE:HG22	2.20	0.42
1:CE:18:SER:O	1:CE:18:SER:OG	2.35	0.42
1:CF:250:GLU:OE2	1:CN:256:ARG:NE	2.52	0.42
1:CS:253:GLN:OE1	1:CS:253:GLN:N	2.41	0.42
1:CT:156:ASN:C	1:CT:156:ASN:OD1	2.57	0.42
1:CX:30:ASP:N	1:CX:30:ASP:OD1	2.52	0.42
1:CZ:30:ASP:OD1	1:CZ:31:THR:N	2.49	0.42
1:DB:312:ARG:NE	7:ED:31:MET:HE3	2.29	0.42
1:DC:143:LEU:CG	3:DV:84:LYS:NZ	2.82	0.42
1:DN:95:ASP:N	1:DN:95:ASP:OD2	2.52	0.42
1:DQ:137:VAL:HG22	1:DQ:137:VAL:O	2.19	0.42
3:DU:192:VAL:HG23	4:DW:1004:ARG:O	2.16	0.42
3:DV:7:GLN:HB2	3:DV:9:PRO:HD2	2.00	0.42
3:DV:138:TYR:C	3:DV:140:ASP:N	2.71	0.42
3:DV:164:HIS:CG	3:DV:164:HIS:O	2.71	0.42
3:DV:175:ILE:HG13	5:DY:15:VAL:HA	1.86	0.42
5:DZ:55:LEU:O	5:DZ:59:VAL:HG23	2.19	0.42
6:EA:97:GLN:O	6:EA:98:MET:C	2.55	0.42
7:ED:41:TRP:NE1	7:ED:266:THR:HG22	2.34	0.42
7:ED:543:ILE:HD12	7:EE:578:LEU:HD21	1.98	0.42
1:AF:334:HIS:NE2	1:AF:336:ASN:O	2.53	0.42
1:AS:145:ASN:CB	1:CW:145:ASN:HD21	2.32	0.42
1:AU:46:ILE:HD13	1:AU:138:LEU:HD11	2.00	0.42
1:BE:83:VAL:HG22	1:BE:84:THR:N	2.35	0.42
1:BE:140:ASP:HA	1:BE:143:LEU:HD12	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BI:96:THR:CA	1:DM:152:VAL:CG2	2.75	0.42
1:BI:98:ASN:H	1:DK:8:VAL:HG12	1.84	0.42
1:BI:213:PHE:HE1	1:BI:218:ILE:HD11	1.84	0.42
1:BP:206:ASN:ND2	1:BP:214:ASP:OD1	2.50	0.42
1:BQ:250:GLU:OE1	1:BQ:258:ARG:NH1	2.50	0.42
1:BW:180:VAL:HG13	1:BW:185:LYS:HZ2	1.84	0.42
1:BW:181:VAL:HG23	1:BW:181:VAL:O	2.20	0.42
1:BX:117:GLY:O	1:BX:120:ILE:HG22	2.20	0.42
1:BY:221:MET:HG3	1:BY:296:PHE:CE2	2.54	0.42
1:CA:83:VAL:HG21	1:CA:164:THR:HA	2.00	0.42
1:CE:87:LEU:HD23	1:CE:87:LEU:H	1.84	0.42
1:CE:339:ALA:HA	1:CU:26:LEU:HD21	2.01	0.42
1:CK:157:ASP:O	1:CK:158:THR:OG1	2.30	0.42
1:CL:248:LEU:O	1:CL:256:ARG:NH2	2.53	0.42
1:CM:45:THR:OG1	1:CM:84:THR:OG1	2.29	0.42
1:CQ:148:ALA:O	1:CQ:152:VAL:HG22	2.19	0.42
1:DE:322:GLU:OE2	1:DE:324:TRP:NE1	2.52	0.42
1:DF:170:LEU:H	1:DF:170:LEU:HD12	1.83	0.42
3:DU:224:SER:H	3:DV:91:VAL:HG12	1.84	0.42
3:DV:99:TYR:HE1	3:DV:103:HIS:CG	2.37	0.42
3:DV:138:TYR:O	3:DV:140:ASP:N	2.52	0.42
4:DW:460:ILE:CG2	4:DW:461:VAL:N	2.83	0.42
7:ED:95:ASP:OD1	7:ED:95:ASP:N	2.51	0.42
1:AC:213:PHE:HE1	1:AC:218:ILE:HD11	1.85	0.42
1:AE:238:ASN:O	1:AE:239:PRO:C	2.58	0.42
1:AG:192:ASP:O	1:AG:193:THR:OG1	2.37	0.42
1:AL:21:ASN:O	1:AL:21:ASN:ND2	2.52	0.42
1:AP:8:VAL:C	1:CS:96:THR:OG1	2.57	0.42
1:AR:145:ASN:OD1	1:AR:146:SER:N	2.53	0.42
1:AT:234:ILE:HG23	1:AT:284:ILE:HD12	2.02	0.42
1:AX:305:MET:N	1:AX:305:MET:SD	2.93	0.42
1:BC:136:ASP:OD1	1:BC:137:VAL:N	2.50	0.42
1:BO:127:ILE:O	1:BO:130:SER:OG	2.22	0.42
1:BS:215:GLU:OE1	1:BS:215:GLU:N	2.53	0.42
1:BW:248:LEU:O	1:BW:252:THR:HG22	2.20	0.42
1:CC:167:PHE:HA	1:CC:170:LEU:HA	2.01	0.42
1:CD:57:VAL:HG23	1:CH:123:ASP:OD1	2.19	0.42
1:CE:69:ALA:HB1	1:CU:90:VAL:HG11	2.02	0.42
1:CF:11:ASP:OD1	1:CF:11:ASP:N	2.53	0.42
1:CN:231:GLU:OE1	1:CN:298:ARG:NH2	2.52	0.42
1:DC:90:VAL:HG11	1:DD:71:ASP:HB3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DG:17:LEU:HD13	1:DG:19:PHE:CZ	2.55	0.42
1:DI:149:ASP:N	1:DI:149:ASP:OD1	2.52	0.42
1:DM:46:ILE:HA	1:DM:83:VAL:HG21	2.02	0.42
1:DM:306:VAL:HG23	1:DM:306:VAL:O	2.19	0.42
1:DP:40:GLU:OE1	1:DP:333:ARG:NH1	2.52	0.42
5:DX:70:LYS:C	5:DZ:77:LYS:NZ	2.72	0.42
7:EE:540:LYS:HA	7:EE:543:ILE:HG22	2.01	0.42
1:AA:49:TRP:NE1	1:AA:334:HIS:O	2.53	0.42
1:AP:103:TYR:HB3	1:CS:16:LYS:HD2	1.66	0.42
1:AU:237:ILE:HG22	1:AU:285:VAL:HA	2.01	0.42
1:BC:218:ILE:O	1:BC:222:THR:HG23	2.19	0.42
1:BP:243:LYS:O	1:BP:247:GLY:N	2.51	0.42
1:CH:180:VAL:HG12	1:CH:181:VAL:N	2.35	0.42
1:CX:96:THR:O	1:CX:100:THR:HG23	2.19	0.42
1:CZ:145:ASN:O	1:CZ:146:SER:CB	2.68	0.42
1:DA:165:GLY:O	1:DA:332:LEU:HD12	2.19	0.42
1:DB:50:GLN:O	1:DF:23:ILE:HG22	2.20	0.42
1:DC:93:VAL:HG12	1:DC:95:ASP:H	1.84	0.42
1:DC:180:VAL:HG22	1:DC:181:VAL:H	1.84	0.42
1:DC:233:ASP:OD2	1:DC:233:ASP:N	2.53	0.42
1:DD:96:THR:O	1:DD:100:THR:N	2.50	0.42
1:DG:290:PRO:O	1:DG:291:THR:HG22	2.19	0.42
1:DK:308:ARG:NH1	1:DK:329:GLU:OE2	2.49	0.42
1:DM:124:LEU:HA	1:DM:127:ILE:HG22	2.02	0.42
2:DR:71:ASP:H	2:DS:75:LEU:HD22	1.84	0.42
2:DS:21:ARG:O	2:DS:21:ARG:HG3	2.20	0.42
2:DT:17:TYR:C	2:DT:19:ARG:N	2.72	0.42
3:DU:25:ASP:HB3	4:DW:973:ASN:HB3	0.69	0.42
3:DV:72:PRO:CD	5:DY:30:GLN:NE2	2.74	0.42
3:DV:178:GLU:O	3:DV:182:TYR:CD2	2.72	0.42
4:DW:995:LEU:O	4:DW:996:THR:OG1	2.32	0.42
7:ED:372:TYR:HD2	7:EE:392:PRO:HG3	1.84	0.42
7:ED:378:LEU:CG	7:EE:401:GLN:HE21	2.33	0.42
1:AD:30:ASP:O	1:AD:31:THR:OG1	2.35	0.42
1:AK:74:MET:H	1:BK:6:LEU:N	2.16	0.42
1:AS:45:THR:HG23	1:CS:99:THR:CB	2.43	0.42
1:AU:64:VAL:HG12	1:AU:65:GLU:N	2.35	0.42
1:AW:100:THR:HG22	1:BN:307:LEU:HB2	1.98	0.42
1:AY:49:TRP:NE1	1:AY:334:HIS:O	2.53	0.42
1:BE:237:ILE:HD13	1:BE:294:VAL:HG22	2.02	0.42
1:BF:74:MET:HE3	1:DK:6:LEU:CG	2.28	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BO:301:ASP:O	1:BO:334:HIS:ND1	2.49	0.42
1:BP:145:ASN:OD1	1:BP:146:SER:N	2.53	0.42
1:BU:15:LYS:HG2	1:DP:100:THR:CG2	2.35	0.42
1:BV:306:VAL:HG22	1:BV:330:VAL:HG12	2.01	0.42
1:CL:213:PHE:CE1	1:CL:244:ILE:HG21	2.55	0.42
1:CS:139:ALA:O	1:CS:141:GLN:NE2	2.51	0.42
1:CS:233:ASP:OD2	1:CS:234:ILE:N	2.52	0.42
1:DA:24:SER:O	1:DF:336:ASN:ND2	2.45	0.42
1:DB:315:LEU:HG	1:DB:316:ALA:H	1.84	0.42
1:DO:237:ILE:HG22	1:DO:285:VAL:HA	2.01	0.42
2:DS:18:PRO:HG3	2:DS:30:GLN:HE22	1.85	0.42
3:DU:75:LEU:HD11	3:DU:159:ASP:HA	2.01	0.42
3:DV:53:PRO:HA	3:DV:56:GLU:HG3	2.02	0.42
3:DV:143:SER:O	3:DV:144:PRO:C	2.58	0.42
3:DV:187:HIS:O	3:DV:190:LEU:HB2	2.19	0.42
7:ED:48:LEU:HD13	7:ED:48:LEU:C	2.40	0.42
7:ED:540:LYS:HA	7:ED:543:ILE:HG22	2.01	0.42
7:EE:41:TRP:NE1	7:EE:266:THR:HG22	2.34	0.42
7:EE:48:LEU:C	7:EE:48:LEU:HD13	2.40	0.42
1:AM:251:ASN:OD1	1:AM:251:ASN:N	2.52	0.42
1:AP:148:ALA:C	1:CR:143:LEU:CA	2.80	0.42
1:AR:30:ASP:O	1:AR:31:THR:OG1	2.32	0.42
1:AX:306:VAL:HG22	1:AX:330:VAL:HG12	2.01	0.42
1:AZ:83:VAL:HG22	1:AZ:84:THR:H	1.85	0.42
1:BK:8:VAL:HG22	1:BK:9:SER:N	2.35	0.42
1:BL:213:PHE:HZ	1:BL:245:PHE:CE2	2.38	0.42
1:BM:286:ASN:OD1	1:BM:288:TRP:N	2.52	0.42
1:BQ:136:ASP:OD1	1:BQ:137:VAL:N	2.51	0.42
1:BV:305:MET:N	1:BV:305:MET:SD	2.93	0.42
1:BY:8:VAL:HG22	1:BY:9:SER:H	1.85	0.42
1:CR:336:ASN:O	1:CR:339:ALA:N	2.47	0.42
1:DD:84:THR:HG21	1:DD:307:LEU:HB2	2.02	0.42
1:DI:339:ALA:HB2	1:DQ:26:LEU:HD11	2.01	0.42
1:DN:269:GLU:OE1	1:DP:258:ARG:N	2.53	0.42
3:DU:36:PRO:HA	3:DU:39:ILE:HD12	2.01	0.42
3:DV:59:VAL:O	3:DV:153:ILE:HA	2.19	0.42
3:DV:175:ILE:CG2	3:DV:176:ALA:N	2.82	0.42
5:DX:68:LEU:HD13	5:DX:68:LEU:HA	1.94	0.42
5:DX:85:ALA:CB	5:DX:86:ARG:CZ	2.98	0.42
5:DY:83:GLN:NE2	5:DY:84:ASP:HB3	2.35	0.42
1:AA:152:VAL:O	1:AA:152:VAL:HG12	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AG:83:VAL:HG22	1:AG:84:THR:N	2.35	0.42
1:AP:6:LEU:HA	1:CS:93:VAL:CA	2.49	0.42
1:AS:73:GLU:CG	1:CS:3:ASN:CG	2.81	0.42
1:BE:292:ASP:OD1	1:BE:345:THR:OG1	2.36	0.42
1:BQ:222:THR:HG22	1:BQ:281:TYR:CE2	2.55	0.42
1:BV:308:ARG:NH1	1:BV:327:GLU:OE1	2.50	0.42
1:BY:241:HIS:NE2	1:BY:291:THR:O	2.52	0.42
1:CI:202:GLN:N	1:CI:217:ASP:OD2	2.47	0.42
1:CL:186:ASN:OD1	1:CL:200:VAL:HG23	2.20	0.42
1:CM:263:THR:O	1:CM:264:LYS:HB3	2.19	0.42
1:CN:180:VAL:HG12	1:CN:181:VAL:N	2.34	0.42
1:CN:230:SER:OG	1:CN:231:GLU:N	2.52	0.42
1:CO:225:LEU:O	1:CO:230:SER:OG	2.34	0.42
1:CP:117:GLY:O	1:CP:120:ILE:HG22	2.19	0.42
1:CY:57:VAL:HG23	1:CY:57:VAL:O	2.19	0.42
1:CZ:214:ASP:N	1:CZ:214:ASP:OD1	2.53	0.42
1:DQ:155:LEU:HD12	1:DQ:155:LEU:H	1.84	0.42
3:DU:172:ILE:HG21	3:DU:180:LEU:HD11	2.02	0.42
1:AM:16:LYS:HG3	1:CN:103:TYR:HA	1.66	0.41
1:AM:213:PHE:CZ	1:AM:237:ILE:HD11	2.55	0.41
1:AW:7:PHE:CB	1:BK:93:VAL:HG22	2.31	0.41
1:AW:250:GLU:HG2	1:AW:256:ARG:HB3	2.01	0.41
1:BB:186:ASN:N	1:BB:186:ASN:OD1	2.52	0.41
1:BJ:259:ILE:O	1:BV:261:GLU:HA	2.20	0.41
1:BM:33:PHE:CE1	1:BM:37:THR:HG22	2.55	0.41
1:BO:100:THR:OG1	1:BO:101:ALA:N	2.53	0.41
1:BU:3:ASN:HA	1:DP:115:LYS:NZ	2.35	0.41
1:BX:54:LEU:HD22	1:CB:27:SER:HB3	2.02	0.41
1:BX:131:GLY:HA3	1:BX:180:VAL:HG13	2.01	0.41
1:BY:134:ARG:NE	1:BY:142:TYR:OH	2.53	0.41
1:CA:83:VAL:HG11	1:CA:164:THR:CA	2.47	0.41
1:CG:76:PRO:O	1:CG:77:THR:HG22	2.20	0.41
1:CI:92:ARG:NE	1:CM:71:ASP:OD2	2.53	0.41
1:CN:236:MET:HG3	1:CN:289:MET:SD	2.60	0.41
1:CP:134:ARG:NH1	1:CP:137:VAL:HG22	2.34	0.41
1:CV:237:ILE:HD11	1:CV:241:HIS:CB	2.49	0.41
1:CX:90:VAL:HG12	1:CX:91:VAL:N	2.35	0.41
1:DB:25:VAL:HG23	1:DB:25:VAL:O	2.20	0.41
1:DB:336:ASN:HD22	1:DF:26:LEU:HD11	1.85	0.41
1:DD:117:GLY:O	1:DD:120:ILE:HG22	2.20	0.41
1:DD:131:GLY:N	1:DD:168:GLN:OE1	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:DJ:87:LEU:HD23	1:DJ:87:LEU:H	1.85	0.41
2:DR:28:ALA:O	2:DR:32:ARG:HG3	2.20	0.41
3:DU:22:LEU:C	3:DU:22:LEU:HD12	2.39	0.41
3:DU:57:LYS:O	3:DU:155:SER:HA	2.20	0.41
3:DU:94:PRO:HG3	3:DU:121:PHE:CE1	2.53	0.41
3:DU:171:THR:CG2	3:DU:172:ILE:N	2.83	0.41
7:ED:519:GLN:HA	7:EE:112:ARG:HE	1.80	0.41
1:AM:8:VAL:HG22	1:AM:9:SER:N	2.35	0.41
1:AP:92:ARG:CG	1:CS:6:LEU:HA	2.47	0.41
1:AP:141:GLN:NE2	1:CR:143:LEU:H	2.17	0.41
1:AT:180:VAL:HG22	1:AT:181:VAL:N	2.35	0.41
1:AU:215:GLU:N	1:AU:215:GLU:OE1	2.53	0.41
1:AU:296:PHE:O	1:AU:341:GLY:N	2.45	0.41
1:AY:90:VAL:HG11	1:BA:70:GLU:O	2.19	0.41
1:BC:238:ASN:O	1:BC:239:PRO:C	2.58	0.41
1:BI:97:ALA:CB	1:DK:11:ASP:N	2.82	0.41
1:BI:144:THR:CG2	1:DH:143:LEU:CG	2.94	0.41
1:BR:210:ASN:C	1:BR:211:ILE:HD13	2.40	0.41
1:BU:3:ASN:OD1	1:DP:115:LYS:CE	2.67	0.41
1:BU:213:PHE:CD1	1:BU:345:THR:HG22	2.55	0.41
1:CD:83:VAL:HG22	1:CD:84:THR:H	1.86	0.41
1:CE:135:THR:HG23	1:CE:135:THR:O	2.19	0.41
1:CK:180:VAL:HG22	1:CK:181:VAL:N	2.35	0.41
1:CL:8:VAL:O	1:CL:9:SER:OG	2.31	0.41
1:DB:39:LYS:HG2	7:ED:16:VAL:CG2	2.50	0.41
1:DC:30:ASP:O	1:DC:31:THR:OG1	2.34	0.41
1:DL:90:VAL:HG12	1:DL:91:VAL:N	2.36	0.41
3:DU:32:VAL:O	3:DU:35:ILE:HB	2.20	0.41
3:DV:51:ARG:O	3:DV:52:ILE:HG23	2.19	0.41
3:DV:62:ASP:HB2	3:DV:64:LYS:NZ	2.35	0.41
3:DV:129:PRO:HB2	3:DV:131:ILE:HD11	2.02	0.41
4:DW:837:PRO:HB2	4:DW:838:ILE:H	1.75	0.41
4:DW:852:ILE:O	4:DW:852:ILE:CG1	2.68	0.41
6:EA:7:ARG:C	6:EA:9:ASN:H	2.22	0.41
6:EB:90:ALA:O	6:EB:91:ILE:C	2.58	0.41
7:ED:76:ILE:O	7:ED:77:ASN:C	2.59	0.41
1:AL:213:PHE:CZ	1:AL:218:ILE:HG12	2.55	0.41
1:AP:321:TYR:HE2	1:CZ:68:ARG:CD	2.31	0.41
1:AQ:33:PHE:O	1:AQ:37:THR:HG23	2.21	0.41
1:AQ:100:THR:OG1	1:AQ:101:ALA:N	2.53	0.41
1:AS:145:ASN:HD22	1:CW:145:ASN:CG	2.16	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BF:74:MET:HE1	1:BI:92:ARG:O	2.20	0.41
1:BN:64:VAL:HG12	1:BN:65:GLU:N	2.35	0.41
1:BO:33:PHE:O	1:BO:37:THR:HG23	2.20	0.41
1:BP:213:PHE:CE1	1:BP:294:VAL:HG22	2.54	0.41
1:BY:90:VAL:HG12	1:BY:91:VAL:N	2.35	0.41
1:BY:235:ILE:HG12	1:BY:296:PHE:CD1	2.54	0.41
1:CH:303:THR:HG22	1:CH:304:GLN:N	2.35	0.41
1:CM:3:ASN:N	1:CM:4:PRO:CD	2.83	0.41
1:CX:86:ILE:HG22	1:CX:87:LEU:N	2.36	0.41
1:CY:215:GLU:O	1:CY:216:ALA:HB3	2.20	0.41
1:DB:184:THR:O	1:DB:184:THR:HG22	2.21	0.41
1:DG:94:SER:OG	1:DG:95:ASP:N	2.53	0.41
1:DG:239:PRO:O	1:DG:240:ALA:HB3	2.20	0.41
1:DQ:144:THR:HG23	1:DQ:145:ASN:N	2.34	0.41
2:DT:21:ARG:HB3	4:DW:840:SER:HB2	2.03	0.41
2:DT:22:ASP:HA	4:DW:838:ILE:CG1	2.49	0.41
3:DU:41:PHE:N	3:DU:41:PHE:CD1	2.86	0.41
3:DV:13:TYR:CD1	3:DV:17:LYS:HD2	2.56	0.41
5:DY:49:PHE:CE1	5:DZ:52:ILE:HD12	2.55	0.41
5:DZ:69:MET:HE2	5:DZ:69:MET:HB3	1.78	0.41
7:ED:448:ASP:OD1	7:EE:441:ASN:CG	2.59	0.41
7:ED:597:LEU:HD12	7:EE:595:LEU:HD22	2.01	0.41
1:AK:312:ARG:NE	1:AK:312:ARG:HA	2.35	0.41
1:AL:259:ILE:O	1:AX:261:GLU:HA	2.20	0.41
1:AM:6:LEU:HB2	1:CR:71:ASP:HB3	1.76	0.41
1:AP:92:ARG:HH11	1:CS:6:LEU:HB2	1.33	0.41
1:AP:171:CYS:SG	1:AP:340:SER:OG	2.53	0.41
1:AS:250:GLU:OE2	1:AV:256:ARG:NH1	2.50	0.41
1:AY:305:MET:N	1:AY:331:GLY:O	2.47	0.41
1:BB:213:PHE:N	1:BB:213:PHE:CD2	2.89	0.41
1:BD:233:ASP:N	1:BD:233:ASP:OD1	2.53	0.41
1:BI:7:PHE:CZ	1:DM:69:ALA:HB1	2.53	0.41
1:BJ:51:THR:O	1:BJ:51:THR:OG1	2.34	0.41
1:BJ:213:PHE:CZ	1:BJ:218:ILE:HG12	2.55	0.41
1:BP:305:MET:O	1:BP:331:GLY:N	2.53	0.41
1:BR:261:GLU:O	1:BR:262:ASN:OD1	2.39	0.41
1:BU:16:LYS:HD2	1:DP:102:ASN:OD1	2.20	0.41
1:CA:33:PHE:O	1:CA:37:THR:HG23	2.20	0.41
1:CA:316:ALA:HB1	1:CX:316:ALA:HB2	2.02	0.41
1:CG:5:THR:O	1:CG:5:THR:HG22	2.19	0.41
1:CG:273:ILE:HG22	1:CG:274:THR:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CK:200:VAL:O	1:CK:200:VAL:HG13	2.20	0.41
1:CK:211:ILE:HG13	1:CK:212:GLY:N	2.35	0.41
1:CK:263:THR:HG21	1:CZ:262:ASN:OD1	2.21	0.41
1:CN:336:ASN:O	1:CN:339:ALA:N	2.42	0.41
1:CV:117:GLY:O	1:CV:120:ILE:HG22	2.20	0.41
1:DC:91:VAL:HG23	1:DC:112:GLN:CG	2.50	0.41
1:DL:70:GLU:OE2	1:DL:70:GLU:N	2.52	0.41
3:DU:81:MET:HB2	3:DU:86:GLY:O	2.20	0.41
3:DU:159:ASP:OD1	3:DU:159:ASP:N	2.52	0.41
3:DV:23:TRP:N	3:DV:23:TRP:CD1	2.89	0.41
5:DX:58:GLU:O	5:DX:62:LEU:HB2	2.20	0.41
5:DY:21:THR:HG23	5:DY:21:THR:O	2.20	0.41
7:ED:382:TYR:OH	7:EE:396:VAL:HG13	2.20	0.41
1:AD:213:PHE:N	1:AD:213:PHE:CD2	2.89	0.41
1:AN:213:PHE:HZ	1:AN:245:PHE:CE2	2.38	0.41
1:AO:33:PHE:CE1	1:AO:37:THR:HG22	2.55	0.41
1:AP:148:ALA:HA	1:CR:143:LEU:O	2.21	0.41
1:AS:250:GLU:OE1	1:AS:258:ARG:NE	2.50	0.41
1:AW:13:ASN:O	1:BN:79:ILE:HD11	2.19	0.41
1:BC:196:VAL:N	1:BC:224:GLN:OE1	2.50	0.41
1:BI:312:ARG:NE	1:BI:312:ARG:HA	2.35	0.41
1:BQ:164:THR:O	1:BQ:164:THR:HG22	2.21	0.41
1:BX:40:GLU:OE1	1:BX:333:ARG:NH1	2.53	0.41
1:BX:66:GLY:O	1:CB:88:ARG:NH1	2.51	0.41
1:CB:91:VAL:HG11	1:CB:113:LEU:CD1	2.51	0.41
1:CE:256:ARG:HA	1:CE:274:THR:HG22	2.02	0.41
1:CK:215:GLU:CG	1:CK:248:LEU:HD13	2.50	0.41
1:CU:97:ALA:O	1:CU:100:THR:OG1	2.34	0.41
1:DF:46:ILE:O	1:DF:46:ILE:HG23	2.21	0.41
1:DH:277:LEU:HD11	1:DP:239:PRO:HB3	2.03	0.41
2:DT:76:MET:SD	2:DT:76:MET:N	2.87	0.41
3:DU:6:VAL:HG23	3:DU:7:GLN:O	2.21	0.41
3:DU:8:TYR:N	3:DU:9:PRO:CD	2.84	0.41
3:DU:67:VAL:HG23	3:DU:68:ALA:N	2.34	0.41
3:DV:75:LEU:HD11	3:DV:159:ASP:HA	2.03	0.41
3:DV:154:LEU:HD12	3:DV:154:LEU:HA	1.78	0.41
3:DV:219:GLN:O	3:DV:222:SER:CB	2.68	0.41
4:DW:3:LEU:HD12	4:DW:3:LEU:C	2.41	0.41
4:DW:838:ILE:O	4:DW:840:SER:N	2.53	0.41
5:DX:86:ARG:CA	5:DX:86:ARG:NE	2.64	0.41
7:ED:20:ARG:HH22	7:EE:279:ASP:CA	2.23	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:ED:552:LEU:HD23	7:EE:578:LEU:HB3	2.02	0.41
7:EE:87:THR:HG23	7:EE:87:THR:O	2.20	0.41
1:AA:248:LEU:O	1:AA:256:ARG:NH2	2.53	0.41
1:AP:143:LEU:HD22	1:CR:148:ALA:HB2	1.84	0.41
1:AR:206:ASN:ND2	1:AR:214:ASP:OD1	2.50	0.41
1:AX:218:ILE:O	1:AX:222:THR:HG23	2.21	0.41
1:BA:64:VAL:HG12	1:BA:65:GLU:N	2.36	0.41
1:BA:171:CYS:SG	1:BA:340:SER:OG	2.50	0.41
1:BI:143:LEU:O	1:DP:17:LEU:HD13	2.16	0.41
1:BI:238:ASN:OD1	1:BI:240:ALA:N	2.42	0.41
1:BM:83:VAL:HG12	1:BM:134:ARG:HG3	2.03	0.41
1:BN:38:GLY:O	1:BN:304:GLN:N	2.46	0.41
1:BP:218:ILE:O	1:BP:222:THR:HG23	2.21	0.41
1:BU:261:GLU:HA	1:BU:261:GLU:OE1	2.21	0.41
1:CB:93:VAL:HG22	1:CM:7:PHE:CD2	2.55	0.41
1:CD:90:VAL:HG11	1:CL:69:ALA:HB2	2.01	0.41
1:CK:137:VAL:HG22	1:CK:137:VAL:O	2.21	0.41
1:CO:137:VAL:HG22	1:CO:137:VAL:O	2.20	0.41
1:CU:234:ILE:HD12	1:CU:299:SER:HB3	2.02	0.41
1:CW:88:ARG:NH1	1:CZ:64:VAL:O	2.46	0.41
1:CY:213:PHE:O	1:CY:214:ASP:C	2.59	0.41
1:DF:315:LEU:HD12	1:DF:316:ALA:N	2.36	0.41
1:DG:51:THR:OG1	1:DG:336:ASN:ND2	2.53	0.41
1:DI:69:ALA:HB1	1:DQ:90:VAL:HG21	2.02	0.41
1:DJ:119:GLU:OE2	1:DJ:122:ARG:NE	2.54	0.41
1:DJ:244:ILE:HD12	1:DJ:244:ILE:H	1.85	0.41
1:DO:54:LEU:HD12	1:DO:55:ALA:O	2.20	0.41
3:DU:173:LEU:N	3:DU:173:LEU:CD1	2.83	0.41
3:DV:11:ASN:O	3:DV:12:THR:HG23	2.21	0.41
3:DV:91:VAL:O	3:DV:92:THR:HG23	2.21	0.41
5:DX:50:GLY:O	5:DX:51:THR:O	2.38	0.41
7:ED:536:LEU:HB3	7:ED:565:ILE:HD11	2.01	0.41
7:EE:441:ASN:HB3	7:EE:442:PRO:HD2	2.03	0.41
1:AE:213:PHE:HB2	1:AE:217:ASP:HB2	2.02	0.41
1:AS:76:PRO:N	1:CW:153:ALA:HA	1.93	0.41
1:AW:99:THR:HA	1:BN:308:ARG:CB	2.34	0.41
1:AW:100:THR:OG1	1:BN:44:GLN:O	2.37	0.41
1:BA:213:PHE:HE1	1:BA:218:ILE:HD11	1.85	0.41
1:BB:134:ARG:O	1:BB:135:THR:OG1	2.32	0.41
1:BG:64:VAL:HG11	1:BJ:157:ASP:O	2.19	0.41
1:BI:93:VAL:H	1:DK:7:PHE:CB	2.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BK:251:ASN:OD1	1:BK:251:ASN:N	2.52	0.41
1:BL:180:VAL:HG12	1:BL:181:VAL:N	2.35	0.41
1:BM:225:LEU:HD22	1:BM:230:SER:CB	2.50	0.41
1:BR:180:VAL:HG22	1:BR:181:VAL:N	2.35	0.41
1:BR:234:ILE:HG23	1:BR:284:ILE:HD12	2.01	0.41
1:BU:334:HIS:NE2	1:BU:340:SER:OG	2.49	0.41
1:BW:144:THR:O	1:BW:146:SER:OG	2.31	0.41
1:BY:273:ILE:HD12	1:BY:283:ILE:HD11	2.03	0.41
1:CG:223:LEU:C	1:CG:223:LEU:HD23	2.40	0.41
1:CI:70:GLU:OE1	1:CI:70:GLU:N	2.54	0.41
1:CK:171:CYS:SG	1:CK:172:ALA:N	2.94	0.41
1:CX:253:GLN:OE1	1:CX:253:GLN:N	2.50	0.41
1:CY:214:ASP:O	1:CY:215:GLU:C	2.58	0.41
1:CY:273:ILE:HG22	1:CY:274:THR:N	2.36	0.41
1:CZ:239:PRO:O	1:CZ:240:ALA:HB3	2.21	0.41
1:DH:173:HIS:HB2	1:DH:181:VAL:HG13	2.03	0.41
2:DR:18:PRO:O	2:DR:19:ARG:HB3	2.21	0.41
3:DU:32:VAL:O	3:DU:35:ILE:N	2.54	0.41
3:DU:63:ILE:HD13	3:DU:68:ALA:HB2	2.02	0.41
3:DU:230:ASN:HD21	7:EE:369:ASN:ND2	2.18	0.41
7:ED:382:TYR:O	7:ED:383:ASP:HB2	2.21	0.41
7:ED:416:ILE:HG22	7:ED:417:ASP:N	2.36	0.41
7:EE:416:ILE:HG22	7:EE:417:ASP:N	2.36	0.41
1:AE:196:VAL:N	1:AE:224:GLN:OE1	2.50	0.41
1:AP:5:THR:HA	1:CS:92:ARG:HG2	1.56	0.41
1:AP:6:LEU:HA	1:CS:93:VAL:N	2.36	0.41
1:AP:16:LYS:HE2	1:CS:103:TYR:CB	2.43	0.41
1:AP:143:LEU:HB3	1:CR:148:ALA:HA	1.37	0.41
1:AR:243:LYS:O	1:AR:247:GLY:N	2.51	0.41
1:AU:238:ASN:O	1:AU:239:PRO:C	2.59	0.41
1:AW:3:ASN:OD1	1:BN:52:ASP:OD1	2.39	0.41
1:AW:11:ASP:N	1:AW:11:ASP:OD1	2.54	0.41
1:AZ:46:ILE:O	1:BD:18:SER:OG	2.39	0.41
1:BA:30:ASP:O	1:BA:31:THR:OG1	2.31	0.41
1:BA:61:ASN:OD1	1:BA:63:HIS:NE2	2.54	0.41
1:BH:211:ILE:HG23	1:BH:212:GLY:N	2.36	0.41
1:BR:263:THR:O	1:BU:249:GLN:NE2	2.54	0.41
1:BU:250:GLU:HG2	1:BU:256:ARG:HB3	2.02	0.41
1:BW:213:PHE:HD1	1:BW:343:LEU:HD23	1.85	0.41
1:BX:198:VAL:O	1:BX:198:VAL:HG12	2.20	0.41
1:CB:237:ILE:HD11	1:CB:241:HIS:HB2	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CF:203:ASN:ND2	1:CF:210:ASN:OD1	2.53	0.41
1:CK:125:GLU:OE2	1:CK:286:ASN:ND2	2.53	0.41
1:CM:141:GLN:O	1:CM:144:THR:HG22	2.21	0.41
1:CS:17:LEU:O	1:CS:18:SER:OG	2.38	0.41
1:CT:210:ASN:OD1	1:CT:211:ILE:N	2.53	0.41
1:DD:40:GLU:O	1:DD:41:SER:OG	2.22	0.41
1:DD:88:ARG:HB2	1:DE:63:HIS:NE2	2.36	0.41
2:DR:28:ALA:HB2	4:DW:847:TRP:CE2	2.55	0.41
3:DU:235:LEU:HD13	3:DU:235:LEU:HA	1.81	0.41
3:DV:66:GLY:C	3:DV:68:ALA:H	2.17	0.41
3:DV:72:PRO:CB	5:DY:28:TYR:CZ	3.04	0.41
3:DV:161:PRO:HD3	5:DY:23:GLY:O	2.21	0.41
7:ED:263:TRP:CE3	7:ED:266:THR:HG21	2.56	0.41
7:ED:456:LEU:HB3	7:EE:438:MET:SD	2.60	0.41
7:ED:458:MET:H	7:EE:438:MET:CE	2.31	0.41
7:ED:660:LYS:HD2	7:EE:658:ASN:HB3	1.99	0.41
7:EE:263:TRP:CE3	7:EE:266:THR:HG21	2.56	0.41
1:AC:64:VAL:HG12	1:AC:65:GLU:N	2.36	0.41
1:AC:222:THR:HB	1:AC:275:ASP:OD2	2.21	0.41
1:AG:292:ASP:OD1	1:AG:345:THR:OG1	2.36	0.41
1:AP:64:VAL:HG12	1:AP:65:GLU:N	2.35	0.41
1:AP:105:ARG:CG	1:CS:15:LYS:HB3	2.36	0.41
1:AR:30:ASP:OD1	1:AR:30:ASP:N	2.54	0.41
1:AS:80:LYS:HA	1:CW:147:ALA:CA	2.48	0.41
1:AU:273:ILE:HD12	1:AU:283:ILE:HD11	2.03	0.41
1:AV:334:HIS:HE2	1:AV:340:SER:HG	1.65	0.41
1:AW:213:PHE:CD1	1:AW:345:THR:HG22	2.55	0.41
1:AX:110:MET:N	1:AX:110:MET:SD	2.93	0.41
1:AZ:78:VAL:HG12	1:AZ:79:ILE:N	2.36	0.41
1:BC:65:GLU:OE2	1:BV:96:THR:HG21	2.21	0.41
1:BC:213:PHE:HE1	1:BC:294:VAL:HG21	1.82	0.41
1:BI:103:TYR:OH	1:DM:145:ASN:OD1	2.38	0.41
1:BN:52:ASP:OD1	1:BN:53:ALA:N	2.52	0.41
1:BO:237:ILE:CD1	1:BO:294:VAL:HG22	2.51	0.41
1:BR:254:GLY:O	1:BR:255:SER:OG	2.33	0.41
1:BS:273:ILE:HD12	1:BS:283:ILE:HD11	2.03	0.41
1:BU:93:VAL:N	1:DP:6:LEU:O	2.45	0.41
1:CB:95:ASP:O	1:CQ:308:ARG:NH2	2.54	0.41
1:CD:96:THR:O	1:CD:96:THR:HG22	2.21	0.41
1:CD:108:GLU:OE2	1:CZ:12:GLN:NE2	2.54	0.41
1:CG:88:ARG:NH1	1:CO:64:VAL:O	2.48	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CG:314:GLU:CG	1:CG:314:GLU:O	2.68	0.41
1:CI:90:VAL:HG12	1:CI:91:VAL:N	2.36	0.41
1:CJ:286:ASN:OD1	1:CJ:288:TRP:N	2.53	0.41
1:CK:70:GLU:O	1:CZ:90:VAL:HG11	2.21	0.41
1:CL:73:GLU:HG3	1:CL:73:GLU:O	2.20	0.41
1:CO:177:ALA:N	1:CO:180:VAL:O	2.40	0.41
1:CR:290:PRO:O	1:CR:291:THR:HG22	2.21	0.41
1:CS:30:ASP:N	1:CS:30:ASP:OD1	2.53	0.41
1:CU:87:LEU:HD23	1:CU:87:LEU:H	1.85	0.41
1:CW:70:GLU:HA	1:CW:70:GLU:OE2	2.21	0.41
1:CZ:203:ASN:O	1:CZ:206:ASN:ND2	2.51	0.41
1:CZ:293:ALA:HB2	1:CZ:344:PHE:HD1	1.85	0.41
1:DA:23:ILE:HG22	1:DF:50:GLN:O	2.21	0.41
1:DA:315:LEU:N	1:DA:315:LEU:HD23	2.36	0.41
1:DB:12:GLN:HE22	3:DV:234:ARG:NH2	2.19	0.41
1:DD:79:ILE:H	1:DD:79:ILE:HD12	1.85	0.41
1:DE:326:ILE:HG23	1:DE:326:ILE:O	2.21	0.41
1:DF:277:LEU:HD11	1:DF:279:GLN:HB2	2.02	0.41
1:DG:152:VAL:O	1:DG:152:VAL:HG22	2.20	0.41
1:DH:142:TYR:O	1:DH:143:LEU:HB2	2.21	0.41
1:DJ:273:ILE:O	1:DJ:281:TYR:N	2.54	0.41
1:DM:314:GLU:OE1	1:DM:314:GLU:N	2.54	0.41
1:DP:31:THR:CG2	1:DP:34:VAL:HG22	2.51	0.41
2:DR:44:ASN:OD1	2:DR:44:ASN:N	2.53	0.41
2:DS:32:ARG:HA	2:DS:32:ARG:HD2	1.92	0.41
3:DU:26:ARG:N	4:DW:973:ASN:ND2	2.68	0.41
3:DU:128:TYR:HB3	3:DU:129:PRO:HD3	2.03	0.41
3:DV:41:PHE:N	3:DV:41:PHE:CD1	2.89	0.41
3:DV:44:LYS:NZ	5:DX:14:ASN:O	2.53	0.41
3:DV:44:LYS:CE	5:DX:14:ASN:OD1	2.66	0.41
3:DV:78:GLN:HG2	3:DV:155:SER:O	2.21	0.41
3:DV:171:THR:CG2	3:DV:172:ILE:N	2.84	0.41
3:DV:232:MET:HE3	3:DV:232:MET:HB3	1.95	0.41
5:DX:71:GLN:CA	5:DZ:77:LYS:NZ	2.84	0.41
5:DY:86:ARG:HA	5:DY:86:ARG:HD3	1.94	0.41
6:EC:83:ILE:O	6:EC:84:THR:C	2.58	0.41
1:AB:46:ILE:O	1:AF:18:SER:OG	2.39	0.41
1:AO:33:PHE:O	1:AO:37:THR:HG23	2.21	0.41
1:AS:74:MET:HB3	1:CW:155:LEU:HG	2.03	0.41
1:AS:222:THR:HG22	1:AS:281:TYR:CE2	2.55	0.41
1:AT:261:GLU:O	1:AT:262:ASN:OD1	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AT:263:THR:O	1:AW:249:GLN:NE2	2.54	0.41
1:AZ:33:PHE:N	1:AZ:125:GLU:OE2	2.48	0.41
1:AZ:193:THR:HG21	1:AZ:227:THR:O	2.21	0.41
1:BA:180:VAL:HG22	1:BA:181:VAL:N	2.36	0.41
1:BA:222:THR:HB	1:BA:275:ASP:OD2	2.21	0.41
1:BB:145:ASN:OD1	1:BB:146:SER:N	2.53	0.41
1:BE:64:VAL:HG12	1:BE:65:GLU:N	2.35	0.41
1:BK:213:PHE:CZ	1:BK:237:ILE:HD11	2.55	0.41
1:BU:6:LEU:HG	1:DP:94:SER:HA	2.03	0.41
1:BW:168:GLN:NE2	1:BW:344:PHE:CZ	2.88	0.41
1:CB:40:GLU:OE1	1:CB:333:ARG:NH1	2.54	0.41
1:CD:213:PHE:O	1:CD:213:PHE:CG	2.74	0.41
1:CD:237:ILE:O	1:CD:285:VAL:HA	2.21	0.41
1:CI:208:THR:O	1:CI:208:THR:HG22	2.20	0.41
1:CS:18:SER:OG	1:CW:46:ILE:O	2.39	0.41
1:CS:21:ASN:OD1	1:CS:22:TRP:N	2.53	0.41
1:CW:127:ILE:HD11	1:CZ:60:ASN:HB3	2.02	0.41
1:CY:336:ASN:O	1:CY:339:ALA:N	2.48	0.41
1:CZ:298:ARG:O	1:CZ:299:SER:HB3	2.21	0.41
1:DC:231:GLU:N	1:DC:231:GLU:OE1	2.55	0.41
1:DG:98:ASN:O	1:DG:100:THR:HG23	2.21	0.41
1:DG:177:ALA:N	1:DG:180:VAL:O	2.49	0.41
1:DG:210:ASN:O	1:DG:210:ASN:ND2	2.54	0.41
1:DH:196:VAL:HG12	1:DH:198:VAL:O	2.21	0.41
1:DL:231:GLU:N	1:DL:231:GLU:OE2	2.54	0.41
1:DM:117:GLY:O	1:DM:120:ILE:HG22	2.21	0.41
1:DO:56:SER:OG	1:DO:57:VAL:N	2.54	0.41
1:DO:213:PHE:HD1	1:DO:218:ILE:HD11	1.86	0.41
3:DU:51:ARG:O	3:DU:52:ILE:HG23	2.21	0.41
4:DW:928:PHE:CD1	4:DW:928:PHE:N	2.87	0.41
5:DY:81:LYS:O	5:DY:82:ASP:C	2.59	0.41
7:ED:608:GLN:OE1	7:EE:602:ALA:HB2	2.18	0.41
1:AC:61:ASN:OD1	1:AC:63:HIS:NE2	2.54	0.40
1:AE:122:ARG:NH1	1:AF:192:ASP:OD1	2.48	0.40
1:AJ:211:ILE:HG23	1:AJ:212:GLY:N	2.36	0.40
1:AP:104:GLY:O	1:CS:13:ASN:O	2.39	0.40
1:AR:183:LYS:NZ	1:AR:292:ASP:OD2	2.38	0.40
1:AR:305:MET:O	1:AR:331:GLY:N	2.53	0.40
1:AS:69:ALA:CB	1:CS:5:THR:HG23	2.48	0.40
1:BA:136:ASP:OD1	1:BA:137:VAL:N	2.54	0.40
1:BR:238:ASN:O	1:BR:239:PRO:C	2.60	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:BV:110:MET:N	1:BV:110:MET:SD	2.94	0.40
1:CD:25:VAL:HG23	1:CD:25:VAL:O	2.21	0.40
1:CF:253:GLN:OE1	1:CF:253:GLN:N	2.44	0.40
1:CN:85:GLN:HB2	1:CN:164:THR:HG23	2.02	0.40
1:CP:105:ARG:NH2	1:CP:108:GLU:OE2	2.54	0.40
1:CU:91:VAL:O	1:CU:91:VAL:HG13	2.20	0.40
1:CU:279:GLN:OE1	1:CU:281:TYR:OH	2.39	0.40
1:CZ:9:SER:O	1:CZ:9:SER:OG	2.36	0.40
1:DD:144:THR:O	1:DD:145:ASN:CB	2.69	0.40
1:DG:296:PHE:N	1:DG:341:GLY:O	2.54	0.40
1:DI:21:ASN:O	1:DI:21:ASN:ND2	2.54	0.40
1:DJ:293:ALA:O	1:DJ:294:VAL:C	2.59	0.40
3:DU:95:GLU:OE2	7:EE:385:ARG:HG3	2.21	0.40
3:DU:234:ARG:O	3:DU:235:LEU:HB2	2.20	0.40
3:DV:27:ASP:N	3:DV:27:ASP:OD2	2.48	0.40
4:DW:311:LEU:HD11	4:DW:372:ARG:NH2	2.25	0.40
5:DX:25:ILE:HD12	5:DX:25:ILE:HA	1.96	0.40
7:ED:87:THR:HG23	7:ED:87:THR:O	2.20	0.40
7:ED:611:SER:HB3	7:EE:606:ASN:HD22	1.86	0.40
1:AB:83:VAL:HG22	1:AB:84:THR:H	1.85	0.40
1:AF:233:ASP:OD1	1:AF:233:ASP:N	2.53	0.40
1:AH:283:ILE:HD12	1:AH:283:ILE:N	2.36	0.40
1:AM:16:LYS:HG2	1:CN:103:TYR:H	1.70	0.40
1:AM:246:ALA:O	1:AM:258:ARG:NH1	2.49	0.40
1:AO:83:VAL:HG12	1:AO:134:ARG:HG3	2.03	0.40
1:AO:131:GLY:O	1:AO:181:VAL:N	2.47	0.40
1:AQ:237:ILE:CD1	1:AQ:294:VAL:HG22	2.52	0.40
1:AR:251:ASN:O	1:AR:252:THR:HG22	2.21	0.40
1:AS:88:ARG:NE	1:AS:327:GLU:OE2	2.54	0.40
1:BB:219:PHE:O	1:BB:222:THR:OG1	2.29	0.40
1:BK:230:SER:OG	1:BK:339:ALA:O	2.39	0.40
1:BN:113:LEU:O	1:BN:117:GLY:N	2.51	0.40
1:BS:238:ASN:O	1:BS:239:PRO:C	2.59	0.40
1:BV:218:ILE:O	1:BV:222:THR:HG23	2.21	0.40
1:BY:124:LEU:HD13	1:BY:330:VAL:HG11	2.04	0.40
1:BY:266:PHE:O	1:BY:266:PHE:CG	2.72	0.40
1:CG:136:ASP:OD1	1:CG:137:VAL:N	2.49	0.40
1:CR:82:ASN:OD1	1:CR:165:GLY:N	2.54	0.40
1:CR:87:LEU:HB2	1:CR:120:ILE:HD11	2.02	0.40
1:CV:259:ILE:HD11	1:CY:259:ILE:HB	2.02	0.40
1:CX:252:THR:HG1	1:CX:256:ARG:H	1.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CZ:117:GLY:O	1:CZ:120:ILE:HG22	2.21	0.40
1:DB:141:GLN:O	1:DB:144:THR:OG1	2.38	0.40
1:DD:42:ILE:O	1:DD:43:ASN:HB3	2.21	0.40
1:DH:248:LEU:C	1:DH:248:LEU:HD23	2.41	0.40
3:DU:129:PRO:HB2	3:DU:131:ILE:HD11	2.03	0.40
3:DV:7:GLN:HG3	3:DV:9:PRO:O	2.21	0.40
5:DY:42:ALA:HB1	5:DZ:41:TRP:CE3	2.57	0.40
7:ED:343:GLN:NE2	7:EE:65:TRP:NE1	2.67	0.40
7:ED:409:TYR:HA	7:EE:375:TYR:HH	1.78	0.40
7:ED:443:ASP:OD1	7:ED:444:VAL:N	2.54	0.40
7:EE:226:ARG:HD3	7:EE:290:TYR:CE2	2.57	0.40
1:AG:64:VAL:HG12	1:AG:65:GLU:N	2.35	0.40
1:AM:299:SER:OG	1:AM:299:SER:O	2.39	0.40
1:AS:90:VAL:HG11	1:AV:70:GLU:O	2.21	0.40
1:AY:248:LEU:O	1:AY:256:ARG:NH2	2.53	0.40
1:BB:17:LEU:O	1:BB:18:SER:OG	2.28	0.40
1:BF:92:ARG:NH2	1:BL:74:MET:SD	2.94	0.40
1:BF:283:ILE:N	1:BF:283:ILE:HD12	2.36	0.40
1:BI:74:MET:CG	1:DP:4:PRO:HB2	2.50	0.40
1:BQ:90:VAL:HG11	1:BT:70:GLU:O	2.21	0.40
1:BS:64:VAL:HG12	1:BS:65:GLU:N	2.35	0.40
1:BY:326:ILE:HG22	1:BY:327:GLU:N	2.35	0.40
1:CA:238:ASN:O	1:CA:239:PRO:C	2.60	0.40
1:CB:52:ASP:OD1	1:CB:53:ALA:N	2.54	0.40
1:CB:317:LYS:O	1:CB:318:ASP:OD1	2.39	0.40
1:CC:57:VAL:HG22	1:CC:58:ASP:N	2.37	0.40
1:CD:187:GLY:N	1:CD:198:VAL:O	2.51	0.40
1:CL:263:THR:HG22	1:CL:265:GLN:H	1.85	0.40
1:CN:31:THR:HB	1:CN:34:VAL:HG22	2.02	0.40
1:CP:88:ARG:NH1	1:CT:65:GLU:O	2.54	0.40
1:CT:81:SER:O	1:CT:134:ARG:NH2	2.54	0.40
1:CT:298:ARG:NH1	1:CT:301:ASP:OD1	2.52	0.40
1:CZ:231:GLU:O	1:CZ:232:ALA:HB3	2.21	0.40
1:DB:143:LEU:HD22	1:DB:143:LEU:N	2.36	0.40
1:DJ:245:PHE:CD2	1:DJ:283:ILE:HD11	2.57	0.40
1:DN:12:GLN:O	1:DN:15:LYS:NZ	2.54	0.40
1:DN:25:VAL:HG23	1:DN:29:GLN:NE2	2.36	0.40
3:DU:78:GLN:HG2	3:DU:155:SER:O	2.20	0.40
3:DU:79:TRP:CZ2	3:DU:155:SER:HB2	2.56	0.40
3:DV:64:LYS:O	3:DV:65:ASP:OD1	2.40	0.40
3:DV:86:GLY:O	3:DV:87:THR:OG1	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:DW:460:ILE:HG22	4:DW:461:VAL:N	2.35	0.40
5:DX:59:VAL:HG12	5:DX:63:TYR:CE1	2.51	0.40
7:ED:24:TYR:CD2	7:EE:277:GLY:CA	3.04	0.40
7:ED:441:ASN:HB3	7:ED:442:PRO:HD2	2.03	0.40
1:AA:285:VAL:HG11	1:AC:277:LEU:HD22	2.03	0.40
1:AF:52:ASP:OD1	1:AF:53:ALA:N	2.48	0.40
1:AO:213:PHE:HB3	1:AO:244:ILE:HD13	2.03	0.40
1:AO:225:LEU:HD22	1:AO:230:SER:CB	2.50	0.40
1:AP:92:ARG:CG	1:CS:6:LEU:CA	2.98	0.40
1:AS:164:THR:HG22	1:AS:164:THR:O	2.21	0.40
1:AW:6:LEU:HD21	1:BK:92:ARG:HH11	1.54	0.40
1:AW:11:ASP:O	1:BN:76:PRO:HB3	2.21	0.40
1:BG:214:ASP:N	1:BG:214:ASP:OD2	2.55	0.40
1:BJ:171:CYS:HG	1:BJ:340:SER:HG	1.68	0.40
1:BP:30:ASP:N	1:BP:30:ASP:OD1	2.54	0.40
1:BX:322:GLU:N	1:BX:322:GLU:OE1	2.54	0.40
1:CA:42:ILE:O	1:CA:43:ASN:CB	2.70	0.40
1:CB:64:VAL:HG12	1:CB:65:GLU:N	2.36	0.40
1:CD:83:VAL:HG22	1:CD:84:THR:N	2.36	0.40
1:CE:286:ASN:OD1	1:CE:287:ARG:N	2.54	0.40
1:CF:213:PHE:CD1	1:CF:218:ILE:HD11	2.56	0.40
1:CM:152:VAL:O	1:CM:152:VAL:HG12	2.21	0.40
1:CN:33:PHE:CG	1:CN:129:LEU:HD21	2.56	0.40
1:CR:82:ASN:ND2	1:CR:332:LEU:O	2.50	0.40
1:CU:141:GLN:O	1:CU:144:THR:HG22	2.20	0.40
1:CZ:162:ARG:O	1:CZ:164:THR:HG23	2.22	0.40
1:DB:138:LEU:HD23	1:DB:141:GLN:O	2.21	0.40
1:DH:49:TRP:NE1	1:DH:334:HIS:O	2.54	0.40
1:DK:219:PHE:O	1:DK:223:LEU:HD13	2.21	0.40
1:DM:238:ASN:ND2	1:DM:291:THR:HG22	2.36	0.40
3:DU:22:LEU:HD11	3:DV:191:PHE:HZ	1.86	0.40
3:DV:65:ASP:HA	3:DV:131:ILE:O	2.20	0.40
3:DV:69:TYR:HE2	5:DZ:28:TYR:HE2	1.69	0.40
4:DW:278:THR:O	4:DW:278:THR:HG22	2.22	0.40
4:DW:295:SER:O	4:DW:296:LEU:HD23	2.22	0.40
4:DW:487:TRP:CG	4:DW:505:ILE:HG13	2.56	0.40
5:DY:49:PHE:O	5:DY:50:GLY:C	2.59	0.40
7:ED:94:GLN:HE21	7:EE:502:ARG:CG	2.34	0.40
7:ED:226:ARG:HD3	7:ED:290:TYR:CE2	2.56	0.40
7:ED:557:GLN:OE1	7:EE:577:TYR:O	2.38	0.40
7:EE:95:ASP:OD1	7:EE:95:ASP:N	2.50	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:EE:654:MET:SD	7:EE:655:THR:N	2.95	0.40
1:AA:13:ASN:OD1	1:AC:148:ALA:HB2	2.21	0.40
1:AD:143:LEU:HB3	1:AL:144:THR:O	2.22	0.40
1:AE:64:VAL:HG12	1:AE:65:GLU:N	2.37	0.40
1:AH:259:ILE:HG13	1:AK:259:ILE:CD1	2.52	0.40
1:AP:147:ALA:H	1:CR:142:TYR:HB3	1.85	0.40
1:AR:186:ASN:OD1	1:AR:186:ASN:N	2.55	0.40
1:AR:218:ILE:O	1:AR:222:THR:HG23	2.21	0.40
1:AS:155:LEU:HD13	1:AS:158:THR:OG1	2.22	0.40
1:AS:250:GLU:OE1	1:AS:258:ARG:NH1	2.50	0.40
1:AW:104:GLY:HA2	1:BK:16:LYS:HE3	2.01	0.40
1:AX:32:PRO:O	1:AX:35:SER:OG	2.38	0.40
1:AY:13:ASN:OD1	1:BA:148:ALA:HB2	2.21	0.40
1:BQ:237:ILE:HG22	1:BQ:285:VAL:HA	2.03	0.40
1:BU:5:THR:CA	1:DH:74:MET:HB3	2.25	0.40
1:BU:11:ASP:N	1:BU:11:ASP:OD1	2.54	0.40
1:BW:166:ALA:O	1:BW:170:LEU:HD23	2.22	0.40
1:CA:144:THR:N	1:CA:146:SER:OG	2.55	0.40
1:CE:237:ILE:CG1	1:CE:285:VAL:HG12	2.50	0.40
1:CJ:31:THR:HB	1:CJ:34:VAL:HG12	2.03	0.40
1:CO:25:VAL:O	1:CO:25:VAL:HG13	2.20	0.40
1:CP:113:LEU:HD21	1:CP:312:ARG:HD3	2.03	0.40
1:CQ:328:MET:HG2	1:CQ:330:VAL:HG13	2.04	0.40
1:CS:34:VAL:HG13	1:CS:39:LYS:HZ3	1.86	0.40
1:CY:303:THR:OG1	1:CY:304:GLN:N	2.53	0.40
1:DC:90:VAL:O	1:DC:90:VAL:HG13	2.21	0.40
1:DD:86:ILE:HA	1:DD:329:GLU:HA	2.03	0.40
1:DM:47:PHE:CE2	1:DM:83:VAL:HG22	2.57	0.40
1:DP:262:ASN:OD1	1:DP:263:THR:N	2.55	0.40
3:DU:26:ARG:HD2	4:DW:974:HIS:HA	1.56	0.40
3:DU:146:ILE:HG23	3:DU:146:ILE:O	2.21	0.40
3:DV:209:LEU:O	3:DV:212:MET:N	2.46	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	AA	345/352 (98%)	327 (95%)	18 (5%)	0	100	100
1	AB	345/352 (98%)	318 (92%)	27 (8%)	0	100	100
1	AC	342/352 (97%)	320 (94%)	22 (6%)	0	100	100
1	AD	345/352 (98%)	321 (93%)	24 (7%)	0	100	100
1	AE	344/352 (98%)	308 (90%)	36 (10%)	0	100	100
1	AF	344/352 (98%)	317 (92%)	27 (8%)	0	100	100
1	AG	345/352 (98%)	314 (91%)	31 (9%)	0	100	100
1	AH	345/352 (98%)	319 (92%)	26 (8%)	0	100	100
1	AI	345/352 (98%)	322 (93%)	23 (7%)	0	100	100
1	AJ	345/352 (98%)	313 (91%)	32 (9%)	0	100	100
1	AK	345/352 (98%)	318 (92%)	27 (8%)	0	100	100
1	AL	345/352 (98%)	313 (91%)	32 (9%)	0	100	100
1	AM	342/352 (97%)	319 (93%)	22 (6%)	1 (0%)	41	77
1	AN	342/352 (97%)	311 (91%)	31 (9%)	0	100	100
1	AO	342/352 (97%)	315 (92%)	27 (8%)	0	100	100
1	AP	345/352 (98%)	318 (92%)	27 (8%)	0	100	100
1	AQ	345/352 (98%)	321 (93%)	24 (7%)	0	100	100
1	AR	345/352 (98%)	324 (94%)	21 (6%)	0	100	100
1	AS	344/352 (98%)	316 (92%)	28 (8%)	0	100	100
1	AT	344/352 (98%)	309 (90%)	35 (10%)	0	100	100
1	AU	344/352 (98%)	300 (87%)	44 (13%)	0	100	100
1	AV	344/352 (98%)	320 (93%)	24 (7%)	0	100	100
1	AW	344/352 (98%)	319 (93%)	25 (7%)	0	100	100
1	AX	344/352 (98%)	321 (93%)	23 (7%)	0	100	100
1	AY	345/352 (98%)	327 (95%)	18 (5%)	0	100	100
1	AZ	345/352 (98%)	319 (92%)	26 (8%)	0	100	100
1	BA	342/352 (97%)	319 (93%)	23 (7%)	0	100	100
1	BB	345/352 (98%)	320 (93%)	25 (7%)	0	100	100
1	BC	344/352 (98%)	308 (90%)	36 (10%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	BD	344/352 (98%)	319 (93%)	25 (7%)	0	100	100
1	BE	345/352 (98%)	314 (91%)	31 (9%)	0	100	100
1	BF	345/352 (98%)	319 (92%)	26 (8%)	0	100	100
1	BG	345/352 (98%)	323 (94%)	22 (6%)	0	100	100
1	BH	345/352 (98%)	314 (91%)	31 (9%)	0	100	100
1	BI	345/352 (98%)	316 (92%)	29 (8%)	0	100	100
1	BJ	345/352 (98%)	315 (91%)	30 (9%)	0	100	100
1	BK	342/352 (97%)	319 (93%)	22 (6%)	1 (0%)	41	77
1	BL	342/352 (97%)	311 (91%)	31 (9%)	0	100	100
1	BM	342/352 (97%)	316 (92%)	26 (8%)	0	100	100
1	BN	345/352 (98%)	318 (92%)	27 (8%)	0	100	100
1	BO	345/352 (98%)	321 (93%)	24 (7%)	0	100	100
1	BP	345/352 (98%)	323 (94%)	22 (6%)	0	100	100
1	BQ	344/352 (98%)	317 (92%)	27 (8%)	0	100	100
1	BR	344/352 (98%)	308 (90%)	36 (10%)	0	100	100
1	BS	344/352 (98%)	300 (87%)	44 (13%)	0	100	100
1	BT	344/352 (98%)	320 (93%)	24 (7%)	0	100	100
1	BU	344/352 (98%)	320 (93%)	24 (7%)	0	100	100
1	BV	344/352 (98%)	321 (93%)	23 (7%)	0	100	100
1	BW	343/352 (97%)	286 (83%)	57 (17%)	0	100	100
1	BX	344/352 (98%)	284 (83%)	59 (17%)	1 (0%)	41	77
1	BY	345/352 (98%)	309 (90%)	36 (10%)	0	100	100
1	BZ	343/352 (97%)	308 (90%)	35 (10%)	0	100	100
1	CA	344/352 (98%)	275 (80%)	65 (19%)	4 (1%)	13	50
1	CB	344/352 (98%)	298 (87%)	46 (13%)	0	100	100
1	CC	345/352 (98%)	288 (84%)	56 (16%)	1 (0%)	41	77
1	CD	339/352 (96%)	305 (90%)	34 (10%)	0	100	100
1	CE	344/352 (98%)	322 (94%)	22 (6%)	0	100	100
1	CF	340/352 (97%)	307 (90%)	33 (10%)	0	100	100
1	CG	345/352 (98%)	276 (80%)	68 (20%)	1 (0%)	41	77
1	CH	345/352 (98%)	314 (91%)	31 (9%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	CI	344/352 (98%)	318 (92%)	26 (8%)	0	100	100
1	CJ	345/352 (98%)	315 (91%)	30 (9%)	0	100	100
1	CK	345/352 (98%)	264 (76%)	81 (24%)	0	100	100
1	CL	341/352 (97%)	294 (86%)	47 (14%)	0	100	100
1	CM	344/352 (98%)	324 (94%)	20 (6%)	0	100	100
1	CN	340/352 (97%)	310 (91%)	30 (9%)	0	100	100
1	CO	339/352 (96%)	286 (84%)	53 (16%)	0	100	100
1	CP	343/352 (97%)	306 (89%)	37 (11%)	0	100	100
1	CQ	344/352 (98%)	313 (91%)	31 (9%)	0	100	100
1	CR	343/352 (97%)	307 (90%)	36 (10%)	0	100	100
1	CS	345/352 (98%)	298 (86%)	47 (14%)	0	100	100
1	CT	344/352 (98%)	312 (91%)	32 (9%)	0	100	100
1	CU	344/352 (98%)	319 (93%)	25 (7%)	0	100	100
1	CV	345/352 (98%)	323 (94%)	22 (6%)	0	100	100
1	CW	344/352 (98%)	284 (83%)	60 (17%)	0	100	100
1	CX	344/352 (98%)	328 (95%)	16 (5%)	0	100	100
1	CY	345/352 (98%)	311 (90%)	34 (10%)	0	100	100
1	CZ	345/352 (98%)	285 (83%)	60 (17%)	0	100	100
1	DA	344/352 (98%)	288 (84%)	54 (16%)	2 (1%)	25	66
1	DB	345/352 (98%)	317 (92%)	28 (8%)	0	100	100
1	DC	343/352 (97%)	305 (89%)	38 (11%)	0	100	100
1	DD	344/352 (98%)	290 (84%)	51 (15%)	3 (1%)	17	57
1	DE	344/352 (98%)	302 (88%)	42 (12%)	0	100	100
1	DF	345/352 (98%)	286 (83%)	58 (17%)	1 (0%)	41	77
1	DG	339/352 (96%)	303 (89%)	36 (11%)	0	100	100
1	DH	344/352 (98%)	315 (92%)	29 (8%)	0	100	100
1	DI	345/352 (98%)	313 (91%)	32 (9%)	0	100	100
1	DJ	344/352 (98%)	322 (94%)	22 (6%)	0	100	100
1	DK	341/352 (97%)	303 (89%)	38 (11%)	0	100	100
1	DL	344/352 (98%)	324 (94%)	20 (6%)	0	100	100
1	DM	343/352 (97%)	312 (91%)	31 (9%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	DN	344/352 (98%)	326 (95%)	18 (5%)	0	100	100
1	DO	344/352 (98%)	317 (92%)	27 (8%)	0	100	100
1	DP	344/352 (98%)	327 (95%)	17 (5%)	0	100	100
1	DQ	344/352 (98%)	318 (92%)	26 (8%)	0	100	100
2	DR	261/267 (98%)	212 (81%)	43 (16%)	6 (2%)	6	34
2	DS	261/267 (98%)	219 (84%)	37 (14%)	5 (2%)	8	38
2	DT	261/267 (98%)	222 (85%)	30 (12%)	9 (3%)	3	26
3	DU	218/250 (87%)	163 (75%)	47 (22%)	8 (4%)	3	24
3	DV	218/250 (87%)	170 (78%)	43 (20%)	5 (2%)	6	34
4	DW	904/1005 (90%)	758 (84%)	131 (14%)	15 (2%)	9	42
5	DX	85/786 (11%)	63 (74%)	15 (18%)	7 (8%)	1	12
5	DY	76/786 (10%)	61 (80%)	13 (17%)	2 (3%)	5	31
5	DZ	66/786 (8%)	58 (88%)	7 (11%)	1 (2%)	10	46
6	EA	320/322 (99%)	272 (85%)	33 (10%)	15 (5%)	2	21
6	EB	320/322 (99%)	269 (84%)	37 (12%)	14 (4%)	2	22
6	EC	320/322 (99%)	271 (85%)	32 (10%)	17 (5%)	2	19
7	ED	598/747 (80%)	533 (89%)	56 (9%)	9 (2%)	10	46
7	EE	598/747 (80%)	533 (89%)	57 (10%)	8 (1%)	12	48
All	All	37172/40564 (92%)	33351 (90%)	3685 (10%)	136 (0%)	38	72

All (136) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	DR	6	ASN
2	DR	18	PRO
2	DR	126	ILE
2	DR	139	VAL
2	DR	158	VAL
2	DS	126	ILE
2	DT	6	ASN
2	DT	10	ILE
2	DT	17	TYR
2	DT	18	PRO
2	DT	81	THR
2	DT	126	ILE
3	DU	139	PRO

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Mol	Chain	Res	Type
3	DU	140	ASP
3	DV	67	VAL
3	DV	141	ASP
3	DV	143	SER
3	DV	147	PRO
3	DV	150	ASN
4	DW	39	GLU
5	DX	51	THR
5	DX	52	ILE
5	DX	53	ASP
5	DX	55	LEU
6	EA	16	THR
6	EA	90	ALA
6	EA	91	ILE
6	EA	104	GLU
6	EA	109	ASN
6	EA	113	PRO
6	EA	115	VAL
6	EB	16	THR
6	EB	83	ILE
6	EB	113	PRO
6	EB	114	PRO
6	EC	2	GLY
6	EC	103	THR
6	EC	166	TYR
7	ED	245	GLU
7	ED	382	TYR
7	ED	392	PRO
7	ED	401	GLN
7	EE	382	TYR
7	EE	392	PRO
7	EE	401	GLN
1	CA	44	GLN
2	DR	145	VAL
2	DS	10	ILE
2	DT	23	TYR
3	DU	144	PRO
3	DU	223	GLY
4	DW	341	SER
4	DW	549	THR
4	DW	556	GLN
4	DW	642	ALA

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Mol	Chain	Res	Type
4	DW	676	ASN
4	DW	837	PRO
4	DW	839	TRP
5	DX	49	PHE
5	DX	50	GLY
5	DZ	40	TYR
6	EA	3	ALA
6	EB	3	ALA
6	EB	111	VAL
6	EC	83	ILE
6	EC	90	ALA
6	EC	91	ILE
6	EC	114	PRO
6	EC	180	SER
7	ED	395	VAL
7	ED	454	VAL
7	EE	395	VAL
7	EE	454	VAL
1	CC	168	GLN
1	DD	45	THR
1	DD	145	ASN
4	DW	613	SER
6	EA	167	MET
6	EB	108	ASP
6	EB	167	MET
6	EB	168	LYS
6	EC	104	GLU
7	ED	381	ALA
7	EE	381	ALA
1	AM	142	TYR
1	BK	142	TYR
1	BX	20	ALA
1	CA	145	ASN
1	CG	204	ALA
1	DD	44	GLN
3	DU	143	SER
3	DU	231	ASN
4	DW	151	ASN
5	DX	60	GLU
5	DY	49	PHE
6	EA	4	GLY
6	EA	8	LYS

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Mol	Chain	Res	Type
6	EA	97	GLN
6	EA	105	ASP
6	EB	96	THR
6	EB	166	TYR
6	EC	3	ALA
6	EC	92	ALA
7	ED	504	MET
1	CA	45	THR
1	DA	20	ALA
1	DF	168	GLN
3	DU	138	TYR
4	DW	160	ASN
5	DY	56	ILE
6	EB	85	THR
6	EC	4	GLY
6	EC	5	GLY
6	EC	8	LYS
6	EC	159	ILE
6	EC	167	MET
7	EE	504	MET
1	DA	59	GLY
2	DS	158	VAL
2	DS	176	GLU
3	DU	150	ASN
4	DW	552	TYR
4	DW	838	ILE
6	EA	94	ILE
7	ED	383	ASP
7	EE	383	ASP
2	DT	24	ILE
4	DW	500	VAL
6	EA	274	GLY
6	EB	91	ILE
2	DT	158	VAL
4	DW	207	ILE
6	EB	274	GLY
6	EC	274	GLY
1	CA	42	ILE
2	DS	145	VAL

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	AA	286/287 (100%)	279 (98%)	7 (2%)	49 69
1	AB	286/287 (100%)	284 (99%)	2 (1%)	84 90
1	AC	283/287 (99%)	282 (100%)	1 (0%)	91 94
1	AD	286/287 (100%)	281 (98%)	5 (2%)	60 78
1	AE	285/287 (99%)	282 (99%)	3 (1%)	73 84
1	AF	285/287 (99%)	281 (99%)	4 (1%)	67 80
1	AG	286/287 (100%)	282 (99%)	4 (1%)	67 80
1	AH	286/287 (100%)	285 (100%)	1 (0%)	92 95
1	AI	286/287 (100%)	283 (99%)	3 (1%)	76 86
1	AJ	286/287 (100%)	284 (99%)	2 (1%)	84 90
1	AK	286/287 (100%)	282 (99%)	4 (1%)	67 80
1	AL	286/287 (100%)	281 (98%)	5 (2%)	60 78
1	AM	283/287 (99%)	280 (99%)	3 (1%)	73 84
1	AN	283/287 (99%)	281 (99%)	2 (1%)	84 90
1	AO	283/287 (99%)	278 (98%)	5 (2%)	59 77
1	AP	286/287 (100%)	284 (99%)	2 (1%)	84 90
1	AQ	286/287 (100%)	280 (98%)	6 (2%)	53 72
1	AR	286/287 (100%)	281 (98%)	5 (2%)	60 78
1	AS	285/287 (99%)	282 (99%)	3 (1%)	73 84
1	AT	285/287 (99%)	285 (100%)	0	100 100
1	AU	285/287 (99%)	280 (98%)	5 (2%)	59 77
1	AV	285/287 (99%)	282 (99%)	3 (1%)	73 84
1	AW	285/287 (99%)	284 (100%)	1 (0%)	91 94
1	AX	285/287 (99%)	281 (99%)	4 (1%)	67 80
1	AY	286/287 (100%)	279 (98%)	7 (2%)	49 69
1	AZ	286/287 (100%)	284 (99%)	2 (1%)	84 90

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	BA	283/287 (99%)	282 (100%)	1 (0%)	91 94
1	BB	286/287 (100%)	281 (98%)	5 (2%)	60 78
1	BC	285/287 (99%)	282 (99%)	3 (1%)	73 84
1	BD	285/287 (99%)	282 (99%)	3 (1%)	73 84
1	BE	286/287 (100%)	282 (99%)	4 (1%)	67 80
1	BF	286/287 (100%)	285 (100%)	1 (0%)	92 95
1	BG	286/287 (100%)	283 (99%)	3 (1%)	76 86
1	BH	286/287 (100%)	284 (99%)	2 (1%)	84 90
1	BI	286/287 (100%)	282 (99%)	4 (1%)	67 80
1	BJ	286/287 (100%)	281 (98%)	5 (2%)	60 78
1	BK	283/287 (99%)	280 (99%)	3 (1%)	73 84
1	BL	283/287 (99%)	281 (99%)	2 (1%)	84 90
1	BM	283/287 (99%)	278 (98%)	5 (2%)	59 77
1	BN	286/287 (100%)	284 (99%)	2 (1%)	84 90
1	BO	286/287 (100%)	281 (98%)	5 (2%)	60 78
1	BP	286/287 (100%)	281 (98%)	5 (2%)	60 78
1	BQ	285/287 (99%)	282 (99%)	3 (1%)	73 84
1	BR	285/287 (99%)	285 (100%)	0	100 100
1	BS	285/287 (99%)	280 (98%)	5 (2%)	59 77
1	BT	285/287 (99%)	282 (99%)	3 (1%)	73 84
1	BU	285/287 (99%)	284 (100%)	1 (0%)	91 94
1	BV	285/287 (99%)	281 (99%)	4 (1%)	67 80
1	BW	285/287 (99%)	284 (100%)	1 (0%)	91 94
1	BX	285/287 (99%)	284 (100%)	1 (0%)	91 94
1	BY	286/287 (100%)	286 (100%)	0	100 100
1	BZ	284/287 (99%)	284 (100%)	0	100 100
1	CA	285/287 (99%)	285 (100%)	0	100 100
1	CB	285/287 (99%)	285 (100%)	0	100 100
1	CC	286/287 (100%)	286 (100%)	0	100 100
1	CD	283/287 (99%)	283 (100%)	0	100 100
1	CE	285/287 (99%)	285 (100%)	0	100 100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	CF	281/287 (98%)	281 (100%)	0	100	100
1	CG	286/287 (100%)	286 (100%)	0	100	100
1	CH	286/287 (100%)	284 (99%)	2 (1%)	84	90
1	CI	285/287 (99%)	283 (99%)	2 (1%)	84	90
1	CJ	286/287 (100%)	286 (100%)	0	100	100
1	CK	286/287 (100%)	286 (100%)	0	100	100
1	CL	282/287 (98%)	282 (100%)	0	100	100
1	CM	285/287 (99%)	283 (99%)	2 (1%)	84	90
1	CN	281/287 (98%)	281 (100%)	0	100	100
1	CO	280/287 (98%)	279 (100%)	1 (0%)	91	94
1	CP	284/287 (99%)	284 (100%)	0	100	100
1	CQ	285/287 (99%)	283 (99%)	2 (1%)	84	90
1	CR	284/287 (99%)	283 (100%)	1 (0%)	91	94
1	CS	286/287 (100%)	285 (100%)	1 (0%)	92	95
1	CT	285/287 (99%)	284 (100%)	1 (0%)	91	94
1	CU	285/287 (99%)	283 (99%)	2 (1%)	84	90
1	CV	286/287 (100%)	286 (100%)	0	100	100
1	CW	285/287 (99%)	285 (100%)	0	100	100
1	CX	285/287 (99%)	285 (100%)	0	100	100
1	CY	286/287 (100%)	286 (100%)	0	100	100
1	CZ	286/287 (100%)	286 (100%)	0	100	100
1	DA	285/287 (99%)	285 (100%)	0	100	100
1	DB	286/287 (100%)	286 (100%)	0	100	100
1	DC	284/287 (99%)	284 (100%)	0	100	100
1	DD	285/287 (99%)	285 (100%)	0	100	100
1	DE	285/287 (99%)	284 (100%)	1 (0%)	91	94
1	DF	286/287 (100%)	285 (100%)	1 (0%)	92	95
1	DG	283/287 (99%)	283 (100%)	0	100	100
1	DH	285/287 (99%)	285 (100%)	0	100	100
1	DI	286/287 (100%)	286 (100%)	0	100	100
1	DJ	285/287 (99%)	285 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	DK	282/287 (98%)	282 (100%)	0	100 100
1	DL	285/287 (99%)	285 (100%)	0	100 100
1	DM	284/287 (99%)	284 (100%)	0	100 100
1	DN	285/287 (99%)	285 (100%)	0	100 100
1	DO	285/287 (99%)	285 (100%)	0	100 100
1	DP	285/287 (99%)	285 (100%)	0	100 100
1	DQ	285/287 (99%)	285 (100%)	0	100 100
2	DR	85/227 (37%)	84 (99%)	1 (1%)	71 83
2	DS	86/227 (38%)	84 (98%)	2 (2%)	50 70
2	DT	86/227 (38%)	83 (96%)	3 (4%)	36 59
3	DU	197/223 (88%)	179 (91%)	18 (9%)	9 29
3	DV	197/223 (88%)	183 (93%)	14 (7%)	14 39
4	DW	792/870 (91%)	782 (99%)	10 (1%)	69 81
5	DX	69/640 (11%)	51 (74%)	18 (26%)	0 3
5	DY	64/640 (10%)	41 (64%)	23 (36%)	0 1
5	DZ	56/640 (9%)	45 (80%)	11 (20%)	1 8
7	ED	523/647 (81%)	493 (94%)	30 (6%)	20 45
7	EE	523/647 (81%)	493 (94%)	30 (6%)	20 45
All	All	29746/32476 (92%)	29410 (99%)	336 (1%)	74 84

All (336) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	AA	7	PHE
1	AA	19	PHE
1	AA	155	LEU
1	AA	176	LEU
1	AA	243	LYS
1	AA	291	THR
1	AA	313	THR
1	AB	21	ASN
1	AB	126	LYS
1	AC	287	ARG
1	AD	7	PHE
1	AD	19	PHE
1	AD	68	ARG

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Mol	Chain	Res	Type
1	AD	185	LYS
1	AD	186	ASN
1	AE	19	PHE
1	AE	21	ASN
1	AE	143	LEU
1	AF	19	PHE
1	AF	129	LEU
1	AF	143	LEU
1	AF	145	ASN
1	AG	19	PHE
1	AG	155	LEU
1	AG	210	ASN
1	AG	213	PHE
1	AH	336	ASN
1	AI	26	LEU
1	AI	213	PHE
1	AI	349	LYS
1	AJ	7	PHE
1	AJ	60	ASN
1	AK	58	ASP
1	AK	60	ASN
1	AK	213	PHE
1	AK	259	ILE
1	AL	19	PHE
1	AL	60	ASN
1	AL	83	VAL
1	AL	145	ASN
1	AL	167	PHE
1	AM	19	PHE
1	AM	142	TYR
1	AM	213	PHE
1	AN	19	PHE
1	AN	107	ARG
1	AO	13	ASN
1	AO	19	PHE
1	AO	107	ARG
1	AO	213	PHE
1	AO	250	GLU
1	AP	19	PHE
1	AP	213	PHE
1	AQ	19	PHE
1	AQ	140	ASP

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Mol	Chain	Res	Type
1	AQ	143	LEU
1	AQ	210	ASN
1	AQ	274	THR
1	AQ	282	LYS
1	AR	7	PHE
1	AR	98	ASN
1	AR	186	ASN
1	AR	213	PHE
1	AR	258	ARG
1	AS	19	PHE
1	AS	68	ARG
1	AS	275	ASP
1	AU	19	PHE
1	AU	142	TYR
1	AU	143	LEU
1	AU	213	PHE
1	AU	275	ASP
1	AV	19	PHE
1	AV	141	GLN
1	AV	243	LYS
1	AW	258	ARG
1	AX	7	PHE
1	AX	19	PHE
1	AX	123	ASP
1	AX	223	LEU
1	AY	7	PHE
1	AY	19	PHE
1	AY	155	LEU
1	AY	176	LEU
1	AY	243	LYS
1	AY	291	THR
1	AY	313	THR
1	AZ	21	ASN
1	AZ	126	LYS
1	BA	287	ARG
1	BB	7	PHE
1	BB	19	PHE
1	BB	68	ARG
1	BB	185	LYS
1	BB	186	ASN
1	BC	19	PHE
1	BC	21	ASN

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Mol	Chain	Res	Type
1	BC	143	LEU
1	BD	19	PHE
1	BD	129	LEU
1	BD	145	ASN
1	BE	19	PHE
1	BE	155	LEU
1	BE	210	ASN
1	BE	213	PHE
1	BF	336	ASN
1	BG	26	LEU
1	BG	213	PHE
1	BG	349	LYS
1	BH	7	PHE
1	BH	60	ASN
1	BI	58	ASP
1	BI	60	ASN
1	BI	213	PHE
1	BI	259	ILE
1	BJ	19	PHE
1	BJ	60	ASN
1	BJ	83	VAL
1	BJ	145	ASN
1	BJ	167	PHE
1	BK	19	PHE
1	BK	142	TYR
1	BK	213	PHE
1	BL	19	PHE
1	BL	107	ARG
1	BM	13	ASN
1	BM	19	PHE
1	BM	107	ARG
1	BM	213	PHE
1	BM	250	GLU
1	BN	19	PHE
1	BN	213	PHE
1	BO	19	PHE
1	BO	143	LEU
1	BO	210	ASN
1	BO	274	THR
1	BO	282	LYS
1	BP	7	PHE
1	BP	98	ASN

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Mol	Chain	Res	Type
1	BP	186	ASN
1	BP	213	PHE
1	BP	258	ARG
1	BQ	19	PHE
1	BQ	68	ARG
1	BQ	275	ASP
1	BS	19	PHE
1	BS	142	TYR
1	BS	143	LEU
1	BS	213	PHE
1	BS	275	ASP
1	BT	19	PHE
1	BT	141	GLN
1	BT	243	LYS
1	BU	258	ARG
1	BV	7	PHE
1	BV	19	PHE
1	BV	123	ASP
1	BV	223	LEU
1	BW	105	ARG
1	BX	105	ARG
1	CH	107	ARG
1	CH	256	ARG
1	CI	92	ARG
1	CI	122	ARG
1	CM	122	ARG
1	CM	264	LYS
1	CO	68	ARG
1	CQ	122	ARG
1	CQ	298	ARG
1	CR	92	ARG
1	CS	107	ARG
1	CT	256	ARG
1	CU	105	ARG
1	CU	298	ARG
1	DE	312	ARG
1	DF	311	LYS
2	DR	92	LYS
2	DS	23	TYR
2	DS	64	LYS
2	DT	23	TYR
2	DT	24	ILE

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Mol	Chain	Res	Type
2	DT	25	TYR
3	DU	8	TYR
3	DU	15	TRP
3	DU	84	LYS
3	DU	101	ARG
3	DU	117	ASN
3	DU	132	GLU
3	DU	134	ASP
3	DU	135	THR
3	DU	139	PRO
3	DU	143	SER
3	DU	144	PRO
3	DU	150	ASN
3	DU	183	PHE
3	DU	219	GLN
3	DU	230	ASN
3	DU	232	MET
3	DU	234	ARG
3	DU	235	LEU
3	DV	7	GLN
3	DV	8	TYR
3	DV	12	THR
3	DV	26	ARG
3	DV	28	ASP
3	DV	55	LEU
3	DV	140	ASP
3	DV	145	LEU
3	DV	147	PRO
3	DV	183	PHE
3	DV	194	ASP
3	DV	219	GLN
3	DV	232	MET
3	DV	234	ARG
4	DW	71	ASP
4	DW	178	LEU
4	DW	577	VAL
4	DW	608	ARG
4	DW	724	PRO
4	DW	786	TRP
4	DW	838	ILE
4	DW	928	PHE
4	DW	951	TYR

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Mol	Chain	Res	Type
4	DW	1004	ARG
5	DX	14	ASN
5	DX	17	GLN
5	DX	53	ASP
5	DX	56	ILE
5	DX	58	GLU
5	DX	59	VAL
5	DX	61	ARG
5	DX	62	LEU
5	DX	63	TYR
5	DX	65	GLN
5	DX	68	LEU
5	DX	70	LYS
5	DX	77	LYS
5	DX	78	GLN
5	DX	81	LYS
5	DX	82	ASP
5	DX	86	ARG
5	DX	88	MET
5	DY	12	VAL
5	DY	14	ASN
5	DY	24	SER
5	DY	53	ASP
5	DY	54	ASP
5	DY	56	ILE
5	DY	60	GLU
5	DY	61	ARG
5	DY	64	GLN
5	DY	65	GLN
5	DY	67	VAL
5	DY	70	LYS
5	DY	71	GLN
5	DY	77	LYS
5	DY	79	ASP
5	DY	81	LYS
5	DY	82	ASP
5	DY	83	GLN
5	DY	86	ARG
5	DY	87	LEU
5	DY	88	MET
5	DY	90	LEU
5	DY	91	ILE

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Mol	Chain	Res	Type
5	DZ	40	TYR
5	DZ	47	SER
5	DZ	52	ILE
5	DZ	56	ILE
5	DZ	59	VAL
5	DZ	67	VAL
5	DZ	69	MET
5	DZ	71	GLN
5	DZ	79	ASP
5	DZ	80	PHE
5	DZ	83	GLN
7	ED	13	GLU
7	ED	28	TYR
7	ED	93	GLN
7	ED	96	SER
7	ED	133	SER
7	ED	136	LYS
7	ED	230	SER
7	ED	233	ASP
7	ED	288	TRP
7	ED	299	LEU
7	ED	363	TYR
7	ED	376	LYS
7	ED	384	ARG
7	ED	392	PRO
7	ED	406	LEU
7	ED	414	GLN
7	ED	416	ILE
7	ED	420	LEU
7	ED	430	ARG
7	ED	516	HIS
7	ED	517	ASN
7	ED	584	TYR
7	ED	599	MET
7	ED	613	LYS
7	ED	617	ASP
7	ED	621	GLN
7	ED	622	ARG
7	ED	631	LYS
7	ED	637	SER
7	ED	647	GLN
7	EE	13	GLU

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Mol	Chain	Res	Type
7	EE	28	TYR
7	EE	93	GLN
7	EE	96	SER
7	EE	133	SER
7	EE	136	LYS
7	EE	230	SER
7	EE	233	ASP
7	EE	288	TRP
7	EE	299	LEU
7	EE	363	TYR
7	EE	376	LYS
7	EE	384	ARG
7	EE	392	PRO
7	EE	406	LEU
7	EE	414	GLN
7	EE	416	ILE
7	EE	420	LEU
7	EE	430	ARG
7	EE	516	HIS
7	EE	517	ASN
7	EE	584	TYR
7	EE	599	MET
7	EE	613	LYS
7	EE	617	ASP
7	EE	621	GLN
7	EE	622	ARG
7	EE	631	LYS
7	EE	637	SER
7	EE	647	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (212) such sidechains are listed below:

Mol	Chain	Res	Type
1	AA	206	ASN
1	AC	145	ASN
1	AD	98	ASN
1	AE	238	ASN
1	AE	251	ASN
1	AF	206	ASN
1	AG	210	ASN
1	AH	156	ASN
1	AH	202	GLN

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Mol	Chain	Res	Type
1	AH	203	ASN
1	AH	206	ASN
1	AH	210	ASN
1	AH	238	ASN
1	AI	253	GLN
1	AJ	141	GLN
1	AK	251	ASN
1	AK	262	ASN
1	AM	262	ASN
1	AO	102	ASN
1	AO	210	ASN
1	AP	12	GLN
1	AP	60	ASN
1	AS	44	GLN
1	AS	145	ASN
1	AU	63	HIS
1	AU	210	ASN
1	AV	253	GLN
1	AY	206	ASN
1	BA	145	ASN
1	BA	253	GLN
1	BB	98	ASN
1	BC	12	GLN
1	BC	156	ASN
1	BC	238	ASN
1	BC	251	ASN
1	BD	206	ASN
1	BE	210	ASN
1	BF	43	ASN
1	BF	156	ASN
1	BF	202	GLN
1	BF	203	ASN
1	BF	206	ASN
1	BF	210	ASN
1	BF	238	ASN
1	BG	253	GLN
1	BH	141	GLN
1	BI	98	ASN
1	BI	102	ASN
1	BI	251	ASN
1	BK	12	GLN
1	BK	262	ASN

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Mol	Chain	Res	Type
1	BL	249	GLN
1	BM	102	ASN
1	BM	210	ASN
1	BN	44	GLN
1	BS	63	HIS
1	BS	210	ASN
1	BT	253	GLN
1	BW	156	ASN
1	BW	203	ASN
1	BW	249	GLN
1	BX	271	ASN
1	BY	50	GLN
1	BZ	63	HIS
1	BZ	206	ASN
1	CA	12	GLN
1	CB	145	ASN
1	CC	112	GLN
1	CC	262	ASN
1	CC	279	GLN
1	CD	203	ASN
1	CE	168	GLN
1	CE	279	GLN
1	CE	304	GLN
1	CF	145	ASN
1	CF	238	ASN
1	CG	186	ASN
1	CH	50	GLN
1	CI	249	GLN
1	CI	304	GLN
1	CK	145	ASN
1	CK	173	HIS
1	CL	262	ASN
1	CN	12	GLN
1	CN	238	ASN
1	CO	238	ASN
1	CO	251	ASN
1	CP	132	GLN
1	CR	44	GLN
1	CR	61	ASN
1	CR	141	GLN
1	CR	156	ASN
1	CR	279	GLN

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Mol	Chain	Res	Type
1	CS	262	ASN
1	CT	60	ASN
1	CU	102	ASN
1	CU	141	GLN
1	CV	203	ASN
1	CV	265	GLN
1	CW	102	ASN
1	CW	145	ASN
1	CW	279	GLN
1	CX	145	ASN
1	CY	13	ASN
1	CZ	13	ASN
1	CZ	251	ASN
1	DA	203	ASN
1	DA	262	ASN
1	DA	336	ASN
1	DB	50	GLN
1	DB	61	ASN
1	DB	168	GLN
1	DC	145	ASN
1	DC	168	GLN
1	DD	63	HIS
1	DD	202	GLN
1	DD	224	GLN
1	DD	238	ASN
1	DD	334	HIS
1	DE	60	ASN
1	DE	112	GLN
1	DE	145	ASN
1	DF	82	ASN
1	DF	102	ASN
1	DF	112	GLN
1	DF	141	GLN
1	DG	82	ASN
1	DG	141	GLN
1	DG	186	ASN
1	DG	210	ASN
1	DH	29	GLN
1	DH	61	ASN
1	DH	186	ASN
1	DH	253	GLN
1	DH	271	ASN

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Mol	Chain	Res	Type
1	DI	21	ASN
1	DI	85	GLN
1	DI	159	HIS
1	DI	206	ASN
1	DI	265	GLN
1	DJ	168	GLN
1	DJ	241	HIS
1	DJ	265	GLN
1	DJ	336	ASN
1	DK	12	GLN
1	DK	29	GLN
1	DK	145	ASN
1	DK	159	HIS
1	DK	168	GLN
1	DK	224	GLN
1	DL	132	GLN
1	DL	206	ASN
1	DM	29	GLN
1	DM	253	GLN
1	DM	304	GLN
1	DN	145	ASN
1	DN	156	ASN
1	DN	334	HIS
1	DO	241	HIS
1	DO	253	GLN
1	DP	13	ASN
1	DP	61	ASN
1	DP	98	ASN
1	DP	156	ASN
1	DP	286	ASN
1	DQ	61	ASN
1	DQ	112	GLN
1	DQ	156	ASN
1	DQ	203	ASN
1	DQ	251	ASN
3	DU	117	ASN
3	DU	150	ASN
3	DU	199	GLN
3	DU	215	GLN
3	DU	216	ASN
3	DU	219	GLN
3	DU	230	ASN

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Mol	Chain	Res	Type
3	DV	7	GLN
3	DV	11	ASN
3	DV	193	GLN
3	DV	216	ASN
3	DV	219	GLN
4	DW	276	ASN
4	DW	926	ASN
4	DW	967	HIS
5	DY	30	GLN
7	ED	26	GLN
7	ED	69	ASN
7	ED	221	GLN
7	ED	343	GLN
7	ED	401	GLN
7	ED	441	ASN
7	ED	449	ASN
7	ED	459	ASN
7	ED	557	GLN
7	ED	564	GLN
7	ED	585	GLN
7	ED	630	GLN
7	EE	69	ASN
7	EE	77	ASN
7	EE	108	GLN
7	EE	118	ASN
7	EE	125	GLN
7	EE	369	ASN
7	EE	371	ASN
7	EE	401	GLN
7	EE	459	ASN
7	EE	564	GLN
7	EE	585	GLN
7	EE	621	GLN
7	EE	630	GLN
7	EE	644	GLN

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates (i)

There are no 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)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
5	DY	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	DY	81:LYS	C	82:ASP	N	3.02

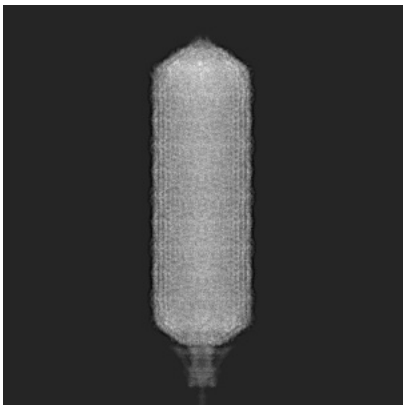
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-14492. These allow visual inspection of the internal detail of the map and identification of artifacts.

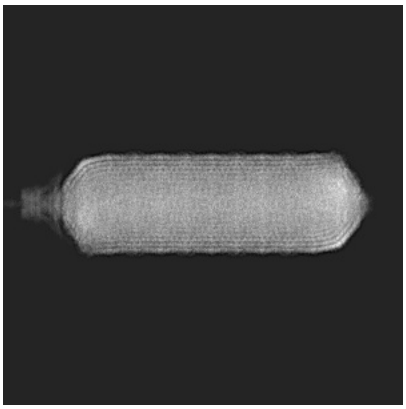
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

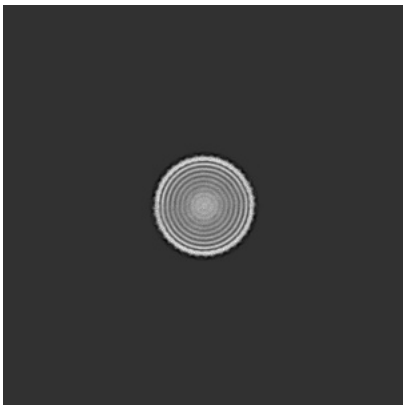
6.1.1 Primary map



X

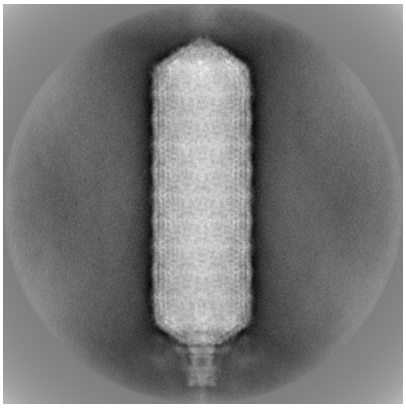


Y

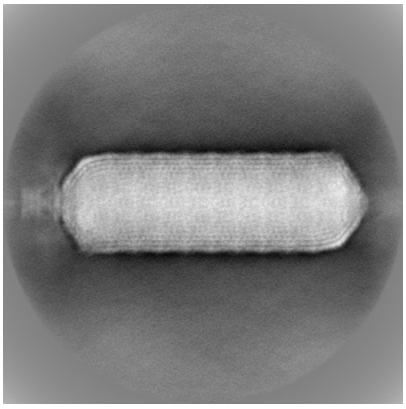


Z

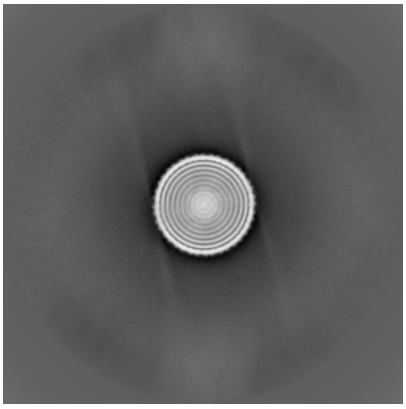
6.1.2 Raw map



X



Y

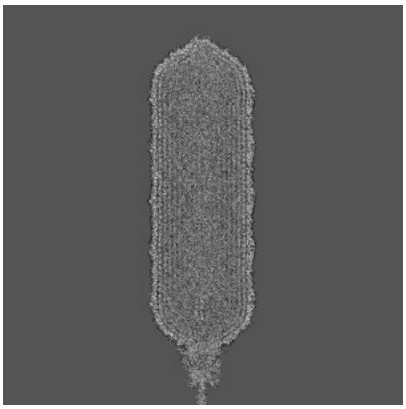


Z

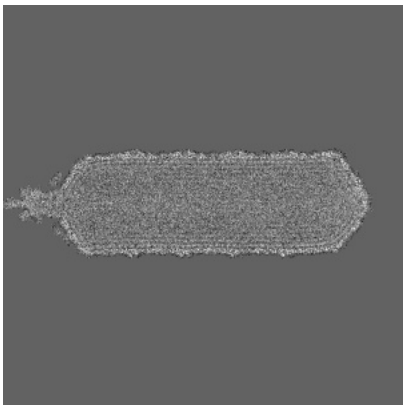
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

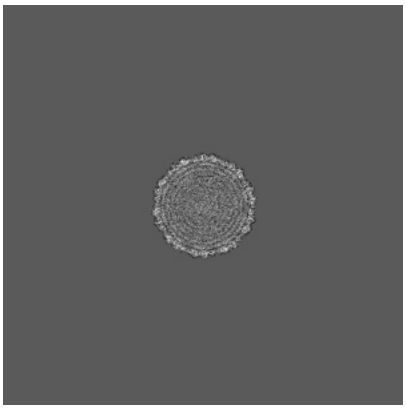
6.2.1 Primary map



X Index: 648

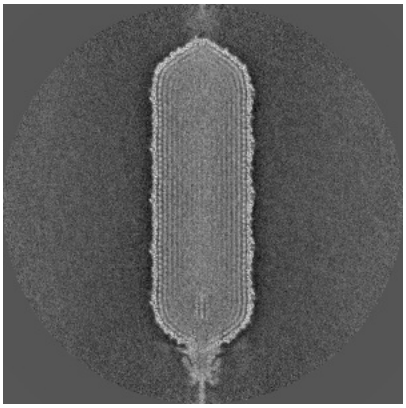


Y Index: 648

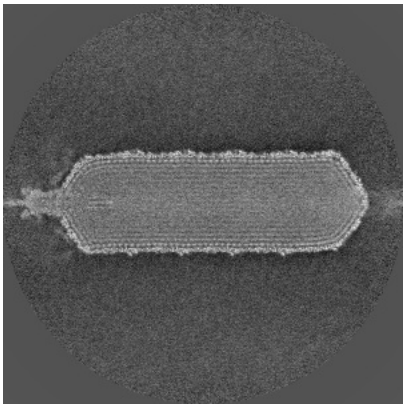


Z Index: 648

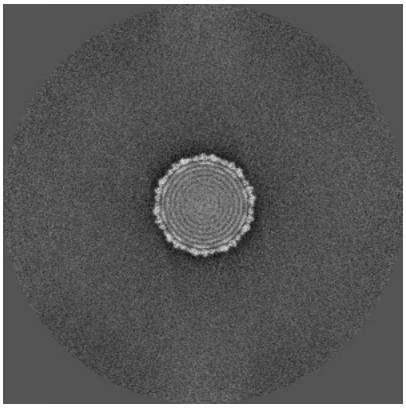
6.2.2 Raw map



X Index: 648



Y Index: 648

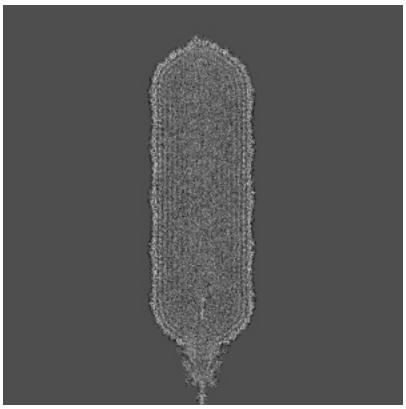


Z Index: 648

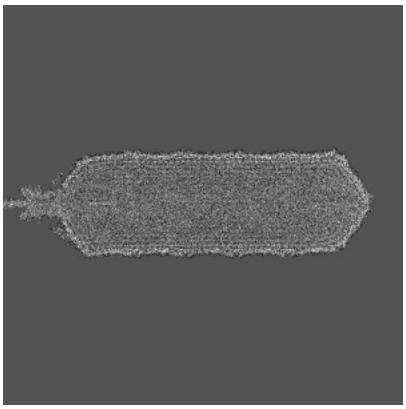
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

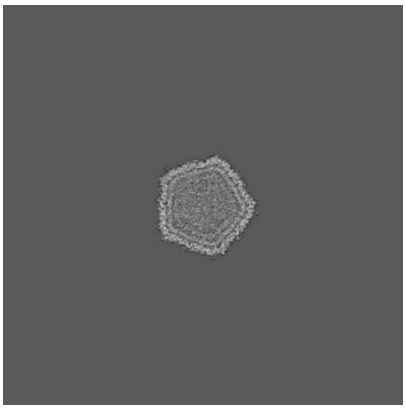
6.3.1 Primary map



X Index: 651

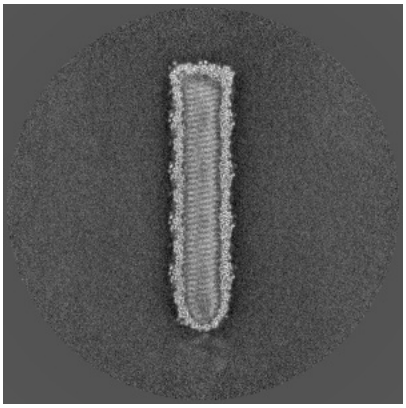


Y Index: 644

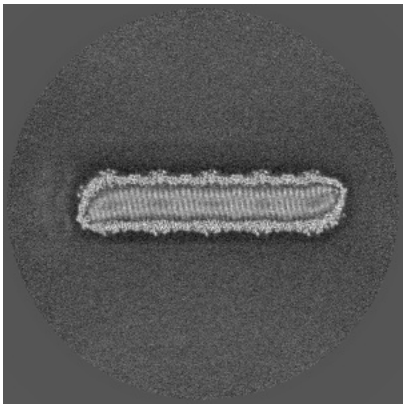


Z Index: 1085

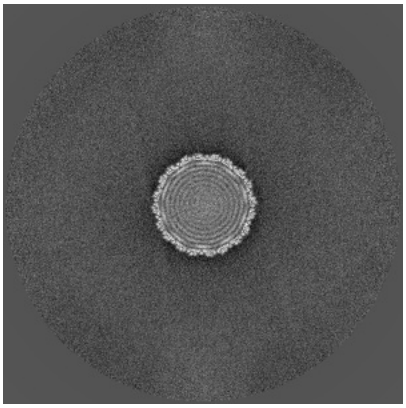
6.3.2 Raw map



X Index: 519



Y Index: 511

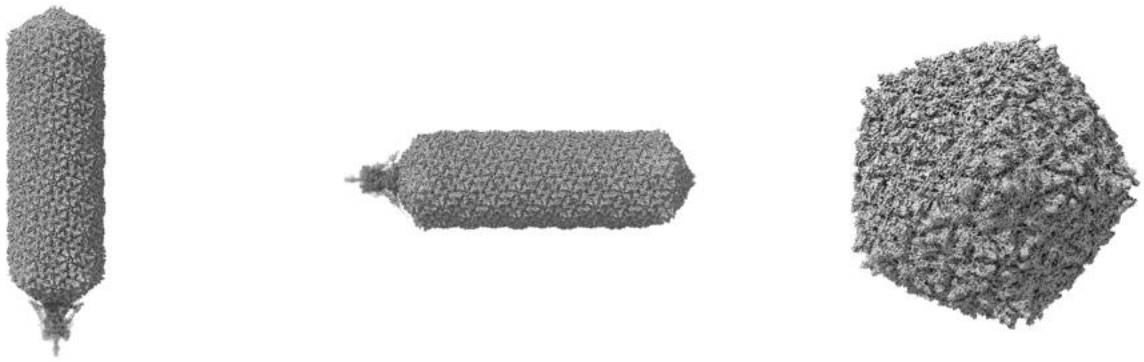


Z Index: 757

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

6.4 Orthogonal surface views (i)

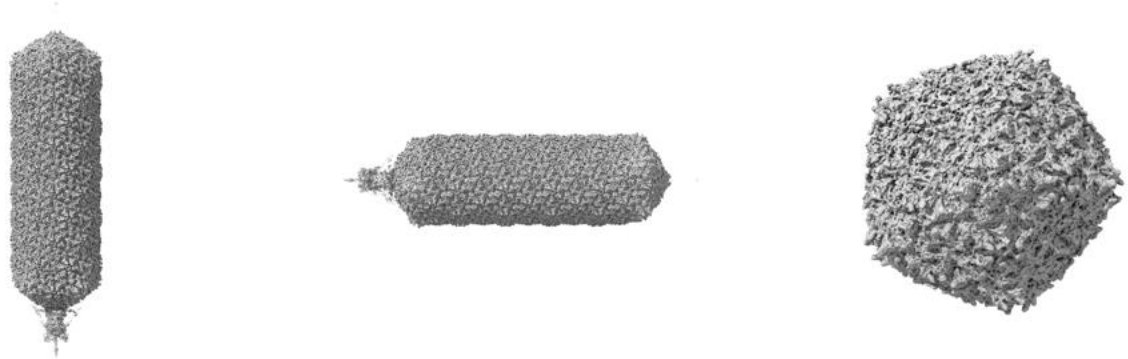
6.4.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.04. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.4.2 Raw map



X Y Z

These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

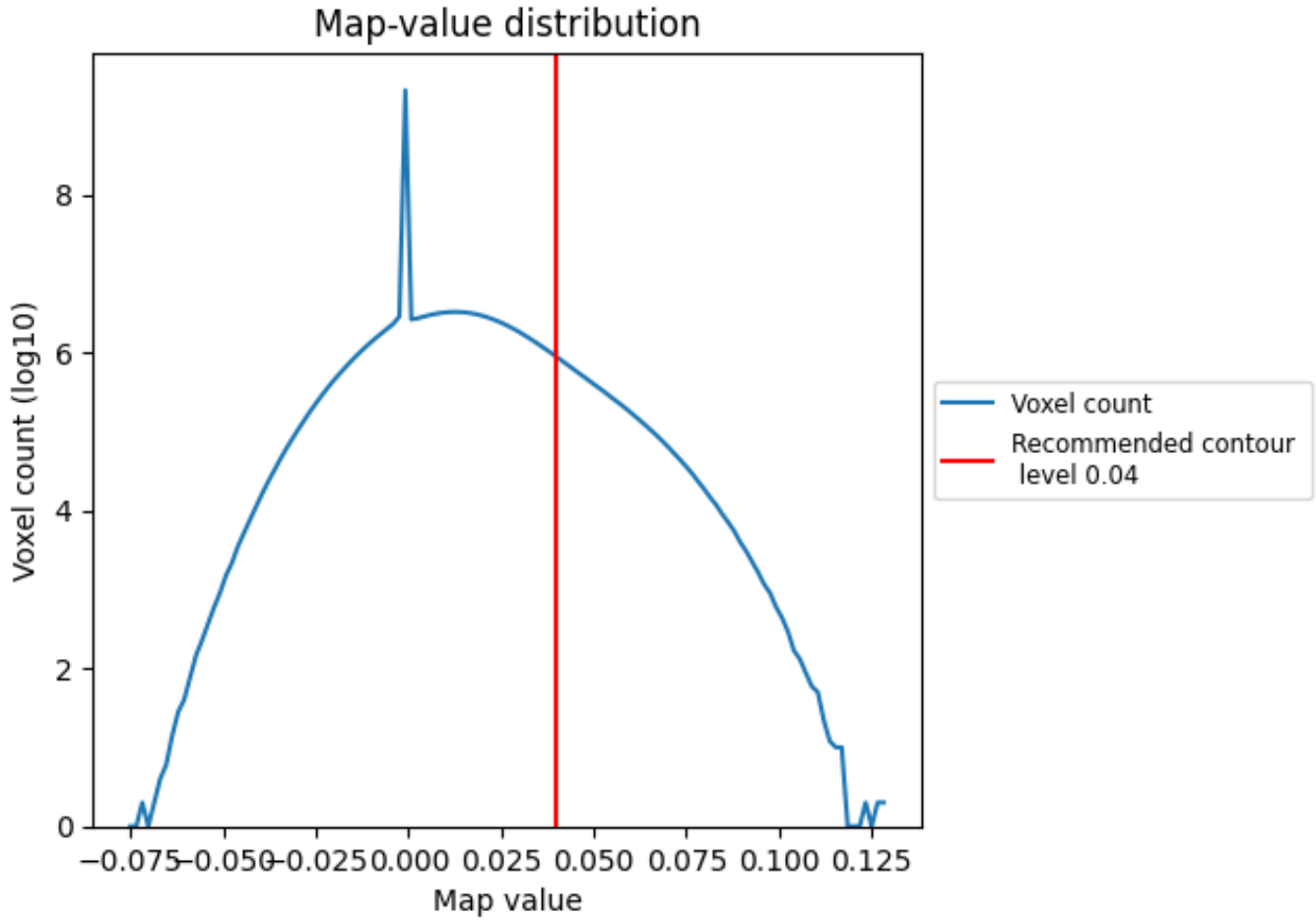
6.5 Mask visualisation (i)

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

7 Map analysis

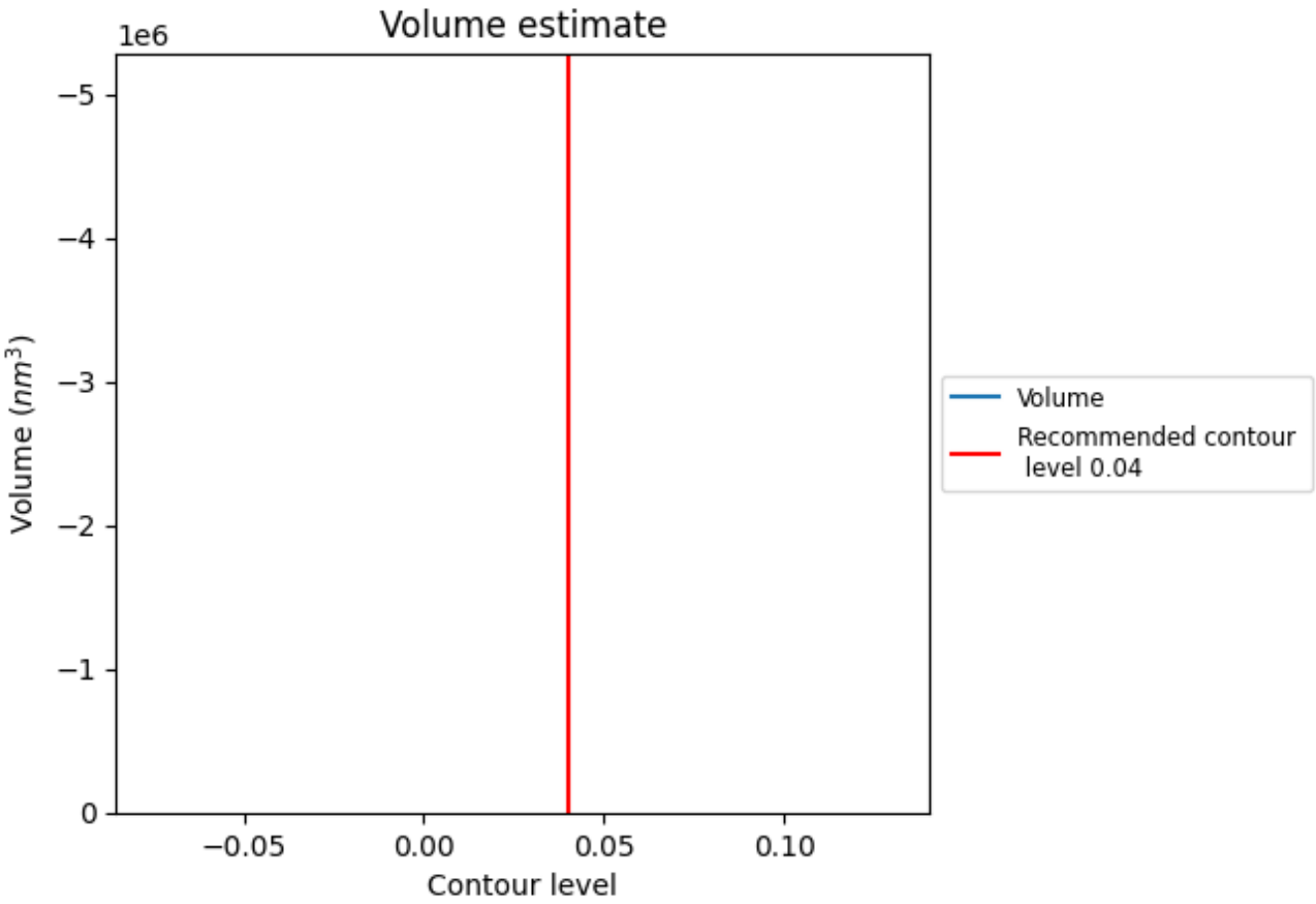
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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.

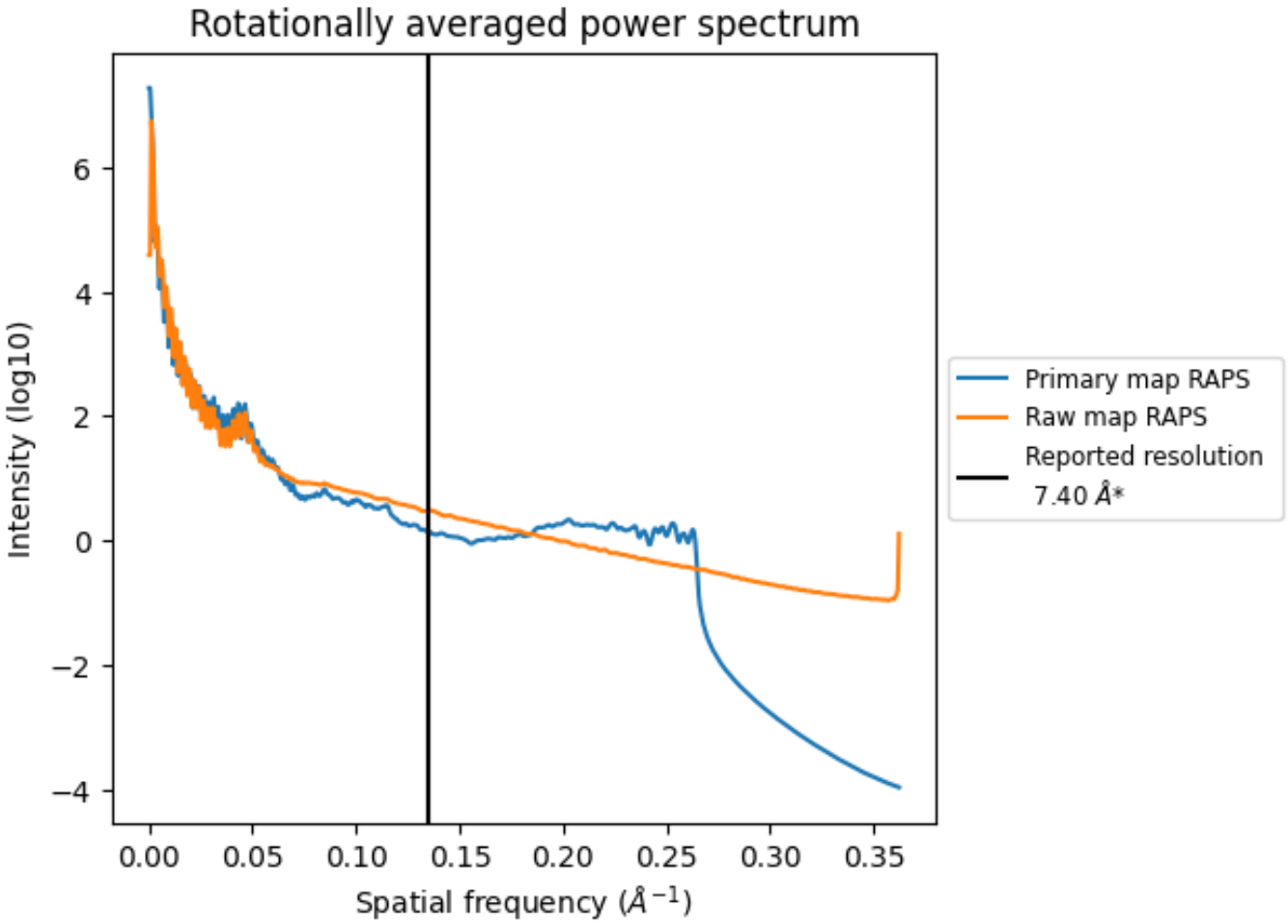
7.2 Volume estimate



The volume at the recommended contour level is -11269269 nm^3; this corresponds to an approximate mass of -10179824 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)

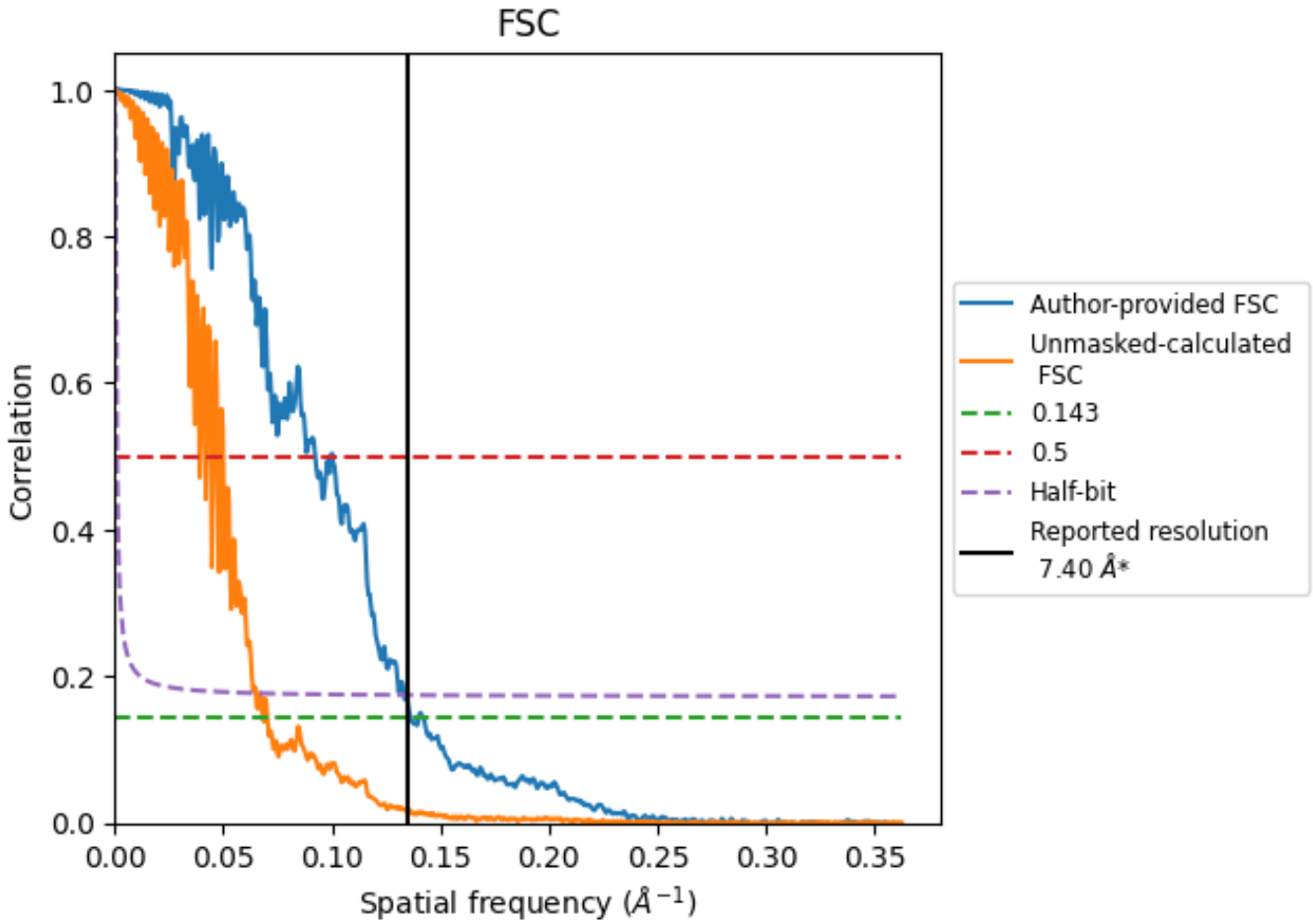


*Reported resolution corresponds to spatial frequency of 0.135 Å^{-1}

8 Fourier-Shell correlation

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC



*Reported resolution corresponds to spatial frequency of 0.135 Å^{-1}

8.2 Resolution estimates (i)

Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	7.40	-	-
Author-provided FSC curve	7.33	10.83	7.50
Unmasked-calculated*	14.66	25.64	15.38

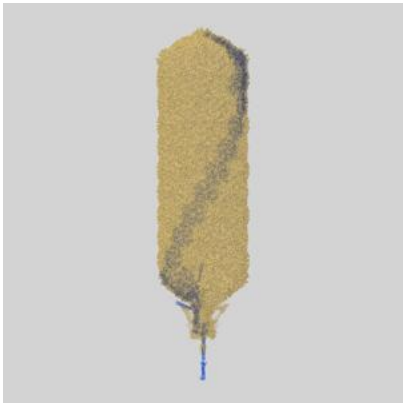
*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 14.66 differs from the reported value 7.4 by more than 10 %

9 Map-model fit

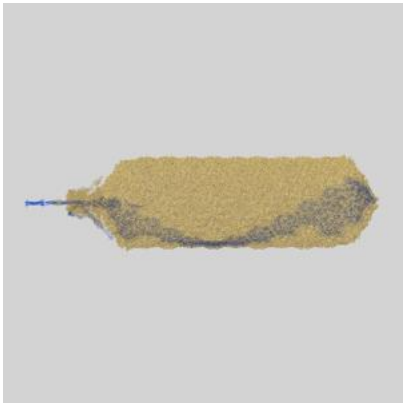
This section contains information regarding the fit between EMDB map EMD-14492 and PDB model 7Z4B. Per-residue inclusion information can be found in section 3 on page 14.

9.1 Map-model overlays

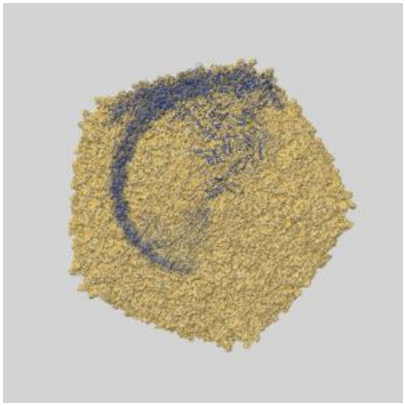
9.1.1 Map-model overlay



X

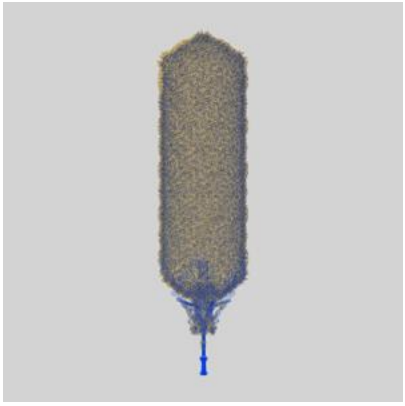


Y

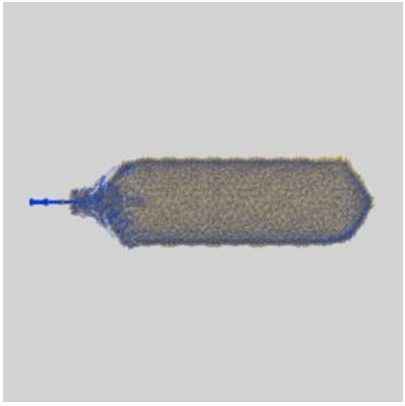


Z

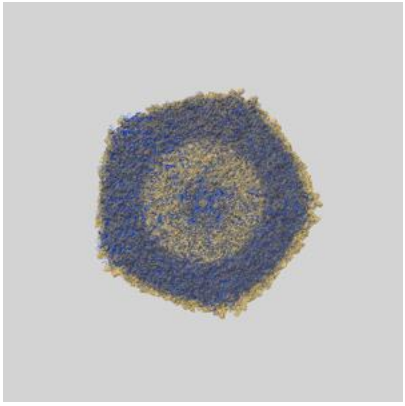
9.1.2 Map-model assembly overlay



X



Y



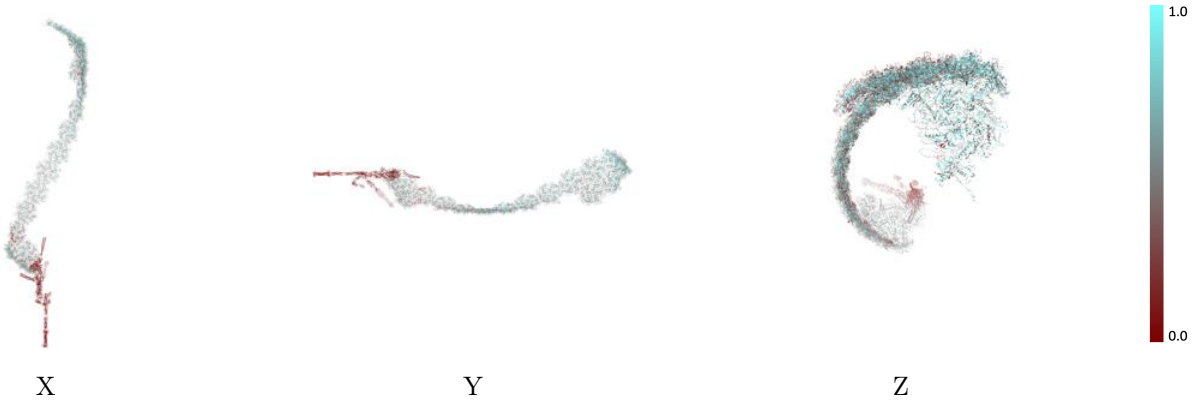
Z

The images above show the 3D surface view of the map at the recommended contour level 0.04 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

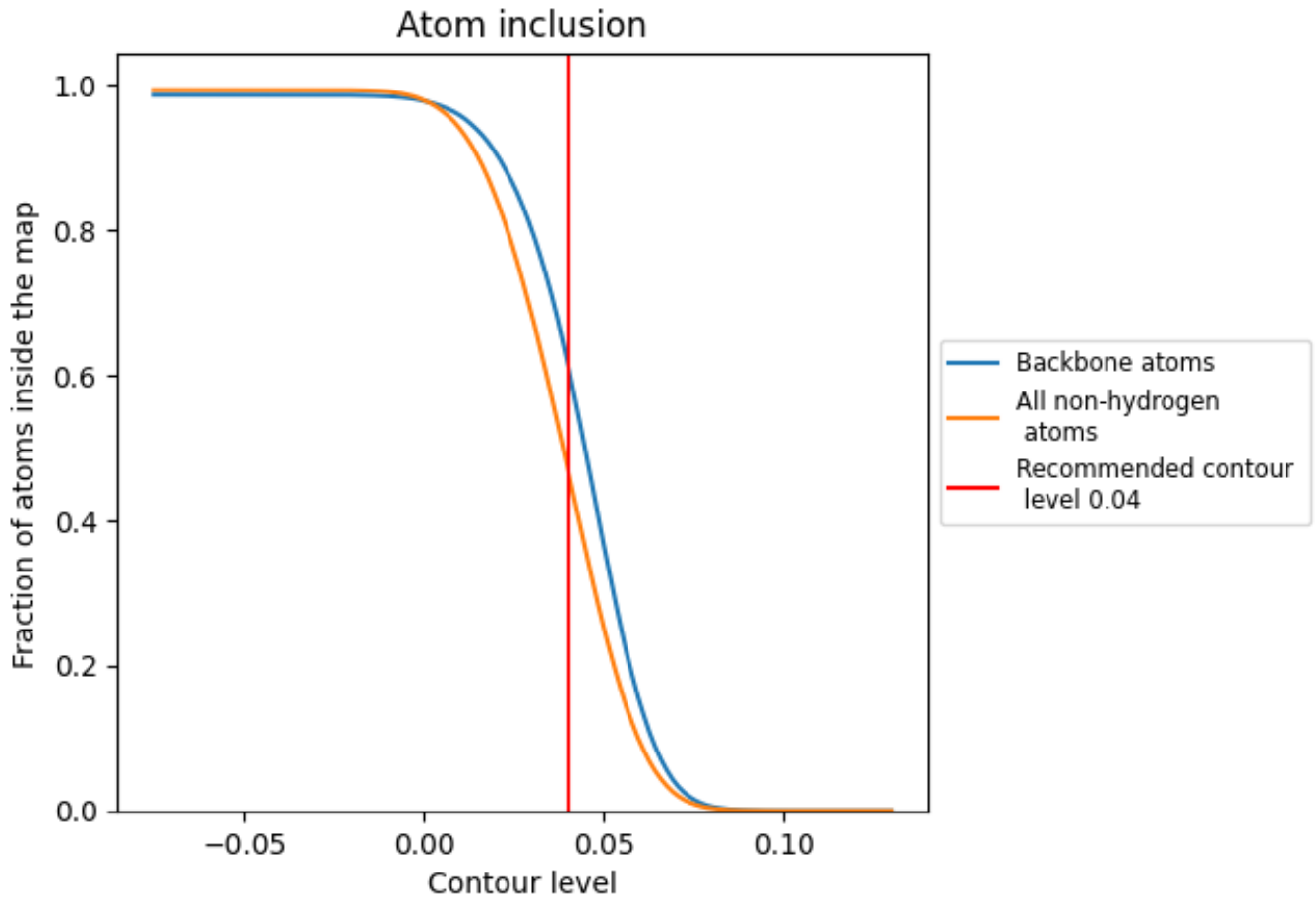
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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



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 (0.04).

9.4 Atom inclusion (i)



At the recommended contour level, 61% of all backbone atoms, 47% 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 (0.04) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.4684	0.1940
AA	0.5569	0.2700
AB	0.5493	0.2600
AC	0.5700	0.2630
AD	0.5311	0.2520
AE	0.5262	0.2670
AF	0.5344	0.2620
AG	0.5425	0.2370
AH	0.5500	0.2540
AI	0.5504	0.2470
AJ	0.5466	0.2380
AK	0.5349	0.2540
AL	0.5318	0.2460
AM	0.5665	0.2400
AN	0.5413	0.2570
AO	0.5531	0.2440
AP	0.5030	0.2270
AQ	0.5326	0.2620
AR	0.5428	0.2470
AS	0.5194	0.2230
AT	0.5388	0.2620
AU	0.5228	0.2280
AV	0.5455	0.2460
AW	0.5181	0.2690
AX	0.5363	0.2510
AY	0.4124	0.2240
AZ	0.4587	0.2310
BA	0.4442	0.2390
BB	0.4905	0.2560
BC	0.5190	0.2480
BD	0.5223	0.2500
BE	0.5379	0.2600
BF	0.2707	0.0450
BG	0.5042	0.2510
BH	0.4958	0.2480

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Chain	Atom inclusion	Q-score
BI	0.4064	0.0790
BJ	0.4814	0.2490
BK	0.5573	0.2580
BL	0.3865	0.1680
BM	0.4870	0.2550
BN	0.5102	0.2570
BO	0.4719	0.2200
BP	0.4947	0.2580
BQ	0.4643	0.2360
BR	0.4433	0.1820
BS	0.5259	0.2500
BT	0.4998	0.2690
BU	0.3648	0.0680
BV	0.5257	0.2660
BW	0.5470	0.1400
BX	0.5985	0.1870
BY	0.5940	0.1890
BZ	0.6100	0.1870
CA	0.6004	0.1820
CB	0.6025	0.2020
CC	0.6016	0.1780
CD	0.5460	0.1730
CE	0.5793	0.1950
CF	0.5414	0.2090
CG	0.5167	0.1720
CH	0.5773	0.2020
CI	0.5854	0.2030
CJ	0.5679	0.2190
CK	0.4780	0.1710
CL	0.5036	0.1870
CM	0.6056	0.2050
CN	0.5144	0.2080
CO	0.5042	0.1970
CP	0.5174	0.1650
CQ	0.6086	0.2020
CR	0.4865	0.1950
CS	0.4841	0.1760
CT	0.5913	0.1860
CU	0.6059	0.1940
CV	0.5273	0.2090
CW	0.4624	0.1900
CX	0.5976	0.2030

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Chain	Atom inclusion	Q-score
CY	0.5474	0.1940
CZ	0.5042	0.1900
DA	0.4871	0.1930
DB	0.4227	0.1710
DC	0.4083	0.1790
DD	0.4624	0.1710
DE	0.4766	0.1880
DF	0.4890	0.1940
DG	0.4747	0.1930
DH	0.5143	0.1840
DI	0.4780	0.1910
DJ	0.5325	0.1800
DK	0.4331	0.1770
DL	0.5447	0.1930
DM	0.4910	0.1860
DN	0.5143	0.1900
DO	0.5030	0.2040
DP	0.5143	0.1780
DQ	0.4332	0.1780
DR	0.0333	0.0210
DS	0.0375	0.0130
DT	0.0572	0.0350
DU	0.1420	0.0390
DV	0.0952	0.0290
DW	0.0666	0.0320
DX	0.1085	0.0360
DY	0.0372	0.0310
DZ	0.0448	0.0160
EA	0.0543	0.0050
EB	0.0357	0.0050
EC	0.0225	-0.0070
ED	0.0826	0.0630
EE	0.0896	0.0770