Full wwPDB EM Validation Report

Mar 25, 2026 – 07:33 AM UTC

PDB ID	:	8GMO / pdb_00008gmo
EMDB ID	:	EMD-40228
Title	:	Bacteriophage T4 capsid shell containing 9DE insertions into the gp23* major capsid protein subunits
Authors	:	Fokine, A.; Rao, V.B.
Deposited on	:	2023-03-26
Resolution	:	3.90 Å(reported)
Based on initial model	:	7VS5

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 (i) symbol.

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

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

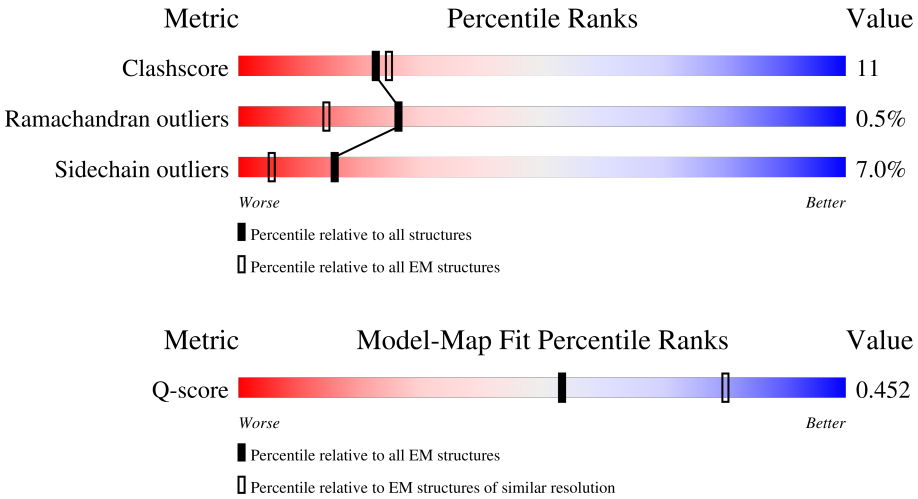
EMDB validation analysis	:	0.0.1.dev132
MolProbity	:	4-5-2 with Phenix2.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

1 Overall quality at a glance

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

The reported resolution of this entry is 3.90 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)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	8855 (3.40 - 4.40)

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	0	465	68% 31%
1	1	465	68% 29%
1	2	465	71% 27%
1	3	465	75% 24%

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Mol	Chain	Length	Quality of chain
1	4	465	70% 27%
1	5	465	72% 26%
1	6	465	75% 23%
1	7	465	72% 27%
1	8	465	67% 29%
1	9	465	64% 33%
1	AA	465	72% 26%
1	AB	465	68% 28%
1	AC	465	67% 31%
1	AD	465	68% 24% 6%
1	AE	465	72% 26%
1	AF	465	72% 24%
1	AG	465	75% 24%
1	AH	465	68% 27% 6%
1	AI	465	74% 23%
1	AJ	465	76% 22%
1	AK	465	72% 28%
1	AL	465	71% 26%
1	AM	465	67% 30%
1	AN	465	74% 24%
1	AO	465	72% 27%
1	AP	465	73% 25%
1	AQ	465	71% 26%
1	AR	465	73% 26%
1	AS	465	73% 25%

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Mol	Chain	Length	Quality of chain
1	AT	465	70% 26%
1	AU	465	72% 25%
1	AV	465	70% 28%
1	AW	465	71% 27%
1	AX	465	73% 23%
1	AY	465	71% 28%
1	AZ	465	74% 25%
1	Aa	465	75% 24%
1	Ab	465	71% 27%
1	Ac	465	73% 26%
1	Ad	465	74% 24%
1	Ae	465	74% 25%
1	Af	465	68% 26% 6%
1	Ag	465	72% 26%
1	Ah	465	75% 23%
1	Ai	465	71% 26%
1	Aj	465	74% 24%
1	Ak	465	73% 27%
1	Al	465	72% 27%
1	Am	465	73% 25%
1	G	465	69% 27%
1	H	465	74% 23%
1	J	465	71% 27%
1	K	465	71% 28%
1	L	465	76% 22%

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Mol	Chain	Length	Quality of chain
1	M	465	72% 26%
1	N	465	77% 21%
1	O	465	69% 26% 5%
1	P	465	69% 28%
1	Q	465	72% 26%
1	R	465	72% 25%
1	S	465	71% 25%
1	T	465	73% 25%
1	U	465	69% 29%
1	V	465	71% 27%
1	W	465	72% 26%
1	X	465	76% 23%
1	Y	465	72% 22% 6%
1	Z	465	71% 26%
1	b	465	72% 26%
1	c	465	69% 30%
1	d	465	74% 24%
1	e	465	72% 27%
1	f	465	64% 31% 5%
1	g	465	71% 27%
1	h	465	74% 25%
1	i	465	74% 25%
1	j	465	73% 26%
1	k	465	69% 29%
1	l	465	71% 27%

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Mol	Chain	Length	Quality of chain
1	m	465	72% 26%
1	n	465	72% 26%
1	o	465	70% 28%
1	p	465	65% 30% 5%
1	q	465	70% 28%
1	r	465	72% 24%
1	s	465	71% 27%
1	t	465	68% 28%
1	u	465	67% 32%
1	v	465	75% 23%
1	w	465	74% 25%
1	x	465	77% 21%
1	y	465	71% 27%
1	z	465	68% 25% 6%
2	A	415	67% 29%
2	B	415	60% 34% 5%
2	C	415	62% 33% 5%
2	D	415	62% 31% 6%
2	a	415	64% 31% 5%

2 Entry composition (i)

There are 2 unique types of molecules in this entry. The entry contains 341379 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 Mature major capsid protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	0	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	1	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	2	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	3	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	4	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	5	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	6	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	7	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	8	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	9	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	AA	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	AB	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	AC	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	AD	439	Total 3312	C 2092	N 559	O 646	S 15	0	0
1	AE	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	AF	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	AG	465	Total 3501	C 2207	N 593	O 686	S 15	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	AH	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	AI	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	AJ	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	AK	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	AL	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	AM	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	AN	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	AO	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	AP	465	Total	C	N	O	S	0	0
			3488	2197	591	685	15		
1	AQ	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	AR	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	AS	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	AT	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	AU	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	AV	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	AW	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	AX	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	AY	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	AZ	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	Aa	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	Ab	465	Total	C	N	O	S	0	0
			3488	2197	591	685	15		

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	Ac	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	Ad	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	Ae	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	Af	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	Ag	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	Ah	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	Ai	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	Aj	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	Ak	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	Al	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	Am	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	G	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	H	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	J	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	K	465	Total 3488	C 2197	N 591	O 685	S 15	0	0
1	L	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	M	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	N	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	O	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	P	465	Total 3501	C 2207	N 593	O 686	S 15	0	0
1	Q	465	Total 3501	C 2207	N 593	O 686	S 15	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	R	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	S	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	T	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	U	465	Total	C	N	O	S	0	0
			3488	2197	591	685	15		
1	V	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	W	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	X	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	Y	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	Z	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	b	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	c	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	d	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	e	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	f	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	g	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	h	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	i	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	j	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	k	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	l	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	m	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	n	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	o	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	p	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	q	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	r	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	s	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	t	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	u	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	v	465	Total	C	N	O	S	0	0
			3488	2197	591	685	15		
1	w	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	x	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	y	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		
1	z	465	Total	C	N	O	S	0	0
			3501	2207	593	686	15		

There are 837 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
0	201A	ASP	-	insertion	UNP P04535
0	201B	GLU	-	insertion	UNP P04535
0	201C	ASP	-	insertion	UNP P04535
0	201D	GLU	-	insertion	UNP P04535
0	201E	ASP	-	insertion	UNP P04535
0	201F	GLU	-	insertion	UNP P04535
0	201G	ASP	-	insertion	UNP P04535
0	201H	GLU	-	insertion	UNP P04535
0	201I	ASP	-	insertion	UNP P04535
1	201A	ASP	-	insertion	UNP P04535
1	201B	GLU	-	insertion	UNP P04535
1	201C	ASP	-	insertion	UNP P04535
1	201D	GLU	-	insertion	UNP P04535

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Chain	Residue	Modelled	Actual	Comment	Reference
1	201E	ASP	-	insertion	UNP P04535
1	201F	GLU	-	insertion	UNP P04535
1	201G	ASP	-	insertion	UNP P04535
1	201H	GLU	-	insertion	UNP P04535
1	201I	ASP	-	insertion	UNP P04535
2	201A	ASP	-	insertion	UNP P04535
2	201B	GLU	-	insertion	UNP P04535
2	201C	ASP	-	insertion	UNP P04535
2	201D	GLU	-	insertion	UNP P04535
2	201E	ASP	-	insertion	UNP P04535
2	201F	GLU	-	insertion	UNP P04535
2	201G	ASP	-	insertion	UNP P04535
2	201H	GLU	-	insertion	UNP P04535
2	201I	ASP	-	insertion	UNP P04535
3	201A	ASP	-	insertion	UNP P04535
3	201B	GLU	-	insertion	UNP P04535
3	201C	ASP	-	insertion	UNP P04535
3	201D	GLU	-	insertion	UNP P04535
3	201E	ASP	-	insertion	UNP P04535
3	201F	GLU	-	insertion	UNP P04535
3	201G	ASP	-	insertion	UNP P04535
3	201H	GLU	-	insertion	UNP P04535
3	201I	ASP	-	insertion	UNP P04535
4	201A	ASP	-	insertion	UNP P04535
4	201B	GLU	-	insertion	UNP P04535
4	201C	ASP	-	insertion	UNP P04535
4	201D	GLU	-	insertion	UNP P04535
4	201E	ASP	-	insertion	UNP P04535
4	201F	GLU	-	insertion	UNP P04535
4	201G	ASP	-	insertion	UNP P04535
4	201H	GLU	-	insertion	UNP P04535
4	201I	ASP	-	insertion	UNP P04535
5	201A	ASP	-	insertion	UNP P04535
5	201B	GLU	-	insertion	UNP P04535
5	201C	ASP	-	insertion	UNP P04535
5	201D	GLU	-	insertion	UNP P04535
5	201E	ASP	-	insertion	UNP P04535
5	201F	GLU	-	insertion	UNP P04535
5	201G	ASP	-	insertion	UNP P04535
5	201H	GLU	-	insertion	UNP P04535
5	201I	ASP	-	insertion	UNP P04535
6	201A	ASP	-	insertion	UNP P04535

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Chain	Residue	Modelled	Actual	Comment	Reference
6	201B	GLU	-	insertion	UNP P04535
6	201C	ASP	-	insertion	UNP P04535
6	201D	GLU	-	insertion	UNP P04535
6	201E	ASP	-	insertion	UNP P04535
6	201F	GLU	-	insertion	UNP P04535
6	201G	ASP	-	insertion	UNP P04535
6	201H	GLU	-	insertion	UNP P04535
6	201I	ASP	-	insertion	UNP P04535
7	201A	ASP	-	insertion	UNP P04535
7	201B	GLU	-	insertion	UNP P04535
7	201C	ASP	-	insertion	UNP P04535
7	201D	GLU	-	insertion	UNP P04535
7	201E	ASP	-	insertion	UNP P04535
7	201F	GLU	-	insertion	UNP P04535
7	201G	ASP	-	insertion	UNP P04535
7	201H	GLU	-	insertion	UNP P04535
7	201I	ASP	-	insertion	UNP P04535
8	201A	ASP	-	insertion	UNP P04535
8	201B	GLU	-	insertion	UNP P04535
8	201C	ASP	-	insertion	UNP P04535
8	201D	GLU	-	insertion	UNP P04535
8	201E	ASP	-	insertion	UNP P04535
8	201F	GLU	-	insertion	UNP P04535
8	201G	ASP	-	insertion	UNP P04535
8	201H	GLU	-	insertion	UNP P04535
8	201I	ASP	-	insertion	UNP P04535
9	201A	ASP	-	insertion	UNP P04535
9	201B	GLU	-	insertion	UNP P04535
9	201C	ASP	-	insertion	UNP P04535
9	201D	GLU	-	insertion	UNP P04535
9	201E	ASP	-	insertion	UNP P04535
9	201F	GLU	-	insertion	UNP P04535
9	201G	ASP	-	insertion	UNP P04535
9	201H	GLU	-	insertion	UNP P04535
9	201I	ASP	-	insertion	UNP P04535
AA	201A	ASP	-	insertion	UNP P04535
AA	201B	GLU	-	insertion	UNP P04535
AA	201C	ASP	-	insertion	UNP P04535
AA	201D	GLU	-	insertion	UNP P04535
AA	201E	ASP	-	insertion	UNP P04535
AA	201F	GLU	-	insertion	UNP P04535
AA	201G	ASP	-	insertion	UNP P04535

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Chain	Residue	Modelled	Actual	Comment	Reference
AA	201H	GLU	-	insertion	UNP P04535
AA	201I	ASP	-	insertion	UNP P04535
AB	201A	ASP	-	insertion	UNP P04535
AB	201B	GLU	-	insertion	UNP P04535
AB	201C	ASP	-	insertion	UNP P04535
AB	201D	GLU	-	insertion	UNP P04535
AB	201E	ASP	-	insertion	UNP P04535
AB	201F	GLU	-	insertion	UNP P04535
AB	201G	ASP	-	insertion	UNP P04535
AB	201H	GLU	-	insertion	UNP P04535
AB	201I	ASP	-	insertion	UNP P04535
AC	201A	ASP	-	insertion	UNP P04535
AC	201B	GLU	-	insertion	UNP P04535
AC	201C	ASP	-	insertion	UNP P04535
AC	201D	GLU	-	insertion	UNP P04535
AC	201E	ASP	-	insertion	UNP P04535
AC	201F	GLU	-	insertion	UNP P04535
AC	201G	ASP	-	insertion	UNP P04535
AC	201H	GLU	-	insertion	UNP P04535
AC	201I	ASP	-	insertion	UNP P04535
AD	201A	ASP	-	insertion	UNP P04535
AD	201B	GLU	-	insertion	UNP P04535
AD	201C	ASP	-	insertion	UNP P04535
AD	201D	GLU	-	insertion	UNP P04535
AD	201E	ASP	-	insertion	UNP P04535
AD	201F	GLU	-	insertion	UNP P04535
AD	201G	ASP	-	insertion	UNP P04535
AD	201H	GLU	-	insertion	UNP P04535
AD	201I	ASP	-	insertion	UNP P04535
AE	201A	ASP	-	insertion	UNP P04535
AE	201B	GLU	-	insertion	UNP P04535
AE	201C	ASP	-	insertion	UNP P04535
AE	201D	GLU	-	insertion	UNP P04535
AE	201E	ASP	-	insertion	UNP P04535
AE	201F	GLU	-	insertion	UNP P04535
AE	201G	ASP	-	insertion	UNP P04535
AE	201H	GLU	-	insertion	UNP P04535
AE	201I	ASP	-	insertion	UNP P04535
AF	201A	ASP	-	insertion	UNP P04535
AF	201B	GLU	-	insertion	UNP P04535
AF	201C	ASP	-	insertion	UNP P04535
AF	201D	GLU	-	insertion	UNP P04535

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Chain	Residue	Modelled	Actual	Comment	Reference
AF	201E	ASP	-	insertion	UNP P04535
AF	201F	GLU	-	insertion	UNP P04535
AF	201G	ASP	-	insertion	UNP P04535
AF	201H	GLU	-	insertion	UNP P04535
AF	201I	ASP	-	insertion	UNP P04535
AG	201A	ASP	-	insertion	UNP P04535
AG	201B	GLU	-	insertion	UNP P04535
AG	201C	ASP	-	insertion	UNP P04535
AG	201D	GLU	-	insertion	UNP P04535
AG	201E	ASP	-	insertion	UNP P04535
AG	201F	GLU	-	insertion	UNP P04535
AG	201G	ASP	-	insertion	UNP P04535
AG	201H	GLU	-	insertion	UNP P04535
AG	201I	ASP	-	insertion	UNP P04535
AH	201A	ASP	-	insertion	UNP P04535
AH	201B	GLU	-	insertion	UNP P04535
AH	201C	ASP	-	insertion	UNP P04535
AH	201D	GLU	-	insertion	UNP P04535
AH	201E	ASP	-	insertion	UNP P04535
AH	201F	GLU	-	insertion	UNP P04535
AH	201G	ASP	-	insertion	UNP P04535
AH	201H	GLU	-	insertion	UNP P04535
AH	201I	ASP	-	insertion	UNP P04535
AI	201A	ASP	-	insertion	UNP P04535
AI	201B	GLU	-	insertion	UNP P04535
AI	201C	ASP	-	insertion	UNP P04535
AI	201D	GLU	-	insertion	UNP P04535
AI	201E	ASP	-	insertion	UNP P04535
AI	201F	GLU	-	insertion	UNP P04535
AI	201G	ASP	-	insertion	UNP P04535
AI	201H	GLU	-	insertion	UNP P04535
AI	201I	ASP	-	insertion	UNP P04535
AJ	201A	ASP	-	insertion	UNP P04535
AJ	201B	GLU	-	insertion	UNP P04535
AJ	201C	ASP	-	insertion	UNP P04535
AJ	201D	GLU	-	insertion	UNP P04535
AJ	201E	ASP	-	insertion	UNP P04535
AJ	201F	GLU	-	insertion	UNP P04535
AJ	201G	ASP	-	insertion	UNP P04535
AJ	201H	GLU	-	insertion	UNP P04535
AJ	201I	ASP	-	insertion	UNP P04535
AK	201A	ASP	-	insertion	UNP P04535

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Chain	Residue	Modelled	Actual	Comment	Reference
AK	201B	GLU	-	insertion	UNP P04535
AK	201C	ASP	-	insertion	UNP P04535
AK	201D	GLU	-	insertion	UNP P04535
AK	201E	ASP	-	insertion	UNP P04535
AK	201F	GLU	-	insertion	UNP P04535
AK	201G	ASP	-	insertion	UNP P04535
AK	201H	GLU	-	insertion	UNP P04535
AK	201I	ASP	-	insertion	UNP P04535
AL	201A	ASP	-	insertion	UNP P04535
AL	201B	GLU	-	insertion	UNP P04535
AL	201C	ASP	-	insertion	UNP P04535
AL	201D	GLU	-	insertion	UNP P04535
AL	201E	ASP	-	insertion	UNP P04535
AL	201F	GLU	-	insertion	UNP P04535
AL	201G	ASP	-	insertion	UNP P04535
AL	201H	GLU	-	insertion	UNP P04535
AL	201I	ASP	-	insertion	UNP P04535
AM	201A	ASP	-	insertion	UNP P04535
AM	201B	GLU	-	insertion	UNP P04535
AM	201C	ASP	-	insertion	UNP P04535
AM	201D	GLU	-	insertion	UNP P04535
AM	201E	ASP	-	insertion	UNP P04535
AM	201F	GLU	-	insertion	UNP P04535
AM	201G	ASP	-	insertion	UNP P04535
AM	201H	GLU	-	insertion	UNP P04535
AM	201I	ASP	-	insertion	UNP P04535
AN	201A	ASP	-	insertion	UNP P04535
AN	201B	GLU	-	insertion	UNP P04535
AN	201C	ASP	-	insertion	UNP P04535
AN	201D	GLU	-	insertion	UNP P04535
AN	201E	ASP	-	insertion	UNP P04535
AN	201F	GLU	-	insertion	UNP P04535
AN	201G	ASP	-	insertion	UNP P04535
AN	201H	GLU	-	insertion	UNP P04535
AN	201I	ASP	-	insertion	UNP P04535
AO	201A	ASP	-	insertion	UNP P04535
AO	201B	GLU	-	insertion	UNP P04535
AO	201C	ASP	-	insertion	UNP P04535
AO	201D	GLU	-	insertion	UNP P04535
AO	201E	ASP	-	insertion	UNP P04535
AO	201F	GLU	-	insertion	UNP P04535
AO	201G	ASP	-	insertion	UNP P04535

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Chain	Residue	Modelled	Actual	Comment	Reference
AO	201H	GLU	-	insertion	UNP P04535
AO	201I	ASP	-	insertion	UNP P04535
AP	201A	ASP	-	insertion	UNP P04535
AP	201B	GLU	-	insertion	UNP P04535
AP	201C	ASP	-	insertion	UNP P04535
AP	201D	GLU	-	insertion	UNP P04535
AP	201E	ASP	-	insertion	UNP P04535
AP	201F	GLU	-	insertion	UNP P04535
AP	201G	ASP	-	insertion	UNP P04535
AP	201H	GLU	-	insertion	UNP P04535
AP	201I	ASP	-	insertion	UNP P04535
AQ	201A	ASP	-	insertion	UNP P04535
AQ	201B	GLU	-	insertion	UNP P04535
AQ	201C	ASP	-	insertion	UNP P04535
AQ	201D	GLU	-	insertion	UNP P04535
AQ	201E	ASP	-	insertion	UNP P04535
AQ	201F	GLU	-	insertion	UNP P04535
AQ	201G	ASP	-	insertion	UNP P04535
AQ	201H	GLU	-	insertion	UNP P04535
AQ	201I	ASP	-	insertion	UNP P04535
AR	201A	ASP	-	insertion	UNP P04535
AR	201B	GLU	-	insertion	UNP P04535
AR	201C	ASP	-	insertion	UNP P04535
AR	201D	GLU	-	insertion	UNP P04535
AR	201E	ASP	-	insertion	UNP P04535
AR	201F	GLU	-	insertion	UNP P04535
AR	201G	ASP	-	insertion	UNP P04535
AR	201H	GLU	-	insertion	UNP P04535
AR	201I	ASP	-	insertion	UNP P04535
AS	201A	ASP	-	insertion	UNP P04535
AS	201B	GLU	-	insertion	UNP P04535
AS	201C	ASP	-	insertion	UNP P04535
AS	201D	GLU	-	insertion	UNP P04535
AS	201E	ASP	-	insertion	UNP P04535
AS	201F	GLU	-	insertion	UNP P04535
AS	201G	ASP	-	insertion	UNP P04535
AS	201H	GLU	-	insertion	UNP P04535
AS	201I	ASP	-	insertion	UNP P04535
AT	201A	ASP	-	insertion	UNP P04535
AT	201B	GLU	-	insertion	UNP P04535
AT	201C	ASP	-	insertion	UNP P04535
AT	201D	GLU	-	insertion	UNP P04535

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Chain	Residue	Modelled	Actual	Comment	Reference
AT	201E	ASP	-	insertion	UNP P04535
AT	201F	GLU	-	insertion	UNP P04535
AT	201G	ASP	-	insertion	UNP P04535
AT	201H	GLU	-	insertion	UNP P04535
AT	201I	ASP	-	insertion	UNP P04535
AU	201A	ASP	-	insertion	UNP P04535
AU	201B	GLU	-	insertion	UNP P04535
AU	201C	ASP	-	insertion	UNP P04535
AU	201D	GLU	-	insertion	UNP P04535
AU	201E	ASP	-	insertion	UNP P04535
AU	201F	GLU	-	insertion	UNP P04535
AU	201G	ASP	-	insertion	UNP P04535
AU	201H	GLU	-	insertion	UNP P04535
AU	201I	ASP	-	insertion	UNP P04535
AV	201A	ASP	-	insertion	UNP P04535
AV	201B	GLU	-	insertion	UNP P04535
AV	201C	ASP	-	insertion	UNP P04535
AV	201D	GLU	-	insertion	UNP P04535
AV	201E	ASP	-	insertion	UNP P04535
AV	201F	GLU	-	insertion	UNP P04535
AV	201G	ASP	-	insertion	UNP P04535
AV	201H	GLU	-	insertion	UNP P04535
AV	201I	ASP	-	insertion	UNP P04535
AW	201A	ASP	-	insertion	UNP P04535
AW	201B	GLU	-	insertion	UNP P04535
AW	201C	ASP	-	insertion	UNP P04535
AW	201D	GLU	-	insertion	UNP P04535
AW	201E	ASP	-	insertion	UNP P04535
AW	201F	GLU	-	insertion	UNP P04535
AW	201G	ASP	-	insertion	UNP P04535
AW	201H	GLU	-	insertion	UNP P04535
AW	201I	ASP	-	insertion	UNP P04535
AX	201A	ASP	-	insertion	UNP P04535
AX	201B	GLU	-	insertion	UNP P04535
AX	201C	ASP	-	insertion	UNP P04535
AX	201D	GLU	-	insertion	UNP P04535
AX	201E	ASP	-	insertion	UNP P04535
AX	201F	GLU	-	insertion	UNP P04535
AX	201G	ASP	-	insertion	UNP P04535
AX	201H	GLU	-	insertion	UNP P04535
AX	201I	ASP	-	insertion	UNP P04535
AY	201A	ASP	-	insertion	UNP P04535

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Chain	Residue	Modelled	Actual	Comment	Reference
AY	201B	GLU	-	insertion	UNP P04535
AY	201C	ASP	-	insertion	UNP P04535
AY	201D	GLU	-	insertion	UNP P04535
AY	201E	ASP	-	insertion	UNP P04535
AY	201F	GLU	-	insertion	UNP P04535
AY	201G	ASP	-	insertion	UNP P04535
AY	201H	GLU	-	insertion	UNP P04535
AY	201I	ASP	-	insertion	UNP P04535
AZ	201A	ASP	-	insertion	UNP P04535
AZ	201B	GLU	-	insertion	UNP P04535
AZ	201C	ASP	-	insertion	UNP P04535
AZ	201D	GLU	-	insertion	UNP P04535
AZ	201E	ASP	-	insertion	UNP P04535
AZ	201F	GLU	-	insertion	UNP P04535
AZ	201G	ASP	-	insertion	UNP P04535
AZ	201H	GLU	-	insertion	UNP P04535
AZ	201I	ASP	-	insertion	UNP P04535
Aa	201A	ASP	-	insertion	UNP P04535
Aa	201B	GLU	-	insertion	UNP P04535
Aa	201C	ASP	-	insertion	UNP P04535
Aa	201D	GLU	-	insertion	UNP P04535
Aa	201E	ASP	-	insertion	UNP P04535
Aa	201F	GLU	-	insertion	UNP P04535
Aa	201G	ASP	-	insertion	UNP P04535
Aa	201H	GLU	-	insertion	UNP P04535
Aa	201I	ASP	-	insertion	UNP P04535
Ab	201A	ASP	-	insertion	UNP P04535
Ab	201B	GLU	-	insertion	UNP P04535
Ab	201C	ASP	-	insertion	UNP P04535
Ab	201D	GLU	-	insertion	UNP P04535
Ab	201E	ASP	-	insertion	UNP P04535
Ab	201F	GLU	-	insertion	UNP P04535
Ab	201G	ASP	-	insertion	UNP P04535
Ab	201H	GLU	-	insertion	UNP P04535
Ab	201I	ASP	-	insertion	UNP P04535
Ac	201A	ASP	-	insertion	UNP P04535
Ac	201B	GLU	-	insertion	UNP P04535
Ac	201C	ASP	-	insertion	UNP P04535
Ac	201D	GLU	-	insertion	UNP P04535
Ac	201E	ASP	-	insertion	UNP P04535
Ac	201F	GLU	-	insertion	UNP P04535
Ac	201G	ASP	-	insertion	UNP P04535

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Chain	Residue	Modelled	Actual	Comment	Reference
Ac	201H	GLU	-	insertion	UNP P04535
Ac	201I	ASP	-	insertion	UNP P04535
Ad	201A	ASP	-	insertion	UNP P04535
Ad	201B	GLU	-	insertion	UNP P04535
Ad	201C	ASP	-	insertion	UNP P04535
Ad	201D	GLU	-	insertion	UNP P04535
Ad	201E	ASP	-	insertion	UNP P04535
Ad	201F	GLU	-	insertion	UNP P04535
Ad	201G	ASP	-	insertion	UNP P04535
Ad	201H	GLU	-	insertion	UNP P04535
Ad	201I	ASP	-	insertion	UNP P04535
Ae	201A	ASP	-	insertion	UNP P04535
Ae	201B	GLU	-	insertion	UNP P04535
Ae	201C	ASP	-	insertion	UNP P04535
Ae	201D	GLU	-	insertion	UNP P04535
Ae	201E	ASP	-	insertion	UNP P04535
Ae	201F	GLU	-	insertion	UNP P04535
Ae	201G	ASP	-	insertion	UNP P04535
Ae	201H	GLU	-	insertion	UNP P04535
Ae	201I	ASP	-	insertion	UNP P04535
Af	201A	ASP	-	insertion	UNP P04535
Af	201B	GLU	-	insertion	UNP P04535
Af	201C	ASP	-	insertion	UNP P04535
Af	201D	GLU	-	insertion	UNP P04535
Af	201E	ASP	-	insertion	UNP P04535
Af	201F	GLU	-	insertion	UNP P04535
Af	201G	ASP	-	insertion	UNP P04535
Af	201H	GLU	-	insertion	UNP P04535
Af	201I	ASP	-	insertion	UNP P04535
Ag	201A	ASP	-	insertion	UNP P04535
Ag	201B	GLU	-	insertion	UNP P04535
Ag	201C	ASP	-	insertion	UNP P04535
Ag	201D	GLU	-	insertion	UNP P04535
Ag	201E	ASP	-	insertion	UNP P04535
Ag	201F	GLU	-	insertion	UNP P04535
Ag	201G	ASP	-	insertion	UNP P04535
Ag	201H	GLU	-	insertion	UNP P04535
Ag	201I	ASP	-	insertion	UNP P04535
Ah	201A	ASP	-	insertion	UNP P04535
Ah	201B	GLU	-	insertion	UNP P04535
Ah	201C	ASP	-	insertion	UNP P04535
Ah	201D	GLU	-	insertion	UNP P04535

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Chain	Residue	Modelled	Actual	Comment	Reference
Ah	201E	ASP	-	insertion	UNP P04535
Ah	201F	GLU	-	insertion	UNP P04535
Ah	201G	ASP	-	insertion	UNP P04535
Ah	201H	GLU	-	insertion	UNP P04535
Ah	201I	ASP	-	insertion	UNP P04535
Ai	201A	ASP	-	insertion	UNP P04535
Ai	201B	GLU	-	insertion	UNP P04535
Ai	201C	ASP	-	insertion	UNP P04535
Ai	201D	GLU	-	insertion	UNP P04535
Ai	201E	ASP	-	insertion	UNP P04535
Ai	201F	GLU	-	insertion	UNP P04535
Ai	201G	ASP	-	insertion	UNP P04535
Ai	201H	GLU	-	insertion	UNP P04535
Ai	201I	ASP	-	insertion	UNP P04535
Aj	201A	ASP	-	insertion	UNP P04535
Aj	201B	GLU	-	insertion	UNP P04535
Aj	201C	ASP	-	insertion	UNP P04535
Aj	201D	GLU	-	insertion	UNP P04535
Aj	201E	ASP	-	insertion	UNP P04535
Aj	201F	GLU	-	insertion	UNP P04535
Aj	201G	ASP	-	insertion	UNP P04535
Aj	201H	GLU	-	insertion	UNP P04535
Aj	201I	ASP	-	insertion	UNP P04535
Ak	201A	ASP	-	insertion	UNP P04535
Ak	201B	GLU	-	insertion	UNP P04535
Ak	201C	ASP	-	insertion	UNP P04535
Ak	201D	GLU	-	insertion	UNP P04535
Ak	201E	ASP	-	insertion	UNP P04535
Ak	201F	GLU	-	insertion	UNP P04535
Ak	201G	ASP	-	insertion	UNP P04535
Ak	201H	GLU	-	insertion	UNP P04535
Ak	201I	ASP	-	insertion	UNP P04535
Al	201A	ASP	-	insertion	UNP P04535
Al	201B	GLU	-	insertion	UNP P04535
Al	201C	ASP	-	insertion	UNP P04535
Al	201D	GLU	-	insertion	UNP P04535
Al	201E	ASP	-	insertion	UNP P04535
Al	201F	GLU	-	insertion	UNP P04535
Al	201G	ASP	-	insertion	UNP P04535
Al	201H	GLU	-	insertion	UNP P04535
Al	201I	ASP	-	insertion	UNP P04535
Am	201A	ASP	-	insertion	UNP P04535

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Chain	Residue	Modelled	Actual	Comment	Reference
Am	201B	GLU	-	insertion	UNP P04535
Am	201C	ASP	-	insertion	UNP P04535
Am	201D	GLU	-	insertion	UNP P04535
Am	201E	ASP	-	insertion	UNP P04535
Am	201F	GLU	-	insertion	UNP P04535
Am	201G	ASP	-	insertion	UNP P04535
Am	201H	GLU	-	insertion	UNP P04535
Am	201I	ASP	-	insertion	UNP P04535
G	201A	ASP	-	insertion	UNP P04535
G	201B	GLU	-	insertion	UNP P04535
G	201C	ASP	-	insertion	UNP P04535
G	201D	GLU	-	insertion	UNP P04535
G	201E	ASP	-	insertion	UNP P04535
G	201F	GLU	-	insertion	UNP P04535
G	201G	ASP	-	insertion	UNP P04535
G	201H	GLU	-	insertion	UNP P04535
G	201I	ASP	-	insertion	UNP P04535
H	201A	ASP	-	insertion	UNP P04535
H	201B	GLU	-	insertion	UNP P04535
H	201C	ASP	-	insertion	UNP P04535
H	201D	GLU	-	insertion	UNP P04535
H	201E	ASP	-	insertion	UNP P04535
H	201F	GLU	-	insertion	UNP P04535
H	201G	ASP	-	insertion	UNP P04535
H	201H	GLU	-	insertion	UNP P04535
H	201I	ASP	-	insertion	UNP P04535
J	201A	ASP	-	insertion	UNP P04535
J	201B	GLU	-	insertion	UNP P04535
J	201C	ASP	-	insertion	UNP P04535
J	201D	GLU	-	insertion	UNP P04535
J	201E	ASP	-	insertion	UNP P04535
J	201F	GLU	-	insertion	UNP P04535
J	201G	ASP	-	insertion	UNP P04535
J	201H	GLU	-	insertion	UNP P04535
J	201I	ASP	-	insertion	UNP P04535
K	201A	ASP	-	insertion	UNP P04535
K	201B	GLU	-	insertion	UNP P04535
K	201C	ASP	-	insertion	UNP P04535
K	201D	GLU	-	insertion	UNP P04535
K	201E	ASP	-	insertion	UNP P04535
K	201F	GLU	-	insertion	UNP P04535
K	201G	ASP	-	insertion	UNP P04535

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Chain	Residue	Modelled	Actual	Comment	Reference
K	201H	GLU	-	insertion	UNP P04535
K	201I	ASP	-	insertion	UNP P04535
L	201A	ASP	-	insertion	UNP P04535
L	201B	GLU	-	insertion	UNP P04535
L	201C	ASP	-	insertion	UNP P04535
L	201D	GLU	-	insertion	UNP P04535
L	201E	ASP	-	insertion	UNP P04535
L	201F	GLU	-	insertion	UNP P04535
L	201G	ASP	-	insertion	UNP P04535
L	201H	GLU	-	insertion	UNP P04535
L	201I	ASP	-	insertion	UNP P04535
M	201A	ASP	-	insertion	UNP P04535
M	201B	GLU	-	insertion	UNP P04535
M	201C	ASP	-	insertion	UNP P04535
M	201D	GLU	-	insertion	UNP P04535
M	201E	ASP	-	insertion	UNP P04535
M	201F	GLU	-	insertion	UNP P04535
M	201G	ASP	-	insertion	UNP P04535
M	201H	GLU	-	insertion	UNP P04535
M	201I	ASP	-	insertion	UNP P04535
N	201A	ASP	-	insertion	UNP P04535
N	201B	GLU	-	insertion	UNP P04535
N	201C	ASP	-	insertion	UNP P04535
N	201D	GLU	-	insertion	UNP P04535
N	201E	ASP	-	insertion	UNP P04535
N	201F	GLU	-	insertion	UNP P04535
N	201G	ASP	-	insertion	UNP P04535
N	201H	GLU	-	insertion	UNP P04535
N	201I	ASP	-	insertion	UNP P04535
O	201A	ASP	-	insertion	UNP P04535
O	201B	GLU	-	insertion	UNP P04535
O	201C	ASP	-	insertion	UNP P04535
O	201D	GLU	-	insertion	UNP P04535
O	201E	ASP	-	insertion	UNP P04535
O	201F	GLU	-	insertion	UNP P04535
O	201G	ASP	-	insertion	UNP P04535
O	201H	GLU	-	insertion	UNP P04535
O	201I	ASP	-	insertion	UNP P04535
P	201A	ASP	-	insertion	UNP P04535
P	201B	GLU	-	insertion	UNP P04535
P	201C	ASP	-	insertion	UNP P04535
P	201D	GLU	-	insertion	UNP P04535

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Chain	Residue	Modelled	Actual	Comment	Reference
P	201E	ASP	-	insertion	UNP P04535
P	201F	GLU	-	insertion	UNP P04535
P	201G	ASP	-	insertion	UNP P04535
P	201H	GLU	-	insertion	UNP P04535
P	201I	ASP	-	insertion	UNP P04535
Q	201A	ASP	-	insertion	UNP P04535
Q	201B	GLU	-	insertion	UNP P04535
Q	201C	ASP	-	insertion	UNP P04535
Q	201D	GLU	-	insertion	UNP P04535
Q	201E	ASP	-	insertion	UNP P04535
Q	201F	GLU	-	insertion	UNP P04535
Q	201G	ASP	-	insertion	UNP P04535
Q	201H	GLU	-	insertion	UNP P04535
Q	201I	ASP	-	insertion	UNP P04535
R	201A	ASP	-	insertion	UNP P04535
R	201B	GLU	-	insertion	UNP P04535
R	201C	ASP	-	insertion	UNP P04535
R	201D	GLU	-	insertion	UNP P04535
R	201E	ASP	-	insertion	UNP P04535
R	201F	GLU	-	insertion	UNP P04535
R	201G	ASP	-	insertion	UNP P04535
R	201H	GLU	-	insertion	UNP P04535
R	201I	ASP	-	insertion	UNP P04535
S	201A	ASP	-	insertion	UNP P04535
S	201B	GLU	-	insertion	UNP P04535
S	201C	ASP	-	insertion	UNP P04535
S	201D	GLU	-	insertion	UNP P04535
S	201E	ASP	-	insertion	UNP P04535
S	201F	GLU	-	insertion	UNP P04535
S	201G	ASP	-	insertion	UNP P04535
S	201H	GLU	-	insertion	UNP P04535
S	201I	ASP	-	insertion	UNP P04535
T	201A	ASP	-	insertion	UNP P04535
T	201B	GLU	-	insertion	UNP P04535
T	201C	ASP	-	insertion	UNP P04535
T	201D	GLU	-	insertion	UNP P04535
T	201E	ASP	-	insertion	UNP P04535
T	201F	GLU	-	insertion	UNP P04535
T	201G	ASP	-	insertion	UNP P04535
T	201H	GLU	-	insertion	UNP P04535
T	201I	ASP	-	insertion	UNP P04535
U	201A	ASP	-	insertion	UNP P04535

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Chain	Residue	Modelled	Actual	Comment	Reference
U	201B	GLU	-	insertion	UNP P04535
U	201C	ASP	-	insertion	UNP P04535
U	201D	GLU	-	insertion	UNP P04535
U	201E	ASP	-	insertion	UNP P04535
U	201F	GLU	-	insertion	UNP P04535
U	201G	ASP	-	insertion	UNP P04535
U	201H	GLU	-	insertion	UNP P04535
U	201I	ASP	-	insertion	UNP P04535
V	201A	ASP	-	insertion	UNP P04535
V	201B	GLU	-	insertion	UNP P04535
V	201C	ASP	-	insertion	UNP P04535
V	201D	GLU	-	insertion	UNP P04535
V	201E	ASP	-	insertion	UNP P04535
V	201F	GLU	-	insertion	UNP P04535
V	201G	ASP	-	insertion	UNP P04535
V	201H	GLU	-	insertion	UNP P04535
V	201I	ASP	-	insertion	UNP P04535
W	201A	ASP	-	insertion	UNP P04535
W	201B	GLU	-	insertion	UNP P04535
W	201C	ASP	-	insertion	UNP P04535
W	201D	GLU	-	insertion	UNP P04535
W	201E	ASP	-	insertion	UNP P04535
W	201F	GLU	-	insertion	UNP P04535
W	201G	ASP	-	insertion	UNP P04535
W	201H	GLU	-	insertion	UNP P04535
W	201I	ASP	-	insertion	UNP P04535
X	201A	ASP	-	insertion	UNP P04535
X	201B	GLU	-	insertion	UNP P04535
X	201C	ASP	-	insertion	UNP P04535
X	201D	GLU	-	insertion	UNP P04535
X	201E	ASP	-	insertion	UNP P04535
X	201F	GLU	-	insertion	UNP P04535
X	201G	ASP	-	insertion	UNP P04535
X	201H	GLU	-	insertion	UNP P04535
X	201I	ASP	-	insertion	UNP P04535
Y	201A	ASP	-	insertion	UNP P04535
Y	201B	GLU	-	insertion	UNP P04535
Y	201C	ASP	-	insertion	UNP P04535
Y	201D	GLU	-	insertion	UNP P04535
Y	201E	ASP	-	insertion	UNP P04535
Y	201F	GLU	-	insertion	UNP P04535
Y	201G	ASP	-	insertion	UNP P04535

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Chain	Residue	Modelled	Actual	Comment	Reference
Y	201H	GLU	-	insertion	UNP P04535
Y	201I	ASP	-	insertion	UNP P04535
Z	201A	ASP	-	insertion	UNP P04535
Z	201B	GLU	-	insertion	UNP P04535
Z	201C	ASP	-	insertion	UNP P04535
Z	201D	GLU	-	insertion	UNP P04535
Z	201E	ASP	-	insertion	UNP P04535
Z	201F	GLU	-	insertion	UNP P04535
Z	201G	ASP	-	insertion	UNP P04535
Z	201H	GLU	-	insertion	UNP P04535
Z	201I	ASP	-	insertion	UNP P04535
b	201A	ASP	-	insertion	UNP P04535
b	201B	GLU	-	insertion	UNP P04535
b	201C	ASP	-	insertion	UNP P04535
b	201D	GLU	-	insertion	UNP P04535
b	201E	ASP	-	insertion	UNP P04535
b	201F	GLU	-	insertion	UNP P04535
b	201G	ASP	-	insertion	UNP P04535
b	201H	GLU	-	insertion	UNP P04535
b	201I	ASP	-	insertion	UNP P04535
c	201A	ASP	-	insertion	UNP P04535
c	201B	GLU	-	insertion	UNP P04535
c	201C	ASP	-	insertion	UNP P04535
c	201D	GLU	-	insertion	UNP P04535
c	201E	ASP	-	insertion	UNP P04535
c	201F	GLU	-	insertion	UNP P04535
c	201G	ASP	-	insertion	UNP P04535
c	201H	GLU	-	insertion	UNP P04535
c	201I	ASP	-	insertion	UNP P04535
d	201A	ASP	-	insertion	UNP P04535
d	201B	GLU	-	insertion	UNP P04535
d	201C	ASP	-	insertion	UNP P04535
d	201D	GLU	-	insertion	UNP P04535
d	201E	ASP	-	insertion	UNP P04535
d	201F	GLU	-	insertion	UNP P04535
d	201G	ASP	-	insertion	UNP P04535
d	201H	GLU	-	insertion	UNP P04535
d	201I	ASP	-	insertion	UNP P04535
e	201A	ASP	-	insertion	UNP P04535
e	201B	GLU	-	insertion	UNP P04535
e	201C	ASP	-	insertion	UNP P04535
e	201D	GLU	-	insertion	UNP P04535

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Chain	Residue	Modelled	Actual	Comment	Reference
e	201E	ASP	-	insertion	UNP P04535
e	201F	GLU	-	insertion	UNP P04535
e	201G	ASP	-	insertion	UNP P04535
e	201H	GLU	-	insertion	UNP P04535
e	201I	ASP	-	insertion	UNP P04535
f	201A	ASP	-	insertion	UNP P04535
f	201B	GLU	-	insertion	UNP P04535
f	201C	ASP	-	insertion	UNP P04535
f	201D	GLU	-	insertion	UNP P04535
f	201E	ASP	-	insertion	UNP P04535
f	201F	GLU	-	insertion	UNP P04535
f	201G	ASP	-	insertion	UNP P04535
f	201H	GLU	-	insertion	UNP P04535
f	201I	ASP	-	insertion	UNP P04535
g	201A	ASP	-	insertion	UNP P04535
g	201B	GLU	-	insertion	UNP P04535
g	201C	ASP	-	insertion	UNP P04535
g	201D	GLU	-	insertion	UNP P04535
g	201E	ASP	-	insertion	UNP P04535
g	201F	GLU	-	insertion	UNP P04535
g	201G	ASP	-	insertion	UNP P04535
g	201H	GLU	-	insertion	UNP P04535
g	201I	ASP	-	insertion	UNP P04535
h	201A	ASP	-	insertion	UNP P04535
h	201B	GLU	-	insertion	UNP P04535
h	201C	ASP	-	insertion	UNP P04535
h	201D	GLU	-	insertion	UNP P04535
h	201E	ASP	-	insertion	UNP P04535
h	201F	GLU	-	insertion	UNP P04535
h	201G	ASP	-	insertion	UNP P04535
h	201H	GLU	-	insertion	UNP P04535
h	201I	ASP	-	insertion	UNP P04535
i	201A	ASP	-	insertion	UNP P04535
i	201B	GLU	-	insertion	UNP P04535
i	201C	ASP	-	insertion	UNP P04535
i	201D	GLU	-	insertion	UNP P04535
i	201E	ASP	-	insertion	UNP P04535
i	201F	GLU	-	insertion	UNP P04535
i	201G	ASP	-	insertion	UNP P04535
i	201H	GLU	-	insertion	UNP P04535
i	201I	ASP	-	insertion	UNP P04535
j	201A	ASP	-	insertion	UNP P04535

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Chain	Residue	Modelled	Actual	Comment	Reference
j	201B	GLU	-	insertion	UNP P04535
j	201C	ASP	-	insertion	UNP P04535
j	201D	GLU	-	insertion	UNP P04535
j	201E	ASP	-	insertion	UNP P04535
j	201F	GLU	-	insertion	UNP P04535
j	201G	ASP	-	insertion	UNP P04535
j	201H	GLU	-	insertion	UNP P04535
j	201I	ASP	-	insertion	UNP P04535
k	201A	ASP	-	insertion	UNP P04535
k	201B	GLU	-	insertion	UNP P04535
k	201C	ASP	-	insertion	UNP P04535
k	201D	GLU	-	insertion	UNP P04535
k	201E	ASP	-	insertion	UNP P04535
k	201F	GLU	-	insertion	UNP P04535
k	201G	ASP	-	insertion	UNP P04535
k	201H	GLU	-	insertion	UNP P04535
k	201I	ASP	-	insertion	UNP P04535
l	201A	ASP	-	insertion	UNP P04535
l	201B	GLU	-	insertion	UNP P04535
l	201C	ASP	-	insertion	UNP P04535
l	201D	GLU	-	insertion	UNP P04535
l	201E	ASP	-	insertion	UNP P04535
l	201F	GLU	-	insertion	UNP P04535
l	201G	ASP	-	insertion	UNP P04535
l	201H	GLU	-	insertion	UNP P04535
l	201I	ASP	-	insertion	UNP P04535
m	201A	ASP	-	insertion	UNP P04535
m	201B	GLU	-	insertion	UNP P04535
m	201C	ASP	-	insertion	UNP P04535
m	201D	GLU	-	insertion	UNP P04535
m	201E	ASP	-	insertion	UNP P04535
m	201F	GLU	-	insertion	UNP P04535
m	201G	ASP	-	insertion	UNP P04535
m	201H	GLU	-	insertion	UNP P04535
m	201I	ASP	-	insertion	UNP P04535
n	201A	ASP	-	insertion	UNP P04535
n	201B	GLU	-	insertion	UNP P04535
n	201C	ASP	-	insertion	UNP P04535
n	201D	GLU	-	insertion	UNP P04535
n	201E	ASP	-	insertion	UNP P04535
n	201F	GLU	-	insertion	UNP P04535
n	201G	ASP	-	insertion	UNP P04535

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Chain	Residue	Modelled	Actual	Comment	Reference
n	201H	GLU	-	insertion	UNP P04535
n	201I	ASP	-	insertion	UNP P04535
o	201A	ASP	-	insertion	UNP P04535
o	201B	GLU	-	insertion	UNP P04535
o	201C	ASP	-	insertion	UNP P04535
o	201D	GLU	-	insertion	UNP P04535
o	201E	ASP	-	insertion	UNP P04535
o	201F	GLU	-	insertion	UNP P04535
o	201G	ASP	-	insertion	UNP P04535
o	201H	GLU	-	insertion	UNP P04535
o	201I	ASP	-	insertion	UNP P04535
p	201A	ASP	-	insertion	UNP P04535
p	201B	GLU	-	insertion	UNP P04535
p	201C	ASP	-	insertion	UNP P04535
p	201D	GLU	-	insertion	UNP P04535
p	201E	ASP	-	insertion	UNP P04535
p	201F	GLU	-	insertion	UNP P04535
p	201G	ASP	-	insertion	UNP P04535
p	201H	GLU	-	insertion	UNP P04535
p	201I	ASP	-	insertion	UNP P04535
q	201A	ASP	-	insertion	UNP P04535
q	201B	GLU	-	insertion	UNP P04535
q	201C	ASP	-	insertion	UNP P04535
q	201D	GLU	-	insertion	UNP P04535
q	201E	ASP	-	insertion	UNP P04535
q	201F	GLU	-	insertion	UNP P04535
q	201G	ASP	-	insertion	UNP P04535
q	201H	GLU	-	insertion	UNP P04535
q	201I	ASP	-	insertion	UNP P04535
r	201A	ASP	-	insertion	UNP P04535
r	201B	GLU	-	insertion	UNP P04535
r	201C	ASP	-	insertion	UNP P04535
r	201D	GLU	-	insertion	UNP P04535
r	201E	ASP	-	insertion	UNP P04535
r	201F	GLU	-	insertion	UNP P04535
r	201G	ASP	-	insertion	UNP P04535
r	201H	GLU	-	insertion	UNP P04535
r	201I	ASP	-	insertion	UNP P04535
s	201A	ASP	-	insertion	UNP P04535
s	201B	GLU	-	insertion	UNP P04535
s	201C	ASP	-	insertion	UNP P04535
s	201D	GLU	-	insertion	UNP P04535

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Chain	Residue	Modelled	Actual	Comment	Reference
s	201E	ASP	-	insertion	UNP P04535
s	201F	GLU	-	insertion	UNP P04535
s	201G	ASP	-	insertion	UNP P04535
s	201H	GLU	-	insertion	UNP P04535
s	201I	ASP	-	insertion	UNP P04535
t	201A	ASP	-	insertion	UNP P04535
t	201B	GLU	-	insertion	UNP P04535
t	201C	ASP	-	insertion	UNP P04535
t	201D	GLU	-	insertion	UNP P04535
t	201E	ASP	-	insertion	UNP P04535
t	201F	GLU	-	insertion	UNP P04535
t	201G	ASP	-	insertion	UNP P04535
t	201H	GLU	-	insertion	UNP P04535
t	201I	ASP	-	insertion	UNP P04535
u	201A	ASP	-	insertion	UNP P04535
u	201B	GLU	-	insertion	UNP P04535
u	201C	ASP	-	insertion	UNP P04535
u	201D	GLU	-	insertion	UNP P04535
u	201E	ASP	-	insertion	UNP P04535
u	201F	GLU	-	insertion	UNP P04535
u	201G	ASP	-	insertion	UNP P04535
u	201H	GLU	-	insertion	UNP P04535
u	201I	ASP	-	insertion	UNP P04535
v	201A	ASP	-	insertion	UNP P04535
v	201B	GLU	-	insertion	UNP P04535
v	201C	ASP	-	insertion	UNP P04535
v	201D	GLU	-	insertion	UNP P04535
v	201E	ASP	-	insertion	UNP P04535
v	201F	GLU	-	insertion	UNP P04535
v	201G	ASP	-	insertion	UNP P04535
v	201H	GLU	-	insertion	UNP P04535
v	201I	ASP	-	insertion	UNP P04535
w	201A	ASP	-	insertion	UNP P04535
w	201B	GLU	-	insertion	UNP P04535
w	201C	ASP	-	insertion	UNP P04535
w	201D	GLU	-	insertion	UNP P04535
w	201E	ASP	-	insertion	UNP P04535
w	201F	GLU	-	insertion	UNP P04535
w	201G	ASP	-	insertion	UNP P04535
w	201H	GLU	-	insertion	UNP P04535
w	201I	ASP	-	insertion	UNP P04535
x	201A	ASP	-	insertion	UNP P04535

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Chain	Residue	Modelled	Actual	Comment	Reference
x	201B	GLU	-	insertion	UNP P04535
x	201C	ASP	-	insertion	UNP P04535
x	201D	GLU	-	insertion	UNP P04535
x	201E	ASP	-	insertion	UNP P04535
x	201F	GLU	-	insertion	UNP P04535
x	201G	ASP	-	insertion	UNP P04535
x	201H	GLU	-	insertion	UNP P04535
x	201I	ASP	-	insertion	UNP P04535
y	201A	ASP	-	insertion	UNP P04535
y	201B	GLU	-	insertion	UNP P04535
y	201C	ASP	-	insertion	UNP P04535
y	201D	GLU	-	insertion	UNP P04535
y	201E	ASP	-	insertion	UNP P04535
y	201F	GLU	-	insertion	UNP P04535
y	201G	ASP	-	insertion	UNP P04535
y	201H	GLU	-	insertion	UNP P04535
y	201I	ASP	-	insertion	UNP P04535
z	201A	ASP	-	insertion	UNP P04535
z	201B	GLU	-	insertion	UNP P04535
z	201C	ASP	-	insertion	UNP P04535
z	201D	GLU	-	insertion	UNP P04535
z	201E	ASP	-	insertion	UNP P04535
z	201F	GLU	-	insertion	UNP P04535
z	201G	ASP	-	insertion	UNP P04535
z	201H	GLU	-	insertion	UNP P04535
z	201I	ASP	-	insertion	UNP P04535

- Molecule 2 is a protein called Mature capsid vertex protein.

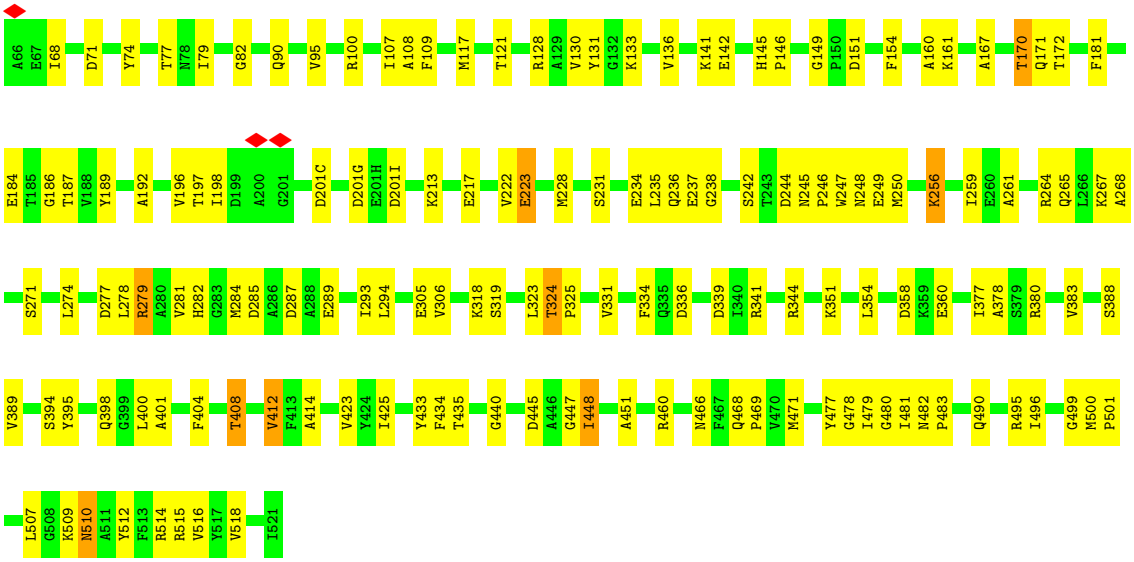
Mol	Chain	Residues	Atoms					AltConf	Trace
2	A	415	Total	C	N	O	S	0	0
			3208	2039	521	640	8		
2	B	415	Total	C	N	O	S	0	0
			3208	2039	521	640	8		
2	C	415	Total	C	N	O	S	0	0
			3208	2039	521	640	8		
2	D	415	Total	C	N	O	S	0	0
			3208	2039	521	640	8		
2	a	415	Total	C	N	O	S	0	0
			3208	2039	521	640	8		

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.

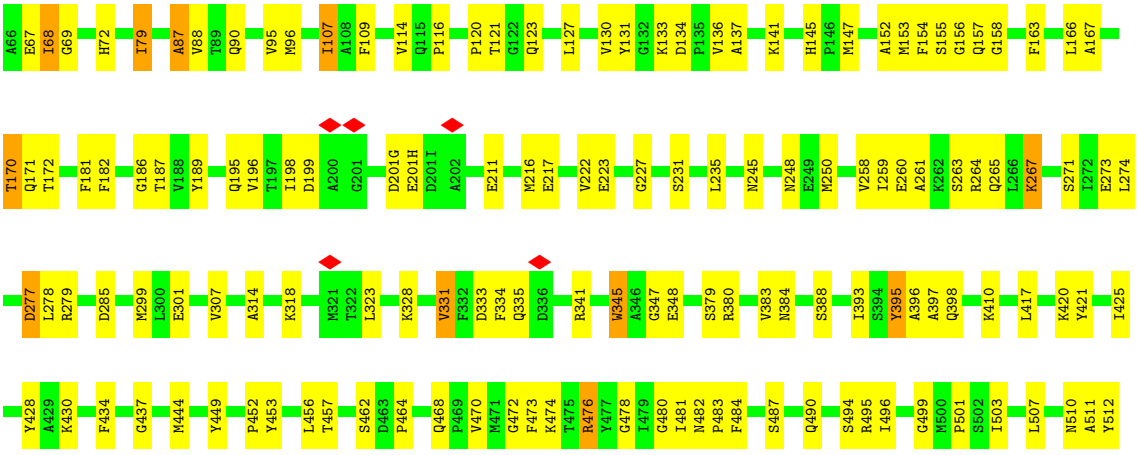
• Molecule 1: Mature major capsid protein

Chain 0:



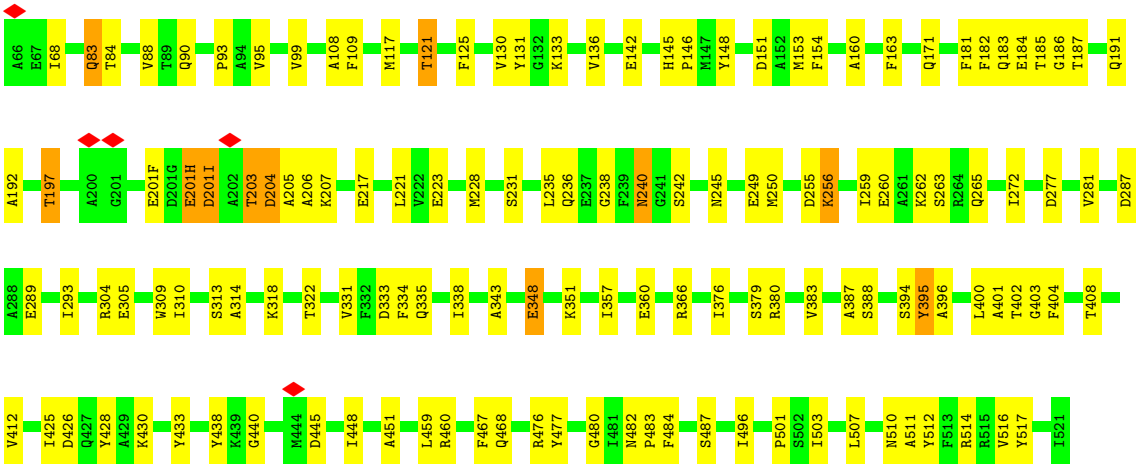
• Molecule 1: Mature major capsid protein

Chain 1:



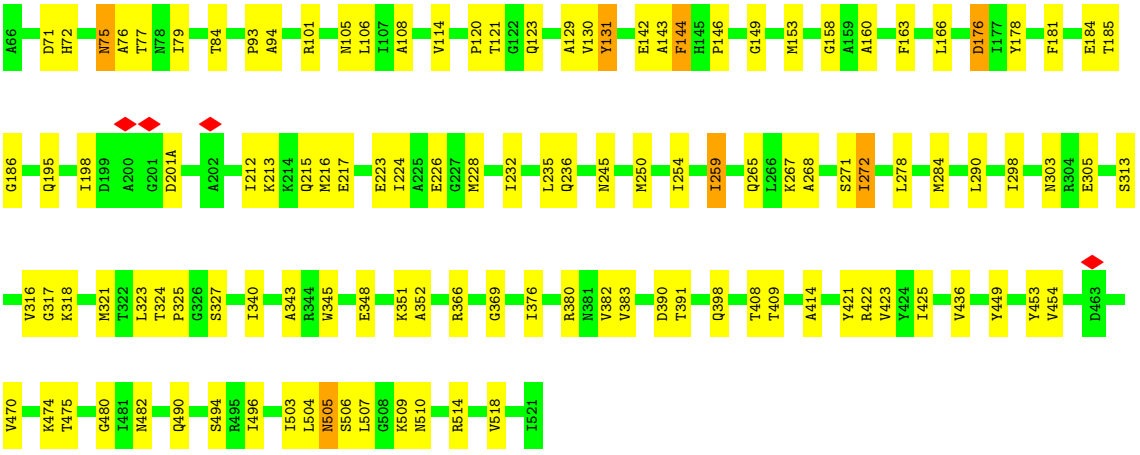
• Molecule 1: Mature major capsid protein

Chain 2:



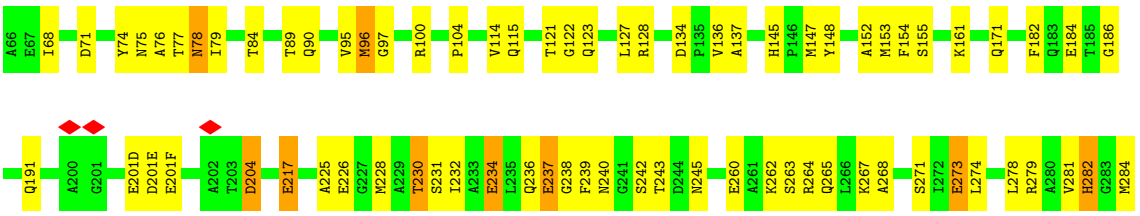
• Molecule 1: Mature major capsid protein

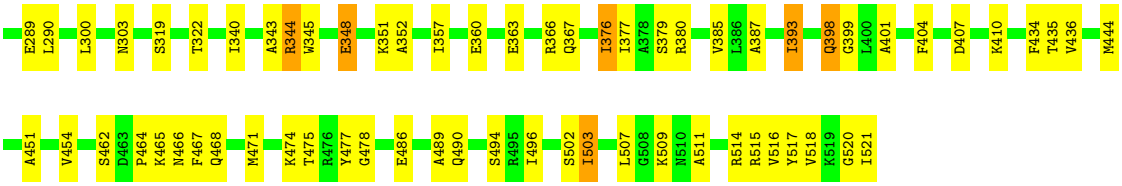
Chain 3:



• Molecule 1: Mature major capsid protein

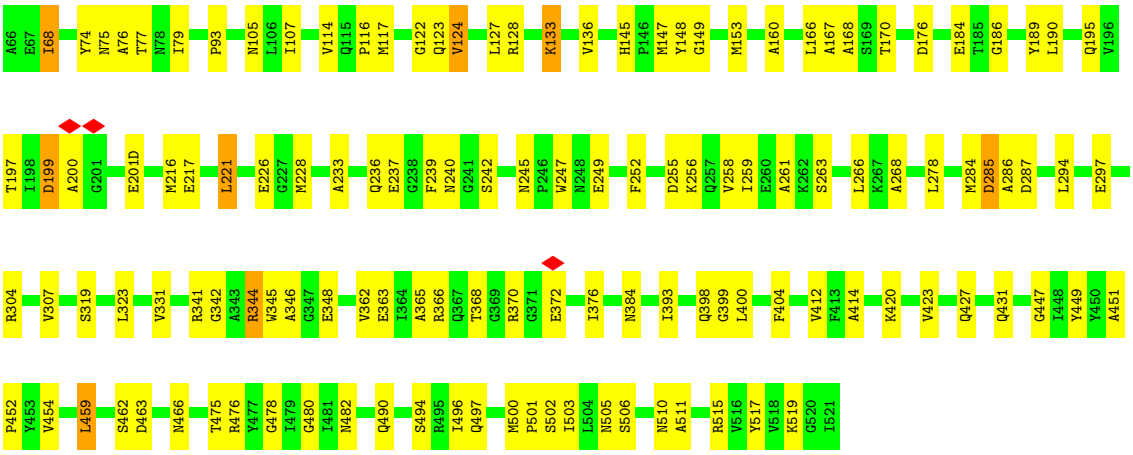
Chain 4:





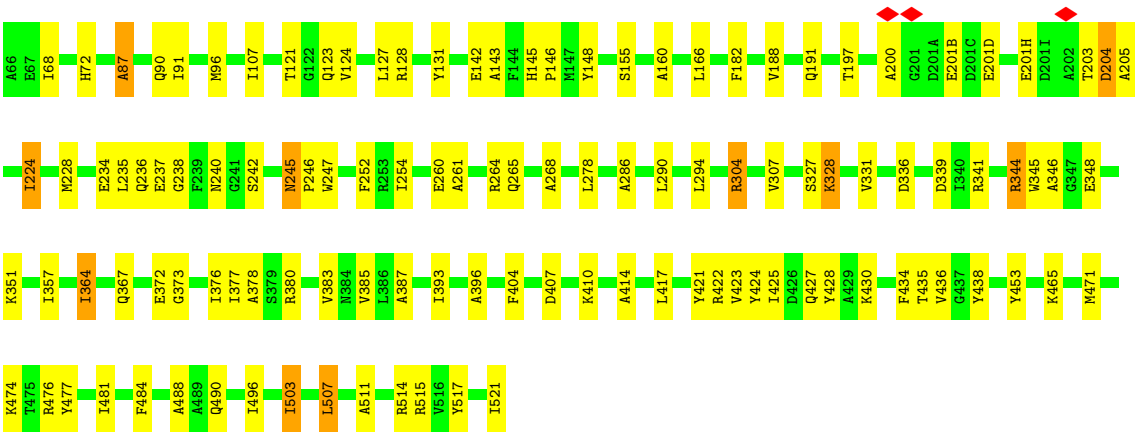
• Molecule 1: Mature major capsid protein

Chain 5:



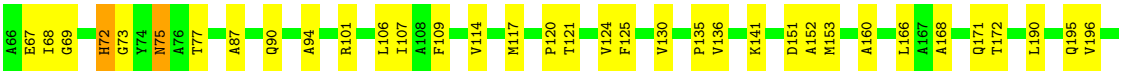
• Molecule 1: Mature major capsid protein

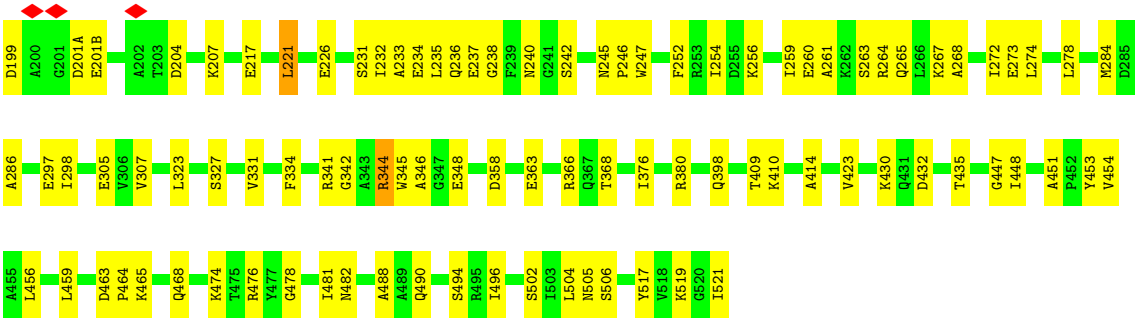
Chain 6:



• Molecule 1: Mature major capsid protein

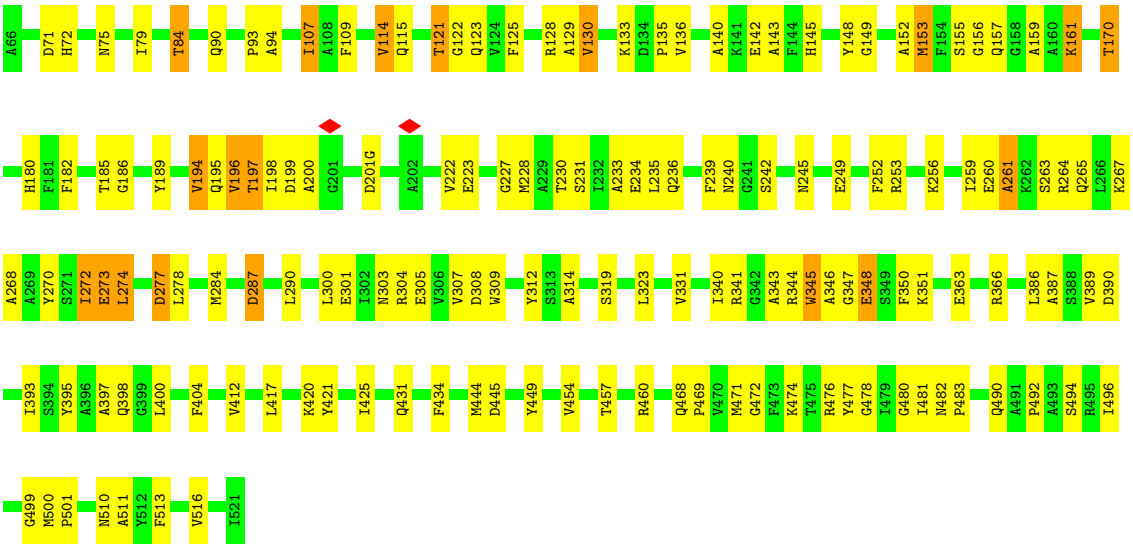
Chain 7:





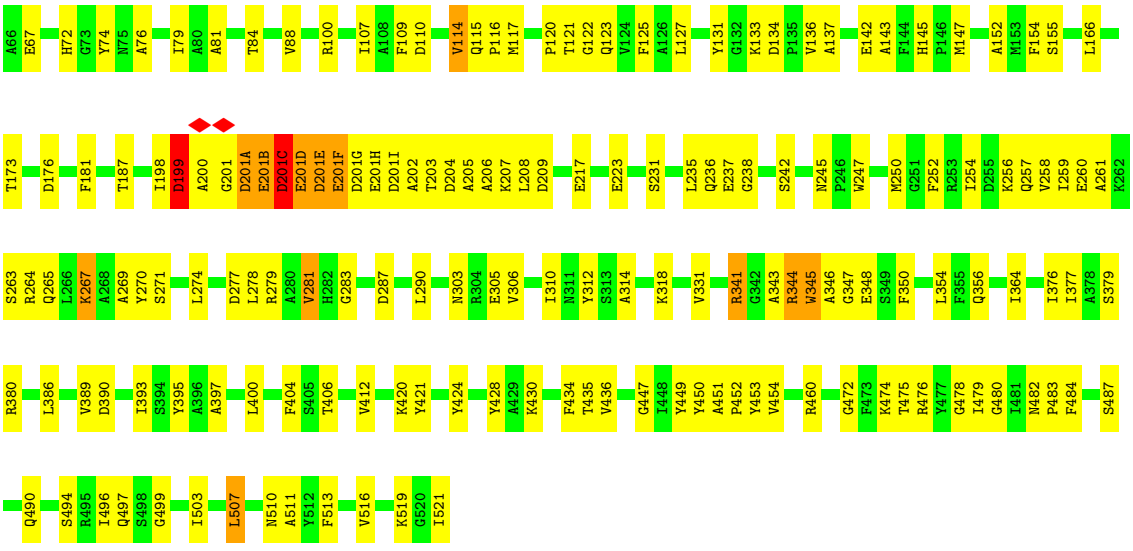
• Molecule 1: Mature major capsid protein

Chain 8:



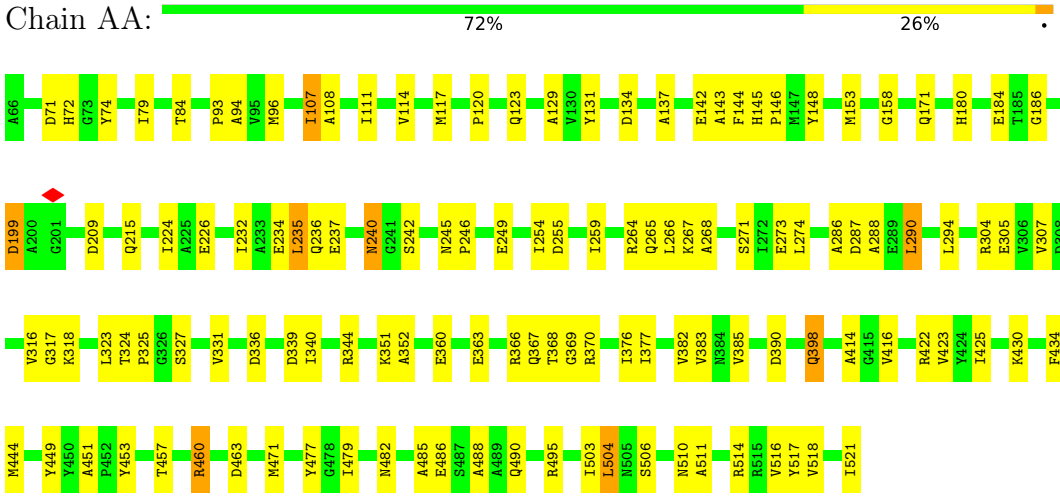
• Molecule 1: Mature major capsid protein

Chain 9:



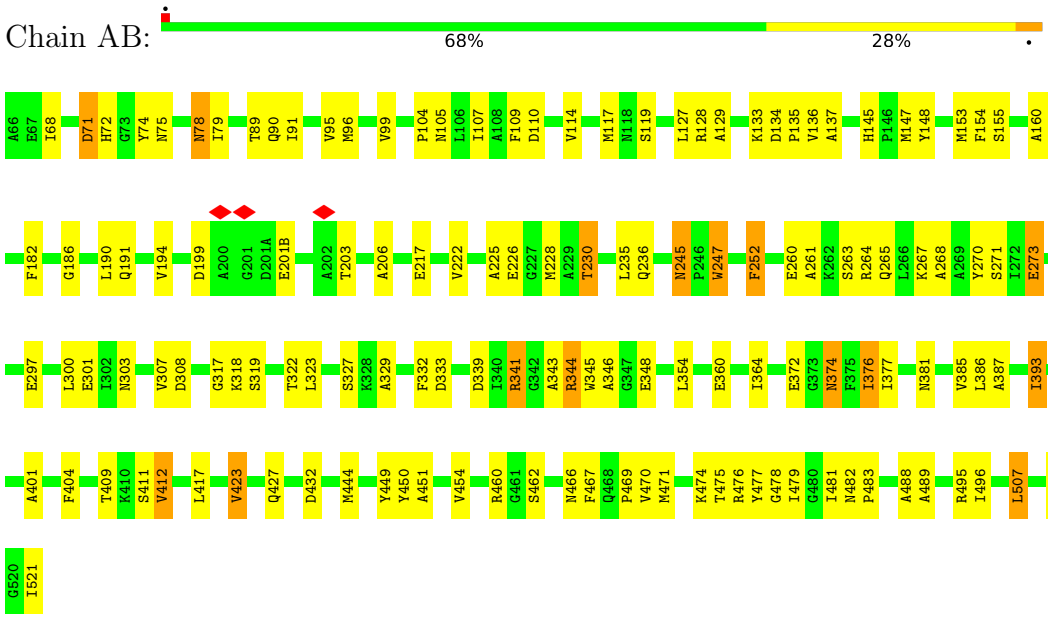
• Molecule 1: Mature major capsid protein

Chain AA:



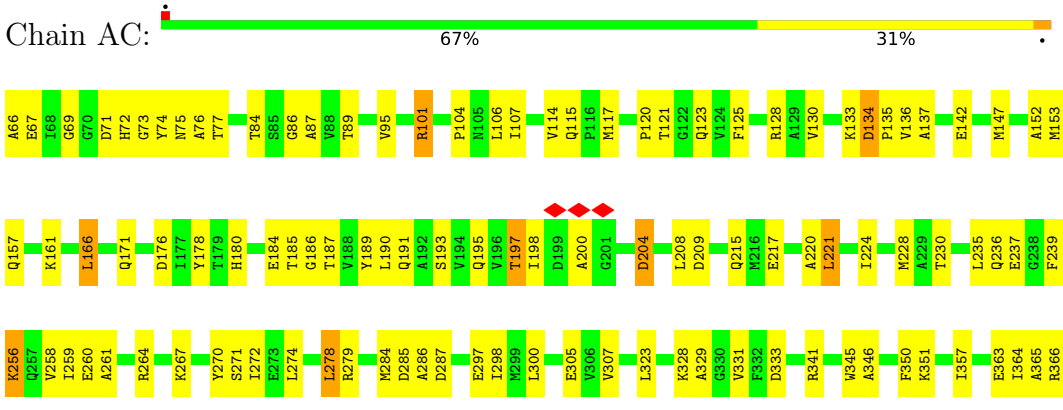
• Molecule 1: Mature major capsid protein

Chain AB:



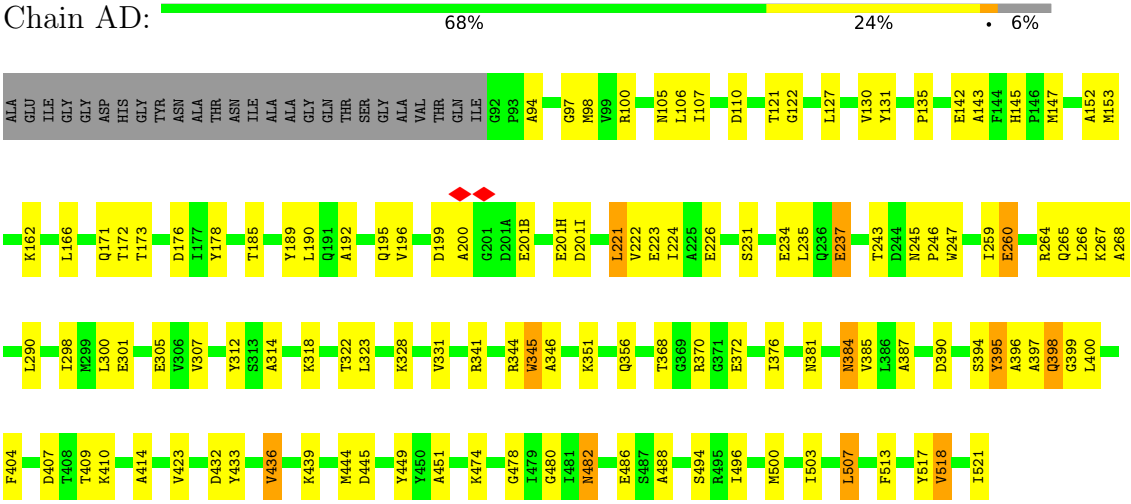
• Molecule 1: Mature major capsid protein

Chain AC:



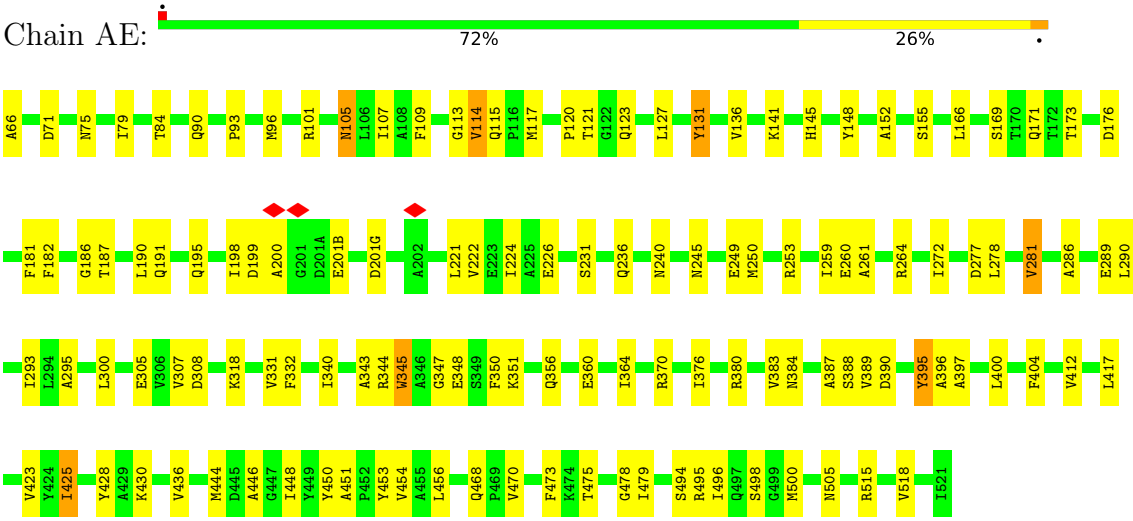
• Molecule 1: Mature major capsid protein

Chain AD:



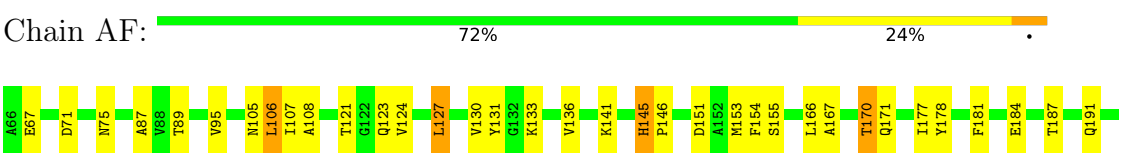
• Molecule 1: Mature major capsid protein

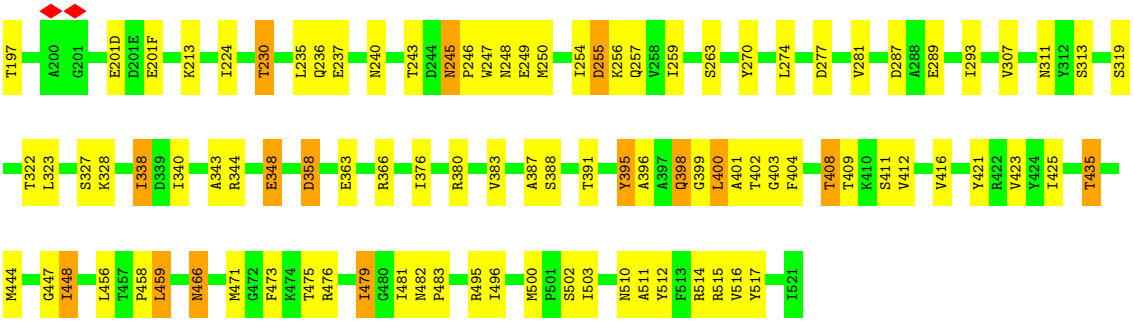
Chain AE:



• Molecule 1: Mature major capsid protein

Chain AF:



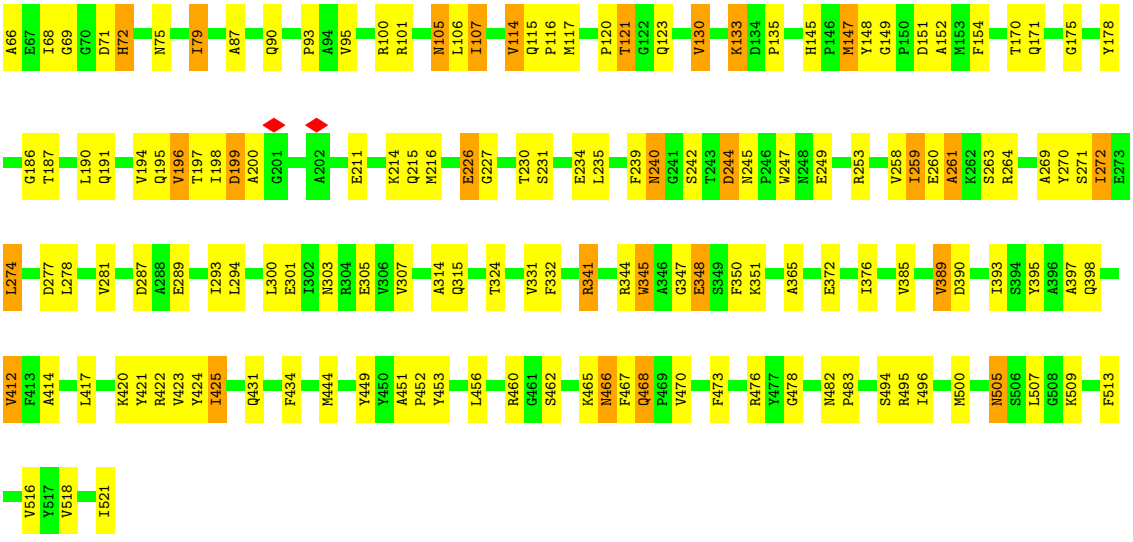


• Molecule 1: Mature major capsid protein

Chain AG:

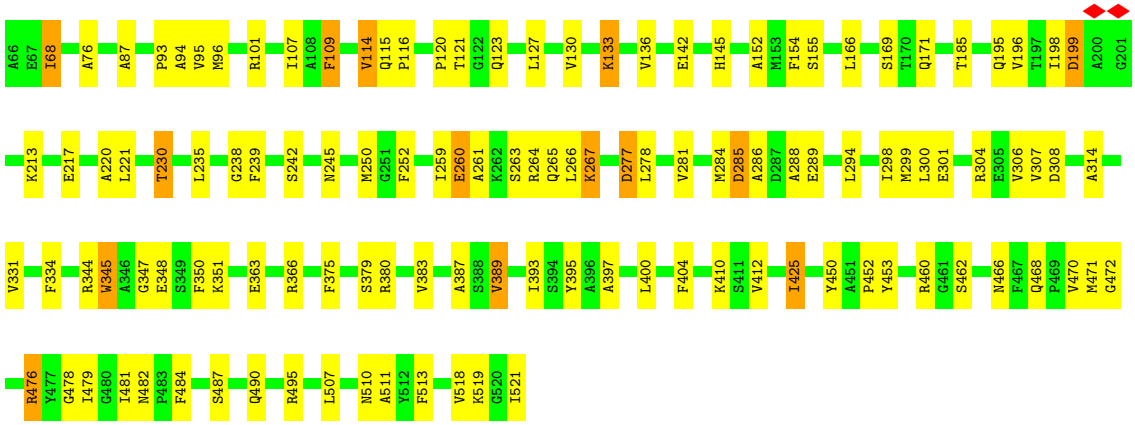
• Molecule 1: Mature major capsid protein

Chain AH:



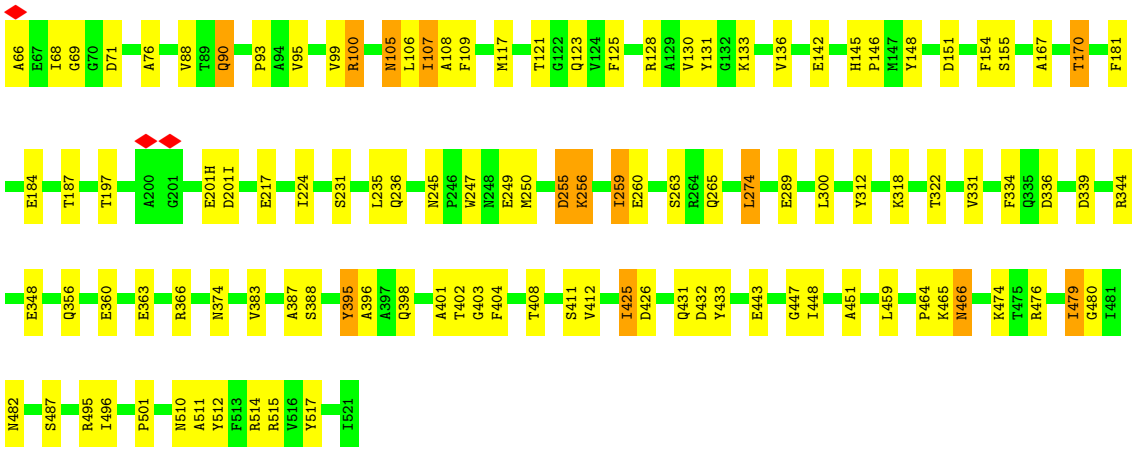
• Molecule 1: Mature major capsid protein

Chain AI:



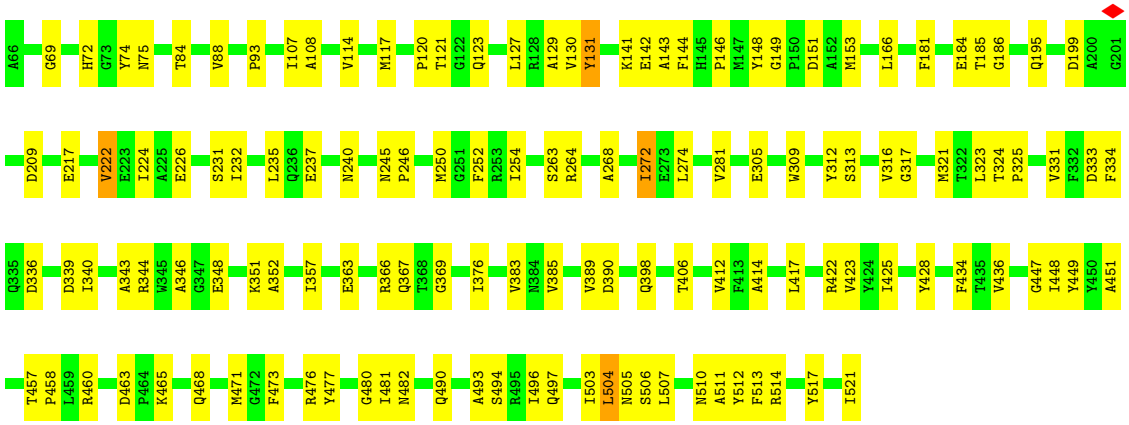
• Molecule 1: Mature major capsid protein

Chain AJ:



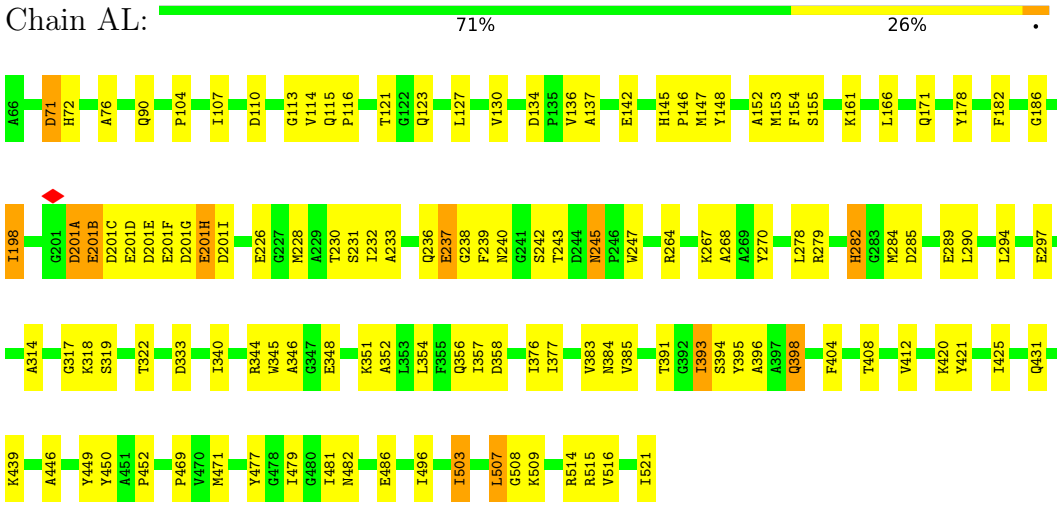
• Molecule 1: Mature major capsid protein

Chain AK:



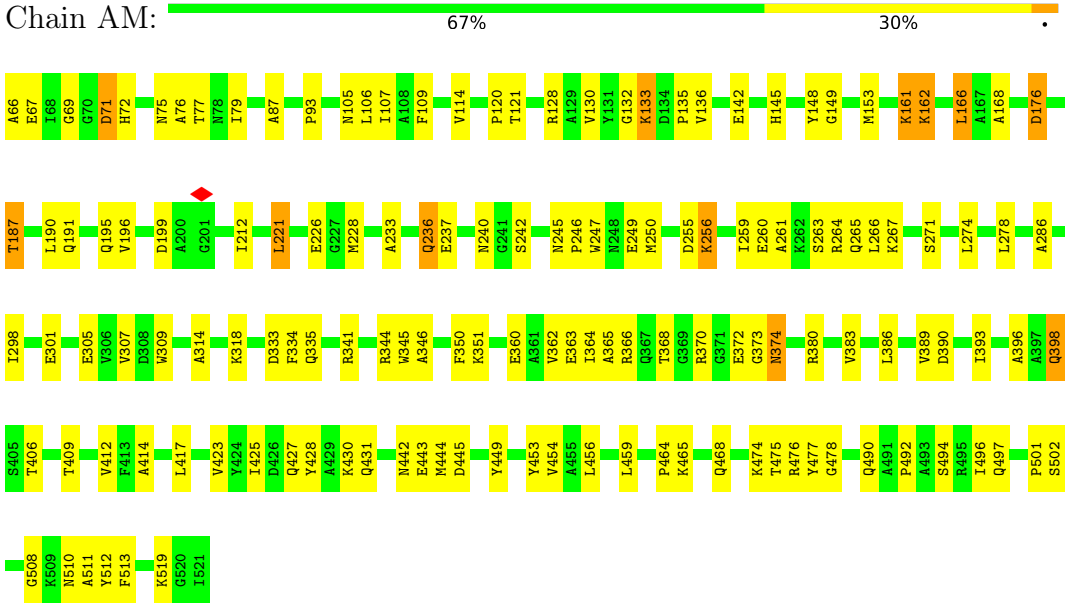
• Molecule 1: Mature major capsid protein

Chain AL:



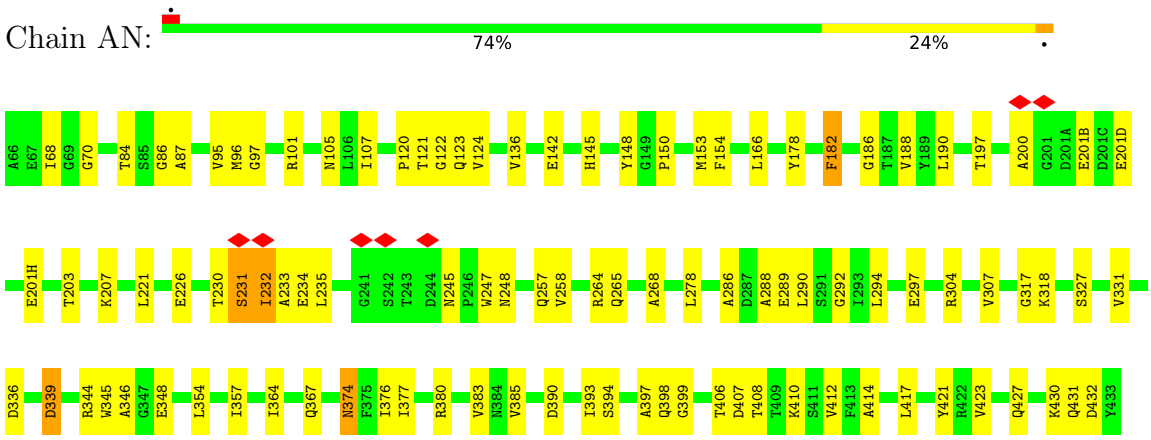
• Molecule 1: Mature major capsid protein

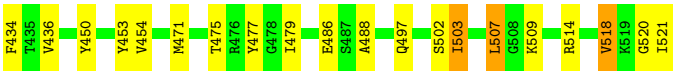
Chain AM:



• Molecule 1: Mature major capsid protein

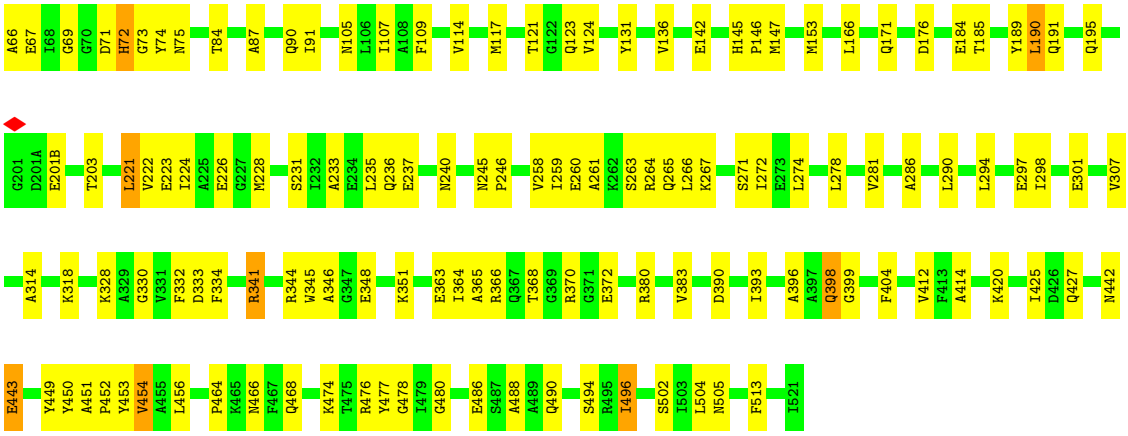
Chain AN:





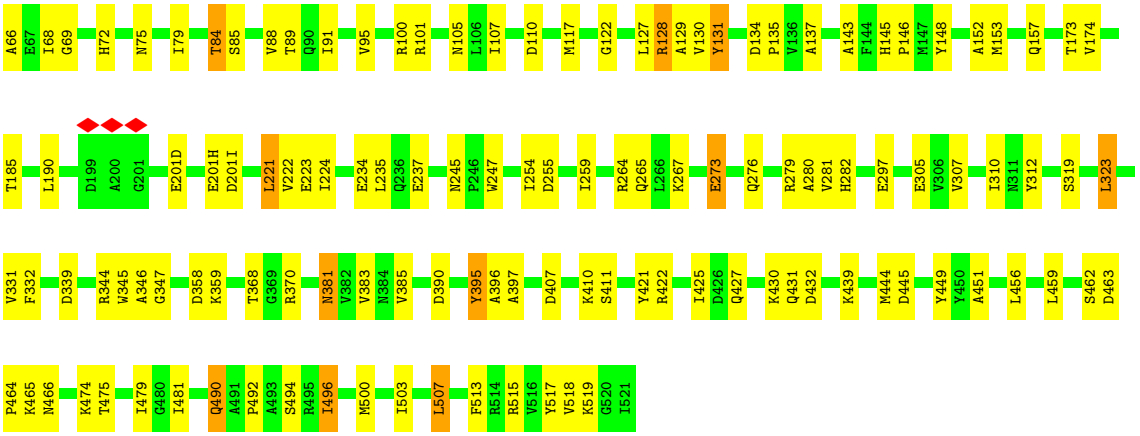
• Molecule 1: Mature major capsid protein

Chain AO:



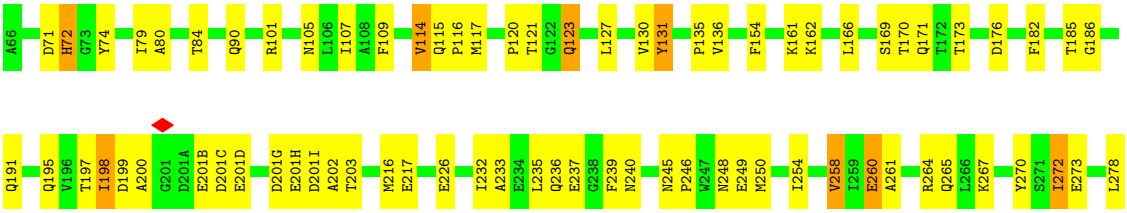
• Molecule 1: Mature major capsid protein

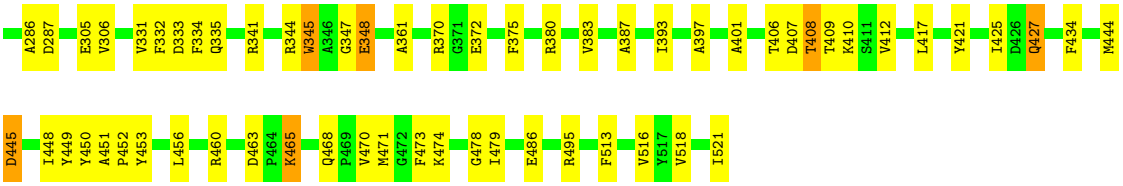
Chain AP:



• Molecule 1: Mature major capsid protein

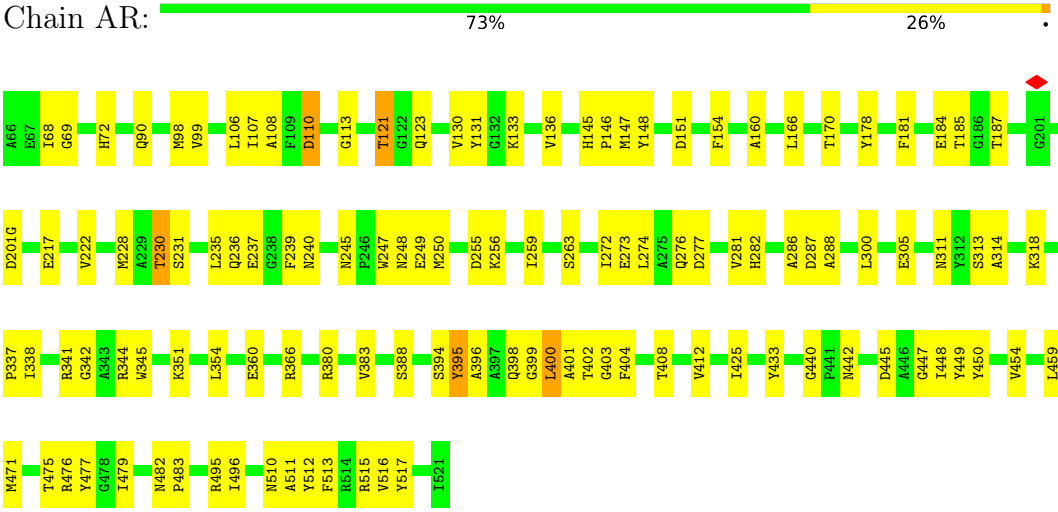
Chain AQ:





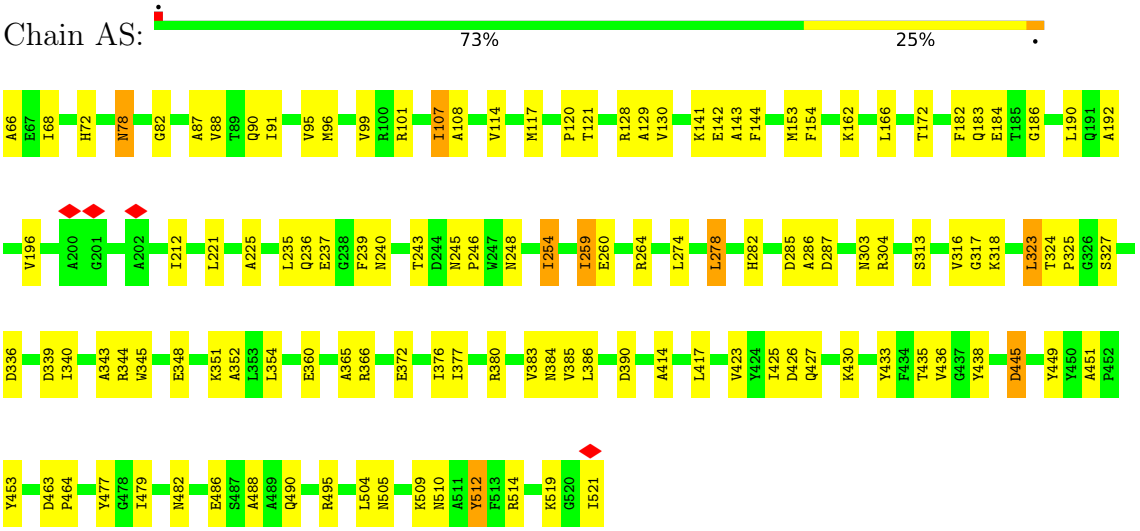
• Molecule 1: Mature major capsid protein

Chain AR:



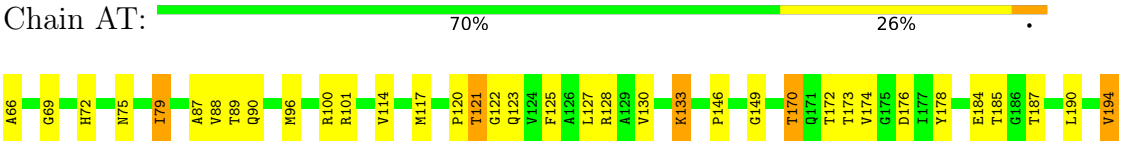
• Molecule 1: Mature major capsid protein

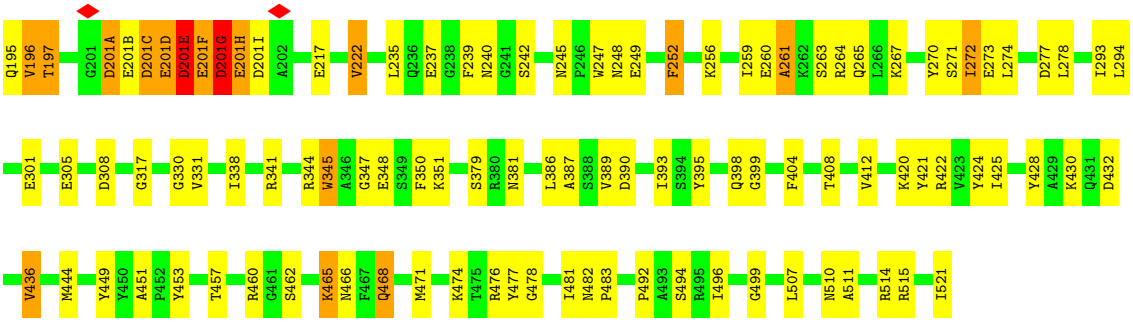
Chain AS:



• Molecule 1: Mature major capsid protein

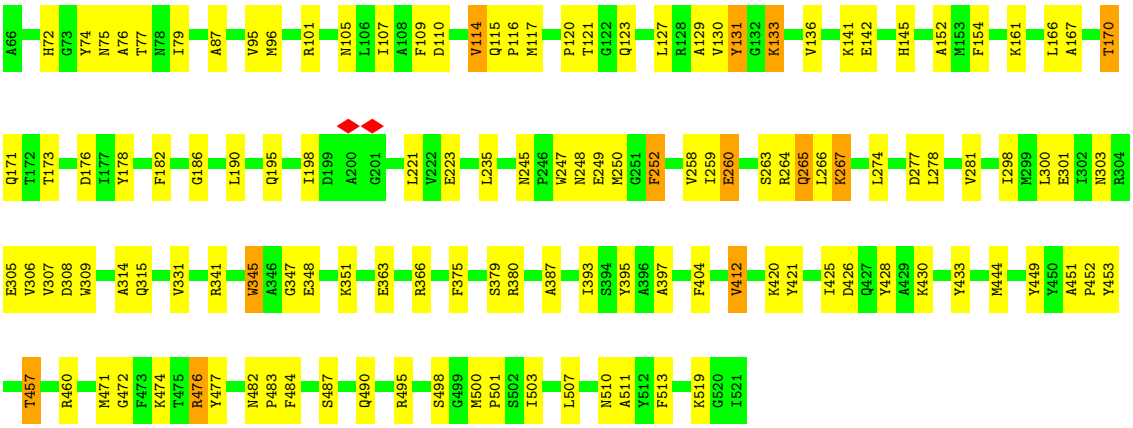
Chain AT:





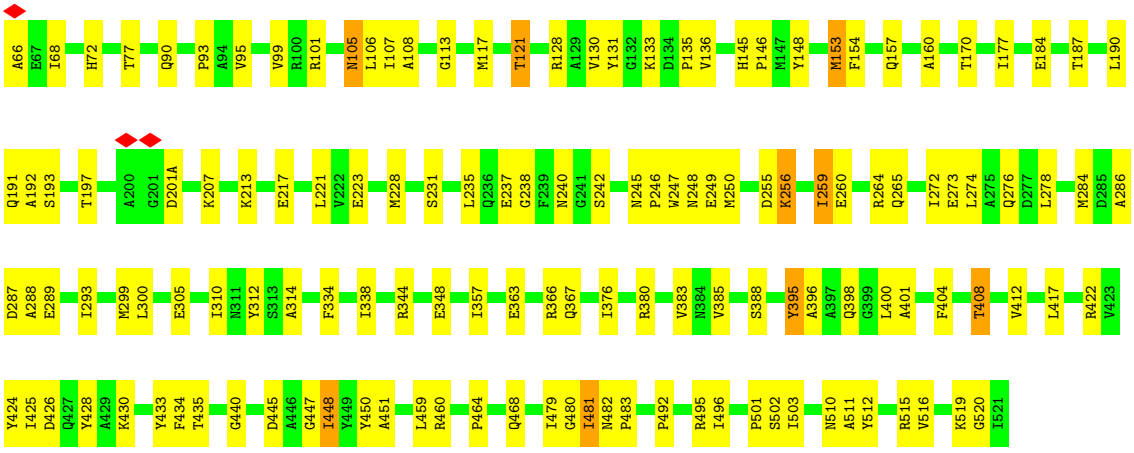
• Molecule 1: Mature major capsid protein

Chain AU:



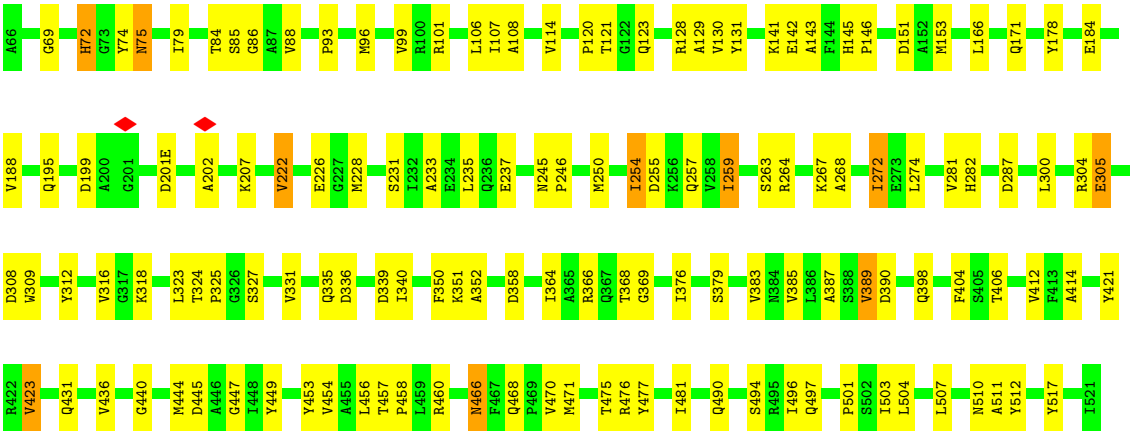
• Molecule 1: Mature major capsid protein

Chain AV:



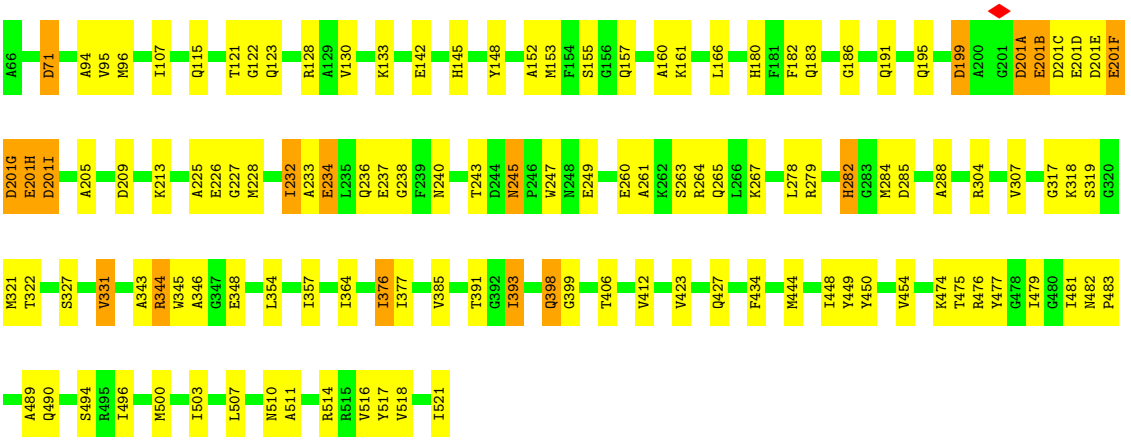
• Molecule 1: Mature major capsid protein

Chain AW:



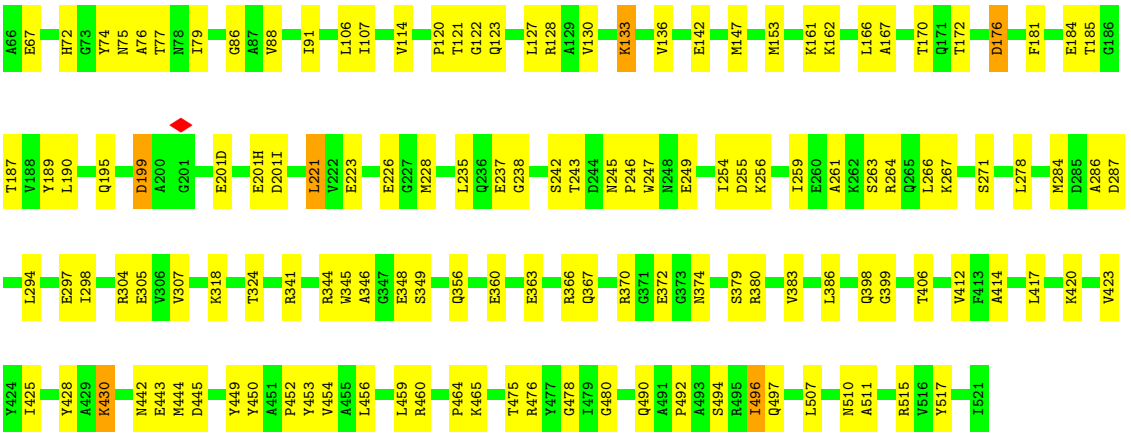
• Molecule 1: Mature major capsid protein

Chain AX:



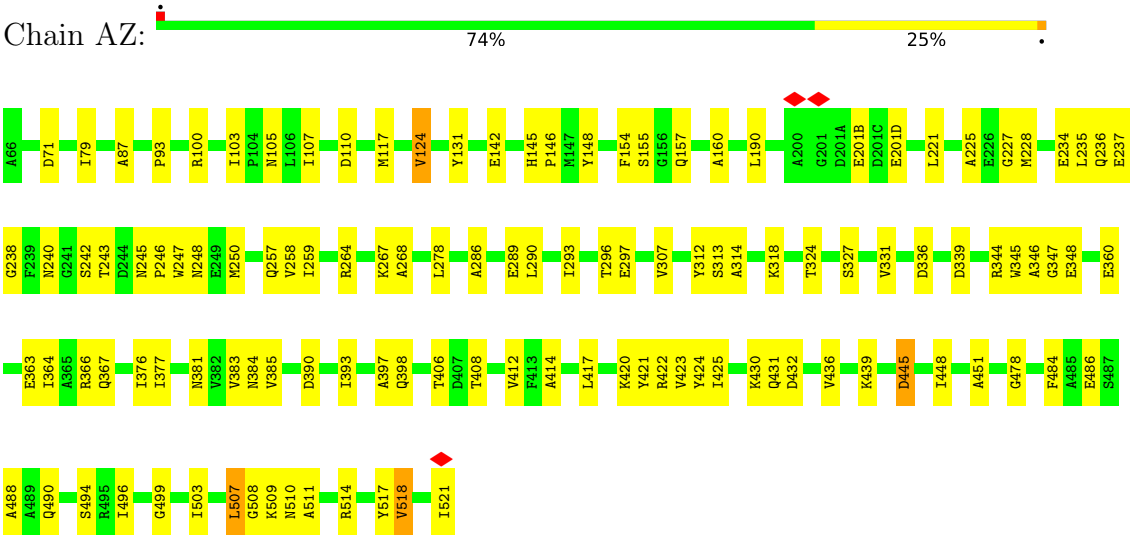
• Molecule 1: Mature major capsid protein

Chain AY:



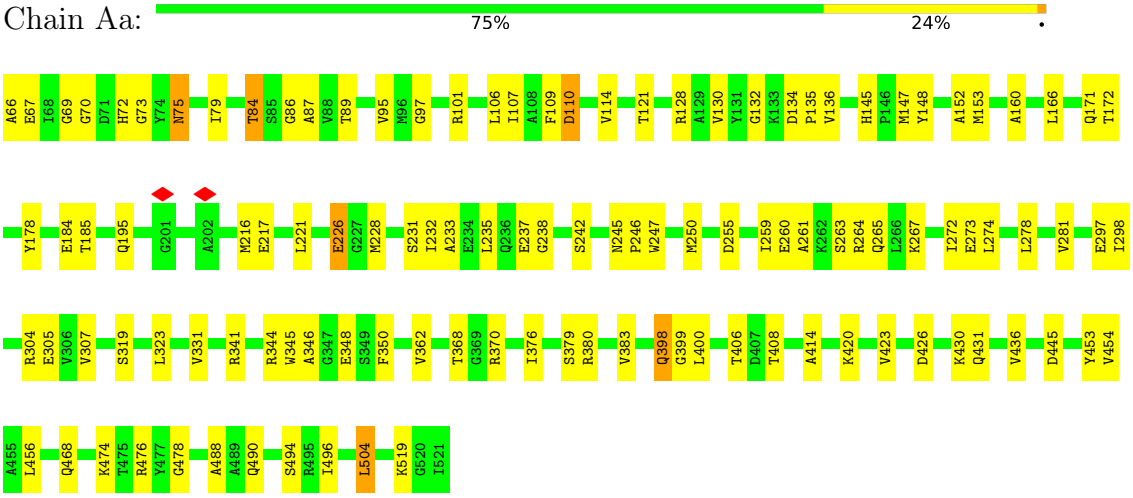
• Molecule 1: Mature major capsid protein

Chain AZ:



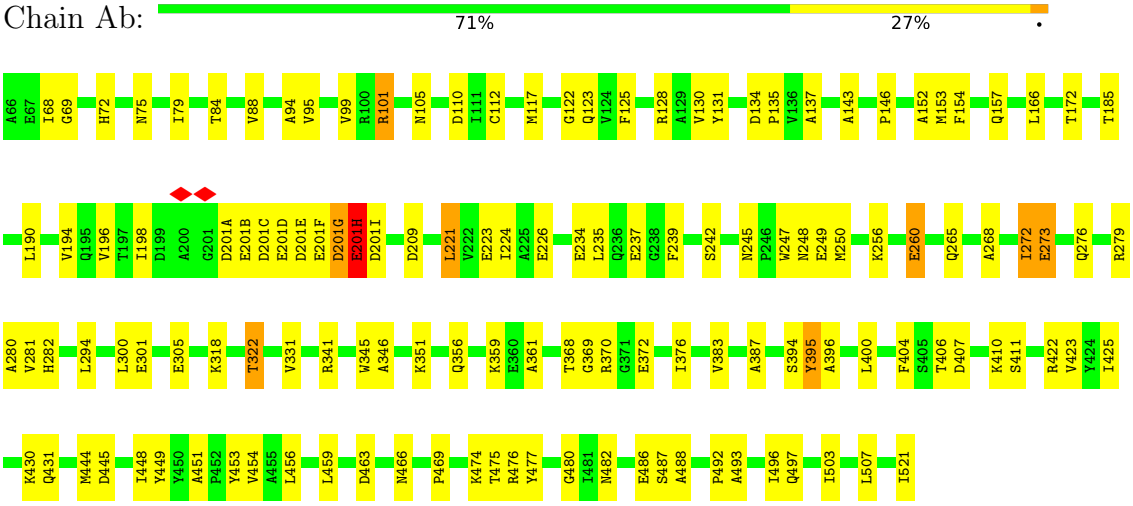
• Molecule 1: Mature major capsid protein

Chain Aa:



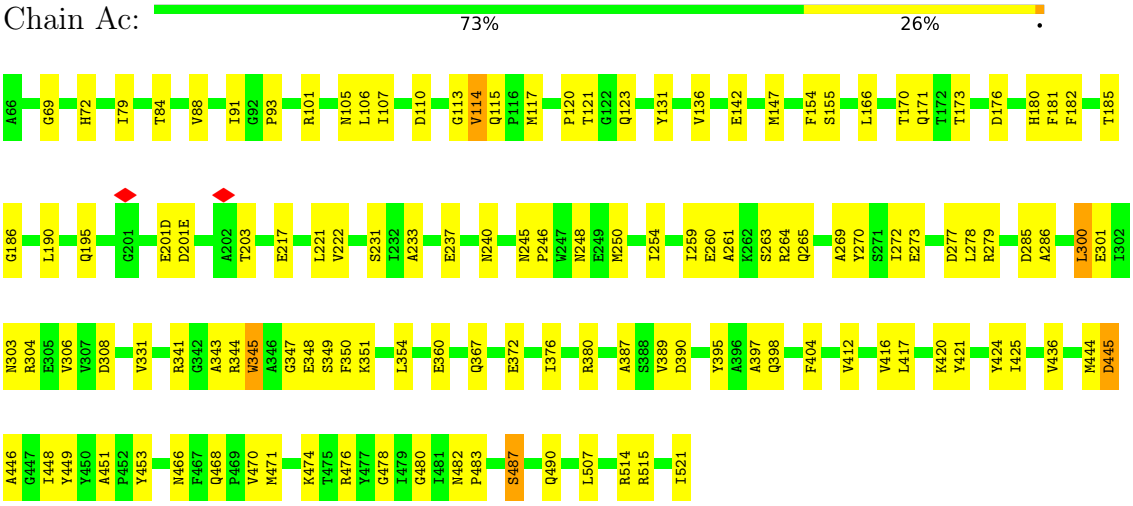
• Molecule 1: Mature major capsid protein

Chain Ab:



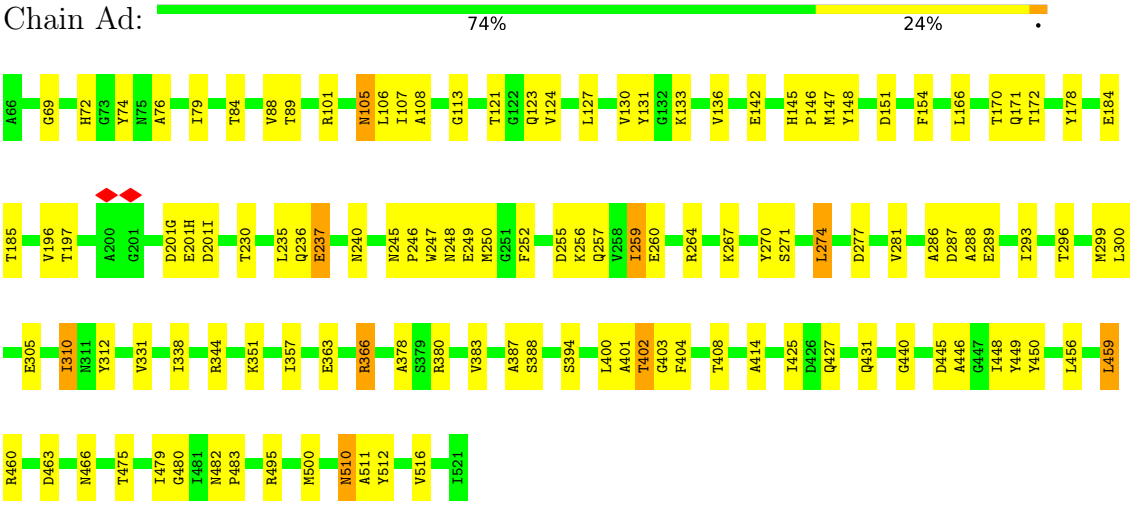
• Molecule 1: Mature major capsid protein

Chain Ac:



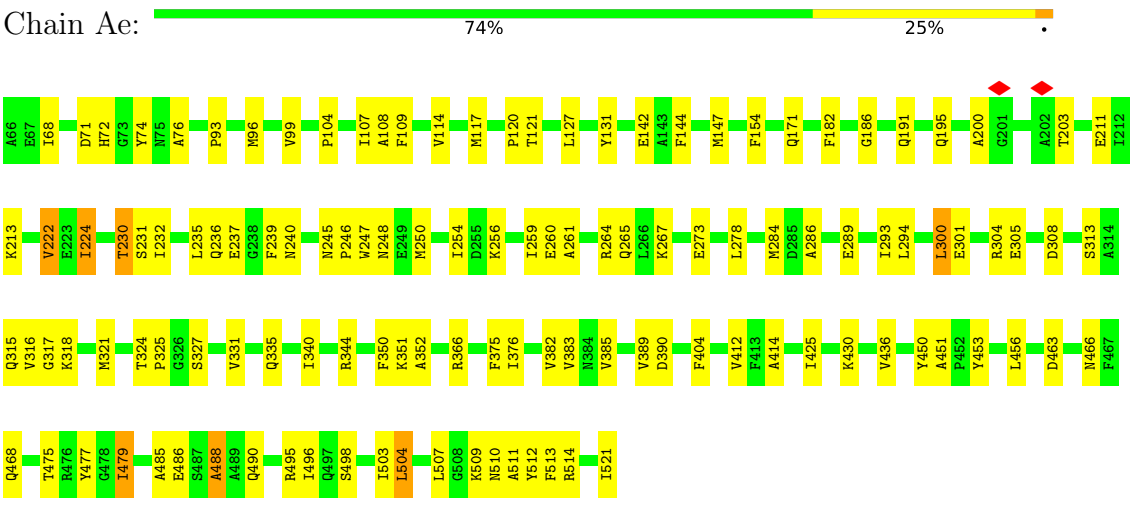
• Molecule 1: Mature major capsid protein

Chain Ad:



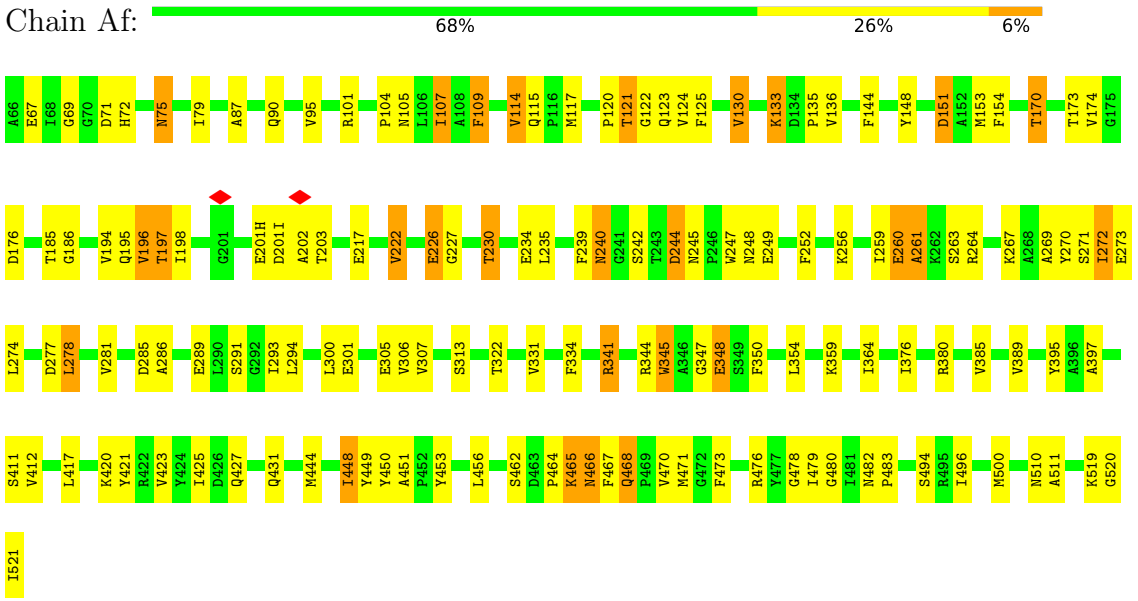
• Molecule 1: Mature major capsid protein

Chain Ae:



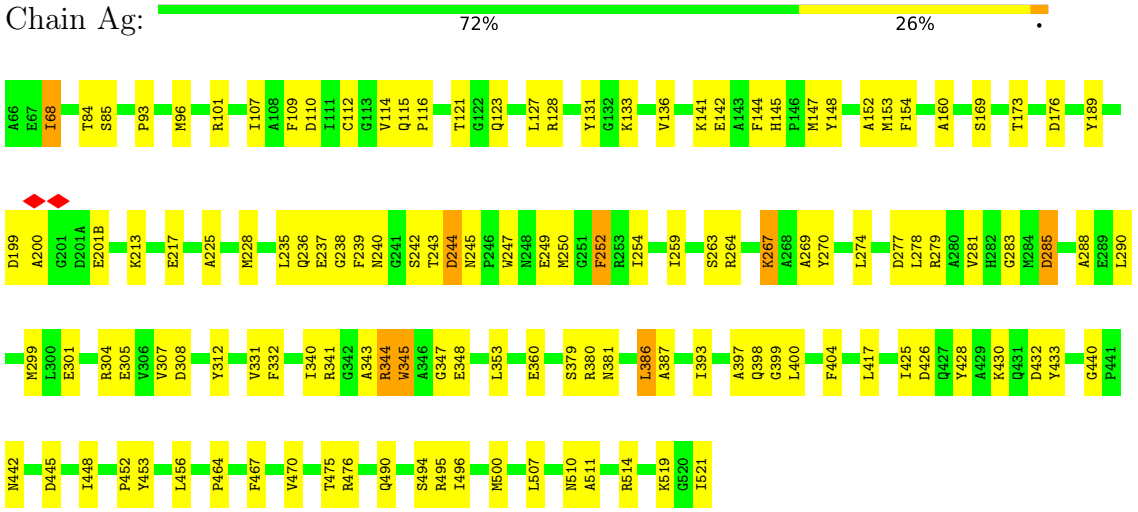
• Molecule 1: Mature major capsid protein

Chain Af:



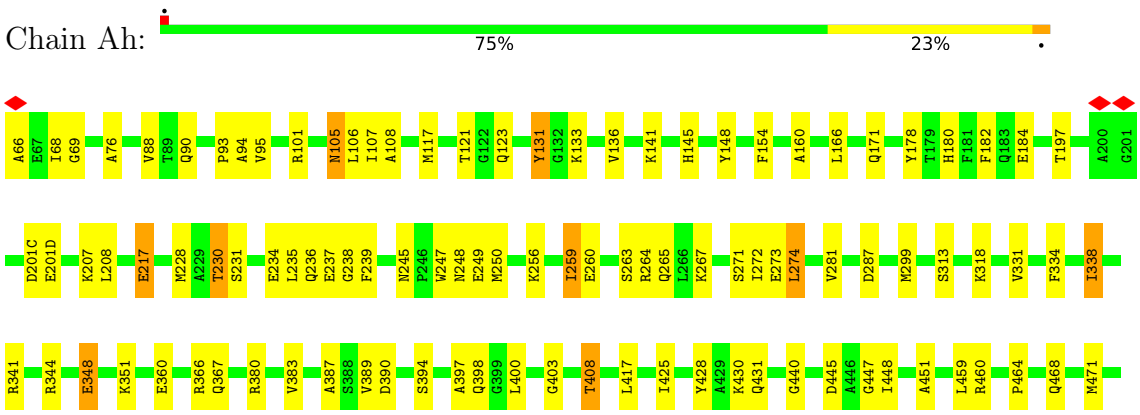
• Molecule 1: Mature major capsid protein

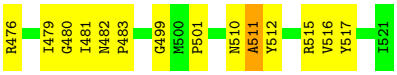
Chain Ag:



• Molecule 1: Mature major capsid protein

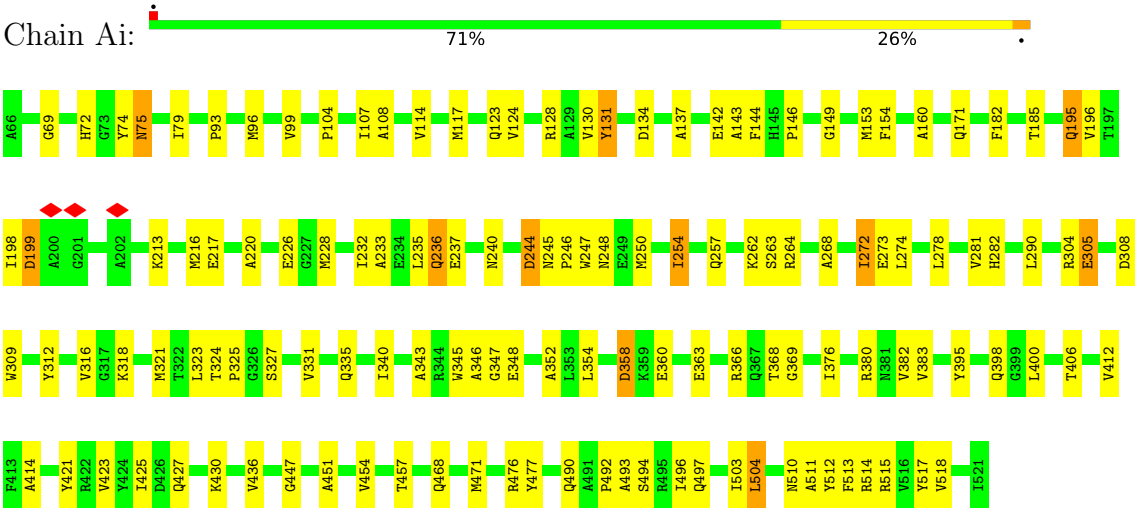
Chain Ah:





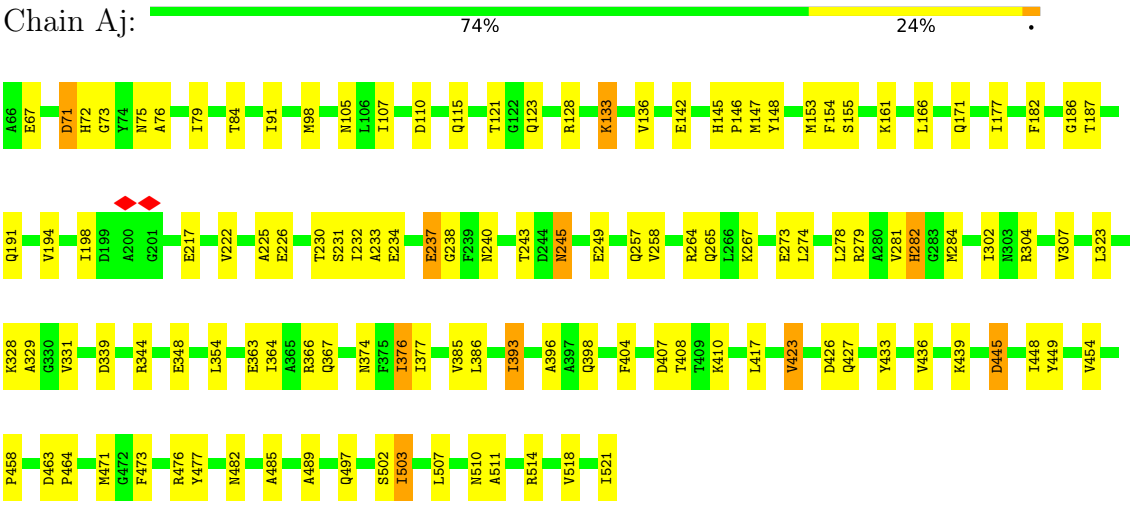
• Molecule 1: Mature major capsid protein

Chain Ai:



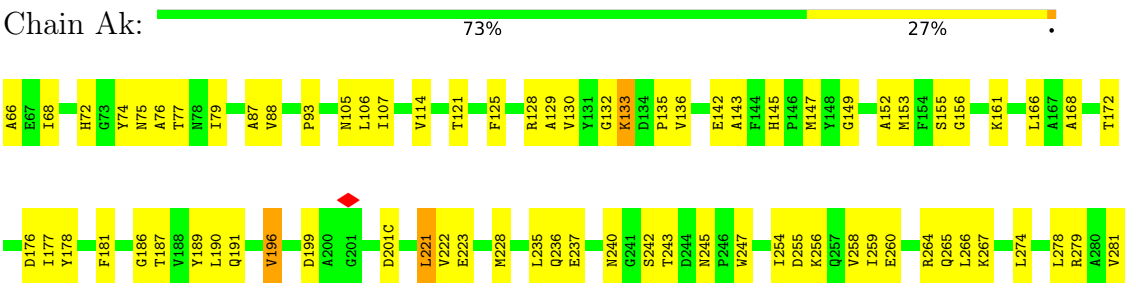
• Molecule 1: Mature major capsid protein

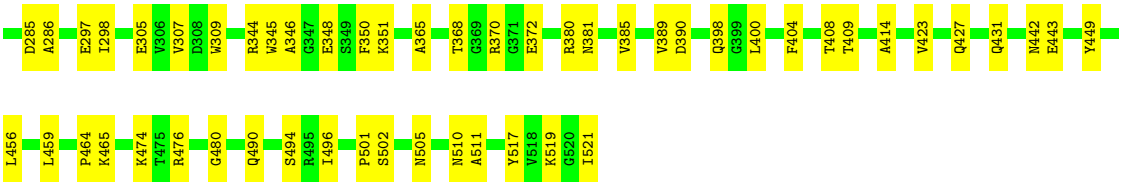
Chain Aj:



• Molecule 1: Mature major capsid protein

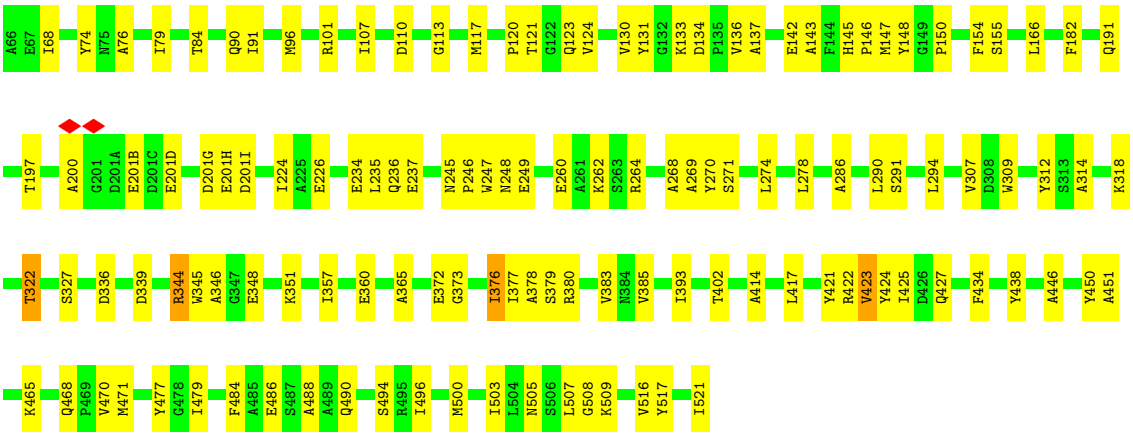
Chain Ak:





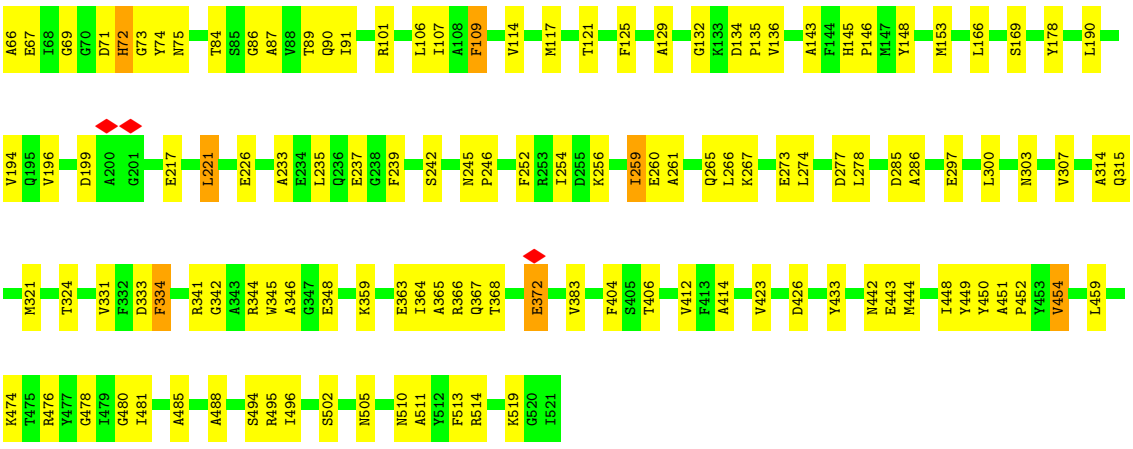
• Molecule 1: Mature major capsid protein

Chain Al:



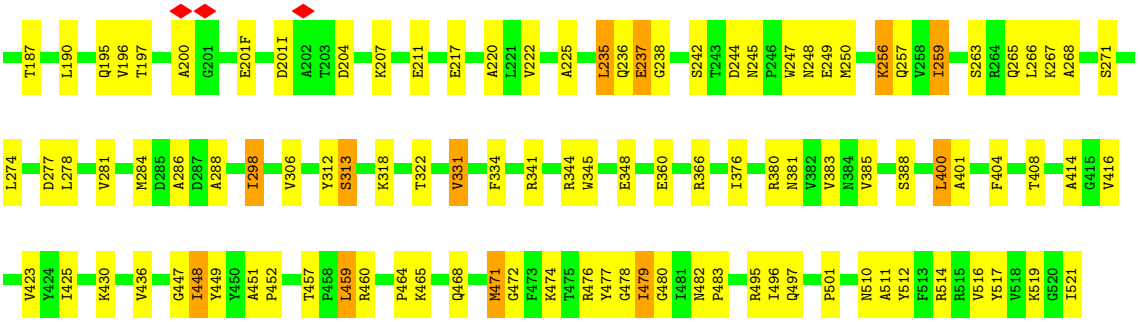
• Molecule 1: Mature major capsid protein

Chain Am:



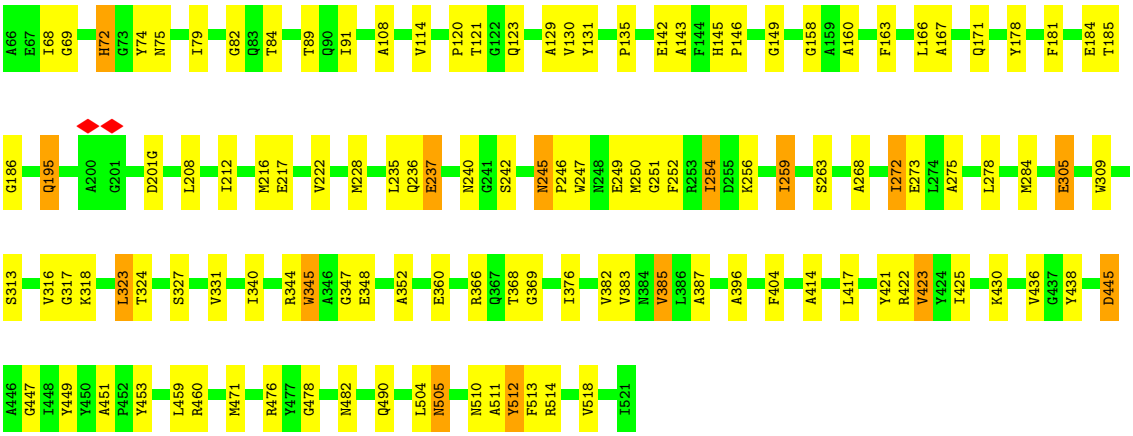
• Molecule 1: Mature major capsid protein

Chain G:



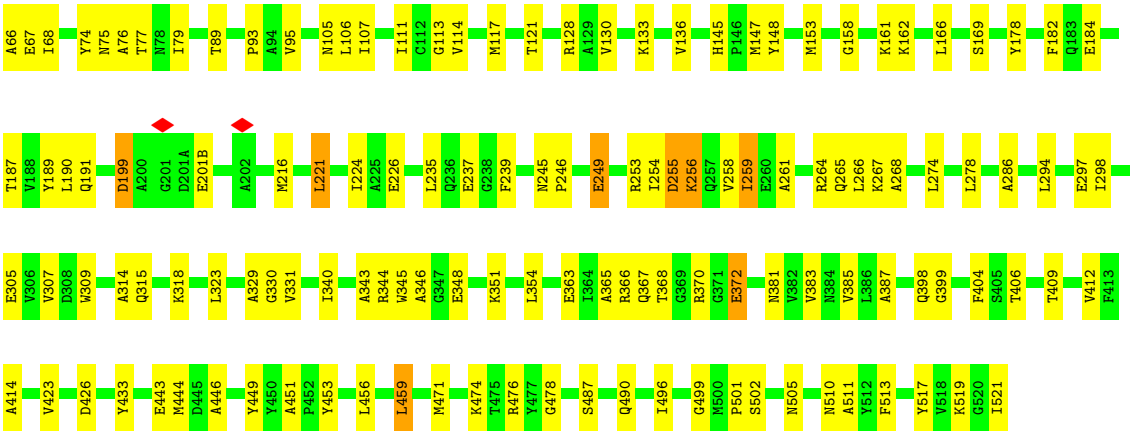
• Molecule 1: Mature major capsid protein

Chain H:



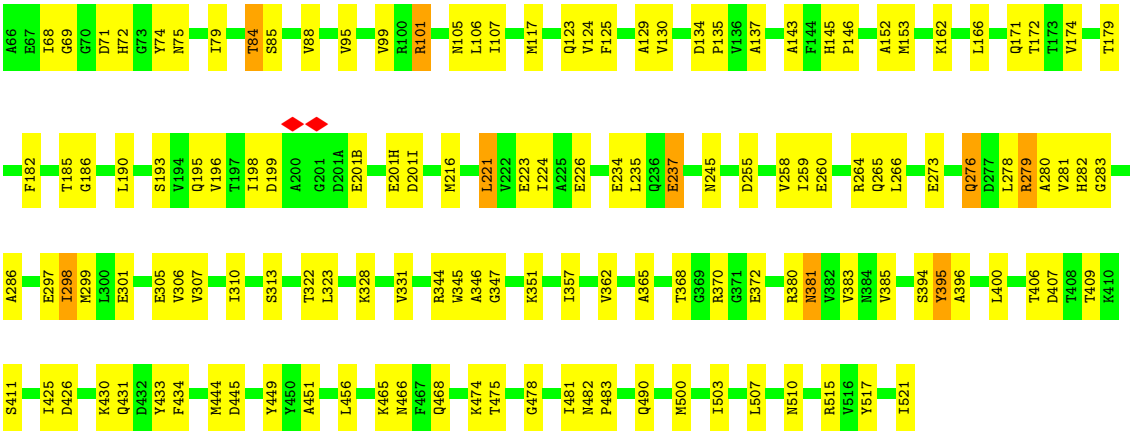
• Molecule 1: Mature major capsid protein

Chain J:



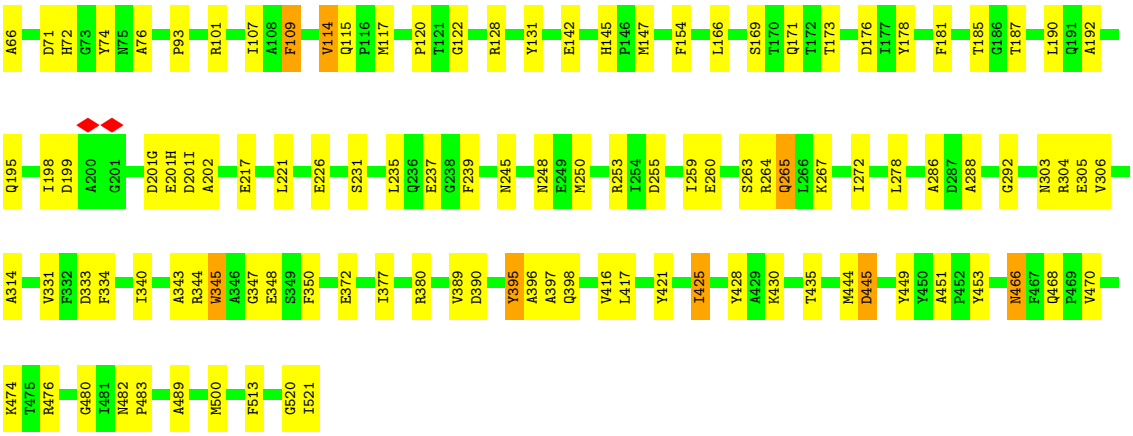
• Molecule 1: Mature major capsid protein

Chain K:



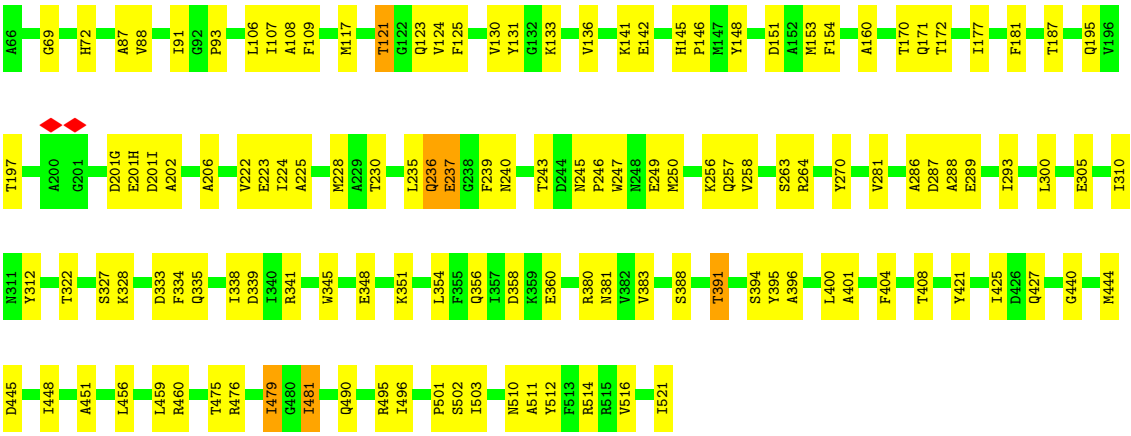
• Molecule 1: Mature major capsid protein

Chain L:



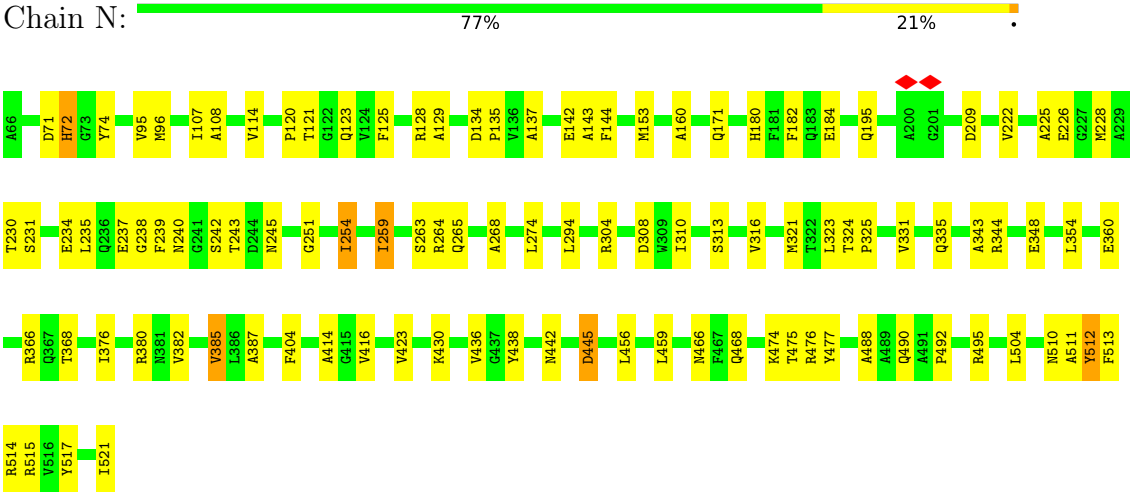
• Molecule 1: Mature major capsid protein

Chain M:



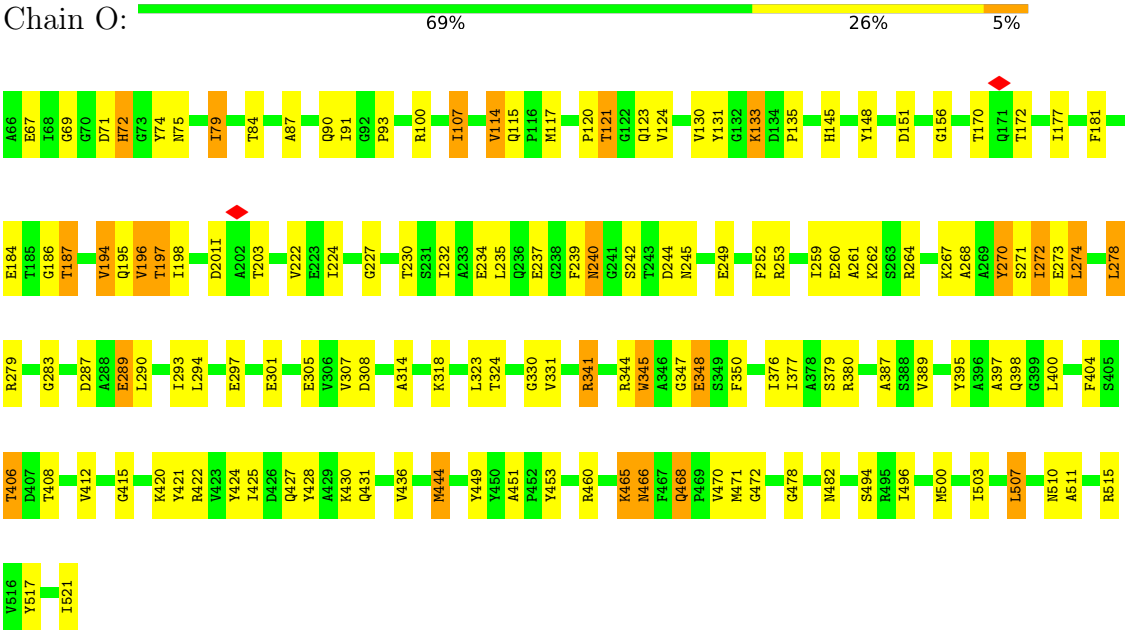
• Molecule 1: Mature major capsid protein

Chain N:



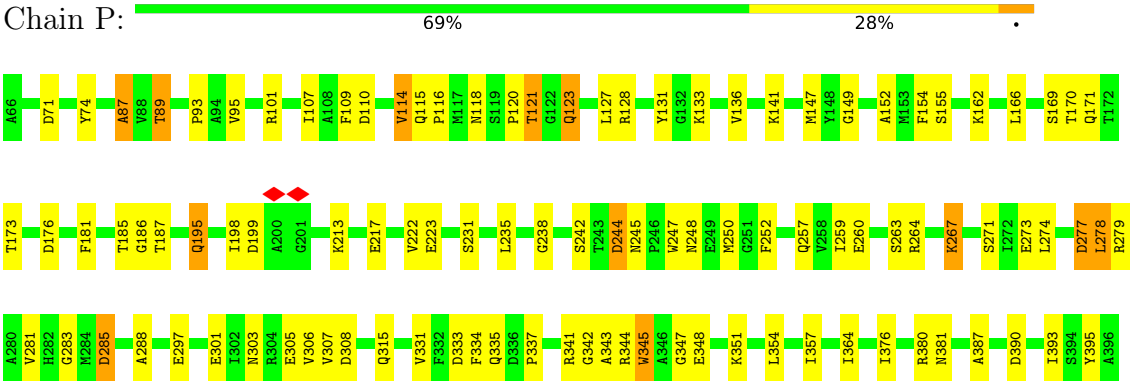
• Molecule 1: Mature major capsid protein

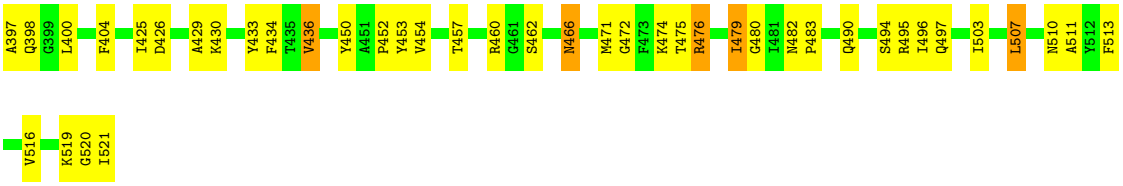
Chain O:



• Molecule 1: Mature major capsid protein

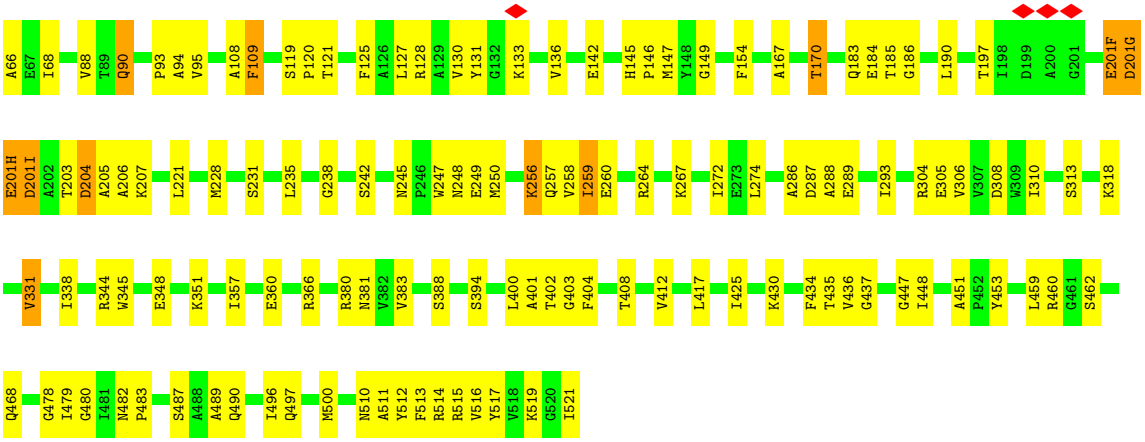
Chain P:





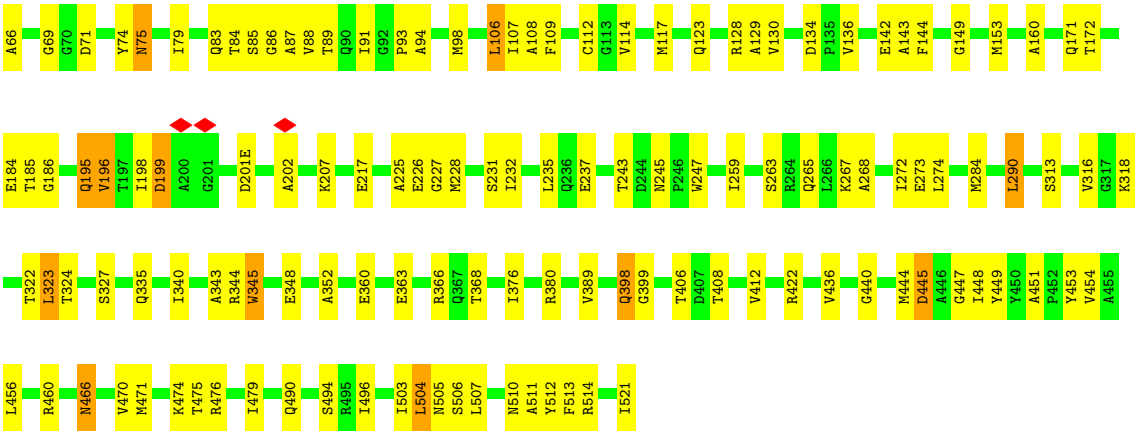
• Molecule 1: Mature major capsid protein

Chain Q:



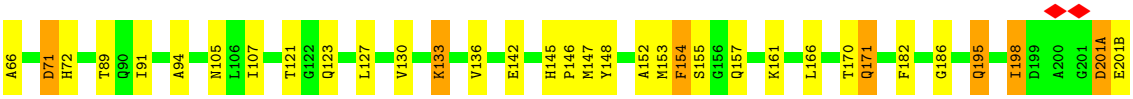
• Molecule 1: Mature major capsid protein

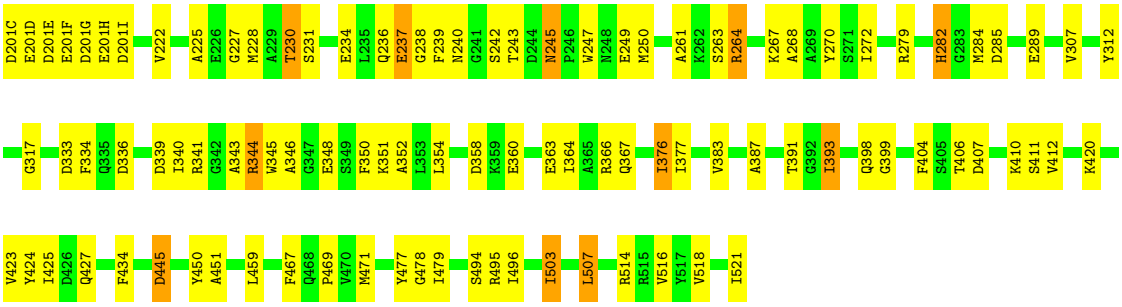
Chain R:



• Molecule 1: Mature major capsid protein

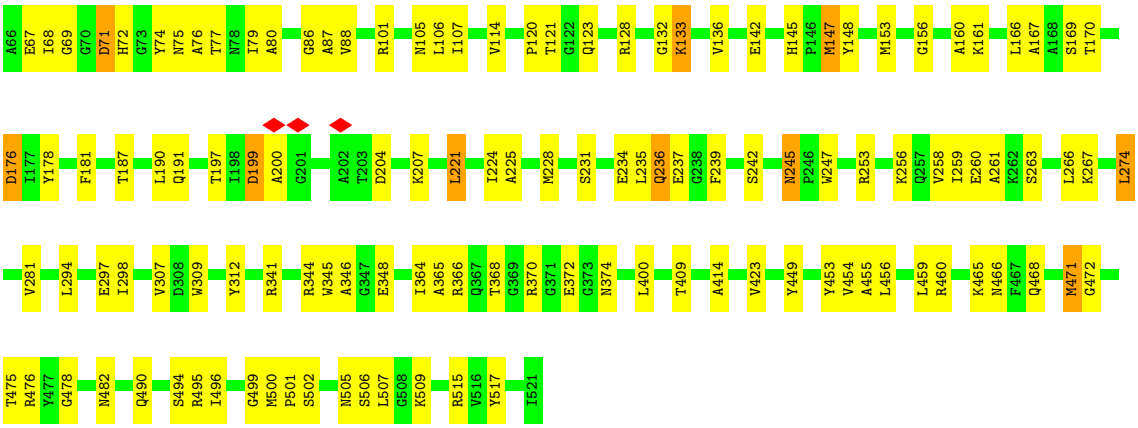
Chain S:





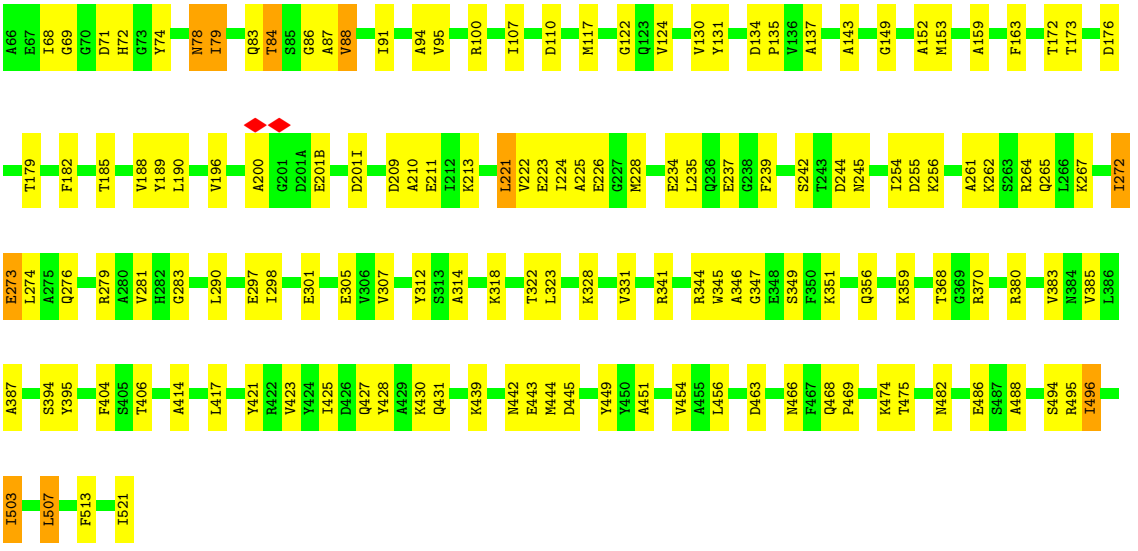
• Molecule 1: Mature major capsid protein

Chain T:



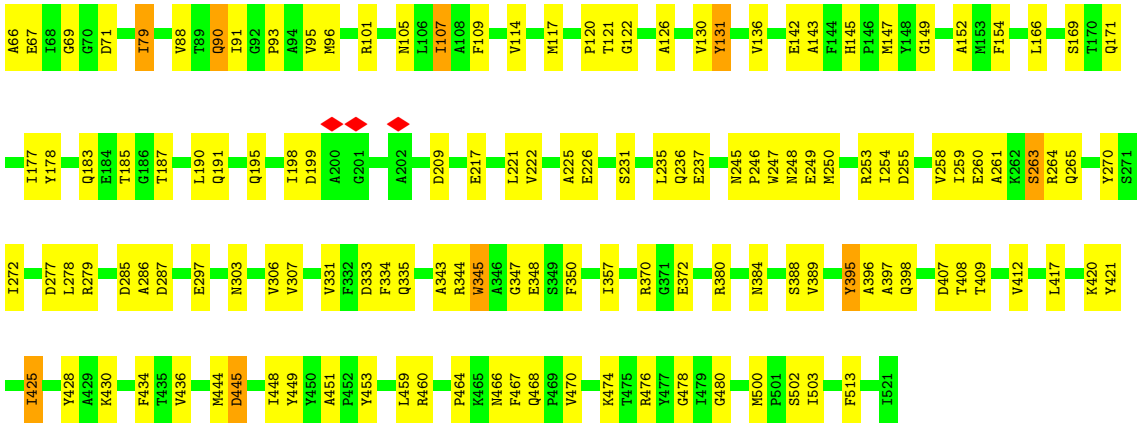
• Molecule 1: Mature major capsid protein

Chain U:



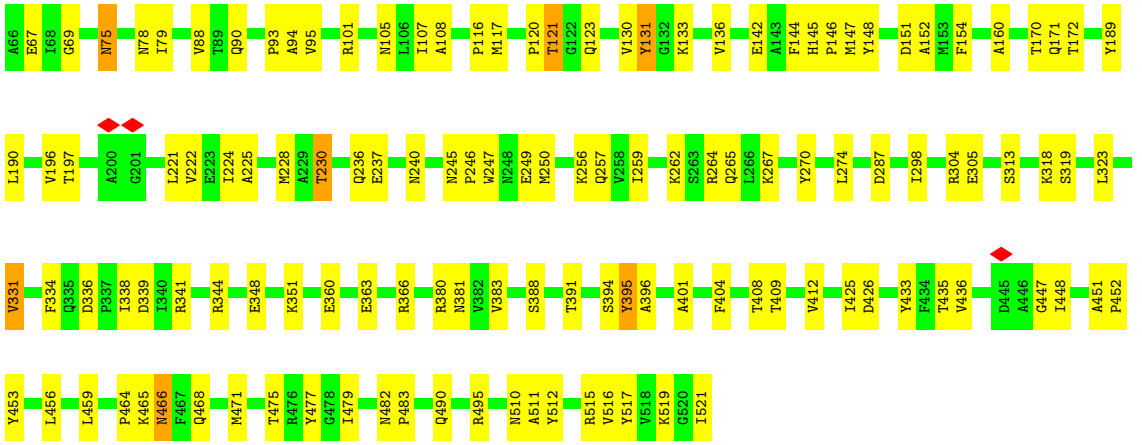
• Molecule 1: Mature major capsid protein

Chain V:



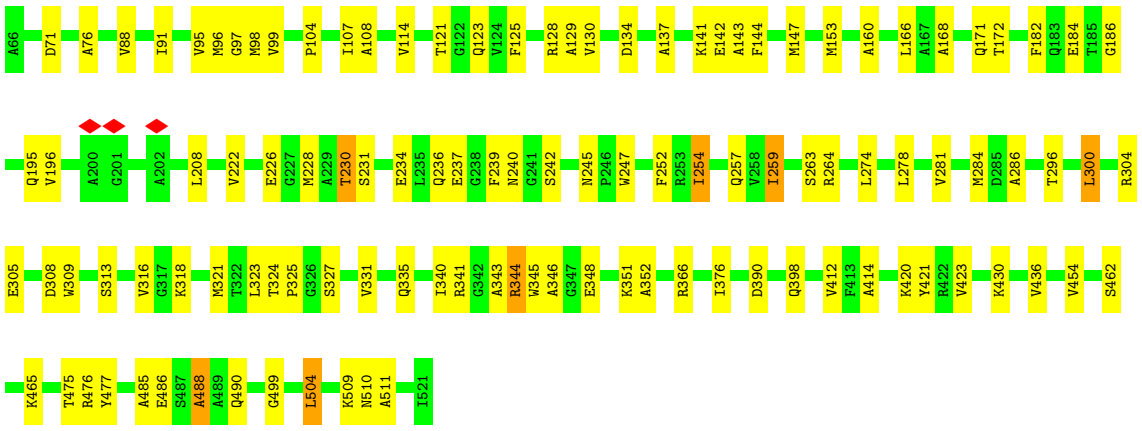
• Molecule 1: Mature major capsid protein

Chain W:



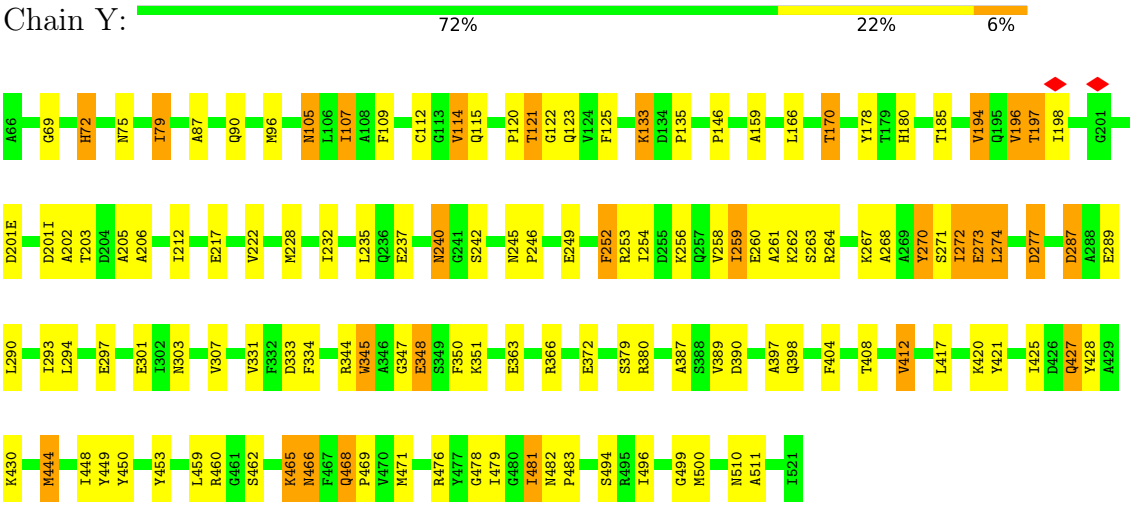
• Molecule 1: Mature major capsid protein

Chain X:



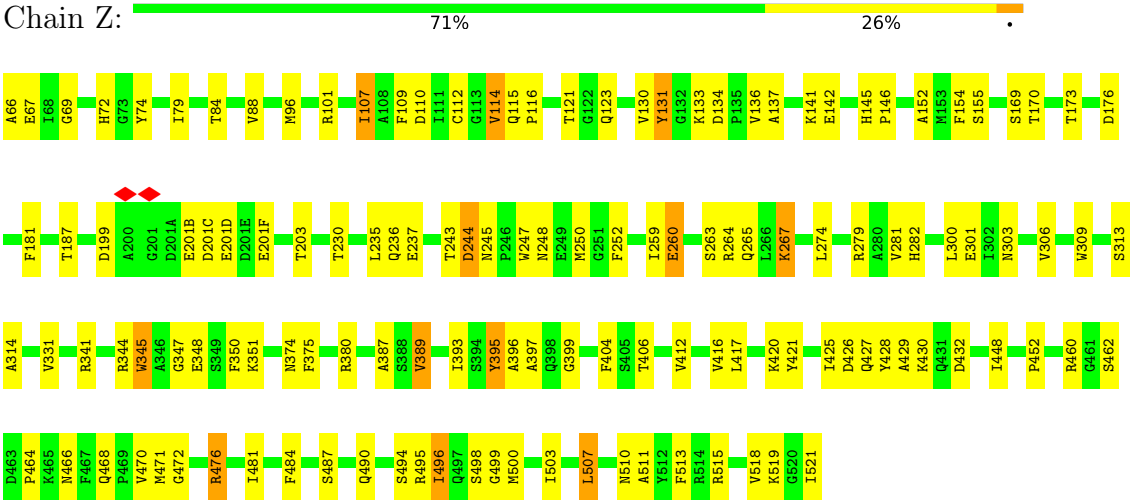
• Molecule 1: Mature major capsid protein

Chain Y:



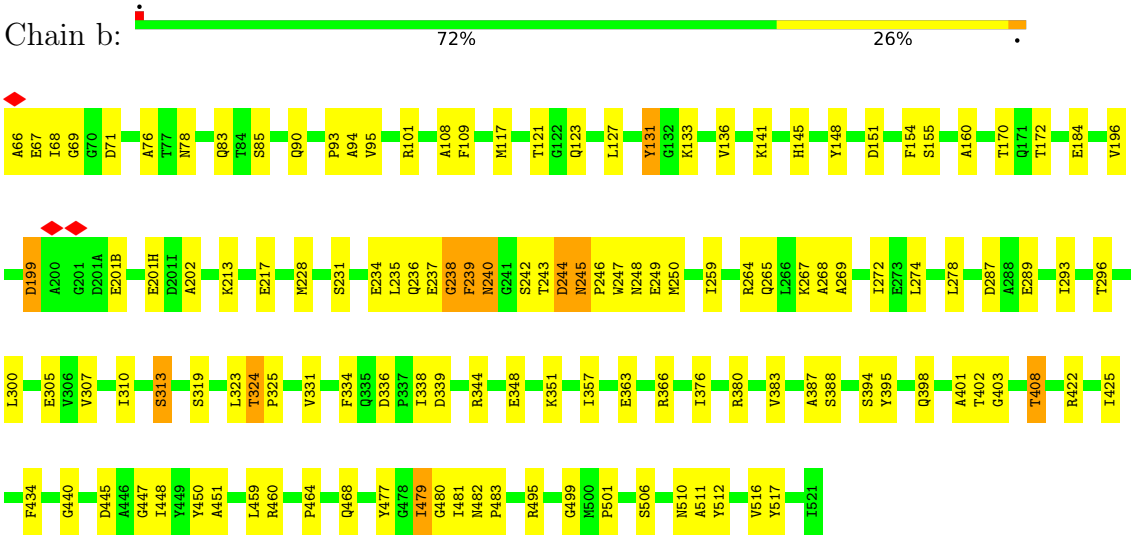
• Molecule 1: Mature major capsid protein

Chain Z:



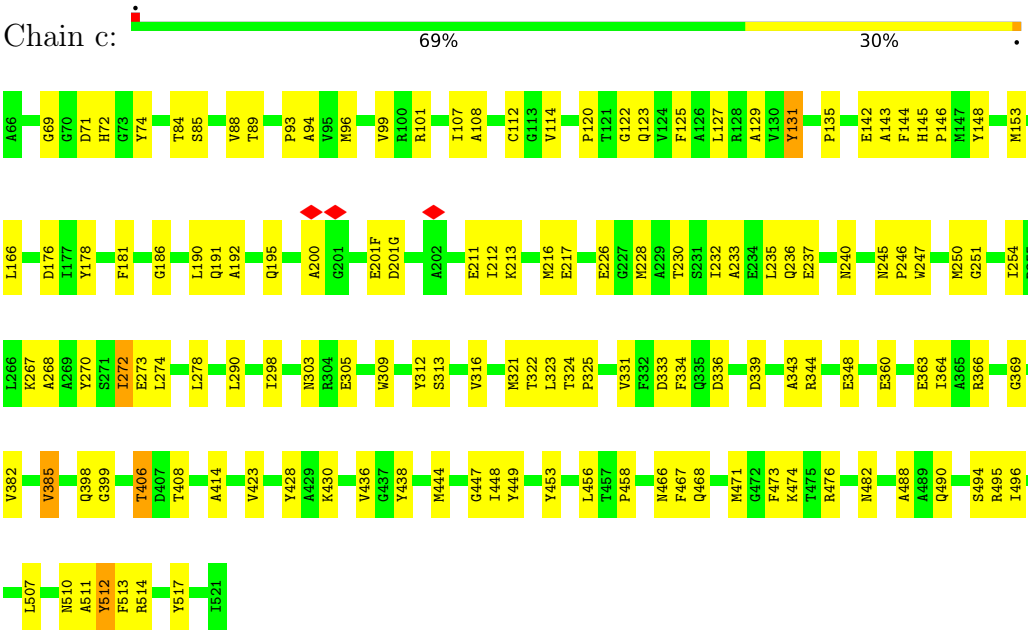
• Molecule 1: Mature major capsid protein

Chain b:



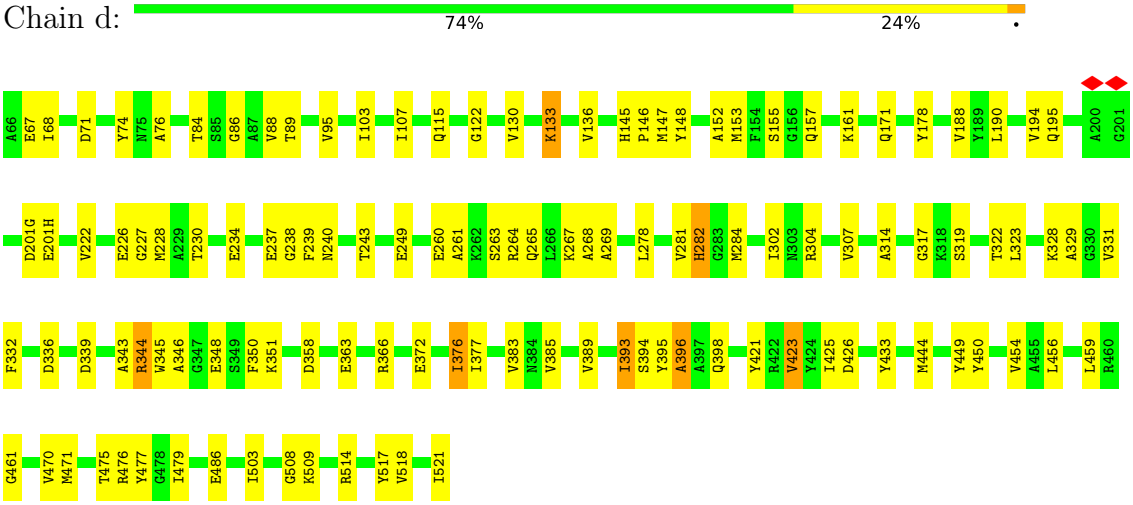
• Molecule 1: Mature major capsid protein

Chain c:



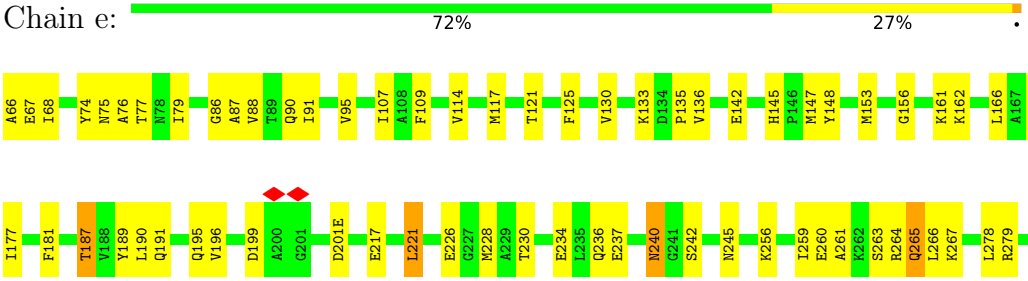
• Molecule 1: Mature major capsid protein

Chain d:



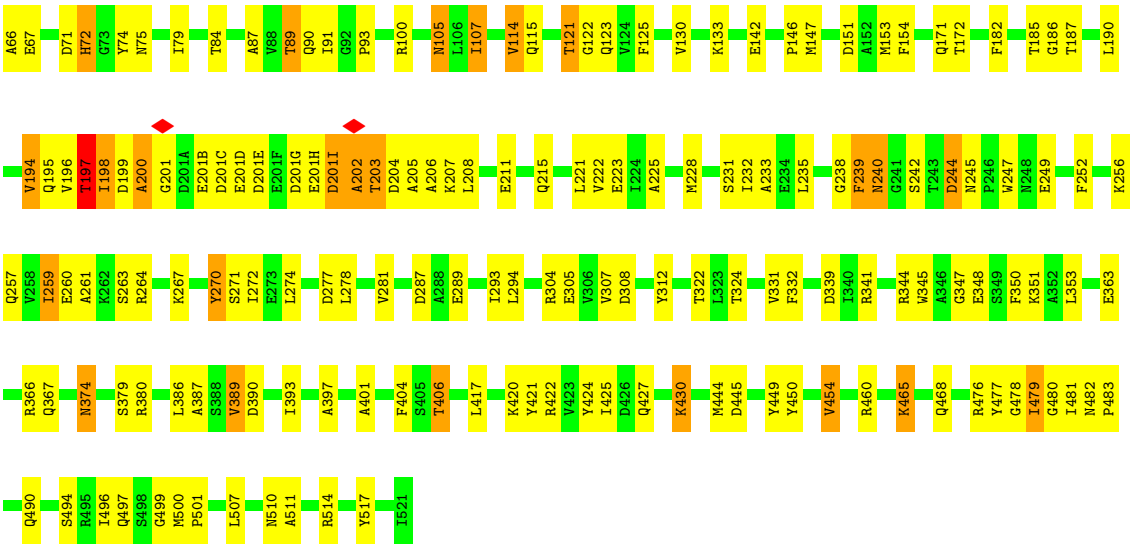
• Molecule 1: Mature major capsid protein

Chain e:



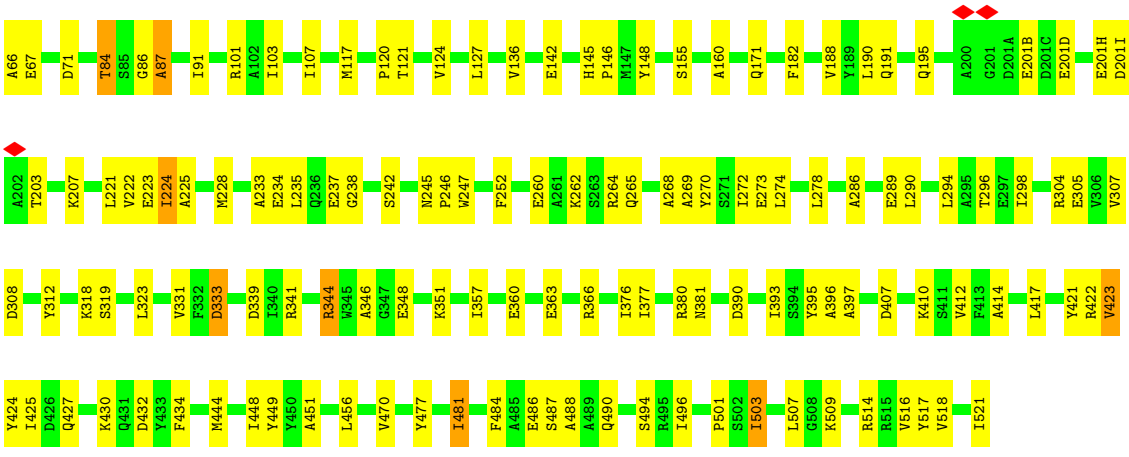
• Molecule 1: Mature major capsid protein

Chain f:



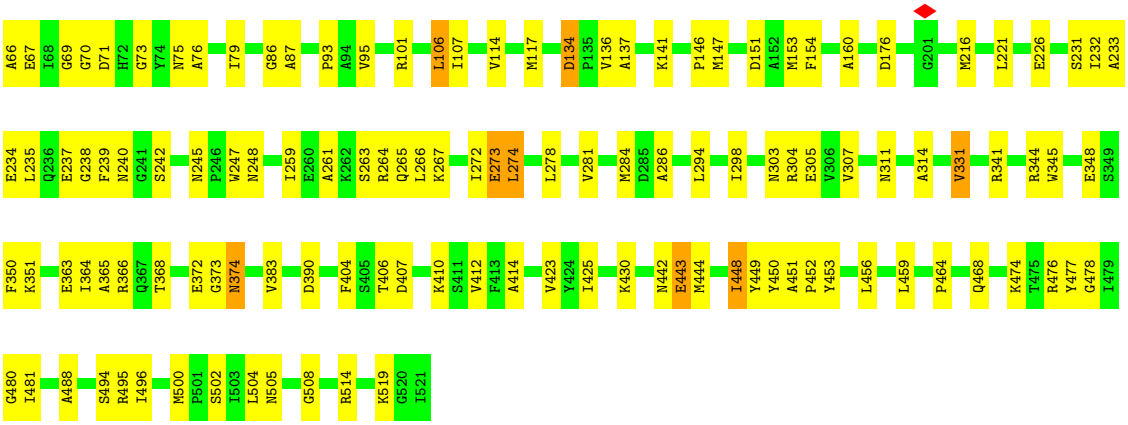
• Molecule 1: Mature major capsid protein

Chain g:



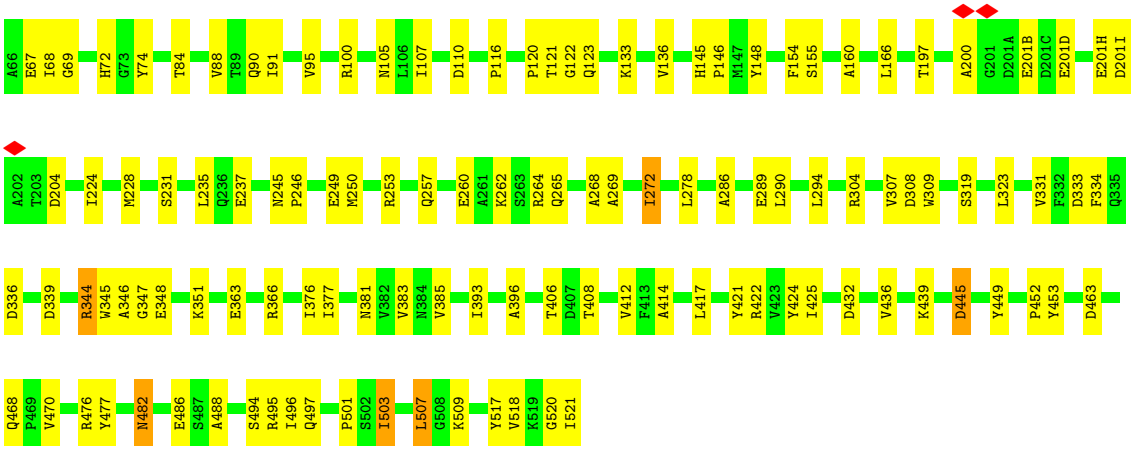
• Molecule 1: Mature major capsid protein

Chain h:



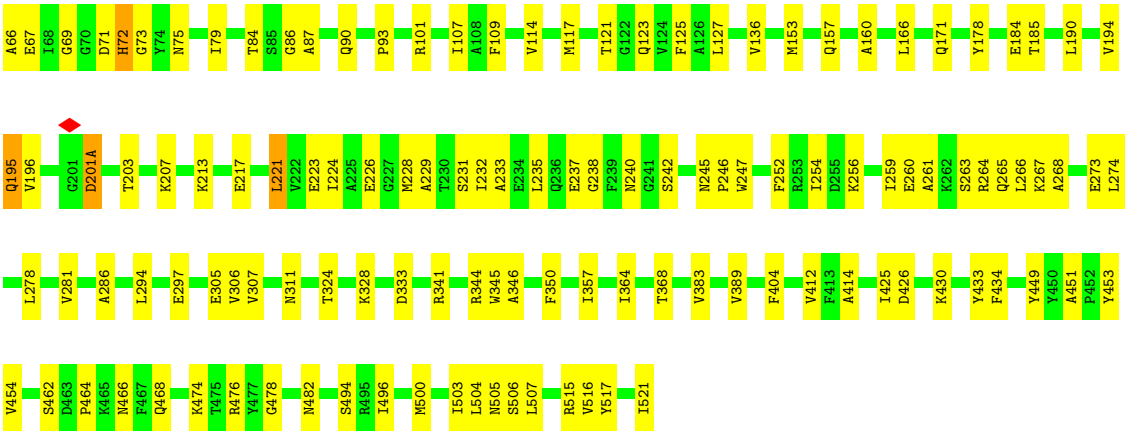
• Molecule 1: Mature major capsid protein

Chain i:



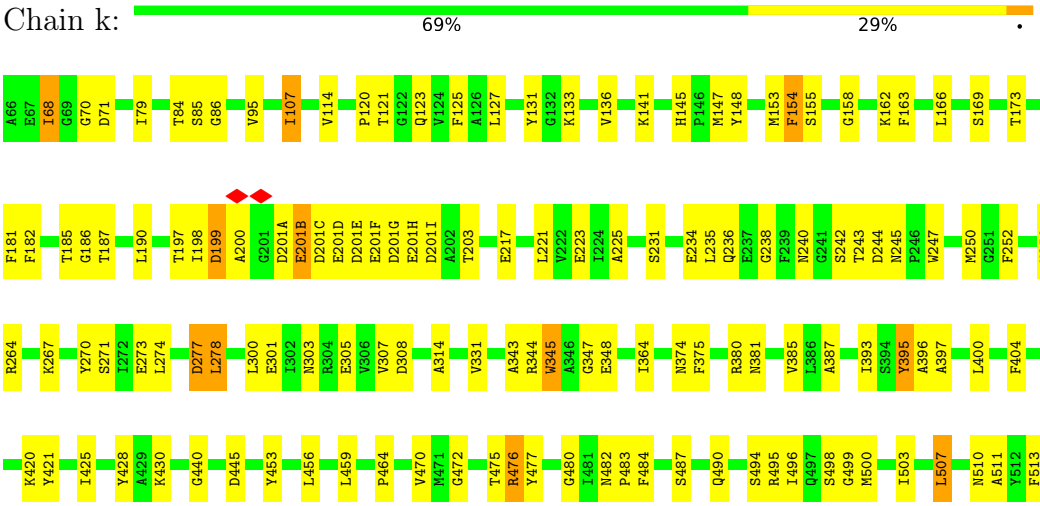
• Molecule 1: Mature major capsid protein

Chain j:



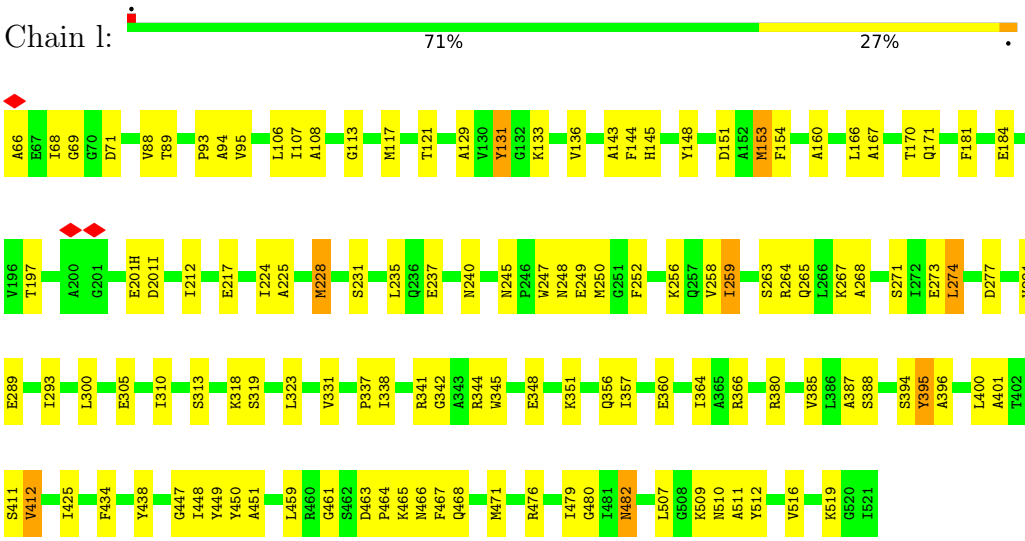
• Molecule 1: Mature major capsid protein

Chain k:



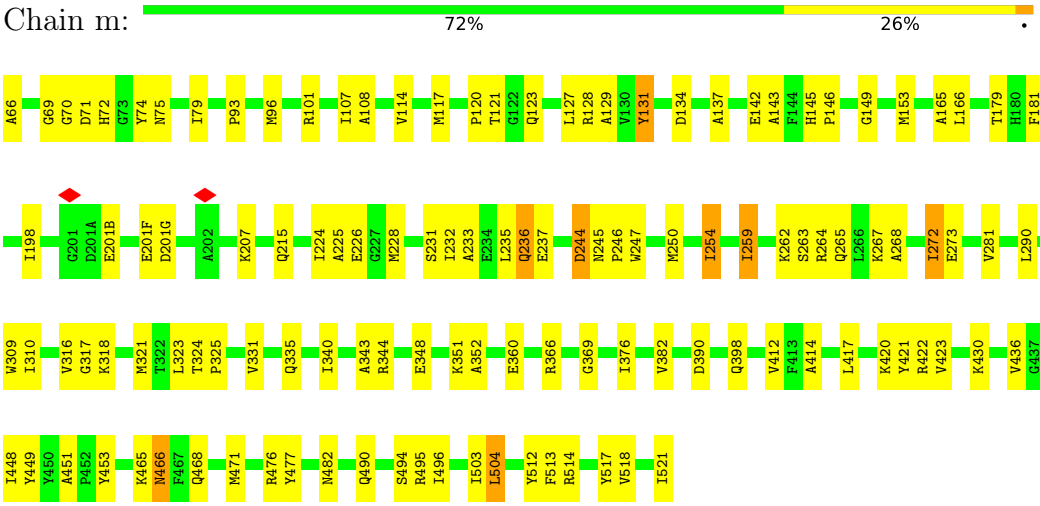
• Molecule 1: Mature major capsid protein

Chain l:



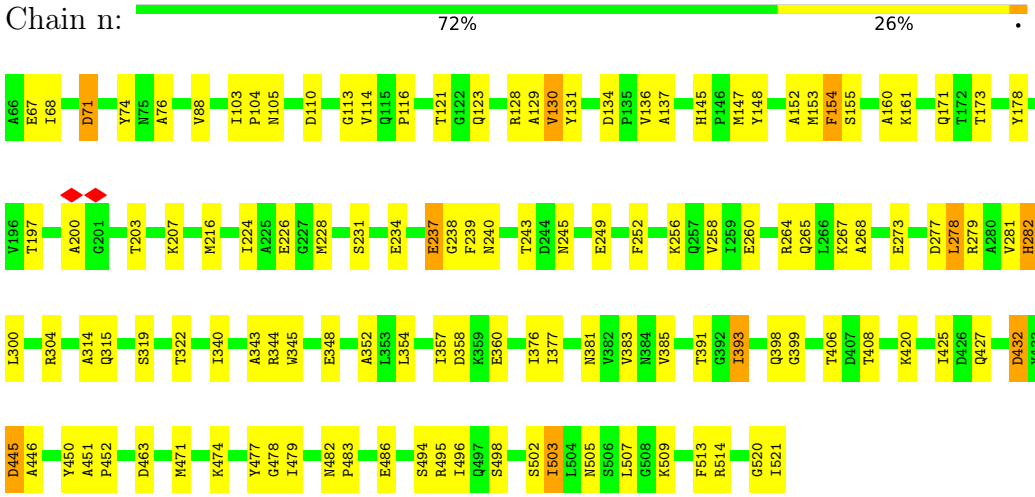
• Molecule 1: Mature major capsid protein

Chain m:



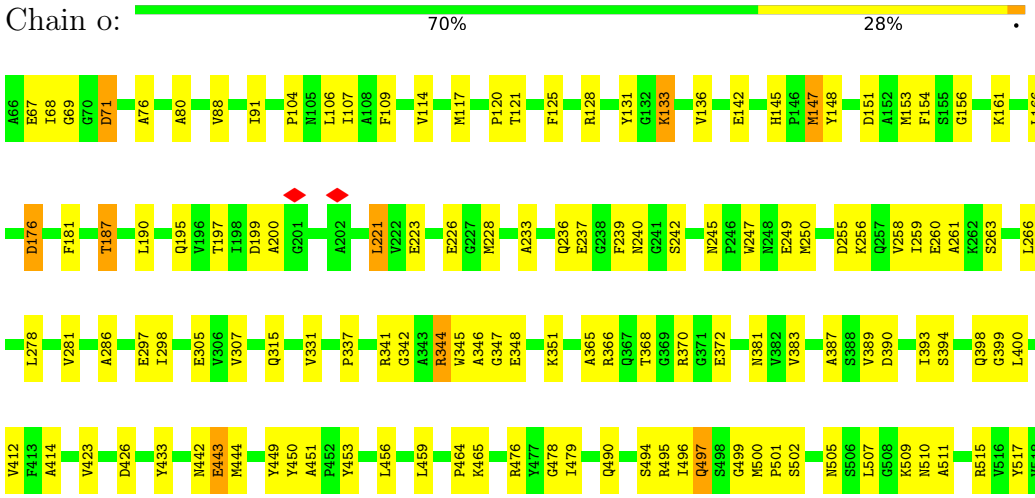
• Molecule 1: Mature major capsid protein

Chain n:



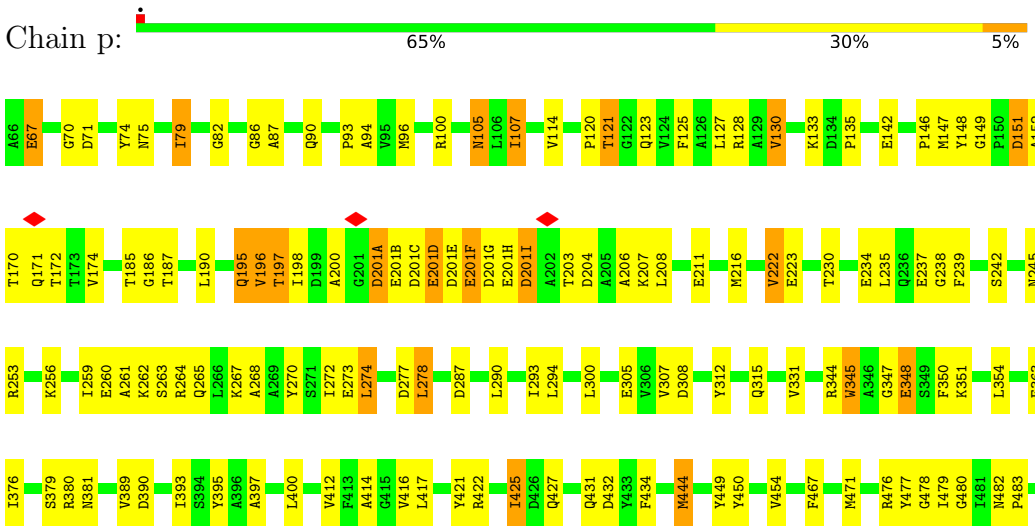
• Molecule 1: Mature major capsid protein

Chain o:



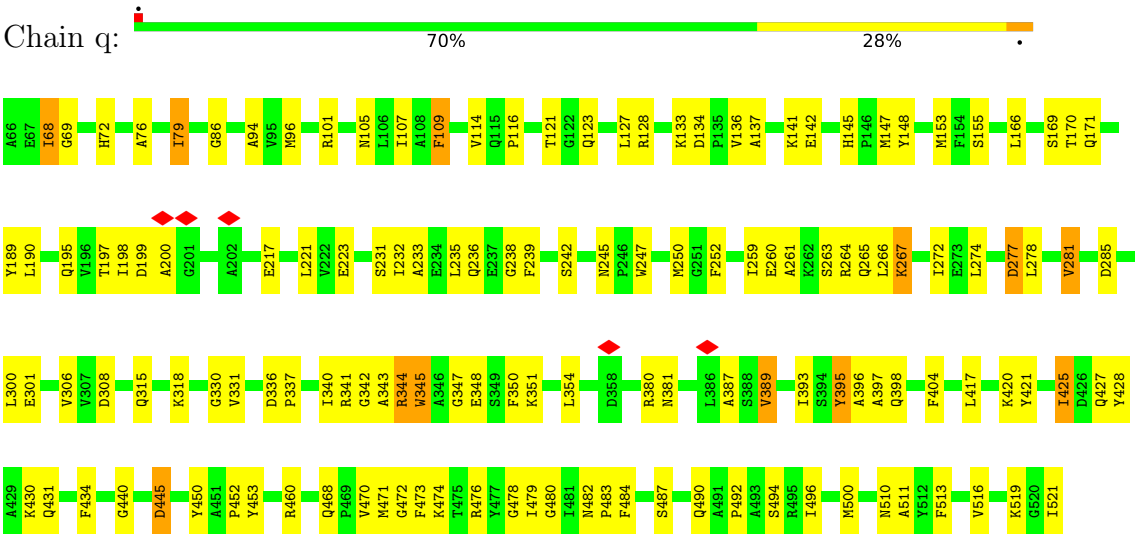
• Molecule 1: Mature major capsid protein

Chain p:



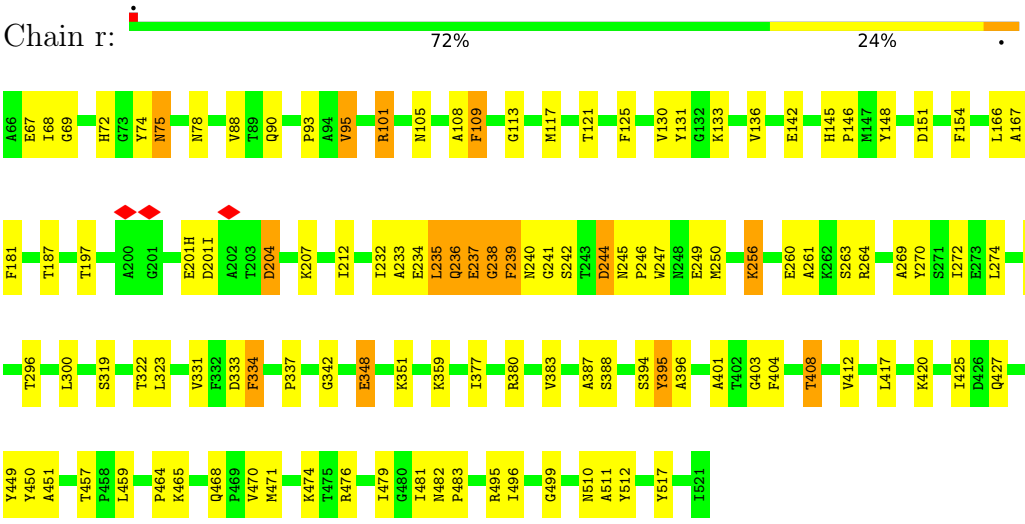
• Molecule 1: Mature major capsid protein

Chain q:



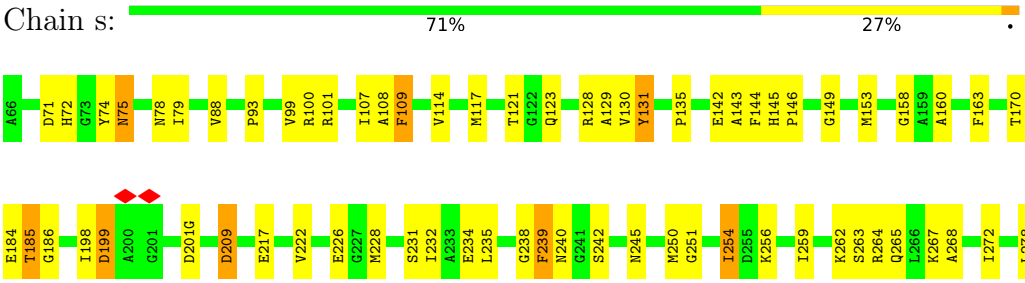
• Molecule 1: Mature major capsid protein

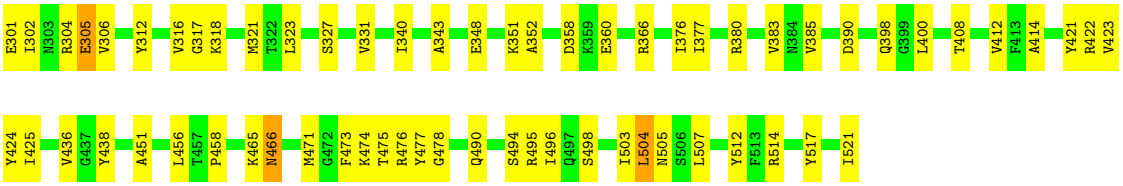
Chain r:



• Molecule 1: Mature major capsid protein

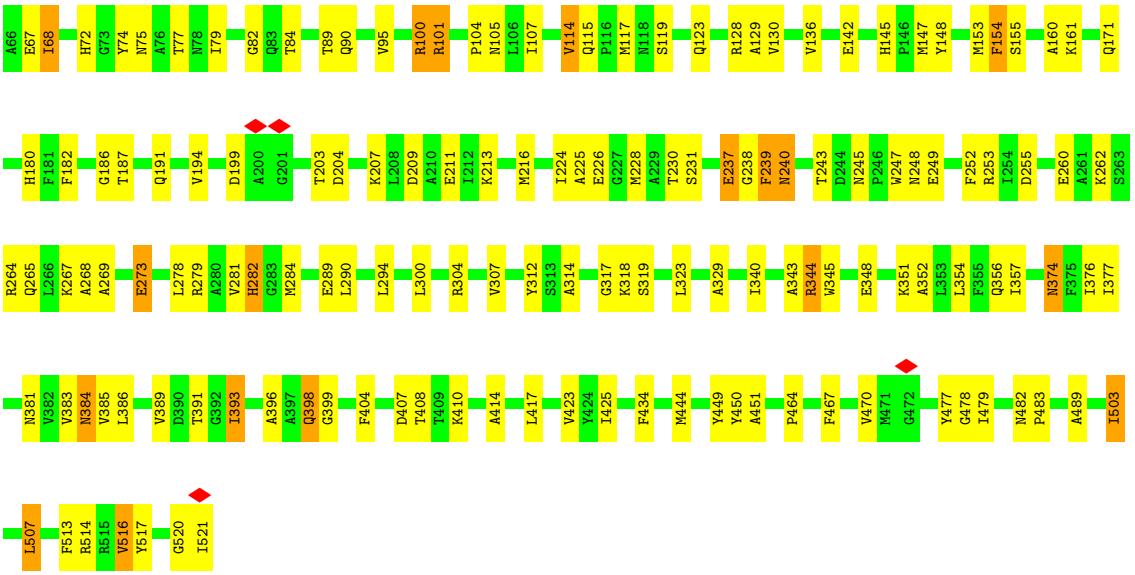
Chain s:





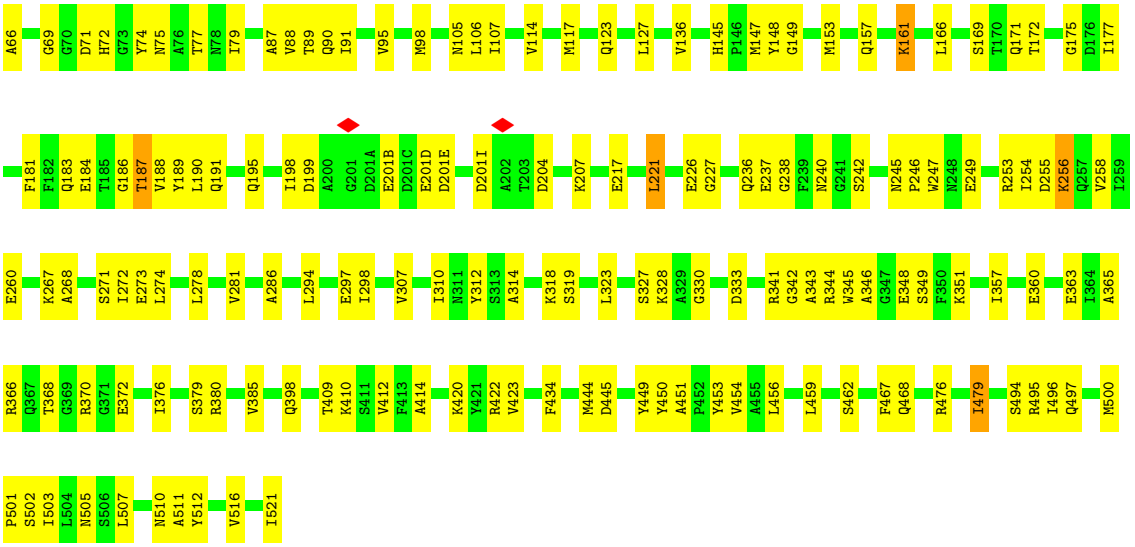
• Molecule 1: Mature major capsid protein

Chain t:



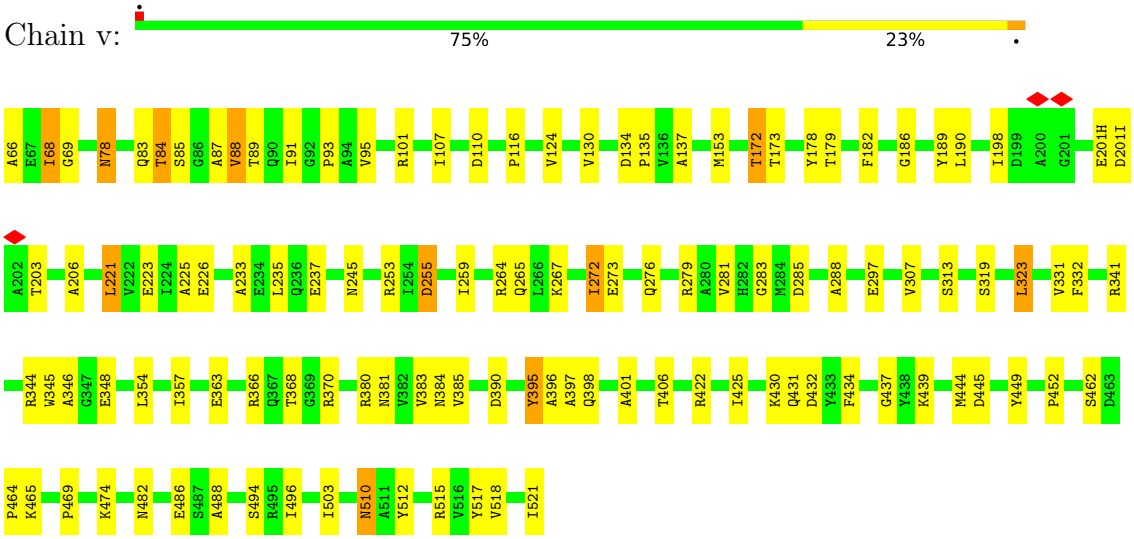
• Molecule 1: Mature major capsid protein

Chain u:



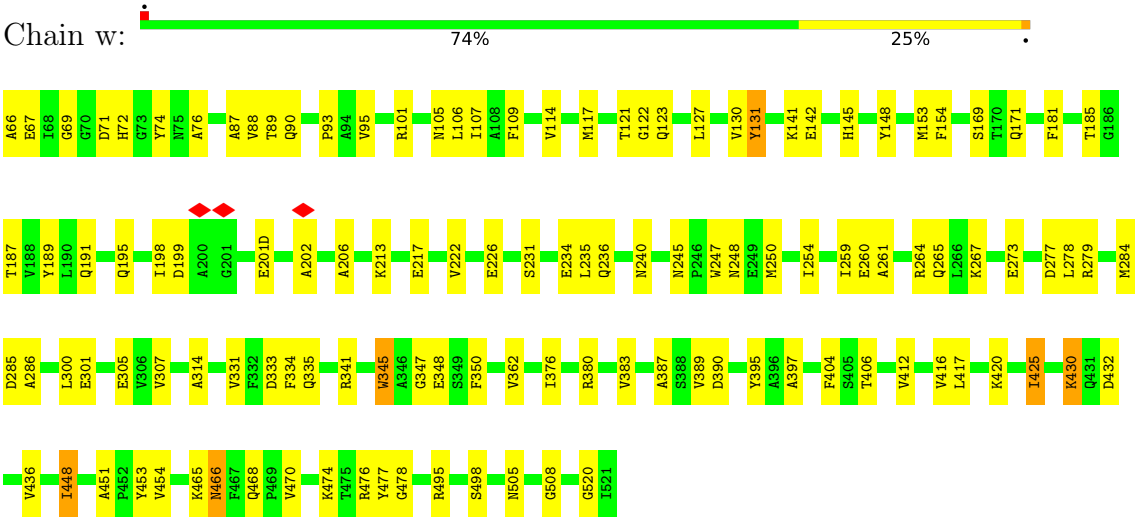
• Molecule 1: Mature major capsid protein

Chain v:



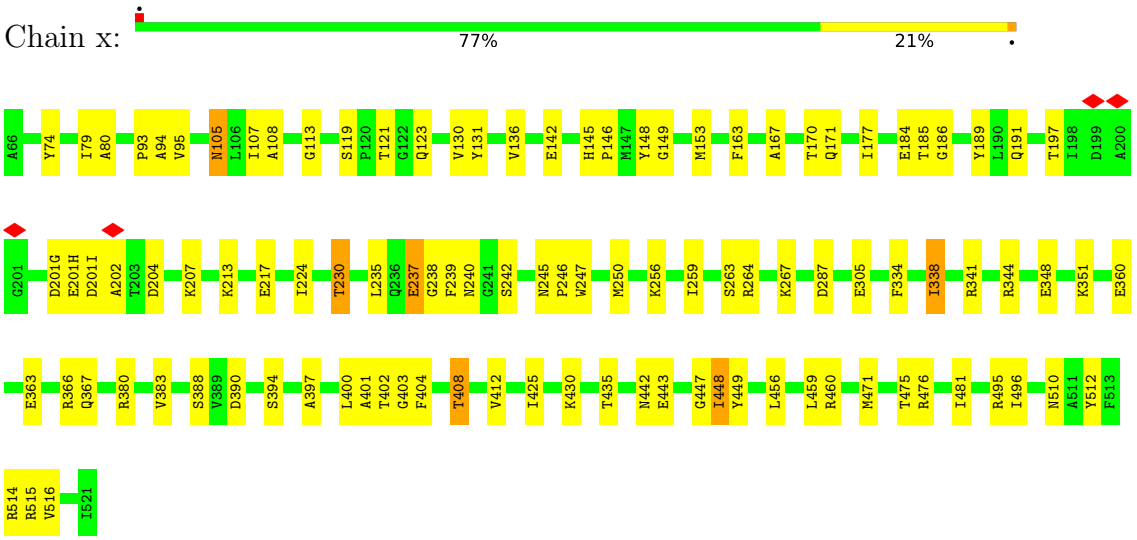
• Molecule 1: Mature major capsid protein

Chain w:



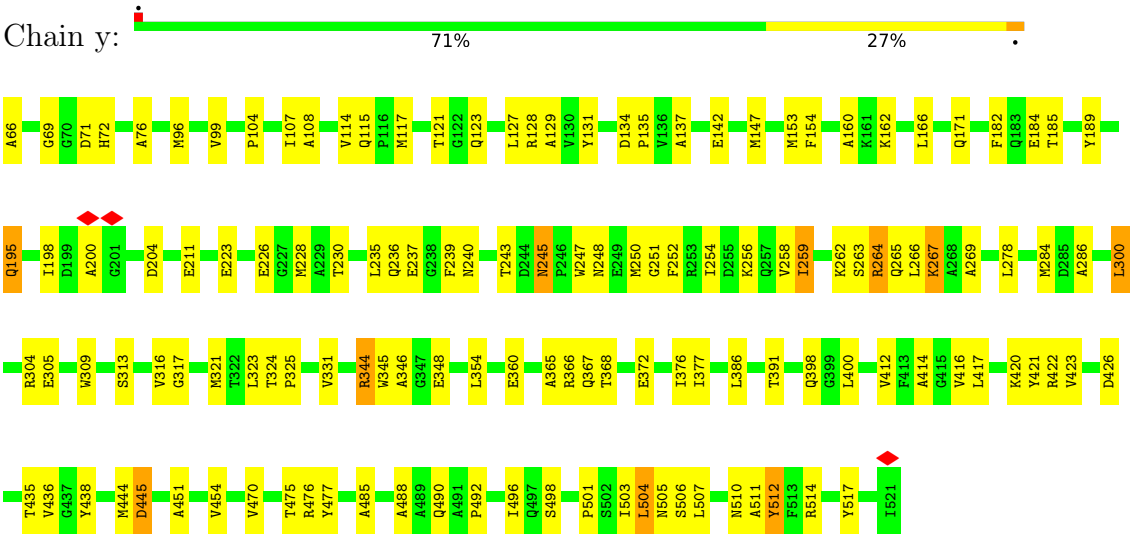
• Molecule 1: Mature major capsid protein

Chain x:



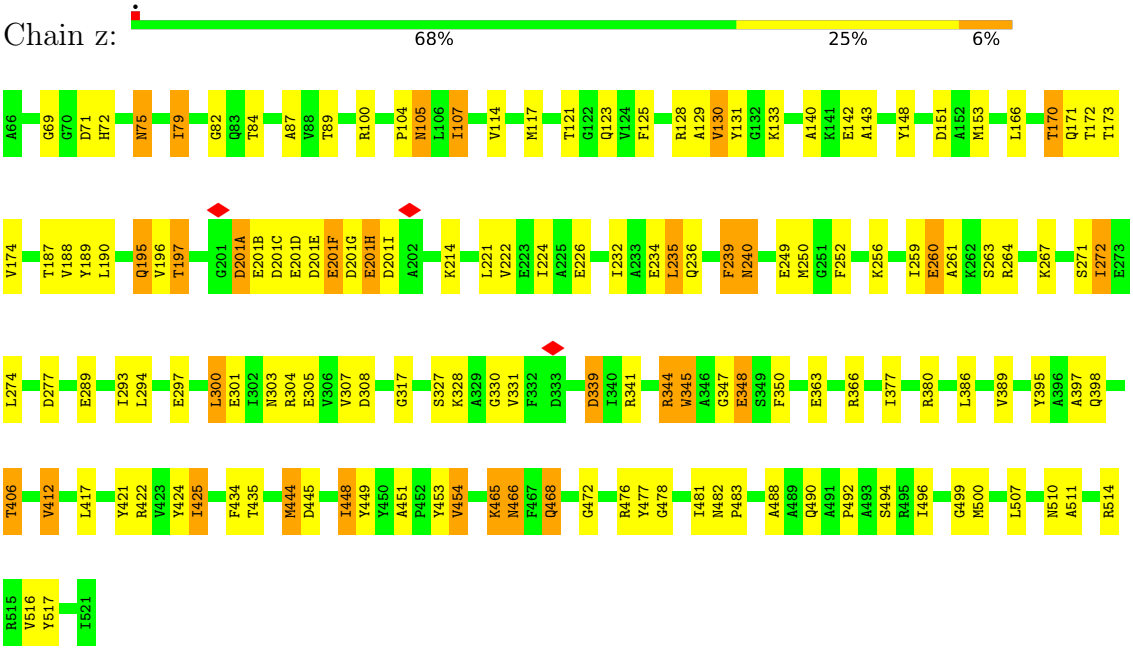
• Molecule 1: Mature major capsid protein

Chain y:



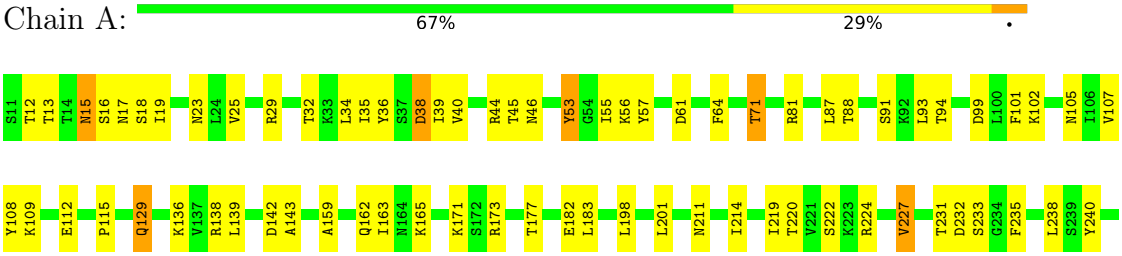
• Molecule 1: Mature major capsid protein

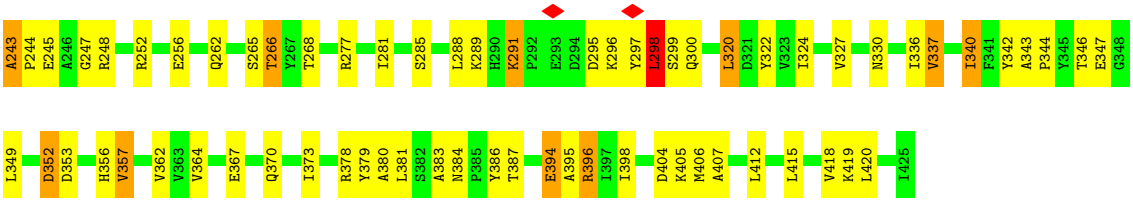
Chain z:



• Molecule 2: Mature capsid vertex protein

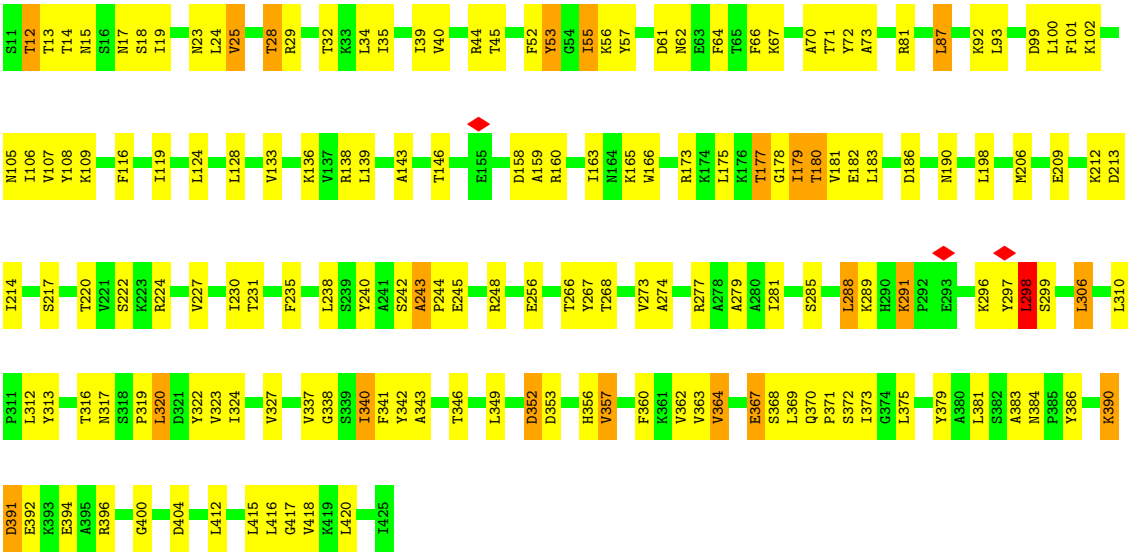
Chain A:





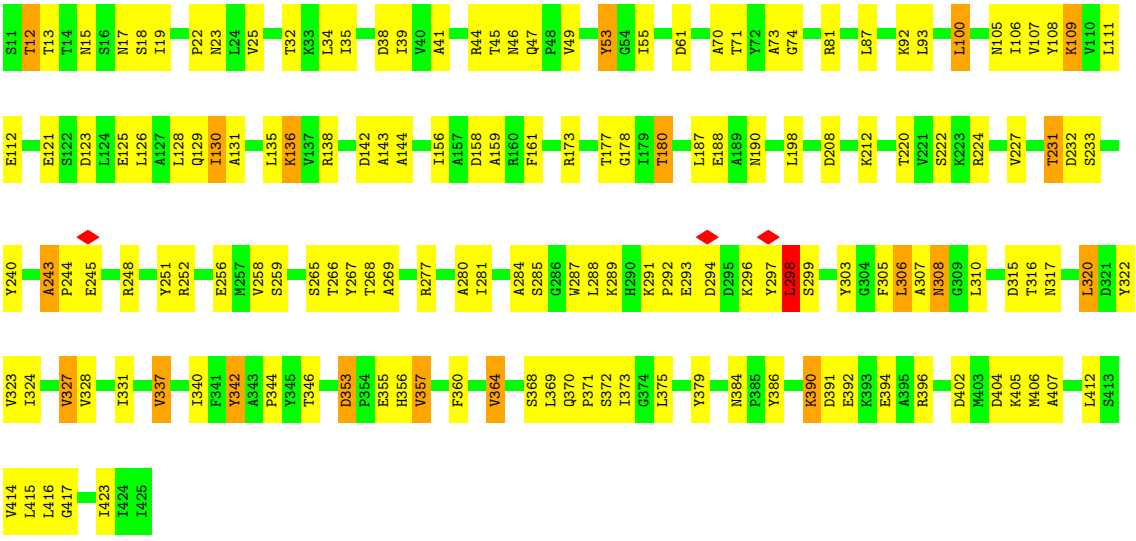
• Molecule 2: Mature capsid vertex protein

Chain B:



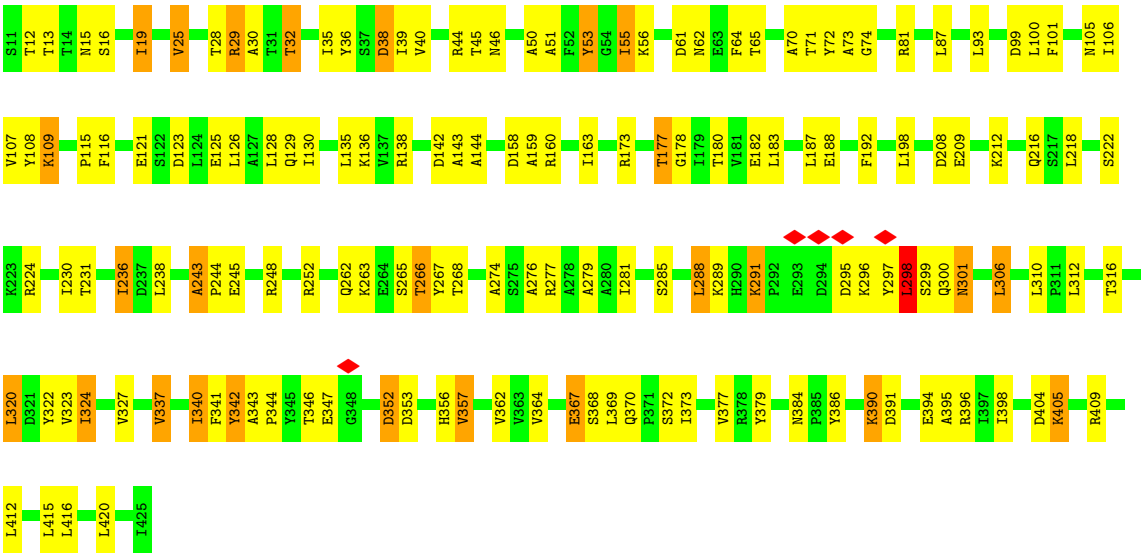
• Molecule 2: Mature capsid vertex protein

Chain C:



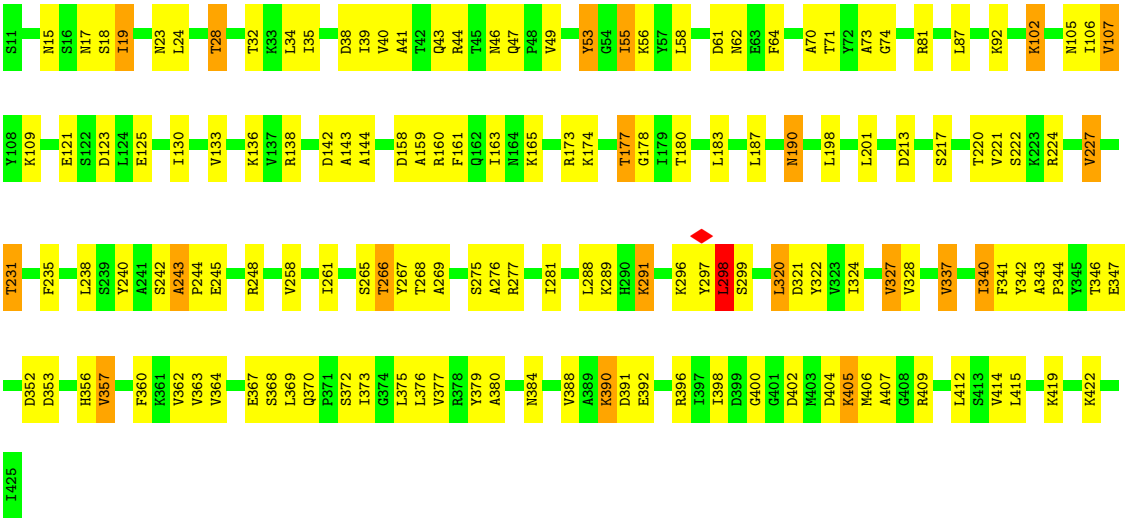
• Molecule 2: Mature capsid vertex protein

Chain D:



• Molecule 2: Mature capsid vertex protein

Chain a:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, D5	Depositor
Number of particles used	70340	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 ($e^-/Å^2$)	36	Depositor
Minimum defocus (nm)	600	Depositor
Maximum defocus (nm)	1800	Depositor
Magnification	64000	Depositor
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	0.084	Depositor
Minimum map value	-0.048	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.005	Depositor
Recommended contour level	0.014	Depositor
Map size (Å)	1332.0, 1332.0, 1332.0	wwPDB
Map dimensions	720, 720, 720	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.85, 1.85, 1.85	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	0	0.15	0/3569	0.32	0/4834
1	1	0.14	0/3569	0.31	0/4834
1	2	0.16	0/3569	0.35	1/4834 (0.0%)
1	3	0.14	0/3569	0.35	0/4834
1	4	0.14	0/3569	0.33	2/4834 (0.0%)
1	5	0.13	0/3569	0.32	0/4834
1	6	0.15	0/3569	0.32	0/4834
1	7	0.14	0/3569	0.30	0/4834
1	8	0.15	0/3569	0.38	1/4834 (0.0%)
1	9	0.22	0/3569	0.40	1/4834 (0.0%)
1	AA	0.15	0/3569	0.34	0/4834
1	AB	0.14	0/3569	0.33	0/4834
1	AC	0.14	0/3569	0.32	0/4834
1	AD	0.16	0/3376	0.32	1/4570 (0.0%)
1	AE	0.16	0/3569	0.33	0/4834
1	AF	0.16	0/3569	0.34	0/4834
1	AG	0.16	0/3569	0.32	0/4834
1	AH	0.23	1/3569 (0.0%)	0.44	2/4834 (0.0%)
1	AI	0.16	0/3569	0.33	0/4834
1	AJ	0.16	0/3569	0.35	0/4834
1	AK	0.16	0/3569	0.36	1/4834 (0.0%)
1	AL	0.17	0/3569	0.33	0/4834
1	AM	0.16	0/3569	0.31	0/4834
1	AN	0.16	0/3569	0.32	0/4834
1	AO	0.16	0/3569	0.33	0/4834
1	AP	0.16	0/3554	0.31	0/4813
1	AQ	0.16	0/3569	0.34	0/4834
1	AR	0.16	0/3569	0.33	0/4834
1	AS	0.15	0/3569	0.31	0/4834
1	AT	0.16	0/3569	0.39	2/4834 (0.0%)
1	AU	0.15	0/3569	0.32	0/4834
1	AV	0.16	0/3569	0.35	0/4834
1	AW	0.16	0/3569	0.35	1/4834 (0.0%)
1	AX	0.16	0/3569	0.35	0/4834

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
1	AY	0.16	0/3569	0.32	0/4834
1	AZ	0.16	0/3569	0.32	0/4834
1	Aa	0.15	0/3569	0.31	0/4834
1	Ab	0.16	0/3554	0.29	0/4813
1	Ac	0.16	0/3569	0.33	0/4834
1	Ad	0.16	0/3569	0.33	0/4834
1	Ae	0.16	0/3569	0.33	0/4834
1	Af	0.17	0/3569	0.40	2/4834 (0.0%)
1	Ag	0.15	0/3569	0.35	0/4834
1	Ah	0.23	0/3569	0.39	1/4834 (0.0%)
1	Ai	0.16	0/3569	0.35	0/4834
1	Aj	0.16	0/3569	0.33	0/4834
1	Ak	0.15	0/3569	0.31	0/4834
1	Al	0.16	0/3569	0.31	0/4834
1	Am	0.15	0/3569	0.31	0/4834
1	G	0.14	0/3569	0.34	0/4834
1	H	0.14	0/3569	0.33	0/4834
1	J	0.15	0/3569	0.33	1/4834 (0.0%)
1	K	0.16	0/3554	0.31	0/4813
1	L	0.16	0/3569	0.34	0/4834
1	M	0.15	0/3569	0.32	0/4834
1	N	0.15	0/3569	0.31	0/4834
1	O	0.16	0/3569	0.37	0/4834
1	P	0.14	0/3569	0.32	0/4834
1	Q	0.17	0/3569	0.37	1/4834 (0.0%)
1	R	0.14	0/3569	0.34	1/4834 (0.0%)
1	S	0.14	0/3569	0.32	0/4834
1	T	0.13	0/3569	0.32	0/4834
1	U	0.16	0/3554	0.30	0/4813
1	V	0.15	0/3569	0.33	0/4834
1	W	0.15	0/3569	0.34	0/4834
1	X	0.15	0/3569	0.32	0/4834
1	Y	0.16	0/3569	0.37	1/4834 (0.0%)
1	Z	0.16	0/3569	0.33	0/4834
1	b	0.26	0/3569	0.40	1/4834 (0.0%)
1	c	0.16	0/3569	0.34	0/4834
1	d	0.16	0/3569	0.33	0/4834
1	e	0.15	0/3569	0.31	0/4834
1	f	0.28	0/3569	0.43	2/4834 (0.0%)
1	g	0.15	0/3569	0.30	0/4834
1	h	0.15	0/3569	0.30	0/4834
1	i	0.16	0/3569	0.30	0/4834
1	j	0.16	0/3569	0.32	0/4834

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
1	k	0.14	0/3569	0.33	0/4834
1	l	0.15	0/3569	0.33	0/4834
1	m	0.15	0/3569	0.35	1/4834 (0.0%)
1	n	0.14	0/3569	0.32	0/4834
1	o	0.15	0/3569	0.31	0/4834
1	p	0.14	0/3569	0.37	0/4834
1	q	0.14	0/3569	0.34	0/4834
1	r	0.24	0/3569	0.41	1/4834 (0.0%)
1	s	0.15	0/3569	0.39	2/4834 (0.0%)
1	t	0.13	0/3569	0.31	0/4834
1	u	0.14	0/3569	0.35	0/4834
1	v	0.15	0/3554	0.29	0/4813
1	w	0.15	0/3569	0.32	0/4834
1	x	0.15	0/3569	0.32	0/4834
1	y	0.14	0/3569	0.30	0/4834
1	z	0.14	0/3569	0.36	1/4834 (0.0%)
2	A	0.16	0/3263	0.35	1/4430 (0.0%)
2	B	0.16	0/3263	0.34	0/4430
2	C	0.16	0/3263	0.33	0/4430
2	D	0.16	0/3263	0.35	1/4430 (0.0%)
2	a	0.15	0/3263	0.34	0/4430
All	All	0.16	1/347964 (0.0%)	0.34	29/471343 (0.0%)

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AH	196	VAL	CA-C	-5.10	1.47	1.53

All (29) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	r	239	PHE	N-CA-C	-10.45	100.53	113.38
1	AH	199	ASP	N-CA-C	-9.30	99.63	111.90
1	8	198	ILE	N-CA-C	-8.45	105.09	113.20
1	f	201(I)	ASP	N-CA-C	-6.80	104.04	112.47
1	Q	204	ASP	N-CA-C	-6.77	103.09	111.75
1	AT	338	ILE	N-CA-C	-6.73	107.32	113.71
1	AD	199	ASP	N-CA-C	-6.69	106.99	114.62
1	J	111	ILE	N-CA-C	-6.65	107.39	113.71
1	s	239	PHE	CB-CA-C	-6.59	108.96	116.54
1	AH	196	VAL	N-CA-C	-6.50	102.86	110.21
1	Af	198	ILE	N-CA-C	-6.30	107.72	113.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AK	232	ILE	N-CA-C	-6.28	106.20	112.17
1	s	232	ILE	N-CA-C	-6.15	107.26	113.47
1	R	232	ILE	N-CA-C	-6.04	106.43	112.17
1	m	232	ILE	N-CA-C	-5.99	106.92	112.43
1	Af	136	VAL	N-CA-C	-5.94	108.06	113.71
1	AT	201(E)	ASP	CB-CA-C	-5.94	109.71	116.54
1	2	201(H)	GLU	N-CA-C	-5.74	106.92	114.04
1	Y	198	ILE	N-CA-C	-5.72	108.28	113.71
1	9	199	ASP	N-CA-C	-5.70	104.27	111.11
1	f	201	GLY	N-CA-C	5.68	120.04	112.77
1	AW	231	SER	N-CA-C	-5.54	107.77	114.75
1	Ah	239	PHE	N-CA-C	-5.33	104.83	112.13
1	b	239	PHE	N-CA-C	-5.29	106.83	113.28
1	z	240	ASN	CB-CA-C	-5.27	110.48	116.54
1	4	467	PHE	CA-C-N	-5.17	110.20	122.31
1	4	467	PHE	C-N-CA	-5.17	110.20	122.31
2	D	300	GLN	CB-CA-C	-5.14	109.68	115.79
2	A	300	GLN	CB-CA-C	-5.08	109.75	115.79

There are no chirality outliers.

There are no planarity outliers.

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	0	3501	0	3415	95	0
1	1	3501	0	3415	102	0
1	2	3501	0	3415	92	0
1	3	3501	0	3415	74	0
1	4	3501	0	3415	101	0
1	5	3501	0	3415	93	0
1	6	3501	0	3415	82	0
1	7	3501	0	3415	86	0
1	8	3501	0	3415	110	0
1	9	3501	0	3415	137	0
1	AA	3501	0	3415	83	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AB	3501	0	3415	104	0
1	AC	3501	0	3415	97	0
1	AD	3312	0	3239	83	0
1	AE	3501	0	3415	89	0
1	AF	3501	0	3415	84	0
1	AG	3501	0	3415	73	0
1	AH	3501	0	3415	126	0
1	AI	3501	0	3415	87	0
1	AJ	3501	0	3415	81	0
1	AK	3501	0	3415	85	0
1	AL	3501	0	3415	85	0
1	AM	3501	0	3415	101	0
1	AN	3501	0	3415	76	0
1	AO	3501	0	3415	98	0
1	AP	3488	0	3401	92	0
1	AQ	3501	0	3415	97	0
1	AR	3501	0	3415	81	0
1	AS	3501	0	3415	88	0
1	AT	3501	0	3415	104	0
1	AU	3501	0	3415	99	0
1	AV	3501	0	3415	82	0
1	AW	3501	0	3415	92	0
1	AX	3501	0	3415	82	0
1	AY	3501	0	3415	85	0
1	AZ	3501	0	3415	82	0
1	Aa	3501	0	3415	85	0
1	Ab	3488	0	3401	84	0
1	Ac	3501	0	3415	92	0
1	Ad	3501	0	3415	76	0
1	Ae	3501	0	3415	76	0
1	Af	3501	0	3415	108	0
1	Ag	3501	0	3415	98	0
1	Ah	3501	0	3415	80	0
1	Ai	3501	0	3415	84	0
1	Aj	3501	0	3415	80	0
1	Ak	3501	0	3415	86	0
1	Al	3501	0	3415	90	0
1	Am	3501	0	3415	83	0
1	G	3501	0	3415	110	0
1	H	3501	0	3415	83	0
1	J	3501	0	3415	80	0
1	K	3488	0	3401	91	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	L	3501	0	3415	88	0
1	M	3501	0	3415	80	0
1	N	3501	0	3415	72	0
1	O	3501	0	3415	103	0
1	P	3501	0	3415	107	0
1	Q	3501	0	3415	81	0
1	R	3501	0	3415	88	0
1	S	3501	0	3415	91	0
1	T	3501	0	3415	98	0
1	U	3488	0	3401	106	0
1	V	3501	0	3415	108	0
1	W	3501	0	3415	80	0
1	X	3501	0	3415	80	0
1	Y	3501	0	3415	115	0
1	Z	3501	0	3415	95	0
1	b	3501	0	3415	99	0
1	c	3501	0	3415	106	0
1	d	3501	0	3415	87	0
1	e	3501	0	3415	88	0
1	f	3501	0	3415	161	0
1	g	3501	0	3415	93	0
1	h	3501	0	3415	89	0
1	i	3501	0	3415	85	0
1	j	3501	0	3415	94	0
1	k	3501	0	3415	112	0
1	l	3501	0	3415	90	0
1	m	3501	0	3415	97	0
1	n	3501	0	3415	93	0
1	o	3501	0	3415	95	0
1	p	3501	0	3415	109	0
1	q	3501	0	3415	102	0
1	r	3501	0	3415	105	0
1	s	3501	0	3415	97	0
1	t	3501	0	3415	102	0
1	u	3501	0	3415	106	0
1	v	3488	0	3401	91	0
1	w	3501	0	3415	99	0
1	x	3501	0	3415	66	0
1	y	3501	0	3415	85	0
1	z	3501	0	3415	98	0
2	A	3208	0	3205	99	0
2	B	3208	0	3205	110	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	C	3208	0	3205	100	0
2	D	3208	0	3205	109	0
2	a	3208	0	3205	105	0
All	All	341379	0	333374	7600	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 11.

All (7600) 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:Y:201(I):ASP:O	1:Y:203:THR:HG22	1.38	1.23
1:T:456:LEU:HA	1:T:475:THR:CG2	1.77	1.14
1:f:172:THR:H	1:f:197:THR:HB	1.14	1.10
1:r:238:GLY:HA2	1:r:242:SER:HB2	1.38	1.04
1:c:84:THR:HG22	1:c:85:SER:H	1.16	1.04
1:f:203:THR:HG22	1:f:205:ALA:HB3	1.40	1.04
1:Ag:84:THR:HG22	1:Ag:85:SER:H	1.19	1.03
1:R:84:THR:HG22	1:R:85:SER:H	1.24	1.02
1:AW:84:THR:HG22	1:AW:85:SER:H	1.27	0.99
1:k:84:THR:HG22	1:k:85:SER:H	1.24	0.98
1:Q:203:THR:HG22	1:Q:205:ALA:H	1.28	0.96
1:2:201(H):GLU:O	1:2:201(I):ASP:HB2	1.65	0.95
1:f:172:THR:N	1:f:197:THR:HB	1.82	0.94
1:Z:345:TRP:HE3	1:Z:347:GLY:H	1.18	0.92
1:c:84:THR:HG22	1:c:85:SER:N	1.86	0.90
1:f:261:ALA:HA	1:f:478:GLY:HA3	1.53	0.89
1:AD:130:VAL:HG21	1:AD:135:PRO:HA	1.55	0.89
1:k:84:THR:HG22	1:k:85:SER:N	1.86	0.88
1:AW:84:THR:HG22	1:AW:85:SER:N	1.87	0.88
1:AH:198:ILE:HG13	1:AH:200:ALA:H	1.38	0.87
1:R:84:THR:HG22	1:R:85:SER:N	1.87	0.87
1:b:236:GLN:HB3	1:b:247:TRP:HE1	1.39	0.86
1:Y:261:ALA:HA	1:Y:478:GLY:HA3	1.54	0.86
1:T:456:LEU:HA	1:T:475:THR:HG21	1.54	0.86
1:Ag:345:TRP:HE3	1:Ag:347:GLY:H	1.24	0.86
1:AU:345:TRP:HE3	1:AU:347:GLY:H	1.22	0.85
1:k:345:TRP:HE3	1:k:347:GLY:H	1.24	0.85
1:AQ:345:TRP:HE3	1:AQ:347:GLY:H	1.23	0.84
1:c:84:THR:CG2	1:c:85:SER:H	1.90	0.84
1:M:380:ARG:HH11	1:M:408:THR:HG21	1.41	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ag:84:THR:HG22	1:Ag:85:SER:N	1.88	0.83
1:Y:203:THR:HG23	1:Y:206:ALA:HB3	1.59	0.83
1:9:345:TRP:HE3	1:9:347:GLY:H	1.26	0.83
1:2:343:ALA:HB1	1:2:348:GLU:HB3	1.60	0.83
1:Z:66:ALA:N	1:e:240:ASN:HD21	1.78	0.82
1:2:201(H):GLU:O	1:2:201(I):ASP:CB	2.27	0.82
1:W:380:ARG:HH11	1:W:408:THR:HG21	1.44	0.82
1:8:242:SER:HB2	1:8:245:ASN:HD21	1.44	0.82
1:k:84:THR:CG2	1:k:85:SER:H	1.93	0.81
1:7:265:GLN:HE21	1:7:474:LYS:HE3	1.46	0.81
1:AW:84:THR:CG2	1:AW:85:SER:H	1.94	0.80
1:b:236:GLN:HB3	1:b:247:TRP:NE1	1.95	0.80
1:f:202:ALA:O	1:f:203:THR:C	2.24	0.80
1:9:269:ALA:HB1	1:G:66:ALA:HB1	1.64	0.80
1:R:84:THR:CG2	1:R:85:SER:H	1.93	0.80
1:AH:93:PRO:HB2	1:AI:123:GLN:HG3	1.64	0.80
1:Ag:84:THR:CG2	1:Ag:85:SER:H	1.94	0.79
1:6:90:GLN:HG2	1:n:281:VAL:HG21	1.65	0.79
1:8:149:GLY:H	1:8:186:GLY:HA3	1.48	0.79
1:5:190:LEU:HB3	1:5:221:LEU:HB2	1.64	0.78
2:B:248:ARG:HG3	2:B:285:SER:HB2	1.66	0.78
1:O:261:ALA:HA	1:O:478:GLY:HA3	1.63	0.78
1:P:345:TRP:HE3	1:P:347:GLY:H	1.31	0.78
1:T:169:SER:H	1:T:199:ASP:HB3	1.49	0.78
1:Q:383:VAL:HG21	1:Q:425:ILE:HG22	1.66	0.77
1:z:261:ALA:HA	1:z:478:GLY:HA3	1.66	0.77
2:a:337:VAL:HG23	2:a:384:ASN:HD21	1.49	0.77
1:AP:237:GLU:HG2	1:AP:247:TRP:H	1.49	0.77
1:L:482:ASN:ND2	1:L:483:PRO:O	2.18	0.77
1:w:131:TYR:HB3	1:w:250:MET:HG2	1.66	0.77
1:Af:261:ALA:HA	1:Af:478:GLY:HA3	1.65	0.77
1:Ag:116:PRO:HA	1:Ag:452:PRO:HD2	1.67	0.76
1:z:107:ILE:HD12	1:z:307:VAL:HG21	1.65	0.76
1:AD:385:VAL:HG21	1:AD:521:ILE:HD11	1.67	0.76
2:A:248:ARG:HG3	2:A:285:SER:HB2	1.65	0.76
1:AZ:445:ASP:OD1	1:AZ:445:ASP:N	2.19	0.76
1:q:345:TRP:HE3	1:q:347:GLY:H	1.34	0.76
1:Y:123:GLN:HG3	1:c:93:PRO:HB2	1.68	0.76
1:AI:345:TRP:HE3	1:AI:347:GLY:H	1.34	0.76
1:AP:130:VAL:HG21	1:AP:135:PRO:HA	1.68	0.76
1:K:237:GLU:HG3	1:e:465:LYS:HB3	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:456:LEU:HD23	1:T:475:THR:CG2	2.16	0.75
1:Y:274:LEU:HD23	1:j:67:GLU:HG3	1.68	0.75
1:AO:190:LEU:HB3	1:AO:221:LEU:HB2	1.68	0.75
1:c:360:GLU:OE1	1:c:514:ARG:NH1	2.20	0.75
1:1:345:TRP:HE3	1:1:347:GLY:H	1.34	0.75
1:4:204:ASP:OD1	1:4:204:ASP:N	2.20	0.75
1:8:345:TRP:HE3	1:8:347:GLY:H	1.33	0.75
1:AD:368:THR:HG22	1:AD:370:ARG:HG3	1.69	0.75
1:AM:190:LEU:HB3	1:AM:221:LEU:HB2	1.66	0.75
1:c:321:MET:SD	1:c:366:ARG:NH1	2.60	0.75
1:f:271:SER:HA	1:s:239:PHE:HZ	1.51	0.75
1:O:294:LEU:HD23	1:P:250:MET:HE2	1.68	0.75
1:AH:123:GLN:HG3	1:AK:93:PRO:HB2	1.69	0.75
1:p:235:LEU:O	1:p:245:ASN:ND2	2.20	0.75
1:U:301:GLU:HG2	1:V:152:ALA:HA	1.70	0.74
1:AH:294:LEU:HD23	1:AI:250:MET:HE2	1.69	0.74
1:AT:270:TYR:HA	1:Aa:67:GLU:HB3	1.70	0.74
1:0:238:GLY:HA2	1:0:242:SER:HB3	1.69	0.74
1:1:428:TYR:O	1:1:430:LYS:NZ	2.21	0.74
1:AN:336:ASP:HB3	1:AN:339:ASP:HB2	1.68	0.74
1:Ai:268:ALA:HB1	1:Ai:290:LEU:HD23	1.70	0.74
2:a:70:ALA:HB2	2:a:106:ILE:HG12	1.68	0.74
1:AK:153:MET:HE2	1:AK:226:GLU:H	1.51	0.74
1:AJ:344:ARG:HH21	1:AK:344:ARG:HH12	1.35	0.74
1:Ae:237:GLU:HG2	1:Ae:246:PRO:HA	1.69	0.74
1:f:235:LEU:O	1:f:245:ASN:ND2	2.21	0.74
1:f:201(C):ASP:HA	1:f:207:LYS:HZ1	1.52	0.74
1:h:265:GLN:HE21	1:h:474:LYS:HE3	1.51	0.74
1:AZ:486:GLU:HG3	1:AZ:509:LYS:HB3	1.70	0.74
1:Z:397:ALA:HB1	1:d:393:ILE:HG23	1.70	0.74
1:AP:276:GLN:HG2	1:AP:279:ARG:HH22	1.52	0.73
1:AE:278:LEU:HD23	1:AE:286:ALA:HB2	1.70	0.73
1:AJ:93:PRO:HB2	1:AK:123:GLN:HG3	1.69	0.73
1:Ae:240:ASN:OD1	1:Am:66:ALA:N	2.21	0.73
1:AC:67:GLU:HB3	1:g:270:TYR:HA	1.70	0.73
2:B:222:SER:O	2:B:224:ARG:NH1	2.21	0.73
1:f:264:ARG:NH2	1:f:305:GLU:OE1	2.20	0.73
1:AT:482:ASN:ND2	1:AT:483:PRO:O	2.22	0.73
1:Aa:237:GLU:HG2	1:Aa:246:PRO:HA	1.69	0.73
1:G:380:ARG:HH11	1:G:408:THR:HG21	1.52	0.73
1:G:482:ASN:ND2	1:G:483:PRO:O	2.22	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:482:ASN:ND2	1:Y:483:PRO:O	2.21	0.73
1:Z:235:LEU:O	1:Z:245:ASN:ND2	2.21	0.73
1:AA:383:VAL:HG21	1:AA:425:ILE:HG12	1.71	0.73
1:Al:318:LYS:NZ	1:Al:327:SER:OG	2.20	0.73
1:n:345:TRP:HB3	1:n:348:GLU:HG3	1.69	0.73
1:w:345:TRP:HE3	1:w:347:GLY:H	1.35	0.73
1:AH:345:TRP:HE3	1:AH:347:GLY:H	1.36	0.73
1:X:240:ASN:OD1	1:j:66:ALA:N	2.22	0.73
1:Y:203:THR:HG23	1:Y:206:ALA:CB	2.17	0.73
1:Y:398:GLN:HB3	1:Z:351:LYS:HE3	1.70	0.73
1:AL:264:ARG:NH1	1:AL:477:TYR:OH	2.22	0.73
1:K:153:MET:HE2	1:K:226:GLU:HG2	1.71	0.73
1:AH:194:VAL:HG12	1:AH:195:GLN:H	1.54	0.73
1:AW:142:GLU:HB2	1:AW:490:GLN:HB3	1.71	0.73
1:Af:270:TYR:HA	1:Am:67:GLU:HB3	1.71	0.73
2:C:138:ARG:NH1	2:a:404:ASP:OD1	2.21	0.73
1:Y:105:ASN:OD1	1:Y:105:ASN:N	2.21	0.73
1:i:422:ARG:NH2	1:i:424:TYR:OH	2.21	0.73
1:8:93:PRO:HB2	1:9:123:GLN:HG3	1.71	0.72
1:AG:321:MET:SD	1:AG:366:ARG:NH1	2.62	0.72
1:Ag:235:LEU:O	1:Ag:245:ASN:ND2	2.22	0.72
1:H:383:VAL:HG21	1:H:425:ILE:HG12	1.71	0.72
1:T:274:LEU:HD23	1:r:69:GLY:HA2	1.71	0.72
1:f:201(C):ASP:HA	1:f:207:LYS:NZ	2.02	0.72
1:x:235:LEU:O	1:x:245:ASN:ND2	2.20	0.72
1:i:235:LEU:O	1:i:245:ASN:ND2	2.21	0.72
1:o:414:ALA:HB3	1:o:423:VAL:HB	1.71	0.72
1:P:482:ASN:ND2	1:P:483:PRO:O	2.23	0.72
1:T:456:LEU:CA	1:T:475:THR:CG2	2.64	0.72
1:f:197:THR:O	1:f:198:ILE:HG23	1.90	0.72
1:Af:294:LEU:HD23	1:Ag:250:MET:HE2	1.71	0.72
1:f:171:GLN:HA	1:f:197:THR:OG1	1.89	0.72
1:AR:235:LEU:O	1:AR:245:ASN:ND2	2.23	0.72
1:Ac:279:ARG:HH21	1:Ac:285:ASP:HB3	1.55	0.72
1:Ad:235:LEU:O	1:Ad:245:ASN:ND2	2.22	0.72
1:K:515:ARG:NH2	1:K:517:TYR:OH	2.23	0.72
1:O:123:GLN:HG3	1:R:93:PRO:HB2	1.72	0.72
1:S:344:ARG:NH1	1:S:348:GLU:OE2	2.23	0.72
1:Af:123:GLN:HG3	1:Ai:93:PRO:HB2	1.71	0.72
1:0:344:ARG:HH21	1:AA:344:ARG:HH12	1.38	0.71
1:Aj:344:ARG:NH1	1:Aj:348:GLU:OE2	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:4:232:ILE:HD11	1:4:245:ASN:HD21	1.55	0.71
1:T:456:LEU:HD23	1:T:475:THR:HG23	1.71	0.71
1:q:235:LEU:O	1:q:245:ASN:ND2	2.24	0.71
1:2:380:ARG:HH11	1:2:408:THR:HG21	1.53	0.71
1:AK:336:ASP:HB3	1:AK:339:ASP:HB2	1.71	0.71
1:Y:201(I):ASP:O	1:Y:203:THR:CG2	2.30	0.71
1:f:196:VAL:HG21	1:f:215:GLN:OE1	1.90	0.71
1:9:235:LEU:O	1:9:245:ASN:ND2	2.23	0.71
1:AH:149:GLY:H	1:AH:186:GLY:HA3	1.55	0.71
1:f:417:LEU:HB3	1:f:421:TYR:HB2	1.73	0.71
1:G:460:ARG:HE	1:G:471:MET:HB2	1.56	0.71
1:AV:235:LEU:O	1:AV:245:ASN:ND2	2.23	0.71
2:B:243:ALA:HB3	2:B:245:GLU:HG3	1.73	0.71
1:K:482:ASN:ND2	1:K:483:PRO:O	2.24	0.71
1:f:203:THR:HB	1:f:206:ALA:CB	2.20	0.71
1:h:235:LEU:O	1:h:245:ASN:ND2	2.24	0.71
1:9:72:HIS:HD2	1:9:79:ILE:HG13	1.55	0.71
1:AU:482:ASN:ND2	1:AU:483:PRO:O	2.23	0.71
1:AZ:367:GLN:HB3	1:AZ:511:ALA:HB1	1.72	0.71
1:T:128:ARG:NH1	1:T:490:GLN:O	2.24	0.71
1:X:321:MET:SD	1:X:366:ARG:NH1	2.63	0.71
1:h:331:VAL:HG11	1:h:519:LYS:HE2	1.72	0.71
1:t:279:ARG:NH1	1:t:284:MET:O	2.23	0.71
1:1:68:ILE:HG23	1:5:240:ASN:HD22	1.55	0.71
1:AO:237:GLU:HG2	1:AO:246:PRO:HA	1.72	0.71
1:L:169:SER:H	1:L:199:ASP:HB2	1.56	0.71
1:Ae:321:MET:SD	1:Ae:366:ARG:NH1	2.63	0.70
2:C:322:TYR:HA	2:C:417:GLY:HA2	1.73	0.70
1:Q:380:ARG:HH11	1:Q:408:THR:HG21	1.55	0.70
1:R:235:LEU:O	1:R:245:ASN:ND2	2.24	0.70
1:v:153:MET:HE2	1:v:226:GLU:HG2	1.72	0.70
1:0:495:ARG:NH2	1:g:87:ALA:O	2.23	0.70
1:AH:235:LEU:O	1:AH:245:ASN:ND2	2.23	0.70
1:H:240:ASN:OD1	1:J:66:ALA:N	2.24	0.70
1:b:480:GLY:HA2	1:b:501:PRO:HD3	1.73	0.70
1:d:345:TRP:HB3	1:d:348:GLU:HG3	1.73	0.70
1:t:482:ASN:ND2	1:t:483:PRO:O	2.24	0.70
1:9:201(B):GLU:HB2	1:9:207:LYS:HE2	1.72	0.70
1:AS:235:LEU:O	1:AS:245:ASN:ND2	2.24	0.70
1:Ad:237:GLU:HG2	1:Ad:246:PRO:HA	1.74	0.70
1:Z:116:PRO:HA	1:Z:452:PRO:HD2	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f:482:ASN:ND2	1:f:483:PRO:O	2.25	0.70
1:AU:96:MET:SD	1:AX:115:GLN:NE2	2.64	0.70
1:Ah:482:ASN:ND2	1:Ah:483:PRO:O	2.24	0.70
1:P:149:GLY:H	1:P:186:GLY:HA3	1.56	0.70
1:p:261:ALA:HA	1:p:478:GLY:HA3	1.73	0.70
2:A:222:SER:O	2:A:224:ARG:NH1	2.25	0.70
1:AB:343:ALA:HB1	1:AB:348:GLU:HG3	1.73	0.70
1:AH:105:ASN:N	1:AH:105:ASN:OD1	2.25	0.70
1:AO:265:GLN:HG2	1:AO:474:LYS:HG2	1.72	0.70
1:r:236:GLN:O	1:r:237:GLU:HB2	1.91	0.70
1:n:482:ASN:ND2	1:n:483:PRO:O	2.25	0.70
1:p:482:ASN:ND2	1:p:483:PRO:O	2.24	0.70
1:q:343:ALA:HB1	1:q:348:GLU:HB3	1.72	0.70
1:AT:123:GLN:HG3	1:AW:93:PRO:HB2	1.74	0.70
1:Ah:160:ALA:HB2	1:Ah:228:MET:HE3	1.73	0.70
1:Al:237:GLU:HG2	1:Al:246:PRO:HA	1.73	0.70
1:AM:501:PRO:HA	1:AM:505:ASN:HD21	1.57	0.70
2:B:173:ARG:HH21	2:B:209:GLU:HG3	1.57	0.70
2:D:243:ALA:HB3	2:D:245:GLU:HG3	1.74	0.70
1:L:101:ARG:HH21	1:g:146:PRO:HD2	1.56	0.70
1:N:240:ASN:OD1	1:h:66:ALA:N	2.25	0.70
1:r:482:ASN:ND2	1:r:483:PRO:O	2.25	0.70
1:6:385:VAL:HG21	1:6:521:ILE:HD12	1.74	0.69
1:9:287:ASP:OD2	1:9:460:ARG:NH2	2.25	0.69
1:AT:72:HIS:NE2	1:AT:90:GLN:OE1	2.24	0.69
1:i:264:ARG:NH1	1:i:477:TYR:OH	2.24	0.69
1:q:482:ASN:ND2	1:q:483:PRO:O	2.24	0.69
1:2:383:VAL:HG21	1:2:425:ILE:HG22	1.74	0.69
1:Ag:397:ALA:HB1	1:Aj:393:ILE:HG23	1.72	0.69
2:B:227:VAL:H	2:B:231:THR:HB	1.56	0.69
2:C:243:ALA:HB3	2:C:245:GLU:HG3	1.72	0.69
1:p:93:PRO:HB2	1:q:123:GLN:HG3	1.75	0.69
1:Ag:495:ARG:NH1	1:Am:86:GLY:O	2.24	0.69
1:W:344:ARG:HH21	1:X:344:ARG:HH12	1.39	0.69
1:j:235:LEU:O	1:j:245:ASN:ND2	2.25	0.69
1:b:482:ASN:ND2	1:b:483:PRO:O	2.25	0.69
1:r:130:VAL:HG12	1:r:142:GLU:HA	1.75	0.69
1:3:321:MET:SD	1:3:366:ARG:NH1	2.65	0.69
1:5:278:LEU:HD23	1:5:286:ALA:HB2	1.75	0.69
1:6:264:ARG:NH1	1:6:477:TYR:OH	2.25	0.69
1:AC:115:GLN:NE2	1:AC:449:TYR:CD1	2.60	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AV:184:GLU:O	1:AV:366:ARG:NH2	2.25	0.69
1:AL:503:ILE:HG13	1:AL:507:LEU:HD12	1.74	0.69
1:J:264:ARG:NH2	1:J:305:GLU:OE1	2.22	0.69
1:L:76:ALA:HB1	1:g:496:ILE:HG22	1.75	0.69
1:Z:169:SER:H	1:Z:199:ASP:HB2	1.56	0.69
1:w:264:ARG:NH2	1:w:305:GLU:OE1	2.25	0.69
1:AB:495:ARG:HH22	1:G:87:ALA:HA	1.57	0.69
1:AO:235:LEU:O	1:AO:245:ASN:ND2	2.25	0.69
1:Ah:380:ARG:HH11	1:Ah:408:THR:HG21	1.58	0.69
1:Am:414:ALA:HB3	1:Am:423:VAL:HB	1.74	0.69
1:8:233:ALA:HA	1:AA:265:GLN:HE22	1.58	0.69
1:AE:171:GLN:OE1	1:AE:195:GLN:NE2	2.26	0.69
1:AG:142:GLU:HB2	1:AG:490:GLN:HB3	1.75	0.69
1:AJ:66:ALA:N	1:Af:249:GLU:OE1	2.26	0.69
1:AM:87:ALA:O	1:Ae:495:ARG:NH2	2.26	0.69
1:AO:72:HIS:NE2	1:AO:90:GLN:OE1	2.24	0.69
1:AZ:264:ARG:NH2	1:Aa:152:ALA:O	2.26	0.69
1:R:343:ALA:HB1	1:R:348:GLU:HG3	1.75	0.69
1:f:203:THR:HG22	1:f:206:ALA:H	1.57	0.69
1:l:184:GLU:O	1:l:366:ARG:NH2	2.25	0.69
1:u:501:PRO:HA	1:u:505:ASN:HD21	1.57	0.69
1:6:235:LEU:O	1:6:245:ASN:ND2	2.26	0.69
1:8:431:GLN:NE2	1:9:217:GLU:OE2	2.26	0.69
1:Ae:236:GLN:O	1:Af:466:ASN:ND2	2.26	0.69
1:Am:237:GLU:HG2	1:Am:246:PRO:HA	1.75	0.69
1:4:271:SER:HB3	1:r:239:PHE:CE2	2.27	0.68
1:9:202:ALA:HB1	1:9:206:ALA:HB3	1.73	0.68
1:AB:374:ASN:OD1	1:AB:374:ASN:N	2.26	0.68
1:AQ:495:ARG:NH2	2:D:16:SER:O	2.26	0.68
1:O:235:LEU:O	1:O:245:ASN:ND2	2.26	0.68
1:T:456:LEU:CA	1:T:475:THR:HG21	2.21	0.68
1:q:350:PHE:HB3	1:q:389:VAL:HG11	1.75	0.68
1:8:194:VAL:HB	1:8:196:VAL:HG12	1.75	0.68
2:A:44:ARG:NH2	2:A:346:THR:OG1	2.26	0.68
1:Aa:265:GLN:HG2	1:Aa:474:LYS:HG2	1.75	0.68
1:Ab:130:VAL:HG21	1:Ab:135:PRO:HA	1.74	0.68
1:O:242:SER:HB2	1:O:245:ASN:HD21	1.57	0.68
1:Y:271:SER:O	1:Y:468:GLN:NE2	2.25	0.68
1:n:279:ARG:NH1	1:n:284:MET:O	2.27	0.68
1:AE:264:ARG:NH2	1:AE:305:GLU:OE1	2.25	0.68
1:AF:482:ASN:ND2	1:AF:483:PRO:O	2.25	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AX:344:ARG:NH1	1:AX:348:GLU:OE2	2.26	0.68
1:Ag:264:ARG:HH11	1:Aj:155:SER:HB2	1.59	0.68
1:9:344:ARG:NH1	1:9:348:GLU:OE2	2.26	0.68
1:AC:197:THR:HB	1:AC:200:ALA:HB3	1.75	0.68
1:AD:122:GLY:HA3	1:AG:96:MET:HE3	1.74	0.68
1:AF:235:LEU:O	1:AF:245:ASN:ND2	2.25	0.68
1:Ad:133:LYS:HA	1:Ad:249:GLU:HB2	1.74	0.68
1:3:383:VAL:HG21	1:3:425:ILE:HG12	1.75	0.68
1:AW:331:VAL:HG12	1:AW:517:TYR:HB2	1.74	0.68
1:AW:414:ALA:HB3	1:AW:423:VAL:HB	1.75	0.68
1:Ad:500:MET:HE1	1:Am:74:TYR:HB3	1.74	0.68
1:Ag:428:TYR:O	1:Ag:430:LYS:NZ	2.26	0.68
1:Y:294:LEU:HD23	1:Z:250:MET:HE2	1.74	0.68
1:r:247:TRP:CE3	1:u:267:LYS:HB2	2.29	0.68
1:AD:318:LYS:NZ	1:AD:356:GLN:OE1	2.26	0.68
1:AG:123:GLN:HE22	1:AY:91:ILE:HG23	1.58	0.68
1:Ac:482:ASN:ND2	1:Ac:483:PRO:O	2.27	0.68
1:Af:482:ASN:ND2	1:Af:483:PRO:O	2.25	0.68
1:Al:417:LEU:HB3	1:Al:421:TYR:HB2	1.74	0.68
1:M:235:LEU:O	1:M:245:ASN:ND2	2.26	0.68
1:f:201(H):GLU:HB2	1:f:207:LYS:HD2	1.73	0.68
1:8:264:ARG:NH2	1:8:305:GLU:OE1	2.27	0.68
2:A:346:THR:HG21	2:A:357:VAL:HA	1.74	0.68
1:AG:240:ASN:OD1	1:AO:66:ALA:N	2.27	0.68
1:Ab:190:LEU:HD23	1:Ab:221:LEU:HD13	1.75	0.68
1:h:298:ILE:HG21	1:h:456:LEU:HD21	1.74	0.68
1:n:360:GLU:OE1	1:n:514:ARG:NH1	2.25	0.68
1:8:228:MET:SD	1:AA:265:GLN:NE2	2.67	0.68
1:AE:397:ALA:HB1	1:AN:393:ILE:HG23	1.76	0.68
1:AI:344:ARG:NH1	1:AI:348:GLU:OE2	2.27	0.68
1:AS:264:ARG:NH1	1:AS:477:TYR:OH	2.26	0.68
1:G:383:VAL:HG21	1:G:425:ILE:HG22	1.76	0.68
1:y:236:GLN:O	1:z:466:ASN:ND2	2.27	0.68
1:AB:482:ASN:ND2	1:AB:483:PRO:O	2.26	0.68
1:AV:231:SER:N	1:AX:71:ASP:OD1	2.26	0.68
2:C:404:ASP:OD1	2:D:138:ARG:NH1	2.27	0.68
1:G:235:LEU:O	1:G:245:ASN:ND2	2.27	0.68
1:V:101:ARG:HH21	1:i:146:PRO:HD2	1.58	0.68
1:q:267:LYS:HA	1:q:472:GLY:HA2	1.75	0.68
1:s:376:ILE:HG12	1:s:436:VAL:HG12	1.76	0.68
1:Ab:152:ALA:O	1:Ae:264:ARG:NH2	2.27	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:249:GLU:OE1	1:b:66:ALA:N	2.27	0.68
1:Q:201(H):GLU:HG3	1:Q:201(I):ASP:H	1.59	0.68
1:Y:293:ILE:HG22	1:Z:250:MET:HE3	1.76	0.68
1:i:336:ASP:HB3	1:i:339:ASP:HB2	1.76	0.68
1:4:466:ASN:ND2	1:r:237:GLU:O	2.28	0.67
1:M:481:ILE:HD13	1:M:501:PRO:HG3	1.74	0.67
1:Q:310:ILE:HG12	1:Q:448:ILE:HD12	1.75	0.67
1:Y:203:THR:CG2	1:Y:206:ALA:HB3	2.25	0.67
1:i:344:ARG:HG3	1:j:344:ARG:HD3	1.74	0.67
1:i:351:LYS:HZ2	1:i:396:ALA:H	1.41	0.67
1:AU:428:TYR:O	1:AU:430:LYS:NZ	2.28	0.67
1:Y:203:THR:HG23	1:Y:203:THR:O	1.92	0.67
1:z:482:ASN:ND2	1:z:483:PRO:O	2.28	0.67
1:4:134:ASP:HB3	1:4:137:ALA:HB2	1.76	0.67
1:8:482:ASN:ND2	1:8:483:PRO:O	2.26	0.67
1:9:428:TYR:O	1:9:430:LYS:NZ	2.28	0.67
1:U:265:GLN:OE1	1:U:474:LYS:NZ	2.27	0.67
1:m:321:MET:SD	1:m:366:ARG:NH1	2.66	0.67
1:p:264:ARG:NH2	1:p:305:GLU:OE1	2.27	0.67
1:4:520:GLY:O	1:5:341:ARG:NH2	2.28	0.67
1:AK:142:GLU:HB2	1:AK:490:GLN:HB3	1.76	0.67
1:AP:430:LYS:HA	1:AQ:185:THR:HG21	1.76	0.67
1:Al:336:ASP:HB3	1:Al:339:ASP:HB2	1.74	0.67
2:C:44:ARG:NH2	2:C:346:THR:OG1	2.26	0.67
1:R:184:GLU:O	1:R:366:ARG:NH2	2.27	0.67
1:S:264:ARG:NH1	1:S:477:TYR:OH	2.28	0.67
1:U:223:GLU:OE1	1:X:430:LYS:NZ	2.26	0.67
1:U:385:VAL:HG21	1:U:521:ILE:HD11	1.76	0.67
1:Y:249:GLU:OE1	1:l:66:ALA:N	2.27	0.67
1:e:147:MET:SD	1:e:366:ARG:NH1	2.68	0.67
1:AN:278:LEU:HD23	1:AN:286:ALA:HB2	1.75	0.67
1:AO:365:ALA:HB2	1:AO:372:GLU:HB3	1.77	0.67
1:AS:236:GLN:O	1:AT:466:ASN:ND2	2.27	0.67
1:J:190:LEU:HB3	1:J:221:LEU:HB2	1.77	0.67
1:M:237:GLU:HG2	1:M:246:PRO:HA	1.77	0.67
1:b:383:VAL:HG21	1:b:425:ILE:HG22	1.74	0.67
1:o:133:LYS:HB3	1:o:249:GLU:HB2	1.77	0.67
1:7:190:LEU:HD23	1:7:221:LEU:HB2	1.77	0.67
1:AB:385:VAL:HG21	1:AB:521:ILE:HD12	1.76	0.67
1:AH:107:ILE:HD12	1:AH:307:VAL:HG21	1.75	0.67
1:AI:264:ARG:HH11	1:AL:155:SER:HB2	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:345:TRP:HE3	1:O:347:GLY:H	1.40	0.67
1:m:263:SER:HB3	1:m:476:ARG:HG2	1.76	0.67
1:2:151:ASP:HB3	1:2:154:PHE:HB2	1.76	0.67
2:A:35:ILE:HD12	2:A:39:ILE:HD11	1.77	0.67
1:Ai:153:MET:HE2	1:Ai:226:GLU:H	1.58	0.67
1:b:160:ALA:HB2	1:b:228:MET:HE3	1.77	0.67
1:l:318:LYS:NZ	1:l:356:GLN:OE1	2.25	0.67
1:y:445:ASP:OD1	1:y:445:ASP:N	2.27	0.67
1:9:204:ASP:O	1:9:205:ALA:C	2.37	0.67
1:AD:381:ASN:O	1:AD:384:ASN:ND2	2.28	0.67
1:Y:79:ILE:HD12	1:Z:260:GLU:HG3	1.76	0.67
1:Y:450:TYR:HA	1:Y:479:ILE:HG22	1.77	0.67
1:k:482:ASN:ND2	1:k:483:PRO:O	2.26	0.67
1:r:201(H):GLU:HG2	1:r:201(I):ASP:H	1.59	0.67
1:s:240:ASN:OD1	1:u:66:ALA:N	2.27	0.67
1:s:331:VAL:HG12	1:s:517:TYR:HB2	1.77	0.67
1:AD:237:GLU:HG3	1:AD:246:PRO:HA	1.76	0.67
1:AJ:408:THR:HG22	1:AJ:425:ILE:HD12	1.77	0.67
1:Af:194:VAL:HB	1:Af:196:VAL:HG12	1.77	0.67
1:Ak:501:PRO:HA	1:Ak:505:ASN:HD21	1.60	0.67
1:W:318:LYS:N	1:W:360:GLU:OE2	2.27	0.67
1:h:261:ALA:HA	1:h:478:GLY:HA3	1.77	0.67
1:h:265:GLN:HG2	1:h:474:LYS:HG2	1.76	0.67
1:y:184:GLU:O	1:y:366:ARG:NH2	2.28	0.67
1:6:521:ILE:O	1:7:341:ARG:NH2	2.27	0.67
1:AE:345:TRP:HE3	1:AE:347:GLY:H	1.41	0.67
1:Ae:376:ILE:HG12	1:Ae:436:VAL:HG12	1.75	0.67
1:P:242:SER:HB3	1:P:245:ASN:HD21	1.58	0.67
1:1:250:MET:HE2	1:z:294:LEU:HD23	1.75	0.66
1:5:107:ILE:HD12	1:5:307:VAL:HG21	1.76	0.66
2:A:298:LEU:HD12	2:A:299:SER:H	1.60	0.66
1:AM:365:ALA:HB2	1:AM:372:GLU:HB3	1.77	0.66
1:AU:235:LEU:O	1:AU:245:ASN:ND2	2.26	0.66
1:AW:153:MET:HE2	1:AW:226:GLU:H	1.59	0.66
1:AZ:422:ARG:NH2	1:AZ:424:TYR:OH	2.28	0.66
2:C:70:ALA:HB2	2:C:106:ILE:HG12	1.76	0.66
1:V:345:TRP:HE3	1:V:347:GLY:H	1.41	0.66
1:g:422:ARG:NH2	1:g:424:TYR:OH	2.28	0.66
1:i:110:ASP:OD2	1:i:422:ARG:NH2	2.28	0.66
1:O:274:LEU:HD23	1:h:69:GLY:HA2	1.75	0.66
1:U:130:VAL:HG21	1:U:135:PRO:HA	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:486:GLU:HG3	1:X:509:LYS:HB3	1.75	0.66
1:k:387:ALA:HB2	1:k:404:PHE:HD1	1.60	0.66
1:l:201(H):GLU:HG2	1:l:201(I):ASP:H	1.60	0.66
1:n:383:VAL:HG21	1:n:425:ILE:HG12	1.78	0.66
1:2:235:LEU:O	1:2:245:ASN:ND2	2.28	0.66
1:AM:128:ARG:NH1	1:AM:490:GLN:O	2.27	0.66
1:L:201(H):GLU:HG2	1:L:201(I):ASP:H	1.61	0.66
1:R:84:THR:CG2	1:R:85:SER:N	2.56	0.66
1:q:169:SER:H	1:q:199:ASP:HB2	1.61	0.66
1:AM:130:VAL:HG21	1:AM:135:PRO:HA	1.78	0.66
1:AN:486:GLU:HG3	1:AN:509:LYS:HB3	1.77	0.66
1:AR:110:ASP:OD1	1:AR:110:ASP:N	2.28	0.66
1:Af:122:GLY:HA3	1:Ai:96:MET:HE3	1.77	0.66
1:Ak:190:LEU:HB3	1:Ak:221:LEU:HB2	1.76	0.66
1:L:166:LEU:HD22	1:L:198:ILE:HG13	1.77	0.66
1:i:105:ASN:ND2	1:i:408:THR:O	2.28	0.66
1:k:428:TYR:O	1:k:430:LYS:NZ	2.28	0.66
1:l:395:TYR:HD1	1:l:396:ALA:H	1.41	0.66
1:3:158:GLY:HA2	1:3:163:PHE:HE1	1.61	0.66
1:AD:153:MET:HE2	1:AD:226:GLU:HG2	1.78	0.66
1:AH:482:ASN:ND2	1:AH:483:PRO:O	2.29	0.66
1:AL:279:ARG:NH1	1:AL:284:MET:O	2.28	0.66
1:Aa:264:ARG:NH2	1:Aa:305:GLU:OE1	2.26	0.66
1:Ah:383:VAL:HG21	1:Ah:425:ILE:HG22	1.77	0.66
1:Ai:376:ILE:HG12	1:Ai:436:VAL:HG12	1.78	0.66
1:Al:271:SER:HB2	1:b:239:PHE:CE2	2.30	0.66
1:T:453:TYR:HE2	1:T:476:ARG:HH21	1.42	0.66
2:a:243:ALA:HB3	2:a:245:GLU:HG3	1.77	0.66
1:l:145:HIS:HB3	1:l:148:TYR:HB2	1.78	0.66
1:q:450:TYR:HA	1:q:479:ILE:HG22	1.78	0.66
2:A:138:ARG:NH1	2:B:404:ASP:OD1	2.29	0.66
1:AF:133:LYS:O	1:AH:66:ALA:N	2.29	0.66
1:AH:274:LEU:HD23	1:AO:67:GLU:HG3	1.76	0.66
1:AH:345:TRP:NE1	1:AI:348:GLU:OE2	2.28	0.66
1:AI:169:SER:H	1:AI:199:ASP:HB2	1.61	0.66
1:AK:231:SER:HB3	1:AM:71:ASP:HB3	1.77	0.66
1:J:414:ALA:HB3	1:J:423:VAL:HB	1.76	0.66
1:N:160:ALA:HB2	1:N:228:MET:HE3	1.78	0.66
1:p:345:TRP:HE3	1:p:347:GLY:H	1.43	0.66
1:t:520:GLY:O	1:u:341:ARG:NH2	2.29	0.66
1:v:265:GLN:OE1	1:v:474:LYS:NZ	2.27	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AH:100:ARG:HE	1:AI:127:LEU:HD23	1.60	0.66
1:Af:380:ARG:NH2	1:Af:427:GLN:O	2.27	0.66
1:N:264:ARG:NH1	1:N:477:TYR:OH	2.28	0.66
1:p:344:ARG:NH1	1:p:348:GLU:OE2	2.29	0.66
1:v:344:ARG:HH12	1:y:345:TRP:HB2	1.61	0.66
1:AI:235:LEU:O	1:AI:245:ASN:ND2	2.28	0.66
1:AQ:131:TYR:HB3	1:AQ:250:MET:HG2	1.77	0.66
1:Ab:265:GLN:OE1	1:Ab:474:LYS:NZ	2.28	0.66
2:D:222:SER:O	2:D:224:ARG:NH1	2.29	0.66
1:J:501:PRO:HA	1:J:505:ASN:HD21	1.60	0.66
2:a:173:ARG:NH1	2:a:379:TYR:OH	2.28	0.66
1:s:503:ILE:HG23	1:s:507:LEU:HD22	1.78	0.66
1:3:267:LYS:HB3	1:z:249:GLU:HG2	1.78	0.66
1:AQ:397:ALA:HB1	1:AZ:393:ILE:HG23	1.78	0.66
1:AW:84:THR:CG2	1:AW:85:SER:N	2.55	0.66
2:B:322:TYR:HA	2:B:417:GLY:HA2	1.77	0.66
2:D:208:ASP:OD1	2:D:212:LYS:NZ	2.29	0.66
1:R:466:ASN:OD1	1:R:466:ASN:N	2.29	0.66
2:a:363:VAL:HG11	1:v:464:PRO:HA	1.78	0.66
1:d:344:ARG:NH1	1:d:348:GLU:OE2	2.29	0.66
1:AE:105:ASN:OD1	1:AE:105:ASN:N	2.27	0.66
1:Ai:383:VAL:HG21	1:Ai:425:ILE:HG12	1.77	0.66
2:B:180:THR:HA	2:B:370:GLN:HB3	1.77	0.66
2:B:384:ASN:HD22	2:B:412:LEU:HD22	1.61	0.66
1:e:181:PHE:HD2	1:e:187:THR:HG23	1.61	0.66
1:n:153:MET:HE1	1:n:226:GLU:HG2	1.78	0.66
1:t:264:ARG:NH1	1:t:477:TYR:OH	2.28	0.66
1:u:278:LEU:HD23	1:u:286:ALA:HB2	1.77	0.66
1:x:184:GLU:HG3	1:x:185:THR:HG23	1.77	0.66
1:9:206:ALA:O	1:9:207:LYS:C	2.39	0.65
1:9:345:TRP:NE1	1:AB:348:GLU:OE1	2.29	0.65
1:AX:264:ARG:NH1	1:AX:477:TYR:OH	2.29	0.65
1:Ah:93:PRO:HB2	1:Ai:123:GLN:HG3	1.78	0.65
2:C:384:ASN:HD22	2:C:412:LEU:HD22	1.58	0.65
1:L:235:LEU:O	1:L:245:ASN:ND2	2.29	0.65
1:g:486:GLU:HG3	1:g:509:LYS:HB3	1.76	0.65
1:6:234:GLU:OE2	1:v:69:GLY:N	2.24	0.65
1:AC:501:PRO:HA	1:AC:505:ASN:HD21	1.62	0.65
1:AF:171:GLN:HG2	1:AF:197:THR:HG22	1.79	0.65
1:AJ:151:ASP:HB3	1:AJ:154:PHE:HB2	1.78	0.65
1:AP:464:PRO:HA	2:B:363:VAL:HG11	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:380:ARG:HH11	1:AR:408:THR:HG21	1.61	0.65
1:H:171:GLN:NE2	1:H:195:GLN:OE1	2.26	0.65
1:H:184:GLU:O	1:H:366:ARG:NH2	2.29	0.65
1:U:79:ILE:HB	1:V:258:VAL:HG21	1.77	0.65
1:W:145:HIS:HB3	1:W:148:TYR:HB2	1.77	0.65
1:Y:69:GLY:HA2	1:j:274:LEU:HD23	1.79	0.65
1:Y:235:LEU:O	1:Y:245:ASN:ND2	2.27	0.65
1:8:122:GLY:HA3	1:AA:96:MET:HE3	1.79	0.65
1:AD:260:GLU:OE1	1:AG:72:HIS:ND1	2.28	0.65
1:AI:107:ILE:HG13	1:AI:307:VAL:HG21	1.78	0.65
1:Aa:304:ARG:NH1	1:Aa:426:ASP:OD1	2.23	0.65
1:7:331:VAL:HG11	1:7:519:LYS:HE2	1.79	0.65
1:AR:395:TYR:HD1	1:AR:396:ALA:H	1.43	0.65
1:Ad:264:ARG:NH2	1:Ad:305:GLU:OE1	2.29	0.65
1:Am:261:ALA:HA	1:Am:478:GLY:HA3	1.78	0.65
1:N:495:ARG:NH1	1:e:86:GLY:O	2.30	0.65
1:R:153:MET:HE2	1:R:226:GLU:H	1.60	0.65
1:e:351:LYS:NZ	1:e:390:ASP:O	2.28	0.65
1:g:264:ARG:NH1	1:g:477:TYR:OH	2.30	0.65
1:t:383:VAL:HG21	1:t:425:ILE:HG12	1.78	0.65
1:x:383:VAL:HG21	1:x:425:ILE:HG22	1.77	0.65
1:1:482:ASN:ND2	1:1:483:PRO:O	2.29	0.65
1:1:510:ASN:OD1	1:1:511:ALA:N	2.28	0.65
1:7:237:GLU:HG2	1:7:246:PRO:HA	1.77	0.65
2:A:129:GLN:NE2	2:B:319:PRO:O	2.30	0.65
1:AD:152:ALA:O	1:AG:264:ARG:NH2	2.30	0.65
1:AJ:466:ASN:ND2	1:Ag:237:GLU:O	2.30	0.65
1:AO:344:ARG:NH2	1:AO:348:GLU:OE2	2.30	0.65
1:AT:521:ILE:HG22	1:AU:341:ARG:HH12	1.60	0.65
1:AV:482:ASN:ND2	1:AV:483:PRO:O	2.30	0.65
1:AW:376:ILE:HG12	1:AW:436:VAL:HG12	1.77	0.65
1:Af:264:ARG:NH2	1:Af:305:GLU:OE1	2.30	0.65
1:Al:264:ARG:NH1	1:Al:477:TYR:OH	2.29	0.65
1:AA:234:GLU:HG3	1:AA:235:LEU:HD23	1.77	0.65
1:AJ:90:GLN:HG3	1:Ai:281:VAL:HG11	1.77	0.65
1:AZ:390:ASP:HB2	1:AZ:397:ALA:HB3	1.78	0.65
1:M:87:ALA:O	1:b:495:ARG:NH2	2.29	0.65
1:T:147:MET:SD	1:T:366:ARG:NH1	2.69	0.65
1:Y:387:ALA:HB2	1:Y:404:PHE:HD2	1.62	0.65
1:3:72:HIS:HD2	1:3:79:ILE:HG23	1.62	0.65
1:4:115:GLN:NE2	1:4:444:MET:SD	2.70	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AD:100:ARG:O	1:AE:370:ARG:NH2	2.29	0.65
1:AE:84:THR:HG21	1:AE:90:GLN:HE21	1.60	0.65
1:AG:351:LYS:NZ	1:AG:390:ASP:O	2.29	0.65
1:K:368:THR:HG22	1:K:370:ARG:HG3	1.77	0.65
1:K:381:ASN:OD1	1:K:381:ASN:N	2.24	0.65
1:V:235:LEU:O	1:V:245:ASN:ND2	2.30	0.65
1:d:385:VAL:HG21	1:d:521:ILE:HD12	1.79	0.65
1:f:89:THR:HG23	1:r:495:ARG:HH21	1.62	0.65
1:q:428:TYR:O	1:q:430:LYS:NZ	2.29	0.65
1:u:149:GLY:H	1:u:186:GLY:HA3	1.62	0.65
1:9:503:ILE:HG23	1:9:507:LEU:HD12	1.76	0.65
1:AP:100:ARG:O	1:AQ:370:ARG:NH2	2.30	0.65
1:m:235:LEU:O	1:m:245:ASN:ND2	2.30	0.65
1:z:345:TRP:HE3	1:z:347:GLY:H	1.45	0.65
1:AN:380:ARG:NH2	1:AN:427:GLN:O	2.30	0.65
1:AQ:380:ARG:HG2	1:AQ:425:ILE:HD11	1.77	0.65
1:AU:495:ARG:NH2	1:Aa:87:ALA:O	2.30	0.65
1:AX:521:ILE:O	1:AY:341:ARG:NH2	2.30	0.65
1:Ac:397:ALA:HB1	1:Al:393:ILE:HG23	1.79	0.65
1:Ag:344:ARG:NH1	1:Ag:348:GLU:OE2	2.29	0.65
1:N:321:MET:SD	1:N:366:ARG:NH1	2.70	0.65
1:b:236:GLN:O	1:b:237:GLU:HB2	1.96	0.65
1:d:153:MET:HE1	1:d:226:GLU:HG2	1.78	0.65
1:e:190:LEU:HB3	1:e:221:LEU:HB2	1.79	0.65
1:p:294:LEU:HD23	1:q:250:MET:HE2	1.77	0.65
1:AE:428:TYR:O	1:AE:430:LYS:NZ	2.28	0.65
1:Af:125:PHE:HE1	1:Af:256:LYS:HE2	1.62	0.65
1:Ak:105:ASN:ND2	1:Ak:409:THR:O	2.30	0.65
1:R:360:GLU:OE1	1:R:514:ARG:NH1	2.29	0.65
1:i:278:LEU:HD23	1:i:286:ALA:HB2	1.78	0.65
1:l:380:ARG:HH11	1:l:408:THR:HG21	1.62	0.65
2:A:404:ASP:OD1	2:a:138:ARG:NH1	2.29	0.64
1:AE:430:LYS:HE2	1:AN:188:VAL:HG11	1.79	0.64
1:AF:250:MET:HE1	1:AO:297:GLU:HG2	1.78	0.64
1:AT:201(A):ASP:OD1	1:AT:201(A):ASP:N	2.25	0.64
1:Ak:172:THR:HG1	1:Ak:196:VAL:H	1.42	0.64
1:J:235:LEU:O	1:J:245:ASN:ND2	2.31	0.64
1:Q:93:PRO:HB2	1:R:123:GLN:HG3	1.77	0.64
1:l:93:PRO:HB2	1:m:123:GLN:HG3	1.77	0.64
1:p:450:TYR:HA	1:p:479:ILE:HG22	1.79	0.64
1:r:287:ASP:HA	1:r:471:MET:HE1	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:268:ALA:N	1:0:471:MET:O	2.30	0.64
1:AA:242:SER:OG	1:AA:245:ASN:ND2	2.30	0.64
1:AA:287:ASP:OD1	1:AA:460:ARG:NH2	2.30	0.64
1:AU:116:PRO:HA	1:AU:452:PRO:HD2	1.79	0.64
1:AX:96:MET:HE3	1:AY:122:GLY:HA3	1.80	0.64
1:Ae:235:LEU:O	1:Ae:245:ASN:ND2	2.30	0.64
1:Am:495:ARG:NH2	1:d:89:THR:OG1	2.30	0.64
1:N:180:HIS:NE2	1:N:209:ASP:OD1	2.29	0.64
1:h:444:MET:SD	1:h:449:TYR:OH	2.55	0.64
1:q:264:ARG:HH11	1:t:155:SER:HB2	1.62	0.64
1:8:152:ALA:O	1:AA:264:ARG:NH2	2.30	0.64
2:A:173:ARG:NE	2:a:73:ALA:O	2.28	0.64
1:AD:344:ARG:HH12	1:AG:345:TRP:HB3	1.61	0.64
1:AG:237:GLU:HG2	1:AG:246:PRO:HA	1.79	0.64
1:AN:520:GLY:O	1:AO:341:ARG:NH2	2.30	0.64
1:AP:463:ASP:OD2	1:AP:466:ASN:ND2	2.25	0.64
1:AY:298:ILE:HG21	1:AY:456:LEU:HD21	1.79	0.64
1:V:107:ILE:H	1:V:303:ASN:HD21	1.44	0.64
1:X:343:ALA:HB1	1:X:348:GLU:HG3	1.79	0.64
1:s:153:MET:HE2	1:s:226:GLU:H	1.61	0.64
1:u:145:HIS:HB3	1:u:148:TYR:HB2	1.78	0.64
1:3:351:LYS:NZ	1:3:390:ASP:O	2.31	0.64
1:AU:265:GLN:NE2	1:AX:228:MET:SD	2.71	0.64
1:Aj:128:ARG:NH2	1:Aj:489:ALA:O	2.27	0.64
1:M:381:ASN:HB3	1:M:521:ILE:HD13	1.79	0.64
2:a:222:SER:O	2:a:224:ARG:NH1	2.30	0.64
1:b:265:GLN:NE2	1:c:228:MET:SD	2.70	0.64
1:e:344:ARG:NH2	1:e:348:GLU:OE2	2.29	0.64
1:z:412:VAL:HG12	1:z:425:ILE:HG23	1.79	0.64
1:8:223:GLU:OE1	1:AA:304:ARG:NH2	2.30	0.64
1:9:482:ASN:ND2	1:9:483:PRO:O	2.29	0.64
1:AB:495:ARG:NH2	1:G:89:THR:OG1	2.30	0.64
1:AE:395:TYR:HD1	1:AE:396:ALA:H	1.46	0.64
1:AF:466:ASN:ND2	1:AW:237:GLU:O	2.30	0.64
1:AH:198:ILE:O	1:AH:199:ASP:C	2.39	0.64
1:AQ:71:ASP:OD2	1:Aa:231:SER:N	2.31	0.64
1:AV:250:MET:HE1	1:AY:297:GLU:HG2	1.79	0.64
1:AW:263:SER:HB3	1:AW:476:ARG:HG2	1.80	0.64
1:Ai:244:ASP:N	1:Ai:244:ASP:OD1	2.29	0.64
1:L:474:LYS:NZ	1:g:233:ALA:O	2.30	0.64
1:N:128:ARG:HD2	1:N:492:PRO:HD3	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:363:GLU:OE2	1:S:366:ARG:NH2	2.27	0.64
1:g:381:ASN:HB3	1:g:521:ILE:HG21	1.79	0.64
1:q:344:ARG:NH1	1:q:348:GLU:OE2	2.31	0.64
1:x:145:HIS:HB3	1:x:148:TYR:HB2	1.79	0.64
1:0:351:LYS:NZ	1:0:394:SER:O	2.30	0.64
1:1:152:ALA:HA	1:z:301:GLU:HG3	1.79	0.64
1:AA:153:MET:HE2	1:AA:226:GLU:H	1.63	0.64
1:Ae:486:GLU:HG3	1:Ae:509:LYS:HB3	1.80	0.64
2:B:198:LEU:HD23	2:B:373:ILE:HD12	1.79	0.64
2:C:297:TYR:O	2:C:299:SER:N	2.31	0.64
1:f:171:GLN:HA	1:f:197:THR:CB	2.27	0.64
1:f:203:THR:HB	1:f:206:ALA:HB3	1.78	0.64
1:7:298:ILE:HG21	1:7:456:LEU:HD21	1.80	0.64
1:Am:235:LEU:O	1:Am:245:ASN:ND2	2.29	0.64
1:M:131:TYR:HB3	1:M:250:MET:HG3	1.79	0.64
1:S:364:ILE:HG13	1:S:514:ARG:HD2	1.79	0.64
1:f:87:ALA:O	1:r:495:ARG:NH2	2.31	0.64
1:k:344:ARG:NH1	1:k:348:GLU:OE2	2.30	0.64
1:q:397:ALA:HB1	1:t:393:ILE:HG23	1.80	0.64
1:r:242:SER:HB3	1:r:245:ASN:HD22	1.63	0.64
1:4:385:VAL:HG21	1:4:521:ILE:HD12	1.79	0.64
1:6:204:ASP:OD1	1:6:204:ASP:N	2.30	0.64
1:8:274:LEU:HD12	1:8:278:LEU:HD12	1.79	0.64
1:AJ:344:ARG:NH1	1:AJ:348:GLU:OE2	2.31	0.64
1:AL:268:ALA:HB1	1:AL:290:LEU:HD13	1.79	0.64
1:AR:510:ASN:O	1:AR:512:TYR:N	2.31	0.64
1:AU:142:GLU:H	1:AU:490:GLN:HG2	1.63	0.64
1:T:298:ILE:HG21	1:T:456:LEU:HD21	1.79	0.64
1:i:383:VAL:HG21	1:i:425:ILE:HG12	1.80	0.64
1:0:231:SER:N	1:AB:71:ASP:OD1	2.30	0.64
1:1:134:ASP:HB3	1:1:137:ALA:HB2	1.80	0.64
1:AH:198:ILE:C	1:AH:200:ALA:N	2.53	0.64
1:AH:261:ALA:HA	1:AH:478:GLY:HA3	1.79	0.64
1:Af:185:THR:HG21	1:Ai:430:LYS:HA	1.78	0.64
1:Y:194:VAL:HB	1:Y:196:VAL:HG12	1.80	0.64
1:p:152:ALA:O	1:s:264:ARG:NH2	2.30	0.64
1:3:265:GLN:NE2	1:z:236:GLN:OE1	2.30	0.64
1:5:365:ALA:HB2	1:5:372:GLU:HB3	1.80	0.64
1:7:265:GLN:HG2	1:7:474:LYS:HG2	1.80	0.64
1:AY:264:ARG:NH2	1:AY:305:GLU:OE1	2.22	0.64
1:Aa:298:ILE:HG21	1:Aa:456:LEU:HD21	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:44:ARG:NH2	2:D:346:THR:OG1	2.32	0.64
1:G:130:VAL:HG12	1:G:142:GLU:HA	1.77	0.64
1:H:160:ALA:HB2	1:H:228:MET:HE2	1.80	0.64
1:9:259:ILE:HD13	1:9:480:GLY:HA3	1.80	0.63
2:A:291:LYS:HZ2	2:A:291:LYS:H	1.45	0.63
1:AB:264:ARG:NH1	1:AB:477:TYR:OH	2.31	0.63
1:AI:101:ARG:HH21	1:AL:146:PRO:HD2	1.64	0.63
1:AI:397:ALA:HB1	1:AL:393:ILE:HG23	1.80	0.63
1:AS:184:GLU:O	1:AS:366:ARG:NH2	2.30	0.63
1:AS:240:ASN:OD1	1:Aa:66:ALA:N	2.32	0.63
1:AW:336:ASP:HB3	1:AW:339:ASP:HB2	1.79	0.63
1:b:264:ARG:NH2	1:c:226:GLU:O	2.31	0.63
1:f:203:THR:O	1:f:204:ASP:C	2.39	0.63
1:n:105:ASN:ND2	1:n:408:THR:O	2.31	0.63
1:z:263:SER:HA	1:z:476:ARG:HA	1.80	0.63
1:2:482:ASN:ND2	1:2:483:PRO:O	2.30	0.63
1:AV:265:GLN:NE2	1:AW:228:MET:SD	2.70	0.63
1:Q:235:LEU:O	1:Q:245:ASN:ND2	2.31	0.63
1:k:182:PHE:N	1:k:186:GLY:O	2.30	0.63
1:q:417:LEU:HB3	1:q:421:TYR:HB2	1.80	0.63
1:t:374:ASN:OD1	1:t:374:ASN:N	2.31	0.63
1:0:133:LYS:O	1:g:66:ALA:N	2.32	0.63
1:6:87:ALA:O	1:o:495:ARG:NH2	2.31	0.63
1:AH:171:GLN:HE21	1:AH:195:GLN:HE21	1.44	0.63
1:Ad:344:ARG:HH21	1:Ae:344:ARG:HH12	1.45	0.63
1:L:265:GLN:HB3	1:L:474:LYS:HD2	1.80	0.63
1:N:235:LEU:O	1:N:245:ASN:ND2	2.29	0.63
1:p:94:ALA:O	1:q:123:GLN:N	2.31	0.63
1:q:460:ARG:HE	1:q:471:MET:HE2	1.63	0.63
1:0:380:ARG:HH11	1:0:408:THR:HG21	1.61	0.63
2:A:183:LEU:HD12	1:v:69:GLY:HA2	1.81	0.63
1:AC:278:LEU:HD21	1:AC:284:MET:HB3	1.81	0.63
1:AV:184:GLU:OE2	1:AV:213:LYS:NZ	2.32	0.63
1:AX:343:ALA:HB1	1:AX:348:GLU:HB2	1.80	0.63
1:AY:344:ARG:NH2	1:AY:348:GLU:OE2	2.31	0.63
1:Ac:93:PRO:HB3	1:Al:121:THR:HG22	1.80	0.63
1:Ai:360:GLU:OE1	1:Ai:514:ARG:NH1	2.29	0.63
1:c:265:GLN:HB3	1:c:474:LYS:HG3	1.81	0.63
1:t:503:ILE:HG13	1:t:507:LEU:HD12	1.78	0.63
1:y:376:ILE:HG12	1:y:436:VAL:HG12	1.80	0.63
1:5:501:PRO:HA	1:5:505:ASN:HD21	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AG:495:ARG:NH1	1:AY:86:GLY:O	2.31	0.63
1:AT:294:LEU:HD23	1:AU:250:MET:HE2	1.81	0.63
1:Ak:279:ARG:NH2	1:Ak:285:ASP:OD1	2.31	0.63
2:B:279:ALA:HB1	2:B:312:LEU:HD21	1.81	0.63
2:D:297:TYR:O	2:D:299:SER:N	2.31	0.63
1:R:171:GLN:NE2	1:R:195:GLN:OE1	2.28	0.63
1:U:380:ARG:NH2	1:U:427:GLN:O	2.32	0.63
1:W:171:GLN:HG2	1:W:197:THR:HG22	1.78	0.63
1:W:482:ASN:ND2	1:W:483:PRO:O	2.31	0.63
1:Y:397:ALA:HB1	1:Z:393:ILE:HG23	1.80	0.63
1:s:184:GLU:O	1:s:366:ARG:NH2	2.32	0.63
1:8:235:LEU:O	1:8:245:ASN:ND2	2.32	0.63
1:9:267:LYS:HA	1:9:472:GLY:HA2	1.80	0.63
1:AB:90:GLN:NE2	1:P:277:ASP:OD2	2.32	0.63
1:AJ:510:ASN:O	1:AJ:512:TYR:N	2.31	0.63
1:AP:110:ASP:O	1:AP:439:LYS:NZ	2.29	0.63
1:Aa:344:ARG:NH2	1:Aa:348:GLU:OE2	2.32	0.63
1:Am:252:PHE:N	1:d:67:GLU:OE2	2.27	0.63
2:B:277:ARG:HH21	2:B:420:LEU:HB3	1.63	0.63
1:G:184:GLU:O	1:G:366:ARG:NH2	2.32	0.63
1:V:380:ARG:HG2	1:V:425:ILE:HD11	1.80	0.63
1:l:154:PHE:O	1:l:248:ASN:ND2	2.31	0.63
1:m:184:GLU:O	1:m:366:ARG:NH2	2.31	0.63
1:AG:343:ALA:HB1	1:AG:348:GLU:HG3	1.81	0.63
1:AJ:388:SER:HB3	1:AJ:401:ALA:HB2	1.79	0.63
1:Ai:142:GLU:HG2	1:Ai:143:ALA:H	1.64	0.63
1:y:128:ARG:HD2	1:y:492:PRO:HD3	1.80	0.63
1:5:128:ARG:NH1	1:5:490:GLN:O	2.31	0.63
1:7:297:GLU:HG2	1:x:250:MET:HE1	1.78	0.63
1:AK:130:VAL:HG22	1:AK:142:GLU:HA	1.80	0.63
1:AP:264:ARG:NH2	1:AP:305:GLU:OE1	2.31	0.63
1:Ad:201(G):ASP:OD1	1:Ad:201(H):GLU:N	2.32	0.63
1:Af:345:TRP:HE3	1:Af:347:GLY:H	1.46	0.63
1:Ak:177:ILE:HG12	1:Ak:191:GLN:HG2	1.80	0.63
2:C:173:ARG:NH1	2:C:379:TYR:OH	2.31	0.63
1:L:345:TRP:HE3	1:L:347:GLY:H	1.44	0.63
1:V:145:HIS:HD2	1:V:147:MET:H	1.45	0.63
1:Z:154:PHE:O	1:Z:248:ASN:ND2	2.32	0.63
1:f:205:ALA:O	1:f:208:LEU:N	2.32	0.63
1:u:298:ILE:HG21	1:u:456:LEU:HD21	1.81	0.63
1:z:350:PHE:HB2	1:z:389:VAL:HG11	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:87:ALA:O	1:n:495:ARG:NH2	2.29	0.63
1:1:271:SER:OG	1:1:468:GLN:NE2	2.31	0.63
2:A:36:TYR:HB2	2:A:214:ILE:HD12	1.80	0.63
1:AC:365:ALA:HB2	1:AC:372:GLU:HB3	1.80	0.63
2:B:44:ARG:NH2	2:B:346:THR:OG1	2.30	0.63
1:G:141:LYS:NZ	1:G:151:ASP:OD2	2.32	0.63
1:Y:135:PRO:O	1:Y:253:ARG:NH1	2.31	0.63
1:n:385:VAL:HG21	1:n:521:ILE:HD12	1.80	0.63
1:r:380:ARG:HH11	1:r:408:THR:HG21	1.62	0.63
1:t:74:TYR:HD1	1:u:500:MET:HE3	1.64	0.63
1:t:381:ASN:O	1:t:384:ASN:ND2	2.32	0.63
1:x:287:ASP:OD1	1:x:460:ARG:NH2	2.32	0.63
1:1:264:ARG:HH11	1:4:155:SER:HB2	1.63	0.62
1:6:367:GLN:HB3	1:6:511:ALA:HB1	1.80	0.62
1:AP:88:VAL:HA	2:B:163:ILE:HB	1.81	0.62
1:Ad:380:ARG:HH11	1:Ad:408:THR:HG21	1.63	0.62
1:Af:174:VAL:HG22	1:Af:195:GLN:HE22	1.62	0.62
1:Ak:74:TYR:HA	1:Ak:79:ILE:HD11	1.81	0.62
2:C:73:ALA:O	2:a:173:ARG:NE	2.31	0.62
2:C:173:ARG:NE	2:D:73:ALA:O	2.32	0.62
2:a:297:TYR:O	2:a:299:SER:N	2.32	0.62
1:j:117:MET:HG3	1:j:451:ALA:HB1	1.81	0.62
1:2:133:LYS:HA	1:2:249:GLU:HB2	1.79	0.62
1:AK:264:ARG:NH1	1:AK:477:TYR:OH	2.32	0.62
1:AT:301:GLU:HG2	1:AU:152:ALA:HA	1.79	0.62
1:AX:278:LEU:HD21	1:AX:284:MET:HB2	1.81	0.62
1:Aj:67:GLU:OE2	1:j:252:PHE:N	2.29	0.62
2:B:57:TYR:OH	2:D:29:ARG:NH1	2.32	0.62
2:C:277:ARG:HD2	2:C:423:ILE:HD11	1.80	0.62
1:P:397:ALA:HB1	1:S:393:ILE:HG23	1.80	0.62
1:R:268:ALA:HB1	1:R:290:LEU:HD23	1.81	0.62
1:U:149:GLY:N	1:U:185:THR:O	2.32	0.62
1:Y:363:GLU:OE2	1:Y:366:ARG:NH2	2.30	0.62
1:f:281:VAL:HG11	1:u:90:GLN:HB2	1.80	0.62
1:3:235:LEU:O	1:3:245:ASN:ND2	2.32	0.62
1:3:343:ALA:HB1	1:3:348:GLU:HG3	1.81	0.62
1:7:474:LYS:NZ	1:n:273:GLU:OE2	2.31	0.62
1:8:72:HIS:HB2	1:8:79:ILE:HD13	1.81	0.62
1:AO:105:ASN:O	1:AO:427:GLN:NE2	2.32	0.62
1:AO:454:VAL:HG23	1:AO:476:ARG:H	1.62	0.62
1:AQ:80:ALA:HB2	1:AZ:258:VAL:HG11	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:417:LEU:HB3	1:H:421:TYR:HB2	1.81	0.62
1:N:171:GLN:OE1	1:N:195:GLN:NE2	2.32	0.62
1:N:237:GLU:HB2	1:O:466:ASN:OD1	1.99	0.62
1:n:264:ARG:NH1	1:n:477:TYR:OH	2.33	0.62
1:o:151:ASP:HB3	1:o:154:PHE:HB2	1.79	0.62
1:AN:153:MET:HE1	1:AN:226:GLU:HG2	1.81	0.62
1:AZ:344:ARG:NH1	1:AZ:348:GLU:OE2	2.33	0.62
1:Aa:414:ALA:HB3	1:Aa:423:VAL:HB	1.81	0.62
1:O:239:PHE:N	1:O:242:SER:OG	2.24	0.62
1:O:287:ASP:OD1	1:O:460:ARG:NH2	2.32	0.62
1:f:228:MET:SD	1:m:265:GLN:NE2	2.72	0.62
1:k:95:VAL:HG22	1:n:123:GLN:HE21	1.63	0.62
1:l:151:ASP:HB3	1:l:154:PHE:HB2	1.81	0.62
1:m:305:GLU:OE1	1:m:309:TRP:NE1	2.32	0.62
1:s:343:ALA:HB1	1:s:348:GLU:HG3	1.81	0.62
1:6:351:LYS:HZ2	1:6:396:ALA:H	1.44	0.62
1:8:107:ILE:HD12	1:8:307:VAL:HG21	1.82	0.62
1:AA:340:ILE:HG22	1:AA:352:ALA:HB3	1.80	0.62
1:AB:279:ARG:NH1	1:AB:284:MET:O	2.32	0.62
1:AC:414:ALA:HB3	1:AC:423:VAL:HB	1.81	0.62
1:Ad:151:ASP:HB3	1:Ad:154:PHE:HB2	1.80	0.62
1:Ak:128:ARG:NH1	1:Ak:142:GLU:OE2	2.31	0.62
1:Ak:168:ALA:HB1	1:Ak:199:ASP:HB2	1.82	0.62
1:X:184:GLU:OE1	1:X:366:ARG:NH2	2.33	0.62
1:f:93:PRO:HB2	1:k:123:GLN:HG3	1.82	0.62
1:f:278:LEU:HD21	1:u:88:VAL:HG11	1.82	0.62
1:m:142:GLU:HB2	1:m:490:GLN:HB3	1.81	0.62
1:p:264:ARG:NH1	1:q:155:SER:OG	2.32	0.62
1:v:431:GLN:HE21	1:w:213:LYS:HG2	1.64	0.62
1:y:368:THR:HG22	1:y:511:ALA:HB1	1.81	0.62
1:6:107:ILE:HD12	1:6:307:VAL:HG21	1.82	0.62
1:AG:180:HIS:NE2	1:AG:209:ASP:OD1	2.30	0.62
1:AI:96:MET:SD	1:AL:115:GLN:NE2	2.73	0.62
1:AI:166:LEU:HD22	1:AI:198:ILE:HG13	1.82	0.62
1:AL:385:VAL:HG21	1:AL:521:ILE:HD12	1.82	0.62
1:Aa:453:TYR:HE2	1:Aa:476:ARG:HH21	1.47	0.62
1:Ac:171:GLN:OE1	1:Ac:195:GLN:NE2	2.33	0.62
1:h:147:MET:SD	1:h:366:ARG:NH1	2.72	0.62
1:m:128:ARG:NE	1:m:490:GLN:O	2.31	0.62
1:0:482:ASN:ND2	1:0:483:PRO:O	2.32	0.62
1:6:145:HIS:HB3	1:6:148:TYR:HB2	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AC:147:MET:HG2	1:AC:367:GLN:HA	1.81	0.62
1:AW:340:ILE:HG22	1:AW:352:ALA:HB3	1.81	0.62
1:AW:466:ASN:N	1:AW:466:ASN:OD1	2.32	0.62
1:Ab:318:LYS:NZ	1:Ab:356:GLN:OE1	2.31	0.62
1:Ak:242:SER:OG	1:Ak:245:ASN:ND2	2.26	0.62
1:H:460:ARG:HH21	1:H:471:MET:HB2	1.64	0.62
1:L:445:ASP:N	1:L:445:ASP:OD1	2.31	0.62
1:N:495:ARG:NH2	1:e:87:ALA:O	2.31	0.62
1:S:105:ASN:O	1:S:427:GLN:NE2	2.32	0.62
1:T:344:ARG:NH2	1:T:348:GLU:OE2	2.28	0.62
2:a:396:ARG:HH22	1:v:87:ALA:HA	1.64	0.62
1:f:450:TYR:HA	1:f:479:ILE:HG22	1.82	0.62
1:r:234:GLU:HG2	1:r:235:LEU:HD12	1.82	0.62
1:x:390:ASP:HB2	1:x:397:ALA:HB3	1.80	0.62
1:1:495:ARG:NH2	1:7:87:ALA:O	2.33	0.62
1:AE:200:ALA:HB1	1:AE:201(B):GLU:HB3	1.81	0.62
1:AF:151:ASP:HB3	1:AF:154:PHE:HB2	1.81	0.62
1:AG:236:GLN:O	1:AH:466:ASN:ND2	2.33	0.62
1:AN:417:LEU:HB3	1:AN:421:TYR:HB2	1.80	0.62
1:AT:172:THR:H	1:AT:197:THR:HG21	1.63	0.62
1:Ak:142:GLU:HB2	1:Ak:490:GLN:HB3	1.81	0.62
1:Am:333:ASP:OD1	1:Am:334:PHE:N	2.33	0.62
1:G:480:GLY:HA2	1:G:501:PRO:HD3	1.81	0.62
1:L:231:SER:N	1:N:71:ASP:OD2	2.31	0.62
1:M:383:VAL:HG21	1:M:425:ILE:HG22	1.81	0.62
1:S:360:GLU:OE1	1:S:514:ARG:NH1	2.32	0.62
1:Y:242:SER:HB2	1:Y:245:ASN:HD21	1.65	0.62
2:a:240:TYR:OH	2:a:277:ARG:NH2	2.33	0.62
1:s:264:ARG:NH1	1:s:477:TYR:OH	2.32	0.62
1:3:340:ILE:HG22	1:3:352:ALA:HB3	1.81	0.62
1:AD:264:ARG:NH2	1:AD:305:GLU:OE1	2.30	0.62
1:AF:237:GLU:HG2	1:AF:246:PRO:HA	1.82	0.62
1:AI:350:PHE:HB3	1:AI:389:VAL:HG11	1.82	0.62
1:AJ:69:GLY:HA2	1:Ai:274:LEU:HD13	1.81	0.62
1:Ab:105:ASN:HD22	1:Ab:411:SER:HA	1.63	0.62
1:Ad:482:ASN:ND2	1:Ad:483:PRO:O	2.33	0.62
1:Ag:238:GLY:H	1:Ag:242:SER:HB2	1.65	0.62
1:z:344:ARG:NH1	1:z:348:GLU:OE2	2.33	0.62
1:AN:318:LYS:NZ	1:AN:327:SER:OG	2.33	0.62
1:AU:495:ARG:NH2	1:Aa:89:THR:OG1	2.32	0.62
1:AY:242:SER:OG	1:AY:245:ASN:ND2	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:67:GLU:HB3	1:r:270:TYR:HA	1.80	0.62
1:V:231:SER:N	1:X:71:ASP:OD2	2.32	0.62
1:k:453:TYR:HB3	1:k:476:ARG:O	1.99	0.62
1:k:510:ASN:OD1	1:k:511:ALA:N	2.32	0.62
1:r:236:GLN:HB3	1:r:247:TRP:NE1	2.14	0.62
1:x:380:ARG:HH11	1:x:408:THR:HG21	1.64	0.62
1:2:510:ASN:O	1:2:512:TYR:N	2.33	0.61
1:8:301:GLU:HG3	1:9:152:ALA:HA	1.83	0.61
1:AH:344:ARG:NH1	1:AH:348:GLU:OE2	2.33	0.61
1:AT:381:ASN:ND2	1:AT:432:ASP:OD2	2.31	0.61
1:Aa:107:ILE:HD12	1:Aa:307:VAL:HG21	1.82	0.61
1:Ag:169:SER:H	1:Ag:199:ASP:HB2	1.65	0.61
1:U:318:LYS:NZ	1:U:356:GLN:OE1	2.32	0.61
1:X:236:GLN:O	1:Y:466:ASN:ND2	2.32	0.61
1:Y:122:GLY:HA3	1:c:96:MET:HE3	1.81	0.61
1:Y:510:ASN:OD1	1:Y:511:ALA:N	2.33	0.61
1:h:154:PHE:O	1:h:248:ASN:ND2	2.32	0.61
1:2:145:HIS:HD2	1:2:146:PRO:HD2	1.65	0.61
1:3:449:TYR:N	1:3:480:GLY:O	2.34	0.61
1:4:145:HIS:HB3	1:4:148:TYR:HB2	1.82	0.61
1:5:268:ALA:HB2	1:5:294:LEU:HD11	1.82	0.61
1:7:414:ALA:HB3	1:7:423:VAL:HB	1.82	0.61
1:8:344:ARG:NH1	1:8:348:GLU:OE2	2.33	0.61
1:AD:106:LEU:HD21	1:AD:300:LEU:HD22	1.81	0.61
1:AI:495:ARG:NH2	1:AO:87:ALA:O	2.32	0.61
1:Af:235:LEU:O	1:Af:245:ASN:ND2	2.24	0.61
1:J:365:ALA:HB2	1:J:372:GLU:HB3	1.82	0.61
1:R:265:GLN:HB3	1:R:474:LYS:HG3	1.82	0.61
1:W:130:VAL:HG12	1:W:142:GLU:HA	1.81	0.61
1:j:237:GLU:HG2	1:j:246:PRO:HA	1.81	0.61
1:8:363:GLU:OE2	1:8:366:ARG:NH2	2.29	0.61
1:AA:142:GLU:HB2	1:AA:490:GLN:HB3	1.82	0.61
1:AL:107:ILE:HD12	1:AL:307:VAL:HG21	1.82	0.61
1:AM:181:PHE:HD2	1:AM:187:THR:HG23	1.65	0.61
1:AM:298:ILE:HG21	1:AM:456:LEU:HD21	1.82	0.61
1:AW:274:LEU:HD13	1:Ah:69:GLY:HA2	1.81	0.61
1:AZ:385:VAL:HG21	1:AZ:521:ILE:HD12	1.82	0.61
1:Am:190:LEU:HD23	1:Am:221:LEU:HB2	1.82	0.61
2:D:337:VAL:HG23	2:D:384:ASN:HD21	1.65	0.61
1:U:122:GLY:HA3	1:X:96:MET:HE3	1.81	0.61
1:b:131:TYR:HB3	1:b:250:MET:HG3	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f:351:LYS:NZ	1:f:390:ASP:O	2.33	0.61
1:q:171:GLN:OE1	1:q:195:GLN:NE2	2.32	0.61
1:v:130:VAL:HG21	1:v:135:PRO:HA	1.82	0.61
1:x:351:LYS:NZ	1:x:394:SER:O	2.34	0.61
1:8:417:LEU:HB3	1:8:421:TYR:HB2	1.83	0.61
2:A:56:LYS:HD3	2:A:64:PHE:HE1	1.65	0.61
1:AA:351:LYS:NZ	1:AA:390:ASP:O	2.32	0.61
1:AQ:235:LEU:O	1:AQ:245:ASN:ND2	2.32	0.61
1:AT:261:ALA:HA	1:AT:478:GLY:HA3	1.82	0.61
1:AY:278:LEU:HG	1:AY:284:MET:HB2	1.83	0.61
1:O:69:GLY:HA2	1:h:274:LEU:HD23	1.82	0.61
1:V:105:ASN:HB2	1:V:412:VAL:HG23	1.82	0.61
1:f:198:ILE:O	1:f:199:ASP:C	2.40	0.61
1:h:153:MET:SD	1:h:226:GLU:N	2.73	0.61
1:q:387:ALA:HB2	1:q:404:PHE:HB2	1.82	0.61
1:v:223:GLU:OE2	1:y:304:ARG:NH2	2.34	0.61
1:2:171:GLN:HG2	1:2:197:THR:HB	1.81	0.61
1:8:265:GLN:HB3	1:8:474:LYS:HG3	1.82	0.61
1:AT:69:GLY:HA2	1:Aa:274:LEU:HD23	1.81	0.61
1:AU:263:SER:HA	1:AU:476:ARG:HA	1.81	0.61
1:b:145:HIS:HB3	1:b:148:TYR:HB2	1.82	0.61
1:b:237:GLU:OE2	1:b:246:PRO:HA	2.01	0.61
1:b:310:ILE:HG12	1:b:448:ILE:HD12	1.82	0.61
1:f:122:GLY:HA3	1:m:96:MET:HE3	1.83	0.61
1:f:430:LYS:NZ	1:k:223:GLU:OE2	2.34	0.61
1:f:510:ASN:OD1	1:f:511:ALA:N	2.32	0.61
1:j:265:GLN:HG2	1:j:474:LYS:HG2	1.82	0.61
1:n:304:ARG:NH2	1:o:223:GLU:OE1	2.33	0.61
1:4:279:ARG:NH1	1:4:284:MET:O	2.34	0.61
1:AD:110:ASP:O	1:AD:439:LYS:NZ	2.32	0.61
1:AO:383:VAL:HG21	1:AO:425:ILE:HG12	1.81	0.61
1:AP:432:ASP:HB3	1:AP:518:VAL:HG23	1.82	0.61
1:AQ:278:LEU:HD23	1:AQ:286:ALA:HB2	1.81	0.61
1:AV:510:ASN:O	1:AV:512:TYR:N	2.32	0.61
1:Ai:321:MET:SD	1:Ai:366:ARG:NH1	2.73	0.61
1:O:249:GLU:HG2	1:R:267:LYS:HB3	1.83	0.61
1:j:515:ARG:NH2	1:j:517:TYR:OH	2.33	0.61
1:k:235:LEU:O	1:k:245:ASN:ND2	2.34	0.61
1:y:171:GLN:NE2	1:y:195:GLN:OE1	2.29	0.61
1:9:450:TYR:HA	1:9:479:ILE:HG22	1.83	0.61
1:AJ:247:TRP:HE3	1:AM:267:LYS:HB2	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AO:278:LEU:HD23	1:AO:286:ALA:HB2	1.83	0.61
1:Ac:105:ASN:HB2	1:Ac:412:VAL:HG23	1.82	0.61
1:Al:110:ASP:OD2	1:Al:422:ARG:NH2	2.33	0.61
2:D:346:THR:HG21	2:D:357:VAL:HA	1.82	0.61
1:M:270:TYR:HA	1:e:67:GLU:HB3	1.82	0.61
1:O:345:TRP:NE1	1:P:348:GLU:OE2	2.34	0.61
1:V:169:SER:HA	1:V:199:ASP:HB2	1.83	0.61
1:b:351:LYS:NZ	1:b:394:SER:O	2.34	0.61
1:r:240:ASN:O	1:r:241:GLY:C	2.41	0.61
1:4:274:LEU:HD22	1:t:67:GLU:HB3	1.82	0.61
1:AD:105:ASN:ND2	1:AD:409:THR:O	2.34	0.61
1:AE:107:ILE:HG13	1:AE:307:VAL:HG21	1.82	0.61
1:AH:249:GLU:OE1	1:AV:66:ALA:N	2.33	0.61
1:AP:153:MET:HE2	1:AP:157:GLN:HB3	1.81	0.61
1:AP:267:LYS:HB3	1:AQ:249:GLU:HG2	1.83	0.61
2:C:112:GLU:OE1	2:C:136:LYS:NZ	2.34	0.61
1:G:265:GLN:OE1	1:G:474:LYS:NZ	2.34	0.61
1:H:368:THR:HG22	1:H:511:ALA:HB1	1.83	0.61
1:M:351:LYS:NZ	1:M:394:SER:O	2.31	0.61
1:P:503:ILE:HG23	1:P:507:LEU:HD12	1.82	0.61
1:l:235:LEU:O	1:l:245:ASN:ND2	2.33	0.61
1:o:190:LEU:HB3	1:o:221:LEU:HB2	1.82	0.61
1:0:250:MET:HE1	1:AC:297:GLU:HG2	1.81	0.61
1:2:183:GLN:HG3	1:2:205:ALA:HB1	1.83	0.61
1:8:264:ARG:NH1	1:9:155:SER:OG	2.32	0.61
1:AH:69:GLY:HA2	1:AO:274:LEU:HD23	1.83	0.61
1:AR:184:GLU:O	1:AR:366:ARG:NH2	2.24	0.61
1:AW:368:THR:HG22	1:AW:511:ALA:HB1	1.82	0.61
1:Af:344:ARG:NH1	1:Af:348:GLU:OE2	2.34	0.61
2:B:138:ARG:NH1	2:D:404:ASP:OD1	2.33	0.61
1:T:242:SER:OG	1:T:245:ASN:ND2	2.31	0.61
1:X:278:LEU:HD23	1:X:286:ALA:HB2	1.82	0.61
1:k:503:ILE:HG23	1:k:507:LEU:HD12	1.80	0.61
1:p:127:LEU:HD23	1:s:100:ARG:HG2	1.83	0.61
1:0:235:LEU:O	1:0:245:ASN:ND2	2.34	0.61
1:4:345:TRP:HB3	1:4:348:GLU:HG3	1.82	0.61
2:A:384:ASN:HD22	2:A:412:LEU:HD22	1.66	0.61
1:Af:494:SER:O	1:Af:496:ILE:N	2.34	0.61
1:Ah:265:GLN:NE2	1:Ai:236:GLN:OE1	2.34	0.61
1:O:428:TYR:O	1:O:430:LYS:NZ	2.33	0.61
1:h:307:VAL:O	1:h:311:ASN:ND2	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:y:321:MET:SD	1:y:366:ARG:NH1	2.74	0.61
1:8:287:ASP:OD1	1:8:460:ARG:NH2	2.35	0.60
1:AB:521:ILE:O	1:AC:341:ARG:NH2	2.33	0.60
1:AF:245:ASN:OD1	1:AF:245:ASN:N	2.33	0.60
1:AJ:217:GLU:OE2	1:AM:431:GLN:NE2	2.34	0.60
1:AJ:231:SER:N	1:AL:71:ASP:OD1	2.34	0.60
1:AK:333:ASP:OD1	1:AK:334:PHE:N	2.33	0.60
1:AO:404:PHE:HD2	1:AO:414:ALA:HB1	1.65	0.60
1:AQ:264:ARG:NH1	1:AZ:155:SER:OG	2.26	0.60
1:AR:482:ASN:ND2	1:AR:483:PRO:O	2.34	0.60
1:AX:385:VAL:HG21	1:AX:521:ILE:HD12	1.83	0.60
1:Ag:495:ARG:NH2	1:Am:89:THR:OG1	2.34	0.60
1:Al:76:ALA:HB1	1:Am:496:ILE:HG22	1.82	0.60
1:Al:414:ALA:HB2	1:Al:425:ILE:HG13	1.83	0.60
1:Am:278:LEU:HD23	1:Am:286:ALA:HB2	1.83	0.60
1:Am:404:PHE:HD2	1:Am:414:ALA:HB1	1.65	0.60
1:Q:318:LYS:N	1:Q:360:GLU:OE2	2.35	0.60
1:V:287:ASP:OD1	1:V:460:ARG:NH2	2.34	0.60
1:f:201(I):ASP:O	1:f:203:THR:N	2.34	0.60
1:f:304:ARG:NH2	1:k:223:GLU:OE1	2.34	0.60
1:2:351:LYS:NZ	1:2:394:SER:O	2.33	0.60
1:3:198:ILE:HD12	1:3:215:GLN:HG3	1.82	0.60
2:A:248:ARG:HD3	2:B:244:PRO:HG3	1.81	0.60
1:AU:397:ALA:HB1	1:AX:393:ILE:HG23	1.83	0.60
1:AY:444:MET:SD	1:AY:449:TYR:OH	2.58	0.60
2:C:71:THR:O	2:C:81:ARG:NH2	2.33	0.60
1:K:235:LEU:O	1:K:245:ASN:ND2	2.34	0.60
1:L:93:PRO:HB3	1:g:121:THR:HG22	1.83	0.60
1:P:235:LEU:O	1:P:245:ASN:ND2	2.33	0.60
1:T:456:LEU:HA	1:T:475:THR:HG22	1.77	0.60
1:b:231:SER:N	1:d:71:ASP:OD1	2.33	0.60
1:d:268:ALA:HB3	1:d:471:MET:HB2	1.83	0.60
1:e:278:LEU:HD23	1:e:286:ALA:HB2	1.82	0.60
1:f:123:GLN:HG3	1:m:93:PRO:HB2	1.82	0.60
1:1:503:ILE:HG23	1:1:507:LEU:HD12	1.82	0.60
1:9:107:ILE:H	1:9:303:ASN:HD21	1.50	0.60
1:AA:331:VAL:HG12	1:AA:517:TYR:HB2	1.83	0.60
1:AD:107:ILE:HD12	1:AD:307:VAL:HG21	1.84	0.60
1:AH:397:ALA:HB1	1:AI:393:ILE:HG23	1.81	0.60
1:AK:414:ALA:HB3	1:AK:423:VAL:HB	1.83	0.60
1:AL:344:ARG:HG3	1:AM:344:ARG:HD3	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:388:SER:HB3	1:AR:401:ALA:HB2	1.84	0.60
1:AZ:268:ALA:HB1	1:AZ:290:LEU:HD13	1.83	0.60
1:L:345:TRP:HB3	1:L:348:GLU:HB3	1.83	0.60
1:U:262:LYS:NZ	1:V:226:GLU:OE2	2.35	0.60
2:a:346:THR:HG21	2:a:357:VAL:HA	1.83	0.60
1:f:271:SER:HA	1:s:239:PHE:CZ	2.34	0.60
1:k:131:TYR:HE1	1:k:141:LYS:HE3	1.66	0.60
1:u:177:ILE:HG12	1:u:191:GLN:HG2	1.83	0.60
1:u:204:ASP:HA	1:u:207:LYS:HB3	1.83	0.60
1:y:313:SER:HB2	1:y:510:ASN:HB2	1.83	0.60
1:4:340:ILE:HG22	1:4:352:ALA:HB3	1.83	0.60
1:5:363:GLU:OE2	1:5:366:ARG:NH2	2.35	0.60
1:8:156:GLY:HA3	1:8:227:GLY:HA2	1.83	0.60
1:AF:184:GLU:OE2	1:AF:213:LYS:NZ	2.32	0.60
1:AM:263:SER:HB3	1:AM:476:ARG:HG2	1.81	0.60
1:Ac:101:ARG:NH1	1:Al:142:GLU:OE2	2.35	0.60
1:Af:69:GLY:HA2	1:Am:274:LEU:HD23	1.82	0.60
1:Ak:510:ASN:OD1	1:Ak:511:ALA:N	2.34	0.60
1:K:278:LEU:HD23	1:K:286:ALA:HA	1.83	0.60
1:M:495:ARG:NH2	1:O:87:ALA:O	2.33	0.60
1:W:383:VAL:HG21	1:W:425:ILE:HG22	1.83	0.60
2:a:238:LEU:HD22	2:a:281:ILE:HD12	1.83	0.60
1:c:142:GLU:HG2	1:c:143:ALA:H	1.65	0.60
1:c:153:MET:HE2	1:c:226:GLU:H	1.63	0.60
1:e:261:ALA:HA	1:e:478:GLY:HA3	1.83	0.60
1:f:203:THR:CG2	1:f:206:ALA:H	2.14	0.60
1:g:344:ARG:HG3	1:h:344:ARG:HD3	1.83	0.60
1:i:417:LEU:HD23	1:i:421:TYR:HD2	1.67	0.60
1:m:318:LYS:N	1:m:360:GLU:OE2	2.34	0.60
1:v:190:LEU:HD23	1:v:221:LEU:HD13	1.83	0.60
1:1:155:SER:OG	1:z:264:ARG:NH1	2.33	0.60
1:AD:231:SER:OG	1:AF:71:ASP:OD1	2.20	0.60
1:AG:235:LEU:O	1:AG:245:ASN:ND2	2.33	0.60
1:AQ:240:ASN:OD1	1:AS:66:ALA:N	2.35	0.60
1:AT:494:SER:O	1:AT:496:ILE:N	2.34	0.60
1:AV:428:TYR:O	1:AV:430:LYS:NZ	2.32	0.60
1:AY:176:ASP:OD1	1:AY:176:ASP:N	2.32	0.60
1:Ab:430:LYS:HA	1:Ac:185:THR:HG21	1.83	0.60
1:Af:345:TRP:NE1	1:Ag:348:GLU:OE2	2.34	0.60
1:G:133:LYS:HA	1:G:249:GLU:HB2	1.83	0.60
1:L:380:ARG:HG2	1:L:425:ILE:HD11	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:67:GLU:HG3	1:r:274:LEU:HD12	1.83	0.60
1:V:93:PRO:O	1:i:123:GLN:NE2	2.34	0.60
1:v:172:THR:OG1	1:v:173:THR:N	2.34	0.60
1:w:171:GLN:OE1	1:w:195:GLN:NE2	2.31	0.60
1:w:380:ARG:HG2	1:w:425:ILE:HD11	1.84	0.60
1:5:147:MET:HE1	1:5:184:GLU:HA	1.84	0.60
1:8:268:ALA:HB3	1:8:471:MET:HB3	1.82	0.60
1:AA:268:ALA:HB1	1:AA:290:LEU:HD23	1.82	0.60
1:AB:236:GLN:O	1:AB:245:ASN:ND2	2.34	0.60
1:AF:240:ASN:HD21	1:AN:68:ILE:HD11	1.65	0.60
1:AH:494:SER:O	1:AH:496:ILE:N	2.35	0.60
1:AV:133:LYS:HG3	1:AV:249:GLU:HG3	1.84	0.60
1:Ag:239:PHE:O	1:Ag:242:SER:OG	2.20	0.60
1:Ag:510:ASN:OD1	1:Ag:511:ALA:N	2.33	0.60
2:B:362:VAL:HG12	2:B:373:ILE:HG12	1.84	0.60
1:G:236:GLN:O	1:G:247:TRP:NE1	2.32	0.60
1:K:130:VAL:HG21	1:K:135:PRO:HA	1.83	0.60
1:L:345:TRP:NE1	1:g:348:GLU:OE2	2.34	0.60
1:e:75:ASN:O	1:e:77:THR:N	2.35	0.60
1:o:351:LYS:NZ	1:o:390:ASP:O	2.33	0.60
1:p:363:GLU:OE2	1:p:366:ARG:NH2	2.34	0.60
1:t:345:TRP:HB3	1:t:348:GLU:HG3	1.83	0.60
1:0:318:LYS:N	1:0:360:GLU:OE2	2.29	0.60
1:6:453:TYR:HE2	1:6:476:ARG:HH21	1.50	0.60
1:7:235:LEU:O	1:7:245:ASN:ND2	2.34	0.60
1:AB:78:ASN:N	1:AB:78:ASN:OD1	2.35	0.60
1:AP:265:GLN:OE1	1:AP:474:LYS:NZ	2.34	0.60
1:AQ:117:MET:HG3	1:AQ:451:ALA:HB1	1.84	0.60
1:AW:141:LYS:NZ	1:AW:151:ASP:OD2	2.34	0.60
2:B:73:ALA:O	2:D:173:ARG:NE	2.34	0.60
1:K:264:ARG:NH2	1:K:305:GLU:OE1	2.34	0.60
1:Y:344:ARG:NH1	1:Y:348:GLU:OE2	2.34	0.60
1:e:237:GLU:H	1:e:245:ASN:ND2	2.00	0.60
1:p:444:MET:O	1:p:449:TYR:OH	2.20	0.60
1:z:125:PHE:HE1	1:z:256:LYS:HE2	1.65	0.60
1:6:465:LYS:HB3	1:l:237:GLU:HB3	1.83	0.60
1:9:127:LEU:HD13	1:9:254:ILE:HG12	1.83	0.60
1:9:271:SER:HB2	1:G:67:GLU:H	1.67	0.60
1:AH:72:HIS:NE2	1:AH:90:GLN:OE1	2.30	0.60
1:AJ:235:LEU:O	1:AJ:245:ASN:ND2	2.35	0.60
1:AO:171:GLN:NE2	1:AO:195:GLN:OE1	2.29	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:106:LEU:HD11	1:AR:300:LEU:HD22	1.84	0.60
1:AR:146:PRO:HD3	1:Aa:101:ARG:HD2	1.84	0.60
1:AT:239:PHE:N	1:AT:242:SER:OG	2.25	0.60
1:AU:264:ARG:HH11	1:AX:155:SER:HB2	1.65	0.60
1:AY:133:LYS:O	1:AY:133:LYS:NZ	2.35	0.60
1:AZ:417:LEU:HB3	1:AZ:421:TYR:HB2	1.84	0.60
1:Ag:264:ARG:HB3	1:Aj:155:SER:HB3	1.84	0.60
1:Al:385:VAL:HG21	1:Al:521:ILE:HD12	1.84	0.60
2:D:81:ARG:NH1	2:D:105:ASN:O	2.34	0.60
1:V:428:TYR:O	1:V:430:LYS:NZ	2.30	0.60
1:f:480:GLY:HA2	1:f:501:PRO:HD3	1.84	0.60
1:g:160:ALA:HB2	1:g:228:MET:HE3	1.83	0.60
1:w:235:LEU:O	1:w:245:ASN:ND2	2.35	0.60
1:AF:255:ASP:OD1	1:AF:255:ASP:N	2.32	0.60
1:AP:359:LYS:HD2	1:AS:521:ILE:HD11	1.83	0.60
1:AW:460:ARG:NH2	1:AW:471:MET:SD	2.74	0.60
1:AZ:346:ALA:HB2	1:Aa:341:ARG:HB2	1.83	0.60
1:Al:117:MET:HG2	1:Al:451:ALA:HB1	1.83	0.60
1:Al:268:ALA:HB2	1:Al:294:LEU:HD11	1.82	0.60
1:Q:133:LYS:HA	1:Q:249:GLU:HB2	1.82	0.60
1:Q:145:HIS:NE2	1:Q:487:SER:O	2.30	0.60
1:Y:351:LYS:NZ	1:Y:390:ASP:O	2.35	0.60
1:Y:453:TYR:HE2	1:Y:476:ARG:HH21	1.48	0.60
1:f:287:ASP:OD1	1:f:460:ARG:NH2	2.35	0.60
1:g:107:ILE:HD12	1:g:307:VAL:HG21	1.84	0.60
1:m:351:LYS:NZ	1:m:390:ASP:O	2.33	0.60
1:v:430:LYS:HA	1:w:185:THR:HG21	1.83	0.60
1:AL:345:TRP:HB3	1:AL:348:GLU:HG3	1.84	0.60
1:AP:237:GLU:HB2	1:Ak:465:LYS:O	2.01	0.60
1:AR:250:MET:HE1	1:Aa:297:GLU:HG2	1.84	0.60
1:AT:428:TYR:O	1:AT:430:LYS:NZ	2.35	0.60
1:Af:151:ASP:HB3	1:Af:154:PHE:HB2	1.82	0.60
1:Ah:318:LYS:N	1:Ah:360:GLU:OE2	2.33	0.60
1:Am:363:GLU:OE2	1:Am:366:ARG:NH2	2.35	0.60
1:H:344:ARG:NH2	1:H:348:GLU:OE2	2.27	0.60
1:Q:128:ARG:NH2	1:Q:489:ALA:O	2.35	0.60
1:R:160:ALA:HB2	1:R:228:MET:HE2	1.83	0.60
1:Y:133:LYS:NZ	1:Y:249:GLU:OE1	2.35	0.60
1:Y:185:THR:HG21	1:c:430:LYS:HG3	1.83	0.60
2:a:384:ASN:HD22	2:a:412:LEU:HD22	1.66	0.60
1:b:155:SER:OG	1:e:264:ARG:NH1	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:c:235:LEU:O	1:c:245:ASN:ND2	2.34	0.60
1:AB:153:MET:HE1	1:AB:226:GLU:HG2	1.83	0.59
1:AB:381:ASN:HB3	1:AB:521:ILE:HG21	1.83	0.59
1:AD:376:ILE:HG12	1:AD:436:VAL:HG13	1.82	0.59
1:AG:160:ALA:HB2	1:AG:228:MET:HE3	1.83	0.59
1:AH:133:LYS:HB2	1:AV:66:ALA:HB3	1.84	0.59
1:AM:465:LYS:O	1:Ab:237:GLU:HB2	2.02	0.59
1:AV:101:ARG:NE	1:AW:142:GLU:OE2	2.35	0.59
1:AV:287:ASP:OD1	1:AV:460:ARG:NH2	2.35	0.59
2:B:71:THR:O	2:B:81:ARG:NH2	2.32	0.59
1:Q:510:ASN:O	1:Q:512:TYR:N	2.36	0.59
1:U:107:ILE:HD12	1:U:307:VAL:HG21	1.84	0.59
1:d:398:GLN:HE22	1:e:355:PHE:HB2	1.67	0.59
1:j:261:ALA:HA	1:j:478:GLY:HA3	1.84	0.59
1:u:157:GLN:OE1	1:u:161:LYS:NZ	2.31	0.59
1:v:124:VAL:HG22	1:y:96:MET:HB2	1.84	0.59
1:z:201(A):ASP:OD1	1:z:201(A):ASP:N	2.34	0.59
1:8:273:GLU:O	1:8:277:ASP:N	2.28	0.59
1:AA:286:ALA:O	1:AA:288:ALA:N	2.34	0.59
1:AB:128:ARG:NH2	1:AB:489:ALA:O	2.29	0.59
1:AB:273:GLU:H	1:AB:273:GLU:CD	2.07	0.59
1:AD:235:LEU:O	1:AD:245:ASN:ND2	2.35	0.59
1:AK:237:GLU:HG2	1:AK:246:PRO:HA	1.82	0.59
1:AS:376:ILE:HG12	1:AS:436:VAL:HG12	1.84	0.59
1:AZ:331:VAL:HG12	1:AZ:517:TYR:HB2	1.84	0.59
1:Af:267:LYS:NZ	1:Ag:249:GLU:OE2	2.35	0.59
1:Ai:264:ARG:NH1	1:Ai:477:TYR:OH	2.36	0.59
1:Aj:234:GLU:OE2	1:Am:273:GLU:N	2.30	0.59
1:L:173:THR:OG1	1:L:176:ASP:OD2	2.21	0.59
1:P:301:GLU:HG2	1:S:152:ALA:HA	1.84	0.59
1:f:203:THR:C	1:f:205:ALA:N	2.57	0.59
1:k:107:ILE:HG13	1:k:307:VAL:HG21	1.83	0.59
1:p:265:GLN:NE2	1:q:233:ALA:O	2.36	0.59
1:q:68:ILE:HG23	1:u:240:ASN:HD22	1.67	0.59
1:6:128:ARG:HE	1:6:484:PHE:HE1	1.50	0.59
2:A:171:LYS:HD2	2:a:143:ALA:HB3	1.84	0.59
1:AE:169:SER:HA	1:AE:199:ASP:HB2	1.84	0.59
1:AN:398:GLN:OE1	1:AN:399:GLY:N	2.35	0.59
1:AP:72:HIS:HD2	1:AP:79:ILE:HA	1.67	0.59
1:AT:100:ARG:HE	1:AU:127:LEU:HD23	1.67	0.59
1:AY:190:LEU:HB3	1:AY:221:LEU:HB2	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AZ:432:ASP:HB3	1:AZ:518:VAL:HG22	1.84	0.59
2:C:222:SER:O	2:C:224:ARG:NH1	2.35	0.59
2:D:236:ILE:HG22	2:D:416:LEU:HD11	1.84	0.59
1:P:169:SER:H	1:P:199:ASP:HB2	1.68	0.59
1:Q:482:ASN:ND2	1:Q:483:PRO:O	2.35	0.59
1:Z:173:THR:OG1	1:Z:176:ASP:OD2	2.21	0.59
1:l:510:ASN:O	1:l:512:TYR:N	2.35	0.59
1:m:268:ALA:HB1	1:m:290:LEU:HD23	1.84	0.59
1:u:414:ALA:HB3	1:u:423:VAL:HB	1.84	0.59
1:0:388:SER:HB3	1:0:401:ALA:HB2	1.84	0.59
2:A:173:ARG:NH1	2:A:379:TYR:OH	2.36	0.59
2:A:243:ALA:HB3	2:A:245:GLU:HG3	1.84	0.59
2:A:245:GLU:HG2	2:B:243:ALA:HB2	1.83	0.59
1:AM:333:ASP:OD1	1:AM:334:PHE:N	2.35	0.59
2:C:173:ARG:HD3	2:D:143:ALA:HA	1.84	0.59
1:J:89:THR:OG1	1:T:495:ARG:NH2	2.35	0.59
1:v:444:MET:SD	1:v:449:TYR:OH	2.58	0.59
1:2:184:GLU:O	1:2:366:ARG:NH2	2.36	0.59
1:4:90:GLN:HG2	1:t:281:VAL:HG21	1.84	0.59
1:9:199:ASP:O	1:9:201(A):ASP:N	2.36	0.59
1:9:201(B):GLU:HB2	1:9:207:LYS:CE	2.32	0.59
1:AM:161:LYS:O	1:AM:162:LYS:NZ	2.35	0.59
1:AT:351:LYS:NZ	1:AT:390:ASP:O	2.35	0.59
1:AZ:190:LEU:HB3	1:AZ:221:LEU:HB3	1.83	0.59
1:AZ:318:LYS:NZ	1:AZ:327:SER:OG	2.36	0.59
1:Ab:122:GLY:HA3	1:Ae:96:MET:HE3	1.83	0.59
1:Ab:223:GLU:OE2	1:Ae:304:ARG:NH2	2.35	0.59
1:Ab:521:ILE:O	1:Ac:341:ARG:NH1	2.35	0.59
1:Ai:235:LEU:O	1:Ai:245:ASN:ND2	2.36	0.59
1:Ak:381:ASN:HB3	1:Ak:521:ILE:HD13	1.83	0.59
2:B:273:VAL:HG22	2:B:313:TYR:HB2	1.83	0.59
1:W:510:ASN:O	1:W:512:TYR:N	2.35	0.59
1:y:142:GLU:HB2	1:y:490:GLN:HB3	1.84	0.59
1:8:123:GLN:HG3	1:AA:93:PRO:HB2	1.85	0.59
1:AK:493:ALA:N	1:AK:497:GLN:OE1	2.34	0.59
1:AP:331:VAL:HG12	1:AP:517:TYR:HB2	1.85	0.59
1:AX:107:ILE:HD12	1:AX:307:VAL:HG21	1.83	0.59
1:Ab:276:GLN:HG3	1:Ab:279:ARG:HH22	1.67	0.59
1:Ah:250:MET:HE1	1:Ak:297:GLU:HG2	1.84	0.59
1:G:265:GLN:NE2	1:H:228:MET:SD	2.74	0.59
1:H:505:ASN:OD1	1:H:505:ASN:N	2.34	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:428:TYR:O	1:L:430:LYS:NZ	2.35	0.59
1:P:264:ARG:HB3	1:S:155:SER:HB3	1.83	0.59
1:X:414:ALA:HB3	1:X:423:VAL:HB	1.85	0.59
1:h:266:LEU:HD13	1:h:294:LEU:HD22	1.84	0.59
1:i:72:HIS:ND1	1:j:260:GLU:OE2	2.35	0.59
1:l:264:ARG:NH2	1:l:305:GLU:OE1	2.30	0.59
1:o:501:PRO:HA	1:o:505:ASN:HD21	1.67	0.59
1:u:74:TYR:HA	1:u:79:ILE:HD11	1.83	0.59
1:6:268:ALA:HB3	1:6:471:MET:HG3	1.85	0.59
1:AK:141:LYS:NZ	1:AK:151:ASP:OD2	2.36	0.59
1:AY:107:ILE:HD12	1:AY:307:VAL:HG21	1.84	0.59
1:Ai:171:GLN:NE2	1:Ai:195:GLN:OE1	2.35	0.59
2:B:324:ILE:HD11	2:B:415:LEU:HD12	1.83	0.59
2:D:71:THR:O	2:D:81:ARG:NH2	2.35	0.59
1:H:445:ASP:OD1	1:H:445:ASP:N	2.35	0.59
1:L:350:PHE:HB2	1:L:389:VAL:HG11	1.85	0.59
1:d:264:ARG:HD2	1:d:477:TYR:HE2	1.67	0.59
1:f:270:TYR:OH	1:f:287:ASP:OD1	2.21	0.59
1:i:268:ALA:HB1	1:i:290:LEU:HD13	1.85	0.59
1:1:131:TYR:HE1	1:1:141:LYS:HE3	1.67	0.59
1:Ab:117:MET:HG3	1:Ab:451:ALA:HB1	1.84	0.59
1:Ag:495:ARG:NH2	1:Am:87:ALA:O	2.36	0.59
1:Ah:231:SER:N	1:Aj:71:ASP:OD1	2.32	0.59
1:U:153:MET:HE2	1:U:226:GLU:HG2	1.85	0.59
1:f:203:THR:O	1:f:206:ALA:N	2.36	0.59
1:g:84:THR:HG23	1:g:86:GLY:H	1.67	0.59
1:v:363:GLU:OE2	1:v:366:ARG:NH2	2.34	0.59
1:x:130:VAL:HG12	1:x:142:GLU:HA	1.84	0.59
1:AD:265:GLN:OE1	1:AD:474:LYS:NZ	2.34	0.59
1:AL:267:LYS:HB3	1:AM:249:GLU:HG2	1.84	0.59
1:Ab:166:LEU:HD11	1:Ab:198:ILE:HD12	1.84	0.59
1:Aj:234:GLU:CD	1:Am:273:GLU:HB2	2.28	0.59
1:Aj:281:VAL:HG21	1:i:90:GLN:HG2	1.83	0.59
2:B:143:ALA:HA	2:D:173:ARG:HD3	1.84	0.59
2:D:238:LEU:HD22	2:D:281:ILE:HD12	1.85	0.59
1:T:107:ILE:HD12	1:T:307:VAL:HG21	1.83	0.59
2:a:180:THR:HA	2:a:370:GLN:HB3	1.85	0.59
1:f:196:VAL:O	1:f:197:THR:C	2.45	0.59
1:l:171:GLN:OE1	1:l:195:GLN:NE2	2.36	0.59
1:m:466:ASN:OD1	1:m:466:ASN:N	2.34	0.59
1:n:105:ASN:O	1:n:427:GLN:NE2	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:160:ALA:HB2	1:0:228:MET:HE3	1.85	0.59
1:9:199:ASP:OD1	1:9:199:ASP:N	2.36	0.59
1:AB:318:LYS:NZ	1:AB:327:SER:OG	2.36	0.59
1:AL:344:ARG:NH1	1:AL:348:GLU:OE2	2.36	0.59
1:AQ:264:ARG:NH2	1:AQ:305:GLU:OE1	2.36	0.59
1:AV:440:GLY:H	1:AV:445:ASP:HB3	1.67	0.59
1:Aa:261:ALA:HA	1:Aa:478:GLY:HA3	1.85	0.59
1:G:171:GLN:OE1	1:G:195:GLN:NE2	2.35	0.59
1:Y:380:ARG:NH2	1:Y:427:GLN:O	2.36	0.59
1:Z:510:ASN:OD1	1:Z:511:ALA:N	2.36	0.59
1:b:250:MET:HE1	1:e:297:GLU:HG2	1.85	0.59
1:g:237:GLU:HG2	1:g:246:PRO:HA	1.84	0.59
1:i:385:VAL:HG21	1:i:521:ILE:HD12	1.84	0.59
1:i:445:ASP:OD1	1:i:445:ASP:N	2.36	0.59
1:AH:293:ILE:HG22	1:AI:250:MET:HE3	1.86	0.58
1:AL:110:ASP:O	1:AL:439:LYS:NZ	2.36	0.58
1:Ad:145:HIS:HB3	1:Ad:148:TYR:HB2	1.85	0.58
1:H:74:TYR:HA	1:H:79:ILE:HD11	1.84	0.58
1:P:466:ASN:N	1:P:466:ASN:OD1	2.36	0.58
1:b:344:ARG:HH21	1:c:344:ARG:HH12	1.50	0.58
1:g:304:ARG:NE	1:g:308:ASP:OD1	2.35	0.58
1:t:128:ARG:NH2	1:t:489:ALA:O	2.34	0.58
1:y:305:GLU:OE2	1:y:309:TRP:NE1	2.35	0.58
1:6:331:VAL:HG12	1:6:517:TYR:HB2	1.85	0.58
1:AP:89:THR:O	2:B:53:TYR:OH	2.21	0.58
1:AX:398:GLN:OE1	1:AX:399:GLY:N	2.28	0.58
1:Ae:171:GLN:OE1	1:Ae:195:GLN:NE2	2.36	0.58
1:Af:269:ALA:HB2	1:Af:470:VAL:HG12	1.85	0.58
2:B:297:TYR:O	2:B:299:SER:N	2.36	0.58
1:H:360:GLU:OE1	1:H:514:ARG:NH1	2.36	0.58
1:L:278:LEU:HD23	1:L:286:ALA:HB2	1.85	0.58
1:N:184:GLU:OE1	1:N:366:ARG:NH2	2.33	0.58
1:N:239:PHE:CE1	1:O:468:GLN:HG2	2.38	0.58
1:O:270:TYR:HA	1:h:67:GLU:HB3	1.84	0.58
1:P:264:ARG:NH2	1:P:305:GLU:OE1	2.30	0.58
1:l:344:ARG:HH21	1:m:344:ARG:HH12	1.50	0.58
1:r:256:LYS:HD2	1:r:496:ILE:HG12	1.84	0.58
1:AF:322:THR:OG1	1:AF:514:ARG:NH2	2.36	0.58
1:AS:495:ARG:NH2	1:Ak:87:ALA:O	2.36	0.58
1:AT:345:TRP:NE1	1:AU:348:GLU:OE2	2.36	0.58
1:AW:272:ILE:N	1:AW:468:GLN:OE1	2.31	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AZ:521:ILE:O	1:Aa:341:ARG:NH2	2.36	0.58
1:Y:417:LEU:HB3	1:Y:421:TYR:HB2	1.86	0.58
1:f:293:ILE:HG22	1:k:250:MET:HE3	1.84	0.58
1:j:107:ILE:HD12	1:j:307:VAL:HG21	1.84	0.58
1:k:495:ARG:NH2	1:u:87:ALA:O	2.37	0.58
1:0:268:ALA:HB3	1:0:471:MET:HB3	1.85	0.58
1:1:181:PHE:HA	1:1:187:THR:HA	1.84	0.58
1:6:123:GLN:HE21	1:w:95:VAL:HG22	1.67	0.58
2:A:173:ARG:HD3	2:a:143:ALA:HA	1.84	0.58
2:A:235:PHE:HE1	2:A:419:LYS:HG3	1.67	0.58
1:AL:145:HIS:HB3	1:AL:148:TYR:HB2	1.85	0.58
1:AT:444:MET:O	1:AT:449:TYR:OH	2.21	0.58
1:Ae:318:LYS:NZ	1:Ae:327:SER:OG	2.35	0.58
1:K:152:ALA:O	1:N:264:ARG:NH2	2.35	0.58
1:P:95:VAL:HG22	1:S:123:GLN:HE21	1.69	0.58
1:S:343:ALA:HB1	1:S:348:GLU:HB2	1.85	0.58
1:b:481:ILE:N	1:b:499:GLY:O	2.33	0.58
1:f:194:VAL:HG12	1:f:195:GLN:H	1.68	0.58
1:i:262:LYS:N	1:i:477:TYR:O	2.34	0.58
1:j:503:ILE:HG23	1:j:507:LEU:HD22	1.86	0.58
1:z:494:SER:O	1:z:496:ILE:N	2.36	0.58
1:2:228:MET:N	1:5:263:SER:O	2.35	0.58
1:8:170:THR:O	1:8:197:THR:OG1	2.21	0.58
1:9:257:GLN:HG2	1:9:497:GLN:HG3	1.86	0.58
2:A:112:GLU:OE1	2:A:136:LYS:NZ	2.33	0.58
1:AQ:182:PHE:N	1:AQ:186:GLY:O	2.36	0.58
1:AW:305:GLU:OE1	1:AW:309:TRP:NE1	2.36	0.58
1:Aa:368:THR:HG23	1:Aa:370:ARG:H	1.68	0.58
1:K:69:GLY:N	1:g:234:GLU:OE2	2.30	0.58
1:4:97:GLY:HA3	1:5:124:VAL:HG23	1.85	0.58
1:7:141:LYS:NZ	1:7:151:ASP:OD2	2.36	0.58
1:AY:454:VAL:O	1:AY:475:THR:OG1	2.22	0.58
2:B:45:THR:HG22	2:D:25:VAL:HG11	1.86	0.58
1:G:510:ASN:O	1:G:512:TYR:N	2.36	0.58
1:X:242:SER:OG	1:X:245:ASN:ND2	2.36	0.58
1:i:304:ARG:NH2	1:j:223:GLU:OE1	2.37	0.58
1:k:84:THR:CG2	1:k:85:SER:N	2.55	0.58
1:o:168:ALA:HB1	1:o:199:ASP:HB2	1.84	0.58
1:o:444:MET:SD	1:o:449:TYR:OH	2.57	0.58
1:7:171:GLN:NE2	1:7:195:GLN:OE1	2.35	0.58
1:8:481:ILE:N	1:8:499:GLY:O	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:13:THR:OG1	2:A:15:ASN:ND2	2.33	0.58
1:AD:190:LEU:HD23	1:AD:221:LEU:HD13	1.86	0.58
1:AP:235:LEU:O	1:AP:245:ASN:ND2	2.36	0.58
1:AR:318:LYS:N	1:AR:360:GLU:OE2	2.33	0.58
1:AW:351:LYS:NZ	1:AW:390:ASP:O	2.35	0.58
1:AY:515:ARG:NH2	1:AY:517:TYR:OH	2.37	0.58
1:Ae:142:GLU:HB2	1:Ae:490:GLN:HB3	1.86	0.58
1:Ag:96:MET:SD	1:Aj:115:GLN:NE2	2.77	0.58
1:Ag:173:THR:OG1	1:Ag:176:ASP:OD2	2.20	0.58
1:V:397:ALA:HB1	1:i:393:ILE:HG23	1.84	0.58
1:W:123:GLN:OE1	1:W:256:LYS:NZ	2.36	0.58
1:Y:333:ASP:OD1	1:Y:334:PHE:N	2.36	0.58
1:c:343:ALA:HB1	1:c:348:GLU:HG3	1.85	0.58
1:d:383:VAL:HG21	1:d:425:ILE:HG12	1.84	0.58
1:h:351:LYS:NZ	1:h:390:ASP:O	2.37	0.58
1:j:278:LEU:HD23	1:j:286:ALA:HB2	1.84	0.58
1:q:264:ARG:NH2	1:t:226:GLU:O	2.37	0.58
1:u:105:ASN:ND2	1:u:409:THR:O	2.36	0.58
1:1:397:ALA:HB1	1:4:393:ILE:HG23	1.86	0.58
1:AC:107:ILE:HD12	1:AC:307:VAL:HG21	1.86	0.58
1:AE:344:ARG:NH1	1:AE:348:GLU:OE2	2.37	0.58
1:AF:400:LEU:HD11	1:AG:421:TYR:HE1	1.68	0.58
1:AM:242:SER:OG	1:AM:245:ASN:ND2	2.37	0.58
1:AN:374:ASN:N	1:AN:374:ASN:OD1	2.36	0.58
1:AR:256:LYS:HB2	1:AR:496:ILE:HG12	1.85	0.58
1:AR:447:GLY:HA2	1:AR:482:ASN:HB3	1.85	0.58
1:AZ:430:LYS:HG2	1:Aa:216:MET:HE1	1.86	0.58
1:Al:74:TYR:HA	1:Al:79:ILE:HD11	1.86	0.58
2:B:14:THR:HA	1:U:274:LEU:HD13	1.85	0.58
1:V:93:PRO:HB3	1:i:121:THR:HG22	1.85	0.58
1:X:160:ALA:HB2	1:X:228:MET:HE3	1.84	0.58
1:i:486:GLU:HG3	1:i:509:LYS:HB3	1.85	0.58
1:q:79:ILE:HD12	1:t:260:GLU:HB2	1.85	0.58
1:y:454:VAL:O	1:y:475:THR:OG1	2.21	0.58
1:1:263:SER:HA	1:1:476:ARG:HA	1.85	0.58
1:AC:351:LYS:NZ	1:AC:390:ASP:O	2.36	0.58
1:AF:287:ASP:HA	1:AF:471:MET:HE1	1.86	0.58
1:AG:386:LEU:HD13	1:AG:417:LEU:HD22	1.86	0.58
1:AI:266:LEU:HB2	1:AI:298:ILE:HD11	1.85	0.58
1:AX:449:TYR:OH	1:AX:482:ASN:ND2	2.36	0.58
1:Aa:235:LEU:O	1:Aa:245:ASN:ND2	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ac:173:THR:OG1	1:Ac:176:ASP:OD2	2.22	0.58
1:Ad:250:MET:HE1	1:Am:297:GLU:HG2	1.86	0.58
1:Af:350:PHE:HB2	1:Af:389:VAL:HG11	1.86	0.58
1:Q:131:TYR:HB3	1:Q:250:MET:HG3	1.86	0.58
1:W:160:ALA:HB2	1:W:228:MET:HE3	1.86	0.58
1:W:250:MET:HE1	1:j:297:GLU:HG2	1.86	0.58
1:r:517:TYR:CZ	1:s:217:GLU:HA	2.38	0.58
1:z:454:VAL:HG23	1:z:476:ARG:H	1.69	0.58
1:AD:381:ASN:OD1	1:AD:381:ASN:N	2.37	0.58
1:AI:278:LEU:HG	1:AI:284:MET:HB3	1.86	0.58
1:AQ:361:ALA:HB1	1:AQ:372:GLU:HG2	1.85	0.58
1:AV:481:ILE:HD13	1:AV:501:PRO:HG3	1.85	0.58
1:AY:261:ALA:HA	1:AY:478:GLY:HA3	1.86	0.58
1:AZ:131:TYR:HA	1:AZ:250:MET:HG2	1.84	0.58
1:G:181:PHE:HA	1:G:187:THR:HA	1.84	0.58
1:M:388:SER:HB3	1:M:401:ALA:HB2	1.86	0.58
1:V:247:TRP:NE1	1:w:465:LYS:O	2.37	0.58
1:Z:314:ALA:HA	1:Z:513:PHE:HB2	1.86	0.58
1:f:374:ASN:N	1:f:374:ASN:OD1	2.35	0.58
1:g:363:GLU:OE2	1:g:366:ARG:NH2	2.32	0.58
1:k:173:THR:OG1	1:k:176:ASP:OD2	2.21	0.58
1:o:444:MET:O	1:o:449:TYR:OH	2.21	0.58
1:w:169:SER:H	1:w:199:ASP:HB2	1.69	0.58
1:9:397:ALA:HB1	1:AB:393:ILE:HG23	1.86	0.57
1:AE:66:ALA:N	1:AO:240:ASN:OD1	2.37	0.57
1:AE:450:TYR:HA	1:AE:479:ILE:HG22	1.85	0.57
1:AJ:123:GLN:NE2	1:AM:93:PRO:O	2.36	0.57
1:AV:153:MET:HE1	1:AV:177:ILE:HG21	1.85	0.57
1:AX:236:GLN:OE1	1:AX:245:ASN:ND2	2.37	0.57
1:G:123:GLN:NE2	1:J:93:PRO:O	2.29	0.57
1:M:171:GLN:HG2	1:M:197:THR:HG22	1.86	0.57
1:O:90:GLN:HA	1:h:281:VAL:HG11	1.86	0.57
1:O:194:VAL:HB	1:O:196:VAL:HG12	1.86	0.57
1:O:380:ARG:NH2	1:O:427:GLN:O	2.37	0.57
1:U:153:MET:HE3	1:U:225:ALA:HA	1.84	0.57
1:X:142:GLU:HB2	1:X:490:GLN:HB3	1.85	0.57
1:e:177:ILE:HG12	1:e:191:GLN:HG2	1.86	0.57
1:g:268:ALA:HB2	1:g:294:LEU:HD11	1.85	0.57
1:g:357:ILE:HD13	1:g:376:ILE:HD11	1.86	0.57
1:i:257:GLN:HE21	1:i:497:GLN:HE21	1.52	0.57
1:n:376:ILE:HG13	1:n:436:VAL:HG22	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:q:510:ASN:OD1	1:q:511:ALA:N	2.36	0.57
1:t:398:GLN:OE1	1:t:399:GLY:N	2.33	0.57
1:w:107:ILE:HG13	1:w:307:VAL:HG21	1.86	0.57
1:6:344:ARG:NH1	1:6:348:GLU:OE2	2.37	0.57
1:7:252:PHE:N	1:n:67:GLU:OE2	2.37	0.57
1:9:201(B):GLU:O	1:9:201(D):GLU:N	2.37	0.57
1:9:264:ARG:NH2	1:9:305:GLU:OE1	2.34	0.57
1:AE:376:ILE:HG12	1:AE:436:VAL:HG22	1.86	0.57
1:AF:344:ARG:HH21	1:AG:344:ARG:HH12	1.52	0.57
1:AI:345:TRP:HZ2	1:AL:396:ALA:HB2	1.69	0.57
1:AS:380:ARG:NH1	1:AS:427:GLN:O	2.36	0.57
1:AU:72:HIS:ND1	1:AX:260:GLU:OE2	2.36	0.57
1:AW:235:LEU:O	1:AW:245:ASN:ND2	2.37	0.57
1:AW:304:ARG:NH2	1:AW:308:ASP:OD1	2.37	0.57
1:AX:357:ILE:HD13	1:AX:376:ILE:HD11	1.85	0.57
1:Ac:345:TRP:HE3	1:Ac:347:GLY:H	1.52	0.57
1:Ae:351:LYS:NZ	1:Ae:390:ASP:O	2.37	0.57
1:Ah:230:THR:OG1	1:Ak:476:ARG:NH1	2.37	0.57
1:Al:145:HIS:HB3	1:Al:148:TYR:HB2	1.87	0.57
2:C:244:PRO:HG3	2:D:248:ARG:HD3	1.86	0.57
1:L:520:GLY:O	1:g:341:ARG:NH2	2.37	0.57
1:M:130:VAL:HG12	1:M:142:GLU:HA	1.85	0.57
1:R:69:GLY:HA2	1:b:274:LEU:HD23	1.85	0.57
1:g:351:LYS:HZ2	1:g:396:ALA:H	1.52	0.57
1:k:397:ALA:HB1	1:n:393:ILE:HG23	1.84	0.57
1:l:181:PHE:HD1	1:l:187:THR:HB	1.69	0.57
1:s:383:VAL:HG21	1:s:425:ILE:HG12	1.86	0.57
1:0:128:ARG:NE	1:0:490:GLN:O	2.37	0.57
1:AG:383:VAL:HG21	1:AG:425:ILE:HG12	1.86	0.57
1:AH:281:VAL:HG21	1:AO:90:GLN:HG2	1.86	0.57
1:AK:69:GLY:HA2	1:AV:274:LEU:HD23	1.87	0.57
1:Aj:110:ASP:O	1:Aj:439:LYS:NZ	2.33	0.57
1:Al:322:THR:O	1:Al:322:THR:OG1	2.22	0.57
2:B:243:ALA:HB1	2:B:244:PRO:HD2	1.86	0.57
1:G:250:MET:HE1	1:J:297:GLU:HG2	1.85	0.57
1:H:414:ALA:HB3	1:H:423:VAL:HB	1.86	0.57
1:K:223:GLU:OE2	1:N:304:ARG:NH2	2.36	0.57
1:U:383:VAL:HG21	1:U:425:ILE:HG12	1.86	0.57
1:X:376:ILE:HG12	1:X:436:VAL:HG12	1.85	0.57
1:Y:262:LYS:HE2	1:c:74:TYR:HE2	1.68	0.57
1:l:106:LEU:HD11	1:l:300:LEU:HD22	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:368:THR:HG23	1:o:370:ARG:H	1.69	0.57
1:t:182:PHE:N	1:t:186:GLY:O	2.33	0.57
1:w:387:ALA:HB2	1:w:404:PHE:HB2	1.84	0.57
1:0:279:ARG:HH12	1:0:285:ASP:HB3	1.69	0.57
1:3:318:LYS:NZ	1:3:327:SER:OG	2.37	0.57
1:AA:318:LYS:NZ	1:AA:327:SER:OG	2.37	0.57
1:AH:145:HIS:HD2	1:AH:147:MET:H	1.52	0.57
1:AH:417:LEU:HB3	1:AH:421:TYR:HB2	1.85	0.57
1:AO:153:MET:SD	1:AO:226:GLU:N	2.72	0.57
1:AS:153:MET:HE3	1:AS:225:ALA:HA	1.86	0.57
1:Ab:272:ILE:HG12	1:Ab:469:PRO:HD3	1.87	0.57
1:Al:383:VAL:HG21	1:Al:425:ILE:HG12	1.86	0.57
2:D:367:GLU:OE1	2:D:368:SER:N	2.37	0.57
1:H:195:GLN:O	1:H:195:GLN:NE2	2.37	0.57
1:N:331:VAL:HG12	1:N:517:TYR:HB2	1.86	0.57
1:U:264:ARG:NH2	1:V:226:GLU:O	2.38	0.57
1:U:495:ARG:NH2	1:w:87:ALA:O	2.37	0.57
1:Y:170:THR:O	1:Y:197:THR:OG1	2.22	0.57
1:Y:277:ASP:OD2	1:j:90:GLN:NE2	2.37	0.57
2:a:17:ASN:OD1	2:a:18:SER:N	2.37	0.57
1:f:494:SER:O	1:f:496:ILE:N	2.37	0.57
1:h:239:PHE:N	1:h:242:SER:OG	2.37	0.57
1:p:242:SER:HB2	1:p:245:ASN:HD21	1.69	0.57
1:p:345:TRP:NE1	1:q:348:GLU:OE2	2.37	0.57
1:s:160:ALA:HB2	1:s:228:MET:HE2	1.86	0.57
1:1:301:GLU:HG2	1:4:152:ALA:HA	1.86	0.57
1:4:344:ARG:NH1	1:4:348:GLU:OE2	2.37	0.57
1:9:454:VAL:O	1:9:475:THR:OG1	2.22	0.57
1:AB:134:ASP:HB3	1:AB:137:ALA:HB2	1.86	0.57
1:AC:87:ALA:O	1:h:495:ARG:NH2	2.37	0.57
1:AG:376:ILE:HG12	1:AG:436:VAL:HG12	1.86	0.57
1:AS:426:ASP:OD2	1:AS:433:TYR:OH	2.22	0.57
1:Ac:278:LEU:HD23	1:Ac:286:ALA:HB2	1.86	0.57
1:Af:259:ILE:HG21	1:Af:480:GLY:HA3	1.86	0.57
2:D:100:LEU:HD23	2:D:109:LYS:HB3	1.86	0.57
2:D:352:ASP:N	2:D:352:ASP:OD1	2.37	0.57
1:K:381:ASN:HD22	1:K:521:ILE:HG21	1.69	0.57
1:U:368:THR:HG22	1:U:370:ARG:HG3	1.87	0.57
1:e:363:GLU:OE2	1:e:366:ARG:NH2	2.34	0.57
1:m:142:GLU:HG2	1:m:143:ALA:H	1.69	0.57
1:1:72:HIS:ND1	1:4:260:GLU:OE2	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:376:ILE:HG12	1:AA:436:VAL:HG12	1.87	0.57
1:AE:173:THR:OG1	1:AE:176:ASP:OD2	2.22	0.57
1:AE:182:PHE:N	1:AE:186:GLY:O	2.33	0.57
1:AF:131:TYR:HE1	1:AF:141:LYS:HE3	1.69	0.57
1:AJ:274:LEU:HD23	1:Ai:69:GLY:HA2	1.86	0.57
2:C:61:ASP:OD2	2:C:105:ASN:ND2	2.37	0.57
1:M:106:LEU:HD11	1:M:300:LEU:HD22	1.87	0.57
1:O:406:THR:O	1:O:406:THR:OG1	2.20	0.57
1:c:414:ALA:HB3	1:c:423:VAL:HB	1.86	0.57
1:l:388:SER:HB3	1:l:401:ALA:HB2	1.87	0.57
1:r:242:SER:HB3	1:r:245:ASN:ND2	2.19	0.57
1:r:383:VAL:HG21	1:r:425:ILE:HG22	1.85	0.57
1:s:117:MET:HG3	1:s:451:ALA:HB1	1.86	0.57
1:x:256:LYS:HB2	1:x:496:ILE:HG12	1.86	0.57
1:x:264:ARG:NH2	1:x:305:GLU:OE1	2.34	0.57
1:z:105:ASN:N	1:z:105:ASN:OD1	2.36	0.57
1:z:264:ARG:NH2	1:z:305:GLU:OE1	2.35	0.57
1:1:67:GLU:HG3	1:k:274:LEU:HD22	1.87	0.57
1:4:466:ASN:HB3	1:r:237:GLU:HB2	1.85	0.57
1:5:242:SER:OG	1:5:245:ASN:ND2	2.34	0.57
1:6:240:ASN:HD22	1:v:66:ALA:N	2.02	0.57
1:7:272:ILE:N	1:7:468:GLN:OE1	2.37	0.57
1:8:136:VAL:HA	1:8:253:ARG:HH12	1.68	0.57
1:AN:432:ASP:HB3	1:AN:518:VAL:HG22	1.87	0.57
1:AQ:361:ALA:HB1	1:AQ:372:GLU:CG	2.34	0.57
1:Ai:237:GLU:HG2	1:Ai:246:PRO:HA	1.86	0.57
1:Al:486:GLU:HG3	1:Al:509:LYS:HB3	1.87	0.57
1:J:278:LEU:HD23	1:J:286:ALA:HB2	1.85	0.57
1:M:380:ARG:NH2	1:M:427:GLN:O	2.37	0.57
1:P:495:ARG:NH2	1:h:87:ALA:O	2.37	0.57
2:a:61:ASP:OD2	2:a:105:ASN:ND2	2.37	0.57
1:b:324:THR:HG22	1:b:325:PRO:HD2	1.86	0.57
1:i:346:ALA:HB2	1:j:341:ARG:HB2	1.87	0.57
1:y:365:ALA:HB2	1:y:372:GLU:HA	1.86	0.57
1:2:322:THR:OG1	1:2:514:ARG:NH2	2.37	0.57
1:9:67:GLU:HB3	1:G:274:LEU:HD12	1.86	0.57
1:AI:345:TRP:CZ2	1:AL:396:ALA:HB2	2.40	0.57
1:AO:264:ARG:NE	1:AO:477:TYR:OH	2.36	0.57
1:AP:69:GLY:HA2	2:D:183:LEU:HD12	1.86	0.57
1:AT:350:PHE:HB2	1:AT:389:VAL:HG11	1.87	0.57
1:Ad:495:ARG:NH2	1:Af:87:ALA:O	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Af:271:SER:O	1:Af:468:GLN:NE2	2.38	0.57
1:Ah:154:PHE:O	1:Ah:248:ASN:ND2	2.37	0.57
1:Ah:234:GLU:HG3	1:Ah:235:LEU:CD1	2.34	0.57
1:Ak:75:ASN:O	1:Ak:77:THR:N	2.37	0.57
1:O:135:PRO:O	1:O:253:ARG:NH1	2.35	0.57
1:U:344:ARG:HH12	1:X:345:TRP:HB2	1.70	0.57
1:Z:350:PHE:HB2	1:Z:389:VAL:HG11	1.85	0.57
1:Z:395:TYR:HD1	1:Z:396:ALA:H	1.53	0.57
1:d:521:ILE:O	1:e:341:ARG:NH2	2.37	0.57
1:l:265:GLN:NE2	1:m:228:MET:SD	2.78	0.57
1:0:142:GLU:OE2	1:AC:101:ARG:NE	2.37	0.57
1:2:203:THR:O	1:2:204:ASP:C	2.44	0.57
1:8:249:GLU:HG2	1:AA:267:LYS:HB3	1.85	0.57
1:AQ:101:ARG:NH1	1:AZ:142:GLU:OE2	2.38	0.57
1:AR:123:GLN:OE1	1:AR:256:LYS:NZ	2.38	0.57
1:Af:170:THR:O	1:Af:197:THR:OG1	2.23	0.57
1:Aj:145:HIS:CE1	1:Aj:147:MET:HG2	2.40	0.57
1:K:466:ASN:O	1:K:468:GLN:NE2	2.37	0.57
1:U:430:LYS:HA	1:V:185:THR:HG21	1.87	0.57
1:c:333:ASP:OD1	1:c:334:PHE:N	2.38	0.57
1:e:242:SER:OG	1:e:245:ASN:ND2	2.37	0.57
1:k:263:SER:HA	1:k:476:ARG:HA	1.86	0.57
1:t:239:PHE:O	1:t:240:ASN:ND2	2.38	0.57
1:t:357:ILE:HD13	1:t:376:ILE:HD11	1.87	0.57
1:7:363:GLU:OE2	1:7:366:ARG:NH2	2.32	0.57
2:A:227:VAL:H	2:A:231:THR:HB	1.70	0.57
2:A:238:LEU:HD13	2:A:418:VAL:HG13	1.87	0.57
1:AC:117:MET:HG3	1:AC:451:ALA:HB1	1.86	0.57
1:AD:264:ARG:NH2	1:AE:226:GLU:O	2.38	0.57
1:AI:265:GLN:NE2	1:AL:228:MET:SD	2.78	0.57
1:AI:267:LYS:HG2	1:AL:247:TRP:CD1	2.39	0.57
1:AN:232:ILE:O	1:AN:234:GLU:N	2.38	0.57
1:AP:259:ILE:HD11	1:AS:96:MET:HE1	1.86	0.57
1:AT:201(F):GLU:O	1:AT:201(H):GLU:N	2.38	0.57
1:AV:388:SER:HB3	1:AV:401:ALA:HB2	1.87	0.57
1:Ac:380:ARG:HG2	1:Ac:425:ILE:HD11	1.87	0.57
1:Ak:190:LEU:HG	1:Ak:221:LEU:HD12	1.85	0.57
2:C:23:ASN:OD1	2:D:46:ASN:ND2	2.36	0.57
1:J:237:GLU:HB2	1:J:246:PRO:HA	1.87	0.57
1:O:172:THR:H	1:O:197:THR:HB	1.70	0.57
1:S:358:ASP:OD1	1:S:420:LYS:NZ	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:343:ALA:HB1	1:V:348:GLU:HG2	1.87	0.57
1:r:105:ASN:O	1:r:427:GLN:NE2	2.37	0.57
1:x:360:GLU:OE1	1:x:514:ARG:NE	2.34	0.57
1:1:264:ARG:HB3	1:4:155:SER:HB3	1.87	0.56
1:9:271:SER:HB3	1:9:274:LEU:HD13	1.87	0.56
1:AF:495:ARG:NH2	1:AH:87:ALA:O	2.38	0.56
1:AH:242:SER:HB2	1:AH:245:ASN:HD21	1.70	0.56
1:AP:91:ILE:O	2:B:165:LYS:NZ	2.34	0.56
1:AZ:142:GLU:HB2	1:AZ:490:GLN:HB3	1.86	0.56
1:AZ:237:GLU:HG2	1:AZ:246:PRO:HA	1.87	0.56
1:Ac:101:ARG:HE	1:Al:146:PRO:HD3	1.69	0.56
1:Ah:76:ALA:HB1	1:Ai:496:ILE:HG22	1.86	0.56
1:Aj:385:VAL:HG21	1:Aj:521:ILE:HD12	1.87	0.56
1:Al:345:TRP:HB3	1:Al:348:GLU:HG3	1.86	0.56
2:C:267:TYR:HB3	2:C:327:VAL:HG21	1.87	0.56
1:M:145:HIS:HB3	1:M:148:TYR:HB2	1.87	0.56
1:T:368:THR:HG23	1:T:370:ARG:H	1.70	0.56
1:i:237:GLU:HG2	1:i:246:PRO:HA	1.86	0.56
1:q:267:LYS:HG3	1:t:249:GLU:HG3	1.86	0.56
1:v:264:ARG:NH2	1:w:226:GLU:O	2.38	0.56
1:y:386:LEU:HD13	1:y:417:LEU:HD22	1.86	0.56
1:8:268:ALA:O	1:8:471:MET:N	2.37	0.56
1:9:199:ASP:CB	1:9:201(A):ASP:HB3	2.35	0.56
1:AD:449:TYR:N	1:AD:480:GLY:O	2.34	0.56
1:AI:93:PRO:HB3	1:AL:121:THR:HG22	1.85	0.56
1:AI:123:GLN:HE22	1:AO:91:ILE:HG23	1.69	0.56
1:AK:235:LEU:O	1:AK:245:ASN:ND2	2.37	0.56
1:AK:340:ILE:HG22	1:AK:352:ALA:HB3	1.88	0.56
1:Ad:310:ILE:HG13	1:Ad:448:ILE:HD12	1.87	0.56
1:X:129:ALA:O	1:X:143:ALA:HB2	2.05	0.56
1:h:264:ARG:NH2	1:h:305:GLU:OE1	2.30	0.56
1:n:358:ASP:OD1	1:n:420:LYS:NZ	2.38	0.56
1:r:145:HIS:HB3	1:r:148:TYR:HB2	1.87	0.56
1:s:318:LYS:N	1:s:360:GLU:OE2	2.36	0.56
1:t:268:ALA:HB1	1:t:290:LEU:HD13	1.87	0.56
1:0:267:LYS:HB3	1:AA:249:GLU:HG2	1.88	0.56
1:3:414:ALA:HB3	1:3:423:VAL:HB	1.86	0.56
1:4:89:THR:OG1	1:u:495:ARG:NH2	2.38	0.56
1:5:331:VAL:HG11	1:5:519:LYS:HE2	1.87	0.56
1:9:265:GLN:HG3	1:AB:247:TRP:HE1	1.70	0.56
2:A:165:LYS:NZ	1:U:91:ILE:O	2.32	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AD:171:GLN:OE1	1:AD:195:GLN:NE2	2.38	0.56
1:AD:341:ARG:HH22	1:AG:521:ILE:HD13	1.70	0.56
1:AE:383:VAL:HG21	1:AE:425:ILE:HB	1.87	0.56
1:AG:254:ILE:HG23	1:AY:88:VAL:HA	1.88	0.56
1:AH:152:ALA:O	1:AK:264:ARG:NH2	2.38	0.56
1:AH:431:GLN:NE2	1:AI:217:GLU:OE2	2.39	0.56
1:AJ:464:PRO:HB2	1:Af:470:VAL:HG21	1.87	0.56
1:AK:376:ILE:HG12	1:AK:436:VAL:HG12	1.86	0.56
1:AN:390:ASP:HB2	1:AN:397:ALA:HB3	1.87	0.56
1:AQ:344:ARG:NH1	1:AQ:348:GLU:OE2	2.38	0.56
1:AR:121:THR:HG22	1:Aa:79:ILE:HG23	1.88	0.56
1:AV:145:HIS:CD2	1:AV:146:PRO:HD2	2.40	0.56
1:AX:319:SER:O	1:AX:322:THR:OG1	2.22	0.56
1:Ab:395:TYR:HD1	1:Ab:396:ALA:H	1.51	0.56
1:Ad:510:ASN:O	1:Ad:512:TYR:N	2.37	0.56
1:Af:148:TYR:HD1	1:Af:186:GLY:HA2	1.69	0.56
1:Ah:510:ASN:O	1:Ah:512:TYR:N	2.38	0.56
1:Al:145:HIS:CE1	1:Al:147:MET:HG2	2.40	0.56
2:B:369:LEU:HD13	1:V:459:LEU:HB2	1.88	0.56
1:G:204:ASP:HA	1:G:207:LYS:HB2	1.87	0.56
1:L:117:MET:HG3	1:L:451:ALA:HB1	1.86	0.56
1:O:264:ARG:NH2	1:O:305:GLU:OE1	2.31	0.56
1:U:213:LYS:HE3	1:X:430:LYS:HB3	1.85	0.56
1:U:466:ASN:O	1:U:468:GLN:NE2	2.38	0.56
1:V:261:ALA:HA	1:V:478:GLY:HA3	1.87	0.56
1:e:442:ASN:OD1	1:e:443:GLU:N	2.38	0.56
1:p:494:SER:O	1:p:496:ILE:N	2.38	0.56
1:s:340:ILE:HG22	1:s:352:ALA:HB3	1.87	0.56
1:1:116:PRO:HA	1:1:452:PRO:HD2	1.87	0.56
1:4:262:LYS:NZ	1:5:226:GLU:OE2	2.38	0.56
1:4:486:GLU:HG3	1:4:509:LYS:HB3	1.87	0.56
1:AA:486:GLU:O	1:AA:488:ALA:N	2.34	0.56
1:AH:301:GLU:HG3	1:AI:152:ALA:HA	1.87	0.56
1:AS:318:LYS:NZ	1:AS:327:SER:OG	2.39	0.56
1:Ab:185:THR:HG21	1:Ae:430:LYS:HE3	1.86	0.56
1:Am:442:ASN:OD1	1:Am:443:GLU:N	2.38	0.56
2:C:198:LEU:HD23	2:C:373:ILE:HD12	1.86	0.56
1:K:166:LEU:HD11	1:K:198:ILE:HD12	1.86	0.56
1:O:267:LYS:HB2	1:P:247:TRP:CE3	2.41	0.56
1:Q:184:GLU:O	1:Q:366:ARG:NH2	2.39	0.56
1:T:258:VAL:O	1:T:499:GLY:N	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:274:LEU:HD22	1:j:69:GLY:HA2	1.88	0.56
1:Z:109:PHE:HE1	1:Z:306:VAL:HG21	1.70	0.56
1:k:131:TYR:HB3	1:k:250:MET:HG2	1.86	0.56
1:p:223:GLU:OE1	1:s:304:ARG:NH2	2.39	0.56
1:s:149:GLY:N	1:s:185:THR:O	2.38	0.56
1:v:110:ASP:O	1:v:439:LYS:NZ	2.32	0.56
1:x:456:LEU:HD23	1:x:475:THR:HB	1.88	0.56
1:0:184:GLU:OE2	1:0:213:LYS:NZ	2.36	0.56
1:2:223:GLU:OE1	1:5:304:ARG:NH2	2.33	0.56
1:6:393:ILE:HG23	1:w:397:ALA:HB1	1.87	0.56
1:8:351:LYS:NZ	1:8:390:ASP:O	2.38	0.56
1:8:444:MET:O	1:8:449:TYR:OH	2.22	0.56
1:AH:274:LEU:HD13	1:AO:69:GLY:HA2	1.85	0.56
1:AK:363:GLU:OE2	1:AK:366:ARG:NH1	2.37	0.56
1:AQ:173:THR:OG1	1:AQ:176:ASP:OD2	2.22	0.56
1:AT:293:ILE:HG22	1:AU:250:MET:HE3	1.88	0.56
1:AU:171:GLN:OE1	1:AU:195:GLN:NE2	2.39	0.56
1:AX:282:HIS:O	1:AX:284:MET:N	2.35	0.56
1:Aa:95:VAL:HG12	1:Aa:97:GLY:H	1.69	0.56
1:Aa:171:GLN:NE2	1:Aa:195:GLN:OE1	2.39	0.56
1:Af:239:PHE:N	1:Af:242:SER:OG	2.30	0.56
1:Ah:217:GLU:OE2	1:Ak:431:GLN:NE2	2.38	0.56
2:C:180:THR:HA	2:C:370:GLN:HB3	1.88	0.56
2:D:384:ASN:HD22	2:D:412:LEU:HD22	1.71	0.56
1:K:264:ARG:NH2	1:L:226:GLU:O	2.39	0.56
1:L:181:PHE:HA	1:L:187:THR:HA	1.87	0.56
1:M:133:LYS:HA	1:M:249:GLU:HB2	1.86	0.56
1:O:301:GLU:HG3	1:P:152:ALA:HA	1.87	0.56
1:W:101:ARG:NE	1:X:142:GLU:OE2	2.33	0.56
1:W:495:ARG:NH2	1:Y:87:ALA:O	2.39	0.56
1:e:404:PHE:HD2	1:e:414:ALA:HB1	1.71	0.56
1:f:201(I):ASP:O	1:f:202:ALA:C	2.48	0.56
1:h:344:ARG:NH2	1:h:348:GLU:OE2	2.39	0.56
1:k:166:LEU:HD22	1:k:198:ILE:HG13	1.86	0.56
1:r:510:ASN:O	1:r:512:TYR:N	2.39	0.56
1:u:318:LYS:N	1:u:360:GLU:OE2	2.36	0.56
1:v:368:THR:HG22	1:v:370:ARG:HG3	1.87	0.56
1:4:153:MET:HE2	1:4:225:ALA:HA	1.87	0.56
1:7:240:ASN:OD1	1:w:66:ALA:N	2.39	0.56
2:A:99:ASP:OD1	2:A:99:ASP:N	2.37	0.56
1:AA:264:ARG:NH1	1:AA:477:TYR:OH	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AH:190:LEU:HD21	1:AH:216:MET:HE2	1.87	0.56
1:AN:182:PHE:N	1:AN:186:GLY:O	2.39	0.56
1:AS:336:ASP:HB3	1:AS:339:ASP:HB2	1.87	0.56
1:AZ:336:ASP:HB3	1:AZ:339:ASP:HB2	1.87	0.56
1:Al:201(H):GLU:HG2	1:Al:201(I):ASP:H	1.70	0.56
1:J:113:GLY:H	1:J:446:ALA:HB1	1.69	0.56
1:J:117:MET:HG3	1:J:451:ALA:HB1	1.88	0.56
1:N:242:SER:OG	1:N:245:ASN:ND2	2.37	0.56
1:R:267:LYS:HE2	1:R:470:VAL:HG11	1.88	0.56
1:S:182:PHE:N	1:S:186:GLY:O	2.38	0.56
1:T:87:ALA:O	1:s:495:ARG:NH2	2.39	0.56
1:U:406:THR:OG1	1:V:372:GLU:OE2	2.21	0.56
1:j:328:LYS:NZ	1:j:333:ASP:OD2	2.32	0.56
1:m:237:GLU:HG2	1:m:246:PRO:HA	1.88	0.56
1:n:74:TYR:HD1	1:o:500:MET:HE3	1.70	0.56
1:w:466:ASN:O	1:w:468:GLN:NE2	2.39	0.56
1:1:127:LEU:HD23	1:z:100:ARG:HE	1.70	0.56
1:1:223:GLU:OE1	1:z:304:ARG:NH2	2.39	0.56
1:1:348:GLU:OE2	1:z:345:TRP:NE1	2.39	0.56
1:5:515:ARG:NH2	1:5:517:TYR:OH	2.31	0.56
1:7:107:ILE:HD12	1:7:307:VAL:HG21	1.87	0.56
1:AC:128:ARG:NH1	1:AC:490:GLN:O	2.38	0.56
1:AE:231:SER:N	1:AG:71:ASP:OD2	2.38	0.56
1:AH:350:PHE:HB2	1:AH:389:VAL:HG11	1.86	0.56
1:AI:133:LYS:HZ3	1:AI:133:LYS:HA	1.69	0.56
1:AI:387:ALA:HB2	1:AI:404:PHE:HD2	1.71	0.56
1:AM:264:ARG:NH2	1:AM:305:GLU:OE1	2.34	0.56
1:AR:287:ASP:HA	1:AR:471:MET:HE1	1.87	0.56
1:AV:260:GLU:OE2	1:AY:72:HIS:ND1	2.39	0.56
1:Ae:104:PRO:HG2	1:Ae:300:LEU:HD11	1.86	0.56
1:Af:510:ASN:OD1	1:Af:511:ALA:N	2.38	0.56
1:Ai:304:ARG:NH2	1:Ai:308:ASP:OD1	2.39	0.56
1:Am:315:GLN:HB3	1:Am:514:ARG:HD2	1.88	0.56
1:P:454:VAL:O	1:P:475:THR:OG1	2.24	0.56
1:V:264:ARG:HB3	1:i:155:SER:HB2	1.88	0.56
1:b:265:GLN:HE22	1:c:233:ALA:HA	1.70	0.56
1:g:101:ARG:HD3	1:h:146:PRO:HD3	1.88	0.56
1:j:264:ARG:NH2	1:j:305:GLU:OE1	2.28	0.56
1:k:71:ASP:O	1:k:84:THR:HG23	2.06	0.56
1:o:510:ASN:OD1	1:o:511:ALA:N	2.39	0.56
1:u:444:MET:O	1:u:449:TYR:OH	2.22	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:484:PHE:O	1:2:487:SER:OG	2.21	0.56
1:4:278:LEU:HD21	1:4:284:MET:HB2	1.87	0.56
1:7:67:GLU:HG3	1:z:274:LEU:HD23	1.88	0.56
1:AF:145:HIS:CD2	1:AF:146:PRO:HD2	2.40	0.56
1:AI:267:LYS:HZ3	1:AL:247:TRP:CG	2.24	0.56
1:AK:184:GLU:HB3	1:AK:366:ARG:HH22	1.71	0.56
1:AL:182:PHE:N	1:AL:186:GLY:O	2.39	0.56
1:AR:383:VAL:HG21	1:AR:425:ILE:HG22	1.88	0.56
1:AS:239:PHE:CE1	1:AT:468:GLN:HG2	2.40	0.56
1:AY:75:ASN:O	1:AY:77:THR:N	2.38	0.56
1:G:460:ARG:HH21	1:G:471:MET:HG3	1.71	0.56
1:T:466:ASN:ND2	1:p:238:GLY:O	2.22	0.56
1:l:171:GLN:HG2	1:l:197:THR:HG22	1.88	0.56
1:r:481:ILE:N	1:r:499:GLY:O	2.29	0.56
1:t:145:HIS:CE1	1:t:147:MET:HG2	2.41	0.56
1:u:153:MET:HB2	1:u:189:TYR:CZ	2.41	0.56
1:1:271:SER:OG	1:1:273:GLU:OE1	2.22	0.56
1:2:517:TYR:CE2	1:3:217:GLU:HA	2.41	0.56
1:6:414:ALA:HB3	1:6:423:VAL:HB	1.87	0.56
1:AB:265:GLN:NE2	1:AC:236:GLN:OE1	2.38	0.56
1:AF:89:THR:HG23	1:AV:495:ARG:HH21	1.71	0.56
1:AU:510:ASN:OD1	1:AU:511:ALA:N	2.38	0.56
1:Ad:76:ALA:HB2	1:Ae:498:SER:HB3	1.86	0.56
1:Af:107:ILE:HD12	1:Af:307:VAL:HG21	1.88	0.56
1:Ah:184:GLU:O	1:Ah:366:ARG:NH2	2.39	0.56
2:D:38:ASP:N	2:D:38:ASP:OD1	2.37	0.56
1:G:256:LYS:HD2	1:G:496:ILE:HG12	1.88	0.56
1:L:66:ALA:N	1:h:240:ASN:OD1	2.39	0.56
1:P:450:TYR:HA	1:P:479:ILE:HG22	1.88	0.56
1:U:322:THR:HG23	1:U:359:LYS:HB3	1.87	0.56
1:W:388:SER:HB3	1:W:401:ALA:HB2	1.87	0.56
1:Y:350:PHE:HB2	1:Y:389:VAL:HG11	1.88	0.56
1:3:160:ALA:HB2	1:3:228:MET:HE2	1.88	0.56
1:5:74:TYR:HA	1:5:79:ILE:HD11	1.87	0.56
1:8:350:PHE:HB2	1:8:389:VAL:HG11	1.87	0.56
1:9:453:TYR:HB3	1:9:476:ARG:O	2.07	0.56
1:AL:408:THR:HG22	1:AL:412:VAL:HG12	1.87	0.56
1:AM:176:ASP:N	1:AM:176:ASP:OD1	2.37	0.56
1:AM:380:ARG:NH1	1:AM:427:GLN:O	2.39	0.56
1:AZ:376:ILE:HG13	1:AZ:436:VAL:HG22	1.87	0.56
1:Aj:363:GLU:OE2	1:Aj:366:ARG:NH2	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:256:GLU:OE1	2:D:277:ARG:NH1	2.39	0.56
1:J:74:TYR:HA	1:J:79:ILE:HD11	1.87	0.56
1:K:185:THR:HG21	1:N:430:LYS:HE3	1.88	0.56
1:K:466:ASN:HD22	1:K:468:GLN:HG2	1.71	0.56
1:O:344:ARG:NH1	1:O:348:GLU:OE2	2.39	0.56
1:O:350:PHE:HB2	1:O:389:VAL:HG11	1.88	0.56
1:X:264:ARG:NH1	1:X:477:TYR:OH	2.38	0.56
2:a:163:ILE:HB	1:v:88:VAL:HA	1.87	0.56
1:d:264:ARG:NH1	1:d:477:TYR:OH	2.37	0.56
1:f:185:THR:HG21	1:m:430:LYS:HA	1.88	0.56
1:h:407:ASP:OD2	1:h:410:LYS:NZ	2.35	0.56
1:n:319:SER:O	1:n:322:THR:OG1	2.24	0.56
1:s:182:PHE:N	1:s:186:GLY:O	2.39	0.56
1:u:450:TYR:HA	1:u:479:ILE:HG22	1.88	0.56
1:v:153:MET:HE3	1:v:225:ALA:HA	1.87	0.56
1:1:171:GLN:OE1	1:1:195:GLN:NE2	2.38	0.55
1:2:228:MET:SD	1:2:236:GLN:NE2	2.79	0.55
1:AL:282:HIS:O	1:AL:284:MET:N	2.36	0.55
1:AN:521:ILE:O	1:AO:341:ARG:NH2	2.38	0.55
1:AW:129:ALA:O	1:AW:143:ALA:HB2	2.06	0.55
1:AX:354:LEU:HD11	1:AX:391:THR:HG22	1.87	0.55
1:Ad:72:HIS:ND1	1:Ae:260:GLU:OE2	2.36	0.55
1:Ah:145:HIS:HB3	1:Ah:148:TYR:HB2	1.88	0.55
2:C:142:ASP:OD1	2:C:143:ALA:N	2.39	0.55
2:D:276:ALA:HB2	2:D:316:THR:HG22	1.87	0.55
1:J:363:GLU:OE2	1:J:366:ARG:NH2	2.39	0.55
1:O:123:GLN:N	1:R:94:ALA:O	2.39	0.55
1:O:444:MET:O	1:O:449:TYR:OH	2.23	0.55
1:R:368:THR:HG22	1:R:511:ALA:HB1	1.88	0.55
1:Y:444:MET:O	1:Y:449:TYR:OH	2.23	0.55
1:j:121:THR:HG22	1:j:260:GLU:HG3	1.87	0.55
1:o:117:MET:HG3	1:o:451:ALA:HB1	1.89	0.55
1:p:268:ALA:HB1	1:p:290:LEU:HD23	1.88	0.55
1:t:204:ASP:OD1	1:t:204:ASP:N	2.36	0.55
1:u:181:PHE:HD1	1:u:187:THR:HG23	1.71	0.55
1:y:235:LEU:O	1:y:245:ASN:ND2	2.39	0.55
1:AC:264:ARG:NH2	1:AC:305:GLU:OE1	2.33	0.55
1:AD:97:GLY:HA3	1:AE:444:MET:HE3	1.89	0.55
1:AF:348:GLU:HG3	1:AO:345:TRP:CD1	2.42	0.55
1:AP:431:GLN:NE2	1:AQ:217:GLU:OE2	2.39	0.55
1:AX:128:ARG:NH2	1:AX:489:ALA:O	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ac:131:TYR:HB3	1:Ac:250:MET:HG2	1.88	0.55
1:Ai:149:GLY:N	1:Ai:185:THR:O	2.37	0.55
1:W:336:ASP:HB3	1:W:339:ASP:HB2	1.88	0.55
1:Y:301:GLU:HG3	1:Z:152:ALA:HA	1.88	0.55
1:Z:430:LYS:HE2	1:d:188:VAL:HG11	1.88	0.55
1:c:263:SER:HB3	1:c:476:ARG:HG2	1.87	0.55
1:h:107:ILE:O	1:h:303:ASN:ND2	2.38	0.55
1:n:113:GLY:H	1:n:446:ALA:HB1	1.71	0.55
1:n:381:ASN:HB3	1:n:521:ILE:HG21	1.89	0.55
1:q:116:PRO:HA	1:q:452:PRO:HD2	1.88	0.55
1:r:319:SER:HA	1:r:323:LEU:HB2	1.88	0.55
1:v:395:TYR:HD1	1:v:396:ALA:H	1.53	0.55
1:2:93:PRO:HB2	1:3:123:GLN:HG3	1.88	0.55
1:2:203:THR:O	1:2:206:ALA:N	2.38	0.55
1:3:505:ASN:OD1	1:3:505:ASN:N	2.40	0.55
2:A:53:TYR:O	2:B:28:THR:OG1	2.24	0.55
1:AB:444:MET:O	1:AB:449:TYR:OH	2.25	0.55
1:AG:388:SER:O	1:AG:388:SER:OG	2.15	0.55
1:AI:453:TYR:HB3	1:AI:476:ARG:O	2.07	0.55
1:AN:265:GLN:NE2	1:AO:236:GLN:OE1	2.38	0.55
1:AV:395:TYR:HD1	1:AV:396:ALA:H	1.53	0.55
1:Ad:383:VAL:HG21	1:Ad:425:ILE:HG22	1.89	0.55
1:Ah:123:GLN:NE2	1:Ak:93:PRO:O	2.35	0.55
1:Aj:376:ILE:HG23	1:Aj:423:VAL:HG13	1.87	0.55
2:B:383:ALA:N	2:B:400:GLY:O	2.35	0.55
1:J:158:GLY:O	1:J:162:LYS:NZ	2.37	0.55
1:L:171:GLN:OE1	1:L:195:GLN:NE2	2.39	0.55
1:N:414:ALA:HB3	1:N:423:VAL:HB	1.88	0.55
1:O:133:LYS:HB2	1:b:66:ALA:HB3	1.88	0.55
1:T:281:VAL:HG11	1:r:90:GLN:HB2	1.88	0.55
1:g:278:LEU:HD23	1:g:286:ALA:HB2	1.86	0.55
1:y:134:ASP:HB3	1:y:137:ALA:HB2	1.88	0.55
1:5:105:ASN:O	1:5:427:GLN:NE2	2.39	0.55
1:6:348:GLU:OE2	1:w:345:TRP:NE1	2.40	0.55
2:A:55:ILE:O	2:A:386:TYR:OH	2.23	0.55
1:AH:476:ARG:NH1	1:AI:230:THR:OG1	2.36	0.55
1:AK:351:LYS:NZ	1:AK:390:ASP:O	2.29	0.55
1:Ag:464:PRO:HB3	1:d:461:GLY:HA3	1.88	0.55
1:Ah:271:SER:OG	1:Ah:273:GLU:OE1	2.25	0.55
2:D:291:LYS:HZ2	2:D:291:LYS:H	1.53	0.55
1:Q:264:ARG:NH2	1:R:226:GLU:O	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:254:ILE:HG23	1:o:88:VAL:HA	1.87	0.55
1:Y:123:GLN:N	1:c:94:ALA:O	2.39	0.55
1:n:340:ILE:HG22	1:n:352:ALA:HB3	1.88	0.55
1:0:133:LYS:HA	1:0:249:GLU:HB2	1.88	0.55
1:2:250:MET:HE1	1:5:297:GLU:HG2	1.87	0.55
1:4:264:ARG:NH1	1:4:477:TYR:OH	2.39	0.55
1:4:273:GLU:CD	1:r:234:GLU:HB3	2.31	0.55
1:6:422:ARG:NH2	1:6:424:TYR:OH	2.39	0.55
1:9:376:ILE:HG12	1:9:436:VAL:HG22	1.88	0.55
1:AI:109:PHE:HE1	1:AI:306:VAL:HG11	1.70	0.55
1:AL:279:ARG:HH12	1:AL:285:ASP:HA	1.71	0.55
1:AN:264:ARG:NH1	1:AN:477:TYR:OH	2.39	0.55
1:AU:265:GLN:HE22	1:AX:233:ALA:HA	1.71	0.55
1:Ac:117:MET:HG3	1:Ac:451:ALA:HB1	1.88	0.55
1:Ae:383:VAL:HG21	1:Ae:425:ILE:HG12	1.87	0.55
1:Aj:153:MET:HE1	1:Aj:226:GLU:HG2	1.88	0.55
2:C:178:GLY:HA2	2:C:372:SER:HA	1.88	0.55
1:J:67:GLU:HB3	1:S:270:TYR:HA	1.88	0.55
1:N:129:ALA:O	1:N:143:ALA:HB2	2.06	0.55
1:Y:449:TYR:OH	1:Y:482:ASN:OD1	2.23	0.55
2:a:158:ASP:OD1	2:a:159:ALA:N	2.39	0.55
1:g:171:GLN:OE1	1:g:195:GLN:NE2	2.39	0.55
1:h:263:SER:HA	1:h:476:ARG:HA	1.88	0.55
1:j:109:PHE:HE1	1:j:306:VAL:HG21	1.71	0.55
1:k:79:ILE:HD12	1:n:260:GLU:HB2	1.87	0.55
1:p:105:ASN:N	1:p:105:ASN:OD1	2.40	0.55
1:s:238:GLY:O	1:s:242:SER:OG	2.20	0.55
1:4:343:ALA:HB1	1:4:348:GLU:HB2	1.89	0.55
2:A:71:THR:O	2:A:81:ARG:NH2	2.38	0.55
1:AB:319:SER:O	1:AB:322:THR:OG1	2.24	0.55
1:AK:142:GLU:HG2	1:AK:143:ALA:H	1.72	0.55
1:AK:272:ILE:N	1:AK:468:GLN:OE1	2.37	0.55
1:AR:145:HIS:CD2	1:AR:146:PRO:HD2	2.41	0.55
1:AX:345:TRP:HB3	1:AX:348:GLU:HG3	1.89	0.55
1:Ag:107:ILE:HG13	1:Ag:307:VAL:HG21	1.88	0.55
1:Aj:182:PHE:N	1:Aj:186:GLY:O	2.38	0.55
2:C:243:ALA:HB2	2:D:245:GLU:HG2	1.88	0.55
1:G:117:MET:HG3	1:G:451:ALA:HB1	1.87	0.55
1:G:145:HIS:CD2	1:G:146:PRO:HD2	2.42	0.55
1:J:153:MET:SD	1:J:226:GLU:N	2.76	0.55
1:N:268:ALA:HB2	1:N:294:LEU:HD11	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:368:THR:HG22	1:N:511:ALA:HB1	1.88	0.55
1:b:388:SER:HB3	1:b:401:ALA:HB2	1.89	0.55
1:f:200:ALA:HB3	1:f:211:GLU:CD	2.32	0.55
1:v:107:ILE:HD12	1:v:307:VAL:HG21	1.88	0.55
1:v:235:LEU:O	1:v:245:ASN:ND2	2.40	0.55
1:5:75:ASN:O	1:5:77:THR:N	2.39	0.55
1:AE:454:VAL:O	1:AE:475:THR:OG1	2.23	0.55
1:AF:155:SER:OG	1:AO:301:GLU:OE1	2.24	0.55
1:AM:510:ASN:OD1	1:AM:511:ALA:N	2.40	0.55
1:AU:245:ASN:N	1:AU:245:ASN:OD1	2.39	0.55
1:AX:153:MET:HE2	1:AX:225:ALA:HA	1.88	0.55
1:AX:265:GLN:NE2	1:AY:228:MET:SD	2.80	0.55
1:Af:322:THR:HG22	1:Af:359:LYS:HG2	1.88	0.55
1:Ai:382:VAL:HG22	1:Ai:518:VAL:HG21	1.88	0.55
2:B:346:THR:HG21	2:B:357:VAL:HA	1.89	0.55
1:M:201(G):ASP:OD1	1:M:201(H):GLU:N	2.40	0.55
1:O:148:TYR:HD1	1:O:186:GLY:HA2	1.70	0.55
1:T:142:GLU:N	1:T:490:GLN:OE1	2.39	0.55
1:T:456:LEU:HD23	1:T:475:THR:HG21	1.88	0.55
2:a:390:LYS:H	2:a:409:ARG:HG3	1.72	0.55
1:g:103:ILE:HD12	1:g:296:THR:HG21	1.88	0.55
1:i:521:ILE:O	1:j:341:ARG:NH2	2.39	0.55
1:m:331:VAL:HG12	1:m:517:TYR:HB2	1.89	0.55
1:o:242:SER:OG	1:o:245:ASN:ND2	2.29	0.55
1:p:203:THR:O	1:p:206:ALA:N	2.33	0.55
1:t:451:ALA:O	1:t:478:GLY:N	2.39	0.55
1:3:376:ILE:HG12	1:3:436:VAL:HG12	1.87	0.55
1:AB:333:ASP:N	1:AB:339:ASP:OD2	2.39	0.55
1:AB:466:ASN:HD22	1:T:239:PHE:HB2	1.72	0.55
1:AD:237:GLU:HG3	1:AD:247:TRP:H	1.71	0.55
1:AG:445:ASP:N	1:AG:445:ASP:OD1	2.38	0.55
1:AH:287:ASP:OD1	1:AH:460:ARG:NH2	2.40	0.55
1:AY:238:GLY:H	1:AY:242:SER:HB3	1.71	0.55
1:AZ:107:ILE:HD12	1:AZ:307:VAL:HG21	1.88	0.55
1:AZ:408:THR:HG22	1:AZ:412:VAL:HG12	1.88	0.55
1:Aa:380:ARG:HE	1:Aa:408:THR:HG21	1.72	0.55
1:Ah:245:ASN:N	1:Ah:245:ASN:OD1	2.40	0.55
2:B:23:ASN:HD22	2:B:25:VAL:HG22	1.71	0.55
1:H:142:GLU:HB2	1:H:490:GLN:HB3	1.89	0.55
1:W:69:GLY:HA2	1:o:274:LEU:HD23	1.89	0.55
1:X:168:ALA:HB2	1:X:208:LEU:HD13	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:494:SER:O	1:Y:496:ILE:N	2.40	0.55
2:a:258:VAL:HG13	2:a:269:ALA:HB3	1.88	0.55
1:c:376:ILE:HG12	1:c:436:VAL:HG12	1.89	0.55
1:e:201(E):ASP:OD1	1:e:201(E):ASP:N	2.35	0.55
1:s:318:LYS:NZ	1:s:327:SER:OG	2.38	0.55
1:z:453:TYR:HE2	1:z:476:ARG:HH21	1.54	0.55
1:6:376:ILE:HG13	1:6:436:VAL:HG22	1.89	0.55
1:AL:145:HIS:CE1	1:AL:147:MET:HG2	2.41	0.55
1:AR:247:TRP:CE3	1:Aa:267:LYS:HB2	2.42	0.55
1:AV:237:GLU:N	1:AV:245:ASN:O	2.33	0.55
1:Am:454:VAL:HG23	1:Am:476:ARG:H	1.72	0.55
2:B:35:ILE:HD12	2:B:39:ILE:HD11	1.88	0.55
1:H:340:ILE:HG22	1:H:352:ALA:HB3	1.87	0.55
1:K:383:VAL:HG21	1:K:425:ILE:HG12	1.89	0.55
1:L:253:ARG:NH2	1:L:255:ASP:OD2	2.40	0.55
1:L:395:TYR:HD1	1:L:396:ALA:H	1.54	0.55
1:P:259:ILE:HD13	1:P:480:GLY:HA3	1.89	0.55
1:S:312:TYR:CZ	1:S:507:LEU:HG	2.42	0.55
1:U:190:LEU:HD23	1:U:221:LEU:HD13	1.88	0.55
1:Y:203:THR:CG2	1:Y:206:ALA:CB	2.83	0.55
1:b:133:LYS:HA	1:b:249:GLU:HB2	1.88	0.55
1:m:201(B):GLU:HG2	1:m:207:LYS:HD2	1.89	0.55
1:s:109:PHE:HE1	1:s:306:VAL:HG21	1.72	0.55
1:x:149:GLY:H	1:x:186:GLY:HA3	1.71	0.55
1:1:107:ILE:HG13	1:1:307:VAL:HG21	1.89	0.55
2:A:88:THR:H	2:A:91:SER:HB3	1.72	0.55
1:AC:367:GLN:O	1:AC:487:SER:OG	2.25	0.55
1:AM:383:VAL:HG21	1:AM:425:ILE:HG12	1.88	0.55
1:AU:107:ILE:H	1:AU:303:ASN:HD21	1.54	0.55
1:AV:344:ARG:NH1	1:AV:348:GLU:OE2	2.40	0.55
1:Ad:380:ARG:NH2	1:Ad:427:GLN:O	2.37	0.55
1:G:95:VAL:HA	1:H:123:GLN:HB2	1.88	0.55
1:Q:272:ILE:N	1:Q:468:GLN:OE1	2.39	0.55
1:d:145:HIS:HB3	1:d:148:TYR:HB2	1.89	0.55
1:g:444:MET:O	1:g:449:TYR:OH	2.20	0.55
1:l:153:MET:HG3	1:l:225:ALA:HA	1.89	0.55
1:n:498:SER:O	1:n:505:ASN:ND2	2.36	0.55
1:p:480:GLY:HA2	1:p:501:PRO:HD3	1.89	0.55
1:3:142:GLU:HB2	1:3:490:GLN:HB3	1.88	0.54
1:3:265:GLN:HB3	1:3:474:LYS:HG3	1.88	0.54
1:4:363:GLU:OE2	1:4:367:GLN:NE2	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:8:263:SER:HA	1:8:476:ARG:HA	1.89	0.54
1:AB:345:TRP:CD1	1:AB:346:ALA:H	2.26	0.54
1:AE:350:PHE:HB2	1:AE:389:VAL:HG11	1.89	0.54
1:AL:278:LEU:HD21	1:AL:284:MET:HB2	1.89	0.54
1:AP:89:THR:HG21	2:B:396:ARG:HB2	1.89	0.54
1:AV:145:HIS:HB3	1:AV:148:TYR:HB2	1.89	0.54
2:B:390:LYS:HD3	2:B:391:ASP:HB3	1.89	0.54
2:C:227:VAL:H	2:C:231:THR:HB	1.72	0.54
1:M:289:GLU:O	1:M:293:ILE:N	2.36	0.54
1:N:245:ASN:N	1:N:245:ASN:OD1	2.39	0.54
1:R:268:ALA:N	1:R:471:MET:O	2.40	0.54
1:T:274:LEU:HD21	1:r:88:VAL:HB	1.90	0.54
1:f:201(H):GLU:C	1:f:202:ALA:N	2.63	0.54
1:k:267:LYS:HA	1:k:472:GLY:HA2	1.88	0.54
1:l:240:ASN:HD21	1:n:68:ILE:HD13	1.71	0.54
1:n:145:HIS:CE1	1:n:147:MET:HG2	2.42	0.54
1:o:298:ILE:HG21	1:o:456:LEU:HD21	1.89	0.54
1:p:237:GLU:HG2	1:p:246:PRO:HA	1.88	0.54
1:s:380:ARG:NE	1:s:408:THR:OG1	2.30	0.54
1:u:502:SER:N	1:u:505:ASN:OD1	2.41	0.54
1:6:160:ALA:HB2	1:6:228:MET:HE3	1.89	0.54
1:AD:390:ASP:HB2	1:AD:397:ALA:HB3	1.89	0.54
1:AF:510:ASN:O	1:AF:512:TYR:N	2.40	0.54
1:AS:117:MET:HG3	1:AS:451:ALA:HB1	1.90	0.54
1:AS:365:ALA:HB2	1:AS:372:GLU:HA	1.90	0.54
1:AT:133:LYS:HB3	1:Ah:66:ALA:HB3	1.89	0.54
1:AZ:383:VAL:HG12	1:AZ:406:THR:HG22	1.88	0.54
1:Ac:445:ASP:N	1:Ac:445:ASP:OD1	2.41	0.54
1:L:397:ALA:HB1	1:g:393:ILE:HG23	1.90	0.54
1:Q:231:SER:N	1:S:71:ASP:OD1	2.37	0.54
1:Q:304:ARG:NH1	1:Q:308:ASP:OD1	2.39	0.54
1:R:149:GLY:H	1:R:186:GLY:HA3	1.71	0.54
1:S:407:ASP:OD2	1:S:410:LYS:NZ	2.38	0.54
1:Z:72:HIS:ND1	1:d:260:GLU:OE2	2.40	0.54
2:a:396:ARG:HB3	1:v:89:THR:HG21	1.89	0.54
1:c:268:ALA:N	1:c:471:MET:O	2.40	0.54
1:d:145:HIS:CE1	1:d:147:MET:HG2	2.42	0.54
1:h:444:MET:O	1:h:449:TYR:OH	2.24	0.54
1:i:145:HIS:HB3	1:i:148:TYR:HB2	1.89	0.54
1:k:264:ARG:HB3	1:n:155:SER:HB3	1.88	0.54
1:q:197:THR:OG1	1:q:200:ALA:O	2.25	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:r:247:TRP:HE3	1:u:267:LYS:HB2	1.71	0.54
1:s:466:ASN:N	1:s:466:ASN:OD1	2.39	0.54
1:1:235:LEU:O	1:1:245:ASN:ND2	2.39	0.54
1:2:517:TYR:HE2	1:3:217:GLU:HA	1.71	0.54
1:6:203:THR:HG22	1:6:205:ALA:H	1.71	0.54
1:AA:184:GLU:O	1:AA:366:ARG:NH2	2.41	0.54
1:AC:285:ASP:O	1:AC:287:ASP:N	2.40	0.54
1:AE:245:ASN:OD1	1:AE:245:ASN:N	2.39	0.54
1:AI:380:ARG:HG2	1:AI:425:ILE:HD11	1.89	0.54
1:AO:328:LYS:NZ	1:AO:333:ASP:OD2	2.41	0.54
1:AS:278:LEU:HD22	1:AS:286:ALA:HB2	1.90	0.54
1:AV:145:HIS:HD2	1:AV:146:PRO:HD2	1.71	0.54
1:AX:199:ASP:HB2	1:AX:201(A):ASP:HB2	1.89	0.54
1:Ah:101:ARG:NE	1:Ai:142:GLU:OE2	2.41	0.54
1:Al:322:THR:OG1	1:Al:360:GLU:OE2	2.25	0.54
2:D:70:ALA:HB2	2:D:106:ILE:HG12	1.89	0.54
1:N:445:ASP:OD1	1:N:445:ASP:N	2.38	0.54
1:Z:503:ILE:HG23	1:Z:507:LEU:HD12	1.90	0.54
1:f:71:ASP:OD2	1:n:231:SER:N	2.41	0.54
1:f:90:GLN:HA	1:u:281:VAL:HG11	1.88	0.54
1:g:142:GLU:HB2	1:g:490:GLN:HB3	1.89	0.54
1:s:321:MET:SD	1:s:366:ARG:NH1	2.80	0.54
1:x:344:ARG:NH1	1:x:348:GLU:OE2	2.41	0.54
1:1:453:TYR:HB3	1:1:476:ARG:O	2.07	0.54
1:3:130:VAL:HG22	1:3:142:GLU:HA	1.89	0.54
1:4:398:GLN:OE1	1:4:399:GLY:N	2.29	0.54
1:8:268:ALA:HB1	1:8:290:LEU:HD23	1.90	0.54
2:A:243:ALA:HB2	2:a:245:GLU:HG2	1.89	0.54
2:A:244:PRO:HG3	2:a:248:ARG:HD3	1.89	0.54
2:A:396:ARG:NH1	1:U:86:GLY:O	2.41	0.54
1:AD:301:GLU:HG2	1:AE:152:ALA:HA	1.89	0.54
1:AD:351:LYS:NZ	1:AD:394:SER:O	2.40	0.54
1:AH:121:THR:HA	1:AH:259:ILE:O	2.06	0.54
1:AL:351:LYS:NZ	1:AL:394:SER:OG	2.37	0.54
1:AL:383:VAL:HG21	1:AL:425:ILE:HG12	1.90	0.54
1:AS:486:GLU:HG3	1:AS:509:LYS:HB3	1.89	0.54
1:AT:271:SER:O	1:AT:468:GLN:NE2	2.38	0.54
1:Ad:166:LEU:HG	1:Ad:178:TYR:HB3	1.90	0.54
1:Ai:240:ASN:OD1	1:Ak:66:ALA:N	2.41	0.54
1:Aj:278:LEU:HD13	1:i:88:VAL:HG11	1.89	0.54
1:Aj:449:TYR:OH	1:Aj:482:ASN:OD1	2.25	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:128:ARG:NE	1:N:142:GLU:OE2	2.36	0.54
1:P:453:TYR:HB3	1:P:476:ARG:O	2.08	0.54
1:U:495:ARG:HH21	1:w:89:THR:HG23	1.72	0.54
1:Z:428:TYR:O	1:Z:430:LYS:NZ	2.39	0.54
1:b:154:PHE:O	1:b:248:ASN:ND2	2.38	0.54
1:b:264:ARG:NH2	1:b:305:GLU:OE1	2.34	0.54
1:e:368:THR:HG23	1:e:370:ARG:H	1.73	0.54
1:g:142:GLU:N	1:g:490:GLN:OE1	2.31	0.54
1:g:235:LEU:O	1:g:245:ASN:ND2	2.41	0.54
1:v:276:GLN:HG2	1:v:279:ARG:HH12	1.73	0.54
1:2:240:ASN:N	1:2:240:ASN:OD1	2.41	0.54
1:7:160:ALA:HB2	1:7:232:ILE:HG21	1.90	0.54
1:AB:203:THR:O	1:AB:206:ALA:N	2.40	0.54
1:AD:449:TYR:CZ	1:AD:482:ASN:HB2	2.43	0.54
1:AE:131:TYR:HB3	1:AE:250:MET:HG2	1.89	0.54
1:AF:67:GLU:HG3	1:AV:135:PRO:HG3	1.90	0.54
1:AR:351:LYS:NZ	1:AR:394:SER:O	2.40	0.54
1:AS:445:ASP:N	1:AS:445:ASP:OD1	2.39	0.54
1:AT:174:VAL:HG22	1:AT:195:GLN:HE22	1.72	0.54
1:AZ:100:ARG:NH1	1:AZ:289:GLU:OE2	2.40	0.54
1:AZ:110:ASP:OD2	1:AZ:422:ARG:NH2	2.41	0.54
1:Aa:383:VAL:HG12	1:Aa:406:THR:HG22	1.88	0.54
1:Ac:345:TRP:CB	1:Ac:348:GLU:HB3	2.38	0.54
1:Ae:200:ALA:N	1:Ae:211:GLU:OE2	2.41	0.54
1:G:265:GLN:HE22	1:H:236:GLN:HG3	1.73	0.54
1:U:74:TYR:HB3	1:V:500:MET:HE1	1.89	0.54
1:V:263:SER:HB2	1:V:476:ARG:HG2	1.88	0.54
1:W:426:ASP:OD2	1:W:433:TYR:OH	2.26	0.54
1:Z:263:SER:HA	1:Z:476:ARG:HA	1.89	0.54
1:c:273:GLU:HG3	1:l:69:GLY:HA3	1.89	0.54
1:f:198:ILE:HG13	1:f:199:ASP:N	2.22	0.54
1:g:312:TYR:CZ	1:g:507:LEU:HG	2.43	0.54
1:j:153:MET:SD	1:j:226:GLU:N	2.79	0.54
1:p:123:GLN:HG3	1:s:93:PRO:HB2	1.90	0.54
1:p:128:ARG:HH21	1:p:492:PRO:HG3	1.73	0.54
1:y:195:GLN:HE21	1:y:195:GLN:C	2.14	0.54
1:y:414:ALA:HB3	1:y:423:VAL:HB	1.89	0.54
1:4:236:GLN:OE1	1:4:245:ASN:ND2	2.41	0.54
1:5:252:PHE:N	1:t:67:GLU:OE2	2.31	0.54
1:8:72:HIS:CD2	1:8:84:THR:HG22	2.43	0.54
2:A:352:ASP:N	2:A:352:ASP:OD1	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AC:190:LEU:HB3	1:AC:221:LEU:HB2	1.89	0.54
1:AF:388:SER:HB3	1:AF:401:ALA:HB2	1.88	0.54
1:AH:398:GLN:HB3	1:AI:351:LYS:HD3	1.90	0.54
1:AL:435:THR:HA	1:AL:515:ARG:HA	1.90	0.54
1:AM:153:MET:SD	1:AM:226:GLU:N	2.79	0.54
1:AN:454:VAL:O	1:AN:475:THR:OG1	2.23	0.54
1:AQ:171:GLN:OE1	1:AQ:195:GLN:NE2	2.39	0.54
1:J:133:LYS:HB3	1:J:249:GLU:HG3	1.90	0.54
1:P:263:SER:HA	1:P:476:ARG:HA	1.90	0.54
1:T:74:TYR:HA	1:T:79:ILE:HD11	1.89	0.54
1:T:502:SER:N	1:T:505:ASN:OD1	2.40	0.54
1:b:237:GLU:H	1:b:245:ASN:ND2	2.04	0.54
1:i:160:ALA:HB2	1:i:228:MET:HE3	1.90	0.54
1:j:504:LEU:HD23	1:j:504:LEU:H	1.72	0.54
1:o:176:ASP:N	1:o:176:ASP:OD1	2.41	0.54
1:q:239:PHE:O	1:q:242:SER:OG	2.26	0.54
1:t:160:ALA:HB2	1:t:228:MET:HE2	1.90	0.54
1:z:142:GLU:HB2	1:z:490:GLN:HB3	1.89	0.54
1:z:271:SER:O	1:z:468:GLN:NE2	2.39	0.54
1:8:129:ALA:O	1:8:143:ALA:N	2.36	0.54
1:8:480:GLY:HA2	1:8:501:PRO:HD3	1.90	0.54
1:AF:500:MET:HE1	1:AO:74:TYR:HB3	1.89	0.54
1:AN:407:ASP:OD2	1:AN:410:LYS:NZ	2.34	0.54
1:AT:260:GLU:OE2	1:AW:72:HIS:HB2	2.07	0.54
1:Af:121:THR:HA	1:Af:259:ILE:O	2.07	0.54
1:Ag:270:TYR:HA	1:Z:67:GLU:HB3	1.89	0.54
1:Al:191:GLN:HB2	1:Al:224:ILE:HG21	1.90	0.54
1:G:259:ILE:HD12	1:G:480:GLY:HA3	1.90	0.54
1:K:107:ILE:HD12	1:K:307:VAL:HG21	1.89	0.54
1:Q:245:ASN:N	1:Q:245:ASN:OD1	2.40	0.54
1:Q:388:SER:HB3	1:Q:401:ALA:HB2	1.88	0.54
1:R:71:ASP:C	1:R:84:THR:HG23	2.32	0.54
1:R:444:MET:SD	1:R:449:TYR:OH	2.65	0.54
1:S:383:VAL:HG21	1:S:425:ILE:HG12	1.90	0.54
1:b:101:ARG:NE	1:c:142:GLU:OE2	2.39	0.54
1:e:279:ARG:NH2	1:e:285:ASP:OD1	2.41	0.54
1:f:201(H):GLU:OE1	1:f:207:LYS:HE3	2.07	0.54
1:l:231:SER:N	1:n:71:ASP:OD1	2.34	0.54
1:o:121:THR:HG22	1:o:260:GLU:HG3	1.89	0.54
1:r:101:ARG:HB3	1:r:101:ARG:HH11	1.73	0.54
1:r:395:TYR:HD1	1:r:396:ALA:H	1.56	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:u:147:MET:HE1	1:u:184:GLU:HA	1.89	0.54
1:v:110:ASP:OD2	1:v:422:ARG:NH1	2.37	0.54
1:6:245:ASN:N	1:6:245:ASN:OD1	2.41	0.54
1:9:116:PRO:HA	1:9:452:PRO:HD2	1.89	0.54
2:A:240:TYR:OH	2:A:277:ARG:NH2	2.36	0.54
2:A:337:VAL:HB	2:B:28:THR:HG22	1.90	0.54
1:AG:272:ILE:N	1:AG:468:GLN:OE1	2.40	0.54
1:AO:351:LYS:NZ	1:AO:390:ASP:O	2.40	0.54
1:Ad:363:GLU:OE1	1:Ad:366:ARG:NH1	2.41	0.54
2:B:288:LEU:HD23	2:B:306:LEU:HD13	1.90	0.54
2:D:55:ILE:O	2:D:386:TYR:OH	2.25	0.54
1:K:260:GLU:OE1	1:N:72:HIS:ND1	2.39	0.54
1:K:265:GLN:OE1	1:K:474:LYS:NZ	2.34	0.54
1:L:466:ASN:OD1	1:L:466:ASN:N	2.40	0.54
1:M:264:ARG:NH2	1:M:305:GLU:OE1	2.31	0.54
1:R:142:GLU:HG2	1:R:143:ALA:H	1.72	0.54
1:w:105:ASN:HB2	1:w:412:VAL:HG23	1.89	0.54
1:y:237:GLU:HB2	1:z:466:ASN:HD21	1.73	0.54
1:2:181:PHE:HA	1:2:187:THR:HA	1.90	0.54
1:5:168:ALA:HB1	1:5:199:ASP:HB2	1.90	0.54
1:AC:69:GLY:HA2	1:g:274:LEU:HD12	1.88	0.54
1:AH:145:HIS:CD2	1:AH:148:TYR:H	2.26	0.54
1:AP:66:ALA:N	1:AZ:240:ASN:HD22	2.06	0.54
1:AP:381:ASN:OD1	1:AP:381:ASN:N	2.38	0.54
1:AU:107:ILE:HG13	1:AU:307:VAL:HG21	1.89	0.54
1:AV:383:VAL:HG21	1:AV:425:ILE:HG22	1.90	0.54
1:AY:510:ASN:OD1	1:AY:511:ALA:N	2.40	0.54
1:Ab:198:ILE:HD11	1:Ab:221:LEU:HD21	1.88	0.54
1:Af:133:LYS:NZ	1:Af:249:GLU:OE1	2.37	0.54
2:C:320:LEU:HD23	2:D:129:GLN:HG3	1.90	0.54
1:H:447:GLY:HA3	1:H:513:PHE:HE2	1.71	0.54
1:P:101:ARG:HH21	1:S:146:PRO:HD2	1.72	0.54
1:V:259:ILE:HD13	1:V:480:GLY:HA3	1.90	0.54
1:Z:344:ARG:NH1	1:Z:348:GLU:OE2	2.41	0.54
1:c:331:VAL:HG12	1:c:517:TYR:HB2	1.89	0.54
1:f:100:ARG:HE	1:k:127:LEU:HD23	1.72	0.54
1:f:363:GLU:OE2	1:f:366:ARG:NH2	2.41	0.54
1:i:520:GLY:O	1:j:341:ARG:NH2	2.32	0.54
1:j:73:GLY:O	1:j:75:ASN:N	2.38	0.54
1:n:234:GLU:CD	1:u:273:GLU:HB2	2.33	0.54
1:r:263:SER:HB3	1:r:476:ARG:HG2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:t:153:MET:HE2	1:t:225:ALA:HA	1.90	0.54
1:w:261:ALA:HA	1:w:478:GLY:HA3	1.88	0.54
1:w:453:TYR:H	1:w:477:TYR:HA	1.73	0.54
1:0:287:ASP:OD1	1:0:460:ARG:NH2	2.40	0.54
1:6:121:THR:HG22	1:w:93:PRO:HB3	1.89	0.54
2:A:256:GLU:OE1	2:B:277:ARG:NH1	2.41	0.54
1:AG:444:MET:O	1:AG:449:TYR:OH	2.21	0.54
1:AI:198:ILE:HD11	1:AI:221:LEU:HD11	1.88	0.54
1:AJ:250:MET:HE1	1:AM:297:GLU:HG2	1.90	0.54
1:AN:268:ALA:HB3	1:AN:471:MET:HG3	1.89	0.54
1:AT:194:VAL:HB	1:AT:196:VAL:HG12	1.90	0.54
1:AZ:267:LYS:HZ1	1:Aa:247:TRP:CD1	2.26	0.54
1:AZ:383:VAL:HG21	1:AZ:425:ILE:HG12	1.90	0.54
1:Af:173:THR:OG1	1:Af:176:ASP:OD2	2.26	0.54
1:Ag:519:LYS:NZ	1:Aj:217:GLU:OE2	2.39	0.54
2:D:13:THR:OG1	2:D:15:ASN:OD1	2.25	0.54
1:K:71:ASP:OD1	1:K:71:ASP:N	2.39	0.54
1:K:182:PHE:N	1:K:186:GLY:O	2.41	0.54
1:R:510:ASN:OD1	1:R:511:ALA:N	2.41	0.54
1:V:270:TYR:OH	1:V:287:ASP:OD2	2.22	0.54
1:Z:345:TRP:HB2	1:Z:348:GLU:CD	2.32	0.54
1:b:184:GLU:OE2	1:b:213:LYS:NZ	2.39	0.54
1:f:190:LEU:HB3	1:f:221:LEU:HB3	1.89	0.54
1:f:200:ALA:O	1:f:201(B):GLU:HG2	2.08	0.54
1:f:271:SER:OG	1:s:234:GLU:OE1	2.25	0.54
1:g:145:HIS:HB3	1:g:148:TYR:HB2	1.90	0.54
1:j:449:TYR:HE2	1:j:482:ASN:HA	1.73	0.54
1:j:505:ASN:OD1	1:j:506:SER:N	2.40	0.54
1:p:201(A):ASP:OD1	1:p:201(A):ASP:N	2.40	0.54
1:t:129:ALA:HA	1:t:252:PHE:HA	1.89	0.54
1:0:341:ARG:HB2	1:AC:346:ALA:HB2	1.89	0.53
1:3:184:GLU:OE1	1:3:366:ARG:NH2	2.39	0.53
1:AB:75:ASN:ND2	1:AB:78:ASN:OD1	2.42	0.53
1:AJ:363:GLU:OE2	1:AJ:366:ARG:NH1	2.40	0.53
1:AP:280:ALA:O	1:AP:282:HIS:N	2.40	0.53
1:Ah:263:SER:HB3	1:Ah:476:ARG:HG2	1.88	0.53
1:Ai:160:ALA:HB2	1:Ai:228:MET:HE2	1.89	0.53
1:Ai:363:GLU:OE2	1:Ai:366:ARG:NH2	2.41	0.53
1:Al:521:ILE:O	1:Am:341:ARG:NH2	2.41	0.53
1:Am:365:ALA:HB2	1:Am:372:GLU:HB3	1.89	0.53
2:D:344:PRO:HA	2:D:379:TYR:HA	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:237:GLU:HB3	1:m:465:LYS:HD2	1.90	0.53
1:Q:203:THR:HG22	1:Q:204:ASP:N	2.20	0.53
2:a:178:GLY:HA2	2:a:372:SER:HA	1.89	0.53
2:a:360:PHE:HE1	2:a:375:LEU:HD22	1.73	0.53
1:v:83:GLN:NE2	1:v:84:THR:O	2.40	0.53
1:w:231:SER:N	1:y:71:ASP:OD2	2.41	0.53
1:1:245:ASN:N	1:1:245:ASN:OD1	2.40	0.53
1:2:272:ILE:N	1:2:468:GLN:OE1	2.37	0.53
1:7:153:MET:SD	1:7:226:GLU:N	2.81	0.53
1:AA:376:ILE:N	1:AA:422:ARG:O	2.39	0.53
1:AE:240:ASN:OD1	1:AG:66:ALA:N	2.41	0.53
1:AO:73:GLY:O	1:AO:75:ASN:N	2.41	0.53
1:AS:274:LEU:HD13	1:V:69:GLY:HA2	1.90	0.53
1:AT:172:THR:N	1:AT:197:THR:HG21	2.22	0.53
1:AT:510:ASN:OD1	1:AT:511:ALA:N	2.33	0.53
1:Ad:351:LYS:NZ	1:Ad:394:SER:OG	2.37	0.53
1:Ai:318:LYS:NZ	1:Ai:327:SER:OG	2.40	0.53
2:B:238:LEU:HD22	2:B:281:ILE:HD12	1.89	0.53
1:N:360:GLU:OE1	1:N:514:ARG:NH1	2.41	0.53
1:N:515:ARG:NH2	1:N:517:TYR:OH	2.42	0.53
1:T:245:ASN:N	1:T:245:ASN:OD1	2.41	0.53
1:W:152:ALA:HB1	1:W:225:ALA:HB2	1.90	0.53
1:Z:96:MET:HE3	1:d:122:GLY:HA3	1.88	0.53
1:f:201(H):GLU:HB2	1:f:207:LYS:CD	2.38	0.53
1:f:203:THR:CG2	1:f:205:ALA:HB3	2.26	0.53
1:f:454:VAL:HG23	1:f:476:ARG:H	1.73	0.53
1:l:351:LYS:NZ	1:l:394:SER:O	2.41	0.53
1:q:128:ARG:NH1	1:q:142:GLU:OE1	2.41	0.53
1:y:256:LYS:HG2	1:y:496:ILE:HG12	1.90	0.53
1:z:153:MET:HB2	1:z:189:TYR:CZ	2.43	0.53
2:A:235:PHE:HZ	2:a:130:ILE:HD13	1.73	0.53
1:AA:414:ALA:HB3	1:AA:423:VAL:HB	1.90	0.53
1:AD:407:ASP:OD2	1:AD:410:LYS:NZ	2.37	0.53
1:AD:444:MET:O	1:AD:449:TYR:OH	2.25	0.53
1:AF:105:ASN:ND2	1:AF:409:THR:O	2.42	0.53
1:AF:154:PHE:O	1:AF:248:ASN:ND2	2.36	0.53
1:AF:167:ALA:H	1:AF:170:THR:HG21	1.74	0.53
1:AF:358:ASP:OD1	1:AF:421:TYR:OH	2.26	0.53
1:AI:460:ARG:HH21	1:AI:471:MET:HE2	1.73	0.53
1:AJ:105:ASN:HD22	1:AJ:411:SER:HA	1.73	0.53
1:AO:298:ILE:HG21	1:AO:456:LEU:HD21	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AV:160:ALA:HB2	1:AV:228:MET:HE3	1.91	0.53
1:Ak:368:THR:HG23	1:Ak:370:ARG:H	1.73	0.53
1:Al:346:ALA:HB2	1:Am:341:ARG:HB2	1.88	0.53
1:R:202:ALA:HB1	1:R:207:LYS:HD3	1.91	0.53
1:R:322:THR:HG21	1:R:363:GLU:HB2	1.90	0.53
1:S:279:ARG:NH1	1:S:284:MET:O	2.42	0.53
1:X:172:THR:HG1	1:X:196:VAL:H	1.55	0.53
1:b:344:ARG:NH1	1:b:348:GLU:OE2	2.41	0.53
1:c:466:ASN:ND2	1:f:238:GLY:O	2.40	0.53
1:e:147:MET:HG2	1:e:367:GLN:HA	1.90	0.53
1:n:432:ASP:OD1	1:n:432:ASP:N	2.40	0.53
1:o:133:LYS:NZ	1:o:133:LYS:O	2.40	0.53
1:1:484:PHE:O	1:1:487:SER:OG	2.24	0.53
1:2:256:LYS:HD2	1:2:496:ILE:HG12	1.91	0.53
1:3:101:ARG:NE	1:z:142:GLU:OE2	2.41	0.53
1:AB:89:THR:OG1	1:S:495:ARG:NH2	2.41	0.53
1:AC:445:ASP:OD1	1:AC:512:TYR:OH	2.20	0.53
1:AK:309:TRP:HA	1:AK:312:TYR:HB3	1.91	0.53
1:AS:142:GLU:N	1:AS:490:GLN:OE1	2.41	0.53
1:AS:343:ALA:HB1	1:AS:348:GLU:HG3	1.90	0.53
1:AU:460:ARG:HE	1:AU:471:MET:HE3	1.74	0.53
1:AW:510:ASN:OD1	1:AW:511:ALA:N	2.41	0.53
1:AY:201(H):GLU:OE1	1:AY:201(I):ASP:N	2.41	0.53
1:Ai:146:PRO:HB3	1:Ai:369:GLY:HA3	1.90	0.53
1:Aj:98:MET:HG3	1:Ak:125:PHE:HB2	1.89	0.53
1:Ak:351:LYS:NZ	1:Ak:390:ASP:O	2.39	0.53
1:Ak:414:ALA:HB3	1:Ak:423:VAL:HB	1.90	0.53
1:J:268:ALA:HB3	1:J:471:MET:HG2	1.90	0.53
1:M:160:ALA:HB2	1:M:228:MET:HE3	1.89	0.53
1:T:505:ASN:ND2	1:T:506:SER:OG	2.42	0.53
1:U:444:MET:SD	1:U:449:TYR:OH	2.60	0.53
1:W:75:ASN:ND2	1:W:78:ASN:OD1	2.41	0.53
1:Y:254:ILE:HD12	1:l:88:VAL:HG23	1.90	0.53
2:a:71:THR:O	2:a:81:ARG:NH2	2.40	0.53
2:a:242:SER:OG	2:a:245:GLU:OE1	2.26	0.53
1:e:130:VAL:HG21	1:e:135:PRO:HA	1.89	0.53
1:e:345:TRP:CD1	1:e:347:GLY:H	2.27	0.53
1:p:354:LEU:HD22	1:s:400:LEU:HD21	1.90	0.53
1:r:237:GLU:O	1:r:238:GLY:C	2.48	0.53
1:t:265:GLN:NE2	1:u:236:GLN:HG2	2.24	0.53
1:y:245:ASN:N	1:y:245:ASN:OD1	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:y:360:GLU:OE1	1:y:514:ARG:NH1	2.41	0.53
1:z:406:THR:O	1:z:406:THR:OG1	2.24	0.53
1:3:313:SER:HB2	1:3:510:ASN:HB2	1.91	0.53
1:4:184:GLU:O	1:4:366:ARG:NH1	2.42	0.53
1:8:239:PHE:N	1:8:242:SER:OG	2.36	0.53
1:AB:72:HIS:HD2	1:AC:121:THR:HG21	1.74	0.53
1:AE:190:LEU:HB3	1:AE:221:LEU:HB3	1.90	0.53
1:AP:407:ASP:OD2	1:AP:410:LYS:NZ	2.39	0.53
1:AR:123:GLN:HE21	1:Aa:95:VAL:HG22	1.73	0.53
1:Aa:130:VAL:HG21	1:Aa:135:PRO:HA	1.90	0.53
1:Ac:93:PRO:O	1:Al:123:GLN:NE2	2.41	0.53
1:Ad:105:ASN:N	1:Ad:105:ASN:OD1	2.41	0.53
1:Ae:304:ARG:NH2	1:Ae:308:ASP:OD1	2.41	0.53
2:B:179:ILE:HD11	2:B:198:LEU:HD22	1.90	0.53
1:W:116:PRO:HA	1:W:452:PRO:HD2	1.90	0.53
1:X:318:LYS:NZ	1:X:327:SER:OG	2.42	0.53
1:Z:466:ASN:O	1:Z:468:GLN:NE2	2.24	0.53
2:a:227:VAL:HG22	2:a:231:THR:H	1.74	0.53
1:b:239:PHE:CG	1:b:239:PHE:O	2.62	0.53
1:d:328:LYS:HB2	1:d:331:VAL:HG22	1.90	0.53
1:p:107:ILE:HD12	1:p:307:VAL:HG21	1.90	0.53
1:p:190:LEU:HD21	1:p:216:MET:HE2	1.91	0.53
1:q:72:HIS:ND1	1:t:260:GLU:OE2	2.41	0.53
1:1:481:ILE:N	1:1:499:GLY:O	2.36	0.53
1:2:131:TYR:HB3	1:2:250:MET:HG3	1.91	0.53
1:2:333:ASP:OD1	1:2:335:GLN:N	2.40	0.53
1:3:93:PRO:HB2	1:z:123:GLN:HG3	1.89	0.53
1:3:503:ILE:HG23	1:3:507:LEU:HD22	1.90	0.53
1:AB:74:TYR:HA	1:AB:79:ILE:HD11	1.90	0.53
1:AF:383:VAL:HG21	1:AF:425:ILE:HG22	1.89	0.53
1:AH:72:HIS:ND1	1:AI:260:GLU:OE2	2.41	0.53
1:AQ:333:ASP:OD1	1:AQ:334:PHE:N	2.42	0.53
1:AR:133:LYS:O	1:AT:66:ALA:N	2.41	0.53
1:Af:385:VAL:HG21	1:Af:521:ILE:HG21	1.90	0.53
1:Af:397:ALA:HB1	1:Ag:393:ILE:HG23	1.91	0.53
1:Ak:404:PHE:HD2	1:Ak:414:ALA:HB1	1.73	0.53
2:D:243:ALA:HB1	2:D:244:PRO:HD2	1.91	0.53
1:K:124:VAL:HG22	1:N:96:MET:HB2	1.90	0.53
1:L:344:ARG:NH1	1:L:348:GLU:OE2	2.41	0.53
1:R:268:ALA:HB3	1:R:471:MET:HB3	1.91	0.53
1:T:455:ALA:O	1:T:475:THR:HG22	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:384:ASN:O	1:V:388:SER:OG	2.25	0.53
1:e:501:PRO:HA	1:e:505:ASN:HD21	1.72	0.53
1:i:95:VAL:HG22	1:j:123:GLN:HE21	1.74	0.53
1:m:340:ILE:HG22	1:m:352:ALA:HB3	1.91	0.53
1:v:253:ARG:NH2	1:v:255:ASP:OD2	2.35	0.53
1:x:201(G):ASP:OD1	1:x:201(H):GLU:N	2.39	0.53
1:2:117:MET:HG3	1:2:451:ALA:HB1	1.89	0.53
1:4:231:SER:N	1:z:71:ASP:OD2	2.41	0.53
1:6:155:SER:OG	1:w:301:GLU:OE1	2.20	0.53
1:6:383:VAL:HG21	1:6:425:ILE:HG12	1.91	0.53
1:8:155:SER:OG	1:AA:264:ARG:NE	2.41	0.53
1:9:173:THR:OG1	1:9:176:ASP:OD2	2.26	0.53
1:AD:265:GLN:HE22	1:AE:236:GLN:HG3	1.74	0.53
1:AH:145:HIS:CD2	1:AH:147:MET:HG3	2.44	0.53
1:AM:274:LEU:HD12	1:Ad:69:GLY:HA2	1.90	0.53
1:AM:444:MET:SD	1:AM:449:TYR:OH	2.67	0.53
1:AO:263:SER:HA	1:AO:476:ARG:HA	1.90	0.53
1:AR:90:GLN:HG2	1:Ak:281:VAL:HG21	1.89	0.53
1:Ab:250:MET:HE2	1:Ae:294:LEU:HD23	1.90	0.53
1:Ac:237:GLU:HB2	1:Ac:246:PRO:HA	1.90	0.53
1:Ac:245:ASN:N	1:Ac:245:ASN:OD1	2.41	0.53
1:Af:431:GLN:NE2	1:Ag:217:GLU:OE2	2.42	0.53
1:Ah:264:ARG:NH2	1:Ai:226:GLU:O	2.42	0.53
1:Am:153:MET:SD	1:Am:226:GLU:N	2.82	0.53
1:K:430:LYS:HA	1:L:185:THR:HG21	1.91	0.53
1:M:510:ASN:O	1:M:512:TYR:N	2.42	0.53
1:O:293:ILE:HG22	1:P:250:MET:HE3	1.91	0.53
1:P:128:ARG:NH1	1:P:490:GLN:O	2.42	0.53
1:T:132:GLY:C	1:T:133:LYS:HG3	2.33	0.53
1:b:363:GLU:OE2	1:b:366:ARG:NH1	2.41	0.53
1:n:398:GLN:HG2	1:n:399:GLY:H	1.73	0.53
1:s:414:ALA:HB3	1:s:423:VAL:HB	1.91	0.53
1:x:237:GLU:HG2	1:x:246:PRO:HA	1.90	0.53
1:2:395:TYR:HD1	1:2:396:ALA:H	1.55	0.53
1:AR:133:LYS:HA	1:AR:249:GLU:HB2	1.91	0.53
1:Ad:240:ASN:HD21	1:Al:68:ILE:HD11	1.73	0.53
1:Af:341:ARG:HB2	1:Ai:346:ALA:HB2	1.91	0.53
1:Ai:493:ALA:N	1:Ai:497:GLN:OE1	2.38	0.53
1:Aj:91:ILE:HG23	1:j:123:GLN:HE22	1.74	0.53
2:B:175:LEU:HD12	2:B:206:MET:HG2	1.91	0.53
1:S:201(A):ASP:OD1	1:S:201(A):ASP:N	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:235:LEU:O	1:U:245:ASN:ND2	2.42	0.53
1:h:134:ASP:HB3	1:h:137:ALA:HB2	1.90	0.53
1:p:149:GLY:H	1:p:186:GLY:HA3	1.74	0.53
1:v:272:ILE:HG12	1:v:469:PRO:HD3	1.89	0.53
1:7:274:LEU:HD13	1:z:69:GLY:HA2	1.91	0.53
1:8:261:ALA:HA	1:8:478:GLY:HA3	1.91	0.53
1:9:72:HIS:CD2	1:9:79:ILE:HG13	2.42	0.53
1:AA:146:PRO:HB3	1:AA:369:GLY:HA3	1.90	0.53
1:AA:184:GLU:OE1	1:AA:366:ARG:NH2	2.39	0.53
1:AC:331:VAL:HG11	1:AC:519:LYS:HE2	1.90	0.53
1:AE:145:HIS:HD2	1:AE:148:TYR:H	1.56	0.53
1:AJ:100:ARG:NH2	1:AJ:289:GLU:OE1	2.42	0.53
1:AT:345:TRP:HE3	1:AT:347:GLY:H	1.56	0.53
1:AW:268:ALA:HB3	1:AW:471:MET:HB3	1.90	0.53
1:AW:358:ASP:OD1	1:AW:421:TYR:OH	2.26	0.53
1:AW:440:GLY:HA3	1:AW:445:ASP:HB2	1.91	0.53
1:AY:453:TYR:HE2	1:AY:476:ARG:HH21	1.57	0.53
1:Ab:265:GLN:HE22	1:Ac:233:ALA:HA	1.74	0.53
1:Ac:487:SER:O	1:Ac:487:SER:OG	2.27	0.53
1:Ag:440:GLY:HA3	1:Ag:445:ASP:HB3	1.91	0.53
1:Am:72:HIS:NE2	1:Am:90:GLN:OE1	2.39	0.53
2:C:324:ILE:HD11	2:C:415:LEU:HD12	1.91	0.53
1:G:318:LYS:N	1:G:360:GLU:OE2	2.42	0.53
1:K:383:VAL:HG12	1:K:406:THR:HG22	1.90	0.53
1:O:264:ARG:NH1	1:P:155:SER:OG	2.39	0.53
1:Z:142:GLU:H	1:Z:490:GLN:HG2	1.73	0.53
1:b:238:GLY:HA2	1:b:242:SER:HB2	1.91	0.53
1:b:447:GLY:HA2	1:b:482:ASN:HB3	1.90	0.53
1:c:142:GLU:HB2	1:c:490:GLN:HB3	1.91	0.53
1:c:270:TYR:HB3	1:c:290:LEU:HD22	1.91	0.53
1:d:84:THR:HG23	1:d:86:GLY:H	1.74	0.53
1:f:231:SER:HB3	1:l:71:ASP:CG	2.34	0.53
1:m:344:ARG:N	1:m:348:GLU:OE2	2.41	0.53
1:n:278:LEU:HD21	1:n:284:MET:HB2	1.90	0.53
1:y:135:PRO:HG3	1:y:251:GLY:HA3	1.91	0.53
1:4:100:ARG:HH12	1:5:127:LEU:HD13	1.73	0.53
1:9:343:ALA:HB1	1:9:348:GLU:HB2	1.91	0.53
1:AA:444:MET:O	1:AA:449:TYR:OH	2.24	0.53
1:AF:153:MET:HE1	1:AF:177:ILE:HD13	1.91	0.53
1:AI:238:GLY:H	1:AI:242:SER:HB2	1.73	0.53
1:AN:166:LEU:HG	1:AN:178:TYR:HB3	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AQ:101:ARG:HH21	1:AZ:146:PRO:HD2	1.72	0.53
1:AU:264:ARG:NH2	1:AX:226:GLU:O	2.42	0.53
1:AX:232:ILE:HD11	1:AX:245:ASN:HD21	1.73	0.53
1:Ab:260:GLU:OE1	1:Ae:72:HIS:ND1	2.42	0.53
1:Ag:476:ARG:NH2	1:Am:277:ASP:OD1	2.42	0.53
1:Ak:149:GLY:H	1:Ak:186:GLY:HA3	1.74	0.53
1:M:256:LYS:HB2	1:M:496:ILE:HG12	1.90	0.53
1:W:515:ARG:NH2	1:W:517:TYR:OH	2.42	0.53
1:X:171:GLN:OE1	1:X:195:GLN:NE2	2.39	0.53
1:b:238:GLY:HA2	1:b:242:SER:CB	2.39	0.53
1:e:107:ILE:HD12	1:e:307:VAL:HG21	1.91	0.53
1:e:515:ARG:NH2	1:e:517:TYR:OH	2.41	0.53
1:o:142:GLU:N	1:o:490:GLN:OE1	2.37	0.53
1:p:270:TYR:CZ	1:p:287:ASP:HA	2.44	0.53
1:t:385:VAL:HG21	1:t:521:ILE:HD12	1.90	0.53
1:0:507:LEU:O	1:0:509:LYS:NZ	2.37	0.52
1:2:160:ALA:HB2	1:2:228:MET:HE3	1.91	0.52
1:AE:96:MET:HE3	1:AN:122:GLY:HA3	1.90	0.52
1:AP:346:ALA:HB2	1:AQ:341:ARG:HB2	1.90	0.52
1:Ah:235:LEU:O	1:Ah:245:ASN:ND2	2.43	0.52
2:B:267:TYR:HB3	2:B:327:VAL:HG21	1.90	0.52
2:C:344:PRO:HA	2:C:379:TYR:HA	1.90	0.52
1:G:237:GLU:HG3	1:s:465:LYS:HB3	1.90	0.52
1:G:267:LYS:HB3	1:H:249:GLU:HG2	1.92	0.52
1:P:264:ARG:HH11	1:S:155:SER:HB2	1.74	0.52
1:T:197:THR:HG21	1:T:200:ALA:HB3	1.91	0.52
1:Y:260:GLU:HG3	1:c:74:TYR:CD2	2.44	0.52
1:b:450:TYR:HA	1:b:479:ILE:HG22	1.90	0.52
1:g:481:ILE:HD13	1:g:501:PRO:HG3	1.90	0.52
1:k:234:GLU:OE2	1:m:70:GLY:N	2.42	0.52
1:n:104:PRO:HD2	1:n:300:LEU:HD21	1.91	0.52
1:n:267:LYS:HE3	1:o:247:TRP:HB2	1.90	0.52
1:o:236:GLN:HG3	1:o:247:TRP:CD1	2.44	0.52
1:p:70:GLY:HA3	1:p:86:GLY:HA3	1.89	0.52
1:1:261:ALA:HA	1:1:478:GLY:HA3	1.90	0.52
1:8:135:PRO:O	1:8:253:ARG:NH1	2.42	0.52
1:8:445:ASP:OD1	1:8:445:ASP:N	2.40	0.52
2:A:297:TYR:O	2:A:299:SER:N	2.42	0.52
1:AI:95:VAL:HG22	1:AL:123:GLN:HE21	1.75	0.52
1:AM:133:LYS:HB3	1:AM:249:GLU:HB2	1.91	0.52
1:AN:414:ALA:HB3	1:AN:423:VAL:HB	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AO:318:LYS:HB3	1:AO:330:GLY:HA2	1.91	0.52
1:AU:95:VAL:HG22	1:AX:123:GLN:HE21	1.73	0.52
1:AX:267:LYS:NZ	1:AY:249:GLU:OE2	2.36	0.52
1:AY:127:LEU:HD12	1:AY:254:ILE:HD11	1.90	0.52
1:AY:318:LYS:N	1:AY:360:GLU:OE2	2.41	0.52
1:Af:334:PHE:HB2	1:Af:520:GLY:HA3	1.90	0.52
1:Ah:440:GLY:H	1:Ah:445:ASP:HB3	1.74	0.52
1:Aj:145:HIS:HB3	1:Aj:148:TYR:HB2	1.91	0.52
1:H:242:SER:HB2	1:H:245:ASN:HD21	1.74	0.52
1:K:400:LEU:HD11	1:L:417:LEU:HG	1.90	0.52
1:Q:264:ARG:NH2	1:Q:305:GLU:OE1	2.41	0.52
1:f:267:LYS:HB2	1:k:247:TRP:CE3	2.44	0.52
1:f:345:TRP:NE1	1:k:348:GLU:OE2	2.43	0.52
1:g:407:ASP:OD2	1:g:410:LYS:NZ	2.30	0.52
1:g:414:ALA:HB2	1:g:425:ILE:HG13	1.91	0.52
1:k:240:ASN:OD1	1:m:66:ALA:N	2.41	0.52
1:r:131:TYR:HB3	1:r:250:MET:HG3	1.91	0.52
1:v:486:GLU:O	1:v:488:ALA:N	2.42	0.52
1:x:131:TYR:HB3	1:x:250:MET:HG3	1.90	0.52
1:2:83:GLN:NE2	1:2:84:THR:O	2.43	0.52
1:AB:105:ASN:ND2	1:AB:409:THR:O	2.42	0.52
1:AH:264:ARG:NH2	1:AH:305:GLU:OE1	2.29	0.52
1:AS:142:GLU:HB2	1:AS:490:GLN:HB3	1.91	0.52
1:AU:301:GLU:HG2	1:AX:152:ALA:HA	1.92	0.52
1:Ab:376:ILE:HB	1:Ab:423:VAL:HG22	1.91	0.52
1:Ad:130:VAL:HG12	1:Ad:142:GLU:HA	1.90	0.52
2:C:248:ARG:HD3	2:a:244:PRO:HG3	1.90	0.52
1:G:278:LEU:HG	1:G:284:MET:HG3	1.91	0.52
1:G:430:LYS:HD3	1:H:185:THR:HG21	1.92	0.52
1:K:234:GLU:OE2	1:M:69:GLY:N	2.33	0.52
1:K:255:ASP:OD1	1:K:255:ASP:N	2.41	0.52
1:T:456:LEU:HA	1:T:475:THR:HG23	1.83	0.52
1:U:431:GLN:NE2	1:V:217:GLU:OE2	2.42	0.52
1:W:344:ARG:H	1:W:348:GLU:HG2	1.72	0.52
2:a:344:PRO:HA	2:a:379:TYR:HA	1.92	0.52
1:k:271:SER:OG	1:k:273:GLU:OE1	2.26	0.52
1:p:308:ASP:OD1	1:q:223:GLU:HB2	2.10	0.52
1:x:94:ALA:O	1:y:123:GLN:N	2.42	0.52
1:5:133:LYS:O	1:5:133:LYS:NZ	2.41	0.52
2:A:243:ALA:HB1	2:A:244:PRO:HD2	1.91	0.52
1:AA:134:ASP:HB3	1:AA:137:ALA:HB2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AE:376:ILE:HB	1:AE:423:VAL:HG22	1.91	0.52
1:AH:351:LYS:NZ	1:AH:390:ASP:O	2.43	0.52
1:AQ:135:PRO:HG3	2:D:12:THR:HG22	1.91	0.52
1:AT:235:LEU:O	1:AT:245:ASN:ND2	2.33	0.52
1:AZ:145:HIS:CG	1:AZ:148:TYR:HD2	2.27	0.52
1:Af:301:GLU:HG3	1:Ag:152:ALA:HA	1.92	0.52
1:K:345:TRP:CD1	1:K:347:GLY:H	2.27	0.52
1:Q:184:GLU:HG3	1:Q:185:THR:HG23	1.92	0.52
1:R:445:ASP:N	1:R:445:ASP:OD1	2.38	0.52
1:X:130:VAL:HG22	1:X:142:GLU:HA	1.90	0.52
1:Y:90:GLN:HA	1:j:281:VAL:HG11	1.91	0.52
1:Z:245:ASN:OD1	1:Z:245:ASN:N	2.43	0.52
1:g:521:ILE:O	1:h:341:ARG:NH2	2.40	0.52
1:p:397:ALA:HB1	1:q:393:ILE:HG23	1.90	0.52
1:3:267:LYS:HE2	1:3:470:VAL:HG11	1.92	0.52
1:7:130:VAL:HG21	1:7:135:PRO:HA	1.91	0.52
1:AF:201(D):GLU:O	1:AF:201(F):GLU:N	2.41	0.52
1:Aa:73:GLY:O	1:Aa:75:ASN:N	2.41	0.52
1:Ac:261:ALA:HA	1:Ac:478:GLY:HA3	1.91	0.52
1:Ah:260:GLU:OE2	1:Ak:72:HIS:ND1	2.40	0.52
2:B:55:ILE:O	2:B:386:TYR:OH	2.27	0.52
2:B:238:LEU:HD13	2:B:418:VAL:HG13	1.91	0.52
1:J:261:ALA:HA	1:J:478:GLY:HA3	1.90	0.52
1:K:385:VAL:HG21	1:K:521:ILE:HD11	1.91	0.52
1:K:444:MET:O	1:K:449:TYR:OH	2.21	0.52
1:S:333:ASP:N	1:S:339:ASP:OD2	2.42	0.52
1:U:100:ARG:O	1:V:370:ARG:NH2	2.42	0.52
1:U:110:ASP:O	1:U:439:LYS:NZ	2.43	0.52
1:V:253:ARG:NH2	1:V:255:ASP:OD2	2.40	0.52
2:a:56:LYS:HD3	2:a:58:LEU:HD21	1.92	0.52
1:e:510:ASN:OD1	1:e:511:ALA:N	2.43	0.52
1:f:66:ALA:N	1:r:133:LYS:O	2.42	0.52
1:h:141:LYS:NZ	1:h:151:ASP:OD2	2.43	0.52
1:k:495:ARG:NH2	1:u:89:THR:OG1	2.34	0.52
1:q:347:GLY:HA2	1:q:350:PHE:HB2	1.91	0.52
1:u:345:TRP:O	1:u:349:SER:N	2.40	0.52
1:w:117:MET:HG3	1:w:451:ALA:HB1	1.92	0.52
1:w:466:ASN:OD1	1:w:466:ASN:N	2.42	0.52
1:0:383:VAL:HG21	1:0:425:ILE:HG22	1.90	0.52
1:2:182:PHE:N	1:2:186:GLY:O	2.42	0.52
1:4:376:ILE:HG13	1:4:436:VAL:HG22	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:5:368:THR:HG23	1:5:370:ARG:H	1.74	0.52
1:5:414:ALA:HB3	1:5:423:VAL:HB	1.92	0.52
1:8:125:PHE:HE1	1:8:256:LYS:HE2	1.75	0.52
1:AD:223:GLU:OE1	1:AG:430:LYS:NZ	2.31	0.52
1:AG:142:GLU:N	1:AG:490:GLN:OE1	2.42	0.52
1:AL:178:TYR:N	1:AL:190:LEU:O	2.39	0.52
1:AP:264:ARG:NH2	1:AQ:226:GLU:O	2.42	0.52
1:AP:456:LEU:HD13	1:AP:475:THR:HB	1.91	0.52
1:AQ:200:ALA:HB1	1:AQ:201(B):GLU:HB2	1.91	0.52
1:AQ:261:ALA:HA	1:AQ:478:GLY:HA3	1.91	0.52
1:AQ:272:ILE:N	1:AQ:468:GLN:OE1	2.33	0.52
1:AR:344:ARG:HH21	1:AS:344:ARG:HH12	1.57	0.52
1:AU:380:ARG:HG2	1:AU:425:ILE:HD11	1.91	0.52
1:AW:287:ASP:OD1	1:AW:460:ARG:NH2	2.42	0.52
1:Aa:233:ALA:C	1:Aa:235:LEU:H	2.17	0.52
1:Ad:387:ALA:HB1	1:Ad:403:GLY:HA3	1.92	0.52
1:Af:291:SER:HB2	1:Af:471:MET:HE1	1.92	0.52
1:Ag:127:LEU:HD13	1:Ag:254:ILE:HG12	1.90	0.52
1:Ah:117:MET:HG3	1:Ah:451:ALA:HB1	1.91	0.52
1:Ah:133:LYS:HG3	1:Ah:249:GLU:HG3	1.91	0.52
1:Al:101:ARG:HD3	1:Am:146:PRO:HD3	1.91	0.52
2:B:245:GLU:HG2	2:D:243:ALA:HB2	1.91	0.52
1:H:376:ILE:HG12	1:H:436:VAL:HG12	1.91	0.52
1:J:502:SER:N	1:J:505:ASN:OD1	2.42	0.52
1:M:287:ASP:OD1	1:M:460:ARG:NH2	2.43	0.52
1:S:279:ARG:HH12	1:S:285:ASP:HA	1.74	0.52
1:U:272:ILE:HG12	1:U:469:PRO:HD3	1.92	0.52
2:a:347:GLU:O	1:v:279:ARG:NH2	2.40	0.52
1:l:250:MET:HE1	1:o:297:GLU:HG2	1.91	0.52
1:y:115:GLN:NE2	1:y:444:MET:SD	2.83	0.52
1:2:145:HIS:HB3	1:2:148:TYR:HB2	1.91	0.52
1:4:128:ARG:NH2	1:4:489:ALA:O	2.37	0.52
1:7:101:ARG:HD2	1:x:146:PRO:HD3	1.91	0.52
1:7:264:ARG:NH2	1:7:305:GLU:OE1	2.35	0.52
1:8:234:GLU:N	1:8:234:GLU:OE1	2.42	0.52
1:AC:495:ARG:NH2	1:P:87:ALA:O	2.42	0.52
1:AD:264:ARG:NH1	1:AE:155:SER:OG	2.40	0.52
1:AF:105:ASN:HD22	1:AF:411:SER:HA	1.74	0.52
1:AH:245:ASN:OD1	1:AH:245:ASN:N	2.43	0.52
1:AI:462:SER:C	1:AO:464:PRO:HG3	2.35	0.52
1:AP:223:GLU:OE2	1:AS:304:ARG:NH2	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AV:247:TRP:CE3	1:AY:267:LYS:HB2	2.45	0.52
1:Ab:235:LEU:O	1:Ab:245:ASN:ND2	2.43	0.52
1:Ag:386:LEU:HD12	1:Ag:417:LEU:HD11	1.92	0.52
1:Ai:268:ALA:N	1:Ai:471:MET:O	2.43	0.52
1:S:445:ASP:OD1	1:S:445:ASP:N	2.42	0.52
1:V:237:GLU:HB2	1:V:246:PRO:HA	1.92	0.52
1:X:345:TRP:O	1:X:348:GLU:HG2	2.10	0.52
1:Z:145:HIS:HD2	1:Z:146:PRO:HD2	1.75	0.52
1:f:196:VAL:HG21	1:f:215:GLN:CD	2.34	0.52
1:i:197:THR:HG21	1:i:200:ALA:HB3	1.91	0.52
1:k:395:TYR:HD1	1:k:396:ALA:H	1.58	0.52
1:l:129:ALA:O	1:l:143:ALA:N	2.36	0.52
1:m:121:THR:HA	1:m:259:ILE:O	2.09	0.52
1:p:105:ASN:HB2	1:p:412:VAL:HG23	1.91	0.52
1:q:263:SER:HA	1:q:476:ARG:HA	1.92	0.52
1:q:453:TYR:HB3	1:q:476:ARG:O	2.10	0.52
1:x:388:SER:HB3	1:x:401:ALA:HB2	1.92	0.52
1:3:75:ASN:OD1	1:3:77:THR:OG1	2.21	0.52
1:7:73:GLY:O	1:7:75:ASN:N	2.42	0.52
1:AA:142:GLU:HG2	1:AA:143:ALA:H	1.75	0.52
1:AH:116:PRO:HA	1:AH:452:PRO:HD2	1.92	0.52
1:AT:173:THR:OG1	1:AT:176:ASP:OD2	2.24	0.52
1:AW:237:GLU:HG2	1:AW:246:PRO:HA	1.92	0.52
1:Af:222:VAL:HG11	1:Ai:312:TYR:HA	1.92	0.52
1:Ah:351:LYS:NZ	1:Ah:394:SER:O	2.43	0.52
2:C:55:ILE:O	2:C:386:TYR:OH	2.27	0.52
1:M:247:TRP:CE3	1:h:267:LYS:HB2	2.44	0.52
1:N:313:SER:HB2	1:N:510:ASN:HB2	1.92	0.52
1:S:521:ILE:O	1:T:341:ARG:NH2	2.43	0.52
1:W:270:TYR:HA	1:o:67:GLU:HB3	1.92	0.52
1:d:343:ALA:HB1	1:d:348:GLU:HB2	1.92	0.52
1:l:341:ARG:HB2	1:o:346:ALA:HB2	1.92	0.52
1:p:293:ILE:HG22	1:q:250:MET:HE3	1.90	0.52
1:t:199:ASP:CG	1:t:211:GLU:HG3	2.35	0.52
1:0:171:GLN:HG2	1:0:197:THR:HG22	1.92	0.52
1:9:264:ARG:HB3	1:AB:155:SER:HB3	1.90	0.52
1:AD:131:TYR:OH	1:AG:297:GLU:OE2	2.21	0.52
1:AD:395:TYR:HD1	1:AD:396:ALA:H	1.58	0.52
1:AF:395:TYR:HD1	1:AF:396:ALA:H	1.58	0.52
1:AM:121:THR:HG22	1:AM:260:GLU:HG3	1.91	0.52
1:AN:70:GLY:HA3	1:AN:86:GLY:HA3	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AP:134:ASP:HB3	1:AP:137:ALA:HB2	1.90	0.52
1:AT:422:ARG:NH2	1:AT:424:TYR:OH	2.37	0.52
1:AW:184:GLU:O	1:AW:366:ARG:NH2	2.42	0.52
1:Ai:281:VAL:HG23	1:Ai:282:HIS:HD2	1.75	0.52
1:L:259:ILE:HD13	1:L:480:GLY:HA3	1.92	0.52
1:R:198:ILE:O	1:R:199:ASP:HB2	2.10	0.52
1:R:313:SER:HB2	1:R:510:ASN:HB2	1.91	0.52
1:R:318:LYS:NZ	1:R:327:SER:OG	2.42	0.52
1:Y:201(E):ASP:N	1:Y:201(E):ASP:OD1	2.40	0.52
1:h:278:LEU:HD23	1:h:286:ALA:HB2	1.91	0.52
1:l:450:TYR:HA	1:l:479:ILE:HG22	1.91	0.52
1:r:75:ASN:HD21	1:r:78:ASN:H	1.56	0.52
1:u:237:GLU:HB2	1:u:246:PRO:HA	1.92	0.52
1:v:319:SER:HA	1:v:323:LEU:HB2	1.91	0.52
1:1:393:ILE:HG23	1:z:397:ALA:HB1	1.92	0.52
1:3:76:ALA:HB1	1:z:496:ILE:HG22	1.92	0.52
1:AN:145:HIS:HB3	1:AN:148:TYR:HB2	1.90	0.52
1:AN:304:ARG:NH2	1:AO:223:GLU:OE1	2.32	0.52
1:AR:160:ALA:HB2	1:AR:228:MET:HE3	1.92	0.52
1:AT:264:ARG:NH2	1:AT:305:GLU:OE1	2.36	0.52
1:AV:217:GLU:HA	1:AY:517:TYR:CE2	2.45	0.52
1:AV:237:GLU:HG2	1:AV:246:PRO:HA	1.91	0.52
1:Aa:70:GLY:HA3	1:Aa:86:GLY:HA3	1.92	0.52
1:Aa:263:SER:HA	1:Aa:476:ARG:HA	1.90	0.52
1:Ac:91:ILE:HG12	1:K:125:PHE:HZ	1.75	0.52
1:Ag:360:GLU:OE1	1:Ag:514:ARG:NE	2.42	0.52
1:M:281:VAL:HG11	1:e:90:GLN:HB3	1.92	0.52
1:w:240:ASN:OD1	1:y:66:ALA:N	2.43	0.52
1:3:142:GLU:HG2	1:3:143:ALA:H	1.74	0.51
1:5:160:ALA:HB2	1:5:228:MET:HE3	1.93	0.51
1:6:142:GLU:N	1:6:490:GLN:OE1	2.35	0.51
1:6:380:ARG:NH2	1:6:427:GLN:O	2.43	0.51
1:7:323:LEU:HD11	1:7:327:SER:HB2	1.92	0.51
2:A:16:SER:O	1:w:495:ARG:NH2	2.43	0.51
1:AB:107:ILE:HD12	1:AB:307:VAL:HG21	1.91	0.51
1:AD:414:ALA:HB3	1:AD:423:VAL:HB	1.93	0.51
1:AH:376:ILE:HB	1:AH:423:VAL:HG22	1.92	0.51
1:AN:297:GLU:OE2	1:AO:131:TYR:OH	2.27	0.51
1:AO:233:ALA:C	1:AO:235:LEU:H	2.18	0.51
1:AT:274:LEU:HD23	1:Aa:67:GLU:HG3	1.92	0.51
1:Ad:380:ARG:NH1	1:Ad:408:THR:HG21	2.24	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ai:128:ARG:HD2	1:Ai:492:PRO:HD3	1.93	0.51
2:C:353:ASP:N	2:C:353:ASP:OD1	2.42	0.51
1:G:73:GLY:O	1:G:75:ASN:N	2.41	0.51
1:J:344:ARG:NH2	1:J:348:GLU:OE2	2.42	0.51
1:L:192:ALA:HA	1:L:221:LEU:HD23	1.91	0.51
1:L:343:ALA:HB1	1:L:348:GLU:HG2	1.92	0.51
1:R:274:LEU:HD13	1:b:69:GLY:HA2	1.92	0.51
1:U:78:ASN:N	1:U:78:ASN:OD1	2.42	0.51
2:a:400:GLY:HA2	2:a:406:MET:HE2	1.92	0.51
1:c:89:THR:OG1	1:m:495:ARG:NH2	2.38	0.51
1:e:230:THR:O	1:e:234:GLU:N	2.43	0.51
1:g:269:ALA:HA	1:g:470:VAL:HA	1.92	0.51
1:j:345:TRP:CD1	1:j:346:ALA:H	2.28	0.51
1:t:237:GLU:O	1:t:245:ASN:HB2	2.10	0.51
1:t:267:LYS:NZ	1:u:249:GLU:OE2	2.32	0.51
1:2:388:SER:HB3	1:2:401:ALA:HB2	1.92	0.51
1:3:268:ALA:HB1	1:3:290:LEU:HD23	1.92	0.51
1:9:206:ALA:O	1:9:208:LEU:N	2.44	0.51
1:AH:196:VAL:HG21	1:AH:215:GLN:CD	2.34	0.51
1:AH:422:ARG:NH2	1:AH:424:TYR:OH	2.38	0.51
1:AM:345:TRP:CD1	1:AM:346:ALA:H	2.28	0.51
1:AP:515:ARG:NH1	1:AP:517:TYR:OH	2.42	0.51
1:AR:495:ARG:NH2	1:AT:87:ALA:O	2.43	0.51
1:AU:265:GLN:HE21	1:AX:236:GLN:HE21	1.58	0.51
1:Ac:444:MET:O	1:Ac:449:TYR:OH	2.27	0.51
1:Ae:301:GLU:O	1:Ae:305:GLU:N	2.43	0.51
1:Af:274:LEU:HD23	1:Am:67:GLU:HG3	1.92	0.51
1:Ag:269:ALA:HB2	1:Ag:470:VAL:HG23	1.91	0.51
2:D:267:TYR:HB3	2:D:327:VAL:HG21	1.93	0.51
1:G:414:ALA:HB3	1:G:423:VAL:HB	1.92	0.51
1:L:305:GLU:HA	1:g:225:ALA:HB3	1.93	0.51
1:T:260:GLU:N	1:T:500:MET:SD	2.80	0.51
1:T:501:PRO:HA	1:T:505:ASN:HD21	1.74	0.51
1:U:328:LYS:HB3	1:U:331:VAL:HG22	1.91	0.51
1:W:105:ASN:ND2	1:W:409:THR:O	2.39	0.51
1:W:172:THR:HG1	1:W:196:VAL:H	1.56	0.51
1:Y:345:TRP:NE1	1:Z:348:GLU:OE2	2.38	0.51
1:b:123:GLN:HE21	1:e:95:VAL:HG22	1.75	0.51
1:b:510:ASN:O	1:b:512:TYR:N	2.42	0.51
1:e:460:ARG:HH12	1:e:471:MET:HE2	1.76	0.51
1:f:198:ILE:C	1:f:200:ALA:N	2.67	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f:201(D):GLU:HG2	1:f:201(E):ASP:N	2.25	0.51
1:g:414:ALA:HB3	1:g:423:VAL:HB	1.92	0.51
1:m:376:ILE:HG12	1:m:436:VAL:HG12	1.92	0.51
1:p:142:GLU:OE2	1:s:101:ARG:NE	2.38	0.51
1:v:331:VAL:HG12	1:v:517:TYR:HB2	1.93	0.51
1:w:234:GLU:OE2	1:y:69:GLY:N	2.43	0.51
1:0:244:ASP:OD1	1:0:244:ASP:N	2.43	0.51
1:0:440:GLY:H	1:0:445:ASP:HB3	1.75	0.51
1:6:146:PRO:HD2	1:w:101:ARG:HH21	1.74	0.51
1:6:496:ILE:HG22	1:w:76:ALA:HB1	1.93	0.51
1:AA:195:GLN:O	1:AA:195:GLN:NE2	2.42	0.51
1:AB:145:HIS:HB3	1:AB:148:TYR:HB2	1.91	0.51
1:AH:264:ARG:NH1	1:AI:155:SER:OG	2.34	0.51
1:AI:264:ARG:HB3	1:AL:155:SER:HB3	1.92	0.51
1:AO:121:THR:HG22	1:AO:260:GLU:HG3	1.92	0.51
1:Aa:370:ARG:NH1	1:Aa:445:ASP:OD1	2.40	0.51
1:Ag:236:GLN:HB3	1:Ag:247:TRP:HE1	1.75	0.51
1:G:236:GLN:OE1	1:J:265:GLN:NE2	2.43	0.51
1:L:444:MET:O	1:L:449:TYR:OH	2.28	0.51
1:P:376:ILE:HG12	1:P:436:VAL:HG13	1.91	0.51
1:W:121:THR:HG22	1:j:79:ILE:HG23	1.92	0.51
1:Y:372:GLU:OE2	1:c:406:THR:OG1	2.29	0.51
1:Z:460:ARG:HH21	1:Z:471:MET:HE2	1.74	0.51
1:b:201(H):GLU:HG2	1:b:202:ALA:H	1.76	0.51
1:d:444:MET:O	1:d:449:TYR:OH	2.28	0.51
1:f:172:THR:HG23	1:f:197:THR:HA	1.92	0.51
1:f:223:GLU:OE1	1:m:304:ARG:NH2	2.43	0.51
1:h:365:ALA:HB2	1:h:372:GLU:HB3	1.92	0.51
1:p:431:GLN:NE2	1:q:217:GLU:OE2	2.43	0.51
1:q:430:LYS:HG3	1:t:216:MET:HE1	1.92	0.51
1:r:387:ALA:HB1	1:r:403:GLY:HA3	1.93	0.51
1:t:75:ASN:O	1:t:77:THR:N	2.43	0.51
1:t:343:ALA:HB1	1:t:348:GLU:HB2	1.92	0.51
1:y:153:MET:HE2	1:y:226:GLU:HG2	1.92	0.51
1:y:304:ARG:NH1	1:y:426:ASP:OD1	2.43	0.51
1:1:172:THR:OG1	1:1:196:VAL:N	2.41	0.51
1:2:400:LEU:HD23	1:3:391:THR:HB	1.91	0.51
1:4:407:ASP:OD2	1:4:410:LYS:NZ	2.34	0.51
1:7:72:HIS:NE2	1:7:90:GLN:HG3	2.25	0.51
1:AB:519:LYS:NZ	1:AC:217:GLU:OE2	2.43	0.51
1:AE:93:PRO:HB3	1:AN:121:THR:HG22	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AF:124:VAL:HG21	1:AF:444:MET:HE1	1.93	0.51
1:AI:285:ASP:HB3	1:AI:288:ALA:HB3	1.93	0.51
1:AL:232:ILE:HD11	1:AL:245:ASN:HD21	1.75	0.51
1:AY:266:LEU:HD13	1:AY:294:LEU:HD22	1.93	0.51
1:Ab:234:GLU:OE2	1:Ad:69:GLY:N	2.35	0.51
1:Ag:101:ARG:HH21	1:Aj:146:PRO:HD2	1.75	0.51
1:Ah:171:GLN:HG2	1:Ah:197:THR:HG22	1.92	0.51
1:Al:91:ILE:HG12	1:e:125:PHE:HZ	1.75	0.51
1:O:494:SER:O	1:O:496:ILE:N	2.43	0.51
1:P:460:ARG:HH21	1:P:471:MET:HE2	1.75	0.51
1:R:273:GLU:HG3	1:b:69:GLY:HA3	1.91	0.51
1:T:266:LEU:HD13	1:T:294:LEU:HD22	1.92	0.51
1:X:274:LEU:HD22	1:w:67:GLU:HG3	1.92	0.51
2:a:368:SER:OG	2:a:369:LEU:N	2.41	0.51
1:d:133:LYS:NZ	1:d:249:GLU:OE1	2.43	0.51
1:d:517:TYR:CE2	1:e:217:GLU:HG3	2.45	0.51
1:w:145:HIS:HB3	1:w:148:TYR:HB2	1.93	0.51
1:z:130:VAL:HB	1:z:140:ALA:HB1	1.92	0.51
1:0:247:TRP:CE3	1:AC:267:LYS:HB2	2.46	0.51
2:A:38:ASP:N	2:A:38:ASP:OD1	2.43	0.51
1:AG:237:GLU:HB2	1:AH:466:ASN:OD1	2.11	0.51
1:AQ:169:SER:HA	1:AQ:199:ASP:HB2	1.92	0.51
1:AS:377:ILE:O	1:AS:435:THR:N	2.43	0.51
1:AX:265:GLN:HB3	1:AX:474:LYS:HG2	1.92	0.51
1:AY:147:MET:HE1	1:AY:184:GLU:HG2	1.91	0.51
1:Ab:112:CYS:HB2	1:Ab:448:ILE:O	2.11	0.51
1:Ae:273:GLU:OE1	1:Ae:273:GLU:N	2.44	0.51
1:Al:357:ILE:HD13	1:Al:376:ILE:HD11	1.91	0.51
2:B:360:PHE:HE1	2:B:375:LEU:HD22	1.75	0.51
1:K:117:MET:HG3	1:K:451:ALA:HB1	1.92	0.51
1:O:268:ALA:N	1:O:471:MET:O	2.38	0.51
1:O:466:ASN:OD1	1:O:466:ASN:N	2.44	0.51
1:Q:203:THR:C	1:Q:205:ALA:N	2.65	0.51
1:S:107:ILE:HD12	1:S:307:VAL:HG21	1.92	0.51
1:W:146:PRO:HD3	1:j:101:ARG:HD2	1.93	0.51
1:Y:263:SER:HA	1:Y:476:ARG:HA	1.92	0.51
1:Z:481:ILE:N	1:Z:499:GLY:O	2.32	0.51
1:i:110:ASP:O	1:i:439:LYS:NZ	2.37	0.51
1:l:466:ASN:O	1:l:468:GLN:NE2	2.43	0.51
1:n:265:GLN:HB3	1:n:474:LYS:HG2	1.91	0.51
1:w:390:ASP:H	1:w:397:ALA:HB3	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:444:MET:O	1:1:449:TYR:OH	2.28	0.51
1:9:242:SER:HB3	1:9:245:ASN:HD21	1.76	0.51
1:9:270:TYR:O	1:G:66:ALA:HB3	2.09	0.51
2:A:61:ASP:OD2	2:A:105:ASN:ND2	2.44	0.51
1:AE:456:LEU:HG	1:AE:473:PHE:HD2	1.76	0.51
1:AM:237:GLU:HB2	1:AM:246:PRO:HA	1.92	0.51
1:AM:256:LYS:HD2	1:AM:496:ILE:HG12	1.93	0.51
1:AQ:121:THR:HG22	1:AQ:260:GLU:HG2	1.93	0.51
1:AQ:201(H):GLU:O	1:AQ:202:ALA:N	2.43	0.51
1:AQ:444:MET:O	1:AQ:449:TYR:OH	2.26	0.51
1:AS:254:ILE:HG23	1:Ak:88:VAL:HA	1.91	0.51
1:AW:171:GLN:OE1	1:AW:195:GLN:NE2	2.40	0.51
1:Aa:228:MET:HE3	1:Aa:233:ALA:HB2	1.92	0.51
1:Ac:390:ASP:H	1:Ac:397:ALA:HB3	1.75	0.51
1:Ag:332:PHE:HE2	1:Ag:353:LEU:HA	1.75	0.51
1:Aj:264:ARG:NE	1:Ak:155:SER:OG	2.41	0.51
1:Aj:376:ILE:HG13	1:Aj:436:VAL:HG22	1.91	0.51
2:B:17:ASN:OD1	2:B:18:SER:N	2.44	0.51
1:G:225:ALA:O	1:J:309:TRP:NE1	2.44	0.51
1:H:142:GLU:HG2	1:H:143:ALA:H	1.76	0.51
1:R:231:SER:HB3	1:T:71:ASP:HB3	1.93	0.51
1:W:67:GLU:OE2	1:l:252:PHE:N	2.27	0.51
2:a:198:LEU:HD23	2:a:373:ILE:HD12	1.93	0.51
1:b:319:SER:HA	1:b:323:LEU:HB2	1.93	0.51
1:d:178:TYR:N	1:d:190:LEU:O	2.42	0.51
1:d:486:GLU:HG3	1:d:509:LYS:HB3	1.91	0.51
1:i:331:VAL:HG12	1:i:517:TYR:HB2	1.93	0.51
1:l:245:ASN:N	1:l:245:ASN:OD1	2.44	0.51
1:p:305:GLU:OE2	1:p:477:TYR:OH	2.26	0.51
1:r:250:MET:HE1	1:u:297:GLU:HG2	1.93	0.51
1:u:72:HIS:HD1	1:u:79:ILE:HA	1.74	0.51
1:v:134:ASP:HB3	1:v:137:ALA:HB2	1.92	0.51
1:x:402:THR:OG1	1:x:403:GLY:N	2.43	0.51
1:1:279:ARG:NH2	1:1:285:ASP:OD1	2.44	0.51
1:5:116:PRO:HA	1:5:452:PRO:HD2	1.93	0.51
1:9:318:LYS:NZ	1:9:356:GLN:OE1	2.38	0.51
2:A:101:PHE:CE1	2:A:108:TYR:HB2	2.45	0.51
2:A:344:PRO:HA	2:A:379:TYR:HA	1.93	0.51
1:AA:171:GLN:NE2	1:AA:195:GLN:OE1	2.42	0.51
1:AC:142:GLU:N	1:AC:490:GLN:OE1	2.41	0.51
1:AC:239:PHE:O	1:AC:240:ASN:HB2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AL:153:MET:HE1	1:AL:226:GLU:HG2	1.92	0.51
1:AO:442:ASN:OD1	1:AO:443:GLU:N	2.44	0.51
1:AQ:333:ASP:OD1	1:AQ:335:GLN:N	2.40	0.51
1:AS:129:ALA:O	1:AS:143:ALA:HB2	2.11	0.51
1:AX:267:LYS:HB3	1:AY:249:GLU:HG2	1.93	0.51
1:Ad:440:GLY:H	1:Ad:445:ASP:HB3	1.76	0.51
1:Ah:105:ASN:OD1	1:Ah:105:ASN:N	2.42	0.51
1:Ak:380:ARG:NH1	1:Ak:427:GLN:O	2.44	0.51
1:Al:278:LEU:HD23	1:Al:286:ALA:HB2	1.91	0.51
2:D:46:ASN:HA	2:D:347:GLU:HB2	1.93	0.51
2:D:187:LEU:HD22	2:D:192:PHE:HB2	1.93	0.51
1:K:223:GLU:OE1	1:N:430:LYS:NZ	2.44	0.51
1:M:440:GLY:H	1:M:445:ASP:HB3	1.76	0.51
1:N:134:ASP:HB3	1:N:137:ALA:HB2	1.92	0.51
1:V:96:MET:HE3	1:i:122:GLY:HA3	1.92	0.51
1:W:348:GLU:HG3	1:j:345:TRP:CD1	2.45	0.51
1:W:521:ILE:O	1:X:341:ARG:NH1	2.44	0.51
2:a:341:PHE:HD1	2:a:343:ALA:HB2	1.75	0.51
1:b:94:ALA:O	1:c:123:GLN:N	2.41	0.51
1:b:387:ALA:HB1	1:b:403:GLY:HA3	1.92	0.51
1:e:117:MET:HG3	1:e:451:ALA:HB1	1.93	0.51
1:o:502:SER:N	1:o:505:ASN:OD1	2.43	0.51
1:1:182:PHE:N	1:1:186:GLY:O	2.32	0.51
1:4:104:PRO:HD2	1:4:300:LEU:HD21	1.93	0.51
1:9:484:PHE:O	1:9:487:SER:OG	2.25	0.51
1:AC:503:ILE:HG23	1:AC:507:LEU:HD22	1.92	0.51
1:AF:124:VAL:HG12	1:AF:257:GLN:HB2	1.93	0.51
1:AK:383:VAL:HG21	1:AK:425:ILE:HG12	1.92	0.51
1:AM:105:ASN:ND2	1:AM:409:THR:O	2.38	0.51
1:AP:503:ILE:HB	1:AQ:191:GLN:HE22	1.75	0.51
1:AZ:259:ILE:HG22	1:AZ:499:GLY:HA3	1.93	0.51
1:Ab:280:ALA:O	1:Ab:282:HIS:N	2.44	0.51
1:Ac:264:ARG:NH2	1:Al:226:GLU:O	2.44	0.51
1:Ac:351:LYS:NZ	1:Ac:390:ASP:O	2.43	0.51
1:Af:120:PRO:HD3	1:Af:453:TYR:OH	2.10	0.51
2:B:99:ASP:N	2:B:99:ASP:OD1	2.42	0.51
1:G:388:SER:HB3	1:G:401:ALA:HB2	1.92	0.51
1:H:438:TYR:HB3	1:H:512:TYR:HB3	1.93	0.51
1:M:348:GLU:HG2	1:h:345:TRP:CE2	2.45	0.51
1:V:278:LEU:HD23	1:V:286:ALA:HB2	1.93	0.51
1:Y:460:ARG:NH1	1:Y:471:MET:SD	2.83	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:131:TYR:HE1	1:Z:141:LYS:HB2	1.76	0.51
1:b:239:PHE:HE2	1:d:68:ILE:HG22	1.75	0.51
1:e:409:THR:OG1	1:e:410:LYS:NZ	2.44	0.51
1:k:234:GLU:OE1	1:m:69:GLY:N	2.44	0.51
1:u:117:MET:HG3	1:u:451:ALA:HB1	1.93	0.51
1:0:341:ARG:HH21	1:AC:350:PHE:HE1	1.58	0.51
1:1:301:GLU:OE1	1:4:155:SER:OG	2.29	0.51
1:2:260:GLU:HB3	1:5:74:TYR:HE1	1.74	0.51
1:9:510:ASN:OD1	1:9:511:ALA:N	2.43	0.51
1:AC:328:LYS:NZ	1:AC:333:ASP:OD2	2.36	0.51
1:AD:496:ILE:HG22	1:AG:76:ALA:HB1	1.93	0.51
1:AE:253:ARG:HH21	1:AE:495:ARG:HG2	1.76	0.51
1:AL:236:GLN:OE1	1:AL:245:ASN:ND2	2.44	0.51
1:AX:128:ARG:NE	1:AX:490:GLN:O	2.34	0.51
1:AY:278:LEU:HD23	1:AY:286:ALA:HB2	1.93	0.51
1:AZ:414:ALA:HB2	1:AZ:425:ILE:HG13	1.92	0.51
1:Ab:444:MET:O	1:Ab:449:TYR:OH	2.29	0.51
1:Ac:300:LEU:HD22	1:Al:150:PRO:HG2	1.93	0.51
1:Al:500:MET:O	1:Al:505:ASN:ND2	2.44	0.51
2:B:56:LYS:HB2	2:B:64:PHE:HE1	1.75	0.51
2:C:337:VAL:HG23	2:C:384:ASN:HD21	1.76	0.51
1:L:263:SER:HB3	1:L:476:ARG:HG2	1.91	0.51
1:S:345:TRP:HB3	1:S:348:GLU:HG3	1.92	0.51
1:W:133:LYS:HA	1:W:249:GLU:HB2	1.92	0.51
1:d:278:LEU:HD21	1:d:284:MET:HB2	1.91	0.51
1:h:500:MET:O	1:h:505:ASN:ND2	2.43	0.51
1:j:201(A):ASP:OD2	1:j:207:LYS:NZ	2.37	0.51
1:m:181:PHE:HE1	1:m:186:GLY:HA2	1.76	0.51
1:u:268:ALA:HB2	1:u:294:LEU:HD11	1.93	0.51
1:v:201(H):GLU:HG3	1:v:201(I):ASP:H	1.76	0.51
1:y:345:TRP:O	1:y:348:GLU:HG2	2.11	0.51
1:0:151:ASP:HB3	1:0:154:PHE:HB2	1.93	0.51
1:8:397:ALA:HB1	1:9:393:ILE:HG23	1.92	0.51
1:9:344:ARG:N	1:9:348:GLU:OE1	2.41	0.51
1:AA:368:THR:HG22	1:AA:511:ALA:HB1	1.92	0.51
1:AD:100:ARG:HG3	1:AE:127:LEU:HB3	1.93	0.51
1:AE:347:GLY:HA3	1:AE:397:ALA:O	2.11	0.51
1:AM:228:MET:HG3	1:AM:233:ALA:HB2	1.92	0.51
1:AN:197:THR:HG21	1:AN:200:ALA:HB3	1.93	0.51
1:AR:231:SER:N	1:AZ:71:ASP:OD2	2.44	0.51
1:AU:266:LEU:HB2	1:AU:298:ILE:HD11	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AX:182:PHE:N	1:AX:186:GLY:O	2.44	0.51
1:AY:383:VAL:HG12	1:AY:406:THR:HG22	1.91	0.51
1:AZ:117:MET:HG2	1:AZ:451:ALA:HB1	1.93	0.51
1:Ab:235:LEU:HD23	1:Ab:242:SER:HB3	1.93	0.51
1:Ae:256:LYS:HD2	1:Ae:496:ILE:HG12	1.93	0.51
1:Af:521:ILE:HG22	1:Ag:341:ARG:HH12	1.75	0.51
1:Ah:249:GLU:HA	1:Ak:267:LYS:O	2.11	0.51
1:Am:107:ILE:O	1:Am:303:ASN:ND2	2.39	0.51
2:C:259:SER:HB3	2:a:276:ALA:HB1	1.93	0.51
2:C:292:PRO:HD3	2:C:305:PHE:CE1	2.46	0.51
1:M:322:THR:OG1	1:M:514:ARG:NH2	2.44	0.51
1:T:261:ALA:HA	1:T:478:GLY:HA3	1.92	0.51
1:V:444:MET:O	1:V:449:TYR:OH	2.24	0.51
1:b:234:GLU:HG3	1:b:235:LEU:CD1	2.41	0.51
1:d:269:ALA:HA	1:d:470:VAL:HA	1.93	0.51
1:p:100:ARG:HE	1:q:127:LEU:HD23	1.76	0.51
1:w:333:ASP:OD1	1:w:334:PHE:N	2.44	0.51
1:x:267:LYS:HB2	1:y:247:TRP:CE3	2.46	0.51
1:y:200:ALA:N	1:y:211:GLU:OE2	2.41	0.51
1:5:133:LYS:HB3	1:5:249:GLU:HB2	1.93	0.50
1:8:305:GLU:OE2	1:8:477:TYR:OH	2.26	0.50
1:AB:495:ARG:NH2	1:G:89:THR:HG1	2.08	0.50
1:AE:71:ASP:OD2	1:AO:231:SER:N	2.44	0.50
1:AF:247:TRP:CE3	1:AO:267:LYS:HB2	2.45	0.50
1:AH:72:HIS:HB2	1:AH:79:ILE:HD13	1.93	0.50
1:AJ:66:ALA:HB3	1:Af:133:LYS:HB3	1.94	0.50
1:AJ:145:HIS:NE2	1:AJ:487:SER:O	2.40	0.50
1:AJ:201(H):GLU:HG2	1:AJ:201(I):ASP:H	1.76	0.50
1:AL:357:ILE:HG12	1:AL:434:PHE:CE2	2.46	0.50
1:AM:373:GLY:O	1:AM:374:ASN:ND2	2.43	0.50
1:AT:274:LEU:HD13	1:Aa:69:GLY:HA2	1.93	0.50
1:AX:267:LYS:HE3	1:AY:247:TRP:HB2	1.94	0.50
1:Ac:301:GLU:OE1	1:Al:155:SER:OG	2.25	0.50
1:Ak:201(C):ASP:N	1:Ak:201(C):ASP:OD1	2.43	0.50
1:J:381:ASN:HB3	1:J:521:ILE:HD13	1.91	0.50
1:L:107:ILE:H	1:L:303:ASN:HD21	1.59	0.50
1:S:145:HIS:HB3	1:S:148:TYR:HB2	1.93	0.50
1:V:333:ASP:OD1	1:V:334:PHE:N	2.44	0.50
1:Y:252:PHE:HD1	1:Y:252:PHE:H	1.57	0.50
1:Z:101:ARG:HH21	1:d:146:PRO:HD2	1.75	0.50
2:a:41:ALA:HB2	2:a:328:VAL:HG13	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:h:383:VAL:HG12	1:h:406:THR:HG22	1.92	0.50
1:j:263:SER:HA	1:j:476:ARG:HA	1.93	0.50
1:j:454:VAL:HG23	1:j:476:ARG:H	1.76	0.50
1:l:117:MET:HG3	1:l:451:ALA:HB1	1.93	0.50
1:m:444:MET:O	1:m:449:TYR:OH	2.29	0.50
1:p:146:PRO:HD3	1:s:101:ARG:HD2	1.92	0.50
1:t:269:ALA:HA	1:t:470:VAL:HG22	1.93	0.50
1:v:332:PHE:HB3	1:v:518:VAL:HG12	1.94	0.50
1:1:96:MET:HE3	1:4:122:GLY:HA3	1.93	0.50
1:5:237:GLU:H	1:5:245:ASN:ND2	2.09	0.50
1:6:357:ILE:HD13	1:6:376:ILE:HD11	1.91	0.50
1:9:198:ILE:O	1:9:199:ASP:C	2.51	0.50
2:A:362:VAL:HG12	2:A:373:ILE:HG12	1.93	0.50
1:AB:160:ALA:HB2	1:AB:228:MET:HE2	1.93	0.50
1:AC:89:THR:OG1	1:h:495:ARG:NH2	2.38	0.50
1:AC:147:MET:HE1	1:AC:184:GLU:HA	1.93	0.50
1:AD:486:GLU:O	1:AD:488:ALA:N	2.41	0.50
1:AG:269:ALA:HA	1:AG:470:VAL:HA	1.94	0.50
1:AG:414:ALA:HB3	1:AG:423:VAL:HB	1.92	0.50
1:AI:171:GLN:OE1	1:AI:195:GLN:NE2	2.43	0.50
1:AL:116:PRO:HA	1:AL:452:PRO:HD2	1.92	0.50
1:AO:261:ALA:HA	1:AO:478:GLY:HA3	1.93	0.50
1:AQ:265:GLN:NE2	1:AQ:474:LYS:HE3	2.27	0.50
1:AQ:273:GLU:OE1	1:AQ:273:GLU:N	2.43	0.50
1:AQ:445:ASP:OD1	1:AQ:445:ASP:N	2.43	0.50
1:AU:315:GLN:N	1:AU:513:PHE:O	2.39	0.50
1:AY:237:GLU:H	1:AY:245:ASN:ND2	2.09	0.50
1:Ad:184:GLU:HG3	1:Ad:185:THR:HG23	1.93	0.50
1:Ah:400:LEU:HD22	1:Ai:354:LEU:HB3	1.92	0.50
1:Ah:431:GLN:HE21	1:Ai:213:LYS:HG2	1.76	0.50
2:B:62:ASN:OD1	2:B:160:ARG:NH1	2.44	0.50
2:B:186:ASP:O	2:B:190:ASN:N	2.36	0.50
1:P:171:GLN:NE2	1:P:195:GLN:OE1	2.43	0.50
1:Q:167:ALA:H	1:Q:170:THR:HG21	1.77	0.50
1:e:74:TYR:HA	1:e:79:ILE:HD11	1.93	0.50
1:f:75:ASN:O	1:f:79:ILE:HG12	2.11	0.50
1:f:406:THR:O	1:f:406:THR:OG1	2.29	0.50
1:o:147:MET:SD	1:o:366:ARG:NH1	2.83	0.50
1:q:261:ALA:HA	1:q:478:GLY:HA3	1.92	0.50
1:q:318:LYS:HB3	1:q:330:GLY:HA2	1.93	0.50
1:y:498:SER:O	1:y:505:ASN:ND2	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:145:HIS:CD2	1:2:146:PRO:HD2	2.44	0.50
1:3:131:TYR:HD2	1:3:250:MET:HE3	1.77	0.50
1:7:204:ASP:HA	1:7:207:LYS:HB3	1.92	0.50
2:A:23:ASN:OD1	2:a:46:ASN:ND2	2.42	0.50
1:AE:380:ARG:HG2	1:AE:425:ILE:HD11	1.93	0.50
1:AP:345:TRP:CD1	1:AP:347:GLY:H	2.29	0.50
1:AT:146:PRO:HD3	1:AW:101:ARG:HD2	1.93	0.50
1:Ah:344:ARG:NH1	1:Ah:348:GLU:OE2	2.45	0.50
1:Ai:134:ASP:HB3	1:Ai:137:ALA:HB2	1.92	0.50
2:D:178:GLY:HA2	2:D:372:SER:HA	1.93	0.50
1:P:267:LYS:HA	1:P:472:GLY:HA2	1.93	0.50
1:R:440:GLY:HA3	1:R:445:ASP:HB2	1.93	0.50
1:W:456:LEU:HD23	1:W:475:THR:HB	1.93	0.50
1:c:131:TYR:HD2	1:c:250:MET:HE3	1.75	0.50
1:c:145:HIS:CG	1:c:146:PRO:HD2	2.47	0.50
1:g:264:ARG:NH1	1:g:305:GLU:OE1	2.43	0.50
1:k:484:PHE:O	1:k:487:SER:OG	2.24	0.50
1:p:267:LYS:HG3	1:p:268:ALA:N	2.26	0.50
1:u:190:LEU:HB3	1:u:221:LEU:HB3	1.93	0.50
1:y:263:SER:HB3	1:y:476:ARG:HG2	1.93	0.50
1:0:181:PHE:HD1	1:0:187:THR:HB	1.75	0.50
1:2:428:TYR:O	1:2:430:LYS:NZ	2.44	0.50
1:9:279:ARG:HA	1:9:283:GLY:HA2	1.92	0.50
1:AA:129:ALA:O	1:AA:143:ALA:HB2	2.11	0.50
1:AB:454:VAL:O	1:AB:475:THR:OG1	2.28	0.50
1:AC:95:VAL:HG21	1:g:91:ILE:HD13	1.93	0.50
1:AG:456:LEU:HD23	1:AG:475:THR:HB	1.92	0.50
1:AL:486:GLU:HG3	1:AL:509:LYS:HB3	1.93	0.50
1:AP:122:GLY:HA3	1:AS:96:MET:HE3	1.92	0.50
1:AQ:417:LEU:HB3	1:AQ:421:TYR:HB2	1.93	0.50
1:AR:305:GLU:CD	1:AR:477:TYR:HH	2.20	0.50
1:AZ:314:ALA:O	1:AZ:508:GLY:HA2	2.12	0.50
1:Ah:480:GLY:HA2	1:Ah:501:PRO:HD3	1.92	0.50
1:Al:376:ILE:HG23	1:Al:423:VAL:HG13	1.93	0.50
1:J:75:ASN:O	1:J:77:THR:N	2.45	0.50
1:N:343:ALA:HB1	1:N:348:GLU:HG3	1.93	0.50
1:O:260:GLU:HB2	1:O:500:MET:SD	2.50	0.50
1:Q:66:ALA:N	1:f:249:GLU:OE1	2.45	0.50
1:S:157:GLN:N	1:S:227:GLY:O	2.45	0.50
1:V:345:TRP:CZ2	1:i:396:ALA:HB2	2.46	0.50
1:g:417:LEU:HB3	1:g:421:TYR:HB2	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:k:259:ILE:HD13	1:k:480:GLY:HA3	1.93	0.50
1:k:314:ALA:HA	1:k:513:PHE:HB2	1.94	0.50
1:u:385:VAL:HG21	1:u:521:ILE:HD13	1.94	0.50
1:v:515:ARG:NH2	1:v:517:TYR:OH	2.44	0.50
1:AK:149:GLY:N	1:AK:185:THR:O	2.39	0.50
1:AP:201(H):GLU:HG3	1:AP:201(I):ASP:H	1.76	0.50
1:AP:282:HIS:CE1	1:AQ:254:ILE:HG21	2.46	0.50
1:AR:314:ALA:HA	1:AR:513:PHE:HB2	1.92	0.50
1:Ah:234:GLU:HG3	1:Ah:235:LEU:HD12	1.94	0.50
1:Ak:153:MET:HB2	1:Ak:189:TYR:CZ	2.47	0.50
1:Ak:365:ALA:HB2	1:Ak:372:GLU:HB3	1.94	0.50
1:Al:373:GLY:HA2	1:Al:438:TYR:HB2	1.92	0.50
2:C:161:PHE:HB3	2:a:201:LEU:HD11	1.93	0.50
2:D:324:ILE:HD11	2:D:415:LEU:HD12	1.94	0.50
1:L:245:ASN:N	1:L:245:ASN:OD1	2.43	0.50
1:M:123:GLN:NE2	1:h:93:PRO:O	2.44	0.50
1:M:400:LEU:HD22	1:N:354:LEU:HB3	1.92	0.50
1:Q:201(F):GLU:O	1:Q:201(G):ASP:HB2	2.10	0.50
2:a:35:ILE:HD12	2:a:39:ILE:HD11	1.93	0.50
1:d:363:GLU:OE2	1:d:366:ARG:NH2	2.41	0.50
1:f:264:ARG:HB3	1:k:155:SER:HB2	1.94	0.50
1:i:363:GLU:OE2	1:i:366:ARG:NH2	2.43	0.50
1:n:267:LYS:NZ	1:o:249:GLU:OE2	2.45	0.50
1:o:261:ALA:HA	1:o:478:GLY:HA3	1.93	0.50
1:p:201(D):GLU:HB3	1:p:201(F):GLU:HG3	1.93	0.50
1:p:222:VAL:HG11	1:s:312:TYR:HA	1.93	0.50
1:p:350:PHE:HB2	1:p:389:VAL:HG11	1.92	0.50
1:r:237:GLU:OE1	1:r:237:GLU:HA	2.11	0.50
1:s:198:ILE:O	1:s:199:ASP:HB2	2.12	0.50
1:t:278:LEU:HD21	1:t:284:MET:HB2	1.94	0.50
1:z:117:MET:HG3	1:z:451:ALA:HB1	1.92	0.50
1:2:181:PHE:HD1	1:2:187:THR:HB	1.77	0.50
1:3:106:LEU:HB3	1:3:303:ASN:ND2	2.27	0.50
1:4:462:SER:C	1:k:464:PRO:HG3	2.37	0.50
1:5:266:LEU:HD13	1:5:294:LEU:HD22	1.92	0.50
1:6:142:GLU:HB2	1:6:490:GLN:HB3	1.94	0.50
1:AH:120:PRO:O	1:AH:121:THR:OG1	2.29	0.50
1:AJ:263:SER:HB3	1:AJ:476:ARG:HG2	1.94	0.50
1:AK:449:TYR:N	1:AK:480:GLY:O	2.44	0.50
1:AM:442:ASN:OD1	1:AM:443:GLU:N	2.44	0.50
1:AM:454:VAL:O	1:AM:475:THR:OG1	2.30	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AP:383:VAL:HG21	1:AP:425:ILE:HG12	1.94	0.50
1:AR:184:GLU:HG3	1:AR:185:THR:HG23	1.93	0.50
1:AT:90:GLN:HA	1:Aa:281:VAL:HG11	1.94	0.50
1:AY:263:SER:HA	1:AY:476:ARG:HA	1.92	0.50
1:Aa:121:THR:HG22	1:Aa:260:GLU:HG3	1.92	0.50
1:Aa:166:LEU:HG	1:Aa:178:TYR:HB3	1.93	0.50
1:Ac:360:GLU:OE1	1:Ac:514:ARG:NE	2.43	0.50
1:Ae:264:ARG:HD2	1:Ae:477:TYR:HE1	1.76	0.50
1:Af:449:TYR:HE2	1:Af:482:ASN:HA	1.76	0.50
1:Ah:367:GLN:HB3	1:Ah:511:ALA:HB1	1.94	0.50
1:Am:345:TRP:CD1	1:Am:346:ALA:N	2.80	0.50
1:R:345:TRP:O	1:R:348:GLU:HG2	2.12	0.50
1:X:142:GLU:HG2	1:X:143:ALA:H	1.77	0.50
1:c:364:ILE:HD11	1:c:436:VAL:HG23	1.93	0.50
1:c:447:GLY:HA3	1:c:513:PHE:HE2	1.77	0.50
1:l:144:PHE:HB3	1:o:104:PRO:HD3	1.94	0.50
1:q:440:GLY:HA3	1:q:445:ASP:HB2	1.93	0.50
1:u:510:ASN:OD1	1:u:511:ALA:N	2.44	0.50
1:y:117:MET:HG3	1:y:451:ALA:HB1	1.94	0.50
1:y:166:LEU:HD21	1:y:198:ILE:HG13	1.92	0.50
1:0:480:GLY:HA2	1:0:501:PRO:HD3	1.93	0.50
1:2:201(F):GLU:OE1	1:2:201(I):ASP:HA	2.12	0.50
1:4:78:ASN:N	1:4:78:ASN:OD1	2.43	0.50
1:AD:328:LYS:HB3	1:AD:331:VAL:HG22	1.94	0.50
1:AI:345:TRP:HB2	1:AI:348:GLU:CD	2.37	0.50
1:AJ:247:TRP:CE3	1:AM:267:LYS:HB2	2.45	0.50
1:AX:444:MET:O	1:AX:449:TYR:OH	2.22	0.50
1:AY:287:ASP:OD2	1:AY:460:ARG:NH2	2.44	0.50
2:C:346:THR:HG21	2:C:357:VAL:HA	1.94	0.50
1:H:75:ASN:O	1:H:79:ILE:HG13	2.11	0.50
1:H:376:ILE:N	1:H:422:ARG:O	2.40	0.50
1:K:456:LEU:HD13	1:K:475:THR:HB	1.94	0.50
1:O:289:GLU:O	1:O:293:ILE:HG12	2.11	0.50
1:P:166:LEU:HD22	1:P:198:ILE:HG13	1.92	0.50
1:T:468:GLN:NE2	1:p:234:GLU:O	2.44	0.50
1:W:117:MET:HG3	1:W:451:ALA:HB1	1.94	0.50
1:W:274:LEU:HD23	1:o:69:GLY:HA2	1.93	0.50
1:Z:66:ALA:N	1:e:240:ASN:ND2	2.55	0.50
2:a:102:LYS:HA	2:a:107:VAL:HA	1.94	0.50
1:c:237:GLU:HG2	1:c:246:PRO:HA	1.94	0.50
1:c:438:TYR:HB3	1:c:512:TYR:HB3	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:k:125:PHE:HE1	1:k:256:LYS:HB3	1.75	0.50
1:n:256:LYS:HG3	1:n:496:ILE:HG12	1.93	0.50
1:o:278:LEU:HD23	1:o:286:ALA:HB2	1.94	0.50
1:s:75:ASN:O	1:s:79:ILE:HG13	2.12	0.50
1:t:107:ILE:HD12	1:t:307:VAL:HG21	1.92	0.50
1:u:127:LEU:HD12	1:u:254:ILE:HD11	1.94	0.50
1:y:313:SER:HA	1:y:506:SER:O	2.12	0.50
1:z:104:PRO:HB2	1:z:300:LEU:HD11	1.93	0.50
1:1:480:GLY:HA2	1:1:501:PRO:HD3	1.94	0.50
1:9:134:ASP:HB3	1:9:137:ALA:HB2	1.92	0.50
1:9:206:ALA:C	1:9:208:LEU:N	2.67	0.50
2:A:115:PRO:HB3	2:A:136:LYS:HG2	1.94	0.50
1:AH:71:ASP:OD2	1:AL:231:SER:N	2.44	0.50
1:AH:171:GLN:HE21	1:AH:195:GLN:NE2	2.09	0.50
1:AJ:336:ASP:HB3	1:AJ:339:ASP:HB2	1.94	0.50
1:AK:263:SER:HB3	1:AK:476:ARG:HG2	1.92	0.50
1:AP:234:GLU:OE2	1:AR:69:GLY:N	2.39	0.50
1:AS:240:ASN:O	1:AS:240:ASN:ND2	2.44	0.50
1:AT:247:TRP:CD1	1:AW:267:LYS:HB2	2.47	0.50
1:AZ:234:GLU:HG2	1:AZ:235:LEU:HD12	1.94	0.50
1:Ab:94:ALA:O	1:Ac:123:GLN:HB3	2.11	0.50
1:Ac:304:ARG:NH2	1:Ac:308:ASP:OD1	2.44	0.50
1:Ad:402:THR:OG1	1:Ad:403:GLY:N	2.44	0.50
1:Ag:380:ARG:HG2	1:Ag:425:ILE:HD11	1.94	0.50
1:Ag:490:GLN:N	1:Ag:490:GLN:OE1	2.45	0.50
1:Ai:272:ILE:N	1:Ai:468:GLN:OE1	2.42	0.50
1:K:276:GLN:HG2	1:K:279:ARG:NH1	2.26	0.50
1:L:398:GLN:HB3	1:g:351:LYS:HD3	1.93	0.50
1:Q:274:LEU:HG	1:m:69:GLY:HA2	1.93	0.50
1:R:444:MET:O	1:R:449:TYR:OH	2.28	0.50
1:U:486:GLU:O	1:U:488:ALA:N	2.41	0.50
1:V:120:PRO:HD3	1:V:453:TYR:CZ	2.46	0.50
1:W:304:ARG:NH1	1:W:426:ASP:OD1	2.37	0.50
2:a:81:ARG:O	2:a:102:LYS:NZ	2.44	0.50
1:f:481:ILE:N	1:f:499:GLY:O	2.38	0.50
1:i:265:GLN:HB2	1:j:247:TRP:CZ3	2.46	0.50
1:k:345:TRP:HB2	1:k:348:GLU:CD	2.36	0.50
1:s:265:GLN:HB3	1:s:474:LYS:HG3	1.94	0.50
1:u:107:ILE:HD12	1:u:307:VAL:HG21	1.92	0.50
1:w:131:TYR:HD2	1:w:250:MET:HE3	1.76	0.50
1:w:376:ILE:HG12	1:w:436:VAL:HG22	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:414:ALA:HB3	1:0:423:VAL:HB	1.94	0.50
1:2:121:THR:HB	1:5:93:PRO:HA	1.94	0.50
1:6:278:LEU:HD23	1:6:286:ALA:HB2	1.94	0.50
1:6:417:LEU:HB3	1:6:421:TYR:HB2	1.93	0.50
1:9:345:TRP:CZ2	1:AB:348:GLU:HB3	2.47	0.50
1:9:406:THR:OG1	1:AB:372:GLU:OE2	2.29	0.50
1:AA:240:ASN:HD21	1:AC:66:ALA:N	2.10	0.50
1:AB:264:ARG:NH2	1:AC:152:ALA:O	2.45	0.50
1:AC:270:TYR:HA	1:g:67:GLU:HB2	1.94	0.50
1:AC:278:LEU:HD22	1:AC:286:ALA:HB2	1.93	0.50
1:AI:266:LEU:HB3	1:AI:294:LEU:HD22	1.94	0.50
1:AM:414:ALA:HB3	1:AM:423:VAL:HB	1.94	0.50
1:AN:123:GLN:HB3	1:AN:258:VAL:HG12	1.94	0.50
1:AP:75:ASN:O	1:AP:79:ILE:HG13	2.12	0.50
1:AQ:237:GLU:HB2	1:AQ:246:PRO:HA	1.93	0.50
1:AY:444:MET:O	1:AY:449:TYR:OH	2.29	0.50
1:AZ:154:PHE:O	1:AZ:248:ASN:ND2	2.38	0.50
1:AZ:160:ALA:HB2	1:AZ:228:MET:HE3	1.94	0.50
1:Ab:101:ARG:NH1	1:Ac:142:GLU:OE2	2.44	0.50
2:B:212:LYS:HE3	2:B:317:ASN:HD21	1.77	0.50
2:B:364:VAL:HG22	2:B:371:PRO:HB3	1.93	0.50
1:H:135:PRO:HG3	1:H:251:GLY:HA3	1.94	0.50
1:Q:447:GLY:HA2	1:Q:482:ASN:HB3	1.92	0.50
1:T:160:ALA:HB2	1:T:228:MET:HE3	1.93	0.50
1:e:168:ALA:HB1	1:e:199:ASP:HB2	1.93	0.50
1:f:196:VAL:O	1:f:198:ILE:HG12	2.12	0.50
1:q:301:GLU:OE1	1:t:155:SER:OG	2.27	0.50
1:u:157:GLN:NE2	1:u:227:GLY:O	2.44	0.50
1:v:233:ALA:O	1:y:265:GLN:NE2	2.42	0.50
1:v:346:ALA:HB2	1:w:341:ARG:HB2	1.94	0.50
1:0:201(I):ASP:OD1	1:0:201(I):ASP:N	2.45	0.49
1:2:348:GLU:HG3	1:5:345:TRP:CD1	2.47	0.49
1:7:504:LEU:HD23	1:7:504:LEU:H	1.77	0.49
1:9:199:ASP:HB2	1:9:201(A):ASP:HB3	1.93	0.49
1:AB:71:ASP:OD1	1:AB:71:ASP:N	2.43	0.49
1:AC:376:ILE:N	1:AC:422:ARG:O	2.39	0.49
1:AJ:447:GLY:O	1:AJ:448:ILE:HG13	2.12	0.49
1:AJ:465:LYS:NZ	1:Ag:237:GLU:OE2	2.44	0.49
1:AK:458:PRO:HB3	1:AK:473:PHE:HE1	1.78	0.49
1:AS:78:ASN:N	1:AS:78:ASN:OD1	2.45	0.49
1:AV:426:ASP:OD2	1:AV:433:TYR:OH	2.23	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AW:69:GLY:HA2	1:Ah:274:LEU:HG	1.94	0.49
1:N:153:MET:HE3	1:N:225:ALA:HA	1.94	0.49
1:P:333:ASP:OD1	1:P:335:GLN:N	2.37	0.49
1:V:245:ASN:N	1:V:245:ASN:OD1	2.44	0.49
1:Y:159:ALA:HB3	1:Y:228:MET:HE2	1.92	0.49
1:Y:297:GLU:O	1:Y:301:GLU:N	2.45	0.49
1:Z:345:TRP:CZ2	1:d:396:ALA:HB2	2.47	0.49
1:b:240:ASN:OD1	1:b:240:ASN:N	2.45	0.49
1:l:267:LYS:HE3	1:m:247:TRP:CG	2.47	0.49
1:l:364:ILE:HG21	1:l:438:TYR:HB2	1.94	0.49
1:m:264:ARG:NH1	1:m:477:TYR:OH	2.45	0.49
1:p:151:ASP:HB3	1:p:154:PHE:HB2	1.94	0.49
1:q:190:LEU:HB3	1:q:221:LEU:HB3	1.94	0.49
1:u:368:THR:HG23	1:u:370:ARG:H	1.77	0.49
1:0:319:SER:HA	1:0:323:LEU:HB2	1.93	0.49
1:1:434:PHE:CE1	1:1:516:VAL:HB	2.47	0.49
1:3:166:LEU:HD13	1:3:212:ILE:HD12	1.93	0.49
1:9:109:PHE:HE2	1:9:303:ASN:HA	1.77	0.49
1:AJ:236:GLN:OE1	1:AM:265:GLN:NE2	2.45	0.49
1:AK:84:THR:OG1	1:AK:88:VAL:O	2.20	0.49
1:AL:72:HIS:NE2	1:AL:90:GLN:OE1	2.31	0.49
1:AU:109:PHE:HE1	1:AU:306:VAL:HG21	1.77	0.49
1:AV:264:ARG:NH2	1:AV:305:GLU:OE1	2.45	0.49
1:AY:147:MET:HG2	1:AY:367:GLN:HA	1.94	0.49
1:Ab:322:THR:HG23	1:Ab:359:LYS:HG2	1.94	0.49
1:Ad:450:TYR:HA	1:Ad:479:ILE:HG22	1.94	0.49
1:Ah:380:ARG:NH1	1:Ah:408:THR:HG21	2.25	0.49
1:Am:233:ALA:C	1:Am:235:LEU:H	2.20	0.49
1:P:107:ILE:H	1:P:303:ASN:HD21	1.60	0.49
1:R:447:GLY:HA3	1:R:513:PHE:HE2	1.76	0.49
1:U:223:GLU:OE2	1:X:304:ARG:NH2	2.45	0.49
1:W:262:LYS:N	1:W:477:TYR:O	2.39	0.49
1:b:267:LYS:HE3	1:c:247:TRP:CD2	2.47	0.49
1:f:182:PHE:N	1:f:186:GLY:O	2.28	0.49
1:f:242:SER:HB2	1:f:245:ASN:HD21	1.77	0.49
1:l:345:TRP:H	1:l:348:GLU:HB3	1.77	0.49
1:o:221:LEU:HD23	1:o:221:LEU:H	1.77	0.49
1:v:237:GLU:OE1	1:y:267:LYS:NZ	2.43	0.49
1:2:125:PHE:CD1	1:2:256:LYS:HB3	2.48	0.49
1:6:201(B):GLU:O	1:6:201(D):GLU:N	2.45	0.49
1:9:270:TYR:HB3	1:9:290:LEU:HD12	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AB:72:HIS:CD2	1:AC:121:THR:HG21	2.47	0.49
1:AD:451:ALA:O	1:AD:478:GLY:N	2.38	0.49
1:AE:201(G):ASP:N	1:AE:201(G):ASP:OD1	2.44	0.49
1:AE:261:ALA:HA	1:AE:478:GLY:HA3	1.95	0.49
1:AH:414:ALA:HB2	1:AH:425:ILE:HG22	1.94	0.49
1:AK:463:ASP:OD1	1:AK:465:LYS:N	2.43	0.49
1:AM:404:PHE:HD2	1:AM:414:ALA:HB1	1.78	0.49
1:AR:447:GLY:O	1:AR:448:ILE:HG13	2.13	0.49
1:AS:317:GLY:HA2	1:AS:514:ARG:NH1	2.27	0.49
1:AV:310:ILE:O	1:AV:314:ALA:N	2.44	0.49
1:AV:312:TYR:HA	1:AW:222:VAL:HG21	1.94	0.49
1:AW:468:GLN:HE22	1:Af:234:GLU:HG3	1.77	0.49
1:Af:376:ILE:HB	1:Af:423:VAL:HG22	1.93	0.49
2:C:243:ALA:HB1	2:C:244:PRO:HD2	1.95	0.49
1:G:238:GLY:HA2	1:G:242:SER:HB3	1.94	0.49
1:P:274:LEU:O	1:P:278:LEU:N	2.32	0.49
1:Q:203:THR:O	1:Q:204:ASP:C	2.54	0.49
1:S:336:ASP:HB3	1:S:339:ASP:HB2	1.95	0.49
1:V:130:VAL:HG12	1:V:142:GLU:HA	1.94	0.49
1:V:190:LEU:HB3	1:V:221:LEU:HB3	1.94	0.49
1:W:341:ARG:HB2	1:j:346:ALA:HB2	1.94	0.49
1:Y:203:THR:O	1:Y:206:ALA:N	2.38	0.49
1:f:430:LYS:HB3	1:k:185:THR:HG21	1.94	0.49
1:h:117:MET:HG3	1:h:451:ALA:HB1	1.94	0.49
1:n:314:ALA:HA	1:n:513:PHE:HB2	1.94	0.49
1:v:182:PHE:N	1:v:186:GLY:O	2.44	0.49
1:z:75:ASN:N	1:z:75:ASN:OD1	2.45	0.49
1:0:117:MET:HG3	1:0:451:ALA:HB1	1.95	0.49
1:1:250:MET:HE3	1:z:293:ILE:HG22	1.95	0.49
1:2:304:ARG:NH2	1:3:223:GLU:OE1	2.44	0.49
1:4:273:GLU:CD	1:4:273:GLU:H	2.20	0.49
1:5:153:MET:HB2	1:5:189:TYR:CZ	2.47	0.49
1:7:261:ALA:HA	1:7:478:GLY:HA3	1.94	0.49
1:AG:264:ARG:NH1	1:AG:477:TYR:OH	2.45	0.49
1:AH:90:GLN:HA	1:AO:281:VAL:HG11	1.95	0.49
1:AH:393:ILE:HA	1:AK:398:GLN:O	2.13	0.49
1:AO:142:GLU:N	1:AO:490:GLN:OE1	2.45	0.49
1:AO:466:ASN:HB2	1:AO:468:GLN:HG2	1.94	0.49
1:AS:182:PHE:N	1:AS:186:GLY:O	2.38	0.49
1:AV:363:GLU:OE2	1:AV:367:GLN:NE2	2.46	0.49
1:AY:184:GLU:O	1:AY:185:THR:OG1	2.25	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ac:265:GLN:HB3	1:Ac:474:LYS:HG3	1.92	0.49
1:Ac:272:ILE:N	1:Ac:468:GLN:OE1	2.42	0.49
1:Ae:230:THR:O	1:Ae:230:THR:OG1	2.29	0.49
1:Ag:244:ASP:N	1:Ag:244:ASP:OD1	2.44	0.49
1:Ai:510:ASN:OD1	1:Ai:511:ALA:N	2.43	0.49
1:Ak:132:GLY:C	1:Ak:133:LYS:HG3	2.37	0.49
1:J:145:HIS:HE1	1:J:147:MET:HE2	1.77	0.49
1:J:340:ILE:HB	1:J:343:ALA:HB3	1.94	0.49
1:J:383:VAL:HG12	1:J:406:THR:HG22	1.94	0.49
1:W:395:TYR:HD1	1:W:396:ALA:H	1.61	0.49
1:W:465:LYS:HB3	1:m:237:GLU:HB3	1.94	0.49
1:X:182:PHE:N	1:X:186:GLY:O	2.44	0.49
1:Y:249:GLU:HG2	1:c:267:LYS:HB3	1.93	0.49
1:j:171:GLN:NE2	1:j:195:GLN:OE1	2.32	0.49
1:o:237:GLU:H	1:o:245:ASN:ND2	2.10	0.49
1:p:96:MET:N	1:q:123:GLN:O	2.43	0.49
1:z:129:ALA:O	1:z:143:ALA:N	2.41	0.49
1:1:90:GLN:NE2	1:k:277:ASP:OD2	2.45	0.49
1:2:305:GLU:OE1	1:2:477:TYR:OH	2.20	0.49
1:4:379:SER:OG	1:4:380:ARG:N	2.45	0.49
1:6:72:HIS:CE1	1:7:121:THR:HG21	2.48	0.49
2:A:232:ASP:OD1	2:A:233:SER:N	2.44	0.49
1:AA:510:ASN:OD1	1:AA:511:ALA:N	2.45	0.49
1:AI:278:LEU:HD23	1:AI:286:ALA:HB2	1.95	0.49
1:AO:368:THR:HG23	1:AO:370:ARG:H	1.76	0.49
1:AT:121:THR:HA	1:AT:259:ILE:O	2.11	0.49
1:AU:101:ARG:NH1	1:AX:142:GLU:OE2	2.46	0.49
1:AV:93:PRO:HB2	1:AW:123:GLN:HG3	1.93	0.49
1:AW:145:HIS:CD2	1:AW:146:PRO:HD2	2.48	0.49
1:AY:386:LEU:HD13	1:AY:417:LEU:HD22	1.93	0.49
1:Aa:153:MET:SD	1:Aa:226:GLU:N	2.79	0.49
1:Ab:383:VAL:HG21	1:Ab:425:ILE:HG12	1.93	0.49
1:Ae:278:LEU:HD23	1:Ae:286:ALA:HB2	1.95	0.49
1:Ai:414:ALA:HB3	1:Ai:423:VAL:HB	1.95	0.49
1:Aj:107:ILE:HD12	1:Aj:307:VAL:HG21	1.94	0.49
1:Al:107:ILE:HD12	1:Al:307:VAL:HG21	1.93	0.49
1:P:238:GLY:H	1:P:242:SER:HB2	1.76	0.49
1:Q:256:LYS:HD2	1:Q:496:ILE:HG12	1.95	0.49
1:R:129:ALA:O	1:R:143:ALA:HB2	2.13	0.49
1:Z:244:ASP:N	1:Z:244:ASP:OD1	2.44	0.49
1:b:247:TRP:CE3	1:e:267:LYS:HB2	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:l:356:GLN:O	1:l:356:GLN:NE2	2.44	0.49
1:l:387:ALA:HB1	1:l:403:GLY:HA3	1.95	0.49
1:p:417:LEU:HB3	1:p:421:TYR:HB2	1.95	0.49
1:t:253:ARG:NH2	1:t:255:ASP:OD2	2.44	0.49
1:0:237:GLU:HG2	1:0:246:PRO:HA	1.94	0.49
1:3:149:GLY:N	1:3:185:THR:O	2.39	0.49
1:7:448:ILE:HG22	1:7:481:ILE:HG22	1.94	0.49
1:9:145:HIS:CE1	1:9:147:MET:HB2	2.48	0.49
1:AJ:105:ASN:OD1	1:AJ:105:ASN:N	2.45	0.49
1:AT:125:PHE:HE1	1:AT:256:LYS:HE2	1.78	0.49
1:AT:481:ILE:N	1:AT:499:GLY:O	2.45	0.49
1:AU:267:LYS:HA	1:AU:472:GLY:HA2	1.95	0.49
1:Ag:426:ASP:OD2	1:Ag:433:TYR:OH	2.30	0.49
1:Aj:445:ASP:OD1	1:Aj:445:ASP:N	2.44	0.49
2:B:181:VAL:N	2:B:370:GLN:OE1	2.41	0.49
2:C:287:TRP:HB3	2:C:307:ALA:HB2	1.95	0.49
1:J:105:ASN:ND2	1:J:409:THR:O	2.44	0.49
1:K:445:ASP:OD1	1:K:445:ASP:N	2.41	0.49
1:L:71:ASP:OD1	1:h:231:SER:HB3	2.13	0.49
1:M:236:GLN:HB3	1:M:247:TRP:NE1	2.28	0.49
1:O:133:LYS:NZ	1:O:249:GLU:OE1	2.43	0.49
1:T:167:ALA:O	1:T:170:THR:OG1	2.24	0.49
1:Z:107:ILE:H	1:Z:303:ASN:HD21	1.60	0.49
1:f:422:ARG:HH21	1:f:424:TYR:HH	1.56	0.49
1:h:73:GLY:O	1:h:75:ASN:N	2.44	0.49
1:l:318:LYS:N	1:l:360:GLU:OE2	2.37	0.49
1:t:444:MET:O	1:t:449:TYR:OH	2.29	0.49
1:x:80:ALA:HB2	1:y:258:VAL:HG11	1.95	0.49
1:x:237:GLU:HB2	1:x:247:TRP:CD1	2.48	0.49
1:5:376:ILE:HB	1:5:423:VAL:HG22	1.95	0.49
2:A:219:ILE:HD13	2:A:320:LEU:HD12	1.94	0.49
1:AF:123:GLN:OE1	1:AF:256:LYS:NZ	2.37	0.49
1:AH:385:VAL:HG21	1:AH:521:ILE:HG21	1.95	0.49
1:AH:412:VAL:HG12	1:AH:425:ILE:HG23	1.95	0.49
1:AJ:155:SER:OG	1:AM:301:GLU:OE1	2.23	0.49
1:AQ:450:TYR:HA	1:AQ:479:ILE:HG22	1.94	0.49
1:AU:129:ALA:HA	1:AU:252:PHE:HA	1.95	0.49
1:AU:178:TYR:O	1:AU:190:LEU:N	2.43	0.49
1:AV:265:GLN:HE22	1:AW:233:ALA:HA	1.78	0.49
1:AW:264:ARG:NH1	1:AW:477:TYR:OH	2.46	0.49
1:AW:456:LEU:HA	1:AW:475:THR:HB	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AX:157:GLN:N	1:AX:227:GLY:O	2.46	0.49
1:Af:347:GLY:HA3	1:Af:397:ALA:O	2.13	0.49
1:Ag:345:TRP:HB2	1:Ag:348:GLU:CD	2.38	0.49
1:Ag:398:GLN:OE1	1:Ag:399:GLY:N	2.46	0.49
1:Aj:153:MET:HE2	1:Aj:225:ALA:HA	1.94	0.49
1:Aj:230:THR:HA	1:Aj:233:ALA:HB2	1.94	0.49
1:Aj:374:ASN:N	1:Aj:374:ASN:OD1	2.45	0.49
1:Al:201(B):GLU:O	1:Al:201(D):GLU:N	2.46	0.49
2:D:35:ILE:HD12	2:D:39:ILE:HD11	1.94	0.49
1:J:368:THR:HG23	1:J:370:ARG:H	1.78	0.49
1:K:190:LEU:HD23	1:K:221:LEU:HD13	1.95	0.49
1:P:116:PRO:HA	1:P:452:PRO:HD2	1.95	0.49
1:P:257:GLN:HG2	1:P:497:GLN:HG3	1.94	0.49
1:R:263:SER:HB3	1:R:476:ARG:HG2	1.95	0.49
1:R:398:GLN:OE1	1:R:399:GLY:N	2.46	0.49
1:U:134:ASP:OD1	1:U:137:ALA:N	2.45	0.49
1:U:345:TRP:CD1	1:U:347:GLY:H	2.31	0.49
1:e:414:ALA:HB3	1:e:423:VAL:HB	1.95	0.49
1:g:191:GLN:HB2	1:g:224:ILE:HG21	1.95	0.49
1:i:381:ASN:HB3	1:i:521:ILE:HG21	1.95	0.49
1:i:517:TYR:CE2	1:j:217:GLU:HG3	2.48	0.49
1:v:78:ASN:OD1	1:v:78:ASN:N	2.45	0.49
1:x:171:GLN:HG2	1:x:197:THR:HG22	1.94	0.49
1:z:72:HIS:HA	1:z:84:THR:HA	1.94	0.49
1:1:201(G):ASP:OD1	1:1:201(H):GLU:N	2.40	0.49
1:6:240:ASN:ND2	1:v:66:ALA:N	2.61	0.49
1:AH:178:TYR:O	1:AH:190:LEU:N	2.44	0.49
1:AK:343:ALA:HB1	1:AK:348:GLU:HG3	1.94	0.49
1:AM:318:LYS:N	1:AM:360:GLU:OE2	2.42	0.49
1:AP:128:ARG:NH1	1:AP:492:PRO:HD3	2.28	0.49
1:AU:173:THR:OG1	1:AU:176:ASP:OD2	2.30	0.49
1:AU:426:ASP:OD2	1:AU:433:TYR:OH	2.25	0.49
1:AW:146:PRO:HB3	1:AW:369:GLY:HA3	1.93	0.49
1:AX:318:LYS:NZ	1:AX:327:SER:OG	2.45	0.49
1:AY:442:ASN:OD1	1:AY:443:GLU:N	2.45	0.49
1:Ac:351:LYS:HA	1:Ac:354:LEU:HD12	1.95	0.49
1:Ak:298:ILE:HG21	1:Ak:456:LEU:HD21	1.94	0.49
1:J:367:GLN:O	1:J:487:SER:OG	2.27	0.49
1:P:457:THR:OG1	1:P:474:LYS:O	2.26	0.49
1:V:347:GLY:HA3	1:V:397:ALA:O	2.12	0.49
1:W:151:ASP:HB3	1:W:154:PHE:HB2	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:240:ASN:O	1:X:240:ASN:ND2	2.46	0.49
1:f:274:LEU:HD13	1:u:69:GLY:HA2	1.94	0.49
1:f:324:THR:HG22	1:m:521:ILE:HD13	1.94	0.49
1:m:382:VAL:HG22	1:m:518:VAL:HG21	1.93	0.49
1:r:238:GLY:N	1:r:245:ASN:HD21	2.11	0.49
1:w:121:THR:HA	1:w:260:GLU:HA	1.93	0.49
1:3:153:MET:HE2	1:3:226:GLU:H	1.78	0.49
1:4:464:PRO:HG2	1:u:462:SER:H	1.77	0.49
1:4:466:ASN:HB3	1:r:236:GLN:O	2.12	0.49
1:AA:237:GLU:HG2	1:AA:246:PRO:HA	1.95	0.49
1:AB:271:SER:HB3	1:T:239:PHE:CZ	2.48	0.49
1:AD:400:LEU:HD11	1:AE:417:LEU:HG	1.94	0.49
1:AX:145:HIS:HB3	1:AX:148:TYR:HB2	1.95	0.49
1:AZ:235:LEU:O	1:AZ:245:ASN:ND2	2.46	0.49
1:AZ:364:ILE:HD11	1:AZ:514:ARG:HB2	1.94	0.49
1:Ah:287:ASP:HA	1:Ah:471:MET:HE1	1.95	0.49
1:Am:265:GLN:HG2	1:Am:474:LYS:HG2	1.94	0.49
2:B:52:PHE:HB2	2:B:166:TRP:HB2	1.94	0.49
2:C:298:LEU:HD12	2:C:299:SER:H	1.78	0.49
1:J:95:VAL:HG21	1:S:91:ILE:HD13	1.93	0.49
1:J:145:HIS:HB3	1:J:148:TYR:HB2	1.95	0.49
1:N:153:MET:HE2	1:N:226:GLU:HG2	1.95	0.49
1:O:240:ASN:OD1	1:O:240:ASN:N	2.46	0.49
1:S:234:GLU:CD	1:h:273:GLU:HB2	2.38	0.49
1:Y:270:TYR:HA	1:j:67:GLU:HB3	1.94	0.49
1:Z:230:THR:HB	1:c:71:ASP:HB3	1.93	0.49
1:Z:345:TRP:CZ2	1:d:348:GLU:HG2	2.47	0.49
1:b:239:PHE:CE2	1:d:68:ILE:HG22	2.48	0.49
1:d:358:ASP:OD1	1:d:421:TYR:OH	2.30	0.49
1:f:445:ASP:OD1	1:f:445:ASP:N	2.43	0.49
1:j:245:ASN:OD1	1:j:245:ASN:N	2.45	0.49
1:o:145:HIS:HB3	1:o:148:TYR:HB2	1.95	0.49
1:q:101:ARG:NH1	1:t:142:GLU:OE2	2.46	0.49
1:q:105:ASN:O	1:q:427:GLN:NE2	2.46	0.49
1:y:104:PRO:HG2	1:y:300:LEU:HD11	1.95	0.49
1:0:398:GLN:HE21	1:AA:351:LYS:HB3	1.77	0.49
1:1:199:ASP:O	1:1:211:GLU:HG2	2.12	0.49
1:8:277:ASP:OD1	1:8:278:LEU:N	2.46	0.49
1:AA:255:ASP:OD2	1:AA:495:ARG:NE	2.37	0.49
1:AE:387:ALA:HB2	1:AE:404:PHE:HB2	1.94	0.49
1:AJ:383:VAL:HG21	1:AJ:425:ILE:HG22	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AP:145:HIS:HB3	1:AP:148:TYR:HB2	1.95	0.49
1:AS:192:ALA:HA	1:AS:221:LEU:HD23	1.95	0.49
1:AT:117:MET:HE3	1:AT:451:ALA:HB3	1.95	0.49
1:AW:131:TYR:HE1	1:AW:141:LYS:HE3	1.78	0.49
1:AW:166:LEU:HG	1:AW:178:TYR:HB3	1.94	0.49
1:Ac:110:ASP:OD2	1:Ac:424:TYR:OH	2.28	0.49
1:Ag:274:LEU:O	1:Ag:278:LEU:N	2.36	0.49
2:D:142:ASP:OD1	2:D:143:ALA:N	2.43	0.49
1:J:266:LEU:HD13	1:J:294:LEU:HD22	1.95	0.49
1:K:101:ARG:NH1	1:L:142:GLU:OE1	2.46	0.49
1:O:72:HIS:CD2	1:O:84:THR:HG22	2.47	0.49
2:a:388:VAL:HG12	2:a:398:ILE:HG13	1.95	0.49
1:t:145:HIS:HB3	1:t:148:TYR:HB2	1.95	0.49
1:v:503:ILE:HB	1:w:191:GLN:HE22	1.77	0.49
1:0:234:GLU:HG3	1:0:235:LEU:HD12	1.94	0.48
1:2:130:VAL:HG12	1:2:142:GLU:HA	1.94	0.48
1:6:237:GLU:HG2	1:6:246:PRO:HA	1.93	0.48
1:6:364:ILE:HG13	1:6:514:ARG:HD2	1.95	0.48
1:AA:460:ARG:HB3	1:AA:460:ARG:HH11	1.78	0.48
1:AC:190:LEU:HG	1:AC:221:LEU:HD12	1.95	0.48
1:AL:153:MET:HB2	1:AL:189:TYR:CZ	2.48	0.48
1:AS:449:TYR:HE2	1:AS:482:ASN:HA	1.77	0.48
1:AV:273:GLU:HA	1:AV:276:GLN:HE21	1.78	0.48
1:Ab:368:THR:HG22	1:Ab:370:ARG:HG3	1.95	0.48
1:Ad:131:TYR:HB3	1:Ad:250:MET:HG3	1.95	0.48
1:Ad:431:GLN:NE2	1:Ae:213:LYS:O	2.46	0.48
1:Ae:117:MET:HG3	1:Ae:451:ALA:HB1	1.95	0.48
1:Ai:380:ARG:NH1	1:Ai:427:GLN:O	2.43	0.48
1:Aj:367:GLN:HE21	1:Aj:514:ARG:HH21	1.61	0.48
1:Am:344:ARG:NH2	1:Am:348:GLU:OE2	2.46	0.48
1:Am:367:GLN:HB3	1:Am:511:ALA:HB1	1.94	0.48
2:B:66:PHE:HB2	2:D:32:THR:HG23	1.95	0.48
1:O:100:ARG:HE	1:P:127:LEU:HD23	1.77	0.48
1:Q:90:GLN:HG3	1:m:281:VAL:HG11	1.95	0.48
1:W:331:VAL:HG21	1:W:519:LYS:HE2	1.94	0.48
1:g:190:LEU:HB3	1:g:221:LEU:HB3	1.95	0.48
1:q:484:PHE:O	1:q:487:SER:OG	2.27	0.48
1:v:265:GLN:NE2	1:w:236:GLN:HG3	2.28	0.48
1:v:265:GLN:HE22	1:w:236:GLN:HG3	1.77	0.48
1:x:230:THR:O	1:x:230:THR:OG1	2.28	0.48
1:3:271:SER:OG	1:3:272:ILE:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:3:380:ARG:NE	1:3:408:THR:OG1	2.42	0.48
1:7:121:THR:HG22	1:7:260:GLU:HG3	1.94	0.48
1:8:75:ASN:O	1:8:79:ILE:HG12	2.14	0.48
1:8:142:GLU:HB2	1:8:490:GLN:HB3	1.94	0.48
2:A:370:GLN:HE22	1:w:474:LYS:NZ	2.11	0.48
1:AC:449:TYR:HE2	1:AC:481:ILE:C	2.21	0.48
1:AJ:130:VAL:HG12	1:AJ:142:GLU:HA	1.93	0.48
1:AM:166:LEU:HD13	1:AM:212:ILE:HD13	1.95	0.48
1:AQ:270:TYR:HE2	1:AQ:471:MET:HE3	1.78	0.48
1:AQ:361:ALA:C	1:AQ:372:GLU:HG3	2.37	0.48
1:AT:222:VAL:HG11	1:AW:312:TYR:HA	1.94	0.48
1:AU:74:TYR:OH	1:AX:261:ALA:O	2.24	0.48
1:AX:201(F):GLU:HG2	1:AX:201(H):GLU:H	1.78	0.48
1:Ae:131:TYR:HB2	1:Ae:250:MET:HG2	1.96	0.48
1:Ae:239:PHE:CE1	1:Af:468:GLN:HG2	2.48	0.48
1:Aj:407:ASP:OD2	1:Aj:410:LYS:NZ	2.36	0.48
1:Al:235:LEU:O	1:Al:245:ASN:ND2	2.46	0.48
2:D:362:VAL:HG12	2:D:373:ILE:HG12	1.93	0.48
1:H:387:ALA:HB2	1:H:404:PHE:CD2	2.49	0.48
1:M:146:PRO:HD3	1:h:101:ARG:HD2	1.94	0.48
1:P:344:ARG:NH1	1:P:348:GLU:OE2	2.46	0.48
1:X:454:VAL:O	1:X:475:THR:OG1	2.28	0.48
1:d:282:HIS:O	1:d:284:MET:N	2.42	0.48
1:m:117:MET:HG3	1:m:451:ALA:HB1	1.94	0.48
1:p:366:ARG:HD3	1:s:380:ARG:NH1	2.28	0.48
1:t:517:TYR:CD2	1:u:217:GLU:HG3	2.47	0.48
1:v:153:MET:HB2	1:v:189:TYR:CZ	2.48	0.48
1:0:344:ARG:HH21	1:AA:344:ARG:NH1	2.09	0.48
1:1:145:HIS:CD2	1:1:147:MET:HB2	2.48	0.48
1:3:129:ALA:O	1:3:143:ALA:HB2	2.13	0.48
1:4:465:LYS:O	1:r:237:GLU:HG3	2.13	0.48
1:8:94:ALA:O	1:9:123:GLN:N	2.40	0.48
1:9:201(B):GLU:O	1:9:201(C):ASP:C	2.54	0.48
1:AA:180:HIS:NE2	1:AA:209:ASP:OD1	2.39	0.48
1:AF:402:THR:OG1	1:AF:403:GLY:N	2.45	0.48
1:AH:456:LEU:HG	1:AH:473:PHE:HD2	1.78	0.48
1:AO:117:MET:HG3	1:AO:451:ALA:HB1	1.95	0.48
1:AT:260:GLU:HG3	1:AW:74:TYR:CD2	2.47	0.48
1:AU:387:ALA:HB2	1:AU:404:PHE:HB2	1.96	0.48
1:Ab:454:VAL:O	1:Ab:475:THR:OG1	2.30	0.48
1:Ac:131:TYR:HD2	1:Ac:250:MET:HE3	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ae:265:GLN:OE1	1:Ae:267:LYS:NZ	2.41	0.48
1:Af:263:SER:HB3	1:Af:476:ARG:HG2	1.94	0.48
1:Ah:447:GLY:O	1:Ah:448:ILE:HG13	2.14	0.48
1:Ak:502:SER:N	1:Ak:505:ASN:OD1	2.46	0.48
2:D:126:LEU:O	2:D:130:ILE:HG12	2.13	0.48
1:G:265:GLN:NE2	1:H:236:GLN:HG3	2.28	0.48
1:G:381:ASN:HB3	1:G:521:ILE:HD13	1.95	0.48
1:J:178:TYR:N	1:J:190:LEU:O	2.37	0.48
1:J:345:TRP:CD1	1:J:346:ALA:H	2.31	0.48
1:N:344:ARG:N	1:N:348:GLU:OE2	2.45	0.48
1:U:173:THR:OG1	1:U:176:ASP:OD2	2.31	0.48
1:X:305:GLU:HG3	1:X:309:TRP:CD1	2.49	0.48
1:c:510:ASN:OD1	1:c:511:ALA:N	2.45	0.48
1:k:305:GLU:CD	1:k:477:TYR:HH	2.18	0.48
1:l:131:TYR:HB3	1:l:250:MET:HG3	1.95	0.48
1:m:231:SER:HB3	1:o:71:ASP:HB3	1.95	0.48
1:x:495:ARG:NH2	1:z:87:ALA:O	2.46	0.48
1:0:264:ARG:NH2	1:0:305:GLU:OE1	2.37	0.48
1:0:447:GLY:O	1:0:448:ILE:HG13	2.14	0.48
1:2:184:GLU:HG3	1:2:185:THR:HG23	1.95	0.48
1:3:106:LEU:HB3	1:3:303:ASN:HD21	1.78	0.48
1:8:201(G):ASP:OD1	1:8:201(G):ASP:N	2.44	0.48
1:9:386:LEU:HB3	1:9:404:PHE:HE2	1.76	0.48
2:A:57:TYR:OH	2:B:29:ARG:NH1	2.46	0.48
1:AF:166:LEU:HG	1:AF:178:TYR:HB3	1.95	0.48
1:AL:358:ASP:OD1	1:AL:420:LYS:NZ	2.45	0.48
1:AM:237:GLU:H	1:AM:245:ASN:ND2	2.12	0.48
1:AM:271:SER:OG	1:Ab:234:GLU:OE2	2.25	0.48
1:AN:230:THR:O	1:AN:232:ILE:N	2.47	0.48
1:AN:245:ASN:O	1:AN:247:TRP:HD1	1.96	0.48
1:AR:281:VAL:HG23	1:AR:282:HIS:H	1.78	0.48
1:AS:237:GLU:HB2	1:AT:466:ASN:OD1	2.12	0.48
1:AT:263:SER:HA	1:AT:476:ARG:HA	1.94	0.48
1:Am:254:ILE:HD12	1:d:88:VAL:HG12	1.95	0.48
1:N:135:PRO:HG3	1:N:251:GLY:HA3	1.95	0.48
1:R:376:ILE:HG12	1:R:436:VAL:HG12	1.95	0.48
1:V:265:GLN:HB3	1:V:474:LYS:HG3	1.94	0.48
1:Z:267:LYS:HA	1:Z:472:GLY:HA2	1.94	0.48
1:c:213:LYS:HA	1:c:216:MET:HE2	1.95	0.48
1:f:91:ILE:HD12	1:u:95:VAL:HG11	1.96	0.48
1:g:432:ASP:HB3	1:g:518:VAL:HG22	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:k:141:LYS:HA	1:k:490:GLN:HG2	1.96	0.48
1:o:107:ILE:HD12	1:o:307:VAL:HG21	1.94	0.48
1:p:249:GLU:HG2	1:s:267:LYS:HB3	1.95	0.48
1:s:72:HIS:HB3	1:s:79:ILE:HG12	1.96	0.48
1:y:438:TYR:HB3	1:y:512:TYR:HB3	1.95	0.48
1:z:289:GLU:O	1:z:293:ILE:HG12	2.14	0.48
1:4:74:TYR:HA	1:4:79:ILE:HD11	1.94	0.48
1:4:367:GLN:HB3	1:4:511:ALA:HB1	1.95	0.48
1:5:278:LEU:HG	1:5:284:MET:HB2	1.96	0.48
1:AA:117:MET:HG3	1:AA:451:ALA:HB1	1.95	0.48
1:AA:382:VAL:HG22	1:AA:518:VAL:HG21	1.96	0.48
1:AC:130:VAL:HG21	1:AC:135:PRO:HA	1.95	0.48
1:AD:266:LEU:HD12	1:AD:298:ILE:HG13	1.95	0.48
1:AF:131:TYR:HB3	1:AF:250:MET:HG3	1.95	0.48
1:AL:319:SER:O	1:AL:322:THR:OG1	2.31	0.48
1:AR:240:ASN:OD1	1:AR:240:ASN:N	2.46	0.48
1:AT:387:ALA:HB2	1:AT:404:PHE:HD2	1.79	0.48
1:Ae:315:GLN:N	1:Ae:513:PHE:O	2.44	0.48
1:Ak:107:ILE:HD12	1:Ak:307:VAL:HG21	1.95	0.48
1:Al:262:LYS:N	1:Al:477:TYR:O	2.45	0.48
1:Am:235:LEU:HA	1:Am:239:PHE:HB3	1.95	0.48
2:C:280:ALA:O	2:C:284:ALA:N	2.45	0.48
2:C:342:TYR:CD2	2:C:344:PRO:HD3	2.47	0.48
2:D:62:ASN:OD1	2:D:160:ARG:NH1	2.46	0.48
2:D:395:ALA:HB3	2:D:398:ILE:HD11	1.94	0.48
1:G:263:SER:HB3	1:G:476:ARG:HG2	1.96	0.48
1:J:253:ARG:NE	1:J:255:ASP:OD2	2.45	0.48
1:L:345:TRP:HZ2	1:g:396:ALA:HB2	1.78	0.48
1:M:236:GLN:HB3	1:M:247:TRP:HE1	1.78	0.48
1:Y:481:ILE:N	1:Y:499:GLY:O	2.45	0.48
1:Z:84:THR:OG1	1:Z:88:VAL:O	2.20	0.48
1:b:357:ILE:HG12	1:b:434:PHE:CE2	2.49	0.48
1:b:440:GLY:H	1:b:445:ASP:HB3	1.79	0.48
1:c:322:THR:HG21	1:c:363:GLU:HB2	1.95	0.48
1:n:110:ASP:OD1	1:n:110:ASP:N	2.46	0.48
1:n:278:LEU:HD11	1:n:284:MET:HE2	1.95	0.48
1:o:228:MET:HG3	1:o:233:ALA:HB2	1.94	0.48
1:q:274:LEU:O	1:q:278:LEU:N	2.30	0.48
1:w:121:THR:HG22	1:w:260:GLU:HG3	1.94	0.48
1:y:503:ILE:HG23	1:y:507:LEU:HD22	1.94	0.48
1:4:147:MET:HE2	1:4:367:GLN:HA	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:4:451:ALA:O	1:4:478:GLY:N	2.44	0.48
1:5:149:GLY:H	1:5:186:GLY:HA3	1.79	0.48
1:AC:298:ILE:HG21	1:AC:456:LEU:HD21	1.96	0.48
1:AD:185:THR:HG21	1:AG:430:LYS:HE3	1.94	0.48
1:AE:498:SER:O	1:AE:505:ASN:ND2	2.46	0.48
1:AG:340:ILE:HG22	1:AG:352:ALA:HB3	1.96	0.48
1:AP:390:ASP:HB2	1:AP:397:ALA:HB3	1.94	0.48
1:AQ:116:PRO:HA	1:AQ:452:PRO:HD2	1.95	0.48
1:AR:217:GLU:OE2	1:Aa:431:GLN:NE2	2.47	0.48
1:AR:450:TYR:HA	1:AR:479:ILE:HG22	1.94	0.48
1:AT:379:SER:HB3	1:AT:432:ASP:HA	1.95	0.48
1:AU:117:MET:HG2	1:AU:451:ALA:HB1	1.94	0.48
1:AU:345:TRP:HB2	1:AU:348:GLU:CD	2.38	0.48
1:Ad:287:ASP:OD1	1:Ad:460:ARG:NH2	2.47	0.48
1:Aj:482:ASN:HB3	1:Aj:485:ALA:HB2	1.95	0.48
1:Al:271:SER:HB2	1:b:239:PHE:HE2	1.79	0.48
1:Al:312:TYR:CZ	1:Al:507:LEU:HG	2.48	0.48
1:Am:121:THR:HA	1:Am:259:ILE:O	2.12	0.48
2:B:139:LEU:HD13	2:D:216:GLN:HG2	1.95	0.48
2:C:248:ARG:HG3	2:C:285:SER:HB2	1.96	0.48
2:C:315:ASP:OD2	2:C:322:TYR:OH	2.28	0.48
1:G:267:LYS:HB2	1:H:247:TRP:HE3	1.78	0.48
1:K:259:ILE:HD11	1:N:96:MET:HE1	1.94	0.48
1:L:131:TYR:HD2	1:L:250:MET:HE3	1.78	0.48
1:L:377:ILE:O	1:L:435:THR:N	2.39	0.48
1:M:121:THR:HB	1:h:93:PRO:HB3	1.94	0.48
1:N:466:ASN:HB3	1:N:468:GLN:HG2	1.95	0.48
1:O:91:ILE:HD12	1:h:95:VAL:HG21	1.95	0.48
1:Q:247:TRP:CE3	1:T:267:LYS:HB2	2.48	0.48
1:T:449:TYR:OH	1:T:482:ASN:OD1	2.29	0.48
1:V:263:SER:HA	1:V:476:ARG:HA	1.95	0.48
2:a:243:ALA:HB1	2:a:244:PRO:HD2	1.96	0.48
1:p:204:ASP:HA	1:p:207:LYS:HD3	1.95	0.48
1:q:134:ASP:HB3	1:q:137:ALA:HB2	1.94	0.48
1:r:93:PRO:HB2	1:s:123:GLN:HG3	1.94	0.48
1:r:95:VAL:HA	1:s:123:GLN:HB2	1.94	0.48
1:u:376:ILE:N	1:u:422:ARG:O	2.43	0.48
1:0:433:TYR:HA	1:0:518:VAL:HG23	1.96	0.48
1:4:128:ARG:NE	1:4:490:GLN:O	2.44	0.48
1:AC:184:GLU:HB2	1:AC:185:THR:HG23	1.96	0.48
1:AO:345:TRP:CD1	1:AO:346:ALA:H	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AS:107:ILE:H	1:AS:303:ASN:HD21	1.60	0.48
1:AU:495:ARG:NH1	1:Aa:86:GLY:O	2.40	0.48
1:Aa:272:ILE:N	1:Aa:468:GLN:OE1	2.42	0.48
1:Ab:105:ASN:ND2	1:Ab:410:LYS:O	2.47	0.48
1:Ab:444:MET:SD	1:Ab:449:TYR:OH	2.72	0.48
1:Ae:121:THR:HG22	1:Ae:260:GLU:HG3	1.96	0.48
1:Ae:340:ILE:HG22	1:Ae:352:ALA:HB3	1.96	0.48
1:Ag:160:ALA:HB2	1:Ag:228:MET:HE3	1.96	0.48
1:Ak:274:LEU:O	1:Ak:278:LEU:N	2.39	0.48
1:O:341:ARG:HH21	1:R:521:ILE:HD13	1.77	0.48
1:P:173:THR:OG1	1:P:176:ASP:OD2	2.26	0.48
1:P:267:LYS:HG2	1:S:247:TRP:CD1	2.49	0.48
1:R:172:THR:HG1	1:R:196:VAL:H	1.60	0.48
1:S:268:ALA:N	1:S:471:MET:O	2.45	0.48
1:e:237:GLU:HB2	1:e:245:ASN:O	2.14	0.48
1:g:269:ALA:HB2	1:g:470:VAL:HG13	1.95	0.48
1:l:287:ASP:HA	1:l:471:MET:HE1	1.94	0.48
1:n:268:ALA:HB3	1:n:471:MET:HB2	1.95	0.48
1:o:181:PHE:HA	1:o:187:THR:HA	1.96	0.48
1:p:247:TRP:CD1	1:p:248:ASN:H	2.31	0.48
1:s:317:GLY:HA2	1:s:514:ARG:HH11	1.77	0.48
1:v:344:ARG:NH1	1:v:348:GLU:OE1	2.47	0.48
1:y:377:ILE:O	1:y:435:THR:N	2.39	0.48
1:1:88:VAL:HG11	1:k:278:LEU:HD11	1.95	0.48
1:8:159:ALA:HB3	1:8:228:MET:HE3	1.95	0.48
1:AI:68:ILE:HG23	1:AM:240:ASN:ND2	2.28	0.48
1:AK:142:GLU:N	1:AK:490:GLN:OE1	2.34	0.48
1:AK:146:PRO:HB3	1:AK:369:GLY:HA3	1.95	0.48
1:AQ:74:TYR:HA	1:AQ:79:ILE:HD11	1.95	0.48
1:Aa:184:GLU:O	1:Aa:185:THR:OG1	2.29	0.48
1:Aa:453:TYR:HB3	1:Aa:476:ARG:O	2.14	0.48
1:Ac:91:ILE:HG12	1:K:125:PHE:CZ	2.48	0.48
1:Af:293:ILE:HG22	1:Ag:250:MET:HE3	1.95	0.48
1:Al:236:GLN:HB3	1:Al:247:TRP:NE1	2.28	0.48
1:Am:117:MET:HG3	1:Am:451:ALA:HB1	1.95	0.48
2:C:252:ARG:NH1	2:a:240:TYR:HA	2.28	0.48
1:G:348:GLU:HG3	1:J:345:TRP:CD1	2.49	0.48
1:L:131:TYR:HA	1:L:250:MET:HA	1.95	0.48
1:L:264:ARG:NH1	1:g:155:SER:OG	2.40	0.48
1:M:121:THR:HG22	1:h:79:ILE:HG23	1.95	0.48
1:P:244:ASP:OD1	1:P:244:ASP:N	2.45	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:153:MET:HE2	1:S:225:ALA:HA	1.96	0.48
1:T:460:ARG:HH21	1:T:471:MET:HG3	1.79	0.48
1:d:344:ARG:HG3	1:e:344:ARG:HD3	1.95	0.48
1:f:201(H):GLU:HB2	1:f:207:LYS:CG	2.44	0.48
1:i:107:ILE:HD12	1:i:307:VAL:HG21	1.95	0.48
1:i:383:VAL:HG12	1:i:406:THR:HG22	1.95	0.48
1:j:345:TRP:CD1	1:j:346:ALA:N	2.82	0.48
1:s:180:HIS:NE2	1:s:209:ASP:OD1	2.41	0.48
1:s:376:ILE:N	1:s:422:ARG:O	2.33	0.48
1:t:386:LEU:HD13	1:t:417:LEU:HD22	1.96	0.48
1:v:285:ASP:OD2	1:v:288:ALA:N	2.44	0.48
1:w:278:LEU:HD23	1:w:286:ALA:HB2	1.96	0.48
1:z:267:LYS:HA	1:z:472:GLY:HA2	1.96	0.48
1:0:256:LYS:HD2	1:0:496:ILE:HG12	1.96	0.48
1:4:357:ILE:HG12	1:4:434:PHE:CE2	2.49	0.48
1:5:197:THR:HB	1:5:200:ALA:HB3	1.95	0.48
1:6:503:ILE:HA	1:6:507:LEU:HD12	1.95	0.48
1:7:117:MET:HG3	1:7:451:ALA:HB1	1.96	0.48
1:9:350:PHE:HB2	1:9:389:VAL:HG11	1.96	0.48
1:AA:360:GLU:OE1	1:AA:514:ARG:NH1	2.44	0.48
1:AJ:374:ASN:OD1	1:AJ:374:ASN:N	2.46	0.48
1:AX:406:THR:O	1:AX:406:THR:OG1	2.31	0.48
1:Aj:264:ARG:NH2	1:Ak:152:ALA:O	2.47	0.48
1:G:322:THR:OG1	1:G:514:ARG:NH2	2.47	0.48
1:H:268:ALA:N	1:H:471:MET:O	2.45	0.48
1:J:459:LEU:HD21	1:J:474:LYS:HE3	1.96	0.48
1:K:431:GLN:NE2	1:L:217:GLU:OE2	2.46	0.48
1:M:151:ASP:HB3	1:M:154:PHE:HB2	1.95	0.48
1:U:185:THR:HG21	1:X:430:LYS:HE3	1.96	0.48
1:Y:203:THR:O	1:Y:205:ALA:N	2.47	0.48
1:c:298:ILE:HD12	1:c:456:LEU:HD11	1.96	0.48
1:f:233:ALA:HA	1:m:265:GLN:HE22	1.78	0.48
1:m:75:ASN:O	1:m:79:ILE:HG13	2.14	0.48
1:m:201(F):GLU:CD	1:m:201(G):ASP:H	2.21	0.48
1:u:75:ASN:O	1:u:77:THR:N	2.46	0.48
1:v:267:LYS:HE2	1:w:247:TRP:HB2	1.96	0.48
1:y:147:MET:HG2	1:y:367:GLN:HA	1.96	0.48
1:0:289:GLU:O	1:0:293:ILE:N	2.44	0.48
1:1:153:MET:HE1	1:1:157:GLN:HB3	1.96	0.48
1:1:462:SER:C	1:7:464:PRO:HG3	2.39	0.48
1:6:197:THR:HG21	1:6:200:ALA:HB3	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:8:128:ARG:HH21	1:8:492:PRO:HG3	1.78	0.48
1:9:274:LEU:HD11	1:G:69:GLY:N	2.29	0.48
2:A:396:ARG:HH12	1:U:87:ALA:HA	1.79	0.48
1:AC:71:ASP:CG	1:AC:73:GLY:H	2.21	0.48
1:AF:131:TYR:HA	1:AF:250:MET:HA	1.96	0.48
1:AG:266:LEU:C	1:AG:267:LYS:HD2	2.38	0.48
1:AP:344:ARG:HH21	1:AQ:344:ARG:HH21	1.61	0.48
1:AU:142:GLU:HB2	1:AU:490:GLN:HB3	1.94	0.48
1:AY:345:TRP:CD1	1:AY:346:ALA:N	2.81	0.48
1:AZ:105:ASN:ND2	1:AZ:408:THR:O	2.45	0.48
2:D:61:ASP:OD2	2:D:72:TYR:OH	2.24	0.48
1:H:120:PRO:HD3	1:H:453:TYR:OH	2.13	0.48
1:K:190:LEU:HD11	1:K:216:MET:HE2	1.96	0.48
1:L:72:HIS:ND1	1:g:260:GLU:OE2	2.35	0.48
1:N:121:THR:HA	1:N:259:ILE:O	2.13	0.48
1:P:74:TYR:OH	1:S:261:ALA:O	2.26	0.48
1:P:101:ARG:NH1	1:S:142:GLU:OE2	2.47	0.48
1:P:109:PHE:HE1	1:P:306:VAL:HG21	1.79	0.48
1:Q:351:LYS:NZ	1:Q:394:SER:O	2.47	0.48
1:S:340:ILE:HG22	1:S:352:ALA:HB3	1.96	0.48
1:X:121:THR:HA	1:X:259:ILE:O	2.13	0.48
1:Z:387:ALA:HB2	1:Z:404:PHE:CG	2.49	0.48
1:b:151:ASP:HB3	1:b:154:PHE:HB2	1.95	0.48
1:e:156:GLY:C	1:e:228:MET:HB3	2.39	0.48
1:f:199:ASP:O	1:f:211:GLU:HG2	2.13	0.48
1:f:322:THR:OG1	1:f:514:ARG:NH2	2.46	0.48
1:r:457:THR:N	1:r:474:LYS:O	2.40	0.48
1:t:398:GLN:HB3	1:u:351:LYS:HD3	1.96	0.48
1:u:171:GLN:NE2	1:u:172:THR:O	2.43	0.48
1:v:203:THR:O	1:v:206:ALA:N	2.46	0.48
1:x:123:GLN:OE1	1:x:256:LYS:NZ	2.35	0.48
1:x:510:ASN:O	1:x:512:TYR:N	2.47	0.48
1:0:271:SER:HG	1:0:468:GLN:CD	2.20	0.47
1:0:278:LEU:HG	1:0:284:MET:HG3	1.95	0.47
1:1:167:ALA:H	1:1:170:THR:HG21	1.79	0.47
1:2:289:GLU:O	1:2:293:ILE:HG12	2.13	0.47
1:4:468:GLN:HG3	1:r:239:PHE:CD1	2.50	0.47
1:7:238:GLY:HA2	1:7:242:SER:O	2.13	0.47
1:7:278:LEU:HG	1:7:284:MET:HB2	1.95	0.47
2:A:53:TYR:OH	2:B:190:ASN:ND2	2.44	0.47
1:AB:451:ALA:O	1:AB:478:GLY:N	2.33	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AH:130:VAL:HG21	1:AH:135:PRO:HA	1.94	0.47
1:AJ:201(H):GLU:H	1:AJ:201(H):GLU:CD	2.22	0.47
1:AL:521:ILE:O	1:AM:341:ARG:NH2	2.46	0.47
1:AM:345:TRP:CD1	1:AM:346:ALA:N	2.82	0.47
1:AQ:154:PHE:CE2	1:AQ:248:ASN:HB3	2.49	0.47
1:AS:78:ASN:O	1:AS:82:GLY:N	2.46	0.47
1:AS:121:THR:HA	1:AS:259:ILE:O	2.14	0.47
1:AS:128:ARG:NE	1:AS:490:GLN:O	2.36	0.47
1:Aa:238:GLY:HA2	1:Aa:242:SER:O	2.14	0.47
1:Aa:504:LEU:HD23	1:Aa:504:LEU:H	1.79	0.47
1:Ac:398:GLN:HG2	1:Al:351:LYS:HB3	1.96	0.47
1:Af:114:VAL:HG23	1:Af:115:GLN:H	1.79	0.47
1:Af:267:LYS:HB2	1:Ag:247:TRP:CE3	2.49	0.47
1:Ah:287:ASP:OD1	1:Ah:460:ARG:NH2	2.46	0.47
1:Al:268:ALA:HB3	1:Al:471:MET:HG3	1.96	0.47
1:M:117:MET:HG3	1:M:451:ALA:HB1	1.94	0.47
1:V:417:LEU:HB3	1:V:421:TYR:HB2	1.96	0.47
1:X:263:SER:HB3	1:X:476:ARG:HG2	1.95	0.47
1:X:485:ALA:O	1:X:511:ALA:N	2.47	0.47
1:Z:237:GLU:HG3	1:l:465:LYS:HB3	1.95	0.47
1:b:287:ASP:OD2	1:b:460:ARG:NH1	2.46	0.47
1:e:345:TRP:CD1	1:e:346:ALA:N	2.82	0.47
1:f:274:LEU:HD22	1:u:69:GLY:HA2	1.96	0.47
1:q:121:THR:HA	1:q:259:ILE:O	2.13	0.47
1:v:341:ARG:HB2	1:y:346:ALA:HB2	1.96	0.47
1:w:202:ALA:HB1	1:w:206:ALA:HB3	1.96	0.47
1:x:113:GLY:HA3	1:x:449:TYR:HD1	1.79	0.47
1:z:510:ASN:OD1	1:z:511:ALA:N	2.46	0.47
1:1:333:ASP:OD1	1:1:334:PHE:N	2.47	0.47
1:4:238:GLY:C	1:4:240:ASN:N	2.72	0.47
1:8:267:LYS:HB2	1:9:247:TRP:CE3	2.50	0.47
1:AH:260:GLU:HG3	1:AK:74:TYR:CD2	2.49	0.47
1:AH:444:MET:O	1:AH:449:TYR:OH	2.32	0.47
1:AH:507:LEU:O	1:AH:509:LYS:NZ	2.47	0.47
1:AJ:106:LEU:HD11	1:AJ:300:LEU:HD23	1.96	0.47
1:AJ:256:LYS:HD2	1:AJ:496:ILE:HG12	1.96	0.47
1:AK:313:SER:HB2	1:AK:510:ASN:HB2	1.95	0.47
1:AO:266:LEU:HD13	1:AO:294:LEU:HD22	1.96	0.47
1:AQ:131:TYR:HA	1:AQ:250:MET:HA	1.96	0.47
1:AS:120:PRO:O	1:AS:121:THR:OG1	2.28	0.47
1:AT:79:ILE:HB	1:AU:258:VAL:HG21	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AW:257:GLN:HE21	1:AW:497:GLN:HE21	1.61	0.47
1:AY:245:ASN:OD1	1:AY:245:ASN:N	2.47	0.47
1:Ac:350:PHE:HB2	1:Ac:389:VAL:HG11	1.96	0.47
1:Ad:259:ILE:HD12	1:Ad:480:GLY:HA3	1.95	0.47
1:Ad:431:GLN:HE21	1:Ae:213:LYS:HB3	1.79	0.47
1:Af:354:LEU:HD22	1:Ai:400:LEU:HD21	1.96	0.47
1:K:395:TYR:HD1	1:K:396:ALA:H	1.62	0.47
1:L:145:HIS:CE1	1:L:147:MET:HB2	2.50	0.47
1:O:345:TRP:CZ2	1:P:348:GLU:HG2	2.49	0.47
1:O:521:ILE:HA	1:P:341:ARG:HH12	1.78	0.47
1:R:184:GLU:HB3	1:R:366:ARG:HH22	1.79	0.47
1:Y:268:ALA:HB1	1:Y:290:LEU:HD23	1.97	0.47
1:b:264:ARG:NE	1:b:477:TYR:OH	2.40	0.47
1:f:74:TYR:HA	1:f:79:ILE:HD11	1.96	0.47
1:f:444:MET:O	1:f:449:TYR:OH	2.32	0.47
1:k:145:HIS:CE1	1:k:147:MET:HB2	2.49	0.47
1:n:520:GLY:O	1:o:341:ARG:NH2	2.30	0.47
1:1:267:LYS:HA	1:1:472:GLY:HA2	1.97	0.47
1:2:201(F):GLU:OE1	1:2:201(I):ASP:OD1	2.32	0.47
1:5:167:ALA:O	1:5:170:THR:OG1	2.29	0.47
1:6:290:LEU:HD11	1:n:67:GLU:HG3	1.97	0.47
1:7:172:THR:HG1	1:7:196:VAL:H	1.61	0.47
1:7:278:LEU:HD23	1:7:286:ALA:HB2	1.96	0.47
1:9:201(A):ASP:O	1:9:201(A):ASP:CG	2.58	0.47
1:9:400:LEU:HD21	1:AB:354:LEU:HD22	1.96	0.47
1:AB:323:LEU:HD22	1:AB:329:ALA:HB2	1.96	0.47
1:AG:239:PHE:CE1	1:AH:468:GLN:HG2	2.49	0.47
1:AI:245:ASN:N	1:AI:245:ASN:OD1	2.47	0.47
1:AI:301:GLU:HG2	1:AL:152:ALA:HA	1.96	0.47
1:AJ:145:HIS:HB3	1:AJ:148:TYR:HB2	1.95	0.47
1:AJ:249:GLU:HA	1:AM:267:LYS:O	2.14	0.47
1:AJ:402:THR:OG1	1:AJ:403:GLY:N	2.47	0.47
1:AU:274:LEU:O	1:AU:278:LEU:N	2.36	0.47
1:Ab:282:HIS:HE1	1:Ac:254:ILE:HG21	1.80	0.47
1:Af:217:GLU:HG2	1:Ai:517:TYR:CE2	2.50	0.47
1:Ah:259:ILE:HD12	1:Ah:480:GLY:HA3	1.97	0.47
1:Am:485:ALA:O	1:Am:510:ASN:HA	2.15	0.47
2:B:323:VAL:N	2:B:416:LEU:O	2.45	0.47
2:B:418:VAL:HG12	2:B:420:LEU:HG	1.95	0.47
1:K:407:ASP:CG	1:K:409:THR:H	2.22	0.47
1:L:101:ARG:HD3	1:g:484:PHE:CE1	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:120:PRO:HD3	1:L:453:TYR:CZ	2.48	0.47
1:Q:258:VAL:HG11	1:T:80:ALA:HB2	1.95	0.47
1:S:171:GLN:NE2	1:S:195:GLN:OE1	2.40	0.47
1:V:71:ASP:OD2	1:j:231:SER:N	2.42	0.47
1:V:237:GLU:HG3	1:w:465:LYS:HE3	1.96	0.47
1:Z:490:GLN:OE1	1:Z:490:GLN:N	2.43	0.47
1:h:448:ILE:HA	1:h:481:ILE:HA	1.96	0.47
1:q:238:GLY:H	1:q:242:SER:HB2	1.78	0.47
1:r:117:MET:HG3	1:r:451:ALA:HB1	1.96	0.47
1:r:204:ASP:OD1	1:r:204:ASP:N	2.45	0.47
1:3:120:PRO:HD3	1:3:453:TYR:OH	2.14	0.47
1:8:308:ASP:OD1	1:9:223:GLU:HB2	2.15	0.47
1:9:166:LEU:HD23	1:9:166:LEU:HA	1.76	0.47
1:9:201(E):ASP:O	1:9:201(F):GLU:HG2	2.14	0.47
1:AB:278:LEU:HG	1:AB:284:MET:HB2	1.95	0.47
1:AE:272:ILE:N	1:AE:468:GLN:OE1	2.40	0.47
1:AF:456:LEU:HD23	1:AF:475:THR:HB	1.96	0.47
1:AQ:361:ALA:O	1:AQ:372:GLU:HG3	2.15	0.47
1:AT:265:GLN:HB3	1:AT:474:LYS:HG3	1.97	0.47
1:Ad:201(H):GLU:HG2	1:Ad:201(I):ASP:H	1.79	0.47
1:Ai:503:ILE:O	1:Ai:504:LEU:HB2	2.14	0.47
1:Ak:345:TRP:CD1	1:Ak:346:ALA:N	2.81	0.47
1:Al:234:GLU:HG2	1:Al:235:LEU:HD12	1.96	0.47
2:D:277:ARG:HH21	2:D:420:LEU:HB3	1.79	0.47
1:G:430:LYS:HG3	1:H:216:MET:HE1	1.96	0.47
1:P:345:TRP:HB2	1:P:348:GLU:CD	2.39	0.47
1:Q:154:PHE:CZ	1:Q:248:ASN:HB3	2.49	0.47
1:R:503:ILE:HG23	1:R:507:LEU:HD22	1.96	0.47
1:U:237:GLU:HB3	1:o:465:LYS:O	2.14	0.47
1:W:236:GLN:HB3	1:W:247:TRP:HE1	1.79	0.47
2:a:343:ALA:HB3	2:a:380:ALA:HB3	1.96	0.47
1:d:107:ILE:HD12	1:d:307:VAL:HG21	1.96	0.47
1:d:351:LYS:NZ	1:d:394:SER:OG	2.39	0.47
1:f:332:PHE:HE2	1:f:353:LEU:HA	1.79	0.47
1:f:344:ARG:HD3	1:f:344:ARG:H	1.79	0.47
1:l:160:ALA:HB2	1:l:228:MET:HE3	1.97	0.47
1:o:258:VAL:O	1:o:499:GLY:N	2.45	0.47
1:p:379:SER:OG	1:p:380:ARG:N	2.46	0.47
1:q:345:TRP:HB2	1:q:348:GLU:CD	2.40	0.47
1:r:145:HIS:HD2	1:r:146:PRO:HD2	1.80	0.47
1:s:351:LYS:NZ	1:s:390:ASP:O	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:271:SER:HB2	1:o:239:PHE:CE2	2.49	0.47
1:1:395:TYR:HD1	1:1:396:ALA:H	1.62	0.47
1:1:398:GLN:O	1:4:351:LYS:NZ	2.47	0.47
1:3:94:ALA:O	1:z:123:GLN:N	2.47	0.47
1:8:347:GLY:HA3	1:8:397:ALA:O	2.14	0.47
1:9:346:ALA:HB2	1:AB:341:ARG:HB2	1.96	0.47
1:AM:445:ASP:OD1	1:AM:512:TYR:OH	2.29	0.47
1:AS:282:HIS:HE1	1:V:90:GLN:HA	1.79	0.47
1:AW:85:SER:OG	1:AW:86:GLY:N	2.46	0.47
1:Ab:341:ARG:HH12	1:Ae:521:ILE:HD13	1.80	0.47
1:Ad:74:TYR:HA	1:Ad:79:ILE:HD11	1.96	0.47
1:Af:201(I):ASP:O	1:Af:203:THR:N	2.47	0.47
1:Ag:236:GLN:HB3	1:Ag:247:TRP:NE1	2.29	0.47
1:Aj:105:ASN:ND2	1:Aj:408:THR:O	2.43	0.47
1:G:75:ASN:O	1:G:79:ILE:HG13	2.14	0.47
1:P:387:ALA:HB2	1:P:404:PHE:HB2	1.96	0.47
1:U:94:ALA:H	1:V:122:GLY:HA2	1.80	0.47
1:X:129:ALA:HA	1:X:252:PHE:HA	1.97	0.47
1:Y:260:GLU:HB2	1:Y:500:MET:SD	2.54	0.47
1:Z:430:LYS:HA	1:Z:430:LYS:HD3	1.72	0.47
2:a:43:GLN:HB3	2:a:341:PHE:HE1	1.78	0.47
1:b:267:LYS:HB2	1:c:247:TRP:CE3	2.50	0.47
1:c:449:TYR:HE2	1:c:482:ASN:HA	1.79	0.47
1:i:272:ILE:N	1:i:468:GLN:OE1	2.38	0.47
1:i:432:ASP:HB3	1:i:518:VAL:HG22	1.95	0.47
1:l:225:ALA:HB3	1:o:305:GLU:HG3	1.96	0.47
1:m:236:GLN:HA	1:m:236:GLN:HE21	1.79	0.47
1:m:272:ILE:N	1:m:468:GLN:OE1	2.45	0.47
1:n:383:VAL:HG12	1:n:406:THR:HG22	1.96	0.47
1:q:494:SER:C	1:q:496:ILE:H	2.23	0.47
1:s:128:ARG:NE	1:s:142:GLU:OE2	2.42	0.47
1:1:166:LEU:HD22	1:1:198:ILE:HG13	1.97	0.47
1:1:314:ALA:HA	1:1:513:PHE:HB2	1.96	0.47
1:7:267:LYS:HE3	1:x:247:TRP:CG	2.50	0.47
2:A:17:ASN:OD1	2:A:18:SER:N	2.48	0.47
1:AE:101:ARG:NH1	1:AN:142:GLU:OE2	2.47	0.47
1:AF:87:ALA:O	1:AV:495:ARG:NH2	2.48	0.47
1:AH:274:LEU:HD22	1:AO:69:GLY:HA2	1.96	0.47
1:AM:309:TRP:CZ3	1:AM:501:PRO:HB2	2.49	0.47
1:AN:344:ARG:NH1	1:AN:348:GLU:OE1	2.47	0.47
1:AO:107:ILE:HD12	1:AO:307:VAL:HG21	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AO:145:HIS:CE1	1:AO:147:MET:HB2	2.49	0.47
1:AO:221:LEU:HD23	1:AO:221:LEU:H	1.79	0.47
1:AQ:199:ASP:OD1	1:AQ:200:ALA:N	2.46	0.47
1:AT:460:ARG:NH1	1:AT:471:MET:SD	2.88	0.47
1:AV:117:MET:HG3	1:AV:451:ALA:HB1	1.97	0.47
1:AV:223:GLU:OE1	1:AY:304:ARG:NH2	2.39	0.47
1:AY:363:GLU:OE2	1:AY:366:ARG:NH2	2.41	0.47
1:AZ:110:ASP:O	1:AZ:439:LYS:NZ	2.37	0.47
1:Aa:145:HIS:CE1	1:Aa:147:MET:HB2	2.50	0.47
1:Ab:486:GLU:O	1:Ab:488:ALA:N	2.48	0.47
1:Ad:267:LYS:HE3	1:Ae:247:TRP:HB2	1.97	0.47
1:Af:240:ASN:OD1	1:Af:240:ASN:N	2.48	0.47
1:G:451:ALA:O	1:G:478:GLY:N	2.42	0.47
1:J:398:GLN:OE1	1:J:399:GLY:N	2.48	0.47
1:K:105:ASN:HD22	1:K:411:SER:HA	1.79	0.47
1:O:268:ALA:HB1	1:O:290:LEU:HD23	1.95	0.47
1:X:134:ASP:HB3	1:X:137:ALA:HB2	1.97	0.47
1:Y:72:HIS:HB2	1:Y:79:ILE:HD13	1.96	0.47
2:a:220:THR:O	2:a:407:ALA:HA	2.15	0.47
1:d:76:ALA:HB1	1:e:496:ILE:HG22	1.95	0.47
1:d:265:GLN:OE1	1:e:236:GLN:HG2	2.15	0.47
1:e:450:TYR:CE2	1:e:452:PRO:HG3	2.49	0.47
1:f:203:THR:HB	1:f:206:ALA:HB2	1.95	0.47
1:f:205:ALA:O	1:f:206:ALA:C	2.56	0.47
1:g:268:ALA:HB1	1:g:290:LEU:HD13	1.96	0.47
1:h:305:GLU:OE1	1:h:477:TYR:OH	2.31	0.47
1:p:381:ASN:ND2	1:p:432:ASP:OD2	2.47	0.47
1:p:400:LEU:HD21	1:q:354:LEU:HD22	1.97	0.47
1:q:445:ASP:OD1	1:q:445:ASP:N	2.47	0.47
1:r:269:ALA:HB2	1:r:470:VAL:HG13	1.97	0.47
1:4:75:ASN:O	1:4:77:THR:N	2.47	0.47
1:4:145:HIS:CE1	1:4:147:MET:HG2	2.49	0.47
1:6:68:ILE:HD11	1:x:240:ASN:HD21	1.80	0.47
1:7:168:ALA:HB1	1:7:199:ASP:HB2	1.97	0.47
1:8:304:ARG:NH2	1:9:223:GLU:OE1	2.47	0.47
1:8:454:VAL:HG23	1:8:476:ARG:H	1.79	0.47
1:9:238:GLY:H	1:9:242:SER:HB2	1.80	0.47
1:AG:120:PRO:HD3	1:AG:453:TYR:OH	2.15	0.47
1:AH:151:ASP:HB3	1:AH:154:PHE:HB2	1.97	0.47
1:AJ:312:TYR:HA	1:AK:222:VAL:HG21	1.96	0.47
1:AK:333:ASP:N	1:AK:339:ASP:OD2	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AL:201(A):ASP:OD1	1:AL:201(A):ASP:N	2.40	0.47
1:AL:449:TYR:HE2	1:AL:482:ASN:HA	1.79	0.47
1:AN:288:ALA:O	1:AN:292:GLY:N	2.47	0.47
1:AQ:332:PHE:HB3	1:AQ:518:VAL:HG22	1.97	0.47
1:AR:147:MET:HE3	1:AR:366:ARG:HH12	1.80	0.47
1:AT:72:HIS:HB2	1:AT:79:ILE:HD13	1.97	0.47
1:AT:247:TRP:CD1	1:AT:248:ASN:H	2.32	0.47
1:AW:387:ALA:HB2	1:AW:404:PHE:CD2	2.49	0.47
1:AY:414:ALA:HB3	1:AY:423:VAL:HB	1.97	0.47
1:Ab:237:GLU:HG2	1:Ab:247:TRP:H	1.80	0.47
1:Af:95:VAL:HG21	1:Am:91:ILE:HD13	1.95	0.47
1:Ag:279:ARG:HA	1:Ag:283:GLY:HA2	1.96	0.47
1:Ah:201(C):ASP:O	1:Ah:207:LYS:NZ	2.45	0.47
1:Ah:430:LYS:HD2	1:Ai:182:PHE:HD2	1.79	0.47
1:Aj:510:ASN:OD1	1:Aj:511:ALA:N	2.47	0.47
1:Ak:344:ARG:HH21	1:Ak:348:GLU:CD	2.23	0.47
1:Al:197:THR:HG21	1:Al:200:ALA:HB3	1.97	0.47
1:Al:365:ALA:HB2	1:Al:372:GLU:HA	1.97	0.47
2:C:190:ASN:ND2	2:D:53:TYR:OH	2.33	0.47
2:D:101:PHE:CE1	2:D:108:TYR:HB2	2.50	0.47
2:D:352:ASP:O	2:D:356:HIS:ND1	2.48	0.47
1:G:344:ARG:NH1	1:G:348:GLU:OE2	2.46	0.47
1:J:191:GLN:HB2	1:J:224:ILE:HG21	1.95	0.47
1:M:201(H):GLU:HG2	1:M:201(I):ASP:H	1.80	0.47
1:P:131:TYR:HE1	1:P:141:LYS:HE3	1.78	0.47
1:P:279:ARG:HA	1:P:283:GLY:HA2	1.95	0.47
1:P:476:ARG:HH11	1:S:230:THR:HG21	1.80	0.47
1:R:460:ARG:NH2	1:R:471:MET:SD	2.87	0.47
1:T:176:ASP:N	1:T:176:ASP:OD1	2.48	0.47
1:T:236:GLN:HG3	1:T:247:TRP:NE1	2.30	0.47
1:U:83:GLN:NE2	1:U:84:THR:O	2.48	0.47
1:U:131:TYR:CE2	1:U:143:ALA:HA	2.50	0.47
1:V:357:ILE:HG12	1:V:434:PHE:CE1	2.50	0.47
1:W:447:GLY:HA2	1:W:482:ASN:HB3	1.97	0.47
1:X:230:THR:O	1:X:230:THR:OG1	2.30	0.47
1:Y:133:LYS:HB2	1:l:66:ALA:HB3	1.97	0.47
2:a:74:GLY:C	2:a:144:ALA:HB2	2.40	0.47
1:b:78:ASN:HB3	1:b:83:GLN:HB3	1.96	0.47
1:b:237:GLU:O	1:b:238:GLY:C	2.58	0.47
1:b:313:SER:HG	1:b:506:SER:HB2	1.80	0.47
1:d:426:ASP:OD2	1:d:433:TYR:OH	2.23	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f:387:ALA:HB2	1:f:404:PHE:HD2	1.79	0.47
1:h:238:GLY:HA2	1:h:242:SER:O	2.13	0.47
1:i:333:ASP:OD1	1:i:334:PHE:N	2.48	0.47
1:k:107:ILE:H	1:k:303:ASN:HD21	1.62	0.47
1:n:267:LYS:HB3	1:o:249:GLU:HG2	1.96	0.47
1:n:450:TYR:HA	1:n:479:ILE:HD13	1.97	0.47
1:o:381:ASN:HB3	1:o:521:ILE:HG21	1.96	0.47
1:o:426:ASP:OD2	1:o:433:TYR:OH	2.20	0.47
1:p:454:VAL:HG23	1:p:476:ARG:H	1.80	0.47
1:p:505:ASN:N	1:p:509:LYS:HZ1	2.13	0.47
1:q:128:ARG:NE	1:q:492:PRO:HD3	2.30	0.47
1:s:235:LEU:O	1:s:245:ASN:ND2	2.47	0.47
1:2:262:LYS:N	1:2:477:TYR:O	2.45	0.47
1:3:121:THR:HA	1:3:259:ILE:O	2.15	0.47
1:5:228:MET:HG3	1:5:233:ALA:HB2	1.97	0.47
1:8:457:THR:OG1	1:8:474:LYS:O	2.24	0.47
2:A:330:ASN:HB3	2:A:336:ILE:HG23	1.97	0.47
1:AC:221:LEU:HD23	1:AC:221:LEU:H	1.80	0.47
1:AD:372:GLU:OE2	1:AG:406:THR:OG1	2.32	0.47
1:AE:277:ASP:O	1:AE:281:VAL:HG12	2.14	0.47
1:AH:175:GLY:HA2	1:AH:191:GLN:HE21	1.79	0.47
1:AH:226:GLU:HB3	1:AH:227:GLY:H	1.53	0.47
1:AN:268:ALA:HB2	1:AN:294:LEU:HD11	1.95	0.47
1:AR:201(D):GLU:OE1	1:AR:201(E):ASP:N	2.30	0.47
1:AS:264:ARG:HD2	1:AS:477:TYR:HE2	1.78	0.47
1:AU:267:LYS:HZ3	1:AX:247:TRP:CG	2.33	0.47
1:AV:286:ALA:C	1:AV:288:ALA:H	2.22	0.47
1:AX:213:LYS:NZ	1:AX:321:MET:HE1	2.30	0.47
1:Af:71:ASP:OD2	1:Aj:231:SER:N	2.48	0.47
1:Af:245:ASN:OD1	1:Af:245:ASN:N	2.47	0.47
1:Ak:236:GLN:HG3	1:Ak:247:TRP:CD1	2.49	0.47
2:B:367:GLU:OE1	2:B:368:SER:N	2.30	0.47
2:B:368:SER:OG	2:B:369:LEU:N	2.48	0.47
1:H:305:GLU:OE1	1:H:309:TRP:NE1	2.48	0.47
1:M:286:ALA:C	1:M:288:ALA:H	2.22	0.47
1:O:120:PRO:HD3	1:O:453:TYR:OH	2.14	0.47
1:P:426:ASP:OD2	1:P:433:TYR:OH	2.26	0.47
1:Q:331:VAL:HG21	1:Q:519:LYS:HE2	1.97	0.47
1:S:133:LYS:NZ	1:S:249:GLU:OE1	2.45	0.47
1:V:272:ILE:N	1:V:468:GLN:OE1	2.43	0.47
1:d:74:TYR:HD2	1:e:500:MET:HE3	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:e:171:GLN:NE2	1:e:195:GLN:OE1	2.47	0.47
1:l:133:LYS:HG3	1:l:249:GLU:HG3	1.96	0.47
1:m:134:ASP:HB3	1:m:137:ALA:HB2	1.97	0.47
1:o:344:ARG:HH21	1:o:348:GLU:CD	2.23	0.47
1:o:347:GLY:HA2	1:o:398:GLN:HB3	1.97	0.47
1:q:345:TRP:CD1	1:t:344:ARG:HH12	2.33	0.47
1:r:113:GLY:HA3	1:r:449:TYR:HD1	1.79	0.47
1:r:234:GLU:C	1:r:236:GLN:H	2.23	0.47
1:r:237:GLU:H	1:r:245:ASN:CG	2.22	0.47
1:s:456:LEU:HA	1:s:475:THR:HB	1.96	0.47
1:u:365:ALA:HB2	1:u:372:GLU:HB3	1.97	0.47
1:2:287:ASP:OD1	1:2:460:ARG:NH2	2.41	0.47
1:AC:323:LEU:HD13	1:AC:329:ALA:HA	1.96	0.47
1:AD:398:GLN:OE1	1:AD:399:GLY:N	2.48	0.47
1:AJ:181:PHE:HD1	1:AJ:187:THR:HB	1.80	0.47
1:AK:184:GLU:HB3	1:AK:366:ARG:NH2	2.30	0.47
1:AM:142:GLU:HB2	1:AM:490:GLN:HB3	1.97	0.47
1:AO:504:LEU:HD23	1:AO:504:LEU:H	1.80	0.47
1:AP:105:ASN:HD22	1:AP:411:SER:HA	1.80	0.47
1:AP:273:GLU:CD	1:AP:273:GLU:H	2.22	0.47
1:AR:277:ASP:O	1:AR:281:VAL:HG22	2.15	0.47
1:AT:178:TYR:O	1:AT:190:LEU:N	2.48	0.47
1:Aj:273:GLU:OE2	1:j:474:LYS:NZ	2.46	0.47
1:Am:166:LEU:HG	1:Am:178:TYR:HB3	1.97	0.47
2:B:61:ASP:OD2	2:B:105:ASN:ND2	2.47	0.47
2:D:288:LEU:HD22	2:D:306:LEU:H	1.80	0.47
2:D:288:LEU:HD23	2:D:306:LEU:HD12	1.97	0.47
1:L:345:TRP:CZ2	1:g:396:ALA:HB2	2.49	0.47
1:Q:190:LEU:HB3	1:Q:221:LEU:HB3	1.96	0.47
1:Q:250:MET:HE1	1:T:297:GLU:HG2	1.97	0.47
1:Q:286:ALA:C	1:Q:288:ALA:H	2.22	0.47
1:S:411:SER:OG	1:S:412:VAL:N	2.48	0.47
1:V:121:THR:HG22	1:V:260:GLU:HG3	1.97	0.47
1:e:380:ARG:HH21	1:e:408:THR:HG1	1.58	0.47
1:f:146:PRO:HD3	1:m:101:ARG:HD2	1.97	0.47
1:f:260:GLU:HB2	1:f:500:MET:SD	2.55	0.47
1:f:350:PHE:HB3	1:f:389:VAL:HG21	1.95	0.47
1:h:504:LEU:HD23	1:h:504:LEU:H	1.80	0.47
1:i:204:ASP:N	1:i:204:ASP:OD1	2.48	0.47
1:k:236:GLN:HB3	1:k:247:TRP:NE1	2.30	0.47
1:l:94:ALA:O	1:m:123:GLN:N	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:q:145:HIS:CE1	1:q:147:MET:HB2	2.50	0.47
1:q:347:GLY:O	1:q:351:LYS:N	2.48	0.47
1:r:250:MET:HB2	1:r:250:MET:HE3	1.74	0.47
1:t:414:ALA:HB3	1:t:423:VAL:HB	1.97	0.47
1:w:245:ASN:N	1:w:245:ASN:OD1	2.48	0.47
1:1:231:SER:HB3	1:3:71:ASP:CG	2.40	0.47
1:3:176:ASP:N	1:3:176:ASP:OD1	2.46	0.47
2:A:265:SER:O	2:A:266:THR:HG22	2.15	0.47
1:AD:237:GLU:HB3	1:AY:465:LYS:O	2.15	0.47
1:AI:267:LYS:HA	1:AI:472:GLY:HA2	1.96	0.47
1:AK:510:ASN:OD1	1:AK:511:ALA:N	2.48	0.47
1:AR:250:MET:HE3	1:AR:250:MET:HB2	1.80	0.47
1:AS:90:GLN:NE2	1:V:277:ASP:OD2	2.42	0.47
1:AX:180:HIS:NE2	1:AX:209:ASP:OD1	2.44	0.47
1:AY:74:TYR:HA	1:AY:79:ILE:HD11	1.97	0.47
1:AZ:312:TYR:CZ	1:AZ:507:LEU:HG	2.50	0.47
1:Am:73:GLY:O	1:Am:75:ASN:N	2.47	0.47
2:C:129:GLN:HG3	2:a:320:LEU:HD23	1.97	0.47
2:C:208:ASP:O	2:C:212:LYS:NZ	2.48	0.47
1:G:345:TRP:CD1	1:G:348:GLU:HB2	2.49	0.47
1:M:333:ASP:OD1	1:M:334:PHE:N	2.48	0.47
1:O:156:GLY:HA3	1:O:227:GLY:HA2	1.97	0.47
1:U:152:ALA:O	1:X:264:ARG:NH2	2.48	0.47
1:U:417:LEU:N	1:U:421:TYR:O	2.35	0.47
1:f:201(G):ASP:O	1:f:201(I):ASP:N	2.48	0.47
1:l:250:MET:HE3	1:l:250:MET:HB2	1.82	0.47
1:m:466:ASN:HB2	1:m:468:GLN:HG2	1.96	0.47
1:m:503:ILE:O	1:m:504:LEU:HB2	2.15	0.47
1:p:148:TYR:HD1	1:p:186:GLY:HA2	1.80	0.47
1:q:265:GLN:HE21	1:q:474:LYS:HD3	1.80	0.47
1:q:272:ILE:N	1:q:468:GLN:OE1	2.41	0.47
1:q:337:PRO:O	1:q:342:GLY:N	2.38	0.47
1:r:167:ALA:H	1:r:170:THR:HG21	1.80	0.47
1:r:181:PHE:HA	1:r:187:THR:HA	1.97	0.47
1:5:398:GLN:OE1	1:5:399:GLY:N	2.47	0.46
1:7:505:ASN:OD1	1:7:506:SER:N	2.48	0.46
1:AF:380:ARG:HH11	1:AF:408:THR:HG21	1.80	0.46
1:AH:117:MET:HG3	1:AH:451:ALA:HB1	1.97	0.46
1:AN:450:TYR:HA	1:AN:479:ILE:HD13	1.97	0.46
1:AP:444:MET:O	1:AP:449:TYR:OH	2.30	0.46
1:AU:314:ALA:HA	1:AU:513:PHE:HB2	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AU:380:ARG:HA	1:AU:425:ILE:HD11	1.97	0.46
1:AV:247:TRP:HE3	1:AY:267:LYS:HB2	1.80	0.46
1:AY:142:GLU:HB2	1:AY:490:GLN:HB3	1.97	0.46
1:AZ:313:SER:O	1:AZ:510:ASN:HB3	2.16	0.46
1:Ac:181:PHE:HE1	1:Ac:186:GLY:HA2	1.80	0.46
1:Ad:456:LEU:HD23	1:Ad:475:THR:HB	1.97	0.46
1:Am:449:TYR:N	1:Am:480:GLY:O	2.42	0.46
2:C:364:VAL:HG22	2:C:371:PRO:HB3	1.97	0.46
1:G:247:TRP:HE3	1:J:267:LYS:HB2	1.79	0.46
1:G:447:GLY:O	1:G:448:ILE:HG13	2.15	0.46
1:M:310:ILE:HG12	1:M:448:ILE:HD12	1.96	0.46
1:R:112:CYS:HB2	1:R:448:ILE:O	2.14	0.46
1:X:245:ASN:OD1	1:X:245:ASN:N	2.47	0.46
2:a:190:ASN:O	2:a:190:ASN:ND2	2.42	0.46
1:b:376:ILE:N	1:b:422:ARG:O	2.42	0.46
1:c:69:GLY:HA2	1:l:274:LEU:HG	1.97	0.46
1:c:84:THR:CG2	1:c:85:SER:N	2.56	0.46
1:e:502:SER:N	1:e:505:ASN:OD1	2.48	0.46
1:f:379:SER:OG	1:f:380:ARG:N	2.48	0.46
1:h:70:GLY:HA3	1:h:86:GLY:HA3	1.97	0.46
1:k:498:SER:HB2	1:k:500:MET:HE3	1.97	0.46
1:o:153:MET:SD	1:o:226:GLU:N	2.85	0.46
1:o:197:THR:HG21	1:o:200:ALA:HB3	1.97	0.46
1:s:135:PRO:HG3	1:s:251:GLY:HA3	1.96	0.46
1:w:350:PHE:HB2	1:w:389:VAL:HG11	1.97	0.46
1:0:133:LYS:HG3	1:0:249:GLU:HG3	1.98	0.46
1:8:420:LYS:HE3	1:8:421:TYR:HE1	1.80	0.46
1:AD:234:GLU:OE2	1:AY:271:SER:OG	2.29	0.46
1:AK:181:PHE:HE1	1:AK:186:GLY:HA2	1.80	0.46
1:AL:270:TYR:CZ	1:AL:469:PRO:HG2	2.50	0.46
1:AM:428:TYR:O	1:AM:430:LYS:NZ	2.43	0.46
1:AO:228:MET:HE3	1:AO:233:ALA:HB2	1.97	0.46
1:AR:345:TRP:CE3	1:AS:348:GLU:HB2	2.49	0.46
1:AS:386:LEU:HD13	1:AS:417:LEU:HD22	1.97	0.46
1:AT:127:LEU:HD11	1:AT:252:PHE:HD2	1.81	0.46
1:AU:167:ALA:H	1:AU:170:THR:HG21	1.79	0.46
1:AZ:360:GLU:OE1	1:AZ:514:ARG:NH1	2.46	0.46
1:Ac:237:GLU:H	1:Ac:245:ASN:CG	2.23	0.46
1:Ac:347:GLY:HA3	1:Ac:397:ALA:O	2.15	0.46
1:Ad:123:GLN:OE1	1:Ad:256:LYS:NZ	2.48	0.46
1:Ah:267:LYS:HE3	1:Ai:247:TRP:CG	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Al:344:ARG:O	1:Am:342:GLY:HA3	2.16	0.46
2:C:17:ASN:OD1	2:C:18:SER:N	2.48	0.46
2:C:25:VAL:HG21	2:D:50:ALA:HB1	1.97	0.46
2:C:394:GLU:H	2:C:394:GLU:CD	2.22	0.46
1:H:318:LYS:NZ	1:H:327:SER:OG	2.47	0.46
1:V:79:ILE:HD11	1:i:260:GLU:HB2	1.97	0.46
2:a:142:ASP:OD1	2:a:143:ALA:N	2.48	0.46
1:f:67:GLU:H	1:f:67:GLU:CD	2.23	0.46
1:f:267:LYS:HB2	1:k:247:TRP:HE3	1.78	0.46
1:g:265:GLN:HB2	1:h:247:TRP:HZ3	1.80	0.46
1:k:158:GLY:HA2	1:k:163:PHE:HE1	1.78	0.46
1:l:191:GLN:HG3	1:l:224:ILE:HG21	1.98	0.46
1:l:507:LEU:O	1:l:509:LYS:NZ	2.41	0.46
1:r:272:ILE:N	1:r:468:GLN:OE1	2.42	0.46
1:r:337:PRO:O	1:r:342:GLY:N	2.45	0.46
1:t:68:ILE:H	1:t:68:ILE:HG13	1.47	0.46
1:w:279:ARG:HH21	1:w:285:ASP:HB3	1.81	0.46
1:1:217:GLU:HA	1:z:517:TYR:CZ	2.50	0.46
1:2:309:TRP:O	1:2:313:SER:N	2.44	0.46
1:4:360:GLU:OE1	1:4:514:ARG:NH1	2.47	0.46
1:5:505:ASN:ND2	1:5:506:SER:OG	2.49	0.46
1:6:254:ILE:HD12	1:X:88:VAL:HG13	1.97	0.46
1:AA:153:MET:HE1	1:AA:224:ILE:HG23	1.97	0.46
1:AG:182:PHE:N	1:AG:186:GLY:O	2.47	0.46
1:AN:376:ILE:HG13	1:AN:436:VAL:HG22	1.98	0.46
1:AQ:347:GLY:HA3	1:AQ:397:ALA:O	2.16	0.46
1:AR:131:TYR:HB3	1:AR:250:MET:HG3	1.97	0.46
1:AR:286:ALA:C	1:AR:288:ALA:H	2.23	0.46
1:AS:438:TYR:HB3	1:AS:512:TYR:HB3	1.97	0.46
1:AW:88:VAL:HA	1:Ai:254:ILE:HG23	1.97	0.46
1:AW:131:TYR:HB3	1:AW:250:MET:HE3	1.96	0.46
1:AX:412:VAL:HG11	1:AX:427:GLN:HE21	1.80	0.46
1:AY:454:VAL:HG23	1:AY:476:ARG:H	1.80	0.46
1:Ad:267:LYS:HB2	1:Ae:247:TRP:CE3	2.51	0.46
1:Am:502:SER:N	1:Am:505:ASN:OD1	2.48	0.46
2:B:87:LEU:HD22	2:B:124:LEU:HD11	1.97	0.46
1:J:153:MET:HB2	1:J:189:TYR:CE1	2.50	0.46
1:N:120:PRO:O	1:N:121:THR:OG1	2.30	0.46
1:O:234:GLU:CD	1:m:273:GLU:HB3	2.41	0.46
1:Z:462:SER:C	1:j:464:PRO:HG3	2.39	0.46
1:f:257:GLN:NE2	1:f:497:GLN:O	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:j:166:LEU:HG	1:j:178:TYR:HB3	1.96	0.46
1:j:357:ILE:HG12	1:j:434:PHE:CE2	2.50	0.46
1:j:404:PHE:HD2	1:j:414:ALA:HB1	1.80	0.46
1:k:267:LYS:HG3	1:n:249:GLU:HG3	1.97	0.46
1:l:331:VAL:HG21	1:l:519:LYS:HE2	1.98	0.46
1:p:74:TYR:HA	1:p:79:ILE:HD11	1.98	0.46
1:s:438:TYR:HB3	1:s:512:TYR:HD2	1.81	0.46
1:w:201(D):GLU:O	1:w:201(D):GLU:HG2	2.15	0.46
1:w:466:ASN:HB2	1:w:468:GLN:HG2	1.98	0.46
1:x:250:MET:HE3	1:x:250:MET:HB2	1.73	0.46
1:z:72:HIS:HD2	1:z:82:GLY:HA2	1.80	0.46
1:1:154:PHE:CE2	1:1:248:ASN:HB3	2.50	0.46
1:2:480:GLY:HA2	1:2:501:PRO:HD3	1.97	0.46
1:4:234:GLU:H	1:4:234:GLU:HG3	1.56	0.46
1:5:117:MET:HG3	1:5:451:ALA:HB1	1.97	0.46
1:8:185:THR:HG21	1:AA:430:LYS:HG3	1.98	0.46
1:AB:360:GLU:OE1	1:AB:514:ARG:NH1	2.48	0.46
1:AC:345:TRP:CD1	1:AC:346:ALA:N	2.84	0.46
1:AF:327:SER:OG	1:AF:328:LYS:N	2.48	0.46
1:AH:271:SER:O	1:AH:272:ILE:HB	2.15	0.46
1:AH:274:LEU:HD12	1:AH:274:LEU:HA	1.71	0.46
1:AK:465:LYS:HB3	1:AT:237:GLU:HB3	1.97	0.46
1:AM:67:GLU:HB3	1:Ad:270:TYR:HA	1.97	0.46
1:AP:265:GLN:HE22	1:AQ:233:ALA:HA	1.81	0.46
1:AQ:265:GLN:HB3	1:AQ:474:LYS:HG3	1.96	0.46
1:AT:101:ARG:HH22	1:AU:145:HIS:CE1	2.33	0.46
1:AU:264:ARG:HB3	1:AX:155:SER:HB3	1.98	0.46
1:Ah:228:MET:HE1	1:Ah:236:GLN:NE2	2.31	0.46
1:Am:444:MET:O	1:Am:449:TYR:OH	2.28	0.46
2:B:291:LYS:HD3	2:B:291:LYS:H	1.81	0.46
2:C:208:ASP:OD2	2:D:65:THR:OG1	2.29	0.46
1:M:223:GLU:OE1	1:h:304:ARG:NH2	2.47	0.46
1:O:181:PHE:HD1	1:O:187:THR:HB	1.80	0.46
1:P:337:PRO:O	1:P:342:GLY:N	2.38	0.46
1:Q:345:TRP:CE3	1:R:348:GLU:HB2	2.50	0.46
1:R:130:VAL:HG22	1:R:142:GLU:HA	1.97	0.46
1:T:156:GLY:C	1:T:228:MET:HB3	2.41	0.46
1:U:256:LYS:HB3	1:U:496:ILE:HG12	1.98	0.46
1:V:333:ASP:OD1	1:V:335:GLN:N	2.46	0.46
1:Y:109:PHE:CZ	1:Y:303:ASN:HA	2.50	0.46
1:Y:270:TYR:CE2	1:Y:469:PRO:HB2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f:239:PHE:N	1:f:242:SER:OG	2.27	0.46
1:j:500:MET:O	1:j:505:ASN:ND2	2.48	0.46
1:m:305:GLU:CD	1:m:309:TRP:HE1	2.22	0.46
1:q:264:ARG:HB3	1:t:155:SER:HB3	1.97	0.46
1:u:345:TRP:CD1	1:u:346:ALA:N	2.84	0.46
1:0:510:ASN:O	1:0:512:TYR:N	2.48	0.46
1:6:268:ALA:HB1	1:6:290:LEU:HD13	1.96	0.46
1:6:378:ALA:HA	1:6:434:PHE:HA	1.96	0.46
1:9:345:TRP:CD1	1:AB:344:ARG:HH12	2.33	0.46
1:AC:368:THR:HG23	1:AC:370:ARG:H	1.81	0.46
1:AE:166:LEU:HD23	1:AE:166:LEU:HA	1.82	0.46
1:AF:106:LEU:H	1:AF:106:LEU:HD22	1.80	0.46
1:AH:422:ARG:HH21	1:AH:424:TYR:HH	1.58	0.46
1:AO:364:ILE:O	1:AO:368:THR:HG22	2.16	0.46
1:AT:149:GLY:N	1:AT:185:THR:O	2.43	0.46
1:AV:289:GLU:O	1:AV:293:ILE:HG12	2.16	0.46
1:AW:323:LEU:HG	1:AW:324:THR:O	2.15	0.46
1:AZ:414:ALA:HB3	1:AZ:423:VAL:HB	1.97	0.46
1:Ab:72:HIS:CD2	1:Ab:79:ILE:HA	2.51	0.46
1:Ab:345:TRP:CD1	1:Ab:346:ALA:N	2.83	0.46
1:Aj:123:GLN:HB3	1:Aj:258:VAL:HG12	1.97	0.46
1:G:133:LYS:HG3	1:G:249:GLU:HG3	1.97	0.46
1:G:247:TRP:CE3	1:J:267:LYS:HB2	2.51	0.46
1:H:263:SER:HB3	1:H:476:ARG:HG2	1.98	0.46
1:L:288:ALA:O	1:L:292:GLY:N	2.36	0.46
1:L:417:LEU:HB3	1:L:421:TYR:HB2	1.98	0.46
1:S:345:TRP:CD1	1:S:346:ALA:H	2.34	0.46
1:T:365:ALA:HB2	1:T:372:GLU:HB3	1.96	0.46
2:a:56:LYS:HD3	2:a:64:PHE:HE1	1.81	0.46
1:f:244:ASP:OD1	1:f:244:ASP:N	2.47	0.46
1:r:133:LYS:HG3	1:r:249:GLU:HG3	1.98	0.46
1:t:72:HIS:ND1	1:u:260:GLU:OE2	2.34	0.46
1:t:282:HIS:O	1:t:284:MET:N	2.42	0.46
1:u:445:ASP:OD1	1:u:512:TYR:OH	2.22	0.46
1:w:131:TYR:HE1	1:w:141:LYS:HE3	1.80	0.46
1:z:148:TYR:OH	1:z:488:ALA:O	2.30	0.46
1:z:344:ARG:HD3	1:z:344:ARG:N	2.30	0.46
1:0:234:GLU:HB3	1:P:273:GLU:CD	2.40	0.46
1:1:258:VAL:HG21	1:z:79:ILE:HB	1.97	0.46
1:1:430:LYS:HA	1:1:430:LYS:HD3	1.60	0.46
1:3:376:ILE:HG13	1:3:421:TYR:HB3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:4:153:MET:HE1	1:4:226:GLU:HG2	1.98	0.46
1:6:127:LEU:HD11	1:6:252:PHE:HB2	1.98	0.46
1:6:407:ASP:OD2	1:6:410:LYS:NZ	2.40	0.46
1:9:121:THR:HA	1:9:259:ILE:O	2.16	0.46
1:9:237:GLU:H	1:9:245:ASN:CG	2.24	0.46
1:AF:363:GLU:OE2	1:AF:366:ARG:NH1	2.49	0.46
1:AG:311:ASN:ND2	1:AG:433:TYR:OH	2.48	0.46
1:AH:390:ASP:H	1:AH:397:ALA:HB3	1.81	0.46
1:AH:420:LYS:HE3	1:AH:421:TYR:CE2	2.50	0.46
1:AI:383:VAL:HG21	1:AI:425:ILE:HB	1.96	0.46
1:AJ:117:MET:HG3	1:AJ:451:ALA:HB1	1.97	0.46
1:AP:490:GLN:H	1:AP:490:GLN:HG2	1.43	0.46
1:AW:268:ALA:N	1:AW:471:MET:O	2.45	0.46
1:Aa:128:ARG:NH1	1:Aa:490:GLN:O	2.48	0.46
1:Ab:123:GLN:NE2	1:Ae:93:PRO:O	2.49	0.46
1:Ab:456:LEU:HD13	1:Ab:475:THR:HB	1.97	0.46
1:Ag:304:ARG:NE	1:Ag:308:ASP:OD2	2.49	0.46
1:Ai:263:SER:HB3	1:Ai:476:ARG:HG2	1.98	0.46
1:Ai:268:ALA:HB3	1:Ai:471:MET:HB3	1.97	0.46
1:Ai:358:ASP:OD1	1:Ai:421:TYR:OH	2.31	0.46
1:Ai:383:VAL:HG12	1:Ai:406:THR:HG22	1.96	0.46
2:C:316:THR:HB	2:D:263:LYS:HA	1.98	0.46
1:G:201(F):GLU:HB2	1:G:201(I):ASP:HA	1.97	0.46
1:G:495:ARG:NH2	1:S:89:THR:OG1	2.40	0.46
1:Q:130:VAL:HG12	1:Q:142:GLU:HA	1.97	0.46
1:R:66:ALA:HA	1:b:269:ALA:HB3	1.98	0.46
1:S:387:ALA:HB2	1:S:404:PHE:CD2	2.51	0.46
1:U:345:TRP:CD1	1:U:346:ALA:N	2.84	0.46
1:V:171:GLN:OE1	1:V:195:GLN:NE2	2.48	0.46
1:V:344:ARG:NH1	1:V:348:GLU:OE2	2.49	0.46
1:W:245:ASN:N	1:W:245:ASN:OD1	2.48	0.46
1:X:234:GLU:OE1	1:Y:271:SER:OG	2.25	0.46
1:X:237:GLU:HB2	1:Y:466:ASN:HD21	1.80	0.46
1:c:135:PRO:HG3	1:c:251:GLY:HA3	1.96	0.46
1:k:343:ALA:HB1	1:k:348:GLU:HB2	1.97	0.46
1:l:201(H):GLU:HG2	1:l:201(I):ASP:N	2.29	0.46
1:m:343:ALA:HB1	1:m:348:GLU:HG3	1.97	0.46
1:o:507:LEU:H	1:o:509:LYS:HG2	1.81	0.46
1:r:166:LEU:HD13	1:r:212:ILE:HD12	1.97	0.46
1:r:234:GLU:O	1:r:236:GLN:N	2.49	0.46
1:z:166:LEU:HD22	1:z:170:THR:HG21	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:236:GLN:HB3	1:0:247:TRP:NE1	2.30	0.46
1:9:81:ALA:HB2	1:G:80:ALA:HB1	1.98	0.46
1:9:277:ASP:O	1:9:281:VAL:HG12	2.16	0.46
2:A:222:SER:HB2	2:A:415:LEU:HB2	1.96	0.46
1:AM:502:SER:N	1:AM:505:ASN:OD1	2.49	0.46
1:AN:84:THR:HG23	1:AN:86:GLY:H	1.81	0.46
1:AP:107:ILE:HD12	1:AP:307:VAL:HG21	1.98	0.46
1:AR:247:TRP:HE3	1:Aa:267:LYS:HB2	1.80	0.46
1:AV:447:GLY:O	1:AV:448:ILE:HG13	2.16	0.46
1:AX:510:ASN:OD1	1:AX:511:ALA:N	2.48	0.46
1:Ab:249:GLU:HG2	1:Ae:267:LYS:HB2	1.97	0.46
1:Ab:487:SER:OG	1:Ab:488:ALA:N	2.49	0.46
1:Af:230:THR:O	1:Af:230:THR:OG1	2.34	0.46
1:Ah:390:ASP:HB2	1:Ah:397:ALA:HB3	1.97	0.46
1:Ah:517:TYR:CZ	1:Ai:217:GLU:HA	2.51	0.46
1:Aj:76:ALA:HB1	1:Ak:496:ILE:HG22	1.98	0.46
1:Ak:235:LEU:HB3	1:Ak:242:SER:HB2	1.98	0.46
1:Al:379:SER:OG	1:Al:380:ARG:N	2.48	0.46
1:Am:169:SER:H	1:Am:199:ASP:HB2	1.79	0.46
2:C:22:PRO:HB2	2:D:51:ALA:HB2	1.98	0.46
2:C:121:GLU:OE1	2:C:123:ASP:N	2.49	0.46
2:D:74:GLY:C	2:D:144:ALA:HB2	2.41	0.46
2:D:265:SER:O	2:D:266:THR:HG22	2.15	0.46
1:J:169:SER:H	1:J:199:ASP:HB2	1.80	0.46
1:P:93:PRO:HB3	1:S:121:THR:HG22	1.97	0.46
1:Q:259:ILE:HD12	1:Q:480:GLY:HA3	1.97	0.46
1:U:267:LYS:O	1:V:249:GLU:HA	2.15	0.46
1:Z:69:GLY:N	1:e:234:GLU:OE2	2.37	0.46
1:Z:301:GLU:HG2	1:d:152:ALA:HA	1.96	0.46
1:c:166:LEU:HD13	1:c:212:ILE:HD12	1.98	0.46
1:f:72:HIS:HA	1:f:84:THR:HA	1.97	0.46
1:g:203:THR:O	1:g:207:LYS:N	2.44	0.46
1:h:453:TYR:HB3	1:h:476:ARG:O	2.16	0.46
1:j:383:VAL:HG21	1:j:425:ILE:HG12	1.98	0.46
1:n:145:HIS:HB3	1:n:148:TYR:HB2	1.97	0.46
1:o:345:TRP:CD1	1:o:346:ALA:H	2.34	0.46
1:p:263:SER:HA	1:p:476:ARG:HA	1.96	0.46
1:r:145:HIS:CD2	1:r:146:PRO:HD2	2.51	0.46
1:s:317:GLY:HA2	1:s:514:ARG:NH1	2.31	0.46
1:t:449:TYR:HE2	1:t:482:ASN:HA	1.81	0.46
1:w:454:VAL:HG23	1:w:476:ARG:H	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:z:190:LEU:HD13	1:z:221:LEU:HD13	1.96	0.46
1:0:109:PHE:HE1	1:0:306:VAL:HG21	1.79	0.46
1:0:380:ARG:NH1	1:0:408:THR:HG21	2.30	0.46
1:5:502:SER:OG	1:5:503:ILE:N	2.49	0.46
1:6:131:TYR:CE2	1:6:143:ALA:HA	2.51	0.46
1:7:521:ILE:O	1:x:341:ARG:NH1	2.39	0.46
1:9:379:SER:OG	1:9:380:ARG:N	2.48	0.46
1:AC:272:ILE:N	1:AC:468:GLN:OE1	2.39	0.46
1:AE:113:GLY:H	1:AE:446:ALA:HB1	1.81	0.46
1:AE:145:HIS:CD2	1:AE:148:TYR:H	2.33	0.46
1:AF:263:SER:HA	1:AF:476:ARG:HA	1.97	0.46
1:AH:194:VAL:HG12	1:AH:195:GLN:N	2.27	0.46
1:AI:196:VAL:HG11	1:AI:220:ALA:HB1	1.98	0.46
1:AK:376:ILE:N	1:AK:422:ARG:O	2.41	0.46
1:AK:449:TYR:HE2	1:AK:482:ASN:HA	1.81	0.46
1:AM:120:PRO:HD3	1:AM:453:TYR:OH	2.16	0.46
1:AQ:201(G):ASP:OD1	1:AQ:201(G):ASP:N	2.38	0.46
1:Ac:387:ALA:HB2	1:Ac:404:PHE:HB2	1.98	0.46
1:Ai:515:ARG:NH2	1:Ai:517:TYR:OH	2.49	0.46
1:Ak:129:ALA:O	1:Ak:143:ALA:N	2.45	0.46
1:Al:278:LEU:HD22	1:d:88:VAL:HG11	1.97	0.46
1:Al:380:ARG:NH2	1:Al:427:GLN:O	2.48	0.46
1:G:286:ALA:C	1:G:288:ALA:H	2.23	0.46
1:J:121:THR:HA	1:J:259:ILE:O	2.16	0.46
1:M:153:MET:HE1	1:M:177:ILE:HG21	1.98	0.46
1:M:181:PHE:HD1	1:M:187:THR:HB	1.81	0.46
1:M:380:ARG:NH1	1:M:408:THR:HG21	2.22	0.46
1:M:395:TYR:HD1	1:M:396:ALA:H	1.61	0.46
1:T:267:LYS:HA	1:T:472:GLY:HA2	1.96	0.46
1:U:239:PHE:O	1:U:242:SER:OG	2.29	0.46
1:U:351:LYS:NZ	1:U:394:SER:O	2.48	0.46
1:V:345:TRP:CB	1:V:348:GLU:HB3	2.46	0.46
1:Z:74:TYR:HE1	1:d:260:GLU:HB3	1.80	0.46
1:c:272:ILE:HB	1:c:468:GLN:HG2	1.96	0.46
1:f:121:THR:HA	1:f:259:ILE:O	2.16	0.46
1:h:278:LEU:HG	1:h:284:MET:HB2	1.98	0.46
1:k:181:PHE:HD1	1:k:187:THR:HB	1.81	0.46
1:k:242:SER:HB3	1:k:245:ASN:HD21	1.80	0.46
1:k:380:ARG:HA	1:k:425:ILE:HD11	1.97	0.46
1:p:260:GLU:HB2	1:p:500:MET:SD	2.56	0.46
1:q:166:LEU:HD23	1:q:166:LEU:HA	1.72	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:q:245:ASN:N	1:q:245:ASN:OD1	2.48	0.46
1:r:233:ALA:O	1:r:234:GLU:C	2.57	0.46
1:s:158:GLY:HA2	1:s:163:PHE:HE1	1.81	0.46
1:s:268:ALA:N	1:s:471:MET:O	2.45	0.46
1:s:377:ILE:HG12	1:s:424:TYR:HB2	1.97	0.46
1:u:409:THR:OG1	1:u:410:LYS:NZ	2.45	0.46
1:v:445:ASP:OD1	1:v:445:ASP:N	2.44	0.46
1:0:336:ASP:HB3	1:0:339:ASP:HB2	1.97	0.46
1:4:237:GLU:O	1:4:245:ASN:HB2	2.16	0.46
1:7:233:ALA:C	1:7:235:LEU:H	2.24	0.46
1:7:236:GLN:HB3	1:7:247:TRP:NE1	2.30	0.46
1:AG:121:THR:HA	1:AG:259:ILE:O	2.16	0.46
1:AG:297:GLU:O	1:AG:301:GLU:HG2	2.15	0.46
1:AJ:348:GLU:HG3	1:AM:345:TRP:NE1	2.31	0.46
1:AP:445:ASP:OD1	1:AP:445:ASP:N	2.49	0.46
1:AU:107:ILE:H	1:AU:303:ASN:ND2	2.14	0.46
1:AV:259:ILE:HD12	1:AV:480:GLY:HA3	1.98	0.46
1:AW:481:ILE:HG23	1:AW:501:PRO:HG3	1.97	0.46
1:Aa:379:SER:OG	1:Aa:380:ARG:N	2.46	0.46
1:Ab:125:PHE:HE1	1:Ab:256:LYS:HE2	1.80	0.46
1:Ab:154:PHE:CZ	1:Ab:248:ASN:HB3	2.51	0.46
1:Af:101:ARG:NH1	1:Ag:142:GLU:OE2	2.49	0.46
1:Ag:252:PHE:HD1	1:Ag:252:PHE:H	1.64	0.46
1:Ag:476:ARG:HH11	1:Aj:230:THR:HG21	1.80	0.46
1:Ai:305:GLU:HG3	1:Ai:309:TRP:CD1	2.50	0.46
1:Am:135:PRO:HG3	1:d:67:GLU:HG2	1.98	0.46
2:D:298:LEU:HD12	2:D:299:SER:H	1.80	0.46
1:K:451:ALA:O	1:K:478:GLY:N	2.41	0.46
1:O:72:HIS:HA	1:O:84:THR:HA	1.97	0.46
1:S:406:THR:O	1:S:406:THR:OG1	2.32	0.46
1:T:86:GLY:O	1:s:495:ARG:NH1	2.39	0.46
1:U:463:ASP:OD2	1:U:466:ASN:ND2	2.46	0.46
1:V:154:PHE:CE2	1:V:248:ASN:HB3	2.50	0.46
1:W:190:LEU:HB3	1:W:221:LEU:HB3	1.97	0.46
1:X:304:ARG:NH2	1:X:308:ASP:OD1	2.48	0.46
1:j:190:LEU:HD23	1:j:221:LEU:HB2	1.97	0.46
1:k:420:LYS:HE3	1:k:421:TYR:HE1	1.81	0.46
1:p:204:ASP:O	1:p:208:LEU:N	2.40	0.46
1:p:234:GLU:OE2	1:s:474:LYS:NZ	2.49	0.46
1:q:434:PHE:CE1	1:q:516:VAL:HB	2.51	0.46
1:v:431:GLN:NE2	1:w:217:GLU:OE2	2.41	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:4:201(D):GLU:OE1	1:4:201(F):GLU:N	2.44	0.46
1:9:203:THR:O	1:9:205:ALA:N	2.39	0.46
2:A:182:GLU:OE2	1:w:474:LYS:NZ	2.46	0.46
2:A:384:ASN:O	2:A:387:THR:OG1	2.25	0.46
1:AC:261:ALA:HA	1:AC:478:GLY:HA3	1.98	0.46
1:AE:71:ASP:OD1	1:AO:231:SER:HB3	2.16	0.46
1:AF:181:PHE:HD1	1:AF:187:THR:HB	1.79	0.46
1:AJ:517:TYR:CE2	1:AK:217:GLU:HG3	2.51	0.46
1:AL:481:ILE:HD12	1:AL:481:ILE:HA	1.87	0.46
1:AM:368:THR:HG23	1:AM:370:ARG:H	1.81	0.46
1:AM:502:SER:OG	1:AM:503:ILE:N	2.49	0.46
1:AO:450:TYR:CE2	1:AO:452:PRO:HG3	2.51	0.46
1:AP:127:LEU:HD12	1:AP:254:ILE:HD11	1.96	0.46
1:AP:368:THR:HG22	1:AP:370:ARG:HG3	1.98	0.46
1:AQ:407:ASP:OD1	1:AQ:410:LYS:N	2.42	0.46
1:AS:274:LEU:HD23	1:V:67:GLU:HG3	1.98	0.46
1:AS:464:PRO:HG3	1:i:463:ASP:N	2.31	0.46
1:AU:74:TYR:HE1	1:AX:260:GLU:HB3	1.81	0.46
1:AX:94:ALA:O	1:AY:123:GLN:HG2	2.16	0.46
1:AY:167:ALA:O	1:AY:170:THR:OG1	2.28	0.46
1:Ab:75:ASN:O	1:Ab:79:ILE:HG13	2.16	0.46
1:Ad:154:PHE:CZ	1:Ad:248:ASN:HB3	2.51	0.46
1:Af:449:TYR:OH	1:Af:482:ASN:OD1	2.22	0.46
1:Af:450:TYR:HA	1:Af:479:ILE:HG22	1.98	0.46
1:Aj:274:LEU:HD13	1:i:67:GLU:HB3	1.98	0.46
1:Al:131:TYR:CE2	1:Al:143:ALA:HA	2.51	0.46
1:Al:134:ASP:HB3	1:Al:137:ALA:HB2	1.98	0.46
1:Am:194:VAL:HG23	1:Am:196:VAL:HG13	1.96	0.46
2:B:183:LEU:HD12	1:U:69:GLY:HA2	1.97	0.46
2:D:115:PRO:HB3	2:D:136:LYS:HG2	1.98	0.46
1:H:430:LYS:H	1:H:430:LYS:HD2	1.81	0.46
1:K:260:GLU:CD	1:N:72:HIS:HD1	2.24	0.46
1:O:314:ALA:HB3	1:O:515:ARG:HD2	1.98	0.46
1:T:309:TRP:HA	1:T:312:TYR:HB3	1.98	0.46
1:W:351:LYS:NZ	1:W:394:SER:O	2.49	0.46
1:k:145:HIS:HB3	1:k:148:TYR:HB2	1.96	0.46
1:k:494:SER:C	1:k:496:ILE:H	2.24	0.46
1:q:109:PHE:HE1	1:q:306:VAL:HG11	1.81	0.46
1:r:388:SER:HB3	1:r:401:ALA:HB2	1.98	0.46
1:s:145:HIS:CG	1:s:146:PRO:HD2	2.51	0.46
1:u:237:GLU:H	1:u:245:ASN:CG	2.24	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:z:172:THR:H	1:z:197:THR:HB	1.80	0.46
1:z:297:GLU:O	1:z:301:GLU:N	2.48	0.46
1:0:481:ILE:N	1:0:499:GLY:O	2.38	0.45
1:1:79:ILE:HD12	1:4:260:GLU:HB2	1.97	0.45
1:1:156:GLY:HA3	1:1:227:GLY:HA2	1.98	0.45
1:1:277:ASP:OD1	1:1:278:LEU:N	2.49	0.45
1:6:91:ILE:HG12	1:o:125:PHE:HZ	1.80	0.45
1:7:380:ARG:NH1	1:x:366:ARG:HD2	2.31	0.45
2:A:322:TYR:HD2	2:A:324:ILE:HG13	1.80	0.45
1:AA:184:GLU:HB3	1:AA:366:ARG:HH22	1.81	0.45
1:AD:173:THR:OG1	1:AD:176:ASP:OD2	2.34	0.45
1:AE:400:LEU:HD21	1:AN:354:LEU:HD22	1.97	0.45
1:AG:407:ASP:OD1	1:AG:409:THR:N	2.49	0.45
1:AI:379:SER:OG	1:AI:380:ARG:N	2.49	0.45
1:AK:131:TYR:HE1	1:AK:141:LYS:HB2	1.80	0.45
1:AS:95:VAL:HG21	1:V:91:ILE:HD13	1.98	0.45
1:AS:237:GLU:HG2	1:AS:246:PRO:HA	1.98	0.45
1:AU:453:TYR:HB3	1:AU:476:ARG:O	2.16	0.45
1:AW:318:LYS:NZ	1:AW:327:SER:OG	2.49	0.45
1:AX:71:ASP:OD1	1:AX:71:ASP:N	2.46	0.45
1:AZ:297:GLU:HG2	1:Aa:250:MET:SD	2.57	0.45
1:Ab:387:ALA:HB2	1:Ab:404:PHE:HB2	1.99	0.45
1:Ac:107:ILE:H	1:Ac:303:ASN:HD21	1.62	0.45
1:Af:244:ASP:N	1:Af:244:ASP:OD1	2.48	0.45
1:Ah:272:ILE:N	1:Ah:468:GLN:OE1	2.46	0.45
1:Am:245:ASN:OD1	1:Am:245:ASN:N	2.48	0.45
1:K:407:ASP:HB2	1:L:372:GLU:HG3	1.98	0.45
1:M:153:MET:HG3	1:M:225:ALA:HA	1.99	0.45
1:O:510:ASN:OD1	1:O:511:ALA:N	2.49	0.45
1:Q:247:TRP:HE3	1:T:267:LYS:HB2	1.79	0.45
1:R:201(E):ASP:OD1	1:R:201(E):ASP:N	2.49	0.45
1:U:503:ILE:HB	1:V:191:GLN:HE22	1.81	0.45
1:V:109:PHE:HE1	1:V:306:VAL:HG21	1.81	0.45
1:Y:125:PHE:HE1	1:Y:256:LYS:HE2	1.81	0.45
1:c:240:ASN:HD22	1:e:66:ALA:N	2.14	0.45
1:d:345:TRP:CD1	1:d:346:ALA:N	2.84	0.45
1:f:201(H):GLU:CB	1:f:207:LYS:HG2	2.46	0.45
1:h:160:ALA:HB2	1:h:232:ILE:HG21	1.98	0.45
1:h:404:PHE:HD2	1:h:414:ALA:HB1	1.80	0.45
1:k:178:TYR:O	1:k:190:LEU:N	2.44	0.45
1:k:345:TRP:CZ2	1:n:348:GLU:HG2	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:l:447:GLY:HA2	1:l:482:ASN:HB3	1.97	0.45
1:p:351:LYS:NZ	1:p:390:ASP:O	2.49	0.45
1:p:379:SER:HB3	1:p:432:ASP:HA	1.98	0.45
1:t:264:ARG:NH1	1:t:477:TYR:HH	2.14	0.45
1:u:201(I):ASP:N	1:u:201(I):ASP:OD1	2.47	0.45
1:v:345:TRP:CD1	1:v:346:ALA:N	2.84	0.45
1:y:121:THR:HA	1:y:259:ILE:O	2.17	0.45
1:y:129:ALA:HA	1:y:252:PHE:HA	1.98	0.45
1:y:485:ALA:O	1:y:511:ALA:N	2.50	0.45
1:z:271:SER:O	1:z:272:ILE:HB	2.15	0.45
1:z:327:SER:OG	1:z:328:LYS:N	2.50	0.45
1:0:131:TYR:HB3	1:0:250:MET:HG3	1.97	0.45
1:5:236:GLN:HG3	1:5:247:TRP:CD1	2.51	0.45
1:5:404:PHE:HD2	1:5:414:ALA:HB1	1.81	0.45
1:6:372:GLU:OE2	1:w:406:THR:OG1	2.32	0.45
2:A:201:LEU:HD11	2:a:161:PHE:HB3	1.97	0.45
1:AB:109:PHE:HZ	1:AB:303:ASN:HA	1.81	0.45
1:AE:181:PHE:HA	1:AE:187:THR:HA	1.98	0.45
1:AH:453:TYR:HE2	1:AH:476:ARG:HH21	1.63	0.45
1:AI:94:ALA:O	1:AL:123:GLN:HG2	2.17	0.45
1:AM:132:GLY:O	1:AM:133:LYS:HG3	2.17	0.45
1:AO:449:TYR:N	1:AO:480:GLY:O	2.47	0.45
1:AQ:123:GLN:HG3	1:AQ:258:VAL:HG23	1.98	0.45
1:AU:182:PHE:N	1:AU:186:GLY:O	2.47	0.45
1:AZ:238:GLY:HA2	1:AZ:242:SER:O	2.16	0.45
1:Ab:301:GLU:O	1:Ab:305:GLU:N	2.43	0.45
1:Ag:264:ARG:NH2	1:Ag:305:GLU:OE1	2.42	0.45
1:Ag:267:LYS:O	1:Aj:249:GLU:HA	2.16	0.45
1:Ak:237:GLU:H	1:Ak:245:ASN:ND2	2.13	0.45
1:Al:91:ILE:HG12	1:e:125:PHE:CZ	2.51	0.45
1:Al:378:ALA:HA	1:Al:434:PHE:HA	1.97	0.45
2:D:368:SER:OG	2:D:369:LEU:N	2.49	0.45
1:K:279:ARG:O	1:K:283:GLY:HA2	2.16	0.45
1:L:178:TYR:N	1:L:190:LEU:O	2.39	0.45
1:O:75:ASN:O	1:O:79:ILE:HG12	2.16	0.45
1:Q:109:PHE:HE1	1:Q:306:VAL:HG11	1.81	0.45
1:Q:451:ALA:O	1:Q:478:GLY:N	2.44	0.45
1:S:147:MET:HE2	1:S:367:GLN:HA	1.99	0.45
1:S:267:LYS:HE3	1:T:247:TRP:HB2	1.98	0.45
1:U:279:ARG:O	1:U:283:GLY:HA2	2.15	0.45
2:a:174:LYS:HG3	2:a:376:LEU:HD13	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:c:112:CYS:HB2	1:c:448:ILE:O	2.16	0.45
1:c:181:PHE:HE1	1:c:186:GLY:HA2	1.81	0.45
1:k:190:LEU:HB3	1:k:221:LEU:HB3	1.97	0.45
1:p:120:PRO:O	1:p:121:THR:OG1	2.28	0.45
1:q:315:GLN:N	1:q:513:PHE:O	2.42	0.45
1:s:129:ALA:O	1:s:143:ALA:HB2	2.16	0.45
1:u:379:SER:OG	1:u:380:ARG:N	2.49	0.45
1:z:171:GLN:HA	1:z:197:THR:OG1	2.16	0.45
1:3:105:ASN:ND2	1:3:409:THR:O	2.46	0.45
1:5:239:PHE:HE2	1:k:271:SER:HB2	1.81	0.45
1:AB:451:ALA:N	1:AB:478:GLY:O	2.43	0.45
1:AD:331:VAL:HG12	1:AD:517:TYR:HB2	1.98	0.45
1:AG:313:SER:HB2	1:AG:510:ASN:HB2	1.97	0.45
1:AH:260:GLU:HB2	1:AH:500:MET:SD	2.56	0.45
1:AI:277:ASP:O	1:AI:281:VAL:HG12	2.15	0.45
1:AK:153:MET:HE1	1:AK:224:ILE:HG23	1.98	0.45
1:AK:460:ARG:NH2	1:AK:471:MET:SD	2.90	0.45
1:AN:383:VAL:HG12	1:AN:406:THR:HG22	1.98	0.45
1:AP:282:HIS:HE1	1:AQ:254:ILE:HG21	1.81	0.45
1:AQ:120:PRO:HD3	1:AQ:453:TYR:CZ	2.50	0.45
1:AR:145:HIS:HB3	1:AR:148:TYR:HB2	1.97	0.45
1:AW:201(E):ASP:N	1:AW:201(E):ASP:OD1	2.50	0.45
1:AX:434:PHE:CE1	1:AX:516:VAL:HB	2.52	0.45
1:AY:153:MET:HE1	1:AY:226:GLU:HB2	1.99	0.45
1:Aa:345:TRP:CD1	1:Aa:346:ALA:N	2.85	0.45
1:Ab:430:LYS:HD2	1:Ab:430:LYS:N	2.32	0.45
1:Ac:101:ARG:HD3	1:Al:484:PHE:CE2	2.51	0.45
1:Ad:286:ALA:C	1:Ad:288:ALA:H	2.23	0.45
1:Ak:442:ASN:OD1	1:Ak:443:GLU:N	2.50	0.45
1:Al:414:ALA:HB3	1:Al:423:VAL:HB	1.98	0.45
1:Am:239:PHE:N	1:Am:242:SER:OG	2.47	0.45
1:Am:450:TYR:CE2	1:Am:452:PRO:HG3	2.51	0.45
2:B:338:GLY:H	2:B:384:ASN:HD21	1.63	0.45
2:C:111:LEU:HD11	2:C:138:ARG:HB2	1.99	0.45
1:G:247:TRP:HB2	1:J:267:LYS:HE3	1.99	0.45
1:G:341:ARG:HB2	1:J:346:ALA:HB2	1.97	0.45
1:H:131:TYR:HB3	1:H:250:MET:HE3	1.98	0.45
1:P:114:VAL:HG23	1:P:115:GLN:H	1.81	0.45
1:P:390:ASP:H	1:P:397:ALA:HB3	1.81	0.45
1:X:95:VAL:HG12	1:X:97:GLY:H	1.80	0.45
1:X:296:THR:O	1:X:300:LEU:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:375:PHE:HZ	1:Z:513:PHE:HE1	1.65	0.45
1:b:93:PRO:HB2	1:c:123:GLN:HG3	1.99	0.45
1:b:380:ARG:HH11	1:b:408:THR:HG21	1.81	0.45
1:c:129:ALA:O	1:c:143:ALA:HB2	2.16	0.45
1:f:345:TRP:CZ2	1:k:348:GLU:HG2	2.51	0.45
1:g:333:ASP:N	1:g:339:ASP:OD2	2.41	0.45
1:i:414:ALA:HB2	1:i:425:ILE:HG13	1.99	0.45
1:n:239:PHE:CE2	1:u:271:SER:HB3	2.52	0.45
1:o:131:TYR:O	1:o:250:MET:HA	2.16	0.45
1:p:135:PRO:O	1:p:253:ARG:NH1	2.46	0.45
1:q:128:ARG:NH1	1:q:490:GLN:O	2.49	0.45
1:q:166:LEU:HD22	1:q:198:ILE:HG13	1.97	0.45
1:q:395:TYR:HD1	1:q:396:ALA:H	1.62	0.45
1:t:100:ARG:NH2	1:t:289:GLU:OE2	2.44	0.45
1:t:262:LYS:NZ	1:u:226:GLU:OE2	2.48	0.45
1:x:447:GLY:O	1:x:448:ILE:HG13	2.17	0.45
1:0:447:GLY:HA2	1:0:482:ASN:HB3	1.97	0.45
1:8:157:GLN:HG3	1:8:161:LYS:HD3	1.98	0.45
1:8:260:GLU:HB2	1:8:500:MET:SD	2.56	0.45
1:8:319:SER:HA	1:8:323:LEU:HB2	1.97	0.45
1:8:510:ASN:OD1	1:8:511:ALA:N	2.49	0.45
1:9:67:GLU:OE2	1:H:252:PHE:N	2.36	0.45
1:9:261:ALA:HA	1:9:478:GLY:HA3	1.99	0.45
1:AE:131:TYR:HE1	1:AE:141:LYS:HB2	1.82	0.45
1:AF:191:GLN:HB2	1:AF:224:ILE:HG21	1.99	0.45
1:AH:148:TYR:HD1	1:AH:186:GLY:HA2	1.81	0.45
1:AT:96:MET:HE3	1:AU:115:GLN:HG2	1.99	0.45
1:AU:265:GLN:NE2	1:AX:236:GLN:HE21	2.13	0.45
1:AV:105:ASN:N	1:AV:105:ASN:OD1	2.49	0.45
1:AV:376:ILE:N	1:AV:422:ARG:O	2.41	0.45
1:AY:379:SER:OG	1:AY:380:ARG:N	2.50	0.45
1:Ad:247:TRP:CZ3	1:Am:265:GLN:HB3	2.51	0.45
2:B:214:ILE:HG12	2:B:381:LEU:HD11	1.98	0.45
1:G:145:HIS:HB3	1:G:148:TYR:HB2	1.98	0.45
1:K:106:LEU:HD21	1:K:299:MET:HG3	1.98	0.45
1:K:237:GLU:O	1:K:237:GLU:HG2	2.16	0.45
1:K:380:ARG:HE	1:K:380:ARG:HB2	1.61	0.45
1:O:517:TYR:CE2	1:P:217:GLU:HA	2.52	0.45
1:S:354:LEU:HD11	1:S:391:THR:HG22	1.97	0.45
1:U:117:MET:HG3	1:U:451:ALA:HB1	1.98	0.45
1:U:267:LYS:HB2	1:V:247:TRP:CE3	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:414:ALA:HB3	1:U:423:VAL:HB	1.98	0.45
1:X:125:PHE:CZ	1:o:91:ILE:HG12	2.51	0.45
1:Z:426:ASP:HB3	1:Z:429:ALA:HB2	1.99	0.45
1:Z:495:ARG:NH2	1:j:87:ALA:O	2.49	0.45
1:b:336:ASP:HB3	1:b:339:ASP:HB2	1.98	0.45
1:c:148:TYR:OH	1:c:488:ALA:O	2.29	0.45
1:f:107:ILE:HD12	1:f:307:VAL:HG21	1.98	0.45
1:k:181:PHE:HA	1:k:187:THR:HA	1.97	0.45
1:n:445:ASP:OD1	1:n:445:ASP:N	2.50	0.45
1:p:172:THR:OG1	1:p:196:VAL:O	2.27	0.45
1:p:344:ARG:O	1:p:344:ARG:HG2	2.16	0.45
1:q:242:SER:HB3	1:q:245:ASN:HD21	1.80	0.45
1:u:272:ILE:N	1:u:468:GLN:OE1	2.47	0.45
1:z:128:ARG:HH21	1:z:492:PRO:HG3	1.81	0.45
1:9:277:ASP:OD1	1:9:278:LEU:N	2.49	0.45
1:AC:72:HIS:CD2	1:AC:84:THR:HG22	2.51	0.45
1:AE:117:MET:HG3	1:AE:451:ALA:HB1	1.99	0.45
1:AF:249:GLU:OE1	1:AO:267:LYS:HB3	2.17	0.45
1:AF:256:LYS:HD3	1:AF:496:ILE:HG12	1.98	0.45
1:AF:340:ILE:HD12	1:AF:343:ALA:HB3	1.97	0.45
1:AH:270:TYR:HA	1:AO:67:GLU:HB3	1.99	0.45
1:AI:484:PHE:O	1:AI:487:SER:OG	2.24	0.45
1:AM:351:LYS:NZ	1:AM:390:ASP:O	2.46	0.45
1:AN:345:TRP:CZ2	1:AO:396:ALA:HB2	2.52	0.45
1:AN:357:ILE:HD13	1:AN:376:ILE:HD11	1.98	0.45
1:AP:201(D):GLU:OE1	1:AP:201(D):GLU:N	2.48	0.45
1:AP:344:ARG:NH1	1:AS:345:TRP:HB3	2.31	0.45
1:AT:249:GLU:OE2	1:Ah:66:ALA:N	2.50	0.45
1:AY:181:PHE:HD1	1:AY:187:THR:HG23	1.81	0.45
1:Aa:110:ASP:OD1	1:Aa:110:ASP:N	2.41	0.45
1:Ab:69:GLY:H	1:Al:234:GLU:CD	2.25	0.45
1:Af:117:MET:HG3	1:Af:451:ALA:HB1	1.98	0.45
1:Ak:145:HIS:CE1	1:Ak:147:MET:HB3	2.52	0.45
1:Ak:245:ASN:N	1:Ak:245:ASN:OD1	2.49	0.45
2:B:213:ASP:OD2	2:B:379:TYR:OH	2.26	0.45
2:C:53:TYR:O	2:a:28:THR:OG1	2.33	0.45
1:G:344:ARG:HH21	1:H:344:ARG:HH12	1.63	0.45
1:G:360:GLU:OE1	1:G:514:ARG:NH2	2.37	0.45
1:G:449:TYR:O	1:G:479:ILE:HA	2.17	0.45
1:H:166:LEU:HG	1:H:178:TYR:HB3	1.99	0.45
1:N:387:ALA:HB2	1:N:404:PHE:HB2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:398:GLN:HB3	1:P:351:LYS:HD3	1.99	0.45
1:P:245:ASN:OD1	1:P:245:ASN:N	2.49	0.45
1:Q:203:THR:CG2	1:Q:204:ASP:N	2.79	0.45
1:S:145:HIS:CE1	1:S:147:MET:HG2	2.51	0.45
1:U:444:MET:O	1:U:449:TYR:OH	2.34	0.45
1:V:183:GLN:N	1:V:209:ASP:OD2	2.50	0.45
1:W:287:ASP:HA	1:W:471:MET:HE1	1.97	0.45
2:a:180:THR:HG23	2:a:183:LEU:H	1.82	0.45
1:b:243:THR:O	1:b:244:ASP:HB2	2.16	0.45
1:f:263:SER:HA	1:f:476:ARG:HA	1.99	0.45
1:h:233:ALA:C	1:h:235:LEU:H	2.23	0.45
1:l:264:ARG:NH2	1:m:226:GLU:O	2.49	0.45
1:m:201(F):GLU:H	1:m:201(F):GLU:HG3	1.54	0.45
1:r:260:GLU:HG2	1:r:261:ALA:H	1.81	0.45
1:u:323:LEU:HD11	1:u:327:SER:HB2	1.98	0.45
1:u:454:VAL:HG23	1:u:476:ARG:H	1.82	0.45
1:x:287:ASP:HA	1:x:471:MET:HE1	1.98	0.45
1:1:380:ARG:HG2	1:1:425:ILE:HD11	1.99	0.45
1:2:333:ASP:OD1	1:2:334:PHE:N	2.49	0.45
1:5:261:ALA:HA	1:5:478:GLY:HA3	1.97	0.45
2:A:46:ASN:HA	2:A:347:GLU:HB2	1.97	0.45
2:A:81:ARG:NH1	2:A:105:ASN:O	2.50	0.45
1:AB:264:ARG:HE	1:AC:155:SER:HB2	1.81	0.45
1:AF:447:GLY:O	1:AF:448:ILE:HG13	2.17	0.45
1:AH:231:SER:HB3	1:AJ:71:ASP:CG	2.42	0.45
1:AH:260:GLU:HG3	1:AK:74:TYR:CG	2.52	0.45
1:AJ:145:HIS:CD2	1:AJ:146:PRO:HD2	2.52	0.45
1:AK:129:ALA:O	1:AK:143:ALA:HB2	2.17	0.45
1:AK:331:VAL:HG12	1:AK:517:TYR:HB2	1.98	0.45
1:AN:101:ARG:HD3	1:AO:146:PRO:HD3	1.97	0.45
1:AO:453:TYR:HB3	1:AO:476:ARG:O	2.17	0.45
1:AP:129:ALA:O	1:AP:143:ALA:N	2.48	0.45
1:AP:397:ALA:HB1	1:AQ:393:ILE:HG22	1.99	0.45
1:AQ:101:ARG:HE	1:AZ:146:PRO:HD3	1.82	0.45
1:AS:120:PRO:HD3	1:AS:453:TYR:OH	2.17	0.45
1:AT:398:GLN:HG3	1:AU:351:LYS:HE3	1.98	0.45
1:AU:75:ASN:OD1	1:AU:76:ALA:N	2.50	0.45
1:AV:238:GLY:HA2	1:AV:242:SER:HB2	1.99	0.45
1:AV:245:ASN:OD1	1:AV:245:ASN:N	2.50	0.45
1:AW:267:LYS:HE2	1:AW:470:VAL:HG11	1.98	0.45
1:AX:160:ALA:HB2	1:AX:228:MET:HE2	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ab:153:MET:HE3	1:Ab:226:GLU:HG2	1.99	0.45
1:Ac:417:LEU:HB3	1:Ac:421:TYR:HB2	1.99	0.45
2:C:35:ILE:HD12	2:C:39:ILE:HD11	1.99	0.45
1:G:217:GLU:HA	1:J:517:TYR:CZ	2.52	0.45
1:J:426:ASP:OD2	1:J:433:TYR:OH	2.23	0.45
1:N:231:SER:HB2	1:h:71:ASP:OD1	2.16	0.45
1:Q:267:LYS:HE3	1:R:247:TRP:CD2	2.51	0.45
1:W:88:VAL:HG21	1:o:278:LEU:HD13	1.99	0.45
1:W:236:GLN:HB3	1:W:247:TRP:NE1	2.32	0.45
1:Y:240:ASN:OD1	1:Y:240:ASN:N	2.48	0.45
1:Z:420:LYS:HE3	1:Z:421:TYR:CE1	2.52	0.45
1:d:376:ILE:HG23	1:d:423:VAL:HG13	1.99	0.45
1:f:171:GLN:HA	1:f:197:THR:HB	1.98	0.45
1:f:294:LEU:HD23	1:k:250:MET:HE2	1.97	0.45
1:h:430:LYS:HD2	1:h:430:LYS:N	2.32	0.45
1:i:201(B):GLU:O	1:i:201(D):GLU:N	2.50	0.45
1:j:238:GLY:HA2	1:j:242:SER:O	2.16	0.45
1:k:200:ALA:HB3	1:k:201(B):GLU:HB2	1.98	0.45
1:m:198:ILE:HD12	1:m:215:GLN:HG3	1.98	0.45
1:m:317:GLY:HA2	1:m:514:ARG:HH11	1.82	0.45
1:p:171:GLN:HA	1:p:197:THR:OG1	2.16	0.45
1:p:393:ILE:HA	1:s:398:GLN:O	2.17	0.45
1:s:75:ASN:OD1	1:s:78:ASN:ND2	2.46	0.45
1:v:198:ILE:HD11	1:v:221:LEU:HD21	1.97	0.45
1:0:277:ASP:O	1:0:281:VAL:HG22	2.16	0.45
1:AA:363:GLU:O	1:AA:367:GLN:N	2.41	0.45
1:AB:364:ILE:HG13	1:AB:514:ARG:HD2	1.97	0.45
1:AE:430:LYS:HA	1:AE:430:LYS:HD3	1.78	0.45
1:AH:434:PHE:CE1	1:AH:516:VAL:HB	2.51	0.45
1:AM:236:GLN:HG3	1:AM:247:TRP:CD1	2.52	0.45
1:AP:345:TRP:CD1	1:AP:346:ALA:N	2.85	0.45
1:AP:463:ASP:HA	1:V:464:PRO:HG3	1.98	0.45
1:AT:201(E):ASP:HB3	1:AT:201(F):GLU:H	1.44	0.45
1:AU:131:TYR:HE1	1:AU:141:LYS:HB2	1.81	0.45
1:AX:166:LEU:HD23	1:AX:166:LEU:HA	1.85	0.45
1:AX:201(B):GLU:CD	1:AX:201(B):GLU:H	2.25	0.45
1:Aa:430:LYS:N	1:Aa:430:LYS:HD2	2.32	0.45
1:Ac:106:LEU:HB3	1:Ac:303:ASN:ND2	2.31	0.45
1:Aj:79:ILE:HB	1:Ak:258:VAL:HG21	1.98	0.45
1:Al:450:TYR:HA	1:Al:479:ILE:HD13	1.98	0.45
1:Am:178:TYR:N	1:Am:190:LEU:O	2.37	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Am:314:ALA:HA	1:Am:513:PHE:HB2	1.97	0.45
2:B:352:ASP:O	2:B:356:HIS:ND1	2.49	0.45
1:L:101:ARG:NH1	1:g:142:GLU:OE2	2.50	0.45
1:L:345:TRP:CB	1:L:348:GLU:HB3	2.47	0.45
1:P:120:PRO:O	1:P:121:THR:OG1	2.29	0.45
1:Q:305:GLU:HA	1:R:225:ALA:HB3	1.99	0.45
1:Y:107:ILE:HD12	1:Y:307:VAL:HG21	1.99	0.45
1:Z:494:SER:C	1:Z:496:ILE:H	2.24	0.45
1:f:171:GLN:CD	1:f:197:THR:HG21	2.41	0.45
1:g:484:PHE:O	1:g:487:SER:OG	2.30	0.45
1:i:268:ALA:HB2	1:i:294:LEU:HD11	1.98	0.45
1:i:304:ARG:NH2	1:i:308:ASP:OD1	2.50	0.45
1:j:266:LEU:HD23	1:j:266:LEU:HA	1.82	0.45
1:k:153:MET:SD	1:k:225:ALA:HA	2.57	0.45
1:n:116:PRO:HA	1:n:452:PRO:HD2	1.97	0.45
1:q:431:GLN:HB2	1:t:213:LYS:HD3	1.99	0.45
1:v:437:GLY:HA2	1:v:512:TYR:O	2.17	0.45
1:w:498:SER:O	1:w:505:ASN:ND2	2.49	0.45
1:z:260:GLU:HB2	1:z:500:MET:SD	2.56	0.45
1:1:384:ASN:O	1:1:388:SER:OG	2.26	0.45
1:4:263:SER:O	1:5:228:MET:HG2	2.17	0.45
1:5:245:ASN:OD1	1:5:245:ASN:N	2.49	0.45
1:AA:153:MET:HE2	1:AA:226:GLU:N	2.29	0.45
1:AC:153:MET:HB2	1:AC:189:TYR:CZ	2.52	0.45
1:AL:238:GLY:C	1:AL:240:ASN:N	2.74	0.45
1:AN:120:PRO:HB3	1:AN:453:TYR:CE2	2.52	0.45
1:AO:345:TRP:CD1	1:AO:346:ALA:N	2.85	0.45
1:AO:486:GLU:O	1:AO:488:ALA:N	2.50	0.45
1:AO:502:SER:N	1:AO:505:ASN:OD1	2.50	0.45
1:AP:190:LEU:HD23	1:AP:221:LEU:HD13	1.98	0.45
1:AQ:267:LYS:HZ2	1:AZ:247:TRP:CG	2.35	0.45
1:AQ:287:ASP:OD1	1:AQ:460:ARG:NH2	2.50	0.45
1:AQ:408:THR:HG21	1:AQ:427:GLN:HB3	1.98	0.45
1:AZ:236:GLN:HB3	1:AZ:247:TRP:NE1	2.31	0.45
1:Ab:110:ASP:OD2	1:Ab:422:ARG:NH1	2.49	0.45
1:Ae:182:PHE:N	1:Ae:186:GLY:O	2.47	0.45
1:Ae:521:ILE:HD12	1:Ae:521:ILE:HA	1.80	0.45
1:Af:247:TRP:HD1	1:Af:248:ASN:H	1.64	0.45
1:Al:201(G):ASP:OD1	1:Al:201(H):GLU:N	2.50	0.45
1:Am:109:PHE:HD1	1:Am:109:PHE:HA	1.69	0.45
1:Am:129:ALA:O	1:Am:143:ALA:N	2.37	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:232:ASP:OD1	2:C:233:SER:N	2.49	0.45
1:K:74:TYR:HB3	1:L:500:MET:HE1	1.98	0.45
1:K:199:ASP:O	1:K:201(B):GLU:N	2.49	0.45
1:O:470:VAL:HG21	1:b:464:PRO:HB2	1.98	0.45
1:P:380:ARG:HG2	1:P:425:ILE:HD11	1.99	0.45
1:Q:436:VAL:N	1:Q:514:ARG:O	2.42	0.45
1:R:313:SER:HA	1:R:506:SER:O	2.16	0.45
1:Y:237:GLU:HG2	1:Y:246:PRO:HA	1.98	0.45
1:b:234:GLU:HG3	1:b:235:LEU:HD13	1.99	0.45
1:i:345:TRP:CD1	1:i:347:GLY:H	2.34	0.45
1:m:72:HIS:C	1:m:74:TYR:H	2.25	0.45
1:m:146:PRO:HB3	1:m:369:GLY:HA3	1.98	0.45
1:o:331:VAL:HG11	1:o:519:LYS:HZ2	1.82	0.45
1:o:344:ARG:HE	1:o:344:ARG:H	1.65	0.45
1:p:376:ILE:N	1:p:422:ARG:O	2.35	0.45
1:q:128:ARG:HE	1:q:492:PRO:HD3	1.82	0.45
1:s:263:SER:HA	1:s:476:ARG:HA	1.97	0.45
1:v:267:LYS:HB2	1:w:247:TRP:CE3	2.52	0.45
1:w:345:TRP:CB	1:w:348:GLU:HB3	2.47	0.45
1:w:448:ILE:HD13	1:w:448:ILE:HA	1.87	0.45
1:x:363:GLU:OE2	1:x:367:GLN:NE2	2.31	0.45
1:y:376:ILE:N	1:y:422:ARG:O	2.43	0.45
1:2:204:ASP:O	1:2:207:LYS:N	2.50	0.45
1:6:344:ARG:O	1:7:342:GLY:HA3	2.17	0.45
1:6:387:ALA:HB2	1:6:404:PHE:CD2	2.52	0.45
1:7:345:TRP:CD1	1:x:348:GLU:HG2	2.52	0.45
1:7:502:SER:OG	1:7:505:ASN:ND2	2.49	0.45
1:AB:450:TYR:HA	1:AB:479:ILE:HD13	1.99	0.45
1:AC:75:ASN:O	1:AC:77:THR:N	2.49	0.45
1:AC:235:LEU:O	1:AC:245:ASN:ND2	2.47	0.45
1:AH:234:GLU:CD	1:Ai:273:GLU:HB3	2.42	0.45
1:AI:120:PRO:HD3	1:AI:453:TYR:OH	2.17	0.45
1:AJ:398:GLN:NE2	1:AK:351:LYS:HB3	2.32	0.45
1:AK:317:GLY:HA2	1:AK:514:ARG:NH1	2.31	0.45
1:AL:358:ASP:OD1	1:AL:421:TYR:OH	2.34	0.45
1:AM:128:ARG:CZ	1:AM:492:PRO:HD3	2.47	0.45
1:AN:502:SER:OG	1:AN:503:ILE:N	2.50	0.45
1:AO:314:ALA:HA	1:AO:513:PHE:HB2	1.99	0.45
1:AP:463:ASP:OD1	1:AP:464:PRO:HD2	2.16	0.45
1:AR:305:GLU:OE1	1:AR:477:TYR:OH	2.29	0.45
1:AT:79:ILE:HD12	1:AU:260:GLU:HG3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ac:376:ILE:HG12	1:Ac:436:VAL:HG22	1.99	0.45
1:Ag:145:HIS:HB3	1:Ag:148:TYR:HB2	1.98	0.45
1:Ak:449:TYR:N	1:Ak:480:GLY:O	2.44	0.45
2:C:368:SER:OG	2:C:369:LEU:N	2.50	0.45
1:K:301:GLU:O	1:K:305:GLU:N	2.43	0.45
1:K:328:LYS:HB3	1:K:331:VAL:HG22	1.98	0.45
1:Q:437:GLY:HA3	1:Q:513:PHE:HD1	1.82	0.45
1:T:235:LEU:HB3	1:T:242:SER:HB2	1.97	0.45
1:T:471:MET:N	1:T:471:MET:SD	2.90	0.45
1:Y:344:ARG:HG2	1:Y:344:ARG:O	2.17	0.45
1:d:323:LEU:HD22	1:d:329:ALA:HB2	1.99	0.45
1:g:331:VAL:HG12	1:g:517:TYR:HB2	1.99	0.45
1:i:269:ALA:HB2	1:i:470:VAL:HG13	1.99	0.45
1:i:351:LYS:NZ	1:i:396:ALA:H	2.13	0.45
1:k:430:LYS:HD3	1:k:430:LYS:HA	1.76	0.45
1:l:247:TRP:CE3	1:o:267:LYS:HB2	2.52	0.45
1:r:242:SER:CB	1:r:245:ASN:ND2	2.79	0.45
1:r:249:GLU:OE1	1:u:267:LYS:HB3	2.16	0.45
1:y:278:LEU:HD23	1:y:286:ALA:HB2	1.98	0.45
1:z:363:GLU:OE2	1:z:366:ARG:NH2	2.42	0.45
1:z:377:ILE:O	1:z:435:THR:N	2.45	0.45
1:0:172:THR:OG1	1:0:196:VAL:N	2.41	0.45
1:1:333:ASP:OD1	1:1:335:GLN:N	2.36	0.45
1:3:153:MET:HE1	1:3:224:ILE:HG23	1.99	0.45
1:3:317:GLY:HA2	1:3:514:ARG:NH1	2.32	0.45
1:4:265:GLN:HB3	1:4:474:LYS:HG2	1.99	0.45
1:6:146:PRO:HD3	1:w:101:ARG:HE	1.82	0.45
1:AB:91:ILE:HG23	1:S:123:GLN:HE22	1.81	0.45
1:AE:343:ALA:HB1	1:AE:348:GLU:HG2	1.98	0.45
1:AI:120:PRO:O	1:AI:121:THR:OG1	2.31	0.45
1:AI:363:GLU:OE2	1:AI:366:ARG:NH2	2.50	0.45
1:AN:231:SER:OG	1:AN:232:ILE:N	2.48	0.45
1:AN:357:ILE:HG12	1:AN:434:PHE:CE2	2.52	0.45
1:AO:380:ARG:NH1	1:AO:427:GLN:O	2.48	0.45
1:AP:234:GLU:CD	1:AR:69:GLY:H	2.23	0.45
1:AR:515:ARG:NH2	1:AR:517:TYR:OH	2.50	0.45
1:AU:498:SER:HB2	1:AU:500:MET:HE3	1.98	0.45
1:AW:503:ILE:HD12	1:AW:507:LEU:HD22	1.99	0.45
1:Ab:496:ILE:HG22	1:Ae:76:ALA:HB1	1.99	0.45
1:Ac:131:TYR:HA	1:Ac:250:MET:HA	1.99	0.45
1:Ac:154:PHE:CE2	1:Ac:248:ASN:HB3	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ac:269:ALA:HB1	1:L:239:PHE:HE1	1.81	0.45
1:Ad:154:PHE:O	1:Ad:248:ASN:ND2	2.49	0.45
1:Ag:153:MET:HB2	1:Ag:189:TYR:CE1	2.52	0.45
1:Ag:400:LEU:HD13	1:Aj:354:LEU:HB3	1.99	0.45
1:Aj:323:LEU:HD22	1:Aj:329:ALA:HB2	1.98	0.45
1:Ak:172:THR:HG22	1:Ak:178:TYR:HE2	1.81	0.45
1:Ak:176:ASP:N	1:Ak:176:ASP:OD1	2.50	0.45
2:C:323:VAL:N	2:C:416:LEU:O	2.48	0.45
1:H:72:HIS:HB2	1:H:79:ILE:HG12	1.99	0.45
1:H:129:ALA:O	1:H:143:ALA:HB2	2.17	0.45
1:H:272:ILE:HD13	1:H:275:ALA:HB3	1.99	0.45
1:M:230:THR:OG1	1:h:476:ARG:NH1	2.49	0.45
1:O:93:PRO:HB2	1:P:123:GLN:HG3	1.99	0.45
1:T:345:TRP:CD1	1:T:346:ALA:H	2.35	0.45
1:U:445:ASP:OD1	1:U:445:ASP:N	2.50	0.45
1:X:351:LYS:NZ	1:X:390:ASP:O	2.50	0.45
1:Y:287:ASP:OD1	1:Y:460:ARG:NH2	2.36	0.45
1:Y:347:GLY:HA3	1:Y:397:ALA:O	2.17	0.45
1:Z:416:VAL:HG12	1:Z:417:LEU:O	2.17	0.45
2:a:298:LEU:HD12	2:a:299:SER:H	1.82	0.45
1:d:157:GLN:N	1:d:227:GLY:O	2.49	0.45
1:e:153:MET:SD	1:e:226:GLU:N	2.77	0.45
1:f:142:GLU:OE2	1:m:101:ARG:NE	2.49	0.45
1:g:201(H):GLU:H	1:g:201(H):GLU:CD	2.26	0.45
1:h:363:GLU:HG2	1:h:514:ARG:CZ	2.47	0.45
1:j:184:GLU:O	1:j:185:THR:OG1	2.28	0.45
1:j:364:ILE:O	1:j:368:THR:HG22	2.16	0.45
1:o:344:ARG:NH2	1:o:348:GLU:OE2	2.50	0.45
1:p:130:VAL:HG21	1:p:135:PRO:HA	1.99	0.45
1:u:201(D):GLU:HB2	1:u:201(E):ASP:H	1.56	0.45
1:x:263:SER:HB3	1:x:476:ARG:HG2	1.99	0.45
1:0:247:TRP:HE3	1:AC:267:LYS:HB2	1.81	0.44
1:1:68:ILE:HG23	1:5:240:ASN:ND2	2.27	0.44
1:4:502:SER:OG	1:4:503:ILE:N	2.48	0.44
1:4:517:TYR:CE2	1:5:217:GLU:HG3	2.51	0.44
1:9:166:LEU:HD22	1:9:198:ILE:HG13	1.99	0.44
1:AB:153:MET:HE2	1:AB:225:ALA:HA	2.00	0.44
1:AB:199:ASP:OD1	1:AB:201(B):GLU:HG3	2.17	0.44
1:AF:398:GLN:HE21	1:AF:399:GLY:H	1.65	0.44
1:AK:383:VAL:HG12	1:AK:406:THR:HG22	1.99	0.44
1:AL:267:LYS:HG3	1:AL:471:MET:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AM:386:LEU:HD13	1:AM:417:LEU:HD22	1.99	0.44
1:AN:367:GLN:NE2	1:AN:514:ARG:HH21	2.16	0.44
1:AP:312:TYR:CZ	1:AP:507:LEU:HD12	2.53	0.44
1:AQ:305:GLU:HA	1:AZ:225:ALA:HB3	1.99	0.44
1:AR:454:VAL:O	1:AR:475:THR:OG1	2.32	0.44
1:Ad:245:ASN:OD1	1:Ad:245:ASN:N	2.49	0.44
1:Ag:345:TRP:CH2	1:Aj:396:ALA:HB2	2.52	0.44
1:Aj:426:ASP:OD2	1:Aj:433:TYR:OH	2.26	0.44
1:Al:270:TYR:O	1:b:239:PHE:CZ	2.70	0.44
2:D:56:LYS:HD3	2:D:64:PHE:HE1	1.81	0.44
1:G:452:PRO:HA	1:G:477:TYR:HA	1.99	0.44
1:J:221:LEU:HD23	1:J:221:LEU:H	1.82	0.44
1:P:118:ASN:OD1	1:P:118:ASN:N	2.50	0.44
1:P:252:PHE:HD1	1:P:252:PHE:H	1.63	0.44
1:Q:381:ASN:HB3	1:Q:521:ILE:HD13	1.99	0.44
1:S:170:THR:H	1:S:198:ILE:HG22	1.81	0.44
1:T:145:HIS:HB3	1:T:148:TYR:HB2	1.99	0.44
1:T:364:ILE:O	1:T:368:THR:HG22	2.18	0.44
1:Y:180:HIS:CD2	1:Y:212:ILE:HD12	2.52	0.44
1:c:191:GLN:HG2	1:c:192:ALA:H	1.82	0.44
1:d:238:GLY:C	1:d:240:ASN:N	2.75	0.44
1:f:347:GLY:HA3	1:f:397:ALA:O	2.16	0.44
1:i:105:ASN:HB2	1:i:412:VAL:HG13	2.00	0.44
1:i:503:ILE:HA	1:i:507:LEU:HD12	1.98	0.44
1:k:236:GLN:HB3	1:k:247:TRP:HE1	1.81	0.44
1:l:271:SER:OG	1:l:273:GLU:OE1	2.35	0.44
1:p:67:GLU:OE1	1:p:67:GLU:N	2.50	0.44
1:q:94:ALA:O	1:t:123:GLN:HG2	2.16	0.44
1:q:277:ASP:O	1:q:281:VAL:HG12	2.17	0.44
1:r:75:ASN:ND2	1:r:78:ASN:H	2.15	0.44
1:t:105:ASN:ND2	1:t:408:THR:O	2.48	0.44
1:t:154:PHE:HD1	1:t:154:PHE:HA	1.69	0.44
1:w:383:VAL:HG21	1:w:425:ILE:HB	1.98	0.44
1:x:430:LYS:HD2	1:y:182:PHE:CD2	2.53	0.44
1:y:420:LYS:HD2	1:y:421:TYR:CZ	2.52	0.44
1:1:79:ILE:HD11	1:4:121:THR:HG23	2.00	0.44
1:2:310:ILE:O	1:2:314:ALA:N	2.50	0.44
1:2:438:TYR:HB3	1:2:512:TYR:HD2	1.82	0.44
1:3:380:ARG:HH21	1:3:408:THR:HG21	1.82	0.44
1:5:344:ARG:HH21	1:5:348:GLU:CD	2.25	0.44
1:7:237:GLU:HB3	1:X:465:LYS:HB3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AE:390:ASP:H	1:AE:397:ALA:HB3	1.81	0.44
1:AF:230:THR:O	1:AF:230:THR:OG1	2.29	0.44
1:AF:307:VAL:O	1:AF:311:ASN:ND2	2.51	0.44
1:AG:448:ILE:HD13	1:AG:481:ILE:HG22	1.99	0.44
1:AH:106:LEU:HB3	1:AH:303:ASN:ND2	2.32	0.44
1:AJ:217:GLU:OE2	1:AM:519:LYS:NZ	2.49	0.44
1:AK:148:TYR:HD1	1:AK:186:GLY:HA2	1.83	0.44
1:AM:363:GLU:OE2	1:AM:366:ARG:NH2	2.49	0.44
1:AN:120:PRO:O	1:AN:121:THR:OG1	2.29	0.44
1:AS:184:GLU:OE1	1:AS:366:ARG:NH2	2.49	0.44
1:AT:90:GLN:HG2	1:Aa:281:VAL:HG21	1.99	0.44
1:AT:263:SER:HB2	1:AT:476:ARG:HG2	2.00	0.44
1:AU:190:LEU:HB3	1:AU:221:LEU:HB3	2.00	0.44
1:AU:267:LYS:O	1:AX:249:GLU:HA	2.18	0.44
1:AV:278:LEU:HG	1:AV:284:MET:HG3	2.00	0.44
1:AY:428:TYR:O	1:AY:430:LYS:NZ	2.39	0.44
1:AZ:345:TRP:CG	1:AZ:347:GLY:H	2.36	0.44
1:AZ:363:GLU:OE2	1:AZ:366:ARG:NH2	2.50	0.44
1:AZ:451:ALA:O	1:AZ:478:GLY:N	2.41	0.44
1:Ad:171:GLN:HG2	1:Ad:197:THR:HG22	1.99	0.44
1:Ag:381:ASN:HB3	1:Ag:521:ILE:HD13	1.99	0.44
1:Ah:515:ARG:NH1	1:Ah:517:TYR:OH	2.50	0.44
1:Aj:386:LEU:HD13	1:Aj:417:LEU:HD22	1.98	0.44
1:Am:383:VAL:HG12	1:Am:406:THR:HG22	1.98	0.44
2:D:390:LYS:N	2:D:409:ARG:HG3	2.32	0.44
1:H:68:ILE:HG13	1:H:69:GLY:H	1.83	0.44
1:K:276:GLN:HA	1:K:279:ARG:NH1	2.32	0.44
1:P:285:ASP:HB2	1:P:288:ALA:HB3	1.99	0.44
1:R:134:ASP:OD1	1:R:136:VAL:HG12	2.17	0.44
1:V:66:ALA:N	1:j:240:ASN:OD1	2.50	0.44
1:V:107:ILE:HG13	1:V:307:VAL:HG21	2.00	0.44
1:W:249:GLU:HA	1:j:267:LYS:O	2.17	0.44
1:X:239:PHE:CE1	1:Y:468:GLN:HG2	2.52	0.44
1:b:380:ARG:NH1	1:b:408:THR:HG21	2.32	0.44
1:e:263:SER:HB3	1:e:476:ARG:HG2	1.99	0.44
1:f:312:TYR:CE1	1:f:507:LEU:HD12	2.52	0.44
1:g:127:LEU:HD11	1:g:252:PHE:HB2	1.99	0.44
1:n:354:LEU:HD11	1:n:391:THR:HG22	1.99	0.44
1:u:343:ALA:HB1	1:u:349:SER:HA	1.99	0.44
1:v:134:ASP:OD1	1:v:137:ALA:N	2.50	0.44
1:v:354:LEU:HD22	1:y:400:LEU:HD21	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:v:496:ILE:HG22	1:y:76:ALA:HB1	1.99	0.44
1:x:204:ASP:HA	1:x:207:LYS:HB2	1.99	0.44
1:y:237:GLU:HB2	1:z:466:ASN:ND2	2.32	0.44
1:3:494:SER:C	1:3:496:ILE:H	2.26	0.44
1:4:268:ALA:HB1	1:4:290:LEU:HD13	1.98	0.44
1:4:454:VAL:O	1:4:475:THR:OG1	2.33	0.44
1:5:145:HIS:CG	1:5:148:TYR:HD2	2.35	0.44
1:8:72:HIS:HA	1:8:84:THR:HA	1.98	0.44
1:9:449:TYR:OH	1:9:482:ASN:OD1	2.25	0.44
1:AD:445:ASP:OD1	1:AD:445:ASP:N	2.38	0.44
1:AE:191:GLN:HB2	1:AE:224:ILE:HG21	1.99	0.44
1:AK:131:TYR:HB3	1:AK:250:MET:HE3	1.99	0.44
1:AM:191:GLN:O	1:AM:221:LEU:HA	2.18	0.44
1:AN:190:LEU:HB3	1:AN:221:LEU:HB3	1.99	0.44
1:AS:184:GLU:HB3	1:AS:366:ARG:HH22	1.83	0.44
1:AS:430:LYS:N	1:AS:430:LYS:HD2	2.33	0.44
1:AW:121:THR:HA	1:AW:259:ILE:O	2.16	0.44
1:AY:449:TYR:N	1:AY:480:GLY:O	2.41	0.44
1:AZ:103:ILE:HD12	1:AZ:296:THR:HG21	1.99	0.44
1:Aa:245:ASN:OD1	1:Aa:245:ASN:N	2.49	0.44
1:Ab:406:THR:OG1	1:Ac:372:GLU:OE2	2.31	0.44
1:Ad:74:TYR:OH	1:Ae:261:ALA:O	2.23	0.44
1:Ae:313:SER:HB2	1:Ae:510:ASN:HB2	1.99	0.44
2:B:248:ARG:HD3	2:D:244:PRO:HG3	1.99	0.44
2:C:353:ASP:HB2	2:C:356:HIS:CE1	2.53	0.44
2:D:394:GLU:CD	2:D:394:GLU:H	2.26	0.44
1:H:323:LEU:HG	1:H:324:THR:O	2.17	0.44
1:H:449:TYR:HE2	1:H:482:ASN:HA	1.82	0.44
1:K:276:GLN:HG2	1:K:279:ARG:HH12	1.82	0.44
1:N:521:ILE:HA	1:N:521:ILE:HD12	1.79	0.44
1:O:279:ARG:HA	1:O:283:GLY:HA2	1.98	0.44
1:S:263:SER:O	1:T:228:MET:HG2	2.18	0.44
1:U:356:GLN:O	1:U:356:GLN:NE2	2.49	0.44
1:W:94:ALA:O	1:X:123:GLN:N	2.48	0.44
1:W:264:ARG:NH2	1:W:305:GLU:OE1	2.46	0.44
1:j:466:ASN:HB2	1:j:468:GLN:HG2	1.99	0.44
1:l:277:ASP:O	1:l:281:VAL:HG22	2.17	0.44
1:m:129:ALA:O	1:m:143:ALA:HB2	2.18	0.44
1:m:304:ARG:NH2	1:m:308:ASP:OD1	2.50	0.44
1:m:449:TYR:HE2	1:m:482:ASN:HA	1.82	0.44
1:t:101:ARG:HH21	1:u:145:HIS:CD2	2.35	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:t:434:PHE:CE1	1:t:516:VAL:HB	2.53	0.44
1:u:242:SER:OG	1:u:245:ASN:ND2	2.41	0.44
1:x:105:ASN:N	1:x:105:ASN:OD1	2.50	0.44
1:0:274:LEU:HD23	1:0:274:LEU:HA	1.75	0.44
1:0:324:THR:HG22	1:0:325:PRO:HD2	1.99	0.44
1:1:69:GLY:N	1:k:274:LEU:HD11	2.33	0.44
1:8:153:MET:HB2	1:8:189:TYR:CZ	2.52	0.44
1:9:72:HIS:CE1	1:9:84:THR:HG22	2.52	0.44
1:AA:74:TYR:HA	1:AA:79:ILE:HD11	2.00	0.44
1:AE:131:TYR:HA	1:AE:250:MET:HA	1.99	0.44
1:AE:448:ILE:HD13	1:AE:448:ILE:HA	1.88	0.44
1:AG:245:ASN:OD1	1:AG:245:ASN:N	2.50	0.44
1:AK:323:LEU:HG	1:AK:324:THR:O	2.18	0.44
1:AQ:101:ARG:HD3	1:AZ:484:PHE:CE2	2.53	0.44
1:AQ:109:PHE:CE2	1:AQ:306:VAL:HG21	2.53	0.44
1:AQ:239:PHE:HE2	1:AS:68:ILE:HG22	1.82	0.44
1:AW:120:PRO:HD3	1:AW:453:TYR:OH	2.18	0.44
1:AX:234:GLU:HG2	1:Aa:273:GLU:OE1	2.17	0.44
1:AY:370:ARG:NH1	1:AY:445:ASP:OD1	2.50	0.44
1:Aa:160:ALA:HB2	1:Aa:232:ILE:HG21	2.00	0.44
1:Ab:493:ALA:N	1:Ab:497:GLN:OE1	2.46	0.44
1:Ac:453:TYR:HE2	1:Ac:476:ARG:HH21	1.66	0.44
1:Ag:467:PHE:CD2	1:d:459:LEU:HB3	2.53	0.44
1:Ah:217:GLU:HA	1:Ak:517:TYR:CZ	2.52	0.44
1:Ak:125:PHE:HZ	1:i:91:ILE:HG12	1.83	0.44
2:D:301:ASN:N	2:D:301:ASN:OD1	2.50	0.44
1:G:257:GLN:HG2	1:G:497:GLN:HG3	2.00	0.44
1:J:501:PRO:HA	1:J:505:ASN:ND2	2.28	0.44
1:K:357:ILE:HG12	1:K:434:PHE:CE2	2.53	0.44
1:M:123:GLN:OE1	1:M:256:LYS:NZ	2.31	0.44
1:N:254:ILE:HG23	1:e:88:VAL:HA	2.00	0.44
1:N:263:SER:HB3	1:N:476:ARG:HG2	2.00	0.44
1:O:74:TYR:HA	1:O:79:ILE:HD11	1.99	0.44
1:O:344:ARG:HG2	1:O:344:ARG:O	2.18	0.44
1:Q:344:ARG:HH21	1:R:344:ARG:HH12	1.64	0.44
1:Q:500:MET:HE1	1:T:74:TYR:HB3	1.99	0.44
1:S:434:PHE:CE1	1:S:516:VAL:HB	2.53	0.44
1:W:250:MET:HE3	1:W:250:MET:HB2	1.73	0.44
1:X:147:MET:HE2	1:X:488:ALA:HA	1.99	0.44
1:Y:245:ASN:N	1:Y:245:ASN:OD1	2.49	0.44
1:Y:390:ASP:H	1:Y:397:ALA:HB3	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:a:390:LYS:HB3	2:a:409:ARG:NE	2.33	0.44
1:d:456:LEU:HD12	1:d:475:THR:HB	1.99	0.44
1:e:172:THR:HG1	1:e:196:VAL:H	1.60	0.44
1:g:434:PHE:CE1	1:g:516:VAL:HB	2.53	0.44
1:i:120:PRO:O	1:i:121:THR:OG1	2.31	0.44
1:k:245:ASN:OD1	1:k:245:ASN:N	2.50	0.44
1:k:381:ASN:HB3	1:k:521:ILE:HD13	1.98	0.44
1:m:417:LEU:HB3	1:m:421:TYR:HB2	1.98	0.44
1:o:167:ALA:O	1:o:170:THR:OG1	2.24	0.44
1:p:71:ASP:OD2	1:t:231:SER:N	2.50	0.44
1:p:82:GLY:HA2	1:p:90:GLN:HB2	1.99	0.44
1:p:147:MET:SD	1:p:367:GLN:HG3	2.57	0.44
1:p:267:LYS:HE3	1:q:247:TRP:CD2	2.52	0.44
1:p:449:TYR:OH	1:p:482:ASN:OD1	2.27	0.44
1:s:131:TYR:HB3	1:s:250:MET:HE3	1.99	0.44
1:t:191:GLN:HB2	1:t:224:ILE:HG21	1.99	0.44
1:t:344:ARG:O	1:u:342:GLY:HA3	2.18	0.44
1:x:245:ASN:OD1	1:x:245:ASN:N	2.50	0.44
1:y:269:ALA:HA	1:y:470:VAL:HG22	1.98	0.44
1:z:234:GLU:HG3	1:z:235:LEU:HD23	1.99	0.44
1:0:167:ALA:H	1:0:170:THR:HG21	1.83	0.44
1:1:420:LYS:HE3	1:1:421:TYR:CE1	2.53	0.44
1:2:387:ALA:HB1	1:2:403:GLY:HA3	1.99	0.44
1:5:153:MET:HB2	1:5:189:TYR:CE1	2.53	0.44
1:7:234:GLU:OE2	1:w:69:GLY:N	2.48	0.44
1:9:142:GLU:HB2	1:9:490:GLN:HB3	1.99	0.44
1:9:259:ILE:HG12	1:9:499:GLY:HA3	1.99	0.44
2:A:262:GLN:HG2	2:B:316:THR:HG21	1.98	0.44
1:AD:166:LEU:HB2	1:AD:178:TYR:HB3	1.99	0.44
1:AD:301:GLU:O	1:AD:305:GLU:N	2.46	0.44
1:AE:384:ASN:O	1:AE:388:SER:OG	2.31	0.44
1:AH:199:ASP:C	1:AH:211:GLU:HG2	2.42	0.44
1:AI:510:ASN:OD1	1:AI:511:ALA:N	2.49	0.44
1:AK:268:ALA:HB3	1:AK:471:MET:HB3	1.99	0.44
1:AK:357:ILE:HG12	1:AK:434:PHE:CE2	2.52	0.44
1:AM:265:GLN:HG2	1:AM:474:LYS:HB3	1.99	0.44
1:AP:519:LYS:NZ	1:AQ:217:GLU:OE2	2.45	0.44
1:AQ:344:ARG:HH11	1:AQ:344:ARG:H	1.64	0.44
1:AT:308:ASP:OD1	1:AU:223:GLU:HB2	2.17	0.44
1:AU:347:GLY:O	1:AU:351:LYS:HG3	2.17	0.44
1:AV:131:TYR:HB3	1:AV:250:MET:HG3	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ab:153:MET:HE2	1:Ab:157:GLN:HB3	2.00	0.44
1:Ac:201(D):GLU:OE1	1:Ac:201(E):ASP:N	2.32	0.44
1:Af:344:ARG:HG2	1:Af:344:ARG:O	2.18	0.44
1:Ag:387:ALA:HB2	1:Ag:404:PHE:HD1	1.82	0.44
1:Al:268:ALA:HB1	1:Al:290:LEU:HD13	1.99	0.44
2:D:53:TYR:HD1	2:D:53:TYR:HA	1.70	0.44
2:D:341:PHE:HD2	2:D:343:ALA:HB2	1.82	0.44
1:G:133:LYS:O	1:S:66:ALA:N	2.49	0.44
1:P:285:ASP:OD1	1:P:285:ASP:N	2.49	0.44
1:Q:149:GLY:H	1:Q:186:GLY:HA3	1.82	0.44
1:Q:257:GLN:NE2	1:Q:497:GLN:OE1	2.45	0.44
1:R:117:MET:HG3	1:R:451:ALA:HB1	2.00	0.44
1:X:153:MET:HE2	1:X:226:GLU:H	1.81	0.44
1:Y:166:LEU:HD21	1:Y:178:TYR:CD2	2.51	0.44
1:Y:217:GLU:HG2	1:c:517:TYR:CE2	2.53	0.44
2:a:213:ASP:O	2:a:217:SER:OG	2.32	0.44
2:a:422:LYS:HE3	2:a:422:LYS:HB3	1.90	0.44
1:c:467:PHE:HE2	1:m:267:LYS:HE2	1.83	0.44
1:d:260:GLU:HG2	1:d:261:ALA:H	1.81	0.44
1:d:398:GLN:NE2	1:e:355:PHE:HB2	2.33	0.44
1:m:153:MET:HE2	1:m:225:ALA:HA	1.97	0.44
1:q:259:ILE:HA	1:q:500:MET:HE2	1.99	0.44
1:s:503:ILE:O	1:s:504:LEU:HB2	2.17	0.44
1:t:267:LYS:HE3	1:u:247:TRP:HB2	1.99	0.44
1:u:166:LEU:HD22	1:u:198:ILE:HG13	1.99	0.44
1:u:319:SER:HA	1:u:323:LEU:HB2	2.00	0.44
1:z:481:ILE:N	1:z:499:GLY:O	2.49	0.44
1:3:454:VAL:O	1:3:475:THR:OG1	2.27	0.44
1:9:263:SER:HA	1:9:476:ARG:HA	1.99	0.44
2:A:235:PHE:CZ	2:a:130:ILE:HD13	2.53	0.44
2:A:235:PHE:HD2	2:a:133:VAL:HG11	1.83	0.44
1:AB:263:SER:O	1:AC:228:MET:HG2	2.18	0.44
1:AD:223:GLU:OE2	1:AG:304:ARG:NH2	2.46	0.44
1:AG:278:LEU:HD23	1:AG:286:ALA:HB2	1.98	0.44
1:AH:269:ALA:HB2	1:AH:470:VAL:HG12	2.00	0.44
1:AJ:265:GLN:NE2	1:AJ:474:LYS:HE3	2.33	0.44
1:AK:321:MET:SD	1:AK:366:ARG:NH1	2.91	0.44
1:AR:311:ASN:ND2	1:AR:433:TYR:OH	2.48	0.44
1:AV:153:MET:SD	1:AV:157:GLN:HB3	2.57	0.44
1:AV:238:GLY:HA3	1:AV:242:SER:O	2.17	0.44
1:AV:256:LYS:HD2	1:AV:496:ILE:HG12	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AW:447:GLY:O	1:AW:510:ASN:ND2	2.49	0.44
1:AX:304:ARG:NH2	1:AY:223:GLU:OE1	2.50	0.44
1:Ab:172:THR:HG22	1:Ab:196:VAL:O	2.18	0.44
1:Ab:201(G):ASP:O	1:Ab:201(H):GLU:HB2	2.16	0.44
1:Ac:466:ASN:CG	1:L:239:PHE:H	2.25	0.44
1:Ag:101:ARG:NH1	1:Aj:142:GLU:OE2	2.51	0.44
1:Ai:454:VAL:HB	1:Ai:476:ARG:HB2	1.99	0.44
1:Aj:458:PRO:HA	1:Aj:473:PHE:HD1	1.81	0.44
1:Ak:265:GLN:HG2	1:Ak:474:LYS:HB3	2.00	0.44
1:Am:107:ILE:HD12	1:Am:307:VAL:HG21	1.99	0.44
1:Am:145:HIS:HB3	1:Am:148:TYR:HB2	2.00	0.44
2:C:108:TYR:CZ	2:C:128:LEU:HD21	2.52	0.44
2:C:353:ASP:O	2:C:355:GLU:N	2.51	0.44
1:G:131:TYR:HB3	1:G:250:MET:HG3	1.99	0.44
1:M:263:SER:HB3	1:M:476:ARG:HG2	2.00	0.44
1:P:434:PHE:CE1	1:P:516:VAL:HB	2.53	0.44
1:S:237:GLU:O	1:S:245:ASN:HB2	2.18	0.44
1:W:152:ALA:HB3	1:W:189:TYR:HD2	1.82	0.44
1:Z:96:MET:SD	1:d:115:GLN:NE2	2.91	0.44
1:b:71:ASP:OD1	1:b:85:SER:OG	2.35	0.44
1:b:272:ILE:N	1:b:468:GLN:OE1	2.37	0.44
1:c:380:ARG:HH21	1:c:408:THR:HG21	1.82	0.44
1:e:245:ASN:OD1	1:e:245:ASN:N	2.50	0.44
1:e:266:LEU:HD13	1:e:294:LEU:HD22	1.99	0.44
1:p:75:ASN:O	1:p:79:ILE:HG12	2.16	0.44
1:p:262:LYS:HE2	1:s:74:TYR:HE2	1.82	0.44
1:p:274:LEU:HD12	1:p:274:LEU:HA	1.78	0.44
1:u:328:LYS:NZ	1:u:333:ASP:OD2	2.40	0.44
1:z:107:ILE:H	1:z:303:ASN:HD21	1.66	0.44
1:0:412:VAL:O	1:0:425:ILE:HG12	2.17	0.44
1:2:201(F):GLU:OE1	1:2:201(I):ASP:CA	2.66	0.44
1:2:293:ILE:HD12	1:3:144:PHE:HZ	1.82	0.44
1:5:459:LEU:HD13	1:t:467:PHE:CG	2.53	0.44
1:6:265:GLN:HB3	1:6:474:LYS:HG2	1.98	0.44
1:9:420:LYS:HE3	1:9:421:TYR:CE1	2.53	0.44
2:A:102:LYS:HA	2:A:107:VAL:HA	2.00	0.44
1:AC:86:GLY:O	1:h:495:ARG:NH1	2.38	0.44
1:AH:444:MET:HE2	1:AH:444:MET:HA	1.99	0.44
1:AJ:184:GLU:O	1:AJ:366:ARG:NH2	2.50	0.44
1:AK:503:ILE:O	1:AK:504:LEU:HB2	2.17	0.44
1:AO:190:LEU:HG	1:AO:221:LEU:HD12	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AP:88:VAL:HG13	2:B:163:ILE:HD12	1.99	0.44
1:AP:110:ASP:OD2	1:AP:422:ARG:NH1	2.51	0.44
1:AT:398:GLN:O	1:AU:393:ILE:HA	2.18	0.44
1:AU:430:LYS:HD3	1:AU:430:LYS:HA	1.70	0.44
1:Ab:445:ASP:OD1	1:Ab:445:ASP:N	2.51	0.44
1:Ab:449:TYR:N	1:Ab:480:GLY:O	2.36	0.44
1:Ag:121:THR:HA	1:Ag:259:ILE:O	2.17	0.44
1:Ah:236:GLN:O	1:Ah:238:GLY:N	2.49	0.44
1:Ak:191:GLN:N	1:Ak:222:VAL:O	2.45	0.44
1:Ak:274:LEU:H	1:Ak:274:LEU:HD12	1.81	0.44
1:Al:90:GLN:HG2	1:d:281:VAL:HG21	1.98	0.44
2:D:40:VAL:HB	2:D:340:ILE:O	2.18	0.44
1:H:131:TYR:HD2	1:H:250:MET:HE3	1.83	0.44
1:S:154:PHE:HD1	1:S:154:PHE:HA	1.68	0.44
1:S:451:ALA:O	1:S:478:GLY:N	2.45	0.44
1:W:90:GLN:HG2	1:o:281:VAL:HG21	2.00	0.44
1:W:133:LYS:HG3	1:W:249:GLU:HG3	1.99	0.44
1:Z:397:ALA:HA	1:d:394:SER:O	2.17	0.44
1:g:238:GLY:HA2	1:g:242:SER:O	2.18	0.44
1:k:131:TYR:HB2	1:k:154:PHE:CE2	2.53	0.44
1:k:231:SER:HB3	1:m:71:ASP:CG	2.43	0.44
1:k:259:ILE:HA	1:k:500:MET:HE2	1.99	0.44
1:o:156:GLY:C	1:o:228:MET:HB3	2.42	0.44
1:s:494:SER:C	1:s:496:ILE:H	2.26	0.44
1:z:345:TRP:HE3	1:z:347:GLY:N	2.12	0.44
1:0:281:VAL:HG23	1:0:282:HIS:H	1.83	0.44
1:3:235:LEU:HD11	1:5:68:ILE:HD12	2.00	0.44
1:4:273:GLU:OE2	1:4:468:GLN:NE2	2.51	0.44
1:7:430:LYS:N	1:7:430:LYS:HD2	2.31	0.44
1:8:387:ALA:HB2	1:8:404:PHE:HD1	1.82	0.44
1:9:117:MET:HG2	1:9:451:ALA:HB1	1.99	0.44
2:A:55:ILE:HG13	2:A:163:ILE:HG12	2.00	0.44
1:AB:387:ALA:HB2	1:AB:404:PHE:CD2	2.53	0.44
1:AC:239:PHE:CG	1:G:468:GLN:HG3	2.52	0.44
1:AC:449:TYR:N	1:AC:480:GLY:O	2.46	0.44
1:AJ:464:PRO:HG3	1:Af:462:SER:C	2.43	0.44
1:AO:266:LEU:HD23	1:AO:266:LEU:HA	1.86	0.44
1:AS:172:THR:OG1	1:AS:196:VAL:N	2.45	0.44
1:AV:128:ARG:NH1	1:AV:492:PRO:HG3	2.33	0.44
1:AV:240:ASN:N	1:AV:240:ASN:OD1	2.50	0.44
1:AW:130:VAL:HG22	1:AW:142:GLU:HA	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AW:281:VAL:HG12	1:AW:282:HIS:ND1	2.33	0.44
1:AW:383:VAL:HG12	1:AW:406:THR:HG22	2.00	0.44
1:AX:285:ASP:HB3	1:AX:288:ALA:HB3	1.99	0.44
1:AZ:278:LEU:HD12	1:AZ:278:LEU:HA	1.74	0.44
1:Ad:236:GLN:HB3	1:Ad:247:TRP:NE1	2.33	0.44
1:Ag:285:ASP:HB2	1:Ag:288:ALA:HB3	2.00	0.44
1:Ag:301:GLU:OE1	1:Aj:155:SER:OG	2.29	0.44
1:Ah:265:GLN:NE2	1:Ai:228:MET:SD	2.90	0.44
1:Ai:117:MET:HG3	1:Ai:451:ALA:HB1	1.99	0.44
1:Am:448:ILE:HG22	1:Am:481:ILE:HG22	1.98	0.44
2:B:64:PHE:HD2	2:B:67:LYS:HD2	1.83	0.44
2:D:368:SER:OG	2:D:370:GLN:HG2	2.17	0.44
1:G:277:ASP:O	1:G:281:VAL:HG22	2.18	0.44
1:J:314:ALA:HA	1:J:513:PHE:HB2	1.98	0.44
1:L:72:HIS:C	1:L:74:TYR:H	2.26	0.44
1:L:237:GLU:H	1:L:245:ASN:CG	2.25	0.44
1:L:466:ASN:HB2	1:L:468:GLN:HG2	2.00	0.44
1:R:75:ASN:O	1:R:79:ILE:HG13	2.18	0.44
1:T:191:GLN:OE1	1:T:224:ILE:HD12	2.17	0.44
1:U:124:VAL:HG22	1:X:96:MET:HB2	1.99	0.44
1:U:387:ALA:HB2	1:U:404:PHE:HB2	1.98	0.44
1:U:496:ILE:HG22	1:X:76:ALA:HB1	1.99	0.44
1:V:166:LEU:HG	1:V:178:TYR:HB3	1.99	0.44
2:a:53:TYR:HD1	2:a:53:TYR:HA	1.69	0.44
2:a:362:VAL:HG12	2:a:373:ILE:HG12	2.00	0.44
1:j:434:PHE:CE1	1:j:516:VAL:HB	2.53	0.44
1:m:165:ALA:HA	1:m:179:THR:HG23	2.00	0.44
1:m:494:SER:C	1:m:496:ILE:H	2.26	0.44
1:p:312:TYR:CE1	1:p:507:LEU:HD12	2.52	0.44
1:r:151:ASP:HB3	1:r:154:PHE:HB2	2.00	0.44
1:r:351:LYS:NZ	1:r:394:SER:O	2.50	0.44
1:z:417:LEU:HB3	1:z:421:TYR:HB2	2.00	0.44
1:2:217:GLU:OE2	1:5:431:GLN:NE2	2.51	0.44
1:2:231:SER:N	1:4:71:ASP:OD2	2.51	0.44
1:4:182:PHE:N	1:4:186:GLY:O	2.48	0.44
1:4:234:GLU:HG2	1:7:273:GLU:OE1	2.18	0.44
1:4:319:SER:O	1:4:322:THR:OG1	2.33	0.44
1:6:127:LEU:HD22	1:w:284:MET:HE1	1.99	0.44
1:6:345:TRP:CD1	1:6:346:ALA:N	2.86	0.44
1:8:434:PHE:CE1	1:8:516:VAL:HB	2.53	0.44
1:9:74:TYR:OH	1:AB:261:ALA:O	2.26	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:9:245:ASN:N	1:9:245:ASN:OD1	2.51	0.44
1:9:345:TRP:HB2	1:9:348:GLU:CD	2.43	0.44
1:AB:476:ARG:HH11	1:AC:230:THR:HG21	1.82	0.44
1:AC:176:ASP:OD1	1:AC:176:ASP:N	2.51	0.44
1:AD:192:ALA:HA	1:AD:221:LEU:HA	2.00	0.44
1:AG:153:MET:HE2	1:AG:226:GLU:HG2	2.00	0.44
1:AH:253:ARG:HH22	1:AH:495:ARG:HD2	1.83	0.44
1:AI:101:ARG:NH1	1:AL:142:GLU:OE2	2.51	0.44
1:AL:237:GLU:O	1:AL:245:ASN:HB2	2.18	0.44
1:AL:318:LYS:HG3	1:AL:356:GLN:NE2	2.32	0.44
1:AP:173:THR:HG22	1:AP:174:VAL:N	2.33	0.44
1:AZ:154:PHE:CE2	1:AZ:248:ASN:HB3	2.53	0.44
1:Aa:494:SER:C	1:Aa:496:ILE:H	2.26	0.44
1:Ag:200:ALA:HB1	1:Ag:201(B):GLU:CD	2.43	0.44
1:Ag:285:ASP:OD1	1:Ag:285:ASP:N	2.49	0.44
1:Ag:379:SER:OG	1:Ag:380:ARG:N	2.51	0.44
1:Aj:177:ILE:HG12	1:Aj:191:GLN:HB3	1.99	0.44
1:Ak:130:VAL:HG21	1:Ak:135:PRO:HA	1.99	0.44
1:Ak:266:LEU:HD23	1:Ak:266:LEU:HA	1.82	0.44
2:D:61:ASP:OD2	2:D:105:ASN:ND2	2.50	0.44
2:D:337:VAL:HG23	2:D:384:ASN:ND2	2.31	0.44
1:G:196:VAL:HG11	1:G:220:ALA:HB1	1.99	0.44
1:J:444:MET:O	1:J:449:TYR:OH	2.32	0.44
1:K:171:GLN:OE1	1:K:195:GLN:NE2	2.42	0.44
1:P:341:ARG:HA	1:P:341:ARG:HE	1.82	0.44
1:W:131:TYR:HB3	1:W:250:MET:HE2	1.98	0.44
1:W:298:ILE:HG21	1:W:456:LEU:HD21	1.99	0.44
1:X:104:PRO:HG2	1:X:300:LEU:HD11	1.99	0.44
1:X:313:SER:HB2	1:X:510:ASN:HB2	1.99	0.44
1:b:289:GLU:O	1:b:293:ILE:HG12	2.18	0.44
1:c:336:ASP:HB3	1:c:339:ASP:HB2	2.00	0.44
1:d:201(G):ASP:OD1	1:d:201(H):GLU:N	2.49	0.44
1:d:336:ASP:HB3	1:d:339:ASP:HB2	2.00	0.44
1:e:265:GLN:HE21	1:e:265:GLN:HB2	1.56	0.44
1:f:114:VAL:HG23	1:f:115:GLN:H	1.83	0.44
1:q:141:LYS:HA	1:q:490:GLN:HG2	1.99	0.44
1:r:263:SER:HA	1:r:476:ARG:HA	2.00	0.44
1:t:319:SER:HA	1:t:323:LEU:HB2	2.00	0.44
1:w:333:ASP:OD1	1:w:335:GLN:N	2.47	0.44
1:x:430:LYS:HD3	1:y:185:THR:HG21	1.99	0.44
1:y:331:VAL:HG12	1:y:517:TYR:HB2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:z:380:ARG:HG2	1:z:425:ILE:HD11	1.99	0.44
1:2:265:GLN:NE2	1:3:236:GLN:HG3	2.32	0.43
1:4:271:SER:HB3	1:r:239:PHE:CZ	2.53	0.43
1:4:494:SER:C	1:4:496:ILE:H	2.26	0.43
1:9:204:ASP:O	1:9:207:LYS:N	2.50	0.43
2:A:91:SER:O	2:A:94:THR:OG1	2.36	0.43
1:AB:318:LYS:HE3	1:AB:332:PHE:HD1	1.83	0.43
1:AE:75:ASN:O	1:AE:79:ILE:HG13	2.18	0.43
1:AE:318:LYS:HG3	1:AE:356:GLN:HE22	1.83	0.43
1:AH:239:PHE:N	1:AH:242:SER:OG	2.24	0.43
1:AI:466:ASN:O	1:AI:468:GLN:NE2	2.33	0.43
1:AL:345:TRP:CZ2	1:AM:396:ALA:HB2	2.53	0.43
1:AO:184:GLU:O	1:AO:185:THR:OG1	2.28	0.43
1:AU:133:LYS:NZ	1:AU:249:GLU:OE1	2.30	0.43
1:AU:503:ILE:HD11	1:AX:191:GLN:CD	2.43	0.43
1:Ab:273:GLU:CD	1:Ab:273:GLU:H	2.25	0.43
1:Ae:289:GLU:O	1:Ae:293:ILE:N	2.42	0.43
1:Ag:245:ASN:OD1	1:Ag:245:ASN:N	2.51	0.43
1:Ah:106:LEU:HD21	1:Ah:299:MET:HE3	2.00	0.43
1:Am:364:ILE:O	1:Am:368:THR:HG22	2.17	0.43
2:B:386:TYR:HE2	2:D:30:ALA:HB2	1.82	0.43
1:H:237:GLU:OE1	1:H:246:PRO:HA	2.18	0.43
1:J:510:ASN:OD1	1:J:511:ALA:N	2.51	0.43
1:K:123:GLN:HE21	1:N:95:VAL:HG22	1.83	0.43
1:K:145:HIS:CD2	1:K:146:PRO:HD2	2.53	0.43
1:L:201(G):ASP:OD1	1:L:202:ALA:HB3	2.18	0.43
1:M:356:GLN:NE2	1:M:360:GLU:OE2	2.51	0.43
1:R:89:THR:HG22	1:c:256:LYS:HE3	2.00	0.43
1:S:238:GLY:C	1:S:240:ASN:N	2.76	0.43
1:S:240:ASN:C	1:S:242:SER:H	2.26	0.43
1:S:494:SER:C	1:S:496:ILE:H	2.26	0.43
1:T:181:PHE:HA	1:T:187:THR:HA	2.00	0.43
1:Y:264:ARG:NH1	1:Z:155:SER:OG	2.43	0.43
1:b:117:MET:HG3	1:b:451:ALA:HB1	2.00	0.43
1:b:402:THR:OG1	1:b:403:GLY:N	2.51	0.43
1:c:72:HIS:C	1:c:74:TYR:H	2.26	0.43
1:e:383:VAL:HG12	1:e:406:THR:HG22	2.00	0.43
1:f:261:ALA:HA	1:f:478:GLY:CA	2.37	0.43
1:f:393:ILE:HA	1:m:398:GLN:O	2.18	0.43
1:m:376:ILE:N	1:m:422:ARG:O	2.41	0.43
1:o:383:VAL:HG12	1:o:406:THR:HG22	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:u:494:SER:C	1:u:496:ILE:H	2.26	0.43
1:v:313:SER:HB3	1:v:510:ASN:HB2	2.00	0.43
1:z:264:ARG:HG3	1:z:477:TYR:HE1	1.82	0.43
1:0:261:ALA:HA	1:0:478:GLY:HA3	2.00	0.43
1:0:354:LEU:HD22	1:AC:400:LEU:HD11	2.01	0.43
1:0:377:ILE:HB	1:0:435:THR:HG1	1.84	0.43
1:2:191:GLN:HG2	1:2:192:ALA:H	1.82	0.43
1:4:237:GLU:HB2	1:4:238:GLY:H	1.67	0.43
1:7:409:THR:OG1	1:7:410:LYS:NZ	2.41	0.43
1:8:344:ARG:O	1:8:344:ARG:HG2	2.18	0.43
2:A:349:LEU:HD22	1:U:276:GLN:NE2	2.33	0.43
1:AC:123:GLN:HB3	1:AC:258:VAL:HG12	2.00	0.43
1:AC:157:GLN:HG3	1:AC:161:LYS:HZ1	1.84	0.43
1:AJ:250:MET:HE3	1:AJ:250:MET:HB2	1.87	0.43
1:AM:261:ALA:HA	1:AM:478:GLY:HA3	1.99	0.43
1:AN:154:PHE:CZ	1:AN:248:ASN:HB3	2.53	0.43
1:AT:294:LEU:HD23	1:AT:294:LEU:HA	1.85	0.43
1:AU:444:MET:O	1:AU:449:TYR:OH	2.36	0.43
1:AV:207:LYS:HE3	1:AV:207:LYS:HB3	1.88	0.43
1:AX:331:VAL:HA	1:AX:517:TYR:O	2.19	0.43
1:Ac:270:TYR:HE1	1:Ac:471:MET:HE3	1.84	0.43
1:Ag:263:SER:HA	1:Ag:476:ARG:HA	2.00	0.43
1:Ah:341:ARG:NH1	1:Ak:521:ILE:O	2.44	0.43
1:Ai:75:ASN:O	1:Ai:79:ILE:HG13	2.17	0.43
1:Aj:264:ARG:NH1	1:Aj:477:TYR:OH	2.51	0.43
2:B:338:GLY:N	2:B:384:ASN:HD21	2.16	0.43
2:C:220:THR:O	2:C:407:ALA:HA	2.18	0.43
2:C:240:TYR:OH	2:C:277:ARG:NH2	2.48	0.43
2:D:248:ARG:HG3	2:D:285:SER:HB2	1.99	0.43
1:L:333:ASP:OD1	1:L:334:PHE:N	2.50	0.43
1:M:124:VAL:HG21	1:M:444:MET:HE1	2.00	0.43
1:P:381:ASN:HB3	1:P:521:ILE:HD13	2.00	0.43
1:T:494:SER:C	1:T:496:ILE:H	2.25	0.43
1:V:466:ASN:OD1	1:V:466:ASN:N	2.50	0.43
1:Y:260:GLU:OE2	1:c:72:HIS:HB2	2.18	0.43
1:c:158:GLY:HA2	1:c:163:PHE:HE1	1.84	0.43
1:c:313:SER:HB2	1:c:510:ASN:HB2	1.99	0.43
1:d:239:PHE:O	1:d:239:PHE:CG	2.71	0.43
1:f:278:LEU:HD23	1:f:278:LEU:HA	1.89	0.43
1:j:72:HIS:CD2	1:j:84:THR:HG22	2.53	0.43
1:l:348:GLU:HG3	1:o:345:TRP:NE1	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:m:420:LYS:HE3	1:m:421:TYR:HE1	1.83	0.43
1:n:494:SER:C	1:n:496:ILE:H	2.25	0.43
1:o:266:LEU:HD23	1:o:266:LEU:HA	1.85	0.43
1:p:347:GLY:HA3	1:p:397:ALA:O	2.17	0.43
1:p:434:PHE:CE1	1:p:516:VAL:HB	2.53	0.43
1:r:72:HIS:CE1	1:r:90:GLN:HE21	2.36	0.43
1:r:239:PHE:O	1:r:239:PHE:CG	2.70	0.43
1:s:142:GLU:N	1:s:490:GLN:OE1	2.44	0.43
1:t:450:TYR:HA	1:t:479:ILE:HD13	1.99	0.43
1:w:153:MET:HG3	1:w:189:TYR:CG	2.53	0.43
1:x:207:LYS:HE3	1:x:207:LYS:HB3	1.89	0.43
1:0:100:ARG:O	1:AA:370:ARG:NH2	2.36	0.43
1:1:158:GLY:HA2	1:1:163:PHE:HE2	1.82	0.43
1:5:454:VAL:O	1:5:475:THR:OG1	2.35	0.43
1:9:100:ARG:HB3	1:AB:127:LEU:HB3	1.99	0.43
1:9:120:PRO:HD3	1:9:453:TYR:OH	2.17	0.43
1:AA:521:ILE:HD12	1:AA:521:ILE:HA	1.90	0.43
1:AD:121:THR:HG21	1:AG:79:ILE:HG23	2.01	0.43
1:AD:153:MET:HB2	1:AD:189:TYR:CZ	2.53	0.43
1:AD:387:ALA:HB2	1:AD:404:PHE:HB2	2.01	0.43
1:AD:494:SER:C	1:AD:496:ILE:H	2.25	0.43
1:AJ:387:ALA:HB1	1:AJ:403:GLY:HA3	2.01	0.43
1:AM:107:ILE:HD12	1:AM:307:VAL:HG21	2.00	0.43
1:AM:364:ILE:O	1:AM:368:THR:HG22	2.18	0.43
1:AO:264:ARG:HE	1:AO:477:TYR:HH	1.63	0.43
1:AP:185:THR:HG21	1:AS:430:LYS:HE3	2.00	0.43
1:AS:313:SER:HB2	1:AS:510:ASN:HB2	1.99	0.43
1:AS:340:ILE:HG22	1:AS:352:ALA:HB3	2.00	0.43
1:AU:379:SER:OG	1:AU:380:ARG:N	2.51	0.43
1:AV:422:ARG:HH21	1:AV:424:TYR:HH	1.62	0.43
1:Ad:101:ARG:NE	1:Ae:142:GLU:OE1	2.51	0.43
1:Ae:375:PHE:HZ	1:Ae:513:PHE:HE1	1.65	0.43
1:Ae:503:ILE:HD12	1:Ae:507:LEU:HD22	1.99	0.43
1:Ah:481:ILE:N	1:Ah:499:GLY:O	2.51	0.43
1:Ai:131:TYR:HD2	1:Ai:250:MET:HE3	1.83	0.43
1:Aj:133:LYS:NZ	1:Aj:249:GLU:OE1	2.35	0.43
1:Aj:238:GLY:C	1:Aj:240:ASN:N	2.76	0.43
2:C:126:LEU:O	2:C:130:ILE:N	2.44	0.43
1:J:266:LEU:HD23	1:J:266:LEU:HA	1.91	0.43
1:M:333:ASP:OD1	1:M:335:GLN:N	2.38	0.43
1:O:387:ALA:HB2	1:O:404:PHE:CD2	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:162:LYS:HD3	1:P:162:LYS:HA	1.92	0.43
1:P:343:ALA:HB1	1:P:348:GLU:HB3	2.01	0.43
1:Q:203:THR:O	1:Q:206:ALA:N	2.51	0.43
1:S:450:TYR:HA	1:S:479:ILE:HD13	2.00	0.43
1:U:345:TRP:NE1	1:V:348:GLU:HG3	2.33	0.43
1:W:381:ASN:HB3	1:W:521:ILE:HD13	1.99	0.43
1:Y:345:TRP:CZ2	1:Z:348:GLU:HG2	2.53	0.43
1:Z:181:PHE:HA	1:Z:187:THR:HA	2.00	0.43
2:a:40:VAL:HB	2:a:340:ILE:O	2.18	0.43
1:g:117:MET:HG2	1:g:451:ALA:HB1	1.98	0.43
1:g:245:ASN:N	1:g:245:ASN:OD1	2.52	0.43
1:h:154:PHE:CE2	1:h:248:ASN:HB3	2.53	0.43
1:i:345:TRP:CD1	1:i:346:ALA:N	2.86	0.43
1:m:268:ALA:N	1:m:471:MET:O	2.51	0.43
1:p:79:ILE:HG12	1:p:79:ILE:H	1.56	0.43
1:q:274:LEU:HA	1:q:277:ASP:HB3	1.99	0.43
1:y:160:ALA:HB2	1:y:228:MET:HE3	2.00	0.43
1:0:351:LYS:NZ	1:0:394:SER:H	2.16	0.43
1:1:120:PRO:HD3	1:1:453:TYR:OH	2.18	0.43
1:2:402:THR:OG1	1:2:403:GLY:N	2.51	0.43
1:3:507:LEU:O	1:3:509:LYS:HG3	2.18	0.43
1:9:447:GLY:HA3	1:9:513:PHE:HE2	1.82	0.43
1:AA:120:PRO:HD3	1:AA:453:TYR:OH	2.17	0.43
1:AB:72:HIS:HB2	1:AB:79:ILE:HG12	1.99	0.43
1:AC:497:GLN:HE21	1:AC:497:GLN:HB2	1.52	0.43
1:AD:267:LYS:O	1:AE:249:GLU:HA	2.18	0.43
1:AJ:322:THR:OG1	1:AJ:514:ARG:NH2	2.52	0.43
1:AL:345:TRP:CD1	1:AL:346:ALA:N	2.87	0.43
1:AM:145:HIS:HB3	1:AM:148:TYR:HB2	2.00	0.43
1:AQ:245:ASN:OD1	1:AQ:245:ASN:N	2.49	0.43
1:AR:249:GLU:OE1	1:Aa:267:LYS:HB3	2.19	0.43
1:AU:131:TYR:HB3	1:AU:250:MET:SD	2.58	0.43
1:AX:238:GLY:C	1:AX:240:ASN:N	2.76	0.43
1:Ac:72:HIS:ND1	1:Al:260:GLU:OE2	2.45	0.43
1:Ak:380:ARG:HE	1:Ak:408:THR:HG21	1.84	0.43
1:Al:291:SER:HA	1:Al:471:MET:HE1	2.00	0.43
2:B:213:ASP:O	2:B:217:SER:OG	2.29	0.43
2:D:109:LYS:HD2	2:D:138:ARG:HH11	1.84	0.43
1:L:314:ALA:HA	1:L:513:PHE:HB2	2.01	0.43
1:N:456:LEU:HD23	1:N:475:THR:HB	2.00	0.43
1:O:271:SER:O	1:O:272:ILE:HB	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:466:ASN:O	1:O:468:GLN:HB2	2.19	0.43
1:P:181:PHE:HA	1:P:187:THR:HA	1.99	0.43
1:P:430:LYS:HA	1:P:430:LYS:HD3	1.73	0.43
1:Q:249:GLU:HA	1:T:267:LYS:O	2.19	0.43
1:R:83:GLN:HB2	1:c:496:ILE:HD11	1.99	0.43
1:T:414:ALA:HB3	1:T:423:VAL:HB	1.99	0.43
1:U:454:VAL:O	1:U:475:THR:OG1	2.28	0.43
1:V:420:LYS:HE3	1:V:421:TYR:CE1	2.53	0.43
1:Z:112:CYS:HB2	1:Z:448:ILE:O	2.19	0.43
2:a:324:ILE:HD11	2:a:415:LEU:HD12	2.00	0.43
1:b:240:ASN:ND2	1:d:68:ILE:HG21	2.34	0.43
1:d:234:GLU:OE2	1:j:273:GLU:HB2	2.19	0.43
1:g:494:SER:C	1:g:496:ILE:H	2.27	0.43
1:n:131:TYR:HB3	1:n:154:PHE:HE2	1.83	0.43
1:n:237:GLU:HB2	1:n:238:GLY:H	1.67	0.43
1:r:176:ASP:N	1:r:176:ASP:OD1	2.51	0.43
1:t:104:PRO:HD2	1:t:300:LEU:HD21	1.99	0.43
1:u:318:LYS:HB3	1:u:330:GLY:HA2	2.00	0.43
1:v:179:THR:HG22	1:v:189:TYR:CD2	2.54	0.43
1:x:338:ILE:H	1:x:338:ILE:HG12	1.62	0.43
1:x:442:ASN:OD1	1:x:443:GLU:N	2.51	0.43
1:z:317:GLY:O	1:z:330:GLY:HA2	2.18	0.43
1:1:456:LEU:HD11	1:1:473:PHE:HB3	2.00	0.43
1:1:476:ARG:NH1	1:4:230:THR:HG21	2.34	0.43
1:4:267:LYS:HB3	1:5:249:GLU:HG2	2.00	0.43
1:5:153:MET:SD	1:5:226:GLU:N	2.87	0.43
2:A:142:ASP:OD1	2:A:143:ALA:N	2.51	0.43
1:AA:153:MET:HG2	1:AA:158:GLY:H	1.82	0.43
1:AB:268:ALA:HB3	1:AB:471:MET:HB2	2.00	0.43
1:AC:204:ASP:O	1:AC:208:LEU:N	2.39	0.43
1:AE:145:HIS:HB3	1:AE:148:TYR:HB2	2.00	0.43
1:AH:95:VAL:HG21	1:AO:91:ILE:HD13	2.00	0.43
1:AH:271:SER:O	1:AH:468:GLN:HG3	2.19	0.43
1:AI:116:PRO:HA	1:AI:452:PRO:HD2	2.01	0.43
1:AN:107:ILE:HD12	1:AN:307:VAL:HG21	2.00	0.43
1:AN:232:ILE:HB	1:AN:235:LEU:HB2	2.00	0.43
1:AN:327:SER:OG	1:AN:339:ASP:OD1	2.32	0.43
1:AN:412:VAL:HG11	1:AN:427:GLN:HE21	1.82	0.43
1:AO:72:HIS:CD2	1:AO:84:THR:HG22	2.53	0.43
1:AR:72:HIS:ND1	1:AS:260:GLU:OE2	2.43	0.43
1:AS:505:ASN:OD1	1:AS:505:ASN:N	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AU:503:ILE:HD13	1:AU:507:LEU:HD12	2.01	0.43
1:AV:113:GLY:O	1:AV:450:TYR:N	2.41	0.43
1:AW:75:ASN:O	1:AW:79:ILE:HG13	2.19	0.43
1:Ac:69:GLY:HA2	1:N:274:LEU:HD13	1.99	0.43
1:Ac:259:ILE:HD13	1:Ac:480:GLY:HA3	2.01	0.43
1:Ad:250:MET:HE3	1:Ad:250:MET:HB2	1.73	0.43
1:Aj:284:MET:HE1	1:Ak:254:ILE:HD11	2.00	0.43
1:Aj:463:ASP:N	1:Z:464:PRO:HG3	2.34	0.43
1:Al:422:ARG:NH2	1:Al:424:TYR:OH	2.51	0.43
2:B:320:LEU:HD23	2:B:320:LEU:HA	1.83	0.43
2:D:198:LEU:HD22	2:D:373:ILE:HD12	2.00	0.43
1:G:250:MET:HE3	1:G:250:MET:HB2	1.77	0.43
1:M:354:LEU:HD13	1:M:391:THR:HA	1.99	0.43
1:P:301:GLU:OE1	1:S:155:SER:OG	2.33	0.43
1:Q:125:PHE:CD1	1:Q:256:LYS:HB3	2.54	0.43
1:S:334:PHE:HE2	1:S:350:PHE:HD1	1.66	0.43
1:U:117:MET:HE1	1:U:261:ALA:HB2	1.99	0.43
1:U:305:GLU:HA	1:V:225:ALA:HB3	2.01	0.43
1:V:279:ARG:HH21	1:V:285:ASP:HB3	1.84	0.43
1:X:130:VAL:HG13	1:X:141:LYS:O	2.18	0.43
1:Y:459:LEU:HB3	1:l:467:PHE:CD2	2.54	0.43
1:b:172:THR:OG1	1:b:196:VAL:O	2.35	0.43
1:c:272:ILE:N	1:c:468:GLN:OE1	2.41	0.43
1:f:151:ASP:HB3	1:f:154:PHE:HB2	2.00	0.43
1:h:373:GLY:O	1:h:374:ASN:ND2	2.30	0.43
1:j:125:PHE:CD1	1:j:256:LYS:HB3	2.53	0.43
1:j:256:LYS:NZ	1:j:496:ILE:HD11	2.33	0.43
1:p:142:GLU:H	1:p:490:GLN:HB3	1.83	0.43
1:p:416:VAL:HG12	1:p:417:LEU:O	2.19	0.43
1:r:274:LEU:HD23	1:r:274:LEU:HA	1.73	0.43
1:r:286:ALA:C	1:r:288:ALA:H	2.27	0.43
1:r:442:ASN:OD1	1:r:443:GLU:N	2.51	0.43
1:u:363:GLU:OE2	1:u:366:ARG:NH2	2.52	0.43
1:v:380:ARG:HE	1:v:380:ARG:HB2	1.60	0.43
1:w:181:PHE:HA	1:w:187:THR:HA	2.00	0.43
1:0:201(C):ASP:HB3	1:0:201(G):ASP:HB2	1.99	0.43
1:2:204:ASP:OD1	1:2:205:ALA:N	2.47	0.43
1:6:182:PHE:CD2	1:w:430:LYS:HD2	2.54	0.43
1:6:236:GLN:HG3	1:w:265:GLN:OE1	2.18	0.43
1:6:238:GLY:HA2	1:6:242:SER:O	2.19	0.43
1:6:373:GLY:HA2	1:6:438:TYR:HA	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:8:195:GLN:O	1:8:197:THR:HG22	2.19	0.43
1:8:346:ALA:HA	1:9:341:ARG:HB2	2.01	0.43
1:9:265:GLN:HB2	1:AB:247:TRP:HZ2	1.82	0.43
1:9:430:LYS:HD3	1:9:430:LYS:HA	1.71	0.43
2:A:320:LEU:HB3	2:A:322:TYR:CD1	2.54	0.43
1:AB:177:ILE:HG12	1:AB:191:GLN:HB3	2.00	0.43
1:AD:131:TYR:CE2	1:AD:143:ALA:HA	2.54	0.43
1:AH:314:ALA:HA	1:AH:513:PHE:HB2	1.99	0.43
1:AJ:133:LYS:HA	1:AJ:249:GLU:HB2	2.00	0.43
1:AK:317:GLY:HA2	1:AK:514:ARG:HH11	1.82	0.43
1:AM:444:MET:O	1:AM:449:TYR:OH	2.35	0.43
1:AN:317:GLY:HA2	1:AN:514:ARG:NH1	2.33	0.43
1:AN:344:ARG:HG3	1:AO:344:ARG:HD3	2.00	0.43
1:AO:344:ARG:N	1:AO:348:GLU:OE1	2.51	0.43
1:AO:453:TYR:HD2	1:AO:454:VAL:HG22	1.82	0.43
1:AR:228:MET:HE2	1:AR:228:MET:HB3	1.89	0.43
1:AT:242:SER:HB2	1:AT:245:ASN:ND2	2.34	0.43
1:AT:260:GLU:HG2	1:AW:79:ILE:HD13	2.01	0.43
1:AT:344:ARG:O	1:AT:344:ARG:HG2	2.19	0.43
1:AV:72:HIS:CE1	1:AV:90:GLN:HE21	2.37	0.43
1:AV:131:TYR:HA	1:AV:250:MET:HA	2.00	0.43
1:AW:106:LEU:HD21	1:AW:300:LEU:HD23	2.01	0.43
1:AZ:494:SER:C	1:AZ:496:ILE:H	2.27	0.43
1:Ac:120:PRO:HD3	1:Ac:453:TYR:CZ	2.54	0.43
1:Ad:404:PHE:HB3	1:Ad:414:ALA:C	2.43	0.43
1:Ag:128:ARG:NH1	1:Ag:490:GLN:O	2.51	0.43
1:Ag:453:TYR:HB3	1:Ag:476:ARG:O	2.18	0.43
1:Ak:156:GLY:C	1:Ak:228:MET:HB3	2.44	0.43
1:Am:331:VAL:HG11	1:Am:519:LYS:NZ	2.33	0.43
2:C:135:LEU:HD12	2:a:407:ALA:HB1	1.99	0.43
1:H:460:ARG:HE	1:H:471:MET:HG3	1.83	0.43
1:J:345:TRP:CD1	1:J:346:ALA:N	2.87	0.43
1:K:134:ASP:OD1	1:K:137:ALA:N	2.51	0.43
1:K:201(H):GLU:HG3	1:K:201(I):ASP:H	1.84	0.43
1:L:264:ARG:HH11	1:g:155:SER:HG	1.62	0.43
1:M:479:ILE:H	1:M:479:ILE:HG13	1.63	0.43
1:O:422:ARG:HH21	1:O:424:TYR:HH	1.63	0.43
1:Q:207:LYS:HE3	1:Q:207:LYS:HB3	1.86	0.43
1:R:128:ARG:NE	1:R:490:GLN:O	2.50	0.43
1:T:105:ASN:ND2	1:T:409:THR:O	2.51	0.43
1:W:319:SER:HA	1:W:323:LEU:HB2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:98:MET:HE1	1:X:284:MET:SD	2.59	0.43
1:X:278:LEU:HD12	1:X:278:LEU:HA	1.80	0.43
1:Y:120:PRO:HD3	1:Y:453:TYR:OH	2.19	0.43
2:a:390:LYS:HB3	2:a:409:ARG:HE	1.82	0.43
2:a:390:LYS:C	2:a:392:GLU:H	2.27	0.43
1:b:245:ASN:OD1	1:b:245:ASN:N	2.51	0.43
1:c:125:PHE:HE1	1:c:256:LYS:HB3	1.84	0.43
1:d:314:ALA:O	1:d:508:GLY:HA2	2.18	0.43
1:l:217:GLU:HA	1:o:517:TYR:CE2	2.54	0.43
1:n:344:ARG:O	1:o:342:GLY:HA3	2.19	0.43
1:o:120:PRO:O	1:o:121:THR:OG1	2.31	0.43
1:p:277:ASP:OD1	1:p:278:LEU:N	2.52	0.43
1:q:265:GLN:HB2	1:t:247:TRP:CZ2	2.54	0.43
1:s:201(G):ASP:OD1	1:s:201(G):ASP:N	2.51	0.43
1:y:154:PHE:CZ	1:y:248:ASN:HB3	2.54	0.43
1:y:240:ASN:ND2	1:y:240:ASN:O	2.50	0.43
1:y:354:LEU:HD11	1:y:391:THR:HG22	2.00	0.43
1:1:417:LEU:HB3	1:1:421:TYR:HB2	1.99	0.43
1:2:217:GLU:HA	1:5:517:TYR:CE2	2.53	0.43
1:5:190:LEU:HG	1:5:221:LEU:HD12	2.01	0.43
1:6:304:ARG:HA	1:6:304:ARG:HD2	1.74	0.43
1:8:272:ILE:HD12	1:8:272:ILE:HA	1.87	0.43
2:A:159:ALA:HB3	2:B:177:THR:HB	2.01	0.43
1:AA:145:HIS:CG	1:AA:146:PRO:HD2	2.53	0.43
1:AB:317:GLY:HA2	1:AB:514:ARG:NH1	2.34	0.43
1:AC:364:ILE:O	1:AC:368:THR:HG22	2.19	0.43
1:AC:454:VAL:O	1:AC:475:THR:OG1	2.35	0.43
1:AD:265:GLN:NE2	1:AE:236:GLN:HG3	2.34	0.43
1:AF:277:ASP:O	1:AF:281:VAL:HG22	2.18	0.43
1:AG:302:ILE:HA	1:AG:305:GLU:HB3	2.01	0.43
1:AI:239:PHE:O	1:AI:242:SER:OG	2.29	0.43
1:AM:69:GLY:HA2	1:Ad:274:LEU:HD23	2.00	0.43
1:AN:385:VAL:HG21	1:AN:521:ILE:HD12	2.01	0.43
1:AN:417:LEU:N	1:AN:421:TYR:O	2.52	0.43
1:AQ:375:PHE:HZ	1:AQ:513:PHE:HE1	1.67	0.43
1:AS:237:GLU:C	1:AT:466:ASN:HD21	2.27	0.43
1:AV:357:ILE:HG12	1:AV:434:PHE:CE2	2.54	0.43
1:AX:454:VAL:HG22	1:AX:476:ARG:HB2	2.01	0.43
1:Ab:72:HIS:CE1	1:Ac:121:THR:HG21	2.53	0.43
1:Af:289:GLU:O	1:Af:293:ILE:HG12	2.18	0.43
1:Af:448:ILE:HD13	1:Af:448:ILE:HA	1.85	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ah:250:MET:HE3	1:Ah:250:MET:HB2	1.69	0.43
1:Aj:232:ILE:HD11	1:Aj:245:ASN:HD21	1.82	0.43
2:B:108:TYR:OH	2:B:128:LEU:HD21	2.18	0.43
1:G:459:LEU:HG	1:G:472:GLY:H	1.83	0.43
1:H:166:LEU:HD13	1:H:212:ILE:HD12	1.99	0.43
1:H:181:PHE:HE1	1:H:186:GLY:HA2	1.83	0.43
1:H:242:SER:OG	1:H:245:ASN:OD1	2.31	0.43
1:H:451:ALA:O	1:H:478:GLY:N	2.44	0.43
1:M:125:PHE:CE1	1:M:256:LYS:HG2	2.53	0.43
1:N:438:TYR:HB3	1:N:512:TYR:HB3	2.00	0.43
1:O:308:ASP:OD1	1:P:223:GLU:HB2	2.19	0.43
1:P:107:ILE:HG13	1:P:307:VAL:HG21	2.00	0.43
1:T:191:GLN:O	1:T:221:LEU:HA	2.17	0.43
1:T:204:ASP:HA	1:T:207:LYS:HB3	2.01	0.43
1:U:159:ALA:HB3	1:U:228:MET:HE2	2.01	0.43
1:U:190:LEU:HB3	1:U:221:LEU:HB2	2.00	0.43
1:V:395:TYR:HD1	1:V:396:ALA:H	1.66	0.43
1:W:230:THR:O	1:W:230:THR:OG1	2.35	0.43
1:Y:428:TYR:O	1:Y:430:LYS:NZ	2.36	0.43
1:Z:412:VAL:O	1:Z:425:ILE:HG22	2.19	0.43
1:Z:498:SER:HB2	1:Z:500:MET:HE3	2.01	0.43
2:a:62:ASN:OD1	2:a:160:ARG:NH1	2.51	0.43
1:d:350:PHE:O	1:d:389:VAL:HG11	2.19	0.43
1:f:332:PHE:CE1	1:f:339:ASP:HB3	2.54	0.43
1:i:201(H):GLU:H	1:i:201(H):GLU:CD	2.27	0.43
1:i:449:TYR:CZ	1:i:482:ASN:HB2	2.53	0.43
1:l:113:GLY:HA3	1:l:449:TYR:HD1	1.83	0.43
1:m:131:TYR:HD2	1:m:250:MET:HE3	1.83	0.43
1:n:234:GLU:CD	1:u:271:SER:HB2	2.43	0.43
1:o:387:ALA:HB2	1:o:404:PHE:CG	2.53	0.43
1:o:515:ARG:NH2	1:o:517:TYR:OH	2.52	0.43
1:s:278:LEU:HG	1:s:284:MET:HB2	2.01	0.43
1:t:180:HIS:NE2	1:t:209:ASP:OD1	2.44	0.43
1:t:238:GLY:C	1:t:240:ASN:H	2.25	0.43
1:u:245:ASN:OD1	1:u:245:ASN:N	2.52	0.43
1:v:345:TRP:CE2	1:w:348:GLU:HG3	2.53	0.43
1:y:344:ARG:HH21	1:y:348:GLU:CD	2.27	0.43
1:z:128:ARG:NE	1:z:492:PRO:HD3	2.34	0.43
1:z:201(F):GLU:HB2	1:z:201(H):GLU:OE1	2.18	0.43
1:4:240:ASN:C	1:4:242:SER:H	2.25	0.43
1:4:265:GLN:HB2	1:5:247:TRP:CZ3	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:4:267:LYS:HE3	1:5:247:TRP:HB2	1.99	0.43
1:6:327:SER:OG	1:6:328:LYS:N	2.52	0.43
1:7:231:SER:N	1:w:71:ASP:OD2	2.45	0.43
1:9:81:ALA:HB1	1:H:256:LYS:NZ	2.34	0.43
1:9:206:ALA:O	1:9:209:ASP:N	2.51	0.43
2:A:40:VAL:HB	2:A:340:ILE:O	2.19	0.43
2:A:252:ARG:NH1	2:B:240:TYR:HA	2.33	0.43
1:AA:313:SER:HA	1:AA:506:SER:O	2.19	0.43
1:AC:180:HIS:NE2	1:AC:209:ASP:OD1	2.49	0.43
1:AE:181:PHE:HD1	1:AE:187:THR:HB	1.83	0.43
1:AH:260:GLU:OE2	1:AK:72:HIS:HB2	2.19	0.43
1:AH:263:SER:HA	1:AH:476:ARG:HA	2.00	0.43
1:AH:344:ARG:HD3	1:AH:344:ARG:N	2.33	0.43
1:AI:450:TYR:HA	1:AI:479:ILE:HG22	1.99	0.43
1:AJ:259:ILE:HD12	1:AJ:480:GLY:HA3	2.00	0.43
1:AK:240:ASN:OD1	1:AM:66:ALA:N	2.52	0.43
1:AK:503:ILE:HG23	1:AK:507:LEU:HD22	2.00	0.43
1:AL:268:ALA:HB3	1:AL:471:MET:HB2	2.01	0.43
1:AO:153:MET:HB2	1:AO:189:TYR:CE1	2.54	0.43
1:AP:276:GLN:HE21	2:B:349:LEU:HB2	1.82	0.43
1:AQ:201(B):GLU:O	1:AQ:201(D):GLU:N	2.52	0.43
1:AT:88:VAL:HG21	1:Aa:278:LEU:HD13	2.00	0.43
1:AU:154:PHE:CE2	1:AU:248:ASN:HB3	2.54	0.43
1:AW:454:VAL:O	1:AW:475:THR:OG1	2.34	0.43
1:AX:265:GLN:HB2	1:AY:247:TRP:CZ3	2.54	0.43
1:AY:221:LEU:HD23	1:AY:221:LEU:H	1.83	0.43
1:AZ:79:ILE:O	1:AZ:93:PRO:HD3	2.17	0.43
1:Aa:172:THR:O	1:Aa:195:GLN:NE2	2.52	0.43
1:Ac:416:VAL:HG12	1:Ac:417:LEU:O	2.19	0.43
1:Af:109:PHE:HE1	1:Af:306:VAL:HG11	1.83	0.43
1:Af:274:LEU:HD22	1:Am:69:GLY:HA2	2.01	0.43
1:Af:417:LEU:HB3	1:Af:421:TYR:HB2	2.01	0.43
1:Ag:494:SER:C	1:Ag:496:ILE:H	2.27	0.43
1:Aj:71:ASP:HB2	1:Aj:73:GLY:H	1.83	0.43
1:Aj:264:ARG:HD2	1:Aj:477:TYR:HE2	1.83	0.43
1:Ak:242:SER:HG	1:Ak:245:ASN:HD21	1.55	0.43
2:B:235:PHE:HB2	2:B:417:GLY:O	2.19	0.43
2:D:36:TYR:O	2:D:40:VAL:HG22	2.18	0.43
1:G:268:ALA:HB3	1:G:471:MET:SD	2.59	0.43
1:M:240:ASN:OD1	1:M:240:ASN:N	2.51	0.43
1:N:510:ASN:OD1	1:N:511:ALA:N	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:94:ALA:O	1:R:123:GLN:N	2.46	0.43
1:U:254:ILE:HD12	1:w:88:VAL:HG13	2.01	0.43
1:U:273:GLU:CD	1:U:273:GLU:H	2.27	0.43
1:V:398:GLN:HB3	1:i:351:LYS:HD3	2.00	0.43
1:V:407:ASP:OD1	1:V:409:THR:OG1	2.33	0.43
1:W:466:ASN:HD22	1:W:468:GLN:H	1.67	0.43
1:Y:201(I):ASP:C	1:Y:203:THR:HG22	2.29	0.43
1:Z:281:VAL:HG22	1:Z:282:HIS:CD2	2.54	0.43
1:Z:399:GLY:HA3	1:d:393:ILE:H	1.84	0.43
1:c:494:SER:C	1:c:496:ILE:H	2.27	0.43
1:e:145:HIS:HB3	1:e:148:TYR:HB2	2.01	0.43
1:e:266:LEU:HD23	1:e:266:LEU:HA	1.76	0.43
1:f:198:ILE:HG13	1:f:199:ASP:H	1.84	0.43
1:f:344:ARG:HD3	1:f:344:ARG:N	2.34	0.43
1:h:106:LEU:HB2	1:h:303:ASN:CG	2.44	0.43
1:k:79:ILE:HD11	1:n:121:THR:HG23	2.00	0.43
1:m:448:ILE:HD13	1:m:448:ILE:HA	1.90	0.43
1:n:173:THR:HG23	1:n:195:GLN:HE21	1.84	0.43
1:o:398:GLN:OE1	1:o:399:GLY:N	2.51	0.43
1:o:450:TYR:HA	1:o:479:ILE:HG22	2.01	0.43
1:o:453:TYR:HB3	1:o:476:ARG:O	2.18	0.43
1:p:239:PHE:N	1:p:242:SER:OG	2.31	0.43
1:r:74:TYR:CE2	1:s:262:LYS:HE2	2.54	0.43
1:r:450:TYR:HA	1:r:479:ILE:HG22	2.01	0.43
1:s:458:PRO:HB3	1:s:473:PHE:HE1	1.83	0.43
1:t:407:ASP:OD2	1:t:410:LYS:NZ	2.36	0.43
1:v:279:ARG:O	1:v:283:GLY:HA2	2.18	0.43
1:3:313:SER:HA	1:3:506:SER:O	2.18	0.43
1:5:221:LEU:HD23	1:5:221:LEU:H	1.84	0.43
1:7:201(A):ASP:OD1	1:7:201(B):GLU:N	2.52	0.43
1:9:109:PHE:CE2	1:9:303:ASN:HA	2.54	0.43
1:9:231:SER:HB3	1:AA:71:ASP:OD1	2.19	0.43
1:9:377:ILE:HA	1:9:424:TYR:O	2.19	0.43
2:A:383:ALA:HB3	2:A:406:MET:HE2	2.01	0.43
1:AB:182:PHE:N	1:AB:186:GLY:O	2.52	0.43
1:AF:338:ILE:H	1:AF:338:ILE:HG12	1.59	0.43
1:AJ:318:LYS:HD2	1:AJ:356:GLN:NE2	2.33	0.43
1:AN:345:TRP:CD1	1:AN:346:ALA:N	2.87	0.43
1:AN:430:LYS:HD2	1:AN:430:LYS:HA	1.72	0.43
1:AO:147:MET:HE3	1:AO:366:ARG:HH12	1.83	0.43
1:AP:310:ILE:HG23	1:AP:513:PHE:CD2	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:273:GLU:HA	1:AR:276:GLN:HG2	2.00	0.43
1:AT:120:PRO:HD3	1:AT:453:TYR:CZ	2.53	0.43
1:AV:154:PHE:CZ	1:AV:248:ASN:HB3	2.53	0.43
1:Ab:463:ASP:OD2	1:Ab:466:ASN:ND2	2.40	0.43
1:Ad:145:HIS:CE1	1:Ad:147:MET:HG2	2.54	0.43
1:Ad:388:SER:HB3	1:Ad:401:ALA:HB2	2.01	0.43
1:Ae:154:PHE:CZ	1:Ae:248:ASN:HB3	2.54	0.43
1:Ae:350:PHE:HB2	1:Ae:389:VAL:HG21	2.01	0.43
1:Ag:141:LYS:HA	1:Ag:490:GLN:HG2	2.00	0.43
1:Ag:340:ILE:HD12	1:Ag:343:ALA:HB3	2.01	0.43
1:Ai:154:PHE:CE2	1:Ai:248:ASN:HB3	2.54	0.43
1:Ai:345:TRP:CZ2	1:Ai:347:GLY:HA3	2.54	0.43
1:Aj:72:HIS:CD2	1:Ak:121:THR:HG21	2.54	0.43
1:Aj:237:GLU:HB2	1:Aj:238:GLY:H	1.73	0.43
2:B:12:THR:O	2:B:12:THR:OG1	2.37	0.43
2:B:337:VAL:HB	2:D:28:THR:HG22	2.00	0.43
2:C:53:TYR:HB2	2:a:24:LEU:HD11	2.01	0.43
2:D:177:THR:HG23	2:D:178:GLY:H	1.84	0.43
2:D:267:TYR:CE2	2:D:337:VAL:HG21	2.53	0.43
1:G:242:SER:OG	1:G:245:ASN:ND2	2.52	0.43
1:H:158:GLY:HA2	1:H:163:PHE:HE2	1.83	0.43
1:J:89:THR:HG1	1:T:495:ARG:HH21	1.65	0.43
1:K:500:MET:HE2	1:K:500:MET:HB2	1.92	0.43
1:M:230:THR:OG1	1:M:230:THR:O	2.36	0.43
1:N:234:GLU:HB3	1:O:273:GLU:HG3	2.00	0.43
1:O:267:LYS:HA	1:O:472:GLY:HA2	2.01	0.43
1:O:273:GLU:H	1:O:273:GLU:HG2	1.63	0.43
1:S:344:ARG:HG3	1:T:344:ARG:HD3	2.01	0.43
1:T:69:GLY:HA2	1:r:274:LEU:HG	2.01	0.43
1:U:71:ASP:OD2	1:i:231:SER:N	2.47	0.43
1:V:345:TRP:NE1	1:i:348:GLU:OE2	2.51	0.43
1:V:445:ASP:OD1	1:V:445:ASP:N	2.51	0.43
1:W:265:GLN:NE2	1:X:236:GLN:OE1	2.51	0.43
1:Z:201(D):GLU:O	1:Z:201(F):GLU:N	2.50	0.43
1:Z:406:THR:OG1	1:d:372:GLU:OE2	2.36	0.43
1:d:263:SER:O	1:e:228:MET:HG2	2.18	0.43
1:e:142:GLU:HB2	1:e:490:GLN:HB3	2.00	0.43
1:f:105:ASN:OD1	1:f:105:ASN:N	2.52	0.43
1:f:201(E):ASP:N	1:f:201(E):ASP:OD1	2.52	0.43
1:k:120:PRO:HD3	1:k:453:TYR:OH	2.19	0.43
1:m:244:ASP:OD1	1:m:244:ASP:N	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:n:197:THR:HG21	1:n:200:ALA:HB3	2.01	0.43
1:n:282:HIS:O	1:n:284:MET:N	2.48	0.43
1:n:315:GLN:N	1:n:513:PHE:O	2.51	0.43
1:o:442:ASN:OD1	1:o:443:GLU:N	2.48	0.43
1:q:350:PHE:CB	1:q:389:VAL:HG11	2.46	0.43
1:u:157:GLN:HG3	1:u:226:GLU:HB3	2.00	0.43
1:v:153:MET:HB2	1:v:189:TYR:CE1	2.53	0.43
1:v:385:VAL:HG21	1:v:521:ILE:HD11	2.01	0.43
1:x:430:LYS:HD2	1:y:182:PHE:HD2	1.84	0.43
1:z:445:ASP:OD1	1:z:445:ASP:N	2.40	0.43
1:z:448:ILE:HD13	1:z:448:ILE:HA	1.87	0.43
1:1:457:THR:OG1	1:1:474:LYS:O	2.25	0.43
1:2:503:ILE:HD12	1:2:507:LEU:HD22	2.01	0.43
1:3:146:PRO:HB3	1:3:369:GLY:HA3	2.01	0.43
1:3:376:ILE:N	1:3:422:ARG:O	2.36	0.43
1:4:201(D):GLU:OE1	1:4:201(E):ASP:N	2.52	0.43
1:8:145:HIS:HB3	1:8:148:TYR:HB2	2.00	0.43
1:9:76:ALA:HB1	1:AB:496:ILE:HG22	2.00	0.43
1:9:310:ILE:O	1:9:314:ALA:N	2.51	0.43
2:A:247:GLY:C	2:A:285:SER:HB3	2.44	0.43
1:AA:72:HIS:C	1:AA:74:TYR:H	2.27	0.43
1:AD:314:ALA:HA	1:AD:513:PHE:HB2	2.01	0.43
1:AE:231:SER:HB3	1:AG:71:ASP:OD1	2.19	0.43
1:AE:332:PHE:HB3	1:AE:518:VAL:HG22	2.01	0.43
1:AH:341:ARG:HB2	1:AK:346:ALA:HB2	2.01	0.43
1:AJ:479:ILE:HD12	1:AJ:501:PRO:HD2	2.01	0.43
1:AL:198:ILE:HD13	1:AL:198:ILE:HA	1.87	0.43
1:AL:340:ILE:HG22	1:AL:352:ALA:HB3	2.01	0.43
1:AN:201(H):GLU:CD	1:AN:201(H):GLU:H	2.27	0.43
1:AQ:166:LEU:HD22	1:AQ:198:ILE:HD12	1.99	0.43
1:AR:230:THR:O	1:AR:230:THR:OG1	2.31	0.43
1:AU:309:TRP:CZ3	1:AU:501:PRO:HB2	2.53	0.43
1:Ac:263:SER:HB3	1:Ac:476:ARG:HG2	2.00	0.43
1:Ac:345:TRP:HB3	1:Ac:348:GLU:HB3	2.01	0.43
1:Ad:146:PRO:HD3	1:Am:101:ARG:HD2	1.99	0.43
1:Ah:447:GLY:HA2	1:Ah:482:ASN:HB3	1.99	0.43
2:B:40:VAL:HB	2:B:340:ILE:O	2.19	0.43
2:C:240:TYR:HA	2:D:252:ARG:NH1	2.33	0.43
1:N:459:LEU:HD13	1:e:467:PHE:HB2	2.01	0.43
1:P:109:PHE:CE1	1:P:306:VAL:HG21	2.54	0.43
1:W:447:GLY:O	1:W:448:ILE:HG13	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:222:VAL:HG11	1:c:312:TYR:HA	2.00	0.43
1:Z:264:ARG:HH11	1:d:155:SER:HB2	1.84	0.43
2:a:275:SER:HB2	2:a:321:ASP:HA	2.00	0.43
2:a:320:LEU:HB3	2:a:322:TYR:HD1	1.83	0.43
1:b:217:GLU:HA	1:e:517:TYR:CZ	2.54	0.43
1:b:479:ILE:HD12	1:b:501:PRO:HG2	2.01	0.43
1:d:454:VAL:HG22	1:d:476:ARG:HB2	2.01	0.43
1:e:379:SER:OG	1:e:380:ARG:N	2.52	0.43
1:g:201(B):GLU:O	1:g:201(D):GLU:N	2.52	0.43
1:i:100:ARG:NH1	1:i:289:GLU:OE2	2.44	0.43
1:n:103:ILE:HD12	1:n:296:THR:HG21	2.01	0.43
1:n:451:ALA:O	1:n:478:GLY:N	2.39	0.43
1:p:201(I):ASP:O	1:p:203:THR:OG1	2.32	0.43
1:r:133:LYS:HA	1:r:249:GLU:HB2	2.00	0.43
1:r:333:ASP:OD1	1:r:334:PHE:N	2.52	0.43
1:t:74:TYR:HA	1:t:79:ILE:HD11	2.00	0.43
1:t:238:GLY:C	1:t:240:ASN:N	2.76	0.43
1:u:310:ILE:O	1:u:314:ALA:N	2.52	0.43
1:u:357:ILE:HG12	1:u:434:PHE:CE2	2.54	0.43
1:w:430:LYS:HA	1:w:430:LYS:HD3	1.66	0.43
1:x:74:TYR:HA	1:x:79:ILE:HD11	1.99	0.43
1:x:495:ARG:HH21	1:z:89:THR:HG23	1.83	0.43
1:z:274:LEU:HD12	1:z:274:LEU:HA	1.75	0.43
1:z:422:ARG:NH2	1:z:424:TYR:OH	2.40	0.43
1:1:121:THR:HG22	1:1:260:GLU:HG2	2.01	0.42
1:2:259:ILE:HD12	1:2:480:GLY:HA3	2.00	0.42
1:8:123:GLN:N	1:AA:94:ALA:O	2.51	0.42
1:8:494:SER:C	1:8:496:ILE:H	2.27	0.42
1:AA:449:TYR:HE2	1:AA:482:ASN:HA	1.82	0.42
1:AB:265:GLN:HB3	1:AB:474:LYS:HG2	2.01	0.42
1:AE:345:TRP:CB	1:AE:348:GLU:HB3	2.48	0.42
1:AF:250:MET:HE3	1:AF:250:MET:HB2	1.81	0.42
1:AH:365:ALA:HB2	1:AH:372:GLU:HA	2.01	0.42
1:AL:314:ALA:O	1:AL:508:GLY:HA2	2.18	0.42
1:AM:75:ASN:O	1:AM:77:THR:N	2.52	0.42
1:AM:266:LEU:HD13	1:AM:294:LEU:HD22	2.00	0.42
1:AO:420:LYS:HE2	1:AO:420:LYS:HB3	1.82	0.42
1:AP:358:ASP:OD1	1:AP:421:TYR:OH	2.36	0.42
1:AQ:84:THR:HG21	1:AQ:90:GLN:HE21	1.85	0.42
1:AR:272:ILE:N	1:AR:468:GLN:OE1	2.43	0.42
1:AU:120:PRO:O	1:AU:121:THR:OG1	2.29	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AW:257:GLN:HE21	1:AW:497:GLN:NE2	2.16	0.42
1:AX:201(G):ASP:O	1:AX:201(I):ASP:N	2.49	0.42
1:Ab:101:ARG:HD2	1:Ab:101:ARG:HA	1.87	0.42
1:Af:247:TRP:CD1	1:Af:248:ASN:H	2.37	0.42
1:Am:121:THR:HG22	1:Am:260:GLU:HG3	2.01	0.42
2:C:46:ASN:OD1	2:a:23:ASN:ND2	2.52	0.42
1:H:145:HIS:CG	1:H:146:PRO:HD2	2.54	0.42
1:H:278:LEU:HG	1:H:284:MET:HB2	2.01	0.42
1:H:348:GLU:HB3	1:H:396:ALA:HB2	2.00	0.42
1:K:266:LEU:HD12	1:K:298:ILE:HG13	2.02	0.42
1:M:341:ARG:HH21	1:h:350:PHE:HE1	1.67	0.42
1:O:318:LYS:HB3	1:O:330:GLY:HA2	2.01	0.42
1:P:510:ASN:OD1	1:P:511:ALA:N	2.52	0.42
1:Q:128:ARG:HH21	1:Q:490:GLN:C	2.26	0.42
1:R:453:TYR:CD2	1:R:454:VAL:HG23	2.54	0.42
1:W:145:HIS:CE1	1:W:147:MET:HG2	2.54	0.42
1:b:408:THR:HB	1:b:425:ILE:HD11	2.01	0.42
1:f:345:TRP:HE3	1:f:347:GLY:H	1.59	0.42
1:j:311:ASN:HD22	1:j:515:ARG:HD2	1.84	0.42
1:k:121:THR:HA	1:k:259:ILE:O	2.19	0.42
1:k:459:LEU:HD13	1:u:467:PHE:HB2	2.00	0.42
1:l:258:VAL:HG11	1:o:80:ALA:HB2	2.00	0.42
1:p:230:THR:HG21	1:s:476:ARG:HH21	1.84	0.42
1:q:266:LEU:O	1:q:473:PHE:N	2.41	0.42
1:r:281:VAL:HG23	1:r:282:HIS:H	1.84	0.42
1:t:318:LYS:O	1:t:329:ALA:HA	2.18	0.42
1:u:201(B):GLU:HB2	1:u:207:LYS:HE3	2.00	0.42
1:v:84:THR:HG22	1:v:85:SER:H	1.83	0.42
1:v:178:TYR:N	1:v:190:LEU:O	2.45	0.42
1:w:130:VAL:HG12	1:w:142:GLU:HA	2.00	0.42
1:x:80:ALA:HA	1:x:93:PRO:HG3	2.00	0.42
1:2:348:GLU:HG3	1:5:345:TRP:NE1	2.34	0.42
1:2:351:LYS:NZ	1:2:394:SER:H	2.17	0.42
1:3:278:LEU:HG	1:3:284:MET:HB2	2.01	0.42
1:5:449:TYR:N	1:5:480:GLY:O	2.52	0.42
1:7:334:PHE:HE2	1:7:521:ILE:HG12	1.83	0.42
1:9:460:ARG:HD2	1:9:460:ARG:HA	1.88	0.42
1:AB:432:ASP:O	1:AB:518:VAL:HG22	2.19	0.42
1:AC:184:GLU:C	1:AC:186:GLY:H	2.27	0.42
1:AF:387:ALA:HB1	1:AF:403:GLY:HA3	2.01	0.42
1:AJ:515:ARG:NH2	1:AJ:517:TYR:OH	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AN:201(B):GLU:O	1:AN:201(D):GLU:N	2.51	0.42
1:AO:245:ASN:OD1	1:AO:245:ASN:N	2.51	0.42
1:AT:317:GLY:O	1:AT:330:GLY:HA2	2.19	0.42
1:AU:74:TYR:CE1	1:AX:260:GLU:HB3	2.54	0.42
1:AU:495:ARG:HE	1:AU:495:ARG:HB3	1.68	0.42
1:AW:128:ARG:NE	1:AW:490:GLN:O	2.51	0.42
1:AW:494:SER:C	1:AW:496:ILE:H	2.26	0.42
1:AX:454:VAL:O	1:AX:475:THR:OG1	2.30	0.42
1:AY:153:MET:HB2	1:AY:189:TYR:CE1	2.55	0.42
1:Af:75:ASN:OD1	1:Af:75:ASN:N	2.51	0.42
1:Af:271:SER:C	1:Af:468:GLN:HE21	2.26	0.42
1:Ah:265:GLN:HE22	1:Ai:233:ALA:HA	1.84	0.42
1:Aj:454:VAL:HG22	1:Aj:476:ARG:HB2	2.01	0.42
1:Am:132:GLY:O	1:Am:134:ASP:N	2.51	0.42
2:B:341:PHE:HD2	2:B:343:ALA:HB2	1.84	0.42
2:D:173:ARG:HH21	2:D:209:GLU:HG2	1.84	0.42
1:G:376:ILE:HG12	1:G:436:VAL:HG22	2.00	0.42
1:O:201(I):ASP:OD1	1:O:203:THR:OG1	2.27	0.42
1:P:333:ASP:OD1	1:P:334:PHE:N	2.51	0.42
1:Q:462:SER:C	1:r:464:PRO:HG3	2.44	0.42
1:S:282:HIS:O	1:S:284:MET:N	2.45	0.42
1:S:344:ARG:N	1:S:348:GLU:OE1	2.42	0.42
1:T:345:TRP:HB3	1:T:348:GLU:HG3	2.01	0.42
1:W:464:PRO:HB3	1:l:461:GLY:HA3	2.01	0.42
1:X:278:LEU:HD13	1:w:88:VAL:HG11	2.02	0.42
1:Z:417:LEU:HB3	1:Z:421:TYR:HB2	2.01	0.42
1:d:319:SER:N	1:d:322:THR:OG1	2.52	0.42
1:e:290:LEU:HD23	1:e:290:LEU:HA	1.92	0.42
1:h:259:ILE:HG13	1:h:500:MET:HG2	2.00	0.42
1:h:272:ILE:N	1:h:468:GLN:OE1	2.49	0.42
1:j:229:ALA:HB3	1:j:232:ILE:HG12	2.00	0.42
1:k:345:TRP:CD1	1:n:344:ARG:HH12	2.37	0.42
1:l:319:SER:HA	1:l:323:LEU:HB2	2.01	0.42
1:l:337:PRO:O	1:l:342:GLY:N	2.49	0.42
1:l:344:ARG:HH21	1:m:344:ARG:NH1	2.15	0.42
1:m:495:ARG:HE	1:m:495:ARG:HB3	1.72	0.42
1:o:337:PRO:O	1:o:341:ARG:N	2.52	0.42
1:o:345:TRP:CD1	1:o:346:ALA:N	2.86	0.42
1:q:153:MET:HB2	1:q:189:TYR:CE1	2.54	0.42
1:q:231:SER:HB3	1:s:71:ASP:CG	2.44	0.42
1:r:322:THR:HG22	1:r:359:LYS:HG2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:t:114:VAL:HG23	1:t:115:GLN:H	1.83	0.42
1:t:354:LEU:HD11	1:t:391:THR:HG22	2.02	0.42
1:y:264:ARG:NH1	1:y:477:TYR:OH	2.52	0.42
1:y:266:LEU:C	1:y:267:LYS:HD2	2.44	0.42
1:z:422:ARG:HH21	1:z:424:TYR:HH	1.63	0.42
1:0:265:GLN:NE2	1:AA:236:GLN:HG3	2.34	0.42
1:2:440:GLY:H	1:2:445:ASP:HB3	1.83	0.42
1:3:324:THR:O	1:3:325:PRO:C	2.63	0.42
1:6:247:TRP:CE3	1:w:267:LYS:HB3	2.53	0.42
1:8:121:THR:HA	1:8:259:ILE:O	2.20	0.42
1:8:309:TRP:HA	1:8:312:TYR:HB3	2.02	0.42
1:8:449:TYR:HE2	1:8:482:ASN:HA	1.84	0.42
2:A:220:THR:O	2:A:407:ALA:HA	2.20	0.42
1:AB:178:TYR:N	1:AB:190:LEU:O	2.41	0.42
1:AP:344:ARG:HH21	1:AQ:344:ARG:NH2	2.17	0.42
1:AP:395:TYR:HD1	1:AP:396:ALA:H	1.66	0.42
1:AR:236:GLN:HB3	1:AR:247:TRP:NE1	2.33	0.42
1:AT:75:ASN:O	1:AT:79:ILE:HG12	2.19	0.42
1:AT:420:LYS:HE3	1:AT:421:TYR:CE2	2.54	0.42
1:AU:96:MET:HE3	1:AX:122:GLY:HA3	2.01	0.42
1:AU:166:LEU:HD22	1:AU:198:ILE:HG13	2.01	0.42
1:AV:193:SER:OG	1:AY:507:LEU:HD21	2.19	0.42
1:Aa:72:HIS:CD2	1:Aa:84:THR:HG22	2.54	0.42
1:Aa:319:SER:HA	1:Aa:323:LEU:HB2	2.01	0.42
1:Ab:131:TYR:CE2	1:Ab:143:ALA:HA	2.54	0.42
1:Ab:431:GLN:NE2	1:Ac:217:GLU:OE2	2.52	0.42
1:Ab:453:TYR:HE2	1:Ab:476:ARG:HH21	1.67	0.42
1:Ae:120:PRO:HD3	1:Ae:453:TYR:OH	2.19	0.42
1:Ae:504:LEU:HD12	1:Ae:504:LEU:HA	1.84	0.42
1:Ag:312:TYR:CE1	1:Ag:507:LEU:HD23	2.54	0.42
1:Ah:348:GLU:HG2	1:Ak:345:TRP:CD1	2.54	0.42
1:Ai:494:SER:C	1:Ai:496:ILE:H	2.27	0.42
1:Al:434:PHE:CE2	1:Al:516:VAL:HB	2.54	0.42
2:B:298:LEU:HD12	2:B:299:SER:H	1.84	0.42
2:D:121:GLU:OE1	2:D:123:ASP:N	2.53	0.42
1:J:128:ARG:NH1	1:J:490:GLN:O	2.53	0.42
1:K:313:SER:HB3	1:K:510:ASN:HB2	2.02	0.42
1:K:344:ARG:HH21	1:L:344:ARG:NH2	2.18	0.42
1:M:293:ILE:HD13	1:M:293:ILE:HA	1.90	0.42
1:P:400:LEU:HD21	1:S:354:LEU:HD22	2.02	0.42
1:P:426:ASP:HB3	1:P:429:ALA:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:289:GLU:O	1:Q:293:ILE:HG12	2.19	0.42
1:S:317:GLY:HA2	1:S:514:ARG:NH1	2.34	0.42
1:T:142:GLU:HB2	1:T:490:GLN:HB3	2.01	0.42
1:e:121:THR:HG22	1:e:260:GLU:HG3	2.02	0.42
1:e:221:LEU:HD23	1:e:221:LEU:H	1.84	0.42
1:h:364:ILE:O	1:h:368:THR:HG22	2.19	0.42
1:i:253:ARG:HH21	1:i:495:ARG:HG2	1.84	0.42
1:j:494:SER:C	1:j:496:ILE:H	2.27	0.42
1:n:398:GLN:O	1:o:393:ILE:HA	2.19	0.42
1:q:380:ARG:HG2	1:q:425:ILE:HD11	2.01	0.42
1:q:420:LYS:HE3	1:q:421:TYR:CE1	2.55	0.42
1:t:128:ARG:O	1:t:130:VAL:HG23	2.19	0.42
1:y:239:PHE:CE1	1:z:468:GLN:HG2	2.54	0.42
1:0:74:TYR:HA	1:0:79:ILE:HD11	2.02	0.42
1:1:133:LYS:HA	1:1:133:LYS:HD2	1.86	0.42
1:5:199:ASP:OD1	1:5:201(D):GLU:HB3	2.18	0.42
1:7:454:VAL:HG23	1:7:476:ARG:H	1.83	0.42
1:AA:266:LEU:HD13	1:AA:294:LEU:HD22	2.01	0.42
1:AB:387:ALA:O	1:AB:401:ALA:HA	2.19	0.42
1:AD:172:THR:HG22	1:AD:196:VAL:O	2.19	0.42
1:AD:190:LEU:HB3	1:AD:221:LEU:HB2	2.02	0.42
1:AE:120:PRO:HD3	1:AE:453:TYR:CE2	2.55	0.42
1:AH:244:ASP:N	1:AH:244:ASP:OD1	2.51	0.42
1:AI:284:MET:HE2	1:AI:289:GLU:HG3	2.01	0.42
1:AP:332:PHE:CD1	1:AP:339:ASP:HB3	2.55	0.42
1:AR:408:THR:HG22	1:AR:425:ILE:HD12	2.00	0.42
1:AR:495:ARG:HE	1:AT:89:THR:HG22	1.85	0.42
1:AX:482:ASN:ND2	1:AX:483:PRO:HD2	2.35	0.42
1:AY:235:LEU:HB3	1:AY:242:SER:HB2	2.02	0.42
1:Ab:260:GLU:HG2	1:Ae:74:TYR:CE1	2.54	0.42
1:Ab:400:LEU:HD11	1:Ac:417:LEU:HG	2.01	0.42
1:Ac:190:LEU:HB3	1:Ac:221:LEU:HB3	2.01	0.42
1:Ac:231:SER:HB3	1:Ae:71:ASP:OD1	2.19	0.42
1:Ac:420:LYS:HE3	1:Ac:421:TYR:CE1	2.53	0.42
1:Af:226:GLU:HB3	1:Af:227:GLY:H	1.62	0.42
1:Af:465:LYS:HB2	1:Af:465:LYS:HE3	1.82	0.42
1:Ag:68:ILE:C	1:Z:274:LEU:HD11	2.44	0.42
1:Ah:166:LEU:HG	1:Ah:178:TYR:HB3	2.00	0.42
1:Ai:196:VAL:HG11	1:Ai:220:ALA:HB1	2.01	0.42
1:Ai:262:LYS:N	1:Ai:477:TYR:O	2.35	0.42
1:Aj:75:ASN:O	1:Aj:79:ILE:HG13	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Aj:265:GLN:HE21	1:Ak:236:GLN:HG2	1.84	0.42
2:C:158:ASP:OD1	2:C:159:ALA:N	2.53	0.42
2:C:293:GLU:HB3	2:a:291:LYS:HE2	2.01	0.42
1:K:345:TRP:CD1	1:K:346:ALA:N	2.88	0.42
1:L:267:LYS:HZ2	1:g:247:TRP:CD1	2.38	0.42
1:N:142:GLU:HB2	1:N:490:GLN:HB3	2.00	0.42
1:O:71:ASP:OD2	1:S:231:SER:N	2.52	0.42
1:S:503:ILE:HA	1:S:507:LEU:HD12	2.00	0.42
1:T:237:GLU:H	1:T:245:ASN:CG	2.27	0.42
1:T:507:LEU:H	1:T:509:LYS:HG2	1.84	0.42
1:U:201(I):ASP:OD1	1:U:201(I):ASP:N	2.43	0.42
1:X:281:VAL:HG21	1:w:90:GLN:OE1	2.19	0.42
2:a:357:VAL:HG12	2:a:377:VAL:HG13	2.01	0.42
1:j:453:TYR:HB3	1:j:476:ARG:O	2.19	0.42
1:k:416:VAL:HG12	1:k:417:LEU:O	2.19	0.42
1:m:120:PRO:HD3	1:m:453:TYR:OH	2.20	0.42
1:m:145:HIS:CG	1:m:146:PRO:HD2	2.55	0.42
1:n:238:GLY:C	1:n:240:ASN:N	2.75	0.42
1:o:365:ALA:HB2	1:o:372:GLU:HB3	2.02	0.42
1:p:200:ALA:N	1:p:211:GLU:OE2	2.51	0.42
1:p:270:TYR:OH	1:p:287:ASP:OD1	2.21	0.42
1:v:68:ILE:HD13	1:v:68:ILE:H	1.85	0.42
1:v:226:GLU:OE1	1:y:262:LYS:NZ	2.52	0.42
1:v:390:ASP:HB2	1:v:397:ALA:HB3	2.01	0.42
1:1:95:VAL:HG22	1:4:123:GLN:HE21	1.83	0.42
1:1:318:LYS:HG2	1:1:323:LEU:HD13	2.01	0.42
1:4:239:PHE:O	1:4:239:PHE:CG	2.72	0.42
1:7:125:PHE:CD1	1:7:256:LYS:HB3	2.54	0.42
1:7:254:ILE:HB	1:n:88:VAL:HA	2.01	0.42
1:7:376:ILE:HA	1:7:435:THR:O	2.19	0.42
1:8:398:GLN:O	1:9:393:ILE:HA	2.19	0.42
1:AA:107:ILE:HG21	1:AA:307:VAL:HG21	2.02	0.42
1:AE:351:LYS:NZ	1:AE:390:ASP:O	2.52	0.42
1:AF:479:ILE:H	1:AF:479:ILE:HG13	1.68	0.42
1:AG:474:LYS:HE3	1:AG:474:LYS:HB2	1.89	0.42
1:AH:101:ARG:HH22	1:AI:145:HIS:CE1	2.36	0.42
1:AH:196:VAL:HG22	1:AH:197:THR:N	2.34	0.42
1:AJ:107:ILE:HA	1:AJ:412:VAL:HG21	2.02	0.42
1:AJ:201(H):GLU:CG	1:AJ:201(I):ASP:H	2.32	0.42
1:AJ:447:GLY:HA2	1:AJ:482:ASN:HB3	2.02	0.42
1:AL:317:GLY:HA2	1:AL:514:ARG:NH1	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AL:450:TYR:HA	1:AL:479:ILE:HD13	2.00	0.42
1:AN:257:GLN:NE2	1:AN:497:GLN:OE1	2.38	0.42
1:AO:332:PHE:CE2	1:AO:334:PHE:HE1	2.38	0.42
1:AP:117:MET:HG3	1:AP:451:ALA:HB1	2.00	0.42
1:AR:68:ILE:C	1:Ak:274:LEU:HD11	2.45	0.42
1:AR:151:ASP:HB3	1:AR:154:PHE:HB2	2.01	0.42
1:AR:442:ASN:N	1:AR:445:ASP:OD2	2.51	0.42
1:AS:166:LEU:HA	1:AS:166:LEU:HD23	1.80	0.42
1:AY:128:ARG:NE	1:AY:492:PRO:HD3	2.34	0.42
1:AY:494:SER:C	1:AY:496:ILE:H	2.28	0.42
1:AZ:245:ASN:OD1	1:AZ:245:ASN:N	2.53	0.42
1:Ab:361:ALA:HB1	1:Ab:372:GLU:HG2	2.01	0.42
1:Ad:459:LEU:HD13	1:Af:467:PHE:CD1	2.55	0.42
1:Af:105:ASN:HD22	1:Af:411:SER:HA	1.84	0.42
1:Ai:343:ALA:HB1	1:Ai:348:GLU:HG3	2.02	0.42
1:Aj:198:ILE:HD13	1:Aj:198:ILE:HA	1.93	0.42
1:Aj:328:LYS:HE2	1:Aj:331:VAL:HG21	2.02	0.42
1:Al:494:SER:C	1:Al:496:ILE:H	2.27	0.42
2:D:158:ASP:OD1	2:D:159:ALA:N	2.53	0.42
1:J:315:GLN:HB2	1:J:510:ASN:O	2.19	0.42
1:K:297:GLU:HG2	1:L:250:MET:SD	2.59	0.42
1:L:304:ARG:NH2	1:g:223:GLU:OE2	2.52	0.42
1:N:238:GLY:H	1:N:245:ASN:HD21	1.66	0.42
1:O:120:PRO:O	1:O:121:THR:OG1	2.31	0.42
1:O:503:ILE:HD13	1:O:507:LEU:HD13	2.00	0.42
1:P:520:GLY:O	1:S:341:ARG:NH2	2.47	0.42
1:Q:402:THR:OG1	1:Q:403:GLY:N	2.51	0.42
1:R:376:ILE:N	1:R:422:ARG:O	2.37	0.42
1:U:179:THR:HG22	1:U:189:TYR:CD2	2.54	0.42
1:U:279:ARG:CZ	1:U:279:ARG:HB3	2.50	0.42
1:W:412:VAL:O	1:W:425:ILE:HG12	2.19	0.42
1:Y:267:LYS:HB2	1:Z:247:TRP:CE3	2.54	0.42
1:Z:374:ASN:N	1:Z:374:ASN:OD1	2.50	0.42
1:b:131:TYR:HE1	1:b:141:LYS:HB2	1.85	0.42
1:b:267:LYS:HE3	1:c:247:TRP:CG	2.54	0.42
1:d:103:ILE:HD13	1:d:103:ILE:HA	1.93	0.42
1:f:72:HIS:CD2	1:f:84:THR:HG22	2.55	0.42
1:f:465:LYS:H	1:f:465:LYS:HG3	1.64	0.42
1:j:127:LEU:HD12	1:j:254:ILE:HD11	2.01	0.42
1:l:289:GLU:O	1:l:293:ILE:HG12	2.20	0.42
1:l:344:ARG:NH1	1:l:348:GLU:OE2	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:m:131:TYR:HB3	1:m:250:MET:HE3	2.02	0.42
1:t:312:TYR:CZ	1:t:507:LEU:HG	2.55	0.42
1:v:116:PRO:HA	1:v:452:PRO:HD2	2.01	0.42
1:z:449:TYR:HE2	1:z:482:ASN:HA	1.84	0.42
1:0:358:ASP:OD1	1:0:358:ASP:N	2.52	0.42
1:5:454:VAL:HG23	1:5:476:ARG:H	1.84	0.42
1:5:494:SER:C	1:5:496:ILE:H	2.28	0.42
1:5:500:MET:N	1:5:500:MET:SD	2.92	0.42
1:6:435:THR:HA	1:6:515:ARG:HA	2.01	0.42
1:8:153:MET:HG3	1:8:189:TYR:CD1	2.54	0.42
1:8:199:ASP:HB3	1:8:200:ALA:H	1.59	0.42
1:8:393:ILE:HA	1:AA:398:GLN:O	2.19	0.42
2:A:378:ARG:NH2	1:U:273:GLU:O	2.52	0.42
1:AD:345:TRP:CD1	1:AD:346:ALA:N	2.87	0.42
1:AE:114:VAL:HG23	1:AE:115:GLN:H	1.84	0.42
1:AF:289:GLU:O	1:AF:293:ILE:HG12	2.19	0.42
1:AF:328:LYS:HE2	1:AF:328:LYS:HB2	1.91	0.42
1:AG:324:THR:O	1:AG:325:PRO:C	2.61	0.42
1:AK:120:PRO:O	1:AK:121:THR:OG1	2.34	0.42
1:AK:324:THR:O	1:AK:325:PRO:C	2.62	0.42
1:AL:76:ALA:HB1	1:AM:496:ILE:HG22	2.01	0.42
1:Ac:343:ALA:HB1	1:Ac:348:GLU:HG2	2.00	0.42
1:Ad:296:THR:O	1:Ad:300:LEU:HG	2.20	0.42
1:Ai:340:ILE:HG22	1:Ai:352:ALA:HB3	2.01	0.42
2:C:156:ILE:HD12	2:a:174:LYS:HD3	2.02	0.42
2:C:258:VAL:HG13	2:C:269:ALA:HB3	2.01	0.42
1:G:151:ASP:HB3	1:G:154:PHE:HB2	2.01	0.42
1:G:267:LYS:HB2	1:H:247:TRP:CE3	2.54	0.42
1:K:129:ALA:O	1:K:143:ALA:N	2.44	0.42
1:K:362:VAL:HG12	1:N:380:ARG:HD3	2.02	0.42
1:O:117:MET:HG3	1:O:451:ALA:HB1	2.01	0.42
1:O:465:LYS:HE3	1:O:465:LYS:HB2	1.84	0.42
1:P:154:PHE:CE2	1:P:248:ASN:HB3	2.54	0.42
1:P:462:SER:C	1:h:464:PRO:HG3	2.44	0.42
1:Q:238:GLY:HA2	1:Q:242:SER:HB2	2.02	0.42
1:S:377:ILE:HB	1:S:424:TYR:HB2	2.00	0.42
1:T:88:VAL:HA	1:s:254:ILE:HG23	2.01	0.42
1:U:153:MET:SD	1:U:163:PHE:HE2	2.43	0.42
1:X:128:ARG:HH21	1:X:490:GLN:C	2.27	0.42
1:Y:202:ALA:O	1:Y:203:THR:C	2.62	0.42
1:Z:134:ASP:HB3	1:Z:137:ALA:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:a:261:ILE:O	2:a:265:SER:N	2.48	0.42
1:b:228:MET:HE2	1:b:228:MET:HB3	1.90	0.42
1:c:176:ASP:OD1	1:c:176:ASP:N	2.52	0.42
1:c:309:TRP:HA	1:c:312:TYR:HB3	2.01	0.42
1:f:195:GLN:HG2	1:f:197:THR:CG2	2.50	0.42
1:f:196:VAL:O	1:f:196:VAL:HG22	2.20	0.42
1:f:387:ALA:HB3	1:f:401:ALA:HB1	2.00	0.42
1:f:397:ALA:HB1	1:k:393:ILE:HG23	2.02	0.42
1:g:346:ALA:HB2	1:h:341:ARG:HB2	2.00	0.42
1:l:263:SER:HA	1:l:476:ARG:HA	2.02	0.42
1:t:273:GLU:CD	1:t:273:GLU:H	2.28	0.42
1:v:465:LYS:HE2	1:v:465:LYS:HB2	1.87	0.42
1:x:163:PHE:CD1	1:x:177:ILE:HB	2.55	0.42
1:x:263:SER:HA	1:x:476:ARG:HA	2.01	0.42
1:z:131:TYR:CD1	1:z:250:MET:HE3	2.55	0.42
1:0:500:MET:HE1	1:AC:74:TYR:HB3	2.02	0.42
1:9:201:GLY:O	1:9:201(C):ASP:N	2.45	0.42
1:9:203:THR:O	1:9:204:ASP:HB2	2.20	0.42
2:A:343:ALA:HB3	2:A:380:ALA:HB3	2.02	0.42
1:AB:129:ALA:HA	1:AB:252:PHE:HA	2.02	0.42
1:AC:134:ASP:HB3	1:AC:137:ALA:HB2	2.02	0.42
1:AJ:76:ALA:HB1	1:AK:496:ILE:HG22	2.01	0.42
1:AP:190:LEU:HB3	1:AP:221:LEU:HB2	2.01	0.42
1:AR:113:GLY:HA3	1:AR:449:TYR:HD1	1.84	0.42
1:AS:351:LYS:HZ3	1:AS:390:ASP:HB3	1.85	0.42
1:AT:122:GLY:HA3	1:AW:96:MET:HE3	2.01	0.42
1:AT:345:TRP:HE3	1:AT:347:GLY:N	2.16	0.42
1:AV:190:LEU:HB3	1:AV:221:LEU:HB3	2.02	0.42
1:AZ:420:LYS:HE3	1:AZ:421:TYR:CE1	2.54	0.42
1:AZ:517:TYR:CE2	1:Aa:217:GLU:HG3	2.54	0.42
1:Aa:398:GLN:OE1	1:Aa:399:GLY:N	2.53	0.42
1:Ab:301:GLU:OE1	1:Ac:155:SER:OG	2.27	0.42
1:Ad:230:THR:O	1:Ad:230:THR:OG1	2.38	0.42
1:Ad:260:GLU:OE1	1:Am:72:HIS:ND1	2.53	0.42
1:Ae:466:ASN:HB3	1:Ae:468:GLN:HG2	2.02	0.42
1:Ai:124:VAL:HG13	1:Ai:257:GLN:HB3	2.01	0.42
1:Aj:458:PRO:HA	1:Aj:473:PHE:CD1	2.54	0.42
1:Al:269:ALA:HB2	1:Al:470:VAL:HG13	2.01	0.42
1:Al:517:TYR:CD2	1:Am:217:GLU:HG3	2.54	0.42
1:Am:426:ASP:OD2	1:Am:433:TYR:OH	2.25	0.42
1:G:266:LEU:HD12	1:G:298:ILE:HG13	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:479:ILE:H	1:G:479:ILE:HG13	1.75	0.42
1:H:82:GLY:O	1:H:89:THR:HG23	2.20	0.42
1:H:167:ALA:HA	1:H:208:LEU:HD21	2.01	0.42
1:H:268:ALA:HB3	1:H:471:MET:HB3	2.02	0.42
1:J:256:LYS:O	1:J:496:ILE:HA	2.20	0.42
1:K:172:THR:O	1:K:195:GLN:HG3	2.19	0.42
1:M:228:MET:HE1	1:M:236:GLN:HG3	2.01	0.42
1:M:230:THR:HG23	1:g:71:ASP:OD1	2.20	0.42
1:M:312:TYR:HA	1:N:222:VAL:HG21	2.02	0.42
1:N:324:THR:O	1:N:325:PRO:C	2.62	0.42
1:O:347:GLY:HA3	1:O:397:ALA:O	2.19	0.42
1:S:71:ASP:OD1	1:S:71:ASP:N	2.52	0.42
1:i:245:ASN:N	1:i:245:ASN:OD1	2.53	0.42
1:i:319:SER:HA	1:i:323:LEU:HB2	2.00	0.42
1:j:157:GLN:HA	1:j:228:MET:HB3	2.02	0.42
1:k:154:PHE:HD1	1:k:154:PHE:HA	1.68	0.42
1:l:265:GLN:HE22	1:m:233:ALA:HA	1.84	0.42
1:l:284:MET:HE2	1:l:284:MET:HB3	1.96	0.42
1:n:357:ILE:HG12	1:n:434:PHE:CE2	2.54	0.42
1:o:331:VAL:HG11	1:o:519:LYS:NZ	2.34	0.42
1:p:125:PHE:CE1	1:p:256:LYS:HB3	2.55	0.42
1:p:315:GLN:HB2	1:p:510:ASN:O	2.19	0.42
1:s:376:ILE:HG13	1:s:421:TYR:HB3	2.02	0.42
1:u:453:TYR:HE2	1:u:476:ARG:HH21	1.68	0.42
1:w:154:PHE:CE2	1:w:248:ASN:HB3	2.53	0.42
1:x:191:GLN:HB2	1:x:224:ILE:HG21	2.02	0.42
1:x:435:THR:HG22	1:x:515:ARG:HG3	2.02	0.42
1:y:324:THR:O	1:y:325:PRO:C	2.62	0.42
1:0:250:MET:HE3	1:0:250:MET:HB2	1.67	0.42
1:0:398:GLN:NE2	1:AA:351:LYS:HB3	2.35	0.42
1:5:510:ASN:OD1	1:5:511:ALA:N	2.52	0.42
1:7:245:ASN:OD1	1:7:245:ASN:N	2.51	0.42
1:7:494:SER:C	1:7:496:ILE:H	2.28	0.42
1:8:109:PHE:CZ	1:8:303:ASN:HA	2.55	0.42
1:8:274:LEU:HD13	1:8:274:LEU:HA	1.90	0.42
2:A:12:THR:O	2:A:12:THR:OG1	2.35	0.42
1:AA:111:ILE:HD12	1:AA:377:ILE:HD11	2.01	0.42
1:AA:324:THR:O	1:AA:325:PRO:C	2.63	0.42
1:AD:94:ALA:O	1:AE:123:GLN:N	2.52	0.42
1:AD:201(H):GLU:O	1:AD:201(I):ASP:C	2.62	0.42
1:AE:494:SER:C	1:AE:496:ILE:H	2.28	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AG:462:SER:C	1:AY:464:PRO:HG3	2.44	0.42
1:AH:75:ASN:O	1:AH:79:ILE:HG12	2.20	0.42
1:AH:324:THR:HG22	1:AK:521:ILE:HD13	2.00	0.42
1:AI:375:PHE:HZ	1:AI:513:PHE:HE1	1.67	0.42
1:AJ:88:VAL:HG21	1:Ai:278:LEU:HD13	2.02	0.42
1:AK:505:ASN:N	1:AK:505:ASN:OD1	2.52	0.42
1:AR:402:THR:OG1	1:AR:403:GLY:N	2.53	0.42
1:AT:267:LYS:HE3	1:AU:247:TRP:HB2	2.02	0.42
1:AV:520:GLY:HA2	1:AW:325:PRO:HD3	2.02	0.42
1:AW:324:THR:HB	1:AW:325:PRO:HD2	2.02	0.42
1:AY:420:LYS:HE2	1:AY:420:LYS:HB3	1.78	0.42
1:Ac:114:VAL:HG23	1:Ac:115:GLN:H	1.84	0.42
1:Ac:345:TRP:O	1:Ac:349:SER:OG	2.34	0.42
1:Ae:317:GLY:HA2	1:Ae:514:ARG:NH1	2.34	0.42
1:Af:201(H):GLU:H	1:Af:201(H):GLU:HG2	1.65	0.42
1:Ag:114:VAL:HG23	1:Ag:115:GLN:H	1.85	0.42
1:Ag:131:TYR:HE1	1:Ag:141:LYS:HE3	1.84	0.42
1:Ag:153:MET:HE2	1:Ag:225:ALA:HA	2.01	0.42
1:Ai:198:ILE:O	1:Ai:199:ASP:HB2	2.20	0.42
1:Al:113:GLY:H	1:Al:446:ALA:HB1	1.84	0.42
1:Al:314:ALA:O	1:Al:508:GLY:HA2	2.20	0.42
2:B:394:GLU:CD	2:B:394:GLU:H	2.27	0.42
2:D:116:PHE:HE1	2:D:128:LEU:HA	1.85	0.42
2:D:342:TYR:CD2	2:D:344:PRO:HD3	2.54	0.42
1:G:267:LYS:HG2	1:G:268:ALA:H	1.85	0.42
1:G:267:LYS:HE3	1:H:247:TRP:HB2	2.02	0.42
1:H:146:PRO:HB3	1:H:369:GLY:HA3	2.01	0.42
1:H:430:LYS:HD2	1:H:430:LYS:N	2.35	0.42
1:O:107:ILE:HD12	1:O:307:VAL:HG21	2.02	0.42
1:P:315:GLN:N	1:P:513:PHE:O	2.38	0.42
1:U:244:ASP:OD1	1:U:244:ASP:N	2.53	0.42
1:U:297:GLU:HG2	1:V:250:MET:SD	2.59	0.42
1:U:341:ARG:HB2	1:X:346:ALA:HB2	2.02	0.42
1:V:126:ALA:O	1:V:254:ILE:HA	2.20	0.42
1:V:430:LYS:HA	1:V:430:LYS:HD3	1.85	0.42
1:W:247:TRP:CE3	1:j:267:LYS:HB2	2.55	0.42
2:a:267:TYR:HB3	2:a:327:VAL:HG21	2.02	0.42
1:c:200:ALA:HA	1:c:211:GLU:HG2	2.01	0.42
1:f:147:MET:SD	1:f:367:GLN:HG3	2.60	0.42
1:f:468:GLN:HB3	1:s:239:PHE:CE2	2.55	0.42
1:f:477:TYR:CG	1:f:478:GLY:N	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:g:262:LYS:N	1:g:477:TYR:O	2.52	0.42
1:g:390:ASP:HB2	1:g:397:ALA:HB3	2.02	0.42
1:h:450:TYR:CE2	1:h:452:PRO:HG3	2.54	0.42
1:k:259:ILE:HG12	1:k:499:GLY:HA3	2.02	0.42
1:l:310:ILE:HG12	1:l:448:ILE:HD12	2.01	0.42
1:n:203:THR:O	1:n:207:LYS:N	2.31	0.42
1:n:343:ALA:HB1	1:n:348:GLU:HB2	2.00	0.42
1:r:420:LYS:HB3	1:r:420:LYS:HE2	1.82	0.42
1:s:451:ALA:O	1:s:478:GLY:N	2.53	0.42
1:s:498:SER:O	1:s:505:ASN:ND2	2.53	0.42
1:v:272:ILE:HD13	1:v:272:ILE:HA	1.92	0.42
1:0:71:ASP:HB3	1:8:230:THR:HB	2.02	0.42
1:0:360:GLU:OE1	1:0:514:ARG:NE	2.43	0.42
1:5:266:LEU:HD23	1:5:266:LEU:HA	1.87	0.42
1:6:336:ASP:HB3	1:6:339:ASP:HB2	2.02	0.42
1:6:481:ILE:HD12	1:6:481:ILE:HA	1.90	0.42
1:7:69:GLY:HA2	1:z:274:LEU:HB2	2.02	0.42
1:7:69:GLY:HA2	1:z:274:LEU:HD22	2.01	0.42
1:8:156:GLY:HA2	1:8:228:MET:HG3	2.01	0.42
1:9:181:PHE:HD1	1:9:187:THR:HB	1.85	0.42
1:9:377:ILE:O	1:9:435:THR:N	2.48	0.42
1:AB:104:PRO:HD2	1:AB:300:LEU:HD21	2.01	0.42
1:AB:145:HIS:CE1	1:AB:147:MET:HG2	2.54	0.42
1:AB:376:ILE:HG23	1:AB:423:VAL:HG13	2.02	0.42
1:AC:363:GLU:OE2	1:AC:366:ARG:NH2	2.52	0.42
1:AF:517:TYR:CZ	1:AG:217:GLU:HA	2.55	0.42
1:AH:79:ILE:HD12	1:AI:260:GLU:HG3	2.02	0.42
1:AK:281:VAL:HG11	1:AV:90:GLN:HA	2.02	0.42
1:AL:398:GLN:O	1:AM:393:ILE:HA	2.20	0.42
1:AM:314:ALA:HA	1:AM:513:PHE:HB2	2.00	0.42
1:AM:383:VAL:HG12	1:AM:406:THR:HG22	2.02	0.42
1:AM:494:SER:C	1:AM:496:ILE:H	2.27	0.42
1:AP:494:SER:C	1:AP:496:ILE:H	2.27	0.42
1:AR:201(E):ASP:O	1:AR:201(G):ASP:N	2.53	0.42
1:AU:79:ILE:HD11	1:AX:121:THR:HG23	2.02	0.42
1:AU:375:PHE:HZ	1:AU:513:PHE:HE1	1.67	0.42
1:AV:106:LEU:HD11	1:AV:300:LEU:HD22	2.02	0.42
1:AV:191:GLN:HG2	1:AV:192:ALA:H	1.84	0.42
1:AV:502:SER:OG	1:AV:503:ILE:N	2.53	0.42
1:AW:445:ASP:N	1:AW:445:ASP:OD1	2.52	0.42
1:AY:120:PRO:O	1:AY:121:THR:OG1	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AY:398:GLN:OE1	1:AY:399:GLY:N	2.52	0.42
1:AZ:201(B):GLU:O	1:AZ:201(D):GLU:N	2.52	0.42
1:Ab:305:GLU:OE1	1:Ab:477:TYR:OH	2.30	0.42
1:Ac:101:ARG:HH21	1:Al:146:PRO:HD2	1.85	0.42
1:Ad:124:VAL:HG12	1:Ad:257:GLN:HB2	2.02	0.42
1:Af:195:GLN:O	1:Af:197:THR:HG22	2.19	0.42
1:Af:449:TYR:CE2	1:Af:482:ASN:HA	2.53	0.42
1:Ak:494:SER:C	1:Ak:496:ILE:H	2.27	0.42
2:B:44:ARG:HH21	2:B:346:THR:HG1	1.62	0.42
2:B:322:TYR:HD2	2:B:324:ILE:HG13	1.85	0.42
2:C:212:LYS:HE3	2:C:317:ASN:HD21	1.84	0.42
2:D:279:ALA:HB1	2:D:312:LEU:HD21	2.01	0.42
1:G:125:PHE:CE1	1:G:256:LYS:HB3	2.54	0.42
1:H:382:VAL:O	1:H:385:VAL:HG12	2.20	0.42
1:J:216:MET:HE2	1:J:216:MET:HB3	1.90	0.42
1:M:502:SER:OG	1:M:503:ILE:N	2.53	0.42
1:U:312:TYR:CE1	1:U:507:LEU:HD12	2.55	0.42
1:W:363:GLU:OE2	1:W:366:ARG:NH1	2.51	0.42
1:Y:345:TRP:HE3	1:Y:348:GLU:H	1.66	0.42
1:Y:420:LYS:HE3	1:Y:421:TYR:CE2	2.55	0.42
1:c:236:GLN:HB3	1:c:247:TRP:NE1	2.35	0.42
1:c:503:ILE:HG23	1:c:507:LEU:HD22	2.01	0.42
1:d:317:GLY:HA2	1:d:514:ARG:NH1	2.35	0.42
1:e:153:MET:HB2	1:e:189:TYR:CE1	2.55	0.42
1:e:285:ASP:C	1:e:287:ASP:H	2.28	0.42
1:e:494:SER:C	1:e:496:ILE:H	2.28	0.42
1:i:116:PRO:HA	1:i:452:PRO:HD2	2.02	0.42
1:j:426:ASP:OD2	1:j:433:TYR:OH	2.29	0.42
1:p:155:SER:OG	1:s:301:GLU:OE1	2.31	0.42
1:p:247:TRP:CG	1:s:267:LYS:HE3	2.55	0.42
1:q:145:HIS:HB3	1:q:148:TYR:HB2	2.02	0.42
1:r:125:PHE:O	1:u:98:MET:HA	2.19	0.42
1:r:481:ILE:HD12	1:r:481:ILE:HA	1.96	0.42
1:s:231:SER:HB3	1:u:71:ASP:HB3	2.01	0.42
1:u:123:GLN:HB3	1:u:258:VAL:HG12	2.01	0.42
1:x:153:MET:HE2	1:x:189:TYR:CG	2.55	0.42
1:x:400:LEU:HD11	1:y:421:TYR:HE2	1.85	0.42
1:y:162:LYS:HB3	1:y:162:LYS:HE2	1.81	0.42
1:1:274:LEU:HD11	1:k:68:ILE:C	2.45	0.42
1:6:268:ALA:HB2	1:6:294:LEU:HD11	2.01	0.42
1:7:517:TYR:CE2	1:x:217:GLU:HA	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:8:345:TRP:NE1	1:9:348:GLU:OE2	2.52	0.42
1:8:345:TRP:CE2	1:9:348:GLU:HG2	2.54	0.42
2:A:171:LYS:HB3	2:a:144:ALA:O	2.20	0.42
1:AB:74:TYR:OH	1:AC:261:ALA:O	2.31	0.42
1:AD:142:GLU:OE1	1:AG:101:ARG:NH2	2.47	0.42
1:AF:502:SER:OG	1:AF:503:ILE:N	2.53	0.42
1:AI:114:VAL:HG23	1:AI:115:GLN:H	1.85	0.42
1:AJ:255:ASP:OD1	1:AJ:255:ASP:N	2.53	0.42
1:AJ:426:ASP:OD2	1:AJ:433:TYR:OH	2.26	0.42
1:AK:129:ALA:C	1:AK:143:ALA:HB2	2.45	0.42
1:AL:113:GLY:H	1:AL:446:ALA:HB1	1.85	0.42
1:AM:278:LEU:HD23	1:AM:286:ALA:HB2	2.01	0.42
1:AP:131:TYR:HD1	1:AP:131:TYR:HA	1.76	0.42
1:AS:324:THR:O	1:AS:325:PRO:C	2.62	0.42
1:AT:465:LYS:H	1:AT:465:LYS:HG3	1.46	0.42
1:AV:272:ILE:N	1:AV:468:GLN:OE1	2.40	0.42
1:AW:202:ALA:HB1	1:AW:207:LYS:HD3	2.02	0.42
1:AW:305:GLU:CD	1:AW:309:TRP:HE1	2.27	0.42
1:AZ:267:LYS:HZ1	1:Aa:247:TRP:CG	2.38	0.42
1:Ac:265:GLN:NE2	1:Ac:474:LYS:HE3	2.35	0.42
1:Ad:277:ASP:O	1:Ad:281:VAL:HG22	2.20	0.42
1:Ad:312:TYR:HA	1:Ae:222:VAL:HG21	2.01	0.42
1:Ag:68:ILE:HG23	1:Ak:240:ASN:ND2	2.35	0.42
2:B:182:GLU:OE1	1:V:476:ARG:HD3	2.19	0.42
2:C:41:ALA:HB2	2:C:328:VAL:HG13	2.02	0.42
2:C:53:TYR:HD1	2:C:53:TYR:HA	1.72	0.42
2:C:109:LYS:HE3	2:C:109:LYS:HB2	1.94	0.42
1:H:317:GLY:HA2	1:H:514:ARG:NH1	2.35	0.42
1:K:162:LYS:HE2	1:K:162:LYS:HB3	1.78	0.42
1:K:365:ALA:HB2	1:K:372:GLU:HA	2.00	0.42
1:L:154:PHE:CE2	1:L:248:ASN:HB3	2.54	0.42
1:P:231:SER:HB3	1:R:71:ASP:CG	2.45	0.42
1:R:323:LEU:HG	1:R:324:THR:O	2.19	0.42
1:U:72:HIS:CE1	1:V:121:THR:HG21	2.55	0.42
1:U:172:THR:HG22	1:U:196:VAL:O	2.20	0.42
1:V:448:ILE:HG12	1:V:513:PHE:HE2	1.85	0.42
1:W:123:GLN:HA	1:W:257:GLN:O	2.20	0.42
1:X:236:GLN:HA	1:X:236:GLN:HE21	1.85	0.42
1:Y:121:THR:HA	1:Y:259:ILE:O	2.20	0.42
1:Y:146:PRO:HD3	1:c:101:ARG:HD2	2.01	0.42
1:f:125:PHE:HE1	1:f:256:LYS:HE2	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:n:129:ALA:HA	1:n:252:PHE:HA	2.02	0.42
1:n:502:SER:OG	1:n:503:ILE:N	2.53	0.42
1:p:149:GLY:N	1:p:185:THR:O	2.52	0.42
1:q:336:ASP:O	1:q:340:ILE:HG12	2.20	0.42
1:t:351:LYS:HG3	1:t:389:VAL:HG21	2.02	0.42
1:2:430:LYS:HG3	1:3:216:MET:HE1	2.02	0.41
2:A:29:ARG:HG2	2:a:55:ILE:HG23	2.01	0.41
2:A:214:ILE:HG12	2:A:381:LEU:HD11	2.02	0.41
1:AB:105:ASN:O	1:AB:427:GLN:NE2	2.51	0.41
1:AD:432:ASP:HB3	1:AD:518:VAL:HG23	2.01	0.41
1:AH:344:ARG:O	1:AH:344:ARG:HG2	2.20	0.41
1:AH:505:ASN:ND2	1:AH:505:ASN:O	2.52	0.41
1:AJ:395:TYR:HD1	1:AJ:396:ALA:H	1.66	0.41
1:AL:201(B):GLU:H	1:AL:201(B):GLU:CD	2.28	0.41
1:AM:464:PRO:HG3	1:Ae:463:ASP:N	2.34	0.41
1:AO:123:GLN:HB3	1:AO:258:VAL:HG12	2.01	0.41
1:AR:166:LEU:HD23	1:AR:166:LEU:HA	1.92	0.41
1:AS:519:LYS:HE2	1:AS:519:LYS:HB2	1.89	0.41
1:AT:201(C):ASP:O	1:AT:201(D):GLU:HG3	2.20	0.41
1:AV:255:ASP:N	1:AV:255:ASP:OD1	2.53	0.41
1:AX:183:GLN:HE21	1:AX:205:ALA:HB1	1.85	0.41
1:AY:190:LEU:HG	1:AY:221:LEU:HD12	2.00	0.41
1:Ae:456:LEU:HD23	1:Ae:475:THR:HB	2.02	0.41
1:Af:281:VAL:HG21	1:Am:90:GLN:HG2	2.02	0.41
1:Ai:72:HIS:C	1:Ai:74:TYR:H	2.28	0.41
1:Ai:447:GLY:HA3	1:Ai:513:PHE:HE2	1.85	0.41
1:Am:266:LEU:HA	1:Am:266:LEU:HD23	1.77	0.41
2:B:101:PHE:CE1	2:B:108:TYR:HB2	2.55	0.41
1:J:331:VAL:HG11	1:J:519:LYS:HE2	2.02	0.41
1:K:123:GLN:HB3	1:K:258:VAL:HG12	2.02	0.41
1:M:141:LYS:HA	1:M:490:GLN:OE1	2.20	0.41
1:N:310:ILE:HG23	1:N:513:PHE:CD1	2.55	0.41
1:P:398:GLN:HB3	1:S:351:LYS:HD3	2.01	0.41
1:S:398:GLN:HG2	1:S:399:GLY:H	1.85	0.41
1:X:420:LYS:HD2	1:X:421:TYR:CZ	2.55	0.41
1:Z:169:SER:N	1:Z:199:ASP:HB2	2.30	0.41
2:a:165:LYS:NZ	1:v:91:ILE:O	2.49	0.41
1:f:153:MET:HG2	1:f:225:ALA:HA	2.02	0.41
1:f:289:GLU:O	1:f:293:ILE:HG12	2.20	0.41
1:h:442:ASN:OD1	1:h:443:GLU:N	2.53	0.41
1:k:456:LEU:HA	1:k:475:THR:HB	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:l:167:ALA:H	1:l:170:THR:HG21	1.84	0.41
1:l:313:SER:HB3	1:l:510:ASN:HB2	2.02	0.41
1:m:324:THR:O	1:m:325:PRO:C	2.63	0.41
1:q:285:ASP:OD1	1:q:285:ASP:N	2.54	0.41
1:r:109:PHE:HD1	1:r:109:PHE:HA	1.69	0.41
1:s:142:GLU:HB2	1:s:490:GLN:HB3	2.02	0.41
1:t:340:ILE:HG22	1:t:352:ALA:HB3	2.01	0.41
1:u:169:SER:H	1:u:199:ASP:HB3	1.86	0.41
1:v:259:ILE:HD11	1:y:96:MET:HE1	2.01	0.41
1:v:396:ALA:O	1:w:395:TYR:HA	2.20	0.41
1:v:494:SER:C	1:v:496:ILE:H	2.27	0.41
1:z:239:PHE:HD1	1:z:239:PHE:HA	1.67	0.41
1:z:434:PHE:CE1	1:z:516:VAL:HB	2.55	0.41
1:0:154:PHE:CZ	1:0:248:ASN:HB3	2.55	0.41
1:1:517:TYR:CE2	1:4:217:GLU:HA	2.55	0.41
1:2:204:ASP:O	1:2:205:ALA:C	2.63	0.41
1:4:434:PHE:CE1	1:4:516:VAL:HB	2.55	0.41
1:8:180:HIS:HD2	1:8:182:PHE:CE1	2.39	0.41
1:8:344:ARG:HD3	1:8:344:ARG:N	2.34	0.41
1:AC:449:TYR:CE2	1:AC:481:ILE:C	2.98	0.41
1:AE:318:LYS:N	1:AE:360:GLU:OE2	2.34	0.41
1:AF:201(D):GLU:H	1:AF:201(D):GLU:CD	2.27	0.41
1:AI:142:GLU:H	1:AI:490:GLN:HG2	1.85	0.41
1:AI:261:ALA:HA	1:AI:478:GLY:HA3	2.03	0.41
1:AI:294:LEU:HD23	1:AI:294:LEU:HA	1.94	0.41
1:AJ:131:TYR:HB3	1:AJ:250:MET:HE2	2.01	0.41
1:AK:117:MET:HG3	1:AK:451:ALA:HB1	2.02	0.41
1:AO:363:GLU:OE2	1:AO:366:ARG:NH2	2.38	0.41
1:AO:398:GLN:OE1	1:AO:399:GLY:N	2.53	0.41
1:AP:259:ILE:HA	1:AP:500:MET:SD	2.60	0.41
1:AQ:162:LYS:HE2	1:AQ:162:LYS:HB2	1.90	0.41
1:AR:440:GLY:H	1:AR:445:ASP:HB3	1.85	0.41
1:AV:380:ARG:HH11	1:AV:408:THR:HG21	1.85	0.41
1:AZ:327:SER:OG	1:AZ:339:ASP:OD1	2.29	0.41
1:Ac:84:THR:OG1	1:Ac:88:VAL:O	2.26	0.41
1:Ac:240:ASN:HD22	1:Ae:68:ILE:HD13	1.85	0.41
1:Ad:249:GLU:HA	1:Am:267:LYS:O	2.20	0.41
1:Ad:446:ALA:HB3	1:Ad:449:TYR:CE1	2.55	0.41
1:Af:104:PRO:HB2	1:Af:300:LEU:HD11	2.02	0.41
1:Af:456:LEU:HG	1:Af:473:PHE:HD2	1.84	0.41
1:Ah:387:ALA:HB1	1:Ah:403:GLY:HA3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ak:121:THR:HG22	1:Ak:260:GLU:HG3	2.03	0.41
1:Am:494:SER:C	1:Am:496:ILE:H	2.28	0.41
2:C:12:THR:O	2:C:12:THR:OG1	2.36	0.41
1:G:154:PHE:CZ	1:G:248:ASN:HB3	2.55	0.41
1:K:172:THR:HG22	1:K:196:VAL:O	2.20	0.41
1:L:114:VAL:HG23	1:L:115:GLN:H	1.85	0.41
1:L:347:GLY:HA3	1:L:397:ALA:O	2.19	0.41
1:N:72:HIS:C	1:N:74:TYR:H	2.27	0.41
1:O:271:SER:O	1:O:468:GLN:NE2	2.54	0.41
1:Q:430:LYS:HD3	1:R:185:THR:HG21	2.02	0.41
1:V:272:ILE:HD13	1:V:272:ILE:HA	1.96	0.41
1:X:324:THR:O	1:X:325:PRO:C	2.62	0.41
1:Y:112:CYS:HB2	1:Y:448:ILE:O	2.20	0.41
2:a:402:ASP:OD2	2:a:405:LYS:HB2	2.20	0.41
1:b:133:LYS:HG3	1:b:249:GLU:HG3	2.01	0.41
1:c:274:LEU:HD13	1:l:69:GLY:HA2	2.01	0.41
1:d:344:ARG:O	1:e:342:GLY:HA3	2.20	0.41
1:g:319:SER:HA	1:g:323:LEU:HB2	2.02	0.41
1:g:430:LYS:HG2	1:h:216:MET:HE1	2.02	0.41
1:i:133:LYS:HA	1:i:249:GLU:HB2	2.02	0.41
1:k:68:ILE:HG23	1:o:240:ASN:ND2	2.35	0.41
1:k:169:SER:H	1:k:199:ASP:HB3	1.84	0.41
1:m:317:GLY:HA2	1:m:514:ARG:NH1	2.35	0.41
1:n:128:ARG:O	1:n:130:VAL:HG23	2.20	0.41
1:o:494:SER:C	1:o:496:ILE:H	2.27	0.41
1:p:268:ALA:N	1:p:471:MET:O	2.51	0.41
1:p:510:ASN:OD1	1:p:511:ALA:N	2.53	0.41
1:r:236:GLN:O	1:r:237:GLU:CB	2.60	0.41
1:t:314:ALA:HA	1:t:513:PHE:HB2	2.02	0.41
1:v:401:ALA:O	1:w:420:LYS:NZ	2.37	0.41
1:w:430:LYS:HZ2	1:w:430:LYS:HG2	1.66	0.41
1:2:277:ASP:O	1:2:281:VAL:HG22	2.20	0.41
1:4:387:ALA:O	1:4:401:ALA:HA	2.20	0.41
1:5:123:GLN:HB3	1:5:258:VAL:HG12	2.02	0.41
1:5:447:GLY:O	1:5:482:ASN:N	2.53	0.41
1:5:462:SER:O	1:t:464:PRO:HG2	2.20	0.41
1:6:264:ARG:NH2	1:7:152:ALA:O	2.53	0.41
1:6:517:TYR:CE2	1:7:217:GLU:HG3	2.55	0.41
1:8:128:ARG:HB2	1:8:253:ARG:HG2	2.02	0.41
1:8:236:GLN:HG3	1:AA:265:GLN:NE2	2.36	0.41
1:9:265:GLN:HA	1:9:474:LYS:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:9:494:SER:C	1:9:496:ILE:H	2.28	0.41
1:AA:336:ASP:HB3	1:AA:339:ASP:HB2	2.02	0.41
1:AC:495:ARG:NH2	1:P:89:THR:HG23	2.35	0.41
1:AF:249:GLU:HA	1:AO:267:LYS:O	2.21	0.41
1:AF:344:ARG:H	1:AF:348:GLU:HG2	1.85	0.41
1:AH:149:GLY:HA2	1:AK:428:TYR:CD1	2.55	0.41
1:AJ:167:ALA:H	1:AJ:170:THR:HG21	1.84	0.41
1:AL:134:ASP:HB3	1:AL:137:ALA:HB2	2.02	0.41
1:AL:201(H):GLU:H	1:AL:201(H):GLU:HG2	1.67	0.41
1:AL:354:LEU:HD11	1:AL:391:THR:HG22	2.02	0.41
1:AM:344:ARG:H	1:AM:344:ARG:HG3	1.68	0.41
1:AN:503:ILE:HD12	1:AN:507:LEU:HD12	2.02	0.41
1:AO:494:SER:C	1:AO:496:ILE:H	2.29	0.41
1:AP:69:GLY:H	1:AZ:234:GLU:CD	2.28	0.41
1:AQ:344:ARG:O	1:AQ:344:ARG:HG2	2.20	0.41
1:AR:263:SER:HA	1:AR:476:ARG:HA	2.01	0.41
1:AR:344:ARG:HH21	1:AS:344:ARG:NH1	2.17	0.41
1:AR:400:LEU:HD23	1:AS:354:LEU:HD22	2.02	0.41
1:AS:154:PHE:CZ	1:AS:248:ASN:HB3	2.55	0.41
1:AU:121:THR:HA	1:AU:259:ILE:O	2.20	0.41
1:Aa:132:GLY:O	1:Aa:134:ASP:N	2.53	0.41
1:Ad:113:GLY:HA3	1:Ad:449:TYR:HD1	1.84	0.41
1:Af:153:MET:HE2	1:Af:153:MET:HB3	1.94	0.41
1:Ah:94:ALA:O	1:Ai:123:GLN:N	2.53	0.41
1:Ah:201(D):GLU:O	1:Ah:201(D):GLU:HG3	2.20	0.41
1:Ah:428:TYR:CE1	1:Ai:149:GLY:HA2	2.55	0.41
1:Aj:257:GLN:HG2	1:Aj:497:GLN:HG3	2.03	0.41
2:C:49:VAL:HG23	2:a:19:ILE:HG21	2.02	0.41
2:D:390:LYS:HB3	2:D:409:ARG:NE	2.35	0.41
1:G:153:MET:SD	1:G:225:ALA:HA	2.59	0.41
1:H:263:SER:HA	1:H:476:ARG:HA	2.02	0.41
1:L:109:PHE:HE1	1:L:306:VAL:HG21	1.84	0.41
1:O:114:VAL:HG23	1:O:115:GLN:H	1.85	0.41
1:Q:147:MET:HE3	1:Q:147:MET:HB2	1.98	0.41
1:Q:435:THR:HG22	1:Q:515:ARG:HG3	2.02	0.41
1:R:226:GLU:HG2	1:R:227:GLY:H	1.85	0.41
1:R:237:GLU:OE1	1:r:465:LYS:NZ	2.50	0.41
1:R:340:ILE:HG22	1:R:352:ALA:HB3	2.01	0.41
1:R:456:LEU:HA	1:R:475:THR:HB	2.03	0.41
1:S:383:VAL:HG12	1:S:406:THR:HG22	2.02	0.41
1:U:290:LEU:HD23	1:U:290:LEU:HA	1.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:117:MET:HG3	1:V:451:ALA:HB1	2.02	0.41
1:V:131:TYR:CZ	1:V:143:ALA:HA	2.55	0.41
1:W:121:THR:HB	1:j:93:PRO:HB3	2.01	0.41
1:X:257:GLN:HE21	1:X:499:GLY:HA2	1.85	0.41
1:Y:260:GLU:HG3	1:c:74:TYR:CG	2.54	0.41
1:Y:270:TYR:OH	1:Y:460:ARG:NH2	2.53	0.41
2:a:265:SER:O	2:a:266:THR:HG22	2.19	0.41
2:a:368:SER:OG	2:a:370:GLN:HG2	2.20	0.41
1:b:517:TYR:CE2	1:c:217:GLU:HG3	2.54	0.41
1:c:120:PRO:HD3	1:c:453:TYR:OH	2.20	0.41
1:f:142:GLU:HB2	1:f:490:GLN:HB3	2.01	0.41
1:f:199:ASP:O	1:f:200:ALA:C	2.63	0.41
1:f:444:MET:HE2	1:f:444:MET:HA	2.03	0.41
1:i:309:TRP:CZ3	1:i:501:PRO:HB2	2.55	0.41
1:k:131:TYR:HB2	1:k:154:PHE:HE2	1.84	0.41
1:m:310:ILE:HG23	1:m:513:PHE:CD1	2.55	0.41
1:n:160:ALA:HB2	1:n:228:MET:HE2	2.02	0.41
1:q:69:GLY:O	1:q:86:GLY:HA3	2.20	0.41
1:w:122:GLY:N	1:w:259:ILE:O	2.54	0.41
1:z:195:GLN:O	1:z:197:THR:HG22	2.21	0.41
1:0:217:GLU:HA	1:AC:517:TYR:CZ	2.56	0.41
1:1:216:MET:HE3	1:1:216:MET:HB2	1.92	0.41
1:2:459:LEU:H	1:2:459:LEU:HD23	1.85	0.41
1:5:319:SER:HA	1:5:323:LEU:HB2	2.02	0.41
1:6:521:ILE:HD13	1:6:521:ILE:HA	1.92	0.41
1:7:263:SER:HA	1:7:476:ARG:HA	2.02	0.41
1:7:447:GLY:O	1:7:482:ASN:N	2.53	0.41
1:8:72:HIS:NE2	1:8:90:GLN:OE1	2.43	0.41
1:9:76:ALA:O	1:9:79:ILE:HG22	2.20	0.41
1:9:88:VAL:HA	1:H:254:ILE:HG23	2.02	0.41
1:9:125:PHE:CE1	1:9:256:LYS:HB3	2.54	0.41
1:AA:309:TRP:O	1:AA:313:SER:N	2.51	0.41
1:AA:434:PHE:CE1	1:AA:516:VAL:HB	2.54	0.41
1:AC:120:PRO:O	1:AC:121:THR:OG1	2.34	0.41
1:AC:121:THR:HG22	1:AC:260:GLU:HG3	2.02	0.41
1:AE:397:ALA:HA	1:AN:394:SER:O	2.21	0.41
1:AF:127:LEU:HD12	1:AF:254:ILE:HG12	2.02	0.41
1:AI:277:ASP:OD1	1:AI:278:LEU:N	2.53	0.41
1:AL:294:LEU:HD23	1:AL:294:LEU:HA	1.82	0.41
1:AP:319:SER:HA	1:AP:323:LEU:HB2	2.01	0.41
1:AQ:114:VAL:HG23	1:AQ:115:GLN:H	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AQ:456:LEU:HD11	1:AQ:473:PHE:HB3	2.03	0.41
1:AQ:463:ASP:C	1:AQ:465:LYS:H	2.27	0.41
1:AR:154:PHE:CZ	1:AR:248:ASN:HB3	2.55	0.41
1:AS:91:ILE:HD13	1:V:95:VAL:HG21	2.02	0.41
1:AS:278:LEU:HD12	1:V:88:VAL:HG11	2.00	0.41
1:AT:217:GLU:HG2	1:AW:517:TYR:CZ	2.56	0.41
1:AT:398:GLN:OE1	1:AT:399:GLY:N	2.54	0.41
1:AU:305:GLU:OE1	1:AU:477:TYR:OH	2.22	0.41
1:AW:350:PHE:HB3	1:AW:389:VAL:HG11	2.02	0.41
1:AY:199:ASP:OD1	1:AY:201(D):GLU:HB3	2.21	0.41
1:AZ:381:ASN:HB3	1:AZ:521:ILE:HG21	2.01	0.41
1:Aa:331:VAL:HG11	1:Aa:519:LYS:NZ	2.35	0.41
1:Aa:380:ARG:NE	1:Aa:408:THR:HG21	2.34	0.41
1:Ab:69:GLY:N	1:Al:234:GLU:OE2	2.53	0.41
1:Ad:289:GLU:O	1:Ad:293:ILE:HG12	2.20	0.41
1:Ad:463:ASP:HB2	1:Af:464:PRO:HG3	2.02	0.41
1:Ae:485:ALA:O	1:Ae:511:ALA:N	2.54	0.41
1:Af:417:LEU:HD12	1:Af:417:LEU:HA	1.91	0.41
1:Af:420:LYS:HE3	1:Af:421:TYR:CE1	2.55	0.41
1:Ai:368:THR:HG22	1:Ai:511:ALA:HB1	2.02	0.41
1:Am:125:PHE:CD1	1:Am:256:LYS:HB3	2.55	0.41
2:B:61:ASP:OD2	2:B:72:TYR:OH	2.30	0.41
2:C:156:ILE:HG13	2:a:174:LYS:HB3	2.02	0.41
2:C:245:GLU:HG2	2:a:243:ALA:HB2	2.02	0.41
2:D:357:VAL:HG12	2:D:377:VAL:HG13	2.01	0.41
2:D:405:LYS:HE3	2:D:405:LYS:HB2	1.84	0.41
1:G:256:LYS:HE2	1:G:496:ILE:HG23	2.02	0.41
1:G:400:LEU:HA	1:G:400:LEU:HD22	1.86	0.41
1:H:149:GLY:H	1:H:186:GLY:HA3	1.86	0.41
1:J:323:LEU:HD13	1:J:329:ALA:HA	2.02	0.41
1:M:345:TRP:CE3	1:N:348:GLU:HB2	2.55	0.41
1:P:494:SER:C	1:P:496:ILE:H	2.29	0.41
1:R:380:ARG:NE	1:R:408:THR:OG1	2.44	0.41
1:T:178:TYR:O	1:T:190:LEU:N	2.41	0.41
1:U:265:GLN:NE2	1:V:236:GLN:HG3	2.35	0.41
1:V:345:TRP:HZ2	1:i:396:ALA:HB2	1.85	0.41
1:Y:272:ILE:HD12	1:Y:272:ILE:HA	1.84	0.41
1:Z:236:GLN:HB3	1:Z:247:TRP:NE1	2.35	0.41
1:Z:309:TRP:O	1:Z:313:SER:N	2.53	0.41
1:Z:345:TRP:HZ2	1:d:396:ALA:HB2	1.84	0.41
1:Z:495:ARG:NH1	1:j:86:GLY:O	2.40	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:c:178:TYR:O	1:c:190:LEU:N	2.44	0.41
1:d:450:TYR:HA	1:d:479:ILE:HD13	2.03	0.41
1:g:201(H):GLU:HG2	1:g:201(I):ASP:H	1.85	0.41
1:h:502:SER:N	1:h:505:ASN:OD1	2.53	0.41
1:j:228:MET:HE3	1:j:233:ALA:HB2	2.01	0.41
1:k:345:TRP:CE2	1:n:348:GLU:HG2	2.56	0.41
1:k:430:LYS:HG3	1:n:216:MET:HE1	2.01	0.41
1:r:234:GLU:HG2	1:r:235:LEU:CD1	2.50	0.41
1:s:123:GLN:OE1	1:s:256:LYS:NZ	2.47	0.41
1:s:130:VAL:HG22	1:s:142:GLU:HA	2.02	0.41
1:t:449:TYR:OH	1:t:482:ASN:OD1	2.35	0.41
1:v:381:ASN:ND2	1:v:432:ASP:OD2	2.42	0.41
1:w:347:GLY:HA3	1:w:397:ALA:O	2.20	0.41
1:0:172:THR:HB	1:0:192:ALA:HB1	2.01	0.41
1:1:121:THR:HA	1:1:259:ILE:O	2.19	0.41
1:1:410:LYS:HE2	1:1:410:LYS:HB3	1.84	0.41
1:3:75:ASN:O	1:3:79:ILE:HG13	2.21	0.41
1:4:268:ALA:HB3	1:4:471:MET:HB2	2.02	0.41
1:6:201(H):GLU:H	1:6:201(H):GLU:CD	2.28	0.41
1:7:344:ARG:NH2	1:7:348:GLU:OE2	2.53	0.41
1:9:203:THR:C	1:9:205:ALA:N	2.78	0.41
2:A:352:ASP:O	2:A:356:HIS:ND1	2.54	0.41
1:AB:462:SER:C	1:G:464:PRO:HG3	2.46	0.41
1:AC:237:GLU:H	1:AC:245:ASN:ND2	2.19	0.41
1:AF:481:ILE:HD12	1:AF:481:ILE:HA	1.92	0.41
1:AJ:260:GLU:OE1	1:AM:72:HIS:HB2	2.20	0.41
1:AK:313:SER:HA	1:AK:506:SER:O	2.20	0.41
1:AL:166:LEU:HA	1:AL:166:LEU:HD23	1.81	0.41
1:AL:239:PHE:HE2	1:AO:271:SER:HB3	1.86	0.41
1:AL:345:TRP:CD1	1:AL:346:ALA:H	2.38	0.41
1:AN:268:ALA:HB1	1:AN:290:LEU:HD13	2.02	0.41
1:AQ:216:MET:HE3	1:AQ:216:MET:HB2	1.95	0.41
1:AS:130:VAL:HG13	1:AS:141:LYS:O	2.21	0.41
1:AT:278:LEU:HD23	1:AT:278:LEU:HA	1.77	0.41
1:AT:393:ILE:HA	1:AW:398:GLN:O	2.20	0.41
1:AT:436:VAL:N	1:AT:514:ARG:O	2.47	0.41
1:AT:457:THR:OG1	1:AT:474:LYS:O	2.36	0.41
1:AV:435:THR:HG22	1:AV:515:ARG:HG3	2.02	0.41
1:Ab:128:ARG:NH1	1:Ab:492:PRO:HD3	2.35	0.41
1:Ab:351:LYS:NZ	1:Ab:394:SER:O	2.53	0.41
1:Ad:106:LEU:HD21	1:Ad:299:MET:HE3	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ag:93:PRO:HB3	1:Aj:121:THR:HG22	2.03	0.41
1:Aj:166:LEU:HD23	1:Aj:166:LEU:HA	1.95	0.41
1:Am:321:MET:HE2	1:Am:321:MET:HB3	2.00	0.41
2:B:116:PHE:HA	2:B:119:ILE:HB	2.02	0.41
2:C:74:GLY:C	2:C:144:ALA:HB2	2.45	0.41
2:D:32:THR:OG1	2:D:208:ASP:OD2	2.38	0.41
1:J:182:PHE:HB2	1:J:184:GLU:O	2.21	0.41
1:N:182:PHE:HD1	1:N:182:PHE:HA	1.77	0.41
1:O:323:LEU:HG	1:O:324:THR:O	2.21	0.41
1:O:404:PHE:HD1	1:O:415:GLY:HA3	1.85	0.41
1:S:272:ILE:HG23	1:S:469:PRO:HD3	2.03	0.41
2:a:235:PHE:HE1	2:a:419:LYS:HD2	1.86	0.41
2:a:352:ASP:O	2:a:356:HIS:ND1	2.53	0.41
1:b:481:ILE:HD12	1:b:481:ILE:HA	1.85	0.41
1:c:88:VAL:HA	1:m:254:ILE:HG23	2.01	0.41
1:c:230:THR:O	1:c:230:THR:OG1	2.38	0.41
1:c:458:PRO:HB3	1:c:473:PHE:HE1	1.86	0.41
1:f:201(H):GLU:HB2	1:f:207:LYS:HG2	2.02	0.41
1:f:517:TYR:CZ	1:k:217:GLU:HA	2.56	0.41
1:g:318:LYS:N	1:g:360:GLU:OE2	2.44	0.41
1:k:374:ASN:OD1	1:k:374:ASN:N	2.53	0.41
1:l:267:LYS:HG2	1:l:268:ALA:N	2.36	0.41
1:l:289:GLU:O	1:l:293:ILE:N	2.45	0.41
1:n:178:TYR:N	1:n:190:LEU:O	2.50	0.41
1:q:259:ILE:HD13	1:q:480:GLY:HA3	2.03	0.41
1:r:348:GLU:HG3	1:u:345:TRP:CD1	2.56	0.41
1:t:203:THR:O	1:t:207:LYS:N	2.39	0.41
1:u:256:LYS:HD3	1:u:496:ILE:HG12	2.03	0.41
1:u:502:SER:OG	1:u:503:ILE:N	2.53	0.41
1:w:106:LEU:HD21	1:w:300:LEU:HD23	2.03	0.41
1:x:238:GLY:HA2	1:x:242:SER:HB2	2.03	0.41
1:y:503:ILE:O	1:y:504:LEU:HB2	2.21	0.41
1:5:285:ASP:C	1:5:287:ASP:H	2.28	0.41
1:7:448:ILE:HA	1:7:481:ILE:HA	2.03	0.41
1:7:476:ARG:NH2	1:n:277:ASP:OD1	2.53	0.41
1:8:267:LYS:HG3	1:8:268:ALA:N	2.36	0.41
1:9:274:LEU:HD22	1:G:67:GLU:HB3	2.01	0.41
2:A:53:TYR:HD1	2:A:53:TYR:HA	1.73	0.41
2:A:56:LYS:HG2	2:A:162:GLN:O	2.21	0.41
1:AB:260:GLU:HG2	1:AB:261:ALA:H	1.86	0.41
1:AB:273:GLU:OE2	1:T:234:GLU:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AC:166:LEU:HB2	1:AC:178:TYR:HB3	2.01	0.41
1:AG:331:VAL:HG12	1:AG:517:TYR:HB2	2.03	0.41
1:AJ:425:ILE:H	1:AJ:425:ILE:HG12	1.66	0.41
1:AK:494:SER:C	1:AK:496:ILE:H	2.27	0.41
1:AL:297:GLU:HG2	1:AM:250:MET:SD	2.61	0.41
1:AL:434:PHE:CE1	1:AL:516:VAL:HB	2.55	0.41
1:AQ:383:VAL:HG12	1:AQ:406:THR:HG22	2.03	0.41
1:AQ:448:ILE:HD13	1:AQ:448:ILE:HA	1.98	0.41
1:AR:181:PHE:HD1	1:AR:187:THR:HB	1.86	0.41
1:AR:255:ASP:OD1	1:AR:255:ASP:N	2.53	0.41
1:AR:333:ASP:OD1	1:AR:334:PHE:N	2.54	0.41
1:AS:87:ALA:C	1:i:495:ARG:HH22	2.29	0.41
1:AS:414:ALA:HB3	1:AS:423:VAL:HB	2.03	0.41
1:AT:462:SER:C	1:Ah:464:PRO:HG3	2.45	0.41
1:AT:477:TYR:CG	1:AT:478:GLY:N	2.89	0.41
1:Aa:272:ILE:HG22	1:Aa:468:GLN:HE22	1.86	0.41
1:Ab:268:ALA:HB2	1:Ab:294:LEU:HD11	2.03	0.41
1:Ae:324:THR:O	1:Ae:325:PRO:C	2.63	0.41
1:Ai:142:GLU:HB2	1:Ai:490:GLN:HB3	2.03	0.41
1:Aj:237:GLU:N	1:Aj:245:ASN:HB3	2.35	0.41
1:Ak:181:PHE:HA	1:Ak:187:THR:HA	2.02	0.41
1:Ak:221:LEU:HD23	1:Ak:221:LEU:H	1.86	0.41
1:Ak:278:LEU:HD23	1:Ak:286:ALA:HB2	2.02	0.41
2:C:402:ASP:O	2:C:406:MET:HG2	2.20	0.41
2:D:99:ASP:OD1	2:D:99:ASP:N	2.53	0.41
1:J:268:ALA:HB2	1:J:294:LEU:HD11	2.02	0.41
1:O:278:LEU:HD23	1:O:278:LEU:HA	1.81	0.41
1:O:344:ARG:N	1:O:344:ARG:HD3	2.36	0.41
1:O:420:LYS:HE3	1:O:421:TYR:CE2	2.56	0.41
1:P:271:SER:OG	1:P:273:GLU:OE1	2.38	0.41
1:Q:249:GLU:OE1	1:T:267:LYS:HB3	2.21	0.41
1:S:72:HIS:CE1	1:T:121:THR:HG21	2.55	0.41
1:U:182:PHE:CE2	1:U:188:VAL:HG21	2.55	0.41
1:U:494:SER:C	1:U:496:ILE:H	2.27	0.41
1:V:107:ILE:H	1:V:303:ASN:ND2	2.15	0.41
1:V:344:ARG:O	1:V:344:ARG:HG2	2.20	0.41
1:Z:279:ARG:HB3	1:Z:279:ARG:NH1	2.36	0.41
1:Z:380:ARG:HA	1:Z:425:ILE:HD11	2.01	0.41
1:g:298:ILE:HG21	1:g:456:LEU:HD11	2.03	0.41
1:h:235:LEU:HA	1:h:239:PHE:HB3	2.03	0.41
1:i:494:SER:C	1:i:496:ILE:H	2.28	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:q:381:ASN:HB3	1:q:521:ILE:HD13	2.01	0.41
1:t:82:GLY:O	1:t:89:THR:HG23	2.20	0.41
1:u:238:GLY:H	1:u:242:SER:HB3	1.85	0.41
1:v:345:TRP:NE1	1:w:348:GLU:HG3	2.36	0.41
1:y:317:GLY:HA2	1:y:514:ARG:NH1	2.36	0.41
1:0:435:THR:HG22	1:0:515:ARG:HG3	2.02	0.41
1:1:223:GLU:HB2	1:z:308:ASP:OD1	2.20	0.41
1:1:265:GLN:NE2	1:4:228:MET:SD	2.94	0.41
1:2:238:GLY:HA3	1:2:242:SER:O	2.21	0.41
1:2:430:LYS:HD3	1:3:185:THR:HG21	2.03	0.41
1:3:449:TYR:CE2	1:3:482:ASN:HA	2.56	0.41
1:6:191:GLN:HB2	1:6:224:ILE:HG21	2.02	0.41
1:7:120:PRO:O	1:7:121:THR:OG1	2.32	0.41
1:9:447:GLY:HA3	1:9:513:PHE:CE2	2.55	0.41
2:A:108:TYR:HD1	2:A:139:LEU:HA	1.86	0.41
1:AA:148:TYR:HD2	1:AA:186:GLY:HA2	1.85	0.41
1:AA:268:ALA:N	1:AA:471:MET:O	2.53	0.41
1:AA:271:SER:OG	1:AA:273:GLU:OE1	2.39	0.41
1:AB:135:PRO:HD2	1:G:68:ILE:HD11	2.03	0.41
1:AB:386:LEU:HD13	1:AB:417:LEU:HD22	2.02	0.41
1:AE:295:ALA:HA	1:AE:456:LEU:HD21	2.02	0.41
1:AF:376:ILE:HB	1:AF:423:VAL:HG22	2.03	0.41
1:AH:234:GLU:HG3	1:Ai:468:GLN:HE22	1.86	0.41
1:AH:431:GLN:NE2	1:AI:213:LYS:HG2	2.36	0.41
1:AI:265:GLN:HE22	1:AL:233:ALA:HA	1.86	0.41
1:AJ:318:LYS:N	1:AJ:360:GLU:OE2	2.46	0.41
1:AM:314:ALA:O	1:AM:508:GLY:HA2	2.21	0.41
1:AO:191:GLN:HB2	1:AO:224:ILE:HG21	2.03	0.41
1:AP:427:GLN:H	1:AP:427:GLN:HG2	1.64	0.41
1:AQ:105:ASN:HB2	1:AQ:412:VAL:HG23	2.03	0.41
1:AQ:232:ILE:O	1:AQ:236:GLN:HG2	2.20	0.41
1:AR:354:LEU:HD22	1:Aa:400:LEU:HD11	2.02	0.41
1:AS:318:LYS:N	1:AS:360:GLU:OE2	2.50	0.41
1:AT:128:ARG:CZ	1:AT:492:PRO:HD3	2.50	0.41
1:AT:170:THR:O	1:AT:197:THR:OG1	2.35	0.41
1:AT:240:ASN:OD1	1:AT:240:ASN:N	2.54	0.41
1:AV:228:MET:HE2	1:AV:228:MET:HB3	1.86	0.41
1:AW:324:THR:O	1:AW:325:PRO:C	2.64	0.41
1:Ab:407:ASP:OD2	1:Ab:410:LYS:NZ	2.51	0.41
1:Ac:166:LEU:HD23	1:Ac:166:LEU:HA	1.84	0.41
1:Ac:273:GLU:OE2	1:K:474:LYS:HD3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:172:THR:HG1	1:Ad:196:VAL:H	1.68	0.41
1:Af:104:PRO:HD3	1:Ag:144:PHE:HB3	2.02	0.41
1:Al:344:ARG:NH1	1:Al:348:GLU:OE1	2.54	0.41
2:D:218:LEU:O	2:D:222:SER:OG	2.35	0.41
1:G:236:GLN:HB3	1:G:247:TRP:CD1	2.56	0.41
1:J:107:ILE:HD12	1:J:307:VAL:HG21	2.02	0.41
1:J:113:GLY:H	1:J:446:ALA:CB	2.32	0.41
1:J:354:LEU:HD23	1:J:354:LEU:HA	1.94	0.41
1:K:276:GLN:HA	1:K:279:ARG:CZ	2.51	0.41
1:K:351:LYS:NZ	1:K:394:SER:OG	2.44	0.41
1:L:128:ARG:NH1	1:L:489:ALA:O	2.49	0.41
1:O:297:GLU:O	1:O:301:GLU:N	2.54	0.41
1:S:166:LEU:HD23	1:S:166:LEU:HA	1.93	0.41
1:X:231:SER:HB3	1:j:71:ASP:OD1	2.20	0.41
2:a:121:GLU:OE1	2:a:123:ASP:N	2.53	0.41
1:b:267:LYS:HG2	1:b:268:ALA:N	2.36	0.41
1:c:324:THR:O	1:c:325:PRO:C	2.64	0.41
1:f:195:GLN:HG2	1:f:197:THR:HG22	2.01	0.41
1:f:344:ARG:O	1:f:344:ARG:HG2	2.20	0.41
1:f:420:LYS:HE3	1:f:421:TYR:HE1	1.85	0.41
1:g:481:ILE:HD12	1:g:481:ILE:HA	1.94	0.41
1:g:503:ILE:HA	1:g:507:LEU:HD12	2.02	0.41
1:i:453:TYR:HE2	1:i:476:ARG:HH21	1.69	0.41
1:j:267:LYS:HG2	1:j:268:ALA:N	2.36	0.41
1:n:76:ALA:HB1	1:o:496:ILE:HG22	2.02	0.41
1:o:497:GLN:HE21	1:o:497:GLN:HB2	1.69	0.41
1:p:380:ARG:NH2	1:p:427:GLN:O	2.53	0.41
1:q:133:LYS:HA	1:q:133:LYS:HD2	1.84	0.41
1:r:264:ARG:NH2	1:s:226:GLU:O	2.53	0.41
1:r:296:THR:O	1:r:300:LEU:HG	2.20	0.41
1:u:344:ARG:N	1:u:348:GLU:OE2	2.53	0.41
1:u:420:LYS:HE2	1:u:420:LYS:HB3	1.80	0.41
1:v:383:VAL:HG21	1:v:425:ILE:HG12	2.02	0.41
1:v:462:SER:HA	1:v:469:PRO:HA	2.03	0.41
1:w:314:ALA:O	1:w:508:GLY:HA2	2.20	0.41
1:z:339:ASP:OD1	1:z:339:ASP:N	2.51	0.41
1:0:189:TYR:O	1:0:223:GLU:HA	2.21	0.41
1:0:468:GLN:HA	1:0:469:PRO:HD3	1.94	0.41
1:3:131:TYR:CD2	1:3:250:MET:HE3	2.55	0.41
1:3:166:LEU:HG	1:3:178:TYR:HB3	2.03	0.41
1:3:213:LYS:HE3	1:3:213:LYS:HB2	1.82	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:4:435:THR:HA	1:4:515:ARG:HA	2.01	0.41
1:5:420:LYS:HE2	1:5:420:LYS:HB3	1.86	0.41
1:9:264:ARG:NH2	1:AB:226:GLU:O	2.53	0.41
1:AB:145:HIS:CE1	1:AB:488:ALA:HA	2.56	0.41
1:AD:145:HIS:CE1	1:AD:147:MET:HB2	2.55	0.41
1:AG:231:SER:HB3	1:AO:71:ASP:OD1	2.21	0.41
1:AH:114:VAL:HG23	1:AH:115:GLN:H	1.86	0.41
1:AH:240:ASN:N	1:AH:240:ASN:OD1	2.53	0.41
1:AI:76:ALA:HB1	1:AL:496:ILE:HG22	2.03	0.41
1:AI:400:LEU:HD22	1:AI:400:LEU:H	1.86	0.41
1:AI:481:ILE:HG13	1:AI:482:ASN:H	1.85	0.41
1:AK:129:ALA:HA	1:AK:252:PHE:HA	2.03	0.41
1:AL:240:ASN:C	1:AL:242:SER:H	2.29	0.41
1:AN:95:VAL:HG12	1:AN:97:GLY:H	1.85	0.41
1:AN:398:GLN:O	1:AO:393:ILE:HA	2.20	0.41
1:AS:323:LEU:HG	1:AS:324:THR:O	2.20	0.41
1:AS:383:VAL:HG21	1:AS:425:ILE:HG12	2.03	0.41
1:AT:345:TRP:CZ2	1:AU:348:GLU:HG2	2.56	0.41
1:AU:484:PHE:O	1:AU:487:SER:OG	2.27	0.41
1:AV:519:LYS:HE2	1:AV:519:LYS:HB2	1.88	0.41
1:AX:263:SER:O	1:AY:228:MET:HG2	2.21	0.41
1:AY:266:LEU:HD23	1:AY:266:LEU:HA	1.83	0.41
1:AZ:345:TRP:CD1	1:AZ:346:ALA:N	2.89	0.41
1:Aa:109:PHE:HD1	1:Aa:109:PHE:HA	1.79	0.41
1:Ac:142:GLU:HB2	1:Ac:490:GLN:HB3	2.02	0.41
1:Ae:231:SER:HB3	1:Am:71:ASP:OD1	2.21	0.41
1:Ag:112:CYS:HB2	1:Ag:448:ILE:O	2.20	0.41
1:Ak:350:PHE:O	1:Ak:389:VAL:HG21	2.21	0.41
1:Al:201(H):GLU:CD	1:Al:201(H):GLU:H	2.29	0.41
2:C:100:LEU:HD12	2:C:100:LEU:H	1.86	0.41
2:C:256:GLU:OE1	2:a:277:ARG:NH1	2.54	0.41
2:C:360:PHE:HE1	2:C:375:LEU:HD22	1.86	0.41
2:D:274:ALA:HB2	2:D:323:VAL:HG13	2.03	0.41
1:G:123:GLN:HA	1:G:257:GLN:O	2.21	0.41
1:G:178:TYR:O	1:G:190:LEU:N	2.30	0.41
1:G:312:TYR:HA	1:H:222:VAL:HG21	2.03	0.41
1:G:331:VAL:HG21	1:G:519:LYS:HE2	2.03	0.41
1:L:237:GLU:H	1:L:245:ASN:ND2	2.18	0.41
1:M:456:LEU:HD23	1:M:475:THR:HB	2.02	0.41
1:N:264:ARG:NH1	1:N:477:TYR:HH	2.17	0.41
1:N:265:GLN:HB3	1:N:474:LYS:HG3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:177:ILE:HD13	1:O:224:ILE:HG21	2.03	0.41
1:Q:344:ARG:NH1	1:T:345:TRP:HB2	2.36	0.41
1:R:87:ALA:C	1:c:495:ARG:HH22	2.29	0.41
1:T:153:MET:HG3	1:T:225:ALA:HA	2.01	0.41
1:U:442:ASN:OD1	1:U:443:GLU:N	2.54	0.41
1:V:502:SER:OG	1:V:503:ILE:N	2.54	0.41
1:W:79:ILE:O	1:W:93:PRO:HD3	2.21	0.41
1:W:120:PRO:HD3	1:W:453:TYR:OH	2.21	0.41
1:W:144:PHE:O	1:j:101:ARG:HG2	2.20	0.41
1:W:380:ARG:NH1	1:W:408:THR:HG21	2.25	0.41
1:Y:379:SER:OG	1:Y:380:ARG:N	2.52	0.41
2:a:38:ASP:OD1	2:a:38:ASP:N	2.53	0.41
1:c:89:THR:HG1	1:m:495:ARG:HH21	1.66	0.41
1:c:444:MET:O	1:c:449:TYR:OH	2.25	0.41
1:f:308:ASP:OD1	1:k:223:GLU:HB2	2.21	0.41
1:i:74:TYR:HD1	1:j:500:MET:HE1	1.85	0.41
1:m:420:LYS:HE3	1:m:421:TYR:CE1	2.56	0.41
1:q:189:TYR:O	1:q:223:GLU:HA	2.21	0.41
1:s:302:ILE:O	1:s:305:GLU:HB3	2.21	0.41
1:v:383:VAL:HG12	1:v:406:THR:HG22	2.03	0.41
1:w:131:TYR:HA	1:w:250:MET:HA	2.01	0.41
1:z:444:MET:O	1:z:449:TYR:OH	2.37	0.41
1:0:130:VAL:HG12	1:0:142:GLU:HA	2.02	0.41
1:0:131:TYR:HE1	1:0:141:LYS:HE3	1.86	0.41
1:0:378:ALA:HA	1:0:434:PHE:HA	2.03	0.41
1:1:67:GLU:HB3	1:k:270:TYR:HA	2.03	0.41
1:1:189:TYR:O	1:1:223:GLU:HA	2.21	0.41
1:1:464:PRO:HG3	1:n:463:ASP:N	2.36	0.41
1:1:490:GLN:H	1:1:490:GLN:CD	2.29	0.41
1:2:318:LYS:N	1:2:360:GLU:OE2	2.36	0.41
1:3:181:PHE:HE1	1:3:186:GLY:HA2	1.86	0.41
1:4:96:MET:HE3	1:5:122:GLY:HA3	2.03	0.41
1:6:430:LYS:HD2	1:6:430:LYS:HA	1.80	0.41
1:7:94:ALA:O	1:x:123:GLN:HG2	2.21	0.41
1:7:345:TRP:CD1	1:7:346:ALA:N	2.88	0.41
1:8:71:ASP:OD1	1:AB:230:THR:HB	2.21	0.41
1:8:130:VAL:HB	1:8:140:ALA:HB1	2.03	0.41
1:8:267:LYS:HA	1:8:472:GLY:HA2	2.02	0.41
1:8:400:LEU:HD21	1:9:354:LEU:HD22	2.02	0.41
1:9:114:VAL:HG23	1:9:115:GLN:H	1.86	0.41
1:9:131:TYR:HD2	1:9:143:ALA:HB2	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:9:200:ALA:C	1:9:201(A):ASP:H	2.28	0.41
1:9:390:ASP:H	1:9:397:ALA:HB3	1.86	0.41
2:A:320:LEU:HB3	2:A:322:TYR:HD1	1.86	0.41
1:AB:110:ASP:OD1	1:AB:110:ASP:N	2.48	0.41
1:AB:507:LEU:HD11	1:AC:193:SER:OG	2.21	0.41
1:AC:125:PHE:CD1	1:AC:256:LYS:HB3	2.56	0.41
1:AC:239:PHE:CE2	1:G:271:SER:HB3	2.56	0.41
1:AD:259:ILE:HG22	1:AD:500:MET:HG3	2.02	0.41
1:AD:312:TYR:CE1	1:AD:507:LEU:HD12	2.56	0.41
1:AF:131:TYR:HB3	1:AF:250:MET:HE2	2.02	0.41
1:AF:270:TYR:HA	1:AY:67:GLU:HB3	2.02	0.41
1:AF:459:LEU:HD22	1:AH:467:PHE:HB2	2.02	0.41
1:AG:191:GLN:HB2	1:AG:224:ILE:HG21	2.03	0.41
1:AG:304:ARG:HD2	1:AG:304:ARG:HA	1.90	0.41
1:AH:332:PHE:HB3	1:AH:518:VAL:HG22	2.03	0.41
1:AK:447:GLY:HA3	1:AK:513:PHE:HE2	1.86	0.41
1:AK:448:ILE:HD13	1:AK:481:ILE:HG22	2.03	0.41
1:AK:457:THR:HA	1:AK:458:PRO:HD3	1.93	0.41
1:AK:503:ILE:HD12	1:AK:507:LEU:HD22	2.02	0.41
1:AM:245:ASN:OD1	1:AM:245:ASN:N	2.53	0.41
1:AM:264:ARG:HG3	1:AM:477:TYR:HE1	1.86	0.41
1:AM:266:LEU:HD23	1:AM:266:LEU:HA	1.86	0.41
1:AM:468:GLN:HG3	1:Ab:239:PHE:CE2	2.54	0.41
1:AP:84:THR:HG22	1:AP:85:SER:H	1.86	0.41
1:AQ:410:LYS:HE2	1:AQ:410:LYS:HB3	1.84	0.41
1:AR:166:LEU:HG	1:AR:178:TYR:HB3	2.02	0.41
1:AT:217:GLU:HG2	1:AW:517:TYR:CE2	2.56	0.41
1:AT:274:LEU:HA	1:AT:274:LEU:HD12	1.77	0.41
1:AU:266:LEU:HD23	1:AU:266:LEU:HA	1.83	0.41
1:AU:420:LYS:HE3	1:AU:421:TYR:CE1	2.56	0.41
1:AV:121:THR:HG22	1:AY:79:ILE:HG23	2.03	0.41
1:AW:120:PRO:O	1:AW:121:THR:OG1	2.33	0.41
1:AW:457:THR:HA	1:AW:458:PRO:HD3	1.93	0.41
1:AX:317:GLY:HA2	1:AX:514:ARG:NH1	2.35	0.41
1:AX:357:ILE:HG12	1:AX:434:PHE:CE2	2.56	0.41
1:Aa:454:VAL:HG23	1:Aa:476:ARG:H	1.86	0.41
1:Ab:146:PRO:HB3	1:Ab:369:GLY:HA3	2.03	0.41
1:Ac:344:ARG:HG2	1:Ac:344:ARG:O	2.20	0.41
1:Ac:344:ARG:N	1:Ac:344:ARG:HD3	2.36	0.41
1:Ae:240:ASN:ND2	1:Ae:240:ASN:O	2.54	0.41
1:Ae:404:PHE:HB3	1:Ae:414:ALA:HB1	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Af:260:GLU:HB2	1:Af:500:MET:SD	2.61	0.41
1:Af:271:SER:O	1:Af:272:ILE:HB	2.21	0.41
1:Af:519:LYS:NZ	1:Ag:217:GLU:OE2	2.47	0.41
1:Ag:264:ARG:N	1:Ag:475:THR:O	2.39	0.41
1:Ag:386:LEU:HD13	1:Ag:386:LEU:HA	1.96	0.41
1:Ah:231:SER:O	1:Ah:235:LEU:HD13	2.21	0.41
1:Ah:236:GLN:O	1:Ah:237:GLU:HB2	2.20	0.41
1:Aj:274:LEU:HD12	1:i:69:GLY:HA2	2.03	0.41
1:Aj:282:HIS:O	1:Aj:284:MET:N	2.46	0.41
1:Aj:502:SER:OG	1:Aj:503:ILE:N	2.54	0.41
1:Al:345:TRP:CD1	1:Al:346:ALA:N	2.88	0.41
2:B:70:ALA:HB2	2:B:106:ILE:HG12	2.02	0.41
2:B:158:ASP:OD1	2:B:159:ALA:N	2.54	0.41
2:B:274:ALA:HB3	2:B:279:ALA:HB2	2.01	0.41
2:C:251:TYR:HE1	2:C:306:LEU:HG	1.85	0.41
2:C:265:SER:O	2:C:266:THR:HG22	2.20	0.41
2:C:308:ASN:HB3	2:C:310:LEU:HG	2.01	0.41
2:C:320:LEU:HD23	2:C:320:LEU:HA	1.88	0.41
2:C:390:LYS:C	2:C:392:GLU:H	2.28	0.41
2:D:367:GLU:H	2:D:367:GLU:HG3	1.55	0.41
1:G:109:PHE:CE1	1:G:306:VAL:HG21	2.56	0.41
1:G:250:MET:HB3	1:J:294:LEU:HD21	2.02	0.41
1:H:235:LEU:HD12	1:H:242:SER:HB3	2.03	0.41
1:J:153:MET:HE1	1:J:226:GLU:HB2	2.02	0.41
1:J:344:ARG:HH21	1:J:348:GLU:CD	2.27	0.41
1:M:327:SER:OG	1:M:328:LYS:N	2.54	0.41
1:M:358:ASP:OD1	1:M:421:TYR:OH	2.28	0.41
1:O:398:GLN:O	1:P:393:ILE:HA	2.20	0.41
1:O:400:LEU:HD21	1:P:354:LEU:HD22	2.03	0.41
1:P:71:ASP:CG	1:T:231:SER:HB3	2.46	0.41
1:P:147:MET:HE2	1:P:147:MET:HB3	1.93	0.41
1:Q:120:PRO:HD3	1:Q:453:TYR:OH	2.21	0.41
1:Q:344:ARG:NH1	1:Q:348:GLU:OE2	2.54	0.41
1:Q:357:ILE:HG12	1:Q:434:PHE:CE2	2.55	0.41
1:R:106:LEU:H	1:R:106:LEU:HG	1.74	0.41
1:S:236:GLN:HA	1:S:245:ASN:HB3	2.03	0.41
1:U:91:ILE:HD13	1:U:91:ILE:HA	1.88	0.41
1:U:200:ALA:HB2	1:U:211:GLU:CD	2.45	0.41
1:U:272:ILE:HD13	1:U:272:ILE:HA	1.97	0.41
1:V:101:ARG:HE	1:i:146:PRO:HD3	1.85	0.41
1:V:297:GLU:HG2	1:i:250:MET:SD	2.61	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:350:PHE:HB2	1:V:389:VAL:HG11	2.02	0.41
1:W:240:ASN:HD21	1:i:68:ILE:HD11	1.85	0.41
1:W:267:LYS:HE3	1:X:247:TRP:CG	2.56	0.41
1:W:464:PRO:HG3	1:l:463:ASP:N	2.36	0.41
1:Y:75:ASN:O	1:Y:79:ILE:HG12	2.21	0.41
1:Y:105:ASN:HB2	1:Y:412:VAL:HG23	2.03	0.41
1:Y:273:GLU:H	1:Y:273:GLU:HG2	1.65	0.41
1:Y:462:SER:C	1:l:464:PRO:HG3	2.45	0.41
1:Y:465:LYS:HE3	1:Y:465:LYS:HB2	1.80	0.41
1:Z:121:THR:HA	1:Z:259:ILE:O	2.20	0.41
1:Z:389:VAL:HG12	1:Z:397:ALA:O	2.20	0.41
2:a:44:ARG:NH2	2:a:346:THR:OG1	2.42	0.41
1:b:94:ALA:H	1:c:122:GLY:HA2	1.86	0.41
1:c:146:PRO:HB3	1:c:369:GLY:HA3	2.02	0.41
1:c:201(F):GLU:HB3	1:c:201(G):ASP:H	1.70	0.41
1:c:449:TYR:OH	1:c:482:ASN:ND2	2.54	0.41
1:d:267:LYS:HG3	1:d:471:MET:O	2.21	0.41
1:e:380:ARG:NH2	1:e:408:THR:OG1	2.40	0.41
1:g:360:GLU:OE1	1:g:514:ARG:HD3	2.21	0.41
1:h:245:ASN:N	1:h:245:ASN:OD1	2.53	0.41
1:k:70:GLY:HA3	1:k:86:GLY:H	1.86	0.41
1:k:301:GLU:HG2	1:n:152:ALA:HA	2.03	0.41
1:l:357:ILE:HG12	1:l:434:PHE:CE2	2.56	0.41
1:m:149:GLY:H	1:m:186:GLY:HA3	1.86	0.41
1:m:438:TYR:HB3	1:m:512:TYR:HD2	1.86	0.41
1:o:128:ARG:NH1	1:o:490:GLN:O	2.54	0.41
1:q:232:ILE:O	1:q:236:GLN:HG2	2.21	0.41
1:r:447:GLY:O	1:r:448:ILE:HG13	2.20	0.41
1:r:517:TYR:CD1	1:s:217:GLU:HG3	2.56	0.41
1:s:121:THR:HA	1:s:259:ILE:O	2.20	0.41
1:s:170:THR:HG22	1:s:198:ILE:HB	2.03	0.41
1:t:268:ALA:HB2	1:t:294:LEU:HD11	2.03	0.41
1:t:318:LYS:HG3	1:t:356:GLN:NE2	2.35	0.41
1:u:236:GLN:HG3	1:u:247:TRP:CD1	2.56	0.41
1:w:72:HIS:C	1:w:74:TYR:H	2.29	0.41
1:w:127:LEU:HD12	1:w:254:ILE:HG12	2.02	0.41
1:x:201(G):ASP:OD2	1:x:202:ALA:HB3	2.21	0.41
1:y:131:TYR:HB2	1:y:250:MET:HG2	2.03	0.41
1:y:309:TRP:CZ3	1:y:501:PRO:HB2	2.56	0.41
1:y:444:MET:HE2	1:y:444:MET:HB2	1.98	0.41
1:z:151:ASP:OD2	1:z:189:TYR:OH	2.25	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:294:LEU:HD23	1:0:294:LEU:HA	1.89	0.41
1:0:377:ILE:HB	1:0:435:THR:OG1	2.20	0.41
1:1:494:SER:C	1:1:496:ILE:H	2.29	0.41
1:2:153:MET:HE3	1:2:163:PHE:HE2	1.85	0.41
1:2:263:SER:HB3	1:2:476:ARG:HG2	2.03	0.41
1:2:426:ASP:OD2	1:2:433:TYR:OH	2.28	0.41
1:4:466:ASN:HB3	1:r:237:GLU:O	2.21	0.41
1:5:345:TRP:CD1	1:5:346:ALA:N	2.89	0.41
1:5:463:ASP:HB3	1:5:466:ASN:OD1	2.21	0.41
1:7:75:ASN:ND2	1:7:77:THR:H	2.19	0.41
1:7:234:GLU:O	1:7:234:GLU:HG2	2.21	0.41
1:7:264:ARG:HH21	1:7:305:GLU:CD	2.26	0.41
1:9:434:PHE:CE1	1:9:516:VAL:HB	2.56	0.41
2:A:394:GLU:CD	2:A:394:GLU:H	2.29	0.41
2:A:395:ALA:HB3	2:A:398:ILE:HD11	2.03	0.41
1:AC:104:PRO:HD2	1:AC:300:LEU:HD21	2.03	0.41
1:AC:357:ILE:HG12	1:AC:434:PHE:CE2	2.56	0.41
1:AE:121:THR:HA	1:AE:259:ILE:O	2.20	0.41
1:AE:260:GLU:HB2	1:AE:500:MET:SD	2.62	0.41
1:AE:417:LEU:HD12	1:AE:417:LEU:HA	1.84	0.41
1:AE:428:TYR:CZ	1:AN:150:PRO:HD3	2.55	0.41
1:AE:456:LEU:HD12	1:AE:456:LEU:HA	1.91	0.41
1:AG:209:ASP:O	1:AG:213:LYS:HG3	2.21	0.41
1:AG:263:SER:HB3	1:AG:476:ARG:HG2	2.03	0.41
1:AH:289:GLU:O	1:AH:293:ILE:HG12	2.21	0.41
1:AJ:125:PHE:CD1	1:AJ:256:LYS:HB3	2.56	0.41
1:AJ:201(H):GLU:OE1	1:AJ:201(H):GLU:N	2.52	0.41
1:AM:149:GLY:H	1:AM:186:GLY:HA3	1.86	0.41
1:AP:152:ALA:O	1:AS:264:ARG:NH2	2.54	0.41
1:AS:463:ASP:N	1:Ak:464:PRO:HG3	2.36	0.41
1:AS:521:ILE:HD12	1:AS:521:ILE:HA	1.81	0.41
1:AU:457:THR:OG1	1:AU:474:LYS:O	2.35	0.41
1:Aa:376:ILE:HG12	1:Aa:436:VAL:HG22	2.02	0.41
1:Ac:79:ILE:HG23	1:Al:121:THR:HG23	2.03	0.41
1:Ac:180:HIS:HD2	1:Ac:182:PHE:CE1	2.39	0.41
1:Ag:500:MET:HE3	1:Ag:500:MET:HB2	1.92	0.41
1:Ah:131:TYR:HE1	1:Ah:141:LYS:HE3	1.86	0.41
1:Ak:153:MET:HB2	1:Ak:189:TYR:CE1	2.56	0.41
1:Ak:309:TRP:CZ3	1:Ak:501:PRO:HB2	2.56	0.41
1:Ak:474:LYS:HB3	1:Ak:474:LYS:HE2	1.85	0.41
1:Al:130:VAL:HG12	1:Al:131:TYR:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:390:LYS:C	2:B:392:GLU:H	2.28	0.41
2:C:131:ALA:HB1	2:C:136:LYS:HB3	2.03	0.41
2:D:19:ILE:H	2:D:19:ILE:HG13	1.55	0.41
2:D:320:LEU:HB3	2:D:322:TYR:HD1	1.85	0.41
1:J:453:TYR:HB3	1:J:476:ARG:O	2.21	0.41
1:K:174:VAL:HG13	1:K:193:SER:HA	2.02	0.41
1:M:93:PRO:HG2	1:N:123:GLN:OE1	2.20	0.41
1:O:272:ILE:HD12	1:O:272:ILE:HA	1.91	0.41
1:R:88:VAL:HG21	1:b:278:LEU:HD13	2.03	0.41
1:S:94:ALA:O	1:T:123:GLN:HG2	2.21	0.41
1:T:120:PRO:HD3	1:T:453:TYR:OH	2.21	0.41
1:U:234:GLU:OE2	1:o:271:SER:OG	2.33	0.41
1:V:177:ILE:HA	1:V:191:GLN:HA	2.03	0.41
1:V:344:ARG:HD3	1:V:344:ARG:N	2.35	0.41
1:X:504:LEU:HD12	1:X:504:LEU:HA	1.93	0.41
1:Y:267:LYS:HE3	1:Z:247:TRP:HB2	2.03	0.41
1:Z:74:TYR:CE1	1:d:260:GLU:HB3	2.55	0.41
1:Z:484:PHE:O	1:Z:487:SER:OG	2.35	0.41
1:c:278:LEU:HD13	1:l:88:VAL:HG21	2.02	0.41
1:f:345:TRP:CE2	1:k:348:GLU:HG2	2.55	0.41
1:j:233:ALA:C	1:j:235:LEU:H	2.29	0.41
1:m:224:ILE:HG12	1:m:225:ALA:N	2.36	0.41
1:o:315:GLN:HB2	1:o:510:ASN:O	2.21	0.41
1:p:174:VAL:HG13	1:p:195:GLN:HE22	1.86	0.41
1:p:414:ALA:HB2	1:p:425:ILE:HG22	2.03	0.41
1:u:312:TYR:CZ	1:u:507:LEU:HD13	2.56	0.41
1:y:278:LEU:HD11	1:y:284:MET:HE2	2.03	0.41
1:z:417:LEU:HD12	1:z:417:LEU:HA	1.80	0.41
1:0:305:GLU:OE1	1:0:477:TYR:OH	2.35	0.40
1:1:274:LEU:H	1:1:274:LEU:HD12	1.86	0.40
1:2:68:ILE:H	1:2:68:ILE:HG13	1.76	0.40
1:2:357:ILE:HD13	1:2:376:ILE:HD13	2.04	0.40
2:A:143:ALA:HA	2:B:173:ARG:HD3	2.01	0.40
1:AA:485:ALA:O	1:AA:511:ALA:N	2.55	0.40
1:AA:503:ILE:O	1:AA:504:LEU:HB2	2.21	0.40
1:AC:215:GLN:HB3	1:AC:220:ALA:HB3	2.03	0.40
1:AE:289:GLU:O	1:AE:293:ILE:HG13	2.21	0.40
1:AF:458:PRO:HB3	1:AF:473:PHE:CE1	2.57	0.40
1:AG:238:GLY:HA2	1:AG:242:SER:OG	2.21	0.40
1:AQ:387:ALA:HB3	1:AQ:401:ALA:HB1	2.03	0.40
1:AQ:434:PHE:CE1	1:AQ:516:VAL:HB	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AR:398:GLN:OE1	1:AR:399:GLY:N	2.54	0.40
1:AS:166:LEU:HD13	1:AS:212:ILE:HD12	2.02	0.40
1:AS:304:ARG:HD2	1:AS:304:ARG:HA	1.93	0.40
1:AW:364:ILE:HD11	1:AW:436:VAL:HG23	2.03	0.40
1:AX:450:TYR:HD1	1:AX:479:ILE:HD11	1.86	0.40
1:AY:383:VAL:HG21	1:AY:425:ILE:HG13	2.03	0.40
1:AZ:142:GLU:N	1:AZ:490:GLN:OE1	2.46	0.40
1:AZ:157:GLN:N	1:AZ:227:GLY:O	2.54	0.40
1:AZ:278:LEU:HD23	1:AZ:286:ALA:HB2	2.03	0.40
1:Ab:134:ASP:OD1	1:Ab:137:ALA:N	2.54	0.40
1:Ac:113:GLY:H	1:Ac:446:ALA:CB	2.34	0.40
1:Af:344:ARG:H	1:Af:344:ARG:HD3	1.86	0.40
1:Ah:131:TYR:HB3	1:Ah:250:MET:HG3	2.02	0.40
1:Ah:247:TRP:CZ3	1:Ak:265:GLN:HB3	2.56	0.40
1:Aj:464:PRO:HG3	1:j:462:SER:C	2.46	0.40
1:Ak:264:ARG:NH2	1:Ak:305:GLU:OE1	2.35	0.40
2:C:187:LEU:HD23	2:C:187:LEU:HA	1.87	0.40
2:C:316:THR:HG21	2:D:262:GLN:HG2	2.03	0.40
2:D:55:ILE:HB	2:D:163:ILE:HG12	2.02	0.40
1:G:109:PHE:HE1	1:G:306:VAL:HG21	1.86	0.40
1:H:142:GLU:N	1:H:490:GLN:OE1	2.45	0.40
1:J:387:ALA:HB2	1:J:404:PHE:CG	2.56	0.40
1:K:75:ASN:O	1:K:79:ILE:HG13	2.21	0.40
1:K:101:ARG:HD2	1:K:101:ARG:HA	1.84	0.40
1:K:426:ASP:OD2	1:K:433:TYR:OH	2.30	0.40
1:L:122:GLY:N	1:L:259:ILE:O	2.54	0.40
1:M:202:ALA:HB1	1:M:206:ALA:HB3	2.03	0.40
1:M:258:VAL:HG21	1:h:76:ALA:HA	2.03	0.40
1:O:242:SER:HB2	1:O:245:ASN:ND2	2.31	0.40
1:P:149:GLY:N	1:P:185:THR:O	2.54	0.40
1:Q:260:GLU:OE1	1:T:72:HIS:HB2	2.21	0.40
1:R:98:MET:HE1	1:R:284:MET:SD	2.60	0.40
1:R:521:ILE:HD12	1:R:521:ILE:HA	1.96	0.40
1:S:376:ILE:O	1:S:376:ILE:HG12	2.21	0.40
1:U:474:LYS:HD3	1:w:273:GLU:OE2	2.21	0.40
2:a:390:LYS:HE3	2:a:390:LYS:HB2	1.80	0.40
1:d:345:TRP:CD1	1:d:346:ALA:H	2.39	0.40
1:g:333:ASP:H	1:g:339:ASP:CG	2.27	0.40
1:g:357:ILE:HG12	1:g:434:PHE:CE2	2.55	0.40
1:h:176:ASP:OD1	1:h:176:ASP:N	2.54	0.40
1:h:414:ALA:HB3	1:h:423:VAL:HB	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:j:153:MET:HE1	1:j:157:GLN:HB3	2.03	0.40
1:j:160:ALA:HB2	1:j:232:ILE:HG21	2.02	0.40
1:k:231:SER:HB3	1:m:71:ASP:OD1	2.21	0.40
1:l:259:ILE:HD12	1:l:480:GLY:HA3	2.04	0.40
1:l:411:SER:OG	1:l:412:VAL:N	2.54	0.40
1:n:234:GLU:OE2	1:u:271:SER:HB2	2.20	0.40
1:n:486:GLU:HG3	1:n:509:LYS:HB3	2.02	0.40
1:n:503:ILE:HA	1:n:507:LEU:HD12	2.03	0.40
1:r:101:ARG:NH1	1:s:146:PRO:HD3	2.36	0.40
1:s:504:LEU:HA	1:s:504:LEU:HD12	1.87	0.40
1:v:93:PRO:HB2	1:w:123:GLN:HB2	2.03	0.40
1:x:201(H):GLU:HG2	1:x:201(I):ASP:N	2.36	0.40
1:0:279:ARG:NH1	1:0:285:ASP:HB3	2.35	0.40
1:1:328:LYS:HB2	1:1:331:VAL:HG13	2.02	0.40
1:2:217:GLU:HG2	1:5:517:TYR:CG	2.56	0.40
1:2:255:ASP:OD1	1:2:255:ASP:N	2.54	0.40
1:3:201(A):ASP:OD1	1:3:201(A):ASP:N	2.53	0.40
1:4:398:GLN:O	1:5:393:ILE:HA	2.21	0.40
1:6:260:GLU:HG2	1:6:261:ALA:H	1.85	0.40
1:6:341:ARG:NH2	1:w:520:GLY:O	2.53	0.40
1:7:263:SER:HB3	1:7:476:ARG:HG2	2.04	0.40
1:7:267:LYS:HG2	1:7:268:ALA:N	2.36	0.40
1:8:109:PHE:HZ	1:8:303:ASN:HA	1.86	0.40
1:8:114:VAL:HG23	1:8:115:GLN:H	1.85	0.40
1:8:490:GLN:OE1	1:8:490:GLN:N	2.47	0.40
1:9:236:GLN:HB3	1:9:247:TRP:NE1	2.36	0.40
1:9:290:LEU:HD23	1:9:290:LEU:HA	1.90	0.40
1:AA:198:ILE:O	1:AA:199:ASP:HB2	2.21	0.40
1:AA:198:ILE:HD12	1:AA:215:GLN:HG3	2.03	0.40
1:AB:236:GLN:OE1	1:AB:245:ASN:ND2	2.54	0.40
1:AC:444:MET:O	1:AC:449:TYR:OH	2.35	0.40
1:AC:510:ASN:OD1	1:AC:511:ALA:N	2.54	0.40
1:AD:162:LYS:HB3	1:AD:162:LYS:HE2	1.79	0.40
1:AD:500:MET:HE2	1:AD:500:MET:HB2	1.99	0.40
1:AF:236:GLN:HB3	1:AF:247:TRP:NE1	2.35	0.40
1:AF:435:THR:HA	1:AF:515:ARG:HA	2.02	0.40
1:AI:314:ALA:HA	1:AI:513:PHE:HB2	2.02	0.40
1:AJ:412:VAL:HA	1:AJ:425:ILE:HD11	2.03	0.40
1:AJ:495:ARG:HH21	1:Ad:89:THR:HG23	1.86	0.40
1:AK:88:VAL:HA	1:AW:254:ILE:HG23	2.04	0.40
1:AM:233:ALA:O	1:AM:236:GLN:HB2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AT:271:SER:O	1:AT:272:ILE:HB	2.20	0.40
1:AU:105:ASN:HB2	1:AU:412:VAL:CG2	2.52	0.40
1:AU:161:LYS:HE3	1:AU:161:LYS:HB2	1.89	0.40
1:AU:363:GLU:OE2	1:AU:366:ARG:NH2	2.53	0.40
1:Aa:148:TYR:HA	1:Aa:185:THR:C	2.47	0.40
1:Af:144:PHE:HD2	1:Ai:104:PRO:HD2	1.87	0.40
1:Af:274:LEU:O	1:Af:278:LEU:HB2	2.21	0.40
1:Af:285:ASP:OD1	1:Af:286:ALA:N	2.54	0.40
1:Ag:147:MET:HE2	1:Ag:147:MET:HB3	1.92	0.40
1:Ah:430:LYS:HD2	1:Ai:182:PHE:CD2	2.55	0.40
1:Ai:324:THR:O	1:Ai:325:PRO:C	2.64	0.40
1:Aj:267:LYS:HG3	1:Aj:471:MET:O	2.21	0.40
1:Al:120:PRO:O	1:Al:121:THR:OG1	2.38	0.40
1:Al:465:LYS:HB3	1:b:237:GLU:HB3	2.01	0.40
1:Al:468:GLN:HB2	1:b:239:PHE:CD1	2.55	0.40
2:B:178:GLY:HA2	2:B:372:SER:HA	2.01	0.40
2:C:368:SER:OG	2:C:370:GLN:HG2	2.21	0.40
2:D:274:ALA:HB3	2:D:279:ALA:HB2	2.03	0.40
1:H:130:VAL:HG22	1:H:142:GLU:HA	2.02	0.40
1:H:345:TRP:CZ2	1:H:347:GLY:HA3	2.56	0.40
1:J:298:ILE:HG21	1:J:456:LEU:HD21	2.03	0.40
1:L:265:GLN:HB2	1:g:247:TRP:CZ3	2.56	0.40
1:L:466:ASN:O	1:L:468:GLN:NE2	2.54	0.40
1:N:376:ILE:HG12	1:N:436:VAL:HG12	2.03	0.40
1:O:230:THR:O	1:O:230:THR:OG1	2.37	0.40
1:O:376:ILE:HG12	1:O:436:VAL:HG22	2.03	0.40
1:O:431:GLN:CD	1:P:213:LYS:HG2	2.47	0.40
1:Q:142:GLU:OE2	1:T:101:ARG:NH2	2.54	0.40
1:R:494:SER:C	1:R:496:ILE:H	2.28	0.40
1:U:209:ASP:OD1	1:U:210:ALA:N	2.55	0.40
1:U:428:TYR:CD1	1:V:149:GLY:HA2	2.56	0.40
1:X:462:SER:C	1:o:464:PRO:HG3	2.46	0.40
1:Y:114:VAL:HG23	1:Y:115:GLN:H	1.85	0.40
1:Y:289:GLU:O	1:Y:293:ILE:HG12	2.21	0.40
2:a:173:ARG:O	2:a:376:LEU:HD12	2.21	0.40
1:d:328:LYS:HE2	1:d:328:LYS:HB3	1.98	0.40
1:d:332:PHE:HB3	1:d:518:VAL:HG12	2.03	0.40
1:e:351:LYS:HG2	1:e:354:LEU:HD12	2.03	0.40
1:f:228:MET:O	1:m:262:LYS:HB3	2.21	0.40
1:f:240:ASN:OD1	1:f:240:ASN:N	2.54	0.40
1:h:494:SER:C	1:h:496:ILE:H	2.28	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:i:201(H):GLU:HG2	1:i:201(I):ASP:N	2.37	0.40
1:j:213:LYS:HE3	1:j:213:LYS:HB2	1.84	0.40
1:k:238:GLY:H	1:k:242:SER:HB2	1.86	0.40
1:n:134:ASP:HB3	1:n:137:ALA:HB2	2.03	0.40
1:o:390:ASP:OD2	1:o:394:SER:OG	2.30	0.40
1:q:398:GLN:HB3	1:t:351:LYS:HD3	2.04	0.40
1:u:434:PHE:CE1	1:u:516:VAL:HB	2.57	0.40
1:w:416:VAL:HG12	1:w:417:LEU:O	2.22	0.40
1:2:348:GLU:HG3	1:5:345:TRP:CE2	2.57	0.40
1:4:281:VAL:HG21	1:t:90:GLN:HG2	2.04	0.40
1:5:216:MET:HE2	1:5:216:MET:HB3	1.90	0.40
1:5:502:SER:N	1:5:505:ASN:OD1	2.55	0.40
1:6:304:ARG:HH12	1:6:428:TYR:HB2	1.87	0.40
1:8:270:TYR:CD2	1:8:469:PRO:HG2	2.57	0.40
1:8:343:ALA:HB1	1:8:348:GLU:HG3	2.03	0.40
1:9:122:GLY:O	1:9:258:VAL:HA	2.21	0.40
2:A:163:ILE:HB	1:U:88:VAL:HA	2.03	0.40
1:AA:317:GLY:HA2	1:AA:514:ARG:NH1	2.35	0.40
1:AB:411:SER:OG	1:AB:412:VAL:N	2.54	0.40
1:AB:467:PHE:CG	1:S:459:LEU:HD13	2.57	0.40
1:AC:171:GLN:OE1	1:AC:195:GLN:HG3	2.22	0.40
1:AD:98:MET:HE2	1:AD:98:MET:HB3	1.90	0.40
1:AF:319:SER:HA	1:AF:323:LEU:HB2	2.03	0.40
1:AG:304:ARG:NH2	1:AG:308:ASP:OD1	2.54	0.40
1:AH:120:PRO:HD3	1:AH:453:TYR:CZ	2.57	0.40
1:AH:462:SER:C	1:AV:464:PRO:HG3	2.46	0.40
1:AI:121:THR:HA	1:AI:259:ILE:O	2.21	0.40
1:AJ:131:TYR:HA	1:AJ:250:MET:HA	2.02	0.40
1:AM:168:ALA:HB1	1:AM:199:ASP:HB2	2.04	0.40
1:AN:203:THR:O	1:AN:207:LYS:N	2.40	0.40
1:AO:272:ILE:N	1:AO:468:GLN:OE1	2.45	0.40
1:AP:146:PRO:HD3	1:AS:101:ARG:HD2	2.03	0.40
1:AQ:72:HIS:C	1:AQ:74:TYR:H	2.29	0.40
1:AS:285:ASP:C	1:AS:287:ASP:H	2.29	0.40
1:AW:444:MET:SD	1:AW:449:TYR:OH	2.80	0.40
1:AX:494:SER:C	1:AX:496:ILE:H	2.30	0.40
1:AZ:234:GLU:OE1	2:D:182:GLU:HB2	2.21	0.40
1:AZ:242:SER:OG	1:AZ:245:ASN:ND2	2.53	0.40
1:Aa:166:LEU:HA	1:Aa:166:LEU:HD23	1.86	0.40
1:Aa:420:LYS:HE2	1:Aa:420:LYS:HB3	1.93	0.40
1:Ad:378:ALA:HB3	1:Ad:383:VAL:HG23	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ae:147:MET:HE2	1:Ae:488:ALA:HA	2.03	0.40
1:Af:72:HIS:NE2	1:Af:90:GLN:OE1	2.52	0.40
1:Af:130:VAL:HG21	1:Af:135:PRO:HA	2.03	0.40
1:Ag:240:ASN:O	1:Ag:240:ASN:ND2	2.54	0.40
1:Ah:338:ILE:H	1:Ah:338:ILE:HG12	1.29	0.40
1:Al:133:LYS:HA	1:Al:249:GLU:HB2	2.03	0.40
1:Al:154:PHE:CE2	1:Al:248:ASN:HB3	2.56	0.40
1:Al:309:TRP:HA	1:Al:312:TYR:HB3	2.02	0.40
2:C:44:ARG:HH21	2:C:346:THR:HG1	1.68	0.40
1:G:200:ALA:HB3	1:G:211:GLU:OE1	2.21	0.40
1:H:121:THR:HA	1:H:259:ILE:O	2.22	0.40
1:H:313:SER:HB2	1:H:510:ASN:HB2	2.03	0.40
1:K:306:VAL:O	1:K:310:ILE:HG13	2.21	0.40
1:N:382:VAL:O	1:N:385:VAL:HG12	2.21	0.40
1:O:131:TYR:CE2	1:O:151:ASP:HB2	2.56	0.40
1:O:262:LYS:HE2	1:R:74:TYR:HE2	1.87	0.40
1:O:379:SER:OG	1:O:380:ARG:N	2.54	0.40
1:P:297:GLU:HG2	1:S:250:MET:SD	2.61	0.40
1:P:357:ILE:HG12	1:P:434:PHE:CE2	2.57	0.40
1:Q:228:MET:N	1:T:263:SER:O	2.50	0.40
1:Q:287:ASP:OD1	1:Q:460:ARG:NH2	2.42	0.40
1:Q:517:TYR:CZ	1:R:217:GLU:HA	2.56	0.40
1:R:86:GLY:C	1:c:495:ARG:HH12	2.30	0.40
1:T:75:ASN:O	1:T:77:THR:N	2.54	0.40
1:U:298:ILE:HG21	1:U:456:LEU:HD11	2.03	0.40
1:U:314:ALA:HA	1:U:513:PHE:HB2	2.02	0.40
1:W:237:GLU:HG2	1:W:246:PRO:HA	2.04	0.40
1:X:91:ILE:HD13	1:w:95:VAL:HG21	2.04	0.40
1:X:340:ILE:HG22	1:X:352:ALA:HB3	2.03	0.40
1:Y:417:LEU:N	1:Y:421:TYR:O	2.54	0.40
2:a:177:THR:HG23	2:a:178:GLY:H	1.87	0.40
1:c:500:MET:HE3	1:c:500:MET:HB2	1.96	0.40
1:e:420:LYS:HE2	1:e:420:LYS:HB3	1.82	0.40
1:f:197:THR:O	1:f:198:ILE:CG2	2.66	0.40
1:f:202:ALA:O	1:f:204:ASP:N	2.54	0.40
1:f:500:MET:HE3	1:f:500:MET:HB2	1.99	0.40
1:g:380:ARG:NH2	1:g:427:GLN:O	2.48	0.40
1:j:266:LEU:HD13	1:j:294:LEU:HD22	2.02	0.40
1:j:350:PHE:O	1:j:389:VAL:HG21	2.21	0.40
1:l:447:GLY:O	1:l:448:ILE:HG13	2.22	0.40
1:m:414:ALA:HB3	1:m:423:VAL:HB	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:n:304:ARG:HA	1:n:304:ARG:HD2	1.95	0.40
1:n:376:ILE:HG12	1:n:376:ILE:O	2.21	0.40
1:s:142:GLU:OE1	1:s:145:HIS:HD2	2.04	0.40
1:t:117:MET:HE2	1:t:119:SER:O	2.22	0.40
1:t:267:LYS:HB3	1:u:249:GLU:HG2	2.02	0.40
1:u:175:GLY:O	1:u:191:GLN:NE2	2.54	0.40
1:0:145:HIS:CG	1:0:146:PRO:HD2	2.57	0.40
1:0:149:GLY:H	1:0:186:GLY:HA3	1.87	0.40
1:1:379:SER:O	1:1:383:VAL:HG23	2.22	0.40
1:1:437:GLY:HA2	1:1:512:TYR:O	2.22	0.40
1:7:120:PRO:HD3	1:7:453:TYR:OH	2.21	0.40
2:A:53:TYR:HB2	2:B:24:LEU:HD11	2.04	0.40
2:A:281:ILE:HD13	2:A:420:LEU:HD11	2.02	0.40
1:AB:117:MET:HE2	1:AB:119:SER:O	2.21	0.40
1:AB:460:ARG:NH1	1:AB:471:MET:HG2	2.36	0.40
1:AC:271:SER:HB2	1:M:239:PHE:HE2	1.86	0.40
1:AD:221:LEU:H	1:AD:221:LEU:HG	1.71	0.40
1:AD:268:ALA:HB1	1:AD:290:LEU:HD22	2.03	0.40
1:AF:107:ILE:O	1:AF:107:ILE:HG12	2.21	0.40
1:AG:247:TRP:N	1:AG:247:TRP:CD1	2.89	0.40
1:AH:145:HIS:CD2	1:AH:147:MET:H	2.34	0.40
1:AI:263:SER:HA	1:AI:476:ARG:HA	2.03	0.40
1:AI:410:LYS:HB3	1:AI:410:LYS:HE2	1.86	0.40
1:AL:104:PRO:HD2	1:AL:300:LEU:HD21	2.02	0.40
1:AL:237:GLU:HB2	1:AL:238:GLY:H	1.78	0.40
1:AM:398:GLN:OE1	1:AM:399:GLY:N	2.55	0.40
1:AN:105:ASN:ND2	1:AN:408:THR:O	2.51	0.40
1:AP:459:LEU:HD22	1:V:467:PHE:HB3	2.03	0.40
1:AP:479:ILE:HD13	1:AP:479:ILE:HA	1.96	0.40
1:AQ:120:PRO:HD3	1:AQ:453:TYR:OH	2.22	0.40
1:AR:341:ARG:HH21	1:Aa:350:PHE:HE1	1.69	0.40
1:AT:201(E):ASP:C	1:AT:201(G):ASP:H	2.30	0.40
1:Ac:147:MET:SD	1:Ac:367:GLN:HG3	2.61	0.40
1:Ae:450:TYR:HA	1:Ae:479:ILE:HG22	2.04	0.40
1:Ag:213:LYS:HE3	1:Ag:213:LYS:HB2	1.88	0.40
1:Ah:180:HIS:HD2	1:Ah:182:PHE:CE1	2.39	0.40
1:Ah:481:ILE:HD12	1:Ah:481:ILE:HA	1.83	0.40
2:C:331:ILE:H	2:C:331:ILE:HD12	1.86	0.40
1:G:313:SER:HB3	1:G:510:ASN:HD22	1.86	0.40
1:G:459:LEU:HD13	1:S:467:PHE:HB2	2.02	0.40
1:G:517:TYR:CZ	1:H:217:GLU:HA	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:318:LYS:HB3	1:J:330:GLY:HA2	2.03	0.40
1:K:280:ALA:O	1:K:282:HIS:N	2.55	0.40
1:M:91:ILE:HG23	1:b:123:GLN:NE2	2.36	0.40
1:M:476:ARG:HH21	1:N:230:THR:HG21	1.85	0.40
1:Q:145:HIS:CD2	1:Q:146:PRO:HD2	2.56	0.40
1:T:456:LEU:N	1:T:475:THR:HG21	2.36	0.40
1:T:515:ARG:NH1	1:T:517:TYR:OH	2.54	0.40
1:U:172:THR:HG22	1:U:196:VAL:H	1.86	0.40
1:Y:109:PHE:HZ	1:Y:303:ASN:HA	1.84	0.40
1:Z:114:VAL:HG23	1:Z:115:GLN:H	1.86	0.40
1:Z:265:GLN:NE2	1:d:228:MET:SD	2.95	0.40
1:Z:267:LYS:O	1:d:249:GLU:HA	2.22	0.40
1:b:76:ALA:HB1	1:c:496:ILE:HG22	2.03	0.40
1:b:296:THR:O	1:b:300:LEU:HG	2.22	0.40
1:c:268:ALA:HB3	1:c:471:MET:HB3	2.03	0.40
1:e:162:LYS:HA	1:e:162:LYS:HD3	1.92	0.40
1:g:120:PRO:O	1:g:121:THR:OG1	2.34	0.40
1:g:182:PHE:HD1	1:g:182:PHE:HA	1.78	0.40
1:h:234:GLU:O	1:h:234:GLU:HG2	2.21	0.40
1:j:195:GLN:HE21	1:j:195:GLN:HB2	1.55	0.40
1:l:166:LEU:HD13	1:l:212:ILE:HD12	2.02	0.40
1:o:263:SER:HB3	1:o:476:ARG:HG2	2.03	0.40
1:q:109:PHE:HD1	1:q:109:PHE:HA	1.71	0.40
1:s:239:PHE:HB3	1:s:240:ASN:H	1.58	0.40
1:s:521:ILE:HD12	1:s:521:ILE:HA	1.85	0.40
1:z:477:TYR:CG	1:z:478:GLY:N	2.89	0.40
1:1:393:ILE:HA	1:z:398:GLN:O	2.22	0.40
1:4:282:HIS:O	1:4:284:MET:N	2.49	0.40
1:4:344:ARG:O	1:5:342:GLY:HA3	2.21	0.40
1:5:176:ASP:OD1	1:5:176:ASP:N	2.53	0.40
1:7:68:ILE:HG23	1:y:235:LEU:HD21	2.04	0.40
1:7:463:ASP:C	1:7:465:LYS:H	2.30	0.40
1:8:153:MET:HG3	1:8:189:TYR:CG	2.57	0.40
1:8:314:ALA:HA	1:8:513:PHE:HB2	2.04	0.40
1:9:312:TYR:HA	1:AB:222:VAL:HG11	2.04	0.40
2:A:198:LEU:HD23	2:A:373:ILE:HD12	2.04	0.40
1:AB:267:LYS:HG3	1:AB:471:MET:O	2.22	0.40
1:AB:270:TYR:CE1	1:AB:469:PRO:HB2	2.56	0.40
1:AB:297:GLU:O	1:AB:301:GLU:HG2	2.22	0.40
1:AF:459:LEU:HD13	1:AH:467:PHE:CD1	2.57	0.40
1:AG:311:ASN:HB3	1:AG:515:ARG:NH1	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AH:105:ASN:HB2	1:AH:412:VAL:HG23	2.03	0.40
1:AH:315:GLN:N	1:AH:513:PHE:O	2.50	0.40
1:AI:344:ARG:HD3	1:AI:348:GLU:OE1	2.22	0.40
1:AJ:431:GLN:HG2	1:AJ:432:ASP:H	1.87	0.40
1:AM:221:LEU:HD23	1:AM:221:LEU:H	1.86	0.40
1:AM:350:PHE:O	1:AM:389:VAL:HG21	2.22	0.40
1:AO:176:ASP:OD1	1:AO:176:ASP:N	2.55	0.40
1:AO:290:LEU:HD23	1:AO:290:LEU:HA	1.87	0.40
1:AP:462:SER:O	1:V:464:PRO:HG3	2.21	0.40
1:AQ:161:LYS:HE3	1:AQ:161:LYS:HB2	1.92	0.40
1:AQ:344:ARG:HD3	1:AQ:344:ARG:N	2.37	0.40
1:AR:337:PRO:O	1:AR:342:GLY:N	2.45	0.40
1:AU:114:VAL:HG23	1:AU:115:GLN:H	1.85	0.40
1:AX:345:TRP:CD1	1:AX:346:ALA:H	2.39	0.40
1:AY:237:GLU:HB2	1:AY:246:PRO:HA	2.03	0.40
1:AY:450:TYR:CE2	1:AY:452:PRO:HG3	2.56	0.40
1:AZ:124:VAL:HG13	1:AZ:257:GLN:HB2	2.04	0.40
1:Ac:448:ILE:HD13	1:Ac:448:ILE:HA	1.90	0.40
1:Ae:171:GLN:HE21	1:Ae:171:GLN:HB2	1.75	0.40
1:Ae:191:GLN:HB2	1:Ae:224:ILE:HG21	2.04	0.40
1:Ae:382:VAL:O	1:Ae:385:VAL:HG12	2.21	0.40
1:Af:242:SER:HB2	1:Af:245:ASN:ND2	2.36	0.40
1:Af:345:TRP:CE2	1:Ag:348:GLU:HG2	2.57	0.40
1:Am:359:LYS:HB3	1:Am:359:LYS:HE2	1.87	0.40
2:B:242:SER:OG	2:B:245:GLU:OE1	2.33	0.40
1:H:72:HIS:CD2	1:H:84:THR:HG22	2.57	0.40
1:J:258:VAL:O	1:J:499:GLY:N	2.55	0.40
1:K:84:THR:HG22	1:K:85:SER:H	1.85	0.40
1:L:71:ASP:OD2	1:h:231:SER:N	2.49	0.40
1:L:131:TYR:HB3	1:L:250:MET:HG2	2.04	0.40
1:L:390:ASP:H	1:L:397:ALA:HB3	1.87	0.40
1:L:416:VAL:HG12	1:L:417:LEU:O	2.21	0.40
1:M:123:GLN:HA	1:M:257:GLN:O	2.21	0.40
1:M:172:THR:O	1:M:195:GLN:HG2	2.22	0.40
1:N:125:PHE:CZ	1:e:91:ILE:HG12	2.57	0.40
1:O:145:HIS:CG	1:O:148:TYR:HD2	2.40	0.40
1:O:377:ILE:HA	1:O:424:TYR:O	2.20	0.40
1:P:131:TYR:HB3	1:P:250:MET:SD	2.61	0.40
1:P:263:SER:O	1:S:228:MET:HB3	2.21	0.40
1:R:91:ILE:HG12	1:c:125:PHE:CE2	2.57	0.40
1:R:503:ILE:O	1:R:504:LEU:HB2	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:239:PHE:O	1:S:239:PHE:CG	2.74	0.40
1:V:109:PHE:CE1	1:V:306:VAL:HG21	2.57	0.40
1:Z:201(B):GLU:OE1	1:Z:201(C):ASP:N	2.41	0.40
1:Z:350:PHE:HD2	1:Z:389:VAL:HG13	1.87	0.40
1:c:382:VAL:HA	1:c:385:VAL:HG12	2.04	0.40
1:c:398:GLN:OE1	1:c:399:GLY:N	2.54	0.40
1:h:314:ALA:O	1:h:508:GLY:HA2	2.21	0.40
1:h:449:TYR:N	1:h:480:GLY:O	2.38	0.40
1:j:194:VAL:HG23	1:j:196:VAL:HG13	2.04	0.40
1:k:162:LYS:HD3	1:k:162:LYS:HA	1.97	0.40
1:k:375:PHE:HZ	1:k:513:PHE:HE1	1.69	0.40
1:k:440:GLY:HA3	1:k:445:ASP:HB2	2.04	0.40
1:n:123:GLN:HB3	1:n:258:VAL:HG12	2.04	0.40
1:p:172:THR:H	1:p:197:THR:HB	1.87	0.40
1:q:345:TRP:HD1	1:t:344:ARG:HH12	1.69	0.40
1:r:244:ASP:O	1:r:246:PRO:HD3	2.21	0.40
1:s:358:ASP:OD1	1:s:421:TYR:OH	2.36	0.40
1:t:304:ARG:HA	1:t:304:ARG:HD2	1.92	0.40
1:t:317:GLY:HA2	1:t:514:ARG:NH1	2.37	0.40
1:u:226:GLU:HG2	1:u:227:GLY:H	1.86	0.40
1:v:297:GLU:HG2	1:w:250:MET:SD	2.61	0.40
1:v:357:ILE:HG12	1:v:434:PHE:CE2	2.56	0.40
1:x:167:ALA:H	1:x:170:THR:HG21	1.86	0.40
1:y:189:TYR:O	1:y:223:GLU:HA	2.20	0.40
1:z:174:VAL:HG13	1:z:195:GLN:HE22	1.87	0.40
1:z:465:LYS:HE3	1:z:465:LYS:HB2	1.84	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	0	463/465 (100%)	408 (88%)	53 (11%)	2 (0%)	30	64
1	1	463/465 (100%)	408 (88%)	54 (12%)	1 (0%)	43	74
1	2	463/465 (100%)	409 (88%)	50 (11%)	4 (1%)	14	47
1	3	463/465 (100%)	410 (89%)	51 (11%)	2 (0%)	30	64
1	4	463/465 (100%)	405 (88%)	56 (12%)	2 (0%)	30	64
1	5	463/465 (100%)	403 (87%)	59 (13%)	1 (0%)	43	74
1	6	463/465 (100%)	415 (90%)	46 (10%)	2 (0%)	30	64
1	7	463/465 (100%)	416 (90%)	46 (10%)	1 (0%)	43	74
1	8	463/465 (100%)	397 (86%)	63 (14%)	3 (1%)	21	55
1	9	463/465 (100%)	409 (88%)	53 (11%)	1 (0%)	43	74
1	AA	463/465 (100%)	404 (87%)	56 (12%)	3 (1%)	21	55
1	AB	463/465 (100%)	405 (88%)	56 (12%)	2 (0%)	30	64
1	AC	463/465 (100%)	408 (88%)	53 (11%)	2 (0%)	30	64
1	AD	437/465 (94%)	395 (90%)	40 (9%)	2 (0%)	24	59
1	AE	463/465 (100%)	412 (89%)	51 (11%)	0	100	100
1	AF	463/465 (100%)	404 (87%)	57 (12%)	2 (0%)	30	64
1	AG	463/465 (100%)	411 (89%)	49 (11%)	3 (1%)	21	55
1	AH	463/465 (100%)	400 (86%)	59 (13%)	4 (1%)	14	47
1	AI	463/465 (100%)	403 (87%)	59 (13%)	1 (0%)	43	74
1	AJ	463/465 (100%)	404 (87%)	57 (12%)	2 (0%)	30	64
1	AK	463/465 (100%)	401 (87%)	59 (13%)	3 (1%)	21	55
1	AL	463/465 (100%)	399 (86%)	63 (14%)	1 (0%)	43	74
1	AM	463/465 (100%)	404 (87%)	58 (12%)	1 (0%)	43	74
1	AN	463/465 (100%)	405 (88%)	54 (12%)	4 (1%)	14	47
1	AO	463/465 (100%)	409 (88%)	53 (11%)	1 (0%)	43	74
1	AP	463/465 (100%)	425 (92%)	37 (8%)	1 (0%)	43	74
1	AQ	463/465 (100%)	412 (89%)	49 (11%)	2 (0%)	30	64
1	AR	463/465 (100%)	410 (89%)	50 (11%)	3 (1%)	21	55
1	AS	463/465 (100%)	415 (90%)	45 (10%)	3 (1%)	21	55
1	AT	463/465 (100%)	396 (86%)	63 (14%)	4 (1%)	14	47
1	AU	463/465 (100%)	414 (89%)	48 (10%)	1 (0%)	43	74
1	AV	463/465 (100%)	405 (88%)	55 (12%)	3 (1%)	21	55

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	AW	463/465 (100%)	406 (88%)	54 (12%)	3 (1%)	21	55
1	AX	463/465 (100%)	406 (88%)	56 (12%)	1 (0%)	43	74
1	AY	463/465 (100%)	405 (88%)	57 (12%)	1 (0%)	43	74
1	AZ	463/465 (100%)	413 (89%)	48 (10%)	2 (0%)	30	64
1	Aa	463/465 (100%)	414 (89%)	48 (10%)	1 (0%)	43	74
1	Ab	463/465 (100%)	420 (91%)	40 (9%)	3 (1%)	21	55
1	Ac	463/465 (100%)	413 (89%)	50 (11%)	0	100	100
1	Ad	463/465 (100%)	413 (89%)	48 (10%)	2 (0%)	30	64
1	Ae	463/465 (100%)	410 (89%)	50 (11%)	3 (1%)	21	55
1	Af	463/465 (100%)	402 (87%)	56 (12%)	5 (1%)	11	43
1	Ag	463/465 (100%)	403 (87%)	60 (13%)	0	100	100
1	Ah	463/465 (100%)	407 (88%)	54 (12%)	2 (0%)	30	64
1	Ai	463/465 (100%)	400 (86%)	60 (13%)	3 (1%)	21	55
1	Aj	463/465 (100%)	406 (88%)	56 (12%)	1 (0%)	43	74
1	Ak	463/465 (100%)	404 (87%)	58 (12%)	1 (0%)	43	74
1	Al	463/465 (100%)	409 (88%)	53 (11%)	1 (0%)	43	74
1	Am	463/465 (100%)	411 (89%)	51 (11%)	1 (0%)	43	74
1	G	463/465 (100%)	407 (88%)	52 (11%)	4 (1%)	14	47
1	H	463/465 (100%)	406 (88%)	54 (12%)	3 (1%)	21	55
1	J	463/465 (100%)	403 (87%)	57 (12%)	3 (1%)	21	55
1	K	463/465 (100%)	422 (91%)	39 (8%)	2 (0%)	30	64
1	L	463/465 (100%)	408 (88%)	55 (12%)	0	100	100
1	M	463/465 (100%)	409 (88%)	52 (11%)	2 (0%)	30	64
1	N	463/465 (100%)	414 (89%)	46 (10%)	3 (1%)	21	55
1	O	463/465 (100%)	398 (86%)	63 (14%)	2 (0%)	30	64
1	P	463/465 (100%)	405 (88%)	56 (12%)	2 (0%)	30	64
1	Q	463/465 (100%)	404 (87%)	53 (11%)	6 (1%)	9	40
1	R	463/465 (100%)	408 (88%)	52 (11%)	3 (1%)	21	55
1	S	463/465 (100%)	398 (86%)	64 (14%)	1 (0%)	43	74
1	T	463/465 (100%)	412 (89%)	50 (11%)	1 (0%)	43	74
1	U	463/465 (100%)	426 (92%)	34 (7%)	3 (1%)	21	55

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	V	463/465 (100%)	413 (89%)	50 (11%)	0	100	100
1	W	463/465 (100%)	413 (89%)	48 (10%)	2 (0%)	30	64
1	X	463/465 (100%)	409 (88%)	51 (11%)	3 (1%)	21	55
1	Y	463/465 (100%)	405 (88%)	56 (12%)	2 (0%)	30	64
1	Z	463/465 (100%)	414 (89%)	49 (11%)	0	100	100
1	b	463/465 (100%)	408 (88%)	48 (10%)	7 (2%)	8	37
1	c	463/465 (100%)	410 (89%)	51 (11%)	2 (0%)	30	64
1	d	463/465 (100%)	405 (88%)	56 (12%)	2 (0%)	30	64
1	e	463/465 (100%)	403 (87%)	59 (13%)	1 (0%)	43	74
1	f	463/465 (100%)	399 (86%)	57 (12%)	7 (2%)	8	37
1	g	463/465 (100%)	414 (89%)	47 (10%)	2 (0%)	30	64
1	h	463/465 (100%)	411 (89%)	51 (11%)	1 (0%)	43	74
1	i	463/465 (100%)	405 (88%)	57 (12%)	1 (0%)	43	74
1	j	463/465 (100%)	404 (87%)	58 (12%)	1 (0%)	43	74
1	k	463/465 (100%)	411 (89%)	52 (11%)	0	100	100
1	l	463/465 (100%)	401 (87%)	60 (13%)	2 (0%)	30	64
1	m	463/465 (100%)	398 (86%)	63 (14%)	2 (0%)	30	64
1	n	463/465 (100%)	401 (87%)	61 (13%)	1 (0%)	43	74
1	o	463/465 (100%)	408 (88%)	54 (12%)	1 (0%)	43	74
1	p	463/465 (100%)	404 (87%)	56 (12%)	3 (1%)	21	55
1	q	463/465 (100%)	411 (89%)	51 (11%)	1 (0%)	43	74
1	r	463/465 (100%)	397 (86%)	61 (13%)	5 (1%)	11	43
1	s	463/465 (100%)	405 (88%)	54 (12%)	4 (1%)	14	47
1	t	463/465 (100%)	405 (88%)	55 (12%)	3 (1%)	21	55
1	u	463/465 (100%)	391 (84%)	72 (16%)	0	100	100
1	v	463/465 (100%)	421 (91%)	40 (9%)	2 (0%)	30	64
1	w	463/465 (100%)	420 (91%)	43 (9%)	0	100	100
1	x	463/465 (100%)	415 (90%)	47 (10%)	1 (0%)	43	74
1	y	463/465 (100%)	412 (89%)	48 (10%)	3 (1%)	21	55
1	z	463/465 (100%)	410 (89%)	51 (11%)	2 (0%)	30	64
2	A	413/415 (100%)	364 (88%)	42 (10%)	7 (2%)	7	35

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
2	B	413/415 (100%)	361 (87%)	46 (11%)	6 (2%)	8 37
2	C	413/415 (100%)	362 (88%)	45 (11%)	6 (2%)	8 37
2	D	413/415 (100%)	362 (88%)	44 (11%)	7 (2%)	7 35
2	a	413/415 (100%)	365 (88%)	41 (10%)	7 (2%)	7 35
All	All	45098/45320 (100%)	39720 (88%)	5152 (11%)	226 (0%)	26 59

All (226) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	2	88	VAL
1	2	108	ALA
1	2	201(I)	ASP
1	3	108	ALA
1	6	488	ALA
1	7	488	ALA
1	8	272	ILE
1	9	201(C)	ASP
2	A	298	LEU
1	AA	108	ALA
1	AG	108	ALA
1	AG	488	ALA
1	AH	226	GLU
1	AH	272	ILE
1	AK	108	ALA
1	AK	199	ASP
1	AN	488	ALA
1	AO	201(B)	GLU
1	AS	108	ALA
1	AS	488	ALA
1	AT	272	ILE
1	AW	108	ALA
1	AW	199	ASP
1	AW	504	LEU
1	AZ	488	ALA
1	Aa	488	ALA
1	Ab	201(H)	GLU
1	Ae	108	ALA
1	Ae	488	ALA
1	Af	226	GLU
1	Af	272	ILE
1	Ai	108	ALA

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Mol	Chain	Res	Type
1	Ai	199	ASP
1	Ai	504	LEU
1	Al	488	ALA
1	Am	488	ALA
2	B	298	LEU
2	C	298	LEU
2	D	298	LEU
1	G	237	GLU
1	G	465	LYS
1	H	108	ALA
1	J	199	ASP
1	N	108	ALA
1	N	488	ALA
1	O	272	ILE
1	Q	201(G)	ASP
1	Q	201(I)	ASP
1	R	199	ASP
1	X	488	ALA
1	Y	272	ILE
2	a	298	LEU
1	b	201(B)	GLU
1	c	108	ALA
1	c	504	LEU
1	f	198	ILE
1	f	272	ILE
1	g	488	ALA
1	h	488	ALA
1	i	488	ALA
1	m	108	ALA
1	m	504	LEU
1	p	272	ILE
1	s	88	VAL
1	s	108	ALA
1	s	199	ASP
1	s	504	LEU
1	y	108	ALA
1	y	488	ALA
1	z	272	ILE
1	1	87	ALA
1	2	511	ALA
1	3	504	LEU
1	6	87	ALA

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Mol	Chain	Res	Type
1	AA	199	ASP
1	AA	504	LEU
1	AC	198	ILE
1	AF	108	ALA
1	AG	504	LEU
1	AI	87	ALA
1	AJ	108	ALA
1	AJ	511	ALA
1	AK	504	LEU
1	AN	87	ALA
1	AN	231	SER
1	AP	281	VAL
1	AQ	201(I)	ASP
1	AR	201(F)	GLU
1	AR	511	ALA
1	AS	504	LEU
1	AT	201(G)	ASP
1	AT	261	ALA
1	AU	87	ALA
1	AV	108	ALA
1	AV	201(A)	ASP
1	AV	511	ALA
1	AZ	87	ALA
1	Ab	281	VAL
1	Ad	108	ALA
1	Ad	511	ALA
1	Ae	504	LEU
1	Af	202	ALA
1	Af	261	ALA
1	Ah	108	ALA
1	Ah	511	ALA
1	G	108	ALA
1	G	511	ALA
1	H	504	LEU
1	J	201(B)	GLU
1	K	281	VAL
1	M	108	ALA
1	N	504	LEU
1	Q	108	ALA
1	Q	511	ALA
1	R	108	ALA
1	R	504	LEU

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Mol	Chain	Res	Type
1	U	281	VAL
1	W	108	ALA
1	W	511	ALA
1	X	108	ALA
1	X	504	LEU
1	b	108	ALA
1	b	199	ASP
1	b	238	GLY
1	b	511	ALA
1	e	76	ALA
1	f	203	THR
1	j	201(A)	ASP
1	l	108	ALA
1	l	511	ALA
1	p	87	ALA
1	r	108	ALA
1	r	235	LEU
1	r	238	GLY
1	v	281	VAL
1	x	108	ALA
1	y	504	LEU
1	0	108	ALA
1	8	121	THR
1	8	261	ALA
1	AC	76	ALA
1	AD	200	ALA
1	AF	511	ALA
1	AH	261	ALA
1	AM	76	ALA
1	AN	233	ALA
1	AQ	201(C)	ASP
1	AR	108	ALA
1	AY	76	ALA
1	Ak	76	ALA
1	M	511	ALA
1	P	87	ALA
1	Q	201(H)	GLU
1	T	76	ALA
2	a	342	TYR
1	b	245	ASN
1	f	121	THR
1	g	87	ALA

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Mol	Chain	Res	Type
1	o	76	ALA
1	r	511	ALA
1	z	121	THR
1	5	76	ALA
2	A	353	ASP
1	AD	201(B)	GLU
1	AH	121	THR
1	Af	121	THR
2	D	342	TYR
1	J	76	ALA
1	O	121	THR
1	Y	121	THR
1	f	197	THR
1	f	200	ALA
1	r	237	GLU
1	4	76	ALA
1	4	393	ILE
2	A	340	ILE
2	A	342	TYR
1	AB	393	ILE
1	AL	393	ILE
1	AX	393	ILE
1	Aj	393	ILE
2	B	243	ALA
2	B	340	ILE
2	B	342	TYR
2	B	364	VAL
2	C	243	ALA
2	C	340	ILE
2	C	364	VAL
2	D	243	ALA
2	D	340	ILE
2	D	353	ASP
1	H	201(G)	ASP
1	Q	201(F)	GLU
1	S	393	ILE
1	U	201(B)	GLU
2	a	243	ALA
2	a	340	ILE
2	a	353	ASP
2	a	364	VAL
1	b	244	ASP

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Mol	Chain	Res	Type
1	d	393	ILE
1	d	396	ALA
1	f	202	ALA
1	n	393	ILE
1	t	239	PHE
1	t	393	ILE
1	t	396	ALA
2	A	364	VAL
1	AB	396	ALA
1	AT	121	THR
2	C	342	TYR
2	D	364	VAL
1	P	121	THR
1	p	121	THR
1	q	76	ALA
1	K	88	VAL
1	U	88	VAL
2	A	243	ALA
2	C	357	VAL
2	A	357	VAL
1	Ab	88	VAL
2	D	357	VAL
2	a	357	VAL
1	v	88	VAL
1	0	82	GLY
2	B	357	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	0	354/354 (100%)	325 (92%)	29 (8%)	10	34
1	1	354/354 (100%)	334 (94%)	20 (6%)	19	45
1	2	354/354 (100%)	331 (94%)	23 (6%)	15	42
1	3	354/354 (100%)	334 (94%)	20 (6%)	19	45

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	4	354/354 (100%)	323 (91%)	31 (9%)	9 32
1	5	354/354 (100%)	334 (94%)	20 (6%)	19 45
1	6	354/354 (100%)	340 (96%)	14 (4%)	28 51
1	7	354/354 (100%)	337 (95%)	17 (5%)	23 48
1	8	354/354 (100%)	323 (91%)	31 (9%)	9 32
1	9	354/354 (100%)	323 (91%)	31 (9%)	9 32
1	AA	354/354 (100%)	330 (93%)	24 (7%)	14 41
1	AB	354/354 (100%)	323 (91%)	31 (9%)	9 32
1	AC	354/354 (100%)	328 (93%)	26 (7%)	13 39
1	AD	336/354 (95%)	317 (94%)	19 (6%)	18 44
1	AE	354/354 (100%)	334 (94%)	20 (6%)	19 45
1	AF	354/354 (100%)	321 (91%)	33 (9%)	8 30
1	AG	354/354 (100%)	335 (95%)	19 (5%)	20 46
1	AH	354/354 (100%)	320 (90%)	34 (10%)	8 29
1	AI	354/354 (100%)	322 (91%)	32 (9%)	9 31
1	AJ	354/354 (100%)	327 (92%)	27 (8%)	12 37
1	AK	354/354 (100%)	333 (94%)	21 (6%)	18 44
1	AL	354/354 (100%)	319 (90%)	35 (10%)	7 28
1	AM	354/354 (100%)	328 (93%)	26 (7%)	13 39
1	AN	354/354 (100%)	339 (96%)	15 (4%)	26 50
1	AO	354/354 (100%)	337 (95%)	17 (5%)	23 48
1	AP	352/354 (99%)	331 (94%)	21 (6%)	17 44
1	AQ	354/354 (100%)	328 (93%)	26 (7%)	13 39
1	AR	354/354 (100%)	331 (94%)	23 (6%)	15 42
1	AS	354/354 (100%)	333 (94%)	21 (6%)	18 44
1	AT	354/354 (100%)	317 (90%)	37 (10%)	6 25
1	AU	354/354 (100%)	330 (93%)	24 (7%)	14 41
1	AV	354/354 (100%)	323 (91%)	31 (9%)	9 32
1	AW	354/354 (100%)	332 (94%)	22 (6%)	16 43
1	AX	354/354 (100%)	318 (90%)	36 (10%)	7 26
1	AY	354/354 (100%)	327 (92%)	27 (8%)	12 37

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	AZ	354/354 (100%)	341 (96%)	13 (4%)	30	53
1	Aa	354/354 (100%)	341 (96%)	13 (4%)	30	53
1	Ab	352/354 (99%)	323 (92%)	29 (8%)	10	34
1	Ac	354/354 (100%)	336 (95%)	18 (5%)	21	46
1	Ad	354/354 (100%)	329 (93%)	25 (7%)	13	40
1	Ae	354/354 (100%)	333 (94%)	21 (6%)	18	44
1	Af	354/354 (100%)	318 (90%)	36 (10%)	7	26
1	Ag	354/354 (100%)	331 (94%)	23 (6%)	15	42
1	Ah	354/354 (100%)	326 (92%)	28 (8%)	11	36
1	Ai	354/354 (100%)	329 (93%)	25 (7%)	13	40
1	Aj	354/354 (100%)	324 (92%)	30 (8%)	10	33
1	Ak	354/354 (100%)	335 (95%)	19 (5%)	20	46
1	Al	354/354 (100%)	339 (96%)	15 (4%)	26	50
1	Am	354/354 (100%)	338 (96%)	16 (4%)	24	49
1	G	354/354 (100%)	324 (92%)	30 (8%)	10	33
1	H	354/354 (100%)	332 (94%)	22 (6%)	16	43
1	J	354/354 (100%)	332 (94%)	22 (6%)	16	43
1	K	352/354 (99%)	329 (94%)	23 (6%)	15	42
1	L	354/354 (100%)	340 (96%)	14 (4%)	28	51
1	M	354/354 (100%)	334 (94%)	20 (6%)	19	45
1	N	354/354 (100%)	338 (96%)	16 (4%)	24	49
1	O	354/354 (100%)	313 (88%)	41 (12%)	5	22
1	P	354/354 (100%)	327 (92%)	27 (8%)	12	37
1	Q	354/354 (100%)	330 (93%)	24 (7%)	14	41
1	R	354/354 (100%)	329 (93%)	25 (7%)	13	40
1	S	354/354 (100%)	320 (90%)	34 (10%)	8	29
1	T	354/354 (100%)	330 (93%)	24 (7%)	14	41
1	U	352/354 (99%)	334 (95%)	18 (5%)	21	46
1	V	354/354 (100%)	336 (95%)	18 (5%)	21	46
1	W	354/354 (100%)	329 (93%)	25 (7%)	13	40
1	X	354/354 (100%)	337 (95%)	17 (5%)	23	48

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	Y	354/354 (100%)	321 (91%)	33 (9%)	8	30
1	Z	354/354 (100%)	322 (91%)	32 (9%)	9	31
1	b	354/354 (100%)	329 (93%)	25 (7%)	13	40
1	c	354/354 (100%)	336 (95%)	18 (5%)	21	46
1	d	354/354 (100%)	333 (94%)	21 (6%)	18	44
1	e	354/354 (100%)	337 (95%)	17 (5%)	23	48
1	f	354/354 (100%)	321 (91%)	33 (9%)	8	30
1	g	354/354 (100%)	336 (95%)	18 (5%)	21	46
1	h	354/354 (100%)	339 (96%)	15 (4%)	26	50
1	i	354/354 (100%)	340 (96%)	14 (4%)	28	51
1	j	354/354 (100%)	342 (97%)	12 (3%)	32	55
1	k	354/354 (100%)	317 (90%)	37 (10%)	6	25
1	l	354/354 (100%)	332 (94%)	22 (6%)	16	43
1	m	354/354 (100%)	338 (96%)	16 (4%)	24	49
1	n	354/354 (100%)	336 (95%)	18 (5%)	21	46
1	o	354/354 (100%)	330 (93%)	24 (7%)	14	41
1	p	354/354 (100%)	318 (90%)	36 (10%)	7	26
1	q	354/354 (100%)	329 (93%)	25 (7%)	13	40
1	r	354/354 (100%)	327 (92%)	27 (8%)	12	37
1	s	354/354 (100%)	335 (95%)	19 (5%)	20	46
1	t	354/354 (100%)	326 (92%)	28 (8%)	11	36
1	u	354/354 (100%)	335 (95%)	19 (5%)	20	46
1	v	352/354 (99%)	336 (96%)	16 (4%)	24	49
1	w	354/354 (100%)	339 (96%)	15 (4%)	26	50
1	x	354/354 (100%)	334 (94%)	20 (6%)	19	45
1	y	354/354 (100%)	331 (94%)	23 (6%)	15	42
1	z	354/354 (100%)	299 (84%)	55 (16%)	2	15
2	A	350/350 (100%)	318 (91%)	32 (9%)	9	31
2	B	350/350 (100%)	310 (89%)	40 (11%)	5	22
2	C	350/350 (100%)	307 (88%)	43 (12%)	4	20
2	D	350/350 (100%)	310 (89%)	40 (11%)	5	22

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	a	350/350 (100%)	313 (89%)	37 (11%)	6 25
All	All	34644/34672 (100%)	32220 (93%)	2424 (7%)	16 40

All (2424) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	0	68	ILE
1	0	77	THR
1	0	90	GLN
1	0	95	VAL
1	0	107	ILE
1	0	121	THR
1	0	136	VAL
1	0	161	LYS
1	0	170	THR
1	0	198	ILE
1	0	222	VAL
1	0	223	GLU
1	0	256	LYS
1	0	259	ILE
1	0	279	ARG
1	0	324	THR
1	0	331	VAL
1	0	334	PHE
1	0	389	VAL
1	0	395	TYR
1	0	400	LEU
1	0	404	PHE
1	0	408	THR
1	0	412	VAL
1	0	448	ILE
1	0	466	ASN
1	0	479	ILE
1	0	510	ASN
1	0	516	VAL
1	1	68	ILE
1	1	79	ILE
1	1	107	ILE
1	1	109	PHE
1	1	114	VAL
1	1	123	GLN
1	1	130	VAL

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Mol	Chain	Res	Type
1	1	136	VAL
1	1	170	THR
1	1	222	VAL
1	1	267	LYS
1	1	277	ASP
1	1	299	MET
1	1	331	VAL
1	1	341	ARG
1	1	345	TRP
1	1	395	TYR
1	1	470	VAL
1	1	476	ARG
1	1	519	LYS
1	2	83	GLN
1	2	90	GLN
1	2	95	VAL
1	2	99	VAL
1	2	109	PHE
1	2	121	THR
1	2	136	VAL
1	2	197	THR
1	2	203	THR
1	2	204	ASP
1	2	221	LEU
1	2	240	ASN
1	2	256	LYS
1	2	331	VAL
1	2	338	ILE
1	2	348	GLU
1	2	379	SER
1	2	395	TYR
1	2	404	PHE
1	2	412	VAL
1	2	448	ILE
1	2	467	PHE
1	2	516	VAL
1	3	75	ASN
1	3	84	THR
1	3	114	VAL
1	3	131	TYR
1	3	144	PHE
1	3	176	ASP

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Mol	Chain	Res	Type
1	3	195	GLN
1	3	232	ILE
1	3	254	ILE
1	3	259	ILE
1	3	272	ILE
1	3	298	ILE
1	3	305	GLU
1	3	316	VAL
1	3	323	LEU
1	3	345	TRP
1	3	382	VAL
1	3	398	GLN
1	3	505	ASN
1	3	518	VAL
1	4	68	ILE
1	4	78	ASN
1	4	84	THR
1	4	95	VAL
1	4	96	MET
1	4	114	VAL
1	4	127	LEU
1	4	136	VAL
1	4	154	PHE
1	4	161	LYS
1	4	171	GLN
1	4	191	GLN
1	4	204	ASP
1	4	217	GLU
1	4	230	THR
1	4	234	GLU
1	4	237	GLU
1	4	243	THR
1	4	273	GLU
1	4	282	HIS
1	4	289	GLU
1	4	303	ASN
1	4	344	ARG
1	4	348	GLU
1	4	376	ILE
1	4	377	ILE
1	4	398	GLN
1	4	404	PHE

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Mol	Chain	Res	Type
1	4	503	ILE
1	4	507	LEU
1	4	518	VAL
1	5	68	ILE
1	5	114	VAL
1	5	124	VAL
1	5	133	LYS
1	5	136	VAL
1	5	166	LEU
1	5	195	GLN
1	5	199	ASP
1	5	221	LEU
1	5	255	ASP
1	5	256	LYS
1	5	259	ILE
1	5	285	ASP
1	5	344	ARG
1	5	362	VAL
1	5	384	ASN
1	5	400	LEU
1	5	412	VAL
1	5	459	LEU
1	5	497	GLN
1	6	96	MET
1	6	124	VAL
1	6	166	LEU
1	6	188	VAL
1	6	204	ASP
1	6	224	ILE
1	6	245	ASN
1	6	304	ARG
1	6	328	LYS
1	6	344	ARG
1	6	364	ILE
1	6	377	ILE
1	6	503	ILE
1	6	507	LEU
1	7	72	HIS
1	7	75	ASN
1	7	106	LEU
1	7	109	PHE
1	7	114	VAL

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Mol	Chain	Res	Type
1	7	124	VAL
1	7	136	VAL
1	7	166	LEU
1	7	221	LEU
1	7	259	ILE
1	7	344	ARG
1	7	358	ASP
1	7	368	THR
1	7	398	GLN
1	7	432	ASP
1	7	459	LEU
1	7	490	GLN
1	8	84	THR
1	8	107	ILE
1	8	114	VAL
1	8	130	VAL
1	8	133	LYS
1	8	153	MET
1	8	161	LYS
1	8	170	THR
1	8	194	VAL
1	8	196	VAL
1	8	197	THR
1	8	222	VAL
1	8	231	SER
1	8	240	ASN
1	8	252	PHE
1	8	273	GLU
1	8	274	LEU
1	8	277	ASP
1	8	284	MET
1	8	287	ASP
1	8	300	LEU
1	8	331	VAL
1	8	340	ILE
1	8	341	ARG
1	8	345	TRP
1	8	348	GLU
1	8	386	LEU
1	8	395	TYR
1	8	412	VAL
1	8	425	ILE

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Mol	Chain	Res	Type
1	8	468	GLN
1	9	110	ASP
1	9	114	VAL
1	9	133	LYS
1	9	136	VAL
1	9	154	PHE
1	9	199	ASP
1	9	201(A)	ASP
1	9	201(B)	GLU
1	9	201(C)	ASP
1	9	201(D)	GLU
1	9	201(E)	ASP
1	9	201(F)	GLU
1	9	201(G)	ASP
1	9	201(H)	GLU
1	9	201(I)	ASP
1	9	250	MET
1	9	252	PHE
1	9	260	GLU
1	9	267	LYS
1	9	281	VAL
1	9	306	VAL
1	9	331	VAL
1	9	341	ARG
1	9	344	ARG
1	9	345	TRP
1	9	364	ILE
1	9	395	TYR
1	9	412	VAL
1	9	507	LEU
1	9	519	LYS
1	9	521	ILE
2	A	15	ASN
2	A	19	ILE
2	A	25	VAL
2	A	32	THR
2	A	34	LEU
2	A	38	ASP
2	A	45	THR
2	A	53	TYR
2	A	71	THR
2	A	87	LEU

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Mol	Chain	Res	Type
2	A	93	LEU
2	A	109	LYS
2	A	129	GLN
2	A	177	THR
2	A	211	ASN
2	A	227	VAL
2	A	266	THR
2	A	268	THR
2	A	288	LEU
2	A	289	LYS
2	A	291	LYS
2	A	295	ASP
2	A	296	LYS
2	A	298	LEU
2	A	320	LEU
2	A	327	VAL
2	A	337	VAL
2	A	352	ASP
2	A	367	GLU
2	A	394	GLU
2	A	396	ARG
2	A	405	LYS
1	AA	84	THR
1	AA	107	ILE
1	AA	114	VAL
1	AA	123	GLN
1	AA	131	TYR
1	AA	144	PHE
1	AA	195	GLN
1	AA	232	ILE
1	AA	235	LEU
1	AA	240	ASN
1	AA	254	ILE
1	AA	259	ILE
1	AA	274	LEU
1	AA	290	LEU
1	AA	305	GLU
1	AA	316	VAL
1	AA	323	LEU
1	AA	385	VAL
1	AA	398	GLN
1	AA	416	VAL

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Mol	Chain	Res	Type
1	AA	457	THR
1	AA	460	ARG
1	AA	463	ASP
1	AA	479	ILE
1	AB	68	ILE
1	AB	71	ASP
1	AB	78	ASN
1	AB	95	VAL
1	AB	96	MET
1	AB	99	VAL
1	AB	114	VAL
1	AB	133	LYS
1	AB	136	VAL
1	AB	154	PHE
1	AB	161	LYS
1	AB	194	VAL
1	AB	217	GLU
1	AB	230	THR
1	AB	235	LEU
1	AB	245	ASN
1	AB	247	TRP
1	AB	252	PHE
1	AB	273	GLU
1	AB	308	ASP
1	AB	341	ARG
1	AB	344	ARG
1	AB	374	ASN
1	AB	376	ILE
1	AB	377	ILE
1	AB	398	GLN
1	AB	412	VAL
1	AB	423	VAL
1	AB	470	VAL
1	AB	481	ILE
1	AB	507	LEU
1	AC	101	ARG
1	AC	106	LEU
1	AC	114	VAL
1	AC	133	LYS
1	AC	134	ASP
1	AC	136	VAL
1	AC	166	LEU

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Mol	Chain	Res	Type
1	AC	187	THR
1	AC	191	GLN
1	AC	197	THR
1	AC	204	ASP
1	AC	221	LEU
1	AC	224	ILE
1	AC	256	LYS
1	AC	259	ILE
1	AC	274	LEU
1	AC	278	LEU
1	AC	279	ARG
1	AC	374	ASN
1	AC	398	GLN
1	AC	406	THR
1	AC	412	VAL
1	AC	459	LEU
1	AC	463	ASP
1	AC	496	ILE
1	AC	497	GLN
1	AD	127	LEU
1	AD	221	LEU
1	AD	222	VAL
1	AD	224	ILE
1	AD	237	GLU
1	AD	243	THR
1	AD	260	GLU
1	AD	322	THR
1	AD	323	LEU
1	AD	345	TRP
1	AD	384	ASN
1	AD	395	TYR
1	AD	398	GLN
1	AD	433	TYR
1	AD	436	VAL
1	AD	482	ASN
1	AD	503	ILE
1	AD	507	LEU
1	AD	518	VAL
1	AE	105	ASN
1	AE	109	PHE
1	AE	114	VAL
1	AE	131	TYR

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Mol	Chain	Res	Type
1	AE	136	VAL
1	AE	198	ILE
1	AE	222	VAL
1	AE	281	VAL
1	AE	290	LEU
1	AE	300	LEU
1	AE	308	ASP
1	AE	331	VAL
1	AE	340	ILE
1	AE	345	TRP
1	AE	364	ILE
1	AE	395	TYR
1	AE	412	VAL
1	AE	425	ILE
1	AE	470	VAL
1	AE	515	ARG
1	AF	75	ASN
1	AF	95	VAL
1	AF	106	LEU
1	AF	121	THR
1	AF	127	LEU
1	AF	130	VAL
1	AF	136	VAL
1	AF	145	HIS
1	AF	170	THR
1	AF	230	THR
1	AF	243	THR
1	AF	245	ASN
1	AF	255	ASP
1	AF	259	ILE
1	AF	274	LEU
1	AF	313	SER
1	AF	338	ILE
1	AF	348	GLU
1	AF	358	ASP
1	AF	391	THR
1	AF	395	TYR
1	AF	398	GLN
1	AF	400	LEU
1	AF	404	PHE
1	AF	408	THR
1	AF	412	VAL

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Mol	Chain	Res	Type
1	AF	416	VAL
1	AF	435	THR
1	AF	448	ILE
1	AF	459	LEU
1	AF	466	ASN
1	AF	479	ILE
1	AF	516	VAL
1	AG	99	VAL
1	AG	107	ILE
1	AG	144	PHE
1	AG	166	LEU
1	AG	223	GLU
1	AG	243	THR
1	AG	254	ILE
1	AG	259	ILE
1	AG	264	ARG
1	AG	267	LYS
1	AG	316	VAL
1	AG	335	GLN
1	AG	364	ILE
1	AG	388	SER
1	AG	398	GLN
1	AG	416	VAL
1	AG	445	ASP
1	AG	503	ILE
1	AG	512	TYR
1	AH	68	ILE
1	AH	72	HIS
1	AH	79	ILE
1	AH	105	ASN
1	AH	107	ILE
1	AH	114	VAL
1	AH	130	VAL
1	AH	133	LYS
1	AH	147	MET
1	AH	170	THR
1	AH	187	THR
1	AH	214	LYS
1	AH	230	THR
1	AH	240	ASN
1	AH	244	ASP
1	AH	247	TRP

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Mol	Chain	Res	Type
1	AH	258	VAL
1	AH	259	ILE
1	AH	274	LEU
1	AH	277	ASP
1	AH	278	LEU
1	AH	300	LEU
1	AH	331	VAL
1	AH	341	ARG
1	AH	345	TRP
1	AH	348	GLU
1	AH	389	VAL
1	AH	395	TYR
1	AH	412	VAL
1	AH	425	ILE
1	AH	465	LYS
1	AH	466	ASN
1	AH	468	GLN
1	AH	505	ASN
1	AI	68	ILE
1	AI	109	PHE
1	AI	114	VAL
1	AI	130	VAL
1	AI	133	LYS
1	AI	136	VAL
1	AI	154	PHE
1	AI	185	THR
1	AI	199	ASP
1	AI	230	THR
1	AI	252	PHE
1	AI	260	GLU
1	AI	267	LYS
1	AI	277	ASP
1	AI	285	ASP
1	AI	299	MET
1	AI	300	LEU
1	AI	304	ARG
1	AI	308	ASP
1	AI	331	VAL
1	AI	334	PHE
1	AI	345	TRP
1	AI	389	VAL
1	AI	395	TYR

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Mol	Chain	Res	Type
1	AI	412	VAL
1	AI	425	ILE
1	AI	470	VAL
1	AI	476	ARG
1	AI	507	LEU
1	AI	518	VAL
1	AI	519	LYS
1	AI	521	ILE
1	AJ	68	ILE
1	AJ	90	GLN
1	AJ	95	VAL
1	AJ	99	VAL
1	AJ	100	ARG
1	AJ	105	ASN
1	AJ	107	ILE
1	AJ	109	PHE
1	AJ	121	THR
1	AJ	128	ARG
1	AJ	136	VAL
1	AJ	170	THR
1	AJ	197	THR
1	AJ	224	ILE
1	AJ	255	ASP
1	AJ	256	LYS
1	AJ	259	ILE
1	AJ	274	LEU
1	AJ	331	VAL
1	AJ	334	PHE
1	AJ	395	TYR
1	AJ	404	PHE
1	AJ	425	ILE
1	AJ	443	GLU
1	AJ	459	LEU
1	AJ	466	ASN
1	AJ	479	ILE
1	AK	75	ASN
1	AK	107	ILE
1	AK	114	VAL
1	AK	127	LEU
1	AK	131	TYR
1	AK	144	PHE
1	AK	166	LEU

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Mol	Chain	Res	Type
1	AK	195	GLN
1	AK	209	ASP
1	AK	222	VAL
1	AK	254	ILE
1	AK	272	ILE
1	AK	274	LEU
1	AK	305	GLU
1	AK	316	VAL
1	AK	367	GLN
1	AK	385	VAL
1	AK	389	VAL
1	AK	412	VAL
1	AK	417	LEU
1	AK	512	TYR
1	AL	71	ASP
1	AL	114	VAL
1	AL	127	LEU
1	AL	130	VAL
1	AL	136	VAL
1	AL	154	PHE
1	AL	161	LYS
1	AL	171	GLN
1	AL	198	ILE
1	AL	201(A)	ASP
1	AL	201(B)	GLU
1	AL	201(C)	ASP
1	AL	201(D)	GLU
1	AL	201(E)	ASP
1	AL	201(F)	GLU
1	AL	201(G)	ASP
1	AL	201(H)	GLU
1	AL	201(I)	ASP
1	AL	230	THR
1	AL	237	GLU
1	AL	243	THR
1	AL	245	ASN
1	AL	282	HIS
1	AL	289	GLU
1	AL	300	LEU
1	AL	333	ASP
1	AL	376	ILE
1	AL	377	ILE

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Mol	Chain	Res	Type
1	AL	384	ASN
1	AL	395	TYR
1	AL	398	GLN
1	AL	404	PHE
1	AL	431	GLN
1	AL	503	ILE
1	AL	507	LEU
1	AM	71	ASP
1	AM	79	ILE
1	AM	106	LEU
1	AM	109	PHE
1	AM	114	VAL
1	AM	133	LYS
1	AM	136	VAL
1	AM	161	LYS
1	AM	162	LYS
1	AM	166	LEU
1	AM	176	ASP
1	AM	187	THR
1	AM	195	GLN
1	AM	196	VAL
1	AM	221	LEU
1	AM	236	GLN
1	AM	255	ASP
1	AM	256	LYS
1	AM	259	ILE
1	AM	335	GLN
1	AM	362	VAL
1	AM	374	ASN
1	AM	398	GLN
1	AM	412	VAL
1	AM	459	LEU
1	AM	497	GLN
1	AN	96	MET
1	AN	124	VAL
1	AN	136	VAL
1	AN	182	PHE
1	AN	232	ILE
1	AN	289	GLU
1	AN	331	VAL
1	AN	339	ASP
1	AN	364	ILE

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Mol	Chain	Res	Type
1	AN	374	ASN
1	AN	377	ILE
1	AN	431	GLN
1	AN	503	ILE
1	AN	507	LEU
1	AN	518	VAL
1	AO	72	HIS
1	AO	109	PHE
1	AO	114	VAL
1	AO	124	VAL
1	AO	136	VAL
1	AO	166	LEU
1	AO	190	LEU
1	AO	203	THR
1	AO	221	LEU
1	AO	222	VAL
1	AO	259	ILE
1	AO	341	ARG
1	AO	398	GLN
1	AO	412	VAL
1	AO	443	GLU
1	AO	454	VAL
1	AO	496	ILE
1	AP	68	ILE
1	AP	84	THR
1	AP	95	VAL
1	AP	101	ARG
1	AP	128	ARG
1	AP	131	TYR
1	AP	221	LEU
1	AP	222	VAL
1	AP	224	ILE
1	AP	255	ASP
1	AP	273	GLU
1	AP	297	GLU
1	AP	323	LEU
1	AP	381	ASN
1	AP	385	VAL
1	AP	395	TYR
1	AP	465	LYS
1	AP	481	ILE
1	AP	490	GLN

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Mol	Chain	Res	Type
1	AP	496	ILE
1	AP	507	LEU
1	AQ	72	HIS
1	AQ	107	ILE
1	AQ	114	VAL
1	AQ	123	GLN
1	AQ	127	LEU
1	AQ	130	VAL
1	AQ	131	TYR
1	AQ	136	VAL
1	AQ	170	THR
1	AQ	197	THR
1	AQ	198	ILE
1	AQ	203	THR
1	AQ	258	VAL
1	AQ	260	GLU
1	AQ	272	ILE
1	AQ	331	VAL
1	AQ	345	TRP
1	AQ	348	GLU
1	AQ	408	THR
1	AQ	409	THR
1	AQ	427	GLN
1	AQ	445	ASP
1	AQ	465	LYS
1	AQ	470	VAL
1	AQ	486	GLU
1	AQ	521	ILE
1	AR	98	MET
1	AR	99	VAL
1	AR	107	ILE
1	AR	110	ASP
1	AR	121	THR
1	AR	130	VAL
1	AR	136	VAL
1	AR	170	THR
1	AR	222	VAL
1	AR	230	THR
1	AR	237	GLU
1	AR	239	PHE
1	AR	259	ILE
1	AR	274	LEU

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Mol	Chain	Res	Type
1	AR	313	SER
1	AR	334	PHE
1	AR	338	ILE
1	AR	395	TYR
1	AR	400	LEU
1	AR	404	PHE
1	AR	412	VAL
1	AR	459	LEU
1	AR	516	VAL
1	AS	72	HIS
1	AS	78	ASN
1	AS	88	VAL
1	AS	99	VAL
1	AS	107	ILE
1	AS	114	VAL
1	AS	144	PHE
1	AS	162	LYS
1	AS	183	GLN
1	AS	190	LEU
1	AS	243	THR
1	AS	254	ILE
1	AS	259	ILE
1	AS	278	LEU
1	AS	316	VAL
1	AS	323	LEU
1	AS	384	ASN
1	AS	385	VAL
1	AS	445	ASP
1	AS	479	ILE
1	AS	512	TYR
1	AT	79	ILE
1	AT	114	VAL
1	AT	130	VAL
1	AT	133	LYS
1	AT	170	THR
1	AT	184	GLU
1	AT	187	THR
1	AT	194	VAL
1	AT	196	VAL
1	AT	197	THR
1	AT	201(A)	ASP
1	AT	201(B)	GLU

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Mol	Chain	Res	Type
1	AT	201(C)	ASP
1	AT	201(D)	GLU
1	AT	201(E)	ASP
1	AT	201(F)	GLU
1	AT	201(G)	ASP
1	AT	201(H)	GLU
1	AT	201(I)	ASP
1	AT	222	VAL
1	AT	252	PHE
1	AT	273	GLU
1	AT	277	ASP
1	AT	331	VAL
1	AT	341	ARG
1	AT	345	TRP
1	AT	348	GLU
1	AT	386	LEU
1	AT	395	TYR
1	AT	408	THR
1	AT	412	VAL
1	AT	425	ILE
1	AT	436	VAL
1	AT	465	LYS
1	AT	468	GLN
1	AT	507	LEU
1	AT	515	ARG
1	AU	77	THR
1	AU	110	ASP
1	AU	114	VAL
1	AU	123	GLN
1	AU	130	VAL
1	AU	131	TYR
1	AU	133	LYS
1	AU	136	VAL
1	AU	170	THR
1	AU	252	PHE
1	AU	260	GLU
1	AU	265	GLN
1	AU	267	LYS
1	AU	277	ASP
1	AU	281	VAL
1	AU	300	LEU
1	AU	308	ASP

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Mol	Chain	Res	Type
1	AU	331	VAL
1	AU	345	TRP
1	AU	395	TYR
1	AU	412	VAL
1	AU	457	THR
1	AU	476	ARG
1	AU	519	LYS
1	AV	68	ILE
1	AV	77	THR
1	AV	95	VAL
1	AV	99	VAL
1	AV	105	ASN
1	AV	107	ILE
1	AV	121	THR
1	AV	130	VAL
1	AV	136	VAL
1	AV	153	MET
1	AV	170	THR
1	AV	187	THR
1	AV	197	THR
1	AV	256	LYS
1	AV	259	ILE
1	AV	299	MET
1	AV	334	PHE
1	AV	338	ILE
1	AV	385	VAL
1	AV	395	TYR
1	AV	398	GLN
1	AV	400	LEU
1	AV	404	PHE
1	AV	408	THR
1	AV	412	VAL
1	AV	417	LEU
1	AV	448	ILE
1	AV	459	LEU
1	AV	479	ILE
1	AV	481	ILE
1	AV	516	VAL
1	AW	72	HIS
1	AW	75	ASN
1	AW	99	VAL
1	AW	107	ILE

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Mol	Chain	Res	Type
1	AW	114	VAL
1	AW	188	VAL
1	AW	222	VAL
1	AW	254	ILE
1	AW	255	ASP
1	AW	259	ILE
1	AW	272	ILE
1	AW	305	GLU
1	AW	316	VAL
1	AW	335	GLN
1	AW	379	SER
1	AW	385	VAL
1	AW	389	VAL
1	AW	412	VAL
1	AW	423	VAL
1	AW	431	GLN
1	AW	466	ASN
1	AW	512	TYR
1	AX	71	ASP
1	AX	95	VAL
1	AX	130	VAL
1	AX	133	LYS
1	AX	161	LYS
1	AX	195	GLN
1	AX	199	ASP
1	AX	201(A)	ASP
1	AX	201(B)	GLU
1	AX	201(C)	ASP
1	AX	201(D)	GLU
1	AX	201(E)	ASP
1	AX	201(F)	GLU
1	AX	201(G)	ASP
1	AX	201(H)	GLU
1	AX	201(I)	ASP
1	AX	232	ILE
1	AX	234	GLU
1	AX	237	GLU
1	AX	243	THR
1	AX	245	ASN
1	AX	279	ARG
1	AX	282	HIS
1	AX	331	VAL

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Mol	Chain	Res	Type
1	AX	344	ARG
1	AX	364	ILE
1	AX	376	ILE
1	AX	377	ILE
1	AX	398	GLN
1	AX	423	VAL
1	AX	448	ILE
1	AX	481	ILE
1	AX	500	MET
1	AX	503	ILE
1	AX	507	LEU
1	AX	518	VAL
1	AY	106	LEU
1	AY	114	VAL
1	AY	130	VAL
1	AY	133	LYS
1	AY	136	VAL
1	AY	161	LYS
1	AY	162	LYS
1	AY	166	LEU
1	AY	172	THR
1	AY	176	ASP
1	AY	195	GLN
1	AY	199	ASP
1	AY	221	LEU
1	AY	243	THR
1	AY	255	ASP
1	AY	256	LYS
1	AY	259	ILE
1	AY	324	THR
1	AY	349	SER
1	AY	356	GLN
1	AY	372	GLU
1	AY	374	ASN
1	AY	412	VAL
1	AY	430	LYS
1	AY	459	LEU
1	AY	496	ILE
1	AY	497	GLN
1	AZ	124	VAL
1	AZ	243	THR
1	AZ	293	ILE

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Mol	Chain	Res	Type
1	AZ	324	THR
1	AZ	377	ILE
1	AZ	384	ASN
1	AZ	398	GLN
1	AZ	431	GLN
1	AZ	445	ASP
1	AZ	448	ILE
1	AZ	503	ILE
1	AZ	507	LEU
1	AZ	518	VAL
1	Aa	75	ASN
1	Aa	84	THR
1	Aa	106	LEU
1	Aa	110	ASP
1	Aa	114	VAL
1	Aa	136	VAL
1	Aa	221	LEU
1	Aa	226	GLU
1	Aa	255	ASP
1	Aa	259	ILE
1	Aa	362	VAL
1	Aa	398	GLN
1	Aa	504	LEU
1	Ab	68	ILE
1	Ab	84	THR
1	Ab	95	VAL
1	Ab	99	VAL
1	Ab	101	ARG
1	Ab	194	VAL
1	Ab	201(A)	ASP
1	Ab	201(B)	GLU
1	Ab	201(C)	ASP
1	Ab	201(D)	GLU
1	Ab	201(E)	ASP
1	Ab	201(F)	GLU
1	Ab	201(G)	ASP
1	Ab	201(H)	GLU
1	Ab	201(I)	ASP
1	Ab	209	ASP
1	Ab	221	LEU
1	Ab	224	ILE
1	Ab	260	GLU

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Mol	Chain	Res	Type
1	Ab	272	ILE
1	Ab	273	GLU
1	Ab	300	LEU
1	Ab	322	THR
1	Ab	331	VAL
1	Ab	395	TYR
1	Ab	459	LEU
1	Ab	482	ASN
1	Ab	503	ILE
1	Ab	507	LEU
1	Ac	114	VAL
1	Ac	136	VAL
1	Ac	170	THR
1	Ac	203	THR
1	Ac	222	VAL
1	Ac	260	GLU
1	Ac	277	ASP
1	Ac	300	LEU
1	Ac	306	VAL
1	Ac	331	VAL
1	Ac	345	TRP
1	Ac	395	TYR
1	Ac	445	ASP
1	Ac	470	VAL
1	Ac	487	SER
1	Ac	507	LEU
1	Ac	515	ARG
1	Ac	521	ILE
1	Ad	84	THR
1	Ad	88	VAL
1	Ad	105	ASN
1	Ad	107	ILE
1	Ad	121	THR
1	Ad	127	LEU
1	Ad	136	VAL
1	Ad	170	THR
1	Ad	237	GLU
1	Ad	252	PHE
1	Ad	255	ASP
1	Ad	259	ILE
1	Ad	271	SER
1	Ad	274	LEU

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Mol	Chain	Res	Type
1	Ad	310	ILE
1	Ad	331	VAL
1	Ad	338	ILE
1	Ad	357	ILE
1	Ad	366	ARG
1	Ad	400	LEU
1	Ad	402	THR
1	Ad	459	LEU
1	Ad	466	ASN
1	Ad	510	ASN
1	Ad	516	VAL
1	Ae	99	VAL
1	Ae	107	ILE
1	Ae	109	PHE
1	Ae	114	VAL
1	Ae	127	LEU
1	Ae	144	PHE
1	Ae	203	THR
1	Ae	222	VAL
1	Ae	224	ILE
1	Ae	230	THR
1	Ae	232	ILE
1	Ae	254	ILE
1	Ae	259	ILE
1	Ae	284	MET
1	Ae	300	LEU
1	Ae	316	VAL
1	Ae	331	VAL
1	Ae	335	GLN
1	Ae	412	VAL
1	Ae	479	ILE
1	Ae	512	TYR
1	Af	67	GLU
1	Af	75	ASN
1	Af	79	ILE
1	Af	107	ILE
1	Af	109	PHE
1	Af	114	VAL
1	Af	124	VAL
1	Af	130	VAL
1	Af	133	LYS
1	Af	151	ASP

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Mol	Chain	Res	Type
1	Af	170	THR
1	Af	196	VAL
1	Af	197	THR
1	Af	222	VAL
1	Af	230	THR
1	Af	240	ASN
1	Af	244	ASP
1	Af	252	PHE
1	Af	260	GLU
1	Af	273	GLU
1	Af	277	ASP
1	Af	278	LEU
1	Af	313	SER
1	Af	331	VAL
1	Af	341	ARG
1	Af	345	TRP
1	Af	348	GLU
1	Af	364	ILE
1	Af	395	TYR
1	Af	412	VAL
1	Af	425	ILE
1	Af	444	MET
1	Af	448	ILE
1	Af	465	LYS
1	Af	466	ASN
1	Af	468	GLN
1	Ag	68	ILE
1	Ag	109	PHE
1	Ag	110	ASP
1	Ag	123	GLN
1	Ag	133	LYS
1	Ag	136	VAL
1	Ag	154	PHE
1	Ag	243	THR
1	Ag	244	ASP
1	Ag	252	PHE
1	Ag	267	LYS
1	Ag	277	ASP
1	Ag	281	VAL
1	Ag	285	ASP
1	Ag	290	LEU
1	Ag	299	MET

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Mol	Chain	Res	Type
1	Ag	331	VAL
1	Ag	344	ARG
1	Ag	345	TRP
1	Ag	386	LEU
1	Ag	432	ASP
1	Ag	442	ASN
1	Ag	456	LEU
1	Ah	68	ILE
1	Ah	88	VAL
1	Ah	90	GLN
1	Ah	95	VAL
1	Ah	105	ASN
1	Ah	107	ILE
1	Ah	121	THR
1	Ah	131	TYR
1	Ah	136	VAL
1	Ah	208	LEU
1	Ah	217	GLU
1	Ah	230	THR
1	Ah	256	LYS
1	Ah	259	ILE
1	Ah	274	LEU
1	Ah	281	VAL
1	Ah	313	SER
1	Ah	331	VAL
1	Ah	334	PHE
1	Ah	338	ILE
1	Ah	348	GLU
1	Ah	389	VAL
1	Ah	398	GLN
1	Ah	408	THR
1	Ah	417	LEU
1	Ah	459	LEU
1	Ah	479	ILE
1	Ah	516	VAL
1	Ai	75	ASN
1	Ai	99	VAL
1	Ai	107	ILE
1	Ai	114	VAL
1	Ai	130	VAL
1	Ai	131	TYR
1	Ai	144	PHE

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Mol	Chain	Res	Type
1	Ai	195	GLN
1	Ai	216	MET
1	Ai	232	ILE
1	Ai	236	GLN
1	Ai	244	ASP
1	Ai	254	ILE
1	Ai	272	ILE
1	Ai	305	GLU
1	Ai	316	VAL
1	Ai	323	LEU
1	Ai	331	VAL
1	Ai	335	GLN
1	Ai	358	ASP
1	Ai	395	TYR
1	Ai	398	GLN
1	Ai	412	VAL
1	Ai	457	THR
1	Ai	512	TYR
1	Aj	71	ASP
1	Aj	84	THR
1	Aj	133	LYS
1	Aj	136	VAL
1	Aj	154	PHE
1	Aj	161	LYS
1	Aj	171	GLN
1	Aj	187	THR
1	Aj	194	VAL
1	Aj	222	VAL
1	Aj	237	GLU
1	Aj	243	THR
1	Aj	245	ASN
1	Aj	279	ARG
1	Aj	282	HIS
1	Aj	302	ILE
1	Aj	304	ARG
1	Aj	339	ASP
1	Aj	364	ILE
1	Aj	376	ILE
1	Aj	377	ILE
1	Aj	398	GLN
1	Aj	404	PHE
1	Aj	423	VAL

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Mol	Chain	Res	Type
1	Aj	427	GLN
1	Aj	445	ASP
1	Aj	448	ILE
1	Aj	503	ILE
1	Aj	507	LEU
1	Aj	518	VAL
1	Ak	68	ILE
1	Ak	106	LEU
1	Ak	114	VAL
1	Ak	133	LYS
1	Ak	136	VAL
1	Ak	161	LYS
1	Ak	166	LEU
1	Ak	196	VAL
1	Ak	221	LEU
1	Ak	223	GLU
1	Ak	243	THR
1	Ak	255	ASP
1	Ak	256	LYS
1	Ak	259	ILE
1	Ak	385	VAL
1	Ak	398	GLN
1	Ak	400	LEU
1	Ak	459	LEU
1	Ak	519	LYS
1	Al	84	THR
1	Al	96	MET
1	Al	124	VAL
1	Al	136	VAL
1	Al	166	LEU
1	Al	182	PHE
1	Al	274	LEU
1	Al	322	THR
1	Al	344	ARG
1	Al	376	ILE
1	Al	377	ILE
1	Al	402	THR
1	Al	423	VAL
1	Al	490	GLN
1	Al	503	ILE
1	Am	72	HIS
1	Am	84	THR

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Mol	Chain	Res	Type
1	Am	106	LEU
1	Am	109	PHE
1	Am	114	VAL
1	Am	136	VAL
1	Am	221	LEU
1	Am	259	ILE
1	Am	285	ASP
1	Am	300	LEU
1	Am	324	THR
1	Am	334	PHE
1	Am	372	GLU
1	Am	412	VAL
1	Am	454	VAL
1	Am	459	LEU
2	B	12	THR
2	B	13	THR
2	B	15	ASN
2	B	19	ILE
2	B	25	VAL
2	B	28	THR
2	B	32	THR
2	B	34	LEU
2	B	53	TYR
2	B	55	ILE
2	B	87	LEU
2	B	92	LYS
2	B	93	LEU
2	B	100	LEU
2	B	102	LYS
2	B	107	VAL
2	B	109	LYS
2	B	133	VAL
2	B	136	LYS
2	B	146	THR
2	B	177	THR
2	B	179	ILE
2	B	180	THR
2	B	220	THR
2	B	230	ILE
2	B	266	THR
2	B	268	THR
2	B	288	LEU

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Mol	Chain	Res	Type
2	B	289	LYS
2	B	291	LYS
2	B	296	LYS
2	B	298	LEU
2	B	306	LEU
2	B	310	LEU
2	B	320	LEU
2	B	352	ASP
2	B	353	ASP
2	B	367	GLU
2	B	390	LYS
2	B	391	ASP
2	C	12	THR
2	C	13	THR
2	C	15	ASN
2	C	19	ILE
2	C	32	THR
2	C	34	LEU
2	C	38	ASP
2	C	45	THR
2	C	47	GLN
2	C	53	TYR
2	C	87	LEU
2	C	92	LYS
2	C	93	LEU
2	C	100	LEU
2	C	107	VAL
2	C	109	LYS
2	C	125	GLU
2	C	130	ILE
2	C	136	LYS
2	C	177	THR
2	C	180	THR
2	C	188	GLU
2	C	231	THR
2	C	268	THR
2	C	281	ILE
2	C	288	LEU
2	C	289	LYS
2	C	291	LYS
2	C	294	ASP
2	C	296	LYS

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Mol	Chain	Res	Type
2	C	298	LEU
2	C	303	TYR
2	C	306	LEU
2	C	308	ASN
2	C	320	LEU
2	C	327	VAL
2	C	337	VAL
2	C	353	ASP
2	C	390	LYS
2	C	391	ASP
2	C	396	ARG
2	C	405	LYS
2	C	414	VAL
2	D	19	ILE
2	D	25	VAL
2	D	29	ARG
2	D	32	THR
2	D	38	ASP
2	D	45	THR
2	D	53	TYR
2	D	55	ILE
2	D	87	LEU
2	D	93	LEU
2	D	107	VAL
2	D	109	LYS
2	D	125	GLU
2	D	135	LEU
2	D	177	THR
2	D	180	THR
2	D	188	GLU
2	D	230	ILE
2	D	231	THR
2	D	236	ILE
2	D	266	THR
2	D	268	THR
2	D	288	LEU
2	D	289	LYS
2	D	291	LYS
2	D	295	ASP
2	D	296	LYS
2	D	298	LEU
2	D	301	ASN

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Mol	Chain	Res	Type
2	D	306	LEU
2	D	310	LEU
2	D	320	LEU
2	D	324	ILE
2	D	337	VAL
2	D	352	ASP
2	D	367	GLU
2	D	390	LYS
2	D	391	ASP
2	D	396	ARG
2	D	405	LYS
1	G	67	GLU
1	G	68	ILE
1	G	90	GLN
1	G	107	ILE
1	G	109	PHE
1	G	110	ASP
1	G	121	THR
1	G	136	VAL
1	G	151	ASP
1	G	170	THR
1	G	197	THR
1	G	222	VAL
1	G	235	LEU
1	G	244	ASP
1	G	256	LYS
1	G	259	ILE
1	G	298	ILE
1	G	313	SER
1	G	331	VAL
1	G	334	PHE
1	G	385	VAL
1	G	400	LEU
1	G	404	PHE
1	G	416	VAL
1	G	448	ILE
1	G	457	THR
1	G	459	LEU
1	G	471	MET
1	G	479	ILE
1	G	516	VAL
1	H	72	HIS

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Mol	Chain	Res	Type
1	H	91	ILE
1	H	114	VAL
1	H	195	GLN
1	H	237	GLU
1	H	245	ASN
1	H	254	ILE
1	H	259	ILE
1	H	272	ILE
1	H	273	GLU
1	H	305	GLU
1	H	316	VAL
1	H	323	LEU
1	H	331	VAL
1	H	345	TRP
1	H	385	VAL
1	H	423	VAL
1	H	445	ASP
1	H	459	LEU
1	H	505	ASN
1	H	512	TYR
1	H	518	VAL
1	J	68	ILE
1	J	106	LEU
1	J	114	VAL
1	J	130	VAL
1	J	136	VAL
1	J	161	LYS
1	J	166	LEU
1	J	187	THR
1	J	221	LEU
1	J	239	PHE
1	J	249	GLU
1	J	254	ILE
1	J	255	ASP
1	J	256	LYS
1	J	259	ILE
1	J	274	LEU
1	J	351	LYS
1	J	372	GLU
1	J	385	VAL
1	J	412	VAL
1	J	443	GLU

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Mol	Chain	Res	Type
1	J	459	LEU
1	K	68	ILE
1	K	72	HIS
1	K	84	THR
1	K	95	VAL
1	K	99	VAL
1	K	101	ARG
1	K	179	THR
1	K	221	LEU
1	K	224	ILE
1	K	237	GLU
1	K	273	GLU
1	K	276	GLN
1	K	279	ARG
1	K	298	ILE
1	K	322	THR
1	K	323	LEU
1	K	381	ASN
1	K	395	TYR
1	K	465	LYS
1	K	481	ILE
1	K	490	GLN
1	K	503	ILE
1	K	507	LEU
1	L	109	PHE
1	L	114	VAL
1	L	260	GLU
1	L	265	GLN
1	L	272	ILE
1	L	331	VAL
1	L	340	ILE
1	L	345	TRP
1	L	395	TYR
1	L	425	ILE
1	L	445	ASP
1	L	466	ASN
1	L	470	VAL
1	L	521	ILE
1	M	72	HIS
1	M	88	VAL
1	M	107	ILE
1	M	109	PHE

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Mol	Chain	Res	Type
1	M	121	THR
1	M	136	VAL
1	M	170	THR
1	M	222	VAL
1	M	224	ILE
1	M	236	GLN
1	M	237	GLU
1	M	243	THR
1	M	338	ILE
1	M	339	ASP
1	M	391	THR
1	M	404	PHE
1	M	459	LEU
1	M	479	ILE
1	M	481	ILE
1	M	516	VAL
1	N	72	HIS
1	N	107	ILE
1	N	114	VAL
1	N	144	PHE
1	N	243	THR
1	N	254	ILE
1	N	259	ILE
1	N	308	ASP
1	N	316	VAL
1	N	323	LEU
1	N	335	GLN
1	N	385	VAL
1	N	416	VAL
1	N	442	ASN
1	N	445	ASP
1	N	512	TYR
1	O	67	GLU
1	O	72	HIS
1	O	79	ILE
1	O	107	ILE
1	O	114	VAL
1	O	124	VAL
1	O	130	VAL
1	O	133	LYS
1	O	170	THR
1	O	184	GLU

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Mol	Chain	Res	Type
1	O	187	THR
1	O	194	VAL
1	O	195	GLN
1	O	196	VAL
1	O	197	THR
1	O	198	ILE
1	O	222	VAL
1	O	232	ILE
1	O	240	ASN
1	O	244	ASP
1	O	252	PHE
1	O	259	ILE
1	O	270	TYR
1	O	274	LEU
1	O	278	LEU
1	O	289	GLU
1	O	331	VAL
1	O	341	ARG
1	O	345	TRP
1	O	348	GLU
1	O	395	TYR
1	O	406	THR
1	O	408	THR
1	O	412	VAL
1	O	425	ILE
1	O	444	MET
1	O	465	LYS
1	O	466	ASN
1	O	468	GLN
1	O	482	ASN
1	O	507	LEU
1	P	89	THR
1	P	110	ASP
1	P	114	VAL
1	P	123	GLN
1	P	133	LYS
1	P	136	VAL
1	P	170	THR
1	P	195	GLN
1	P	222	VAL
1	P	244	ASP
1	P	260	GLU

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Mol	Chain	Res	Type
1	P	267	LYS
1	P	277	ASP
1	P	278	LEU
1	P	281	VAL
1	P	285	ASP
1	P	308	ASP
1	P	331	VAL
1	P	345	TRP
1	P	364	ILE
1	P	395	TYR
1	P	436	VAL
1	P	466	ASN
1	P	476	ARG
1	P	479	ILE
1	P	507	LEU
1	P	519	LYS
1	Q	68	ILE
1	Q	88	VAL
1	Q	90	GLN
1	Q	95	VAL
1	Q	109	PHE
1	Q	119	SER
1	Q	121	THR
1	Q	127	LEU
1	Q	136	VAL
1	Q	170	THR
1	Q	183	GLN
1	Q	197	THR
1	Q	256	LYS
1	Q	259	ILE
1	Q	313	SER
1	Q	331	VAL
1	Q	338	ILE
1	Q	400	LEU
1	Q	404	PHE
1	Q	412	VAL
1	Q	417	LEU
1	Q	459	LEU
1	Q	479	ILE
1	Q	516	VAL
1	R	75	ASN
1	R	106	LEU

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Mol	Chain	Res	Type
1	R	107	ILE
1	R	109	PHE
1	R	114	VAL
1	R	144	PHE
1	R	195	GLN
1	R	196	VAL
1	R	243	THR
1	R	259	ILE
1	R	272	ILE
1	R	290	LEU
1	R	316	VAL
1	R	323	LEU
1	R	335	GLN
1	R	345	TRP
1	R	389	VAL
1	R	398	GLN
1	R	406	THR
1	R	412	VAL
1	R	445	ASP
1	R	466	ASN
1	R	479	ILE
1	R	505	ASN
1	R	512	TYR
1	S	71	ASP
1	S	127	LEU
1	S	130	VAL
1	S	133	LYS
1	S	136	VAL
1	S	154	PHE
1	S	161	LYS
1	S	171	GLN
1	S	195	GLN
1	S	198	ILE
1	S	201(A)	ASP
1	S	201(B)	GLU
1	S	201(C)	ASP
1	S	201(D)	GLU
1	S	201(E)	ASP
1	S	201(F)	GLU
1	S	201(G)	ASP
1	S	201(H)	GLU
1	S	201(I)	ASP

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Mol	Chain	Res	Type
1	S	222	VAL
1	S	230	THR
1	S	237	GLU
1	S	243	THR
1	S	245	ASN
1	S	264	ARG
1	S	282	HIS
1	S	289	GLU
1	S	344	ARG
1	S	376	ILE
1	S	423	VAL
1	S	445	ASP
1	S	503	ILE
1	S	507	LEU
1	S	518	VAL
1	T	68	ILE
1	T	71	ASP
1	T	106	LEU
1	T	114	VAL
1	T	133	LYS
1	T	136	VAL
1	T	147	MET
1	T	161	LYS
1	T	166	LEU
1	T	176	ASP
1	T	199	ASP
1	T	221	LEU
1	T	236	GLN
1	T	245	ASN
1	T	253	ARG
1	T	256	LYS
1	T	259	ILE
1	T	274	LEU
1	T	374	ASN
1	T	400	LEU
1	T	454	VAL
1	T	459	LEU
1	T	465	LYS
1	T	471	MET
1	U	68	ILE
1	U	78	ASN
1	U	79	ILE

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Mol	Chain	Res	Type
1	U	84	THR
1	U	95	VAL
1	U	221	LEU
1	U	222	VAL
1	U	224	ILE
1	U	255	ASP
1	U	272	ILE
1	U	273	GLU
1	U	323	LEU
1	U	349	SER
1	U	395	TYR
1	U	482	ASN
1	U	496	ILE
1	U	503	ILE
1	U	507	LEU
1	V	79	ILE
1	V	90	GLN
1	V	107	ILE
1	V	114	VAL
1	V	131	TYR
1	V	136	VAL
1	V	187	THR
1	V	198	ILE
1	V	222	VAL
1	V	263	SER
1	V	331	VAL
1	V	345	TRP
1	V	395	TYR
1	V	408	THR
1	V	425	ILE
1	V	436	VAL
1	V	445	ASP
1	V	470	VAL
1	W	75	ASN
1	W	95	VAL
1	W	107	ILE
1	W	121	THR
1	W	131	TYR
1	W	136	VAL
1	W	170	THR
1	W	222	VAL
1	W	224	ILE

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Mol	Chain	Res	Type
1	W	230	THR
1	W	259	ILE
1	W	313	SER
1	W	331	VAL
1	W	334	PHE
1	W	338	ILE
1	W	391	THR
1	W	395	TYR
1	W	404	PHE
1	W	435	THR
1	W	436	VAL
1	W	459	LEU
1	W	466	ASN
1	W	479	ILE
1	W	490	GLN
1	W	516	VAL
1	X	99	VAL
1	X	107	ILE
1	X	114	VAL
1	X	144	PHE
1	X	166	LEU
1	X	222	VAL
1	X	230	THR
1	X	254	ILE
1	X	259	ILE
1	X	300	LEU
1	X	316	VAL
1	X	323	LEU
1	X	331	VAL
1	X	335	GLN
1	X	344	ARG
1	X	398	GLN
1	X	412	VAL
1	Y	72	HIS
1	Y	79	ILE
1	Y	96	MET
1	Y	105	ASN
1	Y	107	ILE
1	Y	114	VAL
1	Y	133	LYS
1	Y	170	THR
1	Y	194	VAL

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Mol	Chain	Res	Type
1	Y	196	VAL
1	Y	197	THR
1	Y	232	ILE
1	Y	240	ASN
1	Y	252	PHE
1	Y	258	VAL
1	Y	259	ILE
1	Y	270	TYR
1	Y	273	GLU
1	Y	274	LEU
1	Y	277	ASP
1	Y	287	ASP
1	Y	331	VAL
1	Y	345	TRP
1	Y	348	GLU
1	Y	408	THR
1	Y	412	VAL
1	Y	425	ILE
1	Y	427	GLN
1	Y	444	MET
1	Y	465	LYS
1	Y	466	ASN
1	Y	468	GLN
1	Y	481	ILE
1	Z	79	ILE
1	Z	107	ILE
1	Z	110	ASP
1	Z	114	VAL
1	Z	123	GLN
1	Z	130	VAL
1	Z	131	TYR
1	Z	133	LYS
1	Z	136	VAL
1	Z	170	THR
1	Z	203	THR
1	Z	243	THR
1	Z	244	ASP
1	Z	252	PHE
1	Z	260	GLU
1	Z	267	LYS
1	Z	300	LEU
1	Z	331	VAL

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Mol	Chain	Res	Type
1	Z	341	ARG
1	Z	345	TRP
1	Z	389	VAL
1	Z	395	TYR
1	Z	427	GLN
1	Z	432	ASP
1	Z	470	VAL
1	Z	476	ARG
1	Z	496	ILE
1	Z	507	LEU
1	Z	515	ARG
1	Z	518	VAL
1	Z	519	LYS
1	Z	521	ILE
2	a	15	ASN
2	a	19	ILE
2	a	28	THR
2	a	32	THR
2	a	34	LEU
2	a	47	GLN
2	a	49	VAL
2	a	53	TYR
2	a	55	ILE
2	a	87	LEU
2	a	92	LYS
2	a	102	LYS
2	a	107	VAL
2	a	109	LYS
2	a	125	GLU
2	a	136	LYS
2	a	177	THR
2	a	187	LEU
2	a	190	ASN
2	a	221	VAL
2	a	227	VAL
2	a	231	THR
2	a	266	THR
2	a	268	THR
2	a	288	LEU
2	a	289	LYS
2	a	291	LYS
2	a	296	LYS

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Mol	Chain	Res	Type
2	a	298	LEU
2	a	320	LEU
2	a	327	VAL
2	a	337	VAL
2	a	367	GLU
2	a	390	LYS
2	a	391	ASP
2	a	405	LYS
2	a	414	VAL
1	b	67	GLU
1	b	68	ILE
1	b	90	GLN
1	b	95	VAL
1	b	109	PHE
1	b	121	THR
1	b	127	LEU
1	b	131	TYR
1	b	136	VAL
1	b	170	THR
1	b	199	ASP
1	b	240	ASN
1	b	259	ILE
1	b	307	VAL
1	b	313	SER
1	b	324	THR
1	b	331	VAL
1	b	334	PHE
1	b	338	ILE
1	b	395	TYR
1	b	398	GLN
1	b	408	THR
1	b	459	LEU
1	b	479	ILE
1	b	516	VAL
1	c	99	VAL
1	c	107	ILE
1	c	114	VAL
1	c	127	LEU
1	c	131	TYR
1	c	144	PHE
1	c	195	GLN
1	c	232	ILE

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Mol	Chain	Res	Type
1	c	254	ILE
1	c	272	ILE
1	c	303	ASN
1	c	305	GLU
1	c	316	VAL
1	c	323	LEU
1	c	385	VAL
1	c	406	THR
1	c	428	TYR
1	c	512	TYR
1	d	95	VAL
1	d	130	VAL
1	d	133	LYS
1	d	136	VAL
1	d	161	LYS
1	d	171	GLN
1	d	194	VAL
1	d	195	GLN
1	d	222	VAL
1	d	230	THR
1	d	237	GLU
1	d	243	THR
1	d	282	HIS
1	d	302	ILE
1	d	304	ARG
1	d	344	ARG
1	d	376	ILE
1	d	377	ILE
1	d	395	TYR
1	d	423	VAL
1	d	503	ILE
1	e	68	ILE
1	e	109	PHE
1	e	114	VAL
1	e	133	LYS
1	e	136	VAL
1	e	161	LYS
1	e	166	LEU
1	e	187	THR
1	e	221	LEU
1	e	240	ASN
1	e	256	LYS

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Mol	Chain	Res	Type
1	e	259	ILE
1	e	265	GLN
1	e	372	GLU
1	e	398	GLN
1	e	459	LEU
1	e	497	GLN
1	f	72	HIS
1	f	89	THR
1	f	105	ASN
1	f	107	ILE
1	f	114	VAL
1	f	130	VAL
1	f	133	LYS
1	f	187	THR
1	f	194	VAL
1	f	197	THR
1	f	222	VAL
1	f	232	ILE
1	f	239	PHE
1	f	240	ASN
1	f	244	ASP
1	f	247	TRP
1	f	252	PHE
1	f	259	ILE
1	f	270	TYR
1	f	277	ASP
1	f	331	VAL
1	f	341	ARG
1	f	348	GLU
1	f	374	ASN
1	f	386	LEU
1	f	389	VAL
1	f	406	THR
1	f	425	ILE
1	f	427	GLN
1	f	430	LYS
1	f	454	VAL
1	f	465	LYS
1	f	479	ILE
1	g	84	THR
1	g	124	VAL
1	g	136	VAL

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Mol	Chain	Res	Type
1	g	188	VAL
1	g	222	VAL
1	g	224	ILE
1	g	272	ILE
1	g	273	GLU
1	g	289	GLU
1	g	333	ASP
1	g	344	ARG
1	g	377	ILE
1	g	395	TYR
1	g	412	VAL
1	g	423	VAL
1	g	448	ILE
1	g	481	ILE
1	g	503	ILE
1	h	106	LEU
1	h	114	VAL
1	h	134	ASP
1	h	136	VAL
1	h	221	LEU
1	h	237	GLU
1	h	273	GLU
1	h	274	LEU
1	h	331	VAL
1	h	374	ASN
1	h	412	VAL
1	h	425	ILE
1	h	443	GLU
1	h	448	ILE
1	h	459	LEU
1	i	84	THR
1	i	136	VAL
1	i	154	PHE
1	i	166	LEU
1	i	224	ILE
1	i	272	ILE
1	i	344	ARG
1	i	376	ILE
1	i	377	ILE
1	i	436	VAL
1	i	445	ASP
1	i	482	ASN

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Mol	Chain	Res	Type
1	i	503	ILE
1	i	507	LEU
1	j	72	HIS
1	j	114	VAL
1	j	136	VAL
1	j	195	GLN
1	j	203	THR
1	j	221	LEU
1	j	224	ILE
1	j	259	ILE
1	j	324	THR
1	j	412	VAL
1	j	430	LYS
1	j	521	ILE
1	k	68	ILE
1	k	107	ILE
1	k	114	VAL
1	k	133	LYS
1	k	136	VAL
1	k	154	PHE
1	k	176	ASP
1	k	197	THR
1	k	199	ASP
1	k	201(A)	ASP
1	k	201(B)	GLU
1	k	201(C)	ASP
1	k	201(D)	GLU
1	k	201(E)	ASP
1	k	201(F)	GLU
1	k	201(G)	ASP
1	k	201(H)	GLU
1	k	201(I)	ASP
1	k	203	THR
1	k	243	THR
1	k	244	ASP
1	k	252	PHE
1	k	277	ASP
1	k	278	LEU
1	k	300	LEU
1	k	308	ASP
1	k	331	VAL
1	k	345	TRP

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Mol	Chain	Res	Type
1	k	364	ILE
1	k	385	VAL
1	k	395	TYR
1	k	400	LEU
1	k	412	VAL
1	k	470	VAL
1	k	476	ARG
1	k	507	LEU
1	k	519	LYS
1	l	68	ILE
1	l	89	THR
1	l	95	VAL
1	l	107	ILE
1	l	121	THR
1	l	131	TYR
1	l	136	VAL
1	l	153	MET
1	l	228	MET
1	l	256	LYS
1	l	259	ILE
1	l	274	LEU
1	l	338	ILE
1	l	385	VAL
1	l	395	TYR
1	l	400	LEU
1	l	404	PHE
1	l	412	VAL
1	l	425	ILE
1	l	459	LEU
1	l	482	ASN
1	l	516	VAL
1	m	107	ILE
1	m	114	VAL
1	m	127	LEU
1	m	131	TYR
1	m	166	LEU
1	m	236	GLN
1	m	244	ASP
1	m	254	ILE
1	m	259	ILE
1	m	272	ILE
1	m	305	GLU

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Mol	Chain	Res	Type
1	m	316	VAL
1	m	323	LEU
1	m	335	GLN
1	m	412	VAL
1	m	466	ASN
1	n	71	ASP
1	n	114	VAL
1	n	130	VAL
1	n	136	VAL
1	n	154	PHE
1	n	161	LYS
1	n	171	GLN
1	n	194	VAL
1	n	224	ILE
1	n	237	GLU
1	n	243	THR
1	n	245	ASN
1	n	278	LEU
1	n	282	HIS
1	n	377	ILE
1	n	432	ASP
1	n	445	ASP
1	n	503	ILE
1	o	68	ILE
1	o	71	ASP
1	o	106	LEU
1	o	109	PHE
1	o	114	VAL
1	o	133	LYS
1	o	136	VAL
1	o	147	MET
1	o	161	LYS
1	o	166	LEU
1	o	176	ASP
1	o	187	THR
1	o	195	GLN
1	o	221	LEU
1	o	255	ASP
1	o	256	LYS
1	o	259	ILE
1	o	344	ARG
1	o	389	VAL

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Mol	Chain	Res	Type
1	o	400	LEU
1	o	412	VAL
1	o	443	GLU
1	o	459	LEU
1	o	497	GLN
1	p	67	GLU
1	p	79	ILE
1	p	105	ASN
1	p	107	ILE
1	p	114	VAL
1	p	130	VAL
1	p	133	LYS
1	p	151	ASP
1	p	170	THR
1	p	187	THR
1	p	195	GLN
1	p	196	VAL
1	p	197	THR
1	p	198	ILE
1	p	201(A)	ASP
1	p	201(B)	GLU
1	p	201(C)	ASP
1	p	201(D)	GLU
1	p	201(E)	ASP
1	p	201(F)	GLU
1	p	201(G)	ASP
1	p	201(H)	GLU
1	p	201(I)	ASP
1	p	222	VAL
1	p	259	ILE
1	p	273	GLU
1	p	274	LEU
1	p	278	LEU
1	p	300	LEU
1	p	331	VAL
1	p	345	TRP
1	p	348	GLU
1	p	395	TYR
1	p	425	ILE
1	p	444	MET
1	p	467	PHE
1	q	68	ILE

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Mol	Chain	Res	Type
1	q	79	ILE
1	q	96	MET
1	q	107	ILE
1	q	109	PHE
1	q	114	VAL
1	q	136	VAL
1	q	170	THR
1	q	252	PHE
1	q	260	GLU
1	q	267	LYS
1	q	277	ASP
1	q	281	VAL
1	q	300	LEU
1	q	308	ASP
1	q	331	VAL
1	q	341	ARG
1	q	344	ARG
1	q	345	TRP
1	q	389	VAL
1	q	395	TYR
1	q	425	ILE
1	q	445	ASP
1	q	470	VAL
1	q	519	LYS
1	r	67	GLU
1	r	68	ILE
1	r	75	ASN
1	r	95	VAL
1	r	101	ARG
1	r	109	PHE
1	r	121	THR
1	r	136	VAL
1	r	170	THR
1	r	197	THR
1	r	204	ASP
1	r	207	LYS
1	r	232	ILE
1	r	236	GLN
1	r	244	ASP
1	r	256	LYS
1	r	331	VAL
1	r	334	PHE

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Mol	Chain	Res	Type
1	r	348	GLU
1	r	377	ILE
1	r	395	TYR
1	r	404	PHE
1	r	408	THR
1	r	412	VAL
1	r	417	LEU
1	r	448	ILE
1	r	459	LEU
1	s	75	ASN
1	s	99	VAL
1	s	107	ILE
1	s	109	PHE
1	s	114	VAL
1	s	131	TYR
1	s	144	PHE
1	s	185	THR
1	s	209	ASP
1	s	222	VAL
1	s	254	ILE
1	s	272	ILE
1	s	290	LEU
1	s	305	GLU
1	s	316	VAL
1	s	323	LEU
1	s	385	VAL
1	s	412	VAL
1	s	466	ASN
1	t	68	ILE
1	t	84	THR
1	t	95	VAL
1	t	100	ARG
1	t	101	ARG
1	t	114	VAL
1	t	136	VAL
1	t	154	PHE
1	t	161	LYS
1	t	171	GLN
1	t	187	THR
1	t	194	VAL
1	t	230	THR
1	t	237	GLU

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Mol	Chain	Res	Type
1	t	240	ASN
1	t	243	THR
1	t	248	ASN
1	t	273	GLU
1	t	282	HIS
1	t	344	ARG
1	t	374	ASN
1	t	377	ILE
1	t	384	ASN
1	t	398	GLN
1	t	404	PHE
1	t	503	ILE
1	t	507	LEU
1	t	516	VAL
1	u	91	ILE
1	u	106	LEU
1	u	114	VAL
1	u	136	VAL
1	u	161	LYS
1	u	183	GLN
1	u	187	THR
1	u	188	VAL
1	u	195	GLN
1	u	221	LEU
1	u	253	ARG
1	u	255	ASP
1	u	256	LYS
1	u	274	LEU
1	u	398	GLN
1	u	412	VAL
1	u	459	LEU
1	u	479	ILE
1	u	497	GLN
1	v	68	ILE
1	v	78	ASN
1	v	84	THR
1	v	95	VAL
1	v	101	ARG
1	v	172	THR
1	v	221	LEU
1	v	255	ASP
1	v	272	ILE

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Mol	Chain	Res	Type
1	v	273	GLU
1	v	323	LEU
1	v	384	ASN
1	v	395	TYR
1	v	398	GLN
1	v	482	ASN
1	v	510	ASN
1	w	109	PHE
1	w	114	VAL
1	w	131	TYR
1	w	198	ILE
1	w	222	VAL
1	w	277	ASP
1	w	331	VAL
1	w	345	TRP
1	w	362	VAL
1	w	425	ILE
1	w	430	LYS
1	w	432	ASP
1	w	448	ILE
1	w	466	ASN
1	w	470	VAL
1	x	95	VAL
1	x	105	ASN
1	x	107	ILE
1	x	119	SER
1	x	121	THR
1	x	136	VAL
1	x	213	LYS
1	x	230	THR
1	x	237	GLU
1	x	239	PHE
1	x	259	ILE
1	x	334	PHE
1	x	338	ILE
1	x	404	PHE
1	x	408	THR
1	x	412	VAL
1	x	448	ILE
1	x	459	LEU
1	x	481	ILE
1	x	516	VAL

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Mol	Chain	Res	Type
1	y	72	HIS
1	y	99	VAL
1	y	107	ILE
1	y	114	VAL
1	y	127	LEU
1	y	195	GLN
1	y	204	ASP
1	y	230	THR
1	y	243	THR
1	y	245	ASN
1	y	254	ILE
1	y	259	ILE
1	y	264	ARG
1	y	267	LYS
1	y	300	LEU
1	y	316	VAL
1	y	323	LEU
1	y	344	ARG
1	y	398	GLN
1	y	412	VAL
1	y	416	VAL
1	y	445	ASP
1	y	512	TYR
1	z	75	ASN
1	z	79	ILE
1	z	105	ASN
1	z	107	ILE
1	z	114	VAL
1	z	130	VAL
1	z	133	LYS
1	z	170	THR
1	z	173	THR
1	z	187	THR
1	z	188	VAL
1	z	195	GLN
1	z	196	VAL
1	z	197	THR
1	z	201(A)	ASP
1	z	201(B)	GLU
1	z	201(C)	ASP
1	z	201(D)	GLU
1	z	201(E)	ASP

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Mol	Chain	Res	Type
1	z	201(F)	GLU
1	z	201(G)	ASP
1	z	201(H)	GLU
1	z	201(I)	ASP
1	z	214	LYS
1	z	222	VAL
1	z	224	ILE
1	z	226	GLU
1	z	232	ILE
1	z	235	LEU
1	z	239	PHE
1	z	240	ASN
1	z	252	PHE
1	z	259	ILE
1	z	260	GLU
1	z	277	ASP
1	z	300	LEU
1	z	331	VAL
1	z	339	ASP
1	z	341	ARG
1	z	344	ARG
1	z	345	TRP
1	z	348	GLU
1	z	386	LEU
1	z	395	TYR
1	z	406	THR
1	z	412	VAL
1	z	425	ILE
1	z	444	MET
1	z	448	ILE
1	z	454	VAL
1	z	465	LYS
1	z	466	ASN
1	z	468	GLN
1	z	507	LEU
1	z	514	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (336) such sidechains are listed below:

Mol	Chain	Res	Type
1	0	75	ASN
1	0	356	GLN

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Mol	Chain	Res	Type
1	1	90	GLN
1	1	105	ASN
1	1	145	HIS
1	1	171	GLN
1	1	195	GLN
1	1	257	GLN
1	1	265	GLN
1	1	468	GLN
1	1	497	GLN
1	2	265	GLN
1	2	497	GLN
1	4	245	ASN
1	4	265	GLN
1	4	497	GLN
1	5	505	ASN
1	6	356	GLN
1	6	381	ASN
1	6	427	GLN
1	6	497	GLN
1	7	105	ASN
1	7	171	GLN
1	7	195	GLN
1	7	257	GLN
1	8	105	ASN
1	8	236	GLN
1	8	245	ASN
1	8	468	GLN
1	8	505	ASN
1	9	72	HIS
1	9	105	ASN
1	9	257	GLN
1	9	303	ASN
1	9	367	GLN
1	9	431	GLN
1	9	497	GLN
2	A	104	ASN
2	A	290	HIS
2	A	384	ASN
1	AA	171	GLN
1	AA	195	GLN
1	AA	240	ASN
1	AA	245	ASN

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Mol	Chain	Res	Type
1	AA	505	ASN
1	AB	75	ASN
1	AB	257	GLN
1	AB	265	GLN
1	AB	482	ASN
1	AB	497	GLN
1	AC	90	GLN
1	AC	118	ASN
1	AC	236	GLN
1	AC	265	GLN
1	AC	427	GLN
1	AC	505	ASN
1	AD	171	GLN
1	AD	195	GLN
1	AE	90	GLN
1	AE	145	HIS
1	AE	257	GLN
1	AE	497	GLN
1	AF	398	GLN
1	AG	240	ASN
1	AH	115	GLN
1	AH	145	HIS
1	AH	171	GLN
1	AH	265	GLN
1	AI	265	GLN
1	AI	311	ASN
1	AI	315	GLN
1	AJ	75	ASN
1	AJ	191	GLN
1	AJ	248	ASN
1	AK	195	GLN
1	AL	245	ASN
1	AL	282	HIS
1	AL	311	ASN
1	AL	356	GLN
1	AM	245	ASN
1	AM	257	GLN
1	AM	265	GLN
1	AM	384	ASN
1	AN	265	GLN
1	AN	276	GLN
1	AN	303	ASN

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Mol	Chain	Res	Type
1	AN	356	GLN
1	AN	490	GLN
1	AO	105	ASN
1	AO	118	ASN
1	AO	236	GLN
1	AO	240	ASN
1	AO	315	GLN
1	AO	374	ASN
1	AP	72	HIS
1	AP	115	GLN
1	AP	282	HIS
1	AP	482	ASN
1	AQ	90	GLN
1	AQ	466	ASN
1	AR	315	GLN
1	AR	482	ASN
1	AS	240	ASN
1	AT	195	GLN
1	AT	257	GLN
1	AT	265	GLN
1	AT	311	ASN
1	AT	315	GLN
1	AT	367	GLN
1	AU	171	GLN
1	AU	195	GLN
1	AU	257	GLN
1	AU	265	GLN
1	AU	398	GLN
1	AU	431	GLN
1	AV	72	HIS
1	AV	276	GLN
1	AV	315	GLN
1	AV	356	GLN
1	AV	490	GLN
1	AW	257	GLN
1	AX	115	GLN
1	AX	183	GLN
1	AX	248	ASN
1	AX	257	GLN
1	AX	384	ASN
1	AX	427	GLN
1	AX	482	ASN

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Mol	Chain	Res	Type
1	AX	497	GLN
1	AY	276	GLN
1	AZ	257	GLN
1	AZ	384	ASN
1	AZ	466	ASN
1	AZ	497	GLN
1	Aa	115	GLN
1	Aa	118	ASN
1	Aa	171	GLN
1	Aa	183	GLN
1	Aa	195	GLN
1	Ab	72	HIS
1	Ab	105	ASN
1	Ab	115	GLN
1	Ab	257	GLN
1	Ab	282	HIS
1	Ab	315	GLN
1	Ac	105	ASN
1	Ac	171	GLN
1	Ac	195	GLN
1	Ac	236	GLN
1	Ac	240	ASN
1	Ac	303	ASN
1	Ac	482	ASN
1	Ad	431	GLN
1	Ae	157	GLN
1	Ae	171	GLN
1	Ae	195	GLN
1	Ae	240	ASN
1	Ae	490	GLN
1	Af	195	GLN
1	Af	311	ASN
1	Af	490	GLN
1	Ag	105	ASN
1	Ah	265	GLN
1	Ai	236	GLN
1	Aj	115	GLN
1	Aj	245	ASN
1	Ak	118	ASN
1	Ak	265	GLN
1	Ak	311	ASN
1	Ak	315	GLN

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Mol	Chain	Res	Type
1	Am	315	GLN
2	B	129	GLN
2	B	317	ASN
2	B	384	ASN
2	C	96	ASN
2	C	190	ASN
2	C	260	HIS
2	C	317	ASN
2	C	384	ASN
2	D	290	HIS
2	D	384	ASN
1	G	236	GLN
1	G	245	ASN
1	G	311	ASN
1	G	468	GLN
1	G	505	ASN
1	H	105	ASN
1	H	191	GLN
1	H	215	GLN
1	H	240	ASN
1	H	497	GLN
1	J	123	GLN
1	J	265	GLN
1	J	303	ASN
1	K	105	ASN
1	K	240	ASN
1	K	431	GLN
1	K	482	ASN
1	L	105	ASN
1	L	171	GLN
1	L	195	GLN
1	L	276	GLN
1	L	303	ASN
1	L	398	GLN
1	M	265	GLN
1	M	276	GLN
1	N	191	GLN
1	N	236	GLN
1	N	240	ASN
1	N	505	ASN
1	P	105	ASN
1	P	384	ASN

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Mol	Chain	Res	Type
1	Q	90	GLN
1	Q	183	GLN
1	R	191	GLN
1	R	335	GLN
1	R	427	GLN
1	S	105	ASN
1	S	115	GLN
1	S	236	GLN
1	S	245	ASN
1	S	257	GLN
1	S	398	GLN
1	S	431	GLN
1	S	497	GLN
1	T	236	GLN
1	T	265	GLN
1	T	311	ASN
1	T	505	ASN
1	U	105	ASN
1	U	315	GLN
1	U	367	GLN
1	V	171	GLN
1	V	191	GLN
1	V	195	GLN
1	V	257	GLN
1	V	303	ASN
1	V	490	GLN
1	V	497	GLN
1	W	311	ASN
1	W	315	GLN
1	W	466	ASN
1	W	482	ASN
1	X	240	ASN
1	X	282	HIS
1	Y	265	GLN
1	Y	276	GLN
1	Y	315	GLN
1	Y	356	GLN
1	Y	482	ASN
1	Z	105	ASN
1	Z	115	GLN
1	Z	356	GLN
2	a	23	ASN

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Mol	Chain	Res	Type
2	a	384	ASN
1	b	123	GLN
1	b	215	GLN
1	b	265	GLN
1	b	311	ASN
1	b	431	GLN
1	b	510	ASN
1	c	75	ASN
1	c	90	GLN
1	c	236	GLN
1	c	276	GLN
1	c	315	GLN
1	c	482	ASN
1	d	115	GLN
1	d	191	GLN
1	d	335	GLN
1	d	381	ASN
1	e	157	GLN
1	e	171	GLN
1	e	195	GLN
1	e	265	GLN
1	f	171	GLN
1	f	282	HIS
1	f	367	GLN
1	g	195	GLN
1	g	276	GLN
1	h	215	GLN
1	h	265	GLN
1	i	115	GLN
1	i	497	GLN
1	j	75	ASN
1	j	123	GLN
1	j	236	GLN
1	j	311	ASN
1	k	282	HIS
1	k	303	ASN
1	k	505	ASN
1	l	265	GLN
1	m	195	GLN
1	m	236	GLN
1	m	265	GLN
1	n	381	ASN

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Mol	Chain	Res	Type
1	o	118	ASN
1	o	282	HIS
1	o	303	ASN
1	p	83	GLN
1	p	115	GLN
1	p	180	HIS
1	p	240	ASN
1	p	315	GLN
1	p	466	ASN
1	p	482	ASN
1	q	105	ASN
1	q	265	GLN
1	q	398	GLN
1	q	431	GLN
1	q	505	ASN
1	r	90	GLN
1	r	236	GLN
1	r	257	GLN
1	s	215	GLN
1	s	240	ASN
1	s	315	GLN
1	t	236	GLN
1	t	303	ASN
1	t	381	ASN
1	t	497	GLN
1	u	78	ASN
1	u	118	ASN
1	u	276	GLN
1	u	303	ASN
1	v	195	GLN
1	v	257	GLN
1	v	276	GLN
1	w	105	ASN
1	w	236	GLN
1	w	282	HIS
1	x	265	GLN
1	x	282	HIS
1	y	215	GLN
1	z	157	GLN
1	z	466	ASN

5.3.3 RNA

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains

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

5.5 Carbohydrates

There are no oligosaccharides in this entry.

5.6 Ligand geometry

There are no ligands in this entry.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

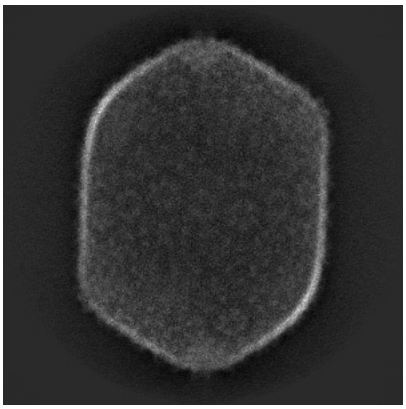
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-40228. These allow visual inspection of the internal detail of the map and identification of artifacts.

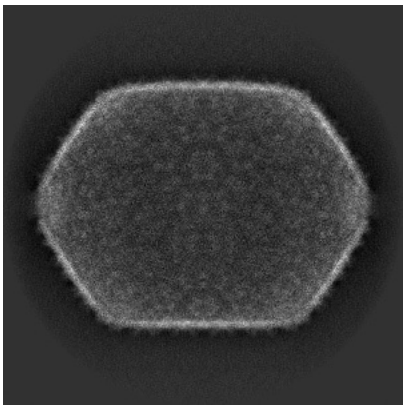
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

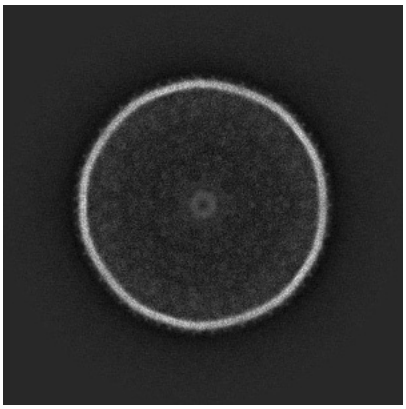
6.1.1 Primary map



X

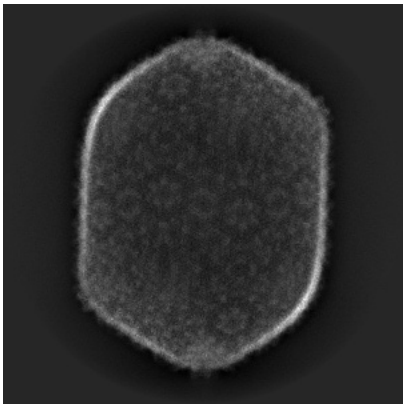


Y

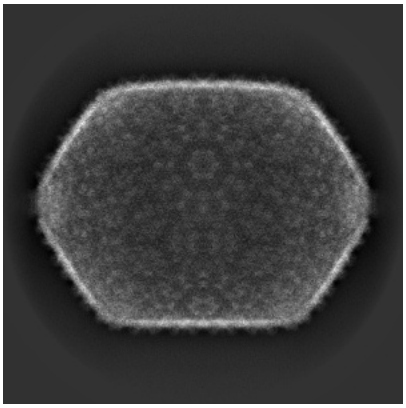


Z

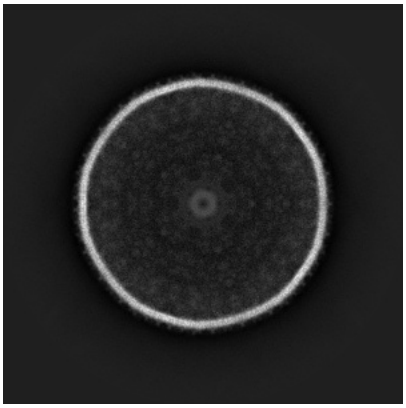
6.1.2 Raw map



X



Y

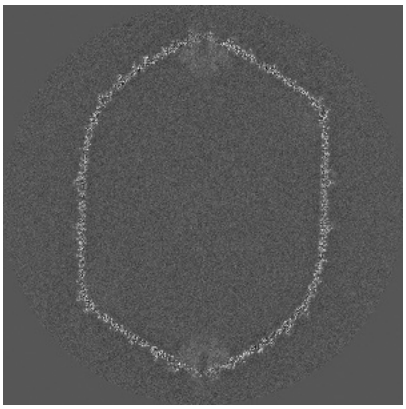


Z

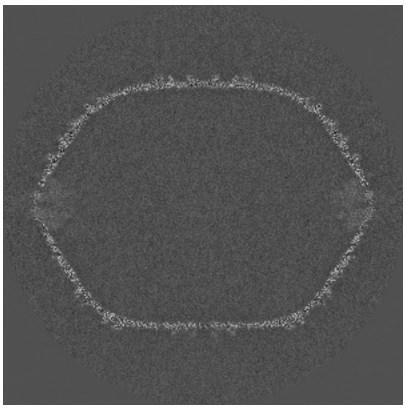
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

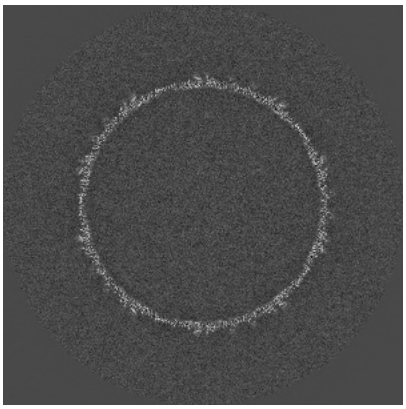
6.2.1 Primary map



X Index: 360

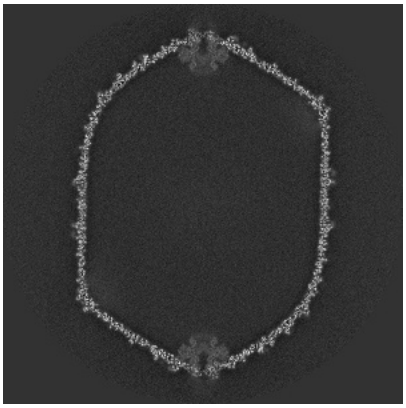


Y Index: 360

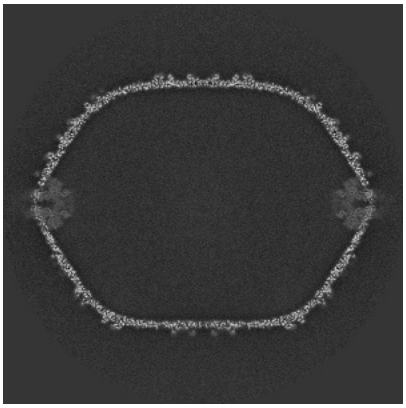


Z Index: 360

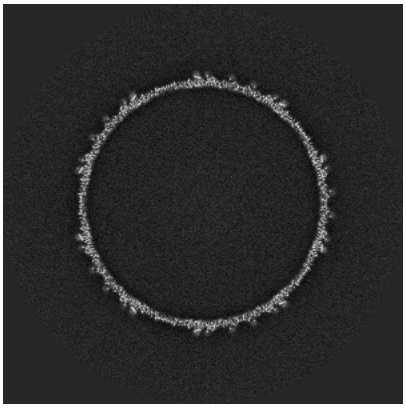
6.2.2 Raw map



X Index: 360



Y Index: 360

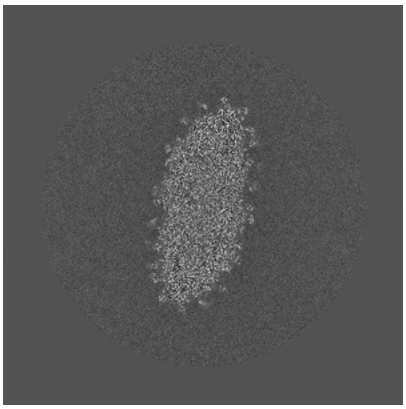


Z Index: 360

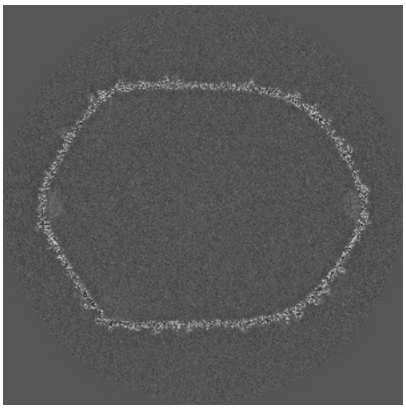
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

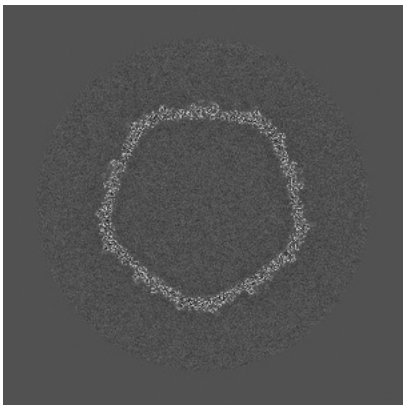
6.3.1 Primary map



X Index: 147

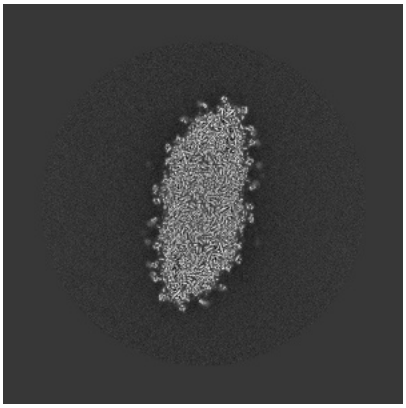


Y Index: 323

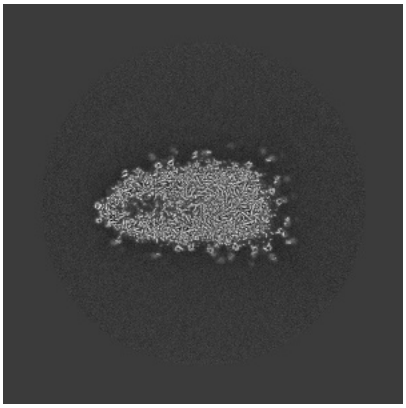


Z Index: 157

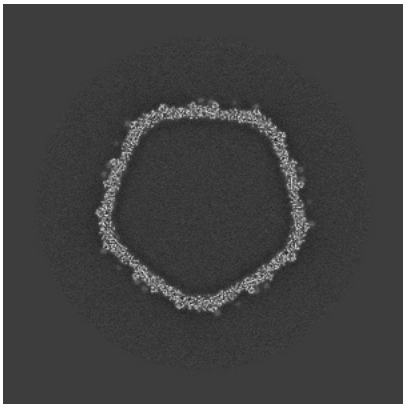
6.3.2 Raw map



X Index: 147



Y Index: 147

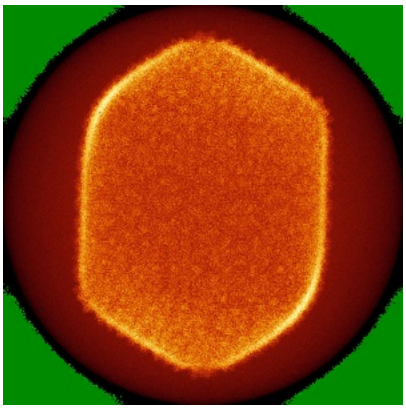


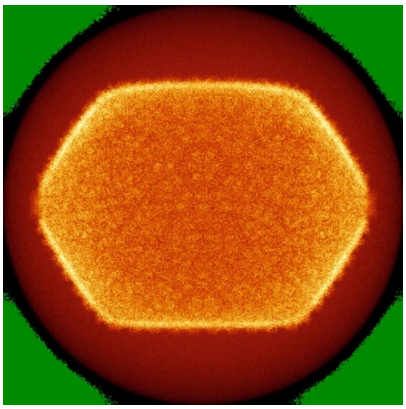
Z Index: 157

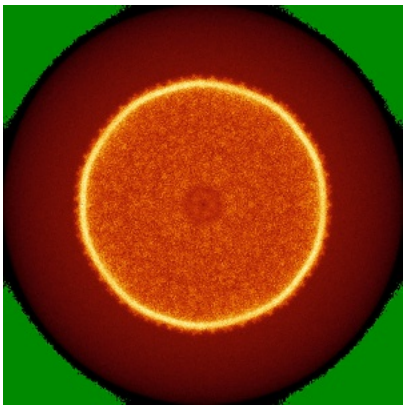
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

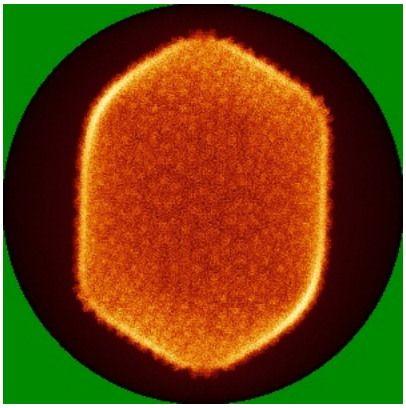
6.4.1 Primary map

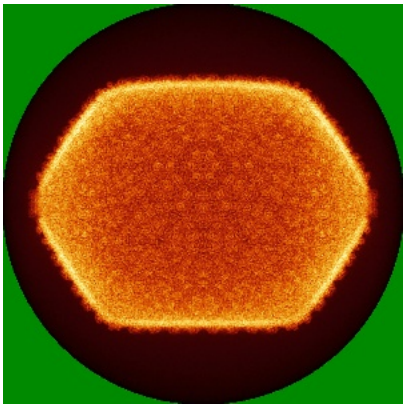

X

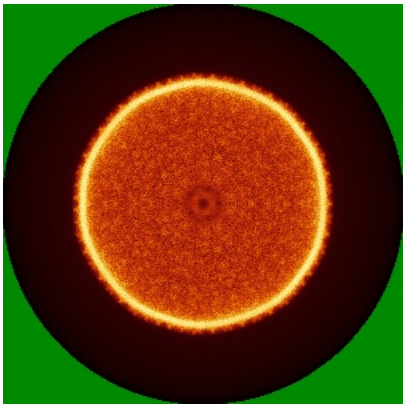

Y


Z

6.4.2 Raw map


X

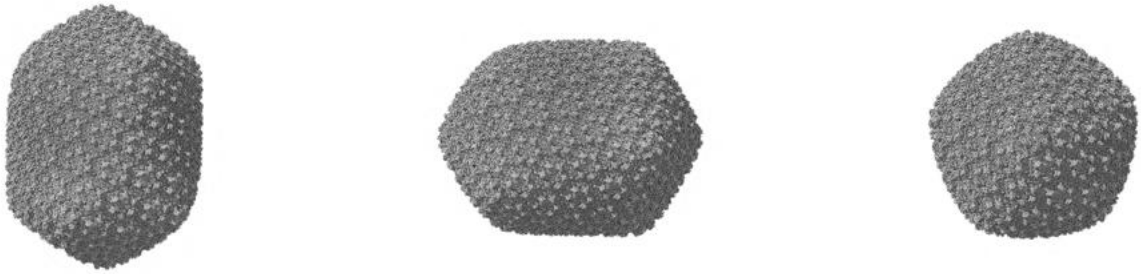

Y


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views (i)

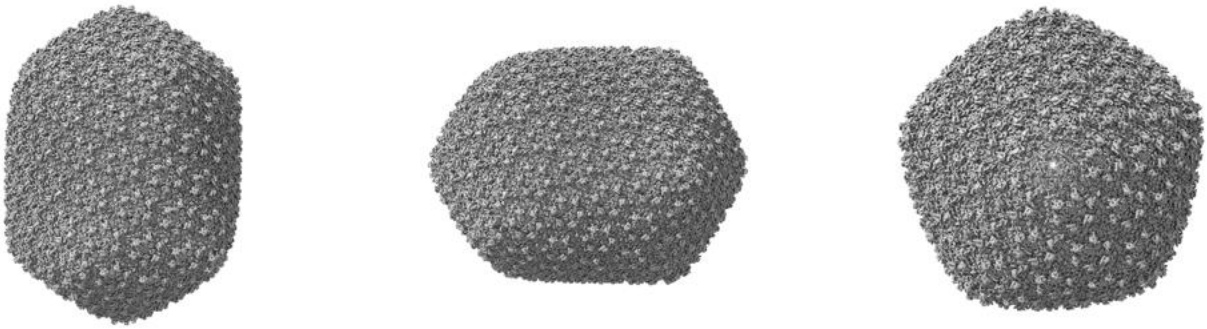
6.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.014. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 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.

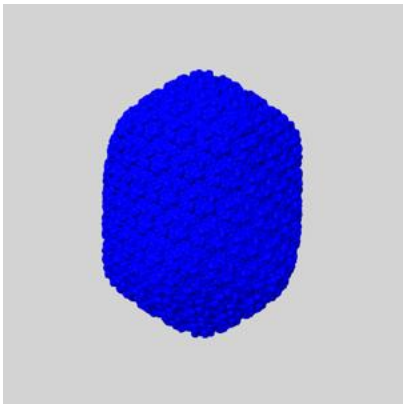
6.6 Mask visualisation

This section shows the 3D surface view of the primary map at 50% transparency overlaid with the specified mask at 0% transparency

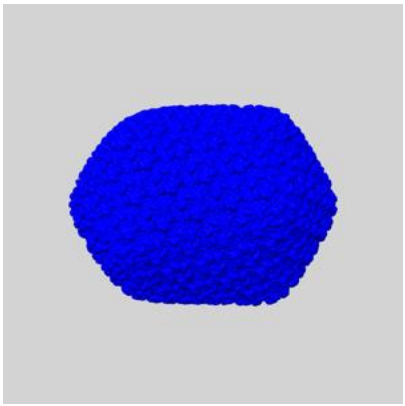
A mask typically either:

- Encompasses the whole structure
- Separates out a domain, a functional unit, a monomer or an area of interest from a larger structure

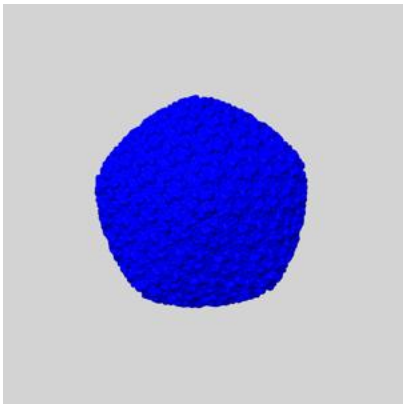
6.6.1 emd_40228_msk_1.map



X



Y

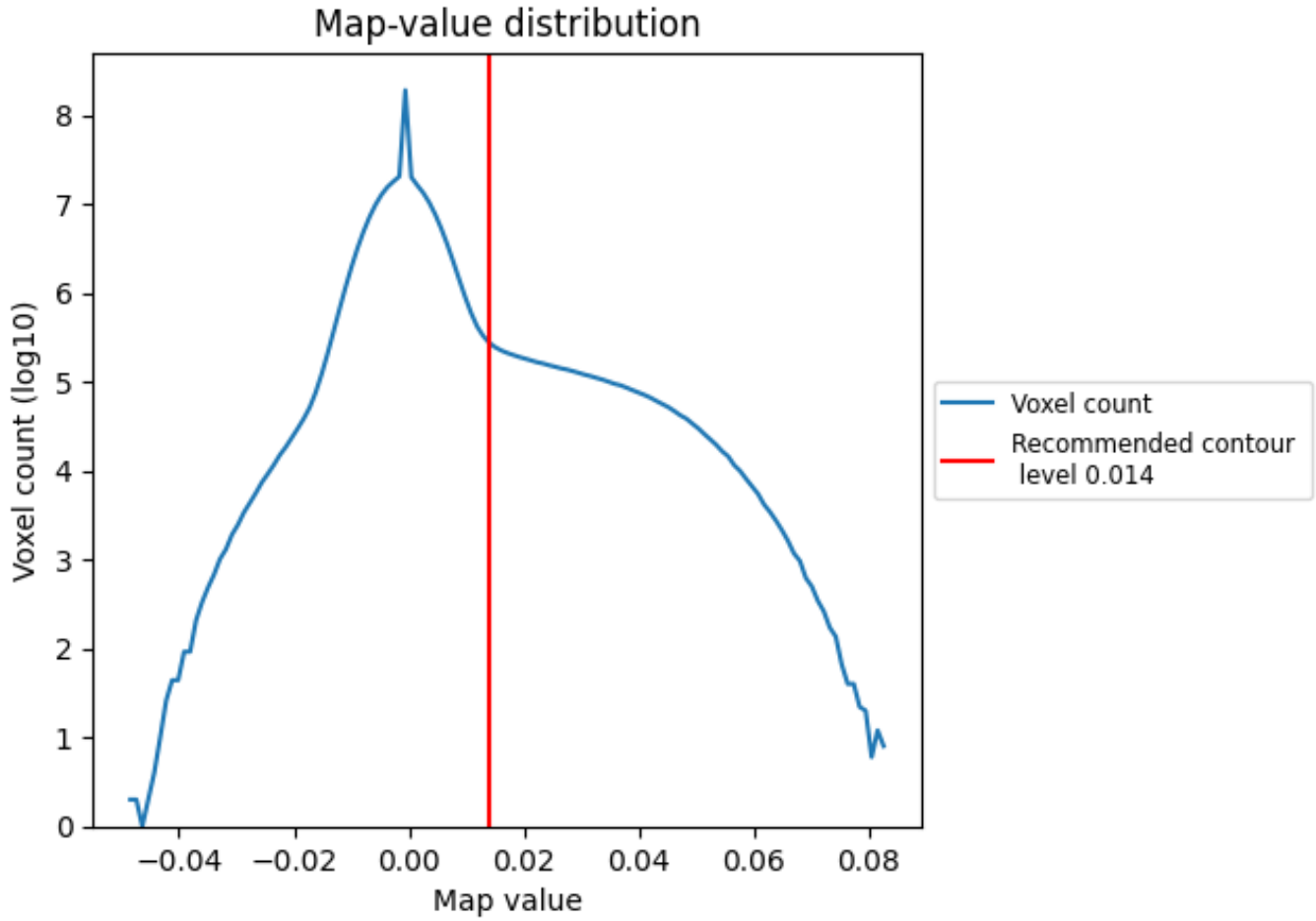


Z

7 Map analysis

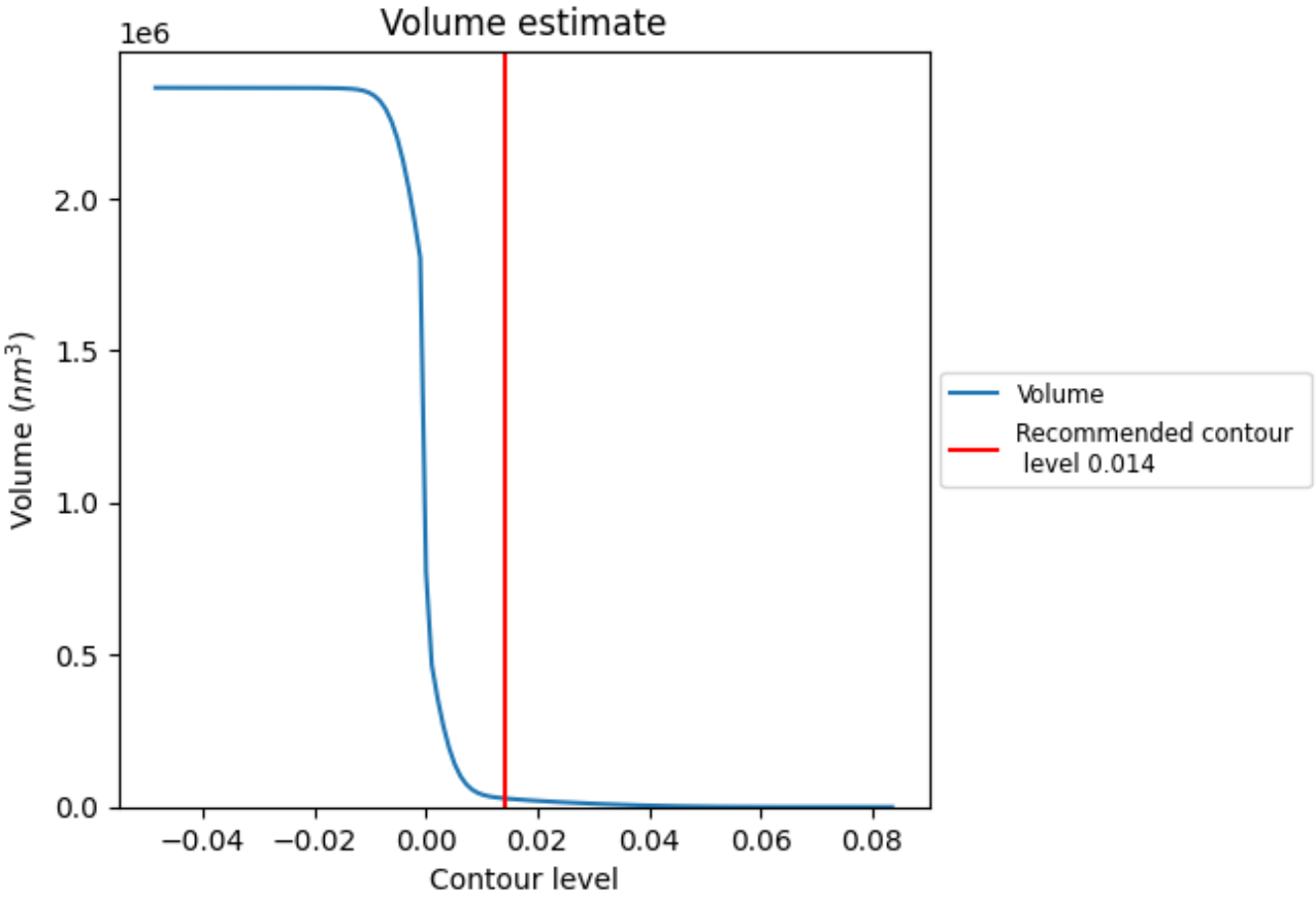
This section contains the results of statistical analysis of the map.

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.

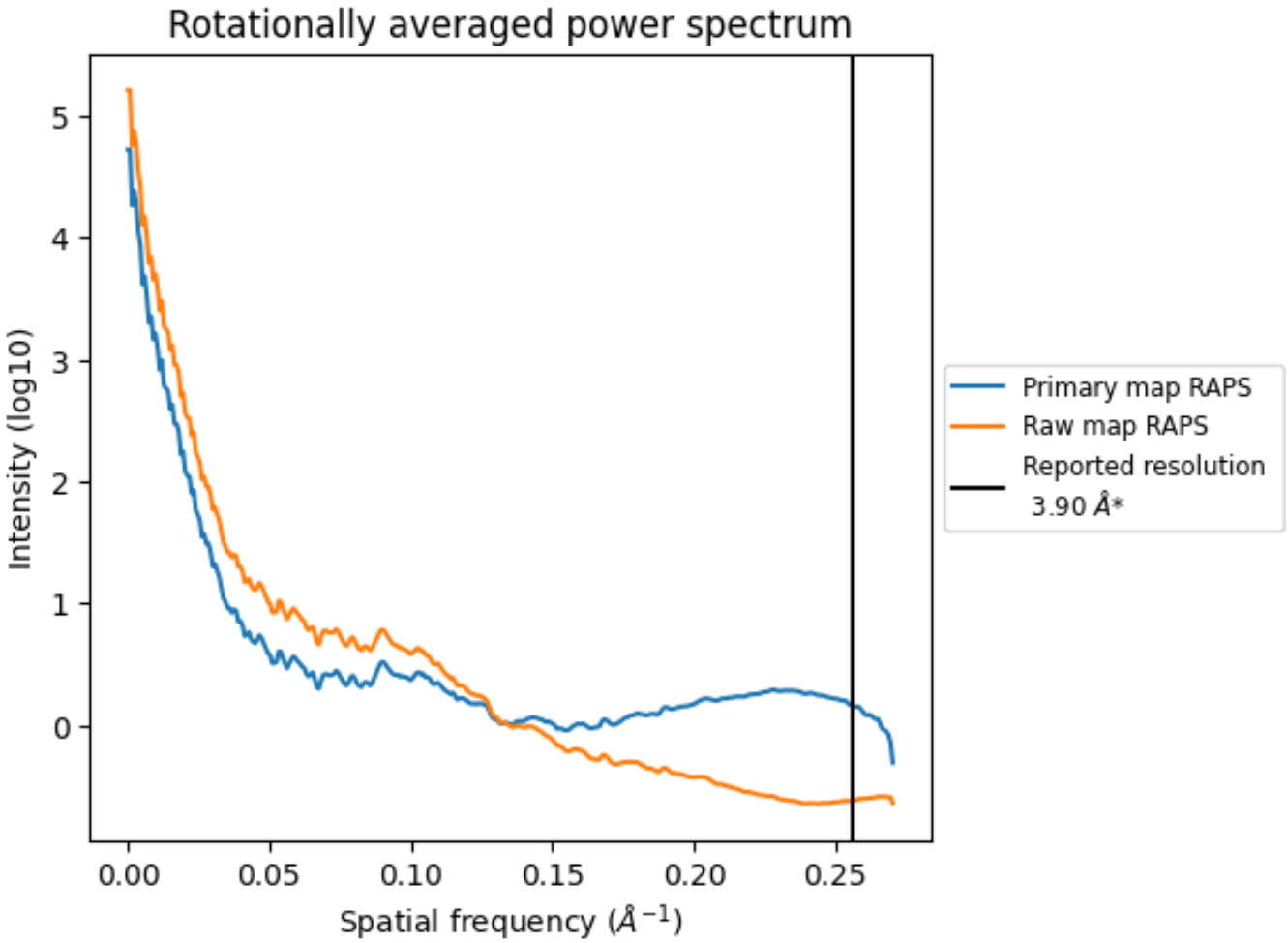
7.2 Volume estimate (i)



The volume at the recommended contour level is 28460 nm^3; this corresponds to an approximate mass of 25708 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)

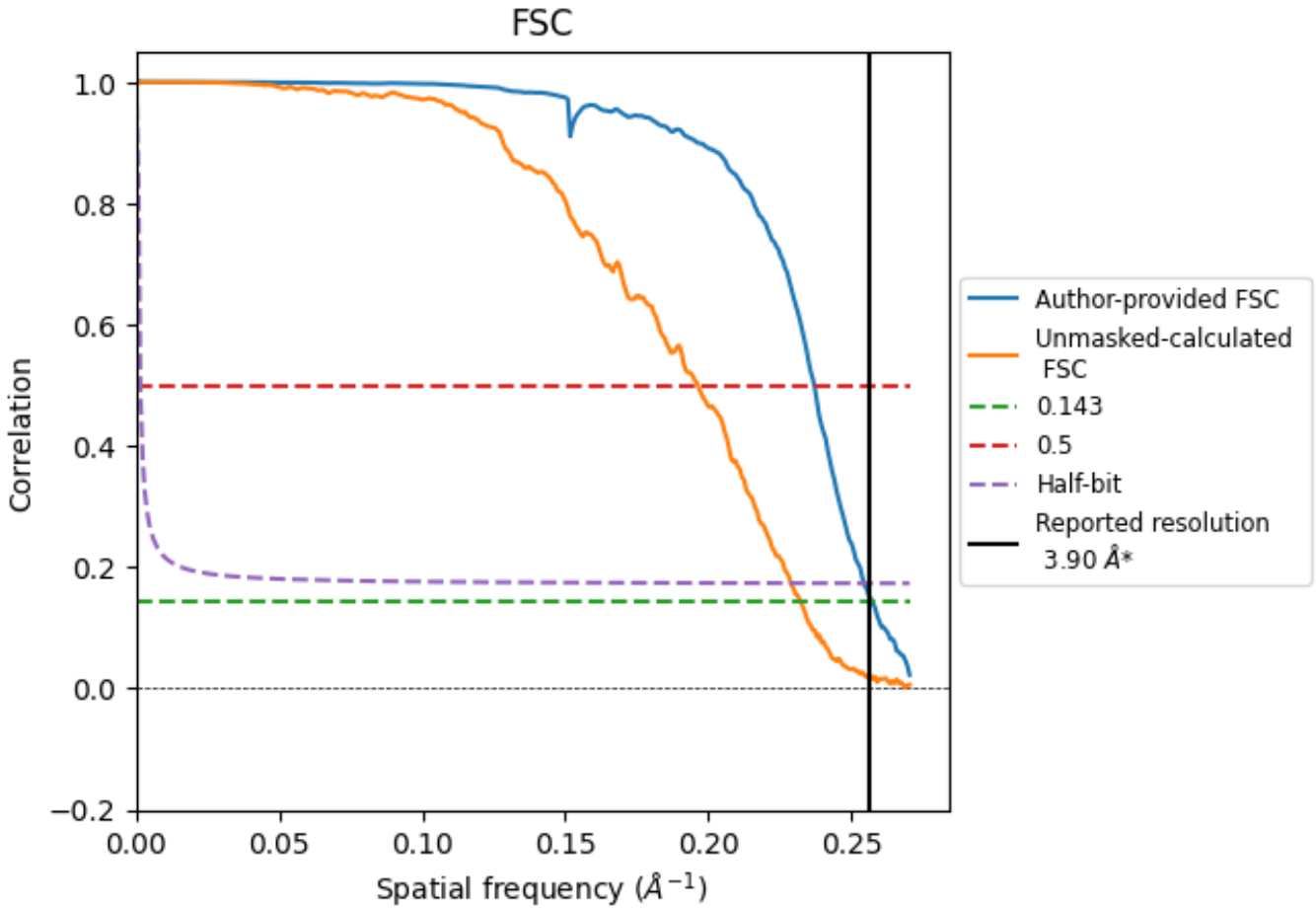


*Reported resolution corresponds to spatial frequency of 0.256 Å^{-1}

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 0.256 Å^{-1}

8.2 Resolution estimates (i)

Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.90	-	-
Author-provided FSC curve	3.89	4.22	3.93
Unmasked-calculated*	4.31	5.09	4.37

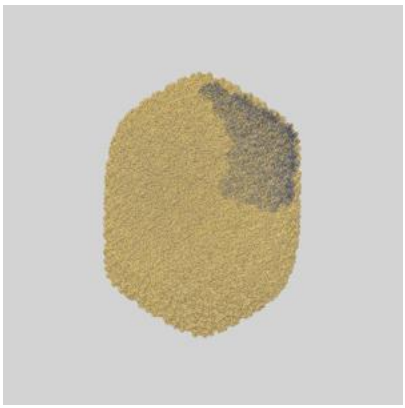
*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 4.31 differs from the reported value 3.9 by more than 10 %

9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-40228 and PDB model 8GMO. Per-residue inclusion information can be found in section 3 on page 32.

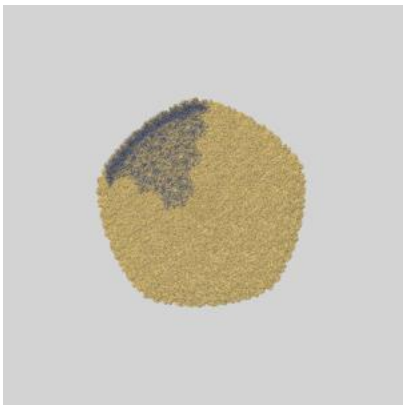
9.1 Map-model overlays

9.1.1 Map-model overlay



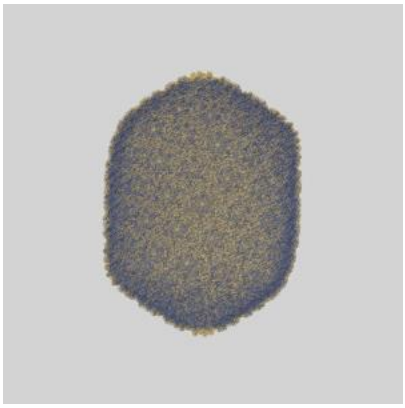
X

Y

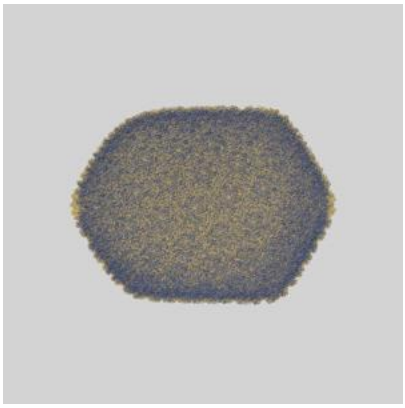


Z

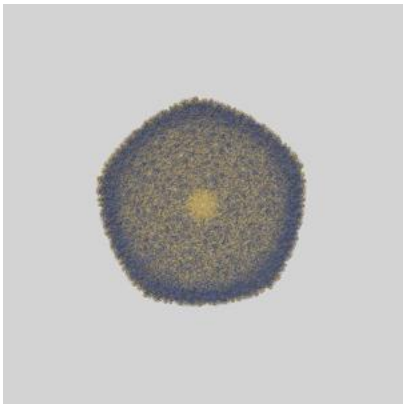
9.1.2 Map-model assembly overlay



X



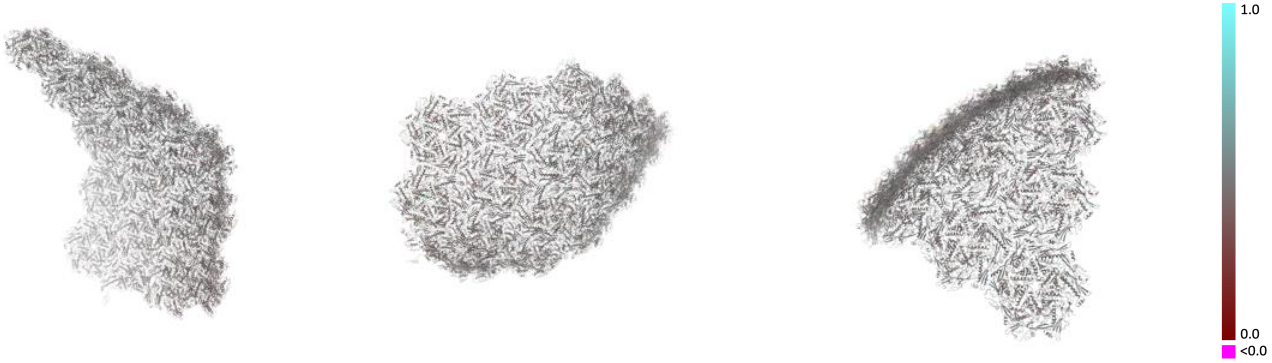
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.014 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

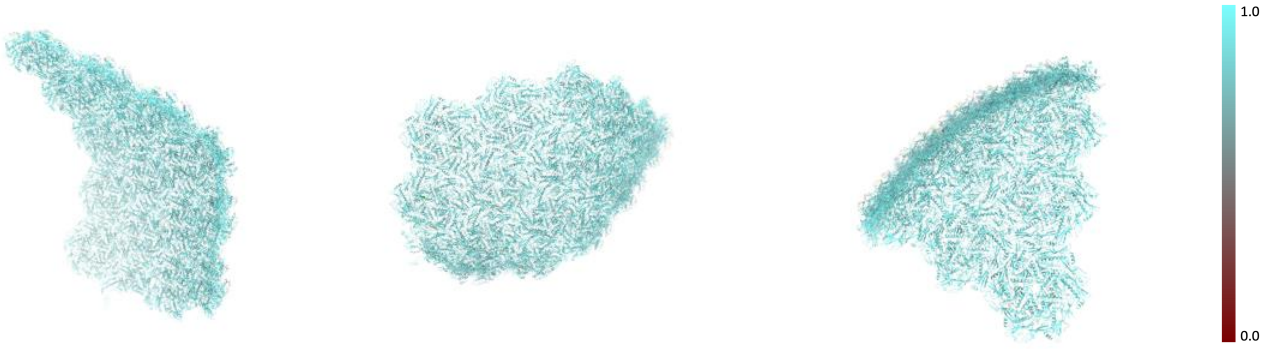
9.2 Q-score mapped to coordinate model (i)



X Y Z

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.

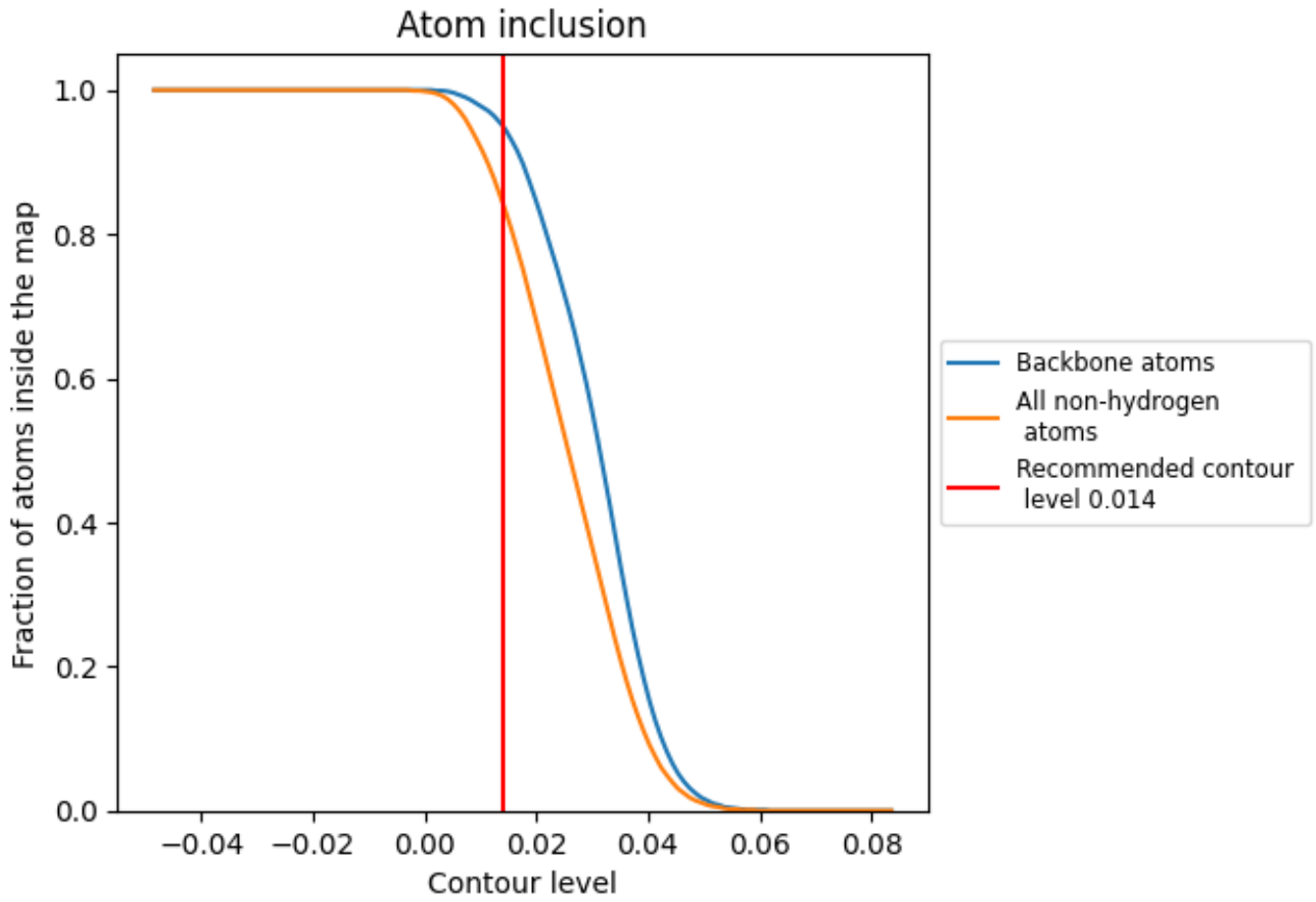
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

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 (0.014).

9.4 Atom inclusion (i)



At the recommended contour level, 95% of all backbone atoms, 84% 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 (0.014) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.8430	0.4520
0	0.8340	0.4450
1	0.8150	0.4420
2	0.8060	0.4330
3	0.8040	0.4330
4	0.8170	0.4380
5	0.8180	0.4310
6	0.8380	0.4530
7	0.8260	0.4400
8	0.8270	0.4430
9	0.8260	0.4420
A	0.8280	0.4520
AA	0.8370	0.4430
AB	0.8290	0.4390
AC	0.8290	0.4440
AD	0.8600	0.4630
AE	0.8600	0.4600
AF	0.8730	0.4640
AG	0.8650	0.4570
AH	0.8670	0.4680
AI	0.8710	0.4690
AJ	0.8540	0.4570
AK	0.8660	0.4670
AL	0.8680	0.4690
AM	0.8610	0.4560
AN	0.8510	0.4520
AO	0.8650	0.4650
AP	0.8610	0.4620
AQ	0.8550	0.4620
AR	0.8610	0.4660
AS	0.8630	0.4610
AT	0.8640	0.4560
AU	0.8600	0.4600
AV	0.8670	0.4600
AW	0.8670	0.4620

Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
AX	0.8670	0.4600
AY	0.8590	0.4570
AZ	0.8630	0.4620
Aa	0.8690	0.4600
Ab	0.8600	0.4650
Ac	0.8550	0.4650
Ad	0.8610	0.4620
Ae	0.8620	0.4640
Af	0.8620	0.4590
Ag	0.8580	0.4590
Ah	0.8590	0.4620
Ai	0.8640	0.4610
Aj	0.8620	0.4620
Ak	0.8550	0.4580
Al	0.8580	0.4610
Am	0.8560	0.4620
B	0.8320	0.4540
C	0.8350	0.4480
D	0.8390	0.4530
G	0.8190	0.4370
H	0.8230	0.4380
J	0.8200	0.4350
K	0.8520	0.4630
L	0.8500	0.4580
M	0.8440	0.4560
N	0.8480	0.4580
O	0.8370	0.4530
P	0.8390	0.4430
Q	0.8240	0.4430
R	0.8280	0.4430
S	0.8310	0.4410
T	0.8280	0.4350
U	0.8520	0.4610
V	0.8460	0.4560
W	0.8520	0.4610
X	0.8480	0.4570
Y	0.8410	0.4500
Z	0.8460	0.4570
a	0.8380	0.4530
b	0.8460	0.4600
c	0.8410	0.4490
d	0.8550	0.4600

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Chain	Atom inclusion	Q-score
e	0.8380	0.4550
f	0.8310	0.4450
g	0.8410	0.4530
h	0.8450	0.4530
i	0.8570	0.4600
j	0.8490	0.4610
k	0.8180	0.4470
l	0.8390	0.4520
m	0.8370	0.4500
n	0.8230	0.4420
o	0.8390	0.4500
p	0.8180	0.4290
q	0.8110	0.4340
r	0.8050	0.4350
s	0.8170	0.4330
t	0.8050	0.4300
u	0.8150	0.4310
v	0.8340	0.4470
w	0.8390	0.4560
x	0.8350	0.4450
y	0.8380	0.4490
z	0.8160	0.4340